The Wayback Machine - https://web.archive.org/web/20140626011513/http://3gpp.org/specifications/releases

Releases

3GPP uses a system of parallel "releases" - to provide developers with a stable platform for implementation and to allow for the addition of new features required by the market.

Features and contents of each Release

The list of specifications needed for each 2G, 3G and 4G release is listed in the TR mentioned in Release description below.

A simple list of Features per Release can be found here

The 3GPP Specification Release version matrix is a listing (with links) of the Specifications - showing the Release in which each Specification was first developed.

Freeze Dates:

Future dates are proposals, subject to change.

Release see Work Plan for Features in each Release	**Spec version number (*see note 4*)**	**Functional freeze date including stable protocols** **For future, indicative only (*see note 3*)**
Rel-13	13.x.y	March 2016
Rel-12	12.x.y	December 2014
Rel-11	11.x.y	June 2013
Rel-10	10.x.y	June 2011 - Introduction of LTE-Advanced
Rel-9	9.x.y	December 2009
Rel-8	8.x.y	December 2008 - Introduction of LTE
Rel-7	7.x.y	December 2007
Rel-6	6.x.y	March 2005
Rel-5	5.x.y	June 2002
Rel-4	4.x.y	March 2001
R00	9.x.y (GERAN) - initial	See note 1 below.
R99	8.x.y (GERAN) 3.x.y (UTRAN)	March 2000 (closed June 2011)
R98	7.x.y	early 1999 (closed December 2007)
R97	6.x.y	early 1998 (closed December 2007)
R96	5.x.y	early 1997 (closed June 2006)
Ph2	4.x.y	1995 (closed June 2006)
Ph1	3.x.y	1992 (closed prior to creation of 3GPP)

Note 1: The term "Release 2000" was used only temporarily and was eventually replaced by "Release 4" and "Release 5" (most elements originally in Release 2000 were renamed Release 4, but some were deferred until Release 5).

Petitioners' Exhibit 1033 (Part 2 of 2)
Google et al. v. KT Corporation et al.
IPR2025-00291

Note 2: A Specification with a version number of 0.x.y, 1.x.y or 2.x.y indicates that it is a new, draft, specification which has not yet been approved. The anticipated release is normally shown on the cover of the document.

Note 3: After "freezing", a Release can have no further additional functions added. However, detailed protocol specifications (stage 3) may not yet be complete. The date shown in the table above is indicative only, since for each Release, a considerable number of refinements and corrections can be expected for at least two years following this date. In addition, OA&M specs and test specs may lag by some considerable time. A "frozen" Technical Specification is one which can have no further category B or C (new or modified functionality) Change Requests, other than to align earlier stages with later stages.

Note 4: In the version number, the field "x" is incremented at each change in the spec resulting from one or more Change Requests approved by the responsible TSG. Field "y" is incremented whenever an editorial change is made to a specification; editorial changes are those which cannot in any way change the technical interpretation of the spec, and are introduced at the discretion of the Support Team. Exceptionally, field "y" is incremented when a newly-provided version of a spec is found to be flawed due to, for example, misimplementation of a newly-approved CR; however, this circumstance is only permitted during the three-week period following the end of a TSG plenary round, during which new versions of specs are produced. Every change of version is documented in the "change history" annex of the spec. When "x" is incremented, field "y" is reset to zero. When the Release field (the first digit) is incremented, fields "x" and "y" are reset to zero.

Other associated terms

Stages

The term "stage" derives from the ITU-T (originally CCITT) method for categorizing specifications (Recommendation I.130).

> "Stage 1" refers to the service description from a service-user's point of view.
> "Stage 2" is a logical analysis, devising an abstract architecture of functional elements and the information flows amongst them across reference points between functional entities.
> "Stage 3" is the concrete implementation of the functionality and of the protocols appearing at physical interfaces between physical elements onto which the functional elements have been mapped.

In addition, 3GPP often performs feasibility studies the results of which are made available in Technical Reports (normally 3GPP-internal TRs, numbered xx.8xx, not intended for transposition by the Organizational Partner SDOs). The feasibility study might be considered as a sort of "Stage 0". Furthermore, some Stage 3 specifications require test specifications to be prepared: effectively a "Stage 4".

Phases

This term has two distinct usages within the 3GPP:

> in reference to GSM specifications, Phase 1, Phase 2 and Phase 2+ referred to releases of specifications (see table above);
> some features within GSM/3G specifications have been enhanced over the years. For example, enhancements to the original CAMEL functionality are referred to as CAMEL phase 2, CAMEL phase 3 and CAMEL phase 4.

Further information

The mechanisms for creating and maintaining specifications are described in TR 21.900. A presentation outlining the release and change request process can be found here.

This page reviewed:

2013-12-19 by JMM

FULL MEETING CALENDAR

GERAN	**63**	**Ljubljana**	25-29 Aug 2014
RAN	**65**	**Edinburgh**	09-12 Sep 2014
CT	**65**	**Edinburgh**	10-11 Sep 2014
SA	**65**	**Edinburgh**	15-17 Sep 2014
GERAN	**64**	**San Francisco**	17-21 Nov 2014
CT	**66**	**Maui**	08-09 Dec 2014
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SA	**66**	**Maui**	10-12 Dec 2014
CT	**67**	**Shanghai**	09-10 Mar 2015
RAN	**67**	**Shanghai**	09-12 Mar 2015
GERAN	**65**	**Shanghai**	09-13 Mar 2015
SA	**67**	**Shanghai**	11-13 Mar 2015
GERAN	**66**	25-29 May 2015	
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RAN	**68**	**Malmo**	15-18 Jun 2015
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Appendix 14

The Wayback Machine - https://web.archive.org/web/20180117104655/http://www.3gpp.org:80/specifications-groups/ran-plenary/ran1-radio-layer-1

RAN1 - Radio layer 1

<<UPDATED 2017-10-09>> Dr. Havish Koorapaty was elected new vice-chairman of RAN WG1 during the RAN WG1#90-bis meeting held in Prague.

<<UPDATED 2017-08-22>> Dr. Wanshi Chen (Qualcomm Incorporated / ATIS) elected new Chairman and Dr .Younsun KIM (Samsung Electronics Co., Ltd / TTA) elected new Vice Chairman of RAN WG1.

RAN WG1 (Radio layer 1) is responsible for the specification of the physical layer of the radio Interface for UE, UTRAN, Evolved UTRAN, and beyond; covering both FDD and TDD modes of the radio interface.

Terms of reference

The latest terms of reference were approved at RAN#75
in document RP-170521.

Within the scope of TSG-RAN, RAN WG1 is responsible for the development of specifications dealing with Evolved UTRA, and beyond. RAN WG1 is responsible for specification of the physical layer of the Uu radio Interface for UE, Evolved UTRAN, and beyond, covering both FDD and TDD modes, as well as the physical layer of the Un Interface for Relay Nodes. The work in RAN WG1 includes especially:

- Specification of physical channel structures
- Specification of the mapping of the transport channels onto physical channels
- Specification of the physical layer multiplexing, and channel coding and error detection
- Specification of the spreading and modulation
- Specification of the physical layer procedures
- Specification of definition of measurements and their provision by the physical layer to the upper layers

RAN WG1 also carries out work related to handling of the physical layer related UE capabilities and to physical layer related parameters used in UE tests developed in TSG RAN.

Useful links and information

About RAN WG1	List of elected officials
Documents	Documents area
	Specifications
	Work items
Meetings	Next meeting information & previous meeting reports and documents
	Liaisons Statements
	Full RAN WG1 meeting calendar
General info	Email exploder lists

RAN Working groups and Ad Hoc groups	
TSG RAN Plenary	
TSG RAN WG1	Radio Layer 1 specification
TSG RAN WG2	Radio Layer 2 and Radio Layer 3 RR specification

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- System architecture milestone of 5G Phase 1 is achieved
- Satellite components for the 5G system
- Control and User Plane Separation of EPC nodes (CUPS)
- Prime time TV Services over eMBMS
- Mission Critical Services in 3GPP
- 5G Phase 1 underway in CT Groups
- 3GPP Initiates Common API Framework Study
- Preparing the ground for IMT-2020



News Feeds

- 3GPP News
- 3GPP tweets
- 3GPP webinars

RAN Working groups and Ad Hoc groups	
TSG RAN WG3	Iub Iur and Iu specification - UTRAN O&M requirements
TSG RAN WG4	Radio performance and protocol aspects (system) - RF parameters and BS conformance
TSG RAN WG5	Mobile terminal conformance testing
TSG RAN WG6	Legacy RAN radio and protocol
TSG RAN AHG-ITU	Ad-hoc group on ITU (internal) co-ordination

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FULL MEETING CALENDAR

CT	**79**	**Chennai**	19-20 Mar 2018
RAN	**79**	**Chennai**	19-22 Mar 2018
SA	**79**	**Chennai**	21-23 Mar 2018
CT	**80**	**La Jolla, CA**	11-12 Jun 2018
RAN	**80**	**La Jolla, CA**	11-14 Jun 2018
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RAN	**81**	**Gold Coast**	10-13 Sep 2018
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Appendix 15

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A GLOBAL INITIATIVE

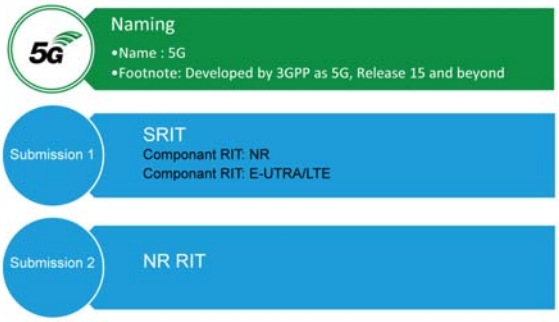
The Mobile Broadband Standard

EDGE

Cover Story

adio interfaces, in October 2017, ption of the 3GPP 5G solution - ns approved in December - has IT-2020 submission and

ial "Description template of 3GPP 5G candidate for inclusion in IMT- awei and Asbjorn Grovlen, Ericsson) have provided a summary of the technical characteristics of the 3GPP 5G solution.



READ MORE...

Recent News

5G device certification

January 26, 2018

The Global Certification Forum issued a press release this week, about their initial certification work for 5G devices based on 3GPP Release 15 specifications – for both Non-Stand Alone and Stand Alone 5G NR operation.

The news release details how GCF 5G conformance testing will draw on test cases defined by 3GPP's RAN5 Working Group, with a new "umbrella Work Item" established to oversee the various areas for which conformance test cases are needed, such as radio reception, transmission and performance; radio resource management (RRM); positioning; radio access protocols; core network protocols and IMS protocols.

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Links to some of the news stories that were recently on the home page and news pages:

- 3GPP 5G description for IMT-2020 (1 of 3)
- System architecture milestone of 5G Phase 1 is achieved
- Satellite components for the 5G system
- Control and User Plane Separation of EPC nodes (CUPS)
- Prime time TV Services over eMBMS
- Mission Critical Services in 3GPP
- 5G Phase 1 underway in CT Groups
- 3GPP Initiates Common API Framework Study

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BIF to Partner 3GPP

January 22, 2018

The Broadband India Forum (BIF) has been formally approved as a Market Representation Partner (MRP) in 3GPP, with immediate effect.

According to the BIF President, T.V. Ramachandran, the Forum will bring Indian market requirements for services, features and functionality to 3GPP. In a letter to the 3GPP Coordination Group (PCG) he outlined the BIF's mission to support and enhance all policy, regulatory & standards initiatives for the proliferation of broadband in India.

READ MORE...



Lifetime Achievement Award

January 11, 2018

The first 3GPP lifetime achievement award has been presented to Andrew Howell, of the UK Home Office, in recognition of his commitment and leadership over the lifetime of the project.

Andrew was elected Vice-Chairman of CN1 Working Group, responsible for core network radio protocols, between 2001 and 2005. In 2005 he was elected Technical Specification Group GSM EDGE Radio Access Network (GERAN) Chairman, a post he held until 2007 in his first two terms, followed by re-election in 2009 - serving until 2014. That same year, Andrew was instrumental in the setting up of a new group in 3GPP, for Mission-critical applications. He convened the first SA6 Working Group meeting and chaired it through its initial meetings.

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Appendix 16

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www.3gpp.org - /ftp/

[To Parent Directory]

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The Wayback Machine - https://web.archive.org/web/20171218190714/http://www.3gpp.org:80/FTP/tsg_ran/

www.3gpp.org - /FTP/tsg_ran/

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The Wayback Machine - https://web.archive.org/web/20171217002530/http://www.3gpp.org:80/ftp/tsg_ra…

www.3gpp.org - /ftp/tsg_ran/WG1_RL1/

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Appendix 19

The Wayback Machine - https://web.archive.org/web/20171122060914/http://www.3gpp.org:80/ftp/TSG_…

www.3gpp.org - /ftp/TSG_RAN/WG1_RL1/TSGR1_AH/

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The Wayback Machine - https://web.archive.org/web/20180224071107/http://www.3gpp.org:80/ftp/TSG_RAN/…

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Appendix 21

3GPP_TSG_RAN_WG1 Archives
December 2017, Week 4

3GPP_TSG_RAN_WG1@LIST.ETSI.ORG

Options: Use Monospaced Font
Show Text Part by Default
Show All Mail Headers

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Author: [<< First] [< Prev] [Next >] [Last >>]

Subject: Draft Agenda for RAN1 Ad-hoc meeting in Vancouver in Jan. 2018
From: Wanshi Chen <[log in to unmask]>
Reply To: Wanshi Chen <[log in to unmask]>
Date: Mon, 25 Dec 2017 03:57:48 +0000
Content-Type: multipart/mixed
Parts/Attachments: text/plain (1599 bytes) , text/html (10 kB) , R1-18xxxxx Draft Agenda RAN1_AH_1801_v000.zip (87 kB)

Dear all,

First, I'd like to take this opportunity to thank you all for your dedication and efforts in completing the Dec. drop delivery. I hope the holidays can provide you an opportunity to relax a bit. I wish you all a happy new year!

Attached please find the draft agenda for the Jan ad-hoc meetings:

- Overall, the agenda for NR remains pretty much the same
  - PUCCH is now only categorized into short vs. long PUCCH (instead of more details 2-bits vs. >2-bits & long duration, etc.)
- I added one section for UE features
- For mixed numerologies under the same PUCCH group (as per RAN plenary), please submit under CA agenda

Note the deadlines are:

Tdoc request: The deadline is Friday 12th January 5pm CEST
Tdoc submission: The deadline for is Friday 12th January 11pm PST

A few more notes:

- No individual CRs are allowed. Only text proposals are allowed.
  - Later on editors will aggregate all endorsed text proposals for a jumbo CR per spec
- Please aim for a single contribution per agenda item whenever possible.
- Editors are encouraged to submit editor's CR before the meeting reflecting additional comments received after the endorsed & frozen NR specifications. If submitted, please submit under agenda 7.

In other words, when writing contributions, for any issue addressed, please have the corresponding text

ATOM RSS1 RSS2

Appendix 22

3GPP TSG RAN WG1 Meeting #92 **R1-1801302**
Athens, Greece, 26th February – 2nd March 2018

Source:	MCC Support
Title:	Final Report of 3GPP TSG RAN WG1 #AH_1801 v1.0.0 (Vancouver, Canada, 22nd – 26th January 2018)
Document for:	Approval



1

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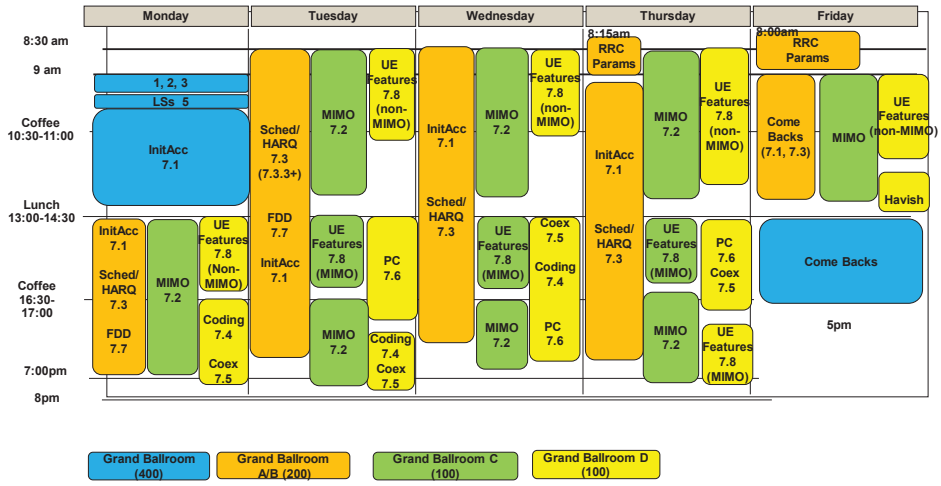
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Main facts summary

The 3GPP TSG WG RAN1#AH_1801 meeting, hosted by the North American Friends of 3GPP, was held at the Sheraton Vancouver Wall Centre Hotel, Vancouver, British Columbia, Canada.
The meeting started at 9:00 on Monday 22nd January and finished at 16:53 on Friday 26th January 2018.
The number of attending delegates, having confirmed their participation through the electronic check-in application, was 310**.**
Note that the number of registered was 434.

The schedule of the week was as follows:



The list of action points that required RAN1 close follow-up is listed in Annex F (end of document).

The number of contributions for this meeting was **1261**.

Note: The amount of documents includes those discussed during the email discussion session post meeting.

	Contribution is agreed/approved
	Contribution is not pursued (no consensus)
	Further discussion is required – come-back needed
	Working assumption
	Specific action needed from MCC
	Contribution is for email discussion/approval

1 Opening of the meeting

Mr Wanshi Chen (RAN1 Chairman) welcomed the participants of the RAN WG1 #AH_1801 meeting and opened the meeting at 09:00.

Mr Charat Chander from AT&T on behalf of the North American Friends of 3GPP, AT&T, BlackBerry, Cohere Technologies, DISH, Ericsson, Intel, InterDigital Communications, Motorola Solutions, NextNav, Nokia, Pivotal Commware, QUALCOMM, Rogers Communications, Sprint, T-Mobile USA and Verizon Wireless, welcomed the delegates, and detailed the domestic arrangements for the full week.

1.1 Call for IPR

*The attention of the members of this Technical Specification Group was drawn to the fact **that 3GPP Individual Members have the obligation** under the IPR Policies of their respective Organizational Partners to **inform their respective** Organizational Partners **of Essential IPRs they become aware of**.*
The members take note that they are hereby invited:

- *to investigate whether their organization or any other organization owns IPRs which were, or were likely to become Essential in respect of the work of 3GPP.*
- *to notify their respective Organizational Partners of all potential IPRs, e.g., for ETSI, by means of the IPR Information Statement and the Licensing declaration forms (e.g. see the ETSI IPR forms http://webapp.etsi.org/Ipr/).*

1.2 Competition law statement

The Chairman also drew Member's attention to the fact that 3GPP activities are subject to antitrust and competition laws and that compliance with said laws is therefore required of any participant of this WG meeting including the Chairman and Vice Chairmen.
In case of question, please contact your legal counsel.
The present meeting will be conducted with strict impartiality and in the interests of 3GPP.
Furthermore, the Chairman reminded Members that timely submission of work items/contributions in advance of WG meetings is important to allow for full and fair consideration of such matters.

1.3 Network usage conditions

The PCG has laid down the following network usage conditions:

Users shall not use the network to engage in illegal activities. This includes activities such as copyright violation, hacking, espionage or any other activity that may be prohibited by local laws.

Users shall not engage in non-work related activities that consume excessive bandwidth or cause significant degradation of the performance of the network.
Since the **network is a shared resource**, users should exercise some basic etiquette when using the 3GPP network at a meeting. It is understood that high bandwidth applications such as downloading large files or video streaming might be required for business purposes, but delegates should be strongly discouraged in performing these activities for personal use. Downloading a movie or doing something in an interactive environment for personal use essentially wastes bandwidth that others need to make the meeting effective. The meeting chairman should remind end users that the network is a shared resource; the more one user grabs, the less there is for another. Email and its attachments already take up significant bandwidth (certain email programs are not very bandwidth efficient). In case of need the chair can ask the delegates to restrict IT usage to things that are essential for the meeting itself.

1. DON'T place your WiFi device in ad-hoc mode
2. DON'T set up a personal hotspot in the meeting room
3. DO try 802.11a if your WiFi device supports it
4. DON'T manually allocate an IP address
5. DON'T be a bandwidth hog by streaming video, playing online games, or downloading huge files
6. DON'T use packet probing software which clogs the local network (e.g., packet sniffers or port scanners)

1.4 Check-in for Registered Delegates

The attention of the delegates to this meeting was drawn to the fact that it is not permitted to check in other delegates on their behalf. In the event of technical difficulties preventing check-in, delegates should present themselves in person to the Secretary.

1.5 Aspects related to RAN1 Meeting Management

Delegates are encouraged to check R1-1721392 for some thoughts on RAN1 meeting management.

2 Approval of Agenda

R1-1800017 Draft Agenda of RAN1#AH_1801 (NR) meeting RAN1 Chair (rev of R1-1800000)
Wanshi Chen (RAN1 Chair) proposed the agenda for the meeting, as well the schedule of the week.
Discussion: No comments regarding the agenda.
Decision: The agenda is approved.

Regarding the schedule, AT&T noted collapsing sessions between Initial Access and UE feature along the week.
Chair → the ordering of the topics can be reconsidered if needed

In addition to the schedule, following guidance were provided for this meeting:

- Only essential corrections! → a stable and complete specification should be the focus
  - Please do due diligence during offline discussions, especially feature leads
- For any agreements, feature lead(s) or some designated person(s) needs to prepare the corresponding TP for endorsement
  - Editors to consolidate all endorsed TPs for final endorsement
- Solidifying RRC parameters (e.g., detailed values, bitwidth, etc.) are important to conclude, aiming for sending updated RRC parameter list towards the end of the meeting

Ericsson: Merging of TPs should require attention as issues/conflicts may come up when preparing the final CR for agreement
CATT: is the same process of summaries (led by feature lead) going to be applied again similarly to last meeting?
Chair: yes – feature leads should try to achieve as much consensus as possible; any controversial aspects will be taken up online.
CATT regarding ongoing RAN2 work on RRC, one may differ from what RAN1 agreed on
Chair: RAN1 liaised to RAN2 – any changes RAN2 may decide shall be investigated by RAN1 following a case by case approach.

3 Highlights from RAN plenary

R1-1800002 Highlights from RAN#78RAN1 Chair
Discussion: Document for information. Presentation focused on NR only.
July ad-hoc meting is cancelled – plenary decision to lower the number of TUs allocated to RAN1 aiming at a more (hopefully) reasonable load of work.
Decision: The document is noted.

4 Approval of Minutes from previous meeting

R1-1800001 Report of RAN1#AH_1801 meeting ETSI
The document was not formally presented by Patrick Merias from MCC (ETSI Mobile Competence Center). It provides the report from last RAN1#91 meeting in Reno, for information, only relevant to the NR part. Final approval to be performed at RAN1#92.
Decision: The document is noted.

5 Incoming Liaison Statements

Beam management and CSI
R1-1800003 LS on MAC Ces for beam management and CSI RAN2, Ericsson
RAN2 asks RAN1 to clarify the enclosed questions. Additionally, for all MAC CEs listed in R1-1721661:

- provide information whether the MAC CE has fixed size or variable size;
- give size of all the subfields as well as for the total field;
- indicate which L1 parameters are related to the MAC CE using the exact parameter names from R1-1719429.

RAN2 would also like RAN1 to consider minimizing the requested size of the MAC CE.
Discussion: Chair suggested looking at the different reply draft LS in the relevant session.
Decision: The document is noted. Details to be handled under 7.2.

R1-1800099	Draft LS response to RAN2 on MAC CEs for beam management and CSI	Huawei, HiSilicon
R1-1800212	Draft LS reply on MAC CEs for beam management and CSI	ZTE, Sanechips
R1-1800746	[DRAFT] Reply LS to RAN2 on MAC CEs for beam management and CSI	Intel Corporation
R1-1800775	Discussion on beam management and CSI	CATT
R1-1800776	Draft response to RAN2 on beam management and CSI	CATT
R1-1800295	Reply LS to RAN2 on aperiodic indications based on beam failure recovery	Intel Corporation

Details to be handled under 7.2

Measurements

R1-1800004 **LS on further clarification on definitions of reference points** **RAN4, Huawei,HiSilicon**

- For FR1, the definition of the measurement reference point for RSRP, RSRQ, SINR and any other UE measurements shall be the antenna connector.
- For FR2, RAN4 concludes that there is no physical reference point for UE measurement and recommends a functional description of how measurements are performed by the UE rather than defining a physical reference point. The recommend description is shown below:
  - For FR2, RSRP, RSRQ, SINR and any other UE measurements shall be measured based on the combined signal from antenna elements corresponding to a given receiver branch. If receiver diversity is in use by the UE, the reported measurement value shall not be lower than the corresponding value of any of the individual receiver branches.

Discussion: No specific action to RAN1 – above description already captured.
Decision: The document is noted.

R1-1800005 **LS on RSRP/RSRQ Report Mapping** **RAN4, Ericsson**

- Reporting range of SS-RSRP and CSI RSRP can be represented with up to 128 reported values (7 bits) and the granularity shall be 1dB.
- Reporting range of SS-RSRQ, CSI-RSRQ, SS-SINR and CSI-SINR can be represented with up to 128 reported values (7 bits) and the granularity shall be 0.5dB
- The range in the signaling may be larger than the guaranteed accuracy range.
- RAN4 will specify the mapping between reported value and measured quantity value in the NR performance work item.

Decision: The document is noted.

R1-1800007 **LS to RAN1 on RSSI evaluation resource for SS-RSRQ measurement** **RAN4, Intel Corporation**

RSSI in SSB based RSRQ

- RSSI comprises the linear average of the total received power (in [W]) observed over time duration T_{RSSI}, in the measurement bandwidth, over *N* number of resource blocks by the UE from all sources, including co-channel serving and non-serving cells, adjacent channel interference, thermal noise etc. The time duration, T_{RSSI}, is defined as follows:
  - T_{RSSI}= Configured SMTC measurement window (if gap is not used)
  - T_{RSSI}= Overlapped time span between configured SMTC measurement window and minimum measurement time within measurement gap (if gap is used)

Discussion: Qualcomm → wasn't already agreed to have specific configuration for the RSSI?
Ack by Intel
Decision: The document is noted. Details to be handled under 7.1.5

R1-1800008 **LS on channel raster and SS raster** **RAN4, Huawei**

- Provide definition of both channel raster and SS raster

Decision: The document is noted.
R1-1800291 Draft reply LS on channel raster and SS raster Huawei
R1-1800292 Discussion on remaining issues on SS raster Huawei, HiSilicon
Details to be handled under 7.1.1

R1-1800011 **LS on spectrum utilization** **RAN4, Huawei, HiSilicon**

Provide RAN4 consensus on spectrum utilization for both below 6GHz and mmWave bands.
Decision: The document is noted.

R1-1800012 **LS on Signalling of TA_Offset** **RAN4, Ericsson**

RAN4 requests RAN1 to:

- evaluate if there is any impact on the performance if N_{TA_Offset} is the same regardless of whether or not the NR co-exist with LTE on a TDD carrier in FR1 and
- provide guidance regarding N_{TA_Offset} for uplink transmission on a TDD carrier in FR1 when the NR co-exist with LTE.

Decision: The document is noted. Details to be handled under 7.1.4

The following LSs are noted (not be presented online)
R1-1800006 LS reply on MIMO layers UE capabilities RAN4, Intel Corporation

R1-1800010 LS reply on UE RF related parameters, capabilities and features for NR RAN4, NTT DOCOMO, INC
R1-1800013 LS on measurement gap in NR RAN4, Huawei,HiSilicon
R1-1800014 Response LS on simultaneous transmission and/or reception over EPC/E-UTRAN and 5GC/NR RAN4, Intel Corporation
R1-1800015 LS on QCIs for EPC based URLLCSA2, Vodafone
R1-1800016 LS on URLLC SA, Vodafone

R1-1800009 LS on transmission timing adjustments in Stti RAN4, Huawei,HiSilicon
Withdrawn

The following LSs were received during the meeting week
R1-1801073 LS on PDCCH order for initiation of random access RAN2, Ericsson
Decision: The document is noted.

R1-1801194 LS on Baseband Processing Capabilities RAN2, Intel
RAN2 asks RAN1 the following question related to the remaining parameters in BPC:
Q1. RAN2 understands that SCS support is separate for UL and DL and is dependent on the operating RF band, so does RAN1 view that the baseband processing capabilities in the BPC table depend on SCS used?
Discussion: Acc. to RAN1 understanding, expected answer is yes or no - RAN4 should reply to the other questions
Decision: The document is noted.

R1-1801193 LS to RAN1 on cell-specific and BWP-specific parameters RAN2, Huawei
Decision: The document is noted.

Below LSs are postponed till next meeting:
R1-1801233 Reply LS to RAN1 on PRACH with ON-OFF time mask RAN4, Ericsson
R1-1801204 LS on Clarifications in MAC RAN2, Ericsson
R1-1801203 LS on PHR RAN2, NTT DOCOMO
R1-1801105 LS to RAN1 on MAC CE for MIMO RAN2, Nokia

6 E-UTRA

This section is void for this meeting

7 Maintenance of NR - *WID in RP-172834*

Only essential corrections.
Notes:
- No individual CRs are allowed. Only text proposals are allowed.
  - Later on editors will aggregate all endorsed text proposals for a jumbo CR per spec
- Please aim for a single contribution per agenda item whenever possible.
- Editors are encouraged to submit editor's CR before the meeting reflecting additional comments received after the endorsed & frozen NR specifications. If submitted, please submit under agenda 7.

NR spec CRs
R1-1800562 Correction to RSTD measurement states Intel Corporation (UK) Ltd
Remove RRC_INACTIVE inter-RAT and RRC_IDLE inter-RAT from the RSTD measurement definition
Decision: The CR is endorsed in principle – shall be further consolidated with any other 38.215 TPs.

R1-1800778 Draft CR 36.214 Inter-RAT measurements of NR Ericsson
Adding measurements for NR SS-RSRP, SS-RSRQ and SFTD from 38.215
Decision: The draft CR is endorsed in principle. To be further checked in RAN1#92

R1-1800794 Draft CR to 38.211 Ericsson LM
Discussion: Huawei requested more time for more detailed review of the draft CR – no need endorsing it at this point
Ericsson → mainly purely editorial corrections
Huawei's issue is to properly look at and consider all the comments raised over email and make sure they all have been taken into account – fine if these are editorials only
Decision: The draft CR is endorsed in principle (to fix the typo "Genric"). To be further consolidated with any other TPs.

RRC parameters
R1-1801095 **Text proposal on 38.331 Ericsson**
Discussion: Regarding the format used, Huawei suggested to simply add comment quoting the relevant RAN1 agreement where RAN1 thinks an update of the text is required, without making change in the text. Preference would have been to keep the excel sheet as done before.
Decision: The document is noted.

Friday
R1-1801276 **RRC parameter update Ericsson**
Decision: The document is endorsed.
R1-1801250 **[draft] LS on correction to RRC parameters for NR Ericsson**
Decision: The document is endorsed. Final LS is approved in R1-1801281.

Editors to prepare TPs incorporating the endorsed TPs and the agreements without TPs by February 1st.
Comments until February 7th, for endorsement by February 7th.

7.1 Initial access and mobility

7.1.1 Synchronization signal

R1-1801026 **Summary of 7.1.1 Synchronization signal Ericsson**
Decision: The document is noted.

Discuss further offline on OFDM signal generation
Discuss further offline on power offset with a complete list for all channels/signals, in terms of applicability and whether or not joint or separate parameters
Check offline regarding 38.214 capturing previous agreements related to PDSCH rate matching, PDCCH (slot/non-slot) vs. CORESET rate matching, etc

R1-1800296 **Remaining details of SS Intel Corporation**
Decision: The document is noted.

Wednesday session

Agreements:
- For signal generation for both DL and UL, adopt the following:
  - Transmitter generates signals for all symbols using a common reference tone
  - FFS: Which tone to use as the common reference tone
  - FFS applicability to PRACH

R1-1801074 **Summary of 7.1.1 Synchronization signal Ericsson**
Decision: The document is noted.

Agreements:
- Have independent power scaling of SSS, PBCH data, and PBCH DMRS in 36.211 as shown in TP below.
- Update text of section 4.1 of 38.213 on UE assumption for power scaling as shown in TP below

----------start of TP to 38.211----------
7.4.3.1.2 Mapping of SSS within an SS/PBCH block
The UE shall assume the sequence of symbols $d_{\text{SSS}}(0),\ldots,d_{\text{SSS}}(126)$ constituting the secondary synchronization signal to be scaled by a factor ~~β_{PBCH}~~ β_{SSS} and mapped to resource elements $(k,l)_{p,\mu}$ in increasing order of k where k and l are given by Table 7.4.3.1-1 and represent the frequency and time indices, respectively, within one SS/PBCH block.

Field Code Changed

7.4.3.1.3 Mapping of PBCH and DM-RS within an SS/PBCH block
The UE shall assume the sequence of complex-valued symbols $d_{\text{PBCH}}(0),\ldots,d_{\text{PBCH}}(M_{\text{symb}}-1)$ constituting the physical broadcast channel to be scaled by a factor β_{PBCH} to conform to the PBCH power allocation specified in [5, TS 38.213] and mapped in sequence starting with $d_{\text{PBCH}}(0)$ to resource elements $(k,l)_{p,\mu}$ which meet all the following criteria:
- they are not used for PBCH demodulation reference signals

The mapping to resource elements $(k,l)_{p,\mu}$ not reserved for PBCH DM-RS shall be in increasing order of first the index k and then the index l, where k and l represent the frequency and time indices, respectively, within one SS/PBCH block and are given by Table 7.4.3.1-1.
The UE shall assume the sequence of complex-valued symbols $r(0),...,r(143)$ constituting the demodulation reference signals for the SS/PBCH block to be scaled by a factor of ~~β_{PBCH}~~ $\beta_{\text{PBCH-DMRS}}$ to conform to the PBCH power allocation specified in [5, TS 38.213] and to be mapped to resource elements $(k,l)_{p,\mu}$ in increasing order of first k and then l where k and l are given by Table 7.4.3.1-1 and represent the frequency and time indices, respectively, within one SS/PBCH block.
----------end of TP to 38.211----------

Field Code Changed

----------start of TP for Section 4.1 in TS38.213----------
A UE shall assume that reception occasions of a physical broadcast channel (PBCH), PSS, and SSS are in consecutive symbols, as defined in [4, TS 38.211], and form a SS/PBCH block. The UE shall assume that SSS, ~~and~~ PBCH DM-RS and PBCH data have the same EPRE.
----------end of TP for Section 4.1 in TS38.213----------

R1-1800149 Remaining issues on Synchronization signal MediaTek Inc.

Agreements:
- The value of M (as in 38.101) for sync raster definition (i.e., 0, ±1) for FR1 is informed to UE
  - Up to RAN4 to decide the set of offset values for FR1
  - As a working assumption, the indication is in RMSI
  - If the minimum distance between adjacent sync rasters is large enough (w.r.t the intial frequency offset tolerance), the indication is no longer necessary
  - Send an LS to RAN2 and RAN4 – draft to be prepared in R1-1801109

Thursday session
R1-1801109 [DRAFT] Reply LS on channel raster and SS raster Ericsson
Decision: The document is endorsed and final LS is approved in R1-1801182.

R1-1801156 Summary of 7.1.1 Synchronization signal Ericsson
Decision: The document is noted.

Proposals:
- Change the formula for generating the signal from:

$$s_l^{(p,\mu)}(t) = \sum_{k=0}^{N_{\text{grid}}^{\text{size},\mu} N_{\text{sc}}^{\text{RB}} - 1} a_{k,l}^{(p,\mu)} \cdot e^{j2\pi\left(k + k_0^{\mu} - N_{\text{grid}}^{\text{size},\mu} N_{\text{sc}}^{\text{RB}}/2\right)\Delta f\left(t - N_{\text{CP},l}^{\mu} T_c\right)} \text{ to}$$

$$s_l^{(p,\mu)}(t) = \lambda_l^{\mu} \sum_{k=0}^{N_{\text{grid}}^{\text{size},\mu} N_{\text{sc}}^{\text{RB}} - 1} a_{k,l}^{(p,\mu)} \cdot e^{j2\pi\left(k + k_0^{\mu} - N_{\text{grid}}^{\text{size},\mu} N_{\text{sc}}^{\text{RB}}/2\right)\Delta f\left(t - N_{\text{CP},l}^{\mu} T_c\right)}$$

where $\Delta f_{ref} = 15\text{kHz}$, $\lambda_l^{\mu} = e^{-j2\pi\left(p_{\mu}\Delta f_{ref} + \Delta\right)\left(N_{CP,l}^{\mu} T_C + t_{start,l}^{\mu}\right)}$ and $p_{\mu} = \min\left(\arg\min_{k \in Z^+} |f_0 - k\Delta f_{ref}|\right)$

- Decide between:
  - Quantized carrier frequency: $\Delta = 0$
  - Non-quantized carrier frequency $\Delta = f_0 - p_{\mu}\Delta f_{ref}$

Agreements:
- To adopt the following TP for Section 5.1 of 38.214:

----------start of TP----------
If the UE has received no *SSB-transmitted* through higher layer signalling about SS/PBCH block transmissions in the serving cell, the UE assumes SS/PBCH block transmission according to *SSB-transmitted-SIB1*, and if the PDSCH resource allocation overlaps with ~~the~~ PRBs containing SS/PBCH block transmission resources the UE shall determine that PDSCH is rate matched around the~~se~~m PRBs. The UE assumes the periodicity of the SS/PBCH block transmission resources based on *SSB-periodicity-serving-cell*.
If the UE has received a *SSB-transmitted* through higher layer signalling about SS/PBCH block transmissions in the serving cell, the UE assumes SS/PBCH block transmission according to the *SSB-transmitted*, and if the PDSCH resource allocation overlaps with PRBs containing ~~the~~ SS/PBCH block transmission resources the UE shall assume that PDSCH is rate matched around the~~se~~m PRBs. The UE assumes the periodicity of the SS/PBCH block transmission resources based on *SSB-periodicity-serving-cell.*

When receiving the PDSCH conveying [*SystemInformationBlockType1*], a UE ~~shall not~~ may assume that ~~any~~ no SS/PBCH block is transmitted in REs used by the UE for a reception of the PDSCH.
When receiving the PDSCH conveying [*RAR, OSI, Paging, Msg4*], the UE assumes SS/PBCH block transmission according to *SSB-transmitted-SIB1*, and if the PDSCH resource allocation overlaps with ~~the~~ PRBs containing SS/PBCH block transmission resources the UE shall assume that PDSCH is rate matched around the~~se~~m PRBs.
----------end of TP----------

Friday session
R1-1801205 Summary of 7.1.1 Synchronization signal Ericsson
Decision: The document is noted.

Proposal from offline for signal generation:
- Agree to option 3a (unquantized)
- Baseband signal generation remains unchanged
- Change upconversion formula for all channels/signals expect PRACH to:
  $\mathrm{Re}\left\{s_l^{(p,\mu)}(t)\cdot e^{j2\pi f_0\left(t-N_{\mathrm{CP},l}^{\mu}T_c\right)}\right\}$ where $0\le t<\left(N_u^{\mu}+N_{\mathrm{CP},l}^{\mu}\right)T_c$
- Upconversion formula for PRACH remains unchanged

Agree on the following text proposal:
----------start of TP----------
5.4 Modulation and upconversion
Modulation and upconversion to the carrier frequency f_0 of the complex-valued OFDM baseband signal for antenna port p and subcarrier spacing configuration μ is given by

$\mathrm{Re}\left\{s_l^{(p,\mu)}(t)\cdot e^{j2\pi f_0 t}\right\}$ for PRACH
$\mathrm{Re}\left\{s_l^{(p,\mu)}(t)\cdot e^{j2\pi f_0\left(t-N_{\mathrm{CP},l}^{\mu}T_c\right)}\right\}$, where $0\le t<\left(N_u^{\mu}+N_{\mathrm{CP},l}^{\mu}\right)T_c$, otherwise

Field Code Changed
Field Code Changed

----------end of TP----------
Above proposal supported by ZTE, LGE, Intel, Samsung, Huawei, HiSilicon, NTT DOCOMO, MotM, Lenovo, MediaTek, Ericsson, NEC
Objected by Qualcomm (cannot even agree it as working assumption) – would like to wait until RAN4 decision
Ericsson would go with WA and inform RAN4 and ask for any feedback
Qualcomm: suggested having a separate equation for channels off the grid

Agreements:
- Send an LS to RAN4 regarding the following working assumption. Note that there are also other alternative(s) discussed in RAN1.
  - RAN1 would especially appreciate if RAN4 can progress on the frequency offset associated with the value of M. RAN1 aims to make a decision in the early week of the next Feb. meeting.
- (Working assumption) For signal generation:
  - Agree to option 3a (unquantized)
  - Baseband signal generation remains unchanged
  - Change upconversion formula for all channels/signals expect PRACH to:
  - $\mathrm{Re}\left\{s_l^{(p,\mu)}(t)\cdot e^{j2\pi f_0\left(t-N_{\mathrm{CP},l}^{\mu}T_c\right)}\right\}$ where $0\le t<\left(N_u^{\mu}+N_{\mathrm{CP},l}^{\mu}\right)T_c$
  - Upconversion formula for PRACH remains unchanged
- Draft LS to be prepared in R1-1801245.

R1-1801245 [Draft] LS on OFDM symbol generation Ericsson
Decision: The document is endorsed and final LS is approved in R1-1801279.

R1-1800029	OFDM baseband signal generation	Huawei, HiSilicon
R1-1800078	Remaining details of Synchronization Signal Design	ZTE, Sanechips
R1-1800172	Remaining issues on synchronization signal	vivo
R1-1800227	Signal generation for NR SSB and BWP opeation	CATT
R1-1800284	Remaining issues on OFDM signal generation	Spreadtrum Communications
R1-1800349	Remaining Details on Synchronization signal	LG Electronics
R1-1800412	Corrections on Synchronization Signaling	Samsung

R1-1800505 Text proposal on SS/PBCH block Guangdong OPPO Mobile Telecom.
R1-1800625 Remaining Details on Synchronization Signal InterDigital, Inc.
R1-1800649 Remaining issues on Synchronization signal NTT DOCOMO, INC.
R1-1800799 Remaining issue on the SSB Bitmap in Group indication Xiaomi Technology
Withdrawn
R1-1800800 Remaining issue on the SSB Bitmap in Group indication Xiaomi Technology
R1-1800802 OFDM signal generation Nokia, Nokia Shanghai Bell
R1-1800846 Remaining details on synchronization signal design Qualcomm Incorporated
R1-1800892 Remaining details on synchronization signal Ericsson

7.1.2 Broadcast signal/channel

7.1.2.1 NR-PBCH

R1-1801027 Summary of 7.1.2.1 NR-PBCH Ericsson
Decision: The document is noted.

Conclusion:
Regarding signaling the valid search raster:
- No additional signaling entries in the PBCH (for example cellBarred, intraFreqReselection) are to be used to inform the UE of the valid raster
- The indication is only for the same frequency band

Further discussion offline to come up the details in the signalling

Agreements:
To agree the following TP to 38.211, section 7.4.1.4.1:
- for $L_{\max} = 4$, n_{hf} is the number of the half-frame in which the PBCH is transmitted in frame , $n_{\text{hf}} = 0$ corresponds to the first half-frame, $n_{\text{hf}} = 1$ corresponds to the second half-frame, and i_{SSB} is the two least significant bits of the SS/PBCH index as defined in [5]

Proposal:
To agree the following change to section 7.1.1 of 38.212:
- $\bar{a}_{\bar{A}+5}, \bar{a}_{\bar{A}+6}, \bar{a}_{\bar{A}+7}$ are the 4th ~~3rd~~, 5th ~~2nd~~, and 6th ~~1st LSB~~ bit of SS/PBCH block index, respectively.

Discuss further offline (possibly to be handled by the coding session)

Conclusion:
- Further offline discussion on the complete tables regarding the grid offset for FR1 and FR2
  - No change of the 4-bit as per RRC by using some existing reserved/spare bit
  - After the table is completed, consider sending (to be checked offline) an LS to RAN2 to inform the number of spare bits for FR1/FR2

Wednesday: No LS is necessary, to be reflected in RRC parameter update

Discuss further regarding the issue raised in R1-1800596 regarding PBCH contents for SS/PBCH blocks within a half frame

Discuss further the issue of PSD offset between SSB and PDCCH (to be combined with the issue under 7.1.1 regarding power offset)

Wednesday session
R1-1801075 Summary of 7.1.2.1 NR-PBCH Ericsson
Decision: The document is noted.

Agreement: On the following change to section 7.1.1 of 38.212:
- $\bar{a}_{\bar{A}+5}, \bar{a}_{\bar{A}+6}, \bar{a}_{\bar{A}+7}$ are the 6th, 5th, and 4th bit of SS/PBCH block index, respectively.

Agreements:
- To adopt the following 38.211 and 38.212 TPs:

----------start of TP for 7.4.3.1 of 38.211----------
In the frequency domain, an SS/PBCH block consists of 240 contiguous subcarriers with the subcarriers numbered in increasing order from 0 to 239 within the SS/PBCH block. The quantities k and l represent the frequency and time indices, respectively, within one SS/PBCH block. The UE may assume resource elements denoted as 'Set to 0' in Table 7.4.3.1-1 are set to zero.
Subcarrier 0 in an SS/PBCH block corresponds to subcarrier k_0 in common resource block $N_{\mathrm{CRB}}^{\mathrm{SSB}}$, where $N_{\mathrm{CRB}}^{\mathrm{SSB}}$ is obtained from the higher-layer parameter *offset-ref-low-scs-ref-PRB* and where the 4 LSB of k_0 is given by higher-layer parameter *ssb-subcarrierOffset* in *MIB* and for SS/PBCH block type A the MSB of k_0 is given by $\bar{a}_{\bar{A}+5}$ in the PBCH payload as defined in Subclause 7.1.1 of [4, TS 38.212].
----------end of TP for 7.4.3.1 of 38.211----------

Field Code Changed

Field Code Changed

----------start of TP for 38.212----------
7.1.1 PBCH payload generation
Denote the bits in a transport block delivered to layer 1 by $\bar{a}_0, \bar{a}_1, \bar{a}_2, \bar{a}_3, \ldots, \bar{a}_{\bar{A}-1}$, where $\bar{A}$ is the payload size generated by higher layers. The lowest order information bit $\bar{a}_0$ is mapped to the most significant bit of the transport block as defined in Subclause [6.1.4] ~~x.x.x~~ of [8, TS 38.321].
Generate the following additional timing related PBCH payload bits $\bar{a}_{\bar{A}}, \bar{a}_{\bar{A}+1}, \bar{a}_{\bar{A}+2}, \bar{a}_{\bar{A}+3}, \ldots, \bar{a}_{\bar{A}+7}$, where:

- $\bar{a}_{\bar{A}}, \bar{a}_{\bar{A}+1}, \bar{a}_{\bar{A}+2}, \bar{a}_{\bar{A}+3}$ are the 4th, 3rd, 2nd, and 1st LSB of SFN, respectively;
- $\bar{a}_{\bar{A}+4}$ is the half radio frame bit $\bar{a}_{\mathrm{HRF}}$;
- If L=64
  - $\bar{a}_{\bar{A}+5}, \bar{a}_{\bar{A}+6}, \bar{a}_{\bar{A}+7}$ are the 6th, 5th, and 4th ~~LSB~~ bit of SS/PBCH block index, respectively.
- Else
  - $\bar{a}_{\bar{A}+5}$ is the MSB of k_0 as defined in Subclause 7.4.3.1 of [4, TS 38.211]
  - $\bar{a}_{\bar{A}+6}, \bar{a}_{\bar{A}+7}$ are reserved
- End if

----------end of TP for 38.212----------

Thursday session
R1-1801157 **Summary of 7.1.2.1 NR-PBCH** **Ericsson**
Decision: The document is noted.

Proposal:
- Select between:
  - Alt1: Signaling of the absolute raster position within the frequency band
  - Alt2: Signaling of the raster position relative to the found raster position

Proposal:
- NR supports signaling the case when there is no indicated raster position, there is no RMSI present

Proposal:
- Should the ±5 kHz offset be indicated in FR1?

Friday session
No update for PBCH...

R1-1800043	On PBCH scrambling & PBCH DMRS initialization	Huawei, HiSilicon
R1-1800079	Remaining details of NR-PBCH Design	ZTE, Sanechips
R1-1800173	Remaining aspects on NR-PBCH	vivo
R1-1800228	On Remaining Issues on NR PBCH	CATT
R1-1800274	Remaining issues of NR-PBCH	Spreadtrum Communications
R1-1800297	Remaining details of NR PBCH	Intel Corporation
R1-1800350	Remaining Details on PBCH design and contents	LG Electronics
R1-1800400	Correction on the initialization of PBCH DMRS	Lenovo, Motorola Mobility
R1-1800413	Corrections on NR-PBCH	Samsung

R1-1800508 Discussion on synchronization raster indication Guangdong OPPO Mobile Telecom.
R1-1800509 Text proposal on PBCH Guangdong OPPO Mobile Telecom.
R1-1800596 Text proposal on PBCH contents Sony
R1-1800618 Text proposal for PBCH in 38.212 FiberHome
Late submission
R1-1800650 Remaining issues on NR-PBCH NTT DOCOMO, INC.
R1-1800803 Remaining details on NR-PBCH Nokia, Nokia Shanghai Bell
R1-1800847 Remaining details on NR-PBCH Qualcomm Incorporated
R1-1800893 Remaining details on NR-PBCH Ericsson

7.1.2.2 Remaining minimum system information

R1-1800230 Summary of Offline Discussion on RMSI CATT
Decision: The document is noted. Discuss further offline focusing on the essential necessary corrections discussed in R1-1800230

Wednesday session
R1-1801083 Summary of Offline Discussion on RMSI CATT
Decision: The document is noted.

Agreements:
- To adopt the following TP in 38.211, Section 7.4.3.1:

----------start of TP----------
For an SS/PBCH block, the UE shall assume
- antenna port $p = 4000$ is used for transmission of PSS, SSS and PBCH,
- the same cyclic prefix length and subcarrier spacing for the PSS, SSS, and PBCH,
- for SS/PBCH block type A, $\mu \in \{0,1\}$, $k_0 \in \{0,1,2,...,23\}$, ~~$\mu \in \{0,1\}$,~~ and $N_{\text{CRB}}^{\text{SSB}}$ ~~is~~ are expressed in terms of 15 kHz subcarrier spacing, and
- for SS/PBCH block type B, $\mu \in \{3,4\}$, $k_0 \in \{0,1,2,...,11\}$ ~~, $\mu \in \{3,4\}$, and $N_{\text{CRB}}^{\text{SSB}}$~~ is expressed in terms of the subcarrier spacing provided by the higher-layer parameter *subCarrierSpacingCommon*, , and $N_{\text{CRB}}^{\text{SSB}}$ is expressed in terms of the subcarrier spacing 60 kHz .

The UE may assume that SS/PBCH blocks transmitted with the same block index are quasi co-located with respect to Doppler spread, Doppler shift, average gain, average delay, and spatial Rx parameters. The UE shall not assume quasi co-location for any other SS/PBCH block transmissions.
----------end of TP----------

Field Code Changed
Field Code Changed
Field Code Changed

Agreements:
- To adopt the following update to 38.213:

---------start of TP----------

Table 13-6: Set of resource blocks and slot symbols of control resource set for Type0-PDCCH search space when {SS/PBCH block, PDCCH} subcarrier spacing is {120, 120} kHz

Index	SS/PBCH block and control resource set multiplexing pattern	Number of RBs $N_{RB}^{CORESET}$	Number of Symbols $N_{symb}^{CORESET}$	Offset (RBs)
0	1	24	2	0
1	1	24	2	4
2	1	48	1	14
3	1	48	2	14
4	3	2448	23	-20 if condition A -21 if condition B
5	3	2448	23	24
6	3	4896	21	-20 if condition A -21 if condition B
7	3	4896	22	48
8	Reserved			
9	Reserved			
10	Reserved			
11	Reserved			
12	Reserved			
13	Reserved			
14	Reserved			
15	Reserved			

Table 13-9: Parameters for PDCCH monitoring occasions for Type0-PDCCH common search space - SS/PBCH block and control resource set multiplexing pattern type 1 and carrier frequencies smaller than or equal to 6 GHz

Table 13-10: Parameters for PDCCH monitoring occasions for Type0-PDCCH common search space - SS/PBCH block and control resource set multiplexing pattern type 1 and carrier frequencies smaller above 6 GHz

Table 13-11: PDCCH monitoring occasions for Type0-PDCCH common search space - SS/PBCH block and control resource set multiplexing type pattern 2 and {SS/PBCH block, PDCCH} subcarrier spacing {120, 60} kHz

Table 13-12: PDCCH monitoring occasions for Type0-PDCCH common search space - SS/PBCH block and control resource set multiplexing type pattern 2 and {SS/PBCH block, PDCCH} subcarrier spacing {240, 120} kHz

Table 13-13: PDCCH monitoring occasions for Type0-PDCCH common search space - SS/PBCH block and control resource set multiplexing pattern type 3 and {SS/PBCH block, PDCCH} subcarrier spacing {120, 120} kHz

---------end of TP----------

Proposals:

- Down-select one of the following options for dealing with the potential collision between an SSB and the RMSI CORESET in multiplexing pattern 2:
  - Option 1: Remove the configurations with $N_{symb}^{CORESET}$=2 in Table 13-5 and Table 13-8 of TS 38.213;
  - Option 2: Keep the configurations with $N_{symb}^{CORESET}$=2 in Table 13-5 and Table 13-8 of TS 38.213. It will be up to the network's implementation on how to avoid the collision. From UE's perspective, it is assumed no collision between an SSB and the RMSI CORESET of a CD-SSB.

Agreements:

- Make the clarification that the existing Tables 13-1 and 13-2 in TS 38.213 are used for supporting the offset configurations for the bands with minimum channel bandwidths of 5MHz with SSB SCS = 15kHz;
  - The corresponding TP (38.213)
    - Table 13-1: Set of resource blocks and slot symbols of control resource set for Type0-PDCCH search space when {SS/PBCH block, PDCCH} subcarrier spacing is {15, 15} kHz with minimum channel bandwidth 5MHz

  - Table 13-2: Set of resource blocks and slot symbols of control resource set for Type0-PDCCH search space when {SS/PBCH block, PDCCH} subcarrier spacing is {15, 30} kHz with minimum channel bandwidth 5MHz
- Make the clarification that the existing Tables 13-3 and 13-4 in TS 38.213 are for supporting the offset configurations for the bands with minimum channel bandwidths of 10MHz with SSB SCS = 30kHz;
  - The corresponding TP (38.213):
    - Table 13-3: Set of resource blocks and slot symbols of control resource set for Type0-PDCCH search space when {SS/PBCH block, PDCCH} subcarrier spacing is {30, 15} kHz with minimum channel bandwidth 10MHz
    - Table 13-4: Set of resource blocks and slot symbols of control resource set for Type0-PDCCH search space when {SS/PBCH block, PDCCH} subcarrier spacing is {30, 30} kHz with minimum channel bandwidth 10MHz
- For the bands with minimum channel bandwidths of 40MHz, add new configuration tables for the following cases
  - One for {SSB SCS, RMSI SCS} = {30, 15} kHz
  - One for {SSB SCS, RMSI SCS} = {30, 30} kHz

For the new configuration tables discussed above, companies are encouraged to check the tables in R1-1801083

Agreements:
- Adopt the following TP for Section 10.1 of 38.213:

----------start of TP----------
For each control resource set in a DL BWP of a serving cell, a respective higher layer parameter *CORESET-freq-dom* provides a bitmap. The bits of the bitmap have a one-to-one mapping with non-overlapping groups of 6 PRBs, in ascending order of the PRB index in the DL BWP bandwidth of $N_{\mathrm{RB}}^{\mathrm{BWP}}$ PRBs with the starting position $N_{\mathrm{BWP}}^{\mathrm{start}}$ where the first PRB of the first group of 6 PRBs has index ~~$6\cdot\lceil N_{\mathrm{RB}}^{\mathrm{BWP}}/6\rceil$~~ $6\cdot\lfloor N_{\mathrm{BWP}}^{\mathrm{start}}/6\rfloor$.
----------end of TP----------

Field Code Changed

Field Code Changed

Thursday session
R1-1801122 Summary of Offline Discussion on RMSI CATT
Decision: The document is noted.

Agreements:
- To adopt the first TP in Section 2 of R1-1801122 regarding change to section 13 of 38.213 (de-highlight the yellow part)
- To adopt the second TP in section 2 of R1-1801122 regarding change to Table 13-13 of 38.213

Agreements:
- To adopt the TP in Section 4.1 regarding new tables 13-X3 and 13-X4 of 38.213
  - Editors may update the table indexing

Agreement:
- Send an LS to RAN4 for the revised/new RMSI CORESET configuration tables – to be prepared in R1-1801188
  - Note: Including Ref. R1-1801168 for the references on the generation of the offsets.

Friday session
R1-1801188 [draft] LS on RMSI CORESET configurations CATT
Decision: The document is endorsed by updating "would like to inform~~ation~~". Final LS is approved in R1-1801246.

R1-1801192 Summary of Offline Discussion on RMSI CATT
Decision: The document is noted.

Agreement:
- The TPs in section 2 of R1-1801192 for 38.213 are endorsed.

R1-1800030	Correction on RMSI configurations	Huawei, HiSilicon
R1-1800080	Remaining details of RMSI	ZTE, Sanechips
R1-1800993	Remaining issues for RMSI	MediaTek Inc.

Revision of R1-1800150
R1-1800174 Discussion on Remaining Minimum System Information vivo
R1-1800229 On Remaining Issues on RMSI CATT
R1-1800275 Remaining issues of Remaining minimum system information Spreadtrum Communications
R1-1800298 Remaining details of RMSI design Intel Corporation
R1-1800351 RMSI delivery and CORESET configuration LG Electronics
R1-1800399 Correction on RMSI CORESET configuration Lenovo, Motorola Mobility
R1-1800407 Correction on RMSI CORESET configuration ETRI
R1-1800414 Corrections on Remaining Minimum System Information Samsung
R1-1800539 Discussion on search space design for RMSI CORESET CMCC
R1-1800651 Remaining issues on Remaining minimum system information NTT DOCOMO, INC.
R1-1800804 On Remaining System Information Delivery Nokia, Nokia Shanghai Bell
R1-1800848 Remaining system information delivery consideration Qualcomm Incorporated
R1-1800894 Remaining details on remaining minimum system information Ericsson

7.1.2.3 Other system information delivery

R1-1801014 Summary on A.I. 7.1.2.3: Remaining details on other system information delivery Samsung
Decision: The document is noted.

Proposals:
For broadcast OSI PDCCH and paging PDCCH [for idle UEs], the search space for OSI is defined following the same set of aggregation levels & the number of decoding candidates as those for RMSI PDCCH
- The corresponding number of candidates per AL for broadcast OSI PDCCH and for paging PDCCH is fixed in RAN1 spec.
- Discuss further offline for the corresponding TP

Discuss further offline

Conclusion:
- Regarding the max payload size for OSI/RMSI/paging, RAN1 expects RAN2 to finalize the necessary information fields in OSI/RMSI/paging
  - RAN1 may discuss the max payload size once the set of information fields in OSI/RMSI/paging become mature
  - Note: there should a limit on the max payload size for each of OSI/RMSI/paging (e.g., in LTE, the max # of payload size is about 2000 bits)

Wednesday session
R1-1801086 Summary on A.I. 7.1.2.3: Remaining details on other system information delivery Samsung
Decision: The document is noted.

Agreements:
- For the broadcast OSI PDCCH and paging PDCCH configured by RMSI, the corresponding number of candidates per AL for broadcast OSI PDCCH and for paging PDCCH is fixed and the same as the ones for RMSI in TS38.213.
  - Inform RAN2 of above update – LS to be prepared R1-1801113 (including updating the table header)

Thursday session
R1-1801113 [DRAFT] LS on OSI and paging PDCCH configuration Samsung
Decision: The document is endorsed and final LS is approved in R1-1801189.

R1-1801142 Wednesday offline outcome on Remaining details on other system information delivery Samsung
Decision: The document is noted.

Agreement:
- The TP in section 3.3 in R1-1801142 impacting Section 10.1 of 38.213 is adopted.

R1-1800031 Remaining details on the common search space configuration for OSI Huawei, HiSilicon
R1-1800081 Remaining details of OSI Delivery ZTE, Sanechips
R1-1800151 Remaining issues for OSI MediaTek Inc.
R1-1800175 Remaining details on other system information delivery vivo
R1-1800299 CORESET configuration for OSI Intel Corporation
Withdrawn
R1-1800352 Other system information delivery LG Electronics

Withdrawn
R1-1800415 Corrections on Other System Information Delivery Samsung
R1-1800805 On Other System Information Delivery Nokia, Nokia Shanghai Bell
R1-1800895 Remaining details on other system information delivery Ericsson

7.1.3 Paging design

R1-1800994 Offline summary for AI 7.1.3 on Paging Huawei
Decision: The document is noted.

Proposal:
- NR supports a 1-bit information field in paging DCI to indicate whether the short message or scheduling information is carried in the paging DCI
  - Discuss further offline especially regarding whether RAN2 has decided to support sending of short paging messages e.g. systemInfoModification, cmas-Indication, and etws-Indication in NR

Further discussion on the size of DCI for paging

Further discussion on how to make the current paging DCI future compatible, e.g., via 1-bit explicit indication, via some reserved bit, via a different RNTI, etc.

Wednesday session
R1-1801084 Offline summary for AI 7.1.3 on Paging Huawei, HiSilicon
Decision: The document is noted.

Agreement**:**
- NR supports a 1-bit in paging DCI to indicate whether the short message only or scheduling information only is carried in the Paging DCI

Agreements:
- To adopt the TP for Section 5.1 of TS38.214:
  When receiving PDSCH for RMSI or broadcasted Other System Info or paging the UE may assume that the DM-RS port of PDSCH is quasi co-located with the associated SS/PBCH block with respect to [spatial RX parameters].

Discuss further offline – especially regarding whether there is additional RRC impact or difference in RRC impact or not
Option 1- Proposals:
- For Type2-PDCCH common search space, PDCCH monitor occasion index is based on the actually transmitted SS/PBCH blocks *SSB-transmitted-SIB1* as indicated in SIB1

Option 2 - Proposals:
- "Association between SSB index and monitoring window of PDCCH containing a paging grant can be configured via RMSI.
- The default association between SSB index and monitoring window of PDCCH containing a paging grant is same as that between SSB index and RMSI monitoring window."

Thursday session
R1-1801146 Offline summary for AI 7.1.3 on Paging Huawei
Decision: The document is noted.

Agreements:
- The association between actual transmitted SSB and the monitoring window of PDCCH containing the Paging DCI and the broadcast OSI DCI can be respectively configured via RMSI.
  - It is up to RAN2 on how to do the above configuration. Send an LS to RAN2 (R1-1801248).
- The default association between SSB index and monitoring window of PDCCH containing a Paging DCI and a broadcast OSI DCI is same as that between SSB index and its RMSI monitoring window.

Friday session
R1-1801248 [Draft] Agreements on Paging Huawei
Decision: The document is endorsed and final LS is approved in R1-1801280.

R1-1801240 Text Proposal for Paging Huawei, HiSilicon
Decision: The document is noted. The TP is endorsed as follows (7.3.1.2.1, 38.212):
- PUCCH resource indicator – [2] bits as defined in section x.x of [5, TS38.213]

- PDSCH-to-HARQ_feedback timing indicator – [3] bits as defined in section x.x of [5, TS38.213]

If scrambled by P-RNTI, the following information is transmitted by means of the DCI format 1_0:

- Short Messages Indicator – 1 bit. This bit is used to indicate whether the short message only or scheduling information only is carried in the Paging DCI.

R1-1801261 Text proposal for paging Huawei, HiSilicon
Decision: The document is noted.

Agreement:

- The TP in section 2.2 (for section 10.1 of 38.213) of R1-1801261 is endorsed.

R1-1800032 On Paging configurations Huawei, HiSilicon
R1-1800082 Remaining details of Paging design ZTE, Sanechips
R1-1800152 Remaining issues for Paging MediaTek Inc.
R1-1800176 Remaining details on NR paging design vivo
R1-1800225 Reduced overhead paging design Sequans Communications
R1-1800231 Remaining Issues on NR Paging Channel CATT
R1-1800300 CORESET configuration for Paging Intel Corporation
Withdrawn
R1-1800348 On paging DCI design NEC
R1-1800353 Paging design in NR LG Electronics
R1-1800416 Corrections on Paging Design Samsung
R1-1800540 Discussion on Paging CORSET Design for NR CMCC
R1-1800652 Remaining issues on Paging design NTT DOCOMO, INC.
R1-1800726 Remaining details for NR paging Motorola Mobility, Lenovo
R1-1800806 Paging in NR Nokia, Nokia Shanghai Bell
R1-1800849 Paging design consideration Qualcomm Incorporated
R1-1800896 Remaining details on paging design Ericsson

7.1.4 Physical random access channel and random access procedure

R1-1800044 Working Assumption on Slot configuration Huawei, HiSilicon

7.1.4.1 PRACH formats

R1-1801049 Summary of Remaining details on PRACH formats Convida Wireless
Decision: The document is noted.

Agreement: Confirm the following working assumption with the following update:

- Number of time domain RACH occasions within a RACH slot
  - For preamble format (working assumption), at least the following # of occasions:
    - A1: 6
    - A2: 3
    - A3: 2
    - B4: 1
    - B1: 6 or 7
    - C0: ~~4~~6 or 7
    - C2: 2
    - A1/B1: 6 or 7
    - A2/B2: 3
    - A3/B3: 2
  - The value is not applicable (N/A) for format 0-3

Agreement:

- For the separate configuration of the number of PRACH transmission occasions FDMed in one-time instance for initial access, support:
  - The value range of the 2-bit RRC parameter *prach-FDM* is {1,2,4,8}

Proposals:
Confirm the following working assumption with the following update:
Working assumption:

- If the Semi-static UL/DL configuration is in RMSI~~, only PRACH occasions within the UL part is transmitted~~
  - UE assumes that RACH occasions configured in RMSI are not collided with DL transmission
    - Introducing start symbol(s) larger than 2 for a limited number of entries in the Configuration table.
- If the Semi-static UL/DL configuration is in OSI
  - Symbol index for the unpaired spectrum is also physical symbol index
  - UE assume that RACH occasions configured in RMSI are not collided with DL transmission
    - Introducing start symbol(s) larger than 2 for a limited number of entries in the Configuration table.

Discus further offline especially regarding checking whether or not there is a decision in RAN2 about the location of the semi-static configuration (RMSI vs. OSI), and if not, whether RAN1 should make a decision or not

Agreement:

- For RACH configuration table headings, update as follows:
  - Number of time domain PRACH occasions within a RACH slot

Working assumption:

For Random access configurations for FR1 and paired spectrum/SUL in case of long sequence PRACH, add the following configuration entries (shown with change marks in red):

- The actual PRACH configuration index is up to the editor:

Table 6.3.3.2-2: Random access configurations for FR1 and paired spectrum/SUL

PRACH Configuration Index	Preamble format	$n_{SFN} \bmod x = y$		Subframe number	Starting symbol	Number of PRACH slots within a subframe	Number of time domain PRACH occasions within a RACH slot
		x	y				
	0	4	1	1	-	-	-
	0	4	1	4	-	-	-
	0	4	1	7	-	-	-
	0	4	1	9	-	-	-
	0	8	1	1	-	-	-
	0	8	1	4	-	-	-
	0	8	1	7	-	-	-
	0	8	1	9	-	-	-
	0	16	1	1	-	-	-
	0	16	1	4	-	-	-
	0	16	1	7	-	-	-
	0	16	1	9	-	-	-
	1	4	1	1	-	-	-
	1	4	1	4	-	-	-
	1	4	1	7	-	-	-
	1	4	1	9	-	-	-
	1	8	1	1	-	-	-
	1	8	1	4	-	-	-
	1	8	1	7	-	-	-
	1	8	1	9	-	-	-
	1	16	1	1	-	-	-
	1	16	1	4	-	-	-
	1	16	1	7	-	-	-
	1	16	1	9	-	-	-
	3	4	1	1	-	-	-
	3	4	1	4	-	-	-
	3	4	1	7	-	-	-
	3	4	1	9	-	-	-
	3	8	1	1	-	-	-
	3	8	1	4	-	-	-
	3	8	1	7	-	-	-
	3	16	1	1	-	-	-
	3	16	1	4	-	-	-
	3	16	1	7	-	-	-
	3	16	1	9	-	-	-
	2	8	1	1	0	-	-
	2	16	1	1	0	-	-

Agreements:
For 38.211, Section 6.3.3.1, update the spec as:

- for $(L_{RA} + N_{CS})/3 \le d_u < 2L_{RA}/5$

$$
\begin{aligned}
n_{\text{shift}}^{\text{RA}} &= \lfloor (3d_u - L_{\text{RA}})/N_{\text{CS}} \rfloor \\
d_{\text{start}} &= 3d_u - L_{\text{RA}} + n_{\text{shift}}^{\text{RA}} N_{\text{CS}} \\
\bar{\bar{d}}_{\text{start}} &= 0 \\
\bar{\bar{\bar{d}}}_{\text{start}} &= 0 \\
n_{\text{group}}^{\text{RA}} &= \lfloor d_u / d_{\text{start}} \rfloor \\
\bar{n}_{\text{shift}}^{\text{RA}} &= \max\left(\left\lfloor \left(L_{\text{RA}} - 2d_u - n_{\text{group}}^{\text{RA}} d_{\text{start}}\right)/N_{\text{CS}} \right\rfloor, 0\right) \\
\bar{\bar{n}}_{\text{shift}}^{\text{RA}} &= 0 \\
\bar{\bar{\bar{n}}}_{\text{shift}}^{\text{RA}} &= 0
\end{aligned}
$$

Field Code Changed

- for $2L_{\text{RA}}/5 \le d_u \le (L_{\text{RA}} - N_{\text{CS}})/2$

$$
\begin{aligned}
n_{\text{shift}}^{\text{RA}} &= \lfloor (L_{\text{RA}} - 2d_u)/N_{\text{CS}} \rfloor \\
d_{\text{start}} &= 2(L_{\text{RA}} - 2d_u) + n_{\text{shift}}^{\text{RA}} N_{\text{CS}} \\
\bar{\bar{d}}_{\text{start}} &= 0 \\
\bar{\bar{\bar{d}}}_{\text{start}} &= 0 \\
n_{\text{group}}^{\text{RA}} &= \lfloor (L_{\text{RA}} - d_u)/d_{\text{start}} \rfloor \\
\bar{n}_{\text{shift}}^{\text{RA}} &= \max\left(\left\lfloor \left(3d_u - L_{\text{RA}} - n_{\text{group}}^{\text{RA}} d_{\text{start}}\right)/N_{\text{CS}} \right\rfloor, 0\right) \\
\bar{\bar{n}}_{\text{shift}}^{\text{RA}} &= 0 \\
\bar{\bar{\bar{n}}}_{\text{shift}}^{\text{RA}} &= 0
\end{aligned}
$$

Field Code Changed

Agreement: In 38.211, 6.3.3.2, update the spec as follows:

- Random access preambles can only be transmitted in the time ~~and frequency~~ resources given by the higher-layer parameter *PRACHConfigurationIndex* according to Table 6.3.3.2-2 depends on FR1 or FR2 and the spectrum type as defined in [TS38.101].

Tuesday session
R1-1801072 **Summary of Remaining details on PRACH formats** **Convida Wireless** (rev of R1-1801049)
Decision: The document is noted.

Proposals:

- In case when a RACH occasion collides, even partially, with DL part indicated in the semi-static UL/DL configuration,
  - Alt 1: the RACH occasion is dropped
  - Alt 2: the UE is not expected to handle such a case

Companies are encouraged to check the Table 6.3.3.2-2 in R1-1801072

Thursday session
R1-1801117 **Summary of Remaining details on PRACH formats** **Convida Wireless**
Decision: The document is noted.

Agreements: For RACH configuration for FR1 and paired spectrum:

- More priority to Ax and Bx formats compared to Ax/Bx
- Change from subframe 5 to subframe 4 for RACH configuration period 40,80,160ms
- Regarding the number of RACH occasions within one RACH configuration period.
  - FDM is used to achieve 8 RACH occasions within one RACH configuration period
  - In addition, for preamble formats A1, A2 and for periodicities 80ms, 160ms at least one configuration supports 8 RACH occasions.
    - Note: This can be done by either have more subframes allocated or to have more frames allocated

Friday session
R1-1801243 **Summary of Remaining details on PRACH formats** **Convida Wireless**
Decision: The document is noted.

Agreement:

- Adopt the following TP to Section 5.3 of 38.211:

----------start of TP to Section 5.3 of 38.211----------

The time-continuous signal $s_l^{(p,\mu)}(t)$ on antenna port p for PRACH is defined by

$$s_l^{(p,\mu)}(t) = \sum_{k=0}^{L_{\text{RA}}-1} a_k^{(p,\text{RA})} \cdot e^{j2\pi\left(k+Kk_0+\bar{k}\right)\Delta f_{\text{RA}}\left(t-N_{\text{CP},l}^{\text{RA}}T_c\right)}$$

$$K = \Delta f / \Delta f_{\text{RA}}$$

Field Code Changed

$$s_l^{(p,\mu)}(t) = \sum_{k=0}^{L_{\text{RA}}-1} a_k^{(p,\text{RA})} \cdot e^{j2\pi\left(k+K\ k_1+\bar{k}\right)\Delta f_{\text{RA}}\left(t-N_{\text{CP},l}^{\text{RA}}T_c\right)}$$

$$K = \Delta f / \Delta f_{\text{RA}}$$

$$k_1 = k_0^{\mu} + n_{RB}^{ul-BWP-offset} N_{sc}^{RB} + n_{RB}^{RA-offset} N_{sc}^{RB} + n_{RA} N_{RB}^{RA} N_{sc}^{RB} - N_{grid}^{size,\mu} N_{sc}^{RB} / 2$$

where $0 \le t < \left(N_{\text{u}} + N_{\text{CP},l}^{\text{RA}}\right)T_{\text{c}}$ and $\bar{k}$ is given by clause 6.3.3. The value of Δf is obtained from the subcarrier spacing configuration μ of the initial active uplink BWP. The value of k_0^{μ} is obtained from the higher-layer parameter *k0* and is such that the lowest numbered subcarrier in a common resource block for subcarrier spacing configuration μ coincides with the lowest numbered subcarrier in a common resource block for any subcarrier spacing configuration less than μ. The value $n_{RB}^{ul-BWP-offset}$ is the lowest numbered RB of initial active uplink BWP based on common resource block indexing and is derived by the higher-layer parameter *initial-Uplink-Bandwidth-Part*. The value $n_{RB}^{RA-offset}$ is the frequency offset of lowest PRACH transmission occasion in frequency domain with respect to PRB 0 of initial active UL BWP(s) given by the higher-layer parameter *prach-frequency-start*, the value n_{RA} is the PRACH transmission occasion index in frequency domain for a given PRACH transmission occasion in one time instance as given by clause 6.3.3.2, and the value N_{RB}^{RA} is the number of resource blocks occupied and is given by the parameter allocation expressed in number of RBs for PUSCH in Table 6.3.3.2-1.

----------end of TP to Section 5.3 of 38.211----------

Agreements:

- The values of $\bar{k}$ in table 6.3.3.2-1 of 38.211 are confirmed with the following updates:

----------start of TP to Section 6.3.3.2 of 38.211----------

Table 6.3.3.2-1: Supported combinations of Δf^{RA} and Δf, and the corresponding value of $\bar{k}$.

L_{RA}	Δf^{RA} for PRACH	Δf for PUSCH	Allocation expressed in number of RBs for PUSCH	$\bar{k}$
839	1.25	15	6	7~~12~~
839	1.25	30	3	1~~12~~
839	1.25	60	2	133~~156~~
839	5	15	24	12
839	5	30	12	10~~12~~
839	5	60	6	7~~12~~
139	15	15	12	2
139	15	30	6	2
139	15	60	3	2
139	30	15	24	2
139	30	30	12	2
139	30	60	6	2
139	60	60	12	2
139	60	120	6	2
139	120	60	24	2
139	120	120	12	2

----------end of TP to Section 6.3.3.2 of 38.211----------

Agreement:

- To adopt the following for section 6.3.3.2 of 38.211

---------- text proposal, 38.211 section 6.3.3.2 ----------

Table 6.3.3.2-2: Random access configurations for FR1 and paired spectrum/SUL (short sequence)

PRACH Configuration Index	Preamble format	$n_{SFN} \bmod x = y$		Subframe number	Starting symbol	Number of PRACH slots within a subframe	Number of PRACH occasions within a RACH slot
		x	y				
	A1	16	0	4,9	0	1	6
	A1	16	1	4	0	2	6
	A1	8	0	4,9	0	1	6
	A1	8	1	4	0	2	6
	A1	4	0	4,9	0	1	6
	A1	4	0	4	0	2	6
	A1	4	1	4,9	0	1	6
	A1	2	0	4,9	0	1	6
	A1	2	0	1	0	2	6
	A1	2	0	4	0	2	6
	A1	2	0	7	0	2	6
	A1	1	0	1	0	2	6
	A1	1	0	4	0	1	6
	A1	1	0	7	0	2	6
	A1	1	0	1,6	0	1	6
	A1	1	0	2,7	0	2	6
	A1	1	0	4,9	0	1	6
	A1	1	0	1,4,7	0	2	6
	A1	1	0	0,2,4,6,8	0	2	6
	A1	1	0	0,1,2,3,4,5,6,7,8,9	0	2	6
	A1	1	0	1,3,5,7,9	0	2	6
	A2	16	1	2,6,9	0	1	3
	A2	16	1	4	0	2	3
	A2	8	1	2,6,9	0	1	3
	A2	8	1	4	0	2	3
	A2	4	0	2,6,9	0	1	3
	A2	4	0	4	0	2	3
	A2	2	1	2,6,9	0	1	3
	A2	2	0	1	0	2	3
	A2	2	0	4	0	2	3
	A2	2	0	7	0	2	3
	A2	1	0	1	0	2	3
	A2	1	0	4	0	1	3
	A2	1	0	7	0	2	3
	A2	1	0	1,6	0	1	3
	A2	1	0	2,7	0	2	3
	A2	1	0	4,9	0	1	3
	A2	1	0	1,4,7	0	2	3
	A2	1	0	0,2,4,6,8	0	2	3
	A2	1	0	0,1,2,3,4,5,6,7,8,9	0	2	3
	A2	1	0	1,3,5,7,9	0	2	3
	A3	16	1	4,9	0	1	2
	A3	8	1	4,9	0	1	2
	A3	4	0	4,9	0	1	2
	A3	16	1	4	0	2	2
	A3	8	1	4	0	2	2
	A3	4	0	4	0	2	2
	A3	2	1	2,6,9	0	2	2
	A3	2	0	1	0	2	2
	A3	2	0	4	0	2	2
	A3	2	0	7	0	2	2
	A3	1	0	1	0	2	2
	A3	1	0	4	0	1	2
	A3	1	0	7	0	2	2
	A3	1	0	1,6	0	1	2
	A3	1	0	2,7	0	2	2
	A3	1	0	4,9	0	1	2

	A3	1	0	1,4,7	0	2	2
	A3	1	0	0,2,4,6,8	0	2	2
	A3	1	0	0,1,2,3,4,5,6,7,8,9	0	2	2
	A3	1	0	1,3,5,7,9	0	2	2
	B1	16	0	4,9	0	1	7
	B1	16	1	4	0	2	7
	B1	8	0	4,9	0	1	7
	B1	8	1	4	0	2	7
	B1	4	0	4,9	0	1	7
	B1	4	0	4	0	2	7
	B1	4	1	4,9	0	1	7
	B1	2	0	4,9	0	1	7
	B1	2	0	1	0	2	7
	B1	2	0	4	0	2	7
	B1	2	0	7	0	2	7
	B1	1	0	1	0	2	7
	B1	1	0	4	0	1	7
	B1	1	0	7	0	2	7
	B1	1	0	1,6	0	1	7
	B1	1	0	2,7	0	2	7
	B1	1	0	4,9	0	1	7
	B1	1	0	1,4,7	0	2	7
	B1	1	0	0,2,4,6,8	0	2	7
	B1	1	0	0,1,2,3,4,5,6,7,8,9	0	2	7
	B1	1	0	1,3,5,7,9	0	2	7
	B4	16	0	4,9	0	2	1
	B4	16	1	4	0	2	1
	B4	8	0	4,9	0	2	1
	B4	8	1	4	0	2	1
	B4	4	0	4,9	0	2	1
	B4	4	0	4	0	2	1
	B4	4	1	4,9	0	2	1
	B4	2	0	4,9	0	2	1
	B4	2	0	1	0	2	1
	B4	2	0	4	0	2	1
	B4	2	0	7	0	2	1
	B4	1	0	1	0	2	1
	B4	1	0	4	0	2	1
	B4	1	0	7	0	2	1
	B4	1	0	1,6	0	2	1
	B4	1	0	2,7	0	2	1
	B4	1	0	4,9	0	2	1
	B4	1	0	1,4,7	0	2	1
	B4	1	0	0,2,4,6,8	0	2	1
	B4	1	0	0,1,2,3,4,5,6,7,8,9	0	2	1
	B4	1	0	1,3,5,7,9	0	2	1
	C0	8	1	4	0	2	7
	C0	4	0	4	0	2	7
	C0	4	1	4,9	0	1	7
	C0	2	0	4,9	0	1	7
	C0	2	0	1	0	2	7
	C0	2	0	4	0	2	7
	C0	2	0	7	0	2	7
	C0	1	0	1	0	2	7
	C0	1	0	4	0	1	7
	C0	1	0	7	0	2	7
	C0	1	0	1,6	0	1	7
	C0	1	0	2,7	0	2	7
	C0	1	0	4,9	0	1	7
	C0	1	0	1,4,7	0	2	7
	C0	1	0	0,2,4,6,8	0	2	7
	C0	1	0	0,1,2,3,4,5,6,7,8,9	0	2	7

	C0	1	0	1,3,5,7,9	0	2	7
	C2	16	1	4,9	0	1	2
	C2	8	1	4,9	0	1	2
	C2	4	0	4,9	0	1	2
	C2	16	1	4	0	2	2
	C2	8	1	4	0	2	2
	C2	4	0	4	0	2	2
	C2	2	1	2,6,9	0	2	2
	C2	2	0	1	0	2	2
	C2	2	0	4	0	2	2
	C2	2	0	7	0	2	2
	C2	1	0	1	0	2	2
	C2	1	0	4	0	1	2
	C2	1	0	7	0	2	2
	C2	1	0	1,6	0	1	2
	C2	1	0	2,7	0	2	2
	C2	1	0	4,9	0	1	2
	C2	1	0	1,4,7	0	2	2
	C2	1	0	0,2,4,6,8	0	2	2
	C2	1	0	0,1,2,3,4,5,6,7,8,9	0	2	2
	C2	1	0	1,3,5,7,9	0	2	2
	A1/B1	2	0	4,9	0	1	7
	A1/B1	2	0	4	0	2	7
	A1/B1	1	0	1	0	2	7
	A1/B1	1	0	4	0	1	7
	A1/B1	1	0	7	0	2	7
	A1/B1	1	0	1,6	0	1	7
	A1/B1	1	0	4,9	0	1	7
	A1/B1	1	0	1,4,7	0	2	7
	A1/B1	1	0	0,2,4,6,8	0	2	7
	A1/B1	1	0	0,1,2,3,4,5,6,7,8,9	0	2	7
	A2/B2	2	1	2,6,9	0	1	3
	A2/B2	2	0	4	0	2	3
	A2/B2	1	0	1	0	2	3
	A2/B2	1	0	4	0	1	3
	A2/B2	1	0	7	0	2	3
	A2/B2	1	0	1,6	0	1	3
	A2/B2	1	0	4,9	0	1	3
	A2/B2	1	0	1,4,7	0	2	3
	A2/B2	1	0	0,2,4,6,8	0	2	3
	A2/B2	1	0	0,1,2,3,4,5,6,7,8,9	0	2	3
	A3/B3	2	1	2,6,9	0	2	2
	A3/B3	2	0	4	0	2	2
	A3/B3	1	0	1	0	2	2
	A3/B3	1	0	4	0	1	2
	A3/B3	1	0	7	0	2	2
	A3/B3	1	0	1,6	0	1	2
	A3/B3	1	0	4,9	0	1	2
	A3/B3	1	0	1,4,7	0	2	2
	A3/B3	1	0	0,2,4,6,8	0	2	2
	A3/B3	1	0	0,1,2,3,4,5,6,7,8,9	0	2	2

---------- end text proposal, 38.211 section 6.3.3.2 ----------

Agreement:
- NR supports PRACH format 0-3 for unpaired spectrum FR1.

Agreements:
- Revisit the agreement made in RAN1#91 regarding the start symbol index for preamble format 2 with the following change:

- Start symbol Index (in Msg1 SCS for short sequence and 15kHz for long sequence):
  - Values {0,7~~6~~} for format 2

Agreement:

- To adopt the following TP to section 6.3.3.2 of 38.211
  - The ones in red color are working assumption

---------- text proposal, 38.211 section 6.3.3.2 ----------

Table 6.3.3.2-3: Random access configurations for FR1 and unpaired spectrum (long sequence)

PRACH Configuration Index	Preamble format	$n_{SFN} \bmod x = y$		Subframe number	Starting symbol	Number of PRACH slots within a subframe	Number of PRACH occasions within a RACH slot
		x	y				
0	0	16	1	9	0	-	-
	0	8	1	9	0	-	-
	0	4	1	9	0	-	-
	0	2	0	9	0	-	-
	0	2	1	9	0	-	-
	0	2	0	4	0	-	-
	0	2	1	4	0	-	-
	0	1	0	9	0	-	-
	0	1	0	8	0	-	-
	0	1	0	7	0	-	-
10	0	1	0	6	0	-	-
	0	1	0	5	0	-	-
	0	1	0	4	0	-	-
	0	1	0	3	0	-	-
	0	1	0	2	0	-	-
	0	1	0	1	0	-	-
	0	1	0	4,9	0	-	-
	0	1	0	3,8	0	-	-
	0	1	0	2,7	0	-	-
	0	1	0	8,9	0	-	-
20	0	1	0	4,8,9	0	-	-
	0	1	0	3,4,9	0	-	-
	0	1	0	3,4,8	0	-	-
	0	1	0	7,8,9	0	-	-
	0	1	0	3,4,8,9	0	-	-
	0	1	0	6,7,8,9	0	-	-
	0	1	0	1,4,6,9	0	-	-
	0	1	0	1,6	0		
	1	1	0	1	7	-	-
	0	1	0	1,3,5,7,9	0	-	-
30	1	16	1	7	0	-	-
	1	8	1	7	0	-	-
	1	4	1	7	0	-	-
	1	2	0	7	0	-	-
	1	2	1	7	0	-	-
	1	1	0	7	0	-	-
	2	16	1	6	0	-	-
	2	8	1	6	0	-	-
	2	4	1	6	0	-	-
	2	2	0	6	7	-	-
40	2	2	1	6	7	-	-
	2	1	0	6	7	-	-
	3	16	1	9	0	-	-
	3	8	1	9	0	-	-
	3	4	1	9	0	-	-
	3	2	0	9	0	-	-
	3	2	1	9	0	-	-
	3	2	0	4	0	-	-

	3	2	1	4	0	-	-
	3	1	0	9	0	-	-
50	3	1	0	8	0	-	-
	3	1	0	7	0	-	-
	3	1	0	6	0	-	-
	3	1	0	5	0	-	-
	3	1	0	4	0	-	-
	3	1	0	3	0	-	-
	3	1	0	2	0	-	-
	3	1	0	1	0	-	-
	3	1	0	1,6	0	-	-
	3	1	0	1,6	7	-	-
60	3	1	0	4,9	0	-	-
	3	1	0	3,8	0	-	-
	3	1	0	2,7	0	-	-
	3	1	0	8,9	0	-	-
	3	1	0	4,8,9	0	-	-
	3	1	0	3,4,9	0	-	-
	3	1	0	7,8,9	0	-	-
	3	1	0	3,4,8,9	0	-	-
	3	1	0	6,7,8,9	0	-	-
	3	1	0	1,4,6,9	0	-	-
70	3	1	0	1,3,5,7,9	0	-	-

---------- end text proposal, 38.211 section 6.3.3.2 ----------

R1-1801255 **Text Proposal for PRACH formats** **Convida Wireless**
Decision: The document is noted.

R1-1800063 On remaining details of RACH Preambles Huawei, HiSilicon
R1-1800083 Remaining details of PRACH Resource Configuration ZTE, Sanechips
R1-1800164 On PRACH formats MediaTek Inc.
R1-1800232 Further details on NR RACH format CATT
R1-1800301 NR PRACH formats Intel Corporation
R1-1800354 Discussion on PRACH preamble format details LG Electronics
R1-1800417 Corrections on PRACH Formats Samsung
R1-1800541 Discussion on PRACH configuration table CMCC
R1-1800556 Remaining details on PRACH formats Nokia, Nokia Shanghai Bell
R1-1800653 Remaining issues on PRACH formats NTT DOCOMO, INC.
R1-1800727 Physical channel design for 2-step RACH Motorola Mobility, Lenovo
R1-1800850 Remaining details on PRACH formats Qualcomm Incorporated
R1-1800897 Remaining details on RACH formats and configurations Ericsson

7.1.4.2 RACH procedure

R1-1801040 **Summary of remaining details on RACH procedure** **Nokia, Nokia Shanghai Bell**
Decision: The document is noted.

Proposals:
- Support configurations where all FDMed RACH occasions in the same time-domain RACH occasion are associated to one set of SSBs or all the SSBs.
  - No additional RRC parameters
  - Mapping rule was already defined in RAN1#91, along with parameters prach-FDM and SSB-per-rach-occasion determine the SSBs mapped to one time-domain RACH occasion.
- Offline discussion on the corresponding TP

Agreements:
- Support cyclically mapping the actually transmitted SS/PBCH blocks and ROs within a period
  - FFS the definition of the period
  - FFS whether or not there a case of ROs that are not enough for a complete association with all the actually transmitted SS/PBCH blocks and if so, how to handle

Agreement: Confirm the following working assumption
- Working assumption:
  - When multiple SS block are associated with one RACH transmission occasion, the preamble indices for CBRA for each SS block are mapped consecutively

Proposal:
- For the association of SS block with RACH transmission occasion, the indexing order of FDMed RACH transmissions occasions is from the lowest one to the highest one in frequency domain
  - Impact of BWP

Proposals:
- For SSB-per-rach-occasion < 4: CB-preambles-per-SSB is selected from the set of values 4*N, with N=1, …, floor(16/SSB-per-rach-occasion)
- For SSB-per-rach-occasion ≥ 4: CB-preambles-per-SSB is selected from the set of values N, with N=1, …, floor(64/SSB-per-rach-occasion)

Proposal:
- NR supports the following number of SSBs per RACH occasion: {1/8, 1/4, 1/2, 1, 2, 4, 8, 16}

Agreement:
- NR supports maximum TA command value of 3846 for RAR

Agreement:
- Confirm the working assumption that L2 = 500us as the MAC processing latency during RACH procedure.

Tuesday session
R1-1801097 **Summary of remaining details on RACH procedure** **Nokia, Nokia Shanghai Bell** (rev of **R1-1801040**)
Decision: The document is noted.

Agreements:
- For the cyclic mapping of association between ROs and all the actually transmitted SS/PBCH blocks, if there are leftover ROs after an integer number of cycles within the defined period,
  - no SS/PBCH blocks are mapped to these leftover ROs

Agreements:
- To add the following text in Section 8.1 of 38.213:
  Actually transmitted SS/PBCH blocks are associated to RACH transmission according in the following order:
  - First in increasing preamble indices within a single RACH occasion.
  - Then in increasing number of frequency multiplexed RACH occasion.
  - Then in increasing number of time-domain RACH occasion within a RACH slot.
  - Then in increasing number of RACH slots.

  The number of SS/PBCH blocks associated to one RACH occasion is determined by parameter SSB-per-rach-occasion. If SSB-per-rach-occasion is less than one, one SS/PBCH is mapped to 1/SSB-per-rach-occasion consecutive RACH occasions.

Agreement**:**
- NR supports the following number of SSBs per RACH occasion: {1/8, 1/4, 1/2, 1, 2, 4, 8, 16}
  - Note: This agreement includes the possibility that FDMed RACH occasions are configured to support configurations where all FDMed RACH occasions get mapped to one set of SSBs

Agreements:
- For long sequence preamble formats, the parameter DELTA_PREAMBLE is given by the following table:

Preamble Format	DELTA_PREAMBLE values
0	0 dB
1	-3 dB
2	-6 dB
3	0 dB

Proposals:

- Alt1: Time period for SSB to RO synchronization is the PRACH configuration period
  - Supported by: Qualcomm, Mediatek, Ericsson, Motorola
- Alt2: Time period for SSB to RO synchronization is integer multiple of PRACH configuration period long enough to map all actually transmitted SSBs
  - Supported by: NTT DOCOMO, ZTE, Ericsson,
- Alt3: Time period for SSB to RO synchronization is the max of the PRACH configuration period and the SSB burst period
  - Supported by: LGE, Nokia
- Alt4: Time period for SSB to RO synchronization is the RMSI TTI (80 ms or 160 ms)
  - Supported by: ZTE
- Alt5: Time period for SSB to RO synchronization is the 160 ms
  - Supported by: Mediatek, Huawei, Nokia, CATT, ZTE

Conclusion: Continue the discussion till next meeting.

Thursday session

R1-1801169 **Summary of Remaining Details on RACH Procedure Nokia, Nokia Shanghai Bell**

Decision: The document is noted.

Agreements**:**

- The indexing order of FDMed RACH transmissions occasions within the initial active UL BWP is from the lowest one to the highest one in frequency domain
- To adopt the following TP in Section 6.3.3.2 of 38.211:

----------start of TP----------

Random access preambles can only be transmitted in the time ~~and frequency~~ resources given by the higher-layer parameter *PRACHConfigurationIndex* according to Table 6.3.3.2-2 depends on FR1 or FR2 and the spectrum type as defined in [TS38.101]. The random access preambles can be transmitted in the frequency resources given by parameter prach-FDM. The indexing order of the FDMed RACH transmission occasions within the initial active UL BWP, is from the lowest one to the highest one in frequency domain. The frequency multiplexed RACH occasions within the initial active UL BWP in one time instance are indexed according to:

$$n_{s,f} = 0, 1, \ldots, prach\ FDM - 1$$

----------end of TP----------

Agreements:

- For SSB-per-rach-occasion {1/8, 1/4, ½, 1, 2}: CB-preambles-per-SSB is selected from the set of values 4*N, with N=1, …, floor(16/max(1, SSB-per-rach-occasion))
- For SSB-per-rach-occasion {4, 8, 16}: CB-preambles-per-SSB is selected from the set of values N, with N=1, …, floor(64/SSB-per-rach-occasion)

Agreement: To adopt the following TP for Section 8.1 of 38.213:

- Editors to update/define the termilogy of "UL Tx beam" as necessary

Prior to initiation of the physical random access procedure, Layer 1 shall receive from higher layers a set of SS/PBCH block indexes and shall provide to higher layers a corresponding set of RSRP measurements.
Prior to retransmission of a PRACH preamble, if a UE plans to switch its UL TX beam, layer 1 shall notify upper layer to suspend power ramping counter.
Prior to initiation of the physical random access procedure, Layer 1 shall receive the following information from the higher layers

Agreement:
DELTA_PREAMBLE for short sequence preambles is given by:

A1	8 + 3·μ dB
A2	5 + 3·μ dB
A3	3 + 3·μ dB
B1	8 + 3·μ dB
B2	5 + 3·μ dB
B3	3 + 3·μ dB
B4	3·μ dB
C0	11 + 3·μ dB
C2	5 + 3·μ dB

where μ is the sub-carrier spacing configuration.

Conclusion:
- RAN1 does not see the need to specify a shorter TA field in the RAR that is different for short preamble sequences and for long preamble sequences in Rel-15

Friday

Agreement: RAN1 agrees that N_TA_offset is the same with and without NR-LTE co-existence for TDD.
- LS reply to R1-1800012 (R4-174502) to be prepared in R1-1801260.

R1-1801260 [draft] LS on acquisition of TA_Offset for Uplink transmission Intel
Decision: The document is endorsed and final LS is approved in R1-1801282.

R1-1800064 On the remaining details of RACH Procedures Huawei, HiSilicon
R1-1800084 Remaining details of RACH procedure ZTE, Sanechips
R1-1800124 Discussion on ambiguity about TA determination in case of multiple configured UL BWPs with different numerologies Fujitsu
R1-1800165 On RACH procedure MediaTek Inc.
R1-1800177 Text proposal on TS38.213 RACH procedure vivo
R1-1800226 Reduced RA for paged UEs Sequans Communications
R1-1800233 Further details on NR 4-step RA Procedure CATT
R1-1800302 NR RACH procedures Intel Corporation
R1-1800355 RACH Procedure LG Electronics
R1-1800418 Corrections on RACH Procedure Samsung
R1-1800557 Remaining details on PRACH procedure Nokia, Nokia Shanghai Bell
R1-1800594 Remaining details of RACH Procedure Sony
R1-1800598 RACH configuration of Multiple Msg1 transmissions before the end of a monitored RAR window InterDigital, Inc.
R1-1800607 Remaining details on RACH timing for NR ITL
R1-1800610 Remaining issues on RACH preamble in NR Sharp
R1-1800647 RACH procedure with BWP III
R1-1800654 Remaining issues on RACH procedure NTT DOCOMO, INC.
R1-1800728 Remaining details on random access procedure Motorola Mobility, Lenovo
R1-1800851 Remaining details on RACH procedure Qualcomm Incorporated
R1-1800898 Remaining details on the RACH procedure Ericsson

7.1.5 Mobility procedure

7.1.5.1 Measurement for mobility management

R1-1801009 Summary of Discussion for NR RRM measurements Intel
Decision: The document is noted.

Discuss further offline whether or not to have separate definitions for L1-RSRP vs. L3-RSRP in 38.215.

Agreements:
- To include the following correction (in red) in the RRC parameter update to RAN2:

Measurement-BW	Allowed mMeasurement BW for CSI-RS			UE specific	38.331	To be included in CSI-RS-Config-Mobility. Contains: CSI-RS-measurementBW-size and CSI-RS-measurement-BW-start. Configured per carriercell, where a common set of values are assigned across all the resources for a given cell.
Common-PRB-Grid-ofset	Information to define common PRB grid for CSI-RS sequence generation	[0,1,2, …,276*4]	NA	UE specific	38.331	Contained in CSI-RS-Config-Mobility. Information to define common PRB grid for CSI-RS sequence generation. Configured per carriercell, where a common set of values are assigned across all the resources for a given cell. Corresponds to an offset (in terms of number of subcarriers in CSI-RS numerology) between PRB 0 for common PRB indexing and a reference location – the reference location is the lowest PRB of the cell-defining SSB

Agreement: In 38.211, Section 7.4.3.1, update the specs as follows:

- The UE may assume that SS/PBCH blocks transmitted with the same block index on the same center frequency location are quasi co-located with respect to Doppler spread, Doppler shift, average gain, average delay, and spatial Rx parameters. The UE shall not assume quasi co-location for any other SS/PBCH block transmissions.

Wednesday session
R1-1801099 Summary of Tuesday Offline Discussion for NR RRM measurements Intel Corporation
Decision: The document is noted.

Agreements:

- If associated SSB is not configured:
  - UE is required to perform measurements based on CSI-RS(s), even if SS/PBCH block(s) with corresponding cell ID are not detected.
  - UE shall base the timing of the CSI-RS resource(s) to the timing of the serving cell.
- If associated SSB is configured:
  - UE may base the timing of the CSI-RS resource(s) to the timing of the cell, given by the *Cell_ID* of the CSI-RS resource configuration.
  - Additionally, if the associated SS/PBCH block is configured, the higher layer parameter *qcled-SSB* further indicates whether or not the associated SS/PBCH block and the CSI-RS resource(s) are quasi co-located with the associated SS/PBCH block with respect to [spatial RX parameters].
- Send LS (to be prepared in R1-1801118) to RAN4 regarding the above agreements (including the context of the above agreements). RAN1 recommends RAN4 to capture the agreements accordingly in 38.133.

Conclusion:

- For inter-frequency measurement, associated SSB may or may not be configured for CSI-RS resources.
  - No spec impact

Agreements:

- To adopt the following TP for 5.1.3 of 38.215:

~~If higher-layers indicate certain measurement time resource(s), then NR Carrier RSSI is measured from the indicated OFDM symbols of the indicated slots.~~ If indicated by higher-layers, for a half-frame with SS/PBCH blocks the NR Carrier RSSI is measured from OFDM symbols of the indication slots, and the OFDM symbol are indicated by Table 5.1.3-1.

Table 5.1.3-1: NR Carrier RSSI measurement symbols

OFDM signal indication *SS-RSSI-MeasurementSymbolConfig*	Symbol indexes
0	{0,1}
1	{0,1,2,…,10,11}
2	{0,1,2,…, 5}
3	{0,1,2,…., 7}

If higher-layers indicate certain SS/PBCH blocks for performing SS-RSRQ measurements, then SS-RSRP~~RSRQ~~ is measured only from the indicated set of SS/PBCH block(s).

Agreements:

- Remove the parameter value 240 kHz SCS for CSI-RS for L3 mobility from the RRC parameter table.
  - No change on the bitwidth of the RRC parameter

Thursday session

R1-1801118 **[DRAFT] LS on CSI-RS based RRM** **Intel**

Decision: The document is noted, and endorsed with the update "The value of N2 is still under discussion in RAN1" to "N2=64". The final LS is approved in R1-1801190.

R1-1801181 **Summary of Thursday Offline Discussion for NR RRM measurements** **Intel Corporation**

Decision: The document is noted.

Agreement:

- The same default SS-RSSI measurement time resources are applicable for all SS-RSRQ measurements in the same carrier.

To continue discussion till next meeting. Aim to conclude in early week of next RAN1 meeting

- For FDD:
  - Accept RAN4 recommended default SS-RSSI measurement time resources
  - FFS: whether or not the UE is required to measure all SS-RSSI measurement time resources.
- For TDD
  - FFS: whether or not the UE is required to measure all SS-RSSI measurement time resources.
  - Down-select from the following alternatives:
    - Alt 1: a subset of OFDM symbol of the slots that contain detected SSB.
      - The subset of OFDM symbols are:
        - Option 1) first 12 OFDM symbols
        - Option 2) first 5 OFDM symbol in the half slot that SSB was detected
        - Option 3) all OFDM symbols before a detected SSB in each half slot that contains the detected SSB
        - Option 4) 2 OFDM symbols
        - Option 5) First 1 OFDM symbol for Case A & B, first 2 symbol for Case C & D, first 4 symbol for Case E (case A, B, C, D, E are SS/PBCH patterns for different bands)
        - Option 6) All symbols excluding the OFDM symbol corresponding to the detected SSB
    - Alt 2: a set of OFDM symbols relative to the detected SSB
    - Alt 3: RAN4 recommendation
    - Alt 4: RAN4 recommendation with the exclusion of resources where slots that do not carry detected SSB

Agreement:

- Agree to the following changes to RRC parameter, CSI-RS-measurementBW-size:

CSI-RS-measurementBW-size	New	Allowed CSI-RS-measurementBW-size	Size of the measurement BW in PRBs	24, 48, 96, 192, ~~268~~264	NA	UE specific	38.331	Contained in Measurement-BW. PRBs in CSI-RS numerology

Agreement:

- Adopt the following corrections to the Common-PRB-Grid-offset parameter description and down-select on the value range of common-prb-grid-offset depending on the correct intent.

Common-PRB-Grid-offset	Information to define common PRB grid for CSI-RS sequence generation	[0,1,2, …,276*4*12]	NA	UE specific	38.331	Contained in CSI-RS-Config-Mobility. Information to define common PRB grid for CSI-RS sequence generation. Configured per cell, where a common set of values are assigned across all the resources for a given cell. Corresponds to an offset (in terms of number of subcarriers in CSI-RS numerology) between PRB 0 for common PRB indexing and a reference location – the reference location is the lowest PRB of the cell-defining SSB

Agreements:

- Regarding previous agreements:
  - If associated SSBs are not configured for CSI-RS, maximum N2>=1 number of CSI-RS resources can be configured per frequency layer
    - In this case, UE may assume that the carrier is synchronized with the serving cell.
    - FFS UE is not required to perform measurement based on CSI-RS if the corresponding cell ID is not detected
- Adopt:
  - N2 = 64
  - FFS whether CSI-RS resources associated with and without SSB be configured in the same frequency layer.

Friday session
R1-1801252 Summary of Discussion for NR RRM measurements Intel

Agreement:

- To adopt the following TP for 5.1.1 of 38.215

----------start of TP for 5.1.1 of 38.215----------

Definition	SS reference signal received power (SS -RSRP) is defined as the linear average over the power contributions (in [W]) of the resource elements that carry secondary synchronization signals (SS). The measurement time resource(s) for SS-RSRP are confined within SS/PBCH Block Measurement Time Configuration (SMTC) window duration. If SS-RSRP is used for L1-RSRP as configured by reporting configurations as defined in 38.214 [6], the measurement time resources(s) restriction by SMTC window duration is not applicable. For SS-RSRP determination demodulation reference signals for physical broadcast channel (PBCH) and, if indicated by higher layers, CSI reference signals in addition to secondary synchronization signals may be used. SS-RSRP using demodulation reference signal for PBCH or CSI reference signal shall be measured by linear averaging over the power contributions of the resource elements that carry corresponding reference signals taking into account power scaling for the reference signals as defined in 3GPP TS 38.213 [5]. If SS-RSRP is not used for L1-RSRP, the additional use of CSI reference signals for SS-RSRP determination demodulation reference signals is not applicable. SS-RSRP shall be measured only among the reference signals corresponding to SS/PBCH blocks with the same SS/PBCH block index and the same physical-layer cell identity. If SS-RSRP is not used for L1-RSRP and higher-layers indicate certain SS/PBCH blocks for performing SS-RSRP measurements, then SS-RSRP is measured only from the indicated set of SS/PBCH block(s). For frequency range 1, the reference point for the SS-RSRP shall be the antenna connector of the UE. For frequency range 2, SS-RSRP shall be measured based on the combined signal from antenna elements corresponding to a given receiver branch. For frequency range 1 and 2, if receiver diversity is in use by the UE, the reported SS-RSRP value shall not be lower than the corresponding SS-RSRP of any of the individual receiver branches.
Applicable for	If SS-RSRP is used for L1-RSRP, RRC_CONNECTED intra-frequency. Otherwise, RRC_IDLE intra-frequency, RRC_IDLE inter-frequency, RRC_INACTIVE intra-frequency, RRC_INACTIVE inter-frequency, RRC_CONNECTED intra-frequency, RRC_CONNECTED inter-frequency.

NOTE 1: The number of resource elements within the measurement period that are used by the UE to determine SS-RSRP is left up to the UE implementation with the limitation that corresponding measurement accuracy requirements have to be fulfilled.

NOTE 2: The power per resource element is determined from the energy received during the useful part of the symbol, excluding the CP.

----------end of TP for 5.1.1 of 38.215----------

R1-1801253 **Text Proposals based on agreements for RRM and RLM** **Intel**

R1-1800065 On the remaining details on NR RRM Huawei, HiSilicon
R1-1800085 Remaining details of RRM measurements ZTE, Sanechips
R1-1800143 Remaining issues and changes in RRM MediaTek Inc.
R1-1800178 Remaining issues on RRM measurement vivo
R1-1800234 On Remaining Issues on NR Mobility Management CATT
R1-1800303 Remaining details of RRM measurements Intel Corporation
R1-1800356 Remaining Details on L3 measurement and mobility management LG Electronics
R1-1800419 Corrections on Measurements for Mobility Management Samsung
R1-1800506 Text proposal on RRM measurement Guangdong OPPO Mobile Telecom.
R1-1800655 Remaining issues on Measurement for mobility management NTT DOCOMO, INC.
R1-1800807 Remaining details on mobility measurements Nokia, Nokia Shanghai Bell
R1-1800852 Remaining details on measurement for mobility management Qualcomm Incorporated
R1-1800899 Remaining details on measurements for mobility Ericsson

7.1.5.2 Radio link monitoring for mobility management

R1-1801010 **Summary of Discussion for NR Radio Link Monitoring** **Intel Corporation**

Decision: The document is noted.

Agreement:
- Confirm the working assumption of 2-port CSI-RS is not supported for RLM.
- **Friday:** The corresponding TP is adopted (section 5 of 38.213)

----------start of TP----------
A UE can be configured for each SpCell [11, TS 38.321] with a set of resource indexes for radio link monitoring by higher layer parameter *RLM-RS-List*. The UE is provided by higher layer parameter *RLM-RS* an association between a resource index, from the set of resource indexes, with either a CSI-RS resource configuration or a SS/PBCH block. For a CSI-RS resource configuration, the UE is provided a corresponding index by higher layer parameter *RLM-CSIRS*. 2 port CSI-RS configuration is not applicable for RLM. For a SS/PBCH block, the UE is provided a corresponding index by higher layer parameter *RLM-SSB*.
----------end of TP----------

Agreement: In Section 5 of 38.213, update the specs as follows:
- If the UE is configured with a SCG, as described in [12, TS 38.331], and the parameter *rlf-TimersAndConstantsSCG* is provided by the higher layers and is not set to release, the downlink radio link quality of the PSCell of the SCG shall be monitored by the UE for the purpose of indicating out-of-sync/in-sync status to higher layers. The UE is not required to monitor the downlink radio link quality in DL BWPs other than the active DL BWP on the PSCell.

Wednesday session
R1-1801100 Summary of Tuesday Discussion for NR Radio Link Monitoring Intel Corporation
Decision: The document is noted.

Agreements:
- In addition to agreements made in RAN1 #91, the following parameters of CSI-RS configuration is not applicable for CSI-RS for RLM
  - *CDM-pattern*
  - *Pc*
  - *Pc_SS*

Conclusion:
- UE behavior for re-configuration of RLM-RS is up to RAN2

Proposal:
- For a set of RLM resources each with a respective periodicity, it is RAN1's recommendation that the IS/OOS periodicity either fixed (e.g., 10ms as in LTE), or derived based on the periodities of the set of RLM resources (e.g., the shortest one). RAN1 recommends RAN4 to finalize the determination of the IS/OOS periodicity.

Agreements:
- The IS/OOS indication interval when the periodicities are different for different RLM-RS resources is determined by the shortest periodicity of the different RLM-RS resources, which is also lower bounded by 10ms
  - Send an LS to RAN4 regarding the above (to be prepared in R1-1801123)

Agreement:
- Confirm working assumption of maximum of 8 RLM-RSs for FR2 that can be configured for a UE

Thursday
R1-1801123 [DRAFT] LS on RLM reporting Interval Intel
Decision: The document is endorsed and final LS is approved in R1-1801191.

R1-1801180 Summary of Thursday Offline Discussion for NR Radio Link Monitoring Intel Corporation
Decision: The document is noted.

Agreements:
- Remove "FFS: QCL-info-CSI-RS" from agreement in RAN1 #91 regarding applicability of CSI-RS parameters to CSI-RS based RLM.
- Agree on the following text proposal for section 5 of 38.213

----------start of TP----------

For a CSI-RS resource configuration, the UE is provided a corresponding index by higher layer parameter *RLM-CSIRS*. The following parameters, *CSI-IM-RE-pattern, CSI-IM-Resource, CSI-IM-ResourceId, CSI-IM-timeConfig, CSI-IM-FreqBand, CSI-IM-ResourceMapping, CDM-pattern, CDM-pattern, Pc*, and *Pc_SS*, in the CSI-RS configuration are not applicable.
----------end of TP----------

Agreements:
- At most X RLM RS resources can be configured per each BWP.
  - Note: X is the maximum number of RLM-RS resources and RAN1 has already agreed on this value.

R1-1800066	On remaining details on Radio link monitoring in NR	Huawei, HiSilicon
R1-1800086	Remaining details of RLM	ZTE, Sanechips
R1-1800144	Remaining issues and changes in RLM	MediaTek Inc.
R1-1800179	Text proposal on TS38.213 RLM	vivo
R1-1800235	On Remainng issues on NR Radio Link Monitoring	CATT
R1-1800304	Remaining details of RLM	Intel Corporation
R1-1800357	Remaining Details on Radio Link Monitoring in NR	LG Electronics
R1-1800420	Corrections on Radio Link Monitoring for Mobility Management	Samsung
R1-1800507	Text proposal on NR RLM	Guangdong OPPO Mobile Telecom.
R1-1800584	Impact of beam failure and recovery on RLM procedures	AT&T
R1-1800656	Remaining issues on Radio link monitoring for mobility management	NTT DOCOMO, INC.
R1-1800729	Radio link monitoring and beam recovery	Motorola Mobility, Lenovo
R1-1800808	Remaining details on radio link monitoring	Nokia, Nokia Shanghai Bell
R1-1800853	Radio link monitoring consideration	Qualcomm Incorporated
R1-1800900	Remaining details on RLM	Ericsson

7.1.6 Other

R1-1800901	Synchronization assistance for CSI-RS-based measurements	Ericsson
R1-1800902	Remaining details on RACH capacity	Ericsson
R1-1800903	On multiple preamble transmissions for contention free random access	Ericsson
R1-1800904	Additional inter-RAT measurement capabilities in NR	Ericsson

7.2 MIMO

R1-1801130 Chairman's notes of AI 7.2 MIMO Ad-Hoc Chair (Samsung)
Decision: The document is endorsed, content incorporated below.

R1-1800003	LS on MAC Ces for beam management and CSI	RAN2, Ericsson
R1-1800099	**Draft LS response to RAN2 on MAC CEs for beam management and CSI**	**Huawei**

R1-1801236 Draft LS response to RAN2 on MAC CEs for beam management and CSI Huawei
Decision: The draft LS is endorsed assuming the following changes. Final LS is approved in R1-1801272.
------start------
7. Latency of the MAC-CE Messages

RAN1 discussed about specification support of application timing of MAC- CE. To avoid ambiguity during the transition, RAN1 kindly asks RAN2's opinion about following candidates of latency values of MAC- CE indication. These are candidate values that RAN1 is considering:
- Downlink-related:
  - Time between the ACK transmission for the PDSCH carrying the MAC-CE message and the time that the UE applies the MAC-CE message. Note some of the MAC CE messages may carry QCL information. Following is based on assumption of 120 kHz SCS for slot duration. RAN1 will down select a single value per SCS among the following candidate values, which may be based on UE capability.
  - For PDSCH
    - Candidate values (slots): 8, 10, 20, 40, 80 (considering the minimum 10 ms periodicity for TRS in case of 80 slots)
  - For PDCCH:
    - Candidate values (slots): 8, 10, 20, 40, 80
  - For SP-CSI-RS:
    - Candidate values (slots): 8, 10, 20, 40, 80

- For aperiodic CSI trigger state subselection:
  - Candidate values (slots): 8, 10, 20, 40, 80
- Uplink-related:
  - Time between the ACK transmission for the PDSCH carrying the MAC-CE activation message and the time that the UE applies the MAC-CE message. Following is based on assumption of 120 kHz SCS for slot duration. RAN1 will down select a single value per SCS among the following candidate values, which may be based on UE capability.
  - For semi-persistent SRS:
    - Candidate values (slots): 8, 10, 20, 40, 80
  - For semi-persistent CSI reporting (on PUCCH):
    - Candidate values (slots): 8, 10, 20, 40, 80
  - For PUCCH-SpatialRelationInfo:
    - Candidate values (slots): 8, 10, 20, 40, 80

------end------

7.2.1 Multi-antenna scheme

7.2.1.1 Codeword mapping

R1-1801018 Summary of issues on codeword mapping Samsung

Agreement:
Agree to the following text proposal for section 6.3.1.1 of 38.211
Section 6.3.1.1 of TS38.211:
…
where x and y are tags defined in [4, TS38.212] and where the scrambling sequence $c^{(q)}(i)$ is given by clause 5.2.1. The scrambling sequence generator shall be initialized with

$$c_{\text{init}} = n_{\text{RNTI}} \cdot 2^{15} + n_{\text{ID}}$$

where

- $n_{\text{ID}} \in \{0,1,...,1023\}$ equals the higher-layer parameter *Data-scrambling-Identity* if configured,
- $n_{\text{ID}} = N_{\text{ID}}^{\text{cell}}$ otherwise

and where n_{RNTI} corresponds to the RNTI associated with the PUSCH transmission as described in clause 6.1 3GPP TS 38.214 [6].
…

Agreement:
Agree to the following text proposal for section 6.4.1.1 of 38.211

Section 6.4.1.1 of TS38.211:
…
where $w_{\text{f}}(k')$, $w_{\text{t}}(l')$, and Δ are given by Tables 6.4.1.1.3-1 and 6.4.1.1.3-2 and the following conditions are fulfilled:
- the resource elements are within the common ~~resrouce~~ resource blocks allocated for PUSCH transmission

…

Agreement:
Agree to the following text proposal for section 7.3.1.1 of 38.211
----start----
…
Up to two codewords can be transmitted, $q \in \{0,1\}$. In case of single-codeword transmission, $q = 0$.
For each codeword q, the UE shall assume the block of bits $b^{(q)}(0),...,b^{(q)}(M_{\text{bit}}^{(q)}-1)$, where $M_{\text{bit}}^{(q)}$ is the number of bits in codeword q transmitted on the physical channel, are scrambled prior to modulation, resulting in a block of scrambled bits $\tilde{b}^{(q)}(0),...,\tilde{b}^{(q)}(M_{\text{bit}}^{(q)}-1)$ according to

$$\tilde{b}^{(q)}(i) = \left(b^{(q)}(i) + c^{(q)}(i)\right) \bmod 2$$

where the scrambling sequence $c^{(q)}(i)$ is given by clause 5.2.1. The scrambling sequence generator shall be initialized with

$$c_{\text{init}} = n_{\text{RNTI}} \cdot 2^{15} + q \cdot 2^{14} + n_{\text{ID}}$$

where

- $n_{ID} \in \{0,1,...,1023\}$ equals the higher-layer parameter *Data-scrambling-Identity* if configured and the RNTI equals the C-RNTI,
- $n_{ID} = N_{ID}^{cell}$ otherwise

and where n_{RNTI} corresponds to the RNTI associated with the PDSCH transmission as described in clause 5.1 3GPP TS 38.214 [6].

------end------

R1-1800158 Remaining issues in codeword mapping MediaTek Inc.
Late submission
R1-1800236 Remaining issues on codeword mapping CATT
R1-1800305 On drawback of time invaraint scrambling for PDSCH / PUSCH Intel Corporation
R1-1800565 Remaining issues and text proposal in codeword to layer mapping AT&T
R1-1800689 Correction on CW mapping and data scrambling Ericsson

7.2.1.2 Codebook based transmission for UL

R1-1801041 Summary on Codebook Based UL Transmission Intel

Agreement:
- Correct the name of the RRC parameter for codebook subset restriction.
  - *fullyCoherent* is changed into *fullAndPartialAndNonCoherent*
  - *partialCoherent* is changed into *partialAndNonCoherent*
  - change the related spec in 38.212 and 38.214
- RRC parameters such that *maxRank* and *codebookSubset* are configured for PUSCH, rather than for each SRS resource
- Send the above agreement as part of LS to RAN2

Agreement
For codebook based UL transmission,
- If multiple SRS resources are configured, the number of SRS ports for different SRS resources should be the same

Agreement
- For codebook based uplink transmission, SRS resources in the same resource set should have the same time domain behavior on periodic, aperiodic and semi-persistent SRS
- Send the above as part of LS to RAN2

Agreement
For the TPMI/TRI table for 2 antenna ports, support the following spec changes for Table 7.3.1.1.2-4 and Table 7.3.1.1.2-5 for 38.212.

Table 7.3.1.1.2-4: Precoding information and number of layers, for 2 antenna ports, if *PUSCH-tp=Disabled* and *ULmaxRank* = 2

Bit field mapped to index	Fully coherent	Bit field mapped to index	Non-coherent
0	1 layer: TPMI=0	0	1 layer: TPMI=0
1	1 layer: TPMI=1	1	1 layer: TPMI=1
~~2~~	~~1 layer: TPMI=2~~	~~2~~	~~1 layer: TPMI=2~~
~~3~~	~~1 layer: TPMI=3~~	~~3~~	~~1 layer: TPMI=3~~
42	2 layers: TPMI=0	42	2 layers: TPMI=0
~~5~~	~~2 layers: TPMI=1~~	~~5~~	~~2 layers: TPMI=1~~
~~63~~	1 layer: TPMI=42	~~6-73~~	Reserved
~~74~~	1 layer: TPMI=~~53~~		
5	1 layer: TPMI=4		
6	1 layer: TPMI=5		
7	2 layers: TPMI=1		
8	2 layers: TPMI=2		
9-15	reserved		

Table 7.3.1.1.2-5: Precoding information and number of layers, for 2 antenna ports, if *PUSCH-tp=Disabled*, or if *PUSCH-tp=Enabled* and *ULmaxRank* = 1

Bit field mapped to index	Fully coherent	Bit field mapped to index	Non-coherent
0	1 layer: TPMI=0	0	1 layer: TPMI=0
1	1 layer: TPMI=1	1	1 layer: TPMI=1
2	1 layer: TPMI=2	~~2~~	~~1 layer: TPMI=2~~
3	1 layer: TPMI=3	~~3~~	~~1 layer: TPMI=3~~
4	1 layer: TPMI=4		
5	1 layer: TPMI=5		
6-7	reserved		

Agreement:
For UL codebook, agree to the following text proposal to add a notation to clarify the waveform for Table 6.3.1.5-4 to Table 6.3.1.5-7 in 38.211.
Table 6.3.1.5-4: Precoding matrix W for two-layer transmission using two antenna ports with transform precoding disabled.
Table 6.3.1.5-5: Precoding matrix W for two-layer transmission using four antenna ports with transform precoding disabled.
Table 6.3.1.5.4-6: Precoding matrix W for three-layer transmission using four antenna ports with transform precoding disabled.
Table 6.3.1.5-7: Precoding matrix W for four-layer transmission using four antenna ports with transform precoding disabled.

Conclusion:
Explicit support of subband precoding for codebook based uplink transmission is not supported in NR Rel-15.

R1-1800098	Summary of remaining issues for codebook based transmission for UL MIMO	Huawei, HiSilicon
R1-1800180	Remaining issues and text proposals on codebook based UL transmission	vivo
R1-1800237	Remaining issues on codebook based UL transmission	CATT
R1-1800306	On Codebook based transmission for UL	Intel Corporation
R1-1800398	Discussion on codebook based transmission for UL	Lenovo, Motorola Mobility
R1-1800421	Codebook-related corrections for 38.212	Samsung
R1-1800479	Text proposal for codebook based UL transmission	Guangdong OPPO Mobile Telecom.
R1-1800566	Remaining issues and text proposal in uplink MIMO	AT&T
R1-1800626	On TRI and TPMI indication for CB-based UL transmission	InterDigital, Inc.
R1-1800657	Remaining issue on UL codebook based transmission	NTT DOCOMO, INC.
R1-1800690	Corrections for Codebook Based UL MIMO	Ericsson
R1-1800748	Remaining issues on UL Codebook Based Transmission	Nokia, Nokia Shanghai Bell
R1-1800854	Remaining details on codebook based UL transmission	Qualcomm Incorporated

7.2.1.3 Non-codebook based transmission for UL

R1-1801033 Summary of issues on UL non-codebook based transmission Nokia, Nokia Shanghai Bell

Agreement:
UE is not expected to update the SRS precoding information if the gap from the last symbol of the reception of the AP-CSI-RS resource and the first symbol of the AP-SRS transmission is less than 42 OFDM symbols

R1-1801036 Correction on UL non-codebook based transmission in 38.214 Huawei, HiSilicon
R1-1801172 Offline discussion on UL non-codebook based transmission Nokia, Nokia Shanghai Bell

Agreement:
Agree to the following text proposal for 7.3.1.1.2 in 38.212. The name of the SRI(s) field header can confirmed and modified if needed by the 38.212 spec editor.
----start----

- SRS resource indicator – $\left\lfloor \log_2\left(\sum_{k=1}^{L_{max}}\binom{N_{SRS}}{k}\right)\right\rfloor$ or $\lceil \log_2(N_{SRS})\rceil$ bits, where N_{SRS} is the number of configured SRS resources in the SRS resource set associated with the higher layer parameter *SRS-SetUse* of value '*CodeBook*' or '*NonCodeBook*', and L_{max} is the maximum number of supported layers for the PUSCH.

- $\left\lceil \log_2\left(\sum_{k=1}^{L_{max}}\binom{N_{SRS}}{k}\right)\right\rceil$ bits for non-codebook based PUSCH transmission according to Table 7.3.1.1.2-a – 7.3.1.1.2-d,

where N_{SRS} is the number of configured SRS resources in the SRS resource set associated with the higher layer parameter *SRS-SetUse* of value '*NonCodeBook*';
- $\lceil \log_2(N_{SRS}) \rceil$ bits for codebook based PUSCH transmission, where N_{SRS} is the number of configured SRS resources in the SRS resource set associated with the higher layer parameter *SRS-SetUse* of value '*CodeBook*'.

Table 7.3.1.1.2-a: SRI indication for non-codebook based PUSCH transmission, $L_{max}=1$

Bit field mapped to index	SRI(s), $N_{SRS}=2$	Bit field mapped to index	SRI(s), $N_{SRS}=3$	Bit field mapped to index	SRI(s), $N_{SRS}=4$
0	0	0	0	0	0
1	1	1	1	1	1
		2	2	2	2
		3	reserved	3	3

Table 7.3.1.1.2-b: SRI indication for non-codebook based PUSCH transmission, $L_{max}=2$

Bit field mapped to index	SRI(s), $N_{SRS}=2$	Bit field mapped to index	SRI(s), $N_{SRS}=3$	Bit field mapped to index	SRI(s), $N_{SRS}=4$
0	0	0	0	0	0
1	1	1	1	1	1
2	0,1	2	2	2	2
3	reserved	3	0,1	3	3
		4	0,2	4	0,1
		5	1,2	5	0,2
		6-7	reserved	6	0,3
				7	1,2
				8	1,3
				9	2,3
				10-15	reserved

Field Code Changed

Field Code Changed

Table 7.3.1.1.2-c: SRI indication for non-codebook based PUSCH transmission, $L_{max} = 3$

Field Code Changed

Bit field mapped to index	SRI(s), $N_{SRS} = 2$	Bit field mapped to index	SRI(s), $N_{SRS} = 3$	Bit field mapped to index	SRI(s), $N_{SRS} = 4$
0	0	0	0	0	0
1	1	1	1	1	1
2	0,1	2	2	2	2
3	reserved	3	0,1	3	3
		4	0,2	4	0,1
		5	1,2	5	0,2
		6	0,1,2	6	0,3
		7	reserved	7	1,2
				8	1,3
				9	2,3
				10	0,1,2
				11	0,1,3
				12	0,2,3
				13	1,2,3
				14-15	reserved

Table 7.3.1.1.2-d: SRI indication for non-codebook based PUSCH transmission, $L_{max} = 4$

Field Code Changed

Bit field mapped to index	SRI(s), $N_{SRS} = 2$	Bit field mapped to index	SRI(s), $N_{SRS} = 3$	Bit field mapped to index	SRI(s), $N_{SRS} = 4$
0	0	0	0	0	0
1	1	1	1	1	1
2	0,1	2	2	2	2
3	reserved	3	0,1	3	3
		4	0,2	4	0,1
		5	1,2	5	0,2
		6	0,1,2	6	0,3
		7	reserved	7	1,2
				8	1,3
				9	2,3
				10	0,1,2
				11	0,1,3
				12	0,2,3
				13	1,2,3
				14	0,1,2,3
				15	reserved

----end----

R1-1800107 **Remaining details on non-codebook based UL transmission** **ZTE, Sanechips**
R1-1800691 **Corrections for Non-Codebook Based UL MIMO** **Ericsson**

R1-1800097 Summary of remaining issues for UL non-codebook based transmission Huawei, HiSilicon
R1-1800156 Remaining issues in non-codebook based transmission MediaTek Inc.
R1-1800181 Remaining issues and text proposals on non-codebook based UL transmission vivo
R1-1800238 Remaining issues on non-codebook based UL transmission CATT
R1-1800307 On non-codebook based transmission for UL Intel Corporation
R1-1800358 Text proposals on non-codebook-based UL LG Electronics

R1-1800397	Discussion on non-codebook based transmission for UL	Lenovo, Motorola Mobility
R1-1800422	Resolving TBD on CSI-RS resource for non-codebook-based transmission	Samsung
R1-1800480	Text proposal for non-codebook based UL transmission	Guangdong OPPO Mobile Telecom.
R1-1800627	Remaining details on Non-CB based UL transmission	InterDigital, Inc.
R1-1800658	Remaining issue on UL non-codebook based transmission	NTT DOCOMO, INC.
R1-1800749	Remaining issues on Non-codebook based UL-MIMO transmission	Nokia, Nokia Shanghai Bell
R1-1800855	Remaining details on non-codebook based UL transmission	Qualcomm Incorporated

7.2.1.4 PRB bundling for DL

R1-1181066 Summary on Issues of PRB bundling for DL vivo

Agreement:
Agree to the following text proposal for section 5.1.2.3 in 38.214
----start----
Precoding Resource Block Group (PRGs) of size $P'_{BWP,i}$ partition the carrier bandwidth part i and each PRG consists of one or multiple consecutive PRBs. ~~, which~~ PRG can be one of the values among {2, 4, scheduled bandwidth}.

< Unchanged parts are omitted >

When the bundling size is configured as one of the values among {2, 4}, the first PRG size is given by $P'_{BWP,i} - N^{\text{start}}_{\text{BWP},i} \bmod P'_{BWP,i}$ and the last PRG size given by $(N^{start}_{BWP,i} + N^{size}_{BWP,i}) \bmod P'_{BWP,i}$ if $(N^{start}_{BWP,i} + N^{size}_{BWP,i}) \bmod P'_{BWP,i} \neq 0$, and the last PRG size is $P'_{BWP,i}$ if $(N^{start}_{BWP,i} + N^{size}_{BWP,i}) \bmod P'_{BWP,i} = 0$.
----end----

Agreement:
Agree to the following text proposal for section 5.1.2.3 in 38.214
----start----
If the higher layer parameter *prbBundling* is set to 'ON', the higher-layer parameter *pdsch-BundleSize* configures two sets of PRG values, the first set includes one or two PRG values among {2,4, scheduled bandwidth}, and the second set includes one PRG value.

- If the *PRB bundling size indicator* signalled in DCI format 1_1 as defined in Subclause 7.3.1.2.2 of [2, TS 38.212] is set to '0', the UE shall use the PRG value from the second set of PRG values.
- If the *PRB bundling size indicator* signalled in DCI format 1_1 as defined in Subclause 7.3.1.2.2 of [2, TS 38.212] is set to '1' and one value is configured for the first set of PRG values, the UE shall use this PRG value.
- If the *PRB bundling size indicator* signalled in DCI format 1_1 as defined in Subclause 7.3.1.2.2 of [2, TS 38.212] is set to '1' and two values are configured for the first set of PRG values as (2, scheduled BW) or (4, scheduled BW), the PRG is determined ~~based on the minimum number of contiguous scheduled PRBs~~ as follows:
  - If the scheduled PRBs are contiguous and the size of the scheduled PRBs is larger than $N^{size}_{BWP,i}/2$, the PRG is the same as the scheduled bandwidth, otherwise, the PRG is set to the remaining configured value of 2 or 4, respectively.
  - The UE is not expected to be configured with (2, 4).
  - ~~If the scheduled PRBs are contiguous and the size of the scheduled PRBs is larger than $N^{size}_{BWP,i}/2$, the PRG is the same as the scheduled bandwidth, otherwise, the PRG is set to the remaining configured value of 2 or 4, respectively.~~

----end----

Agreement:
Agree to the following text proposal for section 7.3.1.6 in 38.211
----start----
7.3.1.6 Mapping from virtual to physical resource blocks
The UE may assume that the same precoding in the frequency domain is used across a bundle of common resource blocks numbered $s, s+1, \ldots, s+w-1$ where $s = 0, w, 2w, 3w, \ldots$ and the bundle size w is determined by the procedures in Subclause 5.1.2.3 of [38.214]. ~~given by the higher-layer parameter *PDSCH-bundle-size* if configured, otherwise by the DCI scheduling the transmission.~~ The UE shall not make any assumption that the same precoding is used for different bundles of common resource blocks.
----end----

Agreement:
PRG for PDSCH carrying RMSI is partitioned from the lowest-numbered resource block in the CORESET configured by the PBCH.

Agreement:
When the UE is configured with resource block bundle size 2 for VRB to PRB mapping, the UE is not expected to be configured with PRG=4.

R1-1800182 Remaining issues and text proposals on PRB bundling for DL vivo
R1-1800308 Remaining issues of PRB bundling Intel Corporation
R1-1800359 Text proposals on PRB bundling LG Electronics
R1-1800411 Remaining issues on PRB bundling CATT
R1-1800423 Issues on DL PRB bundling Samsung
R1-1800497 Text Proposal for DL PRB Bundling Guangdong OPPO Mobile Telecom.
R1-1800535 Summary of remaining issues on PRB bundling for DL Huawei, HiSilicon
R1-1800692 Extension of PRB bundling for DL Ericsson
R1-1800750 On remaining issues on PRB bundling Nokia, Nokia Shanghai Bell
R1-1800856 Maintenance for PRB bundling for DL Qualcomm Incorporated

7.2.1.5 Other

R1-1800481 Text proposal for MIMO related DCI design Guangdong OPPO Mobile Telecom.
R1-1800530 Single NR-PDCCH based non-coherent JT in Rel-15 Huawei, HiSilicon
R1-1800784 Control of UE beamforming in RRC_CONNECTED ASUSTEK COMPUTER (SHANGHAI)
R1-1800909 Antenna selection transmission for PUSCH Huawei, HiSilicon
R1-1800914 Correction on relationship between UL antenna port and transmission layer in 38.211 Huawei, HiSilicon
R1-1800915 Correction on alignment between PRG and RBG in 38.214 Huawei, HiSilicon
R1-1800917 Correction on timing advance adjustment in 38.213 Huawei, HiSilicon
R1-1800927 Correction on UL non-codebook based transmission in 38.214 Huawei, HiSilicon
R1-1800929 Correction on uplink MIMO related DCI in 38.212 Huawei, HiSilicon
R1-1800930 Correction on PRB bundling configuration in 38.214 Huawei, HiSilicon

7.2.2 CSI acquisition and beam management

7.2.2.1 CSI measurement

R1-1801045 Summary of remaining issues on CSI measurement ZTE, Sanechips

Agreement:
Add the following text proposal to *TS 38.214 section 5.2.1.4*
----start----
When a UE is configured with the higher layer parameter *ReportQuantity* set to 'CRI/RI/PMI/CQI', 'CRI/RI/i1', 'CRI/RI/i1/CQI', 'CRI/RI/CQI' or 'CRI/RI/LI/PMI/CQI', and multiple resources are configured in the corresponding resource set for channel measurement, the UE shall derive the CSI parameters other than CRI conditioned on the reported CRI.
----end----

Agreement:
For the details of CSI-IM periodicity, the candidate values of periodicity and slot offset of CSI-IM are the same as those of NZP CSI-RS
- The above agreement applies for both periodic and semi-persistent CSI-IM

Agreement:
For *CSI-IM-ResourceMapping*, include parameters to capture OFDM symbol and subcarrier occupancy of the CSI-IM resource within a slot
- Symbol locations :
  - For RE pattern (2, 2) : [0..12]
  - For RE pattern (4,1) : [0..13]
- Subcarrier locations :
  - For RE pattern (4,1), the candidate starting subcarriers are: [0 4 8]
  - For RE pattern (2,2), the candidate starting subcarriers are [0 2 4 6 8 10]

Send as part of LS to RAN2

Agreement:

Include the following table as part of the LS sent to RAN2.

Parameter	Value range	Description
CSI-IM-RE-pattern	Pattern0 or Pattern1	Pattern0: (2,2) Pattern1: (4,1)
CSI-IM-FreqBand	Starting RB index in units of 4 RBs Number of spanned RBs in units of 4 RBs Minimum BW = min(24, BWP for data) RBs	Frequency-occupancy of CSI-IM
CSI-IM-ResourceMapping	Subcarrier location: For RE Pattern0: {0,2,4,6,8, 10} For RE Pattern1: {0,4,8} Symbol location: For RE Pattern0: {0,1, ...,12} For RE Pattern1: {0,1, ...,13}	Define symbol/subcarrier location of CSI-IM within a PRB

Agreement:
Value range of CSI-IM *freqBand* is same as that of NZP CSI-RS
Send as part of LS to RAN2

Agreement:
Agree to the following text proposal for 38.214 in section 5.2.2.4
----start----
5.2.2.4 Channel State Information – Interference Measurement (CSI-IM)
The UE can be configured with a single or more CSI-IM resource configuration(s).
The following parameters for which the UE shall assume zero transmission power are configured via higher layer parameter *CSI-IM-ResourceConfig* for each CSI-IM resource configuration:

- *CSI-IM-ResourceId* determines CSI-IM resource configuration identity
- *CSI-IM-ResourceMapping* defines subcarrier and symbol occupancy of the CSI-IM resource within a slot~~as given in Subclause TBD of [4, TS 38.211]~~.
- *CSI-IM-RE-Pattern* defines CSI-IM resource element pattern~~ as given in Subclause TBD of [4, TS 38.211].~~
- *CSI-IM-timeConfig* defines the CSI-IM periodicity and slot offset for periodic/semi-persistent CSI-IM according to the Table 7.4.1.5.2-6~~Subclause TBD~~ of [4, TS 38.211].
- *CSI-IM-FreqBand* includes parameters to enable configuration of frequency-occupancy of CSI-IM~~, as defined in Subclause TBD of [4, TS 38.211]~~.

In each of the PRBs configured by *CSI-IM-FreqBand*, the UE shall assume each CSI-IM resource is located in

- resource elements (k_{CSI-IM}, l_{CSI-IM}), $(k_{CSI-IM}, l_{CSI-IM}+1)$, $(k_{CSI-IM}+1, l_{CSI-IM})$ and $(k_{CSI-IM}+1, l_{CSI-IM}+1)$, if *CSI-IM-RE-Pattern* is set to '*Pattern0*';
- resource elements (k_{CSI-IM}, l_{CSI-IM}), $(k_{CSI-IM}+1, l_{CSI-IM})$, $(k_{CSI-IM}+2, l_{CSI-IM})$ and $(k_{CSI-IM}+3, l_{CSI-IM})$, if *CSI-IM-RE-Pattern* is set to '*Pattern1*';

where k_{CSI-IM} and l_{CSI-IM} are the configured frequency-domain location and time-domain location, respectively, by higher layer parameter *CSI-IM-ResourceMapping*.
----end----

Agreement:
Density of CSI-IM resource measured in RE/PRB is 4

Agreement:
CSI-IM REs are not rate matched around unless they are covered by ZP CSI-RS resources.
Note that the above agreement has no additional specification impact

Agreement:
Triggering A-IMR without associated CMR(s) is not supported.

Agreement:
Semi-persistent ZP CSI-RS is supported, and its activation/deactivation is informed by MAC CE.
Include as part of LS to RAN2

Agreement:
For both channel measurement restriction and interference restriction (RRC parameters MeasRestrictionConfig-time-channel,

MeasRestrictionConfig-time-interference), value range of MR is a Boolean to indicate 'ON' or 'OFF'.
- When UE is configured with 'ON', UE measurement window is 1 slot

Include as part of LS to RAN2

Agreement:
Agree to the following text proposal for 38.214 in section 5.2.2.1:
----start----
If a UE is not configured with higher layer parameter MeasRestrictionConfig-time-channel, the UE shall derive the channel measurements for computing ~~CSI~~CQI value reported in uplink slot n and corresponding to the MeasLinkConfig, based on only the non-zero power CSI-RS, no later than the CSI reference resource, (defined in TS 38.211[4]) within a configured MeasLinkConfig associated with the CSI resource setting.
If a UE is configured with higher layer parameter MeasRestrictionConfig-time-channel, the UE shall derive the channel measurements for computing CQI value reported in uplink slot n and corresponding to the MeasLinkConfig, based on only the most recent, no later than the CSI reference resource, occasion of non-zero power CSI-RS (defined in [4, TS 38.211]) within a configured MeasLinkConfig associated with the CSI resource setting.
If a UE is not configured with higher layer parameter MeasRestrictionConfig-time-interference, the UE shall derive the interference measurements for computing CQI value reported in uplink slot n and corresponding to the MeasLinkConfig in the CSI measurement setting, based on only the configured CSI resource setting, no later than the CSI reference resource, within a configured MeasLinkConfig associated with the CSI resource setting.
If a UE is configured with higher layer parameter MeasRestrictionConfig-time-interference the UE shall derive the interference measurements for computing the CQI value reported in uplink slot n and corresponding to the MeasLinkConfig in the CSI measurement setting, based on the most recent, no later than the CSI reference resource, occasion of CSI-IM and/or NZP CSI-RS for interference measurement (defined in [4, TS 38.211]) within configured MeasLinkConfig associated with the CSI resource setting.
----end----

Agreement:
Aperiodic CSI-RS cannot be transmitted before the OFDM symbol carrying its triggering DCI.
Following text proposal for 38.214 in section 5.2.1.5.1 is agreed:
----start----
When aperiodic CSI-RS is used with aperiodic reporting, the CSI-RS offset is configured per resource set in the higher layer parameter *AperiodicNZP-CSI-RS-TriggeringOffset*. The CSI-RS triggering offset *X* is measured in slots. The UE does not expect that aperiodic CSI-RS is transmitted before the OFDM symbol(s) carrying its triggering DCI.
----end----

Agreement:
Agree to the following text change for TS 38.214 section 5.2.1.5.2 (Semi-persistent CSI):
----start----
For a UE configured with the higher layer parameter *ResourceConfigType* set to 'semi-persistent'.
- when a UE receives an activation command [10, TS 38.321] for CSI-RS resource(s) for channel measurement and CSI-IM/NZP CSI-RS resource(s) for interference measurement associated with configured CSI resource setting(s) in slot n, the corresponding actions in [10, TS 38.321] and the UE assumptions (including quasi-co-location assumptions provided by a reference to a *TCI-RS-SetConfig*) on CSI-RS/CSI-IM transmission corresponding to the configured CSI-RS/CSI-IM resource configuration(s) shall be applied no later than the minimum requirement defined in [10, TS 38.133].
- when a UE receives a deactivation command [10, TS 38.321] for activated CSI-RS/CSI-IM resource(s) associated with configured CSI resource setting(s) in slot n, the corresponding actions in [10, TS 38.321] and UE assumption on cessation of CSI-RS/CSI-IM transmission corresponding to the deactivated CSI-RS/CSI-IM resource(s) shall apply no later than the minimum requirement defined in [10, TS 38.133].
- ~~the UE may assume that the CSI-RS resource(s) for channel measurement and the CSI-IM/NZP CSI-RS resource(s) for interference measurement are spatially quasi co-located.~~

----end----

Agreement:
Agree to the following text change for TS 38.214 section 5.2.1.2:
----start----
5.2.1.2 Resource settings
The following are configured via higher layer signaling for one or more CSI resource settings for channel and interference measurement:

- CSI-IM resource for interference measurement as described in Subclause 5.2.2.4~~3.3~~.
- Non-zero power CSI-RS resource for interference measurement as described in Subclause 5.2.2.3.1. ~~[see Table [TBD] in [4, TS 38.211]]~~
- Non-zero power CSI-RS resource for channel measurement as described in Subclause 5.2.2.3.1. ~~[see Table [TBD] in [4, TS 38.211]]~~
- Non-zero power CSI-RS resource for channel measurement as described in Subclause 5.2.2.3.1. ~~[see Table [TBD] in [4, TS 38.211]]~~

The UE may assume that the CSI-RS resource(s) for channel measurement and the CSI-IM/NZP CSI-RS resource(s) for interference measurement configured for one CSI reporting are quasi co-located with respect to spatial Rx parameters.
----end----

Agreement
Delete the following text from 38.214 section 5.2.2.1
~~For the CQI derivation the UE assumes the same quasi co-location properties between the CSI-IM and/or non-zero power CSI-RS configured for interference measurements and the non-zero power CSI-RS configured for channel measurements.~~

Agreement:
Agree to the following text change in 38.214 section 5.2.2.4

- CSI-IM RE pattern *configured by csi-IM-ResourceElementPattern* as given in Subclause ~~TBD~~7.4.1.5.3 of [4, TS 38.211].

Agreement
Agree to the following text proposal for 38.214 section 5.2.1.5.1
----start----
For ~~Resource Sets~~ CSI-RS resource sets associated with Resource Settings configured with the higher layer parameter *ResourceConfigType* set to 'aperiodic', trigger states for Reporting Setting(s) and/or Resource Setting~~Set~~(s) for channel and/or interference measurement on one or more component carriers are configured using the higher layer parameter *AperiodicReportTrigger*. For aperiodic CSI report triggering, a single set of CSI triggering states are higher layer configured, wherein the CSI triggering states can be associated with either candidate DL BWP. A UE is not expected to be triggered with a CSI report for a non-active DL BWP. A trigger state is initiated using the DCI *CSI request* field.

- When the value of the DCI *CSI request* field is zero, no CSI is requested.
- When the number of configured CSI triggering states in *AperiodicReportTrigger* is greater than $2^{N_{TS}}-1$, where N_{TS} is the number of bits in the DCI *CSI request* field, the UE receives a selection command [10, TS 38.321] used to map up to $2^{N_{TS}}-1$ trigger states to the codepoints of the DCI *CSI request* field. N_{TS} is configured by the higher layer parameter *ReportTriggerSize* and $N_{TS} \in \{0,1,2,3,4,5,6\}$.
- When the number of CSI triggering states in *AperiodicReportTrigger* is less than or equal to $2^{N_{TS}}-1$, the DCI *CSI request* field directly indicates the triggering state and the UE's quasi-colocation assumption.
- For each aperiodic CSI-RS resource associated with each CSI triggering state, the UE is indicated the quasi co-location configuration of quasi co-location RS source(s) and quasi co-location type(s), as described in subclause 5.1.5, through higher layer signaling of *QCL-Info-aPeriodicReportingTrigger* which contains a list of references to *TCI-RS-SetConfig*'s for the aperiodic CSI-RS resources associated with the CSI triggering state. If a *TCI-RS-SetConfig* in the list is configured with a reference to an RS associated with *QCL-TypeD*, that RS may be an SS/PBCH block or a CSI-RS resource configured as periodic or semi-persistent.

For a UE configured with the higher layer parameter *AperiodicReportTrigger*, if a ~~resource setting~~ Resource Setting linked to a *ReportConfig* has multiple aperiodic resource sets and only a subset of the aperiodic CSI-RS resource sets is associated with the trigger state, a higher layer configured bitmap *ResourceSetBitmap* is configured per trigger state per ~~resource setting~~ Resource Setting to select the CSI-IM/NZP CSI-RS resource set(s) from the ~~resource setting~~ Resource Setting.
----end----

Agreement
Agree to the following text proposal for 38.214 section 5.2.3
----start----
5.2.3 CSI reporting using PUSCH
A UE shall perform aperiodic CSI reporting using PUSCH in slot $n+Y$ on serving cell c upon successful decoding in slot n of an uplink DCI format for serving cell c, where Y is indicated in the decoded uplink DCI. The higher layer parameter *AperiodicReportSlotOffset* contains the allowed values of Y for a given Reporting Setting. When $N_{\text{Rep}} \geq 1$ reports are scheduled, let $Y_{i,j}$ be the ith allowed value for Report Setting j ($j = 0,\ldots,N_{\text{Rep}}-1$). Then the ith codepoint of the DCI field corresponds to

the allowed value $Y_i = \max_j Y_{i,j}$. The number of reports $N_{Rep} \geq 1$ is configured for each trigger state (section 5.2.1.5.1) and corresponds to the number of Reporting Settings for the trigger state.
----end----

R1-1801184 RRC parameter updates and TPs for agreements on CSI measurement ZTE/Sanechips
R1-1801183 Summary of remaining issues on CSI measurement ZTE/Sanechips

R1-1800094 Summary of remaining issues on CSI measurement Huawei, HiSilicon
R1-1800108 Remaining details on CSI measurement ZTE, Sanechips
R1-1800183 Remaining issues and text proposals on CSI measurement vivo
R1-1800239 Remaining issues on CSI measurement CATT
R1-1800309 Remaining issues on interference measurement for CSI Intel Corporation
R1-1800424 Issues on trigger state definition Samsung
R1-1800425 Resolving TBD for CSI reference resource Samsung
Withdrawn
R1-1800426 Terminology mismatch for CSI framework Samsung
R1-1800427 Issues on CSI measurement Samsung
R1-1800580 CSI measurement for dynamic BWP switching AT&T
R1-1800648 Remaining details on CSI measurement MTI
R1-1800693 Corrections for CSI framework and measurement Ericsson
R1-1800694 On rate matching using ZP CSI-RS and CSI-IM Ericsson
R1-1800695 Clarifying interference measurements Ericsson
R1-1800857 Remaining details on CSI measurement Qualcomm Incorporated

7.2.2.2 CSI reporting

R1-1801069 Summary of CSI reporting v3 Ericsson

Agreement: The following CSI priority rules apply:
- Reports are first prioritized according to Rule #1, then according to Rule #2 if they have the same priority according to Rule #1, and so forth…
- Rule #1: Time-domain behaviour / channel (AP-CSI > SP-CSI on PUSCH > SP-CSI on PUCCH > P-CSI)
- Rule #2: CSI content (Beam reports > CSI)
  - Applies only for all periodic reports and semi-persistent reports intended for PUCCH
- Rule #3: cellID (PCell > PSCell > other cell IDs in increasing order)
  - Applies only for all periodic reports and semi-persistent reports intended for PUCCH
- Rule #4: csiReportID (in increasing order)
  - Applies only for all periodic reports and semi-persistent reports intended for PUCCH

Agreement:
- The terminologies for Low Complexity CSI and High Complexity CSI are changed to Low Latency CSI and High Latency CSI, respectively
- For CSI computation capability,
  - Two CSI latency classes are supported.
    - Low Latency CSI class is defined as WB CSI including maximum 4 ports
      - Only applicable for Type-I codebook or when PMI is not configured
    - High Latency CSI class is defined as the superset of all CSI that is supported by the UE
  - Above does not apply for L1 RSRP.

Agreement:
- When CSI is transmitted on PUSCH, SLIV and PUSCH mapping type is determined from *pusch-symbolAllocation* in the same way as for PUSCH without CSI
- PUSCH slot offset when CSI is multiplexed with UL-SCH on PUSCH is determined only from the indicated K2 value from *pusch-symbolAllocation,* not from *aperiodicReportSlotOffset*
  - The above only applies for the case where CSI is multiplexed with data
  - Note: The number of candidate values for *aperiodicReportSlotOffset* and K2 are the same

Agreement:

Support additional periodicities of {4, 8, 16} slots for periodic on PUCCH and semi-persistent CSI reporting on PUCCH and PUSCH.
Include the above agreement as part of LS to RAN2

Agreement:
- Clarify the frequency-granularities as follows:
  - Remove mentioning of "partial band" CSI reporting
  - Define "wideband CSI" as a CSI report with either wideband PMI+wideband CQI, RSRP, or wideband CQI without PMI
    - Other cases are "subband CSI"
- For the first sub-bullet, it is up to the 38.212, 38.214 editors to make the correction

Agreement:
Agree to the following text proposal for 38.212 section 6.3.1.1.2

Table 6.3.1.1.2-8: Mapping order of CSI fields of one report for CRI/RSRP or SSB/RSRP reporting

CSI report number	CSI fields
CSI report #n	CRI or SSB index#1 as in Table 6.3.1.1.2-6, if reported
	CRI or SSB index#2 as in Table 6.3.1.1.2-6, if reported
	CRI or SSB index#3 as in Table 6.3.1.1.2-6, if reported
	CRI or SSB index#4 as in Table 6.3.1.1.2-6, if reported
	RSRP#1 as in Table 6.3.1.1.2-6, if reported
	RSRP#2 as in Table 6.3.1.1.2-6, if reported
	Differential RSRP#2 as in Table 6.3.1.1.2-6, if reported
	Differential RSRP#3 as in Table 6.3.1.1.2-6, if reported
	Differential RSRP#4 as in Table 6.3.1.1.2-6, if reported

Agreement:
- For CRI/RI/i1 reporting mode, the selected precoders for CQI calculation are within the set of precoders indicated by i1 to be reported

Agreement: Make the following text change: Replace "RI/CRI" with "RI (if reported), CRI (if reported)" throughout 38.214

Agreement: When CSI reports originally configured for PUCCH reporting is piggybacked on PUSCH,
- The CSI encoding scheme and omission follows that of PUCCH

Agreement: Make the following text change: Align terminology for PTRS strongest layer indicator
- Change "SLI" to "LI" in 38.214

Agreement: Type II CSI Part 1 on long PUCCH is supported for
- Only SP-CSI reporting

Agreement: Define explicit rule to calculate the number of padding bits in section 6.3.1.1 of TS 38.212

Agreement:
- Clarify in 38.214 that the following dependencies apply for CSI parameters (if they are reported)
  - LI is calculated conditioned on the reported CQI, PMI, RI and CRI
  - CQI is calculated conditioned on the reported PMI, RI and CRI
  - PMI is calculated conditioned on the reported RI and CRI
  - RI is calculated conditioned on the reported CRI

Agreement:
Capture the following sentence in the section 5.2.1.5.1 of TS 38.214:
A UE is not expected to receive more than one aperiodic CSI report request for a given slot.
- Note: 38.214 editor may change the exact wording to reflect the above agreement

R1-1801167 Offline session notes for joint MIMO&UL control and CSI reporting session Ericsson

Agreement:

- For each PUCCH-based CSI Report, a PUCCH resource for each candidate UL BWP is configured, where the configuration of a resource contains PUCCH format (2,3, or 4), and the necessary parameters to define the PUCCH resource
  - The parametrization follows that of each PUCCH Format

Include as part of LS to RAN2

Agreement:

- Support configuring the UE with J>=1 PUCCH resource configuration per UL BWP candidate used for carrying multiple CSI reports (associated with a PUCCH resource config (Format 2/3/4 and its Maximum Code rate))
  - In case the PUCCH resources for two or more PUCCH-based CSI reports collide (at least partially overlap in time), the colliding CSI reports with the highest priorities are carried in a multi-CSI PUCCH resource and remaining CSI reports are dropped
    - The number of included CSI reports is determined by the configured maximum code rate of the multi-CSI PUCCH resource
  - This applies to CSI only transmission on PUCCH, i.e. not multiplexed with HARQ-ACK
  - The PUCCH resource for carrying multiple CSI reports does not need to be configured to a UE
  - FFS if periodicity of multi-CSI resource needs to be defined
  - FFS value of J
  - Exact mechanism TBD in RAN1#92

Include as part of LS to RAN2

Agreement:

- Subband boundaries are aligned with PRG boundaries in the CRB grid
  - The first subband size is given by $S-(N_{\mathrm{BWP},i}^{\mathrm{start}} \bmod S)$ and the last subband size given by $(N_{BWP,i}^{start}+N_{BWP,i}^{size}) \bmod S$ if $(N_{BWP,i}^{start}+N_{BWP,i}^{size}) \bmod S \neq 0$ and S if $(N_{BWP,i}^{start}+N_{BWP,i}^{size}) \bmod S = 0$, where
    - S is the configured subband size for the BWP
    - $N_{BWP,i}^{start}$ is the BWP starting position in the CRB grid
    - $N_{BWP,i}^{size}$ is the BWP bandwidth
- The value range of *csi-ReportingBand* is a bitmap of size $\lceil N_{\mathrm{grid},x}^{\mathrm{size},\mu} / S \rceil$ where $N_{\mathrm{grid},x}^{\mathrm{size},\mu}$ is the bandwidth of the associated DL CC and S is the subband size.
  - Configuration of *csi-ReportingBand* with subbands which lie outside the associated BWP is not allowed
  - Note: RAN2 may decide to make this optional and if this field is not present, the reporting band is the same as the CSI-RS bandwidth

Include as part of LS to RAN2

R1-1801185 **WF on UE capability on CSI reporting and relaxation** **LG Electronics, Ericsson, InterDigital**

R1-1800095 Summary of remaining issues for CSI reporting Huawei, HiSilicon
R1-1800109 Remaining details on CSI reporting ZTE, Sanechips
R1-1800125 Discussion on aperiodic CSI-RS triggering offset configuration in case of one resource set over multiple slots Fujitsu
R1-1800157 Remaining issues in CSI reporting MediaTek Inc.
R1-1800184 Remaining issues and text proposals on CSI reporting vivo
R1-1800240 Remaining issues on CSI reporting CATT
R1-1800310 Remaining issues on CSI reporting Intel Corporation
R1-1800360 Discussion on aperiodic CSI report timing and relaxation LG Electronics
R1-1800361 Text proposals on TS 38.212 for LI reporting LG Electronics
R1-1800428 Issues on subband reporting Samsung
R1-1800429 CSI-related correction for 38.214 Samsung
R1-1800430 Issues on CSI reporting Samsung
R1-1800431 Issues on SLI reporting Samsung
R1-1800567 Remaining issues and text proposal in CSI reporting AT&T
R1-1800581 Several remaining details on aperiodic CSI report AT&T
R1-1800611 Priority rule for CSI reporting Sharp
R1-1800628 Remaining details on CSI reporting InterDigital, Inc.

R1-1800659 Remaining Issues on CSI reporting NTT DOCOMO, INC.
R1-1800696 On activation and deactivation of semi-persistent CSI on PUSCH Ericsson
R1-1800697 Corrections for CSI reporting Ericsson
R1-1800698 UE CSI Reporting Capability Ericsson
R1-1800744 Remaining details for CSI reporting on PUCCH Nokia, Nokia Shanghai Bell
R1-1800858 Remaining details on CSI reporting Qualcomm Incorporated

7.2.2.3 Beam measurement and reporting

R1-1801006 Feature lead summary 1 of beam measurement and reporting Ericsson

Agreement:
- For SS block + CSI-RS independent L1 RSRP reporting
  - Reports are separately configured in different report settings
  - No new value for the RRC parameter *ReportQuantity* is defined

Agreement:
- Maximum number of candidate TCI states is M_max. Down-select to one of the following two alternatives:
  - Alt-1: M_max = 64
    - Note that the value M_max is for configuration of TCI states only
- Relationship between RRC configuration of TCI states and bandwidth parts is decided by RAN2

Include as part of LS to RAN2

Agreement:
QCL source for a target semi-persistent CSI-RS resource set is provided by TCI states in the same MAC-CE at resource level
- Include as part of LS to RAN2

FFS: Check whether text proposal is needed in RAN1 specification: Steve (Ericsson)

Agreement
Spatial relationship for a target semi-persistent SRS resource set is provided by SSB-ID/SRS resource ID/CSI-RS resource ID in the same MAC-CE at resource level
- Include as part of LS to RAN2

FFS: Check whether text proposal is needed in RAN1 specification: Steve (Ericsson)

R1-1811143 Feature lead summary 2 of beam measurement and reporting Ericsson

Agreement:
The same priority rules are adopted for PUCCH/SRS when PUCCH carries beam management RSRP reports as for PUCCH carrying CSI reports

Agreement:
- For beam management, triggering of N>1 aperiodic CSI-RS resource sets with different slot offsets with a single DCI message is NOT supported

R1-1801187 Feature lead summary 3 of beam measurement and reporting Ericsson

Agreement:
- Maximum number of candidate TCI states configured for a CORESET is K_max
  - K_max = M
    - Note that the value M is for configuration of TCI states only
    - Note: UE is not expected to track the K configured TCI states. The value of K is for configuration of TCI states only.

Include as part of LS to RAN2

Agreement:
Include in LS to RAN2 in response to R1-1800003: "These are candidate values that RAN1 is considering."
Downlink-related:
- Time between the ACK transmission for the PDSCH carrying the MAC-CE activation message and the time that the UE is able to apply the QCL assumption carried by the MAC-CE message. Following is based on assumption of 120 kHz SCS for slot duration. RAN1 will down select a single value per SCS among the following candidate values which may be based on UE capability.

- For PDSCH
  - Candidate values (slots): 8, 10, 20, 40, 80 (considering the minimum 10 ms periodicity for TRS in case of 80 slots)
- For PDCCH:
  - Candidate values (slots): 8, 10, 20, 40, 80
- For SP-CSI-RS:
  - Candidate values (slots): 8, 10, 20, 40, 80

Uplink-related:

- FFS

R1-1800100	Summary of remaining issues of beam measurement, reporting and indication	Huawei, HiSilicon
R1-1800110	Remaining details on beam management	ZTE, Sanechips
R1-1800126	Ambiguities about beam indication in some cases	Fujitsu
R1-1800159	Clarifications on beam management	MediaTek Inc.
R1-1800185	Remaining issues and text proposals on beam measurement and reporting	vivo
R1-1800220	Remaining issues on beam reporting	NEC
R1-1800241	Remaining issues on beam measurement and reporting	CATT
R1-1800311	Remaining Issues on beam management	Intel Corporation
R1-1800362	Clarification on PDCCH beam indication by higher-layers	LG Electronics
R1-1800363	Text proposals on UL beam management	LG Electronics
R1-1800401	Correction on beam management	Lenovo, Motorola Mobility
R1-1800432	Issues on beam management	Samsung
R1-1800433	Aperiodic beam reporting	Samsung
R1-1800498	Text Proposal for Beam Management	Guangdong OPPO Mobile Telecom.
R1-1800542	Discussion on remaining issues for beam indication	CMCC
R1-1800582	TCI states configuration design to support dynamic BWP switching	AT&T
R1-1800660	Remaining issues on beam indication	NTT DOCOMO, INC.
R1-1800699	Remaining details on beam management	Ericsson
R1-1800734	Remaining issues on beam management	InterDigital, Inc.
R1-1800751	Remaining details on beam measurement and reporting	Nokia, Nokia Shanghai Bell
R1-1800859	Beam management for NR	Qualcomm Incorporated

7.2.2.4 Mechanism to recover from beam failure

R1-1801089 Summary for Remaing issues on Beam Failure Recovery MediaTek

Agreement:
For beam failure detection model, PHY performs detection of beam failure instances, and indicates a flag to higher layer if a beam failure instance is detected
- FFS: When/Whether PHY needs to report candidate beam list and beam failure instance to MAC
- FFS: Whether non-beam failure instance is defined or is needed

Include as part of LS to RAN2

Agreement:
Change candidate beam selection model to the following alternatives:
- PHY performs L1-RSRP evaluation of each candidate new beam, provides to higher layer the subset of {beam RS index, L1-RSRP measurements} that satisfies the L1-RSRP threshold
  - RAN 1 expects higher layer to perform new candidate beam selection based on the subset of {beam RS index, RSRP measurements}
- Note: The mapping between beam RS index(es) to PRACH resource(s)/sequence(s) is done in MAC
- Support for candidate beam selection model is specified in the RAN2 specifications

Include as part of LS to RAN2

Agreement:
Behavior of *Beam-failure-recovery-Timer*
- Start *Beam-failure-recovery-Timer* upon beam failure detection event declared by UE
- Stop *Beam-failure-recovery-Timer* upon reception of gNB response for beam failure recovery request transmission

Include as part of LS to RAN2

R1-1801223 Offline Discussion Summary for Beam Failure Recovery

Agreement:
- From RAN1 perspective, contention-free PRACH-based beam failure recovery is considered unsuccessful when one of the following conditions is met
  - Upon expiry of *Beam-failure-recovery-Timer*
  - Upon reaching max. # of BFRQ transmissions

Include as part of LS to RAN2

R1-1801197 Offline Summary for Remaing issues on Beam Failure Recovery MediaTek

Agreement:
- Indication of beam failure instance to higher layer is periodic and indication interval is determined by the shortest periodicity of BFD RS $\bar{q}_0$, which is also lower bounded by [10] ms.
  - Note: if the evaluation is below beam failure instance BLER threshold, there is no indication to higher layer.
- PHY provides to higher layer one or more sets of {beam RS index, L1-RSRP measurement} that satisfies the L1-RSRP threshold upon higher layer request.

R1-1800101 Summary of remaining issues on beam failure recovery Huawei, HiSilicon
R1-1800111 Remaining details on beam recovery ZTE, Sanechips
R1-1800160 Clarifications on beam failure recovery MediaTek Inc.
R1-1800186 Remaining issues and text proposals on mechanism to recover from beam failurevivo
R1-1800242 Remaining issues on beam failure recovery CATT
R1-1800312 Remaining Issues on beam failure recovery Intel Corporation
R1-1800364 Discussion on PHY and MAC operation for beam failure recovery LG Electronics
R1-1800402 Correction on beam failure recovery Lenovo, Motorola Mobility
R1-1800434 Issues on beam failure recovery Samsung
R1-1800499 Text Proposal for Beam Failure Recovery Guangdong OPPO Mobile Telecom.
R1-1800543 Discussion on beam recovery mechanism CMCC
R1-1800583 in support of partial beam failure AT&T
R1-1800622 Remaining Issues for Beam Failure Recovery Procedure ASUSTEK COMPUTER (SHANGHAI)
R1-1800629 Remaining details on beam failure recovery InterDigital, Inc.
R1-1800642 Discussion on timer for beam failure recovery ITRI
R1-1800661 Remaining issues on beam recovery NTT DOCOMO, INC.
R1-1800700 Remaining details and corrections on beam recovery Ericsson
R1-1800752 Remaining Details on Beam Recovery Nokia, Nokia Shanghai Bell
R1-1800860 Beam recovery procedures Qualcomm Incorporated
Late submission

7.2.2.5 CQI and MCS

R1-1801048 Summary for CQI and MCS AT&T

Agreement:
The following text in sub-band differential CQI should be changed in TS 38.214 section 5.2.2.1:
For each sub-band index *s,* a 2-bit sub-band differential CQI is defined as:
- Sub-band Offset level (*s*) = wideband CQI index – sub-band CQI index (*s*)

The mapping from the 2-bit wideband differential CQI values to the offset level is shown in Table 5.2.2.1-1

Table 5.2.2.1-1: Mapping ~~spatial~~ sub-band differential CQI value to offset level

~~spatial~~ sub-band differential CQI value	Offset level
0	0
1	1
2	≥ 2
3	≤-1

Agreement:
Make the following text change for CQI assumption definition to 38.214
"The bandwidth as configured for ~~the PDSCH reception~~ the corresponding CQI report".

Agreement:
Agree to the following text proposal for 38.214 section 5.2.2.1.1

In the CSI reference resource, the UE shall assume the following for the purpose of deriving the CQI index, and if also configured, PMI and RI:
- The first 2 OFDM symbols are occupied by control signaling
- The number of PDSCH and DM-RS symbols is equal to 12.

Agreement:
Agree to the following text proposal for 38.214 section 5.2.2.1.1 regarding the CQI assumption:
Assume PRB bundling size of 2 PRB
Assume no PTRS overhead

Agreement: The work assumption of reusing the LTE CQI table for maximum modulation order of 256QAM for eMBB is confirmed

R1-1800096 Summary of remaining details of CQI and MCS design Huawei, HiSilicon
R1-1800701 Corrections for CQI and MCS Ericsson
R1-1801151 Remaining details on MCS Qualcomm Incorporated

R1-1800112 Remaining details on CQI and MCS ZTE, Sanechips
R1-1800169 CQI reporting for multiple services in NR MediaTek Inc.
R1-1800187 Remaining issues and text proposals on CQI and MCS vivo
R1-1800243 Remaining issues on CQI CATT
Withdrawn
R1-1800313 Corrections to CQI definition in NR Intel Corporation
R1-1800568 Remaining issues in CQI and MCS AT&T
R1-1800662 Remaining issues on CQI and MCS NTT DOCOMO, INC.
R1-1800753 Remaining details of CQI and MCS Nokia, Nokia Shanghai Bell

7.2.2.6 *Other*

R1-1800365 Text proposals on TS 38.214 for CSI reporting using PUCCH LG Electronics
R1-1800528 Further enhancements on CSI reporting and codebook design Huawei, HiSilicon
R1-1800529 Remaining issues for CSI framework Huawei, HiSilicon
R1-1800531 Remaining issues of multi-panel codebook in 38.214 Huawei, HiSilicon
R1-1800532 Processing time for A-CSI reporting Huawei, HiSilicon
R1-1800597 Space-delay versus Sub-band Precoding for mmWave Channels Fraunhofer HHI
R1-1800663 On Type II codebook enhancement NTT DOCOMO, INC.
R1-1800664 System level performance investigation on beam reporting NTT DOCOMO, INC.
R1-1800702 Multi-cell beam recovery Ericsson
R1-1800703 Beam management in C-DRX Ericsson
R1-1800730 Discussion on higher rank Type II codebook and feedback overhead reduction Motorola Mobility, Lenovo
R1-1800754 Remaining details for Type I and Type II CSI reporting Nokia, Nokia Shanghai Bell
R1-1800910 Correction on CRI definition and determination in 38.214 Huawei, HiSilicon
R1-1800911 Correction on QCL properties between multiple CSI-RS within one CQI derivation in 38.214 Huawei, HiSilicon
R1-1800912 Correction on CSI measurement in 38.214 Huawei, HiSilicon
R1-1800916 Correction on RS set configuration for TCI in 38.214 Huawei, HiSilicon
R1-1800918 Correction on beam failure recovery in 38.213 Huawei, HiSilicon
R1-1800926 Correction on RSRP reporting in 38.214 Huawei, HiSilicon
R1-1800928 Correction on antenna ports quasi-co-location in 38.214 Huawei, HiSilicon
R1-1800932 Correction on CSI-RS/IM configuration in 38.214 Huawei, HiSilicon
R1-1800937 Correction on relationship between ZP CSI-RS and CSI-IM in 38.214 Huawei, HiSilicon

7.2.3 Reference signals and QCL

7.2.3.1 *Multiplexing of different types of RSs*

R1-1801034 Summary of remaining issues for RS multiplexing Huawei, HiSilicon

The UE is not expected to receive a CSI-RS in resource elements overlapping with the same ~~configured~~ DM-RS
Agreement:
The following text proposal is agreed for Section 5.2.2.3.1 of 38.214
The UE may be configured the CSI-RS in same OFDM symbols as SS/PBCH block, but not in the same ~~resource elements~~ PRBs.

The UE may be configured the CSI-RS in same OFDM symbols as SS/PBCH block, but not in the same ~~resource elements~~ PRBs, if the higher layer parameter *NrofPorts* is configured as 1 or 2.

Agreement:
The following text proposal is agreed for Section 5.1.6.1.2 of 38.214:
The UE may be configured to use the same OFDM symbols for the CSI-RS and SSB/PBCH when those are spatially quasi co-located and ~~resource elements~~ PRBs associated with CSI-RS are the outside of PRBs configured for SSB/PBCH.

Agreement:
The following text proposal is agreed for Section 5.2.2.3.1 of 38.214:
The UE may be configured the CSI-RS in same OFDM symbols as CORESET, but not in the same ~~resource elements~~ PRBs.
The following text proposal is agreed for Section 5.1.6.1.2 of 38.214:
The UE may be configured to use the same OFDM symbols for the CSI-RS and CORESET when those are spatially quasi co-located and ~~resource elements~~ PRBs associated with CSI-RS are the outside of PRBs configured for CORESET.

Agreement:
- For multiplexing between CSI-RS and CORESET, follow the current description in TS38.214 and remove the corresponding parts from TS38.211, which means that the bandwidths of CSI-RS and CORESET/SSB shall be configured exclusively (i.e. no assumptions on CSI-RS RE puncturing at UE side).

Text proposal: in Section 7.4.1.5.3 of *TS38.211*
7.4.1.5.3 Mapping to physical resources
For each CSI-RS component configured, the UE shall assume the sequence $r(m)$ being mapped to physical resources according to

$$a_{k,l}^{(p,\mu)} = \beta_{\text{CSIRS}} w_{\text{f}}(k') \cdot w_{\text{t}}(l') \cdot r(m)$$
$$k = \bar{k} + k'$$
$$l = \bar{l} + l'$$

Resource elements ~~overlapping with a configured CORESET or~~ declared as 'reserved' according to clause 4.4.3 shall be counted in the mapping process but not assumed to be used for transmission of CSI-RS.

R1-1801138 Summary of offline discussion on the remaining issues for RS multiplexing Huawei, HiSilicon

Agreement:
Accept the following modification of Section 7.4.1.5.3 in 38.211:
The UE is not expected to receive ~~a~~ CSI-RS and DMRS on the same resource elements. ~~in resource elements overlapping with configured DM-RS~~

R1-1800102 Summary of remaining details on multiplexing signals and channels Huawei, HiSilicon
R1-1800188 Remaining issues on multiplexing of different types of RSs vivo
R1-1800314 On multiplexing of PDSCH and CSI-RS Intel Corporation
R1-1800366 Text proposals on multiplexing for CSI-RS LG Electronics
R1-1800435 Issues on RS multiplexing Samsung
R1-1800482 Text proposal for RS multiplexing Guangdong OPPO Mobile Telecom.
R1-1800704 Corrections related to RS multiplexing Ericsson
Withdrawn
R1-1800888 Maintenance for Multiplexing of RS Qualcomm Incorporated

7.2.3.2 CSI-RS

R1-1801052 Feature lead summary #1 of CSI-RS Huawei, HiSilicon

Conclusion:
On the support of indicating two starting OFDM symbol positions for non-contiguous NZP CSI-RS mapping, include as part of an LS to RAN2 to inform them that the RRC signalling should support indication of up to two starting OFDM symbol positions and it is up to RAN2 to decide on the detailed signalling (relevant RRC parameter: *CSI_RS_resourcemapping*)

Agreement:
Remove Pc-PDCCH from RRC parameter list for NZP-CSI-RS and add clarification on 0dB power offset between CSI-RS for beam failure detection and PDCCH DMRS

R1-1801096 Feature lead summary #2 of CSI-RS Huawei, HiSilicon

Agreement:
- Indication mechanism of aperiodic ZP CSI-RS is RRC + DCI
- Each triggering state of "ZP CSI-RS trigger" in DCI is to trigger one ZP CSI-RS resource set
  - A state is reserved for not triggering aperiodic ZP CSI-RS
- All the resources in a ZP CSI-RS resource set are configured with the same *ResourceConfigType* (periodic or aperiodic)
- The bit-length of DCI field "ZP CSI-RS trigger" depends on the number of aperiodic ZP CSI-RS resource sets configured (up to 2 bits)
- The maximum number of aperiodic ZP CSI-RS resource sets configured per BWP is 3

Include as part of LS to RAN2

Agreement:
- Add the following RRC parameters for ZP CSI-RS

PDSCH	38.214				ZP-CSI-RS-ResourceSetConfigList	New	ZP-CSI-RS-ResourceSetConfigList	Resource set configuration for ZP CSI-RS		NA	UE specific	38.331		Y
PDSCH	38.214				ZP-CSI-RS-ResourceSetConfigId	New	ZP-CSI-RS-ResourceSetConfigId	ZP CSI-RS Resource set configuration ID	0.. ZP-CSI-RS-ResourceSetMax-1	NA	UE specific	38.331	Contained in ZP-CSI-RS-ResourceSetConfig	Y

- Update the RRC parameter Aperiodic-ZP-CSI-RS-Resource-List as follows

Aperiodic-ZP-CSI-RS-Resource-List	Contains list of ZP-CSI-RS resource set IDs for aperiodic triggering	Up to 3 ZP-CSI-RS resource set IDs per BWP

Include as part of LS to RAN2

R1-1801127 WF on additional RS periodicities ZTE, Sanechips, Qualcomm, CMCC, Orange, NTT DOCOMO, AT&T, Vodafone, Softbank, Samsung, Ericsson, Spreadtrum, OPPO, CATT, Sony, vivo

Agreement:
- Introduce additional periodicities of {4,8,16,32,64} slots and the corresponding slot offsets to at least the following periodic/semi-persistent RS:
  - CSI-RS (includes ZP-CSI-RS and NZP-CSI-RS)
  - SRS
- FFS on whether and how to align to additional periodicities as agreed in the frame structure agenda
  - "The two periodicities form X ms + Y ms total periodicity, where X, and Y are from {0.5, 0.625, 1, 1.25, 2, 2.5, 5, 10} ms"
- FFS on CSI-IM periodicity of 1 slot

Friday: **Include as part of LS to RAN2**

Working Assumption
Agree to the following text for TS.38.211 with the understanding that the 1 port rate=1/2 case needs to be checked. If there is an issue with the working assumption for 1 port rate=1/2, technical details will be modified.

7.4.1.5.3 Mapping to physical resources

For each CSI-RS component configured, the UE shall assume the sequence $r(m)$ being mapped to physical resources according to

Field Code Changed

$$\alpha_{k,l}^{(p,u)} = \beta_{CSIRS} w_f(k') \cdot w_t(l') \cdot r_{l,n_{s,f}}(m')$$

$$\mathrm{k} = \mathrm{n} \cdot N_{sc}^{RB} + \bar{k} + k'$$

$$\mathrm{l} = l + l'$$

$$\mathrm{m}' = \lfloor n \cdot \alpha \rfloor + k' + \left\lfloor \frac{\bar{k} \cdot \rho}{12} \right\rfloor$$

$$\alpha = \begin{matrix} \rho \text{ for } X = 1 \\ 2 \cdot \rho \text{ for } X > 1 \end{matrix}$$

$$\mathrm{n} = 0,1, \ldots.$$

under the condition that the resource elements indexed by k,l are within the resource blocks occupied by the CSI-RS for which the UE is configured. The reference point for k is subcarrier 0 in common resource block 0. The value of ρ is given by the higher-layer parameter *CSI-RS-Density*.

Field Code Changed

Field Code Changed

R1-1801110 WF on CSI-RS sequence mapping Ericsson, Qualcomm, NEC, LGE, ZTE, Sanechips, Interdigital, Verizon, CATT

- For CSI-RS sequence generation and mapping to REs, support Alt-2:
  - When mapping the reference signal sequence to the physical resources, the sequence is indexed by the subcarrier index k relative to subcarrier 0 in common resource block 0 (Reference Point A)
    - Consequently, the sequence mapped to the physical resource is a subsampled version of r(m), as generated from the Gold sequence

Agreement:

- By default, UE does not perform rate matching on REs overlapped with at least CSI-RS for mobility, which is not configured with serving cell ID
  - UE shall perform rate matching on REs overlapped with a CSI-RS for mobility only if ZP-CSI-RS covers the REs overlapped with the CSI-RS for mobility.
  - FFS, rate matching on REs overlapped with CSI-RS for mobility configured with serving cell ID

R1-1800092	Summary of remaining details on CSI-RS design in NR	Huawei, HiSilicon
R1-1800113	Remaining details on CSI-RS	ZTE, Sanechips
R1-1800189	Remaining issues and text proposals on CSI-RS	vivo
R1-1800244	Remaining issues on CSI-RS	CATT
R1-1800315	Remaining issues on CSI-RS	Intel Corporation
R1-1800367	Text proposals on QCL configurations for periodic CSI-RS	LG Electronics
R1-1800436	Issues on CSI-RS	Samsung
R1-1800483	Text proposal for CSI-RS	Guangdong OPPO Mobile Telecom.
R1-1800569	Remaining issues in CSI-RS	AT&T
Withdrawn		
R1-1800665	Remaining issues on CSI-RS	NTT DOCOMO, INC.
R1-1800705	Corrections related to CSI-RS	Ericsson
R1-1800755	Remaining issues on CSI-RS design	Nokia, Nokia Shanghai Bell
R1-1800862	Remaining details on CSI-RS	Qualcomm Incorporated

7.2.3.3 DMRS

R1-1801051 Summary of Issues for PDSCH/PUSCH's DM-RS Qualcomm

Conclusion:
Update the RRC parameters of DMRS as follows: Specify two scrambling IDs for CP-OFDM PDSCH's and PUSCH's DMRS, namely: DL-DMRS-Scrambling-ID-1 and DL-DMRS-Scrambling-ID-2, UL-DMRS-Scrambling-ID-1 and UL-DMRS-Scrambling-ID-2, for DL and UL, respectively.

Send the above as part of LS to RAN2

Agreement:
Remove ω from the equation in Section 5.2.2 in 38.211.

$$r_{u,v}^{(\alpha,\delta)}(n) = e^{j\alpha\left(n+\delta\frac{\omega \bmod 2}{2}\right)}\bar{r}_{u,v}(n), \quad 0 \le n < M_{ZC} - 1$$

adding $w_f(k)$ to the corresponding formula similar to CP-OFDM.

Agreement:
The following working assumption is confirmed:
For DMRS sequence of PDSCH/PUSCH CP-OFDM:

- for PDSCH carrying RMSI, the DMRS sequence generation
  - uses the lowest PRB of CORESET signaled in the PBCH
- for PDSCH/PUSCH before RRC configuration, and for PDSCH/PUSCH after RRC configuration, the DMRS sequence generation
  - uses the lowest subcarrier of the reference PRB [point A] (i.e. PRB0 in previous agreements)
    - Note: this implements the previous agreement "resource specific w.r.t to a wideband CC from network perspective".

Agreement:
Agree on the following text proposal in Sect 6.4.1.1.3, in 38.211:
"If transform precoding is not enabled, the reference point for k is subcarrier 0 in common resource block 0, otherwise the subcarrier 0 of the lowest-numbered resource block of the scheduled PUSCH allocation."

Agreement:
Capture the following description in the last paragraph of section 6.2.2 in 38.214.

- If a UE transmitting PUSCH is configured with the higher layer parameter UL-PTRS-present, the UE may assume that the following configurations are not occurring simultaneously for the transmitted PUSCH.
  - Any DM-RS ports among 1004-1007 or 1006-1011 for DM-RS configurations type 1 and type 2, respectively are scheduled for the UE and PT-RS is transmitted from the UE.

Agreement:
Agree to the following text proposal:
For section 7.3.1.1.2 in 38.212:

- DMRS sequence initialization – 0 if the higher layer parameter *PUSCH-tp*= *Enabled* ~~*Disabled*~~ or 1 bit if the higher layer parameter *PUSCH-tp*= *Disabled* for n_{SCID} selection defined in section 7.4.1.1.1 of TS38.211~~*Enabled*~~.

For section 7.3.1.2.2 in 38.212:

- DMRS sequence initialization – 1 bit for n_{SCID} selection defined in section 7.4.1.1.1 of TS38.211.~~if transform precoding is enabled~~

Field Code Changed

Field Code Changed

Agreement:
Agree to the following text proposal for Sect 7.4.1.1.2, in 38.211:
For PDSCH mapping type B with duration of 2, 4, or 7 OFDM symbols, and the PDSCH allocation collides with resources reserved for a CORESET, $\tilde{l}$ shall be incremented such that the first DM-RS symbol occurs immediately after the CORESET.

- If PDSCH duration is 4 symbols, UE does not expect to receive a DM-RS symbol beyond the third symbol,
- If PDSCH duration is 7 symbols, UE does not expect to receive the front-load DM-RS beyond the forth symbol
  - If one additional DM-RS is configured, it may only be transmitted in the 5th or 6th symbol with respect to the front-load DMRS symbol, otherwise it is not transmitted.

For PDSCH mapping type B, if the PDSCH duration is 2 or 4 OFDM symbols, only single-symbol DM-RS is supported.

Agreement:
Agree to the following text proposal for Sect 5.1.6.2 in 38.214:
The UE is not expected to assume co-scheduled UE(s) with different DMRS configuration with respect to the actual number of front-loaded DMRS symbol(s), the number of additional DMRS, the DMRS symbol location, and DMRS configuration type as described in Subclause 7.4.1.1 of [4, TS 38.211].

R1-1801093 **Summary of Issues for PDSCH/PUSCH's DM-RS Qualcomm**

Agreement:
Agree to the following text proposal and the agreement should be part of LS to RAN2:
For Section 6.4.1.1.1 in 38.211:
If transform precoding for PUSCH is enabled, the reference-signal sequence $r(m)$ shall be generated according to

$$r(m) = r_{u,v}^{(\alpha,\delta)}(m)$$

where $r_{u,v}^{(\alpha,\delta)}(m)$ is given by clause 5.2.2 with $\delta = 1,\ \alpha = 0$.

The sequence group $u = (f_{gh} + n_{ID}^{RS} mod 30) mod 30$, where n_{ID}^{RS} is n_{ID}^{PUSCH}, if n_{ID}^{PUSCH} is given by higher layer parameter *nPUSCH-Identity-Transform-precoding,* otherwise N_{ID}^{cell}.

- If neither group hopping, nor sequence hopping shall be used,
  $f_{gh} = 0,\ v = 0.$
- If group hopping but not sequence hopping shall be used,
  $f_{gh} = \left(\sum_{m=0}^{7} 2^m c\left(8\left(14n_{s,f}^{\mu} + l\right) + m\right)\right) mod 30,\ v = 0$

where the pseudo-random sequence $c(i)$ is defined by clause 5.2.1 and shall be initialized with $c_{init} = \lfloor n_{ID}^{RS}/30 \rfloor$ at the beginning of each radio frame.

- If sequence hopping but not group hopping shall be used,
  $f_{gh} = 0, v = c\left(14n_{s,f}^{\mu} + l\right)$ for $M_{ZC} \geq 6N_{sc}^{RB}$ otherwise $v = 0$

where the pseudo-random sequence $c(i)$ is defined by clause 5.2.1 and shall be initialized with $c_{init} = n_{ID}^{RS}$ at the beginning of each radio frame.

Agreement:
TP for section 64.1.1.3:
Update the formula of mapping the sequence in Sect 6.4.1.1.3, in 38.211 when transform precoding is enabled by adding $w_f(k)$ to the corresponding formula similar to CP-OFDM.

Conclusion
Specification should be revised to place the UL DMRS precoding after physical resource mapping and update UL DMRS port definition
Relevant tdoc# R1-1801242, R1-1801035, and R1-1801093.

Working Assumption
Text proposal for Section 6.2.2 of 38.214
6.2.2 UE DM-RS transmission procedure
< Unchanged parts are omitted >
If frequency hopping flag as defined in Subclause 7.3.1.1.2 of [5, TS 38.212] is enabled for PUSCH, the UE shall transmit either one single-symbol front-load DM-RS symbol when the higher layer parameters *UL-DMRS-add-pos=0 in each hop*, otherwise single-symbol front-load DM-RS symbol with one single-symbol additional DM-RS symbol in the 5th symbol with respect to the front-load DMRS symbol in each hop if within the PUSCH allocation of each hop.
< Unchanged parts are omitted >

R1-1800091	Summary of remaining details on UL/DL DMRS design in NR	Huawei, HiSilicon
R1-1800114	Remaining details on DMRS	ZTE, Sanechips
R1-1800190	Remaining issues and text proposals on DMRS design	vivo
R1-1800223	Remaining issues on DMRS	NEC
R1-1800245	Remaining issues on DMRS	CATT
R1-1800272	Remaining issues of DMRS	Spreadtrum Communications
R1-1800316	Remaining issues on DM-RS	Intel Corporation
R1-1800368	Remaining issues on DMRS location and DMRS table configuration	LG Electronics
R1-1800393	Corrections on DMRS	Lenovo, Motorola Mobility
R1-1800437	Issues on DMRS	Samsung
R1-1800484	Text proposal for DMRS	Guangdong OPPO Mobile Telecom.
R1-1800570	Remaining issues in DM-RS	AT&T
Withdrawn		
R1-1800615	Discussions on DMRS	Mitsubishi Electric Co.

R1-1800617 Text proposal for the DM-RS of PUSCH in 38.211 FiberHome
R1-1800666 Remaining details on DM-RS NTT DOCOMO, INC.
R1-1800706 Corrections related to DMRS Ericsson
R1-1800756 On remaining issues of DM-RS for NR physical data channels Nokia, Nokia Shanghai Bell
R1-1800771 Remaining issues on DMRS after Rel-15 Dec. specifications ITL
R1-1800792 On remaining details of DL DMRS design KT Corp.
Late submission
R1-1800863 Maintenance for DMRS Qualcomm Incorporated

7.2.3.4 PT-RS

R1-1800997 Feature lead summary 1 of PT-RS Ericsson

Agreement:
Value range for MCS thresholds (for time density) are 0-28 for MCS table 1 and 0-27 for MCS table 2
- The above applies for CP-OFDM only

Note: the above agreement should be part of LS to RAN2
Note: Above agreement has been revised below

Agreement:
Revise the above agreement to: Value range for MCS thresholds (for time density) are 0-29 for MCS table 1 and 0-28 for MCS table 2
Note: The above agreement should be part of LS to RAN2

Agreement:
Value range for Scheduled BW thresholds (for frequency density for CP-OFDM and sample density for DFTS-OFDM) is between minimum value of 1 and maximum value of 276
FFS: Compression method for reducing the RRC overhead
Note: the above agreement should be part of LS to RAN2

Agreement:
The RRC parameter epre-RATIO is assigned per PT-RS port for downlink
Note: the above agreement should be part of LS to RAN2

Agreement:
Observation 1 Revise the first row of Table 6.4.1.2.2.2-1 in TS 38.211 as follows

Number of PT-RS groups N_{group}^{PTRS}	**Number of samples per PT-RS group** N_{samp}^{group}	**Index m of PT-RS samples in OFDM symbol l prior to transform precoding**
2	2	$s\lfloor M_{sc}^{PUSCH}/4 \rfloor + k - 1$ where $s = 1,3$ and $k = 0,1$ ~~$s = 0,1$ and $k = 0,1$~~

Agreement:
Observation 2 Revise the row of Table 6.4.1.2.2.2-1 in TS 38.211 as follows

4	2	~~$s\lfloor M_{sc}^{PUSCH}/8 \rfloor + k - 1$~~ $\lfloor sM_{sc}^{PUSCH}/8 \rfloor + k - 1$ where $s = 1,3,5,7$ and $k = 0,1$

Agreement:
Remove PTRS multiplication by factor β_{PUSCH} in clause 6.4.1.2.2.2 in 38.211
Note: It is up to the editor to check and remove/keep β_{PUSCH} in other parts of the specification

Agreement:
In the PT-RS symbol mapping for DFT-s-OFDM, K=1,X=16 is not supported in NR Release 15.

Agreement:
Agree to the following text proposal in Table 4.1-2 of TS 38.214:

Change the header "The number of PDSCH layers within the DMRS group associated with the PT-RS" to "The number of PDSCH layers within the DMRS port group containing DMRS port associated with the PT-RS port".

R1-1801244 **Feature lead summary 3 of PT-RS** **Ericsson**

Agreement:
For PTRS for CP-OFDM in both DL and UL, ptrs-MCS4 equals 29 for MCS table 1 and 28 for MCS table 2. Remove ptrs-MCS4 in related RRC parameters
Include in LS to RAN2

Agreement:
For DFT-s-OFDM, if PT-RS is enabled by *UL-PTRS-present-transform-precoding*, then the UE also expect configuration of the parameters (*UL-PTRS-pre-DFT-density).* Hence, there is no default sample density table for DFT-s-OFDM as in the CP-OFDM case.

R1-1801200 **WF on PT-RS Symbol Position** **Samsung, ZTE, Sanechips, LGE, Ericsson, Qualcomm, InterDigital, Intel, Spreadtrum, vivo, Mitsubishi, Docomo, Panasonic, HW, HiSi, NEC**

Agreement:
The text in 7.4.1.2.2 of 38.211 is changed as below. Note: the text in 6.4.1.2.2.1 of 38.211 should also be changed in the same manner.

The set of time indices l defined relative to the start of the PDSCH allocation is defined by

1. set $i = 0$ and $l_{\text{ref}} = 0$
2. if any symbol from $\max(l_{\text{ref}} + (i-1)L_{\text{PTRS}} + 1, l_{\text{ref}})$ to $l_{\text{ref}} + iL_{\text{PTRS}}$ overlaps with a symbol used for DM-RS according to clause 7.4.1.1.2
   - set $i = 1$
   - set l_{ref} to the number of the last DM-RS symbol in a sequence of time-contiguous DM-RS occasions
   - repeat from step 2 above as long as $l_{\text{ref}} + iL_{\text{PTRS}}$ is inside the PDSCH allocation.
3. add $l_{\text{ref}} + iL_{\text{PTRS}}$ to the set of time indices for PT-RS
4. increment i by one
5. repeat from step 2 above as long as $l_{\text{ref}} + iL_{\text{PTRS}}$ is inside the PDSCH allocation

where $L_{PTRS} \in \{1,2,4\}$.

Agreement: Remove the sentence "Resource elements declared as 'reserved' according to clause 4.4.3 shall be counted in the mapping process but not used for transmission." in Section 6.4.1.2.2.1

Agreement: Agree to the following text proposal for Section 7.4.1.2.2
If present, the UE shall assume the PDSCH PT-RS being mapped to resource elements $(k,l)_{p,\mu}$ according to

$$a_{k,l}^{(p,\mu)} = \beta_{\text{PTRS}} r_k$$

when all the following conditions are fulfilled

- l is within the OFDM symbols allocated for the PDSCH transmission
- resource element (k,l) is not used for DM-RS, CSI-RS, SS/PBCH or by a configured CORESET

R1-1801106 **WF on DFTsOFDM PT-RS remaining issues** **Mitsubishi Electric, Samsung, Qualcomm, AT&T, Ericsson, Interdigital, Nokia, NSB, IITH, IITM, CeWit, Tejas Networks, Reliance Jio, CATT, NTT DoCoMo, Sharp, Sony, Convida Wireless**

Agreement
Agree to the following text proposal for section 6.4.1.2.1.2 of TS38.211

- If transform precoding is enabled, the phase-tracking reference signal $r_m(m')$ to be mapped in position m before transform precoding, where m depends on the number of PT-RS groups N_{group}^{PTRS}, the number of samples per PT-RS group N_{samp}^{group}, and M_{sc}^{PUSCH} according to Table 6.4.1.2.2.2-1, shall be generated according to

$$r_m(m') = w(k')\frac{e^{j\frac{\pi}{2}(m \bmod 2)}}{\sqrt{2}}\left[(1-2c(m'))+j(1-2c(m'))\right]$$
$$m' = N_{\text{samp}}^{\text{group}} s' + k'$$
$$s' = 0,1,\ldots,N_{\text{group}}^{\text{PTRS}}-1$$
$$k' = 0,1,N_{\text{samp}}^{\text{group}}-1$$

where the pseudo-random sequence c(i) is defined in clause 5.2.1, and w(i) is given by Table 6.4.1.2.1.2-1.

- Note: The editor is respectfully asked to crosscheck and harmonize the PUSCH pi/2 BPSK generation in clause 5.1.1 to ensure that pi/2 BPSK property is maintained in transitions between PUSCH and PTRS samples

Agreement:

- Agree to the following text proposal for section 6.4.1.2.2.2 of TS38.211
  - The set of time indices *l* defined relative to the start of the PUSCH allocation is defined by
    - 1. set i=0 and l_{ref}=0
    - 2. if any symbol from max(l_{ref}+(i-1)L_{PTRS}+1, l_{ref}) to l_{ref}+iL_{PTRS} overlaps with a symbol used for DM-RS according to clause 6.4.1.1.2
      - set i=1
      - set l_{ref} to the number of the last DM-RS symbol in a sequence of time-contiguous DM-RS occasions
      - repeat from step 2 above as long as l_{ref}+iL_{PTRS} is inside the PUSCH allocation.
    - add l_{ref}+iL_{PTRS} to the set of time indices for PT-RS
    - increment *i* by one
    - repeat from step 2 above as long as l_{ref}+iL_{PTRS} is inside the PUSCH allocation

  where $L_{PTRS} \in \{1,2\}$ is given by the higher-layer parameter *UL-PTRS-time-density-transform-precoding*.

R1-1801153 WF on Placement for PTRS for DFT-s-OFDM Huawei, HiSilicon, Spreadtrum, NEC, Qualcomm, ZTE, Sanechips, IITH, IITM, CEWiT, Tejas Networks

R1-1801103 WF on Layer indicator reporting Samsung, Intel, Huawei, HiSilicon

R1-1801141 WF on UL PT-RS power boosting factor LG Electronics, Samsung, Intel

Agreement

Agree to the following text proposal for section 6.2.3 in TS38.214. The text proposal to update for the non-coherent case, partial coherent case, non-codebook case if needed.

For PT-RS, the transmit power of PTRS is derived from ρ_{PTRS}^{PUSCH}, which is the power ratio between power of PUSCH and power of PTRS per port.

For codebook based coherent uplink transmission, when the UE is scheduled with one PTRS port in uplink and the number of scheduled layers is n_{layer}^{PUSCH},

- If the UE is configured with higher layer parameter *UL-PTRS-power*, the PUSCH to PT-RS power ratio per layer per RE ρ_{PTRS}^{PUSCH} is given by

$$\rho_{PTRS}^{PUSCH} = -\alpha_{PTRS}^{PUSCH} \text{ [dB]}$$

  Where α_{PTRS}^{PUSCH} is shown in the Table 6.2.3-5 according to the higher layer parameter *UL-PTRS-power*.
- The UE shall assume *UL-PTRS-power* is set to state "00" in Table 6.2.3-5 if not configured.

Table 6.2.3-5: Factor related to PUSCH to PTRS power ratio per layer per RE (α_{PTRS}^{PUSCH})

UL-PTRS-power / α_{PTRS}^{PUSCH}	The number of PUSCH layers (n_{layer}^{PUSCH})			
	1	2	3	4
00	0	3	4.77	6
01	reserved			
10	reserved			
11	reserved			

Conclusion
Make decision on the following issue in RAN1#92:
For UCI on PUSCH without UL-SCH, the PT-RS time domain density for CP-OFDM

Agreement
If a UE is configured with the higher layer parameter Downlink-PTRS-Config, set to 'ON', if the additional higher layer parameters timeDensity and frequencyDensity are both configured, the UE shall assume the PT-RS antenna ports' presence and pattern are a function of the scheduled MCS of the corresponding CW and scheduled bandwidth in corresponding bandwidth part as shown in Table 5.1.6.3-1 and Table 5.1.6.3-2.

Agreement
If the TCI-PresentinDCI is set as "Disabled", the scheduled number of PT-RS ports for a UE PDSCH transmission is indicated by the TCI state applied for the CORESET used for the PDCCH transmission that schedules the PDSCH. If the offset is less than a threshold, the scheduled number of PT-RS ports for a UE PDSCH transmission is indicated by the TCI state applied for the CORESET with the lowest CORESET-ID in the latest slot in which one or more CORESETs are configured for the UE.

Agreement:
The bitwidth of IE in DCI for indicating PT-RS to DMRS port association for UL in CP-OFDM is 0,1 or 2 bits, taking into account the number of SRS ports, maximum ranks supported, and number of PT-RS ports.

R1-1800087	Summary of remaining issues of PTRS	Huawei, HiSilicon
R1-1800115	Remaining details on PT-RS	ZTE, Sanechips
R1-1800191	Remaining issues and text proposals on PT-RS	vivo
R1-1800219	PT-RS design	Panasonic Corporation
R1-1800224	Remaining issues on PTRS	NEC
R1-1800246	Remaining issues on PT-RS	CATT
R1-1800273	Remaining issues of PT-RS	Spreadtrum Communications
R1-1800317	Remaining issues On PT-RS	Intel Corporation
R1-1800369	Text proposals on UL PT-RS power boosting and DL PT-RS reception	LG Electronics
R1-1800394	Corrections on PTRS	Lenovo, Motorola Mobility
R1-1800438	Issues on PT-RS	Samsung
R1-1800500	Text Proposal for PT-RS	Guangdong OPPO Mobile Telecom.
R1-1800555	Remaining issues on PTRS for UL DFTsOFDM waveform	Mitsubishi Electric RCE
R1-1800630	Remaining details on PT-RS	InterDigital, Inc.
R1-1800667	Remaining details on PT-RS	NTT DOCOMO, INC.
R1-1800707	Corrections related to PT-RS	Ericsson
R1-1800757	On remaining details of PT-RS design	Nokia, Nokia Shanghai Bell
R1-1800864	PTRS considerations	Qualcomm Incorporated

7.2.3.5 SRS

R1-1801005 Summary of SRS Sony

Agreement
Agree to the following text proposal for 38.211 Section 6.4.1.4.2
- if *SRS-GroupSequenceHopping* equals 'sequenceHopping', sequence hopping but not group hopping shall be used and

$$f_{gh}\left(n_{s,f}^{\mu},l'\right)=0$$

$$v=\begin{cases}c\left(n_{s,f}^{\mu}N_{symb}^{slot}+l_0+l'\right) & M_{sc,b}^{SRS}\geq 6N_{sc}^{RB}\\ 0 & \text{otherwise}\end{cases}$$

where the pseudo-random sequence $c(i)$ is defined by clause 5.2.1 and shall be initialized with $c_{init}=n_{ID}^{SRS}$.

Field Code Changed

Agreement:
Agree to the following text proposal for TS 38.211 Section 6.4.1.4.2
The sounding reference signal sequence for an SRS resource shall be generated according to

$r^{(p_i)}(n,l') = r_{u,v}^{(\alpha_i)}(n)$ $r^{(p_i)}(n,l') = r_{u,v}^{(\alpha_i,\delta)}(n)$

$0 \le n \le M_{sc,b}^{RS} - 1$ ~~$0 \le n \le 271 \cdot N_{sc}^{RB} / K_{TC}$~~

$l' \in \{0,1,\ldots, N_{symb}^{SRS} - 1\}$ $l' \in \{0,1,\ldots, N_{symb}^{SRS} - 1\}$

where $M_{sc,b}^{RS}$ is given by cause 6.4.1.4.3, $r_{u,v}^{(\alpha)}(n)$ ~~$r_{u,v}^{(\alpha_i,\delta)}(n)$~~ is given by clause 5.2.2 ~~with $\delta = 0$~~ and the transmission comb number K_{TC} is contained in the higher-layer parameter *SRS-TransmissionComb*. The cyclic shift α_i for antenna port p_i is given as

$$\alpha_i = 2\pi \frac{n_{SRS}^{cs,i}}{n_{SRS}^{cs,max}}$$

$$n_{SRS}^{cs,i} = \left(n_{SRS}^{cs} + \frac{n_{SRS}^{cs,max} p_i}{N_{ap}} \right) \bmod n_{SRS}^{cs,max},$$

where $n_{SRS}^{cs} \in \{0, 1, \ldots, n_{SRS}^{cs,max}\}$ is given by the higher layer parameter *SRS-CyclicShiftConfig*. The maximum number of cyclic shifts is $n_{SRS}^{cs,max} = 12$ if $K_{TC} = 4$ and $n_{SRS}^{cs,max} = 8$ if $K_{TC} = 2$.

Field Code Changed

Field Code Changed

Field Code Changed

Agreement:
Agree on the following text proposal for TS 38.214 Section 6.2.1
The UE may be configured by the higher layer parameter *SRS-ResourceMapping* with an SRS resource occupying a location within the last 6 symbols of the slot.
When PUSCH and SRS are transmitted in the same slot, the UE may be configured to transmit SRS after the transmission of the PUSCH and the corresponding DM-RS.
~~A UE may be configured to transmit one or more precoded SRS on configured SRS resource(s), where the transmission of precoded SRS is based on precoder determination computed on the reference signals indicated by the higher layer parameters *SRS-SpatialRelationInfo*~~*SRS-SpatialRelationInfo*.

Agreement:
Agree to the following text proposal for TS 38.214 Section 6.2.1.2
…. and a guard period where UE does not transmit any other signal~~, not used for any other UE transmission~~, of Y symbols in-between the SRS resources is used in case the SRS resources are transmitted in the same slot.

The value of Y is defined by Table 6.2.1.2-1.

Table 6.2.1.2-1 The minimum guard period between two SRS resources of an SRS resource set for antenna switching

μ	$\Delta f = 2^{\mu} \cdot 15$ [kHz]	Y(symbol)
0	15	1
1	30	1
2	60	1
3	120	2

R1-1801178 Summary of SRS Sony

R1-1800090	Summary of remaining details of SRS design	Huawei, HiSilicon
R1-1800116	Remaining details on SRS	ZTE, Sanechips
R1-1800192	Remaining issues and text proposals on SRS design	vivo
R1-1800247	Remaining issues on SRS	CATT
R1-1800318	Remaining issues on SRS	Intel Corporation
R1-1800370	Clarification on intra-slot hopping for aperiodic SRS	LG Electronics
R1-1800439	Issues on SRS	Samsung
R1-1800485	Text proposal for SRS	Guangdong OPPO Mobile Telecom.
R1-1800616	Discussions on SRS	Mitsubishi Electric Co.
R1-1800708	Corrections related to SRS	Ericsson
R1-1800758	Remaining details on SRS design in NR	Nokia, Nokia Shanghai Bell
R1-1800865	Maintenance for SRS	Qualcomm Incorporated

7.2.3.6 TRS

R1-1801042 Summary for TRS MediaTek Inc.

Agreement:
Agree to the following text proposal for section 5.1.6.1.1 in 38.214
----start----
A UE in RRC connected mode is expected to receive the higher layer UE specific configuration of a CSI-RS resource set for tracking, and receive the higher layer parameter *TRS-INFO* set as 'ON'.

If a UE is configured with the higher layer parameter *TRS-INFO* set as 'ON', the UE shall assume the antenna port with the same port index of the configured NZP CSI-RS resources in the CSI-RS resource set is same. For frequency range 1, the UE may be configured with a CSI-RS resource set of four periodic CSI-RS resources in two consecutive slots with two periodic CSI-RS resources in each slot~~,~~ ~~f~~. For frequency range 2 the UE may be configured with a CSI-RS resource set of two periodic CSI-RS resources in one slot or with a CSI-RS resource set of four periodic CSI-RS resources in two consecutive slots with two periodic CSI-RS resources in each slot.

The periodic CSI-RS resources in the CSI-RS resource set with higher layer parameter TRS-INFO set as 'ON' have the same periodicity, bandwidth and subcarrier location.

Each CSI-RS resource, defined in Subclause 7.4.1.5 of [4, TS 38.211], is configured by the higher-layer parameter *NZP-CSI-RS-ResourceConfig* ~~*CSI-RS-ResourceMapping*~~ with the following restrictions:

- the time-domain locations of the two periodic CSI-RS resources in a slot, or of the four periodic CSI-RS resources in two consecutive slots, as defined by higher layer parameter *CSI-RS-ResourceMapping*, is given by one of $l \in \{4,8\}$, $l \in \{5,9\}$, $l \in \{6,10\}$
- a single port CSI-RS resource with density $\rho = 3$ given by Table 7.4.1.5.2-1~~2~~ and higher layer parameter *csi-RS-Density*
- the bandwidth of the CSI-RS resource, as given by the higher layer parameter *csi-RS-FreqBand*, is the minimum of 50 or $N_{\mathrm{RB}}^{\mathrm{BWP}i}$ resource blocks, or is equal to $N_{\mathrm{RB}}^{\mathrm{BWP}i}$ resource blocks when the bandwidth of active BWP is greater than 50 resource blocks and when the periodicity of the CSI-RS resource is greater than 10ms
- the periodicity, as given by the higher layer parameter *csi-RS-timeConfig*, is one of $2^{\mu} \cdot X_p$ slots where X_p =10, 20, 40, or 80 ms and where μ is defined in [4.2, TS 38.211]. ~~10, 20, 40, or 80 ms~~
- same Pc and Pc_SS value across all resources

-----end-----

Agreement:
Following working assumption is confirmed:

- For above-6GHz, the following configurations are supported
  - Same configuration as below-6GHz: X=2 and N=2+2
  - For X=1, use the same OFDM symbols as X=2 case within a slot

R1-1801241 Summary for TRS part 2MediaTek

Agreement
Agree to the following text proposal for section 5.1.6.1.1 in 38.214
the time-domain locations of the two periodic CSI-RS resources in a slot, or of the four periodic CSI-RS resources in two consecutive slots, as defined by higher layer parameter *resourceMapping*, is given by one of $l \in \{4,8\}$, $l \in \{5,9\}$, $l \in \{6,10\}$. The time domain locations are the same across the two consecutive slots.

Conclusion:
For further discussion in RAN1#92: Clarification on whether TRS for SCell is enabled during deactivated state. Companies are encouraged to check the summary of feature lead.

R1-1800168	Correction on TRS	MediaTek Inc.
R1-1800193	Remaining issues and text proposals on TRS	vivo
R1-1800319	Remaining Issues On TRS	Intel Corporation
R1-1800501	Text Proposal for CSI-RS for Time/frequency Tracking	Guangdong OPPO Mobile Telecom.
R1-1800533	Remaining details of CSI-RS designs for time and frequency tracking	Huawei, HiSilicon
R1-1800668	Remaining issues on TRS	NTT DOCOMO, INC.
R1-1800709	Corrections related to TRS	Ericsson

R1-1800759 Remaining details of TRS design Nokia, Nokia Shanghai Bell
R1-1800866 Remaining issues on TRS Qualcomm Incorporated

7.2.3.7 QCL

R1-1801054 Summary of QCL Nokia, Nokia Shanghai Bell

Agreement:
Agree to the following text proposal in 5.2.1.5.2 of 38.214
For a UE configured with the higher layer parameter *ResourceConfigType* set to 'semi-persistent'.

- when a UE receives an activation command [10, TS 38.321] for CSI-RS resource(s) for channel measurement and CSI-IM/NZP CSI-RS resource(s) for interference measurement associated with configured CSI resource setting(s) in slot n, the corresponding actions in [10, TS 38.321] and the UE assumptions (including quasi-co-location assumptions provided by a reference to a *TCI-RS-SetConfig*) on CSI-RS/CSI-IM transmission corresponding to the configured CSI-RS/CSI-IM resource configuration(s) shall be applied no later than the minimum requirement defined in [10, TS 38.133]. If a TCI-RS-SetConfig in the list is configured with a reference to an RS associated with QCL-TypeD, that RS can be an SS/PBCH block, periodic or semi-persistent CSI-RS located in same or different CC/BWP.

Commented [ME1]: ZTE, R1-1800117

R1-1801115 Summary of offline discussions on QCL Nokia

Agreement:
Agree to the following text change for 38.213 section 10.1:

---- *Unchanged parts omitted* ----

A UE may assume that the DM-RS antenna port associated with PDCCH reception in the Type0A-PDCCH common search space and associated PDSCH are quasi co-located with ~~and the DM-RS antenna port associated with~~ the associated SS/PBCH ~~reception~~ block ~~are quasi co-located~~ with respect to average gain delay spread, Doppler spread, Doppler shift, average delay, and spatial Rx parameters when applicable.
A UE may assume that the DM-RS antenna port associated with PDCCH reception and associated PDSCH reception in the Type1-PDCCH common search space are quasi co-located with ~~the DM-RS antenna port of~~ the SS/PBCH block identified in initial access procedure ~~the UE selected for RACH association and transmission reception associated with a corresponding PRACH transmission~~ with respect to delay spread, Doppler spread, Doppler shift, average delay, and spatial Rx parameters when applicable.

Commented [ME2]: Qualcomm, R1-1800867
Commented [ME3R2]: Discuss the introduction of average channel gain

---- *Unchanged parts omitted* ----

If the UE has ~~not~~ received initial ~~an~~ RRC configuration of TCI-StatesPDCCH containing more than one TCI states ~~indication~~ but not MAC CE activation of one of those states~~for an antenna port quasi co-location from the set of antenna port quasi co-locations provided by *TCI-StatesPDCCH*~~, the UE assumes that the DM-RS antenna port associated with PDCCH reception in the UE-specific search space is quasi co-located with ~~the DM-RS antenna port associated with PBCH reception~~ the SS/PBCH block the UE ~~selected for RACH association and transmission~~identified during initial access procedure ~~-~~with respect to delay spread, Doppler spread, Doppler shift, average delay, and spatial Rx parameters~~.~~ when applicable.
If the UE has received RRC configuration of TCI-StatesPDCCH containing a single TCIstate, the UE assumes that the DM-RS antenna port associated with PDCCH reception in the UE-specific search space is quasi co-located with the DL RS(s) configured by the TCI state.

Agreement:
Agree to the following text change for 38.214 section 5.1.5:

---- *Unchanged parts omitted* ----

The UE receives a selection command [10, TS 38.321] used to map up to 8 TCI states to the codepoints of the DCI field Transmission configuration indication~~TCI-states~~. Until a UE receives higher layer configuration of TCI states and before reception of the activation command, the UE may assume that the antenna ports of one DM-RS port group of PDSCH of a serving cell are quasi co-located with the SSB determined in the initial access procedure with respect to Doppler shift, Doppler spread, average delay, delay spread, ~~spatial RX parameters (~~spatial RX parameters ~~are used only for above 6GHz~~where applicable~~)~~.

---- *Unchanged parts omitted* ----

If the *TCI-PresentinDCI* is set as 'Enabled', the UE shall use the *TCI-States* according to the value of the '*Transmission Configuration Indication*' field in the detected PDCCH with DCI for determining PDSCH antenna port quasi co-location. The UE may assume that the antenna ports of one DM-RS port group of PDSCH of a serving cell are quasi co-located with the RS(s) in the RS set with respect to the QCL type parameter(s) given by the indicated TCI state if the offset between the reception of the DL DCI and the corresponding PDSCH is equal to or greater than a threshold *Threshold-Sched-Offset*, where the threshold is FFS. For both the case when *TCI-PresentInDCI* = 'Enabled' and *TCI-PresentInDCI* = 'Disabled' ~~If~~ if the offset between the reception of the DL DCI and the corresponding PDSCH is less than ~~a~~ the threshold *Threshold-Sched-Offset*, the UE may assume that the antenna

ports of one DM-RS port group of PDSCH of a serving cell are quasi co-located based on the TCI state used for PDCCH quasi-colocation indication of the lowest *CORESET-ID* in the latest slot in which one or more CORESETs are configured for the UE.

R1-1800089 Summary of remaining issues for QCL assumptions Huawei, HiSilicon
R1-1800117 Remaining details on QCLZTE, Sanechips
R1-1800194 Text proposals on QCL vivo
R1-1800248 Remaining issues on QCL CATT
R1-1800320 Corrections to QCL for NR Intel Corporation
R1-1800440 Issues on QCL Samsung
R1-1800502 Text Proposal for QCL Guangdong OPPO Mobile Telecom.
R1-1800710 Corrections related to QCL Ericsson
R1-1800867 Remaining details on QCLQualcomm Incorporated

7.2.3.8 Other

R1-1800908 Correction on additional DMRS configuration for 2/4-symbol PDSCH transmission in 38.214 Huawei, HiSilicon
R1-1800925 Correction on DMRS sequency initialization indication in 38.212 Huawei, HiSilicon

R1-1800088 Discussion on grouping of CGS sequence Huawei, HiSilicon
R1-1800441 PTRS design for 40 GHz and higher frequency bands Samsung
R1-1800524 SRS carrier switching involving SUL Huawei, HiSilicon
Withdrawn
R1-1800525 Clarification on SRS switching among CCs Huawei, HiSilicon
R1-1800619 SRS carrier switching involving SUL Huawei, HiSilicon
R1-1800711 On correlation of subsampled Gold sequences Ericsson
R1-1800712 On UE TX frequency accuracy with TRS based synchronization Ericsson
R1-1800713 Further evaluations for PT-RS Ericsson
R1-1800714 Type 1 mapping of pi/2 BPSK DFTS DMRSEricsson
R1-1800814 TP on NR SRS triggering for SUL Huawei, HiSilicon
R1-1800837 Correction on DMRS mapping for non-slot-based scheduling Huawei, HiSilicon
R1-1800905 Correction on SRS time domain configuration in 38.211 Huawei, HiSilicon
R1-1800906 Correction on SRS antenna switching in 38.214 Huawei, HiSilicon
R1-1800907 Correction on additional DMRS location in 38.211 Huawei, HiSilicon
R1-1800913 Correction on DL antenna port mapping in 38.211 Huawei, HiSilicon
R1-1800919 Correction on PTRS mapping of pre-DFT PTRS in 38.211 Huawei, HiSilicon
R1-1800920 Correction on pi/2 BPSK sequence generation of pre-DFT PTRS in 38.211 Huawei, HiSilicon
R1-1800921 Correction on RB-level offset of downlink PTRS in 38.211 Huawei, HiSilicon
R1-1800922 Correction on UL power boosting of PTRS in 38.213 Huawei, HiSilicon
R1-1800923 Correction on DMRS ports indication in 38.214 Huawei, HiSilicon
R1-1800924 Correction on PUSCH/DMRS EPRE ratio in 38.214 Huawei, HiSilicon
R1-1800933 Correction on aperiodic SRS frequency hopping in 38.211 Huawei, HiSilicon
R1-1800934 Correction on aperiodic SRS trigger offset indication 38.212 Huawei, HiSilicon
R1-1800935 Correction on aperiodic SRS trigger time offset in 38.214 Huawei, HiSilicon

7.2.4 Other

R1-1800772 Editorial corrections to 38.211 CATT
R1-1800773 Editorial corrections to 38.212 CATT
R1-1800774 Editorial corrections to 38.214 CATT

7.3 Scheduling/HARQ aspects

7.3.1 Physical downlink control channel

7.3.1.1 PDCCH structure

R1-1801064 Summary of discussions for AI 7.3.1.1 PDCCH structure NTT DOCOMO
Decision: The document is noted.

Offline discussion on the detailed TP on how NULL elements are inserted into the interleaving matrix
Friday: Discuss till next meeting

Offline discussion on the detailed TP for n_shift
Friday: Discuss till next meeting

Offline discussion on the detailed TP for the initialization of PDCCH scrambling sequence
Offline discussion on the detailed TP for PDCCH DMRS sequence generation

R1-1800321 **Remaining details and corrections on PDCCH structure** **Intel Corporation**
R1-1800943 **On PDCCH structure** **Ericsson**

Thursday session
R1-1801196 **Offline discussion for PDCCH structure** **NTT DOCOMO**
Decision: The document is noted.

Agreement: Adopt following text proposal for PDCCH scrambling (TS38.211 Section 7.3.2.3)

----------start of TP----------
The scrambling sequence generator shall be initialized with

$$c_{init} = (n_{RNTI} \cdot 2^{16} + n_{ID}) \bmod 2^{31}$$

where

- $n_{ID} \in \{0, 1, \ldots, 2^{16} - 1\}$ equals the higher-layer parameter *Control-scrambling-Identity* if configured and RNTI is equal to C-RNTI, $n_{\mathrm{ID}} = N_{\mathrm{ID}}^{\mathrm{cell}}$ otherwise, and
- n_{RNTI} is C-RNTI for PDCCH in USS, while is 0 for PDCCH in CSS.

----------end of TP----------
Friday: Companies can check whether the above agreement is consistent with previous coding discussion/agreements or not

Agreements:
- DM-RS sequence for PDCCH is initialized with an equation with at least symbol index, slot index, and the ID.
  - FFS: further randomization to avoid consistent collisions over frames.
- DMRS sequence for PDCCH is generated per symbol.

Friday session
R1-1801278 **Proposal for PDCCH structure** **NTT DOCOMO**
Decision: The document is noted.

Agreement:
- The TP in R1-1801278 for 38.211 is endorsed
  - The last sentence is subject to editor's refinement

R1-1800067 Summary of remaining issues on PDCCH structure Huawei, HiSilicon
R1-1800129 PDCCH DMRS reference point and other remaining issues ZTE, Sanechips
R1-1800195 Remaining issues on PDCCH structure vivo
R1-1800285 Remaining issues on PDCCH structure Spreadtrum Communications
R1-1800371 Remaining issues on PDCCH strucutre LG Electronics
R1-1800442 Corrections on PDCCH Structure Samsung
R1-1800494 Text proposal for PDCCH structure Guangdong OPPO Mobile Telecom.
R1-1800517 Remaining issues and changes in PDCCH structure MediaTek Inc.
R1-1800544 Discussion on PDCCH DMRS CMCC
R1-1800643 Discussion on PDCCH resource mapping ITRI
R1-1800889 Remaining issues on PDCCH structure Qualcomm Incorporated
R1-1800988 Corrections to PDCCH structure AT&T

7.3.1.2 Search space

Agreements:
- The maximum number of CORESETs per BWP per cell is 3
  - For the 3rd CORESET, i.e., for p=2, Ap=39839.
- Confirm 10 as the maximum number of search space sets per BWP per cell.

Tuesday session
R1-1801079 **Offline discussion for search space** **NTT DOCOMO**
Decision: The document is noted.

Agreements:
- CORESET ID of the CORESET configured by PBCH is 0.
- Search space ID of the search space configured by PBCH is 0.

Agreements:
- A UE can be configured with a search space configuration by UE-specific RRC signaling which includes following:
  - CORESET ID (range: 0-11, to indicate which CORESET the search space is mapped to)
    - The search space can be associated with any CORESET configuration
    - When the CORSET ID is UE-specifically configured to be 0, it is mapped to the one configured by PBCH
  - Search space ID (range: 0-39)
    - When the search space ID is UE-specifically configured to be 0, it is mapped to the one configured by PBCH

Agreements:
- DCI format 0_1 and 1_1 are monitored only in USS.
- DCI format 0_0 and 1_0 are monitored in CSS.
- DCI format 0_0 and 1_0 can be monitored in USS.
  - They have the same DCI payload size.
- One of the following is configured by RRC signaling for the USS:
  - Monitoring DCI format 0_1 and 1_1 only
  - Monitoring DCI format 0_0 and 1_0 only

Offline discussion on the set of RNTIs associated with CSS & USS, especially taking into account the respective set of DCI formats/sizes monitored for CSS & USS
Friday: Discuss till next meeting.

Proposals:
- UE is not expected to monitor more than two candidates for AL=8 in the active DL BWP within a slot
- UE is not expected to monitor more than two candidates for AL=16 in the active DL BWP within a slot
- Discuss further offline especially in combination with the discussion regarding the max # of CCEs for channel estimation
  - Also, limitations per SS? Limitations per monitoring occasion?

Wednesday session
R1-1801129 **Offline discussion for Search space** **NTT DOCOMO**
Decision: The document is noted.

Agreements**:**
- NR supports a DCI format having the same size as the DCI format 1_0 to be used for scheduling RMSI/OSI, for Paging, and for random access.

Agreements**:**
- For each search space configuration configured by UE-specific RRC signaling, the UE is informed whether the search space configuration is CSS or USS, together with the following information, as part of the search space configuration:
  - Which DCI format(s) to monitor
    - For a CSS,
      - DCI format 0_0 and DCI format 1_0
        - In which case, the UE monitors the DCI format with CRC scrambled by C-RNTI, CS-RNTI (if configured), SP-CSI-RNTI (if configured), RA-RNTI, TC-RNTI, P-RNTI, SI-RNTI
      - DCI format 2_0
        - In which case, the UE monitors the DCI format with CRC scrambled by SFI-RNTI, and the SFI-related parameters SFI-PDCCH is provided as part of the search space configuration
        - FFS: how to select one or two decoding candidates if the configured PDCCH candidates are larger than the value

- DCI format 2_1
  - In which case, the UE monitors the DCI format with CRC scrambled by INT-RNTI, and the PI-related parameters Preemp-DL is provided as part of the search space configuration
- DCI format 2_2
  - In which case, the UE monitors the DCI format with CRC scrambled by TPC-PUSCH-RNTI or TPC-PUCCH-RNTI
- DCI format 2_3
  - In which case, the UE monitors the DCI format with CRC scrambled by TPC-SRS-RNTI
- Monitoring of multiple DCI formats can be configured for one CSS

▪ For USS,
- A UE monitors the DCI format with CRC scrambled by C-RNTI, CS-RNTI (if configured), TC-RNTI (if a certain condition is met), and SP-CSI-RNTI (if configured)
  - Further discussion offline the association of the RNTIs with DCI formats
- Monitoring of multiple DCI formats can be configured for one USS

~~Agreements:~~
- ~~For a search space configuration, monitoring periodicity of slot(s) is updated as follows:~~
  - ~~For 15KHz SCS (slots based on 15kHz) without concatenated DL/UL assignments: 1, 2, 5, 10, 20~~
  - ~~For 30KHz SCS (slots based on 30kHz) without concatenated DL/UL assignments: 1, 2, 4, 5, 10, 20~~
  - ~~For 60KHz SCS (slots based on 60kHz) without concatenated DL/UL assignments: 1, 2, 4, 5, 8, 10, 20~~
  - ~~For 120KHz SCS (slots based on 120kHz) without concatenated DL/UL assignments: 1, 2, 4, 5, 10, 20~~
  - ~~FFS: for the case of concatenated DL/UL assignments~~

Friday session
Above agreement is modified as follows:
Agreements:
- For a search space configuration, monitoring periodicity of slot(s) is updated as follows:
  - For all SCS, {1, 2, 4, 5, 8, 10, 16, 20} slots
    - For INT-RNTI, a subset of {1,2,4} slots is applied
  - FFS: the case when concatenated semi-static DL/UL assignments is configured

Working assumption:
- At least for case 1-1 and case 1-2, all UE supports channel estimation capability for 48 CCEs for a given slot per scheduled cell
  - FFS: cross-carrier scheduling
  - FFS: wideband RS
  - FFS: overbooking and/or nested structure
  - FFS: exceptional case of CCE counting
  - FFS: for case 2

Agreement
- For the following previous agreement, N=4

Agreements:
- For CA with up to N CCs, maximum number of PDCCH blind decodes per slot for a UE depends on the number of configured CCs.
  - All UEs supporting CA with the same set of CCs supports the same maximum number of PDCCH blind decodes.
  - No explicit UE capability signaling to inform the maximum number of PDCCH blind decodes is reported.
- For CA with more than N CCs, maximum number of PDCCH blind decodes for a UE depends on the explicit UE capability.
  - All UEs supporting CA with the same set of CCs supports at least the same number of PDCCH blind decodes.
- FFS: the value of N (no more than 8).

R1-1800068	Summary of remaining issues on search space	Huawei, HiSilicon
R1-1800130	Search space design and related issues	ZTE, Sanechips
R1-1800145	Remaining issues and changes in search space	MediaTek Inc.

R1-1800196 Remaining issues on PDCCH search space and blind decoding vivo
R1-1800249 Remaining issues on PDCCH search space CATT, Potevio
R1-1800286 Remaining issues on seach space Spreadtrum Communications
R1-1800322 On channel estimation complexity for PDCCH reception Intel Corporation
R1-1800323 Remaining details and corrections on CORESETs and search spaces Intel Corporation
R1-1800372 Remaining issues on search space LG Electronics
R1-1800409 Clarification on PDCCH search space ETRI
R1-1800443 Corrections on Search Space Design Samsung
R1-1800495 Text proposal for search space Guangdong OPPO Mobile Telecom.
R1-1800518 Remaining issues on search space Panasonic
R1-1800550 On reducing the PDCCH channel estimation and BD complexity in NR Nokia, Nokia Shanghai Bell
R1-1800551 Remaining details on search space Nokia, Nokia Shanghai Bell
R1-1800631 On remaining issues of search space and blind detection InterDigital, Inc.
R1-1800644 Discussion on interleaver formulation ITRI
R1-1800645 Remaining details on PDCCH search space ITRI
R1-1800669 On search space NTT DOCOMO, INC.
R1-1800785 Text proposal for search space in 38.213 Potevio
R1-1800868 Remaining issues on control resource set and search space Qualcomm Incorporated
R1-1800944 Remaining details on search spaces Ericsson

7.3.1.3 Group-common PDCCH

R1-1801060 Offline discussions on GC-PDCCH carrying SFI Qualcomm
Decision: The document is noted.

FFS UE behavior when a configured GC-PDCCH carrying dynamic SFI is not detected
Friday: Discuss till next meeting

Agreements:
- For SFI table
  - Remove entries 46, 47, 48, 49, 50, 51, 52, 53
  - Discuss further offline additional entries

46	D	D	D	D	D	D	X	D	D	D	D	D	D	X
47	D	D	D	D	D	X	X	D	D	D	D	D	X	X
48	D	D	X	X	X	X	X	D	D	X	X	X	X	X
49	D	X	X	X	X	X	X	D	X	X	X	X	X	X
50	X	U	U	U	U	U	U	X	U	U	U	U	U	U
51	X	X	U	U	U	U	U	X	X	U	U	U	U	U
52	X	X	X	U	U	U	U	X	X	X	U	U	U	U
53	X	X	X	X	U	U	U	X	X	X	X	U	U	U

Tuesday session
R1-1801082 Offline discussions on GC-PDCCH carrying SFI Qualcomm
Decision: The document is noted.

Agreements:
- On the action time for GC-PDCCH carrying SFI,
  - For RRC configured DL reception cancellation, same slot cancellation is supported
  - For RRC configured UL transmission cancellation, N2 timeline is followed.
  - Further discussion offline on the detailed conditions for DL/UL cancellation (related to the overwriting rules)

Wednesday session
R1-1801121 Offline discussions on GC-PDCCH carrying SFI Qualcomm
Decision: The document is noted.

Agreements:
- Explicitly add reference SCS field in UE-specific SFI table configuration
  - The UE does not expect the reference SCS to have larger SCS than any of the configured BWP the GC-PDCCH is configured for
  - The reference SCS is UE-specifically configured per ~~BWP~~ cell (new RRC parameter)
    - For FR1: 15kHz/30kHz/60kHz
    - For FR2: 60kHz/120kHz

Proposals:
Confirm the following working assumption with updates:

- For FDD SFI support, use multi-slot SFI configuration to achieve FDD SFI support
  - The SFI for one FDD slot is configured with 2 ~~entries~~ values when configuring the slot format for one slot in each entry in the UE-specific SFI table~~in multi-slot configuration~~
    - If the DL and UL BWPs have the same numerology, for each pair of values in the configuration for the SFI entry, ~~Even slot~~ even location value is for DL BWP, and odd location value~~slot~~ is for UL BWP
    - If DL BWP has higher SCS than the UL BWP, K is the SCS ratio bewtween DL SCS and UL SCS (K>=1), use a (K+1) values for the SFI configuration for each UL slot (or K DL slots), with the first K values in the (K+1) values being the SFI for the K DL slots, and the last value for the one UL slot
    - If DL BWP has lower SCS than the UL BWP, K is the SCS ratio bewtween UL SCS and DL SCS (K>=1), use a (K+1) values for the SFI configuration for each DL slot (or K UL slots), with the first value in the (K+1) values being the SFI for the DL slot, and the last K values for the K UL slots
  - Same mechanism can be applied to SUL case
    - For TDD, K is the SCS ratio between non-SUL and SUL carrier (K>=1), use a (K+1) values for the SFI configuration for each SUL slot (or K non-SUL slots), with the first K values in the (K+1) values being the SFI for the K slots in non-SUL carrier, and the last value for the one slot of the SUL carrier
    - For FDD, K is the SCS ratio between non-SUL and SUL carrier (K>=1), use a (2K+1) values for the SFI configuration for each SUL slot (or K non-SUL slots), with the first K values in the (2K+1) values being the SFI for the K DL slots in non-SUL carrier, the next K values in the (2K+1) values being the SFI for the K UL slots in non-SUL carrier, and the last value for the one slot of the SUL carrier

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Thursday
Agreements: Confirm the following working assumption with updates:

- For FDD SFI support, use multi-slot SFI configuration to achieve FDD SFI support
  - RRC configures reference SCS for DL BWP and reference SCS for UL BWP (new RRC parameters)
  - The SFI for one FDD slot is configured with multiple values when configuring the slot format for one slot in each entry in the UE-specific SFI table
    - If the DL and UL reference SCSs are the same, for each pair of values in the configuration for an SFI entry, even location value is for DL BWP, and odd location value is for UL BWP
    - If DL reference SCS is higher than the UL reference SCS, K is the SCS ratio between DL reference SCS and UL reference SCS (K>1), use a (K+1) values for the SFI configuration for each reference UL slot (or K DL reference slots), with the first K values in the (K+1) values being the SFI for the K DL reference slots, and the last value for the one UL reference slot
    - If DL reference SCS is lower than the UL reference SCS, K is the SCS ratio bewtween UL reference SCS and DL reference SCS (K>1), use a (K+1) values for the SFI configuration for each DL reference slot (or K UL reference slots), with the first value in the (K+1) values being the SFI for the DL reference slot, and the last K values for the K UL reference slots
  - Same mechanism can be applied to SUL case
    - For TDD non-SUL carrier
      - RRC configures reference SCS for non-SUL carrier and reference SCS for SUL carrier (new RRC parameter)
      - K is the SCS ratio bewtween non-SUL reference SCS and SUL reference SCS (K>=1), use a (K+1) values for the SFI configuration for each SUL reference slot (or K non-SUL reference slots), with the first K values in the (K+1) values being the SFI for the K reference slots in non-SUL carrier, and the last value for the one reference slot of the SUL carrier

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Friday session
R1-1801254 **Offline discussions on GC-PDCCH carrying SFI Qualcomm**
Decision: The document is noted.

Agreement:

- UE-specific SFI table configuration (including reference SCS(s)) is per cell

Agreements:

- Support XXXXXXXDDDDDDD in the slot format table
- (working assumption) Support DDXXXUUUDDDDDD in the slot format table

Agreements:

- Update the previous agreements as follows:

- For DCI granted multi-slot transmission (PDSCH/PUSCH~~/PUCCH~~) vs semi-static DL/UL assignment
  - If semi-static DL/UL assignment configuration of a slot has no direction confliction with scheduled PDSCH/PUSCH~~/PUCCH~~ assigned symbols, the PDSCH/PUSCH~~/PUCCH~~ in that slot ~~can be~~ is received/transmitted
  - If semi-static DL/UL assignment configuration of a slot has direction confliction with scheduled PDSCH/PUSCH~~/PUCCH~~ assigned symbols, the PDSCH/PUSCH~~/PUCCH~~ transmission in that slot is ~~cancelled~~not received/transmitted
- For DCI granted multi-slot transmission (PDSCH/PUSCH~~/PUCCH~~) vs dynamic SFI, when there is no semi-static DL/UL assignment or the semi-static DL/UL assignment indicates unknown
  - UE is not expected to receive a dynamic SFI indicating a conflicting direction from DCI grant
  - ~~Follow scheduled multi-slot transmission~~

R1-1801266 TP for 38.211 related to SFI Qualcomm
Decision: The TP in R1-1801266 for 38.211 is endorsed.

R1-1801267 TP for 38.213 related to SFI Qualcomm
Decision: The TP in R1-1801267 for 38.213 is endorsed.

R1-1800069 Summary of remaining issues on group-common PDCCH Huawei, HiSilicon
R1-1800992 Remaining issues for slot format ZTE, Sanechips
Revision of R1-1800131
R1-1800146 Remaining issues in GC-PDCCH MediaTek Inc.
R1-1800197 Remaining issues on slot format and GC-PDCCH vivo
R1-1800250 Remaining details of slot format indication CATT, Potevio
R1-1800277 Remaining details on group-common PDCCH Spreadtrum Communications
R1-1800324 Remaining details and corrections on GC PDCCH Intel Corporation
R1-1800373 Discussion on group common PDCCH LG Electronics
R1-1800444 Corrections on UE-Group Common PDCCH Samsung
R1-1800496 Remaining issues on GC-PDCCH Guangdong OPPO Mobile Telecom.
R1-1800521 Remaining details on group-common PDCCH Panasonic
R1-1800545 Discussion on remaining issues for semi-static DL-UL assignment CMCC
R1-1800554 Additional periodicity values for NR signals/channels ZTE, Sanechips
R1-1800571 Remaining issues in Group-common PDCCH AT&T
R1-1800612 Slot format determination in NR Sharp
R1-1800670 Remaining issues on group-common PDCCH NTT DOCOMO, INC.
R1-1800737 Comments on the UE behaviours regarding slot configuration in TS38.213 Nokia, Nokia Shanghai Bell
R1-1800766 Discussion on GC PDCCH ASUSTEK COMPUTER (SHANGHAI)
R1-1800783 Discussion on the remaining issues for dynamic SFI Xiaomi Communications
R1-1800787 Remaining issues on group-common PDCCH WILUS Inc.
R1-1800869 Remaining issues on slot format indication Qualcomm Incorporated
R1-1800945 On Group common PDCCH Ericsson

7.3.1.4 DCI contents and formats

R1-1801012 Summary of 7.3.1.4 (DCI contents and formats) Ericsson
Decision: The document is noted.

Wednesday session
R1-1801136 Outcome of offline discussion on DCI content - Part I Ericsson
Decision: The document is noted.

Agreements**:** For one carrier:
- (working assumption) Payload sizes for 2-2 and 2-3 are padded (if needed) to match the size of formats 0-0/1-0 as defined by the initial BWP
- (working assumption) At most 4 different DCI sizes are monitored by the UE per slot
  - At most 3 different DCI sizes are monitored per C-RNTI per slot
- Payload size for formats 0-1 and 1-1 may differ

Working assumption**:**
- The number of bits in the resource allocation field for format 0-0 and 1-0 depends on search space:
  - In CSS(s) in CORESET 0, use initial DL BWP for DCI size determination and RB numbering

- FFS If a UE monitors 0-0/1-0 in CSS in CORESET 0 in a slot, it does not monitor formats 0-0 or 1-0 (or 2-x family in case they have a size aligned with 0-0/1-0) in any other search space
  - Otherwise, use active BWP for DCI size determination and RB numbering

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Friday session

R1-1801208 TP section 5.1.2.2 of 38.214 from agenda point 7.3.1.4 Ericsson
Decision: The TP in R1-1801208 for 38.214 is endorsed

R1-1801207 TP section 7.3 of 38.212 from agenda point 7.3.1.4 Ericsson
Decision: The TP in R1-1801207 for 38.212 is endorsed (to fix typos if any)

R1-1800070 Summary of remaining issues on DCI contents and formats Huawei, HiSilicon
R1-1800127 Alignment of DAI field of DCI format 1_0 between TS 38.212 and TS 38.213 Fujitsu
R1-1800132 Remaining issues on DCI content ZTE, Sanechips
R1-1800198 DCI contents and formats vivo
R1-1800251 On contents of DCI formats CATT, Potevio
R1-1800278 Remaining issues on DCI contents and formats Spreadtrum Communications
R1-1800325 DCI contents and formats Intel Corporation
R1-1800374 Remaining issues on DCI contents and formats LG Electronics
R1-1800445 DCI Contents and FormatsSamsung
R1-1800519 Discussion on DCI format Panasonic
R1-1800538 SPS Activation and Deactivations in NR NEC
R1-1800546 Discussion on DCI format design CMCC
R1-1800572 Text Proposal on DCI contents and formats AT&T
R1-1800599 L1 activation/deactivation for Grant Free type 2 and DL SPS transmission InterDigital, Inc.
R1-1800671 DCI contents and formats NTT DOCOMO, INC.
R1-1800870 Discussion on DCI related issues Qualcomm Incorporated
R1-1800938 On DCI formats subclause in 38.212 Nokia, Nokia Shanghai Bell
R1-1800946 Corrections to DCI formats Ericsson

7.3.1.5 Other

R1-1800817 Remaining issues and TP on interleaved CCE-to-REG mapping Huawei, HiSilicon
Decision: The document is noted.

R1-1800053 PDCCH reliability for URLLC Huawei, HiSilicon
R1-1800062 Summary of remaining issues on PDCCH monitoring with TPHuawei, HiSilicon
R1-1800199 High relaibilty PDCCH design vivo
R1-1800446 On UE Power Savings Samsung
R1-1800600 Considerations for ultra-reliable DCI transmission InterDigital, Inc.
R1-1800798 On reliable PDCCH for URLLC Sequans Communications
R1-1800816 Correction on multi-slot SFI configuration for FDD and SUL in TS38.213 Huawei, HiSilicon
R1-1800818 Correction on DMRS sequence initialization for PDCCH Huawei, HiSilicon
R1-1800819 Discussion and TP on mapping to physical resources for DMRS for PDCCH Huawei, HiSilicon
R1-1800820 Solutions for reducing channel estimation complexity for PDCCH Huawei, HiSilicon
R1-1800821 Remaining issues on UE PDCCH capability Huawei, HiSilicon
R1-1800822 Discussion and TP on CORESET and search space configuration Huawei, HiSilicon
R1-1800823 Correction on CORESET configuration in 38.213 Huawei, HiSilicon
R1-1800824 Solutions and TP for multi-TRP PDCCH transmission Huawei, HiSilicon
R1-1800825 Correction on the bits of DCI fields in 38.212 Huawei, HiSilicon
R1-1800826 Discussion and TP on effective range of dynamic SFIHuawei, HiSilicon
R1-1800838 Remaining issues on SFI with TP Huawei, HiSilicon
R1-1800839 Corrections on Slot configuration in TS 38.213 Huawei, HiSilicon

7.3.2 Physical uplink control channel

R1-1800252 Multiplexing of UCI transmissions of different durations or configurations CATT
R1-1800326 Group and sequence hopping Intel Corporation
R1-1800396 Multiplexing of SR and HARQ-ACK Lenovo, Motorola Mobility
R1-1800725 Collection of corrections on PUCCH in TS 38.211/212/213 Intel Corporation

7.3.2.1 PUCCH structure in short-duration

R1-1801038 **Summary of Contributions on PUCCH structure in short-duration Ericsson**

Decision: The document is noted.

Agreements**:**

- A single RRC parameter *PUCCH-GroupHopping* configures enable/disable of group and sequence hopping for all the PUCCH formats 0, 1, 3 and 4.
  - Note: This implies that *PUCCH-GroupHopping* replaces the already introduced parameters "PUCCH-F0-Base-sequence-hopping" and "PUCCH-F1-Base-sequence-hopping".
  - The range value for *PUCCH-GroupHopping* is "neither", "enable" and "disable" where
    - If *PUCCH-GroupHopping* is "neither", it implies neither group or sequence hopping is enabled.
    - If *PUCCH-GroupHopping* is "enable", it implies that group is enabled and sequence hopping is disabled.
    - If *PUCCH-GroupHopping* is "disable", it implies that group is disabled and sequence hopping is enabled.
  - *PUCCH-GroupHopping* is provided to UE via RMSI before RRC connection.

Proposal:

- No consensus to support symbol-level base sequence hopping for PUCCH format 0, 1, 3 & 4 in Rel-15

Agreements:

- If group hopping enabled and not sequence hopping for PUCCH, the used pseudo-random sequence $c(i)$ is initialized as $c_{\text{init}} = \left\lfloor \frac{n_{\text{ID}}}{30} \right\rfloor$, where the n_{ID} is configured by higher layer.
- If sequence hopping but not group hopping is used for PUCCH, the used pseudo-random sequence $c(i)$ is initialized as $c_{\text{init}} = \left\lfloor \frac{n_{\text{ID}}}{30} \right\rfloor \cdot 2^5 + n_{ID} \bmod 30$, where the n_{ID} is configured by higher layers.

Agreements:

- For parameter *SR-offset*, the SR offset is measured in slots for a given numerology.
  - For an *SR-periodicity* of maximum one slot duration for a given numerology, UE expects that the *SR-offset* is always 0 (slots)
  - For an *SR-periodicity* of more than one slot duration for a given numerology, the *SR-offset* is configured by RRC to be a non-negative value less than *SR-periodicity*.
- For an *SR-periodicity* of maximum one slot duration for a given numerology, the starting symbol index for the SR transmission occasion on PUCCH within an SR period is determined by
  $$x = startingSymbolIndex \bmod SR_{periodicity}$$
  where *startingSymbolIndex* is obtained from the PUCCH resource configuration in the corresponding *SR-resource*.
  - Note: For an *SR-periodicity* of more than one slot duration for a given numerology, the starting symbol index for the SR transmission occasion on PUCCH within a slot is determined by *startingSymbolIndex* from the PUCCH resource configuration in the corresponding *SR-resource*.

Agreements:

- DMRS shifted mapping is not supported for PUCCH format 2.
- In Rel-15, time-domain OCC is not supported for PUCCH format 0 with 2 symbols.

Proposal: Update Table 5.2.2.2-2 in section 5.2.2.2 in TS 38.211 as follows:

Table 5.2.2.2-2: Definition of $\varphi(n)$ for $M_{ZC} = 12$.

u	$\varphi(0),...,\varphi(11)$											
0	-3	3	1	-1	3	3	-3	1	-1	1	-1	1
1	-3	3	1	-3	1	3	-1	-1	1	3	3	3
2	-3	3	3	1	-3	3	-1	1	3	-3	3	-3
3	-3	3	1	3	-3	1	1	1	1	3	-3	3
4	-1	-3	3	-1	-3	-3	-3	-1	1	-1	1	-3
5	-3	-3	3	1	-3	-3	-3	-1	3	-1	1	3
6	1	-1	3	-1	-1	-1	-3	-1	1	1	1	-3
7	-3	-1	-1	1	3	1	1	-1	1	-1	-3	1
8	-3	-1	-1	-3	-3	-1	-3	3	1	3	-1	-3
9	-1	1	1	-1	1	3	3	-1	-1	-3	1	-3
10	-3	1	-1	-1	3	3	-3	-1	-1	-3	-1	-3
11	-3	-3	3	-3	-1	3	3	3	-1	-3	1	-3
12	1	-1	3	1	1	-1	-1	-1	1	3	-3	1
13	-3	-1	3	-3	-3	-1	-3	1	-1	-3	3	3
14	3	1	3	1	3	-3	-1	1	3	1	-1	-3
15	-3	1	3	-1	-1	-3	-3	-1	-1	3	1	-3
16	-1	-1	-1	-1	1	-3	-1	3	3	-1	-3	1
17	-1	1	3	-3	1	-1	1	-1	-1	-3	1	-1
18	-3	1	3	3	-1	-1	-3	3	3	-3	3	-3
19	-3	-1	-3	-1	-1	-3	3	3	-1	-1	1	-3
20	-3	-3	-1	3	3	3	-3	3	-3	1	-1	-3
21	-3	-1	3	1	-3	-1	-3	3	1	3	3	1
22	-3	3	3	3	-1	-3	-3	-1	-3	1	3	-3
23	3	-1	-3	3	-3	-1	3	3	3	-3	-1	-3
24	-3	-1	1	-3	1	3	3	3	-1	-3	3	3
25	1	3	-3	1	3	3	3	1	-1	1	-1	3
26	-3	1	-3	-3	-3	3	-3	-1	1	1	1	-3
27	-3	-3	3	3	3	-3	-1	1	-3	3	1	-3
28	-3	3	-3	3	3	-3	-1	-1	3	3	1	-3
29	-3	3	-3	3	-3	-3	3	-1	-1	1	3	-3

Conclusion:
- Regarding the notational misalignment between 38.211 and 38.213 in determination of PUCCH format 0 cyclic shift, the misalignment is to be fixed by 38.213 editor.

Wednesday
Discuss further offline whether or not to re-order the sequences of length 12/18/24, starting from R1-1800088 (to schedule a joint session between 2:30-4:30 Thursday)

Thursday
R1-1801173 Multiplexing of AN and SR on PUCCH Ericsson
Decision: The document is noted.

Proposals:
When the PUCCH resource for AN partially overlap with the PUCCH resource for SR, if the transmission includes one PUCCH transmission that conveys AN/SR, the corresponding PUCCH transmission is defined as the following:
- AN with PUCCH F3/F4 and SR with PUCCH format F1, or AN with PUCCH F2 and SR with PUCCH format 0
  - The PUCCH resource for transmission of AN/SR is the AN PUCCH resource. 1 bit is appended to AN for SR (0 if SR negative, 1 if SR positive)
- AN with PUCCH F0 and SR with PUCCH F0 or F1
  - The PUCCH resource for transmission of AN/SR is the AN PUCCH resource. If SR is negative, the CS of A/N is used. If SR is positive, the CS of AN incremented by one is used.
- AN with PUCCH F1 and SR with PUCCH F0, select from one of the following alternatives:
  - Alt 1: Drop SR and transmit only AN
  - Alt 2: The PUCCH resource for transmission of AN/SR is the AN PUCCH resource. If SR is negative, the CS of A/N is used for all symbols. If SR is positive, for the overlapping symbols, the CS of AN of the UCI/DMRS is incremented by one.
- AN with PUCCH F1 and SR with PUCCH F1, select from one of the following alternatives:
  - Alt 1: Same LTE if SR and AN have same starting and ending points. Otherwise drop SR.
  - Alt 2: Same as if SR is confined within AN. Otherwise, drop SR.
  - Alt 3: Same as LTE if AN starts before or same time as SR. Otherwise drop SR.

- Alt 4: Same as LTE if UE processing time for AN is guaranteed. Otherwise drop SR

Friday session

R1-1801094 Summary of Contributions on PUCCH structure in short-duration Ericsson

Decision: The document is noted.

Proposals:

- In case the UE determines that AN/SR and CSI PUCCH resources are overlap in time and AN/SR and CSI are transmitted together on one PUCCH resource,
  - the UE determines a PUCCH resource after determining a PUCCH resource set for a UCI size based on the number of AN/SR and CSI bits assuming a reference number of CSI bits.
    - FFS whether to assume that CSI part 2 is always dropped.
  - The PUCCH resource is selected from the PUCCH resources in the PUCCH resource set based on the same PUCCH resource indicator field in the DCI (or with additional implicit mapping if applicable) that was used to determine the PUCCH resource for only HARQ-ACK transmission.
  - The AN corresponds to PDSCH scheduled by DCI.
    - FFS on reference number of CSI bits
  - FFS how to encode CSI and AN/SR
- FFS in case the UE determines that AN/SR and CSI are not transmitted together on one PUCCH resource

Discuss till next meeting

R1-1801262 provides a summary of the offline discussion on UCI multiplexing. It is recommended to use as a base line for further discussion in the next meeting.

R1-1801262 Summary of discussions on multiplexing different UCI types on a PUCCH resource Ericsson

Decision: The document is noted.

Agreements:

- If a UCI transmission on a PUCCH form a UE using format 2 or 3 or 4 overlaps in time with K PUCCH resources, each configured for a SR, X bits are used to represent a SR being indicated by the UE and appended to the end of the end of HARQ-ACK followed by CSI.
  - Note: X is used to indicated both the presence or absence of SR and which of the K configured SR is embedded.
    - FFS : X=ceil(log2(K+1))
- FFS PUCCH formats 0 & 1

R1-1800071 Summary of remaining issues on PUCCH structure in short-duration Huawei, HiSilicon
R1-1800133 Miscellaneous changes related to Short PUCCH ZTE, Sanechips
R1-1800200 Remaining issues on short PUCCH vivo
Withdrawn
R1-1800253 Open issues on interference randomization for PUCCH CATT
R1-1800279 Remaining aspects of short PUCCH Spreadtrum Communications
R1-1800327 Cyclic shift hopping for PUCCH format 0 Intel Corporation
R1-1800346 Discussion on PUCCH sequence hopping Panasonic Corporation
R1-1800375 Text proposals on short PUCCH structure LG Electronics
R1-1800447 Corrections on PUCCH for up to 2 Symbols Samsung
R1-1800489 Remaining issues on short PUCCH Guangdong OPPO Mobile Telecom.
R1-1800558 Remaining details on short PUCCH Nokia, Nokia Shanghai Bell
R1-1800672 PUCCH structure in short-duration NTT DOCOMO, INC.
R1-1800871 Remaining issues for short PUCCH Qualcomm Incorporated
R1-1800947 On UE Behavior for UCI Reporting and Other Issues Ericsson

7.3.2.2 PUCCH structure in long-duration

R1-1800072 Summary of remaining issues on PUCCH structure in long-duration Huawei, HiSilicon
R1-1801023 Review Summary for AI 7.3.2.2. PUCCH structure in long-duration Huawei, HiSilicon

Decision: The document is noted.

Agreement:

- M_{symb} is to be replaced by $N_{SF}^{PUCCH,s} M_{symb}$ in $y(0),\ldots, y(M_{symb}-1)$ and $z(0),\ldots, z(M_{symb}-1)$ in clause of 6.3.2.6.4 in TS 38.211

Agreement:
- Revise $b^{(q)}(i)$ to $b(i)$ and $c^{(q)}(i)$ to $c(i)$. for UCI scrambling for PUCCH format 3 & 4 in clause of 6.3.2.6.1 of TS 38.211.

Agreements:
- To introduce a linkage in the spec between CS index of DMRS and index of OCC for pre-DFT-OCC (PUCCH PF4) as following
  - 0,6,3,9 (CS index of DMRS) -> 0,1,2,3 (index for OCC) for SF = 4
  - 0,6 (CS index of DMRS) -> 0,1 (index of OCC) for SF =2

Agreement:
- Revise "length of the orthogonal cover code" to "Spreading factor of PUCCH format 4" in clause of 9.2.1 of TS38.213 for multiplexing capacity of PUCCH format 4.

Agreement:
- For PUCCH format 1, time domain OCC index obtained from PUCCH resource is used as OCC index for both UCI and DMRS within each hop when frequency hopping is enabled or within the duration of PUCCH when frequency hopping is disabled.

Agreement:
- The 'unknown' symbols in semi-static DL/UL assignment can be used for long PUCCH transmission over multiple slots when a UE receives a grant to transmit the long PUCCH

Proposals:
- For periodic and SP-CSI/SR on long PUCCH over K slots where K is configured by higher layers, with duration of N symbols in each slot indicated by the higher layer configured PUCCH resource allocation, with transmission starting in slot M, the UE is expected to do the following
  - If the UE receives the semi-static UL/DL configuration, the UE is expected to transmit the long PUCCH on the slot(s), starting from slot M, where the number of consecutive UL and/or Unknown symbols >= N starting at the starting symbol indicated by PUCCH resource allocation. This continues until the UE has transmitted K slot(s) of long PUCCH.
  - If the UE does not receive any semi-static UL/DL configuration, the UE is expected to transmit long PUCCH over K consecutive slots, starting from slot M, starting at the starting symbol in each slot indicated by PUCCH resource allocation.

R1-1800134 **Remaining issues Long PUCCH ZTE, Sanechips**

Wednesday
Agreement:
- Add to clause of 6.3.2.1, 38.211 to clarify the hopping boundary in time when frequency hopping is enabled for PUCCH format 1, 3 and 4, the number of symbols in the first hop is given by floor(PUCCH length in symbols/2).

Thursday
R1-1801145 **Review Summary for AI 7.3.2.2. PUCCH structure in long-duration** **Huawei, HiSilicon**
Decision: The document is noted.

Agreements:
For inter-slot hopping pattern for long PUCCH over multiple slots:
- A first PRB for PUCCH transmission is provided by higher layer parameter *PUCCH-starting-PRB* and a second PRB for PUCCH transmission is provided by higher layer parameter *PUCCH-2nd-hop-PRB* *(already agreed)*
  - After long PUCCH over multiple slot starts, the first PRB is used for PUCCH transmssion in the even slot, the second PRB is used for PUCCH transmssion in the odd slot.
    - The slot index is counted after long PUCCH starts regardless if it is actually used for long PUCCH transmssion over multiple slots

R1-1800161 Remaining issues of PUCCH in long duration MediaTek Inc.
R1-1800201 Remaining issues on long PUCCH vivo,Potevio
R1-1800254 Remaining issues on long PUCCH formats CATT
R1-1800376 Text proposals on long PUCCH structure LG Electronics
R1-1800448 Corrections on PUCCH for more than 2 Symbols Samsung
R1-1800490 Remaining issues on long PUCCH Guangdong OPPO Mobile Telecom.

R1-1800559 Remaining details on PUCCH structure in long duration Nokia, Nokia Shanghai Bell
R1-1800673 PUCCH structure in long-duration NTT DOCOMO, INC.
R1-1800786 Remaining issues on long PUCCH over multiple slots WILUS Inc.
R1-1800872 Remaining issues for long PUCCH Qualcomm Incorporated
R1-1800948 On Long PUCCH Repetition and Other Issues Ericsson

7.3.2.3 UCI multiplexing

R1-1801092 Summary of remaining issues for UCI piggyback on PUSCH Qualcomm
Decision: The document is noted.

Agreements:
- It is clarified that based on previous agreements, when UCI is piggybacked on PUSCH, UCI is not FDMed with DMRS
  - This applies to the case regardless of whether UL-SCH is present on PUSCH or not

Huawei has a strong concern over the above clarification w.r.t. performance of UCI on PUSCH especially for the case of when UL-SCH is not present on PUSCH

Agreements:
- When UE determines to transmit 0, 1, or 2 HARQ-ACK bits, the amount of reserved REs for HARQ-ACK is calculated assuming 2-bits HARQ-ACK, along with the beta_offset determined for the particular transmission
  - In case the number of HARQ-ACK bits determined at UE is less than 2, the modulated HARQ-ACK symbols are mapped to a subset of the reserved REs.
  - FFS how to determine the subset

Wednesday
R1-1801092 Summary of remaining issues for UCI piggyback on PUSCH Qualcomm

Agreement:
- Clarify in 38.212 that modulated HARQ-ACK symbols are not mapped to non-DMRS symbol before the first DMRS symbol(s)

Proposal:
- When HARQ-ACK is multiplexed with a single-part CSI report on PUSCH without UL-SCH data, the CSI is not mapped to reserved HARQ-ACK REs on PUSCH

Proposal:
- Clarify that set Φ_l is defined as a set of "physical" resource elements in PRB domain not in VRB domain.

Friday: Discuss till next meeting.

Thursday
R1-1801170 Summary of remaining issues for UCI piggyback on PUSCH Qualcomm
Decision: The document is noted.

Working assumption:
- Locations of the reserved REs for HARQ-ACK are determined following the same rule defined (in RAN1 #91) for mapping modulated HARQ-ACK symbols to REs.

Agreement:
- In step 5 in the pseudo codes to do "Data and control multiplexing" in Section 6.2.7 of 38.212, ACK puncture REs over set $\overline{\Phi}_l^{\text{rvd}}$ instead of Φ_l

Further discussion till next meeting on how to handle overlapped UL transmissions of different starting symbols and/or of different lengths

Further discussion till next meeting on how to determine the modulation order for A-CSI only on PUSCH – companies are encouraged to contribute on this topic (referring to the contributions already in this meeting – listed in Section 2.6 of R1-1801170)

Friday session
R1-1801263 Summary of remaining issues for UCI piggyback on PUSCH Qualcomm

Decision: The document is noted.

Agreements

- When piggybacked on PUSCH with UL-SCH, the number of coded modulation symbols per layer for HARQ-ACK denoted as Q'_{ACK}, CSI part 1 transmission denoted as $Q'_{\text{CSI-part1}}$, and CSI part 2 transmission denoted as $Q'_{\text{CSI-part2}}$, are determined based on following equations:

$$Q'_{\text{ACK}} = \min\left\{\left\lceil \frac{(O_{\text{ACK}} + L_{ACK}) \cdot \beta_{\text{offset}}^{\text{HARQ-ACK}} \cdot \sum_{l=0}^{N_{\text{symb,all}}^{\text{PUSCH}}-1} M_{\text{sc}}^{\Phi^{\text{UCI}}}(l)}{\sum_{r=0}^{C_{\text{UL-SCH}}-1} K_r} \right\rceil, \alpha * \sum_{l=l_0}^{N_{\text{symb,all}}^{\text{PUSCH}}-1} M_{\text{sc}}^{\Phi^{\text{UCI}}}(l)\right\}$$

$$Q'_{\text{CSI-1}} = \min\left\{\left\lceil \frac{(O_{\text{CSI-1}} + L_{CSI-1}) \cdot \beta_{\text{offset}}^{\text{CSI-1}} \cdot \sum_{l=0}^{N_{\text{symb,all}}^{\text{PUSCH}}-1} M_{\text{sc}}^{\Phi^{\text{UCI}}}(l)}{\sum_{r=0}^{C_{\text{UL-SCH}}-1} K_r} \right\rceil, \left(\alpha * \sum_{l=0}^{N_{\text{symb,all}}^{\text{PUSCH}}-1} M_{\text{sc}}^{\Phi^{\text{UCI}}}(l)\right) - Q'_{\text{HARQ-ACK}}\right\}$$

$$Q'_{\text{CSI-2}} = \min\left\{\left\lceil \frac{(O_{\text{CSI-2}} + L_{CSI-2}) \cdot \beta_{\text{offset}}^{\text{CSI-2}} \cdot \sum_{l=0}^{N_{\text{symb,all}}^{\text{PUSCH}}-1} M_{\text{sc}}^{\Phi^{\text{UCI}}}(l)}{\sum_{r=0}^{C_{\text{UL-SCH}}-1} K_r} \right\rceil, \left(\alpha * \sum_{l=0}^{N_{\text{symb,all}}^{\text{PUSCH}}-1} M_{\text{sc}}^{\Phi^{\text{UCI}}}(l)\right) - Q'_{\text{HARQ-ACK}} - Q'_{\text{CSI-1}}\right\}$$

where

- α =0.5, 0.65, 0.8, 1} is a new RRC configured parameter of two bits, which is configured per UE (per CC)
  - FFS whether or not α is applicable to the case when there is no UL-SCH
- l_0 is the symbol index of first available non-DMRS symbol after the first DMRS symbol(s)

R1-1800073	Summary of remaining issues on UCI multiplexing	Huawei, HiSilicon
R1-1800135	Remaining issues for UCI over PUSCH	ZTE, Sanechips
R1-1800162	Remaining issues of UCI on PUSCH	MediaTek Inc.
R1-1800202	Remaining issues on UCI multiplexing	vivo
R1-1800255	Open issues for UCI multiplexing on PUSCH	CATT
R1-1800328	UCI multiplexing	Intel Corporation
R1-1800329	On the reserved HARQ-ACK REs	Intel Corporation
R1-1800330	UE procedure for multiplexing HARQ-ACK/SR and CSI	Intel Corporation
R1-1800377	Text proposals on PUSCH UCI multiplexing	LG Electronics
R1-1800449	Corrections on UCI Multiplexing in PUSCH	Samsung
R1-1800491	Text proposal for UCI multipelxing	Guangdong OPPO Mobile Telecom.
R1-1800560	Remaining details on UCI multiplexing	Nokia, Nokia Shanghai Bell
R1-1800620	Text proposal for UCI reporting in PUCCH in 38.213	FiberHome
R1-1800761	UCI reporting in physical uplink shared channel	CATR
R1-1800873	Remaining issues for multiplexing UCI on PUSCH	Qualcomm Incorporated
R1-1800949	On Mapping of UCI on PUSCH and Other Issues	Ericsson

7.3.2.4 Resource allocation for PUCCH

R1-1801003 Summary of RAN1#AH 1801 Tdocs on PUCCH resource allocation OPPO

Decision: The document is noted.

Proposals:

- For resource allocation for HARQ-ACK before RRC connection setup,
  - RMSI indicates an index mapped to an entry within 16 entries, where each entry defines a cell-specific set of PUCCH resources
    - PUCCH duration: configurable values include at least 2 and 14. FFS others.
    - Starting symbol is derived from duration

- Frequency hopping is always enabled and the PRB(s) of the two hops are at the edge of the initial BWP.
- For each duration, different set of cyclic shifts are specified for different rows.
- FFS: detailed values.

- For each entry, ~~FFS how to~~ use the 2-bit ARI in the DCI for Msg.4 for HARQ-ACK resource determination.

Wednesday
R1-1801087 Summary of offline discussions on PUCCH resource allocation OPPO
Decision: The document is noted.

Agreements:
- For resource allocation for HARQ-ACK before RRC connection setup
  - 4-bit RMSI indicates an entry into a 16-row table and each row in the table configures a set of cell-specific PUCCH resources/parameters
  - PUCCH duration of at least {2, 14}
  - If frequency hopping is enabled for long PUCCH, the PRB(s) of the two hops are x PRBs away from each edge of the initial UL BWP.
    - FFS on x
    - FFS on whether to support frequency hopping for short PUCCH
    - FFS frequency hopping is always enabled or indicated in RMSI to enable/disable hopping
      - Check further offline on the UE feature related discussion

Agreements:
- For PUCCH duration = 2, the starting symbol is symbol 12 within the slot
- HARQ-ACK is only one bit without bundling before RRC connection

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Friday
R1-1801152 Summary of offline discussions on PUCCH resource allocation OPPO
Decision: Companies are encouraged to check R1-1801152 to facilitate discussion for next meeting

R1-1800074 Summary of remaining issues on resource allocation for PUCCH Huawei, HiSilicon
R1-1800136 Remaining issues for PUCCH resource allocation ZTE, Sanechips
R1-1800203 Remaining issues on PUCCH resource allocation vivo
R1-1800256 PUCCH resource allocation CATT
R1-1800280 Remaining aspects of PUCCH resource allocation for NR Spreadtrum Communications
R1-1800331 Remaining details of resource configuration and allocation Intel Corporation
R1-1800347 Discussion on remaining issues on PUCCH resource allocation Panasonic Corporation
R1-1800378 Remaining issues on PUCCH resource allocation LG Electronics
R1-1800403 Remaining issues on PUCCH resource allocation Lenovo, Motorola Mobility
R1-1800408 Clarifying resource allocation for PUCCH ETRI
R1-1800450 Corrections on Resource Allocation for PUCCH Samsung
R1-1800487 Text proposal and remaining issues on resource allocation for PUCCH Guangdong OPPO Mobile Telecom.
R1-1800536 PUCCH resource allocation prior to RRC configuration NEC
R1-1800561 Remaining details on PUCCH resource allocation Nokia, Nokia Shanghai Bell
R1-1800573 Remaining issues in Resource allocation for PUCCH AT&T
R1-1800674 Resource allocation for PUCCH NTT DOCOMO, INC.
R1-1800874 Remaining issues for resource allocation for PUCCH Qualcomm Incorporated
R1-1800950 On PUCCH Resource Allocation and Other Issues Ericsson

7.3.2.5 Other

R1-1800033 Intra-slot hopping pattern for long PUCCH over multiple slots Huawei, HiSilicon
R1-1800034 Long PUCCH over multiple slots with different duration in each slot Huawei, HiSilicon
R1-1800054 Discussion on UCI feedback for URLLC Huawei, HiSilicon
R1-1800137 Hopping and scrambling for UL control ZTE, Sanechips
R1-1800527 CSI feedback enhancements for URLLC Huawei, HiSilicon
R1-1800601 Considerations for ultra-reliable UCI transmission InterDigital, Inc.
R1-1800815 Correction on UCI multiplexing between UL and SUL in TS38.213 Huawei, HiSilicon
R1-1800827 Multiplexing of SR and HARQ-ACK with TP Huawei, HiSilicon
R1-1800828 Remaining issues and TP on resource allocation for PUCCH Huawei, HiSilicon
R1-1800829 Aperiodic CSI feedback on PUCCH in NR Huawei, HiSilicon
R1-1800830 Correction on PUCCH multiplexing in 38.213 Huawei, HiSilicon

R1-1800831 Correction on UCI repetition procedure in 38.213 Huawei, HiSilicon
R1-1800832 Draft CR on hopping boundary for PUCCH format 1, 3 & 4 Huawei, HiSilicon
R1-1800833 UCI piggyback on PUSCH Huawei, HiSilicon
R1-1800834 Correction on DMRS sequence initialization for PUCCH format 2 Huawei, HiSilicon
R1-1800840 Number of PRBs for PUCCH format 2 and PUCCH format 3 Huawei, HiSilicon
R1-1800841 Correction on PUCCH resource sets for PUCCH format 4 Huawei, HiSilicon
R1-1800842 Correction on cyclic shift for DMRS sequence of PUCCH format 3 & 4 Huawei, HiSilicon
R1-1800843 Correction on formula for Low-PAPR sequence generation Huawei, HiSilicon

7.3.3 DL/UL data scheduling and HARQ procedure

7.3.3.1 DL/UL resource allocation

R1-1801011 Summary of 7.3.3.1 (resource allocation) Ericsson
Decision: The document is noted.

R1-1801065 Outcome of offline discussion on 7.3.3.1 (resource allocation) – part I Ericsson
Decision: The document is noted.

From the outcome of the offline
Further discussion offline to down-select (including refinement) among the two alternatives:

- Option 1
  - BWP index changes BWP in the future. DCI information relates to *current* BWP. A later assignment can use the new BWP. DCI size determined by current BWP.
- Option 3
  - BWP index changes BWP. DCI relates to the BWP indicated by the index but the interpretation of the DCI (number of bits) is determined by *current* BWP. Need some rule how to apply the DCI information to a different BWP.

Conclusion:

- To capture in the specification supported combinations of starting OFDM symbol, the number of OFDM symbols and mapping type for the time-domain allocation for PDSCH and PUSCH respectively
  - Discuss further offline to come up with the details
  - Note: the current RRC signalling related to the above is not changed

Agreement:

- Slot boundary is the reference point for starting time of resource allocation for PDSCH (type A only) and PUSCH (type A or type B)

Proposal:

- For K0=0, the CORESET containing the PDCCH scheduling the transmission is the reference point for starting time of resource allocation for PDSCH (type B only)
  - Otherwise, Slot boundary is the reference point for starting time of resource allocation for the PDSCH (type B)

Conclusion:

- Time domain information field in DCI formats 0-1 and 1-1 can be 0/1/2/3/4 bits depending on existing RRC configuration

Agreements:

- In case of slot-aggregation is configured
  - the same symbol allocation is used across slots in UL
    - Note: this aligns with the DL case
  - the TB is repeated across the slots
  - Discuss further offline the RV order for the DL/UL transmission (scheduled by DCI) spanning multiple slots (also checking the existing agreements made in the coding session)
- In case of slot-aggregation is configured, the configuration is limited to rank 1 only for both DL and UL

Wednesday session
R1-1801102 Outcome of offline discussion on 7.3.3.1 (resource allocation) – part II Ericsson
Decision: The document is noted.

Alt.1: For K0=0, the first symbol of the CORESET containing the PDCCH scheduling the transmission is the reference point for starting time of resource allocation for PDSCH (PDSCH mapping type B)
- Other K0 values not supported for PDSCH mapping type B
- Note: it is not possible to configure negative values in the time allocation table

Supported by: Huawei, HiSilicon, Wilus, Panasonic, CATT, ETRI
Objected by:

Alt 2: Slot boundary is reference point for starting time of resource allocation for PDSCH for type B
Supported by: Nokia, NSB, Ericsson, NEC, NTT DOCOMO, vivo, Intel, Lenovo, MotM, Samsung, CMCC, Qualcomm
Objected by: Huawei, HiSilicon
For the sake of progress, Huawei accepted going forward with Alt 2

Agreement:
- Slot boundary is the reference point for starting time of resource allocation for PDSCH for type B

BWP discussion in R1-1801102 to be handled along with BWP session.

Agreements:
For PDSCH:
- Supported combinations for PDSCH mapping type A:
  - Starting symbol can be symbol index #0, 1, 2, 3 in a slot.
  - Length of the PDSCH is at least X symbols, up to 14 symbols within a slot, such that slot boundary is not crossed
    - FFS the value of X
- Supported combinations for PDSCH mapping type B:
  - Length of the PDSCH can be 2, 4, or 7 symbols.
  - Starting symbol can be any position within a slot, such that slot boundary is not crossed.

Proposals:
For PUSCH
- PUSCH mapping type A:
  - Starting symbol is symbol index #0 in a slot.
  - Length of the PUSCH is at least Y symbols, up to 14 symbols
    - FFS the value of Y
- PUSCH mapping type B (All 105 combinations except those with one symbol allocations)
  - Length of the PUSCH can be 2 through 14 symbols
  - Starting symbol can be any position within a slot, such that slot boundary is not crossed.

Thursday session

Working assumption:
- Sizes of all DCI bitfields in DCI formats 0-1 and 1-1 in USS determined by current BWP. Data transmitted on the BWP indicated by the BWP index. If the BWP index activates another BWP, transform as follows:
  - Zero-pad too small bitfields to match the new BWP
  - Truncate too large bitfields to match the new BWP

Agreements: For PUSCH
- PUSCH mapping type A:
  - Starting symbol is symbol index #0 in a slot.
  - Length of the PUSCH is at least Y symbols, up to 14 symbols
    - FFS the value of Y
- PUSCH mapping type B (All 105 combinations)
  - Length of the PUSCH can be 2 through 14 symbols, and with 1 symbol as a working assumption

Starting symbol can be any position within a slot, such that slot boundary is not crossed.

R1-1801176 Outcome of offline discussion on 7.3.3.1 (resource allocation) – part III Ericsson
Decision: The document is noted.

Agreement:
- The TP in the document containing 7.3.1.6 of 38.211 in R1-1801176 is adopted

For UL part, discuss further offline

Conclusion:
- Whether or not interleaving depends on the layer number is to be discussed in the MIMO session

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Friday session

Friday Proposal:
- For PDSCH mapping type A, X = 4 as a working assumption
  - In the case where PDSCH Type A < 7 symbols, the N1 is measured relative to the end of an 7-symbol PDSCH Type A reception with the same start location
- For PUSCH mapping type A, Y = 4

Discuss till next meeting

R1-1801201 TP to 6.3.1.7 in 38.211 (correction of VRB-to-PRB mapping in UL) Ericsson
Decision: The document is noted. For further discussion till next meeting.

R1-1801209 TP section 10.1 of 38.213 from agenda point 7.3.3.1 Ericsson
Decision: The document is noted.
Agreement:
- The TPs in R1-1801209 for 38.213 is endorsed with one update:
  - "aprt" to "part"

R1-1801210 TP section 5.1.2.1 of 38.214 from agenda point 7.3.3.1 Ericsson
Decision: The document is noted.
Agreement:
- The TPs in R1-1801210 for 38.214 is endorsed

R1-1801224 Text Proposal for Quantization of Number of REs in TBS Determination Ericsson
Decision: The document is noted.
Agreement:
- The TPs in R1-1801224 for 38.214 is endorsed

R1-1801259 Text Proposal for Quantized Number of Res Ericsson
Decision: The document is noted.
Agreement:
- The TPs in R1-1801259 for 38.212 is endorsed

R1-1801264 Additional RRC values for K0,K2 Qualcomm
Decision: The document is noted.
Agreement
- The list of values for K0 which can be configured by RRC should be updated to {0,1,2,3,**4,5,8,10,16,20,32**}.
- The list of values for K2 which can be configured by RRC should updated to {0,1,2,3,4,5,6,7,**8,10,16,20,32**}.

R1-1800019	Remaining issues on resource allocation and TBS	Huawei, HiSilicon
R1-1800138	Remaining issues for data resource allocation	ZTE, Sanechips
R1-1800167	Quantization table in TBS determination procedure	MediaTek Inc.
R1-1800210	Remaining issue on DL/UL resource allocation	vivo
R1-1800257	PDSCH and PUSCH resource allocation	CATT
R1-1800276	TBS calculation for small packet sizes	Spreadtrum Communications
R1-1800332	Remaining details on DL/UL resource allocation and TBS	Intel Corporation
R1-1800379	Remaining issues on resource allocation	LG Electronics
R1-1800410	Remaining issues on time domain resource allocation	ETRI
R1-1800451	Corrections on DL/UL Resource Allocation	Samsung
R1-1800488	Text proposal on DL/UL resource allocation	Guangdong OPPO Mobile Telecom.
R1-1800520	DL/UL resource allocation	Panasonic
R1-1800537	Remaining details of the DL/UL Resource allocation schemes	NEC
R1-1800547	Discussion on remaining issues for time domain resource allocation	CMCC
R1-1800577	Remaining issues in DL/UL resource allocation	AT&T
R1-1800613	Transport Block size for NR VoIP	Sharp
R1-1800621	Text proposal for resource allocation of PUSCH in 38.214	FiberHome

R1-1800675 DL/UL resource allocationNTT DOCOMO, INC.
R1-1800763 Discussion on the remaining details of time domain allocation CATR
R1-1800767 Discussion on data scheduling ASUSTEK COMPUTER (SHANGHAI)
R1-1800788 Remaining issues on DL/UL resource allocation WILUS Inc.
R1-1800875 DL/UL resource allocationQualcomm Incorporated
R1-1800939 Corrections to 38.214 resource allocation Nokia, Nokia Shanghai Bell
R1-1800951 DL/UL resource allocationEricsson

7.3.3.2 DL/UL scheduling and HARQ management

R1-1801070 Summary of DL/UL scheduling and HARQ management Qualcomm
Decision: The document is noted.

~~Agreements:~~
- ~~For PDSCH transmission before RRC connection, the set of timing values K1 between PDSCH and HARQ-ACK is~~
  - ~~FFS: configured using RMSI or defined in specification~~
  - ~~Note: the values should take into account the UE minimum timing requirements agreed in initial access~~
- ~~For PDSCH scheduled by fallback DCI, the set of timing values K1 between PDSCH and HARQ-ACK is~~
  - ~~FFS: configured using RMSI or defined in specification~~

Friday: Above agreement is changed as follows:
Agreements:
- For PDSCH transmission before RRC connection, the set of timing values K1 between PDSCH and HARQ-ACK is
  - Defined in specification to use values {1,2,3,4,5,6,7,8}
  - Note: the values should take into account the UE minimum timing requirements agreed in initial access
- For PDSCH scheduled by fallback DCI, the set of timing values K1 between PDSCH and HARQ-ACK is
  - Defined in specification to use values {1,2,3,4,5,6,7,8}

Agreements:
- The set of K1 slot-timing values which are configurable in RRC at least includes the set
  - {0,1,2,3,4,5,6,7,8}
  - Some of the 16 available RRC values may be reserved

Agreements:
- Upon detection of a DL SPS PDSCH in slot n, UE transmits HARQ-ACK in slot n+k when there is no contradicting semi-static configuration, where k is given by the PDSCH-to-HARQ-timing-indicator field carried in the activation DCI for the DL SPS process.
  - FFS: how to handle the case when the semi-static configuration conflicts at slot n+k
  - FFS: how to handle the case with dynamic SFI
  - The contradicting semi-static configuration is defined as when there is at least one semi-statically configured DL symbol overlaps with the symbol(s) carrying HARQ-ACK in slot n+k

Agreements:
- The number of HARQ processes configurable in RRC for unicast PDSCH per cell for a UE includes the set of integers {2,**4**, 6, 8,10,12,16}
  - 4-bits are provided in fallback and non-fallback DCI for addressing the HARQ process regardless of configuration
  - UE does not expect DCI to address process ID larger than number of HARQ processes configured in RRC
  - Further discussion offline on the number of HARQ processes assumed by the UE before RRC configuration
- FFS the number of HARQ processes for PUSCH is fixed at 16

Wednesday
R1-1801124 Summary of DL/UL scheduling and HARQ management Qualcomm
Decision: The document is noted.

Agreements:
- Clarification that Table 2-1 in R1-1801124 for "slot-based scheduling" in previous UE processing time RAN1 #91 corresponds to the following conditions
  - Case 1-1: PDCCH monitoring periodicity of 14 or more symbols
    - PDCCH monitoring on up to three OFDM symbols at the beginning of a slot
  - PDSCH Type A, and PUSCH Type A or B
    - PDSCH duration of at least 7 symbols

- For C-RNTI only
- (working assumption) also applicable to the cases when C-RNTI and with other broadcast RNTIs are processed simultaneously by the UE

Agreements:

- The baseline UE processing time capability (Capability #1) in NR Release 15 given by Table 2.1-1 corresponds to the following conditions
  - Single numerology for PDCCH, PDSCH, and PUSCH and no UCI multiplexing
    - Note: mixed numerology processing time agreements from previous meeting can be applied here (i.e., take largest absolute processing time among numerologies between uplink and downlink)
  - PDCCH conditions
    - Case 1: PDCCH monitoring periodicity of 14 or more symbols
      - Case 1-1: PDCCH monitoring on up to three OFDM symbols at the beginning of a slot
      - Case 1-2: PDCCH monitoring on any span of up to 3 consecutive OFDM symbols of a slot
    - Case 2: PDCCH monitoring periodicity of less than 14 symbols
    - First symbol of PDSCH assumed to be no earlier than the first symbol of PDCCH scheduling this PDSCH
  - PDSCH Type B and PUSCH type B time-domain allocation
    - FFS: increase N1 by d symbols if front-loaded DMRS comes d symbols after first PDSCH symbol
  - Note: if PDSCH Type A with less than 7 symbols is supported, the capability needs to be further discussed
  - One unicast PDSCH received and/or one unicast PUSCH transmitted within the same slot
    - FFS: More than one PDSCH and/or PUSCH case
  - Non-CA, and CA case with no cross-carrier scheduling
  - For C-RNTI only.
  - (working assumption) also applicable to the cases when C-RNTI and with other broadcast RNTIs are processed simultaneously by the UE

Table 2.1-1. UE Processing Time and HARQ Timing

Configuration	HARQ Timing Parameter	Units	15 KHz SCS	30 KHz SCS	60 KHz SCS	120 KHz SCS
Front-loaded DMRS only	N1[1]	Symbols	8	10	17	20
Front-loaded + additional DMRS	N1	Symbols	13	13	20	24
Frequency-first RE-mapping	N2[1]	Symbols	10	12	23	36
If 1st symbol of PUSCH is data-only or FDM data with DMRS, then add 1 symbol to N2 in table.						

Agreements:

- The UE is not expected to transmit or receive any TB across slot boundaries, where the slot boundary is determined by the numerology associated with the transmission or the reception
  - For the case of TB repetition, each repetition of the TB does not cross slot boundaries

---

Thursday session
R1-1801150 Summary of DL/UL scheduling and HARQ management Qualcomm
Decision: The document is noted.

Agreements:

- The number of HARQ processes for dynamic scheduling of PUSCH is fixed at 16
  - Note: some of processes may be used for grant-free operation

Agreements:

- Confirm the value of d=1 symbols in the RAN1 #91 agreement regarding multiplexing of HARQ-ACK with uplink data on PUSCH, i.e., confirm the text (without change) in TS38.214 Subclause 5.3:
  - If the HARQ-ACK is transmitted on PUSCH, then d_1=1.

Discuss till next meeting

- For CA with cross-carrier scheduling
  - FFS: N1 value when there is timing offset between PDCCH carrier and PDSCH carrier
  - FFS: N2 value when there is timing offset between PDCCH carrier and PUSCH carrier

Agreements: For each HARQ process ID, the UE is not expected to receive a scheduled unicast PDSCH transmission with the same HARQ process ID until

- The time after the end of the expected transmission of the HARQ-ACK for an earlier transmission on the same HARQ process ID
- FFS the time condition under which soft combinining for the same HARQ process ID can be assumed

---

Friday session

R1-1801247 Summary of DL/UL scheduling and HARQ management Qualcomm

Decision: The document is noted.

Proposals:

- FFS: How to support 0-bit HARQ-Timing indicator field case for non-fallback DCI
  - Note: no RRC parameter impact since all values can be configured to be the same HARQ timing for this case

Discuss till next meeting

Companies are encouraged to check the TPs in R1-1801247, to revisit later today

R1-1801275 Text Proposals for DL/UL scheduling and HARQ management Qualcomm

Decision: The TPs in R1-1801275 are endorsed

Proposals:

- For any two HARQ process IDs A and B, if scheduled unicast PDSCH transmission for A comes before the scheduled unicast PDSCH transmission for B then the UE is not expected to send the HARQ-ACK for A after the HARQ-ACK for B

Discuss till next meeting

R1-1800036	Summary of remaining issues on HARQ management	Huawei, HiSilicon
R1-1800163	HARQ-ACK and UL Scheduling Timing Relationship	MediaTek Inc.
R1-1800211	Remaining issues on HARQ management	vivo
R1-1800258	Open issues on HARQ-ACK feedback	CATT
R1-1800281	Remaining issues on scheduling and HARQ-ACK timing	Spreadtrum Communications
R1-1800333	Remaining details on processing and switching times in NR	Intel Corporation
R1-1800380	Text proposals on scheduling and HARQ	LG Electronics
R1-1800404	Remaining issues on HARQ-ACK feedback timing determination for SPS PDSCH	Lenovo, Motorola Mobility
R1-1800452	Corrections on HARQ Management	Samsung
R1-1800453	Corrections on HARQ Feedback	Samsung
R1-1800548	Discussion on remaining issues for HARQ timing	CMCC
R1-1800574	Enhanced HARQ-ACK bundling with multi slot operation	AT&T
R1-1800608	On Remaining Details for HARQ-ACK Codebook	MediaTek Inc.
R1-1800676	DL/UL scheduling and HARQ management	NTT DOCOMO, INC.
R1-1800762	UE procedure for reporting control information	CATR
R1-1800769	Remaining issues on HARQ-ACK bundling	Guangdong OPPO Mobile Telecom.
R1-1800876	DL/UL Scheduling, Processing Time and HARQ management	Qualcomm Incorporated

7.3.3.3 CBG-based (re)transmission

R1-1801057 Summary of CBG based retransmission LG Electronics

Decision: The document is noted.

~~Agreements:~~

- ~~To describe the functionality of CBGTI and CBGFI in the specs:~~
  - ~~In 38.213, for re-transmissions, a bit value of '1' in the CBGTI field indicates that the corresponding CBG is transmitted, and a bit value of '0' in the field indicates that the corresponding CBG is not transmitted.~~
  - ~~In 38.214, at least for re-transmissions, a bit value of '1' in the CBGFI field indicates to the UE that the transmitted CBG(s) requires to be handled differently for soft buffer combining and a bit value of '0' indicates no difference for soft buffer combining~~
    - Offline discussion to come up with more details on how to handle "differently" vs. "no difference"

Thursday

R1-1801164 Proposal for CBGFI description LG Electronics

Decision: The document is noted.

Above agreement is modified as follows:

Agreements:
- To describe the functionality of CBGTI and CBGFI in the specs:
  - For re-transmissions, a bit value of '1' in the CBGTI field indicates that the corresponding CBG is transmitted, and a bit value of '0' in the field indicates that the corresponding CBG is not transmitted.
  - At least for re-transmissions, a bit value of '1' in the CBGFI field indicates for the UE to assume the CBG(s) currently in soft buffer corresponding to a bit value of '1' in the CBGTI field as invalid, and a bit value of '0' in the CBGFI field indicates for the UE to assume the CBG(s) currently in soft buffer corresponding to a bit value of '1' in the CBGTI field as valid.

Agreements:
- When CBG is configured, UE assumes that the initial transmission is scheduled with whole TB (for both PDSCH and PUSCH)
  - The UE is not expected to be scheduled with partial TB for the initial transmission.

Agreements:
- When the configured number of CBGs is assumed to N, and in case when N-bit HARQ-ACK is to be transmitted by the UE in response to the PDSCH transmission scheduled by fallback DCI:
  - The TB-level HARQ-ACK is repeated over all the N bits for the configured number of CBGs.

Friday session
R1-1801226 Text proposal for CBG based retransmission LGE
Decision: The document is noted.

Conclusion:
- The TPs reflecting the above agreemennts are captured in R1-1801226. Editors can use the TPs as a starting point with further update as necessary (including removing some parts deemed unnecessary)

R1-1800075 Summary of remaining issues on CBG-based (re)transmission Huawei, HiSilicon
R1-1800139 Remaining issues for CBGZTE, Sanechips
R1-1800259 On open issues for CBG-based operation CATT
R1-1800381 Clarification on CBG based transmission LG Electronics
R1-1800405 Text proposals for CBG-based retransmission in TS38.213 Lenovo, Motorola Mobility
R1-1800454 Corrections on CBG-Based UL/DL Retransmissions Samsung
R1-1800492 Text proposal for CBG-based transmission Guangdong OPPO Mobile Telecom.
R1-1800549 Discussion on HARQ-ACK codebook design for CBG CMCC
R1-1800602 CBG-based (re)transmission InterDigital, Inc.
R1-1800609 On the Impact of CBG-based Retransmission Feature MediaTek Inc.
R1-1800791 Remaining issues on the CBG based transmission KT Corp.
R1-1800877 On remaining issues in CBG-based (re)-transmission Qualcomm Incorporated
Late submission
R1-1800952 Procedures for code block group based transmissions Ericsson
R1-1800989 Correction to CBG-based (re)transmissions AT&T

7.3.3.4 UL data transmission procedure

R1-1801128 Offline discussion on UL data transmission procedure NTT DOCOMO
Decision: The document is noted.

Agreements:
- The value range for the parameter *frequency-hopping-offset* is any integer value between 1 and $N_{BWP}^{size} - 1$.
- Confirm the value 50 as the boundary number of PRBs in the active UL BWP between the bandwidths having two or four frequency offsets for frequency hopping on PUSCH.
- Note: above proposals are applicable for both UL transmission with dynamic grant and with configured grant.

Agreements:
- For both configured grant Type 1 and Type 2 UL transmissions, following RRC parameters are defined and configured for a UE by UE-specific RRC signaling, separately from the corresponding RRC parameters for grant-based PUSCH transmission:
  - At least some open-loop power-control parameters
    - FFS discussion the detailed parameters (to be handled by Havish's session)

FFS on the number of HARQ-processes for both grant-based and grant-free transmissions (Joseph/Fred) → see Thursday session

Agreements:

- For both configured grant Type 1 and Type 2 UL transmissions, a UE can be configured with the following parameter by UE-specific RRC signaling separately from the corresponding RRC parameter for grant-based transmission:
  - FrequencyHopping: ENUMERATED {mode1, mode2}
  - dmrs-Type: ENUMERATED {type1, type2}
  - dmrs-AdditionalPosition: ENUMERATED {pos0, pos1, pos2, pos3}
  - phaseTracking-RS
  - DMRSLength: ENUMERATED {len1, len2}
    - Note: original parameter is called "maxLength" in PUSCH-Config., while if maxLength is configured as len2, single-symbol or double-symbol DM-RS can dynamically be indicated by DCI. For configured grant Type 1, the length for DMRS should be configured either len1 or len2.
  - scramblingID BIT STRING (SIZE (16)) for cp-OFDM
  - For dft-S-OFDM:
    - nDMRS-CSH-Identity: INTEGER(0..1007)
    - nPUSCH-Identity: INTEGER(0..1007)
    - disableSequenceGroupHopping: ENUMERATED {disabled}
    - sequenceHoppingEnabled: ENUMERATED {enabled}
    - activateDMRS-WithOCC: ENUMERATED {enabled}
    - cyclicShift: INTEGER (0..7)
    - groupAssignmentPUSCH: INTEGER (0..29)
  - mcs-Table: ENUMERATED {64QAM, 256QAM}
  - mcs-TableTransformPrecoder: ENUMERATED {64QAM, 256QAM}
  - uci-on-PUSCH: CHOICE {dynamic EQUENCE (SIZE (1..4)) OF BetaOffsets, semiStatic BetaOffsets} }
    - UCI on PUSCH for configured grant is supported.
      - Dropping/multiplexing rules for UCI to be further discussed.
    - Note: For Type 1 UL data transmission without grant, "uci-on-PUSCH" should be "semiStatic BetaOffsets"
  - resourceAllocation: CHOICE {resourceAllocationType0, resourceAllocationType1, dynamicSwitch}
    - Note: For Type 1 UL data transmission without grant, "resourceAllocation" should be semiStatic "resourceAllocationType0" or "resourceAllocationType1"
  - rbg-Size: ENUMERATED {config1, config2}
    - Note: rbg-size is used when the transformPrecoder parameter is disabled

---

Thursday session

Agreement:

- For both configured grant Type 1 and Type 2, value of the following RRC parameter is updated:
  - *nrofHARQ-processes*: INTEGER (1.. ~~FFS~~16)

Agreements:

- For configured grant Type 1, following RRC parameters are updated as following:
  - timeDomainOffset: INTEGER (0 … 5119)
    - Note: Indicating the offset in unit of a slot for a given numerology and a given periodicity
  - timeDomainAllocation: any one of valid combinations of start symbol and length and PUSCH mapping type that are specified for uplink grant-based transmission
  - frequencyDomainAllocation: 18 bits
    - Note: Indicating resource allocation as the same way in grant-based PUSCH for a given resourceAllocationType
  - UL-TWG-DMRS: split into four parameters {Precoding information and number of layers, Antenna ports, and DMRS_seq_intialization, SRS resource indicator}
    - Antenna ports: 5 bits
    - DMRS_seq_initialization: 1 bit
      - Note: Present only when transform-precoding is disabled.
    - Precoding information and number of layers: 6 bits
    - SRS resource indicator: 4 bits
  - UL-TWG-hopping
    - "Disabled" is deleted
    - Frequency-hopping-offset: the same range as grant-based case
  - Note: it is up to RAN2 how to configure configured grant Type 1 on UL or SUL

R1-1801080 Offline summary for 7.3.3.4 UL data transmission procedure NTT DOCOMO
R1-1801081 Proposals for UL data transmission procedure NTT DOCOMO

R1-1800060 Summary of remaining issues on UL data transmission procedure Huawei, HiSilicon
R1-1800077 Underlay SR: a complementary solution to overcome the limitations of periodic PUCCH-SR Idaho National Laboratory
R1-1800120 Remaining issues for UL data transmission procedure ZTE, Sanechips
R1-1800204 Remaining issues on UL data transmission procedure vivo
R1-1800260 Remaining issues on grant-free UL transmission CATT
R1-1800334 Remaining details on UL transmission procedures in NR Intel Corporation
R1-1800382 Remaining issues on UL data transmission procedure LG Electronics
R1-1800455 Correction on Procedures for UL Transmissions Samsung
R1-1800513 Text proposal on UL data transmission procedure Guangdong OPPO Mobile Telecom.
R1-1800522 UL data transmission procedure Panasonic
R1-1800575 Remaining issues of UL Data transmission procedure AT&T
R1-1800595 TP for termination of the repetition for UL transmission without grant Sony
R1-1800632 On explicit HARQ-ACK feedback for configured UL grant InterDigital, Inc.
R1-1800641 Enhancement of URLLC UL Transmission without Grant III
R1-1800677 UL data transmission procedure NTT DOCOMO, INC.
R1-1800780 UE behaviour when direction confliction between UL GF and dynamic SFI Xiaomi Communications
R1-1800940 Remaining details on PUSCH hopping procedure Nokia, Nokia Shanghai Bell
R1-1800953 Remaining Details in UL Transmission Procedures Ericsson

7.3.3.5 Soft-buffer management for NR

R1-1801037 Summary for AI 7.3.3.5 Intel
Decision: The document is noted.

Agreement:
- In 38.212, sec 5.4.2.1, clarify (by adding red text) that for TBS_{LBRM} calculation, the "max number of MIMO layers supported by the UE" is the "maximum number of MIMO layers for one TB supported by the UE for the serving cell".

Wednesday
R1-1801116 Summary of offline discussions for 7.3.3.5 Intel Corporation

Agreements:
- Prior to RRC configuration, TBS_LBRM should be derived based on reference value for maximum number of layers and for maximum modulation order.
  - Reference values should be specified for Rel-15 at least for downlink

Agreements:
- Details of soft buffer dimensioning are up to UE implementation. RAN1 recommends RAN4 to define suitable test cases. Send an LS to RAN4 – R1-1801139

Thursday
R1-1801139 LS on NR Soft Buffer Dimensioning RAN1, Intel
Decision: The document is approved.

R1-1800035 Summary of remaining issues on soft buffer management Huawei, HiSilicon
R1-1800213 On Soft Buffer Size Management Ericsson
R1-1800335 Remaining details on softbuffer management for NR Intel Corporation
R1-1800456 Corrections on Soft Buffer Management Samsung
R1-1800624 Remaining details on Soft buffer management NEC Corporation
R1-1800678 Soft-buffer management for NR NTT DOCOMO, INC.
R1-1800878 Soft buffer management Qualcomm Incorporated

7.3.3.6 Multiplexing data with different transmission durations

R1-1801031 Summary of 7.3.3.6 multiplexing data with different transmission durations vivo
Decision: The document is noted.

Agreements:
- Support 4 as additional PI monitoring periodicity value as part of the RRC configuration for the UE
  - No other additional values in Rel-15

Thursday session
R1-1801155 Summary of 7.3.3.6 multiplexing data with different transmission vivo

Agreement: To adopt the TP in section 3 of R1-1801155 (for Section 11.2 of 38.213)

R1-1800050 Summary of remaining issues on pre-emption indication with TP Huawei, HiSilicon
R1-1800171 Remaining issues on pre-emption indication MediaTek Inc.
R1-1800205 Multiplexing data with different transmission durations vivo
R1-1800218 Multiplexing of UL eMBB and URLLC in NR ASUSTEK COMPUTER (SHANGHAI)
R1-1800261 On multiplexing of data transmissions with different durations CATT
R1-1800336 Remaining details on multiplexing data with different durations Intel Corporation
R1-1800383 Remaining issues on pre-emption indication LG Electronics
R1-1800457 Corrections on Multiplexing Data with Different Transmission Durations Samsung
R1-1800514 Low-latency transmission for uplink Guangdong OPPO Mobile Telecom.
R1-1800633 On UL multiplexing of transmission with different reliability requirements InterDigital, Inc.
R1-1800679 Multiplexing data with different transmission durations NTT DOCOMO, INC.
R1-1800731 Multiplexing of uplink channels with different transmission durations Motorola Mobility, Lenovo
R1-1800789 Remaining issues on multiplexing data with different duration WILUS Inc.
R1-1800793 Considerations on multilexing of UL data with different transmission durations KT Corp.
Late submission
R1-1800809 On multiplexing of DL data with different transmission durations Sequans Communications
R1-1800954 On Multiplexing Data with Different Transmission Durations Ericsson

7.3.3.7 Other

R1-1800052 Support of 60 kHz subcarrier spacing Huawei, HiSilicon
R1-1800055 Reliability enhancement for grant-free transmission Huawei, HiSilicon
R1-1800056 Discussion on over-the-air time synchronization for URLLC Huawei, HiSilicon
R1-1800057 Discussion on UL multiplexing between URLLC and eMBB Huawei, HiSilicon
R1-1800058 PDSCH reliability for URLLC Huawei, HiSilicon
R1-1800059 MCS/CQI design for URLLC transmission Huawei, HiSilicon
Decision: The document is noted (presented under 7.2 MIMO session)
R1-1800458 Remaining issue on DL SPS Samsung
R1-1800459 Indication of Preempted Resources in UL Samsung
R1-1800512 Remaining issues on transmission collision Guangdong OPPO Mobile Telecom.
R1-1800790 UCI multiplexing considering URLLC data in PUSCH WILUS Inc.
Withdrawn
R1-1800835 Draft CR on Type-1 HARQ-ACK codebook determination for NR Huawei, HiSilicon
R1-1800836 TP on UL data transmission procedure Huawei, HiSilicon
R1-1800931 TP for mapping to resource blocks Huawei, HiSilicon
R1-1800955 on DL SPS Ericsson

7.3.4 Other aspects on carrier aggregation and bandwidth parts

7.3.4.1 Other aspects on bandwidth Parts

R1-1801067 Summary of bandwidth part remaining issues MediaTek
Decision: The document is noted.

Agreements:
- DL BWP and UL BWP with the same BWP index are implicitly paired for unpaired spectrum
  - The previously introduced RRC parameter BWP-pair-index is no longer useful and thus is to be removed
    - This is to be reflected in the updated spreadsheet (to make it clear that the parameter is "cancelled")
- *DL-BWP-index* as BWP index in DL assignment and *UL-BWP-index* as BWP index in UL grant for unpaired spectrum

---

Thursday session
R1-1801158 Summary of Bandwidth Part Remaining Issues MediaTek
Decision: The document is noted.

Agreement: To adopt the TP related to issue #1 in Section 2.2 of R1-1801158 (impact on 38.211 & 38.213)

Offline to prepare a list of parameters, if any, that are deemed to be controversial regarding per-CC/BWP/UE configuration

---

Friday session

Agreements:

- The following TP is adopted

----------start of Text Proposal for TS38.213 Section 12----------

…

~~For unpaired spectrum operation, a UE can expect that the center frequency for a DL BWP is same as the center frequency for a UL BWP.~~

For each DL BWP or UL BWP in a set of DL BWPs or UL BWPs, respectively, the UE is configured the following parameters for the serving cell as defined in [4, TS 38.211] or [6, TS 38.214]:

- a subcarrier spacing provided by higher layer parameter *DL-BWP-mu* or *UL-BWP-mu*;
- a cyclic prefix provided by higher layer parameter *DL-BWP-CP* or *UL-BWP-CP*;
- a number of contiguous PRBs provided by higher layer parameter *DL-BWP-BW* or *UL-BWP-BW*;
- an index in the set of DL BWPs or UL BWPs by respective higher layer parameters *DL-BWP-index* or *UL-BWP-index* ~~for paired spectrum operation, or a link between a DL BWP and an UL BWP from the set of configured DL BWPs and UL BWPs by higher layer parameter *BWP-pair-index* for unpaired spectrum operation~~;

For unpaired spectrum operation, a UE is not expected to receive a configuration where the center frequency for a DL BWP is different than the center frequency for a UL BWP when the *DL-BWP-index* of the DL BWP is equal to the *UL-BWP-index* of the UL BWP.

…

----------end of Text Proposal for TS38.213 Section 12----------

R1-1800018	Remaining issues on bandwidth part and wideband operation	Huawei, HiSilicon
R1-1800148	Remaining details of bandwidth part operation	MediaTek Inc.
R1-1800206	Other aspects on bandwidth part operation	vivo
R1-1800262	Remaining issues on BWP operation	CATT
R1-1800283	Remaining issues on BWP	Spreadtrum Communications
R1-1800337	Proposed changes for BWP related specification descriptions	Intel Corporation
R1-1800384	Remaining issues on bandwidth part operation	LG Electronics
R1-1800395	Corrections to 38.211 on bandwidth part	Lenovo, Motorola Mobility
R1-1800460	Corrections on Bandwidth Part Operation	Samsung
R1-1800510	Text proposal on bandwidth part	Guangdong OPPO Mobile Telecom.
R1-1800552	On remaining details of BWPs	Nokia, Nokia Shanghai Bell
R1-1800576	Text Proposal on Bandwidth parts	AT&T
R1-1800603	Details of BWP switching operation	InterDigital, Inc.
R1-1800680	Other aspects on bandwidth Parts	NTT DOCOMO, INC.
R1-1800795	On VRB-to-PRB mapping	Nanjing Ericsson Panda Com Ltd
R1-1800796	Proposed updates to TS38.213 on bandwidth parts	Nanjing Ericsson Panda Com Ltd
Late submission		
R1-1800879	Remaining issues on BWP	Qualcomm Incorporated

7.3.4.2 Other aspects on carrier aggregation

Including up to two different numerologies per PUCCH group

R1-1801088 Summary on CA Aspects Samsung

Decision: The document is noted.

Companies are encouraged to check slides 2-4 in R1-1801088 and discuss further offline. Aris to prepare TP (along with a set of bullets listing the key points) fixing the issues identified on slide 2 by Thursday morning.

Discuss further offline regarding whether DL fallback DCI contains counter and/or total DAI, especially considering CSS vs. USS

Discuss further offline on how to select PUSCH for piggybacking UCI:

- Alt 1: LTE-approach
- Alt 2: including an explicit indicator in PUSCH

- Other alternatives are not precluded

Agreement: (Thursday: amended as follows further to offline)
- Place HARQ-ACK bit(s) in response to SPS PDSCH after ~~prior to~~ ones in response to dynamic PDSCH in the HARQ-ACK codebook

Agreement:
- For semi-static HARQ-ACK codebook, the UE provides CBG-based HARQ-ACK in response to detecting DCI format 1_0 for PDSCH reception on a cell with configuration for CBG-based HARQ-ACK

Agreements:
- No additional bundling for HARQ-ACK is supported when the actual coding rate for UCI on PUCCH exceeds the configured coding rate
  - In this case, no dropping of HARQ-ACK
- If the actual coding rate on PUCCH carrying HARQ-ACK/SR only exceeds the configured coding rate, the UE is expected to proceed with the PUCCH transmission carrying the HARQ-ACK/SR

Thursday session
R1-1801163 Offline on CA Samsung
Decision: The document is noted.

Agreements:
- DCI 0-0 doesn't contain DAI
- DCI 1-0 contains a 2-bit counter DAI but doesn't contain total DAI

Agreements:
- Regarding how to select PUSCH for piggybacking UCI
  - Follows the LTE-approach
  - FFS whether or not there are any specific issues

Working assumption:
- In case a UE is configured for semi-static HARQ-ACK codebook determination, when the UE detects to receive only one PDSCH on the Pcell, the UE reports HARQ-ACK only for the one PDSCH
  - FFS whether additional constraints are necessary for the above operation

Futher discussion offline the default HARQ-ACK codebook determination before RRC setup.

Friday
Proposal:
- The default HARQ-ACK codebook determination before RRC setup is the dynamic HARQ-ACK codebook determination
  - Check futher offline whether or not there are cases where a UE is expected to receive multiple PDSCHs before RRC setup

Decision: Discuss till next meeting

R1-1800021	Remaining issues on NR CA and DC	Huawei, HiSilicon
R1-1800128	Clarification on Type-2 HARQ-ACK codebook determination in TS 38.213	Fujitsu
R1-1800140	On different numerologies in one PUCCH group	ZTE, Sanechips
R1-1800147	Remaining issues in carrier aggregation	MediaTek Inc.
R1-1800207	Other aspects on carrier aggregation	vivo
R1-1800263	Open issues for CA operation	CATT
R1-1800282	Remaining issues on HARQ-ACK codebook	Spreadtrum Communications
R1-1800338	Support of different numerologies for carrier aggregation	Intel Corporation
R1-1800385	Text proposals on CA related aspects	LG Electronics
R1-1800406	On CA with different numerologies	Lenovo, Motorola Mobility
R1-1800461	Corrections on CA Operation	Samsung
R1-1800493	Remaining issues on HARQ-ACK transmission	Guangdong OPPO Mobile Telecom.
R1-1800604	Remaining issues on CA	InterDigital, Inc.
R1-1800745	Remaining aspects of NR CA	Nokia, Nokia Shanghai Bell
R1-1800764	Consideration on DL control signalling for CA with different numerologies	CATR
R1-1800797	HARQ-ACK codebook for carrier aggregation	Sequans Communications

R1-1800880 Remaining issues on CA Qualcomm Incorporated
R1-1800956 On remaining issues on carrier aggregation Ericsson

7.3.5 Rate matching aspects for NR DL and UL

Agreement:
- The max number of Resource-set-BWP can be configured per each BWP is 4

Thursday session
R1-1801159 Summary of open issues related to rate-matching in NR Nokia, Nokia Shanghai Bell
Decision: The document is noted.

Agreement:
- The TPs in section 2 related to issue 2-2 of R1-1801159 are adopted (impact 38.211 and 38.214)

Agreement:
- The TP Alt2 in Section 3 of R1-1801159 is adopted (impact on 38.214)

Agreements:
- Include numerology μ in Resource-set-cell configuration (which was agreed previously but missing from the parameter Excel):
  - Resource-set-cell configuration applies only to PDSCH of the same numerology

Agreements:
- Update the previous agreements as shown below:
  - The center-subcarrier location (1~~2~~4 bits), bandwidth (3 bits) and MBSFN subframe configuration for a single LTE carrier can be indicated to the NR UE in addition to the Vshift and the number of CRS ports for rate-matching around LTE CRS
    - Note: this is to cover 4 (max numerology ratio w.r.t. reference SCS)* 12 (subcarriers/RB) * 275 (RBs) subcarriers

Proposal:
- When bitmap-3 is not configured, L1 indication in a DL assignment for a bitmap-1 and bitmap-2 pair applies to all the scheduled slots scheduled by the DL assignment with a periodicity based on bitmap-2

Agreements:
- Bitmap-3 of {1, 2, 4, 5, 8, 10, 20 or 40} units and max 40ms (already supported by RRC)
- Bitmap-3 applies also to resource-set-BWP/cell associated with L1 signalling.

Friday session
Agreements:
- When bitmap-3 is not configured and bitmap-1/2 pair is configured for L1 indication for PDSCH rate matching,
  - In case of unit size of bitmap-2 is one slot, bitmap-1/2 applies to each slot during slot(s) scheduled by DL assignment
  - In case of unit size of bitmap-2 is two slots, first slot of bitmap-1 and 2 pair applies to all even-numbered slot(s) and second slot of bitmap-1 and 2 pair applies to all odd-numbered slot(s) overlapping with slot(s) scheduled by DL assignment

R1-1801277 TP on rate-matching in NR Nokia, Nokia Shanghai Bell
Decision: The document is noted. The TP in R1-1801277 can be used as a starting point for the editors

R1-1800020 Remaining issues on reserved resources and rate-matching Huawei, HiSilicon
R1-1800141 On remaning issues for rate matching ZTE, Sanechips
R1-1800264 Remaining issues on rate matching for PDSCH and PUSCH CATT
R1-1800386 Remaining issues on rate matching resources LG Electronics
R1-1800462 Corrections on Rate Matching Samsung
R1-1800523 Resource reservation for NR DL and UL Panasonic
R1-1800553 On remaining details of PDSCH rate-matching in NR Nokia, Nokia Shanghai Bell
R1-1800578 Rate matching aspects for NR standalone operation AT&T
R1-1800881 On rate matching/puncturing for NR DL and UL channels Qualcomm Incorporated
Late submission

7.3.6 Other

R1-1800765 UL multiplexing for eMBB and URLLC CATR
R1-1800810 TP for bandwidth part and wideband operation in TS38.213 Huawei, HiSilicon
R1-1800812 TP for resource block and resource block grid for wideband operation in TS38.211 Huawei, HiSilicon

7.4 Channel coding

R1-1801131 Chairman's notes of AI 7.4 Channel coding Ad-Hoc Chair (Ericsson)
Decision: The document is endorsed, content incorporated below.

7.4.1 LDPC coding

R1-1800170 On TBS determination procedure MediaTek Inc.
R1-1800214 LDPC Coding Issues Ericsson
R1-1801001 LDPC Coded bits interleaver and symbol mapper for HARQ LG Electronics (Revision of R1-1800387)
R1-1800388 Correction on TBS determination formula LG Electronics
R1-1800463 Discussion on MCS selection for channel coding Samsung
R1-1800634 On UE Implementing One LDPC Base Graph InterDigital, Inc.
R1-1801015 Corrections on LDPC coding ZTE, Sanechips (Revision of R1-1800738)
R1-1800742 CQI and MCS design for URLLC ZTE, Sanechips
R1-1800743 Text proposals for LDPC coding Huawei Technologies Co. Ltd.
R1-1800882 LDPC Coding Qualcomm Incorporated

R1-1801126 TBS Determination for LDPC Codes, Ericsson
R1-1801225 Text Proposal for TBS Determination for LDPC Codes, Ericsson

Agreement: The text proposal in R1-1801225 for 38.214 is endorsed

7.4.2 Polar coding

R1-1800344 Miscellaneous aspects of Polar coding Intel Corporation

Agreement:
- In Subclause 5.4.1.3 of TS 38.212, replace the text in "[A UE may assume the value of E is no larger than 8192.]" with: "The value of E is no larger than 8192."
- In Subclause 5.2.1 of TS 38.212, replace the text in "[A UE may assume the value of A is no larger than 1706.]" with: "The value of A is no larger than 1706."

R1-1801016 Corrections on Polar coding ZTE, Sanechips
Revision of R1-1800739
R1-1800883 (Revised in **R1-1801062**) **Polar Coding Qualcomm Incorporated**

7.4.2.1 Downlink control

R1-1800103 Text proposals for downlink control polar coding Huawei, HiSilicon

R1-1801078 Text proposal on CRC initialization for DL control channel Huawei, HiSilicon

Agreement: Endorse the following text proposal for 38.212

---------- Start TP ----------
7.3.2 CRC attachment
Error detection is provided on DCI transmissions through a Cyclic Redundancy Check (CRC).
The entire payload is used to calculate the CRC parity bits. Denote the bits of the payload by $a_0, a_1, a_2, a_3, ..., a_{A-1}$, and the parity bits by $p_0, p_1, p_2, p_3, ..., p_{L-1}$, where A is the payload size and L is the number of parity bits. Let $a'_0, a'_1, a'_2, a'_3, ..., a'_{A+L-1}$ be a bit sequence such that $a'_i = 1$ for $i = 0, 1, ..., L-1$ and $a'_i = a_{i-L}$ for $i = L, L+1, ..., A+L-1$. The parity bits are computed with input bit sequence $a'_0, a'_1, a'_2, a'_3, ..., a'_{A+L-1}$ and attached according to Subclause 5.1 by setting L to 24 bits and using the generator polynomial $g_{CRC24C}(D)$. The output~~with CRC shift register initialized by all ones, resulting in the~~ sequence after CRC attachment $b_0, b_1, b_2, b_3, ..., b_{B-1}$ is

$b_k = a_k$ for $k = 0,1,2,\ldots,A-1$

$b_k = p_{k-A}$ for $k = A, A+1, A+2,\ldots,A+L-1$,

where $B = A + L$.

---------- End TP ----------

R1-1800215 (Revised in **R1-1800158**) **Polar Coding Issues for Downlink Control** **Ericsson**

R1-1800681 Description of CRC initialization NTT DOCOMO, INC.
R1-1800777 **Correction of CRC initialization** **Nokia, Nokia Shanghai Bell**

7.4.2.2 Uplink control

R1-1800166 (Revised in **R1-1801091**) **On UCI encoding** **MediaTek Inc.**

Agreement:

Table 6.3.1.4.1-1 of TS 38.212 [1] should ensure E_{UCI} to be a multiple of PUCCH modulation order Q_m, as revised in Table 2:

Table 2: Revision for UCI codeword size on PUCCH

UCI(s) for transmission on a PUCCH	UCI for encoding	Value of E_{UCI}
HARQ-ACK	HARQ-ACK	$E_{\text{UCI}} = E_{\text{tot}}$
HARQ-ACK, SR	HARQ-ACK, SR	$E_{\text{UCI}} = E_{\text{tot}}$
CSI (CSI not of two parts)	CSI	$E_{\text{UCI}} = E_{\text{tot}}$
HARQ-ACK, CSI (CSI not of two parts)	HARQ-ACK, CSI	$E_{\text{UCI}} = E_{\text{tot}}$
HARQ-ACK, SR, CSI (CSI not of two parts)	HARQ-ACK, SR, CSI	$E_{\text{UCI}} = E_{\text{tot}}$
CSI (CSI of two parts)	CSI part 1	$E_{\text{UCI}} = \min\left(E_{\text{tot}}, \left\lceil \left(O^{\text{CSI-part1}} + L\right) / R_{\text{UCI}}^{\max} / Q_m \right\rceil \cdot Q_m\right)$
	CSI part 2	$E_{\text{UCI}} = E_{\text{tot}} - \min\left(E_{\text{tot}}, \left\lceil \left(O^{\text{CSI-part1}} + L\right) / R_{\text{UCI}}^{\max} / Q_m \right\rceil \cdot Q_m\right)$
HARQ-ACK, CSI (CSI of two parts)	HARQ-ACK, CSI part 1	$E_{\text{UCI}} = \min\left(E_{\text{tot}}, \left\lceil \left(O^{\text{ACK}} + O^{\text{CSI-part1}} + L\right) / R_{\text{UCI}}^{\max} / Q_m \right\rceil \cdot Q_m\right)$
	CSI part 2	$E_{\text{UCI}} = E_{\text{tot}} - \min\left(E_{\text{tot}}, \left\lceil \left(O^{\text{ACK}} + O^{\text{CSI-part1}} + L\right) / R_{\text{UCI}}^{\max} / Q_m \right\rceil \cdot Q_m\right)$
HARQ-ACK, SR, CSI (CSI of two parts)	HARQ-ACK, SR, CSI part 1	$E_{\text{UCI}} = \min\left(E_{\text{tot}}, \left\lceil \left(O^{\text{ACK}} + O^{\text{SR}} + O^{\text{CSI-part1}} + L\right) / R_{\text{UCI}}^{\max} / Q_m \right\rceil \cdot Q_m\right)$
	CSI part 2	$E_{\text{UCI}} = E_{\text{tot}} - \min\left(E_{\text{tot}}, \left\lceil \left(O^{\text{ACK}} + O^{\text{SR}} + O^{\text{CSI-part1}} + L\right) / R_{\text{UCI}}^{\max} / Q_m \right\rceil \cdot Q_m\right)$

Agreement: The rate matching output size after segmentation, Er, should be an integer.

Agreement: Both segments are encoded by polar codes with the same configurations (mother code size, rate-matching, interleaver size)

Agreement:

- The rate matching output sequence length is set to $E_r = \lfloor E_{UCI} / C_{UCI} \rfloor$, where C_{UCI} is the number of code blocks for UCI and the value of E_{UCI} is the number of coded bits for UCI transmission. EUCI – (Er×CUCI) zero-valued bits are appended after codeblock concatenation

R1-1800216 Polar Coding Issues for Uplink Control Ericsson
R1-1800271 Clarification on length of bits sequence to polar segmentation and encoding CATT
R1-1800464 Maximum UCI size of polar codes Samsung
R1-1801017 Corrections on uplink control ZTE, Sanechips (Revision of R1-1800740)

7.4.2.3 PBCH

R1-1800589 PBCH Payload Generation Ericsson Inc.
R1-1800741 Corrections on PBCH ZTE, Sanechips

7.4.2.4 Other

R1-1800104 Channel coding for URLLC Huawei, HiSilicon
R1-1800105 Evaluation of channel coding schemes Huawei, HiSilicon
R1-1800106 HARQ for polar codes Huawei, HiSilicon
R1-1801059 Channel Coding Techniques for URLLC Ericsson (rev of R1-1800217)
R1-1800389 Miscellaneous corrections for 38.212 LG Electronics
R1-1800465 Corrections on polar code segmentation Samsung
R1-1800635 On URLLC Channel Coding InterDigital, Inc.
R1-1800747 Remaining issues on polar code sizes Samsung

7.5 NR-LTE co-existence

R1-1801132 Chairman's notes of AI 7.5 NR-LTE co-existence Ad-Hoc Chair (Ericsson)
Decision: The document is endorsed, content incorporated below.

R1-1800022 Summary of remaining issues on timing, scheduling, SRS and power control for SUL Huawei, HiSilicon
R1-1800208 Remaining issues on SUL vivo
R1-1800339 Proposed changes for NR-LTE co-existence related specification descriptions Intel Corporation
R1-1800390 Discussion on NR LTE coexistence LG Electronics

Agreement:
- If a SUL/non-SUL indicator field is present in DCI format 0_0, a UE ignores the SUL/non-SUL indicator field in DCI format 0_0 when it is not configured for dynamic PUSCH switching between SUL/non-SUL, and transmits PUSCH on the uplink configured to the UE for PUCCH transmission.

Agreement:
- If a SUL/non-SUL indicator field is not present in DCI format 0_0, the UE transmits PUSCH on the uplink configured to the UE for PUCCH transmission when it is scheduled by DCI format 0_0
  - Note: This updates a previous agreement which stated that the PUSCH transmission alwas occurs on the non-SUL carrier in this case.

R1-1800466 Corrections on LTE-NR Coexistence Samsung
R1-1800605 Aspects related to Supplementary Uplink InterDigital, Inc.
R1-1800614 Corrections to SUL-related specification ZTE, Sanechips
R1-1800941 SUL bit on different DCI formats and related behaviour Nokia, Nokia Shanghai Bell
R1-1800942 UE Dynamic power sharing for LTE-NR Dual Connectivity Nokia, Nokia Shanghai Bell

N_TA_offset (HW)
Proposal:
If the UE is configured with SUL, when applying $N_{TA\text{-}offset}$ the resolution of lower subcarrier spacing among the subcarrier spacings used for the SUL and non-SUL is used.

Activation/deactivation of semi-persistent SRS (HW, Nokia)
Agreement:
- The MAC CE should include a mechanism to indicate whether the activation/deactivation of semi-persistent SRS applies to the SUL or the non-SUL (but not both).

Conclusion:
As per previous agreements, for HARQ case 1, LTE uplink transmission is allowed only in uplink subframes (i.e., not in special subframes) of the reference configuration.

R1-1801111 WF on LTE HARQ-ACK resource determination in EN-DC Nokia, Nokia Shanghai Bell, NTT DoCoMo, ZTE

Proposal:

- If UE is configured with EN-DC with a single carrier for LTE, for case 1 DL-reference UL/DL configuration is configured for LTE FDD carrier
  - If PUCCH format 1b with channel selection is configured for HARQ-ACK feedback with DL-reference UL/DL configuration #0/#1/#6
    - PUCCH resource is implicit derived from lowest CCE for PDSCH scheduled/cross carrier scheduled by Pcell

$$n_{\mathrm{PUCCH}}^{(l,\tilde{p}_0)} = (M-m-1)\cdot N_c + m\cdot N_{c+1} + n_{\mathrm{CCE}} + N_{\mathrm{PUCCH}}^{(\mathrm{DC1})}$$

Where $N_{\mathrm{PUCCH}}^{(\mathrm{DC1})}$ is the new PUCCH format 1b resource offset and is configured by higher layer

  - If PUCCH format 3/4/5 is configured for HARQ-ACK feedback, four PUCCH resources are explicitly configured by RRC signaling for LTE carrier, fallback operation is supported

Proposal:

- Alt-1: If UE is configured with EN-DC with one or more carriers for LTE, for case 1 DL-reference UL/DL configuration is configured for LTE FDD carrier
  - If PUCCH format 3/4/5 is configured for HARQ-ACK feedback, four PUCCH resources are explicitly configured by RRC signaling for LTE carrier and fallback operation is supported
- Alt-2: If UE is configured with EN-DC with one or more carriers for LTE, if case 1 DL-reference UL/DL configuration is configured for LTE FDD carrier, PUCCH format 3/4/5 is used for HARQ-ACK feedback

7.6 UL power control

R1-1801133 **Chairman's notes of AI 7.6 UL power control** **Ad-Hoc Chair (Ericsson)**
Decision: The document is endorsed, content incorporated below.

7.6.1 NR UL power control - non-CA aspects

Indication of PC parameters for PUSCH/PUCCH

R1-1800118 **Remaining details on NR power control in non-CA aspectsZTE, Sanechips**
R1-1800209 Remaining issues and text proposals on NR UL power control vivo
R1-1800486 Text proposal for uplink power control Guangdong OPPO Mobile Telecom.
R1-1800768 Further clarification on NR power control framework Nokia, Nokia Shanghai Bell
R1-1800957 **Remaining issues for UL power control Ericsson**

Agreement:
For grant-based PUSCH, when the SRI field is present in the UL grant

- The mapping between each state of the SRI field and the pathloss reference (k) is directly configured via RRC.
- The mapping between each state of the SRI field and the p0,alpha (j) is directly configured via RRC.
- If N=2 (number of closed loop process) is configured to the UE, the mapping between each state of the SRI field and the PUSCH closed loop process (l) is directly configured via RRC.
- Note: The mappings above are separately configured for SUL and non-SUL

Agreement:
Define RRC parameter SRI-PUSCHPowerControl-Mapping which contains the following, where Ns is the number of valid values for the SRI field in the DCI (as defined in 38.212)

- SRI-PathlossReferenceIndex-Mapping contains Ns pathloss reference ID values (Note: Maximum of four pathloss reference IDs can be configured) with the first value corresponding to SRI state 0, second value corresponding to SRI state 1 etc.
- SRI-P0AlphaSetIndex-Mapping contains Ns p0-alpha set index values (Note: Maximum of 32 p0-alpha set values can be configured) with the first value corresponding to SRI state 0, second value corresponding to SRI state 1 etc.
- SRI-PUSCHClosedLoopIndex -Mapping contains Ns closed loop index values (Note: Maximum of 2 closed loop index values can be configured) with the first value corresponding to SRI state 0, second value corresponding to SRI state 1 etc.

Note: The RRC parameters above are separately configured for SUL and non-SUL

Prepare corresponding TP for 38.213 based on the above agreements during this meeting

Further discuss offline, indication of PC parameters when SRI field is not present in the UL grant for grant-based PUSCH
Cases to address include:
MSG3, grant based PUSCH without SRI, grant-free PUSCH

Agreement: Add RRC parameter PathlossReferenceIndex at least for *UL-TWG-type1*

Agreement:
For PUCCH, when the parameter *PUCCH-Spatial-relation-info* is configured to the UE,

- The mapping between each entry of the RRC parameter *PUCCH-Spatial-relation-info* and the pathloss reference (k) is configured as part of *PUCCH-Spatial-relation-info*.
- The mapping between each entry of the RRC parameter *PUCCH-Spatial-relation-info* and the p0 is directly configured as part of *PUCCH-Spatial-relation-info*.
- If N=2 (number of closed loop process) is configured to the UE, the mapping between each entry of the RRC parameter *PUCCH-Spatial-relation-info* and the PUSCH closed loop process (l) is directly configured as part of *PUCCH-Spatial-relation-info*.
- Note: Precise ASN.1 design can be decided by RAN2

Agreement:
Define RRC parameter PUCCHPowerControl-Mapping which contains the following, where Ns is the number of configured entries in the parameter *PUCCH-Spatial-relation-info*

- PathlossReferenceIndex-Mapping contains Ns pathloss reference ID values (Note: Maximum of four pathloss reference IDs can be configured) with the first value corresponding to the first entry of the parameter *PUCCH-Spatial-relation-info*, second value corresponding to the second entry of the parameter *PUCCH-Spatial-relation-info* etc.
- P0PUCCHIndex-Mapping contains Ns p0 PUCCH index values (Note: Maximum of 8 p0 PUCCH index values can be configured) with the first value corresponding to the first entry of the parameter *PUCCH-Spatial-relation-info*, second value corresponding to the second entry of the parameter *PUCCH-Spatial-relation-info* etc.
- PUCCHClosedLoopIndex -Mapping contains Ns closed loop index values (Note: Maximum of 2 closed loop index values can be configured) with the first value corresponding to the first entry of the parameter *PUCCH-Spatial-relation-info*, second value corresponding to the second entry of the parameter *PUCCH-Spatial-relation-info* etc.

R1-1801165 **Offline proposals for NR power control in non-CA aspects ZTE, Sanechips**

R1-1801257 **Offline proposals for NR power control in non-CA aspects ZTE, Sanechips**
Editor can use the draft TPs in R1-1801257 as a starting point for capturing the agreement

Power sharing
R1-1800942 **UE Dynamic power sharing for LTE-NR Dual Connectivity** **Nokia, Nokia Shanghai Bell**
R1-1800267 **Correction on Power Sharing for EN DC** **CATT**
R1-1800504 Text Proposal for EN-DC Power Sharing Guangdong OPPO Mobile Telecom.
R1-1800683 Remaining issues on DC power control NTT DOCOMO, INC.
R1-1800958 **Remaining issues for LTE-NR power sharing** **Ericsson**

Agreement:

- P_LTE and P_NR are configured separately via UE specific RRC (i.e., as dBm numbers with similar value range as p-Max in LTE)
  - P_LTE and P_NR are UE-specific
- P_cmax for LTE and P_cmax for NR are derived based on P_LTE and/or P_NR (details to be decided by RAN4)
- RAN4 to define maximum total LTE and NR power in FR1 (X_total) that the UE should never exceed.
- When dynamic power sharing is used,
  - If total power for LTE and NR in FR1 exceeds X_total, UE reduces NR transmission power or drops NR transmission so that total power does not exceed X_total
    - Note: As per previous agreement LTE power control procedure is not changed

Send an LS to RAN2/RAN4 informing them of the agreement (Ravi)
R1-1801149 **[Draft]LS on power sharing for LTE-NR Dual Connectivity,** **Ericsson**
Decision: The document is agreed with the following modifications:

- Change title to "LS on power control for LTE-NR dual connectivity"
- Change "power sharing" to "power control" in the first line of Section 1
- Change NRAH180 to NRAH1801 in the first line of Section 1

Final LS is approved in R1-1801231.

Prepare TP based on above agreement for agreement in this meeting
R1-1801177 **TP on Power control for LTE-NR NSA operation Huawei, HiSilicon**
R1-1801227 **TP on Power control for LTE-NR NSA operation Huawei, HiSilicon**
R1-1801258 **TP for LTE-NR power sharing Ericsson, Nokia, NSB**

Friday
R1-1801270 **Text proposal for LTE-NR power sharing Ericsson**
R1-1801273 **TP on power control for LTE-NR NSA operation Huawei, HiSilicon**
The above TPs can be used by the editors as a starting point. Editors can further modify & update as necessary, which will be part of the consolidated TP for email approval

ΔPUCCH_TF,c(i) in PUCCH
R1-1801020 **Corrections on PUCCH Power Control Samsung** (Revision of R1-1800468)
R1-1800265 **Correction on NR PUCCH Power Control Formula CATT**
R1-1800340 PUCCH power control Intel Corporation
R1-1800884 **Remaining issues on power control for NR Qualcomm Incorporated**

Agreement:
The delta function $\Delta_{TF,f,c}(i)$ for PUCCH formats 0 and 1 is as follows,

- $\Delta_{TF,f,c}(i) = 10 \log_{10}(\frac{N_{ref}}{N_{symb}})$, where
  - N_{symb} is the number of symbols transmitted
  - N_{ref} (the reference number of symbols configured for the PUCCH format) is set to
    - 2 for PUCCH format 0
    - 14 for PUCCH format 1

R1-1801160 **Updated offline proposal on PHR NTT DOCOMO, Qualcomm, Huawei, Hisilicon, ZTE, Sanechips, Fujitsu**

Agreement: Virtual PHR for non-scheduled serving cell for CA/DC case is supported

- For PHR reporting for multiple cells, if the UE does not transmit PUSCH in PUSCH transmission period i for carrier f of serving cell c, the UE computes power headroom for a Type 1 report as

$$PH_{\text{type1},f,c}(i,j,q_d,l) = \tilde{P}_{\text{CMAX},f,c}(i) - \left\{ P_{\text{O\_PUSCH},f,c}(j) + \alpha_{f,c}(j) \cdot PL_{f,c}(q_d) + f_{f,c}(i,l) \right\}$$

  - MPR=0dB, A-MPR=0dB, P-MPR=0dB for serving carrier f of cell c
  - FFS: how to determine j, $q_$d and l

R1-1801047 **Offline summary for AI 7.6.1 NR UL power control in non-CA aspects ZTE, Sanechips**

R1-1800093 Remaining details of UL power control design Huawei, HiSilicon
R1-1800266 Correction on NR PUSCH Power Control Formula CATT
R1-1800341 On Power Contol Framework Intel Corporation
R1-1800391 Clarification on UL PC for non-CA aspects LG Electronics
R1-1800467 Corrections on PUSCH Power Control Samsung
R1-1800469 Corrections on SRS Power Control Samsung
R1-1800470 Corrections on PRACH Power Control Samsung
R1-1800682 Remaining issues on PHR NTT DOCOMO, INC.
R1-1800732 Remaining details on non-CA NR UL power control Motorola Mobility, Lenovo

7.6.2 NR UL power control – CA aspects

R1-1800119 Remaining details on NR power control in CA aspects ZTE, Sanechips
R1-1800342 Power control for carrier aggregation Intel Corporation
R1-1800471 Corrections on Power Control for CA Samsung
R1-1800503 Text Proposal for CA Power Control Guangdong OPPO Mobile Telecom.
R1-1800534 Remaining details for uplink power control with CA Huawei, HiSilicon
R1-1800636 Considerations for Power Sharing in Case 2 CA InterDigital, Inc.
R1-1800733 Remaining details on CA-related NR UL power control Motorola Mobility, Lenovo
R1-1800885 Power control for NR CA Qualcomm Incorporated

7.6.3 Other

R1-1800343 Remaining aspects on power sharing between LTE and NR Intel Corporation
R1-1800392 Discussion on dynamic power sharing with sTTI for DC LG Electronics
R1-1800472 PHR for CA Samsung
R1-1800526 Remaining details of PHR Huawei, HiSilicon
R1-1800606 Power Control for NR DC InterDigital, Inc.
R1-1800811 Correction on power control of SRS for NR SUL in TS38.213 Huawei, HiSilicon
Withdrawn
R1-1800813 Correction on Power control for single uplink operation with Case 1 HARQ timing for EN-DC in TS38.213 Huawei, HiSilicon

7.7 Aspects related to FDD

R1-1801004 Summary AI 7.7 – Aspects related to FDD ZTE
R1-1800142 Remaining aspects related to FDD ZTE, Sanechips
R1-1800473 FDD Operation Samsung

7.8 UE features

R1-1801134 Chairman's notes of AI 7.8 UE features Ad-Hoc Chair (NTT DOCOMO)
Decision: The document is endorsed, content incorporated below.

R1-1800287 Discussion on NR L1 UE features Spreadtrum Communications
R1-1801013 NR UE Feature List Ericsson (Revision of R1-1800715)

Conclusion
Issues related to "initial access-related" or "forwards compatibility-related" in RP-172816 are discussed in RAN1#92

R1-1800886 NR Features and Capabilities Qualcomm Incorporated

Conclusion
- Need FR1/FR2 differentiation is discussed during this week.
  - Empty in this column means no need FR1/FR2 differentiation
  - This column may be not appeared in the LS to RAN

R1-1801044 Overview on NR UE feature list Huawei, HiSilicon (Revision of R1-1800290)

R1-1800684 Views on Rel-15 NR UE feature list NTT DOCOMO, INC.

This version (**R1-1800684**) is used as a basis of the discussion on scheduling/HARQ part

Agreement:
Features related to initial access in R1-1801295 [(R1-1721707) Rel-15 NR UE feature list_~~v3~~v4.docx] are agreed.

Conclusion
Scope of UE feature list includes both SA and NSA while application of each feature to SA and NSA needs further discussion.

Agreement:
Features related to waveform, modulation, SCS, and CP in R1-1801296 [(R1-1721707) Rel-15 NR UE feature list_v5.docx] are agreed

R1-1800153 Discussion on NR UE feature list MediaTek Inc.
R1-1800474 UE Features Samsung
R1-1800579 On mandatory and optional UE features AT&T
R1-1800844 Discussion on NR UE categories Huawei, HiSilicon
R1-1800845 Detailed views on NR UE feature list Huawei, HiSilicon
R1-1800890 NR Features and Capabilities Qualcomm Incorporated
Late submission
R1-1801021 On UE feature list Intel
Late submission

Email discussion- to check UE feature list (R1-1801198) and draft LS (R1-1801199) by 2/6.

7.9 Other

R1-1800023 Discussion on application scenarios for NoMA Huawei, HiSilicon
R1-1800024 Discussion on LLS parameters and methodology for NoMA evaluation Huawei, HiSilicon
R1-1800025 Consideration on GEO and LEO channel models Huawei, HiSilicon
R1-1800026 Consideration on HAPS channel models Huawei, HiSilicon
R1-1800027 NTN Channel Modeling Huawei, HiSilicon
R1-1800028 V2X sidelink channel model: LOS probability curves and NLOS state due to vehicle blockage Huawei, HiSilicon
R1-1800039 NR Numerology on unlicensed bands Huawei, HiSilicon
R1-1800040 NR Frame structure on unlicensed bands Huawei, HiSilicon
R1-1800041 Coexistence and Channel access for NR unlicensed band operations Huawei, HiSilicon
R1-1800042 NR licensed assisted and standalone operation on unlicensed bands Huawei, HiSilicon
R1-1800045 Consideration on self evaluation of IMT-2020 for peak spectral efficiency and peak data rate Huawei, HiSilicon
R1-1800046 Consideration on self evaluation of IMT-2020 for user experienced data rate Huawei, HiSilicon
R1-1800047 Consideration on self evaluation of IMT-2020 for high mobility Huawei, HiSilicon
R1-1800048 Consideration on self evaluation of IMT-2020 for area traffic capacity Huawei, HiSilicon
R1-1800049 Consideration on self evaluation of IMT-2020 for energy efficiency Huawei, HiSilicon
R1-1800051 UE-to-UE measurement for cross-link interference mitigation Huawei, HiSilicon
R1-1800061 Timing alignment on cross-link Huawei, HiSilicon
R1-1800076 UL Power control for cross-link interference mitigation Huawei, HiSilicon
R1-1800121 Consideration on NOMA study ZTE, Sanechips
R1-1800122 Preliminary link-level performance comparison of NOMA schemes ZTE, Sanechips
R1-1800123 Receiver algorithms of linear-spreading based NOMA ZTE, Sanechips
R1-1800154 Considerations on NR unlicensed channel access MediaTek Inc.
R1-1800155 Considerations on NR NoMA operation MediaTek Inc.
R1-1800221 Waveform and numerology consideration on NR unlicensed band NEC
R1-1800222 Discussion on LBT of NR unlicensed band NEC
R1-1800268 Initial self evaluation for Indoor Hotspot-eMBB CATT
R1-1800269 Initial self evaluation for Dense Urban-eMBB CATT
R1-1800270 Initial self evaluation for Rural-eMBB CATT
R1-1800288 Consideration on IAB evaluation methodology and parameters Huawei, HiSilicon
R1-1800289 Evaluation on the dynamic and flexible resource allocation in IAB Huawei, HiSilicon
R1-1800293 Discussion on Rel-15 NOMA study item CATT
R1-1800294 HAPS path loss model Nokia
R1-1800345 On UE peak data rate Intel Corporation
R1-1800475 Consideration on NoMA study Samsung
R1-1800476 DFT-based IGMA scheme Samsung
R1-1800477 Overview of NR unlicensed spectrum Samsung
R1-1800478 Channel access for NR unlicensed operation Samsung
R1-1800511 High level views on NR-based access to unlicensed spectrum Guangdong OPPO Mobile Telecom.
R1-1800515 Initial Consideration on IMT-2020 self evaluation of UL spectral efficiency in the Dense Urban-eMBB test environment ZTE, Sanechips
R1-1800516 Initial Consideration on Link curve performance of LDPC coding in IMT-2020 self evaluation ZTE, Sanechips
R1-1800563 NTN-NR Paragraph correction regarding applicability of NR numerology to satellite communication THALES
R1-1800564 NTN-NR DM-RS in PBCH and PDCCH THALES
R1-1800585 Channel Model for IAB Xiaoyi
Withdrawn
R1-1800586 Use cases and Scenarios for NR in Unlicensed Band Rauf
Withdrawn
R1-1800587 Requirements for NR in unlicensed band Rauf
Withdrawn
R1-1800588 Co-Existence Simulation Assumption and Methodology for NR in unlicensed band Rauf
Withdrawn
R1-1800590 Channel Model for IAB AT&T
R1-1800591 Use cases and Scenarios for NR in Unlicensed Band AT&T
R1-1800592 Requirements for NR in unlicensed band AT&T
R1-1800593 Co-Existence Simulation Assumption and Methodology for NR in unlicensed band AT&T

R1-1800623 LBT Considering Beamforming in Unlicensed Spectrum ASUSTEK COMPUTER (SHANGHAI)
R1-1800637 General views on NR Operation in Unlicensed Spectrum InterDigital, Inc.
R1-1800638 On coexistence and channel access for NR-Unlicensed InterDigital, Inc.
R1-1800639 On Vehicle Blockage in eV2X Channel Model InterDigital, Inc.
R1-1800640 Considerations on Coverage in Non-Terrestrial Networks InterDigital, Inc.
R1-1800646 Challenges in NTN fast fading model Nokia
R1-1800685 Consideration on NOMA study item in Rel-15 NTT DOCOMO, INC.
R1-1800686 NOMA scheme with user grouping NTT DOCOMO, INC.
R1-1800687 Evaluations for Optimizing Tilting angles for ITU Self-Evaluation NTT DOCOMO, INC.
R1-1800688 Calibration Results for ITU Self-evaluation NTT DOCOMO, INC.
R1-1800716 Candidate spectrum for NR unlicensed operation Ericsson
R1-1800717 On NR-U Deployment Scenarios Ericsson
R1-1800718 NR-U evaluation methodology Ericsson
R1-1800719 Discussion of Multi-Antenna and Highly Directional Beam-Forming for Operation in Unlicensed Spectrum Ericsson
R1-1800720 On Autonomous UL Transmissions for NR in Unlicensed Spectrum Ericsson
R1-1800721 On Channel Access Mechanisms for NR in Unlicensed Spectrum Ericsson
R1-1800722 On NR Operation in the 60 GHz Unlicensed Band Ericsson
R1-1800723 On Physical Layer Design Policies for Unlicensed Operation of NR Ericsson
R1-1800724 Technology Components for Unlicensed Operation Ericsson
R1-1800735 NR on Unlicensed Band with Flexible Starting and Ending Points Shenzhen Coolpad Technologies
R1-1800736 LBT for NR on Unlicensed Band Shenzhen Coolpad Technologies
R1-1800760 Text Proposal for Frame structure and physical resources CATR
R1-1800770 Initial Consideration on UMi calibration for user experience data rate in the multi-layer network deployment ZTE, Sanechips
R1-1800779 NTN-NR update on Link budget analysis THALES
R1-1800781 NTN-NR update on spectrum_L band GEO THALES
R1-1800782 NTN-NR update on spectrum_Ka band HAPS THALES
R1-1800801 NTN-NR Channel model principles THALES
R1-1800887 Support for additional periodicities in NR RRC Qualcomm Incorporated
R1-1800891 Support for additional periodicities in NR RRC Qualcomm Incorporated
Late submission
R1-1800936 Considerations on NOMA for multi-cell scenarios Fraunhofer HHI
R1-1800959 CQI and MCS tables for URLLC Ericsson
R1-1800960 On Compact DCI for URLLC Ericsson
R1-1800961 On PDCCH for Ultra-Reliable Transmission Ericsson
R1-1800962 On the Performance Evaluation of PDCCH for Ultra-Reliable Transmission Ericsson
R1-1800963 On PDCCH repetition for URLLC Ericsson
R1-1800964 On PUCCH for Ultra-Reliable Transmission Ericsson
R1-1800965 On Performance of PUCCH Format 0 for URLLC Use Cases Ericsson
R1-1800966 On Performance of PUCCH Format 2 for URLLC Use Cases Ericsson
R1-1800967 On Frequency Hopping for Ultra-reliable Transmission Ericsson
R1-1800968 On transmit diversity for ultra-high reliability use cases Ericsson
R1-1800969 URLLC downlink system level simulation results Ericsson
R1-1800970 IMT-2020 self-evaluation: CP latency in NR Ericsson
R1-1800971 IMT-2020 self-evaluation: Reliability in NR Ericsson
R1-1800972 IMT-2020 self-evaluation: UP latency in NR Ericsson
R1-1800973 URLLC for Factory Automation Ericsson
R1-1800974 On Pre-emption in Uplink Ericsson
R1-1800975 On supporting reliable HARQ feedback for UL transmission without grant Ericsson
R1-1800976 On soft-buffer handling for DL pre-emption Ericsson
R1-1800977 IMT-2020 self-evaluation: Mobility evaluations for NR Ericsson
R1-1800978 IMT-2020 self evaluation: On eMBB user experienced data rate Ericsson
R1-1800979 IMT-2020 self evaluation: Radio Network Energy Performance Ericsson
R1-1800980 IMT-2020 self evaluation: mMTC connection density for LTE-MTC and NB-IoT Ericsson
R1-1800981 IMT-2020 self-evaluation calibration mMTC connection density for LTE-MTC and NB-IoT Ericsson
R1-1800982 IMT2020 self evaluation: On eMBB area traffic capacity Ericsson
R1-1800983 IMT-2020 self-evaluation: CP latency in NR Ericsson
Withdrawn
R1-1800984 IMT-2020 self-evaluation: UP latency in NR Ericsson
Withdrawn
R1-1800985 IMT-2020 self-evaluation: Reliability in NR Ericsson

R1-1800986 IMT-2020 self-evaluation: Peak data rate and peak spectrum efficiency evaluations for NR Ericsson
Withdrawn
R1-1800987 IMT-2020 self-evaluation:URLLC for factory automation Ericsson
Withdrawn

8 Closing of the meeting

RAN1 chair thanked the delegates for their work.
Thanks as well to the Vice Chairmen, to Kazuaki-san and Xiaoyi Wang for chairing all the different sessions, and to the host for welcoming and providing meeting facilities.

Meeting was closed at 16:53.
See you all in Athens.

Annex A: List of Tdocs at RAN1 #AH_1801

Please see excel file attached to this report

Annex B: **List of CRs agreed at RAN1 #AH_1801**

TS/TR	CR	Rev	Rel	Title	Cat	Vsn	@ Mtg	TD#	Source to WG	Work Item

Annex C-1: List of Outgoing LSs from RAN1 #AH_1801

TDoc #	Title	Source	Release	Related WIs	Reply to	To	Cc	Original LS	Reply in
R1-1801139	LS on NR Soft Buffer Dimensioning	RAN1, Intel	Rel-15	NR_newRAT-Core		RAN4			
R1-1801182	Reply LS on channel raster and SS raster	RAN1, Ericsson	Rel-15	NR_newRAT-Core	R4-1714295	RAN4, RAN2			
R1-1801189	LS on OSI and paging PDCCH configuration	RAN1, Samsung	Rel-15	NR_newRAT-Core		RAN2			
R1-1801190	LS on CSI-RS based RRM	RAN1, Intel	Rel-15	NR_newRAT-Core		RAN4			
R1-1801191	LS on RLM reporting Interval	RAN1, Intel	Rel-15	NR_newRAT-Core		RAN4			
R1-1801231	LS on power scontrol for LTE-NR dual connectivity	RAN1, Ericsson	Rel-15	NR_newRAT-Core		RAN2, RAN4			
R1-1801246	LS on RMSI CORESET configurations	RAN1, CATT	Rel-15	NR_newRAT-Core		RAN4			
R1-1801272	LS response to RAN2 on MAC CEs for beam management and CSI	RAN1, Huawei	Rel-15	NR_newRAT-Core	R2-1714246	RAN2			
R1-1801279	LS on OFDM symbol generation	RAN1, Ericsson	Rel-15	NR_newRAT-Core		RAN4			
R1-1801280	Agreements on Paging	RAN1, Huawei	Rel-15	NR_newRAT-Core		RAN2			
R1-1801281	LS on correction to RRC parameters for NR	RAN1, Ericsson, MediaTek	Rel-15	NR_newRAT-Core		RAN2			
R1-1801282	Reply LS on Acquisition of TA Offset for Uplink Transmission	RAN1, Intel	Rel-15	NR_newRAT-Core	R4-174502	RAN4			
R1-1801290	LS on NR UE feature list	RAN1, NTT DOCOMO, AT&T	Rel-15	NR_newRAT-Core		RAN2, RAN4	RAN3		

Annex C-2: List of Incoming LSs from RAN1 #AH_1801

TDoc #	Title	Source	Release	Related WIs	Reply to	To	Cc	Original LS	Reply in
R1-1800003	LS on MAC Ces for beam management and CSI	RAN2, Ericsson	Rel-15	NR_newRAT-Core	R1-1721663	RAN1		R2-1714246	
R1-1800004	LS on further clarification on definitions of reference points	RAN4, Huawei,HiSilicon	Rel-15	NR_newRAT-Core	R1-1719040	RAN1	RAN2	R4-1713940	
R1-1800005	LS on RSRP/RSRQ Report Mapping	RAN4, Ericsson	Rel-15	NR_newRAT-Core		RAN2	RAN1	R4-1713941	
R1-1800006	LS reply on MIMO layers UE capabilities	RAN4, Intel Corporation	Rel-15	NR_newRAT-Core	R2-1712078	RAN2	RAN1	R4-1714257	
R1-1800007	LS to RAN1 on RSSI evaluation resource for SS-RSRQ measurement	RAN4, Intel Corporation	Rel-15	NR_newRAT-Core		RAN1		R4-1714286	
R1-1800008	LS on channel raster and SS raster	RAN4, Huawei	Rel-15	NR_newRAT-Core		RAN1, RAN2		R4-1714295	
R1-1800010	LS reply on UE RF related parameters, capabilities and features for NR	RAN4, NTT DOCOMO, INC	Rel-15	NR_newRAT-Core	R2-1712028	RAN2	RAN1, RAN3	R4-1714454	
R1-1800011	LS on spectrum utilization	RAN4, Huawei, HiSilicon	Rel-15	NR_newRAT-Core		RAN1	RAN2	R4-1714478	
R1-1800012	LS on Signalling of TA_Offset	RAN4, Ericsson	Rel-15	NR_newRAT-Core		RAN1	RAN2	R4-1714502	
R1-1800013	LS on measurement gap in NR	RAN4, Huawei,HiSilicon	Rel-15	NR_newRAT-Core		RAN2	RAN1	R4-1714503	
R1-1800014	Response LS on simultaneous transmission and/or reception over EPC/E-UTRAN and 5GC/NR	RAN4, Intel Corporation	Rel-15	NR_newRAT-Core	S2-176689	SA2	RAN1, RAN2	R4-1714539	
R1-1800015	LS on QCIs for EPC based URLLC	SA2, Vodafone	Rel-15	NR_newRAT-Core		SA, RAN	SA1, RAN1, RAN2	S2-179646	
R1-1800016	LS on URLLC	SA, Vodafone	Rel-15	NR_newRAT-Core	S2-179646	SA1, SA2	RAN, RAN1, RAN2	SP-171079	
R1-1801073	LS on PDCCH order for initiation of random access	RAN2, Ericsson	Rel-15	NR_newRAT-Core		RAN1		R2-1801600	
R1-1801105	LS to RAN1 on MAC CE for MIMO	RAN2, Nokia	Rel-15	NR_newRAT-Core		RAN1		R2-1801555	
R1-1801193	LS to RAN1 on cell-specific and BWP-specific parameters	RAN2, Huawei	Rel-15	NR_newRAT-Core		RAN1		R2-1801630	
R1-1801194	LS on Baseband Processing Capabilities	RAN2, Intel	Rel-15	NR_newRAT-Core		RAN4, RAN1		R2-1801631	
R1-1801203	LS on PHR	RAN2, NTT DOCOMO	Rel-15	NR_newRAT-Core		RAN1		R2-1801568	
R1-1801204	LS on Clarifications in MAC	RAN2, Ericsson	Rel-15	NR_newRAT-Core		RAN4, RAN1		R2-1801569	
R1-1801233	Reply LS to RAN1 on PRACH with ON-OFF time mask	RAN4, Ericsson	Rel-15	NR_newRAT-Core	R1-1721630	RAN1		R4-1800607	

Annex D: List of Approved updated WIDs

None

Annex E: **List of draft TSs/TRs agreed at RAN1 #AH_1801**

Tdoc Number	Title	Source	Conclusion/Decision

Annex F: List of actions

- **Outgoing LS**

[2018-Adhoc#1-02] – Kazuaki (NTT DOCOMO)
R1-1801198 NR UE feature list NTT DOCOMO, AT&T
R1-1801199 [draft] LS on NR UE feature list NTT DOCOMO, AT&T
Email discussion- to check UE feature list (R1-1801198) and draft LS (R1-1801199) by Feb.5th
Done: According to Mr Chair's email posted on Feb.6th, the latest vesion of the UE features list is agreed and corresponding final LS is approved in:
R1-1801289 NR UE feature list NTT DOCOMO, AT&T
R1-1801290 LS on NR UE feature list RAN1, NTT DOCOMO, AT&T

- **Draft CRs**

[2018-Adhoc#1-01-spec#] – Specs editors
Editors to prepare TPs incorporating the endorsed TPs and the agreements without TPs by 2/1, which are to be commented and endorsed by 2/7
Done: According to decisions posted on RAN1 reflector (Feb 8th and Feb 9th), the following draft CRs are endorsed as basis for further updates:

R1-1801287	**draftCR to 38.215 capturing the Jan18 ad-hoc meeting agreements**	**Intel**	**Rel-15**	**38.215**	**15.0.0**	**NR_newRAT-Core**	**draftCR, F**
R1-1801291	**draftCR to 38.211 capturing the Jan18 ad-hoc meeting agreements**	**Ericsson**	**Rel-15**	**38.211**	**15.0.0**	**NR_newRAT-Core**	**draftCR, F**
R1-1801292	**draftCR to 38.212 capturing the Jan18 ad-hoc meeting agreements**	**Huawei**	**Rel-15**	**38.212**	**15.0.0**	**NR_newRAT-Core**	**draftCR, F**
R1-1801293	**draftCR to 38.213 capturing the Jan18 ad-hoc meeting agreements**	**Samsung**	**Rel-15**	**38.213**	**15.0.0**	**NR_newRAT-Core**	**draftCR, F**
R1-1801294	**draftCR to 38.214 capturing the Jan18 ad-hoc meeting agreements**	**Nokia**	**Rel-15**	**38.214**	**15.0.0**	**NR_newRAT-Core**	**draftCR, F**

Annex G: List of participants at RAN1 #AH_1801

Please see excel file attached to this report

Annex H: **TSG RAN WG1 meetings in 2018 – 2019**

TITLE	TYPE	DATES	LOCATION	CTRY
3GPPRAN1-AH-1801	AH	22 – 26 Jan 2018	Vancouver	Canada
3GPPRAN1#92	WG	26 Feb – 2 Mar 2018	Athens	Greece
3GPPRAN1#92bis	WG	16 – 20 Apr 2018	Sanya	China
3GPPRAN1#93	WG	21 – 25 May 2018	Busan	Korea
3GPPRAN1#94	WG	20 – 24 Aug 2018	Gothenburg	Sweden
3GPPRAN1#94bis	WG	8 – 12 Oct 2018	Chengdu (TBC)	China
3GPPRAN1#95	WG	12 – 16 Nov 2018	TBD	US
3GPPRAN1-AH-1901-TBC	AH	21 - 25 Jan 2019	TBD	
3GPPRAN1#96	WG	25 Feb - 1 Mar 2019	EU	
3GPPRAN1#96bis	WG	8 - 12 Apr 2019	China	
3GPPRAN1#97	WG	13 - 17 May 2019	US	
3GPPRAN1-AH-1906-TBC	AH	24 - 28 Jun 2019	TBD	
3GPPRAN1#98	WG	26 - 30 Aug 2019	Prague	CZ
3GPPRAN1#98bis	WG	14 - 18 Oct 2019	China	
3GPPRAN1#99	WG	18 - 22 Nov 2019	US	

MEETING TYPES		
AH = Ad Hoc	ST = Startup Meeting	RG = Rapporteurs Group
JM = Joint	WG = Working Group	SG = Steering Group
PM = Preparatory Meeting	CM = Chairmen's meeting	TG = Task Group
RM = Resolution Meeting	OR = Ordinary	XO = Extraordinary

End of document

Appendix 22a

TDoc	Title	Source	Contact	Contact ID	Type	For	Abstract	Secretary Remarks	Agenda item sort order	Agenda item	Agenda item description	TDoc sort order within agenda item	TDoc Status	Reservation date	Uploaded	Is revision of	Revised to	Release	Spec	Version	Related WIs	CR	CR revision	CR category	TSG CR Pack	Reply to	To	Cc	Original LS
R1-1800000	Draft Agenda of RAN1#AH_1801 (NR) meeting	RAN1 Chair	Patrick Merias	82292	agenda	Approval			1	2	Approval of Agenda	0	revised	2018-01-02 13:48:30	2018-01-02 14:20:39		R1-1800017												
R1-1800001	Report of RAN1#91 meeting	ETSI	Patrick Merias	82292	report	Information			3	4	Approval of Minutes from previous meeting	10	noted	2018-01-02 13:48:31	2018-01-21 23:28:14														
R1-1800002	Highlights from RAN#78	RAN1 Chair	Patrick Merias	82292	other	Information			2	3	Highlights from RAN plenary	20	noted	2018-01-02 13:48:31	2018-01-02 14:20:39														
R1-1800003	LS on MAC Ces for beam management and CSI	RAN2, Ericsson	Patrick Merias	82292	LS in				4	5	Incoming Liaison Statements	30	treated	2018-01-02 13:48:31	2018-01-08 12:10:29			Rel-15			NR_newRAT-Core					R1-1721663	RAN1		R2-1714246
R1-1800004	LS on further clarification on definitions of reference points	RAN4, Huawei, HiSilicon	Patrick Merias	82292	LS in				4	5	Incoming Liaison Statements	40	treated	2018-01-02 13:48:31	2018-01-08 12:10:29			Rel-15			NR_newRAT-Core					R1-1719040	RAN1	RAN2	R4-1713940
R1-1800005	LS on RSRP/RSRQ Report Mapping	RAN4, Ericsson	Patrick Merias	82292	LS in				4	5	Incoming Liaison Statements	50	treated	2018-01-02 13:48:31	2018-01-08 12:10:29			Rel-15			NR_newRAT-Core						RAN2	RAN1	R4-1713941
R1-1800006	LS reply on MIMO layers UE capabilities	RAN4, Intel Corporation	Patrick Merias	82292	LS in				4	5	Incoming Liaison Statements	60	noted	2018-01-02 13:48:31	2018-01-08 12:10:29			Rel-15			NR_newRAT-Core					R2-1712078	RAN2	RAN1	R4-1714257
R1-1800007	LS to RAN1 on RSSI evaluation resource for SS-RSRQ measurement	RAN4, Intel Corporation	Patrick Merias	82292	LS in				4	5	Incoming Liaison Statements	70	treated	2018-01-02 13:48:31	2018-01-08 12:10:29			Rel-15			NR_newRAT-Core						RAN1		R4-1714286
R1-1800008	LS on channel raster and SS raster	RAN4, Huawei	Patrick Merias	82292	LS in				4	5	Incoming Liaison Statements	80	treated	2018-01-02 13:48:31	2018-01-08 12:10:29			Rel-15			NR_newRAT-Core						RAN1, RAN2		R4-1714295
R1-1800009	LS on transmission timing adjustments in SRI	RAN4, Huawei, HiSilicon	Patrick Merias	82292	LS in				4	5	Incoming Liaison Statements	90	withdrawn	2018-01-02 13:48:31	2018-01-08 12:10:29			Rel-15			NR_newRAT-Core						RAN1		R4-1714417
R1-1800010	LS reply on UE RF related parameters, capabilities and features for NR	RAN4, NTT DOCOMO, INC.	Patrick Merias	82292	LS in				4	5	Incoming Liaison Statements	100	noted	2018-01-02 13:48:31	2018-01-08 12:10:29			Rel-15			NR_newRAT-Core					R2-1712028	RAN2	RAN1, RAN3	R4-1714454
R1-1800011	LS on spectrum utilization	RAN4, Huawei, HiSilicon	Patrick Merias	82292	LS in				4	5	Incoming Liaison Statements	110	treated	2018-01-02 13:48:31	2018-01-08 12:10:29			Rel-15			NR_newRAT-Core						RAN1	RAN2	R4-1714478
R1-1800012	LS on Signalling of TA_Offset	RAN4, Ericsson	Patrick Merias	82292	LS in				4	5	Incoming Liaison Statements	120	treated	2018-01-02 13:48:31	2018-01-08 12:10:29			Rel-15			NR_newRAT-Core						RAN1	RAN2	R4-1714502
R1-1800013	LS on measurement gap in NR	RAN4, Huawei, HiSilicon	Patrick Merias	82292	LS in				4	5	Incoming Liaison Statements	130	noted	2018-01-02 13:48:31	2018-01-08 12:10:29			Rel-15			NR_newRAT-Core						RAN2	RAN1	R4-1714503
R1-1800014	Response LS on simultaneous transmission and/or reception over EPC/E-UTRAN and 5GC/NR	RAN4, Intel Corporation	Patrick Merias	82292	LS in				4	5	Incoming Liaison Statements	140	noted	2018-01-02 13:48:31	2018-01-08 12:10:29			Rel-15			NR_newRAT-Core					S2-176689	SA2	RAN1, RAN2	R4-1714539
R1-1800015	LS on QCIs for EPC based URLLC	SA2, Vodafone	Patrick Merias	82292	LS in			Response to: S1-174513 (S2-178409) and R2-1714136 (S2-179415)	4	5	Incoming Liaison Statements	150	noted	2018-01-02 13:48:31	2018-01-08 12:10:29			Rel-15			NR_newRAT-Core						SA, RAN	SA1, RAN1, RAN2	S2-179946
R1-1800016	LS on URLLC	SA, Vodafone	Patrick Merias	82292	LS in				4	5	Incoming Liaison Statements	160	noted	2018-01-02 13:48:31	2018-01-08 12:10:29			Rel-15			NR_newRAT-Core					S2-179946	SA1, SA2	RAN, RAN1, RAN2	SP-171079
R1-1800017	Draft Agenda of RAN1#AH_1801 (NR) meeting	RAN1 Chair	Patrick Merias	82292	agenda	Approval			1	2	Approval of Agenda	170	approved	2018-01-02 18:05:49	2018-01-02 18:12:52	R1-1800000													
R1-1800018	Remaining issues on bandwidth part and wideband operation	Huawei, HiSilicon	Brian Classon	46790	other				67	7.3.4.1	Other aspects on bandwidth Parts	180	available	2018-01-03 00:01:50	2018-01-13 03:30:44														
R1-1800019	Remaining issues on resource allocation and TBS	Huawei, HiSilicon	Brian Classon	46790	other				59	7.3.3.1	DL/UL resource allocation	190	available	2018-01-03 00:01:50	2018-01-13 06:09:36														
R1-1800020	Remaining issues on reserved resources and rate-matching	Huawei, HiSilicon	Brian Classon	46790	other				69	7.3.5	Rate matching aspects for NR DL and UL	200	available	2018-01-03 00:01:50	2018-01-13 06:09:36														
R1-1800021	Remaining issues on NR CA and DC	Huawei, HiSilicon	Brian Classon	46790	other				68	7.3.4.2	Other aspects on carrier aggregation	210	available	2018-01-03 00:01:50	2018-01-13 03:30:44														
R1-1800022	Summary of remaining issues on timing, scheduling, SRS and power control for SUL	Huawei, HiSilicon	Brian Classon	46790	other				78	7.5	NR-LTE co-existence	220	noted	2018-01-03 00:01:50	2018-01-13 03:30:44														
R1-1800023	Discussion on application scenarios for NoMA	Huawei, HiSilicon	Brian Classon	46790	other				85	7.9	Other	230	available	2018-01-03 00:01:51	2018-01-13 05:18:11														
R1-1800024	Discussion on LLS parameters and methodology for NoMA evaluation	Huawei, HiSilicon	Brian Classon	46790	other				85	7.9	Other	240	available	2018-01-03 00:01:51	2018-01-13 05:18:11														
R1-1800025	Consideration on GEO and LEO channel models	Huawei, HiSilicon	Brian Classon	46790	other				85	7.9	Other	250	available	2018-01-03 00:01:51	2018-01-13 05:18:11														
R1-1800026	Consideration on HAPS channel models	Huawei, HiSilicon	Brian Classon	46790	other				85	7.9	Other	260	available	2018-01-03 00:01:51	2018-01-13 05:18:11														
R1-1800027	NTN Channel Modeling	Huawei, HiSilicon	Brian Classon	46790	other				85	7.9	Other	270	available	2018-01-03 00:01:51	2018-01-13 05:18:11														
R1-1800028	V2X sidelink channel model: LOS protability curves and NLOS state due to vehicle blockage	Huawei, HiSilicon	Brian Classon	46790	other				85	7.9	Other	280	available	2018-01-03 00:01:51	2018-01-13 05:18:11														
R1-1800029	OFDM baseband signal generation	Huawei, HiSilicon	Brian Classon	46790	other				8	7.1.1	Synchronization signal	290	available	2018-01-03 00:01:51	2018-01-13 03:30:44														
R1-1800030	Correction on RMSI configurations	Huawei, HiSilicon	Brian Classon	46790	other				11	7.1.2.2	Remaining minimum system information	300	available	2018-01-03 00:01:51	2018-01-13 03:30:44														
R1-1800031	Remaining details on the common search space configuration for OSI	Huawei, HiSilicon	Brian Classon	46790	other				12	7.1.2.3	Other system information delivery	310	available	2018-01-03 00:01:51	2018-01-13 03:30:44														
R1-1800032	On Paging configurations	Huawei, HiSilicon	Brian Classon	46790	other				13	7.1.3	Paging design	320	available	2018-01-03 00:01:51	2018-01-13 03:30:44														
R1-1800033	Intra-slot hopping pattern for long PUCCH over multiple slots	Huawei, HiSilicon	Brian Classon	46790	other				57	7.3.2.5	Other	330	available	2018-01-03 00:01:51	2018-01-13 05:20:01														
R1-1800034	Long PUCCH over multiple slots with different duration in each slot	Huawei, HiSilicon	Brian Classon	46790	other				57	7.3.2.5	Other	340	available	2018-01-03 00:01:51	2018-01-13 05:20:01														
R1-1800035	Summary of remaining issues on soft buffer management	Huawei, HiSilicon	Brian Classon	46790	other				63	7.3.3.5	Soft-buffer management for NR	350	available	2018-01-03 00:01:51	2018-01-13 05:20:01														
R1-1800036	Summary of remaining issues on HARQ management	Huawei, HiSilicon	Brian Classon	46790	other				60	7.3.3.2	DL/UL scheduling and HARQ management	360	available	2018-01-03 00:01:51	2018-01-13 05:20:01														
R1-1800037	On NR V2X Evaluation Methodology	Huawei, HiSilicon	Brian Classon	46790	other				85	7.9	Other	370	available	2018-01-03 00:01:51	2018-01-13 05:18:11														
R1-1800038	High level consideration on NR unlicensed band operation	Huawei, HiSilicon	Brian Classon	46790	other				85	7.9	Other	380	available	2018-01-03 00:01:51	2018-01-13 05:18:11														
R1-1800039	NR Numerology on unlicensed bands	Huawei, HiSilicon	Brian Classon	46790	other				85	7.9	Other	390	available	2018-01-03 00:01:51	2018-01-13 05:18:11														
R1-1800040	NR Frame structure on unlicensed bands	Huawei, HiSilicon	Brian Classon	46790	other				85	7.9	Other	400	available	2018-01-03 00:01:51	2018-01-13 05:18:11														
R1-1800041	Coexistence and Channel access for NR unlicensed band operations	Huawei, HiSilicon	Brian Classon	46790	other				85	7.9	Other	410	available	2018-01-03 00:01:51	2018-01-13 05:18:11	R1-1719041													
R1-1800042	NR licensed assisted and standalone operation on unlicensed bands	Huawei, HiSilicon	Brian Classon	46790	other				85	7.9	Other	420	available	2018-01-03 00:01:51	2018-01-13 05:18:11														
R1-1800043	On PBCH scrambling & PBCH DMRS initialization	Huawei, HiSilicon	Brian Classon	46790	other				10	7.1.2.1	NR-PBCH	430	available	2018-01-03 00:01:51	2018-01-13 03:30:44														
R1-1800044	Working Assumption on Slot configuration	Huawei, HiSilicon	Brian Classon	46790	other				14	7.1.4	Physical random access channel and random access procedure	440	available	2018-01-03 00:01:51	2018-01-13 03:30:44														
R1-1800045	Consideration on self evaluation of IMT-2020 for peak spectral efficiency and peak data rate	Huawei, HiSilicon	Brian Classon	46790	other				85	7.9	Other	450	available	2018-01-03 00:01:51	2018-01-13 05:18:11														
R1-1800046	Consideration on self evaluation of IMT-2020 for user experienced data rate	Huawei, HiSilicon	Brian Classon	46790	other				85	7.9	Other	460	available	2018-01-03 00:01:51	2018-01-13 05:18:11														
R1-1800047	Consideration on self evaluation of IMT-2020 for high mobility	Huawei, HiSilicon	Brian Classon	46790	other				85	7.9	Other	470	available	2018-01-03 00:01:52	2018-01-13 05:18:11														
R1-1800048	Consideration on self evaluation of IMT-2020 for area traffic capacity	Huawei, HiSilicon	Brian Classon	46790	other				85	7.9	Other	480	available	2018-01-03 00:01:52	2018-01-13 05:18:11														
R1-1800049	Consideration on self evaluation of IMT-2020 for energy efficiency	Huawei, HiSilicon	Brian Classon	46790	other				85	7.9	Other	490	available	2018-01-03 00:01:52	2018-01-13 05:18:11														
R1-1800050	Summary of remaining issues on pre-emption indication with TP	Huawei, HiSilicon	Brian Classon	46790	other				64	7.3.3.6	Multiplexing data with different transmission durations	500	available	2018-01-03 00:01:52	2018-01-13 03:30:44														
R1-1800051	UE-to-UE measurement for cross-link interference mitigation	Huawei, HiSilicon	Brian Classon	46790	other				85	7.9	Other	510	available	2018-01-03 00:01:52	2018-01-13 05:18:11														
R1-1800052	Support of 60 kHz subcarrier spacing	Huawei, HiSilicon	Brian Classon	46790	other				65	7.3.3.7	Other	520	available	2018-01-03 00:01:52	2018-01-13 03:30:44														
R1-1800053	PDCCH reliability for URLLC	Huawei, HiSilicon	Brian Classon	46790	other				51	7.3.1.5	Other	530	available	2018-01-03 00:01:52	2018-01-13 03:30:44														
R1-1800054	Discussion on UCI feedback for URLLC	Huawei, HiSilicon	Brian Classon	46790	other				57	7.3.2.5	Other	540	available	2018-01-03 00:01:52	2018-01-13 03:30:44														
R1-1800055	Reliability enhancement for grant-free transmission	Huawei, HiSilicon	Brian Classon	46790	other				65	7.3.3.7	Other	550	available	2018-01-03 00:01:52	2018-01-13 03:30:44														
R1-1800056	Discussion on over-the-air time synchronization for URLLC	Huawei, HiSilicon	Brian Classon	46790	other				65	7.3.3.7	Other	560	available	2018-01-03 00:01:52	2018-01-13 03:30:44														
R1-1800057	Discussion on UL multiplexing between URLLC and eMBB	Huawei, HiSilicon	Brian Classon	46790	other				65	7.3.3.7	Other	570	available	2018-01-03 00:01:52	2018-01-13 03:30:44														
R1-1800058	PDSCH reliability for URLLC	Huawei, HiSilicon	Brian Classon	46790	other				65	7.3.3.7	Other	580	available	2018-01-03 00:01:52	2018-01-13 03:30:44														
R1-1800059	MCS/CQI design for URLLC transmission	Huawei, HiSilicon	Brian Classon	46790	other				65	7.3.3.7	Other	590	noted	2018-01-03 00:01:52	2018-01-13 03:30:44														
R1-1800060	Summary of remaining issues on UL data transmission procedure	Huawei, HiSilicon	Brian Classon	46790	other				62	7.3.3.4	UL data transmission procedure	600	available	2018-01-03 00:01:52	2018-01-13 03:30:44														
R1-1800061	Timing alignment on cross-link	Huawei, HiSilicon	Brian Classon	46790	other				85	7.9	Other	610	available	2018-01-03 00:01:52	2018-01-13 05:18:11														
R1-1800062	Summary of remaining issues on PDCCH monitoring with TP	Huawei, HiSilicon	Brian Classon	46790	other				51	7.3.1.5	Other	620	available	2018-01-03 00:01:52	2018-01-13 03:30:44														
R1-1800063	On remaining details of RACH Preambles	Huawei, HiSilicon	Brian Classon	46790	other				15	7.1.4.1	PRACH formats	630	available	2018-01-03 00:01:52	2018-01-13 03:30:44														
R1-1800064	On the remaining details of RACH Procedures	Huawei, HiSilicon	Brian Classon	46790	other				16	7.1.4.2	RACH procedure	640	available	2018-01-03 00:01:52	2018-01-13 03:30:44														
R1-1800065	On the remaining details on NR RRM	Huawei, HiSilicon	Brian Classon	46790	other				18	7.1.5.1	Measurement for mobility management	650	available	2018-01-03 00:01:52	2018-01-13 03:30:44														
R1-1800066	On remaining details on Radio link monitoring in NR	Huawei, HiSilicon	Brian Classon	46790	other				19	7.1.5.2	Radio link monitoring for mobility management	660	available	2018-01-03 00:01:52	2018-01-13 03:30:44														
R1-1800067	Summary of remaining issues on PDCCH structure	Huawei, HiSilicon	Brian Classon	46790	other				47	7.3.1.1	PDCCH structure	670	available	2018-01-03 00:01:52	2018-01-13 05:20:01														
R1-1800068	Summary of remaining issues on search space	Huawei, HiSilicon	Brian Classon	46790	other				48	7.3.1.2	Search space	680	available	2018-01-03 00:01:52	2018-01-13 05:20:01														
R1-1800069	Summary of remaining issues on group-common PDCCH	Huawei, HiSilicon	Brian Classon	46790	other				49	7.3.1.3	Group-common PDCCH	690	available	2018-01-03 00:01:52	2018-01-13 05:20:01														
R1-1800070	Summary of remaining issues on DCI contents and formats	Huawei, HiSilicon	Brian Classon	46790	other				50	7.3.1.4	DCI contents and formats	700	available	2018-01-03 00:01:52	2018-01-13 05:20:01														
R1-1800071	Summary of remaining issues on PUCCH structure in short-duration	Huawei, HiSilicon	Brian Classon	46790	other				53	7.3.2.1	PUCCH structure in short-duration	710	available	2018-01-03 00:01:52	2018-01-13 05:20:01														
R1-1800072	Summary of remaining issues on PUCCH structure in long-duration	Huawei, HiSilicon	Brian Classon	46790	other				54	7.3.2.2	PUCCH structure in long-duration	720	available	2018-01-03 00:01:52	2018-01-13 05:20:01														
R1-1800073	Summary of remaining issues on UCI multiplexing	Huawei, HiSilicon	Brian Classon	46790	other				55	7.3.2.3	UCI multiplexing	730	available	2018-01-03 00:01:52	2018-01-13 06:09:36														

R1-1800074	Summary of remaining issues on resource allocation for PUCCH	Huawei, HiSilicon	Brian Classon	45790	other					56	7.3.2.4	Resource allocation for PUCCH	740	available		2018-01-03 00:01:52	2018-01-13 05:20:01																					
R1-1800075	Summary of remaining issues on CBG-based (re)transmission	Huawei, HiSilicon	Brian Classon	45790	other					61	7.3.3.3	CBG-based (re)transmission	750	available		2018-01-03 00:01:52	2018-01-13 05:20:01																					
R1-1800076	UL Power control for cross-link interference mitigation	Huawei, HiSilicon	Brian Classon	45790	other					85	7.9	Other	760	available		2018-01-03 00:01:52	2018-01-13 05:18:11																					
R1-1800077	Underlay SR: a complementary solution to overcome the limitations of periodic PUCCH-SR	Idaho National Laboratory	Ramon Khalona	59065	discussion	Discussion				62	7.3.3.4	UL data transmission procedure	770	available		2018-01-03 00:05:40	2018-01-12 15:15:48	R1-1719515			Rel-15			FS_NR_newRAT											
R1-1800078	Remaining details of Synchronization Signal Design	ZTE, Sanechips	Yifei Yuan	58525	discussion					8	7.1.1	Synchronization signal	780	available		2018-01-03 00:08:04	2018-01-13 06:23:31																					
R1-1800079	Remaining details of NR-PBCH Design	ZTE, Sanechips	Yifei Yuan	58525	discussion					10	7.1.2.1	NR-PBCH	790	available		2018-01-03 00:08:04	2018-01-13 06:23:31																					
R1-1800080	Remaining details of RMSI	ZTE, Sanechips	Yifei Yuan	58525	discussion					11	7.1.2.2	Remaining minimum system information	800	available		2018-01-03 00:08:04	2018-01-13 06:23:31																					
R1-1800081	Remaining details of OSI Delivery	ZTE, Sanechips	Yifei Yuan	58525	discussion					12	7.1.2.3	Other system information delivery	810	available		2018-01-03 00:08:04	2018-01-13 06:23:31																					
R1-1800082	Remaining details of Paging design	ZTE, Sanechips	Yifei Yuan	58525	discussion					13	7.1.3	Paging design	820	available		2018-01-03 00:08:05	2018-01-13 06:23:31																					
R1-1800083	Remaining details of PRACH Resource Configuration	ZTE, Sanechips	Yifei Yuan	58525	discussion					15	7.1.4.1	PRACH formats	830	available		2018-01-03 00:08:05	2018-01-13 06:23:31																					
R1-1800084	Remaining details of RACH procedure	ZTE, Sanechips	Yifei Yuan	58525	discussion					16	7.1.4.2	RACH procedure	840	available		2018-01-03 00:08:05	2018-01-13 06:23:31																					
R1-1800085	Remaining details of RRM measurements	ZTE, Sanechips	Yifei Yuan	58525	discussion					18	7.1.5.1	Measurement for mobility management	850	available		2018-01-03 00:08:05	2018-01-13 06:23:31																					
R1-1800086	Remaining details of RLM	ZTE, Sanechips	Yifei Yuan	58525	discussion					19	7.1.5.2	Radio link monitoring for mobility management	860	available		2018-01-03 00:08:05	2018-01-13 06:23:31																					
R1-1800087	Summary of remaining issues of PTRS	Huawei, HiSilicon	Xiao Weimin	56706	discussion	Decision				39	7.2.3.4	PT-RS	870	available		2018-01-03 00:19:00	2018-01-12 22:23:44																					
R1-1800088	Discussion on grouping of CGS sequence	Huawei, HiSilicon	Xiao Weimin	56706	discussion	Decision				43	7.2.3.8	Other	880	available		2018-01-03 00:19:00	2018-01-12 22:23:44																					
R1-1800089	Summary of remaining issues for QCL assumptions	Huawei, HiSilicon	Xiao Weimin	56706	discussion	Decision				42	7.2.3.7	QCL	890	available		2018-01-03 00:19:00	2018-01-12 22:23:44																					
R1-1800090	Summary of remaining details of SRS design	Huawei, HiSilicon	Xiao Weimin	56706	discussion	Decision				40	7.2.3.5	SRS	900	available		2018-01-03 00:19:00	2018-01-12 22:23:44																					
R1-1800091	Summary of remaining details on UL/DL DMRS design in NR	Huawei, HiSilicon	Xiao Weimin	56706	discussion	Decision				38	7.2.3.3	DMRS	910	available		2018-01-03 00:19:00	2018-01-12 22:23:44																					
R1-1800092	Summary of remaining details on CSI-RS design in NR	Huawei, HiSilicon	Xiao Weimin	56706	discussion	Decision				37	7.2.3.2	CSI-RS	920	available		2018-01-03 00:19:00	2018-01-12 22:23:44																					
R1-1800093	Remaining details of UL power control design	Huawei, HiSilicon	Xiao Weimin	56706	discussion	Decision				80	7.6.1	NR UL power control - non-CA aspects	930	available		2018-01-03 00:19:00	2018-01-13 05:12:00																					
R1-1800094	Summary of remaining issues on CSI measurement	Huawei, HiSilicon	Xiao Weimin	56706	discussion	Decision				29	7.2.2.1	CSI measurement	940	available		2018-01-03 00:19:00	2018-01-13 04:54:32																					
R1-1800095	Summary of remaining issues for CSI reporting	Huawei, HiSilicon	Xiao Weimin	56706	discussion	Decision				30	7.2.2.2	CSI reporting	950	available		2018-01-03 00:19:00	2018-01-13 04:56:14																					
R1-1800096	Summary of remaining details of CQI and MCS design	Huawei, HiSilicon	Xiao Weimin	56706	discussion	Decision				33	7.2.2.5	CQI and MCS	960	noted		2018-01-03 00:19:00	2018-01-13 04:56:14																					
R1-1800097	Summary of remaining issues for UL non-codebook based transmission	Huawei, HiSilicon	Xiao Weimin	56706	discussion	Decision				25	7.2.1.3	Non-codebook based transmission for UL	970	available		2018-01-03 00:19:00	2018-01-13 04:56:14																					
R1-1800098	Summary of remaining issues for codebook based transmission for UL MIMO	Huawei, HiSilicon	Xiao Weimin	56706	discussion	Decision				24	7.2.1.2	Codebook based transmission for UL	980	available		2018-01-03 00:19:00	2018-01-13 04:56:14																					
R1-1800099	Draft LS response to RAN2 on MAC CEs for beam management and CSI	Huawei	Xiao Weimin	56706	LS out	Decision				4	5	Incoming Liaison Statements	990	revised		2018-01-03 00:19:00	2018-01-13 04:56:14	R1-1801236		Rel-15			NR_newRAT-Core			R2-1714246	RAN2								
R1-1801000	Summary of remaining issues of beam measurement, reporting and indication	Huawei, HiSilicon	Xiao Weimin	56706	discussion	Decision				31	7.2.2.3	Beam measurement and reporting	1000	available		2018-01-03 00:19:00	2018-01-13 04:56:14																					
R1-1801001	Summary of remaining issues on beam failure recovery	Huawei, HiSilicon	Xiao Weimin	56706	discussion	Decision				32	7.2.2.4	Mechanism to recover from beam failure	1010	available		2018-01-03 00:19:00	2018-01-13 04:56:14																					
R1-1801002	Summary of remaining details on multiplexing signals and channels	Huawei, HiSilicon	Xiao Weimin	56706	discussion	Decision				36	7.2.3.1	Multiplexing of different types of RSs	1020	available		2018-01-03 00:19:00	2018-01-12 22:23:44																					
R1-1801003	Text proposals for downlink control polar coding	Huawei, HiSilicon	Carmela Cozzo	56181	discussion					74	7.4.2.1	Downlink control	1030	noted		2018-01-03 00:43:56	2018-01-13 06:34:53																					
R1-1801004	Channel coding for URLLC	Huawei, HiSilicon	Carmela Cozzo	56181	discussion					77	7.4.2.4	Other	1040	available		2018-01-03 00:43:56	2018-01-13 06:34:53																					
R1-1801005	Evaluation of channel coding schemes	Huawei, HiSilicon	Carmela Cozzo	56181	discussion					77	7.4.2.4	Other	1050	available		2018-01-03 00:43:56	2018-01-13 06:34:53																					
R1-1801006	HARQ for polar codes	Huawei, HiSilicon	Carmela Cozzo	56181	discussion					77	7.4.2.4	Other	1060	available		2018-01-03 00:43:56	2018-01-13 06:34:53																					
R1-1801007	Remaining details on non-codebook based UL transmission	ZTE, Sanechips	Ruyue Yu-Ngok Li	43128	discussion					25	7.2.1.3	Non-codebook based transmission for UL	1070	noted		2018-01-05 09:16:51	2018-01-13 06:46:44																					
R1-1801008	Remaining details on CSI measurement	ZTE, Sanechips	Ruyue Yu-Ngok Li	43128	discussion					29	7.2.2.1	CSI measurement	1080	available		2018-01-05 09:16:51	2018-01-13 06:46:44																					
R1-1801009	Remaining details on CSI reporting	ZTE, Sanechips	Ruyue Yu-Ngok Li	43128	discussion					30	7.2.2.2	CSI reporting	1090	available		2018-01-05 09:16:51	2018-01-13 06:46:44																					
R1-1801010	Remaining details on beam management	ZTE, Sanechips	Ruyue Yu-Ngok Li	43128	discussion					31	7.2.2.3	Beam measurement and reporting	1100	available		2018-01-05 09:16:51	2018-01-13 06:46:44																					
R1-1801011	Remaining details on beam recovery	ZTE, Sanechips	Ruyue Yu-Ngok Li	43128	discussion					32	7.2.2.4	Mechanism to recover from beam failure	1110	available		2018-01-05 09:16:51	2018-01-13 06:46:44																					
R1-1801012	Remaining details on CQI and MCS	ZTE, Sanechips	Ruyue Yu-Ngok Li	43128	discussion					33	7.2.2.5	CQI and MCS	1120	available		2018-01-05 09:16:51	2018-01-13 06:46:44																					
R1-1801013	Remaining details on CSI-RS	ZTE, Sanechips	Ruyue Yu-Ngok Li	43128	discussion					37	7.2.3.2	CSI-RS	1130	available		2018-01-05 09:16:51	2018-01-13 06:46:44																					
R1-1801014	Remaining details on DMRS	ZTE, Sanechips	Ruyue Yu-Ngok Li	43128	discussion					38	7.2.3.3	DMRS	1140	available		2018-01-05 09:16:51	2018-01-13 06:46:44																					
R1-1801015	Remaining details on PT-RS	ZTE, Sanechips	Ruyue Yu-Ngok Li	43128	discussion					39	7.2.3.4	PT-RS	1150	available		2018-01-05 09:16:51	2018-01-13 06:46:44																					
R1-1801016	Remaining details on SRS	ZTE, Sanechips	Ruyue Yu-Ngok Li	43128	discussion					40	7.2.3.5	SRS	1160	available		2018-01-05 09:16:51	2018-01-13 06:46:44																					
R1-1801017	Remaining details on QCL	ZTE, Sanechips	Ruyue Yu-Ngok Li	43128	discussion					42	7.2.3.7	QCL	1170	available		2018-01-05 09:16:51	2018-01-13 06:46:44																					
R1-1801018	Remaining details on NR power control in non-CA aspects	ZTE, Sanechips	Ruyue Yu-Ngok Li	43128	discussion					80	7.6.1	NR UL power control - non-CA aspects	1180	noted		2018-01-05 09:16:51	2018-01-13 06:46:44																					
R1-1801019	Remaining details on NR power control in CA aspects	ZTE, Sanechips	Ruyue Yu-Ngok Li	43128	discussion					81	7.6.2	NR UL power control – CA aspects	1190	available		2018-01-05 09:16:51	2018-01-13 06:46:44																					
R1-1801020	Remaining issues for UL data transmission procedure	ZTE, Sanechips	Yifei Yuan	58525	discussion					62	7.3.3.4	UL data transmission procedure	1200	available		2018-01-06 06:05:56	2018-01-13 06:23:31																					
R1-1801021	Consideration on NOMA study	ZTE, Sanechips	Yifei Yuan	58525	discussion					85	7.9	Other	1210	available		2018-01-06 06:05:57	2018-01-13 06:23:31																					
R1-1801022	Preliminary link-level performance comparison of NOMA schemes	ZTE, Sanechips	Yifei Yuan	58525	discussion					85	7.9	Other	1220	available		2018-01-06 06:05:57	2018-01-13 06:23:31																					
R1-1801023	Receiver algorithms of linear-spreading based NOMA	ZTE, Sanechips	Yifei Yuan	58525	discussion					85	7.9	Other	1230	available		2018-01-06 06:05:57	2018-01-13 06:23:31																					
R1-1801024	Discussion on ambiguity about TA determination in case of multiple configured UL BWPs with different numerologies	Fujitsu	Tim Moulsley	59954	other					16	7.1.4.2	RACH procedure	1240	available		2018-01-06 14:03:34	2018-01-12 17:12:53																					
R1-1801025	Discussion on aperiodic CSI-RS triggering offset configuration in case of one resource set over multiple slots	Fujitsu	Tim Moulsley	59954	other					30	7.2.2.2	CSI reporting	1250	available		2018-01-06 14:03:35	2018-01-12 17:12:53																					
R1-1801026	Ambiguities about beam indication in some cases	Fujitsu	Tim Moulsley	59954	other					31	7.2.2.3	Beam measurement and reporting	1260	available		2018-01-06 14:03:35	2018-01-12 17:12:53																					
R1-1801027	Alignment of DAI field of DCI format 1_0 between TS 38.212 and TS 38.213	Fujitsu	Tim Moulsley	59954	other					50	7.3.1.4	DCI contents and formats	1270	available		2018-01-06 14:03:35	2018-01-12 17:12:53																					
R1-1801028	Clarification on Type-2 HARQ-ACK codebook determination in TS 38.213	Fujitsu	Tim Moulsley	59954	other					68	7.3.4.2	Other aspects on carrier aggregation	1280	available		2018-01-06 14:03:35	2018-01-12 17:12:53																					
R1-1801029	PDCCH DMRS reference point and other remaining issues	ZTE, Sanechips	Zhisong Zuo	33890	discussion	Discussion				47	7.3.1.1	PDCCH structure	1290	available		2018-01-08 03:41:18	2018-01-13 06:17:16																					
R1-1801030	Search space design and related issues	ZTE, Sanechips	Zhisong Zuo	33890	discussion	Discussion				48	7.3.1.2	Search space	1300	available		2018-01-08 03:41:18	2018-01-13 06:17:16																					
R1-1801031	Remaining issues for slot format	ZTE, Sanechips	Zhisong Zuo	33890	discussion	Discussion				49	7.3.1.3	Group-common PDCCH	1310	revised		2018-01-08 03:41:18	2018-01-13 06:17:16	R1-1800992																				
R1-1801032	Remaining issues on DCI content	ZTE, Sanechips	Zhisong Zuo	33890	discussion	Discussion				50	7.3.1.4	DCI contents and formats	1320	available		2018-01-08 03:41:18	2018-01-13 06:17:16																					
R1-1801033	Miscellaneous changes related to Short PUCCH	ZTE, Sanechips	Zhisong Zuo	33890	discussion	Discussion				53	7.3.2.1	PUCCH structure in short-duration	1330	available		2018-01-08 03:41:18	2018-01-13 06:17:16																					
R1-1801034	Remaining issues Long PUCCH	ZTE, Sanechips	Zhisong Zuo	33890	discussion	Discussion				54	7.3.2.2	PUCCH structure in long-duration	1340	noted		2018-01-08 03:41:18	2018-01-13 06:17:16																					
R1-1801035	Remaining issues for UCI over PUSCH	ZTE, Sanechips	Zhisong Zuo	33890	discussion	Discussion				55	7.3.2.3	UCI multiplexing	1350	available		2018-01-08 03:41:18	2018-01-13 06:17:16																					
R1-1801036	Remaining issues for PUCCH resource allocation	ZTE, Sanechips	Zhisong Zuo	33890	discussion	Discussion				56	7.3.2.4	Resource allocation for PUCCH	1360	available		2018-01-08 03:41:18	2018-01-13 06:17:16																					
R1-1801037	Hopping and scrambling for UL control	ZTE, Sanechips	Zhisong Zuo	33890	discussion	Discussion				57	7.3.2.5	Other	1370	available		2018-01-08 03:41:18	2018-01-13 06:17:16																					
R1-1801038	Remaining issues for data resource allocation	ZTE, Sanechips	Zhisong Zuo	33890	discussion	Discussion				59	7.3.3.1	DL/UL resource allocation	1380	available		2018-01-08 03:41:18	2018-01-13 06:17:16																					
R1-1801039	Remaining issues for CBG	ZTE, Sanechips	Zhisong Zuo	33890	discussion	Discussion				61	7.3.3.3	CBG-based (re)transmission	1390	available		2018-01-08 03:41:18	2018-01-13 06:17:16																					
R1-1801040	On different numerologies in one PUCCH group	ZTE, Sanechips	Zhisong Zuo	33890	discussion	Discussion				68	7.3.4.2	Other aspects on carrier aggregation	1400	available		2018-01-08 03:41:18	2018-01-13 06:17:16																					
R1-1801041	On remaining issues for rate matching	ZTE, Sanechips	Zhisong Zuo	33890	discussion	Discussion				69	7.3.5	Rate matching aspects for NR DL and UL	1410	available		2018-01-08 03:41:18	2018-01-13 06:17:16																					
R1-1801042	Remaining aspects related to FDD	ZTE, Sanechips	Zhisong Zuo	33890	discussion	Discussion				83	7.7	Aspects related to FDD	1420	available		2018-01-08 03:41:18	2018-01-13 06:17:16																					
R1-1801043	Remaining issues and changes in RRM	MediaTek Inc.	Tao Chen	56093	discussion					18	7.1.5.1	Measurement for mobility management	1430	available		2018-01-08 03:44:28	2018-01-13 06:40:31																					
R1-1801044	Remaining issues and changes in RLM	MediaTek Inc.	Tao Chen	56093	discussion					19	7.1.5.2	Radio link monitoring for mobility management	1440	available		2018-01-08 03:44:28	2018-01-13 06:40:31																					
R1-1801045	Remaining issues and changes in search space	MediaTek Inc.	Tao Chen	56093	discussion					48	7.3.1.2	Search space	1450	available		2018-01-08 03:44:28	2018-01-13 06:40:31																					
R1-1801046	Remaining issues in GC-PDCCH	MediaTek Inc.	Tao Chen	56093	discussion					49	7.3.1.3	Group-common PDCCH	1460	available		2018-01-08 03:44:28	2018-01-13 06:40:31																					
R1-1801047	Remaining issues in carrier aggregation	MediaTek Inc.	Tao Chen	56093	discussion					68	7.3.4.2	Other aspects on carrier aggregation	1470	available		2018-01-08 03:44:28	2018-01-13 06:40:31																					
R1-1801048	Remaining details of bandwidth part operation	MediaTek Inc.	Tao Chen	56093	discussion					67	7.3.4.1	Other aspects on bandwidth Parts	1480	available		2018-01-08 03:44:29	2018-01-13 06:40:31																					
R1-1801049	Remaining issues on Synchronization signal	MediaTek Inc.	Tao Chen	56093	discussion					8	7.1.1	Synchronization signal	1490	noted		2018-01-08 03:44:29	2018-01-13 06:40:31																					

R1-1801592	Remaining issues for RMSI	MediaTek Inc.	Tao Chen	86/93	discussion					11	7.1.2.2	Remaining minimum system information	1500	revised	2018-01-08 03:44:29	2018-01-13 06:57:38		R1-1800993																				
R1-1801591	Remaining issues for OSI	MediaTek Inc.	Tao Chen	86/93	discussion					12	7.1.2.3	Other system information delivery	1510	available	2018-01-08 03:44:29	2018-01-13 08:08:52																						
R1-1801592	Remaining issues for Paging	MediaTek Inc.	Tao Chen	86/93	discussion					13	7.1.3	Paging design	1520	available	2018-01-08 03:44:29	2018-01-13 07:57:30																						
R1-1801593	Discussion on NR UE feature list	MediaTek Inc.	Tao Chen	86/93	discussion					84	7.8	UE features	1530	noted	2018-01-08 03:44:29	2018-01-13 06:40:31																						
R1-1801594	Considerations on NR unlicensed channel access	MediaTek Inc.	Tao Chen	86/93	discussion					85	7.9	Other	1540	available	2018-01-08 03:44:29	2018-01-13 06:40:31																						
R1-1801595	Considerations on NR NoMA operation	MediaTek Inc.	Tao Chen	86/93	discussion					85	7.9	Other	1550	available	2018-01-08 03:44:29	2018-01-13 06:40:31																						
R1-1801596	Remaining issues in non-codebook based transmission	MediaTek Inc.	Tao Chen	86/93	discussion					25	7.2.1.3	Non-codebook based transmission for UL	1560	available	2018-01-08 03:44:29	2018-01-13 06:40:31																						
R1-1801597	Remaining issues in CSI reporting	MediaTek Inc.	Tao Chen	86/93	discussion					30	7.2.2.2	CSI reporting	1570	revised	2018-01-08 03:44:29	2018-01-13 06:40:31		R1-1801091																				
R1-1801598	Remaining issues in codeword mapping	MediaTek Inc.	Tao Chen	86/93	discussion				Late contribution	23	7.2.1.1	Codeword mapping	1580	revised	2018-01-08 03:44:29	2018-01-14 05:26:00		R1-1801007																				
R1-1801599	Clarifications on beam management	MediaTek Inc.	Tao Chen	86/93	discussion					31	7.2.2.3	Beam measurement and reporting	1590	available	2018-01-08 03:44:29	2018-01-13 06:40:31																						
R1-1801600	Clarifications on beam failure recovery	MediaTek Inc.	Tao Chen	86/93	discussion					32	7.2.2.4	Mechanism to recover from beam failure	1600	available	2018-01-08 03:44:29	2018-01-13 06:40:31																						
R1-1801601	Remaining issues of PUCCH in long duration	MediaTek Inc.	Tao Chen	86/93	discussion					54	7.3.2.2	PUCCH structure in long-duration	1610	available	2018-01-08 03:44:29	2018-01-13 06:40:31																						
R1-1801602	Remaining issues of UCI on PUSCH	MediaTek Inc.	Tao Chen	86/93	discussion					55	7.3.2.3	UCI multiplexing	1620	available	2018-01-08 03:44:29	2018-01-13 06:40:31																						
R1-1801603	HARQ-ACK and UL Scheduling Timing Relationship	MediaTek Inc.	Tao Chen	86/93	discussion					60	7.3.3.2	DL/UL scheduling and HARQ management	1630	available	2018-01-08 03:44:29	2018-01-13 06:40:31																						
R1-1801604	On PRACH formats	MediaTek Inc.	Tao Chen	86/93	discussion					15	7.1.4.1	PRACH formats	1640	available	2018-01-08 03:44:29	2018-01-13 06:40:31																						
R1-1801605	On RACH procedure	MediaTek Inc.	Tao Chen	86/93	discussion					16	7.1.4.2	RACH procedure	1650	available	2018-01-08 03:44:29	2018-01-13 06:40:31																						
R1-1801606	On UCI encoding	MediaTek Inc.	Tao Chen	86/93	discussion					75	7.4.2.2	Uplink control	1660	revised	2018-01-08 03:44:29	2018-01-13 06:40:31		R1-1801091																				
R1-1801607	Quantization table in TBS determination procedure	MediaTek Inc.	Tao Chen	86/93	discussion					59	7.3.3.1	DL/UL resource allocation	1670	revised	2018-01-08 03:44:29	2018-01-13 06:40:31		R1-1801008																				
R1-1801608	Correction on TRS	MediaTek Inc.	Tao Chen	86/93	discussion					41	7.2.3.6	TRS	1680	available	2018-01-08 03:44:29	2018-01-13 06:40:31																						
R1-1801609	CQI reporting for multiple services in NR	MediaTek Inc.	Tao Chen	86/93	discussion					33	7.2.2.5	CQI and MCS	1690	available	2018-01-08 03:44:29	2018-01-13 06:40:31																						
R1-1801610	On TBS determination procedure	MediaTek Inc.	Tao Chen	86/93	discussion					72	7.4.1	LDPC coding	1700	noted	2018-01-08 03:44:29	2018-01-13 06:40:31																						
R1-1801611	Remaining issues on pre-emption indication	MediaTek Inc.	Tao Chen	86/93	discussion					64	7.3.3.6	Multiplexing data with different transmission durations	1710	available	2018-01-08 03:44:29	2018-01-13 06:40:31																						
R1-1801612	Remaining issues on synchronization signal	vivo	Xuerning Pan	72721	discussion					8	7.1.1	Synchronization signal	1720	available	2018-01-09 03:20:41	2018-01-13 04:18:26																						
R1-1801613	Remaining aspects on NR-PBCH	vivo	Xuerning Pan	72721	discussion					10	7.1.2.1	NR-PBCH	1730	available	2018-01-09 03:20:41	2018-01-13 04:18:26																						
R1-1801614	Discussion on Remaining Minimum System Information	vivo	Xuerning Pan	72721	discussion					11	7.1.2.2	Remaining minimum system information	1740	available	2018-01-09 03:20:41	2018-01-13 04:18:26																						
R1-1801615	Remaining details on other system information delivery	vivo	Xuerning Pan	72721	discussion					12	7.1.2.3	Other system information delivery	1750	available	2018-01-09 03:20:41	2018-01-13 04:18:26																						
R1-1801616	Remaining details on NR paging design	vivo	Xuerning Pan	72721	discussion					13	7.1.3	Paging design	1760	available	2018-01-09 03:20:41	2018-01-13 04:18:26																						
R1-1801617	Text proposal on TS38.213 RACH procedure	vivo	Xuerning Pan	72721	discussion					16	7.1.4.2	RACH procedure	1770	available	2018-01-09 03:20:41	2018-01-13 04:18:26																						
R1-1801618	Remaining issues on RRM measurement	vivo	Xuerning Pan	72721	discussion					18	7.1.5.1	Measurement for mobility management	1780	available	2018-01-09 03:20:41	2018-01-13 04:18:26																						
R1-1801619	Text proposal on TS38.213 RLM	vivo	Xuerning Pan	72721	discussion					19	7.1.5.2	Radio link monitoring for mobility management	1790	available	2018-01-09 03:20:41	2018-01-13 04:18:26																						
R1-1801620	Remaining issues and text proposals on codebook based UL transmission	vivo	Xuerning Pan	72721	discussion					24	7.2.1.2	Codebook based transmission for UL	1800	available	2018-01-09 03:20:41	2018-01-13 04:18:26																						
R1-1801621	Remaining issues and text proposals on non-codebook based UL transmission	vivo	Xuerning Pan	72721	discussion					25	7.2.1.3	Non-codebook based transmission for UL	1810	available	2018-01-09 03:20:41	2018-01-13 04:18:26																						
R1-1801622	Remaining issues and text proposals on PRB bundling for DL	vivo	Xuerning Pan	72721	discussion					26	7.2.1.4	PRB bundling for DL	1820	available	2018-01-09 03:20:41	2018-01-13 04:18:26																						
R1-1801623	Remaining issues and text proposals on CSI measurement	vivo	Xuerning Pan	72721	discussion					29	7.2.2.1	CSI measurement	1830	available	2018-01-09 03:20:42	2018-01-13 04:18:26																						
R1-1801624	Remaining issues and text proposals on CSI reporting	vivo	Xuerning Pan	72721	discussion					30	7.2.2.2	CSI reporting	1840	available	2018-01-09 03:20:42	2018-01-13 04:18:26																						
R1-1801625	Remaining issues and text proposals on beam measurement and reporting	vivo	Xuerning Pan	72721	discussion					31	7.2.2.3	Beam measurement and reporting	1850	available	2018-01-09 03:20:42	2018-01-13 04:18:26																						
R1-1801626	Remaining issues and text proposals on mechanism to recover from beam failure	vivo	Xuerning Pan	72721	discussion					32	7.2.2.4	Mechanism to recover from beam failure	1860	available	2018-01-09 03:20:42	2018-01-13 04:18:26																						
R1-1801627	Remaining issues and text proposals on CQI and MCS	vivo	Xuerning Pan	72721	discussion					33	7.2.2.5	CQI and MCS	1870	available	2018-01-09 03:20:42	2018-01-13 04:18:26																						
R1-1801628	Remaining issues on multiplexing of different types of RSs	vivo	Xuerning Pan	72721	discussion					36	7.2.3.1	Multiplexing of different types of RSs	1880	available	2018-01-09 03:20:42	2018-01-13 04:18:26																						
R1-1801629	Remaining issues and text proposals on CSI-RS	vivo	Xuerning Pan	72721	discussion					37	7.2.3.2	CSI-RS	1890	available	2018-01-09 03:20:42	2018-01-13 04:18:26																						
R1-1801630	Remaining issues and text proposals on DMRS design	vivo	Xuerning Pan	72721	discussion					38	7.2.3.3	DMRS	1900	available	2018-01-09 03:20:42	2018-01-13 04:18:26																						
R1-1801631	Remaining issues and text proposals on PT-RS	vivo	Xuerning Pan	72721	discussion					39	7.2.3.4	PT-RS	1910	available	2018-01-09 03:20:42	2018-01-13 04:18:26																						
R1-1801632	Remaining issues and text proposals on SRS design	vivo	Xuerning Pan	72721	discussion					40	7.2.3.5	SRS	1920	available	2018-01-09 03:20:42	2018-01-13 04:18:26																						
R1-1801633	Remaining issues and text proposals on TRS	vivo	Xuerning Pan	72721	discussion					41	7.2.3.6	TRS	1930	available	2018-01-09 03:20:42	2018-01-13 04:18:26																						
R1-1801634	Text proposals on QCL	vivo	Xuerning Pan	72721	discussion					42	7.2.3.7	QCL	1940	available	2018-01-09 03:20:42	2018-01-13 04:18:26																						
R1-1801635	Remaining issues on PDCCH structure	vivo	Xuerning Pan	72721	discussion					47	7.3.1.1	PDCCH structure	1950	available	2018-01-09 03:20:42	2018-01-13 04:18:26																						
R1-1801636	Remaining issues on PDCCH search space and blind decoding	vivo	Xuerning Pan	72721	discussion					48	7.3.1.2	Search space	1960	available	2018-01-09 03:20:42	2018-01-13 04:18:26																						
R1-1801637	Remaining issues on slot format and GC-PDCCH	vivo	Xuerning Pan	72721	discussion					49	7.3.1.3	Group-common PDCCH	1970	available	2018-01-09 03:20:42	2018-01-13 04:18:26																						
R1-1801638	DCI contents and formats	vivo	Xuerning Pan	72721	discussion					50	7.3.1.4	DCI contents and formats	1980	available	2018-01-09 03:20:42	2018-01-13 04:18:26																						
R1-1801639	High reliability PDCCH design	vivo	Xuerning Pan	72721	discussion					51	7.3.1.5	Other	1990	available	2018-01-09 03:20:42	2018-01-13 04:18:26																						
R1-1802200	Remaining issues on short PUCCH	vivo	Xuerning Pan	72721	discussion					53	7.3.2.1	PUCCH structure in short-duration	2000	withdrawn	2018-01-09 03:20:42																						
R1-1802201	Remaining issues on long PUCCH	vivo, Potevio	Xuerning Pan	72721	discussion					54	7.3.2.2	PUCCH structure in long-duration	2010	available	2018-01-09 03:20:42	2018-01-13 04:18:26																						
R1-1802202	Remaining issues on UCI multiplexing	vivo	Xuerning Pan	72721	discussion					55	7.3.2.3	UCI multiplexing	2020	revised	2018-01-09 03:20:42	2018-01-13 04:18:26		R1-1800995																				
R1-1802203	Remaining issues on PUCCH resource allocation	vivo	Xuerning Pan	72721	discussion					56	7.3.2.4	Resource allocation for PUCCH	2030	available	2018-01-09 03:20:42	2018-01-13 04:18:26																						
R1-1802204	Remaining issues on UL data transmission procedure	vivo	Xuerning Pan	72721	discussion					62	7.3.3.4	UL data transmission procedure	2040	available	2018-01-09 03:20:42	2018-01-13 04:18:26																						
R1-1802205	Multiplexing data with different transmission durations	vivo	Xuerning Pan	72721	discussion					64	7.3.3.6	Multiplexing data with different transmission durations	2050	available	2018-01-09 03:20:42	2018-01-13 04:18:26																						
R1-1802206	Other aspects on bandwidth part operation	vivo	Xuerning Pan	72721	discussion					67	7.3.4.1	Other aspects on bandwidth Parts	2060	available	2018-01-09 03:20:42	2018-01-13 04:18:26																						
R1-1802207	Other aspects on carrier aggregation	vivo	Xuerning Pan	72721	discussion					68	7.3.4.2	Other aspects on carrier aggregation	2070	available	2018-01-09 03:20:42	2018-01-13 04:18:26																						
R1-1802208	Remaining issues on SUL	vivo	Xuerning Pan	72721	discussion					78	7.5	NR-LTE co-existence	2080	available	2018-01-09 03:20:42	2018-01-13 04:18:26																						
R1-1802209	Remaining issues and text proposals on NR UL power control	vivo	Xuerning Pan	72721	discussion					80	7.6.1	NR UL power control - non-CA aspects	2090	available	2018-01-09 03:20:42	2018-01-13 04:18:26																						
R1-1802210	Remaining issue on DL/UL resource allocation	vivo	Xuerning Pan	72721	discussion					59	7.3.3.1	DL/UL resource allocation	2100	available	2018-01-09 07:47:57	2018-01-13 04:18:26																						
R1-1802211	Remaining issue on HARQ management	vivo	Xuerning Pan	72721	discussion					60	7.3.3.2	DL/UL scheduling and HARQ management	2110	available	2018-01-09 15:13:26	2018-01-13 04:18:26																						
R1-1802212	Draft LS reply on MAC CEs for beam management and CSI	ZTE, Sanechips	Ruyue Yu-Ngok LI	43128	discussion					4	5	Incoming Liaison Statements	2120	available	2018-01-09 18:37:11	2018-01-13 06:46:44																						
R1-1802213	On Soft Buffer Size Management	Ericsson	Yufei Blankenship	89/267	discussion	Decision				63	7.3.3.5	Soft buffer management for NR	2130	available	2018-01-09 21:37:57	2018-01-13 06:14:11																						
R1-1802214	LDPC Coding Issues	Ericsson	Yufei Blankenship	89/267	discussion	Decision				72	7.4.1	LDPC coding	2140	noted	2018-01-09 21:37:57	2018-01-13 06:14:11																						
R1-1802215	Polar Coding Issues for Downlink Control	Ericsson	Yufei Blankenship	89/267	discussion	Decision				74	7.4.2.1	Downlink control	2150	revised	2018-01-09 21:37:57	2018-01-13 07:58:56		R1-1801098																				
R1-1802216	Polar Coding Issues for Uplink Control	Ericsson	Yufei Blankenship	89/267	discussion	Decision				75	7.4.2.2	Uplink control	2160	available	2018-01-09 21:37:57	2018-01-13 06:14:11																						
R1-1802217	Channel Coding Techniques for URLLC	Ericsson	Yufei Blankenship	89/267	discussion	Information				77	7.4.2.4	Other	2170	revised	2018-01-09 21:37:57	2018-01-13 06:14:11		R1-1801099																				
R1-1802218	Multiplexing of UL eMBB and URLLC in NR	ASUSTEK COMPUTER (SHANGHAI)	Eddie Lin	80188	discussion	Decision				64	7.3.3.6	Multiplexing data with different transmission durations	2180	available	2018-01-10 03:36:30	2018-01-12 10:09:23	R1-1719901																					
R1-1802219	PT-RS design	Panasonic Corporation	Shotaro Maki	69/184	discussion					39	7.2.3.4	PT-RS	2190	available	2018-01-10 05:25:59	2018-01-12 08:28:26																						
R1-1802220	Remaining issues on beam reporting	NEC	Wang Gang	43/443	discussion	Decision				31	7.2.2.3	Beam measurement and reporting	2200	available	2018-01-10 05:32:35	2018-01-12 07:17:37																						
R1-1802221	Waveform and numerology consideration on NR unlicensed band	NEC	Wang Gang	43/443	discussion	Decision				85	7.9	Other	2210	available	2018-01-10 05:32:35	2018-01-12 07:17:38																						
R1-1802222	Discussion on LBT of NR unlicensed band	NEC	Wang Gang	43/443	discussion	Decision				85	7.9	Other	2220	available	2018-01-10 05:32:35	2018-01-12 07:17:38																						
R1-1802223	Remaining issues on DMRS	NEC	Wang Gang	43/443	discussion	Decision				38	7.2.3.3	DMRS	2230	available	2018-01-10 05:32:35	2018-01-12 07:17:38																						
R1-1802224	Remaining issues on PTRS	NEC	Wang Gang	43/443	discussion	Decision				39	7.2.3.4	PT-RS	2240	available	2018-01-10 05:32:35	2018-01-12 07:17:38																						
R1-1802225	Reduced overhead paging design	Sequans Communications	Michal Pałgy	86/137	discussion	Discussion				13	7.1.3	Paging design	2250	available	2018-01-10 07:39:18	2018-01-12 09:10:53	R1-1719696																					
R1-1802226	Reduced RA for paged UEs	Sequans Communications	Michal Pałgy	86/137	discussion	Discussion				16	7.1.4.2	RACH procedure	2260	available	2018-01-10 07:48:04	2018-01-12 09:10:53	R1-1720018																					

R1-1800227	Signal generation for NR SSB and BWP opeation	CATT	Teng Ma	67340	discussion	Decision			8	7.1.1	Synchronization signal	2270	available	2018-01-10 08:25:23	2018-01-13 06:02:59			
R1-1800228	On Remaining Issues on NR PBCH	CATT	Teng Ma	67340	discussion	Decision			10	7.1.2.1	NR-PBCH	2280	revised	2018-01-10 08:25:23	2018-01-13 06:02:59		R1-1800998	
R1-1800229	On Remaining Issues on RMSI	CATT	Teng Ma	67340	discussion	Decision			11	7.1.2.2	Remaining minimum system information	2290	available	2018-01-10 08:25:23	2018-01-13 06:02:59			
R1-1800230	Summary of Offline Discussion on RMSI	CATT	Teng Ma	67340	discussion	Decision			11	7.1.2.2	Remaining minimum system information	2300	revised	2018-01-10 08:25:23	2018-01-23 16:12:41		R1-1801083	
R1-1800231	Remaining Issues on NR Paging Channel	CATT	Teng Ma	67340	discussion	Decision			13	7.1.3	Paging design	2310	available	2018-01-10 08:25:23	2018-01-13 06:02:59			
R1-1800232	Further details on NR RACH format	CATT	Teng Ma	67340	discussion	Decision			15	7.1.4.1	PRACH formats	2320	revised	2018-01-10 08:25:23	2018-01-13 06:02:59		R1-1800999	
R1-1800233	Further details on NR 4-step RA Procedure	CATT	Teng Ma	67340	discussion	Decision			16	7.1.4.2	RACH procedure	2330	available	2018-01-10 08:25:23	2018-01-13 06:02:59			
R1-1800234	On Remaining Issues on NR Mobility Management	CATT	Teng Ma	67340	discussion	Decision			18	7.1.5.1	Measurement for mobility management	2340	available	2018-01-10 08:25:23	2018-01-13 06:02:59			
R1-1800235	On Remainng issues on NR Radio Link Monitoring	CATT	Teng Ma	67340	discussion	Decision			19	7.1.5.2	Radio link monitoring for mobility management	2350	available	2018-01-10 08:25:23	2018-01-13 06:02:59			
R1-1800236	Remaining issues on codeword mapping	CATT	Teng Ma	67340	discussion	Decision			23	7.2.1.1	Codeword mapping	2360	available	2018-01-10 08:25:23	2018-01-13 06:34:17			
R1-1800237	Remaining issues on codebook based UL transmission	CATT	Teng Ma	67340	discussion	Decision			24	7.2.1.2	Codebook based transmission for UL	2370	available	2018-01-10 08:25:23	2018-01-13 06:02:59			
R1-1800238	Remaining issues on non-codebook based UL transmission	CATT	Teng Ma	67340	discussion	Decision			25	7.2.1.3	Non-codebook based transmission for UL	2380	available	2018-01-10 08:25:23	2018-01-13 06:02:59			
R1-1800239	Remaining issues on CSI measurement	CATT	Teng Ma	67340	discussion	Decision			29	7.2.2.1	CSI measurement	2390	available	2018-01-10 08:25:23	2018-01-13 06:02:59			
R1-1800240	Remaining issues on CSI reporting	CATT	Teng Ma	67340	discussion	Decision			30	7.2.2.2	CSI reporting	2400	available	2018-01-10 08:25:23	2018-01-13 06:02:59			
R1-1800241	Remaining issues on beam measurement and reporting	CATT	Teng Ma	67340	discussion	Decision			31	7.2.2.3	Beam measurement and reporting	2410	available	2018-01-10 08:25:23	2018-01-13 06:02:59			
R1-1800242	Remaining issues on beam failure recovery	CATT	Teng Ma	67340	discussion	Decision			32	7.2.2.4	Mechanism to recover from beam failure	2420	available	2018-01-10 08:25:24	2018-01-13 06:02:59			
R1-1800243	Remaining issues on CQI	CATT	Teng Ma	67340	discussion	Decision			33	7.2.2.5	CQI and MCS	2430	withdrawn	2018-01-10 08:25:24				
R1-1800244	Remaining issues on CSI-RS	CATT	Teng Ma	67340	discussion	Decision			37	7.2.3.2	CSI-RS	2440	available	2018-01-10 08:25:24	2018-01-13 06:02:59			
R1-1800245	Remaining issues on DMRS	CATT	Teng Ma	67340	discussion	Decision			38	7.2.3.3	DMRS	2450	available	2018-01-10 08:25:24	2018-01-13 06:34:17			
R1-1800246	Remaining issues on PT-RS	CATT	Teng Ma	67340	discussion	Decision			39	7.2.3.4	PT-RS	2460	available	2018-01-10 08:25:24	2018-01-13 06:02:59			
R1-1800247	Remaining issues on SRS	CATT	Teng Ma	67340	discussion	Decision			40	7.2.3.5	SRS	2470	available	2018-01-10 08:25:24	2018-01-13 06:02:59			
R1-1800248	Remaining issues on QCL	CATT	Teng Ma	67340	discussion	Decision			42	7.2.3.7	QCL	2480	available	2018-01-10 08:25:24	2018-01-13 06:34:17			
R1-1800249	Remaining issues on PDCCH search space	CATT, Potevio	Teng Ma	67340	discussion	Decision			48	7.3.1.2	Search space	2490	available	2018-01-10 08:25:24	2018-01-13 05:55:17			
R1-1800250	Remaining details of slot format indication	CATT, Potevio	Teng Ma	67340	discussion	Decision			49	7.3.1.3	Group-common PDCCH	2500	available	2018-01-10 08:25:24	2018-01-13 06:02:59			
R1-1800251	On contents of DCI formats	CATT, Potevio	Teng Ma	67340	discussion	Decision			50	7.3.1.4	DCI contents and formats	2510	available	2018-01-10 08:25:24	2018-01-13 06:02:59			
R1-1800252	Multiplexing of UCI transmissions of different durations or configurations	CATT	Teng Ma	67340	discussion	Decision			52	7.3.2	Physical uplink control channel	2520	available	2018-01-10 08:25:24	2018-01-13 06:02:59			
R1-1800253	Open issues on interference randomization for PUCCH	CATT	Teng Ma	67340	discussion	Decision			53	7.3.2.1	PUCCH structure in short-duration	2530	available	2018-01-10 08:25:24	2018-01-13 06:02:59			
R1-1800254	Remaining issues on long PUCCH formats	CATT	Teng Ma	67340	discussion	Decision			54	7.3.2.2	PUCCH structure in long-duration	2540	available	2018-01-10 08:25:24	2018-01-13 06:02:59			
R1-1800255	Open issues for UCI multiplexing on PUSCH	CATT	Teng Ma	67340	discussion	Decision			55	7.3.2.3	UCI multiplexing	2550	revised	2018-01-10 08:25:24	2018-01-13 06:02:59		R1-1800996	
R1-1800256	PUCCH resource allocation	CATT	Teng Ma	67340	discussion	Decision			56	7.3.2.4	Resource allocation for PUCCH	2560	available	2018-01-10 08:25:24	2018-01-13 06:02:59			
R1-1800257	PDSCH and PUSCH resource allocation	CATT	Teng Ma	67340	discussion	Decision			59	7.3.3.1	DL/UL resource allocation	2570	available	2018-01-10 08:25:24	2018-01-13 06:02:59			
R1-1800258	Open issues on HARQ-ACK feedback	CATT	Teng Ma	67340	discussion	Decision			60	7.3.3.2	DL/UL scheduling and HARQ management	2580	available	2018-01-10 08:25:24	2018-01-13 06:02:59			
R1-1800259	On open issues for CBG-based operation	CATT	Teng Ma	67340	discussion	Decision			61	7.3.3.3	CBG-based (re)transmission	2590	available	2018-01-10 08:25:24	2018-01-13 06:02:59			
R1-1800260	Remaining issues on grant-free UL transmission	CATT	Teng Ma	67340	discussion	Decision			62	7.3.3.4	UL data transmission procedure	2600	available	2018-01-10 08:25:24	2018-01-13 06:02:59			
R1-1800261	On multiplexing of data transmissions with different durations	CATT	Teng Ma	67340	discussion	Decision			64	7.3.3.6	Multiplexing data with different transmission durations	2610	available	2018-01-10 08:25:24	2018-01-13 06:02:59			
R1-1800262	Remaining issues on BWP operation	CATT	Teng Ma	67340	discussion	Decision			67	7.3.4.1	Other aspects on bandwidth Parts	2620	available	2018-01-10 08:25:24	2018-01-13 06:02:59			
R1-1800263	Open issues for CA operation	CATT	Teng Ma	67340	discussion	Decision			68	7.3.4.2	Other aspects on carrier aggregation	2630	available	2018-01-10 08:25:24	2018-01-13 06:02:59			
R1-1800264	Remaining issues on rate matching for PDSCH and PUSCH	CATT	Teng Ma	67340	discussion	Decision			69	7.3.5	Rate matching aspects for NR DL and UL	2640	available	2018-01-10 08:25:24	2018-01-13 06:02:59			
R1-1800265	Correction on NR PUCCH Power Control Formula	CATT	Teng Ma	67340	discussion	Decision			80	7.6.1	NR UL power control - non-CA aspects	2650	noted	2018-01-10 08:25:24	2018-01-13 06:02:59			
R1-1800266	Correction on NR PUSCH Power Control Formula	CATT	Teng Ma	67340	discussion	Decision			80	7.6.1	NR UL power control - non-CA aspects	2660	available	2018-01-10 08:25:24	2018-01-13 06:02:59			
R1-1800267	Correction on Power Sharing for EN DC	CATT	Teng Ma	67340	discussion	Decision			80	7.6.1	NR UL power control - non-CA aspects	2670	noted	2018-01-10 08:25:24	2018-01-13 06:02:59			
R1-1800268	Initial self evaluation for Indoor Hotspot-eMBB	CATT	Teng Ma	67340	discussion	Decision			85	7.9	Other	2680	available	2018-01-10 08:25:24	2018-01-13 06:02:59			
R1-1800269	Initial self evaluation for Dense Urban-eMBB	CATT	Teng Ma	67340	discussion	Decision			85	7.9	Other	2690	available	2018-01-10 08:25:24	2018-01-13 06:02:59			
R1-1800270	Initial self evaluation for Rural-eMBB	CATT	Teng Ma	67340	discussion	Decision			85	7.9	Other	2700	available	2018-01-10 08:25:24	2018-01-13 06:02:59			
R1-1800271	Clarification on length of bits sequence to polar segmentation and encoding	CATT	Teng Ma	67340	discussion	Decision			75	7.4.2.2	Uplink control	2710	available	2018-01-10 08:31:42	2018-01-13 06:02:59			
R1-1800272	Remaining issues of DMRS	Spreadtrum Communications	Arto Lehti	61519	discussion	Decision			38	7.2.3.3	DMRS	2720	available	2018-01-10 08:32:04	2018-01-12 14:12:13			Rel-15
R1-1800273	Remaining issues of PT-RS	Spreadtrum Communications	Arto Lehti	61519	discussion	Decision			39	7.2.3.4	PT-RS	2730	available	2018-01-10 08:32:04	2018-01-12 14:12:13			Rel-15
R1-1800274	Remaining issues of NR-PBCH	Spreadtrum Communications	Arto Lehti	61519	discussion	Decision			10	7.1.2.1	NR-PBCH	2740	available	2018-01-10 08:32:04	2018-01-12 14:12:13			Rel-15
R1-1800275	Remaining issues of Remaining minimum system information	Spreadtrum Communications	Arto Lehti	61519	discussion	Decision			11	7.1.2.2	Remaining minimum system information	2750	available	2018-01-10 08:32:04	2018-01-12 14:12:13			Rel-15
R1-1800276	TBS calculation for small packet sizes	Spreadtrum Communications	Arto Lehti	61519	discussion	Decision			59	7.3.3.1	DL/UL resource allocation	2760	available	2018-01-10 08:32:04	2018-01-12 14:12:13			Rel-15
R1-1800277	Remaining details on group-common PDCCH	Spreadtrum Communications	Arto Lehti	61519	discussion	Decision			49	7.3.1.3	Group-common PDCCH	2770	available	2018-01-10 08:32:04	2018-01-12 14:12:13			Rel-15
R1-1800278	Remaining issues on DCI contents and formats	Spreadtrum Communications	Arto Lehti	61519	discussion	Decision			50	7.3.1.4	DCI contents and formats	2780	available	2018-01-10 08:32:04	2018-01-12 14:12:13			Rel-15
R1-1800279	Remaining aspects of short PUCCH	Spreadtrum Communications	Arto Lehti	61519	discussion	Decision			53	7.3.2.1	PUCCH structure in short-duration	2790	available	2018-01-10 08:32:04	2018-01-12 14:12:13			Rel-15
R1-1800280	Remaining aspects of PUCCH resource allocation for NR	Spreadtrum Communications	Arto Lehti	61519	discussion	Decision			56	7.3.2.4	Resource allocation for PUCCH	2800	available	2018-01-10 08:32:04	2018-01-12 14:12:13			Rel-15
R1-1800281	Remaining issues on scheduling and HARQ-ACK timing	Spreadtrum Communications	Arto Lehti	61519	discussion	Decision			60	7.3.3.2	DL/UL scheduling and HARQ management	2810	available	2018-01-10 08:32:04	2018-01-12 14:12:13			Rel-15
R1-1800282	Remaining issues on HARQ-ACK codebook	Spreadtrum Communications	Arto Lehti	61519	discussion	Decision			68	7.3.4.2	Other aspects on carrier aggregation	2820	available	2018-01-10 08:32:04	2018-01-12 14:12:13			Rel-15
R1-1800283	Remaining issues on BWP	Spreadtrum Communications	Arto Lehti	61519	discussion	Decision			67	7.3.4.1	Other aspects on bandwidth Parts	2830	available	2018-01-10 08:32:04	2018-01-12 14:12:13			Rel-15
R1-1800284	Remaining issues on OFDM signal generation	Spreadtrum Communications	Arto Lehti	61519	discussion	Decision			8	7.1.1	Synchronization signal	2840	available	2018-01-10 08:32:04	2018-01-12 14:12:13			Rel-15
R1-1800285	Remaining issues on PDCCH structure	Spreadtrum Communications	Arto Lehti	61519	discussion	Decision			47	7.3.1.1	PDCCH structure	2850	available	2018-01-10 08:32:04	2018-01-12 14:12:13			Rel-15
R1-1800286	Remaining issues on seach space	Spreadtrum Communications	Arto Lehti	61519	discussion	Decision			48	7.3.1.2	Search space	2860	available	2018-01-10 08:32:04	2018-01-12 14:12:13			Rel-15
R1-1800287	Discussion on NR L1 UE features	Spreadtrum Communications	Arto Lehti	61519	discussion	Decision			84	7.8	UE features	2870	noted	2018-01-10 08:32:04	2018-01-12 14:12:13			Rel-15
R1-1800288	Consideration on IAB evaluation methodology and parameters	Huawei, HiSilicon	Brian Classon	45750	other				85	7.9	Other	2880	available	2018-01-10 10:19:54	2018-01-13 05:18:11			
R1-1800289	Evaluation on the dynamic and flexible resource allocatio in IAB	Huawei, HiSilicon	Brian Classon	45750	other				85	7.9	Other	2890	available	2018-01-10 10:20:39	2018-01-13 05:18:11			
R1-1800290	Overview on NR UE feature list	Huawei, HiSilicon	Brian Classon	45750	other				84	7.8	UE features	2900	revised	2018-01-10 10:21:31	2018-01-13 06:09:36		R1-1801044	
R1-1800291	Draft reply LS on channel raster and SS raster	Huawei	Brian Classon	45750	other				4	5	Incoming Liaison Statements	2910	available	2018-01-10 10:22:30	2018-01-13 03:30:44			
R1-1800292	Discussion on remaining issues on SS raster	Huawei, HiSilicon	Brian Classon	45750	other				4	5	Incoming Liaison Statements	2920	revised	2018-01-10 10:23:11	2018-01-13 03:30:44		R1-1801032	
R1-1800293	Discussion on Rel-15 NOMA study item	CATT	Teng Ma	67340	discussion	Decision			85	7.9	Other	2930	available	2018-01-10 11:04:24	2018-01-13 06:02:59			
R1-1800294	HAPS path loss model	Nokia	Frank Hsieh	75574	discussion	Information			85	7.9	Other	2940	available	2018-01-10 16:34:49	2018-01-11 14:09:59			Rel-15
R1-1800295	Reply LS to RAN2 on aperiodic indications based on beam failure recovery	Intel Corporation	Seunghee Han	47329	discussion	Decision			4	5	Incoming Liaison Statements	2950	available	2018-01-10 18:48:40	2018-01-13 07:29:48			
R1-1800296	Remaining details of SS	Intel Corporation	Seunghee Han	47329	discussion	Decision			8	7.1.1	Synchronization signal	2960	noted	2018-01-10 18:48:43	2018-01-13 11:56:53			
R1-1800297	Remaining details of NR PBCH	Intel Corporation	Seunghee Han	47329	discussion	Decision			10	7.1.2.1	NR-PBCH	2970	available	2018-01-10 18:48:43	2018-01-13 12:27:32			
R1-1800298	Remaining details of RMSI design	Intel Corporation	Seunghee Han	47329	discussion	Decision			11	7.1.2.2	Remaining minimum system information	2980	available	2018-01-10 18:48:43	2018-01-13 11:11:14			
R1-1800299	CORESET configuration for OSI	Intel Corporation	Seunghee Han	47329	discussion	Decision			12	7.1.2.3	Other system information delivery	2990	withdrawn	2018-01-10 18:48:43				
R1-1800300	CORESET configuration for Paging	Intel Corporation	Seunghee Han	47329	discussion	Decision			13	7.1.3	Paging design	3000	withdrawn	2018-01-10 18:48:43				
R1-1800301	NR PRACH formats	Intel Corporation	Seunghee Han	47329	discussion	Decision			15	7.1.4.1	PRACH formats	3010	available	2018-01-10 18:48:43	2018-01-13 07:05:46			
R1-1800302	NR RACH procedures	Intel Corporation	Seunghee Han	47329	discussion	Decision			16	7.1.4.2	RACH procedure	3020	available	2018-01-10 18:48:43	2018-01-13 07:05:46			
R1-1800303	Remaining details of RRM measurements	Intel Corporation	Seunghee Han	47329	discussion	Decision			18	7.1.5.1	Measurement for mobility management	3030	available	2018-01-10 18:48:43	2018-01-13 07:29:48			

R1-1800304	Remaining details of RLM	Intel Corporation	Seunghee Han	47329	discussion	Decision			19	7.1.5.2	Radio link monitoring for mobility management	3040	available	2018-01-10 18:48:43	2018-01-13 07:29:48			
R1-1800305	On drawback of time invaraint scrambling for PDSCH / PUSCH	Intel Corporation	Seunghee Han	47329	discussion	Decision			23	7.2.1.1	Codeword mapping	3050	available	2018-01-10 18:48:43	2018-01-13 07:05:46			
R1-1800306	On Codebook based transmission for UL	Intel Corporation	Seunghee Han	47329	discussion	Decision			24	7.2.1.2	Codebook based transmission for UL	3060	available	2018-01-10 18:48:43	2018-01-13 07:05:46			
R1-1800307	On non-codebook based transmission for UL	Intel Corporation	Seunghee Han	47329	discussion	Decision			25	7.2.1.3	Non-codebook based transmission for UL	3070	available	2018-01-10 18:48:43	2018-01-13 07:05:46			
R1-1800308	Remaining issues of PRB bundling	Intel Corporation	Seunghee Han	47329	discussion	Decision			26	7.2.1.4	PRB bundling for DL	3080	available	2018-01-10 18:48:43	2018-01-13 07:05:46			
R1-1800309	Remaining issues on interference measurement for CSI	Intel Corporation	Seunghee Han	47329	discussion	Decision			29	7.2.2.1	CSI measurement	3090	available	2018-01-10 18:48:43	2018-01-13 07:05:46			
R1-1800310	Remaining issues on CSI reporting	Intel Corporation	Seunghee Han	47329	discussion	Decision			30	7.2.2.2	CSI reporting	3100	available	2018-01-10 18:48:43	2018-01-13 07:05:46			
R1-1800311	Remaining Issues on beam management	Intel Corporation	Seunghee Han	47329	discussion	Decision			31	7.2.2.3	Beam measurement and reporting	3110	available	2018-01-10 18:48:43	2018-01-13 07:05:46			
R1-1800312	Remaining Issues on beam failure recovery	Intel Corporation	Seunghee Han	47329	discussion	Decision			32	7.2.2.4	Mechanism to recover from beam failure	3120	available	2018-01-10 18:48:43	2018-01-13 07:05:46			
R1-1800313	Corrections to CQI definition in NR	Intel Corporation	Seunghee Han	47329	discussion	Decision			33	7.2.2.5	CQI and MCS	3130	available	2018-01-10 18:48:44	2018-01-13 07:05:46			
R1-1800314	On multiplexing of PDSCH and CSI-RS	Intel Corporation	Seunghee Han	47329	discussion	Decision			36	7.2.3.1	Multiplexing of different types of RSs	3140	available	2018-01-10 18:48:44	2018-01-13 07:05:46			
R1-1800315	Remaining issues on CSI-RS	Intel Corporation	Seunghee Han	47329	discussion	Decision			37	7.2.3.2	CSI-RS	3150	available	2018-01-10 18:48:44	2018-01-13 07:05:46			
R1-1800316	Remaining issues on DM-RS	Intel Corporation	Seunghee Han	47329	discussion	Decision			38	7.2.3.3	DMRS	3160	available	2018-01-10 18:48:44	2018-01-13 07:05:46			
R1-1800317	Remaining issues On PT-RS	Intel Corporation	Seunghee Han	47329	discussion	Decision			39	7.2.3.4	PT-RS	3170	available	2018-01-10 18:48:44	2018-01-13 07:05:46			
R1-1800318	Remaining issues on SRS	Intel Corporation	Seunghee Han	47329	discussion	Decision			40	7.2.3.5	SRS	3180	available	2018-01-10 18:48:44	2018-01-13 07:05:46			
R1-1800319	Remaining Issues On TRS	Intel Corporation	Seunghee Han	47329	discussion	Decision			41	7.2.3.6	TRS	3190	available	2018-01-10 18:48:44	2018-01-13 07:05:46			
R1-1800320	Corrections to QCL for NR	Intel Corporation	Seunghee Han	47329	discussion	Decision			42	7.2.3.7	QCL	3200	available	2018-01-10 18:48:44	2018-01-13 07:05:46			
R1-1800321	Remaining details and corrections on PDCCH structure	Intel Corporation	Seunghee Han	47329	discussion	Decision			47	7.3.1.1	PDCCH structure	3210	noted	2018-01-10 18:48:44	2018-01-13 07:45:11			
R1-1800322	On channel estimation complexity for PDCCH reception	Intel Corporation	Seunghee Han	47329	discussion	Decision			48	7.3.1.2	Search space	3220	available	2018-01-10 18:48:44	2018-01-13 07:05:46			
R1-1800323	Remaining details and corrections on CORESETs and search spaces	Intel Corporation	Seunghee Han	47329	discussion	Decision			48	7.3.1.2	Search space	3230	available	2018-01-10 18:48:44	2018-01-13 09:15:58			
R1-1800324	Remaining details and corrections on GC PDCCH	Intel Corporation	Seunghee Han	47329	discussion	Decision			49	7.3.1.3	Group-common PDCCH	3240	available	2018-01-10 18:48:44	2018-01-13 07:45:11			
R1-1800325	DCI contents and formats	Intel Corporation	Seunghee Han	47329	discussion	Decision			50	7.3.1.4	DCI contents and formats	3250	available	2018-01-10 18:48:44	2018-01-13 07:45:11			
R1-1800326	Group and sequence hopping	Intel Corporation	Seunghee Han	47329	discussion	Decision			52	7.3.2	Physical uplink control channel	3260	available	2018-01-10 18:48:44	2018-01-13 07:05:46			
R1-1800327	Cyclic shift hopping for PUCCH format 0	Intel Corporation	Seunghee Han	47329	discussion	Decision			53	7.3.2.1	PUCCH structure in short-duration	3270	available	2018-01-10 18:48:44	2018-01-13 07:05:46			
R1-1800328	UCI multiplexing	Intel Corporation	Seunghee Han	47329	discussion	Decision			55	7.3.2.3	UCI multiplexing	3280	available	2018-01-10 18:48:44	2018-01-13 07:05:46			
R1-1800329	On the reserved HARQ-ACK REs	Intel Corporation	Seunghee Han	47329	discussion	Decision			55	7.3.2.3	UCI multiplexing	3290	available	2018-01-10 18:48:44	2018-01-13 07:05:46			
R1-1800330	UE procedure for multiplexing HARQ-ACK/SR and CSI	Intel Corporation	Seunghee Han	47329	discussion	Decision			55	7.3.2.3	UCI multiplexing	3300	available	2018-01-10 18:48:44	2018-01-13 07:05:46			
R1-1800331	Remaining details of resource configuration and allocation	Intel Corporation	Seunghee Han	47329	discussion	Decision			56	7.3.2.4	Resource allocation for PUCCH	3310	available	2018-01-10 18:48:44	2018-01-13 07:05:46			
R1-1800332	Remaining details on DL/UL resource allocation and TBS	Intel Corporation	Seunghee Han	47329	discussion	Decision			59	7.3.3.1	DL/UL resource allocation	3320	available	2018-01-10 18:48:44	2018-01-13 07:45:11			
R1-1800333	Remaining details on processing and switching times in NR	Intel Corporation	Seunghee Han	47329	discussion	Decision			60	7.3.3.2	DL/UL scheduling and HARQ management	3330	available	2018-01-10 18:48:44	2018-01-13 07:45:11			
R1-1800334	Remaining details on UL transmission procedures in NR	Intel Corporation	Seunghee Han	47329	discussion	Decision			62	7.3.3.4	UL data transmission procedure	3340	available	2018-01-10 18:48:44	2018-01-13 07:05:46			
R1-1800335	Remaining details on softbuffer management for NR	Intel Corporation	Seunghee Han	47329	discussion	Decision			63	7.3.3.5	Soft-buffer management for NR	3350	available	2018-01-10 18:48:44	2018-01-13 07:05:46			
R1-1800336	Remaining details on multiplexing data with different durations	Intel Corporation	Seunghee Han	47329	discussion	Decision			64	7.3.3.6	Multiplexing data with different transmission durations	3360	available	2018-01-10 18:48:44	2018-01-13 07:05:46			
R1-1800337	Proposed changes for BWP related specification descriptions	Intel Corporation	Seunghee Han	47329	discussion	Decision			67	7.3.4.1	Other aspects on bandwidth Parts	3370	available	2018-01-10 18:48:44	2018-01-13 07:05:46			
R1-1800338	Support of different numerologies for carrier aggregation	Intel Corporation	Seunghee Han	47329	discussion	Decision			68	7.3.4.2	Other aspects on carrier aggregation	3380	available	2018-01-10 18:48:44	2018-01-13 07:29:48			
R1-1800339	Proposed changes for NR-LTE co-existence related specification descriptions	Intel Corporation	Seunghee Han	47329	discussion	Decision			78	7.5	NR-LTE co-existence	3390	noted	2018-01-10 18:48:44	2018-01-13 07:05:46			
R1-1800340	PUCCH power control	Intel Corporation	Seunghee Han	47329	discussion	Decision			80	7.6.1	NR UL power control - non-CA aspects	3400	available	2018-01-10 18:48:44	2018-01-13 07:37:00			
R1-1800341	On Power Contol Framework	Intel Corporation	Seunghee Han	47329	discussion	Decision			80	7.6.1	NR UL power control - non-CA aspects	3410	available	2018-01-10 18:48:44	2018-01-13 07:05:46			
R1-1800342	Power control for carrier aggregation	Intel Corporation	Seunghee Han	47329	discussion	Decision			81	7.6.2	NR UL power control – CA aspects	3420	available	2018-01-10 18:48:44	2018-01-13 07:29:48			
R1-1800343	Remaining aspects on power sharing between LTE and NR	Intel Corporation	Seunghee Han	47329	discussion	Decision			82	7.6.3	Other	3430	available	2018-01-10 18:48:44	2018-01-13 07:29:48			
R1-1800344	Miscellaneous aspects of Polar coding	Intel Corporation	Seunghee Han	47329	discussion	Decision			73	7.4.2	Polar coding	3440	noted	2018-01-10 18:48:44	2018-01-13 07:05:46			
R1-1800345	On UE peak data rate	Intel Corporation	Seunghee Han	47329	discussion	Decision			85	7.9	Other	3450	available	2018-01-10 18:48:44	2018-01-13 07:05:46			
R1-1800346	Discussion on PUCCH sequence hopping	Panasonic Corporation	Tetsuya Yamamoto	59095	discussion	Discussion			53	7.3.2.1	PUCCH structure in short-duration	3460	available	2018-01-11 01:27:38	2018-01-12 08:04:30			
R1-1800347	Discussion on remaining issues on PUCCH resource allocation	Panasonic Corporation	Tetsuya Yamamoto	59095	discussion	Discussion			56	7.3.2.4	Resource allocation for PUCCH	3470	available	2018-01-11 01:28:42	2018-01-12 08:04:30			
R1-1800348	On paging DCI design	NEC	Rajitha Palipana	57803	discussion	Decision			13	7.1.3	Paging design	3480	available	2018-01-11 03:14:32	2018-01-12 05:58:48			
R1-1800349	Remaining Details on Synchronization signal	LG Electronics	Youngwoo Yun	45048	discussion	Decision			8	7.1.1	Synchronization signal	3490	available	2018-01-11 03:37:23	2018-01-13 05:47:12			Rel-15
R1-1800350	Remaining Details on PBCH design and contents	LG Electronics	Youngwoo Yun	45048	discussion	Decision			10	7.1.2.1	NR-PBCH	3500	available	2018-01-11 03:37:23	2018-01-13 05:47:13			Rel-15
R1-1800351	RMSI delivery and CORESET configuration	LG Electronics	Youngwoo Yun	45048	discussion	Decision			11	7.1.2.2	Remaining minimum system information	3510	available	2018-01-11 03:37:23	2018-01-13 05:47:13			Rel-15
R1-1800352	Other system information delivery	LG Electronics	Youngwoo Yun	45048	discussion	Decision		Late contribution	12	7.1.2.3	Other system information delivery	3520	withdrawn	2018-01-11 03:37:23				Rel-15
R1-1800353	Paging design in NR	LG Electronics	Youngwoo Yun	45048	discussion	Decision			13	7.1.3	Paging design	3530	available	2018-01-11 03:37:23	2018-01-13 05:47:13			Rel-15
R1-1800354	Discussion on PRACH preamble format details	LG Electronics	Youngwoo Yun	45048	discussion	Decision			15	7.1.4.1	PRACH formats	3540	available	2018-01-11 03:37:23	2018-01-13 05:47:13			Rel-15
R1-1800355	RACH Procedure	LG Electronics	Youngwoo Yun	45048	discussion	Decision			16	7.1.4.2	RACH procedure	3550	available	2018-01-11 03:37:23	2018-01-13 05:47:13			Rel-15
R1-1800356	Remaining Details on L3 measurement and mobility management	LG Electronics	Youngwoo Yun	45048	discussion	Decision			18	7.1.5.1	Measurement for mobility management	3560	available	2018-01-11 03:37:23	2018-01-13 05:47:13			Rel-15
R1-1800357	Remaining Details on Radio Link Monitoring in NR	LG Electronics	Youngwoo Yun	45048	discussion	Decision			19	7.1.5.2	Radio link monitoring for mobility management	3570	available	2018-01-11 03:37:23	2018-01-13 05:47:13			Rel-15
R1-1800358	Text proposals on non-codebook-based UL	LG Electronics	Youngwoo Yun	45048	discussion	Decision			25	7.2.1.3	Non-codebook based transmission for UL	3580	available	2018-01-11 03:37:23	2018-01-13 05:47:13			Rel-15
R1-1800359	Text proposals on PRB bundling	LG Electronics	Youngwoo Yun	45048	discussion	Decision			26	7.2.1.4	PRB bundling for DL	3590	available	2018-01-11 03:37:23	2018-01-13 05:47:14			Rel-15
R1-1800360	Discussion on aperiodic CSI report timing and relaxation	LG Electronics	Youngwoo Yun	45048	discussion	Decision			30	7.2.2.2	CSI reporting	3600	available	2018-01-11 03:37:23	2018-01-13 05:47:14			Rel-15
R1-1800361	Text proposals on TS 38.212 for LI reporting	LG Electronics	Youngwoo Yun	45048	discussion	Decision			30	7.2.2.2	CSI reporting	3610	available	2018-01-11 03:37:23	2018-01-13 05:47:14			Rel-15
R1-1800362	Clarification on PDCCH beam indication by higher-layers	LG Electronics	Youngwoo Yun	45048	discussion	Decision			31	7.2.2.3	Beam measurement and reporting	3620	available	2018-01-11 03:37:23	2018-01-13 05:47:14			Rel-15
R1-1800363	Text proposals on UL beam management	LG Electronics	Youngwoo Yun	45048	discussion	Decision			31	7.2.2.3	Beam measurement and reporting	3630	available	2018-01-11 03:37:23	2018-01-13 05:47:14			Rel-15
R1-1800364	Discussion on PHY and MAC operation for beam failure recovery	LG Electronics	Youngwoo Yun	45048	discussion	Decision			32	7.2.2.4	Mechanism to recover from beam failure	3640	available	2018-01-11 03:37:23	2018-01-13 05:47:14			Rel-15
R1-1800365	Text proposals on TS 38.214 for CSI reporting using PUCCH	LG Electronics	Youngwoo Yun	45048	discussion	Decision			34	7.2.2.6	Other	3650	available	2018-01-11 03:37:23	2018-01-13 05:47:14			Rel-15
R1-1800366	Text proposals on multiplexing for CSI-RS	LG Electronics	Youngwoo Yun	45048	discussion	Decision			36	7.2.3.1	Multiplexing of different types of RSs	3660	available	2018-01-11 03:37:23	2018-01-13 05:47:14			Rel-15
R1-1800367	Text proposals on QCL configurations for periodic CSI-RS	LG Electronics	Youngwoo Yun	45048	discussion	Decision			37	7.2.3.2	CSI-RS	3670	available	2018-01-11 03:37:23	2018-01-13 05:47:15			Rel-15
R1-1800368	Remaining issues on DMRS location and DMRS table configuration	LG Electronics	Youngwoo Yun	45048	discussion	Decision			38	7.2.3.3	DMRS	3680	available	2018-01-11 03:37:23	2018-01-13 05:47:15			Rel-15
R1-1800369	Text proposals on UL PT-RS power boosting and DL PT-RS reception	LG Electronics	Youngwoo Yun	45048	discussion	Decision			39	7.2.3.4	PT-RS	3690	available	2018-01-11 03:37:23	2018-01-13 05:47:15			Rel-15
R1-1800370	Clarification on intra-slot hopping for aperiodic SRS	LG Electronics	Youngwoo Yun	45048	discussion	Decision			40	7.2.3.5	SRS	3700	available	2018-01-11 03:37:23	2018-01-13 05:47:15			Rel-15
R1-1800371	Remaining issues on PDCCH strucutre	LG Electronics	Youngwoo Yun	45048	discussion	Decision			47	7.3.1.1	PDCCH structure	3710	available	2018-01-11 03:37:23	2018-01-13 05:49:00			Rel-15
R1-1800372	Remaining issues on search space	LG Electronics	Youngwoo Yun	45048	discussion	Decision			48	7.3.1.2	Search space	3720	available	2018-01-11 03:37:23	2018-01-13 05:49:00			Rel-15
R1-1800373	Discussion on group common PDCCH	LG Electronics	Youngwoo Yun	45048	discussion	Decision			49	7.3.1.3	Group-common PDCCH	3730	available	2018-01-11 03:37:23	2018-01-13 05:49:00			Rel-15
R1-1800374	Remaining issues on DCI contents and formats	LG Electronics	Youngwoo Yun	45048	discussion	Decision			50	7.3.1.4	DCI contents and formats	3740	available	2018-01-11 03:37:23	2018-01-13 05:49:00			Rel-15
R1-1800375	Text proposals on short PUCCH structure	LG Electronics	Youngwoo Yun	45048	discussion	Decision			53	7.3.2.1	PUCCH structure in short-duration	3750	available	2018-01-11 03:37:23	2018-01-13 05:49:00			Rel-15
R1-1800376	Text proposals on long PUCCH structure	LG Electronics	Youngwoo Yun	45048	discussion	Decision			54	7.3.2.2	PUCCH structure in long-duration	3760	available	2018-01-11 03:37:23	2018-01-13 05:49:00			Rel-15
R1-1800377	Text proposals on PUSCH UCI multiplexing	LG Electronics	Youngwoo Yun	45048	discussion	Decision			55	7.3.2.3	UCI multiplexing	3770	available	2018-01-11 03:37:23	2018-01-13 05:49:00			Rel-15
R1-1800378	Remaining issues on PUCCH resource allocation	LG Electronics	Youngwoo Yun	45048	discussion	Decision			56	7.3.2.4	Resource allocation for PUCCH	3780	available	2018-01-11 03:37:23	2018-01-13 05:49:00			Rel-15
R1-1800379	Remaining issues on resource allocation	LG Electronics	Youngwoo Yun	45048	discussion	Decision			59	7.3.3.1	DL/UL resource allocation	3790	revised	2018-01-11 03:37:23	2018-01-13 05:49:00		R1-1801019	Rel-15
R1-1800380	Text proposals on scheduling and HARQ	LG Electronics	Youngwoo Yun	45048	discussion	Decision			60	7.3.3.2	DL/UL scheduling and HARQ management	3800	available	2018-01-11 03:37:23	2018-01-13 05:49:00			Rel-15

R1-1800381	Clarification on CBG based transmission	LG Electronics	Youngwoo Yun	45048	discussion	Decision			61	7.3.3.3	CBG-based (re)transmission	3810	available	2018-01-11 03:37:23	2018-01-13 05:49:00			Rel-15
R1-1800382	Remaining issues on UL data transmission procedure	LG Electronics	Youngwoo Yun	45048	discussion	Decision			62	7.3.3.4	UL data transmission procedure	3820	available	2018-01-11 03:37:24	2018-01-13 05:49:00			Rel-15
R1-1800383	Remaining issues on pre-emption indication	LG Electronics	Youngwoo Yun	45048	discussion	Decision			64	7.3.3.6	Multiplexing data with different transmission durations	3830	available	2018-01-11 03:37:24	2018-01-13 05:49:00			Rel-15
R1-1800384	Remaining issues on bandwidth part operation	LG Electronics	Youngwoo Yun	45048	discussion	Decision			67	7.3.4.1	Other aspects on bandwidth Parts	3840	available	2018-01-11 03:37:24	2018-01-13 05:49:00			Rel-15
R1-1800385	Text proposals on CA related aspects	LG Electronics	Youngwoo Yun	45048	discussion	Decision			68	7.3.4.2	Other aspects on carrier aggregation	3850	available	2018-01-11 03:37:24	2018-01-13 05:49:00			Rel-15
R1-1800386	Remaining issues on rate matching resources	LG Electronics	Youngwoo Yun	45048	discussion	Decision			69	7.3.5	Rate matching aspects for NR DL and UL	3860	available	2018-01-11 03:37:24	2018-01-13 05:49:00			Rel-15
R1-1800387	LDPC Coded bits interleaver and symbol mapper for HARQ	LG Electronics	Youngwoo Yun	45048	discussion	Decision			72	7.4.1	LDPC coding	3870	revised	2018-01-11 03:37:24	2018-01-13 05:49:00		R1-1801001	Rel-15
R1-1800388	Correction on TBS determination formula	LG Electronics	Youngwoo Yun	45048	discussion	Decision			72	7.4.1	LDPC coding	3880	noted	2018-01-11 03:37:24	2018-01-13 05:49:00			Rel-15
R1-1800389	Miscellaneous corrections for 38.212	LG Electronics	Youngwoo Yun	45048	discussion	Decision			77	7.4.2.4	Other	3890	available	2018-01-11 03:37:24	2018-01-13 05:49:00			Rel-15
R1-1800390	Discussion on NR LTE coexistence	LG Electronics	Youngwoo Yun	45048	discussion	Decision			78	7.5	NR-LTE co-existence	3900	noted	2018-01-11 03:37:24	2018-01-13 05:49:00			Rel-15
R1-1800391	Clarification on UL PC for non-CA aspects	LG Electronics	Youngwoo Yun	45048	discussion	Decision			80	7.6.1	NR UL power control - non-CA aspects	3910	available	2018-01-11 03:37:24	2018-01-13 05:49:00			Rel-15
R1-1800392	Discussion on dynamic power sharing with sTTI for DC	LG Electronics	Youngwoo Yun	45048	discussion	Decision			82	7.6.3	Other	3920	available	2018-01-11 03:37:24	2018-01-13 05:49:00			Rel-15
R1-1800393	Corrections on DMRS	Lenovo, Motorola Mobility	Chenxi Zhu	64707	discussion	Discussion			38	7.2.3.3	DMRS	3930	available	2018-01-11 04:41:46	2018-01-12 08:47:05			
R1-1800394	Corrections on PTRS	Lenovo, Motorola Mobility	Chenxi Zhu	64707	discussion	Discussion			39	7.2.3.4	PT-RS	3940	available	2018-01-11 04:41:46	2018-01-12 08:47:05			
R1-1800395	Corrections to 38.211 on bandwidth part	Lenovo, Motorola Mobility	Chenxi Zhu	64707	discussion	Discussion			67	7.3.4.1	Other aspects on bandwidth Parts	3950	available	2018-01-11 04:41:46	2018-01-12 08:47:06			
R1-1800396	Multiplexing of SR and HARQ-ACK	Lenovo, Motorola Mobility	Chenxi Zhu	64707	discussion	Discussion			52	7.3.2	Physical uplink control channel	3960	available	2018-01-11 04:41:46	2018-01-12 08:47:09			
R1-1800397	Discussion on non-codebook based transmission for UL	Lenovo, Motorola Mobility	Chenxi Zhu	64707	discussion	Discussion			25	7.2.1.3	Non-codebook based transmission for UL	3970	available	2018-01-11 04:41:46	2018-01-12 08:47:06			
R1-1800398	Discussion on codebook based transmission for UL	Lenovo, Motorola Mobility	Chenxi Zhu	64707	discussion	Discussion			24	7.2.1.2	Codebook based transmission for UL	3980	available	2018-01-11 04:41:46	2018-01-12 08:47:06			
R1-1800399	Correction on RMSI CORESET configuration	Lenovo, Motorola Mobility	Chenxi Zhu	64707	discussion	Discussion			11	7.1.2.2	Remaining minimum system information	3990	available	2018-01-11 04:41:46	2018-01-12 08:47:07			
R1-1800400	Correction on the initialization of PBCH DMRS	Lenovo, Motorola Mobility	Chenxi Zhu	64707	discussion	Discussion			10	7.1.2.1	NR-PBCH	4000	available	2018-01-11 04:41:46	2018-01-12 08:47:07			
R1-1800401	Correction on beam management	Lenovo, Motorola Mobility	Chenxi Zhu	64707	discussion	Discussion			31	7.2.2.3	Beam measurement and reporting	4010	available	2018-01-11 04:41:46	2018-01-12 08:47:07			
R1-1800402	Correction on beam failure recovery	Lenovo, Motorola Mobility	Chenxi Zhu	64707	discussion	Discussion			32	7.2.2.4	Mechanism to recover from beam failure	4020	available	2018-01-11 04:41:46	2018-01-12 08:47:08			
R1-1800403	Remaining issues on PUCCH resource allocation	Lenovo, Motorola Mobility	Chenxi Zhu	64707	discussion	Discussion			56	7.3.2.4	Resource allocation for PUCCH	4030	available	2018-01-11 04:41:46	2018-01-12 08:47:09			
R1-1800404	Remaining issues on HARQ-ACK feedback timing determination for SPS PDSCH	Lenovo, Motorola Mobility	Chenxi Zhu	64707	discussion	Discussion			60	7.3.3.2	DL/UL scheduling and HARQ management	4040	available	2018-01-11 04:41:46	2018-01-12 08:47:08			
R1-1800405	Text proposals for CBG-based retransmission in TS38.213	Lenovo, Motorola Mobility	Chenxi Zhu	64707	discussion	Discussion			61	7.3.3.3	CBG-based (re)transmission	4050	available	2018-01-11 04:41:46	2018-01-12 08:47:08			
R1-1800406	On CA with different numerologies	Lenovo, Motorola Mobility	Chenxi Zhu	64707	discussion	Discussion			68	7.3.4.2	Other aspects on carrier aggregation	4060	available	2018-01-11 04:41:46	2018-01-12 08:47:09			
R1-1800407	Correction on RMSI CORESET configuration	ETRI	Jihyung Kim	65152	discussion				11	7.1.2.2	Remaining minimum system information	4070	available	2018-01-11 05:38:54	2018-01-13 02:47:15			
R1-1800408	Clarifying resource allocation for PUCCH	ETRI	Jihyung Kim	65152	discussion				56	7.3.2.4	Resource allocation for PUCCH	4080	available	2018-01-11 05:38:54	2018-01-13 02:47:15			
R1-1800409	Clarification on PDCCH search space	ETRI	Jihyung Kim	65152	discussion				48	7.3.1.2	Search space	4090	available	2018-01-11 05:38:54	2018-01-13 02:47:15			
R1-1800410	Remaining issues on time domain resource allocation	ETRI	Jihyung Kim	65152	discussion				59	7.3.3.1	DL/UL resource allocation	4100	available	2018-01-11 05:38:54	2018-01-13 02:47:15			
R1-1800411	Remaining issues on PRB bundling	CATT	Teng Ma	67340	discussion	Decision			26	7.2.1.4	PRB bundling for DL	4110	available	2018-01-11 05:51:34	2018-01-13 06:34:17			
R1-1800412	Corrections on Synchronization Signaling	Samsung	Youngbum Kim	39963	other	Decision			8	7.1.1	Synchronization signal	4120	available	2018-01-11 06:20:27	2018-01-12 22:31:30			
R1-1800413	Corrections on NR-PBCH	Samsung	Youngbum Kim	39963	other	Decision			10	7.1.2.1	NR-PBCH	4130	available	2018-01-11 06:20:30	2018-01-12 22:31:30			
R1-1800414	Corrections on Remaining Minimum System Information	Samsung	Youngbum Kim	39963	other	Decision			11	7.1.2.2	Remaining minimum system information	4140	available	2018-01-11 06:20:30	2018-01-12 22:31:30			
R1-1800415	Corrections on Other System Information Delivery	Samsung	Youngbum Kim	39963	other	Decision			12	7.1.2.3	Other system information delivery	4150	available	2018-01-11 06:20:30	2018-01-13 06:01:45			
R1-1800416	Corrections on Paging Design	Samsung	Youngbum Kim	39963	other	Decision			13	7.1.3	Paging design	4160	available	2018-01-11 06:20:30	2018-01-12 14:08:12			
R1-1800417	Corrections on PRACH Formats	Samsung	Youngbum Kim	39963	other	Decision			15	7.1.4.1	PRACH formats	4170	available	2018-01-11 06:20:30	2018-01-13 03:32:09			
R1-1800418	Corrections on RACH Procedure	Samsung	Youngbum Kim	39963	other	Decision			16	7.1.4.2	RACH procedure	4180	revised	2018-01-11 06:20:30	2018-01-13 03:32:09		R1-1800990	
R1-1800419	Corrections on Measurements for Mobility Management	Samsung	Youngbum Kim	39963	other	Decision			18	7.1.5.1	Measurement for mobility management	4190	available	2018-01-11 06:20:30	2018-01-13 06:01:45			
R1-1800420	Corrections on Radio Link Monitoring for Mobility Management	Samsung	Youngbum Kim	39963	other	Decision			19	7.1.5.2	Radio link monitoring for mobility management	4200	available	2018-01-11 06:20:30	2018-01-13 06:01:45			
R1-1800421	Codebook-related corrections for 38.212	Samsung	Youngbum Kim	39963	other	Decision			24	7.2.1.2	Codebook based transmission for UL	4210	available	2018-01-11 06:20:30	2018-01-13 03:12:41			
R1-1800422	Resolving TBD on CSI-RS resource for non-codebook-based transmission	Samsung	Youngbum Kim	39963	other	Decision			25	7.2.1.3	Non-codebook based transmission for UL	4220	available	2018-01-11 06:20:30	2018-01-13 02:51:53			
R1-1800423	Issues on DL PRB bundling	Samsung	Youngbum Kim	39963	other	Decision			26	7.2.1.4	PRB bundling for DL	4230	available	2018-01-11 06:20:30	2018-01-12 06:17:12			
R1-1800424	Issues on trigger state definition	Samsung	Youngbum Kim	39963	other	Decision			29	7.2.2.1	CSI measurement	4240	available	2018-01-11 06:20:30	2018-01-13 02:51:53			
R1-1800425	Resolving TBD for CSI reference resource	Samsung	Youngbum Kim	39963	other	Decision		Late contribution	29	7.2.2.1	CSI measurement	4250	withdrawn	2018-01-11 06:20:30				
R1-1800426	Terminology mismatch for CSI framework	Samsung	Youngbum Kim	39963	other	Decision			29	7.2.2.1	CSI measurement	4260	available	2018-01-11 06:20:30	2018-01-13 02:51:53			
R1-1800427	Issues on CSI measurement	Samsung	Youngbum Kim	39963	other	Decision			29	7.2.2.1	CSI measurement	4270	available	2018-01-11 06:20:30	2018-01-12 06:17:12			
R1-1800428	Issues on subband reporting	Samsung	Youngbum Kim	39963	other	Decision			30	7.2.2.2	CSI reporting	4280	available	2018-01-11 06:20:30	2018-01-13 02:51:53			
R1-1800429	CSI-related correction for 38.214	Samsung	Youngbum Kim	39963	other	Decision			30	7.2.2.2	CSI reporting	4290	available	2018-01-11 06:20:30	2018-01-13 02:51:53			
R1-1800430	Issues on CSI reporting	Samsung	Youngbum Kim	39963	other	Decision			30	7.2.2.2	CSI reporting	4300	available	2018-01-11 06:20:30	2018-01-12 06:17:12			
R1-1800431	Issues on SLI reporting	Samsung	Youngbum Kim	39963	other	Decision			30	7.2.2.2	CSI reporting	4310	available	2018-01-11 06:20:30	2018-01-13 01:49:35			
R1-1800432	Issues on beam management	Samsung	Youngbum Kim	39963	other	Decision			31	7.2.2.3	Beam measurement and reporting	4320	available	2018-01-11 06:20:30	2018-01-13 01:49:35			
R1-1800433	Aperiodic beam reporting	Samsung	Youngbum Kim	39963	other	Decision			31	7.2.2.3	Beam measurement and reporting	4330	available	2018-01-11 06:20:30	2018-01-13 03:12:41			
R1-1800434	Issues on beam failure recovery	Samsung	Youngbum Kim	39963	other	Decision			32	7.2.2.4	Mechanism to recover from beam failure	4340	available	2018-01-11 06:20:30	2018-01-13 01:49:35			
R1-1800435	Issues on RS multiplexing	Samsung	Youngbum Kim	39963	other	Decision			36	7.2.3.1	Multiplexing of different types of RSs	4350	available	2018-01-11 06:20:30	2018-01-12 06:26:08			
R1-1800436	Issues on CSI-RS	Samsung	Youngbum Kim	39963	other	Decision			37	7.2.3.2	CSI-RS	4360	available	2018-01-11 06:20:30	2018-01-12 06:26:08			
R1-1800437	Issues on DMRS	Samsung	Youngbum Kim	39963	other	Decision			38	7.2.3.3	DMRS	4370	available	2018-01-11 06:20:30	2018-01-12 10:26:06			
R1-1800438	Issues on PT-RS	Samsung	Youngbum Kim	39963	other	Decision			39	7.2.3.4	PT-RS	4380	available	2018-01-11 06:20:30	2018-01-12 16:01:13			
R1-1800439	Issues on SRS	Samsung	Youngbum Kim	39963	other	Decision			40	7.2.3.5	SRS	4390	available	2018-01-11 06:20:30	2018-01-13 01:49:35			
R1-1800440	Issues on QCL	Samsung	Youngbum Kim	39963	other	Decision			42	7.2.3.7	QCL	4400	available	2018-01-11 06:20:30	2018-01-12 06:17:12			
R1-1800441	PTRS design for 40 GHz and higher frequency bands	Samsung	Youngbum Kim	39963	other	Decision			43	7.2.3.8	Other	4410	available	2018-01-11 06:20:30	2018-01-12 16:01:13			
R1-1800442	Corrections on PDCCH Structure	Samsung	Youngbum Kim	39963	other	Decision			47	7.3.1.1	PDCCH structure	4420	revised	2018-01-11 06:20:30	2018-01-13 02:28:16		R1-1801002	
R1-1800443	Corrections on Search Space Design	Samsung	Youngbum Kim	39963	other	Decision			48	7.3.1.2	Search space	4430	available	2018-01-11 06:20:30	2018-01-13 02:28:16			
R1-1800444	Corrections on UE-Group Common PDCCH	Samsung	Youngbum Kim	39963	other	Decision			49	7.3.1.3	Group-common PDCCH	4440	available	2018-01-11 06:20:30	2018-01-13 01:56:34			
R1-1800445	DCI Contents and Formats	Samsung	Youngbum Kim	39963	other	Decision			50	7.3.1.4	DCI contents and formats	4450	available	2018-01-11 06:20:30	2018-01-13 02:28:16			
R1-1800446	On UE Power Savings	Samsung	Youngbum Kim	39963	other	Decision			51	7.3.1.5	Other	4460	available	2018-01-11 06:20:30	2018-01-13 02:28:16			
R1-1800447	Corrections on PUCCH for up to 2 Symbols	Samsung	Youngbum Kim	39963	other	Decision			53	7.3.2.1	PUCCH structure in short-duration	4470	available	2018-01-11 06:20:30	2018-01-13 03:41:59			
R1-1800448	Corrections on PUCCH for more than 2 Symbols	Samsung	Youngbum Kim	39963	other	Decision			54	7.3.2.2	PUCCH structure in long-duration	4480	available	2018-01-11 06:20:30	2018-01-13 01:56:34			
R1-1800449	Corrections on UCI Multiplexing in PUSCH	Samsung	Youngbum Kim	39963	other	Decision			55	7.3.2.3	UCI multiplexing	4490	available	2018-01-11 06:20:30	2018-01-13 01:56:34			
R1-1800450	Corrections on Resource Allocation for PUCCH	Samsung	Youngbum Kim	39963	other	Decision			56	7.3.2.4	Resource allocation for PUCCH	4500	available	2018-01-11 06:20:30	2018-01-13 05:33:01			
R1-1800451	Corrections on DL/UL Resource Allocation	Samsung	Youngbum Kim	39963	other	Decision			59	7.3.3.1	DL/UL resource allocation	4510	available	2018-01-11 06:20:30	2018-01-12 14:08:12			
R1-1800452	Corrections on HARQ Management	Samsung	Youngbum Kim	39963	other	Decision			60	7.3.3.2	DL/UL scheduling and HARQ management	4520	available	2018-01-11 06:20:30	2018-01-13 05:33:01			
R1-1800453	Corrections on HARQ Feedback	Samsung	Youngbum Kim	39963	other	Decision			60	7.3.3.2	DL/UL scheduling and HARQ management	4530	available	2018-01-11 06:20:30	2018-01-13 05:33:01			
R1-1800454	Corrections on CBG-Based UL/DL Retransmissions	Samsung	Youngbum Kim	39963	other	Decision			61	7.3.3.3	CBG-based (re)transmission	4540	available	2018-01-11 06:20:30	2018-01-12 07:33:55			
R1-1800455	Correction on Procedures for UL Transmissions	Samsung	Youngbum Kim	39963	other	Decision			62	7.3.3.4	UL data transmission procedure	4550	available	2018-01-11 06:20:30	2018-01-12 07:21:43			
R1-1800456	Corrections on Soft Buffer Management	Samsung	Youngbum Kim	39963	other	Decision			63	7.3.3.5	Soft-buffer management for NR	4560	available	2018-01-11 06:20:30	2018-01-12 07:33:55			
R1-1800457	Corrections on Multiplexing Data with Different Transmission Durations	Samsung	Youngbum Kim	39963	other	Decision			64	7.3.3.6	Multiplexing data with different transmission durations	4570	available	2018-01-11 06:20:30	2018-01-12 06:08:12			

R1-1800458	Remaining issue on DL SPS	Samsung	Youngbum Kim	39963	other	Decision			65	7.3.3.7	Other	4580	available	2018-01-11 06:20:30	2018-01-12 07:21:43			
R1-1800459	Indication of Preempted Resources in UL	Samsung	Youngbum Kim	39963	other	Decision			65	7.3.3.7	Other	4590	available	2018-01-11 06:20:30	2018-01-13 02:13:22			
R1-1800460	Corrections on Bandwidth Part Operation	Samsung	Youngbum Kim	39963	other	Decision			67	7.3.4.1	Other aspects on bandwidth Parts	4600	available	2018-01-11 06:20:30	2018-01-13 02:28:16			
R1-1800461	Corrections on CA Operation	Samsung	Youngbum Kim	39963	other	Decision			68	7.3.4.2	Other aspects on carrier aggregation	4610	available	2018-01-11 06:20:30	2018-01-13 01:56:34			
R1-1800462	Corrections on Rate Matching	Samsung	Youngbum Kim	39963	other	Decision			69	7.3.5	Rate matching aspects for NR DL and UL	4620	available	2018-01-11 06:20:30	2018-01-13 02:28:16			
R1-1800463	Discussion on MCS selection for channel coding	Samsung	Youngbum Kim	39963	other	Decision			72	7.4.1	LDPC coding	4630	available	2018-01-11 06:20:30	2018-01-12 14:56:42			
R1-1800464	Maximum UCI size of polar codes	Samsung	Youngbum Kim	39963	other	Decision			75	7.4.2.2	Uplink control	4640	available	2018-01-11 06:20:30	2018-01-12 14:56:42			
R1-1800465	Corrections on polar code segmentation	Samsung	Youngbum Kim	39963	other	Decision			77	7.4.2.4	Other	4650	available	2018-01-11 06:20:30	2018-01-12 14:56:42			
R1-1800466	Corrections on LTE-NR Coexistence	Samsung	Youngbum Kim	39963	other	Decision			78	7.5	NR-LTE co-existence	4660	available	2018-01-11 06:20:30	2018-01-13 02:13:22			
R1-1800467	Corrections on PUSCH Power Control	Samsung	Youngbum Kim	39963	other	Decision			80	7.6.1	NR UL power control - non-CA aspects	4670	available	2018-01-11 06:20:31	2018-01-13 03:41:59			
R1-1800468	Corrections on PUCCH Power Control	Samsung	Youngbum Kim	39963	other	Decision			80	7.6.1	NR UL power control - non-CA aspects	4680	revised	2018-01-11 06:20:31	2018-01-13 03:41:59		R1-1801020	
R1-1800469	Corrections on SRS Power Control	Samsung	Youngbum Kim	39963	other	Decision			80	7.6.1	NR UL power control - non-CA aspects	4690	available	2018-01-11 06:20:31	2018-01-13 03:41:59			
R1-1800470	Corrections on PRACH Power Control	Samsung	Youngbum Kim	39963	other	Decision			80	7.6.1	NR UL power control - non-CA aspects	4700	available	2018-01-11 06:20:31	2018-01-13 03:41:59			
R1-1800471	Corrections on Power Control for CA	Samsung	Youngbum Kim	39963	other	Decision			81	7.6.2	NR UL power control – CA aspects	4710	available	2018-01-11 06:20:31	2018-01-13 13:09:30			
R1-1800472	PHR for CA	Samsung	Youngbum Kim	39963	other	Decision			82	7.6.3	Other	4720	available	2018-01-11 06:20:31	2018-01-13 03:32:09			
R1-1800473	FDD Operation	Samsung	Youngbum Kim	39963	other	Decision			83	7.7	Aspects related to FDD	4730	available	2018-01-11 06:20:31	2018-01-13 05:33:01			
R1-1800474	UE Features	Samsung	Youngbum Kim	39963	other	Decision			84	7.8	UE features	4740	noted	2018-01-11 06:20:31	2018-01-13 06:01:45			
R1-1800475	Consideration on NoMA study	Samsung	Youngbum Kim	39963	other	Decision			85	7.9	Other	4750	available	2018-01-11 06:20:31	2018-01-13 03:32:09	R1-1720365		
R1-1800476	DFT-based IGMA scheme	Samsung	Youngbum Kim	39963	other	Decision			85	7.9	Other	4760	available	2018-01-11 06:20:31	2018-01-13 03:32:09	R1-1720366		
R1-1800477	Overview of NR unlicensed spectrum	Samsung	Youngbum Kim	39963	other	Decision			85	7.9	Other	4770	available	2018-01-11 06:20:31	2018-01-12 22:31:30			
R1-1800478	Channel access for NR unlicensed operation	Samsung	Youngbum Kim	39963	other	Decision			85	7.9	Other	4780	available	2018-01-11 06:20:31	2018-01-12 22:31:30			
R1-1800479	Text proposal for codebook based UL transmission	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			24	7.2.1.2	Codebook based transmission for UL	4790	available	2018-01-11 06:32:14	2018-01-12 10:35:21			Rel-15
R1-1800480	Text proposal for non-codebook based UL transmission	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			25	7.2.1.3	Non-codebook based transmission for UL	4800	available	2018-01-11 06:32:14	2018-01-12 10:35:21			Rel-15
R1-1800481	Text proposal for MIMO related DCI design	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			27	7.2.1.5	Other	4810	available	2018-01-11 06:32:14	2018-01-12 10:35:21			Rel-15
R1-1800482	Text proposal for RS multiplexing	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			36	7.2.3.1	Multiplexing of different types of RSs	4820	available	2018-01-11 06:32:14	2018-01-12 10:35:21			Rel-15
R1-1800483	Text proposal for CSI-RS	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			37	7.2.3.2	CSI-RS	4830	available	2018-01-11 06:32:14	2018-01-12 10:35:21			Rel-15
R1-1800484	Text proposal for DMRS	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			38	7.2.3.3	DMRS	4840	available	2018-01-11 06:32:15	2018-01-12 10:35:21			Rel-15
R1-1800485	Text proposal for SRS	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			40	7.2.3.5	SRS	4850	available	2018-01-11 06:32:15	2018-01-12 10:35:21			Rel-15
R1-1800486	Text proposal for uplink power control	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			80	7.6.1	NR UL power control - non-CA aspects	4860	available	2018-01-11 06:32:15	2018-01-13 01:18:28			Rel-15
R1-1800487	Text proposal and remaining issues on resource allocatio for PUCCH	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			56	7.3.2.4	Resource allocation for PUCCH	4870	available	2018-01-11 06:32:15	2018-01-12 10:35:21			Rel-15
R1-1800488	Text proposal on DL/UL resource allocation	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			59	7.3.3.1	DL/UL resource allocation	4880	available	2018-01-11 06:32:15	2018-01-13 01:18:28			Rel-15
R1-1800489	Remaining issues on short PUCCH	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			53	7.3.2.1	PUCCH structure in short-duration	4890	available	2018-01-11 06:32:15	2018-01-13 01:18:28			Rel-15
R1-1800490	Remaining issues on long PUCCH	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			54	7.3.2.2	PUCCH structure in long-duration	4900	available	2018-01-11 06:32:15	2018-01-12 10:35:21			Rel-15
R1-1800491	Text proposal for UCI multipelxing	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			55	7.3.2.3	UCI multiplexing	4910	available	2018-01-11 06:32:15	2018-01-12 10:35:21			Rel-15
R1-1800492	Text proposal for CBG-based transmission	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			61	7.3.3.3	CBG-based (re)transmission	4920	available	2018-01-11 06:32:15	2018-01-12 10:35:21			Rel-15
R1-1800493	Remaining issues on HARQ-ACK transmission	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			68	7.3.4.2	Other aspects on carrier aggregation	4930	available	2018-01-11 06:32:15	2018-01-12 10:35:21			Rel-15
R1-1800494	Text proposal for PDCCH structure	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			47	7.3.1.1	PDCCH structure	4940	available	2018-01-11 06:32:15	2018-01-12 10:35:21			Rel-15
R1-1800495	Text proposal for search space	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			48	7.3.1.2	Search space	4950	available	2018-01-11 06:32:15	2018-01-12 10:35:21			Rel-15
R1-1800496	Remaining issues on GC-PDCCH	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			49	7.3.1.3	Group-common PDCCH	4960	available	2018-01-11 06:32:15	2018-01-13 01:18:28			Rel-15
R1-1800497	Text Proposal for DL PRB Bundling	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			26	7.2.1.4	PRB bundling for DL	4970	available	2018-01-11 06:32:15	2018-01-12 10:35:21			Rel-15
R1-1800498	Text Proposal for Beam Management	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			31	7.2.2.3	Beam measurement and reporting	4980	available	2018-01-11 06:32:15	2018-01-12 10:35:21			Rel-15
R1-1800499	Text Proposal for Beam Failure Recovery	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			32	7.2.2.4	Mechanism to recover from beam failure	4990	available	2018-01-11 06:32:15	2018-01-12 10:35:21			Rel-15
R1-1800500	Text Proposal for PT-RS	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			39	7.2.3.4	PT-RS	5000	available	2018-01-11 06:32:15	2018-01-12 10:35:21			Rel-15
R1-1800501	Text Proposal for CSI-RS for Time/frequency Tracking	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			41	7.2.3.6	TRS	5010	available	2018-01-11 06:32:15	2018-01-12 10:35:21			Rel-15
R1-1800502	Text Proposal for QCL	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			42	7.2.3.7	QCL	5020	available	2018-01-11 06:32:15	2018-01-12 10:35:21			Rel-15
R1-1800503	Text Proposal for CA Power Control	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			81	7.6.2	NR UL power control – CA aspects	5030	available	2018-01-11 06:32:15	2018-01-12 10:35:21			Rel-15
R1-1800504	Text Proposal for EN-DC Power Sharing	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			80	7.6.1	NR UL power control - non-CA aspects	5040	available	2018-01-11 06:32:15	2018-01-12 10:35:21			Rel-15
R1-1800505	Text proposal on SS/PBCH block	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			8	7.1.1	Synchronization signal	5050	available	2018-01-11 06:32:15	2018-01-13 01:18:28			Rel-15
R1-1800506	Text proposal on RRM measurement	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			18	7.1.5.1	Measurement for mobility management	5060	available	2018-01-11 06:32:15	2018-01-12 10:35:21			Rel-15
R1-1800507	Text proposal on NR RLM	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			19	7.1.5.2	Radio link monitoring for mobility management	5070	available	2018-01-11 06:32:15	2018-01-12 10:35:21			Rel-15
R1-1800508	Discussion on synchronization raster indication	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			10	7.1.2.1	NR-PBCH	5080	available	2018-01-11 06:32:15	2018-01-13 01:18:28			Rel-15
R1-1800509	Text proposal on PBCH	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			10	7.1.2.1	NR-PBCH	5090	available	2018-01-11 06:32:15	2018-01-12 11:50:45			Rel-15
R1-1800510	Text proposal on bandwidth part	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			67	7.3.4.1	Other aspects on bandwidth Parts	5100	available	2018-01-11 06:32:15	2018-01-12 11:50:45			Rel-15
R1-1800511	High level views on NR-based access to unlicensed spectrum	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			85	7.9	Other	5110	available	2018-01-11 06:32:15	2018-01-13 01:18:28			Rel-15
R1-1800512	Remaining issues on transmission collision	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			65	7.3.3.7	Other	5120	available	2018-01-11 06:32:15	2018-01-13 01:18:28			Rel-15
R1-1800513	Text proposal on UL data transmission procedure	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			62	7.3.3.4	UL data transmission procedure	5130	available	2018-01-11 06:32:15	2018-01-12 10:35:22			Rel-15
R1-1800514	Low-latency transmission for uplink	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			64	7.3.3.6	Multiplexing data with different transmission durations	5140	available	2018-01-11 06:32:15	2018-01-12 10:35:22			Rel-15
R1-1800515	Initial Consideration on IMT-2020 self evaluation of UL spectral efficiency in the Dense Urban-eMBB test environment	ZTE, Sanechips	Xi MENG	75724	discussion				85	7.9	Other	5150	available	2018-01-11 08:53:08	2018-01-12 10:25:03			Rel-15
R1-1800516	Initial Consideration on Link curve performance of LDPC coding in IMT-2020 self evaluation	ZTE, Sanechips	Xi MENG	75724	discussion				85	7.9	Other	5160	revised	2018-01-11 08:53:08	2018-01-12 10:25:03		R1-1800991	Rel-15
R1-1800517	Remaining issues and changes in PDCCH structure	MediaTek Inc.	Tao Chen	56050	discussion				47	7.3.1.1	PDCCH structure	5170	available	2018-01-11 09:23:31	2018-01-13 06:40:31			Rel-15
R1-1800518	Remaining issues on search space	Panasonic	Hidetoshi Suzuki	21346	discussion	Decision			48	7.3.1.2	Search space	5180	available	2018-01-11 10:07:17	2018-01-12 08:15:34			
R1-1800519	Discussion on DCI format	Panasonic	Hidetoshi Suzuki	21346	discussion	Decision			50	7.3.1.4	DCI contents and formats	5190	available	2018-01-11 10:07:17	2018-01-12 08:15:34			
R1-1800520	DL/UL resource allocation	Panasonic	Hidetoshi Suzuki	21346	discussion	Decision			59	7.3.3.1	DL/UL resource allocation	5200	available	2018-01-11 10:07:17	2018-01-12 08:15:34			
R1-1800521	Remaining details on group-common PDCCH	Panasonic	Hidetoshi Suzuki	21346	discussion	Decision			49	7.3.1.3	Group-common PDCCH	5210	available	2018-01-11 10:07:17	2018-01-12 08:15:34			
R1-1800522	UL data transmission procedure	Panasonic	Hidetoshi Suzuki	21346	discussion	Decision			62	7.3.3.4	UL data transmission procedure	5220	available	2018-01-11 10:07:17	2018-01-12 08:15:34			
R1-1800523	Resource reservation for NR DL and UL	Panasonic	Hidetoshi Suzuki	21346	discussion	Decision			69	7.3.5	Rate matching aspects for NR DL and UL	5230	available	2018-01-11 10:07:17	2018-01-12 08:15:34			
R1-1800524	SRS carrier switching involving SUL	Huawei, HiSilicon	Xiao Weimin	56706	other				43	7.2.3.8	Other	5240	withdrawn	2018-01-11 10:17:27				
R1-1800525	Clarification on SRS switching among CCs	Huawei, HiSilicon	Xiao Weimin	56706	other				43	7.2.3.8	Other	5250	available	2018-01-11 10:17:27	2018-01-12 22:23:44			
R1-1800526	Remaining details of PHR	Huawei, HiSilicon	Xiao Weimin	56706	other				82	7.6.3	Other	5260	available	2018-01-11 10:17:27	2018-01-13 05:17:38			
R1-1800527	CSI feedback enhancements for URLLC	Huawei, HiSilicon	Xiao Weimin	56706	other				57	7.3.2.5	Other	5270	available	2018-01-11 10:17:27	2018-01-13 05:11:02			
R1-1800528	Further enhancements on CSI reporting and codebook design	Huawei, HiSilicon	Xiao Weimin	56706	other				34	7.2.2.6	Other	5280	available	2018-01-11 10:17:27	2018-01-13 04:56:14			
R1-1800529	Remaining issues for CSI framework	Huawei, HiSilicon	Xiao Weimin	56706	other				34	7.2.2.6	Other	5290	available	2018-01-11 10:17:27	2018-01-13 04:56:14			
R1-1800530	Single NR-PDCCH based non-coherent JT in Rel-15	Huawei, HiSilicon	Xiao Weimin	56706	other				27	7.2.1.5	Other	5300	available	2018-01-11 10:17:27	2018-01-13 05:26:54			
R1-1800531	Remaining issues of multi-panel codebook in 38.214	Huawei, HiSilicon	Xiao Weimin	56706	other				34	7.2.2.6	Other	5310	available	2018-01-11 10:17:27	2018-01-13 04:56:14			
R1-1800532	Processing time for A-CSI reporting	Huawei, HiSilicon	Xiao Weimin	56706	other				34	7.2.2.6	Other	5320	available	2018-01-11 10:17:27	2018-01-13 04:56:14			
R1-1800533	Remaining details of CSI-RS designs for time and frequency tracking	Huawei, HiSilicon	Xiao Weimin	56706	other				41	7.2.3.6	TRS	5330	available	2018-01-11 10:17:27	2018-01-12 22:23:44			
R1-1800534	Remaining details for uplink power control with CA	Huawei, HiSilicon	Xiao Weimin	56706	other				81	7.6.2	NR UL power control – CA aspects	5340	available	2018-01-11 10:17:27	2018-01-13 06:13:46			

R1-1805635	Summary of remaining issues on PRB bundling for DL	Huawei, HiSilicon	Xiao Weimin	86796	other				26	7.2.1.4	PRB bundling for DL	5350	available	2018-01-11 10:17:27	2018-01-13 04:56:14																						
R1-1805636	PUCCH resource allocation prior to RRC configuration	NEC	Yassin Awad	37300	discussion	Decision			56	7.3.2.4	Resource allocation for PUCCH	5360	available	2018-01-11 11:44:00	2018-01-12 23:30:42			Rel-15			NR_newRAT																
R1-1805637	Remaining details of the DL/UL Resource allocation schemes	NEC	Yassin Awad	37300	discussion	Decision			59	7.3.3.1	DL/UL resource allocation	5370	available	2018-01-11 11:44:00	2018-01-12 23:30:42			Rel-15			NR_newRAT																
R1-1805638	SPS Activation and Deactivations in NR	NEC	Yassin Awad	37300	discussion	Decision			50	7.3.1.4	DCI contents and formats	5380	available	2018-01-11 11:44:00	2018-01-12 23:30:42			Rel-15			NR_newRAT																
R1-1805639	Discussion on search space design for RMSI CORESET	CMCC	Xueying Hou	88581	discussion				11	7.1.2.2	Remaining minimum system information	5390	available	2018-01-11 13:32:29	2018-01-13 02:47:02																						
R1-1805640	Discussion on Paging CORSET Design for NR	CMCC	Xueying Hou	88581	discussion				13	7.1.3	Paging design	5400	available	2018-01-11 13:32:29	2018-01-13 02:47:02																						
R1-1805641	Discussion on PRACH configuration table	CMCC	Xueying Hou	88581	discussion				15	7.1.4.1	PRACH formats	5410	available	2018-01-11 13:32:29	2018-01-13 02:47:02																						
R1-1805642	Discussion on remaining issues for beam indication	CMCC	Xueying Hou	88581	discussion				31	7.2.2.3	Beam measurement and reporting	5420	available	2018-01-11 13:32:29	2018-01-13 02:47:02																						
R1-1805643	Discussion on beam recovery mechanism	CMCC	Xueying Hou	88581	discussion				32	7.2.2.4	Mechanism to recover from beam failure	5430	available	2018-01-11 13:32:29	2018-01-13 02:47:02																						
R1-1805644	Discussion on PDCCH DMRS	CMCC	Xueying Hou	88581	discussion				47	7.3.1.1	PDCCH structure	5440	available	2018-01-11 13:32:29	2018-01-13 02:47:02																						
R1-1805645	Discussion on remaining issues for semi-static DL-UL assignment	CMCC	Xueying Hou	88581	discussion				49	7.3.1.3	Group-common PDCCH	5450	available	2018-01-11 13:32:29	2018-01-13 02:47:02																						
R1-1805646	Discussion on DCI format design	CMCC	Xueying Hou	88581	discussion				50	7.3.1.4	DCI contents and formats	5460	available	2018-01-11 13:32:29	2018-01-13 02:47:02																						
R1-1805647	Discussion on remaining issues for time domain resource allocation	CMCC	Xueying Hou	88581	discussion				59	7.3.3.1	DL/UL resource allocation	5470	available	2018-01-11 13:32:29	2018-01-13 02:47:02																						
R1-1805648	Discussion on remaining issues for HARQ timing	CMCC	Xueying Hou	88581	discussion				60	7.3.3.2	DL/UL scheduling and HARQ management	5480	available	2018-01-11 13:32:29	2018-01-13 02:47:02																						
R1-1805649	Discussion on HARQ-ACK codebook design for CBG	CMCC	Xueying Hou	88581	discussion				61	7.3.3.3	CBG-based (re)transmission	5490	available	2018-01-11 13:32:29	2018-01-13 02:47:02																						
R1-1805650	On reducing the PDCCH channel estimation and BD complexity in NR	Nokia, Nokia Shanghai Bell	Karol Schober	88496	other	Approval			48	7.3.1.2	Search space	5500	available	2018-01-11 13:48:24	2018-01-12 21:10:14																						
R1-1805651	Remaining details on search space	Nokia, Nokia Shanghai Bell	Karol Schober	88496	other	Approval			48	7.3.1.2	Search space	5510	available	2018-01-11 13:48:24	2018-01-12 21:10:14																						
R1-1805652	On remaining details of BWPs	Nokia, Nokia Shanghai Bell	Karol Schober	88496	other	Approval			67	7.3.4.1	Other aspects on bandwidth Parts	5520	available	2018-01-11 13:48:24	2018-01-12 21:10:14																						
R1-1805653	On remaining details of PDSCH rate-matching in NR	Nokia, Nokia Shanghai Bell	Karol Schober	88496	other	Approval			69	7.3.5	Rate matching aspects for NR DL and UL	5530	available	2018-01-11 13:48:24	2018-01-12 21:10:14																						
R1-1805654	Additional periodicity values for NR signals/channels	ZTE, Sanechips	Ruyue Yu-Ngok LI	43128	discussion				49	7.3.1.3	Group-common PDCCH	5540	available	2018-01-11 14:09:07	2018-01-13 06:46:44																						
R1-1805655	Remaining issues on PTRS for UL DFTs-OFDM waveform	Mitsubishi Electric R&D	Cristina Cochina-Dacheene	86339	discussion	Decision			39	7.2.3.4	PT-RS	5550	available	2018-01-11 15:32:56	2018-01-12 17:42:45			Rel-15																		
R1-1805656	Remaining details on PRACH formats	Nokia, Nokia Shanghai Bell	Emad Farag	86640	discussion	Decision			15	7.1.4.1	PRACH formats	5560	available	2018-01-11 16:34:50	2018-01-12 23:49:28	R1-1720095																					
R1-1805657	Remaining details on PRACH procedure	Nokia, Nokia Shanghai Bell	Emad Farag	86640	discussion	Decision			16	7.1.4.2	RACH procedure	5570	available	2018-01-11 16:34:50	2018-01-12 23:49:28	R1-1720096																					
R1-1805658	Remaining details on short PUCCH	Nokia, Nokia Shanghai Bell	Emad Farag	86640	discussion	Decision			53	7.3.2.1	PUCCH structure in short-duration	5580	available	2018-01-11 16:34:50	2018-01-12 23:48:39																						
R1-1805659	Remaining details on PUCCH structure in long duration	Nokia, Nokia Shanghai Bell	Emad Farag	86640	discussion	Decision			54	7.3.2.2	PUCCH structure in long-duration	5590	available	2018-01-11 16:34:50	2018-01-12 23:48:39																						
R1-1805660	Remaining details on UCI multiplexing	Nokia, Nokia Shanghai Bell	Emad Farag	86640	discussion	Decision			55	7.3.2.3	UCI multiplexing	5600	available	2018-01-11 16:34:50	2018-01-12 23:48:39																						
R1-1805661	Remaining details on PUCCH resource allocation	Nokia, Nokia Shanghai Bell	Emad Farag	86640	discussion	Decision			56	7.3.2.4	Resource allocation for PUCCH	5610	available	2018-01-11 16:34:50	2018-01-12 23:48:39																						
R1-1805662	Correction to RSTD measurement states	Intel Corporation (UK) Ltd	Davydov Alexei	46738	CR	Decision	Editor's CR, CatF 38.215. Remove RRC IDLE from RSTD measurements	Endorsed in principle - for further consolidation with other TPs	6	7	Maintenance of NR - WID in RP-172834	5620	endorsed	2018-01-11 17:08:01	2018-01-13 07:14:23			Rel-15	38.215	15.0.0	NR_newRAT	0001		F												
R1-1805663	NTN-NR Paragraph correction regarding applicability of NR numerology to satellite communication	THALES	Olivier Peyrusse	73868	pCR	Information	The objective of this document is to provide text for the TR 38.811 adding some corrections to chapters 7.3.5.3.1.2 and 7.3.5.3.1.3.		85	7.9	Other	5630	withdrawn	2018-01-11 17:18:58	2018-01-11 17:20:20			Rel-16	38.811	0.2.1	FS_NR_nonterr_mw												
R1-1805664	NTN-NR DM-RS in PBCH and PDCCH	THALES	Olivier Peyrusse	73868	pCR	Information	The objective of this document is to provide text for the TR 38.811 on the DM-RS in PBCH and PDCCH. It is also added some brief comments on the next steps for DM-RS analysis.		85	7.9	Other	5640	available	2018-01-11 17:31:19	2018-01-11 17:34:05			Rel-16	38.811	0.2.1	FS_NR_nonterr_mw												
R1-1805665	Remaining issues and text proposal in codeword to layer mapping	AT&T	Arun Ghosh	87094	discussion	Decision			23	7.2.1.1	Codeword mapping	5650	available	2018-01-11 18:28:41	2018-01-13 03:59:32																						
R1-1805666	Remaining issues and text proposal in uplink MIMO	AT&T	Arun Ghosh	87094	discussion	Decision			24	7.2.1.2	Codebook based transmission for UL	5660	available	2018-01-11 18:28:41	2018-01-13 03:59:32																						
R1-1805667	Remaining issues and text proposal in CSI reporting	AT&T	Arun Ghosh	87094	discussion	Decision			30	7.2.2.2	CSI reporting	5670	available	2018-01-11 18:28:41	2018-01-13 03:59:32																						
R1-1805668	Remaining issues in CQI and MCS	AT&T	Arun Ghosh	87094	discussion	Decision			33	7.2.2.5	CQI and MCS	5680	available	2018-01-11 18:28:41	2018-01-13 03:59:32																						
R1-1805669	Remaining issues in CSI-RS	AT&T	Arun Ghosh	87094	discussion	Decision			37	7.2.3.2	CSI-RS	5690	withdrawn	2018-01-11 18:28:41																						
R1-1805670	Remaining issues in DM-RS	AT&T	Arun Ghosh	87094	discussion	Decision			38	7.2.3.3	DMRS	5700	withdrawn	2018-01-11 18:28:41																						
R1-1805671	Remaining issues in Group-common PDCCH	AT&T	Arun Ghosh	87094	discussion	Decision			49	7.3.1.3	Group-common PDCCH	5710	available	2018-01-11 18:28:42	2018-01-13 03:59:32																						
R1-1805672	Text Proposal on DCI contents and formats	AT&T	Arun Ghosh	87094	discussion	Decision			50	7.3.1.4	DCI contents and formats	5720	available	2018-01-11 18:28:42	2018-01-13 03:59:32																						
R1-1805673	Remaining issues in Resource allocation for PUCCH	AT&T	Arun Ghosh	87094	discussion	Decision			56	7.3.2.4	Resource allocation for PUCCH	5730	available	2018-01-11 18:28:42	2018-01-13 03:59:32																						
R1-1805674	Enhanced HARQ-ACK bundling with multi slot operation	AT&T	Arun Ghosh	87094	discussion	Decision			60	7.3.3.2	DL/UL scheduling and HARQ management	5740	available	2018-01-11 18:28:42	2018-01-13 03:59:32																						
R1-1805675	Remaining issues of UL Data transmission procedure	AT&T	Arun Ghosh	87094	discussion	Decision			62	7.3.3.4	UL data transmission procedure	5750	available	2018-01-11 18:28:42	2018-01-13 03:59:32																						
R1-1805676	Text Proposal on Bandwidth parts	AT&T	Arun Ghosh	87094	discussion	Decision			67	7.3.4.1	Other aspects on bandwidth Parts	5760	available	2018-01-11 18:28:42	2018-01-13 03:59:32																						
R1-1805677	Remaining issues in DL/UL resource allocation	AT&T	Arun Ghosh	87094	discussion	Decision			59	7.3.3.1	DL/UL resource allocation	5770	available	2018-01-11 18:28:42	2018-01-13 03:59:32																						
R1-1805678	Rate matching aspects for NR standalone operation	AT&T	Arun Ghosh	87094	discussion	Decision			69	7.3.5	Rate matching aspects for NR DL and UL	5780	available	2018-01-11 18:28:42	2018-01-13 03:59:32																						
R1-1805679	On mandatory and optional UE features	AT&T	Arun Ghosh	87094	discussion	Decision			84	7.8	UE features	5790	available	2018-01-11 18:28:42	2018-01-13 03:59:32																						
R1-1805680	CSI measurement for dynamic BWP switching	AT&T	Arun Ghosh	87094	discussion	Decision			29	7.2.2.1	CSI measurement	5800	available	2018-01-11 18:28:42	2018-01-13 03:59:32																						
R1-1805681	Several remaining details on aperiodic CSI report	AT&T	Arun Ghosh	87094	discussion	Decision			30	7.2.2.2	CSI reporting	5810	available	2018-01-11 18:28:42	2018-01-13 03:59:32																						
R1-1805682	TCI states configuration design to support dynamic BWP switching	AT&T	Arun Ghosh	87094	discussion	Decision			31	7.2.2.3	Beam measurement and reporting	5820	available	2018-01-11 18:28:42	2018-01-13 03:59:32																						
R1-1805683	in support of partial beam failure	AT&T	Arun Ghosh	87094	discussion	Decision			32	7.2.2.4	Mechanism to recover from beam failure	5830	available	2018-01-11 18:28:42	2018-01-13 03:59:32																						
R1-1805684	Impact of beam failure and recovery on RLM procedures	AT&T	Arun Ghosh	87094	discussion	Decision			19	7.1.5.2	Radio link monitoring for mobility management	5840	available	2018-01-11 18:28:42	2018-01-13 03:59:32																						
R1-1805685	Channel Model for IAB	Xiaoyi	Arun Ghosh	87094	discussion	Decision			85	7.9	Other	5850	withdrawn	2018-01-11 18:28:42																						
R1-1805686	Use cases and Scenarios for NR in Unlicensed Band	Rauf	Arun Ghosh	87094	discussion	Decision			85	7.9	Other	5860	withdrawn	2018-01-11 18:28:42																						
R1-1805687	Requirements for NR in unlicensed band	Rauf	Arun Ghosh	87094	discussion	Decision			85	7.9	Other	5870	withdrawn	2018-01-11 18:28:42																						
R1-1805688	Co-Existence Simulation Assumption and Methodology for NR in unlicensed band	Rauf	Arun Ghosh	87094	discussion	Decision			85	7.9	Other	5880	withdrawn	2018-01-11 18:28:42																						
R1-1805689	PBCH Payload Generation	Ericsson Inc.	Yufei Blankenship	89287	discussion	Decision			76	7.4.2.3	PBCH	5890	noted	2018-01-11 18:37:40	2018-01-13 06:14:11																						
R1-1805690	Channel Model for IAB	AT&T	Arun Ghosh	87094	discussion	Decision			85	7.9	Other	5900	available	2018-01-11 18:43:13	2018-01-13 03:59:32																						
R1-1805691	Use cases and Scenarios for NR in Unlicensed Band	AT&T	Arun Ghosh	87094	discussion	Decision			85	7.9	Other	5910	revised	2018-01-11 18:43:13	2018-01-13 03:59:32		R1-1801063																				
R1-1805692	Requirements for NR in unlicensed band	AT&T	Arun Ghosh	87094	discussion	Decision			85	7.9	Other	5920	available	2018-01-11 18:43:13	2018-01-13 03:59:32																						
R1-1805693	Co-Existence Simulation Assumption and Methodology for NR in unlicensed band	AT&T	Arun Ghosh	87094	discussion	Decision			85	7.9	Other	5930	revised	2018-01-11 18:43:13	2018-01-13 03:59:32		R1-1801119																				
R1-1805694	Remaining details of RACH Procedure	Sony	Martin Beale	89973	discussion				16	7.1.4.2	RACH procedure	5940	available	2018-01-11 19:38:54	2018-01-12 18:06:50																						
R1-1805695	TP for termination of the repetition for UL transmission without grant	Sony	Martin Beale	89973	discussion				62	7.3.3.4	UL data transmission procedure	5950	available	2018-01-11 19:38:54	2018-01-12 18:06:50																						
R1-1805696	Text proposal on PBCH contents	Sony	Martin Beale	89973	discussion				10	7.1.2.1	NR-PBCH	5960	available	2018-01-11 19:38:54	2018-01-12 18:06:50																						
R1-1805697	Space-delay versus Sub-band Precoding for mmWave Channels	Fraunhofer HHI	Lars Thiele	89746	discussion	Information			34	7.2.2.6	Other	5970	available	2018-01-12 11:11:07	2018-01-12 15:34:12																						
R1-1805698	RACH configuration of Multiple Msg1 transmissions before the end of a monitored RAR window	InterDigital, Inc.	Aata El Hamss	71288	discussion				16	7.1.4.2	RACH procedure	5980	available	2018-01-11 22:01:46	2018-01-12 23:26:46	R1-1720590		Rel-15			NR_newRAT																
R1-1805699	L1 activation/deactivation for Grant Free type 2 and DL SPS transmission	InterDigital, Inc.	Aata El Hamss	71288	discussion				50	7.3.1.4	DCI contents and formats	5990	available	2018-01-11 22:01:46	2018-01-12 23:26:46			Rel-15			NR_newRAT																
R1-1806000	Considerations for ultra-reliable DCI transmission	InterDigital, Inc.	Aata El Hamss	71288	discussion				51	7.3.1.5	Other	6000	available	2018-01-11 22:01:46	2018-01-12 23:26:46	R1-1720592		Rel-15			NR_newRAT																
R1-1806001	Considerations for ultra-reliable UCI transmission	InterDigital, Inc.	Aata El Hamss	71288	discussion				57	7.3.2.5	Other	6010	available	2018-01-11 22:01:46	2018-01-12 23:26:46	R1-1720593		Rel-15			NR_newRAT																
R1-1806002	CBG-based (re)transmission	InterDigital, Inc.	Aata El Hamss	71288	discussion				61	7.3.3.3	CBG-based (re)transmission	6020	available	2018-01-11 22:01:46	2018-01-12 23:26:46			Rel-15			NR_newRAT																
R1-1806003	Details of BWP switching operation	InterDigital, Inc.	Aata El Hamss	71288	discussion				67	7.3.4.1	Other aspects on bandwidth Parts	6030	available	2018-01-11 22:01:46	2018-01-12 23:26:46	R1-1720596		Rel-15			NR_newRAT																
R1-1806004	Remaining issues on CA	InterDigital, Inc.	Aata El Hamss	71288	discussion				68	7.3.4.2	Other aspects on carrier aggregation	6040	available	2018-01-11 22:01:46	2018-01-12 23:26:46	R1-1720597		Rel-15			NR_newRAT																

R1-1800605	Aspects related to Supplementary Uplink	InterDigital, Inc.	Aata El Hamss	71288	discussion				78	7.5	NR-LTE co-existence	6050	available	2018-01-11 22:01:46	2018-01-12 23:26:46			Rel-15			NR_newRAT								
R1-1800606	Power Control for NR DC	InterDigital, Inc.	Aata El Hamss	71288	discussion				82	7.6.3	Other	6060	available	2018-01-11 22:01:46	2018-01-12 23:26:46	R1-1720560		Rel-15			NR_newRAT								
R1-1800607	Remaining details on RACH timing for NR	ITL	Donghyun Park	58631	discussion				16	7.1.4.2	RACH procedure	6070	available	2018-01-12 00:50:21	2018-01-12 16:14:57														
R1-1800608	On Remaining Details for HARQ-ACK Codebook	MediaTek Inc.	Tao Chen	56050	discussion				60	7.3.3.2	DL/UL scheduling and HARQ management	6080	available	2018-01-12 01:26:18	2018-01-13 06:40:31			Rel-15											
R1-1800609	On the Impact of CBG-based Retransmission Feature	MediaTek Inc.	Tao Chen	56050	discussion				61	7.3.3.3	CBG-based (re)transmission	6090	available	2018-01-12 01:28:02	2018-01-13 06:40:31			Rel-15											
R1-1800610	Remaining issues on RACH preamble in NR	Sharp	Toshizo Nogami	60264	other				16	7.1.4.2	RACH procedure	6100	available	2018-01-12 01:32:54	2018-01-12 20:59:10														
R1-1800611	Priority rule for CSI reporting	Sharp	Toshizo Nogami	60264	other				30	7.2.2.2	CSI reporting	6110	available	2018-01-12 01:32:54	2018-01-12 20:59:10														
R1-1800612	Slot format determination in NR	Sharp	Toshizo Nogami	60264	other				49	7.3.1.3	Group-common PDCCH	6120	available	2018-01-12 01:32:54	2018-01-12 20:59:10														
R1-1800613	Transport Block size for NR VoIP	Sharp	Toshizo Nogami	60264	other				59	7.3.3.1	DL/UL resource allocation	6130	available	2018-01-12 01:32:54	2018-01-12 20:59:10														
R1-1800614	Corrections to SUL-related specification	ZTE, Sanechips	Wenfeng Zhang	71639	discussion				78	7.5	NR-LTE co-existence	6140	available	2018-01-12 01:47:43	2018-01-13 00:59:49														
R1-1800615	Discussions on DMRS	Mitsubishi Electric Co.	Fumihiro Hasegawa	61720	discussion				38	7.2.3.3	DMRS	6150	available	2018-01-12 01:55:15	2018-01-13 04:08:39														
R1-1800616	Discussions on SRS	Mitsubishi Electric Co.	Fumihiro Hasegawa	61720	discussion				40	7.2.3.5	SRS	6160	revised	2018-01-12 01:58:03	2018-01-13 04:08:39		R1-1801029												
R1-1800617	Text proposal for the DM-RS of PUSCH in 38.211	FiberHome	Zhang Yuanyu	62156	discussion				38	7.2.3.3	DMRS	6170	available	2018-01-12 01:59:21	2018-01-12 02:54:18														
R1-1800618	Text proposal for PBCH in 38.212	FiberHome	Zhang Yuanyu	62156	discussion			Late contribution	10	7.1.2.1	NR-PBCH	6180	withdrawn	2018-01-12 02:02:36															
R1-1800619	SRS carrier switching involving SUL	Huawei, HiSilicon	Brian Classon	45750	other				43	7.2.3.8	Other	6190	available	2018-01-12 02:04:07	2018-01-13 03:30:44														
R1-1800620	Text proposal for UCI reporting in PUCCH in 38.213	FiberHome	Zhang Yuanyu	62156	discussion				55	7.3.2.3	UCI multiplexing	6200	available	2018-01-12 02:04:26	2018-01-12 02:54:18														
R1-1800621	Text proposal for resource allocation of PUSCH in 38.214	FiberHome	Zhang Yuanyu	62156	discussion				59	7.3.3.1	DL/UL resource allocation	6210	available	2018-01-12 02:06:49	2018-01-12 02:54:18														
R1-1800622	Remaining Issues for Beam Failure Recovery Procedure	ASUSTEK COMPUTER (SHANGHAI)	Alex Liou	65894	discussion				32	7.2.2.4	Mechanism to recover from beam failure	6220	available	2018-01-12 02:16:34	2018-01-12 03:43:38														
R1-1800623	LBT Considering Beamforming in Unlicensed Spectrum	ASUSTEK COMPUTER (SHANGHAI)	Alex Liou	65894	discussion				85	7.9	Other	6230	available	2018-01-12 02:20:46	2018-01-12 03:44:29	R1-1720568													
R1-1800624	Remaining details on Soft buffer management	NEC Corporation	Takahiro Sasaki	39454	discussion	Decision			63	7.3.3.5	Soft-buffer management for NR	6240	available	2018-01-12 02:38:04	2018-01-12 07:06:13			Rel-15											
R1-1800625	Remaining Details on Synchronization Signal	InterDigital, Inc.	Shahrokh Nayeb Nazar	72080	discussion				8	7.1.1	Synchronization signal	6250	available	2018-01-12 02:43:01	2018-01-13 03:43:37														
R1-1800626	On TRI and TPMI indication for CB-based UL transmission	InterDigital, Inc.	Shahrokh Nayeb Nazar	72080	discussion				24	7.2.1.2	Codebook based transmission for UL	6260	available	2018-01-12 02:44:25	2018-01-13 03:43:37														
R1-1800627	Remaining details on Non-CB based UL transmission	InterDigital, Inc.	Shahrokh Nayeb Nazar	72080	discussion				25	7.2.1.3	Non-codebook based transmission for UL	6270	available	2018-01-12 02:45:32	2018-01-13 03:43:37														
R1-1800628	Remaining details on CSI reporting	InterDigital, Inc.	Shahrokh Nayeb Nazar	72080	discussion				30	7.2.2.2	CSI reporting	6280	available	2018-01-12 02:46:34	2018-01-13 03:43:37														
R1-1800629	Remaining details on beam failure recovery	InterDigital, Inc.	Shahrokh Nayeb Nazar	72080	discussion				32	7.2.2.4	Mechanism to recover from beam failure	6290	available	2018-01-12 02:48:13	2018-01-13 03:43:37														
R1-1800630	Remaining details on PT-RS	InterDigital, Inc.	Shahrokh Nayeb Nazar	72080	discussion				39	7.2.3.4	PT-RS	6300	available	2018-01-12 02:49:46	2018-01-13 03:44:01														
R1-1800631	On remaining issues of search space and blind detection	InterDigital, Inc.	Shahrokh Nayeb Nazar	72080	discussion				48	7.3.1.2	Search space	6310	available	2018-01-12 02:51:14	2018-01-13 03:44:01														
R1-1800632	On explicit HARQ-ACK feedback for configured UL grant	InterDigital, Inc.	Shahrokh Nayeb Nazar	72080	discussion				62	7.3.3.4	UL data transmission procedure	6320	available	2018-01-12 02:52:24	2018-01-13 03:44:01														
R1-1800633	On UL multiplexing of transmission with different reliability requirements	InterDigital, Inc.	Shahrokh Nayeb Nazar	72080	discussion				64	7.3.3.6	Multiplexing data with different transmission durations	6330	available	2018-01-12 02:53:32	2018-01-13 03:44:01														
R1-1800634	On UE Implementing One LDPC Base Graph	InterDigital, Inc.	Shahrokh Nayeb Nazar	72080	discussion				72	7.4.1	LDPC coding	6340	available	2018-01-12 02:54:44	2018-01-13 03:44:01														
R1-1800635	On URLLC Channel Coding	InterDigital, Inc.	Shahrokh Nayeb Nazar	72080	discussion				77	7.4.2.4	Other	6350	available	2018-01-12 02:58:10	2018-01-13 05:18:15														
R1-1800636	Considerations for Power Sharing in Case 2 CA	InterDigital, Inc.	Shahrokh Nayeb Nazar	72080	discussion				81	7.6.2	NR UL power control – CA aspects	6360	available	2018-01-12 02:59:11	2018-01-13 03:44:26														
R1-1800637	General views on NR Operation in Unlicensed Spectrum	InterDigital, Inc.	Shahrokh Nayeb Nazar	72080	discussion				85	7.9	Other	6370	available	2018-01-12 03:00:08	2018-01-13 03:44:26														
R1-1800638	On coexistence and channel access for NR-Unlicensed	InterDigital, Inc.	Shahrokh Nayeb Nazar	72080	discussion				85	7.9	Other	6380	available	2018-01-12 03:00:52	2018-01-13 03:44:26														
R1-1800639	On Vehicle Blockage in eV2X Channel Model	InterDigital, Inc.	Shahrokh Nayeb Nazar	72080	discussion				85	7.9	Other	6390	available	2018-01-12 03:01:32	2018-01-13 03:44:26														
R1-1800640	Considerations on Coverage in Non-Terrestrial Networks	InterDigital, Inc.	Shahrokh Nayeb Nazar	72080	discussion				85	7.9	Other	6400	available	2018-01-12 03:02:14	2018-01-13 03:44:26														
R1-1800641	Enhancement of URLLC UL Transmission without Grant	III	Chun-che Chien	43585	discussion				62	7.3.3.4	UL data transmission procedure	6410	available	2018-01-12 03:26:28	2018-01-12 09:26:55														
R1-1800642	Discussion on timer for beam failure recovery	ITRI	Hung-hsiang Wang	46683	discussion				32	7.2.2.4	Mechanism to recover from beam failure	6420	available	2018-01-12 03:38:28	2018-01-12 09:15:22														
R1-1800643	Discussion on PDCCH resource mapping	ITRI	Hung-hsiang Wang	46683	discussion				47	7.3.1.1	PDCCH structure	6430	available	2018-01-12 03:38:28	2018-01-12 09:15:22														
R1-1800644	Discussion on interleaver formulation	ITRI	Hung-hsiang Wang	46683	discussion				48	7.3.1.2	Search space	6440	available	2018-01-12 03:38:28	2018-01-12 09:15:22														
R1-1800645	Remaining details on PDCCH search space	ITRI	Hung-hsiang Wang	46683	discussion				48	7.3.1.2	Search space	6450	available	2018-01-12 03:38:28	2018-01-12 09:15:22														
R1-1800646	Challenges in NTN fast fading model	Nokia	Frank Hsieh	75574	discussion	Discussion			85	7.9	Other	6460	available	2018-01-12 03:48:29	2018-01-13 03:21:58			Rel-15											
R1-1800647	RACH procedure with BWP	III	Hai-Han Wang	63209	discussion				16	7.1.4.2	RACH procedure	6470	available	2018-01-12 03:57:15	2018-01-12 10:37:05														
R1-1800648	Remaining details on CSI measurement	MTI	ChienChun Cheng	74533	discussion				29	7.2.2.1	CSI measurement	6480	available	2018-01-12 04:03:08	2018-01-12 04:09:37														
R1-1800649	Remaining issues on Synchronization signal	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			8	7.1.1	Synchronization signal	6490	available	2018-01-12 04:59:16	2018-01-13 02:41:31														
R1-1800650	Remaining issues on NR-PBCH	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			10	7.1.2.1	NR-PBCH	6500	available	2018-01-12 04:59:16	2018-01-13 02:41:31														
R1-1800651	Remaining issues on Remaining minimum system information	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			11	7.1.2.2	Remaining minimum system information	6510	available	2018-01-12 04:59:16	2018-01-13 02:41:31														
R1-1800652	Remaining issues on Paging design	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			13	7.1.3	Paging design	6520	available	2018-01-12 04:59:16	2018-01-13 02:41:31														
R1-1800653	Remaining issues on PRACH formats	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			15	7.1.4.1	PRACH formats	6530	available	2018-01-12 04:59:16	2018-01-13 02:41:31														
R1-1800654	Remaining issues on RACH procedure	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			16	7.1.4.2	RACH procedure	6540	available	2018-01-12 04:59:16	2018-01-13 02:41:31														
R1-1800655	Remaining issues on Measurement for mobility management	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			18	7.1.5.1	Measurement for mobility management	6550	available	2018-01-12 04:59:16	2018-01-13 02:41:31														
R1-1800656	Remaining issues on Radio link monitoring for mobility management	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			19	7.1.5.2	Radio link monitoring for mobility management	6560	available	2018-01-12 04:59:16	2018-01-13 02:41:31														
R1-1800657	Remaining issue on UL codebook based transmission	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			24	7.2.1.2	Codebook based transmission for UL	6570	available	2018-01-12 04:59:16	2018-01-13 02:41:31														
R1-1800658	Remaining issue on UL non-codebook based transmission	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			25	7.2.1.3	Non-codebook based transmission for UL	6580	available	2018-01-12 04:59:16	2018-01-13 02:41:31														
R1-1800659	Remaining Issues on CSI reporting	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			30	7.2.2.2	CSI reporting	6590	available	2018-01-12 04:59:16	2018-01-13 06:15:22														
R1-1800660	Remaining issues on beam indication	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			31	7.2.2.3	Beam measurement and reporting	6600	available	2018-01-12 04:59:16	2018-01-13 06:15:22														
R1-1800661	Remaining issues on beam recovery	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			32	7.2.2.4	Mechanism to recover from beam failure	6610	available	2018-01-12 04:59:16	2018-01-13 06:15:22														
R1-1800662	Remaining issues on CQI and MCS	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			33	7.2.2.5	CQI and MCS	6620	available	2018-01-12 04:59:16	2018-01-13 06:15:22														
R1-1800663	On Type II codebook enhancement	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			34	7.2.2.6	Other	6630	available	2018-01-12 04:59:16	2018-01-13 06:15:22														
R1-1800664	System level performance investigation on beam reporting	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			34	7.2.2.6	Other	6640	available	2018-01-12 04:59:16	2018-01-13 06:15:22														
R1-1800665	Remaining issues on CSI-RS	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			37	7.2.3.2	CSI-RS	6650	available	2018-01-12 04:59:16	2018-01-13 06:15:22														
R1-1800666	Remaining details on DM-RS	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			38	7.2.3.3	DMRS	6660	available	2018-01-12 04:59:16	2018-01-13 06:15:22														
R1-1800667	Remaining details on PT-RS	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			39	7.2.3.4	PT-RS	6670	available	2018-01-12 04:59:16	2018-01-13 06:15:22														
R1-1800668	Remaining issues on TRS	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			41	7.2.3.6	TRS	6680	available	2018-01-12 04:59:16	2018-01-13 06:15:22														
R1-1800669	On search space	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			48	7.3.1.2	Search space	6690	available	2018-01-12 04:59:16	2018-01-13 05:28:36														
R1-1800670	Remaining issues on group-common PDCCH	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			49	7.3.1.3	Group-common PDCCH	6700	available	2018-01-12 04:59:16	2018-01-13 05:28:36														
R1-1800671	DCI contents and formats	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			50	7.3.1.4	DCI contents and formats	6710	available	2018-01-12 04:59:16	2018-01-13 05:28:36														
R1-1800672	PUCCH structure in short-duration	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			53	7.3.2.1	PUCCH structure in short-duration	6720	available	2018-01-12 04:59:16	2018-01-13 05:28:36														
R1-1800673	PUCCH structure in long-duration	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			54	7.3.2.2	PUCCH structure in long-duration	6730	available	2018-01-12 04:59:16	2018-01-13 05:28:36														
R1-1800674	Resource allocation for PUCCH	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			56	7.3.2.4	Resource allocation for PUCCH	6740	available	2018-01-12 04:59:16	2018-01-13 05:28:36														
R1-1800675	DL/UL resource allocation	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			59	7.3.3.1	DL/UL resource allocation	6750	available	2018-01-12 04:59:16	2018-01-13 05:28:36														
R1-1800676	DL/UL scheduling and HARQ management	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			60	7.3.3.2	DL/UL scheduling and HARQ management	6760	available	2018-01-12 04:59:16	2018-01-13 05:28:36														
R1-1800677	UL data transmission procedure	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			62	7.3.3.4	UL data transmission procedure	6770	available	2018-01-12 04:59:16	2018-01-13 05:28:36														
R1-1800678	Soft-buffer management for NR	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			63	7.3.3.5	Soft-buffer management for NR	6780	available	2018-01-12 04:59:16	2018-01-13 05:28:36														
R1-1800679	Multiplexing data with different transmission durations	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			64	7.3.3.6	Multiplexing data with different transmission durations	6790	available	2018-01-12 04:59:16	2018-01-13 05:28:36														
R1-1800680	Other aspects on bandwidth Parts	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision			67	7.3.4.1	Other aspects on bandwidth Parts	6800	available	2018-01-12 04:59:16	2018-01-13 05:28:36														

R1-1800681	Description of CRC initialization	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision	74	7.4.2.1	Downlink control	6810	available	2018-01-12 04:59:16	2018-01-13 05:28:36			
R1-1800682	Remaining issues on PHR	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision	80	7.6.1	NR UL power control - non-CA aspects	6820	available	2018-01-12 04:59:16	2018-01-13 02:41:31			
R1-1800683	Remaining issues on DC power control	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision	80	7.6.1	NR UL power control - non-CA aspects	6830	available	2018-01-12 04:59:16	2018-01-13 02:41:31			
R1-1800684	Views on Rel-15 NR UE feature list	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision	84	7.8	UE features	6840	available	2018-01-12 04:59:16	2018-01-13 03:09:54			
R1-1800685	Consideration on NOMA study item in Rel-15	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision	85	7.9	Other	6850	available	2018-01-12 04:59:16	2018-01-12 09:52:26			
R1-1800686	NOMA scheme with user grouping	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision	85	7.9	Other	6860	available	2018-01-12 04:59:16	2018-01-12 09:52:26			
R1-1800687	Evaluations for Optimizing Tilting angles for ITU Self-Evaluation	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision	85	7.9	Other	6870	available	2018-01-12 04:59:16	2018-01-12 09:52:26			
R1-1800688	Calibration Results for ITU Self-evaluation	NTT DOCOMO, INC.	Kazuaki Takeda	43136	discussion	Decision	85	7.9	Other	6880	available	2018-01-12 04:59:16	2018-01-12 09:52:26			
R1-1800689	Correction on CW mapping and data scrambling	Ericsson	Stephen Grant	65572	discussion	Decision	23	7.2.1.1	Codeword mapping	6890	available	2018-01-12 05:17:42	2018-01-13 06:54:39			
R1-1800690	Corrections for Codebook Based UL MIMO	Ericsson	Stephen Grant	65572	discussion	Decision	24	7.2.1.2	Codebook based transmission for UL	6900	available	2018-01-12 05:17:42	2018-01-13 06:54:39			
R1-1800691	Corrections for Non-Codebook Based UL MIMO	Ericsson	Stephen Grant	65572	discussion	Decision	25	7.2.1.3	Non-codebook based transmission for UL	6910	noted	2018-01-12 05:17:42	2018-01-13 06:54:39			
R1-1800692	Extension of PRB bundling for DL	Ericsson	Stephen Grant	65572	discussion	Decision	26	7.2.1.4	PRB bundling for DL	6920	available	2018-01-12 05:17:42	2018-01-13 06:54:39			
R1-1800693	Corrections for CSI framework and measurement	Ericsson	Stephen Grant	65572	discussion	Decision	29	7.2.2.1	CSI measurement	6930	available	2018-01-12 05:17:42	2018-01-13 06:54:39			
R1-1800694	On rate matching using ZP CSI-RS and CSI-IM	Ericsson	Stephen Grant	65572	discussion	Decision	29	7.2.2.1	CSI measurement	6940	available	2018-01-12 05:17:42	2018-01-13 06:54:39			
R1-1800695	Clarifying interference measurements	Ericsson	Stephen Grant	65572	discussion	Decision	29	7.2.2.1	CSI measurement	6950	available	2018-01-12 05:17:42	2018-01-13 06:54:39			
R1-1800696	On activation and deactivation of semi-persistent CSI on PUSCH	Ericsson	Stephen Grant	65572	discussion	Decision	30	7.2.2.2	CSI reporting	6960	available	2018-01-12 05:17:42	2018-01-13 06:54:39			
R1-1800697	Corrections for CSI reporting	Ericsson	Stephen Grant	65572	discussion	Decision	30	7.2.2.2	CSI reporting	6970	available	2018-01-12 05:17:42	2018-01-13 06:54:39			
R1-1800698	UE CSI Reporting Capability	Ericsson	Stephen Grant	65572	discussion	Decision	30	7.2.2.2	CSI reporting	6980	available	2018-01-12 05:17:42	2018-01-13 06:54:39	R1-1720718		
R1-1800699	Remaining details on beam management	Ericsson	Stephen Grant	65572	discussion	Decision	31	7.2.2.3	Beam measurement and reporting	6990	available	2018-01-12 05:17:42	2018-01-13 06:54:39			
R1-1800700	Remaining details and corrections on beam recovery	Ericsson	Stephen Grant	65572	discussion	Decision	32	7.2.2.4	Mechanism to recover from beam failure	7000	available	2018-01-12 05:17:42	2018-01-13 06:54:39			
R1-1800701	Corrections for CQI and MCS	Ericsson	Stephen Grant	65572	discussion	Decision	33	7.2.2.5	CQI and MCS	7010	noted	2018-01-12 05:17:42	2018-01-13 06:54:39			
R1-1800702	Multi-cell beam recovery	Ericsson	Stephen Grant	65572	discussion	Decision	34	7.2.2.6	Other	7020	available	2018-01-12 05:17:42	2018-01-13 06:54:39	R1-1720719		
R1-1800703	Beam management in C-DRX	Ericsson	Stephen Grant	65572	discussion	Decision	34	7.2.2.6	Other	7030	available	2018-01-12 05:17:42	2018-01-13 06:54:39	R1-1720720		
R1-1800704	Corrections related to RS multiplexing	Ericsson	Stephen Grant	65572	discussion	Decision	36	7.2.3.1	Multiplexing of different types of RSs	7040	withdrawn	2018-01-12 05:17:42				
R1-1800705	Corrections related to CSI-RS	Ericsson	Stephen Grant	65572	discussion	Decision	37	7.2.3.2	CSI-RS	7050	available	2018-01-12 05:17:42	2018-01-13 06:54:39			
R1-1800706	Corrections related to DMRS	Ericsson	Stephen Grant	65572	discussion	Decision	38	7.2.3.3	DMRS	7060	available	2018-01-12 05:17:42	2018-01-13 06:54:39			
R1-1800707	Corrections related to PT-RS	Ericsson	Stephen Grant	65572	discussion	Decision	39	7.2.3.4	PT-RS	7070	available	2018-01-12 05:17:42	2018-01-13 06:54:39			
R1-1800708	Corrections related to SRS	Ericsson	Stephen Grant	65572	discussion	Decision	40	7.2.3.5	SRS	7080	available	2018-01-12 05:17:42	2018-01-13 06:54:39			
R1-1800709	Corrections related to TRS	Ericsson	Stephen Grant	65572	discussion	Decision	41	7.2.3.6	TRS	7090	available	2018-01-12 05:17:42	2018-01-13 06:54:39			
R1-1800710	Corrections related to QCL	Ericsson	Stephen Grant	65572	discussion	Decision	42	7.2.3.7	QCL	7100	available	2018-01-12 05:17:42	2018-01-13 06:54:39			
R1-1800711	On correlation of subsampled Gold sequences	Ericsson	Stephen Grant	65572	discussion	Decision	43	7.2.3.8	Other	7110	available	2018-01-12 05:17:42	2018-01-13 06:54:39			
R1-1800712	On UE TX frequency accuracy with TRS based synchronization	Ericsson	Stephen Grant	65572	discussion	Decision	43	7.2.3.8	Other	7120	available	2018-01-12 05:17:42	2018-01-13 06:54:39			
R1-1800713	Further evaluations for PT-RS	Ericsson	Stephen Grant	65572	discussion	Decision	43	7.2.3.8	Other	7130	available	2018-01-12 05:17:42	2018-01-13 06:54:39			
R1-1800714	Type 1 mapping of pi/2 BPSK DFTS DMRS	Ericsson	Stephen Grant	65572	discussion	Decision	43	7.2.3.8	Other	7140	available	2018-01-12 05:17:42	2018-01-13 06:54:39			
R1-1800715	NR UE Feature List	Ericsson	Stephen Grant	65572	discussion	Decision	84	7.8	UE features	7150	revised	2018-01-12 05:17:42	2018-01-13 06:54:39		R1-1801013	
R1-1800716	Candidate spectrum for NR unlicensed operation	Ericsson	Stephen Grant	65572	discussion	Decision	85	7.9	Other	7160	available	2018-01-12 05:17:42	2018-01-13 06:54:39			
R1-1800717	On NR-U Deployment Scenarios	Ericsson	Stephen Grant	65572	discussion	Decision	85	7.9	Other	7170	available	2018-01-12 05:17:42	2018-01-13 06:54:39			
R1-1800718	NR-U evaluation methodology	Ericsson	Stephen Grant	65572	discussion	Decision	85	7.9	Other	7180	available	2018-01-12 05:17:42	2018-01-13 06:54:39			
R1-1800719	Discussion of Multi-Antenna and Highly Directional Beam-Forming for Operation in Unlicensed Spectrum	Ericsson	Stephen Grant	65572	discussion	Decision	85	7.9	Other	7190	available	2018-01-12 05:17:42	2018-01-13 06:54:39	R1-1713984		
R1-1800720	On Autonomous UL Transmissions for NR in Unlicensed Spectrum	Ericsson	Stephen Grant	65572	discussion	Decision	85	7.9	Other	7200	available	2018-01-12 05:17:42	2018-01-13 06:54:39	R1-1713985		
R1-1800721	On Channel Access Mechanisms for NR in Unlicensed Spectrum	Ericsson	Stephen Grant	65572	discussion	Decision	85	7.9	Other	7210	available	2018-01-12 05:17:42	2018-01-13 06:54:39	R1-1713986		
R1-1800722	On NR Operation in the 60 GHz Unlicensed Band	Ericsson	Stephen Grant	65572	discussion	Decision	85	7.9	Other	7220	available	2018-01-12 05:17:42	2018-01-13 06:54:39	R1-1713987		
R1-1800723	On Physical Layer Design Policies for Unlicensed Operation of NR	Ericsson	Stephen Grant	65572	discussion	Decision	85	7.9	Other	7230	available	2018-01-12 05:17:42	2018-01-13 06:54:39	R1-1713988		
R1-1800724	Technology Components for Unlicensed Operation	Ericsson	Stephen Grant	65572	discussion	Decision	85	7.9	Other	7240	available	2018-01-12 05:17:42	2018-01-13 06:54:39	R1-1713989		
R1-1800725	Collection of corrections on PUCCH in TS 38.211/212/213	Intel Corporation	Seunghee Han	47329	discussion	Decision	52	7.3.2	Physical uplink control channel	7250	available	2018-01-12 05:40:52	2018-01-13 07:05:46			Rel-15
R1-1800726	Remaining details for NR paging	Motorola Mobility, Lenovo	Vijay Nangia	34148	discussion		13	7.1.3	Paging design	7260	available	2018-01-12 05:41:41	2018-01-13 07:03:17			
R1-1800727	Physical channel design for 2-step RACH	Motorola Mobility, Lenovo	Vijay Nangia	34148	discussion		15	7.1.4.1	PRACH formats	7270	available	2018-01-12 05:41:41	2018-01-13 07:03:17	R1-1700880		
R1-1800728	Remaining details on random access procedure	Motorola Mobility, Lenovo	Vijay Nangia	34148	discussion		16	7.1.4.2	RACH procedure	7280	available	2018-01-12 05:41:41	2018-01-13 07:44:42			
R1-1800729	Radio link monitoring and beam recovery	Motorola Mobility, Lenovo	Vijay Nangia	34148	discussion		19	7.1.5.2	Radio link monitoring for mobility management	7290	available	2018-01-12 05:41:41	2018-01-13 07:03:17	R1-1716640		
R1-1800730	Discussion on higher rank Type II codebook and feedbac overhead reduction	Motorola Mobility, Lenovo	Vijay Nangia	34148	discussion		34	7.2.2.6	Other	7300	available	2018-01-12 05:41:41	2018-01-13 05:57:48	R1-1720924		
R1-1800731	Multiplexing of uplink channels with different transmission durations	Motorola Mobility, Lenovo	Vijay Nangia	34148	discussion		64	7.3.3.6	Multiplexing data with different transmission durations	7310	available	2018-01-12 05:41:41	2018-01-13 07:03:17	R1-1720927		
R1-1800732	Remaining details on non-CA NR UL power control	Motorola Mobility, Lenovo	Vijay Nangia	34148	discussion		80	7.6.1	NR UL power control - non-CA aspects	7320	available	2018-01-12 05:41:41	2018-01-13 07:13:03	R1-1720928		
R1-1800733	Remaining details on CA-related NR UL power control	Motorola Mobility, Lenovo	Vijay Nangia	34148	discussion		81	7.6.2	NR UL power control – CA aspects	7330	available	2018-01-12 05:41:41	2018-01-13 07:44:42	R1-1720929		
R1-1800734	Remaining issues on beam management	InterDigital, Inc.	Shahrokh Nayeb Nazar	72080	discussion		31	7.2.2.3	Beam measurement and reporting	7340	available	2018-01-12 05:43:45	2018-01-13 03:44:26			
R1-1800735	NR on Unlicensed Band with Flexible Starting and Ending Points	Shenzhen Coolpad Technologies	Mingju Li	60196	discussion		85	7.9	Other	7350	available	2018-01-12 05:48:53	2018-01-12 07:58:26			
R1-1800736	LBT for NR on Unlicensed Band	Shenzhen Coolpad Technologies	Mingju Li	60196	discussion		85	7.9	Other	7360	available	2018-01-12 05:50:24	2018-01-12 07:58:26			
R1-1800737	Comments on the UE behaviours regarding slot configuration in TS38.213	Nokia, Nokia Shanghai Bell	Sigen Ye	45768	discussion	Decision	49	7.3.1.3	Group-common PDCCH	7370	available	2018-01-12 06:50:57	2018-01-13 02:09:35			
R1-1800738	Corrections on LDPC coding	ZTE, Sanechips	Huaming Wu	58331	discussion	Decision	72	7.4.1	LDPC coding	7380	revised	2018-01-12 06:51:42	2018-01-13 01:16:24		R1-1801015	
R1-1800739	Corrections on Polar coding	ZTE, Sanechips	Huaming Wu	58331	discussion	Decision	73	7.4.2	Polar coding	7390	revised	2018-01-12 06:51:42	2018-01-13 01:16:24		R1-1801016	
R1-1800740	Corrections on uplink control	ZTE, Sanechips	Huaming Wu	58331	discussion	Decision	75	7.4.2.2	Uplink control	7400	revised	2018-01-12 06:51:42	2018-01-13 01:16:24		R1-1801017	
R1-1800741	Corrections on PBCH	ZTE, Sanechips	Huaming Wu	58331	discussion	Decision	76	7.4.2.3	PBCH	7410	available	2018-01-12 06:51:42	2018-01-13 01:16:24			
R1-1800742	CQI and MCS design for URLLC	ZTE, Sanechips	Huaming Wu	58331	discussion	Decision	72	7.4.1	LDPC coding	7420	available	2018-01-12 06:51:42	2018-01-13 01:16:24			
R1-1800743	Text proposals for LDPC coding	Huawei Technologies Co. Ltd.	Carmela Cozzo	55181	discussion		72	7.4.1	LDPC coding	7430	available	2018-01-12 06:58:37	2018-01-13 06:34:53			
R1-1800744	Remaining details for CSI reporting on PUCCH	Nokia, Nokia Shanghai Bell	Timo Lunttila	69949	discussion	Decision	30	7.2.2.2	CSI reporting	7440	available	2018-01-12 06:59:52	2018-01-12 21:49:17			
R1-1800745	Remaining aspects of NR CA	Nokia, Nokia Shanghai Bell	Timo Lunttila	69949	discussion	Decision	68	7.3.4.2	Other aspects on carrier aggregation	7450	available	2018-01-12 07:04:37	2018-01-12 21:49:17			
R1-1800746	[DRAFT] Reply LS to RAN2 on MAC CEs for beam management and CSI	Intel Corporation	Seunghee Han	47329	discussion		4	5	Incoming Liaison Statements	7460	available	2018-01-12 08:08:27	2018-01-13 07:26:40			
R1-1800747	Remaining issues on polar code sizes	Samsung	Youngbum Kim	39963	other		77	7.4.2.4	Other	7470	available	2018-01-12 08:09:51	2018-01-12 14:56:42			
R1-1800748	Remaining issues on UL Codebook Based Transmission	Nokia, Nokia Shanghai Bell	Mihai Enescu	68296	discussion	Decision	24	7.2.1.2	Codebook based transmission for UL	7480	available	2018-01-12 08:14:54	2018-01-13 04:49:31			
R1-1800749	Remaining issues on Non-codebook based UL-MIMO transmission	Nokia, Nokia Shanghai Bell	Mihai Enescu	68296	discussion	Decision	25	7.2.1.3	Non-codebook based transmission for UL	7490	available	2018-01-12 08:14:54	2018-01-13 04:49:31			
R1-1800750	On remaining issues on PRB bundling	Nokia, Nokia Shanghai Bell	Mihai Enescu	68296	discussion	Decision	26	7.2.1.4	PRB bundling for DL	7500	available	2018-01-12 08:14:54	2018-01-13 04:49:31			
R1-1800751	Remaining details on beam measurement and reporting	Nokia, Nokia Shanghai Bell	Mihai Enescu	68296	discussion	Decision	31	7.2.2.3	Beam measurement and reporting	7510	available	2018-01-12 08:14:54	2018-01-13 04:49:31			
R1-1800752	Remaining Details on Beam Recovery	Nokia, Nokia Shanghai Bell	Mihai Enescu	68296	discussion	Decision	32	7.2.2.4	Mechanism to recover from beam failure	7520	available	2018-01-12 08:14:54	2018-01-13 04:49:31			
R1-1800753	Remaining details of CQI and MCS	Nokia, Nokia Shanghai Bell	Mihai Enescu	68296	discussion	Decision	33	7.2.2.5	CQI and MCS	7530	available	2018-01-12 08:14:54	2018-01-13 04:49:31			
R1-1800754	Remaining details for Type I and Type II CSI reporting	Nokia, Nokia Shanghai Bell	Mihai Enescu	68296	discussion	Decision	34	7.2.2.6	Other	7540	available	2018-01-12 08:14:54	2018-01-13 04:49:31			
R1-1800755	Remaining issues on CSI-RS design	Nokia, Nokia Shanghai Bell	Mihai Enescu	68296	discussion	Decision	37	7.2.3.2	CSI-RS	7550	available	2018-01-12 08:14:54	2018-01-13 04:49:31			

R1-1800756	On remaining issues of DM-RS for NR physical data channels	Nokia, Nokia Shanghai Bell	Mihai Enescu	68296	discussion	Decision			38	7.2.3.3	DMRS	7560	available	2018-01-12 08:14:54	2018-01-13 04:49:31														
R1-1800757	On remaining details of PT-RS design	Nokia, Nokia Shanghai Bell	Mihai Enescu	68296	discussion	Decision			39	7.2.3.4	PT-RS	7570	available	2018-01-12 08:14:55	2018-01-13 04:49:31														
R1-1800758	Remaining details on SRS design in NR	Nokia, Nokia Shanghai Bell	Mihai Enescu	68296	discussion	Decision			40	7.2.3.5	SRS	7580	available	2018-01-12 08:14:55	2018-01-13 04:49:31														
R1-1800759	Remaining details of TRS design	Nokia, Nokia Shanghai Bell	Mihai Enescu	68296	discussion	Decision			41	7.2.3.6	TRS	7590	available	2018-01-12 08:14:55	2018-01-13 04:49:31														
R1-1800760	Text Proposal for Frame structure and physical resources	CATR	Huiying Jiao	42098	other	Discussion			85	7.9	Other	7600	available	2018-01-12 08:19:04	2018-01-12 08:27:23														
R1-1800761	UCI reporting in physical uplink shared channel	CATR	Huiying Jiao	42098	other	Discussion			55	7.3.2.3	UCI multiplexing	7610	available	2018-01-12 08:19:04	2018-01-12 08:27:23														
R1-1800762	UE procedure for reporting control information	CATR	Huiying Jiao	42098	other	Discussion			60	7.3.3.2	DL/UL scheduling and HARQ management	7620	available	2018-01-12 08:19:04	2018-01-12 08:27:23														
R1-1800763	Discussion on the remaining details of time domain allocation	CATR	Huiying Jiao	42098	other	Discussion			59	7.3.3.1	DL/UL resource allocation	7630	available	2018-01-12 08:19:04	2018-01-12 08:27:23														
R1-1800764	Consideration on DL control signalling for CA with different numerologies	CATR	Huiying Jiao	42098	other	Discussion			68	7.3.4.2	Other aspects on carrier aggregation	7640	available	2018-01-12 08:19:04	2018-01-12 08:27:23														
R1-1800765	UL multiplexing for eMBB and URLLC	CATR	Huiying Jiao	42098	other	Discussion			70	7.3.6	Other	7650	available	2018-01-12 08:19:04	2018-01-12 08:27:24														
R1-1800766	Discussion on GC PDCCH	ASUSTEK COMPUTER (SHANGHAI)	Denny Huang	65852	discussion				49	7.3.1.3	Group-common PDCCH	7660	available	2018-01-12 08:21:29	2018-01-12 08:26:48	R1-1720855													
R1-1800767	Discussion on data scheduling	ASUSTEK COMPUTER (SHANGHAI)	Denny Huang	65852	discussion				59	7.3.3.1	DL/UL resource allocation	7670	available	2018-01-12 08:24:16	2018-01-12 08:26:48	R1-1720854													
R1-1800768	Further clarification on NR power control framework	Nokia, Nokia Shanghai Bell	Dan Park	66404	discussion	Decision			80	7.6.1	NR UL power control - non-CA aspects	7680	available	2018-01-12 08:25:25	2018-01-12 16:41:02			Rel-15											
R1-1800769	Remaining issues on HARQ-ACK bundling	Guangdong OPPO Mobile Telecom.	Zuomin Wu	75609	discussion	Decision			60	7.3.3.2	DL/UL scheduling and HARQ management	7690	available	2018-01-12 08:27:53	2018-01-12 10:35:22														
R1-1800770	Initial Consideration on UMi calibration for user experienc data rate in the multi-layer network deployment	ZTE, Sanechips	Xi MENG	75724	discussion				85	7.9	Other	7700	available	2018-01-12 08:28:07	2018-01-12 16:52:08			Rel-15											
R1-1800771	Remaining issues on DMRS after Rel-15 Dec. specifications	ITL	Sung Jun Yoon	58632	other				38	7.2.3.3	DMRS	7710	available	2018-01-12 08:40:07	2018-01-13 06:43:36														
R1-1800772	Editorial corrections to 38.211	CATT	Teng Ma	67340	discussion	Decision			44	7.2.4	Other	7720	available	2018-01-12 08:46:17	2018-01-13 06:02:59														
R1-1800773	Editorial corrections to 38.212	CATT	Teng Ma	67340	discussion	Decision			44	7.2.4	Other	7730	available	2018-01-12 08:49:31	2018-01-13 06:02:59														
R1-1800774	Editorial corrections to 38.214	CATT	Teng Ma	67340	discussion	Decision			44	7.2.4	Other	7740	available	2018-01-12 08:50:39	2018-01-13 06:02:59														
R1-1800775	Discussion on beam management and CSI	CATT	Teng Ma	67340	discussion	Decision			4	5	Incoming Liaison Statements	7750	available	2018-01-12 09:00:57	2018-01-13 06:02:59														
R1-1800776	Draft response to RAN2 on beam management and CSI	CATT	Teng Ma	67340	LS out	Decision			4	5	Incoming Liaison Statements	7760	available	2018-01-12 09:02:12	2018-01-13 06:02:59												RAN2		
R1-1800777	Correction of CRC initialization	Nokia, Nokia Shanghai Bell	Keeth Jayasinghe	64118	discussion	Decision			74	7.4.2.1	Downlink control	7770	noted	2018-01-12 09:02:34	2018-01-12 17:28:10		R1-1801112												
R1-1800778	Draft CR 36.214 Inter-RAT measurements of NR	Ericsson	Asbjorn Grovlen	45069	draftCR	Decision	Introduction of measurement of NR to LTE specification	Endorsed in principle	6	7	Maintenance of NR - WID in RP-172834	7780	endorsed	2018-01-12 09:20:50	2018-01-12 21:51:38			Rel-15	36.214	15.0.0	NR_newRAT-Core			B					
R1-1800779	NTN-NR update on Link budget analysis	THALES	Nicolas Chuberre	21633	discussion	Discussion	Link budget analysis has been completed for the other deployment scenarios		85	7.9	Other	7790	available	2018-01-12 09:30:28	2018-01-12 09:55:37			Rel-15	38.811										
R1-1800780	UE behaviour when direction confliction between UL GF and dynamic SFI	Xiaomi Communications	Qun Zhao	73279	discussion	Decision			62	7.3.3.4	UL data transmission procedure	7800	available	2018-01-12 09:32:21	2018-01-12 09:46:16														
R1-1800781	NTN-NR update on spectrum_L band GEO	THALES	Nicolas Chuberre	21633	discussion	Information	Addition of L band spectrum for GEO satellite		85	7.9	Other	7810	available	2018-01-12 09:36:39	2018-01-12 09:48:24			Rel-15	38.811										
R1-1800782	NTN-NR update on spectrum_Ka band HAPS	THALES	Nicolas Chuberre	21633	discussion	Information	Adding Ka band spectrum for HAPS system		85	7.9	Other	7820	available	2018-01-12 09:39:15	2018-01-12 09:48:38			Rel-15	38.811										
R1-1800783	Discussion on the remaining issues for dynamic SFI	Xiaomi Communications	Yajun Zhu	71337	discussion				49	7.3.1.3	Group-common PDCCH	7830	available	2018-01-12 09:45:10	2018-01-12 10:41:33														
R1-1800784	Control of UE beamforming in RRC_CONNECTED	ASUSTEK COMPUTER (SHANGHAI)	Eddie Lin	40159	discussion				27	7.2.1.5	Other	7840	available	2018-01-12 09:53:38	2018-01-12 10:09:41	R1-1719963													
R1-1800785	Text proposal for search space in 38.213	Potevio	Ying Zhao	72815	discussion				48	7.3.1.2	Search space	7850	available	2018-01-12 10:13:14	2018-01-12 10:17:37														
R1-1800786	Remaining issues on long PUCCH over multiple slots	WILUS Inc.	Minseok Noh	62848	discussion	Decision			54	7.3.2.2	PUCCH structure in long-duration	7860	available	2018-01-12 10:26:52	2018-01-13 06:49:58			Rel-15											
R1-1800787	Remaining issues on group-common PDCCH	WILUS Inc.	Minseok Noh	62848	discussion	Decision			49	7.3.1.3	Group-common PDCCH	7870	available	2018-01-12 10:26:52	2018-01-13 06:49:58			Rel-15											
R1-1800788	Remaining issues on DL/UL resource allocation	WILUS Inc.	Minseok Noh	62848	discussion	Decision			59	7.3.3.1	DL/UL resource allocation	7880	available	2018-01-12 10:26:52	2018-01-13 06:49:58			Rel-15											
R1-1800789	Remaining issues on multiplexing data with different duration	WILUS Inc.	Minseok Noh	62848	discussion	Decision			64	7.3.3.6	Multiplexing data with different transmission durations	7890	available	2018-01-12 10:26:52	2018-01-13 06:49:58			Rel-15											
R1-1800790	UCI multiplexing considering URLLC data in PUSCH	WILUS Inc.	Minseok Noh	62848	discussion	Discussion			65	7.3.3.7	Other	7900	withdrawn	2018-01-12 10:26:52				Rel-15											
R1-1800791	Remaining issues on the CBG based transmission	KT Corp.	Kyu Jin Park	58528	discussion	Decision			61	7.3.3.3	CBG-based (re)transmission	7910	available	2018-01-12 10:36:37	2018-01-12 10:49:11														
R1-1800792	On remaining details of DL DMRS design	KT Corp.	Kyu Jin Park	58528	discussion	Decision		Late contribution	38	7.2.3.3	DMRS	7920	available	2018-01-12 10:38:46	2018-01-17 07:51:47														
R1-1800793	Considerations on multilexing of UL data with different transmission durations	KT Corp.	Kyu Jin Park	58528	discussion	Decision		Late contribution	64	7.3.3.6	Multiplexing data with different transmission durations	7930	available	2018-01-12 10:43:58	2018-01-17 07:51:47														
R1-1800794	Draft CR to 38.211	Ericsson LM	Stefan Parkvall	28759	draftCR			Endorsed in principle - for further consolidation with other TPs	6	7	Maintenance of NR - WID in RP-172834	7940	endorsed	2018-01-12 11:01:54	2018-01-20 08:29:42			Rel-15	38.211	15.0.0	NR_newRAT			F					
R1-1800795	On VRB-to-PRB mapping	Nanjing Ericsson Panda Com Ltd	Erik Dahlman	23366	discussion	Decision			67	7.3.4.1	Other aspects on bandwidth Parts	7950	available	2018-01-12 12:15:54	2018-01-12 21:17:50														
R1-1800796	Proposed updates to TS38.213 on bandwidth parts	Nanjing Ericsson Panda Com Ltd	Erik Dahlman	23366	discussion	Decision		Late contribution	67	7.3.4.1	Other aspects on bandwidth Parts	7960	withdrawn	2018-01-12 12:17:19															
R1-1800797	HARQ-ACK codebook for carrier aggregation	Sequans Communications	GUANG LIU	64119	discussion				68	7.3.4.2	Other aspects on carrier aggregation	7970	available	2018-01-12 13:06:00	2018-01-12 15:44:46														
R1-1800798	On reliable PDCCH for URLLC	Sequans Communications	Efstathios Katranaras	64062	discussion				51	7.3.1.5	Other	7980	available	2018-01-12 13:14:00	2018-01-13 01:44:26														
R1-1800799	Remaining issue on the SSB Bitmap in Group indication	Xiaomi Technology	Yang Liu	66714	discussion	Decision		Late contribution	8	7.1.1	Synchronization signal	7990	withdrawn	2018-01-12 13:22:37															
R1-1800800	Remaining issue on the SSB Bitmap in Group indication	Xiaomi Technology	Yang Liu	66714	discussion	Decision			8	7.1.1	Synchronization signal	8000	available	2018-01-12 13:22:45	2018-01-13 00:10:20														
R1-1800801	NTN-NR Channel model principles	THALES	Thibault Deleu	64070	other	Information			85	7.9	Other	8010	available	2018-01-12 13:35:24	2018-01-12 16:08:32			Rel-15											
R1-1800802	OFDM signal generation	Nokia, Nokia Shanghai Bell	Jorma Kaikkonen	70304	discussion	Approval			8	7.1.1	Synchronization signal	8020	available	2018-01-12 13:52:34	2018-01-12 20:51:51														
R1-1800803	Remaining details on NR-PBCH	Nokia, Nokia Shanghai Bell	Jorma Kaikkonen	70304	discussion	Approval			10	7.1.2.1	NR-PBCH	8030	available	2018-01-12 13:52:34	2018-01-12 20:52:07														
R1-1800804	On Remaining System Information Delivery	Nokia, Nokia Shanghai Bell	Jorma Kaikkonen	70304	discussion	Approval			11	7.1.2.2	Remaining minimum system information	8040	available	2018-01-12 13:52:34	2018-01-12 20:52:07														
R1-1800805	On Other System Information Delivery	Nokia, Nokia Shanghai Bell	Jorma Kaikkonen	70304	discussion	Approval			12	7.1.2.3	Other system information delivery	8050	available	2018-01-12 13:52:34	2018-01-12 20:52:41														
R1-1800806	Paging in NR	Nokia, Nokia Shanghai Bell	Jorma Kaikkonen	70304	discussion	Approval			13	7.1.3	Paging design	8060	available	2018-01-12 13:52:34	2018-01-12 20:52:41														
R1-1800807	Remaining details on mobility measurements	Nokia, Nokia Shanghai Bell	Jorma Kaikkonen	70304	discussion	Approval			18	7.1.5.1	Measurement for mobility management	8070	available	2018-01-12 13:52:34	2018-01-12 20:52:41														
R1-1800808	Remaining details on radio link monitoring	Nokia, Nokia Shanghai Bell	Jorma Kaikkonen	70304	discussion	Approval			19	7.1.5.2	Radio link monitoring for mobility management	8080	available	2018-01-12 13:52:34	2018-01-12 20:52:41														
R1-1800809	On multiplexing of DL data with different transmission durations	Sequans Communications	Efstathios Katranaras	64062	discussion				64	7.3.3.6	Multiplexing data with different transmission durations	8090	available	2018-01-12 13:52:45	2018-01-13 01:44:26	R1-1720911													
R1-1800810	TP for bandwidth part and wideband operation in TS38.213	Huawei, HiSilicon	Brian Classon	45750	other				70	7.3.6	Other	8100	available	2018-01-12 13:57:41	2018-01-13 03:30:44														
R1-1800811	Correction on power control of SRS for NR SUL in TS38.213	Huawei, HiSilicon	Brian Classon	45750	draftCR				82	7.6.3	Other	8110	withdrawn	2018-01-12 13:57:41				Rel-15	38.213	15.0.0	NR_newRAT-Core								
R1-1800812	TP for resource block and resource block grid for wideband operation in TS38.211	Huawei, HiSilicon	Brian Classon	45750	other				70	7.3.6	Other	8120	available	2018-01-12 13:57:41	2018-01-13 03:30:44														
R1-1800813	Correction on Power control for single uplink operation with Case 1 HARQ timing for EN-DC in TS38.213	Huawei, HiSilicon	Brian Classon	45750	draftCR				82	7.6.3	Other	8130	available	2018-01-12 13:57:41	2018-01-13 03:30:44			Rel-15	38.213	15.0.0	NR_newRAT-Core								
R1-1800814	TP on NR SRS triggering for SUL	Huawei, HiSilicon	Brian Classon	45750	other				43	7.2.3.8	Other	8140	available	2018-01-12 13:57:41	2018-01-13 03:30:44														
R1-1800815	Correction on UCI multiplexing between UL and SUL in TS38.213	Huawei, HiSilicon	Brian Classon	45750	draftCR				57	7.3.2.5	Other	8150	available	2018-01-12 13:57:41	2018-01-13 03:30:44			Rel-15	38.213	15.0.0	NR_newRAT-Core								
R1-1800816	Correction on multi-slot SFI configuration for FDD and SUL in TS38.213	Huawei, HiSilicon	Brian Classon	45750	draftCR				51	7.3.1.5	Other	8160	available	2018-01-12 13:57:42	2018-01-13 03:30:44			Rel-15	38.213	15.0.0	NR_newRAT-Core								
R1-1800817	Remaining issues and TP on interleaved CCE-to-REG mapping	Huawei, HiSilicon	Brian Classon	45750	other				51	7.3.1.5	Other	8170	noted	2018-01-12 13:57:42	2018-01-13 05:20:01														
R1-1800818	Correction on DMRS sequence initialization for PDCCH	Huawei, HiSilicon	Brian Classon	45750	draftCR				51	7.3.1.5	Other	8180	available	2018-01-12 13:57:42	2018-01-13 05:20:01			Rel-15	38.211	15.0.0	NR_newRAT-Core								
R1-1800819	Discussion and TP on mapping to physical resources for DMRS for PDCCH	Huawei, HiSilicon	Brian Classon	45750	other				51	7.3.1.5	Other	8190	available	2018-01-12 13:57:42	2018-01-13 05:20:01														
R1-1800820	Solutions for reducing channel estimation complexity for PDCCH	Huawei, HiSilicon	Brian Classon	45750	other				51	7.3.1.5	Other	8200	available	2018-01-12 13:57:42	2018-01-13 05:20:01														
R1-1800821	Remaining issues on UE PDCCH capability	Huawei, HiSilicon	Brian Classon	45750	other				51	7.3.1.5	Other	8210	available	2018-01-12 13:57:42	2018-01-13 05:20:01														
R1-1800822	Discussion and TP on CORESET and search space configuration	Huawei, HiSilicon	Brian Classon	45750	other				51	7.3.1.5	Other	8220	available	2018-01-12 13:57:42	2018-01-13 05:20:01														
R1-1800823	Correction on CORESET configuration in 38.213	Huawei, HiSilicon	Brian Classon	45750	draftCR				51	7.3.1.5	Other	8230	available	2018-01-12 13:57:42	2018-01-13 05:20:01			Rel-15	38.213	15.0.0	NR_newRAT-Core								
R1-1800824	Solutions and TP for multi-TRP PDCCH transmission	Huawei, HiSilicon	Brian Classon	45750	other				51	7.3.1.5	Other	8240	available	2018-01-12 13:57:42	2018-01-13 05:20:01														
R1-1800825	Correction on the bits of DCI fields in 38.212	Huawei, HiSilicon	Brian Classon	45750	draftCR				51	7.3.1.5	Other	8250	available	2018-01-12 13:57:42	2018-01-13 05:20:01			Rel-15	38.212	15.0.0	NR_newRAT-Core								
R1-1800826	Discussion and TP on effective range of dynamic SFI	Huawei, HiSilicon	Brian Classon	45750	other				51	7.3.1.5	Other	8260	available	2018-01-12 13:57:42	2018-01-13 05:20:01														

R1-1800827	Multiplexing of SR and HARQ-ACK with TP	Huawei, HiSilicon	Brian Classon	45750	other				57	7.3.2.5	Other	8270	available	2018-01-12 13:57:42	2018-01-13 05:20:01														
R1-1800828	Remaining issues and TP on resource allocation for PUCCH	Huawei, HiSilicon	Brian Classon	45750	other				57	7.3.2.5	Other	8280	available	2018-01-12 13:57:42	2018-01-13 05:20:01														
R1-1800829	Aperiodic CSI feedback on PUCCH in NR	Huawei, HiSilicon	Brian Classon	45750	other				57	7.3.2.5	Other	8290	available	2018-01-12 13:57:42	2018-01-13 05:20:01														
R1-1800830	Correction on PUCCH multiplexing in 38.213	Huawei, HiSilicon	Brian Classon	45750	draftCR				57	7.3.2.5	Other	8300	available	2018-01-12 13:57:42	2018-01-13 05:20:01			Rel-15	38.213	15.0.0	NR_newRAT-Core								
R1-1800831	Correction on UCI repetition procedure in 38.213	Huawei, HiSilicon	Brian Classon	45750	draftCR				57	7.3.2.5	Other	8310	available	2018-01-12 13:57:42	2018-01-13 05:20:01			Rel-15	38.213	15.0.0	NR_newRAT-Core								
R1-1800832	Draft CR on hopping boundary for PUCCH format 1, 3 & 4	Huawei, HiSilicon	Brian Classon	45750	draftCR				57	7.3.2.5	Other	8320	available	2018-01-12 13:57:42	2018-01-13 05:20:01			Rel-15	38.211	15.0.0	NR_newRAT-Core								
R1-1800833	UCI piggyback on PUSCH	Huawei, HiSilicon	Brian Classon	45750	other				57	7.3.2.5	Other	8330	available	2018-01-12 13:57:42	2018-01-13 06:09:36														
R1-1800834	Correction on DMRS sequence initialization for PUCCH format 2	Huawei, HiSilicon	Brian Classon	45750	draftCR				57	7.3.2.5	Other	8340	available	2018-01-12 13:57:42	2018-01-13 05:20:01			Rel-15	38.211	15.0.0	NR_newRAT-Core								
R1-1800835	Draft CR on Type-1 HARQ-ACK codebook determination for NR	Huawei, HiSilicon	Brian Classon	45750	draftCR				65	7.3.3.7	Other	8350	available	2018-01-12 13:57:42	2018-01-13 05:20:01			Rel-15	38.213	15.0.0	NR_newRAT-Core								
R1-1800836	TP on UL data transmission procedure	Huawei, HiSilicon	Brian Classon	45750	draftCR				65	7.3.3.7	Other	8360	available	2018-01-12 13:57:42	2018-01-13 03:30:44			Rel-15	38.214	15.0.0	NR_newRAT-Core								
R1-1800837	Correction on DMRS mapping for non-slot-based scheduling	Huawei, HiSilicon	Brian Classon	45750	draftCR				43	7.2.3.8	Other	8370	available	2018-01-12 13:57:42	2018-01-13 03:30:44			Rel-15	38.211	15.0.0	NR_newRAT-Core								
R1-1800838	Remaining issues on SFI with TP	Huawei, HiSilicon	Brian Classon	45750	other				51	7.3.1.5	Other	8380	available	2018-01-12 13:57:42	2018-01-13 03:30:44														
R1-1800839	Corrections on Slot configuration in TS 38.213	Huawei, HiSilicon	Brian Classon	45750	draftCR				51	7.3.1.5	Other	8390	available	2018-01-12 13:57:42	2018-01-13 05:18:11			Rel-15	38.213	15.0.0	NR_newRAT-Core								
R1-1800840	Number of PRBs for PUCCH format 2 and PUCCH format 3	Huawei, HiSilicon	Brian Classon	45750	other				57	7.3.2.5	Other	8400	available	2018-01-12 13:57:42	2018-01-13 05:20:01														
R1-1800841	Correction on PUCCH resource sets for PUCCH format 4	Huawei, HiSilicon	Brian Classon	45750	draftCR				57	7.3.2.5	Other	8410	available	2018-01-12 13:57:42	2018-01-13 05:20:01			Rel-15	38.213	15.0.0	NR_newRAT-Core								
R1-1800842	Correction on cyclic shift for DMRS sequence of PUCCH format 3 & 4	Huawei, HiSilicon	Brian Classon	45750	draftCR				57	7.3.2.5	Other	8420	available	2018-01-12 13:57:42	2018-01-13 05:20:01			Rel-15	38.211	15.0.0	NR_newRAT-Core								
R1-1800843	Correction on formula for Low-PAPR sequence generation	Huawei, HiSilicon	Brian Classon	45750	draftCR				57	7.3.2.5	Other	8430	available	2018-01-12 13:57:42	2018-01-13 05:20:01			Rel-15	38.211	15.0.0	NR_newRAT-Core								
R1-1800844	Discussion on NR UE categories	Huawei, HiSilicon	Brian Classon	45750	other				84	7.8	UE features	8440	available	2018-01-12 13:57:42	2018-01-13 06:09:36														
R1-1800845	Detailed views on NR UE feature list	Huawei, HiSilicon	Brian Classon	45750	other				84	7.8	UE features	8450	available	2018-01-12 13:57:42	2018-01-13 06:09:36														
R1-1800846	Remaining details on synchronization signal design	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			8	7.1.1	Synchronization signal	8460	available	2018-01-12 14:10:16	2018-01-13 06:51:49			Rel-15											
R1-1800847	Remaining details on NR-PBCH	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			10	7.1.2.1	NR-PBCH	8470	available	2018-01-12 14:10:16	2018-01-13 06:51:49			Rel-15											
R1-1800848	Remaining system information delivery consideration	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			11	7.1.2.2	Remaining minimum system information	8480	available	2018-01-12 14:10:16	2018-01-13 06:51:49			Rel-15											
R1-1800849	Paging design consideration	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			13	7.1.3	Paging design	8490	available	2018-01-12 14:10:16	2018-01-13 06:51:49			Rel-15											
R1-1800850	Remaining details on PRACH formats	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			15	7.1.4.1	PRACH formats	8500	available	2018-01-12 14:10:16	2018-01-13 06:51:49			Rel-15											
R1-1800851	Remaining details on RACH procedure	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			16	7.1.4.2	RACH procedure	8510	available	2018-01-12 14:10:16	2018-01-13 06:51:49			Rel-15											
R1-1800852	Remaining details on measurement for mobility management	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			18	7.1.5.1	Measurement for mobility management	8520	available	2018-01-12 14:10:16	2018-01-13 06:51:49			Rel-15											
R1-1800853	Radio link monitoring consideration	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			19	7.1.5.2	Radio link monitoring for mobility management	8530	available	2018-01-12 14:10:16	2018-01-13 06:51:49			Rel-15											
R1-1800854	Remaining details on codebook based UL transmission	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			24	7.2.1.2	Codebook based transmission for UL	8540	available	2018-01-12 14:10:16	2018-01-13 06:51:49			Rel-15											
R1-1800855	Remaining details on non-codebook based UL transmission	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			25	7.2.1.3	Non-codebook based transmission for UL	8550	available	2018-01-12 14:10:16	2018-01-13 06:51:49			Rel-15											
R1-1800856	Maintenance for PRB bundling for DL	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			26	7.2.1.4	PRB bundling for DL	8560	revised	2018-01-12 14:10:16	2018-01-13 06:53:23		R1-1801050	Rel-15											
R1-1800857	Remaining details on CSI measurement	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			29	7.2.2.1	CSI measurement	8570	revised	2018-01-12 14:10:16	2018-01-13 06:53:23		R1-1801030	Rel-15											
R1-1800858	Remaining details on CSI reporting	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			30	7.2.2.2	CSI reporting	8580	available	2018-01-12 14:10:16	2018-01-13 06:53:23			Rel-15											
R1-1800859	Beam management for NR	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			31	7.2.2.3	Beam measurement and reporting	8590	available	2018-01-12 14:10:16	2018-01-13 06:53:23			Rel-15											
R1-1800860	Beam recovery procedures	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision		Late contribution	32	7.2.2.4	Mechanism to recover from beam failure	8600	available	2018-01-12 14:10:16	2018-01-16 04:14:12			Rel-15											
R1-1800861	Remaining details on MCS	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision		Late contribution	33	7.2.2.5	CQI and MCS	8610	revised	2018-01-12 14:10:16	2018-01-16 19:40:43		R1-1801151	Rel-15											
R1-1800862	Remaining details on CSI-RS	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			37	7.2.3.2	CSI-RS	8620	available	2018-01-12 14:10:16	2018-01-13 06:53:23			Rel-15											
R1-1800863	Maintenance for DMRS	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			38	7.2.3.3	DMRS	8630	available	2018-01-12 14:10:16	2018-01-13 06:53:23			Rel-15											
R1-1800864	PTRS considerations	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			39	7.2.3.4	PT-RS	8640	available	2018-01-12 14:10:16	2018-01-13 06:53:23			Rel-15											
R1-1800865	Maintenance for SRS	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			40	7.2.3.5	SRS	8650	available	2018-01-12 14:10:16	2018-01-13 06:53:23			Rel-15											
R1-1800866	Remaining issues on TRS	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			41	7.2.3.6	TRS	8660	available	2018-01-12 14:10:16	2018-01-13 06:53:23			Rel-15											
R1-1800867	Remaining details on QCL	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			42	7.2.3.7	QCL	8670	available	2018-01-12 14:10:16	2018-01-13 06:53:23			Rel-15											
R1-1800868	Remaining issues on control resource set and search space	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			48	7.3.1.2	Search space	8680	available	2018-01-12 14:10:16	2018-01-13 07:12:07			Rel-15											
R1-1800869	Remaining issues on slot format indication	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			49	7.3.1.3	Group-common PDCCH	8690	available	2018-01-12 14:10:16	2018-01-13 06:54:16			Rel-15											
R1-1800870	Discussion on DCI related issues	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			50	7.3.1.4	DCI contents and formats	8700	available	2018-01-12 14:10:16	2018-01-13 06:54:16			Rel-15											
R1-1800871	Remaining issues for short PUCCH	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			53	7.3.2.1	PUCCH structure in short-duration	8710	available	2018-01-12 14:10:16	2018-01-13 06:54:16			Rel-15											
R1-1800872	Remaining issues for long PUCCH	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			54	7.3.2.2	PUCCH structure in long-duration	8720	available	2018-01-12 14:10:16	2018-01-13 06:54:16			Rel-15											
R1-1800873	Remaining issues for multiplexing UCI on PUSCH	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			55	7.3.2.3	UCI multiplexing	8730	revised	2018-01-12 14:10:16	2018-01-13 06:54:16		R1-1801000	Rel-15											
R1-1800874	Remaining issues for resource allocation for PUCCH	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			56	7.3.2.4	Resource allocation for PUCCH	8740	available	2018-01-12 14:10:16	2018-01-13 06:54:16			Rel-15											
R1-1800875	DL/UL resource allocation	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			59	7.3.3.1	DL/UL resource allocation	8750	available	2018-01-12 14:10:16	2018-01-13 06:59:29			Rel-15											
R1-1800876	DL/UL Scheduling, Processing Time and HARQ management	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			60	7.3.3.2	DL/UL scheduling and HARQ management	8760	available	2018-01-12 14:10:16	2018-01-13 06:59:29			Rel-15											
R1-1800877	On remaining issues in CBG-based (re)-transmission	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision		Late contribution	61	7.3.3.3	CBG-based (re)transmission	8770	withdrawn	2018-01-12 14:10:16				Rel-15											
R1-1800878	Soft buffer management	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			63	7.3.3.5	Soft-buffer management for NR	8780	available	2018-01-12 14:10:16	2018-01-13 06:59:29			Rel-15											
R1-1800879	Remaining issues on BWP	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			67	7.3.4.1	Other aspects on bandwidth Parts	8790	available	2018-01-12 14:10:16	2018-01-13 06:59:29			Rel-15											
R1-1800880	Remaining issues on CA	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			68	7.3.4.2	Other aspects on carrier aggregation	8800	available	2018-01-12 14:10:16	2018-01-13 06:59:29			Rel-15											
R1-1800881	On rate matching/puncturing for NR DL and UL channels	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision		Late contribution	69	7.3.5	Rate matching aspects for NR DL and UL	8810	withdrawn	2018-01-12 14:10:16				Rel-15											
R1-1800882	LDPC Coding	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			72	7.4.1	LDPC coding	8820	available	2018-01-12 14:10:16	2018-01-13 06:59:29			Rel-15											
R1-1800883	Polar Coding	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			73	7.4.2	Polar coding	8830	revised	2018-01-12 14:10:16	2018-01-13 06:59:29		R1-1801062	Rel-15											
R1-1800884	Remaining issues on power control for NR	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			80	7.6.1	NR UL power control - non-CA aspects	8840	noted	2018-01-12 14:10:16	2018-01-13 06:59:29			Rel-15											
R1-1800885	Power control for NR CA	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			81	7.6.2	NR UL power control – CA aspects	8850	available	2018-01-12 14:10:16	2018-01-13 06:59:29			Rel-15											
R1-1800886	NR Features and Capabilities	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			84	7.8	UE features	8860	noted	2018-01-12 14:10:16	2018-01-13 10:39:13			Rel-15											
R1-1800887	Support for additional periodicities in NR RRC	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			85	7.9	Other	8870	available	2018-01-12 14:10:16	2018-01-13 07:00:31			Rel-15											
R1-1800888	Maintenance for Multiplexing of RS	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			36	7.2.3.1	Multiplexing of different types of RSs	8880	available	2018-01-12 14:10:16	2018-01-13 06:59:29			Rel-15											
R1-1800889	Remaining issues on PDCCH structure	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision			47	7.3.1.1	PDCCH structure	8890	available	2018-01-12 14:10:16	2018-01-13 06:59:29			Rel-15											
R1-1800890	NR Features and Capabilities	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision		Late contribution	84	7.8	UE features	8900	withdrawn	2018-01-12 14:10:16				Rel-15											
R1-1800891	Support for additional periodicities in NR RRC	Qualcomm Incorporated	Peter Gaal	57198	discussion	Decision		Late contribution	85	7.9	Other	8910	withdrawn	2018-01-12 14:10:16				Rel-15											
R1-1800892	Remaining details on synchronization signal	Ericsson	Asbjorn Grovlen	45069	discussion	Decision			8	7.1.1	Synchronization signal	8920	available	2018-01-12 14:31:49	2018-01-12 22:06:28														
R1-1800893	Remaining details on NR-PBCH	Ericsson	Asbjorn Grovlen	45069	discussion	Decision			10	7.1.2.1	NR-PBCH	8930	available	2018-01-12 14:31:49	2018-01-12 22:06:28														
R1-1800894	Remaining details on remaining minimum system information	Ericsson	Asbjorn Grovlen	45069	discussion	Decision			11	7.1.2.2	Remaining minimum system information	8940	available	2018-01-12 14:31:49	2018-01-12 22:06:28														
R1-1800895	Remaining details on other system information delivery	Ericsson	Asbjorn Grovlen	45069	discussion	Decision			12	7.1.2.3	Other system information delivery	8950	available	2018-01-12 14:31:49	2018-01-12 22:06:28														
R1-1800896	Remaining details on paging design	Ericsson	Asbjorn Grovlen	45069	discussion	Decision			13	7.1.3	Paging design	8960	available	2018-01-12 14:31:49	2018-01-12 22:06:28														
R1-1800897	Remaining details on RACH formats and configurations	Ericsson	Asbjorn Grovlen	45069	discussion	Decision			15	7.1.4.1	PRACH formats	8970	available	2018-01-12 14:31:49	2018-01-12 22:06:28														
R1-1800898	Remaining details on the RACH procedure	Ericsson	Asbjorn Grovlen	45069	discussion	Decision			16	7.1.4.2	RACH procedure	8980	available	2018-01-12 14:31:49	2018-01-12 22:06:28														
R1-1800899	Remaining details on measurements for mobility	Ericsson	Asbjorn Grovlen	45069	discussion	Decision			18	7.1.5.1	Measurement for mobility management	8990	available	2018-01-12 14:31:49	2018-01-12 22:06:28														
R1-1800900	Remaining details on RLM	Ericsson	Asbjorn Grovlen	45069	discussion	Decision			19	7.1.5.2	Radio link monitoring for mobility management	9000	available	2018-01-12 14:31:49	2018-01-12 22:06:28														
R1-1800901	Synchronization assistance for CSI-RS-based measurements	Ericsson	Asbjorn Grovlen	45069	discussion	Decision			20	7.1.6	Other	9010	available	2018-01-12 14:31:49	2018-01-12 22:06:28	R1-1720944													
R1-1800902	Remaining details on RACH capacity	Ericsson	Asbjorn Grovlen	45069	discussion	Decision			20	7.1.6	Other	9020	available	2018-01-12 14:31:49	2018-01-12 22:06:28	R1-1720945													
R1-1800903	On multiple preamble transmissions for contention free random access	Ericsson	Asbjorn Grovlen	45069	discussion	Decision			20	7.1.6	Other	9030	available	2018-01-12 14:31:49	2018-01-12 22:06:28	R1-1720949													

R1-1800904	Additional inter-RAT measurement capabilities in NR	Ericsson	Asbjorn Grovlen	45069	discussion	Decision			20	7.1.6	Other	9040	available	2018-01-12 14:31:49	2018-01-12 22:06:28						
R1-1800905	Correction on SRS time domain configuration in 38.211	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				43	7.2.3.8	Other	9050	available	2018-01-12 14:48:12	2018-01-12 22:23:44			Rel-15	38.211	15.0.0	NR_newRAT-Core
R1-1800906	Correction on SRS antenna switching in 38.214	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				43	7.2.3.8	Other	9060	available	2018-01-12 14:48:12	2018-01-12 22:23:44			Rel-15	38.214	15.0.0	NR_newRAT-Core
R1-1800907	Correction on additional DMRS location in 38.211	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				43	7.2.3.8	Other	9070	available	2018-01-12 14:48:12	2018-01-12 22:23:44			Rel-15	38.211	15.0.0	NR_newRAT-Core
R1-1800908	Correction on additional DMRS configuration for 2/4-symbol PDSCH transmission in 38.214	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				43	7.2.3.8	Other	9080	noted	2018-01-12 14:48:12	2018-01-12 22:23:44			Rel-15	38.214	15.0.0	NR_newRAT-Core
R1-1800909	Antenna selection transmission for PUSCH	Huawei, HiSilicon	Xiao Weimin	56706	other				27	7.2.1.5	Other	9090	available	2018-01-12 14:48:12	2018-01-13 06:56:32						
R1-1800910	Correction on CRI definition and determination in 38.214	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				34	7.2.2.6	Other	9100	available	2018-01-12 14:48:12	2018-01-13 04:56:14			Rel-15	38.214	15.0.0	NR_newRAT-Core
R1-1800911	Correction on QCL properties between multiple CSI-RS within one CQI derivation in 38.214	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				34	7.2.2.6	Other	9110	available	2018-01-12 14:48:12	2018-01-13 04:56:14			Rel-15	38.214	15.0.0	NR_newRAT-Core
R1-1800912	Correction on CSI measurement in 38.214	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				34	7.2.2.6	Other	9120	available	2018-01-12 14:48:12	2018-01-13 04:56:14			Rel-15	38.214	15.0.0	NR_newRAT-Core
R1-1800913	Correction on DL antenna port mapping in 38.211	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				43	7.2.3.8	Other	9130	available	2018-01-12 14:48:12	2018-01-13 04:56:14			Rel-15	38.211	15.0.0	NR_newRAT-Core
R1-1800914	Correction on relationship between UL antenna port and transmission layer in 38.211	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				27	7.2.1.5	Other	9140	revised	2018-01-12 14:48:12	2018-01-13 04:56:14		R1-1801035	Rel-15	38.211	15.0.0	NR_newRAT-Core
R1-1800915	Correction on alignment between PRG and RBG in 38.214	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				27	7.2.1.5	Other	9150	available	2018-01-12 14:48:12	2018-01-13 04:56:14			Rel-15	38.214	15.0.0	NR_newRAT-Core
R1-1800916	Correction on RS set configuration for TCI in 38.214	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				34	7.2.2.6	Other	9160	available	2018-01-12 14:48:12	2018-01-13 04:56:14			Rel-15	38.214	15.0.0	NR_newRAT-Core
R1-1800917	Correction on timing advance adjustment in 38.213	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				27	7.2.1.5	Other	9170	available	2018-01-12 14:48:12	2018-01-13 04:56:14			Rel-15	38.213	15.0.0	NR_newRAT-Core
R1-1800918	Correction on beam failure recovery in 38.213	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				34	7.2.2.6	Other	9180	available	2018-01-12 14:48:12	2018-01-13 04:56:14			Rel-15	38.213	15.0.0	NR_newRAT-Core
R1-1800919	Correction on PTRS mapping of pre-DFT PTRS in 38.211	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				43	7.2.3.8	Other	9190	available	2018-01-12 14:48:12	2018-01-12 22:23:44			Rel-15	38.211	15.0.0	NR_newRAT-Core
R1-1800920	Correction on pi/2 BPSK sequence generation of pre-DFT PTRS in 38.211	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				43	7.2.3.8	Other	9200	available	2018-01-12 14:48:12	2018-01-12 22:23:44			Rel-15	38.211	15.0.0	NR_newRAT-Core
R1-1800921	Correction on RB-level offset of downlink PTRS in 38.211	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				43	7.2.3.8	Other	9210	available	2018-01-12 14:48:12	2018-01-12 22:23:44			Rel-15	38.211	15.0.0	NR_newRAT-Core
R1-1800922	Correction on UL power boosting of PTRS in 38.213	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				43	7.2.3.8	Other	9220	available	2018-01-12 14:48:12	2018-01-12 22:23:44			Rel-15	38.213	15.0.0	NR_newRAT-Core
R1-1800923	Correction on DMRS ports indication in 38.214	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				43	7.2.3.8	Other	9230	available	2018-01-12 14:48:12	2018-01-12 22:23:44			Rel-15	38.214	15.0.0	NR_newRAT-Core
R1-1800924	Correction on PUSCH/DMRS EPRE ratio in 38.214	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				43	7.2.3.8	Other	9240	available	2018-01-12 14:48:12	2018-01-12 22:23:44			Rel-15	38.214	15.0.0	NR_newRAT-Core
R1-1800925	Correction on DMRS sequency initialization indication in 38.212	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				43	7.2.3.8	Other	9250	noted	2018-01-12 14:48:12	2018-01-12 22:23:44			Rel-15	38.212	15.0.0	NR_newRAT-Core
R1-1800926	Correction on RSRP reporting in 38.214	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				34	7.2.2.6	Other	9260	available	2018-01-12 14:48:12	2018-01-13 04:56:14			Rel-15	38.214	15.0.0	NR_newRAT-Core
R1-1800927	Correction on UL non-codebook based transmission in 38.214	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				27	7.2.1.5	Other	9270	revised	2018-01-12 14:48:12	2018-01-13 04:56:14		R1-1801036	Rel-15	38.214	15.0.0	NR_newRAT-Core
R1-1800928	Correction on antenna ports quasi-co-location in 38.214	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				34	7.2.2.6	Other	9280	available	2018-01-12 14:48:12	2018-01-13 04:56:14			Rel-15	38.214	15.0.0	NR_newRAT-Core
R1-1800929	Correction on uplink MIMO related DCI in 38.212	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				27	7.2.1.5	Other	9290	available	2018-01-12 14:48:12	2018-01-13 04:56:14			Rel-15	38.212	15.0.0	NR_newRAT-Core
R1-1800930	Correction on PRB bundling configuration in 38.214	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				27	7.2.1.5	Other	9300	available	2018-01-12 14:48:12	2018-01-13 04:56:14			Rel-15	38.214	15.0.0	NR_newRAT-Core
R1-1800931	TP for mapping to resource blocks	Huawei, HiSilicon	Xiao Weimin	56706	other				65	7.3.3.7	Other	9310	available	2018-01-12 14:48:12	2018-01-13 04:56:14						
R1-1800932	Correction on CSI-RS/IM configuration in 38.214	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				34	7.2.2.6	Other	9320	available	2018-01-12 14:48:12	2018-01-13 04:56:14			Rel-15	38.214	15.0.0	NR_newRAT-Core
R1-1800933	Correction on aperiodic SRS frequency hopping in 38.211	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				43	7.2.3.8	Other	9330	available	2018-01-12 14:48:12	2018-01-12 22:23:44			Rel-15	38.211	15.0.0	NR_newRAT-Core
R1-1800934	Correction on aperiodic SRS trigger offset indication 38.212	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				43	7.2.3.8	Other	9340	available	2018-01-12 14:48:12	2018-01-12 22:23:44			Rel-15	38.212	15.0.0	NR_newRAT-Core
R1-1800935	Correction on aperiodic SRS trigger time offset in 38.214	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				43	7.2.3.8	Other	9350	available	2018-01-12 14:48:12	2018-01-12 22:23:44			Rel-15	38.214	15.0.0	NR_newRAT-Core
R1-1800936	Considerations on NOMA for multi-cell scenarios	Fraunhofer HHI	Lars Thiele	58746	discussion	Discussion			85	7.9	Other	9360	available	2018-01-12 14:52:23	2018-01-12 15:32:21						
R1-1800937	Correction on relationship between ZP CSI-RS and CSI-IM in 38.214	Huawei, HiSilicon	Xiao Weimin	56706	draftCR				34	7.2.2.6	Other	9370	available	2018-01-12 15:03:49	2018-01-13 04:56:14			Rel-15	38.214	15.0.0	NR_newRAT-Core
R1-1800938	On DCI formats subclause in 38.212	Nokia, Nokia Shanghai Bell	Karri Ranta-aho	64268	discussion	Decision			50	7.3.1.4	DCI contents and formats	9380	available	2018-01-12 15:04:28	2018-01-12 20:11:13						
R1-1800939	Corrections to 38.214 resource allocation	Nokia, Nokia Shanghai Bell	Karri Ranta-aho	64268	discussion	Decision			59	7.3.3.1	DL/UL resource allocation	9390	available	2018-01-12 15:04:28	2018-01-12 20:11:13						
R1-1800940	Remaining details on PUSCH hopping procedure	Nokia, Nokia Shanghai Bell	Karri Ranta-aho	64268	discussion	Decision			62	7.3.3.4	UL data transmission procedure	9400	available	2018-01-12 15:04:28	2018-01-12 20:11:13						
R1-1800941	SUL bit on different DCI formats and related behaviour	Nokia, Nokia Shanghai Bell	Karri Ranta-aho	64268	discussion	Decision			78	7.5	NR-LTE co-existence	9410	available	2018-01-12 15:04:28	2018-01-12 20:11:13						
R1-1800942	UE Dynamic power sharing for LTE-NR Dual Connectivity	Nokia, Nokia Shanghai Bell	Karri Ranta-aho	64268	discussion	Decision			80	7.6.1	NR UL power control - non-CA aspects	9420	noted	2018-01-12 15:04:28	2018-01-12 20:11:13						
R1-1800943	On PDCCH structure	Ericsson	Sorour Falahati	58325	discussion	Decision			47	7.3.1.1	PDCCH structure	9430	noted	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800944	Remaining details on search spaces	Ericsson	Sorour Falahati	58325	discussion	Decision			48	7.3.1.2	Search space	9440	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800945	On Group common PDCCH	Ericsson	Sorour Falahati	58325	discussion	Decision			49	7.3.1.3	Group-common PDCCH	9450	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800946	Corrections to DCI formats	Ericsson	Sorour Falahati	58325	discussion	Decision			50	7.3.1.4	DCI contents and formats	9460	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800947	On UE Behavior for UCI Reporting and Other Issues	Ericsson	Sorour Falahati	58325	discussion	Decision			53	7.3.2.1	PUCCH structure in short-duration	9470	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800948	On Long PUCCH Repetition and Other Issues	Ericsson	Sorour Falahati	58325	discussion	Decision			54	7.3.2.2	PUCCH structure in long-duration	9480	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800949	On Mapping of UCI on PUSCH and Other Issues	Ericsson	Sorour Falahati	58325	discussion	Decision			55	7.3.2.3	UCI multiplexing	9490	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800950	On PUCCH Resource Allocation and Other Issues	Ericsson	Sorour Falahati	58325	discussion	Decision			56	7.3.2.4	Resource allocation for PUCCH	9500	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800951	DL/UL resource allocation	Ericsson	Sorour Falahati	58325	discussion	Decision			59	7.3.3.1	DL/UL resource allocation	9510	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800952	Procedures for code block group based transmissions	Ericsson	Sorour Falahati	58325	discussion	Decision			61	7.3.3.3	CBG-based (re)transmission	9520	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800953	Remaining Details in UL Transmission Procedures	Ericsson	Sorour Falahati	58325	discussion	Decision			62	7.3.3.4	UL data transmission procedure	9530	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800954	On Multiplexing Data with Different Transmission Durations	Ericsson	Sorour Falahati	58325	discussion	Decision			64	7.3.3.6	Multiplexing data with different transmission durations	9540	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800955	on DL SPS	Ericsson	Sorour Falahati	58325	discussion	Decision			65	7.3.3.7	Other	9550	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800956	On remaining issues on carrier aggregation	Ericsson	Sorour Falahati	58325	discussion	Decision			68	7.3.4.2	Other aspects on carrier aggregation	9560	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800957	Remaining issues for UL power control	Ericsson	Sorour Falahati	58325	discussion	Decision			80	7.6.1	NR UL power control - non-CA aspects	9570	noted	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800958	Remaining issues for LTE-NR power sharing	Ericsson	Sorour Falahati	58325	discussion	Decision			80	7.6.1	NR UL power control - non-CA aspects	9580	noted	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800959	CQI and MCS tables for URLLC	Ericsson	Sorour Falahati	58325	discussion	Decision			85	7.9	Other	9590	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800960	On Compact DCI for URLLC	Ericsson	Sorour Falahati	58325	discussion	Decision			85	7.9	Other	9600	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800961	On PDCCH for Ultra-Reliable Transmission	Ericsson	Sorour Falahati	58325	discussion	Decision			85	7.9	Other	9610	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800962	On the Performance Evaluation of PDCCH for Ultra-Reliable Transmission	Ericsson	Sorour Falahati	58325	discussion	Decision			85	7.9	Other	9620	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800963	On PDCCH repetition for URLLC	Ericsson	Sorour Falahati	58325	discussion	Decision			85	7.9	Other	9630	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800964	On PUCCH for Ultra-Reliable Transmission	Ericsson	Sorour Falahati	58325	discussion	Decision			85	7.9	Other	9640	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800965	On Performance of PUCCH Format 0 for URLLC Use Cases	Ericsson	Sorour Falahati	58325	discussion	Decision			85	7.9	Other	9650	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800966	On Performance of PUCCH Format 2 for URLLC Use Cases	Ericsson	Sorour Falahati	58325	discussion	Decision			85	7.9	Other	9660	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800967	On Frequency Hopping for Ultra-reliable Transmission	Ericsson	Sorour Falahati	58325	discussion	Decision			85	7.9	Other	9670	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800968	On transmit diversity for ultra-high reliability use cases	Ericsson	Sorour Falahati	58325	discussion	Decision			85	7.9	Other	9680	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800969	URLLC downlink system level simulation results	Ericsson	Sorour Falahati	58325	discussion	Decision			85	7.9	Other	9690	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800970	IMT-2020 self-evaluation: CP latency in NR	Ericsson	Sorour Falahati	58325	discussion	Decision			85	7.9	Other	9700	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800971	IMT-2020 self-evaluation: Reliability in NR	Ericsson	Sorour Falahati	58325	discussion	Decision			85	7.9	Other	9710	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800972	IMT-2020 self-evaluation: UP latency in NR	Ericsson	Sorour Falahati	58325	discussion	Decision			85	7.9	Other	9720	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800973	URLLC for Factory Automation	Ericsson	Sorour Falahati	58325	discussion	Decision			85	7.9	Other	9730	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800974	On Pre-emption in Uplink	Ericsson	Sorour Falahati	58325	discussion	Decision			85	7.9	Other	9740	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800975	On supporting reliable HARQ feedback for UL transmission without grant	Ericsson	Sorour Falahati	58325	discussion	Decision			85	7.9	Other	9750	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800976	On soft-buffer handling for DL pre-emption	Ericsson	Sorour Falahati	58325	discussion	Decision			85	7.9	Other	9760	available	2018-01-12 15:12:58	2018-01-13 06:48:34						
R1-1800977	IMT-2020 self-evaluation: Mobility evaluations for NR	Ericsson	Asbjorn Grovlen	45069	discussion	Information			85	7.9	Other	9770	available	2018-01-12 15:24:03	2018-01-12 21:46:59	R1-1720952					
R1-1800978	IMT-2020 self evaluation: On eMBB user experienced data rate	Ericsson	Asbjorn Grovlen	45069	discussion	Information			85	7.9	Other	9780	available	2018-01-12 15:24:03	2018-01-12 21:46:59	R1-1720953					
R1-1800979	IMT-2020 self evaluation: Radio Network Energy Performance	Ericsson	Asbjorn Grovlen	45069	discussion	Information			85	7.9	Other	9790	available	2018-01-12 15:24:03	2018-01-12 21:46:59	R1-1720954					
R1-1800980	IMT-2020 self evaluation: mMTC connection density for LTE-MTC and NB-IoT	Ericsson	Asbjorn Grovlen	45069	discussion	Information			85	7.9	Other	9800	available	2018-01-12 15:24:03	2018-01-12 21:46:59	R1-1721205					

R1-1800981	IMT-2020 self-evaluation calibration mMTC connection density for LTE-MTC and NB-IoT	Ericsson	Asbjorn Grovlen	45069	discussion	Information			85	7.9	Other	9810	available	2018-01-12 15:24:03	2018-01-12 21:46:59	R1-1720956					
R1-1800982	IMT2020 self evaluation: On eMBB area traffic capacity	Ericsson	Asbjorn Grovlen	45069	discussion	Information			85	7.9	Other	9820	available	2018-01-12 15:24:03	2018-01-12 21:46:59	R1-1720957					
R1-1800983	IMT-2020 self-evaluation: CP latency in NR	Ericsson	Asbjorn Grovlen	45069	discussion	Information			85	7.9	Other	9830	withdrawn	2018-01-12 15:24:03		R1-1720958					
R1-1800984	IMT-2020 self-evaluation: UP latency in NR	Ericsson	Asbjorn Grovlen	45069	discussion	Information			85	7.9	Other	9840	withdrawn	2018-01-12 15:24:03		R1-1720959					
R1-1800985	IMT-2020 self-evaluation: Reliability in NR	Ericsson	Asbjorn Grovlen	45069	discussion	Information			85	7.9	Other	9850	withdrawn	2018-01-12 15:24:03		R1-1720960					
R1-1800986	IMT-2020 self-evaluation: Peak data rate and peak spectrum efficiency evaluations for NR	Ericsson	Asbjorn Grovlen	45069	discussion	Information			85	7.9	Other	9860	available	2018-01-12 15:24:03	2018-01-12 21:46:59	R1-1720961					
R1-1800987	IMT-2020 self-evaluation:URLLC for factory automation	Ericsson	Asbjorn Grovlen	45069	discussion	Information			85	7.9	Other	9870	withdrawn	2018-01-12 15:24:03		R1-1721036					
R1-1800988	Corrections to PDCCH structure	AT&T	Arun Ghosh	57084	discussion	Decision			47	7.3.1.1	PDCCH structure	9880	available	2018-01-12 16:41:55	2018-01-13 03:59:32						
R1-1800989	Correction to CBG-based (re)transmissions	AT&T	Arun Ghosh	57084	discussion	Decision			61	7.3.3.3	CBG-based (re)transmission	9890	available	2018-01-12 16:41:55	2018-01-13 03:59:32						
R1-1800990	Corrections on RACH Procedure	Samsung	Patrick Merias	52292	other	Decision			16	7.1.4.2	RACH procedure	9900	available	2018-01-15 10:51:41	2018-01-16 10:35:24	R1-1800418					
R1-1800991	Initial Consideration on Link curve performance of LDPC coding in IMT-2020 self evaluation	ZTE, Sanechips	Patrick Merias	52292	discussion				85	7.9	Other	9910	available	2018-01-15 10:54:54	2018-01-16 16:13:22	R1-1800516		Rel-15			
R1-1800992	Remaining issues for slot format	ZTE, Sanechips	Patrick Merias	52292	discussion	Discussion			49	7.3.1.3	Group-common PDCCH	9920	available	2018-01-15 10:58:48	2018-01-15 20:18:19	R1-1800131					
R1-1800993	Remaining issues for RMSI	MediaTek Inc.	Patrick Merias	52292	discussion				11	7.1.2.2	Remaining minimum system information	9930	available	2018-01-15 11:01:10	2018-01-20 08:28:21	R1-1800150					
R1-1800994	Offline summary for AI 7.1.3 on Paging	Huawei	Patrick Merias	52292	discussion	Decision			13	7.1.3	Paging design	9940	revised	2018-01-15 20:28:48	2018-01-23 16:12:41		R1-1801084	Rel-15			
R1-1800995	Remaining issues on UCI multiplexing	vivo	Patrick Merias	52292	discussion				55	7.3.2.3	UCI multiplexing	9950	available	2018-01-16 11:06:10	2018-01-17 11:34:10	R1-1800202					
R1-1800996	Open issues for UCI multiplexing on PUSCH	CATT	Patrick Merias	52292	discussion	Decision			55	7.3.2.3	UCI multiplexing	9960	available	2018-01-16 11:08:09	2018-01-17 11:37:45	R1-1800255					
R1-1800997	Feature lead summary 1 of PTRS	Ericsson	Patrick Merias	52292	discussion	Decision			39	7.2.3.4	PT-RS	9970	noted	2018-01-16 11:11:08	2018-01-23 16:12:41			Rel-15			
R1-1800998	On Remaining Issues on NR PBCH	CATT	Patrick Merias	52292	discussion	Decision			10	7.1.2.1	NR-PBCH	9980	available	2018-01-16 16:18:20	2018-01-19 08:14:59	R1-1800228					
R1-1800999	Further details on NR RACH format	CATT	Patrick Merias	52292	discussion	Decision			15	7.1.4.1	PRACH formats	9990	available	2018-01-16 16:19:01	2018-01-17 07:51:47	R1-1800232					
R1-1801000	Remaining issues for multiplexing UCI on PUSCH	Qualcomm Incorporated	Patrick Merias	52292	discussion	Decision			55	7.3.2.3	UCI multiplexing	10000	available	2018-01-17 07:44:21	2018-01-24 14:17:54	R1-1800873		Rel-15			
R1-1801001	LDPC Coded bits interleaver and symbol mapper for HARQ	LG Electronics	Patrick Merias	52292	discussion	Decision			72	7.4.1	LDPC coding	10010	noted	2018-01-17 07:47:13	2018-01-17 09:29:36	R1-1800387		Rel-15			
R1-1801002	Corrections on PDCCH Structure	Samsung	Patrick Merias	52292	other	Decision			47	7.3.1.1	PDCCH structure	10020	available	2018-01-17 07:50:46	2018-01-17 09:29:36	R1-1800442					
R1-1801003	Summary of RAN1#AH 1801 Tdocs on PUCCH resource allocation	OPPO	Patrick Merias	52292	discussion	Decision			56	7.3.2.4	Resource allocation for PUCCH	10030	noted	2018-01-17 09:31:05	2018-01-23 16:12:41			Rel-15			
R1-1801004	Summary AI 7.7 - Aspects related to FDD	ZTE, Sanechips	Patrick Merias	52292	discussion	Decision			83	7.7	Aspects related to FDD	10040	noted	2018-01-17 09:34:44	2018-01-20 08:26:48			Rel-15			
R1-1801005	Summary of SRS	Sony	Patrick Merias	52292	discussion	Decision			40	7.2.3.5	SRS	10050	noted	2018-01-17 11:32:39	2018-01-23 16:12:41		R1-1801085	Rel-15			
R1-1801006	Feature lead summary 1 of beam measurement and reporting	Ericsson	Patrick Merias	52292	discussion	Decision			31	7.2.2.3	Beam measurement and reporting	10060	noted	2018-01-18 08:46:41	2018-01-25 14:20:03			Rel-15			
R1-1801007	Remaining issues in codeword mapping	MediaTek Inc.	Patrick Merias	52292	discussion				23	7.2.1.1	Codeword mapping	10070	available	2018-01-18 08:52:24	2018-01-18 21:51:46	R1-1800158					
R1-1801008	Quantization table in TBS determination procedure and resource allocation	MediaTek Inc.	Patrick Merias	52292	discussion				59	7.3.3.1	DL/UL resource allocation	10080	available	2018-01-18 08:53:22	2018-01-18 21:51:46	R1-1800167					
R1-1801009	Summary of Discussion for NR RRM measurements	Intel Corporation	Patrick Merias	52292	discussion	Decision			18	7.1.5.1	Measurement for mobility management	10090	noted	2018-01-18 08:58:23	2018-01-23 16:12:41			Rel-15			
R1-1801010	Summary of Discussion for NR Radio Link Monitoring	Intel Corporation	Patrick Merias	52292	discussion	Decision			19	7.1.5.2	Radio link monitoring for mobility management	10100	noted	2018-01-18 08:59:56	2018-01-23 16:12:41			Rel-15			
R1-1801011	Summary of 7.3.3.1 (resource allocation)	Ericsson	Patrick Merias	52292	discussion	Decision			59	7.3.3.1	DL/UL resource allocation	10110	noted	2018-01-18 09:02:38	2018-01-23 16:12:41			Rel-15			
R1-1801012	Summary of 7.3.1.4 (DCI contents and formats)	Ericsson	Patrick Merias	52292	discussion	Decision			50	7.3.1.4	DCI contents and formats	10120	noted	2018-01-18 09:04:05	2018-01-23 16:12:40			Rel-15			
R1-1801013	NR UE Feature List	Ericsson	Patrick Merias	52292	discussion	Decision			84	7.8	UE features	10130	noted	2018-01-18 11:20:46	2018-01-23 16:12:40	R1-1800715					
R1-1801014	Summary on A.I. 7.1.2.3: Remaining details on other system information delivery	Samsung	Patrick Merias	52292	discussion	Decision			12	7.1.2.3	Other system information delivery	10140	revised	2018-01-18 15:01:03	2018-01-23 16:12:40		R1-1801086	Rel-15			
R1-1801015	Corrections on LDPC coding	ZTE, Sanechips	Patrick Merias	52292	discussion	Decision			72	7.4.1	LDPC coding	10150	noted	2018-01-18 20:40:59	2018-01-19 08:14:59	R1-1800738					
R1-1801016	Corrections on Polar coding	ZTE, Sanechips	Patrick Merias	52292	discussion	Decision			73	7.4.2	Polar coding	10160	noted	2018-01-18 20:41:27	2018-01-19 08:14:59	R1-1800739					
R1-1801017	Corrections on uplink control	ZTE, Sanechips	Patrick Merias	52292	discussion	Decision			75	7.4.2.2	Uplink control	10170	available	2018-01-18 20:41:49	2018-01-19 08:14:59	R1-1800740					
R1-1801018	Summary of issues on codeword mapping	Samsung	Patrick Merias	52292	discussion	Decision			23	7.2.1.1	Codeword mapping	10180	noted	2018-01-18 20:48:08	2018-01-24 14:12:29			Rel-15			
R1-1801019	Remaining issues on resource allocation	LG Electronics	Patrick Merias	52292	discussion	Decision			59	7.3.3.1	DL/UL resource allocation	10190	available	2018-01-19 08:02:13	2018-01-20 08:28:21	R1-1800379		Rel-15			
R1-1801020	Corrections on PUCCH Power Control	Samsung	Patrick Merias	52292	other	Decision			80	7.6.1	NR UL power control - non-CA aspects	10200	noted	2018-01-19 08:04:15	2018-01-20 08:26:48	R1-1800468					
R1-1801021	On UE feature list	Intel Corporation	Patrick Merias	52292	discussion			Late contribution	84	7.8	UE features	10210	available	2018-01-19 08:10:52	2018-01-22 16:33:58			Rel-15			
R1-1801022	Summary of Remaining details on PRACH formats	Convida Wireless	Patrick Merias	52292	discussion	Decision			15	7.1.4.1	PRACH formats	102200	revised	2018-01-22 19:26:11	2018-01-22 19:26:11		R1-1801049	Rel-15			
R1-1801023	Review Summary for AI 7.3.2.2. PUCCH structure in long-duration	Huawei, HiSilicon	Patrick Merias	52292	discussion	Decision			54	7.3.2.2	PUCCH structure in long-duration	102300	revised	2018-01-23 16:09:41	2018-01-24 14:12:29		R1-1801145	Rel-15			
R1-1801024	Summary on CA Aspects	Samsung	Patrick Merias	52292	discussion	Decision			68	7.3.4.2	Other aspects on carrier aggregation	102400	available	2018-01-23 03:11:19	2018-01-23 03:11:19			Rel-15			
R1-1801025	Summary of NR UL Power Control - CA aspects	Samsung	Patrick Merias	52292	discussion	Decision			81	7.6.2	NR UL power control – CA aspects	102500	available	2018-01-23 16:09:41	2018-01-24 14:12:29			Rel-15			
R1-1801026	Summary of 7.1.1 Synchronization signal	Ericsson	Patrick Merias	52292	discussion	Decision			8	7.1.1	Synchronization signal	102600	revised	2018-01-22 19:26:11	2018-01-22 19:26:11		R1-1801074	Rel-15			
R1-1801027	Summary of 7.1.2.1 NR-PBCH	Ericsson	Patrick Merias	52292	discussion	Decision			10	7.1.2.1	NR-PBCH	102700	revised	2018-01-22 19:26:12	2018-01-22 19:26:12		R1-1801075	Rel-15			
R1-1801028	Summary of CSI reporting v1	Ericsson	Patrick Merias	52292	discussion	Decision			30	7.2.2.2	CSI reporting	102800	revised	2018-01-22 21:29:19	2018-01-22 21:29:19		R1-1801043	Rel-15			
R1-1801029	Discussions on SRS	Mitsubishi Electric Co.	Patrick Merias	52292	discussion				40	7.2.3.5	SRS	6161	available	2018-01-22 21:29:19	2018-01-22 21:29:19	R1-1800616					
R1-1801030	Remaining details on CSI measurement	Qualcomm Incorporated	Patrick Merias	52292	discussion	Decision			29	7.2.2.1	CSI measurement	8571	available	2018-01-22 16:33:58	2018-01-22 16:33:58	R1-1800857		Rel-15			
R1-1801031	Summary of 7.3.3.6 multiplexing data with different transmission durations	vivo	Patrick Merias	52292	discussion	Decision			64	7.3.3.6	Multiplexing data with different transmission durations	103100	revised	2018-01-23 16:09:42	2018-01-24 14:12:29		R1-1801155	Rel-15			
R1-1801032	Discussion on remaining issues on SS raster	Huawei, HiSilicon	Patrick Merias	52292	other				4	5	Incoming Liaison Statements	2921	available	2018-01-22 16:33:58	2018-01-22 16:33:58	R1-1800292					
R1-1801033	Summary of issues on UL non-codebook based transmission	Nokia, Nokia Shanghai Bell	Patrick Merias	52292	discussion	Decision			25	7.2.1.3	Non-codebook based transmission for UL	103300	noted	2018-01-23 16:09:42	2018-01-24 14:12:29			Rel-15			
R1-1801034	Summary of remaining issues for RS multiplexing	Huawei, HiSilicon	Patrick Merias	52292	discussion	Decision			36	7.2.3.1	Multiplexing of different types of RSs	103400	noted	2018-01-22 21:29:19	2018-01-22 21:29:19			Rel-15			
R1-1801035	Correction on relationship between UL antenna port and transmission layer in 38.211	Huawei, HiSilicon	Patrick Merias	52292	draftCR				27	7.2.1.5	Other	9141	available	2018-01-22 21:29:19	2018-01-22 21:29:19	R1-1800914		Rel-15	38.211	15.0.0	NR_newRAT-Core
R1-1801036	Correction on UL non-codebook based transmission in 38.214	Huawei, HiSilicon	Patrick Merias	52292	draftCR				25	7.2.1.3	Non-codebook based transmission for UL	9271	noted	2018-01-22 21:29:19	2018-01-22 21:29:19	R1-1800927		Rel-15	38.214	15.0.0	NR_newRAT-Core
R1-1801037	Summary for AI 7.3.3.5	Intel	Patrick Merias	52292	discussion	Decision			63	7.3.3.5	Soft-buffer management for NR	103700	noted	2018-01-23 03:11:19	2018-01-23 03:11:19			Rel-15			
R1-1801038	Summary of Contributions on PUCCH structure in short-duration	Ericsson	Patrick Merias	52292	discussion	Decision			53	7.3.2.1	PUCCH structure in short-duration	103800	noted	2018-01-23 16:09:42	2018-01-23 16:12:40			Rel-15			
R1-1801039	Summary of open issues related to rate-matching in NR	Nokia, Nokia Shanghai Bell	Patrick Merias	52292	discussion	Decision			69	7.3.5	Rate matching aspects for NR DL and UL	103900	available	2018-01-23 16:09:42	2018-01-29 10:07:52			Rel-15			
R1-1801040	Summary of remaining details on RACH procedure	Nokia, Nokia Shanghai Bell	Patrick Merias	52292	discussion	Decision			16	7.1.4.2	RACH procedure	104000	revised	2018-01-22 19:26:12	2018-01-22 19:26:12		R1-1801097	Rel-15			
R1-1801041	Summary on Codebook Based UL Transmission	Intel	Patrick Merias	52292	discussion	Decision			24	7.2.1.2	Codebook based transmission for UL	104100	noted	2018-01-23 16:09:42	2018-01-24 14:12:29			Rel-15			
R1-1801042	Summary for TRS	MediaTek	Patrick Merias	52292	discussion	Decision			41	7.2.3.6	TRS	104200	noted	2018-01-23 16:09:42	2018-01-23 16:12:40			Rel-15			
R1-1801043	Summary of CSI reporting v1	Ericsson	Patrick Merias	52292	discussion	Decision			30	7.2.2.2	CSI reporting	102801	revised	2018-01-23 16:09:42	2018-01-24 14:12:29	R1-1801028	R1-1801069	Rel-15			
R1-1801044	Overview on NR UE feature list	Huawei, HiSilicon	Patrick Merias	52292	other				84	7.8	UE features	2901	noted	2018-01-23 03:11:19	2018-01-23 03:11:19	R1-1800290					
R1-1801045	Summary of remaining issues on CSI measurement	ZTE	Patrick Merias	52292	discussion	Decision			29	7.2.2.1	CSI measurement	104500	revised	2018-01-23 16:09:42	2018-01-24 14:12:29		R1-1801183	Rel-15			
R1-1801046	WF on DL beam management	ZTE	Patrick Merias	52292	discussion	Decision			31	7.2.2.3	Beam measurement and reporting	104600	available	2018-01-23 16:09:42	2018-01-29 10:07:52			Rel-15			
R1-1801047	Offline summary for AI 7.6.1 NR UL power control in non CA aspects	ZTE, Sanechips	Patrick Merias	52292	discussion	Decision			80	7.6.1	NR UL power control - non-CA aspects	104700	noted	2018-01-23 16:09:42	2018-01-24 14:12:29			Rel-15			
R1-1801048	Summary for CQI and MCS	AT&T	Patrick Merias	52292	discussion	Decision			33	7.2.2.5	CQI and MCS	104800	noted	2018-01-23 16:09:42	2018-01-23 16:12:40			Rel-15			
R1-1801049	Summary of Remaining details on PRACH formats	Convida Wireless	Patrick Merias	52292	discussion	Decision			15	7.1.4.1	PRACH formats	102201	revised	2018-01-23 03:11:19	2018-01-23 03:11:19	R1-1801022	R1-1801072	Rel-15			
R1-1801050	Maintenance for PRB bundling for DL	Qualcomm Incorporated	Patrick Merias	52292	discussion	Decision			26	7.2.1.4	PRB bundling for DL	8561	withdrawn	2018-01-23 16:09:42		R1-1800856		Rel-15			
R1-1801051	Summary of Issues for PDSCH/PUSCH's DM-RS	Qualcomm	Patrick Merias	52292	discussion	Decision			38	7.2.3.3	DMRS	105100	revised	2018-01-23 03:11:19	2018-01-23 03:11:19		R1-1801093	Rel-15			
R1-1801052	Feature lead summary #1 of CSI-RS	Huawei, HiSilicon	Patrick Merias	52292	discussion	Decision			37	7.2.3.2	CSI-RS	105200	noted	2018-01-23 03:11:19	2018-01-23 03:11:19			Rel-15			
R1-1801053	Summary for TRS	MediaTek	Patrick Merias	52292	discussion	Decision			41	7.2.3.6	TRS	105300	withdrawn	2018-01-23 16:09:42				Rel-15			
R1-1801054	Summary of QCL	Nokia	Patrick Merias	52292	discussion	Decision			42	7.2.3.7	QCL	105400	noted	2018-01-23 16:09:42	2018-01-24 14:12:29						
R1-1801055	Quantization of Number of REs for TBS Determination	Ericsson	Patrick Merias	52292	other	Discussion			59	7.3.3.1	DL/UL resource allocation	105500	available	2018-01-23 16:09:42	2018-01-24 14:12:29						
R1-1801056	Summary of DL/UL scheduling and HARQ management	Qualcomm	Patrick Merias	52292	other	Discussion			60	7.3.3.2	DL/UL scheduling and HARQ management	105600	revised	2018-01-23 03:11:19	2018-01-23 03:11:19		R1-1801070				
R1-1801057	Summary of CBG based retransmission	LG Electronics	Patrick Merias	52292	other	Discussion			61	7.3.3.3	CBG-based (re)transmission	105700	noted	2018-01-23 16:09:43	2018-01-24 14:12:29						

R1-1801058	Polar Coding Issues for Downlink Control	Ericsson	Patrick Merias	82192	discussion	Decision				74	7.4.2.1	Downlink control	2151	noted	2018-01-23 03:11:19	2018-01-23 03:11:19	R1-1800215																				
R1-1801059	Channel Coding Techniques for URLLC	Ericsson	Patrick Merias	82192	discussion	Information				77	7.4.2.4	Other	2171	available	2018-01-23 03:11:19	2018-01-23 03:11:19	R1-1800217																				
R1-1801060	Offline discussions on GC-PDCCH carrying SFI	Qualcomm	Patrick Merias	82192	discussion	Decision				49	7.3.1.3	Group-common PDCCH	106000	revised	2018-01-23 03:11:19	2018-01-23 03:11:19		R1-1801062	Rel-15																				
R1-1801061	Remaining issues in CSI reporting	MediaTek Inc.	Patrick Merias	82192	discussion					30	7.2.2.2	CSI reporting	1571	available	2018-01-23 16:09:43	2018-01-23 16:12:40	R1-1800197																				
R1-1801062	Polar Coding	Qualcomm Incorporated	Patrick Merias	82192	discussion	Decision				73	7.4.2	Polar coding	8831	noted	2018-01-23 16:09:43	2018-01-23 16:12:40	R1-1800893	R1-1801271	Rel-15																		
R1-1801063	Use cases and Scenarios for NR in Unlicensed Band	AT&T	Patrick Merias	82192	discussion	Decision				85	7.9	Other	5911	withdrawn	2018-01-23 16:09:43		R1-1800591																				
R1-1801064	Summary of discussions for AI 7.3.1.1 PDCCH structure	NTT DOCOMO	Patrick Merias	82192	discussion	Decision				47	7.3.1.1	PDCCH structure	106400	noted	2018-01-23 03:11:19	2018-01-23 03:11:19			Rel-15																		
R1-1801065	Outcome of offline discussion on 7.3.3.1 (resource allocation) – part I	Ericsson	Patrick Merias	82192	discussion	Decision				59	7.3.3.1	DL/UL resource allocation	106500	noted	2018-01-23 16:09:43	2018-01-23 16:12:40			Rel-15																		
R1-1801066	Summary of issues of PRB bundling for DL	vivo	Patrick Merias	82192	discussion	Decision				26	7.2.1.4	PRB bundling for DL	106600	noted	2018-01-23 16:09:43	2018-01-24 14:12:29			Rel-15																		
R1-1801067	Summary of bandwidth part remaining issues	MediaTek	Patrick Merias	82192	discussion	Decision				67	7.3.4.1	Other aspects on bandwidth Parts	106700	noted	2018-01-23 16:09:43	2018-01-24 14:12:29			Rel-15																		
R1-1801068	Missing RRC parameters and value ranges for CSI-IM resource	Ericsson	Patrick Merias	82192	discussion	Decision				29	7.2.2.1	CSI measurement	106800	available	2018-01-23 16:09:43	2018-01-23 21:09:04			Rel-15																		
R1-1801069	Summary of CSI reporting v1	Ericsson	Patrick Merias	82192	discussion	Decision				30	7.2.2.2	CSI reporting	102802	noted	2018-01-24 14:10:44	2018-01-24 14:12:29	R1-1801043		Rel-15																		
R1-1801070	Summary of DL/UL scheduling and HARQ management	Qualcomm	Patrick Merias	82192	other	Discussion				60	7.3.3.2	DL/UL scheduling and HARQ management	105601	revised	2018-01-23 21:09:04	2018-01-23 21:09:04	R1-1801056	R1-1801124																			
R1-1801071	Further Discussion on RMSI CORESET Configuration	Samsung	Patrick Merias	82192	discussion	Discussion				11	7.1.2.2	Remaining minimum system information	107100	available	2018-01-24 14:10:44	2018-01-24 14:12:29			Rel-15																		
R1-1801072	Summary of Remaining details on PRACH formats	Convida Wireless	Patrick Merias	82192	discussion	Decision				15	7.1.4.1	PRACH formats	102202	revised	2018-01-24 14:10:44	2018-01-24 14:12:29	R1-1801049	R1-1801117	Rel-15																		
R1-1801073	LS on PDCCH order for initiation of random access	RAN2, Ericsson	Patrick Merias	82192	LS in	Discussion				4	5	Incoming Liaison Statements	107300	treated	2018-01-23 23:27:37	2018-01-23 23:27:37			Rel-15		NR_newRAT-Core				RAN1		R2-1801600								
R1-1801074	Summary of 7.1.1 Synchronization signal	Ericsson	Patrick Merias	82192	discussion	Decision				8	7.1.1	Synchronization signal	102601	revised	2018-01-24 14:10:44	2018-01-25 14:20:03	R1-1801036	R1-1801156	Rel-15																		
R1-1801075	Summary of 7.1.2.1 NR-PBCH	Ericsson	Patrick Merias	82192	discussion	Decision				10	7.1.2.1	NR-PBCH	102701	revised	2018-01-24 14:10:44	2018-01-25 14:20:03	R1-1801027	R1-1801157	Rel-15																		
R1-1801076	Feature lead summary 2 of PT-RS	Ericsson	Patrick Merias	82192	discussion	Decision				39	7.2.3.4	PT-RS	107600	available	2018-01-24 14:10:44	2018-01-26 05:52:45			Rel-15																		
R1-1801077	Text proposal based on PTRS decisions Monday	Ericsson	Patrick Merias	82192	discussion	Decision				39	7.2.3.4	PT-RS	107700	available	2018-01-24 14:10:44	2018-01-25 14:20:03			Rel-15																		
R1-1801078	Text proposal on CRC initialization for DL control channe	Huawei, HiSilicon	Patrick Merias	82192	discussion	Decision				74	7.4.2.1	Downlink control	107800	noted	2018-01-24 14:10:44	2018-01-25 14:20:03			Rel-15																		
R1-1801079	Offline discussion for search space	NTT DOCOMO	Patrick Merias	82192	discussion	Decision				48	7.3.1.2	Search space	107900	noted	2018-01-23 23:27:37	2018-01-23 23:27:37			Rel-15																		
R1-1801080	Offline summary for 7.3.3.4 UL data transmission procedure	NTT DOCOMO	Patrick Merias	82192	discussion	Decision				62	7.3.3.4	UL data transmission procedure	108000	available	2018-01-23 23:27:37	2018-01-23 23:27:37			Rel-15																		
R1-1801081	Proposals for UL data transmission procedure	NTT DOCOMO	Patrick Merias	82192	discussion	Decision				62	7.3.3.4	UL data transmission procedure	108100	revised	2018-01-23 23:27:37	2018-01-23 23:27:37		R1-1801195	Rel-15																		
R1-1801082	Offline discussions on GC-PDCCH carrying SFI	Qualcomm	Patrick Merias	82192	discussion	Decision				49	7.3.1.3	Group-common PDCCH	106200	revised	2018-01-24 02:45:20	2018-01-24 02:46:20	R1-1801060	R1-1801121	Rel-15																		
R1-1801083	Summary of Offline Discussion on RMSI	CATT	Patrick Merias	82192	discussion	Decision				11	7.1.2.2	Remaining minimum system information	2301	revised	2018-01-24 14:10:44	2018-01-25 14:20:03	R1-1800230	R1-1801122																			
R1-1801084	Offline summary for AI 7.1.3 on Paging	Huawei	Patrick Merias	82192	discussion	Decision				13	7.1.3	Paging design	9941	revised	2018-01-24 14:10:44	2018-01-24 14:12:29	R1-1800994	R1-1801146	Rel-15																		
R1-1801085	Summary of SRS	Sony	Patrick Merias	82192	discussion	Decision				40	7.2.3.5	SRS	10051	revised	2018-01-24 14:10:44	2018-01-26 05:52:45	R1-1801005	R1-1801178	Rel-15																		
R1-1801086	Summary on A1.7.1.2.3: Remaining details on other system information delivery	Samsung	Patrick Merias	82192	discussion	Decision				12	7.1.2.3	Other system information delivery	10141	revised	2018-01-24 14:10:45	2018-01-25 14:20:03	R1-1801014	R1-1801142	Rel-15																		
R1-1801087	Summary of offline discussions on PUCCH resource allocation	OPPO	Patrick Merias	82192	discussion	Decision				56	7.3.2.4	Resource allocation for PUCCH	108700	revised	2018-01-24 14:10:45	2018-01-25 14:20:03		R1-1801152	Rel-15																		
R1-1801088	Summary on CA Aspects	Samsung	Patrick Merias	82192	discussion	Decision				68	7.3.4.2	Other aspects on carrier aggregation	108800	available	2018-01-24 02:45:20	2018-01-24 02:46:20			Rel-15																		
R1-1801089	Summary for Remaining issues on Beam Failure Recovery	MediaTek	Patrick Merias	82192	discussion	Decision				32	7.2.2.4	Mechanism to recover from beam failure	108900	noted	2018-01-24 14:10:45	2018-01-26 05:52:45			Rel-15																		
R1-1801090	Way Forward on UCI Rate-Matching Output Sequence Length	MediaTek, CATT, LG Electronics, InterDigital	Patrick Merias	82192	discussion	Decision				75	7.4.2.2	Uplink control	109000	available	2018-01-24 14:10:45	2018-01-30 14:47:52			Rel-15																		
R1-1801091	On UCI encoding	MediaTek Inc.	Patrick Merias	82192	discussion					75	7.4.2.2	Uplink control	1661	noted	2018-01-24 02:45:20	2018-01-24 02:46:20	R1-1800166																				
R1-1801092	Summary of remaining issues for UCI piggyback on PUSCH	Qualcomm	Patrick Merias	82192	discussion	Decision				55	7.3.2.3	UCI multiplexing	109200	revised	2018-01-24 14:10:45	2018-01-24 14:12:29		R1-1801170	Rel-15																		
R1-1801093	Summary of Issues for PDSCH/PUSCH's DM-RS	Qualcomm	Patrick Merias	82192	discussion	Decision				38	7.2.3.3	DMRS	105101	noted	2018-01-24 14:10:45	2018-01-26 05:52:45	R1-1801091		Rel-15																		
R1-1801094	Summary of Contributions on PUCCH structure in short-duration	Ericsson	Patrick Merias	82192	discussion	Decision				53	7.3.2.1	PUCCH structure in short-duration	109400	noted	2018-01-24 14:10:45	2018-01-29 10:07:52			Rel-15																		
R1-1801095	Text proposal on 38.331	Ericsson	Patrick Merias	82192	discussion	Decision				6	7	Maintenance of NR - WID in RP-172834	109500	revised	2018-01-24 14:10:45	2018-01-26 05:52:45		R1-1801161	Rel-15																		
R1-1801096	Feature lead summary #2 of CSI-RS	Huawei, HiSilicon	Patrick Merias	82192	discussion	Decision				37	7.2.3.2	CSI-RS	109600	noted	2018-01-24 14:10:45	2018-01-29 10:07:52			Rel-15																		
R1-1801097	Summary of remaining details on RACH procedure	Nokia, Nokia Shanghai Bell	Patrick Merias	82192	discussion	Decision				16	7.1.4.2	RACH procedure	104001	revised	2018-01-24 14:10:45	2018-01-24 14:12:29	R1-1801040	R1-1801169	Rel-15																		
R1-1801098	WF on PT-RS Symbol Position	Samsung	Patrick Merias	82192	discussion	Decision				39	7.2.3.4	PT-RS	109800	available	2018-01-24 14:10:45	2018-01-25 14:20:03			Rel-15																		
R1-1801099	Summary of Tuesday Discussion for NR Radio Link Monitoring	Intel Corporation	Patrick Merias	82192	discussion	Decision				18	7.1.5.1	Measurement for mobility management	109900	noted	2018-01-24 14:10:45	2018-01-24 14:12:29			Rel-15																		
R1-1801100	Summary of Tuesday Offline Discussion for NR RRM measurements	Intel Corporation	Patrick Merias	82192	discussion	Decision				19	7.1.5.2	Radio link monitoring for mobility management	110000	noted	2018-01-24 14:10:45	2018-01-24 14:12:28			Rel-15																		
R1-1801101	Summary Uplink Polar Code Segmentation	Samsung	Patrick Merias	82192	discussion	Decision				75	7.4.2.2	Uplink control	110100	available	2018-01-24 14:10:45	2018-01-24 14:12:28			Rel-15																		
R1-1801102	Outcome of offline discussion on 7.3.3.1 (resource allocation) – part II	Ericsson	Patrick Merias	82192	discussion	Decision				59	7.3.3.1	DL/UL resource allocation	110200	noted	2018-01-24 14:10:45	2018-01-25 14:20:03			Rel-15																		
R1-1801103	WF on Layer indicator reporting	Samsung, Intel, Huawei, HiSilicon	Patrick Merias	82192	discussion	Decision				39	7.2.3.4	PT-RS	110300	available	2018-01-24 14:10:45	2018-01-29 10:07:52			Rel-15																		
R1-1801104	Time-domain resource allocation: Supported combinations	Intel Corporation	Patrick Merias	82192	discussion	Discussion				59	7.3.3.1	DL/UL resource allocation	110400	available	2018-01-24 14:10:45	2018-01-25 14:20:03			Rel-15																		
R1-1801105	LS to RAN1 on MAC CE for MIMO	RAN2, Nokia	Patrick Merias	82192	LS in	Discussion				4	5	Incoming Liaison Statements	110500	postponed	2018-01-24 14:10:45	2018-01-24 14:13:20			Rel-15		NR_newRAT-Core				RAN1		R3-1801955								
R1-1801106	WF on DFTsOFDM PT-RS remaining issues	Mitsubishi Electric, Samsung, Qualcomm, AT&T, Ericsson, Interdigital, Nokia, NSB, IITH, IITM, CeWiT, Tejas Networks, Reliance Jio, CATT, NTT DoCoMo, Sharp, Sony, Convida Wireless	Patrick Merias	82192	discussion	Decision				39	7.2.3.4	PT-RS	110600	noted	2018-01-25 14:18:24	2018-01-26 05:52:45			Rel-15																		
R1-1801107	Offline agreements on Codebook Based UL Transmission	Intel Corporation	Patrick Merias	82192	discussion	Decision				24	7.2.1.2	Codebook based transmission for UL	110700	available	2018-01-25 14:18:24	2018-01-29 10:07:52			Rel-15																		
R1-1801108	Text proposal on Codebook Based UL Transmission	Intel Corporation	Patrick Merias	82192	discussion	Decision				24	7.2.1.2	Codebook based transmission for UL	110800	available	2018-01-25 14:18:24	2018-01-29 10:07:52			Rel-15																		
R1-1801109	[DRAFT] Reply LS on channel raster and SS raster	Ericsson	Patrick Merias	82192	LS out	Decision				8	7.1.1	Synchronization signal	110900	revised	2018-01-25 14:18:24	2018-01-26 05:52:45		R1-1801182	Rel-15		NR_newRAT-Core				RAN4, RAN2		R4-1714295								
R1-1801110	WF on CSI-RS sequence mapping	Ericsson, Qualcomm, NEC, LGE, ZTE, Sanechips, Interdigital, Verizon, CATT	Patrick Merias	82192	discussion	Decision				37	7.2.3.2	CSI-RS	111000	noted	2018-01-25 14:18:24	2018-01-29 10:07:52			Rel-15																		
R1-1801111	WF on LTE HARQ-ACK resource determination in EN-DC	Nokia, Nokia Shanghai Bell, NTT DoCoMo, ZTE	Patrick Merias	82192	discussion	Decision				78	7.5	NR-LTE co-existence	111100	noted	2018-01-25 01:12:03	2018-01-25 01:12:03			Rel-15																		
R1-1801112	Correction of CRC initialization	Nokia, Nokia Shanghai Bell	Patrick Merias	82192	discussion	Decision				74	7.4.2.1	Downlink control	7771	available	2018-01-25 01:12:03	2018-01-25 01:12:03	R1-1800777																				
R1-1801113	[DRAFT] LS on OSI and paging PDCCH configuration	Samsung	Patrick Merias	82192	LS out	Decision				12	7.1.2.3	Other system information delivery	111300	revised	2018-01-25 14:18:25	2018-01-26 05:52:45		R1-1801189	Rel-15		NR_newRAT-Core				RAN2										
R1-1801114	WF on CSI-RS Rate Matching	Samsung, InterDigital, DOCOMO, ZTE, Sanechips	Patrick Merias	82192	discussion	Decision				37	7.2.3.2	CSI-RS	111400	revised	2018-01-25 14:18:25	2018-01-26 05:52:45		R1-1801174	Rel-15																		
R1-1801115	Summary of offline discussions on QCL	Nokia	Patrick Merias	82192	discussion	Decision				42	7.2.3.7	QCL	111500	noted	2018-01-25 14:18:25	2018-01-29 10:07:52			Rel-15																		
R1-1801116	Summary of offline discussions for 7.3.3.5	Intel Corporation	Patrick Merias	82192	discussion	Decision				63	7.3.3.5	Soft-buffer management for NR	111600	noted	2018-01-25 01:12:03	2018-01-25 01:12:03			Rel-15																		
R1-1801117	Summary of Remaining details on PRACH formats	Convida Wireless	Patrick Merias	82192	discussion	Decision				15	7.1.4.1	PRACH formats	102203	revised	2018-01-25 14:18:25	2018-01-26 05:52:45	R1-1801072	R1-1801234	Rel-15																		
R1-1801118	[DRAFT] LS on CSI-RS based RRM	Intel	Patrick Merias	82192	LS out	Decision				18	7.1.5.1	Measurement for mobility management	111800	revised	2018-01-25 14:18:25	2018-01-26 05:52:45		R1-1801190	Rel-15		NR_newRAT-Core				RAN4										
R1-1801119	Co-Existence Simulation Assumption and Methodology for NR in unlicensed band	AT&T	Patrick Merias	82192	discussion	Decision				85	7.9	Other	5931	withdrawn	2018-01-25 14:18:25		R1-1800593																				
R1-1801120	WF on SRS for UL beam management	Samsung	Patrick Merias	82192	discussion	Decision				31	7.2.2.3	Beam measurement and reporting	112000	available	2018-01-25 14:18:25	2018-01-31 08:27:28			Rel-15																		
R1-1801121	Offline discussions on GC-PDCCH carrying SFI	Qualcomm	Patrick Merias	82192	discussion	Decision				49	7.3.1.3	Group-common PDCCH	108201	revised	2018-01-25 01:12:03	2018-01-25 01:12:03	R1-1801060	R1-1801254	Rel-15																		
R1-1801122	Summary of Offline Discussion on RMSI	CATT	Patrick Merias	82192	discussion	Decision				11	7.1.2.2	Remaining minimum system information	2302	revised	2018-01-25 14:18:25	2018-01-26 05:52:45	R1-1801083	R1-1801192																			
R1-1801123	[DRAFT] LS on RLM reporting Interval	Intel	Patrick Merias	82192	LS out	Decision				19	7.1.5.2	Radio link monitoring for mobility management	112300	revised	2018-01-25 14:18:25	2018-01-26 05:52:45		R1-1801191	Rel-15		NR_newRAT-Core				RAN4										
R1-1801124	Summary of DL/UL scheduling and HARQ management	Qualcomm	Patrick Merias	82192	other	Discussion				60	7.3.3.2	DL/UL scheduling and HARQ management	105602	revised	2018-01-25 14:18:25	2018-01-25 14:20:03	R1-1801070	R1-1801190																			
R1-1801125	CRC Initialization for Uplink Control Information	Ericsson	Patrick Merias	82192	discussion	Decision				75	7.4.2.2	Uplink control	112500	available	2018-01-25 14:18:25	2018-01-25 14:20:03			Rel-15																		

R1-1801126	TBS Determination for LDPC Codes	Ericsson	Patrick Merias	S2 92	discussion	Decision				72	7.4.1	LDPC coding	112600	noted	2018-01-25 14:18:25	2018-01-25 14:20:03			Rel-15																			
R1-1801127	WF on additional RS periodicities	ZTE, Sanechips, Qualcomm, CMCC, Orange, NTT DOCOMO, AT&T, Vodafone, Softbank, Samsung, Ericsson, Spreadtrum, OPPO, CATT, Sony, vivo	Patrick Merias	S2 92	discussion	Decision				37	7.2.3.2	CSI-RS	112700	noted	2018-01-25 14:18:25	2018-01-29 10:07:52			Rel-15																			
R1-1801128	Offline discussion on UL data transmission procedure	NTT DOCOMO	Patrick Merias	S2 92	discussion	Decision				62	7.3.3.4	UL data transmission procedure	112800	noted	2018-01-25 14:18:25	2018-01-25 14:20:03			Rel-15																			
R1-1801129	Offline discussion for Search space	NTT DOCOMO	Patrick Merias	S2 92	discussion	Decision				48	7.3.1.2	Search space	112900	noted	2018-01-25 14:18:25	2018-01-25 14:20:03			Rel-15																			
R1-1801130	Chairman's notes of AI 7.2 MIMO	Ad-Hoc Chair (Samsung)	Patrick Merias	S2 92	other	Endorsement				21	7.2	MIMO	113000	endorsed	2018-01-25 14:18:25	2018-01-29 10:07:52			Rel-15																			
R1-1801131	Chairman's notes of AI 7.4 Channel coding	Ad-Hoc Chair (Ericsson)	Patrick Merias	S2 92	other	Endorsement				71	7.4	Channel coding	113100	endorsed	2018-01-25 14:18:25	2018-01-29 10:07:52			Rel-15																			
R1-1801132	Chairman's notes of AI 7.5 NR-LTE co-existence	Ad-Hoc Chair (Ericsson)	Patrick Merias	S2 92	other	Endorsement				78	7.5	NR-LTE co-existence	113200	endorsed	2018-01-25 14:18:25	2018-01-29 10:07:52			Rel-15																			
R1-1801133	Chairman's notes of AI 7.6 UL power control	Ad-Hoc Chair (Ericsson)	Patrick Merias	S2 92	other	Endorsement				79	7.6	UL power control	113300	endorsed	2018-01-25 14:18:25	2018-01-29 10:07:52			Rel-15																			
R1-1801134	Chairman's notes of AI 7.8 UE features	Ad-Hoc Chair (NTT DOCOMO)	Patrick Merias	S2 92	other	Endorsement				84	7.8	UE features	113400	endorsed	2018-01-25 14:18:25	2018-01-29 10:07:52			Rel-15																			
R1-1801135	Chairman's notes of AI 7.8 UE features (MIMO)	Ad-Hoc Chair (AT&T)	Patrick Merias	S2 92	other	Endorsement				84	7.8	UE features	113500	withdrawn	2018-01-25 14:18:25				Rel-15																			
R1-1801136	Outcome of offline discussions on DCI content Part1	Ericsson	Patrick Merias	S2 92	discussion	Decision				50	7.3.1.4	DCI contents and formats	113600	noted	2018-01-25 14:18:25	2018-01-25 14:20:03			Rel-15																			
R1-1801137	Offline proposals for NR power control in non-CA aspects	ZTE, Sanechips	Patrick Merias	S2 92	discussion	Decision				80	7.6.1	NR UL power control - non-CA aspects	113700	revised	2018-01-25 14:18:25	2018-01-25 14:20:03		R1-1801166	Rel-15																			
R1-1801138	Summary of offline discussion on the remaining issues for RS multiplexing	Huawei, HiSilicon	Patrick Merias	S2 92	discussion	Decision				36	7.2.3.1	Multiplexing of different types of RSs	113800	noted	2018-01-25 14:18:25	2018-01-26 05:52:45			Rel-15																			
R1-1801139	LS on NR Soft Buffer Dimensioning	RAN1, Intel	Patrick Merias	S2 92	LS out	Approval				63	7.3.3.5	Soft-buffer management for NR	113900	approved	2018-01-25 14:18:25	2018-01-26 05:52:45			Rel-15			NR_newRAT-Core											RAN4		
R1-1801140	WF on default beam for PDCCH	LG Electronics	Patrick Merias	S2 92	discussion	Decision				31	7.2.2.3	Beam measurement and reporting	114000	available	2018-01-25 14:18:25	2018-01-29 10:07:52																			
R1-1801141	WF on UL PT-RS power boosting factor	LG Electronics, Samsung, Intel	Patrick Merias	S2 92	discussion	Decision				39	7.2.3.4	PT-RS	114100	available	2018-01-25 14:18:25	2018-01-29 10:07:53			Rel-15																			
R1-1801142	Wednesday offline outcome on Remaining details on other system information delivery	Samsung	Patrick Merias	S2 92	discussion	Decision				12	7.1.2.3	Other system information delivery	10142	noted	2018-01-25 14:18:25	2018-01-26 05:52:45	R1-1801096		Rel-15																			
R1-1801143	Feature lead summary 2 of beam measurement and reporting	Ericsson	Patrick Merias	S2 92	discussion	Decision				31	7.2.2.3	Beam measurement and reporting	114300	noted	2018-01-25 14:18:25	2018-01-26 05:52:45			Rel-15																			
R1-1801144	Text proposals of PRB bundling for DL	vivo	Patrick Merias	S2 92	discussion	Decision				26	7.2.1.4	PRB bundling for DL	114400	available	2018-01-25 14:18:25	2018-01-26 05:52:45			Rel-15																			
R1-1801145	Review Summary for AI 7.3.2.2: PUCCH structure in long-duration	Huawei, HiSilicon	Patrick Merias	S2 92	discussion	Decision				54	7.3.2.2	PUCCH structure in long-duration	102301	noted	2018-01-25 20:18:04	2018-01-25 20:18:04	R1-1801031		Rel-15																			
R1-1801146	Offline summary for AI 7.1.3 on Paging	Huawei	Patrick Merias	S2 92	discussion	Decision				13	7.1.3	Paging design	9942	noted	2018-01-26 00:29:22	2018-01-26 00:29:22	R1-1801094		Rel-15																			
R1-1801147	WF for periodicity configuration	ZTE, Sanechips	Patrick Merias	S2 92	discussion	Decision				46	7.3.1	Physical downlink control channel	114700	available	2018-01-26 06:46:28	2018-01-26 06:14:21																			
R1-1801148	(draft) LS on correction to RRC parameters for NR	Ericsson	Patrick Merias	S2 92	LS out	Decision				6	7	Maintenance of NR - WID in RP-172834	114800	revised	2018-01-25 20:18:04	2018-01-25 20:18:04		R1-1801162	Rel-15			NR_newRAT-Core											RAN2		
R1-1801149	(draft) LS on power sharing for LTE-NR dual connectivity	Ericsson	Patrick Merias	S2 92	LS out	Decision				80	7.6.1	NR UL power control - non-CA aspects	114900	revised	2018-01-25 20:18:04	2018-01-25 20:18:04		R1-1801202	Rel-15			NR_newRAT-Core											RAN2, RAN4		
R1-1801150	Summary of DL/UL scheduling and HARQ management	Qualcomm	Patrick Merias	S2 92	other	Discussion				60	7.3.3.2	DL/UL scheduling and HARQ management	105903	revised	2018-01-26 06:46:29	2018-01-26 06:14:21	R1-1801124	R1-1801247																			
R1-1801151	Remaining details on MCS	Qualcomm Incorporated	Patrick Merias	S2 92	discussion	Decision				33	7.2.2.5	CQI and MCS	8611	noted	2018-01-25 21:13:26	2018-01-25 21:13:26	R1-1800861		Rel-15																			
R1-1801152	Summary of offline discussions on PUCCH resource allocation	OPPO	Patrick Merias	S2 92	discussion	Decision				56	7.3.2.4	Resource allocation for PUCCH	106701	available	2018-01-26 00:29:22	2018-01-26 00:29:22	R1-1801037		Rel-15																			
R1-1801153	WF on Placement for PTRS for OFT-s-OFDM	Huawei, HiSilicon, Spreadtrum, NEC, Qualcomm, ZTE, Sanechips, IITH, ITM, CEWIT, Tejas Networks	Patrick Merias	S2 92	discussion	Decision				39	7.2.3.4	PT-RS	115300	available	2018-01-26 06:46:29	2018-01-29 10:07:53			Rel-15																			
R1-1801154	TP in dual connectivity for TS38.213	LG Electronics	Patrick Merias	S2 92	discussion	Decision				78	7.5	NR-LTE co-existence	115400	available	2018-01-26 06:46:29	2018-01-29 10:07:53			Rel-15																			
R1-1801155	Summary of 7.3.3.6 multiplexing data with different transmission durations	vivo	Patrick Merias	S2 92	discussion	Decision				64	7.3.3.6	Multiplexing data with different transmission durations	103101	noted	2018-01-25 20:18:04	2018-01-25 20:18:04	R1-1801031		Rel-15																			
R1-1801156	Summary of 7.1.1 Synchronization signal	Ericsson	Patrick Merias	S2 92	discussion	Decision				8	7.1.1	Synchronization signal	102602	revised	2018-01-26 00:29:22	2018-01-26 00:29:22	R1-1801074	R1-1801205	Rel-15																			
R1-1801157	Summary of 7.1.2.1 NR-PBCH	Ericsson	Patrick Merias	S2 92	discussion	Decision				10	7.1.2.1	NR-PBCH	102702	revised	2018-01-26 00:29:22	2018-01-26 00:29:22	R1-1801075	R1-1801206	Rel-15																			
R1-1801158	Summary of Bandwidth Part Remaining Issues	MediaTek	Patrick Merias	S2 92	discussion	Decision				67	7.3.4.1	Other aspects on bandwidth Parts	115800	noted	2018-01-25 20:18:04	2018-01-25 20:18:04			Rel-15																			
R1-1801159	Summary of open issues related to rate-matching in NR	Nokia, Nokia Shanghai Bell	Patrick Merias	S2 92	discussion	Decision				69	7.3.5	Rate matching aspects for NR DL and UL	115900	noted	2018-01-25 20:18:04	2018-01-25 20:18:04			Rel-15																			
R1-1801160	Updated offline summary on PHR	NTT DOCOMO, Qualcomm, Huawei, Hisilicon, ZTE, Sanechips, Fujitsu	Patrick Merias	S2 92	discussion	Decision				80	7.6.1	NR UL power control - non-CA aspects	116000	noted	2018-01-26 00:29:22	2018-01-26 00:29:22			Rel-15																			
R1-1801161	Text proposal on 38.331	Ericsson	Patrick Merias	S2 92	discussion	Decision				6	7	Maintenance of NR - WID in RP-172834	109501	revised	2018-01-26 06:46:29	2018-01-26 06:14:21	R1-1801095	R1-1801186	Rel-15																			
R1-1801162	(draft) LS on correction to RRC parameters for NR	Ericsson	Patrick Merias	S2 92	LS out	Decision				6	7	Maintenance of NR - WID in RP-172834	114801	revised	2018-01-26 06:46:29	2018-01-29 10:07:53	R1-1801148	R1-1801250	Rel-15			NR_newRAT-Core											RAN2		
R1-1801163	Offline on CA	Samsung	Patrick Merias	S2 92	discussion	Decision				68	7.3.4.2	Other aspects on carrier aggregation	116300	noted	2018-01-25 20:18:04	2018-01-25 20:18:04			Rel-15																			
R1-1801164	Proposal for CBGFI description	LG Electronics	Patrick Merias	S2 92	discussion	Decision				61	7.3.3.3	CBG-based (re)transmission	116400	noted	2018-01-26 06:46:29	2018-01-26 06:14:21			Rel-15																			
R1-1801165	Offline proposals for NR power control in non-CA aspects	ZTE, Sanechips	Patrick Merias	S2 92	discussion	Decision				80	7.6.1	NR UL power control - non-CA aspects	113701	revised	2018-01-26 00:29:22	2018-01-26 00:29:22	R1-1801137	R1-1801207	Rel-15																			
R1-1801166	Offline agenda for joint MIMO&UL control and CSI reporting session	Ericsson	Patrick Merias	S2 92	discussion	Decision				30	7.2.2.2	CSI reporting	116600	available	2018-01-25 21:13:26	2018-01-25 21:13:26			Rel-15																			
R1-1801167	Offline session notes for joint MIMO&UL control and CSI reporting session	Ericsson	Patrick Merias	S2 92	discussion	Decision				30	7.2.2.2	CSI reporting	116700	noted	2018-01-26 06:46:29	2018-01-26 06:14:21			Rel-15																			
R1-1801168	Summary of Further Discussion on RMSI CORESET Configuration	Samsung	Patrick Merias	S2 92	discussion	Decision				11	7.1.2.2	Remaining minimum system information	116800	available	2018-01-26 00:29:22	2018-01-26 00:29:22			Rel-15																			
R1-1801169	Summary of remaining details on RACH procedure	Nokia, Nokia Shanghai Bell	Patrick Merias	S2 92	discussion	Decision				16	7.1.4.2	RACH procedure	104002	revised	2018-01-26 00:29:22	2018-01-26 00:29:22	R1-1801097	R1-1801274	Rel-15																			
R1-1801170	Summary of remaining issues for UCI piggyback on PUSCH	Qualcomm	Patrick Merias	S2 92	discussion	Decision				55	7.3.2.3	UCI multiplexing	109201	noted	2018-01-25 21:13:26	2018-01-25 21:13:26	R1-1801092		Rel-15																			
R1-1801171	TP on power control for LTE-NR NSA operation	Huawei, HiSilicon	Patrick Merias	S2 92	discussion	Decision				80	7.6.1	NR UL power control - non-CA aspects	117100	revised	2018-01-26 00:29:22	2018-01-26 00:29:22		R1-1801177	Rel-15																			
R1-1801172	Offline discussion on UL non-codebook based transmission	Nokia, Nokia Shanghai Bell	Patrick Merias	S2 92	discussion	Decision				25	7.2.1.3	Non-codebook based transmission for UL	117200	noted	2018-01-26 06:46:30	2018-01-26 06:14:21			Rel-15																			
R1-1801173	Multiplexing of A/N and SR on PUCCH	Ericsson	Patrick Merias	S2 92	discussion	Discussion				53	7.3.2.1	PUCCH structure in short-duration	117300	noted	2018-01-26 00:29:22	2018-01-26 00:29:22			Rel-15																			
R1-1801174	WF on CSI-RS Rate Matching	Samsung	Patrick Merias	S2 92	discussion	Decision				37	7.2.3.2	CSI-RS	111401	available	2018-01-26 06:46:30	2018-01-29 10:07:53	R1-1801114		Rel-15																			
R1-1801175	TP on the number of padding bits	Intel Corporation	Patrick Merias	S2 92	discussion	Decision				30	7.2.2.2	CSI reporting	117500	available	2018-01-26 06:46:30	2018-01-26 06:14:21			Rel-15																			
R1-1801176	Outcome of offline discussion on 7.3.3.1 (resource allocation) - part III	Ericsson	Patrick Merias	S2 92	discussion	Decision				59	7.3.3.1	DL/UL resource allocation	117600	noted	2018-01-26 00:29:22	2018-01-26 00:29:22			Rel-15																			
R1-1801177	TP on power control for LTE-NR NSA operation	Huawei, HiSilicon	Patrick Merias	S2 92	discussion	Decision				80	7.6.1	NR UL power control - non-CA aspects	117101	revised	2018-01-26 00:29:22	2018-01-26 00:29:22	R1-1801171	R1-1801227	Rel-15																			
R1-1801178	Summary of SRS	Sony	Patrick Merias	S2 92	discussion	Decision				40	7.2.3.5	SRS	10052	noted	2018-01-26 06:46:30	2018-01-26 06:14:21	R1-1801095		Rel-15																			
R1-1801179	TPs on UL non-codebook based transmission	Nokia, Nokia Shanghai Bell	Patrick Merias	S2 92	discussion	Decision				25	7.2.1.3	Non-codebook based transmission for UL	117900	available	2018-01-26 06:46:30	2018-01-29 10:07:53			Rel-15																			
R1-1801180	Summary of Thursday Offline Discussion for NR Radio Link Monitoring	Intel Corporation	Patrick Merias	S2 92	other	Discussion				19	7.15.2	Radio link monitoring for mobility management	118000	noted	2018-01-26 06:46:30	2018-01-26 06:14:21																			
R1-1801181	Summary of Thursday Offline Discussion for NR RRM measurements	Intel Corporation	Patrick Merias	S2 92	other	Discussion				18	7.15.1	Measurement for mobility management	118100	noted	2018-01-26 06:46:31	2018-01-26 06:14:21																			
R1-1801182	Reply LS on channel raster and SS raster	RAN1, Ericsson	Patrick Merias	S2 92	LS out	Approval				8	7.1.1	Synchronization signal	110901	approved	2018-01-26 06:46:31	2018-01-26 06:14:21	R1-1801106		Rel-15			NR_newRAT-Core											R4-1714295	RAN4, RAN2		
R1-1801183	Summary of remaining issues on CSI measurement	ZTE	Patrick Merias	S2 92	discussion	Decision				29	7.2.2.1	CSI measurement	104501	noted	2018-01-26 06:46:31	2018-01-26 06:14:21	R1-1801045		Rel-15																			
R1-1801184	RRC parameter updates and TPs for CSI measurement	ZTE	Patrick Merias	S2 92	discussion	Decision				29	7.2.2.1	CSI measurement	118400	noted	2018-01-26 06:46:31	2018-01-26 06:14:21																			
R1-1801185	WF on UE capability on CSI reporting and relaxation	LG Electronics, Ericsson, IntelDigital	Patrick Merias	S2 92	discussion	Decision				30	7.2.2.2	CSI reporting	118500	noted	2018-01-26 06:46:31	2018-01-26 06:14:21		R1-1801122	Rel-15																			
R1-1801186	RRC parameter update	Ericsson	Patrick Merias	S2 92	discussion	Decision				6	7	Maintenance of NR - WID in RP-172834	109502	revised	2018-01-26 06:46:31	2018-01-29 10:07:53	R1-1801161	R1-1801249	Rel-15			NR_newRAT-Core														
R1-1801187	Feature lead summary 3 of beam measurement and reporting	Ericsson	Patrick Merias	S2 92	discussion	Decision				31	7.2.2.3	Beam measurement and reporting	118700	noted	2018-01-26 06:46:31	2018-01-26 06:14:21			Rel-15																			
R1-1801188	(draft) LS on RMSI CORESET configurations	CATT	Patrick Merias	S2 92	LS out	Decision				11	7.1.2.2	Remaining minimum system information	118800	revised	2018-01-26 06:46:31	2018-01-26 06:14:21		R1-1801246	Rel-15			NR_newRAT-Core											RAN4		
R1-1801189	LS on CSI and paging PDCCH configuration	RAN1, Samsung	Patrick Merias	S2 92	LS out	Approval				12	7.1.2.3	Other system information delivery	111301	approved	2018-01-26 06:46:31	2018-01-26 06:14:21	R1-1801113		Rel-15			NR_newRAT-Core											RAN2		
R1-1801190	LS on CSI-RS based RRM	RAN1, Intel	Patrick Merias	S2 92	LS out	Approval				18	7.15.1	Measurement for mobility management	111801	approved	2018-01-26 06:46:31	2018-01-29 10:07:53	R1-1801118		Rel-15			NR_newRAT-Core											RAN4		
R1-1801191	LS on RLM reporting interval	RAN1, Intel	Patrick Merias	S2 92	LS out	Approval				19	7.15.2	Radio link monitoring for mobility management	112301	approved	2018-01-26 06:46:31	2018-01-29 10:07:53	R1-1801123		Rel-15			NR_newRAT-Core											RAN4		
R1-1801192	Summary of Offline Discussion on RMSI	CATT	Patrick Merias	S2 92	discussion	Decision				11	7.1.2.2	Remaining minimum system information	2303	noted	2018-01-26 06:46:31	2018-01-26 06:14:21	R1-1801122	R1-1801235																			
R1-1801193	LS to RAN1 on cell-specific and BWP-specific parameters	RAN2, Huawei	Patrick Merias	S2 92	LS in	Decision				4	5	Incoming Liaison Statements	119300	treated	2018-01-26 06:46:31	2018-01-26 06:14:21			Rel-15			NR_newRAT-Core											RAN1		R2-1801630
R1-1801194	LS on Baseband Processing Capabilities	RAN2, Intel	Patrick Merias	S2 92	LS in	Decision				4	5	Incoming Liaison Statements	119400	treated	2018-01-26 06:46:31	2018-01-26 06:14:21			Rel-15			NR_newRAT-Core											RAN4, RAN1		R2-1801631

R1-1801195	Proposals for UL data transmission procedure	NTT DOCOMO	Patrick Merias	82192	discussion	Decision				62	7.3.3.4	UL data transmission procedure	108101	available	2018-01-26 05:46:31	2018-01-26 06:14:21	R1-1801091		Rel-15																
R1-1801196	Offline discussion for PDCCH structure	NTT DOCOMO	Patrick Merias	82192	discussion	Decision				47	7.3.1.1	PDCCH structure	119900	noted	2018-01-26 05:46:31	2018-01-26 06:14:21			Rel-15																
R1-1801197	Offline Summary for Remaing issues on Beam Failure Recovery	MediaTek	Patrick Merias	82192	discussion	Decision				32	7.22.4	Mechanism to recover from beam failure	119700	noted	2018-01-26 05:46:31	2018-01-26 06:14:21			Rel-15																
R1-1801198	NR UE feature list	NTT DOCOMO, AT&T	Patrick Merias	82192	discussion	Decision				84	7.8	UE features	119800	revised	2018-01-26 05:46:32	2018-01-29 10:07:53		R1-1801289	Rel-15			NR_newRAT-Core											
R1-1801199	(draft) LS on NR UE feature list	NTT DOCOMO, AT&T	Patrick Merias	82192	LS out	Decision				84	7.8	UE features	119900	revised	2018-01-26 05:46:32	2018-01-29 10:07:53		R1-1801290	Rel-15			NR_newRAT-Core					RAN2, RAN4		RAN5		
R1-1801200	WF on PT-RS Symbol Position	Samsung, ZTE, Sanechips, LGE, Ericsson, Qualcomm, InterDigital, Intel, Spreadtrum, vivo, Mitsubishi, Docomo, Panasonic, HW, HiSi, NEC	Patrick Merias	82192	discussion	Decision				39	7.23.4	PT-RS	120000	noted	2018-01-26 05:46:32	2018-01-29 10:07:53			Rel-15																
R1-1801201	TP to 8.3.1.7 in 38.211 (correction of VRB-to-PRB mapping in UL)	Ericsson	Patrick Merias	82192	discussion	Decision				59	7.3.3.1	DL/UL resource allocation	120100	noted	2018-01-26 05:46:32	2018-01-26 06:14:21			Rel-15																
R1-1801202	LS on powers control for LTE-NR dual connectivity	RAN1, Ericsson	Patrick Merias	82192	LS out	Approval				80	7.6.1	NR UL power control - non-CA aspects	114901	revised	2018-01-26 05:46:32	2018-01-29 10:07:53	R1-1801149	R1-1801231	Rel-15			NR_newRAT-Core					RAN2, RAN4					
R1-1801203	LS on PHR	RAN2, NTT DOCOMO	Patrick Merias	82192	LS in	Decision				4	5	Incoming Liaison Statements	120300	postponed	2018-01-26 05:46:32	2018-01-26 06:14:21			Rel-15			NR_newRAT-Core					RAN1		R2-1801968			
R1-1801204	LS on Clarifications in MAC	RAN2, Ericsson	Patrick Merias	82192	LS in	Decision				4	5	Incoming Liaison Statements	120400	postponed	2018-01-26 05:46:32	2018-01-26 06:14:21			Rel-15			NR_newRAT-Core					RAN4, RAN1		R2-1801969			
R1-1801205	Summary of 7.1.1 Synchronization signal	Ericsson	Patrick Merias	82192	discussion	Decision				8	7.1.1	Synchronization signal	102603	available	2018-01-26 05:46:32	2018-01-29 10:07:53	R1-1801196		Rel-15																
R1-1801206	Summary of 7.1.2.1 NR-PBCH	Ericsson	Patrick Merias	82192	discussion	Decision				10	7.12.1	NR-PBCH	102703	withdrawn	2018-01-26 05:46:32		R1-1801197		Rel-15																
R1-1801207	TP section 7.3 of 38.212 from agenda point 7.3.1.4	Ericsson	Patrick Merias	82192	discussion	Decision				50	7.3.1.4	DCI contents and formats	120700	endorsed	2018-01-27 17:20:34	2018-01-27 17:20:34			Rel-15																
R1-1801208	TP section 5.1.2.2 of 38.214 from agenda point 7.3.1.4	Ericsson	Patrick Merias	82192	discussion	Decision				50	7.3.1.4	DCI contents and formats	120800	endorsed	2018-01-27 17:20:34	2018-01-27 17:20:34			Rel-15																
R1-1801209	TP section 10.1 of 38.213 from agenda point 7.3.3.1	Ericsson	Patrick Merias	82192	discussion	Decision				59	7.3.3.1	DL/UL resource allocation	120900	endorsed	2018-01-27 17:20:34	2018-01-27 17:20:34			Rel-15																
R1-1801210	TP section 5.1.2.1 of 38.214 from agenda point 7.3.3.1	Ericsson	Patrick Merias	82192	discussion	Decision				59	7.3.3.1	DL/UL resource allocation	121000	endorsed	2018-01-27 17:20:34	2018-01-27 17:20:34			Rel-15																
R1-1801211	WF on base-sequence hopping for PUCCH	NTT DOCOMO	Patrick Merias	82192	discussion	Decision				52	7.3.2	Physical uplink control channel	121100	revised	2018-01-27 17:20:34	2018-01-27 17:20:34		R1-1801289																
R1-1801212	Text proposal for subband sizes	Ericsson	Patrick Merias	82192	discussion	Decision				30	7.2.2.2	CSI reporting	121200	available	2018-01-27 17:20:34	2018-01-27 17:20:34																			
R1-1801213	Text proposal for CSI dependency order	Ericsson	Patrick Merias	82192	discussion	Decision				30	7.2.2.2	CSI reporting	121300	available	2018-01-27 17:20:34	2018-01-27 17:20:34																			
R1-1801214	Text proposal for Type II CSI Part 1 on PUCCH	Ericsson	Patrick Merias	82192	discussion	Decision				30	7.2.2.2	CSI reporting	121400	available	2018-01-27 17:20:34	2018-01-27 17:20:34																			
R1-1801215	Text proposal for encoding of PUCCH piggybacked on PUSCH	Ericsson	Patrick Merias	82192	discussion	Decision				30	7.2.2.2	CSI reporting	121500	available	2018-01-27 17:20:34	2018-01-27 17:20:34																			
R1-1801216	Text proposal for clarifying CRI RI i1 report mode	Ericsson	Patrick Merias	82192	discussion	Decision				30	7.2.2.2	CSI reporting	121600	available	2018-01-27 17:20:34	2018-01-27 17:20:34																			
R1-1801217	Text proposal for clarifying frequency-granularities	Ericsson	Patrick Merias	82192	discussion	Decision				30	7.2.2.2	CSI reporting	121700	available	2018-01-27 17:20:34	2018-01-27 17:20:34																			
R1-1801218	Text proposal for additional CSI reporting periodicities	Ericsson	Patrick Merias	82192	discussion	Decision				30	7.2.2.2	CSI reporting	121800	available	2018-01-27 17:20:34	2018-01-27 17:20:34																			
R1-1801219	Text proposal for PUSCH timing	Ericsson	Patrick Merias	82192	discussion	Decision				30	7.2.2.2	CSI reporting	121900	available	2018-01-27 17:20:34	2018-01-27 17:20:34																			
R1-1801220	Text proposal for latency classes	Ericsson	Patrick Merias	82192	discussion	Decision				30	7.2.2.2	CSI reporting	122000	available	2018-01-27 17:20:34	2018-01-27 17:20:34																			
R1-1801221	Text proposal for CSI priority rules	Ericsson	Patrick Merias	82192	discussion	Decision				30	7.2.2.2	CSI reporting	122100	available	2018-01-27 17:20:34	2018-01-27 17:20:34																			
R1-1801222	WF on UE capability on CSI reporting and relaxation	LG Electronics, Ericsson	Patrick Merias	82192	discussion	Decision				30	7.2.2.2	CSI reporting	119501	available	2018-01-27 17:20:34	2018-01-27 17:20:34	R1-1801185		Rel-15																
R1-1801223	Offline Discussion Summary for Beam Failure Recovery	MediaTek	Patrick Merias	82192	discussion	Decision				32	7.22.4	Mechanism to recover from beam failure	122300	noted	2018-01-27 17:20:34	2018-01-27 17:20:34																			
R1-1801224	Text Proposal for Quantization of Number of REs in TBS Determination	Ericsson	Patrick Merias	82192	discussion	Decision				59	7.3.3.1	DL/UL resource allocation	122400	endorsed	2018-01-27 17:20:34	2018-01-27 17:20:34																			
R1-1801225	Text Proposal for TBS Determination for LDPC Codes	Ericsson	Patrick Merias	82192	discussion	Decision				72	7.4.1	LDPC coding	122500	endorsed	2018-01-27 17:20:34	2018-01-27 17:20:34																			
R1-1801226	Text proposal for CBG based retransmission	LG Electronics	Patrick Merias	82192	discussion	Decision				61	7.3.3.3	CBG-based (re)transmission	122600	noted	2018-01-27 17:20:34	2018-01-27 17:20:34			Rel-15																
R1-1801227	TP on power control for LTE-NR NSA operation	Huawei, HiSilicon	Patrick Merias	82192	discussion	Decision				80	7.6.1	NR UL power control - non-CA aspects	117102	revised	2018-01-27 17:20:34	2018-01-27 17:20:34	R1-1801177	R1-1801273	Rel-15																
R1-1801228	Text proposal on source QCL for semi-persistent CSI-RS	Ericsson	Patrick Merias	82192	discussion	Decision				31	7.2.2.3	Beam measurement and reporting	122800	available	2018-01-30 00:00:00	2018-01-30 00:00:00			Rel-15																
R1-1801229	Text proposal for source spatial relation for semi-persistent SRS	Ericsson	Patrick Merias	82192	discussion	Decision				31	7.2.2.3	Beam measurement and reporting	122900	available	2018-01-30 00:00:00	2018-01-30 00:00:00			Rel-15																
R1-1801230	Text proposal on priority rules for PUCCH carrying RSRP reports and SRS	Ericsson	Patrick Merias	82192	discussion	Decision				31	7.2.2.3	Beam measurement and reporting	123000	available	2018-01-30 00:00:00	2018-01-30 00:00:00			Rel-15																
R1-1801231	LS on powers control for LTE-NR dual connectivity	RAN1, Ericsson	Patrick Merias	82192	LS out	Approval				80	7.6.1	NR UL power control - non-CA aspects	114902	approved	2018-01-27 17:20:34	2018-01-27 17:20:34	R1-1801203		Rel-15			NR_newRAT-Core					RAN2, RAN4					
R1-1801232	Further analysis on re-ordering of length-12 CGS	Huawei	Patrick Merias	82192	discussion	Decision				53	7.3.2.1	PUCCH structure in short-duration	123200	available	2018-01-29 00:00:00	2018-01-29 00:00:00																			
R1-1801233	Reply LS to RAN1 on PRACH with ON-OFF time mask	RAN4, Ericsson	Patrick Merias	82192	LS in	Decision				4	5	Incoming Liaison Statements	123300	postponed	2018-01-27 17:20:34	2018-01-27 17:20:34			Rel-15			NR_newRAT-Core				R1-1721630	RAN1		R4-1800807			
R1-1801234	Summary of Remaining details on PRACH formats	Convida Wireless	Patrick Merias	82192	discussion	Decision				15	7.14.1	PRACH formats	102204	revised	2018-01-27 17:20:34	2018-01-27 17:20:34	R1-1801117	R1-1801243	Rel-15																
R1-1801235	Summary of Offline Discussion on RMSI	CATT	Patrick Merias	82192	discussion	Decision				11	7.12.2	Remaining minimum system information	2304	withdrawn	2018-01-30 14:55:30		R1-1801192																		
R1-1801236	Draft LS response to RAN2 on MAC CEs for beam management and CSI	Huawei	Patrick Merias	82192	LS out	Decision				21	7.2	MIMO	123600	revised	2018-01-27 17:58:45	2018-01-27 17:58:45	R1-1800099	R1-1801272	Rel-15			NR_newRAT-Core				R2-1714246	RAN2					
R1-1801237	Text Proposal for Quantization of Number of REs in TBS Determination	Ericsson	Patrick Merias	82192	discussion	Decision				59	7.3.3.1	DL/UL resource allocation	123700	withdrawn	2018-01-30 14:55:30				Rel-15																
R1-1801238	MAC-CE and RRC parameter updates and TPs for CSI measurement	ZTE	Patrick Merias	82192	discussion	Decision				29	7.2.2.1	CSI measurement	123800	available	2018-01-28 11:10:58	2018-01-28 11:10:58			Rel-15																
R1-1801239	RRC updates and TPs for additional RS periodicities	ZTE	Patrick Merias	82192	discussion	Decision				43	7.23.8	Other	123900	available	2018-01-27 17:20:34	2018-01-27 17:20:34			Rel-15																
R1-1801240	Text proposal for paging	Huawei	Patrick Merias	82192	discussion	Decision				13	7.1.3	Paging design	124000	revised	2018-01-27 17:20:34	2018-01-27 17:20:34		R1-1801261	Rel-15																
R1-1801241	Summary for TRS part 2	MediaTek	Patrick Merias	82192	discussion	Decision				41	7.23.6	TRS	124100	noted	2018-01-27 17:20:34	2018-01-27 17:20:34			Rel-15																
R1-1801242	UL Antenna Port Mapping	Ericsson, Samsung	Patrick Merias	82192	discussion	Decision				38	7.23.3	DMRS	124200	available	2018-01-27 17:20:34	2018-01-27 17:20:34																			
R1-1801243	Summary of Remaining details on PRACH formats	Convida Wireless	Patrick Merias	82192	discussion	Decision				15	7.14.1	PRACH formats	102205	noted	2018-01-27 17:20:34	2018-01-27 17:20:34	R1-1801234		Rel-15																
R1-1801244	Feature lead summary 3 of PT-RS	Ericsson	Patrick Merias	82192	discussion	Decision				39	7.23.4	PT-RS	124400	noted	2018-01-27 17:20:34	2018-01-27 17:20:34			Rel-15																
R1-1801245	(Draft) LS on OFDM symbol generation	Ericsson	Patrick Merias	82192	LS out	Decision				8	7.1.1	Synchronization signal	124500	revised	2018-01-27 17:20:34	2018-01-27 17:20:34		R1-1801279	Rel-15			NR_newRAT-Core					RAN4					
R1-1801246	LS on RMSI CORESET configurations	RAN1, CATT	Patrick Merias	82192	LS out	Approval				11	7.12.2	Remaining minimum system information	118801	approved	2018-01-27 17:20:34	2018-01-27 17:20:34	R1-1801188		Rel-15			NR_newRAT-Core					RAN4					
R1-1801247	Summary of DL/UL scheduling and HARQ management	Qualcomm	Patrick Merias	82192	other	Discussion				60	7.3.3.2	DL/UL scheduling and HARQ management	105604	noted	2018-01-27 17:20:34	2018-01-27 17:20:34	R1-1801190																		
R1-1801248	[Draft] Agreements on Paging	Huawei	Patrick Merias	82192	LS out	Decision				13	7.1.3	Paging design	124800	revised	2018-01-27 17:20:34	2018-01-27 17:20:34		R1-1801280	Rel-15			NR_newRAT-Core					RAN2					
R1-1801249	RRC parameter update	Ericsson	Patrick Merias	82192	discussion	Decision				6	7	Maintenance of NR - WID in RP-172854	109503	revised	2018-01-27 17:20:34	2018-01-27 17:20:34	R1-1801186	R1-1801276	Rel-15			NR_newRAT-Core					RAN2					
R1-1801250	(draft) LS on correction to RRC parameters for NR	Ericsson	Patrick Merias	82192	LS out	Decision				6	7	Maintenance of NR - WID in RP-172854	114802	revised	2018-01-27 17:20:34	2018-01-27 17:20:34	R1-1801182	R1-1801281	Rel-15			NR_newRAT-Core					RAN2					
R1-1801251	Summary of Friday Offline Discussion for NR Radio Link Monitoring	Intel Corporation	Patrick Merias	82192	discussion	Decision				19	7.15.2	Radio link monitoring for mobility management	125100	available	2018-01-27 17:20:34	2018-01-27 17:20:34																			
R1-1801252	Summary of Friday Offline Discussion for NR RRM measurements	Intel Corporation	Patrick Merias	82192	discussion	Decision				18	7.15.1	Measurement for mobility management	125200	noted	2018-01-27 17:20:34	2018-01-27 17:20:34																			
R1-1801253	Text Proposals based on agreements for RRM and RLM	Intel Corporation	Patrick Merias	82192	discussion	Decision				17	7.15	Mobility procedure	125300	noted	2018-01-27 17:20:34	2018-01-27 17:20:34																			
R1-1801254	Offline discussions on GC-PDCCH carrying SFI	Qualcomm	Patrick Merias	82192	discussion	Decision				49	7.3.1.3	Group-common PDCCH	108202	available	2018-01-27 17:20:34	2018-01-27 17:20:34	R1-1801121		Rel-15																
R1-1801255	Text proposal for PRACH formats	Convida Wireless	Patrick Merias	82192	discussion	Decision				15	7.14.1	PRACH formats	125500	noted	2018-01-27 17:20:34	2018-01-27 17:20:34			Rel-15																
R1-1801256	(draft) LS reply to RAN2 on MAC CE for MIMO	Ericsson	Patrick Merias	82192	LS out	Decision				21	7.2	MIMO	125600	available	2018-01-27 17:20:34	2018-01-27 17:20:34			Rel-15			NR_newRAT-Core				R2-1801655	RAN2					
R1-1801257	Offline proposals for NR power control in non-CA aspects	ZTE, Sanechips	Patrick Merias	82192	discussion	Decision				80	7.6.1	NR UL power control - non-CA aspects	113702	noted	2018-01-27 17:20:34	2018-01-27 17:20:34	R1-1801166		Rel-15																
R1-1801258	Text proposal for LTE-NR power sharing	Ericsson	Patrick Merias	82192	discussion	Decision				80	7.6.1	NR UL power control - non-CA aspects	125800	revised	2018-01-27 17:20:34	2018-01-27 17:20:34		R1-1801270	Rel-15																
R1-1801259	Text Proposal for Quantized Number of Res	Ericsson	Patrick Merias	82192	discussion	Decision				59	7.3.3.1	DL/UL resource allocation	125900	endorsed	2018-01-27 17:20:34	2018-01-27 17:20:34			Rel-15																
R1-1801260	(draft) LS on acquisition of TA_Offset for Uplink Transmission	Intel	Patrick Merias	82192	LS out	Decision				4	5	Incoming Liaison Statements	126000	revised	2018-01-27 17:20:34	2018-01-27 17:20:34		R1-1801282	Rel-15			NR_newRAT-Core				R4-1749302	RAN4					
R1-1801261	Text proposal for paging	Huawei	Patrick Merias	82192	discussion	Decision				13	7.1.3	Paging design	124001	noted	2018-01-27 17:20:34	2018-01-27 17:20:34	R1-1801240		Rel-15																
R1-1801262	Summary of discussions on multiplexing different UCI types on a PUCCH resource	Ericsson	Patrick Merias	82192	discussion	Information				53	7.3.2.1	PUCCH structure in short-duration	126200	noted	2018-01-27 17:20:34	2018-01-27 17:20:34			Rel-15																
R1-1801263	Summary of remaining issues for UCI piggyback on PUSCH	Qualcomm	Patrick Merias	82192	discussion	Decision				55	7.3.2.3	UCI multiplexing	126300	noted	2018-01-27 17:20:34	2018-01-27 17:20:34																			
R1-1801264	Additional RRC values for K0/K2	Qualcomm	Patrick Merias	82192	discussion	Decision				59	7.3.3.1	DL/UL resource allocation	126400	noted	2018-01-27 17:20:34	2018-01-27 17:20:34			Rel-15																
R1-1801265	Text Proposals for DL/UL scheduling and HARQ management	Qualcomm	Patrick Merias	82192	discussion	Decision				60	7.3.3.2	DL/UL scheduling and HARQ management	126500	revised	2018-01-27 17:20:34	2018-01-27 17:20:34		R1-1801275	Rel-15																
R1-1801266	TP for 38.211 related to SFI	Qualcomm	Patrick Merias	82192	discussion	Decision				49	7.3.1.3	Group-common PDCCH	126600	endorsed	2018-01-27 17:20:34	2018-01-27 17:20:34																			
R1-1801267	TP for 38.213 related to SFI	Qualcomm	Patrick Merias	82192	discussion	Decision				49	7.3.1.3	Group-common PDCCH	126700	endorsed	2018-01-27 17:20:34	2018-01-27 17:20:34																			

R1-1801268	TP to 38.213 on Semi-static HARQ-ACK Codebook	Samsung	Patrick Merias	82292	discussion	Decision				66	7.3.4	Other aspects on carrier aggregation and bandwidth parts	126800	available		2018-01-27 17:20:34	2018-01-27 17:20:34																						
R1-1801269	WF on base-sequence hopping for PUCCH (updated)	NTT DOCOMO	Patrick Merias	82292	discussion	Decision				62	7.3.2	Physical uplink control channel	121101	available		2018-01-27 17:20:34	2018-01-27 17:20:34	R1-1801211																						
R1-1801270	Text proposal for LTE-NR power sharing	Ericsson	Patrick Merias	82292	discussion	Decision				80	7.6.1	NR UL power control - non-CA aspects	125801	noted		2018-01-27 17:20:34	2018-01-27 17:20:34	R1-1801266		Rel-15																				
R1-1801271	Polar Coding	Qualcomm Incorporated	Patrick Merias	82292	discussion	Decision				73	7.4.2	Polar coding	8832	available		2018-01-27 17:20:34	2018-01-27 17:20:34	R1-1801042		Rel-15																				
R1-1801272	LS response to RAN2 on MAC CEs for beam management and CSI	RAN1, Huawei	Patrick Merias	82292	LS out	Approval				21	7.2	MIMO	127200	approved		2018-01-27 17:20:34	2018-01-27 17:20:34	R1-1801236		Rel-15				NR_newRAT-Core						R2-1714246	RAN2				
R1-1801273	TP on power control for LTE-NR NSA operation	Huawei, HiSilicon	Patrick Merias	82292	discussion	Decision				80	7.6.1	NR UL power control - non-CA aspects	117103	noted		2018-01-27 17:20:34	2018-01-27 17:20:34	R1-1801227		Rel-15																				
R1-1801274	Summary of remaining details on RACH procedure	Nokia, Nokia Shanghai Bell	Patrick Merias	82292	discussion	Decision				16	7.1.4.2	RACH procedure	104003	available		2018-01-27 17:20:34	2018-01-27 17:20:34	R1-1801169		Rel-15																				
R1-1801275	Text Proposals for DL/UL scheduling and HARQ management	Qualcomm	Patrick Merias	82292	discussion	Decision				60	7.3.3.2	DL/UL scheduling and HARQ management	126901	endorsed		2018-01-27 17:20:34	2018-01-27 17:20:34	R1-1801265		Rel-15																				
R1-1801276	RRC parameter update	Ericsson	Patrick Merias	82292	discussion	Decision				6	7	Maintenance of NR - WID in RP-172834	109504	endorsed		2018-01-27 17:20:34	2018-01-27 17:20:34	R1-1801249		Rel-15				NR_newRAT-Core													
R1-1801277	TP on rate-matching in NR	Nokia, Nokia Shanghai Bell	Patrick Merias	82292	discussion	Decision				69	7.3.5	Rate matching aspects for NR DL and UL	127700	noted		2018-01-27 17:20:34	2018-01-27 17:20:34			Rel-15																				
R1-1801278	Proposal for PDCCH structure	NTT DOCOMO	Patrick Merias	82292	discussion	Decision				47	7.3.1.1	PDCCH structure	127800	noted		2018-01-27 17:20:34	2018-01-27 17:20:34			Rel-15																				
R1-1801279	LS on OFDM symbol generation	RAN1, Ericsson	Patrick Merias	82292	LS out	Approval				8	7.1.1	Synchronization signal	124501	approved		2018-01-27 17:20:34	2018-01-27 17:20:34	R1-1801245		Rel-15				NR_newRAT-Core							RAN4				
R1-1801280	Agreements on Paging	RAN1, Huawei	Patrick Merias	82292	LS out	Approval				13	7.1.3	Paging design	124801	approved		2018-01-27 17:20:34	2018-01-27 17:20:34	R1-1801248		Rel-15				NR_newRAT-Core							RAN2				
R1-1801281	LS on correction to RRC parameters for NR	RAN1, Ericsson, MediaTek	Patrick Merias	82292	LS out	Approval				6	7	Maintenance of NR - WID in RP-172834	114803	approved		2018-01-27 17:20:34	2018-01-27 17:20:34	R1-1801250		Rel-15				NR_newRAT-Core							RAN2				
R1-1801282	Reply LS on Acquisition of TA Offset for Uplink Transmission	RAN1, Intel	Patrick Merias	82292	LS out	Approval				4	5	Incoming Liaison Statements	126001	approved		2018-01-27 17:20:34	2018-01-27 17:20:34	R1-1801260		Rel-15				NR_newRAT-Core						R4-1714902	RAN4				
R1-1801283	draftCR to 38.211 capturing the Jan18 ad-hoc meeting agreements	Ericsson	Patrick Merias	82292	draftCR	Decision				6	7	Maintenance of NR - WID in RP-172834	0	revised		2018-02-02 09:03:50			R1-1801291	Rel-15	38.211	15.0.0	NR_newRAT-Core			F								
R1-1801284	draftCR to 38.212 capturing the Jan18 ad-hoc meeting agreements	Huawei	Patrick Merias	82292	draftCR	Decision				6	7	Maintenance of NR - WID in RP-172834	0	revised		2018-02-02 09:03:50			R1-1801292	Rel-15	38.212	15.0.0	NR_newRAT-Core			F								
R1-1801285	draftCR to 38.213 capturing the Jan18 ad-hoc meeting agreements	Samsung	Patrick Merias	82292	draftCR	Decision				6	7	Maintenance of NR - WID in RP-172834	0	revised		2018-02-02 09:03:50			R1-1801293	Rel-15	38.213	15.0.0	NR_newRAT-Core			F								
R1-1801286	draftCR to 38.214 capturing the Jan18 ad-hoc meeting agreements	Nokia	Patrick Merias	82292	draftCR	Decision				6	7	Maintenance of NR - WID in RP-172834	0	revised		2018-02-02 09:03:50			R1-1801294	Rel-15	38.214	15.0.0	NR_newRAT-Core			F								
R1-1801287	draftCR to 38.215 capturing the Jan18 ad-hoc meeting agreements	Intel	Patrick Merias	82292	draftCR	Decision				6	7	Maintenance of NR - WID in RP-172834	0	endorsed		2018-02-02 09:03:50				Rel-15	38.215	15.0.0	NR_newRAT-Core			F								
R1-1801288	draftCR to 38.202 capturing the Jan18 ad-hoc meeting agreements	Qualcomm	Patrick Merias	82292	draftCR	Decision				6	7	Maintenance of NR - WID in RP-172834	0	withdrawn		2018-02-02 09:03:50				Rel-15	38.202	15.0.0	NR_newRAT-Core			F								
R1-1801289	NR UE feature list	NTT DOCOMO, AT&T	Patrick Merias	82292	discussion	Decision				84	7.8	UE features	119800	endorsed		2018-01-26 05:46:32	2018-01-29 10:07:53	R1-1801198		Rel-15				NR_newRAT-Core											
R1-1801290	LS on NR UE feature list	RAN1, NTT DOCOMO, AT&T	Patrick Merias	82292	LS out	Decision				84	7.8	UE features	119900	approved		2018-01-26 05:46:32	2018-01-29 10:07:53	R1-1801199		Rel-15				NR_newRAT-Core							RAN2, RAN4	RAN3			
R1-1801291	draftCR to 38.211 capturing the Jan18 ad-hoc meeting agreements	Ericsson	Patrick Merias	82292	draftCR	Decision				6	7	Maintenance of NR - WID in RP-172834	0	endorsed		2018-02-02 09:03:50		R1-1801283		Rel-15	38.211	15.0.0	NR_newRAT-Core			F								
R1-1801292	draftCR to 38.212 capturing the Jan18 ad-hoc meeting agreements	Huawei	Patrick Merias	82292	draftCR	Decision				6	7	Maintenance of NR - WID in RP-172834	0	endorsed		2018-02-02 09:03:50		R1-1801284		Rel-15	38.212	15.0.0	NR_newRAT-Core			F								
R1-1801293	draftCR to 38.213 capturing the Jan18 ad-hoc meeting agreements	Samsung	Patrick Merias	82292	draftCR	Decision				6	7	Maintenance of NR - WID in RP-172834	0	endorsed		2018-02-02 09:03:50		R1-1801285		Rel-15	38.213	15.0.0	NR_newRAT-Core			F								
R1-1801294	draftCR to 38.214 capturing the Jan18 ad-hoc meeting agreements	Nokia	Patrick Merias	82292	draftCR	Decision				6	7	Maintenance of NR - WID in RP-172834	0	endorsed		2018-02-02 09:03:50		R1-1801286		Rel-15	38.214	15.0.0	NR_newRAT-Core			F								
R1-1801295	Rel-15 NR UE feature list_v4	NTT DOCOMO	Patrick Merias	82292	discussion	Decision				84	7.8	UE features		noted		2018-02-12 00:00:00	2018-02-12 00:00:00			Rel-15				NR_newRAT-Core											
R1-1801296	Rel-15 NR UE feature list_v5	NTT DOCOMO	Patrick Merias	82292	discussion	Decision				84	7.8	UE features		noted		2018-02-12 00:00:00	2018-02-12 00:00:00			Rel-15				NR_newRAT-Core											

Appendix 23

www.3gpp.org / ftp / tsg_ran / WG1_RL1 / TSGR1_AH / NR_AH_1801 / Docs

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R1-1800156.zip	2018/01/13 6:38	286,6 KB
R1-1800157.zip	2018/01/13 6:38	44,8 KB
R1-1800158.zip	2018/01/14 5:26	117,1 KB
R1-1800159.zip	2018/01/13 6:38	88,2 KB
R1-1800160.zip	2018/01/13 6:38	31,2 KB
R1-1800161.zip	2018/01/13 6:38	222,6 KB
R1-1800162.zip	2018/01/13 6:38	649,9 KB

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R1-1800169.zip	2018/01/13 6:38	223,5 KB
R1-1800170.zip	2018/01/13 6:39	335,4 KB
R1-1800171.zip	2018/01/13 6:39	275,8 KB
R1-1800172.zip	2018/01/13 4:16	76,2 KB
R1-1800173.zip	2018/01/13 4:16	91,3 KB
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R1-1800178.zip	2018/01/13 4:15	41,2 KB
R1-1800179.zip	2018/01/13 4:15	37,3 KB
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R1-1800181.zip	2018/01/13 4:15	34,9 KB
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R1-1800184.zip	2018/01/13 4:15	114,4 KB
R1-1800185.zip	2018/01/13 4:15	50,6 KB
R1-1800186.zip	2018/01/13 4:15	45 KB
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R1-1800188.zip	2018/01/13 4:15	37,4 KB
R1-1800189.zip	2018/01/13 4:15	38,8 KB
R1-1800190.zip	2018/01/13 4:15	135,8 KB
R1-1800191.zip	2018/01/13 4:15	108,5 KB
R1-1800192.zip	2018/01/13 4:16	70,6 KB
R1-1800193.zip	2018/01/13 4:16	82,5 KB
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R1-1800195.zip	2018/01/13 4:16	68,2 KB
R1-1800196.zip	2018/01/13 4:16	78,7 KB

sort by name/desc	sort by date/desc	sort by size/desc
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R1-1800206.zip	2018/01/13 4:16	95,2 KB
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R1-1800208.zip	2018/01/13 4:16	46,5 KB
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R1-1800212.zip	2018/01/13 6:46	18,6 KB
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R1-1800214.zip	2018/01/13 6:14	107,1 KB
R1-1800215.zip	2018/01/13 7:58	54,5 KB
R1-1800216.zip	2018/01/13 6:14	48,4 KB
R1-1800217.zip	2018/01/13 6:14	153,7 KB
R1-1800218.zip	2018/01/12 10:09	22 KB
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R1-1800222.zip	2018/01/12 7:16	1498,3 KB
R1-1800223.zip	2018/01/12 7:17	125,1 KB
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R1-1800227.zip	2018/01/13 5:59	79 KB
R1-1800228.zip	2018/01/13 5:59	82 KB
R1-1800229.zip	2018/01/13 5:59	410,4 KB
R1-1800230.zip	2018/01/23 16:10	571,7 KB
R1-1800231.zip	2018/01/13 5:59	58,8 KB

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R1-1800237.zip	2018/01/13 5:59	116,6 KB
R1-1800238.zip	2018/01/13 5:59	83,6 KB
R1-1800239.zip	2018/01/13 5:59	82,7 KB
R1-1800240.zip	2018/01/13 5:59	86,2 KB
R1-1800241.zip	2018/01/13 5:59	30,3 KB
R1-1800242.zip	2018/01/13 5:59	32,6 KB
R1-1800244.zip	2018/01/13 5:59	97 KB
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R1-1800247.zip	2018/01/13 5:59	53,2 KB
R1-1800248.zip	2018/01/13 6:34	51,5 KB
R1-1800249.zip	2018/01/13 5:55	84,9 KB
R1-1800250.zip	2018/01/13 5:59	84,6 KB
R1-1800251.zip	2018/01/13 5:59	52,4 KB
R1-1800252.zip	2018/01/13 5:59	74,2 KB
R1-1800253.zip	2018/01/13 5:59	149,6 KB
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R1-1800258.zip	2018/01/13 6:00	160,6 KB
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R1-1800260.zip	2018/01/13 6:00	49,7 KB
R1-1800261.zip	2018/01/13 6:00	93 KB
R1-1800262.zip	2018/01/13 6:00	132,9 KB
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R1-1800273.zip	2018/01/12 14:11	113,4 KB
R1-1800274.zip	2018/01/12 14:11	33,4 KB
R1-1800275.zip	2018/01/12 14:11	66,9 KB
R1-1800276.zip	2018/01/12 14:11	105,3 KB
R1-1800277.zip	2018/01/12 14:11	61,4 KB
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R1-1800279.zip	2018/01/12 14:11	73,9 KB
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R1-1800285.zip	2018/01/12 14:11	80,6 KB
R1-1800286.zip	2018/01/12 14:11	79,7 KB
R1-1800287.zip	2018/01/12 14:11	133,2 KB
R1-1800288.zip	2018/01/13 5:17	113,3 KB
R1-1800289.zip	2018/01/13 5:17	564,2 KB
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R1-1800292.zip	2018/01/13 3:29	138,8 KB
R1-1800293.zip	2018/01/13 6:00	218,3 KB
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R1-1800302.zip	2018/01/13 7:04	83 KB

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R1-1800306.zip	2018/01/13 7:04	73,5 KB
R1-1800307.zip	2018/01/13 7:04	73,4 KB
R1-1800308.zip	2018/01/13 7:04	50,5 KB
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R1-1800311.zip	2018/01/13 7:02	73,1 KB
R1-1800312.zip	2018/01/13 7:02	71 KB
R1-1800313.zip	2018/01/13 7:02	55,8 KB
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R1-1800319.zip	2018/01/13 7:02	74,4 KB
R1-1800320.zip	2018/01/13 7:02	51,9 KB
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R1-1800324.zip	2018/01/13 7:45	71 KB
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R1-1800326.zip	2018/01/13 7:03	73,9 KB
R1-1800327.zip	2018/01/13 7:03	72,7 KB
R1-1800328.zip	2018/01/13 7:03	75,3 KB
R1-1800329.zip	2018/01/13 7:03	84,2 KB
R1-1800330.zip	2018/01/13 7:03	81,9 KB
R1-1800331.zip	2018/01/13 7:03	80,8 KB
R1-1800332.zip	2018/01/13 7:44	83,5 KB
R1-1800333.zip	2018/01/13 7:44	57,9 KB
R1-1800334.zip	2018/01/13 7:03	72,5 KB
R1-1800335.zip	2018/01/13 7:03	21,2 KB
R1-1800336.zip	2018/01/13 7:03	231,4 KB

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R1-1800341.zip	2018/01/13 7:03	78,3 KB
R1-1800342.zip	2018/01/13 7:29	75,5 KB
R1-1800343.zip	2018/01/13 7:29	61,2 KB
R1-1800344.zip	2018/01/13 7:03	70,4 KB
R1-1800345.zip	2018/01/13 7:03	41,3 KB
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R1-1800347.zip	2018/01/12 8:04	75,3 KB
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R1-1800351.zip	2018/01/13 5:46	133 KB
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R1-1800355.zip	2018/01/13 5:46	60,9 KB
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R1-1800357.zip	2018/01/13 5:46	53 KB
R1-1800358.zip	2018/01/13 5:46	38,5 KB
R1-1800359.zip	2018/01/13 5:46	48,7 KB
R1-1800360.zip	2018/01/13 5:46	133,4 KB
R1-1800361.zip	2018/01/13 5:46	67,2 KB
R1-1800362.zip	2018/01/13 5:46	41,1 KB
R1-1800363.zip	2018/01/13 5:46	42,2 KB
R1-1800364.zip	2018/01/13 5:46	39 KB
R1-1800365.zip	2018/01/13 5:46	19,8 KB
R1-1800366.zip	2018/01/13 5:46	49 KB
R1-1800367.zip	2018/01/13 5:46	46,4 KB
R1-1800368.zip	2018/01/13 5:46	61,5 KB
R1-1800369.zip	2018/01/13 5:46	126,9 KB
R1-1800370.zip	2018/01/13 5:46	103,4 KB
R1-1800371.zip	2018/01/13 5:47	75,8 KB

sort by name/desc	sort by date/desc	sort by size/desc
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R1-1800375.zip	2018/01/13 5:47	42,6 KB
R1-1800376.zip	2018/01/13 5:47	65,6 KB
R1-1800377.zip	2018/01/13 5:47	98 KB
R1-1800378.zip	2018/01/13 5:47	99,9 KB
R1-1800379.zip	2018/01/13 5:47	177,7 KB
R1-1800380.zip	2018/01/13 5:47	55,1 KB
R1-1800381.zip	2018/01/13 5:47	35,6 KB
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R1-1800384.zip	2018/01/13 5:48	128,1 KB
R1-1800385.zip	2018/01/13 5:48	93,1 KB
R1-1800386.zip	2018/01/13 5:48	50,8 KB
R1-1800387.zip	2018/01/13 5:48	272,3 KB
R1-1800388.zip	2018/01/13 5:48	1833,8 KB
R1-1800389.zip	2018/01/13 5:48	71,6 KB
R1-1800390.zip	2018/01/13 5:48	62,1 KB
R1-1800391.zip	2018/01/13 5:48	51,5 KB
R1-1800392.zip	2018/01/13 5:48	56,3 KB
R1-1800393.zip	2018/01/12 8:46	110,6 KB
R1-1800394.zip	2018/01/12 8:46	111,5 KB
R1-1800395.zip	2018/01/12 8:46	81,3 KB
R1-1800396.zip	2018/01/12 8:46	131 KB
R1-1800397.zip	2018/01/12 8:46	60,5 KB
R1-1800398.zip	2018/01/12 8:46	58,4 KB
R1-1800399.zip	2018/01/12 8:46	66,7 KB
R1-1800400.zip	2018/01/12 8:46	56,4 KB
R1-1800401.zip	2018/01/12 8:46	68,1 KB
R1-1800402.zip	2018/01/12 8:46	75,8 KB
R1-1800403.zip	2018/01/12 8:46	50,1 KB
R1-1800404.zip	2018/01/12 8:46	47,3 KB
R1-1800405.zip	2018/01/12 8:46	52,8 KB

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R1-1800412.zip	2018/01/12 22:31	117,3 KB
R1-1800413.zip	2018/01/12 22:31	71,5 KB
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R1-1800423.zip	2018/01/12 6:17	82 KB
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R1-1800427.zip	2018/01/12 6:16	58 KB
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R1-1800439.zip	2018/01/13 1:49	65,2 KB
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R1-1800444.zip	2018/01/13 1:56	50,2 KB
R1-1800445.zip	2018/01/13 2:28	57,5 KB
R1-1800446.zip	2018/01/13 2:27	75,9 KB
R1-1800447.zip	2018/01/13 3:41	24,6 KB
R1-1800448.zip	2018/01/13 1:56	67,9 KB
R1-1800449.zip	2018/01/13 1:56	217 KB
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R1-1800455.zip	2018/01/12 7:20	60 KB
R1-1800456.zip	2018/01/12 7:33	94,8 KB
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R1-1800458.zip	2018/01/12 7:21	57,8 KB
R1-1800459.zip	2018/01/13 2:13	100 KB
R1-1800460.zip	2018/01/13 2:27	71,1 KB
R1-1800461.zip	2018/01/13 1:56	51,8 KB
R1-1800462.zip	2018/01/13 2:27	95,8 KB
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R1-1800471.zip	2018/01/13 13:09	48,3 KB
R1-1800472.zip	2018/01/13 3:32	23,8 KB
R1-1800473.zip	2018/01/13 5:31	172 KB
R1-1800474.zip	2018/01/13 6:01	49 KB

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R1-1800480.zip	2018/01/12 10:30	26,6 KB
R1-1800481.zip	2018/01/12 10:30	21,4 KB
R1-1800482.zip	2018/01/12 10:30	19,9 KB
R1-1800483.zip	2018/01/12 10:30	21,4 KB
R1-1800484.zip	2018/01/12 10:30	111,1 KB
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R1-1800492.zip	2018/01/12 10:31	47,8 KB
R1-1800493.zip	2018/01/12 10:31	194,4 KB
R1-1800494.zip	2018/01/12 10:31	53,9 KB
R1-1800495.zip	2018/01/12 10:31	38,8 KB
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R1-1800499.zip	2018/01/12 10:31	60,3 KB
R1-1800500.zip	2018/01/12 10:31	70 KB
R1-1800501.zip	2018/01/12 10:31	49,8 KB
R1-1800502.zip	2018/01/12 10:31	47,8 KB
R1-1800503.zip	2018/01/12 10:31	43,8 KB
R1-1800504.zip	2018/01/12 10:31	62,6 KB
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R1-1800507.zip	2018/01/12 10:31	36,6 KB
R1-1800508.zip	2018/01/13 1:17	33,4 KB

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R1-1800514.zip	2018/01/12 10:31	135,3 KB
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R1-1800527.zip	2018/01/13 5:10	138,3 KB
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R1-1800566.zip	2018/01/13 3:58	24,5 KB
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R1-1800606.zip	2018/01/12 23:26	46,7 KB
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R1-1800612.zip	2018/01/12 20:58	111,1 KB
R1-1800613.zip	2018/01/12 20:58	41,7 KB
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R1-1800621.zip	2018/01/12 2:54	19,3 KB
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R1-1800634.zip	2018/01/13 3:43	48 KB
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R1-1800637.zip	2018/01/13 3:44	97,6 KB
R1-1800638.zip	2018/01/13 3:44	93,4 KB
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R1-1800640.zip	2018/01/13 3:44	81,7 KB
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R1-1800645.zip	2018/01/12 9:15	41,6 KB
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R1-1800648.zip	2018/01/12 4:09	506,5 KB
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R1-1800651.zip	2018/01/13 2:40	213,8 KB
R1-1800652.zip	2018/01/13 2:40	28,6 KB

sort by name/desc	sort by date/desc	sort by size/desc
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R1-1800660.zip	2018/01/13 6:14	58 KB
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R1-1800665.zip	2018/01/13 6:14	69,6 KB
R1-1800666.zip	2018/01/13 6:15	260,3 KB
R1-1800667.zip	2018/01/13 6:15	123 KB
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R1-1800670.zip	2018/01/13 5:28	130,3 KB
R1-1800671.zip	2018/01/13 5:28	239,1 KB
R1-1800672.zip	2018/01/13 5:28	110,1 KB
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R1-1800674.zip	2018/01/13 5:28	135,3 KB
R1-1800675.zip	2018/01/13 5:28	352,9 KB
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R1-1800677.zip	2018/01/13 5:28	107,8 KB
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R1-1800692.zip	2018/01/13 6:53	46,9 KB
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R1-1800703.zip	2018/01/13 6:53	39 KB
R1-1800705.zip	2018/01/13 6:53	74,8 KB
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R1-1800709.zip	2018/01/13 6:53	40,4 KB
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R1-1800715.zip	2018/01/13 6:54	62,4 KB
R1-1800716.zip	2018/01/13 6:54	29,3 KB
R1-1800717.zip	2018/01/13 6:54	69,6 KB
R1-1800718.zip	2018/01/13 6:54	273,7 KB
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R1-1800721.zip	2018/01/13 6:54	68,2 KB

sort by name/desc	sort by date/desc	sort by size/desc
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R1-1800750.zip	2018/01/13 4:49	49,8 KB
R1-1800751.zip	2018/01/13 4:49	64,9 KB
R1-1800752.zip	2018/01/13 4:49	45,9 KB
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R1-1800754.zip	2018/01/13 4:49	81,8 KB
R1-1800755.zip	2018/01/13 4:49	277,2 KB

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R1-1800808.zip	2018/01/12 20:52	41,4 KB
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R1-1800813.zip	2018/01/13 3:29	26,5 KB
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R1-1800815.zip	2018/01/13 3:29	17,3 KB
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R1-1800820.zip	2018/01/13 5:18	145,8 KB
R1-1800821.zip	2018/01/13 5:18	44 KB
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R1-1800824.zip	2018/01/13 5:18	46,4 KB
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R1-1800832.zip	2018/01/13 5:18	16,9 KB
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R1-1800848.zip	2018/01/13 6:51	70,7 KB
R1-1800849.zip	2018/01/13 6:51	154 KB
R1-1800850.zip	2018/01/13 6:51	47,4 KB
R1-1800851.zip	2018/01/13 6:51	119,6 KB
R1-1800852.zip	2018/01/13 6:51	33,2 KB
R1-1800853.zip	2018/01/13 6:51	68,2 KB
R1-1800854.zip	2018/01/13 6:51	71,4 KB
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R1-1800858.zip	2018/01/13 6:53	92,2 KB
R1-1800859.zip	2018/01/13 6:53	37 KB
R1-1800860.zip	2018/01/16 4:14	110 KB
R1-1800861.zip	2018/01/16 19:40	80,2 KB

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R1-1800921.zip	2018/01/12 22:22	21,7 KB
R1-1800922.zip	2018/01/12 22:22	20,5 KB
R1-1800923.zip	2018/01/12 22:22	19,8 KB
R1-1800924.zip	2018/01/12 22:22	18,3 KB
R1-1800925.zip	2018/01/12 22:22	20,1 KB
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R1-1800928.zip	2018/01/13 4:55	17,8 KB
R1-1800929.zip	2018/01/13 4:55	28,5 KB
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R1-1800932.zip	2018/01/13 4:55	17,6 KB
R1-1800933.zip	2018/01/12 22:22	24,2 KB

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R1-1800952.zip	2018/01/13 6:47	57,8 KB
R1-1800953.zip	2018/01/13 6:47	66,8 KB
R1-1800954.zip	2018/01/13 6:47	43,2 KB
R1-1800955.zip	2018/01/13 6:47	35,4 KB
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R1-1800959.zip	2018/01/13 6:47	341,7 KB
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R1-1800962.zip	2018/01/13 6:47	532,8 KB
R1-1800963.zip	2018/01/13 6:47	27,9 KB
R1-1800964.zip	2018/01/13 6:47	30 KB
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R1-1800966.zip	2018/01/13 6:47	376,8 KB
R1-1800967.zip	2018/01/13 6:47	30,5 KB

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R1-1800990.zip	2018/01/16 10:35	112,5 KB
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sort by name/desc	sort by date/desc	sort by size/desc
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R1-1801014.zip	2018/01/23 16:10	65,7 KB
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R1-1801024.zip	2018/01/24 14:16	254,8 KB
R1-1801025.zip	2018/01/24 14:11	24,8 KB
R1-1801026.zip	2018/01/24 14:16	39,3 KB
R1-1801027.zip	2018/01/24 14:16	48,1 KB
R1-1801028.zip	2018/01/24 14:16	55,1 KB
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R1-1801039.zip	2018/01/29 10:07	50 KB

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R1-1801044.zip	2018/01/24 14:16	184,1 KB
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R1-1801057.zip	2018/01/24 14:11	39,7 KB
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R1-1801059.zip	2018/01/24 14:16	181,8 KB
R1-1801060.zip	2018/01/24 14:16	85,6 KB
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R1-1801062.zip	2018/01/23 16:10	105,8 KB
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R1-1801065.zip	2018/01/23 16:10	23,2 KB
R1-1801066.zip	2018/01/24 14:11	49,8 KB
R1-1801067.zip	2018/01/24 14:11	230,4 KB
R1-1801068.zip	2018/01/24 14:16	28,8 KB
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R1-1801070.zip	2018/01/24 14:16	88,6 KB
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R1-1801073.zip	2018/01/24 14:16	14,3 KB
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R1-1801081.zip	2018/01/24 14:16	85,4 KB
R1-1801082.zip	2018/01/24 14:16	88,6 KB
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R1-1801146.zip	2018/01/29 10:05	68,6 KB

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R1-1801171.zip	2018/01/29 10:04	112,2 KB
R1-1801172.zip	2018/01/29 10:04	51,8 KB
R1-1801173.zip	2018/01/29 10:04	49,5 KB
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R1-1801180.zip	2018/01/29 10:04	80,2 KB

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R1-1801197.zip	2018/01/29 10:03	43,6 KB
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R1-1801199.zip	2018/01/29 10:03	14,6 KB
R1-1801200.zip	2018/01/29 10:03	86,6 KB
R1-1801201.zip	2018/01/29 10:03	30,7 KB
R1-1801202.zip	2018/01/29 10:03	18 KB
R1-1801203.zip	2018/01/29 10:03	10,8 KB
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1262 items.

Appendix 24



3GPP_TSG_RAN_WG1 Archives

February 2018, Week 1

3GPP_TSG_RAN_WG1@LIST.ETSI.ORG



Options: Use Monospaced Font
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Topic: [<< First] [< Prev] [Next >] [Last >>]
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Subject: [RAN1#AH_1801]: meeting report
From: Patrick Merias <[log in to unmask]>
Reply To: Patrick Merias <[log in to unmask]>
Date: Thu, 1 Feb 2018 09:42:10 +0000
Content-Type: multipart/mixed
Parts/Attachments: text/plain (819 bytes) , text/html (4 kB) ,
Draft_Minutes_report_RAN1#AH_1801_v010.zip (1 MB)

Dear all,

Draft of the report is enclosed – also available from the 3GPP ftp web site…
Apologizes for the delay in distributing it – checking all // sessions required more time than expected – 3GU is now up to date according to me.
If you find the need for any corrections, please let me know
BR,
P

Patrick Merias– Mobile Competence Center Technical Officer
ETSI • www.etsi.org • [log in to unmask]
Phone: +33 (0)4 92 94 42 06 • Mobile: +33 (0)6 07 59 08 47
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ATOM RSS1 RSS2

Appendix 25

3GPP TSG RAN meeting #66 **RP-142212**
Maui, USA, December 8 – 11, 2014

Agenda Item: 3

Source: ETSI MCC

Title: Report of 3GPP TSG RAN meeting #65,
Edinburgh, Scotland, September 9 – 12, 2014

Document for: Approval

Report of 3GPP TSG RAN meeting #65

held in Edinburgh, Scotland
September 9 – 12, 2014



colour code:
green: approved new TSs/TRs/WIs/SIs/Report/Exception
grey: outgoing LSs/LTIs
red: WI/SI closed/completed or moved to next REL
purple: pendingTdocs

The present document has been developed within the 3rd Generation Partnership Project (3GPP ™) and it has not been subject to any approval process by the 3GPP Organizational Partners.

Keywords
RAN, UTRA, LTE

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Meeting Organisation

Meeting:	3GPP TSG RAN #65		
Meeting location:	Edinburgh, Scotland		
Duration:	Tuesday 09.09.2014 - Friday 12.09.2014		
Host:	European Friends of 3GPP (EF3)		
TSG RAN Chairman:	Dino Flore (Qualcomm)	email: oflore@qti.qualcomm.com	
TSG RAN Vice chairman:	Takaharu Nakamura (Fujitsu)	email: n.takaharu@jp.fujitsu.com	
TSG RAN Vice chairman:	Giovanni Romano (Telecom Italia)	email: giovanni.romano@telecomitalia.it	
TSG RAN Vice chairman:	Sharat Chander (AT&T)	email: sharat.chander@att.com	
TSG RAN MCC Support:	Joern Krause (ETSI MCC)	email: Joern.Krause@etsi.org	
Email reflector:	3GPP_TSG_RAN@LIST.ETSI.ORG		
Technical documents:	ftp://ftp.3gpp.org/tsg_ran/TSGR_65/Docs		
next meetings:	TSG RAN #66, 08.12. - 11.12.2014	Maui, USA	host: NAF3
	TSG RAN #67, 09.03. - 12.03.2015	Shanghai, China	host: Huawei

Executive Summary

3GPP TSG RAN meeting #65 was held in Edinburgh, Scotland, September 9-12, 2014, hosted by the European Friends of 3GPP (EF3). The meeting had 214 participants (see Annex A) and 671 Technical Documents (see Annex B).

Main topics/decisions:

- **block approval**: RAN #65 continued to use "block approval process" for agreed CR packages from WGs and WI/SI status reports, i.e. these contributions were only discussed on request (flag) otherwise the CRs were considered approved and the % complete and target date of the status reports were considered approved.

- **time budget analysis**: RAN #65 assessed the modified time budget requests in status reports for already approved WIs/SIs relative to the status endorsed by RAN #64 in RP-141040; the RAN WG chairman's provided their estimates of remaining time budgets in their WGs (see WG status reports); new WIs/SIs provided their time budget requests in the WI/SI descriptions; the resulting endorsed time budget allocations for all approved WIs/SIs after RAN #65 is provided in RP-141640 (1 time unit ~ 2h). RAN5 WIs/SIs are excluded from this.

- **ITU-R:**
  - Revision 2 of **ITU-R M.2012**: to be based on REL-12 Dec.2014 specifications (acc. to PCG #32); 3GPP ITU-R ad hoc was tasked to prepare an input to RAN #66 with support from CT &SA
  - ITU-R M.[IMT.**OOBE**.BS] AND M.[IMT.OOBE.MS] (RP-141057): reply to ITU-R WP5D in RP-141649 (to be submitted to ITU-R WP5D by Individual Members) indicates no further comments from 3GPP
  - **ARCHITECTURE AND TOPOLOGY OF IMT NETWORKS** (RP-141055): reply to ITU-R WP5D in RP-141647 (for review in CT and SA; be submitted to ITU-R WP5D by Individual Members) indicates no further comments from 3GPP
  - REVISION 12 OF RECOMMENDATION **ITU-R M.1457** (RP-141056): reply to ITU-R WP5D in RP-141648 (for review in CT, SA and PCG and submission via ATIS): indicates no further comments from 3GPP
  - **FUTURE DEVELOPMENT OF IMT** (RP-141058): reply to ITU-R WP5D in RP-141650 (for review in CT, SA and PCG and submission via ATIS) expressing 3GPP's interest in submitting a proposal towards "IMT-2020"

  - Report on the **Smart Grid project** (RP-141054): a reply to ITU-R WP1A was postponed, 3GPP ITU-R ad hoc was tasked to prepare a reply to RAN #66 with help from GERAN, CT, SA.
  - **IMT Handbook**: triggered by ATIS via 3GPP ITU-R ad hoc some alignments with RAN4 specs were proposed in RP-141715 to ITU-R WP5D and agreed by email after RAN #65 (for review in SA, PCG and submission via ATIS)
- **REL-10**:
  - **FGI bit 31** (AI 15): CRs approved to mandate FGI bit 31 (indicates whether the UE supports the mechanisms defined for cells broadcasting multi band information).
  - **FDD/TDD split for REL-10 FGI bits** (AI 15) that were so far "tbd" in TS 36.331 was confirmed
- **REL-11**:
  - Still 1 **open RAN4 performance part WI** on LTE Carrier Aggregation Enhancements (AI 10.4.1; note: Core part was completed in March 13) and 6 open RAN5 testing work items (AI 9.2).
  - **Non-backward compatible REL-11 correction** (see AI 10.2): CR R2-143934 of package RP-141495 introduces a non-backward compatible TS 25.331 REL-11 ASN.1 change to correct an error of CR5316 of RP-130237 (MDT Logged Connection Establishment Failure Reporting functionality (WI eMDT_UMTSLTE-Core) does not work properly) which affected v11.5.0 to v11.10.0 of TS 25.331. A corresponding warning is also added on the web (http://www.3gpp.org/DynaReport/25331.htm).
  - **New UE categories for REL-11/REL-12** (AI 15): No consensus so far, RAN1/RAN2 to progress on this until RAN #66.
- **REL-12:**

  REL-12 is frozen on RAN side. 23 Core part WIs (including ~35% of non-spectrum REL-12 Core part WIs and ~12% of the spectrum related Core part WIs) got a 3 months exception to still complete in REL-12. Especially the completion of WIs LTE_D2D_Prox-Core (exception RP-141704) and LTE_SC_enh_dualC-Core (exception RP-141265) is critical.
  - RAN #65 agreed that the **REL-12 ASN.1 freeze is moved from Dec.14 to March 15** due to larger number of exceptions and will recommend this also to SA #65.
  - **Supplemental Downlink for LTE TDD** (see AI 14.1.1): An additional UL/DL configuration for TDD supporting DL only configuration in REL-12 was proposed (since RAN #62) from a large number of operators but other operators remained concerned regarding the impact to the LTE TDD ecosystem. Possible compromise solutions were discussed at RAN #65. Discussion will continue at RAN #66 where some conclusion needs to be reached.
  - **Uplink 64QAM**: RAN agreed that UL 64QAM is not supported for UE categories 1, 2, 3 and 4.
  - **WLAN interworking**: WI was declared to be completed although UE capability decision was postponed to RAN #66 and RP-141227 aspect may still be addressed.
  - WIs **LTE Device to Device Proximity Services** (RP-141704; related to public safety feature) and **Dual Connectivity for LTE** (RP-141265; related to small cell enhancements) got exceptions with significant open issues so their completion may impact the REL-12 ASN.1 freeze.
- **REL-13:**
  - **REL-13 deadlines unchanged** after RAN #65 (stage 1 freeze: Sep.2014, stage 2 freeze: June 2015, REL-13 freeze: Dec.2015, REL-13 ASN.1 freeze: March 2016).
    But time line (whether to keep the schedule or shift the REL freeze one quarter later) and future ASN.1 handling will be discussed further at RAN #66.
- **RAN4 operation** (see AI 14.1.1):
  - RAN4 ad hoc on selected spectrum topics in Jan. 2015 in Finland (hosted by EF3) was confirmed (compare RP-140976 of RAN #64).
  - A RAN4 evening ad hoc on UE OTA is planned for future RAN4 meetings to address GCF request regarding standardization of OTA performance requirements.
  - Some discussion on a parallel RAN4 HSPA session took place without conclusion.
- Incoming Liaison Statements/Letters to ITU: 37, see Annex C
- Outgoing Liaison Statements/Letters to ITU: 6, see Annex D
- 91 closed work items (WI) in Sep. 2014 (49 Core, 38 Perf., 4 Testing):
  - RAN1: (2 Core)

- Core part: DCH Enhancements for UMTS, REL-12 (610125, UTRA_DCHenh-Core)
- Core part: UMTS Heterogeneous Networks enhancements, REL-12 (620154, UTRA_hetnet_enh-Core)

- RAN2: (5 Core)
  - Core part: Hetnet Mobility Enhancements for LTE, REL-12 (580129, HetNet_eMOB_LTE-Core)
  - Core part: RAN enhancements for Machine-Type and other mobile data applications Communications, REL-12 (620143, MTCe-RAN-Core)
  - Core part: WLAN/3GPP Radio Interworking, REL-12 (620148, UTRA_LTE_WLAN_interw-Core)
  - Core part: Enhanced Broadcast of System Information, REL-12 (620155, UTRA_SIBenh-Core)
  - Core part: Smart Congestion Mitigation in E-UTRAN, REL-12 (630131, SCM_LTE-Core)
- RAN4: (42 Core, 38 Perf.)

  REL-12 core parts for:
  - Additional bandwidth combination set for LTE Advanced inter-band CA of Band 2 and Band 4 (640120 LTE_CA_B2_B4_BWset-Core)
  - LTE Advanced inter-band CA of Band 2 and Band 12 (580134, LTE_CA_B2_B12-Core)
  - LTE Advanced intra-band contiguous CA in Band 41 for 3DL (610122, LTE_CA_C_B41_3DL-Core)
  - LTE Advanced intra-band non-contiguous CA in Band 41 for 3 DL (620138, LTE_CA_NC_B41_3DL-Core)

  REL-12 core & performance parts for:
  - LTE Advanced inter-band CA of Band 1 and Band 3
    (620118, LTE_CA_B1_B3-Core; 620218, LTE_CA_B1_B3-Perf)
  - LTE Advanced inter-band CA of Band 1 and Band 7
    (530125, LTE_CA_B1_B7-Core; 530225, LTE_CA_B1_B7-Perf)
  - LTE Advanced inter-band CA of Band 8 and Band 11
    (610120, LTE_CA_B8_B11-Core, 610220, LTE_CA_B8_B11-Perf)
  - LTE Advanced inter-band Carrier Aggregation of Band 41 and Band 42
    (630136, LTE_CA_B41_B42-Core; 630236, LTE_CA_B41_B42-Perf)
  - Additional bandwidth combination set for LTE Advanced inter-band CA of Band 4 and Band 12
    (630135, LTE_CA_B4_B12_BWset-Core; 630235, LTE_CA_B4_B12_BWset-Perf)
    Note: Both started as REL-13 WIs but they were completed at RAN #65 in REL-12.
  - LTE Advanced inter-band Carrier Aggregation of Band 18 and Band 28
    (650110, LTE_CA_B18_B28-Core; 650210, LTE_CA_B18_B28-Perf)
    Note: These 2 WIs were extracted from 3DL REL-13 WI LTE_CA_B1_B18_B28-Core at RAN #65 and completed as REL-12 WIs at RAN #65.

  - LTE Advanced 3 Band CA (3DL/1UL) for Band 1, Band 3 and Band 5
    (620150, LTE_CA_B1_B3_B5-Core; 620250, LTE_CA_B1_B3_B5-Perf)
  - LTE Advanced 3 Band CA (3DL/1UL) for Band 1, Band 3 and Band 8
    (620124, LTE_CA_B1_B3_B8-Core; 620224, LTE_CA_B1_B3_B8-Perf)
  - LTE Advanced 3 Band CA (3DL/1UL) of Band 1, Band 3 and Band 19
    (640128, LTE_CA_B1_B3_B19-Core; 640228, LTE_CA_B1_B3_B19-Perf)
  - LTE Advanced 3 Band CA (3DL/1UL) for Band 1, Band 3 and Band 20
    (620151, LTE_CA_B1_B3_B20-Core; 620251, LTE_CA_B1_B3_B20-Perf)
  - LTE Advanced 3 Band CA (3DL/1UL) for Band 1, Band 5 and Band 7
    (620125, LTE_CA_B1_B5_B7-Core; 620225, LTE_CA_B1_B5_B7-Perf)
  - LTE Advanced 3 Band CA (3DL/1UL) for Band 1, Band 7 and Band 20
    (620152, LTE_CA_B1_B7_B20-Core; 620252, LTE_CA_B1_B7_B20-Perf)
  - LTE Advanced 3 Band CA (3DL/1UL) of Band 1, Band 19 and Band 21
    (630127, LTE_CA_B1_B19_B21-Core; 630227, LTE_CA_B1_B19_B21-Perf)
  - LTE Advanced 3 Band CA (3DL/1UL) of Band 1, Band 42 and Band 42
    (640131, LTE_CA_B1_B42_B42-Core; 640231, LTE_CA_B1_B42_B42-Perf)
  - LTE Advanced 3 Band CA (3DL/1UL) for Band 2, Band 2 and Band 13
    (600138, LTE_CA_B2_B2_B13-Core; 600238, LTE_CA_B2_B2_B13-Perf)
  - LTE Advanced 3 Band CA (3DL/1UL) of Band 2, Band 4, and Band 4
    (630138, LTE_CA_B2_B4_B4-Core; 630238, LTE_CA_B2_B4_B4-Perf)
    Note: Both started as REL-13 WIs but they were completed at RAN #65 in REL-12.
  - LTE Advanced 3 Band CA (3DL/1UL) for Band 2, Band 4, and Band 5
    (620126, LTE_CA_B2_B4_B5-Core; 620226, LTE_CA_B2_B4_B5-Perf)

- LTE Advanced 3 Band CA (3DL/1UL) for Band 2, Band 4, and Band 12
  (620127, LTE_CA_B2_B4_B12-Core; 620227, LTE_CA_B2_B4_B12-Perf)
- LTE Advanced 3 Band CA (3DL/1UL) for Band 2, Band 4 and Band 13
  (600137, LTE_CA_B2_B4_B13-Core; 600237, LTE_CA_B2_B4_B13-Perf)
- LTE Advanced 3 Band CA (3DL/1UL) for Band 2, Band 5, and Band 12
  (620128, LTE_CA_B2_B5_B12-Core; 620228, LTE_CA_B2_B5_B12-Perf)
- LTE Advanced 3 Band CA (3DL/1UL) for Band 2, Band 5 and Band 30
  (600131, LTE_CA_B2_B5_B30-Core; 600231, LTE_CA_B2_B5_B30-Perf)
- LTE Advanced 3 Band CA (3DL/1UL) for Band 2, Band 12 and Band 12
  (620129, LTE_CA_B2_B12_B12-Core; 620229, LTE_CA_B2_B12_B12-Perf)
- LTE Advanced 3 Band CA (3DL/1UL) for Band 2, Band 12 and Band 30
  (620130, LTE_CA_B2_B12_B30-Core; 620230, LTE_CA_B2_B12_B30-Perf)
- LTE Advanced 3 Band CA (3DL/1UL) for Band 2, Band 29 and Band 30
  (600133, LTE_CA_B2_B29_B30-Core; 600233, LTE_CA_B2_B29_B30-Perf)
- LTE-Advanced 3 Band CA (3DL/1UL) of Band 3, Band 3 and Band 7
  (630128, LTE_CA_B3_B3_B7-Core; 630228, LTE_CA_B3_B3_B7-Perf)
- LTE Advanced 3 Band CA (3DL/1UL) of Band 3, Band 7 and Band 7
  (630126, LTE_CA_B3_B7_B7-Core; 630226, LTE_CA_B3_B7_B7-Perf)
- LTE Advanced 3 Band CA (3DL/1UL) for Band 3, Band 7 and Band 20
  (620131, LTE_CA_B3_B7_B20-Core; 620231, LTE_CA_B3_B7_B20-Perf)
- LTE Advanced 3 Band CA (3DL/1UL) of Band 4, Band 4, and Band 12
  (630137, LTE_CA_B4_B4_B12-Core; 630237, LTE_CA_B4_B4_B12-Perf)
  Note: Both started as REL-13 WIs but they were completed at RAN #65 in REL-12.
- LTE Advanced 3 Band CA (3DL/1UL) for Band 4, Band 4 and Band 13
  (600139, LTE_CA_B4_B4_B13-Core; 600239, LTE_CA_B4_B4_B13-Perf)
- LTE Advanced 3 Band CA (3DL/1UL) for Band 4, Band 5, and Band 12
  (620133, LTE_CA_B4_B5_B12-Core; 620233, LTE_CA_B4_B5_B12-Perf)
- LTE Advanced 3 Band CA (3DL/1UL) for Band 4, Band 5 and Band 30
  (600134, LTE_CA_B4_B5_B30-Core; 600234, LTE_CA_B4_B5_B30-Perf)
- LTE Advanced 3 Band CA (3DL/1UL) for Band 4, Band 12 and Band 12
  (620134, LTE_CA_B4_B12_B12-Core; 620234, LTE_CA_B4_B12_B12-Perf)
- LTE Advanced 3 Band CA (3DL/1UL) for Band 4, Band 12 and Band 30
  (620135, LTE_CA_B4_B12_B30-Core; 620235, LTE_CA_B4_B12_B30-Perf)
- LTE Advanced 3 Band CA (3DL/1UL) for Band 4, Band 29 and Band 30
  (600136, LTE_CA_B4_B29_B30-Core; 600236, LTE_CA_B4_B29_B30-Perf)
- LTE Advanced 3 Band CA (3DL/1UL) of Band 19, Band 42 and Band 42
  (640129, LTE_CA_B19_B42_B42-Core; 640229, LTE_CA_B19_B42_B42-Perf)

- Additional bandwidth combination set for LTE Advanced intra-band contiguous CA in Band 40 for 3DL
  (640135, LTE_CA_C_B40_3DL_BW-Core; 650053, LTE_CA_C_B40_3DL_BW-Perf)
  Note: The Perf. part was created via WID update RP-141127 at RAN #65 for the existing Core part.
- Additional bandwidth combinations for LTE Advanced intra-band non-contiguous CA in Band 25
  (630145, LTE_CA_NC_B25_BWset-Core; 630245, LTE_CA_NC_B25_BWset-Perf)

REL-13 core & performance parts for:
- LTE in the 1670-1675MHz Band for US
  (550117 , LTE_FDD_1670_US-Core; 550217, LTE_FDD_1670_US-Perf)
  Note: Both WIs were stopped and not completed but REL-13 SI FS_LTE_FDD_1670_US is ongoing.

- RAN5 UE Conformance Test Aspects for:
  - Enhanced downlink control channel(s) for LTE, REL-11 (590005, LTE_enh_dl_ctrl-UEConTest)
  - Improved Minimum Perf. Requirements for E-UTRA: Interference Rejection, REL-11 (600002, LTE_Interf_Rej-UEConTest)
  - LTE Carrier Aggregation Enhancements, REL-11 (600003, LTE_CA_enh-UEConTest)
  - Split TTCN Test Models for IMS testing in TS 34.229-3, REL-11 (620015, IMS-CCR_Test2)

- 2 closed REL-12 study items (SI) in Sep. 2014:
  - RAN1: Study on 3D-channel model for Elevation Beamforming and FD-MIMO studies for LTE (580042, FS_LTE_3D_channel)
  - RAN4: Study on 2GHz FDD for UTRA and LTE in Region 1 (1980-2010MHz and 2170-2200MHz Bands) (580049, FS_UTRA_LTE_1980_2170_REG1)

- 2 REL-12 study items (SI) shifted from REL-12 to REL-13 in Sep. 2014:
  - Study on LTE FDD in the bands 1980-2010 MHz and 2170-2200 MHz (570022, FS_LTE_1980_2170_Korea)
  - Study on Expansion of LTE_FDD_1670_US to include 1670-1680MHz Band for LTE in the US (590016, FS_LTE_FDD_1670_US)

- 23 REL-12 Core parts got a 3 months exception granted to complete still in REL-12:
  Note: REL-12 had so far 138 Core part WIs; 10 of them were stopped; of the 128 remaining Core parts 34 are not spectrum related (22 are completed, 12 got an exception i.e. 35,3%) and 94 are spectrum related (83 are completed, 11 got an exception i.e. 11,7%).
  - RAN1 led:
    - Core part: Low cost & enhanced coverage MTC UE for LTE: RP-141220
    - Core part: E-UTRA Small cell enhancements - Physical layer aspects: RP-141631
    - Core part: LTE Device to Device Proximity Services: RP-141704
    - Core part: Network-Assisted Interference Cancellation and Suppression for LTE: RP-141440
  - RAN2 led:
    - Core part: Further EUL enhancements: RP-141685
    - Core part: Further MBMS Operations Support for E-UTRAN: RP-141432
    - Core part: Dual Connectivity for LTE: RP-141265
  - RAN3 led:
    - Core part: Inter-eNB CoMP for LTE: RP-141117
    - Core part: Group Call eMBMS congestion management for LTE: RP-141441
  - RAN4 led:
    - Core part: LTE UE TRP/TRS & UTRA Hand Phantom related UE TRP/TRS Requirem.: RP-141161
    - Core part: Base Station (BS) RF requirements for Active Antenna System (AAS): RP-141713
    - Core part: Increasing the min. number of carriers for UE monitoring in UTRA & E-UTRA: RP-141601
    - Core part: LTE Advanced inter-band Carrier Aggregation of Band 1 and Band 28: RP-141135
    - Core part: Add. BW combination set for LTE-A inter-band CA of Band 2 and Band 5: RP-141210
    - Core part: LTE Advanced 3 Band CA (3DL/1UL) of Band 3, Band 42 and Band 42: RP-141144
    - Core part: LTE Advanced 3 Band CA (3DL/1UL) for Band 7, Band 8 and Band 20: RP-141622
    - Core part: LTE Advanced dual uplink inter-band CA Class A1: RP-141242
    - Core part: LTE Advanced dual uplink inter-band CA Class A2: RP-141430
    - Core part: LTE Advanced dual uplink inter-band CA Class A3: RP-141372
    - Core part: LTE Advanced dual uplink inter-band CA Class A4: RP-141163
    - Core part: LTE Advanced dual uplink inter-band CA Class A5: RP-141194
    - Core part: LTE Advanced intra-band non-contiguous CA framework for 2UL: RP-141162
    - Core part: LTE Advanced intra-band non-contiguous CA in Band 4 for 2UL: RP-141285

- 43 new approved work items (WI) in Sep. 2014 (21 Core, 20 Perf., 2 Testing):
  - RAN1 REL-13:
    - Core part: Further LTE Physical Layer Enhancements for MTC RP-141660
  - RAN3 REL-13: (*: Core parts which have no Perf. part WI)
    - Core part: SON for AAS-based deployments RP-141624 *
    - Core part: RAN Aspects of RAN Sharing Enhancements for LTE RP-141671 *
  - RAN4 (18 Core, 20 Perf.):
    REL-12 performance parts for:
    - Additional bandwidth combination set for LTE Advanced intra-band contiguous CA in Band 40 for 3DL RP-141127
      Note: This is a new Perf. WI created via WID update at RAN #65 for an existing Core part.

    REL-12 core & performance parts for:
    - LTE Advanced inter-band Carrier Aggregation of Band 18 and Band 28 RP-141611
      Note: Extracted from 3DL REL-13 WI LTE_CA_B1_B18_B28-Core at RAN #65.

    REL-13 performance parts for:
    - Further LTE Physical Layer Enhancements for MTC RP-141660

Note: Perf. part to the RAN1 led Core part.

REL-13 core & performance parts (17) for:

- LTE Advanced inter-band CA of Band 1 and Band 40 RP-141312
- LTE Advanced inter-band CA of Band 2 and Band 28 RP-141145
- LTE Advanced inter-band CA of Band 3 and Band 31 RP-141337
- LTE Advanced inter-band CA of Band 3 and Band 38 RP-141129
- LTE Advanced inter-band CA of Band 3 and Band 40 RP-141674
- LTE Advanced inter-band CA of Band 4 and Band 28 RP-141146
- LTE Advanced inter-band CA of Band 5 and Band 40 RP-141675
- LTE Advanced inter-band CA of Band 20 and Band 31 RP-141336
- LTE Advanced inter-band CA of Band 20 and Band 40 RP-141168
- LTE Advanced 3 Band CA (3DL/1UL) of Band 2, Band 2 and Band 29 RP-141448
- LTE Advanced 3 Band CA (3DL/1UL) of Band 2, Band 4, and Band 29 RP-141668
- LTE Advanced 3 Band CA (3DL/1UL) of Band 2, Band 5, and Band 29 RP-141667
- LTE Advanced 3 Band CA (3DL/1UL) of Band 8, Band 41 and Band 41 RP-141290
- LTE Advanced 3 Band CA (3DL/1UL) of Band 25, Band 41 and Band 41 RP-141673
- LTE Advanced 3 Band CA (3DL/1UL) of Band 38, Band 40 and Band 40 RP-141655
- LTE Advanced 3 Band CA (3DL/1UL) of Band 39, Band 39 and Band 41 RP-141288
- LTE Advanced intra-band contiguous Carrier Aggregation in Band 42 for 3DL RP-141677

- RAN5 UE Conformance Test Aspects for:
  - LTE Coverage Enhancements, REL-12 RP-141150
  - Further Rel-12 Configurations for LTE Advanced CA with 3DL, REL-12 RP-141445

- 4 new approved study items (SI) in Sep. 14:

  - RAN1: Study on Elevation Beamforming/Full-Dimension (FD) MIMO for LTE, REL-13 RP-141644
  - RAN1: Study on Licensed-Assisted Access using LTE, REL-13 RP-141664
  - RAN1: Study on small data transmission enhancement for UMTS, REL-13 RP-141711
  - RAN2: Study on Downlink Enhancements for UMTS, REL-13 RP-141657

- 1 new approved Technical Specifications (TS), i.e. now under CR control:

  - RAN5 REL-11 TS 34.229-4 IMS-CCR_Test2 RP-141156

- 2 new approved Technical Reports (TR), i.e. now under CR control:

  - RAN1 REL-12 TR 36.873 FS_LTE_3D_channel RP-141207
  - RAN4 REL-12 TR 37.814 LTE_UTRA_SDL_BandL-Core RP-141341

- 0 new Technical Specifications (TS) provided for information

- 5 new Technical Reports (TR) provided for information:

  - RAN4 REL-12 TR 36.833-5-41 LTE_CA_C_B41-Perf RP-141426
  - RAN4 REL-12 TR 36.833-6-41 LTE_CA_NC_B41-Perf RP-141427
  - RAN4 REL-12 TR 36.853 LTE_CA_B2_B5_B30-Core RP-141217
  - RAN4 REL-12 TR 37.842 AAS_BS_LTE_UTRA-Core RP-141259
  - RAN5 REL-13 TR 36.978 FS_LTE_MIMO_OTA_ATF RP-141125

- Change requests statistics (see also Annex E): 1158 CRs handled with 1105 approved CRs.

Phase	Cat	all CRs	Approved CRs	approved RAN1	approved RAN2	approved RAN3	approved RAN4	approved RAN5
Rel-8	F	5	5	0	0	0	5	0
Rel-9	A	1	1	0	0	0	1	0
Rel-9	C	1	1	0	1	0	0	0
Rel-9	F	6	6	0	0	1	5	0
Rel-10	A	4	4	0	1	1	2	0
Rel-10	B	17	16	0	0	0	14	2
Rel-10	F	55	55	0	3	0	17	35
Rel-11	A	16	16	0	4	1	11	0
Rel-11	B	69	62	0	0	0	17	45
Rel-11	C	1	1	0	1	0	0	0
Rel-11	D	1	1	0	0	0	1	0
Rel-11	F	321	321	4	16	0	30	271
Rel-12	A	55	50	2	19	1	28	0
Rel-12	B	194	164	19	55	14	76	0
Rel-12	C	6	3	0	2	0	1	0
Rel-12	D	9	6	0	1	3	2	0
Rel-12	F	397	393	6	13	3	34	337
sum		1158	1105	31	116	24	244	690

1 Opening of the Meeting

TSG RAN chairman Mr. Dino Flore (Qualcomm) opened the meeting 3GPP TSG RAN #65 on Tuesday September 9th, 2014 at 09:00am.
On behalf of the host, the European Friends of 3GPP (EF3), Mathew Baker (Alcatel-Lucent) welcomed the delegates to Edinburgh, Scotland and explained organisational issues of the meeting.
Note: A social event is organized on Wed evening by Keysight Technologies.

NOTE: The TSG meetings #65 will be carried out in the 2 week TSG set up (RAN/CT in the first and SA in the second week).

2 Reminders for usage of IT resources, IPR declaration and antitrust compliance

The TSG RAN chairman reminded delegates of a responsible behaviour regarding IT resources of the meeting:

Delegates are reminded that they share the meeting IT resources with their fellow delegates. You should not abuse the service by using bandwidth-hogging applications such as movie downloads, streaming video, web-based gaming, etc during the meeting. Use the internet service in your hotel rooms for this!
Delegates must respect the law of the hosting country*, and should not visit prohibited internet sites.*
In cases of persistent abuse of the internet bandwidth, MCC may restrict individual's use of the service.
In particular, the PCG has laid down the following network usage conditions:
1. Users shall not use the network to engage in illegal activities. This includes activities such as copyright violation, hacking, espionage or any other activity that may be prohibited by local laws.
2. Users shall not engage in non-work related activities that are consume excessive bandwidth or cause significant degradation of the performance of the network.

Since the network is a shared resource, users should exercise some basic etiquette when using the 3GPP network at a meeting. It is understood that high bandwidth applications such as downloading large files or video streaming might be required for business purposes, but delegates should be strongly discouraged in performing these activities for personal use. Downloading a movie or doing something in an interactive environment for personal use essentially wastes bandwidth that others need to make the meeting effective. The meeting chairman should remind end users that the network is a shared resource; the more one user grabs, the less there is for another. Email and its attachments already take up significant bandwidth (certain email programs are not very bandwidth efficient). In case of need the chair can ask the delegates to restrict IT usage to things that are essential for the meeting itself.

1. ***DON'T place your WiFi device in ad-hoc mode***
2. ***DON'T set up a personal hotspot in the meeting room***
3. ***DO try 802.11a if your WiFi device supports it***
4. ***DON'T manually allocate an IP address***
5. ***DON'T be a bandwidth hog by streaming video, playing online games, or downloading huge files***
6. ***DON'T use packet probing software which clogs the local network (e.g., packet sniffers or port scanners)***

Based on the report of the PCG ad hoc group on IT improvements:
http://www.3gpp.org/ftp/PCG/PCG_27/DOCS/PCG27_13r1.zip
see also http://www.3gpp.org/Delegates-Corner#outil_sommaire_14

The RAN chairman made the following call for IPRs and reminded the delegates of their obligations with respect to IPRs:

> The attention of the delegates to the meeting of this Technical Specification Group is drawn to the fact that 3GPP Individual Members have the obligation under the IPR Policies of their respective Organizational Partners to inform their respective Organizational Partners of Essential IPRs they become aware of.
>
> The delegates are asked to take note that they are thereby invited:
>
> - to investigate whether their organization or any other organization owns IPRs which were, or were likely to become Essential in respect of the work of 3GPP.
> - to notify their respective Organizational Partners of all potential IPRs, e.g., for ETSI, by means of the IPR Statement and the Licensing declaration forms (http://webapp.etsi.org/Ipr/).

RAN chair reminder regarding competition law:
The attention of the delegates to the meeting was drawn to the fact that 3GPP activities were subject to antitrust and competition laws and that compliance with said laws was therefore required by any participant of the meeting, including the Chairman and Vice-Chairmen and were invited to seek any clarification needed with their legal counsel. The present meeting would be conducted with strict impartiality and in the interests of 3GPP. Delegates were reminded that timely submission of work items in advance of TSG/WG meetings was important to allow for full and fair consideration of such matters.

3 Approval of the Agenda

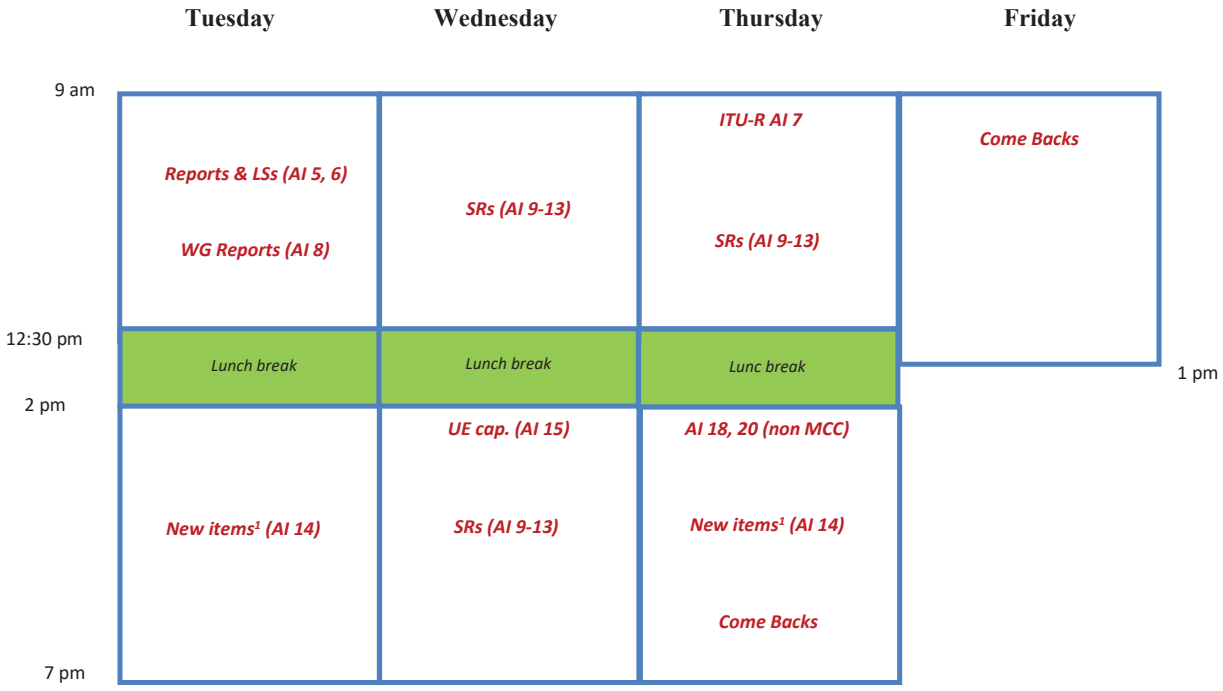
NOTE: Agreed CR packages of RAN WGs (if not flagged for discussion) will be approved without presentation. % complete and target dates of WI/SI status reports (if not flagged for discussion) will be approved without presentation.

RP-141045 Agenda for RAN #65 held in Edinburgh, UK, 09.09.-12.09.2014 RAN chairman (Qualcomm)
Agenda
conclusion: revised in RP-141073 before the meeting (e.g. note for exception request sheets for REL-12 added, WI LTE_CA_Mult-Perf moved from REL-13 to REL-12 agenda item)

RP-141073 Agenda for RAN #65 held in Edinburgh, UK, 09.09.-12.09.2014 RAN chairman (Qualcomm) Agenda
conclusion: revised in RP-141074 before the meeting (WI LCS_LTE_RFPMT-Core moved from open to completed REL-12 WIs)
RP-141074 Agenda for RAN #65 held in Edinburgh, UK, 09.09.-12.09.2014 RAN chairman (Qualcomm) Agenda
conclusion: approved

tentative meeting schedule as distributed by the RAN chairman on 08.09.2014 over the RAN reflector:

Meeting schedule (tentative)



[1] *On Tuesday we will first treat new items that have a chance to be approved this week and that require discussion during the week. The rest of the new proposals will be treated later in the week.*

4 Approval of the meeting report of TSG-RAN #64

RP-141046 Draft report of RAN #64 held in Sophia Antipolis, France, 10.06.-13.06.2014 ETSI MCC Report
conclusion: revised in RP-141566 (before the meeting)
RP-141566 Draft report of RAN #64 held in Sophia Antipolis, France, 10.06.-13.06.2014 ETSI MCC Report
conclusion: revised in RP-141605 which will be the final report
RP-141605 Report of RAN #64 held in Sophia Antipolis, France, 10.06.-13.06.2014 ETSI MCC Report
conclusion: approved

5 Reports from other meetings

5.1 Report from TSG SA

RAN chairman Dino Flore (Qualcomm) reported from TSG SA #64 held in Sophia Antipolis, France, June 16-18, 2014: (same as in his email of 02.07.14 distributed via the RAN reflector):

3GPP/WLAN inter-working:
In line with the agreement reached in RAN#64 the RAN chairman reported on the misalignment between ANDSF and RAN rules for traffic steering (see RAN report in SP-140373, slide 7). SA tasked SA2 to discuss the misalignment in the next meeting and if needed start an exchange on the subject with RAN2.

eMBMS congestion management:
SA tasked SA2 to review the newly approved RAN WI on Group Call eMBMS congestion management for LTE (RP-141035) and if needed provide early feedback to next RAN3 to help progress the work more smoothly.

GERAN new study on IoT (Internet of Things):
GERAN has started a new SI, which also includes the study of a new air interface optimized for narrowband communications for MTC devices. Depending on the progress of the study, in the future there may be a need to involve other TSGs/WGs to develop some of the upper layers and architectural aspects. Because of that, GERAN was requested to provide detailed reports on the progress of the study to future SA meetings in case there is a need to coordinate with other groups. See also LS from GERAN in SP-140350.

Network Virtualization:
A new SA5 SI was approved on Network Management of Virtualized Networks in SP-140398. There was some discussion on whether some work should start in SA1 and SA2 on the subject but no conclusion was reached. The topic will likely be re-discussed at the next SA plenary.

Mission Critical Push-to-Talk (MCPTT):
Some planning discussion took place on MCPTT and in particular how to organize the work moving forward in this area, possibly including other SDOs such as OMA and ETSI TC TCCE. As a result SA tasked SA2 (SP-140396) to consider different high level architecture solutions to fulfil the MCPTT requirements. This will allow SA to make informed decision on whether and how to distribute the work responsibility. Depending on the outcome of this initial scoping discussion some of the work may have impact to the radio and therefore may result in future proposals to RAN. [Note: An informative Critical Communications Workshop was hosted by OMA, August 26-28, 2014 in Montreal, Canada inviting participants from 3GPP, ETSI TCCE and OMA; topics: status of the work in progress, the combined requirements for Critical Communications and proposals on how the work can be best progressed]

SA2 workload on Rel-13:
SA2 workload (SP-140392) was discussed with a strong warning that the group is already overloaded for Rel-13 and that some difficult decisions will have to be made on the priorities given to different work items. Some of the items in Table 1 may have RAN impact. The SA2 Chairman was requested to spell out in future versions of the document the expected RAN impact for each of the items if any (for those cases also future proposals to RAN should be expected).

Reports:
TSGs:
- RAN: SP-140373
- CT: SP-140378
- GERAN: SP-140355

SA WGs:
- SA1: SP-140357
- SA2: SP-140195
- SA3: SP-140298
- SA4: SP-140202
- SA5: SP-140320

For SA #64 Tdocs see ftp://ftp.3gpp.org/tsg_sa/TSG_SA/TSGS_64/Docs/

discussion: No comments

5.2 Report from PCG and OP

Nothing to report since there was no PCG or OP meeting since RAN #64 in June 2014.

PCG #32 was held on 29.04.2014 in New Orleans, USA.
PCG #33 will be held on 28.10.2014 in Seoul, Korea.

OP #31 was held on 30.04.2014 in New Orleans, USA.
OP #32 will be held on 29.10.2014 in Seoul, Korea.

5.3 Report from other meetings

Nothing to report

6 Liaison activity of TSG RAN

6.1 Groups outside 3GPP

ITU-T:

RP-141053 LS on Evolution of Recommendation E.212 "The international identification plan for public networks and subscriptions"
(ITU-T SG2 LS55; to: 3GPP (RAN, CT, SA), 3GPP2, GSMA, CDMA Development Group; cc: -; contact: Telecom Italia) ITU-T SG2 LSin - -
no explicit RAN action requested
discussion: Telecom Italia: is more for information in RAN
conclusion: noted, no LS answer

ITU-R:

RP-141054 "LS on Working document towards a preliminary draft new ITU-R Report on the Smart Grid project (ITU-R WP1A/TEMP/61; to: 3GPP (RAN, GERAN, RAN4, SA), 3GPP2, ARIB, ATIS, CCSA, CDG, ETSI, IEEE, ITRI, GSMA, TIA, TTA, Wi-Fi Alliance; cc: -; contact: Counsellor ITU-R SG1) ITU-R WP1A LSin - -
conclusion: LS will be treated under AI 7.2.3

RP-141055 LS on ARCHITECTURE AND TOPOLOGY OF IMT NETWORKS (ITU-R WP5D/TEMP/404(Rev.2); to: RAN, CT, SA; cc: SA2; contact: Counsellor ITU-R SG 5) ITU-R WP5D LSin - -
conclusion: LS will be treated under AI 7.2.2

RP-141056 LS on THE PROVISION OF TRANSPOSITION REFERENCES AND CERTIFICATION C FOR DRAFT REVISION 12 OF RECOMMENDATION ITU-R M.1457 (ITU-R WP5D/TEMP/407; to: RAN, CT, SA, ARIB, ATIS, CCSA, ETSI, TIA, TTA, TTC, IEEE, WiMAX Forum; cc: -; contact: Counsellor ITU-R SG 5) ITU-R WP5DLSin - -
conclusion: LS will be treated under AI 7.2.2

RP-141057 LS on WORK PROGRESS ON PRELIMINARY DRAFT NEW RECOMMENDATIONS ITU-R M.[IMT.OOBE.BS] AND M.[IMT.OOBE.MS] (ITU-R WP5D/TEMP/447(Rev.1); to: RAN, RAN4, RAN5, WiMAX Forum; cc: -; contact: Counsellor ITU-R SG 5) ITU-R WP5DLSin - -
conclusion: LS will be treated under AI 7.2.2

RP-141058 "LS on THE WORK PLAN, TIMELINE, PROCESS AND DELIVERABLES FOR THE FUTURE DEVELOPMENT OF INTERNATIONAL MOBILE TELECOMMUNICATIONS (IMT) (ITU-R WP5D/TEMP/455; to: PCG, GERAN, RAN, CT, SA; cc: -; contact: Counsellor ITU-R SG 5) ITU-R WP5D LSin - -
conclusion: LS will be treated under AI 7.2.2

IEEE:

RP-141059 Reply LS to R2-141855 = RP-140539 on on WLAN signal measurements for WLAN/3GPP Radio interworking (IEEE 802.11-14/0936r3; to: RAN2; cc: WiFi Alliance, RAN4, RAN5, SA2, RAN; contact: Qualcomm) IEEE 802.11 LSin REL-12 UTRA_LTE_WLAN_interw-Core
conclusion: LS will be treated under AI 11.6.4

RP-141060 Reply LS to RP-140999 on Areas of Mutual Interest to 802 LMSC and 3GPP (IEEE_8002_LMSC_LS_140718_rev1; to: RAN; cc: -; contact: IEEE) IEEE 802 LMSC LSin - -
RAN action requested; note: RAN #64 answered LSin RP-140536 related to coexistence in unlicensed spectrum in LSout RP-140999;
discussion: RAN chair: we will have a reply LS when we approve a SI on this subject and IEEE 802 LMSC chair will be invited to have a presentation in RAN, RAN chair also plans to give a presentation in IEEE
conclusion: noted, Nokia Networks will draft a short LS answer in RP-141695 attaching the approved SI, RAN chair will invite IEEE 802 LMSC chair to RAN #66

RP-141695 Draft reply LS IEEE_8002_LMSC_LS_140718_rev1 = RP-141060 on Areas of Mutual Interest to 802 LMSC and 3GPP
(to: IEEE 802 LMSC; cc: -; contact: Nokia Networks) Nokia Networks LSout - -
conclusion: revised in RP-141712

RP-141712 RP-141712 Reply LS IEEE_8002_LMSC_LS_140718_rev1 = RP-141060 on Areas of Mutual Interest to 802 LMSC and 3GPP
(to: IEEE 802 LMSC; cc: -; contact: Nokia Networks) RAN LSout - -
conclusion: approved

GCF:

RP-141061 LS on creation of GCF OTA Task Force (GCF_OTA-14-014r3; to: RAN, RAN4, RAN5; cc: GERAN; contact: GCF) GCF OTA Task Force 1 LSin - -
conclusion: LS will be treated under AI 6.3

MSIP Korea/TTA:

RP-141097 LS on Request on prioritization and expeditious completion of 3GPP Work Items and Study Items related to Public Safety LTE (to: RAN, SA; cc: -; contact: MSIP IT Strategy Bureau) MSIP Korea LSin REL-13 -
MSIP = Ministry of Science, ICT and Future Planning; MSIP in Korea strongly urge the continued prioritization and expeditious completion of 3GPP Release 13 Work Items and Study Items that directly impact the availability of PS-LTE. This prompt action is going to allow public safety officials and first responders such as police and firefighters to use multimedia service as well as mission critical PTT service. RAN action requested;
LS is presented by TTA; treated together with RP-141098
conclusion: noted, no LS answer

RP-141098 LS on 3GPP Work Items for Public Safety LTE and PPDR Broadband network in Korea (to: RAN, SA; cc: -; contact: TTA) TTA LSin REL-13 -
3GPP LTE supports most of the Korean 37 functional requirements, it does not still support several items, especially including Direct Communication / MS Repeater, Standalone BS Operation Mode and Group call. Therefore, we would like to propose that the related WIs and SIs for Public Safety LTE as shown the attachment should be adopted with prioritization and should be completed expeditiously.
discussion: RAN chair: We will take the comments from MSIP/TTA into account; REL-12 completion will be discussed this week, for REL-13 there is an overall 3GPP discussion about MCPTT that will continue in SA next week and this
US Dep.ofCom: supports these 2 documents and shows that there is growing interest, confirms that governments are synchronized on these activities
ALU: how much do the 37 requirements fit to SA1 requirements?
US Dep.ofCom: SA1 req more from user point of view
NTT: what is Korea's plan for REL-13?
TTA: plan is to have public safety established in 2017; REL-13 planned to freeze in Q1/2016
Telecom Italia: SA/CT are discussing introduction of a new WG?

RAN chair: yes, but there are also other proposals on the table; 3GPP/OMA/ETSI TETRA had a first meeting and discussion is ongoing esp. in SA/CT; there will be work later for RAN
KT: which other countries are willing to deploy LTE Public Safety?
RAN chair: US Dep.of Com. and UK Home Office are very active
Orange: also France is interested
US Dep.of Com.: there are other countries which may also move to it but which are not represented here (e.g. Australia)
RAN chair: encourages that interested parties work together to align their requirements
conclusion: noted, no LS answer

CEPT:

RP-141604 LS on Information request on E-UTRAN TDD specification (CEPT ECC PT1(14)115_A26rev1; to: RAN; cc: ETSI MSG TFES, ETSI ERM; contact: CEPT ECC PT1 chairman) CEPT ECC PT1 LSin - -
CEPT = Conférence européenne des administrations des postes et des télécommunications; ECC = Electronic Communications Committee; PT1 = Project Team 1; RAN action requested;
LS is presented by Orange
discussion: RAN chair: any proposal for an answer?
Orange: suggests an LS reply by the end of the week to clarify what is already in the standard (FDD DL) and the status about the ongoing discussion about TD-LTE
Orange: this band has some coexistence issues and PT1 is looking for an option to solve this
conclusion: noted, Orange will draft a reply LS in RP-141606;
finally the LS answer to RP-141604 was postponed

RP-141606 Draft reply LS to CEPT ECC PT1(14)115_A26rev1 = RP-141604 on Information request on E-UTRAN TDD specification
(to: CEPT ECC PT1; cc: ETSI MSG TFES, ETSI ERM; contact: Orange) Orange LSout - -
conclusion: postponed

The following LS arrived on Friday of RAN #65:

RP-141689 LS on Proposed organization of a co-located workshop ITU-T SG12 QSDG / 3GPP / ETSI TB STQ on Quality of Service (QoS) and Quality of Experience (QoE) of 'big data' services in 3G/4G Mobile Networks
(ITU-T SG12 TD 536 rev 1; to: RAN, CT, ETSI TB STQ; cc:ITU-T SG12 QSDG; contact: RURA) ITU-T SG12 LSin - -
RAN action requested
discussion: RAN chair: ITU-T is planning a workshop on Quality of Service (QoS) and Quality of Experience (QoE) of 'big data' services in 3G/4G Mobile Networks in 2015
conclusion: noted, no LS answer

6.2 TSG SA, TSG CT, TSG GERAN

related to ITU-R WP5D:

RP-141438 Reply LS to ITU-R WP5D/TEMP/455 = RP-141058 on the work plan, timeline, process and deliverables for the future development of International Mobile Telecommunications (IMT)
(GP-140690; to: 3GPP ITU-R ad hoc; cc: RAN; contact: Ericsson) GERAN LSin - -
conclusion: LS will be treated under AI 7.2.2

3GPP/WLAN interworking:

RP-141047 Reply LS to R2-142955 = RP-140556 on WLAN/3GPP Radio Interworking
(C1-143355; to: RAN2; cc: SA2, RAN4, RAN; contact: Huawei) CT1 LSin REL-12 UTRA_LTE_WLAN_interw-Core
conclusion: LS will be treated under AI 11.6.4

RP-141051 Reply LS to R2-142955 = RP-140556 on WLAN/3GPP Radio Interworking
(S2-142901; to: RAN2, CT1; cc: RAN4, RAN, SA; contact: Alcatel-Lucent) SA2 LSin REL-12 UTRA_LTE_WLAN_interw-Core
conclusion: LS will be treated under AI 11.6.4

RP-141050 Reply LS to RP-141012 on user preferences in RAN rules
(S2-142838; to: RAN, CT1, RAN2; cc: -; contact: NSN) SA2
LSin REL-12 UTRA_LTE_WLAN_interw-Core
conclusion: LS will be treated under AI 11.6.4

Other:

RP-141048 LS on E-UTRAN to GERAN PS Handover
(C4-141599; to: RAN3; cc: CT, RAN; contact: Alcatel-Lucent) CT4
LSin REL-9 TEI9
conclusion: LS will be treated under AI 6.3 together with RP-141067

RP-141049 LS on E-UTRAN inter-frequency measurements that exceeds maxEARFCN
(CP-140462; to: RAN2; cc: RAN, CT6; contact: LG) CT
LSin REL-12 TEI12
no RAN action requested
conclusion: noted, no LS answer

RP-141052 Reply LS to R2-141826 on eMBMS broadcast areas with EUTRAN Cell Granularity
(S2-142943; to: RAN2, RAN3; cc: RAN, CT3, CT4; contact: NSN) SA2
LSin REL-12 GCSE_LTE
no RAN action requested; note: R2-141826 was not sent to/cc RAN but to SA2, cc: CT3, CT4, RAN3, SA4;
discussion: Nokia Networks: no more work in REL-12, it has moved to REL-13
conclusion: noted, no LS answer

RP-141437 LS on Introduction of Power Saving Mode in GERAN
(GP-140541; to: SA2; cc: RAN, RAN2; contact: Ericsson) GERAN
LSin REL-12 MTCe-UEPCOP-GERAN
no RAN action requested
discussion: Ericsson: work is completed
conclusion: noted, no LS answer

The following 3 LSs arrived on Friday of RAN #65:

RP-141686 Reply LS on Liaison statement to External Organizations on Architecture and Topology of IMT Networks
(CP-140728; to: SA; cc: RAN; contact: Ericsson) CT LSin - -
CT view regarding RP-141647; no RAN action requested
conclusion: noted, no LS answer

RP-141687 Reply LS LIAISON STATEMENT TO GCS PROPONENTS AND TRANSPOSING ORGANIZATIONS ON THE PROVISION OF TRANSPOSITION REFERENCES AND CERTIFICATION C FOR DRAFT REVISION 12 OF RECOMMENDATION ITU-R M.1457
(CP-140729; to: SA; cc: RAN; contact: Ericsson) CT LSin - -
CT view regarding RP-141648; no RAN action requested
conclusion: noted, no LS answer

RP-141688 Reply LS to LIAISON STATEMENT TO EXTERNAL ORGANIZATIONS ON THE WORK PLAN, TIMELINE, PROCESS AND DELIVERABLES FOR THE FUTURE DEVELOPMENT OF INTERNATIONAL MOBILE TELECOMMUNICATIONS (IMT)
(CP-140730; to: SA; cc: RAN; contact: Ericsson) CT LSin - -
CT view regarding RP-141650; no RAN action requested
conclusion: noted, no LS answer

6.3 TSG RAN WG1, WG2, WG3, WG4, WG5, RAN ITU-R ad hoc

related to ITU-R WP5D:

RP-141070 Draft reply Letter to ITU-R WP5D/TEMP/404(Rev.2) = RP-141055 on LS on Architecture and Topology of IMT Networks (RT-140019; to: RAN; cc: -; contact: Telecom Italia) 3GPP ITU-R ad hoc LTIin - -
conclusion: Tdoc will be treated under AI 7.2.2

RP-141071 Draft reply Letter to ITU-R WP5D/TEMP/455 = RP-141058 on the work plan, timeline, process and deliverables for the future development of International Mobile Telecommunications (IMT) (RT-140020; to: RAN; cc: -; contact: Telecom Italia) 3GPP ITU-R ad hoc LTIin - -
conclusion: Tdoc will be treated under AI 7.2.2

RP-141072 Draft reply Letter to ITU WP5D/TEMP/407 = RP-141056 on LS to GCS Proponents and Transposing Organizations on the provision of transposition references and Certification C for Draft Revision 12 of Recommendation ITU-R M.1457
(RT-140021; to: RAN; cc: -; contact: Telecom Italia) 3GPP ITU-R ad hoc LTIin - -
conclusion: Tdoc will be treated under AI 7.2.2

RP-141095 Draft reply Letter to ITU-R WP5D/TEMP/447(Rev.1) = RP-141057 on LS to 3GPP, WIMAX Forum – Work progress on preliminary draft new Recommendations ITU-R M.[IMT.OOBE.BS] and M.[IMT.OOBE.MS]
(RT-140022; to: RAN; cc: -; contact: Telecom Italia) 3GPP ITU-R ad hoc LTIin - -
conclusion: Tdoc will be treated under AI 7.2.2

RP-141714 Draft Letter to ITU on Comments on Working document towards a Handbook on Global Trends in IMT ITU-R M.[IMT.HANDBOOK]
(RT-140025; to: RAN; cc: -; contact: Telecom Italia) 3GPP ITU-R ad hoc LTIin - -
conclusion: received after RAN #65, see AI 7.2.2

256QAM for LTE:

RP-141062 LS on 256QAM for PMCH (R1-143612; to: RAN2, RAN4; cc: RAN; contact: Huawei) RAN1 LSin REL-12 LTE_SC_enh_L1
conclusion: LS will be treated under AI 11.7.8

RP-141063 LS on 256QAM UE category (R1-143675; to: RAN2; cc: RAN4, RAN; contact: Huawei) RAN1 LSin REL-12 LTE_SC_enh_L1
conclusion: LS will be treated under AI 11.7.8

REL-12 UE capabilities:

RP-141064 LS on Rel-12 capabilities (R2-143962; to: RAN; cc: RAN1; contact: Ericsson) RAN2 LSin REL-12 LCS_BDS-UTRA-Core, LCR_TDD_HSPA_sign_enh-Core, EHNB_enh3-Core, EDCH_enh-Core, UTRA_hetnet_enh-Core, UTRA_DCHenh-Core, UTRA_SIBenh-Core, UTRA_hetnet_mob-Core, TEI12
conclusion: LS will be treated under AI 15

UPCON (User Plane Congestion management):

RP-141065 Response LS to S2-142939 on the Impacts of Packet Marking on RAN user plane handling of DL traffic (R3-142079; to: SA2; cc: RAN2, RAN; contact: Alcatel-Lucent) RAN3 LSin REL-13 UPCON
no RAN action requested; note: S2-142939 was only sent to RAN2, RAN3
discussion: RAN3 chair: LS asks for work on this topic; from RAN3 point of view this requires a RAN decision, without RAN SI/WI RAN3 will not work on this; clarification was also requested from NEC
NEC: no comment at the moment
conclusion: noted, no LS answer

OTA:

RP-141061 LS on creation of GCF OTA Task Force (GCF_OTA-14-014r3; to: RAN, RAN4, RAN5; cc: GERAN; contact: GCF) GCF OTA Task Force 1 LSin - -
from AI 6.1; GCF = Global Certification Forum; OTA = over the air; RAN action requested
presented by RAN chair
discussion: RAN chair: also RAN4 is targeted
RAN4 chair: we answered it in RP-141069
conclusion: noted, RAN4 answered this LS from GCF OTA Task Force 1 in R4-145589= RP-141069; offline discussion; Orange will draft an LS reply in RP-141696;
finally the reply LS was RP-141696 withdrawn and
an LS answer to RP-141061 is postponed

RP-141069 Reply LS to GCF LS RP-141061 to 3GPP on creation of GCF OTA Task Force
(R4-145589; to: GCF OTA Task Force for OTA Antenna Performance; cc: RAN, RAN5; contact: Intel) RAN4 LSin REL-12 LTE_UTRA_TRP_TRS-Core
no RAN action requested
discussion: Orange: when GCF indicates the urgency then this is no understatement; this work took us so much time in RAN that's why GCF has created this task force now; so we need to prioritize this work in RAN4; there is a WI submitted to RAN #65 which addresses this request; we need to indicate when the ongoing work can be delivered
RAN chair: asking companies to progress faster is more for RAN4 to solve; regarding new WI RAN4 clarified that they have no additional capacity, however they treated MIMO OTA in the past in parallel so if this is ok for RAN4 we could consider such a WI here at RAN
Samsung: parallel session is good but did you plan to send a reply LS from RAN?
RAN chair: not so far but if we have a decision at RAN #65 we can
conclusion: noted, no LS answer to RAN4

RP-141696 Draft reply to RP-141069 Draft reply LS to GCF_OTA-14-014r3 = RP-141061 on creation of GCF OTA Task Force
(to: GCF OTA Task Force 1; cc: RAN4, RAN5; contact: Orange) Orange LSout REL-12 LTE_UTRA_TRP_TRS-Core
conclusion: withdrawn

Carrier Aggregation:

RP-141068 LS on DL CA and support for the lower order DL fall-back modes
(R4-145477; to: RAN2; cc: RAN; contact: Ericsson) RAN4 LSin REL-12 -
conclusion: LS will be treated under AI 11.8

E-UTRAN to GERAN PS Handover:

RP-141048 LS on E-UTRAN to GERAN PS Handover
(C4-141599; to: RAN3; cc: CT, RAN; contact: Alcatel-Lucent) CT4 LSin REL-9 TEI9
from AI 6.2; no RAN action requested
conclusion: noted, no LS answer

RP-141067 Response LS to C4-141230 = RP-140552 on EUTRAN to GERAN PS Handover
(R3-142110; to: CT4; cc: RAN, CT; contact: Alcatel-Lucent) RAN3 LSin REL-9 TEI9
no RAN action requested
discussion: RAN3 chair: RAN3 CRs are provided to RAN #65 in RP-141513
conclusion: noted, no LS answer

Radio interface based synchronization:

RP-141066 Reply LS to R1-142762 = RP-140554 on radio interface based synchronization
(R3-142097; to: RAN1, SA5; cc: RAN; contact: NSN) RAN3 LSin REL-12 LTE_SC_enh_L1
conclusion: LS will be treated under AI 11.7.8

7 ITU-R Ad hoc

7.1 Status report

RP-141075 Status Report ITU-R Ad hoc ITU-R Ad hoc Contact (Telecom Italia) Report
conclusion: noted; RAN gave ITU-R ad hoc the mandate to provide ITU-R M.2012 rev.2 input, ITU-R ad hoc will prepare input to RAN #66

7.2 Submission to ITU-R

7.2.1 Submission to ITU-R WP5A

No contributions

7.2.2 Submission to ITU-R WP5D

Architecture and topology of IMT networks:

RP-141055 LS on ARCHITECTURE AND TOPOLOGY OF IMT NETWORKS (ITU-R WP5D/TEMP/404(Rev.2); to: RAN, CT, SA; cc: SA2; contact: Counsellor ITU-R SG 5) ITU-R WP5D LSin - -
to check whether 3GPP input PCG33_08 (based on RP-140589) was correctly included
conclusion: noted; 3GPP ITU-R ad hoc prepared a reply in RP-141070

RP-141070 Draft reply Letter to ITU-R WP5D/TEMP/404(Rev.2) = RP-141055 on LS on Architecture and Topology of IMT Networks (RT-140019; to: RAN; cc: -; contact: Telecom Italia) 3GPP ITU-R ad hoc LTIin - -
proposed reply to RP-141055 prepared by 3GPP ITU-R ad hoc;
conclusion: noted; no reply to 3GPP ITU-R ad hoc;
based on RP-141070 an LTIout as answer to RP-141055 is provided for review in CT and SA in RP-141647;
the final answer will be submitted to ITU-R WP5D by Individual Members

RP-141647 Draft reply Letter to ITU-R WP5D/TEMP/404(Rev.2) = RP-141055 on LS on Architecture and Topology of IMT Networks (to: CT, SA; cc: -; contact: Telecom Italia) RAN LTIout - -
for review in CT and SA; be submitted to ITU-R WP5D by Individual Members
conclusion: agreed, sent out to CT (on Thursday of RAN #65) and SA

ITU-R M.1457:

RP-141056 LS on THE PROVISION OF TRANSPOSITION REFERENCES AND CERTIFICATION C FOR DRAFT REVISION 12 OF RECOMMENDATION ITU-R M.1457 (ITU-R WP5D/TEMP/407; to: RAN, CT, SA, ARIB, ATIS, CCSA, ETSI, TIA, TTA, TTC, IEEE, WiMAX Forum; cc: -; contact: Counsellor ITU-R SG 5) ITU-R WP5DLSin - -
to check whether 3GPP input PCG32_10 was correctly included
conclusion: noted; 3GPP ITU-R ad hoc prepared a reply in RP-141072

RP-141072 Draft reply Letter to ITU WP5D/TEMP/407 = RP-141056 on LS to GCS Proponents and Transposing Organizations on the provision of transposition references and Certification C for Draft Revision 12 of Recommendation ITU-R M.1457
(RT-140021; to: RAN; cc: -; contact: Telecom Italia) 3GPP ITU-R ad hoc LTIin - -
proposed reply to RP-141056 prepared by 3GPP ITU-R ad hoc;
conclusion: noted; no reply to 3GPP ITU-R ad hoc;
based on RP-141072 an LTIout as answer to RP-141056 is provided for review in CT, SA and PCG in RP-141648;
the final answer will be submitted to ITU-R WP5D via ATIS on behalf of OPs

RP-141648 Draft reply Letter to ITU WP5D/TEMP/407 = RP-141056 on LS to GCS Proponents and Transposing Organizations on the provision of transposition references and Certification C for Draft Revision 12 of Recommendation ITU-R M.1457 (to: CT, SA; cc: -; contact: Telecom Italia) RAN LTIout - -

for review in CT, SA and PCG; to be provided to ITU-R WP5D via ATIS on behalf of OPs
conclusion: agreed, sent out to CT (on Thursday of RAN #65) and SA

Out-of-band emissions:

RP-141057 LS on WORK PROGRESS ON PRELIMINARY DRAFT NEW RECOMMENDATIONS ITU-R M.[IMT.OOBE.BS] AND M.[IMT.OOBE.MS] (ITU-R WP5D/TEMP/447(Rev.1); to: RAN, RAN4, RAN5, WiMAX Forum; cc: -; contact: Counsellor ITU-R SG 5) ITU-R WP5DLSin - -
to check whether 3GPP input PCG32_09 was correctly included; 3GPP ITU-R ad hoc will draft an answer taking into account RAN4, RAN5 replies; note: RAN4 & RAN5 did not provide any replies; if correction needed then PCG approval will be needed
conclusion: noted, 3GPP ITU-R ad hoc prepared a reply in RP-141095

RP-141095 Draft reply Letter to ITU-R WP5D/TEMP/447(Rev.1) = RP-141057 on LS to 3GPP, WIMAX Forum – Work progress on preliminary draft new Recommendations ITU-R M.[IMT.OOBE.BS] and M.[IMT.OOBE.MS]
(RT-140022; to: RAN; cc: -; contact: Telecom Italia) 3GPP ITU-R ad hoc LTIin - -
proposed reply to RP-141057 prepared by 3GPP ITU-R ad hoc;
conclusion: noted; no reply to 3GPP ITU-R ad hoc;
based on RP-141095 an LTIout as answer to RP-141057 is provided in RP-141649;
this final answer will be submitted to ITU-R WP5D by Individual Members

RP-141649 Draft reply Letter to ITU-R WP5D/TEMP/447(Rev.1) = RP-141057 on LS to 3GPP, WIMAX Forum – Work progress on preliminary draft new Recommendations ITU-R M.[IMT.OOBE.BS] and M.[IMT.OOBE.MS]
(to: ITU-R WP5D; cc: -; contact: Telecom Italia) RAN LSout - -
to be submitted to ITU-R WP5D by Individual Members
conclusion: approved

IMT:

RP-141058 LS on THE WORK PLAN, TIMELINE, PROCESS AND DELIVERABLES FOR THE FUTURE DEVELOPMENT OF INTERNATIONAL MOBILE TELECOMMUNICATIONS (IMT) (ITU-R WP5D/TEMP/455; to: PCG, GERAN, RAN, CT, SA; cc: -; contact: Counsellor ITU-R SG 5) ITU-R WP5D LSin - -
3GPP ITU-R ad hoc will draft an answer taking into account the GERAN reply; note: GERAN reply was provided in GP-140690 = RP-141438
conclusion: noted; 3GPP ITU-R ad hoc prepared a reply in RP-141071

RP-141438 Reply LS to ITU-R WP5D/TEMP/455 = RP-141058 on the work plan, timeline, process and deliverables for the future development of International Mobile Telecommunications (IMT)
(GP-140690; to: 3GPP ITU-R ad hoc; cc: RAN; contact: Ericsson) GERAN
LSin - -
This is GERAN's view on the LSin from ITU-R WP5D in RP-141058 and it was provided to the 3GPP ITU-R ad hoc to be taken into account in the 3GPP answer that is prepared in RP-141071; no RAN action requested;
conclusion: noted, no LS reply to GERAN

RP-141071 Draft reply Letter to ITU-R WP5D/TEMP/455 = RP-141058 on the work plan, timeline, process and deliverables for the future development of International Mobile Telecommunications (IMT)
(RT-140020; to: RAN; cc: -; contact: Telecom Italia) 3GPP ITU-R ad hoc LTIin - -
proposed reply to RP-141055 prepared by 3GPP ITU-R ad hoc;
discussion:
conclusion: noted; no reply to 3GPP ITU-R ad hoc;
based on RP-141071 an LTIout as answer to RP-141058 is provided for review in CT, SA and PCG in RP-141650;
the final answer will be submitted to ITU-R WP5D via ATIS on behalf of OPs

RP-141650 Draft reply Letter to ITU-R WP5D/TEMP/455 = RP-141058 on the work plan, timeline, process and deliverables for the future development of International Mobile Telecommunications (IMT) (to: CT, SA; cc: -; contact: Telecom Italia) RAN LTIout - -
for review in CT, SA and PCG; to be provided to ITU-R WP5D via ATIS on behalf of OPs
conclusion: agreed, sent out to CT (on Thursday of RAN #65) and SA

IMT Handbook:

RP-141714 Draft Letter to ITU on Comments on Working document towards a Handbook on Global Trends in IMT ITU-R M.[IMT.HANDBOOK]
(RT-140025; to: RAN; cc: -; contact: Telecom Italia) 3GPP ITU-R ad hoc LTIin - -
received on 26.09.14 i.e. after RAN #65 and handled by email (deadline 30.09.14);
conclusion: noted, no reply to 3GPP ITU-R ad hoc; RP-141714 is used as a basis for LTIout RP-141715

RP-141715 Draft Letter to ITU on Comments on Working document towards a Handbook on Global Trends in IMT ITU-R M.[IMT.HANDBOOK] (to: SA; cc: -; contact: Telecom Italia) RAN LTIout - -
conclusion: approved, sent out out 30.09.14; for email review in SA and afterwards for email approval in PCG and then distribution to ITU-R WP5D via ATIS on behalf of OPs

7.2.3 Other ITU-R submission

RP-141054 LS on Working document towards a preliminary draft new ITU-R Report on the Smart Grid project (ITU-R WP1A/TEMP/61; to: 3GPP (RAN, GERAN, RAN4, SA), 3GPP2, ARIB, ATIS, CCSA, CDG, ETSI, IEEE, ITRI, GSMA, TIA, TTA, Wi-Fi Alliance; cc: -; contact: Counsellor ITU-R SG1) ITU-R WP1A LSin - -
conclusion: noted, LS answer is postponed; 3GPP ITU-R ad hoc planned to prepare a reply based on inputs from GERAN, RAN4; note: GERAN postponed a reply to Nov., RAN4 has no reply; ITU-R ad hoc will draft a reply to RP-141054 for RAN #66 (will then require SA/PCG approval)

8 RAN WGs: WG Status Reports & CR Approvals up to Rel-10

8.1 TSG RAN WG1

8.1.1 Report from RAN WG1 including report on actions required from the previous meeting

RP-141076 Status Report RAN WG1 RAN1 chairman (NTT DOCOMO) Report
discussion: Motorola Solutions: slide 7/slide 11 contraditing; normally CRs are only agreed in a package
RAN1 chair: RAN1 work is completed, work for other WGs is ongoing; is fine either way (to approve RAN1 CRs without other CRs or postpone them until later)
RAN chair: is fine if RAN1 wants to approve RAN1 CRs this time
Nokia Networks: time budget calculation on slide 29 unclear
RAN1 chair: only REL-12 captured on slide 29
Ericsson: number of email discussions during summer was a bit too high
RAN1 vice-chair (ALU): slide 29: be realistic with how many time units your request; e.g. D2D reduces by 50% is this realistic?
Samsung: 19 TUs for REL-12?
RAN1 chair: no, also for REL-13
Samsung: also some pressure is needed to get to consensus; for D2D: independent of how many TUs they have it seems there is a lack of will to come to a consensus
Huawei: REL-12 exceptions should get higher prio
RAN chair: agrees that focus is on completing REL-12
LG: progress (30%) compared to 14 TUs for D2D does not fit together
conclusion: noted

RP-141077 List of CRs from RAN WG1 ETSI MCC Info
conclusion: noted

8.1.2 Discussions on decisions from RAN WG1

No contributions

8.1.3 Approval of CRs to REL-7 WIs and WIs of previous releases

No contributions

8.1.4 Approval of CRs to Rel-8 WIs

RP-141473 CR to 36.213 related to LTE-Phys RAN1 CR36.213 0471 - F REL-12 LTE-Phys
conclusion: approved

8.1.5 Approval of CRs to Rel-9 WIs

No contributions

8.1.6 Approval of CRs to Rel-10 WIs

RP-141474 CR to 36.213 to correct UCI in case of a single serving cell and simultaneous PUSCH and PUCCH transmission RAN1 CR36.213 0469 - F REL-12 LTE_CA-Core
conclusion: approved

8.1.7 Approval of linked CR packages led by RAN WG1

No contributions

8.2 TSG RAN WG2

8.2.1 Report from RAN WG2 including report on actions required from the previous meeting

RP-141078 Status Report RAN WG2 RAN2 chairman (Ericsson) Report
discussion: RAN chair: ASN.1 review ad hoc in Q1/2015
CATT: slide 37: discussion about measurements, what is the status? impact on RAN1?
RAN2 chair: combi of dual connectivity and L2 measurements was not considered highest priority
RAN chair: if you want to continue it in REL-12 then is must be listed on the exception request sheet
ZTE: slide 46: no TEI12 discussions in Q1/2015?
RAN2 chair: already submitted TEI12 topics will be treated in Q4/2014
RAN2 vice-chair (Interdigital): UTRA ASN.1 review plan is not yet agreed, will be done by email
Orange: slide 24: severe ASN.1 issue for MDT, why didn't we create the earlier version?
RAN2 chair: older versions can no longer be touched
Mediatek: slide 44: typo for 36.306: input from RAN1 not RAN4 needed
Nokia Networks: starting ASN.1 review earlier is fine but we need then to be careful with new topics for UTRA session
Broadcom: slide 33: WLAN interworking needs an extension in our view
Blackberry: sufficient TUs left to complete REL-12 in Q4/2014?
RAN2 chair: hopes so, progress in last quarter was quite ok, but no guarantee
conclusion: noted

RP-141079 List of CRs from RAN WG2 ETSI MCC Info
conclusion: noted

8.2.2 Discussions on decisions from RAN WG2

No contributions

8.2.3 Approval of CRs to REL-7 WIs and WIs of previous releases

RP-141488 RAN2 technically endorsed CRs on Introduction of new default configuration for HS-DSCH/RACH and HS-DSCH/E-DCH combinations RAN2 CR 25.331 set REL-7 TEI11, RANimp-EnhState, RANimp-UplinkEnhState
MCC: technically endorsed CRs; RAN to decide to approve the CR set or not (CRs introduce a new default configuration mandatory for the UE to be implemented but probably difficult to have IOT for it)
discussion: RAN2 chair: we often remove default configurations due to the lack of IOT therefore it was questioned whether it is good here to add a further default configuration
Ericsson: worried about adding a feature where you may have IOT problems later, suggests to discuss in RAN2 whether it could be optional
Huawei: it must be mandatory or it does not work; the question is can we allow for enough IOT possibilities, so we need at least 2 network vendors like for FGI
RAN chair: agrees that situation is similar to FGI
Nokia Networks: the feature is already in the specs; agrees/understands that modifying a frozen REL is not popular
Ericsson: is a feature that has limited testing possibilities
conclusion: offline discussion;
later: RAN chair: any way forward?
RAN2 vice-chair (Interdigital): if we have at least 2 network vendors that support the default configuration, then we approve the CRs otherwise we do not
RAN2 chair: how can network vendors confirm that they have IOT for something that is not in the spec?
Huawei: CRs would have to be brought to RAN until we have this confirmation
CR set is postponed until at least 2 network vendors confirm IOT possibility

8.2.4 Approval of CRs to Rel-8 WIs

RP-141489 RAN2 agreed CRs on Correction of E-UTRAN UE capabilities description in HandoverPreparationInformation message field descriptions RAN2 CR 36.331 set REL-8 LTE-L23, TEI11
conclusion: approved

RP-141490 RAN2 technically endorsed CRs on Multi-carrier configuration at inter-RAT handover RAN2 CR set REL-10 TEI11, RANimp-DCHSDPA, RANimp-DC_HSUPA, RANimp-MultiBand_DC_HSDPA, 4C_HSDPA-Core
MCC: technically endorsed CRs; RAN2 did not agree the CRs because RAN4 had still to agree to define corresponding requirements (it seems RAN4 has meanwhile a way forward in R4-145352)
discussion: Nokia Networks: we should have CRs available for all WGs before we do the change, changing something now in REL-11 but not having RAN4 part is not appropriate
Ericsson: we did not have a clear view in RAN4 but thinks the RAN4 part is small
RAN2 vice-chair (Interdigital): preference to approve RAN2 CRs now to simplify ASN.1 review
Ericsson: may take 1 or 2 meetings in RAN4
Nokia Networks: as affecting multiple WGs we should postpone RAN2 CRs
RAN2 chair: if these are core requirements, agrees with Nokia Networks; if RAN4 needs to address only perf. requirements then we can approve RAN2 CRs
conclusion: RAN4 chair will check whether pending RAN4 work is for core or perf. requirements
CR set is postponed (to have complete package at RAN #66)

8.2.5 Approval of CRs to Rel-9 WIs

RP-141492 RAN2 agreed CRs on Disable default configuration #23 RAN2 CR 25.331 set REL-9 TEI9
conclusion: approved

8.2.6 Approval of CRs to Rel-10 WIs

RP-141493 RAN2 agreed CRs on Various REL-10 UTRA Work Items RAN2 CR set REL-10 LTE_CA-Core, MBMS_LTE_SC-Core, rSRVCC-GERAN, eICIC_LTE-Core, TEI11
conclusion: approved

RP-141494 RAN2 agreed CRs on LTE Carrier Aggregation and Small Technical Enhancements and Improvements for Rel-10 RAN2 CR 36.331 set REL-10 TEI10
conclusion: approved

8.2.7 Approval of linked CR packages led by RAN WG2

No contributions

8.3 TSG RAN WG3

8.3.1 Report from RAN WG3 including report on actions required from the previous meeting

RP-141080 Status Report RAN WG3 RAN3 chairman (Huawei) Report
conclusion: noted

RP-141081 List of CRs from RAN WG3 ETSI MCC Info
conclusion: revised in RP-141512
RP-141512 List of CRs from RAN WG3 ETSI MCC Info
conclusion: revised in RP-141609
RP-141609 List of CRs from RAN WG3 ETSI MCC Info
conclusion: noted

8.3.2 Discussions on decisions from RAN WG3

No contributions

8.3.3 Approval of CRs to REL-7 WIs and WIs of previous releases

No contributions

8.3.4 Approval of CRs to Rel-8 WIs

No contributions

8.3.5 Approval of CRs to Rel-9 WIs

No contributions

8.3.6 Approval of CRs to Rel-10 WIs

No contributions

8.3.7 Approval of linked CR packages led by RAN WG3

RP-141513 Correction of Transparent Container Encoding for PS handover to GERAN RAN3 CR set REL-9 TEI9

MCC: Linked to CT4 CR in C4-141561 (in CP-140500).

conclusion: conditionally approved under the condition that CT approves C4-141561 in CP-140500; later: condition is fulfilled, i.e. RP-141513 is approved

8.4 TSG RAN WG4

8.4.1 Report from RAN WG4 including report on actions required from the previous meeting

RP-141082 Status Report RAN WG4 RAN4 chairman (Nokia Networks) Report

discussion: Alcatel-Lucent: RAN4 overloaded, if no new WIs companies may hide them as TEI proposals
Telecom Italia: some REL-14 exceptions affecting RAN4, so will RAN4 be able to close corresponding work by Dec.14?
RAN4 chair: has the suspicion that there may be some further exceptions request sheets in Dec.14
Qualcomm: any plans to run more in parallel sessions?
RAN4 chair: we have already RF and RRM and some operators do not like to extend this as they have just 1 delegate
ZTE: some time for LTE-U coexistence studies in Singapore?
RAN chair: certainly not in the next quarter
RAN chair: RAN4 ad hocs on spectrum aspects did not find enough support; if companies do not like this it may lead to prioritizing spectrum related WIs
KT: situation in Oct. may be different as a larger number of WIs could be completed in the last quarter
Telecom Italia: what about not approving spectrum related WIs at RAN #65 to get some buffer?

conclusion: noted;
separate session for HSPA will be discussed offline
decision will be postponed to next RAN meeting

RP-141083 List of CRs from RAN WG4 ETSI MCC Info

conclusion: noted

8.4.2 Discussions on decisions from RAN WG4

No contributions

8.4.3 Approval of CRs to REL-7 WIs and WIs of previous releases

No contributions

8.4.4 Approval of CRs to Rel-8 WIs

RP-141525 CRs to Rel-8 WIs RAN4 CR set REL-8 TEI8, LTE-RF
conclusion: approved

8.4.5 Approval of CRs to Rel-9 WIs

RP-141526 CRs to Rel-9 WIs RAN4 CR set REL-9 TEI9, LTE-RF, RInImp9-Rfmulti
conclusion: approved

8.4.6 Approval of CRs to Rel-10 WIs

RP-141527 CRs to Rel-10 WIs RAN4 CR set REL-10 TEI10, LTE-RF, LTE_CA-Core, LTE_CA-Perf, S_Band_LTE_ATC_MSS-Core
conclusion: approved

8.4.7 Approval of linked CR packages led by RAN WG4

No contributions

8.5 TSG RAN WG5

8.5.1 Report from RAN WG5 including report on actions required from the previous meeting

RP-141085 Status Report RAN WG5 RAN5 Chairman (Sprint) Report
conclusion: revised in RP-141614

RP-141614 Status Report RAN WG5 RAN5 Chairman (Sprint) Report
conclusion: noted

RP-141086 List of CRs from RAN WG5 ETSI MCC Info
conclusion: noted

RP-141087 Status Report MCC TF160 (for approval) ETSI MCC TF160 Leader Report
presented by RAN5 chairman
conclusion: approved, next year's TTCN funding request is endorsed by RAN

8.5.2 Discussions on decisions from RAN WG5

No contributions

8.5.3 Approval of CRs to closed WIs of REL-10 (incl. TEI10_Test) and previous releases

RP-141567 RAN5 agreed non TTCN CR(s) under WI Small Technical Enhancements and Improvements for Rel 99 Conformance Testing(TEI_Test) RAN5 CR set F R99 TEI_Test
conclusion: approved

RP-141568 RAN5 agreed non TTCN CR(s) under WI Small Technical Enhancements and Improvements for Rel-7 Conformance Testing(TEI5_Test) RAN5 CR set F REL-5 TEI5_Test
conclusion: approved

RP-141569 RAN5 agreed non TTCN CR(s) under WI Small Technical Enhancements and Improvements for Rel-7 Conformance Testing(TEI7_Test) RAN5 CR set F REL-7 TEI7_Test
conclusion: approved

RP-141570 RAN5 agreed non TTCN CR(s) under WI Small Technical Enhancements and Improvements for Rel-8 Conformance Testing(TEI8_Test) (Batch 1) RAN5 CR set F REL-8 TEI8_Test
conclusion: approved

RP-141571 RAN5 agreed non TTCN CR(s) under WI Small Technical Enhancements and Improvements for Rel-8 Conformance Testing(TEI8_Test) (Batch 2) RAN5 CR set F REL-8 TEI8_Test
conclusion: approved

RP-141572 RAN5 agreed non TTCN CR(s) under WI Small Technical Enhancements and Improvements for Rel-8 Conformance Testing(TEI8_Test) (Batch 3) RAN5 CR set F REL-8 TEI8_Test
conclusion: approved

RP-141573 RAN5 agreed non TTCN CR(s) under WI Small Technical Enhancements and Improvements for Rel-9 Conformance Testing(TEI9_Test) (Batch 1) RAN5 CR set F REL-9 TEI9_Test
conclusion: approved

RP-141574 RAN5 agreed non TTCN CR(s) under WI Small Technical Enhancements and Improvements for Rel-9 Conformance Testing(TEI9_Test) (Batch 2) RAN5 CR set F REL-9 TEI9_Test
conclusion: approved

RP-141575 RAN5 agreed non TTCN CR(s) under WI Small Technical Enhancements and Improvements for Rel-10 Conformance Testing (TEI10_Test) (Batch 1) RAN5 CR set F REL-10 TEI10_Test
MCC: late submission
conclusion: approved

RP-141576 RAN5 agreed non TTCN CR(s) under WI Small Technical Enhancements and Improvements for Rel-10 Conformance Testing (TEI10_Test) (Batch 2) RAN5 CR set F REL-10 TEI10_Test
MCC: late submission
conclusion: approved

RP-141577 RAN5 agreed non TTCN CR(s) under WI Small Technical Enhancements and Improvements for Rel-10 Conformance Testing (TEI10_Test) (Batch 3) RAN5 CR set F REL-10 TEI10_Test
MCC: late submission
conclusion: approved

RP-141578 CR to 34.123-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.123-3 (prose), Annex A RAN5 CR 34.123-3 3228 - F REL-11 TEI8_Test
MCC: late submission
conclusion: approved

RP-141579 CRs to 34.123-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.123-3 (TTCN), Annex A RAN5 CR 34.123-3 set F/B REL-11 TEI5_Test, TEI7_Test, TEI8_Test, TEI9_Test
MCC: late submission; TTCN batch; 36 Test Cases
conclusion: approved

RP-141580 CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A RAN5 CR 34.229-3 0217 - F REL-10 TEI9_Test
MCC: late submission
conclusion: approved

8.5.4 Approval of linked CR packages led by RAN WG5

RP-141581 CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (TTCN), Annex A RAN5 CR 34.229-3 set F/B REL-10 TEI8_Test, TEI9_Test
MCC: late submission; TTCN batch; 19 Test Cases
conclusion: approved

RP-141582 CR to 36.523-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 36.523-3 (prose), Annex A RAN5 CR 36.523-3 2301 - F REL-11 TEI8_Test
MCC: late submission
conclusion: approved

RP-141583 CR to 36.523-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 36.523-3 (TTCN), Annex A RAN5 CR 36.523-3 set F/B REL-11 TEI8_Test, TEI9_Test, TEI10_Test, TEI11_Test, eICIC_LTE-UEConTest
MCC: late submission; TTCN batch; 153 Test Cases
conclusion: approved

RP-141584 CR to 37.751-4: Add new verified and e-mail agreed TTCN test cases in the TC lists in 37.571-4 (prose), Annex A RAN5 CR 37.571-4 - - F REL-10 -
conclusion: withdrawn

RP-141585 CR to 37.571-4: Add new verified and e-mail agreed TTCN test cases in the TC lists in 37.571-4 (TTCN), Annex A RAN5 CR 37.571-4 - - B REL-10 -
conclusion: withdrawn

9 Conformance Testing Work Items

9.1 Closed Rel-11 and REL-12 work items

Note: For earlier releases see AI 8.5.

No contributions.

9.2 Open Rel-11 work items

9.2.1 UE Conformance Test Aspects for UE Over the Air (Antenna) conformance testing methodology – Laptop Mounted Equipment Free Space Test
[eICIC_enh_LTE-UEConTest]

RP-141130 Status Report for WID: UE Conformance Test Aspects for UE Over the Air (Antenna) conformance testing methodology - Laptop Equipment Free Space Test; rapporteur: ZTE RAN5 Report REL-11 UEAnt_FSTest-UEConTest
conclusion: noted, approved: 95%, Dec.14

9.2.2 UE Conformance Test Aspects - Coordinated Multi-Point Operation for LTE
[COMP_LTE-UEConTest]

RP-141159 Status Report for WI UE Conformance Testing - Coordinated Multi-Point Operation for LTE; rapporteur: Samsung RAN5 Report REL-11 COMP_LTE-UEConTest
conclusion: noted, approved: 85%, Dec.14

RP-141586 RAN5 agreed non TTCN CR(s) under WI UE Conformance Test Aspects - Coordinated Multi-Point Operation for LTE (COMP_LTE-UEConTest) RAN5 CR set F REL-11 COMP_LTE-UEConTest
conclusion: approved

9.2.3 UE Conformance Test Aspects - Enhanced downlink control channel(s) for LTE
[LTE_enh_dl_ctrl-UEConTest]

RP-141256 Status report for WI: UE Conformance Test Aspects - Enhanced downlink control channel(s) for LTE, rapporteur: Huawei RAN5 Report REL-11 LTE_enh_dl_ctrl-UEConTest
conclusion: noted, approved: 100%, Sep.14, WI is completed

RP-141587 RAN5 agreed non TTCN CR(s) under UE Conformance Test Aspects - Enhanced downlink control channel(s) for LTE (LTE_enh_dl_ctrl-UEConTest) RAN5 CR set F REL-11 LTE_enh_dl_ctrl-UEConTest
conclusion: approved

9.2.4 UE Conformance Test Aspects – Further Enhanced Non-CA based ICIC for LTE [eICIC_enh_LTE-UEConTest]

RP-141131 Status Report for WID: UE Conformance Test Aspects - Further Enhanced Non CA- based ICIC for LTE; rapporteur: ZTE RAN5 Report REL-11 eICIC_enh_LTE-UEConTest
conclusion: noted, approved: 98%, Dec.14

RP-141588 RAN5 agreed non TTCN CR(s) under UE Conformance Test Aspects – Further Enhanced Non-CA based ICIC for LTE (eICIC_enh_LTE-UEConTest) RAN5 CR set F REL-11 eICIC_enh_LTE-UEConTest
conclusion: approved

9.2.5 UE Conformance Test Aspects - Improved Minimum Performance Requirements for E-UTRA: Interference Rejection [LTE_Interf_Rej-UEConTest]

RP-141602 Status report for WI UE Conformance Test Aspects - Improved Minimum Performance Requirements for E-UTRA: Interference Rejection; rapporteur: Broadcom RAN5 Report REL-11 LTE_Interf_Rej-UEConTest
MCC: late submission;
conclusion: noted, approved: 100%, Sep.14; WI is completed

RP-141589 RAN5 agreed non TTCN CR(s) WI UE Conformance Test Aspects - Improved Minimum Performance Requirements for E-UTRA: Interference Rejection (LTE_Interf_Rej-UEConTest) RAN5 CR set F REL-11 LTE_Interf_Rej-UEConTest
conclusion: approved

9.2.6 UE Conformance Test Aspects – LTE Carrier Aggregation Enhancements [LTE_CA_enh-UEConTest]

RP-141443 Status report for WI UE Conformance Test Aspects – LTE Carrier Aggregation Enhancements, rapporteur: Microsoft RAN5 Report REL-11 LTE_CA_enh-UEConTest
MCC: late submission;
conclusion: noted, approved: 100%, Sep.14; WI is completed

RP-141590 RAN5 agreed non TTCN CR(s) WI UE Conformance Test Aspects – LTE Carrier Aggregation Enhancements (LTE_CA_enh-UEConTest) RAN5 CR set F REL-11 LTE_CA_enh-UEConTest
conclusion: approved

9.2.7 UE Conformance Test Aspects – Further Enhancements to CELL-FACH [Cell_FACH_enh-UEConTest]

RP-141164 Status report for WI UE Conformance Test Aspects - Further Enhancements to CELL-FACH, rapporteur: Ericsson RAN5 Report REL-11 Cell_FACH_enh-UEConTest
conclusion: noted, approved: 90%, Dec.14

RP-141591 RAN5 agreed non TTCN CR(s) WI UE Conformance Test Aspects – Further Enhancements to CELL-FACH (Cell_FACH_enh-UEConTest) RAN5 CR set F REL-11 Cell_FACH_enh-UEConTest
conclusion: approved

9.2.8 UE Conformance Test Aspects - HSDPA Multiflow Data Transmission [HSDPA_MFTX-UEConTest]

RP-141136 Status report for WI UE Conformance Test Aspects - HSDPA Multiflow Data Transmission; rapporteur: Qualcomm RAN5 Report REL-11 HSDPA_MFTX-UEConTest
conclusion: noted, approved: 55%, Dec.14

RP-141592 RAN5 agreed non TTCN CR(s) WI UE Conformance Test Aspects – HSDPA Multiflow Data Transmission (HSDPA_MFTX-UEConTest]) RAN5 CR set F REL-11 HSDPA_MFTX-UEConTest
conclusion: approved

9.2.9 UE Conformance Test Aspects - Split TTCN Test Models for IMS testing in TS 34.229-3 [IMS-CCR_Test2]

RP-141155 Status Report for Split TTCN Test Models for IMS testing in TS 34.229-3; rapporteur: Spirent Communications RAN5 Report REL-11 IMS-CCR_Test2
conclusion: noted, approved: 100%, Sep.14, WI is completed

RP-141156 TS 34.229-4 v2.1.0. IP multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); UE conformance specification; Part 4: Enabler for IP multimedia applications testing, for approval Spirent Communications TS 34.229-4 RAN5 REL-11 IMS-CCR_Test2
RAN5 TS 34.229-4 is provided for approval; the TS was presented for information at RAN #63 in RP-140301
conclusion: TS 34.229-4 is approved as v11.0.0

9.2.10 UE Conformance Test Aspects - Single radio voice call continuity from UTRAN/GERAN to E-UTRAN [**New WI:** rSRVCC-UEConTest]

RP-141167 Status report for WI UE Conformance Test Aspects - single radio voice call continuity from UTRAN/GERAN to E-UTRAN; rapporteur: Ericsson RAN5 Report REL-11 rSRVCC-UEConTest
conclusion: noted, approved: 5%, Dec.14

9.2.11 Conformance Test Aspects: Small Technical Enhancements and Improvements for Rel-11 [TEI11_Test]

RP-141593 RAN5 agreed non TTCN CR(s) under WI Small Technical Enhancements and Improvements for Rel-11 Conformance Testing (TEI11_Test) RAN5 CR set F REL-11 TEI11_Test
conclusion: approved

9.3 Open Rel-12 work items

9.3.1 UE Conformance Test Aspects – Further REL-12 Configurations for LTE Advanced Carrier Aggregation [LTE_CA_Rel12-UEConTest]

RP-141444 Status report for WI UE Conformance Test Aspects – Further REL-12 Configurations for LTE Advanced Carrier Aggregation, rapporteur: Microsoft RAN5 Report REL-12 LTE_CA_Rel12-UEConTest
MCC: late submission
conclusion: noted, approved: 70%, Dec.14

RP-141594 RAN5 agreed non TTCN CR(s) under WI UE Conformance Test Aspects – Further REL-12 Configurations for LTE Advanced Carrier Aggregation (LTE_CA_Rel12-UEConTest) RAN5 CR set F REL-12 LTE_CA_Rel12-UEConTest
conclusion: approved

9.3.2 UE Conformance Test Aspects - LTE UE TRP and TRS and UTRA Hand Phantom [LTE_UTRA_TRP_TRS-UEConTest]

RP-141132 Status Report for WID: UE Conformance Test Aspects - LTE UE TRP and TRS and UTRA Hand Phantom; rapporteur: ZTE RAN5 Report REL-12 LTE_UTRA_TRP_TRS-UEConTest
conclusion: noted, approved: 10%, June 15

9.3.3 UE Conformance Test Aspects - LTE in the US Wireless Communications Service (WCS) Band 30 [**New WI:** LTE_WCS_band-UEConTest]

RP-141166 Status report for WI UE Conformance Test Aspects - LTE in the US Wireless Communications Service (WCS) Band-30; rapporteur: Ericsson RAN5 Report REL-12 LTE_WCS_band-UEConTest

conclusion: noted, approved: 40%, Dec.14

RP-141595 RAN5 agreed non TTCN CR(s) under WI UE Conformance Test Aspects - LTE in the US Wireless Communications Service (WCS) Band 30 (LTE_WCS_band-UEConTest) RAN5 CR set F REL-12 LTE_WCS_band-UEConTest
conclusion: approved

9.3.4 UE Conformance Test Aspects - BeiDou Navigation Satellite System (BDS) Positioning Support for LTE and UMTS [**New WI:** LCS_BDS-UEConTest]

RP-141350 Status report for WI: Conformance Test Aspects - BDS Positioning Support for LTE and UMTS; rapporteur: CATT RAN5 Report REL-12 LCS_BDS-UEConTest
conclusion: noted, approved: 5%, June 15

9.3.5 Conformance Test Aspects: Small Technical Enhancements and Improvements for Rel-12 [TEI12_Test]

RP-141596 RAN5 agreed non TTCN CR(s) under WI Small Technical Enhancements and Improvements for Rel-12 Conformance Testing (TEI12_Test) RAN5 CR set F REL-12 TEI12_Test
conclusion: approved

10 Work Items with target Rel-11 (not related to conformance testing)

10.1 Closed UTRA only related WIs

RAN1:

RP-141475 CR to 25.214 on clarification to Multiflow Operation RAN1 CR 25.214 0721 2 F REL-11 HSDPA_MFTX-Core
conclusion: approved

RP-141476 CR to 25.214 on correction to the Four Branch MIMO RAN1 CR 25.214 0722 1 F REL-11 4Tx_HSDPA-Core
conclusion: approved

10.2 Closed UTRA & LTE related WIs

RAN2:

RP-141495 RAN2 agreed CRs on Correction of ASN.1 of MDT logged connection establishment failure reporting (Alternative 1) RAN2 CR 25.331 set REL-11 eMDT_UMTSLTE-Core
Note: These CRs have non-backward compatible ASN.1 changes; it is planned to add a corresponding note on the 25.331 web page.
conclusion: approved

RAN4:

RP-141528 CRs to Closed rel-11 UTRA & LTE related WIs RAN4 CR set REL-11 FS_UTRA_LTE_900MHz, MB_MSR_RF-Core, MB_MSR_RF-Perf
conclusion: approved

RP-141529 Extending 850 MHz Upper Band (814 – 849 MHz)-Core part (Working agreement) RAN4 CR 25.101 set REL-11 e850_UB-Core
Note: These CRs were part of a working agreement in RAN4 #72 that was not challenged before RAN #65.
conclusion: approved

10.3 Closed LTE related WIs

RAN1:

RP-141477 CRs to 36.211 & 36.21325.214 on corrections to Rel-11 features RAN1 CR set REL-11 LTE_enh_dl_ctrl-Core, LTE_CA_enh-Core
conclusion: approved

RAN2:

RP-141496 RAN2 agreed CRs on Various REL-11 Work Items RAN2 CR set REL-11 MBMS_LTE_SC-Core, LTE_CA_enh-Core, HSDPA_MFTX-Core, eMDT_UMTSLTE-Core
conclusion: approved

RAN4:

RP-141530 CRs to Closed rel-11 LTE related WIs RAN4 CR set REL-11 COMP_LTE_DL-Perf, eICIC_enh_LTE-Perf, LCS_LTE-NBPS-Perf, LTE_enh_dl_ctrl-Perf
conclusion: approved

10.4 Open LTE only related WIs

10.4.1 Perf. part: LTE Carrier Aggregation Enhancements [LTE_CA_enh-Perf]

Core part WI was completed in March 13

RP-141377 Status Report of LTE Carrier Aggregation Enhancements - Perf. Part; rapporteur: Nokia RAN4 Report REL-11 LTE_CA_enh-Perf
discussion: MCC: Core part WI was completed in March 2013, RAN agreement was that Perf. part should finish 3-6 months after Core part; this is a REL-11 WI (!) and nothing was completed in the last quarter;
conclusion: noted, approved: 98%, Dec.14

RP-141531 CRs for LTE Carrier Aggregation Enhancements - Perf part RAN4 CR 36.133 2515 1 F REL-12 LTE_CA_enh-Perf
conclusion: approved

PCell interruptions:

RP-141157 Way Forward on PCell Interruption Qualcomm Incorporated Disc REL-11 LTE_CA_enh-Perf
Note: CR set RP-140956 (REL-10), RP-140957 (REL-11) and RP-140958 (REL-12) were postponed at RAN #64.
Proposal 1. Agree the Rel.10 CR extending the 0.5% interruptions allowance to measurement cycles of 256ms and 320ms.
Proposal 2: Use UE specific signaling to allow interruptions for measurement cycles >=160ms.
discussion: RAN chair: go for offline and prepare a CR if agreeable
conclusion: noted

RP-141678 Way forward on interruptions for CA Qualcomm Disc REL-11 LTE_CA-Core, TEI11
way forward proposal:
- *Dedicated signaling will be introduced in Rel-11 to allow interruptions for SCell measurement cycles shorter than 640ms. This signalling is under network control i.e.*
  - *If explicitly permitted by eNodeB, the UE is allowed to cause PCell interruptions for measCycleSCells shorter than 640ms (the same requirement in terms of missed ACK/NACK probability as in Rel-10 applies)*
  - *Otherwise, the UE applies Rel-10 UE behaviour*
- *Introduce a Rel-11 UE capability for the UEs who need the interruptions for measCycleSCells shorter than 640ms to inform the network whether the UE needs interruptions*
  - *The capability will be per UE*

conclusion: noted, way forward is endorsed

RP-141692 Introduction of signalling for PCell interruptions Nokia Networks, Nokia Corporation CR 36.331 1640 - B REL-11 LTE_CA-Core, TEI11
company CR; related to RP-141157 and RP-141678
conclusion: postponed

RP-141693 Introduction of signalling for PCell interruptions Nokia Networks, Nokia Corporation CR 36.306 0223 - B REL-11 LTE_CA-Core, TEI11
company CR; related to RP-141157 and RP-141678
conclusion: postponed

RP-141694 Introduction of signalling for PCell interruptions Nokia Networks, Nokia Corporation CR 36.133 2529 - B REL-11 LTE_CA-Core, TEI11
company CR; related to RP-141157 and RP-141678
conclusion: postponed

RP-141697 Introduction of signalling for PCell interruptions Nokia Networks, Nokia Corporation CR 36.331 1641 - A REL-12 LTE_CA-Core, TEI11
company CR; related to RP-141157 and RP-141678
conclusion: postponed

RP-141698 Introduction of signalling for PCell interruptions Nokia Networks, Nokia Corporation CR 36.306 0224 - A REL-12 LTE_CA-Core, TEI11
company CR; related to RP-141157 and RP-141678

conclusion: postponed

RP-141699 Introduction of signalling for PCell interruptions Nokia Networks, Nokia Corporation CR 36.133 2530 - A REL-12 LTE_CA-Core, TEI11
company CR; related to RP-141157 and RP-141678
conclusion: postponed

10.5 Small Technical Enhancements and Improvements for Rel-11 [TEI11]

RAN2:

RP-141497 RAN2 agreed CRs on Corrections in default radio configuration for CELL_FACH RAN2 CR 25.331 set REL-11 TEI11
discussion: Ericsson: worried about "Limited testing opportunities for a mandatory default configuration" for R2-143862 & R2-143873 (related to R2-143872, R2-144048 in RP-141488 see AI 8.2.3)
RAN2 vice-chair (Interdigital): This is not the same default configuration that we discussed on Tue
Ericsson: also this default configuration has limited testing possibilities (only 1 network vendor plans to implement it)
RAN2 vice-chair (Interdigital): The RAN2 agreement we had was that we removed the feature in REL-9/10 but we keep it in REL-11
Ericsson: ok with the approval if RAN people understand that we may remove it later
conclusion: approved

RP-141498 RAN2 agreed CRs on Small Technical Enhancements and Improvements for Rel-11 RAN2 CR set REL-11 TEI11
conclusion: approved

RAN4:

RP-141532 CRs for Small Technical Enhancements and Improvements for Rel-11 RAN4 CR set REL-11 TEI11
conclusion: approved

11 Work Items with target Rel-12 (not related to conformance testing)

NOTE: All Core part REL-12 WIs that are not 100% complete at RAN #65 require a 3 months exception request sheet to be provided to RAN #65 otherwise the Core & related Perf. part WI will automatically be moved to REL-13.

11.1 Closed UTRA only related WIs

11.1.1 Core part: HSPA signalling enhancements for more efficient resource usage for LCR TDD [LCR_TDD_HSPA_sign_enh-Core]

No contributions.

11.1.2 Support for BeiDou Navigation Satellite System (BDS) for UTRA [LCS_BDS-UTRA]

No contributions.

11.1.3 Core part: HNB Positioning for UTRA [UTRA_HNB_Pos-Core]

No contributions.

11.1.4 UMTS Mobility enhancements for Heterogeneous Networks [UTRA_hetnet_mob]

No contributions.

11.2 Closed UTRA & LTE related WIs

11.2.1 Core part: Further enhancements for H(e)NB mobility-Part 3 [EHNB_enh3-Core]

No contributions.

11.2.2 Core part: RAN aspects for SIPTO at the Local Network [LIMONET-RAN-Core]

No contributions.

11.2.3 Perf. Part: Verification of radiated multi-antenna reception performance of UEs in LTE/UMTS [HSPA_LTE_measRP_MIMO-Perf]

No contributions.

11.2.4 L-band for Supplemental Downlink in E-UTRA and UTRA (spectrum related) [LTE_UTRA_SDL_BandL]

RP-141341 TR 37.814 v1.0.0: L-band for Supplemental Downlink in E-UTRA and UTRA Orange, Ericsson TR 37.814 RAN4 REL-12 LTE_UTRA_SDL_BandL-Core

RAN4 TR 37.814 is provided for 1-step approval; note: WI LTE_UTRA_SDL_BandL-Core was completed at RAN #64 forgetting to submit the TR 37.814 for approval; R4-145551 v0.6.0 of the TR is identical with v1.0.0

conclusion: TR 37.814 is approved as v12.0.0

RP-141533 CRs for L-band for Supplemental Downlink in E-UTRA and UTRA RAN4 CR 36.141 0658 - F REL-12 LTE_UTRA_SDL_BandL-Perf

conclusion: approved

11.3 Closed LTE related WIs (non-spectrum related)

11.3.1 Support for BeiDou Navigation Satellite System (BDS) for LTE [LCS_BDS-LTE]

No contributions.

11.3.2 Perf. part: Performance Requirements of 8 Rx Antennas for LTE UL [LTE_UL_8Rx-Perf]

No contributions.

11.3.3 Core part: Further Downlink MIMO Enhancement for LTE-Advanced [LTE_eDL_MIMO_enh-Core]

No contributions.

11.3.4 Core part: Further Enhancements to LTE TDD for DL-UL Interference Management and Traffic Adaptation [LTE_TDD_eIMTA-Core]

RP-141478 CRs to 36.213 on corrections for eIMTA RAN1 CR set REL-12 LTE_TDD_eIMTA-Core
conclusion: approved

RP-141499 RAN2 agreed CRs on Core part: Further Enhancements to LTE TDD for DL-UL Interference Management and Traffic Adaptation RAN2 CR set F REL-12 LTE_TDD_eIMTA-Core, Cov_Enh_LTE-Core
related to AIs 11.3.4 and AI 11.3.7
conclusion: approved

RP-141534 CRs for Further Enhancements to LTE TDD for DL-UL Interference Management and Traffic Adaptation RAN4 CR 36.133 2471 1 F REL-12 LTE_TDD_eIMTA-Core
MCC: see company CR RP-141344 to replace RP-141534
conclusion: revised in RP-141344

RP-141344 Clarification for ACK/NACK feedback of CGI measurement CATT CR 36.133 2471 2 F REL-12 LTE_TDD_eIMTA
company CR; to replace CR R4-145367 agreed by RAN4 #72 in RP-141534
discussion: CATT: uses wrong IE names and other changes
Ericsson: does not agree to company CR as the CR is introducing requirements for CA in eIMTA which is not covered in RAN4
CATT: eIMTA only for PCell was not agreed, no need for time unit allocation in RAN4
Ericsson: impact on RF, RRM and demodulation expected so a lot of work would have to be done
CATT: current spec does not say anything about CA and eIMTA so it looks as you could use it
Nokia Networks: was the company CR circulated on RAN4 reflector?
CATT: yes, for 10 days and no comments received via the RAN4 reflector
Nokia Networks: CATT was not happy to approve RP-141534?
RAN chair: correct
Ericsson: the reason for CATT to not agree is they think requirements should be specified for CA but RAN4 has no time allocated for this
conclusion: revised in RP-141700

RP-141700 Clarification for ACK/NACK feedback of CGI measurement CATT CR 36.133 2471 3 F REL-12 LTE_TDD_eIMTA
discussion: Huawei: would like to have time to check it
conclusion: approved, but Huawei can come back on this in RAN4

11.3.5 Core part: Further enhancements for HeNB mobility-X2-GW [EHNB_enh2_X2GW-Core]

No contributions.

11.3.6 Core part: Public Warning System - Reset/Failure/Restart in Warning Message Delivery in LTE [REP_WMD-RFR_PWS-Core]

No contributions.

11.3.7 Core part: LTE Coverage Enhancements [Cov_Enh_LTE-Core]

See also RP-141499 under AI 11.3.4

11.3.8 Core part: LTE TDD-FDD joint operation including Carrier Aggregation [LTE_CA_TDD_FDD-Core]

RP-141479 CRs to 36.213 on corrections for TDD-FDD CA RAN1 CR set REL-12 LTE_CA_TDD_FDD-Core
conclusion: approved

11.3.9 Core part: LTE-HRPD (High Rate Packet Data in 3GPP2) inter-RAT SON [LTE_HRPD_SON-Core]

No contributions.

11.3.10 Core part: Positioning Enhancements for RF Pattern Matching in E-UTRA [LCS_LTE_RFPMT-Core]

No contributions.

11.4 Closed LTE only related WIs (spectrum related)

11.4.1 Inter-band CA related WIs (1 UL)

11.4.1.1 LTE Advanced inter-band Carrier Aggregation of Band 1 and Band 8 [LTE_CA_B1_B8]

No contributions.

11.4.1.2 LTE Advanced inter-band Carrier Aggregation of Band 1 and Band 11 [LTE_CA_B1_B11]

No contributions.

11.4.1.3 Additional bandwidth combination set for LTE Advanced inter-band Carrier Aggregation of Band 1 and Band 18 [LTE_CA_B1_B18_BWset]

No contributions.

11.4.1.4 LTE Advanced inter-band Carrier Aggregation of Band 1 and Band 26 [LTE_CA_B1_B26]

No contributions.

11.4.1.5 LTE Advanced inter-band Carrier Aggregation of Band 2 and Band 4 [LTE_CA_B2_B4]

No contributions.

11.4.1.6 Additional bandwidth combination set for LTE Advanced inter-band Carrier Aggregation of Band 2 and Band 4 [LTE_CA_B2_B4_BWset]

No contributions.

11.4.1.7 LTE Advanced inter-band Carrier Aggregation of Band 2 and Band 5 [LTE_CA_B2_B5]

No contributions.

11.4.1.8 Perf. part: LTE Advanced inter-band Carrier Aggregation of Band 2 and Band 12 [LTE_CA_B2_B12-Perf]

No contributions.

11.4.1.9 LTE Advanced inter-band Carrier Aggregation of Band 2 and Band 13 [LTE_CA_B2_B13]

No contributions.

11.4.1.10 LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 19 [LTE_CA_B3_B19]

No contributions.

11.4.1.11 Core part: Additional bandwidth combination set for LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 20 [LTE_CA_B3_B20_BWset-Core]

No contributions.

11.4.1.12 LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 26 [LTE_CA_B3_B26]

No contributions.

11.4.1.13 LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 27 [LTE_CA_B3_B27]

No contributions.

11.4.1.14 LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 28 [LTE_CA_B3_B28]

No contributions.

11.4.1.15 LTE Advanced inter-band Carrier Aggregation of Band 4 and Band 27 [LTE_CA_B4_B27]

RP-141535 CRs for LTE Advanced inter-band Carrier Aggregation of Band 4 and Band 27 RAN4 CR36.1012559 - F REL-12 LTE_CA_B4_B27-Core
conclusion: approved

11.4.1.16 LTE Advanced inter-band Carrier Aggregation of Band 5 and Band 7 [LTE_CA_B5_B7]
No contributions.

11.4.1.17 LTE Advanced inter-band Carrier Aggregation of Band 5 and Band 25 [LTE_CA_B5_B25]
No contributions.

11.4.1.18 Core part: Additional bandwidth combination set for LTE Advanced inter-band Carrier Aggregation of Band 7 and Band 20 [LTE_CA_B7_B20_BWset-Core]
No contributions.

11.4.1.19 LTE Advanced inter-band Carrier Aggregation of Band 7 and Band 28 [LTE_CA_B7_B28]
No contributions.

11.4.1.20 Additional bandwidth of 3MHz for LTE Advanced inter-band Carrier Aggregation of Band 8 and Band 20 [LTE_CA_B8_B20_BW]
No contributions.

11.4.1.21 LTE Advanced inter-band Carrier Aggregation of Band 12 and Band 25 [LTE_CA_B12_B25]
No contributions.

11.4.1.22 LTE Advanced inter-band Carrier Aggregation of Band 19 and Band 21 [LTE_CA_B19_B21]
No contributions.

11.4.1.23 Core part: Additional bandwidth combinations for LTE Advanced inter-band Carrier Aggregation of Band 2 and Band 29 and of Band 4 and Band 29 [LTE_DL_FDD700_B29_BWset-Core]
No contributions.

11.4.1.24 LTE Advanced inter-band Carrier Aggregation of Band 23 and Band 29 [LTE_CA_B23_B29]
No contributions.

11.4.1.25 LTE Advanced inter-band Carrier Aggregation of Band 39 and Band 41 [LTE_CA_B39_B41]
No contributions.

11.4.1.26 Core part: Additional bandwidth combinations for LTE Advanced inter-band Carrier Aggregation to support 3DL fallback [LTE_CA_3DL_FB_BW-Core]
Adding additional BW combinations for 6 WIs: 3 open REL-12 WIs (LTE_CA_B1_B5_B7, LTE_CA_B2_B29_B30, LTE_CA_B4_B29_B30) and 3 completed REL-11 WIs (LTE_CA_B3_B5, LTE_CA_B4_B5, LTE_CA_B4_B12)

No contributions.

11.4.2 Intra-band CA related WIs (contiguous)

11.4.2.1 LTE-Advanced intra-band contiguous Carrier Aggregation in Band 3 [LTE_CA_C_B3]
No contributions.

11.4.2.2 Additional bandwidth combinations for LTE Advanced intra-band contiguous Carrier Aggregation in Band 7 [LTE_CA_C_B7_BW]
No contributions.

11.4.2.3 LTE Advanced intra-band contiguous Carrier Aggregation in Band 23 [LTE_CA_C_B23]
No contributions.

11.4.2.4 LTE Advanced intra-band contiguous Carrier Aggregation in Band 27 [LTE_CA_C_B27]

RP-141536 CRs for LTE Advanced intra-band contiguous Carrier Aggregation in Band 27 RAN4 CR 36.133 2502 - B REL-12 LTE_CA_C_B27-Perf
conclusion: approved

11.4.2.5 LTE Advanced intra-band contiguous Carrier Aggregation in Band 39 [LTE_CA_C_B39]

No contributions.

11.4.2.6 LTE Advanced intra-band contiguous Carrier Aggregation in Band 42 [LTE_CA_C_B42]

RP-141537 CRs for LTE Advanced intra-band contiguous Carrier Aggregation in Band 42 RAN4 CR 36.101 2541 - F REL-12 LTE_CA_C_B42-Core
conclusion: approved

RP-141538 LTE Advanced intra-band contiguous Carrier Aggregation in Band 42 RAN4 CR set REL-12 LTE_CA_C_B42-Core
CRs were approved in RAN #64 but were not implemented;
discussion: MCC: late submission
conclusion: approved

11.4.3 Intra-band CA related WIs (non-contiguous 1UL)

11.4.3.1 LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 2 [LTE_CA_NC_B2]

No contributions.

11.4.3.2 LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 3 [LTE_CA_NC_B3]

No contributions.

11.4.3.3 LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 4 [LTE_CA_NC_B4]

No contributions.

11.4.3.4 LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 7 [LTE_CA_NC_B7]

No contributions.

11.4.3.5 LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 23 [LTE_CA_NC_B23]

RP-141539 CRs for LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 23 RAN4 CR 36.133 2481 - F REL-12 LTE_CA_NC_B23-Perf
conclusion: approved

11.4.3.6 LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 25 [LTE_CA_NC_B25]

No contributions.

11.4.3.7 LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 42 [LTE_CA_NC_B42]

No contributions.

11.4.4 Intra-band CA related WIs (contiguous 3DL)

11.4.4.1 LTE Advanced intra-band contiguous Carrier Aggregation in Band 40 for 3DL [LTE_CA_C_B40_3DL]

RP-141540 LTE Advanced intra-band contiguous Carrier Aggregation in Band 40 for 3DL RAN4 CR 36.307 0302 1 B REL-12 LTE_CA_C_B40_3DL-Core
CR was approved in RAN-64 but was not implemented;
discussion: MCC: late submission
conclusion: approved

11.4.5 Other WIs

11.4.5.1 Introduction of LTE 450 MHz band in Brazil [LTE450_Brazil]

RP-141541 CRs for Introduction of LTE 450 MHz band in Brazil RAN4 CR 36.307 set REL-12 LTE450_Brazil-Perf
conclusion: approved

11.4.5.2 LTE in the US Wireless Communications Service (WCS) Band 30 [LTE_WCS_band]

No contributions.

11.5 Open UTRA only related WIs

11.5.1 DCH Enhancements for UMTS [UTRA_DCHenh]

RP-141137 Status report for WI DCH Enhancements for UMTS; rapporteur: Qualcomm RAN1 Report REL-12 UTRA_DCHenh
conclusion: noted, approved: Core: 100%, Sep.14; Perf.: 35%, Dec.14; Core part WI completed

RP-141480 CRs to 25.211, 25.212, 25.214 & 25.215 to introduce DCH Enhancements RAN1 CR set REL-12 UTRA_DCHenh-Core
conclusion: approved

RP-141500 RAN2 agreed CRs on Introduction of DCH Enhancements RAN2 CR set B REL-12 UTRA_DCHenh-Core
Note: R2-143951 is linked with RAN1 & RAN4 CRs
conclusion: approved

RP-141515 Introduction of DCH Enhancements RAN3 CR set REL-12 UTRA_DCHenh-Core
conclusion: approved

RP-141542 CRs for DCH Enhancements for UMTS RAN4 CR 25.133 set REL-12 UTRA_DCHenh-Core
conclusion: approved

11.5.2 UMTS Heterogeneous Networks enhancements [UTRA_hetnet_enh]

RP-141240 Status report for WI: UMTS Heterogeneous Networks enhancements, rapporteur: Huawei RAN1 Report REL-12 UTRA_hetnet_enh
conclusion: revised in RP-141702

RP-141702 Status report for WI: UMTS Heterogeneous Networks enhancements, rapporteur: Huawei RAN1 Report REL-12 UTRA_hetnet_enh
noted, approved: Core: 100%, Sep.14; Perf.: 0%, Dec.14, Core part WI completed

RP-141241 Revised WID: UMTS Heterogeneous Networks enhancements Huawei WID (rev) RAN1 REL-12 UTRA_hetnet_enh
last approved WID: RP-140463;
conclusion: revised in RP-141460

RP-141460 Revised WID: UMTS Heterogeneous Networks enhancements Huawei WID rev RAN1 REL-12 UTRA_hetnet_enh
last approved WID: RP-140463; revision of RP-131241
conclusion: revised in RP-141701

RP-141701 Revised WID: UMTS Heterogeneous Networks enhancements Huawei WID rev RAN1 REL-12 UTRA_hetnet_enh
conclusion: approved

RP-141481 CRs to 25.211, 25.212, 25.213 & 25.214 to introduce UMTS Heterogeneous Networks enhancements RAN1 CR set REL-12 UTRA_hetnet_enh-Core
conclusion: approved

RP-141501 RAN2 agreed CRs on UMTS Heterogeneous Networks enhancements RAN2 CR set B REL-12 UTRA_HetNet_enh-Core
conclusion: approved

RP-141516 Introduction of UTRAN Heterogeneous Networks RAN3 CR set REL-12 UTRA_HetNet_enh-Core
conclusion: approved

RP-141238 CR on UMTS HetNet Enhancement Huawei CR 25.101 1043 - B REL-12 UTRA_hetnet_enh-Core
company CR; CR was not provided to RAN4 (was developed offline)
discussion: RAN4 chair: One of the CRs that was not handled in RAN4 as no time budget was requested for RF requirements so requests to shift the CR back to RAN4; it is also not listed in the WID
Motorola Solutions: CR was not discussed in RAN4, was it discussed on the RAN4 reflector?
Ericsson: we submitted a Disc paper to the RAN4 meeting but it was not treated because it was not on the agenda
Motorola Solutions: do we plan to remove the [ ] at the next RAN4 meeting?
Huawei: also existing spec has [ ]
Huawei: if the CR is approved, then no exception request sheet is needed
conclusion: approved

RP-141436 Exception request for WI Core part: UMTS Heterogeneous Networks enhancements Huawei ExReq RAN1 REL-12 UTRA_hetnet_enh-Core
conclusion: withdrawn

11.5.3 Enhanced Broadcast of System Information [UTRA_SIBenh]

RP-141230 Status report for WI Enhanced Broadcast of System Information; rapporteur: Ericsson RAN2 Report REL-12 UTRA_SIBenh
conclusion: noted, Core: 100%, Sep.14; Perf.: 30%, Dec.14; Core part WI completed

RP-141482 CRs to 25.211, 25.212 & 25.213 to introduce Enhanced Broadcast of System Information RAN1 CR set REL-12 UTRA_SIBenh-Core
conclusion: approved

RP-141502 RAN2 agreed CRs on Introduction of a second broadcast channel RAN2 CR set B REL-12 UTRA_SIBenh-Core
conclusion: approved

RP-141517 Supporting Enhanced Broadcast of System Information RAN3 CR 25.433 2031 3 B REL-12 UTRA_SIBenh-Core
conclusion: revised in RP-141524 (to correct wrong RAN3 Tdoc number in the CR package cover sheet; the CR itself is not modified and reissued in RP-141524)
RP-141524 Supporting Enhanced Broadcast of System Information RAN3 CR 25.433 2031 3 B REL-12 UTRA_SIBenh-Core
revision of RP-141517
conclusion: approved

RP-141543 CRs for Enhanced Broadcast of System Information RAN4 CR 25.101 1040 - B REL-12 UTRA_SIBenh-Perf
conclusion: approved

11.5.4 Further EUL enhancements [EDCH_enh]

RP-141229 Status report for WI Further EUL enhancements; rapporteur: Ericsson RAN2 Report REL-12 EDCH_enh
conclusion: revised in RP-141457
RP-141457 Status report for WI Further EUL enhancements; rapporteur: Ericsson RAN2 Report REL-12 EDCH_enh
revision of RP-141229;
discussion: MCC: late submission;
Nokia Networks: There are still open issues for this WI in RAN 2, namely
• SI transmission rules (for the implicit grant handling sub-feature)

• Simultaneous L2 switching order and L3 RRC reconfiguration procedure (for the UL TTI switching sub-feature)
Despite this, in the SR it is claimed that the completion level is 100%.in RAN2
conclusion: revised in RP-141684

RP-141684 Status report for WI Further EUL enhancements; rapporteur: Ericsson RAN2 Report REL-12 EDCH_enh revision of flagged status report RP-141457
conclusion: noted, Core: 95%, Dec.14; Perf.: 50%, Dec.14

RP-141598 Revised WID: Further EUL enhancements Ericsson WID rev RAN2 REL-12 EDCH_enh
last approved WID: RP-140127
conclusion: withdrawn

RP-141483 CRs to 25.212 & 25.214 to introduce Further EUL Enhancements RAN1 CR set REL-12 EDCH_enh-Core
conclusion: approved

RP-141503 RAN2 agreed CRs on Further EUL enhancements RAN2 CR set B REL-12 EDCH_enh
conclusion: approved

RP-141599 Introduction of Further EUL enhancements Ericsson CR 25.331 5689 - B REL-12 EDCH_enh-Core
companyCR; RAN2 email discussion [87#11] did not manage to conclude about the 25.331 CR in R2-144046 (R2-144046 was postponed)
conclusion: approved

RP-141455 Introduction of further EUL Enhancement Ericsson CR 25.423 1838 3 B REL-12 EDCH_enh-Core
company CR; RAN3 CR R3-142102 could not be agreed by email
conclusion: revised in RP-141669

RP-141669 Introduction of further EUL Enhancement Ericsson CR 25.423 1838 4 B REL-12 EDCH_enh-Core
conclusion: postponed, CR is the baseline for RAN3

RP-141456 Introduction of further EUL Enhancement Ericsson CR 25.433 2042 3 B REL-12 EDCH_enh-Core
company CR; RAN3 CR R3-142103 could not be agreed by email
conclusion: revised in RP-141670

RP-141670 Introduction of further EUL Enhancement Ericsson CR 25.433 2042 4 B REL-12 EDCH_enh-Core
conclusion: postponed, CR is the baseline for RAN3

RP-141458 REL-12 exception request sheet for WI Further EUL enhancements Ericsson ExReq REL-12 EDCH_enh
conclusion: revised in RP-141685

RP-141685 REL-12 exception request sheet for WI Further EUL enhancements Ericsson ExReq REL-12 EDCH_enh
conclusion: approved

11.6 Open UTRA & LTE related WIs

11.6.1 Core part: LTE UE TRP & TRS and UTRA Hand Phantom related UE TRP and TRS Requirements [LTE_UTRA_TRP_TRS-Core]

RP-141158 Status Report for LTE UE TRP & TRS and UTRA Hand Phantom related UE TRP and TRS Requirements; rapporteur: Nokia Corporation RAN4 Report REL-12 LTE_UTRA_TRP_TRS-Core
MCC: status report template was modified here
conclusion: noted, approved: 30%, Dec.14

RP-141544 CRs for LTE UE TRP & TRS and UTRA Hand Phantom related UE TRP and TRS Requirements RAN4 CR 37.902 set REL-12 LTE_UTRA_TRP_TRS-Core
discussion: RAN4: WI is not yet completed, should we postpone them?

conclusion: approved

RP-141161 Rel-12 Work Item Exception request for LTE UE TRP and TRS and UTRA Hand Phantom related UE TRP and TRS Requirements Core work item Nokia Corporation ExReq RAN4 REL-12 LTE_UTRA_TRP_TRS-Core
conclusion: approved

11.6.2 Base Station (BS) RF requirements for Active Antenna System (AAS) [AAS_BS_LTE_UTRA]

RP-141249 Status report for WI: Base Station (BS) RF requirements for Active Antenna System (AAS), rapporteur: Huawei RAN4 Report REL-12 AAS_BS_LTE_UTRA
conclusion: noted, approved: Core: 75%, Dec.14; Perf.: 20%, June 15

RP-141185 The necessity and way forward for Rel-12 AAS specification ZTE Disc REL-12 AAS_BS_LTE_UTRA
AAS = Active Antenna System
Proposal 1: Rel-12 AAS specification should contain only minimum set of requirements as platform for future releases.
Proposal 2: Proponents should work towards a precise list of AAS actions for RAN4#72bis and RAN4#73.
conclusion: noted

RP-141252 Way forward for AAS WI Huawei Disc REL-12 AAS_BS_LTE_UTRA
AAS = Active Antenna System
proposed way forward for AAS WI in R12 is as follows:
1. *Extend the R12 AAS WI until Dec. 2014*
2. *RAN4 evaluate the feasibility of*
a. *For conductive requirements, RAN4 can consider leave the issues around larger transceiver array for future consideration.*
b. *For radiated requirements, focusing on EIRP first*
3. *Continue working on the specification structure.*

It should be noted that with this prioritization of work, it is still challenging to resolve the identified open issues (based the exsiting WID [1] that is scoped at high level) by December. And we welcome other proposals on how to complete the R12 work within the extension.
discussion: Ericsson: Huawei proposal seems to be to limit OTA requirements to EIRP, we suggest to keep OTA receiver sensity requirements
Nokia Networks: no UE support needed so not so urgent, so we could maybe free up some REL-12 time in RAN4 for band combinations by continueing the AAS work in REL-13
ZTE: 2a./3. not needed, agrees to 2b
NTT DOCOMO: agrees with Ericsson that we should not remove the requirement
Orange: conducted sensity measurement is not enough, radiated sensitivity is important
Vodafone: agrees with Ericsson
ALU: We agree that specifying only the EIPR requirement will not provide enough coverage for AAS deployment.
Huawei: without prioritization we may not be able to complete the AAS spec work in REL-12
conclusion: noted, offline discussion led by Huawei,
finally exception sheet RP-141263 is revised in RP-141703

RP-141259 TR 37.842 v1.0.0 on E-UTRA and UTRA; Radio Frequency (RF) requirement background for Active Antenna System (AAS) Base Station (BS) Huawei TR 37.842 RAN4 REL-12 AAS_BS_LTE_UTRA-Core
RAN4 TR 37.842 is submitted for information
conclusion: noted

RP-141250 Revised WID: Base Station (BS) RF requirements for Active Antenna System (AAS) Huawei WID rev RAN4 REL-12 AAS_BS_LTE_UTRA
last approved WID: RP-130373
conclusion: withdrawn

RP-141263 Exception request for WI Core part: Base Station (BS) RF requirements for Active Antenna System (AAS) Huawei ExReq RAN4 REL-12 AAS_BS_LTE_UTRA-Core

conclusion: multiple versions of RP-141263 exist, revised in RP-141703

RP-141703 Exception request for WI Core part: Base Station (BS) RF requirements for Active Antenna System (AAS) Huawei ExReq RAN4 REL-12 AAS_BS_LTE_UTRA-Core
conclusion: revised in RP-141713

RP-141713 Exception request for WI Core part: Base Station (BS) RF requirements for Active Antenna System (AAS) Huawei ExReq RAN4 REL-12 AAS_BS_LTE_UTRA-Core
conclusion: approved

11.6.3 Core part: RAN enhancements for Machine-Type and other mobile data applications Communications [MTCe-RAN-Core]

RP-141096 Status report for WI Core part: RAN enhancements for Machine-Type and other mobile data applications Communication; rapporteur: ZTE RAN2 Report REL-12 MTCe-RAN-Core
conclusion: noted, approved: 100%, Sep.14; WI completed

RP-141518 Introduction of an indication of the expected UE behaviour RAN3 CR set REL-12 MTCe-RAN-Core
conclusion: approved

11.6.4 Core part: WLAN/3GPP Radio Interworking [UTRA_LTE_WLAN_interw-Core]

RP-141059 Reply LS to R2-141855 = RP-140539 on on WLAN signal measurements for WLAN/3GPP Radio interworking (IEEE 802.11-14/0936r3; to: RAN2; cc: WiFi Alliance, RAN4, RAN5, SA2, RAN; contact: Qualcomm) IEEE 802.11 LSin REL-12 UTRA_LTE_WLAN_interw-Core
no RAN action requested; note: IEEE 802.11 replied already to R2-141855 = RP-140539 in RP-140548 and this is a follow-up reply;
conclusion: noted, no LS answer

RP-141047 Reply LS to R2-142955 = RP-140556 on WLAN/3GPP Radio Interworking (C1-143355; to: RAN2; cc: SA2, RAN4, RAN; contact: Huawei) CT1 LSin REL-12 UTRA_LTE_WLAN_interw-Core
no RAN action requested;
conclusion: noted, no LS answer

RP-141051 Reply LS to R2-142955 = RP-140556 on WLAN/3GPP Radio Interworking (S2-142901; to: RAN2, CT1; cc: RAN4, RAN, SA; contact: Alcatel-Lucent) SA2 LSin REL-12 UTRA_LTE_WLAN_interw-Core
no RAN action requested;
conclusion: noted, no LS answer

RP-141050 Reply LS to RP-141012 on user preferences in RAN rules (S2-142838; to: RAN, CT1, RAN2; cc: -; contact: NSN) SA2 LSin REL-12 UTRA_LTE_WLAN_interw-Core
RAN action requested;
conclusion: noted, no LS answer

RP-141310 Status report for WI Core part: WLAN/3GPP Radio Interworking, rapporteur: Intel Corporation RAN2 Report REL-12 UTRA_LTE_WLAN_interw
discussion: Broadcom: Despite the good progress during the last few meetings, Broadcom Corporation believes that there are still important issues to be solved that affect the completion of this WI at RAN #65. Such issues are: 1) WLAN metrics and 2) potential conflicts introduced by the new defined RAN rules. Broadcom Corporation brings contribution RP-141227 in which it motivates its position.
conclusion: noted, approved: Core: 100%, Sep.14; WI completed

RP-141227 Open Items for 3GPP/WLAN Radio Interworking Broadcom Corporation Disc REL-12 UTRA_LTE_WLAN_interw-Core
explaining why Broadcom provided an exception request sheet for WI UTRA_LTE_WLAN_interw-Core in RP-141226

Proposal 1: RAN should recommend RAN2 to consider to further discuss the WLAN metrics for 3GPP/WLAN Radio Interworking if IEEE succeeds in defining a standard formula for computing the WLAN throughput metric before the next 3GPP RAN2 meeting.
Proposal 2: RAN should recommend RAN2 to consider the interaction between the RAN rules and WLAN channel reselection and WLAN AP reselection in the Release 12 WID.
discussion: ALU: shares concern with Broadcom for proposal 1, discussion of throughput and extending WI need to be decoupled
Blackberry: IEEE metric is important for the UE but we should not keep the WI open
Intel: similar comment to ALU and Blackberry: it is difficult to discuss it in 3GPP before IEEE has defined it, so we can close the WI and if further information from IEEE is coming we can address this
RAN chair: if IEEE information is really coming quickly, we may still consider it for REL-12 otherwise next REL
Broadcom: So if IEEE can decide next week?
AT&T: would this be a TEI12 CR?
RAN chair: either TEI12 or under current WI UTRA_LTE_WLAN_interw-Core
Ericsson: could not be a correction as it is adding functionality
RAN chair: then rather TEI12 but we can see it when we get IEEE inputs
RAN chair: is it a RAN2 isolated topic? or does it involve RAN4?
RAN2 chair: for thoughput metrics we would need some requirements and tests
AT&T: we are doing a big step here giving control to the UE, so it could also address load balancing ; we prefer to close the WI but we would like to keep the door open for RAN2 in October for the 1 or bits that are needed in RAN2
RAN2 chair: company contributions on the throughput metrics could be allowed in RAN2, would we then also involve RAN4?
TeliaSonera: RAN should give some guidance to RAN2 as they have discussed capability bits already; RAN should decide whether it should be testable and also the capability discussions should rather be kept in RAN
conclusion: noted; RAN agreed to consider WI UTRA_LTE_WLAN_interw-Core completed;
If IEEE provides necessary feedback quickly, RAN2 will handle this (proposals 1 & 2) in the RAN2 meeting in Oct.14 and informs RAN4 by LS after this RAN2 meeting so that RAN4 can do the necessary work in the Nov. 2014 meeting.
UE capability decision postponed to RAN #66.

RP-141226 Exception Request for Core part: 3GPP/WLAN Radio Interworking Broadcom Corporation ExReq RAN2 REL-12 UTRA_LTE_WLAN_interw-Core
note: Rapporteur for this WI is Intel and not Broadcom. Broadcom did not agree that WI UTRA_LTE_WLAN_interw-Core is 100% complete at RAN #65 (to be addressed: WLAN metrics and potential conflicts introduced by the new defined RAN rules)
conclusion: rejected after RP-141227 discussion

RP-141484 CRs to 25.215, 25.225 & 36.214 to introduce WLAN Beacon RSSI definition RAN1 CR set REL-12 UTRA_LTE_WLAN_interw-Core
conclusion: approved

RP-141504 RAN2 agreed CRs on Core part: WLAN/3GPP Radio Interworking RAN2 CR set B REL-12 UTRA_LTE_WLAN_interw-Core
discussion: Intel: R2-144029 needs to be revised; see company CR RP-141618
conclusion: All CRs of RP-141504 are approved except R2-144029.
R2-144029 is revised in RP-141618
RP-141618 Connected mode procedures and RRC signaling of WLAN/3GPP Radio Interworking for LTE Intel CR 36.331 1566 2 B REL-12 UTRA_LTE_WLAN_interw-Core
company CR; replacing R2-144029 of RP-141504
discussion: Intel: text was deleted by mistake and this is corrected here
conclusion: approved

RP-141519 Introducing new SIB for WLAN/3GPP radio interworking RAN3 CR 25.433 2041 - B REL-12 UTRA_LTE_WLAN_inter-Core
conclusion: approved

RP-141545 CRs for WLAN/3GPP Radio Interworking-Core part RAN4 CR set REL-12 UTRA_LTE_WLAN_interw-Core

conclusion: approved

RP-141324 UE capability signaling for WLAN/3GPP radio interworking Intel Corporation Disc REL-12 UTRA_LTE_WLAN_interw-Core

Discussion paper to describe the two alternatives for UE capability signalling for WLAN radio interworking. Corresponding company CRs are also provided in separate Tdocs.

Proposal 1: RAN#65 to select either option 1 or 2:

1. *One capability bit indicating that the UE supports the RAN rules (defined in TS 25.304 and TS 36.304)*
2. *Two capability bits, one bit indicating that the UE supports the RAN rules (defined in TS 25.304 and TS 36.304) and another one indicating that the UE supports the Rel-12 ANDSF*

conclusion: noted, UE capability decision was postponed to RAN #66 (see RP-141227)

RP-141369 UE capabilities for WLAN/3GPP Radio interworking Ericsson, Orange, Deutsche Telekom, Huawei Disc REL-12 UTRA_LTE_WLAN_interw-Core

Proposal: Two capabilities should be used for the WLAN/3GPP Radio interworking feature: one for the part based on the access stratum rules, and one for the part based on ANDSF.

discussion: CMCC: we support the proposal

conclusion: noted, UE capability decision was postponed to RAN #66 (see RP-141227)

RP-141414 Discussion on UE capability for 3GPP-WLAN radio interworking Alcatel-Lucent, Broadcom Corporation, AT&T, InterDigital Communications, BlackBerry UK Limited Disc REL-12 UTRA_LTE_WLAN_interw-Core

conclusion: revised in RP-141603

RP-141603 Discussion on UE capability for 3GPP-WLAN radio interworking Alcatel-Lucent, Broadcom Corporation, AT&T, InterDigital Communications, BlackBerry UK Limited Disc REL-12 UTRA_LTE_WLAN_interw-Core

Observation#1: A single capability bit cannot indicate support and IOT for both RAN rules and also the associated AS-NAS interaction functionality defined for RAN rules and ANDSF policies.

Observation #2: A single capability bit can be used to inform the eNB whether it is allowed to signal the dedicated parameters for WLAN inter-working (for either RAN rules or ANDSF policies or both).

It is sufficient to just provide 1-bit capability signalling and is set if the UE supports the dedicated signalling and the associated procedure.

Proposal#1: 1-bit capability signalling and is set if the UE supports the dedicated signalling (i.e., eNB is allowed to provided dedicated signalling) and the associated procedure for 3GPP-WLAN interworking. The associated procedures for dedicated signalling (similar to the ones supported for SIB) are:

- *the AS procedure and NAS procedures for UE supporting RAN rules based solution or*
- *the AS procedures and NAS procedures for a UE supporting ANDSF policies based solution*
- *and the procedures common to both RAN rules based solution and ANDSF policies based solution e.g. Co-existence handling or handling of common RAN assistance parameters versus Dedicated RAN assistance parameters.*

Proposal#2: If a capability for the support and IOT of RAN rules is considered useful, a separate bit can be used to indicate such support, i.e. 2-bit capability signalling where 1 bit as above for the support of dedicated signalling and the associated procedures and another bit for the support of RAN rules.

discussion: Mediatek: testing aspect is the most important aspect, not easy to add to ADNSF test cases as there are no ANDSF test cases so far
Fujitsu: is it a dynamic capability?
Broadcom: scanning procedures considers to test it?
Qualcomm: there may be networks where one solution is deployed and networks where the other solution is deployed, so we prefer to have 2 bits
LG: bit for RAN rules is agreed by most of the companies, bit for ANDSF can be discussed further
Ericsson: capability bits to indicate the support of the signalling does not make sense

conclusion: noted, UE capability decision was postponed to RAN #66 (see RP-141227)

Alternative 1:

RP-141311 CR on UE capability signaling for WLAN/3GPP radio interworking (alternative 1) Intel Corporation CR 36.331 1638 - B REL-12 UTRA_LTE_WLAN_interw-Core

company CR since RAN2 could not agree on the capability signalling and recommended to discuss this at RAN#65. Two alternative CRs are provided for discussion/decision at RAN#65.
conclusion: postponed

RP-141314 CR on UE capability signaling for WLAN/3GPP radio interworking (alternative 1) Intel Corporation CR 36.306 0221 - B REL-12 UTRA_LTE_WLAN_interw-Core
company CR since RAN2 could not agree on the capability signalling and recommended to discuss this at RAN#65. Two alternative CRs are provided for discussion/decision at RAN#65.
conclusion: postponed

RP-141315 CR on UE capability signaling for WLAN/3GPP radio interworking (alternative 1) Intel Corporation CR 25.331 5686 - B REL-12 UTRA_LTE_WLAN_interw-Core
company CR since RAN2 could not agree on the capability signalling and recommended to discuss this at RAN#65. Two alternative CRs are provided for discussion/decision at RAN#65.
conclusion: postponed

RP-141316 CR on UE capability signaling for WLAN/3GPP radio interworking (alternative 1) Intel Corporation CR 25.306 0475 - B REL-12 UTRA_LTE_WLAN_interw-Core
company CR since RAN2 could not agree on the capability signalling and recommended to discuss this at RAN#65. Two alternative CRs are provided for discussion/decision at RAN#65.
conclusion: postponed

Alternative 2:

RP-141319 CR on UE capability signaling for WLAN/3GPP radio interworking (alternative 2) Intel Corporation CR 36.331 1639 - B REL-12 UTRA_LTE_WLAN_interw-Core
company CR since RAN2 could not agree on the capability signalling and recommended to discuss this at RAN#65. Two alternative CRs are provided for discussion/decision at RAN#65.
conclusion: postponed

RP-141322 CR on UE capability signaling for WLAN/3GPP radio interworking (alternative 2) Intel Corporation CR 36.306 0222 - B REL-12 UTRA_LTE_WLAN_interw-Core
company CR since RAN2 could not agree on the capability signalling and recommended to discuss this at RAN#65. Two alternative CRs are provided for discussion/decision at RAN#65.
conclusion: postponed

RP-141321 CR on UE capability signaling for WLAN/3GPP radio interworking (alternative 2) Intel Corporation CR 25.331 5687 - B REL-12 UTRA_LTE_WLAN_interw-Core
company CR since RAN2 could not agree on the capability signalling and recommended to discuss this at RAN#65. Two alternative CRs are provided for discussion/decision at RAN#65.
conclusion: postponed

RP-141320 CR on UE capability signaling for WLAN/3GPP radio interworking (alternative 2) Intel Corporation CR 25.306 0476 - B REL-12 UTRA_LTE_WLAN_interw-Core
company CR since RAN2 could not agree on the capability signalling and recommended to discuss this at RAN#65. Two alternative CRs are provided for discussion/decision at RAN#65.
conclusion: postponed

11.6.5 Increasing the minimum number of carriers for UE monitoring in UTRA and E-UTRA
[LTE_UTRA_IncMon]

RP-141305 Status report for WI Increasing the minimum number of carriers for UE monitoring in UTRA and E-UTRA; rapporteur: Ericsson RAN4 Report REL-12 LTE_UTRA_IncMon
conclusion: revised in RP-141600

RP-141600 Status report for WI Increasing the minimum number of carriers for UE monitoring in UTRA and E-UTRA; rapporteur: Ericsson RAN4 Report REL-12 LTE_UTRA_IncMon
revision of RP-141305; MCC: late submission;
conclusion: noted, approved: Core: 85%, Dec.14; Perf.: 0%, June 15

RP-141308 Rel-12 Work Item Exception for Core part: Increasing the minimum number of carriers for UE monitoring in UTRA and E-UTRA Ericsson ExReq RAN4 REL-12 LTE_UTRA_IncMon-Core
conclusion: revised in RP-141601

RP-141601 Rel-12 Work Item Exception for Core part: Increasing the minimum number of carriers for UE monitoring in UTRA and E-UTRA Ericsson ExReq RAN4 REL-12 LTE_UTRA_IncMon-Core
conclusion: approved

11.7 Open LTE only related WIs (non-spectrum related)

11.7.1 Perf. part: Further Downlink MIMO Enhancement for LTE-Advanced [LTE_eDL_MIMO_enh-Perf]

RP-141378 Status Report for Perf. part: Further Downlink MIMO Enhancement for LTE-Advanced; rapporteur: Alcatel-Lucent RAN4 Report REL-12 LTE_eDL_MIMO_enh-Perf.
conclusion: noted, approved: Perf.: 85%, Dec.14

RP-141546 CRs for Further Downlink MIMO Enhancement for LTE-Advanced - Perf Part RAN4 CR 36.101 2463 1 B REL-12 LTE_eDL_MIMO_enh-Perf
conclusion: approved

11.7.2 Perf. part: Further Enhancements to LTE TDD for DL-UL Interference Management and Traffic Adaptation [LTE_TDD_eIMTA-Perf]

RP-141342 Status report for WI: Perf. part: Further Enhancements to LTE TDD for DL-UL Interference Management and Traffic Adaptation; rapporteur: CATT RAN4 Report REL-12 LTE_TDD_eIMTA-Perf
conclusion: noted, approved: 20%, Dec.14

11.7.3 Core part: Hetnet Mobility Enhancements for LTE [HetNet_eMOB_LTE-Core]

RP-141413 Status report for WI: Core part: HetNet Mobility Enhancements for LTE; rapporteur: Alcatel-Lucent RAN2 Report REL-12 HetNet_eMOB_LTE-Core
conclusion: noted, approved: 100%, Sep.14, WI completed

RP-141505 RAN2 agreed CRs on Core part: Hetnet Mobility Enhancements for LTE RAN2 CR set REL-12 HetNet_eMOB_LTE-Core
conclusion: approved

RP-141520 Introduction of the UE history reported from the UE RAN3 CR set REL-12 HetNet_eMOB_LTE-Core
conclusion: approved

11.7.4 Perf. part: LTE Coverage Enhancements [Cov_Enh_LTE-Perf]

RP-141149 Status report for WI Perf Part.: LTE Coverage Enhancements, rapporteur: China Telecom RAN4 Report REL-12 Cov_Enh_LTE-Perf
conclusion: noted, approved: 70%, Dec.14

11.7.5 Low cost & enhanced coverage MTC UE for LTE [LC_MTC_LTE]

RP-141221 Status Report for WI Low cost & enhanced coverage MTC UE for LTE; rapporteur: Vodafone RAN1 Report REL-12 LC_MTC_LTE
conclusion: noted, approved: 90%, Dec.14; 55%, March 15

RP-141485 CRs to 36.211, 36.212 & 36.213 to introduce low-cost MTC and 256QAM features RAN1 CR set REL-12 LC_MTC_LTE-Core, LTE_SC_enh_L1-Core
related to AI 11.7.5 and 11.7.8
conclusion: approved

RP-141506 RAN2 agreed CRs on Low cost & enhanced coverage MTC UE for LTE RAN2 CR set B REL-12 LC_MTC_LTE-Core
conclusion: approved

RP-141521 Paging enhancements for Low Complexity UE RAN3 CR 36.413 1255 1 B REL-12 LC_MTC_LTE-Core
conclusion: approved

RP-141547 CRs for Low cost & enhanced coverage MTC UE for LTERAN4 CR set REL-12 LC_MTC_LTE-Core
discussion: RAN4 chair: WI is not yet completed and indicates target until March15
MCC: exception sheets are only considered up to Dec.14; if you need time afterwards already then this is a sign that this WI should rather be shifted to REL-13
RAN4 chair: we have no RF so far so proposal is to postpone the CR set
Motorola Solutions: normally we approve all Core CRs together and we do not yet have 36.101 CRs
conclusion: postponed

RP-141220 WI exception sheet: Core part: Low cost & enhanced coverage MTC UE for LTE Vodafone Group ExReq RAN1 REL-12 LC_MTC_LTE-Core
discussion: LG: rapporteur will have 0.5 TU for next quarter but this is not realistic
Vodafone, RAN2 chair: we have 3 options on the table and the hope is to select a solution soon otherwise we stick to the baseline
conclusion: approved

11.7.6 Perf. part: LTE TDD-FDD joint operation including Carrier Aggregation [LTE_CA_TDD_FDD-Perf]

RP-141374 Status Report of Perf. part: LTE TDD-FDD joint operation including Carrier Aggregation; rapporteur: Nokia RAN4 Report REL-12 LTE_CA_TDD_FDD-Perf
conclusion: noted, approved: 30%, Dec.14

11.7.7 Further MBMS Operations Support for E-UTRAN [MBMS_LTE_OS]

RP-141431 Status Report for WI: Further MBMS Operations Support for E-UTRAN, rapporteur: Verizon RAN2 Report REL-12 MBMS_LTE_OS
conclusion: noted; approved: Core: 95%, Dec.14; Perf.: 75%, Dec.14

RP-141507 RAN2 agreed CRs on Further MBMS Operations Support for E-UTRAN RAN2 CR set REL-12 MBMS_LTE_OS-Core
conclusion: approved

RP-141522 Introduction of MBMS MDT RAN3 CR 36.413 1219 5 B REL-12 MBMS_LTE_OS-Core
conclusion: approved

RP-141432 Exception request for WI: Core part: Further MBMS Operations Support for E-UTRAN Verizon ExReq RAN2 REL-12 MBMS_LTE_OS-Core
conclusion: approved

11.7.8 E-UTRA Small cell enhancements - Physical layer aspects [LTE_SC_enh_L1]

See also CRs RP-141485 in AI 11.7.5.

RP-141062 LS on 256QAM for PMCH (R1-143612; to: RAN2, RAN4; cc: RAN; contact: Huawei) RAN1 LSin REL-12 LTE_SC_enh_L1
no RAN action requested;
conclusion: noted, no LS answer

RP-141063 LS on 256QAM UE category (R1-143675; to: RAN2; cc: RAN4, RAN; contact: Huawei) RAN1 LSin REL-12 LTE_SC_enh_L1
no RAN action requested;
conclusion: noted, no LS answer

RP-141066 Reply LS to R1-142762 = RP-140554 on radio interface based synchronization (R3-142097; to: RAN1, SA5; cc: RAN; contact: NSN) RAN3 LSin REL-12 LTE_SC_enh_L1
no RAN action requested;
conclusion: noted, no LS answer

RP-141243 Status report for WI: E-UTRA Small cell enhancements - Physical layer aspects, rapporteur: Huawei RAN1 Report REL-12 LTE_SC_enh_L1
discussion: Huawei: RAN3 open issue on CR 36.443 for the support of 256QAM on PMCH needs to be documented;
conclusion: revised in RP-141632

RP-141632 Status report for WI: E-UTRA Small cell enhancements - Physical layer aspects, rapporteur: Huawei RAN1 Report REL-12 LTE_SC_enh_L1
conclusion: noted; approved: Core: 78%, Dec.14; Perf.: 20%, March 15

RP-141508 RAN2 agreed CR on Support of Radio-interface Based Synchronization by OAM configuration RAN2 CR36.3000659 - B REL-12 LTE_SC_enh_L1-Core
Note: CR is originally from RAN3
conclusion: approved

RP-141459 Revised WID for WI E-UTRA Small cell enhancements - Physical layer aspects Huawei WID rev RAN1 REL-12 LTE_SC_enh_L1
last approved WID: RP-132073; note: Adding 36.443 as affected and to change Core part target to Dec.14
conclusion: approved

RP-141247 Exception request for WI Core part: E-UTRA Small cell enhancements - Physical layer aspects Huawei ExReq RAN1 REL-12 LTE_SC_enh_L1-Core
Huawei: RAN3 work on CR 36.443 for the support of 256QAM on PMCH still needs to be documented
conclusion: revised in RP-141631

RP-141631 Exception request for WI Core part: E-UTRA Small cell enhancements - Physical layer aspects Huawei ExReq RAN1 REL-12 LTE_SC_enh_L1-Core
conclusion: approved

11.7.9 Dual Connectivity for LTE [LTE_SC_enh_dualC]

RP-141264 Status report for WI: Dual Connectivity for LTE; rapporteur: NTT DOCOMO RAN2 Report REL-12 LTE_SC_enh_dualC
conclusion: noted, approved: Core: 65%, Dec.14; Perf.: 10%, June 15

RP-141266 Revised WID: Dual Connectivity for LTE NTT DOCOMO WID rev RAN2 REL-12 LTE_SC_enh_dualC
last approved WID: RP-132069; to introduce a new TS
conclusion: approved; Note: After RAN #65 TS 36.425 was allocated. RAN approved this WID but the target dates in the WID are still out-of-date; i.e. Core: Dec.14, Perf.: June 15 will be kept.

RP-141265 Exception request for WI Core part: Dual Connectivity for LTE NTT DOCOMO, INC., NEC ExReq RAN2 REL-12 LTE_SC_enh_dualC-Core
note: Rapporteur is NTT DOCOMO
conclusion: approved

11.7.10 Core part: Inter-eNB CoMP for LTE [COMP_LTE_IeNB-Core]

RP-141116 Status report for Core part: Inter-eNB CoMP for LTE; rapporteur: Samsung RAN3 Report REL-12 COMP_LTE_IeNB-Core
conclusion: noted, approved: 85%, Dec.14

RP-141509 RAN2 agreed CR on Introduction of inter-eNB CoMP RAN2 CR36.3000656 - B REL-12 COMP_LTE_IeNB-Core
Note: CR is originally from RAN3
conclusion: approved

RP-141117 Rel-12 Work Item Exception for Core part: Inter-eNB CoMP for LTE Samsung ExReq RAN3 REL-12 COMP_LTE_IeNB-Core
conclusion: approved

11.7.11 LTE Device to Device Proximity Services [LTE_D2D_Prox]

RP-141244 Status report for WI: LTE Device to Device Proximity Services; rapporteur: Qualcomm RAN1 Report REL-12 LTE_D2D_Prox

discussion: MCC: late submission;
Orange: Despite the good progress of this WI, several agreements in RAN WGs were taken under very high pressure and "on the fly" based on late requirements. WGs didn't have time to check alignment between their respective agreements, the impact on each others work and whether the overall Rel-12 solution is openly specified (to ensure proper inter-operation). Resources should be allocated in WGs in the next quarter to allow alignment and consistency of their respective agreements and requirements.
conclusion: revised in RP-141637

RP-141637 Status report for WI: LTE Device to Device Proximity Services; rapporteur: Qualcomm RAN1 Report REL-12 LTE_D2D_Prox
conclusion: noted, approved: Core: 84%, Dec.14; Perf.: 0%, June 15

RP-141248 Rel-12 Work Item Exception for LTE Device to Device Proximity Services - Core part Qualcomm ExReq RAN1 REL-12 LTE_D2D_Prox-Core
discussion: Samsung: some open issues can be removed from RAN1: need for details of interference control not needed, also multi-carrier issues (impossible to complete this in REL-12) and outstanding details of receiver behaviour also "exceptional cases and exit conditions ..."
RAN4 chair: open issues for RAN4 very general, do you really think RAN4 will be able to complete this by Dec.?
Qualcomm: yes
RAN4 chair: wants to see more details of what has to be done in RAN4 by Dec.14
US Dep. of Com.: multi-carrier are important for public safety
conclusion: revised in RP-141633

RP-141633 Rel-12 Work Item Exception for LTE Device to Device Proximity Services - Core part Qualcomm ExReq RAN1 REL-12 LTE_D2D_Prox-Core
discussion: Samsung: additional note is confusing "including interference ..." and redundant
Huawei: prefers to keep it to avoid misunderstandings in WG
Samsung: thinks still we should remove it
RAN4 chair: RAN4 open issues are very challenging
conclusion: revised in RP-141704

RP-141704 Rel-12 Work Item Exception for LTE Device to Device Proximity Services - Core part Qualcomm ExReq RAN1 REL-12 LTE_D2D_Prox-Core
conclusion: approved

11.7.12 Network-Assisted Interference Cancellation and Suppression for LTE [LTE_NAICS]

RP-141409 Status Report for WI: Network-Assisted Interference Cancellation and Suppression; rapporteur: Mediatek RAN1 Report REL-12 LTE_NAICS
discussion: Ericsson: status report does capture a problem identified in RAN1 (unclear baseline performance if the NAICS assistance information is not followed by the network), although this has been brought up on the RAN1 reflector repeated times;
MCC: Perf. part target can not be in the past (June 14)
conclusion: revised in RP-141607

RP-141607 Status Report for WI: Network-Assisted Interference Cancellation and Suppression; rapporteur: Mediatek RAN1 Report REL-12 LTE_NAICS
revision of RP-141409; MCC: late revision of a flagged status report; revised in RP-141621
conclusion: revised in RP-141621

RP-141621 Status Report for WI: Network-Assisted Interference Cancellation and Suppression; rapporteur: Mediatek RAN1 Report REL-12 LTE_NAICS
revision of RP-141607;
discussion: MCC: late revision of a flagged status report
conclusion: noted, approved: Core: 95%, Dec.14; Perf.: 0%, June 15

RP-141410 Revised Work Item Description for Network-Assisted Interference Cancellation and Suppression for LTE Mediatek WID rev RAN1 REL-12 LTE_NAICS
last approved WID: RP-140519
conclusion: revised in RP-141620

RP-141620 Revised Work Item Description for Network-Assisted Interference Cancellation and Suppression for LTE Mediatek WID rev RAN1 REL-12 LTE_NAICS
last approved WID: RP-140519; revision of RP-141410
conclusion: revised in RP-141634

RP-141634 Revised Work Item Description for Network-Assisted Interference Cancellation and Suppression for LTE Mediatek WID rev RAN1 REL-12 LTE_NAICS
conclusion: approved

RP-141440 REL-12 exception request for Core part: Network-Assisted Interference Cancellation and Suppression for LTE Mediatek ExReq RAN1 REL-12 LTE_NAICS-Core
conclusion: approved

11.7.13 Core part: Smart Congestion Mitigation in E-UTRAN [SCM_LTE-Core]

RP-141292 Status Report for Smart Congestion Mitigation in E-UTRAN; rapporteur: LG Electronics RAN2 Report REL-12 SCM_LTE-Core
discussion: TeliaSonera: There is still one open issue in this WI, namely to add support for network sharing (see also LS to SA1 in R2-143970). Despite this, in the SR it is claimed that the completion level is 100%.
LG: network sharing will be handled under TEI after completion of the WI
TeliaSonera: would like to get confirmation from RAN2 chair
RAN2 chair: network sharing for all access barring schemes will be added next time
conclusion: noted, approved: 100%, Sep.14; WI is completed

RP-141510 RAN2 agreed CR on Introduction of ACB skip for MMTEL voice/video and SMS RAN2 CR36.331 1572 1 B REL-12 SCM_LTE-Core
MCC: CR is linked with CT1 CRs in CP-140662
conclusion: conditionally approved under the condition that CT #65 approves CT1 CRs in CP-140662; later: condition is fulfilled, i.e. RP-141510 is approved

11.7.14 Void

11.7.15 Perf. part: Performance requirements of interference cancellation and suppression receiver for SU-MIMO [LTE_SUMIMO_RX-Perf]

RP-141255 Status report for WI Perf Part.: Performance requirements of interference cancellation and suppression receiver for SU-MIMO, rapporteur: Huawei RAN4 Report REL-12 LTE_SUMIMO_RX-Perf
conclusion: noted, approved: 50%, March 15

11.7.16 Core part: Group Call eMBMS congestion management for LTE
[New WI: GCSE_LTE-MBMS_CM-Core]

RP-141327 Status report for WI Core part: Group Call eMBMS congestion management for LTE; rapporteur: Alcatel-Lucent RAN3 Report REL-12 GCSE_LTE-MBMS_CM-Core
conclusion: noted, approved: 25%, Dec.14

RP-141441 Rel-12 Work Item Exception for WI Core part: Group Call eMBMS congestion management for LTE Alcatel-Lucent ExReq RAN3 REL-12 GCSE_LTE-MBMS_CM-Core
conclusion: approved

11.8 Open LTE only related WIs (spectrum; CA related)

NOTE: For the WIs under agenda item 11.8 (except 11.8.8) and 12.2 no separate status reports per WI will be provided but a Tdoc will be submitted to agenda item 11.8 by RAN4 with a collection of all % complete and target dates for each WI.

RP-141068 LS on DL CA and support for the lower order DL fall-back modes (R4-145477; to: RAN2; cc: RAN; contact: Ericsson) RAN4 LSin REL-12 -
no RAN action requested;
conclusion: noted, no LS answer

RP-141084 Status Report of RAN4 CA WIs RAN4 chairman (Nokia Networks) Report - -
Instead of separate SRs for each CA WI, RAN4 provides a single spreadsheet for REL-12/REL-13 CA WIs tracking completion level, target date and any other essential information.
discussion: MCC: Some status reports assume already approval of company CRs submitted to RAN. LTE_CA_B2_B4_B12 inconsistent targets, LTE_CA_B7_B8_B20 to be shifted from REL-12 to REL-13?, a lot of WIs completed without CRs?
conclusion: noted, % complete and target dates are approved unless modified in the table below

The table below summarizes the data of RP-141084 (only dates are changed into the usual format):
Note: Further changes during RAN #65 are indicated with "=>" in the table below.

RAN #65 agenda	UID	WI code	REL	target after RAN #65	% complete	WI_rapporteur	Open issues / Other notes
11.8.1.1	620118	LTE_CA_B1_B3-Core	Rel-12	Sep.14	100	China Unicom	TP for 38.851 as company contribution to RAN#65
11.8.1.1	620218	LTE_CA_B1_B3-Perf	Rel-12	Sep.14	100	China Unicom	Release Independence CRs to 36.307 as company contribution to RAN#65
11.8.1.2	530125	LTE_CA_B1_B7-Core	Rel-12	Sep.14	100	Ericsson	MOP and REFSENS relaxations. Company CRs and decision in RAN#65
11.8.1.2	530225	LTE_CA_B1_B7-Perf	Rel-12	Sep.14	100	Ericsson	Company CRs and decision in RAN#65
11.8.1.3	620119	LTE_CA_B1_B28-Core	Rel-12	Dec.14	70	KDDI	UE RF (MSD requirement for Band 1)
11.8.1.3	620219	LTE_CA_B1_B28-Perf	Rel-12	Dec.14	0	KDDI	CR approval
11.8.1.4	640120	LTE_CA_B2_B4_BWset-Core	Rel-12	Sep.14	100	T-Mobile USA	COMPLETE
11.8.1.5	640121	LTE_CA_B2_B5_BWset-Core	Rel-12	Dec.14	0	AT&T	CR to 36.101 and TP to 36.851 remaining
11.8.1.5	640221	LTE_CA_B2_B5_BWset-Perf	Rel-12	Dec.14	0	AT&T	CR to 36.307 remaining
11.8.1.6	580134	LTE_CA_B2_B12-Core	Rel-12	Sep.14	100	US Cellular	COMPLETE
11.8.1.7	610120	LTE_CA_B8_B11-Core	Rel-12	Sep.14	100	SoftBank Mobile	COMPLETE
11.8.1.7	610220	LTE_CA_B8_B11-Perf	Rel-12	Sep.14	100	SoftBank Mobile	COMPLETE
11.8.1.8	630136	LTE_CA_B41_B42-Core	Rel-12	Sep.14	100	Huawei	COMPLETE
11.8.1.8	630236	LTE_CA_B41_B42-Perf	Rel-12	Sep.14	100	Huawei	COMPLETE
11.8.2.1	590129	LTE_CA_2UL-A1-Core	Rel-12	Dec.14	75	Huawei	Rx specifications and protection of GNSS
11.8.2.1	590229	LTE_CA_2UL-A1-Perf	Rel-12	Dec.14	0	Huawei	
11.8.2.2	590128	LTE_CA_2UL-A2-Core	Rel-12	Dec.14	75	Qualcomm	Rx specifications and protection of GNSS
11.8.2.2	590228	LTE_CA_2UL-A2-Perf	Rel-12	Dec.14	0	Qualcomm	
11.8.2.3	590123	LTE_CA_2UL-A3-Core	Rel-12	Dec.14	75	Ericsson	Need for complete RF RX requirements for 2UL CA and coexistence with non-3GPP RAT (e.g. GNSS) open issues. Completion level increased to 75%: draft CR available and GNSS protection discussed.
11.8.2.3	590223	LTE_CA_2UL-A3-Perf	Rel-12	Dec.14	0	Ericsson	
11.8.2.4	590131	LTE_CA_2UL-A4-Core	Rel-12	Dec.14	70	Nokia	Receiver requirements,

RAN #65 agenda	UID	WI code	REL	target after RAN #65	% complete	WI_rapporteur	Open issues / Other notes
							GNSS protection and MSD
11.8.2.4	590231	LTE_CA_2UL-A4-Perf	Rel-12	Dec.14	0	Nokia	
11.8.2.5	590126	LTE_CA_2UL-A5-Core	Rel-12	Dec.14	70	Renesas => NTT DOCOMO	Rx requirements for dual uplink. Change rapporetur company from Renesas to NTT DOCOMO
11.8.2.5	590226	LTE_CA_2UL-A5-Perf	Rel-12	Dec.14	0	Renesas = > NTT DOCOMO	Rx requirements for dual uplink. Change rapporetur company from Renesas to NTT DOCOMO
11.8.3.1	630145	LTE_CA_NC_B25_BWset-Core	Rel-12	Sep.14	100	Huawei	COMPLETE
11.8.3.1	630245	LTE_CA_NC_B25_BWset-Perf	Rel-12	Sep.14	100	Huawei	COMPLETE
11.8.4.1	600122	LTE_CA_NC_2UL-Core	Rel-12	Dec.14	95	Nokia	Agreement if ACS, Blocking and intermodulation requirements are specified or not
11.8.4.2	600124	LTE_CA_NC_B4_2UL-Core	Rel-12	Dec.14	90	T-Mobile USA	Finalization of the work, pending on the completion of LTE_CA_NC_2UL. (This CA combination is used as an study example in LTE_CA_NC_2UL.)
11.8.4.2	600224	LTE_CA_NC_B4_2UL-Perf	Rel-12	Dec.14	0	T-Mobile USA	
11.8.5.01	620150	LTE_CA_B1_B3_B5-Core	Rel-12	Sep.14	100	SK Telecom	COMPLETE
11.8.5.01	620250	LTE_CA_B1_B3_B5-Perf	Rel-12	Sep.14	100	SK Telecom	COMPLETE
11.8.5.02	620124	LTE_CA_B1_B3_B8-Core	Rel-12	Sep.14	100	KT	COMPLETE
11.8.5.02	620224	LTE_CA_B1_B3_B8-Perf	Rel-12	Sep.14	100	KT	COMPLETE
11.8.5.03	640128	LTE_CA_B1_B3_B19-Core	Rel-12	Sep.14	100	NTT DOCOMO	RAN#65 company CRs for TS36.101/TS36.104
11.8.5.03	640228	LTE_CA_B1_B3_B19-Perf	Rel-12	Sep.14	100	NTT DOCOMO	RAN#65 company CRs for TS36.101/TS36.104
11.8.5.04	620151	LTE_CA_B1_B3_B20-Core	Rel-12	Sep.14	100	Vodafone	COMPLETE
11.8.5.04	620251	LTE_CA_B1_B3_B20-Perf	Rel-12	Sep.14	100	Vodafone	COMPLETE
11.8.5.05	620125	LTE_CA_B1_B5_B7-Core	Rel-12	Sep.14	100	LG Uplus	Insertion Loss for B1+B7. RAN#64 agreed plan was to close the issue in RAN#65. Company contributions in RAN#65 as no RAN4 agreement.
11.8.5.05	620225	LTE_CA_B1_B5_B7-Perf	Rel-12	Sep.14	100	LG Uplus	Insertion Loss for B1+B7. RAN#64 agreed plan was to close the issue in RAN#65. Company contributions in RAN#65 as no RAN4 agreement.
11.8.5.06	620152	LTE_CA_B1_B7_B20-Core	Rel-12	Sep.14	100	Vodafone	Expected to be completed in RAN#65 based on LTE_CA_B1_B7 completion CRs to be presented as company CRs
11.8.5.06	620252	LTE_CA_B1_B7_B20-Perf	Rel-12	Sep.14	100	Vodafone	Expected to be completed in RAN#65 based on LTE_CA_B1_B7 completion CRs to be presented as company CRs
11.8.5.07	630127	LTE_CA_B1_B19_B21-Core	Rel-12	Sep.14	100	NTT DOCOMO	COMPLETE
11.8.5.07	630227	LTE_CA_B1_B19_B21-Perf	Rel-12	Sep.14	100	NTT DOCOMO	COMPLETE
11.8.5.08	640131	LTE_CA_B1_B42_B42-Core	Rel-12	Sep.14	100	NTT DOCOMO	COMPLETE
11.8.5.08	640231	LTE_CA_B1_B42_B42-Perf	Rel-12	Sep.14	100	NTT DOCOMO	COMPLETE
11.8.5.09	600138	LTE_CA_B2_B2_B13-Core	Rel-12	Sep.14	100	Verizon	COMPLETE
11.8.5.09	600238	LTE_CA_B2_B2_B13-Perf	Rel-12	Sep.14	100	Verizon	COMPLETE
11.8.5.10	620126	LTE_CA_B2_B4_B5-Core	Rel-12	Sep.14	100	U.S. Cellular	COMPLETE
11.8.5.10	620226	LTE_CA_B2_B4_B5-Perf	Rel-12	Sep.14	100	U.S. Cellular	COMPLETE
11.8.5.11	620127	LTE_CA_B2_B4_B12-Core	Rel-12	Sep.14	90 =>100	U.S. Cellular	Band 4 UE refsens is still TBD in agreed CR R4-145540.
11.8.5.11	620227	LTE_CA_B2_B4_B12-Perf	Rel-12	Sep.14	98 => 100	U.S. Cellular	36.307 CRs were agreed because 36.101 CR in R4-145540 was agreed. Because UE refsens is TBD

RAN #65 agenda	UID	WI code	REL	target after RAN #65	% complete	WI_rapporteur	Open issues / Other notes
							the completion level for perf WI is 98%.
11.8.5.12	600137	LTE_CA_B2_B4_B13-Core	Rel-12	Sep.14	100	Verizon	COMPLETE
11.8.5.12	600237	LTE_CA_B2_B4_B13-Perf	Rel-12	Sep.14	100	Verizon	COMPLETE
11.8.5.13	620128	LTE_CA_B2_B5_B12-Core	Rel-12	Sep.14	100	U.S. Cellular	COMPLETE
11.8.5.13	620228	LTE_CA_B2_B5_B12-Perf	Rel-12	Sep.14	100	U.S. Cellular	COMPLETE
11.8.5.14	600131	LTE_CA_B2_B5_B30-Core	Rel-12	Sep.14	100	AT&T	COMPLETE
11.8.5.14	600231	LTE_CA_B2_B5_B30-Perf	Rel-12	Sep.14	100	AT&T	COMPLETE
11.8.5.15	620129	LTE_CA_B2_B12_B12-Core	Rel-12	Sep.14	100	AT&T	COMPLETE
11.8.5.15	620229	LTE_CA_B2_B12_B12-Perf	Rel-12	Sep.14	100	AT&T	COMPLETE
11.8.5.16	620130	LTE_CA_B2_B12_B30-Core	Rel-12	Sep.14	100	AT&T	COMPLETE
11.8.5.16	620230	LTE_CA_B2_B12_B30-Perf	Rel-12	Sep.14	100	AT&T	COMPLETE
11.8.5.17	600133	LTE_CA_B2_B29_B30-Core	Rel-12	Sep.14	100	AT&T	COMPLETE
11.8.5.17	600233	LTE_CA_B2_B29_B30-Perf	Rel-12	Sep.14	100	AT&T	COMPLETE
11.8.5.18	630128	LTE_CA_B3_B3_B7-Core	Rel-12	Sep.14	100	TeliaSonera	COMPLETE
11.8.5.18	630228	LTE_CA_B3_B3_B7-Perf	Rel-12	Sep.14	100	TeliaSonera	COMPLETE
11.8.5.19	630126	LTE_CA_B3_B7_B7-Core	Rel-12	Sep.14	100	NSN	COMPLETE
11.8.5.19	630226	LTE_CA_B3_B7_B7-Perf	Rel-12	Sep.14	100	NSN	COMPLETE
11.8.5.20	620131	LTE_CA_B3_B7_B20-Core	Rel-12	Sep.14	100	Vodafone	COMPLETE
11.8.5.20	620231	LTE_CA_B3_B7_B20-Perf	Rel-12	Sep.14	100	Vodafone	COMPLETE
11.8.5.21	640130	LTE_CA_B3_B42_B42-Core	Rel-12	Dec.14	50	NTT DOCOMO	CRs for TS36.101/TS36.104
11.8.5.21	640230	LTE_CA_B3_B42_B42-Perf	Rel-12	Dec.14	50	NTT DOCOMO	CRs for TS36.101/TS36.104
11.8.5.22	600139	LTE_CA_B4_B4_B13-Core	Rel-12	Sep.14	100	Verizon	COMPLETE
11.8.5.22	600239	LTE_CA_B4_B4_B13-Perf	Rel-12	Sep.14	100	Verizon	COMPLETE
11.8.5.23	620133	LTE_CA_B4_B5_B12-Core	Rel-12	Sep.14	100	U.S. Cellular	COMPLETE
11.8.5.23	620233	LTE_CA_B4_B5_B12-Perf	Rel-12	Sep.14	100	U.S. Cellular	COMPLETE
11.8.5.24	600134	LTE_CA_B4_B5_B30-Core	Rel-12	Sep.14	100	AT&T	COMPLETE
11.8.5.24	600234	LTE_CA_B4_B5_B30-Perf	Rel-12	Sep.14	100	AT&T	COMPLETE
11.8.5.25	620134	LTE_CA_B4_B12_B12-Core	Rel-12	Sep.14	100	AT&T	COMPLETE
11.8.5.25	620234	LTE_CA_B4_B12_B12-Perf	Rel-12	Sep.14	100	AT&T	COMPLETE
11.8.5.26	620135	LTE_CA_B4_B12_B30-Core	Rel-12	Sep.14	100	AT&T	COMPLETE
11.8.5.26	620235	LTE_CA_B4_B12_B30-Perf	Rel-12	Sep.14	100	AT&T	COMPLETE
11.8.5.27	600136	LTE_CA_B4_B29_B30-Core	Rel-12	Sep.14	100	AT&T	COMPLETE
11.8.5.27	600236	LTE_CA_B4_B29_B30-Perf	Rel-12	Sep.14	100	AT&T	COMPLETE
11.8.5.28	620153	LTE_CA_B7_B8_B20-Core	Rel-12	Dec.14	85	Vodafone	MSD values
11.8.5.28	620253	LTE_CA_B7_B8_B20-Perf	Rel-12	Dec.14	0	Vodafone	
11.8.5.29	640129	LTE_CA_B19_B42_B42-Core	Rel-12	Sep.14	100	NTT DOCOMO	COMPLETE
11.8.5.29	640229	LTE_CA_B19_B42_B42-Perf	Rel-12	Sep.14	100	NTT DOCOMO	COMPLETE
11.8.6.1	640135	LTE_CA_C_B40_3DL_BW-Core	Rel-12	Sep.14	100	TeliaSonera	WID update in RAN#65 to include also Performance part of the WI. Release Independence CRs to 36.307 as company contribution to RAN#65
11.8.6.2	610122	LTE_CA_C_B41_3DL-Core	Rel-12	Sep.14	100	Alcatel-Lucent	COMPLETE
11.8.6.2	610222	LTE_CA_C_B41_3DL-Perf	Rel-12	March 15	60	Alcatel-Lucent	Determine the performance requirements including those with minimum channel spacing as agreed in R4-145401
11.8.7.1	620138	LTE_CA_NC_B41_3DL-Core	Rel-12	Sep.14	100	Sprint, Alcatel-Lucent	None, proposals for change to CA_NS_04 were agreed (R4-145564) to be handled under the RAN4 maintenance procedure
11.8.7.1	620238	LTE_CA_NC_B41_3DL-Perf	Rel-12	March 15	60	Sprint, Alcatel-Lucent	Determine the performance requirements including those with minimum channel spacing as agreed in R4-145401
12.2.1.1	630135	LTE_CA_B4_B12_BWset-Core	Rel-13 => REL-12	Sep.14	100	T-Mobile USA	COMPLETE
12.2.1.1	630235	LTE_CA_B4_B12_BWset-Perf	Rel-13 => REL-12	Sep.14	100	T-Mobile USA	COMPLETE
12.2.1.2	630134	LTE_CA_B5_B13-Core	Rel-13	March 15	50	Intel	REFSENS and MOP
12.2.1.2	630234	LTE_CA_B5_B13-Perf	Rel-13	March 15	10	Intel	

RAN #65 agenda	UID	WI code	REL	target after RAN #65	% complete	WI_rapporteur	Open issues / Other notes
12.2.1.3	630133	LTE_CA_B7_B22-Core	Rel-13	Dec.14	10	Orange, Ericsson	UE REFSENS, MOP relaxation
12.2.1.3	630233	LTE_CA_B7_B22-Perf	Rel-13	Dec.14	0	Orange, Ericsson	
12.2.1.4	620123	LTE_CA_B8_B27-Core	Rel-13	June 15	10	KT	IL for B8+B27
12.2.1.4	620223	LTE_CA_B8_B27-Perf	Rel-13	June 15	10	KT	IL for B8+B27
12.2.2.01	630143	LTE_CA_B1_B3_B26-Core	Rel-13	Dec.14	90	China Telecom	CR approval
12.2.2.01	630243	LTE_CA_B1_B3_B26-Perf	Rel-13	Dec.14	90	China Telecom	CR approval
12.2.2.02	630144	LTE_CA_B1_B18_B28-Core	Rel-13	March 15	50	KDDI	MSD req. for CA_B1_B28
12.2.2.02	630244	LTE_CA_B1_B18_B28-Perf	Rel-13	March 15	0	KDDI	CR approval
12.2.2.03	640133	LTE_CA_B1_B41_B41-Core	Rel-13	March 15	0	KDDI	
12.2.2.03	640233	LTE_CA_B1_B41_B41-Perf	Rel-13	March 15	0	KDDI	
12.2.2.04	630139	LTE_CA_B2_B2_B5-Core	Rel-13	March 15	90	Intel	CR approval
12.2.2.04	630239	LTE_CA_B2_B2_B5-Perf	Rel-13	March 15	10	Intel	
12.2.2.05	640122	LTE_CA_B2_B2_B12-Core	Rel-13	Dec.14	0	U.S. Cellular	
12.2.2.05	640222	LTE_CA_B2_B2_B12-Perf	Rel-13	March 15	0	U.S. Cellular	
12.2.2.06	630138	LTE_CA_B2_B4_B4-Core	Rel-13 => REL-12	Sep.14	100	T-Mobile USA	COMPLETE
12.2.2.06	630238	LTE_CA_B2_B4_B4-Perf	Rel-13 => REL-12	Sep.14	100	T-Mobile USA	COMPLETE
12.2.2.07	630141	LTE_CA_B2_B5_B13-Core	Rel-13	March 15	50	Intel	REFSENS and MOP
12.2.2.07	630241	LTE_CA_B2_B5_B13-Perf	Rel-13	March 15	10	Intel	
12.2.2.08	640125	LTE_CA_B3_B3_B8-Core	Rel-13	June 15	30	CHTTL	
12.2.2.08	640225	LTE_CA_B3_B3_B8-Perf	Rel-13	June 15	0	CHTTL	
12.2.2.09	620132	LTE_CA_B3_B8_B27-Core	Rel-13	June 15	25	KT	IL for B8+B27
12.2.2.09	620232	LTE_CA_B3_B8_B27-Perf	Rel-13	June 15	25	KT	IL for B8+B27
12.2.2.10	630140	LTE_CA_B4_B4_B5-Core	Rel-13	March 15	90	Intel	CR approval
12.2.2.10	630240	LTE_CA_B4_B4_B5-Perf	Rel-13	March 15	10	Intel	
12.2.2.11	640124	LTE_CA_B4_B4_B7-Core	Rel-13	March 15	0	Rogers Wireless	
12.2.2.11	640224	LTE_CA_B4_B4_B7-Perf	Rel-13	March 15	0	Rogers Wireless	
12.2.2.12	630137	LTE_CA_B4_B4_B12-Core	Rel-13 => REL-12	Dec.14	90 = >100	T-Mobile USA	Band 4 UE refsens is still TBD in agreed CR R4-145540.
12.2.2.12	630237	LTE_CA_B4_B4_B12-Perf	Rel-13 => REL-12	Dec.14	98 => 100	T-Mobile USA	36.307 CRs were agreed because 36.101 CR in R4-145540 was agreed. Because UE refsens is TBD the completion level for perf WI is 98%.
12.2.2.13	630142	LTE_CA_B4_B5_B13-Core	Rel-13	March 15	50	Intel	REFSENS and MOP
12.2.2.13	630242	LTE_CA_B4_B5_B13-Perf	Rel-13	March 15	10	Intel	
12.2.2.14	640123	LTE_CA_B4_B7_B12-Core	Rel-13	March 15	0	Rogers Wireless	
12.2.2.14	640223	LTE_CA_B4_B7_B12-Perf	Rel-13	March 15	0	Rogers Wireless	
12.2.2.15	640134	LTE_CA_B26_B41_B41-Core	Rel-13	March 15	0	KDDI	
12.2.2.15	640234	LTE_CA_B26_B41_B41-Perf	Rel-13	March 15	0	KDDI	
12.2.2.16	640126	LTE_CA_B39_B41_B41-Core	Rel-13	Dec.14	90	China Mobile	CR approval
12.2.2.16	640226	LTE_CA_B39_B41_B41-Perf	Rel-13	Dec.14	0	China Mobile	CR approval
12.2.2.17	640132	LTE_CA_B41_B42_B42-Core	Rel-13	Dec.14	30	Huawei	Delta Tib and delta Rib values
12.2.2.17	640232	LTE_CA_B41_B42_B42-	Rel-13	Dec.14	0	Huawei	

RAN #65 agenda	UID	WI code	REL	target after RAN #65	% complete	WI_rapporteur	Open issues / Other notes
		Perf					

11.8.1 Inter-band CA related WIs (1 UL)

11.8.1.1 LTE Advanced inter-band Carrier Aggregation of Band 1 and Band 3 [LTE_CA_B1_B3]

Note: Rapporteur of this WI is China Unicom.

11.8.1.1	620118	LTE_CA_B1_B3-Core	Rel-12	Sep.14	100	China Unicom	TP for 38.851 as company contribution to RAN#65
11.8.1.1	620218	LTE_CA_B1_B3-Perf	Rel-12	Sep.14	100	China Unicom	Release Independence CRs to 36.307 as company contribution to RAN#65

RP-141548 CRs for LTE Advanced inter-band Carrier Aggregation of Band 1 and Band 3 RAN4 CR set REL-12 LTE_CA_B1_B3-Core, LTE_CA_B1_B3-Perf
conclusion: approved

company CRs/TP:

RP-141245 TP for 36.851: B1+B3 CA remaining specs China Unicom TP 36.851 REL-12 LTE_CA_B1_B3-Core
note: TR 36.851 collects information about 2DL inter-band CA WIs of REL-12; it is not yet under CR control
discussion: RAN chair: TR 36.851 is not under CR control?
RAN4 chair: not yet, we agreed to bring the TR for approval at the end of the REL-12
conclusion: approved, rapporteur will include this TP in TR 36.851

RP-141104 Introduction of CA_B1_B3 into TS 36.307 (Rel-10) China Unicom CR 36.307 0361 1 B REL-10 LTE_CA_B1_B3-Perf
company CR; resubmission of R4-144361 which was not treated at RAN4 #72
conclusion: withdrawn, CR is identical with RP-141203

RP-141106 Introduction of CA_B1_B3 into TS 36.307 (Rel-11) China Unicom CR 36.307 0362 1 B REL-11 LTE_CA_B1_B3-Perf
company CR; resubmission of R4-144362 which was not treated at RAN4 #72
conclusion: withdrawn, CR is identical with RP-141204

RP-141107 Introduction of CA_B1_B3 into TS 36.307 (Rel-12) China Unicom CR 36.307 0363 1 B REL-12 LTE_CA_B1_B3-Perf
company CR; resubmission of R4-144363 which was not treated at RAN4 #72
conclusion: withdrawn, CR is identical with RP-141205

RP-141203 Introduction of CA_B1_B3 into TS 36.307 (Rel-10) NTT DOCOMO, INC. CR 36.307 0361 1 B REL-10 LTE_CA_B1_B3-Perf
company CR; contents is same as in R4-144361 CR0361; CR was not treated at RAN4 #72
conclusion: approved

RP-141204 Introduction of CA_B1_B3 into TS 36.307 (Rel-11) NTT DOCOMO, INC. CR 36.307 0362 1 B REL-11 LTE_CA_B1_B3-Perf
company CR; contents is same with R4-144362 CR0362; CR was not treated at RAN4 #72
conclusion: approved

RP-141205 Introduction of CA_B1_B3 into TS 36.307 (Rel-12) NTT DOCOMO, INC. CR 36.307 0363 1 B REL-12 LTE_CA_B1_B3-Perf
company CR; contents is same as in R4-144363 CR0363; CR was not treated at RAN4 #72
conclusion: approved

Core/Perf. part 100% complete in Sep.14

11.8.1.2 LTE Advanced inter-band Carrier Aggregation of Band 1 and Band 7 [LTE_CA_B1_B7]

11.8.1.2	530125	LTE_CA_B1_B7-Core	Rel-12	Sep.14	100	Ericsson	MOP and REFSENS relaxations. Company CRs and decision in RAN#65
11.8.1.2	530225	LTE_CA_B1_B7-Perf	Rel-12	Sep.14	100	Ericsson	Company CRs and decision in RAN#65

RP-141208 Way forward on Band 1+7 Carrier Aggregation Vodafone Group Disc REL-12 LTE_CA_B1_B7
Proposes a way forward on the remaining issues for Band 1+7 Carrier Aggregation work.
discussion: Vodafone: we understood that vendors have more problems on the transmitter side and so we agreed to our deltaT values under the assumption that deltaR stays 0
conclusion: noted

RP-141323 Decision on B1+B7 CA LG Uplus Disc REL-12 LTE_CA_B1_B7
This document is for discussion and decision on B1+B7 CA.
discussion: NTT DOCOMO: support's Vodafone's values of table 3.1
Telecom Italia: going band by band was decided in the past but we should avoid this in the future
Etisalat: as vendors can live 0.6 for deltaT for B7, maybe we can have this as a compromise
RAN chair: B1 deltaT: 0.5, deltaR: 0; B7: deltaT: 0.6, delta R: 0.05
conclusion: noted
36.101 CRs and 36.851/36.853 TPs will be updated to reflect:
B1 deltaT: 0.5, deltaR: 0; B7: deltaT: 0.6, delta R: 0.05
for WI LTE_CA_B1_B7:
36.101: RP-141328 is revised in RP-141635;
36.851: RP-141326 is revised in RP-141638.
for WI LTE_CA_B1_B5_B7:
36.101: RP-141335 is revised in RP-141636;
36.853: RP-141334 is revised in RP-141639.

RP-141216 Introduction of CA_1A-7A into 36.101 Vodafone Group CR 36.101 2569 - B REL-12 LTE_CA_B1_B7-Core
company CR; CR was not provided to RAN4 #72
conclusion: rejected after RP-141323 conclusion

RP-141326 TP for TR 36.851: Band 1 and Band 7 UE Tx and Rx relaxations LG Uplus, Qualcomm Incorporated, LG Electronics, Nokia Corporation, Intel Corporation, MediaTek TP 36.851 REL-12 LTE_CA_B1_B7-Core
note: TR 36.851 collects information about 2DL inter-band CA WIs of REL-12; it is not yet under CR control
conclusion: revised in RP-141638

RP-141638 TP for TR 36.851: Band 1 and Band 7 UE Tx and Rx relaxations LG Uplus, Qualcomm Incorporated, LG Electronics, Nokia Corporation, Intel Corporation, MediaTek TP 36.851 REL-12 LTE_CA_B1_B7-Core
note: TR 36.851 collects information about 2DL inter-band CA WIs of REL-12; it is not yet under CR control; revision of RP-141326
conclusion: approved, rapporteur will include this TP in TR 36.851

RP-141328 Introduction of CA_1A-7A into 36.101(Rel-12) LG Uplus, Qualcomm Incorporated, LG Electronics, Nokia Corporation, Intel Corporation, MediaTek CR 36.101 2552 1 B REL-12 LTE_CA_B1_B7-Core
company CR; R4-145110 was not agreed by RAN4 #72
conclusion: revised in RP-141635

RP-141635 Introduction of CA_1A-7A into 36.101(Rel-12) LG Uplus, Qualcomm Incorporated, LG Electronics, Nokia Corporation, Intel Corporation, MediaTek CR 36.101 2552 2 B REL-12 LTE_CA_B1_B7-Core
company CR; revision of RP-141328
conclusion: approved

RP-141329 Introduction of CA_1A-7A into 36.307 (REl-10) LG Uplus, Qualcomm Incorporated, LG Electronics, Nokia Corporation, Intel Corporation, MediaTek CR 36.307 0427 1 B REL-10 LTE_CA_B1_B7-Perf
company CR; R4-145111 was not agreed by RAN4 #72

conclusion: approved

RP-141330 Introduction of CA_1A-7A into 36.307 (Rel-11) LG Uplus, Qualcomm Incorporated, LG Electronics, Nokia Corporation, Intel Corporation, MediaTek CR 36.307 0428 1 B REL-11 LTE_CA_B1_B7-Perf
company CR; R4-145112 was not agreed by RAN4 #72
conclusion: approved

RP-141332 Introduction of CA_1A-7A into 36.307 (Rel -12) LG Uplus, Qualcomm Incorporated, LG Electronics, Nokia Corporation, Intel Corporation, MediaTek CR 36.307 0429 1 B REL-12 LTE_CA_B1_B7-Perf
company CR; R4-145113 was not agreed by RAN4 #72
conclusion: approved

RP-141446 Introduction of CA band combination for B1+B7 and B1+B5+B7 to TS 36.104 Rel-12 LG Uplus, LG Electronics, Huawei CR 36.104 0567 1 B REL-12 LTE_CA_B1_B7-Core, LTE_CA_B1_B5_B7-Core
company CR; R4-144558 was not agreed by RAN4 #72
Note: Wrong WI code on CR cover.
conclusion: approved

RP-141447 Introduction of CA band combination for B1+B7 and B1+B5+B7 to TS 36.141 Rel-12 LG Uplus, LG Electronics, Huawei CR 36.141 0635 1 B REL-12 LTE_CA_B1_B7-Core, LTE_CA_B1_B5_B7-Core
company CR; R4-144559 was not agreed by RAN4 #72
Note: Wrong WI code on CR cover.
conclusion: approved

RP-141487 Revised WID for WI LTE Advanced inter-band Carrier Aggregation of Band 1 and Band 7 Ericsson WID rev RAN4 REL-12 LTE_CA_B1_B7
last approved WID: RP-132042
conclusion: approved

Core/Perf: 100% complete in Sep.14

RP-141373 Rel-12 Work Item Exception for Core part: LTE Advanced inter-band Carrier Aggregation of Band 1 and Band 7 Ericsson ExReq RAN4 REL-12 LTE_CA_B1_B7-Core
note: RP-141084 claims that LTE_CA_B1_B7-Core is 100% complete
conclusion: withdrawn

11.8.1.3 LTE Advanced inter-band Carrier Aggregation of Band 1 and Band 28 [LTE_CA_B1_B28]

RP-141135 Exception request for WI Core part: LTE Advanced inter-band Carrier Aggregation of Band 1 and Band 28 KDDI ExReq RAN4 REL-12 LTE_CA_B1_B28-Core
conclusion: approved

11.8.1.4 Core part: Additional bandwidth combination set for LTE Advanced inter-band Carrier Aggregation of Band 2 and Band 4 [**New WI:** LTE_CA_B2_B4_BWset-Core]

11.8.1.4	640120	LTE_CA_B2_B4_BWset-Core	Rel-12	Sep.14	100	T-Mobile USA	COMPLETE

RP-141549 CRs for Additional bandwidth combination set for LTE Advanced inter-band Carrier Aggregation of Band 2 and Band 4-Core part RAN4 CR 36.101 2556 B REL-12 LTE_CA_B2_B4_Bwset-Core
conclusion: approved

Core 100% complete in Sep.14

11.8.1.5 Additional bandwidth combination set for LTE Advanced inter-band Carrier Aggregation of Band 2 and Band 5 [**New WI:** LTE_CA_B2_B5_BWset]

RP-141209 Status Report of WI Additional bandwidth combination set for LTE Advanced inter-band Carrier Aggregation of Band 2 and Band 5; rapporteur: AT&T RAN4 Report REL-12 LTE_CA_B2_B5_BWset
conclusion: withdrawn as status report is covered by RP-141084

RP-141210 Rel-12 Work Item Exception for Core part: Additional bandwidth combination set for LTE Advanced inter-band Carrier Aggregation of Band 2 and Band 5 AT&T ExReq RAN4 REL-12 LTE_CA_B2_B5_BWset-Core
conclusion: approved

11.8.1.6 Core part: LTE Advanced inter-band Carrier Aggregation of Band 2 and Band 12 [LTE_CA_B2_B12-Core]

11.8.1.6	580134	LTE_CA_B2_B12-Core	Rel-12	Sep.14	100	US Cellular	COMPLETE

RP-141550 CRs for LTE Advanced inter-band Carrier Aggregation of Band 2 and Band 12-Core part RAN4 CR 36.101 2566 B REL-12 LTE_CA_B2_B12-Core
conclusion: approved

Core 100% complete in Sep.14

11.8.1.7 LTE Advanced inter-band Carrier Aggregation of Band 8 and Band 11 [LTE_CA_B8_B11]

11.8.1.7	610120	LTE_CA_B8_B11-Core	Rel-12	Sep.14	100	SoftBank Mobile	COMPLETE
11.8.1.7	610220	LTE_CA_B8_B11-Perf	Rel-12	Sep.14	100	SoftBank Mobile	COMPLETE

RP-141551 CRs for LTE Advanced inter-band Carrier Aggregation of Band 8 and Band 11 RAN4 CR set REL-12 LTE_CA_B8_B11-Core, LTE_CA_B8_B11-Perf
conclusion: approved

Core/Perf: 100% complete in Sep.14

11.8.1.8 LTE Advanced inter-band Carrier Aggregation of Band 41 and Band 42 [LTE_CA_B41_B42]

11.8.1.8	630136	LTE_CA_B41_B42-Core	Rel-12	Sep.14	100	Huawei	COMPLETE
11.8.1.8	630236	LTE_CA_B41_B42-Perf	Rel-12	Sep.14	100	Huawei	COMPLETE

RP-141552 CRs for LTE Advanced inter-band Carrier Aggregation of Band 41 and Band 42 RAN4 CR 36.307 set REL-12 LTE_CA_B41_B42-Perf
conclusion: approved

Note: The 36.101 REL-12 CR for this WI in R4-145566 was by accident submitted in RP-141562 (see AI 11.9) since it has the wrong WI code on the CR cover and not LTE_CA_B41_B42-Core.

Core/Perf: 100% complete in Sep.14

11.8.2 Inter-band CA related WIs (2 UL)

11.8.2.1 LTE Advanced dual uplink inter-band Carrier Aggregation Class A1 [LTE_CA_2UL-A1]

RP-141242 Exception request for WI core part: LTE Advanced dual uplink inter-band Carrier Aggregation Class A1 Huawei ExReq RAN4 REL-12 LTE_CA_2UL-A1-Core
conclusion: approved

11.8.2.2 LTE Advanced dual uplink inter-band Carrier Aggregation Class A2 [LTE_CA_2UL-A2]

RP-141430 Exception request for WI LTE Advanced dual uplink inter-band Carrier Aggregation Class A2 Core Part Qualcomm Incorporated ExReq RAN4 REL-12 LTE_CA_2UL-A2-Core
conclusion: approved

11.8.2.3 LTE Advanced dual uplink inter-band Carrier Aggregation Class A3 [LTE_CA_2UL-A3]

RP-141372 Rel-12 Work Item Exception for Core part: LTE Advanced dual uplink inter-band Carrier Aggregation Class A3Ericsson ExReq RAN4 REL-12 LTE_CA_2UL-A3-Core

conclusion: approved

11.8.2.4 LTE Advanced dual uplink inter-band Carrier Aggregation Class A4 [LTE_CA_2UL-A4]

RP-141160 Revised WID: LTE Advanced dual uplink inter-band Carrier Aggregation Class Nokia Corporation WID rev RAN4 REL-12 LTE_CA_2UL-A4
last approved WID: RP-140476; this WID revision includes CA configuration CA_1A-8A into the LTE Advanced dual uplink inter-band CA Class A4 WI
conclusion: approved

RP-141163 Rel-12 Work Item Exception request for LTE Advanced dual uplink inter-band Carrier Aggregation Class A4 Core WI Nokia Corporation ExReq RAN4 REL-12 LTE_CA_2UL-A4-Core
conclusion: approved

11.8.2.5 LTE Advanced dual uplink inter-band Carrier Aggregation Class A5 [LTE_CA_2UL-A5]

RP-141195 Revised WID: LTE Advanced dual uplink inter-band Carrier Aggregation Class A5 NTT DOCOMO, INC. WID rev RAN4 REL-12 LTE_CA_2UL-A5
last approved WID: RP-131146
conclusion: approved, rapporteurship changed from Renesas to NTT DOCOMO

RP-141194 Exception request for WI Core part: LTE Advanced dual uplink inter-band Carrier Aggregation Class A5 NTT DOCOMO, INC. ExReq RAN4 REL-12 LTE_CA_2UL-A5-Core
note: Rapporteurship for this WI will be transferred from Renesas to NTT Docomo with agreement from Broadcom
conclusion: approved

11.8.3 Intra-band CA related WIs (non-contiguous 1UL)

11.8.3.1 Additional bandwidth combinations for LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 25 [LTE_CA_NC_B25_BWset]

11.8.3.1	630145	LTE_CA_NC_B25_BWset-Core	Rel-12	Sep.14	100	Huawei	COMPLETE
11.8.3.1	630245	LTE_CA_NC_B25_BWset-Perf	Rel-12	Sep.14	100	Huawei	COMPLETE

RP-141553 CRs for Additional bandwidth combinations for LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 25 RAN4 CR set REL-12 LTE_CA_NC_B25_BWset-Core, LTE_CA_NC_B25_BWset-Perf
conclusion: approved

Core/Perf: 100% complete in Sep.14

11.8.4 Intra-band CA related WIs (non-contiguous 2UL)

11.8.4.1 Core part: LTE Advanced intra-band non-contiguous CA framework for 2UL [LTE_CA_NC_2UL-Core]

RP-141162 Rel-12 Work Item Exception request for LTE Advanced intra-band non-contiguous CA framework for 2UL Nokia Corporation ExReq RAN4 REL-12 LTE_CA_NC_2UL-Core
conclusion: approved

11.8.4.2 LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 4 for 2UL [LTE_CA_NC_B4_2UL]

RP-141285 Exception request sheet for Core part: LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 4 for 2UL T-Mobile USA ExReq RAN4 REL-12 LTE_CA_NC_B4_2UL-Core
conclusion: approved

11.8.5 3 Band Carrier Aggregation (3DL/1UL)

RP-141554 CRs for 3 Band Carrier Aggregation (3DL/1UL) RAN4 CR set REL-12 LTE_CA_B2_B12_B30-Core, LTE_CA_B2_B12_B30-Perf, LTE_CA_B1_B19_B21-Core, LTE_CA_B1_B19_B21-Core, LTE_CA_B1_B19_B21-Perf, LTE_CA_B1_B3_B19-Core, LTE_CA_B1_B3_B20-Core, LTE_CA_B1_B3_B5-Core, LTE_CA_B1_B3_B8-Core,

LTE_CA_B1_B42_B42-Core, LTE_CA_B1_B5_B7-Core, LTE_CA_B1_B7_B20-Core, LTE_CA_B19_B42_B42-Core, LTE_CA_B2_B12_B12-Core, LTE_CA_B2_B12_B12-Perf, LTE_CA_B2_B12_B30-Core, LTE_CA_B2_B2_B13-Core, LTE_CA_B2_B2_B13-Perf, LTE_CA_B2_B29_B30-Core, LTE_CA_B2_B29_B30-Perf, LTE_CA_B2_B4_B12-Core, LTE_CA_B2_B4_B12-Perf, LTE_CA_B2_B4_B13-Core, LTE_CA_B2_B4_B13-Perf, LTE_CA_B2_B4_B5-Core, LTE_CA_B2_B4_B5-Perf, LTE_CA_B2_B5_B12-Core, LTE_CA_B2_B5_B12-Perf, LTE_CA_B2_B5_B30-Core, LTE_CA_B2_B5_B30-Perf, LTE_CA_B3_B3_B7-Core, LTE_CA_B3_B3_B7-Perf, LTE_CA_B3_B42_B42-Core, LTE_CA_B3_B7_B20-Core, LTE_CA_B3_B7_B20-Perf, LTE_CA_B3_B7_B7-Core, LTE_CA_B3_B7_B7-Perf, LTE_CA_B4_B12_B12-Core, LTE_CA_B4_B12_B12-Perf, LTE_CA_B4_B12_B30-Core, LTE_CA_B4_B12_B30-Perf, LTE_CA_B4_B29_B30-Core, LTE_CA_B4_B29_B30-Perf, LTE_CA_B4_B4_B13-Core, LTE_CA_B4_B4_B13-Perf, LTE_CA_B4_B5_B12-Core, LTE_CA_B4_B5_B12-Perf, LTE_CA_B4_B5_B30-Core, LTE_CA_B4_B5_B30-Perf, LTE_CA_B41_B42-core, LTE_CA_B7_B8_B20-Core, LTE_CA_C_B40_3DL_BW-Core, LTE_CA_C_B41_3DL-Core, LTE_CA_NC_B41_3DL-Core

conclusion: approved, LTE_CA_B1_B3_B19-Core is not covered in the CR pack
WI code LTE_CA_B4_B4_B12-Core is missing on CRs R4-145474, R4-145475.
WI code LTE_CA_B4_B4_B12-Core, LTE_CA_B4_B4_B12-Perf is missing on CRs R4-145540, R4-145541, R4-145542, R4-145476

RP-141428 Updated REFSENS requirements for band combinations with Band 4 and Band 12 Ericsson CR 36.101 2568 - B REL-12 LTE_CA_B2_B4_B12-Core, LTE_CA_B4_B4_B12-Core, LTE_CA_B4_B5_B12-Core, LTE_CA_B4_B12_B12-Core

company CR; CR was not provided to RAN4, it is related to R4-145474 replacing some tbd by requirements; to be checked whether LTE_CA_B4_B4_B12-Core is still a REL-13 WI or it is completed in Sep.14

discussion: NEC: is it replacing a CR of RP-141554?
Ericsson: no, it is a separate CR
Motorola Solutions: a lot of CRs have [ ] in CRs, we should solve them by Dec.14 for ITU-R inputs

conclusion: approved

11.8.5.1 LTE Advanced 3 Band CA (3DL/1UL) for Band 1, Band 3 and Band 5
[LTE_CA_B1_B3_B5]

11.8.5.01	620150	LTE_CA_B1_B3_B5-Core	Rel-12	Sep.14	100	SK Telecom	COMPLETE
11.8.5.01	620250	LTE_CA_B1_B3_B5-Perf	Rel-12	Sep.14	100	SK Telecom	COMPLETE

RP-141555 CRs for LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 1, Band 3 and Band 5 RAN4 CR set REL-12 LTE_CA_B1_B3_B5-Core, LTE_CA_B1_B3_B5-Perf

conclusion: all CRs of RP-141555 are approved except 3CRs:
R4-144636 (revised in RP-141706),
R4-144637 (revised in RP-141707),
R4-145588 (revised in RP-141708)

RP-141706 Introduction of 3 Band Carrier Aggregation of Band 1,Band 3 and Band 5 to TS 36.104 SK Telecom CR 36.104 0569 1 B REL-12 LTE_CA_B1_B3_B5-Core

company CR; replacing R4-144636 in RP-141555

conclusion: approved

RP-141707 Introduction of 3 Band Carrier Aggregation of Band 1,Band 3 and Band 5 to TS 36.141 SK Telecom CR 36.141 0636 1 B REL-12 LTE_CA_B1_B3_B5-Perf

company CR; replacing R4-144637 in RP-141555

conclusion: approved

RP-141708 Introduction of 3 Band Carrier Aggregation of Band 1,Band 3 and Band 5 to TS 36.101 SK Telecom CR 36.101 2492 3 B REL-12 LTE_CA_B1_B3_B5-Core

company CR; replacing R4-145588 in RP-141555

conclusion: approved

Note: See RP-141554 for 36.133 CRs (R4-144682, R4-144671).

RP-141454 Revised WID: LTE Advanced 3 Band Carrier Aggregation(3DL/1UL) of Band 1, Band 3 and Band 5 SK Telecom WID rev RAN4 REL-12 LTE_CA_B1_B3_B5
last approved WID: RP-132121
discussion: SK Telecom: 36.853 is moved from new spec to affected spec
NEC: revision marks are all over and not useful
conclusion: approved; note: It turned out after RAN #65 that this WID has the following errors:
- no revision marks
- talking about RAN5 test scenarios which is out-of-scope of Core and Perf. part
- not indicated from which REL onwards this has to be considered REL-independent
- incomplete indication in which WI the 2DL permutations are covered (B1_B3 is covered in REL-12 WI LTE_CA_B1_B3, B3_B5 is covered in REL-11 WI LTE_CA_B3_B5 but unclear where B1_B5 is covered)

Core/Perf. part 100% complete in Sep.14

11.8.5.2 LTE Advanced 3 Band CA (3DL/1UL) for Band 1, Band 3 and Band 8
[LTE_CA_B1_B3_B8]

11.8.5.02	620124	LTE_CA_B1_B3_B8-Core	Rel-12	Sep.14	100	KT	COMPLETE
11.8.5.02	620224	LTE_CA_B1_B3_B8-Perf	Rel-12	Sep.14	100	KT	COMPLETE

RP-141556 CRs for LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 1, Band 3 and Band 8 RAN4 CR set REL-12 LTE_CA_B1_B3_B8-Core, LTE_CA_B1_B3_B8-Perf
discussion: Vodafone: There is a new WI proposal in RP-141461 requesting a new bandwidth combination set for this band combination, and we question whether the CR in R4-145590 can instead be modified to add new channel bandwidths and be approved at RAN#65
KT: Vodafone proposal is reasonable, would also add Softbank's proposal
Qualcomm: would prefer to have separate WI for 3MHz addition
Orange: would be a nice short-cut for operators to bring new bandwidths
conclusion: R4-145590 of RP-141556 is revised in RP-141653 by Vodafone (New channel bandwidth combinations are added in Table 5.6A.1-1 for B1+8 and B3+8 to add 3MHz bandwidth, and also to add 5MHz to B3+8),
all other CRs of RP-141556 are approved;
WID is revised by Vodafone in RP-141654

RP-141653 Introduction of 3 Band Carrier Aggregation (3DL/1UL) of Band 1, Band 3 and Band 8 to TS 36.101 Vodafone, KT, Softbank CR 36.101 2435 4 B REL-12 LTE_CA_B1_B3_B8-Core
company CR; revision of RAN4 agreed CR R4-145590 of RP-141556
conclusion: approved
Note: It was detected after RAN #65 that the CR cover of RP-141653 has a wrong CR number CR 2212 and the Tdoc produces an error message when opening it (table corrupted). But it seems it can be implemented.

Note: See RP-141554 for 36.133 CRs (R4-144682, R4-144671). 36.853 TP was agreed in RAN4 in R4-145585.

RP-141654 Revised WID for WI LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 1, Band 3 and Band 8 Vodafone WID rev RAN4 REL-12 LTE_CA_B1_B3_B8
last approved WID: RP-131753
discussion: Qualcomm: worried about the approach we use here; would like to still have 3MHz as separate BW combination WI
TeliaSonera: supports Vodafone
Qualcomm: wants to add new BW set and to discuss this in the WG first
KT: supports Vodafone
conclusion: approved; note: It turned out after RAN #65 that this WID has the following errors:
- TR 36.853 input listed with target Dec.14 (all CRs/TRs/TSs have to be approved before a WI is completed)
- no objectives for Perf. part
- talking about RAN5 test scenarios which is out-of-scope of Core and Perf. part
- not indicated from which REL onwards this has to be considered REL-independent
Note: B1_B3, B1_B8 and B3_B8 are covered by this WI.

Core/Perf. 100% completed at Sep.14

11.8.5.3 LTE Advanced 3 Band CA (3DL/1UL) of Band 1, Band 3 and Band 19

[**New WI:** LTE_CA_B1_B3_B19]

11.8.5.03	640128	LTE_CA_B1_B3_B19-Core	Rel-12	Sep.14	100	NTT DOCOMO	RAN#65 company CRs for TS36.101/TS36.104
11.8.5.03	640228	LTE_CA_B1_B3_B19-Perf	Rel-12	Sep.14	100	NTT DOCOMO	RAN#65 company CRs for TS36.101/TS36.104

RP-141197 Introduction of CA_B1_B3_B19 into TS 36.101 NTT DOCOMO, INC. CR 36.101 2458 1 B REL-12 LTE_CA_B1_B3_B19-Core
company CR; contents is same as in R4-144364 CR2458. CR was not treated at RAN4 #72
discussion: RAN4 chair: B1_B3_B19 is not covered in RP-141554
conclusion: approved

RP-141198 Introduction of CA_B1_B3_B19 into TS 36.307 (Rel-10) NTT DOCOMO, INC. CR 36.307 0364 1 B REL-10 LTE_CA_B1_B3_B19- Perf
company CR; contents is same as in R4-144365 CR0364; CR was not treated at RAN4 #72
conclusion: approved

RP-141199 Introduction of CA_B1_B3_B19 into TS 36.307 (Rel-11) NTT DOCOMO, INC. CR 36.307 0365 1 B REL-11 LTE_CA_B1_B3_B19- Perf
company CR; contents is same as in R4-144366 CR0365; CR was not treated at RAN4 #72
conclusion: approved

RP-141200 Introduction of CA_B1_B3_B19 into TS 36.307 (Rel-12) NTT DOCOMO, INC. CR 36.307 0366 1 B REL-12 LTE_CA_B1_B3_B19- Perf
company CR; contents is same as in R4-144367 CR0366; CR was not treated at RAN4 #72
conclusion: approved

RP-141201 Introduction of CA band combination Band1 + Band3 + Band19 to TS 36.104 NTT DOCOMO, INC. CR 36.104 0563 1 B REL-12 LTE_CA_B1_B3_B19-Core
company CR; contents is same as in R4-144341 CR0563; CR was not treated at RAN4 #72
conclusion: approved

RP-141202 Introduction of CA band combination Band1 + Band3 + Band19 to TS 36.141 NTT DOCOMO, INC. CR 36.141 0627 1 B REL-12 LTE_CA_B1_B3_B19- Perf
company CR; contents is same as in R4-144342 CR0627; CR was not treated at RAN4 #72
conclusion: approved

Note: See RP-141554 for 36.133 CRs (R4-144682, R4-144671).

Core/Perf: 100% complete in Sep.14

11.8.5.4 LTE Advanced 3 Band CA (3DL/1UL) for Band 1, Band 3 and Band 20

[LTE_CA_B1_B3_B20]

11.8.5.04	620151	LTE_CA_B1_B3_B20-Core	Rel-12	Sep.14	100	Vodafone	COMPLETE
11.8.5.04	620251	LTE_CA_B1_B3_B20-Perf	Rel-12	Sep.14	100	Vodafone	COMPLETE

RP-141558 CRs for LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 1, Band 3 and Band 20 RAN4 CR set REL-12 LTE_CA_B1_B3_B20-Core, LTE_CA_B1_B3_B20-Perf
discussion: Vodafone: 15MHz and 20MHz channel bandwidths were erroneously omitted from the bandwidth combination set in R4-144749, and the company CR RP-141468 will replace R4-144749 and add these
conclusion: all CRs of RP-141558 except R4-144749 are approved
R4-144749 is revised in company CR RP-141468

RP-141468 Introduction of 3 DL CA for Band 1+3+20 Vodafone Group CR 36.101 2508 1 B REL-12 LTE_CA_B1_B3_B20-Core
company CR; revision of CR R4-144749 in RP-141558 that was agreed by RAN4 #72
conclusion: approved

RP-141469 Correction to CA in Band 1+20 Vodafone Group CR 36.101 2571 - B REL-12 LTE_CA_B1_B3_B20-Core
company CR; CR was not provided to RAN4 #72; correcting error of 36.101 CRs in RP-140942 of RAN #64;
conclusion: approved

Note: See RP-141554 for 36.133 CRs (R4-144682, R4-144671).

RP-141222 Revised WID: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 1, Band 3 and Band 20 Vodafone Group WID rev RAN4 REL-12 LTE_CA_B1_B3_B20
last approved WID: RP-141017 (RAN#64)
conclusion: approved; note: It turned out after RAN #65 that this WID has the following errors:
- 36.851 listed as new instead of affected spec
- talking about RAN5 conformance tests is out-of-scope of Core and Perf. part
- not indicated from which REL onwards this has to be considered REL-independent
- incomplete indication in which WI the 2DL permutations are covered (B1_B3 and B1_B20 is part of this WI but unclear where B3_B20 is covered)

RP-141680 TP to 36.853 to add B1 and B3 relaxations to CA_1+3+20 Vodafone TP 36.853 REL-12 LTE_CA_B1_B3_B20
conclusion: approved, rapporteur will include this TP in the next version of the TR 36.853

Core/Perf: 100% complete in Sep.14

11.8.5.5 LTE Advanced 3 Band CA (3DL/1UL) for Band 1, Band 5 and Band 7
[LTE_CA_B1_B5_B7]

11.8.5.05	620125	LTE_CA_B1_B5_B7-Core	Rel-12	Sep.14	100	LG Uplus	Insertion Loss for B1+B7. RAN#64 agreed plan was to close the issue in RAN#65. Company contributions in RAN#65 as no RAN4 agreement.
11.8.5.05	620225	LTE_CA_B1_B5_B7-Perf	Rel-12	Sep.14	100	LG Uplus	Insertion Loss for B1+B7. RAN#64 agreed plan was to close the issue in RAN#65. Company contributions in RAN#65 as no RAN4 agreement.

RP-141334 TP for TR36.853: Additional ILs for CA_1A-5A-7A UE LG Uplus, Qualcomm Incorporated, LG Electronics, Nokia Corporation, Intel Corporation, MediaTek TP 36.853 REL-12 LTE_CA_B1_B5_B7-Core
note: TR 36.853 collects information about 3DL/1UL inter-band CA WIs of REL-12; it is not yet under CR control but provided in RP-141217 for approval;
conclusion: revised in RP-141639 after RP-141323 discussion

RP-141639 TP for TR36.853: Additional ILs for CA_1A-5A-7A UE LG Uplus, Qualcomm Incorporated, LG Electronics, Nokia Corporation, Intel Corporation, MediaTek TP 36.853 REL-12 LTE_CA_B1_B5_B7-Core
note: TR 36.853 collects information about 3DL/1UL inter-band CA WIs of REL-12; it is not yet under CR control but provided in RP-141217 for approval
conclusion: approved

RP-141335 Introduction of 3DLs CA band combination of Band1 +5 + 7 to TS 36.101 Rel-12 LG Uplus, Qualcomm Incorporated, LG Electronics, Nokia Corporation, Intel Corporation, MediaTek CR 36.101 2480 1 B REL-12 LTE_CA_B1_B5_B7-Core
company CR; R4-144556 was not agreed by RAN4 #72
conclusion: revised in RP141636 after RP-141323 discussion

RP-141636 Introduction of 3DLs CA band combination of Band1 +5 + 7 to TS 36.101 Rel-12 LG Uplus, Qualcomm Incorporated, LG Electronics, Nokia Corporation, Intel Corporation, MediaTek CR 36.101 2480 2 B REL-12 LTE_CA_B1_B5_B7-Core
company CR;
conclusion: approved

RP-141338 Introduction of CA_B1_B5_B7 into TS 36.307 (Rel-10) LG Uplus, Qualcomm Incorporated, LG Electronics, Nokia Corporation, Intel Corporation, MediaTek CR 36.307 0374 2 B REL-10 LTE_CA_B1_B5_B7
company CR; R4-144557 was not agreed by RAN4 #72
conclusion: approved

RP-141339 Introduction of CA_B1_B5_B7 into TS 36.307 (Rel-11) LG Uplus, Qualcomm Incorporated, LG Electronics, Nokia Corporation, Intel Corporation, MediaTek CR 36.307 0375 2 B REL-11 LTE_CA_B1_B5_B7
company CR; R4-145577 was not agreed by RAN4 #72
conclusion: approved

RP-141340 Introduction of CA_B1_B5_B7 into TS 36.307 (Rel-12) LG Uplus, Qualcomm Incorporated, LG Electronics, Nokia Corporation, Intel Corporation, MediaTek CR 36.307 0376 1 B REL-12 LTE_CA_B1_B5_B7
company CR; R4-144555 was not agreed by RAN4 #72
conclusion: approved

Note: See RP-141554 for 36.133 CRs (R4-144682, R4-144671).
Note: 36.104 CR is provided in RP-141446 (see AI 11.8.1.2), 36.141 CR is provided in RP-141447 (see AI 11.8.1.2).

RP-141462 Revised WID for WI LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 1, Band 5 and Band 7 LG Uplus WID rev RAN4 REL-12 LTE_CA_B1_B5_B7
last approved WID: RP-140209
conclusion: approved; note: It turned out after RAN #65 that this WID has the following errors:
- talking about RAN5 conformance tests which is out-of-scope of Core and Perf. part
- not indicated from which REL onwards this has to be considered REL-independent
- incomplete indication in which WI the 2DL permutations are covered (B5_B7 is covered in REL-12 WI LTE_CA_B5_B7, B1_B5 is covered by this WI but unclear whether B1_B7 is part of this WI or REL-12 WI LTE_CA_B1_B7)

Core/Perf: 100% complete in Sep.14

11.8.5.6 LTE Advanced 3 Band CA (3DL/1UL) for Band 1, Band 7 and Band 20
[LTE_CA_B1_B7_B20]

11.8.5.06	620152	LTE_CA_B1_B7_B20-Core	Rel-12	Sep.14	100	Vodafone	Expected to be completed in RAN#65 based on LTE_CA_B1_B7 completion CRs to be presented as company CRs
11.8.5.06	620252	LTE_CA_B1_B7_B20-Perf	Rel-12	Sep.14	100	Vodafone	Expected to be completed in RAN#65 based on LTE_CA_B1_B7 completion CRs to be presented as company CRs

RP-141218 Introduction of CA band combination B1+B7+B20 to TS 36.101 Vodafone Group CR 36.101 2570 - B REL-12 LTE_CA_B1_B7_B20-Core
company CR; CR was not provided to RAN4 #72
discussion: MCC: TP to TR 36.853 needed?
RAN4 chair: usually yes
conclusion: revised in RP-141682 to align with B1_B7 discussion (see AI 11.8.1.2)

RP-141682 Introduction of CA band combination B1+B7+B20 to TS 36.101 Vodafone Group CR 36.101 2570 1 B REL-12 LTE_CA_B1_B7_B20-Core company CR; revision of CR in RP-141218
conclusion: approved

RP-141463 Introduction of 3 DL CA for Band 1+7+20 Vodafone Group CR 36.104 0595 - B REL-12 LTE_CA_B1_B7_B20-Core
company CR; CR was not provided to RAN4 #72
conclusion: approved

RP-141464 Introduction of 3 DL CA for Band 1+7+20 Vodafone Group CR 36.141 0661 - B REL-12 LTE_CA_B1_B7_B20-Perf
company CR; CR was not provided to RAN4 #72

conclusion: approved

RP-141465 Introduction of 3 DL CA for Band 1+7+20 Vodafone Group CR 36.307 0430 - B REL-10 LTE_CA_B1_B7_B20-Perf
company CR; CR was not provided to RAN4 #72
conclusion: approved

RP-141466 Introduction of 3 DL CA for Band 1+7+20 Vodafone Group CR 36.307 0431 - B REL-11 LTE_CA_B1_B7_B20-Perf
company CR; CR was not provided to RAN4 #72
conclusion: approved

RP-141467 Introduction of 3 DL CA for Band 1+7+20 Vodafone Group CR 36.307 0432 - B REL-12 LTE_CA_B1_B7_B20-Perf
company CR; CR was not provided to RAN4 #72
conclusion: approved

Note: See RP-141554 for 36.133 CRs (R4-144682, R4-144671).

RP-141223 Revised WID: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 1, Band 7 and Band 20 Vodafone Group WID rev RAN4 REL-12 LTE_CA_B1_B7_B20
last approved WID: RP-140243 (RAN#63)
conclusion: approved; note: It turned out after RAN #65 that this WID has the following errors:
- 36.851 listed as new instead of affected spec
- talking about RAN5 conformance tests is out-of-scope of Core and Perf. part
- not indicated from which REL onwards this has to be considered REL-independent
- incomplete indication in which WI the 2DL permutations are covered (B1_B20 is covered in REL-12 WI LTE_CA_B1_B3_B20 but unclear where B1_B7 and B7_B20 is covered)

RP-141681 TP to 36.853 to add B1 and B7 to CA_1+7+20 Vodafone TP 36.853 REL-12 LTE_CA_B1_B7_B20
conclusion: approved

Core/Perf: 100% complete in Sep.14

11.8.5.7 LTE Advanced 3 Band CA (3DL/1UL) of Band 1, Band 19 and Band 21
[LTE_CA_B1_B19_B21]

11.8.5.07	630127	LTE_CA_B1_B19_B21-Core	Rel-12	Sep.14	100	NTT DOCOMO	COMPLETE
11.8.5.07	630227	LTE_CA_B1_B19_B21-Perf	Rel-12	Sep.14	100	NTT DOCOMO	COMPLETE

RP-141193 Revised WID for WI LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 1, Band 19 and Band 21 NTT DOCOMO, INC. WID rev RAN4 REL-12 LTE_CA_B1_B19_B21-Core
last approved WID: RP-140106
discussion: MCC: WI completed without CR?
NTT DOCOMO: in RP-141554
conclusion: approved; note: It turned out after RAN #65 that this WID has the following errors:
- no objectives for Perf. part
- talking about RAN5 testing aspects which is out-of-scope of Core and Perf. part
- not indicated from which REL onwards this has to be considered REL-independent
Note: B1_B19, B1_B21 and B19_B21 are indicated as covered by this WI.

36.101: R4-145474 of RP-141554
36.104: R4-145475 of RP-141554
36.133: R4-144671 of RP-141554, 36.133: R4-144682 of RP-141554
36.141: R4-145476 of RP-141554
36.307: R4-145540/R4-145541/R4-145542 of RP-141554

Core/Perf: 100% complete in Sep.14

11.8.5.8 LTE Advanced 3 Band CA (3DL/1UL) of Band 1, Band 42 and Band 42
[**New WI:** LTE_CA_B1_B42_B42]

11.8.5.08	640131	LTE_CA_B1_B42_B42-Core	Rel-12	Sep.14	100	NTT DOCOMO	COMPLETE
11.8.5.08	640231	LTE_CA_B1_B42_B42-Perf	Rel-12	Sep.14	100	NTT DOCOMO	COMPLETE

RP-141559 CRs for LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 1, Band 42 and Band 42
RAN4 CR set REL-12 LTE_CA_B1_B42_B42-Core, LTE_CA_B1_B42_B42-Perf
conclusion: approved

Note: See RP-141554 for 36.133 CRs (R4-144682, R4-144671). No CRs to 36.307 (in contrast to WID RP-141006) as this CA combination starts just from REL-12 onwards (so no REL-independent spec needed).

Core/Perf: 100% complete in Sep.14

11.8.5.9 LTE Advanced 3 Band CA (3DL/1UL) for Band 2, Band 2 and Band 13
[LTE_CA_B2_B2_B13]

11.8.5.09	600138	LTE_CA_B2_B2_B13-Core	Rel-12	Sep.14	100	Verizon	COMPLETE
11.8.5.09	600238	LTE_CA_B2_B2_B13-Perf	Rel-12	Sep.14	100	Verizon	COMPLETE

RP-141435 Revised WID: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 2, Band 2 and Band 13
Verizon WID rev RAN4 REL-12 LTE_CA_B2_B2_B13
last approved WID: RP-131682
discussion: MCC: WI completed without CR
Verizon: in RP-141554
conclusion: approved; note: It turned out after RAN #65 that this WID has the following errors:
- no revision marks
- not specified which spec is for Core and which spec is for Perf. part
- talking about RAN5 conformance tests which is out-of-scope of Core and Perf. part
- not indicated from which REL onwards this has to be considered REL-independent
Note: B2_B2 is covered in REL-12 WI LTE_CA_NC_B2, B2_B13 is covered in REL-12 WI LTE_CA_B2_B13

36.101: R4-145474 of RP-141554
36.104: R4-145475 of RP-141554
36.133: R4-144671 of RP-141554, 36.133: R4-144682 of RP-141554
36.141: R4-145476 of RP-141554
36.307: R4-145540/R4-145541/R4-145542 of RP-141554

Core/Perf: 100% complete in Sep.14

11.8.5.10 LTE Advanced 3 Band CA (3DL/1UL) for Band 2, Band 4, and Band 5
[LTE_CA_B2_B4_B5]

11.8.5.10	620126	LTE_CA_B2_B4_B5-Core	Rel-12	Sep.14	100	U.S. Cellular	COMPLETE
11.8.5.10	620226	LTE_CA_B2_B4_B5-Perf	Rel-12	Sep.14	100	U.S. Cellular	COMPLETE

MCC: WI completed without CR?

36.101: R4-145474 of RP-141554
36.104: R4-145475 of RP-141554
36.133: R4-144671 of RP-141554, 36.133: R4-144682 of RP-141554
36.141: R4-145476 of RP-141554
36.307: R4-145540/R4-145541/R4-145542 of RP-141554

Core/Perf: 100% complete in Sep.14

11.8.5.11 LTE Advanced 3 Band CA (3DL/1UL) for Band 2, Band 4, and Band 12
[LTE_CA_B2_B4_B12]

11.8.5.11	620127	LTE_CA_B2_B4_B12-Core	Rel-12	Sep.14	90	U.S. Cellular	Band 4 UE refsens is still TBD in agreed CR R4-145540.
11.8.5.11	620227	LTE_CA_B2_B4_B12-Perf	Rel-12	Sep.14	98	U.S. Cellular	36.307 CRs were agreed because 36.101 CR in R4-145540 was agreed. Because UE refsens is TBD

							the completion level for perf WI is 98%.

Core/Perf. part <100% in status report RP-141084; no exception request sheet

36.101 CRs: R4-145474 of RP-141554, RP-141428
36.104 CR: R4-145475 of RP-141554
36.141 CR: R4-145476 of RP-141554 (error in CR as this is for Perf. part)
36.307 CRs: R4-145542, R4-145541, R4-145540 of RP-141554 (REL-independent from REL-10)36.133 CR: R4-144671, R4-144671 (but for both CRs the WI code was not listed on RP-141554 cover)
36.853 TP: R4-140455

Note: RP-141428 provided during RAN #65 addresses the missing parts of the WI that were mentioned in status report RP-141084; so no exception request sheet needed.

Core and Perf. part are 100% complete in Sep.14

11.8.5.12 LTE Advanced 3 Band CA (3DL/1UL) for Band 2, Band 4 and Band 13
[LTE_CA_B2_B4_B13]

11.8.5.12	600137	LTE_CA_B2_B4_B13-Core	Rel-12	Sep.14	100	Verizon	COMPLETE
11.8.5.12	600237	LTE_CA_B2_B4_B13-Perf	Rel-12	Sep.14	100	Verizon	COMPLETE

RP-141434 Revised WID: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 2, Band 4 and Band 13
Verizon WID rev RAN4 REL-12 LTE_CA_B2_B4_B13
last approved WID: RP-131684
discussion: MCC: WI completed without CR
RAN chair: in RP-141554
conclusion: approved; note: It turned out after RAN #65 that this WID has the following errors:
- no revision marks
- not specified which spec is for Core and which spec is for Perf. part
- talking about RAN5 conformance tests which is out-of-scope of Core and Perf. part
- not indicated from which REL onwards this has to be considered REL-independent
Note: B2_B4 is covered by REL-12 WI LTE_CA_B2_B4, B2_B13 is covered by REL-12 WI LTE_CA_B2_B13, B4_B13 is covered by REL-11 WI LTE_CA_B4_B13

36.101: R4-145474 of RP-141554
36.104: R4-145475 of RP-141554
36.133: R4-144671 of RP-141554, 36.133: R4-144682 of RP-141554
36.141: R4-145476 of RP-141554
36.307: R4-145540/R4-145541/R4-145542 of RP-141554

Core and Perf. part are 100% complete in Sep.14

11.8.5.13 LTE Advanced 3 Band CA (3DL/1UL) for Band 2, Band 5, and Band 12
[LTE_CA_B2_B5_B12]

11.8.5.13	620128	LTE_CA_B2_B5_B12-Core	Rel-12	Sep.14	100	U.S. Cellular	COMPLETE
11.8.5.13	620228	LTE_CA_B2_B5_B12-Perf	Rel-12	Sep.14	100	U.S. Cellular	COMPLETE

MCC: WI completed without CR?
RAN4 chair: in RP-141554; no TP to 36.853 as not critical

36.101: R4-145474 of RP-141554
36.104: R4-145475 of RP-141554
36.133: R4-144671 of RP-141554, 36.133: R4-144682 of RP-141554
36.141: R4-145476 of RP-141554
36.307: R4-145540/R4-145541/R4-145542 of RP-141554

Core and Perf. part are 100% complete in Sep.14

11.8.5.14 LTE Advanced 3 Band CA (3DL/1UL) for Band 2, Band 5 and Band 30
[LTE_CA_B2_B5_B30]

11.8.5.14	600131	LTE_CA_B2_B5_B30-Core	Rel-12	Sep.14	100	AT&T	COMPLETE
11.8.5.14	600231	LTE_CA_B2_B5_B30-Perf	Rel-12	Sep.14	100	AT&T	COMPLETE

MCC: WI completed without CR?
RAN4 chair: in RP-141554

36.101: R4-144980 of RP-141554
36.104: R4-145475 of RP-141554
36.133: R4-144671 of RP-141554, 36.133: R4-144682 of RP-141554
36.141: R4-145476 of RP-141554
36.307: R4-145543/R4-145544/R4-145001 of RP-141554

RP-141217 TR 36.853 v2.0.0 on LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) AT&T TR 36.853 RAN4 REL-12 LTE_CA_B2_B5_B30-Core

RAN4 TR 36.853 is provided for approval; note: This TR is generated by WI LTE_CA_B2_B5_B30-Core (the original plan to generate the TR by LTE_CA_B1_B3_B5-Core was modified) but will cover later 3DL inter-band CA WIs in general;

discussion: MCC: there is also a TP provided to RAN #65 in RP-141334, how will this be included?
RAN4 chair: does not want to approve it this time to avoid a larger number of CRs next time, so TPs will be included
AT&T: does it impact the completion of 3DL WIs that have all CRs ready?
MCC: no, if TPs to 36.853 are already provided; this was an agreement we had for TR 36.853 in the past

conclusion: noted

Core and Perf. part are 100% complete in Sep.14

11.8.5.15 LTE Advanced 3 Band CA (3DL/1UL) for Band 2, Band 12 and Band 12
[LTE_CA_B2_B12_B12]

11.8.5.15	620129	LTE_CA_B2_B12_B12-Core	Rel-12	Sep.14	100	AT&T	COMPLETE
11.8.5.15	620229	LTE_CA_B2_B12_B12-Perf	Rel-12	Sep.14	100	AT&T	COMPLETE

MCC: WI completed without CR?
RAN4 chair: in RP-141554; no TP to 36.853 as not critical

36.101: R4-145474 of RP-141554
36.133: R4-144671 of RP-141554, 36.133: R4-144682 of RP-141554
36.307: R4-145540/R4-145541/R4-145542 of RP-141554

No CRs needed for 36.104 and 36.141 (in contrast to what is claimed in WID RP-131654).
Slide 6 of R4-144359 (last bullet and table): If you have inter-band combination with two contiguous CCs in one band there is no extra impact to BS specification if there was already combination agreed with one CC in this Band. As we had in the past combination agreed for B2+12, CRs to 36.104/141 are not needed.

Core and Perf. part are 100% complete in Sep.14.

11.8.5.16 LTE Advanced 3 Band CA (3DL/1UL) for Band 2, Band 12 and Band 30
[LTE_CA_B2_B12_B30]

11.8.5.16	620130	LTE_CA_B2_B12_B30-Core	Rel-12	Sep.14	100	AT&T	COMPLETE
11.8.5.16	620230	LTE_CA_B2_B12_B30-Perf	Rel-12	Sep.14	100	AT&T	COMPLETE

RP-141211 Revised WID: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 2, Band 12 and Band 30 AT&T WID rev RAN4 REL-12 LTE_CA_B2_B12_B30

last approved WID: RP-131652; moving TR 36.853 from "new specifications" to "affected specifications"

discussion: MCC: WI completed without CR?
RAN4 chair: in RP-141554; no TP to 36.853 as not critical
NEC: no revision marks

conclusion: approved; note: It turned out after RAN #65 that this WID has the following errors:
- no revision marks
- Core part not ticked

- no objectives for Perf. part
- not specified which spec is for Core and which spec is for Perf. part
- talking about RAN5 test scenarios which is out-of-scope of Core and Perf. part
- not indicated from which REL onwards this has to be considered REL-independent
- incomplete indication in which WI the 2DL permutations are covered (B2_B30 is covered in REL-12 WI LTE_CA_B2_B5_B30 and B12_B30 is part of this WI but unclear where B2_B12 is covered)

36.101: R4-144980 of RP-141554
36.104: R4-145475 of RP-141554
36.133: R4-144671 of RP-141554, 36.133: R4-144682 of RP-141554
36.141: R4-145476 of RP-141554
36.307: R4-145543/R4-145544/R4-145001 of RP-141554

Core and Perf. part are 100% complete in Sep.14

11.8.5.17 LTE Advanced 3 Band CA (3DL/1UL) for Band 2, Band 29 and Band 30
[LTE_CA_B2_B29_B30]

11.8.5.17	600133	LTE_CA_B2_B29_B30-Core	Rel-12	Sep.14	100	AT&T	COMPLETE
11.8.5.17	600233	LTE_CA_B2_B29_B30-Perf	Rel-12	Sep.14	100	AT&T	COMPLETE

RP-141212 Revised WID: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 2, Band 29 and Band 30
AT&T WID rev RAN4 REL-12 LTE_CA_B2_B29_B30
last approved WID: RP-131697; moving TR 36.853 from "new specifications" to "affected specifications"
discussion: MCC: WI completed without CR?
RAN4 chair: in RP-141554; no TP to 36.853 as not critical
NEC: no revision marks
conclusion: approved; note: It turned out after RAN #65 that this WID has the following errors:
- no revision marks
- Core part not ticked
- no objectives for Perf. part
- not specified which spec is for Core and which spec is for Perf. part
- talking about RAN5 test scenarios which is out-of-scope of Core and Perf. part
- not indicated from which REL onwards this has to be considered REL-independent
- incomplete indication in which WI the 2DL permutations are covered (B2_B30 is covered in REL-12 WI LTE_CA_B2_B5_B30 and B29_B30 is part of this WI but unclear where B2_B29 is covered)

36.101: R4-144980 of RP-141554
36.104: R4-145475 of RP-141554
36.133: R4-144671 of RP-141554, 36.133: R4-144682 of RP-141554
36.141: R4-145476 of RP-141554
36.307: R4-145543/R4-145544/R4-145001 of RP-141554

Core and Perf. part are 100% complete in Sep.14

11.8.5.18 LTE-Advanced 3 Band CA (3DL/1UL) of Band 3, Band 3 and Band 7
[LTE_CA_B3_B3_B7]

11.8.5.18	630128	LTE_CA_B3_B3_B7-Core	Rel-12	Sep.14	100	TeliaSonera	COMPLETE
11.8.5.18	630228	LTE_CA_B3_B3_B7-Perf	Rel-12	Sep.14	100	TeliaSonera	COMPLETE

RP-141126 Revision: LTE-Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 3, Band 3 and Band 7
TeliaSonera WID rev RAN4 REL-12 LTE_CA_B3_B3_B7
last approved WID: RP-140390
discussion: MCC: WI completed without CR?
RAN4 chair: in RP-141554; no TP to 36.853 as not critical
conclusion: approved; note: It turned out after RAN #65 that this WID has the following errors:
- talking about RAN5 conformance tests is out-of-scope of Core and Perf. part
- not indicated from which REL onwards this has to be considered REL-independent

Note: B3_B7 is covered in REL-11 WI LTE_CA_B3_B7 and B3_B3 is part of this WI.
36.101: R4-145474 of RP-141554

36.133: R4-144671 of RP-141554, 36.133: R4-144682 of RP-141554
36.307: R4-145540/R4-145541/R4-145542 of RP-141554
No CRs needed for 36.104 and 36.141 (in contrast to WID RP-141126), see slide 6 of R4-144359 (last bullet and table).

Core/Perf. 100% completed at Sep.14

11.8.5.19 LTE Advanced 3 Band CA (3DL/1UL) of Band 3, Band 7 and Band 7
[LTE_CA_B3_B7_B7]

11.8.5.19	630126	LTE_CA_B3_B7_B7-Core	Rel-12	Sep.14	100	NSN	COMPLETE
11.8.5.19	630226	LTE_CA_B3_B7_B7-Perf	Rel-12	Sep.14	100	NSN	COMPLETE

RP-141196 Revised WID: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 3, Band 7 and Band 7
Nokia Networks WID rev RAN4 REL-12 LTE_CA_B3_B7_B7
last approved WID: RP-140095
discussion: MCC: WI completed without CR?
RAN4 chair: in RP-141554; no TP to 36.853 as not critical
conclusion: approved; note: It turned out after RAN #65 that this WID has the following errors:
- talking about RAN5 conformance tests is out-of-scope of Core and Perf. part
- not indicated from which REL onwards this has to be considered REL-independent
Note: B3_B7 is covered in REL 11 WI LTE_CA_B3_B7, B7_B7 is covered in REL 11 WI LTE_CA_B7 for BW combination set 0 and REL-12 WI LTE_CA_C_B7_BW for BW combination set 1.

36.101: R4-145474 of RP-141554
36.133: R4-144671 of RP-141554, 36.133: R4-144682 of RP-141554
36.307: R4-145540/R4-145541/R4-145542 of RP-141554
Note: After RAN #65t was clarified by the rapporteur that in contrast to WID RP-141196 no CR is needed to 36.104 and 36.141 (referring to a former way forward: R4-144359)..

Core and Perf. part are 100% complete in Sep.14

11.8.5.20 LTE Advanced 3 Band CA (3DL/1UL) for Band 3, Band 7 and Band 20
[LTE_CA_B3_B7_B20]

11.8.5.20	620131	LTE_CA_B3_B7_B20-Core	Rel-12	Sep.14	100	Vodafone	COMPLETE
11.8.5.20	620231	LTE_CA_B3_B7_B20-Perf	Rel-12	Sep.14	100	Vodafone	COMPLETE

RP-141224 Revised WID: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 3, Band 7 and Band 20
Vodafone Group WID rev RAN4 REL-12 LTE_CA_B3_B7_B20
last approved WID: RP-140244 (RAN#63)
discussion: MCC: WI completed without CR?
RAN4 chair: in RP-141554; no TP to 36.853 as not critical
conclusion: approved; note: It turned out after RAN #65 that this WID has the following errors:
- target date for Perf. part is Sep.14 and not June 14 as in the WID
- not specified which spec is for Core and which spec is for Perf. part
- talking about RAN5 conformance tests which is out-of-scope of Core and Perf. part
- not indicated from which REL onwards this has to be considered REL-independent
- incomplete indication in which WI the 2DL permutations are covered (unclear where B3_B7, B3_B20 and B7_B20 is covered)

36.101: R4-145474 of RP-141554
36.104: R4-145475 of RP-141554
36.133: R4-144671 of RP-141554, 36.133: R4-144682 of RP-141554
36.141: R4-145476 of RP-141554
36.307: R4-145540/R4-145541/R4-145542 of RP-141554

Core and Perf. part are 100% complete in Sep.14

11.8.5.21 LTE Advanced 3 Band CA (3DL/1UL) of Band 3, Band 42 and Band 42
[**New WI:** LTE_CA_B3_B42_B42]

Note: See RP-141554 for 36.133 CRs (R4-144682, R4-144671).

RP-141144 Rel-12 Work Item Exception for LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 3, Band 42 and Band 42, core part NTT DOCOMO, INC. ExReq RAN4 REL-12 LTE_CA_B3_B42_B42-Core
conclusion: approved

11.8.5.22 LTE Advanced 3 Band CA (3DL/1UL) for Band 4, Band 4 and Band 13
[LTE_CA_B4_B4_B13]

11.8.5.22	600139	LTE_CA_B4_B4_B13-Core	Rel-12	Sep.14	100	Verizon	COMPLETE
11.8.5.22	600239	LTE_CA_B4_B4_B13-Perf	Rel-12	Sep.14	100	Verizon	COMPLETE

RP-141433 Revised WID: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 4, Band 4 and Band 13 Verizon WID rev RAN4 REL-12 LTE_CA_B4_B4_B13
last approved WID: RP-131683
discussion: MCC: WI completed without CR?
RAN4 chair: in RP-141554; no TP to 36.853 as not critical
NEC: no revision marks
conclusion: approved; note: It turned out after RAN #65 that this WID has the following errors:
- no revision marks
- not specified which spec is for Core and which spec is for Perf. part
- talking about RAN5 conformance tests which is out-of-scope of Core and Perf. part
- not indicated from which REL onwards this has to be considered REL-independent
Note: B4_B4 is covered in REL-12 LTE_CA_NC_B4, B4_B13 is covered in REL-11 WI LTE_CA_B4_B13

36.101: R4-145474 of RP-141554
36.104: R4-145475 of RP-141554
36.133: R4-144671 of RP-141554, 36.133: R4-144682 of RP-141554
36.141: R4-145476 of RP-141554
36.307: R4-145540/R4-145541/R4-145542 of RP-141554

Core and Perf. part are 100% complete in Sep.14

11.8.5.23 LTE Advanced 3 Band CA (3DL/1UL) for Band 4, Band 5, and Band 12
[LTE_CA_B4_B5_B12]

11.8.5.23	620133	LTE_CA_B4_B5_B12-Core	Rel-12	Sep.14	100	U.S. Cellular	COMPLETE
11.8.5.23	620233	LTE_CA_B4_B5_B12-Perf	Rel-12	Sep.14	100	U.S. Cellular	COMPLETE

MCC: WI completed without CR?
RAN4 chair: in RP-141554; no TP to 36.853 as not critical

36.101: R4-145474 of RP-141554, RP-141428
36.104: R4-145475 of RP-141554
36.133: R4-144671 of RP-141554, 36.133: R4-144682 of RP-141554
36.141: R4-145476 of RP-141554
36.307: R4-145540/R4-145541/R4-145542 of RP-141554

Core and Perf. part are 100% complete in Sep.14

11.8.5.24 LTE Advanced 3 Band CA (3DL/1UL) for Band 4, Band 5 and Band 30
[LTE_CA_B4_B5_B30]

11.8.5.24	600134	LTE_CA_B4_B5_B30-Core	Rel-12	Sep.14	100	AT&T	COMPLETE
11.8.5.24	600234	LTE_CA_B4_B5_B30-Perf	Rel-12	Sep.14	100	AT&T	COMPLETE

RP-141213 Revised WID: Revised WID: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 4, Band 5 and Band 30 AT&T WID rev RAN4 REL-12 LTE_CA_B4_B5_B30
last approved WID: RP-131698; moving TR 36.853 from "new specifications" to "affected specifications"
discussion: MCC: WI completed without CR?

RAN4 chair: in RP-141554; no TP to 36.853 as not critical
conclusion: approved; note: It turned out after RAN #65 that this WID has the following errors:
- no revision marks
- Core part not ticked
- no objectives for Perf. part
- not specified which spec is for Core and which spec is for Perf. part
- talking about RAN5 test scenarios which is out-of-scope of Core and Perf. part
- not indicated from which REL onwards this has to be considered REL-independent
- incomplete indication in which WI the 2DL permutations are covered (B5_B30 is covered in REL-12 WI LTE_CA_B2_B5_B30 and B4_B30 is part of this WI but unclear where B4_B5 is covered)

36.101: R4-144980 of RP-141554, RP-141428
36.104: R4-145475 of RP-141554
36.133: R4-144671 of RP-141554, 36.133: R4-144682 of RP-141554
36.141: R4-145476 of RP-141554
36.307: R4-145543/R4-145544/R4-145001 of RP-141554

Core and Perf. part are 100% complete in Sep.14

11.8.5.25 LTE Advanced 3 Band CA (3DL/1UL) for Band 4, Band 12 and Band 12
[LTE_CA_B4_B12_B12]

11.8.5.25	620134	LTE_CA_B4_B12_B12-Core	Rel-12	Sep.14	100	AT&T	COMPLETE
11.8.5.25	620234	LTE_CA_B4_B12_B12-Perf	Rel-12	Sep.14	100	AT&T	COMPLETE

MCC: WI completed without CR?
RAN4 chair: in RP-141554; no TP to 36.853 as not critical

36.101: R4-145474 of RP-141554, RP-141428
36.133: R4-144671 of RP-141554, 36.133: R4-144682 of RP-141554
36.307: R4-145540/R4-145541/R4-145542 of RP-141554

No CRs needed for 36.104 and 36.141 (in contrast to what is claimed in WID RP-131655).
Slide 6 of R4-144359 (last bullet and table): If you have inter-band combination with two contiguous CCs in one band there is no extra impact to BS specification if there was already combination agreed with one CC in this Band. As we had in the past combination agreed for B4+12, CRs to 36.104/141 are not needed.

Core and Perf. part are 100% complete in Sep.14.

11.8.5.26 LTE Advanced 3 Band CA (3DL/1UL) for Band 4, Band 12 and Band 30
[LTE_CA_B4_B12_B30]

11.8.5.26	620135	LTE_CA_B4_B12_B30-Core	Rel-12	Sep.14	100	AT&T	COMPLETE
11.8.5.26	620235	LTE_CA_B4_B12_B30-Perf	Rel-12	Sep.14	100	AT&T	COMPLETE

RP-141214 Revised WID: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 4, Band 12 and Band 30
AT&T WID rev RAN4 REL-12 LTE_CA_B4_B12_B30
last approved WID: RP-131653; moving TR 36.853 from "new specifications" to "affected specifications"
discussion: MCC: WI completed without CR?
RAN4 chair: in RP-141554; no TP to 36.853 as not critical
conclusion: approved; note: It turned out after RAN #65 that this WID has the following errors:
- no revision marks
- Core part not ticked
- no objectives for Perf. part
- not specified which spec is for Core and which spec is for Perf. part
- talking about RAN5 test scenarios which is out-of-scope of Core and Perf. part
- not indicated from which REL onwards this has to be considered REL-independent
- incomplete indication in which WI the 2DL permutations are covered (B4_B30 is covered in REL-12 WI LTE_CA_B4_B5_B30 but B2_B30 is not part of this WI and unclear where B4_B12 or B12_B30 is covered)

36.101: R4-144980 of RP-141554
36.104: R4-145475 of RP-141554
36.133: R4-144671 of RP-141554, 36.133: R4-144682 of RP-141554
36.141: R4-145476 of RP-141554
36.307: R4-145543/R4-145544/R4-145001 of RP-141554

Core and Perf. part are 100% complete in Sep.14.

11.8.5.27 LTE Advanced 3 Band CA (3DL/1UL) for Band 4, Band 29 and Band 30
[LTE_CA_B4_B29_B30]

11.8.5.27	600136	LTE_CA_B4_B29_B30-Core	Rel-12	Sep.14	100	AT&T	COMPLETE
11.8.5.27	600236	LTE_CA_B4_B29_B30-Perf	Rel-12	Sep.14	100	AT&T	COMPLETE

RP-141215 Revised WID: Revised WID: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 4, Band 29 and Band 30 AT&T WID rev RAN4 REL-12 LTE_CA_B4_B29_B30
last approved WID: RP-131699; moving TR 36.853 from "new specifications" to "affected specifications"
discussion: MCC: WI completed without CR?
RAN4 chair: in RP-141554; no TP to 36.853 as not critical
conclusion: approved; note: It turned out after RAN #65 that this WID has the following errors:
- no revision marks
- Core part not ticked
- no objectives for Perf. part
- not specified which spec is for Core and which spec is for Perf. part
- talking about RAN5 test scenarios which is out-of-scope of Core and Perf. part
- not indicated from which REL onwards this has to be considered REL-independent
- incomplete indication in which WI the 2DL permutations are covered (B4_B30 is covered in REL-12 WI LTE_CA_B4_B5_B30, B29_B30 is covered in REL-12 WI LTE_CA_B2_B29_B30 but unclear where B4_B29 is covered)

36.101: R4-144980 of RP-141554
36.104: R4-145475 of RP-141554
36.133: R4-144671 of RP-141554, 36.133: R4-144682 of RP-141554
36.141: R4-145476 of RP-141554
36.307: R4-145543/R4-145544/R4-145001 of RP-141554

Core and Perf. part are 100% complete in Sep.14.

11.8.5.28 LTE Advanced 3 Band CA (3DL/1UL) for Band 7, Band 8 and Band 20
[LTE_CA_B7_B8_B20]

Note: See RP-141554 for 36.133 CRs (R4-144682, R4-144671).

RP-141622 Exception request sheet for WI Core part: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 7, Band 8 and Band 20 Vodafone ExReq REL-12 LTE_CA_B7_B8_B20-Core
conclusion: approved

11.8.5.29 LTE Advanced 3 Band CA (3DL/1UL) of Band 19, Band 42 and Band 42
[**New WI:** LTE_CA_B19_B42_B42]

11.8.5.29	640129	LTE_CA_B19_B42_B42-Core	Rel-12	Sep.14	100	NTT DOCOMO	COMPLETE
11.8.5.29	640229	LTE_CA_B19_B42_B42-Perf	Rel-12	Sep.14	100	NTT DOCOMO	COMPLETE

RP-141557 CRs for LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 19, Band 42 and Band 42 RAN4 CR set REL-12 LTE_CA_B19_B42_B42-Core, LTE_CA_B19_B42_B42-Perf
conclusion: approved

Note: See RP-141554 for 36.133 CRs (R4-144682, R4-144671). No CRs to 36.307 (in contrast to WID RP-141007) as this CA combination starts just from REL-12 onwards (so no REL-independent spec needed).

Core and Perf. part are 100% complete in Sep.14.

11.8.6 Intra-band CA related WIs (contiguous 3DL)

11.8.6.1 Core part: Additional bandwidth combination set for LTE Advanced intra-band contiguous Carrier Aggregation in Band 40 for 3DL

[**New WI**: LTE_CA_C_B40_3DL_BW-Core]

11.8.6.1	640135	LTE_CA_C_B40_3DL_BW-Core	Rel-12	Sep.14	100	TeliaSonera	WID update in RAN#65 to include also Performance part of the WI. Release Independence CRs to 36.307 as company contribution to RAN#65

RP-141128 Status Report for Additional bandwidth combination set for LTE Advanced intra-band contiguous Carrier Aggregation in Band 40 for 3DL; rapporteur: TeliaSonera RAN4 Report REL-12 LTE_CA_C_B40_3DL_BW

conclusion: withdrawn as status report is covered by RP-141084

RP-141127 Revised WID: Revision of RP-140950: Additional bandwidth combination set for LTE Advanced intra-band contiguous Carrier Aggregation in Band 40 for 3 DL TeliaSonera WID rev RAN4 REL-12 LTE_CA_C_B40_3DL_BW

last approved WID: RP-140950; note: This revised WID is actually **introducing a Perf. part WI** to a so far Core part only WI; the Perf. part is for the release independence 36.307 specification; WI LTE_CA_C_B40_3DL_BW for adding 15 MHz channel BW to B40 2DL and 3DL CA;

discussion: MCC: what is the % complete and the target of the new Perf. part WI after RAN #65?
RAN4 chair: Perf. part is 100% complete with CRs in RP-141560

conclusion: approved, Core and Perf. part complete in Sep.14

RP-141560 CRs for Additional bandwidth combination set for LTE Advanced intra-band contiguous Carrier Aggregation in Band 40 for 3DL - Core part RAN4 CR set REL-12 LTE_CA_C_B40_3DL_BW-Core

conclusion: approved, note: RP-141560 includes also 36.307 CRs which are for the new Perf. part introduced by RP-141127, therefore the WI code for RP-141560 should rather say: LTE_CA_C_B40_3DL_BW-Core, LTE_CA_C_B40_3DL_BW-Perf

11.8.6.2 LTE Advanced intra-band contiguous Carrier Aggregation in Band 41 for 3DL

[LTE_CA_C_B41_3DL]

11.8.6.2	610122	LTE_CA_C_B41_3DL-Core	Rel-12	Sep.14	100	Alcatel-Lucent	COMPLETE
11.8.6.2	610222	LTE_CA_C_B41_3DL-Perf	Rel-12	March 15	60	Alcatel-Lucent	Determine the performance requirements including those with minimum channel spacing as agreed in R4-145401

RP-141426 TR 36.833-5-41 v1.0.0 on LTE Advanced Carrier Aggregation in Band 41 for 3DL; for information Sprint TR 36.833-5-41 RAN4 REL-12 LTE_CA_C_B41-Perf

RAN4 TR 36.833-5-41 is provided for information

discussion: MCC: TR must be provided for approval in order to declare the WI 100% complete; how can the WI be 100% complete without CRs?
ALU: TR is provided for information as Perf. part remains open and TR is also for Perf. part

conclusion: noted

Note: See RP-141554 for 36.133 CRs (R4-144682, R4-144671).
RAN #64 approved RP-140943 with two 36.101 REL-12 CRs and a set of 36.307 CRs (for REL-10/11/12).
No CRs needed to 36.104 and 36.141 (in contrast to WID RP-140100): see R4-144359 and R4-141948.

Core part is 100% complete in Sep.14.

11.8.7 Intra-band CA related WIs (non-contiguous 3DL)

11.8.7.1 LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 41 for 3 DL [LTE_CA_NC_B41_3DL]

11.8.7.1	620138	LTE_CA_NC_B41_3DL-Core	Rel-12	Sep.14	100	Sprint, Alcatel-Lucent	None, proposals for change to CA_NS_04 were agreed (R4-145564) to be handled under the RAN4 maintenance procedure
11.8.7.1	620238	LTE_CA_NC_B41_3DL-Perf	Rel-12	March 15	60	Sprint, Alcatel-Lucent	Determine the performance requirements including those with minimum channel spacing as agreed in R4-145401

RP-141427 TR 36.833-6-41 v1.0.0 on LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 41 for 3DL; for information Sprint TR 36.833-6-41 RAN4 REL-12 LTE_CA_NC_B41-Perf
RAN4 TR 36.833-6-41 v1.0.0 is provided for information
conclusion: noted

RP-141561 CRs for LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 41 for 3 DL RAN4 CR set REL-12 LTE_CA_NC_B41_3DL-Core, LTE_CA_NC_B41_3DL-Perf
conclusion: approved

Note: See RP-141554 for 36.133 CRs (R4-144682, R4-144671).
RP-141561 includes 36.101 (REL-12) and 36.307 (REL-11/12).
RAN #64 approved RP-140944 with a 36.101 REL-12, a 36.104 and a 36.141 CR.

Core part WI is 100% complete in Sep.14.

11.8.8 Other CA related WIs (for WIs of 11.8.8 a separate status report is required)

11.8.8.1 Perf. part: E-UTRA UE performance requirements for multiple Carrier Aggregation configurations [LTE_CA_Mult-Perf]

RP-141303 Status Report for WI: E-UTRA UE performance requirements for multiple Carrier Aggregation configurations; rapporteur: CMCC RAN4 Report REL-12 LTE_CA_Mult-Perf
conclusion: noted, approved: 10%, March 15

RP-141304 Revised WID Proposal: E-UTRA UE demodulation/CSI performance requirements for multiple Carrier Aggregation configurations CMCC WID rev RAN4 REL-12 LTE_CA_Mult-Perf
last approved WID: RP-140975; change of WID title
conclusion: approved

11.9 Small Technical Enhancements and Improvements for Rel-12 [TEI12]

RAN1:

RP-141486 CRs to 25.215, 25.225 & 36.214 to introduce new E-UTRA RSRQ measurement definition RAN1 CR set REL-12 TEI12
MCC: may be postponed, waiting for RAN2 CRs; reminder: TEI CRs shall affect only 1 WG in 1 quarter otherwise a WI is needed
conclusion: postponed

RAN2:

RP-141511 RAN2 agreed CRs on Small Technical Enhancements and Improvements for Rel-12 RAN2 CR set REL-12 TEI12
conclusion: approved

RAN3:

RP-141514 Correction of Transparent Containers Usage in Annex C RAN3 CR 36.413 1246 2 F REL-12 TEI12
MCC: Linked to CT4 CRs in C4-141584 - C4-141587 (in CP-140500).

conclusion: conditionally approved under the condition that CT #65 approves C4-141584 - C4-141587 in CP-140500;
later: condition is fulfilled, i.e. RP-141514 is approved

RP-141523 TEI12 CRs from RAN3 RAN3 CR set REL-12 TEI12, LCS3-GNSS-UTRAN
MCC: wrong CR version number in the package coverpage
conclusion: revised in RP-141608

RP-141608 TEI12 CRs from RAN3 RAN3 CR set REL-12 TEI12, LCS3-GNSS-UTRAN
revision of RP-141523; MCC: late submission of a revised package (wrong CR version number in the package coverpage)
conclusion: approved

RAN4:

RP-141562 CRs for Small Technical Enhancements and Improvements for Rel-12 RAN4 CR set REL-12 TEI12, LTE_CA-Core
conclusion: approved
Note: This CR package includes CR R4-145566 which has a wrong WI code on the CR cover and should have been submitted under AI 11.8.1.8.

12 Work Items with target Rel-13 (not related to conformance testing)

12.1 Open LTE only related WIs (non-spectrum related)

12.1.1 Core part: Enhanced Signalling for Inter-eNB Coordinated Multi-Point (CoMP) for LTE
[**New:** COMP_LTE_IeNB_sig-Core]

RP-141118 Status report for Core part: Enhanced Signalling for Inter-eNB CoMP; rapporteur: Samsung RAN3 Report REL-13 COMP_LTE_IeNB_sig-Core
MCC: % complete values need to have integer values, so 2.5% is rounded up to 3%
conclusion: noted, approved: 3%, Dec.14

12.2 Open LTE only related WIs (spectrum; CA related)

NOTE: See also agenda item 11.8 for the status of WIs of agenda item 12.2.

12.2.1 Inter-band CA related WIs (1 UL)

12.2.1.1 Additional bandwidth combination set for LTE Advanced inter-band Carrier Aggregation of Band 4 and Band 12 [LTE_CA_B4_B12_BWset]

12.2.1.1	630135	LTE_CA_B4_B12_BWset-Core	Rel-13	Sep.14	100	T-Mobile USA	COMPLETE
12.2.1.1	630235	LTE_CA_B4_B12_BWset-Perf	Rel-13	Sep.14	100	T-Mobile USA	COMPLETE

RP-141235 Revised WID: additional bandwidth combination set for LTE Advanced inter-band Carrier Aggregation of Band 4 and Band 12 T-Mobile USA WID rev RAN4 REL-12 LTE_CA_B4_B12_BWset
last approved WID: RP-140987; revises completion date to RAN #65 because WI is completed; also removes 36.307 because a CR was done before
conclusion: approved

RP-141563 CRs for Additional bandwidth combination set for LTE Advanced inter-band Carrier Aggregation of Band 4 and Band 12 RAN4 CR 36.101 set REL-12 LTE_CA_B4_B12_BWset-Core
discussion: MCC: LTE_CA_B4_B12_BWset-Core was a REL-13 WI so far but as it is completed at RAN #65 it is considered for REL-12
conclusion: approved

Core and Perf. part WI is 100% complete at RAN #65 and both are kept in REL-12.

12.2.1.2 LTE Advanced inter-band Carrier Aggregation of Band 5 and Band 13 [LTE_CA_B5_B13]
No contributions.

12.2.1.3 LTE Advanced inter-band Carrier Aggregation of Band 7 and Band 22 [LTE_CA_B7_B22]
No contributions.

12.2.1.4 LTE Advanced inter-band Carrier Aggregation of Band 8 and Band 27 [LTE_CA_B8_B27]

No contributions.

12.2.2 3 Band Carrier Aggregation (3DL/1UL)

12.2.2.1 LTE Advanced 3 Band CA (3DL/1UL) of Band 1, Band 3 and Band 26 [LTE_CA_B1_B3_B26]
No contributions.

12.2.2.2 LTE Advanced 3 Band CA (3DL/1UL) of Band 1, Band 18 and Band 28 [LTE_CA_B1_B18_B28]

12.2.2.02	630144	LTE_CA_B1_B18_B28-Core	Rel-13	March	50	KDDI	MSD req. for CA_B1_B28

				15			
12.2.2.02	630244	LTE_CA_B1_B18_B28-Perf	Rel-13	March 15	0	KDDI	CR approval

RP-141610 Revised WID for WI LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 1, Band 18 and Band 28 KDDI WID rev RAN4 s (3DL/1UL) REL-13 LTE_CA_B1_B18_B28
last approved WID: RP-140451; revised to take out the permutation B18_B28 into a separate REL-12 WI (see RP-141611)
conclusion: approved; note: It turned out after RAN #65 that this WID has the following errors:
- not indicated from which REL onwards this has to be considered REL-independent
- incomplete indication in which WI the 2DL permutations are covered (unclear where B1_B18, B1_B28 and B18_B28 is covered)

RP-141611 New WI proposal: LTE Advanced inter-band Carrier Aggregation of Band 18 and Band 28 KDDI WID new RAN4 REL-12 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_B18_B28
conclusion: approved; with the approval of the CRs RP-141612, RP-141108- RP-141112, the new REL-12 WI LTE_CA_B18_B28 (WID RP-141611) is completed for Core and Perf. part.

RP-141564 CRs for LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 1, Band 18 and Band 28 RAN4 CR 36.101 2494 1 B REL-13 LTE_CA_B1_B18_B28-Core
MCC: LTE_CA_B1_B18_B28-Core is a REL-13 WI that is not completed at RAN #65 (50%) so it is not yet possible to bring CRs for this; if it is necessary to extract a 2DL combination that is completed then a REL-12 WI for 2DL is required and CRs must have corresponding WI code; CR is currently based on REL-12 but for a REL-13 WI and just covers B18_B28 aspects;
conclusion: revised in RP-141612

RP-141612 Introduction of inter-band CA_18-28 into TS36.101 KDDI CR 36.101 2494 2 B REL-12 LTE_CA_B18_B28-Core
company CR to replace RAN4 agreed CR RP-141564 just to take a new WI code acc. to new WI proposal RP-141611
conclusion: approved

RP-141108 Introduction of inter-band CA_18-28 into TS36.104 KDDI CR 36.104 0571 1 B REL-12 LTE_CA_B18_B28-Core
company CR since there was no time to agree R4-144660 (CR0571) in RAN4#72, i.e. not treated there; CR uses a WI code related to a new REL-12 WI proposal in RP-141611
conclusion: approved

RP-141109 Introduction of inter-band CA_18-28 into TS36.141 KDDI CR 36.141 0638 1 B REL-12 LTE_CA_B18_B28-Perf
company CR since there was no time to agree R4-144661 (CR0638) in RAN4#72, i.e. not treated there; CR uses a WI code related to a new REL-12 WI proposal in RP-141611
conclusion: approved

RP-141110 [Rel-12] Introduction of inter-band CA_18-28 into TS36.307 KDDI CR 36.307 0388 1 B REL-12 LTE_CA_B18_B28-Perf
company CR since there was no time to agree R4-144662 (CR0388) in RAN4#72, i.e. not treated there; CR uses a WI code related to a new REL-12 WI proposal in RP-141611
conclusion: approved

RP-141111 [Rel-11] Introduction of inter-band CA_18-28 into TS36.307 KDDI CR 36.307 0389 1 B REL-11 LTE_CA_B18_B28-Perf
company CR since there was no time to agree R4-144663 (CR0389) in RAN4#72, i.e. not treated there; CR uses a WI code related to a new REL-12 WI proposal in RP-141611
conclusion: approved

RP-141112 [Rel-10] Introduction of inter-band CA_18-28 into TS36.307 KDDI CR 36.307 0390 1 B REL-10 LTE_CA_B18_B28-Perf
company CR since there was no time to agree R4-144664 (CR0390) in RAN4#72, i.e. not treated there; CR uses a WI code related to a new REL-12 WI proposal in RP-141611
conclusion: approved

Note: Although the 2DL combination B18_B28 was extracted from the REL-13 3DL WI LTE_CA_B1_B18_B28 into the REL-12 2DL WI LTE_CA_B18_B28, the status remains: LTE_CA_B1_B18_B28-Core: 50%, March 15; LTE_CA_B1_B18_B28-Perf: 0%, March 15.

12.2.2.3 LTE Advanced 3 Band CA (3DL/1UL) of Band 1, Band 41 and Band 41

[**New WI**: LTE_CA_B1_B41_B41]

No contributions.

12.2.2.4 LTE Advanced 3 Band CA (3DL/1UL) of Band 2, Band 2 and Band 5

[LTE_CA_B2_B2_B5]

No contributions.

12.2.2.5 LTE Advanced 3 Band CA (3DL/1UL) of Band 2, Band 2 and Band 12

[**New WI**: LTE_CA_B2_B2_B12]

RP-141232 Revised WID: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 2, Band 2 and Band 12
U.S. Cellular WID rev RAN4 REL-13 LTE_CA_B2_B2_B12

last approved WID: RP-140647; change of TR number from TR 36.853, which was assigned for REL-12 (3DL/1UL) CA combinations, to TR36.xxx (yet to be assigned for REL-13 (3DL/1UL) CA combinations)

conclusion: approved; note: It turned out after RAN #65 that this WID has the following errors:
- targets in the WID (Core: March 15, Perf.: June 15; modified without revision marks (!) compared to RP-140647) are wrong as in contrast to the report in RP-141084 (Core: Dec.14, Perf.: March 15)
- talking about RAN5 conformance tests which is out-of-scope of Core and Perf. part
- not indicated from which REL onwards this has to be considered REL-independent

Note: B2_B2 is covered by REL-12 LTE_CA_B2_B2_B13, B2_B12 is covered by REL-12 WI LTE_CA_B2_B12.

12.2.2.6 LTE Advanced 3 Band CA (3DL/1UL) of Band 2, Band 4 and Band 4

[LTE_CA_B2_B4_B4]

12.2.2.06	630138	LTE_CA_B2_B4_B4-Core	Rel-13	Sep.14	100	T-Mobile USA	COMPLETE
12.2.2.06	630238	LTE_CA_B2_B4_B4-Perf	Rel-13	Sep.14	100	T-Mobile USA	COMPLETE

RP-141236 Revised WID: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 2, Band 4, and Band 4
T-Mobile USA WID rev RAN4 REL-12 LTE_CA_B2_B4_B4

last approved WID: RP-140117; revises the completion date to RAN #65 because the WI is completed

conclusion: approved; note: It turned out after RAN #65 that this WID has the following errors:
- talking about RAN5 conformance tests which is out-of-scope of Core and Perf. part
- not indicated from which REL onwards this has to be considered REL-independent

Note: B2_B4 is covered by REL-12 LTE_CA_B2_B4, B4_B4 is covered by REL-12 WI LTE_CA_NC_B4.

Note: It was verified after RAN #65 that none of the CRs in RP-141554 list the WI codes LTE_CA_B2_B4_B4-Core or LTE_CA_B2_B4_B4-Perf in the WI code fields. But these were errors on CR cover sheets in RP-141554, related CRs to this WI are (confirmed by LTE_CA_B2_B4_B4 rapporteur):

36.101: R4-145474 of RP-141554
36.104: R4-145475 of RP-141554
36.133: R4-144671 of RP-141554, 36.133: R4-144682 of RP-141554
36.141: R4-145476 of RP-141554
36.307: R4-145540/R4-145541/R4-145542 of RP-141554

Core and Perf. part 100% complete in Sep.14

12.2.2.7 LTE Advanced 3 Band CA (3DL/1UL) of Band 2, Band 5 and Band 13

[LTE_CA_B2_B5_B13]

No contributions.

12.2.2.8 LTE Advanced 3 Band CA (3DL/1UL) for Band 3, Band 3 and Band 8

[**New WI**: LTE_CA_B3_B3_B8]

No contributions.

12.2.2.9 LTE Advanced 3 Band CA (3DL/1UL) for Band 3, Band 8 and Band 27
[LTE_CA_B3_B8_B27]

No contributions.

12.2.2.10 LTE Advanced 3 Band CA (3DL/1UL) of Band 4, Band 4 and Band 5
[LTE_CA_B4_B4_B5]

No contributions.

12.2.2.11 LTE Advanced 3 Band CA (3DL/1UL) of Band 4, Band 4 and Band 7
[**New WI:** LTE_CA_B4_B4_B7]

No contributions.

12.2.2.12 LTE Advanced 3 Band CA (3DL/1UL) of Band 4, Band 4 and Band 12
[LTE_CA_B4_B4_B12]

12.2.2.12	630137	LTE_CA_B4_B4_B12-Core	Rel-13	Dec.14	90	T-Mobile USA	Band 4 UE refsens is still TBD in agreed CR R4-145540.
12.2.2.12	630237	LTE_CA_B4_B4_B12-Perf	Rel-13	Dec.14	98	T-Mobile USA	36.307 CRs were agreed because 36.101 CR in R4-145540 was agreed. Because UE refsens is TBD the completion level for perf WI is 98%.

Sprint: RP-141428 was approved for 36.101
MCC: were any other CRs on this WI approved in the past?
RAN4 chair: no, RAN4 agreed CRs at RAN4 #72 in Dresden
MCC: so in which RAN CR pack are they?
RAN4 chair: needs to double-check
RAN4 chair: see RP-141554 (36.101 CR in RP-145474 and 36.307 CRs in R4-145540/R4-145541/R4-145542).
Note: It was verified after RAN #65 that none of the CRs in RP-141554 list the WI codes LTE_CA_B4_B4_B12-Core or LTE_CA_B4_B4_B12-Perf in the WI code fields. But these were errors on CR cover sheets in RP-141554, related CRs to this WI are (confirmed by LTE_CA_B4_B4_B12 rapporteur):

36.101: R4-145474 of RP-141554, RP-141428
36.104: R4-145475 of RP-141554
36.133: R4-144671 and R4-144682 of RP-141554, 36.133
36.141: R4-145476 of RP-141554
36.307: R4-145540/R4-145541/R4-145542 of RP-141554

This means the WIs LTE_CA_B4_B4_B12-Core, LTE_CA_B4_B4_B12-Perf stay in REL-12 with corresponding REL-12 CRs and Core and Perf. parts are 100% in Sep,14.

RP-141709 Revised WID: LTE Advanced 3 Band CA (3DL/1UL) of Band 4, Band 4 and Band 12 T-Mobile WID rev RAN4 REL-13 LTE_CA_B4_B4_B12
latest approved WID: RP-140116
conclusion: approved, note: with the early completion of the work the WI is moved from REL-13 to REL-12;note: It turned out after RAN #65 that this WID has the following errors:
- talking about RAN5 conformance tests which is out-of-scope of Core and Perf. part
- not indicated from which REL onwards this has to be considered REL-independent
Note: B4_B4 is covered in REL-12 WI LTE_CA_NC_B4, B4_B12 is covered in REL-12 WI LTE_CA_B2_B4_B12

12.2.2.13 LTE Advanced 3 Band CA (3DL/1UL) of Band 4, Band 5 and Band 13
[LTE_CA_B4_B5_B13]

No contributions.

12.2.2.14 LTE Advanced 3 Band CA (3DL/1UL) of Band 4, Band 7 and Band 12
[**New WI**: LTE_CA_B4_B7_B12]

No contributions.

12.2.2.15 LTE Advanced 3 Band CA (3DL/1UL) of Band 26, Band 41 and Band 41
[**New WI**: LTE_CA_B26_B41_B41]

No contributions.

12.2.2.16 LTE Advanced 3 Band CA (3DL/1UL) of Band 39, Band 41 and Band 41
[**New WI**: LTE_CA_B39_B41_B41]

No contributions.

12.2.2.17 LTE Advanced 3 Band CA (3DL/1UL) of Band 41, Band 42 and Band 42
[**New WI**: LTE_CA_B41_B42_B42]

No contributions.

12.3 Open LTE only related WIs (spectrum; not CA related)

12.3.1 LTE in the 1670-1675MHz Band for US [LTE_FDD_1670_US] WI on hold until Sep.14

RP-141452 Status Report for WI LTE in the 1670-1675MHz Band for US; rapporteur: Lightsquared RAN4 Report REL-13 LTE_FDD_1670_US
discussion: MCC: late submission; this WI was moved from REL-11 to REL-12 and to REL-13 and it is still kept on hold SI until FS_LTE_FDD_1670_US is completed
RAN4 chair: no activity for the SI either
conclusion: noted, approved: Core: 15%, June 15; Perf.: 5%, Sep.15; Core & Perf. part WI are stopped (with the understanding that the SI will be kept open so far and a new WI can be opened for a WI in the future if necessary)

12.3.2 2GHz FDD LTE Band for Region 1 (1980-2010MHz and 2170-2200MHz Bands) [LTE_1980_2170_REG1]

RP-141100 Status Report for 2GHz FDD LTE Band for Region 1 (1980-2010MHz and 2170-2200MHz Bands); rapporteur: DISH Network RAN4 Report REL-13 LTE_1980_2170_REG1
discussion: MCC: status report is not provided for Perf. part
conclusion: revised in RP-141627

RP-141627 Status Report for WI 2GHz FDD LTE Band for Region 1 (1980-2010MHz and 2170-2200MHz Bands); rapporteur: DISH Network RAN4 Report REL-13 LTE_1980_2170_REG1
MCC: revision of flagged status report in RP-141100
discussion: MCC: Perf. part is included (box not ticked)
conclusion: noted, approved: Core: 5%, June 15; Perf.: 0%, June 15

RP-141184 2 GHz band plan selection for Region 1 DISH Network, Solaris Mobile, Ltd. Disc REL-13 LTE_1980_2170_REG1
Observation #2: The Region 1 licensee, Solaris Mobile and DISH Network, prefers the 90x90MHz option
It is proposed that RAN select the 90x90MHz band plan option for Region 1 given the preference of the Region 1 licensee and operators.
Note: In contrast to RP-141184, Deutsche Telekom does not support the 2x90MHz option.
discussion: NTT DOCOMO: 2x90MHz preferred by Region1 operartors would affect band 1 later but band 1 is available globally, would know who prefers 2x30MHz
Dish: we should focus on region 1 requirements here (WI was split into 2 WIs in the past)
TeliaSonera: prefers 2x30MHz and is a region 1 operator
Qualcomm: what is meant by "band specific band plan"?
Dish: it seems RAN is taking votes on business plans now
Ericsson: nothing is settled for region 3 so far, we should listen to what the licensee wants
Orange: 2x90MHz option would have performance impact on operation of band 1?
Etisalat: band 1 is a global band and should not allow fragmentation for it
Ericsson: we could add to WID that existing performance should be kept, we can discuss a corresponding sentence offline
RAN chair: maybe it is a way to go to address the concerns of NTT DOCOMO, TeliaSonera, Orange etc.
Orange: band 1 has quite some margin and therefore we shall not have any impact on band 1 performance
RAN chair: "shall not have any impact on band 1 performance" can be added to the WID and if it turns out that there is impact we stop working on the WI
Qualcomm: then we need to stop already now as with 2x90MHz you will have a switch with has some loss
Dish: fine with the wording but same was done in the past

Orange: today there is no 2x90MHz for this band in Europe
Etisalat: insertion loss by switch with 2x30MHz?
Qualcomm: 0.5-1dB loss expected for 2x90MHz which would not apply for 2x30MHz
ALU: of course a new band can not change the perf. of an existing band so we need to phrase the sentence carefully
NTT DOCOMO: in RAN4 we have some relaxation if 2 bands are supported
Dish: the topic is ongoing for 2 years and some companies are raising concerns that never spoke up in RAN4 so we really need to solve this

conclusion: noted, offline discussion to revise the WID in RP-141628

RP-141628 Revised WID for WI 2GHz FDD LTE Band for Region 1 (1980-2010MHz and 2170-2200MHz Bands)
DISH Network WID rev RAN4 REL-13 LTE_1980_2170_REG1

last approved WID: RP-141009

discussion: NTT DOCOMO: wants to modify the WID again
Dish: wants to keep it as is as this is what the chair said
Vodafone: we meant "good start for further discussion" but not exactly as it is
Ericsson: impact on band 1 to be studied so give 1 more quarter
RAN chair: ... to complete the band plan
Dish: we do not want to come back to 2x30MHz with this study phase
Vodafone: would like to avoid the term band 1 but use "UEs operating in frequency range ..."
Ericsson: we make an assumption about 2x90MHz
Motorola Solutions: we never had a requirement like this on overlapping bits, it may create a precedence case for the future
Qualcomm: here operators did not agree
Vodafone: we do not want to screw up the performance of our band
RAN chair: proposal: start with 2x90MHz, evaluate impacts on band 1920-1980/2110-2130MHz, if impacts on system performance or existing requirements of band 1, we shall revisit band plan assumption
Dish: how do we evaluate system performance?
Sprint: we agree with the concern from Motorola, e.g. band 26
Orange: 2x30MHz is sufficient to fulfill requirements in Europe

conclusion: revised in RP-141710, start with 2x90MHz, evaluate impacts on band 1920-1980/2110-2130MHz, if impacts on performance or changes of existing requirements of band 1, we will revisit band plan assumption (exact wording in RP-141710)

RP-141710 Revised WID for WI 2GHz FDD LTE Band for Region 1 (1980-2010MHz and 2170-2200MHz Bands)
DISH Network WID rev RAN4 REL-13 LTE_1980_2170_REG1

discussion: Qualcomm: we are not supporting company of this WI and want to be removed
RAN chair: is minuted and can be corrected next time

conclusion: approved

13 Study Items

NOTE: REL-12 SIs not completed by the freeze of REL-12 will be shifted to REL-13.

13.1 Closed study items

No contributions.

13.2 Open UTRA & LTE related SIs

13.2.1 REL-12 Study on 2GHz FDD for UTRA and LTE in Region 1 1980-2010MHz and 2170-2200MHz Bands [FS_UTRA_LTE_1980_2170_REG1]

RP-141099 Status Report for FS_UTRA_LTE_1980_2170_REG1; rapporteur: DISH Network RAN4 Report REL-12 FS_UTRA_LTE_1980_2170_REG1
discussion: MCC: wrong target date June 14
conclusion: noted, approved: 100%, Sep.14; SI completed

RP-141565 CRs for REL-12 Study on 2GHz FDD for UTRA and LTE in Region 1 1980-2010MHz and 2170-2200MHz Bands RAN4 CR37.846set REL-12 FS_UTRA_LTE_1980_2170_REG1
conclusion: approved

13.2.2 REL-13 Study on Multi-RAT Joint coordination [FS_MultiRAT_JC]

RP-141301 Status Report for SI: Study on Multi-RAT Joint Coordination; rapporteur: CMCC RAN3 Report REL-13 FS_MultiRAT_JC
conclusion: noted, approved: 50%, Dec.14

13.2.3 REL-13 Study on Indoor Positioning Enhancements for UTRA and LTE [FS_UTRA_LTE_iPos_enh]

RP-141101 Status report for SI Study on Indoor Positioning Enhancements for UTRA and LTE; rapporteur: NextNavRAN1 Report REL-13 FS_UTRA_LTE_iPos_enh
conclusion: noted, approved: 0%, Sep.15

RP-141102 Revised SID: Study on Indoor Positioning Enhancements for UTRA and LTE NextNav SID rev RAN1 REL-13 FS_UTRA_LTE_iPos_enh
last approved SID: RP-141003
conclusion: approved

13.3 Open LTE only related SIs

13.3.1 REL-12 Study on LTE FDD in the bands 1980-2010 MHz and 2170-2200 MHz [FS_LTE_1980_2170_Korea]

RP-141153 Status Report for SI Study on LTE FDD in the bands 1980-2010 MHz and 2170-2200 MHz; rapporteur: KT RAN4 Report REL-12 FS_LTE_1980_2170_Korea
conclusion: noted, approved: 85, Dec.14; SI is moved from REL-12 to REL-13 by RAN #65

RP-141154 Revised SID: Study on LTE FDD in the bands 1980-2010 MHz and 2170-2200 MHz KTSID rev RAN4 REL-12 FS_LTE_1980_2170_Korea
last approved SID: RP-140121; note: rapporteur and target date changed (now for REL-13)
conclusion: approved

13.3.2 REL-12 Study on 3D-channel model for Elevation Beamforming and FD-MIMO studies for LTE [FS_LTE_3D_channel]

RP-141206 Status report for SI: 3D-channel model for Elevation Beamforming and FD-MIMO studies for LTE; rapporteur: Nokia Networks RAN1 Report REL-12 FS_LTE_3D_channel
conclusion: noted, approved: 100%, Sep.14;SI completed

RP-141207 TR36.873 v2.1.0 on Study on 3D channel model for LTE Nokia Networks TR 36.873 RAN1 REL-12 FS_LTE_3D_channel
RAN1 TR 36.873 is provided for approval
conclusion: TR 36.873 is approved as v12.0.0

RP-141237 Revised SID: Study on 3D-channel model for Elevation Beamforming and FD-MIMO studies for LTE Nokia Networks SID rev RAN1 REL-12 FS_LTE_3D_channel
last approved SID: RP-130811, revision of target date
conclusion: approved

13.3.3 REL-12 Study on Expansion of LTE_FDD_1670_US to include 1670-1680MHz Band for LTE in the US [FS_LTE_FDD_1670_US]

RP-141453 Status Report for SI Study on Expansion of LTE_FDD_1670_US to include 1670-1680MHz Band for LTE in the US (rapporteur: LightSquared) RAN4 Report REL-12 FS_LTE_FDD_1670_US
discussion: MCC: late submission; SI has to be shifted from REL-12 to REL-13 however TR 36.844 REL-12 is under CR control since RAN #63
conclusion: noted, approved: 80%, Dec.14; SI is shifted from REL-12 to REL-13 by RAN #65

13.3.4 REL-13 Study on Positioning enhancements for E-UTRA [FS_LCSenh_LTE]

RP-141254 Status report for SI: Study on Positioning enhancements for E-UTRA, rapporteur: Huawei RAN4 Report REL-13 FS_LCSenh_LTE
conclusion: noted, approved: 95%, Dec.14

13.3.5 REL-13 Study on MIMO OTA antenna test function for LTE [FS_LTE_MIMO_OTA_ATF]

RP-141124 Status Report Study on MIMO OTA antenna test function for LTE; rapporteur: Keysight Technologies (formerly: Agilent) RAN5 Report 36.978 REL-13 FS_LTE_MIMO_OTA_ATF
conclusion: noted, approved: 60%, Dec.14

RP-141125 TR 36.978 v1.0.0 on UE Antenna test function definition for two-stage MIMO OTA test method; for information Keysight Technologies TR 36.978 RAN5 REL-13 FS_LTE_MIMO_OTA_ATF
RAN5 TR 36.978 is provided for information.
conclusion: noted

RP-141597 RAN5 agreed non TTCN CR(s) under WI SI - REL-13 Study on MIMO OTA antenna test function for LTE (FS_LTE_MIMO_OTA_ATF) RAN5 CR 36.509 0029 - F REL-13 FS_LTE_MIMO_OTA_ATF
discussion: MCC: SI with CR to TS 36.509? A SI can have no impact on a TS. Please take this into account for future SIs.
conclusion: approved

RP-141325 Revised SID for MIMO OTA antenna test function Keysight Technologies SID rev RAN5 REL-13 FS_LTE_MIMO_OTA_ATF
last approved SID: RP-140985; change of rapporteur company name, update to supporting companies, correction to objectives.
conclusion: approved, rapporteurship changed to Keysight Technologies (change of company name)

13.3.6 REL-13 Study on Advanced Wireless Services (AWS)-Extension band for LTE [FS_LTE_AWS_EXT]

RP-141429 Status report for Study on Advanced Wireless Services (AWS) - Extension band for LTE; rapporteur: Qualcomm RAN4 Report REL-13 FS_LTE_AWS_EXT
conclusion: noted, approved: 10%, Dec.14

14 New Work Items/Study Items

NOTE:
- No new REL-12 WIs/SIs will be approved at the RAN meeting where REL-12 is frozen.
- The approval of new REL-13 WIs/SIs at RAN #65 depends on whether there is time left in affected WGs after taking into account completion of open REL-11/REL-12 WIs/SIs and already approved REL-13 WIs/SIs;
  Spectrum related REL-13 RAN4 WIs/SIs are excluded from this restriction.
- For non-spectrum related items, as already noted in RAN#64, it is very unlikely that RAN2 and RAN4 will start working on new Rel-13 items in the next quarter as these groups will be busy with REL-12 completion until the end of the year 2014. On the other hand, RAN1 and RAN3 may start working on new Rel-13 items depending on the availability reported by WG Chairs.
- New RAN5 WIs/SIs and the topic "Supplemental Downlink for TD-LTE" are excluded from the restrictions of the two bullets above.

Time budgets:
RAN #64 endorsed as outcome of the meeting: RP-141040.

RP-141640 Status of time budgets for RAN1/2/3/4 REL-12 & REL-13 WIs/SIs after RAN #65 RAN1/RAN2/RAN3/RAN4 chairmen Report REL-12 -
conclusion: endorsed

14.1 New core functions

Note: The following documents will be treated after a first pass through Tdocs that are for approval in AI 14.1.x.

RP-141423 Views on Rel-13 proposals at RAN#65 Huawei, HiSilicon Disc REL-13 -
It is proposed for TSG RAN to start the following RAN1-leading studies at RAN#65, as the first batch of Physical layer LTE Rel-13 topics.
- *Study on Licensed-Assisted Access using LTE*
- *3D beamforming and FD-MIMO*
- *Study on Indoor Positioning Enhancements for UTRA and LTE (approved RAN#64 in RP-141003)*

conclusion: noted

RP-141395 Timeframes and content for Releases 12, 13 and future releases Alcatel-Lucent, Alcatel-Lucent Shanghai Bell Disc REL-12 -
Proposal 1: Keep the Rel-12 functional freeze date unchanged at RAN#65, and approve exception sheets at RAN#65 for the WIs that can reasonably be expected to be completed within the next three months.
Proposal 2: Confirm the planned functional freeze date for Rel-13 as December 2015.
Proposal 3: Rel-13 should be carefully focused on a small number of high-priority work items.
Proposal 4: Time budget requests should be realistic, and should not be reduced just for the sake of getting an item approved.
Proposal 5: Only the following Rel-13 LTE items should start in RAN1 in Q4 2014 (in addition to the already-approved SI on indoor positioning):
- *Study on Licensed-Assisted Access using LTE: 7 TUs*
- *Further LTE Physical Layer Enhancements for MTC: 3TUs*

Proposal 6: The following Rel-13 LTE items may start in RAN1 in Q1 2015:
- *Study on Elevation beamforming and FD-MIMO*

Proposal 7: No RAN2 Rel-13 LTE items should be approved in RAN#65.
Proposal 8: No fundamental changes to release operation and management are implemented in Release 13.
Proposal 9: For subsequent releases, the release length is chosen at the start of the release based on the duration required for selected high-priority features.

discussion: RAN chair: so RP-141423 and RP-141395 are proposing LAA to start, while RP-141423 proposed to also start FD-MIMO it seems RP-141395 supports to start some MTC enhancements
RAN1 chair: proposes to have further offline discussion on this
Vodafone: On D2D 56% more time was spent than what was originally allocated so it seems they need the time to finish RAN1 work by Oct.
RAN chair: we will at first stabilize the existing WIs/SIs
Vodafone: ASN.1 freeze should stay in March 15 and not slip further
Nokia: were the new proposals like ours taken into account? answer: no the paper was written before
Ericsson: we agreed in way forward about REL-12 continuation at RAN #63 that MTC work will continue in REL-13, that's why we are in favour of Alcatel-Lucent paper but maybe we can come to a compromise to start 3 topics in RAN1 by RAN #65
CATT: would be useful to break down of time units for different tasks for the new topics so that we better know whether this is realistic
Samsung: MTC in REL-13 does not mean to start a WI already for the next quarter
LG: necessary to clarify the scope of the MTC WI, apart from coverage enhancements not needed to start much more
Orange: hopes that all 3 topics can start this week, time allocation for MTC needs to be realistic, and we have still the TD-LTE topic
RAN chair: TD-LTE issue is a separate topic that we should not mix here (there is is not a TU issue)
RAN chair: does not see that there is space in RAN1 for 4 topics (like MU-MIMO), so it's more a question of 3 or below topics to be started in RAN1
Orange: some more public safety work will probably also follow in Dec.14
Qualcomm: cost reduction and coverage enhancements are the main topics for MTC and probably easy to be solved as they were studied before; power consumption is a different issue
Mediatek: supports Qualcomm view, RAN1 and RAN2 enhancements are different so supports to start MTC work in the next quarter
Ericsson: MTC work was pushed out of REL-12 so we should start MTC soon for REL-13
Huawei: not all parts of MTC were kicked out of REL-12 and low cost aspect is not that easy to address; power saving aspect was not studied so wondering how this could be included in a WI
RAN1 chair: we could have a look on HSPA WIs/SIs offline
RAN chair: yes, we are discussing here LTE WIs/SIs in RAN1 in next quarter
Orange: long discussions happened about MTC WI and it is aligned with SI
Qualcomm: there are a few points to be taken into account: exception request for D2D, revised SID for indoor positioning ...
RAN chair: as said before: we will look at time budgets for existing WIs/SIs before deciding about new WIs/SIs
Vodafone: maybe we can approve LAA first and then discuss the others
ALU: REL-13 is short and proposals have to be realistic, so we need to focus on key features and market demands for MTC are big
Verizon, AT&T: support to start MTC

conclusion: noted, RAN chair: 3 or less WIs/SIs can be approved for RAN1 in LTE, discuss this further offline; will come back on Thu, after offline discussion a summary was provided in RP-141630

RP-141630 Way forward on RAN1 LTE WIs for REL-13 Ericsson Report REL-13 -
report of offline discussion of Wed afternoon

discussion: RAN chair: RAN1 chair ok with the way forward?
RAN1 chair: yes
Telecom Italia: TEI12 & maintenance includes completion/correction of REL-12 CRs?
RAN1 chair: yes
General Dynamics: all SIs, how long will be REL-13?
RAN chair: REL-13 time frame will be discussed on Thu afternoon
Broadcom: this is way forward for RAN1 which has already impact on other WGs
RAN chair: for RAN2/RAN4 impacts the time planning will be tentative
Ericsson: we have 2 SIs and a WI
Telefonica: approval of new REL-13 WIs will not affect REL-12 completion i.e. the indications may be changed if needed to complete remaining REL-12 WIs?

RAN chair: this is correct, REL-12 has priority over REL-13 WIs
CATT: worried about time allocation handling, we proposed to break down the topics into more detailed parts
LG: we have not yet decided about the scope of the WIs/SIs, e.g. MTC has 3 components; it is a bit strange to agree the time budget and then to fix the scope
RAN chair: suggests to have a maximum overshoot of 50% for time budget but only in exceptional cases
CATT: so 1.5 scaling factor for all time budgets?
Sprint: so we should have a penalty process for overshooting as well, so that we get more realistic time budget requests
RAN chair: does not want to add more restrictions, up to WG chairs
Panasonic: TEI and maintenance has priority and 1.5 scaling factor is not applied, correct?
RAN chair: yes
conclusion: noted, will focus on agreement of the mentioned 3 RAN1 led WIs/SIs:
see RP-141646 (LAA), RP-141645 (MTC) and RP-141644 (FD-MIMO), see AI 14.1.1

14.1.1 WIs/SIs led by RAN1

Blackberry: how do we handle WIs/SIs under RAN1 leadership that have impact on other WGs?

RAN chair: We will look at RAN2 UMTS only and RAN4 spectrum proposals (not on Tue), MIMO OTA is still under discussion (whether it could be handled in parallel).

Telecom Italia, Orange: HSPA WIs will later have impact on RAN4 so we need to take this into account.

RAN chair: accepted, does not assume we will approve a lot of new WIs/SIs

Supplemental downlink (SDL) for TDD LTE:

RP-141183 Motivation for New WI: Supplemental Downlink for TD-LTE NTT DOCOMO, INC. Disc RAN1 REL-12 -
discussion: NTT DOCOMO: configuration can be disabled in certain countries (if needed) to address the concerns we heard in the past, 18 operators are supporting this
conclusion: noted

RP-141182 New WI proposal: Supplemental Downlink for TD-LTE NTT DOCOMO, INC. WID new RAN1 REL-12 -
new WI for LTE only; leading WG: RAN1; no WI code allocated so far due to related CRs in RP-141174, RP-141175, RP-141176, RP-141177
discussion: NTT DOCOMO: wants to change the title to "10:0:0 configuration"
conclusion: postponed

RP-141174 Introduction of supplemental downlink for TD-LTE NTT DOCOMO, INC. CR 36.211 0188 2 B REL-12 TEI12, LTE-Phys
company CR; to introduce Supplemental Downlink for TD-LTE under the new WI proposal
conclusion: postponed

RP-141175 Introduction of supplemental downlink for TD-LTE NTT DOCOMO, INC. CR 36.213 0456 2 B REL-12 TEI12, LTE-Phys
company CR; to introduce Supplemental Downlink for TD-LTE under the new WI proposal
conclusion: postponed

RP-141176 Introduction of supplemental downlink for TD-LTE NTT DOCOMO, INC. CR 36.306 0220 - B REL-12 TEI12, LTE-L23
company CR; to introduce Supplemental Downlink for TD-LTE under the new WI proposal
conclusion: postponed

RP-141177 Introduction of supplemental downlink for TD-LTE NTT DOCOMO, INC. CR 36.331 1637 - B REL-12 TEI12, LTE-L23
company CR; to introduce Supplemental Downlink for TD-LTE under the new WI proposal
conclusion: postponed

RP-141225 Proposed way forward for 'Supplementary downlink for LTE-TDD' Vodafone Group Disc REL-12 -

proposal: Given the wide support of "Downlink only LTE TDD" feature by a large number of mobile operator members of 3GPP, it is proposed that 3GPP RAN at RAN#65 agree to specify this feature with the following restriction within 3GPP specifications:

- *In the same way as any other TDD UL/DL configuration, 3GPP should ensure that the operation of the "Downlink only LTE TDD" (10:0:0) configuration is supported for all frequency bands specified for TDD mode of operation in RAN4 specifications, when paired with another frequency band used as an anchor carrier. Furthermore, 3GPP should ensure that ALL UEs that support "Downlink only LTE TDD" also support other TDD UL/DL configurations.*

discussion: RAN chair: we have now 2 compromise proposals: from NTT DOCOMO to restrict the usage to certain countries and from Vodafone to make sure the UEs supportingDL only support also other TDD UL/DL configurations
CATT: are NTT DOCOMO and Vodafone proposals exclusive?
Vodafone: we do not think that restriction will be workable
CATT: NTT DOCOMO co-signed Vodafone Tdoc
NTT DOCOMO: Vodafone proposal is not option 2

conclusion: noted

RP-141239 Resolution of concerns raised from LTE TDD DL-Only Configurations KT Disc REL-12 -

This contribution is for the discussion to resolve concerns for introducing LTE TDD DL-only configurations

proposal: all remaining concerns are resolved [in this Tdoc] and there should be no reason why RAN plenary should postpone on introducing LTE TDD DL-only configuration

discussion: CATT: ocexistence issue; DL transmission would interfere the TDD operator UL
KT: BS-BS interference should not be an issue as BSs have more stringent requirements
US Cellular: instead of band 17 you should consider rather band 12

conclusion: noted

RP-141258 Discussion on DLonly configurations for TD-LTE CATR Disc REL-13 -

This contribution summaries the impacts of 10:0:0 configuration to TD-LTE.

conclusion: revised in RP-141613

RP-141613 Discussion on DLonly configurations for TD-LTE CATR Disc REL-13 -

Observation1: Introducing new DL-heavy configurations to TDD has severe impacts on inter-operator coexistence in the same TDD band, and poses serious threat to the survival of some TDD operators.

Observation2: standalone operation is essential for TD-LTE. New DL-heavy configurations cannot support standalone operation. Deploying non-standalone carrier suffers from throughput loss when non-CA capable UEs exist and has limited applicable deployment scenarios.

Observation 3: DL only configuration may split the eco-system of terminals and further scatter market scale of terminals.

Observation4: DL only configuration is not TDD. Relating DL only configuration to TDD can lead to fundamental definition issues and possible create messy specifications.

Observation5: The potential gain of the DL only configuration in terms of number of resources available for downlink transmission is limited compared to the existing TDD UL-DL configurations.

Observation6: The potential benefit of the DL only configuration on not requiring network synchronization come with the consequence that many advanced features and their gains cannot be realized.

Proposal: No new DL-only configurations with 10:0:0 or 9:1:0 should be introduced to TD-LTE.

discussion: NTT DOCOMO: Tdoc seems to say in unsynchronized operation TDD doesn't work
RAN chair: up to operators whether they want to use synchronization or not
Orange: some TDD bands are deployed but not used because of co-existence issues, so either you use it as TDD DL only otherwise operators may be pushed to use it for FDD DL only
Sprint: TD SDL looks rather like an FDD DL only but this is more a regulatory issue; but lack of competition would not improve as it will only help people who have UL elsewhere
RAN chair: but also blocking some configurations in the specs will not increase competion
TeliaSonera: observation 1 is relevant but not true (if the mode exists or not operators will need to coordinate), also observation 3 is relevant but with the Vodafone proposal it would rather increase the number of TDD UEs

RAN chair: DL jam in UL needs to be taken into account which is a bit different to adjacent TDD operators
Nokia Networks: if feedback from this meeting is again that there is no progress then there may be some redefinition of TDD bands to FDD DL only in Europe (as we saw from the LS)
RAN chair: we have to find a way forward that addresses both sides
CMCC: operators who have TDD do not want this feature; operators who do not use TDD they want to use this feature so it is obvious that SDL for TD-LTE is not a feature with benefits for TDD
Huawei: we have customers from both sides, reserving guard band is not possible in all countries, we may find some other compromises
RAN chair: we are welcoming all possible proposals
Telecom Italia: restricting the usage of a band (all operators in a certain band and in a certain region need to agree on the usage of the feature before using it) may be beyond the 3GPP scope
Orange: agrees with Telecom Italia but we could hightlight in 3GPP specs what the consequences are so that regulators are aware
RAN chair: just telling a TDD operator you face some risks if you deploy TDD would not be fair
Orange: how many affected TDD operators do we have in the meeting?
NTT DOCOMO: just disabling SDL TD-LTE is not the right way forward

conclusion: noted

Thursday afternoon:

RP-141658 Way forward on the DL only transmission in an unpaired band CATR Disc REL-13 -

compare RP-141613*Way forward proposal:*

- *3GPP may consider introducing a FDD SDL band when there is a regional regulatory requirement for the band; e.g. L band and 718-726 in USA, 2570-2620MHz in Europe if it gets confirmed*
- *DL-only configuration should not be introduced to LTE TDD*
  The IMT 3.5GHz solution needs to accommodate a global interest of standalone operation

discussion: Telecom Italia: non-3GPP members can not co-sign a Tdoc, they can be mentioned in the document
NTT DOCOMO: what is the difference to FDD SDL operator close to operator who uses standalone TDD?
Orange: do the 5 operators (CMCC, China Unicom, China Telecom, UK Broadband, ...) have a concern for a specific TDD band or is it a general concern?
NTT DOCOMO: all Chinese operators do not want to use TD-LTE in China so we have no co-existence issue in China
RAN chair: problems may occur in other countries
Orange: but then we need to have more details for these other countries

conclusion: noted

RP-141663 Way forward on DL only TDD NTT DOCOMO Dis REL-12 -

Proposed way forward:

- *In the same way as any other TDD UL/DL configuration, 3GPP should ensure that the operation of the "Downlink only LTE TDD" (10:0:0) configuration is supported for all frequency bands specified for TDD mode of operation in RAN4 specifications, when paired with another frequency band used as an anchor carrier. Furthermore, 3GPP should ensure that ALL UEs that support "Downlink only LTE TDD" also support other TDD UL/DL configurations.*
- *Introduce a mechanism by which UE disables DL-only TDD capability for a certain frequency band in a certain country*

discussion: RAN chair: so is a merge of both proposal
CATT: based on which information would UE disable this?
NTT DOCOMO: country code via broadcast
AT&T: seems to be a stpe forward: TDD network can ask UEs to stop to use this feature
XX?: the approach does not help if DL only is used in the neighbour band; and we can not force regulator to guarantee that noone in a country uses the feature
CATT: a regulatory requirement should come first
Orange: their is no regulatory requirement that 2 TDD operators have to use the same configuration; we cannot solve regulatory issues in 3GPP
Telefonica: agrees with Orange
CATT: in our view DL only approach is using TDD spectrum as FDD

CMCC: CATR Tdoc has another way forward
Sprint: regulator has a specific usage of the spectrum in mind, if a TDD system uses the DL only configuration you force the other TDD operator to use the same configuation and this is not in line with the regulator's intention
Orange: 3.5GHz is polluting this discussion a bit
RAN chair: if we remove 3.5GHz from the discussion and make band specific assumptions would this be a way forward?
CATT: is you do not have DL only you can use config. 5 and use TDD band so there is no show stopper
Fujitsu: way forward could be: introduce DL only in 3GPP and rely on regulators to limit the usage in certain regions/bands
TeliaSonera: supports Fujitsu
Orange: we could send LS to CEPT to ask to analyse co-existence issue
RAN chair:we could send such an LS to CEPT, Japanese regulator etc.
CATT: we think at first regulators should decide first what a spectrum should be used for

conclusion: revised in RP-141705 on Friday

RP-141705 Way forward on DL only TDD NTT DOCOMO Disc

Way forward proposal (2nd try):

1. *(Bottom line) Enforce in the specification that "Due to potential coexistence issues this configuration:*
   - Shall only be used if in a given geography all operators in the band use the same configuration; and
   - Shall not be used if regulators do not allow it in that geography
2. *WGs are tasked to review the proposed CRs in RAN#65 and provide the technical endorsed CRs for approval into the Rel-12 specification at RAN#66.*

discussion: CATR: is not a compromise for us
CMCC: how is this binding for regulators? not sure whether this works in all countries
AT&T: we have no control over these aspects in 3GPP
Orange: was a way to find a solution as other camp does not make efforts to compromise
Bollore: appreciates that we try to solve the issues but we need more time to check this
Orange: companies had 9 months to check as we postpone the topic all the time, does not see a fragmentation issue
Nokia: how do we make sure that we do not end up in the same issue in Dec. if we postpone here?
RAN chair: not sure, companies have to be creative, has no problem to start a SI for it
Orange: agrees with Nokia that nothing will happen until Dec., creativity has limits
KT: we need DL only to protect our Wimax system
NTT DOCOMO: as we will start ASN.1 review in Dec.14, WGs need to check the CRs as well
RAN chair: we will not do the check now
CATT: has strong concerns to ask WGs to check the CRs

conclusion: noted, in Dec. we will take a decision and reply to CEPT (see LSin RP-141604)

Licensed-Assisted Access (LAA) for LTE:

RP-141421 Motivation of the New SI proposal: Study on Licensed-Assisted Access using LTE Huawei, Ericsson, Qualcomm, HiSilicon Disc RAN1 REL-13 -

related to RP-141397; Tdoc also supported by Verizon

conclusion: revised in RP-141615

RP-141615 Motivation of the New SI proposal: Study on Licensed-Assisted Access using LTE Huawei, Ericsson, Qualcomm, HiSilicon Disc RAN1 REL-13 -

conclusion: noted

RP-141397 New SI proposal: Study on Licensed-Assisted Access using LTE Ericsson, Qualcomm, Huawei SID new RAN1 REL-13 -

new SI for LTE only; leading WG: RAN1; WI code to be used: FS_LTE_LAA; note: evaluating LTE enhancements for LAA to unlicensed spectrum; compare RP-141231, RP-141219 (it is assumed that only one of them are approved)

conclusion: revised in RP-141616

RP-141616 New SI proposal: Study on Licensed-Assisted Access using LTE Ericsson, Qualcomm, Huawei SID new RAN1 REL-13 -

revision of RP-141397; new SI for LTE only; leading WG: RAN1; WI code to be used: FS_LTE_LAA; note: evaluating LTE enhancements for LAA to unlicensed spectrum; compare RP-141231, RP-141219 (it is assumed that only one of them are approved)

discussion: Motorola: it's fine if RAN1 wants to do the coexistence studies (which was not the case in the past) but before requirements are fixed we need RAN4 consensus
Samsung: 6 months period for WI assumed?
Ericsson: yes
Broadcom: "single global solution" should also be in objective
RAN1 chair: co-existence work in RAN4 should be clarified better
ALU: 8 TUs more realistic, we also support the WI
RAN1 chair: 16 hours seem to be very long
KT: working on UL as well or just DL
Ericsson: SID covers UL and DL, one should not stop the completion of the other
RAN2 vice-chair (LG): what are the RAN2 impacts?
Broadcom: wants to add "voice, data, video" to clarify which Wifi services should not be impacted
NTT DOCOMO: TDD or FDD?
Ericsson: 5GHz band would be TDD

conclusion: revised in RP-141646 after treatment of RP-141630 (see AI 14.1)

RP-141646 New SI proposal: Study on Licensed-Assisted Access using LTE Ericsson, Qualcomm, Huawei, Alcatel-Lucent SID new RAN1 REL-13 -

discussion: CableLabs: fairness should be considered and WLAN services should not be impacted
RAN chair: is in objective: bullet 3 under 2), we could copy it in the minutes but this is already clear
Ericsson: fairness can not be implemented in the simulator but it needs to be checked for each simulator in the WGs
Broadcom: QoS and metrics over Wifi are clearly stated and should be taken into account
CableLabs: expressed concerns that the Ericsson-Qualcomm-Huawei SID does not include sufficient coexistence objectives. Several objectives noted in the SID as examples are fundamental to coexistence and should not be considered optional by RAN working groups. More specifically and as indicated as examples in the SID text, CableLabs believes that the study item must address coexistence with WiFi services (Voice, Video and Data), must assess impacts to latency, throughput and jitter, and must identify methods for a device to detect WiFi networks when in LAA-LTE operations.

conclusion: revised in RP-141664 on Friday to add some more supporting companies

RP-141664 New SI proposal: Study on Licensed-Assisted Access using LTE Ericsson, Qualcomm, Huawei, Alcatel-Lucent SID new RAN1 REL-13 -

conclusion: approved; Note: After RAN #65 TR 36.889 was allocated.

RP-141231 New SID Proposal: Study on Licensed-Assisted Access using LTE CableLabs, Benu, Broadcom, Hitachi, Rogers, Ruckus SID new RAN1 REL-13 -

new SI for LTE only; leading WG: RAN1; WI code to be used: FS_LTE_LAA; compare RP-141397, RP-141219 (it is assumed that only one of them are approved)

discussion: CableLabs: AT&T, Silver Springs Networks are also supporting this SI proposal
NTT DOCOMO: what is the difference compared to RP-141616?
CableLabs: there are some differences
RAN chair: there seems to be some convergence

conclusion: rejected

RP-141260 Discussion on Licensed Assisted Access using LTE Broadcom Corporation Disc REL-13 -

related to RP-141231?

discussion: Broadcom: we tried to identify the differences between the 2 SI proposals and fairness is still to be discussed further

conclusion: noted

RP-141188 Supporting dual connectivity in LTE-U ZTE Disc REL-13 -

conclusion: revised in RP-141470

RP-141470 Supporting dual connectivity in LTE-U ZTE Disc REL-13 -

discussion: Deutsche Telekom: same prio as co-located case? we agree that it is important but 2nd prio
Broadcom: fig.4 in 2.2.3.2 is misleading
ZTE: you can reuse existing backhaul with this scenario, there is no ideal backhaul

Ericsson: current study focusses on CA, content is already big, so would not like to add even more; dual connectivity is not even done in REL-12 so merging it in another SI is not useful
Orange: we have already a short REL-13, so we agree with Ericsson that it was already difficult to complete dual connectivity in REL-12 so we should focus on CA aspects
Samsung: supports Orange/Ericsson
Nokia Networks: once we have completed dual connectivity in REL-12 it will probably not be so much work in addition for LTE-U
RAN chair: it seems there is no strong support to add dual connectivity in REL-13 to this study; but you can still try to convince other companies

conclusion: noted

Full-Dimension (FD) MIMO for LTE:

RP-141120 Motivation for Study on Elevation Beamforming/FD-MIMO for LTE Samsung Disc RAN1 REL-13 -

conclusion: noted

RP-141119 New SID Proposal: Study on Elevation Beamforming/Full-Dimension (FD) MIMO for LTE Samsung SID new RAN1 REL-13 -

new SI for LTE only; leading WG: RAN1; WI code to be used: FS_LTE_EBF_FDMIMO; note: related SI FS_LTE_3D_channel; SI proposal was postponed at RAN #64 in RP-140432

discussion: Ericsson: originally 3 quarters and less time units, why is it now shorter and has higher time unit allocations?
Samsung: 3 quarters for the SI would leave only 2 quarters for a WI which we considered too short
Huawei: agrees with Ericsson that going up to 64 ports is very challenging (we have just looked at 8 so far); also hetnet aspects need to be included
CATT: what is the baseline performance should be clarified
Samsung: agreeing a baseline can be very time consuming
RAN1 chair: spec impact if we consider just 8 is still not clear

conclusion: revised in RP-141644

RP-141644 New SID Proposal: Study on Elevation Beamforming/Full-Dimension (FD) MIMO for LTE Samsung SID new RAN1 REL-13 -

new SI for LTE only; leading WG: RAN1; WI code to be used: FS_LTE_EBF_FDMIMO; note: related SI FS_LTE_3D_channel; SI proposal was postponed at RAN #64 in RP-140432;

conclusion: approved; Note: After RAN #65 TR 36.897 was allocated.

MTC enhancements:

RP-141180 Motivation for New WI: Further LTE Physical Layer Enhancements for MTC Ericsson, Nokia Networks Disc RAN1 REL-13 -

conclusion: not treated

RP-141179 New WI proposal: Further LTE Physical Layer Enhancements for MTC Ericsson, Nokia Networks WID new RAN1 REL-13 -

new WI for LTE only; leading WG: RAN1; WI code to be used: LTE_MTCe2_L1

conclusion: revised in RP-141617 to include also RP-141408

RP-141617 New WI proposal: Further LTE Physical Layer Enhancements for MTC Ericsson, Nokia Networks WID new RAN1 REL-13 -

new WI for LTE only; leading WG: RAN1; WI code to be used: LTE_MTCe2_L1; revision of RP-141179 including also RP-141408

discussion: CATT: WI has a very wide scope and a lot of points look like a SI;
Motorola Solutions: why was 1.4MHz chosen instead of 3MHz?
Ericsson: highest gain for smallest pain

conclusion: revised in RP-141645 after discussion of RP-141630

RP-141645 New WI proposal: Further LTE Physical Layer Enhancements for MTC Ericsson, Nokia Networks WID new RAN1 REL-13 -

new WI for LTE only; leading WG: RAN1; WI code to be used: LTE_MTCe2_L1;

discussion: Intel: better have "no" ticked for CN in section 9
RAN chair: ok
Broadcom: bandwidth supporting smaller than 1.4MHz also preferred
Ericsson: going further down would require a bigger redesign
RAN chair: anyone supporting to go below 1.4MHz? Seems not

conclusion: revised in RP-141660 to tick "no" for CN

RP-141660 New WI proposal: Further LTE Physical Layer Enhancements for MTC Ericsson, Nokia Networks WID new RAN1 REL-13 -
conclusion: approved

RP-141279 Discussion on the scope of MTC work in LTE Rel-13 Huawei, HiSilicon Disc REL-13 -
discussion: Nokia Networks: going down to 200kHz would not add additional benefit?
Broadcom: only reducing to 1.4MHz is not enough
conclusion: noted

RP-141407 Motivation for Narrow Band and Power Efficient LTE for MTC MediaTek Disc RAN1 REL-13 -
conclusion: not treated

RP-141408 New Work Item Proposal: Narrow Band and Power Efficient LTE for MTC MediaTek WID new RAN1 REL-13 -
new WI for LTE only; leading WG: RAN1; WI code to be used: LTE_MTC_NB
conclusion: merged into RP-141617

CA and wider bandwidth operation:

RP-141417 Motivation for New SI proposal: LTE Carrier Aggregation Enhancement Beyond 5 Carriers Nokia Corporation, Nokia Networks Disc RAN1 REL-13 -
conclusion: noted

RP-141418 New SI proposal: Study on LTE Carrier Aggregation Enhancement Beyond 5 Carriers Nokia Corporation, Nokia Networks SID new RAN1 REL-13 -
new SI for LTE only; leading WG: RAN1; WI code to be used: FS_LTE_CA_beyond5C
discussion: Nokia: SI should not focus on any band specific issues, co-existence work in RAN4 will come when we become band specific
ALU: spectrum availability and gain needs to be understood better
CATT: extending beyond 5 is important, whether we restrict to 16 can be studied; we could maybe directly consider a WI
Orange: one application is related to LTE-U (maybe better to wait for this study to start and complete) and for licensed we are still struggling with 2 or 3 carriers; so the timeline needs to be reconsidered
Fujitsu:a more general study is needed
Sprint: we have a proposal for 4 carriers and 5 seems to be a limit at the moment
Nokia: Apart from Nokia Corporation, Nokia Networks, Institute for Information Industry (III) and KT Corp. listed on this SID also T-Mobile USA, Deutsche Telekom, Qualcomm Incorporated, AT&T, Softbank Mobile, KDDI and Sprint support this SI now.
conclusion: postponed

RP-141357 Motivation for further enhancements on LTE carrier aggregation CATT Disc RAN1 REL-13 -
conclusion: not treated

RP-141356 New WI proposal: Further enhancements on LTE carrier aggregation CATT WID new RAN1 REL-13 -
new WI for LTE only; leading WG: RAN1; WI code to be used: LTE_CA_enh2
conclusion: revised in RP-141619

RP-141619 New WI proposal: Further enhancements on LTE carrier aggregation CATT WID new RAN1 REL-13 - revision of RP-141356; new WI for LTE only; leading WG: RAN1; WI code to be used: LTE_CA_enh2
discussion: NTT DOCOMO: can 8 carrier part be removed?
RAN chair: try to merge to one proposal in one area instead having multiple proposals
Fujitsu: what's the goal? increasing peak bit rate or throughput?
CATT: throughput of a single UE
conclusion: postponed

RP-141172 Motivation for New WI: UCI enhancements for LTE Carrier Aggregation NTT DOCOMO, INC. Disc RAN1 REL-13 -
conclusion: not treated

RP-141173 New WI proposal: UCI Enhancements for LTE Carrier Aggregation NTT DOCOMO, INC. WID new RAN1 REL-13 -
new WI for LTE only; leading WG: RAN1; WI code to be used: LTE_CA_UCI_enh; note: this objective was dropped from the WI LTE_SC_enh_dualC-Core; UCI = Uplink Control Information
conclusion: postponed

RP-141422 Discussion on LTE evolution for wider spectrum sub 6 GHz Huawei, HiSilicon Disc REL-13 -
discussion: KT: max. bandwidth?
Huawei: below 6GHz it will not be large, max. 40MHz
Nokia Networks: some regulatory aspects to be taken into account (e.g. power when transmitting in a wide frequency band)
conclusion: noted

NOMA, MU-MIMO, NAICS and further advanced receivers:

RP-141165 Justification for NOMA in New Study on Enhanced MU-MIMO and Network Assisted Interference CancellationNTT DOCOMO, INC. Disc REL-13 -
NOMA = non-orthogonal multiple access
discussion: ALU: what is baseline? NTT DOCOMO: SU-MIMO, transmission mode 4
conclusion: noted

RP-141405 Motivation for Enhanced MU-MIMO and Network Assisted Interference Cancellation MediaTek Disc RAN1 REL-13 -
discussion: Ericsson: relation to other parallel MMO actitivies/studies unclear
conclusion: noted

RP-141406 New Study Item Proposal: Study on Enhanced MU-MIMO and Network Assisted Interference Cancellation for LTE MediaTek SID new RAN1 REL-13 -
new SI for LTE only; leading WG: RAN1; WI code to be used: FS_LTE_MUMIMO_NAIC
conclusion: revised in RP-141661

RP-141661 New Study Item Proposal: Study on Enhanced MU-MIMO and Network Assisted Interference Cancellation for LTE MediaTek SID new RAN1 REL-13 -
new SI for LTE only; leading WG: RAN1; WI code to be used: FS_LTE_MUMIMO_NAIC; revision of RP-141406
conclusion: postponed

RP-141399 Motivation for Study on MU-MIMO Enhancement Alcatel-Lucent, Alcatel-Lucent Shanghai Bell Disc RAN1 REL-13 -
conclusion: noted

RP-141398 New SI proposal: Study on MU-MIMO Enhancement Alcatel-Lucent, Alcatel-Lucent Shanghai Bell SID new RAN1 REL-13 -
new SI for which system?; leading WG: RAN1; no WI code allocated as system unclear; only 3 supporting companies
conclusion: postponed
Note: Rapporteur confimed that SI proposal was for LTE only.

RP-141282 Motivation for new SI: Interference mitigation for downlink control channels of LTE Intel Corporation Disc RAN1 REL-13 -
Discussion paper related to the new SI proposal on Interference mitigation for downlink control channels of LTE
conclusion: noted

RP-141283 New SI proposal: Study on Interference mitigation for downlink control channels of LTE Intel Corporation SID new RAN1 REL-13 -
new SI for LTE only; leading WG: RAN1; WI code to be used: FS_LTE_IM_CCH; this SI proposal was postponed at RAN#63 in RP-140249
discussion: RAN chair: not many supporters so far
Nokia Networks: dual receiver proposals should come later
conclusion: revised in RP-141662

RP-141662 New SI proposal: Study on Interference mitigation for downlink control channels of LTE Intel Corporation SID new RAN1 REL-13 -

new SI for LTE only; leading WG: RAN1; WI code to be used: FS_LTE_IM_CCH; this SI proposal was postponed at RAN#63 in RP-140249; revision of RP-141283
conclusion: postponed

Small Cells:

RP-141186 Motivation for new WI: Further enhancement of Small cell ZTE Disc RAN1 REL-13 -
conclusion: noted

RP-141187 New WID proposal: Further enhancement of small cells for LTE ZTE Disc new RAN1 REL-13 -
new WI for LTE only; leading WG: RAN1; WI code to be used: FS_LTE_SC_enh2_L1; compare FS_LTE_SC_enh_L1 and LTE_SC_enh_L1-Core
discussion: RAN1 chair: unclear what's the difference to unlicensed
RAN chair: try to find more some support if you want to come back
conclusion: postponed

RP-141368 Discussion on LTE evolution for further small cells physical layer enhancements Huawei, HiSilicon Disc REL-13 -
conclusion: noted

Flexible duplex:

RP-141300 Motivation of Rel-13 New Study Item proposal: Evolving LTE with Flexible Duplex for Traffic Adaptation Huawei, China Telecom, HiSilicon, China Unicom, CATR Disc RAN1 REL-13 -
conclusion: not treated

RP-141299 New Study Item proposal: Study on Evolving LTE with Flexible Duplex for Traffic Adaptation Huawei, China Telecom, HiSilicon SID new RAN1 REL-13 -
new SI for LTE only; leading WG: RAN1; WI code to be used: FS_LTE_flex_duplex
discussion: Huawei: same as last time
conclusion: merged into RP-141651

RP-141387 Motivation of New SI: Study on flexible uplink resource utilization for traffic adaptation in LTE FDD system LG Electronics Disc RAN1 REL-13 -
conclusion: noted

RP-141388 New SI proposal: Study on flexible uplink resource utilization for traffic adaptation in LTE FDD system LG Electronics SID new RAN1 REL-13 -
new SI for LTE only; leading WG: RAN1; WI code to be used: FS_LTE_FDD_UL_flex
discussion: Nokia Networks: regulator can say UE has to stay in this part of the spectrum and BS in another part
Orange: we can study scenarios which are not covered by the regulator? It may mean a waste of resources.
ALU: If it is not in line with regulatory requirements, we should not look into it.
RAN chair: Regulatory requirements can change and they may be adapted to technologies so it's up to the group whether they want to study it
conclusion: revised in RP-141651 (merging also RP-141299)

RP-141651 New SI proposal: Study on flexible duplex for E-UTRAN LG Electronics, Huawei, China Telecom, HiSilicon SI new
new SI for LTE only; leading WG: RAN1; WI code to be used: FS_LTE_flex_duplex
conclusion: postponed

Others:

RP-141253 Motivation for new SI: Study on Enhanced LTE Device to Device Proximity Services Qualcomm Incorporated Disc RAN1 REL-13 -
conclusion: noted

RP-141251 New SI proposal: Study on Enhanced LTE Device to Device Proximity Services Qualcomm Incorporated SID new RAN1 REL-13 -
new SI for LTE only; leading WG: RAN1; WI code to be used: FS_LTE_D2D_Prox_enh
discussion: RAN1 chair: it seems some WIs have overlaps
conclusion: postponed

RP-141385 Discussion on the scope of UE-relay WI in Rel-13 LG Electronics Disc REL-13 -
discussion: LG: Tdoc also has RAN2 aspects included
conclusion: noted

RP-141366 Motivation of Rel-13 New Work Item proposal: LTE bandwidth flexibility enhancements Huawei, China Unicom, HiSilicon Disc RAN1 REL-13 -
conclusion: not treated

RP-141365 New Work Item proposal for LTE bandwidth flexibility enhancements Huawei, China Unicom, HiSilicon WID new RAN1 REL-13 -
new WI for LTE only; leading WG: RAN1; WI code to be used: LTE_flex_BW
discussion: Ericsson: discussed in REL-11/12 in connection with new carrier type; should consider some more RAN4 work
conclusion: postponed

RP-141389 Motivation for Study on Physical Layer Enhancements of Coordinated Scheduling for LTE Indoor Deployments Ericsson Disc RAN1 REL-13 -
conclusion: not treated

RP-141386 New Study Item: Study on Physical Layer Enhancements of Coordinated Scheduling for LTE Indoor Deployments Ericsson SID new RAN1 REL-13 -
new SI for LTE only; leading WG: RAN1; WI code to be used: FS_LTE_CSched_Indoor; note: FE_COMP is not an appropriate WI code as COMP is not part of the WI title
conclusion: postponed

RP-141286 Motivation for New SI: Uplink Enhancements CMCC Disc RAN1 REL-13 -
related Disc Tdoc in RP-141359
conclusion: noted

RP-141287 New SID Proposal: Study of Uplink Enhancements for LTE CMCC SID new RAN1 REL-13 - new SI for LTE only; leading WG: RAN1; WI code to be used: FS_LTE_EUL
discussion: Ericsson: waveform will no longer be single carrier SDMA; 256QAM in UL easier than superposition on a channel
ALU: did you compare EVM for 64QAM,. 256QAM and this proposal here?
conclusion: postponed

RP-141359 Potential Solution for Uplink Enhancement CMCC Disc REL-13 -
related to new SI proposal in RP-141287; title corrected
conclusion: not treated

RP-141358 Support of CSI-RS in DwPTS CATT, CMCC, CATR Disc REL-13 -
Discussion on support of CSI-RS in DwPTS
discussion: RAN1 chair: if it is a small topic, can it also be included into another WI?
Qualcomm: thinks it would not be backward compatible
conclusion: noted

UMTS:

RP-141234 Motivation for new SI: Machine Type Communication for UMTS Ericsson Disc RAN1 REL-13 -
Related to SID in RP-141233
conclusion: noted

RP-141233 New SI proposal: Study on Machine Type Communication for UMTS Ericsson, Huawei, HiSilicon, Telefonica S.A., China Unicom SID new RAN1 REL-13 -
new SI for UTRA only; leading WG: RAN1; WI code to be used: FS_UTRA_MTC
discussion: ALU: traffic types, scenarios etc. unclear, much clearer for LTE
Intel: some objectives more RAN1 others more RAN2 specific, should be clarified and maybe rather a RAN2 led SI
Telecom Italia: we have to avoid to start work in RAN1 for UMTS that has then bigger impact on RAN4 later
RAN chair: agrees that UMTS would compete with LTE in RAN4 as they have no separate sessions

conclusion: revised in RP-141652

RP-141652 New SI proposal: Study on small data transmission enhancement for UMTS Ericsson SI new RAN1 REL-13 -
title changed
discussion: Telecom Italia: we have strong concerns on market fragmentation if we have MTC work in parallel in GERAN, UMTS and LTE
ALU: would like to get SA2 involved, suggests to send LS to SA to coordinate
Telefonica: we have already 2G/3G devices in the field and to enhance the 3G devices in the near future we are supporting the WID
Deutsche Telekom: shares Telecom Italia view and does not understand Telefonica's comment as WID clear indicates that this WI will mean new devices
Ericsson: for the moment we see no need to LS with SA/SA2, this is a SI and we look at smaller improvements
Broadcom: CN should be ticked as "don't know", what RAN1 work is expected before RAN2 start?
RAN chair: we also need to take needs of operators into account that are HSPA centric
ALU: this is not a self-contained RAN topic it has system wide impacts
conclusion: offline discussion, then revised in RP-141683

RP-141683 New SI proposal: Study on small data transmission enhancement for UMTS Ericsson SI new RAN1 REL-13 -
revision of RP-141652; new SI for UTRA only; leading WG: RAN1; WI code to be used: FS_UTRA_SDATA
conclusion: revised in RP-141711

RP-141711 New SI proposal: Study on small data transmission enhancement for UMTS Ericsson SI new RAN1 REL-13 -
revision of RP-141683; new SI for UTRA only; leading WG: RAN1; WI code to be used: FS_UTRA_SDATA
conclusion: approved; Note: After RAN #65 TR 25.705 was allocated.

RP-141272 Motivation for new Study Item proposal: Study on Network-Assisted Interference Cancellation and Suppression for UMTS Huawei, HiSilicon Disc RAN1 REL-13 -
conclusion: noted

RP-141271 New Study Item proposal: Study on Network-Assisted Interference Cancellation and Suppression for UMTS Huawei, HiSilicon SID new RAN1 REL-13 -
new SI for UTRA; leading WG: RAN1; WI code to be used: FS_UTRA_NAICS
conclusion: revised in RP-141656

RP-141656 New Study Item proposal: Study on Network-Assisted Interference Cancellation and Suppression for UMTS Huawei, HiSilicon SID new RAN1 REL-13 -
conclusion: postponed

RP-141380 New Work Item on Even Lower Complexity and Enhanced Coverage LTE UE for MTC Ericsson, Nokia Networks WID (new) RAN1 REL-13 -
new WI for LTE only; leading WG: RAN1; WI code to be used: LCP_EC_MTC_LTE; note: this WI proposal was postponed at RAN #64 in RP-140990; compare ongoing REL-12 WI LC_MTC_LTE-Core
conclusion: withdrawn

RP-141384 Motivation for New Work Item on Even Lower Complexity and Enhanced Coverage LTE UE for MTC Ericsson Disc RAN1 REL-13 -
Motivation document for Even Lower Complexity and Enhanced Coverage LTE UE for MTC; proposed WI code: LCP_EC_MTC_LTE
conclusion: withdrawn

Discussion on Thu afternoon about RAN4 handling:

new CA WIs/RAN4 ad hocs:

RAN chair: if no spectrum ad hocs and things do not improve in RAN4 we may have to to stop approval of additional spectrum WIs/SIs for 1 or 2 RAN meetings
Sprint: we support to have the extra RAN4 ad hocs on spectrum aspects, the priotization was not that successful in the past
Telefonica: would like to get at least a 1 month warning in advance

Qualcomm: meetings can even be created if some people do not want to go there; but we should not block spectrum WIs
RAN4chair: will check status about ad hoc at next meetings, proposing to not approve 4DL WIs at this meeting
AT&T: RAN4 could organize themself how to handle their work, RAN4 does not need restrictions from RAN
RAN chair: we had about 50 company CRs from RAN4 this time so there is an overload there
Samsung: asks to agree about ad hocs early enough
RAN4 chair: can organize ad hocs as soon as RAN is happy about it

Vodafone: still worried about additional ad hocs, would like to leave this to RAN4, they have to work faster
RAN chair: consequence may be that we will not accept RAN4 company CRs at RAN anymore so that WIs are not extended to RAN
Qualcomm: how can a company object to have a meeting?
Nokia Networks: as host of the ad hocs we also need to do some preparations
RAN chair: it is up to the chair to decide whether an additional meeting is needed
Samsung: supports that Qualcomm
Fujitsu: impacts on RAN4 delegates and RAN4 chair should be taken into account
KT: in main RAN4 session we have only a few minutes per WI so more time like ad hocs is needed
RAN4 chair: second ad hoc for July 2015 can be decided later this year
CMCC: requests to decide by Dec.14 about the July 2015 ad hoc
conclusion: RAN4 will organize 1 additional ad hoc in Jan. 2015 in Finland (hosted by EF3), dates as planned at RAN #64

MIMO OTA session in RAN4:

RAN4 chair: parallel handling of MIMO OTA is not acceptable in RAN4 but will organize one evening ad hoc for UE OTA
NTT DOCOMO: will MIMO OTA then after this ad hoc will be handled also in the main session?
RAN4 chair: minimum time will be allocated for it in main session to see outputs from offline sessions
Sprint: worried that when we get an LS from outside we immediately react on this; do people think they can make much progress on OTA in 2 hours?
RAN chair: the OTA topic in ongoing for a few years so it is not a new topic
Sprint: we need to allocate sufficient time for it if we want to make sure that there is progress
Huawei: supports Sprint's view that more time is needed
Spirent: we need more operators and other companies in this OTA sessions to be successful so parallel handling will not help
Orange: LS from GCF indicates that it become critical and we do not want that 3GPP will no longer be considered as group that develops these requirements
Rohde & Schwarz: supports to have parallel sessions on OTA
Vodafone: parallel sessions were not that successful in the past
Keysight: supports Orange that this topic is important, it will have more impact on UEs than any other WI since REL-8; we cannot delay this for another year
Intel: parallel sessions needs to have the power to take decisions
Telecom Italia:GCF was not mentioning MIMO OTA but OTA in general so if we open an ad hoc/evening session it will free up also space in RF session
Samsung: evening session + conference calls may be sufficient
RAN chair: suggests to discuss the options more offline
RAN4 chair: best solution we got was one evening ad hoc (of 1TU) for UE OTA, believes that this will not change
NTT DOCOMO: wants to avoid big OTA sessions in main RAN4 session; TRP/TRS session should be in total max. 0.5 TU
Samsung: suggests additional conference calls
conclusion: one evening ad hoc (of 1TU) for UE OTA at all coming RAN4 meetings with min. time in main session
Note: As finally no additional OTA WIs could be approved so far under AI 14.1.4 (see RP-141672, RP-141296) there is not yet a need for automatic evening ad hocs at every RAN4 meeting and the RAN4 chair will consider them on a case by case basis so far.

parallel HSPA session in RAN4:

RAN chair: problem: RAN1/RAN2 have parallel HSPA sessions and their work may get blocked in RAN4 as indicated by e.g. Telecom Italia & Orange
RAN chair: there are 2 solutions:
1. parallel HSPA session in RAN4
2. reserved limited time interval for HSPA in RAN4 main session for these HSPA topics

otherwise prioritization LTE vs. HSPA (which will be critical for HSPA)
Ericsson: 12 LTE and 3 HSPA WIs of which the 3 are closing, so will be critical in the future
Sprint: is not happy to introduce such a quota for HSPA
ALU: priority for UTRA WIs compared to LTE WIs?
Nokia Networks: parallel session for next RAN4 meeting in Singapur is not realistic
RAN chair: RAN1 chair indicated that NAICS and MTC HSPA proposals could be approved and we have to address this problem
Orange: our preferred solution was parallel session in RAN4 but understands that operators are focussing more and more on LTE
RAN1 chair: in the first phase the 2 suggested new UTRA WIs/SIs will have no RAN4 impact

Qualcomm: what will we do with RAN4 led UTRA WIs/SIs?
RAN chair: will be discussed at RAN #66 as we will not consider new WIs/SIs for this at RAN #65
conclusion: people can further think about long-term solution and we will consider the 2 HSPA items to be approved this week

14.1.2 WIs/SIs led by RAN2

UMTS only:

RP-141139 UL Data Compression in UTRA - Motivations Qualcomm Incorporated Disc RAN2 REL-13 -
Related to new WID in RP-141138
conclusion: noted

RP-141138 New WI proposal: UL Data Compression in UTRA Qualcomm Incorporated WID new RAN2 REL-13 -
new WI for UTRA only; leading WG: RAN2; WI code to be used: UTRA_UL_compress
discussion: AT&T: could some of the ideas be used for MTC in LTE?
Qualcomm: yes, also applicable to LTE but gains bigger for UTRA
Broadcom: unclear which scenario is considered for data compression
Qualcomm: freedom for UE implementation: detailed compression does not need to be specified; we could specify some minimum perf. requirements like for ROHC
Samsung: how would the interworking between different vendors work?
Qualcomm: of course the RNC needs to know but different UEs could use different compression algorithms
Mediatek: why not compression at application level?
Qualcomm: because it is more efficient
conclusion: revised in RP-141641

RP-141641 New WI proposal: UL Data Compression in UTRA Qualcomm Incorporated WID new RAN2 REL-13 -
new WI for UTRA only; leading WG: RAN2; WI code to be used: UTRA_UL_compress;
conclusion: postponed

RP-141275 Motivation for new Study Item proposal: Study on Downlink Enhancements for UMTS Huawei, HiSilicon Disc RAN2 REL-13 -
conclusion: noted

RP-141273 New Study Item proposal: Study on Downlink Enhancements for UMTS Huawei, HiSilicon SID new RAN2 REL-13 -
new SI for UTRA; leading WG: RAN2; WI code to be used: FS_UTRA_EDL
conclusion: revised in RP-141657

RP-141657 New Study Item proposal: Study on Downlink Enhancements for UMTS Huawei, HiSilicon SID new RAN2 REL-13 -
revision of RP-141273; new SI for UTRA; leading WG: RAN2; WI code to be used: FS_UTRA_EDL
discussion: RAN2 chair: if we approve this WI, UTRA time budget could get tight if we also approve MTC
RAN2 vice-chair (Interdigital): there would be time

Nokia Networks: danger is that people concentrate on new topics instead of ASN.1 review for REL-12
conclusion: approved; Note: Errors in WID detected after RAN #65: Sections 1., 2. and 9. are not filled out.

RP-141419 New WI proposal: Multiflow enhancements for UTRA Nokia Networks WID new RAN2 REL-13 -
new WI for UTRA only; leading WG: RAN2; WI code to be used: HSDPA_MFTX_enh
discussion: Ericsson: which band combinations should be supported? maximum 2 or 3 bands?
Nokia Networks: 2 bands in 2100MHz area; no impact on RAN4 planned
RAN3 chair: if there is RAN3 impact it would be nice to add this impact
conclusion: postponed

RAN2 vice chair (LG): This meeting it seems we skip RAN2 led WIs for LTE but if RAN1 led WIs are approved then next time RAN2 led WIs may not get a change either as no time units may be left.

RAN chair: RAN2/4 allocations for RAN1 led WIs/SIs will be tentative and we can check the situation next time and adjust

Other Tdocs below of this AI 14.1.2 were not treated

IDLE mode related:

RP-141134 Motivation for proposed SI: Study on UE distribution in IDLE mode China Telecom, ZTEDisc RAN2 REL-13 -
conclusion: not treated

RP-141133 New SI proposal: Study on UE distribution in IDLE mode in LTE China Telecom, ZTESID new RAN2 REL-13 -
new SI for LTE only; leading WG: RAN2; WI code to be used: FS_LTE_idle_distr
conclusion: not treated

RP-141403 Motivation for new WI: RAN enhancements for Extended Idle Mode DRX in LTE Qualcomm Incorporated Disc RAN2 REL-13 -
conclusion: not treated

RP-141402 New WI proposal: RAN enhancements for Extended Idle Mode DRX in LTE Qualcomm Incorporated WID new RAN2 REL-13 -
new WI for LTE only leading WG: RAN2; WI code to be used: LTE_idle_DRX
conclusion: revised in RP-141625

RP-141625 New WI proposal: RAN enhancements for Extended Idle Mode DRX in LTE Qualcomm Incorporated WID new RAN2 REL-13 -
new WI for LTE only leading WG: RAN2; WI code to be used: LTE_idle_DRX
conclusion: not treated

MDT related:

RP-141261 Motivation for New SI: Further Enhancements of Minimization of Drive Tests for E-UTRAN CMCC Disc RAN2 REL-13 -
conclusion: not treated

RP-141262 New SID Proposal: Study on Further Enhancements of Minimization of Drive Tests for E-UTRAN CMCC SID new RAN2 REL-13 -
new SI for LTE only; leading WG: RAN2; WI code to be used: FS_LTE_eMDT2
conclusion: not treated

WLAN related:

RP-141274 Motivation for new SI: LTE-WLAN Radio Level Integration Intel Corporation Disc RAN2 REL-13 -
Discussion paper related to the new SI proposal on LTE-WLAN Radio Level Integration
conclusion: withdrawn

RP-141228 RAN offload solutions using LTE- WLAN IP Flow Level Aggregation Broadcom Corporation Disc REL-13 -
related to new SI proposal RP-141276
conclusion: not treated

RP-141276 New SI proposal: Study on LTE-WLAN Radio Level Integration Intel Corporation SID new RAN2 REL-13 -
new SI for LTE only; leading WG: RAN2; WI code to be used: FS_LTE_WLAN_radio; note: this SI proposal was postponed at RAN#64 in RP-140684
conclusion: revised in RP-141679

RP-141679 New SI proposal: Study on LTE-WLAN Radio Level Integration Intel Corporation SID new RAN2 REL-13 -
revision of RP-141276; new SI for LTE only; leading WG: RAN2; WI code to be used: FS_LTE_WLAN_radio; note: this SI proposal was postponed at RAN#64 in RP-140684
conclusion: not treated

RP-141361 Motivation for New SI: Network-controlled WLAN/3GPP Radio Interworking China Telecom Disc RAN2 REL-13 -
motivation for new WI proposal
conclusion: not treated

RP-141362 New SI proposal: Study on Network-controlled WLAN/3GPP Radio Interworking China Telecom SID new RAN2 REL-13 -
new SI for UTRA & LTE; leading WG: RAN2; WI code to be used: FS_UTRA_LTE_WLAN_netw_ctrl; compare RP-141367
conclusion: not treated

RP-141401 Motivation for new WI: E-UTRAN and WLAN Aggregation Qualcomm Incorporated Disc RAN2 REL-13 -
conclusion: not treated

RP-141400 New WI proposal: E-UTRAN and WLAN Aggregation Qualcomm Incorporated WID new RAN2 REL-13 -
new WI for LTE only leading WG: RAN2; WI code to be used: LTE_WLAN_Aggr
conclusion: not treated

RP-141355 Motivation on support of WLAN Assisted Positioning in LTE System CATT Disc RAN2 REL-13 -
conclusion: not treated

RP-141354 New WI proposal: Support of WLAN Assisted Positioning in LTE System CATT WID new RAN2 REL-13 -
new WI for LTE only; leading WG: RAN2; WI code to be used: LCS_LTE_WLAN; note: WI proposal was postponed at RAN #64 in RP-140733
conclusion: not treated

Mobility related:

RP-141393 Motivation for new SI: Improved Mobility for Synchronous LTE Networks Nokia Networks, Nokia Corporation Disc RAN2 REL-13 -
conclusion: not treated

RP-141392 New SI proposal: Study on Improved Mobility for Synchronous LTE Networks Nokia Networks, Nokia Corporation SID new RAN2 REL-13 -
new SI for LTE only; leading WG: RAN2; WI code to be used: FS_LTE_mob_sync_netw
conclusion: not treated

RP-141412 Motivation for Mobility Enhancements MediaTek Inc. Disc RAN2 REL-13 -
conclusion: not treated

RP-141411 New WI proposals: Mobility Enhancements for LTE MediaTek Inc. WID new RAN2 REL-13 -
new WI for LTE only; leading WG: RAN2; WI code to be used: LTE_mob_enh

conclusion: not treated

MBMS/PtM related:

RP-141293 Motivation of Rel-13 New Study Item proposal for Support of single-cell point-to-multipoint transmission in LTE Huawei, HiSilicon Disc RAN2 REL-13 -
conclusion: not treated

RP-141291 New Study Item proposal: Study on Support of single-cell point-to-multipoint transmission in LTE Huawei, HiSilicon SID new RAN2 REL-13 -
new SI for LTE only; leading WG: RAN2; WI code to be used: FS_LTE_SCPTM
conclusion: revised in RP-141690

RP-141690 New Study Item proposal: Study on Support of single-cell point-to-multipoint transmission in LTE Huawei, HiSilicon SID new RAN2 REL-13 -
revision of RP-141291; new SI for LTE only; leading WG: RAN2; WI code to be used: FS_LTE_SCPTM;
conclusion: not treated

RP-141360 Considerations for further eMBMS enhancements in Release 13 Nokia Networks Disc REL-13 -
conclusion: not treated

MTC related:

RP-141309 Continuation of MTC protocols enhancements in Rel-13 Intel Corporation Disc REL-13 -
Discussion paper on potential further work in RAN2 on MTC protocols aspects.
conclusion: not treated

Latency reduction:

RP-141375 Motivation for new study on latency reduction techniques for LTE Ericsson Disc RAN2 REL-13 -
conclusion: not treated

RP-141371 New SI proposal: Study on Latency reduction techniques for LTEEricsson SID new RAN2 REL-13 -
new SI for LTE only; leading WG: RAN2; WI code to be used: FS_LTE_LATRED; note: WI LTE_LATRED-Core was terminated in RP-091449 at RAN #50
conclusion: not treated

Congestion Mitigation related:

RP-141295 Updated motivation for new WI proposal: Application Specific access control for Congestion Mitigation LG Electronics Disc RAN2 REL-13 -
unclear to which WI proposal this is related to
conclusion: not treated

LTE cell management by UE:

RP-141396 Motivation for new SI: Partially transferring the control of LTE cell management to UE Nokia Networks, Nokia Corporation Disc RAN2 REL-13 -
conclusion: not treated

RP-141394 New SI proposal: Study on Partially transferring the control of LTE cell management to UE Nokia Networks, Nokia Corporation SID new RAN2 REL-13 -
new SI for LTE only; leading WG: RAN2; WI code to be used: FS_LTE_UE_cell_manage
conclusion: not treated

Multicarrier Load distribution:

RP-141416 Motivation paper for New SI proposal for Multicarrier Load distribution of UEs in LTE Verizon, Alcatel-Lucent Disc RAN2 REL-13 -
conclusion: not treated

RP-141415 New SI proposal: Study on Multicarrier Load distribution of UEs in LTE Verizon, Alcatel-Lucent SID new RAN2 REL-13 -
new SI for LTE only; leading WG: RAN2; WI code to be used: FS_LTE_MC_load
conclusion: not treated

14.1.3 WIs/SIs led by RAN3

Small Cells related:

RP-141333 Motivation for new WI Proposal on Dual Connectivity Enhancement for LTE Samsung Disc RAN3 REL-13 - proposed WI code: LTE_dualC_enh
conclusion: noted

RP-141331 New Work Item Proposal on Dual Connectivity Enhancement for LTE Samsung WID new RAN3 REL-13 -
new WI for LTE only; leading WG: RAN3; WI code to be used: LTE_dualC_enh; compare RP-141472 (it is assumed that only 1 of them is approved)
discussion: Nokia Networks:"verification and implement function in the specification" is unclear
XY: gateway part is independent of dual connectivity so WI has wrong name
ALU: last sentence about charging aspects unclear
Samsung: enhancement location reporting should be considered
Huawei:
conclusion: postponed

RP-141189 Motivation for new WI: dual connectivity enhancement ZTE,CATR Disc RAN3 REL-13 -
conclusion: revised in RP-141471

RP-141471 Motivation for new WI: dual connectivity enhancement in LTE ZTE,CATR Disc RAN3 REL-13 -
revision of RP-141189; related to RP-141472
conclusion: not treated

RP-141190 New WID proposal: Dual connectivity enhancement for LTE ZTE,CATR WID (new) RAN3 REL-13 -
conclusion: revised in RP-141472

RP-141472 New WID proposal: dual connectivity enhancement in LTE ZTE, CATR WID new RAN3 REL-13 -
revision of RP-141190; new WI for LTE only; leading WG: RAN3; WI code to be used: LTE_dualC_enh; note: follow-up WI of WI LTE_SC_enh_dualC; compare RP-141331 (it is assumed that only 1 of them is approved)
discussion: RAN chair: seems there is a large overlap with RP-141331 as co-signers are similar
Nokia Networks: a lot of issues have questionable gain and there is no real reason provided why we should do them
ALU: we should remove mobility anchor as here RAN2 is moving in RAN3 area
NEC: mobility anchor is not related to dual connectivity and should be taken out
RAN3 chair: no additional dual connectivity WIs should be started before the current dual connectivity work is finished
Ericsson: there seems to be a misunderstanding: small cells can be controlled with the same node, you do not need small nodes for it
ZTE: we were looking at a scenario without macro cell
conclusion: postponed

RP-141270 Motivation for new Study Item proposal: Small Cell Architecture Enhancement for LTE Huawei, HiSilicon Disc RAN3 REL-13 -
conclusion: noted

RP-141269 New Study Item proposal: Study on Small Cell Architecture Enhancement for LTE Huawei, HiSilicon SID new RAN3 REL-13 -
new SI for LTE only; leading WG: RAN3; WI code to be used: FS_LTE_SC_arch
discussion: Nokia Networks: SI is better than a WI, multiple RAN2/RAN3 proposals overlapping so we need to solve this
ZTE: section 3: what is different compared to what RAN2 has done already?
Samsung: 3rd objective: purpose unclear
Huawei: some RAN2 study on mobility was done, study on hetnet and dual connectivity are not yet finished because of this problem so we we should continue it

NTT DOCOMO: RAN2 has not evaluated the benefits so RAN2 would have to look into this
CATT: SI focussing only on REL-12 solutions?
Huawei: we can also look at new solutions; single RX/TX should be focus but not restricted to this
ALU: proposals need to focus really on RAN3 aspects
conclusion: postponed

Others:

RP-141122 Motivation for New SI: HSPA and LTE Joint Operation China Unicom Disc RAN3 REL-13 -
conclusion: noted

RP-141123 New SI Proposal: Study on HSPA and LTE Joint Operation China Unicom SID new RAN3 REL-13 -
new SI for UTRA & LTE; leading WG: RAN3; WI code to be used: FS_UTRA_LTE_JOP; compare REL-13 SI FS_MultiRAT_JC
discussion: RAN chair: proposal was heavily involving RAN2 in the past
China Unicom: as RAN3 has to look into scenarios we could start with RAN3
RAN chair: we should not mix WI leadership with spare time in a WG, so we postpone it and compare it with other RAN2 WIs/SIs next time
conclusion: postponed

RP-141170 Motivation for New WI: RAN Aspects of RAN Sharing Enhancements for LTENEC Disc RAN3 REL-13 -
conclusion: noted

RP-141169 New WI proposal: RAN Aspects of RAN Sharing Enhancements for LTE NEC WID new RAN3 REL-13 -
new WI for LTE only; leading WG: RAN3; WI code to be used: RSE-LTE_RAN-Core; only Core part WI; follow-up WI of SI FS_RSE-RAN_LTE
conclusion: revised in RP-141623

RP-141623 New WI proposal: RAN Aspects of RAN Sharing Enhancements for LTE NEC WID new RAN3 REL-13 -
revision of RP-141169; new WI for LTE only; leading WG: RAN3; WI code to be used: RSE-LTE_RAN-Core; only Core part WI; follow-up WI of SI FS_RSE-RAN_LTE
discussion: Nokia Networks: taken out extra areas that were in the previous version?
Ericsson: didn't have time to check this version
ALU: globally supporting this WI
Samsung: we should align the scope with the conclusions of the SI
NEC: capacity negotiations and PWS aspects can be further discussed offline during this w week
conclusion: revised in RP-141659

RP-141659 New WI proposal: RAN Aspects of RAN Sharing Enhancements for LTE NEC WID new RAN3 REL-13 -
revision of RP-141623; new WI for LTE only; leading WG: RAN3; WI code to be used: RSE-LTE_RAN-Core; only Core part WI; follow-up WI of SI FS_RSE-RAN_LTE
discussion: ZTE: would like to modify justification adding "(e.g. QCI)" to 3rd bullet
ALU: wording of objective is in line with SI conclusion; QoS profile is to be defined
conclusion: revised in RP-141671 to add (e.g. QCI) and ZTE as supporting company

RP-141671 New WI proposal: RAN Aspects of RAN Sharing Enhancements for LTE NEC WID new RAN3 REL-13 -
revision of RP-141659; new WI for LTE only; leading WG: RAN3; WI code to be used: RSE-LTE_RAN-Core; only Core part WI; follow-up WI of SI FS_RSE-RAN_LTE
conclusion: approved

RP-141347 Motivation for New WI: SON for AAS-based deployments Nokia Networks Disc RAN3 REL-13 -
AAS = Active Antenna System
discussion: Nokia Networks: is the same as last time
conclusion: noted

RP-141345 New WI proposal: SON for AAS-based deployments Nokia Networks WID new RAN3 REL-13 -
new WI for UTRA & LTE; leading WG: RAN3; WI code to be used: UTRA_LTE_SON_AAS; follow-up WI of SI FS_UTRA_LTE_NG_SON; AAS = Active Antenna System, SON = Self Organizing Networks
conclusion: revised in RP-141624

RP-141624 New WI proposal: SON for AAS-based deployments Nokia Networks WID new RAN3 REL-13 -
revision of RP-141345; new WI for UTRA & LTE; leading WG: RAN3; Core part only WI; WI code to be used: UTRA_LTE_SON_AAS-Core; follow-up WI of SI FS_UTRA_LTE_NG_SON; AAS = Active Antenna System, SON = Self Organizing Networks
discussion: Huawei: we support this WI proposal
Orange: we are also supporting it
Verizon: we support the WI
ALU: why did you describe indicator solution?
RAN chair: objective is what matters
RAN3 chair: GERAN spec is affected but RAN3 has a container and RAN3 is asking GERAN2 to take it over
conclusion: approved, will be a REL-13 WI with low priority in RAN3 in the next quarter

RP-141353 Motivation for New SI: RAN support for Licensed Shared Access (LSA) Nokia Networks Disc RAN3 REL-13 -
discussion: ZTE: if no dynamic scheme why do we need signalling in RAN
Nokia Networks: is a semi-static change
Ericsson: seems to be more an O&M/SA5 feature
NEC: RAN3 is also responsible for some O&M aspects but we need to look is requirements and architecture aspects first
RAN chair: yes, looking at what ETSI did on this
ALU: ETSI RRS will probably not send an LS in the near future
CATT: some RAN2 impact also expected, some measurements may be needed (RAN1 to be involved)
conclusion: noted

RP-141351 New SI proposal for information: RAN support for Licensed Shared Access (LSA) in LTENokia Networks SID new RAN3 REL-13 -
new SI for LTE only; leading WG: RAN3; secondary WG: RAN2; WI code to be used: FS_LTE_LSA
conclusion: postponed

RP-141364 Motivation for New SI: Network-controlled WLAN operation China Telecom Disc RAN3 REL-13 -
conclusion: noted

RP-141367 New SI proposal: Study on Network-controlled WLAN operation in LTE China Telecom SID new RAN3 REL-13 -
new SI for LTE only; leading WG: RAN3; WI code to be used: FS_LTE_WLAN_netw_ctrl; compare RP-141362
discussion: LG: many RAN2 related WIs, so one package would be useful
ALU: ongoing SI on joint coordination, could this topic not be merged in existing SI?
RAN3 chair: we have an ongoing REL-13 SI FS_MultiRAT_JC
RAN chair: check until next time the overlap with existing SI and if overlap is big enough think about merging them
Broadcom: no need interface to WLAN needed and cooperation with IEEE is encouraged
conclusion: postponed

14.1.4 WIs/SIs led by RAN4

MIMO OTA:

RP-141294 Motivation for new WI: Extending the verification of radiated MIMO reception performance Rohde & Schwarz Disc RAN4 REL-13 -
Motivation document for WI to add Decomposition Method to TR 37.977
conclusion: noted

RP-141296 New WI proposal: Core part: Extending the verification of radiated MIMO reception performance of UEs in LTE/UMTS Rohde & Schwarz WID new RAN4 REL-13 -
new WI for UTRA & LTE; leading WG: RAN4; WI code to be used: HSPA_LTE_MIMO_OTA_Decomp-Core; no Perf. part; note: to add Decomposition Method to TR 37.977; based on REL-12 WI HSPA_LTE_measRP_MIMO-Perf; postponed in RP-140175 at RAN #63
discussion: Anite: was during MIMO OTA WI and was not included in final output because of a problem (throughput is a non-linear function and the method uses a linear approach)
Rohde & Schwarz: would not call this an open issue, can easily be solved
Anite: there was a questionaire where answers were pending
Vodafone: concerned to add another method after all discussions
AT&T: agrees with Vodafone
can we then easily chose from the other methods?
Orange: 3 methodologies are proposed in the other WI and we are confident that they can achieve what we are looking for
Verizon: supporting Orange
conclusion: postponed

RP-141306 Motivation for new WI: Performance requirements for the verification of radiated multi-antenna reception performance of UEs Intel Corporation Disc RAN4 REL-13 -
Discussion paper related to the new WI proposal on Performance requirements for the verification of radiated multi-antenna reception performance of UEs
conclusion: noted

RP-141307 New WI proposal: Performance requirements for the verification of radiated multi-antenna reception performance of UEs Intel Corporation WID new RAN4 REL-13 -
new WI for UTRA and LTE; leading WG: RAN4; WI code to be used: LTE_MIMO_OTA-Core; no Perf. part; this WI proposal was postponed at RAN#63 in RP-140516
discussion: Intel: plans to reduce time budget to 0.1 TU
Telecom Italia: current text has some ambiguity on harmonization
Motorola Mobility: supports Telecom Italia
NTT DOCOMO: concern about time budget
RAN chair: let's focus on scope and we can see time budget later
Orange: we have a whole paragraph on harmonization but we cannot fix a process before the WI starts
Rohde & Schwarz: impact of CA is not taken into account and this should be also included
Motorola Mobility: CA aspect was removed in Fukuoka in the end of the discussion
AT&T: CTIA are ahead with MIMO testing, therefore it is important that we do not diverge
conclusion: revised in RP-141672

RP-141672 New WI proposal: Performance requirements for the verification of radiated multi-antenna reception performance of UEs Intel Corporation WID new RAN4 REL-13 -
conclusion: postponed, LS RP-141696 is withdrawn

other Tdocs of this AI (see below) are not treated

UTRA only:

RP-141141 Motivation for new WI: HSPA Dual-Band UL carrier aggregation Qualcomm Incorporated Disc RAN4 REL-13 -
Related to new WID in RP-141140
conclusion: not treated

RP-141140 New WI proposal: HSPA Dual-Band UL carrier aggregation Qualcomm Incorporated WID new RAN4 REL-13 -
new WI for UTRA only; leading WG: RAN4; WI code to be used: HSUPA_DB_MC
conclusion: revised in RP-141642

RP-141642 New WI proposal: HSPA Dual-Band UL carrier aggregation Qualcomm Incorporated WID new RAN4 REL-13 -
new WI for UTRA only; leading WG: RAN4; WI code to be used: HSUPA_DB_MC;
conclusion: not treated

RP-141143 Motivation for new WI: Advanced Receivers for UMTS DCH Qualcomm Incorporated Disc RAN4 REL-13 -
Related to new WID in RP-141142
conclusion: not treated

RP-141142 New WI proposal: Advanced Receivers for UMTS DCH Qualcomm Incorporated WID new RAN4 REL-13 -
new WI for UTRA only; leading WG: RAN4; WI code to be used: UTRA_AdvRx_DCH
conclusion: revised in RP-141643

RP-141643 New WI proposal: Advanced Receivers for UMTS DCH Qualcomm Incorporated WID new RAN4 REL-13 -
new WI for UTRA only; leading WG: RAN4; WI code to be used: UTRA_AdvRx_DCH;
conclusion: not treated

High speed:

RP-141178 Motivation for New WI: Performance enhancements for high speed environments NTT DOCOMO, INC. Disc RAN4 REL-13 -
conclusion: not treated

RP-141181 New WI proposal: Performance enhancements for high speed environments for LTE NTT DOCOMO, INC. WID new RAN4 REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_high_speed-Perf; no Core part; note: compare corresponding SI in RP-141277
conclusion: not treated

RP-141278 Motivation for new Study Item proposal: LTE enhancement under high speed scenario Huawei, HiSilicon Disc RAN4 REL-13 -
conclusion: not treated

RP-141277 New Study Item proposal: Study on LTE enhancement under high speed scenario Huawei, HiSilicon SID new RAN4 REL-13 -
new SI for LTE only; leading WG: RAN4; WI code to be used: FS_LTE_high_speed; note: compare corresponding WI under RP-141181
conclusion: not treated

UL 64QAM:

RP-141281 Motivation of new Work Item proposal on UE core requirements for uplink 64 QAM Huawei, HiSilicon Disc RAN4 REL-13 -
conclusion: not treated

RP-141280 New Work Item proposal: UE core requirements for uplink 64QAM in LTE Huawei, HiSilicon WID new RAN4 REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_UL64QAM-Core; no Perf. part; note: UL64QAM exists already in LTE for a few releases but without RAN4 core requirements, see also way forward of RAN #64 in RP-141020
conclusion: not treated

High Power Base Station 256QAM:

RP-141191 Motivation for new SID proposal for the HiPow BS 256QAM ZTE Disc RAN4 REL-13 -
conclusion: not treated

RP-141192 New SID proposal for Study of High Power Base Station 256QAM in LTE ZTE SID new RAN4 REL-13 -
new SI for LTE only; leading WG: RAN4; WI code to be used: FS_LTE_HiPBS_256QAM
conclusion: not treated

MMSE-IRC receiver for LTE BS:

RP-141151 Motivation for new WI: Performance requirements of MMSE-IRC receiver for LTE BS China Telecom Disc RAN4 REL-13 -
conclusion: not treated

RP-141152 Proposed WI on performance requirements of MMSE-IRC receiver for LTE BS China Telecom WID new RAN4 REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_MMSE_IRC_BS-Perf; no Core just Perf part; MMSE-IRC = Minimum Mean Square Error-Interference Rejection Combining; WI proposal was postponed at RAN #64 in RP-140687;
conclusion: not treated

Measurement gap enhancement for LTE:

RP-141284 Motivation for new SI: Measurement gap enhancement Intel Corporation Disc RAN4 REL-13 -
Discussion paper related to the new SI proposal on Measurement gap enhancement
conclusion: not treated

RP-141289 New SI proposal: Study on Measurement gap enhancement for LTE Intel Corporation SID new RAN4 REL-13 -
new SI for LTE only; leading WG: RAN4; WI code to be used: FS_LTE_meas_gap; note: this SI proposal was postponed at RAN #63 in RP-140232
conclusion: not treated

CRS Interference Mitigation for LTE:

RP-141376 Motivation for New Work Item proposal: CRS Interference Mitigation for LTE Homogenous Deployments Ericsson Disc RAN4 REL-13 LTE_CRSIC
conclusion: not treated

RP-141379 New Work Item proposal: CRS Interference Mitigation for LTE Homogenous Deployments Ericsson WID new RAN4 REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CRSIM-Perf; no Core part;
discussion:
conclusion: not treated

LTE 4 Rx antenna ports:

RP-141382 Motivation paper for new WID for LTE 4 Rx antenna ports in Rel-13 Ericsson Disc RAN4 REL-13 -
conclusion: not treated

RP-141383 New WI proposal: 4 Rx antenna ports for LTE DL Ericsson WID new RAN4 REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_4Rx_AP_DL
discussion:
conclusion: not treated

Downlink CoMP in LTE:

RP-141391 Motivation for new WI Proposal on Enhanced performance for Downlink CoMP Samsung Disc RAN4 REL-13
proposed WI code: LTE_enh_CoMP-Perf
conclusion: not treated

RP-141390 New WI proposal: Enhanced performance for Downlink CoMP in LTE Samsung WID new RAN4 REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: eCOMP_LTE
conclusion: not treated

LAA:

RP-141219 New SI proposal: Study on Assisted Access for LTE AT&T SID new RAN4 REL-13 -
moved from AI 14.2 to AI 14.1.4; new SI for LTE only; leading WG: RAN4; WI code to be used: FS_LTE_LAA; compare RP-141397, RP-141231 (it is assumed that only one of them are approved)
conclusion: withdrawn

14.2 Spectrum related WIs/SIs

RAN chair: way forward on CA WIs?
RAN4 chair: proposes to postpone the 4DL CA WIs until Dec.14

Sprint: would like to see our WI approved
AT&T: if we have a way forward in Dec.14 it could be considered

Sprint: would replace then 4 DL WI by a 3DL WI

2DL inter-band CA:

RP-141145 New WID proposal: LTE Advanced inter-band Carrier Aggregation of Band 2 and Band 28 Huawei, Telefonica WID new RAN4 s (2DL/1UL) REL-13 -
new WI for LTE only, leading WG: RAN4; WI code to be used: LTE_CA_B2_B28
discussion: NEC: targets of TR seems to be later than other specs
MCC: TP to TR 36.8xx has to be approved before the WI is completed; therefore the target date has to be corrected; TR will be handled like TR 36.851 or TR 36.853 in REL-12 i.e. the TR will be provided for approval at the end of the REL but TP must be approved before declaring the WI completed
conclusion: approved

RP-141337 New WID proposal: LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 31 Orange, Huawei WID new RAN4 s (2DL/1UL) REL-13 -
new WI for LTE only, leading WG: RAN4; WI code to be used: LTE_CA_B3_B31
conclusion: approved

RP-141146 New WID proposal: LTE Advanced inter-band Carrier Aggregation of Band 4 and Band 28 Huawei, Telefonica WID new RAN4 s (2DL/1UL) REL-13 -
new WI for LTE only, leading WG: RAN4; WI code to be used: LTE_CA_B4_B28
conclusion: approved

RP-141336 New WID proposal: LTE Advanced inter-band Carrier Aggregation of Band 20 and Band 31 Orange, Huawei WID new RAN4 s (2DL/1UL) REL-13 -
new WI for LTE only, leading WG: RAN4; WI code to be used: LTE_CA_B20_B31
conclusion: approved, rapporteur: Huawei

TDD-FDD CA:

RP-141318 Motivation for new proposed CA work items KTDisc RAN4 s (2DL/1UL) REL-13 -
This contribution gives background information on 2.3GHz spectrum usage in Korea. Proposed WI codes: LTE_CA_B1_B40, LTE_CA_B3_B40
conclusion: noted

RP-141312 New WI Proposal:LTE Advanced inter-band Carrier Aggregation of Band 1 and Band 40 KTWID new RAN4 s (2DL/1UL) REL-13 -
new WI for LTE only, leading WG: RAN4; WI code to be used: LTE_CA_B1_B40; note: this is TDD-FDD CA
conclusion: approved

RP-141313 New WI Proposal: LTE Advanced inter-band Carrier Aggregation of Band 1 and Band 40 KTWID (new) RAN4 s (2DL/1UL) REL-13 -
conclusion: withdrawn, see RP-141312 instead

RP-141129 New WI proposal: LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 38 Nokia Networks WID new RAN4 s (2DL/1UL) REL-13 -
new WI for LTE only, leading WG: RAN4; WI code to be used: LTE_CA_B3_B38; note: this is TDD-FDD CA
compare RP-141343
discussion: MCC: do we need a different TR for TDD-FDD and for FDD-FDD?
RAN4 chair: no can be the same
conclusion: approved

RP-141343 New WI proposal: LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 38 Samsung WID new RAN4 s (2DL/1UL) REL-13 -
new WI for LTE only, leading WG: RAN4; WI code to be used: LTE_CA_B3_B38; note: this is TDD-FDD CA
compare RP-141129

conclusion: withdrawn

RP-141317 New WI Proposal: LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 40 KT WID new RAN4 s (2DL/1UL) REL-13 -
new WI for LTE only, leading WG: RAN4; WI code to be used: LTE_CA_B3_B40; note: this is TDD-FDD CA
compare RP-141420
discussion: Huawei: we support it
conclusion: revised in RP-141674

RP-141674 New WI Proposal: LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 40 KT WID new RAN4 s (2DL/1UL) REL-13 -
new WI for LTE only, leading WG: RAN4; WI code to be used: LTE_CA_B3_B40; note: this is TDD-FDD CA; note: Same combination is also proposed in RP-141420; revision of RP-141317
conclusion: approved

RP-141420 New WI proposal: LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 40 CEWIT WID new RAN4 s (2DL/1UL) REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_B3_B40; note: this is TDD-FDD CA
compare RP-141317
discussion: Huawei: CEWIT (not present) withdraws this Tdoc and supports KT WID
conclusion: withdrawn

RP-141370 New WI proposal: LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 41 China Telecom WID (new) RAN4 s (2DL/1UL) REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_B3_B41; note: this is TDD-FDD CA
conclusion: withdrawn

RP-141246 New WID Proposal: LTE Advanced inter-band Carrier Aggregation of Band 5 and Band 40 SK Telecom WID (new) RAN4 s (2DL/1UL) REL-13 -
conclusion: revised in RP-141442

RP-141442 New WID Proposal: LTE Advanced inter-band Carrier Aggregation of Band 5 and Band 40 SK Telecom WID new RAN4 s (2DL/1UL) REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_B5_B40; note: this is TDD-FDD CA; revision of RP-141246
conclusion: revised in RP-141675

RP-141675 New WID Proposal: LTE Advanced inter-band Carrier Aggregation of Band 5 and Band 40 SK Telecom WID new RAN4 s (2DL/1UL) REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_B5_B40; note: this is TDD-FDD CA; revision of RP-141442
discussion: SK Telecom: one supporting company removed
conclusion: approved

RP-141346 New WI proposal: LTE Advanced inter-band Carrier Aggregation of Band 7 and Band 38 Samsung WID new RAN4 s (2DL/1UL) REL-13 -
new WI for LTE only, leading WG: RAN4; WI code to be used: LTE_CA_B7_B38; note: this is TDD-FDD CA
discussion: Qualcomm: not feasible to aggregate these bands so objects to approve this WI
RAN4 chair: anyway just 1 supporting company
Vodafone: if Samsung has a way to aggregate we would like to know this
Motorola Solutions: worried how CA WIs are treated
conclusion: postponed

RP-141168 New WI: LTE Advanced inter-band Carrier Aggregation of Band 20 and Band 40 Ericsson, Telefonica, Huawei, HiSilicon WID new RAN4 s (2DL/1UL) REL-13 -
new WI for LTE only, leading WG: RAN4; WI code to be used: LTE_CA_B20_B40; note: this is TDD-FDD CA
conclusion: approved

RP-141424 LTE Advanced inter-band DL Carrier Aggregation in Band 25A and Band 41D Sprint WID new RAN4 s (2DL/1UL) REL-13 -

new WI for LTE only; leading WG: RAN4; no WI code allocated so far as this is a 4DL WI; note: this is TDD-FDD CA
discussion: MCC: why do we need a different WI title naming scheme here?
RAN4 chair: we can discus
conclusion: withdrawn, instead Sprint will provide a 3DL CA WI proposal in RP-141673

3DL/1UL CA:

RP-141302 New WI proposal: Additional bandwidth combination set for LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 1, Band 3 and Band 8 SoftBank Mobile WID (new) RAN4 s (3DL/1UL) REL-13 -
conclusion: revised in RP-141461

RP-141461 New WI proposal: Additional bandwidth combination set for LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 1, Band 3 and Band 8 SoftBank Mobile WID
new RAN4 s (3DL/1UL) REL-13 - revision of RP-141302; new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_B1_B3_B8_BWset; note: This WI adds a new BWset (B1 up to 15MHz) to REL-12 WI LTE_CA_B1_B3_B8 (WID RP-131753) within total BW up to 40MHz
conclusion: withdrawn, will be covered in LTE_CA_B1_B3_B8 WI (see AI 11.8.5.2)

RP-141448 New WI proposal: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 2, Band 2 and Band 29 AT&T WID new RAN4 s (3DL/1UL) REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_B2_B2_B29
conclusion: approved

RP-141148 New WID proposal: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 2, Band 4, and Band 29 Bell Mobility, TELUS, Huawei WID new RAN4 s (3DL/1UL) REL-13 -
new WI for LTE only, leading WG: RAN4; WI code to be used: LTE_CA_B2_B4_B29
conclusion: revised in RP-141668

RP-141668 New WID proposal: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 2, Band 4, and Band 29 Bell Mobility, TELUS, Huawei WID new RAN4 s (3DL/1UL) REL-13 -
conclusion: approved

RP-141147 New WID proposal: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 2, Band 5, and Band 29 Bell Mobility, TELUS, Huawei WID new RAN4 s (3DL/1UL) REL-13 -
new WI for LTE only, leading WG: RAN4; WI code to be used: LTE_CA_B2_B5_B29
conclusion: revised in RP-141667

RP-141667 New WID proposal: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 2, Band 5, and Band 29 Bell Mobility, TELUS, Huawei WID new RAN4 s (3DL/1UL) REL-13 -
conclusion: approved

RP-141290 New WID Proposal: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 8, Band 41 and Band 41 CMCC WID new RAN4 s (3DL/1UL) REL-13 -
new WI for LTE only, leading WG: RAN4; WI code to be used: LTE_CA_B8_B41_B41
conclusion: approved

RP-141349 New WI proposal: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 38, Band 40 and Band 40 Samsung WID new RAN4 s (3DL/1UL) REL-13 -
new WI for LTE only; leading WG: RAN4; proposed WI code: LTE_CA_B38_B40_B40
conclusion: revised in RP-141655 adding more supporting companies

RP-141655 New WI proposal: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 38, Band 40 and Band 40 Samsung WID new RAN4 s (3DL/1UL) REL-13 -
revision of RP-141349; new WI for LTE only; leading WG: RAN4; proposed WI code: LTE_CA_B38_B40_B40
discussion: Qualcomm: simultaneous UL/DL allowed (will then be more complex to develop requirements)?
Samsung: yes
conclusion: approved

RP-141288 New WID Proposal: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 39, Band 39 and Band 41 CMCC WID new RAN4 s (3DL/1UL) REL-13 -
new WI for LTE only, leading WG: RAN4; WI code to be used: LTE_CA_B39_B39_B41
conclusion: approved

intra-band 3DL CA:

RP-141352 New WI: LTE Advanced intra-band contiguous Carrier Aggregation in Band 42 for 3DL CATT WID new RAN4 s (C 3DL) REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_C_B42_3DL
conclusion: revised in RP-141676

RP-141676 New WI: LTE Advanced intra-band contiguous Carrier Aggregation in Band 42 for 3DL CATT WID new RAN4 s (C 3DL) REL-13 -
conclusion: revised in RP-141677

RP-141677 New WI: LTE Advanced intra-band contiguous Carrier Aggregation in Band 42 for 3DL CATT WID new RAN4 s (C 3DL) REL-13 -
conclusion: approved

RP-141673 LTE Advanced inter-band 3DL Carrier Aggregation in Band 25 and Band 41 Sprint WID new REL-13 -
new WI for LTE only; leading WG: RAN4; WI code is to be determined so far
discussion: MCC: WI looks like 2 DL CA WI now although it was indicated to be a 3DL WI
ALU: we use B25_B41_B41 if non-contiguous, but this is a contiguous case
conclusion approved
Note: WI title will be corrected to "LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 25, Band 41 and Band 41" and WI code will be "LTE_CA_B25_B41_B41".

4DL/1UL CA:

RP-141425 LTE Advanced intra-band non-contiguous 4DL Carrier Aggregation in Band 41C and Band 41C Sprint WID new RAN4 s (4DL/1UL) REL-13 -
new WI for LTE only; leading WG: RAN4; no WI code allocated so far as 4DL/1UL is a new class of CA WIs
discussion: MCC: REL-independent from which RELonwards? naming scheme for 4DL WIs (what other 4DL WIs for band 41 do we expect)? 1UL? contiguous/non-contiguous? covering 2DL/3DL permutations? handling of TRs for 4DL? objective for Core and Perf. part identical is not acceptable
conclusion: postponed, instead Sprint will bring a 3DL WI on Friday in RP-141673

RP-141449 LTE Advanced 4 Band Carrier Aggregation (4DL/1UL) of Band 2, Band 2 Band 29 and Band 30 AT&T WID new RAN4 s (4DL/1UL) REL-13 -
new WI for LTE only; leading WG: RAN4; no WI code allocated so far as 4DL/1UL is a new class of CA WIs
discussion: MCC: REL-independent from which REL? naming scheme for 4DL WIs? covering 2DL/3DL permutations? handling of TRs for 4DL? work area not ticked, unclear what are Core and what is Perf. part specs
conclusion: postponed

RP-141450 LTE Advanced 4 Band Carrier Aggregation (4DL/1UL) of Band 2, Band 2, Band 12 and Band 30 AT&T WID new RAN4 s (4DL/1UL) REL-13 -
new WI for LTE only; leading WG: RAN4; no WI code allocated so far as 4DL/1UL is a new class of CA WIs
conclusion: postponed

RP-141451 LTE Advanced 4 Band Carrier Aggregation (4DL/1UL) of Band 2, Band 2, Band 5 and Band 30 AT&T WID new RAN4 s (4DL/1UL) REL-13 -
new WI for LTE only; leading WG: RAN4; no WI code allocated so far as 4DL/1UL is a new class of CA WIs
conclusion: postponed

14.3 UE conformance testing WIs/SIs led by RAN5

RP-141150 New Work Item Proposal: UE Conformance Test Aspects - LTE Coverage Enhancements China Telecom WID new RAN5 REL-12 -
new WI for LTE only; leading WG: RAN5; WI code to be used: Cov_Enh_LTE-UEConTest; tested core part: Cov_Enh_LTE-Core
conclusion: approved

RP-141445 New WI proposal: UE Conformance Test Aspects – Further Rel-12 Configurations for LTE Advanced Carrier Aggregation with 3DL Microsoft Corporation WID new RAN5 REL-12 -
new WI for LTE only; leading WG: RAN5; tested core part: LTE_CA_TDD_FDD-Core, all LTE_CA_Bx_By_Bz-Core, LTE_CA_C_Bx_3DL-Core and LTE_CA_NC_Bx_3DL-Core of REL-12; WI code to be used: LTE_CA_Rel12_3DL-UEConTest; note: There is already a RAN5 REL-12 CA WI LTE_CA_Rel12-UEConTest.
conclusion: approved
Note: It was indicated by the rapporteur's company that also Huawei is supporting this WI and they will be added in the next version of this WID.

15 UE capabilities/FGIs

FGI bit 31:

RP-141113 Mandating the FGI bit 31 to true KDDI CR36.331 1634 - F REL-10 LTE-L23, TEI10
company CR; resubmission of R2-142756 (CR1480) which was endorsed in RAN2 #86; CR resubmission based on latest spec; RP-140870 was postponed at RAN #64
conclusion: approved

RP-141114 Mandating the FGI bit 31 to true KDDI CR36.331 1635 - A REL-11 LTE-L23, TEI10
company CR resubmission of R2-142757(CR1481) which was endorsed in RAN2 ; CR resubmission based on latest spec; RP-140870 was postponed at RAN #64
conclusion: approved

RP-141115 Mandating the FGI bit 31 to true KDDI CR36.331 1636 - A REL-12 LTE-L23, TEI10
company CR resubmission of R2-142758(CR1482) which was endorsed in RAN2 ; CR resubmission based on latest spec; RP-140870 was postponed at RAN #64
conclusion: approved

REL-10 FGIs:

RP-141298 Way Forward on R10 left FGIs CMCC Disc REL-10 -
Proposal: Set FDD/TDD differentiation to "No" for FGI 115; set FDD/TDD differentiation to "Yes" for other FGIs.
discussion: Qualcomm: we want to keep it separate to avoid affecting the one or the other mode
CMCC: we can accept to split for FGI 115
conclusion: noted, RAN agreed to set all the FDD/TDD differentiation fields to "Yes" for REL-10 FGIs which remained so far as "TBD" in TS 36.331 table C.1-1 REL-10/REL-11/REL-12.

New UE categories:

RP-141171 UE categories Ericsson Disc 36.306 REL-12 -
This document discuss the need for additional UE categories.
proposal:
- *RAN WG1 and RAN WG2 should introduce two new UE category pairs with a target data rate of 750 and 1000 Mbps until RAN #66*
  - *The UE categories should be able to reach the given data rate with several different combinations of aggregated bandwidth, number of MIMO layers and with or without support of 256QAM*
    - *The exact data rate can be selected by the working groups in order to fit as many combinations as possible to reach the target data rate.*
  - *The new UE categories are defined for Rel-12 and onwards*

conclusion: noted

RP-141257 Introduction of new UE categories Qualcomm Incorporated Disc REL-12 -
proposal:
- *The DL peak data rates of new UE categories should be a multiple of 200Mbps*
- *The following two new UE categories should be added*
  - *Cat x: 1000Mbps DL*

- *Cat y: 1600Mbps DL*

- *The 1000Mbps category should be defined for Rel-12, while the release for the 1600Mbps could be Rel-13+.*
- *The UL peak data rate(s) for the new categories is TBD. Decoupling of DL and UL categories should be considered.*

conclusion: noted

RP-141268 Introduction of new UE categories Huawei, HiSilicon Disc REL-11 -
proposals:
Proposal 1: Introduce new UE categories 11 and 12 for 600Mbps DL:
Category 11:
- *DL: 600Mbps peak data rate, targeting 2DL CA + 4 layers MIMO ,4DL CA+ 2layer MIMO and 3 DL CA + 2layer MIMO + 256 QAM;*
- *UL: same as Cat 6;*

Category 12:
- *DL: 600Mbps peak data rate, targeting 2DL CA + 4 layers MIMO ,4DL CA+ 2layer MIMO and 3 DL CA + 2layer MIMO + 256 QAM;*
- *UL: same as Cat 7;*

Proposal 2: Send an LS to RAN1 and RAN2 to ask them to take all these three scenarios into account when design physical layer parameter values set by the field ue-Category;
Proposal 3: Introduce new UE categories 11 and 12 for 600Mbps from Rel-11;
Proposal 4: ask RAN plenary to decide whether 800Mbps or 900Mbps shall be next peak throughput.
Proposal 5: we can continue the discussion on the possible decoupling of DL and UL in UE categories at RAN#66.
conclusion: noted

RP-141439 On Rel-12 UE categories Sony Disc REL-12 -
Proposal: TSG-RAN replies to the LS from RAN1 [RP-141063], stating that TSG-RAN want each Release-12 UE category to correspond to a single peak data rate.
conclusion: noted

discussion of the 4 Tdocs above:
Nokia Networks: 256QAM is REL-12 feature, how can you have a REL-11 UE category for it
Intel: up to 1Gbps should be considered for REL-12
Deutsche Telekom: steps of 150/200Mbps ok, decoupling of UL/DL preferred, numbering in increasing bit rate numbers requested
Sprint: matrix should be layed out for a longer term so that we can have UE categories in a logic structure
Mediatek: supports Sprint; asking to make decision in RAN1
RAN chair: let's have some offline discussion to see whether we can converge; Huawei will be the rapporteur for this
conclusion: offline discussion, finally way forward was provided in RP-141691

RP-141691 Way forward on new UE categories Huawei
Proposal 1:
- *Allow a Rel-11 UE to signal the new 600 DL categories if that UE can make it using **2DL CA + 4 layers MIMO** or **4DL CA + 2layer MIMO***
- *Make sure that a Rel-12 UE that achieve 600 DL thanks to **256 QAM** signals this to the network thanks to the related Rel-12 capability*

Proposal 2:
- *Endorse the following basic principles as guideline when creating new UE categories:*

Basic principles
The group seems to agree on a few basic principles, like:
- *Limit to number of new categories*
- *Do not have categories with DL peak rate too close to each other (not closer than 150 or 200 Mbps)*
- *Allow UEs to implement those DL categories with a combination of different technologies (e.g. 256 QAM and 4*4 MIMO) and numbers of CC.*

Proposal 3:
- *To introduce a new DL category covering the peak rate around 900-1000 Mbps DL in Rel-12.*

discussion: Huawei: on proposal 3 may have to come back
RAN chair: proposal 2 is common sense, no need to agree on this; can we agree on proposal 1
Mediatek: some more details need to be clarified
Ericsson: we have not concluded the offline discussion

RAN chair: email discussion on RAN reflector?
Huawei: you will need a UE category for REL-11to support proposal 1
Nokia Networks: it is obvious that RAN1 will have to do the cat. in REL-12
Ericsson: there is also some RAN2 impact
conclusion: noted, no agreement about the proposals but RAN1/RAN2 can work on proposal 1 aspects

UL 64QAM:
See also new WI proposal RP-141280 under AI 14.1.4.

RP-141267 Way forward on decoupling of 64 QAM UL from UE categories Huawei, HiSilicon Disc REL-12 -

Proposal 1: Do not support UL 64QAM for categories 1,2,3 and 4.
Proposal 2: The UL 64QAM capability shall be indicated per band combination and per bandwidth class.
Proposal 3: RAN#65 should send an LS to RAN1 and RAN2 (cc RAN4) to trigger the work as described above, in order to provide CRs to RAN#66 to enable a UE to indicate the support for 64QAM explicitly.
conclusion: noted, proposal 1 is agreed

RP-141297 Proposal of Decoupling Uplink 64QAM from UE Categories from Rel-10 CMCC Disc REL-10 -

conclusion: revised in RP-141629

RP-141629 Proposal of Decoupling Uplink 64QAM from UE Categories from Rel-10 CMCC Disc REL-10 -

Proposal: We would like to ask RAN to discuss the possibility of decoupling UL 64QAM from UE categories from early release, e.g. Rel-10 or Rel-11.
discussion: ALU: would not like to break the principle of UE category linked to peak data rate supported by the UE
Sprint: UL64QAM can be in theory used today so would like to support it from REL-10
Intel: also for decoupling from UE cat.5 and 8; would prefer to follow way forward agreed by RAN2
Huawei: not a good way forward to go backward, we had a long discussion last time and came to a way forward
ALU: max. number of TrCH bits per TTI was not discussed last time
RAN chair: understands that the way forward is the baseline so if no agreement here we fall back to it
RAN chair: not urgent that RAN2 works on CRs in next quarter
RAN2 chair: per band, per band combination or per UE is unclear and depends on RAN4 (bit per UE is easier)
Nokia: that's why we said last time that RAN4 should start first and have a RAN4 WI
conclusion: noted, Huawei will lead offline discussion on decoupling of 64 QAM UL from UE categories; finally no conclusion from offline discussion

REL-12 UE capabilities for UTRA:
RP-141064 LS on Rel-12 capabilities (R2-143962; to: RAN; cc: RAN1; contact: Ericsson) RAN2 LSin REL-12 LCS_BDS-UTRA-Core, LCR_TDD_HSPA_sign_enh-Core, EHNB_enh3-Core, EDCH_enh-Core, UTRA_hetnet_enh-Core, UTRA_DCHenh-Core, UTRA_SIBenh-Core, UTRA_hetnet_mob-Core, TEI12
RAN action requested;
presented by RAN2 vice-chair (Interdigital), chair of UTRA RAN2 session
discussion: AT&T: when support is optional why is no capability signalling included?
RAN2 vice-chair (Interdigital): for SIB enhancements: for idle and CELL_FACH mode there is no way for the network to know whether the UE supports it; for "Introduction of CELL_FACH with Second DRX to 3G Logged MDT" there seems to be an error (Cap. Signalling should say YES instead of No); this is to be verified
Ericsson: also default configuration discussion may have an impact here
conclusion: noted, no LS answer; RAN2 vice-chair (Interdigital) will check "Introduction of CELL_FACH with Second DRX to 3G Logged MDT" capability signalling;
apart from this and default configuration aspect the RAN2 proposal is agreed by RAN

RAN2 vice-chair (Interdigital): has checked the problem and the result is:

There is no capability signaling and the feature is conditionally mandatory (i.e. the LS has an error under TEI12 for "Capability: Introduction of Cell_FACH with Second DRX to 3G Logged MDT.": "Support: Optional" is wrong).
If the UE supports Second DRX in CELL_FACH and supports logged MDT then the UE shall support the 3G logged MDT in CELL_FACH feature.

REL-12 LTE eIMTA UE capabilities:

RP-141348 On Rel-12 UE eIMTA UE capabilities CATT Disc REL-12 LTE_TDD_eIMTA-Core
Discussion on mandatory/optional feature for eIMTA
Proposal 1: phy-TDD-ReConfig-TDDPCell is mandatory for Rel-12 UEs supporting TDD.
Proposal 2: phy-TDD-ReConfig-FDDPCell is mandatory for Rel-12 UEs supporting phy-TDD-ReConfig-TDDPCell and TDD-FDD CA with FDD PCell.
Proposal 3: pusch-SRS-PowerControl-SubframeSet is optional for Rel-12 UEs supporting TDD.
Proposal 4: csi-SubframeSet is optional for Rel-12 UEs supporting TDD.
discussion: NTT DOCOMO: we make feature mandatory if a lot of operators support it so is there a market demand here?
Ericsson: seeing the full scope of features before starting this discussion is preferred
Qualcomm: agrees with Ericsson and would not like to bypass RAN1
RAN chair: by default we will wait for RAN1 input
CATT: in the end the mandatory/optional decision should be made in RAN if there is no decision possible in WG
RAN1 chair: RAN1 will look at REL-12 UE capabilities in the next quarter
conclusion: noted

UE capabilities:

RP-141404 Limitations of current UE E-UTRA capability handling Qualcomm Incorporated Disc REL-13 -
proposal: RAN is asked to discuss the described use cases for which allowing update of UE E-UTRA capability during idle mode and/or connected mode could be beneficial
discussion: Deutsche Telekom: we have seen and discussed this in the past
AT&T: is chip set able to handle this easily?
Qualcomm: chipset could simply drop the data
Orange: RF resouces sharing: can UEs not handle this already today?
Sprint: concerned about overhead if we do it dynamically
Intel: needs to be discussed in RAN1/2/4 but as there is no time there we could rediscuss at RAN #66 and give companies time to think about it
Ericsson: Qualcomm has already submitted it to RAN2
RAN chair: maybe not for Q4/2014 but better in Q1/2015
conclusion: noted, can be discussed in RAN2 in Q1/2015

16 Inter WG/TSG-related discussions & decisions

RP-141381 Consideration of LTE-based V2X communication LG Electronics Disc REL-13 -
V2X = vehicular to X
conclusion: not treated

17 Outputs to other groups

No contributions

18 Project management

Release timeline & management:
Note: Contribution RP-141395 from Alcatel-Lucent proposes to keep current REL-13 timeline.

RP-141121 Rel-13 Time schedule Samsung Disc REL-13 -

proposed to adjust the Rel-13 time schedule as below:
- *Functional freeze: March 2016*
- *ASN.1 freeze: June 2016*

discussion: RAN chair: will conclude on this in Dec.14
ALU: prefers to keepREL-13 freeze in Dec.15
KT: in next 2 WG meetings WGs are still working on REL-12
Qualcomm: prefers to keep timeline as it is; SIs/WIs do not need to be in the same REL
Nokia Networks: prefers to have 3 more months to be realistic
Orange: supports also to have 3 more months, we need to avoid ending with a SI 3 months before the freeze of the REL and then extend the REL to make it happen (as for D2D)
Sprint: also supports to have more realistic time frames (compared to what we have so far)
Ericsson: supports the chairman to wait until Dec.14 with REL-13 time line decisions
Mediatek, Broadcom: support Samsung proposal
Samsung: March 16 should be strict deadline
RAN chair: at next meeting we will make a decision (also regarding spec handling)
ALU: we also need to take into account the 5G timeline
RAN chair: we can also think about REL-14 timeline

conclusion: noted, REL-13 time line will be discussed at RAN #66

REL-12 ASN.1 freeze:

RAN chair: as indicated in RAN2 chair's report we will shift the ASN.1 freeze from Dec.14 to March 15
Vodafone: do we have a backup plan, if something is not ready by Dec.14, how can we review ASN.1 then
Samsung: we have to be strict in Dec.
RAN2 chair: ASN.1 freeze should only be declared when specs are really stable; we need all RAN1 inputs after the Oct. meetings to be able to complete by Dec.14
Orange: we need a firm decision what we do with items that are not completed in Dec.14
Vodafone: has RAN2 considered to have another meeting in January?
RAN2 chair: ASN.1 review is always spread over 2 meetings
RAN: could this be done in one meeting?
RAN2 chair: not if we want to have the same quality
Vodafone: Ericsson is proposing agile standardization where you have continued ASN.1 freeze, so how is this possible?
Nokia Networks: having an intermediate REL may be an option
RAN chair: maybe we can look into RP-141363

RAN decision: REL-12 ASN.1 freeze is shifted from Dec.14 to March 15

RP-141363 Agile Standardization Ericsson Disc REL-12 -

discussion: SA2 chair (Samsung): this approach would need a 3GPP wide approach otherwise it could cause serious problems
RAN3 chair: this proposal is in principle also possible today, ASN.1 experts should not be loaded with permanent ASN.1 review, also freezing a REL has MCC impact and they should be heard as well
RAN2 chair: late additions after the freeze of a REL (like MFBI) need to be avoided
RAN1 vice-chair: acc. to our RP-141395: impacts on specification management and ASN.1 freeze has to be carefully considered before we rush into changes; also REL-13 should better not be touched anymore; for REL-14 and beyond we need to look at the contents first and then select the length
Vodafone: time pressure has to be taken into account
RAN2 chair: we need to complete ProSe and Dual Connectivity by Dec.14
SA2 chair: predictable delivery of features is important
Meditek: proposal from Nokia Networks would be less risky
Intel: frequent ASN.1 review would not solve the work load issue we have in WGs

conclusion: noted

Work plan:

RP-141088 3GPP Work Plan review at Plenary #65 ETSI MCC Workplan - -

conclusion: noted

RP-141090 Standardization of Machine-type Communications ETSI MCC Info - -

conclusion: noted

RP-141091 LTE for Public Safety (authority-to-authority) communications ETSI MCC Info - -
conclusion: noted

RP-141092 3GPP Rel-12_description ETSI MCC Info REL-12 -
conclusion: noted

RP-141093 3GPP Rel-13_description ETSI MCC Info REL-13 -
conclusion: noted

RP-141094 3GPP_Carrier Aggregation for LTE ETSI MCC Info - -
conclusion: noted

Others:

RP-141103 Closure of early Releases MCC Disc REL-4 -
This contribution proposes the closure of one or more of the earliest 3GPP Releases remaining open. Decisions on each candidate Release are sought from each TSG.
discussion: Spec Manager: GERAN and CT agreed to close REL-4/5/6/7
Huawei: does it mean we can no longer do CRs on these REL?
Spec Manager: correct
conclusion: noted, RAN also agreed to close REL-4/5/6/7

RP-141089 3GPP Support Team Report ETSI MCC Report - -
conclusion: noted

RP-141105 Support Team report ETSI MCC Disc - -
Report from last quarter.
conclusion: withdrawn, see RP-141089 instead

19 Future meeting schedule

Meeting schedule 2010/2011/2012/2013/2014/2015/2016:

MEETING	DATES	LOCATION	HOST
RAN #47	16 March – 19 March 2010	Vienna, Austria	EF3
RAN #48	1 June – 4 June 2010	Seoul, Korea	TTA
RAN #49	14 Sep. – 17 Sep. 2010	San Antonio, USA	NAF3
RAN #50	7 Dec. – 10 Dec. 2010	Istanbul, Turkey	EF3
RAN #51	15 March – 18 March 2011	Kansas City, USA	Sprint Nextel
RAN #52	31 May – 3 June 2011	Bratislava, Slovakia	EF3
RAN #53	13 Sep. – 16 Sep. 2011	Fukuoka, Japan	ARIB & TTC
RAN #54	6 Dec. – 9 Dec. 2011	Berlin, Germany	EF3
RAN #55	28 Feb. – 2 March 2012	Xiamen, China	ZTE, CMCC
workshop ***	11 June - 12 June 2012	Ljubljana, Slovenia	EF3
RAN #56	13 June – 15 June 2012	Ljubljana, Slovenia	EF3
RAN #57	4 Sep. – 7 Sep. 2012	Chicago, USA	NAF3
RAN #58	4 Dec. – 7 Dec. 2012	Barcelona, Spain	EF3
RAN #59	26 Feb. – 1 March 2013	Vienna, Austria	EF3
RAN #60	11 June – 14 June 2013	Oranjestad, Aruba	NAF3
RAN #61	3 Sep. – 6 Sep. 2013	Porto, Portugal	EF3
RAN #62	3 Dec. – 6 Dec. 2013	Busan, Korea	TTA
RAN #63 **	3 March – 6 March 2014	Fukuoka, Japan	ARIB & TTC
RAN #64	10 June – 13 June 2014	Sophia Antipolis, France	ETSI
workshop LTE-U	13 June 2014	Sophia Antipolis, France	ETSI
RAN #65	**9 Sep. – 12 Sep. 2014**	**Edinburgh, Scotland**	**EF3**
RAN #66 **	8 Dec. – 11 Dec. 2014	Maui, USA	NAF3
RAN #67 **	9 March – 12 March 2015	Shanghai, China	Huawei
RAN #68 **	15 June – 18 June 2015	Malmö, Sweden	EF3
RAN #69 **	14 Sep. – 17 Sep. 2015	tbd, USA	NAF3
RAN #70 **	7 Dec. – 10 Dec. 2015	Sitges, Spain	EF3
RAN #71 **	7 March – 10 March 2016	EU	EF3
RAN #72 **	13 June – 16 June 2016	tbd, Korea	TTA
RAN #73 **	19 Sep. – 22 Sep. 2016		
RAN #74 **	5 Dec. – 8 Dec. 2016	EU	EF3

***: RAN Workshop on REL-12 and onwards

**: 1 week TSG i.e. in same week with CT and SA, therefore starting on Monday

20 Any other business

RP-141666 Results of whisky tasting competition Keysight Info
conclusion: noted

21 Closing of the meeting

The TSG RAN chairman Dino Flore (Qualcomm) thanked the delegates for participating and contributing to RAN meeting #65 he thanked the host for organizing the meeting and Keysight Technologies for organizing the nice social event and closed the meeting on Friday Sep.12th, 2014 at about 1:00pm CEST.

Annex A:
List of participants

The list of participants of this RAN meeting #65 is attached to this report.

Total number of participants: 214 (registered before the meeting: 241)

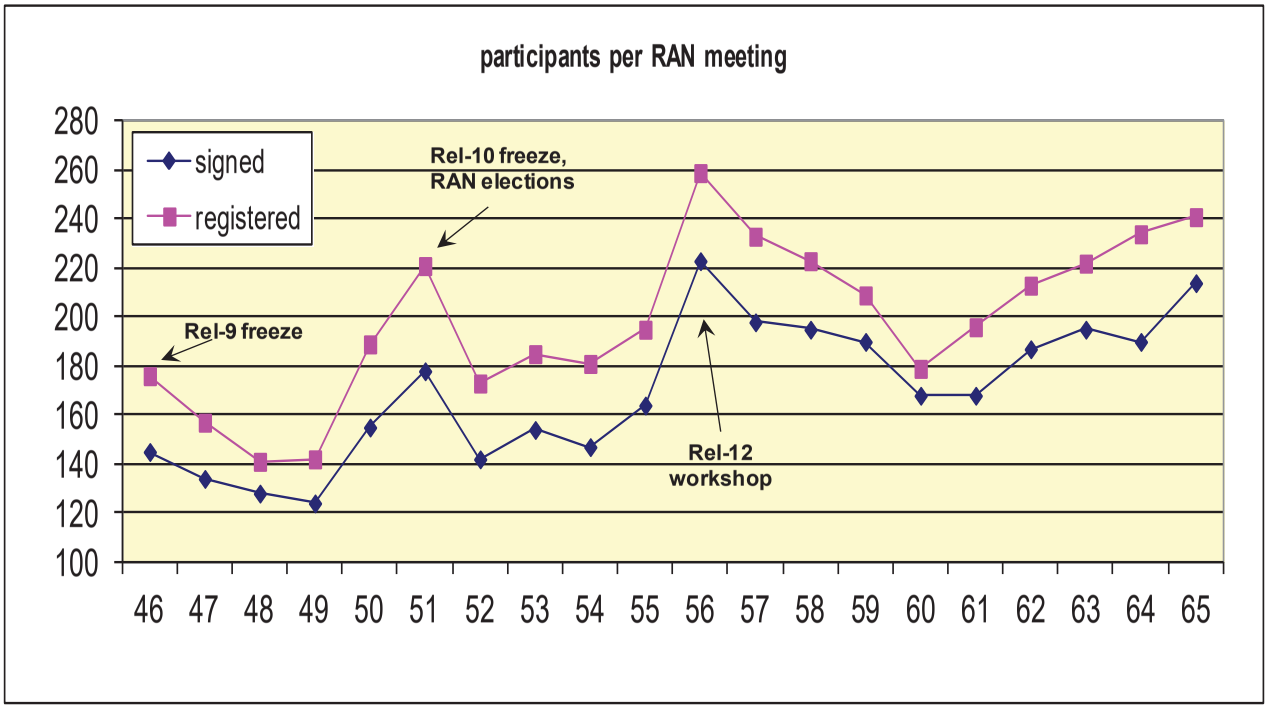


Fig. A-1: participants per RAN meeting (registered beforehand and actual participants who signed)

Annex B:
List of Tdocs

The list of Tdocs of this RAN meeting #65 is attached to this report.

Total number of Tdocs: 671 (RP-141045 - RP-141715) of which 656 Tdocs are available, i.e. 15 are not available and they are withdrawn.

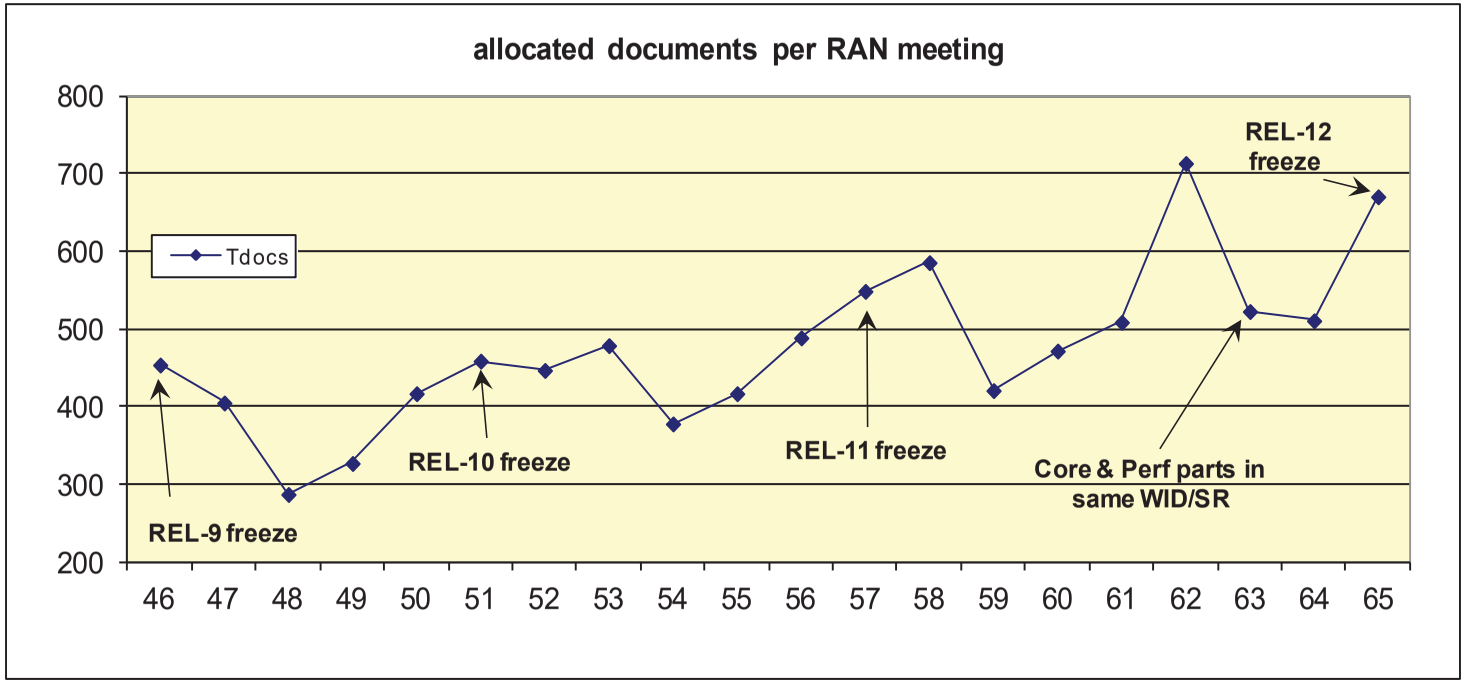


Fig. B-1: number of allocated Tdocs per RAN meeting

Annex C:
Incoming liaison statements (LSin)

In total 37 LSs/LTIs were received for RAN #65 (4 of them received during the meeting; 1 of them received after the meeting). All 37 LSs/LTIs were treated.

RAN Tdoc	title (incoming LS, to, cc, contact)	source	REL	WI	RAN action requested	status	LS answer to source	additional comments
RP-141047	Reply LS to R2-142955 = RP-140556 on WLAN/3GPP Radio Interworking (C1-143355; to: RAN2; cc: SA2, RAN4, RAN; contact: Huawei)	CT1	REL-12	UTRA_LTE_WLAN_interw-Core	no	noted	no	LS treated under AI 11.6.4
RP-141048	LS on E-UTRAN to GERAN PS Handover (C4-141599; to: RAN3; cc: CT, RAN; contact: Alcatel-Lucent)	CT4	REL-9	TEI9	no	noted	no	LS treated under AI 6.3 together with RP-141067
RP-141049	LS on E-UTRAN inter-frequency measurements that exceeds maxEARFCN (CP-140462; to: RAN2; cc: RAN, CT6; contact: LG)	CT	REL-12	TEI12	no	noted	no	
RP-141050	Reply LS to RP-141012 on user preferences in RAN rules (S2-142838; to: RAN, CT1, RAN2; cc: -; contact: NSN)	SA2	REL-12	UTRA_LTE_WLAN_interw-Core	yes	noted	no	LS treated under AI 11.6.4
RP-141051	Reply LS to R2-142955 = RP-140556 on WLAN/3GPP Radio Interworking (S2-142901; to: RAN2, CT1; cc: RAN4, RAN, SA; contact: Alcatel-Lucent)	SA2	REL-12	UTRA_LTE_WLAN_interw-Core	no	noted	no	LS will be treated under AI 11.6.4
RP-141052	Reply LS to R2-141826 on eMBMS broadcast areas with EUTRAN Cell Granularity (S2-142943; to: RAN2, RAN3; cc: RAN, CT3, CT4; contact: NSN)	SA2	REL-12	GCSE_LTE	no	noted	no	note: R2-141826 was not sent to/cc RAN but to SA2, cc: CT3, CT4, RAN3, SA4
RP-141053	LS on Evolution of Recommendation E.212 "The international identification plan for public networks and subscriptions" (ITU-T SG2 LS55; to: 3GPP (RAN, CT, SA), 3GPP2, GSMA, CDMA Development Group; cc: -; contact: Telecom Italia)	ITU-T SG2	-	-	not explicitly	noted	no	

RAN Tdoc	title (incoming LS, to, cc, contact)	source	REL	WI	RAN action requested	status	LS answer to source	additional comments
RP-141054	LS on Working document towards a preliminary draft new ITU-R Report on the Smart Grid project (ITU-R WP1A/TEMP/61; to: 3GPP (RAN, GERAN, RAN4, SA), 3GPP2, ARIB, ATIS, CCSA, CDG, ETSI, IEEE, ITRI, GSMA, TIA, TTA, Wi-Fi Alliance; cc: -; contact: Counsellor ITU-R SG1)	ITU-R WP1A	-	-	not explicitly	noted	postponed	LS treated under AI 7.2.3; 3GPP ITU-R ad hoc planned to prepare a reply based on inputs from GERAN, RAN4; note: GERAN postponed a reply to Nov., RAN4 has no reply; finally a reply to RP-141054 was postponed (3GPP ITU-R ad hoc will work on a proposal to RAN #66; this one will then require SA/PCG approval after RAN discussion);
RP-141055	LS on ARCHITECTURE AND TOPOLOGY OF IMT NETWORKS (ITU-R WP5D/TEMP/404(Rev.2); to: RAN, CT, SA; cc: SA2; contact: Counsellor ITU-R SG 5)	ITU-R WP5D	-	-	not explicitly	noted	RP-141647	LS will be treated under AI 7.2.2; to check whether 3GPP input PCG33_08 (based on RP-140589) was correctly included; 3GPP ITU-R ad hoc prepared a reply in RP-141070 (see RP-141647 for the final answer from RAN)
RP-141056	LS on THE PROVISION OF TRANSPOSITION REFERENCES AND CERTIFICATION C FOR DRAFT REVISION 12 OF RECOMMENDATION ITU-R M.1457 (ITU-R WP5D/TEMP/407; to: RAN, CT, SA, ARIB, ATIS, CCSA, ETSI, TIA, TTA, TTC, IEEE, WiMAX Forum; cc: -; contact: Counsellor ITU-R SG 5)	ITU-R WP5D	-	-	yes	noted	RP-141648	LS treated under AI 7.2.2; to check whether 3GPP input PCG32_10 was correctly included; 3GPP ITU-R ad hoc prepared a reply in RP-141072 (see RP-141648 for the final answer from RAN)

RAN Tdoc	title (incoming LS, to, cc, contact)	source	REL	WI	RAN action requested	status	LS answer to source	additional comments
RP-141057	LS on WORK PROGRESS ON PRELIMINARY DRAFT NEW RECOMMENDATIONS ITU-R M.[IMT.OOBE.BS] AND M.[IMT.OOBE.MS] (ITU-R WP5D/TEMP/447(Rev.1); to: RAN, RAN4, RAN5, WiMAX Forum; cc: -; contact: Counsellor ITU-R SG 5)	ITU-R WP5D	-	-	no	noted	RP-141649	LS treated under AI 7.2.2; to check whether 3GPP input PCG32_09 was correctly included; 3GPP ITU-R ad hoc will draft an answer taking into account RAN4, RAN5 replies; note: RAN4 & RAN5 did not provide any replies; if correction needed then PCG approval will be needed; 3GPP ITU-R ad hoc prepared a reply in RP-141095 (see RP-141649 for the final answer from RAN)
RP-141058	LS on THE WORK PLAN, TIMELINE, PROCESS AND DELIVERABLES FOR THE FUTURE DEVELOPMENT OF INTERNATIONAL MOBILE TELECOMMUNICATIONS (IMT) (ITU-R WP5D/TEMP/455; to: PCG, GERAN, RAN, CT, SA; cc: -; contact: Counsellor ITU-R SG 5)	ITU-R WP5D	-	-	yes	noted	RP-141650	LS will be treated under AI 7.2.2; 3GPP ITU-R ad hoc will draft an answer taking into account the GERAN reply; note: GERAN reply was provided in GP-140690 = RP-141438; 3GPP ITU-R ad hoc prepared a reply in RP-141071 (see RP-141650 for the final answer from RAN)
RP-141059	Reply LS to R2-141855 = RP-140539 on on WLAN signal measurements for WLAN/3GPP Radio interworking (IEEE 802.11-14/0936r3; to: RAN2; cc: WiFi Alliance, RAN4, RAN5, SA2, RAN; contact: Qualcomm)	IEEE 802.11	REL-12	UTRA_LTE_WLAN_interw-Core	no	noted	no	LS treated under AI 11.6.4; note: IEEE 802.11 replied already to R2-141855 = RP-140539 in RP-140548 and this is a follow-up reply;

RAN Tdoc	title (incoming LS, to, cc, contact)	source	REL	WI	RAN action requested	status	LS answer to source	additional comments
RP-141060	Reply LS to RP-140999 on Areas of Mutual Interest to 802 LMSC and 3GPP (IEEE_8002_LMSC_LS_140718_rev1; to: RAN; cc: -; contact: IEEE)	IEEE 802 LMSC	-	-	yes	noted	RP-141712	note: RAN #64 answered LSin RP-140536 related to coexistence in unlicensed spectrum in LSout RP-140999; LS answer is postponed until RAN approves a SI; finally: Nokia Networks will draft a short LS answer in RP-141695 attaching the approved SI (final LS answer in RP-141712)
RP-141061	LS on creation of GCF OTA Task Force (GCF_OTA-14-014r3; to: RAN, RAN4, RAN5; cc: GERAN; contact: GCF)	GCF OTA Task Force 1	-	-	yes	noted	postponed	GCF = Global Certification Forum; OTA = over the air; LS treated under AI 6.3 together with RP-141069; at first Orange intended to draft a reply LS in RP-141696 but this was then withdrawn
RP-141062	LS on 256QAM for PMCH (R1-143612; to: RAN2, RAN4; cc: RAN; contact: Huawei)	RAN1	REL-12	LTE_SC_enh_L1	no	noted	no	LS treated under AI 11.7.8
RP-141063	LS on 256QAM UE category (R1-143675; to: RAN2; cc: RAN4, RAN; contact: Huawei)	RAN1	REL-12	LTE_SC_enh_L1	no	noted	no	LS treated under AI 11.7.8; no LS answer

RAN Tdoc	title (incoming LS, to, cc, contact)	source	REL	WI	RAN action requested	status	LS answer to source	additional comments
RP-141064	LS on Rel-12 capabilities (R2-143962; to: RAN; cc: RAN1; contact: Ericsson)	RAN2	REL-12	LCS_BDS-UTRA-Core, LCR_TDD_HSPA_sign_enh-Core, EHNB_enh3-Core, EDCH_enh-Core, UTRA_hetnet_enh-Core, UTRA_DCHenh-Core, UTRA_SIBenh-Core, UTRA_hetnet_mob-Core, TEI12	yes	noted	no	LS treated under AI 15
RP-141065	Response LS to S2-142939 on the Impacts of Packet Marking on RAN user plane handling of DL traffic (R3-142079; to: SA2; cc: RAN2, RAN; contact: Alcatel-Lucent)	RAN3	REL-13	UPCON	no	noted	no	note: S2-142939 was only sent to RAN2, RAN3;
RP-141066	Reply LS to R1-142762 = RP-140554 on radio interface based synchronization (R3-142097; to: RAN1, SA5; cc: RAN; contact: NSN)	RAN3	REL-12	LTE_SC_enh_L1	no	noted	no	LS treated under AI 11.7.8
RP-141067	Response LS to C4-141230 = RP-140552 on EUTRAN to GERAN PS Handover (R3-142110; to: CT4; cc: RAN, CT; contact: Alcatel-Lucent)	RAN3	REL-9	TEI9	no	noted	no	
RP-141068	LS on DL CA and support for the lower order DL fall-back modes (R4-145477; to: RAN2; cc: RAN; contact: Ericsson)	RAN4	REL-12	-	no	noted	no	LS treated under AI 12.2.2
RP-141069	Reply LS to GCF LS RP-141061 to 3GPP on creation of GCF OTA Task Force (R4-145589; to: GCF OTA Task Force for OTA Antenna Performance; cc: RAN, RAN5; contact: Intel)	RAN4	REL-12	LTE_UTRA_TRP_TRS-Core	no	noted	no	

RAN Tdoc	title (incoming LS, to, cc, contact)	source	REL	WI	RAN action requested	status	LS answer to source	additional comments
RP-141070 ***	Draft reply Letter to ITU-R WP5D/TEMP/404(Rev.2) = RP-141055 on LS on Architecture and Topology of IMT Networks (RT-140019; to: RAN; cc: -; contact: Telecom Italia)	3GPP ITU-R ad hoc	-	-	yes	noted	no	proposed reply to RP-141055 prepared by 3GPP ITU-R ad hoc; Tdoc treated under AI 7.2.2; RP-141070 was used as basis for the reply to RP-141055 (see RP-141647)
RP-141071 ***	Draft reply Letter to ITU-R WP5D/TEMP/455 = RP-141058 on the work plan, timeline, process and deliverables for the future development of International Mobile Telecommunications (IMT) (RT-140020; to: RAN; cc: -; contact: Telecom Italia)	3GPP ITU-R ad hoc	-	-	yes	noted	no	proposed reply to RP-141058 prepared by 3GPP ITU-R ad hoc; Tdoc treated under AI 7.2.2; RP-141071 was used as basis for the reply to RP-141058 (see RP-141650);
RP-141072 ***	Draft reply Letter to ITU WP5D/TEMP/407 = RP-141056 on LS to GCS Proponents and Transposing Organizations on the provision of transposition references and Certification C for Draft Revision 12 of Recommendation ITU-R M.1457 (RT-140021; to: RAN; cc: -; contact: Telecom Italia)	3GPP ITU-R ad hoc	-	-	yes	noted	no	proposed reply to RP-141056 prepared by 3GPP ITU-R ad hoc; Tdoc treated under AI 7.2.2; RP-141072 was used as basis for the reply to RP-141056 (see RP-141648);
RP-141095 ***	Draft reply Letter to ITU-R WP5D/TEMP/447(Rev.1) = RP-141057 on LS to 3GPP, WIMAX Forum – Work progress on preliminary draft new Recommendations ITU-R M.[IMT.OOBE.BS] and M.[IMT.OOBE.MS] (RT-140022; to: RAN; cc: -; contact: Telecom Italia)	3GPP ITU-R ad hoc	-	-	yes	noted	no	proposed reply to RP-141057 prepared by 3GPP ITU-R ad hoc; Tdoc treated under AI 7.2.2; RP-141095 was used as basis for the reply to RP-141057 (see RP-141649);
RP-141097	LS on Request on prioritization and expeditious completion of 3GPP Work Items and Study Items related to Public Safety LTE (to: RAN, SA; cc: -; contact: MSIP IT Strategy Bureau)	MSIP Korea	REL-13	-	yes	noted	no	MSIP = Ministry of Science
RP-141098	LS on 3GPP Work Items for Public Safety LTE and PPDR Broadband network in Korea (to: RAN, SA; cc: -; contact: TTA)	TTA	REL-13	-	not explicitly	noted	no	

RAN Tdoc	title (incoming LS, to, cc, contact)	source	REL	WI	RAN action requested	status	LS answer to source	additional comments
RP-141437	LS on Introduction of Power Saving Mode in GERAN (GP-140541; to: SA2; cc: RAN, RAN2; contact: Ericsson)	GERAN	REL-12	MTCe-UEPCOP-GERAN	no	noted	no	
RP-141438	Reply LS to ITU-R WP5D/TEMP/455 = RP-141058 on the work plan, timeline, process and deliverables for the future development of International Mobile Telecommunications (IMT) (GP-140690; to: 3GPP ITU-R ad hoc; cc: RAN; contact: Ericsson)	GERAN	-	-	no	noted	no	This is GERAN's view on the LSin from ITU-R WP5D in RP-141058 and it was provided to the 3GPP ITU-R ad hoc to be taken into account in the 3GPP answer that is prepared in RP-141071; LS will be treated under AI 7.2.2;
RP-141604	LS on Information request on E-UTRAN TDD specification (CEPT ECC PT1(14)115_A26rev1; to: RAN; cc: ETSI MSG TFES, ETSI ERM; contact: CEPT ECC PT1 chairman)	CEPT ECC PT1	-	-	yes	noted	postponed	CEPT = Conférence européenne des administrations des postes et des télécommunications; ECC = Electronic Communications Committee; PT1 = Project Team 1; Orange intended to draft an LS answer in RP-141606; finally the LS answer to RP-141604 was postponed
RP-141686	Reply LS on Liaison statement to External Organizations on Architecture and Topology of IMT Networks (CP-140728; to: SA; cc: RAN; contact: Ericsson)	CT	-	-	no	noted	no	received on Friday of RAN #65; CT view regarding RP-141647
RP-141687	Reply LS LIAISON STATEMENT TO GCS PROPONENTS AND TRANSPOSING ORGANIZATIONS ON THE PROVISION OF TRANSPOSITION REFERENCES AND CERTIFICATION C FOR DRAFT REVISION 12 OF RECOMMENDATION ITU-R M.1457 (CP-140729; to: SA; cc: RAN; contact: Ericsson)	CT	-	-	no	noted	no	received on Friday of RAN #65; CT view regarding RP-141648

RAN Tdoc	title (incoming LS, to, cc, contact)	source	REL	WI	RAN action requested	status	LS answer to source	additional comments
RP-141688	Reply LS to LIAISON STATEMENT TO EXTERNAL ORGANIZATIONS ON THE WORK PLAN, TIMELINE, PROCESS AND DELIVERABLES FOR THE FUTURE DEVELOPMENT OF INTERNATIONAL MOBILE TELECOMMUNICATIONS (IMT) (CP-140730; to: SA; cc: RAN; contact: Ericsson)	CT	-	-	no	noted	no	received on Friday of RAN #65; CT view regarding RP-141650
RP-141689	LS on Proposed organization of a co-located workshop ITU-T SG12 QSDG / 3GPP / ETSI TB STQ on Quality of Service (QoS) and Quality of Experience (QoE) of 'big data' services in 3G/4G Mobile Networks (ITU-T SG12 TD 536 rev 1; to: RAN, CT, ETSI TB STQ; cc:ITU-T SG12 QSDG; contact: RURA)	ITU-T SG12	-	-	yes	noted	no	received on Friday of RAN #65
RP-141714 ***	Draft Letter to ITU on Comments on Working document towards a Handbook on Global Trends in IMT ITU-R M.[IMT.HANDBOOK] (RT-140025; to: RAN; cc: -; contact: Telecom Italia)	3GPP ITU-R ad hoc	-	-	yes	noted	no	received on 26.09.14 i.e. after RAN #65 and handled by email (deadline 30.09.14); RP-141714 is used as a basis for LTIout RP-141715

***: uses Letter to ITU template (LTI)

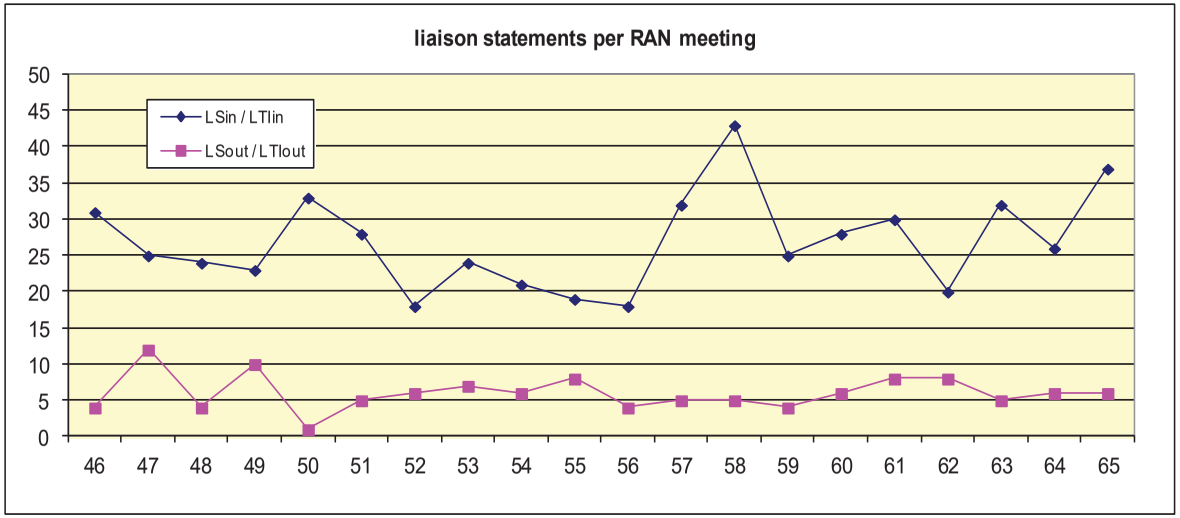


Fig. C-1: number of incoming/outgoing Liason Statements (LS) and Letter to ITU (LTI) per RAN meeting

Annex D:
Outgoing liaison statements (LSout)

Only final outgoing LSs are listed here.
6 outgoing LSs/LTIs of RAN #65 (1 of them agreed by email after RAN #65):

final LS Tdoc	title	to	cc	contact	reply to	release	WI	comments
RP-141647 ***	Draft reply Letter on Architecture and Topology of IMT Networks	CT, SA	-	Telecom Italia	ITU-R WP5D/TEMP/404(Rev.2) = RP-141055	-	-	for review in CT and SA; be submitted to ITU-R WP5D by Individual Members
RP-141648 ***	Draft reply Letter on the provision of transposition references and Certification C for Draft Revision 12 of Recommendation ITU-R M.1457	CT, SA	-	Telecom Italia	ITU WP5D/TEMP/407 = RP-141056	-	-	for review in CT, SA and PCG; to be provided to ITU-R WP5D via ATIS on behalf of OPs
RP-141649	Draft reply Letter to on LS to 3GPP, WIMAX Forum – Work progress on preliminary draft new Recommendations ITU-R M.[IMT.OOBE.BS] and M.[IMT.OOBE.MS]	ITU-R WP5D	-	Telecom Italia	ITU-R WP5D/TEMP/447(Rev.1) = RP-141057	-	-	to be submitted to ITU-R WP5D by Individual Members
RP-141650 ***	Draft reply Letter on the work plan, timeline, process and deliverables for the future development of International Mobile Telecommunications (IMT)	CT, SA	-	Telecom Italia	ITU-R WP5D/TEMP/455 = RP-141058	-	-	for review in CT, SA and PCG; to be provided to ITU-R WP5D via ATIS on behalf of OPs
RP-141712	Reply LS on Areas of Mutual Interest to 802 LMSC and 3GPP	IEEE 802 LMSC	-	Nokia Networks	IEEE_8002_LMSC_LS_140718_rev1 = RP-141060	-	-	

final LS Tdoc	title	to	cc	contact	reply to	release	WI	comments
RP-141715	Draft Letter to ITU on Comments on Working document towards a Handbook on Global Trends in IMT ITU-R M.[IMT.HANDBOOK]	SA	-	Telecom Italia	-	-	-	sent out out 30.09.14; for email review in SA and afterwards for email approval in PCG and then distribution to ITU-R WP5D via ATIS on behalf of OPs

***: uses Letter to ITU template (LTI)

Annex E:
List of Change Requests (CRs)

This list of 1158 CRs includes all CRs submitted to RAN #65 with 1105 approved CRs.

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
25.101	1040	-	Rel-12	B	RP-141543	R4-144934	approved	Addition of demodulation requirement for BCH mapped to S-CCPCH	12.4.0	12.5.0	R4	UTRA_SIBenh-Perf
25.101	1041	-	Rel-11	F	RP-141529	R4-144970	approved	Maximum allowed UL TX power for Band XXVI coexistence with Public Safety	11.9.2	11.10.0	R4	e850_UB-Core
25.101	1042	-	Rel-12	A	RP-141529	R4-144971	approved	Maximum allowed UL TX power for Band XXVI coexistence with Public Safety	12.4.0	12.5.0	R4	e850_UB-Core
25.101	1043	-	Rel-12	B	RP-141238	-	approved	CR on UMTS HetNet Enhancement	12.4.0	12.5.0	R4	UTRA_hetnet_enh-Core
25.104	0690	-	Rel-12	F	RP-141562	R4-145198	approved	Update of definitions to support supplemental DL in TS25.104	12.3.0	12.4.0	R4	TEI12
25.105	0308	-	Rel-11	F	RP-141528	R4-145071	approved	Clarification on definitions in TS25.105	11.6.0	11.7.0	R4	MB_MSR_RF-Core
25.105	0309	-	Rel-11	F	RP-141528	R4-145296	approved	Multi-carrier and multi-band requirements update	11.6.0	11.7.0	R4	MB_MSR_RF-Core
25.113	0062	1	Rel-12	F	RP-141562	R4-145520	approved	Update of definitions to support supplemental DL in TS25.113	12.0.0	12.1.0	R4	TEI12
25.133	1354	1	Rel-12	B	RP-141545	R4-145358	approved	UTRAN-WLAN measurement requirements	12.4.0	12.5.0	R4	UTRA_LTE_WLAN_interw-Core
25.133	1357	-	Rel-12	F	RP-141562	R4-144896	approved	Requirements for GSM measurements in cell FACH state with DRX	12.4.0	12.5.0	R4	TEI12
25.133	1359	1	Rel-12	B	RP-141542	R4-145391	approved	RRM requirements for extended DRX cycles	12.4.0	12.5.0	R4	UTRA_DCHenh-Core
25.133	1362	1	Rel-12	B	RP-141542	R4-145388	approved	25.133 CR on DCH enhancements	12.4.0	12.5.0	R4	UTRA_DCHenh-Core
25.141	0693	-	Rel-10	F	RP-141527	R4-145048	approved	CR for RTWP tests (Rel-10)	10.10.0	10.11.0	R4	TEI10
25.141	0694	-	Rel-11	A	RP-141532	R4-145049	approved	CR for RTWP tests (Rel-11)	11.8.0	11.9.0	R4	TEI11
25.141	0695	-	Rel-12	A	RP-141562	R4-145050	approved	CR for RTWP tests (Rel-12)	12.4.0	12.5.0	R4	TEI12
25.141	0696	-	Rel-12	F	RP-141562	R4-145200	approved	Update of definitions to support supplemental DL in TS25.141	12.4.0	12.5.0	R4	TEI12
25.211	0315	2	Rel-12	B	RP-141482	R1-143487	approved	Introduction of Enhanced Broadcast of System Information	11.5.0	12.0.0	R1	UTRA_SIBenh-Core
25.211	0316	3	Rel-12	B	RP-141480	R1-143484	approved	Introduction of DCH Enhancements	11.5.0	12.0.0	R1	UTRA_DCHenh-Core
25.211	0318	1	Rel-12	B	RP-141481	R1-143494	approved	Introduction of UMTS Heterogeneous Networks enhancements	11.5.0	12.0.0	R1	UTRA_hetnet_enh-Core
25.212	0327	2	Rel-12	B	RP-141483	R1-143491	approved	Introduction of Further EUL Enhancements	11.7.0	12.0.0	R1	EDCH_enh-Core
25.212	0328	2	Rel-12	B	RP-141482	R1-143488	approved	Introduction of Enhanced Broadcast of System Information	11.7.0	12.0.0	R1	UTRA_SIBenh-Core
25.212	0329	4	Rel-12	B	RP-141480	R1-143485	approved	Introduction of DCH Enhancements	11.7.0	12.0.0	R1	UTRA_DCHenh-Core
25.212	0330	1	Rel-12	B	RP-141481	R1-143495	approved	Introduction of UMTS Heterogeneous Networks enhancements	11.7.0	12.0.0	R1	UTRA_hetnet_enh-Core

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
25.213	0117	2	Rel-12	B	RP-141482	R1-143489	approved	Introduction of Enhanced Broadcast of System Information	11.4.0	12.0.0	R1	UTRA_SIBenh-Core
25.213	0118	1	Rel-12	B	RP-141481	R1-143496	approved	Introduction of UMTS Heterogeneous Networks enhancements	11.4.0	12.0.0	R1	UTRA_hetnet_enh-Core
25.214	0715	2	Rel-12	B	RP-141480	R1-143486	approved	Introduction of DCH Enhancements	11.9.0	12.0.0	R1	UTRA_DCHenh-Core
25.214	0720	2	Rel-12	B	RP-141483	R1-143493	approved	Introduction of Further EUL Enhancements	11.9.0	12.0.0	R1	EDCH_enh-Core
25.214	0721	2	Rel-11	F	RP-141475	R1-143480	approved	Clarifications to Multiflow Operation	11.9.0	11.10.0	R1	HSDPA_MFTX-Core
25.214	0722	1	Rel-11	F	RP-141476	R1-143490	approved	Correction to the Four Branch MIMO	11.9.0	11.10.0	R1	4Tx_HSDPA-Core
25.214	0723	1	Rel-12	B	RP-141481	R1-143479	approved	Introduction of UMTS Heterogeneous Networks enhancements	11.9.0	12.0.0	R1	UTRA_hetnet_enh-Core
25.215	0200	1	Rel-12	C	RP-141486	R1-143363	postponed	New E-UTRA RSRQ measurement definition	11.0.0		R1	TEI12
25.215	0201	1	Rel-12	B	RP-141480	R1-143613	approved	Introduction of DCH Enhancements	11.0.0	12.0.0	R1	UTRA_DCHenh-Core
25.215	0202	2	Rel-12	B	RP-141484	R1-143462	approved	Inclusion of definition of WLAN Beacon RSSI in UMTS specifications	11.0.0	12.0.0	R1	UTRA_LTE_WLAN_interw-Core
25.225	0103	2	Rel-12	C	RP-141486	R1-143364	postponed	New E-UTRA RSRQ measurement definition	11.0.0		R1	TEI12
25.225	0104	-	Rel-12	B	RP-141484	R1-143463	approved	Inclusion of definition of WLAN Beacon RSSI in UMTS specifications	11.0.0	12.0.0	R1	UTRA_LTE_WLAN_interw-Core
25.300	0002	-	Rel-12	B	RP-141504	R2-143855	approved	Stage-2 details of WLAN/3GPP Radio Interworking for UMTS	12.1.0	12.2.0	R2	UTRA_LTE_WLAN_interw-Core
25.300	0003	1	Rel-12	B	RP-141503	R2-143967	approved	Introduction of Further EUL enhancements	12.1.0	12.2.0	R2	EDCH_enh-Core
25.300	0005	-	Rel-12	B	RP-141501	R2-144041	approved	CR to 25.300 on the introduction of Heterogeneous Networks Enhancements	12.1.0	12.2.0	R2	UTRA_HetNet_enh-Core
25.300	0006	2	Rel-12	B	RP-141502	R2-144003	approved	Introduction of a second broadcast channel	12.1.0	12.2.0	R2	UTRA_SIBenh-Core
25.300	0007	1	Rel-12	B	RP-141500	R2-143951	approved	Introduction of DCH Enhancements	12.1.0	12.2.0	R2	UTRA_DCHenh-Core
25.300	0008	1	Rel-12	B	RP-141503	R2-144047	approved	Introduction of DSAC and PPAC update in CELL_DCH	12.1.0	12.2.0	R2	EDCH_enh-Core
25.302	0232	-	Rel-12	B	RP-141501	R2-143933	approved	The introduction of E-DCH decoupling operation	11.5.0	12.0.0	R2	UTRA_HetNet_enh-Core
25.302	0233	-	Rel-12	B	RP-141501	R2-144010	approved	Introduction of Radio link without F-DPCH	11.5.0	12.0.0	R2	UTRA_HetNet_enh-Core
25.302	0234	-	Rel-12	B	RP-141501	R2-144015	approved	CR to 25.302 on the introduction of DPCCH2	11.5.0	12.0.0	R2	UTRA_HetNet_enh-Core
25.302	0235	2	Rel-12	B	RP-141502	R2-144004	approved	Introduction of a second broadcast channel	11.5.0	12.0.0	R2	UTRA_SIBenh-Core
25.304	0378	1	Rel-12	B	RP-141504	R2-144030	approved	Procedures of WLAN/3GPP Radio Interworking for UMTS	12.2.0	12.3.0	R2	UTRA_LTE_WLAN_interw-Core
25.304	0381	1	Rel-12	B	RP-141502	R2-144005	approved	Introduction of a second broadcast channel	12.2.0	12.3.0	R2	UTRA_SIBenh-Core
25.306	0457	-	Rel-11	F	RP-141498	R2-143861	approved	Removal of subfeature Exclusion of cells from inter-frequency detected set measurements	11.8.0	11.9.0	R2	TEI11
25.306	0461	1	Rel-11	B	RP-141490	R2-143948	postponed	Multi-carrier configuration support at inter-RAT handover	11.8.0		R2	TEI11, RANimp-DCHSDPA, RANimp-DC_HSUPA, RANimp-MultiBand_DC_HSDPA, 4C_HSDPA-Core

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25.306	0462	1	Rel-12	A	RP-141490	R2-143949	postponed	Multi-carrier configuration support at inter-RAT handover	12.2.0		R2	TEI11, RANimp-DCHSDPA, RANimp-DC_HSUPA, RANimp-MultiBand_DC_HSDPA, 4C_HSDPA-Core
25.306	0464	-	Rel-12	B	RP-141503	R2-143887	approved	Introduction of DSAC and PPAC update in CELL_DCH	12.2.0	12.3.0	R2	EDCH_enh-Core
25.306	0469	-	Rel-12	B	RP-141501	R2-143931	approved	Introduction of E-DCH decoupling operation	12.2.0	12.3.0	R2	UTRA_HetNet_enh-Core
25.306	0470	1	Rel-12	B	RP-141501	R2-144051	approved	CR to 25.306 on introduction of Radio Links without DPCH/F-DPCH	12.2.0	12.3.0	R2	UTRA_HetNet_enh-Core
25.306	0471	-	Rel-12	B	RP-141501	R2-144013	approved	CR to 25.306 on introduction of the DPCCH2	12.2.0	12.3.0	R2	UTRA_HetNet_enh-Core
25.306	0473	-	Rel-12	F	RP-141511	R2-143961	approved	Extended measurements ID support mandatory	12.2.0	12.3.0	R2	TEI12
25.306	0474	1	Rel-12	B	RP-141500	R2-143965	approved	Introduction of DCH Enhancements	12.2.0	12.3.0	R2	UTRA_DCHenh-Core
25.306	0475	-	Rel-12	B	RP-141316	-	postponed	CR on UE capability signaling for WLAN/3GPP radio interworking (alternative 1)	12.2.0		R2	UTRA_LTE_WLAN_interw-Core
25.306	0476	-	Rel-12	B	RP-141320	-	postponed	CR on UE capability signaling for WLAN/3GPP radio interworking (alternative 2)	12.2.0		R2	UTRA_LTE_WLAN_interw-Core
25.308	0164	-	Rel-12	B	RP-141501	R2-144014	approved	CR to 25.308 on introduction of the DPCCH2	12.0.0	12.1.0	R2	UTRA_HetNet_enh-Core
25.308	0165	-	Rel-12	B	RP-141503	R2-144018	approved	Introduction of Further EUL enhancements	12.0.0	12.1.0	R2	EDCH_enh-Core
25.319	0119	1	Rel-12	B	RP-141503	R2-144002	approved	Introduction of EUL coverage improvements	12.0.0	12.1.0	R2	EDCH_enh-Core
25.319	0122	-	Rel-12	B	RP-141501	R2-143932	approved	Introduction of E-DCH decoupling operation	12.0.0	12.1.0	R2	UTRA_HetNet_enh-Core
25.319	0123	-	Rel-12	B	RP-141501	R2-144009	approved	CR to 25.319 on introduction of the Radio Links without DPCH/F-DPCH	12.0.0	12.1.0	R2	UTRA_HetNet_enh-Core
25.319	0124	-	Rel-12	B	RP-141503	R2-144019	approved	Introduction of Further EUL enhancements	12.0.0	12.1.0	R2	EDCH_enh-Core
25.321	0802	2	Rel-12	B	RP-141503	R2-144045	approved	Introduction of EUL coverage improvements	12.0.0	12.1.0	R2	EDCH_enh-Core
25.321	0804	2	Rel-12	B	RP-141502	R2-144006	approved	Introduction of a second broadcast channel	12.0.0	12.1.0	R2	UTRA_SIBenh-Core
25.321	0805	-	Rel-12	B	RP-141500	R2-143885	approved	Introduction of DCH Enhancements	9.18.0	12.0.0	R2	UTRA_DCHenh-Core
25.321	0806	-	Rel-12	B	RP-141503	R2-144032	approved	Introduction of Further EUL enhancements	12.0.0	12.1.0	R2	EDCH_enh-Core
25.331	5639	-	Rel-11	C	RP-141497	R2-143862	approved	Corrections in default radio configuration for CELL_FACH	11.10.0	11.11.0	R2	TEI11
25.331	5640	-	Rel-12	A	RP-141497	R2-143873	approved	Corrections in default radio configuration for CELL_FACH	12.2.0	12.3.0	R2	TEI11
25.331	5641	-	Rel-11	F	RP-141498	R2-143860	approved	Removal of subfeature Exclusion of cells from inter-frequency detected set measurements	11.10.0	11.11.0	R2	TEI11
25.331	5644	-	Rel-11	F	RP-141495	R2-143934	approved	Correction of ASN.1 of MDT logged connection establishment failure reporting (Alternative 1)	11.10.0	11.11.0	R2	eMDT_UMTSLTE-Core
25.331	5645	-	Rel-12	A	RP-141495	R2-143935	approved	Correction of ASN.1 of MDT logged connection establishment failure reporting (Alternative 1)	12.2.0	12.3.0	R2	eMDT_UMTSLTE-Core

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25.331	5650	1	Rel-12	B	RP-141504	R2-144031	approved	Connected mode procedures and RRC signaling of WLAN/3GPP Radio Interworking for UMTS	12.2.0	12.3.0	R2	UTRA_LTE_WLAN_interw-Core
25.331	5651	1	Rel-12	B	RP-141503	R2-143968	approved	Introduction of Further EUL enhancements	12.2.0	12.3.0	R2	EDCH_enh-Core
25.331	5656	2	Rel-11	B	RP-141490	R2-143963	postponed	Multi-carrier configuration in Handover to UTRAN command	11.10.0		R2	TEI11, RANimp-DCHSDPA, RANimp-DC_HSUPA, RANimp-MultiBand_DC_HSDPA, 4C_HSDPA-Core
25.331	5657	2	Rel-12	B	RP-141490	R2-143964	postponed	Multi-carrier configuration in Handover to UTRAN command	12.2.0		R2	TEI11, RANimp-DCHSDPA, RANimp-DC_HSUPA, RANimp-MultiBand_DC_HSDPA, 4C_HSDPA-Core
25.331	5660	2	Rel-12	B	RP-141503	R2-143969	approved	Introduction of DSAC and PPAC update in CELL_DCH	12.2.0	12.3.0	R2	EDCH_enh-Core
25.331	5663	2	Rel-11	F	RP-141496	R2-143952	approved	Clarification on repetition factors for assisting cells	11.10.0	11.11.0	R2	HSDPA_MFTX-Core
25.331	5664	2	Rel-12	A	RP-141496	R2-143953	approved	Clarification on repetition factors for assisting cells	12.2.0	12.3.0	R2	HSDPA_MFTX-Core
25.331	5665	1	Rel-12	F	RP-141511	R2-143958	approved	Clarification of exclusion of cells from inter-frequency detected set measurements	12.2.0	12.3.0	R2	TEI12
25.331	5666	-	Rel-12	B	RP-141501	R2-143930	approved	Introduction of E-DCH decoupling operation	12.2.0	12.3.0	R2	UTRA_HetNet_enh-Core
25.331	5667	1	Rel-12	B	RP-141501	R2-144049	approved	CR to 25.331 on introduction of Radio Links without DPCH/F-DPCH	12.2.0	12.3.0	R2	UTRA_HetNet_enh-Core
25.331	5668	-	Rel-12	B	RP-141501	R2-144012	approved	CR to 25.331 on introduction of the DPCCH2	12.2.0	12.3.0	R2	UTRA_HetNet_enh-Core
25.331	5669	1	Rel-12	B	RP-141511	R2-143994	approved	Network-requested LTE Band Combination Capability Signalling	12.2.0	12.3.0	R2	TEI12
25.331	5674	2	Rel-12	B	RP-141502	R2-144007	approved	Introduction of a second broadcast channel	12.2.0	12.3.0	R2	UTRA_SIBenh-Core
25.331	5676	2	Rel-12	B	RP-141500	R2-143966	approved	Introduction of DCH Enhancements	12.2.0	12.3.0	R2	UTRA_DCHenh-Core
25.331	5677	1	Rel-9	C	RP-141492	R2-143954	approved	Disable default configuration #23	9.18.0	9.19.0	R2	TEI9
25.331	5678	1	Rel-10	A	RP-141492	R2-143959	approved	Disable default configuration #23	10.16.0	10.17.0	R2	TEI9
25.331	5679	1	Rel-11	A	RP-141492	R2-143956	approved	Disable default configuration #23	11.10.0	11.11.0	R2	TEI9
25.331	5680	1	Rel-12	A	RP-141492	R2-143957	approved	Disable default configuration #23	12.2.0	12.3.0	R2	TEI9
25.331	5683	2	Rel-12	F	RP-141511	R2-144025	approved	Correction to stop condition for "Chiba offset"	12.2.0	12.3.0	R2	TEI12
25.331	5684	-	Rel-12	A	RP-141488	R2-143872	postponed	Introduction of new default configuration for HS-DACH/RACH and HS-DSCH/E-DCH combinations	12.2.0		R2	TEI11, RANimp-EnhState, RANimp-UplinkEnhState
25.331	5685	1	Rel-12	B	RP-141503	R2-144050	approved	Introduction of Further EUL enhancements	12.2.0	12.3.0	R2	EDCH_enh-Core
25.331	5686	-	Rel-12	B	RP-141315	-	postponed	CR on UE capability signaling for WLAN/3GPP radio interworking (alternative 1)	12.2.0		R2	UTRA_LTE_WLAN_interw-Core

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25.331	5687	-	Rel-12	B	RP-141321	-	postponed	CR on UE capability signaling for WLAN/3GPP radio interworking (alternative 2)	12.2.0		R2	UTRA_LTE_WLAN_interw-Core
25.331	5688	1	Rel-11	B	RP-141488	R2-144048	postponed	Introduction of new default configuration for HS-DACH/RACH and HS-DSCH/E-DCH combinations	11.10.0		R2	TEI11, RANimp-EnhState, RANimp-UplinkEnhState
25.331	5689	-	Rel-12	B	RP-141599	-	approved	Introduction of Further EUL enhancements	12.2.0	12.3.0	R2	EDCH_enh-core
25.423	1824	3	Rel-12	B	RP-141516	R3-142100	approved	Introduction of UTRAN Heterogeneous Networks	12.1.0	12.2.0	R3	UTRA_HetNet_enh-Core
25.423	1827	5	Rel-12	B	RP-141515	R3-142112	approved	Introduction of DCH Enhancements	12.1.0	12.2.0	R3	UTRA_DCHenh-Core
25.423	1835	2	Rel-12	B	RP-141516	R3-142114	approved	Introduction of sub-features for UTRAN Hetnet	12.1.0	12.2.0	R3	UTRA_HetNet_enh-Core
25.423	1838	3	Rel-12	B	RP-141455	-	revised	Introduction of further EUL Enhancement	12.1.0		R3	EDCH_enh-Core
25.423	1838	4	Rel-12	B	RP-141669	-	postponed	Introduction of further EUL Enhancement	12.1.0		R3	EDCH_enh-core
25.425	0181	1	Rel-12	D	RP-141523	R3-142026	revised	Rapporteur Review	12.0.0		R3	TEI12
25.425	0181	2	Rel-12	D	RP-141608	R3-142026	approved	Rapporteur Review - change figures to table style	12.0.0	12.1.0	R3	TEI12
25.427	0161	1	Rel-12	D	RP-141608	R3-142007	approved	Rapporteur Review - Change figures to table style	12.0.0	12.1.0	R3	TEI12
25.427	0161	1	Rel-12	D	RP-141523	R3-142007	revised	Rapporteur Review - Change figures to table style	12.0.0		R3	TEI12
25.433	2026	3	Rel-12	B	RP-141516	R3-142099	approved	Introduction of UTRAN Heterogeneous Networks	12.1.0	12.2.0	R3	UTRA_HetNet_enh-Core
25.433	2027	5	Rel-12	B	RP-141515	R3-142113	approved	Introduction of DCH Enhancements	12.1.0	12.2.0	R3	UTRA_DCHenh-Core
25.433	2031	3	Rel-12	B	RP-141524	R3-142006	approved	Supporting Enhanced Broadcast of System Information	12.1.0	12.2.0	R3	UTRA_SIBenh-Core
25.433	2031	3	Rel-12	B	RP-141517	R3-142006	reissued	Supporting Enhanced Broadcast of System Information	12.1.0		R3	UTRA_SIBenh-Core
25.433	2038	2	Rel-12	B	RP-141516	R3-142115	approved	Introduction of sub-features for UTRAN Hetnet	12.1.0	12.2.0	R3	UTRA_HetNet_enh-Core
25.433	2041	-	Rel-12	B	RP-141519	R3-141860	approved	Introducing new SIB for WLAN/3GPP radio interworking	12.1.0	12.2.0	R3	UTRA_LTE_WLAN_interw-Core
25.433	2042	3	Rel-12	B	RP-141456	-	revised	Introduction of further EUL Enhancement	12.1.0		R3	EDCH_enh-Core
25.433	2042	4	Rel-12	B	RP-141670	-	postponed	Introduction of further EUL Enhancement	12.1.0		R3	EDCH_enh-core
25.435	0314	1	Rel-12	D	RP-141608	R3-142024	approved	Rapporteur Review - change figures to table style	12.0.0	12.1.0	R3	TEI12
25.435	0314	1	Rel-12	D	RP-141523	R3-142024	revised	Rapporteur Review – change figures to table style	12.0.0		R3	TEI12
25.453	0151	2	Rel-12	F	RP-141608	R3-142083	approved	Corrections to GNSS Acquisition Assistance Data	12.0.0	12.1.0	R3	LCS3-GNSS-UTRAN, TEI12
25.453	0151	2	Rel-12	F	RP-141523	R3-142083	revised	Corrections to GNSS Acquisition Assistance Data	12.0.0		R3	LCS3-GNSS-UTRAN, TEI12
25.469	0104	1	Rel-12	F	RP-141608	R3-141947	approved	RapporteurÆs corrections	12.1.0	12.2.0	R3	TEI12
25.469	0104	1	Rel-12	F	RP-141523	R3-141947	revised	Rapporteur Review	12.1.0		R3	TEI12
34.108	0958	-	Rel-11	F	RP-141592	R5-144261	approved	Update Radio Bearer Setup message for Multiflow HSDPA tests	11.10.0	11.11.0	R5	HSDPA_MFTX-UEConTest
34.108	0959	-	Rel-11	F	RP-141575	R5-144408	approved	Updates to section 7.5 and addition of new clauses 7.5.6, 7.5.7, 7.5.8 and 7.5.9 of 34.108	11.10.0	11.11.0	R5	TEI10_Test
34.108	0960	-	Rel-11	F	RP-141575	R5-144532	approved	Update to missing dual band combinations of 4C-HSDPA configurations	11.10.0	11.11.0	R5	TEI10_Test

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34.108	0961	-	Rel-11	F	RP-141570	R5-144623	approved	Editorial correction to Radio bearer Setup Message for TD-SCDMA	11.10.0	11.11.0	R5	TEI8_Test
34.108	0962	-	Rel-11	F	RP-141591	R5-144708	approved	Adding SIB22 scheduling and SIB22 default message for Enhanced CELL_FACH testing	11.10.0	11.11.0	R5	Cell_FACH_enh-UEConTest
34.108	0963	-	Rel-11	F	RP-141575	R5-144813	approved	Addition of E-UTRA Capability in RRC Connection Setup	11.10.0	11.11.0	R5	TEI10_Test
34.114	0060	-	Rel-12	F	RP-141593	R5-144857	approved	Correction of clause 6.6.2 in 34.114	12.0.0	12.1.0	R5	TEI11_Test
34.121-1	1580	-	Rel-11	F	RP-141575	R5-144363	approved	Clarification of Tracking Area Updating procedure for FDD	11.4.0	11.5.0	R5	TEI10_Test
34.121-1	1581	-	Rel-11	F	RP-141593	R5-144515	approved	Addition of Test parameters and conditions for Occupied bandwidth OLTD test case	11.4.0	11.5.0	R5	TEI11_Test
34.121-1	1582	-	Rel-11	F	RP-141591	R5-144825	approved	Updates to E-UTRA Cell Reselection test cases when HS-DSCH DRX is configured	11.4.0	11.5.0	R5	Cell_FACH_enh-UEConTest
34.121-1	1583	-	Rel-11	F	RP-141591	R5-144838	approved	Updates to enh CELL_FACH test cases	11.4.0	11.5.0	R5	Cell_FACH_enh-UEConTest
34.121-1	1584	-	Rel-11	F	RP-141573	R5-144853	approved	Updates to 8.6.4.1 Correct reporting of GSM neighbours in AWGN propagation condition	11.4.0	11.5.0	R5	TEI9_Test
34.121-1	1585	-	Rel-11	F	RP-141575	R5-144854	approved	Addition of missing band combinations for 3C and 4C-HSDPA	11.4.0	11.5.0	R5	TEI10_Test
34.121-1	1586	-	Rel-11	F	RP-141575	R5-144855	approved	Correction to statistical parameter in Annex F.6.1.8	11.4.0	11.5.0	R5	TEI10_Test
34.121-1	1587	-	Rel-11	F	RP-141593	R5-144856	approved	Addition of test case body for Occupeid Bandwith for OLTD	11.4.0	11.5.0	R5	TEI11_Test
34.121-1	1588	-	Rel-12	F	RP-141592	R5-144860	approved	Addition of chapter 9 CQI accuracy test cases for Multiflow HSDPA	11.4.0	12.0.0	R5	HSDPA_MFTX-UEConTest
34.121-1	1589	-	Rel-12	F	RP-141592	R5-144861	approved	Addition of chapter 9 HSDPA Performance cases for Multiflow HSDPA	11.4.0	12.0.0	R5	HSDPA_MFTX-UEConTest
34.121-1	1590	-	Rel-12	F	RP-141592	R5-144862	approved	Annexure update for MF-HSDPA test cases	11.4.0	12.0.0	R5	HSDPA_MFTX-UEConTest
34.121-2	0156	-	Rel-11	F	RP-141593	R5-144516	approved	Addition of test case applicability for Occupeid Bandwith for OLTD / CLTD	11.3.0	11.4.0	R5	TEI11_Test
34.121-2	0158	-	Rel-11	F	RP-141592	R5-144863	approved	Applicability update for Multiflow HSDPA test cases	11.3.0	11.4.0	R5	HSDPA_MFTX-UEConTest
34.122	0433	-	Rel-11	F	RP-141575	R5-144364	approved	Clarification of Tracking Area Updating procedure for TDD	11.8.0	11.9.0	R5	TEI10_Test
34.123-1	3609	-	Rel-11	F	RP-141567	R5-144183	approved	Corrections to UTRA UE Capabilities Audit test case 8.1.5.7	11.3.0	11.4.0	R5	TEI_Test
34.123-1	3610	-	Rel-11	F	RP-141573	R5-144184	approved	Correction to WI-161 UTRA DC_HSU test case 8.3.4.20	11.3.0	11.4.0	R5	TEI9_Test
34.123-1	3611	-	Rel-11	F	RP-141570	R5-144186	approved	Correction to UTRA CSG TestCases 12.3.1.10	11.3.0	11.4.0	R5	TEI8_Test
34.123-1	3612	-	Rel-11	F	RP-141567	R5-144226	approved	Correction to test case 8.1.5.7	11.3.0	11.4.0	R5	TEI_Test
34.123-1	3613	-	Rel-11	F	RP-141569	R5-144246	approved	Correction to GCF WI-140 test case 11.9.1	11.3.0	11.4.0	R5	TEI7_Test
34.123-1	3614	-	Rel-11	F	RP-141570	R5-144250	approved	SS TCs: Updates to ensure correct CS security keys are configured	11.3.0	11.4.0	R5	TEI8_Test
34.123-1	3615	-	Rel-11	F	RP-141591	R5-144325	approved	New Enhanced CELL_FACH MAC test case for CCCH Fallback to R99 PRACH	11.3.0	11.4.0	R5	Cell_FACH_enh-UEConTest

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34.123-1	3616	-	Rel-11	F	RP-141591	R5-144326	approved	New Enhanced CELL_FACH MAC test case for DCCH Fallback to R99 PRACH	11.3.0	11.4.0	R5	Cell_FACH_enh-UEConTest
34.123-1	3617	-	Rel-11	F	RP-141575	R5-144378	approved	Update of UTRA test case 8.6.2.3	11.3.0	11.4.0	R5	TEI10_Test
34.123-1	3618	-	Rel-11	F	RP-141593	R5-144379	approved	Update of UTRA test case 8.6.2.3a	11.3.0	11.4.0	R5	TEI11_Test
34.123-1	3619	-	Rel-11	F	RP-141593	R5-144382	approved	Editorial correction of UTRA test case 8.6.4.8	11.3.0	11.4.0	R5	TEI11_Test
34.123-1	3620	-	Rel-11	F	RP-141593	R5-144383	approved	Editorial correction of UTRA test case 8.6.4.9	11.3.0	11.4.0	R5	TEI11_Test
34.123-1	3621	-	Rel-11	F	RP-141593	R5-144384	approved	Editorial correction of UTRA test case 8.6.5.1	11.3.0	11.4.0	R5	TEI11_Test
34.123-1	3622	-	Rel-11	F	RP-141593	R5-144386	approved	Editorial correction of UTRA test case 8.6.5.2	11.3.0	11.4.0	R5	TEI11_Test
34.123-1	3623	-	Rel-11	F	RP-141593	R5-144387	approved	Correction of UTRA test case 8.6.5.3	11.3.0	11.4.0	R5	TEI11_Test
34.123-1	3624	-	Rel-11	F	RP-141593	R5-144388	approved	Editorial update of UTRA test case 8.6.4.5	11.3.0	11.4.0	R5	TEI11_Test
34.123-1	3625	-	Rel-11	F	RP-141570	R5-144390	approved	Corrections to SS test case 15.7.23	11.3.0	11.4.0	R5	TEI8_Test
34.123-1	3626	-	Rel-11	F	RP-141570	R5-144392	approved	Corrections to SS test case 15.7.24	11.3.0	11.4.0	R5	TEI8_Test
34.123-1	3627	-	Rel-11	F	RP-141570	R5-144394	approved	Corrections to SS test case 15.7.25	11.3.0	11.4.0	R5	TEI8_Test
34.123-1	3628	-	Rel-11	F	RP-141570	R5-144395	approved	Corrections to SS test case 15.7.26	11.3.0	11.4.0	R5	TEI8_Test
34.123-1	3629	-	Rel-11	F	RP-141570	R5-144397	approved	Update of RRC test case 8.3.1.49 and 8.3.1.49a	11.3.0	11.4.0	R5	TEI8_Test
34.123-1	3630	-	Rel-11	F	RP-141570	R5-144433	approved	Correction to CSG Rel-8 testcase 12.3.1.10	11.3.0	11.4.0	R5	TEI8_Test
34.123-1	3631	-	Rel-11	F	RP-141570	R5-144437	approved	Correction to MAC-i/is Rel-8 testcase 8.2.2.61	11.3.0	11.4.0	R5	TEI8_Test
34.123-1	3632	-	Rel-11	F	RP-141569	R5-144438	approved	Correction to NISPC Rel-7 testcase 11.1.5.1	11.3.0	11.4.0	R5	TEI7_Test
34.123-1	3633	-	Rel-11	F	RP-141570	R5-144446	approved	Correction to Rel-8 CSG test case 6.3.2.3	11.3.0	11.4.0	R5	TEI8_Test
34.123-1	3634	-	Rel-11	F	RP-141570	R5-144461	approved	Corrections to SS test case 15.2.1	11.3.0	11.4.0	R5	TEI8_Test
34.123-1	3635	-	Rel-11	F	RP-141570	R5-144535	approved	Correction to Enhanced CELL_FACH DRX test case 8.3.1.49	11.3.0	11.4.0	R5	TEI8_Test
34.123-1	3636	-	Rel-11	F	RP-141591	R5-144537	approved	New Enhanced CELL_FACH RRC test case 8.3.1.49b for HS-DSCH DRX operation with second DRX cycle	11.3.0	11.4.0	R5	Cell_FACH_enh-UEConTest
34.123-1	3637	-	Rel-11	F	RP-141591	R5-144538	approved	New Enhanced CELL_FACH RRC test case 8.3.1.49c for HS-DSCH DRX operation with second DRX cycle	11.3.0	11.4.0	R5	Cell_FACH_enh-UEConTest
34.123-1	3638	-	Rel-11	F	RP-141593	R5-144606	approved	Update to test case 12.4.1.4f	11.3.0	11.4.0	R5	TEI11_Test
34.123-1	3639	-	Rel-11	F	RP-141570	R5-144607	approved	Corrections to SS test case 15.4.1	11.3.0	11.4.0	R5	TEI8_Test
34.123-1	3640	-	Rel-11	F	RP-141570	R5-144608	approved	Corrections to SS test case 15.4.2	11.3.0	11.4.0	R5	TEI8_Test
34.123-1	3641	-	Rel-11	F	RP-141570	R5-144610	approved	Corrections to SS test case 15.4.3	11.3.0	11.4.0	R5	TEI8_Test
34.123-1	3642	-	Rel-11	F	RP-141570	R5-144611	approved	Corrections to SS test case 15.4.4	11.3.0	11.4.0	R5	TEI8_Test
34.123-1	3643	-	Rel-11	F	RP-141570	R5-144612	approved	Corrections to SS test case 15.4.5	11.3.0	11.4.0	R5	TEI8_Test
34.123-1	3644	-	Rel-11	F	RP-141570	R5-144613	approved	Corrections to SS test case 15.4.6	11.3.0	11.4.0	R5	TEI8_Test
34.123-1	3645	-	Rel-11	F	RP-141570	R5-144614	approved	Corrections to SS test case 15.4.7	11.3.0	11.4.0	R5	TEI8_Test
34.123-1	3646	-	Rel-11	F	RP-141570	R5-144615	approved	Corrections to SS test case 15.4.8	11.3.0	11.4.0	R5	TEI8_Test

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34.123-1	3647	-	Rel-11	F	RP-141570	R5-144631	approved	Correction to 3G UTRA CSG TestCases 9.4.2.6 and 12.4.1.4e	11.3.0	11.4.0	R5	TEI8_Test
34.123-1	3648	-	Rel-11	F	RP-141575	R5-144632	approved	Update of UTRA test case 8.6.2.5	11.3.0	11.4.0	R5	TEI10_Test
34.123-1	3649	-	Rel-11	F	RP-141575	R5-144633	approved	Update of UTRA test case 8.6.2.6	11.3.0	11.4.0	R5	TEI10_Test
34.123-1	3650	-	Rel-11	F	RP-141575	R5-144634	approved	Update of UTRA test case 8.6.2.7	11.3.0	11.4.0	R5	TEI10_Test
34.123-1	3651	-	Rel-11	F	RP-141570	R5-144636	approved	Correction to Enhanced CELL_FACH DRX test case 8.3.1.49a	11.3.0	11.4.0	R5	TEI8_Test
34.123-1	3652	-	Rel-11	F	RP-141575	R5-144637	approved	Correction to Mobility Management Test Case 9.4.3.3a	11.3.0	11.4.0	R5	TEI10_Test
34.123-1	3653	-	Rel-11	F	RP-141592	R5-144716	approved	Correction to Multiflow HSDPA test case 8.2.1.45.1	11.3.0	11.4.0	R5	HSDPA_MFTX-UEConTest
34.123-1	3654	-	Rel-11	F	RP-141592	R5-144717	approved	Correction to Multiflow HSDPA test case 8.2.1.45.2	11.3.0	11.4.0	R5	HSDPA_MFTX-UEConTest
34.123-1	3655	-	Rel-11	F	RP-141592	R5-144718	approved	Correction to Multiflow HSDPA test case 8.2.1.45.3	11.3.0	11.4.0	R5	HSDPA_MFTX-UEConTest
34.123-1	3656	-	Rel-11	F	RP-141592	R5-144719	approved	Addition of new Multiflow HSDPA test case 7.2.5.4	11.3.0	11.4.0	R5	HSDPA_MFTX-UEConTest
34.123-1	3657	-	Rel-11	F	RP-141592	R5-144720	approved	Addition of new Multiflow HSDPA test case 7.2.5.5	11.3.0	11.4.0	R5	HSDPA_MFTX-UEConTest
34.123-1	3658	-	Rel-11	F	RP-141592	R5-144721	approved	Addition of new Multiflow HSDPA test case 8.2.1.46	11.3.0	11.4.0	R5	HSDPA_MFTX-UEConTest
34.123-1	3659	-	Rel-11	F	RP-141592	R5-144722	approved	Addition of new Multiflow HSDPA test case 8.2.2.86	11.3.0	11.4.0	R5	HSDPA_MFTX-UEConTest
34.123-1	3660	-	Rel-11	F	RP-141570	R5-144727	approved	Correction to UTRA TC 9.4.4	11.3.0	11.4.0	R5	TEI8_Test
34.123-1	3661	-	Rel-11	F	RP-141570	R5-144736	approved	Correction to CSG Rel-8 testcase 6.3.1.1	11.3.0	11.4.0	R5	TEI8_Test
34.123-1	3662	-	Rel-11	F	RP-141570	R5-144737	approved	Correction to CSG Rel-9 testcase 6.3.1.3	11.3.0	11.4.0	R5	TEI8_Test
34.123-1	3663	-	Rel-11	F	RP-141570	R5-144738	approved	Correction to MAC-IS/I Rel-8 testcase 7.1.7.4	11.3.0	11.4.0	R5	TEI8_Test
34.123-1	3664	-	Rel-11	F	RP-141573	R5-144739	approved	Correction to Rel-9 DC-HSUPA test case 7.1.9.1	11.3.0	11.4.0	R5	TEI9_Test
34.123-1	3665	-	Rel-11	F	RP-141575	R5-144740	approved	Editorial correction to add section titles for (e)MDT in TS 34.123-1	11.3.0	11.4.0	R5	TEI10_Test
34.123-1	3666	-	Rel-11	F	RP-141592	R5-144772	approved	Addition of new Multiflow HSDPA test case 8.2.2.87	11.3.0	11.4.0	R5	HSDPA_MFTX-UEConTest
34.123-2	0704	-	Rel-11	F	RP-141573	R5-144225	approved	Correction to various mnemonic names	11.3.0	11.4.0	R5	TEI9_Test
34.123-2	0705	-	Rel-11	F	RP-141593	R5-144227	approved	Add mnemonics for the different UE power classes	11.3.0	11.4.0	R5	TEI11_Test
34.123-2	0706	-	Rel-11	F	RP-141567	R5-144234	approved	Correction of applicability for test case 9.5.7.2	11.3.0	11.4.0	R5	TEI_Test
34.123-2	0707	-	Rel-11	F	RP-141569	R5-144305	approved	Updating Release applicability and comments for GEA4 and UEA2/UIA2 TCs	11.3.0	11.4.0	R5	TEI7_Test
34.123-2	0708	-	Rel-11	F	RP-141570	R5-144440	approved	Correction to the applicability of Rel-8 Fast dormancy testcase 8.1.9d	11.3.0	11.4.0	R5	TEI8_Test
34.123-2	0709	-	Rel-11	F	RP-141570	R5-144462	approved	Corrections to the applicability of test case 15.2.1	11.3.0	11.4.0	R5	TEI8_Test
34.123-2	0710	-	Rel-11	F	RP-141593	R5-144540	approved	Correction to the test case 12.4.2.3c	11.3.0	11.4.0	R5	TEI11_Test
34.123-2	0711	-	Rel-11	F	RP-141568	R5-144638	approved	Correction to the applicability of Rel-5 test case 11.1.1.1a	11.3.0	11.4.0	R5	TEI5_Test
34.123-2	0712	-	Rel-11	F	RP-141593	R5-144639	approved	Editorial correction to 34.123-2 table A.18a	11.3.0	11.4.0	R5	TEI11_Test
34.123-2	0713	-	Rel-11	F	RP-141591	R5-144705	approved	Applicability of New Further Enhancement to CELL_FACH test cases	11.3.0	11.4.0	R5	Cell_FACH_enh-UEConTest

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34.123-2	0714	-	Rel-11	F	RP-141592	R5-144723	approved	Adding applicability of newly added Multiflow HSDPA Test Cases 7.2.5.4, 7.2.5.5, 8.2.1.46.1, 8.2.1.46.2 and 8.2.1.46.3	11.3.0	11.4.0	R5	HSDPA_MFTX-UEConTest
34.123-2	0715	-	Rel-11	F	RP-141592	R5-144773	approved	Addition of applicability for newly added Multiflow HSDPA Test Cases	11.3.0	11.4.0	R5	HSDPA_MFTX-UEConTest
34.123-3	3189	-	Rel-11	F	RP-141567	R5-144732	approved	Correction to TSO o_P_CheckClassmark3	11.3.0	11.4.0	R5	TEI_Test
34.123-3	3190	-	Rel-11	F	RP-141570	R5-144746	approved	Routine maintenance and updates	11.3.0	11.4.0	R5	TEI8_Test
34.123-3	3191	-	Rel-11	F	RP-141573	R5-144761	approved	Routine maintenance and updates for LCR TDD	11.3.0	11.4.0	R5	TEI9_Test
34.123-3	3192	-	Rel-11	F	RP-141579	R5s140269	approved	Correction to GCF WI-010 UTRA GMM Testcases 12.6.1.3.1, 12.6.1.3.2, 12.6.1.3.3.	11.3.0	11.4.0	R5	TEI_Test
34.123-3	3193	-	Rel-11	B	RP-141579	R5s140387	approved	Addidtion of Rel-7 NISPC testcase 11.1.5.1 to UTRAN testsuite	11.3.0	11.4.0	R5	TEI7_Test
34.123-3	3194	-	Rel-11	B	RP-141579	R5s140415	approved	Addition of WI-161 DC-HSU test case 14.7.3b to HSPA9_ENH ATS	11.3.0	11.4.0	R5	TEI9_Test
34.123-3	3195	-	Rel-11	B	RP-141579	R5s140445	approved	Addition of Rel-9 CSG test case 6.3.4.2 to HSPA9_ENH ATS	11.3.0	11.4.0	R5	TEI9_Test
34.123-3	3196	-	Rel-11	F	RP-141579	R5s140454	approved	Correction to UTRA NAS test case 12.9.13	11.3.0	11.4.0	R5	TEI_Test
34.123-3	3197	-	Rel-11	B	RP-141579	R5s140486	approved	Addidtion of Rel-8 CSG testcase 6.3.1.1 to HSPA8_ENH ATS	11.3.0	11.4.0	R5	TEI8_Test
34.123-3	3198	-	Rel-11	B	RP-141579	R5s140494	approved	Addition of Rel-9 CSG test case 6.3.1.3 to HSPA9_ENH ATS	11.3.0	11.4.0	R5	TEI9_Test
34.123-3	3199	-	Rel-11	F	RP-141579	R5s140502	approved	Correction to UTRA Device Audit test case 8.1.5.7 (TTCN-3)	11.3.0	11.4.0	R5	TEI_Test
34.123-3	3200	-	Rel-11	F	RP-141579	R5s140510	approved	Correction to UTRA RRC test case 8.3.1.40	11.3.0	11.4.0	R5	TEI7_Test
34.123-3	3201	-	Rel-11	F	RP-141579	R5s140511	approved	Correction to Rel-7 WI-070 CPC testcase 7.1.6.2.11	11.3.0	11.4.0	R5	TEI7_Test
34.123-3	3202	-	Rel-11	F	RP-141579	R5s140512	approved	Correction to UTRAN Inter RAT test cases TC 8.3.7.x	11.3.0	11.4.0	R5	TEI_Test
34.123-3	3203	-	Rel-11	F	RP-141579	R5s140516	approved	Correction to UTRAN HSD test cases 8.3.11.12 and 8.3.11.13	11.3.0	11.4.0	R5	TEI5_Test
34.123-3	3204	-	Rel-11	B	RP-141579	R5s140517	approved	Addition of Rel-8 CSG testcase 12.3.1.10 to HSPA8_ENH ATS	11.3.0	11.4.0	R5	TEI8_Test
34.123-3	3205	-	Rel-11	F	RP-141579	R5s140519	approved	Correction to Rel-99 WCDMA InterRAT testcases	11.3.0	11.4.0	R5	TEI_Test
34.123-3	3206	-	Rel-11	B	RP-141579	R5s140521	approved	Addition of WI-161 DC-HSU test case 8.3.4.20 to HSPA9_ENH ATS	11.3.0	11.4.0	R5	TEI9_Test
34.123-3	3207	-	Rel-11	F	RP-141579	R5s140523	approved	Correction to PICS pc_GERANIuModeCapability datatype	11.3.0	11.4.0	R5	TEI_Test
34.123-3	3208	-	Rel-11	F	RP-141579	R5s140524	approved	Correction in mnemonics for PICS pc_GERAN_IuMode_Capability and pc_FLO_Iu_Capability in UTRA TTCN-3 ATS	11.3.0	11.4.0	R5	TEI_Test
34.123-3	3209	-	Rel-11	F	RP-141579	R5s140525	approved	Correction to UTRA CSG test case 9.4.2.6	11.3.0	11.4.0	R5	TEI8_Test
34.123-3	3210	-	Rel-11	F	RP-141579	R5s140532	approved	Corrections to UTRAN34 common functions	11.3.0	11.4.0	R5	TEI8_Test
34.123-3	3211	-	Rel-11	F	RP-141579	R5s140558	approved	Correction to Rel-7 NISPC testcases 11.1.5.1 and 11.3.2a	11.3.0	11.4.0	R5	TEI7_Test
34.123-3	3212	-	Rel-11	F	RP-141579	R5s140566	approved	Information added in the Full EUTRAN capability check for UTRAN TTCN-3 test case 8.1.5.7	11.3.0	11.4.0	R5	TEI_Test

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34.123-3	3213	-	Rel-11	F	RP-141579	R5s140597	approved	Correction to UTRA TTCN-3 test case 8.1.5.7 for UE Power class checking	11.3.0	11.4.0	R5	TEI_Test
34.123-3	3214	-	Rel-11	B	RP-141579	R5s140611	approved	Addidtion of Rel-8 SS testcase 15.1.1 to SSNITZ testsuite	11.3.0	11.4.0	R5	TEI8_Test
34.123-3	3215	-	Rel-11	B	RP-141579	R5s140613	approved	Addidtion of Rel-8 SS NITZ testcase 15.2.1 SSNITZ testsuite	11.3.0	11.4.0	R5	TEI8_Test
34.123-3	3216	-	Rel-11	B	RP-141579	R5s140615	approved	Addidtion of Rel-8 SS NITZ testcase 15.2.2 to SSNITZ testsuite	11.3.0	11.4.0	R5	TEI8_Test
34.123-3	3217	-	Rel-11	B	RP-141579	R5s140632	approved	Addition of WI-131 Rel-8 Enh. Cell FACH UL Test Case 7.1.8.1 to HSPA8_ENH ATS	11.3.0	11.4.0	R5	TEI8_Test
34.123-3	3218	-	Rel-11	F	RP-141579	R5s140634	approved	Correction to Rel-8 UTRA CSG testcases 9.4.2.6, 12.4.1.4e and 12.9.7d	11.3.0	11.4.0	R5	TEI8_Test
34.123-3	3219	-	Rel-11	F	RP-141579	R5s140637	approved	Correction to Rel-8 UTRA CSG testcases 9.4.2.6 and 12.4.1.4e	11.3.0	11.4.0	R5	TEI8_Test
34.123-3	3220	-	Rel-11	F	RP-141579	R5s140644	approved	Correction to of Rel-8 Fast dormancy testcase 8.1.9d	11.3.0	11.4.0	R5	TEI8_Test
34.123-3	3221	-	Rel-11	F	RP-141579	R5s140654	approved	Correction to Rel-8 CSG testcases 6.3.1.2, 6.3.2.1, 6.3.2.2, 6.3.3.1 and 6.3.3.2	11.3.0	11.4.0	R5	TEI8_Test
34.123-3	3222	-	Rel-11	F	RP-141579	R5s140661	approved	Correction to Rel-8 and Rel-9 DC testcases	11.3.0	11.4.0	R5	TEI8_Test
34.123-3	3223	-	Rel-11	F	RP-141579	R5s140662	approved	Correction to Rel-8 MAC-i/is test case 8.2.2.61	11.3.0	11.4.0	R5	TEI8_Test
34.123-3	3224	-	Rel-11	F	RP-141579	R5s140663	approved	Correction to Rel-8 MAC-i/is test case 14.7.3a	11.3.0	11.4.0	R5	TEI8_Test
34.123-3	3225	-	Rel-11	F	RP-141579	R5s140666	approved	Correction to the applicability of Rel-8 Fast dormancy testcase 8.1.9d	11.3.0	11.4.0	R5	TEI8_Test
34.123-3	3226	-	Rel-11	F	RP-141579	R5s140667	approved	Correction to of Rel-5 SM testcase 11.1.1.1a	11.3.0	11.4.0	R5	TEI5_Test
34.123-3	3227	-	Rel-11	F	RP-141579	R5s140669	approved	Correction to GCF WI-161 Rel-9 DC-HSU TC 8.2.2.77	11.3.0	11.4.0	R5	TEI9_Test
34.123-3	3228	-	Rel-11	F	RP-141578	-	approved	CR to 34.123-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.123-3 (prose), Annex A	11.3.0	11.4.0	R5	TEI8_Test
34.229-1	0563	-	Rel-12	F	RP-141571	R5-144131	approved	Update the default security-client header field	12.2.0	12.3.0	R5	TEI8_Test
34.229-1	0564	-	Rel-12	F	RP-141596	R5-144279	approved	Correction to SSAC test cases 12.18a, 12.19a, 12.20a	12.2.0	12.3.0	R5	TEI12_Test
34.229-1	0565	-	Rel-12	F	RP-141571	R5-144335	approved	Corrections of test case 15.21	12.2.0	12.3.0	R5	TEI8_Test
34.229-1	0566	-	Rel-12	F	RP-141571	R5-144402	approved	Corrections of SDP s= and o= lines in DL	12.2.0	12.3.0	R5	TEI8_Test
34.229-1	0567	-	Rel-12	F	RP-141573	R5-144547	approved	Addition of new test case for SIP 423 against re-registration	12.2.0	12.3.0	R5	TEI9_Test
34.229-1	0568	-	Rel-12	F	RP-141571	R5-144556	approved	New test case 15.19a Inviting user to conference by sending a REFER request to the conference focus / Video	12.2.0	12.3.0	R5	TEI8_Test
34.229-1	0569	-	Rel-12	F	RP-141571	R5-144561	approved	New generic procedure C.A for Generic test procedure for Inviting user to Video conference by sending a REFER request to the conference focus	12.2.0	12.3.0	R5	TEI8_Test
34.229-1	0570	-	Rel-12	F	RP-141571	R5-144564	approved	New generic procedure C.Z for Generic test procedure for MTSI Video conference creation	12.2.0	12.3.0	R5	TEI8_Test
34.229-1	0571	-	Rel-12	F	RP-141573	R5-144591	approved	Correction to Emergency Service over IMS test case 19.5.7	12.2.0	12.3.0	R5	TEI9_Test

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34.229-1	0572	-	Rel-12	F	RP-141571	R5-144595	approved	Correct video profile-level-id	12.2.0	12.3.0	R5	TEI8_Test
34.229-1	0573	-	Rel-12	F	RP-141571	R5-144601	approved	Refining Record-Route header in MT re-INVITE requests	12.2.0	12.3.0	R5	TEI8_Test
34.229-1	0574	-	Rel-12	F	RP-141571	R5-144686	approved	Correction to C.24 for SRVCC media removal	12.2.0	12.3.0	R5	TEI8_Test
34.229-1	0575	-	Rel-12	F	RP-141571	R5-144687	approved	Addition of Generic test procedures C.34 and C.35 for removal of early dailog for originating call and incoming call for aSRVCC	12.2.0	12.3.0	R5	TEI8_Test
34.229-1	0576	-	Rel-12	F	RP-141596	R5-144688	approved	Editorial correction of title for Rel-12 SSAC	12.2.0	12.3.0	R5	TEI12_Test
34.229-1	0577	-	Rel-12	F	RP-141571	R5-144689	approved	Add XUI requirements	12.2.0	12.3.0	R5	TEI8_Test
34.229-1	0578	-	Rel-12	F	RP-141571	R5-144690	approved	New test case 15.11a MO Video Call Hold without announcement	12.2.0	12.3.0	R5	TEI8_Test
34.229-1	0579	-	Rel-12	F	RP-141571	R5-144691	approved	New test case 15.12a MT Video Call Hold without announcement	12.2.0	12.3.0	R5	TEI8_Test
34.229-1	0580	-	Rel-12	F	RP-141571	R5-144693	approved	New test case 15.21b Joining a conference after being invited to it / Video	12.2.0	12.3.0	R5	TEI8_Test
34.229-1	0581	-	Rel-12	F	RP-141571	R5-144695	approved	New test case 15.21c Three way session creation / Video	12.2.0	12.3.0	R5	TEI8_Test
34.229-1	0582	-	Rel-12	F	RP-141571	R5-144700	approved	Bandwidth values in SDP offered by SS	12.2.0	12.3.0	R5	TEI8_Test
34.229-1	0583	-	Rel-12	F	RP-141571	R5-144701	approved	Correction to Initial registration using GIBA test case 8.10	12.2.0	12.3.0	R5	TEI8_Test
34.229-1	0584	-	Rel-12	F	RP-141571	R5-144709	approved	Removal of px_pcscf	12.2.0	12.3.0	R5	TEI8_Test
34.229-1	0585	-	Rel-12	F	RP-141573	R5-144748	approved	Correction to test case 19.1.3b	12.2.0	12.3.0	R5	TEI9_Test
34.229-1	0586	-	Rel-12	F	RP-141571	R5-144752	approved	Reverting the coding changes to P-Asserted-Service and P-Preferred-Service	12.2.0	12.3.0	R5	TEI8_Test
34.229-1	0587	-	Rel-12	F	RP-141571	R5-144753	approved	On SDP in re-INVITE requests in IMS test cases 15.11 and 15.12	12.2.0	12.3.0	R5	TEI8_Test
34.229-1	0588	-	Rel-12	F	RP-141571	R5-144754	approved	Synch failure in IMS TC 9.2: Revisited	12.2.0	12.3.0	R5	TEI8_Test
34.229-1	0589	-	Rel-12	F	RP-141571	R5-144755	approved	Clarification for SDP session-version field in Annex C.27	12.2.0	12.3.0	R5	TEI8_Test
34.229-2	0125	-	Rel-12	F	RP-141571	R5-144130	approved	Editorial correction of the 16.4 test case title	12.1.0	12.2.0	R5	TEI8_Test
34.229-2	0126	-	Rel-12	F	RP-141571	R5-144531	approved	Add XCAP capabilities	12.1.0	12.2.0	R5	TEI8_Test
34.229-2	0127	-	Rel-12	F	RP-141571	R5-144559	approved	Editorial correction of codec table number	12.1.0	12.2.0	R5	TEI8_Test
34.229-2	0128	-	Rel-12	F	RP-141596	R5-144696	approved	Editorial correction of section order ralated to Rel-12 SSAC	12.1.0	12.2.0	R5	TEI12_Test
34.229-2	0129	-	Rel-12	F	RP-141573	R5-144697	approved	Addition of new applicability for SIP error handling test cases	12.1.0	12.2.0	R5	TEI9_Test
34.229-2	0130	-	Rel-12	F	RP-141571	R5-144698	approved	Addition of applicability statements for new IMS Video test cases	12.1.0	12.2.0	R5	TEI8_Test
34.229-2	0131	-	Rel-12	F	RP-141573	R5-144749	approved	Correction to applicability of test case 19.1.3b	12.1.0	12.2.0	R5	TEI9_Test
34.229-3	0197	-	Rel-10	F	RP-141571	R5-144747	approved	Routine maintenance and updates	10.3.0	10.4.0	R5	TEI8_Test
34.229-3	0198	-	Rel-10	B	RP-141581	R5s140338	approved	Addition of GCF WI-154 IMS Emergency Call test case 19.5.7 with TS 36.523-3 test model	10.3.0	10.4.0	R5	TEI9_Test
34.229-3	0199	-	Rel-10	F	RP-141581	R5s140360	approved	Correction for IMS Codec Selection test cases 16.3 and 16.4	10.3.0	10.4.0	R5	TEI8_Test

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34.229-3	0200	-	Rel-10	F	RP-141581	R5s140469	approved	IMS test case 18.1 for GIBA	10.3.0	10.4.0	R5	TEI8_Test
34.229-3	0201	-	Rel-10	B	RP-141581	R5s140490	approved	Addition of GCF WI-154 IMS Emergency Call test case 19.3.3 with TS 36.523-3 test model	10.3.0	10.4.0	R5	TEI9_Test
34.229-3	0202	-	Rel-10	F	RP-141581	R5s140551	approved	Correction to IMS function f_IMS_MTCallSetup_SendPRACK_ReceiveOK.	10.3.0	10.4.0	R5	TEI8_Test
34.229-3	0203	-	Rel-10	F	RP-141581	R5s140561	approved	Correction to GCF WI-103 IMS MTSI test case 11.2.	10.3.0	10.4.0	R5	TEI8_Test
34.229-3	0204	-	Rel-10	F	RP-141581	R5s140565	approved	Regression CR for IMS modules in ATS_14wk24	10.3.0	10.4.0	R5	TEI8_Test
34.229-3	0205	-	Rel-10	F	RP-141581	R5s140567	approved	Corrections for IMS Codec Selection test cases 16.3 and 16.4	10.3.0	10.4.0	R5	TEI8_Test
34.229-3	0206	-	Rel-10	F	RP-141581	R5s140571	approved	Correction to GCF WI-103 IMS test case 15.12	10.3.0	10.4.0	R5	TEI8_Test
34.229-3	0207	-	Rel-10	F	RP-141581	R5s140577	approved	Correction of IMS SSAC Testcases 12.18, 12.19, 12.20, 12.18a, 12.19a and 12.20a	10.3.0	10.4.0	R5	TEI9_Test
34.229-3	0208	-	Rel-10	F	RP-141581	R5s140580	approved	Re-verification of GCF WI-103 IMS Codec Selecting test case 16.2 with 36.523-3 test model	10.3.0	10.4.0	R5	TEI8_Test
34.229-3	0209	-	Rel-10	F	RP-141581	R5s140602	approved	Corrections to IMS test case 15.11	10.3.0	10.4.0	R5	TEI8_Test
34.229-3	0210	-	Rel-10	F	RP-141581	R5s140606	approved	Correction to IMS test case 15.27	10.3.0	10.4.0	R5	TEI8_Test
34.229-3	0211	-	Rel-10	F	RP-141581	R5s140621	approved	Re-verification of IMS test case 15.8 over LTE with 34.229-3 test model	10.3.0	10.4.0	R5	TEI8_Test
34.229-3	0212	-	Rel-10	F	RP-141581	R5s140646	approved	Correction to IMS test case 16.2	10.3.0	10.4.0	R5	TEI8_Test
34.229-3	0213	-	Rel-10	F	RP-141581	R5s140647	approved	Correction to GCF WI-154 IMS Emergency Call Testcase 19.5.7	10.3.0	10.4.0	R5	TEI9_Test
34.229-3	0214	-	Rel-10	F	RP-141581	R5s140676	approved	Correction to ContactIE and UL Grant to IMS messages	10.3.0	10.4.0	R5	TEI8_Test
34.229-3	0215	-	Rel-10	F	RP-141581	R5s140678	approved	Bandwidth values for TCs 16.2, 16.3, and 16.4	10.3.0	10.4.0	R5	TEI8_Test
34.229-3	0216	-	Rel-10	F	RP-141581	R5s140713	approved	Correction to Socket Handling during IMS registration procedure	10.3.0	10.4.0	R5	TEI8_Test
34.229-3	0217	-	Rel-10	F	RP-141580	-	approved	CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	10.3.0	10.4.0	R5	TEI9_Test
36.101	2427	-	Rel-12	B	RP-141560	R4-144082	approved	Adding 15MHz channel BW to B40 3DL and new bandwidth combination set for the 2DL	12.4.0	12.5.0	R4	LTE_CA_C_B40_3DL_BW-Core
36.101	2432	-	Rel-10	F	RP-141527	R4-144110	approved	Correction on support of a bandwidth combination set	10.15.0	10.16.0	R4	LTE_CA-Core
36.101	2433	-	Rel-11	A	RP-141527	R4-144111	approved	Correction on support of a bandwidth combination set	11.9.0	11.10.0	R4	LTE_CA-Core
36.101	2434	-	Rel-12	A	RP-141527	R4-144112	approved	Correction on support of a bandwidth combination set	12.4.0	12.5.0	R4	LTE_CA-Core
36.101	2435	3	Rel-12	B	RP-141556	R4-145590	rejected	Introduction of 3 Band Carrier Aggregation (3DL/1UL) of Band 1, Band 3 and Band 8 to TS 36.101	12.4.0		R4	LTE_CA_B1_B3_B8-Core
36.101	2435	4	Rel-12	B	RP-141653	-	approved	Introduction of 3 Band Carrier Aggregation (3DL/1UL) of Band 1, Band 3 and Band 8 to TS 36.101	12.4.0	12.5.0	R4	LTE_CA_B1_B3_B8-Core
36.101	2436	-	Rel-12	F	RP-141562	R4-144196	approved	Corrections on Maximum input level and ACS for intra-band CA	12.4.0	12.5.0	R4	TEI12, LTE_CA-Core

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36.101	2438	-	Rel-11	F	RP-141532	R4-144225	approved	CR on correction on CQI reporting TDD CSI meas in case two CSI subframe sets with CRS test (Rel-11)	11.9.0	11.10.0	R4	TEI11
36.101	2439	-	Rel-12	A	RP-141532	R4-144226	approved	CR on correction on CQI reporting TDD CSI meas in case two CSI subframe sets with CRS test (Rel-12)	12.4.0	12.5.0	R4	TEI11
36.101	2440	-	Rel-11	F	RP-141532	R4-144227	approved	CR on correction on RI reporting CSI meas in case two CSI subframe sets with CRS tests (Rel-11)	11.9.0	11.10.0	R4	TEI11
36.101	2441	-	Rel-12	A	RP-141532	R4-144228	approved	CR on correction on RI reporting CSI meas in case two CSI subframe sets with CRS tests (Rel-12)	12.4.0	12.5.0	R4	TEI11
36.101	2443	-	Rel-11	F	RP-141532	R4-144253	approved	Clarification of high speed train scenario in 36.101 (Rel-11)	11.9.0	11.10.0	R4	TEI11
36.101	2444	-	Rel-12	A	RP-141532	R4-144254	approved	Clarification of high speed train scenario in 36.101 (Rel-12)	12.4.0	12.5.0	R4	TEI11
36.101	2445	-	Rel-12	B	RP-141551	R4-144284	approved	Introduction of CA 8+11 to 36.101 (Rel-12)	12.4.0	12.5.0	R4	LTE_CA_B8_B11-Core
36.101	2446	1	Rel-11	F	RP-141530	R4-145353	approved	CR of introducing FeICIC TM9 testing (Rel-11)	11.9.0	11.10.0	R4	eICIC_enh_LTE-Perf
36.101	2447	-	Rel-12	A	RP-141530	R4-144296	approved	CR of introducing FeICIC TM9 testing (Rel-12)	12.4.0	12.5.0	R4	eICIC_enh_LTE-Perf
36.101	2450	-	Rel-8	F	RP-141525	R4-144320	approved	Correction of downlink power allocation parameter for TDD single-antenna tests (Rel-8)	8.24.0	8.25.0	R4	LTE-RF
36.101	2451	-	Rel-10	F	RP-141527	R4-144321	approved	Remove the invalid TDD single-antenna test and maintenance of applicability table for CA sustained data rate test (Rel-10)	10.15.0	10.16.0	R4	LTE_CA-Perf
36.101	2452	1	Rel-12	F	RP-141527	R4-145344	approved	Remove the redundant table for FDD 4Tx multi-layer tests and correct the test case number (Rel-12)	12.4.0	12.5.0	R4	LTE_CA-Perf
36.101	2453	-	Rel-11	F	RP-141530	R4-144323	approved	Maintenance of CoMP demodulation performance requirements (Rel-11)	11.9.0	11.10.0	R4	COMP_LTE_DL-Perf
36.101	2454	-	Rel-12	A	RP-141530	R4-144324	approved	Maintenance of CoMP demodulation performance requirements (Rel-12)	12.4.0	12.5.0	R4	COMP_LTE_DL-Perf
36.101	2455	-	Rel-11	F	RP-141530	R4-144329	approved	Clean-up CR for EPDCCH and FeICIC PBCH (Rel-11)	11.9.0	11.10.0	R4	LTE_enh_dl_ctrl-Perf
36.101	2456	-	Rel-12	A	RP-141530	R4-144330	approved	Clean-up CR for EPDCCH and FeICIC PBCH (Rel-12)	12.4.0	12.5.0	R4	LTE_enh_dl_ctrl-Perf
36.101	2457	2	Rel-12	B	RP-141548	R4-145584	approved	Introduction of CA_B1_B3 into TS 36.101	12.4.0	12.5.0	R4	LTE_CA_B1_B3-Core
36.101	2458	1	Rel-12	B	RP-141197	-	approved	Introduction of CA_B1_B3_B19 into TS 36.101	12.4.0	12.5.0	R4	LTE_CA_B1_B3_B19-Core
36.101	2460	1	Rel-12	B	RP-141559	R4-145497	approved	Introduction of CA_B1_B42_B42 into TS 36.101	12.4.0	12.5.0	R4	LTE_CA_B1_B42_B42-Core
36.101	2461	1	Rel-12	B	RP-141557	R4-145499	approved	Introduction of CA_B19_B42_B42 into TS 36.101	12.4.0	12.5.0	R4	LTE_CA_B19_B42_B42-Core
36.101	2463	1	Rel-12	B	RP-141546	R4-145373	approved	Introduction of PMI reporting requirements for DL MIMO enhancement	12.4.0	12.5.0	R4	LTE_eDL_MIMO_enh-Perf
36.101	2464	-	Rel-10	F	RP-141527	R4-144429	approved	Unequal DL CC RB allocations in Maximum input level	10.15.0	10.16.0	R4	LTE_CA-Core
36.101	2465	-	Rel-11	A	RP-141527	R4-144430	approved	Unequal DL CC RB allocations in Maximum input level	11.9.0	11.10.0	R4	LTE_CA-Core
36.101	2466	-	Rel-12	F	RP-141527	R4-144431	approved	Unequal DL CC RB allocations in Maximum input level	12.4.0	12.5.0	R4	LTE_CA-Core

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36.101	2467	-	Rel-10	F	RP-141527	R4-144432	approved	Intra-band contiguous CA ACS case 2 test clarification	10.15.0	10.16.0	R4	LTE_CA-Core
36.101	2468	-	Rel-11	A	RP-141527	R4-144433	approved	Intra-band contiguous CA ACS case 2 test clarification	11.9.0	11.10.0	R4	LTE_CA-Core
36.101	2469	-	Rel-12	F	RP-141527	R4-144434	approved	Intra-band contiguous CA ACS case 2 test clarification	12.4.0	12.5.0	R4	LTE_CA-Core
36.101	2470	-	Rel-11	F	RP-141530	R4-144435	approved	Throughput calculation for feICIC demodulation requirements	11.9.0	11.10.0	R4	eICIC_enh_LTE-Perf
36.101	2471	-	Rel-12	A	RP-141530	R4-144436	approved	Throughput calculation for feICIC demodulation requirements	12.4.0	12.5.0	R4	eICIC_enh_LTE-Perf
36.101	2472	1	Rel-11	F	RP-141532	R4-145505	approved	Max input for Intra-band non-contiguous CA	11.9.0	11.10.0	R4	LTE_CA-Core
36.101	2474	-	Rel-8	F	RP-141525	R4-144441	approved	CQI reporting under fading: CQI indices in set	8.24.0	8.25.0	R4	TEI8
36.101	2475	-	Rel-9	A	RP-141525	R4-144442	approved	CQI reporting under fading: CQI indices in set	9.19.0	9.20.0	R4	TEI8
36.101	2476	-	Rel-10	F	RP-141527	R4-144443	approved	CQI reporting under fading: CQI indices in set	10.15.0	10.16.0	R4	TEI10
36.101	2477	-	Rel-11	F	RP-141532	R4-144444	approved	CQI reporting under fading: CQI indices in set	11.9.0	11.10.0	R4	TEI11
36.101	2478	-	Rel-12	A	RP-141532	R4-144445	approved	CQI reporting under fading: CQI indices in set	12.4.0	12.5.0	R4	TEI11
36.101	2480	1	Rel-12	B	RP-141335	-	revised	Introduction of 3DLs CA band combination of Band1 +5 + 7 to TS 36.101 Rel-12	12.4.0		R4	LTE_CA_B1_B5_B7-Core
36.101	2480	2	Rel-12	B	RP-141636	-	approved	Introduction of 3DLs CA band combination of Band1 +5 + 7 to TS 36.101 Rel-12	12.4.0	12.5.0	R4	LTE_CA_B1_B5_B7-Core
36.101	2481	1	Rel-12	B	RP-141562	R4-145566	approved	Introduction of CA band combination B41+ B42 to TS 36.101	12.4.0	12.5.0	R4	LTE_CA-Core
36.101	2482	1	Rel-10	F	RP-141527	R4-145436	approved	Corrections on delta Tc for UE MOP for intra-band contiguous CA	10.15.0	10.16.0	R4	TEI10, LTE_CA-Core
36.101	2483	-	Rel-11	A	RP-141527	R4-144596	approved	Corrections on delta Tc for UE MOP for intra-band contiguous CA	11.9.0	11.10.0	R4	TEI10, LTE_CA-Core
36.101	2484	-	Rel-12	A	RP-141527	R4-144597	approved	Corrections on delta Tc for UE MOP for intra-band contiguous CA	12.4.0	12.5.0	R4	TEI10, LTE_CA-Core
36.101	2485	-	Rel-10	F	RP-141527	R4-144598	approved	Removal of Class B in UE TX requirement	10.15.0	10.16.0	R4	TEI10, LTE-RF
36.101	2486	-	Rel-11	A	RP-141527	R4-144599	approved	Removal of Class B in UE TX requirement	11.9.0	11.10.0	R4	TEI10, LTE-RF
36.101	2487	-	Rel-12	A	RP-141527	R4-144600	approved	Removal of Class B in UE TX requirement	12.4.0	12.5.0	R4	TEI10, LTE-RF
36.101	2488	1	Rel-12	F	RP-141561	R4-145451	approved	Corrections on Maximum input level for intra-band non-contiguous 3DL	12.4.0	12.5.0	R4	LTE_CA_NC_B41_3DL-Core
36.101	2489	-	Rel-11	F	RP-141532	R4-144603	approved	Correction on A-MPR table	11.9.0	11.10.0	R4	TEI11
36.101	2490	-	Rel-12	A	RP-141532	R4-144604	approved	Correction on A-MPR table	12.4.0	12.5.0	R4	TEI11
36.101	2491	1	Rel-12	B	RP-141553	R4-145449	approved	Introduction of a new bandwidth combination set for CA_25A-25A into 36.101	12.4.0	12.5.0	R4	LTE_CA_NC_B25_BWset-Core
36.101	2492	2	Rel-12	B	RP-141555	R4-145588	revised	Introduction of 3 Band Carrier Aggregation of Band 1,Band 3 and Band 5 to TS 36.101	12.4.0		R4	LTE_CA_B1_B3_B5-Core

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
36.101	2492	3	Rel-12	B	RP-141708	-	approved	Introduction of 3 Band Carrier Aggregation of Band 1,Band 3 and Band 5 to TS 36.101	12.4.0	12.5.0	R4	LTE_CA_B1_B3_B5-Core
36.101	2494	1	Rel-12	B	RP-141564	R4-145456	revised	Introduction of inter-band CA_18-28 into TS36.101	12.4.0		R4	LTE_CA_B1_B18_B28-Core
36.101	2494	2	Rel-12	B	RP-141612	RP-141612	approved	Introduction of inter-band CA_18-28 into TS36.101	12.4.0	12.5.0	R4	LTE_CA_B18_B28-Core
36.101	2498	-	Rel-11	F	RP-141532	R4-144710	approved	RF: Corrections to spurious emission band co-existence requirement for Band 44	11.9.0	11.10.0	R4	LTE-RF
36.101	2499	-	Rel-12	A	RP-141532	R4-144711	approved	RF: Corrections to spurious emission band co-existence requirement for Band 44	12.4.0	12.5.0	R4	LTE-RF
36.101	2500	-	Rel-8	F	RP-141525	R4-144712	approved	Perf: Cleanup and better description of DL-RMC-s with dynamic coding rate for CSI requirements (Rel-8)	8.24.0	8.25.0	R4	LTE-RF
36.101	2501	-	Rel-9	F	RP-141525	R4-144713	approved	Perf: Cleanup and better description of DL-RMC-s with dynamic coding rate for CSI requirements (Rel-9)	9.19.0	9.20.0	R4	LTE-RF
36.101	2502	-	Rel-10	F	RP-141525	R4-144714	approved	Perf: Cleanup and better description of DL-RMC-s with dynamic coding rate for CSI requirements (Rel-10)	10.15.0	10.16.0	R4	LTE-RF
36.101	2503	-	Rel-11	F	RP-141525	R4-144715	approved	Perf: Cleanup and better description of DL-RMC-s with dynamic coding rate for CSI requirements (Rel-11)	11.9.0	11.10.0	R4	LTE-RF
36.101	2504	1	Rel-12	F	RP-141525	R4-145346	approved	Perf: Cleanup and better description of DL-RMC-s with dynamic coding rate for CSI requirements (Rel-12)	12.4.0	12.5.0	R4	LTE-RF
36.101	2508	1	Rel-12	B	RP-141468	-	approved	Introduction of 3 DL CA for Band 1+3+20	12.4.0	12.5.0	R4	LTE_CA_B1_B3_B20-Core
36.101	2508	-	Rel-12	B	RP-141558	R4-144749	revised	Introduction of CA band combination B1+B3+B20 to TS 36.101	12.4.0		R4	LTE_CA_B1_B3_B20-Core
36.101	2514	1	Rel-10	F	RP-141527	R4-145420	approved	CR for CA applicability rule in 36.101 in Rel-10	10.15.0	10.16.0	R4	LTE_CA-perf
36.101	2515	1	Rel-11	F	RP-141527	R4-145421	approved	CR for CA applicability rule in 36.101 in Rel-11	11.9.0	11.10.0	R4	LTE_CA-perf
36.101	2516	1	Rel-12	F	RP-141527	R4-145422	approved	CR for CA applicability rule in 36.101 in Rel-12	12.4.0	12.5.0	R4	LTE_CA-perf
36.101	2517	-	Rel-10	F	RP-141527	R4-144786	approved	Editorial CR for CA performance tests in 36.101 in Rel-10	10.15.0	10.16.0	R4	LTE_CA-perf
36.101	2518	-	Rel-11	F	RP-141527	R4-144787	approved	Editorial CR for CA performance tests in 36.101 in Rel-11	11.9.0	11.10.0	R4	LTE_CA-perf
36.101	2519	1	Rel-12	F	RP-141527	R4-145345	approved	Editorial CR for CA performance tests in 36.101 in Rel-12	12.4.0	12.5.0	R4	LTE_CA-perf
36.101	2520	-	Rel-10	F	RP-141527	R4-144789	approved	CR on CA power imbalance tests in Rel-10	10.15.0	10.16.0	R4	TEI10
36.101	2521	-	Rel-11	F	RP-141532	R4-144790	approved	CR on CA power imbalance tests in Rel-11	11.9.0	11.10.0	R4	TEI11
36.101	2522	-	Rel-12	F	RP-141562	R4-144791	approved	CR on CA power imbalance tests in Rel-12	12.4.0	12.5.0	R4	TEI12

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
36.101	2533	1	Rel-12	B	RP-141554	R4-145474	approved	Introduction of requirements for 3DL inter-band carrier aggregation (FDD)	12.4.0	12.5.0	R4	LTE_CA_B2_B12_B12-Core, LTE_CA_B2_B2_B13-Core, LTE_CA_B3_B3_B7-Core, LTE_CA_B3_B7_B7-Core, LTE_CA_B4_B12_B12-Core, LTE_CA_B4_B4_B13-Core, LTE_CA_B1_B19_B21-Core, LTE_CA_B2_B4_B5-Core, LTE_CA_B2_B4_B12-Core, LTE_CA_B2_B4_B13-Core, …
36.101	2534	-	Rel-12	B	RP-141554	R4-144980	approved	Introduction of requirements for 3DL combinations with Band 30 (FDD)	12.4.0	12.5.0	R4	LTE_CA_B2_B5_B30-Core, LTE_CA_B2_B12_B30-Core, LTE_CA_B2_B29_B30-Core, LTE_CA_B4_B5_B30-Core, LTE_CA_B4_B12_B30-Core, LTE_CA_B4_B29_B30-Core
36.101	2541	-	Rel-12	F	RP-141537	R4-144991	approved	Band 42 contiguous CA channel bandwidth correction	12.4.0	12.5.0	R4	LTE_CA_C_B42-Core
36.101	2546	-	Rel-10	F	RP-141527	R4-145100	approved	Correction to NS_20 A-MPR for Band 23	10.15.0	10.16.0	R4	S_Band_LTE_ATC_MSS-Core
36.101	2547	-	Rel-11	A	RP-141527	R4-145101	approved	Correction to NS_20 A-MPR for Band 23	11.9.0	11.10.0	R4	S_Band_LTE_ATC_MSS-Core
36.101	2548	-	Rel-12	A	RP-141527	R4-145102	approved	Correction to NS_20 A-MPR for Band 23	12.4.0	12.5.0	R4	S_Band_LTE_ATC_MSS-Core
36.101	2552	1	Rel-12	B	RP-141328	-	revised	Introduction of CA_1A-7A into 36.101(Rel-12)	12.4.0		R4	LTE_CA_B1_B7-Core
36.101	2552	2	Rel-12	B	RP-141635	-	approved	Introduction of CA_1A-7A into 36.101 for Rel.12	12.4.0	12.5.0	R4	LTE_CA_B1_B7-Core
36.101	2555	1	Rel-12	F	RP-141563	R4-145479	approved	UL configuration for CA_4A-12A reference sensitivity	12.4.0	12.5.0	R4	LTE_CA_B4_B12_BWset-Core
36.101	2556	-	Rel-12	B	RP-141549	R4-145119	approved	Addition of bandwidth combination set for CA_2A-4A	12.4.0	12.5.0	R4	LTE_CA_B2_B4_BWset-Core
36.101	2557	-	Rel-12	B	RP-141563	R4-145120	approved	Addition of bandwidth combination set for CA_4A-12A	12.4.0	12.5.0	R4	LTE_CA_B4_B12_BWset-Core
36.101	2559	-	Rel-12	F	RP-141535	R4-145151	approved	Addition of E-UTRA CA configurations and bandwidth combination sets defined for inter-band CA for Band 4 and 27	12.4.0	12.5.0	R4	LTE_CA_B4_B27-Core
36.101	2560	-	Rel-12	C	RP-141562	R4-145157	approved	CR Reducing MPR for Contiguous CA with Non-Contiguous Resource Allocations	12.4.0	12.5.0	R4	TEI12
36.101	2561	-	Rel-8	F	RP-141525	R4-145158	approved	Corrections to UE coex table	8.24.0	8.25.0	R4	LTE-RF
36.101	2562	-	Rel-9	F	RP-141525	R4-145159	approved	Corrections to UE coex table	9.19.0	9.20.0	R4	LTE-RF
36.101	2563	-	Rel-10	A	RP-141525	R4-145160	approved	Corrections to UE coex table	10.15.0	10.16.0	R4	LTE-RF
36.101	2564	-	Rel-11	A	RP-141525	R4-145161	approved	Corrections to UE coex table	11.9.0	11.10.0	R4	LTE-RF
36.101	2565	-	Rel-12	A	RP-141525	R4-145162	approved	Corrections to UE coex table	12.4.0	12.5.0	R4	LTE-RF

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36.101	2566	-	Rel-12	B	RP-141550	R4-145057	approved	Addition of 3MHz bandwidth for Band 12 , in the B2+B12 CA combination	12.4.0	12.5.0	R4	LTE_CA_B2_B12-Core
36.101	2568	-	Rel-12	B	RP-141428	-	approved	Updated REFSENS requirements for band combinations with Band 4 and Band 12	12.4.0	12.5.0	R4	LTE_CA_B2_B4_B12-Core, LTE_CA_B4_B4_B12-Core, LTE_CA_B4_B5_B12-Core, LTE_CA_B4_B12_B12-Core
36.101	2569	-	Rel-12	B	RP-141216	-	rejected	Introduction of CA_1A-7A into 36.101	12.4.0		R4	LTE_CA_B1_B7-Core
36.101	2570	1	Rel-12	B	RP-141682	-	approved	Introduction of CA band combination B1+B7+B20 to TS 36.101	12.4.0	12.5.0	R4	LTE_CA_B1_B7_B20-Core
36.101	2570	-	Rel-12	B	RP-141218	-	revised	Introduction of CA band combination B1+B7+B20 to TS 36.101	12.4.0		R4	LTE_CA_B1_B7_B20-Core
36.101	2571	-	Rel-12	B	RP-141469	-	approved	Correction to CA in Band 1+20	12.4.0	12.5.0	R4	LTE_CA_B1_B3_B20-Core
36.104	0537	-	Rel-12	B	RP-141538	-	approved	Introduction of intra-band CA_Band 42C to TS 36.104	12.3.0	12.4.0	R4	LTE_CA_C_B42-Core
36.104	0557	-	Rel-12	B	RP-141556	R4-144178	approved	Introduction of 3 Band Carrier Aggregation (3DL/1UL) of Band 1, Band 3 and Band 8 to TS 36.104	12.4.0	12.5.0	R4	LTE_CA_B1_B3_B8-Core
36.104	0558	-	Rel-11	F	RP-141532	R4-144255	approved	Clarification of high speed train conditions in 36.104	11.9.0	11.10.0	R4	TEI11
36.104	0559	-	Rel-12	A	RP-141532	R4-144256	approved	Clarification of high speed train conditions in 36.104	12.4.0	12.5.0	R4	TEI11
36.104	0560	-	Rel-12	B	RP-141551	R4-144285	approved	Introduction of CA 8+11 to 36.104 (Rel-12)	12.4.0	12.5.0	R4	LTE_CA_B8_B11-Core
36.104	0562	-	Rel-12	B	RP-141548	R4-144338	approved	Introduction of CA band combination Band1 + Band3 to TS 36.104	12.4.0	12.5.0	R4	LTE_CA_B1_B3-Core
36.104	0563	1	Rel-12	B	RP-141201	-	approved	Introduction of CA band combination Band1 + Band3 + Band19 to TS 36.104	12.4.0	12.5.0	R4	LTE_CA_B1_B3_B19-Core
36.104	0564	-	Rel-12	B	RP-141557	R4-144345	approved	Introduction of CA band combination Band19 + Band42 + Band42 to TS 36.104	12.4.0	12.5.0	R4	LTE_CA_B19_B42_B42-Core
36.104	0565	-	Rel-12	B	RP-141559	R4-144347	approved	Introduction of CA band combination Band1 + Band42 + Band42 to TS 36.104	12.4.0	12.5.0	R4	LTE_CA_B1_B42_B42-Core
36.104	0567	1	Rel-12	B	RP-141446	-	approved	Introduction of CA band combination for B1+B7 and B1+B5+B7 to TS 36.104 Rel-12	12.4.0	12.5.0	R4	LTE_CA_B1_B7-Core, LTE_CA_B1_B5_B7-Core
36.104	0569	1	Rel-12	B	RP-141706	-	approved	Introduction of 3 Band Carrier Aggregation of Band 1,Band 3 and Band 5 to TS 36.104	12.4.0	12.5.0	R4	LTE_CA_B1_B3_B5-Core
36.104	0569	-	Rel-12	B	RP-141555	R4-144636	revised	Introduction of 3 Band Carrier Aggregation of Band 1,Band 3 and Band 5 to TS 36.104	12.4.0		R4	LTE_CA_B1_B3_B5-Core
36.104	0571	1	Rel-12	B	RP-141108	-	approved	Introduction of inter-band CA_18-28 into TS36.104	12.4.0	12.5.0	R4	LTE_CA_B18_B28-Core
36.104	0577	-	Rel-12	B	RP-141558	R4-144750	approved	Introduction of CA band combination Band 1, Band 3 and Band 20 to TS 36.104	12.4.0	12.5.0	R4	LTE_CA_B1_B3_B20-Core
36.104	0588	1	Rel-11	F	RP-141528	R4-145514	approved	Correction on UEM related to multi-band operation in TS36.104	11.9.0	11.10.0	R4	MB_MSR_RF-Core
36.104	0589	-	Rel-12	A	RP-141528	R4-145075	approved	Correction on UEM related to multi-band operation in TS36.104	12.4.0	12.5.0	R4	MB_MSR_RF-Core

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
36.104	0591	1	Rel-12	B	RP-141554	R4-145475	approved	Introduction of CA combinations	12.4.0	12.5.0	R4	LTE_CA_B2_B2_B13-core, LTE_CA_B4_B4_B13-core, LTE_CA_B1_B19_B21-core, LTE_CA_B2_B4_B5-core, LTE_CA_B2_B4_B12-core, LTE_CA_B2_B4_B13-core, LTE_CA_B2_B5_B12-core, LTE_CA_B3_B7_B20-core, LTE_CA_B4_B5_B12-core LTE_CA_B2_B5_B30-core, …
36.104	0592	-	Rel-12	F	RP-141562	R4-145201	approved	Update of definitions to support supplemental DL in TS36.104	12.4.0	12.5.0	R4	TEI12
36.104	0595	-	Rel-12	B	RP-141463	-	approved	Introduction of 3 DL CA for Band 1+7+20	12.4.0	12.5.0	R4	LTE_CA_B1_B7_B20-Core
36.111	0005	1	Rel-11	F	RP-141530	R4-145582	approved	Addition of Channel Bandwidth Section in TS 36.111	11.3.0	11.4.0	R4	LCS_LTE-NBPS-Perf
36.113	0048	1	Rel-12	F	RP-141562	R4-145524	approved	Update of definitions to support supplemental DL in TS36.113	12.1.0	12.2.0	R4	TEI12
36.133	2451	1	Rel-9	F	RP-141526	R4-145336	approved	Correction of values in RSTD tests	9.20.0	9.21.0	R4	TEI9
36.133	2452	1	Rel-10	F	RP-141527	R4-145337	approved	Correction of values in RSTD tests	10.15.0	10.16.0	R4	TEI10
36.133	2453	1	Rel-11	F	RP-141532	R4-145338	approved	Correction of values in RSTD tests	11.9.0	11.10.0	R4	TEI11
36.133	2454	1	Rel-12	F	RP-141562	R4-145339	approved	Correction of values in RSTD tests	12.4.0	12.5.0	R4	TEI12
36.133	2455	-	Rel-10	F	RP-141527	R4-144206	approved	Clarification to RSTD CA Reporting Delay tests	10.15.0	10.16.0	R4	TEI10
36.133	2456	-	Rel-11	A	RP-141532	R4-144207	approved	Clarification to RSTD CA Reporting Delay tests	11.9.0	11.10.0	R4	TEI11
36.133	2457	-	Rel-12	A	RP-141562	R4-144208	approved	Clarification to RSTD CA Reporting Delay tests	12.4.0	12.5.0	R4	TEI12
36.133	2471	1	Rel-12	F	RP-141534	R4-145367	revised	Clarification for ACK/NACK feedback of CGI measurement	12.4.0		R4	LTE_TDD_eIMTA-Core
36.133	2471	2	Rel-12	F	RP-141344	-	revised	Clarification for ACK/NACK feedback of CGI measurement	12.4.0		R4	LTE_TDD_eIMTA
36.133	2471	3	Rel-12	F	RP-141700	-	approved	Clarification for ACK/NACK feedback of CGI measurement	12.4.0	12.5.0	R4	LTE_TDD_eIMTA-Core
36.133	2473	-	Rel-11	F	RP-141530	R4-144437	approved	Correction to periodicity of ABS pattern in feICIC RRM test cases	11.9.0	11.10.0	R4	eICIC_enh_LTE-Perf
36.133	2474	-	Rel-12	A	RP-141530	R4-144438	approved	Correction to periodicity of ABS pattern in feICIC RRM test cases	12.4.0	12.5.0	R4	eICIC_enh_LTE-Perf
36.133	2480	1	Rel-12	F	RP-141562	R4-145400	approved	Clarification on UE bahavior considering max transmit timing difference between TAGs R12	12.4.0	12.5.0	R4	LTE_CA-Core
36.133	2481	-	Rel-12	F	RP-141539	R4-144470	approved	Modification on E-UTRAN event triggered reporting under deactivated SCell for 20 MHz bandwidth	12.4.0	12.5.0	R4	LTE_CA_NC_B23-Perf
36.133	2484	1	Rel-12	B	RP-141547	R4-145396	approved	Introducing measurement accuracy requirements for UE category 0 in TS36.133 Clause 9	12.4.0	12.5.0	R4	LC_MTC_LTE-Core

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36.133	2492	-	Rel-12	F	RP-141554	R4-144671	approved	Interruptions on Activated Serving Cells for 3DL CA	12.4.0	12.5.0	R4	LTE_CA_B1_B19_B21-Core, LTE_CA_B1_B3_B19-Core, LTE_CA_B1_B3_B20-Core, LTE_CA_B1_B3_B5-Core, LTE_CA_B1_B3_B8-CoreLTE_CA_B1_B42_B42-Core, LTE_CA_B1_B5_B7-Core, LTE_CA_B1_B7_B20-Core, LTE_CA_B19_B42_B42-Core, LTE_CA_B2_B12_B12-Core, LTE_CA_B2_B12_B30,…
36.133	2495	-	Rel-12	B	RP-141554	R4-144682	approved	Requirements for UE Measurements Procedures in RRC_CONNECTED State for 3DL CA	12.4.0	12.5.0	R4	LTE_CA_B1_B19_B21-Core, LTE_CA_B1_B3_B19-Core, LTE_CA_B1_B3_B20-Core, LTE_CA_B1_B3_B5-Core, LTE_CA_B1_B3_B8-CoreLTE_CA_B1_B42_B42-Core, LTE_CA_B1_B5_B7-Core, LTE_CA_B1_B7_B20-Core, LTE_CA_B19_B42_B42-Core, LTE_CA_B2_B12_B12-Core, LTE_CA_B2_B12_B30, …
36.133	2496	1	Rel-12	F	RP-141562	R4-145398	approved	Applicability of requirements	12.4.0	12.5.0	R4	TEI12
36.133	2502	-	Rel-12	B	RP-141536	R4-144890	approved	Introduction of test cases for 5MHz +5MHz : absolute and relative RSRQ accuracies in CA for FDD and TDD	12.4.0	12.5.0	R4	LTE_CA_C_B27-Perf
36.133	2506	2	Rel-12	B	RP-141547	R4-145428	approved	Measurements requirements for UE category 0 with 1 Rx	12.4.0	12.5.0	R4	LC_MTC_LTE-Core
36.133	2510	-	Rel-12	F	RP-141562	R4-144948	approved	Note to clarify that certain requirements do not apply to band 32	12.4.0	12.5.0	R4	TEI12
36.133	2515	1	Rel-12	F	RP-141531	R4-145399	approved	Maximum transmission timing difference	12.4.0	12.5.0	R4	LTE_CA_enh-Perf
36.133	2521	1	Rel-9	F	RP-141526	R4-145340	approved	Tolerance levels for measurements on UTRAN	9.20.0	9.21.0	R4	TEI9
36.133	2523	2	Rel-12	B	RP-141545	R4-145427	approved	Introduction of BeaconRSSI measurements for WLAN/3GPP Radio Interworking	12.4.0	12.5.0	R4	UTRA_LTE_WLAN_interw-Core
36.133	2525	-	Rel-10	A	RP-141526	R4-145341	approved	Tolerance levels for measurements on UTRAN	10.15.0	10.16.0	R4	TEI9
36.133	2526	-	Rel-11	A	RP-141526	R4-145342	approved	Tolerance levels for measurements on UTRAN	11.9.0	11.10.0	R4	TEI9
36.133	2527	-	Rel-12	A	RP-141526	R4-145343	approved	Tolerance levels for measurements on UTRAN	12.4.0	12.5.0	R4	TEI9
36.133	2529	-	Rel-11	B	RP-141694	-	postponed	Introduction of UE requirements for PCell interruptions	11.9.0		R4	LTE_CA-Core, TEI11
36.133	2530	-	Rel-12	A	RP-141699	-	postponed	Introduction of UE requirements for PCell interruptions	12.4.0		R4	LTE_CA-Core, TEI11

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36.141	0596	-	Rel-12	B	RP-141538	-	approved	Introduction of intra-band CA_Band 42C to TS 36.141	12.4.0	12.5.0	R4	LTE_CA_C_B42-Core
36.141	0621	-	Rel-12	B	RP-141556	R4-144179	approved	Introduction of 3 Band Carrier Aggregation (3DL/1UL) of Band 1, Band 3 and Band 8 to TS 36.141	12.4.0	12.5.0	R4	LTE_CA_B1_B3_B8-Perf
36.141	0622	-	Rel-11	F	RP-141532	R4-144257	approved	Clarification of high speed train conditions in 36.141	11.9.0	11.10.0	R4	TEI11
36.141	0623	-	Rel-12	A	RP-141532	R4-144258	approved	Clarification of high speed train conditions in 36.141	12.4.0	12.5.0	R4	TEI11
36.141	0624	-	Rel-12	B	RP-141551	R4-144286	approved	Introduction of CA 8+11 to 36.141 (Rel-12)	12.4.0	12.5.0	R4	LTE_CA_B8_B11-Perf
36.141	0626	-	Rel-12	B	RP-141548	R4-144339	approved	Introduction of CA band combination Band1 + Band3 to TS 36.141	12.4.0	12.5.0	R4	LTE_CA_B1_B3-Perf
36.141	0627	1	Rel-12	B	RP-141202	-	approved	Introduction of CA band combination Band1 + Band3 + Band19 to TS 36.141	12.4.0	12.5.0	R4	LTE_CA_B1_B3_B19-Perf
36.141	0628	-	Rel-12	B	RP-141557	R4-144346	approved	Introduction of CA band combination Band19 + Band42 + Band42 to TS 36.141	12.4.0	12.5.0	R4	LTE_CA_B19_B42_B42-Perf
36.141	0629	-	Rel-12	B	RP-141559	R4-144348	approved	Introduction of CA band combination Band1 + Band42 + Band42 to TS 36.141	12.4.0	12.5.0	R4	LTE_CA_B1_B42_B42-Perf
36.141	0633	-	Rel-12	A	RP-141525	R4-144357	approved	CR for clarification on Transmitter off power	12.4.0	12.5.0	R4	TEI8
36.141	0635	1	Rel-12	B	RP-141447	-	approved	Introduction of CA band combination for B1+B7 and B1+B5+B7 to TS 36.141 Rel-12	12.4.0	12.5.0	R4	LTE_CA_B1_B7-Core, LTE_CA_B1_B5_B7-Core
36.141	0636	1	Rel-12	B	RP-141707	-	approved	Introduction of 3 Band Carrier Aggregation of Band 1,Band 3 and Band 5 to TS 36.141	12.4.0	12.5.0	R4	LTE_CA_B1_B3_B5-Perf
36.141	0636	-	Rel-12	B	RP-141555	R4-144637	revised	Introduction of 3 Band Carrier Aggregation of Band 1,Band 3 and Band 5 to TS 36.141	12.4.0		R4	LTE_CA_B1_B3_B5-Perf
36.141	0638	1	Rel-12	B	RP-141109	-	approved	Introduction of inter-band CA_18-28 into TS36.141	12.4.0	12.5.0	R4	LTE_CA_B18_B28-Perf
36.141	0644	-	Rel-12	B	RP-141558	R4-144751	approved	Introduction of CA band combination Band 1, Band 3 and Band 20 to TS 36.141	12.4.0	12.5.0	R4	LTE_CA_B1_B3_B20-Perf
36.141	0653	1	Rel-11	F	RP-141528	R4-145515	approved	Correction on UEM related to multi-band operation in TS36.141	11.9.0	11.10.0	R4	MB_MSR_RF-Perf
36.141	0654	-	Rel-12	A	RP-141528	R4-145077	approved	Correction on UEM related to multi-band operation in TS36.141	12.4.0	12.5.0	R4	MB_MSR_RF-Perf
36.141	0655	1	Rel-11	F	RP-141528	R4-145500	approved	Correction of applicability of test configuration table for a BS capable of multi-carrier and/or CA operation in both contiguous and non-contiguous spectrum in single band.	11.9.0	11.10.0	R4	MB_MSR_RF-Perf
36.141	0656	-	Rel-12	A	RP-141528	R4-145153	approved	Correction of applicability of test configuration table for a BS capable of multi-carrier and/or CA operation in both contiguous and non-contiguous spectrum in single band.	12.4.0	12.5.0	R4	MB_MSR_RF-Perf

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36.141	0657	1	Rel-12	B	RP-141554	R4-145476	approved	Introduction of CA combinations	12.4.0	12.5.0	R4	LTE_CA_B2_B2_B13-core, LTE_CA_B4_B4_B13-core, LTE_CA_B1_B19_B21-core, LTE_CA_B2_B4_B5-core, LTE_CA_B2_B4_B12-core, LTE_CA_B2_B4_B13-core, LTE_CA_B2_B5_B12-core, LTE_CA_B3_B7_B20-core, LTE_CA_B4_B5_B12-core LTE_CA_B2_B5_B30-core, …
36.141	0658	-	Rel-12	F	RP-141533	R4-145203	approved	Update of definitions to support supplemental DL in TS36.141	12.4.0	12.5.0	R4	LTE_UTRA_SDL_BandL-Perf
36.141	0661	-	Rel-12	B	RP-141464	-	approved	Introduction of 3 DL CA for Band 1+7+20	12.4.0	12.5.0	R4	LTE_CA_B1_B7_B20-Perf
36.211	0188	2	Rel-12	B	RP-141174	-	postponed	Introduction of supplemental downlink for TD-LTE	12.2.0		R1	TEI12, LTE-Phys
36.211	0192	-	Rel-12	B	RP-141485	R1-143428	approved	Inclusion of low-cost MTC and 256QAM	12.2.0	12.3.0	R1	LC_MTC_LTE-Core, LTE_SC_enh_L1-Core
36.211	0193	-	Rel-11	F	RP-141477	R1-143645	approved	Draft CR on port 5 UE-specific reference signal when PDSCH is overlapped with EPDCCH	11.5.0	11.6.0	R1	LTE_enh_dl_ctrl-Core
36.211	0194	-	Rel-12	A	RP-141477	R1-143646	approved	Draft CR on port 5 UE-specific reference signal when PDSCH is overlapped with EPDCCH	12.2.0	12.3.0	R1	LTE_enh_dl_ctrl-Core
36.212	0161	-	Rel-12	B	RP-141485	R1-143652	approved	CR for 36.212 on 256QAM and LC-MTC	12.1.0	12.2.0	R1	LC_MTC_LTE-Core, LTE_SC_enh_L1-Core
36.213	0456	2	Rel-12	B	RP-141175	-	postponed	Introduction of supplemental downlink for TD-LTE	12.2.0		R1	TEI12, LTE-Phys
36.213	0464	-	Rel-12	F	RP-141479	R1-143359	approved	Correction on SRS transmission for TDD-FDD CA	12.2.0	12.3.0	R1	LTE_CA_TDD_FDD-Core
36.213	0465	-	Rel-12	F	RP-141478	R1-143407	approved	Correction on beta_{offset}^{HARQ-ACK} determination for a UE configured with two uplink power control subframe sets	12.2.0	12.3.0	R1	LTE_TDD_eIMTA-Core
36.213	0466	-	Rel-12	F	RP-141478	R1-143408	approved	Corrections for TDD eIMTA	12.2.0	12.3.0	R1	LTE_TDD_eIMTA-Core
36.213	0467	3	Rel-12	F	RP-141479	R1-143662	approved	CR on HARQ-ACK Multiplexing in PUSCH for TDD-FDD CA	12.2.0	12.3.0	R1	LTE_CA_TDD_FDD-Core, TEI12
36.213	0468	-	Rel-11	F	RP-141477	R1-143637	approved	Corrections on UL-reference UL/DL configuration	11.7.0	11.8.0	R1	LTE_CA_enh-Core
36.213	0469	-	Rel-12	F	RP-141474	R1-143643	approved	Correction to UCI embedding in case of a single serving cell and simultaneous PUSCH and PUCCH transmission	12.2.0	12.3.0	R1	LTE_CA-Core
36.213	0470	-	Rel-12	A	RP-141478	R1-143648	approved	Corrections on UL-reference UL/DL configuration	12.2.0	12.3.0	R1	LTE_CA_enh-Core, LTE_TDD_eIMTA-Core
36.213	0471	-	Rel-12	F	RP-141473	R1-143620	approved	CR for Clarification of special subframe and usage alignment	12.2.0	12.3.0	R1	LTE-Phys
36.213	0472	-	Rel-12	B	RP-141485	R1-143621	approved	Inclusion of low-cost MTC and 256QAM	12.2.0	12.3.0	R1	LC_MTC_LTE-Core, LTE_SC_enh_L1-Core
36.214	0021	1	Rel-12	C	RP-141486	R1-143362	postponed	New E-UTRA RSRQ measurement definition	11.1.0		R1	TEI12

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36.214	0022	2	Rel-12	B	RP-141484	R1-143461	approved	Inclusion of definition of WLAN Beacon RSSI in LTE specifications	11.1.0	12.0.0	R1	UTRA_LTE_WLAN_interw-Core
36.300	0642	-	Rel-12	B	RP-141504	R2-143854	approved	Stage-2 details of WLAN/3GPP Radio Interworking for LTE	12.2.0	12.3.0	R2	UTRA_LTE_WLAN_interw-core
36.300	0644	-	Rel-11	F	RP-141496	R2-143890	approved	Clarification on Service Continuity	11.10.0	11.11.0	R2	MBMS_LTE_SC-Core
36.300	0645	-	Rel-12	A	RP-141496	R2-143891	approved	Clarification on Service Continuity	12.2.0	12.3.0	R2	MBMS_LTE_SC-Core
36.300	0652	3	Rel-12	B	RP-141506	R2-143986	approved	Stage 2 aspects of low complexity UE features	12.2.0	12.3.0	R2	LC_MTC_LTE-Core
36.300	0653	-	Rel-12	B	RP-141520	R2-144034	approved	Introduction of the UE history reported from the UE	12.2.0	12.3.0	R2	HetNet_eMOB_LTE-Core
36.300	0654	-	Rel-11	F	RP-141498	R2-144035	approved	Corrections to MBMS SAI 0	11.10.0	11.11.0	R2	TEI11
36.300	0655	-	Rel-12	A	RP-141498	R2-144036	approved	Corrections to MBMS SAI 0	12.2.0	12.3.0	R2	TEI11
36.300	0656	-	Rel-12	B	RP-141509	R2-144037	approved	Introduction of inter-eNB CoMP	12.2.0	12.3.0	R2	COMP_LTE_leNB-Core
36.300	0657	-	Rel-12	B	RP-141505	R2-144038	approved	Stage 2 alignment following introduction of context fetch	12.2.0	12.3.0	R2	HetNet_eMOB_LTE-Core
36.300	0658	-	Rel-12	F	RP-141511	R2-144039	approved	Delete stage 3 detail on cause of the RLF	12.2.0	12.3.0	R2	TEI12
36.300	0659	-	Rel-12	B	RP-141508	R2-144040	approved	Support of Radio-interface Based Synchronization by OAM configuration	12.2.0	12.3.0	R2	LTE_SC_enh_L1-Core
36.300	0660	-	Rel-12	B	RP-141518	R2-144042	approved	Introduction of CN assistance information	12.2.0	12.3.0	R2	MTCe-RAN-Core
36.302	0054	1	Rel-12	B	RP-141506	R2-143979	approved	Updates for low complexity UEs, and the improvements for the representation of the reception requirements	12.0.0	12.1.0	R2	LC_MTC_LTE-Core, TEI12
36.304	0243	1	Rel-12	B	RP-141504	R2-144028	approved	Procedures of WLAN/3GPP Radio Interworking for LTE	12.1.0	12.2.0	R2	UTRA_LTE_WLAN_interw-Core
36.304	0244	-	Rel-12	B	RP-141507	R2-143912	approved	Introduction of MBSFN MDT	12.1.0	12.2.0	R2	MBMS_LTE_OS-Core
36.306	0204	-	Rel-11	F	RP-141493	R2-143900	approved	Corrections to UE capabilities and features	11.7.0	11.8.0	R2	LTE_CA-Core, MBMS_LTE_SC-Core, rSRVCC-GERAN, TEI11
36.306	0205	-	Rel-12	A	RP-141493	R2-143901	approved	Corrections to UE capabilities and features	12.1.0	12.2.0	R2	LTE_CA-Core, MBMS_LTE_SC-Core, rSRVCC-GERAN, TEI11
36.306	0207	2	Rel-12	B	RP-141506	R2-143978	approved	Introduction of Category 0 for low complexity UEs	12.1.0	12.2.0	R2	LC_MTC_LTE-Core
36.306	0209	-	Rel-12	B	RP-141507	R2-143913	approved	Introduction of MBSFN MDT capability	12.1.0	12.2.0	R2	MBMS_LTE_OS-Core
36.306	0212	-	Rel-12	F	RP-141499	R2-143842	approved	Introduction of UE eIMTA capabilities	12.1.0	12.2.0	R2	LTE_TDD_eIMTA-Core
36.306	0215	-	Rel-12	F	RP-141505	R2-143840	approved	UE capabilities for Hetnet mobility in TS 36.306	12.1.0	12.2.0	R2	HetNet_eMOB_LTE-Core
36.306	0217	1	Rel-11	F	RP-141498	R2-144052	approved	The PDCP SDU number limitation for Category 9-10 UE	11.7.0	11.8.0	R2	TEI11
36.306	0218	1	Rel-12	A	RP-141498	R2-144053	approved	The PDCP SDU number limitation for Category 9-10 UE	12.1.0	12.2.0	R2	TEI11
36.306	0220	-	Rel-12	B	RP-141176	-	postponed	Introduction of supplemental downlink for TD-LTE	12.1.0		R2	TEI12, LTE-L23
36.306	0221	-	Rel-12	B	RP-141314	-	postponed	CR on UE capability signaling for WLAN/3GPP radio interworking (alternative 1)	12.1.0		R2	UTRA_LTE_WLAN_interw-Core

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36.306	0222	-	Rel-12	B	RP-141322	-	postponed	CR on UE capability signaling for WLAN/3GPP radio interworking (alternative 2)	12.1.0		R2	UTRA_LTE_WLAN_interw-Core
36.306	0223	-	Rel-11	B	RP-141693	-	postponed	Introduction of capability for PCell interruptions	11.7.0		R2	LTE_CA-Core, TEI11
36.306	0224	-	Rel-12	A	RP-141698	-	postponed	Introduction of capability for PCell interruptions	12.1.0		R2	LTE_CA-Core, TEI11
36.307	0302	1	Rel-11	B	RP-141540	-	approved	Introduction of Band 40D in release independent specification (Rel-11)	11.8.0	11.9.0	R4	LTE_CA_C_B40_3DL-Core
36.307	0342	1	Rel-11	B	RP-141538	-	approved	Introduction of CA_42C to TS 36.307	11.8.0	11.9.0	R4	LTE_CA_C_B42-Core
36.307	0350	-	Rel-10	B	RP-141560	R4-144083	approved	Introduction of new CA_40C bandwidth combination set into 36.307	10.11.0	10.12.0	R4	LTE_CA_C_B40_3DL_BW-Perf
36.307	0351	-	Rel-11	B	RP-141560	R4-144084	approved	Introduction of new CA_40C bandwidth combination set into 36.307	11.8.0	11.9.0	R4	LTE_CA_C_B40_3DL_BW-Perf
36.307	0352	-	Rel-12	B	RP-141560	R4-144085	approved	Introduction of new CA_40C bandwidth combination set into 36.307	12.4.0	12.5.0	R4	LTE_CA_C_B40_3DL_BW-Perf
36.307	0353	2	Rel-11	B	RP-141561	R4-145562	approved	CR to 36.307 Rel-11: Introduction of CA_41C-41A and CA_41A-41C and New BW Combination Set for CA_41C	11.8.0	11.9.0	R4	LTE_CA_NC_B41_3DL-Perf
36.307	0354	-	Rel-12	B	RP-141561	R4-144097	approved	CR to 36.307 Rel-12: Introduction of CA_41C-41A and CA_41A-41C	12.4.0	12.5.0	R4	LTE_CA_NC_B41_3DL-Perf
36.307	0355	1	Rel-10	B	RP-141556	R4-145571	approved	Introduction of 3 Band Carrier Aggregation (3DL/1UL) of Band 1, Band 3 and Band 8 to TS 36.307	10.11.0	10.12.0	R4	LTE_CA_B1_B3_B8-Core
36.307	0356	1	Rel-11	B	RP-141556	R4-145572	approved	Introduction of 3 Band Carrier Aggregation (3DL/1UL) of Band 1, Band 3 and Band 8 to TS 36.307	11.8.0	11.9.0	R4	LTE_CA_B1_B3_B8-Core
36.307	0357	1	Rel-12	B	RP-141556	R4-145573	approved	Introduction of 3 Band Carrier Aggregation (3DL/1UL) of Band 1, Band 3 and Band 8 to TS 36.307	12.4.0	12.5.0	R4	LTE_CA_B1_B3_B8-Core
36.307	0358	-	Rel-10	B	RP-141551	R4-144287	approved	Introduction of CA 8+11 to 36.307 (Rel-10)	10.11.0	10.12.0	R4	LTE_CA_B8_B11-Perf
36.307	0359	-	Rel-11	A	RP-141551	R4-144288	approved	Introduction of CA 8+11 to 36.307 (Rel-11)	11.8.0	11.9.0	R4	LTE_CA_B8_B11-Perf
36.307	0360	-	Rel-12	B	RP-141551	R4-144289	approved	Introduction of CA 8+11 to 36.307 (Rel-12)	12.4.0	12.5.0	R4	LTE_CA_B8_B11-Perf
36.307	0361	1	Rel-10	B	RP-141203	-	approved	Introduction of CA_B1_B3 into TS 36.307 (Rel-10)	10.11.0	10.12.0	R4	LTE_CA_B1_B3-Perf
36.307	0361	1	Rel-10	B	RP-141104	-	withdrawn	Introduction of CA_B1_B3 into TS 36.307 (Rel-10)	10.11.0		R4	LTE_CA_B1_B3-Perf
36.307	0362	1	Rel-11	B	RP-141204	-	approved	Introduction of CA_B1_B3 into TS 36.307 (Rel-11)	11.8.0	11.9.0	R4	LTE_CA_B1_B3-Perf
36.307	0362	1	Rel-11	B	RP-141106	-	withdrawn	Introduction of CA_B1_B3 into TS 36.307 (Rel-11)	11.8.0		R4	LTE_CA_B1_B3-Perf
36.307	0363	1	Rel-12	B	RP-141205	-	approved	Introduction of CA_B1_B3 into TS 36.307 (Rel-12)	12.4.0	12.5.0	R4	LTE_CA_B1_B3-Perf
36.307	0363	1	Rel-12	B	RP-141107	-	withdrawn	Introduction of CA_B1_B3 into TS 36.307 (Rel-12)	12.4.0		R4	LTE_CA_B1_B3-Perf
36.307	0364	1	Rel-10	B	RP-141198	-	approved	Introduction of CA_B1_B3_B19 into TS 36.307 (Rel-10)	10.11.0	10.12.0	R4	LTE_CA_B1_B3_B19-Perf

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36.307	0365	1	Rel-11	B	RP-141199	-	approved	Introduction of CA_B1_B3_B19 into TS 36.307 (Rel-11)	11.8.0	11.9.0	R4	LTE_CA_B1_B3_B19-Perf
36.307	0366	1	Rel-12	B	RP-141200	-	approved	Introduction of CA_B1_B3_B19 into TS 36.307 (Rel-12)	12.4.0	12.5.0	R4	LTE_CA_B1_B3_B19-Perf
36.307	0374	2	Rel-10	B	RP-141338	-	approved	Introduction of CA_B1_B5_B7 into TS 36.307 (Rel-10)	10.11.0	10.12.0	R4	LTE_CA_B1_B5_B7
36.307	0375	2	Rel-11	B	RP-141339	-	approved	Introduction of CA_B1_B5_B7 into TS 36.307 (Rel-11)	11.8.0	11.9.0	R4	LTE_CA_B1_B5_B7
36.307	0376	1	Rel-12	B	RP-141340	-	approved	Introduction of CA_B1_B5_B7 into TS 36.307 (Rel-12)	12.4.0	12.5.0	R4	LTE_CA_B1_B5_B7
36.307	0377	-	Rel-10	B	RP-141552	R4-144573	approved	Introduction of CA_41A-42A to TS 36.307	10.11.0	10.12.0	R4	LTE_CA_B41_B42-Perf
36.307	0378	-	Rel-11	B	RP-141552	R4-144574	approved	Introduction of CA_41A-42A to TS 36.307	11.8.0	11.9.0	R4	LTE_CA_B41_B42-Perf
36.307	0379	-	Rel-12	B	RP-141552	R4-144575	approved	Introduction of CA_41A-42A to TS 36.307	12.4.0	12.5.0	R4	LTE_CA_B41_B42-Perf
36.307	0380	-	Rel-11	B	RP-141553	R4-144611	approved	Introduction of a new bandwidth combination set for CA_25A-25A into 36.307	11.8.0	11.9.0	R4	LTE_CA_NC_B25_BWset-Perf
36.307	0381	-	Rel-12	B	RP-141553	R4-144612	approved	Introduction of a new bandwidth combination set for CA_25A-25A into 36.307	12.4.0	12.5.0	R4	LTE_CA_NC_B25_Bwset-Perf
36.307	0382	1	Rel-10	B	RP-141555	R4-145574	approved	Introduction of 3 Band Carrier Aggregation of Band 1,Band 3 and Band 5 to TS 36.307(Rel.10)	10.11.0	10.12.0	R4	LTE_CA_B1_B3_B5-Perf
36.307	0383	1	Rel-11	B	RP-141555	R4-145575	approved	Introduction of 3 Band Carrier Aggregation of Band 1,Band 3 and Band 5 to TS 36.307(Rel.11)	11.8.0	11.9.0	R4	LTE_CA_B1_B3_B5-Perf
36.307	0384	-	Rel-12	B	RP-141555	R4-144640	approved	Introduction of 3 Band Carrier Aggregation of Band 1,Band 3 and Band 5 to TS 36.307(Rel.12)	12.4.0	12.5.0	R4	LTE_CA_B1_B3_B5-Perf
36.307	0388	1	Rel-12	B	RP-141110	-	approved	Introduction of inter-band CA_18-28 into TS36.307	12.4.0	12.5.0	R4	LTE_CA_B18_B28-Perf
36.307	0389	1	Rel-11	B	RP-141111	-	approved	Introduction of inter-band CA_18-28 into TS36.307	11.8.0	11.9.0	R4	LTE_CA_B18_B28-Perf
36.307	0390	1	Rel-10	B	RP-141112	-	approved	Introduction of inter-band CA_18-28 into TS36.307	10.11.0	10.12.0	R4	LTE_CA_B18_B28-Perf
36.307	0400	-	Rel-10	B	RP-141558	R4-144752	approved	Introduction of CA band combination Band 1, Band 3 and Band 20 to TS 36.307	10.11.0	10.12.0	R4	LTE_CA_B1_B3_B20-Perf
36.307	0401	-	Rel-11	B	RP-141558	R4-144753	approved	Introduction of CA band combination Band 1, Band 3 and Band 20 to TS 36.307	11.8.0	11.9.0	R4	LTE_CA_B1_B3_B20-Perf
36.307	0402	-	Rel-12	B	RP-141558	R4-144754	approved	Introduction of CA band combination Band 1, Band 3 and Band 20 to TS 36.307	12.4.0	12.5.0	R4	LTE_CA_B1_B3_B20-Perf
36.307	0409	-	Rel-8	F	RP-141541	R4-144779	approved	CR on UE performance requirement for Band 31 for 36.307 Rel-8	8.11.0	8.12.0	R4	LTE450_Brazil-Perf
36.307	0410	-	Rel-9	F	RP-141541	R4-144780	approved	CR on UE performance requirement for Band 31 for 36.307 Rel-9	9.12.0	9.13.0	R4	LTE450_Brazil-Perf
36.307	0411	-	Rel-10	F	RP-141541	R4-144781	approved	CR on UE performance requirement for Band 31 for 36.307 Rel-10	10.11.0	10.12.0	R4	LTE450_Brazil-Perf

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36.307	0412	-	Rel-11	F	RP-141541	R4-144782	approved	CR on UE performance requirement for Band 31 for 36.307 Rel-11	11.8.0	11.9.0	R4	LTE450_Brazil-Perf
36.307	0413	-	Rel-10	F	RP-141527	R4-144783	approved	CR for 36.307 on CA UE performance requirement in Rel-10	10.11.0	10.12.0	R4	LTE_CA-perf
36.307	0414	1	Rel-11	F	RP-141527	R4-145423	approved	CR for 36.307 on CA UE performance requirement in Rel-11	11.8.0	11.9.0	R4	LTE_CA-perf
36.307	0415	1	Rel-12	F	RP-141527	R4-145424	approved	CR for 36.307 on CA UE performance requirement in Rel-12	12.4.0	12.5.0	R4	LTE_CA-perf
36.307	0416	1	Rel-10	B	RP-141554	R4-145540	approved	Introduction of requirements for 3DL inter-band carrier aggregation (FDD) and 2DL fallback	10.11.0	10.12.0	R4	LTE_CA_B2_B12_B12-Perf, LTE_CA_B2_B2_B13-Perf, LTE_CA_B3_B3_B7-Perf, LTE_CA_B3_B7_B7-Perf, LTE_CA_B4_B12_B12-Perf, LTE_CA_B4_B4_B13-Perf, LTE_CA_B1_B19_B21-Perf, LTE_CA_B2_B4_B5-Perf, LTE_CA_B2_B4_B12-Perf, LTE_CA_B2_B4_B13-Perf, LTE_CA_B2_B5_B12-Perf,…
36.307	0417	1	Rel-11	B	RP-141554	R4-145541	approved	Introduction of requirements for 3DL inter-band carrier aggregation (FDD) and 2DL fallback	11.8.0	11.9.0	R4	LTE_CA_B2_B12_B12-Perf, LTE_CA_B2_B2_B13-Perf, LTE_CA_B3_B3_B7-Perf, LTE_CA_B3_B7_B7-Perf, LTE_CA_B4_B12_B12-Perf, LTE_CA_B4_B4_B13-Perf, LTE_CA_B1_B19_B21-Perf, LTE_CA_B2_B4_B5-Perf, LTE_CA_B2_B4_B12-Perf, LTE_CA_B2_B4_B13-Perf, LTE_CA_B2_B5_B12-Perf,…
36.307	0418	1	Rel-12	B	RP-141554	R4-145542	approved	Introduction of requirements for 2DL inter-band carrier aggregation (FDD) and 2DL fallback	12.4.0	12.5.0	R4	LTE_CA_B2_B12_B12-Perf, LTE_CA_B2_B2_B13-Perf, LTE_CA_B3_B3_B7-Perf, LTE_CA_B3_B7_B7-Perf, LTE_CA_B4_B12_B12-Perf, LTE_CA_B4_B4_B13-Perf, LTE_CA_B1_B19_B21-Perf, LTE_CA_B2_B4_B5-Perf, LTE_CA_B2_B4_B12-Perf, LTE_CA_B2_B4_B13-Perf, LTE_CA_B2_B5_B12-Perf,…

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36.307	0419	1	Rel-10	B	RP-141554	R4-145543	approved	Introduction of requirements for 3DL inter-band carrier aggregation including Band 30 and 2DL fallback	10.11.0	10.12.0	R4	LTE_CA_B2_B5_B30-Perf, LTE_CA_B2_B12_B30-Perf, LTE_CA_B2_B29_B30-Perf, LTE_CA_B4_B5_B30-Perf, LTE_CA_B4_B12_B30-Perf, LTE_CA_B4_B29_B30-Perf
36.307	0420	1	Rel-11	B	RP-141554	R4-145544	approved	Introduction of requirements for 3DL inter-band carrier aggregation including Band 30 and 2DL fallback	11.8.0	11.9.0	R4	LTE_CA_B2_B5_B30-Perf, LTE_CA_B2_B12_B30-Perf, LTE_CA_B2_B29_B30-Perf, LTE_CA_B4_B5_B30-Perf, LTE_CA_B4_B12_B30-Perf, LTE_CA_B4_B29_B30-Perf
36.307	0421	-	Rel-12	B	RP-141554	R4-145001	approved	Introduction of requirements for 3DL inter-band carrier aggregation including Band 30	12.4.0	12.5.0	R4	LTE_CA_B2_B5_B30-Perf, LTE_CA_B2_B12_B30-Perf, LTE_CA_B2_B29_B30-Perf, LTE_CA_B4_B5_B30-Perf, LTE_CA_B4_B12_B30-Perf, LTE_CA_B4_B29_B30-Perf
36.307	0427	1	Rel-10	B	RP-141329	-	approved	Introduction of CA_1A-7A into 36.307 (REl-10)	10.11.0	10.12.0	R4	LTE_CA_B1_B7-Perf
36.307	0428	1	Rel-11	B	RP-141330	-	approved	Introduction of CA_1A-7A into 36.307 (Rel-11)	11.8.0	11.9.0	R4	LTE_CA_B1_B7-Perf
36.307	0429	1	Rel-12	B	RP-141332	-	approved	Introduction of CA_1A-7A into 36.307 (Rel -12)	12.4.0	12.5.0	R4	LTE_CA_B1_B7-Perf
36.307	0430	-	Rel-10	B	RP-141465	-	approved	Introduction of 3 DL CA for Band 1+7+20	10.11.0	10.12.0	R4	LTE_CA_B1_B7_B20-Perf
36.307	0431	-	Rel-11	B	RP-141466	-	approved	Introduction of 3 DL CA for Band 1+7+20	11.8.0	11.9.0	R4	LTE_CA_B1_B7_B20-Perf
36.307	0432	-	Rel-12	B	RP-141467	-	approved	Introduction of 3 DL CA for Band 1+7+20	12.4.0	12.5.0	R4	LTE_CA_B1_B7_B20-Perf
36.314	0033	-	Rel-12	D	RP-141511	R2-143848	approved	Corrections for TS36.314	11.1.0	12.0.0	R2	TEI12
36.321	0732	1	Rel-12	B	RP-141506	R2-143920	approved	Introduction of low complexity UEs in TS 36.321	12.2.1	12.3.0	R2	LC_MTC_LTE-Core
36.322	0101	-	Rel-12	F	RP-141511	R2-143847	approved	Corrections to configuration of extended RLC LI field	12.0.0	12.1.0	R2	TEI12
36.323	0125	-	Rel-11	F	RP-141498	R2-143831	approved	Clarification of the decompressor state and mode after PDCP re-establishment	11.3.0	11.4.0	R2	TEI11
36.323	0126	-	Rel-12	A	RP-141498	R2-143832	approved	Clarification of the decompressor state and mode after PDCP re-establishment	12.0.0	12.1.0	R2	TEI11
36.331	1559	2	Rel-12	F	RP-141511	R2-144024	approved	Correction to stop condition for "Chiba offset"	12.2.0	12.3.0	R2	TEI12
36.331	1560	1	Rel-12	C	RP-141511	R2-143985	approved	Introduction of shorter MCH scheduling period	12.2.0	12.3.0	R2	TEI12
36.331	1566	1	Rel-12	B	RP-141504	R2-144029	revised	Connected mode procedures and RRC signaling of WLAN/3GPP Radio Interworking for LTE	12.2.0		R2	UTRA_LTE_WLAN_interw-Core

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36.331	1566	2	Rel-12	B	RP-141618	RP-141618	approved	Connected mode procedures and RRC signaling of WLAN/3GPP Radio Interworking for LTE	12.2.0	12.3.0	R2	UTRA_LTE_WLAN_interw-Core
36.331	1567	-	Rel-12	F	RP-141511	R2-143846	approved	Corrections to extended RLC LI field	12.2.0	12.3.0	R2	TEI12
36.331	1570	-	Rel-12	B	RP-141507	R2-143911	approved	Introducing MBSFN measurement by extension of logged measurements	12.2.0	12.3.0	R2	MBMS_LTE_OS-Core
36.331	1572	1	Rel-12	B	RP-141510	R2-143917	approved	Introduction of ACB skip for MMTEL voice/video and SMS	12.2.0	12.3.0	R2	SCM_LTE-Core
36.331	1573	1	Rel-11	F	RP-141489	R2-143902	approved	Correction of E-UTRAN UE capabilities description in HandoverPreparationInformation message field descriptions	11.8.0	11.9.0	R2	LTE-L23, TEI11
36.331	1574	1	Rel-12	A	RP-141489	R2-143903	approved	Correction of E-UTRAN UE capabilities description in HandoverPreparationInformation message field descriptions	12.2.0	12.3.0	R2	LTE-L23, TEI11
36.331	1576	-	Rel-11	F	RP-141496	R2-143892	approved	Clarification on double indication of SAI in SIB15	11.8.0	11.9.0	R2	MBMS_LTE_SC-Core
36.331	1577	1	Rel-12	A	RP-141496	R2-144043	approved	Clarification on double indication of SAI in SIB15	12.2.0	12.3.0	R2	MBMS_LTE_SC-Core
36.331	1579	1	Rel-12	B	RP-141506	R2-143977	approved	Introduction of signaling support for low complexity UEs	12.2.0	12.3.0	R2	LC_MTC_LTE-Core
36.331	1584	-	Rel-12	F	RP-141499	R2-143841	approved	Introduction of UE eIMTA capabilities	12.2.0	12.3.0	R2	LTE_TDD_eIMTA-Core
36.331	1596	-	Rel-11	F	RP-141496	R2-143896	approved	Clarification on MBMSCountingResponse	11.8.0	11.9.0	R2	MBMS_LTE_SC-Core
36.331	1597	-	Rel-12	A	RP-141496	R2-143897	approved	Clarification on MBMSCountingResponse	12.2.0	12.3.0	R2	MBMS_LTE_SC-Core
36.331	1599	-	Rel-12	F	RP-141505	R2-143839	approved	UE capabilities for Hetnet mobility in TS 36.331	12.2.0	12.3.0	R2	HetNet_eMOB_LTE-Core
36.331	1601	1	Rel-12	F	RP-141499	R2-143982	approved	Rel-12 ASN.1 correction	12.2.0	12.3.0	R2	LTE_TDD_eIMTA-Core, Cov_Enh_LTE-Core
36.331	1603	-	Rel-12	C	RP-141511	R2-143851	approved	TAI reporting of last serving cell	12.2.0	12.3.0	R2	TEI12
36.331	1609	1	Rel-10	F	RP-141493	R2-143987	approved	Clarification for time-domain resource restriction pattern applicable to neighbour cell RSRQ measurements	10.13.0	10.14.0	R2	eICIC_LTE-Core
36.331	1610	-	Rel-11	A	RP-141493	R2-143988	approved	Clarification for time-domain resource restriction pattern applicable to neighbour cell RSRQ measurements	11.8.0	11.9.0	R2	eICIC_LTE-Core
36.331	1611	-	Rel-12	A	RP-141493	R2-143989	approved	Clarification for time-domain resource restriction pattern applicable to neighbour cell RSRQ measurements	12.2.0	12.3.0	R2	eICIC_LTE-Core
36.331	1614	1	Rel-11	F	RP-141496	R2-143972	approved	Clarification on determining MBMS frequencies of interest in MBMSInterestIndication	11.8.0	11.9.0	R2	MBMS_LTE_SC-Core
36.331	1615	1	Rel-12	A	RP-141496	R2-143973	approved	Clarification on determining MBMS frequencies of interest in MBMSInterestIndication	12.2.0	12.3.0	R2	MBMS_LTE_SC-Core
36.331	1622	-	Rel-11	F	RP-141496	R2-143898	approved	Clarification on the setting of SupportedBandCombination-v1130	11.8.0	11.9.0	R2	LTE_CA_enh-Core
36.331	1623	-	Rel-12	A	RP-141496	R2-143899	approved	Clarification on the setting of SupportedBandCombination-v1130	12.2.0	12.3.0	R2	LTE_CA_enh-Core
36.331	1626	-	Rel-10	F	RP-141494	R2-143825	approved	FDD&TDD split for CA	10.13.0	10.14.0	R2	TEI10
36.331	1627	1	Rel-11	F	RP-141498	R2-143852	approved	Correction to Network-requested CA Band Combination Capability Signalling	11.8.0	11.9.0	R2	TEI11

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36.331	1630	1	Rel-12	A	RP-141498	R2-143853	approved	Correction to Network-requested CA Band Combination Capability Signalling	12.2.0	12.3.0	R2	TEI11
36.331	1631	-	Rel-11	A	RP-141494	R2-143826	approved	FDD&TDD split for CA	11.8.0	11.9.0	R2	TEI10
36.331	1632	-	Rel-12	A	RP-141494	R2-143827	approved	FDD&TDD split for CA	12.2.0	12.3.0	R2	TEI10
36.331	1634	-	Rel-10	F	RP-141113	-	approved	Mandating the FGI bit 31 to true	10.13.0	10.14.0	R2	LTE-L23, TEI10
36.331	1635	-	Rel-11	A	RP-141114	-	approved	Mandating the FGI bit 31 to true	11.8.0	11.9.0	R2	LTE-L23, TEI10
36.331	1636	-	Rel-12	A	RP-141115	-	approved	Mandating the FGI bit 31 to true	12.2.0	12.3.0	R2	LTE-L23, TEI10
36.331	1637	-	Rel-12	B	RP-141177	-	postponed	Introduction of supplemental downlink for TD-LTE	12.2.0		R2	TEI12, LTE-L23
36.331	1638	-	Rel-12	B	RP-141311	-	postponed	CR on UE capability signaling for WLAN/3GPP radio interworking (alternative 1)	12.2.0		R2	UTRA_LTE_WLAN_interw-Core
36.331	1639	-	Rel-12	B	RP-141319	-	postponed	CR on UE capability signaling for WLAN/3GPP radio interworking (alternative 2)	12.2.0		R2	UTRA_LTE_WLAN_interw-Core
36.331	1640	-	Rel-11	B	RP-141692	-	postponed	Introduction of signalling for PCell interruptions	11.8.0		R2	LTE_CA-Core, TEI11
36.331	1641	-	Rel-12	A	RP-141697	-	postponed	Introduction of capability for PCell interruptions	12.2.0		R2	LTE_CA-Core, TEI11
36.413	1216	2	Rel-12	B	RP-141520	R3-141624	approved	Introduction of the UE history reported from the UE	12.2.0	12.3.0	R3	HetNet_eMOB_LTE-Core
36.413	1219	5	Rel-12	B	RP-141522	R3-141996	approved	Introduction of MBMS MDT	12.2.0	12.3.0	R3	MBMS_LTE_OS-Core
36.413	1231	2	Rel-12	B	RP-141518	R3-142000	approved	Introduction of an indication of the expected UE behaviour	12.2.0	12.3.0	R3	MTCe-RAN-Core
36.413	1240	1	Rel-9	F	RP-141513	R3-141942	approved	Correction of Transparent Container Encoding for PS handover to GERAN	9.9.0	9.10.0	R3	TEI9
36.413	1241	2	Rel-10	A	RP-141513	R3-142070	approved	Correction of Transparent Container Encoding for PS handover to GERAN	10.8.0	10.9.0	R3	TEI9
36.413	1242	2	Rel-11	A	RP-141513	R3-142071	approved	Correction of Transparent Container Encoding for PS handover to GERAN	11.7.0	11.8.0	R3	TEI9
36.413	1243	2	Rel-12	A	RP-141513	R3-142072	approved	Correction of Transparent Container Encoding for PS handover to GERAN	12.2.0	12.3.0	R3	TEI9
36.413	1246	2	Rel-12	F	RP-141514	R3-142073	approved	Correction of Transparent Containers Usage in Annex C	12.2.0	12.3.0	R3	TEI12
36.413	1255	1	Rel-12	B	RP-141521	R3-142111	approved	Paging enhancements for Low Complexity UE	12.2.0	12.3.0	R3	LC_MTC_LTE-Core
36.423	0663	3	Rel-12	B	RP-141520	R3-142034	approved	Introduction of the UE history reported from the UE	12.2.0	12.3.0	R3	HetNet_eMOB_LTE-Core
36.423	0690	2	Rel-12	B	RP-141518	R3-142001	approved	Introduction of an indication of the expected UE behaviour	12.2.0	12.3.0	R3	MTCe-RAN-Core
36.508	0524	-	Rel-12	F	RP-141573	R5-144185	approved	Correction to notificationSF-Index-r9 in Sib13	12.2.0	12.3.0	R5	TEI9_Test
36.508	0525	-	Rel-12	F	RP-141571	R5-144370	approved	IMS APN pre-configured IR.92 devices	12.2.0	12.3.0	R5	TEI8_Test
36.508	0526	-	Rel-12	F	RP-141571	R5-144459	approved	Removal of transition period for Band 28 test frequency definition in 36.508	12.2.0	12.3.0	R5	TEI8_Test
36.508	0527	-	Rel-12	F	RP-141593	R5-144543	approved	Addition of Rel11 reverse band combinations CA_1A-18A, CA_11A-18A	12.2.0	12.3.0	R5	TEI11_Test

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36.508	0528	-	Rel-12	F	RP-141594	R5-144544	approved	Addition of Rel12 reverse band combination CA_1A-26A	12.2.0	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.508	0529	-	Rel-12	F	RP-141593	R5-144644	approved	Editorial correction to Table 6.2.3.2-2	12.2.0	12.3.0	R5	TEI11_Test
36.508	0530	-	Rel-12	F	RP-141594	R5-144685	approved	Addition of reverse band combinations, CA_1A-19A, CA_1A-21A, CA_3A-19A and CA_19A-21A	12.2.0	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.508	0531	-	Rel-12	F	RP-141587	R5-144711	approved	Addition of default parameters for Enhanced downlink control channel(s) for LTE Advanced	12.2.0	12.3.0	R5	LTE_enh_dl_ctrl-UEConTest
36.508	0532	-	Rel-12	F	RP-141593	R5-144712	approved	Removal of FFS from IEs triggered by CoMP related TCs specification	12.2.0	12.3.0	R5	TEI11_Test
36.508	0533	-	Rel-12	F	RP-141571	R5-144750	approved	Clarification on the default setting of Security header type in SECURITY PROTECTED NAS MESSAGE	12.2.0	12.3.0	R5	TEI8_Test
36.508	0534	-	Rel-12	F	RP-141571	R5-144797	approved	Support of 2nd PDN connectivity at UE registration	12.2.0	12.3.0	R5	TEI8_Test
36.508	0535	-	Rel-12	F	RP-141575	R5-144890	approved	CA: New structure for test frequencies for intra-band contiguous CA	12.2.0	12.3.0	R5	TEI10_Test
36.508	0536	-	Rel-12	F	RP-141575	R5-144929	approved	Correction to 7.2B.1 Tracking Area Updating procedure	12.2.0	12.3.0	R5	TEI10_Test
36.509	0029	-	Rel-10	F	RP-141597	R5-144454	approved	Reservation of message types for antenna test function	10.2.0	10.3.0	R5	FS_LTE_MIMO_OTA_ATF
36.521-1	1516	-	Rel-12	F	RP-141589	R5-144068	approved	Uncertainties and test tolerances for test case 8.2.2.2.4	12.2.0	12.3.0	R5	LTE_Interf_Rej-UEConTest
36.521-1	1517	-	Rel-12	F	RP-141589	R5-144072	approved	Uncertainties and test tolerances for test case 8.3.1.1.3	12.2.0	12.3.0	R5	LTE_Interf_Rej-UEConTest
36.521-1	1518	-	Rel-12	F	RP-141589	R5-144074	approved	Uncertainties and test tolerances for test case 8.3.2.1.4	12.2.0	12.3.0	R5	LTE_Interf_Rej-UEConTest
36.521-1	1519	-	Rel-12	F	RP-141590	R5-144086	approved	Corrections to TC 8.2.2.1.1_A.3 TDD PDSCH Single Antenna Port Performance for CA	12.2.0	12.3.0	R5	LTE_CA_enh-UEConTest
36.521-1	1520	-	Rel-12	F	RP-141590	R5-144087	approved	Corrections to TC 8.2.2.4.2_A.3 TDD PDSCH Closed Loop Multi Layer Spatial Multiplexing 4 x 2 for CA	12.2.0	12.3.0	R5	LTE_CA_enh-UEConTest
36.521-1	1521	-	Rel-12	F	RP-141590	R5-144088	approved	Test Tolerances to Annex F for TC 8.2.2.1.1_A.3 and TC 8.2.2.4.2_A.3	12.2.0	12.3.0	R5	LTE_CA_enh-UEConTest
36.521-1	1522	-	Rel-12	F	RP-141586	R5-144093	approved	Test Tolerances for TC 9.5.5.1_F.1 FDD RI Reporting with Single CSI process	12.2.0	12.3.0	R5	COMP_LTE-UEConTest
36.521-1	1523	-	Rel-12	F	RP-141586	R5-144094	approved	Test Tolerances for TC 9.5.5.2_F.1 TDD RI Reporting with Single CSI process	12.2.0	12.3.0	R5	COMP_LTE-UEConTest
36.521-1	1524	-	Rel-12	F	RP-141586	R5-144095	approved	Addition of OCNG pattern for TM10	12.2.0	12.3.0	R5	COMP_LTE-UEConTest
36.521-1	1525	-	Rel-12	F	RP-141586	R5-144096	approved	Uncertainties and Test Tolerances for TC 9.5.5.1_F.1+9.5.5.2_F.1 in Annex F	12.2.0	12.3.0	R5	COMP_LTE-UEConTest
36.521-1	1526	-	Rel-12	F	RP-141588	R5-144098	approved	Test Tolerances for TC 8.2.1.4.1_E.1 FDD PDSCH Closed Loop Single Layer Spatial Multiplexing 2x2 for feICIC (non-MBSFN ABS)	12.2.0	12.3.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1527	-	Rel-12	F	RP-141588	R5-144099	approved	Test Tolerances for TC 8.2.2.4.1_E.1 TDD PDSCH Closed Loop Single Layer Spatial Multiplexing 2x2 for feICIC (non-MBSFN ABS)	12.2.0	12.3.0	R5	eICIC_enh_LTE-UEConTest

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36.521-1	1528	-	Rel-12	F	RP-141588	R5-144101	approved	Test Tolerances for TC 8.4.1.2.3_E.1 FDD PCFICH/PDCCH Transmit Diversity 2x2 for feICIC (non-MBSFN ABS)	12.2.0	12.3.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1529	-	Rel-12	F	RP-141588	R5-144102	approved	Test Tolerances for TC 8.4.2.2.3_E.1 TDD PCFICH/PDCCH Transmit Diversity 2x2 for feICIC (non-MBSFN ABS)	12.2.0	12.3.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1530	-	Rel-12	F	RP-141588	R5-144104	approved	Test Tolerances for TC 8.4.1.2.3_E.2 FDD PCFICH/PDCCH Transmit Diversity 2x2 for feICIC (MBSFN ABS)	12.2.0	12.3.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1531	-	Rel-12	F	RP-141588	R5-144105	approved	Test Tolerances for TC 8.4.2.2.3_E.2 TDD PCFICH/PDCCH Transmit Diversity 2x2 for feICIC (MBSFN ABS)	12.2.0	12.3.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1532	-	Rel-12	F	RP-141588	R5-144107	approved	Uncertainties and Test Tolerances to Annex F for Demodulation feICIC	12.2.0	12.3.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1533	-	Rel-12	F	RP-141588	R5-144111	approved	Test Tolerances for TC 9.2.1.5_E.1 FDD CQI Reporting under AWGN conditions - PUCCH 1-0 for feICIC (non-MBSFN ABS)	12.2.0	12.3.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1534	-	Rel-12	F	RP-141588	R5-144112	approved	Test Tolerances for TC 9.2.1.6_E.1 TDD CQI Reporting under AWGN conditions - PUCCH 1-0 for feICIC (non-MBSFN ABS)	12.2.0	12.3.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1535	-	Rel-12	F	RP-141588	R5-144114	approved	Test Tolerances for TC 9.3.1.3.1_E.1 FDD CQI Reporting under fading conditions - PUSCH 3-0 for feICIC (non-MBSFN ABS)	12.2.0	12.3.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1536	-	Rel-12	F	RP-141588	R5-144115	approved	Test Tolerances for TC 9.3.1.3.2_E.1 TDD CQI Reporting under fading conditions - PUSCH 3-0 for feICIC (non-MBSFN ABS)	12.2.0	12.3.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1537	-	Rel-12	F	RP-141588	R5-144117	approved	Test Tolerances for TC 9.5.4.1_E.1 FDD RI Reporting - PUCCH 1-0 for feICIC (non-MBSFN ABS)	12.2.0	12.3.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1538	-	Rel-12	F	RP-141588	R5-144118	approved	Test Tolerances for TC 9.5.4.2_E.1 TDD RI Reporting - PUCCH 1-0 for feICIC (non-MBSFN ABS)	12.2.0	12.3.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1539	-	Rel-12	F	RP-141588	R5-144120	approved	Uncertainties and Test Tolerances to Annex F for Reporting of Channel State Information feICIC	12.2.0	12.3.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1540	-	Rel-12	F	RP-141588	R5-144122	approved	Message contents updates for CSI feICIC test cases	12.2.0	12.3.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1541	-	Rel-12	F	RP-141588	R5-144123	approved	Corrections to Annex G for feICIC	12.2.0	12.3.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1542	-	Rel-12	F	RP-141593	R5-144173	approved	RF: Corrections to spurious emission band co-existence test	12.2.0	12.3.0	R5	TEI11_Test
36.521-1	1543	-	Rel-12	F	RP-141571	R5-144174	approved	RF: Missing test coverage for Band 31	12.2.0	12.3.0	R5	TEI8_Test
36.521-1	1544	-	Rel-12	F	RP-141589	R5-144176	approved	IR RF: Correction to TCs 8.3.1.1.3 and 8.3.2.1.4	12.2.0	12.3.0	R5	LTE_Interf_Rej-UEConTest
36.521-1	1545	-	Rel-12	F	RP-141571	R5-144244	approved	Correction of clause 6.2.4.5 in 36.521-1	12.2.0	12.3.0	R5	TEI8_Test
36.521-1	1546	-	Rel-12	F	RP-141595	R5-144248	approved	Addition of operating band 30 to TS36.521-1, clause 5	12.2.0	12.3.0	R5	LTE_WCS_band-UEConTest
36.521-1	1547	-	Rel-12	F	RP-141571	R5-144283	approved	Add static propagation condition matrix for 1 x 2	12.2.0	12.3.0	R5	TEI8_Test
36.521-1	1548	-	Rel-12	F	RP-141586	R5-144299	approved	Update of TC 8.3.1.3.2_F CoMP	12.2.0	12.3.0	R5	COMP_LTE-UEConTest
36.521-1	1549	-	Rel-12	F	RP-141586	R5-144300	approved	Update of TC 8.3.1.3.3_F CoMP	12.2.0	12.3.0	R5	COMP_LTE-UEConTest
36.521-1	1550	-	Rel-12	F	RP-141586	R5-144301	approved	Update of TC 8.3.2.4.2_F CoMP	12.2.0	12.3.0	R5	COMP_LTE-UEConTest
36.521-1	1551	-	Rel-12	F	RP-141586	R5-144302	approved	Update of TC 8.3.2.4.3_F CoMP	12.2.0	12.3.0	R5	COMP_LTE-UEConTest

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
36.521-1	1552	-	Rel-12	F	RP-141587	R5-144310	approved	Update minimum requirements and test tolerance for TC 8.7.3.1	12.2.0	12.3.0	R5	LTE_enh_dl_ctrl-UEConTest
36.521-1	1553	-	Rel-12	F	RP-141587	R5-144311	approved	Update minimum requirements and test tolerance for TC 8.7.4.1	12.2.0	12.3.0	R5	LTE_enh_dl_ctrl-UEConTest
36.521-1	1554	-	Rel-12	F	RP-141587	R5-144312	approved	Update minimum requirements and test tolerance for TC 8.8.2.1	12.2.0	12.3.0	R5	LTE_enh_dl_ctrl-UEConTest
36.521-1	1555	-	Rel-12	F	RP-141587	R5-144313	approved	Update minimum requirements and test tolerance for TC 8.8.2.2	12.2.0	12.3.0	R5	LTE_enh_dl_ctrl-UEConTest
36.521-1	1556	-	Rel-12	F	RP-141575	R5-144347	approved	Correction to Inter-band CA operating bands	12.2.0	12.3.0	R5	TEI10_Test
36.521-1	1557	-	Rel-12	F	RP-141575	R5-144352	approved	Correction to eICIC performance test cases	12.2.0	12.3.0	R5	TEI10_Test
36.521-1	1558	-	Rel-12	F	RP-141575	R5-144353	approved	Correction to UL/DL configuration in CQI requirements	12.2.0	12.3.0	R5	TEI10_Test
36.521-1	1559	-	Rel-12	F	RP-141571	R5-144393	approved	RF: Corrections to A-MPR test requirements	12.2.0	12.3.0	R5	TEI8_Test
36.521-1	1560	-	Rel-12	F	RP-141594	R5-144416	approved	Update configurations of CA_39C in A-MPR for CA	12.2.0	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1561	-	Rel-12	F	RP-141594	R5-144420	approved	Update configurations of CA_39C in Additional spurious emissions for CA	12.2.0	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1562	-	Rel-12	F	RP-141571	R5-144436	approved	Update of test applicabilities for TDD PDSCH Transmit Diversity	12.2.0	12.3.0	R5	TEI8_Test
36.521-1	1563	-	Rel-12	F	RP-141573	R5-144439	approved	Update of test applicability for TDD PDSCH Transmit Diversity 4x2	12.2.0	12.3.0	R5	TEI9_Test
36.521-1	1564	-	Rel-12	F	RP-141589	R5-144441	approved	Update test applicabilities for TDD interference rejection test cases	12.2.0	12.3.0	R5	LTE_Interf_Rej-UEConTest
36.521-1	1565	-	Rel-12	F	RP-141573	R5-144474	approved	Updates to TC 8.7.2.1 and 8.7.2.1_1 for TDD SDR	12.2.0	12.3.0	R5	TEI9_Test
36.521-1	1566	-	Rel-12	F	RP-141590	R5-144787	approved	Addition of new TC 8.2.1.3.1_A.3 FDD PDSCH Open Loop Spatial Multiplexing 2x2 for intra-band NC DL CA	12.2.0	12.3.0	R5	LTE_CA_enh-UEConTest
36.521-1	1567	-	Rel-12	F	RP-141590	R5-144766	approved	Correction to CA Rx Blocking TCs	12.2.0	12.3.0	R5	LTE_CA_enh-UEConTest
36.521-1	1568	-	Rel-12	F	RP-141587	R5-144775	approved	Correction of the ePDCCH TCs for applying default parameter	12.2.0	12.3.0	R5	LTE_enh_dl_ctrl-UEConTest
36.521-1	1569	-	Rel-12	F	RP-141593	R5-144801	approved	Removal of TBDs in Clause 6.2.4A.1 (A-MPR for UL intra-band cont. CA), CA_NS_02 and 03, correction of Test Requirements	12.2.0	12.3.0	R5	TEI11_Test
36.521-1	1570	-	Rel-12	F	RP-141575	R5-144802	approved	Correction to in-band blocking for CA requirements	12.2.0	12.3.0	R5	TEI10_Test
36.521-1	1571	-	Rel-12	F	RP-141593	R5-144803	approved	Corrections to TM9 SNR requirements for eDL-MIMO	12.2.0	12.3.0	R5	TEI11_Test
36.521-1	1572	-	Rel-12	F	RP-141575	R5-144804	approved	Addition of exception message for TDD MBMS	12.2.0	12.3.0	R5	TEI10_Test
36.521-1	1573	-	Rel-12	F	RP-141573	R5-144805	approved	RF: Corrections to sustained data rate tests	12.2.0	12.3.0	R5	TEI9_Test
36.521-1	1574	-	Rel-12	F	RP-141575	R5-144806	approved	Correction of TDD CQI Reporting under AWGN conditions - PUCCH 1-0 for CA (intra band contiguous DL CA) TC 9.6.1.2_A.1	12.2.0	12.3.0	R5	TEI10_Test
36.521-1	1575	-	Rel-12	F	RP-141575	R5-144807	approved	Correction of TDD CQI Reporting under AWGN conditions - PUCCH 1-0 for CA (intra band non-contiguous DL CA) TC 9.6.1.2_A.3	12.2.0	12.3.0	R5	TEI10_Test
36.521-1	1576	-	Rel-12	F	RP-141571	R5-144808	approved	Correction to the test cases 8.3.2.1.1, 8.3.2.1.2, 8.3.2.1.3 and 8.3.2.2.1	12.2.0	12.3.0	R5	TEI8_Test

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
36.521-1	1577	-	Rel-12	F	RP-141575	R5-144809	approved	Correction to RF General section on CA configurations	12.2.0	12.3.0	R5	TEI10_Test
36.521-1	1578	-	Rel-12	F	RP-141586	R5-144814	approved	Update TC 9.3.6.1_F FDD CQI Reporting under fading conditions multiple CSI processes for CoMP	12.2.0	12.3.0	R5	COMP_LTE-UEConTest
36.521-1	1579	-	Rel-12	F	RP-141586	R5-144815	approved	Update TC 9.3.6.2_F TDD CQI Reporting under fading conditions multiple CSI processes for CoMP	12.2.0	12.3.0	R5	COMP_LTE-UEConTest
36.521-1	1580	-	Rel-12	F	RP-141586	R5-144817	approved	Addition of CoMP AWGN CQI Tests to Test Requirements Derivation in Annex F	12.2.0	12.3.0	R5	COMP_LTE-UEConTest
36.521-1	1581	-	Rel-12	F	RP-141587	R5-144818	approved	Update minimum requirements and test tolerance for TC 8.8.3.1	12.2.0	12.3.0	R5	LTE_enh_dl_ctrl-UEConTest
36.521-1	1582	-	Rel-12	F	RP-141587	R5-144819	approved	Update minimum requirements and test tolerance for TC 8.8.3.2	12.2.0	12.3.0	R5	LTE_enh_dl_ctrl-UEConTest
36.521-1	1583	-	Rel-12	F	RP-141588	R5-144820	approved	Uncertainties and test tolerances for test cases 8.2.1.3.3_E.1 and 8.2.2.3.3_E.1	12.2.0	12.3.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1584	-	Rel-12	F	RP-141588	R5-144821	approved	Uncertainties and Test Tolerances for feICIC Test cases 8.2.1.2.3_E.1 and 8.2.2.2.3_E.1.	12.2.0	12.3.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1585	-	Rel-12	F	RP-141589	R5-144822	approved	Uncertainties and test tolerances for test case 8.2.2.4.3	12.2.0	12.3.0	R5	LTE_Interf_Rej-UEConTest
36.521-1	1586	-	Rel-12	F	RP-141589	R5-144824	approved	Uncertainties and test tolerances for test cases 9.3.5.2.1 and 9.3.5.2.2	12.2.0	12.3.0	R5	LTE_Interf_Rej-UEConTest
36.521-1	1587	-	Rel-12	F	RP-141575	R5-144826	approved	eICIC Test Tolerance references to TS 36.904	12.2.0	12.3.0	R5	TEI10_Test
36.521-1	1588	-	Rel-12	F	RP-141575	R5-144827	approved	Addition of CA aQI Tests to Test Requirements Derivation in Annex F	12.2.0	12.3.0	R5	TEI10_Test
36.521-1	1589	-	Rel-12	F	RP-141587	R5-144828	approved	ePDCCH RF: Corrections to sustained data rate tests	12.2.0	12.3.0	R5	LTE_enh_dl_ctrl-UEConTest
36.521-1	1590	-	Rel-12	F	RP-141586	R5-144836	approved	Update to CoMP test case 9.5.5.1_F.2 and 9.5.5.2_F.2	12.2.0	12.3.0	R5	COMP_LTE-UEConTest
36.521-1	1591	-	Rel-12	F	RP-141594	R5-144839	approved	New CA band combination CA_NC_42 and CA_4-27-Update to 36.521-1 Chapter 6	12.2.0	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1592	-	Rel-12	F	RP-141594	R5-144840	approved	New CA band combination CA_NC_42 and CA_4-27-Update to 36.521-1 Chapter 7	12.2.0	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1593	-	Rel-12	F	RP-141594	R5-144841	approved	Addition of CA band Combo CA_7A-28A	12.2.0	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1594	-	Rel-12	F	RP-141594	R5-144842	approved	Addition of CA_2A-2A to 36.521-1	12.2.0	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1595	-	Rel-12	F	RP-141594	R5-144844	approved	Existing CA band combination CA_3A-28A update to 36.521-1 7.3	12.2.0	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1596	-	Rel-12	F	RP-141594	R5-144845	approved	Addition of new CA band combo CA_2A-5A to 36.521-1	12.2.0	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1597	-	Rel-12	F	RP-141594	R5-144859	approved	New TC: TDD CQI Reporting under AWGN conditions - PUCCH 1-0 for CA (inter band DL CA)	12.2.0	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1598	-	Rel-12	F	RP-141595	R5-144864	approved	Addition of operating band 30 to TS36.521-2	12.2.0	12.3.0	R5	LTE_WCS_band-UEConTest
36.521-1	1599	-	Rel-12	F	RP-141571	R5-144873	approved	Correction of clause 6.3.4.1.4 in 36.521-1	12.2.0	12.3.0	R5	TEI8_Test
36.521-1	1600	-	Rel-12	F	RP-141571	R5-144874	approved	Removal of transition period for Band 28 test frequency definition	12.2.0	12.3.0	R5	TEI8_Test

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
36.521-1	1601	-	Rel-12	F	RP-141590	R5-144875	approved	Clearification of tables used in TDD Intra band non-contiguous DL CA TCs	12.2.0	12.3.0	R5	LTE_CA_enh-UEConTest
36.521-1	1602	-	Rel-12	F	RP-141590	R5-144876	approved	Introduction of new Wideband Intermodulation test for Intra-band NC CA	12.2.0	12.3.0	R5	LTE_CA_enh-UEConTest
36.521-1	1603	-	Rel-12	F	RP-141594	R5-144879	approved	New CA band combination CA_NC_42 and CA_4-27-Update to 36.521-1 Chapter 5	12.2.0	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1604	-	Rel-12	F	RP-141594	R5-144880	approved	Update reference sensitivity level for CA (intra-band contiguous DL CA without UL CA)	12.2.0	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1605	-	Rel-12	F	RP-141594	R5-144881	approved	Update In-band blocking for CA (intra-band contiguous DL CA without UL CA)	12.2.0	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1606	-	Rel-12	F	RP-141575	R5-144891	approved	CA RF: Adopting test frequencies selection to the new structure proposed for TS 36.508	12.2.0	12.3.0	R5	TEI10_Test
36.521-1	1607	-	Rel-12	F	RP-141593	R5-144894	approved	Corrections to 8.3.1.2.1_D_1 FDD PDSCH Dual-layer Spatial Multiplexing for eDL-MIMO (Release 11 and forward)	12.2.0	12.3.0	R5	TEI11_Test
36.521-1	1608	-	Rel-12	F	RP-141593	R5-144895	approved	Corrections to 8.3.2.2.1_D_1 TDD PDSCH Dual-layer Spatial Multiplexing for eDL-MIMO (Release 11 and forward)	12.2.0	12.3.0	R5	TEI11_Test
36.521-1	1609	-	Rel-12	F	RP-141571	R5-144896	approved	Correct errors in TDD PDSCH Single Antenna Port Performance test case	12.2.0	12.3.0	R5	TEI8_Test
36.521-1	1610	-	Rel-12	F	RP-141575	R5-144897	approved	Separation of minimum requirements for CA UE PDSCH demodulation from single carrier	12.2.0	12.3.0	R5	TEI10_Test
36.521-1	1611	-	Rel-12	F	RP-141575	R5-144898	approved	Introduction of FDD CQI Reporting under AWGN conditions - PUCCH 1-0 for CA (intra band contiguous DL CA) TC 9.6.1.1_A.1	12.2.0	12.3.0	R5	TEI10_Test
36.521-1	1612	-	Rel-12	F	RP-141575	R5-144899	approved	Correction of FDD CQI Reporting under AWGN conditions - PUCCH 1-0 for CA (intrer band DL CA) TC 9.6.1.1_A.2	12.2.0	12.3.0	R5	TEI10_Test
36.521-1	1613	-	Rel-12	F	RP-141575	R5-144900	approved	Correction of FDD CQI Reporting under AWGN conditions - PUCCH 1-0 for CA (intra band non-contiguous DL CA) TC 9.6.1.1_A.3	12.2.0	12.3.0	R5	TEI10_Test
36.521-1	1614	-	Rel-12	F	RP-141575	R5-144901	approved	Updates to 8.2.1.4.2_A.1/A.2 FDD PDSCH Closed Loop Multi Layer Spatial Multiplexing 4x2 for CA related test cases	12.2.0	12.3.0	R5	TEI10_Test
36.521-1	1615	-	Rel-12	F	RP-141575	R5-144902	approved	Updates to 8.2.2.3.1_A TDD PDSCH Open Loop Spatial Multiplexing 2x2 for CA	12.2.0	12.3.0	R5	TEI10_Test
36.521-1	1616	-	Rel-12	F	RP-141575	R5-144903	approved	Updates to 8.2.2.4.2_A TDD PDSCH Closed Loop Multi Layer Spatial Multiplexing 4x2 for CA	12.2.0	12.3.0	R5	TEI10_Test
36.521-1	1617	-	Rel-12	F	RP-141571	R5-144904	approved	Updates to 8.2.2.3.1 TDD PDSCH Open Loop Spatial Multiplexing 2x2	12.2.0	12.3.0	R5	TEI8_Test
36.521-1	1618	-	Rel-12	F	RP-141571	R5-144905	approved	Updates to 8.2.2.3.2 TDD PDSCH Open Loop Spatial Multiplexing 4x2	12.2.0	12.3.0	R5	TEI8_Test

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
36.521-1	1619	-	Rel-12	F	RP-141571	R5-144906	approved	Updates to 8.2.2.4 TDD PDSCH Closed Loop Single/Multi Layer Spatial Multiplexing 2x2 and 4x2	12.2.0	12.3.0	R5	TEI8_Test
36.521-1	1620	-	Rel-12	F	RP-141571	R5-144907	approved	Updates to 9.2.x CQI Reporting under AWGN conditions	12.2.0	12.3.0	R5	TEI8_Test
36.521-1	1621	-	Rel-12	F	RP-141586	R5-144916	approved	Message contents updates for TC 9.5.5.1_F.1+9.5.5.2_F.1 CoMP	12.2.0	12.3.0	R5	COMP_LTE-UEConTest
36.521-1	1622	-	Rel-12	F	RP-141586	R5-144917	approved	FDD CQI Reporting under AWGN conditions - Single CSI Process TC 9.2.4.1_F - Editor Notes Resolution	12.2.0	12.3.0	R5	COMP_LTE-UEConTest
36.521-1	1623	-	Rel-12	F	RP-141586	R5-144918	approved	TDD CQI Reporting under AWGN conditions - Single CSI Process TC 9.2.4.2_F - Editor Notes Resolution	12.2.0	12.3.0	R5	COMP_LTE-UEConTest
36.521-1	1624	-	Rel-12	F	RP-141590	R5-144920	approved	Addition of SDR test case 8.7.1.1_A.3 for intra-band NC DL CA	12.2.0	12.3.0	R5	LTE_CA_enh-UEConTest
36.521-1	1625	-	Rel-12	F	RP-141594	R5-144922	approved	New TC: TDD PDSCH Closed Loop Multi Layer Spatial Multiplexing 4x2 for CA (inter band DL CA)	12.2.0	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1626	-	Rel-12	F	RP-141594	R5-144923	approved	New TC: TDD PDSCH Single Antenna Port Performance for CA (inter-band DL CA)	12.2.0	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1627	-	Rel-12	F	RP-141594	R5-144924	approved	New TC: TDD PDSCH Open Loop Spatial Multiplexing 2x2 for CA (inter-band DL CA)	12.2.0	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1628	-	Rel-12	F	RP-141594	R5-144925	approved	New TC: TDD sustained data rate performance for CA (inter-band DL CA)	12.2.0	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1629	-	Rel-12	F	RP-141594	R5-144926	approved	Update Out-of-band blocking for CA (intra-band contiguous DL CA without UL CA)	12.2.0	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1630	-	Rel-12	F	RP-141588	R5-144928	approved	Message contents updates for Demod feICIC test cases	12.2.0	12.3.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1631	-	Rel-12	F	RP-141590	R5-144930	approved	Addition of new TC 8.2.2.3.1A_A.3 TDD Soft buffer management test for intra-band NC DL CA	12.2.0	12.3.0	R5	LTE_CA_enh-UEConTest
36.521-1	1632	-	Rel-12	F	RP-141590	R5-144931	approved	Addition of new TC 8.2.1.4.2_A.3 FDD PDSCH Closed Loop Multi Layer Spatial Multiplexing 4x2 for CA (intra band NC DL CA)	12.2.0	12.3.0	R5	LTE_CA_enh-UEConTest
36.521-1	1633	-	Rel-12	F	RP-141575	R5-144932	approved	Updates to TCs 8.2.1.3.1_A.1/A.2 for FDD PDSCH Open Loop Spatial Multiplexing 2x2 for CA	12.2.0	12.3.0	R5	TEI10_Test
36.521-1	1634	-	Rel-12	F	RP-141575	R5-144933	approved	Updates to 8.7.1.1_A FDD SDR for CA related test cases	12.2.0	12.3.0	R5	TEI10_Test
36.521-1	1635	-	Rel-12	F	RP-141575	R5-144934	approved	Addition of new TC 8.2.2.3.1A_A.2 TDD Soft buffer management test for inter-band DL CA	12.2.0	12.3.0	R5	TEI10_Test
36.521-1	1636	-	Rel-12	F	RP-141590	R5-144936	approved	Updates of Annex F.1.4 and F.3.4 for newly added performance test cases	12.2.0	12.3.0	R5	LTE_CA_enh-UEConTest
36.521-1	1637	-	Rel-12	F	RP-141571	R5-144938	approved	Updates to TC 8.2.2.1 TDD PDSCH Single Antenna Port Performance (Cell-Specific Reference Symbols) related test cases	12.2.0	12.3.0	R5	TEI8_Test
36.521-1	1638	-	Rel-12	F	RP-141571	R5-144939	approved	Updates to 8.2.2.2 TDD PDSCH Transmit Diversity Performance (Cell-Specific Reference Symbols)	12.2.0	12.3.0	R5	TEI8_Test

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36.521-1	1640	-	Rel-12	F	RP-141575	R5-144942	approved	Updates to TC 9.6.1.1_A.2 FDD CQI Reporting under AWGN conditions – PUCCH 1-0 for CA (inter band DL CA)	12.2.0	12.3.0	R5	TEI10_Test
36.521-2	0183	-	Rel-12	F	RP-141588	R5-144109	approved	Introduction of feICIC applicability statement for Performance test cases (resubmission of R5-143075 not implemented)	12.2.0	12.3.0	R5	eICIC_enh_LTE-UEConTest
36.521-2	0184	-	Rel-12	F	RP-141588	R5-144121	approved	Corrections to feICIC applicability statement for CSI test cases	12.2.0	12.3.0	R5	eICIC_enh_LTE-UEConTest
36.521-2	0185	-	Rel-12	F	RP-141594	R5-144200	approved	Applicability for newly added 5MHz+5 MHz and 10MHz+5MHz BW RRM test cases	12.2.0	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-2	0186	-	Rel-12	F	RP-141571	R5-144245	approved	Corrections to applicability conditions for RRM test cases	12.2.0	12.3.0	R5	TEI8_Test
36.521-2	0187	-	Rel-12	F	RP-141571	R5-144329	approved	Update of FGI definitions in TS 36.521-2	12.2.0	12.3.0	R5	TEI8_Test
36.521-2	0188	-	Rel-12	F	RP-141594	R5-144449	approved	Applicability update for CA band Combo CA_7A-28A	12.2.0	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-2	0189	-	Rel-12	F	RP-141576	R5-144484	approved	Update Tx intra-band contiguous DL CA without UL CA TCs applicability to include BW Class B	12.2.0	12.3.0	R5	TEI10_Test
36.521-2	0190	-	Rel-12	F	RP-141594	R5-144504	approved	New CA band combination CA_NC_42 and CA_4-27-Update to 36.521-2	12.2.0	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-2	0191	-	Rel-12	F	RP-141594	R5-144512	approved	Addition of applicability for CA band combo CA_2A-5A	12.2.0	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-2	0192	-	Rel-12	F	RP-141576	R5-144800	approved	Correction to RF Baseline capabilities with Band 29	12.2.0	12.3.0	R5	TEI10_Test
36.521-2	0193	-	Rel-12	F	RP-141590	R5-144837	approved	Update test applicability for intra band non-contiguous CA test cases	12.2.0	12.3.0	R5	LTE_CA_enh-UEConTest
36.521-2	0194	-	Rel-12	F	RP-141594	R5-144848	approved	Update test applicability for inter band and intra band contiguous CA test cases	12.2.0	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-2	0195	-	Rel-12	F	RP-141594	R5-144849	approved	Addition of CA_2A-2A to 36.521-2 Annex A4	12.2.0	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-2	0196	-	Rel-12	F	RP-141571	R5-144871	approved	Correction to Merge UE category tables	12.2.0	12.3.0	R5	TEI8_Test
36.521-2	0197	-	Rel-12	F	RP-141590	R5-144877	approved	CA: Review of CA capabilities tables	12.2.0	12.3.0	R5	LTE_CA_enh-UEConTest
36.521-2	0198	-	Rel-12	F	RP-141590	R5-144878	approved	Addition of applicability for newly added performance test cases	12.2.0	12.3.0	R5	LTE_CA_enh-UEConTest
36.521-2	0199	-	Rel-12	F	RP-141576	R5-144911	approved	Update applicabilities for serving cell RSRP and RSRQ absolute accuracy TCs	12.2.0	12.3.0	R5	TEI10_Test
36.521-2	0200	-	Rel-12	F	RP-141587	R5-144919	approved	Update the applicability conditions for TCs 8.8.2.1 and 8.8.2.2	12.2.0	12.3.0	R5	LTE_enh_dl_ctrl-UEConTest
36.521-2	0201	-	Rel-12	F	RP-141590	R5-144921	approved	Addition of applicability for SDR test case 8.7.1.1_A.3	12.2.0	12.3.0	R5	LTE_CA_enh-UEConTest
36.521-3	0959	-	Rel-12	F	RP-141588	R5-144124	approved	Corrections to RRM Physical Cell Id (PCI) Configuration Conditions in feICIC	12.2.1	12.3.0	R5	eICIC_enh_LTE-UEConTest
36.521-3	0962	-	Rel-12	F	RP-141571	R5-144169	approved	RRM: Corrections to TCs 9.2.18.x (5MHz)	12.2.1	12.3.0	R5	TEI8_Test
36.521-3	0963	-	Rel-12	F	RP-141576	R5-144170	approved	eICIC RRM: Corrections to TCs 7.3.14 and 7.3.16	12.2.1	12.3.0	R5	TEI10_Test
36.521-3	0964	-	Rel-12	F	RP-141571	R5-144171	approved	RRM: Removal of redundant (time limited) editor's notes	12.2.1	12.3.0	R5	TEI8_Test
36.521-3	0965	-	Rel-12	F	RP-141576	R5-144172	approved	CA RRM: Correction of wrong test applicability	12.2.1	12.3.0	R5	TEI10_Test

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36.521-3	0966	-	Rel-12	F	RP-141594	R5-144197	approved	Addition of new RRM TC 8.16.11 E-UTRAN FDD event triggered reporting on deactivating SCell with PCell interruption in non-DRX for 10MHz+5MHz	12.2.1	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-3	0967	-	Rel-12	F	RP-141594	R5-144202	approved	Addition of new RRM TC 8.16.16 E-UTRA TDD event triggered reporting on deactivated SCell with PCell interruption in non-DRX for 5+5MHz BW	12.2.1	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-3	0973	-	Rel-12	F	RP-141576	R5-144355	approved	Correction to Inter-frequency event triggered reporting test in 8.3.6	12.2.1	12.3.0	R5	TEI10_Test
36.521-3	0974	-	Rel-12	F	RP-141576	R5-144356	approved	Correction to InterRAT event triggered reporting test in 8.5.6	12.2.1	12.3.0	R5	TEI10_Test
36.521-3	0975	-	Rel-12	F	RP-141576	R5-144357	approved	Update of Annex E	12.2.1	12.3.0	R5	TEI10_Test
36.521-3	0976	-	Rel-12	F	RP-141576	R5-144361	approved	Correction to CQI reporting periodicity in RLM with eICIC	12.2.1	12.3.0	R5	TEI10_Test
36.521-3	0977	-	Rel-12	F	RP-141576	R5-144362	approved	Addition of message exceptions for eICIC test cases with MBSFN	12.2.1	12.3.0	R5	TEI10_Test
36.521-3	0978	-	Rel-12	F	RP-141576	R5-144788	approved	Updates to Annex I of TS 36.521-3	12.2.1	12.3.0	R5	TEI10_Test
36.521-3	0979	-	Rel-12	F	RP-141576	R5-144767	approved	Uncertainties and Test Tolerances for RRM TCs 8.16.7+8.16.8	12.2.1	12.3.0	R5	TEI10_Test
36.521-3	0980	-	Rel-12	F	RP-141576	R5-144768	approved	Uncertainties and Test Tolerances for RRM TCs 8.16.5+8.16.6	12.2.1	12.3.0	R5	TEI10_Test
36.521-3	0981	-	Rel-12	F	RP-141571	R5-144810	approved	Antenna correlation for RRM Test cases	12.2.1	12.3.0	R5	TEI8_Test
36.521-3	0982	-	Rel-12	F	RP-141576	R5-144811	approved	Correction to RRM event triggered tests	12.2.1	12.3.0	R5	TEI10_Test
36.521-3	0983	-	Rel-12	F	RP-141576	R5-144812	approved	Correction to E-UTRAN CA Measurements	12.2.1	12.3.0	R5	TEI10_Test
36.521-3	0984	-	Rel-12	F	RP-141576	R5-144830	approved	Uncertainties and Test Tolerances for Test case 8.3.6	12.2.1	12.3.0	R5	TEI10_Test
36.521-3	0985	-	Rel-12	F	RP-141576	R5-144832	approved	Uncertainties and Test Tolerances for Test case 8.5.6	12.2.1	12.3.0	R5	TEI10_Test
36.521-3	0986	-	Rel-12	F	RP-141571	R5-144833	approved	Uncertainties and Test Tolerances update for Test cases 8.3.3+8.4.3	12.2.1	12.3.0	R5	TEI8_Test
36.521-3	0988	-	Rel-12	F	RP-141573	R5-144785	approved	Uncertainties and test tolerance for 36.521-3 Test case 9.4.1, 9.4.2 and 9.4.3	12.2.1	12.3.0	R5	TEI9_Test
36.521-3	0989	-	Rel-12	F	RP-141594	R5-144850	approved	Addition of new RRM TC 8.16.12 E-UTRAN TDD Event triggered reporting on deactivating Scells and interruption probability (0.5%) without DRX for 10MHz+5MHz BW	12.2.1	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-3	0990	-	Rel-12	F	RP-141594	R5-144851	approved	Cell configuration mapping for 5MHz+5MHz and 10MHz+5MHz test cases	12.2.1	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-3	0991	-	Rel-12	F	RP-141594	R5-144852	approved	Addition of new RRM TC 8.16.15 E-UTRA FDD event triggered reporting on deactivated SCell with PCell interruption in non-DRX for 5+5 MHz BW	12.2.1	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.521-3	0992	-	Rel-12	F	RP-141573	R5-144858	approved	Update to test procedure for GSM carrier measurement test cases	12.2.1	12.3.0	R5	TEI9_Test
36.521-3	0993	-	Rel-12	F	RP-141576	R5-144908	approved	New TC: FDD Intra Frequency Serving Cell Absolute RSRP Accuracy	12.2.1	12.3.0	R5	TEI10_Test

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36.521-3	0994	-	Rel-12	F	RP-141576	R5-144909	approved	New TC: FDD Intra Frequency Serving Cell Absolute RSRQ Accuracy	12.2.1	12.3.0	R5	TEI10_Test
36.521-3	0995	-	Rel-12	F	RP-141576	R5-144910	approved	New TC: TDD Intra Frequency Serving Cell Absolute RSRP Accuracy	12.2.1	12.3.0	R5	TEI10_Test
36.521-3	0996	-	Rel-12	F	RP-141576	R5-144912	approved	Removable of editor's notes for maxReportCells	12.2.1	12.3.0	R5	TEI10_Test
36.521-3	0997	-	Rel-12	F	RP-141576	R5-144913	approved	Correction to neighCellConfig of MeasObjectEUTRA in CGI tests	12.2.1	12.3.0	R5	TEI10_Test
36.521-3	0998	-	Rel-12	F	RP-141576	R5-144927	approved	New TC: TDD Intra Frequency Serving Cell Absolute RSRQ Accuracy	12.2.1	12.3.0	R5	TEI10_Test
36.523-1	2757	-	Rel-12	F	RP-141577	R5-144164	approved	Correction to GCF WI-172 EUTRA<>UTRA aSRVCC Testcasse 13.4.3.17	12.2.0	12.3.0	R5	TEI10_Test
36.523-1	2758	-	Rel-12	F	RP-141577	R5-144190	approved	Correction to LTE-CA MAC Test case 7.1.3.11.1 and 7.1.3.11.2	12.2.0	12.3.0	R5	TEI10_Test
36.523-1	2759	-	Rel-12	F	RP-141577	R5-144230	approved	Editorial correction to LTE CA MAC test cases	12.2.0	12.3.0	R5	TEI10_Test
36.523-1	2760	-	Rel-12	F	RP-141577	R5-144231	approved	Editorial correction to LTE CA test cases 8.5.1.7.1	12.2.0	12.3.0	R5	TEI10_Test
36.523-1	2761	-	Rel-12	F	RP-141574	R5-144233	approved	Editorial - rewording in eMBMS test cases 17.1.1	12.2.0	12.3.0	R5	TEI9_Test
36.523-1	2762	-	Rel-12	F	RP-141574	R5-144236	approved	Correction to LTE eMBMS TestCases 17.1.3	12.2.0	12.3.0	R5	TEI9_Test
36.523-1	2763	-	Rel-12	F	RP-141577	R5-144252	approved	Remove LTE MDT Test cases on PLMN change	12.2.0	12.3.0	R5	TEI10_Test
36.523-1	2764	-	Rel-12	F	RP-141572	R5-144298	approved	Update of TC 6.3.8 Inter-RAT CSG Cell Reselection from E-UTRA CSG cell to UTRA CSG cell	12.2.0	12.3.0	R5	TEI8_Test
36.523-1	2765	-	Rel-12	F	RP-141590	R5-144307	approved	Addition of new TC 8.2.2.4.3 Intra-band non-contiguous CA	12.2.0	12.3.0	R5	LTE_CA_enh-UEConTest
36.523-1	2766	-	Rel-12	F	RP-141574	R5-144345	approved	Updates to EMM TC 9.1.3.3	12.2.0	12.3.0	R5	TEI9_Test
36.523-1	2767	-	Rel-12	F	RP-141591	R5-144368	approved	Correction to test case 6.2.4.5	12.2.0	12.3.0	R5	Cell_FACH_enh-UEConTest
36.523-1	2768	-	Rel-12	F	RP-141591	R5-144369	approved	Correction to test case 6.2.4.7	12.2.0	12.3.0	R5	Cell_FACH_enh-UEConTest
36.523-1	2769	-	Rel-12	F	RP-141574	R5-144374	approved	Editorial correction of test case - Attach / Rejected / IMEI not accepted	12.2.0	12.3.0	R5	TEI9_Test
36.523-1	2770	-	Rel-12	F	RP-141577	R5-144376	approved	Remove test case 13.4.3.29	12.2.0	12.3.0	R5	TEI10_Test
36.523-1	2771	-	Rel-12	F	RP-141577	R5-144401	approved	Correction to EMM Test case 9.2.1.1.27	12.2.0	12.3.0	R5	TEI10_Test
36.523-1	2772	-	Rel-12	F	RP-141591	R5-144405	approved	Add test case 6.2.4.2 for inter-RAT cell reselection	12.2.0	12.3.0	R5	Cell_FACH_enh-UEConTest
36.523-1	2773	-	Rel-12	F	RP-141574	R5-144406	approved	Correction to LTE eMBMS TestCases 17.2.4 for TDD	12.2.0	12.3.0	R5	TEI9_Test
36.523-1	2774	-	Rel-12	F	RP-141572	R5-144442	approved	Correction to EMM Test Case 9.1.2.6	12.2.0	12.3.0	R5	TEI8_Test
36.523-1	2775	-	Rel-12	F	RP-141590	R5-144517	approved	Addition of new Intra-band non-Contiguous CA test case 8.2.4.21.3	12.2.0	12.3.0	R5	LTE_CA_enh-UEConTest
36.523-1	2776	-	Rel-12	F	RP-141590	R5-144519	approved	Addition of new Intra-band non-Contiguous CA test case 8.3.1.18.3	12.2.0	12.3.0	R5	LTE_CA_enh-UEConTest
36.523-1	2777	-	Rel-12	F	RP-141590	R5-144520	approved	Addition of new Intra-band non-Contiguous CA test case 8.4.2.7.3	12.2.0	12.3.0	R5	LTE_CA_enh-UEConTest

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36.523-1	2778	-	Rel-12	F	RP-141572	R5-144592	approved	Correction to EUTRA MAC test case 7.1.4.2	12.2.0	12.3.0	R5	TEI8_Test
36.523-1	2779	-	Rel-12	F	RP-141572	R5-144593	approved	Correction to EMM test case 9.1.2.7	12.2.0	12.3.0	R5	TEI8_Test
36.523-1	2780	-	Rel-12	F	RP-141572	R5-144596	approved	Correction to EMM test case 9.2.1.1.23	12.2.0	12.3.0	R5	TEI8_Test
36.523-1	2781	-	Rel-12	F	RP-141572	R5-144604	approved	Update of EMM test case 9.2.1.1.28	12.2.0	12.3.0	R5	TEI8_Test
36.523-1	2782	-	Rel-12	F	RP-141577	R5-144624	approved	Correction to eICIC test case 8.3.1.19	12.2.0	12.3.0	R5	TEI10_Test
36.523-1	2783	-	Rel-12	F	RP-141572	R5-144625	approved	Correction to GCF WI-87 SRVCC<>UTRA Testcases 13.4.3.5	12.2.0	12.3.0	R5	TEI8_Test
36.523-1	2784	-	Rel-12	F	RP-141572	R5-144645	approved	Correction to EUTRA Idle Mode Test case 6.1.2.8a	12.2.0	12.3.0	R5	TEI8_Test
36.523-1	2785	-	Rel-12	F	RP-141572	R5-144646	approved	Correction to EUTRA Idle Mode CSG test case 6.3.5	12.2.0	12.3.0	R5	TEI8_Test
36.523-1	2786	-	Rel-12	F	RP-141574	R5-144647	approved	Update of MFBI test cases 6.1.2.19, 6.1.2.20 and 6.1.2.21	12.2.0	12.3.0	R5	TEI9_Test
36.523-1	2787	-	Rel-12	F	RP-141572	R5-144648	approved	Update of IDLE mode test case 6.1.2.3	12.2.0	12.3.0	R5	TEI8_Test
36.523-1	2788	-	Rel-12	F	RP-141572	R5-144649	approved	Correction to EUTRA Idle Mode test case 6.2.1.4	12.2.0	12.3.0	R5	TEI8_Test
36.523-1	2789	-	Rel-12	F	RP-141574	R5-144651	approved	Addition of Inter-RAT Cell reselection EUTRAN to UTRAN MFBI test case 6.2.3.34	12.2.0	12.3.0	R5	TEI9_Test
36.523-1	2790	-	Rel-12	F	RP-141577	R5-144653	approved	Correction of EUTRA test case 7.1.4.20	12.2.0	12.3.0	R5	TEI10_Test
36.523-1	2791	-	Rel-12	F	RP-141574	R5-144654	approved	Update of MFBI test case 8.2.4.22	12.2.0	12.3.0	R5	TEI9_Test
36.523-1	2792	-	Rel-12	F	RP-141577	R5-144655	approved	Update of EUTRA test case 8.2.4.20.1	12.2.0	12.3.0	R5	TEI10_Test
36.523-1	2793	-	Rel-12	F	RP-141577	R5-144656	approved	Update of EUTRA test case 8.2.4.20.2	12.2.0	12.3.0	R5	TEI10_Test
36.523-1	2794	-	Rel-12	F	RP-141574	R5-144657	approved	Correction to EUTRA RRC HeNB Testcase 8.3.4.1	12.2.0	12.3.0	R5	TEI9_Test
36.523-1	2795	-	Rel-12	F	RP-141577	R5-144658	approved	Editorial update of TC 8.3.1.22.2	12.2.0	12.3.0	R5	TEI10_Test
36.523-1	2796	-	Rel-12	F	RP-141572	R5-144659	approved	Correction to EUTRA RRC handover Test Cases 8.4.1.2, 8.4.1.4, 8.4.1.5	12.2.0	12.3.0	R5	TEI8_Test
36.523-1	2797	-	Rel-12	F	RP-141577	R5-144660	approved	Correction of LTE-A Minimization of Drive Tests (MDT) Testcase 8.6.3.1	12.2.0	12.3.0	R5	TEI10_Test
36.523-1	2798	-	Rel-12	F	RP-141577	R5-144661	approved	Correction to GCF WI-181 EUTRA EPS FDD <>UTRAN test Case 8.6.5.1	12.2.0	12.3.0	R5	TEI10_Test
36.523-1	2799	-	Rel-12	F	RP-141572	R5-144662	approved	Update EMM 9.2.3.4.1	12.2.0	12.3.0	R5	TEI8_Test
36.523-1	2800	-	Rel-12	F	RP-141577	R5-144663	approved	Correction to ESM test case 10.5.4	12.2.0	12.3.0	R5	TEI10_Test
36.523-1	2801	-	Rel-12	F	RP-141574	R5-144664	approved	Correction for IMS Emergency Call test case 11.2.5	12.2.0	12.3.0	R5	TEI9_Test
36.523-1	2802	-	Rel-12	F	RP-141574	R5-144665	approved	Corrections to IMS Emergency Call over EPS test cases 11.2.8 and 11.2.8a	12.2.0	12.3.0	R5	TEI9_Test
36.523-1	2803	-	Rel-12	F	RP-141574	R5-144666	approved	Correction to GCF WI-167 SRVCC<>UTRA Testcases 13.4.3.6	12.2.0	12.3.0	R5	TEI9_Test
36.523-1	2804	-	Rel-12	F	RP-141572	R5-144667	approved	Correction to GCF WI-086 EUTRA<>UTRA SRVCC Testcasse 13.4.3.2	12.2.0	12.3.0	R5	TEI8_Test
36.523-1	2805	-	Rel-12	F	RP-141572	R5-144668	approved	Correction to GCF WI-086 SRVCC<>UTRA Testcase 13.4.3.4	12.2.0	12.3.0	R5	TEI8_Test

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36.523-1	2806	-	Rel-12	F	RP-141577	R5-144670	approved	Correction to GCF WI-172 EUTRA<>UTRA aSRVCC Testcase 13.4.3.16	12.2.0	12.3.0	R5	TEI10_Test
36.523-1	2807	-	Rel-12	F	RP-141577	R5-144671	approved	Correction to GCF WI-172 EUTRA<>UTRA aSRVCC Testcase 13.4.3.9	12.2.0	12.3.0	R5	TEI10_Test
36.523-1	2808	-	Rel-12	F	RP-141577	R5-144672	approved	Correction to GCF WI-172 EUTRA<>UTRA aSRVCC Testcase 13.4.3.11	12.2.0	12.3.0	R5	TEI10_Test
36.523-1	2809	-	Rel-12	F	RP-141577	R5-144673	approved	Correction to GCF WI-172 EUTRA<>UTRA aSRVCC Testcase 13.4.3.13	12.2.0	12.3.0	R5	TEI10_Test
36.523-1	2810	-	Rel-12	F	RP-141577	R5-144674	approved	Correction to GCF WI-172 EUTRA<>UTRA aSRVCC Testcase 13.4.3.15	12.2.0	12.3.0	R5	TEI10_Test
36.523-1	2811	-	Rel-12	F	RP-141574	R5-144675	approved	Corrections for EUTRA<>GERAN aSRVCC test cases	12.2.0	12.3.0	R5	TEI9_Test
36.523-1	2812	-	Rel-12	F	RP-141574	R5-144676	approved	Corrections to eMBMS test case 17.2.4	12.2.0	12.3.0	R5	TEI9_Test
36.523-1	2813	-	Rel-12	F	RP-141572	R5-144679	approved	Correction to EMM test case 9.2.1.1.28	12.2.0	12.3.0	R5	TEI8_Test
36.523-1	2814	-	Rel-12	F	RP-141590	R5-144680	approved	Addition of test case - CA / RRC connection reconfiguration	12.2.0	12.3.0	R5	LTE_CA_enh-UEConTest
36.523-1	2815	-	Rel-12	F	RP-141590	R5-144683	approved	Addition of new TC 8.2.2.3.3 Intra-band non-contiguous CA	12.2.0	12.3.0	R5	LTE_CA_enh-UEConTest
36.523-1	2816	-	Rel-12	F	RP-141590	R5-144684	approved	Addition of new TC 8.3.1.22.3 Intra-band non-contiguous CA	12.2.0	12.3.0	R5	LTE_CA_enh-UEConTest
36.523-1	2817	-	Rel-12	F	RP-141586	R5-144724	approved	Addition of new UL CoMP TC 7.1.10.1 Sending SR on PUCCH with DMRS generated by using virtual cell identity / nPUCCH-Identity	12.2.0	12.3.0	R5	COMP_LTE-UEConTest
36.523-1	2818	-	Rel-12	F	RP-141586	R5-144725	approved	Addition of new TC 7.1.10.2 Transmitting data on PUSCH with DMRS generated by using virtual cell identity / nPUSCH-Identity	12.2.0	12.3.0	R5	COMP_LTE-UEConTest
36.523-1	2819	-	Rel-12	F	RP-141572	R5-144728	approved	Update to test case 9.2.3.3.4	12.2.0	12.3.0	R5	TEI8_Test
36.523-1	2820	-	Rel-12	F	RP-141572	R5-144731	approved	Correction to Multi-layer test cases 13.1.3	12.2.0	12.3.0	R5	TEI8_Test
36.523-1	2821	-	Rel-12	F	RP-141572	R5-144734	approved	Correction to EMM Test cases 9.2.3.3.2 and 9.2.3.3.3	12.2.0	12.3.0	R5	TEI8_Test
36.523-1	2822	-	Rel-12	F	RP-141593	R5-144741	approved	Correction of EUTRA test case 11.2.10	12.2.0	12.3.0	R5	TEI11_Test
36.523-1	2823	-	Rel-12	F	RP-141572	R5-144742	approved	Correction to EMM test case 9.1.5.1	12.2.0	12.3.0	R5	TEI8_Test
36.523-1	2824	-	Rel-12	F	RP-141574	R5-144743	approved	Correction to SRVCC emergency call test case 11.2.11	12.2.0	12.3.0	R5	TEI9_Test
36.523-1	2825	-	Rel-12	F	RP-141574	R5-144744	approved	Correction to Emergency calls over IMS test cases 11.2.2 and 11.2.4	12.2.0	12.3.0	R5	TEI9_Test
36.523-1	2826	-	Rel-12	F	RP-141577	R5-144745	approved	Correction to GCF WI-172 EUTRA<>UTRA aSRVCC Testcase 13.4.3.14	12.2.0	12.3.0	R5	TEI10_Test
36.523-1	2827	-	Rel-12	F	RP-141572	R5-144756	approved	Clarification of security protection for EMM cause #25 in test cases 9.2.1.1.18, 9.2.1.2.14, 9.2.3.1.20, 9.2.3.2.16 and 9.3.1.18	12.2.0	12.3.0	R5	TEI8_Test
36.523-1	2828	-	Rel-12	F	RP-141574	R5-144769	approved	Correction to WI-156 EUTRA RRC test case 8.2.4.14	12.2.0	12.3.0	R5	TEI9_Test
36.523-1	2829	-	Rel-12	F	RP-141574	R5-144770	approved	Correction to WI-151 EUTRA RRC test case 8.2.4.14a	12.2.0	12.3.0	R5	TEI9_Test
36.523-1	2830	-	Rel-12	F	RP-141587	R5-144776	approved	Correction of the ePDCCH TCs for applying default parameter	12.2.0	12.3.0	R5	LTE_enh_dl_ctrl-UEConTest

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36.523-2	0544	-	Rel-12	F	RP-141595	R5-144079	approved	Addition of E-UTRA FDD Band 30 information to Annex A.4	12.2.2	12.3.0	R5	LTE_WCS_band-UEConTest
36.523-2	0545	-	Rel-12	F	RP-141577	R5-144253	approved	Remove LTE MDT Test cases on PLMN change	12.2.2	12.3.0	R5	TEI10_Test
36.523-2	0546	-	Rel-12	F	RP-141572	R5-144255	approved	Add IMS APN configuration for IR.92 devices	12.2.2	12.3.0	R5	TEI8_Test
36.523-2	0547	-	Rel-12	F	RP-141590	R5-144309	approved	Addition of test applicability for new TCs - Intra-band non-contiguous CA	12.2.2	12.3.0	R5	LTE_CA_enh-UEConTest
36.523-2	0548	-	Rel-12	F	RP-141572	R5-144330	approved	Update of FGI definitions in TS 36.523-2	12.2.2	12.3.0	R5	TEI8_Test
36.523-2	0549	-	Rel-12	F	RP-141577	R5-144338	approved	Update of MDT test case 8.6.5.2 applicability	12.2.2	12.3.0	R5	TEI10_Test
36.523-2	0550	-	Rel-12	F	RP-141591	R5-144407	approved	Add applicability for test cases 6.2.4.2	12.2.2	12.3.0	R5	Cell_FACH_enh-UEConTest
36.523-2	0551	-	Rel-12	F	RP-141594	R5-144497	approved	Addition of Rel.12 Intra-Band Non-Contiguous CA Combinations to 36.523-2 Annex A4	12.2.2	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.523-2	0552	-	Rel-12	F	RP-141590	R5-144503	approved	CA: Review of CA capabilities tables (Sig)	12.2.2	12.3.0	R5	LTE_CA_enh-UEConTest
36.523-2	0553	-	Rel-12	F	RP-141594	R5-144506	approved	New CA band combination CA_NC_42 and CA_4-27-Update to 36.523-2	12.2.2	12.3.0	R5	LTE_CA_Rel12-UEConTest
36.523-2	0554	-	Rel-12	F	RP-141590	R5-144521	approved	Addition of applicability for new Intra-band non-Contiguous CA test cases	12.2.2	12.3.0	R5	LTE_CA_enh-UEConTest
36.523-2	0555	-	Rel-12	F	RP-141574	R5-144652	approved	Addition of applicability for new test case, Inter-RAT Cell reselection EUTRAN to UTRAN MFBI test case 6.2.3.34	12.2.2	12.3.0	R5	TEI9_Test
36.523-2	0556	-	Rel-12	F	RP-141577	R5-144677	approved	Remove applicability of test case 13.4.3.29 and 13.4.3.17	12.2.2	12.3.0	R5	TEI10_Test
36.523-2	0557	-	Rel-12	F	RP-141590	R5-144681	approved	Adding applicability for new test cases 8.2.4.16.3, 8.2.4.18.3 and 8.2.4.20.3	12.2.2	12.3.0	R5	LTE_CA_enh-UEConTest
36.523-2	0558	-	Rel-12	F	RP-141586	R5-144726	approved	Addition of applicability for new UL CoMP SIG test cases	12.2.2	12.3.0	R5	COMP_LTE-UEConTest
36.523-2	0559	-	Rel-12	F	RP-141572	R5-144733	approved	Update applicability of EUTRA Idle test case 6.2.1.4	12.2.2	12.3.0	R5	TEI8_Test
36.523-2	0560	-	Rel-12	F	RP-141572	R5-144794	approved	Add IMS APN as the second PDN configuration for IR.92 devices	12.2.2	12.3.0	R5	TEI8_Test
36.523-3	2145	-	Rel-11	F	RP-141572	R5-144219	approved	Routine maintenance and updates	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2146	-	Rel-11	F	RP-141577	R5-144399	approved	Correction to the guideline of EUTRA CA test execution on Band 29	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2147	-	Rel-11	F	RP-141572	R5-144678	approved	Correction to the calculation in Test method for RRC signalling latency	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2148	-	Rel-11	B	RP-141583	R5s140127	approved	Addition of Rel-9 Home eNB test case 8.3.4.1	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2149	-	Rel-11	F	RP-141583	R5s140331	approved	Correction to SRVCC test case 13.4.3.2	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2150	-	Rel-11	F	RP-141583	R5s140333	approved	Correction to GCF WI-159 Pre-registration at 1xRTT testcase 13.4.4.5	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2151	-	Rel-11	B	RP-141583	R5s140412	approved	Addition of LTE-A Minimization of Drive Tests (MDT) Testcase 8.6.11.1	11.4.0	11.5.0	R5	TEI11_Test
36.523-3	2152	-	Rel-11	F	RP-141583	R5s140427	approved	Correction to SRVCC testcases 13.4.3.4 and 13.4.3.5	11.4.0	11.5.0	R5	TEI8_Test

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36.523-3	2153	-	Rel-11	B	RP-141583	R5s140429	approved	Addition of GCF WI-164 eMBMS test case 17.2.4	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2154	-	Rel-11	F	RP-141583	R5s140444	approved	Correction to GCF WI-081 EUTRA Idle mode Test Case 6.1.2.8a	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2155	-	Rel-11	F	RP-141583	R5s140447	approved	Correction to common function in NAS Authentication module	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2156	-	Rel-11	B	RP-141583	R5s140448	approved	LTE_TDD : Addition of GCF WI-086 EUTRA-UTRAN CSG test case 6.3.7	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2157	-	Rel-11	B	RP-141583	R5s140450	approved	LTE_TDD : Addition of EUTRA-UTRAN Rel-9 Home eNB test case 6.4.3	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2158	-	Rel-11	B	RP-141583	R5s140455	approved	LTE_TDD: Addition of LTE eMBMS Testcase 17.2.2	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2159	-	Rel-11	B	RP-141583	R5s140457	approved	LTE_TDD: Addition of LTE eMBMS Testcase 17.2.3	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2160	-	Rel-11	B	RP-141583	R5s140459	approved	Addition of GCF WI-172 EUTRA<>UTRA aSRVCC Testcase 13.4.3.13	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2161	-	Rel-11	F	RP-141583	R5s140461	approved	Correction of GCF WI-167 EUTRA RRC test case 8.3.2.11	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2162	-	Rel-11	B	RP-141583	R5s140465	approved	LTE_TDD: Addition of Rel-9 Home eNB test case 8.3.4.4	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2163	-	Rel-11	F	RP-141583	R5s140467	approved	Correction of GCF WI-167 EUTRA Inter-RAT test cases 6.2.3.4a and 6.2.3.5a	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2164	-	Rel-11	F	RP-141583	R5s140468	approved	Correction to f_UTRAN_RB_SetUp_PS_RAB	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2165	-	Rel-11	B	RP-141583	R5s140470	approved	Addition of Rel-10 MDT test case 8.6.1.1	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2166	-	Rel-11	F	RP-141583	R5s140472	approved	Correction to definition of O13_Type	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2167	-	Rel-11	F	RP-141583	R5s140473	approved	Correction of GCF WI-086 EUTRA<>UTRAN CSG test case 6.3.7	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2168	-	Rel-11	F	RP-141583	R5s140474	approved	Correction of EUTRA-UTRAN HomeENB test case 6.4.3	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2169	-	Rel-11	F	RP-141583	R5s140475	approved	Correction to function f_UTRAN_CS_Fallback_WithRedirection_WithoutRRCConnEst.	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2170	-	Rel-11	F	RP-141583	R5s140476	approved	Correction to function f_SS_Config_64kPS_DCH4_RAB for TD_LTE<>TDSDMA	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2171	-	Rel-11	F	RP-141583	R5s140477	approved	Correction to GCF WI-086 EUTRA EMM Test Case 9.2.1.2.1c	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2172	-	Rel-11	B	RP-141583	R5s140478	approved	Addition of GCF WI-172 EUTRA<>UTRA aSRVCC Testcase 13.4.3.15	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2173	-	Rel-11	F	RP-141583	R5s140480	approved	Correction to IMS Emergency Call test case 11.2.5	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2174	-	Rel-11	F	RP-141583	R5s140481	approved	Correction to GCF WI-086 UTRA<>EUTRA HSPA Handover Testcase 8.4.2.4	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2175	-	Rel-11	F	RP-141583	R5s140482	approved	Correction for SI 2 quater message for EUTRA<>UTRA<>GERAN test case 8.3.2.6	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2176	-	Rel-11	F	RP-141583	R5s140483	approved	Correction to GCF WI-156 EUTRA RRC test case 8.2.4.15a	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2177	-	Rel-11	B	RP-141583	R5s140484	approved	LTE_TDD: Addition of LTE eMBMS Testcase 17.1.5	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2178	-	Rel-11	B	RP-141583	R5s140488	approved	LTE_TDD: Addition of LTE eMBMS Testcase 17.3.2	11.4.0	11.5.0	R5	TEI10_Test

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36.523-3	2179	-	Rel-11	F	RP-141583	R5s140492	approved	Correction of test cases 8.3.1.12a, 8.3.1.15, 8.3.1.16 and 8.6.4.4	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2180	-	Rel-11	F	RP-141583	R5s140493	approved	Correction to template cr_G_AttachReq_EUTRANCap	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2181	-	Rel-11	F	RP-141583	R5s140496	approved	Correction to Rel-9 EUTRA Home eNB test case 8.3.4.5	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2182	-	Rel-11	F	RP-141583	R5s140497	approved	Correction to GCF WI-081 EUTRA RRC Test Case 8.2.1.5	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2183	-	Rel-11	B	RP-141583	R5s140498	approved	Addition of WI-162 LTE-A Carrier Aggregation MAC test case 7.1.3.11.2	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2184	-	Rel-11	F	RP-141583	R5s140501	approved	Correction for EUTRA RRC MDT re-establishment test cases	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2185	-	Rel-11	F	RP-141583	R5s140503	approved	Correction to GCF WI-086 EUTRA RRC handover test cases 8.4.2.2 and 8.4.2.4	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2186	-	Rel-11	F	RP-141583	R5s140505	approved	Correction to eMBMS common functions	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2187	-	Rel-11	F	RP-141583	R5s140506	approved	Correction to SIB 6 contents for EUTRA<>UTRA test cases using UTRA Band VI	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2188	-	Rel-11	B	RP-141583	R5s140507	approved	Addition of WI-162 LTE-A Carrier Aggregation MAC test case 7.1.3.11.1	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2189	-	Rel-11	F	RP-141583	R5s140509	approved	Extension of EUTRA common functions for MAC test cases	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2190	-	Rel-11	F	RP-141583	R5s140513	approved	Correction to GCF WI-087 EMM Test Case 9.2.3.4.1	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2191	-	Rel-11	B	RP-141583	R5s140514	approved	Addition of Rel-10 eICIC test case 8.3.1.21	11.4.0	11.5.0	R5	eICIC_LTE-UEConTest
36.523-3	2192	-	Rel-11	F	RP-141583	R5s140520	approved	Correction of test cases 8.4.2.4	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2193	-	Rel-11	F	RP-141583	R5s140526	approved	Correction of LTE-A Minimization of Drive Tests (MDT) Testcase 8.6.3.1	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2194	-	Rel-11	F	RP-141583	R5s140527	approved	Correction of GCF WI-162 LTE-A CA inter-band test cases for band combination with Band 29A	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2195	-	Rel-11	F	RP-141583	R5s140528	approved	Correction to test case applicability conditions	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2196	-	Rel-11	F	RP-141583	R5s140529	approved	Correction to GCF WI-086 EUTRA Idle mode test case 6.2.3.31	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2197	-	Rel-11	F	RP-141583	R5s140530	approved	Correction to LTE-IRAT test cases 8.4.2.2 and 8.4.2.4	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2198	-	Rel-11	F	RP-141583	R5s140531	approved	Correction to GCF WI-162 LTE-A Carrier Aggregation MAC test case 7.1.3.11.1/7.1.3.11.2	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2199	-	Rel-11	F	RP-141583	R5s140533	approved	Correction to EUTRA MDT test Case 8.6.2.3	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2200	-	Rel-11	F	RP-141583	R5s140534	approved	Correction of LTE-A Minimization of Drive Tests (MDT) Test case 8.6.2.8	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2201	-	Rel-11	F	RP-141583	R5s140535	approved	Correction to GCF WI-181 EUTRA EPS FDD <>UTRAN test Case 8.6.5.1	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2202	-	Rel-11	F	RP-141583	R5s140537	approved	Correction of GCF WI-182 EUTRA FDD<>GERAN test case 8.6.7.2	11.4.0	11.5.0	R5	TEI10_Test

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
36.523-3	2203	-	Rel-11	F	RP-141583	R5s140539	approved	Correction to EUTRA eMBMS function f_EUTRA_SetSysinfoCombination_MBMS	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2204	-	Rel-11	F	RP-141583	R5s140540	approved	Correction to UE Test Loop Mode C for EUTRA eMBMS Testcases	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2205	-	Rel-11	F	RP-141583	R5s140541	approved	Corrections of GCF WI-162 LTE-A CA Testcase 8.2.2.3.x for Band 29A	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2206	-	Rel-11	F	RP-141583	R5s140543	approved	Correction of EUTRA RRC Measurement test case 8.3.1.27	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2207	-	Rel-11	F	RP-141583	R5s140544	approved	Correction to EUTRA RRC Measurement test case 8.3.3.3	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2208	-	Rel-11	F	RP-141583	R5s140545	approved	Correction to GCF WI-082 EUTRA RRC handover test cases 8.4.1.2 and 8.4.1.4	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2209	-	Rel-11	F	RP-141583	R5s140546	approved	LTE_TDD : Correction in RRC test case 8.4.1.5 in LTE_TDD<>TDSCDMA path	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2210	-	Rel-11	F	RP-141583	R5s140547	approved	Correction to GCF WI-081 EUTRA Idle mode test Case 6.1.1.3	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2211	-	Rel-11	F	RP-141583	R5s140548	approved	Correction of test cases 7.1.4.5	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2212	-	Rel-11	F	RP-141583	R5s140549	approved	Correction to GCF WI-086 EMM test case 9.2.3.3.2	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2213	-	Rel-11	F	RP-141583	R5s140550	approved	Correction to EUTRA Idle Mode HeNB test case 6.4.3	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2214	-	Rel-11	F	RP-141583	R5s140552	approved	Correction to UTRAN postamble function f_UTRAN_Postamble	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2215	-	Rel-11	F	RP-141583	R5s140554	approved	Correction for GCF WI-086 EUTRA EMM Test case 9.2.3.1.6	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2216	-	Rel-11	F	RP-141583	R5s140555	approved	Correction in common function f_GERAN_GPRSAttach()	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2217	-	Rel-11	F	RP-141583	R5s140556	approved	Correction of GCF WI-086 EUTRA<>UTRAN CSG test case 6.3.7	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2218	-	Rel-11	F	RP-141583	R5s140557	approved	Correction to EUTRA Idle Mode MFBI test Case 6.1.2.21	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2219	-	Rel-11	F	RP-141583	R5s140560	approved	Correction to EMM test case 9.2.1.1.28	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2220	-	Rel-11	F	RP-141583	R5s140562	approved	Correction to EUTRA RRC HeNB test case 8.3.4.1	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2221	-	Rel-11	F	RP-141583	R5s140563	approved	Correction to EUTRA RRC HeNB test case 8.3.4.4	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2222	-	Rel-11	F	RP-141583	R5s140564	approved	Correction to EUTRA-UTRAN Multi-Layer SRVCC test case 13.4.3.2	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2223	-	Rel-11	F	RP-141583	R5s140568	approved	Correction to EMM test case 9.2.3.1.20a	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2224	-	Rel-11	F	RP-141583	R5s140570	approved	Correction to IMS Emergency Call over EPS test case 11.2.2	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2225	-	Rel-11	F	RP-141583	R5s140572	approved	Correction for GCF WI-172 EUTRA<>UTRA aSRVCC Testcase 13.4.3.14	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2226	-	Rel-11	F	RP-141583	R5s140573	approved	Correction for GCF WI-086 EUTRA<>UTRA SRVCC Testcase 13.4.3.2	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2227	-	Rel-11	F	RP-141583	R5s140574	approved	Correction to Multi-layer test case 13.1.3	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2228	-	Rel-11	B	RP-141583	R5s140575	approved	LTE_TDD: Addition of WI-162 LTE-A Carrier Aggregation MAC test case 7.1.3.11.1	11.4.0	11.5.0	R5	TEI10_Test

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36.523-3	2229	-	Rel-11	F	RP-141583	R5s140578	approved	Correction for GCF WI-172 EUTRA<>UTRA aSRVCC Testcase 13.4.3.16	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2230	-	Rel-11	F	RP-141583	R5s140579	approved	Correction for GCF WI-086 EUTRA<>UTRA SRVCC Testcase 13.4.3.4	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2231	-	Rel-11	F	RP-141583	R5s140582	approved	Correction for GCF WI-087 EUTRA<>GERAN SRVCC Testcase 13.4.3.5	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2232	-	Rel-11	F	RP-141583	R5s140583	approved	Correction for GCF WI-167 EUTRA<>UTRA SRVCC Testcase 13.4.3.6	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2233	-	Rel-11	F	RP-141583	R5s140584	approved	Correction of GERAN Common function fl_GERAN_TLLI_Update	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2234	-	Rel-11	F	RP-141583	R5s140585	approved	Correction to EUTRA eMBMS test case 17.2.4	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2235	-	Rel-11	F	RP-141583	R5s140586	approved	Correction to EUTRA Idle Mode MFBI test Case 6.1.2.20	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2236	-	Rel-11	F	RP-141583	R5s140587	approved	Correction for aSRVCC test cases	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2237	-	Rel-11	B	RP-141583	R5s140588	approved	Addition of GCF WI-154 IMS Emergency Call over EPS test case 11.2.8	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2238	-	Rel-11	F	RP-141583	R5s140589	approved	Correction for GCF WI-172 EUTRA<>UTRA aSRVCC Testcase 13.4.3.7	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2239	-	Rel-11	F	RP-141583	R5s140590	approved	Correction for GCF WI-172 EUTRA<>UTRA aSRVCC Testcase 13.4.3.9	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2240	-	Rel-11	F	RP-141583	R5s140591	approved	Correction for GCF WI-172 EUTRA<>UTRA aSRVCC Testcase 13.4.3.10	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2241	-	Rel-11	F	RP-141583	R5s140592	approved	Correction for GCF WI-172 EUTRA<>UTRA aSRVCC Testcase 13.4.3.11	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2242	-	Rel-11	F	RP-141583	R5s140593	approved	Correction to EUTRA RRC MDT test case 8.6.6.2	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2243	-	Rel-11	F	RP-141583	R5s140594	approved	Correction to EUTRA RRC HeNB test case 8.3.4.1	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2244	-	Rel-11	F	RP-141583	R5s140595	approved	Correction for GCF WI-172 EUTRA<>UTRA aSRVCC Testcase 13.4.3.13	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2245	-	Rel-11	F	RP-141583	R5s140596	approved	Correction to EMM test case 9.2.1.1.28	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2246	-	Rel-11	F	RP-141583	R5s140601	approved	Correction to EUTRA RRC test cases 8.2.4.14 and 8.2.4.14a	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2247	-	Rel-11	F	RP-141583	R5s140604	approved	Correction for GCF WI-172 EUTRA<>UTRA aSRVCC Testcase 13.4.3.15	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2248	-	Rel-11	F	RP-141583	R5s140607	approved	LTE_TDD : Correction to EUTRAN TDD eMBMS TC 17.1.4	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2249	-	Rel-11	F	RP-141583	R5s140608	approved	LTE_TDD : Correction in SIB13 notificationSF-Index-r9 for eMBMS test cases	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2250	-	Rel-11	F	RP-141583	R5s140609	approved	Correction to EUTRAN eMBMS TC 17.3.2	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2251	-	Rel-11	F	RP-141583	R5s140610	approved	Correction to EUTRA eMBMS function f_EUTRA_SetSysinfoCombination_MBMS	11.4.0	11.5.0	R5	TEI9_Test

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36.523-3	2252	-	Rel-11	F	RP-141583	R5s140617	approved	Correction to EUTRA Idle mode test case 6.2.3.23	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2253	-	Rel-11	F	RP-141583	R5s140618	approved	Corrections for SS configuration in IMS voice call test cases	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2254	-	Rel-11	F	RP-141583	R5s140619	approved	Correction to EUTRA RRC MDT test case 8.6.7.1	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2255	-	Rel-11	F	RP-141583	R5s140620	approved	Corrections for multilayer EUTRA->GERAN SRVCC test case 13.4.3.3	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2256	-	Rel-11	F	RP-141583	R5s140624	approved	Correction to LTE-A Carrier Aggregation MAC test cases 7.1.3.11.1/7.1.3.11.2	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2257	-	Rel-11	F	RP-141583	R5s140625	approved	Correction to GCF WI-088 EUTRA<>1xRTT Test case 8.3.2.10	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2258	-	Rel-11	F	RP-141583	R5s140626	approved	Correction to LTE-A Minimization of Drive Tests (MDT) test case 8.6.4.6	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2259	-	Rel-11	F	RP-141583	R5s140627	approved	Correction to GCF WI-082 EUTRA RRC handover test case 8.4.1.5	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2260	-	Rel-11	F	RP-141583	R5s140635	approved	Correction to multilayer aSRVCC test 13.4.3.15	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2261	-	Rel-11	F	RP-141583	R5s140636	approved	Correction to GCF WI-151 EUTRA RRC test cases 8.2.4.14a and 8.3.1.16a	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2262	-	Rel-11	F	RP-141583	R5s140643	approved	Correction to GCF WI-081 EUTRA RRC Test Case 8.5.4.1	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2263	-	Rel-11	F	RP-141583	R5s140648	approved	Correction to GCF WI-087 EUTRA Idle mode Test Case 6.2.3.28	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2264	-	Rel-11	F	RP-141583	R5s140649	approved	Corrections to GCF WI-154 IMS Emergency Call test case 11.2.4	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2265	-	Rel-11	F	RP-141583	R5s140650	approved	Correction to GCF WI-086 EUTRA EMM Testcase 9.2.3.2.1b	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2266	-	Rel-11	F	RP-141583	R5s140651	approved	Correction of GCF WI-082 EUTRA EMM Testcase 9.1.5.1	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2267	-	Rel-11	F	RP-141583	R5s140657	approved	Correction to GCF WI-154 IMS Emergency Call test case 11.2.5	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2268	-	Rel-11	F	RP-141583	R5s140658	approved	Correction to WI-086 EUTRA EMM Testcase 9.2.3.3.4	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2269	-	Rel-11	F	RP-141583	R5s140659	approved	Correction to GCF WI-086 EUTRA Multilayer Test case 13.4.2.1	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2270	-	Rel-11	F	RP-141583	R5s140660	approved	Correction to WI-086 EUTRA EMM Testcase 9.2.3.3.1	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2271	-	Rel-11	F	RP-141583	R5s140664	approved	Correction to EUTRA RRC test cases 8.2.4.14a, 8.2.4.15, 8.3.1.16a	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2272	-	Rel-11	F	RP-141583	R5s140670	approved	Correction to EUTRA RRC HeNB Testcase 8.3.4.1	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2273	-	Rel-11	F	RP-141583	R5s140671	approved	Correction to LTE-A Carrier Aggregation Handover test cases 8.2.4.21.x	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2274	-	Rel-11	F	RP-141583	R5s140674	approved	Correction to GCF WI-87 Multi-Layer SRVCC test cases 13.4.3.3 and 13.4.3.5	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2275	-	Rel-11	F	RP-141583	R5s140675	approved	Corrections to GCF WI-154 IMS Emergency Call test cases 11.2.2 and 11.2.4	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2276	-	Rel-11	F	RP-141583	R5s140677	approved	Corrections to GCF WI-087 EUTRA<>GERAN SRVCC test case 13.4.3.3	11.4.0	11.5.0	R5	TEI8_Test

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36.523-3	2277	-	Rel-11	F	RP-141583	R5s140679	approved	Correction to GCF WI-81 EUTRA MIMO test cases 7.1.7.1.5 and 7.1.7.1.6 for CAT-6 and higher categories	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2278	-	Rel-11	F	RP-141583	R5s140680	approved	Correction to GCF WI-81 EUTRA MIMO Testcase 7.1.7.2.1 for CAT-6 and higher categories	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2279	-	Rel-11	B	RP-141583	R5s140682	approved	LTE TDD : Addition of MAC test case 7.1.4.2	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2280	-	Rel-11	B	RP-141583	R5s140684	approved	LTE_TDD : Addition of Idle mode test case 6.3.5	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2281	-	Rel-11	B	RP-141583	R5s140686	approved	Addition of GCF WI-172 multilayer aSRVCC test case 13.4.3.8	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2282	-	Rel-11	F	RP-141583	R5s140688	approved	LTE_TDD: Correction to RRC Testcase 8.1.3.7 in LTE_TDD<>TDSCDMA path	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2283	-	Rel-11	B	RP-141583	R5s140689	approved	LTE_TDD : Addition of EUTRA RRC HeNB test case 8.3.4.3	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2284	-	Rel-11	B	RP-141583	R5s140691	approved	Addition of GCF WI-162 LTE-A Carrier Aggregation MAC test case 7.1.9.1.1	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2285	-	Rel-11	B	RP-141583	R5s140693	approved	Addition of GCF WI-162 LTE-A Carrier Aggregation MAC test case 7.1.9.1.2	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2286	-	Rel-11	B	RP-141583	R5s140697	approved	Addition of multilayer aSRVCC test case 13.4.3.24	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2287	-	Rel-11	B	RP-141583	R5s140699	approved	Addition of multilayer aSRVCC test case 13.4.3.26	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2288	-	Rel-11	F	RP-141583	R5s140701	approved	Corrections to EMM test case 9.2.3.1.6 on EUTRA<>GERAN path	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2289	-	Rel-11	F	RP-141583	R5s140702	approved	Correction to EUTRA RRC InterRAT measurement on HRPD test case 8.3.2.8	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2290	-	Rel-11	B	RP-141583	R5s140703	approved	Addition of multilayer aSRVCC test case 13.4.3.27	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2291	-	Rel-11	B	RP-141583	R5s140705	approved	Addition of multilayer aSRVCC test case 13.4.3.28	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2292	-	Rel-11	F	RP-141583	R5s140707	approved	Correction to function f_ConfigureULGrant_MaxTBSupported	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2293	-	Rel-11	F	RP-141583	R5s140710	approved	Correction to SRVCC test case 13.4.3.2	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2294	-	Rel-11	B	RP-141583	R5s140711	approved	Addition of multilayer aSRVCC test case 13.4.3.25	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2295	-	Rel-11	B	RP-141583	R5s140714	approved	Addition of multilayer aSRVCC test case 13.4.3.30	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2296	-	Rel-11	B	RP-141583	R5s140716	approved	Addition of Rel-9 EUTRA<>UTRA Idle Mode HeNB test case 6.4.6	11.4.0	11.5.0	R5	TEI9_Test
36.523-3	2297	-	Rel-11	F	RP-141583	R5s140720	approved	Corrections to EUTRA PDCP test case 7.3.4.1,7.3.4.2 and 7.3.4.3	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2298	-	Rel-11	B	RP-141583	R5s140721	approved	Addition of Rel-10 EUTRA RRC eICIC test case 8.3.1.19	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2299	-	Rel-11	B	RP-141583	R5s140723	approved	LTE_TDD: Addition of GCF WI-162 LTE-A Carrier Aggregation MAC test case 7.1.9.1.1	11.4.0	11.5.0	R5	TEI10_Test
36.523-3	2300	-	Rel-11	B	RP-141583	R5s140725	approved	Addition of GCF WI-086 EUTRA Idle Mode HeNB test case 6.3.4	11.4.0	11.5.0	R5	TEI8_Test
36.523-3	2301	-	Rel-11	F	RP-141582	-	approved	CR to 36.523-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 36.523-3 (prose), Annex A	11.4.0	11.5.0	R5	TEI8_Test

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
36.833-2-25	0001	1	Rel-12	B	RP-141553	R4-145450	approved	Introduction of a new bandwidth combination set for CA_25A-25A into TR 36.833-2-25	12.0.0	12.1.0	R4	LTE_CA_NC_B25_BWset-Core
36.903	0132	-	Rel-12	F	RP-141577	R5-144126	approved	Add Test Tolerance analyses for TS 36.521-3 Test cases 8.16.5 and 8.16.6	12.2.0	12.3.0	R5	TEI10_Test
36.903	0133	-	Rel-12	F	RP-141577	R5-144128	approved	Add Test Tolerance analyses for TS 36.521-3 Test cases 8.16.7 and 8.16.8	12.2.0	12.3.0	R5	TEI10_Test
36.903	0134	-	Rel-12	F	RP-141577	R5-144144	approved	Add Test Tolerance Analyses for TS 37.571-1 Test Cases 10.3 and 10.4	12.2.0	12.3.0	R5	TEI10_Test
36.903	0135	-	Rel-12	F	RP-141577	R5-144146	approved	Add Test Tolerance Analyses for TS 37.571-1 Test Cases 10.3A and 10.4A	12.2.0	12.3.0	R5	TEI10_Test
36.903	0136	-	Rel-12	F	RP-141577	R5-144290	approved	Add Test Tolerance analysis for TS 36.521-3 Test case 8.3.6	12.2.0	12.3.0	R5	TEI10_Test
36.903	0137	-	Rel-12	F	RP-141577	R5-144292	approved	Add Test Tolerance analysis for TS 36.521-3 Test case 8.5.6	12.2.0	12.3.0	R5	TEI10_Test
36.903	0138	-	Rel-12	F	RP-141572	R5-144294	approved	Update Test Tolerance analyses for TS 36.521-3 Test cases 8.3.3+8.4.3	12.2.0	12.3.0	R5	TEI8_Test
36.903	0139	-	Rel-12	F	RP-141574	R5-144834	approved	Addition of test tolerance analysis for 36.521-3 test case 9.4.1, 9.4.2 and 9.4.3	12.2.0	12.3.0	R5	TEI9_Test
36.904	0001	-	Rel-11	F	RP-141589	R5-144067	approved	Add Test Tolerance analyses for TS 36.521-1 Test case 8.2.2.2.4	11.0.0	11.1.0	R5	LTE_Interf_Rej-UEConTest
36.904	0002	-	Rel-11	F	RP-141589	R5-144069	approved	Add Test Tolerance analyses for TS 36.521-1 Test case 8.2.2.4.3	11.0.0	11.1.0	R5	LTE_Interf_Rej-UEConTest
36.904	0003	-	Rel-11	F	RP-141589	R5-144071	approved	Add Test Tolerance analyses for TS 36.521-1 Test case 8.3.1.1.3	11.0.0	11.1.0	R5	LTE_Interf_Rej-UEConTest
36.904	0004	-	Rel-11	F	RP-141589	R5-144073	approved	Add Test Tolerance analyses for TS 36.521-1 Test case 8.3.2.1.4	11.0.0	11.1.0	R5	LTE_Interf_Rej-UEConTest
36.904	0005	-	Rel-11	F	RP-141588	R5-144078	approved	Add Test Tolerance analysis for TS 36.521-1 Test cases 8.2.1.3.3_E.1 and 8.2.2.3.3_E.1	11.0.0	11.1.0	R5	eICIC_enh_LTE-UEConTest
36.904	0006	-	Rel-11	F	RP-141588	R5-144100	approved	Test Tolerance Analysis for TS 36.521-1 TC 8.2.1.4.1_E.1+8.2.2.4.1_E.1	11.0.0	11.1.0	R5	eICIC_enh_LTE-UEConTest
36.904	0007	-	Rel-11	F	RP-141588	R5-144106	approved	Test Tolerance Analysis for TS 36.521-1 TC 8.4.1.2.3_E.2+8.4.2.2.3_E.2	11.0.0	11.1.0	R5	eICIC_enh_LTE-UEConTest
36.904	0008	-	Rel-11	F	RP-141588	R5-144110	approved	Corrections to TR 36.904 for feICIC Group	11.0.0	11.1.0	R5	eICIC_enh_LTE-UEConTest
36.904	0009	-	Rel-11	F	RP-141588	R5-144113	approved	Test Tolerance Analysis for TS 36.521-1 TC 9.2.1.5_E.1+9.2.1.6_E.1	11.0.0	11.1.0	R5	eICIC_enh_LTE-UEConTest
36.904	0010	-	Rel-11	F	RP-141588	R5-144116	approved	Test Tolerance Analysis for TS 36.521-1 TC 9.3.1.3.1_E.1+9.3.1.3.2_E.1	11.0.0	11.1.0	R5	eICIC_enh_LTE-UEConTest
36.904	0011	-	Rel-11	F	RP-141588	R5-144119	approved	Test Tolerance Analysis for TS 36.521-1 TC 9.5.4.1_E.1+9.5.4.2_E.1	11.0.0	11.1.0	R5	eICIC_enh_LTE-UEConTest

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
36.904	0012	-	Rel-12	F	RP-141577	R5-144285	approved	Add Test Tolerance analysis for TS 36.521-1 Test cases 8.2.1.2.3_C.1 and 8.2.2.2.3_C.1	11.0.0	12.0.0	R5	TEI10_Test
36.904	0013	-	Rel-11	F	RP-141588	R5-144288	approved	Add Test Tolerance analysis for TS 36.521-1 Test cases 8.2.1.2.3_E.1 and 8.2.2.2.3_E.1	11.0.0	11.1.0	R5	eICIC_enh_LTE-UEConTest
36.904	0014	-	Rel-12	F	RP-141577	R5-144296	approved	Editorial update of eICIC CSI Test Tolerance analyses	11.0.0	12.0.0	R5	TEI10_Test
36.904	0015	-	Rel-11	F	RP-141586	R5-144816	approved	Add Test Tolerance analysis for TS 36.521-1 Test cases 9.3.6.1_F and 9.3.6.2_F	11.0.0	11.1.0	R5	COMP_LTE-UEConTest
36.904	0016	-	Rel-11	F	RP-141589	R5-144823	approved	Add Test Tolerance analyses for TS 36.521-1 Test cases 9.3.5.2.1 and 9.3.5.2.2	11.0.0	11.1.0	R5	LTE_Interf_Rej-UEConTest
37.104	0231	1	Rel-11	F	RP-141528	R4-145516	approved	Correction on UEM related to multi-band operation in TS37.104	11.9.0	11.10.0	R4	MB_MSR_RF-Core
37.104	0232	-	Rel-12	A	RP-141528	R4-145079	approved	Correction on UEM related to multi-band operation in TS37.104	12.4.0	12.5.0	R4	MB_MSR_RF-Core
37.104	0233	1	Rel-12	F	RP-141562	R4-145521	approved	Update of definitions to support supplemental DL in TS37.104	12.4.0	12.5.0	R4	TEI12
37.113	0036	1	Rel-12	F	RP-141562	R4-145522	approved	Update of definitions to support supplemental DL in TS37.113	12.1.0	12.2.0	R4	TEI12
37.141	0324	1	Rel-12	F	RP-141526	R4-145519	approved	Removal of FFS for TC4	12.4.0	12.5.0	R4	RInImp9-Rfmulti
37.141	0335	1	Rel-11	F	RP-141528	R4-145517	approved	Correction on UEM related to multi-band operation in TS37.141	11.9.0	11.10.0	R4	MB_MSR_RF-Perf
37.141	0336	-	Rel-12	A	RP-141528	R4-145081	approved	Correction on UEM related to multi-band operation in TS37.141	12.4.0	12.5.0	R4	MB_MSR_RF-Perf
37.141	0337	2	Rel-12	F	RP-141562	R4-145578	approved	Update of definitions to support supplemental DL in TS37.141	12.4.0	12.5.0	R4	TEI12
37.320	0063	1	Rel-11	F	RP-141496	R2-143991	approved	Reporting and measurement collection triggers for immediate MDT	11.3.0	11.4.0	R2	eMDT_UMTSLTE-Core
37.320	0064	1	Rel-12	A	RP-141496	R2-143992	approved	Reporting and measurement collection triggers for immediate MDT	12.1.0	12.2.0	R2	eMDT_UMTSLTE-Core
37.320	0066	-	Rel-12	F	RP-141507	R2-143914	approved	Minor corrections to MDT Stage-2	12.1.0	12.2.0	R2	MBMS_LTE_OS-Core
37.571-1	0068	-	Rel-11	F	RP-141577	R5-144080	approved	Corrections to RSTD Measurement Reporting Delay for Carrier Aggregation tests	11.1.0	11.2.0	R5	TEI10_Test
37.571-1	0069	-	Rel-12	F	RP-141588	R5-144125	approved	Corrections to Physical Cell Id (PCI) Configuration Conditions in UE Rx-Tx time difference feICIC	11.1.0	12.0.0	R5	eICIC_enh_LTE-UEConTest
37.571-1	0070	-	Rel-11	F	RP-141577	R5-144789	approved	Uncertainties and Test Tolerances for RSTD test cases 10.1, 10.1A, 10.2 and 10.2A	11.1.0	11.2.0	R5	TEI10_Test
37.571-1	0071	-	Rel-11	F	RP-141577	R5-144790	approved	Uncertainties and Test Tolerances for RSTD test cases 10.3, 10.3A, 10.4 and 10.4A	11.1.0	11.2.0	R5	TEI10_Test
37.571-1	0072	-	Rel-11	F	RP-141574	R5-144193	approved	Cell-specific test parameters for E-UTRAN	11.1.0	11.2.0	R5	TEI9_Test
37.571-1	0073	-	Rel-12	F	RP-141594	R5-144203	approved	Addition of new TC 10.1B FDD RSTD Measurement Reporting Delay CA for 5+5MHz	11.1.0	12.0.0	R5	LTE_CA_Rel12-UEConTest
37.571-1	0074	-	Rel-12	F	RP-141594	R5-144204	approved	Addition of new TC 10.1C FDD RSTD Measurement Reporting Delay CA for 10+5MHz	11.1.0	12.0.0	R5	LTE_CA_Rel12-UEConTest

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
37.571-1	0075	-	Rel-12	F	RP-141594	R5-144205	approved	Addition of new TC 10.2B TDD RSTD Measurement Reporting Delay CA for 5+5MHz	11.1.0	12.0.0	R5	LTE_CA_Rel12-UEConTest
37.571-1	0076	-	Rel-12	F	RP-141594	R5-144206	approved	Addition of new TC 10.2C TDD RSTD Measurement Reporting Delay CA for 10+5MHz	11.1.0	12.0.0	R5	LTE_CA_Rel12-UEConTest
37.571-1	0077	-	Rel-12	F	RP-141594	R5-144207	approved	Addition of new TC 10.3B FDD RSTD Measurement Accuracy CA for 5+5MHz	11.1.0	12.0.0	R5	LTE_CA_Rel12-UEConTest
37.571-1	0078	-	Rel-12	F	RP-141594	R5-144208	approved	Addition of new TC 10.3C FDD RSTD Measurement Accuracy CA for 10+5MHz	11.1.0	12.0.0	R5	LTE_CA_Rel12-UEConTest
37.571-1	0079	-	Rel-12	F	RP-141594	R5-144209	approved	Addition of new TC 10.4B TDD RSTD Measurement Accuracy CA for 5+5MHz	11.1.0	12.0.0	R5	LTE_CA_Rel12-UEConTest
37.571-1	0080	-	Rel-12	F	RP-141594	R5-144210	approved	Addition of new TC 10.4C TDD RSTD Measurement Accuracy CA for 10+5MHz	11.1.0	12.0.0	R5	LTE_CA_Rel12-UEConTest
37.571-1	0081	-	Rel-11	F	RP-141577	R5-144215	approved	Clarification to RSTD Reporting Delay tests	11.1.0	11.2.0	R5	TEI10_Test
37.571-1	0082	-	Rel-11	F	RP-141577	R5-144791	approved	Updates to Annex E of TS 37.571-1	11.1.0	11.2.0	R5	TEI10_Test
37.571-1	0083	-	Rel-11	F	RP-141593	R5-144409	approved	Update to intial conditions and measurement procedure in for UTRA A-GPS and A-GNSS tests	11.1.0	11.2.0	R5	TEI11_Test
37.571-1	0084	-	Rel-11	F	RP-141574	R5-144553	approved	Removal of editors note in TC 9.1.4	11.1.0	11.2.0	R5	TEI9_Test
37.571-1	0085	-	Rel-11	F	RP-141577	R5-144620	approved	Updates OTDOA Neighbour Cell Info List	11.1.0	11.2.0	R5	TEI10_Test
37.571-1	0086	-	Rel-11	F	RP-141593	R5-144763	approved	Correction for RSTD Measurement Accuracy in CA requirements in RRM	11.1.0	11.2.0	R5	TEI11_Test
37.571-1	0087	-	Rel-11	F	RP-141577	R5-144792	approved	RSTD tests RAN 4 alignment	11.1.0	11.2.0	R5	TEI10_Test
37.571-1	0088	-	Rel-11	F	RP-141577	R5-144865	approved	Editor's note to PRS levels with fading	11.1.0	11.2.0	R5	TEI10_Test
37.571-1	0089	-	Rel-11	F	RP-141577	R5-144870	approved	Corrections to Note 3 for RSTD CA tests	11.1.0	11.2.0	R5	TEI10_Test
37.571-1	0090	-	Rel-11	F	RP-141577	R5-144914	approved	Corrections to TDD RSTD Measurement Reporting Delay for Carrier Aggregation	11.1.0	11.2.0	R5	TEI10_Test
37.571-1	0091	-	Rel-11	F	RP-141577	R5-144915	approved	RSTD CA Measurement Accuracy connection diagrams	11.1.0	11.2.0	R5	TEI10_Test
37.571-2	0041	-	Rel-10	F	RP-141574	R5-144194	approved	Clarification for configuration of cell 1 in OTDOA tests	10.7.0	10.8.0	R5	TEI9_Test
37.571-2	0042	-	Rel-10	F	RP-141574	R5-144195	approved	RESET Positioning Information in LPP Abort Procedures	10.7.0	10.8.0	R5	TEI9_Test
37.571-2	0043	-	Rel-10	F	RP-141574	R5-144237	approved	Adding extra neighbour cells to 7.3.5.1	10.7.0	10.8.0	R5	TEI9_Test
37.571-2	0044	-	Rel-10	F	RP-141574	R5-144626	approved	Correct OTDOA and ECID Elements in 7.3.4.2 and 7.3.4.4	10.7.0	10.8.0	R5	TEI9_Test
37.571-2	0045	-	Rel-10	F	RP-141577	R5-144702	approved	Correction to test case 7.5.1, Table 7.5.1.3.2-1: Main behaviour	10.7.0	10.8.0	R5	TEI10_Test
37.571-2	0046	-	Rel-10	F	RP-141574	R5-144703	approved	Updates OTDOA Neighbour Cell Info List	10.7.0	10.8.0	R5	TEI9_Test
37.571-3	0020	-	Rel-12	F	RP-141594	R5-144843	approved	Applicability for new 10+5 and 5+5 RSTD related test cases	10.7.0	12.0.0	R5	LTE_CA_Rel12-UEConTest
37.571-4	0042	-	Rel-10	F	RP-141572	R5-144256	approved	Routine maintenance and updates	10.6.0	10.7.0	R5	TEI8_Test
37.571-5	0086	-	Rel-10	F	RP-141577	R5-144133	approved	LBS Perf: Adding missing information for QZSS	10.8.0	10.9.0	R5	TEI10_Test

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
37.571-5	0087	-	Rel-10	F	RP-141577	R5-144135	approved	LBS Perf: Adding missing files for QZSS	10.8.0	10.9.0	R5	TEI10_Test
37.571-5	0088	-	Rel-10	F	RP-141577	R5-144136	approved	LBS Sig: Adding missing files for QZSS	10.8.0	10.9.0	R5	TEI10_Test
37.571-5	0089	-	Rel-10	F	RP-141577	R5-144793	approved	LBS Perf: Adding missing information for Galileo and introduction of Galileo hybrid-subtest	10.8.0	10.9.0	R5	TEI10_Test
37.571-5	0090	-	Rel-10	F	RP-141577	R5-144795	approved	LBS Sig: Adding missing information for Galileo and introduction of Galileo hybrid-subtest	10.8.0	10.9.0	R5	TEI10_Test
37.571-5	0091	-	Rel-10	F	RP-141577	R5-144139	approved	LBS Perf: Adding missing files for Galileo	10.8.0	10.9.0	R5	TEI10_Test
37.571-5	0092	-	Rel-10	F	RP-141577	R5-144140	approved	LBS Sig: Adding missing files for Galileo	10.8.0	10.9.0	R5	TEI10_Test
37.571-5	0097	-	Rel-10	F	RP-141577	R5-144872	approved	Updates OTDOA Neighbour Cell Info List	10.8.0	10.9.0	R5	TEI10_Test
37.804	0001	-	Rel-11	D	RP-141528	R4-144104	approved	Editorial Correction to TR 37.804	11.0.0	11.1.0	R4	FS_UTRA_LTE_900MHz
37.846	0001	-	Rel-12	D	RP-141565	R4-144231	approved	Adding conclusions to TR 37.846	12.0.0	12.1.0	R4	FS_UTRA_LTE_1980_2170_REG1
37.846	0002	-	Rel-12	D	RP-141565	R4-144232	approved	MCC editorial changes to TR 37.846 v12.0.0	12.0.0	12.1.0	R4	FS_UTRA_LTE_1980_2170_REG1
37.901	0041	-	Rel-11	F	RP-141593	R5-144178	approved	Correction to Table A.3.1-3: Common Test Parameters (TDD)	11.11.0	11.12.0	R5	TEI11_Test
37.901	0042	-	Rel-11	F	RP-141572	R5-144179	approved	Correction to Periodic CSI Reporting using PUCCH for TDD	11.11.0	11.12.0	R5	TEI8_Test
37.901	0043	-	Rel-11	F	RP-141593	R5-144180	approved	Correction to LTE Integrity Setting	11.11.0	11.12.0	R5	TEI11_Test
37.902	0005	-	Rel-12	F	RP-141544	R4-145275	approved	CR to TR37.902 on improving tablets definition	11.1.0	12.0.0	R4	LTE_UTRA_TRP_TRS-Core
37.902	0006	-	Rel-12	F	RP-141544	R4-145276	approved	CR to TR37.902 on explicitly listing TRS allocations	11.1.0	12.0.0	R4	LTE_UTRA_TRP_TRS-Core

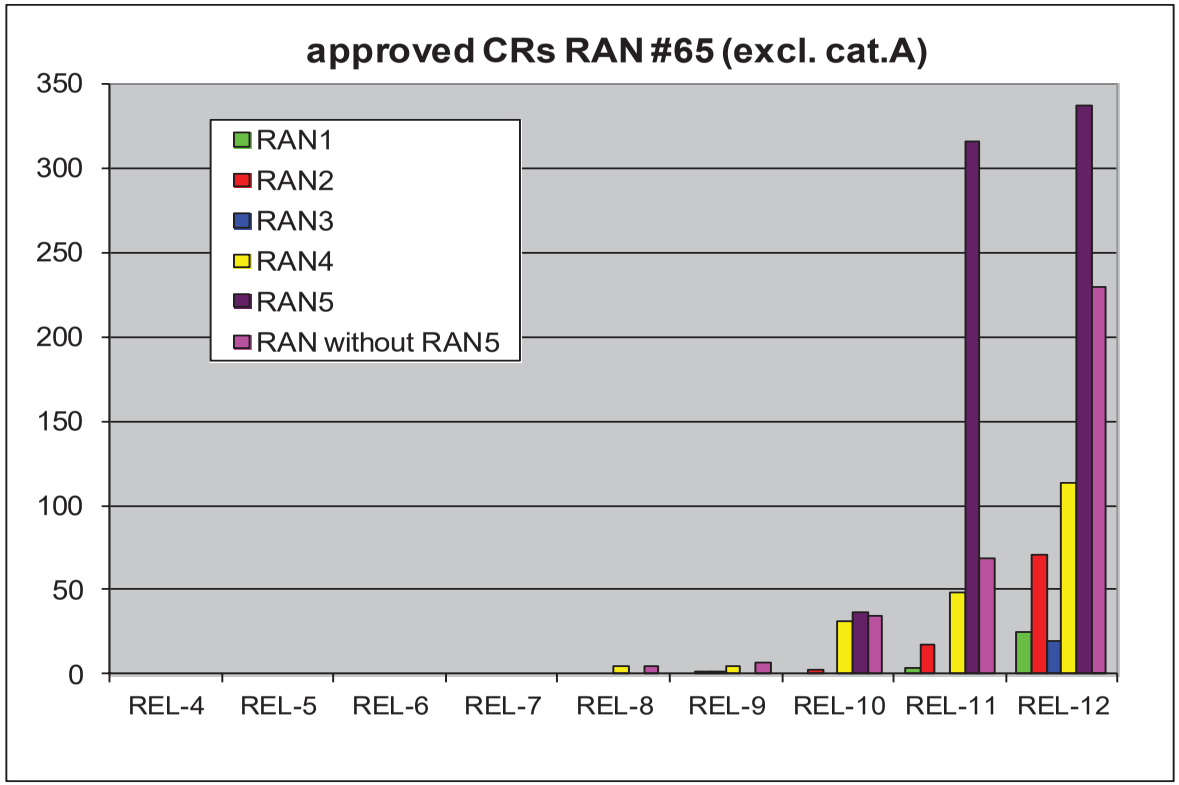


Fig. E-1: Approved CRs (excluding category A CRs) of RAN #65 per WG and release

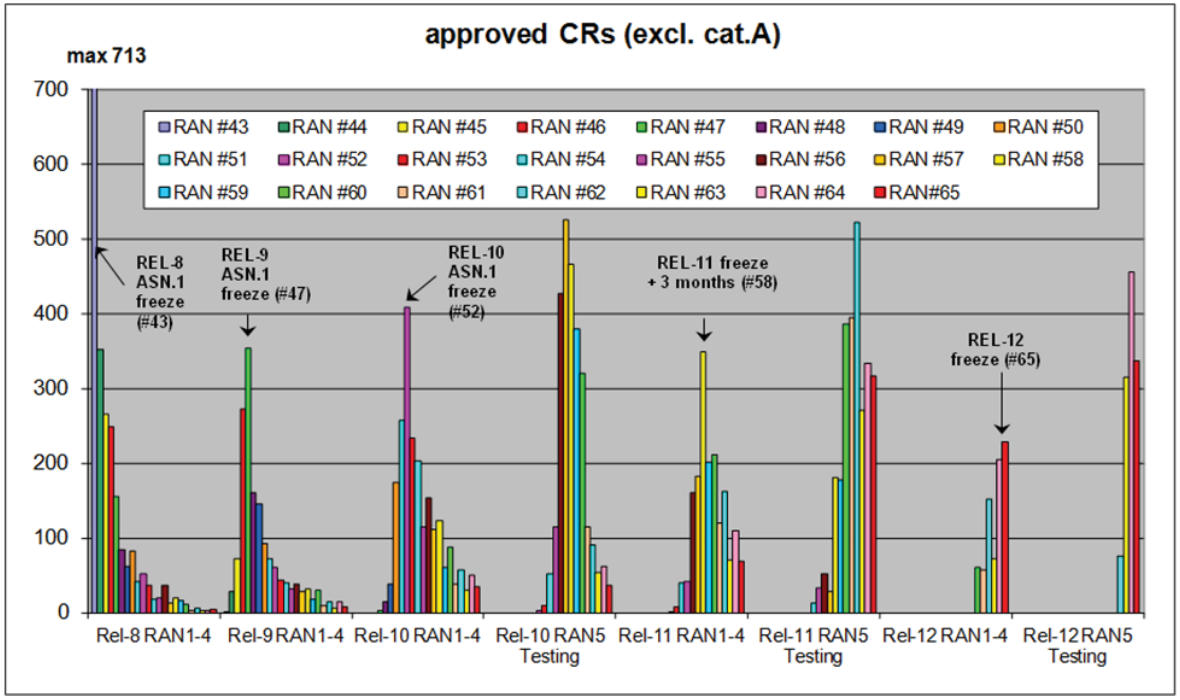


Fig. E-2: Approved CRs (excluding category A CRs) of previous RAN meetings per release
REL freeze: REL-8: RAN #42, REL-9: RAN #46, REL-10: RAN #51, REL-11: RAN #57, REL-12: RAN #65
ASN.1 freeze: REL-8: RAN #43, REL-9: RAN #47, REL-10: RAN #52 (apart from Un), REL-11: RAN #59, REL-12: planned for RAN #67

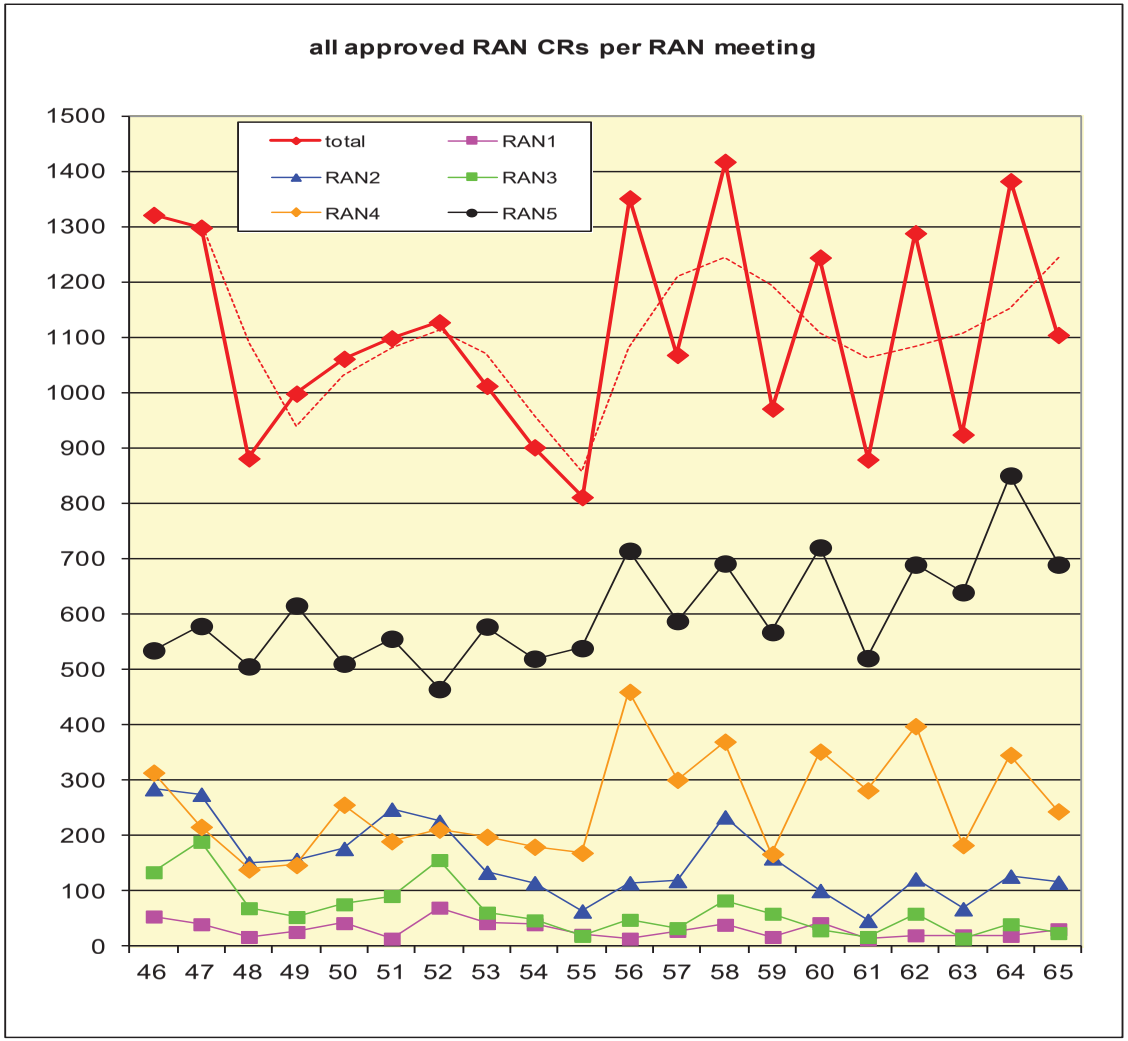


Fig. E-3: Approved CRs (all releases including category A CRs) per RAN WG and per RAN meeting
REL freeze: REL-9: RAN #46, REL-10: RAN #51, REL-11: RAN #57, REL-12: RAN #65
ASN.1 freeze: REL-8: RAN #43, REL-9: RAN #47, REL-10: RAN #52 (apart from Un), REL-11: RAN #59, REL-12: planned for RAN #67

Annex F:
Summary of RAN work items (WI) and study items (SI)

An overview of recent RAN work items and study items (including the new WIs & SIs approved at this meeting) is attached to this report.

This overview is used as input for the 3GPP workplan which lists all 3GPP work and study items.

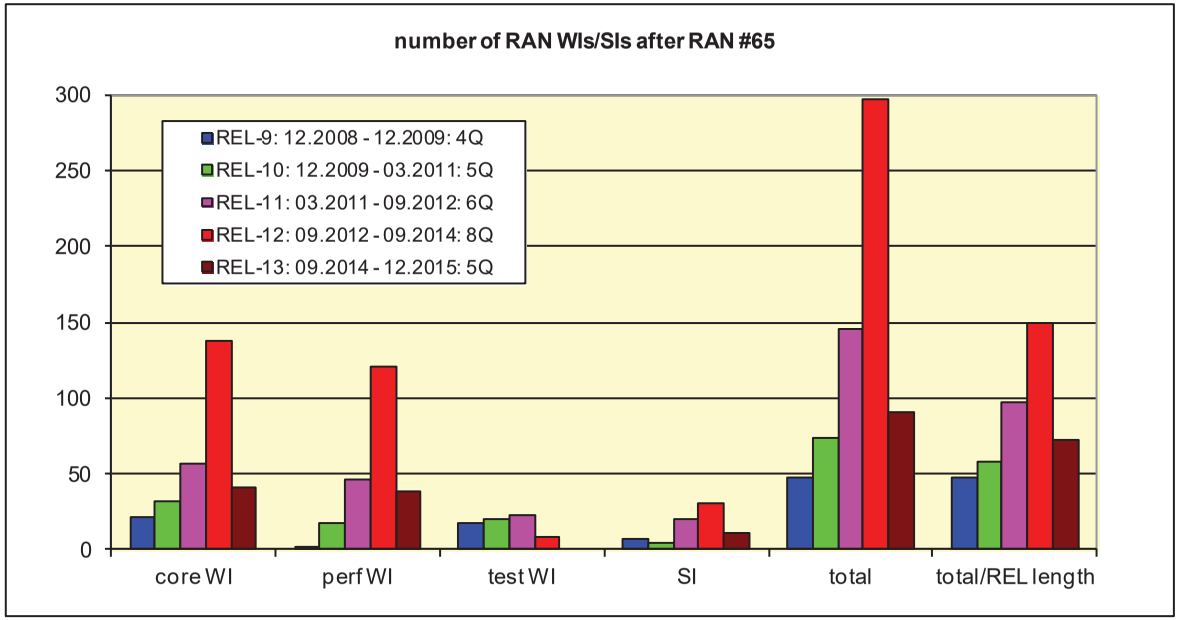


Fig. F-1: Number of <u>all</u> approved RAN work items (WI) and RAN study items (SI) (incl. already completed WIs/SIs) in the different releases after RAN #65

Note: REL-12 freeze: RAN #65. REL-13 dates still tentative. REL-12 has 3 times more WIs/SIs per year than REL-9. REL-13 has not yet really started and has already more WIs/SIs than REL-9.

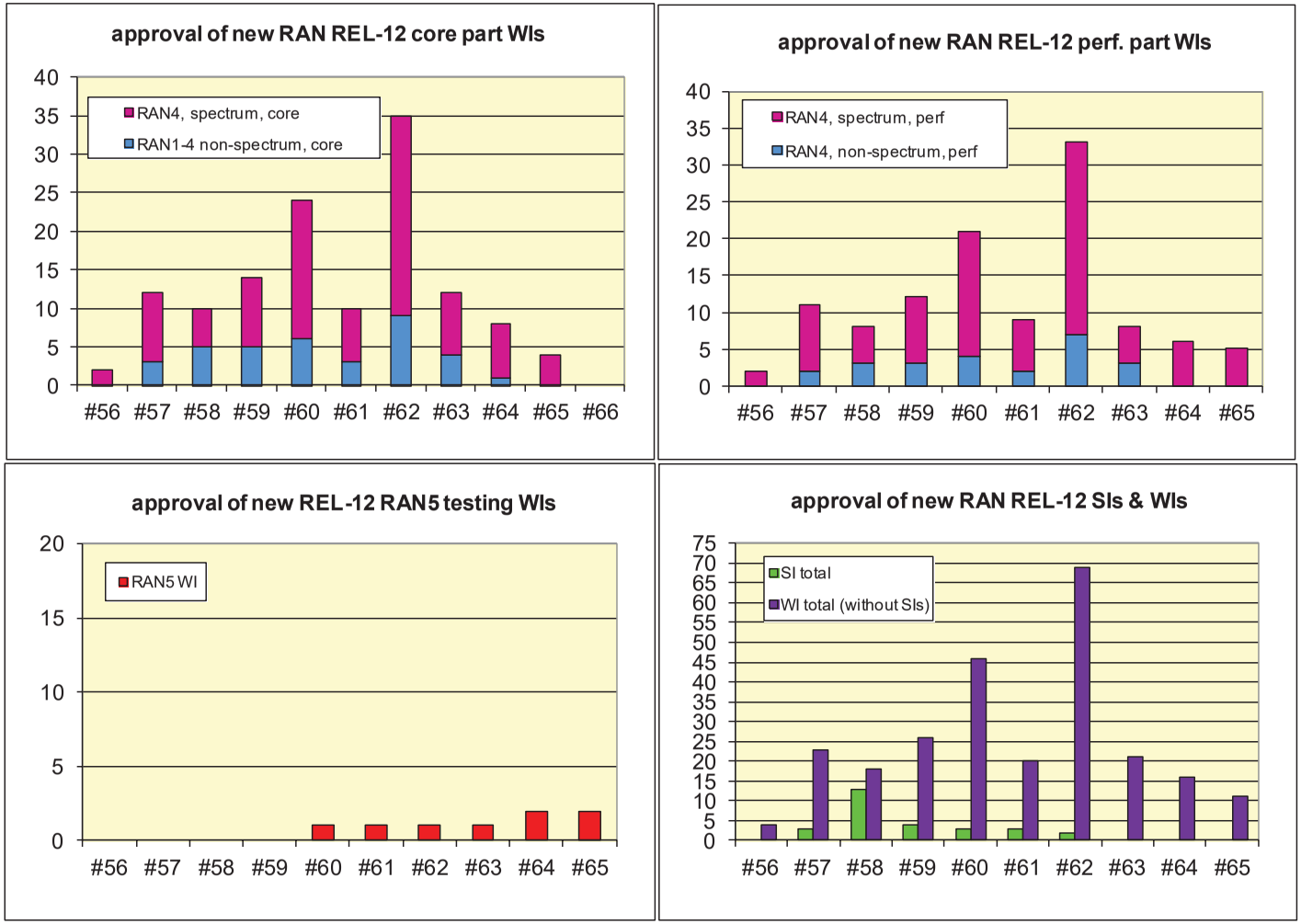


Fig. F-2: Overview of <u>new</u> REL-12 WIs and SIs per RAN meeting (REL-11 freeze: RAN #57, REL-12 freeze: RAN #65)

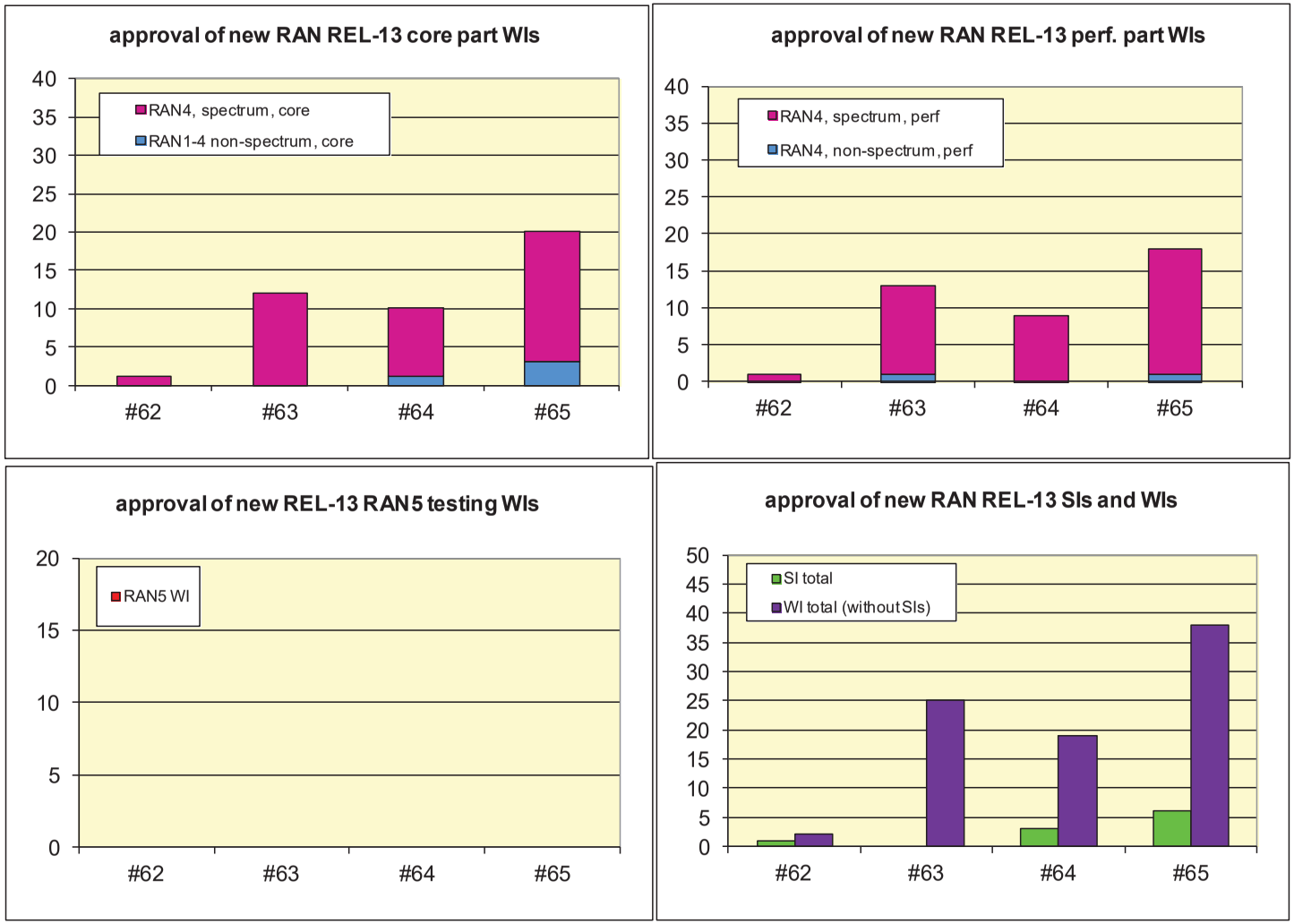


Fig. F-3: Overview of <u>new</u> REL-13 WIs and SIs per RAN meeting (REL-12 freeze: RAN #65, REL-13 freeze: planned for RAN #70)

Annex G:
Actions decided by RAN #65

No action items allocated.

Annex H:
History

Document history		
Date	**TSG RAN Tdoc**	**Subject**
08.09.2014	-	Skeleton report for RAN #65 provided before the meeting.
16.09.2014	-	Draft report of RAN #64 v1.0 (this version is also submitted as SP-140619 to SA #65 for information)
06.10.2014	RP-141721	Draft report of RAN #65 v2.0 (with revision marks compared to v1.0)
05.12.2014	RP-141722	Draft report of RAN #65 v3.0 (with revision marks compared to v2.0)
08.12.2014	RP-142212	Report of RAN #65 as approved by RAN #66

In case of comments/questions/corrections please contact:

Author: **Dr. Joern Krause (3GPP TSG RAN MCC Support)**

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email: Joern.Krause@etsi.org

Appendix 26

www.3gpp.org / ftp / Specs / archive / 36_series / 36.211

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115 items.

Appendix 27

3GPP TSG RAN meeting #64 **RP-140908**
Sophia Antipolis, France, June 10 – 13, 2014

Agenda Item: 3

Source: ETSI MCC

Title: Report of 3GPP TSG RAN meeting #63,
Fukuoka, Japan, March 3 – 6, 2014

Document for: Approval

Report of 3GPP TSG RAN meeting #63

held in Fukuoka, Japan
March 3 – 6, 2014



colour code:
green: approved new TSs/TRs/WIs/SIs/Report/Exception
grey: outgoing LSs/LTIs
red: WI/SI closed/completed or moved to next REL
purple: pendingTdocs

The present document has been developed within the 3rd Generation Partnership Project (3GPP ™) and it has not been subject to any approval process by the 3GPP Organizational Partners.

Keywords
RAN, UTRA, LTE

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Meeting Organisation

Meeting:	3GPP TSG RAN #63		
Meeting location:	Fukuoka, Japan		
Duration:	Monday 03.03.2014 - Thursday 06.03.2014		
Host:	Telecommunication Technology Committee (TTC) and Association of Radio Industries and Businesses (ARIB)		
TSG RAN Chairman:	Dino Flore (Qualcomm)	email: oflore@qti.qualcomm.com	
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Email reflector:	3GPP_TSG_RAN@LIST.ETSI.ORG		
Technical documents:	ftp://ftp.3gpp.org/tsg_ran/TSGR_63/Docs		
next meetings:	TSG RAN #64,	10.06. - 13.06.2014	Sophia Antipolis, France host: EF3
	TSG RAN #65,	09.09. - 12.09.2014	Edinburgh, Scotland host: EF3

Executive Summary

3GPP TSG RAN meeting #63 was held in Fukuoka, Japan, March 3-6, 2014, hosted by the Telecommunication Technology Committee (TTC) and Association of Radio Industries and Businesses (ARIB). The meeting had 198 participants (see Annex A) and 523 Technical Documents (see Annex B).

Main topics/decisions:

- **REL-12:** TSG RAN will propose to TSG SA to move the REL-12 stage 3 freeze date from June 14 to Sep.14 to allow completion of important REL-12 features and to avoid too many exception sheets at the REL-12 freeze.
- **RAN #64 in June 14**: No new Core part WIDs will be accepted for RAN1, RAN2, RAN4 in June 14 (Supplemental Downlink for TD-LTE & spectrum related WIs are excluded from this restriction).
- **LTE-unlicensed** (see AI 14.1): No SIs and no WIs were approved regarding the usage of LTE in unlicensed spectrum. After RAN #64 on Friday afternoon, i.e. on 13.06.2014, half a day workshop is planned sharing ideas on LTE-unlicensed. Workshop documents will not be RAN Tdocs but they will be stored on the 3GPP server.
- Two new UE categories defined for Rel-11 addressing the datarate achievable with 3 DL Carrier Aggregation (RP-140364):
  Category 9: 450Mbps DL class paired with the UL processing requirement as defined for UL Cat. 6 (50Mbs)
  Category 10: 450Mbps DL class paired with the UL processing requirement as defined for UL Cat. 7 (100Mbs)
- Rel-10 / FGI bit 31 (Multi-Frequency Band Indicator: sufficient IOT possibilities in RAN#63. The bit will be turned to true by RAN#65. LS RP-140501 sent to RAN5 to start work on conformance aspects
- RAN#63 endorsed a proposal for handling mandatory/optional UE features in RP-140406
- ITU-R WP5D: LS on ARCHITECTURE AND TOPOLOGY OF IMT NETWORKS received (RP-140402). 3GPP ITU-R ad hoc will prepare a reply, approval by correspondence planned by May 31st (TSG RAN, CT and SA #64) and by 6th June (PCG)
- Incoming Liaison Statements/Letters to ITU: 32, see Annex C
- Outgoing Liaison Statements/Letters to ITU: 5, see Annex D

- 18 closed work items (WI) in March 2014 (7 Core, 8 Perf., 3 Testing):

  - RAN4:

    REL-11 Performance parts:
    - RF Requirements for Multi-band & Multi-standard Radio (MB-MSR) BS (550215, MB_MSR_RF-Perf)

    REL-12 Core parts:
    - Additional bandwidth combinations for LTE Advanced inter-band CA of Band 2 and Band 29 and of Band 4 and Band 29 (630122, LTE_DL_FDD700_B29_BWset-Core) (no Perf. part, started at RAN #63)

    REL-12 Performance parts:
    - LTE Advanced inter-band CA of Band 2 and Band 12 (580234, LTE_CA_B2_B12-Perf)

    REL-12 Core & Performance parts:
    - Core part: LTE Advanced inter-band CA of Band 3 and Band 27 (620122, LTE_CA_B3_B27-Core)
    - Perf. part: LTE Advanced inter-band CA of Band 3 and Band 27 (620222, LTE_CA_B3_B27-Perf)
    - Core part: LTE Advanced inter-band CA of Band 39 and Band 41 (580133, LTE_CA_B39_B41-Core)
    - Perf. part: LTE Advanced inter-band CA of Band 39 and Band 41 (580233, LTE_CA_B39_B41-Perf)
    - Core part: Add. bandwidth combination set for LTE Advanced inter-band CA of Band 2 and Band 4 (620120, LTE_CA_B2_B4_BWset-Core)
    - Perf. part: Add. bandwidth combination set for LTE Advanced inter-band CA of Band 2 and Band 4 (620220, LTE_CA_B2_B4_BWset-Perf)
    - Core part: Add. bandwidth of 3MHz for LTE Advanced inter-band CA of Band 8 and Band 20 (620172, LTE_CA_B8_B20_BW-Core)
    - Perf. part: Add. bandwidth of 3MHz for LTE Advanced inter-band CA of Band 8 and Band 20 (620272, LTE_CA_B8_B20_BW-Perf)
    - Core part: LTE Advanced intra-band contiguous CA in Band 39 (590127, LTE_CA_C_B39-Core)
    - Perf. part: LTE Advanced intra-band contiguous CA in Band 39 (590227, LTE_CA_C_B39-Perf)
    - Core part: LTE Advanced intra-band non-contiguous CA in Band 41 for 2 UL (600123, LTE_CA_NC_B41_2UL-Core) *
    - Perf. part: LTE Advanced intra-band non-contiguous CA in Band 41 for 2 UL (600223, LTE_CA_NC_B41_2UL-Perf) *

    *: WI was stopped and not completed.

  - RAN5 UE Conformance Test Aspects for:
    - Service continuity improvements for MBMS for LTE, REL-11 (590002, MBMS_LTE_SC-UEConTest)
    - System Improvements for Machine-Type Communications, REL-11 (610014, SIMTC-UEConTest)
    - SRVCC before ringing (bSRVCC), REL-12 (620017, bSRVCC-UEConTest)

- 0 REL-11 WIs shifted to REL-12

- 5 closed REL-12 study items (SI) in March 2014: Studies on:

  - RAN1: LTE Device to Device Proximity Services (580038, FS_LTE_D2D_Prox) *
  - RAN1: Network-Assisted Interference Cancellation and Suppression for LTE (590018, FS_LTE_NAICS) *
  - RAN2: Group Communication for LTE (610028, FS_LTE_GC)
  - RAN2: Smart Congestion Mitigation in E-UTRAN (610029, FS_SCM_LTE)
  - RAN3: HNB Emergency Warning Area for UTRA (600018, FS_HNB_warn_area)

  *: SI was stopped and not completed

- 46 new approved work items (WI) in March 2014 (25 Core, 20 Perf., 1 Testing):

  - RAN1 REL-12:
    - Core part: LTE Device to Device Proximity Services, RP-140518
    - Core part: Network-Assisted Interference Cancellation and Suppression for LTE, RP-140519

  - RAN2 REL-12:
    - Core part: Smart Congestion Mitigation in E-UTRAN, RP-140434

  - RAN3 REL-12:
    - Core part: Positioning Enhancements for RF Pattern Matching in E-UTRA, RP-140177

- RAN4 REL-12:

  Performance parts for:
  - LTE Device to Device Proximity Services, RP-140518
  - Network-Assisted Interference Cancellation and Suppression for LTE, RP-140519
  - Interference cancellation and suppression receiver for SU-MIMO, RP-140520 (Perf. part only)

  Core parts for:
  - Add. bandwidth combination set for LTE Advanced inter-band CA of Band 3 and Band 20, RP-140447
  - Add. bandwidth combination set for LTE Advanced inter-band CA of Band 7 and Band 20, RP-140448
  - Add. bandwidth combinations for LTE Advanced inter-band CA to support 3DL fallback, RP-140454
  - Add. bandwidth combinations for LTE Advanced inter-band CA of Band 2 and Band 29 and of Band 4 and Band 29, RP-140084 (not this WI was started and completed at RAN #63)

  Core & Performance parts for:
  - LTE Advanced 3 Band CA (3DL/1UL) of Band 1, Band 19 and Band 21, RP-140106
  - LTE-Advanced 3 Band CA (3DL/1UL) of Band 3, Band 3 and Band 7, RP-140390
  - LTE Advanced 3 Band CA (3DL/1UL) of Band 3, Band 7 and Band 7, RP-140095
  - LTE Advanced CA of Band 41 and Band 42, RP-140450
  - Add. bandwidth combinations for LTE Advanced intra-band non-contiguous CA in Band 25, RP-140452

- RAN4 REL-13:

  Core & Performance parts:
  - LTE Advanced 3 Band CA (3DL/1UL) of Band 1, Band 3 and Band 26, RP-140194
  - LTE Advanced 3 Band CA (3DL/1UL) of Band 1, Band 18 and Band 28, RP-140451
  - LTE Advanced 3 Band CA (3DL/1UL) of Band 2, Band 2 and Band 5, RP-140165
  - LTE Advanced 3 Band CA (3DL/1UL) of Band 2, Band 4, and Band 4, RP-140117
  - LTE Advanced 3 Band CA (3DL/1UL) of Band 2, Band 5 and Band 13, RP-140167
  - LTE Advanced 3 Band CA (3DL/1UL) of Band 4, Band 4 and Band 5, RP-140166
  - LTE Advanced 3 Band CA (3DL/1UL) of Band 4, Band 4, and Band 12, RP-140116
  - LTE Advanced 3 Band CA (3DL/1UL) of Band 4, Band 5 and Band 13, RP-140168
  - LTE Advanced intra-band contiguous CA in Band 40 for 3DL, RP-140453
  - Add. bandwidth combination set for LTE Advanced inter-band CA of Band 4 and Band 12, RP-140449
  - LTE Advanced inter-band CA of Band 5 and Band 13, RP-140169
  - LTE Advanced inter-band CA of Band 7 and Band 22, RP-140094

- RAN5 UE Conformance Test Aspects for:
  - LTE UE TRP and TRS and UTRA Hand Phantom, REL-12, RP-140090

- 0 new approved study items (SI) in March 14

- 0 new approved Technical Specifications (TS), i.e. now under CR control

- 8 new approved Technical Reports (TR), i.e. now under CR control:

- RAN1 REL-12 TR 36.843	FS_LTE_D2D_Prox	RP-140424
- RAN1 REL-12 TR 36.866	FS_LTE_NAICS	RP-140205
- RAN2 REL-12 TR 36.848	FS_SCM_LTE	RP-140103
- RAN2 REL-12 TR 36.868	FS_LTE_GC	RP-140365
- RAN3 REL-12 TR 25.703	FS_HNB_warn_area	RP-140410
- RAN4 REL-12 TR 36.833-1-39	LTE_CA_C_B39	RP-140438
- RAN4 REL-12 TR 36.833-2-03	LTE_CA_NC_B3	RP-140444 **
- RAN4 REL-12 TR 36.844	FS_LTE_FDD_1670_US	RP-140403

  **: Core & Perf. part WIs were completed at RAN #62

- 1 new Technical Specifications (TS) provided for information:

- RAN5 REL-11 TS 34.229-4	IMS-CCR_Test2	RP-140301

- 1 new Technical Reports (TR) provided for information:

- RAN3 REL-12 TR 36.887	FS_Netw_Energy_enh_LTE	RP-140439

- Change requests statistics (see also Annex E): 981 CRs handled with 925 approved CRs.

Phase	Cat	all CRs	Approved CRs	approved RAN1	approved RAN2	approved RAN3	approved RAN4	approved RAN5
Rel-4	F	1	1	0	1	0	0	0
Rel-5	F	1	1	0	1	0	0	0
Rel-6	F	1	1	0	1	0	0	0
Rel-7	A	1	1	0	1	0	0	0
Rel-7	F	1	1	1	0	0	0	0
Rel-8	A	2	2	1	1	0	0	0
Rel-8	F	2	2	0	0	0	2	0
Rel-9	A	2	2	1	1	0	0	0
Rel-9	C	1	1	0	1	0	0	0
Rel-9	F	5	5	0	0	0	5	0
Rel-10	A	5	5	1	2	0	2	0
Rel-10	B	12	12	0	0	0	5	7
Rel-10	C	1	1	1	0	0	0	0
Rel-10	F	71	70	1	3	0	19	47
Rel-11	A	25	24	3	4	0	17	0
Rel-11	B	53	53	0	0	0	5	48
Rel-11	C	6	4	0	3	0	1	0
Rel-11	D	1	1	0	0	0	1	0
Rel-11	F	298	284	3	14	2	42	223
Rel-12	A	68	67	4	13	2	48	0
Rel-12	B	46	35	1	12	5	17	0
Rel-12	C	1	1	1	0	0	0	0
Rel-12	D	1	1	0	0	0	1	0
Rel-12	F	376	350	2	10	5	18	315
sum		981	925	20	68	14	183	640

1 Opening of the Meeting

TSG RAN chairman Mr. Dino Flore (Qualcomm) opened the meeting 3GPP TSG RAN #63 on Monday March 3rd, 2014 at 09:00am.
On behalf of the host, Telecommunication Technology Committee (TTC) and Association of Radio Industries and Businesses (ARIB), Tetsuro Moriwaki (ARIB) welcomed the delegates to Fukuoka, Japan and explained organisational issues of the meeting.

1 week TSG general time plan (for more details about the RAN #63 agenda see AI 2):

	Monday	Tuesday	Wednesday		Thursday		Friday	
CT								
RAN				3				
SA				2	1	3		

1. *This SA slot will cover WG reports and non-controversial items. It may also include controversial items that have already been opened in the Wednesday afternoon session for a second pass.*
2. *This slot may include system level aspects that cross RAN and SA. Interested RAN delegates are invited to attend depending on the agenda. The agenda will identify the time plan for these aspects within this slot.*
3. *Time for offline discussions and to allow delegates to attend the other meeting to increase co-ordination.*

The TSG RAN chairman reminded delegates of a responsible behaviour regarding IT resources of the meeting:

Delegates are reminded that they share the meeting IT resources with their fellow delegates. You should not abuse the service by using bandwidth-hogging applications such as movie downloads, streaming video, web-based gaming, etc during the meeting. Use the internet service in your hotel rooms for this!
Delegates must respect the law of the hosting country*, and should not visit prohibited internet sites.*
In cases of persistent abuse of the internet bandwidth, MCC may restrict individual's use of the service.
In particular, the PCG has laid down the following network usage conditions:
1. Users shall not use the network to engage in illegal activities. This includes activities such as copyright violation, hacking, espionage or any other activity that may be prohibited by local laws.
2. Users shall not engage in non-work related activities that are consume excessive bandwidth or cause significant degradation of the performance of the network.
Since the network is a shared resource, users should exercise some basic etiquette when using the 3GPP network at a meeting. It is understood that high bandwidth applications such as downloading large files or video streaming might be required for business purposes, but delegates should be strongly discouraged in performing these activities for personal use. Downloading a movie or doing something in an interactive environment for personal use essentially wastes bandwidth that others need to make the meeting effective. The meeting chairman should remind end users that the network is a shared resource; the more one user grabs, the less there is for another. Email and its attachments already take up significant bandwidth (certain email programs are not very bandwidth efficient). In case of need the chair can ask the delegates to restrict IT usage to things that are essential for the meeting itself.

1. ***DON'T place your WiFi device in ad-hoc mode***
2. ***DON'T set up a personal hotspot in the meeting room***
3. ***DO try 802.11a if your WiFi device supports it***
4. ***DON'T manually allocate an IP address***
5. ***DON'T be a bandwidth hog by streaming video, playing online games, or downloading huge files***
6. ***DON'T use packet probing software which clogs the local network (e.g., packet sniffers or port scanners)***

Based on the report of the PCG ad hoc group on IT improvements:
http://www.3gpp.org/ftp/PCG/PCG_27/DOCS/PCG27_13r1.zip
see also http://www.3gpp.org/Delegates-Corner#outil_sommaire_14

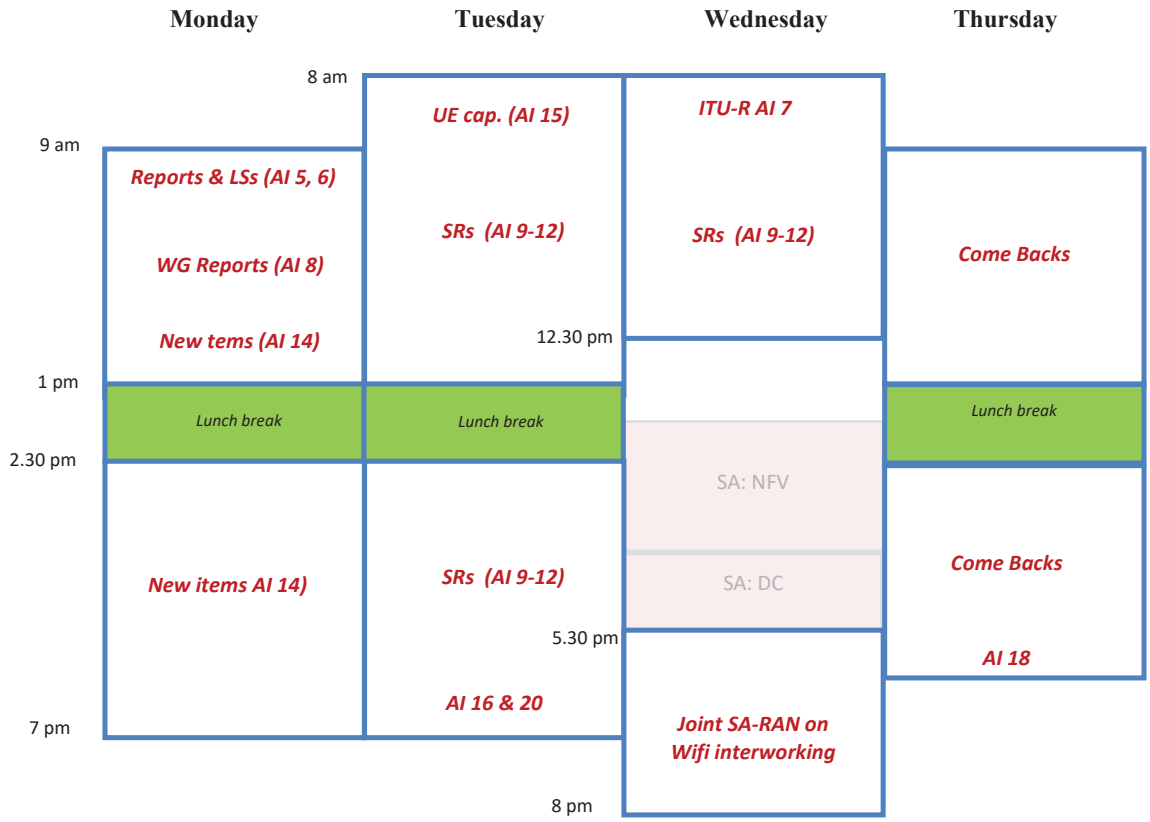
2 Approval of the Agenda

NOTE: Agreed CR packages of RAN WGs (if not flagged for discussion) will be approved without presentation. % complete and target dates of WI/SI status reports (if not flagged for discussion) will be approved without presentation.

RP-140001 Agenda for RAN #63 held in Fukuoka, Japan, 03.03.-06.03.2014 RAN chairman (Qualcomm) Agenda
conclusion: approved

tentative meeting schedule as distributed by the RAN chairman on 01.03.2014 over the RAN reflector:

Meeting schedule (tentative)



3 Approval of the meeting report of TSG-RAN #62

RP-140002 Draft report of RAN #62 held in Busan, Korea, 03.12.-06.12.2013 ETSI MCC Report
conclusion: revised in RP-140040 before RAN #63

RP-140040 Draft report of RAN #62 held in Busan, Korea, 03.12.-06.12.2013 ETSI MCC Report
conclusion: revised in RP-140275 to provide the approved RAN #62 report

RP-140275 Report of RAN #62 held in Busan, Korea, 03.12.-06.12.2013 ETSI MCC Report
conclusion: approved

4 Reminder for IPR declaration

The RAN chairman made the following call for IPRs and reminded the delegates of their obligations with respect to IPRs:

> The attention of the delegates to the meeting of this Technical Specification Group is drawn to the fact that 3GPP Individual Members have the obligation under the IPR Policies of their respective Organizational Partners to inform their respective Organizational Partners of Essential IPRs they become aware of.
>
> The delegates are asked to take note that they are thereby invited:
>
> - to investigate whether their organization or any other organization owns IPRs which were, or were likely to become Essential in respect of the work of 3GPP.
> - to notify their respective Organizational Partners of all potential IPRs, e.g., for ETSI, by means of the IPR Statement and the Licensing declaration forms (http://webapp.etsi.org/Ipr/).

5 Reports from other meetings

5.1 Report from TSG SA

RAN chairman Dino Flore (Qualcomm) reported from TSG SA #62 held in Busan, Korea, Dec. 9-11, 2013:
(same as in email of 13.12.13 distributed via the RAN reflector and corresponding clarifications):

Dual Connectivity & 3GPP/WLAN radio interworking:
The two items were discussed at length during the meeting, based on RAN requests in SP-130695 and SP-130694. For both items SA decided to wait for an assessment of the potential system level impacts of the solutions developed by RAN before deciding how to plan the work in SA2.
Note that SA2 is already past their stage-2 freeze. While it is understood that these two exceptions come from the mismatch between SA and RAN timelines, there is no guarantee that SA2 will be able to work on those features in Rel-12. This will ultimately depend on how much work is needed in SA2 and the priority companies will give to these two items in the planning discussions taking place in SA#63. Companies should come prepared for that discussion in SA#63.
The detailed handling of the two features slightly differs due to the different level of maturity of the RAN work. In particular it was acknowledged that for Dual Connectivity the solutions identified by RAN are more stable, while for 3GPP/WLAN radio interworking more progress is needed in RAN2. More details on next steps for both items are provided below.

Next steps on Dual Connectivity:
=> SA2 to provide the assessment of system level impact to SA#63. See LS in SP-130720.

Next steps on 3GPP/WLAN radio interworking:
=> In the next quarter RAN2 should progress as much as possible on the solution definition.
=> At next plenary we will organize a joint RAN-SA session to assess the system level impacts of the solution. For this session the WI Rapporteur should prepare an input document sketching the solution based on the status of the RAN2 discussion. Then we will rely on company contributions to assess system level impacts and amount of work required in SA2.
See LS in SP-130719.

UPCON:
This item was postponed to Rel-13. SA2 will do some initial scoping of the work. When it is clearer what RAN involvement is needed, corresponding WI proposals will be brought to RAN for approval as well.

Rel-13 schedule

The Rel-13 schedule was tentatively agreed (will be reconfirmed in future TSGs):
- Stage-1: 09/2014
- Stage-2: 06/2015
- Stage-3 (official release freeze): 12/2015
  - ASN.1: 03/2016

Network virtualization
In Fukuoka SA will organize a mini-workshop on network virtualization to understand the potential impact to 3GPP (if any). The session will organized on Wednesday afternoon when RAN and SA do not overlap (likely 1-5pm), so RAN delegates interested in the topic can attend the session.

Reports:
TSGs:
- RAN: SP-130697
- CT: SP-130580
- GERAN: SP-130586

SA WGs:
- SA1: SP-130591
- SA2: SP-130517
- SA3: SP-130646
- SA4: SP-130559
- SA5: SP-130687

tentative schedule of Wednesday March 5th afternoon at RAN#63:
(a) 1 – 5 pm, SA mini-workshop on network virtualization: For information to RAN delegates
(b) 5 – 7 pm, joint RAN-SA session on 3GPP/Wifi interworking: Goal: assess system level impact & open issues (if any), in order to estimate the amount of work required by SA2

Note that for Dual Connectivity SA2 will provide an assessment of the system level impact, so there is no need to discuss that in the joint session with SA. Once the system level impacts are known for both Dual Connectivity & 3GPP/WLAN radio interworking, SA#63 will then discuss how to add the corresponding work to the SA2 workplan, depending on how much work is needed in SA2 and the priority companies will give to these two items.

The final agenda of the joint session will be announced once we get closer to the meeting and may include additional items on a per need basis. For the time being the only topic clearly identified for the joint session is 3GPP/wifi interworking with the goal mentioned below. Dual Connectivity may be added to the agenda depending SA2 response (see below).
For both Dual Connectivity & 3GPP/WLAN radio interworking, two things need to happen at the next RAN/SA:
(1) We need to have an assessment of the system level impact & open issues (if any)
(2) Based on (1), we need to decide on what/if/when it is added to the SA2 workplan
We will use the joint session to do the assessment (1) for 3GPP/WLAN interworking, while for Dual Connectivity that assessment will hopefully be provided by SA2 (See SP-130720). If SA2 cannot reach a conclusion then we may have to use the joint session to complete the assessment (1) for Dual Connectivity as well (but hopefully this will not be needed).
Once the system level impacts are known for both Dual Connectivity & 3GPP/WLAN radio interworking, SA#63 will then discuss (2) or how to add the corresponding work to the SA2 workplan, depending on how much work is needed in SA2 and the priority companies will give to these two items.

For SA #62 Tdocs see ftp://ftp.3gpp.org/tsg_sa/TSG_SA/TSGS_62/Docs/

discussion: No comments.

5.2 Report from PCG and OP

Nothing to report as there was no PCG/OP meeting since RAN #62.

Next PCG #32 will be held on 29.04.2014 in New Orleans, USA.
Next OP #31 will be held on 30.04.2014 in New Orleans, USA.

5.3 Report from other meetings

Nothing to report.

6 Liaison activity of TSG RAN

6.1 Groups outside 3GPP

ETSI TC EE:

RP-140003 LS update on Cooperation for Energy Efficiency Measurements
(EE(13)000051; to: SA5, SA, RAN2; cc: RAN, ETSI TC ATTM; contact: Alcatel-Lucent)ETSI TC EE
LSin REL-12 -
previous LS in RP-130902at RAN #61; no RAN action requested
conclusion: noted, no LS answer

ITU-R WP5A:

RP-140015 LS on INVITATION TO REVIEW THE PROPOSED REVISIONS OF RECOMMENDATIONS ITU-R M.2015 AND ITU-R M.2009: Frequency arrangements for PPDR radiocommunication systems in UHF bands in accordance with Resolution 646 (Rev.WRC-12) and Radio interface standards for use by PPDR operations in some parts of the UHF band in accordance with Resolution 646 (Rev.WRC-12)
(ITU-R WP5A/TEMP/179R1; to: 3GPP, 3GPP RAN, 3GPP2, APCO, APT Preparatory Group (APG) , ARIB, ATIS, AWG, CCSA, CDG, ETSI, ETSI SC EMTEL, ETSI TC ERM, ETSI TC TETRA, GSMA, IEEE, OASIS, TIA, TIA TR-45, TIA TR-45.5, TIA TR-8, TIA TR-8.8, TTA, UMTS Forum, and WiMAX Forum; cc: -; contact: Counsellor ITU-R WP5A) ITU-R WP5A
LSin - -
conclusion: LS will be treated under AI 7.2.1

ITU-R WP5D:

RP-140401 LS on TECHNICAL FEASIBILITY OF IMT IN THE BANDS ABOVE 6 GHz
(ITU-R WP5D/TEMP/378 Rev.2; to: 3GPP, 3GPP2, ARIB, ATIS, CCSA, ETSI, IEEE, ITRI, TIA, TTA, TTC, WiMax Forum; , WWRF, 4G Americas, CDG, GSMA, UMTS Forum, Wi-Fi Alliance, Wireless Innovation Forum, XGP Forum, METIS Project; cc: -; contact: Counselor ITU-R SG5) ITU-R WP5D
LSin - -
conclusion: LS will be treated under AI 7.2.2

RP-140402 LS on ARCHITECTURE AND TOPOLOGY OF IMT NETWORKS
(ITU-R WP5D/TEMP/347 Rev.2; to: 3GPP, 3GPP2, ARIB, ATIS, CCSA, ETSI, IEEE, ITRI, TIA, TTA, TTC, WiMax Forum, WWRF, 4G Americas, CDG, GSMA, UMTS Forum, Wi-Fi Alliance, Wireless Innovation Forum, XGP Forum, METIS Project; cc: - ; contact: Counselor ITU-R SG5) ITU-R WP5D
LSin - -
conclusion: LS will be treated under AI 7.2.2

ITU-T:

RP-140007 LS on End-to-End QoS at ITU
(ITU-T SG12-00046; to: ETSI TC STQ, 3GPP, 3GPP2; cc: -; contact: Opticom) ITU-T SG12
LSin - -
no RAN action requested
conclusion: noted, no LS answer

OMA:

RP-140008 LS on Communiqué to 3GPP regarding Public Safety and the OMA Push to Talk over Cellular (POC) enabler
(to: SA; cc: RAN, CT; contact: T-Mobile US) OMA
LSin - -
no RAN action requested
discussion: Telefonica: not directly related to REL-12?
RAN chair: no, for the future
conclusion: noted, no LS answer

Wireless Broadband Alliance (WBA):

RP-140009 LS to 3GPP on Forum´s alignment
(WBA_LS_23122013; to: SA, SA2; cc: RAN; contact: AT&T) Wireless Broadband Alliance (WBA) Roaming WG
LSin - -
no explicit RAN action requested
conclusion: noted, no LS answer

Metro Ethernet Forum (MEF):

RP-140400 LS on announcing first approved draft of MEF 22.1.1 Mobile Backhaul Implementation Agreement Amendment
(MEF L00201_001_MBH Q114 SB; to: BBF, NGMN, RAN, RAN3, Small Cell Forum; cc: -; contact: Verizon) Metro Ethernet Forum (MEF)
LSin - -
no explicit RAN action requested
discussion: Verizon: we should not be a contact for this LS
RAN3 chairman: as RAN3 is also addressed, RAN3 can take a look (e.g. there is no pico-pico relation)
RAN chair: RAN3 will take a look and may respond
conclusion: noted, no LS answer from RAN

6.2 TSG SA, TSG CT, TSG GERAN

WLAN interworking:

RP-140005 Reply LS to RP-132114 on new WLAN/3GPP interworking work item
(SP-130719; to:RAN, RAN2, SA2, CT, CT1; cc: -; contact: Alcatel-Lucent) SA
LSin REL-12 UTRA_LTE_WLAN_interw-Core
conclusion: LS will be treated under AI 11.6.5

Small Cell Enhancements:

RP-140006 Reply LS to RP-132115 on Small Cell Enhancement work in RAN
(SP-130720; to: SA2, SA3, RAN, RAN2, RAN3; cc: -; contact: Samsung) SA
LSin REL-12 LTE_SC_enh_dualC-Core
conclusion: LS will be treated under AI 11.7.13

RP-140011 Reply LS to SP-130720 = RP-140006 on system aspects for Small Cell Enhancement work in RAN
(S2-140537; to: SA, SA3, RAN, RAN2, RAN3; cc: CT4, SA5; contact: Huawei) SA2
LSin REL-12 LTE_SC_enh_dualC-Core
conclusion: LS will be treated under AI 11.7.13

RP-140014 Reply LS to SP-130720 = RP-140006 on Small Cell Enhancement work in RAN
(S3-140210; to: SA, SA2, RAN, RAN2, RAN3; cc: -; contact: Samsung) SA3
LSin LS01 REL-12 LTE_SC_enh_dualC-Core
conclusion: LS will be treated under AI 11.7.13

Proximity-based Services (ProSe):

RP-140010 Reply LS to RP-132107 on ProSe Lawful Interception
(S2-140494; to: RAN; cc: SA3, SA3-LI, RAN1, RAN2, RAN3, SA, SA1; contact: Qualcomm) SA2
LSin REL-12 FS_LTE_D2D_Prox
conclusion: LS will be treated under AI 13.4.3

RP-140012 LS on ProSe Out of Coverage discovery
(S2-140560; to: RAN, RAN1, RAN2, RAN3, RAN4; cc: SA; contact: Deutsche Telekom) SA2
LSin REL-12 ProSe
conclusion: LS will be treated under AI 13.4.3

Group Communication:

RP-140013 LS on error handling in eMBMS
(S2-140563; to: RAN, RAN2, RAN3; cc: -; contact: Motorola Solutions) SA2
LSin REL-12 FS_LTE_GC
conclusion: LS will be treated under AI 13.4.9

RP-140335 LS on choice of scheduling period for MBMS
(S2-140844; to: RAN2, RAN3; cc: RAN; contact: Airbus) SA2
LSin REL-12 GCSE_LTE, FS_LTE_GC
conclusion: LS will be treated under AI 13.4.9

Smart Congestion Mitigation:

RP-140004 Reply LS to R2-134601 = RP-131416 on Prioritization of MMTEL-voice
(S1-140330; to: RAN2; cc: RAN; CT1; contact: NTT DOCOMO) SA1
LSin REL-12 FS_SCM_LTE
conclusion: LS will be treated under 13.4.10

PWS service restoration:

RP-140464 LS on LS on PWS service restoration (CP-140199; to: RAN; cc: CT4, CT1, RAN3; contact: Alcatel-Lucent) CT LSin REL-12 REP_WMD-RFR_PWS-Core
LS received on Tue of RAN #63
conclusion: LS will be treated under AI 11.7.5

ITU-R:

RP-140480 LS with Comments from CT on LS from ITU-R WP5D/TEMP/347 Rev.2 = RP-140402 on "Architecture and Topology of IMT Networks"
(CP-140198; to: SA, RAN ITU-R Ad-Hoc; cc: RAN; contact: CT chairman (Ericsson)) CT
LSin - -
LS received on Tue of RAN #63;
conclusion: no RAN action requested; LS will be treated under AI 7.2.2

6.3 TSG RAN WG1, WG2, WG3, WG4, WG5, RAN ITU-R ad hoc

ITU-R M.2012:

RP-140078 3GPP internal LS on the schedule toward Rev. 2 of Rec. ITU-R M.2012 "Detailed specifications of the terrestrial radio interfaces of International Mobile Telecommunications-Advanced (IMT-Advanced)"
(RT-140003; to: RAN, SA; cc: -; contact: Telecom Italia) 3GPP ITU-R Ad Hoc
LSin REL-12 -
conclusion: LS will be treated under AI 7.2.2

RP-140397 Letter to ITU WP5D on Update submission for LTE-Advanced toward Rev. 2 of Rec. ITU-R M.2012
(RT-140002; to: RAN, SA; cc: -; contact: Telecom Italia) 3GPP ITU-R Ad Hoc
LTIin - -
conclusion: LTI will be treated under AI 7.2.2

WLAN interworking:

RP-140399 LS on CN impacts of RAN2 solutions for WLAN/3GPP radio interworking
(R2-141026; to: SA2, RAN; cc: CT1; contact: Intel) RAN2
LSin REL-12 UTRA_LTE_WLAN_interw-Core
conclusion: LS will be treated under AI 11.6.5

Small Cell Enhancements:

RP-140020 Reply LS to S2-140537 = RP-140011 on system aspects for Small Cell Enhancement work in RAN
(R2-140999; to: SA2; cc: SA, SA3, RAN, RAN3, CT4, SA5; contact: Huawei) RAN2
LSin REL-12 LTE_SC_enh_dualC-Core
conclusion: LS will be treated under AI 11.7.13

RP-140023 Reply LS to S2-140537 = RP-140011 on system aspects for Small Cell Enhancement work in RAN
(R3-140486; to: SA2; cc: SA, SA3, RAN, RAN2, CT4, SA5; contact: Huawei) RAN3
LSin REL-12 LTE_SC_enh_dualC-Core
conclusion: LS will be treated under AI 11.7.13

RP-140024 LS on BS classes and maximum BS power on 256QAM
(R4-141254; to: RAN; cc: RAN1; contact: Huawei) RAN4
LSin REL-12 LTE_SC_enh_L1-Core
conclusion: LS will be treated under AI 11.7.12

Proximity-based Services (ProSe):
RP-140017 Reply LS to S2-140560 = RP-140012 on ProSe Out of Coverage discovery
(R1-140950; to: RAN; cc: RAN2, RAN3, RAN4, SA, SA2; contact: Ericsson) RAN1
LSin REL-12 ProSe
conclusion: LS will be treated under AI 13.4.3

Group Communication:
RP-140022 Reply LS to S2-140563 = RP-140013 on error handling in eMBMS
(R3-140460; to: SA2; cc: RAN, RAN2, CT4; contact: NSN) RAN3
LSin REL-12 FS_LTE_GC
conclusion: LS will be treated under AI 13.4.9

RP-140398 Reply LS to S2-140563 on Error Handling in eMBMS
(R2-141020; to: SA2; cc: RAN, RAN3; contact: Alcatel-Lucent) RAN2
LSin REL-12 GCSE_LTE, FS_LTE_GC
conclusion: LS will be treated under AI 13.4

Smart Congestion Mitigation:
RP-140021 LS on MMTEL and SMS prioritization
(R2-141005; to: CT1; cc: SA1, RAN; contact: NTT DOCOMO) RAN2
LSin REL-12 FS_SCM_LTE
conclusion: LS will be treated under 13.4.10

Low cost MTC:
RP-140018 Reply LS to R2-134596 on mobility support for LC MTC UEs and MTC coverage enhancement
(R1-141029; to: RAN2; cc: RAN4, RAN; contact: Vodafone) RAN1
LSin REL-12 LC_MTC_LTE-Core
conclusion: LS will be treated under AI 11.7.8

CoMP:
RP-140019 LS on Inter-eNB CoMP for LTE
(R1-141048; to: RAN3; cc: RAN; contact: Samsung) RAN1
LSin REL-12 COMP_LTE_IeNB-Core
conclusion: LS will be treated under AI 11.7.14

UE categories:
RP-140016 LS on introduction of new UE categories
(R1-140898; to: RAN2; cc: RAN; contact: Huawei) RAN1
LSin REL-11 LTE_CA_enh-Core
conclusion: LS will be treated under AI 15.

7 ITU-R Ad hoc

7.1 Status report

RP-140026 Status Report ITU-R Ad hoc ITU-R Ad hoc Contact (Telecom Italia) Report
conclusion: noted

7.2 Submission to ITU-R

7.2.1 Submission to ITU-R WP5A

RP-140015 LS on INVITATION TO REVIEW THE PROPOSED REVISIONS OF RECOMMENDATIONS ITU-R M.2015 AND ITU-R M.2009: Frequency arrangements for PPDR radiocommunication systems in UHF bands in accordance with Resolution 646 (Rev.WRC-12) and Radio interface standards for use by PPDR operations in some parts of the UHF band in accordance with Resolution 646 (Rev.WRC-12) (ITU-R WP5A/TEMP/179R1; to: 3GPP, 3GPP RAN, 3GPP2, APCO, APT Preparatory Group (APG) , ARIB, ATIS, AWG, CCSA, CDG, ETSI, ETSI SC EMTEL, ETSI TC ERM, ETSI TC TETRA, GSMA, IEEE, OASIS, TIA, TIA TR-45, TIA TR-45.5, TIA TR-8, TIA TR-8.8, TTA, UMTS Forum, and WiMAX Forum; cc: -; contact: Counsellor ITU-R WP5A) ITU-R WP5A
LSin - -
This LS was handled at SA #62 in SP-130682; no explicit RAN action requested;
conclusion: noted, no LS answer

7.2.2 Submission to ITU-R WP5D

ITU-R M.2012:

RP-140078 3GPP internal LS on the schedule toward Rev. 2 of Rec. ITU-R M.2012 "Detailed specifications of the terrestrial radio interfaces of International Mobile Telecommunications-Advanced (IMT-Advanced)" (RT-140003; to: RAN, SA; cc: -; contact: Telecom Italia) 3GPP ITU-R Ad Hoc
LSin REL-12 -
RAN action requested; proposal on which version of Rel-12 specs to be submitted to ITU-R WP5D: Dec. 2014 version;
note: RT-140003 was also provided to CT and SA
conclusion: noted, no LS answer from RAN to 3GPP ITU-R adhoc.
RAN endorsed to take REL-12 Dec.2014 version for final ITU-R submission for rev.2 of Rec. ITU-R M.2012;
after endorsement by RAN, CT and SA, ITU-R Ad Hoc will prepare an input to PCG to be approved at PCG#32.

RP-140397 Letter to ITU WP5D on Update submission for LTE-Advanced toward Rev. 2 of Rec. ITU-R M.2012 (RT-140002; to: RAN, SA; cc: -; contact: Telecom Italia) 3GPP ITU-R Ad Hoc
LTIin - -
RAN action requested; contains an overview of the contents of 3GPP Rel-12; after RAN review, RAN provides feedback to SA which then provides feedback to PCG; final version approved by PCG #32 will be submitted to ITU-R WP5D by ATIS on behalf of 3GPP OPs
conclusion: noted, no answer to 3GPP ITU-R ad hoc;
final LTI (source RAN) for SA is prepared in RP-140479 by Telecom Italia

RP-140479 Letter to ITU WP5D on Update submission for LTE-Advanced toward Rev. 2 of Rec. ITU-R M.2012 (to: SA; cc: -; contact: Telecom Italia) RAN
conclusion: approved, will be forwarded to SA by MCC and SA will submit an LTI to PCG, final submission to ITU-R by ATIS on behalf of 3GPP OPs.

IMT above 6GHz:

RP-140401 LS on TECHNICAL FEASIBILITY OF IMT IN THE BANDS ABOVE 6 GHz (ITU-R WP5D/TEMP/378 Rev.2; to: 3GPP, 3GPP2, ARIB, ATIS, CCSA, ETSI, IEEE, ITRI, TIA, TTA, TTC, WiMax Forum; , WWRF, 4G Americas, CDG, GSMA, UMTS Forum, Wi-Fi Alliance, Wireless Innovation Forum, XGP Forum, METIS Project; cc: -; contact: Counselor ITU-R SG5) ITU-R WP5D
LSin - -
no explicit RAN action requested;
conclusion: noted, Telecom Italia drafted a short answer in RP-140478

RP-140478 Draft reply LS to RP-140401 on technical feasibility of IMT in the bands above 6GHz (to: ITU-R WP5D; cc: -; contact: Telecom Italia) Telecom Italia LSout - -
conclusion: no comments, revised in RP-140482 to provided final LSout

RP-140482 Reply LS to ITU-R WP5D/TEMP/378 Rev.2 = RP-140401 on technical feasibility of IMT in the bands above 6GHz (to: ITU-R WP5D; cc: -; contact: Telecom Italia)RAN LSout - -
revision of RP-140478
conclusion: approved, RP-140482 will be sent to ITU-R WP5D via MCC

Architecture/topology of IMT networks:

RP-140402 LS on ARCHITECTURE AND TOPOLOGY OF IMT NETWORKS
(ITU-R WP5D/TEMP/347 Rev.2; to: 3GPP, 3GPP2, ARIB, ATIS, CCSA, ETSI, IEEE, ITRI, TIA, TTA, TTC, WiMax Forum, WWRF, 4G Americas, CDG, GSMA, UMTS Forum, Wi-Fi Alliance, Wireless Innovation Forum, XGP Forum, METIS Project; cc: - ; contact: Counselor ITU-R SG5) ITU-R WP5D
LSin - -
RAN action requested; LS was also provided to CT and SA; deadline for submission from 3GPP to ITU-R is June 2014 so 3GPP RAN needs to work by correspondence, in coordination with CT and SA
conclusion: noted, answer is postponed: use REL-11 as basis, answer will be prepared on ITU-R ad hoc reflector, approval by correspondence by May 31st (TSG RAN, CT and SA #64) and by 6th June (PCG)

RP-140480 LS with Comments from CT on LS from ITU-R WP5D/TEMP/347 Rev.2 = RP-140402 on "Architecture and Topology of IMT Networks"
(CP-140198; to: SA, RAN ITU-R Ad-Hoc; cc: RAN; contact: CT chairman (Ericsson)) CT
LSin - -
LS received on Tue of RAN #63; no RAN action requested;
discussion: AT&T: response to ITU-R will include spec text and not just questions?
Telecom Italia: yes, will include a description of architecture
AT&T: text that can be pasted into ITU template would be useful
Ericsson: we thought to have a stage 2 like description
SA2 chair: input also from SA2?
Telecom Italia: RP-140402 will also be presented to SA and SA input is of course appreciated; discussion will take place on ITU-R ad hoc reflector
conclusion: noted, no LS answer from RAN to CT

7.2.3 Other ITU-R submission

No contributions

8 RAN WGs: WG Status Reports & CR Approvals up to Rel-10

8.1 TSG RAN WG1

8.1.1 Report from RAN WG1 including report on actions required from the previous meeting

RP-140027 Status Report RAN WG1 RAN1 chairman (NTT DOCOMO) Report
discussion: Ericsson: slide 9: some discussions ocurred also about D2D completion level, several open issues not listed in the status report
Ericsson: slide 32 and onwards: we should consider that RAN1 is really overloaded and working already with several ad hoc sessions
RAN1 chair: yes, we skipped some lunches and dinners and have to be careful here
RAN chair: we really need to be careful when we discuss new WIs/SIs later this week, completion of REL-12 should be the focus
Ericsson: same problem exists also on UMTS side that allocated budgets are exceeded by far
LG: esp. for bigger topics we should take care that we do not overspend so much
ZTE: would like to check with RAN leaders how this should be handled in the future (we need to distinguish main meeting TUs and ad hoc TUs)
RAN chair: we will not introduce ad hoc TUs
Sprint: do the figures include ad hoc time?
RAN1 chair: no, fig. 32 includes only online time
Sprint: but this means that e.g. we spent 5 TUs more than planned
RAN chair: this information should be taken into account when we approve new WIs/SIs
Sprint: how should this flexibility be handled?
RAN chair: up to discretion of the chairman, we need to check if overspending happens multiple times
conclusion: noted

RP-140028 List of CRs from RAN WG1 ETSI MCC Info
conclusion: noted

8.1.2 Discussions on decisions from RAN WG1

No contributions.

8.1.3 Approval of CRs to REL-7 WIs and WIs of previous releases

RP-140285 CRs to 25.212 to correct HS-SCCH special information mapping for HS-SCCH less HSDPA RAN1 CR 25.212 set REL-7 RANimp-CPC
conclusion: approved

8.1.4 Approval of CRs to Rel-8 WIs

RP-140286 CRs to 36.211 and 36.213 related to LTE-Phys RAN1 CR set REL-12 LTE-Phys, TEI12
conclusion: approved

8.1.5 Approval of CRs to Rel-9 WIs

RP-140287 CRs to 36.213 to clarify Common search space monitoring for MBMS RAN1 CR 36.213 set REL-11 MBMS_LTE, TEI11
conclusion: approved

8.1.6 Approval of CRs to Rel-10 WIs

RP-140288 CRs to 36.213 to remove configuration index for trigger type 1 SRS and TDD RAN1 CR 36.213 set REL-10 LTE_UL_MIMO-Core
conclusion: approved

RP-140409 CRs to 25.214 to clarify (de-)activation of secondary carriers when change of HS-DSCH cells RAN1 CR 25.214 set REL-10 4C_HSDPA-Core
conclusion: approved

8.1.7 Approval of linked CR packages led by RAN WG1

No contributions.

8.2 TSG RAN WG2

8.2.1 Report from RAN WG2 including report on actions required from the previous meeting

RP-140029 Status Report RAN WG2 RAN2 chairman (Ericsson) Report
discussion: RAN chair: we have to realize that a lot of WIs will just finish in Sep.
LG: are you proposing to shift the stage 3 freeze to Sep.14?
RAN chair: we will discuss this later this week but what is clear is that this will not be an invitation to include more work
Broadcom: target date was agreed at last SA to be June 14 so we will see some more exception sheets in June but no need to shift the stage 3 target
RAN chair: in June we will not approve anything new for REL-12 that's clear
conclusion: noted

RP-140030 List of CRs from RAN WG2 ETSI MCC Info
conclusion: noted

8.2.2 Discussions on decisions from RAN WG2

No contributions.

8.2.3 Approval of CRs to REL-7 WIs and WIs of previous releases

RP-140336 RAN2 agreed CRs on Introducing 'General' clause with note referring to notes in clause 4.4 in TS25.101 and TS25.102, editorial modifications to Scope clause RAN2 CR 25.307 set REL-4 TEI4
conclusion: approved

RP-140337 RAN2 agreed CR on Correction of HS-SCCH Order for CPC DTXDRX (De)activation in Multiflow Mode RAN2 CR 25.308 0156 - C REL-11 RANimp-CPC, HSDPA_MFTX-Core
conclusion: approved

RP-140338 RAN2 agreed CR on Correction to integer code phase field description in UE positioning GANSS reference measurement information RAN2 CR 25.331 5564 - F REL-12 TEI12, LCS3-GNSS-UTRAN
conclusion: approved

8.2.4 Approval of CRs to Rel-8 WIs

RP-140339 RAN2 agreed CR on Clarification to GANSS Day RAN2 CR 25.331 5547 1 F REL-8 RANimp-ANSS, TEI12
conclusion: approved

RP-140340 RAN2 agreed CRs on LTE – Radio Interface Layer 2 and 3 Protocol Aspect RAN2 CR 36.331 set REL-8 LTE-L23, TEI11
conclusion: approved

8.2.5 Approval of CRs to Rel-9 WIs

RP-140341 RAN2 agreed CRs on Renumbering and storage of IEs for secondary DL serving cells RAN2 CR 25.331 set REL-9 4C_HSDPA-Core, TEI10, RANimp-DC_HSUPA
conclusion: approved

RP-140342 RAN2 agreed CR on Clarification to gnss-DayNumber RAN2 CR 36.355 0112 1 F REL-12 LCS_LTE, TEI12
conclusion: approved

RP-140343 RAN2 agreed CR on Clarification on MBMS prioritisation for DL only carrier RAN2 CR 36.304 0231 - F REL-10 MBMS_LTE, LTE_CA-Core, TEI10
conclusion: approved

RP-140344 RAN2 agreed CR on Update to UE radio bearer test mode for CSG proximity testing RAN2 CR 34.109 set REL-9 TEI9_Test
conclusion: approved

8.2.6 Approval of CRs to Rel-10 WIs

RP-140345 RAN2 agreed CRs on Activation status for newly added secondary serving HS-DSCH cells RAN2 CR 25.331 set REL-10 4C_HSDPA-Core
conclusion: approved

RP-140346 RAN2 agreed CR on UE autonomous modification of cellsTriggered upon serving cell addition/ release RAN2 CR 36.331 1435 - F REL-12 LTE_CA-Core, TEI12
conclusion: approved

RP-140347 RAN2 agreed CRs on Introduction of Cell_FACH with Second DRX to 3G Logged MDT RAN2 CR set B REL-12 TEI12, Cell_FACH_enh-Core, MDT_UMTSLTE-Core
conclusion: approved

8.2.7 Approval of linked CR packages led by RAN WG2

No contributions.

8.3 TSG RAN WG3

8.3.1 Report from RAN WG3 including report on actions required from the previous meeting

RP-140031 Status Report RAN WG3 RAN3 chairman (Huawei) Report
discussion: NSN: slide 26: IMEI SV was discussed as a method of early UE handling; now coming just as TEI12 topic; will come back to this later in the week but would like to warn companies
RAN3 chairman: we approved already a similar CR for UTRAN but we will come back to this
conclusion: noted

RP-140032 List of CRs from RAN WG3 ETSI MCC Info
conclusion: noted

8.3.2 Discussions on decisions from RAN WG3

No contributions.

8.3.3 Approval of CRs to REL-7 WIs and WIs of previous releases

No contributions.

8.3.4 Approval of CRs to Rel-8 WIs

No contributions.

8.3.5 Approval of CRs to Rel-9 WIs

No contributions.

8.3.6 Approval of CRs to Rel-10 WIs

No contributions.

8.3.7 Approval of linked CR packages led by RAN WG3

No contributions.

8.4 TSG RAN WG4

8.4.1 Report from RAN WG4 including report on actions required from the previous meeting

RP-140033 Status Report RAN WG4 RAN4 chairman (NSN) Report
discussion: Qualcomm: slide 49: RRM capacity issue: what rapporteurs were requesting is different from what was used (we may need more time in the future); for small cell enhancement whole design needed before we start work on core requirements otherwise it would be inefficient
RAN chair: TUs are planned up to completion of a WI/SI but of course we can revisit a previous decision if needed
conclusion: noted

RP-140034 List of CRs from RAN WG4 ETSI MCC Info
conclusion: noted

8.4.2 Discussions on decisions from RAN WG4

No contributions.

8.4.3 Approval of CRs to REL-7 WIs and WIs of previous releases

No contributions.

8.4.4 Approval of CRs to Rel-8 WIs

RP-140366 RAN4 CRs to Rel-8 Wis RAN4 CR 36.307 set REL-8 TEI8
conclusion: approved

8.4.5 Approval of CRs to Rel-9 WIs

RP-140367 RAN4 CRs to Rel-9 WIs RAN4 CR set REL-9 EHNB-RAN2, LCS_LTE, RInImp9-Rfmulti, TEI9
conclusion: approved

8.4.6 Approval of CRs to Rel-10 WIs

RP-140368 RAN4 CRs to Rel-10 WIs RAN4 CR set REL-10 LTE_CA-Core, LTE_CA-Perf, MSR_NC-Core, MSR_NC-Perf, LTE-RF, TEI10
conclusion: approved

8.4.7 Approval of linked CR packages led by RAN WG4

No contributions.

8.5 TSG RAN WG5

8.5.1 Report from RAN WG5 including report on actions required from the previous meeting

RP-140035 Status Report RAN WG5 RAN5 Chairman (Sprint) Report
conclusion: noted

RP-140036 List of CRs from RAN WG5 ETSI MCC Info
conclusion: noted

RP-140037 Status Report MCC TF160 (for Approval) MCC TF160 Leader Report
presented by RAN5 chairman
conclusion: approved

8.5.2 Discussions on decisions from RAN WG5

No contributions.

8.5.3 Approval of CRs to closed WIs of REL-10 and previous releases

RP-140302 RAN5 agreed non TTCN CR(s) under WI Small Technical Enhancements and Improvements for Rel 99 Conformance Testing(TEI_Test) RAN5 CR set F R99 TEI_Test
conclusion: approved

RP-140303 RAN5 agreed non TTCN CR(s) under WI Small Technical Enhancements and Improvements for Rel-7 Conformance Testing(TEI4_Test) RAN5 CR set F REL-4 TEI4_Test
conclusion: approved

RP-140304 RAN5 agreed non TTCN CR(s) under WI Small Technical Enhancements and Improvements for Rel-7 Conformance Testing(TEI7_Test) RAN5 CR set F REL-7 TEI7_Test
conclusion: approved

RP-140305 RAN5 agreed non TTCN CR(s) under WI Small Technical Enhancements and Improvements for Rel-8 Conformance Testing(TEI8_Test) (Batch 1) RAN5 CR set F REL-8 TEI8_Test
conclusion: approved

RP-140306 RAN5 agreed non TTCN CR(s) under WI Small Technical Enhancements and Improvements for Rel-8 Conformance Testing(TEI8_Test) (Batch 2) RAN5 CR set F REL-8 TEI8_Test
conclusion: approved

RP-140307 RAN5 agreed non TTCN CR(s) under WI Small Technical Enhancements and Improvements for Rel-8 Conformance Testing(TEI8_Test) (Batch 3) RAN5 CR set F REL-8 TEI8_Test
conclusion: approved

RP-140308 RAN5 agreed non TTCN CR(s) under WI Small Technical Enhancements and Improvements for Rel-9 Conformance Testing(TEI9_Test) (Batch 1) RAN5 CR set F REL-9 TEI9_Test
conclusion: approved

RP-140309 RAN5 agreed non TTCN CR(s) under WI Small Technical Enhancements and Improvements for Rel-9 Conformance Testing(TEI9_Test) (Batch 2) RAN5 CR set F REL-9 TEI9_Test
conclusion: approved

RP-140312 CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A RAN5 CR 34.229-3 0159 - F REL-10 TEI10_Test
conclusion: approved

RP-140319 RAN5 agreed non TTCN CR(s) under WI Small Technical Enhancements and Improvements for Rel-10 Conformance Testing (TEI10_Test) (Batch 1) RAN5 CR set F REL-10 TEI10_Test
conclusion: approved

RP-140320 RAN5 agreed non TTCN CR(s) under WI Small Technical Enhancements and Improvements for Rel-10 Conformance Testing (TEI10_Test) (Batch 2) RAN5 CR set F REL-10 TEI10_Test
conclusion: approved

8.5.4 Approval of linked CR packages led by RAN WG5

RP-140311 CR to 34.123-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.123-3 (TTCN), Annex A RAN5 CR 34.123-3 set F/B REL-11 TEI6_Test, TEI8_Test, TEI9_Test
TTCN batch; 20 Test Cases
conclusion: approved

RP-140313 CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (TTCN), Annex A RAN5 CR 34.229-3 set F/B REL-8 TEI8_Test, TEI9_Test
TTCN batch; 22 Test Cases
conclusion: approved

RP-140316 CR to 37.751-4: Add new verified and e-mail agreed TTCN test cases in the TC lists in 37.571-4 (prose), Annex A RAN5 CR 37.571-4 0028 - F REL-10 TEI10_Test
conclusion: approved

RP-140317 CR to 37.571-4: Add new verified and e-mail agreed TTCN test cases in the TC lists in 37.571-4 (TTCN), Annex A RAN5 CR 37.571-4 set F/B REL-9 TEI9_Test
TTCN batch; 4 Test Cases
conclusion: approved

9 Conformance Testing Work Items

9.0 Closed Rel-11 work items

Note: For earlier releases see 8.5.

No contributions.

9.1 Open Rel-10 work items

9.1.1 UE Conformance Test part - Enhanced ICIC for non-CA based deployments of heterogeneous networks for LTE [eICIC_LTE-UEConTest]

RP-140215 Status report for WI UE Conformance Test Aspects - Enhanced ICIC for non-CA based deployments of heterogeneous networks for LTE; rapporteur: Qualcomm RAN5 Report REL-10 eICIC_LTE-UEConTest
conclusion: noted, approved: 90%, June 14

RP-140318 RAN5 agreed non TTCN CR(s) under WI Conformance Test part - Enhanced ICIC for non-CA based deployments of heterogeneous networks for LTE (eICIC_LTE-UEConTest) RAN5 CR set F REL-10 eICIC_LTE-UEConTest
conclusion: revised in RP-140435 (R5-140277 replaced by R5-141047 (email agreement result))

RP-140435 RAN5 agreed non TTCN CR(s) under WI Conformance Test part - Enhanced ICIC for non-CA based deployments of heterogeneous networks for LTE (eICIC_LTE-UEConTest) RAN5 CR set F REL-10 eICIC_LTE-UEConTest
conclusion: approved

9.2 Open Rel-11 work items

9.2.1 UE Conformance Test Aspects for UE Over the Air (Antenna) conformance testing methodology – Laptop Mounted Equipment Free Space Test
[UEAnt_FSTest-UEConTest]

RP-140088 Status report for WI: UE Conformance Test Aspects for UE Over the Air (Antenna) conformance testing methodology - Laptop Equipment Free Space Test; rapporteur: ZTE RAN5 Report REL-11 UEAnt_FSTest_UEConTest
conclusion: noted, approved: 94%, June 14

9.2.2 UE Conformance Test Aspects - Service continuity im provements for MBMS for LTE
[MBMS_LTE_SC-UEConTest]

RP-140074 Status report for WI: UE Conformance Test Aspects for Service continuity improvements for MBMS for LTE; rapporteur: Ericsson RAN5 Report REL-11 MBMS_LTE_SC-UEConTest
conclusion: noted, approved: 100%, March 14; WI completed

RP-140321 RAN5 agreed non TTCN CR(s) under WI UE Conformance Test Aspects - Service continuity im provements for MBMS for LTE (MBMS_LTE_SC-UEConTest) RAN5 CR set F REL-11 MBMS_LTE_SC-UEConTest
conclusion: approved

9.2.3 UE Conformance Test Aspects - Coordinated Multi-Point Operation for LTE
[COMP_LTE-UEConTest]

RP-140138 Status report for WI UE Conformance Test Aspects - Coordinated Multi-Point Operation for LTE; rapporteur: Samsung RAN5 Report REL-11 COMP_LTE-UEConTest
conclusion: noted, approved: 50%, Sep.14

RP-140322 RAN5 agreed non TTCN CR(s) under WI UE Conformance Test Aspects - Coordinated Multi-Point Operation for LTE (COMP_LTE-UEConTest) RAN5 CR set F REL-11 COMP_LTE-UEConTest
conclusion: approved

9.2.4 UE Conformance Test Aspects - Enhanced downlink control channel(s) for LTE
[LTE_enh_dl_ctrl-UEConTest]

RP-140063 Status report for WI: UE Conformance Test Aspects - Enhanced downlink control channel(s) for LTE; rapporteur: Huawei RAN5 Report REL-11 LTE_enh_dl_ctrl-UEConTest
conclusion: noted, approved: 85%, June 14

RP-140323 RAN5 agreed non TTCN CR(s) under UE Conformance Test Aspects - Enhanced downlink control channel(s) for LTE (LTE_enh_dl_ctrl-UEConTest) RAN5 CR set F REL-11 LTE_enh_dl_ctrl-UEConTest
conclusion: approved

9.2.5 UE Conformance Test Aspects – Uplink Transmit Diversity (ULTD) for HSPA
[HSPA_UL_TxDiv-UEConTest]

RP-140216 Status report for WI UE Conformance Test Aspects – Uplink Transmit Diversity (ULTD) for HSPA; rapporteur: Qualcomm RAN5 Report REL-11 HSPA_UL_TxDiv-UEConTest
conclusion: noted, approved: 80%, June 14

RP-140324 RAN5 agreed non TTCN CR(s) under WI UE Conformance Test Aspects – Uplink Transmit Diversity (ULTD) for HSPA (HSPA_UL_TxDiv-UEConTest) RAN5 CR set F REL-11 HSPA_UL_TxDiv-UEConTest
conclusion: approved

9.2.6 UE Conformance Test Aspects – Further Enhanced Non-CA based ICIC for LTE [eICIC_enh_LTE-UEConTest]

RP-140089 Status report for WI: UE Conformance Test Aspects - Further Enhanced Non CA-based ICIC for LTE; rapporteur: ZTE RAN5 Report REL-11 eICIC_enh_LTE-UEConTest
conclusion: noted, approved: 80%, June 14

RP-140325 RAN5 agreed non TTCN CR(s) under UE Conformance Test Aspects – Further Enhanced Non-CA based ICIC for LTE (eICIC_enh_LTE-UEConTest) RAN5 CR set F REL-11 eICIC_enh_LTE-UEConTest
conclusion: approved

9.2.7 UE Conformance Test Aspects - Improved Minimum Performance Requirements for E-UTRA: Interference Rejection [LTE_Interf_Rej-UEConTest]

RP-140135 Status report for WI: UE Conformance Test Aspects - Improved Minimum Performance Requirements for E-UTRA: Interference Rejection; rapporteur: Broadcom RAN5 Report REL-11 LTE_Interf_Rej-UEConTest
conclusion: noted, approved: 60%, Sep. 14 (due to revised WID RP-140491); (rapporteur was changed from Renesas to Broadcom in RP-131809)

RP-140326 RAN5 agreed non TTCN CR(s) WI UE Conformance Test Aspects - Improved Minimum Performance Requirements for E-UTRA: Interference Rejection (LTE_Interf_Rej-UEConTest) RAN5 CR set F REL-11 LTE_Interf_Rej-UEConTest
conclusion: approved

RP-140136 Revised WID: UE Conformance Test Aspects - Improved Minimum Performance Requirements for E-UTRA: Interference Rejection Broadcom Corporation WID rev RAN5 REL-12 LTE_Interf_Rej-UEConTest
last approved WID: RP-131809
conclusion: revised in RP-140459 to remove Renesas from supporting companies

RP-140459 Revised WID: UE Conformance Test Aspects - Improved Minimum Performance Requirements for E-UTRA: Interference Rejection Broadcom Corporation WID rev RAN5 REL-12 LTE_Interf_Rej-UEConTest
revision of RP-140136; last approved WID: RP-131809;
conclusion: revised in RP-140491
Note: RP-140459 was originally approved but since RP-140459 existed in 2 versions (misused by another company), it is revised in RP-140491.

RP-140491 Revised WID: UE Conformance Test Aspects - Improved Minimum Performance Requirements for E-UTRA: Interference Rejection Broadcom Corporation WID rev RAN5 REL-12 LTE_Interf_Rej-UEConTest
revision of RP-140459 (as it existed twice); last approved WID: RP-131809
conclusion: approved (without further presentation)

9.2.8 UE Conformance Test Aspects – LTE Carrier Aggregation Enhancements [LTE_CA_enh-UEConTest]

RP-140139 Status Report for UE Conformance Test Aspects - LTE Carrier Aggregation Enhancements, rapporteur: Nokia Corporation RAN5 Report REL-11 LTE_CA_enh-UEConTest
conclusion: noted, approved: 30%, June 14

RP-140327 RAN5 agreed non TTCN CR(s) WI UE Conformance Test Aspects – LTE Carrier Aggregation Enhancements (LTE_CA_enh-UEConTest) RAN5 CR set F REL-11 LTE_CA_enh-UEConTest
conclusion: approved

9.2.9 UE Conformance Test Aspects – Further Enhancements to CELL-FACH [Cell_FACH_enh-UEConTest]

RP-140076 Status report for WI: UE Conformance Test Aspects for Further Enhancements to CELL-FACH; rapporteur: Ericsson RAN5 Report REL-11 Cell_FACH_enh-UEConTest
proposal: 25%, Sep.14
discussion: MCC: late submission
conclusion: noted, approved: 25%, Sep.14

RP-140328 RAN5 agreed non TTCN CR(s) WI UE Conformance Test Aspects – Further Enhancements to CELL-FACH (Cell_FACH_enh-UEConTest) RAN5 CR set F REL-11 Cell_FACH_enh-UEConTest
conclusion: approved

9.2.10 UE Conformance Test Aspects - System Improvements for Machine-Type Communications [SIMTC-UEConTest]

RP-140075 Status report for WI: UE Conformance Test Aspects for System Improvements for Machine-Type Communications; rapporteur: Ericsson RAN5 Report REL-11 SIMTC-UEConTest
conclusion: noted, approved: 100%, March 14; WI completed

RP-140329 RAN5 agreed non TTCN CR(s) WI UE Conformance Test Aspects - System Improvements for Machine-Type (SIMTC-UEConTest) RAN5 CR set F REL-11 SIMTC-UEConTest
conclusion: revised in RP-140436 (R5-140944, R5-140945, R5-140952 replaced by R5-141135, R5-141136, R5-141137 (test numbering conflict on already meeting agreed CRs))

RP-140436 RAN5 agreed non TTCN CR(s) WI UE Conformance Test Aspects - System Improvements for Machine-Type (SIMTC-UEConTest) RAN5 CR set F REL-11 SIMTC-UEConTest
conclusion: approved

RP-140077 Revised WID: UE Conformance Test Aspects - System Improvements for Machine-Type Communications Ericsson WID rev RAN5 REL-11 SIMTC-UEConTest
last approved WID: RP-131341; addition of TS 36.508
conclusion: approved

9.2.11 UE Conformance Test Aspects - HSDPA Multiflow Data Transmission
[**New WI:** HSDPA_MFTX-UEConTest]

RP-140217 Status report for WI UE Conformance Test Aspects - HSDPA Multiflow Data Transmission; rapporteur: Qualcomm RAN5 Report REL-11 HSDPA_MFTX-UEConTest
conclusion: noted, approved: 5%, Dec.14

RP-140330 RAN5 agreed non TTCN CR(s) WI UE Conformance Test Aspects – HSDPA Multiflow Data Transmission (HSDPA_MFTX-UEConTest]) RAN5 CR set F REL-11 HSDPA_MFTX-UEConTest
conclusion: approved

9.2.12 UE Conformance Test Aspects - Split TTCN Test Models for IMS testing in TS 34.229-3
[**New WI:** IMS-CCR_Test2]

RP-140086 Status report for WI: UE Conformance Test Aspects - Split TTCN Test Models for IMS testing in TS 34.229-3; rapporteur: Spirent Communications RAN5 Report REL-11 IMS-CCR_Test2
conclusion: noted, approved: 90%, June 14

RP-140082 Revised WID: UE Conformance Test Aspects - Split TTCN Test Models for IMS testing in TS 34.229-3 Spirent Communications WID rev RAN5 REL-11 IMS-CCR_Test2
last approved WID: RP-132017; update to specification details including name and number
conclusion: revised in RP-140440

RP-140440 Revised WID: UE Conformance Test Aspects - Split TTCN Test Models for IMS testing in TS 34.229-3 Spirent Communications WID rev RAN5 REL-11 IMS-CCR_Test2
last approved WID: RP-132017; revision of RP-140082
conclusion: approved

RP-140091 TS 34.229-4 on Enabler for IP multimedia applications testing for approval Spirent Communications TS 34.229-4 RAN5 REL-11 IMS-CCR_Test2
RAN5 TS 34.229-4 is submitted for 1-step-approval

conclusion: withdrawn since wrong v2.0.0 was used and it was decided to present it just for information; see RP-140301 instead

RP-140301 TS 34.229-4 v1.0.0 on Internet Protocol (IP) multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); User Equipment (UE) conformance specification; Part 4: Enabler for IP multimedia applications testing; for information Spirent Communications TS 34.229-4 RAN5 REL-11 IMS-CCR_Test2
RAN5 TS 34.229-4 is submitted for information
conclusion: noted

9.2.13 Conformance Test Aspects: Small Technical Enhancements and Improvements for Rel-11 [TEI11_Test]

RP-140310 CR to 34.123-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.123-3 (prose), Annex A RAN5 CR 34.123-3 3153 - F REL-11 TEI11_Test
conclusion: approved

RP-140314 CR to 36.523-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 36.523-3 (prose), Annex A RAN5 CR 36.523-3 1980 - F REL-11 TEI11_Test
conclusion: approved

RP-140315 CR to 36.523-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 36.523-3 (TTCN), Annex A RAN5 CR 36.523-3 set F/B REL-11 TEI8_Test, TEI9_Test, TEI10_Test
TTCN batch; 83 Test Cases
conclusion: approved

RP-140331 RAN5 agreed non TTCN CR(s) under WI Small Technical Enhancements and Improvements for Rel-11 Conformance Testing (TEI11_Test) RAN5 CR set F REL-11 TEI11_Test
conclusion: approved

9.3 Open Rel-12 work items

9.3.1 UE Conformance Test Aspects – Further REL-12 Configurations for LTE Advanced Carrier Aggregation [LTE_CA_Rel12-UEConTest]

RP-140141 Status Report for UE Conformance Test Aspects for Further REL-12 Configurations for LTE Advanced Carrier Aggregation, rapporteur: Nokia Corporation RAN5 Report REL-12 LTE_CA_Rel12-UEConTest
conclusion: noted, approved: 20%, Sep. 14

RP-140332 RAN5 agreed non TTCN CR(s) under WI UE Conformance Test Aspects – Further REL-12 Configurations for LTE Advanced Carrier Aggregation (LTE_CA_Rel12-UEConTest) RAN5 CR set F REL-12 LTE_CA_Rel12-UEConTest
conclusion: approved

RP-140147 Revised WID: UE Conformance Test Aspects – Further REL-12 Configurations for LTE Advanced Carrier Aggregation Nokia Corporation WID rev RAN5 REL-12 LTE_CA_Rel12-UEConTest
last approved WID: RP-131770; CA configurations update based on RAN#62 new/terminated CA WIs falling into the scope of this RAN5 WI.
conclusion: revised in RP-140460 to add missing completion date Sep. 14

RP-140460 Revised WID: UE Conformance Test Aspects – Further REL-12 Configurations for LTE Advanced Carrier Aggregation Nokia Corporation WID rev RAN5 REL-12 LTE_CA_Rel12-UEConTest
conclusion: RP-140460 is approved

9.3.2 UE Confomance Test Aspects - SRVCC before ringing (bSRVCC)

[**New WI:** bSRVCC-UEConTest]

RP-140422 Status report for WI UE Confomance Test Aspects - SRVCC before ringing (bSRVCC); rapporteur: NTT DOCOMO RAN5 Report REL-12 bSRVCC-UEConTest
discussion: MCC: late status report

conclusion: noted, approved: 100%, March 14, WI completed

RP-140333 RAN5 agreed non TTCN CR(s) under UE Conformance Test Aspects - SRVCC before ringing (bSRVCC) - (bSRVCC-UEConTest) RAN5 CR set F REL-12 bSRVCC-UEConTest
conclusion: revised in RP-140437 (R5-140967 replaced by R5-141138 (unagreed additional changes in the CR were removed))

RP-140437 RAN5 agreed non TTCN CR(s) under UE Conformance Test Aspects - SRVCC before ringing (bSRVCC) - (bSRVCC-UEConTest) RAN5 CR set F REL-12 bSRVCC-UEConTest
conclusion: approved

9.3.3 Conformance Test Aspects: Small Technical Enhancements and Improvements for Rel-12 [TEI12_Test]

RP-140334 RAN5 agreed non TTCN CR(s) under WI Small Technical Enhancements and Improvements for Rel-12 Conformance Testing (TEI12_Test) RAN5 CR set F REL-12 TEI12_Test
conclusion: approved

10 Work Items with target Rel-11 (not related to conformance testing)

10.1 Closed UTRA only related WIs

RAN2:

RP-140348 RAN2 agreed CRs on Clarification on TSN field extension for Four Branch MIMO RAN2 CR set REL-11 4Tx_HSDPA-Core
conclusion: approved

RP-140350 RAN2 agreed CRs on Radio Bearer mapping for R99 Fallback RAN2 CR 25.331 set REL-11 Cell_FACH_enh-Core
conclusion: approved

RAN4:

RP-140369 RAN4 CRs to Rel-11 Closed UTRA only related WIs RAN4 CR set REL-11 4Tx_HSDPA-Perf, Cell_FACH_enh-Core, Cell_FACH_enh-Perf
conclusion: approved

10.2 Closed UTRA & LTE related WIs

RAN2:

RP-140352 RAN2 agreed CRs on Correction of Connection Establishement Failure Report RAN2 CR set F REL-12 eMDT_UMTSLTE-Core, TEI12
eMDT_UMTSLTE-Core was a REL-11 WI
conclusion: approved

RP-140353 RAN2 agreed CRs on rSRVCC RAN2 CR set REL-11 rSRVCC-GERAN
conclusion: approved

RAN4:

RP-140370 RAN4 CRs to Rel-11 Closed UTRA & LTE related WIs RAN4 CR set REL-11 e850_UB-Core, MB_MSR_RF-Core
conclusion: approved

10.3 Closed LTE related WIs

RAN1:

RP-140289 CR to 36.213 to correct CSI processing in TM10 RAN1 CR 36.213 0457 - F REL-11 COMP_LTE_DL-Core
conclusion: approved

RP-140290 CRs to 36.213 on new UE categories for DL 450Mbps class RAN1 CR 36.213 set REL-11 LTE_CA_enh-Core
conclusion: CR set is treated under AI 15

RAN2:

RP-140349 RAN2 agreed CR on SS and common channel interference handling RAN2 CR 36.306 0170 - F REL-11 eICIC_enh_LTE-Core
AI corrected from AI 10.1 to AI 10.3
conclusion: approved

RP-140351 RAN2 agreed CR on Reporting of User Location Information at E-RAB release RAN2 CR 36.300 0615 - B REL-12 NWK-PL2IMS, TEI12
CR was originally from RAN3; NWK-PL2IMS was a SA REL-11 WI

conclusion: approved

RP-140354 RAN2 agreed CRs on IoT indication for inter-band TDD CA with different UL/DL configuration RAN2 CR set REL-11 LTE_CA_enh-Core
conclusion: approved

RP-140355 RAN2 agreed CRs on Core part: Service continuity improvements for MBMS for LTE RAN2 CR set REL-11 MBMS_LTE_SC-Core
conclusion: approved

RP-140356 RAN2 agreed CRs on Clarification on the presence of TDD special subframe RAN2 CR 36.331 set REL-11 LTE_TDD_add_subframe-Core
conclusion: approved

RAN4:

RP-140371 RAN4 CRs to Rel-11 Closed LTE related WIs RAN4 CR set REL-11 COMP_LTE_DL-Perf, eICIC_enh_LTE-Perf, LTE_B14_PSBB_HPUE-Core, LTE_CA_enh-Core
conclusion: approved

10.4 Open UTRA & LTE related WIs

10.4.1 Perf. part: RF Requirements for Multi-band and Multi-standard Radio (MB-MSR) Base Station [MB_MSR_RF-Perf]

RP-140064 Status report for WI Perf. part: RF Requirements for Multi-band and Multi-standard Radio (MB-MSR) Base Station; rapporteur: Huawei RAN4 Report REL-11 MB_MSR_RF-Perf
conclusion: noted, approved: Perf. part: 100%, March 14; WI completed

RP-140372 RAN4 CRs to RF Requirements for Multi-band and Multi-standard Radio (MB-MSR) Base Station - Perf Part RAN4 CR set REL-11 MB_MSR_RF-Perf
conclusion: approved

10.5 Open LTE only related WIs

10.5.1 Perf. part: Network-Based Positioning Support for LTE [LCS_LTE-NBPS-Perf]

RP-140134 Status report for WI: Perf Part.: Network-Based Positioning Support for LTE; rapporteur: TruePosition RAN4 Report REL-11 LCS_LTE-NBPS-Perf
conclusion: noted, approved: Perf. part: 60%, June 14

RP-140373 RAN4 CRs to Network-Based Positioning Support for LTE - Perf Part RAN4 CR 36.111 0003 1 C REL-11 LCS_LTE-NBPS-Perf
conclusion: approved

10.5.2 Perf. part: LTE Carrier Aggregation Enhancements [LTE_CA_enh-Perf]

RP-140268 Status Report for WI Perf. part: LTE Carrier Aggregation Enhancements; rapporteur: Nokia RAN4 Report REL-11 LTE_CA_enh-Perf
conclusion: noted, approved: 94%, June 14

10.5.3 Perf. part: Enhanced downlink control channel(s) for LTE [LTE_enh_dl_ctrl-Perf]

RP-140172 Status Report for WI: Perf. part: Enhanced downlink control channel(s) for LTE; rapporteur: Alcatel-Lucent RAN4 Report REL-11 LTE_enh_dl_ctrl-Perf
conclusion: noted, approved: 98%, June 14

RP-140374 RAN4 CRs to Enhanced downlink control channel(s) for LTE - Perf PartRAN4 CR 36.101 set REL-11 LTE_enh_dl_ctrl-Perf
conclusion: approved

10.6 Small Technical Enhancements and Improvements for Rel-11 [TEI11]

RAN2:

RP-140357 RAN2 agreed CRs on Small Technical Enhancements and Improvements for Rel-11 RAN2 CR set REL-11 TEI11
conclusion: approved

RAN3:

RP-140294 TEI11 CRs RAN3 CR set REL-11 TEI11
conclusion: approved

RAN4:

RP-140375 RAN4 CRs to Small Technical Enhancements and Improvements for Rel-11 RAN4 CR set REL-11 TEI11
conclusion: approved

11 Work Items with target Rel-12 (not related to conformance testing)

11.1 Closed UTRA only related WIs

11.1.1 HSPA signalling enhancements for more efficient resource usage for LCR TDD [LCR_TDD_HSPA_sign_enh]

No contributions.

11.1.2 Core part : Support for BeiDou Navigation Satellite System (BDS) for UTRA [LCS_BDS-UTRA-Core]

RP-140358 RAN2 agreed CR on Correction to BDS ASN.1 RAN2 CR 25.331 5566 - F REL-12 LCS_BDS-UTRA-Core
conclusion: approved

11.1.3 Core part: HNB Positioning for UTRA [UTRA_HNB_Pos-Core]

No contributions.

11.2 Closed UTRA & LTE related WIs

11.2.1 Core part: Further enhancements for H(e)NB mobility-Part 3 [EHNB_enh3-Core]

No contributions.

11.2.2 Core part: RAN aspects for SIPTO at the Local Network [LIMONET-RAN-Core]

No contributions.

11.2.3 Perf. Part: Verification of radiated multi-antenna reception performance of UEs in LTE/UMTS [HSPA_LTE_measRP_MIMO-Perf]

RP-140376 RAN4 CRs to Verification of radiated multi-antenna reception performance of UEs in LTE/UMTS - Perf Part RAN4 CR 37.977 set REL-12 HSPA_LTE_measRP_MIMO-Perf
conclusion: approved

11.3 Closed LTE related WIs (non-spectrum related)

11.3.1 Core part: Support for BeiDou Navigation Satellite System (BDS) for LTE [LCS_BDS-LTE-Core]

No contributions.

11.3.2 Perf. part: Performance Requirements of 8 Rx Antennas for LTE UL [LTE_UL_8Rx-Perf]

No contributions.

11.4 Closed LTE only related WIs (spectrum related)

11.4.1 Inter-band CA related WIs (1 UL)

11.4.1.1 LTE Advanced inter-band Carrier Aggregation of Band 1 and Band 8 [LTE_CA_B1_B8]

No contributions.

11.4.1.2 Additional bandwidth combination set for LTE Advanced inter-band Carrier Aggregation of Band 1 and Band 18 [LTE_CA_B1_B18_BWset]

No contributions.

11.4.1.3 LTE Advanced inter-band Carrier Aggregation of Band 1 and Band 26 [LTE_CA_B1_B26]

No contributions.

11.4.1.4 LTE Advanced inter-band Carrier Aggregation of Band 2 and Band 4 [LTE_CA_B2_B4]

No contributions.

11.4.1.5 LTE Advanced inter-band Carrier Aggregation of Band 2 and Band 5 [LTE_CA_B2_B5]

No contributions.

11.4.1.6 LTE Advanced inter-band Carrier Aggregation of Band 2 and Band 13 [LTE_CA_B2_B13]

No contributions.

11.4.1.7 LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 19 [LTE_CA_B3_B19]

No contributions.

11.4.1.8 LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 26 [LTE_CA_B3_B26]

RP-140377 RAN4 CRs to LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 26 RAN4 CR 36.101 2115 D REL-12 LTE_CA_B3_B26-Core
conclusion: approved

11.4.1.9 LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 28 [LTE_CA_B3_B28]

No contributions.

11.4.1.10 LTE Advanced inter-band Carrier Aggregation of Band 5 and Band 7 [LTE_CA_B5_B7]

No contributions.

11.4.1.11 LTE Advanced inter-band Carrier Aggregation of Band 5 and Band 25 [LTE_CA_B5_B25]

No contributions.

11.4.1.12 LTE Advanced inter-band Carrier Aggregation of Band 7 and Band 28 [LTE_CA_B7_B28]

No contributions.

11.4.1.13 LTE Advanced inter-band Carrier Aggregation of Band 12 and Band 25 [LTE_CA_B12_B25]

No contributions.

11.4.1.14 LTE Advanced inter-band Carrier Aggregation of Band 19 and Band 21 [LTE_CA_B19_B21]

No contributions.

11.4.1.15 LTE Advanced inter-band Carrier Aggregation of Band 23 and Band 29 [LTE_CA_B23_B29]

No contributions.

11.4.2 Intra-band CA related WIs (contiguous)

11.4.2.1 LTE-Advanced intra-band contiguous Carrier Aggregation in Band 3 [LTE_CA_C_B3]

RP-140378 RAN4 CRs to LTE-Advanced intra-band contiguous Carrier Aggregation in Band 3 RAN4 CR 36.101 2069 - F REL-12 LTE_CA_C_B3-Core
conclusion: approved

11.4.2.2 LTE Advanced intra-band contiguous Carrier Aggregation in Band 23 [LTE_CA_C_B23]

No contributions.

11.4.2.3 Core part: LTE Advanced intra-band contiguous Carrier Aggregation in Band 27 [LTE_CA_C_B27-Core]

No contributions.

11.4.3 Intra-band CA related WIs (non-contiguous 1UL)

11.4.3.1 LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 3 [LTE_CA_NC_B3]

RP-140137 Updated TR 36.833-2-03 for LTE-A intra-band non-contiguous Carrier Aggregation in Band 3 SK Telecom TR 36.833-2-03 RAN4 REL-12 LTE_CA_NC_B3
RAN4 TR 36.833-2-03 is submitted for 1-step approval; the Core and Perf part of WI LTE_CA_NC_B3 were completed at RAN #62 but it was forgotten to provide this TR for approval at RAN #62;
discussion: MCC: presentation template is missing
conclusion: revised in RP-140444 to attach presentation template

RP-140444 TR 36.833-2-03 v1.0.0 for LTE-A intra-band non-contiguous Carrier Aggregation in Band 3 SK Telecom TR 36.833-2-03 RAN4 REL-12 LTE_CA_NC_B3
reissued RP-140137 to attach presentation template; RAN4 TR 36.833-2-03 is submitted for 1-step approval;
conclusion: approved as TR 36.833-2-03 v12.0.0

11.4.3.2 LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 4 [LTE_CA_NC_B4]

No contributions.

11.4.3.3 LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 7 [LTE_CA_NC_B7]

RP-140379 RAN4 CRs to LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 7 RAN4 CR 36.833-2-07 0001 - F REL-12 LTE_CA_NC_B7-Core
conclusion: approved

11.4.3.4 Core part: LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 23 [LTE_CA_NC_B23-Core]

RP-140380 RAN4 CRs to LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 23 - Core Part RAN4 CR 36.133 set REL-12 LTE_CA_NC_B23-Core
conclusion: approved

11.4.3.5 LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 25 [LTE_CA_NC_B25]

No contributions.

11.4.4 Other WIs

11.4.4.1 Introduction of LTE 450 MHz band in Brazil [LTE450_Brazil]

RP-140381 RAN4 CRs to Introduction of LTE 450 MHz band in Brazil RAN4 CR 36.133 2169 - F REL-12 LTE450_Brazil-Perf
conclusion: approved

11.4.4.2 LTE in the US Wireless Communications Service (WCS) Band [LTE_WCS_band]

No contributions.

11.5 Open UTRA only related WIs

11.5.1 Perf. part: Support for BeiDou Navigation Satellite System (BDS) for UTRA [LCS_BDS-UTRA-Perf]

RP-140112 Status report for WI Perf. part: Support for BeiDou Navigation Satellite System (BDS) for UTRA; rapporteur: ZTE RAN4 Report REL-12 LCS_BDS-UTRA-Perf
conclusion: revised in RP-140412

RP-140412 Status report for WI Perf. part: Support for BeiDou Navigation Satellite System (BDS) for UTRA; rapporteur: ZTE RAN4 Report REL-12 LCS_BDS-UTRA-Perf

proposal: Perf. part: 50%, June 14
discussion: MCC: late submission
conclusion: noted, approved: Perf. part: 50%, June 14

RP-140382 RAN4 CRs to Support for BeiDou Navigation Satellite System (BDS) for UTRA - Perf part RAN4 CR 25.171 0008 2 B REL-12 LCS_BDS-UTRA-Perf
conclusion: withdrawn

11.5.2 DCH Enhancements for UMTS [UTRA_DCHenh]

RP-140219 Status report for WI DCH Enhancements for UMTS; rapporteur: Qualcomm RAN1 Report REL-12 UTRA_DCHenh
porposal: Core part: 50%, June 14, Perf. part: 0%, Sep.14;
discussion: MCC: no time budget change?
Qualcomm: time budget is the same, just split for
conclusion: revised in RP-140461 to clarify RAN4 time budget
RP-140461 Status report for WI DCH Enhancements for UMTS; rapporteur: Qualcomm RAN1 Report REL-12 UTRA_DCHenh
discussion: Qualcomm: TU table was added
conclusion: noted, approved: Core part: 50%, June 14, Perf. part: 0%, Sep.14

11.5.3 UMTS Mobility enhancements for Heterogeneous Networks [UTRA_hetnet_mob]

RP-140065 Status report for WI: UMTS Mobility enhancements for Heterogeneous Networks; rapporteur: Huawei RAN2 Report REL-12 UTRA_hetnet_mob
proposal: Core part: 85%, Juen 14, Perf. part: 20%, Sep.14
conclusion: revised in RP-140442
RP-140442 Status report for WI: UMTS Mobility enhancements for Heterogeneous Networks; rapporteur: Huawei RAN2 Report REL-12 UTRA_hetnet_mob
proposal: Core part: 85%, Juen 14, Perf. part: 0%, Sep.14;
discussion: MCC: late submission
conclusion: noted, approved: Core part: 85%, June 14, Perf. part: 0%, Sep.14

11.5.4 UMTS Heterogeneous Networks enhancements [**New:** UTRA_hetnet_enh]

RP-140070 Status report for WI: UMTS Heterogeneous Networks enhancements; rapporteur: Huawei RAN1 Report REL-12 UTRA_hetnet_enh
proposal: Core part: 25%, June 14, Perf. part: 0%, Sep.14
discussion: Ericsson: The SR requests an increased time budget compared to RP-132066 endorsed by RAN #62. Apparently it was forgotten to indicate that correctly in the SR (yes/no flag)
MCC: Core part had wrong target Sep.14 at RAN #62; any impact on TUs?
conclusion: revised in RP-140441
RP-140441 Status report for WI: UMTS Heterogeneous Networks enhancements; rapporteur: Huawei RAN1 Report REL-12 UTRA_hetnet_enh
proposal: Core part: 25%, June 14, Perf. part: 0%, Sep.14;
discussion: MCC: late submission
Ericsson: does not like to change time budget allocation
Huawei: increased time budget can be discussed together with new WIs
Ericsson: fears that RAN1 will not be able to conclude on this WI due to low progress rate
NTT DOCOMO: agrees that 2 TU for RAN4 is too much
NEC: Perf. part not indicated
MCC: modifications of time budget has to be shown with rev marks
discussion: revised in RP-140462
RP-140462 Status report for WI: UMTS Heterogeneous Networks enhancements; rapporteur: Huawei RAN1 Report REL-12 UTRA_hetnet_enh
discussion: NEC: completion of Perf. part missing
Huawei: we had a mistake of indicating TUs for RAN3 instead of RAN2
conclusion: revised in RP-140484 to correct as follows:
- for 2nd meeting RAN2 1 to 1.5, RAN3 1.5 to 1 and
completion date Dec.14 for Perf. part
RP-140484 Status report for WI: UMTS Heterogeneous Networks enhancements; rapporteur: Huawei RAN1 Report REL-12 UTRA_hetnet_enh
discussion: Ericsson: NAICS still listed as open issue?

MCC: what counts is the WID
conclusion: noted, approved: Core part: 25%, June 14, Perf. part: 0%, Dec.14

RP-140160 Revised WID: UMTS Heterogeneous Networks enhancements Huawei WID rev RAN1 REL-12 UTRA_hetnet_enh
last approved WID: RP-132074; clarification of the scope
conclusion: revised in RP-140463
RP-140463 Revised WID: UMTS Heterogeneous Networks enhancements Huawei WID rev RAN1 REL-12 UTRA_hetnet_enh
discussion: Huawei: NAICs removed
conclusion: approved

11.5.5 Enhanced Broadcast of System Information [**New:** UTRA_SIBenh]

RP-140122 Status report for WI Enhanced Broadcast of System Information, rapporteur: Ericsson RAN2 Report REL-12 UTRA_SIBenh
proposal: Core part: 20%, June 14; Perf. part: 0%, Dec.14;
discussion: MCC: error of Core part target Dec.14 was corrected, no impact on TUs?
Ericsson: no impact on TUs
conclusion: noted, approved: Core part: 20%, June 14; Perf. part: 0%, Dec.14

RP-140131 Revised WID: Enhanced Broadcast of System Information Ericsson WID rev RAN2 REL-12 UTRA_SIBenh
last approved WID: RP-132077
discussion: NEC: no revision marks
Ericsson: list of specs, target dates
conclusion: approved

11.5.6 Further EUL enhancements [**New:** EDCH_enh]

RP-140128 Status report for WI: Further EUL enhancements, rapporteur: Ericsson RAN2 Report REL-12 EDCH_enh
proposal: Core part: 20%, June 14; Perf. part: 0%, Dec.14;
discussion: MCC: error of Core part target Dec.14 was corrected, no impact on TUs?
Ericsson: no impact
conclusion: noted, approved: Core part: 20%, June 14; Perf. part: 0%, Dec.14

RP-140127 Revised WID: Further EUL enhancements Ericsson WID rev RAN2 REL-12 EDCH_enh
last approved WID: RP-132078
discussion: RAN chair: also revision marks forgotten, please remember to have revision marks on revised WIDs
conclusion: approved

11.6 Open UTRA & LTE related WIs

11.6.1 Core part: LTE UE TRP & TRS and UTRA Hand Phantom related UE TRP and TRS Requirements [LTE_UTRA_TRP_TRS-Core]

RP-140257 Status Report for WI Core part: LTE UE TRP and TRS and UTRA Hand Phantom related UE TRP and TRS Requirements; rapporteur: Nokia Corporation RAN4 Report REL-12 LTE_UTRA_TRP_TRS-Core
conclusion: noted, approved: Core part: 20%, June 14

RP-140383 RAN4 CRs to LTE UE TRP & TRS and UTRA Hand Phantom related UE TRP and TRS Requirements - Core Part RAN4 CR set REL-12 LTE_UTRA_TRP_TRS-Core
conclusion: approved

11.6.2 Base Station (BS) RF requirements for Active Antenna System (AAS) [AAS_BS_LTE_UTRA]

RP-140066 Status report for WI: Base Station (BS) RF requirements for Active Antenna System (AAS); rapporteur: Huawei RAN4 Report REL-12 AAS_BS_LTE_UTRA
conclusion: noted, approved: Core part: 65%, June 14; Perf. part: 12%, Dec.14

11.6.3 L-band for Supplemental Downlink in E-UTRA and UTRA (spectrum related)
[LTE_UTRA_SDL_BandL]

RP-140093 Status report for WI: L-band for Supplemental Downlink in E-UTRA and UTRA; rapporteur: Orange RAN4 Report REL-12 LTE_UTRA_SDL_BandL
proposal: Core part: 80%, June 14; Perf. part: 0% June 14;
discussion: MCC: target date & TU change
conclusion: noted, approved: Core part: 80%, June 14; Perf. part: 0% June 14

RP-140092 Revised WID: L-band for Supplemental Downlink in E-UTRA and UTRA ORANGE WID rev RAN4 REL-12 LTE_UTRA_SDL_BandL
last approved WID RP-132041; replace existing TS25.317 by new TS25.327 and extend completion date of Core part to June 14
conclusion: approved

11.6.4 Core part: RAN enhancements for Machine-Type and other mobile data applications Communications [**New:** MTCe_RAN-Core]

RP-140110 Status report for WI Core part: RAN enhancements for Machine-Type and other mobile data applications; rapporteur: ZTE RAN2 Report REL-12 MTCe_RAN-Core
conclusion: noted, approved: Core part: 20%, June 14

11.6.5 Core part: WLAN/3GPP Radio Interworking [**New:** UTRA_LTE_WLAN_interw-Core]

RP-140218 Status report for WI Core part: WLAN/3GPP Radio Interworking, , rapporteur: Intel Corporation RAN2 Report REL-12 UTRA_LTE_WLAN_interw-Core
proposal: Core part: 25%, June 14;
discussion: Blackberry: Open issues include feasibility and benefits of usage of other WLAN RF metrics/thresholds. We would like to have some clarification why this is listed as an open issue
Intel: text was proposed by Qualcomm, Blackberry raised some concerns; those parameters were discussed at last meetings without conclusion; even without the parameters the solution will work
Blackberry: so it is an open issue
Intel: it is an open issue where we need to decide but it will work without
Blackberry: then we prefer to remove 3rd bullet from 2.3.1
Samsung: can this then still be discussed in RAN2?
RAN chair: yes, but not high priority
conclusion: revised in RP-140458 to removed 3rd bullet from 2.3.1

RP-140458 Status report for WI Core part: WLAN/3GPP Radio Interworking, , rapporteur: Intel Corporation RAN2 Report REL-12 UTRA_LTE_WLAN_interw-Core
conclusion: noted, approved: Core part: 25%, June 14

RP-140005 Reply LS to RP-132114 on new WLAN/3GPP interworking work item (SP-130719; to:RAN, RAN2, SA2, CT, CT1; cc: -; contact: Alcatel-Lucent) SA LSin REL-12 UTRA_LTE_WLAN_interw-Core
no explicit RAN action requested;
conclusion: noted, no LS answer to SA

RP-140399 LS on CN impacts of RAN2 solutions for WLAN/3GPP radio interworking (R2-141026; to: SA2, RAN; cc: CT1; contact: Intel) RAN2 LSin REL-12 UTRA_LTE_WLAN_interw-Core
no RAN action requested;
discussion: RAN chair: this will be input to joint RAN-SA session unless RAN decides to update it
DT: some 3GPP defined way how OPI bits needs to be clarified
Intel: agrees, also how RAN rules interwork with ANDSF was not yet discussed and this may have some core network impact, so we may mention this as well
Huawei: support this statement from Intel
conclusion: noted, no LS answer to RAN2; MCC will ask SA to have RP-140399 available for the joint SA-RAN meeting (Tdoc RP-140399 was made available in SA as SP-140133).

RP-140222 Summary of CN impact of WLAN/3GPP radio interworking Intel Corporation Disc REL-12 UTRA_LTE_WLAN_interw-Core
moved from AI 16 to AI 11.6.5
discussion: Intel: is similar to the LS in RP-140399 plus some extra information
Broadcom: CT needs to be involved in this discussion as well
RAN chair: since CT is doing stage 3 for stage 2 from SA, we assume that they are aware of the SA-RAN coordination
Blackberry: prefers to send the LS RP-140399 to SA instead of RP-140222 (we do not need to distinguish legacy and new ADNSF and another sentence was explicitly removed from the LS)
Huawei: prefers Intel paper as it had some more aspects that we should not hide from SA
Blackberry: we should stick to RAN2 agreements
conclusion: noted

RP-140254 System Impacts of WLAN 3GPP Radio Interworking BlackBerry UK Limited Disc REL-12 UTRA_LTE_WLAN_interw-Core
conclusion: withdrawn

A joint SA-RAN session on WLAN interworking was held on Wed 05.03.2014 17:00-19:15 in the SA meeting room:

inputs:
SP-140133: = RP-140399 = R2-141026: RAN2 LS as received by RAN and forwarded to SA
SP-140056: company input from Qualcomm
SP-140059: company input from Broadcom
SP-140075: company input from Blackberry

outputs:
SP-140141: SA2 WID to be prepared by Alcatel-Lucent
SP-140142: exception sheet for SA2 stage 2 WI to be prepared by Alcatel-Lucent
SP-140143: time plan for the WI to be prepared by SA2 chairman (Samsung)
These outputs will be prepared for SA #63 on Friday 07.03.2014.

For details see SA #63 minutes.

11.6.6 Increasing the minimum number of carriers for UE monitoring in UTRA and E-UTRA
[**New:** LTE_UTRA_IncMon]

RP-140087 Status report for WI: Increasing the minimum number of carriers for UE monitoring in UTRA and E-UTRA; rapporteur: Ericsson RAN4 Report REL-12 LTE_UTRA_IncMon
conclusion: noted, approved: Core part: 20%, June 14, Perf. part: 0%, March 15

11.7 Open LTE only related WIs (non-spectrum related)

11.7.1 Further Downlink MIMO Enhancement for LTE-Advanced [LTE_eDL_MIMO_enh]

RP-140173 Status report for WI: Further Downlink MIMO Enhancement for LTE-Advanced; rapporteur: Alcatel-Lucent RAN1 Report REL-12 LTE_eDL_MIMO_enh
conclusion: noted, approved: Core part: 97%, June 14, Perf. part: 20%, Sep.14

RP-140291 CR to 36.213 to clarify PUCCH Mode 1-1 for 4Tx Dual Codebook RAN1 CR36.2130448 - F REL-12 LTE_eDL_MIMO_enh-Core
conclusion: approved

11.7.2 Further Enhancements to LTE TDD for DL-UL Interference Management and Traffic Adaptation [LTE_TDD_eIMTA]

RP-140192 Status report for WI: Further Enhancements to LTE TDD for DL-UL Interference Management and Traffic Adaptation; rapporteur: CATT RAN1 Report REL-12 LTE_TDD_eIMTA
conclusion: noted, approved: Core part: 80%, June 14, Perf. part: 0%, June 14

11.7.3 Core part: Hetnet Mobility Enhancements for LTE [HetNet_eMOB_LTE-Core]

RP-140181 Status report for WI: Core part: HetNet Mobility Enhancements for LTE; rapporteur: Alcatel-Lucent RAN2 Report REL-12 HetNet_eMOB_LTE-Core
proposal: Core part: 95%, June 2014;
discussion: MCC: target date & TU change
conclusion: noted, approved: Core part: 95%, June 2014

RP-140359 RAN2 agreed CRs on Core part: Hetnet Mobility Enhancements for LTE RAN2 CR set B REL-12 HetNet_eMOB_LTE-Core
conclusion: approved

11.7.4 Core part: Further enhancements for HeNB mobility-X2-GW [EHNB_enh2_X2GW-Core]

RP-140079 Status report for WI Core part: Further enhancements for HeNB mobility-X2-GW, rapporteur: Alcatel-Lucent RAN3 Report REL-12 EHNB_enh2_X2GW-Core
conclusion: noted, approved: Core part: 80%, June 14

11.7.5 Core part: Public Warning System - Reset/Failure/Restart in Warning Message Delivery in LTE [REP_WMD-RFR_PWS-Core]

RP-140067 Status report for WI Core part: Public Warning System - Reset/Failure/Restart in Warning Message Delivery in LTE; rapporteur: one2many RAN3 Report REL-12 REP_WMD-RFR_PWS-Core
conclusion: withdrawn

RP-140068 Status report for WI Core part: Public Warning System - Reset/Failure/Restart in Warning Message Delivery in LTE; rapporteur: one2many RAN3 Report REL-12 REP_WMD-RFR_PWS-Core
proposal: Core part: 95%, March 14; presented by Huawei;
discussion: MCC: % complete and target not consistent
conclusion: noted, approved: 90%, June 14; 0.5TU for RAN3 for next quarter

RAN2:

RP-140360 RAN2 agreed CR on PWS Restart Indication RAN2 CR 36.300 0616 - B REL-12 REP_WMD-RFR_PWS-Core
CR was originally from RAN3
conclusion: approved

RAN3:

RP-140295 Correction of contradictions for kill-all functionality RAN3 CR 36.413 1196 2 F REL-12 REP_WMD-RFR_PWS-Core
conclusion: approved

RP-140464 LS on LS on PWS service restoration (CP-140199; to: RAN; cc: CT4, CT1, RAN3; contact: Alcatel-Lucent) CT LSin REL-12 REP_WMD-RFR_PWS-Core
LS received on Tue of RAN #63; RAN action requested;
discussion: Ericsson: warning area is optional and not mandatory to include?
ALU: no, all 4 incl. warning area have to be included if eNode B is provisioned with emergency area id
conclusion: noted, no LS answer to CT, RAN3 will receive this LS as well and take a look at it

RP-140266 Issues with the CT4 solution for PWS Restart Indication Ericsson Disc REL-12 REP_WMD-RFR_PWS-Core
related CRs in RP-140298 and RP-140299
discussion: ALU: all 4 comments were discussed in CT and apart from security aspects non of them were accepted (CT4 and RAN3 discussed them extensively in the previous meetings); you are reopening a previous agreement
Ericsson: only an explicit message was agreed
RAN3 chairman: Home Node B security aspect should be looked at by RAN3 again, but we can approve stage 2 CR and we should endorse the option 1 CR and discard the option 2 CR
RAN chair: are there other CRs expected?
RAN3 chair: we still need to look at Home node B security aspect
conclusion: noted

RP-140298 PWS Restart Indication, option 1 RAN3 CR 36.413 1181 1 B REL-12 REP_WMD-RFR_PWS-Core
This CR is technically endorsed by RAN3 and provides an alternative solution to option 2 in RP-140299
discussion: Ericsson: instead of approving the CR we would prefer to send the CR back to RAN3 to check the security thread and come back at RAN #64
AT&T: only one sentence in stage 2 is basis of the security thread?
Ericsson: can be introduced in stage 2 or stage 3 and this is what we should solve in RAN3
ALU: we discussed it and agreed to approve the CR and we can still check the security issue for next time (if any)
NEC: security issue put up by CT can be easily solved next time so we should approve this CR
Ericsson: we add a CR that causes a security thread
conclusion: approved

RP-140299 PWS Restart Indication, option 2 RAN3 CR 36.413 1197 2 B REL-12 REP_WMD-RFR_PWS-Core
This CR is technically endorsed by RAN3 and provides an alternative solution to option 1 in RP-140298
conclusion: rejected

11.7.6 Perf. part: Support for BeiDou Navigation Satellite System (BDS) for LTE [LCS_BDS-LTE-Perf]

RP-140113 Status report for WI Perf. part: Support for BeiDou Navigation Satellite System (BDS) for LTE, rapporteur ZTE RAN4 Report REL-12 LCS_BDS-LTE-Perf
conclusion: revised in RP-140413

RP-140413 Status report for WI Perf. part: Support for BeiDou Navigation Satellite System (BDS) for LTE, rapporteur ZTE RAN4 Report REL-12 LCS_BDS-LTE-Perf
proposal: Perf. part: 50%, June 14;
discussion: MCC: late submission
conclusion: noted, approved: Perf. part: 50%, June 14

RP-140384 RAN4 CRs to Support for BeiDou Navigation Satellite System (BDS) for LTE - Perf Part RAN4 CR 36.171 0009 2 B REL-12 LCS_BDS-LTE-Perf
conclusion: withdrawn

11.7.7 LTE Coverage Enhancements [Cov_Enh_LTE]

RP-140107 Status report for WI: LTE Coverage Enhancements; rapporteur: China Telecom RAN1 Report REL-12 Cov_Enh_LTE
proposal: Core part: 97%, June 14, Perf. part: 0%, Sep.14;
discussion: China Telecom: The requested time budget was changed compared to that in RP-132066 (the planned TU for RAN2#85bis is removed).
conclusion: revised in RP-140443

RP-140443 Status report for WI: LTE Coverage Enhancements; rapporteur: China Telecom RAN1 Report REL-12 Cov_Enh_LTE
discussion: MCC: late submission
NTT DOCOMO: we may not have TUs at next RAN4 meeting
Ericsson: agrees that RAN1 should complete first and Perf. work can follow later
China Telekom: just the CR left for RAN4
China Telecom: agreement is already there in RAN1, just a CR is needed
RAN1 chair: RAN1 work finished but only RAN4 work left
RAN chair: why no budget left for RAN4?
RAN4 chair: 0.5TU is assigned
conclusion: noted, approved: Core part: 97%, June 14, Perf. part: 0%, Dec.14

RP-140361 RAN2 agreed CRs on Higher layer signalling introduction for enhanced TTI bundling RAN2 CR set B REL-12 Cov_Enh_LTE-Core
discussion: MCC: R2-141002 is based on wrong spec version 11.4.0 of 36.306 instead of v11.5.0; company contribution in RP-140415 to revise R2-141002
conclusion: postponed, will wait for RAN1 CRs to approve them together with RAN2 CRs

RP-140415 Support of the enhancement for TTI bundling for FDD China Telecom, ZTE, Huawei, HiSilicon, Alcatel-Lucent, Alcatel-Lucent Shanghai Bell, CATT, CATR, Ericsson, Samsung, Coolpad, Sony, NSN CR 36.306 0178 2 B REL-12 Cov_Enh_LTE-Core
company contribution to replace RAN2 agreed R2-141002 of RP-140361
conclusion: postponed, will wait for RAN1 CRs to approve them together with RAN2 CRs

11.7.8 Low cost & enhanced coverage MTC UE for LTE [LC_MTC_LTE]

RP-140080 Status Report for WI: Low cost & enhanced coverage MTC UE for LTE; rapporteur: Vodafone RAN1 Report REL-12 LC_MTC_LTE
proposal: Core part: 40%, Sep.14; Perf. part: 5%, March 15;
discussion: MCC: target date change, no TU change indicated, intention to shift WI to REL-13?
NTT DOCOMO: needs simulation assumption, 1 TU needed for an ad hoc
Qualcomm: 0.5/0.5 TUs for next quarter
RAN chair: to avoid an avalanche of exception sheets in RAN #64 we will suggest to move the REL-12 freeze to Sep. 14
RAN1 chair: still open in TU discussion whether we focus just on low cost aspect
RAN chair: default value is endorsed TU of RAN #62 in case no agreement about TU change
conclusion: revised in RP-140521

RP-140521 Status Report for WI: Low cost & enhanced coverage MTC UE for LTE; rapporteur: Vodafone RAN1 Report REL-12 LC_MTC_LTE
revision of RP-140080
conclusion: noted, approved: Core part: 40%, Sep.14; Perf. part: 5%, March 15; WI will remain in REL-12 provided that REL-12 stage 3 freeze date is moved from June 14 to Sep.14

RP-140522 Revised WID: Low cost & enhanced coverage MTC UE for LTE Vodafone Group WID rev RAN1 REL-12 LC_MTC_LTE
last approved WID: RP-130848
discussion: RAN chair: to remove coverage enhancements from the WID, coverage enhancements can be reconsidered in REL-13
conclusion: approved (Core part: Sep.14; Perf. part: March 15)

RP-140018 Reply LS to R2-134596 on mobility support for LC MTC UEs and MTC coverage enhancement (R1-141029; to: RAN2; cc: RAN4, RAN; contact: Vodafone) RAN1 LSin REL-12 LC_MTC_LTE-Core
note: R2-134596 was sent to RAN1, cc: RAN4; no RAN action requested;
discussion: Vodafone: we finally decided not to change the WID
conclusion: noted, no LS answer from RAN to RAN1

11.7.9 LTE TDD-FDD joint operation including Carrier Aggregation [LTE_CA_TDD_FDD]

RP-140270 Status Report for WI: LTE TDD-FDD joint operation including Carrier Aggregation; rapporteur: Nokia RAN1 Report REL-12 LTE_CA_TDD_FDD
discussion: CATT: The following issues need to be concluded for this WI:
1. If a UE supports half duplex FDD (the Rel-8 half duplex FDD capability), and the UE also supports FDD-TDD CA with simultaneous Tx/Rx, can the UE be configured with half duplex FDD and FDD-TDD CA together?
2. If a UE supports FDD-TDD CA on band combination (FDD band X + TDD band Y and TDD band Z) with simultaneous Tx/Rx, and the UE also supports TDD-TDD CA on band combination (TDD band Y + TDD band Z), is it allowed that the UE does not supports simultaneous Tx/Rx on TDD-TDD CA band combination (TDD band Y + TDD band Z)?
3. Is it allowed that a UE supports FDD-TDD CA on a band combination (FDD band X + TDD band Y) but does not support simultaneous Tx/Rx on the corresponding band combination?
The above issues can be captured as open issues in the SR

RAN1 chair: no need to capture these points as open issues as we discussed this already in RAN1
Nokia: is not part of this WI so should not be listed as open issues; hald-duplex is not part of the WID
Qualcomm: RAN4 time allocation needs further discussion

RAN chair: so RAN1 and RAN4 time unit discussion are still under discussion
conclusion: revised in RP-140517

RP-140517 Status Report for WI: LTE TDD-FDD joint operation including Carrier Aggregation; rapporteur: Nokia RAN1 Report REL-12 LTE_CA_TDD_FDD
conclusion: noted, approved: Core part: 85%, June 14; Perf. part: 5%, Dec.14

RP-140271 Status Report for WI Perf. part: LTE TDD-FDD joint operation including Carrier Aggregation; rapporteur: Nokia RAN4 Report REL-12 LTE_CA_TDD_FDD-Perf
conclusion: withdrawn

RP-140261 Revised WID: LTE TDD-FDD joint operation including Carrier Aggregation Nokia Corporation WID rev RAN1 REL-12 LTE_CA_TDD_FDD
last approved WID: RP-131399; updated with example band combinations for the RAN4 generic framework requirements as agreed by RAN4
conclusion: revised in RP-140465 as affected specs are missing

RP-140465 Revised WID: LTE TDD-FDD joint operation including Carrier Aggregation Nokia Corporation WID rev RAN1 REL-12 LTE_CA_TDD_FDD
discussion: MCC: no need to update TU allocation in WIDs but just in status report
conclusion: approved

RP-140255 Discussion on way forward for LTE TDD-FDD Carrier Aggregation Nokia Corporation, NSN Disc REL-12 LTE_CA_TDD_FDD
RAN1 has not been able to find consensus between two competing proposals on the PDSCH HARQ timing for self-scheduling on FDD SCell with TDD PCell, which will be needed in order to appropriately support LTE TDD-FDD CA with TDD PCell.During the discussions on reaching consensus in RAN1, even the support of LTE TDD-FDD CA using TDD PCell has been questioned overall. Therefore, RAN discussion and guidance is needed to help RAN WG1 to finalize its work.
Question 1:Should TDD PCell be supported in LTE TDD-FDD CA in Rel. 12?
If the answer to the Question 1 is 'no', then the WID objectives should be updated accordingly and RAN1 should be informed about this change in the WID.
If the answer is ' yes', then RAN#63 should also consider the following additional questions;
Question 2: Should FDD SCell in combination with TDD PCell be designed for highest possible peak data rate?
Question 3: Is a supplementary FDD DL SCell with TDD PCell considered an important use case of TDD-FDD CA? Can DL cell throughput be compromised for it?
Question 4: Is it acceptable that not all FDD SCell DL subframes are schedulable with TDD PCell?
discussion: question 1:
CMCC: answers yes to Q1
NTT DOCOMO: answers Q1 with no and to consider it for REL-13
Nokia: RAN1 needs some clear guidance from RAN
RAN1 chair: fully supports Nokia statement
Ericsson: agrees since the situation in RAN1 was about 50:50
RAN chair: what about: minimum time allocated in RAN1 to see whether a compromise is possible otherwise topic will be moved to REL-13
Samsung: not a good approach as it is then easy to block
NSN: guidance is required as otherwise discussion in RAN1 will consume a long time again
AT&T: maybe a discussion by email before next meeting would be useful
RAN1 chair: we had already a long email discussion but no compromise is visible so strongly requests RAN guidance
RAN1 chairman: there are 3 solutions on the table: LG's orginal proposal, CMCC's proposal and LG's compromise proposal
Huawei: there were even more variations
conclusion: noted, if no RAN1 decision by RAN #64, then TDD PCell will not be considered in REL-12

11.7.10 Core part: LTE-HRPD (High Rate Packet Data in 3GPP2) inter-RAT SON
[LTE_HRPD_SON-Core]

RP-140200 Status report for WI Core part: LTE-HRPD (High Rate Packet Data in 3GPP2) inter-RAT SON; rapporteur: China Telecom RAN3 Report REL-12 LTE_HRPD_SON-Core
proposal: Core part: 95%, Juen 14

discussion: MCC: TU change
RAN3: 3GPP2 or CT input could still come in next quarter
conclusion: noted, approved: Core part: 95%, June 14

RP-140296 Introduce support for load reporting between LTE and HRPD RAN3 CR 36.413 1151 6 B REL-12 LTE_HRPD_SON-Core
conclusion: approved

11.7.11 Further MBMS Operations Support for E-UTRAN [MBMS_LTE_OS]

RP-140281 Status Report for WI: Further MBMS Operations Support for E-UTRAN; rapporteur: Verizon RAN2 Report REL-12 MBMS_LTE_OS
conclusion: revised in RP-140411

RP-140411 Status Report for WI: Further MBMS Operations Support for E-UTRAN; rapporteur: Verizon RAN2 Report REL-12 MBMS_LTE_OS
revision of RP-140281; Core: 30%, June 14; Perf: 20%, Sept 14. Note: Updated to reduce RAN4 core TU request and include RAN4 Perf TU request.
discussion: MCC: late submission, TU change
conclusion: noted, approved: Core: 30%, June 14; Perf: 20%, Sept 14

RP-140282 Revised WID: Further MBMS Operations Support for E-UTRAN Verizon WID rev RAN2 REL-12 MBMS_LTE_OS
last approved WID: RP-131681; to correct the affected existing specifications for Perf. part.
conclusion: approved

11.7.12 E-UTRA Small cell enhancements - Physical layer aspects [**New:** LTE_SC_enh_L1]

RP-140071 Status report for WI: E-UTRA Small cell enhancements - Physical layer aspects; rapporteur: Huawei RAN1 Report REL-12 LTE_SC_enh_L1
conclusion: noted, approved: Core part: 25%, June 14; Perf. part: 0%, Sep.14

RP-140024 LS on BS classes and maximum BS power on 256QAM
(R4-141254; to: RAN; cc: RAN1; contact: Huawei) RAN4
LSin REL-12 LTE_SC_enh_L1-Core
RAN action requested;
conclusion: noted, LS answer drafted b y Huawei in RP-140161

RP-140161 Draft reply LS to RAN4 LS R4-141254 = RP-140024 on BS classes and maximum BS power on 256QAM Huawei LSout REL-12 LTE_SC_enh_L1-Core
discussion: NSN: we would not like to add extra work to RAN4 and consider this for next REL
ALU: agrees with NSN; how can we derive requirements based on local area BS?
Huawei: due to limited time we prioritized here 256QAM for local area BS but we could also consider medium range BS; operators are keen to have this feature for medium range BS
Ericsson: we agree with Huawei that this will hopefully not much work, medium range is an important scenario so we support this LS
CMCC: supports Huawei & Orange and medium range should be considered
Orange, ZTE: support to consider medium range
NTT DOCOMO: if we include this aspect then we need to include the RAN4 time budget for small cell enhancements
RAN chair: agrees that any extra time budget has to be discussed together with other time budget requests of new WIs/SIs, if no budget left then we need to shift the feature to REL-13
Huawei: LS has not impact on RAN1
AT&T: let's not jeopardize 256QAM for small cells
conclusion: revised in RP-140471

RP-140471 Draft reply LS to RAN4 LS R4-141254 = RP-140024 on BS classes and maximum BS power on 256QAM Huawei LSout REL-12 LTE_SC_enh_L1-Core
discussion: Huawei: would like to conclude RAN4 TU discussion before deciding about what should be in this LS
NSN: if we want to have 256QAM then more TUs needed, if no more TUs then the topic can not be considered

Huawei: does not think it is much work
ALU: is rather motivation for a new WI
conclusion: revised in RP-140510 to provide the final LS

RP-140510 Reply LS to RAN4 LS R4-141254 = RP-140024 on BS classes and maximum BS power on 256QAM (to: RAN4; cc: RAN1; contact: Huawei) RAN LSout REL-12 LTE_SC_enh_L1-Core
revision of RP-140471
conclusion: approved

11.7.13 Dual Connectivity for LTE [New: LTE_SC_enh_dualC]

RP-140250 Status report for WI Dual Connectivity for LTE, rapporteur: NTT DOCOMO,INC. RAN2 Report REL-12 LTE_SC_enh_dualC
conclusion: noted, approved: Core part: 20%, June 14; Perf. part: 0%, Dec.14

RP-140006 Reply LS to RP-132115 on Small Cell Enhancement work in RAN (SP-130720; to: SA2, SA3, RAN, RAN2, RAN3; cc: -; contact: Samsung) SA LSin REL-12 LTE_SC_enh_dualC-Core
no RAN action requested;
conclusion: noted, no LS answer from RAN to SA

RP-140014 Reply LS to SP-130720 = RP-140006 on Small Cell Enhancement work in RAN (S3-140210; to: SA, SA2, RAN, RAN2, RAN3; cc: -; contact: Samsung) SA3 LSin REL-12 LTE_SC_enh_dualC-Core
no explicit RAN action requested;
conclusion: noted, no LS answer from RAN to SA3

RP-140011 Reply LS to SP-130720 = RP-140006 on system aspects for Small Cell Enhancement work in RAN (S2-140537; to: SA, SA3, RAN, RAN2, RAN3; cc: CT4, SA5; contact: Huawei) SA2 LSin REL-12 LTE_SC_enh_dualC-Core
no explicit RAN action requested;
discussion: AT&T: would SA2 need some confirmation from RAN regarding the assumptions
Huawei: SA2 got already feedback from RAN3
conclusion: noted, no LS answer from RAN to SA2

RP-140020 Reply LS to S2-140537 = RP-140011 on system aspects for Small Cell Enhancement work in RAN (R2-140999; to: SA2; cc: SA, SA3, RAN, RAN3, CT4, SA5; contact: Huawei) RAN2 LSin REL-12 LTE_SC_enh_dualC-Core
no RAN action requested;
conclusion: noted, no LS answer from RAN to RAN2

RP-140023 Reply LS to S2-140537 = RP-140011 on system aspects for Small Cell Enhancement work in RAN (R3-140486; to: SA2; cc: SA, SA3, RAN, RAN2, CT4, SA5; contact: Huawei) RAN3 LSin REL-12 LTE_SC_enh_dualC-Core
no RAN action requested;
conclusion: noted, no LS answer from RAN to RAN3

RP-140248 Proposed work plan for Dual Connectivity NTT DOCOMO, INC., NEC Disc REL-12 LTE_SC_enh_dualC-Core
discussion: Samsung: time plan is not so realistic, if we go up to Sep. then we need further allocation
conclusion: noted

11.7.14 Core part: Inter-eNB CoMP for LTE [New: COMP_LTE_IeNB-Core]

RP-140053 Status report for WI Core part: Inter-eNB CoMP for LTE; rapporteur: Samsung RAN3 Report REL-12 COMP_LTE_IeNB-Core
proposal: Core part: 15%, Sep.14;
discussion: Ericsson: indicated completion level is to high
MCC: proposal to shift WI to REL-13?
Ericsson: no progess, no decisions in RAN1 so 50% too much
conclusion: noted, approved: Core part: 15%, Sep.14

RP-140019 LS on Inter-eNB CoMP for LTE
(R1-141048; to: RAN3; cc: RAN; contact: Samsung) RAN1
LSin REL-12 COMP_LTE_IeNB-Core
no RAN action requested;
conclusion: noted, no LS answer from RAN to RAN1

RP-140085 Way forward on WI Inter-eNB CoMP for LTE Samsung Disc REL-12 COMP_LTE_IeNB-Core
conclusion: after presentation revised further in RP-140473

RP-140265 Support of Inter-eNB CoMP Ericsson Disc REL-12 COMP_LTE_IeNB
Observation
- *RAN3 cannot continue the work with CoMP for non-ideal back haul if RAN1 do not agree on what parameters to signal*

discussion: DT: suggests to follow Samsung's way forward that it supported by several companies
NSN: RAN3 can discuss but RAN1 is stuck is not a useful situation
conclusion: noted

Way forward will be provided by Samsung in RP-140473:
RP-140473 Way forward on WI Inter-eNB CoMP for LTE Samsung, Alcatel-Lucent, Alcatel-Lucent Shanghai Bell, CATR, CATT, China Telecom, China Unicom, CHTTL, CMCC, Deutsche Telekom, ETRI, Fujitsu, KDDI, LG Electronics, LG Uplus, NTT DOCOMO, Orange, Potevio, SK Telecom, Telefonica, Telecom Italia, T-Mobile USA, ZTE Disc REL-12 COMP_LTE_IeNB-Core
proposal:
RAN agrees to reduce the scope of WI to the items listed in RP-140473, which are intended to be specified in Rel-12
Task RAN1 to provide guidance from RAN1#76bis to RAN3 on the details of signaling between eNodeBs, limited to the parameters listed in RP-140473.
Task RAN3 to specify the support of the signalling information listed below according to the guidance from RAN1 based on X2 interface in their meetings until September 2014 (RAN #65).
discussion: Huawei, Ericsson: way forward is not clear
NSN: would also limit on X2 interface
conclusion: agreement:
RAN agrees to reduce the scope of WI to the parameters in RP-140473 based on the X2 interface
revised in RP-140523 (see below)

counter proposal:
RP-140493 Way forward on on CoMP-NIB signaling enhancements Ericsson, Huawei, HiSilicon, NSN Disc REL-12 COMP_LTE_IeNB-Core
conclusion: noted

RP-140523 Way forward on WI Inter-eNB CoMP for LTE Samsung, Alcatel-Lucent, Alcatel-Lucent Shanghai Bell, CATR, CATT, China Telecom, China Unicom, CHTTL, CMCC, Deutsche Telekom, ETRI, Fujitsu, KDDI, LG Electronics, LG Uplus, NSN, NTT DOCOMO, Orange, Potevio, SK Telecom, Telefonica, Telecom Italia, T-Mobile USA, ZTE Disc REL-12 COMP_LTE_IeNB-Core
conclusion: noted, we will see a WID update at RAN #64
Ericsson: wants to removed the first paragraph
Samsung, DT: was already in the previous version
Finally: Scope reduction as indicated in RP-140523 is endorsed.

11.8 Open LTE only related WIs (spectrum; CA related)

NOTE: For the WIs under agenda item 11.8 and 12.1 no separate status reports per WI will be provided but a Tdoc will be submitted to agenda item 11.8 by RAN4 with a collection of all % complete and target dates for each WI of 11.8 and 12.1.

RP-140059 Status Report of RAN4 CA WIs RAN4 chairman (NSN) Report - -
Instead of separate SR for each, RAN4 provide single spreadsheet for REL-12/REL-13 CA WIs tracking completion level, target date and any other essential information.
discussion: MCC: flagged to have a presentation before approving % complete & targets

MCC: yellow highlighting has no meaning? different June 14 target dates have no meaning?
RAN4 chairman: yellow lines: missing status reports; different June dates have no specific meaning (editorial error)

conclusion: revised in RP-140428

RP-140428 Status Report of RAN4 CA WIs RAN4 chairman (NSN) Report - -

revision of RP-140059 to include late status information that was missing in RP-140059 (yellow lines);

discussion: MCC: flagged to have a presentation before approving % complete & targets

conclusion: noted, % complete and target dates are approved as shown in the table below with one correction: LTE_CA_B2_B12-Perf: target is March 14 instead of June 14

The table below summarizes the data of RP-140428 (only dates are changed into the usual format):

RAN #63 agenda	UID	WI code	REL	target after RAN #63	% complete	rapporteur	Open issues / Other notes
11.8.1.01	620118	LTE_CA_B1_B3-Core	Rel-12	June 14	30%	China Unicom	
11.8.1.01	620218	LTE_CA_B1_B3-Perf	Rel-12	June 14	0%	China Unicom	
11.8.1.02	530125	LTE_CA_B1_B7-Core	Rel-12	June 14	80%	Ericsson	Relaxations for MOP and REFSENS
11.8.1.02	530225	LTE_CA_B1_B7-Perf	Rel-12	June 14	0%	Ericsson	
11.8.1.03	610119	LTE_CA_B1_B11-Core	Rel-12	June 14	60%	SoftBank Mobile	UE Insertion Loss Finalization, UE Max Power and REFSENS relaxation
11.8.1.03	610219	LTE_CA_B1_B11-Perf	Rel-12	June 14	60%	SoftBank Mobile	Release Independence
11.8.1.04	620119	LTE_CA_B1_B28-Core	Rel-12	June 14	30%	KDDI	
11.8.1.04	620219	LTE_CA_B1_B28-Perf	Rel-12	June 14	0%	KDDI	
11.8.1.05	620120	LTE_CA_B2_B4_BWset-Core	Rel-12	March 14	100%	T-Mobile USA	
11.8.1.05	620220	LTE_CA_B2_B4_BWset-Perf	Rel-12	March 14	100%	T-Mobile USA	
11.8.1.06	580134	LTE_CA_B2_B12-Core	Rel-12	June 14	95%	US Cellular	UE IL, MOP relaxation and REFSENS relaxation. WID revision to add 3MHz bandwidth to Band 12
11.8.1.06	580234	LTE_CA_B2_B12-Perf	Rel-12	June 14 => March 14	100%	US Cellular	
11.8.1.07	620122	LTE_CA_B3_B27-Core	Rel-12	March 14	100%	KT	
11.8.1.07	620222	LTE_CA_B3_B27-Perf	Rel-12	March 14	100%	KT	
11.8.1.08	620121	LTE_CA_B4_B27-Core	Rel-12	June 14	30%	NII Holdings	CRs
11.8.1.08	620221	LTE_CA_B4_B27-Perf	Rel-12	Sep. 14	15%	NII Holdings	CRs
11.8.1.09	610120	LTE_CA_B8_B11-Core	Rel-12	June 14	60%	SoftBank Mobile	UE Insertion Loss Finalization, UE Max Power and REFSENS relaxation
11.8.1.09	610220	LTE_CA_B8_B11-Perf	Rel-12	June 14	60%	SoftBank Mobile	Release Independence
11.8.1.10	620172	LTE_CA_B8_B20_BW-Core	Rel-12	March 14	100%	Vodafone	company CRs to be presented in RAN#63
11.8.1.10	620272	LTE_CA_B8_B20_BW-Perf	Rel-12	March 14	100%	Vodafone	company CRs to be presented in RAN#63
11.8.1.11	620123	LTE_CA_B8_B27-Core	Rel-12	June 14	10%	KT	IL for B8+B27
11.8.1.11	620223	LTE_CA_B8_B27-Perf	Rel-12	June 14	10%	KT	IL for B8+B27
11.8.1.12	580133	LTE_CA_B39_B41-Core	Rel-12	March 14	100%	China Mobile	
11.8.1.12	580233	LTE_CA_B39_B41-Perf	Rel-12	March 14	100%	China Mobile	
11.8.2.1	590129	LTE_CA_2UL-A1-Core	Rel-12	June 14	60%	Huawei	Specify UE requirements and CRs
11.8.2.1	590229	LTE_CA_2UL-A1-Perf	Rel-12	June 14	0%	Huawei	
11.8.2.2	590128	LTE_CA_2UL-A2-Core	Rel-12	June 14	60%	Qualcomm	MSD value for 2UL
11.8.2.2	590228	LTE_CA_2UL-A2-Perf	Rel-12	June 14	0%	Qualcomm	
11.8.2.3	590123	LTE_CA_2UL-A3-Core	Rel-12	June 14	50%	Ericsson	Need for RF RX requirements for 2UL CA, coexistence with non-3GPP RAT, final TX MOP requirements
11.8.2.3	590223	LTE_CA_2UL-A3-Perf	Rel-12	June 14	0%	Ericsson	
11.8.2.4	590131	LTE_CA_2UL-A4-Core	Rel-12	June 14	60%	Nokia	MSD values for CA configurations needs to be agreed
11.8.2.4	590231	LTE_CA_2UL-A4-Perf	Rel-12	June 14	0%	Nokia	

RAN #63 agenda	UID	WI code	REL	target after RAN #63	% complete	rapporteur	Open issues / Other notes
11.8.2.5	590126	LTE_CA_2UL-A5-Core	Rel-12	June 14	50%	Renesas	TX and RX requirements for dual uplink inter-band CA. Protection of certain non-3GPP radios such as GPS
11.8.2.5	590226	LTE_CA_2UL-A5-Perf	Rel-12	June 14	0%	Renesas	Class A5 band combination specific performance requirements
11.8.3.1	620136	LTE_CA_C_B7_BW-Core	Rel-12	June 14	40%	Orange	A-MPR for CA_NS_06 and CA UL configuration for UE refsens
11.8.3.1	620236	LTE_CA_C_B7_BW-Perf	Rel-12	June 14	0%	Orange	Release Independence
11.8.3.2	580236	LTE_CA_C_B27-Perf	Rel-12	June 14	50%	NII Holdings	RRM: test cases to be agreed. Demod: Simulations needed. CRs
11.8.3.3	590127	LTE_CA_C_B39-Core	Rel-12	March 14	100%	China Mobile	
11.8.3.3	590227	LTE_CA_C_B39-Perf	Rel-12	March 14	100%	China Mobile	
11.8.4.1	610123	LTE_CA_NC_B2-Core	Rel-12	June 14	60%	Ericsson	REFSENS for DL SCC
11.8.4.1	610223	LTE_CA_NC_B2-Perf	Rel-12	June 14	0%	Ericsson	
11.8.4.2	600226	LTE_CA_NC_B23-Perf	Rel-12	June 14	70%	Dish Network	Demodulation (36.101) and RRM (36.133) test cases and CRs
11.8.4.3	620139	LTE_CA_NC_B42-Core	Rel-12	June 14	25%	Huawei	Specify the core requirements with single UL and two DL.
11.8.4.3	620239	LTE_CA_NC_B42-Perf	Rel-12	June 14	0%	Huawei	Specify the core requirements with single UL and two DL.
11.8.5.1	600122	LTE_CA_NC_2UL-Core	Rel-12	June 14	70%	Nokia	MPR for non-contiguous intraband CA is open
11.8.5.2	600124	LTE_CA_NC_B4_2UL-Core	Rel-12	June 14	35%	T-Mobile USA	
11.8.5.2	600224	LTE_CA_NC_B4_2UL-Perf	Rel-12	June 14	0%	T-Mobile USA	
11.8.5.3	600123	LTE_CA_NC_B41_2UL-Core	Rel-12	March 14	5%	Sprint	It is proposed that RAN stop work on this WID without any further development. Market conditions have eliminated the need for this feature, at least for the foreseeable future.
11.8.5.3	600223	LTE_CA_NC_B41_2UL-Perf	Rel-12	March 14	0%	Sprint	It is proposed that RAN stop work on this WID without any further development. Market conditions have eliminated the need for this feature, at least for the foreseeable future.
11.8.6.01	620150	LTE_CA_B1_B3_B5-Core	Rel-12	June 14	25%	SK Telecom	
11.8.6.01	620250	LTE_CA_B1_B3_B5-Perf	Rel-12	June 14	0%	SK Telecom	
11.8.6.02	620124	LTE_CA_B1_B3_B8-Core	Rel-12	June 14	25%	KT	IL for B1+B3
11.8.6.02	620224	LTE_CA_B1_B3_B8-Perf	Rel-12	June 14	25%	KT	IL for B1+B3
11.8.6.03	620151	LTE_CA_B1_B3_B20-Core	Rel-12	June 14	50%	Vodafone	CA_1-3 deltaT, deltaR Introduction of CA_1-20
11.8.6.03	620251	LTE_CA_B1_B3_B20-Perf	Rel-12	June 14	0%	Vodafone	
11.8.6.04	620125	LTE_CA_B1_B5_B7-Core	Rel-12	June 14	25%	LG Uplus	IL for B1+B7
11.8.6.04	620225	LTE_CA_B1_B5_B7-Perf	Rel-12	Sep. 14	25%	LG Uplus	IL for B1+B7
11.8.6.05	620152	LTE_CA_B1_B7_B20-Core	Rel-12	June 14	75%	Vodafone	CA_1-7 deltaT, deltaR Introduction of CA_1-20
11.8.6.05	620252	LTE_CA_B1_B7_B20-Perf	Rel-12	June 14	0%	Vodafone	
11.8.6.06	600138	LTE_CA_B2_B2_B13-Core	Rel-12	June 14	35%	Verizon	MOP requirement, REFSENS for 2+2 and exceptions for spurious response
11.8.6.06	600238	LTE_CA_B2_B2_B13-Perf	Rel-12	June 14	10%	Verizon	3DL CA performance requirements
11.8.6.07	620126	LTE_CA_B2_B4_B5-Core	Rel-12	June 14	20%	U.S. Cellular	UE IL, MOP relaxation and REFSENS relaxation
11.8.6.07	620226	LTE_CA_B2_B4_B5-Perf	Rel-12	Sep. 14	20%	U.S. Cellular	
11.8.6.08	620127	LTE_CA_B2_B4_B12-Core	Rel-12	June 14	20%	U.S. Cellular	UE IL, MOP relaxation and REFSENS relaxation
11.8.6.08	620227	LTE_CA_B2_B4_B12-Perf	Rel-12	Sep. 14	20%	U.S. Cellular	

RAN #63 agenda	UID	WI code	REL	target after RAN #63	% complete	rapporteur	Open issues / Other notes
11.8.6.09	600137	LTE_CA_B2_B4_B13-Core	Rel-12	June 14	35%	Verizon	MOP requirement and exceptions for spurious response
11.8.6.09	600237	LTE_CA_B2_B4_B13-Perf	Rel-12	June 14	10%	Verizon	3DL CA performance requirements
11.8.6.10	620128	LTE_CA_B2_B5_B12-Core	Rel-12	June 14	20%	U.S. Cellular	UE IL, MOP relaxation and REFSENS relaxation
11.8.6.10	620228	LTE_CA_B2_B5_B12-Perf	Rel-12	Sep. 14	20%	U.S. Cellular	
11.8.6.11	600131	LTE_CA_B2_B5_B30-Core	Rel-12	June 14	40%	AT&T	
11.8.6.11	600231	LTE_CA_B2_B5_B30-Perf	Rel-12	June 14	5%	AT&T	
11.8.6.12	620129	LTE_CA_B2_B12_B12-Core	Rel-12	June 14	40%	AT&T	
11.8.6.12	620229	LTE_CA_B2_B12_B12-Perf	Rel-12	June 14	5%	AT&T	
11.8.6.13	620130	LTE_CA_B2_B12_B30-Core	Rel-12	June 14	40%	AT&T	
11.8.6.13	620230	LTE_CA_B2_B12_B30-Perf	Rel-12	Sep. 14	5%	AT&T	
11.8.6.14	600133	LTE_CA_B2_B29_B30-Core	Rel-12	June 14	40%	AT&T	
11.8.6.14	600233	LTE_CA_B2_B29_B30-Perf	Rel-12	Sep. 14	5%	AT&T	
11.8.6.15	620131	LTE_CA_B3_B7_B20-Core	Rel-12	June 14	90%	Vodafone	CRs
11.8.6.15	620231	LTE_CA_B3_B7_B20-Perf	Rel-12	June 14	0%	Vodafone	CRs
11.8.6.16	620132	LTE_CA_B3_B8_B27-Core	Rel-12	June 14	25%	KT	IL for B8+B27
11.8.6.16	620232	LTE_CA_B3_B8_B27-Perf	Rel-12	June 14	25%	KT	IL for B8+B27
11.8.6.17	600139	LTE_CA_B4_B4_B13-Core	Rel-12	June 14	35%	Verizon	MOP requirement and exceptions for spurious response
11.8.6.17	600239	LTE_CA_B4_B4_B13-Perf	Rel-12	June 14	10%	Verizon	3DL CA performance requirements
11.8.6.18	620133	LTE_CA_B4_B5_B12-Core	Rel-12	June 14	20%	U.S. Cellular	UE IL, MOP relaxation and REFSENS relaxation
11.8.6.18	620233	LTE_CA_B4_B5_B12-Perf	Rel-12	Sep. 14	20%	U.S. Cellular	
11.8.6.19	600134	LTE_CA_B4_B5_B30-Core	Rel-12	June 14	40%	AT&T	
11.8.6.19	600234	LTE_CA_B4_B5_B30-Perf	Rel-12	Sep. 14	5%	AT&T	
11.8.6.20	620134	LTE_CA_B4_B12_B12-Core	Rel-12	June 14	40%	AT&T	
11.8.6.20	620234	LTE_CA_B4_B12_B12-Perf	Rel-12	June 14	5%	AT&T	
11.8.6.21	620135	LTE_CA_B4_B12_B30-Core	Rel-12	June 14	40%	AT&T	
11.8.6.21	620235	LTE_CA_B4_B12_B30-Perf	Rel-12	Sep. 14	5%	AT&T	
11.8.6.22	600136	LTE_CA_B4_B29_B30-Core	Rel-12	June 14	40%	AT&T	
11.8.6.22	600236	LTE_CA_B4_B29_B30-Perf	Rel-12	Sep. 14	5%	AT&T	
11.8.6.23	620153	LTE_CA_B7_B8_B20-Core	Rel-12	June 14	75%	Vodafone	CA_7-8 deltaT, deltaR, Introduction of CA_1-20
11.8.6.23	620253	LTE_CA_B7_B8_B20-Perf	Rel-12	June 14	0%	Vodafone	
11.8.7.1	610122	LTE_CA_C_B41_3DL-Core	Rel-12	June 14	50%	Alcatel-Lucent	Determine the approach for requirements of minimum channel spacing. Confirm the approach of scaling up the wanted CC power according to increased BW for UE receiver requirements. Complete core CRs
11.8.7.1	610222	LTE_CA_C_B41_3DL-Perf	Rel-12	Sep. 14	15%	Alcatel-Lucent	Determine the performance requirements. Complete performance CRs.

RAN #63 agenda	UID	WI code	REL	target after RAN #63	% complete	rapporteur	Open issues / Other notes
11.8.8.1	620138	LTE_CA_NC_B41_3DL-Core	Rel-12	June 14	5%	Sprint, Alcatel-Lucent	Specify the core RF requirements. Add a bandwidth combination set to CA_41A-41A. Modify CA_41C bandwidth combination set 0 to include 5 MHz.
11.8.8.1	620238	LTE_CA_NC_B41_3DL-Perf	Rel-12	Sep. 14	5%	Sprint, Alcatel-Lucent	Add the performance requirements in the relevant specifications
12.1.1	620137	LTE_CA_C_B42-Core	Rel-13	Dec.14	5%	CATT	
12.1.1	620237	LTE_CA_C_B42-Perf	Rel-13	Dec.14	0%	CATT	

11.8.1 Inter-band CA related WIs (1 UL)

11.8.1.1 LTE Advanced inter-band Carrier Aggregation of Band 1 and Band 3 [**New:** LTE_CA_B1_B3]

No contributions.

11.8.1.2 LTE-Advanced inter-band Carrier Aggregation of Band 1 and Band 7 [LTE_CA_B1_B7]

No contributions.

11.8.1.3 LTE Advanced inter-band Carrier Aggregation of Band 1 and Band 11 [LTE_CA_B1_B11]

No contributions.

11.8.1.4 LTE Advanced inter-band Carrier Aggregation of Band 1 and Band 28 [**New:** LTE_CA_B1_B28]

No contributions.

11.8.1.5 Additional bandwidth combination set for LTE Advanced inter-band Carrier Aggregation of Band 2 and Band 4 [**New:** LTE_CA_B2_B4_BWset]

RP-140385 RAN4 CRs to Additional bandwidth combination set for LTE Advanced inter-band Carrier Aggregation of Band 2 and Band 4 RAN4 CR 36.101 2161 - B REL-12 LTE_CA_B2_B4_BWset-Core
conclusion: approved

620120	LTE_CA_B2_B4_BWset-Core	Rel-12	March 14	100%	T-Mobile USA	
620220	LTE_CA_B2_B4_BWset-Perf	Rel-12	March 14	100%	T-Mobile USA	

MCC: No CRs but Perf. part completed? Finally no CRs were needed for the Perf. part.

11.8.1.6 LTE Advanced inter-band Carrier Aggregation of Band 2 and Band 12 [LTE_CA_B2_B12]

RP-140180 Revised WID: LTE Advanced inter-band Carrier Aggregation of Band 2 and Band 12 U.S. Cellular WID rev RAN4 REL-12 LTE_CA_B2_B12
last approved WID: RP-131665; adds the 3 MHz bandwidth for Band 12, for a new bandwidth combination set
conclusion: revised in RP-140474 to correct March 14 to March 15

RP-140474 Revised WID: LTE Advanced inter-band Carrier Aggregation of Band 2 and Band 12 U.S. Cellular WID rev RAN4 REL-12 LTE_CA_B2_B12
conclusion: RP-140474 is approved
NOTE: It was clarified after RAN #63 that RP-140474 has an error: The target date for the Perf. part specifications is March 14 and not Sep.14.

580134	LTE_CA_B2_B12-Core	Rel-12	June 14	95%	US Cellular	UE IL, MOP relaxation and REFSENS relaxation. WID revision to add 3MHz bandwidth to Band 12
580234	LTE_CA_B2_B12-Perf	Rel-12	June 14 =>March 14	100%	US Cellular	

MCC: No CRs but Perf. part completed? See RP-131946 & RP-131947 of RAN #62.

11.8.1.7 LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 27

[**New:** LTE_CA_B3_B27]

RP-140119 Revised WID: LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 27 KT WID rev RAN4 REL-12 LTE_CA_B3_B27

last approved WID: RP-131752; based on the agreement in RAN4: 5MHz option added to Band 3 for B3+B27 CA

conclusion: approved

RP-140386 RAN4 CRs to LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 27 RAN4 CR set REL-12 LTE_CA_B3_B27-Core, LTE_CA_B3_B27-Perf

conclusion: approved

620122	LTE_CA_B3_B27-Core	Rel-12	March 14	100%	KT	
620222	LTE_CA_B3_B27-Perf	Rel-12	March 14	100%	KT	

11.8.1.8 LTE Advanced inter-band Carrier Aggregation of Band 4 and Band 27

[**New:** LTE_CA_B4_B27]

RP-140142 Revised WID: LTE Advanced inter-band Carrier Aggregation of Band 4 and Band 27 NII Holdings WID rev RAN4 REL-12 LTE_CA_B4_B27

last approved WID: RP-131677; removes the 1.4 MHz carrier for Band 27 from the configuration table

conclusion: approved

11.8.1.9 LTE Advanced inter-band Carrier Aggregation of Band 8 and Band 11 [LTE_CA_B8_B11]

No contributions.

11.8.1.10 Additional bandwidth of 3MHz for LTE Advanced inter-band Carrier Aggregation of Band 8 and Band 20 [**New:** LTE_CA_B8_B20_BW]

RP-140241 Introduction of 3MHz in Band 8 for CA_8_20 RF requirements into TS36.101 Vodafone Group CR 36.101 2174 - B REL-12 LTE_CA_B8_B20_BW

company contribution; CR was not submitted to RAN4; CR is provided to close this WI

discussion: MCC: was the CR reviewed by RAN4?
RAN chair: no

conclusion: approved (NOTE: Actually RP-140241 is only for LTE_CA_B8_B20_BW-Core.)

620172	LTE_CA_B8_B20_BW-Core	Rel-12	March 14	100%	Vodafone	company CRs to be presented in RAN#63
620272	LTE_CA_B8_B20_BW-Perf	Rel-12	March 14	100%	Vodafone	company CRs to be presented in RAN#63

11.8.1.11 LTE Advanced inter-band Carrier Aggregation of Band 8 and Band 27

[**New:** LTE_CA_B8_B27]

RP-140120 Revised WID: LTE Advanced Inter-band Carrier Aggregation of Band 8 and Band 27 KT WID rev RAN4 REL-12 LTE_CA_B8_B27

last approved WID: RP-131751; based on the agreement in RAN4: 5MHz option added to Band 8 for B8+B27 CA

conclusion: approved

11.8.1.12 LTE Advanced inter-band Carrier Aggregation of Band 39 and Band 41

[LTE_CA_B39_B41]

RP-140387 RAN4 CRs to LTE Advanced inter-band Carrier Aggregation of Band 39 and Band 41 RAN4 CR set REL-12 LTE_CA_B39_B41-Core

conclusion: approved

580133	LTE_CA_B39_B41-Core	Rel-12	March 14	100%	China Mobile	
580233	LTE_CA_B39_B41-Perf	Rel-12	March 14	100%	China Mobile	

MCC: No CRs but Perf. part completed?
RAN4 chair: Actually 36.307 CR is included in RP-140387 for Perf. part.

11.8.2 Inter-band CA related WIs (2 UL)

11.8.2.1 LTE Advanced dual uplink inter-band Carrier Aggregation Class A1 [LTE_CA_2UL-A1]

RP-140069 Status report for WI: LTE Advanced dual uplink inter-band Carrier Aggregation Class A1; rapporteur: Huawei RAN4 Report REL-12 LTE_CA_2UL-A1
conclusion: withdrawn as covered in R2-140059

RP-140394 Revised WID: LTE Advanced dual uplink inter-band Carrier Aggregation Class A1 Huawei WID rev RAN4 REL-12 LTE_CA_2UL-A1
last approved WID: RP-131713; will include new band combinations of RP-140170 and RP-140171
discussion: RAN chair: no affected specs
conclusion: revised in RP-140475 to add affected specs

RP-140475 Revised WID: LTE Advanced dual uplink inter-band Carrier Aggregation Class A1 Huawei WID rev RAN4 REL-12 LTE_CA_2UL-A1
conclusion: approved

11.8.2.2 LTE Advanced dual uplink inter-band Carrier Aggregation Class A2 [LTE_CA_2UL-A2]

No contributions.

11.8.2.3 LTE Advanced dual uplink inter-band Carrier Aggregation Class A3 [LTE_CA_2UL-A3]

No contributions.

11.8.2.4 LTE Advanced dual uplink inter-band Carrier Aggregation Class A4 [LTE_CA_2UL-A4]

RP-140258 Revised WID: LTE Advanced dual uplink inter-band Carrier Aggregation Class A4 Nokia Corporation WID rev RAN4 REL-12 LTE_CA_2UL-A4
last approved WID: RP-131660; updated with CA_3A-8A
conclusion: revised in RP-140476 to add specs

RP-140476 Revised WID: LTE Advanced dual uplink inter-band Carrier Aggregation Class A4 Nokia Corporation WID rev RAN4 REL-12 LTE_CA_2UL-A4
revision of RP-140258; last approved WID: RP-131660;
conclusion: approved

11.8.2.5 LTE Advanced dual uplink inter-band Carrier Aggregation Class A5 [LTE_CA_2UL-A5]

No contributions.

11.8.3 Intra-band CA related WIs (contiguous)

11.8.3.1 Additional bandwidth combinations for LTE Advanced intra-band contiguous Carrier Aggregation in Band 7 [**New:** LTE_CA_C_B7_BW]

No contributions.

11.8.3.2 Perf. part: LTE Advanced intra-band contiguous Carrier Aggregation in Band 27 [LTE_CA_C_B27-Perf]

No contributions.

11.8.3.3 LTE Advanced intra-band contiguous Carrier Aggregation in Band 39 [LTE_CA_C_B39]

RP-140149 TR 36.833-1-39 V1.0.0 on LTE Advanced intra-band contiguous Carrier Aggregation for Band 39, for approval CMCC TR 36.833-1-39 RAN4 REL-12 LTE_CA_C_B39
RAN4 TR 36.833-1-39 is submitted for 1-step approval;
discussion: MCC: presentation template is missing; therefore v1.0.0 is reissued in RP-140438
conclusion: revised in RP-140438

RP-140438 TR 36.833-1-39 V1.0.0 on LTE Advanced intra-band contiguous Carrier Aggregation for Band 39, for approval CMCC TR 36.833-1-39 RAN4 REL-12 LTE_CA_C_B39
RAN4 TR 36.833-1-39 is submitted for 1-step approval
conclusion: approved as TR 36.833-1-39 v12.0.0

RP-140388 RAN4 CRs to LTE Advanced intra-band contiguous Carrier Aggregation in Band 39 RAN4 CR set REL-12 LTE_CA_C_B39-Core, LTE_CA_C_B39-Perf
conclusion: approved

590127	LTE_CA_C_B39-Core	Rel-12	March 14	100%	China Mobile	
590227	LTE_CA_C_B39-Perf	Rel-12	March 14	100%	China Mobile	

11.8.4 Intra-band CA related WIs (non-contiguous 1UL)

11.8.4.1 LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 2 [LTE_CA_NC_B2]

No contributions.

11.8.4.2 Perf. part: LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 23 [LTE_CA_NC_B23-Perf]

No contributions.

11.8.4.3 LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 42 [**New:** LTE_CA_NC_B42]

RP-140073 Status report for WI: LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 42; rapporteur: Huawei RAN4 Report REL-12 LTE_CA_NC_B42
conclusion: withdrawn as covered in R2-140059

RP-140404 Revised WID: LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 42 Huawei WID rev RAN4 REL-12 LTE_CA_NC_B42
last approved WID: RP-131733
discussion: NEC: no revision marks
conclusion: at first revised in RP-140477 but then RP-140477 withdrawn and RP-140404 is approved

RP-140477 Revised WID: LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 42 Huawei WID rev RAN4 REL-12 LTE_CA_NC_B42
last approved WID: RP-131733;
conclusion: RP-140477 was supposed to be a revision of RP-140404 but later RP-140477 was withdrawn

11.8.5 Intra-band CA related WIs (non-contiguous 2UL)

11.8.5.1 Core part: LTE Advanced intra-band non-contiguous CA framework for 2UL [LTE_CA_NC_2UL-Core]

RP-140267 Revised WID: LTE Advanced intra-band non-contiguous CA framework for 2UL Nokia Corporation; NSN WID rev RAN4 REL-12 LTE_CA_NC_2UL-Core
last approved WID: RP-131659; CA_41A_41A removed as example configuration
conclusion: approved

11.8.5.2 LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 4 for 2UL [LTE_CA_NC_B4_2UL]

No contributions.

11.8.5.3 LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 41 for 2 UL [LTE_CA_NC_B41_2UL]

RP-140083 Status report for WI: LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 41 for 2 UL; rapporteur: Sprint RAN4 Report REL-12 LTE_CA_NC_B41_2UL
proposal to stop this WI for Core and Perf. part;
conclusion: withdrawn as covered in RP-140059

600123	LTE_CA_NC_B41_2UL-Core	Rel-12	March 14	5%	Sprint	It is proposed that RAN stop work on this WID without any further development. Market conditions have eliminated the need for this feature, at least for the foreseeable future.

600223	LTE_CA_NC_B41_2UL-Perf	Rel-12	March 14	0%	Sprint	It is proposed that RAN stop work on this WID without any further development. Market conditions have eliminated the need for this feature, at least for the foreseeable future.

WIs LTE_CA_NC_B41_2UL-Core and LTE_CA_NC_B41_2UL-Perf are stopped.

11.8.6 3 Band Carrier Aggregation (3DL/1UL)

11.8.6.1 LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 1, Band 3 and Band 5 [New: LTE_CA_B1_B3_B5]

No contributions.

11.8.6.2 LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 1, Band 3 and Band 8 [New: LTE_CA_B1_B3_B8]

No contributions.

11.8.6.3 LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 1, Band 3 and Band 20 [New: LTE_CA_B1_B3_B20]

RP-140242 Revised WID: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 1, Band 3 and Band 20
Vodafone Group WID rev RAN4 REL-12 LTE_CA_B1_B3_B20
last approved WID: RP-1302082; to add 20MHz to Band 1 within the combination.
discussion: Orange: only 2 supporting companies?
All companies in [ ] confirmed that they are supporting.
conclusion: approved, Vodafone has to remove [ ] in next revision for supporting companies

11.8.6.4 LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 1, Band 5 and Band 7 [New: LTE_CA_B1_B5_B7]

RP-140209 Revised WID: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 1, Band 5 and Band 7
LG Uplus WID rev RAN4 REL-12 LTE_CA_B1_B5_B7
last approved WID: RP-131634; Table-1 (E-UTRAN CA Configurations and Bandwidth Sets for Inter-band CA of Band 1, Band 5 and Band 7) and Table 2 (Interband 2 Band CA Scenario) were updated
conclusion: approved

11.8.6.5 LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 1, Band 7 and Band 20 [New: LTE_CA_B1_B7_B20]

RP-140243 Revised WID: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 1, Band 7 and Band 20
Vodafone Group WID rev RAN4 REL-12 LTE_CA_B1_B7_B20
last approved WID: RP-132081; change to add 20MHz to Band 1 within the combination.
discussion: All companies in [ ] confirmed that they are supporting.
conclusion: approved, Vodafone has to remove [ ] in next revision for supporting companies

11.8.6.6 LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 2, Band 2 and Band 13 [LTE_CA_B2_B2_B13]

No contributions.

11.8.6.7 LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 2, Band 4, and Band 5 [New: LTE_CA_B2_B4_B5]

RP-140186 Revised WID: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 2, Band 4, and Band 5
U.S. Cellular WID rev RAN4 REL-12 LTE_CA_B2_B4_B5
last approved WID: RP-131724; adds the proper TR reference number assigned for the 3DL/1UL technical report: TR 36.853
conclusion: approved

11.8.6.8 LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 2, Band 4, and Band 12 [New: LTE_CA_B2_B4_B12]

RP-140189 Revised WID: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 2, Band 4, and Band 12
U.S. Cellular WID rev RAN4 REL-12 LTE_CA_B2_B4_B12
last approved WID: RP-131725; adds the proper TR reference number assigned for the 3DL/1UL technical report: TR 36.853

conclusion: approved

11.8.6.9 LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 2, Band 4 and Band 13 [LTE_CA_B2_B4_B13]

No contributions.

11.8.6.10 LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 2, Band 5, and Band 12 [**New:** LTE_CA_B2_B5_B12]

RP-140190 Revised WID: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 2, Band 5, and Band 12
U.S. Cellular WID rev RAN4 REL-12 LTE_CA_B2_B5_B12
last approved WID: RP-131726; adds the proper TR reference number assigned for the 3DL/1UL technical report: TR 36.853
conclusion: approved

11.8.6.11 LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 2, Band 5 and Band 30 [LTE_CA_B2_B5_B30]

No contributions.

11.8.6.12 LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 2, Band 12 and Band 12 [**New:** LTE_CA_B2_B12_B12]

No contributions.

11.8.6.13 LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 2, Band 12 and Band 30 [**New:** LTE_CA_B2_B12_B30]

No contributions.

11.8.6.14 LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 2, Band 29 and Band 30 [LTE_CA_B2_B29_B30]

No contributions.

11.8.6.15 LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 3, Band 7 and Band 20 [**New:** LTE_CA_B3_B7_B20]

RP-140244 Revised WID: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 3, Band 7 and Band 20
Vodafone Group WID rev RAN4 REL-12 LTE_CA_B3_B7_B20
last approved WID: RP-131824; change to add 15Mhz and 20MHz to Band 20 within the combination.
discussion: RAN chair: some companies in [ ] under supporting companies
Orange: additional bandwidths would impact the completion date?
Orange: if RP-140448 is approved, we support
Telecom Italia: same for us
DT: we support
conclusion: approved

11.8.6.16 LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 3, Band 8 and Band 27 [**New:** LTE_CA_B3_B8_B27]

No contributions.

11.8.6.17 LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 4, Band 4 and Band 13 [LTE_CA_B4_B4_B13]

No contributions.

11.8.6.18 LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 4, Band 5, and Band 12 [**New:** LTE_CA_B4_B5_B12]

RP-140191 Revised WID: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 4, Band 5, and Band 12
U.S. Cellular WID rev RAN4 REL-12 LTE_CA_B4_B5_B12
last approved WID: RP-131836; adds the proper TR reference number assigned for the 3DL/1UL technical report: TR 36.853
conclusion: approved

11.8.6.19 LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 4, Band 5 and Band 30 [LTE_CA_B4_B5_B30]

No contributions.

11.8.6.20 LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 4, Band 12 and Band 12 [**New:** LTE_CA_B4_B12_B12]

No contributions.

11.8.6.21 LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 4, Band 12 and Band 30 [**New:** LTE_CA_B4_B12_B30]

No contributions.

11.8.6.22 LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 4, Band 29 and Band 30 [LTE_CA_B4_B29_B30]

No contributions.

11.8.6.23 LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) for Band 7, Band 8 and Band 20 [**New:** LTE_CA_B7_B8_B20]

No contributions.

11.8.7 Intra-band CA related WIs (contiguous 3DL)

11.8.7.1 LTE Advanced intra-band contiguous Carrier Aggregation in Band 41 for 3DL [LTE_CA_C_B41_3DL]

RP-140100 Revised WID: LTE Advanced intra-band contiguous Carrier Aggregation in Band 41 for 3DL Sprint WID rev RAN4 REL-12 LTE_CA_C_B41_3DL
last approved WID: RP-131695; it was clarified that this WID is for DL only, and that the proposed DL can be paired with the existing UL CA bandwidth classes already defined in 3GPP standards
conclusion: approved

11.8.8 Intra-band CA related WIs (non-contiguous 3DL)

11.8.8.1 LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 41 for 3 DL [**New:** LTE_CA_NC_B41_3DL]

RP-140101 Revised WID: LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 41 for 3 DL Sprint WID rev RAN4 REL-12 LTE_CA_NC_B41_3DL
last approved WID: RP-131694; it was clarified that this WID is for DL only, and that the proposed DL can be paired with the existing UL CA bandwidth classes already defined in 3GPP standards
conclusion: approved

11.9 Open LTE only related WIs (spectrum; not CA related)

11.9.1 LTE in the 1670-1675MHz Band for US [LTE_FDD_1670_US] WI on hold until March 14

RP-140396 Status report for WI LTE in the 1670-1675MHz Band for US; rapporteur: LightSquared RAN4 Report REL-12 LTE_FDD_1670_US
proposal: Core part: 15%, Dec.14, Perf. part: 5%, March 15;
discussion: MCC: late submission; it is requested to keep the WI on hold until June which means shifting it to REL-13?
RAN chair: we will shift the REL-12 freeze to Sep.14
conclusion: noted, approved: Core part: 15%, Dec.14, Perf. part: 5%, March 15; WI will be on hold until June 14; WI will be shifted to REL-13

11.10 Small Technical Enhancements and Improvements for Rel-12 [TEI12]

RAN2:

RP-140362 RAN2 agreed CRs on Small Technical Enhancements and Improvements for Rel-12 RAN2 CR set REL-12 TEI12
conclusion: approved

RP-140363 RAN2 agreed CR on Introduction of MBMS Restoration RAN2 CR 25.346 0054 - B REL-12 eMBMS_Rest, TEI12
CR was originally from RAN3; eMBMS_Rest is a CT REL-12 WI
conclusion: approved

RAN3:

RP-140297 TEI12 CRs RAN3 CR set REL-12 TEI12, eMBMS_Rest, NWK-PL2IMS
NWK-PL2IMS was a REL-11 SA2 WI; eMBMS_Rest was a REL-12 CT3/4 WI
conclusion: approved

RP-140253 Considerations for IMEI-SV to eNodeB from CN NSN, Nokia Disc 36.413, 36.423 REL-12 TEI12
RAN3 has discussed to provide IMEI-SV from CN to eNodeB. This is not only RAN3 issue and should be considered more widely to understand 3GPP wide impact; moved from AI 8.3.2 to AI 11.10 to treat together with CRs in RP-140300
proposals:
- *We should discuss in TSG RAN plenary, and not leave the issue to TSG RAN3 only, the use cases for IMEI-SV and whether providing that from MME to eNB will address the problem or should be rather rely on the methods already agreed (FGI bits).*
- *The UMTS situation is also different as there the IMEI-SV (done at a much more mature phase of the market) is provided to RNC only rather than all the way to the NB and there the concept of FGI bits does not exist.*
- *If we decide to provide the IMEI-SV to eNB for some use case, we should be clear that it is not replacing the need for proper IOT against network implementations and proper consideration for FGI bits of corresponding Release.*

discussion: Vodafone: this IMEI SV mechanism should not be misused as a sort of FGI; but we support the CR RP-140300
Cisco: supports the NSN paper, so we need to be careful with a decision
TeliaSonera: supports the CR
AT&T: agrees with Vodafone that this is not security related information, FGI bits were stopped in REL-11
ALU: we agree with all observations in the NSN paper but for some of the cases it is useful
NSN: what is this supposed to be used for?
Vodafone: any wrongly implemented feature
NSN: is it not what we have FGI bits for?
AT&T: useful not just for IOT
CMCC: we are not sure whether we should send an LS to SA3
Cisco: supports to send an LS to SA3
conclusion: noted

RP-140300 Provide IMEISV to eNB to identify UE characteristics RAN3 CR set REL-12 TEI12
Technically endorsed by RAN3 as some companies thought CRs are beyond the scope of RAN3, see RP-140253
conclusion: postponed, CRs are in principle agreed by RAN (see LSout RP-140509) i.e. RAN3 will provide them based on the latest spec versions to RAN #64 depending on the feedback from SA3

RP-140492 Draft LS on Providing the IMEISV to eNB (to: SA3; cc: -; contact: Vodafone) Vodafone Group LSout LS09 REL-12 TEI12
related to RP-140253 and CR set RP-140300
discussion: Vodafone: The signalling of IMEISV from MME to eNB is not aimed to replace the need for proper IOT against network implementations and proper consideration for FGI bits of

corresponding Release. The intention of the IMEISV signalling is to provide operators means to deal with early/faulty implanted UEs.
Ericsson: replace RAN plenary by TSG RAN
RAN3 chair: please have cc RAN3

conclusion: revised in RP-140509 to include the changes above (replace RAN plenary by TSG RAN, have cc RAN3)

RP-140509 LS on Providing the IMEISV to eNB (to: SA3; cc: RAN3; contact: Vodafone) RAN LSout REL-12 TEI12

conclusion: approved

RAN4:

RP-140389 RAN4 CRs to Small Technical Enhancements and Improvements for Rel-12 RAN4 CR set REL-12 TEI12, LTE-RF

conclusion: approved

12 Work Items with target Rel-13 (not related to conformance testing)

12.1 Open LTE only related WIs (spectrum; CA related)

12.1.1 LTE Advanced intra-band contiguous Carrier Aggregation in Band 42 [New: LTE_CA_C_B42]

NOTE: See RP-140428 under agenda item 11.8 for the status of this WI.

620137	LTE_CA_C_B42-Core	Rel-13	Dec.14	5%	CATT	
620237	LTE_CA_C_B42-Perf	Rel-13	Dec.14	0%	CATT	

No contributions.

13 Study Items

13.1 Closed study items

No contributions.

13.2 Open UTRA only related SIs

13.2.1 REL-12 Study on HNB Emergency Warning Area for UTRA [FS_HNB_warn_area]

RP-140129 Status Report on Study on HNB Emergency Warning Area for UTRA; rapporteur: Alcatel-Lucent
RAN3 Report REL-12 FS_HNB_warn_area
conclusion: noted, approved: 100%, March 2014; SI completed

RP-140130 TR 25.703 v1.0.0 on Study on HNB Emergency Warning Area for UTRA, for approval ip.access Ltd
TR 25.703 RAN3 REL-12 FS_HNB_warn_area
RAN3 TR 25.703 is submitted for 1-step approval
conclusion: revised in RP-140410

RP-140410 TR 25.703 v1.0.1 on Study on HNB Emergency Warning Area for UTRA, for approval ip.access Ltd
TR 25.703 RAN3 REL-12 FS_HNB_warn_area
revision of RP-140130 to align with spec drafting rules; RAN3 TR 25.703 is submitted for 1-step approval; presented by ALU
conclusion: approved as TR 25.703 v12.0.0

13.2.2 REL-12 Study on scalable UMTS FDD bandwidth by filtering [**New:** FS_UTRA_SCAL_FILT]

RP-140223 Status Report for SI: Study on scalable UMTS FDD bandwidth by filtering; rapporteur: China Unicom
RAN1 Report REL-12 FS_UTRA_SCAL_FILT
proposal: 75%, June 14;
discussion: MCC: late submission; target date change without TU change
Orange: SI says 75% complete and we discuss already to start a WI?
Qualcomm: we wanted to start on aspects completed already in the SI
NTT DOCOMO: has impact on RAN4
ALU: RAN2 and RAN4 work needs to be added and TU request has to be updated for RAN1, RAN2, RAN4
Ericsson: worried about TU change from 9TU down to 0.5TU so how realistic is it to complete this in REL-12
TeliaSonera: we are concerned to semi-complete a SI to start a WI and find the corresponding time allocation unrealistic
Broadcom: same view
Huawei: we could modify the SI to remove parts not completed and then start a WI on completed aspects
AT&T: fears impact of neighbouring operator on AT&T band(s)
Vodafone: strange that these concerns come up now
RAN chair: seems not much support to start a WI now maybe it is better to continue the SI
Telefonica: is supporting this work
RAN chair: by Thu we need to decide, companies are invited to bring a common way forward; if no common way forward, we will do a show-of-hands, we will start with existing WIs/SIs and then with the new WIs/SIs
Qualcomm: why do we need RAN2/RAN4 open issues to a RAN1 only WI?
RAN chair: what is the status of the offline discussion?
ALU: we have not agreed to close the SI
conclusion: revised in RP-140499

RP-140499 Status Report for SI: Study on scalable UMTS FDD bandwidth by filtering; rapporteur: China Unicom
RAN1 Report REL-12 FS_UTRA_SCAL_FILT
discussion: NSN: do we intend to work on stand-alone case or not? is it really needed?
Vodafone: we are still interested in the stand-alone case and would like to give it one last try

NSN: if the WI will cover this anyway in the future is there still a need to study in the next quarter
ALU: no concern if you want to limit to multi-carrier case but maybe better to keep it for one quarter
Qualcomm: shares NSN view
conclusion: noted, approved: 75%, June 14
focus is on multi-carrier but contributions on stand-alone are not prohibited

RP-140292 CR to 25.701 on Scalable BW UMTS RAN1 CR25.7010007 - B REL-12 FS_UTRA_SCAL_FILT
TR 25.701 was the TR of the already completed REL-12 SI FS_UTRA_SCAL and it is reused for SI FS_UTRA_SCAL_FILT
conclusion: approved

RP-140497 Way forward on Study on scalable UMTS FDD bandwidth by filtering China Unicom Disc REL-12 FS_UTRA_SCAL_FILT
According to the study of S-UMTS by filtering, the following items should be approved.
- *New WI of Release 12 on Multicarrier scenario*
  - *Define the support for S-UMTS by Filtering for the HSDPA carrier aggregation operation mode based on the chip zeroing filtering solution;*
  - *Consider cross carrier scheduling optimization depending on the conclusion of RAN1#76bis meeting.*
- *New SI of Release 13 on Standalone scenario:*
  - *Close the Study Item (RP-132122) in Release 12;*
  - *Study on the rest issues of the standalone scenario in Release 13.*

discussion: ALU: multi-carrier and stand-alone cases difficult to distinguish, suggests to continue existing SI for 1 more quarter focussing on RAN1, with time allocation increased to 2 TUs per meeting
AT&T: does not like to split the work, and prefers to continue the SI in RAN1 for one more quarter; we are not opposed to S-UMTS in general. But after many months of study, the time dilated S-UMTS solution was found to be deficient. Now the filtered S-UMTS solution has only had a few months of study. This, we fear, is inadequate and could result in big problems. One such is the leakage aspect which could cause one operator using S-UMTS to degrade a neighboring operator's network performance. This is an important consideration that has to be well studied.
Qualcomm: market demand for multi-carrier part
TeliaSonera: we support to complete SI in REL-12 and come back with a WI in REL-13
Broadcom, Orange: support to complete SI in REL-12 and WI in REL-13
Qualcomm: what about having then a REL-13 WI?
RAN chair: we said we do not start a REL-13 WI now
Vodafone: still interested in stand-alone case
conclusion: noted, SI will be continued for one more quarter

13.3 Open UTRA & LTE related SIs

13.3.1 REL-12 Study on next-generation SON for UTRA and LTE [FS_UTRA_LTE_NG_SON]

RP-140276 Status report for SI Study on next-generation SON for UTRA and LTE, rapporteur: NSN RAN3 Report REL-12 FS_UTRA_LTE_NG_SON
conclusion: noted, approved: 90%, June 14

13.3.2 REL-12 Study on 2GHz FDD for UTRA and LTE in Region 1 1980-2010MHz and 2170-2200MHz Bands) [FS_UTRA_LTE_1980_2170_REG1]

RP-140081 Status Report for SI: Study on 2GHz FDD for UTRA and LTE in Region 1 (1980-2010MHz and 2170-2200MHz Bands); rapporteur: Solaris Mobile Ltd. RAN4 Report REL-12 FS_UTRA_LTE_1980_2170_REG1
proposing: 50%, June 14;
discussion: Ericsson: Concern on the list of completed elements (section 2.2.1) and missing information under list of open issues (section 2.3.1)
Ericsson: open issues and completed elements should be discussed in the leading WG
conclusion: revised in RP-140495

RP-140495 Status Report for SI: Study on 2GHz FDD for UTRA and LTE in Region 1 (1980-2010MHz and 2170-2200MHz Bands); rapporteur: Solaris Mobile Ltd. RAN4 Report REL-12 FS_UTRA_LTE_1980_2170_REG1
revision of RP-140081; MCC: late submission; presented by Dish Network
conclusion: noted, approved: 50%, June 14

RP-140051 Revised SID: Study on 2GHz FDD for UTRA and LTE in Region 1 (1980-2010 MHz and 2170-2200 MHz Bands) Dish Network, Solaris Mobile Ltd. SID rev RAN4 REL-12 FS_UTRA_LTE_1980_2170_REG1
last approved SID: RP-122031; rapporteurship will be changed from Solaris Mobile Ltd. to Dish Network;
discussion: Ericsson: Applicability of the band to UMTS is removed from the SID
conclusion: revised in RP-140505

RP-140505 Revised SID: Study on 2GHz FDD for UTRA and LTE in Region 1 (1980-2010 MHz and 2170-2200 MHz Bands) Dish Network, Solaris Mobile Ltd. SID rev RAN4 REL-12 FS_UTRA_LTE_1980_2170_REG1
revision of RP-140051; last approved SID: RP-122031; rapporteurship will be changed from Solaris Mobile Ltd. to Dish Network;
discussion: Solaris Mobile: kept UTRA included but parties interested in UTRA are invited to contribute the next RAN4 meetings and we would like to focus the later WI on LTE only
Ericsson: that's ok if LTE part of SI is concluded
conclusion: approved

13.3.3 REL-13 Study on Multi-RAT Joint coordination [**New:** FS_MultiRAT_JC]

RP-140148 Status Report for SI: Study on Multi-RAT joint coordination; rapporteur: CMCC RAN3 Report REL-13 FS_MultiRAT_JC
conclusion: noted, approved: 5%, Dec.14

13.4 Open LTE only related SIs

13.4.1 REL-12 Study on Mobile Relay for E-UTRA [FS_LTE_mobRelay] SI on hold until March 14

RP-140193 Status report for SI: Study on Mobile Relay for E-UTRA; rapporteur: CATT RAN3 Report REL-12 FS_LTE_mobRelay
proposal: 80%, June 2014;
discussion: MCC: TU change
conclusion: noted, approved: 80%, Sep.14, SI will be on hold until Sep.14

13.4.2 REL-12 Study on LTE FDD in the bands 1980-2010 MHz and 2170-2200 MHz [FS_LTE_1980_2170_Korea]

RP-140210 Status report for SI: Study on LTE FDD in the bands 1980-2010 MHz and 2170-2200 MHz; rapporteur: KT RAN4 Report REL-12 FS_LTE_1980_2170_Korea
presented by LG Uplus;
conclusion: noted, approved: 60%, June 14

RP-140121 Revised SID: Study on LTE FDD in the bands 1980-2010 MHz and 2170-2200 MHz KT SID rev REL-12 FS_LTE_1980_2170_Korea
last approved SID: RP-131976; objective modified based on the agreement in RAN4
discussion: NTT DOCOMO: revision is based on what RAN4 agreed
KDDI: why do we want to remove 90MHz option? some operators have interest in this
NTT DOCOMO: RAN4 narrowed down the scope based on the RAN4 agreement. At this moment, 90 MHz is out of scope of the SI. But a contribution for 90MHz option can be brought and can be handled in the future RAN4 where the proponent for 90MHz option needs to obtain the approval to change the current scope and include 90MHz option at first, and then they can bring it to RAN plenary.
KDDI: further analysis for detailed performance of 90MHz and 70MHz is needed, we will discuss this in RAN4 and may revise the SID at next RAN meeting
conclusion: approved

13.4.3 REL-12 Study on LTE Device to Device Proximity Services [FS_LTE_D2D_Prox]

RP-140125 Status report for SI: Study on LTE Device to Device Proximity Services; rapporteur: Qualcomm RAN1 Report REL-12 FS_LTE_D2D_Prox
discussion: Ericsson: SR incomplete and largely optimistic progress level;
Orange: Several objectives from the SID have not been studied enough or not covered at all during the study item phase. Need to be reflected in the SR
conclusion: revised in RP-140416 (allocated before RAN #63)

RP-140416 Status report for SI: Study on LTE Device to Device Proximity Services; rapporteur: Qualcomm RAN1 Report REL-12 FS_LTE_D2D_Prox
discussion: MCC: late submission
conclusion: noted, 90%, March 14, SI is stopped

RP-140010 Reply LS to RP-132107 on ProSe Lawful Interception
(S2-140494; to: RAN; cc: SA3, SA3-LI, RAN1, RAN2, RAN3, SA, SA1; contact: Qualcomm) SA2 LSin REL-12 FS_LTE_D2D_Prox
no explicit RAN action requested;
conclusion: noted, Ericsson drafted an LS answer to SA2 in RP-140283, finally no LS answer but RAN chair will inform SA

RP-140012 LS on ProSe Out of Coverage discovery
(S2-140560; to: RAN, RAN1, RAN2, RAN3, RAN4; cc: SA; contact: Deutsche Telekom) SA2 LSin REL-12 ProSe
RAN action requested;
conclusion: noted, no LS answer from RAN to SA2

RP-140017 Reply LS to S2-140560 = RP-140012 on ProSe Out of Coverage discovery
(R1-140950; to: RAN; cc: RAN2, RAN3, RAN4, SA, SA2; contact: Ericsson) RAN1 LSin REL-12 ProSe
RAN action requested;
conclusion: noted, no LS answer to RAN1

RP-140283 Reply LS to S2-140560 = RP-140012 on ProSe Out of Coverage discovery (to: SA2; cc: RAN2, RAN3, RAN4, SA, RAN1; contact: Ericsson) Ericsson LSout REL-12 ProSe
discussion: ALU: work for out-of-coverage discovery on top of in-coverage discovery would be small
Broadcom: we can keep the SI open and check then how difficult this is
General Dynamics: supports to have it in the WI
DT: supports to have a unified solution for in-coverage and out-of-coverage
US Dep.of Com. communication is more important than discovery but discovery is still important
Ericsson: everything that reduces the complexity is helpful to allow in-time completion for REL-12
TeliaSonera: would support to restict the new REL-12 WI to in-coverage discovery
RAN chair: would this restriction be acceptable?
SA chair: in case you remove it from REL-12 it would be good to inform SA about this
conclusion: withdrawn, RAN chair will report to SA that out-of-coverage discovery will not be considered in REL-12

RP-140126 TR 36.843 v1.2.0 for Study on LTE Device to Device Proximity Services; Radio Aspects Qualcomm Incorporated TR 36.843 RAN1 REL-12 FS_LTE_D2D_Prox
RAN1 TR 36.843 is submitted for 1-step approval; presentation template is missing;
conclusion: revised in RP-140424

RP-140424 TR 36.843 v1.2.0 for Study on LTE Device to Device Proximity Services; Radio Aspects Qualcomm Incorporated, AT&T TR 36.843 REL-12 FS_LTE_D2D_Prox
RAN1 TR 36.843 is submitted for 1-step approval
conclusion: approved as TR 36.843 v12.0.0

13.4.4 REL-12 Study on 3D-channel model for Elevation Beamforming and FD-MIMO studies for LTE [FS_LTE_3D_channel]

RP-140273 Status report for SI: Study on 3D-channel model for Elevation Beamforming and FD-MIMO studies for LTE; rapporteur: NSN RAN1 Report REL-12 FS_LTE_3D_channel
conclusion: noted, approved: 60%, June 14

Note: It was detected after RAN #63 that the time budget discussions (see RP-140500) modified the time budgets for this SI from:
1 TU for RAN1 #76bis in April 14, 1 TU for RAN1 #77 in May 14, completion in June 14
to
0 TU for RAN1 #76bis in April 14, 0 TU for RAN1 #77 in May 14, 1 TU for RAN1 #78 in Aug.14.
However, since this modifies the time budget allocation without request in the status report above and it also changes the target date without any request in the status report or approval of RAN #63, the corresponding modification for SI FS_LTE_3D_channel in RP-140500 has to be discarded and the target date remains June 14 after RAN #63.
The rapporteur of SI FS_LTE_3D_channel is asked to correct the time budget allocation and target date in the status report for RAN #64.
The time budget discussions cannot overwrite the target date approvals for SIs/WIs.

RP-140272 TR 36.873 v1.3.0 on Study on 3D channel model for LTE, for information NSN TR 36.873 RAN1 REL-12 FS_LTE_3D_channel
RAN1 TR 36.873 is submitted for information (TR was already presented for information as v1.0.0 in RP-131323 at RAN #61);
conclusion: revised in RP-140423 (presentation template is missing, TR is now proposed for approval)

RP-140423 TR 36.873 v2.0.0 on Study on 3D channel model for LTE, for approval NSN TR 36.873 RAN1 REL-12 FS_LTE_3D_channel
RAN1 TR 36.873 is submitted for approval
discussion: MCC: how can the TR be more than 80% complete (only then a TR can be submitted for approval) although the SI is just 60% complete?
conclusion: withdrawn

13.4.5 REL-12 Study on Energy Saving Enhancement for E-UTRAN [FS_Netw_Energy_enh_LTE]

RP-140146 Status Report for SI: Study on Energy Saving Enhancement for E-UTRAN; rapporteur: CMCC RAN3 Report REL-12 FS_Netw_Energy_enh_LTE
conclusion: noted, approved: 67%, June 2014

RP-140239 TR 36.887 V1.0.0 on Study on Energy Saving Enhancement for E-UTRAN, for information CMCC TR 36.887 RAN3 REL-12 FS_Netw_Energy_enh_LTE
RAN3 TR 36.887 is submitted for information;
discussion: MCC: presentation template is missing
conclusion: TR is reissued in RP-140439 to add the presentation template

RP-140439 TR 36.887 V1.0.0 on Study on Energy Saving Enhancement for E-UTRAN, for information CMCC TR 36.887 RAN3 REL-12 FS_Netw_Energy_enh_LTE
RAN3 TR 36.887 is submitted for information
conclusion: noted

13.4.6 REL-12 Study on Expansion of LTE_FDD_1670_US to include 1670-1680MHz Band for LTE in the US [FS_LTE_FDD_1670_US]

RP-140278 TR 36.844 v2.0.0 for Study on Expansion of LTE_FDD_1670_US to include 1670-1680MHz Band for LTE in the US Lightsquared TR 36.844 RAN4 REL-12 FS_LTE_FDD_1670_US
conclusion: withdrawn as this was requested by accident

RP-140279 TR 36.844 v2.0.0 for Study on Expansion of LTE_FDD_1670_US to include 1670-1680MHz Band for LTE in the US Lightsquared TR 36.844 RAN4 REL-12 FS_LTE_FDD_1670_US
conclusion: withdrawn as this was requested by accident

RP-140280 TR 36.844 v2.0.0 for Study on Expansion of LTE_FDD_1670_US to include 1670-1680MHz Band for LTE in the US Lightsquared TR 36.844 RAN4 REL-12 FS_LTE_FDD_1670_US
TR integrates the changes proposed in RAN4 WG November 2013 meting in San Francisco; note: The TR was provided for information at RAN #61 in RP-131153;
conclusion: TR had to be withdrawn as spec submission template was missing, document pretends to provide v1.0.0 for information and history table is not maintained properly; see RP-140403 instead

RP-140395 Status report for SI Study on Expansion of LTE_FDD_1670_US to include 1670-1680MHz Band for LTE in the US; rapporteur: LightSquared RAN4 Report REL-12 FS_LTE_FDD_1670_US

proposal: 80%, June 14;
discussion: MCC: late submission; TU change; unclear statement (this WI will be on hold but TU requested)
NII: SI should be continued until RAN #64 with the indicated TUs
conclusion: noted, approved: 80%, June 14, SI continues

RP-140403 TR 36.844 v2.0.0 for Study on Expansion of LTE_FDD_1670_US to include 1670-1680MHz Band for LTE in the US Lightsquared TR 36.844 RAN4 REL-12 FS_LTE_FDD_1670_US
RAN4 TR 36.844 is provided for approval (note: Acc. TR 21.900: if at least 80% complete a TR can be proposed for approval)
conclusion: approved as TR 36.844 v12.0.0

13.4.7 REL-12 Study on Network-Assisted Interference Cancellation and Suppression for LTE [FS_LTE_NAICS]

RP-140204 Status report for SI: Study on Network-Assisted Interference Cancellation and Suppression for LTE, rapporteur: MediaTek RAN1 Report REL-12 FS_LTE_NAICS
proposal: 85%, March 14;
discussion: MCC: intention to stop the SI?;
Ericsson: still ongoing RAN1 discussion on the open issues list as not all of them are currently reflected;
conclusion: revised in RP-140472

RP-140472 Status report for SI: Study on Network-Assisted Interference Cancellation and Suppression for LTE, rapporteur: MediaTek RAN1 Report REL-12 FS_LTE_NAICS
discussion: Ericsson: maybe we should at first see whether a WI will start, if not then we keep the SI open
NSN: proposes to complete the SI and have a WI next time
Orange: wants to start a WI
Ericsson: we don't want to close the SI before we know whether there is a WI
conclusion: noted, approved: 85%, March 14, SI is stopped

RP-140205 TR36.866 v2.0.0 for Study on Network Assisted Interference Cancellation and Suppression for LTE MediaTek TR 36.866 RAN1 REL-12 FS_LTE_NAICS
RAN1 TR36.866 submitted for approval
conclusion: approved as TR 36.866 v12.0.0

13.4.8 REL-12 Study on Positioning enhancements for E-UTRA [FS_LCSenh_LTE]

RP-140072 Status report for SI: Study on Positioning enhancements for E-UTRA; rapporteur: Huawei RAN4 Report REL-12 FS_LCSenh_LTE
conclusion: noted, approved: 65%, June 14

13.4.9 REL-12 Study on Group Communication for LTE [FS_LTE_GC]

RP-140182 Status report for SI: Study on Group Communication for LTE; rapporteur: Alcatel-Lucent RAN2 Report REL-12 FS_LTE_GC
conclusion: noted, approved: 100%, March 14, SI completed

RP-140013 LS on error handling in eMBMS
(S2-140563; to: RAN, RAN2, RAN3; cc: -; contact: Motorola Solutions) SA2
LSin REL-12 FS_LTE_GC
RAN action requested;
conclusion: noted, no LS answer to SA2 since RAN3 and RAN2 answered in RP-140022 and RP-140398, respectively

RP-140022 Reply LS to S2-140563 = RP-140013 on error handling in eMBMS
(R3-140460; to: SA2; cc: RAN, RAN2, CT4; contact: NSN) RAN3
LSin REL-12 FS_LTE_GC
no RAN action requested;
discussion: SA2 chair: RAN3 answer will cause some work in SA2
conclusion: noted, no LS answer from RAN to RAN3

RP-140398 Reply LS to S2-140563 on Error Handling in eMBMS
(R2-141020; to: SA2; cc: RAN, RAN3; contact: Alcatel-Lucent) RAN2
LSin REL-12 GCSE_LTE, FS_LTE_GC
no RAN action requested;
conclusion: noted, no LS answer from RAN to RAN2

RP-140335 LS on choice of scheduling period for MBMS
(S2-140844; to: RAN2, RAN3; cc: RAN; contact: Airbus) SA2
LSin REL-12 GCSE_LTE, FS_LTE_GC
no RAN action requested; LS will be presented by General Dynamics
conclusion: noted, no LS answer from RAN to SA2

RP-140183 TR 36.868 v2.0.0 on Study on Group Communication for LTE (for approval) Alcatel-Lucent (rapporteur) TR 36.868 RAN2 REL-12 FS_LTE_GC
RAN2 TR 36.868 is submitted for approval;
conclusion: revised in RP-140365

RP-140365 TR 36.868 v2.1.0 on Study on Group Communication for LTE (for approval) Alcatel-Lucent (rapporteur) TR 36.868 RAN2 REL-12 FS_LTE_GC
RAN2 TR 36.868 is submitted for approval
conclusion: approved as TR 36.868 v12.0.0

13.4.10 REL-12 Study on Smart Congestion Mitigation in E-UTRAN [FS_SCM_LTE]

RP-140102 Status report for SI: Study on Smart Congestion Mitigation in E-UTRAN; rapporteur: LG Electronics
RAN2 Report REL-12 FS_SCM_LTE
conclusion: noted, approved: 100%, March 14; SI completed

RP-140004 Reply LS to R2-134601 = RP-131416 on Prioritization of MMTEL-voice
(S1-140330; to: RAN2; cc: RAN; CT1; contact: NTT DOCOMO) SA1
LSin REL-12 FS_SCM_LTE
MMTEL = Multimedia Telephony; LS is answering RAN2 LS R2-134601 = RP-131416 that was noted at RAN #62; no RAN action requested;
conclusion: noted, no LS answer from RAN to SA1

RP-140021 LS on MMTEL and SMS prioritization
(R2-141005; to: CT1; cc: SA1, RAN; contact: NTT DOCOMO) RAN2
LSin REL-12 FS_SCM_LTE
no RAN action requested;
conclusion: noted, no LS answer from RAN to RAN2

RP-140103 TR 36.848 v2.0.0 on Study on Smart Congestion Mitigation in E-UTRAN LG Electronics Mobilecomm TR 36.848 RAN2 REL-12 FS_SCM_LTE
RAN2 TR 36.848 is submitted for approval
conclusion: approved as TR 36.848 v12.0.0

13.4.11 REL-12 Study on RAN Aspects of RAN Sharing Enhancements for LTE
[New: FS_RSE-RAN_LTE]

RP-140251 Status report for SI Study on RAN Aspects of RAN Sharing Enhancements for LTE, rapporteur: NEC
RAN3 Report REL-12 FS_RSE-RAN_LTE
conclusion: noted, approved: 30%, June 14

14 New Work Items/Study Items

Time budgets:
RAN #62 endorsed as outcome of the meeting: RP-132066.

RAN4 chair:
RAN4 time budget: only 3 new WIs:
NAICS: 1.5 TU
D2D: 0.5 TU
SU-MIMO: 0.5 TU
conclusion: RAN4 chair's proposal is approved
No new core WIDs for RAN1, RAN2, RAN4 in June 14 (TD-LTE & spectrum related is excluded here).

RP-140500 Status of time budgets for RAN1/2/3/4 REL-12 WIs/SIs after RAN #63 RAN1/RAN2/RAN3/RAN4 chairmen Report REL-12 -
conclusion: endorsed
Note: See Note after status report RP-140273 to clarify the status of SI FS_LTE_3D_channel.

14.1 New core functions

Multi-WG related proposals:

LTE over unlicensed spectrum:
RP-140060 Workshop Summary: LTE in Unlicensed Spectrum Huawei Report REL-12 -
A summary of offline workshop on LTE in Unlicensed Spectrum, Jan.21-22, 2014, Paris, France
conclusion: noted

RP-140054 Review of the global regulatory situation applicable to LTE-Unlicensed Alcatel-Lucent, Alcatel-Lucent Shanghai Bell, Ericsson, Huawei, HiSilicon, LG Electronics, Nokia, NSN, Qualcomm Disc - -
This paper has presented the different regulatory requirements for unlicensed spectrum in different regions in the world.
In case a RAN Plenary Technical Report is started on the topic of using LTE for a licensed-assisted access to unlicensed spectrum, we propose to include Section 2 of this contribution in it.
conclusion: noted

RP-140057 On the primacy of licensed spectrum in relation to the proposal of using LTE for a licensed-assisted access to unlicensed spectrum Qualcomm Incorporated Disc - -
This paper has presented our view on how unlicensed spectrum, especially the usage of LTE for a licensed-assisted access to unlicensed spectrum, should be seen as a complement for licensed spectrum operators.
It also reconfirms and reinforces our view that licensed spectrum remains the first choice for mobile communication.
In case a RAN Plenary Technical Report is started on the topic of using LTE for a licensed-assisted access to unlicensed spectrum, we propose to include Section 2 of this contribution in it.
conclusion: noted

RP-140214 Motivation of the New SI Proposal: Study on Licensed-Assisted Access using LTE Huawei, CMCC, Ericsson, Qualcomm, VerizonDisc M REL-13 -
discussion: ZTE: fig.4: operator controlled, what is the concern here?
Huawei: difficult to have licensed assisted for this case
conclusion: noted

RP-140240 New SID Proposal: Study on Licensed-Assisted Access using LTE CMCC, Verizon SID new RAN REL-12 -
new SI for LTE; leading WG: RAN; WI code not yet allocated as proposal with same name in RP-140259; similar SI proposal was postponed at RAN #62 in RP-132085
conclusion: revised in RP-140481

RP-140481 New SID Proposal: Study on Licensed-Assisted Access using LTE CMCC, Verizon SID new RAN REL-12 -
revision of RP-140240; new SI for LTE; leading WG: RAN; WI code not yet allocated as proposal with same name in RP-140259; similar SI proposal was postponed at RAN #62 in RP-132085
conclusion: postponed after RP-140487 discussion

RP-140260 Motivation for Study on Licensed-Assisted Access using LTE Ericsson, Qualcomm, Huawei Disc REL-13 -
discussion: ZTE: page 3: unlicensed for DL and UL? what's the benefit?
Ericsson: to boost performance, up to operators to chose
conclusion: noted

RP-140259 New Study Item Proposal: Study on Licensed-Assisted Access using LTE Ericsson, Qualcomm, Huawei SID new RAN1 REL-13 -
new SI for LTE; leading WG: RAN1; WI code not yet allocated as proposal with same name in RP-140240
conclusion: postponed after RP-140487 discussion

RP-140245 Way forward on LTE operation in unlicensed bands ORANGE, AT&T, Telefonica, US Cellular and others Disc REL-13 -
way forward proposal was submitted at RAN #62 in RP-132079
conclusion: noted

common discussion after a presentation of all LTE over unlicensed papers (excl. SIDs):
Cable Labs: would also look at standalone unlicensed case in the 2 SIDs
T-Mobile: text of the WIDs was carefully drafted and would take some effort to change it
TeliaSonera: we should treat this topic as other new SIs
Huawei: RAN SI has no impact on WGs so far; suggests to approve the RAN SI
RAN chair: at this meeting we need to decide on topics to finish in REL-12; so we should not start REL-13 work in WGs before Sep.14
Deutsche Telekom: supports to start the RAN SI and have it for 6 months and not discuss it in WGs
Orange: we need to carefully decide the objectives and do not need to rush
RAN chair: if we say we start at next RAN you would have 3 months to think about and prepare the requirements discussion
AT&T: so no intention to approve the RAN1 SI this time?
RAN chairman: correct, would not come before Sep.14 but this applies to any REL-13 SI/WI impacting WGs
AT&T: worried to see with Tdoc RP-140057 that 3GPP is becoming the expert about spectrum policies, we are more focussed on technology and not on spectrum policies
Orange: does not agree that work at RAN does not impact REL-12 resources as it is a complex topic and there are companies with limited resources so prefers to complete REL-12 first
Ericsson: agrees to operators view to avoid impact on REL-12; we could look until June just on regulatory requirements
Telefonica: there is overlap of people working at RAN with people working at WGs so we should not start any work until June
Qualcomm: scope would not change but we would squeeze the same in 3 months
Telefonica: completion by Sep is not a requirement, you could have a 6 months SI starting in June
NSN: the question is do we have an agenda item for this in June or not; if not there maybe another workshop outside of 3GPP involving further travelling
ALU: supports to start RAN SI now and RAN1 SI in Sep.14
AT&T: would not like to approve the RAN SI at RAN #63
RAN chair: discuss further offline during this week, we will come back on this
After offline discussion: See RP-140469 and RP-140487

RP-140256 On the scope and objectives of the LTE-U RAN Study Item proposal BlackBerry UK Limited Disc REL-13 -
conclusion: withdrawn

RP-140469 Way Forward on Licensed-Assisted Access using LTE Huawei, Qualcomm, Ericsson, CMCC, Verizon Disc REL-13 -

Way forward on Licensed-Assisted Access using LTE:
Approve the RAN Plenary SI at RAN #63, with a revised work plan of 6 months with two phases:
- At RAN#64: focus on the spectrum and regulatory aspects
- After RAN#64: start the discussion on use cases and requirements
No approval of any new WG-level SI/WI on this topic in RAN #64
discussion: Orange: does not like to start a SI at RAN #63
AT&T: does not think that it is appropriate to start a SI at RAN #63 and RAN is not a regulatory body
Qualcomm: support for this proposal is broader than for the original proposal
Telefonica: we have to make clear that we will not start discussions in WGs, not even side meetings
Ericsson: confirms Telefonica's understanding
Sprint: why is this such an urgent topic? for REL-13 we did not want to start
RAN chair: we said we will not involve WGs in REL-13 work because of REL-12 load but this proposal is for discussions at RAN only
AT&T: does this opens the door for other SIs to start their work at RAN level?
Qualcomm: considers this SI as special
RAN chair: alternative is we will wait until Sep.14 and then start with WG level discussion like for all others
AT&T: if we allow people to start RAN led WIs/SIs we will run into the trouble as others will try to do the same
NSN: intention for RAN #64 was more to collect information rather than solving regulatory aspects
Ericsson: agrees that the intention was more to see how the landscape looks for this topic
Broadcom: unclear what the SI proposal is in detail
conclusion: noted

RP-140487 Way forward on LTE unlicensed Orange Disc - -
The following is proposed as a way forward for LTE-unlicensed work in 3GPP:
- *As a first step, a RAN plenary level study may be initiated, but only after RAN#64 at the earliest.*
- *Only upon successful completion of a RAN plenary study and after Release 12 stage 3 has been frozen (i.e. after Rel-12 ASN.1 review starts), may any RAN WG level studies be initiated,*
- *Only upon successful completion of RAN WG level studies, may any RAN WG level work item be initiated*

discussion: Qualcomm: we will not call for REL-13 proposals in Sep.14
RAN chair: correct, it is just opening the gate and people can come also at future RAN meetings
ALU: the RAN SI with 2 phases was already a compromise in the direction
Huawei: we moved use cases and requirements into the second part of the SI to give companies of this Tdoc more time so we addressed this concern

RAN chair: proposal: WG SI in Sep.and in June we do a 1 day workshop on LTE unlicensed, to share ideas
CMCC: RAN SI was intended to shape the WG work but this would not be possible
Sprint: supports the chairman's proposal
Broadcom: would not like to see the topic on the RAN agenda in June
RAN chair: 1 day workshop would be separate from RAN
AT&T: did you talk with the host for TSG #64 to extend RAN meeting? starting a SI at RAN #63 and having a workshop at RAN #64 is not acceptable
Nokia: discussing scope of future WG work is useful so supports the RAN chair's proposal
AT&T: if the workshop is only about this specific topic instead of all REL-13, we open Pandora's box
Broadcom: previous workshop led rather to more confusion
ALU: if we consider a half a day workshop only this will not have a problem for the host of RAN #64
Blackberry: what is the scope of the workshop? on unlicensed/licensed in general?
RAN chair: on LTE unlicensed
Orange: half a day on this topic alone is too much
AT&T: sees the danger that when going from workshop directly into RAN meeting we will rush there to approve a SI
ALU: we could have the workshop at the end of RAN

Broadcom: does not like to see a 3GPP workshop esp. for this without SI, can be a private meeting
RAN chair: yes, but we had this for REL-12
Broadcom: this was a general workshop on all topics and not just on one topic
Orange: we also need to know who would object to a WG SI in Sep.14
Qualcomm: but then we should rather check who is objecting to the RAN SI now
AT&T: what about having a general REL-13 workshop in June
RAN chair: does not like this, if we do not want the LTE unlicensed workshop in June then we will directly go for WG SI in Sep.14
Nokia: wonders why Broadcom has something against a transparent open meeting
Broadcom: for an approved SI or for REL-13 in general but not on a specific not RAN approved topic
Ericsson: what about starting the RAN SI in June 14?
Telefonica: prefers it rather in 3GPP than outside, so Fri afternoon half day workshop could be agreed
NSN: we could maybe call it an ETSI workshop?
Broadcom: ETSI workshop would be limited to ETSI member
AT&T: would have no problem to have a half-day workshop after RAN #64 whoever will be the host
Qualcomm: documents will be on the 3GPP server?
RAN chair: yes
Telecom Italia: we can have different folder and numbering so no RAN Tdocs

conclusion: noted
half a day workshop on Fri afternoon after RAN #64 sharing ideas on LTE-unlicensed;
RAN chair will check with 3GPP/ETSI about hosting arrangements,
workshop documents will not be RAN Tdocs but on the 3GPP server

Advanced receivers:

RP-140058 NAICS way forward Qualcomm Incorporated Disc REL-12 -
related to SI FS_LTE_NAICS; compare RP-140206
conclusion: revised in RP-140429

RP-140429 NAICS way forward Qualcomm Incorporated Disc REL-12 -
related to SI FS_LTE_NAICS; compare RP-140206;
In order to provide UE receiver enhancements to operators within Rel-12 time frame, two work items should be approved:
- *RAN1-led NAICS work item on SL-IC and R-ML receivers for inter-cell interference cancellation targeting low to medium SINR UEs*
- *RAN4-led SU-MIMO work item on advanced receivers for inter-stream interference cancellation targeting medium to high SINR UEs*

conclusion: noted

RP-140207 Motivation for New WI: Network Assisted Interference Cancellation and Suppression MediaTek Disc REL-12 -
conclusion: noted

RP-140206 New WI proposal: Network-Assisted Interference Cancellation and Suppression for LTE MediaTek WID new RAN1 REL-13 -
new WI for LTE only; leading WG: RAN1; WI code to be used: LTE_NAICS; follow-up WI of SI FS_LTE_NAICS; proposal was withdrawn at RAN #62 in RP-131707; unclear what is Core and what is Perf part spec
conclusion: revised in RP-140431

RP-140431 New WI proposal: Network-Assisted Interference Cancellation and Suppression for LTE MediaTek WID new RAN1 REL-13 -
revision of RP-140206; new WI for LTE only; leading WG: RAN1; WI code to be used: LTE_NAICS; follow-up WI of SI FS_LTE_NAICS; proposal was withdrawn at RAN #62 in RP-131707;
conclusion: revised in RP-140519

RP-140519 New WI proposal: Network-Assisted Interference Cancellation and Suppression for LTE MediaTek WID new RAN1 REL-12 -
revision of RP-140431; new WI for LTE only; leading WG: RAN1; WI code to be used: LTE_NAICS; follow-up WI of SI FS_LTE_NAICS; proposal was withdrawn at RAN #62 in RP-131707;
conclusion: RP-140519 is approved unseen (target: Core part: Sep.14, Perf. part: June 15)

RP-140151 Motivation for new work item on performance requirements of interference cancellation and suppression receiver for SU-MIMO Huawei Disc REL-12 -
discussion: ZTE: this proposal should not be mixed with NAICS
conclusion: revised in RP-140430

RP-140430 Motivation for new work item on performance requirements of interference cancellation and suppression receiver for SU-MIMO Huawei Disc REL-12 -
conclusion: noted

RP-140150 New work item on Performance requirements of interference cancellation and suppression receiver for SU-MIMO Huawei WID new RAN4 REL-12 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_SUMIMO_RX-Perf; no Core just Perf. part; proposal was withdrawn in RP-132072 at RAN #62
conclusion: revised in RP-140520

RP-140520 New work item on Performance requirements of interference cancellation and suppression receiver for SU-MIMO Huawei WID new RAN4 REL-12 -
revision of RP-140150; new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_SUMIMO_RX-Perf; no Core just Perf. part; proposal was withdrawn in RP-132072 at RAN #62;
conclusion: RP-140520 is approved unseen (target: Perf. part: March 15 (REL-12))

RP-140108 On performance requirements of MMSE-IRC receiver for LTE BS China Telecom Disc REL-12 -
motivation document for new WID RP-140109
conclusion: noted

RP-140109 Proposed new WI on performance requirements of MMSE-IRC receiver for LTE BS China Telecom WID new RAN4 REL-12 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_MMSE_IRC_BS-Perf; no Core just Perf part; MMSE-IRC = Minimum Mean Square Error-Interference Rejection Combining; WI proposal was rejected at RAN #62 in RP-132067
conclusion: postponed

RP-140269 Motivation for CRS Interference Mitigation for LTE Homogenous Deployments Ericsson Disc REL-13 -
conclusion: noted

RP-140262 New Work Item proposal: Perf. part: CRS Interference Mitigation for LTE Homogenous Deployments Ericsson WID new RAN4 REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CRS_IMIT-Perf; no Core part; note: proposal was rejected in RP-132060 at RAN #62
conclusion: postponed

common discussion for advanced receiver aspects:
Qualcomm: discussion about adv. receivers has 2 aspects: should we have advanced receiver in REL-12 (we think yes) and what should we do to optimize SIDs
ZTE: does not think we should consider advanced receiver enhancements for REL-12
NTT DOCOMO: supports to consider enhancements for REL-12 but SIDs have to be carefully checked
Qualcomm: limiting the scope is helping
NSN: we are still missing the time unit discussion so it is worth to keep this in mind
RAN chair: work offline so we can avoid a show of hands
TeliaSonera: could we schedule a session?
RAN chair: you can discuss now in the Monday lunch break

RP-140496 Way forward on advanced receivers Huawei Disc REL-12 -
conclusion: withdrawn

REL-12 WIs/SIs (new+existing):
Way forwards discussed on Wednesday of RAN #63 (after discussing existing WIs/SIs and a first round through new WIs/SIs):

RP-140485 Way Forward on 3GPP LTE Rel-12 finalization (no spectrum or CA related items)Ericsson, Qualcomm, Huawei, HiSilicon, NSN, Nokia, NTT Docomo, Vodafone, Alcatel-Lucent, Alcatel-Shanghai Bell, ZTE, Sony, UK Home Office, USDoC, Telefonica, Electrobit, InterDigital, T-Mobile US, Deutsche TelekomDisc REL-12 -
discussion: RAN chair: can RAN2 chair accept the RAN2 impact?
RAN2 chair: we will do our best
conclusion: noted

RP-140486 Way forward on RAN1 LTE new items Orange, LG, SKT, LGUplus, Nokia, NSN, MediaTek, CTTC, Mstar, Intel, Broadcom, Sprint, US cellular, Softbank, eAccess, ITRI, III, CHTTL Disc REL-12 -
discussion: Orange: basic difference to Ericsson paper is on D2D and NAICS
DT: we cannot accept this proposal
Orange: NAICS should be a WI not a SI (is a typo) and "D2D communication & discovery" should say "D2D communication"
conclusion: finally revised in RP-140507

common discussion of RP-140485 & RP-140486:
NTT DOCOMO: would the TDD DL only be covered here
Orange: there was not yet clear how this will be solved
RAN chair: TDD DL only is also not covered in Ericsson proposal so we treat this separate
Telecom Italia: there was a lot of support from operators for NAICS but only one company objecting
ALU: D2D and NAICS are the only differences
RAN chair: then maybe we can agree the others first
DT: NAICS is interesting but not like the trading with D2D
General Dynamics: could accept Ericsson proposal with some modification
Qualcomm: for items without RAN2 impact RAN1 could work on them in Aug.14
RAN2 vice-chair (LG): Orange proposal causes less overload for RAN2
CATT: suggests to increase RAN1 capacity for 21 TUs to 23 TUs
RAN chairman: we will come back on Thu

Thursday morning:
RP-140502 Way Forward on 3GPP LTE Rel-12 finalization (no spectrum or CA related items) Qualcomm, Nokia, NSN, Sprint, Verizon, Deutsche Telekom, ZTE, Shanghai Tejet, Samsung, CHTTL, TeliaSonera, Interdigital, US Cellular, OTD, US Dept. of Commerce, Elektrobit, Telefonica, ATT, UK Home Office, KPN, General Dynamics, T-Mobile US, Motorola Solutions, Panasonic, KDDI, NTT DoCoMo Disc REL-12 -
conclusion: revised in RP-140511

RP-140507 Way forward on RAN1 LTE new items Orange, LG, SKT, LGUplus, Nokia, NSN, MediaTek, CTTC, Mstar, Intel, Broadcom, Sprint, US cellular, Softbank, eAccess, ITRI, III, CHTTL Disc REL-12 -
revision of RP-140486
discussion: Ericsson: we have still 3 alternatives on the table:
- RP-140485 (Ericsson)
- RP-140502 (Qualcomm)
- RP-140507 (Orange)
NEC, Huawei: supports RP-140485
ALU: Orange has largest time allocation for NAICS: what would the 3TU be used for in first RAN1 meeting
Orange: to agree on the basis
ALU: as we wait for feedback from RAN4 on open issues we think 3 TUs are too much,
Qualcomm: TDD-FDD has too small time allocation; 485 should say that at least in coverage discovery is included
Mediatek: we do not need to wait for RAN4 for NAICS
RAN chair: can we agree to keep RP-132066 allocations for existing WIs?
LG: can not agree
RAN1 chair: all 3 proposals have the same TUs for the existing WIs, can we agree on this?
Qualcomm: no, the 3 proposals do not have the same TUs for the existing WIs
Orange: Ericsson reduces NAICs to allow D2D, Orange proposal considers NAICS
Qualcomm tries to include everything
Samsung: D2D is the main issue so can we agree to include D2D?

Ericsson: we do not think it is useful to start new WIs and then cover them in ad hocs; if we start with this procedure we will have more and more ad hocs
Huawei: if there is an ad hoc then it should not be limited to D2D
ALU: one ad hoc will not solve it so agrees with Ericsson, we will just shift the problem
Sprint: we had different ad hocs (like MIMO OTA) so thinks ad hoc is possible
AT&T: support to have an ad hoc
Telecom Italia: if we have an ad hoc we can reduce the TUs in RAN1 to have more time for other issues
NSN: if we start with ad hocs because we cannot prioritize then this will set a bad example, the ad hoc involves more travelling and there will be less time to work on other issues like simulations
RAN1 chair: does not agree with Samsung proposal to have ad hoc
Samsung: D2D will not involve much simulations
ZTE: smaller items which have no RAN2 impact, allocations can be moved to RAN1
Qualcomm: yes, we could try this
Ericsson: August meeting was already included, so where is the difference
RAN chair: discuss further offline, if no agreement then existing items will keep RP-132066 allocation and we do show of hands on Thu afternoon

conclusion: noted

Thursday afternoon:

RP-140511 Way Forward on 3GPP LTE Rel-12 finalization (no spectrum or CA related items) Qualcomm, Sprint, Verizon, Deutsche Telekom, ZTE, Shanghai Tejet, Samsung, CHTTL, TeliaSonera, Interdigital, US Cellular, OTD, US Dept. of Commerce, Elektrobit, Telefonica, ATT, UK Home Office, KPN, General Dynamics, T-Mobile US, Motorola Solutions, Panasonic, KDDI, NTT DoCoMo, Vodafone, Alcatel-Lucent, Alcatel-Lucent Shanghai Bell, Huawei, HiSilicon Disc

discussion: NTT DOCOMO: supports slide 3 but has a concern on slide 2: no other new item is started in RAN1/RAN2 in RAN #63
RAN chair: TD-LTE will be handled separately
Qualcomm: no out-of-network coverage discovery in REL-12 is explicit, i.e. not in REL-12
LG: we are moving RAN3 work into RAN1, worried about "no inter-cell coordination" for D2D
ZTE: no standardized inter-cell coordination
LG: based on X2
LG: this would be acceptable
Ericsson: does not agree on "based on X2"
LG: what about "based on X2 or air interface"
Ericsson: we should say "no RAN1 work on inter-cell coordination" as this was not part of the SI
Orange: there are different interpretations regarding "(could be considered after WI closure)"
Ericsson: we were budget limited but we now increased the scope, of course you get more supporters but this is an error that we should not do; LG seems to propose to increase the scope even more
NSN: 3D Channel modeling: TU were moved to Aug. so no longer in line with SI description
Broadcom: we are engineering now the SI conclusion, guidance from WGs would have been preferred, so we do not agree with the proposal
Orange: RAN2 & RAN4 have to complete everything after RAN1 has finished the work in Sep.?
TeliaSonera: August time slot was just for RAN1 issue which had no impact on other WGs some companies want NAICS, some companies want to have D2D, some companies said we cannot do both and with using the Aug meeting we reached a good consensus
RAN4 chair, RAN2 chair: completing work by Sep.14 if RAN1 completes by June is tough as we have just one WG meeting in Aug.
Broadcom: still has concerned and would like to remove discovery
RAN chair: but there is an overwelming support for this proposal
Orange: D2D is taking more than 50% of RAN1 time so we should review status in June and if completion is not possible we need to reduce the scope
RAN chair: this applies to all REL-12 WIs
LG: worried that NAICS jumped from 0.25 to 1 for RAN2
RAN chair: in June we will not approve any new REL-12 WIs/SIs

conclusion: noted, following changes;
"could be considered after WI closure)" will be removed, modified to " no standardized inter-cell coordination based on X2 or air interface i.e. no RAN1 discussion on inter-cell coordination",
TBD for SCE Dual connectivity is removed
In June we will review the status of REL-12 WIs/SIs and we will reduce the scope of WIs/SIs if completion is in danger;
WGs are requested to keep reasonable working hours,
revised in RP-140512

RP-140512 Way Forward on 3GPP LTE Rel-12 finalization (no spectrum or CA related items)Qualcomm, Sprint, Verizon, Deutsche Telekom, ZTE, Shanghai Tejet, Samsung, CHTTL, TeliaSonera, Interdigital, US Cellular, OTD, US Dept. of Commerce, Elektrobit, Telefonica, ATT, UK Home Office, KPN, General Dynamics, T-Mobile US, Motorola Solutions, Panasonic, KDDI, NTT DoCoMo, Vodafone, Alcatel-Lucent, Alcatel-Lucent Shanghai Bell, Huawei, HiSilicon Disc REL-12 -
conclusion: endorsed as way forward

Orange: way forward is about RAN1/RAN2 but we did not do a sanity check for RAN4 budget
RAN4 chair: with this way forward we are then -1TU and -4TU in RRM so we cannot approve any RAN4 led WIs/SIs
RAN1 chair: we could keep D2D & NAICs work in RAN4 on hold
RAN chair: we will come back on RAN4 allocations

14.1.1 WIs/SIs led by RAN1

REL-12 Device to device (D2D) for LTE:

RP-140140 Importance of LTE D2D Discovery in Rel-12 Deutsche Telekom, T-Mobile USA, KPN, Qualcomm, Samsung Disc REL-12 -
related to follow-up WI for SI FS_LTE_D2D_Prox
proposal:
The supporting companies would like to point out their business need to address D2D discovery as part of the LTE D2D normative phase within Release 12.
We propose that D2D discovery is specified with the same priority as the communication aspects of D2D within Release 12.
conclusion: noted

RP-140056 Background document for 'LTE Device to Device Proximity Services - Work Item' Qualcomm Incorporated Disc REL-12 -
motivation document for new WI in RP-140055
discussion: LG: page 10: which part can this make more efficient?
Qualcomm: 2 WIs would need more effort to align
Orange: slide 11: inter-operator use case was requested in the past to let commercial ProSe case fly; how can we state we have the benefits if we did not have any time to evaluate this?
conclusion: noted

RP-140055 New Work Item: LTE Device to Device Proximity Services Qualcomm Incorporated WID new RAN1 REL-12 -
new WI for LTE only; leading WG: RAN1; WI code to be used: LTE_D2D_Prox; this is a follow-up WI of SI FS_LTE_D2D_Prox
conclusion: revised in RP-140498

RP-140498 New Work Item: LTE Device to Device Proximity Services Qualcomm Incorporated WID new RAN1 REL-12 -
revision of RP-140055; new WI for LTE only; leading WG: RAN1; WI code to be used: LTE_D2D_Prox; this is a follow-up WI of SI FS_LTE_D2D_Prox
conclusion: revised in RP-140518 (see below)

RP-140195 Rationale of separate work items for D2D direct communication and direct discovery LG Electronics Disc REL-12 -

discussion: Qualcomm: communication could work without discovery but it could enhance it; so is not convinced to split it
conclusion: noted

RP-140196 Motivation for new work item proposal: LTE device to device direct communication LG Electronics Disc REL-12 -
conclusion: noted

RP-140197 New work item proposal for LTE device to device direct communication LG Electronics WID new RAN1 REL-12 -
new WI for LTE only; leading WG: RAN1; WI code to be used: LTE_D2D_DirCom ;follow-up WI of SI FS_LTE_D2D_Prox; unclear what is Core and what is Perf part spec
conclusion: revised in RP-140489

RP-140489 New work item proposal for LTE device to device direct communication LG Electronics WID new RAN1 REL-12 -
revision of RP-140197; new WI for LTE only; leading WG: RAN1; WI code to be used: LTE_D2D_DirCom ;follow-up WI of SI FS_LTE_D2D_Prox;
discussion: MCC: Core and Perf part not indicated
conclusion: rejected

RP-140198 Motivation for new work item proposal: LTE device to device direct discovery LG Electronics Disc REL-12 -
conclusion: noted

RP-140199 New work item proposal for LTE device to device direct discovery LG Electronics WID new RAN1 REL-12 -
new WI for LTE only; leading WG: RAN1; WI code to be used: LTE_D2D_DirDisc; follow-up WI of SI FS_LTE_D2D_Prox; unclear what is Core and what is Perf part spec
conclusion: rejected

RP-140111 Discussion on working scope of potential D2D WI ZTE Disc REL-12 -
related to follow-up WI for SI FS_LTE_D2D_Prox
conclusion: noted

common discussion on D2D:
Ericsson: we prefer to have separate WIs as well as we see different progress and it will be a problem at the freeze of the REL
Ericsson: time allocation in LG is largely underestimated
LG: we proposed minimum of time units
Orange: long list of open issues which was not studied properly; normally we would continue the SI instead of starting a WI so for REL-12 we should to focus on Communication part (for public safety)
NTT DOCOMO: prefers to reduce the scope of the REL-12 WI

RP-140518 New Work Item: LTE Device to Device Proximity Services Qualcomm Incorporated WID new RAN1 REL-12 -
revision of RP-140498; new WI for LTE only; leading WG: RAN1; WI code to be used: LTE_D2D_Prox; this is a follow-up WI of SI FS_LTE_D2D_Prox
Note: Alcatel-Lucent and Alcatel-Lucent Shanghai Bell are also supporting this WI.
conclusion: approved (unseen) (target: Core part: Sep.14; Perf. part: March 15)

REL-12 Supplemental Downlink for TD-LTE:

RP-140211 Motivation for New WI: Supplemental Downlink for TD-LTE NTT DOCOMO, INC., Telecom Italia, KT, Sharp, Hitachi, NEC, Telefonica, Orange, NTT, Motorola Mobility, Panasonic, SK telecom, TeliaSonera, Kyocera, IAESI, ATR, Institute for Infocomm Research Disc REL-12 -
conclusion: revised in RP-140419

RP-140419 Motivation for New WI: Supplemental Downlink for TD-LTE NTT DOCOMO, INC., Telecom Italia, KT, Sharp, Hitachi, NEC, Telefonica, Orange, NTT, Motorola Mobility, Panasonic, SK telecom, TeliaSonera, Kyocera, IAESI, ATR, Institute for Infocomm Research, LightSquared, HTC, Fujitsu, ITL Inc., Dish, Acer, EADS, NTC, Cisco, Sumitomo Electric, Mitsubishi Electric, CEWiT Disc REL-12 -
discussion: CATR: contradicts agreement of TDD-FDD joint operation WI

NTT DOCOMO: this is a separate WI, as an alternative to a WI we could directly consider the CRs
conclusion: noted

RP-140212 Working procedure to specify Supplemental Downlink for TD-LTE NTT DOCOMO, INC. Disc REL-12 -
proposal: To specify supplemental downlink for TD-LTE, TSG-RAN is respectfully asked to discuss whether to approve the corresponding WI proposal or just to approve all the required CRs without creating the WI.
conclusion: noted

RP-140213 New Work Item Description: Supplemental Downlink for TD-LTE NTT DOCOMO, INC. WID new RAN1 REL-12 -
new WI for LTE only; leading WG: RAN1; no WI code allocated so far due to related CRs in RP-140227, RP-140228, RP-140230
discussion: MCC: no indication of Core and Perf. part specs
conclusion: postponed

RP-140227 Introduction of supplemental downlink for TD-LTE NTT DOCOMO, INC., KT, SK telecom, NTT, Telefonica CR36.2110188 - B REL-12 TEI12, LTE-Phys
company contribution that was not provided to RAN1; this CR is an alternative to the new WI proposal in RP-140213
conclusion: postponed

RP-140228 Introduction of supplemental downlink for TD-LTE NTT DOCOMO, INC., KT, SK telecom, NTT, Telefonica CR36.2130456 - B REL-12 TEI12, LTE-Phys
company contribution that was not provided to RAN1; this CR is an alternative to the new WI proposal in RP-140213
conclusion: postponed

RP-140229 Introduction of supplemental downlink for TD-LTE NTT DOCOMO, INC. CR36.3210710 - B REL-12 TEI12, LTE-L23
company contribution that was not provided to RAN2; this CR is an alternative to the new WI proposal in RP-140213
conclusion: withdrawn as CR to 36.321 was considered not needed by the author

RP-140230 Introduction of supplemental downlink for TD-LTE NTT DOCOMO, INC., KT, SK telecom, NTT, Telefonica CR36.3311464 - B REL-12 TEI12, LTE-L23
company contribution that was not provided to RAN2; this CR is an alternative to the new WI proposal in RP-140213
conclusion: postponed

RP-140224 Discussion on new DL-heavy configurations for TD-LTE CATR Disc REL-12 -
conclusion: revised in RP-140421

RP-140421 Discussion on new DL-heavy configurations for TD-LTE CATR Disc REL-12 -
Proposal: Any new DL-heavy configurations with 10:0:0 or 9:1:0 should not be introduced to TD-LTE.
conclusion: noted

common discussion about RP-140419 (NTT DOCOMO) and RP-140421 (CATR):
- NTT DOCOMO: we should not include companies which are not 3GPP members; if synch not achieved each TDD operator needs 2 guard bands (lower and upper); observation 1:3GPP is the place to address different market needs, definition issues come in a second place; operators share one common goal to optimize the usage of the spectrum and we propose the new configuration to optimize LTE; at the end it is operator's choice; 14% gain cannot be ignored (regarding observation 4); we do not need synchronization among operators (regarding observation 5);
- CMCC: Having TDD supplementary downlink has some drawbacks: no flexibility, feedback in TDD would be lost, UEs not supporting CA would not work in some areas; in CATR's contribution, even if some companies are not 3GPP members, they should be able to express their views here since they have really deploy TD-LTE and contribute to the industry.
- Sprint: how will the NTT proposal affect TDD only operators?
- NTT DOCOMO: we may see more operators using TDD-FDD

- TeliaSonera: observations of CATR paper are correct but some operators will have such a case and the NTT DOCOMO proposal will have big gains for them so we strongly support the NTT DOCOMO proposal
- CATT: we believe that this proposal has strong impact on the TDD operators in adjacent spectrum
- RAN chair: we can forget about gains (is up to each operator to decide) and definitions (technology moves forward) but there are big operator demands and there is a concern about coexistence problems, so observation 2 and demand from operators should be discussed more
- NTT DOCOMO: the coexistence issue is not specific to our proposal
- RAN chair: agrees that also 2 TDD operators using different configurations in adjacent spectrum would have to find a solution
- Huawei: any benefit to the industry? we should not create a risk for the market to optimize for a specific scenario; standalone terminal will have problems to access so it has impact on terminal market
- AT&T: we also need to consider that some operators have this spectrum and could only use it for DL only usage, so they have a strong demand for this
- RAN chair: we need to find a way forward, e.g. we could study the coexistence more
- RAN chair: invites involved companies to sit together to find a common solution
- NTT DOCOMO: this coexistence issue is a fundamental aspect of TDD so we should not make this a key aspect of this discussion
- Huawei: we need to take into account the impacts on the terminal market and the "TDD eco-system"
- Telecom Italia: 3GPP should stick to technical consideration and not focus on economic issues
- CATT: there are more FDD operators than TDD operators and if there is a proposal saying let's take TDD spectrum for FDD then this discussion has to be considered carefully
- Orange: it's about FDD operators having TDD spectrum and we should consider this as an opportunity for TDD spectrum
- RAN chair: we had similar proposals of the past which were considered as big challenges (additional DL bands FDD-TDD aggregation) but at the end it was not a real problem
- RAN chairman: offline discussion in Monday afternoon coffee break

RP-140483 Way Forward on supplemental downlink for TD-LTE in REL-12 NTT DOCOMO Disc REL-12 -
proposal:
New WI on supplemental downlink for TD-LTE is approved in RAN#63 where:
- *The new configuration for supplemental downlink for TD-LTE is introduced.*
  - *Specification work will start from the following WG meetings and completed within Rel.12*
- *At the same time, the technical aspect in terms of the co-existence with the existing UL-DL configurations could be clarified if necessary in RAN1*

discussion: CATR: we have also a way forward in RP-140488
conclusion: revised in RP-140515

RP-140488 Way forward on the new DL only configuration CATR Disc
proposal:
No new TDD UL-DL configuration is introduced in Rel-12
discussion: RAN chair: would it be ok for CATR and NTT DOCOMO that we will introduce the feature in REL-13? i.e. CRs will be added in REL-13 specs later so that we avoid endless further discussions
NTT DOCOMO: prefers REL-12, and where it ends depends on the work
CATT: there is a coexistence problem
Sprint: REL-12 or REL-13 is not the question, the question is the coexistence issue
RAN chair: at least CATR was open for REL-13
TeliaSonera: could accept the chairman's proposal and coexistence will be studied further in the WI
Telecom Italia: no operator can operate without coordination with other operators otherwise you would get in conflict with regulators, coexistence aspects were discussed in the past and could
NTT DOCOMO: if we understand chairman's proposal correctly then our proposal has no coexistence issue so we should approve the CRs now
conclusion: revised in RP-140514

Thursday afternoon:
RP-140513 DL only coexistence CATR Disc
conclusion: noted

RP-140514 Way forward on the new DL only configuration CATR Disc
discussion: NTT DOCOMO: as we talk about a licensed band we should assume that their is coordination among the operators
conclusion: noted

RP-140515 Way Forward on supplemental downlink for TD-LTE in REL-12 NTT DOCOMO Disc
discussion: TeliaSonera: supporting this proposal and acknowledges that NTT DOCOMO has made efforts to clarify the situation and to come to a compromise
RAN chair: as a way forward: what about doing coexistence analysis and considering this proposal for REL-13?
NTT DOCOMO: could accept this
Huawei: thinks it is difficult to take a decision this week; the problem is there is even no consensus about the coexistence problem
CMCC: with existing specs in a case of a conflict the affected operator could follow the other operator's configuration, this is not possible with the proposed new configuration
NII: if the DL only mode is not getting through it may lead to a new band for Japan and that UEs could not work in TDD and DL only as it would be possible with DL only mode
Huawei: fears a backward compatibility issue
CATT: agreement of TDD-FDD REL-12 WI was that their is no new configuration
RAN chair: this was an agreement for this WI
conclusion: noted, topic is postponed till RAN #64
NTT DOCOMO: how do we continue? via email reflectors?
CMCC: does not want to have email discussions
NTT DOCOMO: but we will ask for a decision at RAN #64

REL-13 LTE Flexible Duplex for Traffic Adaptation:

RP-140062 Motivation of New SI proposal: Evolving LTE with Flexible Duplex for Traffic Adaptation Huawei Disc REL-13 -
Motivation paper of the new SI proposal in RP-140061
conclusion: revised in RP-140426

RP-140426 Motivation of New SI proposal: Evolving LTE with Flexible Duplex for Traffic Adaptation Huawei Disc REL-13 -
discussion: NSN: in which countries would this be allowed? usually it is a regulatory issue
Orange: confirms that in Europe this would not be possible, also doubts the gains
ALU: last RAN meeting we had an LS from ITU
RAN chair: it seems there are some countries where this is allowed
conclusion: noted

RP-140061 New Study Item Proposal: Study on Evolving LTE with Flexible Duplex for Traffic Adaptation Huawei SID new RAN1 REL-13 -
new SI proposal for LTE only; leading WG: RAN1; WI code to be used: FS_LTE_flex_duplex
conclusion: postponed

RP-140414 Discussion on dynamic traffic adaptation for LTE FDD system LG Electronics, IAESI Disc REL-13 -
conclusion: noted

REL-12 LTE Interference mitigation for control channels:

RP-140235 Interference mitigation for control channels Intel Corporation Disc REL-12 -
Discuss the scope of potential new study item
conclusion: noted

RP-140249 New SI proposal: Study on interference mitigation for control channels for LTE Intel Corporation SID new RAN1 REL-12 -
new SI for LTE only; leading WG: RAN1; WI code to be used: FS_LTE_IM_CCH
conclusion: postponed

REL-12 Small cell overhead reduction for LTE:

RP-140115 Motivation for new WI: further small cells enhancements for E-UTRA - Overhead reduction ZTE Disc REL-12 -

discussion: ALU: we discussed this in previous meetings and we did a prioritization of small cell enhancements and these topics were not among them
conclusion: noted

RP-140114 New WI proposal: Enhancement of small cell overhead reduction for LTE ZTE WID new RAN1 REL-12 -
new WI for LTE only; leading WG: RAN1; WI code to be used: LTE_SC_enh_OHR; addressing an aspect not covered in LTE_SC_enh_L1
conclusion: postponed

REL-13 Spectrum Sharing in Licensed Bands for LTE:

RP-140159 Motivation of New SI proposal: Spectrum Sharing in Licensed Bands for LTE Huawei Disc REL-13 -
discussion: NSN: which band and which region is considered?
Qualcomm: ongoing work in ETSI so why should 3GPP do the same?
spectrum usage with current physical layer will be insufficient, ETSI looking after interfaces
conclusion: noted

RP-140158 New Study Item Proposal: Study on Spectrum Sharing in Licensed Bands for LTE Huawei SID new RAN1 REL-13 -
new WI for LTE only; leading WG: RAN1; WI code to be used: FS_LTE_SpecSharing
conclusion: postponed

REL-12 Elevation Beamforming and Full-Dimension (FD) MIMO for LTE:

RP-140425 Motivation for Study on Elevation Beamforming and FD-MIMO for LTE Samsung Disc REL-12 -
motivation for new SI in RP-140277
discussion: RAN chair: is probably more a REL-13 candidate
Samsung: we do not think of a certain frequency band
Ericsson: supports this work but structured workplan preferred (first channel model...)
ALU: also interested in this work, but increasing number of antenna ports would have bigger impact, so focus on 8 antenna ports first
conclusion: noted

RP-140274 New SI proposal: Study on Downlink Enhancements for Elevation Beamforming for LTE NSN SID new RAN1 REL-12 -
new SI for LTE; leading WG: RAN1; WI code to be used: FS_LTE_DL_EBF
conclusion: withdrawn

RP-140277 New SI: Study on Elevation Beamforming and Full-Dimension (FD) MIMO for LTE NSN, Samsung SID new RAN1 REL-12 -
new SI for LTE; leading WG: RAN1; WI code to be used: FS_LTE_EBF_FDMIMO; SI on elevation beamforming and FD-MIMO (Full-Dimension MIMO) for LTE taking into account the outcome of the SI FS_LTE_3D_channel on 3D channel modeling.
conclusion: revised in RP-140432

RP-140432 New SI: Study on Elevation Beamforming / Full-Dimension (FD) MIMO for LTE Samsung, NSN SID new RAN1 REL-12 -
conclusion: postponed

REL-12 Scalable UMTS FDD bandwidth by filtering:

RP-140221 Motivation for new WI: Scalable UMTS FDD bandwidth by filtering Qualcomm Incorporated Disc REL-12 -
conclusion: noted

RP-140418 Motivation for new WI proposal: Scalable Bandwidth UMTS by Filtering China Unicom Disc REL-12 -
motivation of new WI RP-140225
discussion: Ericsson: use case for standalone is not justified; extending the SI for 2 more meetings make sense; originally 9 TUs were requested in RAN4, now just 4 TU; is more a new radio access technology
ALU: existing SI is 75% complete so significant work is still to be done

Interdigital: impact on RAN2? we have not yet seen this proposal in RAN2
ALU: we had a number of RAN1 inputs
Qualcomm: thinks the impact on RAN2 will be rather minimal
Softbank: WI will be a lot of effort
NTT DOCOMO: same view as Softbank
conclusion: noted

RP-140225 New WI proposal: Scalable Bandwidth UMTS by Filtering China Unicom WID new RAN1 REL-12 -
new WI for UTRA only; leading WG: RAN1; WI code to be used: UTRA_SCAL_FILT; follow-up WI of SI FS_UTRA_SCAL_FILT
conclusion: revised in RP-140445

RP-140445 New WI proposal: Scalable Bandwidth UMTS by Filtering China Unicom WID new RAN1 REL-12 -
revision of RP-140225; new WI for UTRA only; leading WG: RAN1; WI code to be used: UTRA_SCAL_FILT; follow-up WI of SI FS_UTRA_SCAL_FILT
conclusion: rejected

REL-12 Combined Cell Enhancements for UMTS Heterogeneous Networks:

RP-140264 Motivation for Combined Cell Enhancements for UMTS Heterogeneous Networks Ericsson Disc REL-12 -
discussion: ALU: lack of comparison with existing Hetnet solutions, number of supporting companies go down
Ericsson: AT&T no longer supporting so at the moment just 3 supporters
conclusion: noted

RP-140263 New Work Item Proposal: Combined Cell Enhancements for UMTS Heterogeneous Networks Ericsson WID new RAN1 REL-12 -
new WI for UTRA only; leading WG: RAN1; WI code to be used: UTRA_hetnet_combicell; one of multiple follow-up WIs of the SI FS_UTRA_hetnet; proposal was postponed at RAN #62 in RP-131851
conclusion: revised in RP-140433

RP-140433 New Work Item Proposal: Combined Cell Enhancements for UMTS Heterogeneous Networks Ericsson WID new RAN1 REL-12 -
conclusion: withdrawn (as Tdoc is not available)

14.1.2 WIs/SIs led by RAN2

REL-12 LTE Smart Congestion Mitigation:

RP-140105 Motivation for new work item proposal: Smart Congestion Mitigation in E-UTRAN LG Electronics Disc REL-12 -
conclusion: noted

RP-140104 New Work Item proposal: Smart Congestion Mitigation in E-UTRAN LG Electronics WID new RAN2 REL-12 -
new WI for LTE only; leading WG: RAN2; WI code to be used: SCM_LTE; follow-up WI of SI FS_SCM_LTE
discussion: Intel: RAN2 should wait for CT1 reply before considering
AT&T: RAN2 chair indicated in his report that we should consider a small WI, we could consider TEI
RAN2 chair: as it involves multiple TSGs we should better have a real WI
LG: we have 31 companies including 10 operators
Nokia: is there a WI in CT1?
RAN chair: up to them we will inform them about what we do in RAN
conclusion: revised in RP-140434

RP-140434 New Work Item proposal: Smart Congestion Mitigation in E-UTRAN LG Electronics WID new RAN2 REL-12 -
conclusion: approved (target: Core part: Sep.14)

REL-12 Group Communication for LTE:

RP-140184 Motivation for New WI: Group Communication for LTE Alcatel-Lucent Disc REL-12 -

discussion: RAN chair: is this important for REL-12 (has impression that we rather talk about an optimization); 2 supporting companies?
Samsung: SI concluded that really nothing is needed
Huawei: same view
RAN2 chair: can we exclude it from REL-12 and reconsider something for REL-13?
conclusion: noted

RP-140208 Useful capabilities for Public Safety Motorola Solutions Disc REL-12 FS_LTE_GC
Identifies some useful capabilities for Group Communications and MBMS that may be relatively easy to specify and implement. The document is complementary to the results of studies performed by WGs. RAN is asked to provide guidance to the WGs to consider the content of this contribution when deciding what to standardize for Rel-12.
discussion: ALU: most of these points are covered in our WI proposal, just some additional RAN3 aspects
RAN2 chair: a couple of network implementation issues mentioned which will not be standardized
RAN chair: involve RAN2 and SA2 chair in the offline discussion
conclusion: noted

RP-140185 New WI proposal: Group Communication for LTE Alcatel-Lucent WID (new) RAN2 REL-12 -
new WI for LTE only; leading WG: RAN2; WI code to be used: LTE_GC; follow-up WI of SI FS_LTE_GC
discussion: RAN chair: so scope reduced, some RAN3 work
General Dynamics: configuration should not be limited to one MCCH parameter
ALU: we expect more RAN3 work from SA2
RAN3 chair: we do not need a WI for responding to an LS, could have CRs under SA2 WI code
MCC: is not a clean approach as then there is no status report about it
RAN2 chair: in case there the evaluation of the LS needs CRs we can then still approve a WI
conclusion: revised in RP-140470
RP-140470 New WI proposal: Group Communication for LTE Alcatel-Lucent WID (new) RAN2 REL-12 -
revision of RP-140185; new WI for LTE only; leading WG: RAN2; WI code to be used: LTE_GC; follow-up WI of SI FS_LTE_GC;
conclusion: revised in RP-140506
RP-140506 New WI proposal: Group Communication for LTE Alcatel-Lucent WID new RAN2 REL-12 -
revision of RP-140470; new WI for LTE only; leading WG: RAN2; WI code to be used: LTE_GC; follow-up WI of SI FS_LTE_GC;
conclusion: postponed

REL-13 integrated LTE-WLAN RAT:

RP-140237 Evolution of LTE/WLAN radio interworking towards tight integration Intel Corporation Disc REL-13 -
Discussion paper related to the new SI proposal on Integrated LTE-WLAN RATs
Note: Current REL-12 WI UTRA_LTE_WLAN_interw-Core is including UTRA.
discussion: Intel: scenario was part of the REL-12 SI
ZTE: fig.1: error in figure: interface is not a 3GPP interface
Intel: correct there is an error
Huawei: co-location with UMTS not considered?
Ericsson: whatever IEEE does we have to follow this, is this no problem?
Orange: seems to be an alternative to unlicensed spectrum usage
NSN: S1 interface goes from a different point than shown in the Fig.
conclusion: noted

RP-140238 New SI proposal: Study on integrated LTE-WLAN RATs Intel Corporation SID new RAN2 REL-13 -
new SI for LTE only; leading WG: RAN2; WI code to be used: FS_LTE_WLAN_RAT
discussion: Intel: Dish Network is also supporting this SID
conclusion: postponed

REL-13 Further enhancements for MDT for LTE

RP-140143 Motivation for MDT Further Enhancements CMCC Disc REL-13 -

Note: REL-11 WI eMDT_UMTSLTE-Core was for LTE & UTRA.
Proposal 1: Start the further enhancement of MDT (feMDT) WI in R13
Proposal 2: feMDT should focus on VoLTE related measurements and measurements collection
Proposal 3: feMDT should take SINR related measurements and measurements collection into consideration
discussion: Panasonic: what sort of feedback is considered?
CMCC: can be discussed futher
conclusion: noted

14.1.3 WIs/SIs led by RAN3

REL-12 User Plane Congestion Management (UPCON) for UTRA & LTE:

RP-140124 Motivation for a Study on RAN User Plane Congestion Management Ericsson Disc REL-12 -
discussion: RAN chair: proposal does impact RAN2 so this has to be taken into account
RAN2 chair: RAN2 would just be involved later
SA2 chair: has Tdoc also addressing this topic
RAN chair: can rapporteur describe an inter-TSG workplan?
NEC: proposal not complete some SA2 issues missing;
Broadcom: more progress should happen in SA2 before we do an inter-TSG approach
Intel: unclear what is RAN2 responsibility
Ericsson: we can consider it later (REL-12 SI which did not conclude)
RAN chair: stages and complete plan in the future would be useful
conclusion: noted

RP-140123 New SI: Study on RAN User Plane Congestion Management for UTRA & LTE Ericsson SID new RAN3 REL-12 -
new SI for UTRA & LTE; leading WG: RAN3; WI code to be used: FS_UPCON_RAN_UTRA_LTE; note: UPCON is a REL-12 SA WI
conclusion: postponed

REL-12 RF Pattern Matching in E-UTRA:

RP-140176 Motivation for New WI: Positioning Enhancements for RF Pattern Matching in E-UTRA Polaris Wireless Disc REL-12 -
conclusion: noted

RP-140177 New WI proposal: Positioning Enhancements for RF Pattern Matching in E-UTRA Polaris Wireless WID new RAN3 REL-12 -
new WI for LTE only; leading WG: RAN3; WI code to be used: LCS_LTE_RFPMT; follow-up of SI FS_LCS_LTE_RFPMT
conclusion: approved (target: Core part: June 14)
Note: Core part box not ticked

14.1.4 WIs/SIs led by RAN4

REL-12 64 QAM in UL for LTE:

RP-140153 Motivation for new work item on support of uplink 64QAM in LTE Huawei Disc REL-12 -
conclusion: Tdoc will be treated under AI 15.

RP-140152 New work item: Support of uplink 64QAM in LTE Huawei WID new RAN4 REL-12 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_64QAM_UL;
conclusion: Tdoc will be treated under AI 15.

RP-140393 Considerations on UE category aspects Samsung Disc REL-12 -
related to new WI proposal RP-140152 on Support of uplink 64QAM in LTE;
conclusion: Tdoc will be treated under AI 15.

REL-12/13 MIMO OTA in LTE or LTE & UTRA:

Way forward endorsed by RAN #62:
Discussion on the scope of any follow-up work for MIMO-OTA can be done on RAN4 MIMO OTA email reflector and in offline discussion during next RAN4 meetings".

RP-140284 On performance requirements for UE radiated multi-antenna reception ORANGE Disc REL-13 -

Proposal 1: Requirements should be developed for all types of devices considered in TR 37.902: Handsets, Laptop Embedded Equipment (including notebooks and Tablet devices) and Laptop Mounted Equipment devices.

Proposal 2: OTA Requirements should be developed for both LTE and HSPA and testing methodologies further optimised when needed.

Proposal 3: In a potential new WI phase, ALL methods validated and specified in 37.977 v12.0.0 (Clause 12) should be equally treated and related measurement uncertainty and performance requirements defined:
- Anechoic chamber with multi-probe configuration
- Reverberation chamber
- Reverberation chamber using channel emulator
- Radiated two-stage method
Separate WI may need to be created if validation of additional methodologies not validated and specified in 37.977 v12.0.0 if required or needed.

Proposal 4: The harmonization activity shall therefore be the central focus of the follow-up work on UE radiated multi-antenna reception performance in 3GPP. Harmonization means shall be investigated and developed with the understanding that the absolute values across test methodologies may not necessarily be the same. The outcome of the Work Item should be such that for a given device, one test methodology shall be sufficient to define the pass/fail decision at certification level.

conclusion: noted

RP-140407 Summary of MIMO OTA WID discussions Agilent Technologies Disc - -

conclusion: noted

RP-140233 Motivation for New WI: Performance requirements for the verification of radiated multi-antenna reception performance of LTE UEs Intel Corporation Disc REL-12 -

Discussion paper related to the new WI proposal on Performance requirements for the verification of radiated multi-antenna reception performance of LTE UEs

conclusion: noted

RP-140234 New WI proposal: Performance requirements for the verification of radiated multi-antenna reception performance of LTE UEs Intel Corporation WID new RAN4 REL-13 -

new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_MIMO_OTA-Core; no Perf. part; follow-up WI to REL-12 WI HSPA_LTE_measRP_MIMO-Perf; note: 36.509 part of 2 stage test method is not covered, see separate WI proposal in RP-140132

conclusion: revised in RP-140503 (see below)

RP-140408 Motivation for new WI Performance requirements and harmonization for the verification of radiated multi-antenna reception performance of HSPA and LTE UEs CTTC Disc REL-13 -

motivation of new WI RP-140236

discussion: Intel: we do not preclude harmonization; we should not change the definition of harmonization
CTTC: agrees that we are lacking a definition about harmonization
Orange: all methodologies are equal and we should achieve harmonization and not skip it and go for downselection
Intel: we just mentioned downselection in case harmonization is finally not successful

conclusion: noted

RP-140236 New WID: Performance requirements and harmonization for the verification of radiated multi-antenna reception performance of HSPA and LTE UEs CTTC WID new RAN4 REL-13 -

new WI for UTRA & LTE; leading WG: RAN4; WI code to be used: HSPA_LTE_MIMO_OTA_HarReq-Core; no perf. part; The need to develop measurement uncertainty budgets and test tolerances for each method and to define the performance requirements for LTE and UMTS UEs motivates the proposed core WI.

conclusion: revised in RP-140466

RP-140466 New WID: Performance requirements and harmonization for the verification of radiated multi-antenna reception performance of HSPA and LTE UEs CTTC WID new RAN4 REL-13 -

new WI for UTRA & LTE; leading WG: RAN4; WI code to be used: HSPA_LTE_MIMO_OTA_HarReq-Core; no perf. part;

conclusion: withdrawn as covered in RP-140516

RP-140174 Motivation document for WID 'Extending the verification of radiated MIMO reception performance' Rohde & Schwarz Disc REL-12 -
Motivation document for WI to add Decomposition Method to TR 37.977
conclusion: noted

RP-140175 New WI: Extending the verification of radiated MIMO reception performance Rohde & Schwarz WID new RAN4 REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used LTE_MIMO_OTA_Decomp-Core; no Perf. part; follow-up WI to REL-12 WI HSPA_LTE_measRP_MIMO-Perf; adds Decomposition Method to TR 37.977
conclusion: postponed

RP-140133 Motivation document for MIMO OTA test mode WID Agilent Technologies Disc REL-12 -
Motivation document for new WID for MIMO OTA test mode definition
discussion: RAN5 chair: we discussed in Prague the approach that RAN4 can have the lead on modifying RAN5 spec
conclusion: noted

RP-140132 New WID Definition of MIMO OTA test mode Agilent Technologies WID new RAN4 REL-12 -
new WI for LTE; leading WG: RAN4; WI code to be used: LTE_MIMO_OTA_TEST_MODE-Core; no Perf. part; follow-up WI to REL-12 WI HSPA_LTE_measRP_MIMO-Perf; definition of a UE antenna measurement function test mode for use with the two-stage MIMO OTA test method; parallel WI to main MIMO OTA WI
discussion: Agilent: this WI proposal is also supported by Intel, China Telecom and ATR, which will be indicated in the next revision of this WID
conclusion: postponed

common discussion on MIMO OTA:
Telecom Italia: main key is harmonization, maybe we can modify the Intel proposal accordingly
Orange: we could remove the downselection from the Intel prosal
RAN chair: offline discussion, come back with a joint way forward approach about what we need to approve

after offline discussion, presented on Thu of RAN #63:
RP-140494 Way Forward for MIMO OTA CTTC Disc REL-13 -
conclusion: withdrawn

RP-140504 Way forward on MIMO OTA Intel Corporation Disc REL-13 -
conclusion: withdrawn

RP-140503 New WI proposal: Performance requirements for the verification of radiated multi-antenna reception performance of LTE UEs Intel Corporation WID new RAN4 REL-13 -
revision of RP-140234; new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_MIMO_OTA-Core; no Perf. part; follow-up WI to REL-12 WI HSPA_LTE_measRP_MIMO-Perf; note: 36.509 part of 2 stage test method is not covered;
discussion: CTTC: still one correction is needed
Telecom Italia: is there room for this activity in RAN4?
RAN chair: we said at the beginning of this week that
Telecom Italia: we would like to be removed from supporting companies as we had no time to review
conclusion: revised in RP-140516

RP-140516 New WI proposal: Performance requirements for the verification of radiated multi-antenna reception performance of LTE UEs Intel Corporation WID new RAN4 REL-13 -
conclusion: consensus about the WID achieved but postponed (as no REL-13 to be started before Sep.14)

REL-12 Terrestrial Beacon System (TBS) for UTRA and E-UTRA

RP-140099 Motivation Document: Study on Terrestrial Beacon System (TBS) in UTRA and E-UTRA NextNav Disc REL-12 -
motivation document for new SI RP-140098;

conclusion: revised in RP-140420

RP-140420 Motivation Document: Study on Terrestrial Beacon System (TBS) in UTRA and E-UTRA NextNav Disc REL-12 -
discussion: RAN chairman: is this for REL-13 or what is the urgency for REL-12?
NextNav: is for REL-12, urgency from FCC announcement
Sprint: does not see it urgent for REL-12
conclusion: noted

RP-140098 New SI: Study on Terrestrial Beacon System (TBS) in UTRA and E-UTRA NextNav SID new RAN4 REL-12 -
new SI for UTRA & LTE; leading WG: RAN4; WI code to be used: FS_LCS_TBS_UTRA_LTE;
related SI proposals were postponed at RAN #62 in RP-132111 and RP-132112
discussion: Ericsson: TU allocation not high enough, coexistence to be considered as well
conclusion: revised in RP-140446

RP-140446 New SI: Study on Terrestrial Beacon System (TBS) for LCS in LTE NextNav SID new RAN4 REL-13 -
revision of RP-140098; new SI for LTE; leading WG: RAN4; WI code to be used: FS_LCS_TBS_LTE;
discussion: RAN chair: approving it and keeping it on hold makes no sense
NextNav: we plan to work most of the time offline and we requested some time budget for the 3rd quarter
Ericsson: evaluating existing positioning techniques should also be considered
NextNav: there will be comparisons with existing techniques
US Dep. of Com.: supports the SI
Huawei: there is no urgency, why do we need an exception here for this SI compared to other REL-13 SIs/WIs
NextNav: there will be requirements from FCC
RAN chair: but they are not yet there so it will be difficult to work based on not yet existing requirements
Sprint: suggests to handle this topic like other REL-13 items
conclusion: postponed

REL-12 Measurement gap enhancement for LTE:

RP-140231 Motivation for New SI: Measurement gap enhancement Intel Corporation Disc REL-12 -
Discussion paper related to the new SI proposal on Measurement gap enhancement
discussion: RAN chair: considers it as a REL-13 topic and yesterday we said REL-13 topics should not start before Sep.14, any reason why it should be considered earlier?
ALU: is a continuation of Hetnet mobility
Intel: this SI covers a wider scope than Hetnet mobility
RAN chair: then it's really REL-13 scope
conclusion: noted

RP-140232 New SI proposal: Study on Measurement gap enhancement for LTE Intel Corporation SID new RAN4 REL-12 -
new SI for LTE only; leading WG: RAN4; WI code to be used: FS_LTE_meas_gap
conclusion: postponed, should be considered for REL-13

REL-12 High Power BS for 256 QAM for LTE:

RP-140220 Detailed justifications on new SID proposal for the HiPow BS 256QAM ZTE Disc REL-12 -
motivation paper for a not submitted SI for LTE only
discussion: RAN chair: considers this as a REL-13 topic, any urgency for it? no spec impact before REL-13
ALU: is related to LS from RAN4 RP-140024, can be considered as REL independent
RAN chair: if REL-independent then there is no urgency
RAN chair: we will see LSin RP-140024 later and see whether anything needs to be added to existing WI LTE_SC_enh_L1-Core
ZTE: We believe separate SID can ensure systematic support of 256QAM in a release independent manner
conclusion: noted

14.2 Spectrum related WIs/SIs

Inter-band CA related WIs (2DL/1UL):

RP-140094 New WI proposal: LTE Advanced inter-band Carrier Aggregation of Band 7 and Band 22 ORANGE, Ericsson WID new RAN4 s (2DL/1UL) REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_B7_B22
conclusion: approved, target: Core: Dec.14, Perf.: Dec.14 (REL-13)

RP-140096 New WID: Additional bandwidth combination set for LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 20 NSN WID new RAN4 s (2DL/1UL) REL-12 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_B3_B20_BWset; note: LTE_CA_B3_B20 was a REL-11 WI; unclear what is Core part and what is Perf part spec
conclusion: revised in RP-140447

RP-140447 New WID: Additional bandwidth combination set for LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 20 NSN WID new RAN4 s (2DL/1UL) REL-12 -
conclusion: approved; target: Core part: June 14 (Rel-12)

RP-140097 New WID: Additional bandwidth combination set for LTE Advanced inter-band Carrier Aggregation of Band 7 and Band 20 NSN WID new RAN4 s (2DL/1UL) REL-12 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_B7_B20_BWset; note: LTE_CA_B7_B20 was a REL-11 WI; unclear what is Core part and what is Perf part spec
conclusion: revised in RP-140448

RP-140448 New WID: Additional bandwidth combination set for LTE Advanced inter-band Carrier Aggregation of Band 7 and Band 20 NSN WID new RAN4 s (2DL/1UL) REL-12 -
conclusion: approved; target: Core part: June 14 (Rel-12)

RP-140118 New WID: Additional bandwidth combination set for LTE Advanced inter-band Carrier Aggregation of Band 4 and Band 12 T-Mobile USA WID new RAN4 s (2DL/1UL) REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_B4_B12_BWset; note: LTE_CA_B4_B12 was a REL-11 WI; Core part target unclear
conclusion: revised in RP-140449 (target will be RAN #66 for 36.850)

RP-140449 New WID: Additional bandwidth combination set for LTE Advanced inter-band Carrier Aggregation of Band 4 and Band 12 T-Mobile USA WID new RAN4 s (2DL/1UL) REL-13 -
conclusion: approved unseen; target: Core part: Dec.14, Perf. part: Dec.14 (REL-13)

RP-140156 New WID proposal: LTE Advanced Carrier Aggregation of Band 41 and Band 42 Huawei WID new RAN4 s (2DL/1UL) REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_B41_B42; unclear what is Core part and what is Perf part spec
conclusion: revised in RP-140450

RP-140450 New WID proposal: LTE Advanced Carrier Aggregation of Band 41 and Band 42 Huawei WID new RAN4 s (2DL/1UL) REL-12 -
conclusion: approved unseen; target: Core part: June 14, Perf. part: Sep.14 (REL-12)

RP-140169 New WI Proposal: LTE Advanced inter-band Carrier Aggregation of Band 5 and Band 13 Verizon, Intel WID new RAN4 s (2DL/1UL) REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_B5_B13; rapporteur: Intel
conclusion: approved, target: Core: Dec.14, Perf.: Dec.14 (REL-13)

3 Band Carrier Aggregation (3DL/1UL):

RP-140095 New WI proposal: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 3, Band 7 and Band 7 ORANGE, Deutsche Telekom, NSN WID new RAN4 s (3DL/1UL) REL-12 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_B3_B7_B7; rapporteur: NSN
conclusion: approved, target: Core: June 14, Perf. June 14 (REL-12)

RP-140106 New WI: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 1, Band 19 and Band 21 NTT DOCOMO, INC. WID new RAN4 s (3DL/1UL) REL-12 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_B1_B19_B21
conclusion: approved , target: Core: June 14, Perf. June 14 (REL-12)

RP-140116 New WID: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 4, Band 4, and Band 12 T-Mobile USA WID new RAN4 s (3DL/1UL) REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_B4_B4_B12
conclusion: approved, target: Core: Dec. 14, Perf. Dec. 14 (REL-13)

RP-140117 New WID: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 2, Band 4, and Band 4 T-Mobile USA WID new RAN4 s (3DL/1UL) REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_B2_B4_B4
conclusion: approved , target: Core: Dec. 14, Perf. Dec. 14 (REL-13)

RP-140165 New WI: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 2, Band 2 and Band 5 Verizon, Intel WID new RAN4 s (3DL/1UL) REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_B2_B2_B5; rapporteur: Intel
conclusion: approved, target: Core: Dec. 14, Perf. Dec. 14 (REL-13)

RP-140166 New WI: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 4, Band 4 and Band 5 Verizon, Intel WID new RAN4 s (3DL/1UL) REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_B4_B4_B5; rapporteur: Intel
conclusion: approved, target: Core: Dec. 14, Perf. Dec. 14 (REL-13)

RP-140167 New WI: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 2, Band 5 and Band 13 Verizon, Intel WID new RAN4 s (3DL/1UL) REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_B2_B5_B13; rapporteur: Intel
conclusion: approved, target: Core: Dec. 14, Perf. Dec. 14 (REL-13)

RP-140168 New WI: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 4, Band 5 and Band 13 Verizon, Intel WID new RAN4 s (3DL/1UL) REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_B4_B5_B13; rapporteur: Intel
conclusion: approved, target: Core: Dec. 14, Perf. Dec. 14 (REL-13)

RP-140194 New Work Item Proposal: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 1, Band 3 and Band 26 China Telecom WID new RAN4 s (3DL/1UL) REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_B1_B3_B26
conclusion: approved, target: Core: Dec. 14, Perf. Dec. 14 (REL-13)

RP-140203 New WI: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 1, Band 18 and Band 28 KDDI WID new RAN4 s (3DL/1UL) REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_B1_B18_B28
discussion: KDDI: want to revise the WID
Motorola Solutions: why band 18 and not the superset band 16 (otherwise we see a lot of permutations)
conclusion: revised in RP-140451

RP-140451 New WI: LTE Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 1, Band 18 and Band 28 KDDI WID new RAN4 s (3DL/1UL) REL-13 -
conclusion: approved; target: Core part: March 15; Perf. part: March 15 (REL-13)

RP-140390 New WID: LTE-Advanced 3 Band Carrier Aggregation (3DL/1UL) of Band 3, Band 3 and Band 7 Telia Sonera WID new RAN4 s (3DL/1UL) REL-12 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_B3_B3_B7
discussion: Huawei: we support this WI
RAN chair: can be added in next revision
conclusion: approved, target: Core: June 14, Perf. June 14 (REL-12)

Intra-band CA related WIs (non-contiguous 1UL):

RP-140157 New WI Proposal: Additional bandwidth combinations fLTE Advanced intra-band non-contiguous Carrier Aggregation in Band 25 Huawei WID new RAN4 s (NC) REL-13 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_NC_B25_BWset; note: LTE_CA_NC_B25 was a REL-12 WI; unclear what is Core part and what is Perf part spec
discussion: Huawei: should be REL-12 WI
MCC: then please clarify this in the target dates

conclusion: revised in RP-140452

RP-140452 New WI Proposal: Additional bandwidth combinations fLTE Advanced intra-band non-contiguous Carrier Aggregation in Band 25 Huawei WID new RAN4 s (NC) REL-12 -
conclusion: approved; target: Core part: June 14, Perf. part: Sep.14 (REL-12)

Intra-band CA related WIs (contiguous 3DL)

RP-140144 Motivation for New WI: LTE Advanced intra-band contiguous carrier aggregation in Band 40 for 3DL CMCC Disc s (C 3DL) REL-12 -
discussion: RAN chair: no motivation paper needed for spectrum aspects
conclusion: not treated

RP-140145 New WI proposal: LTE Advanced intra-band contiguous Carrier Aggregation in Band 40 for 3DL CMCC WID new RAN4 s (C 3DL) REL-12 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_CA_C_B40_3DL; unclear whether new TR is for Core or Perf. part
discussion: RAN4 chair: consider TR for Core part
conclusion: revised in RP-140453 (TR is for Core part)

RP-140453 New WI proposal: LTE Advanced intra-band contiguous Carrier Aggregation in Band 40 for 3DL CMCC WID new RAN4 s (C 3DL) REL-13 -
RP-140453 is approved unseen, target: Core part: Dec.14; Perf. part: Dec.14 (REL-13)

inter-band Carrier Aggregation (2UL):

RP-140170 New WI Proposal: LTE Advanced Carrier Aggregation with 2UL for Band 4 and Band 13 Verizon, Intel WID new RAN4 s (2UL) REL-12 -
new WI for LTE only; leading WG: RAN4; rapporteur: Intel;
conclusion: withdrawn finally it was suggested to cover this band combination in a revision of WI LTE_CA_2UL-A1 in RP-140394

RP-140171 New WI Proposal: LTE Advanced Carrier Aggregation with 2UL for Band 2 and Band 13 Verizon, Intel WID new RAN4 s (2UL) REL-12 -
new WI for LTE only; leading WG: RAN4; rapporteur: Intel;
conclusion: withdrawn, finally it was suggested to cover this band combination in a revision of WI LTE_CA_2UL-A1 in RP-140394

Additional BW combinations for LTE CA of B2+B29 and B4+B29:

RP-140084 New WI proposal: Additional bandwidth combinations for LTE Advanced inter-band Carrier Aggregation of Band 2 and Band 29 and of Band 4 and Band 29 AT&T WID new RAN4 s (2DL/1UL) REL-12 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_DL_FDD700_B29_BWset-Core; no perf. part; note: already CRs RP-140164, RP-140187, RP-140188 are submitted to RAN #63 with the intention to open and close the WI at same RAN
discussion: MCC: no perf. part needed?
AT&T: no Perf. part needed
conclusion: approved, target: Core part: March 2014

RP-140163 Addition of bandwidth combination set for CA_2A-29A and CA_4A-29A Qualcomm Incorporated, AT&T CR36.101- - B REL-11 LTE_DL_FDD700_B29_BWset-Core
company contribution; this CR is related to the new and not yet approved WI in RP-140084
conclusion: withdrawn as not needed

RP-140164 Addition of bandwidth combination set for CA_2A-29A and CA_4A-29A Qualcomm Incorporated, AT&T CR36.1012173 - B REL-12 LTE_DL_FDD700_B29_BWset-Core
company contribution; this CR is related to the new and not yet approved WI in RP-140084;
conclusion: revised in RP-140417

RP-140417 Addition of bandwidth combination set for CA_2A-29A and CA_4A-29A Qualcomm Incorporated, AT&T CR36.1012173 1 B REL-12 LTE_DL_FDD700_B29_BWset-Core
conclusion: approved

RP-140187 Addition of bandwidth combination set for CA_2A-29A and CA_4A-29A Qualcomm Incorporated, AT&T CR36.3070246 - B REL-10 LTE_DL_FDD700_B29_BWset-Core
company contribution; this CR is related to the new and not yet approved WI in RP-140084
conclusion: approved

RP-140188 Addition of bandwidth combination set for CA_2A-29A and CA_4A-29A Qualcomm Incorporated, AT&T CR 36.3070247 - A REL-11 LTE_DL_FDD700_B29_BWset-Core
company contribution; this CR is related to the new and not yet approved WI in RP-140084; no REL-12 CR needed
conclusion: approved

WI is completed, i.e.No further CRs needed for the new REL-12 WI LTE_DL_FDD700_B29_BWset-Core?
AT&T: Correct, no CRs, WI is completed

3DL fallback:

RP-140162 New WI proposal: Additional bandwidth combinations for LTE Advanced inter-band Carrier Aggregation to support 3DL fallback Qualcomm Incorporated WID new RAN4 s (2DL/1UL) REL-12 -
new WI for LTE only; leading WG: RAN4; no perf. part; additional BW combinations added for 6 WIs: 3 open REL-12 WIs (LTE_CA_B1_B5_B7, LTE_CA_B2_B29_B30, LTE_CA_B4_B29_B30) and 3 completed REL-11 WIs (LTE_CA_B3_B5, LTE_CA_B4_B5, LTE_CA_B4_B12)
discussion: MCC: title is misleading (we will not cover all 3DL cases; we actually add additional BW combinations to 2DL and not 3DL), we add to open 3DL WIs (what if they do not finish in REL-12?)
Qualcomm: considers only the indicated band combinations and not all REL-12 3DL WIs
conclusion: revised in RP-140454

RP-140454 New WI proposal: Additional bandwidth combinations for LTE Advanced inter-band Carrier Aggregation to support 3DL fallback Qualcomm Incorporated WID new RAN4 s (2DL/1UL) REL-12 -
conclusion: approved; target: Core part: June 14

14.3 UE conformance testing WIs/SIs led by RAN5

RP-140090 New work item proposal: UE Conformance Test Aspects - LTE UE TRP and TRS and UTRA Hand Phantom ZTE WID new RAN5 REL-12 -
new WI for UTRA & LTE; leading WG: RAN5; WI code to be used: LTE_UTRA_TRP_TRS-UEConTest; tested core part: LTE_UTRA_TRP_TRS-Core; TRP = total radiated power, TRS = total radiated sensitivity
discussion: MCC: used the old WID template
conclusion: approved (target: Testing: June 15)

15 UE capabilities/FGIs

64 QAM in UL:

Release 11:

RP-140247 Support for 64QAM Qualcomm Incorporated Disc REL-11 TEI11, LTE-L23
conclusion: withdrawn

RP-140405 Way forward on introducing capability of UL 64QAM Huawei Disc REL-11 TEI11, LTE-L23
related CRs in RP-140154 and RP-140155; compare RP-140247
conclusion: revised in RP-140427

RP-140427 Way forward on introducing capability of UL 64QAM Huawei Disc REL-11 TEI11, LTE-L23
- *Proposal 1: introduce a capability bit to indicate the support of UL 64QAM.*
- *Proposal 2: RAN4 should finish requirement of UL 64QAM in Rel-12, if possible.*
- *Proposal 3: RAN2 introduces signalling for UL 64QAM from Rel-11.*
- *Proposal 4: RAN should decide whether the capability bit shall be band independent or band dependent.*

discussion: Broadcom: would not have a too large time difference between the requirements and the considered REL
Nokia: intention seems to have CRs before the ASN.1 freeze of REL-12
conclusion: revised in RP-140490 (see below)

RP-140154 36.331 CR to decouple UL 64QAM from UE category (band independent) Huawei CR 36.331 1468 - C REL-11 TEI11, LTE-L23
company contribution; this CR was not provided to RAN2; REL-12 cat.A CR missing
conclusion: postponed

RP-140155 36.306 CR to decouple UL 64QAM from UE category (band independent) Huawei CR 36.306 0180 - C REL-11 TEI11, LTE-L23
company contribution; this CR was not provided to RAN2
conclusion: postponed

Release 12: Tdocs taken from AI 14.1.4

RP-140153 Motivation for new work item on support of uplink 64QAM in LTE Huawei Disc REL-12 -
conclusion: noted

RP-140152 New work item: Support of uplink 64QAM in LTE Huawei WID new RAN4 REL-12 -
new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_64QAM_UL;
conclusion: revised in RP-140455

RP-140455 New work item: Support of uplink 64QAM in LTE Huawei WID new RAN4 REL-12 -
revision of RP-140152; new WI for LTE only; leading WG: RAN4; WI code to be used: LTE_64QAM_UL;
conclusion: postponed

RP-140393 Considerations on UE category aspects Samsung Disc REL-12 -
Proposal 2.1: RAN#63 should approve a 6 months RAN4 WID to specify UE performance requirements on MPR, A-MPR and EVM for UL 64QAM.
Proposal 2.2: This first 64QAM WID should specify the performance requirements, especially the CA A-MPR requirements for 1 or 2 selected bands. RAN#63 should discuss which of the existing bands the WID should focus on.
Proposal 3.1: RAN#63 should ask RAN1 & RAN2 to provide CR's to RAN#64 enabling a UE to indicate support for 64QAM explicitly.
Proposal 3.2: RAN#63 to agree that it should be possible for at least category 6,7,9 and 10 UE's to indicate optionally the support for 64QAM. RAN#63 is requested to also discuss the usefulness of introducing optional 64QAM support for categories 0,1,2,3 and 4.
Proposal 3.3: UE capability signalling should enable the UE to signal per band whether it supports 64QAM or not. RAN2 can discuss whether this support should be indicated per band, or per band per bandcombination.
Proposal 3.4: Signalling should be introduced by which the network can explicitly indicate it supports usage of 64QAM by UE categories other than 5 and 8.
related to new WI proposal RP-140152 on Support of uplink 64QAM in LTE;

discussion: Samsung: similar to Huawei proposal
NSN: why should this be band-specific?
Ericsson: introduce requirement also for CA and for UL MIMO?
Huawei: can discuss this offline
Sprint: also for cat.5?
Huawei: once RAN4 has defined a new requirement it could be also used for cat.5
KDDI: a lot of operators support this feature
NTT DOCOMO: want to understand the RAN4 priorities of the 64QAM work compared to other RAN4 work
conclusion: noted

RP-140490 Way forward on introducing capability of UL 64QAM Huawei, HiSilicon, KDDI, Qualcomm Incorporated, CMCC, China Unicom, Verizon, Deutsche Telekom, China Telecom, TeliaSonera, Soft bank mobile Corporation, eAccess Ltd, AT&T, Samsung, Telecom Italia, NEC Disc REL-11 TEI11, LTE-L23
revision of RP-140427; related CRs in RP-140154 and RP-140155;

- *Proposal 1: introduce capability signalling to indicate the support of UL 64QAM independent from UE category signalling.*
- *Proposal 2: RAN4 should define requirements of UL 64QAM in Rel-12, if possible.*
- *Proposal 3: RAN2 introduces capability signalling for UL 64QAM from Rel-11.*
- *Proposal 4: RAN#63 should send an LS to RAN1 and RAN4 (cc RAN2) to trigger the work as described above, in order to provide CRs to RAN to enable a UE to indicate support for 64QAM explicitly.*
- *Proposal 5: RAN#63 to agree that it should be possible for at least category 6, 7, 9 and 10 UE's to indicate optionally the support for 64QAM. 64 QAM UL support is not introduced for categories 0 UEs. RAN#63 is requested to also discuss (now) the usefulness of introducing optional 64QAM support for categories 1, 2, 3 and 4.*
- *Proposal 6: RAN2 CRs should be drafted in a way that any possible backward compatibility problem is avoided*

conclusion: noted, way forward is agreed without proposal 3, Huawei will draft LSout in RP-140508 to RAN4, RAN1, RAN2

RP-140508 RP-140508 Draft LS on Introducing the UE capability for UL 64QAM (to: RAN4, RAN1, RAN2; cc: -; contact: Huawei) Huawei LSout REL-11 TEI11, LTE-L23
related to RP-140490
conclusion: withdrawn
There was no consensus about the LS; the principles of the way forward (see RP-140490) are agreed; but the discussion on next steps is postponed to RAN#64.

New UE category for 3DL CA (REL-11):
RAN #62: agreed way forward in RP-132034 (REL-10 not considered):
RAN agrees to task RAN WGs (starting from RAN1) to introduce a new UE category(ies) with the following principles:

- *Define DL "450Mbps class" addressing 3DL CA with total aggregated bandwidth of 60MHz (example shown in RP-131747)*
- *The above DL category should be paired with UL categories with the same processing requirements as the existing UL Cat.6 and UL Cat.7*
- *New UE category(ies) should be defined in release-11*
- *RAN WGs should further discuss*
  - *"Physical layer parameter values", "Total layer 2 buffer sizes" and "Maximum number of bits of a MCH transport block received within a TTI" as defined in TS36.306*
  - *Mechanisms to address backward compatibility*
  - *RRC signalling*

RP-140016 LS on introduction of new UE categories
(R1-140898; to: RAN2; cc: RAN; contact: Huawei) RAN1
LSin REL-11 LTE_CA_enh-Core
no RAN action requested; related CR packages provided in RP-140290 from RAN1 and RP-140364 from RAN2;
conclusion: noted, no LS answer

RP-140290 CRs to 36.213 on new UE categories for DL 450Mbps class RAN1 CR 36.213 set REL-11 LTE_CA_enh-Core

conclusion: approved

RP-140364 RAN2 agreed CRs on New UE categories for DL 450Mbps class RAN2 CR set REL-11 LTE_CA-Core, TEI11
related to LSin RP-140016 and RAN1 CRs in RP-140290
conclusion: approved

RP-140178 Need for additional UE categories support between UE category 7 and UE Category 8. Sprint Disc REL-11 LTE_CA-Core, TEI11
discusses the need for additional UE categories between UE category 7.1 and UE category 8
discussion: DT: why TDD specific category?
Sprint: it's not TDD specific
Broadcom: understands the categories would be joint for TDD and FDD
Qualcomm: per TTI category for 900 and 1200?, REL-11 or REL-12?
Sprint: preference for REL-11
Huawei: would like to look also at 256QAM in DL in offline discussion
conclusion: noted, offline discussion planned coordinated by Sprint

RP-140179 Way forward for introduction of New UE categories Sprint Disc REL-11 LTE_CA-Core, TEI11
This document is companion way forward to the discussion paper in RP-140178
proposal:
RAN agrees to task RAN WGs (starting from RAN1) to introduce a two new UE categories with the following principles:
- *Define DL "519 Mbps class" addressing 3DL and 4 DL CA with total aggregated bandwidth up to 80 MHz (examples are shown in [1])*
- *Define DL "689 Mbps class" addressing 3DL and 4 DL CA with total aggregated bandwidth up to 80 MHz (examples shown in [1])*
- *The above DL categories should be paired with UL categories with the same processing requirements as the existing UL Cat.6 and UL Cat.7*
- *Add UL 64 QAM as an optional feature to UL UE categories 2, 3, 4, 6 and 7*
- *New UE categories should be defined in release-11*
- *RAN WGs should further discuss:*
  - *"Physical layer parameter values", "Total layer 2 buffer sizes" and "Maximum number of bits of a MCH transport block received within a TTI" as defined in TS36.306*
  - *Mechanisms to address backward compatibility*
  - *RRC signalling*

conclusion: revised in RP-140456

RP-140456 Way forward for introduction of New UE categories Sprint Disc REL-11 LTE_CA-Core, TEI11
discussion: Sprint: we will come back at next meeting
conclusion: withdrawn

FGI bit 31 (MFBI), REL-10:

RP-140201 Mandating FGI bit 31 to TRUE from Rel-10 onwards KDDI Disc REL-10 TEI10
discussion: AT&T: if proposal is accepted then CRs have to be presented in 6 months, is this not a bit early for chipset vendors? Fear impact on testing
AT&T: do you have any UE vendors?
Huawei: for UEs it is mandatory so it should be implemented already
KDDI: we identified operators interested and network vendors for testing; understands the feature will be mandatory
RAN chair: IoT is established at RAN #63?
RAN vice-chair: if we have no UE vendors then we should revisit our rule
Ericsson: inter-RAT aspect for MFBI (e.g. from UTRA to LTE) could be problematic
Huawei: does not see this critical
conclusion: noted, sufficient IOT possibilities present and we still have then 6 months to decide to mandate FGI bit 31
RAN chair: we will revisit this topic in June 14 or Sep.14
KDDI: understands that we should inform RAN5 now
Samsung: correct, so that RAN5 can be prepared

RP-140202 Draft LS to RAN5 on FGI bit handling for bit 31 KDDI LSout REL-10 TEI10
related CRs in RP-140226, RP-140391, RP-140392
conclusion: revised in RP-140457

RP-140457 Draft LS to RAN5 on FGI bit handling for bit 31 KDDI LSout REL-10 TEI10
conclusion: revised in RP-140501
RP-140501 LS to RAN5 on FGI bit handling for bit 31 (to: RAN5; cc: RAN2; contact: KDDI) RAN LSout REL-10 TEI10
conclusion: approved unseen

RP-140226 Mandating the settings of FGI bit 31 to TRUE KDDI CR36.331 1465 - F REL-10 TEI10
RP-140391 Mandating the settings of FGI bit 31 to TRUE KDDI CR36.331 1466 - A REL-11 TEI10
RP-140392 Mandating the settings of FGI bit 31 to TRUE KDDI CR36.331 1467 - A REL-12 TEI10
conclusion: All 3 CRs are withdrawn

handling mandatory/optional UE features for Rel-12 and onwards:
At RAN #62 RP-132099 from NTT DOCOMO proposed:
Mandatory/optional support of the UE can be discussed and decided by WGs only if it is not contentious. Otherwise, the decision is brought to TSG-RAN.
TSG-RAN has the responsibility to decide all mandatory/optional UE features. The discussion takes place after the completion of the release by default. But it is left to TSG-RAN chair decision when to discuss.
The outcome of mandatory/optional decision is made available to RAN WG2. RAN WG2 implements the UE capability signalling based on the decision.
The topic was postponed at RAN #62.

RP-140406 Procedure for handling mandatory/optional UE features Huawei Disc REL-12 -
compare RP-132099 of RAN #62
proposal:
1. *For each feature, WGs identify whether the network needs to know the UE support. For the features which the network needs to know the UE support, WGs develop the UE capability signalling. The need of FDD/TDD differentiation is determined feature by feature. RAN1 needs to communicate to RAN2 timely any foreseen impact on RAN2 defined signalling.*
2. *Mandatory/optional support of the features by the UE can be discussed in WGs and decided by WGs only if it is not contentious and doesn't cause too much waste of time. It is up to the RAN WGs Chairman how much time this activity should take, but it should be part of the technical discussion on the features that are specified.*
3. *The decision (or no decision) from WGs is then brought to TSG-RAN, who has the final responsibility on this matter. TSG-RAN has the responsibility to decide all mandatory/optional UE features. The discussion takes place after the completion of the release, by default the meeting after the ASN.1 freeze of a Release is decided. Ultimately is the TSG-RAN chair decision when to put this on the RAN Agenda.*

discussion: Huawei: RAN2 did it for REL-11 but this is no guarantee that we do it the same way for REL-12 so this should define a process
NTT DOCOMO: how many time units do you expect for this in WG?
Huawei: WGs are allowed to discuss it if they converge quickly otherwise RAN has to look into it
CATT: thinks the Huawei proposal is reasonable and supports it
Qualcomm: feature by feature should be discussed independently i.e. no deals for bundling some features
RAN2 chairman: supports Qualcomm's comment
conclusion: noted, proposal is endorsed, process is considered feature by feature

16 Inter WG/TSG-related discussions & decisions

RP-140293 SA-RAN Coordination, SA2 Considerations SA2 chairman (Samsung) Disc
WIDs are not bound to releases. Plenary decisions identify which functionality is bound to which release, and when studies end. There is an additional opportunity to plan the progress of the work in advance to make better use of resources across TSGs, so that conclusions can be reached continuously and not only when time permits at the rushed end of release cycles.
discussion: RAN chair: for inter-TSG WIs it is helpful to have a plan covering all involved WGs (UPCON is an example)?
conclusion: noted

17 Outputs to other groups

No contributions.

18 Project management

MCC:

RP-140039 3GPP Support Team Report ETSI MCC Report
conclusion: noted

RP-140038 3GPP Work Plan review at Plenary #63 ETSI MCC Workplan
conclusion: noted

RP-140041 3GPP_Carrier Aggregation for LTE ETSI MCC Report
3GPP work items on Carrier Aggregation (CA) for LTE
conclusion: noted

RP-140042 Standardization of Machine-type Communications ETSI MCC Report
M2M Communications work items in 3GPP and ETSI
conclusion: revised in RP-140467

RP-140467 Standardization of Machine-type Communications ETSI MCC Report
conclusion: noted

RP-140043 3GPP Public Safety (individual to/from authority) communications ETSI MCC Report
3GPP work items for supporting Public Safety (individual-to-authority/authority-to-individual) communication, including eCall, PWS, ETWS, etc., so that police/fire-fighters/paramedics/ambulance and other services can use in place of (or in addition to) existing narrowband Public Safety networks
conclusion: revised in RP-140468

RP-140468 3GPP Public Safety (individual to/from authority) communications ETSI MCC Report
conclusion: noted

RP-140044 LTE for Public Safety (authority-to-authority) communications ETSI MCC Report
3GPP work items to enhance LTE for supporting Public Safety (authority-to-authority) communications, so that police/fire-fighters/paramedics/ambulance and other services can use LTE in place of (or in addition to) existing narrowband Public Safety networks
conclusion: noted

RP-140045 3GPP Rel-12_description ETSI MCC Report REL-12 -
high-level description of the 3GPP Release 12 Features. Its latest version is available at: http://www.3gpp.org/ftp/Information/WORK_PLAN/Description_Releases/
conclusion: noted

RP-140046 3GPP Rel-13_description ETSI MCC Report REL-13 -
high-level description of the 3GPP Release 13 Features. Its latest version is available at: http://www.3gpp.org/ftp/Information/WORK_PLAN/Description_Releases/
conclusion: noted

RP-140047 3GPP work items on H(e)NB ETSI MCC Report
H(e)NB work items across 3GPP Releases and TSGs
conclusion: noted

RP-140048 3GPP work items on Self-Organizing Networks ETSI MCC Report
Self-Organizing Networks (SON) work items across 3GPP Releases and TSGs
conclusion: noted

RP-140049 3GPP work items on Small Cells ETSI MCC Report
work items on Small Cells across 3GPP Releases and TSGs
conclusion: noted

RP-140050 WLAN interworking with a 3GPP system (I-WLAN) ETSI MCC Report
work items on WLAN interworking with a 3GPP system (I-WLAN) across 3GPP Releases and TSGs
conclusion: noted

New WID/SID templates:

RP-140252 Single Document WID, SID and SR Templates NEC Disc
New 'single document' WID, SID and SR templates that followed from the RAN plenary mail discussion, with summary from the discussion leader (NEC).
conclusion: noted

19 Future meeting schedule

RP-140052 Charity Park Run/Walk at TSGs #64 Running Friends of 3GPP Disc
conclusion: noted

Meeting schedule 2010/2011/2012/2013/2014/2015:

MEETING	DATES	LOCATION	HOST
RAN #47	16 March – 19 March 2010	Vienna, Austria	EF3
RAN #48	1 June – 4 June 2010	Seoul, Korea	TTA
RAN #49	14 Sep. – 17 Sep. 2010	San Antonio, USA	NAF3
RAN #50	7 Dec. – 10 Dec. 2010	Istanbul, Turkey	EF3
RAN #51	15 March – 18 March 2011	Kansas City, USA	Sprint Nextel
RAN #52	31 May – 3 June 2011	Bratislava, Slovakia	EF3
RAN #53	13 Sep. – 16 Sep. 2011	Fukuoka, Japan	ARIB & TTC
RAN #54	6 Dec. – 9 Dec. 2011	Berlin, Germany	EF3
RAN #55	28 Feb. – 2 March 2012	Xiamen, China	ZTE, CMCC
Workshop ***	11 June - 12 June 2012	Ljubljana, Slovenia	EF3
RAN #56	13 June – 15 June 2012	Ljubljana, Slovenia	EF3
RAN #57	4 Sep. – 7 Sep. 2012	Chicago, USA	NAF3
RAN #58	4 Dec. – 7 Dec. 2012	Barcelona, Spain	EF3
RAN #59	26 Feb. – 1 March 2013	Vienna, Austria	EF3
RAN #60	11 June – 14 June 2013	Oranjestad, Aruba	NAF3
RAN #61	3 Sep. – 6 Sep. 2013	Porto, Portugal	EF3
RAN #62	3 Dec. – 6 Dec. 2013	Busan, Korea	TTA
**RAN #63 ** **	**3 March – 6 March 2014**	**Fukuoka, Japan**	**ARIB & TTC**
RAN #64	10 June – 13 June 2014	Sophia Antipolis, France	EF3
RAN #65	9 Sep. – 12 Sep. 2014	Edinburgh, Scotland	EF3
RAN #66 **	8 Dec. – 11 Dec. 2014	tbd, USA	NAF3
RAN #67 **	9 March – 12 March 2015	tbd, China	Huawei
RAN #68 **	15 June – 18 June 2015	Malmö, Sweden (tbc)	EF3
RAN #69 **	14 Sep. – 17 Sep. 2015	tbd, USA	NAF3
RAN #70 **	7 Dec. – 10 Dec. 2015	Sitges, Spain (tbc)	EF3

***: RAN Workshop on REL-12 and onwards

**: 1 week TSG i.e. in same week with CT and SA, therefore starting on Monday

20 Any other business

RP-140246 Agile Standardization Ericsson Disc
Proposal 1 The latest set of specifications of the current release shall at any point in time be technically correct, consistent and implementable (including ASN.1) and must not be subject to non-backwards compatible changes.
Proposal 2 For each new feature the working groups create and maintain running CRs for the affected specifications and ensure that they are updated every quarter according to the latest approved version of the specifications and with the latest agreements for the particular feature.
Proposal 3 Only when all running CRs of all working groups including ASN.1 are considered stable and error free, the WI is considered complete and the CRs are approved by RAN plenary and implemented in specifications.
Proposal 4 Modifications, new functionality and clarifications are only added to the current release.
Proposal 5 Only essential Corrections may be considered for legacy releases.
discussion: RAN chair: supports the approach and we should investigate it further

NTT DOCOMO: supports to use a feature as soon as possible but is wondering how ASN.1 will be handled;
RAN chair: every RAN2 CR will have an own ASN.1 review
RAN2 chair: we currently already check ASN.1 but it will help to distribute the review over the REL
Broadcom: GERAN has worked like this for years; is it feasible in RAN2 with the workload is the question?
Nokia: soem review at the plenary when ASN.1 is coming for several WIs?
RAN chair: no the review is in RAN2
Nokia: so between RAN WG meetings and RAN
NEC: CT and SA is working more in this way but we should align in 3GPP as you touch the REL principle
RAN chair: no we keep the REL principle
SA2 chair: needs to understand how each fix is compatible with what you have at the end of the REL
Huawei: we should rather do a step back and check what are the problems that we need to fix (before we introduce maybe too much overhead)
ALU: similar view like Huawei, no revolutionary approach is needed we need to analyze the problems and impacts
Qualcomm: agrees with the benefits of the document but sees also potential problems with ASN.1
CMCC: how do we define the start and end point for a REL?
Ericsson: when we start the first REL-13 WI and this is coming with REL-13 CRs then we will have REL-13
Samsung: every spec version has to be implementable then and if we make a mistake this will have serious consequences
RAN3 chair: IEs can be used by several features, so we need to be careful
ALU: Why do we then still have releases? It seems 2 different concepts and it also makes clear that we need to consider a similar approach in whole 3GPP
LG: a lot of maintenance may be the consequence
RAN2 chair: we could try it for REL-13
RAN chair: so discuss the proposal further and we can see at next RAN meeting again what people think

conclusion: noted

1 week TSG:
Ericsson: we should start on Monday at lunch time, esp. as we wasted Wed afternoon; otherwise we should go for 2 weeks
NSN: supports RAN2 chair
TeliaSonera: supports 1 week approach and starting on Monday afternoon
Broadcom: supports 1 week approach and Ericsson proposal
Huawei: supports 1 week approach and joint session should be just on case by case
KDDI: supports 1 week

DT: prefers to go back to the 2 weeks TSG
NEC: supports DT, controversial issues in SA in parallel and Wed afternoon was busy
Telefonica, Motorola Solutions: support DT
Orange, Sharp, TruePosition: wants to have 2 weeks approach

AT&T: meetings for 2015 are already set for 1 week
DT: there is a lack of transparency when and where this was decided
SA chair: we will stick to 1 week but if you have proposals to make it better, we have time until Dec. to improve the 1 week approach
RAN chair: we will discuss the 1 week setup in SA on Friday

3 plenaries per year for TSG instead of 4 (2016):
Telefonica: can see rationale for it but we need to coordinate with other standards organisations
NEC: ok, as long as we limit the number of WG meetings between TSG; would also reduce rationale for 1 week TSG as it will have more time for WGs
ALU: supports 3 TSGs
AT&T: in 2016 3GPP may be involved in 5G and then we may need 4 TSG meetings
RAN chair: we will have 1 quarter more to think about it, so we will come back to it at RAN #64

21 Closing of the meeting

The TSG RAN chairman Dino Flore (Qualcomm) thanked the delegates for participating and contributing to RAN meeting #63 he thanked the host for organizing the meeting and the social event and closed the meeting on Thursday March 6th, 2014 at about 17:30.

Annex A:
List of participants

The list of participants of this RAN meeting #63 is attached to this report.

Total number of participants: 198 (registered before the meeting: 222)

Annex B:
List of Tdocs

The list of Tdocs of this RAN meeting #63 is attached to this report.

Total number of Tdocs: 523 (RP-140001 - RP-140523) of which 499 Tdocs are available, i.e. 24 are not available and withdrawn.

Annex C:
Incoming liaison statements (LSin)

In total 32 LSs/LTIs were received for RAN #63 (2 of them received during the meeting). All 32 LSs/LTIs were treated.

RAN Tdoc	title (incoming LS, to, cc, contact)	source	REL	WI	RAN action requested	status	LS answer to source	additional comments
RP-140003	LS update on Cooperation for Energy Efficiency Measurements (EE(13)000051; to: SA5, SA, RAN2; cc: RAN, ETSI TC ATTM; contact: Alcatel-Lucent)	ETSI TC EE	REL-12	-	no	noted	no	previous LSin RP-130902 at RAN #61
RP-140004	Reply LS to R2-134601 = RP-131416 on Prioritization of MMTEL-voice (S1-140330; to: RAN2; cc: RAN; CT1; contact: NTT DOCOMO)	SA1	REL-12	FS_SCM_LTE	no	noted	no	MMTEL = Multimedia Telephony; LS is answering RAN2 LS R2-134601 = RP-131416 that was noted at RAN #62; LS treated under 13.4.10
RP-140005	Reply LS to RP-132114 on new WLAN/3GPP interworking work item (SP-130719; to:RAN, RAN2, SA2, CT, CT1; cc: -; contact: Alcatel-Lucent)	SA	REL-12	UTRA_LTE_WLAN_interw-Core	not explicitly	noted	no	LS treated under AI 11.6.5
RP-140006	Reply LS to RP-132115 on Small Cell Enhancement work in RAN (SP-130720; to: SA2, SA3, RAN, RAN2, RAN3; cc: -; contact: Samsung)	SA	REL-12	LTE_SC_enh_dualC-Core	no	noted	no	LS treated under AI 11.7.13
RP-140007	LS on End-to-End QoS at ITU (ITU-T SG12-00046; to: ETSI TC STQ, 3GPP, 3GPP2; cc: -; contact: Opticom)	ITU-T SG12	-	-	no	noted	no	
RP-140008	LS on Communiqué to 3GPP regarding Public Safety and the OMA Push to Talk over Cellular (POC) enabler (to: SA; cc: RAN, CT; contact: T-Mobile US)	OMA	-	-	no	noted	no	
RP-140009	LS to 3GPP on Forum´s alignment (WBA_LS_23122013; to: SA, SA2; cc: RAN; contact: AT&T)	Wireless Broadband Alliance (WBA) Roaming WG	-	-	not explicitly	noted	no	
RP-140010	Reply LS to RP-132107 on ProSe Lawful Interception (S2-140494; to: RAN; cc: SA3, SA3-LI, RAN1, RAN2, RAN3, SA, SA1; contact: Qualcomm)	SA2	REL-12	FS_LTE_D2D_Prox	not explicitly	noted	no	LS treated under AI 13.4.3
RP-140011	Reply LS to SP-130720 = RP-140006 on system aspects for Small Cell Enhancement work in RAN (S2-140537; to: SA, SA3, RAN, RAN2, RAN3; cc: CT4, SA5; contact: Huawei)	SA2	REL-12	LTE_SC_enh_dualC-Core	not explicitly	noted	no	LS treated under AI 11.7.13

RAN Tdoc	title (incoming LS, to, cc, contact)	source	REL	WI	RAN action requested	status	LS answer to source	additional comments
RP-140012	LS on ProSe Out of Coverage discovery (S2-140560; to: RAN, RAN1, RAN2, RAN3, RAN4; cc: SA; contact: Deutsche Telekom)	SA2	REL-12	ProSe	yes	noted	no	LS treated under AI 13.4.3; a draft LS answer RP-140283 was withdrawn since RAN chair will report to SA #63 that out-of-coverage discovery will not be considered in REL-12
RP-140013	LS on error handling in eMBMS (S2-140563; to: RAN, RAN2, RAN3; cc: -; contact: Motorola Solutions)	SA2	REL-12	FS_LTE_GC	yes	noted	no	LS treated under AI 13.4.9; no LS answer from RAN since RAN3 answered already in RP-140022 and RAN2 answered in RP-140398
RP-140014	Reply LS to SP-130720 = RP-140006 on Small Cell Enhancement work in RAN (S3-140210; to: SA, SA2, RAN, RAN2, RAN3; cc: -; contact: Samsung)	SA3	REL-12	LTE_SC_enh_dualC-Core	not explicitly	noted	no	LS treated under AI 11.7.13
RP-140015	LS on INVITATION TO REVIEW THE PROPOSED REVISIONS OF RECOMMENDATIONS ITU-R M.2015 AND ITU-R M.2009: Frequency arrangements for PPDR radiocommunication systems in UHF bands in accordance with Resolution 646 (Rev.WRC-12) and Radio interface standards for use by PPDR operations in some parts of the UHF band in accordance with Resolution 646 (Rev.WRC-12) (ITU-R WP5A/TEMP/179R1; to: 3GPP, 3GPP RAN, 3GPP2, APCO, APT Preparatory Group (APG) , ARIB, ATIS, AWG, CCSA, CDG, ETSI, ETSI SC EMTEL, ETSI TC ERM, ETSI TC TETRA, GSMA, IEEE, OASIS, TIA, TIA TR-45, TIA TR-45.5, TIA TR-8, TIA TR-8.8, TTA, UMTS Forum, and WiMAX Forum; cc: -; contact: Counsellor ITU-R WP5A)	ITU-R WP5A	-	-	not explicitly	noted	no	This LS was handled at SA #62 in SP-130682; LS treated under AI 7.2.1
RP-140016	LS on introduction of new UE categories (R1-140898; to: RAN2; cc: RAN; contact: Huawei)	RAN1	REL-11	LTE_CA_enh-Core	no	noted	no	related CR packages provided in RP-140290 from RAN1 and RP-140364 from RAN2; LS treated under AI 15.
RP-140017	Reply LS to S2-140560 = RP-140012 on ProSe Out of Coverage discovery (R1-140950; to: RAN; cc: RAN2, RAN3, RAN4, SA, SA2; contact: Ericsson)	RAN1	REL-12	ProSe	yes	noted	no	LS treated under AI 13.4.3; compare RP-140012
RP-140018	Reply LS to R2-134596 on mobility support for LC MTC UEs and MTC coverage enhancement (R1-141029; to: RAN2; cc: RAN4, RAN; contact: Vodafone)	RAN1	REL-12	LC_MTC_LTE-Core	no	noted	no	note: R2-134596 was sent to RAN1, cc: RAN4; LS treated under AI 11.7.8

RAN Tdoc	title (incoming LS, to, cc, contact)	source	REL	WI	RAN action requested	status	LS answer to source	additional comments
RP-140019	LS on Inter-eNB CoMP for LTE (R1-141048; to: RAN3; cc: RAN; contact: Samsung)	RAN1	REL-12	COMP_LTE_leNB-Core	no	noted	no	LS treated under AI 11.7.14
RP-140020	Reply LS to S2-140537 = RP-140011 on system aspects for Small Cell Enhancement work in RAN (R2-140999; to: SA2; cc: SA, SA3, RAN, RAN3, CT4, SA5; contact: Huawei)	RAN2	REL-12	LTE_SC_enh_dualC-Core	no	noted	no	LS treated under AI 11.7.13
RP-140021	LS on MMTEL and SMS prioritization (R2-141005; to: CT1; cc: SA1, RAN; contact: NTT DOCOMO)	RAN2	REL-12	FS_SCM_LTE	no	noted	no	LS treated under 13.4.10
RP-140022	Reply LS to S2-140563 = RP-140013 on error handling in eMBMS (R3-140460; to: SA2; cc: RAN, RAN2, CT4; contact: NSN)	RAN3	REL-12	FS_LTE_GC	no	noted	no	LS treated under AI 13.4.9
RP-140023	Reply LS to S2-140537 = RP-140011 on system aspects for Small Cell Enhancement work in RAN (R3-140486; to: SA2; cc: SA, SA3, RAN, RAN2, CT4, SA5; contact: Huawei)	RAN3	REL-12	LTE_SC_enh_dualC-Core	no	noted	no	LS treated under AI 11.7.13
RP-140024	LS on BS classes and maximum BS power on 256QAM (R4-141254; to: RAN; cc: RAN1; contact: Huawei)	RAN4	REL-12	LTE_SC_enh_L1-Core	yes	noted	RP-140510	LS treated under AI 11.7.12
RP-140078	3GPP internal LS on the schedule toward Rev. 2 of Rec. ITU-R M.2012 "Detailed specifications of the terrestrial radio interfaces of International Mobile Telecommunications-Advanced (IMT-Advanced)" (RT-140003; to: RAN, SA; cc: -; contact: Telecom Italia)	3GPP ITU-R Ad Hoc	REL-12	-	yes	noted	no	LS treated under AI 7.2.2. RAN endorsed to take REL-12 Dec.2014 version for final ITU-R submission for rev.2 of Rec. ITU-R M.2012. After endorsement by RAN, CT and SA, ITU-R Ad Hoc will prepare an input to PCG to be approved at PCG#32.
RP-140335	LS on choice of scheduling period for MBMS (S2-140844; to: RAN2, RAN3; cc: RAN; contact: EADS)	SA2	REL-12	GCSE_LTE, FS_LTE_GC	no	noted	no	LS treated under AI 13.4.9
RP-140397 ***	Letter to ITU WP5D on Update submission for LTE-Advanced toward Rev. 2 of Rec. ITU-R M.2012 (RT-140002; to: RAN, SA; cc: -; contact: Telecom Italia)	3GPP ITU-R Ad Hoc	-	-	yes	noted	no	LTI treated under AI 7.2.2; no reply to the 3GPP ITU-R ad hoc but based on RP-140397 the LTIout RP-140479 was prepared and sent to SA #63; SA #63 has then to provided feedback to PCG; final version approved by PCG #32 will be submitted to ITU-R WP5D by ATIS on behalf of 3GPP OPs;

RAN Tdoc	title (incoming LS, to, cc, contact)	source	REL	WI	RAN action requested	status	LS answer to source	additional comments
RP-140398	Reply LS to S2-140563 on Error Handling in eMBMS (R2-141020; to: SA2; cc: RAN, RAN3; contact: Alcatel-Lucent)	RAN2	REL-12	GCSE_LTE, FS_LTE_GC	no	noted	no	LS treated under AI 13.4.9
RP-140399	LS on CN impacts of RAN2 solutions for WLAN/3GPP radio interworking (R2-141026; to: SA2, RAN; cc: CT1; contact: Intel)	RAN2	REL-12	UTRA_LTE_WLAN_interw-Core	no	noted	no	LS treated under AI 11.6.5; RP-140399 was made available in SA as SP-140133 for joint SA-RAN session on Wed 05.03.2014
RP-140400	LS on announcing first approved draft of MEF 22.1.1 Mobile Backhaul Implementation Agreement Amendment (MEF L00201_001_MBH Q114 SB; to: BBF, NGMN, RAN, RAN3, Small Cell Forum; cc: ; contact: Verizon)	Metro Ethernet Forum (MEF)	-	-	not explicitly	noted	no	
RP-140401	LS on TECHNICAL FEASIBILITY OF IMT IN THE BANDS ABOVE 6 GHz (ITU-R WP5D/TEMP/378 Rev.2; to: 3GPP, 3GPP2, ARIB, ATIS, CCSA, ETSI, IEEE, ITRI, TIA, TTA, TTC, WiMax Forum; , WWRF, 4G Americas, CDG, GSMA, UMTS Forum, Wi-Fi Alliance, Wireless Innovation Forum, XGP Forum, METIS Project; cc: -; contact: Counselor ITU-R SG5)	ITU-R WP5D	-	-	not explicitly	noted	RP-140482	LS treated under AI 7.2.2
RP-140402	LS on ARCHITECTURE AND TOPOLOGY OF IMT NETWORKS (ITU-R WP5D/TEMP/347 Rev.2; to: 3GPP, 3GPP2, ARIB, ATIS, CCSA, ETSI, IEEE, ITRI, TIA, TTA, TTC, WiMax Forum, WWRF, 4G Americas, CDG, GSMA, UMTS Forum, Wi-Fi Alliance, Wireless Innovation Forum, XGP Forum, METIS Project; cc: - ; contact: Counselor ITU-R SG5)	ITU-R WP5D	-	-	yes	noted	postponed	LS treated under AI 7.2.2; answer is postponed: use REL-11 as basis, answer will be prepared on ITU-R ad hoc reflector, approval by correspondence by May 31st (TSG RAN, CT and SA #64) and by 6th June (PCG)
RP-140464	LS on LS on PWS service restoration (CP-140199; to: RAN; cc: CT4, CT1, RAN3; contact: Alcatel-Lucent)	CT	REL-12	REP_WMD-RFR_PWS-Core	yes	noted	no	LS received on Tue of RAN #63; LS treated under AI 11.7.5; CR RP-140298 was approved; RAN3 will look at this LS further
RP-140480	LS with Comments from CT on LS from ITU-R WP5D/TEMP/347 Rev.2 = RP-140402 on "Architecture and Topology of IMT Networks" (CP-140198; to: SA, RAN ITU-R Ad-Hoc; cc: RAN; contact: CT chairman (Ericsson))	CT	-	-	no	noted	no	LS received on Tue of RAN #63; LS treated under AI 7.2.2

***: uses Letter to ITU template (LTI)

Annex D:
Outgoing liaison statements (LSout)

Only final outgoing LSs are listed here.
5 outgoing LSs/LTIs (0 of them approved by email after RAN #63):

final LS Tdoc	title	to	cc	contact	reply to	release	WI	comments
RP-140479 ***	Reply Letter to ITU on Update submission for LTE-Advanced toward Rev. 2 of Rec. ITU-R M.2012	SA	-	Telecom Italia	WP5D/TEMP/279 = RP-131422	REL-12	-	SA should review this LTI and provide a reviewed version to PCG before 07.03.2014; the final version from SA will be submitted to ITU-R WP5D by ATIS on behalf of 3GPP OPs.
RP-140482	Technical feasibility of IMT in the bands above 6GHz	ITU-R WP5D	-	Telecom Italia	ITU-R WP5D/TEMP/378 Rev.2 = RP-140401	-	-	directly sent from RAN to ITU-R WP5D
RP-140501	FGI bit handling for bit 31	RAN5	RAN2	KDDI	-	REL-10	TEI10	
RP-140509	Providing the IMEISV to eNB	SA3	RAN3	Vodafone	-	REL-12	TEI12	
RP-140510	BS classes and maximum BS power on 256QAM	RAN4	RAN1	Huawei	R4-141254 = RP-140024	REL-12	LTE_SC_enh_L1-Core	

***: uses Letter to ITU template (LTI)

Annex E:
List of Change Requests (CRs)

This list of 981 CRs includes all CRs submitted to RAN #63 with 925 approved CRs.

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
25.101	1017	-	Rel-11	F	RP-140369	R4-140501	approved	Removing [] in 25.101 in the context of Four transmit antennas for HSDPA	11.8.0	11.9.0	R4	4Tx_HSDPA-Perf
25.101	1018	-	Rel-12	A	RP-140369	R4-140502	approved	Removing [] in 25.101 in the context of Four transmit antennas for HSDPA	12.2.0	12.3.0	R4	4Tx_HSDPA-Perf
25.101	1026	-	Rel-10	F	RP-140368	R4-141262	approved	Editorial corrections to UE RF core requirements in TS 25.101	10.11.0	10.12.0	R4	TEI10
25.101	1027	-	Rel-11	F	RP-140375	R4-141263	approved	Editorial corrections to UE RF core requirements in TS 25.101	11.8.0	11.9.0	R4	TEI11
25.101	1028	-	Rel-12	A	RP-140375	R4-141221	approved	Editorial corrections to UE RF core requirements in TS 25.101	12.2.0	12.3.0	R4	TEI11
25.123	0558	-	Rel-10	F	RP-140368	R4-140097	approved	Redundant parameters in Test case A.5.3, UTRA TDD to E-UTRA handover: unknown target cell	10.8.0	10.9.0	R4	TEI10
25.123	0559	-	Rel-11	A	RP-140368	R4-140098	approved	Redundant parameters in Test case A.5.3, UTRA TDD to E-UTRA handover: unknown target cell	11.3.0	11.4.0	R4	TEI10
25.123	0560	-	Rel-12	A	RP-140368	R4-140099	approved	Redundant parameters in Test case A.5.3, UTRA TDD to E-UTRA handover: unknown target cell	12.0.0	12.1.0	R4	TEI10
25.133	1332	-	Rel-11	F	RP-140369	R4-140418	approved	Correction to E-UTRA cell FACH reselection requirement	11.7.0	11.8.0	R4	Cell_FACH_enh-Core
25.133	1333	2	Rel-12	F	RP-140369	R4-141128	approved	Corrections to CELL FACH test cases release 12	12.2.0	12.3.0	R4	Cell_FACH_enh-Perf
25.133	1334	1	Rel-11	F	RP-140375	R4-141070	approved	Test case on inter-frequency measurements and packet loss rate requirements	11.7.0	11.8.0	R4	TEI11
25.133	1335	-	Rel-12	A	RP-140375	R4-140711	approved	Test case on inter-frequency measurements and packet loss rate requirements	12.2.0	12.3.0	R4	TEI11
25.133	1336	-	Rel-11	F	RP-140375	R4-140714	approved	Correction in Annex B.3.X of TS 25.133	11.7.0	11.8.0	R4	TEI11
25.133	1337	-	Rel-12	A	RP-140375	R4-140715	approved	Correction in Annex B.3.X of TS 25.133	12.2.0	12.3.0	R4	TEI11
25.133	1338	-	Rel-12	F	RP-140389	R4-140719	approved	Modification of tables in section 9	12.2.0	12.3.0	R4	TEI12
25.133	1339	2	Rel-11	F	RP-140369	R4-141127	approved	Corrections to CELL FACH test cases release 11	11.7.0	11.8.0	R4	Cell_FACH_enh-Perf
25.133	1340	-	Rel-12	A	RP-140369	R4-140419	approved	Correction to E-UTRA cell FACH reselection requirement	12.2.0	12.3.0	R4	Cell_FACH_enh-Core
25.141	0673	1	Rel-10	F	RP-140368	R4-141149	approved	Correction on tested frequency range	10.9.0	10.10.0	R4	TEI10
25.141	0674	-	Rel-11	A	RP-140368	R4-140186	approved	Correction on tested frequency range	11.7.0	11.8.0	R4	TEI10
25.141	0675	-	Rel-12	A	RP-140368	R4-140187	approved	Correction on tested frequency range	12.2.0	12.3.0	R4	TEI10
25.212	0322	-	Rel-7	F	RP-140285	R1-140835	approved	Correction to HS-SCCH special information mapping for HS-SCCH less HSDPA	7.11.0	7.12.0	R1	RANimp-CPC
25.212	0323	-	Rel-8	A	RP-140285	R1-140900	approved	Correction to HS-SCCH special information mapping for HS-SCCH less HSDPA	8.7.0	8.8.0	R1	RANimp-CPC
25.212	0324	-	Rel-9	A	RP-140285	R1-140901	approved	Correction to HS-SCCH special information mapping for HS-SCCH less HSDPA	9.5.0	9.6.0	R1	RANimp-CPC
25.212	0325	-	Rel-10	A	RP-140285	R1-140902	approved	Correction to HS-SCCH special information mapping for HS-SCCH less HSDPA	10.4.0	10.5.0	R1	RANimp-CPC
25.212	0326	-	Rel-11	A	RP-140285	R1-140903	approved	Correction to HS-SCCH special information mapping for HS-SCCH less HSDPA	11.6.0	11.7.0	R1	RANimp-CPC

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
25.214	0711	1	Rel-10	F	RP-140409	R1-140910	approved	Clarification on (de-)activation status of secondary carriers when higher layer indicates a change of HS-DSCH cells	10.7.0	10.8.0	R1	4C_HSDPA-Core
25.214	0712	1	Rel-11	A	RP-140409	R1-140911	approved	Clarification on (de-)activation status of secondary carriers when higher layer indicates a change of HS-DSCH cells	11.7.0	11.8.0	R1	4C_HSDPA-Core
25.304	0365	-	Rel-12	B	RP-140347	R2-140882	approved	Introduction of Cell_FACH with Second DRX to 3G Logged MDT	12.0.0	12.1.0	R2	TEI12, Cell_FACH_enh-Core, MDT_UMTSLTE-Core
25.306	0446	-	Rel-12	B	RP-140347	R2-140883	approved	Introduction of Cell_FACH with Second DRX to 3G Logged MDT	12.0.0	12.1.0	R2	TEI12, Cell_FACH_enh-Core, MDT_UMTSLTE-Core
25.307	0200	-	Rel-4	F	RP-140336	R2-140852	approved	Introducing 'General' clause with note referring to notes in clause 4.4 in TS25.101 and TS25.102, editorial modifications to Scope clause	4.21.0	4.22.0	R2	TEI4
25.307	0201	1	Rel-5	F	RP-140336	R2-140884	approved	Introducing 'General' clause with note referring to notes in clause 4.4 in TS25.101 and TS25.102, editorial modifications to Scope clause	5.20.0	5.21.0	R2	TEI5
25.307	0202	1	Rel-6	F	RP-140336	R2-140885	approved	Introducing 'General' clause with note referring to notes in clause 4.4 in TS25.101 and TS25.102, editorial modifications to Scope clause	6.17.0	6.18.0	R2	TEI6
25.307	0203	1	Rel-7	A	RP-140336	R2-140886	approved	Introducing 'General' clause with note referring to notes in clause 4.4 in TS25.101 and TS25.102, editorial modifications to Scope clause	7.13.0	7.14.0	R2	TEI6
25.307	0204	1	Rel-8	A	RP-140336	R2-140887	approved	Introducing 'General' clause with note referring to notes in clause 4.4 in TS25.101 and TS25.102, editorial modifications to Scope clause	8.11.0	8.12.0	R2	TEI6
25.307	0205	1	Rel-9	A	RP-140336	R2-140888	approved	Introducing 'General' clause with note referring to notes in clause 4.4 in TS25.101 and TS25.102, editorial modifications to Scope clause	9.7.0	9.8.0	R2	TEI6
25.307	0206	1	Rel-10	A	RP-140336	R2-140889	approved	Introducing 'General' clause with note referring to notes in clause 4.4 in TS25.101 and TS25.102, editorial modifications to Scope clause	10.4.0	10.5.0	R2	TEI6
25.307	0207	1	Rel-11	A	RP-140336	R2-140890	approved	Introducing 'General' clause with note referring to notes in clause 4.4 in TS25.101 and TS25.102, editorial modifications to Scope clause	11.1.0	11.2.0	R2	TEI6
25.308	0156	-	Rel-11	C	RP-140337	R2-140875	approved	Correction of HS-SCCH Order for CPC DTXDRX (De)activation in Multiflow Mode	11.7.0	11.8.0	R2	RANimp-CPC, HSDPA_MFTX-Core
25.308	0158	1	Rel-11	F	RP-140348	R2-140894	approved	Clarification on TSN field extension for Four Branch MIMO	11.7.0	11.8.0	R2	4Tx_HSDPA-Core
25.331	5514	-	Rel-12	B	RP-140347	R2-140881	approved	Introduction of Cell_FACH with Second DRX to 3G Logged MDT	12.0.0	12.1.0	R2	TEI12, Cell_FACH_enh-Core, MDT_UMTSLTE-Core
25.331	5528	1	Rel-11	F	RP-140348	R2-140892	approved	Clarification on TSN field extension for Four Branch MIMO	11.8.0	11.9.0	R2	4Tx_HSDPA-Core
25.331	5529	1	Rel-12	A	RP-140348	R2-140893	approved	Clarification on TSN field extension for Four Branch MIMO	12.0.0	12.1.0	R2	4Tx_HSDPA-Core
25.331	5537	-	Rel-10	F	RP-140341	R2-140849	approved	Renumbering and storage of IEs for secondary DL serving cells	10.14.0	10.15.0	R2	4C_HSDPA-Core, TEI10, RANimp-DC_HSUPA
25.331	5538	-	Rel-11	A	RP-140341	R2-140850	approved	Renumbering and storage of IEs for secondary DL serving cells	11.8.0	11.9.0	R2	4C_HSDPA-Core, TEI10, RANimp-DC_HSUPA
25.331	5539	-	Rel-12	A	RP-140341	R2-140851	approved	Renumbering and storage of IEs for secondary DL serving cells	12.0.0	12.1.0	R2	4C_HSDPA-Core, TEI10, RANimp-DC_HSUPA
25.331	5540	-	Rel-10	F	RP-140345	R2-140896	approved	Activation status for newly added secondary serving HS-DSCH cells	10.14.0	10.15.0	R2	4C_HSDPA-Core

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25.331	5541	-	Rel-11	A	RP-140345	R2-140897	approved	Activation status for newly added secondary serving HS-DSCH cells	11.8.0	11.9.0	R2	4C_HSDPA-Core
25.331	5542	-	Rel-12	A	RP-140345	R2-140898	approved	Activation status for newly added secondary serving HS-DSCH cells	12.0.0	12.1.0	R2	4C_HSDPA-Core
25.331	5547	1	Rel-12	F	RP-140339	R2-140961	approved	Clarification to GANSS Day	12.0.0	12.1.0	R2	RANimp-ANSS, TEI12
25.331	5550	-	Rel-11	F	RP-140357	R2-140847	approved	Correction to CELL UPDATE message contents to set	11.8.0	11.9.0	R2	TEI11
25.331	5551	-	Rel-12	A	RP-140357	R2-140848	approved	Correction to CELL UPDATE message contents to set	12.0.0	12.1.0	R2	TEI11
25.331	5558	-	Rel-12	F	RP-140352	R2-140831	approved	Correction of Connection Establishement Failure Report	12.0.0	12.1.0	R2	eMDT_UMTSLTE-Core, TEI12
25.331	5559	-	Rel-11	F	RP-140350	R2-140845	approved	Radio Bearer mapping for R99 Fallback	11.8.0	11.9.0	R2	Cell_FACH_enh-Core
25.331	5560	-	Rel-12	A	RP-140350	R2-140846	approved	Radio Bearer mapping for R99 Fallback	12.0.0	12.1.0	R2	Cell_FACH_enh-Core
25.331	5563	-	Rel-12	F	RP-140362	R2-140899	approved	Correction to missing SatID interpretation for Galileo	12.0.0	12.1.0	R2	TEI12
25.331	5564	-	Rel-12	F	RP-140338	R2-140905	approved	Correction to integer code phase field description in UE positioning GANSS reference measurement information	12.0.0	12.1.0	R2	TEI12, LCS3-GNSS-UTRAN
25.331	5566	-	Rel-12	F	RP-140358	R2-140879	approved	Correction to BDS ASN.1	12.0.0	12.1.0	R2	LCS_BDS-UTRA-Core
25.346	0054	-	Rel-12	B	RP-140363	R2-140907	approved	Introduction of MBMS Restoration	11.0.0	12.0.0	R2	eMBMS_Rest, TEI12
25.413	1253	4	Rel-12	B	RP-140297	R3-140494	approved	Restoration of MBMS Bearer Services and Connections in RNC	12.0.0	12.1.0	R3	eMBMS_Rest, TEI12
25.413	1261	1	Rel-11	F	RP-140294	R3-140435	approved	Introduction of Last E-UTRAN PLMN Identity for CSFB	11.5.0	11.6.0	R3	TEI11
25.413	1262	1	Rel-12	A	RP-140294	R3-140436	approved	Introduction of Last E-UTRAN PLMN Identity for CSFB	12.0.0	12.1.0	R3	TEI11
25.467	0217	2	Rel-12	F	RP-140297	R3-140457	approved	Clarification on Inbound mobility to an UTRAN CSG cell	12.0.0	12.1.0	R3	TEI12
25.701	0007	-	Rel-12	B	RP-140292	R1-140909	approved	Inclusion of Scalable Bandwidth UMTS by filtering and by chip-zeroing	12.0.0	12.1.0	R1	FS_UTRA_SCAL_FILT
25.914	0026	1	Rel-12	B	RP-140383	R4-141168	approved	TP for tablet testing TR 25.914	11.3.0	12.0.0	R4	LTE_UTRA_TRP_TRS-Core
34.108	0941	-	Rel-11	F	RP-140303	R5-140195	approved	Correction of Midamble Configuration for LCR TDD	11.8.0	11.9.0	R5	TEI4_Test
34.108	0942	-	Rel-11	F	RP-140324	R5-140472	approved	Addition of test procedure to configure UL CLTD with E-DCH	11.8.0	11.9.0	R5	HSPA_UL_TxDiv-UEConTest
34.108	0943	-	Rel-11	F	RP-140324	R5-140533	approved	Addition of test procedure for RF to configure UL OLTD with E-DCH	11.8.0	11.9.0	R5	HSPA_UL_TxDiv-UEConTest
34.108	0944	-	Rel-11	F	RP-140308	R5-140676	approved	Correction to Default Radio Bearer Setup message	11.8.0	11.9.0	R5	TEI9_Test
34.108	0945	-	Rel-11	F	RP-140319	R5-140677	approved	Minor correction of 4C-HSDPA RADIO BEARER SETUP	11.8.0	11.9.0	R5	TEI10_Test
34.108	0946	-	Rel-11	F	RP-140306	R5-140678	approved	Correction to default RADIO BEARER SETUP message (DC-HSDPA, DB-DC-HSDPA and 4C)	11.8.0	11.9.0	R5	TEI8_Test
34.108	0947	-	Rel-11	F	RP-140306	R5-140683	approved	Introduction of generic HOLD and MPTY set up procedures	11.8.0	11.9.0	R5	TEI8_Test
34.108	0948	-	Rel-11	F	RP-140306	R5-140684	approved	Adding default messages for supplementary service testing	11.8.0	11.9.0	R5	TEI8_Test
34.108	0949	-	Rel-11	F	RP-140330	R5-140964	approved	Update Radio Bearer Setup message for Multiflow HSDPA tests	11.8.0	11.9.0	R5	HSDPA_MFTX-UEConTest
34.109	0054	-	Rel-9	C	RP-140344	R2-140871	approved	Update to UE radio bearer test mode for CSG proximity testing	9.2.0	9.3.0	R2	TEI9_Test
34.109	0055	-	Rel-10	A	RP-140344	R2-140872	approved	Update to UE radio bearer test mode for CSG proximity testing	10.2.0	10.3.0	R2	TEI9_Test
34.109	0056	-	Rel-11	A	RP-140344	R2-140873	approved	Update to UE radio bearer test mode for CSG proximity testing	11.1.0	11.2.0	R2	TEI9_Test
34.121-1	1546	-	Rel-11	F	RP-140324	R5-140385	approved	Adding test cases 5.4.3C and 5.4.3D into Annex F	11.2.0	11.3.0	R5	HSPA_UL_TxDiv-UEConTest
34.121-1	1547	-	Rel-11	F	RP-140319	R5-140517	approved	Update of statistical parameter in Annex F.6.1	11.2.0	11.3.0	R5	TEI10_Test
34.121-1	1548	-	Rel-11	F	RP-140308	R5-140848	approved	Addition of Band 27 in FDD RSRP/RSRQ test	11.2.0	11.3.0	R5	TEI9_Test
34.121-1	1549	-	Rel-11	F	RP-140324	R5-140857	approved	Adding chapter 5 ACLR test case 5.10AA for UL OLTD	11.2.0	11.3.0	R5	HSPA_UL_TxDiv-UEConTest
34.121-1	1550	-	Rel-11	F	RP-140324	R5-140858	approved	Adding chapter 5 ACLR test case 5.10BA for UL OLTD	11.2.0	11.3.0	R5	HSPA_UL_TxDiv-UEConTest
34.121-1	1551	-	Rel-11	F	RP-140324	R5-140859	approved	Adding chapter 5 spectrum emission mask and HS-DPCCH power control cases for UL OLTD	11.2.0	11.3.0	R5	HSPA_UL_TxDiv-UEConTest
34.121-1	1552	-	Rel-11	F	RP-140324	R5-140861	approved	Adding chapter 5 spectrum emission mask cases for UL OLTD	11.2.0	11.3.0	R5	HSPA_UL_TxDiv-UEConTest
34.121-1	1553	-	Rel-11	F	RP-140324	R5-140880	approved	Annex updates for UL OLTD test cases	11.2.0	11.3.0	R5	HSPA_UL_TxDiv-UEConTest

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34.121-1	1554	-	Rel-11	F	RP-140324	R5-140898	approved	Modifications to test cases 5.4.3C and 5.4.3D	11.2.0	11.3.0	R5	HSPA_UL_TxDiv-UEConTest
34.121-1	1555	-	Rel-11	F	RP-140324	R5-140899	approved	Addition of Spectrum emission mask and HS-DPCCH power control cases for UL CLTD	11.2.0	11.3.0	R5	HSPA_UL_TxDiv-UEConTest
34.121-1	1556	-	Rel-11	F	RP-140324	R5-141000	approved	Annexure update to test tolerance and addition of UL RMC for UL CLTD	11.2.0	11.3.0	R5	HSPA_UL_TxDiv-UEConTest
34.121-1	1557	-	Rel-11	F	RP-140324	R5-141001	approved	Update to chapter 5 UL CLTD test cases.	11.2.0	11.3.0	R5	HSPA_UL_TxDiv-UEConTest
34.121-1	1558	-	Rel-11	F	RP-140328	R5-141048	approved	Updates to RRM test cases 8.3.5.5.1 and 8.3.5.5.4 - Reselection to E-UTRA FDD and TDD when HS-DSCH DRX is configured (E-UTRA has higher priority)	11.2.0	11.3.0	R5	Cell_FACH_enh-UEConTest
34.121-1	1559	-	Rel-11	F	RP-140328	R5-141014	approved	Update of enh CELL_FACH test case 8.3.5.2a and 8.3.5.2b to TS34.121-1	11.2.0	11.3.0	R5	Cell_FACH_enh-UEConTest
34.121-1	1560	-	Rel-11	F	RP-140328	R5-141015	approved	Update of enh CELL_FACH test case 8.3.5.1a to TS34.121-1	11.2.0	11.3.0	R5	Cell_FACH_enh-UEConTest
34.121-1	1561	-	Rel-11	F	RP-140306	R5-141025	approved	Correction to the test procedures for cell re-selection tests	11.2.0	11.3.0	R5	TEI8_Test
34.121-2	0145	-	Rel-11	F	RP-140324	R5-140387	approved	Adding test cases 5.4.3C and 5.4.3D into TS 34.121-2	11.1.0	11.2.0	R5	HSPA_UL_TxDiv-UEConTest
34.121-2	0146	-	Rel-11	F	RP-140324	R5-140860	approved	Addition of applicability for new UL OLTD test cases	11.1.0	11.2.0	R5	HSPA_UL_TxDiv-UEConTest
34.121-2	0147	-	Rel-11	F	RP-140328	R5-140862	approved	Introduction of enh CELL_FACH test cases to TS34.121-2	11.1.0	11.2.0	R5	Cell_FACH_enh-UEConTest
34.121-2	0148	-	Rel-11	F	RP-140324	R5-141002	approved	Correction to applicability of UL CLTD test cases	11.1.0	11.2.0	R5	HSPA_UL_TxDiv-UEConTest
34.122	0432	-	Rel-11	F	RP-140308	R5-140312	approved	TD-SCDMA RRM: Correction to the test procedures for TD-SCDMA to E-UTRA cell re-selection tests	11.7.0	11.8.0	R5	TEI9_Test
34.122	0433	-	Rel-11	F	RP-140319	R5-140516	approved	Correction to general test parameters in 8.3.3d	11.7.0	11.8.0	R5	TEI10_Test
34.123-1	3440	-	Rel-11	F	RP-140305	R5-140163	approved	Correction to UTRA Rel-8 CSG testcase 12.2.2.7e	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3441	-	Rel-11	F	RP-140305	R5-140169	approved	Correction to UTRA ETWS testcase 8.1.1.19	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3442	-	Rel-11	F	RP-140319	R5-140187	approved	Editorial correction of MDT test case 8.6.2.3	11.1.0	11.2.0	R5	TEI10_Test
34.123-1	3443	-	Rel-11	F	RP-140319	R5-140188	approved	Editorial update of MDT test case 8.6.3.2	11.1.0	11.2.0	R5	TEI10_Test
34.123-1	3444	-	Rel-11	F	RP-140331	R5-140321	approved	Correction of 8.1.5.7 and enhancement to Rel-11	11.1.0	11.2.0	R5	TEI11_Test
34.123-1	3445	-	Rel-11	F	RP-140319	R5-140322	approved	Correction of 4C-HSDPA TC 8.2.2.79 and 8.2.2.80	11.1.0	11.2.0	R5	TEI10_Test
34.123-1	3446	-	Rel-11	F	RP-140319	R5-140323	approved	Correction of 4C-HSDPA TC 8.2.2.83	11.1.0	11.2.0	R5	TEI10_Test
34.123-1	3447	-	Rel-11	F	RP-140305	R5-140372	approved	Adding new test case 15.1.1 CLIP / Normal operation	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3448	-	Rel-11	F	RP-140319	R5-140389	approved	Correction of 4C-HSDPA TC 8.2.2.81 and 8.2.2.82	11.1.0	11.2.0	R5	TEI10_Test
34.123-1	3449	-	Rel-11	F	RP-140308	R5-140397	approved	Correction to RRC test cases 8.2.2.68 and 8.2.2.68a	11.1.0	11.2.0	R5	TEI9_Test
34.123-1	3450	-	Rel-11	F	RP-140308	R5-140398	approved	Correction to RRC test cases 8.2.2.69 and 8.2.2.69a	11.1.0	11.2.0	R5	TEI9_Test
34.123-1	3451	-	Rel-11	F	RP-140308	R5-140399	approved	Correction to RRC test cases 8.2.2.74	11.1.0	11.2.0	R5	TEI9_Test
34.123-1	3452	-	Rel-11	F	RP-140308	R5-140459	approved	Correction to UTRA Rel-9 DC-HSUPA testcases 8.2.2.76, 8.2.2.77, 8.2.2.78	11.1.0	11.2.0	R5	TEI9_Test
34.123-1	3453	-	Rel-11	F	RP-140308	R5-140531	approved	Update of CSG Test Case 8.3.12.14	11.1.0	11.2.0	R5	TEI9_Test
34.123-1	3454	-	Rel-11	F	RP-140305	R5-140538	approved	Update of RRC test case 8.3.4.15	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3455	-	Rel-11	F	RP-140319	R5-140556	approved	Correction of UTRA NAS test case 9.4.3.3a	11.1.0	11.2.0	R5	TEI10_Test
34.123-1	3456	-	Rel-11	F	RP-140308	R5-140592	approved	Editorial correction to test cases 8.2.2.68, 8.2.2.69, 8.2.2.74 and 8.2.2.75	11.1.0	11.2.0	R5	TEI9_Test
34.123-1	3457	-	Rel-11	F	RP-140304	R5-140593	approved	Correction to applicability of testcase 8.2.2.60	11.1.0	11.2.0	R5	TEI7_Test
34.123-1	3458	-	Rel-11	F	RP-140305	R5-140614	approved	Adding new supplementary service call restriction test case 15.8.2: Rejection after invoke of the operation "register password" with SS subscription violation	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3459	-	Rel-11	F	RP-140305	R5-140615	approved	Adding new supplementary service call restriction test case 15.8.3: Rejection after password check with negative result	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3460	-	Rel-11	F	RP-140436	R5-140627	approved	New SIMTC test case 11.1.1.3 Dual priority / T3396 override	11.1.0	11.2.0	R5	SIMTC-UEConTest
34.123-1	3460	-	Rel-11	F	RP-140329	R5-140627	reissued	New SIMTC test case 11.1.1.3 Dual priority / T3396 override	11.1.0		R5	SIMTC-UEConTest

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34.123-1	3461	-	Rel-11	F	RP-140436	R5-140628	approved	New SIMTC test case 11.2.2.3 UE initiated PDP Context Modification / Dual priority / low priority override	11.1.0	11.2.0	R5	SIMTC-UEConTest
34.123-1	3461	-	Rel-11	F	RP-140329	R5-140628	reissued	New SIMTC test case 11.2.2.3 UE initiated PDP Context Modification / Dual priority / low priority override	11.1.0		R5	SIMTC-UEConTest
34.123-1	3462	-	Rel-11	F	RP-140436	R5-140632	approved	New SIMTC test case 12.2.2.3b Combined routing area updating / SMS only supported	11.1.0	11.2.0	R5	SIMTC-UEConTest
34.123-1	3462	-	Rel-11	F	RP-140329	R5-140632	reissued	New SIMTC test case 12.2.2.3b Combined routing area updating / SMS only supported	11.1.0		R5	SIMTC-UEConTest
34.123-1	3463	-	Rel-11	F	RP-140319	R5-140633	approved	Corrections to UTRA NIMTC test cases 9.4.3.7, 9.4.5.4.7, 9.4.5.5, 11.1.3.4, 12.2.1.1a, 12.2.2.3a, 12.4.3.2a	11.1.0	11.2.0	R5	TEI10_Test
34.123-1	3464	-	Rel-11	F	RP-140305	R5-140657	approved	Correction to test case 6.3.3.1	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3465	-	Rel-11	F	RP-140319	R5-140679	approved	Correction of 4C-HSDPA RAB TC 14.6.1j, 14.6.1k, 14.6.1l	11.1.0	11.2.0	R5	TEI10_Test
34.123-1	3466	-	Rel-11	F	RP-140331	R5-140680	approved	Update of eMDT test cases 8.6.2.1a	11.1.0	11.2.0	R5	TEI11_Test
34.123-1	3467	-	Rel-11	F	RP-140308	R5-140681	approved	Correction to RRC test cases 8.2.2.75	11.1.0	11.2.0	R5	TEI9_Test
34.123-1	3468	-	Rel-11	F	RP-140305	R5-140685	approved	Addition of CNAP test case 15.3.1: CNAP/Normal Operation - Name indication contained in Setup message	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3469	-	Rel-11	F	RP-140305	R5-140686	approved	Addition of CNAP test case 15.3.2: CNAP/Normal Operation - Name indication contained in Facility message	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3470	-	Rel-11	F	RP-140305	R5-140687	approved	Addition of CNAP test case 15.3.3: CNAP/Interrogation accepted	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3471	-	Rel-11	F	RP-140305	R5-140688	approved	Addition of CNAP test case 15.3.4: CNAP/Interrogation rejected	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3472	-	Rel-11	F	RP-140305	R5-140689	approved	Addition of Supplementary Services testcases 15.10.1	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3473	-	Rel-11	F	RP-140305	R5-140690	approved	Addition of Supplementary Services testcases 15.10.2	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3474	-	Rel-11	F	RP-140305	R5-140691	approved	Addition of Supplementary Services testcases 15.10.3	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3475	-	Rel-11	F	RP-140305	R5-140692	approved	Addition of Supplementary Services testcases 15.10.4	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3476	-	Rel-11	F	RP-140305	R5-140693	approved	Addition of Supplementary Services testcases 15.10.5	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3477	-	Rel-11	F	RP-140305	R5-140694	approved	New Supplementary Services Test Case 15.6.1 Call completion supplementary services, Hold invocation	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3478	-	Rel-11	F	RP-140305	R5-140695	approved	New Supplementary Services Test Case 15.6.2 Call completion supplementary services, Retrieve procedure	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3479	-	Rel-11	F	RP-140305	R5-140696	approved	New Supplementary Services Test Case 15.6.3 Call completion supplementary services, Alternate from one call to the other	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3480	-	Rel-11	F	RP-140305	R5-140697	approved	New Supplementary Services Test Case 15.7.1 Multi-party supplementary services, Beginning the MultiParty service, successful case	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3481	-	Rel-11	F	RP-140305	R5-140698	approved	New Supplementary Services Test Case 15.7.2 Multi-party supplementary services, Beginning the MultiParty service, unsuccessful case	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3482	-	Rel-11	F	RP-140305	R5-140699	approved	New Supplementary Services Test Case 15.7.3 Multi-party supplementary services, Beginning the MultiParty service, expiry of timer T(BuildMPTY)	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3483	-	Rel-11	F	RP-140305	R5-140700	approved	New Supplementary Services Test Case 15.7.4 Multi-party, Managing an active MultiParty call, Put the MultiParty call on hold, successful case	11.1.0	11.2.0	R5	TEI8_Test

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
34.123-1	3484	-	Rel-11	F	RP-140305	R5-140701	approved	New Supplementary Services Test Case 15.7.5 Multi-party, Managing an active MultiParty call, Put the MultiParty call on hold, unsuccessful case	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3485	-	Rel-11	F	RP-140305	R5-140702	approved	New Supplementary Services Test Case 15.7.6 Multi-party, Managing an active MultiParty call, Put the MultiParty call on hold, expiry of timer T(HoldMPTY)	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3486	-	Rel-11	F	RP-140305	R5-140703	approved	New Supplementary Services Test Case 15.7.13 Multi-party supplementary services, Retrieve the held MultiParty call, successful case	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3487	-	Rel-11	F	RP-140305	R5-140704	approved	New Supplementary Services Test Case 15.7.14 Multi-party supplementary services, Retrieve the held MultiParty call, unsuccessful case	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3488	-	Rel-11	F	RP-140305	R5-140705	approved	New Supplementary Services Test Case 15.7.15 Multi-party supplementary services, Retrieve the held MultiParty call, expiry of timer T(RetrieveMPTY)	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3489	-	Rel-11	F	RP-140305	R5-140706	approved	New Supplementary Services Test Case : Addition of USSD Test Case 15.9.1	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3490	-	Rel-11	F	RP-140305	R5-140707	approved	New Supplementary Services Test Case : Addition of USSD Test Case 15.9.3	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3491	-	Rel-11	F	RP-140305	R5-140708	approved	New Supplementary Services Test Case : Addition of USSD Test Case 15.9.6	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3492	-	Rel-11	F	RP-140305	R5-140709	approved	Adding new test case 15.2.2 CLIR / Normal operation - requesting restriction of CLI presentation	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3493	-	Rel-11	F	RP-140305	R5-140710	approved	Adding new test case 15.2.1 CLIR / Normal operation - requesting presentation of CLI	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3494	-	Rel-11	F	RP-140305	R5-140711	approved	New Supplementary Services Call Waiting test case 15.5.1	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3495	-	Rel-11	F	RP-140305	R5-140712	approved	New Supplementary Services Call Waiting test case 15.5.2	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3496	-	Rel-11	F	RP-140305	R5-140713	approved	New Supplementary Services Call Waiting test case 15.5.3	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3497	-	Rel-11	F	RP-140305	R5-140714	approved	New Supplementary Services Call Waiting test case 15.5.4	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3498	-	Rel-11	F	RP-140305	R5-140715	approved	Adding new NITZ test case 9.4.10: NITZ / MM/ Time zone, Time and DST Handling	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3499	-	Rel-11	F	RP-140305	R5-140716	approved	Adding new NITZ test case 12.2.1.13: NITZ / GMM/ Time zone, Time and DST Handling	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3500	-	Rel-11	F	RP-140305	R5-140717	approved	Adding new NITZ test case 12.2.1.14: NITZ/ GMM/ NITZ Parameters storage and deletion	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3501	-	Rel-11	F	RP-140305	R5-140718	approved	Adding new NITZ test case 12.2.1.15: NITZ / GMM/ / MM and GMM Signalling	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3502	-	Rel-11	F	RP-140305	R5-140719	approved	Addition of new SS and NITZ test case 15.7.7	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3503	-	Rel-11	F	RP-140305	R5-140720	approved	Addition of new SS and NITZ test case 15.7.8	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3504	-	Rel-11	F	RP-140305	R5-140721	approved	Addition of new SS and NITZ test case 15.7.9	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3505	-	Rel-11	F	RP-140305	R5-140722	approved	Addition of new SS and NITZ test case 15.7.10	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3506	-	Rel-11	F	RP-140305	R5-140723	approved	Addition of new SS and NITZ test case 15.7.11	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3507	-	Rel-11	F	RP-140305	R5-140724	approved	Addition of new SS and NITZ test case 15.7.12	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3508	-	Rel-11	F	RP-140305	R5-140725	approved	Addition of new SS and NITZ test case 15.7.16	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3509	-	Rel-11	F	RP-140305	R5-140726	approved	Addition of new SS and NITZ test case 15.7.17	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3510	-	Rel-11	F	RP-140305	R5-140727	approved	Addition of new SS and NITZ test case 15.7.18	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3511	-	Rel-11	F	RP-140305	R5-140728	approved	Addition of new SS and NITZ test case 15.7.19	11.1.0	11.2.0	R5	TEI8_Test

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34.123-1	3512	-	Rel-11	F	RP-140305	R5-140729	approved	Addition of new SS and NITZ test case 15.7.20	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3513	-	Rel-11	F	RP-140305	R5-140730	approved	Addition of new SS and NITZ test case 15.7.21	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3514	-	Rel-11	F	RP-140305	R5-140731	approved	Adding new references in TS 34.123-1 for the supplementary service test cases	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3515	-	Rel-11	F	RP-140305	R5-140732	approved	Adding new supplementary service test case 15.8.1: Registration accepted	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3516	-	Rel-11	F	RP-140305	R5-140733	approved	Adding new supplementary service call restriction test case 15.8.4: Activation accepted	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3517	-	Rel-11	F	RP-140305	R5-140734	approved	Adding new supplementary service call restriction test case 15.8.6: Deactivation accepted	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3518	-	Rel-11	F	RP-140305	R5-140735	approved	Adding new supplementary service test case 15.8.9: Normal operation	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3519	-	Rel-11	F	RP-140305	R5-140736	approved	Adding new test case 15.4.1 Call Forwarding, registration accepted	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3520	-	Rel-11	F	RP-140305	R5-140737	approved	Adding new test case 15.4.3 Call Forwarding, Erasure accepted	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3521	-	Rel-11	F	RP-140305	R5-140738	approved	Adding new test case 15.4.5 Call Forwarding, Activation	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3522	-	Rel-11	F	RP-140305	R5-140739	approved	Adding new test case 15.4.6 Call Forwarding, Deactivation	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3523	-	Rel-11	F	RP-140305	R5-140740	approved	Adding new test case 15.4.7 Call Forwarding, Interrogation accepted	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3524	-	Rel-11	F	RP-140308	R5-140741	approved	Correction of UTRA Rel-9 DC-HSUPA RAB test case 14.7.3c	11.1.0	11.2.0	R5	TEI9_Test
34.123-1	3525	-	Rel-11	F	RP-140436	R5-140943	approved	Addition of SIMTC test case 8.1.1.20	11.1.0	11.2.0	R5	SIMTC-UEConTest
34.123-1	3525	-	Rel-11	F	RP-140329	R5-140943	reissued	Addition of SIMTC test case 8.1.1.20	11.1.0		R5	SIMTC-UEConTest
34.123-1	3526	1	Rel-11	F	RP-140436	R5-141135	approved	Addition of SIMTC test case 9.4.11	11.1.0	11.2.0	R5	SIMTC-UEConTest
34.123-1	3526	-	Rel-11	F	RP-140329	R5-140944	revised	Addition of SIMTC test case 9.4.10	11.1.0		R5	SIMTC-UEConTest
34.123-1	3527	1	Rel-11	F	RP-140436	R5-141136	approved	Addition of SIMTC test case 12.2.1.16	11.1.0	11.2.0	R5	SIMTC-UEConTest
34.123-1	3527	-	Rel-11	F	RP-140329	R5-141136	revised	Addition of SIMTC test case 12.2.1.13	11.1.0		R5	SIMTC-UEConTest
34.123-1	3528	-	Rel-11	F	RP-140436	R5-140946	approved	Addition of SIMTC test case 12.2.2.3c	11.1.0	11.2.0	R5	SIMTC-UEConTest
34.123-1	3528	-	Rel-11	F	RP-140329	R5-140946	reissued	Addition of SIMTC test case 12.2.2.3c	11.1.0		R5	SIMTC-UEConTest
34.123-1	3529	-	Rel-11	F	RP-140436	R5-140947	approved	Addition of SIMTC test case 12.4.1.9	11.1.0	11.2.0	R5	SIMTC-UEConTest
34.123-1	3529	-	Rel-11	F	RP-140329	R5-140947	reissued	Addition of SIMTC test case12.4.1.9	11.1.0		R5	SIMTC-UEConTest
34.123-1	3530	-	Rel-11	F	RP-140436	R5-140948	approved	Addition of SIMTC test case 12.4.2.3c	11.1.0	11.2.0	R5	SIMTC-UEConTest
34.123-1	3530	-	Rel-11	F	RP-140329	R5-140948	reissued	Addition of SIMTC test case 12.4.2.3c	11.1.0		R5	SIMTC-UEConTest
34.123-1	3531	-	Rel-11	F	RP-140436	R5-140949	approved	Addition of SIMTC Test Case 11.1.1.3.3	11.1.0	11.2.0	R5	SIMTC-UEConTest
34.123-1	3531	-	Rel-11	F	RP-140329	R5-140949	reissued	Addition of SIMTC Test Case 11.1.1.3.3	11.1.0		R5	SIMTC-UEConTest
34.123-1	3532	-	Rel-11	F	RP-140436	R5-140950	approved	New SIMTC test case 12.4.1.1d Routing area updating / accepted / SMS via GPRS supported	11.1.0	11.2.0	R5	SIMTC-UEConTest
34.123-1	3532	-	Rel-11	F	RP-140329	R5-140950	reissued	New SIMTC test case 12.4.1.1d Routing area updating / accepted / SMS via GPRS supported	11.1.0		R5	SIMTC-UEConTest
34.123-1	3533	-	Rel-11	F	RP-140436	R5-140951	approved	New SIMTC test case 12.4.1.1e Routing area updating / accepted / low priority override	11.1.0	11.2.0	R5	SIMTC-UEConTest
34.123-1	3533	-	Rel-11	F	RP-140329	R5-140951	reissued	New SIMTC test case 12.4.1.1e Routing area updating / accepted / low priority override	11.1.0		R5	SIMTC-UEConTest
34.123-1	3534	-	Rel-11	F	RP-140305	R5-140979	approved	Correction to 3G CSG Rel-8 testcase 6.3.2.1	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3535	-	Rel-11	F	RP-140305	R5-140980	approved	Correction to UTRA Rel-8 CSG testcase 12.4.2.5e	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3536	-	Rel-11	F	RP-140305	R5-140981	approved	Correction to UTRA Rel-8 CSG testcase 12.4.1.4e	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3537	-	Rel-11	F	RP-140305	R5-140982	approved	Correction to UTRA Rel-8 CSG testcase 9.4.2.6	11.1.0	11.2.0	R5	TEI8_Test

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34.123-1	3538	-	Rel-11	F	RP-140305	R5-140983	approved	Correction to RRC test case 8.3.4.11	11.1.0	11.2.0	R5	TEI8_Test
34.123-1	3539	-	Rel-11	F	RP-140304	R5-140985	approved	Update of RRC test case 8.3.1.40	11.1.0	11.2.0	R5	TEI7_Test
34.123-2	0668	-	Rel-11	F	RP-140304	R5-140595	approved	Correction to applicability of testcase 8.2.2.60	11.1.0	11.2.0	R5	TEI7_Test
34.123-2	0669	-	Rel-11	F	RP-140306	R5-140596	approved	Update to title for testcases 8.1.9d and 8.1.9e	11.1.0	11.2.0	R5	TEI8_Test
34.123-2	0670	-	Rel-11	F	RP-140319	R5-140682	approved	Addition of PICs indication support of extended timers	11.1.0	11.2.0	R5	TEI10_Test
34.123-2	0671	1	Rel-11	F	RP-140436	R5-141137	approved	Applicability of new UTRA test cases for SIMTC	11.1.0	11.2.0	R5	SIMTC-UEConTest
34.123-2	0671	-	Rel-11	F	RP-140329	R5-140952	revised	Applicability of new UTRA test cases for SIMTC	11.1.0		R5	SIMTC-UEConTest
34.123-2	0672	-	Rel-11	F	RP-140436	R5-140954	approved	Addition of applicability statements for new SIMTC test cases	11.1.0	11.2.0	R5	SIMTC-UEConTest
34.123-2	0672	-	Rel-11	F	RP-140329	R5-140954	reissued	Addition of applicability statements for new SIMTC test cases	11.1.0		R5	SIMTC-UEConTest
34.123-2	0673	-	Rel-11	F	RP-140308	R5-140976	approved	Correction to A.4.3.3.3 TDD Radio Bearer Capabilities (3.84 Mcps option)	11.1.0	11.2.0	R5	TEI9_Test
34.123-2	0674	-	Rel-11	F	RP-140308	R5-140977	approved	Correction to Table 1a: Applicability of tests Conditions	11.1.0	11.2.0	R5	TEI9_Test
34.123-2	0675	-	Rel-11	F	RP-140302	R5-140978	approved	Update the applicability of LCR test case	11.1.0	11.2.0	R5	TEI_Test
34.123-2	0676	-	Rel-11	F	RP-140306	R5-140987	approved	Adding applicability for CLIP and CLIR Supplementary Services and NITZ test cases	11.1.0	11.2.0	R5	TEI8_Test
34.123-2	0677	-	Rel-11	F	RP-140306	R5-140989	approved	Adding new Supplementary service test case applicability for TCs 15.8.1, 15.8.2, 15.8.3, 15.8.4, 15.8.6, 15.8.9	11.1.0	11.2.0	R5	TEI8_Test
34.123-2	0678	-	Rel-11	F	RP-140306	R5-140990	approved	Applicability for Supplementary service test cases 15.10.x	11.1.0	11.2.0	R5	TEI8_Test
34.123-2	0679	-	Rel-11	F	RP-140306	R5-140991	approved	Addition of Applicability for new Call Hold test cases	11.1.0	11.2.0	R5	TEI8_Test
34.123-2	0680	-	Rel-11	F	RP-140306	R5-140992	approved	Addition of Applicability for new MultiParty test cases	11.1.0	11.2.0	R5	TEI8_Test
34.123-2	0681	-	Rel-11	F	RP-140306	R5-140993	approved	Applicability for Supplementary service test cases 15.9.1, 15.9.3, 15.9.6	11.1.0	11.2.0	R5	TEI8_Test
34.123-2	0682	-	Rel-11	F	RP-140306	R5-141139	approved	Addition of applicability statements for new Supplementary Services Call Waiting tests	11.1.0	11.2.0	R5	TEI8_Test
34.123-2	0683	-	Rel-11	F	RP-140306	R5-140995	approved	Removal of unused applicability conditions	11.1.0	11.2.0	R5	TEI8_Test
34.123-2	0684	-	Rel-11	F	RP-140306	R5-140996	approved	Addition of applicability statements for new Call Forwarding test cases	11.1.0	11.2.0	R5	TEI8_Test
34.123-2	0685	-	Rel-11	F	RP-140306	R5-141119	approved	Addition of applicability for Supplementary service CNAP test cases	11.1.0	11.2.0	R5	TEI8_Test
34.123-3	3131	-	Rel-11	F	RP-140306	R5-140314	approved	Routine maintenance and updates	11.1.0	11.2.0	R5	TEI8_Test
34.123-3	3132	-	Rel-11	F	RP-140303	R5-140315	approved	Routine maintenance and updates for LCR TDD	11.1.0	11.2.0	R5	TEI4_Test
34.123-3	3133	-	Rel-11	F	RP-140311	R5s130874	approved	Correction to Rel-8 Mac-i/is testcase 7.1.7.2	11.1.0	11.2.0	R5	TEI8_Test
34.123-3	3134	-	Rel-11	F	RP-140311	R5s130875	approved	Correction to RAB test cases	11.1.0	11.2.0	R5	TEI_Test
34.123-3	3135	-	Rel-11	B	RP-140311	R5s130881	approved	Addition of WI-158 UTRA CSG test case 6.3.2.2 to HSPA8_ENH ATS	11.1.0	11.2.0	R5	TEI8_Test
34.123-3	3136	-	Rel-11	B	RP-140311	R5s130905	approved	Addition of Rel-8 CSG test case 9.4.2.6 to HSPA8_ENH ATS	11.1.0	11.2.0	R5	TEI8_Test
34.123-3	3137	-	Rel-11	B	RP-140311	R5s130907	approved	Addition of Rel-8 CSG test case 12.4.1.4e to HSPA8_ENH ATS	11.1.0	11.2.0	R5	TEI8_Test
34.123-3	3138	-	Rel-11	B	RP-140311	R5s130909	approved	Addition of Rel-8 CSG test case 6.3.2.1 to HSPA8_ENH ATS	11.1.0	11.2.0	R5	TEI8_Test
34.123-3	3139	-	Rel-11	F	RP-140311	R5s130928	approved	Correction to test case 8.1.5.7	11.1.0	11.2.0	R5	TEI_Test
34.123-3	3140	-	Rel-11	F	RP-140311	R5s130932	approved	Correction in UTRA test case 8.2.6.37b	11.1.0	11.2.0	R5	TEI_Test
34.123-3	3141	-	Rel-11	F	RP-140311	R5s130945	approved	Correction to Rel-8 CSG test cases based on 13wk48 delivery.	11.1.0	11.2.0	R5	TEI8_Test
34.123-3	3142	-	Rel-11	F	RP-140311	R5s130948	approved	Correction to HSU test case 7.1.6.3.2	11.1.0	11.2.0	R5	TEI6_Test
34.123-3	3143	-	Rel-11	F	RP-140311	R5s130963	approved	Correction to UTRAN test case 12.4.1.4d2	11.1.0	11.2.0	R5	TEI_Test
34.123-3	3144	-	Rel-11	F	RP-140311	R5s140015	approved	Correction to Rel-8 Mac-i/is testcase 7.1.7.3	11.1.0	11.2.0	R5	TEI8_Test
34.123-3	3145	-	Rel-11	F	RP-140311	R5s140016	approved	Correction to Rel-8 Mac-i/is testcase 7.1.7.2	11.1.0	11.2.0	R5	TEI8_Test

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34.123-3	3146	-	Rel-11	B	RP-140311	R5s140024	approved	Addition of GCF WI-170 UTRA DB_DC_HSDPA test case 8.2.2.75 to HSPA9_ENH ATS	11.1.0	11.2.0	R5	TEI9_Test
34.123-3	3147	-	Rel-11	B	RP-140311	R5s140029	approved	Addition of WI-170 UTRA DB_DC_HSDPA test case 8.2.2.74 to HSPA9_ENH ATS	11.1.0	11.2.0	R5	TEI9_Test
34.123-3	3148	-	Rel-11	B	RP-140311	R5s140033	approved	Addition of WI-161 DC-HSU test case 8.2.2.76 to HSPA9_ENH ATS	11.1.0	11.2.0	R5	TEI9_Test
34.123-3	3149	-	Rel-11	B	RP-140311	R5s140035	approved	Addition of WI-161 DC-HSU test case 8.2.2.77 to HSPA9_ENH ATS	11.1.0	11.2.0	R5	TEI9_Test
34.123-3	3150	-	Rel-11	F	RP-140311	R5s140077	approved	Correction to UTRA test case 8.2.2.35	11.1.0	11.2.0	R5	TEI_Test
34.123-3	3151	-	Rel-11	F	RP-140311	R5s140079	approved	Correction to UTRAN test case 9.4.5.3 and 12.4.1.4a	11.1.0	11.2.0	R5	TEI_Test
34.123-3	3152	-	Rel-11	B	RP-140311	R5s140081	approved	Addition of Rel-8 Fast Dormancy testcase 8.1.9f to HSPA8_ENH ATS	11.1.0	11.2.0	R5	TEI8_Test
34.123-3	3153	-	Rel-11	F	RP-140310	RP-140310	approved	CR to 34.123-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.123-3 (prose), Annex A	11.1.0	11.2.0	R5	TEI8_Test
34.229-1	0500	-	Rel-12	F	RP-140306	R5-140118	approved	Fixes to A.2.8 BYE	12.0.0	12.1.0	R5	TEI8_Test
34.229-1	0501	-	Rel-10	F	RP-140319	R5-140122	approved	Removal of technical content in 34.229-1 v10.4.0 and substitution with pointer to the next Release	10.4.0	10.5.0	R5	TEI10_Test
34.229-1	0502	-	Rel-11	F	RP-140331	R5-140123	approved	Removal of technical content in 34.229-1 v11.0.0 and substitution with pointer to the next Release	11.0.0	11.1.0	R5	TEI11_Test
34.229-1	0503	-	Rel-12	F	RP-140306	R5-140135	approved	Fixes to C.11	12.0.0	12.1.0	R5	TEI8_Test
34.229-1	0504	-	Rel-12	F	RP-140306	R5-140309	approved	P-Access-Network-Info header (PANI)	12.0.0	12.1.0	R5	TEI8_Test
34.229-1	0505	-	Rel-12	F	RP-140306	R5-140796	approved	Fixing prose related to TC 15.11	12.0.0	12.1.0	R5	TEI8_Test
34.229-1	0506	-	Rel-12	F	RP-140306	R5-140798	approved	Minor corrections to TC 12.2	12.0.0	12.1.0	R5	TEI8_Test
34.229-1	0507	-	Rel-12	F	RP-140306	R5-140799	approved	Unsuccessful SRVCC handover	12.0.0	12.1.0	R5	TEI8_Test
34.229-1	0508	-	Rel-12	F	RP-140306	R5-140901	approved	Clarification for default message content for INVITE	12.0.0	12.1.0	R5	TEI8_Test
34.229-1	0509	-	Rel-12	F	RP-140306	R5-141128	approved	Correction and addition of Generic Procedures in 34.229-1	12.0.0	12.1.0	R5	TEI8_Test
34.229-1	0510	-	Rel-12	F	RP-140306	R5-140903	approved	from tag and to tag	12.0.0	12.1.0	R5	TEI8_Test
34.229-1	0511	-	Rel-12	F	RP-140306	R5-140904	approved	Remove test case 16.1	12.0.0	12.1.0	R5	TEI8_Test
34.229-1	0512	-	Rel-12	F	RP-140306	R5-140905	approved	Remove annex C.16	12.0.0	12.1.0	R5	TEI8_Test
34.229-1	0513	-	Rel-12	F	RP-140306	R5-140906	approved	Clarify generic procedure C.21 for IR.92 7.0	12.0.0	12.1.0	R5	TEI8_Test
34.229-1	0514	-	Rel-12	F	RP-140306	R5-140907	approved	Correct editorial errors in generic procedure C.21	12.0.0	12.1.0	R5	TEI8_Test
34.229-1	0515	-	Rel-12	F	RP-140306	R5-140908	approved	Correction of GCF WI-103 MTSI Testcase 15.27	12.0.0	12.1.0	R5	TEI8_Test
34.229-1	0516	-	Rel-12	F	RP-140306	R5-140909	approved	Correction to GCF WI-103 MTSI testcase 15.28	12.0.0	12.1.0	R5	TEI8_Test
34.229-1	0517	-	Rel-12	F	RP-140334	R5-140910	approved	Addition of new TC for SSAC in Connected mode to voice call	12.0.0	12.1.0	R5	TEI12_Test
34.229-1	0518	-	Rel-12	F	RP-140334	R5-140911	approved	Addition of new TC for SSAC in Connected mode changing to voice call	12.0.0	12.1.0	R5	TEI12_Test
34.229-1	0519	-	Rel-12	F	RP-140334	R5-140912	approved	Addition of new TC of SSAC in Connected mode to video call	12.0.0	12.1.0	R5	TEI12_Test
34.229-1	0520	-	Rel-12	F	RP-140334	R5-140913	approved	Addition of new TC of SSAC in Connected mode changing to video call	12.0.0	12.1.0	R5	TEI12_Test
34.229-1	0521	-	Rel-12	F	RP-140334	R5-140914	approved	Addition of new TC of SSAC in Connected mode to emergency call	12.0.0	12.1.0	R5	TEI12_Test
34.229-1	0522	-	Rel-12	F	RP-140306	R5-140915	approved	Fixing prose related to TC 15.12	12.0.0	12.1.0	R5	TEI8_Test
34.229-1	0523	-	Rel-12	F	RP-140306	R5-140916	approved	Update test case 16.2 for IR.92	12.0.0	12.1.0	R5	TEI8_Test
34.229-1	0524	-	Rel-12	F	RP-140306	R5-140917	approved	Update test case 16.4 for IR.92	12.0.0	12.1.0	R5	TEI8_Test
34.229-1	0525	-	Rel-12	F	RP-140306	R5-140919	approved	Update test case 12.13 with SDP conformance requirement	12.0.0	12.1.0	R5	TEI8_Test
34.229-1	0526	-	Rel-12	F	RP-140308	R5-140920	approved	Update of test case 19.3.3	12.0.0	12.1.0	R5	TEI9_Test
34.229-1	0527	-	Rel-12	F	RP-140306	R5-140975	approved	Update generic procedure C.11 with SDP requirement	12.0.0	12.1.0	R5	TEI8_Test

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
34.229-1	0528	-	Rel-12	F	RP-140306	R5-141114	approved	max-red	12.0.0	12.1.0	R5	TEI8_Test
34.229-1	0529	-	Rel-12	F	RP-140306	R5-141115	approved	Corrections to default message content for ACK	12.0.0	12.1.0	R5	TEI8_Test
34.229-2	0120	-	Rel-12	F	RP-140306	R5-140929	approved	Remove applicability for test case 16.1	10.3.0	12.0.0	R5	TEI8_Test
34.229-2	0121	-	Rel-12	F	RP-140334	R5-140930	approved	Applicability of new test cases for SSAC in connected mode	10.3.0	12.0.0	R5	TEI12_Test
34.229-2	0122	-	Rel-12	F	RP-140437	R5-140968	approved	Addition of new condition for bSRVCC	10.3.0	12.0.0	R5	bSRVCC-UEConTest
34.229-2	0122	-	Rel-12	F	RP-140333	R5-140968	reissued	Addition of new condition for bSRVCC	10.3.0		R5	bSRVCC-UEConTest
34.229-3	0136	-	Rel-10	F	RP-140319	R5-140931	approved	Routine maintenance and updates	10.1.0	10.2.0	R5	TEI10_Test
34.229-3	0137	-	Rel-10	B	RP-140313	R5s130766	approved	Addition of GCF WI-171 MTSI MO speech call / SSAC test case 12.18 (using TS 36.523-3 test model)	10.1.0	10.2.0	R5	TEI9_Test
34.229-3	0138	-	Rel-10	B	RP-140313	R5s130768	approved	Addition of GCF WI-171 IMS Emergency call / SSAC test case 12.20 (using TS 36.523-3 test model)	10.1.0	10.2.0	R5	TEI9_Test
34.229-3	0139	-	Rel-10	F	RP-140313	R5s130770	approved	Re-verification of MTSI MT speech call test case 12.13 (... using TS 36.523-3 test model)	10.1.0	10.2.0	R5	TEI8_Test
34.229-3	0140	-	Rel-10	F	RP-140313	R5s130808	approved	Re-verification of IMS test case 16.1 over LTE with 34.229-3 test model	10.1.0	10.2.0	R5	TEI8_Test
34.229-3	0141	-	Rel-10	F	RP-140313	R5s130810	approved	Re-verification of IMS test case 16.2 over LTE with 34.229-3 test model	10.1.0	10.2.0	R5	TEI8_Test
34.229-3	0142	-	Rel-10	F	RP-140313	R5s130885	approved	Correction of IMS test case 12.2 over LTE with 34.229-3 test model	10.1.0	10.2.0	R5	TEI8_Test
34.229-3	0143	-	Rel-10	F	RP-140313	R5s130894	approved	Correction of IMS test case 12.12 over LTE with 34.229-3 test model	10.1.0	10.2.0	R5	TEI8_Test
34.229-3	0144	-	Rel-10	F	RP-140313	R5s130897	approved	Corrections for common IMS functions	10.1.0	10.2.0	R5	TEI8_Test
34.229-3	0145	-	Rel-10	F	RP-140313	R5s130900	approved	Correction to GCF WI-103 IMS test case 11.2 with 36.523-3 Test Model	10.1.0	10.2.0	R5	TEI8_Test
34.229-3	0146	-	Rel-10	F	RP-140313	R5s130901	approved	Correction to Postamble handling for IMS deregistration procedure	10.1.0	10.2.0	R5	TEI9_Test
34.229-3	0147	-	Rel-11	F	RP-140313	R5s130916	approved	Correction to fl_EUTRA_IPCAN_ActivateDedicatedEpsBearer_SpeechCall	10.1.0	11.0.0	R5	TEI8_Test
34.229-3	0148	-	Rel-10	F	RP-140313	R5s130925	approved	Correction of IMS test case 8.10 over LTE with 34.229-3 test model	10.1.0	10.2.0	R5	TEI8_Test
34.229-3	0149	-	Rel-10	B	RP-140313	R5s130956	approved	Addition of GCF WI-103 IMS MTSI test case 16.3 over 36.523-3 Test Model	10.1.0	10.2.0	R5	TEI8_Test
34.229-3	0150	-	Rel-10	B	RP-140313	R5s130958	approved	Addition of GCF WI-103 IMS MTSI test case 16.4 over 36.523-3 Test Model	10.1.0	10.2.0	R5	TEI8_Test
34.229-3	0151	-	Rel-10	F	RP-140313	R5s130978	approved	Correction to GCF WI-154 IMS Emergency Call over EPS test case 19.1.2	10.1.0	10.2.0	R5	TEI9_Test
34.229-3	0152	-	Rel-10	F	RP-140313	R5s130985	approved	Correction to GCF WI-103 IMS MTSI test case 12.13	10.1.0	10.2.0	R5	TEI8_Test
34.229-3	0153	-	Rel-10	B	RP-140313	R5s130990	approved	Addition of GCF WI-154 IMS Emergency Call over EPS test case 19.4.1	10.1.0	10.2.0	R5	TEI9_Test
34.229-3	0154	-	Rel-10	F	RP-140313	R5s131004	approved	Correction to GCF WI-103 IMS MTSI test case 9.2	10.1.0	10.2.0	R5	TEI8_Test
34.229-3	0155	-	Rel-10	F	RP-140313	R5s131040	approved	Correction to GCF WI-103 IMS MTSI test case 11.2	10.1.0	10.2.0	R5	TEI8_Test
34.229-3	0156	-	Rel-10	F	RP-140313	R5s140003	approved	Correction of common altsteps in IMS PTC for test case 11.2	10.1.0	10.2.0	R5	TEI8_Test
34.229-3	0157	-	Rel-10	F	RP-140313	R5s140005	approved	Correction for IMS common function f_IMS_InviteRequest_MessageHeaderRX()	10.1.0	10.2.0	R5	TEI9_Test
34.229-3	0158	-	Rel-10	F	RP-140313	R5s140017	approved	Re-verification of IMS test case 15.11 over LTE with 34.229-3 test model	10.1.0	10.2.0	R5	TEI8_Test

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
34.229-3	0159	-	Rel-10	F	RP-140312	RP-140312	approved	CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	10.1.0	10.2.0	R5	TEI8_Test
36.101	2069	-	Rel-12	F	RP-140378	R4-140063	approved	CA_3C is adding 100RB+75RB uplink configuration for reference sensitivity	12.2.0	12.3.0	R4	LTE_CA_C_B3-Core
36.101	2070	-	Rel-12	B	RP-140388	R4-140064	approved	CR for TS36.101 on CA_C_B39	12.2.0	12.3.0	R4	LTE_CA_C_B39-Core
36.101	2071	1	Rel-12	B	RP-140387	R4-141233	approved	Introduction of TDD inter-band CA_B39_B41 into 36.101	12.2.0	12.3.0	R4	LTE_CA_B39_B41-Core
36.101	2072	-	Rel-12	B	RP-140386	R4-140080	approved	Introduction of CA band B3+B27 to TS36.101	12.2.0	12.3.0	R4	LTE_CA_B3_B27-Core
36.101	2073	1	Rel-11	F	RP-140374	R4-141103	approved	CR of EPDCCH localzied test with TM10 QCL Type-B configuration (Rel-11)	11.7.0	11.8.0	R4	LTE_enh_dl_ctrl-Perf
36.101	2074	-	Rel-12	A	RP-140374	R4-140093	approved	CR of EPDCCH localzied test with TM10 QCL Type-B configuration (Rel-12)	12.2.0	12.3.0	R4	LTE_enh_dl_ctrl-Perf
36.101	2080	1	Rel-12	F	RP-140375	R4-141071	approved	CR on TM3 demodulation and soft buffer management test	12.2.0	12.3.0	R4	TEI11
36.101	2085	-	Rel-11	F	RP-140371	R4-140151	approved	CR on reference measurement channel for TM10 PDSCH demodulation test	11.7.0	11.8.0	R4	COMP_LTE_DL-Perf
36.101	2086	-	Rel-12	A	RP-140371	R4-140152	approved	CR on reference measurement channel for TM10 PDSCH demodulation test	12.2.0	12.3.0	R4	COMP_LTE_DL-Perf
36.101	2087	1	Rel-10	F	RP-140368	R4-141074	approved	CR for introduction of15MHz based SDR tests and test point table in Rel-10	10.13.0	10.14.0	R4	LTE_CA-Perf
36.101	2088	-	Rel-11	F	RP-140375	R4-140297	approved	CR for introduction of 15MHz based SDR tests in Rel-11	11.7.0	11.8.0	R4	TEI11
36.101	2089	-	Rel-12	F	RP-140375	R4-140298	approved	CR for introduction of 15MHz based single carrier and CA SDR tests in Rel-12	12.2.0	12.3.0	R4	TEI11
36.101	2090	-	Rel-10	F	RP-140368	R4-140301	approved	CR for structure change of CA soft buffer tests in Rel-10	10.13.0	10.14.0	R4	LTE_CA-Perf
36.101	2091	1	Rel-11	F	RP-140368	R4-141072	approved	CR for maintanence of CA soft buffer tests in Rel-11	11.7.0	11.8.0	R4	LTE_CA-Perf
36.101	2096	1	Rel-11	F	RP-140374	R4-141117	approved	CR on TM9 localized ePDCCH test	11.7.0	11.8.0	R4	LTE_enh_dl_ctrl-Perf
36.101	2097	-	Rel-12	A	RP-140374	R4-140313	approved	CR on TM9 localized ePDCCH test	12.2.0	12.3.0	R4	LTE_enh_dl_ctrl-Perf
36.101	2100	1	Rel-11	F	RP-140374	R4-141118	approved	CR on reference measurement channel for ePDCCH test	11.7.0	11.8.0	R4	LTE_enh_dl_ctrl-Perf
36.101	2101	-	Rel-12	A	RP-140374	R4-140322	approved	CR on reference measurement channel for ePDCCH test	12.2.0	12.3.0	R4	LTE_enh_dl_ctrl-Perf
36.101	2105	-	Rel-11	F	RP-140371	R4-140329	approved	Cleanup of the specification for FeICIC (Rel-11)	11.7.0	11.8.0	R4	eICIC_enh_LTE-Perf
36.101	2106	-	Rel-12	A	RP-140371	R4-140330	approved	Cleanup of the specification for FeICIC (Rel-12)	12.2.0	12.3.0	R4	eICIC_enh_LTE-Perf
36.101	2107	1	Rel-11	F	RP-140371	R4-141075	approved	UL-DL configuration and other parameters for FeICIC TDD CQI fading test (Rel-11)	11.7.0	11.8.0	R4	eICIC_enh_LTE-Perf
36.101	2108	-	Rel-12	A	RP-140371	R4-140332	approved	UL-DL configuration and other parameters for FeICIC TDD CQI fading test (Rel-12)	12.2.0	12.3.0	R4	eICIC_enh_LTE-Perf
36.101	2109	1	Rel-11	F	RP-140371	R4-141079	approved	CR for TS36.101 COMP demodulation requirements	11.7.0	11.8.0	R4	COMP_LTE_DL-Perf
36.101	2110	-	Rel-12	A	RP-140371	R4-140346	approved	CR for TS36.101 COMP demodulation requirements	12.2.0	12.3.0	R4	COMP_LTE_DL-Perf
36.101	2111	1	Rel-11	F	RP-140371	R4-141080	approved	CR for Combinations of channel model parameters	11.7.0	11.8.0	R4	COMP_LTE_DL-Perf
36.101	2112	-	Rel-11	F	RP-140374	R4-140361	approved	CR for EPDCCH power allocation (Rel-11)	11.7.0	11.8.0	R4	LTE_enh_dl_ctrl-Perf
36.101	2113	-	Rel-12	A	RP-140371	R4-140362	approved	CR for Combinations of channel model parameters	12.2.0	12.3.0	R4	COMP_LTE_DL-Perf
36.101	2114	-	Rel-12	A	RP-140374	R4-140363	approved	CR for EPDCCH power allocation (Rel-12)	12.2.0	12.3.0	R4	LTE_enh_dl_ctrl-Perf
36.101	2115	-	Rel-12	D	RP-140377	R4-140364	approved	Editorial Correction for TS36.101 Rel-12	12.2.0	12.3.0	R4	LTE_CA_B3_B26-Core
36.101	2118	-	Rel-11	F	RP-140375	R4-140522	approved	Introduction of requirements for SNR test for TM9	11.7.0	11.8.0	R4	TEI11
36.101	2119	-	Rel-12	A	RP-140375	R4-140524	approved	Introduction of requirements for SNR test for TM9	12.2.0	12.3.0	R4	TEI11
36.101	2120	-	Rel-10	F	RP-140368	R4-140533	approved	CR for 36.101. Editorial correction on OCNG pattern	10.13.0	10.14.0	R4	TEI10
36.101	2121	-	Rel-11	A	RP-140368	R4-140535	approved	CR for 36.101. Editorial correction on OCNG pattern	11.7.0	11.8.0	R4	TEI10
36.101	2122	-	Rel-12	A	RP-140368	R4-140536	approved	CR for 36.101. Editorial correction on OCNG pattern	12.2.0	12.3.0	R4	TEI10
36.101	2124	1	Rel-11	F	RP-140374	R4-141107	approved	CR on correction of downlink SDR tests with EPDCCH scheduling	11.7.0	11.8.0	R4	LTE_enh_dl_ctrl-Perf

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
36.101	2125	-	Rel-12	A	RP-140374	R4-140603	approved	CR on correction of downlink SDR tests with EPDCCH scheduling	12.2.0	12.3.0	R4	LTE_enh_dl_ctrl-Perf
36.101	2126	2	Rel-11	F	RP-140371	R4-141130	approved	Correction on DL CoMP static CQI tests (Rel 11)	11.7.0	11.8.0	R4	COMP_LTE_DL-Perf
36.101	2127	-	Rel-12	A	RP-140371	R4-140633	approved	Correction on DL CoMP static CQI tests (Rel 12)	12.2.0	12.3.0	R4	COMP_LTE_DL-Perf
36.101	2128	1	Rel-11	F	RP-140371	R4-141081	approved	CR to finalize fading CQI test for CoMP	11.7.0	11.8.0	R4	COMP_LTE_DL-Perf
36.101	2129	1	Rel-12	A	RP-140371	R4-141099	approved	CR to finalize fading CQI test for CoMP	12.2.0	12.3.0	R4	COMP_LTE_DL-Perf
36.101	2130	1	Rel-11	F	RP-140371	R4-141082	approved	CR to finalize RI test for CoMP	11.7.0	11.8.0	R4	COMP_LTE_DL-Perf
36.101	2131	1	Rel-12	A	RP-140371	R4-141100	approved	CR to finalize RI test for CoMP	12.2.0	12.3.0	R4	COMP_LTE_DL-Perf
36.101	2135	-	Rel-10	F	RP-140368	R4-140687	approved	Configured transmitted power for CA	10.13.0	10.14.0	R4	LTE_CA-Core
36.101	2136	-	Rel-11	A	RP-140368	R4-140688	approved	Configured transmitted power for CA	11.7.0	11.8.0	R4	LTE_CA-Core
36.101	2137	-	Rel-12	A	RP-140368	R4-140691	approved	Configured transmitted power for CA	12.2.0	12.3.0	R4	LTE_CA-Core
36.101	2141	-	Rel-11	F	RP-140371	R4-140716	approved	Clarification of contiguous and non-contiguous intra-band UE capabilities in the same band	11.7.0	11.8.0	R4	LTE_CA_enh-Core
36.101	2142	-	Rel-12	A	RP-140371	R4-140718	approved	Clarification of contiguous and non-contiguous intra-band UE capabilities in the same band	12.2.0	12.3.0	R4	LTE_CA_enh-Core
36.101	2143	1	Rel-11	F	RP-140371	R4-141157	approved	Channel spacing for non-contiguous intra-band carrier aggregation	11.7.0	11.8.0	R4	LTE_CA_enh-Core
36.101	2144	-	Rel-12	F	RP-140371	R4-140722	approved	Channel spacing for non-contiguous intra-band carrier aggregation	12.2.0	12.3.0	R4	LTE_CA_enh-Core
36.101	2145	-	Rel-10	F	RP-140368	R4-140735	approved	Correction of coding rate for 18RBs in UL RMC table	10.13.0	10.14.0	R4	LTE-RF
36.101	2146	-	Rel-11	A	RP-140368	R4-140738	approved	Correction of coding rate for 18RBs in UL RMC table	11.7.0	11.8.0	R4	LTE-RF
36.101	2147	-	Rel-12	A	RP-140368	R4-140740	approved	Correction of coding rate for 18RBs in UL RMC table	12.2.0	12.3.0	R4	LTE-RF
36.101	2158	-	Rel-11	F	RP-140368	R4-140858	approved	Correction of a table note for Pcmax	11.7.0	11.8.0	R4	LTE_CA-Core
36.101	2159	1	Rel-11	F	RP-140370	R4-141159	approved	Correction of table notes for NS_12-NS_15 spurious emissions requirements	11.7.0	11.8.0	R4	e850_UB-Core
36.101	2160	-	Rel-12	A	RP-140370	R4-140900	approved	Correction of table notes for NS_12-NS_15 spurious emissions requirements	12.2.0	12.3.0	R4	e850_UB-Core
36.101	2161	-	Rel-12	B	RP-140385	R4-140919	approved	Inrtroduction of additional bandwidth combination set for CA_2A-4A	12.2.0	12.3.0	R4	LTE_CA_B2_B4_BWset
36.101	2162	1	Rel-11	F	RP-140374	R4-141115	approved	Distributed EPDCCH Demodulation Test	11.7.0	11.8.0	R4	LTE_enh_dl_ctrl-Perf
36.101	2163	-	Rel-12	B	RP-140374	R4-140951	approved	Distributed EPDCCH Demodulation Test	12.2.0	12.3.0	R4	LTE_enh_dl_ctrl-Perf
36.101	2173	1	Rel-12	B	RP-140417	-	approved	Addition of bandwidth combination set for CA_2A-29A and CA_4A-29A	12.2.0	12.3.0	R4	LTE_DL_FDD700_B29_BWset-Core
36.101	2173	-	Rel-12	B	RP-140164	-	revised	Addition of bandwidth combination set for CA_2A-29A and CA_4A-29A	12.2.0		R4	LTE_DL_FDD700_B29_BWset-Core
36.101	2174	-	Rel-12	B	RP-140241	-	approved	Introduction of 3MHz in Band 8 for CA_8_20 RF requirements into TS36.101	12.2.0	12.3.0	R4	LTE_CA_B8_B20_BW
36.104	0436	1	Rel-12	B	RP-140387	R4-140069	approved	Introduction of CA band combination Band 39+Band 41 into BS specification	12.2.0	12.3.0	R4	LTE_CA_B39_B41-Core
36.104	0451	1	Rel-12	B	RP-140388	R4-140067	approved	TS36.104 changes for B39 CA	12.2.0	12.3.0	R4	LTE_CA_C_B39-Core
36.104	0453	-	Rel-12	B	RP-140386	R4-140081	approved	Introduction of CA band combination Band 3 and Band 27 to TS 36.104	12.2.0	12.3.0	R4	LTE_CA_B3_B27-Core
36.104	0462	-	Rel-11	F	RP-140375	R4-140932	approved	Correction of abbreviations for negative acknowledgement	11.7.0	11.8.0	R4	TEI11
36.104	0463	-	Rel-12	A	RP-140375	R4-140936	approved	Correction of abbreviations for negative acknowledgement	12.2.0	12.3.0	R4	TEI11
36.111	0003	2	Rel-11	C	RP-140373	R4-141129	approved	Modification of UL RTOA Measurement Accuracy Requirements in TS 36.111	11.1.0	11.2.0	R4	LCS_LTE-NBPS-Perf

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
36.133	2169	-	Rel-12	F	RP-140381	R4-140145	approved	Updates on test case A.9.1.17 FDD—FDD Inter frequency case for 5MHz Bandwidth for R12	12.2.0	12.3.0	R4	LTE450_Brazil-Perf
36.133	2170	-	Rel-12	F	RP-140389	R4-140147	approved	Correction on the SNR values of in-sync RLM test for 5MHz	12.2.0	12.3.0	R4	LTE-RF
36.133	2179	-	Rel-10	F	RP-140368	R4-140201	approved	Correction on PDSCH allocation in PRS subframe r10	10.13.0	10.14.0	R4	LTE-RF
36.133	2180	-	Rel-11	A	RP-140368	R4-140202	approved	Correction on PDSCH allocation in PRS subframe r11	11.7.0	11.8.0	R4	LTE-RF
36.133	2181	-	Rel-12	A	RP-140368	R4-140204	approved	Correction on PDSCH allocation in PRS subframe r12	12.2.0	12.3.0	R4	LTE-RF
36.133	2182	-	Rel-12	F	RP-140389	R4-140227	approved	Clarification on FDD reference measurement channels for 5 MHz tests	12.2.0	12.3.0	R4	LTE-RF
36.133	2190	-	Rel-10	F	RP-140367	R4-140252	approved	PRS_RA corrections	10.13.0	10.14.0	R4	LCS_LTE
36.133	2191	-	Rel-11	A	RP-140367	R4-140253	approved	PRS_RA corrections	11.7.0	11.8.0	R4	LCS_LTE
36.133	2192	-	Rel-12	A	RP-140367	R4-140254	approved	PRS_RA corrections	12.2.0	12.3.0	R4	LCS_LTE
36.133	2199	1	Rel-11	F	RP-140371	R4-141104	approved	Clarification of BW applicability in Rx-Tx Time Difference measurement R11	11.7.0	11.8.0	R4	eICIC_enh_LTE-Perf
36.133	2200	1	Rel-12	A	RP-140371	R4-141105	approved	Clarification of BW applicability in Rx-Tx Time Difference measurement R12	12.2.0	12.3.0	R4	eICIC_enh_LTE-Perf
36.133	2220	-	Rel-10	F	RP-140367	R4-140707	approved	Correction of Proximity Indication Test Case	10.13.0	10.14.0	R4	EHNB-RAN2
36.133	2222	1	Rel-10	F	RP-140368	R4-141055	approved	CSI Reporting in SCell Activation Requirements	10.13.0	10.14.0	R4	LTE_CA-core
36.133	2223	-	Rel-11	A	RP-140368	R4-140729	approved	CSI Reporting in SCell Activation Requirements	11.7.0	11.8.0	R4	LTE_CA-core
36.133	2224	-	Rel-12	A	RP-140368	R4-140730	approved	CSI Reporting in SCell Activation Requirements	12.2.0	12.3.0	R4	LTE_CA-core
36.133	2230	-	Rel-9	F	RP-140367	R4-140806	approved	Missing condition in CGI identification requirements	9.18.0	9.19.0	R4	TEI9
36.133	2231	-	Rel-10	F	RP-140368	R4-140807	approved	Missing condition in CGI identification requirements	10.13.0	10.14.0	R4	TEI10
36.133	2233	-	Rel-11	A	RP-140368	R4-140815	approved	Missing condition in CGI identification requirements	11.7.0	11.8.0	R4	TEI10
36.133	2234	-	Rel-12	A	RP-140368	R4-140823	approved	Missing condition in CGI identification requirements	12.2.0	12.3.0	R4	TEI10
36.133	2235	-	Rel-11	F	RP-140375	R4-140865	approved	Band simplification clean up	11.7.0	11.8.0	R4	TEI11
36.133	2236	-	Rel-12	F	RP-140389	R4-140868	approved	Band simplification clean up	12.2.0	12.3.0	R4	TEI12
36.133	2241	-	Rel-11	F	RP-140375	R4-140897	approved	TDD UL/DL subframe configurations in requirements	11.7.0	11.8.0	R4	TEI11
36.133	2252	-	Rel-11	F	RP-140375	R4-141013	approved	Editorial corrections RRM from Rel-11	11.7.0	11.8.0	R4	TEI11
36.133	2256	-	Rel-10	F	RP-140368	R4-141017	approved	Alignment between interruption requirements for RSTD and mobillity measurements for SCell	10.13.0	10.14.0	R4	LTE_CA-Perf
36.133	2257	-	Rel-11	F	RP-140368	R4-141018	approved	Alignment between interruption requirements for RSTD and mobillity measurements for SCell	11.7.0	11.8.0	R4	LTE_CA-Perf
36.133	2258	-	Rel-12	A	RP-140368	R4-141019	approved	Alignment between interruption requirements for RSTD and mobillity measurements for SCell	12.2.0	12.3.0	R4	LTE_CA-Perf
36.133	2259	-	Rel-12	F	RP-140380	R4-141095	approved	Addition of new OCNG pattern for E-UTRA TDD with 5MHz bandwidth	12.2.0	12.3.0	R4	LTE_CA_NC_B23-Core
36.133	2260	-	Rel-12	F	RP-140380	R4-141096	approved	Addition of new RMC for E-UTRA TDD with 5MHz bandwidth	12.2.0	12.3.0	R4	LTE_CA_NC_B23-Core
36.133	2261	-	Rel-12	F	RP-140380	R4-141097	approved	Addition of OCNG pattern for E-UTRA FDD with 5MHz bandwidth without MBSFN	12.2.0	12.3.0	R4	LTE_CA_NC_B23-Core
36.133	2262	-	Rel-11	A	RP-140367	R4-140712	approved	Correction of Proximity Indication Test Case	11.7.0	11.8.0	R4	EHNB-RAN2
36.133	2263	-	Rel-12	A	RP-140367	R4-140713	approved	Correction of Proximity Indication Test Case	12.2.0	12.3.0	R4	EHNB-RAN2
36.141	0490	1	Rel-12	B	RP-140387	R4-140070	approved	Introduction of CA band combination Band 39+Band 41 into BS specification	12.2.0	12.3.0	R4	LTE_CA_B39_B41-Core
36.141	0506	1	Rel-12	B	RP-140388	R4-140068	approved	TS36.141 change for B39 CA	12.2.0	12.3.0	R4	LTE_CA_C_B39-Perf
36.141	0510	-	Rel-12	B	RP-140386	R4-140082	approved	Introduction of CA band combination Band 3 and Band 27 to TS 36.141	12.2.0	12.3.0	R4	LTE_CA_B3_B27-Perf
36.141	0512	1	Rel-11	F	RP-140375	R4-141158	approved	Corrections in TS 36.141	11.7.0	11.8.0	R4	TEI11
36.141	0513	1	Rel-12	A	RP-140389	R4-141164	approved	Corrections in TS 36.141	12.2.0	12.3.0	R4	TEI12

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36.141	0517	1	Rel-11	B	RP-140372	R4-141234	approved	Introduction of multi-band BS testing to TS 36.141 (Clauses 1 - 5)	11.7.0	11.8.0	R4	MB_MSR_RF-Perf
36.141	0518	-	Rel-12	A	RP-140372	R4-140484	approved	Introduction of multi-band BS testing to TS 36.141 (Clauses 1 - 5)	12.2.0	12.3.0	R4	MB_MSR_RF-Perf
36.141	0519	1	Rel-11	B	RP-140372	R4-141231	approved	Introduction of test requirements for multi-band operation with conformance test improvement for multi-carrier testing (36.141, section 6 and 7)	11.7.0	11.8.0	R4	MB_MSR_RF-Perf
36.141	0520	-	Rel-12	A	RP-140372	R4-140842	approved	Introduction of test requirements for multi-band operation with conformance test improvement for multi-carrier testing (36.141, section 6 and 7)	12.2.0	12.3.0	R4	MB_MSR_RF-Perf
36.141	0522	-	Rel-11	F	RP-140375	R4-140941	approved	Correction of abbreviations for negative acknowledgement	11.7.0	11.8.0	R4	TEI11
36.141	0523	-	Rel-12	A	RP-140375	R4-140946	approved	Correction of abbreviations for negative acknowledgement	12.2.0	12.3.0	R4	TEI11
36.211	0187	-	Rel-12	C	RP-140286	R1-140412	approved	On PMCH starting symbol in an MBSFN subframe	12.0.0	12.1.0	R1	LTE-Phys
36.211	0188	-	Rel-12	B	RP-140227	-	postponed	Introduction of supplemental downlink for TD-LTE	12.0.0		R1	TEI12, LTE-Phys
36.213	0447	-	Rel-12	F	RP-140286	R1-140495	approved	Correction to CSI Reporting	12.0.0	12.1.0	R1	LTE-Phys
36.213	0448	-	Rel-12	F	RP-140291	R1-140782	approved	Clarification on PUCCH Mode 1-1 for 4Tx Dual Codebook	12.0.0	12.1.0	R1	LTE_eDL_MIMO_enh-Core
36.213	0449	1	Rel-11	F	RP-140287	R1-141035	approved	Common search space monitoring for MBMS	11.5.0	11.6.0	R1	MBMS_LTE
36.213	0450	1	Rel-12	A	RP-140287	R1-141036	approved	Common search space monitoring for MBMS	12.0.0	12.1.0	R1	MBMS_LTE
36.213	0451	-	Rel-11	F	RP-140290	R1-140869	approved	Introduction of new UE categories	11.5.0	11.6.0	R1	LTE_CA_enh-Core
36.213	0452	-	Rel-12	A	RP-140290	R1-140870	approved	Introduction of new UE categories	12.0.0	12.1.0	R1	LTE_CA_enh-Core
36.213	0453	1	Rel-10	C	RP-140288	R1-141044	approved	Modification to I_SRS = 0 for trigger type 1 SRS and TDD	10.11.0	10.12.0	R1	LTE_UL_MIMO-Core
36.213	0454	1	Rel-11	A	RP-140288	R1-141045	approved	Modification to I_SRS = 0 for trigger type 1 SRS and TDD	11.5.0	11.6.0	R1	LTE_UL_MIMO-Core
36.213	0455	1	Rel-12	A	RP-140288	R1-141046	approved	Modification to I_SRS = 0 for trigger type 1 SRS and TDD	12.0.0	12.1.0	R1	LTE_UL_MIMO-Core
36.213	0456	-	Rel-12	B	RP-140228	-	postponed	Introduction of supplemental downlink for TD-LTE	12.0.0		R1	TEI12, LTE-Phys
36.213	0457	-	Rel-11	F	RP-140289	R1-141058	approved	Correction to CSI processing in TM10	11.5.0	11.6.0	R1	COMP_LTE_DL-Core
36.213	0458	-	Rel-12	A	RP-140289	R1-141059	approved	Correction to CSI processing in TM10	12.0.0	12.1.0	R1	COMP_LTE_DL-Core
36.300	0609	-	Rel-11	F	RP-140353	R2-140835	approved	Introduction of CS to PS SRVCC	11.8.0	11.9.0	R2	rSRVCC-GERAN, rSRVCC-RAN_UTRA-Core, LTE-L23
36.300	0610	-	Rel-12	A	RP-140353	R2-140836	approved	Introduction of CS to PS SRVCC	12.0.0	12.1.0	R2	rSRVCC-GERAN, rSRVCC-RAN_UTRA-Core, LTE-L23
36.300	0615	-	Rel-12	B	RP-140351	R2-140908	approved	Reporting of User Location Information at E-RAB release	12.0.0	12.1.0	R2	NWK-PL2IMS, TEI12
36.300	0616	-	Rel-12	B	RP-140360	R2-140909	approved	PWS Restart Indication	12.0.0	12.1.0	R2	REP_WMD-RFR_PWS-Core
36.302	0049	-	Rel-11	F	RP-140355	R2-140932	approved	MBMS reception on any configured or configurable SCell	11.4.0	11.5.0	R2	MBMS_LTE_SC-Core
36.304	0231	-	Rel-10	F	RP-140343	R2-140844	approved	Clarification on MBMS prioritisation for DL only carrier	10.7.0	10.8.0	R2	MBMS_LTE, LTE_CA-Core, TEI10
36.304	0233	-	Rel-12	B	RP-140359	R2-141019	approved	Introduction of UE mobility history reporting (option 2)	11.6.0	12.0.0	R2	HetNet_eMOB_LTE-Core
36.306	0168	1	Rel-11	C	RP-140364	R2-140983	approved	New UE categories for DL 450Mbps class	11.5.0	11.6.0	R2	TEI11, LTE_CA-Core
36.306	0170	-	Rel-11	F	RP-140349	R2-140922	approved	SS and common channel interference handling	11.5.0	11.6.0	R2	eICIC_enh_LTE-Core
36.306	0173	1	Rel-12	F	RP-140353	R2-140957	approved	Corrections to UE capability and feature descriptions	11.5.0	12.0.0	R2	TEI12, rSRVCC-GERAN
36.306	0176	1	Rel-11	F	RP-140354	R2-140988	approved	IoT indication for inter-band TDD CA with different UL/DL configuration	11.5.0	11.6.0	R2	LTE_CA_enh-Core
36.306	0178	1	Rel-12	B	RP-140361	R2-141002	postponed	Support of the enhancement for TTI bundling for FDD	11.4.0		R2	Cov_Enh_LTE-Core
36.306	0178	2	Rel-12	B	RP-140415	-	postponed	Support of the enhancement for TTI bundling for FDD	11.5.0		R2	Cov_Enh_LTE-Core
36.306	0180	-	Rel-11	C	RP-140155	-	postponed	36.306 CR to decouple UL 64QAM from UE category (band independent)	11.5.0		R2	TEI11, LTE-L23
36.307	0195	1	Rel-10	B	RP-140387	R4-140073	approved	Introduction of CA_39A-41A to TS 36.307	10.9.0	10.10.0	R4	LTE_CA_B39_B41-Core
36.307	0196	1	Rel-11	B	RP-140387	R4-140074	approved	Introduction of CA_39A-41A to TS 36.307	11.6.0	11.7.0	R4	LTE_CA_B39_B41-Core

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36.307	0197	1	Rel-12	B	RP-140387	R4-140075	approved	Introduction of CA_39A-41A to TS 36.307	12.2.0	12.3.0	R4	LTE_CA_B39_B41-Core
36.307	0208	2	Rel-10	B	RP-140388	R4-140087	approved	Introduction of CA_39C to TS 36.307	10.9.0	10.10.0	R4	LTE_CA_C_B39-Core
36.307	0209	2	Rel-11	B	RP-140388	R4-140088	approved	Introduction of CA_39C to TS 36.307	11.6.0	11.7.0	R4	LTE_CA_C_B39-Core
36.307	0210	1	Rel-12	B	RP-140388	R4-140089	approved	Introduction of CA_39C to TS 36.307	12.2.0	12.3.0	R4	LTE_CA_C_B39-Core
36.307	0225	1	Rel-10	B	RP-140386	R4-141187	approved	Introduction of CA band combination Band 3 and Band 27 to TS 36.307	10.9.0	10.10.0	R4	LTE_CA_B3_B27-Core
36.307	0226	2	Rel-11	B	RP-140386	R4-141257	approved	Introduction of CA band combination Band 3 and Band 27 to TS 36.307	11.6.0	11.7.0	R4	LTE_CA_B3_B27-Core
36.307	0227	-	Rel-12	B	RP-140386	R4-140085	approved	Introduction of CA band combination Band 3 and Band 27 to TS 36.307	12.2.0	12.3.0	R4	LTE_CA_B3_B27-Core
36.307	0228	1	Rel-8	F	RP-140366	R4-141057	approved	CR on UE performance requirements in release independent specification	8.10.0	8.11.0	R4	TEI8
36.307	0229	1	Rel-9	F	RP-140367	R4-141058	approved	CR on UE performance requirements in release independent specification	9.10.0	9.11.0	R4	TEI9
36.307	0230	1	Rel-10	F	RP-140368	R4-141059	approved	CR on UE performance requirements in release independent specification	10.9.0	10.10.0	R4	TEI10
36.307	0231	1	Rel-11	F	RP-140375	R4-141060	approved	CR on UE performance requirements in release independent specification	11.6.0	11.7.0	R4	TEI11
36.307	0233	-	Rel-10	B	RP-140371	R4-140527	approved	Release independence of Band 14 HPUE	10.9.0	10.10.0	R4	LTE_B14_PSBB_HPUE-Core
36.307	0234	-	Rel-11	A	RP-140371	R4-140529	approved	Release independence of Band 14 HPUE	11.6.0	11.7.0	R4	LTE_B14_PSBB_HPUE-Core
36.307	0235	-	Rel-12	A	RP-140371	R4-140531	approved	Release independence of Band 14 HPUE	12.2.0	12.3.0	R4	LTE_B14_PSBB_HPUE-Core
36.307	0241	1	Rel-8	F	RP-140366	R4-141056	approved	Correction to release independent specification	8.10.0	8.11.0	R4	TEI8
36.307	0242	1	Rel-9	F	RP-140367	R4-141061	approved	Correction to release independent specification	9.10.0	9.11.0	R4	TEI9
36.307	0243	1	Rel-10	F	RP-140368	R4-141062	approved	Correction to release independent specification	10.9.0	10.10.0	R4	TEI10
36.307	0244	1	Rel-11	F	RP-140375	R4-141063	approved	Correction to release independent specification	11.6.0	11.7.0	R4	TEI11
36.307	0245	1	Rel-12	F	RP-140389	R4-141064	approved	Correction to release independent specification	12.2.0	12.3.0	R4	TEI12
36.307	0246	-	Rel-10	B	RP-140187	-	approved	Addition of bandwidth combination set for CA_2A-29A and CA_4A-29A	10.9.0	10.10.0	R4	LTE_DL_FDD700_B29_BWset-Core
36.307	0247	-	Rel-11	A	RP-140188	-	approved	Addition of bandwidth combination set for CA_2A-29A and CA_4A-29A	11.6.0	11.7.0	R4	LTE_DL_FDD700_B29_BWset-Core
36.321	0705	1	Rel-12	B	RP-140362	R2-140976	approved	Long DRX Command MAC Control Element	12.0.0	12.1.0	R2	TEI12
36.321	0706	-	Rel-11	F	RP-140355	R2-140903	approved	BCCH reception for MBMS on any configured or configurable SCell	11.4.0	11.5.0	R2	MBMS_LTE_SC-Core
36.321	0709	-	Rel-12	A	RP-140355	R2-140901	approved	BCCH reception for MBMS on any configured or configurable SCell	12.0.0	12.1.0	R2	MBMS_LTE_SC-Core
36.321	0710	-	Rel-12	B	RP-140229	-	withdrawn	Introduction of supplemental downlink for TD-LTE	12.0.0		R2	TEI12, LTE-L23
36.331	1411	1	Rel-11	C	RP-140364	R2-140984	approved	New UE categories for DL 450Mbps class	11.6.0	11.7.0	R2	TEI11, LTE_CA-Core
36.331	1414	1	Rel-12	B	RP-140361	R2-141001	postponed	Support of the enhancement for TTI bundling for FDD	12.0.0		R2	Cov_Enh_LTE-Core
36.331	1424	1	Rel-12	B	RP-140359	R2-141022	approved	CR on introduction of Cell-specific time-to-trigger	12.0.0	12.1.0	R2	HetNet_eMOB_LTE-Core
36.331	1435	-	Rel-12	F	RP-140346	R2-140927	approved	UE autonomous modification of cellsTriggered upon serving cell addition/ release	12.0.0	12.1.0	R2	LTE_CA-Core, TEI12
36.331	1436	1	Rel-12	B	RP-140359	R2-141023	approved	Introduction of T312	12.0.0	12.1.0	R2	HetNet_eMOB_LTE-Core
36.331	1437	2	Rel-11	F	RP-140340	R2-140991	approved	Clarification regarding need codes, conditions and ASN.1 defaults for extension fields	11.6.0	11.7.0	R2	LTE-L23, TEI11
36.331	1439	1	Rel-12	F	RP-140362	R2-141011	approved	Introduction of UE-supported EARFCN list in handover preparation information for MFBI	12.0.0	12.1.0	R2	TEI12
36.331	1440	-	Rel-11	F	RP-140340	R2-140930	approved	ASN.1 issue with inter-node signalling (AS-Config)	11.6.0	11.7.0	R2	LTE-L23, TEI11

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36.331	1442	-	Rel-12	F	RP-140352	R2-140832	approved	Correction of Connection Establishement Failure Report	12.0.0	12.1.0	R2	eMDT_UMTSLTE-Core, TEI12
36.331	1448	1	Rel-11	F	RP-140354	R2-140986	approved	IoT indication for inter-band TDD CA with different UL/DL configuration	11.6.0	11.7.0	R2	LTE_CA_enh-Core
36.331	1449	1	Rel-11	F	RP-140356	R2-140995	approved	Clarification on the presence of TDD special subframe	11.6.0	11.7.0	R2	LTE_TDD_add_subframe-Core
36.331	1450	1	Rel-12	A	RP-140356	R2-140996	approved	Clarification on the presence of TDD special subframe	12.0.0	12.1.0	R2	LTE_TDD_add_subframe-Core
36.331	1453	-	Rel-12	B	RP-140359	R2-141018	approved	Introduction of UE mobility history reporting (option 2)	12.0.0	12.1.0	R2	HetNet_eMOB_LTE-Core
36.331	1454	1	Rel-11	F	RP-140357	R2-140993	approved	Clarification for the SIB occurrence in a single SI message	11.6.0	11.7.0	R2	TEI11
36.331	1455	1	Rel-12	A	RP-140340	R2-140992	approved	Clarification regarding need codes, conditions and ASN.1 defaults for extension fields	12.0.0	12.1.0	R2	LTE-L23, TEI11
36.331	1456	-	Rel-12	A	RP-140340	R2-140931	approved	ASN.1 issue with inter-node signalling (AS-Config)	12.0.0	12.1.0	R2	LTE-L23, TEI11
36.331	1457	1	Rel-12	A	RP-140357	R2-140994	approved	Clarification for the SIB occurrence in a single SI message	12.0.0	12.1.0	R2	TEI11
36.331	1462	-	Rel-12	A	RP-140364	R2-140985	approved	New UE categories for DL 450Mbps class	12.0.0	12.1.0	R2	TEI11, LTE_CA-Core
36.331	1463	-	Rel-12	A	RP-140354	R2-140987	approved	IoT indication for inter-band TDD CA with different UL/DL configuration	12.0.0	12.1.0	R2	LTE_CA_enh-Core
36.331	1464	-	Rel-12	B	RP-140230	-	postponed	Introduction of supplemental downlink for TD-LTE	12.0.0		R2	TEI12, LTE-L23
36.331	1465	-	Rel-10	F	RP-140226	-	withdrawn	Mandating the settings of FGI bit 31 to TRUE	10.12.0		R2	TEI10
36.331	1466	-	Rel-11	A	RP-140391	-	withdrawn	Mandating the settings of FGI bit 31 to TRUE	11.6.0		R2	TEI10
36.331	1467	-	Rel-12	A	RP-140392	-	withdrawn	Mandating the settings of FGI bit 31 to TRUE	12.0.0		R2	TEI10
36.331	1468	-	Rel-11	C	RP-140154	-	postponed	36.331 CR to decouple UL 64QAM from UE category (band independent)	11.6.0		R2	TEI11, LTE-L23
36.355	0112	1	Rel-12	F	RP-140342	R2-140960	approved	Clarification to gnss-DayNumber	12.0.0	12.1.0	R2	LCS_LTE, TEI12
36.413	1151	6	Rel-12	B	RP-140296	R3-140470	approved	Introduce support for load reporting between LTE and eHRPD	12.0.0	12.1.0	R3	LTE_HRPD_SON-Core
36.413	1163	3	Rel-12	B	RP-140297	R3-140245	approved	Reporting of User Location Information at E-RAB Release	12.0.0	12.1.0	R3	NWK-PL2IMS, TEI12
36.413	1179	1	Rel-12	B	RP-140300	R3-140448	postponed	Provide IMEISV to eNB to identify UE characteristics	12.0.0		R3	TEI12
36.413	1180	1	Rel-12	F	RP-140297	R3-140379	approved	New CSFB high priority indication for eMPS and emergency call	12.0.0	12.1.0	R3	TEI12
36.413	1181	1	Rel-12	B	RP-140298	R3-140390	approved	Introduction of Restart Indication for PWS	12.0.0	12.1.0	R3	REP_WMD-RFR_PWS-Core
36.413	1196	2	Rel-12	F	RP-140295	R3-140485	approved	Correction of contradictions for kill-all functionality	12.0.0	12.1.0	R3	REP_WMD-RFR_PWS-Core
36.413	1197	2	Rel-12	B	RP-140299	R3-140492	rejected	Introduction of the PWS Restart Indication function.	12.0.0		R3	REP_WMD-RFR_PWS-Core
36.414	0011	1	Rel-12	F	RP-140297	R3-140382	approved	The content of Transport Layer Address	11.0.0	12.0.0	R3	TEI12
36.423	0630	1	Rel-12	B	RP-140300	R3-140449	postponed	Provide IMEISV to eNB to identify UE characteristics	12.0.0		R3	TEI12
36.423	0633	-	Rel-11	F	RP-140294	R3-140163	approved	Correction to tabular of Served Cell Information IE	11.7.0	11.8.0	R3	TEI11
36.423	0634	-	Rel-12	A	RP-140294	R3-140164	approved	Correction to tabular of Served Cell Information IE	12.0.0	12.1.0	R3	TEI11
36.424	0011	1	Rel-12	F	RP-140297	R3-140383	approved	The content of Transport Layer Address	11.0.0	12.0.0	R3	TEI12
36.444	0057	6	Rel-12	B	RP-140297	R3-140493	approved	Restoration of eMBMS Bearer Services and logical M3-connections in MCE	11.6.0	12.0.0	R3	eMBMS_Rest, TEI12
36.508	0482	-	Rel-12	F	RP-140436	R5-140075	approved	Adding default message content for SystemInformationBlockType14	12.0.0	12.1.0	R5	SIMTC-UEConTest
36.508	0482	-	Rel-12	F	RP-140329	R5-140075	reissued	Adding default message content for SystemInformationBlockType14	12.0.0		R5	SIMTC-UEConTest
36.508	0483	-	Rel-11	F	RP-140331	R5-140124	approved	Removal of technical content in 36.508 v11.3.0 and substitution with pointer to the next Release	11.3.0	11.4.0	R5	TEI11_Test
36.508	0484	-	Rel-12	F	RP-140307	R5-140136	approved	Correction of UTRA cell carrier frequency in Table 6.3.1.3-2	12.0.0	12.1.0	R5	TEI8_Test
36.508	0485	-	Rel-12	F	RP-140319	R5-140242	approved	CA RF: Adding connection diagram for CA 4x2 MIMO with fading scenarios	12.0.0	12.1.0	R5	TEI10_Test
36.508	0486	-	Rel-12	F	RP-140319	R5-140243	approved	eDL-MIMO RF: Adding connection diagram for 8x2 MIMO scenarios	12.0.0	12.1.0	R5	TEI10_Test

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
36.508	0487	-	Rel-12	F	RP-140307	R5-140325	approved	Correction to Table 6.4.2.7A.1-1 for TAU Request	12.0.0	12.1.0	R5	TEI8_Test
36.508	0488	-	Rel-12	F	RP-140308	R5-140394	approved	Update of MBMS configurations	12.0.0	12.1.0	R5	TEI9_Test
36.508	0489	-	Rel-12	F	RP-140332	R5-140406	approved	Addtion of test frequencies for CA_1A-8A	12.0.0	12.1.0	R5	LTE_CA_Rel12-UEConTest
36.508	0490	-	Rel-12	F	RP-140319	R5-140503	approved	Correction to UL CA message exceptions	12.0.0	12.1.0	R5	TEI10_Test
36.508	0492	-	Rel-12	F	RP-140308	R5-140536	approved	Correction to Generic Test Procedure for IMS Emergency call establishment in EUTRA: Limited Service	12.0.0	12.1.0	R5	TEI9_Test
36.508	0493	-	Rel-12	F	RP-140319	R5-140743	approved	Update to QuantityConfig in MeasConfig DEFAULT	12.0.0	12.1.0	R5	TEI10_Test
36.508	0494	-	Rel-12	F	RP-140331	R5-140744	approved	Correction of CA band combinations CA_1A_18A and CA_11A_18A	12.0.0	12.1.0	R5	TEI11_Test
36.508	0495	-	Rel-12	F	RP-140319	R5-140745	approved	Adding test frequencies for CA reverse inter band combination for bands 4 and 13	12.0.0	12.1.0	R5	TEI10_Test
36.508	0496	-	Rel-12	F	RP-140307	R5-140746	approved	Update to Generic test procedure in TS 36.508 Table 6.4.2.7A-2	12.0.0	12.1.0	R5	TEI8_Test
36.508	0497	-	Rel-12	F	RP-140307	R5-140747	approved	Addition of procedure for EPS Bearer Deactivaton and deletion of procedure for MT release of IMS call	12.0.0	12.1.0	R5	TEI8_Test
36.508	0498	-	Rel-12	F	RP-140332	R5-140789	approved	Addition of Rel12 reverse band combination CA_2A-5A	12.0.0	12.1.0	R5	LTE_CA_Rel12-UEConTest
36.508	0499	-	Rel-12	F	RP-140325	R5-140830	approved	Addition of neighbour cell CRS and dedicated SIB-1 IE for fEICIC test cases	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.508	0500	-	Rel-12	F	RP-140319	R5-140928	approved	Addition of transmissionMode-r10 for SCC	12.0.0	12.1.0	R5	TEI10_Test
36.508	0501	-	Rel-12	F	RP-140331	R5-140998	approved	Addition of Rel11 reverse band combinations CA_2A-29A, CA_4A-5A, CA_4A-29A, CA_5A-17A	12.0.0	12.1.0	R5	TEI11_Test
36.508	0502	-	Rel-12	F	RP-140302	R5-141039	approved	Change of test frequencies for Band 28	12.0.0	12.1.0	R5	TEI_Test
36.509	0028	-	Rel-10	F	RP-140308	R5-140999	approved	Update to UE test mode procedure for CSG proximity testing	10.1.0	10.2.0	R5	TEI9_Test
36.521-1	1246	-	Rel-12	F	RP-140435	R5-140228	approved	Uncertainties for eICIC 9.x CSI Test cases.	12.0.0	12.1.0	R5	eICIC_LTE-UEConTest
36.521-1	1263	-	Rel-11	F	RP-140331	R5-140125	approved	Removal of technical content in 36.521-1 v11.3.0 and substitution with pointer to the next Release	11.3.0	11.4.0	R5	TEI11_Test
36.521-1	1264	-	Rel-12	F	RP-140318	R5-140228	reissued	Uncertainties for eICIC 9.x CSI Test Cases	12.0.0		R5	eICIC_LTE-UEConTest
36.521-1	1265	-	Rel-12	F	RP-140319	R5-140245	approved	eDL-MIMO RF: Corrections to 8x2 MIMO tests	12.0.0	12.1.0	R5	TEI10_Test
36.521-1	1266	-	Rel-12	F	RP-140319	R5-140247	approved	CA RF: Corrections to sustained data rate tests	12.0.0	12.1.0	R5	TEI10_Test
36.521-1	1267	-	Rel-12	F	RP-140307	R5-140248	approved	RF: Corrections to OCNG pattern for PMI tests	12.0.0	12.1.0	R5	TEI8_Test
36.521-1	1268	-	Rel-12	F	RP-140308	R5-140249	approved	RF: Corrections to cross references between tests	12.0.0	12.1.0	R5	TEI9_Test
36.521-1	1269	-	Rel-12	F	RP-140325	R5-140250	approved	feICIC RF: Corrections to some subclause-titles	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1270	-	Rel-12	F	RP-140322	R5-140261	approved	CoMP RF: Introduction of CoMP section in Annex I	12.0.0	12.1.0	R5	COMP_LTE-UEConTest
36.521-1	1271	1	Rel-12	F	RP-140435	R5-141047	approved	eICIC RF: Corrections to TDD PHICH test	12.0.0	12.1.0	R5	eICIC_LTE-UEConTest
36.521-1	1271	-	Rel-12	F	RP-140318	R5-140277	revised	eICIC RF: Corrections to TDD PHICH test	12.0.0		R5	eICIC_LTE-UEConTest
36.521-1	1272	-	Rel-12	F	RP-140326	R5-140388	approved	LTE Type A performance requirements - Introduction of the new test case 9.3.5.1.2	12.0.0	12.1.0	R5	LTE_Interf_Rej-UEConTest
36.521-1	1273	-	Rel-12	F	RP-140332	R5-140444	approved	Updates of 6.2.5 Delta TIB for CA_1A-26A	12.0.0	12.1.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1274	-	Rel-12	F	RP-140332	R5-140446	approved	Updates of 7.3 Delta RIB for CA_1A-26A	12.0.0	12.1.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1275	-	Rel-12	F	RP-140307	R5-140448	approved	Updates of 6.6.3.2 Spurious emission band UE co-existence for B41	12.0.0	12.1.0	R5	TEI8_Test
36.521-1	1276	-	Rel-12	F	RP-140435	R5-140499	approved	Update of eICIC Performance tests	12.0.0	12.1.0	R5	eICIC_LTE-UEConTest
36.521-1	1276	-	Rel-12	F	RP-140318	R5-140499	reissued	Update of eICIC Performance tests	12.0.0		R5	eICIC_LTE-UEConTest
36.521-1	1277	-	Rel-12	F	RP-140307	R5-140505	approved	Correction to test configuration parameter in Tx	12.0.0	12.1.0	R5	TEI8_Test
36.521-1	1278	-	Rel-12	F	RP-140319	R5-140508	approved	pdate of CA FDD and TDD performance tests	12.0.0	12.1.0	R5	TEI10_Test
36.521-1	1279	-	Rel-12	F	RP-140319	R5-140509	approved	Addition of CQI configuration in CA closed loop performance tests	12.0.0	12.1.0	R5	TEI10_Test

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
36.521-1	1280	-	Rel-12	F	RP-140319	R5-140511	approved	Addition of SCC activation and CQI configuration in CA CQI Reporting tests	12.0.0	12.1.0	R5	TEI10_Test
36.521-1	1281	-	Rel-12	F	RP-140308	R5-140561	approved	Removal of [ ]s in Annex G.6	12.0.0	12.1.0	R5	TEI9_Test
36.521-1	1282	-	Rel-12	F	RP-140331	R5-140800	approved	Corrections to NS signaling for CA refsens	12.0.0	12.1.0	R5	TEI11_Test
36.521-1	1283	-	Rel-12	F	RP-140319	R5-140801	approved	Correction to statistical testing for Inter-band CA Rx tests	12.0.0	12.1.0	R5	TEI10_Test
36.521-1	1284	-	Rel-12	F	RP-140331	R5-140802	approved	Additions to combinations of channel model parameters	12.0.0	12.1.0	R5	TEI11_Test
36.521-1	1285	-	Rel-12	F	RP-140331	R5-140803	approved	Addition of a Fixed Reference Channel two antenna ports	12.0.0	12.1.0	R5	TEI11_Test
36.521-1	1286	-	Rel-12	F	RP-140331	R5-140804	approved	Corrections to TDD eDL-MIMO test cases	12.0.0	12.1.0	R5	TEI11_Test
36.521-1	1287	-	Rel-12	F	RP-140307	R5-140805	approved	Correction the category information of Table 8.2.1.1.2.3-2 and Table 8.2.1.1.2.5-1 in test case 8.2.1.1.2	12.0.0	12.1.0	R5	TEI8_Test
36.521-1	1288	-	Rel-12	F	RP-140307	R5-140806	approved	Correction the category information in Table 8.2.1.2.1.3-2 and Table Table 8.2.1.2.1.3-2 for Test case 8.2.1.2.1	12.0.0	12.1.0	R5	TEI8_Test
36.521-1	1289	-	Rel-12	F	RP-140307	R5-140807	approved	Correction the test case applicability of test case 8.2.1.3.2	12.0.0	12.1.0	R5	TEI8_Test
36.521-1	1290	-	Rel-12	F	RP-140323	R5-140811	approved	Addition of A.3.9.4 TDD SDR Reference Channel for EPDCCH	12.0.0	12.1.0	R5	LTE_enh_dl_ctrl-UEConTest
36.521-1	1291	-	Rel-12	F	RP-140323	R5-140812	approved	Addition of A.3.9.3 FDD SDR Reference Channel for EPDCCH	12.0.0	12.1.0	R5	LTE_enh_dl_ctrl-UEConTest
36.521-1	1292	-	Rel-12	F	RP-140323	R5-140813	approved	Addition of OCNG Pattern for EPDCCH TDD performance requirements	12.0.0	12.1.0	R5	LTE_enh_dl_ctrl-UEConTest
36.521-1	1293	-	Rel-12	F	RP-140323	R5-140814	approved	Addition of OCNG Pattern for EPDCCH FDD performance requirements	12.0.0	12.1.0	R5	LTE_enh_dl_ctrl-UEConTest
36.521-1	1294	-	Rel-12	F	RP-140323	R5-140815	approved	Addition of Reference Measurement Channels for EPDCCH performance requirements	12.0.0	12.1.0	R5	LTE_enh_dl_ctrl-UEConTest
36.521-1	1295	-	Rel-12	F	RP-140322	R5-140816	approved	Introduction of RMCs and power levels for CoMP in annex	12.0.0	12.1.0	R5	COMP_LTE-UEConTest
36.521-1	1296	-	Rel-12	F	RP-140332	R5-140818	approved	Addtion of CA_1A-8A to 36.521-1 Chapter 5	12.0.0	12.1.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1297	-	Rel-12	F	RP-140332	R5-140819	approved	Addtion of CA_1A-8A to 36.521-1 Chapter 6	12.0.0	12.1.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1298	-	Rel-12	F	RP-140332	R5-140820	approved	Addtion of CA_1A-8A to 36.521-1 Chapter 7	12.0.0	12.1.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1300	-	Rel-12	F	RP-140332	R5-140823	approved	Corrections to definition of 20 MHz and 5MHz for transmit intermodulation for CA in 6.7A	12.0.0	12.1.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1301	-	Rel-12	F	RP-140332	R5-140824	approved	Updates to TC 7.4A.1 for CA_3C	12.0.0	12.1.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1302	-	Rel-12	F	RP-140332	R5-140825	approved	Updates to TC 6.6.3.2A for CA_3C	12.0.0	12.1.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1303	-	Rel-12	F	RP-140332	R5-140826	approved	Corrections to definition of 20 MHz and 5MHz for occupied bandwidth for CA in 6.6.1A	12.0.0	12.1.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1304	-	Rel-12	F	RP-140332	R5-140827	approved	Updates to TC 7.3A.1 for CA_3C	12.0.0	12.1.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1305	-	Rel-12	F	RP-140332	R5-140828	approved	Updates to TC 7.3A.2 for CA_3C	12.0.0	12.1.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1306	-	Rel-12	F	RP-140325	R5-140831	approved	Additions to TC 8.2.2.2.3_E.1 TDD PDSCH Transmit diversity 2x2 for feICIC (non-MBSFN ABS)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1307	-	Rel-12	F	RP-140325	R5-140832	approved	Additions to TC 8.2.1.4.1_E.1 FDD PDSCH Closed Loop Single Layer Spatial Multiplexing 2x2 for feICIC (non-MBSFN ABS)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1308	-	Rel-12	F	RP-140325	R5-140833	approved	Additions to TC 8.2.2.4.1_E.1 TDD PDSCH Closed Loop Single Layer Spatial Multiplexing 2x2 for feICIC (non-MBSFN ABS)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1309	-	Rel-12	F	RP-140325	R5-140834	approved	Additions to TC 8.4.1.2.3_E.1 FDD PCFICH/PDCCH Transmit Diversity 2x2 for feICIC (non-MBSFN ABS)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1310	-	Rel-12	F	RP-140325	R5-140835	approved	Additions to TC 8.4.2.2.3_E.1 TDD PCFICH/PDCCH Transmit Diversity 2x2 for feICIC (non-MBSFN ABS)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1311	-	Rel-12	F	RP-140325	R5-140836	approved	Additions to TC 8.4.1.2.3_E.2 FDD PCFICH/PDCCH Transmit Diversity 2x2 for feICIC (MBSFN ABS)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest

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36.521-1	1312	-	Rel-12	F	RP-140325	R5-140837	approved	Additions to TC 8.4.2.2.3_E.2 TDD PCFICH/PDCCH Transmit Diversity 2x2 for feICIC (MBSFN ABS)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1313	-	Rel-12	F	RP-140325	R5-140838	approved	Additions to TC 9.2.1.5_E.1 FDD CQI Reporting under AWGN conditions - PUCCH 1-0 for feICIC (non-MBSFN ABS)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1314	-	Rel-12	F	RP-140325	R5-140839	approved	Additions to TC 9.2.1.6_E.1 TDD CQI Reporting under AWGN conditions - PUCCH 1-0 for feICIC (non-MBSFN ABS)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1315	-	Rel-12	F	RP-140325	R5-140840	approved	Additions to TC 9.3.1.3.1_E.1 FDD CQI Reporting under fading conditions - PUSCH 3-0 for feICIC (non-MBSFN ABS)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1316	-	Rel-12	F	RP-140325	R5-140841	approved	Additions to TC 9.3.1.3.2_E.1 TDD CQI Reporting under fading conditions - PUSCH 3-0 for feICIC (non-MBSFN ABS)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1317	-	Rel-12	F	RP-140325	R5-140842	approved	Additions to TC 9.5.4.1_E FDD RI Reporting - PUCCH 1-0 for feICIC (non-MBSFN ABS)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1318	-	Rel-12	F	RP-140325	R5-140843	approved	Additions to TC 9.5.4.2_E TDD RI Reporting - PUCCH 1-0 for feICIC (non-MBSFN ABS)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1319	-	Rel-12	F	RP-140325	R5-140844	approved	Introduction of feICIC to Annex G	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1320	-	Rel-12	F	RP-140325	R5-140846	approved	Addition to TC 8.2.2.3.3_E.1 TDD PDSCH Open Loop Spatial Multiplexing 2x2 for feICIC (non-MBSFN ABS)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1321	-	Rel-12	F	RP-140331	R5-140847	approved	Corrections to test configutation notes of CA soft buffer	12.0.0	12.1.0	R5	TEI11_Test
36.521-1	1322	-	Rel-12	F	RP-140325	R5-140856	approved	Additions to TC 8.2.1.2.3_E.1 FDD PDSCH Transmit diversity 2x2 for feICIC (non-MBFSN ABS)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1323	-	Rel-12	F	RP-140326	R5-140868	approved	Uncertainties and Test Tolerances for Interf_Rej Test case 8.2.1.2.4	12.0.0	12.1.0	R5	LTE_Interf_Rej-UEConTest
36.521-1	1324	-	Rel-12	F	RP-140322	R5-140877	approved	Introduction of TC 9.5.5.1_F.1 FDD RI Reporting with Single CSI process	12.0.0	12.1.0	R5	COMP_LTE-UEConTest
36.521-1	1325	-	Rel-12	F	RP-140322	R5-140878	approved	Introduction of TC 9.5.5.2_F.1 TDD RI Reporting with Single CSI process	12.0.0	12.1.0	R5	COMP_LTE-UEConTest
36.521-1	1326	-	Rel-12	F	RP-140325	R5-140881	approved	Addition to TC 8.2.1.3.3_E.1 FDD FDD PDSCH Open Loop Spatial Multiplexing 2x2 for feICIC (non-MBSFN ABS)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-1	1327	-	Rel-12	F	RP-140435	R5-140887	approved	Correction to eICIC CQI Reporting tests	12.0.0	12.1.0	R5	eICIC_LTE-UEConTest
36.521-1	1327	-	Rel-12	F	RP-140318	R5-140887	reissued	Correction to eICIC CQI Reporting tests	12.0.0		R5	eICIC_LTE-UEConTest
36.521-1	1328	-	Rel-12	F	RP-140435	R5-140888	approved	eICIC RF: Corrections to requirements, procedure and UL-RMCs for CQI tests	12.0.0	12.1.0	R5	eICIC_LTE-UEConTest
36.521-1	1328	-	Rel-12	F	RP-140318	R5-140888	reissued	eICIC RF: Corrections to requirements, procedure and UL-RMCs for CQI tests	12.0.0		R5	eICIC_LTE-UEConTest
36.521-1	1329	-	Rel-12	F	RP-140323	R5-140889	approved	Addition of TC 8.7.3.1 FDD sustained data rate performance for EPDCCH scheduling	12.0.0	12.1.0	R5	LTE_enh_dl_ctrl-UEConTest
36.521-1	1330	-	Rel-12	F	RP-140323	R5-140890	approved	Addition of TC 8.8.1.1.1 FDD distributed EPDCCH performance	12.0.0	12.1.0	R5	LTE_enh_dl_ctrl-UEConTest
36.521-1	1331	-	Rel-12	F	RP-140323	R5-140891	approved	Addition of TC 8.7.4.1 TDD sustained data rate performance for EPDCCH scheduling	12.0.0	12.1.0	R5	LTE_enh_dl_ctrl-UEConTest
36.521-1	1332	-	Rel-12	F	RP-140323	R5-140892	approved	Addition of TC 8.8.1.2.1 TDD distributed EPDCCH performance	12.0.0	12.1.0	R5	LTE_enh_dl_ctrl-UEConTest
36.521-1	1333	-	Rel-12	F	RP-140323	R5-140893	approved	Addition of TC 8.8.2.1.1 FDD localized EPDCCH performance	12.0.0	12.1.0	R5	LTE_enh_dl_ctrl-UEConTest
36.521-1	1334	-	Rel-12	F	RP-140323	R5-140894	approved	Addition of TC 8.8.2.1.2 FDD EPDCCH localized transmission with TM10 quasi co-location Type-B	12.0.0	12.1.0	R5	LTE_enh_dl_ctrl-UEConTest
36.521-1	1335	-	Rel-12	F	RP-140323	R5-140895	approved	Addition of TC 8.8.2.2.1 TDD localized EPDCCH performance	12.0.0	12.1.0	R5	LTE_enh_dl_ctrl-UEConTest

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36.521-1	1336	-	Rel-12	F	RP-140323	R5-140896	approved	Addition of TC 8.8.2.2.2 TDD EPDCCH localized transmission with TM10 quasi co-location Type-B	12.0.0	12.1.0	R5	LTE_enh_dl_ctrl-UEConTest
36.521-1	1337	-	Rel-12	F	RP-140319	R5-140922	approved	Modify Applicability for LTE B14 public safety high power UE test cases	12.0.0	12.1.0	R5	TEI10_Test
36.521-1	1338	-	Rel-12	F	RP-140322	R5-141003	approved	Addition of FDD CQI Reporting under AWGN conditions - Single CSI Process TC 9.2.4.1	12.0.0	12.1.0	R5	COMP_LTE-UEConTest
36.521-1	1339	-	Rel-12	F	RP-140322	R5-141004	approved	Addition of TDD CQI Reporting under AWGN conditions - Single CSI Process TC 9.2.4.2	12.0.0	12.1.0	R5	COMP_LTE-UEConTest
36.521-1	1340	-	Rel-12	F	RP-140319	R5-141006	approved	Addition of TC 8.2.1.7 FDD Carrier Aggregation with power imbalance	12.0.0	12.1.0	R5	TEI10_Test
36.521-1	1341	-	Rel-12	F	RP-140332	R5-141007	approved	Updates to TC 7.4A.2 for CA_3C	12.0.0	12.1.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1342	-	Rel-12	F	RP-140322	R5-141008	approved	Addition of TC 9.3.6.1_F FDD CQI Reporting under fading conditions multiple CSI processes for CoMP	12.0.0	12.1.0	R5	COMP_LTE-UEConTest
36.521-1	1343	-	Rel-12	F	RP-140322	R5-141009	approved	Addition of TC 9.3.6.2_F TDD CQI Reporting under fading conditions multiple CSI processes for CoMP	12.0.0	12.1.0	R5	COMP_LTE-UEConTest
36.521-1	1345	-	Rel-12	F	RP-140332	R5-141011	approved	Corrections to definition of 20 MHz and 5MHz for minimum output power for CA in 6.3.2A	12.0.0	12.1.0	R5	LTE_CA_Rel12-UEConTest
36.521-1	1346	-	Rel-12	F	RP-140327	R5-141012	approved	Addition of Intra NC CA to chap. 5 and related symbol to chap. 3	12.0.0	12.1.0	R5	LTE_CA_enh-UEConTest
36.521-1	1347	-	Rel-12	F	RP-140319	R5-141016	approved	Correction and proposed resolution to TBDs UL CA TCs 6.2.4A and 6.6.3.3A	12.0.0	12.1.0	R5	TEI10_Test
36.521-1	1348	-	Rel-12	F	RP-140319	R5-141017	approved	Update for CA Rx TCs	12.0.0	12.1.0	R5	TEI10_Test
36.521-1	1349	-	Rel-12	F	RP-140319	R5-141018	approved	PCC/SCC switching in inter-band CA Rx test cases	12.0.0	12.1.0	R5	TEI10_Test
36.521-1	1350	-	Rel-12	F	RP-140322	R5-141026	approved	Introduction of new TC 8.3.1.3.2_F FDD PDSCH Performance with DCI format 2D, non Quasi Co-located Antenna Ports, Same Cell ID and multiple NZP CSI-RS resources for CoMP	12.0.0	12.1.0	R5	COMP_LTE-UEConTest
36.521-1	1351	-	Rel-12	F	RP-140322	R5-141027	approved	Introduction of TC 8.3.1.3.3_F FDD PDSCH Performance with DCI format 2D, non Quasi Co-located Antenna Ports, Different Cell ID, Colliding CRS and single NZP CSI-RS for CoMP	12.0.0	12.1.0	R5	COMP_LTE-UEConTest
36.521-1	1352	-	Rel-12	F	RP-140322	R5-141028	approved	Addition of new demod scenario for DL COMP - Same Cell ID and single NZP CSI-RS resource	12.0.0	12.1.0	R5	COMP_LTE-UEConTest
36.521-1	1353	-	Rel-12	F	RP-140331	R5-141029	approved	Corrections to TM9 test to verify correct SNR estimation	12.0.0	12.1.0	R5	TEI11_Test
36.521-1	1354	-	Rel-12	F	RP-140319	R5-141038	approved	Correction to sustained downlink data rate tests	12.0.0	12.1.0	R5	TEI10_Test
36.521-1	1355	-	Rel-12	F	RP-140302	R5-141040	approved	Changes to test frequencies in Tx test cases for Band 28	12.0.0	12.1.0	R5	TEI_Test
36.521-1	1356	-	Rel-12	F	RP-140327	R5-141041	approved	Updates of Reference sensitivity for Intra-band non-contiguous CA	12.0.0	12.1.0	R5	LTE_CA_enh-UEConTest
36.521-1	1357	-	Rel-12	F	RP-140327	R5-141042	approved	Update TC of 7.4A.4 Maximum input level for CA (intra band non-contiguous DL CA without UL CA)	12.0.0	12.1.0	R5	LTE_CA_enh-UEConTest
36.521-1	1358	-	Rel-12	F	RP-140327	R5-141043	approved	Update TC of 7.5A.4 Adjacent Channel Selectivity (ACS) for CA (intra band non-contiguous DL CA without UL CA)	12.0.0	12.1.0	R5	LTE_CA_enh-UEConTest
36.521-1	1359	-	Rel-12	F	RP-140319	R5-141044	approved	Corrections to maximum output power for multiple transmissions in a subframe	12.0.0	12.1.0	R5	TEI10_Test
36.521-1	1360	-	Rel-12	F	RP-140319	R5-141045	approved	Correction to test configuration of Maximum input for CA	12.0.0	12.1.0	R5	TEI10_Test
36.521-1	1361	-	Rel-12	F	RP-140325	R5-140845	approved	Addition of PHICH demod requirements for fEICIC	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-2	0142	-	Rel-11	F	RP-140331	R5-140126	approved	Removal of technical content in 36.521-2 v11.3.0 and substitution with pointer to the next Release	11.3.0	11.4.0	R5	TEI11_Test

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36.521-2	0143	-	Rel-12	F	RP-140326	R5-140390	approved	LTE Type A performance requirements - Adding a new test case 9.3.5.1.2	12.0.0	12.1.0	R5	LTE_Interf_Rej-UEConTest
36.521-2	0144	-	Rel-12	F	RP-140327	R5-140426	approved	Updates to Intra-band non-contiguous CA applicability	12.0.0	12.1.0	R5	LTE_CA_enh-UEConTest
36.521-2	0145	-	Rel-12	F	RP-140326	R5-140526	approved	Addition of applicability for TC 8.2.2.2.4 and TC 8.2.2.4.3	12.0.0	12.1.0	R5	LTE_Interf_Rej-UEConTest
36.521-2	0146	-	Rel-12	F	RP-140307	R5-140808	approved	Correction the applicability for test case 8.2.1.3.2.	12.0.0	12.1.0	R5	TEI8_Test
36.521-2	0147	-	Rel-12	F	RP-140320	R5-140809	approved	Update applicability table for LTE B14 public safety high power UE test cases	12.0.0	12.1.0	R5	TEI10_Test
36.521-2	0148	-	Rel-12	F	RP-140322	R5-140817	approved	Applicability for new DL CoMP test cases	12.0.0	12.1.0	R5	COMP_LTE-UEConTest
36.521-2	0149	-	Rel-12	F	RP-140332	R5-140829	approved	Addition of CA_3A-19A and CA_19A-21A to Table 7.3.3-1A	12.0.0	12.1.0	R5	LTE_CA_Rel12-UEConTest
36.521-2	0150	-	Rel-12	F	RP-140320	R5-140870	approved	Corrections the applicability of test cases 8.16.3 and 8.16.4	12.0.0	12.1.0	R5	TEI10_Test
36.521-2	0151	-	Rel-12	F	RP-140308	R5-140871	approved	Correcting applicability in 8.2.2.1.1_1 and 8.2.2.2.1_1 for UE categories 1 and/or 2	12.0.0	12.1.0	R5	TEI9_Test
36.521-2	0152	-	Rel-12	F	RP-140323	R5-140897	approved	Addition of Applicability for EPDCCH New Test Cases	12.0.0	12.1.0	R5	LTE_enh_dl_ctrl-UEConTest
36.521-2	0153	-	Rel-12	F	RP-140320	R5-140923	approved	Introduction of UE CA Inter-band uplink capabilities	12.0.0	12.1.0	R5	TEI10_Test
36.521-2	0154	-	Rel-12	F	RP-140331	R5-141020	approved	Addition of test applicability of WB-RSRQ measurement	12.0.0	12.1.0	R5	TEI11_Test
36.521-2	0155	-	Rel-12	F	RP-140327	R5-141035	approved	Applicability for new CA RRM TCs 7.1.3+7.1.4	12.0.0	12.1.0	R5	LTE_CA_enh-UEConTest
36.521-3	0854	-	Rel-12	F	RP-140320	R5-140085	approved	CA RRM: Uncertainties and test tolerances for TC 8.20.1 and 8.20.2	12.0.0	12.1.0	R5	TEI10_Test
36.521-3	0855	-	Rel-12	F	RP-140331	R5-140088	approved	Corrections to UE Transmit Timing minimum requirements	12.0.0	12.1.0	R5	TEI11_Test
36.521-3	0856	-	Rel-12	F	RP-140331	R5-140089	approved	Corrections to measurements of the SCC with deactivated SCell	12.0.0	12.1.0	R5	TEI11_Test
36.521-3	0857	-	Rel-12	F	RP-140320	R5-140090	approved	Corrections to TC 8.16.3 E-UTRAN FDD-FDD Event triggered reporting on deactivated SCell with PCell	12.0.0	12.1.0	R5	TEI10_Test
36.521-3	0858	-	Rel-11	F	RP-140331	R5-140127	approved	Removal of technical content in 36.521-3 v11.3.0 and substitution with pointer to the next Release	11.3.0	11.4.0	R5	TEI11_Test
36.521-3	0859	-	Rel-12	F	RP-140307	R5-140234	approved	Uncertainties and Test Tolerances for FDD Intra frequency relative RSRP for 5MHz Bandwidth Test case 9.1.16.2 and update 9.1.1.2, 9.1.2.2.	12.0.0	12.1.0	R5	TEI8_Test
36.521-3	0860	-	Rel-12	F	RP-140307	R5-140236	approved	Uncertainties and Test Tolerances for FDD Inter Frequency Absolute RSRQ Accuracy for 5MHz Bandwidth 9.2.18.1, and update Test cases 9.2.3.1, 9.2.4.1.	12.0.0	12.1.0	R5	TEI8_Test
36.521-3	0861	-	Rel-12	F	RP-140307	R5-140238	approved	Uncertainties and Test Tolerances for FDD Inter Frequency Relative RSRQ Accuracy for 5MHz Bandwidth 9.2.18.2, and update Test cases 9.2.3.2, 9.2.4.2.	12.0.0	12.1.0	R5	TEI8_Test
36.521-3	0862	-	Rel-12	F	RP-140320	R5-140240	approved	Uncertainties and Test Tolerances for E-UTRAN TDD to UTRAN TDD cell search under fading propagation conditions test case 8.20.4	12.0.0	12.1.0	R5	TEI10_Test
36.521-3	0863	-	Rel-12	F	RP-140307	R5-140241	approved	Noc uncertainty for Test Cases 8.5.1, 8.5.3, 8.5.7 and 8.6.1	12.0.0	12.1.0	R5	TEI8_Test
36.521-3	0864	-	Rel-12	F	RP-140320	R5-140255	approved	CA RRM: Corrections to event triggered reporting under deactivated SCell in non-DRX tests	12.0.0	12.1.0	R5	TEI10_Test
36.521-3	0865	-	Rel-12	F	RP-140320	R5-140259	approved	CA RRM: Correction and clarificaton of messages exception on the maximum number of cells to be measured	12.0.0	12.1.0	R5	TEI10_Test
36.521-3	0866	-	Rel-12	F	RP-140307	R5-141050	approved	Updates Test cases about UE Transmit Timing Accuracy Tests	12.0.0	12.1.0	R5	TEI8_Test
36.521-3	0867	-	Rel-12	F	RP-140307	R5-140289	approved	Uncertainties and Test Tolerances for RRM test case 7.3.24	12.0.0	12.1.0	R5	TEI8_Test
36.521-3	0868	-	Rel-12	F	RP-140307	R5-140295	approved	Uncertainties and Test Tolerances for RRM test case 9.3.3	12.0.0	12.1.0	R5	TEI8_Test
36.521-3	0869	-	Rel-12	F	RP-140307	R5-140297	approved	Uncertainties and Test Tolerances for RRM test case 9.4.3	12.0.0	12.1.0	R5	TEI8_Test

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36.521-3	0870	-	Rel-12	F	RP-140307	R5-140301	approved	Addition of cell configuration mapping for LTE 450 related test cases	12.0.0	12.1.0	R5	TEI8_Test
36.521-3	0871	-	Rel-12	F	RP-140334	R5-140401	approved	Introduction of operating band groups to TS36.521-3, clause 3	12.0.0	12.1.0	R5	TEI12_Test
36.521-3	0872	-	Rel-12	F	RP-140334	R5-140404	approved	Introduction of operating band groups to TS36.521-3, Annex I	12.0.0	12.1.0	R5	TEI12_Test
36.521-3	0873	-	Rel-12	F	RP-140320	R5-140423	approved	Correction to test applicability of measurement without gaps	12.0.0	12.1.0	R5	TEI10_Test
36.521-3	0874	-	Rel-12	F	RP-140307	R5-140483	approved	Completion and alignment of 5MHz Bandwidth Test cases 9.1.17.1, 9.2.17.1	12.0.0	12.1.0	R5	TEI8_Test
36.521-3	0875	-	Rel-12	F	RP-140435	R5-140501	approved	Update of exceptions in eICIC RRM with Non-MBSFN test	12.0.0	12.1.0	R5	eICIC_LTE-UEConTest
36.521-3	0875	-	Rel-12	F	RP-140318	R5-140501	reissued	Update of exceptions in eICIC RRM with Non-MBSFN	12.0.0		R5	eICIC_LTE-UEConTest
36.521-3	0876	-	Rel-12	F	RP-140435	R5-140502	approved	Update of eICIC RLM test cases	12.0.0	12.1.0	R5	eICIC_LTE-UEConTest
36.521-3	0876	-	Rel-12	F	RP-140318	R5-140502	reissued	Update of eICIC RLM test cases	12.0.0		R5	eICIC_LTE-UEConTest
36.521-3	0877	-	Rel-12	F	RP-140308	R5-140512	approved	Correction of UTRA TDD Redirection tests	12.0.0	12.1.0	R5	TEI9_Test
36.521-3	0878	-	Rel-12	F	RP-140320	R5-140513	approved	Correction to CA RRM Inter frequency tests	12.0.0	12.1.0	R5	TEI10_Test
36.521-3	0879	-	Rel-12	F	RP-140308	R5-140562	approved	Correction to GSM RSSI absolute accuracy tests	12.0.0	12.1.0	R5	TEI9_Test
36.521-3	0880	-	Rel-12	F	RP-140308	R5-140597	approved	TC 9.3.1, 9.4.1 Corrections to test procedures in TS36.521-3	12.0.0	12.1.0	R5	TEI9_Test
36.521-3	0881	-	Rel-12	F	RP-140308	R5-140810	approved	Correction of b2-threshold for EUTRA and GERAN cell	12.0.0	12.1.0	R5	TEI9_Test
36.521-3	0883	-	Rel-12	F	RP-140325	R5-140849	approved	Additions to TC 8.1.8 E-UTRAN FDD-FDD Intra-Frequency Event-Triggered Reporting (feICIC)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-3	0884	-	Rel-12	F	RP-140325	R5-140850	approved	Additions to TC 8.2.6 E-UTRAN TDD-TDD Intra-Frequency Event-Triggered Reporting (feICIC)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-3	0885	-	Rel-12	F	RP-140325	R5-140851	approved	Additions to TC 9.2.13 FDD RSRQ under Time Domain Measurement Resource Restriction (feICIC)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-3	0886	-	Rel-12	F	RP-140325	R5-140852	approved	Additions to TC 9.2.14 TDD RSRQ under Time Domain Measurement Resource Restriction (feICIC)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-3	0887	-	Rel-12	F	RP-140325	R5-140853	approved	Addition to TC 7.3.21 FDD Radio Link Monitoring Test for In-sync under Time Domain Measurement Resource Restriction with CRS assistance information and MBSFN ABS (feICIC)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-3	0888	-	Rel-12	F	RP-140325	R5-140854	approved	Addition to TC 7.3.22 TDD Radio Link Monitoring Test for In-sync under Time Domain Measurement Resource Restriction with CRS assistance information and MBSFN ABS (feICIC)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-3	0889	-	Rel-12	F	RP-140325	R5-140855	approved	Addition to TC 9.1.15.2 TDD Intra Frequency Relative RSRP Accuracy under TD Measurement Resource Restriction with CRS Assistance Information and Non-MBSFN ABS (feICIC)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-3	0890	-	Rel-12	F	RP-140320	R5-140863	approved	Corrections to minimum requirements for time domain measurement	12.0.0	12.1.0	R5	TEI10_Test
36.521-3	0891	-	Rel-12	F	RP-140307	R5-140865	approved	Uncertainties and Test Tolerances for RRM test case 9.1.16.1	12.0.0	12.1.0	R5	TEI8_Test
36.521-3	0892	-	Rel-12	F	RP-140307	R5-140866	approved	Uncertainties and Test Tolerances for RRM test case 9.1.17.2	12.0.0	12.1.0	R5	TEI8_Test
36.521-3	0893	-	Rel-12	F	RP-140320	R5-140869	approved	Corrections to test cases 8.16.3 and 8.16.4	12.0.0	12.1.0	R5	TEI10_Test
36.521-3	0895	-	Rel-12	F	RP-140325	R5-140876	approved	Introduction of feICIC to Annex H	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-3	0896	-	Rel-12	F	RP-140325	R5-140882	approved	Addition to TC 7.3.19 FDD Radio Link Monitoring Test for In-sync under Time Domain Measurement Resource Restriction with CRS assistance information and Non-MBSFN ABS (feICIC)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-3	0897	-	Rel-12	F	RP-140325	R5-140883	approved	Addition to TC 7.3.20 TDD Radio Link Monitoring Test for In-sync under Time Domain Measurement Resource Restriction with CRS assistance information and Non-MBSFN ABS (feICIC)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
36.521-3	0898	-	Rel-12	F	RP-140325	R5-140884	approved	Addition to TC 9.1.14.1 FDD Intra Frequency Absolute RSRP Accuracy under TD Measurement Resource Restriction with CRS Assistance Information and Non-MBSFN ABS (feICIC)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-3	0899	-	Rel-12	F	RP-140325	R5-140885	approved	Addition to TC 9.1.14.2 FDD Intra Frequency Relative RSRP Accuracy under TD Measurement Resource Restriction with CRS Assistance Information and Non-MBSFN ABS (feICIC)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-3	0900	-	Rel-12	F	RP-140325	R5-140886	approved	Addition to TC 9.1.15.1 TDD Intra Frequency Absolute RSRP Accuracy under TD Measurement Resource Restriction with CRS Assistance Information and Non-MBSFN ABS (feICIC)	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.521-3	0901	-	Rel-12	F	RP-140334	R5-141021	approved	Introduction of operating band groups to TS36.521-3, test cases	12.0.0	12.1.0	R5	TEI12_Test
36.521-3	0902	-	Rel-12	F	RP-140331	R5-141022	approved	Addition of WB-RSRQ measurement test cases	12.0.0	12.1.0	R5	TEI11_Test
36.521-3	0903	-	Rel-12	F	RP-140320	R5-141023	approved	Update of intra-band CA cell mapping in Annex E	12.0.0	12.1.0	R5	TEI10_Test
36.521-3	0904	-	Rel-12	F	RP-140307	R5-141024	approved	Clarification on operating band configuration for inter-RAT RRM test cases	12.0.0	12.1.0	R5	TEI8_Test
36.521-3	0905	-	Rel-12	F	RP-140308	R5-141031	approved	update to TC 9.4.1 L2W CPICH Ec/No Absolute accuracy	12.0.0	12.1.0	R5	TEI9_Test
36.521-3	0906	-	Rel-12	F	RP-140327	R5-141036	approved	Addition of new CA RRM TC 7.1.3 E-UTRAN FDD - UE Transmit Timing Accuracy Tests for SCell	12.0.0	12.1.0	R5	LTE_CA_enh-UEConTest
36.521-3	0907	-	Rel-12	F	RP-140327	R5-141037	approved	Addition of new CA RRM TC 7.1.4 E-UTRAN TDD - UE Transmit Timing Accuracy Tests for SCell	12.0.0	12.1.0	R5	LTE_CA_enh-UEConTest
36.521-3	0908	-	Rel-12	F	RP-140307	R5-141049	approved	Correction to Test2 of UE Transmit Timing Accuracy test cases 7.1.1 and 7.1.2	12.0.0	12.1.0	R5	TEI8_Test
36.523-1	2555	-	Rel-12	F	RP-140436	R5-140073	approved	New SIMTC TC 9.2.3.2.4a Combined tracking area update - Successful for EPS services only - Congestion	12.0.0	12.1.0	R5	SIMTC-UEConTest
36.523-1	2555	-	Rel-12	F	RP-140329	R5-140073	reissued	New SIMTC TC 9.2.3.2.4a Combined tracking area update - Successful for EPS services only - Congestion	12.0.0		R5	SIMTC-UEConTest
36.523-1	2556	-	Rel-12	F	RP-140436	R5-140074	approved	Adding normative reference for 3GPP TS 24.368	12.0.0	12.1.0	R5	SIMTC-UEConTest
36.523-1	2556	-	Rel-12	F	RP-140329	R5-140074	reissued	Adding normative reference for 3GPP TS 24.368	12.0.0		R5	SIMTC-UEConTest
36.523-1	2557	-	Rel-11	F	RP-140331	R5-140128	approved	Removal of technical content in 36.523-1 v11.5.0 and substitution with pointer to the next Release	11.5.0	11.6.0	R5	TEI11_Test
36.523-1	2558	-	Rel-12	F	RP-140307	R5-140141	approved	Correction to E-UTRA EMM test case 9.2.3.2.1b	12.0.0	12.1.0	R5	TEI8_Test
36.523-1	2559	-	Rel-12	F	RP-140437	R5-140181	approved	Addition of test case ôInter-system mobility / E-UTRA PS voice to GSM CS voice / bSRVCC / MO call / SRVCC HO cancelledö	12.0.0	12.1.0	R5	bSRVCC-UEConTest
36.523-1	2559	-	Rel-12	F	RP-140333	R5-140181	reissued	Addition of test case ' Inter-system mobility / E-UTRA PS voice to GSM CS voice / bSRVCC / MO call / SRVCC HO cancelled'	12.0.0		R5	bSRVCC-UEConTest
36.523-1	2560	-	Rel-12	F	RP-140437	R5-140182	approved	Addition of test case ôInter-system mobility / E-UTRA voice to GSM CS voice / bSRVCC / MO call / SRVCC HO failure ö	12.0.0	12.1.0	R5	bSRVCC-UEConTest
36.523-1	2560	-	Rel-12	F	RP-140333	R5-140182	reissued	Addition of test case ' Inter-system mobility / E-UTRA voice to GSM CS voice / bSRVCC / MO call / SRVCC HO failure'	12.0.0		R5	bSRVCC-UEConTest
36.523-1	2561	-	Rel-12	F	RP-140320	R5-140344	approved	Correction to GCF WI-162 LTE-A Carrier AggregationTest Case 8.3.1.22.1 and 8.3.1.22.2	12.0.0	12.1.0	R5	TEI10_Test
36.523-1	2562	-	Rel-12	F	RP-140307	R5-140419	approved	Correction to GCF U1 EMM TC 9.2.3.3.4	12.0.0	12.1.0	R5	TEI8_Test
36.523-1	2563	-	Rel-12	F	RP-140321	R5-140449	approved	New eMBMS service continuity inter-band test case 17.4.2a	12.0.0	12.1.0	R5	MBMS_LTE_SC-UEConTest
36.523-1	2564	-	Rel-12	F	RP-140321	R5-140450	approved	New eMBMS service continuity inter-band test case 17.4.3a	12.0.0	12.1.0	R5	MBMS_LTE_SC-UEConTest
36.523-1	2565	-	Rel-12	F	RP-140307	R5-140473	approved	Update to Test Case 9.2.2.1.10	12.0.0	12.1.0	R5	TEI8_Test
36.523-1	2566	-	Rel-12	F	RP-140307	R5-140482	approved	Update to Test Case 6.2.3.31	12.0.0	12.1.0	R5	TEI8_Test
36.523-1	2567	-	Rel-12	F	RP-140309	R5-140519	approved	Update of 1xCS fallback Test Case 13.1.18	12.0.0	12.1.0	R5	TEI9_Test

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
36.523-1	2568	-	Rel-12	F	RP-140309	R5-140522	approved	Correction to eMBMS test case 17.2.2	12.0.0	12.1.0	R5	TEI9_Test
36.523-1	2569	-	Rel-12	F	RP-140309	R5-140529	approved	Update of CSG Test Case 8.3.4.5	12.0.0	12.1.0	R5	TEI9_Test
36.523-1	2570	-	Rel-12	F	RP-140309	R5-140537	approved	Correction to IMS Emergency Call over EPS test case 11.2.6	12.0.0	12.1.0	R5	TEI9_Test
36.523-1	2571	-	Rel-12	F	RP-140307	R5-140551	approved	Correction to EMM test case 9.2.3.1.9	12.0.0	12.1.0	R5	TEI8_Test
36.523-1	2572	-	Rel-12	F	RP-140309	R5-140573	approved	Correction to Home eNB Enhancements test case 6.4.2	12.0.0	12.1.0	R5	TEI9_Test
36.523-1	2573	-	Rel-12	F	RP-140328	R5-140576	approved	Addition of test case 6.2.4.4	12.0.0	12.1.0	R5	Cell_FACH_enh-UEConTest
36.523-1	2574	-	Rel-12	F	RP-140328	R5-140580	approved	Addition of test case 6.2.4.6	12.0.0	12.1.0	R5	Cell_FACH_enh-UEConTest
36.523-1	2575	-	Rel-12	F	RP-140307	R5-140582	approved	GCF Priority 1 - Update to EUTRA RRC test case 8.5.4.1	12.0.0	12.1.0	R5	TEI8_Test
36.523-1	2576	-	Rel-12	F	RP-140307	R5-140623	approved	Correction of the reference to the procedure for IMS call release	12.0.0	12.1.0	R5	TEI8_Test
36.523-1	2577	-	Rel-12	F	RP-140307	R5-140748	approved	Correction to EUTRA Idle Mode Test case 6.2.3.31	12.0.0	12.1.0	R5	TEI8_Test
36.523-1	2578	-	Rel-12	F	RP-140309	R5-140749	approved	Correction to E-UTRA Inter-RAT test case 6.2.3.3a	12.0.0	12.1.0	R5	TEI9_Test
36.523-1	2579	-	Rel-12	F	RP-140307	R5-140751	approved	Correction to EUTRA Idle Mode Test case 6.1.1.1	12.0.0	12.1.0	R5	TEI8_Test
36.523-1	2580	-	Rel-12	F	RP-140307	R5-140755	approved	Update to test case 6.2.3.1	12.0.0	12.1.0	R5	TEI8_Test
36.523-1	2581	-	Rel-12	F	RP-140320	R5-140756	approved	Correction to GCF WI-162 LTE-A Carrier Aggregation Test Case 8.2.4.18.1 and 8.2.4.18.2	12.0.0	12.1.0	R5	TEI10_Test
36.523-1	2582	-	Rel-12	F	RP-140309	R5-140757	approved	Correction to E-UTRA RRC Test Case 8.3.1.16a	12.0.0	12.1.0	R5	TEI9_Test
36.523-1	2583	-	Rel-12	F	RP-140309	R5-141131	approved	Update of RRC Test Case 8.3.1.13a	12.0.0	12.1.0	R5	TEI9_Test
36.523-1	2584	-	Rel-12	F	RP-140307	R5-140761	approved	Update to Test Case 9.2.3.3.1	12.0.0	12.1.0	R5	TEI8_Test
36.523-1	2585	-	Rel-12	F	RP-140307	R5-140762	approved	Correction to EMM test case 9.2.1.2.14	12.0.0	12.1.0	R5	TEI8_Test
36.523-1	2586	-	Rel-12	F	RP-140307	R5-140763	approved	Correction to EMM test case 9.2.1.1.7b	12.0.0	12.1.0	R5	TEI8_Test
36.523-1	2587	-	Rel-12	F	RP-140320	R5-140764	approved	Update of test case 9.2.3.1.20a	12.0.0	12.1.0	R5	TEI10_Test
36.523-1	2588	-	Rel-12	F	RP-140309	R5-140765	approved	Correction to GCF WI-154 IMS Emergency Call testcase 11.2.5	12.0.0	12.1.0	R5	TEI9_Test
36.523-1	2589	-	Rel-12	F	RP-140309	R5-140766	approved	Update of IMS Emergency TC 11.2.4 to verify Permanently stored in the UE ENs requirements	12.0.0	12.1.0	R5	TEI9_Test
36.523-1	2590	-	Rel-12	F	RP-140309	R5-141133	approved	Update of IMS Emergency Call over EPS test case 11.2.2	12.0.0	12.1.0	R5	TEI9_Test
36.523-1	2591	-	Rel-12	F	RP-140309	R5-141134	approved	Update of IMS Emergency Call over EPS test case 11.2.4	12.0.0	12.1.0	R5	TEI9_Test
36.523-1	2592	-	Rel-12	F	RP-140309	R5-140769	approved	Corrections to MultiLayer SRVCC test case 13.4.3.4, 13.4.3.5 and 13.4.3.6	12.0.0	12.1.0	R5	TEI9_Test
36.523-1	2593	-	Rel-12	F	RP-140320	R5-140770	approved	Addition of test case ' Inter-system mobility / E-UTRA voice to GSM CS voice / aSRVCC / MO call / Forked responses'	12.0.0	12.1.0	R5	TEI10_Test
36.523-1	2594	-	Rel-12	F	RP-140334	R5-140773	approved	Reconfirmation of voided section	12.0.0	12.1.0	R5	TEI12_Test
36.523-1	2595	-	Rel-12	F	RP-140320	R5-141132	approved	Correction to Multilayer aSRVCC test case 13.4.3.12	12.0.0	12.1.0	R5	TEI10_Test
36.523-1	2596	-	Rel-12	F	RP-140320	R5-141129	approved	Correction to Multilayer aSRVCC test case 13.4.3.13	12.0.0	12.1.0	R5	TEI10_Test
36.523-1	2597	-	Rel-12	F	RP-140331	R5-140776	approved	Optimise UTRA test frequency allocation in 8.6.5.1a	12.0.0	12.1.0	R5	TEI11_Test
36.523-1	2598	-	Rel-12	F	RP-140320	R5-140777	approved	Correction to EUTRA MDT test case 8.6.6.3	12.0.0	12.1.0	R5	TEI10_Test
36.523-1	2599	-	Rel-12	F	RP-140320	R5-140778	approved	Correction to EUTRA MDT test case 8.6.2.8	12.0.0	12.1.0	R5	TEI10_Test
36.523-1	2600	-	Rel-12	F	RP-140320	R5-140779	approved	Correction to GCF WI-162 LTE-A Carrier Aggregation Test Case 8.2.4.19.1 and 8.2.4.19.2	12.0.0	12.1.0	R5	TEI10_Test
36.523-1	2601	-	Rel-12	F	RP-140320	R5-140780	approved	Correction to NIMTC test case 9.2.3.1.5a	12.0.0	12.1.0	R5	TEI10_Test
36.523-1	2602	-	Rel-12	F	RP-140307	R5-140791	approved	Update to Test Case 6.2.3.13	12.0.0	12.1.0	R5	TEI8_Test
36.523-1	2603	-	Rel-12	F	RP-140307	R5-140792	approved	Update to Test Case 6.2.3.21	12.0.0	12.1.0	R5	TEI8_Test
36.523-1	2604	-	Rel-12	F	RP-140307	R5-140925	approved	Correction to EMM TC 9.2.3.4.1	12.0.0	12.1.0	R5	TEI8_Test
36.523-1	2605	-	Rel-12	F	RP-140331	R5-140927	approved	Correction of Rel-11 MDT parameter	12.0.0	12.1.0	R5	TEI11_Test
36.523-1	2606	-	Rel-12	F	RP-140435	R5-140933	approved	Correction of Test case 8.3.1.20	12.0.0	12.1.0	R5	eICIC_LTE-UEConTest
36.523-1	2606	-	Rel-12	F	RP-140318	R5-140933	reissued	Correction of Test case 8.3.1.20	12.0.0		R5	eICIC_LTE-UEConTest
36.523-1	2607	-	Rel-12	F	RP-140435	R5-140934	approved	Correction of Test case 8.3.1.21	12.0.0	12.1.0	R5	eICIC_LTE-UEConTest

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36.523-1	2607	-	Rel-12	F	RP-140318	R5-140934	reissued	Correction of Test case 8.3.1.21	12.0.0		R5	eICIC_LTE-UEConTest
36.523-1	2608	-	Rel-12	F	RP-140435	R5-140935	approved	Correction of Test case 8.3.1.28	12.0.0	12.1.0	R5	eICIC_LTE-UEConTest
36.523-1	2608	-	Rel-12	F	RP-140318	R5-140935	reissued	Correction of Test case 8.3.1.28	12.0.0		R5	eICIC_LTE-UEConTest
36.523-1	2609	-	Rel-12	F	RP-140321	R5-140936	approved	New eMBMS service continuity test case 17.4.9.1 and 17.4.9.2	12.0.0	12.1.0	R5	MBMS_LTE_SC-UEConTest
36.523-1	2610	-	Rel-12	F	RP-140321	R5-140937	approved	New eMBMS service continuity test case 17.4.10.1 and 17.4.10.2	12.0.0	12.1.0	R5	MBMS_LTE_SC-UEConTest
36.523-1	2611	-	Rel-12	F	RP-140321	R5-140938	approved	New eMBMS service continuity CA test cases 17.4.11.1 and 17.4.11.2	12.0.0	12.1.0	R5	MBMS_LTE_SC-UEConTest
36.523-1	2612	-	Rel-12	F	RP-140325	R5-140940	approved	Addition of test case 'eICIC/ RRC connection reconfiguration / SIB1 information / Success'	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.523-1	2613	-	Rel-12	F	RP-140436	R5-140955	approved	New SIMTC TC 9.2.1.1.27a Attach procedure - EAB broadcast handling	12.0.0	12.1.0	R5	SIMTC-UEConTest
36.523-1	2613	-	Rel-12	F	RP-140329	R5-140955	reissued	New SIMTC TC 9.2.1.1.27a Attach procedure - EAB broadcast handling	12.0.0		R5	SIMTC-UEConTest
36.523-1	2614	-	Rel-12	F	RP-140436	R5-140956	approved	New SIMTC TC 9.2.3.1.8b TAU procedure - EAB broadcast handling	12.0.0	12.1.0	R5	SIMTC-UEConTest
36.523-1	2614	-	Rel-12	F	RP-140329	R5-140956	reissued	New SIMTC TC 9.2.3.1.8b TAU procedure - EAB broadcast handling	12.0.0		R5	SIMTC-UEConTest
36.523-1	2615	-	Rel-12	F	RP-140436	R5-140957	approved	New SIMTC TC 9.2.1.2.4a Successful combined attach procedure - EPS service only - Congestion	12.0.0	12.1.0	R5	SIMTC-UEConTest
36.523-1	2615	-	Rel-12	F	RP-140329	R5-140957	reissued	New SIMTC TC 9.2.1.2.4a Successful combined attach procedure - EPS service only - Congestion	12.0.0		R5	SIMTC-UEConTest
36.523-1	2616	-	Rel-12	F	RP-140436	R5-140958	approved	Corrections to EUTRA SIMTC TC9.2.3.1.8a, TC10.5.1a and TC10.8.8	12.0.0	12.1.0	R5	SIMTC-UEConTest
36.523-1	2616	-	Rel-12	F	RP-140329	R5-140958	reissued	Corrections to EUTRA SIMTC TC9.2.3.18a,TC8.5.1a and TC10.8.8	12.0.0		R5	SIMTC-UEConTest
36.523-1	2617	-	Rel-12	F	RP-140436	R5-140959	approved	Corrections to EUTRA SIMTC TC8.1.1.7	12.0.0	12.1.0	R5	SIMTC-UEConTest
36.523-1	2617	-	Rel-12	F	RP-140329	R5-140959	reissued	Corrections to EUTRA SIMTC TC8.1.1.7	12.0.0		R5	SIMTC-UEConTest
36.523-1	2618	-	Rel-12	F	RP-140436	R5-140960	approved	Addition of SIMTC Test Case 10.5.1b	12.0.0	12.1.0	R5	SIMTC-UEConTest
36.523-1	2618	-	Rel-12	F	RP-140329	R5-140960	reissued	Addition of SIMTC Test Case 10.5.1b	12.0.0		R5	SIMTC-UEConTest
36.523-1	2619	-	Rel-12	F	RP-140437	R5-140965	approved	Addition of test case ô Inter-system mobility / E-UTRA PS voice to GSM CS voice / bSRVCC / MO callö	12.0.0	12.1.0	R5	bSRVCC-UEConTest
36.523-1	2619	-	Rel-12	F	RP-140333	R5-140965	reissued	Addition of test case ' Inter-system mobility / E-UTRA PS voice to GSM CS voice / bSRVCC / MO call'	12.0.0		R5	bSRVCC-UEConTest
36.523-1	2620	-	Rel-12	F	RP-140307	R5-141101	approved	Update test case 8.5.1.1 Radio link failure / RRC connection re-establishment success	12.0.0	12.1.0	R5	TEI8_Test
36.523-1	2621	-	Rel-12	F	RP-140307	R5-141102	approved	Correction to RRC Inter-RAT Measurements test case 8.3.2.2	12.0.0	12.1.0	R5	TEI8_Test
36.523-1	2622	-	Rel-12	F	RP-140307	R5-141052	approved	Correction of TC 9.2.1.2.1c	12.0.0	12.1.0	R5	TEI8_Test
36.523-1	2623	-	Rel-12	F	RP-140307	R5-141104	approved	Correction to GCF WI-086 EUTRA EMM Test Case 9.2.3.3.5a	12.0.0	12.1.0	R5	TEI8_Test
36.523-1	2624	-	Rel-12	F	RP-140307	R5-141053	approved	Update to Test Case 9.2.3.1.6	12.0.0	12.1.0	R5	TEI8_Test
36.523-1	2625	-	Rel-12	F	RP-140307	R5-141106	approved	GCF priority 2 Correction to EMM TCs 9.2.1.1.1a and 9.2.1.1.1b	12.0.0	12.1.0	R5	TEI8_Test
36.523-1	2626	-	Rel-12	F	RP-140320	R5-141107	approved	Addition of test case ' Inter-system mobility / E-UTRA voice to GSM CS voice / aSRVCC / MT call / User answers in CS domain'	12.0.0	12.1.0	R5	TEI10_Test

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36.523-1	2627	-	Rel-12	F	RP-140320	R5-141108	approved	Addition of test case ' Inter-system mobility / E-UTRA voice to GSM CS voice / aSRVCC / MT call / User answers in CS domain/ SRVCC HO cancelled'	12.0.0	12.1.0	R5	TEI10_Test
36.523-1	2628	-	Rel-12	F	RP-140320	R5-141109	approved	Correction to EMM test case 9.2.1.1.2a	12.0.0	12.1.0	R5	TEI10_Test
36.523-1	2629	-	Rel-12	F	RP-140309	R5-141056	approved	Correction to EUTRA RRC Measurements of CSG cells test case 8.3.4.1	12.0.0	12.1.0	R5	TEI9_Test
36.523-1	2630	-	Rel-12	F	RP-140307	R5-141127	approved	Update of PDCP test case 7.3.6.1	12.0.0	12.1.0	R5	TEI8_Test
36.523-2	0487	-	Rel-11	F	RP-140331	R5-140129	approved	Removal of technical content in 36.523-2 v11.5.0 and substitution with pointer to the next Release	11.5.0	11.6.0	R5	TEI11_Test
36.523-2	0488	-	Rel-12	F	RP-140328	R5-140570	approved	Correct applicabilities for test cases 6.2.4.1 and 6.2.4.3	12.0.0	12.1.0	R5	Cell_FACH_enh-UEConTest
36.523-2	0489	-	Rel-12	F	RP-140309	R5-140590	approved	Removal of pc_ETWS_message_security PICS	12.0.0	12.1.0	R5	TEI9_Test
36.523-2	0490	-	Rel-12	F	RP-140307	R5-140782	approved	Various updates to 36.523-2	12.0.0	12.1.0	R5	TEI8_Test
36.523-2	0491	-	Rel-12	F	RP-140331	R5-140783	approved	Addition of the applicability of eMDT test cases	12.0.0	12.1.0	R5	TEI11_Test
36.523-2	0492	-	Rel-12	F	RP-140307	R5-140784	approved	Update the applicability of EMM test case	12.0.0	12.1.0	R5	TEI8_Test
36.523-2	0493	-	Rel-12	F	RP-140309	R5-140785	approved	Update to applicability of inter-mode test cases	12.0.0	12.1.0	R5	TEI9_Test
36.523-2	0494	-	Rel-12	F	RP-140320	R5-140786	approved	Correction to pc_UL_MIMO PICS	12.0.0	12.1.0	R5	TEI10_Test
36.523-2	0495	-	Rel-12	F	RP-140332	R5-140790	approved	Addition of Intra-band contiguous CA for signaling test	12.0.0	12.1.0	R5	LTE_CA_Rel12-UEConTest
36.523-2	0496	-	Rel-12	F	RP-140321	R5-140939	approved	Applicability of new eMBMS SC test cases	12.0.0	12.1.0	R5	MBMS_LTE_SC-UEConTest
36.523-2	0497	-	Rel-12	F	RP-140325	R5-140941	approved	Applicability of new eICIC test case	12.0.0	12.1.0	R5	eICIC_enh_LTE-UEConTest
36.523-2	0498	-	Rel-12	F	RP-140328	R5-140942	approved	Addition of applicability for test cases 6.2.4.4 and 6.2.4.6	12.0.0	12.1.0	R5	Cell_FACH_enh-UEConTest
36.523-2	0499	-	Rel-12	F	RP-140436	R5-140963	approved	Addition & update of applicabilities for SIMTC TCs	12.0.0	12.1.0	R5	SIMTC-UEConTest
36.523-2	0499	-	Rel-12	F	RP-140329	R5-140963	reissued	Addition and Update of applicabilities for SIMTC TCs	12.0.0		R5	SIMTC-UEConTest
36.523-2	0500	-	Rel-12	F	RP-140437	R5-140966	approved	Addition of applicability for bSRVCC test cases 13.4.3.21, 13.4.3.22 and 13.4.3.23	12.0.0	12.1.0	R5	bSRVCC-UEConTest
36.523-2	0500	-	Rel-12	F	RP-140333	R5-140966	reissued	Addition of applicability for bSRVCC test cases 13.4.3.21, 13.4.3.22 and 13.4.3.23	12.0.0		R5	bSRVCC-UEConTest
36.523-2	0501	1	Rel-12	F	RP-140437	R5-141138	approved	Applicability of new test cases for bSRVCC	12.0.0	12.1.0	R5	bSRVCC-UEConTest
36.523-2	0501	-	Rel-12	F	RP-140333	R5-140967	revised	Applicability of new test cases for bSRVCC	12.0.0		R5	bSRVCC-UEConTest
36.523-2	0502	-	Rel-12	F	RP-140320	R5-140973	approved	Title update for Multilayer aSRVCC test cases 13.4.3.12 and 13.4.3.13	12.0.0	12.1.0	R5	TEI10_Test
36.523-2	0503	-	Rel-12	F	RP-140320	R5-141110	approved	Addition of applicability for new aSRVCC test cases	12.0.0	12.1.0	R5	TEI10_Test
36.523-2	0504	-	Rel-12	F	RP-140320	R5-141112	approved	Introduction of UE CA Inter-band uplink capabilities	12.0.0	12.1.0	R5	TEI10_Test
36.523-3	1894	-	Rel-12	F	RP-140331	R5-140787	approved	Addition to test execution guidelines for EUTRA CA inter-band test cases for band combination with 29A	11.2.0	12.0.0	R5	TEI11_Test
36.523-3	1895	-	Rel-11	F	RP-140327	R5-140788	approved	CA Enhancements: Test Model	11.2.0	11.3.0	R5	LTE_CA_enh-UEConTest
36.523-3	1896	-	Rel-11	F	RP-140307	R5-141113	approved	Routine maintenance and updates	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1897	-	Rel-11	B	RP-140315	R5s130876	approved	LTE_TDD : Addition of LTE-A CA RRC test case 8.3.1.18.1	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1898	-	Rel-11	F	RP-140315	R5s130879	approved	Correction of GCF WI-087 Multilayer Testcases TC 13.1.8, 13.1.9	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1899	-	Rel-11	F	RP-140315	R5s130880	approved	Correction to GCF WI-082 EUTRA ESM Testcase 10.6.1	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1900	-	Rel-11	F	RP-140315	R5s130883	approved	Correction to LTE-GERAN test cases on SNDCP and IP config	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1901	-	Rel-11	B	RP-140315	R5s130886	approved	LTE_TDD : Addition of GCF WI-082 EMM test case 9.2.3.1.15a	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1902	-	Rel-11	B	RP-140315	R5s130888	approved	LTE_TDD : Addition of GCF WI-082 EMM test case 9.2.3.1.18a	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1903	-	Rel-11	B	RP-140315	R5s130890	approved	Addition of RRC MDT test case 8.6.6.1	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1904	-	Rel-11	B	RP-140315	R5s130895	approved	LTE_TDD: Addition of Rel-9 EUTRA RRC Measurement test case 8.3.1.13	11.2.0	11.3.0	R5	TEI9_Test

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
36.523-3	1905	-	Rel-11	F	RP-140315	R5s130898	approved	Correction to Test Frequencies for CA Band Combinations CA_1A_18A and CA_11A_18A .	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1906	-	Rel-11	F	RP-140315	R5s130899	approved	Correction to GCF WI-154 IMS Emergency Call over EPS test case 8.1.2.11	11.2.0	11.3.0	R5	TEI9_Test
36.523-3	1907	-	Rel-11	F	RP-140315	R5s130902	approved	Correction of the setting of Location services indicators in all POS TCs	11.2.0	11.3.0	R5	TEI9_Test
36.523-3	1908	-	Rel-11	F	RP-140315	R5s130903	approved	Correction to GCF WI-081 EUTRA RRC Test Case 8.2.1.5	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1909	-	Rel-11	F	RP-140315	R5s130904	approved	Correction to GCF WI-081 Multilayer SRVCC Test Case 13.4.3.1	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1910	-	Rel-11	F	RP-140315	R5s130915	approved	Correction to Idle Mode Testcase 6.2.3.15	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1911	-	Rel-11	F	RP-140315	R5s130917	approved	13wk43 regression CRs related to IMS Emergency Call test cases	11.2.0	11.3.0	R5	TEI9_Test
36.523-3	1912	-	Rel-11	B	RP-140315	R5s130918	approved	Addition of EUTRA Hybrid CSG Cell test case 6.4.2	11.2.0	11.3.0	R5	TEI9_Test
36.523-3	1913	-	Rel-11	B	RP-140315	R5s130920	approved	LTE_TDD: Addition of EUTRA Hybrid CSG Cell test case 6.4.2	11.2.0	11.3.0	R5	TEI9_Test
36.523-3	1914	-	Rel-11	B	RP-140315	R5s130922	approved	Addition of GCF WI-086 EUTRA <>UTRA CSG test case 6.3.3	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1915	-	Rel-11	F	RP-140315	R5s130929	approved	Correction to GCF WI-086 EUTRA Idle Mode Testcase 6.2.3.31	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1916	-	Rel-11	B	RP-140315	R5s130933	approved	LTE_TDD : Addition of EUTRA Idle Mode test case 6.1.2.15b	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1917	-	Rel-11	B	RP-140315	R5s130935	approved	LTE_TDD : Addition of EUTRA Idle Mode MFBI test case 6.1.2.19	11.2.0	11.3.0	R5	TEI9_Test
36.523-3	1918	-	Rel-11	B	RP-140315	R5s130937	approved	LTE_TDD : Addition of EUTRA Idle Mode MFBI test case 6.1.2.20	11.2.0	11.3.0	R5	TEI9_Test
36.523-3	1919	-	Rel-11	B	RP-140315	R5s130939	approved	LTE_TDD : Addition of EUTRA RRC test case 8.3.1.9a	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1920	-	Rel-11	B	RP-140315	R5s130941	approved	LTE_TDD : Addition of EUTRA RRC test case 8.3.1.11a	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1921	-	Rel-11	B	RP-140315	R5s130943	approved	LTE_TDD : Addition of EUTRA Idle mode test case 6.2.3.1a	11.2.0	11.3.0	R5	TEI9_Test
36.523-3	1922	-	Rel-11	B	RP-140315	R5s130946	approved	LTE_TDD: Addition of GCF WI-162 LTE-A Carrier Aggregation RRC test case 8.2.4.17.1	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1923	-	Rel-11	F	RP-140315	R5s130949	approved	Correction for GCF WI-081 EUTRA MAC test case 7.1.3.6	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1924	-	Rel-11	F	RP-140315	R5s130951	approved	Correction to GCF WI-81 EUTRA RRC latency test cases 8.2.1.5 and 8.2.1.6	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1925	-	Rel-11	F	RP-140315	R5s130960	approved	Correction to GCF WI-162 LTE-A CA test case 8.3.1.18.2	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1926	-	Rel-11	B	RP-140315	R5s130961	approved	LTE_TDD : Addition of EUTRA RRC MFBI test case 8.2.4.22	11.2.0	11.3.0	R5	TEI9_Test
36.523-3	1927	-	Rel-11	F	RP-140315	R5s130964	approved	Corrections to LTE-A CA test case 8.2.4.19.2	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1928	-	Rel-11	F	RP-140315	R5s130965	approved	Correction to QuantityConfig in Measurement Configuration of EUTRA Testcases	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1929	-	Rel-11	B	RP-140315	R5s130967	approved	Addition of EUTRA RRC test case 8.1.3.12b	11.2.0	11.3.0	R5	TEI9_Test
36.523-3	1930	-	Rel-11	F	RP-140315	R5s130969	approved	Correction of Rel-9 EUTRA Idle Mode MFBI test case 6.1.2.20	11.2.0	11.3.0	R5	TEI9_Test
36.523-3	1931	-	Rel-11	F	RP-140315	R5s130970	approved	Correction to GCF WI-086 E-UTRA EMM testcase 9.2.1.2.8	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1932	-	Rel-11	F	RP-140315	R5s130971	approved	Corrections for LTE-A week49 TTCN delivery	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1933	-	Rel-11	B	RP-140315	R5s130975	approved	Addition of EUTRA RRC MDT test case 8.6.6.2	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1934	-	Rel-11	F	RP-140315	R5s130977	approved	Correction to f_EUTRA_IdleUpdated_Step14_15 and test case 8.1.2.11	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1935	-	Rel-11	B	RP-140315	R5s130979	approved	Addition of GCF WI-162 LTE-A Carrier Aggregation test case 8.4.2.7.2	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1936	-	Rel-11	F	RP-140315	R5s130982	approved	Correction of test cases 8.2.4.14a, 8.3.1.15a and 8.3.1.16a	11.2.0	11.3.0	R5	TEI9_Test
36.523-3	1937	-	Rel-11	F	RP-140315	R5s130984	approved	LTE_TDD: Correction of default UE_TXPWR_MAX_RACH	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1938	-	Rel-11	F	RP-140315	R5s130986	approved	Correction of EUTRA Rel-9 Home eNB Enh test case 6.4.2	11.2.0	11.3.0	R5	TEI9_Test

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
36.523-3	1939	-	Rel-11	F	RP-140315	R5s130987	approved	Correction of GCF WI-154 EUTRA Emergency Call Test Case 11.2.1	11.2.0	11.3.0	R5	TEI9_Test
36.523-3	1940	-	Rel-11	B	RP-140315	R5s130988	approved	Addition of GCF WI-154 IMS Emergency Call over EPS test case 11.2.2	11.2.0	11.3.0	R5	TEI9_Test
36.523-3	1941	-	Rel-11	B	RP-140315	R5s130989	approved	Addition of GCF WI-154 IMS Emergency Call over EPS test case 11.2.4	11.2.0	11.3.0	R5	TEI9_Test
36.523-3	1942	-	Rel-11	F	RP-140315	R5s130991	approved	Correction to CA test case 8.3.1.22	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1943	-	Rel-11	B	RP-140315	R5s130992	approved	Addition of EMM testcase 9.2.1.1.7b	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1944	-	Rel-11	F	RP-140315	R5s130994	approved	Correction to GERAN ASP G_CLLC_XID_REQ	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1945	-	Rel-11	B	RP-140315	R5s130995	approved	LTE_TDD : Addition of EUTRA Idle mode test case 6.3.3	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1946	-	Rel-11	B	RP-140315	R5s130997	approved	LTE_TDD : Addition of EUTRA Idle Mode HeNB test case 6.4.5	11.2.0	11.3.0	R5	TEI9_Test
36.523-3	1947	-	Rel-11	B	RP-140315	R5s131000	approved	Addition of GCF WI-103 Rel-8 test case 9.2.1.1.28	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1948	-	Rel-11	F	RP-140315	R5s131002	approved	Correction of GCF WI-151 EUTRA FDD-TDD Testcase 8.3.1.12a	11.2.0	11.3.0	R5	TEI9_Test
36.523-3	1949	-	Rel-11	F	RP-140315	R5s131003	approved	Correction of GCF WI-082 EUTRA CSG Testcase 9.2.3.2.16	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1950	-	Rel-11	F	RP-140315	R5s131013	approved	Correction to functions f_UTRAN_ConfigureCipheringBeforeHO and f_UTRAN_ConfigureCipheringBeforeHO_SRVCC	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1951	-	Rel-11	B	RP-140315	R5s131014	approved	LTE_TDD: Addition of GCF WI-162 LTE-A Carrier Aggregation RRC test case 8.2.4.18.1	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1952	-	Rel-11	B	RP-140315	R5s131016	approved	LTE_TDD: Addition of GCF WI-162 LTE-A Carrier Aggregation RRC test case 8.2.4.19.1	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1953	-	Rel-11	B	RP-140315	R5s131018	approved	LTE_TDD: Addition of GCF WI-162 LTE-A Carrier Aggregation RRC test case 8.2.4.20.1	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1954	-	Rel-11	B	RP-140315	R5s131020	approved	LTE_TDD: Addition of GCF WI-162 LTE-A Carrier Aggregation RRC test case 8.2.4.21.1	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1955	-	Rel-11	B	RP-140315	R5s131022	approved	Addition of GCF WI-162 LTE-A Carrier Aggregation RRC test case 8.2.4.18.1	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1956	-	Rel-11	B	RP-140315	R5s131024	approved	Addition of GCF WI-162 LTE-A Carrier Aggregation RRC test case 8.2.4.17.1	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1957	-	Rel-11	B	RP-140315	R5s131026	approved	Addition of GCF WI-162 LTE-A Carrier Aggregation RRC test case 8.2.4.21.1	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1958	-	Rel-11	B	RP-140315	R5s131032	approved	Addition of GCF WI-162 LTE-A Carrier Aggregation RRC test case 8.2.4.19.1	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1959	-	Rel-11	F	RP-140315	R5s131034	approved	Correction to GCF WI-081 Multilayer SRVCC Test Case 13.4.3.1	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1960	-	Rel-11	B	RP-140315	R5s131035	approved	Addition of LTE-A Minimization of Drive Tests (MDT) Testcase 8.6.2.8	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1961	-	Rel-11	B	RP-140315	R5s131037	approved	Addition of LTE-A Minimization of Drive Tests (MDT) Testcase 8.6.6.3	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1962	-	Rel-11	F	RP-140315	R5s131039	approved	Correction of GCF WI-162 CA test cases 8.3.1.22.1/2, 8.2.4.18.1/2 and 8.2.4.19.1/2	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1963	-	Rel-11	F	RP-140315	R5s131041	approved	Corrections required for LTE-A Band 29.	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1964	-	Rel-11	F	RP-140315	R5s131042	approved	Correction to EUTRA RRC Test Case 8.3.1.16a	11.2.0	11.3.0	R5	TEI9_Test
36.523-3	1965	-	Rel-11	F	RP-140315	R5s140002	approved	Correction of test cases 13.1.7 and 13.1.9	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1966	-	Rel-11	F	RP-140315	R5s140007	approved	LTE_TDD: Correction of Midamble Configuration	11.2.0	11.3.0	R5	TEI8_Test

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36.523-3	1967	-	Rel-11	F	RP-140315	R5s140009	approved	Correction to LTE-A Carrier-Aggregation RRC test case 8.3.1.18.x	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1968	-	Rel-11	F	RP-140315	R5s140010	approved	Correction to LTE-A Carrier-Aggregation RRC test case 8.2.2.3.x	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1969	-	Rel-11	B	RP-140315	R5s140011	approved	Addition of LTE-A NIMTC test case 9.2.1.1.27	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1970	-	Rel-11	B	RP-140315	R5s140031	approved	Addition of GCF WI-154 IMS Emergency Call over EPS test case 8.1.2.12	11.2.0	11.3.0	R5	TEI9_Test
36.523-3	1971	-	Rel-11	F	RP-140315	R5s140032	approved	Correction of GCF WI-86 EUTRA<>UTRA SRVCC test cases 13.4.3.1	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1972	-	Rel-11	B	RP-140315	R5s140041	approved	Addition of LTE-A NIMTC test case 9.2.1.1.2a	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1973	-	Rel-11	F	RP-140315	R5s140045	approved	Correction to GCF WI-087 EMM Test Case 9.2.3.4.1	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1974	-	Rel-11	F	RP-140315	R5s140046	approved	Correction of test frequencies for UTRAN band VI in EUTRAN test cases	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1975	-	Rel-11	F	RP-140315	R5s140072	approved	Correction to EUTRA EMM test cases 9.2.1.2.1b, 9.2.1.2.1c and 9.2.3.2.1b	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1976	-	Rel-11	F	RP-140315	R5s140074	approved	Correction to common template cdr_ATTACH_REQUEST_SRVCC	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1977	-	Rel-11	B	RP-140315	R5s140075	approved	Addition of LTE-A NIMTC test case 9.2.3.1.5a	11.2.0	11.3.0	R5	TEI10_Test
36.523-3	1978	-	Rel-11	F	RP-140315	R5s140078	approved	Correction to EUTRA RRC Inter-RAT Measurements test case 8.3.2.2	11.2.0	11.3.0	R5	TEI8_Test
36.523-3	1979	-	Rel-11	F	RP-140315	R5s140084	approved	Correction to GCF WI-154 IMS Emergency Call over EPS test case 11.2.4	11.2.0	11.3.0	R5	TEI9_Test
36.523-3	1980	-	Rel-11	F	RP-140314	RP-140314	approved	CR to 36.523-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 36.523-3 (prose), Annex A	11.2.0	11.3.0	R5	TEI8_Test
36.833-2-07	0001	-	Rel-12	F	RP-140379	R4-140725	approved	Editorial corrections on TR 36.833-2-07	12.0.0	12.1.0	R4	LTE_CA_NC_B7-Core
36.903	0110	-	Rel-12	F	RP-140320	R5-140083	approved	Add Test Tolerance analyses for TS 36.521-3 Test cases 8.20.1 and 8.20.2	12.0.0	12.1.0	R5	TEI10_Test
36.903	0111	-	Rel-10	F	RP-140320	R5-140130	approved	Removal of technical content in 36.903 v10.4.0 and substitution with pointer to the next Release	10.4.0	10.5.0	R5	TEI10_Test
36.903	0112	-	Rel-11	F	RP-140331	R5-140131	approved	Removal of technical content in 36.903 v11.0.0 and substitution with pointer to the next Release	11.0.0	11.1.0	R5	TEI11_Test
36.903	0113	-	Rel-12	F	RP-140307	R5-140233	approved	Add Test Tolerance analyses for TS 36.521-3 Test case 9.1.16.2 and update 9.1.1.2+9.1.2.2	12.0.0	12.1.0	R5	TEI8_Test
36.903	0114	-	Rel-12	F	RP-140307	R5-140235	approved	Add Test Tolerance analyses for TS 36.521-3 Test case 9.1.18.1 and update 9.2.3.1+9.2.4.1	12.0.0	12.1.0	R5	TEI8_Test
36.903	0115	-	Rel-12	F	RP-140307	R5-140237	approved	Add Test Tolerance analyses for TS 36.521-3 Test case 9.1.18.2 and update 9.2.3.2+9.2.4.2	12.0.0	12.1.0	R5	TEI8_Test
36.903	0116	-	Rel-12	F	RP-140320	R5-140239	approved	Add Test Tolerance analysis for TS 36.521-3 Test case 8.20.4	12.0.0	12.1.0	R5	TEI10_Test
36.903	0117	-	Rel-12	F	RP-140307	R5-141051	approved	Addition of test tolerance analysis for TC 7.1.5	12.0.0	12.1.0	R5	TEI8_Test
36.903	0118	-	Rel-12	F	RP-140307	R5-140288	approved	Addition of test tolerance analysis for TC 7.3.24	12.0.0	12.1.0	R5	TEI8_Test
36.903	0119	-	Rel-12	F	RP-140307	R5-140292	approved	Addition of test tolerance analysis for TC 9.1.17.2	12.0.0	12.1.0	R5	TEI8_Test
36.903	0120	-	Rel-12	F	RP-140307	R5-140294	approved	Addition of test tolerance analysis for TC 9.3.3	12.0.0	12.1.0	R5	TEI8_Test
36.903	0121	-	Rel-12	F	RP-140307	R5-140296	approved	Addition of test tolerance analysis for TC 9.4.3	12.0.0	12.1.0	R5	TEI8_Test
36.903	0122	-	Rel-12	F	RP-140307	R5-140864	approved	Addition of test tolerance analysis for TC 9.1.16.1	12.0.0	12.1.0	R5	TEI8_Test
37.104	0191	1	Rel-10	F	RP-140368	R4-141155	approved	Clarification of interfering signals for receiver intermodulation requirement in MSR	10.13.0	10.14.0	R4	MSR_NC-Core

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
37.104	0192	-	Rel-11	A	RP-140368	R4-140828	approved	Clarification of interfering signals for receiver intermodulation requirement in MSR	11.7.0	11.8.0	R4	MSR_NC-Core
37.104	0193	-	Rel-12	A	RP-140370	R4-140833	approved	Clarification of interfering signals for receiver intermodulation requirement in MSR	12.2.0	12.3.0	R4	MB_MSR_RF-Core
37.141	0258	1	Rel-11	F	RP-140372	R4-141197	approved	Correction on manufacturer's declaration in TS37.141	11.7.0	11.8.0	R4	MB_MSR_RF-Perf
37.141	0259	-	Rel-12	A	RP-140372	R4-140051	approved	Correction on manufacturer's declaration in TS37.141	12.2.0	12.3.0	R4	MB_MSR_RF-Perf
37.141	0260	1	Rel-11	F	RP-140372	R4-141213	approved	Some corrections for MB-MSR in TS 37.141	11.7.0	11.8.0	R4	MB_MSR_RF-Perf
37.141	0261	-	Rel-12	A	RP-140372	R4-140111	approved	Some corrections for MB-MSR in TS 37.141	12.2.0	12.3.0	R4	MB_MSR_RF-Perf
37.141	0263	-	Rel-10	F	RP-140368	R4-140177	approved	Correction on RF channels	10.12.0	10.13.0	R4	MSR_NC-Perf
37.141	0264	-	Rel-11	A	RP-140368	R4-140179	approved	Correction on RF channels	11.7.0	11.8.0	R4	MSR_NC-Perf
37.141	0265	-	Rel-12	A	RP-140368	R4-140181	approved	Correction on RF channels	12.2.0	12.3.0	R4	MSR_NC-Perf
37.141	0266	1	Rel-9	F	RP-140367	R4-141154	approved	Test models for BC3 BS	9.11.0	9.12.0	R4	RInImp9-Rfmulti
37.141	0267	-	Rel-10	A	RP-140367	R4-140205	approved	Test models for BC3 BS	10.12.0	10.13.0	R4	RInImp9-Rfmulti
37.141	0268	-	Rel-11	A	RP-140367	R4-140207	approved	Test models for BC3 BS	11.7.0	11.8.0	R4	RInImp9-Rfmulti
37.141	0269	-	Rel-12	A	RP-140367	R4-140208	approved	Test models for BC3 BS	12.2.0	12.3.0	R4	RInImp9-Rfmulti
37.141	0270	1	Rel-9	F	RP-140367	R4-141153	approved	Differential accuracy of Primary CCPCH power	9.11.0	9.12.0	R4	RInImp9-Rfmulti
37.141	0271	-	Rel-10	A	RP-140367	R4-140212	approved	Differential accuracy of Primary CCPCH power	10.12.0	10.13.0	R4	RInImp9-Rfmulti
37.141	0272	-	Rel-11	A	RP-140367	R4-140213	approved	Differential accuracy of Primary CCPCH power	11.7.0	11.8.0	R4	RInImp9-Rfmulti
37.141	0273	-	Rel-12	A	RP-140367	R4-140214	approved	Differential accuracy of Primary CCPCH power	12.2.0	12.3.0	R4	RInImp9-Rfmulti
37.141	0278	1	Rel-10	F	RP-140368	R4-141156	approved	Clarification of interfering signals for receiver intermodulation requirement in MSR	10.12.0	10.13.0	R4	MSR_NC-Perf
37.141	0279	1	Rel-11	F	RP-140372	R4-141194	approved	Multi-band corrections in 37.141 chapter 6	11.7.0	11.8.0	R4	MB_MSR_RF-Perf
37.141	0280	-	Rel-11	A	RP-140368	R4-140838	approved	Clarification of interfering signals for receiver intermodulation requirement in MSR	11.7.0	11.8.0	R4	MSR_NC-Perf
37.141	0281	-	Rel-12	A	RP-140368	R4-140840	approved	Clarification of interfering signals for receiver intermodulation requirement in MSR	12.2.0	12.3.0	R4	MSR_NC-Perf
37.141	0282	-	Rel-12	A	RP-140372	R4-140841	approved	Multi-band corrections in 37.141 chapter 6	12.2.0	12.3.0	R4	MB_MSR_RF-Perf
37.141	0283	1	Rel-11	F	RP-140372	R4-141195	approved	Multi-band corrections in 37.141 chapter 7	11.7.0	11.8.0	R4	MB_MSR_RF-Perf
37.141	0284	-	Rel-12	A	RP-140372	R4-140881	approved	Multi-band corrections in 37.141 chapter 7	12.2.0	12.3.0	R4	MB_MSR_RF-Perf
37.320	0061	-	Rel-12	B	RP-140347	R2-140880	approved	Introduction of Cell_FACH with Second DRX to 3G Logged MDT	11.3.0	12.0.0	R2	TEI12, Cell_FACH_enh-Core, MDT_UMTSLTE-Core
37.571-1	0054	-	Rel-10	F	RP-140309	R5-140107	approved	Corrections to PRS_RA in RSTD tests	10.6.0	10.7.0	R5	TEI9_Test
37.571-1	0055	-	Rel-10	F	RP-140320	R5-140278	approved	Addition of E-UTRA band groups	10.6.0	10.7.0	R5	TEI10_Test
37.571-1	0056	-	Rel-10	F	RP-140309	R5-140308	approved	LBS RF: Aperiodic CQI configuration for 1.4 MHz bandwidth subtests	10.6.0	10.7.0	R5	TEI9_Test
37.571-1	0057	-	Rel-10	F	RP-140320	R5-141033	approved	RSTD test case updates	10.6.0	10.7.0	R5	TEI10_Test
37.571-1	0058	-	Rel-10	F	RP-140325	R5-140875	approved	Additions to TC 8.1.6 E-UTRAN TDD UE Rx-Tx time difference (feICIC)	10.6.0	10.7.0	R5	eICIC_enh_LTE-UEConTest
37.571-1	0059	-	Rel-10	F	RP-140325	R5-141010	approved	Additions to TC 8.1.5 E-UTRAN FDD UE Rx-Tx time difference (feICIC)	10.6.0	10.7.0	R5	eICIC_enh_LTE-UEConTest
37.571-2	0035	-	Rel-10	F	RP-140309	R5-140133	approved	Add Assistance Data delivery to test 7.3.5.1	10.5.0	10.6.0	R5	TEI9_Test
37.571-2	0036	-	Rel-10	F	RP-140309	R5-140606	approved	Correction to LTE UE Positioning test case 7.2.1.2	10.5.0	10.6.0	R5	TEI9_Test
37.571-2	0037	-	Rel-10	F	RP-140309	R5-140608	approved	Correction to LTE UE Positioning test case 7.2.1.3	10.5.0	10.6.0	R5	TEI9_Test
37.571-2	0038	-	Rel-10	F	RP-140320	R5-140793	approved	Correction to message content for inter-frequency RSTD measurement indication test case	10.5.0	10.6.0	R5	TEI10_Test
37.571-4	0023	-	Rel-10	F	RP-140307	R5-140326	approved	A-GNSS ASN.1 reference	10.4.0	10.5.0	R5	TEI8_Test
37.571-4	0024	-	Rel-10	F	RP-140317	R5s130913	approved	Correction to function fl_TC_7_3_5_1_GNSS_TestBody	10.4.0	10.5.0	R5	TEI9_Test

Spec	CR	Rev	Phase	Cat	Plenary doc	WG doc	TSG status	Subject	CR written to	Resulting vers	WG	Workitem
37.571-4	0025	-	Rel-10	F	RP-140317	R5s130914	approved	Correction to svID values in AcquisitionAssist and AuxiliaryInformation	10.4.0	10.5.0	R5	TEI9_Test
37.571-4	0026	-	Rel-10	B	RP-140317	R5s131009	approved	Addition of EUTRA UE Positioning test case 7.3.5.1_2s	10.4.0	10.5.0	R5	TEI9_Test
37.571-4	0027	-	Rel-10	B	RP-140317	R5s131011	approved	Addition of EUTRA UE Positioning test case 7.3.5.1_4s	10.4.0	10.5.0	R5	TEI9_Test
37.571-4	0028	-	Rel-10	F	RP-140316	RP-140316	approved	CR to 37.571-4: Add new verified and e-mail agreed TTCN test cases in the TC lists in 37.571-4 (prose), Annex A	10.4.0	10.5.0	R5	TEI9_Test
37.571-5	0066	-	Rel-10	F	RP-140309	R5-140198	approved	Adjustment of SV IDs of Satellites to be simulated	10.6.0	10.7.0	R5	TEI9_Test
37.571-5	0067	-	Rel-10	F	RP-140309	R5-140377	approved	LBS Perf: Update of headers of some GNSS acquisition assistance data files	10.6.0	10.7.0	R5	TEI9_Test
37.571-5	0068	-	Rel-10	F	RP-140309	R5-140378	approved	LBS Sig: Removal of redundant inappropriate files from GNSS_Data_Sig_V7.zip file	10.6.0	10.7.0	R5	TEI9_Test
37.571-5	0069	-	Rel-10	F	RP-140309	R5-140383	approved	LBS Perf: Introducing Ephemeris files in Rinex format	10.6.0	10.7.0	R5	TEI9_Test
37.571-5	0070	-	Rel-10	F	RP-140309	R5-140384	approved	LBS Sig: Introducing Ephemeris files in Rinex format	10.6.0	10.7.0	R5	TEI9_Test
37.571-5	0071	-	Rel-10	F	RP-140309	R5-140794	approved	LBS Sig: Clarification on usage of acquisition assistance files	10.6.0	10.7.0	R5	TEI9_Test
37.571-5	0072	-	Rel-10	F	RP-140309	R5-140795	approved	LBS Sig: Changing the name of Almanac files not in Yuma format	10.6.0	10.7.0	R5	TEI9_Test
37.571-5	0073	-	Rel-10	F	RP-140309	R5-140873	approved	LBS Perf: Clarification on usage of acquisition assistance files	10.6.0	10.7.0	R5	TEI9_Test
37.571-5	0074	-	Rel-10	F	RP-140309	R5-140874	approved	LBS Perf: Changing the name of Almanac files not in Yuma format	10.6.0	10.7.0	R5	TEI9_Test
37.571-5	0075	-	Rel-10	F	RP-140309	R5-140879	approved	Corrections to GLONASS GANSS Day and gnss-DayNumber values	10.6.0	10.7.0	R5	TEI9_Test
37.571-5	0076	-	Rel-10	F	RP-140309	R5-140900	approved	Corrections to GLONASS GANSS Day and gnss-DayNumber values	10.6.0	10.7.0	R5	TEI9_Test
37.571-5	0077	-	Rel-10	F	RP-140320	R5-141034	approved	RSTD value updates	10.6.0	10.7.0	R5	TEI10_Test
37.812	0005	-	Rel-11	D	RP-140372	R4-140112	approved	Update of TR37.812	11.2.0	11.3.0	R4	MB_MSR_RF-Perf
37.901	0031	-	Rel-11	F	RP-140331	R5-140113	approved	Update References and Definitions in TR 37.901	11.9.0	11.10.0	R5	TEI11_Test
37.901	0032	-	Rel-11	F	RP-140331	R5-141055	approved	Missing uplink reference channel for uplink tests	11.9.0	11.10.0	R5	TEI11_Test
37.901	0033	-	Rel-11	F	RP-140331	R5-141054	approved	Beamforming model and power allocation for DL performance tests with user specific reference symbols	11.9.0	11.10.0	R5	TEI11_Test
37.901	0034	-	Rel-11	F	RP-140331	R5-140569	approved	Correction to Mapping of UE reported CQI and MCS (LTE)	11.9.0	11.10.0	R5	TEI11_Test
37.902	0003	1	Rel-11	F	RP-140383	R4-141170	approved	CR to TR37.902 on improving tablets definition	11.1.0	11.2.0	R4	LTE_UTRA_TRP_TRS-Core
37.977	0001	1	Rel-12	F	RP-140376	R4-141167	approved	Clarifications to Single Cluster Channel Model in TR 37.977 Clause 6	12.0.0	12.1.0	R4	HSPA_LTE_measRP_MIMO-Perf
37.977	0002	-	Rel-12	F	RP-140376	R4-140451	approved	Significant Figures for AoAs and AoDs for UMa-based Channel Models in TR 37.977	12.0.0	12.1.0	R4	HSPA_LTE_measRP_MIMO-Perf
37.977	0004	-	Rel-12	F	RP-140376	R4-140997	approved	Clarifications to Channel Model Validation in TR 37.977 Clause 8	12.0.0	12.1.0	R4	HSPA_LTE_measRP_MIMO-Perf

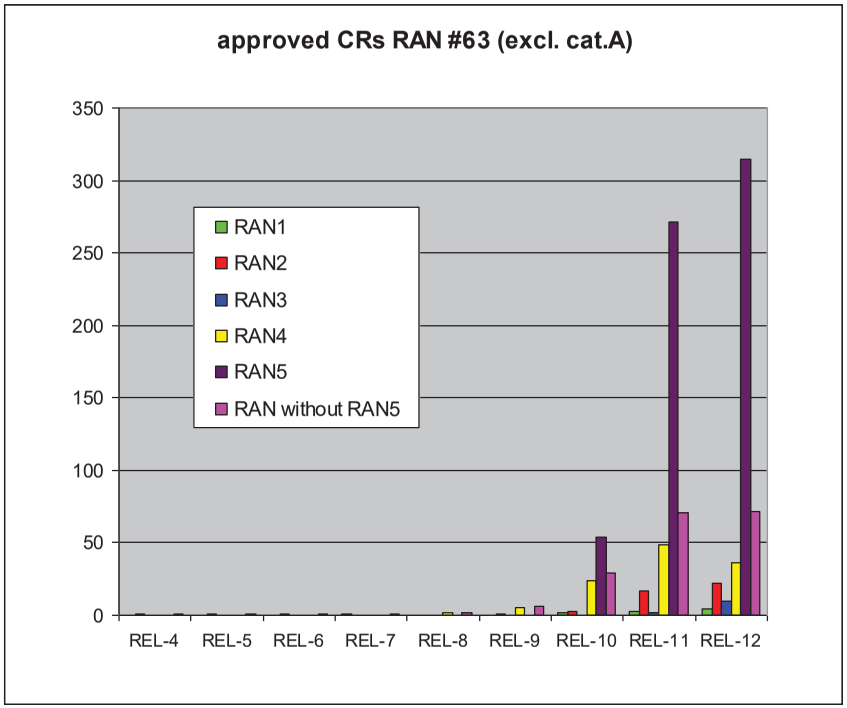


Fig. E-1: Approved CRs (excluding category A CRs) of RAN #63 per WG and release

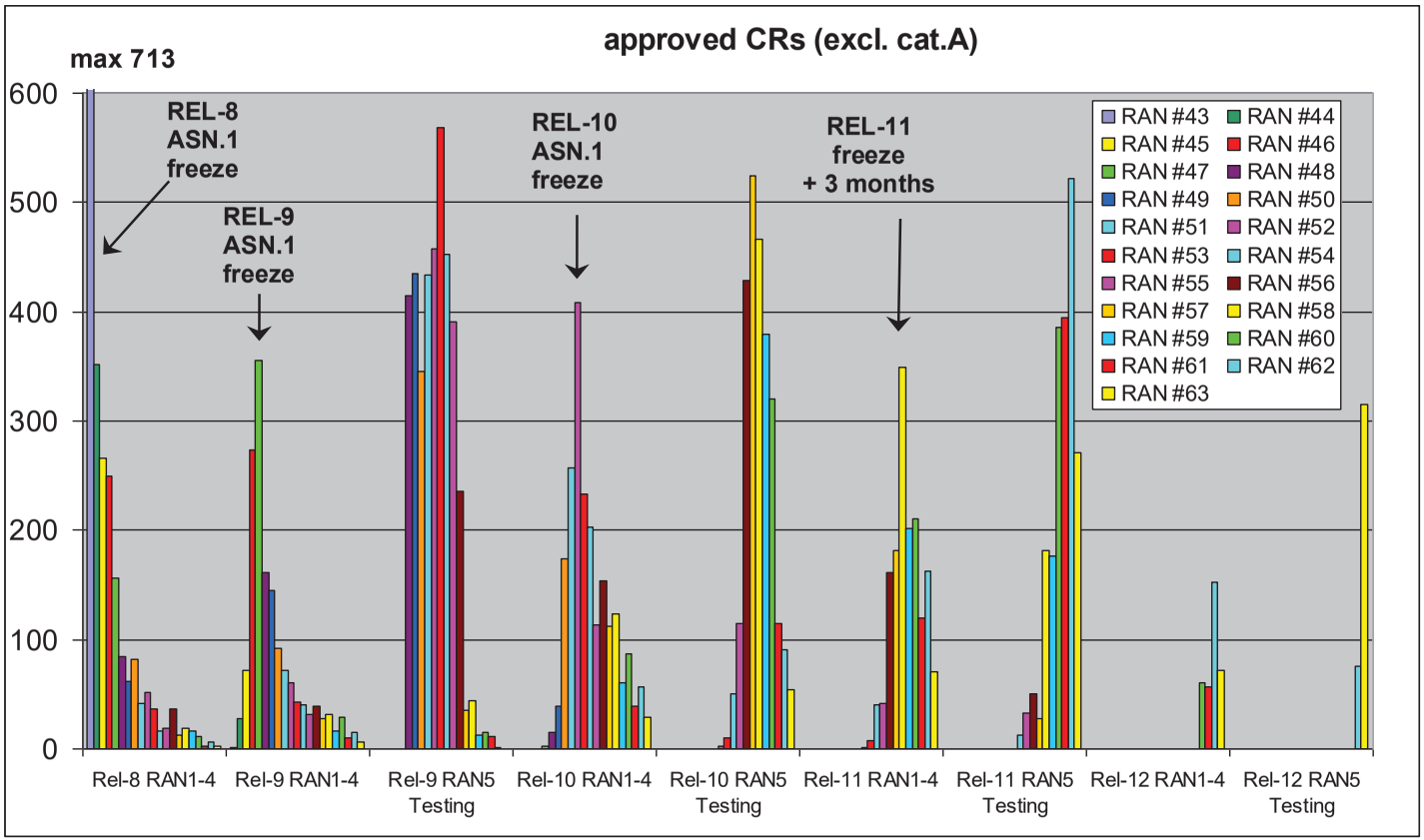


Fig. E-2: Approved CRs (excluding category A CRs) of previous RAN meetings per release
REL freeze: REL-8: RAN #42, REL-9: RAN #46, REL-10: RAN #51, REL-11: RAN #57
ASN.1 freeze: REL-8: RAN #43, REL-9: RAN #47, REL-10: RAN #52 (apart from Un), REL-11: RAN #59

Annex F:
Summary of RAN work items (WI) and study items (SI)

An overview of recent RAN work items and study items (including the new WIs & SIs approved at this meeting) is attached to this report.

This overview is used as input for the 3GPP workplan which lists all 3GPP work and study items.

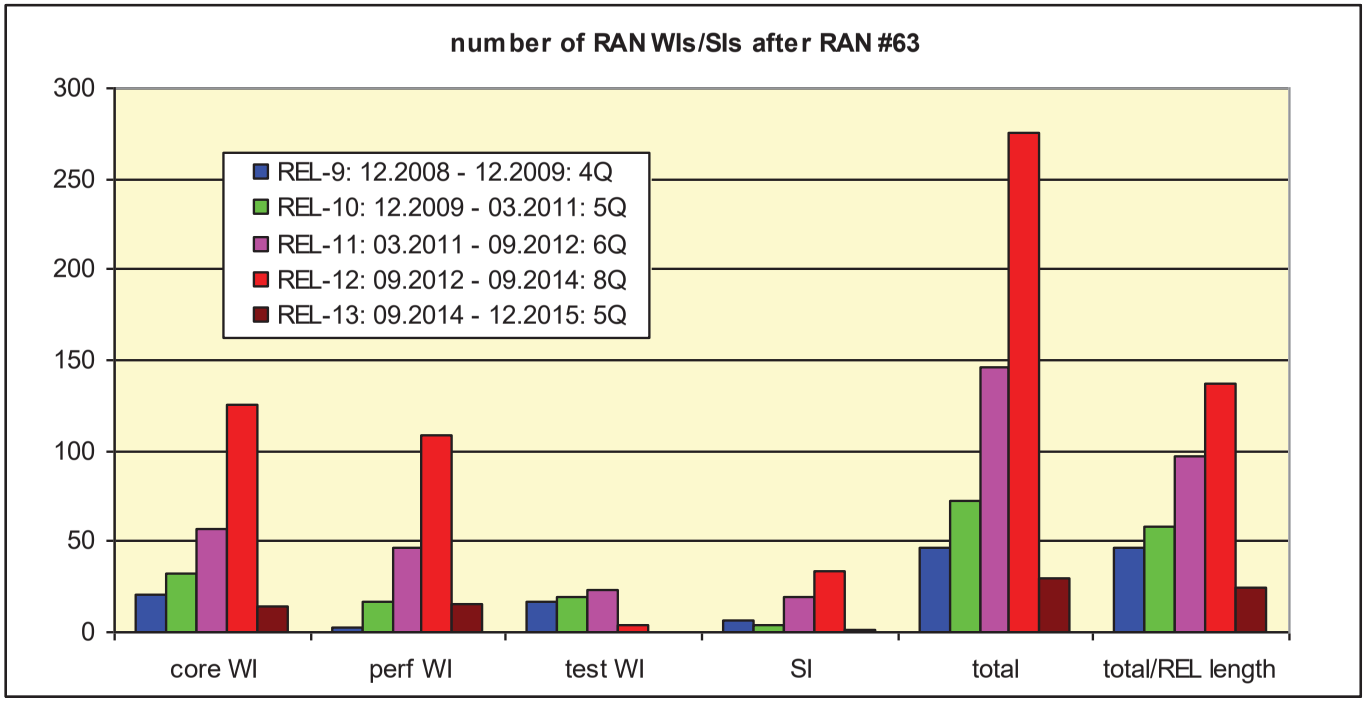
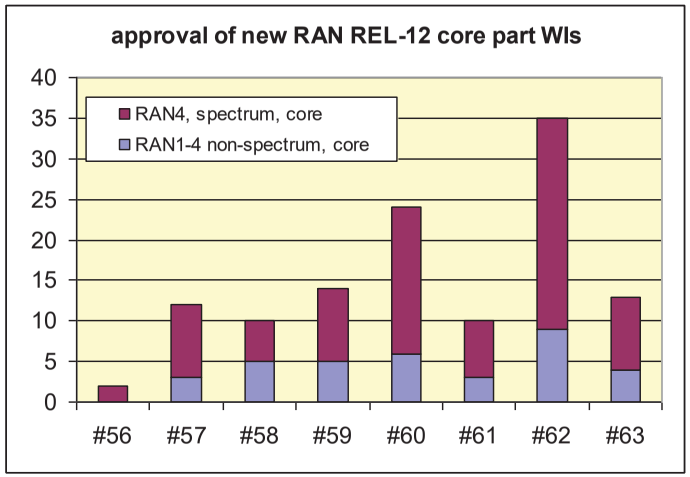
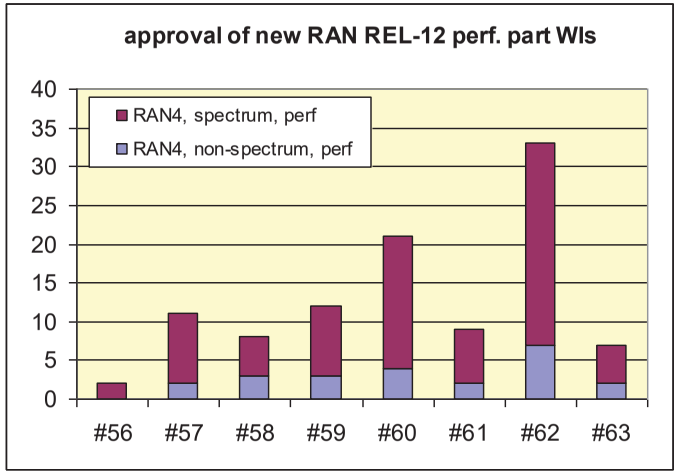
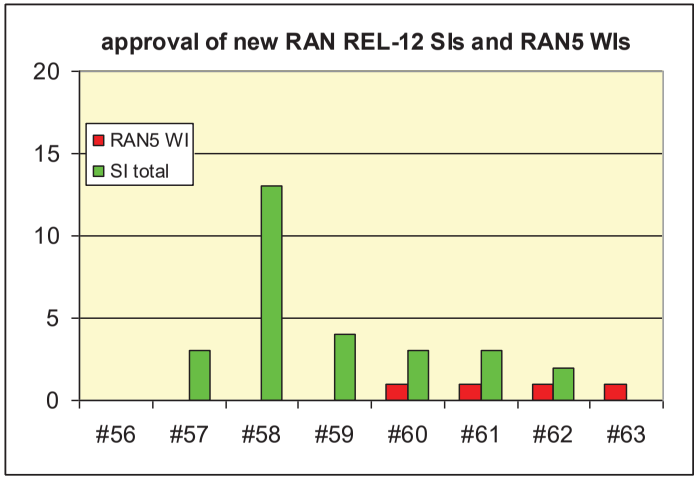


Fig. F-1: Number of <u>all</u> RAN work items (WI) and RAN study items (SI) in the different releases after RAN #63 (NOTE: An extension of REL-12 until Sep.14 is already included here.)







REL-11 freeze: **RAN #57, Sep.12**
REL-11 ASN.1 freeze: **RAN #59, March 13**
REL-12 freeze: **RAN #65, Sep.14**
REL-12 ASN.1 freeze: **RAN #66, Dec.14**

Fig. F-2: Overview of <u>new</u> REL-12 WIs and SIs per RAN meeting

(NOTE: An extension of REL-12 until Sep.14 is already included here.)

Annex G:
Actions decided by RAN #63

No action items allocated.

Annex H:
History

Document history		
Date	**TSG RAN Tdoc**	**Subject**
02.03.2014	-	Skeleton report for RAN #63 provided before the meeting.
07.03.2014	-	Draft report of RAN #63 v1.0 (this version is also submitted as SP-140162 to SA #63 for information)
08.06.2014	RP-140531	Draft report of RAN #63 v2.0 (with revision marks relative to v1.0)
10.06.2014	RP-140908	Report of RAN #63 as approved by RAN #64

In case of comments/questions/corrections please contact:

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Appendix 28

www.3gpp.org / ftp / Specs / archive / 36_series / 36.213

	sort by name/desc	sort by date/desc	sort by size/desc
36213-010.zip	36213-010.zip	2006/10/13 8:05	40 KB
36213-020.zip	36213-020.zip	2007/01/03 7:50	89,2 KB
36213-021.zip	36213-021.zip	2007/02/07 15:28	45,3 KB
36213-100.zip	36213-100.zip	2007/03/19 15:45	45,6 KB
36213-120.zip	36213-120.zip	2007/06/13 17:52	44,2 KB
36213-200.zip	36213-200.zip	2007/09/24 9:01	58,6 KB
36213-210.zip	36213-210.zip	2007/09/24 9:01	58,4 KB
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36213-830.zip	36213-830.zip	2008/06/18 10:42	290,6 KB
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36213-a70.zip	36213-a70.zip	2012/09/18 17:24	1145 KB

sort by name/desc	sort by date/desc	sort by size/desc
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36213-b30.zip	2013/06/25 13:58	1508,9 KB
36213-b40.zip	2013/09/20 15:29	1524,2 KB
36213-b50.zip	2013/12/15 8:18	1491,4 KB
36213-b60.zip	2014/03/19 10:37	1357,4 KB
36213-b70.zip	2014/06/19 14:34	1357,9 KB
36213-b80.zip	2014/09/22 14:49	1358,2 KB
36213-b90.zip	2015/01/03 21:50	1360 KB
36213-ba0.zip	2015/03/16 15:20	1359,9 KB
36213-bb0.zip	2015/06/25 19:53	1370,4 KB
36213-bc0.zip	2016/09/29 10:17	1368,8 KB
36213-bd0.zip	2017/09/26 19:59	1371,9 KB
36213-c00.zip	2013/12/15 9:48	1599,9 KB
36213-c10.zip	2014/03/19 12:16	1421,5 KB
36213-c20.zip	2014/06/30 20:36	1650,3 KB
36213-c30.zip	2014/09/26 7:58	1691,2 KB
36213-c40.zip	2015/01/07 7:14	1820,9 KB
36213-c50.zip	2015/03/25 21:24	1671 KB
36213-c60.zip	2015/07/03 4:34	1801,1 KB
36213-c70.zip	2015/09/24 16:06	1843,9 KB
36213-c80.zip	2015/12/09 10:51	1849,2 KB
36213-c90.zip	2016/03/28 16:30	1848,8 KB
36213-c91.zip	2016/03/31 14:21	1849,1 KB
36213-ca0.zip	2016/06/30 12:55	1849,8 KB
36213-cb0.zip	2016/09/29 11:02	1849,4 KB
36213-cc0.zip	2017/09/26 20:01	1850 KB

sort by name/desc	sort by date/desc	sort by size/desc
36213-cd0.zip	2018/10/01 18:09	1854,1 KB
36213-d00.zip	2016/01/05 16:38	2956,6 KB
36213-d01.zip	2016/01/26 17:05	2956,8 KB
36213-d10.zip	2016/03/29 21:25	3197,1 KB
36213-d11.zip	2016/03/31 14:18	3197,4 KB
36213-d20.zip	2016/06/30 12:57	3361,8 KB
36213-d30.zip	2016/09/29 11:04	3386,6 KB
36213-d40.zip	2017/01/02 16:37	3399,9 KB
36213-d50.zip	2017/03/23 11:57	3403,7 KB
36213-d60.zip	2017/06/23 20:15	3420,7 KB
36213-d70.zip	2017/09/26 19:58	3419,3 KB
36213-d80.zip	2018/01/09 16:52	3439,6 KB
36213-d90.zip	2018/04/03 13:23	3272,9 KB
36213-da0.zip	2018/07/08 20:30	3303,3 KB
36213-db0.zip	2018/10/01 18:08	3300,1 KB
36213-dc0.zip	2019/01/11 14:15	3307,5 KB
36213-dd0.zip	2019/03/28 10:49	3306,6 KB
36213-de0.zip	2019/06/24 9:59	3298,4 KB
36213-df0.zip	2020/01/06 15:28	3252,7 KB
36213-dg0.zip	2020/04/03 11:15	3249,1 KB
36213-e00.zip	2016/09/29 11:07	3557,3 KB
36213-e10.zip	2017/01/02 16:39	3615 KB
36213-e20.zip	2017/03/23 13:03	3902,4 KB
36213-e30.zip	2017/06/23 20:16	3940,7 KB
36213-e40.zip	2017/09/26 19:56	4002,8 KB
36213-e50.zip	2018/01/10 6:57	3994,7 KB
36213-e60.zip	2018/04/03 13:24	3731,4 KB
36213-e70.zip	2018/07/08 20:50	3779,4 KB
36213-e80.zip	2018/10/01 18:06	3693,4 KB
36213-e90.zip	2019/01/11 14:16	3704,3 KB
36213-ea0.zip	2019/03/28 10:53	3711,5 KB
36213-eb0.zip	2019/06/24 9:57	3707 KB
36213-ec0.zip	2019/09/28 19:54	3650 KB
36213-ed0.zip	2020/01/06 15:30	3655,1 KB

sort by name/desc	sort by date/desc	sort by size/desc
36213-ee0.zip	2020/04/03 11:16	3652,8 KB
36213-ef0.zip	2020/07/14 9:48	3653,8 KB
36213-eg0.zip	2020/10/01 15:17	3657 KB
36213-eh0.zip	2021/06/30 20:40	4126,1 KB
36213-f00.zip	2018/01/16 16:05	4103,9 KB
36213-f10.zip	2018/04/03 13:25	3856 KB
36213-f20.zip	2018/07/19 9:47	3899,6 KB
36213-f30.zip	2018/10/01 18:05	3943,8 KB
36213-f40.zip	2019/01/11 14:17	3977,3 KB
36213-f50.zip	2019/03/28 12:22	3991,1 KB
36213-f60.zip	2019/06/24 9:56	3992,7 KB
36213-f70.zip	2019/09/28 19:56	3953,3 KB
36213-f80.zip	2020/01/06 15:31	3925,8 KB
36213-f90.zip	2020/04/03 11:18	3926,4 KB
36213-fa0.zip	2020/07/14 9:49	3924,9 KB
36213-fb0.zip	2020/10/01 15:18	3919,7 KB
36213-fc0.zip	2021/01/08 8:10	3922,5 KB
36213-fd0.zip	2021/03/31 7:58	4203,9 KB
36213-fe0.zip	2021/06/30 20:41	4225,4 KB
36213-ff0.zip	2021/09/28 7:38	4254,6 KB
36213-fg0.zip	2022/09/21 10:01	4212,1 KB
36213-g00.zip	2020/01/14 15:39	4081,8 KB
36213-g10.zip	2020/04/03 11:20	4107,3 KB
36213-g20.zip	2020/07/14 9:51	4114,1 KB
36213-g30.zip	2020/10/01 15:19	4120,1 KB
36213-g40.zip	2021/01/08 8:12	4126,5 KB
36213-g50.zip	2021/03/31 7:59	4436 KB
36213-g60.zip	2021/06/30 20:42	4463,9 KB
36213-g70.zip	2021/09/28 7:40	4484 KB
36213-g71.zip	2021/10/25 18:55	4482,1 KB
36213-g80.zip	2022/01/05 19:35	4483,2 KB
36213-g90.zip	2022/09/21 10:03	4437,3 KB
36213-ga0.zip	2024/01/09 9:09	4423,4 KB
36213-h00.zip	2022/01/05 19:37	4526,4 KB

sort by name/desc	sort by date/desc	sort by size/desc
36213-h10.zip	2022/04/01 20:43	4509,3 KB
36213-h20.zip	2022/06/23 7:04	4423,8 KB
36213-h30.zip	2022/09/21 10:04	4434,8 KB
36213-h40.zip	2023/01/04 15:12	4422 KB
36213-h50.zip	2023/03/30 8:07	4440,7 KB
36213-h60.zip	2024/01/09 9:12	4436,4 KB
36213-i00.zip	2023/09/28 9:35	4492,3 KB
36213-i10.zip	2024/01/09 9:14	4483,5 KB
36213-i20.zip	2024/03/29 18:01	4476,3 KB

141 items.