

Exhibit 1002

DOCKET NO: 512821US

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :
MITSURU MOCHIZUKI, ET AL. : ATTN: APPLICATION DIVISION
SERIAL NO: 15/956,384 :
FILED: APRIL 18, 2018 :
FOR: COMMUNICATION SYSTEM AND :
COMMUNICATION TERMINAL :
DEVICE :

PRELIMINARY AMENDMENT

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

Commissioner:

Prior to examination on the merits, please amend the above-identified application as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 4 of this paper.

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Canceled).

Claim 2 (New): A communication system comprising a base station device and a communication terminal device that performs radio communication with the base station device, wherein

the base station device configures a non-associated cell including only a resource for downlink, the resource for downlink being allocated to downlink communication to the communication terminal device, the non-associated cell not including a resource for uplink that is allocated to uplink communication from the communication terminal device,

the base station device configures an associated cell including another resource for downlink and a resource for uplink, the another resource for downlink being allocated to the downlink communication to the communication terminal device, the resource for uplink being allocated to the uplink communication from the communication terminal device, and

the communication terminal device performs the downlink communication using the non-associated cell and the associated cell and performs the uplink communication using the associated cell.

Claim 3 (New): A communication terminal device performing radio communication with a base station device that configures an associated cell and a non-associated cell, wherein

the communication terminal device performs uplink communication using the associated cell including a resource for uplink and a resource for downlink, the resource for uplink being allocated to the uplink communication to the base station device, the resource

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Preliminary Amendment

for downlink being allocated to the downlink communication from the base station device,
and

the communication terminal device performs downlink communication using the
associated cell and the non-associated cell including only another resource for downlink, the
another resource for downlink being allocated to the downlink communication from the base
station device.

Docket No. 512821US
Preliminary Amendment

REMARKS

Favorable consideration of this application, in view of the present amendments, is respectfully requested.

Claims 2-3 are pending and newly added. Claim 1 is canceled without prejudice or disclaimer. No new matter is introduced.

In view of the foregoing it is believed that this application is in condition for formal examination on the merits. An early and favorable action is respectfully requested.

Respectfully Submitted,

OBLON, McCLELLAND,
MAIER & NEUSTADT, L.L.P.

/Aldo Martinez/

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/956,384	04/18/2018	Mitsuru MOCHIZUKI	512821US	2485

22850	7590	06/01/2018
OBLON, MCCLELLAND, MAIER & NEUSTADT, L.L.P.		
1940 DUKE STREET		
ALEXANDRIA, VA 22314		

EXAMINER	
MILLER, BRANDON J	

ART UNIT	PAPER NUMBER
2645	

NOTIFICATION DATE	DELIVERY MODE
06/01/2018	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
tfarrell@oblon.com

Office Action Summary	Application No. 15/956,384	Applicant(s) MOCHIZUKI ET AL.	
	Examiner BRANDON J. MILLER	Art Unit 2645	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 4/19/2018.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☒ Claim(s) 2 and 3 is/are pending in the application.
5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☒ Claim(s) 2 and 3 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10) ☒ The specification is objected to by the Examiner.

11) ☒ The drawing(s) filed on 4/18/2018 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a) ☒ All b) ☐ Some** c) ☐ None of the:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☒ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)
Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

4) ☐ Other: _____.

The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

Specification

I. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Allowable Subject Matter

II. The following is a statement of reasons for the indication of allowable subject matter:

Claim 2 contains allowable subject matter because Ishida does not teach wherein *the base station device configures an associated cell including another resource for downlink and a resource for uplink*, the another resource for downlink being allocated to the downlink communication to the communication terminal device, the resource for uplink being allocated to the uplink communication from the communication terminal device, and *the communication terminal device performs the downlink communication using the non-associated cell and the associated cell and performs the uplink communication using the associated cell*.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible

harassment by multiple assignees. A nonstatutory double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on nonstatutory double patenting provided the reference application or patent either is shown to be commonly owned with the examined application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. See MPEP § 717.02 for applications subject to examination under the first inventor to file provisions of the AIA as explained in MPEP § 2159. See MPEP §§ 706.02(1)(1) - 706.02(1)(3) for applications not subject to examination under the first inventor to file provisions of the AIA. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The USPTO Internet website contains terminal disclaimer forms which may be used. Please visit www.uspto.gov/patent/patents-forms. The filing date of the application in which the form is filed determines what form (e.g., PTO/SB/25, PTO/SB/26, PTO/AIA/25, or PTO/AIA/26) should be used. A web-based eTerminal Disclaimer may be filled out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-

processed and approved immediately upon submission. For more information about eTerminal Disclaimers, refer to www.uspto.gov/patents/process/file/efs/guidance/eTD-info-I.jsp.

III. Claims 2-3 are rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1 of U.S. Patent No. 9,980,251 B2. Although the claims at issue are not identical, they are not patentably distinct from each other because the claims of the 9,980,251 patent teach similar limitations on performing radio communication between a base station and a communication terminal device.

For example:

Regarding claim 2 the 9,980,251 patent teaches communication system comprising a base station device and a communication terminal device that performs radio communication with the base station device, wherein the base station device configures a non-associated cell including only a resource for downlink, the resource for downlink being allocated to downlink communication to the communication terminal device, the non-associated cell not including a resource for uplink that is allocated to uplink communication from the communication terminal device, the base station device configures an associated cell including another resource for downlink and a resource for uplink, the another resource for downlink being allocated to the downlink communication to the communication terminal device, the resource for uplink being allocated to the uplink communication from the communication terminal device, and the communication terminal device performs the downlink communication using the non-associated cell and the associated cell and performs the uplink communication using the associated cell (see the 9,980,251 patent, claim 1).

Claim 3 is rejected for double patenting as well by claim 2 of the 9,980,251 patent.

IV. Claims 2-3 are rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1-3 of U.S. Patent No. 9,380,563 B2. Although the claims at issue are not identical, they are not patentably distinct from each other because the claims of the 9,380,563 patent teach similar limitations on performing radio communication between a base station and a communication terminal device.

For example:

Regarding claim 2 the 9,380,563 patent teaches communication system comprising a base station device and a communication terminal device that performs radio communication with the base station device, wherein the base station device configures a non-associated cell including only a resource for downlink, the resource for downlink being allocated to downlink communication to the communication terminal device, the non-associated cell not including a resource for uplink that is allocated to uplink communication from the communication terminal device, the base station device configures an associated cell including another resource for downlink and a resource for uplink, the another resource for downlink being allocated to the downlink communication to the communication terminal device, the resource for uplink being allocated to the uplink communication from the communication terminal device, and the communication terminal device performs the downlink communication using the non-associated cell and the associated cell and performs the uplink communication using the associated cell (see the 9,380,563 patent, claims 1-2).

Claim 3 is rejected for double patenting as well by claims 1-3 of the 9,380,563 patent.

Claim Rejections - 35 USC § 112

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

V. Claim 3 is rejected under 35 U.S.C. 112(b), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

Claim 3 recites “the communication terminal device performs uplink communication using the associated cell including a resource for uplink and a resource for downlink” in lines 4-5. It is unclear what the phrase “including a resource for uplink and a resource for downlink” refers to.

Claim 3 recites “the communication terminal device performs downlink communication using the associated cell and the non-associated cell including only another resource for downlink” in lines 9-10. It is unclear what the phrase “including only another resource for downlink” refers to.

The above limitations render the claim indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

The following art rejection is based on the best possible interpretation of the claim language in light of the above rejections under 35 U.S.C. 112(b), second paragraph.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of pre-AIA 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

VI. Claim 3 is rejected under pre-AIA 35 U.S.C. 102(e) as being anticipated by Ishida et al. (US 2010/0216454 A1).

Regarding claim 3 Ishida teaches a communication terminal device performing radio communication with a base station device (*eNB*) that configures an associated cell and a non-associated cell (*MBMS dedicated cell*) (see paragraphs [0005] & [0007]), wherein the communication terminal device performs uplink communication using the associated cell including (*see 112 2nd paragraph rejection above*) a resource for uplink and a resource for downlink (see paragraph [0007]), the resource for uplink being allocated to the uplink communication to the base station device (see paragraphs [0007] & [0040]), the resource for downlink being allocated to the downlink communication from the base station device (see paragraphs [0007] & [0040]), and the communication terminal device performs downlink communication using the associated cell and the non-associated cell (*MBMS dedicated cell*) including (*see 112 2nd paragraph rejection above*) only another resource for downlink,

the another resource for downlink being allocated to the downlink communication from the base station device (see paragraphs [0007] & [0040]).

Conclusion

VII. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lee et al. Pub. No.: US 2011/0103221 A1 discloses a method for handling radio link failure in multiple carrier system.

Karna Pub. No.: US 2002/0196841 A1 discloses a method for receiving spread spectrum signal, and receiver.

Takano Pub. No.: US 2012/0176927 A1.

Hakola et al. Pub. No.: US 2011/0275379 A1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRANDON J. MILLER whose telephone number is (571)272-7869. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

May 24, 2018

/BRANDON J MILLER/
Primary Examiner, Art Unit 2645

DOCKET NO: 512821US

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :
MITSURU MOCHIZUKI, ET AL. : EXAMINER: MILLER, BRANDON J
SERIAL NO: 15/956,384 :
FILED: APRIL 18, 2018 : GROUP ART UNIT: 2645
FOR: COMMUNICATION SYSTEM AND :
COMMUNICATION TERMINAL DEVICE
USING ASSOCIATED AND NON-
ASSOCIATED CELLS

AMENDMENT

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

Commissioner:

In response to the Office Action dated June 1, 2018, please amend the above-identified application as follows:

Amendments to the Specification begin on page 2 of this paper.

Amendments to the Claims are reflected in the listing of claims which begins on page 3 of this paper.

Remarks/Arguments begin on page 5 of this paper.

Application No. 15/956,384
Reply to Office Action of June 1, 2018

IN THE SPECIFICATION

Please amend the Title on page 1 as follows:

COMMUNICATION SYSTEM AND COMMUNICATION TERMINAL DEVICE USING
ASSOCIATED AND NON-ASSOCIATED CELLS

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Canceled).

Claim 2 (Previously Presented): A communication system comprising a base station device and a communication terminal device that performs radio communication with the base station device, wherein

the base station device configures a non-associated cell including only a resource for downlink, the resource for downlink being allocated to downlink communication to the communication terminal device, the non-associated cell not including a resource for uplink that is allocated to uplink communication from the communication terminal device,

the base station device configures an associated cell including another resource for downlink and a resource for uplink, the another resource for downlink being allocated to the downlink communication to the communication terminal device, the resource for uplink being allocated to the uplink communication from the communication terminal device, and

the communication terminal device performs the downlink communication using the non-associated cell and the associated cell and performs the uplink communication using the associated cell.

Claim 3 (Currently Amended): A communication terminal device performing radio communication with a base station device ~~that configures an associated cell and a non-associated cell~~, wherein

the communication terminal device performs uplink communication using an [[the]] associated cell configured by the base station to include ~~including~~ a resource for uplink and a resource for downlink, the resource for uplink being allocated to the uplink communication to

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Reply to Office Action of June 1, 2018

the base station device, the resource for downlink being allocated to the downlink communication from the base station device, and

the communication terminal device performs downlink communication using the associated cell and a [[the]] non-associated cell configured by the base station to include ~~including~~ only another resource for downlink, the other ~~another~~ resource for downlink being allocated to the downlink communication from the base station device.

REMARKS

Favorable reconsideration of this application, in view of the present amendments and in light of the following discussion, is respectfully requested.

Claims 2-3 are pending. Claim 3 is amended. No new matter is introduced.

In the outstanding Office Action, the Title was objected to; Claims 2-3 were rejected under non-statutory obviousness-type double patenting in view of claims 1-2 of U.S. Patent No. 9,980,251, and in view of claims 1-3 of U.S. Patent No. 9,380,563; Claim 3 was rejected under 35 U.S.C. 112, second paragraph; and Claim 3 was rejected under 35 U.S.C. 102(e) as being anticipated by Ishida (U.S. Patent Application Publication No. 2010/0216454).

Initially, the Title is amended to address the informalities identified in the Office Action. Withdrawal of the objection to the Title is respectfully requested.

To address the non-statutory obviousness-type double patenting rejections, a Terminal Disclaimer is filed herewith. Applicant notes that the filing of a Terminal Disclaimer to obviate a rejection based on non-statutory obviousness-type double patenting is not an admission of the propriety of the rejection. Instead, the “filing of a Terminal Disclaimer simply serves the statutory function of removing the rejection of double patenting, and raises neither a presumption nor estoppel on the merits of the rejection.” *Quad Environmental Technologies Corp. v. Union Sanitary District*, 946 F.2d 870, 20 USPQ2d 1392 (Fed. Cir. 1991). Therefore, the filing of the attached Terminal Disclaimer is provided solely to facilitate a timely resolution to the prosecution of this application, and should not be interpreted as an admission as to the merits of the obviated rejection. Withdrawal of the rejections of Claims 2-3 under non-statutory obviousness-type double patenting is respectfully requested.

With respect to the rejection of Claim 3 under 35 U.S.C. 112, second paragraph, it is believed that the amendments to this claim render this rejection moot.

Turning to the rejection of Claim 3 as being anticipated by Ishida, Claim 3 is amended to recite:

A communication terminal device performing radio communication with a base station device, wherein

the communication terminal device performs uplink communication *using an associated cell configured by the base station to include a resource for uplink and a resource for downlink*, the resource for uplink being allocated to the uplink communication to the base station device, the resource for downlink being allocated to the downlink communication from the base station device, and

the communication terminal device performs downlink communication *using the associated cell and a non-associated cell configured by the base station to include only another resource for downlink*, the other resource for downlink being allocated to the downlink communication from the base station device. (Emphasis added).

Ishida describes a UE that communicates with an MBMS dedicated cell that has only downlink resources and a mixed unicast/MBMS cell that includes both uplink and downlink resource. Ishida at ¶ [0007]. Thus, Ishida describes that the UE may be served by the MBMS dedicated cell, but may camp on the unicast/MBMS cell. Ishida at ¶ [0040].

However, Ishida does not describe that a base station configures both the MBMS dedicated cell and the unicast/MBMS mixed cell. Ishida is silent in this regard. Therefore, Ishida cannot fairly be said to disclose or suggest the features highlighted in amended Claim 3 above. Amended Claim 3 is therefore believed to be in condition for allowance. Withdrawal of the rejection of Claim 3 under 35 U.S.C. 102(e) is respectfully requested.

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Reply to Office Action of June 1, 2018

For the reasons discussed above, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal allowance. Therefore, a Notice of Allowance is earnestly solicited.

Respectfully Submitted,

OBLON, McCLELLAND,
MAIER & NEUSTADT, L.L.P.

/Aldo Martinez/

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Docket No. 512821US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Mitsuru MOCHIZUKI, et al.

SERIAL NO: 15/956,384

GAU: 2645

FILED: April 18, 2018

EXAMINER: MILLER, BRANDON J

FOR: COMMUNICATION SYSTEM AND COMMUNICATION TERMINAL DEVICE USING
ASSOCIATED AND NON-ASSOCIATED CELLS

TERMINAL DISCLAIMER

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

Commissioner:

Now comes the undersigned, Attorney of Record in the present application, who avers as follows:

MITSUBISHI ELECTRIC CORPORATION is the owner of the entire right, title and interest in and to the invention claimed and disclosed in the above-captioned patent application by virtue of assignment, said Assignment having been recorded in the U.S. Patent and Trademark Office at reel no. 030751, frame(s) 0040.

MITSUBISHI ELECTRIC CORPORATION hereby disclaims the terminal part of any patent granted on the above-captioned application, which would extend beyond the expiration date of the full statutory term defined in 35 U.S.C. 154 and 173 as shortened by any terminal disclaimer of U.S. Patent Nos. 9,380,563 and 9,980,251, and hereby agrees that any patent so granted on said above-captioned application shall be enforceable only for and during such period that it and Patent Nos. 9,380,563 and 9,980,251 are commonly owned. This agreement runs with any patent granted on the above-captioned application and is binding upon the grantee, its successors or assigns.

MITSUBISHI ELECTRIC CORPORATION does not disclaim any terminal part of any patent granted on the above-captioned application that would extend to the full statutory term as defined in 35 U.S.C. 154 and 173 as shortened by any terminal disclaimer of U.S. Patent Nos. 9,380,563 and 9,980,251 in the event that it later: expires for failure to pay a maintenance fee, is held unenforceable, is found invalid, is statutorily disclaimed in whole or terminally disclaimed under 37 C.F.R. 1.321(a), has all claims canceled by a reexamination certificate, is reissued, or is otherwise terminated prior to the expiration of its statutory term as shortened by any terminal disclaimer, except for the separation of common ownership stated above.

Respectfully Submitted,

OBLON, McCLELLAND,
MAIER & NEUSTADT, L.L.P.

/Sameer Gokhale/

August 28, 2018
Date Signed

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UNITED STATES PATENT AND TRADEMARK OFFICE

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NOTICE OF ALLOWANCE AND FEE(S) DUE

22850 7590 09/28/2018
OBLON, MCCLELLAND, MAIER & NEUSTADT, L.L.P.
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EXAMINER

MILLER, BRANDON J

ART UNIT

PAPER NUMBER

2645

DATE MAILED: 09/28/2018

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/956,384	04/18/2018	Mitsuru MOCHIZUKI	512821US	2485

TITLE OF INVENTION: COMMUNICATION SYSTEM AND COMMUNICATION TERMINAL DEVICE

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$1000	\$0.00	\$0.00	\$1000	12/28/2018

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or **Fax** (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

22850 7590 09/28/2018
OBLON, MCCLELLAND, MAIER & NEUSTADT, L.L.P.
1940 DUKE STREET
ALEXANDRIA, VA 22314

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/956,384	04/18/2018	Mitsuru MOCHIZUKI	512821US	2485

TITLE OF INVENTION: COMMUNICATION SYSTEM AND COMMUNICATION TERMINAL DEVICE

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$1000	\$0.00	\$0.00	\$1000	12/28/2018

EXAMINER	ART UNIT	CLASS-SUBCLASS
MILLER, BRANDON J	2645	455-450000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
- (2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1	_____
2	_____
3	_____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (**Please first reapply any previously paid issue fee shown above**)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

- ☐ Applicant certifying micro entity status. See 37 CFR 1.29
- ☐ Applicant asserting small entity status. See 37 CFR 1.27
- ☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/956,384	04/18/2018	Mitsuru MOCHIZUKI	512821US	2485
22850	7590	09/28/2018	EXAMINER	
OBLON, MCCLELLAND, MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314			MILLER, BRANDON J	
			ART UNIT	PAPER NUMBER
			2645	

DATE MAILED: 09/28/2018

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.** Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b) (2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Ex. 1002 - TCL Comm Tech Holdings Ltd.

TCL Comm Tech Holdings Ltd. v. Mitsubishi Electric Corp. - IPR2023-00997

Notice of Allowability	Application No. 15/956,384	Applicant(s) MOCHIZUKI et al.	
	Examiner BRANDON J MILLER	Art Unit 2645	AIA Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/28/2018.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on ____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.

3. ☒ The allowed claim(s) is/are 2-3. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
Certified copies:
a) ☒ All b) ☐ Some *c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)	5. ☐ Examiner's Amendment/Comment
2. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date ____.	6. ☒ Examiner's Statement of Reasons for Allowance
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material ____.	7. ☐ Other ____.
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date ____.	

/BRANDON J MILLER/ Primary Examiner, Art Unit 2645	
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DETAILED ACTION

Notice of Pre-AIA or AIA Status

- I. The present application is being examined under the pre-AIA first to invent provisions.

Allowable Subject Matter

- II. The following is an examiner's statement of reasons for allowance:

Claim 2 is allowed because Ishida does not teach wherein the base station device configures an associated cell including another resource for downlink and a resource for uplink, the another resource for downlink being allocated to the downlink communication to the communication terminal device, the resource for uplink being allocated to the uplink communication from the communication terminal device, and the communication terminal device performs the downlink communication using the non-associated cell and the associated cell and performs the uplink communication using the associated cell.

Claim 3 is allowed because Ishida does not teach the communication terminal device performs downlink communication using the associated cell and a non-associated cell configured by the base station to include only another resource for downlink, the other resource for downlink being allocated to the downlink communication from the base station device.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

- III. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRANDON J MILLER whose telephone number is (571)272-7869. The examiner can normally be reached on M-F.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

September 21, 2018

/BRANDON J MILLER/
Primary Examiner, Art Unit 2645