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GLOBAL SYSTEM FOR MOBILE COMMUNICATIONS

Digital cellular telecommunications system (Phase 2+); Mobile Stations (MS) features (GSM 02.07)

ETSI

European Telecommunications Standards Institute

ETSI Secretariat

Postal address: F-06921 Sophia Antipolis CEDEX - FRANCE
Office address: 650 Route des Lucioles - Sophia Antipolis - Valbonne - FRANCE
X.400: c=fr, a=atlas, p=etsi, s=secretariat - **Internet:** secretariat@etsi.fr

Tel.: +33 92 94 42 00 - Fax: +33 93 65 47 16

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Foreword

This Global System for Mobile communications Technical Specification (GTS) has been produced by the Special Mobile Group (SMG) Technical Committee (TC) of the European Telecommunications Standards Institute (ETSI).

This GTS specifies mobile station features within the digital cellular telecommunications system (Phase 2/Phase 2+).

This GTS is a TC-SMG approved GSM technical specification version 5, which contains GSM Phase 2+ enhancements/features to the version 4 GSM technical specification. The ETS from which this Phase 2+ GTS has evolved is Phase 2 GSM ETS 300 505 Edition 2 (GSM 02.07 version 4.7.0).

GTS are produced by TC-SMG to enable the GSM Phase 2+ specifications to become publicly available, prior to submission for the formal ETSI standards approval procedure to become European Telecommunications Standards (ETS). This ensures the earliest possible access to GSM Phase 2+ specifications for all Manufacturers, Network operators and implementors of the Global System for Mobile communications.

The contents of this GTS are subject to continuing work within TC-SMG and may change following formal TC-SMG approval. Should TC-SMG modify the contents of this GTS it will then be republished by ETSI with an identifying change of release date and an increase in version number as follows:

Version 5.x.y

where:

- y the third digit is incremented when editorial only changes have been incorporated in the specification;

- x the second digit is incremented for all other types of changes, i.e. technical enhancements, corrections, updates, etc.

The specification from which this GTS has been derived was originally based on CEPT documentation, hence the presentation of this GTS may not be entirely in accordance with the ETSI rules.

Reference is made within this GTS to GSM-TSs (note).

NOTE: TC-SMG has produced documents which give the technical specifications for the implementation of the digital cellular telecommunications system. Historically, these documents have been identified as GSM Technical Specifications (GSM-TSs). These TSs may have subsequently become I-ETSs (Phase 1), or ETSs/ETSI Technical Reports (ETRs) (Phase 2). TC-SMG has also produced ETSI GSM TSs which give the technical specifications for the implementation of Phase 2+ enhancements of the digital cellular telecommunications system. These version 5.x.x GSM Technical Specifications may be referred to as GTSs.

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1 Scope

The purpose of this ETS is to define mobile station features and to classify them according to their type and whether they are mandatory or optional. The MS features detailed in this Specification do not represent an exhaustive list. Those MS features which are subject to Type Approval are described in GSM 11.10.

1.1 Normative references

This ETS incorporates by dated and undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this ETS only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

[1] GSM 01.04 (ETR 100): "Digital cellular telecommunication system (Phase 2);Abbreviations and acronyms".

[2] GSM 02.03 (ETS 300 502): "Digital cellular telecommunication system (Phase 2); Teleservices supported by a GSM Public Land Mobile Network (PLMN)".

[3] GSM 02.04 (ETS 300 503): "Digital cellular telecommunication system (Phase 2); General on supplementary services".

[4] GSM 02.11 (ETS 300 507): "Digital cellular telecommunication system (Phase 2); Service accessibility".

[5] GSM 02.16 (ETS 300 508): "Digital cellular telecommunication system (Phase 2); International Mobile station Equipment Identities (IMEI)".

[6] GSM 02.17 (ETS 300 509): "Digital cellular telecommunication system (Phase 2); Subscriber identity modules Functional characteristics".

[7] GSM 02.30 (ETS 300 511): "Digital cellular telecommunication system (Phase 2); Man-Machine Interface (MMI) of the Mobile Station (MS)".

[8] GSM 02.40 (ETS 300 512): "Digital cellular telecommunication system (Phase 2); Procedures for call progress indications".

[9] GSM 02.90 (ETS 300 625): "Digital cellular telecommunication system (Phase 2); Stage 1 description of Unstructured Supplementary Service Data (UUSD)".

[10] GSM 03.03 (ETS 300 523): "Digital cellular telecommunication system (Phase 2); Numbering, addressing and identification".

[11] GSM 03.14 (ETS 300 532): "Digital cellular telecommunication system (Phase 2); Support of Dual Tone Multi-Frequency signalling (DTMF) via the GSM system".

[12] GSM 04.08 (ETS 300 557): "Digital cellular telecommunication system (Phase 2); Mobile radio interface layer 3 specification".

[13] GSM 11.10 (ETS 300 607): "Digital cellular telecommunication system (Phase 2); Mobile Station (MS) conformity specification".

[14] GSM 11.11 (ETS 300 608): "Digital cellular telecommunication system (Phase 2); Specification of the Subscriber Identity Module-Mobile Equipment (SIM-ME) interface".

1.2 Definition

In addition to those below, abbreviations used in this specification are listed in GSM 01.04.

An MS feature is defined as a piece of equipment of function which directly relates to the operation of the MS. On the basis of this, three categories of features can be distinguished: basic, supplementary and additional features.

Basic MS features

A basic MS feature is directly related to the operation of basic telecommunication services (e.g. key-pad function).

Supplementary MS features

A supplementary MS feature is directly related to the operation of supplementary services (e.g. display of calling line number).

Additional MS features

An additional MS feature is a feature which is neither a basic nor a supplementary feature (e.g. abbreviated dialling).

Additional MS features and supplementary services may be used independently according to the choice of subscribers/users (e.g. barring of outgoing calls). Features not directly relevant to the use as a Mobile Station are permitted, provided they do not interfere with the performance of the MS (e.g. a clock).

2 Requirements for implementing MS features

MS features are qualified as mandatory or optional. Mandatory features have to be implemented as long as they are relevant to the MS type, and will be subject to Type Approval when applied according to GSM 11.10. Whether or not an optional feature is implemented is left to the manufacturers' discretion. The method of implementation of all MS features must be done in accordance with the appropriate GSM specifications. For all present and future MS features, manufacturers have the responsibility to ensure that the MS features will neither conflict with the air interface nor cause any interference to the network or any other MS or its own MS, and these requirements shall be recognized during the Type Approval process.

In the following tables 1/GSM 02.07, 2/GSM 02.07 and 3/GSM 02.07 the basic, supplementary and additional MS features are listed. Mandatory features are marked by "M". Optional features are marked by "0".

Additional MS features not listed in Table 3/GSM 02.07 are permitted without the requirement for this table to be amended, provided that these new features do not affect the mandatory air interface requirements.

Unless otherwise stated for a particular feature, the feature supported by the Subscriber Identity Module (SIM) takes priority over the same feature supported by the Mobile Equipment (ME).

Table 1/GSM 02.07: Basic MS features

	NAME	MANDATORY (M) OPTIONAL (O)	
1.1	Display of Called Number	M*	
1.2	Indication of Call Progress Signals	M*	
1.3	Country/PLMN Indication	M*	
1.4	Country/PLMN Selection	M	
1.5	Keypad	O	(NOTE 1)
1.6	IMEI	M	
1.7	Short Message	M	(NOTE 4)
1.8	Short Message Overflow Indication	M	
1.9	DTE/DCE Interface	O	
1.10	ISDN "S" Interface	O	
1.11	International Access Function ("+" key)	O	(NOTE 1)
1.12	Service Indicator	M*	
1.13	Autocalling restriction capabilities		(NOTE 2)
1.14	Emergency Calls capabilities	M	(NOTE 3)
1.15	Dual Tone Multi Frequency function (DTMF)	M	(NOTE 5)
1.16	Subscription Identity Management	M	
1.17	On/Off switch	O	
1.18	Subaddress	O	
1.19	Support of Encryption A5/1 and A5/2	M	
1.20	Short Message Service Cell Broadcast	M	
1.21	Short Message Service Cell Broadcast DRX	O	
1.22	Service Provider Indication	O	
1.23	Support of the extended SMS CB channel	O	
1.24	Support of Additional Call Set-up MMI Procedures	O	
1.25	Network Identity and Timezone	O	

Descriptions are given in Annex B to GSM 02.07.

* Mandatory where a human interface is provided, i.e. may be in-appropriate for MS driven by external equipment.

NOTE 1: The physical means of entering the characters 0-9, +, * and # may be keypad, voice input device, DTE or others, but it is mandatory that there shall be the means to enter this information.

NOTE 2: MTs with capabilities for Autocalling, or to which call initiating equipment can be connected via the "R" or "S" interface, shall restrict repeated call attempts according to the procedures described in Annex A.

NOTE 3: Emergency calls shall be possible according to Teleservice 12 (see rec GSM 02.03 and 02.30). This feature is only required to be provided by ME supporting Telephony.

NOTE 4: Support of reception by the ME and storage of SMS MT in the SIM is mandatory, but its display is optional. Reception and storage of a message shall be indicated by the MS.

NOTE 5: The use of DTMF is only mandatory when the speech teleservice is being used or during the speech phase of alternate speech/data and alternate speech/facsimile teleservices.

Table 2/GSM 02.07: Supplementary MS features

	NAME	MANDATORY (M) OPTIONAL (O)
2.1	Control of Supplementary Services	(NOTE 1)

NOTE 1: See Annex B, clause B.2.1.

Descriptions are given in annex B to GSM 02.07.

Table 3/GSM 02.07: Additional MS features

	NAME	MANDATORY (M) OPTIONAL (O)
3.1	Abbreviated Dialling	O
3.2	Fixed Number Dialling	O
3.3	Barring of Outgoing Calls	O
3.4	DTMF Control Digits Separator	O
3.5	Selection of Directory No in Short Messages	O
3.6	Last Numbers Dialled	O
3.7	ME-SIM lock	O
3.8	Service Dialling Numbers	O

Descriptions are given in the appendix to GSM 02.07.

Annex A (normative): Automatic calling repeat call attempt restrictions

Call set up attempts referred to in this annex are assumed to be initiated from peripheral equipment or automatically from the MT itself.

A repeat call attempt may be made when a call attempt is unsuccessful for the reasons listed below (as defined in GSM 04.08).

These reasons are classified in three major categories:

1. "Busy destination":

Cause number	17	User busy

2. "Unobtainable destination - temporary":

Cause number	18	No user responding
	19	User alerting, no answer
	27	Destination out of order
	34	No circuit/channel available
	41	Temporary failure
	42	Switching Equipment congestion
	44	Requested circuit/channel not available
	47	Resources unavailable, unspecified

3. "Unobtainable destination - permanent/long term":

Cause number	1	Unassigned (unallocated) number
	3	No route to destination
	22	Number changed
	28	Invalid number format (uncomplete number)
	38	Network out of order.

NOTE: Optionally, it is allowed to implement cause number 27 in Category 3, instead of Category 2, as this is desirable already in Phase 1.

The table below describes a repeat call restriction pattern to any B number. This pattern defines a maximum number (n) of call repeat attempts; when this number n is reached, the associated B number shall be blacklisted by the MT until a manual re-set at the MT is performed in respect of that B number. When a repeat attempt to anyone B number fails, or is blacklisted, this does not prevent calls being made to other B numbers.

For the categories 1 and 2 above, n shall be 10; for category 3, n shall be 1.

call attempts	Minimum duration between Call attempt
Initial call attempt	-
1st repeat attempt	5 sec
2nd repeat attempt	1 min
3rd repeat attempt	1 min
4th repeat attempt	1 min
5th repeat attempt	3 min
	. .
nth repeat attempt	3 min

The number of B numbers that can be held in the blacklist is at the manufacturers discretion but there shall be at least 8. However, when the blacklist is full the MT shall prohibit further automatic call attempts to any one number until the blacklist is manually cleared at the MT in respect of one or more B numbers.

When automatic calling apparatus is connected to an MT1 or MT2, or where an MTO is capable of auto-calling, then the MT shall process the call requests in accordance with the sequence of repeat attempts defined above, i.e. requests for repeat attempts with less than the minimum allowed duration between them shall be rejected by the MT.

A successful call attempt to a number which has been subject to the call restrictions shown above (i.e. an unsuccessful call set up attempt has previously occurred) shall reset the "counter" for that number.

The "counter" for an unsuccessfully attempted B number shall be maintained in 24 hours or until the MT is switched off.

The automatic calling repeat call attempt restrictions apply to speech and data services.

NOTE: The restrictions only apply to unsuccessful Call Control activity, not to Radio Resource Management or to Mobility Management, so multiple attempts at radio channel access are not limited by this mechanism.

Annex B (normative): Description of mobile station features

The section numbers refer to the items in Tables 1, 2 and 3 of GSM 02.07. The implementation (optional or mandatory) is shown in these tables.

B.1.1 Display of called number

This feature enables the caller to check before call setup whether the selected number is correct.

B.1.2 Indication of call progress signals

Indications shall be given such as tones, recorded messages or visual display based on signalling information returned from the PLMN. On data calls, this information may be signalled to the DTE.

Call progress indicators are described in GSM 02.40.

B.1.3 Country/PLMN indication

The country/PLMN indicator shows in which GSM PLMN the MS is currently registered. This indicator is necessary so that the user knows when "roaming" is taking place and that the choice of PLMN (GSM 02.11 section 5) is correct. Both the country and PLMN will be indicated. When more than one visited GSM PLMN is available in a given area such information will be indicated.

NOTE: The indication is described in GSM 02.30.

B.1.4 Country/PLMN selection

When more than one GSM PLMN is available in a given area, the procedures for selection of PLMN are in conformity with GSM 02.11.

B.1.5 Keypad

A physical means of entering numbers, generally, though not necessarily, in accordance with the layout shown in figure 1.

See also GSM 02.30 (Man-Machine Interface).

Additional keys may provide the means to control the Mobile Station (e.g. to initiate and terminate calls).

1	2	3
4	5	6
7	8	9
*	0	#

Figure 1

B.1.6 IMEI

IMEI = International Mobile Station Equipment Identity.

Each MS shall have a unique identity and shall transmit this on request from the PLMN. For details see GSM 02.16 and 03.03. The IMEI is incorporated in a module which is built within the MS and is physically secured. The implementation of each individual module shall be carried out by the manufacturer.

B.1.7 Short message indication and acknowledgement

This feature allows the delivery of short messages to a MS from a service centre. Such messages are submitted to the service centre by a telecommunications network user who can also request information of the status of the message by further interrogation of the service centre. The service centre then transmits the message to an active MS user.

The MS must therefore provide an indication to the user that a message has been received from the service centre and must also send an acknowledgement signal to the PLMN to show that this indication has been activated. The PLMN then returns this acknowledgement to the service centre.

The short message service teleservice is described in specification GSM 02.03.

B.1.8 Short message overflow indication

An indication shall be given to the SM user of the short message service when an incoming message cannot be received due to insufficient available memory.

B.1.9 DTE/DCE interface

A standard connector for attachment of a DTE to the MS and use in conjunction with data services, as defined in the 07 series specifications.

B.1.10 ISDN "S" terminal interface

A standard connector for attachment of equipment to ISDN standard I.420.

B.1.11 International access function

Provision is made for a direct, standard method of gaining international access. For this purpose the MS may have a key whose primary or secondary function is marked "+". This is signalled over the air interface and would have the effect of generating the international access code in the network. It may be used directly when setting up a call, or entered into the memory for abbreviated dialling.

This feature is of benefit since the international access code varies between CEPT countries, which might cause confusion to a user, and prevent the effective use of abbreviated dialling when roaming internationally. Users may still place international calls conventionally, using the appropriate international access code.

B.1.12 Service Indicator (SI)

An indication is given to the user that there is adequate signal strength (as far as can be judged from the received signal) to allow a call to be made, and that the MS has successfully registered on the selected PLMN. This may be optionally combined with the Country/PLMN Indication (1.3).

B.1.13 Autocalling restriction capabilities

See Annex A.

B.1.14 Emergency Calls capabilities

See section 2.

B.1.15 Dual Tone Multi Frequency (DTMF)

The MS shall be capable to initiate DTMF in accordance with specifications GSM 02.03 and 03.14. Optionally, the MS may provide a suppress function which allows the user to switch off the DTMF function.

B.1.16 Subscription identity management

The IMSI is contained in a SIM, "Subscriber Identity Module". If the SIM is removable by the user, its removal detaches the MS, causing a call in progress to be terminated, and preventing the initiation of further calls (except emergency calls - see GSM 02.30).

The SIM may be in one of two physical sizes, both of which have identical electrical characteristics. The larger "ID-1 SIM" is generally entered into the ME by the user. The card has a polarisation mark (see Annex C). The ME shall have an indication of how to obtain correct polarisation of the card. The smaller "plug-in SIM" is generally mounted internally within the ME.

B.1.17 On/Off switch

The MS may be provided with a means of switching its power supply on and off. Switch-off shall be "soft", so that on activation, the MS completes the following housekeeping functions: termination of a current call, detach (where applicable) and storing required data in the SIM (see GSM 02.17) before actually switching off. As far as possible, this procedure should also apply on power failure (e.g. remote switch-off or low battery).

B.1.18 Sub-Address

This feature allows the mobile to append and/or receive a sub-address to a Directory Number, for use in call set-up, and in those supplementary services that use a Directory Number.

B.1.19 Support of encryption A5/1 and A5/2

Provision is made for support of up to 7 different algorithms, and the support of no encryption. It is mandatory for A5/1, A5/2 and non encrypted mode to be implemented on mobile stations. Other algorithms are optional.

B.1.20 Short Message Service Cell Broadcast

The Short Message Service Cell Broadcast enables the mobile station to receive short messages from a message handling system.

The short message service cell broadcast teleservice is described in specification GSM 02.03.

B.1.21 Short Message Service Cell Broadcast DRX

This feature enables a mobile station to save on battery utilization, by allowing the mobile station to not listen during the broadcast of messages the subscriber is not interested in.

B.1.22 Service Provider Indication

When available and the MS is in idle mode, the MS shall indicate the Service Provider name. The Service Provider name is stored in the SIM {(max. 16 characters, including spaces)}. The SIM will indicate two options: (1) indication of Service Provider name in parallel to the indication of the PLMN the MS is registered-to; (2) indication of the Service Provider name alternatively to the indication of the PLMN the MS is registered-to. When roaming, the Service Provider name shall only be indicated in parallel to the PLMN the MS is registered-to. If the MS is unable to display the full name of the Service Provider the name is cut from the tail end. The storage of Service Provider name and choice of option shall be under control of the network operator.

B.1.23 Support of the extended Short message cell broadcast channel

This feature allows a mobile station by supporting of the extended Short message cell broadcast channel to enhance the capacity of the service. The support of the extended channel has low priority, i.e. the MS can interrupt the reading of this channel if idle mode procedures have to be executed.

B.1.24 Support of Additional Call Set-up MMI Procedures

This feature allows the user, through direct MS interaction, or the service provider of the user, to specify the user's preferred emergency call MMI (e.g. 911 for US citizens or 999 for UK citizens) for use in any (i.e. home or visited) PLMN. This would be stored in the SIM and the ME would read this and use any entry of these digits to set up an emergency call. It may be possible to store more than one instance of this field.

B.1.25 Network Identity and Timezone

The feature provides the means for serving PLMNs to transfer current identity and the local timezone to mobile stations, and for the mobile stations to store and use this information. This enhances roaming by permitting accurate indication of PLMN identities that are either newer than the ME or have changed their name since the ME was sold. Additionally timezone information can be utilized by MEs as desired.

The network name and timezone information will normally be transferred from the network to the ME:

1) Upon registering on the network
2) When the MS geographically relocates to a different Local Time Zone
3) When the network changes its Local Time Zone, e.g. between summer and winter time
4) When the network changes its identity

Further details of this feature are described in GSM 02.42.

B.2.1 Support of supplementary services

Support of Call Barring and Call Forwarding Supplementary Services is mandatory. Support of other Supplementary Services is optional. Support of Unstructured SS Data, as described in GSM 02.90 and 02.30, is optional.

If defined for a given Supplementary Service, the Functional Signalling shall be used, i.e. Unstructured SS Data signalling shall not be used. If an MS does not support the functional signalling for a given SS, the MS cannot declare that it supports that SS.

B.3.1 Abbreviated dialling

The directory number or part of it is stored in the mobile station together with the abbreviated address. After retrieval the directory number may appear on the display.

Abbreviated dialling numbers stored in the ME or SIM may contain wild characters.

It is permitted to extend the number by adding digits (by means of the keypad, R interface or a second abbreviated, or fixed dialling, number (and/or subaddress)) when setting up a call.

If wild characters are used to indicate missing digits, each wild character shall be replaced for network access or supplementary service operation, by a single digit entered at the keypad. The completed directory number is transmitted on the radio path.

B.3.2 Fixed number dialling

This feature provides a mechanism so that by the use of an electronic lock it is possible to place a bar on calling any numbers other than those pre-programmed in the SIM.

Fixed Dialling Numbers stored in the SIM may contain wild characters.

Under control of PIN 2, "Fixed Dialling Mode" may be enabled or disabled. The mode selected is stored in the SIM.

Under PIN 2 control, it shall be possible to add, modify or delete a particular "Fixed Dialling Number" (FDN). This FDN may have the function of an abbreviated dialling number/supplementary service control (ADN/SSC), overflow and/or sub-address.

When Fixed Dialling is inactive, no special controls are specified, and the fixed dialling numbers may be read (though not modified or deleted, except under PIN 2 control) as if they were normal abbreviated dialling numbers. Access to the keyboard and normal abbreviated dialling numbers (including sub-address) is also permitted.

When Fixed Dialling is active:

- Calls may be made to a Fixed Dialling Number stored in the SIM.

- If an FDN stored in the SIM contains one or more wild characters in any position, each wild character shall be replaced for network access, or supplementary service operation, by a single digit entered by the mobile user.

- The ME shall prevent any call attempts by the user to numbers that do not exist on the fixed dialling list. The mobile station shall transmit the actual directory number, and subaddress where requested, over the air interface at the user's request.

- No Supplementary Service control may be made (in call or in idle mode) except by using the Fixed Dialling Number ADN/SSC.

- Numbers specified as "fixed" may only be modified under PIN 2 control.

- If the ME does not support fixed dialling, the MS shall not allow the making or receiving calls. However, this feature does not affect the ability to make Emergency Calls.

In either mode, it is permitted to extend the number by adding digits (by means of the keyboard, R Interface or a second abbreviated or fixed dialling number) to the fixed dialling number (and/or sub-address) when setting up the call. However, if fixed dialling is active, the fixed dialling number itself cannot be deleted or edited (except under PIN 2 control).

B.3.3 Barring of outgoing calls

This feature as distinct from the supplementary service of the same name allows outgoing calls to be blocked. The barring condition may be activated/deactivated by using a key, key-word etc. (Exception: transmission of emergency calls).

The barring may be selective, i.e. applied to individual services (e.g. telephony, data transmission), individual call types (e.g. long-distance, international calls) or supplementary services. No network signalling involved.

B.3.4 DTMF control digits separator

Provision has been made to enter DTMF digits with a telephone number, and upon the called party answering the ME shall send the DTMF digits automatically to the network after a delay of 3 seconds (± 20%). The digits shall be sent according to the procedures and timing specified on GSM 04.08.

The first occurrence of the "DTMF Control Digits Separator" shall be used by the ME to distinguish between the addressing digits (i.e. the phone number) and the DTMF digits. Upon subsequent occurrences of the separator, the ME shall pause again for 3 seconds (± 20 %) before sending any further DTMF digits.

To enable the separator to be stored in the address field of an Abbreviated Dialling Number record in the SIM, the separator shall be coded as defined in GSM 11.11. The telephone number shall always precede the DTMF digits when stored in the SIM.

The way in which the separator is entered and display in the ME, is left to the individual manufacturer's MMI.

MEs which do not support this feature and encounter this separator in an ADN record of the SIM will treat the character as "corrupt data" and act accordingly.

B.3.5 Selection of directory number in short messages

The Short Message (Point to Point MT or MO, or Cell Broadcast) may be used to convey a Directory Number which the user may wish to call. This can be indicated by enclosing the directory number in a pair of inverted commas (" ").

If the displayed message contains these characters enclosing a directory number, a call can be set up by user action. Normal (unspecified) or International format (using + symbol) may be used.

The message may contain more than one directory number, in which case it is for the user to select the one required.

B.3.6 Last Numbers Dialled (LND)

The mobile station may store the Last "N" Numbers dialled in the SIM and/or the ME. "N" may take the value up to 10 in the SIM. It may be any value in the ME. The method of presentation of these to the user for setting up a call is the responsibility of the MS but if these numbers are stored in both the SIM and the ME, those from the SIM shall take precedence. The security for handling this is defined in GSM 02.17.

B.3.7 ME-SIM lock

This feature controls the ability of the MS to access networks according to whether the ME matches the SIM based on one or more of the following criteria:

- Subscriber identity (IMSI)
- Group identifier level 1 (e.g. Service Provider identity)
- Group identifier level 2
- PLMN identity (MCC+MNC)

One or more of these criteria may be activated. When any are activated, the ME shall be locked to the SIM such that the MS shall only make network registration attempts when there exists a bit-exact match between corresponding data elements on the ME and SIM for each of the activated criteria.

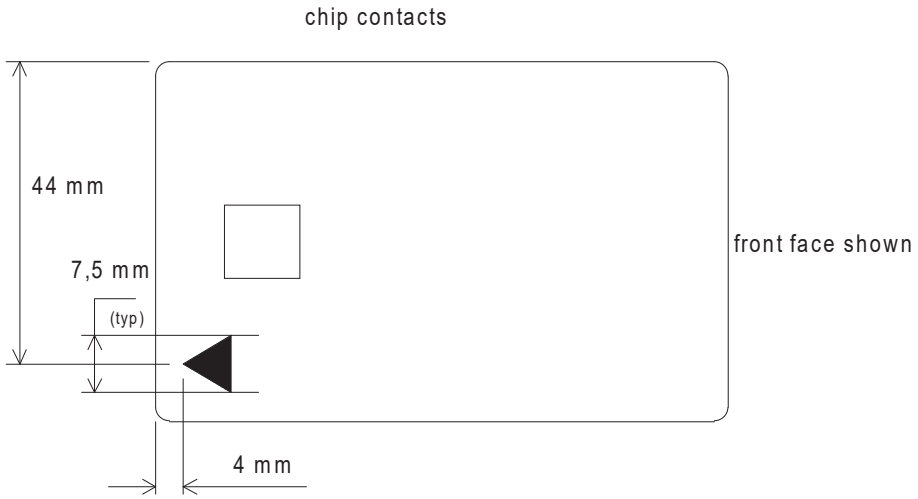
Secure means shall be provided to prevent unauthorised changes to the lock status or the contents of any of the data fields above on the SIM or ME.

B.3.8 Service Dialling Numbers

The Service Dialling Numbers feature allows for the storage of numbers related to services offered by the network operator/service provider in the SIM (e.g. customer care). The user can use these telephone numbers to make outgoing calls, but the access for updating of the numbers shall be under the control of the operator.

NOTE: No MMI is envisaged to be specified for these numbers and it is left to mobile manufacturer implementations.

Annex C (normative): GSM-MoU ID1 SIM layout



NOTE: The symbol may be printed in the same location on the rear as well as the front face.

History

Change history					
SMG No.	**TDoc. No.**	**CR. No.**	**Section affected**	**New version**	**Subject/Comments**
SMG#17	056/96 062/96	A001 A004	2.0,B.3.7 2.0,B.3.7	5.0.0	SIM-ME Association Service Dialling Numbers
SMG#19	395/96 371/96 369/96	A006 A007r1 A009	Table 1, B1.2.0, B1.2.1, B1.2.2, B1.2.3 Table1, B1.23 2, Ann B	5.1.0	Introduction of second SMS-CB channel Support of Additional Call Set-up MMI procedures Introduction of NITZ

Document history	
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