3GPP2 C.P0073-B
Version 1.3
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Signaling Test Specification for Mobile Station Equipment Identifier (MEID) Support for cdma2000 Spread Spectrum Systems

Revision History

Revision	Description	Date
C.S0073-0 v1.0	Initial Release	October 2005
C.S0073-A v1.0	Revision A	April 2008
C.S0073-B v1.0	Revision B	August 2009
C.S0073-B v2.0	Revision B Version 2.0	Xxxx 2014

~~No text.~~

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Index of changes for C.S0073-B v2.0

Section	Name	Changes	Source	v
Global	Header	• Make all headers based on Word fields for Revision and Version	Editor	1.2
Revision History	Revision History	• Add this section based on previously published documents	Editor	1.2
FOREWORD	Add "CSIM"	• Add CSIM as covered by this specification	20140313-001	1.3
Scope	Scope	• Move to introduction as specified in drafting rules.	Editor	1.2
References	(no title)	• Move to introduction as specified in drafting rules and add section title.	Editor	1.2
1	Introduction	• Spelling corrections • Allow term R-UIM to mean CSIM in this document. [note that this was deleted in version 1.3]	20131105-004	1.2
		• Define term "Card" to mean "R-UIM or CSIM" (includes deletion of sentence equating R-UIM with CSIM) • Other changes relative to supporting CSIM as well as R-UIM. • Define ESN and UIMID related terms.	20140313-001	1.3
1.1	Scope	• Moved from front matter. • Remove statement that "this is not part of this document"	Editor	1.2
1.2	References	• Moved from front matter • Add level 2 heading	Editor	1.2
2.1	MEID Support Indicator	• Fix typos	20131105-004	1.2
		• Change terminology related to Card	20140313-001	1.3
2.2.1.4	Method of Measurement	• Describe restrictions on execution of tests based on support of a Card and Rev. C of [6].	20140313-001	1.3
		• Replace table	20140313-001	1.3
		• Change name of message from OTASP to Extended Status Response • Remove extraneous row • Remove references to EF-USGIND • Remove references to returning ICCID (instead of LF_EUIMID) • Correct name of fields from OTASP to Status Request	20131105-004	1.2
		• Replace table with additional changes	20140313-001	1.3
		• Change name of message to Extended Status Response • Remove all but one rows • Put "All Cases" in columns 2 and 3	20131105-004	1.2
		• Replace table with additional changes	20140313-001	1.3
2.3 Pseudo-ESN				
2.3.1.4	Pseudo-ESN	• Correct typos	20131105-004	1.2
		• Indicate when tests 9 and 10 are not applicable	20140313-001	1.3
		• Replace table	20140313-001	1.3

Section	Name	Changes	Source	v
2.4 Public LCM				
Table 5 Public LCM Conformance Test Cases		• Change references to “R-UIM” to “Card”	20140313-001	1.3
2.7 Over-the-Air Service Provisioning (OTASP) Test				
2.7.1.4 Method of Measurement		• Indicate when test 5 is not applicable and when test 6 is the only test to be performed.	20140313-001	1.3
		• Replace Table 8	20140313-001	1.3
2.7.2.4 Method of Measurement		• Indicate when only Test 4 should be performed.	20140313-001	1.3
Table 9 ICCID		• Remove R-UIM configuration column (3) • Remove extraneous rows • Remove extraneous text from error case description	20131105-004	1.2
		• Change name of field from CAP_RECORD_LEN (OTASP) to RECORD_LEN (Status Request)	Editor	1.2
		• Replace table.	20140313-001	1.3
2.9 HRPD – MEID and ESN HardwareID				
2.9.1.4 Method of Measurement		• Replace “R-UIM” by “Card”	20140313-001	1.3
3.2	MEID etc. Information Records	• Pluralize title	20131105-004	1.2
3.4	Public LCM	• Renumber list starting at ‘f’ to start at ‘a’.	20131105-004	1.2
3.8 HRPD – MEID HardwareID				
3.8.1.1 Definition		• Replace “R-UIM” by “Card”	20140313-001	1.3

CONTENTS

1 No text.

LIST OF FIGURES

No text.

LIST OF TABLES

1 No text.

FOREWORD

(This foreword is not part of this ~~Specification~~document)

This Specification was prepared by Technical Specification Group C of the Third Generation Partnership Project 2 (3GPP2). This Specification tests the signaling requirements of C.S0072-0 (Mobile Station Equipment Identifier (MEID) Support for cdma2000®[1] Spread Spectrum Systems) in various configurations, including with an R-UIM or CSIM identified by an Expanded UIMID (EUIMID).

~~SCOPE~~

~~(This scope is not part of this Specification)~~

~~This specification defines air interface signaling conformance and interoperability tests for CDMA base stations and mobile stations implementing MEID (See [5]).~~

[1] cdma2000® is the trademark for the technical nomenclature for certain specifications and standards of the Organizational Partners (OPs) of 3GPP2. Geographically (and as of the date of publication), cdma2000® is a registered trademark of the Telecommunications Industry Association (TIA-USA) in the United States."

1 No text.

~~The following standards contain provisions which, through reference in this text, constitute provisions of this Specification. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this Specification are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. ANSI and TIA maintain registers of currently valid national standards published by them.~~

~~3GPP2 Standards:~~

1. ~~C.S0005-E v1.0, *Upper Layer (Layer 3) Signaling Standard for cdma2000 Spread Spectrum Systems*~~
2. ~~C.S0066-0 v2.0, *Over the Air Service Provisioning for MEID Equipped Mobile Stations in Spread Spectrum Systems*~~
3. ~~C.S0016-C v2.0, *Over the Air Service Provisioning of Mobile Stations in Spread Spectrum Systems*~~
4. ~~C.S0044-A v1.0, *Interoperability Specification for cdma2000 Air Interface*~~
5. ~~C.S0072-0 v1.0, *Mobile Station Equipment Identifier (MEID) Support for cdma2000 Spread Spectrum Systems*~~
6. ~~C.S0023-C v2.0, *Removable User Identity Module for Spread Spectrum Systems*~~
7. ~~C.S0065-0 v2.0, *cdma2000 Application on UICC for Spread Spectrum Systems*~~
8. ~~C.S0024-0 v4.0, *CDMA HighRate Packet Data Air Interface*~~
9. ~~C.S0024-A v3.0, *CDMA HighRate Packet Data Air Interface*~~
10. ~~C.S0043-0 v1.0, *Signaling Conformance Test Specification for cdma2000 Spread Spectrum Systems*~~

1 ~~No text.~~

1 Introduction

In this document, 'mobile station' refers to a subscriber terminal, handset, PDA, wireless local loop unit, or any other subscriber terminal that communicates with the base station at the air interface. 'Base station' refers to the composite functionality of the base station and connected network elements or emulators.

This test specification covers test cases for P_REV_IN_USE 6 to 10. This test specification also covers test cases for devices supporting [8] and/or [9].

The term "Card", when capitalized, can refer to either an R-UIM card [6] or a CSIM card [7].

Separate signaling conformance tests are specified for mobile stations and base stations. Conformance tests are typically performed using an emulator to interface with the unit under test, with a cabled connection for the RF interface. Any test should be executed only if unit under test supports corresponding feature.

For interoperability test cases, a cabled connection is typically used for the air interface connection between the mobile station and base station.

Test cases in this specification are applicable to ~~non R-UIM~~ mobile stations whether or not they support a Card ~~-~~and ~~R-UIM~~all mobile ~~equipments~~ equipment provisioned with an MEID. Note that test cases for ESN provisioned mobile equipment with ~~R-UIM card~~a Card (provisioned with UIMID, LF_EUIMID or SF_EUIMID) are not covered in this specification, but test cases specified in [10] and [4] are sufficient to test ~~R-UIM~~Card configurations with ESN mobile stations.

The terms "true ESN" and "true UIMID" refer to any 32-bit number not starting with the 8-bit prefix 0x80. The terms "pseudo ESN", pESN, pUIMID and "pseudo-UIMID" refer to any 32-bit number that does start with the 8-bit prefix 0x80.

Unless specified otherwise in a test case, channel conditions for a test shall be set to have low FER. Unless specified otherwise in a test case, setup shown in Figure 1 shall be used for all test cases in this document. Note that mobile station shown in Figure 1 consists of mobile equipment and User Identity Module (UIM). The UIM may be integrated or removable.

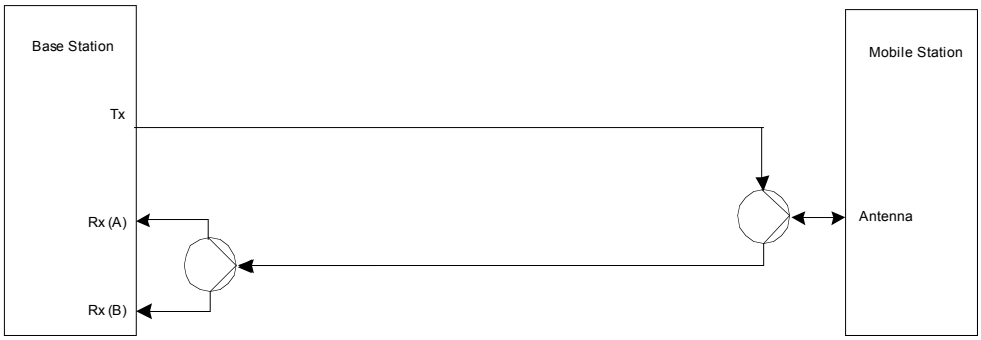

Figure 1 Test Setup

1.1 Scope

This specification defines air interface signaling conformance and interoperability tests for CDMA base stations and mobile stations implementing MEID (See [5]). ~~No text.~~

1.2 Normative References

The following standards contain provisions which, through reference in this text, constitute provisions of this Specification. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this Specification are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. ANSI and TIA maintain registers of currently valid national standards published by them.

3GPP2 Standards:

1. C.S0005-E v1.0, *Upper Layer (Layer 3) Signaling Standard for cdma2000 Spread Spectrum Systems.*
2. C.S0066-0 v2.0, *Over-the-Air Service Provisioning for MEID-Equipped Mobile Stations in Spread Spectrum Systems.*
3. C.S0016-C v2.0, *Over-the-Air Service Provisioning of Mobile Stations in Spread Spectrum Systems.*
4. C.S0044-A v1.0, *Interoperability Specification for cdma2000 Air Interface.*
5. C.S0072-0 v1.0, *Mobile Station Equipment Identifier (MEID) Support for cdma2000 Spread Spectrum Systems.*
6. C.S0023-C v2.0, *Removable User Identity Module for Spread Spectrum Systems.*
7. C.S0065-0 v2.0, *cdma2000 Application on UICC for Spread Spectrum Systems*
8. C.S0024-0 v4.0, *CDMA HighRate Packet Data Air Interface.*
9. C.S0024-A v3.0, *CDMA HighRate Packet Data Air Interface.*

——C.S0043-0 v1.0, *Signaling Conformance Test Specification for cdma2000 Spread Spectrum Systems.*

2 Conformance Tests

2.1 MEID Support Indicator

2.1.1 Mobile Station Test

2.1.1.1 Definition

This test verifies that the mobile station sets the MEID support indicator properly. This test case is applicable to all mobile stations provisioned with MEID (e.g. mobile stations with or without ~~R-UIM, R-UIM~~a Card and mobile stations regardless of ~~R-UIM~~Card configuration).

2.1.1.2 Traceability

See [5]:

2.1.2 Setting of the Station Class Mark field

See [1]:

2.7.1.3.2.1 Registration Message

2.7.1.3.2.4 Origination Message

2.7.1.3.2.5 Page Response Message

2.7.1.3.2.10 Extended Status Response Message

2.7.2.3.2.16 Status Response Message

2.7.4.7 Terminal Information

3.7.2.3.2.15 Status Request Message

3.7.3.3.2.16 Status Request Message

2.1.1.3 Call Flow Example(s)

None

2.1.1.4 Method of Measurement

a. Instruct the base station to set POWER_UP_REG = 1 in the *System Parameters Message* or *ANSI – 41 System Parameters Message*.

b. Power on the mobile station.

c. Verify the mobile station sends a *Registration Message* with MEID Support Indicator set to '1' in the SCM (Station Class Mark) field.

d. Initiate a mobile station originated call.

e. Verify that the mobile station sends an *Origination Message* with MEID Support Indicator set to '1' in the SCM (Station Class Mark) field.

f. Instruct the base station to send a *Status Request Message* with RECORD_TYPE = '00001000' (Terminal Information) on f-dsch.

g. Verify that the mobile station responds with a *Status Response Message* with RECORD_TYPE = '00001000' (Terminal Information), and sets MEID Support Indicator to '1' in the SCM (Station Class Mark) field.

h. End the call.

i. Initiate a mobile station terminated call.

j. Verify that the mobile station sends a *Page Response Message* with MEID Support Indicator set to '1' in the SCM (Station Class Mark) field.

k. End the call.

l. Instruct the base station to send a *Status Request Message* with RECORD_TYPE = '00001000' (Terminal Information) on f-csch.

m. Verify that the mobile station responds with an *Extended Status Response Message* with RECORD_TYPE = '00001000' (Terminal Information), and sets MEID Support Indicator to '1' in the SCM (Station Class Mark) field.

2.1.1.5 Minimum Standard

The mobile station shall comply with steps c, e, g, j and m.

2.2 MEID, EXT_UIM_ID, MEID_ME, ESN_ME Information Records

Tests in this section verify the response of the mobile station to *Status Request Message* carrying MEID, EXT_UIM_ID, MEID_ME and ESN_ME. Test 2.2.1 is applicable to all mobile stations that support MEID. Tests 2.2.2, 2.2.3 and 2.2.4 are applicable to mobile stations that support EXT_UIM_ID, MEID_ME and ESN_ME information records in the *Status Request Message* respectively.

2.2.1 Mobile Station MEID Information Record Test

2.2.1.1 Definition

This test verifies the mobile station response to *Status Request Message* for MEID information record.

2.2.1.2 Traceability

See [5]:

2.1.3 Information Records

See [1]:

2.7.1.3.2.10 Extended Status Response Message

2.7.2.3.2.16 Status Response Message

3.7.2.3.2.15 Status Request Message

3.7.3.3.2.16 Status Request Message

See [6]:

3.4.32 EF_{USGIND} (Removable UIM_ID/SF_EUIMID Usage Indicator)

2.2.1.3 Call Flow Example(s)

None

2.2.1.4 Method of Measurement

a. Initiate a call.

b. Instruct base station to send a *Status Request Message* with RECORD_TYPE = '00100111' (MEID) on f-dsch.

Verify that the mobile station responds with a *Status Response Message* with RECORD_TYPE = '00100111' (MEID), and sets MEID_LEN and MEID fields as per the supported configuration in

c. and the value of the MEID field is set correctly.

Table 1 MEID_LEN and MEID fields in Status Response Message

No.	Mobile station support of R-UIM	R-UIM Configuration	Fields of *Status Response Message*	
			MEID_LEN	MEID
1.	R-UIM not supported	N/A	7	MEID
2.	R-UIM supported as per [6] or [7]	UIMID	7	MEID
3.	R-UIM supported as per [6] or [7]	LF_EUIMID	7	MEID
4.	R-UIM supported as per [6] or [7]	SF_EUIMID with b2 of EF_{USGIND} set to '0'	7	MEID
5.	R-UIM supported as per [6] or [7]	SF_EUIMID with b2 of EF_{USGIND} set to '1'	7	SF_EUIMID
6.	R-UIM supported as per previous revisions of [6]	UIMID	7	MEID
7.	R-UIM supported as per previous revisions of [6]	LF_EUIMID	7	MEID
8.	R-UIM supported as per previous revisions of [6]	SF_EUIMID with b2 of EF_{USGIND} set to '0'	7	MEID
9.	R-UIM supported as per previous revisions of [6]	SF_EUIMID with b2 of EF_{USGIND} set to '1'	7	MEID
10.	R-UIM supported	Not Inserted	7	MEID

d. End the call.

e. Instruct base station to send a *Status Request Message* with RECORD_TYPE = '00100111' (MEID) on f-csch.

Verify that the mobile station responds with an *Extended Status Response Message* with RECORD_TYPE = '00100111' (MEID), and sets MEID_LEN and MEID fields as per the supported configuration in

f. .

Table 1 MEID_LEN and MEID fields in Status Response Message

No.	**Mobile station support of Card**	**Card Configuration**	**Fields of *Status Response Message***	
			MEID_LEN	**MEID**
1.	Supported	EF_{RUIMID}: True UIMID	7	MEID
2.	Supported	EF_{RUIMID}: pUIMID derived from LF_EUIMID	7	MEID
3.	Supported	EF_{RUIMID}: pUIMID derived from SF_EUIMID EF_{USGIND}: b2 set to '0'	7	MEID
4.	Supported	EF_{RUIMID}: pUIMID derived from SF_EUIMID EF_{USGIND}: b2 set to '1'	7	SF_EUIMID
5.	R-UIM supported as per previous revisions of [6]	EF_{RUIMID}: pUIMID derived from SF_EUIMID EF_{USGIND}: b2 set to '1'	7	MEID
6.	Not supported or not inserted	N/A	7	MEID

2.2.1.5 Minimum Standard

The mobile station shall comply with steps c and f.

2.2.2 Mobile Station EXT_UIM_ID Information Record Test

2.2.2.1 Definition

This test verifies the mobile station response to *Status Request Message* for EXT_UIM_ID

information records.

2.2.2.2 Traceability

See [5]:

2.1.3 Information Records

See [1]:

2.7.1.3.2.10 Extended Status Response Message

2.7.2.3.2.16 Status Response Message

3.7.2.3.2.15 Status Request Message

3.7.3.3.2.16 Status Request Message

See [6]:

3.4.32 EF_{USGIND} (Removable UIM_ID/ SF_EUIMID Usage Indicator)

2.2.2.3 Call Flow Example(s)

None

2.2.2.4 Method of Measurement

a. Initiate a call.

b. Instruct base station to send a *Status Request Message* with RECORD_TYPE = '00101101' (EXT_UIM_ID) on f-dsch.

c. Verify that the mobile station responds with a *Status Response Message* with RECORD_TYPE = '00101101' (EXT_UIM_ID), and sets EXT_UIM_ID_LEN and EXT_UIM_ID fields as per the supported configuration in and the value of the EXT_UIM_ID field is set correctly.

~~**Table 2 EXT_UIM_ID Capability Information Record in Protocol Capability Request Message**~~

~~**No.**~~	~~**Mobile equipment support of R-UIM and OTASP**~~	~~**R-UIM Configuration**~~	~~**Value in Capability Information Record of *Extended Protocol Capability Response Message***~~
~~1.~~	~~R-UIM supported as per [6] and [7].~~	~~SF_EUIMID with b2 of EF_{USGIND} set to '1'~~	~~SF_EUIMID~~

No.	Mobile equipment support of R-UIM and OTASP	R-UIM Configuration	Value in Capability Information Record of *Extended Protocol Capability Response Message*
2.	R-UIM supported as per [6] and [7].	SF_EUIMID with b2 of EF_{USGIND} set to '0'	SF_EUIMID
3.	R-UIM supported as per [6] and [7].	LF_EUIMID, when UIMID contains an 8-bit prefix set to 0x80, and service n8 is not activated	ICCID(LF_EUIMID)
4.	R-UIM supported as per [6] and [7].	True UIMID, i.e UIMID does not contain an 8-bit prefix that is set to 0x80.	ICCID
5.	R-UIM is not supported or is supported but not inserted.	N/A	A value of '00000000' for CAP_RECORD_LEN for CAP_RECORD_TYPE '00000100'

d. End the call.

e. Instruct base station to send a *Status Request Message* with RECORD_TYPE = '00101101' (EXT_UIM_ID) on f-csch.

f. Verify that the mobile station responds with an *Extended Status Response Message* with RECORD_TYPE = '00101101' (EXT_UIM_ID), and sets EXT_UIM_ID_LEN and EXT_UIM_ID fields as per the supported configuration in

Table 2 EXT_UIM_ID fields in Extended Status Response Message

No.	Mobile equipment support of Card	Card Configuration	Information Record contents
1.	Supported	EF_{RUIMID}: pUIMID and (EF_{CST}: Service n8 is activated or EF_{CSIM_ST}: Service n34 is activated)	SF_EUIMID
2.	Supported	EF_{RUIMID}: pUIMID and (EF_{CST}: Service n8 is not activated or EF_{CSIM_ST}: Service n34 is not activated)	LF_EUIMID (ICCID)
3.	Supported	EF_{RUIMID}: True UIMID	Null (A value of '00000000' for RECORD_LEN)
4.	Not supported or is supported but not inserted.	N/A	Null (A value of '00000000' for RECORD_LEN)

2.2.2.5 Minimum Standard

The mobile station shall comply with steps c and f.

2.2.3 Mobile Station MEID_ME Information Record Test

2.2.3.1 Definition

This test verifies the mobile station response to *Status Request Message* for MEID_ME information records.

Traceability

See [5]:

2.1.3 Information Records

See [1]:

2.7.1.3.2.10 Extended Status Response Message

2.7.2.3.2.16 Status Response Message

3.7.2.3.2.15 Status Request Message

3.7.3.3.2.16 Status Request Message

See [6]:

3.4.32 EF$_{USGIND}$ (Removable UIM_ID/SF_EUIMID Usage Indicator)

2.2.3.2 Call Flow Example(s)

None

2.2.3.3 Method of Measurement

a. Initiate a call.

b. Instruct base station to send a *Status Request Message* with RECORD_TYPE = '00101110' (MEID_ME) on f-dsch.

c. Verify that the mobile station responds with a *Status Response Message* with RECORD_TYPE = '00101110' (MEID_ME), and sets MEID_ME_LEN and MEID_ME fields as per the supported configuration in and the value of the MEID_ME field is set correctly.

d. End the call.

e. Instruct base station to send a *Status Request Message* with RECORD_TYPE = '00101110' (MEID_ME) on f-csch.

f. Verify that the mobile station responds with an *Extended Status Response Message* with RECORD_TYPE = '00101110' (MEID_ME), and sets MEID_ME_LEN and MEID_ME fields as per the supported configuration in .

~~**Table 3 MEID_ME Capability Information Record in *Protocol Capability Request Message***~~

~~**No.**~~	~~**Mobile equipment support of R-UIM and [2] and [3]**~~	~~**R-UIM Configuration**~~	~~**Value in Capability Information Record of *Extended Protocol Capability Response Message***~~

~~No.~~	~~Mobile equipment support of R-UIM and [2] and [3]~~	~~R-UIM Configuration~~	~~Value in Capability Information Record of *Extended Protocol Capability Response Message*~~
~~1.~~	~~R-UIM supported as per [6] and [7].~~	~~All of the following configurations with R-UIM card that supports [6] and [7]:~~ ~~a) SF_EUIMID with b2 of EF_{USGIND} set to '0'~~ ~~b)~~a)~~SF_EUIMID with b2 of EF_{USGIND} set to '1'~~	~~MEID_ME~~
~~2.~~	~~R-UIM supported as per [6] and [7].~~	~~All of the following configurations~~ ~~a) True UIMID, i.e UIMID does not contain an 8 bit prefix that is set to 0x80.~~ ~~b) LF_EUIMID, when UIMID contains an 8 bit prefix that is set to 0x80 and service n8 is not activated.~~	~~MEID_ME~~
~~3~~	~~R-UIM is not supported or is supported but not inserted.~~	~~N/A~~	~~MEID_ME~~

Table 3 MEID_ME Information Record in *Extended Status Response Message*

No.	Mobile equipment support of Card	Card Configuration	Value in Information Record
1.	Supported	EF_{RUIMID}: pUIMID derived from SF_EUIMID EF_{USGIND}: b2 set to '0'	MEID_ME
2.	Supported	EF_{RUIMID}: pUIMID derived from SF_EUIMID EF_{USGIND}: b2 set to '1'	MEID_ME
4.	Supported	EF_{RUIMID}: pUIMID derived from LF_EUIMID and (EF_{CST}: Service n8 is not activated or EF_{CSIM_ST}: Service n34 is not activated)	MEID_ME

2.2.3.4 Minimum Standard

The mobile station shall comply with steps c and f.

2.2.4 Mobile Station ESN_ME Information Record Test

2.2.4.1 Definition

This test verifies the mobile station response to *Status Request Message* for ESN_ME information records.

Traceability

See [5]:

2.1.3 Information Records

See [1]:

2.7.1.3.2.10 Extended Status Response Message

2.7.2.3.2.16 Status Response Message

3.7.2.3.2.15 Status Request Message

3.7.3.3.2.16 Status Request Message

See [6]:

3.4.32 EF_{USGIND} (Removable UIM_ID/SF_EUIMID Usage Indicator)

2.2.4.2 Call Flow Example(s)

None

2.2.4.3 Method of Measurement

a. Initiate a call.

b. Instruct base station to send a *Status Request Message* with RECORD_TYPE = '00100110' (ESN_ME) on f-dsch.

c. Verify that the mobile station responds with a *Status Response Message* with RECORD_TYPE = '00100110' (ESN_ME), and sets ESN_ME_LEN and ESN_ME fields as per [1] and the value of the ESN_ME field is set correctly.

d. End the call.

e. Instruct base station to send a *Status Request Message* with RECORD_TYPE = '00100110' (ESN_ME) on f-csch.

f. Verify that the mobile station responds with an *Extended Status Response Message* with RECORD_TYPE = '00100110' (ESN_ME), and sets ESN_ME_LEN and ESN_ME fields as per [1] and the value of the ESN_ME field is set correctly.

2.2.4.4 Minimum Standard

The mobile station shall comply with steps c and f.

2.3 Pseudo-ESN

2.3.1 Mobile Station Test

2.3.1.1 Definition

This test verifies that the mobile station sets the ESN field properly.

2.3.1.2 Traceability

See [5]:

2.1.1 MEID and ESN

See [1]:

2.7.1.3.2.10 Extended Status Response Message

2.7.1.3.2.4 Origination Message

3.7.2.3.2.15 Status Request Message

See [6]:

3.4.32 EF_{USGIND} (Removable UIM_ID/SF_EUIMID Usage Indicator)

2.3.1.3 Call Flow Example(s)

None

2.3.1.4 Method of Measurement

a. Instruct base station to send *Status Request Message* with RECORD_TYPE = '00001101' (ESN) and '00100111' (MEID) on f-csch.

b. Record values of ESN and MEID fields included by the mobile station *Extended Status Response Message*. Verify that the mobile station sets ESN and MEID fields as per the supported configuration in .

~~**Table 4 MEID and ESN fields in *Extended Status Response Message***~~

~~**No.**~~	~~**Mobile station support of R-UIM**~~	~~**R-UIM Configuration**~~	~~**Fields of *Status Response Message***~~	
			~~**MEID**~~	~~**ESN**~~
~~1.~~	~~R-UIM not supported~~	~~N/A~~	~~MEID~~	~~pESN~~
~~2.~~	~~R-UIM supported as per [6] or [7]~~	~~UIMID with b1 of EF_{USGIND} set to '0'~~	~~MEID~~	~~pESN~~

No.	Mobile station support of R-UIM	R-UIM Configuration	Fields of *Status Response Message*	
			MEID	ESN
3.	R-UIM supported as per [6] or [7]	UIMID with b1 of EF_{USGIND} set to '1'	MEID	UIMID
4.	R-UIM supported as per [6] or [7]	LF_EUIMID with b1 of EF_{USGIND} set to '0'	MEID	pESN
5.	R-UIM supported as per [6] or [7]	LF_EUIMID with b1 of EF_{USGIND} set to '1'	MEID	pUIMID
6.	R-UIM supported as per [6] or [7]	SF_EUIMID with bits b2b1 of EF_{USGIND} set to '00'	MEID	pESN
7.	R-UIM supported as per [6] or [7]	SF_EUIMID with bits b2b1 of EF_{USGIND} set to '01'	MEID	pUIMID
8.	R-UIM supported as per [6] or [7]	SF_EUIMID with bits b2b1 of EF_{USGIND} set to '10'	SF_EUIMID	pESN
9.	R-UIM supported as per [6] or [7]	SF_EUIMID with bits b2b1 of EF_{USGIND} set to '11'	SF_EUIMID	pUIMID
10.	R-UIM supported as per previous revisions of [6]	UIMID with b1 of EF_{USGIND} set to '0'	MEID	pESN
11.	R-UIM supported as per previous revisions of [6]	UIMID with b1 of EF_{USGIND} set to '1'	MEID	UIMID

No.	Mobile station support of R-UIM	R-UIM Configuration	Fields of *Status Response Message*	
			MEID	ESN
12.	R-UIM supported as per previous revisions of [6]	LF_EUIMID with b1 of EF_{USGIND} set to '0'	MEID	pESN
13.	R-UIM supported as per previous revisions of [6]	LF_EUIMID with b1 of EF_{USGIND} set to '1'	MEID	UIMID
14.	R-UIM supported as per previous revisions of [6]	SF_EUIMID with bits b2b1 of EF_{USGIND} set to '00'	MEID	pESN
15.	R-UIM supported as per previous revisions of [6]	SF_EUIMID with bits b2b1 of EF_{USGIND} set to '01'	MEID	pUIMID
16.	R-UIM supported as per previous revisions of [6]	SF_EUIMID with bits b2b1 of EF_{USGIND} set to '10'	MEID	pESN
17.	R-UIM supported as per previous revisions of [6]	SF_EUIMID with bits b2b1 of EF_{USGIND} set to '11'	MEID	pUIMID

c. If the mobile station returns MEID and pESN in step b, then calculate pseudo ESN value from the MEID field value recorded in step b and verify that calculated value of pseudo ESN matches with ESN field value recorded in step b. If the mobile station returns SF_EUIMID and pUIMID in step b, then calculate pseudo UIMID value from the MEID field value recorded in step b and verify that calculated value of pseudo UIMID matches with ESN field value recorded in step b. If the mobile station returns MEID and pUIMID/UIMID in step b, then calculate pseudo ESN value from the MEID field value recorded in step b and verify that calculated value of pseudo ESN matches with ESN field value recorded in step b..

d. Initiate a mobile station originated call. Ensure that base station sets the

PREF_MSID_TYPE = '11' in the overhead message.

e. Verify the value of ESN field in the *Origination Message* sent by the mobile station is same as value of ESN field recorded in step b.

Table 4 MEID and ESN fields in *Extended Status Response Message*

No.	Mobile station support of Card	Card Configuration	Fields of *Status Response Message*	
			MEID	ESN
1.	Supported	EF_{RUIMID}: True UIMID EF_{USGIND}: b1 set to '0'	MEID	pESN
2.	Supported	EF_{RUIMID}: True UIMID EF_{USGIND}: b1 set to '1'	MEID	UIMID
3.	Supported	EF_{RUIMID}: pUIMID derived from LF_EUIMID EF_{USGIND}: b1 set to '0'	MEID	pESN
4.	Supported	EF_{RUIMID}: pUIMID derived from LF_EUIMID EF_{USGIND}: b1 set to '1'	MEID	pUIMID
5.	Supported	EF_{RUIMID}: pUIMID derived from SF_EUIMID EF_{USGIND}: Bits b2b1 set to '00'	MEID	pESN
6.	Supported	EF_{RUIMID}: pUIMID derived from SF_EUIMID EF_{USGIND}: Bits b2b1 set to '01'	MEID	pUIMID
7.	Supported	EF_{RUIMID}: pUIMID derived from SF_EUIMID EF_{USGIND}: Bits b2b1 set to '10'	SF_EUIMID	pESN
8.	Supported	EF_{RUIMID}: pUIMID derived from SF_EUIMID EF_{USGIND}: Bits b2b1 set to '11'	SF_EUIMID	pUIMID
9.	R-UIM supported as per previous revisions of [6]	EF_{RUIMID}: pUIMID derived from SF_EUIMID EF_{USGIND}: Bits b2b1 set to '10'	MEID	pESN
10.	R-UIM supported as per previous revisions of [6]	EF_{RUIMID}: pUIMID derived from SF_EUIMID EF_{USGIND}: Bits b2b1 set to '11'	MEID	pUIMID
11.	Not supported	N/A	MEID	pESN

2.3.1.5 Minimum Standard

The mobile station shall comply with steps b, c and e.

2.4 Public LCM

2.4.1 Mobile Station Test

2.4.1.1 Definition

This test verifies the mobile station support for public LCM types.

2.4.1.2 Traceability

See [5]:

2.1.4 Public Long Code Mask Types

2.1.6 Channel Assignment Processing

2.2.1 Extended Channel Assignment Message

2.2.3 Base Station Assigned PLCM

See [1]:

2.3.6 Public Long Code Mask and Private Long Code Mask

3.7.2.3.2.21 Extended Channel Assignment Message

2.4.1.3 Call Flow Example(s)

None

2.4.1.4 Method of Measurement

a. Configure base station P_REV to 6.

b. Set up a call.

c. During call setup, instruct the base station to send an *MEID Extended Channel Assignment Message* (P_REV_IN_USE equal to 6, 7 or 8) or *Extended Channel Assignment Message* (P_REV_IN_USE greater than or equal to 9) with PLCM_TYPE field set to value corresponding to case 1 in Table 5 below :

Table 5 Public LCM Conformance Test Cases

Case	PLCM_TYPE (binary)	Description
1.	0000	PLCM derived from ESN This case should be executed for one of the following scenarios: a) ~~R-UIM~~Card not supported b) ~~R-UIM~~Card supported but not inserted c) ~~R-UIM~~Card supported with bit b1 of EF_{USGIND} set to '0'.
2.	0000	PLCM derived from UIMID. This case is applicable when ~~R-UIM~~a Card is supported. It should be executed with bit b1 of EF_{USGIND} in ~~R-UIM~~the Card configuration set to '1'.
3.	0001	PLCM specified by the base station
4.	0010	PLCM derived from IMSI_O_S when IMSI_O is derived from IMSI_M
5.	0011	PLCM derived from IMSI_O_S when IMSI_O is derived from IMSI_T
6.	0100	PLCM derived from MEID This case should be executed for one of the following scenarios: a) ~~R-UIM~~Card not supported b) ~~R-UIM~~Card supported but not inserted c) ~~R-UIM~~Card supported with bit b2 of EF_{USGIND} set to '0'
7.	0100	PLCM derived from SF_EUIMID. This case is applicable when ~~R-UIM~~a Card is supported as per [6] or [7]. It should be executed with bit b2 of EF_{USGIND} in ~~R-UIM~~the Card configuration set to '1'.

d. Verify that mobile station is using the correct public LCM (e.g. user data is exchanged successfully in both directions). Note that for PLCM_TYPE '0000' and '0100' the public LCM is derived from the value the mobile station returns in ESN and MEID fields respectively.

e. End the call.

f. Repeat steps b through e with PLCM_TYPE values corresponding to cases 2 through 7 in Table 5 as applicable.

g. If MOB_P_REV is 7 or higher, repeat steps a through f for each base station P_REV between 7 and MOB_P_REV.

2.4.1.5 Minimum Standard

The mobile station shall comply with step d.

2.5 LCM and Service Negotiation, Handoff for Mobile Station supporting Voice Privacy

2.5.1 Mobile Station Test

2.5.1.1 Definition

This test verifies the mobile station support for LCM changes during service negotiation and handoff. This test is applicable only to mobile stations that support voice privacy. Ensure that voice privacy is enabled at mobile station.

2.5.1.2 Traceability

See [5]:

2.1.4 Public Long Code Mask Types

2.1.6 Channel Assignment Processing

2.1.7 Handoff Processing

2.2.1 Extended Channel Assignment Message

2.2.2 Universal Handoff Direction Message

See [1]:

2.3.6 Public Long Code Mask and Private Long Code Mask

2.6.4.1.2.2.5 Waiting for Service Action Time Subfunction

2.6.6.2.5.1 Processing of Forward Traffic Channel Handoff Messages

3.7.2.3.2.21 Extended Channel Assignment Message

3.7.3.3.2.17 Extended Handoff Direction Message

3.7.3.3.2.20 Service Connect Message

3.7.3.3.2.31 General Handoff Direction Message

3.7.3.3.2.36 Universal Handoff Direction Message

2.5.1.3 Call Flow Example(s)

None

2.5.1.4 Method of Measurement

a. Configure base station P_REV to 6. Connect the mobile station and base stations as shown in Figure 2.

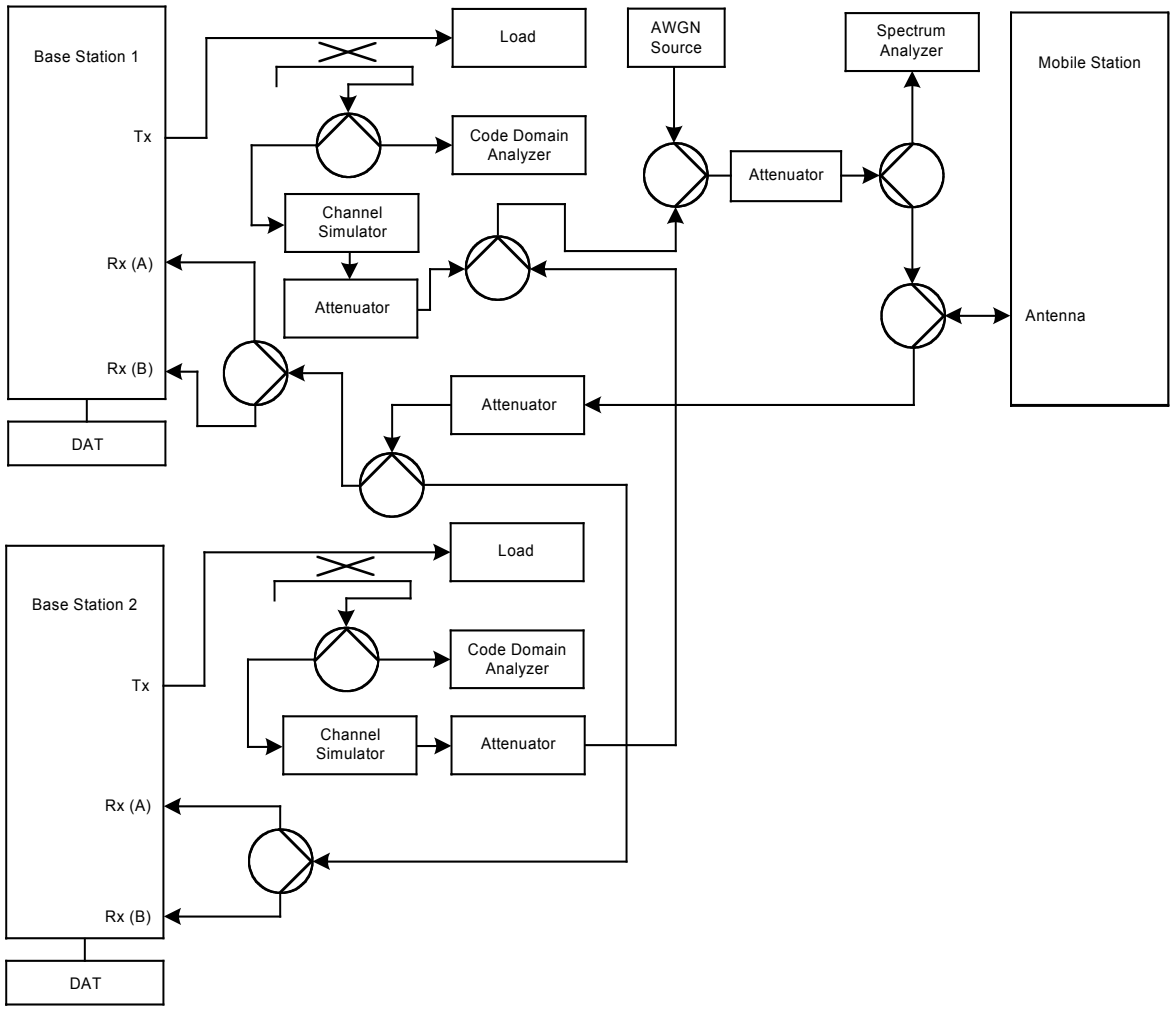

Figure 2 – MEID handoff test setup

b. Set up a call using any of the public LCM types.

c. After call setup, instruct the base station to send a message with field values set to case 1 as per Table 6 below. In cases where the mobile station is expected to start using public LCM, select appropriate value of public PLCM_TYPE such that LCM changes as a result of the message. In the Table 6 below, *MEID Universal Handoff Direction Message* (P_REV_IN_USE equal to 6, 7 or 8) or *Universal Handoff Direction Message* (P_REV_IN_USE greater than or equal to 9) is used based on P_REV_IN_USE.

Table 6 Change of LCM Conformance Test Cases with Voice Privacy Enabled

Case	Message	Field values	Expected Result at action time
1.	*Extended Handoff Direction Message*	PRIVATE_LCM is not included (HARD_INCLUDED is set to '0')	Mobile station continues use of current LCM (public or private)
2.	*Extended Handoff Direction Message*	PRIVATE_LCM=1	Mobile station starts using private LCM
3.	*Extended Handoff Direction Message*	PRIVATE_LCM=0	Mobile station starts using public LCM as per stored $PLCM\_TYPE_S$
4.	*General Handoff Direction Message*	PRIVATE_LCM is not included (EXTRA_PARMS is set to '0')	Mobile station continues use of current LCM (public or private)
5.	*General Handoff Direction Message*	PRIVATE_LCM=1	Mobile station starts using private LCM
6.	*General Handoff Direction Message*	PRIVATE_LCM=0	Mobile station starts using public LCM as per stored $PLCM\_TYPE_S$
7.	*MEID Universal Handoff Direction Message* or *Universal Handoff Direction Message*	PRIVATE_LCM is not included (EXTRA_PARMS is set to '0'), PLCM_TYPE_INCL=0	Mobile station continues use of current LCM (public or private)
8.	*MEID Universal Handoff Direction Message* or *Universal Handoff Direction Message*	PRIVATE_LCM is not included (EXTRA_PARMS is set to '0'), PLCM_TYPE_INCL=1	Mobile station starts using public LCM as per PLCM_TYPE included in the message

Case	Message	Field values	Expected Result at action time
9.	*MEID Universal Handoff Direction Message* or *Universal Handoff Direction Message*	PRIVATE_LCM=1, PLCM_TYPE_INCL=0	Mobile station starts using private LCM
10.	*MEID Universal Handoff Direction Message* or *Universal Handoff Direction Message*	PRIVATE_LCM=0, PLCM_TYPE_INCL=1	Mobile station starts using public LCM as per PLCM_TYPE included in the message
11.	*MEID Universal Handoff Direction Message* or *Universal Handoff Direction Message*	PRIVATE_LCM=0 & PLCM_TYPE_INCL=0	Mobile station starts using public LCM as per stored $PLCM\_TYPE_s$
12.	*MEID Universal Handoff Direction Message* or *Universal Handoff Direction Message*	PRIVATE_LCM=1 & PLCM_TYPE_INCL=1	Mobile station stores received PLCM_TYPE as $PLCM\_TYPE_s$. Mobile station starts using private LCM.
13.	*Service Connect Message*	USE_TYPE0 _PLCM=0	This case is applicable only to P_REV_IN_USE 9 and 10. Mobile station continues use of current LCM (public or private)
14.	*Service Connect Message*	USE_TYPE0 _PLCM=1	This case is applicable only to P_REV_IN_USE 9 and 10. If P_REV_IN_USE is less than 11, mobile station starts using public LCM corresponding to PLCM_TYPE='0000' (ESN-based PLCM) Otherwise, mobile station starts using public LCM as specified in [1].

1

d. At action time of the message sent in step c, verify that mobile station uses correct LCM as described in the table in step c (e.g. user data is exchanged successfully in both directions). Note that for PLCM_TYPE '0000' and '0100' the public LCM is derived from the value the mobile station returns in ESN and MEID fields respectively.

e. End the call.

f. If P_REV_IN_USE is less than 9, repeat steps b through e for cases 2 through 12 in Table 6. Otherwise, repeat steps b through e for cases 2 through 14 in Table 6.

g. Repeat steps b through f with following modification: After call setup in step b, the base station sends a *Long Code Transition Request Order* with ORDQ field set to ' 00000001' (request private) and private LCM is used on the traffic channel.

h. If MOB_P_REV is 7 or higher, repeat steps a through g for each base station P_REV between 7 and MOB_P_REV.

2.5.1.5 Minimum Standard

The mobile station shall comply with step d.

2.6 LCM and Service Negotiation, Handoff when Voice Privacy is not supported or is disabled at the Mobile Station

2.6.1 Mobile Station Test

2.6.1.1 Definition

This test verifies the mobile station support for LCM changes during service negotiation and handoff. This test case is applicable only when voice privacy is not supported or is disabled at the mobile station.

2.6.1.2 Traceability

See [5]:

2.1.4 Public Long Code Mask Types

2.1.6 Channel Assignment Processing

2.1.7 Handoff Processing

2.2.1 Extended Channel Assignment Message

2.2.2 Universal Handoff Direction Message

See [1]:

2.3.6 Public Long Code Mask and Private Long Code Mask

2.6.4.1.2.2.5 Waiting for Service Action Time Subfunction

2.6.6.2.5.1 Processing of Forward Traffic Channel Handoff Messages

3.7.2.3.2.21 Extended Channel Assignment Message

3.7.3.3.2.17 Extended Handoff Direction Message

3.7.3.3.2.20 Service Connect Message

3.7.3.3.2.31 General Handoff Direction Message

3.7.3.3.2.36 Universal Handoff Direction Message

2.6.1.3 Call Flow Example(s)

None

2.6.1.4 Method of Measurement

a. Configure base station P_REV to 6. Connect the mobile station and base stations as shown in Figure 2.

b. Set up a call using any of the public LCM types.

c. After call setup, instruct the base station to send a message with field values set to case 1 as per Table 7 below. In cases where the mobile station is expected to start using public LCM, select appropriate value of public PLCM_TYPE such that LCM changes as a result of the message. In the Table 7 below, *MEID Universal Handoff Direction Message* (P_REV_IN_USE equal to 6, 7 or 8) or *Universal Handoff Direction Message* (P_REV_IN_USE greater than or equal to 9) is used based on P_REV_IN_USE.

Table 7 Change of LCM Conformance Test Cases without Voice Privacy

Case	Message	Field values	Expected Result at action time
1.	*Extended Handoff Direction Message*	PRIVATE_LCM is not included (HARD_INCLUDED is set to '0')	Mobile station continues use of current LCM
2.	*Extended Handoff Direction Message*	PRIVATE_LCM=0	Mobile station starts using public LCM as per stored $PLCM\_TYPE_s$
3.	*General Handoff Direction Message*	PRIVATE_LCM is not included (EXTRA_PARMS is set to '0')	Mobile station continues use of current LCM
4.	*General Handoff Direction Message*	PRIVATE_LCM=0	Mobile station starts using public LCM as per stored $PLCM\_TYPE_s$
5.	*MEID Universal Handoff Direction Message* or *Universal Handoff Direction Message*	PRIVATE_LCM is not included (EXTRA_PARMS is set to '0'), PLCM_TYPE_INCL=0	Mobile station continues use of current LCM
6.	*MEID Universal Handoff Direction Message* or *Universal Handoff Direction Message*	PRIVATE_LCM is not included (EXTRA_PARMS is set to '0'), PLCM_TYPE_INCL=1	Mobile station starts using public LCM as per PLCM_TYPE included in the message

Case	Message	Field values	Expected Result at action time
7.	*MEID Universal Handoff Direction Message* or *Universal Handoff Direction Message*	PRIVATE_LCM=0, PLCM_TYPE_INCL=1	Mobile station starts using public LCM as per PLCM_TYPE included in the message
8.	*MEID Universal Handoff Direction Message* or *Universal Handoff Direction Message*	PRIVATE_LCM=0 & PLCM_TYPE_INCL=0	Mobile station starts using public LCM as per stored $PLCM\_TYPE_s$
9.	*Service Connect Message*	USE_TYPE0 _PLCM=0	This case is applicable only to P_REV_IN_USE 9 and 10. Mobile station continues use of current LCM
10.	*Service Connect Message*	USE_TYPE0 _PLCM=1	This case is applicable only to P_REV_IN_USE 9 and 10. If P_REV_IN_USE is less than 11, mobile station starts using public LCM corresponding to PLCM_TYPE='0000' (ESN-based PLCM) Otherwise, mobile station starts using public LCM as specified in [1].

d. At action time of the message sent in step c, verify that mobile station uses correct LCM as described in the table in step c (e.g. user data is exchanged successfully in both directions).

e. End the call.

f. If P_REV_IN_USE is less than 9, repeat steps b through e for cases 2 through 8 in Table 7. Otherwise, repeat steps b through e for cases 2 through 10 in Table 7.

g. If MOB_P_REV is 7 or higher, repeat steps a through f for each base station P_REV between 7 and MOB_P_REV.

2.6.1.5 Minimum Standard

The mobile station shall comply with step d.

2.7 Over-the-Air Service Provisioning (OTASP) Test

Tests in this section verify the response of the mobile station to *Protocol Capability Request Message*. Test 2.7.1 is applicable to mobile stations that support MEID. Test 2.7.2 is applicable to mobile stations that support CAP_RECORD_TYPE of ICCID in the *Protocol Capability Request Message*. Test 2.7.3 is applicable to mobile stations that support CAP_RECORD_TYPE of EXT_UIM_ID in the *Protocol Capability Request Message*. Test 2.7.4 is applicable to mobile stations that support CAP_RECORD_TYPE of MEID_ME in the *Protocol Capability Request Message*. Test 2.7.5 is applicable to mobile stations that support any of ICCID, EXT_UIM_ID and MEID_ME CAP_RECORD_TYPE values in the *Protocol Capability Request Message*.

2.7.1 Mobile Station MEID Capability Information Record Test

2.7.1.1 Definition

This test verifies that the mobile station includes MEID information in the *Extended Protocol Capability Response Message*.

2.7.1.2 Traceability

See [5]:

2.1.8 Over-the-Air Service Provisioning

See [2] or [3]:

2.7.2.3.2.16 Status Response Message

3.7.3.3.2.16 Status Request Message

3.3.1 OTASP Data Message Processing

3.5.1.17 Extended Protocol Capability Response Message

3.5.1.17.1 Capability Information Record

4.3.1 OTA Data Message Processing

4.5.1.7 Protocol Capability Request Message

See [6]:

3.4.32 EF_{USGIND} (Removable UIM_ID/SF_EUIMID Usage Indicator)

2.7.1.3 Call Flow Example(s)

None

2.7.1.4 Method of Measurement

a. Set up a mobile originated OTASP call.

b. Upon call setup, instruct the base station to send a *Protocol Capability Request Message* with the following Capability Record Type:

CAP_RECORD_TYPE	BLOCK_ID
MEID	'00000010'

c. Verify the mobile station sends an *Extended Protocol Capability Response Message* within 750ms. Also verify that the message contains the MEID capability information record with value set as per the supported configuration in .

~~**Table 8 MEID Capability Information Record in *Protocol Capability Request Message***~~

~~**No.**~~	~~**Mobile equipment support of R-UIM**~~	~~**R-UIM Configuration**~~	~~**Value in MEID Capability Information Record of *Extended Protocol Capability Response Message***~~
~~1.~~	~~R-UIM not supported~~	~~N/A~~	~~MEID~~
~~2.~~	~~R-UIM supported as per [6] or [7][2]~~	~~UIMID~~	~~MEID~~
~~3.~~	~~R-UIM supported as per [6] or [7]~~	~~LF_EUIMID~~	~~MEID~~
~~4.~~	~~R-UIM supported as per [6] or [7]~~	~~SF_EUIMID with b2 of EF_{USGIND} set to '0'~~	~~MEID~~
~~5.~~	~~R-UIM supported as per [6] or [7]~~	~~SF_EUIMID with b2 of EF_{USGIND} set to '1'~~	~~SF_EUIMID~~
~~6.~~	~~R-UIM supported as per previous revisions of [6][2]~~	~~UIMID~~	~~MEID~~

~~[2] This situation will not occur in current networks because the network examines the ESN field prefix and only queries for MEID if it is 0x80, which it will not be for a UIMID.~~

~~No.~~	~~Mobile equipment support of R-UIM~~	~~R-UIM Configuration~~	~~Value in MEID Capability Information Record of *Extended Protocol Capability Response Message*~~
~~7.~~	~~R-UIM supported as per previous revisions of [6]~~	~~LF_EUIMID~~	~~MEID~~
~~8.~~	~~R-UIM supported as per previous revisions of [6]~~	~~SF_EUIMID with b2 of EF_{USGIND} set to '0'~~	~~MEID~~
~~9.~~	~~R-UIM supported as per previous revisions of [6]~~	~~SF_EUIMID with b2 of EF_{USGIND} set to '1'~~	~~MEID~~

Test 5 in Table 8 is not applicable for mobile stations compliant with Rev C of [6] or higher.

For a mobile station that does not support a Card, only Test 6 in Table 8 should be performed.

Table 8 MEID Capability Information Record in *Protocol Capability Request Message*

No.	Mobile equipment support of Card	Card Configuration	Value in MEID Capability Information Record of *Extended Protocol Capability Response Message*
1.	Supported	EF_{RUIMID}: True UIMID	MEID
2.	Supported	EF_{RUIMID}: pUIMID derived from LF_EUIMID	MEID
3.	Supported	EF_{RUIMID}: pUIMID derived from SF_EUIMID EF_{USGIND}: b2 set to '0'	MEID
4.	Supported	EF_{RUIMID}: pUIMID derived from SF_EUIMID EF_{USGIND}: b2 set to '1'	SF_EUIMID

No.	Mobile equipment support of Card	Card Configuration	Value in MEID Capability Information Record of *Extended Protocol Capability Response Message*
5.	R-UIM supported as per previous revisions of [6]	EF_{RUIMID}: pUIMID derived from SF_EUIMID EF_{USGIND}: b2 set to '1'	MEID
6.	Not supported	N/A	MEID

2.7.1.5 Minimum Standard

The mobile station shall comply with step c.

2.7.2 Mobile Station ICCID Capability Information Record Test

2.7.2.1 Definition

This test verifies that the mobile station includes ICCID information in the *Extended Protocol Capability Response Message*, if the mobile station supports parsing of *Protocol Capability Request Message* with BLOCK_ID value of '00000011' (ICCID). The test should be repeated for various configurations of Table 9 that are applicable to the mobile station.

2.7.2.2 Traceability

See [5]:

2.1.8 Over-the-Air Service Provisioning

See [2] or [3]:

2.7.2.3.2.16 Status Response Message

3.7.3.3.2.16 Status Request Message

3.3.1 OTASP Data Message Processing

3.5.1.17 Extended Protocol Capability Response Message

3.5.1.17.1 Capability Information Record

4.3.1 OTA Data Message Processing

4.5.1.7 Protocol Capability Request Message

See [6]:

3.4.32 EF_{USGIND} (Removable UIM_ID/SF_EUIMID Usage Indicator)

2.7.2.3 Call Flow Example(s)

None

2.7.2.4 Method of Measurement

a. Set up a mobile originated OTASP call.

b. Upon call setup, instruct the base station to send a *Protocol Capability Request Message* with the following Capability Record Type:

CAP_RECORD_TYPE	**BLOCK_ID**
ICCID	'00000011'

c. Verify the mobile station sends an *Extended Protocol Capability Response Message* within 750ms. Further, verify that the message contains the ICCID capability information record with value set as per the supported configuration in Table 9.

Table 9 ICCID Capability Information Record in *Protocol Capability Request Message*

~~No.~~	~~Mobile equipment support of R-UIM~~	~~R-UIM Configuration~~	~~Value in Capability Information Record of *Extended Protocol Capability Response Message*~~
~~1.~~	~~R-UIM supported as per [6] and [7].~~	~~All of the following configurations when R-UIM card supports [6] and [7]:~~ ~~a) SF_EUIMID with b2 of EF_{USGIND} set to '0'~~ ~~b)~~a)~~SF_EUIMID with b2 of EF_{USGIND} set to '1'~~	~~ICCID~~
~~2.~~	~~R-UIM supported as per [6] and [7].~~	~~LF_EUIMID, when UIMID contains an 8-bit prefix set to 0x80, and service n8 is not activated~~	~~ICCID~~
~~3~~	~~R-UIM supported as per [6] and [7].~~	~~True_UIMID, i.e UIMID does not contain an 8-bit prefix that is set to 0x80~~	~~ICCID~~
~~4.~~	~~R-UIM is not supported or is supported but not inserted.~~	~~N/A~~	~~A value of '00000000' for CAP_RECORD_LEN for CAP_RECORD_TYPE '00000011'~~

For a mobile station that does not support a Card only Test 4 in Table 9 should be performed.

No.	Mobile equipment support of Card	Card Configuration	Value in Capability Information Record of *Extended Protocol Capability Response Message*
1.	Supported	EF_{RUIMID}: pUIMID derived from SF_EUIMID EF_{USGIND}: b2 set to '1'	ICCID

No.	Mobile equipment support of Card	Card Configuration	Value in Capability Information Record of *Extended Protocol Capability Response Message*
4.	Not supported or is supported but not inserted.	N/A	A value of '00000000' for CAP_RECORD_LEN for CAP_RECORD_TYPE '00000011'

1

2 2.7.2.5 Minimum Standard

3 The mobile station shall comply with step c.

2.7.3 Mobile Station EXT_UIM_ID Capability Information Record Test

2.7.3.1 Definition

This test verifies that the mobile station includes EXT_UIM_ID information in the *Extended Protocol Capability Response Message*, if the mobile station supports parsing of *Protocol Capability Request Message* with BLOCK_ID value of '00000100' (EXT_UIM_ID). The test should be repeated for various configurations of that are applicable to the mobile station.

2.7.3.2 Traceability

See [5]:

2.1.8 Over-the-Air Service Provisioning

See [2] or [3]:

2.7.2.3.2.16 Status Response Message

3.7.3.3.2.16 Status Request Message

3.3.1 OTASP Data Message Processing

3.5.1.17 Extended Protocol Capability Response Message

3.5.1.17.1 Capability Information Record

4.3.1 OTA Data Message Processing

4.5.1.7 Protocol Capability Request Message

See [6]:

3.4.32 EF_{USGIND} (Removable UIM_ID/SF_EUIMID Usage Indicator)

2.7.3.3 Call Flow Example(s)

None

2.7.3.4 Method of Measurement

a. Set up a mobile originated OTASP call.

b. Upon call setup, instruct the base station to send a *Protocol Capability Request Message* with the following Capability Record Type:

CAP_RECORD_TYPE	**BLOCK_ID**
EXT_UIM_ID	'00000100'

c. Verify the mobile station sends an *Extended Protocol Capability Response Message* within 750ms. Further, verify that the message contains the EXT_UIM_ID capability information record with value set as per the supported configuration in .

2.7.3.5 Minimum Standard

The mobile station shall comply with step c.

2.7.4 Mobile Station MEID_ME Capability Information Record Test

2.7.4.1 Definition

This test verifies that the mobile station includes MEID_ME information in the *Extended Protocol Capability Response Message*, if the mobile station supports parsing of *Protocol Capability Request Message* with BLOCK_ID value of '00000101' (MEID_ME) in the Capability Information Record. The test should be repeated for various configurations of that are applicable to the mobile station.

2.7.4.2 Traceability

See [5]:

2.1.8 Over-the-Air Service Provisioning

See [2] or [3]:

2.7.2.3.2.16 Status Response Message

3.7.3.3.2.16 Status Request Message

3.3.1 OTASP Data Message Processing

3.5.1.17 Extended Protocol Capability Response Message

3.5.1.17.1 Capability Information Record

4.3.1 OTA Data Message Processing

4.5.1.7 Protocol Capability Request Message

See [6]:

3.4.32 EF_{USGIND} (Removable UIM_ID/ SF_EUIMID Usage Indicator)

2.7.4.3 Call Flow Example(s)

None

2.7.4.4 Method of Measurement

a. Set up a mobile originated OTASP call.

b. Upon call setup, instruct the base station to send a Protocol Capability Request Message with the following Capability Record Type:

CAP_RECORD_TYPE	**BLOCK_ID**
MEID_ME	'00000101'

c. Verify the mobile station sends an *Extended Protocol Capability Response Message* within 750ms. Also verify that the message contains the MEID_ME capability information record with value set as per the supported configuration in .

2.7.4.5 Minimum Standard

The mobile station shall comply with step c.

2.7.5 Unsupported Capability Information Record Compatibility Test

2.7.5.1 Definition

This test verifies that the mobile station includes a value of '00000000' for CAP_RECORD_LEN for CAP_RECORD_TYPE in the *Extended Protocol Capability Response Message*, if the mobile station does not support parsing of *Protocol Capability Request Message* with an unsupported BLOCK_ID value.

2.7.5.2 Traceability

See [5]:

2.1.8 Over-the-Air Service Provisioning

See [2] or [3]:

3.5.1.17 Extended Protocol Capability Response Message

3.5.1.17.1 Capability Information Record

2.7.5.3 Call Flow Example(s)

None

2.7.5.4 Method of Measurement

a. Set up a mobile originated OTASP call.

b. Upon call setup, instruct the base station to send a Protocol Capability Request Message with the BLOCK_ID set to '11111111'.

c. Verify the mobile station sends an *Extended Protocol Capability Response Message* within 750 ms. Also verify that the message contains a value of '00000000' for CAP_RECORD_LEN for CAP_RECORD_TYPE '11111111'.

2.7.5.5 Minimum Standard

The mobile station shall comply with step c.

2.8 Reject Scenarios

2.8.1 Mobile Station Test

2.8.1.1 Definition

This test verifies different reject scenarios.

2.8.1.2 Traceability

See [5]:

2.1.4 Public Long Code Mask Types

2.1.5 Reject Order

2.1.6 Channel Assignment Processing

2.1.7 Handoff Processing

2.2.1 Extended Channel Assignment Message

2.2.2 Universal Handoff Direction Message

See [1]:

2.3.6 Public Long Code Mask and Private Long Code Mask

2.6.4.1.2.2.5 Waiting for Service Action Time Subfunction

2.6.6.2.5.1 Processing of Forward Traffic Channel Handoff Messages

2.7.3 Orders

3.7.2.3.2.21 Extended Channel Assignment Message

3.7.3.3.2.36 Universal Handoff Direction Message

2.8.1.3 Call Flow Example(s)

None

2.8.1.4 Method of Measurement

This test case is applicable to MOB_P_REV 6 or above

a. Configure base station P_REV to 6. Instruct the base station to set IMSI_T_SUPPORTED to '1' in overhead messages.

b. Configure the mobile station with IMSI_M only (i.e. IMSI_T is not configured).

c. Set up a call.

d. During call setup, instruct the base station to send an *MEID Extended Channel Assignment Message* with PLCM_TYPE field set as follows: If mobile station IMSI_O is set to IMSI_T, then set PLCM_TYPE to '0010'; otherwise, set PLCM_TYPE to '0011'.

e. Verify that mobile station sends *Mobile Station Reject Order* with ORDQ set to

'00011100' (PLCM_TYPE mismatch).

f. Release the call.

g. Repeat steps b through f with following modification: In step b configure the mobile station with IMSI_T.

h. Set up a call.

i. During call setup, instruct the base station to send an *MEID Extended Channel Assignment Message* with ASSIGN_MODE set to '000'.

j. Verify that mobile station sends *Mobile Station Reject Order*.

k. Release the call.

2.8.1.5 Minimum Standard

The mobile station shall comply with steps e and j.

2.9 HRPD – MEID and ESN HardwareID

2.9.1 Access Terminal Test

2.9.1.1 Definition

This test verifies that the access terminal sends Hardware ID in a *HardwareIDResponse* Message in response to a *HardwareIDRequest* Message from the access network. Note in HRPD, HardwareID is not configured in the ~~R-UIM~~Card. Hence, when a *HardwareIDRequest* message is received at the access terminal, it responds with HardwareID assigned to the access terminal. This test is applicable to all HRPD access terminals.

2.9.1.2 Traceability

See [5]:

2.1.1 MEID and ESN

See [8]:

5.3.7.1.3 Processing HardwareIDRequest message

5.3.7.2.4 HardwareIDRequest.

5.3.7.2.5 HardwareIDResponse

See [9]:

7.3.7.1.3 Processing HardwareIDRequest message

7.3.7.2.4 HardwareIDRequest

7.3.7.2.5 HardwareIDResponse

2.9.1.3 Call Flow Example(s)

None

2.9.1.4 Method of Measurement

a. Connect access terminal to HRPD system.

b. Instruct access network to send a *HardwareIDRequest* Message on the control channel.

c. If the access terminal supports MEID, verify that the access terminal responds with a *HardwareIDResponse* Message on the access channel with Hardware ID Type = 0x00ffff and HardwareID equal to the unique ID (specified by HardwareIDType) that has been assigned to the terminal by the manufacturer; If access terminal supports ESN only, verify that the access terminal responds with a *HardwareIDResponse* Message on the access channel with Hardware ID Type = 0x010000 and HardwareID equal to the unique ID (specified by HardwareIDType) that has been assigned to the terminal by the manufacturer.

d. Instruct access network to send a *HardwareIDRequest* Message on the forward traffic channel.

e. If the access terminal supports MEID, verify that the access terminal responds with a *HardwareIDResponse* Message on the reverse traffic channel with Hardware ID Type = 0x00ffff and HardwareID equal to the unique ID (specified by HardwareIDType) that has been assigned to the terminal by the manufacturer; If access terminal supports ESN only, verify that the access terminal responds with a *HardwareIDResponse* Message on the access channel with Hardware ID Type = 0x010000 and HardwareID equal to the unique ID (specified by HardwareIDType) that has been assigned to the terminal by the manufacturer.

2.9.1.5 Minimum Standard

The mobile station shall comply with steps c and e.

3 Interoperability Tests

3.1 MEID Support Indicator

3.1.1 Definition

This test verifies that the mobile station sets MEID support indicator properly.

3.1.2 Traceability

See [5]:

2.1.2 Setting of the Station Class Mark field

See [1]:

2.7.1.3.2.1 Registration Message

2.7.1.3.2.4 Origination Message

2.7.1.3.2.5 Page Response Message

2.7.1.3.2.10 Extended Status Response Message

2.7.2.3.2.16 Status Response Message

2.7.4.7 Terminal Information

3.7.2.3.2.15 Status Request Message

3.7.3.3.2.16 Status Request Message

3.1.3 Call Flow Example(s)

None

3.1.4 Method of Measurement

a. Instruct the base station to set POWER_UP_REG = 1 in the *System Parameters Message* or *ANSI – 41 System Parameters Message*.

b. Power on the mobile station.

c. Verify the mobile station sends a *Registration Message* with MEID Support Indicator set to '1' in the SCM (Station Class Mark) field.

d. Initiate a mobile station originated call.

e. Verify that the mobile station sends an *Origination Message* with MEID Support Indicator set to '1' in the SCM (Station Class Mark) field.

f. Instruct the base station to send a *Status Request Message* with RECORD_TYPE = '00001000' (Terminal Information) on f-dsch.

g. Verify that the mobile station responds with a *Status Response Message* with RECORD_TYPE = '00001000' (Terminal Information), and sets MEID Support Indicator to '1' in the SCM (Station Class Mark) field.

h. End the call.

i. Initiate a mobile station terminated call.

j. Verify that the mobile station sends a *Page Response Message* with MEID Support Indicator set to '1' in the SCM (Station Class Mark) field.

k. End the call.

l. Instruct the base station to send a *Status Request Message* with RECORD_TYPE = '00001000' (Terminal Information) on f-csch.

m. Verify that the mobile station responds with an *Extended Status Response Message* with RECORD_TYPE = '00001000' (Terminal Information), and sets MEID Support Indicator to '1' in the SCM (Station Class Mark) field.

3.1.5 Minimum Standard

The mobile station shall comply with steps c, e, g, j and m.

3.2 MEID, EXT_UIM_ID, MEID_ME, ESN_ME Information ~~Record~~Records

Tests in this section verify the response of the mobile station to *Status Request Message* carrying MEID, EXT_UIM_ID, MEID_ME and ESN_ME. Test 3.2.1 is applicable to all mobile stations that support MEID. Tests 3.2.2, 3.2.3, and 3.2.4 are applicable to mobile stations that support EXT_UIM_ID, MEID_ME and ESN_ME information records in the *Status Request Message* respectively.

3.2.1 Mobile Station MEID Information Record Test

3.2.1.1 Definition

This test verifies the mobile station and base station support for *Status Request Message* with MEID information record.

3.2.1.2 Traceability

See [5]:

2.1.3 Information Records

See [1]:

2.7.1.3.2.10 Extended Status Response Message

2.7.2.3.2.16 Status Response Message

3.7.2.3.2.15 Status Request Message

3.7.3.3.2.16 Status Request Message

See [6]:

3.4.32 EF_{USGIND} (Removable UIM_ID/SF_EUIMID Usage Indicator)

3.2.1.3 Call Flow Example(s)

None

3.2.1.4 Method of Measurement

a. Initiate a call.

b. Instruct the base station to send a *Status Request Message* with RECORD_TYPE = '00100111' (MEID) on f-dsch.

Verify that the mobile station responds with a *Status Response Message* with RECORD_TYPE = '00100111' (MEID), and sets MEID_LEN and MEID fields as per the supported configuration in

c. .

d. End the call.

e. Instruct the base station to send a *Status Request Message* with RECORD_TYPE = '00100111' (MEID) on f-csch.

Verify that the mobile station responds with an *Extended Status Response Message* with RECORD_TYPE = '00100111' (MEID), and sets MEID_LEN and MEID fields as per the supported configuration in

f. .

3.2.1.5 Minimum Standard

The mobile station shall comply with steps c and f.

3.2.2 Mobile Station EXT_UIM_ID Information Record Test

3.2.2.1 Definition

This test verifies the mobile station response to *Status Request Message* for EXT_UIM_ID information records.

3.2.2.2 Traceability

See [5]:

2.1.3 Information Records

See [1]:

2.7.1.3.2.10 Extended Status Response Message

2.7.2.3.2.16 Status Response Message

3.7.2.3.2.15 Status Request Message

3.7.3.3.2.16 Status Request Message

See [6]:

3.4.32 EF_{USGIND} (Removable UIM_ID/ SF_EUIMID Usage Indicator)

3.2.2.3 Call Flow Example(s)

None

3.2.2.4 Method of Measurement

a. Initiate a call.

b. Instruct base station to send a *Status Request Message* with RECORD_TYPE = '00101101' (EXT_UIM_ID) on f-dsch.

c. Verify that the mobile station responds with a *Status Response Message* with RECORD_TYPE = '00101101' (EXT_UIM_ID), and sets EXT_UIM_ID_LEN and

EXT_UIM_ID fields as per the supported configuration in and the value of the EXT_UIM_ID field is set correctly.

d. End the call.

e. Instruct base station to send a *Status Request Message* with RECORD_TYPE = '00101101' (EXT_UIM_ID) on f-csch.

f. Verify that the mobile station responds with an *Extended Status Response Message* with RECORD_TYPE = '00101101' (EXT_UIM_ID), and sets EXT_UIM_ID_LEN and EXT_UIM_ID fields as per the supported configuration in

3.2.2.5 Minimum Standard

The mobile station shall comply with steps c and f.

3.2.3 Mobile Station MEID_ME Information Record Test

3.2.3.1 Definition

This test verifies the mobile station response to *Status Request Message* for MEID_ME information records.

Traceability

See [5]:

2.1.3 Information Records

See [1]:

2.7.1.3.2.10 Extended Status Response Message

2.7.2.3.2.16 Status Response Message

3.7.2.3.2.15 Status Request Message

3.7.3.3.2.16 Status Request Message

See [6]:

3.4.32 EF_{USGIND} (Removable UIM_ID/SF_EUIMID Usage Indicator)

3.2.3.2 Call Flow Example(s)

None

3.2.3.3 Method of Measurement

a. Initiate a call.

b. Instruct base station to send a *Status Request Message* with RECORD_TYPE = '00101110' (MEID_ME) on f-dsch.

c. Verify that the mobile station responds with a *Status Response Message* with RECORD_TYPE = '00101110' (MEID_ME), and sets MEID_ME_LEN and MEID_ME fields as per the supported configuration in and the value of the MEID_ME field is set correctly.

d. End the call.

e. Instruct base station to send a *Status Request Message* with RECORD_TYPE = '00101110' (MEID_ME) on f-csch.

f. Verify that the mobile station responds with an *Extended Status Response Message* with RECORD_TYPE = '00101110' (MEID_ME), and sets MEID_ME_LEN and MEID_ME fields as per the supported configuration in .

3.2.3.4 Minimum Standard

The mobile station shall comply with steps c and f.

3.2.4 Mobile Station ESN_ME Information Record Test

3.2.4.1 Definition

This test verifies the mobile station response to *Status Request Message* for ESN_ME information records.

Traceability

See [5]:

2.1.3 Information Records

See [1]:

2.7.1.3.2.10 Extended Status Response Message

2.7.2.3.2.16 Status Response Message

3.7.2.3.2.15 Status Request Message

3.7.3.3.2.16 Status Request Message

See [6]:

3.4.32 EF_{USGIND} (Removable UIM_ID/ SF_EUIMID Usage Indicator)

3.2.4.2 Call Flow Example(s)

None

3.2.4.3 Method of Measurement

a. Initiate a call.

b. Instruct base station to send a *Status Request Message* with RECORD_TYPE = '00100110' (ESN_ME) on f-dsch.

c. Verify that the mobile station responds with a *Status Response Message* with RECORD_TYPE = ‘00100110’ (ESN_ME), and sets ESN_ME_LEN and ESN_ME fields as per [1] and the value of the ESN_ME field is set correctly.

d. End the call.

e. Instruct base station to send a *Status Request Message* with RECORD_TYPE = ‘00100110’ (ESN_ME) on f-csch.

f. Verify that the mobile station responds with an *Extended Status Response Message* with RECORD_TYPE = ‘00100110’ (ESN_ME), and sets ESN_ME_LEN and ESN_ME fields as per [1] and the value of the ESN_ME field is set correctly.

3.2.4.4 Minimum Standard

The mobile station shall comply with steps c and f.

3.3 Pseudo-ESN

3.3.1 Definition

This test verifies that the mobile station sets ESN field properly.

3.3.2 Traceability

See [5]:

2.1.1 MEID and ESN

See [1]:

2.7.1.3.2.10 Extended Status Response Message

2.7.1.3.2.4 Origination Message

3.7.2.3.2.15 Status Request Message

See [6]:

3.4.32 EF_{USGIND} (Removable UIM_ID/SF_EUIMID Usage Indicator)

3.3.3 Call Flow Example(s)

None

3.3.4 Method of Measurement

a. Instruct the base station to send *Status Request Message* with RECORD_TYPE = '00001101' (ESN) and '00100111' (MEID) on f-csch.

b. Record values of ESN and MEID fields included by the mobile station *Extended Status Response Message*. Verify that the mobile station sets ESN and MEID fields as per the supported configuration in .

c. If the mobile station returns MEID and pESN in step b, then calculate pseudo ESN value from the MEID field value recorded in step b and verify that calculated value of pseudo ESN matches with ESN field value recorded in step b. If the mobile station returns SF_EUIMID and pUIMID in step b, then calculate pseudo UIMID value from the MEID field value recorded in step b and verify that calculated value of pseudo UIMID matches with ESN field value recorded in step b. If the mobile station returns MEID and pUIMID/UIMID in step b, then calculate pseudo ESN value from the MEID field value recorded in step b and verify that calculated value of pseudo ESN matches with ESN field value recorded in step b.

d. Initiate a mobile station originated call. Initiate a mobile station originated call. Ensure that base station sets the PREF_MSID_TYPE = '11' in the overhead message.

e. Verify the value of ESN field in the *Origination Message* sent by the mobile station is same as value of ESN field recorded in step b.

3.3.5 Minimum Standard

The mobile station shall comply with steps b, c and e.

3.4 Public LCM

3.4.1 Definition

This test verifies mobile station and base station support for public LCM types.

3.4.2 Traceability

See [5]:

2.1.4 Public Long Code Mask Types

2.1.6 Channel Assignment Processing

2.2.1 Extended Channel Assignment Message

2.2.3 Base Station Assigned PLCM

See [1]:

2.3.6 Public Long Code Mask and Private Long Code Mask

3.7.2.3.2.21 Extended Channel Assignment Message

3.4.3 Call Flow Example(s)

None

3.4.4 Method of Measurement

a. Set up a call.

b. During call setup, instruct the base station to send an *MEID Extended Channel Assignment Message* (P_REV_IN_USE equal to 6, 7 or 8) or *Extended Channel Assignment Message* (P_REV_IN_USE greater than or equal to 9) with PLCM_TYPE field set to a value corresponding to a case supported by the base station in Table 10 below:

c. Verify that mobile station and base station are using the correct public LCM (e.g. user data is exchanged successfully in both directions). Note that for PLCM_TYPE '0000' and '0100' the public LCM is derived from the value the mobile station returns in ESN and MEID fields respectively.

d. End the call.

e. Repeat steps b through e with PLCM_TYPE values corresponding to all the remaining cases in Table 10 that are supported by the base station.

f. Repeat steps a through e for each P_REV supported by base station.

~~3.4.4~~

~~f. Set up a call.~~

~~g. During call setup, instruct the base station to send an *MEID Extended Channel Assignment Message* (P_REV_IN_USE equal to 6, 7 or 8) or *Extended Channel*~~

~~*Assignment Message* (P_REV_IN_USE greater than or equal to 9) with PLCM_TYPE field set to a value corresponding to a case supported by the base station in Table 10 below:~~

Table 10 Public LCM Interoperability Test Cases

Case	PLCM_TYPE (binary)	Description
1.	0000	PLCM derived from ESN
2.	0001	PLCM specified by the base station
3.	0010	PLCM derived from IMSI_O_S when IMSI_O is derived from IMSI_M
4.	0011	PLCM derived from IMSI_O_S when IMSI_O is derived from IMSI_T
5.	0100	PLCM derived from MEID

~~h. Verify that mobile station and base station are using the correct public LCM (e.g. user data is exchanged successfully in both directions). Note that for PLCM_TYPE '0000' and '0100' the public LCM is derived from the value the mobile station returns in ESN and MEID fields respectively.~~

~~i. End the call.~~

~~j. Repeat steps b through e with PLCM_TYPE values corresponding to all the remaining cases in Table 10 that are supported by the base station.~~

~~k. Repeat steps a through e for each P_REV supported by base station.~~

3.4.5 Minimum Standard

The mobile station shall comply with step c.

The base station shall comply with step c.

3.5 LCM and Service Negotiation, Handoff when Voice Privacy is supported and enabled

3.5.1 Definition

This test verifies the mobile station and base station support for LCM changes during service negotiation and handoff. This test is applicable when voice privacy is supported and enabled.

3.5.2 Traceability

See [5]:

2.1.4 Public Long Code Mask Types

2.1.6 Channel Assignment Processing

2.1.7 Handoff Processing

2.2.1 Extended Channel Assignment Message

2.2.2 Universal Handoff Direction Message

See [1]:

2.3.6 Public Long Code Mask and Private Long Code Mask

2.6.4.1.2.2.5 Waiting for Service Action Time Subfunction

2.6.6.2.5.1 Processing of Forward Traffic Channel Handoff Messages

3.7.2.3.2.21 Extended Channel Assignment Message

3.7.3.3.2.17 Extended Handoff Direction Message

3.7.3.3.2.20 Service Connect Message

3.7.3.3.2.31 General Handoff Direction Message

3.7.3.3.2.36 Universal Handoff Direction Message

3.5.3 Call Flow Example(s)

None

3.5.4 Method of Measurement

a. Connect the mobile station and base stations as shown in Figure 2. Instruct the base station to use public LCM during a call setup.

b. Set up a call. After call setup, Instruct the base station to send a message with field values set to first case supported by the base station in the Table 11 below. In cases where the mobile station is expected to start using public LCM, if possible configure appropriate value of public PLCM_TYPE such that LCM changes as a result of the message. Verify that the base station uses appropriate message type listed in the Table 11 below: *MEID Universal Handoff Direction Message* if P_REV_IN_USE is equal to 6, 7

or 8; or *Universal Handoff Direction Message* if P_REV_IN_USE is greater than or equal to 9.

Table 11 Change of LCM Interoperability Test Cases

Case	Message	Field values	Expected Result at action time
1.	*Extended Handoff Direction Message*	PRIVATE_LCM is not included (HARD_INCLUDED is set to '0')	Mobile station continues use of current LCM (public or private)
2.	*Extended Handoff Direction Message*	PRIVATE_LCM=1	Mobile station starts using private LCM
3.	*General Handoff Direction Message*	PRIVATE_LCM is not included (EXTRA_PARMS is set to '0')	Mobile station continues use of current LCM (public or private)
4.	*General Handoff Direction Message*	PRIVATE_LCM=1	Mobile station starts using private LCM
5.	*MEID Universal Handoff Direction Message* or *Universal Handoff Direction Message*	PRIVATE_LCM is not included (EXTRA_PARMS is set to '0'), PLCM_TYPE_INCL=0	Mobile station continues use of current LCM (public or private)
6.	*MEID Universal Handoff Direction Message* or *Universal Handoff Direction Message*	PRIVATE_LCM is not included (EXTRA_PARMS is set to '0'), PLCM_TYPE_INCL=1	Mobile station starts using public LCM as per PLCM_TYPE included in the message
7.	*MEID Universal Handoff Direction Message* or *Universal Handoff Direction Message*	PRIVATE_LCM=1, PLCM_TYPE_INCL=0	Mobile station starts using private LCM

Case	Message	Field values	Expected Result at action time
8.	*MEID Universal Handoff Direction Message* or *Universal Handoff Direction Message*	PRIVATE_LCM=1 & PLCM_TYPE_INCL=1	Mobile station stores received PLCM_TYPE as $PLCM\_TYPE_s$. Mobile station starts using private LCM.
9.	*Service Connect Message*	USE_TYPE0 _PLCM=1	This case is applicable only to P_REV_IN_USE 9 and 10. If P_REV_IN_USE is less than 11, mobile station starts using public LCM corresponding to PLCM_TYPE='0000' (ESN-based PLCM) Otherwise, mobile station starts using public LCM as specified in [1].

c. At action time of the message sent in step b, verify that the mobile station and the base station use correct LCM as described in the table in step b (e.g. user data is exchanged successfully in both directions). Note that for PLCM_TYPE '0000' and '0100' the public LCM is derived from the value the mobile station returns in ESN and MEID fields respectively.

d. End the call.

e. Repeat steps b through d for test cases in Table 11 supported by the base station and applicable for the P_REV_IN_USE.

f. Repeat steps b through e with following modification: After call setup in step b, Instruct the base station to send a *Long Code Transition Request Order* with ORDQ field set to ' 00000001' (request private) and ensure private LCM is used on the traffic channel

g. Repeat steps b through f for each P_REV supported by base station.

3.5.5 Minimum Standard

The mobile station shall comply with step c.

The base station shall comply with steps b and c.

3.6 LCM and Service Negotiation, Handoff when Voice Privacy is not supported or is disabled

3.6.1 Definition

This test verifies the mobile station and base station support for LCM changes during service negotiation and handoff. This test case is applicable when voice privacy is not supported or is disabled.

3.6.2 Traceability

See [5]:

2.1.4 Public Long Code Mask Types

2.1.6 Channel Assignment Processing

2.1.7 Handoff Processing

2.2.1 Extended Channel Assignment Message

2.2.2 Universal Handoff Direction Message

See [1]:

2.3.6 Public Long Code Mask and Private Long Code Mask

2.6.4.1.2.2.5 Waiting for Service Action Time Subfunction

2.6.6.2.5.1 Processing of Forward Traffic Channel Handoff Messages

3.7.2.3.2.21 Extended Channel Assignment Message

3.7.3.3.2.17 Extended Handoff Direction Message

3.7.3.3.2.20 Service Connect Message

3.7.3.3.2.31 General Handoff Direction Message

3.7.3.3.2.36 Universal Handoff Direction Message

3.6.3 Call Flow Example(s)

None

3.6.4 Method of Measurement

a. Connect the mobile station and base stations as shown in Figure 2. Instruct the base station to use public LCM during a call setup.

b. Set up a call. After call setup, Instruct the base station to send a message with field values set to first case supported by the base station in the Table 7. In cases where the mobile station is expected to start using public LCM, if possible configure appropriate value of public PLCM_TYPE such that LCM changes as a result of the message. Verify that the base station uses appropriate message type listed in the Table 7: *MEID Universal Handoff Direction Message* if P_REV_IN_USE is equal to 6, 7 or 8; or *Universal Handoff Direction Message* if P_REV_IN_USE is greater than or equal to 9.

c. At action time of the message sent in step b, verify that the mobile station and the base station use correct LCM as described in the Table 7 in step b (e.g. user data is exchanged successfully in both directions). Note that for PLCM_TYPE ‘0000’ and ‘0100’ the public LCM is derived from the value the mobile station returns in ESN and MEID fields respectively.

d. End the call.

e. Repeat steps b through d for test cases in Table 7 supported by the base station and applicable for the P_REV_IN_USE.

f. Repeat steps b through e for each P_REV supported by base station.

3.6.5 Minimum Standard

The mobile station shall comply with step c.

The base station shall comply with steps b and c.

3.7 Over-the-Air Service Provisioning (OTASP) Test

Tests in this section verify the response of the mobile station to *Protocol Capability Request Message*. Test 3.7.1 is applicable to mobile stations that support MEID. Test 3.7.2 is applicable to mobile stations that support CAP_RECORD_TYPE of ICCID in the *Protocol Capability Request Message*. Test 3.7.3 is applicable to mobile stations that support CAP_RECORD_TYPE of EXT_UIM_ID in the *Protocol Capability Request Message*. Test 3.7.4 is applicable to mobile stations that support CAP_RECORD_TYPE of MEID_ME in the *Protocol Capability Request Message*.

3.7.1 Mobile Station MEID Capability Information Record Test

3.7.1.1 Definition

This test verifies that the mobile station and base station can exchange MEID information in the *Extended Protocol Capability Response Message*.

3.7.1.2 Traceability

See [5]:

2.1.8 Over-the-Air Service Provisioning

See [2] or [3]:

2.7.2.3.2.16 Status Response Message

3.7.3.3.2.16 Status Request Message

3.3.1 OTASP Data Message Processing

3.5.1.17 Extended Protocol Capability Response Message

3.5.1.17.1 Capability Information Record

4.3.1 OTA Data Message Processing

4.5.1.7 Protocol Capability Request Message

See [6]:

3.4.32 EF_{USGIND} (Removable UIM_ID/SF_EUIMID Usage Indicator)

3.7.1.3 Call Flow Example(s)

None

3.7.1.4 Method of Measurement

a. Set up a mobile originated OTASP call.

b. Upon call setup, Instruct the base station to send a *Protocol Capability Request Message* with the following Capability Record Type:

CAP_RECORD_TYPE	BLOCK_ID
MEID	'00000010'

c. Verify that the base station sends the *Protocol Capability Request Message* with CAP_RECORD_TYPE field set to '00000010'.

d. Verify the mobile station sends an *Extended Protocol Capability Response Message* within 750ms. Also verify that the message contains the MEID capability information record with value set as per the supported configuration in .

3.7.1.5 Minimum Standard

The mobile station shall comply with step d.

The base station shall comply with step c.

3.7.2 Mobile Station ICCID Capability Information Record Test

3.7.2.1 Definition

This test verifies that the mobile station includes ICCID information in the *Extended Protocol Capability Response Message*, if the mobile station supports parsing of *Protocol Capability Request Message* with BLOCK_ID value of '00000011' (ICCID). The test should be repeated for various configurations of Table 9 that are applicable to the mobile station.

3.7.2.2 Traceability

See [5]:

2.1.8 Over-the-Air Service Provisioning

See [2] or [3]:

2.7.2.3.2.16 Status Response Message

3.7.3.3.2.16 Status Request Message

3.3.1 OTASP Data Message Processing

3.5.1.17 Extended Protocol Capability Response Message

3.5.1.17.1 Capability Information Record

4.3.1 OTA Data Message Processing

4.5.1.7 Protocol Capability Request Message

See [6]:

3.4.32 EF_{USGIND} (Removable UIM_ID/ SF_EUIMID Usage Indicator)

3.7.2.3 Call Flow Example(s)

None

3.7.2.4 Method of Measurement

a. Set up a mobile originated OTASP call.

b. Upon call setup, instruct the base station to send a *Protocol Capability Request Message* with the following Capability Record Type:

CAP_RECORD_TYPE	**BLOCK_ID**
ICCID	'00000011'

c. Verify the mobile station sends an *Extended Protocol Capability Response Message* within 750ms. Further, verify that the message contains the ICCID capability information record with value set as per the supported configuration in Table 9.

3.7.2.5 Minimum Standard

The mobile station shall comply with step c.

3.7.3 Mobile Station EXT_UIM_ID Capability Information Record Test

3.7.3.1 Definition

This test verifies that the mobile station includes EXT_UIM_ID information in the *Extended Protocol Capability Response Message*, if the mobile station supports parsing of *Protocol Capability Request Message* with BLOCK_ID value of '00000100' (EXT_UIM_ID). The test should be repeated for various configurations of that are applicable to the mobile station.

3.7.3.2 Traceability

See [5]:

2.1.8 Over-the-Air Service Provisioning

See [2] or [3]:

2.7.2.3.2.16 Status Response Message

3.7.3.3.2.16 Status Request Message

3.3.1 OTASP Data Message Processing

3.5.1.17 Extended Protocol Capability Response Message

3.5.1.17.1 Capability Information Record

4.3.1 OTA Data Message Processing

4.5.1.7 Protocol Capability Request Message

See [6]:

3.4.32 EF$_{USGIND}$ (Removable UIM_ID/SF_EUIMID Usage Indicator)

3.7.3.3 Call Flow Example(s)

None

3.7.3.4 Method of Measurement

~~1~~a. Set up a mobile originated OTASP call.

~~d.~~b. Upon call setup, instruct the base station to send a *Protocol Capability Request Message* with the following Capability Record Type:

CAP_RECORD_TYPE	**BLOCK_ID**
EXT_UIM_ID	'00000100'

~~e.~~c. Verify the mobile station sends an *Extended Protocol Capability Response Message* within 750ms. Further, verify that the message contains the EXT_UIM_ID capability information record with value set as per the supported configuration in .

3.7.3.5 Minimum Standard

The mobile station shall comply with step c.

3.7.4 Mobile Station MEID_ME Capability Information Record Test

3.7.4.1 Definition

This test verifies that the mobile station includes MEID_ME information in the *Extended Protocol Capability Response Message*, if the mobile station supports parsing of *Protocol Capability Request Message* with BLOCK_ID value of '00000101' (MEID_ME) in the Capability Information Record. The test should be repeated for various configurations of that are applicable to the mobile station.

3.7.4.2 Traceability

See [5]:

2.1.8 Over-the-Air Service Provisioning

See [2] or [3]:

2.7.2.3.2.16 Status Response Message

3.7.3.3.2.16 Status Request Message

3.3.1 OTASP Data Message Processing

3.5.1.17 Extended Protocol Capability Response Message

3.5.1.17.1 Capability Information Record

4.3.1 OTA Data Message Processing

4.5.1.7 Protocol Capability Request Message

See [6]:

3.4.32 EF_{USGIND} (Removable UIM_ID/SF_EUIMID Usage Indicator)

3.7.4.3 Call Flow Example(s)

None

3.7.4.4 Method of Measurement

a. Set up a mobile originated OTASP call.

b. Upon call setup, instruct the base station to send a Protocol Capability Request Message with the following Capability Record Type:

CAP_RECORD_TYPE	**BLOCK_ID**
MEID_ME	'00000101'

c. Verify the mobile station sends an *Extended Protocol Capability Response Message* within 750ms. Also verify that the message contains the MEID_ME capability information record with value set as per the supported configuration in .

1 3.7.4.5 Minimum Standard

The mobile station shall comply with step c

3.8 HRPD – MEID HardwareID

3.8.1 Access Terminal Test

3.8.1.1 Definition

This test verifies that the access terminal sends Hardware ID in a *HardwareIDResponse* Message in response to a *HardwareIDRequest* Message from the access network. Note in HRPD, HardwareID is not configured in the ~~R-UIM~~Card. Hence, when a *HardwareIDRequest* message is received at the access terminal, it responds with HardwareID assigned to the access terminal. This test is applicable to all HRPD access terminals.

3.8.1.2 Traceability

See [5]:

2.1.1 MEID and ESN

See [8]:

5.3.7.1.3 Processing HardwareIDRequest message

5.3.7.2.4 HardwareIDRequest.

5.3.7.2.5 HardwareIDResponse

See [9]:

7.3.7.1.3 Processing HardwareIDRequest message

7.3.7.2.4 HardwareIDRequest

7.3.7.2.5 HardwareIDResponse

3.8.1.3 Call Flow Example(s)

None

3.8.1.4 Method of Measurement

a. Connect access terminal to HRPD system.

b. Instruct access network to send a *HardwareIDRequest* Message on the control channel.

c. If the access terminal supports MEID, verify that the access terminal responds with a *HardwareIDResponse* Message on the access channel with Hardware ID Type = 0x00ffff and HardwareID equal to the unique ID (specified by HardwareIDType) that has been assigned to the terminal by the manufacturer; If access terminal supports ESN only, verify that the access terminal responds with a *HardwareIDResponse* Message on the access channel with Hardware ID Type = 0x010000 and HardwareID equal to the unique ID (specified by HardwareIDType) that has been assigned to the terminal by the manufacturer.

d. Instruct access network to send a *HardwareIDRequest* Message on the forward traffic

channel.

e. If the access terminal supports MEID, verify that the access terminal responds with a *HardwareIDResponse* Message on the reverse traffic channel with Hardware ID Type = 0x00ffff and HardwareID equal to the unique ID (specified by HardwareIDType) that has been assigned to the terminal by the manufacturer; If access terminal supports ESN only, verify that the access terminal responds with a *HardwareIDResponse* Message on the access channel with Hardware ID Type = 0x010000 and HardwareID equal to the unique ID (specified by HardwareIDType) that has been assigned to the terminal by the manufacturer.

3.8.1.5 Minimum Standard

The mobile station shall comply with steps c and e.