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Technical Specification

**Broadband Radio Access Networks (BRAN);
HiperMAN;
Conformance Testing for WiMAX/HiperMAN 1.3.1;
Part 1: Protocol Implementation Conformance
Statement (PICS) proforma**



Reference

RTS/BRAN-004T008-1-R2

Keywords

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Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee Broadband Radio Access Networks (BRAN).

The present document specifies the Protocol Implementation Conformance Statement (PICS) for High PERFORMANCE Radio Metropolitan Area Network (HiperMAN) and WiMAX, which operates on frequencies between 2 GHz and 11 GHz.

The present document has been developed on the basis of preceding versions of HiperMAN and WiMAX PICS and makes the previous versions obsolete.

The present document is part 1 of a multi-part deliverable covering Broadband Radio Access Networks (BRAN); HiperMAN; Conformance testing for WiMAX/HiperMAN 1.3.1, as identified below:

- Part 1: "Protocol Implementation Conformance Statement (PICS) proforma";**
- Part 2: "Test Suite Structure and Test Purposes (TSS&TP)";
- Part 3: "Abstract Test Suite (ATS)".

1 Scope

The present document specifies the Protocol Implementation Conformance Statement (PICS) for HiperMAN/WiMAX per ISO/IEC 9646-7 [10], ITU-T Recommendation X.296 [11] and EG 201 058 [12] for conformance of HiperMAN1.3.1/WiMAX compliant systems.

2 References

References are either specific (identified by date of publication and/or edition number or version number) or non-specific.

- For a specific reference, subsequent revisions do not apply.
- Non-specific reference may be made only to a complete document or a part thereof and only in the following cases:
 - if it is accepted that it will be possible to use all future changes of the referenced document for the purposes of the referring document;
 - for informative references.

Referenced documents which are not found to be publicly available in the expected location might be found at <http://docbox.etsi.org/Reference>.

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2.1 Normative references

The following referenced documents are indispensable for the application of the present document. For dated references, only the edition cited applies. For non-specific references, the latest edition of the referenced document (including any amendments) applies.

- [1] ETSI TS 102 177: "Broadband Radio Access Networks (BRAN); HiperMAN; Physical (PHY) layer".
- [2] ETSI TS 102 178: "Broadband Radio Access Networks (BRAN); HiperMAN; Data Link Control (DLC) layer".
- [3] ETSI TS 102 210: "Broadband Radio Access Networks (BRAN); HiperMAN; System profiles".
- [4] IEEE 802.16-2004: "IEEE Standard for Local and Metropolitan Area Networks - Part 16: Air Interface for Fixed Broadband Wireless Access Systems".
- [5] IEEE 802.16e-2005 and IEEE 802.16-2004/Cor 1-2005: "Standard for Local and metropolitan area networks - Part 16: Air Interface for Fixed and Mobile Broadband Wireless Access Systems. Amendment 2: Physical and Medium Access Control Layers for Combined Fixed and Mobile Operation in Licensed Bands and Corrigendum1".
- [6] IEEE 802.16-Rev2/D7 (October 2008): "Standard for Local and metropolitan area networks - Part 16: Air Interface for Broadband Wireless Access Systems".
- [7] WiMAX ForumTM Mobile System Profile v16.1: "WiMAX ForumTM, Technical Working Group, April 2008".
- [8] WiMAX ForumTM Mobile Radio Specifications v0.1.0: "WiMAX ForumTM, Technical Working Group, April 2008".
- [9] ISO/IEC 9646-1: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".

- [10] ISO/IEC 9646-7: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".
- [11] ITU-T Recommendation X.296: "OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications - Implementation conformance statements".
- [12] ETSI EG 201 058: "Methods for Testing and Specification (MTS); Implementation Conformance Statement (ICS) proforma style guide".
- [13] IEEE 802.3: "IEEE Standard for Information technology - Telecommunications and information exchange between systems - Local and metropolitan area networks - specific requirements - Part 3: Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications".
- [14] IEEE 802.1Q: "IEEE Standards for Local and metropolitan area networks - Virtual Bridged Local Area Networks".
- [15] ITU-T Recommendation X.690: "Information technology - ASN.1 encoding rules: Specification of Basic Encoding Rules (BER), Canonical Encoding Rules (CER) and Distinguished Encoding Rules (DER)".
- [16] IETF RFC 2131: "Dynamic Host Configuration Protocol".
- [17] IETF RFC 868: "Time Protocol".
- [18] IEEE 802.2 (ISO/IEC 8802-2:1998): "IEEE Standard for Information technology - Telecommunications and information exchange between systems - Local and metropolitan area networks - Specific Requirements - Part 2: Logical Link Control".
- [19] IEEE 802.1D: "IEEE standard for local and metropolitan area networks--Media access control (MAC) Bridges (Incorporates IEEE 802.1t-2001 and IEEE 802.1w)".
- [20] IETF RFC 3344: "IP Mobility Support for IPv4".

2.2 Informative references

The following referenced documents are not essential to the use of the present document but they assist the user with regard to a particular subject area. For non-specific references, the latest version of the referenced document (including any amendments) applies.

Not applicable.

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in ISO/IEC 9646-1 [9], TS 102 177 [1], TS 102 178 [2], ISO/IEC 9646-7 [10] and IEEE 802.16-2004 [4] with Corrigendum and Amendment as provided by IEEE 802.16e-2005 [5] apply.

3.2 Symbols

For the purposes of the present document, the following symbols apply:

BW	Nominal channel bandwidth (MHz)
m	CID range divider
$P_{TX,max}$	Maximum mean transmit power at the antenna port (dBm)
T_b	Useful OFDM symbol time (s)
T_F	Frame duration (ms)
T_g	OFDM symbol guard time or CP time (s)
T_s	OFDM symbol time (s)

3.3 Abbreviations

For the purposes of the present document, the abbreviations given in TS 102 177 [1], TS 102 178 [2], ISO/IEC 9646-1 [9] and the following apply:

BS	Base Station
IUT	Implementation Under Test
MS	Mobile Station
PICS	Protocol Implementation Conformance Statement
SUT	System Under Test

4 Conformance to this PICS Proforma Specification

If it claims to conform to the present document, the actual PICS proforma to be filled in by a supplier shall be technically equivalent to the text of the PICS proforma given in annex A, and shall preserve the numbering, naming, and ordering of the proforma items.

A PICS which conforms to the present document shall be a conforming PICS proforma completed in accordance with the guidance for completion given in clause A.1.

Annex A (normative): Protocol ICS (PICS) for HiperMAN/WiMAX- TWG profile

Notwithstanding the provisions of the copyright clause related to the text of the present document, ETSI grants that users of the present document may freely reproduce the PICS proforma in this annex so that it can be used for its intended purposes and may further publish the completed PICS.

A.1 Guidance for completing PICS Proforma

A.1.1 Purposes and Structure

The purpose of this PICS proforma is to provide a mechanism whereby a supplier of an implementation of the requirements defined in defined in references [1], [2](which mandates requirements defined in [4] and [5]) may provide information about the implementation in a standardized manner. The PICS proforma does not cover every possible compliant WiMAX implementation, but only those implementations that are compliant with the system profiles as defined in [7] and [8].

The PICS proforma is subdivided into clauses for the following categories of information:

- guidance for completing the PICS proforma;
- identification and implementation;
- identification of the standard;
- global statement of conformance;
- roles;
- Mobile Station (MS);
- Base Station (BS);
- List of MAC PDUs;
- PDU Fields.

A.1.2 Abbreviations and Conventions

Item column

- The Item column contains a number which identifies the item in the table.

Capability column

- The capability column describes in free text each respective item (e.g. parameters, timers, etc.). It implicitly means "Is <capability> supported by the implementation?".

Reference column

- The reference column indicates the clause of [1], [2], [4], [5] and [7] from which the requirement for the capability is derived.
- By convention, indicating a clause of [5] may also refer implicitly to [1], [2], [4], and [7] as applicable.

Status column

- The following notations, defined in [9], are used in the status column:

m	Explicitly shown as mandatory in the standard. It is required to implement.
o	Explicitly mentioned as optional in the standard or is not explicitly mentioned but has capability negotiations. It may or may not be implemented.
oi	Qualified option- for mutually exclusive or selectable options from a set. One or more of the options from the set shall be supported.
IO-NNNN	Inter-operable Options: Item belongs to NNNN group of features for which it is requested to provide testing procedure and distinct labelling of BS equipment. More specifically: <ul style="list-style-type: none"> ▪ The item is not required to get general "WiMAX certified" label; and ▪ Is required to get distinct "WiMAX certified with NNNN capability" label.

The following Inter-operable Options are defined and used in the present document:

- IO-MIMO: Group of Inter-operable Option features related to Multiple Input Multiple Output (MIMO) operation.
- IO-BF: Group of Inter-operable Option features related to Beam Forming (BF) operation.
- IO-MBS: Group of Inter-operable Option features related to Multicast and Broadcast Services (MBS) operation.
- IO-ETHx (x = 1, 2, 3): Groups of features on three Inter-operable options related to Ethernet CS IO-ETH1, IO-ETH2 and IO-ETH3.

Support column

- The support column shall be filled in by the supplier of the implementation. The following common notations, defined in [9] are used for the support column.

Y or y	Supported by implementation.
N or n	Not supported by implementation.
N/A, n/a or -	No answer required (allowed only if the status is n/a either directly or after the evaluation of a conditional status).

Values allowed column

- The values allowed column is only used when necessary in a table. It contains the type, the list, the range, or the length of values allowed. The following notations are used.

Range of values: Example:	<min value> to <max value> 5 to 20
List of values: Example 1: Example 2: Example 3:	<value1>, <value2>, to, <valueN> 2, 4, 6, 8, 9 1101b, 1011b, 1111b 0x0A, 0x34, 0x2F
List of named values: Example:	<name1>(<val1>), <name2>(<val2>), to, <nameN>(<valN>) reject(1), accept(2)
Length: Example:	Size (<min size> to <max size>) Size (1 to 8)

Values supported column

- The values supported column is only present when the values allowed column is present. It shall be filled in by the supplier of the implementation. In this column, the value or the ranges of values supported by the implementation shall be indicated.

Reference to items

- For each possible item answer in the support column within the PICS proforma a unique reference exists which may be used, for example, in conditional expressions. It is defined as the table identifier, followed by the "/" character, followed by the item number in the table. If there is more than one support column in a table, the columns are discriminated by letters (a, b, etc.).

Example 1:	Table A.5/4 is the reference to the answer of item 4 in table A.5.
Example 2:	Table A.6/3b is the reference to the second answer (i.e. in the second support column) of item 3 in table A.6.

Prerequisite Line

- A prerequisite line takes the form: Prerequisite: <predicate>.
- A prerequisite line after a clause or table title indicates that the entire clause or the entire table is not required to be completed if the predicate is FALSE.

Support of specific MAC PDUs or fields does not automatically mean support of the corresponding functionality. It means only that BS(MS) is capable of transmitting or receiving/parsing the message of specific format.

A.1.3 Instructions for completing the PICS Proforma

The supplier of the implementation shall complete the PICS proforma in each of the spaces provided. In particular, an explicit answer shall be entered, in the support or values supported column boxes provided, using the notation described in clause A.1.2.

However, tables related to Mobile Station shall only be completed for Mobile Station (MS) implementations, and tables related to Base Station shall only be filled in for Base Station implementations.

If necessary, the supplier may provide additional comments in space at the bottom of the tables or separately.

A.2 Identification of the implementation

Identification of the Implementation Under Test (IUT) and the system in which it resides (the System Under Test (SUT)) should be filled in so as to provide as much detail as possible regarding version numbers and configuration options.

The product supplier and client information should both be filled in if they are different.

A person who can answer queries regarding information supplied in the PICS should be named as the contact person.

A.2.1 Date of statement

Date of statement (MM/DD/YYYY):	
--	--

A.2.2 Implementation Under Test (IUT) identification

IUT name:	
IUT version:	

A.2.3 System Under Test (SUT) identification

SUT name:	
Hardware configuration:	
Operating system:	

A.2.4 Product supplier

Name:	
Address:	
Telephone Number:	
Fax Number:	
E-mail address:	
Additional information:	

A.2.5 Client (if different from product supplier)

Name:	
Address:	
Telephone Number:	
Fax Number:	
E-mail address:	
Additional information:	

A.2.6 PICS contact person

(A person to contact if there are any queries concerning the content of the PICS.)

Name:	
Address:	
Telephone Number:	
Fax Number:	
E-mail address:	
Additional information:	

A.3 Identification of the standard

This PICS proforma applies to the ETSI HiperMAN/WiMAX standard consisting of the following normative references:

- HiperMAN/WiMAX Physical Layer: [1] which normatively references [4] and [5];
- HiperMAN/WiMAX Data Logical Control Layer: [2] which normatively references [4] and [5].

A.4 Global statement of conformance

Are all mandatory capabilities implemented? (Yes/No)	
---	--

NOTE: Answering "No" to this question indicates non-conformance to the HiperMAN/WiMAX standard. Non-supported mandatory capabilities are to be identified in the PICS, with an explanation of why the implementation is non-conforming, on pages attached to the PICS proforma.

A.5 System profiles

Table A.1: System profiles

Item	Role	Reference	Status	Support
1	WiMAX Forum™ Mobile System Profile	[7]	m	

Comments:

Table A.2: Roles

Item	Role	Reference	Status	Support
1	Mobile Station (MS)	[5] and [6] 1.4.3	oi.2.1	
2	Base Station (BS)	[5] and [6] 1.4.3	oi.2.1	

Comments:
oi.2.1: It is mandatory to support exactly one of these items.

A.5.1 WirelessMAN-OFDMA 802.16e

Table A.3: Band Class Group

WirelessMAN-OFDMA 802.16e				
Item	Capability	Reference	Status	Support
1	Prof1.A_2.3 - 8,75 MHz channel PHY (2,3 GHz to 2,4 GHz)	[7] 6	oi.3.1	
2	Prof1.B_2.3 - 5 AND 10 MHz channel PHY (2,3 GHz to 2,4 GHz)	[7] 6	oi.3.1	
3	Prof2.A_2.305 - 3,5 MHz channel PHY (2,305 GHz to 2,320, 2,345 GHz to 2,360 GHz)	[7] 6	oi.3.1	
4	Prof2.B_2.305 - 5 MHz channel PHY (2,305 GHz to 2,320, 2,345 GHz to 2,360 GHz)	[7] 6	oi.3.1	
5	Prof2.C_2.305 - 10 MHz channel PHY (2,305 GHz to 2,320, 2,345 GHz to 2,360 GHz)	[7] 6	oi.3.1	
6	Prof3.A_2.496 - 5 AND 10 MHz channel PHY (2,496 GHz to 2,69 GHz)	[7] 6	oi.3.1	
7	Prof4.A_3.3 - 5 MHz channel PHY (3,3 GHz to 3,4 GHz)	[7] 6	oi.3.1	
8	Prof4.B_3.3 - 7 MHz channel PHY (3,3 GHz to 3,4 GHz)	[7] 6	oi.3.1	
9	Prof4.C_3.3 - 10 MHz channel PHY (3,3 GHz to 3,4 GHz)	[7] 6	oi.3.1	
10	Prof5.A_3.4 - 5 MHz channel PHY (3,4 GHz to 3,8 GHz)	[7] 6	oi.3.1	
	Prof5L.A_3.4 - 5 MHz channel PHY (3,4 GHz to 3,6 GHz)		oi.3.1	
	Prof5H.A_3.4 - 5 MHz channel PHY (3,6 GHz to 3,8 GHz)		oi.3.1	
11	Prof5.B_3.4 - 7 MHz channel PHY (3,4 GHz to 3,8 GHz)	[7] 6	oi.3.1	
	Prof5L.B_3.4 - 7MHz channel PHY (3,4 GHz to 3,6 GHz)		oi.3.1	
	Prof5H.B_3.4 - 7 MHz channel PHY (3,6 GHz to 3,8 GHz)		oi.3.1	
12	Prof5.C_3.4 - 10 MHz channel PHY (3,4 GHz to 3,8 GHz)	[7] 6	oi.3.1	
	Prof5L.C_3.4 - 10 MHz channel PHY (3,4 GHz to 3,6 GHz)		oi.3.1	
	Prof5H.C_3.4 - 10 MHz channel PHY (3,6 GHz to 3,8 GHz)		oi.3.1	

Comments:
oi.3.1: It is mandatory to support at least one of these items.
With regards to Items 2 and 6, the BS shall support 5 MHz or 10 MHz or both bandwidth sizes.

Table A.4: Power classes

WirelessMAN-OFDMA 802.16e					
Item	Capability		Reference	Status	Support
	Transmit Power (dBm) for 16QAM	Transmit Power (dBm) for QPSK			
1	$18 \leq P_{Tx,max} < 21$	$20 \leq P_{Tx,max} < 23$	[7] 7	oi.4.1	
2	$21 \leq P_{Tx,max} < 25$	$23 \leq P_{Tx,max} < 27$	[7] 7	oi.4.1	
3	$25 \leq P_{Tx,max} < 30$	$27 \leq P_{Tx,max} < 30$	[7] 7	oi.4.1	
4	$30 \leq P_{Tx,max}$	$30 \leq P_{Tx,max}$	[7] 7	oi.4.1	

Comments:
oi.4.1: It is mandatory to support at least one of these items.
The Power Classes listed in this table is developed to cover the complete target range of power levels while different interpretation of applicable modulation levels is addressed through a dual range requirement for QPSK and 16QAM per Power Class.

Table A.5: Duplexing modes

WirelessMAN-OFDMA 802.16e				
Item	Capability	Reference	Status	Support
1	TDD Time Division Duplexing	[5] and [6] 6.3.7.2, [7] 4.1.1.2	m	

Comments:

A.5.1.1 Mobile Station

A.5.1.1.1 PHY functions

A.5.1.1.1.1 Sampling Factor

Table A.6: Sampling Factor for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	8/7	[5] and [6] 8.4.2.3 [7] 4.1.1.3	m	
2	28/25	[5] and [6] 8.4.2.3 [7] 4.1.1.3	m	

Comments:
Item 1 is used for A.3-1, 3, 8 and 11 and Item 2 is used for A.3-2, 4, 5, 6, 7, 9, 10 and 12.

A.5.1.1.1.2 Cyclic Prefix

Table A.7: Cyclic Prefix for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	1/8	[5] and [6] 8.4.2.3, [7] 4.1.1.4	m	

Comments:

A.5.1.1.1.3 Frame Duration

Table A.8: Frame duration codes for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	5 msec	[5] and [6] 8.4.5.2, [7] 4.1.1.5	m	
Comments:				

A.5.1.1.1.4 UL and DL Subframe Size

Table A.9: Number of OFDM Symbols in DL and UL

Mobile Station (MS)					
Item	Capability	Value	Reference	Status	Support
1	Number of OFDM Symbols in DL and UL for 5 MHz BW	(35, 12)	[5] and [6] 8.4.4.2, [7] 4.1.1.7	oi.9.1	
		(34, 13)			
		(33, 14)			
		(32, 15)			
		(31, 16)			
		(30, 17)			
		(29, 18)			
		(28, 19)			
2	Number of OFDM Symbols in DL and UL for 10 MHz BW	(35, 12)	[5] and [6] 8.4.4.2, [7] 4.1.1.7	oi.9.1	
		(34, 13)			
		(33, 14)			
		(32, 15)			
		(31, 16)			
		(30, 17)			
		(29, 18)			
		(28, 19)			
3	Number of OFDM Symbols in DL and UL for 8,75 MHz BW	(30, 12)	[5] and [6] 8.4.4.2, [7] 4.1.1.7	oi.9.1	
		(29, 13)			
		(28, 14)			
		(27, 15)			
		(26, 16)			
		(25, 17)			
4	Number of OFDM Symbols in DL and UL for 3,5 MHz BW	(24, 09)	[5] and [6] 8.4.4.2, [7] 4.1.1.7	oi.9.1	
		(23, 10)			
		(22, 11)			
		(21, 12)			
		(20, 13)			
		(19, 14)			
5	Number of OFDM Symbols in DL and UL for 7 MHz BW	(24, 09)	[5] and [6] 8.4.4.2, [7] 4.1.1.7	oi.9.1	
		(23, 10)			
		(22, 11)			
		(21, 12)			
		(20, 13)			
		(19, 14)			
Comments:					
oi.9.1: It is mandatory to support at least one of these items.					
First value in the pairs is number of symbols in DL subframe and the second value is the number of symbols in UL subframe. If the MS supports one or more oi.11 item, then it shall support all DL/UL number of symbols combinations listed associated with each channel bandwidth.					

A.5.1.1.1.5 Subcarrier Allocation Mode

Table A.10: DL subcarrier allocation for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	PUSC	[5] and [6] 8.4.6.1.2.1, [7] 4.1.2.1	m	
2	PUSC with all subchannels	[5] and [6] 8.4.6.1.2.1, [7] 4.1.2.1	m	
3	PUSC with dedicated pilots	[5] and [6] 8.4.6.1.2.1, 8.4.5.3.4, [7] 4.1.2.1	m	
4	FUSC	[5] and [6] 8.4.6.1.2.2, [7] 4.1.2.1	m	
5	AMC 2x3	[5] and [6] 8.4.6.3, [7] 4.1.2.1	m	
6	AMC 2x3 with dedicated pilots	[5] and [6] 8.4.6.3, 8.4.5.3.4, [7] 4.1.2.1	m	
Comments:				

Table A.11: UL subcarrier allocation for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	PUSC	[5] and [6] 8.4.6.2.1, [7] 4.1.2.2	m	
2	PUSC without subchannel rotation	[5] and [6] 11.3.1 [7] 4.1.2.2	m	
3	AMC 2x3	[5] and [6] 8.4.6.3, [7] 4.1.2.2	m	
Comments:				

A.5.1.1.1.6 UL Channel Sounding

Table A.12: UL Sounding 1 for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Type A with Cyclic shift- support for P values other than 9 and 18	8.4.6.2.7.1 [5] and [6] [7] 4.1.2.4	m	
2	Type A with Cyclic shift- Support P values of 9 and 18	8.4.6.2.7.1 [5] and [6] [7] 4.1.2.4	m	
3	Type A with Decimation	8.4.6.2.7.1 [5] and [6] [7] 4.1.2.4	m	
4	Power Assignment Method: Equal Power (0b00)	8.4.6.2.7.1 8.4.6.2.7.2 [5] and [6] [7] 4.1.2.4	m	
Comments:				

Table A.13: UL Sounding 2 for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Sounding response time capability	[5] 8.4.6.2.7.1, 11.8.3.7.14, [6] 8.4.6.2.7.1, 11.8.3.5.14 [7] 4.1.2.4	m	
2	Max number of simultaneous sounding instructions	[5] 8.4.6.2.7.1, 11.8.3.7.14, [6] 8.4.6.2.7.1, 11.8.3.5.14 [7] 4.1.2.4	m	
Comments:				

A.5.1.1.1.7 Ranging and Band Width Request

Table A.14: Initial ranging for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Initial Ranging in PUSC zone with 2 symbols	8.4.7.1 [5] and [6]	m	
Comments:				

Table A.15: HO ranging for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	HO Ranging in PUSC zone with 2 symbols	8.4.7.1 [5] and [6]	m	
Comments:				

Table A.16: Periodic Ranging for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Periodic Ranging in PUSC zone with 1 symbols	8.4.7.2 [5] and [6]	m	
Comments:				

Table A.17: BW Request for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	BW Request in PUSC zone with 1 symbols	8.4.7.2 [5] and [6]	m	
Comments: This table is only related to BW request based on Ranging.				

A.5.1.1.1.8 Fast Feedback

Table A.18: Fast-Feedback/CQI Channel Encoding for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	6 bits	[5] and [6] 8.4.5.4.10.5	m	
Comments:				

Table A.19: Fast-Feedback/CQI Channel Allocation Method for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Fast feedback channel allocation using CQICH Allocation IE	[5] and [6] 8.4.5.4.12	m	
Comments:				

A.5.1.1.1.9 Channel Coding

Table A.20: Repetition for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Repetition	8.4.9.5 [5] and [6]	m	
Comments: Item 1 is only applicable to A.35-1, A.36-1, A.37-1 and A.38-1.				

Table A.21: Randomization for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Randomization	8.4.9.1 [5] and [6]	m	
Comments:				

Table A.22: Convolutional Code for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Tail Biting	8.4.9.2.1 [5] and [6]	m	
Comments: Convolutional Code shall be only applicable for FCH.				

Table A.23: Convolutional Turbo Code for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	CTC	8.4.9.2.3 excluding 8.4.9.2.3.5 [5] and [6]	m	
Comments:				

Table A.24: Interleaving for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Interleaving	8.4.9.3 [5] and [6]	m	
Comments:				

A.5.1.1.1.10 HARQ

Table A.25: HARQ Chase Combining for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Chase with CTC	8.4.15.1 [5] and [6]	m	
2	H-ARQ Category 1- NO DL aggregation (Wave 1 obly) - Minimum HARQ buffer size or DL= 4 096 (K=12) - Minimum HARQ buffer size for UL = 16 384 (K=20) - Aggregation flag for DL = OFF - Aggregation flag for UL = OFF - Number of DL HARQ channels = 4 - Number of UL HARQ channels = 4 - Max Burst in DL Subframe with HARQ =2 - Max Burst in UL Subframe with HARQ =2	[5] 11.8.3.7.19, 11.8.3.7.12, [6] 11.8.3.5.17, 11.8.3.5.10 [5] and [6] 8.4.4.2, 8.4.15.1.3,	oi.25.1	
3	H-ARQ Category 1- NO DL aggregation - Minimum HARQ buffer size or DL = 16 384 (K=20) - Minimum HARQ buffer size for UL = 16 384 (K=20) - Aggregation flag for DL = OFF - Aggregation flag for UL = OFF - Number of DL HARQ channels = 4 - Number of UL HARQ channels = 4 - Max Burst in DL Subframe with HARQ =2 - Max Burst in UL Subframe with HARQ =2	[5] 11.8.3.7.19, [6] 11.8.3.5.17]	oi.25.1	
4	H-ARQ Category 1- DL aggregation ON - Minimum HARQ buffer size or DL = 16 384 (K=20) - Minimum HARQ buffer size for UL = 16 384 (K=20) - Aggregation flag for DL = ON - Aggregation flag for UL = OFF - Number of DL HARQ channels = 4 - Number of UL HARQ channels = 4 - Max Burst in DL Subframe with HARQ =2 - Max Burst in UL Subframe with HARQ =2	[5] 11.8.3.7.19, [6] 11.8.3.5.17 [5]	oi.25.1	

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
5	H-ARQ Category 2 - Minimum HARQ buffer size or DL = 8 192 (K=16) - Minimum HARQ buffer size for UL = 16 384 (K=20) - Aggregation flag for DL = ON - Aggregation flag for UL = ON - Number of DL HARQ channels = 16 - Number of UL HARQ channels = 8 - Max Burst in DL Subframe with HARQ =5 - Max Burst in UL Subframe with HARQ =2	[5] 11.8.3.7.19, [6] 11.8.3.5.17	oi.25.1	
6	H-ARQ Category 3 - Minimum HARQ buffer size or DL = 16 384 (K=20) - Minimum HARQ buffer size for UL = 16 384 (K=20) - Aggregation flag for DL = ON - Aggregation flag for UL = ON - Number of DL HARQ channels = 16 - Number of UL HARQ channels = 8 - Max Burst in DL Subframe with HARQ =5 - Max Burst in UL Subframe with HARQ =2	[5] 11.8.3.7.19, [6] 11.8.3.5.17	oi.25.1	
7	H-ARQ Category 4 - Minimum HARQ buffer size or DL = 23 170 (K=22) - Minimum HARQ buffer size for UL = 16 384 (K=20) - Aggregation flag for DL = ON - Aggregation flag for UL = ON - Number of DL HARQ channels = 16 - Number of UL HARQ channels = 8 - Max Burst in DL Subframe with HARQ =5 - Max Burst in UL Subframe with HARQ =2	[5] 11.8.3.7.19, [6] 11.8.3.5.17]	oi.25.1	
8	SN for HARQ reordering	[5] 11.13.36, [6] 11.13.34	m	

Comments:

oi.25.1: It is mandatory to support at least one of these items.

Note that the HARQ buffer size shall be interpreted as softbits buffer size, i.e. relating to coded data bits and not un-coded. This means the buffer size refers to both the systematic and parity bits transmitted over the air. It is left to vendor's implementation to determine the amount of memory space for each bit of transmitted information. The buffer size is related to buffer size parameter K according to the following Equation.

$$\text{Buffer size} = \text{floor} [512 \times 2^{(K/4)}]$$

On Items 2 and 3, a waiver is applicable to total DL buffer size of 16 384 for all 4 channels, equivalent to DL buffer size of 4 096 (K=12) per channel, for CAT 1 in Wave 1.

Relative to items 2-6, the term "burst" refers to "sub-burst".

Item 2 is a waiver applicable to Wave 1 only.

BS shall not allocate more than one UL non-HARQ unicast allocation and two UL HARQ unicast allocations for any UL sub-frame for a given MS. If more than one UL non-HARQ bursts (including the non-HARQ unicast allocation and allocation through the CDMA_Allocation_IE) are allocated to an MS in a frame, then the MS may choose to transmit only one of the non-HARQ bursts and ignore the remaining non-HARQ allocation(s).

Table A.26: ACK Channel for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	ACK channel	8.4.5.4.13 [5] and [6]	m	
2	HARQ ACK delay for DL burst = 1	11.3.1 [5] and [6]	m	

Comments:

A.5.1.1.1.11 Control Mechanism

Table A.27: MS Synchronization

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	MS UL symbol timing accuracy within $\pm (T_b/32)/4$	8.4.10.1.2 [5] and [6]	m	
2	MS to BS frequency synchronization tolerance $\leq 2\%$ of the subcarrier spacing	8.4.14.1 [5] and [6]	m	
Comments:				

A.5.1.1.1.12 Power Control

Table A.28: Closed-loop Power Control for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Closed loop power control	8.4.10.3 and 8.4.10.3.1 [5] and [6]	m	
Comments:				

Table A.29: Open-loop Power Control for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Open loop power control	8.4.10.3.2 [5] and [6]	m	
Comments:				

Table A.30: MS Maximum Transmission Power Limitation Control

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	MS Maximum Transmission Power Limitation Control	11.3.1 [5] and [6]	m	
Comments:				

A.5.1.1.1.13 Channel Quality Measurements

Table A.31: CINR Measurement for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Physical CINR measurement from the preamble for frequency reuse==1 (feedback type=0b00 and report type=0 and CINR preamble report type=0)	[5] and [6] 6.3.18, 8.4.5.4.12, 8.4.11.3 [5] 11.8.3.7.9, [6] 11.8.3.5.8	m	
2	Physical CINR measurement from the preamble for frequency reuse==3 (feedback type=0b00 and report type=0 and CINR preamble report type=1)	[5] and [6] 6.3.18, 8.4.5.4.12, 8.4.11.3 [5] 11.8.3.7.9, [6] 11.8.3.5.8	m	

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
3	Physical CINR measurement for a permutation zone from pilot subcarriers (feedback type=0b00 and report type=1 and CINR zone measurement type=0)	[5] and [6] 6.3.18, 8.4.5.4.12, 8.4.11.3 [5] 11.8.3.7.9, [6] 11.8.3.5.8	m	
4	Effective CINR measurement for a permutation zone from pilot subcarriers (feedback type=0b01 and report type=1 and CINR zone measurement type=0)	[5] and [6] 6.3.18, 8.4.5.4.12, 8.4.11.3 [5] 11.8.3.7.9, [6] 11.8.3.5.8	m	
5	Major group indication (applicable to PUSC zone only)	8.4.5.4.12 [5] and [6]	m	
6	MIMO permutation feedback cycle (applicable to MIMO only)	8.4.5.4.12 [5] and [6]	m	
Comments: For enhanced Fast Feedback channel, the coding is as defined in 8.4.5.4.10.8.				

Table A.32: RSSI Measurement for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	RSSI Measurement	[5] and [6] 8.4.11.2 [5] 6.3.2.3.50, [6] 6.3.2.3.45	m	
Comments:				

A.5.1.1.1.14 Modulation

Table A.33: PRBS for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	PRBS	8.4.9.4.1 [5] and [6]	m	
Comments:				

Table A.34: Downlink MCS for MS, Convolutional Coding

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	QPSK (CC) 1/2	11.4.2 [5] and [6]	m	
Comments:				

Table A.35: Downlink MCS for MS, Convolutional Turbo Code

Mobile Station (MS)				
Item		Reference	Status	Support
1	QPSK (CTC) 1/2	11.4.2 [5] and [6]	m	
2	QPSK (CTC) 3/4	11.4.2 [5] and [6]	m	
3	16QAM (CTC) 1/2	11.4.2 [5] and [6]	m	
4	16QAM (CTC) 3/4	11.4.2 [5] and [6]	m	
5	64QAM (CTC) 1/2	11.4.2 [5] and [6]	m	
6	64QAM (CTC) 2/3	11.4.2 [5] and [6]	m	
7	64QAM (CTC) 3/4	11.4.2 [5] and [6]	m	
8	64QAM (CTC) 5/6	11.4.2 [5] and [6]	m	
Comments:				

Table A.36: Uplink MCS for MS, Convolutional Turbo Code

Mobile Station (MS)				
Item		Reference	Status	Support
1	QPSK (CTC) 1/2	11.3.1.1 [5] and [6]	m	
2	QPSK (CTC) 3/4	11.3.1.1 [5] and [6]	m	
3	16QAM (CTC) 1/2	11.3.1.1 [5] and [6]	m	
4	16QAM (CTC) 3/4	11.3.1.1 [5] and [6]	m	
Comments:				

Table A.37: Pilot Modulation for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Modulation of pilots in uplink data burst for PUSC permutations	8.4.9.4.3 [5] and [6]	m	
2	Modulation of pilots in uplink data burst for AMC permutation	8.4.9.4.3 [5] and [6]	m	
3	Modulation of pilot in uplink Collaborative SM for PUSC permutation		m	
Comments:				

Table A.38: Ranging Modulation for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Modulation of the ranging code	8.4.9.4.3.2, 8.4.7.3 [5] and [6]	m	
Comments:				

A.5.1.1.1.15 MAP Support

Table A.39: MAP for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Normal DL-MAP.	6.3.2.3.2 [5] and [6]	m	
2	Normal UL-MAP	6.3.2.3.4 [5] and [6]	m	
3	Compressed DL-MAP	8.4.5.6.1 [5] and [6]	m	
4	Compressed UL-MAP	8.4.5.6.2 [5] and [6]	m	
5	Sub-DL-UL-MAP in first zone	[5] 6.3.2.3.60 [6] 6.3.2.3.55	m	
6	MBS MAP message	[5] 6.3.2.3.57, [6] 6.3.2.3.52	m	
Comments:				

Table A.40: MAP Features for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	CID in DL-MAP IE in DL-MAP or Compressed DL-MAP	8.4.5.3.7 [5] and [6]	m	
2	RCID IE in DL-MAP IE in SUB-DL-UL-MAP	8.4.5.3 [5] and [6]	m	
3	UL allocation start IE	8.4.5.4.15 [5] and [6]	m	
4	Space-Time Coding (STC)/Zone switch IE	8.4.5.3.4, [5] and [6]	m	
5	HARQ and Sub-MAP pointer IE in compressed DL map	8.4.5.3.10 [5] and [6]	m	
6	UL Zone Switch IE	8.4.5.4.7 [5] and [6]	m	
Comments:				

A.5.1.1.1.16 Multiple Input Multiple Output (MIMO)

Table A.41: Supported Features for DL PUSC MIMO for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	2-antenna, matrix A	8.4.8.1.2.1.1 8.4.8.1.4 [5] and [6]	m	
2	2-antenna, matrix B, vertical encoding	8.4.8.1.4 [5] and [6]	m	
Comments:				

Table A.42: Supported Features for UL PUSC MIMO for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Collaborative SM for two MS with single transmit antenna	8.4.8.1.5 [5] and [6]	m	
2	Capable of generating pilot pattern A or B	8.4.8.1.5 [5] and [6]	m	
Comments:				

Table A.43: MIMO Feedback for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Fast DL measurement feedback with more than one Rx antennas	8.4.5.4.10.6 8.4.5.4.10.1 8.4.5.4.10.5 [5] and [6]	m	
2	Mode selection feedback with 6 bits	8.4.5.4.10.8 [5] and [6]	m	
Comments:				

Table A.44: HARQ DL support for MIMO for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	MIMO DL Chase Combining	8.4.5.3.21 [5] and [6]	m	
Comments:				

Table A.45: HARQ UL support for MIMO for MS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	MIMO UL Chase Combining	8.4.5.4.24 [5] and [6]	m	
Comments:				

A.5.1.1.1.17 MS Minimum Performance Requirements

Table A.46: MS Minimum Performance

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	SSTTG $\leq 50 \mu\text{sec}$	8.4.4.2 [5] and [6]	m	
2	SSRTG $\leq 50 \mu\text{sec}$	8.4.4.2 [5] and [6]	m	
3	Maximum concurrent bursts in a downlink sub-frame = 10	8.4.4.2, 11.7.8.13 [5] and [6]	m	
4	Maximum bursts in a downlink sub-frame = 16	8.4.4.2 [5] and [6]	m	
Comments:				

Table A.47: Max Number of Zones in DL and UL Subframes

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Maximum numbers of zones UL = 3	8.4.4.2 [5] and [6]	m	
2	Maximum numbers of zones DL = 5	8.4.4.2 [5] and [6]	m	
Comments: The numbers are the same as the number of UL/DL Zone Switch IEs plus 1. In the cases that Uplink subframe starts with Zone Switch IE, the number of uplink zones is the same as the number of Zone Switch IEs.				

Table A.48: Measurement Processes and CQI Channels

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Maximum numbers of CQI Channels transmitted by an MS per frame = 2	8.4.4.2 [5] and [6]		
2	Maximum number of concurrent CINR measurement processes = 2	8.4.4.2 [5] and [6]		
Comments:				

Table A.49: Max MS Sensitivity Level for Convolutional Encoding 3.5 MHz Bandwidth, DL PUSC

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-90,8	[5] and [6]	m	
NOTE: This table is applicable to A.3.3 only.				
Comments: Equation (149b) of clause 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor R = 1. Only applicable for FCH. FCH has repetition factor of 4, means sensitivity improves ~6 dB. RCT test is recommended.				

Table A.50: Max MS Sensitivity Level for Convolutional Encoding 5 MHz Bandwidth, DL PUSC

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-89,4	[5] and [6]	m	

NOTE: This table is applicable to A.3.2, A.4.4, A.4.6, A.4.7 and A.3.10 only.

Comments: Equation (149b) of clause 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor R = 1.

Only applicable for FCH. FCH has repetition factor of 4, means sensitivity improves ~6 dB. RCT test is recommended.

Table A.51: Max MS Sensitivity Level for Convolutional Encoding 7 MHz Bandwidth, DL PUSC

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-87,8	[5] and [6]	m	

NOTE: This table is applicable to A.3.8 and A.3.11 only.

Comments: Equation (149b) of clause 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor R = 1.

Only applicable for FCH. FCH has repetition factor of 4, means sensitivity improves ~6 dB. RCT test is recommended.

Table A.52: Max MS Sensitivity Level for Convolutional Encoding 8,75 MHz Bandwidth, DL PUSC

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-86,9	[5] and [6]	m	

NOTE: This table is applicable to A.3.1 only.

Comments: Equation (149b) of clause 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor R = 1.

Only applicable for FCH. FCH has repetition factor of 4, means sensitivity improves ~6 dB. RCT test is recommended.

Table A.53: Max MS Sensitivity Level for Convolutional Encoding 10 MHz Bandwidth, DL PUSC

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-86,4	[5] and [6]	m	

NOTE: This table is applicable to A.3.2, A.3.5, A.3.6, A.3.9, A.3.12 only.

Comments: Equation (149b) of clause 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor R = 1.

Only applicable for FCH. FCH has repetition factor of 4, means sensitivity improves ~6 dB. RCT test is recommended.

Table A.54: Max MS Sensitivity Level for Convolutional Turbo Code 3,5 MHz Bandwidth, DL PUSC

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-92,9	[5] and [6]	m	
QPSK-3/4	-89,5	[5] and [6]	m	
16QAM-1/2	-87,2	[5] and [6]	m	
16QAM-3/4	-83,1	[5] and [6]	m	
64QAM-1/2	-82,0	[5] and [6]	m	
64QAM-2/3	-78,9	[5] and [6]	m	
64QAM-3/4	-77,8	[5] and [6]	m	
64QAM-5/6	-75,9	[5] and [6]	m	

Comments: Equation (149b) of clause 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor R = 1.

Table A.55: Max MS Sensitivity Level for Convolutional Turbo Code 3,5 MHz Bandwidth, DL FUSC

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-92,9	[5] and [6]	m	
QPSK-3/4	-89,5	[5] and [6]	m	
16QAM-1/2	-87,2	[5] and [6]	m	
16QAM-3/4	-83,1	[5] and [6]	m	
64QAM-1/2	-82,0	[5] and [6]	m	
64QAM-2/3	-78,9	[5] and [6]	m	
64QAM-3/4	-77,8	[5] and [6]	m	
64QAM-5/6	-75,9	[5] and [6]	m	

Comments: Equation (149b) of section 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor R = 1.

Table A.56: Max MS Sensitivity Level for Convolutional Turbo Code 3,5 MHz Bandwidth, DL AMC

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-92,8	[5] and [6]	m	
QPSK-3/4	-89,4	[5] and [6]	m	
16QAM-1/2	-87,1	[5] and [6]	m	
16QAM-3/4	-83,0	[5] and [6]	m	
64QAM-1/2	-81,9	[5] and [6]	m	
64QAM-2/3	-78,8	[5] and [6]	m	
64QAM-3/4	-77,7	[5] and [6]	m	
64QAM-5/6	-75,8	[5] and [6]	m	

Comments: Equation (149b) of section 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor R = 1.

Table A.57: Max MS Sensitivity Level for Convolutional Turbo Code 5 MHz Bandwidth, DL PUSC

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-91,5	[5] and [6]	m	
QPSK-3/4	-88,1	[5] and [6]	m	
16QAM-1/2	-85,8	[5] and [6]	m	
16QAM-3/4	-81,7	[5] and [6]	m	
64QAM-1/2	-80,6	[5] and [6]	m	
64QAM-2/3	-77,5	[5] and [6]	m	
64QAM-3/4	-76,4	[5] and [6]	m	
64QAM-5/6	-74,5	[5] and [6]	m	

Comments: Equation (149b) of section 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor R = 1.

Table A.58: Max MS Sensitivity Level for Convolutional Turbo Code 5 MHz Bandwidth, DL FUSC

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-91,4	[5] and [6]	m	
QPSK-3/4	-88,0	[5] and [6]	m	
16QAM-1/2	-85,7	[5] and [6]	m	
16QAM-3/4	-81,6	[5] and [6]	m	
64QAM-1/2	-80,5	[5] and [6]	m	
64QAM-2/3	-77,4	[5] and [6]	m	
64QAM-3/4	-76,3	[5] and [6]	m	
64QAM-5/6	-74,4	[5] and [6]	m	

Comments: Equation (149b) of section 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor R = 1.

Table A.59: Max MS Sensitivity Level for Convolutional Turbo Code 5 MHz Bandwidth, DL AMC

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-91,3	[5] and [6]	m	
QPSK-3/4	-87,9	[5] and [6]	m	
16QAM-1/2	-85,6	[5] and [6]	m	
16QAM-3/4	-81,5	[5] and [6]	m	
64QAM-1/2	-80,4	[5] and [6]	m	
64QAM-2/3	-77,3	[5] and [6]	m	
64QAM-3/4	-76,2	[5] and [6]	m	
64QAM-5/6	-74,3	[5] and [6]	m	

Comments: Equation (149b) of section 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor R = 1.

Table A.60: Max MS Sensitivity Level for Convolutional Turbo Code 7 MHz Bandwidth, DL PUSC

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-89,9	[5] and [6]	m	
QPSK-3/4	-86,5	[5] and [6]	m	
16QAM-1/2	-84,2	[5] and [6]	m	
16QAM-3/4	-80,1	[5] and [6]	m	
64QAM-1/2	-79,0	[5] and [6]	m	
64QAM-2/3	-75,9	[5] and [6]	m	
64QAM-3/4	-74,8	[5] and [6]	m	
64QAM-5/6	-72,9	[5] and [6]	m	

Comments: Equation (149b) of section 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor R = 1.

Table A.61: Max MS Sensitivity Level for Convolutional Turbo Code 7 MHz Bandwidth, DL FUSC

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-89,9	[5] and [6]	m	
QPSK-3/4	-86,5	[5] and [6]	m	
16QAM-1/2	-84,2	[5] and [6]	m	
16QAM-3/4	-80,1	[5] and [6]	m	
64QAM-1/2	-79,0	[5] and [6]	m	
64QAM-2/3	-75,9	[5] and [6]	m	
64QAM-3/4	-74,8	[5] and [6]	m	
64QAM-5/6	-72,9	[5] and [6]	m	

Comments: Equation (149b) of section 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor R = 1.

Table A.62: Max MS Sensitivity Level for Convolutional Turbo Code 7 MHz Bandwidth, DL AMC

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-89,8	[5] and [6]	m	
QPSK-3/4	-86,4	[5] and [6]	m	
16QAM-1/2	-84,1	[5] and [6]	m	
16QAM-3/4	-80,0	[5] and [6]	m	
64QAM-1/2	-78,9	[5] and [6]	m	
64QAM-2/3	-75,8	[5] and [6]	m	
64QAM-3/4	-74,7	[5] and [6]	m	
64QAM-5/6	-72,8	[5] and [6]	m	

Comments: Equation (149b) of section 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor R = 1.

Table A.63: Max MS Sensitivity Level for Convolutional Turbo Code 8,75 MHz Bandwidth, DL PUSC

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-89,0	[5] and [6]	m	
QPSK-3/4	-85,6	[5] and [6]	m	
16QAM-1/2	-83,3	[5] and [6]	m	
16QAM-3/4	-79,2	[5] and [6]	m	
64QAM-1/2	-78,1	[5] and [6]	m	
64QAM-2/3	-75,0	[5] and [6]	m	
64QAM-3/4	-73,9	[5] and [6]	m	
64QAM-5/6	-72,0	[5] and [6]	m	

Comments: Equation (149b) of section 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor R = 1.

Table A.64: Max MS Sensitivity Level for Convolutional Turbo Code 8,75 MHz Bandwidth, DL FUSC

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-88,9	[5] and [6]	m	
QPSK-3/4	-85,5	[5] and [6]	m	
16QAM-1/2	-83,2	[5] and [6]	m	
16QAM-3/4	-79,1	[5] and [6]	m	
64QAM-1/2	-78,0	[5] and [6]	m	
64QAM-2/3	-74,9	[5] and [6]	m	
64QAM-3/4	-73,8	[5] and [6]	m	
64QAM-5/6	-71,9	[5] and [6]	m	

Comments: Equation (149b) of section 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor R = 1.

Table A.65: Max MS Sensitivity Level for Convolutional Turbo Code 8,75 MHz Bandwidth, DL AMC

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-88,8	[5] and [6]	m	
QPSK-3/4	-85,4	[5] and [6]	m	
16QAM-1/2	-83,1	[5] and [6]	m	
16QAM-3/4	-79,0	[5] and [6]	m	
64QAM-1/2	-77,9	[5] and [6]	m	
64QAM-2/3	-74,8	[5] and [6]	m	
64QAM-3/4	-73,7	[5] and [6]	m	
64QAM-5/6	-71,8	[5] and [6]	m	

Comments: Equation (149b) of section 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor R = 1.

Table A.66: Max MS Sensitivity Level for Convolutional Turbo Code 10 MHz Bandwidth, DL PUSC

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-88,5	[5] and [6]		
QPSK-3/4	-85,1	[5] and [6]	m	
16QAM-1/2	-82,8	[5] and [6]	m	
16QAM-3/4	-78,7	[5] and [6]	m	
64QAM-1/2	-77,6	[5] and [6]	m	
64QAM-2/3	-74,5	[5] and [6]	m	
64QAM-3/4	-73,4	[5] and [6]	m	
64QAM-5/6	-71,5	[5] and [6]	m	

Comments: Equation (149b) of section 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor R = 1.

Table A.67: Max MS Sensitivity Level for Convolutional Turbo Code 10 MHz Bandwidth, DL FUSC

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-88,4	[5] and [6]	m	
QPSK-3/4	-85,0	[5] and [6]	m	
16QAM-1/2	-82,7	[5] and [6]	m	
16QAM-3/4	-78,6	[5] and [6]	m	
64QAM-1/2	-77,5	[5] and [6]	m	
64QAM-2/3	-74,4	[5] and [6]	m	
64QAM-3/4	-73,3	[5] and [6]	m	
64QAM-5/6	-71,4	[5] and [6]	m	

Comments: Equation (149b) of section 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor R = 1.

Table A.68: Max MS Sensitivity Level for Convolutional Turbo Code 10 MHz Bandwidth, DL AMC

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-88,3	[5] and [6]	m	
QPSK-3/4	-84,9	[5] and [6]	m	
16QAM-1/2	-82,6	[5] and [6]	m	
16QAM-3/4	-78,5	[5] and [6]	m	
64QAM-1/2	-77,4	[5] and [6]	m	
64QAM-2/3	-74,3	[5] and [6]	m	
64QAM-3/4	-73,2	[5] and [6]	m	
64QAM-5/6	-71,3	[5] and [6]	m	

Comments: Equation (149b) of section 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor R = 1.

A.5.1.1.1.18 Minimum Transmit Requirements

Table A.69: Transmit requirements for MS

Mobile Station (MS)														
Item	Capability	Reference	Status	Support										
1	Tx dynamic Range = 45 dB	8.4.12.1 [5] and [6]	m											
2	Tx power level min adjustment step = 1 dB	8.4.12.1 [5] and [6]	m											
3	Tx power level min relative step accuracy according to the following: <table style="margin-left: 20px; border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">Single step size m</td> <td style="border-left: 1px solid black; padding-left: 10px;">Required relative accuracy</td> </tr> <tr> <td>ceil(m) = 1 dB</td> <td style="border-left: 1px solid black; padding-left: 10px;">± 0,5 dB</td> </tr> <tr> <td>ceil(m) = 2 dB</td> <td style="border-left: 1px solid black; padding-left: 10px;">± 1 dB</td> </tr> <tr> <td>ceil(m) = 3 dB</td> <td style="border-left: 1px solid black; padding-left: 10px;">± 1,5 dB</td> </tr> <tr> <td>4dB < ceil(m) <= 10 dB</td> <td style="border-left: 1px solid black; padding-left: 10px;">± 2 dB</td> </tr> </table> <p>Two exception points of at least 10 dB apart are allowed over the 45 dB range, where in these two points an accuracy of up to ± 2 dB is allowed for any size step</p>	Single step size m	Required relative accuracy	ceil(m) = 1 dB	± 0,5 dB	ceil(m) = 2 dB	± 1 dB	ceil(m) = 3 dB	± 1,5 dB	4dB < ceil(m) <= 10 dB	± 2 dB	8.4.12.1 [5] and [6]	m	
Single step size m	Required relative accuracy													
ceil(m) = 1 dB	± 0,5 dB													
ceil(m) = 2 dB	± 1 dB													
ceil(m) = 3 dB	± 1,5 dB													
4dB < ceil(m) <= 10 dB	± 2 dB													
4	Spectral flatness according to the following: ≤ ±2 dB for spectral lines from -Nused/4 to -1 and +1 to Nused/4 Within +2/-4 dB for spectral lines from -Nused/2 to -Nused/4 and +Nused/4 to Nused/2	8.4.12.2 [5] and [6]	m											
5	The power difference between adjacent subcarriers ≤ 0,4 dB	8.4.12.2 [5] and [6]	m											
6	Tx relative constellation error according to the following: <table style="margin-left: 20px; border-collapse: collapse;"> <tr> <td>QPSK-1/2</td> <td>≤ -15,0 dB</td> </tr> <tr> <td>QPSK-3/4</td> <td>≤ -18,0 dB</td> </tr> <tr> <td>16QAM-1/2</td> <td>≤ -20,5 dB</td> </tr> <tr> <td>16QAM-3/4</td> <td>≤ -24,0 dB</td> </tr> </table>	QPSK-1/2	≤ -15,0 dB	QPSK-3/4	≤ -18,0 dB	16QAM-1/2	≤ -20,5 dB	16QAM-3/4	≤ -24,0 dB	8.4.12.3 [5] and [6]	m			
QPSK-1/2	≤ -15,0 dB													
QPSK-3/4	≤ -18,0 dB													
16QAM-1/2	≤ -20,5 dB													
16QAM-3/4	≤ -24,0 dB													

Comments:

Table A.70: MS Transmitter Spectral Mask Requirements

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Prof 3.A 2.496 – 10 MHz channel PHY (2,496 GHz to 2,69 GHz)	[8] 2.1.5.1.1	m	
2	Prof 3.A 2.496 – 5 MHz channel PHY (2,496 GHz to 2,69 GHz)	[8] 2.1.5.1.1	m	
Comments:				

A.5.1.1.1.19 Receive Requirements Table

Table A.71: MS Receiver Requirements

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	MS Rx max input level on-channel reception tolerance = -30 dBm	8.4.13.3.1 [5] and [6]	m	
2	MS Rx max input level on-channel damage tolerance = 0 dBm	8.4.13.4.1 [5] and [6]	m	
3	Min adjacent channel rejection at BER=10 ⁻⁶ for 3 dB degradation C/I according to the following: 16QAM-3/4 10 dB 64QAM-3/4 (if 64QAM supported) 4 dB	8.4.13.2 [5] and [6]	m	
4	Min alternate channel rejection at BER=10 ⁻⁶ for 3 dB degradation C/I according to the following: 16QAM-3/4 29 dB 64QAM-3/4 (if 64QAM supported) 23 dB	8.4.13.2 [5] and [6]	m	
Comments:				

A.5.1.1.2 MS MAC functions

Table A.72: Convergence Sub layer protocol support

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Packet convergence sub layer	5.2 [5] and [6]	m	
Comments:				

A.5.1.1.2.1 Packet Convergence Sublayer

Table A.73: Packet Convergence Sub layer support

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Internet Protocol (IPv4)	[5] 5.2.6 [6] 5.2.5	m	
2	Internet Protocol (IPv6)	[5] 5.2.6 [6] 5.2.5	m	
3	IEEE 802.3 [13] (Ethernet)	[5] and [6] 5.2.4	o	
4	Packet, IPv4 over 802.3/Ethernet	[5] 5.2.4, 5.2.6 [6] 5.2.4, 5.2.5	o	
5	Packet, IPv6 over 802.3/Ethernet	[5] 5.2.4, 5.2.6 [6] 5.2.4, 5.2.5	o	
6	IPv4 with Header Compression (ROHC)	[5] 5.2.6 [6] 5.2.5	m	
7	IPv6 with Header compression (ROHC)	[5] 5.2.6 [6] 5.2.5	m	
Comments: Items 3, 4 and 5 are not required for WiMAX certified label, only optionally certified.				

Table A.74: Major packet classification

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	IP Classification	[5] 11.13.19.3.4 [6] 11.13.18.3.3	m	
2	Ethernet classification	[5] 11.13.19.3.4 [6] 11.13.18.3.3	o	

Comments: Item 2 is not required for WiMAX certified label, only optionally certified. It's conditioned by Eth-CS.

Table A.75: IP packet classification in the UL

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Classification based on DSCP /IP TOS field	[5] 5.2.2, 11.13.19.3.4.2 [6] 5.2.2, 11.13.18.3.3.2	m	
2	Classification based on IP Protocol/Next Header field	[5] 5.2.2, 11.13.19.3.4.3 [6] 5.2.2, 11.13.18.3.3.3	m	
3	Classification based on IP masked Source Address	[5] 5.2.2, 11.13.19.3.4.4 [6] 5.2.2, 11.13.18.3.3.4	m	
4	Classification based on IP Destination Address	[5] 5.2.2, 11.13.19.3.4.5 [6] 5.2.2, 11.13.18.3.3.5	m	
5	Classification based on protocol source port range	[5] 5.2.2, 11.13.19.3.4.6 [6] 5.2.2, 11.13.18.3.3.6	m	
6	Classification based on protocol destination port range	[5] 5.2.2, 11.13.19.3.4.7 [6] 5.2.2, 11.13.18.3.3.7	m	

Comments:

Table A.76: PHS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	PHS	[5] and [6] 5.2.3 5.2.3.1 5.2.3.2	m	

Comments:

A.5.1.1.2.2 MAC common part sub layer

Table A.77: MAC Common part sublayer functionalities

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Addressing and connections	[5] and [6] 6.3.1	m	
2	Construction of PDUs	[5] and [6] 6.3.3	m	
3	ARQ	[5] and [6] 6.3.4	m	
4	Uplink scheduling service	[5] and [6] 6.3.5	m	
5	Bandwidth allocation and request	[5] and [6] 6.3.6	m	
6	Contention resolution	[5] and [6] 6.3.8	m	
7	Network entry and initialization	[5] and [6] 6.3.9	m	
8	Ranging	[5] and [6] 6.3.10	m	
9	Update of UL and DL channel descriptors	[5] and [6] 6.3.11	m	
10	Quality of service	[5] and [6] 6.3.14	m	

Comments:

Table A.78: Miscellaneous management functions

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	MS reset initiated by BS (RES-CMD)	[5] and [6] 6.3.2.3.22	o	
2	MS network clock comparison initiated by BS (CLK-CMP)	[5] and [6] 6.3.2.3.25	o	
3	MS notifies BS of de-registration (DREG-REQ)	[5] 6.3.2.3.43 [6] 6.3.2.3.38	m	
4	Deregistration (DREG-CMD)	[5] and [6] 6.3.2.3.26	m	
5	MS receives quick answer from BS to its DSx-REQ (DSX-RVD)	[5] and [6] 6.3.2.3.27	m	
6	MS answers to BS channel measurement report request (REP-REQ and REP-RSP)	[5] and [6] 6.3.2.3.33	m	
7	MS applies the power change requested by the BS (FPC)	[5] and [6] 6.3.2.3.34	m	
Comments:				

A.5.1.1.2.2.1 Addressing and Connections

Table A.79: Addressing and Connections

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Globally Unique MS MAC Address	[5] and [6] 6.3.1	m	
2	MAC Management messages only applicable on connection types as specified in [5] and [6] table 14	[5] and [6]	m	
3	User data only on transport connections	[5] and [6]	m	
Comments:				

A.5.1.1.2.2.2 Construction and Transmission of MAC PDUs

Table A.80: Transmission conventions

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Fields of MAC messages are transmitted in the same order as they appear in the corresponding tables in the standard	[5] and [6] 6.3.3.1	m	
2	Fields of MAC messages and fields of TLVs, which are specified in the standard as binary numbers (including CRC and HCS) are transmitted as a sequence of their binary digits, starting from MSB. Bit masks (for example, in ARQ) are considered numerical fields. For signed numbers MSB is allocated for the sign. Length field in the "definite form" of ITU-T Recommendation X.690 [15] is also considered a numerical field	[5] and [6] 6.3.3.1	m	
3	Fields specified as SDUs or SDU fragments (for example, MAC PDU payloads) are transmitted in the same order of bytes as received from upper layers	[5] and [6] 6.3.3.1	m	
4	Fields specified as strings are transmitted in the order of symbols in the string. In cases c and d, bits within a byte are transmitted in the order MSB first	[5] and [6] 6.3.3.1	m	
5	TLV value that is defined (in the standard) as a list of numerical values (e.g. section 11.13.19.3.4.2) will be transmitted in the same order as the numerical values appear in the table	[5] and [6] 6.3.3.1	m	
Comments:				

Table A.81: Subheader and Extended Subheader support

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Extended subheader support	[5] 6.3.2.2.7, 11.7.25 [6] 6.3.2.2.7, 11.7.21	m	
2	Capability of sending Grant management Subheader	6.3.2.2.2	m	
Comments:				

Table A.82: PDU concatenation

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Concatenate Multiple MAC PDUs into a single burst of the allocated length	[5] and [6] 6.3.3.2	m	
2	Receive concatenated MAC PDUs and determine disposition via CID	[5] and [6] 6.3.3.2	m	
3	Padding of any unused space with stuff byte value in the UL Burst	[5] and [6] 6.3.3.7	m	
Comments:				

Table A.83: SDU Fragmentation

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Fragment a MAC SDU into multiple MAC PDUs applicable to traffic connections and Management messages on Primary management connection	[5] and [6] 6.3.3.3	m	
2	Add Fragmentation Sub header to the SDU fragment including setting FC according to the Fragmentation rules table	[5] and [6] 6.3.3.3	m	
3	Do not perform fragmentation of PDUs on "Broadcast management" connections	[5] and [6] 6.3.2.3	m	
4	Increment the FSN modulo 2048 for non-ARQ connections	[5] and [6] 6.3.3.3	m	
5	Increment the BSN modulo 2048 for ARQ connection	[5] and [6] 6.3.3.4.2	m	
6	Do not perform fragmentation of PDUs on Basic and Initial Ranging connections	[5] and [6] 6.3.2.3	m	
Comments:				

Table A.84: SDU reassembly

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Receive and reassemble fragmented SDUs	[5] and [6] 6.3.3.3	m	
2	Discard SDUs corrupted due to loss of fragment	[5] and [6] 6.3.3.3	m	
Comments:				

Table A.85: Packing

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Pack variable length SDUs in a single MAC PDU on non-ARQ connections	[5] and [6] 6.3.3.4.1.2	m	
2	Unpack variable length SDUs on non-ARQ connections	[5] and [6] 6.3.3.4.1.2	m	
3	Pack variable length SDUs or SDUs fragments in a single MAC PDU on ARQ-enabled connections	[5] and [6] 6.3.3.4.2 5.1.2	m	
4	Unpack variable length SDUs or SDUs fragments on ARQ-enabled connections	[5] and [6] 6.3.3.4.2 5.1.2	m	
5	Do not perform packing of SDUs on Basic, Broadcast and Initial Ranging connections	[5] and [6] 6.3.2.3	m	
6	Perform packing of ARQ Feedback Payload	[5] and [6] 6.3.3.4.3	m	
7	Extracting ARQ Feedback IEs from received ARQ Feedback Payload	[5] and [6] 6.3.3.4.3	m	

Comments:

Table A.86: MAC CRC

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Compute and add CRC, and set CI bit based on connection properties	[5] and [6] 6.3.3.5	m	
2	Check CRC based on CI bit	[5] and [6] 6.3.3.5	m	

Comments: For Basic, Primary, Broadcast, Fragmentable Broadcast connections CRC should be used always. For ARQ connections CRC should be used always. CRC can be enabled/disabled on SFID basis.

A.5.1.1.2.2.3

ARQ

Table A.87: ARQ

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Pack several ARQ feedback information elements in a single ARQ feedback payload	[5] and [6] 6.3.2.3	m	
2	Insert a single ARQ feedback payload as first payload in a MAC PDU	[5] and [6] 6.3.2.3	m	
3	ARQ ACK type 1 - Cumulative ACK entry	[5] 11.7.23, 6.3.4.2 [6] 11.7.20, 6.3.4.2	m	
4	ARQ ACK type 2 - Cumulative with Selective ACK entry	[5] 11.7.23, 6.3.4.2 [6] 11.7.20, 6.3.4.2	m	
5	ARQ ACK type 3 - Cumulative ACK with Block Sequence ACK	[5] 11.7.23, 6.3.4.2 [6] 11.7.20, 6.3.4.2	m	

Comments:

A.5.1.1.2.2.4 Data Delivery Services for Mobile Network

Table A.88: Data Delivery Services for Mobile Network

Prerequisite: Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Unsolicited Grant service (UGS)	[5] 6.3.20.1.1 [6] 6.3.19.1.1	m	
2	Real-Time Variable Rate (RT-VR) Service	[5] 6.3.20.1.2 [6] 6.3.19.1.2	m	
3	Non-Real-Time Variable Rate (NRT-VR) Service	[5] 6.3.20.1.3 [6] 6.3.19.1.3	m	
4	Best Effort (BE) Service	[5] 6.3.20.1.4 [6] 6.3.19.1.4	m	
5	Extended Real-Time Variable Rate (ERT-VR) Service	[5] 6.3.20.1.5 [6] 6.3.19.1.5	m	
Comments:				

A.5.1.1.2.2.5 Request-Grant Mechanism

Table A.89: Request-Grant Mechanism

Prerequisite: Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Incremental bandwidth request using BW request header	[5] and [6] 6.3.6.1	m	
2	Aggregate bandwidth request using BW request header	[5] and [6] 6.3.6.1	m	
3	Bandwidth request using Grant Management Subheader	[5] and [6] 6.3.2.2.2	m	
4	Request-Grant mechanism combined with UL Tx power report	[5] and [6] 6.3.2.1.2.1.2	m	
5	CQICH allocation request using CQICH allocation request header	[5] and [6] 6.3.2.1.2.1.4	m	
6	Contention-based CDMA bandwidth requests	[5] and [6] 6.3.6.5	m	
Comments:				

A.5.1.1.2.2.6 Network entry and initialization

Table A.90: Network entry and initialization

Prerequisite: Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	MS performs scanning and synchronization to the downlink	[5] and [6] 6.3.9.1	m	
2	MS obtains downlink parameters	[5] and [6] 6.3.9.2	m	
3	MS obtains uplink parameters	[5] and [6] 6.3.9.3, 6.3.9.4	m	
4	MS performs Initial Ranging	[5] and [6]	m	
5	MS negotiates basic capabilities	[5] and [6] 6.3.9.7	m	
6	MS performs authorization	[5] and [6] 6.3.9.8, 7.2	m	
7	MS performs registration	[5] and [6] 6.3.9.9	m	
Comments:				

Table A.91: Obtain DL parameters

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	MS receives DLFP correctly	[5] and [6] 8.4.4.3	m	
2	MS receives DL-MAP correctly	[5] and [6] 6.3.9.2	m	
3	MS receives DCD correctly	[5] and [6] 6.3.9.2	m	
Comments:				

Table A.92: Obtain UL parameters

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	MS receives UCD correctly	[5] and [6] 6.3.9.3 and 6.3.9.4	m	
2	MS receives UL-MAP correctly		m	
Comments:				

Table A.93: Initial ranging

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	MS receives UL-MAP containing initial ranging opportunity	[5] and [6] 6.3.10.3.1	m	
2	MS sends initial ranging code	[5] and [6] 6.3.10.3.1, 8.4.7.1	m	
3	MS sends an initial ranging code again after random backoff, if the BS does not respond	[5] and [6] 6.3.10.3.1, 8.4.7.1	m	
4	MS receives RNG-RSP	[5] and [6] 6.3.10.3.1	m	
5	MS performs network entry and initialization on DL Frequency Override channel, if instructed in RNG-RSP	[5] and [6] 6.3.10.3.1	m	
6	MS continues the ranging process using initial ranging codes in the periodic ranging region, if receiving RNG-RSP with continue status	[5] and [6] 6.3.10.3.1	m	
7	MS receives CDMA allocation IE after receiving RNG-RSP with success status	[5] and [6] 6.3.10.3.1	m	
8	SS receives CDMA allocation IE without receiving RNG-RSP with success status	[5] and [6] 6.3.9.5.1, 6.3.10.3.1	m	
9	MS sends RNG-REQ in UL slots allocated by CDMA allocation IE	[5] and [6] 6.3.10.3.1, 8.4.5.4.3	m	
10	MS establishes Basic and Primary Management connections	[5] and [6] 6.3.10.3.1	m	
11	MS performs timing, power and frequency adjustment	[5] and [6] 6.3.10.3.1	m	
Comments:				

Table A.94: MS basic capability negotiation

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	MS sends SBC-REQ	[5] and [6] 6.3.9.7	m	
2	MS receives SBC-RSP	[5] and [6] 6.3.9.7	m	
3	MS resends SBC-REQ on timeout	[5] and [6] 6.3.9.7	m	
Comments:				

Table A.95: MS registration

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	MS sends REG-REQ to register with a BS.	[5] and [6] 6.3.9.9	m	
2	MS receives REG-RSP.	[5] and [6] 6.3.9.9	m	
3	MS re-sends REG-REQ upon time out	[5] and [6] 6.3.9.9	m	
Comments:				

Table A.96: Periodic ranging

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	MS sends periodic ranging codes after T4 expires.	[5] and [6] 6.3.10.3.2, 8.4.7.2	m	
2	MS sends a periodic ranging code again after random backoff, if the BS does not respond	[5] and [6] 6.3.10.3.2, 8.4.7.2	m	
3	MS adjusts PHY parameters in response to RNG-RSP including the case of unsolicited RNG-RSP	[5] and [6] 6.3.10.3.2, 8.4.7.2	m	
Comments:				

A.5.1.1.2.2.8 Update of channel descriptors

Table A.97: Update of channel descriptors

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	MS stores new uplink burst descriptors upon receiving UCD message with incremented Configuration change count (I+1 mod 256)	[5] and [6] 6.3.11	m	
2	MS transmits using new generation of burst descriptors defined in UCD after receiving UL-MAP with UCD Count matching the new Configuration Change Count (I+1 mod 256)	[5] and [6] 6.3.11	m	
3	MS stores new downlink burst descriptors upon receiving DCD message with incremented Configuration Change Count (I+1 mod 256)	[5] and [6] 6.3.11	m	
4	MS receives using new generation of burst descriptors after receiving DL-MAP with DCD Count matching the new Configuration Change Count (I+1 mod 256)	[5] and [6] 6.3.11	m	
5	MS Supports two simultaneous sets of burst descriptors	[5] and [6] 6.3.11	m	
Comments:				

A.5.1.1.2.2.9 QoS

Table A.98: Service flow operations

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Dynamic service flow creation - BS-initiated	[5] and [6] 6.3.14.7.1.2	m	
2	Dynamic service flow creation -MS-initiated	[5] and [6] 6.3.14.7.1.1	m	
3	Dynamic service flow change - BS-initiated	[5] and [6] 6.3.14.9.4.2	m	
4	Dynamic service flow change -MS-initiated	[5] and [6] 6.3.14.9.4.1	m	
5	Dynamic service flow deletion -BS-initiated	[5] and [6] 6.3.14.9.5.2	m	
6	Dynamic service flow deletion- MS-initiated	[5] and [6] 6.3.14.9.5.1	m	
Comments:				

A.5.1.1.2.2.10 Sleep Mode

Table A.99: Sleep Mode

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Sleep Mode Implementation in MS	[5] 6.3.21 [6] 6.3.20	m	
2	Power Saving Class type 1 support	[5] 6.3.21.2 [6] 6.3.20.2	m	
3	Support of Traffic Indication Message for Power Saving Class type 1	[5] 6.3.21.2 [6] 6.3.20.2	m	
4	Indicating DL traffic by SLPID bit map in TRF-IND	[5] 6.3.21.1, 6.3.2.3.46 [6] 6.3.20.1, 6.3.2.3.41	m	
5	Indicating DL traffic by SLPID in TRF-IND	[5] 6.3.21.1, 6.3.2.3.46 [6] 6.3.20.1, 6.3.2.3.41	m	
6	Support of SLPID_Update TLV in TRF-IND	[5] 11.16.1, 6.3.2.3.46 [6] 11.16.1, 6.3.2.3.41	m	
7	Traffic triggered waking flag	[5] 6.3.2.3.44 and 45, 6.3.21.2 [6] 6.3.2.3.39 and 40, 6.3.20.2	m	
8	Activation of Power Saving Class by unsolicited SLP-RSP message from BS	[5] 6.3.2.3.45 6.3.21.1 [6] 6.3.2.3.40 6.3.20.1	m	
9	DL sleep control extended subheader	[5] 6.3.2.2.7.2 11.7.25 [6] 6.3.2.2.7.2 11.7.21	m	
10	Bandwidth request and uplink sleep control header	[5] 6.3.2.1.2.1.6 11.7.25 [6] 6.3.2.1.2.1.6 11.7.21	m	
11	Support of periodic ranging in sleep mode	[5] 6.3.21.5, 11.16.2 [6] 6.3.20.5, 11.16.2	m	
12	Sleep mode multicast CID support at MS	[5] 6.3.2.3.46, 10.4 [6] 6.3.2.3.41, 10.4	m	
13	MS Support of triggered action indicated by Enabled-Action-Triggered TLV	[5] 6.3.2.3.6, 6.3.2.3.44 and 45, 6.3.21.1, 11.5, 11.6, 11.7.3 [6] 6.3.2.3.6, 6.3.2.3.39 and 40, 6.3.20.1, 11.5, 11.6, 11.7.3	m	
Comments:				

A.5.1.1.2.2.11 Handover

Table A.100: Neighbour Advertisement

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Neighbour Advertisement	[5] 6.3.2.3.47 [6] 6.3.2.3.42	m	
2	Support BS index at the MS (Use BS index instead of BSID) in Scan/HO related messages, as numbered in MOB_NBR-ADV	[5] 6.3.2.3.48 to 51, 6.3.2.3.53, [6] 6.3.2.3.43 to 46, 6.3.2.3.48	m	
Comments:				

Table A.101: Scanning

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Scanning for cell selection (HO)	[5] 6.3.2.3.48 and 49, [6] 6.3.2.3.43 and 44	m	
2	MS Requests Scanning Interval Allocations from BS	[5] 6.3.2.3.48 and 49, 6.3.21.1.2 [6] 6.3.2.3.43 and 44, 6.3.20.1.2	m	
3	Unsolicited Scanning Interval Allocation by BS	[5] 6.3.2.3.48 and 49, 6.3.21.1.2 [6] 6.3.2.3.43 and 44, 6.3.20.1.2	m	
4	Event Triggered Scanning based on serving BS metrics	[5] 6.3.21.1.2 [6] 6.3.20.1.2	m	
5	MS autonomous neighbour cell scanning	[5] and [6] 8.4.13.1.3	m	
Comments:				

Table A.102: Scan Reporting Type Support

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Periodic reporting based on Report Period as indicated in MOB_SCN-RSP message	[5] 6.3.2.3.49, 11.4.1 [6] 6.3.2.3.44, 11.4.1	m	
2	Event triggered reporting based on metric conditions (The action includes support for MOB_SCN-REP)	[5] 6.3.2.3.49, 11.4.1 [6] 6.3.2.3.44, 11.4.1	m	
Comments:				

Table A.103: HO/Scan/Report Trigger Metrics

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Mean BS CINR	[5] 6.3.2.3, 11.8.7 [6] 6.3.2.3, 11.8.6	m	
2	Mean BS RSSI	[5] 6.3.2.3, 11.8.7 [6] 6.3.2.3, 11.8.6	m	
3	Relative Rx Delay	[5] 6.3.2.3.53, 11.8.7 [6] 6.3.2.3.48, 11.8.6	m	
4	BS Round Trip Delay	[5] 6.3.2.3.53, 11.8.7 [6] 6.3.2.3.48, 11.8.6	m	
Comments:				

Table A.104: MAC Layer HO Procedures

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	General HO Support	[5] 6.3.22.2, [6] 6.3.21.2,	m	
2	HO initiated by MS support at MS side	[5] 6.3.22.2.2, [6] 6.3.21.2.2	m	
3	HO initiated by BS support at MS side	[5] 6.3.22.2.2, 6.3.22.2.2 [6] 6.3.21.2.2	m	
4	HO Indication	[5] 6.3.22.2.5 [6] 6.3.21.2.5	m	
5	Cancellation of HO	[5] 6.3.22.2.3 [6] 6.3.21.2.3	m	
6	Metric Triggered HO Requests	[5] 11.1.7 [6] 11.18.1	m	
7	Resource Retention Support	[5] 6.3.2.3.52, 6.3.2.3.54 [6] 6.3.2.3.47, 6.3.2.3.49	m	
8	CDMA HO Ranging	[5] and [6] 6.3.10.3.3	m	
9	HO_ID support	[5] 6.3.2.3.52, 6.3.2.3.54 [6] 6.3.2.3.47, 6.3.2.3.49	m	
10	Support negotiating of "HO authorization policy" during HO (i.e. between BSs)	[5] 6.3.2.3.52, 6.3.2.3.54 [6] 6.3.2.3.47, 6.3.2.3.49	m	
Comments:				

Table A.105: HO Optimization

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	HO Optimization Support	[5] 6.3.2.3.6, 6.3.22.2.7, 11.6 [6] 6.3.2.3.6, 6.3.21.2.7 and 11.6	m	
2	Support Omission of SBC-REQ management messages	[5] 6.3.2.3.6, 6.3.22.2.7, 11.6 [6] 6.3.2.3.6, 6.3.21.2.7 and 11.6	m	
3	Support Omission of PKM Authentication phase except TEK Phase	[5] 6.3.2.3.6, 6.3.22.2.7, 11.6 [6] 6.3.2.3.6, 6.3.21.2.7 and 11.6	m	
4	Support Omission of PKM TEK creation phase during re-entry processing	[5] 6.3.2.3.6, 6.3.22.2.7, 11.6 [6] 6.3.2.3.6, 6.3.21.2.7 and 11.6	m	
5	Support "Full State Sharing"- No exchange of network re-entry messages after ranging before resuming normal operations	[5] 6.3.2.3.6, 6.3.22.2.7, 11.6 [6] 6.3.2.3.6, 6.3.21.2.7 and 11.6	m	
6	Unsolicited SBC-RSP management message with updated capabilities information	[5] 6.3.2.3.6, 6.3.22.2.7, 11.6 [6] 6.3.2.3.6, 6.3.21.2.7 and 11.6	m	
7	Support SBC- RSP TLVs as part of RNG-RSP message	[5] 11.6	m	
8	Support Omission of REG-REQ during NW re-entry	[5] 6.3.2.3.6, 6.3.22.2.7, 11.6 [6] 6.3.2.3.6, 6.3.21.2.7 and 11.6	m	
9	Unsolicited REG-RSP with updated capabilities information	[5] 6.3.2.3.6, 6.3.22.2.7, 11.6 [6] 6.3.2.3.6, 6.3.21.2.7 and 11.6	m	
10	Support REG-RSP TLV as part of RNG-RSP message	[5] and [6] 11.6	m	
11	Support of ARQ continuation using SN report header after NW re-entry	[5] 6.3.2.3.6, 6.3.22.2.7, 11.6 [6] 6.3.2.3.6, 6.3.21.2.7 and 11.6	o	
12	Support continuation of non-ARQ connection using SDU SN extended sub-header before handover and using SN report header after NW re-entry	[5] 6.3.22.2.8, [6] 6.3.21.2.8	o	
13	Support sending Bandwidth Request header with zero BR as a notification of MS's successful re-entry registration	[5] 6.3.22.2.7, 11.6 [6] 6.3.21.2.7, 11.6	m	
14	Support receiving IP address refresh bit	[5] and [6] 11.6	m	
15	Capability of sending SN Report header after requested by SN request extended subheader	[5] and [6] 6.3.2.2.7.7	o	
Comments:				

Table A.106: CID and SAID Update

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	CID update in MS by RNG-RSP	[5] 11.7.10 [6] 11.7.9	m	
2	CID update in MS by REG-RSP	[5] 11.7.10 [6] 11.7.9	m	
3	Compressed CID update in MS by RNG-RSP	[5] 11.7.10 [6] 11.7.9.1	m	
4	Compressed CID update in MS by REG-RSP	[5] 11.7.10.1 [6] 11.7.9.1	m	
5	SAID update in MS by RNG-RSP	[5] 11.7.18, 11.6 [6] 11.7.17, 11.6	m	
6	SAID update in MS by SA-TEK_RSP	[5] 11.7.21	m	
Comments:				

A.5.1.1.2.2.12 Idle Mode

Table A.107: Idle Mode

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	General Idle Mode functionality	[5] 6.3.24 [6] 6.3.23	m	
2	Idle mode initiation by DREG-REQ message from MS	[5] 6.3.24.1 [6] 6.3.23.1	m	
3	Support for Idle Mode initiation by unsolicited DREG-CMD from BS	[5] 6.3.24.1 [6] 6.3.23.1	m	
4	MS retention of service and operational information during Idle Mode initiated by DREG-CMD	[5] 6.3.24.1 [6] 6.3.23.1	m	
5	Request from MS to BS to retain service and operational information by DREG-REQ message	[5] 6.3.24.1 [6] 6.3.23.1	m	
6	MS capability of receiving Broadcast Control Pointer IE	[5] 6.3.24.5 [6] 6.3.23.5	m	
7	MS Capability of using dedicated ranging region and ranging code allocation for location update or network entry of MS in Idle Mode	[5] 6.3.24.7.1 [6] 6.3.23.7.1	o	
8	Paging Group Update at MS	[5] 6.3.24.8.1.1 [6] 6.3.23.8.1.1	m	
9	Timer Location Update at MS	[5] 6.3.24.8.1.2 [6] 6.3.23.8.1.2	m	
10	Power Down Location Update at MS	[5] 6.3.24.8.1.3 [6] 6.3.23.8.1.3	m	
11	Secure Location Update	[5] 6.3.24.8.2.1 [6] 6.3.23.8.2.1	m	
12	Un-secure Location Update	[5] 6.3.24.8.2.2 [6] 6.3.23.8.2.2	m	
13	Paging Preference	[5] 11.13.30, [6] 11.13.28	m	
14	Idle mode multicast CID support at MS	[5] and [6] 10.4	m	
Comments:				

A.5.1.1.2.2.12a Expedited Re-entry from Idle Mode

Table A.108: -a Expedited Re-entry from Idle Mode

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Expedited network re-entry from Idle Mode support	[5] 6.3.24.9, [6] 6.3.23.9	m	
2	Support Omission of SBC-REQ management messages	[5] and [6] 11.6	m	
3	Support Omission of PKM Authentication phase except TEK phase	[5] and [6] 11.6	m	
4	Support Omission of PKM TEK creation phase during re-entry processing	[5] and [6] 11.6	m	
5	Support "Full State Sharing except ARQ state (blocks in ARQ window and associated timers)" - No exchange of network re-entry messages after ranging before resuming normal operations	[5] and [6] 11.6	m	
6	Unsolicited SBC-RSP management message with updated capabilities information	[5] and [6] 11.6	m	
7	Support SBC-RSP TLVs as part of RNG-RSP message	[5] and [6] 11.6	m	
8	Support Omission of REG-REQ during NW re-entry	[5] and [6] 11.6	m	
9	Unsolicited REG-RSP with updated capabilities information	[5] and [6] 11.6	m	
10	Support REG-RSP TLV as part of RNG-RSP message	[5] and [6] 11.6	m	
11	MS send Bandwidth Request header with zero BR as a notification of MS's successful re-entry registration.	[5] and [6] 11.6	m	
12	MS trigger a higher layer protocol required to refresh its traffic IP address (e.g. DHCP Discover - RFC 2131 [16]) or Mobile IPv4 re-registration (RFC 3344 [20]).	[5] and [6] 11.6	m	
Comments:				

A.5.1.1.2.2.13 Feedback Mechanism

Table A.109: Feedback Mechanism

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Feedback header	[5] and [6] 6.3.2.1.2.2.1	m	
2	Bandwidth request and UL Tx Power Report	[5] and [6] 6.3.2.1.2.1.2	m	
3	SN report header	[5] and [6] 6.3.2.1.2.1.7	o	
Comments:				

A.5.1.1.2.2.14 Multicast Traffic Connection

Table A.110: Multicast Traffic Connection

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Multicast traffic connection	[5] and [6] 6.3.13	m	
Comments:				

A. 5.1.1.2.2.15 Security Sublayer

Table A.111: Security functions

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	MS supports two simultaneous active TEKs	[5] and [6] 6.3.9.8 and 7.2.1	m	
2	MS supports SAID update using RNG-REQ/RNG-RSP	[5] and [6] 11.6	m	
3	MS supports SAID update using SA-TEK-REQ/SA-TEK-RSP	[5] 11.7.20	m	
4	MS sends PKMv2 EAP-Start	[5] and [6] 7.2.2.2	m	
5	MS exchanges PKMv2 EAP-Transfer	[5] and [6] 7.2.2.2	m	
6	MS derives AK	[5] and [6] 7.2.2.2	m	
7	MS derives KEK	[5] and [6] 7.2.2.2	m	
8	MS derives message authentication keys	[5] and [6] 7.2.2.2	m	
9	MS receives PKMv2 SA-TEK-Challenge	[5] and [6] 7.8.1	m	
10	MS checks whether AKID is valid or not	[5] and [6] 7.8.1	m	
11	MS sends PKMv2 SA-TEK-Request	[5] and [6] 7.8.1	m	
12	MS receives PKMv2 SA-TEK-Response	[5] and [6] 7.8.1	m	
13	MS establishes SAs included in PKMv2 SA-TEK-Response	[5] and [6] 7.8.1	m	
14	MS re-sends PKMv2 SA-TEK-Request when SATEKTimer timeout	[5] and [6] 7.8.1	m	
15	MS sends PKMv2 Key-Request	[5] and [6] 7.2.2.5	m	
16	MS receives PKMv2 Key-Reply	[5] and [6] 7.2.2.5	m	
17	MS re-sends PKMv2 Key-Request when Operational Wait timer timeout	[5] and [6] 7.2.2.5	m	
18	MS supports Dot16KDF algorithm	[5] and [6] 7.2.2.2 and 7.5.4.6.1	m	
Comments: In case of initial network entry, MS shall not send PKMv2 EAP-Start message.				

Table A.112: PKM message encodings support

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	(one or more) SA_TEK_Update	11.7.21	m	
2	Security negotiation parameters	[5] and [6] 11.8.4	m	
3	Display-String	[5] and [6] 11.9.1	o	
4	TEK	[5] and [6] 11.9.3	m	
5	Key lifetime	[5] and [6] 11.9.4	m	
6	Key sequence number	[5] and [6] 11.9.5	m	
7	SAID	[5] and [6] 11.9.7	m	
8	TEK-Parameters	[5] and [6] 11.9.8	m	
9	Error-code	[5] and [6] 11.9.10	m	
10	Security capabilities	[5] and [6] 11.9.13	m	
11	Cryptographic suite	[5] and [6] 11.9.14	m	
12	Cryptographic suite list	[5] and [6] 11.9.15	m	
13	SA descriptor(s)	[5] 11.9.17 [6] 11.9.16	m	
14	SA type	[5] 11.9.18 [6] 11.9.17	m	
15	PKM configuration settings	[5] 11.9.19 [6] 11.9.18	m	
16	Nonce	[5] 11.9.20 [6] 11.9.19	m	
17	MS_random	[5] 11.9.21 [6] 11.9.20	m	
18	BS_random	[5] 11.9.22 [6] 11.9.21	m	
19	CMAC Digest	[5] 11.9.27 [6] 11.9.26	m	
20	AKID	[5] 11.9.32 [6] 11.9.31	m	
21	EAP payload	[5] 11.9.33 [6] 11.9.32	m	
22	SA service type	[5] 11.9.35 [6] 11.9.34	m	
23	PKMv2 configuration settings	[5] 11.9.36	m	
24	Frame Number	[5] 11.9.37 [6] 11.9.35	m	
Comments:				

Table A.113: Authorization Policy Support

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	802.16 Authorization policy support (This is about the capability of negotiating authorization policy)	[5] 11.7.8.7 [6] 11.8.7.6	m	
Comments:				

Table A.114: PKM Version Support

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	PKMv2 Support	[5] and [6] 11.8.4.1.	m	
Comments:				

Table A.115: PKMv2 Authorization Policy Support-Initial Network Entry

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	No Authorization	[5] and [6] 11.8.4.2	m	
2	EAP-based authorization	[5] and [6] 11.8.4.2, 7.1.3.2 and 7.2.2.2.2	m	

Comments:

Table A.116: PKMv2 Authorization Policy Support-Network Re-entry

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	No Authorization	[5] and [6] 11.8.4.2	m	
2	EAP-based authorization	[5] and [6] 11.8.4.2, 7.1.3.2 and 7.2.2.2.2	m	

Comments:

Table A.117: Supported Cryptographic Suites

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	No data encryption, no data authentication and no key encryption	[5] and [6] 11.9.14	m	
2	CCM-Mode 128-bit AES, CCM-Mode, AES Key Wrap with 128-bit key	[5] and [6] 11.9.14	m	

Comments:
For Item 1 This cryptographic suite means that no encryption and no TEK exchange.

Table A.118: Message Authentication Code Mode

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	No message authentication	[5] and [6] 11.8.4.3	m	
2	CMAC	[5] and [6] 11.8.4.3	m	

Comments:

Table A.119: Security Association

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Support of Static SA	[5] and [6] 7.2.1.1 and 7.3.2	m	
2	Support of Dynamic SA	[5] and [6] 7.2.1.1	m	
3	Support of Primary SA	[5] and [6] 7.2.1.1	m	

Comments:

Table A.120: SA Service Type

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Unicast	[5] 11.9.35 [6] 11.9.34	m	
Comments:				

Table A.121: EAP Authentication Methods

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Adopt recommendation from NWG	[5] and [6] 7.1.3.2, 7.2.2.2.2		
Comments:				

A.5.1.1.2.2.16 MBS

Table A.122: MBS

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Multi-BS-MBS	[5] and [6] 6.3.13	m	
2	Support for MBS_MAP-IE	[5] and [6] 6.3.13.2.3	m	
3	MS initiated MBS request using DSA-REQ	[5] 11.13.20 [6] 11.13.19	m	
4	BS initiated MBS request using DSA-REQ	[5] 11.13.20 [6] 11.13.19	m	
Comments:				

A.5.1.1.2.2.17 MS's Network Entry issued by BS restart

Table A.123: MS's Network Entry issued by BS restart

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	MS's Network Entry triggered by BS restart counter change	[5] and [6] 6.3.9.11, 11.4.1	m	
Comments:				

A.5.1.1.2.2.18 MAC support for H-ARQ

Table A.124: MAC support for H-ARQ

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	HARQ Support	[5] 6.3.17 [6] 6.3.16	m	
2	HARQ Buffer Negotiation Capability	[5] 11.8.3.7.19 [6] 11.8.3.5.17	m	
3	HARQ Channel mapping	[5] 6.3.17, 11.13.32 [6] 6.3.16, 11.13.30	m	
4	Capability of DL HARQ channels Number negotiation	[5] 11.8.3.7.2 [6] 11.8.3.5.2	m	
5	Capability of UL HARQ channels Number negotiation	[5] 11.8.3.7.3 [6] 11.8.3.5.3	m	
6	Capability of HARQ ACK delay negotiation in DL transmission	[5] and [6] 11.4.1	m	
7	Capability of HARQ ACK delay negotiation in UL transmission	[5] and [6] 11.3.1	m	
8	PDU SN extended subheader for HARQ reordering	[5] 11.13.33 [6] 11.13.31	m	
Comments: All items below are conditional dependently on HARQ support. HARQ Channel mapping is determined by BS.				

A.5.1.2 Base Station

A.5.1.2.1 PHY functions

A.5.1.2.1.1 Sampling Factor

Table A.125: Sampling Factor for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	8/7	[5] and [6] 8.4.2.3 [7] 4.1.1.3	m	
2	28/25	[5] and [6] 8.4.2.3 [7] 4.1.1.3	m	
Comments: Item 1 is used for A.3-1, 3, 8 and 11 and Item 2 is used for A.3-2, 4, 5, 6, 7, 9, 10 and 12.				

A.5.1.2.1.2 Cyclic Prefix

Table A.126: Cyclic Prefix for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	1/8	[5] and [6] 8.4.2.3, [7] 4.1.1.4	m	
Comments:				

A.5.1.2.1.3 Frame Duration

Table A.127: Frame duration codes for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	5 msec	[5] and [6] 8.4.5.2, [7] 4.1.1.5	m	
Comments:				

A.5.1.2.1.4 TTG/RTG

Table A.128: TTG performance for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	188 PS for 3,5 MHz	[5] and [6] 8.4.4.2 [7] 4.1.1.6	oi.128.1	
2	148 PS for 5 MHz	[5] and [6] 8.4.4.2 [7] 4.1.1.6	oi.128.1	
3	376 PS for 7 MHz	[5] and [6] 8.4.4.2 [7] 4.1.1.6	oi.128.1	
4	218 PS for 8,75 MHz	[5] and [6] 8.4.4.2 [7] 4.1.1.6	oi.128.1	
5	296 PS for 10 MHz	[5] and [6] 8.4.4.2 [7] 4.1.1.6	oi.128.1	
Comments: oi.128.1: It is mandatory to support at least one of these items.				

Table A.129: RTG performance for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	60 PS for 3,5 MHz	[5] and [6] 8.4.4.2 [7] 4.1.1.6	oi.129.1	
2	84 PS for 5 MHz	[5] and [6] 8.4.4.2 [7] 4.1.1.6	oi.129.1	
3	120 PS for 7 MHz	[5] and [6] 8.4.4.2 [7] 4.1.1.6	oi.129.1	
4	186 PS for 8,75 MHz,	[5] and [6] 8.4.4.2 [7] 4.1.1.6	oi.129.1	
5	168 PS for 10 MHz	[5] and [6] 8.4.4.2 [7] 4.1.1.6	oi.129.1	
Comments: oi.129.1: It is mandatory to support at least one of these items.				

A.5.1.2.1.5 UL and DL Subframe Size

Table A.130: Number of OFDM Symbols in DL and UL

Base Station (BS)					
Item	Capability	Value	Reference	Status	Support
1	Number of OFDM Symbols in DL and UL for 5 MHz BW	(35, 12)	[5] and [6] 8.4.4.2 [7] 4.1.1.7	oi.130.1	
		(34, 13)			
		(33, 14)			
		(32, 15)			
		(31, 16)			
		(30, 17)			
		(29, 18)			
		(28, 19)			
		(27, 20)			
		(26, 21)			
2	Number of OFDM Symbols in DL and UL for 10 MHz BW	(35, 12)	[5] and [6] 8.4.4.2 [7] 4.1.1.7	oi.130.1	
		(34, 13)			
		(33, 14)			
		(32, 15)			
		(31, 16)			
		(30, 17)			
		(29, 18)			
		(28, 19)			
		(27, 20)			
		(26, 21)			
3	Number of OFDM Symbols in DL and UL for 8,75 MHz BW	(30, 12)	[5] and [6] 8.4.4.2 [7] 4.1.1.7	oi.130.1	
		(29, 13)			
		(28, 14)			
		(27, 15)			
		(26, 16)			
		(25, 17)			
		(24, 18)			
4	Number of OFDM Symbols in DL and UL for 3,5 MHz BW	(24, 09)	[5] and [6] 8.4.4.2 [7] 4.1.1.7	oi.130.1	
		(23, 10)			
		(22, 11)			
		(21, 12)			
		(20, 13)			
		(19, 14)			
		(18, 15)			
5	Number of OFDM Symbols in DL and UL for 7 MHz BW	(24, 09)	[5] and [6] 8.4.4.2 [7] 4.1.1.7	oi.130.1	
		(23, 10)			
		(22, 11)			
		(21, 12)			
		(20, 13)			
		(19, 14)			
		(18, 15)			
Comments oi.130.1: It is mandatory to support at least one of these items. First value in the pairs is number of symbols in DL subframe and the second value is the number of symbols in UL subframe.					

A.5.1.2.1.6 Subcarrier Allocation Mode

Table A.131: DL subcarrier allocation for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	PUSC	[5] and [6] 8.4.6.1.2.1, [7] 4.1.2.1	m	
2	PUSC with all subchannels	[5] and [6] 8.4.6.1.2.1, [7] 4.1.2.1	m	
3	PUSC with dedicated pilots	[5] and [6] 8.4.6.1.2.1, 8.4.5.3.4, [7] 4.1.2.1	IO-BF	
4	FUSC	[5] and [6] 8.4.6.1.2.2, [7] 4.1.2.1	m	
5	AMC 2 x 3	[5] and [6] 8.4.6.3, [7] 4.1.2.1	m	
6	AMC 2 x 3 with dedicated pilots	[5] and [6] 8.4.6.3, 8.4.5.3.4, [7] 4.1.2.1	IO-BF	

Comments:

Table A.132: UL subcarrier allocation for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	PUSC	[5] and [6] 8.4.6.2.1, [7] 4.1.2.2	m	
2	PUSC without subchannel rotation	[5] and [6] 11.3.1 [7] 4.1.2.2	IO-BF	
3	AMC 2 x 3	[5] and [6] 8.4.6.3, [7] 4.1.2.2	m	

Comments:

A.5.1.2.1.7 UL Channel Sounding

Table A.133: UL Sounding 1 for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Type A with Cyclic shift- support for P values other than 9 and 18	[5] and [6] 8.4.6.2.7.1 [7] 4.1.2.4	IO-BF	
2	Type A with Cyclic shift- Support P values of 9 and 18	[5] and [6] 8.4.6.2.7.1 [7] 4.1.2.4	IO-BF	
3	Type A with Decimation	[5] and [6] 8.4.6.2.7.1 [7] 4.1.2.4	IO-BF	
4	Power Assignment Method: Equal Power (0b00)	[5] and [6] 8.4.6.2.7.1, 8.4.6.2.7.2 [7] 4.1.2.4	IO-BF	

Comments:

Table A.134: UL Sounding 2 for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Sounding response time capability = Next Frame	[5] 8.4.6.2.7.1, 11.8.3.7.14, [6] 8.4.6.2.7.1, 11.8.3.5.12 [7] 4.1.2.4	IO-BF	
2	max number of simultaneous sounding instructions = 2	[5] 8.4.6.2.7.1, 11.8.3.7.14, [6] 8.4.6.2.7.1, 11.8.3.5.12 [7] 4.1.2.4	IO-BF	
Comments:				

A.5.1.2.1.8 Ranging and Band Width Request

Table A.135: Initial ranging for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Initial Ranging in PUSC zone with 2 symbols	[5] and [6] 8.4.7.1	m	
Comments:				

Table A.136: HO ranging for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	HO Ranging in PUSC zone with 2 symbols	[5] and [6] 8.4.7.1	m	
Comments:				

Table A.137: Periodic Ranging for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Periodic Ranging in PUSC zone with 1 symbols	[5] and [6] 8.4.7.2	m	
Comments:				

Table A.138: BW Request for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	BW Request in PUSC zone with 1 symbols	[5] and [6] 8.4.7.2	m	
Comments:				

A.5.1.2.1.9 Fast Feedback

Table A.139: Fast-Feedback/CQI Channel Encoding for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	6 bits	[5] and [6] 8.4.5.4.10.5	m	
Comments:				

Table A.140: Fast-Feedback/CQI Channel Allocation Method for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Fast feedback channel allocation using CQICH Allocation IE	[5] and [6] 8.4.5.4.12	m	
Comments:				

A.5.1.2.1.10 Channel Coding

Table A.141: Repetition for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Repetition	[5] and [6] 8.4.9.5	m	
Comments: Item 1 is only applicable to A.35-1, A.36-1, A.37-1, (i.e. QPSK ½ for SISO) and A.42-1 (i.e. QPSK ½ for Matrix-A MIMO).				

Table A.142: Randomization for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Randomization	[5] and [6] 8.4.9.1	m	
Comments:				

Table A.143: Convolutional Code for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Tail Biting	[5] and [6] 8.4.9.2.1	m	
Comments: Convolutional Code shall be only applicable for FCH.				

Table A.144: Convolutional Turbo Code for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	CTC	[5] and [6] 8.4.9.2.3 excluding 8.4.9.2.3.5	m	
Comments:				

Table A.145: Interleaving for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Interleaving	[5] and [6] 8.4.9.3	m	
Comments:				

A.5.1.2.1.11 HARQ

Table A.146: HARQ Chase Combining for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Chase with CTC	[5] and [6] 8.4.15.1	m	
Comments:				

Table A.147: ACK Channel for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	ACK channel	[5] and [6] 8.4.5.4.13	m	
Comments:				

A.5.1.2.1.12 Control Mechanism

Table A.148: Synchronization for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	BS Synchronization in time /slot	[5] 8.4.10.1.1, 6.3.2.3.47 [6] 8.4.10.1.1, 6.3.2.3.42	m	
2	BS Synchronization in frequency	[5] and [6] 8.4.10.1.1	m	
3	BS to Neighbour BS Synchronization in frequency	[5] 6.3.2.3.47 [6] 6.3.2.3.42	m	
Comments:				

A.5.1.2.1.13 Power Control

Table A.149: Closed-loop Power Control for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Closed loop power control	[5] and [6] 8.4.10.3 and 8.4.10.3.1	m	
Comments:				

Table A.150: Open-loop Power Control for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Open loop power control	[5] and [6] 8.4.10.3.2	m	
2	Passive Uplink open loop power control	[5] and [6] 8.4.10.3.2	m	
3	UL Tx power and Headroom transmission condition using bandwidth request and UL Tx Power Report header	[5] and [6] 8.4.10.3.2.1 and 6.3.2.1.2.1.2	m	
Comments:				

A.5.1.2.1.14 Channel Quality Measurements

Table A.151: CINR Measurement for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Physical CINR measurement from the preamble for frequency reuse==1 (feedback type=0b00 and report type=0 and CINR preamble report type=0)	[5] 6.3.18, 8.4.5.4.12, 8.4.11.3 and 11.8.3.7.9 [6] 6.3.17, 8.4.5.4.12, 8.4.11.3 and 11.8.3.5.8	m	
2	Physical CINR measurement from the preamble for frequency reuse==3 (feedback type=0b00 and report type=0 and CINR preamble report type=1)	[5] 6.3.18, 8.4.5.4.12, 8.4.11.3 and 11.8.3.7.9 [6] 6.3.17, 8.4.5.4.12, 8.4.11.3 and 11.8.3.5.8	m	
3	Physical CINR measurement for a permutation zone from pilot subcarriers (feedback type=0b00 and report type=1 and CINR zone measurement type=0)	[5] 6.3.18, 8.4.5.4.12, 8.4.11.3 and 11.8.3.7.9 [6] 6.3.17, 8.4.5.4.12, 8.4.11.3 and 11.8.3.5.8	m	
4	Effective CINR measurement for a permutation zone from pilot subcarriers (feedback type=0b01 and report type=1 and CINR zone measurement type=0)	[5] 6.3.18, 8.4.5.4.12, 8.4.11.3 and 11.8.3.7.9 [6] 6.3.17, 8.4.5.4.12, 8.4.11.3 and 11.8.3.5.8	m	
5	Major group indication (applicable to PUSC zone only)	[5] and [6] 8.4.5.4.12	IO-BF	
6	MIMO permutation feedback cycle (applicable to MIMO only)	[5] and [6] 8.4.5.4.12	IO-MIMO	
Comments:				

A.5.1.2.1.15 Modulation

Table A.152: PRBS for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	PRBS	[5] and [6] 8.4.9.4.1	m	
Comments:				

Table A.153: Downlink MCS for BS, Convolutional Coding

Mobile Station (MS)				
Item		Reference	Status	Support
1	QPSK (CC) 1/2	[5] and [6] 11.4.2	m	
Comments:				

Table A.154: Downlink MCS for BS, Convolutional Turbo Code

Mobile Station (MS)				
Item		Reference	Status	Support
1	QPSK (CTC) 1/2	[5] and [6] 11.4.2	m	
2	QPSK (CTC) 3/4	[5] and [6] 11.4.2	m	
3	16QAM (CTC) 1/2	[5] and [6] 11.4.2	m	
4	16QAM (CTC) 3/4	[5] and [6] 11.4.2	m	
5	64QAM (CTC) 1/2	[5] and [6] 11.4.2	m	
6	64QAM (CTC) 2/3	[5] and [6] 11.4.2	m	
7	64QAM (CTC) 3/4	[5] and [6] 11.4.2	m	
8	64QAM (CTC) 5/6	[5] and [6] 11.4.2	m	
Comments:				

Table A.155: Uplink MCS for BS, Convolutional Turbo Code

Mobile Station (MS)				
Item		Reference	Status	Support
1	QPSK (CTC) 1/2	[5] and [6] 11.3.1.1	m	
2	QPSK (CTC) 3/4	[5] and [6] 11.3.1.1	m	
3	16QAM (CTC) 1/2	[5] and [6] 11.3.1.1	m	
4	16QAM (CTC) 3/4	[5] and [6] 11.3.1.1	m	
Comments:				

Table A.156: Pilot modulation for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Modulation of all pilots in downlink for FUSC permutations	[5] and [6] 8.4.9.4.3	m	
2	Modulation of pilots in downlink belonging to the segment for PUSC permutations	[5] and [6] 8.4.9.4.3	m	
3	Modulation of pilots in downlink in allocated AMC bins for AMC allocations	[5] and [6] 8.4.9.4.3	m	
4	Pilot modulation for PUSC with dedicated pilot	[5] and [6] 8.4.9.4.3	IO-BF	
5	Pilot modulation for MIMO PUSC	[5] and [6] 8.4.9.4.3	IO-MIMO	
6	Pilot modulation for MIMO PUSC with dedicated pilot	[5] and [6] 8.4.9.4.3	IO-BF and IO-MIMO	
7	Pilot modulation for AMC 2x3 with dedicated pilot (BS shall not modulate pilots that belong to bins that are not allocated in the DL-MAP)	[5] and [6] 8.4.9.4.3	IO-BF	

Comments:
The BS support for item 6 shall be required when BS applies for IO-BF AND IO-MIMO certifications.

Table A.157: Preamble modulation for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Modulation of pilots in downlink preamble	[5] and [6] 8.4.9.4.3.1	m	

Comments:

Table A.158: FCH for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Used sub-channel bitmap	[5] and [6] 8.4.4.3	m	
2	DL MAP coding indication	[5] and [6] 8.4.4.3	m	
3	DL MAP repetition coding	[5] and [6] 8.4.4.3	m	

Comments:

Table A.159: Coding of the DL-MAP for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	0b010 - CTC encoding used on DL-MAP	[5] and [6] 8.4.4.3	m	

Comments:

A.5.1.2.1.16 MAP Support

Table A.160: Normal MAP for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Normal DL-MAP.	[5] and [6] 6.3.2.3.2	m	
2	Normal UL-MAP	[5] and [6] 6.3.2.3.4	m	
3	Compressed DL-MAP	[5] and [6] 8.4.5.6.1	m	
4	Compressed UL-MAP	[5] and [6] 8.4.5.6.2	m	
5	Sub-DL-UL-MAP in first zone	[5] 6.3.2.3.60 [6] 6.3.2.3.55	m	
6	MBS MAP message	[5] 6.3.2.3.57 [6] 6.3.2.3.52	IO-MBS	
Comments:				

Table A.161: MAP Features for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	CID in DL-MAP IE in DL-MAP or Compressed DL-MAP	[5] and [6] 8.4.5.3.7	m	
2	RCID IE in DL-MAP IE in SUB-DL-UL-MAP	[5] and [6] 8.4.5.3	m	
3	UL allocation start IE	[5] and [6] 8.4.5.4.15	m	
4	Space-Time Coding (STC)/Zone switch IE	[5] and [6] 8.4.5.3.4,	m	
5	HARQ and Sub-MAP pointer IE in compressed DL map	[5] and [6] 8.4.5.3.10	m	
6	UL Zone Switch IE	[5] and [6] 8.4.5.4.7	m	
Comments:				

A.5.1.2.1.17 Multiple Input Multiple Output (MIMO)

Table A.162: Supported Features for DL PUSC MIMO for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	2-antenna, matrix A	[5] and [6] 8.4.8.1.2.1.1 8.4.8.1.4	IO-MIMO	
2	2-antenna, matrix B, vertical encoding	[5] and [6] 8.4.8.1.2.1.3 8.4.8.1.4	IO-MIMO	
Comments:				

Table A.163: Supported Features for UL PUSC MIMO for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Collaborative SM for two MS with single transmit antenna	[5] and [6] 8.4.8.1.5	IO-MIMO	
2	Capable of processing pilot pattern A and B	[5] and [6] 8.4.8.1.5	IO-MIMO	
Comments:				

Table A.164: MIMO Feedback for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Fast DL measurement feedback with more than one Rx antennas	[5] and [6] 8.4.5.4.10.6 8.4.5.4.10.1 8.4.5.4.10.5	IO-MIMO	
2	Mode selection feedback with 6 bits	[5] and [6] 8.4.5.4.10.8	IO-MIMO	
Comments:				

Table A.165: HARQ DL support for MIMO for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	MIMO DL Chase Combining	[5] and [6] 8.4.5.3.21	IO-MIMO	
Comments:				

Table A.166: HARQ UL support for MIMO for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	MIMO UL Chase Combining	[5] and [6] 8.4.5.4.24	IO-MIMO	
Comments:				

A.5.1.2.1.18 BS Performance Requirements

Table A.167: Max BS Sensitivity Level for Convolutional Turbo Coding for 3,5 MHz Bandwidth, UL PUSC

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-93,1		m	
QPSK-3/4	-89,7		m	
16QAM-1/2	-87,4		m	
16QAM-3/4	-83,3		m	
NOTE: This table is applicable to A.3-3 only.				
Comments: Equation (149b) of section 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor R = 1.				

Table A.168: Max BS Sensitivity Level for Convolutional Turbo Coding for 3,5 MHz Bandwidth, UL AMC

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-92,8		m	
QPSK-3/4	-89,4		m	
16QAM-1/2	-87,1		m	
16QAM-3/4	-83,0		m	
NOTE: This table is applicable to A.3-3 only.				
Comments: Equation (149b) of section 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor R = 1.				

**Table A.169: Max BS Sensitivity Level for Convolutional Turbo Code
for 5 MHz Bandwidth, UL PUSC**

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-91,6		m	
QPSK-3/4	-88,2		m	
16QAM-1/2	-85,9		m	
16QAM-3/4	-81,8		m	

NOTE: This table is applicable to A.3-2, A.3-4, A.3-6, A.3-7 and A.3-10 only.

Comments:

Equation (149b) of section 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor $R = 1$.

**Table A.170: Max BS Sensitivity Level for Convolutional Turbo Code
for 5 MHz Bandwidth, UL AMC**

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-91,3		m	
QPSK-3/4	-87,9		m	
16QAM-1/2	-85,6		m	
16QAM-3/4	-81,5		m	

NOTE: This table is applicable to A.3-2, A.3-4, A.3-6, A.3-7 and A.3-10 only.

Comments:

Equation (149b) of section 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor $R = 1$.

**Table A.171: Max BS Sensitivity Level for Convolutional Turbo Code
for 7 MHz Bandwidth, UL PUSC**

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-89,9		m	
QPSK-3/4	-86,5		m	
16QAM-1/2	-84,2		m	
16QAM-3/4	-80,1		m	

NOTE: This table is applicable to A.3-8 and A.4-11 only.

Comments:

Equation (149b) of section 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor $R = 1$.

**Table A.172: Max BS Sensitivity Level for Convolutional Turbo Code
for 7 MHz Bandwidth, UL AMC**

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-89,8		m	
QPSK-3/4	-86,4		m	
16QAM-1/2	-84,1		m	
16QAM-3/4	-80,0		m	

NOTE: This table is applicable to A.3-8 and A.3-11 only.

Comments:

Equation (149b) of section 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor $R = 1$.

**Table A.173: Max BS Sensitivity Level for Convolutional Turbo Code
for 8,75 MHz Bandwidth, UL PUSC**

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-89,0		m	
QPSK-3/4	-85,6		m	
16QAM-1/2	-83,3		m	
16QAM-3/4	-79,2		m	

NOTE: This table is applicable to A.3-1 only.

Comments:

Equation (149b) of section 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor $R = 1$.

**Table A.174: Max BS Sensitivity Level for Convolutional Turbo Code
for 8,75 MHz Bandwidth, UL AMC**

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-88,8		m	
QPSK-3/4	-85,4		m	
16QAM-1/2	-83,1		m	
16QAM-3/4	-79,0		m	

NOTE: This table is applicable to A.3-1 only.

Comments:

Equation (149b) of section 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor $R = 1$.

**Table A.175: Max BS Sensitivity Level for Convolutional Turbo Code
for 10 MHz Bandwidth, UL PUSC**

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-88,5		m	
QPSK-3/4	-85,1		m	
16QAM-1/2	-82,8		m	
16QAM-3/4	-78,7		m	

NOTE: This table is applicable to A.3-2, A.3-5, A.3-6, A.3-9, A.3-12 only.

Comments:

Equation (149b) of section 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor $R = 1$.

**Table A.176: Max BS Sensitivity Level for Convolutional Turbo Code
for 10 MHz Bandwidth, UL AMC**

BW (MHz)	Sensitivity (dBm)	Reference	Status	Support
QPSK-1/2	-88,3		m	
QPSK-3/4	-84,9		m	
16QAM-1/2	-82,6		m	
16QAM-3/4	-78,5		m	

NOTE: This table is applicable to A.3-2, A.3-5, A.3-6, A.3-9, A.3-12 only.

Comments:

Equation (149b) of section 8.4.13.1.1 in [5] and [6] and table 84 in [7] are used for calculation of the numbers. Sensitivity numbers are calculated based on assumption of repetition factor $R = 1$.

A.5.1.2.1.19 Minimum Transmit Requirements

Table A.177: Transmit requirements for BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Tx dynamic Range = 10 dB	[5] and [6] 8.4.12.1	m	
2	Spectral flatness according to the following: ≤ ±2 dB for spectral lines from - $N_{used}/4$ to 1 and +1 to $N_{used}/4$ Within +2/-4 dB for spectral lines from - $N_{used}/2$ to $N_{used}/4$ and + $N_{used}/4$ to $N_{used}/2$	[5] and [6] 8.4.12.2	m	
3	Per sub-carrier flatness ≤ 0,4 dB	[5] and [6] 8.4.12.2	m	
4	Power difference between adjacent subcarriers according to the following: Tx downlink radio frame shall be time-aligned with the 1pps timing pulse within 1 usec	[5] and [6] 8.4.12.3	m	
5	Tx relative constellation error according to the following:	[5] and [6] 8.4.12.3	m	
	QPSK-1/2 ≤ -15,0 dB			
	QPSK-3/4 ≤ -18,0 dB			
	16QAM-1/2 ≤ -20,5 dB			
	16QAM-3/4 ≤ -24,0 dB			
	64QAM-1/2 (if 64QAM supported) ≤ -26,0 dB			
	64QAM-2/3 (if 64QAM supported) ≤ -28,0 dB			
	64QAM-3/4 (if 64QAM supported) ≤ -30,0 dB			
	64QAM-5/6 (if 64QAM supported) ≤ -30,0 dB			
Comments:				

A.5.1.2.1.20 Receive Requirements

Table A.178: BS Receiver Requirements

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	BS Rx Max input level on-channel reception tolerance = -45 dBm	[5] and [6] 8.4.13.3.2		
2	BS Rx Max input level on-channel damage tolerance = -10 dBm	[5] and [6] 8.4.13.4.2		
3	Min adjacent channel rejection at BER=10 ⁻⁶ for 3 dB degradation C/I according to the following: 16QAM-3/4 10 dB	[5] and [6] 8.4.13.2		
4	Min alternate channel rejection at BER=10 ⁻⁶ for 3 dB degradation C/I according to the following: 16QAM-3/4 29 dB	[5] and [6] 8.4.13.2		
Comments:				

A.5.1.2.1.21 BS Synchronization

Table A.179: BS Synchronization

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	BS reference frequency accuracy within $\pm 2 \times 10^{-6}$	[5] and [6] 8.4.14.1	m	
2	BS to BS frequency synchronization accuracy for Hand Over ≤ 1 % of the subcarrier spacing	[5] 6.3.2.3.47 [6] 6.3.2.3.42	m	
Comments:				

A.5.1.2.2 BS MAC functions

Table A.180: Convergence Sub layer protocol support

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Packet convergence sub layer	[5] and [6] 5.2	m	
Comments:				

A.5.1.2.2.1 Packet Convergence Sublayer

Table A.181: Packet Convergence Sub layer support

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Internet Protocol (IPv4)	[5] 5.2.6 [6] 5.2.5	m	
2	Internet Protocol (IPv6)	[5] 5.2.6 [6] 5.2.5	m	
3	IEEE 802.3 [13] (Ethernet)	[5] and [6] 5.2.4	IO-ETH1	
4	IPv4 over 802.3 Ethernet	[5] and [6] 5.2.4	IO-ETH2	
5	IPv6 over 802.3 Ethernet	[5] and [6] 5.2.4	IO-ETH3	
6	IPv4 with Header Compression (ROHC)	[5] and [6] 5.2.45	m	
7	IPv6 with Header compression (ROHC)	[5] and [6] 5.2.45	m	
Comments: Item 3, 4, and 5 are not required for WiMAX certified label, only optionally certified.				

Table A.182: Major packet classification

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	IP Classification	[5] 11.13.19.3.4 [6] 11.13.18.3.3	m	
2	Ethernet classification	[5] 11.13.19.3.4 [6] 11.13.18.3.3	IO-ETH1 OR IO-ETH2 OR IO-ETH3	
Comments:				

Table A.183: IP packet classification in the UL

Item	Capability	Reference	Status	Support
1	Classification based on DSCP /IP TOS field	[5] 5.2.2, 11.13.19.3.4.2 [6] 5.2.2, 11.13.18.3.3.2	m	
2	Classification based on IP Protocol/Next Header field	[5] 5.2.2, 11.13.19.3.4.3 [6] 5.2.2, 11.13.18.3.3.3	m	
3	Classification based on IP masked Source Address	[5] 5.2.2, 11.13.19.3.4.4 [6] 5.2.2, 11.13.18.3.3.4	m	
4	Classification based on IP Destination Address	[5] 5.2.2, 11.13.19.3.4.5 [6] 5.2.2, 11.13.18.3.3.5	m	
5	Classification based on protocol source port range	[5] 5.2.2, 11.13.19.3.4.6 [6] 5.2.2, 11.13.18.3.3.6	m	
6	Classification based on protocol destination port range	[5] 5.2.2, 11.13.19.3.4.7 [6] 5.2.2, 11.13.18.3.3.7	m	
Comments:				

Table A.184: PHS

Item	Capability	Reference	Status	Support
1	PHS	[5] and [6] ,5.2.3 5.2.3.1 5.2.3.2	m	
Comments:				

A.5.1.2.2.2 MAC common part sub layer

Table A.185: MAC Common part sublayer functionalities

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Addressing and connections	[5] and [6] 6.3.1	m	
2	Construction of PDUs	[5] and [6] 6.3.3	m	
3	ARQ	[5] and [6] 6.3.4	m	
4	Uplink scheduling service	[5] and [6] 6.3.5	m	
5	Bandwidth allocation and request	[5] and [6] 6.3.6	m	
6	Contention resolution	[5] and [6] 6.3.8	m	
7	Network entry and initialization	[5] and [6] 6.3.9	m	
8	Ranging	[5] and [6] 6.3.10	m	
9	Update of UL and DL channel descriptors	[5] and [6] 6.3.11	m	
10	Quality of service	[5] and [6] 6.3.14	m	
Comments:				

Table A.186: Miscellaneous management functions

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	MS reset initiated by BS (RES-CMD)	[5] and [6] 6.3.2.3.22	o	
2	MS network clock comparison initiated by BS (CLK-CMP)	[5] and [6] 6.3.2.3.25	o	
3	MS notifies BS of de-registration (DREG-REQ)	[5] and [6] 6.3.2.3.43	m	
4	MS forced by BS to change its channel access (DREG-CMD)	[5] and [6] 6.3.2.3.26	m	
5	BS transmits DSX-RVD	[5] and [6] 6.3.2.3.27	m	
6	BS transmits REP-REQ message and receives REP-RSP	[5] and [6] 6.3.2.3.33	m	
7	BS transmits FPC	[5] and [6] 6.3.2.3.34	o	

Comments:

A.5.1.2.2.2.1 Addressing and Connections

Table A.187: Addressing and Connections

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Globally Unique 48 bits MAC Address, making up three 16 bits CID	[5] and [6] 6.3.1	m	
2	Time urgent MAC Management messages on basic connection	[5] and [6] 6.3.1	m	
3	Delay tolerant MAC Management messages on primary management connection	[5] and [6] 6.3.1	m	

Comments:

A.5.1.2.2.2.2 Construction and Transmission of MAC PDUs

Table A.188: Transmission conventions

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Fields of MAC messages are transmitted in the same order as they appear in the corresponding tables in the standard.	[5] and [6] 6.3.3.1	m	
2	Fields of MAC messages and fields of TLVs, which are specified in the standard as binary numbers (including CRC and HCS) are transmitted as a sequence of their binary digits, starting from MSB. Bit masks (for example, in ARQ) are considered numerical fields. For signed numbers MSB is allocated for the sign. Length field in the "definite form" of ITU-T Recommendation X.690 [15] is also considered a numerical field.	[5] and [6] 6.3.3.1	m	
3	Fields specified as SDUs or SDU fragments (for example, MAC PDU payloads) are transmitted in the same order of bytes as received from upper layers.	[5] and [6] 6.3.3.1	m	
4	Fields specified as strings are transmitted in the order of symbols in the string. In cases c and d, bits within a byte are transmitted in the order MSB first.	[5] and [6] 6.3.3.1	m	

Comments:

Table A.189: Subheader and Extended Subheader support

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Extended subheader support	6.3.2.2.7	m	
2	Capability of receiving Grant management Subheader	6.3.2.2.2	m	
Comments:				

Table A.190: PDU concatenation

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Concatenate Multiple MAC PDUs into a single burst of the allocated length	[5] and [6] 6.3.3.2	m	
2	Receive concatenated MAC PDUs and determine disposition via CID	[5] and [6] 6.3.3.2	m	
3	Padding of any unused space with stuff byte value in the DL Burst	[5] and [6] 6.3.3.7	m	
Comments:				

Table A.191: SDU Fragmentation

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Fragment a MAC SDU into multiple MAC PDUs applicable to traffic connections and Management messages on Primary management connection	[5] and [6] 6.3.3.3	m	
2	Add Fragmentation Sub header to the SDU fragment including setting FC according to the Fragmentation rules table	[5] and [6] 6.3.3.3	m	
3	Do not perform fragmentation of PDUs on "Broadcast management" connections	[5] and [6] 6.3.2.3	m	
4	Perform fragmentation of PDUs on 'Fragmentable Broadcast management connection	[5] and [6]	m	
5	Increment the FSN modulo 2048 for non-ARQ connections	[5] and [6] 6.3.3.3	m	
6	Increment the BSN modulo 2048 for ARQ connection	[5] and [6] 6.3.3.4.2	m	
7	Do not perform fragmentation of PDUs on Basic and Initial Ranging connections	[5] and [6] 6.3.2.3	m	
Comments: DCD and UCD message shall be transmitted using "Fragmentable Broadcast management connection".				

Table A.192: SDU reassembly

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Receive and reassemble fragmented SDUs	[5] and [6] 6.3.3.3	m	
2	In case of no-ARQ connection, discard SDUs corrupted due to loss of fragment	[5] and [6] 6.3.3.3.1	m	
Comments:				

Table A.193: Packing

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Pack variable length SDUs in a single MAC PDU on non-ARQ connections	[5] and [6] 6.3.3.4.1.2	m	
2	Unpack variable length SDUs on non-ARQ connections	[5] and [6] 6.3.3.4.1.2	m	
3	Pack variable length SDUs or SDUs fragments in a single MAC PDU on ARQ-enabled connections	[5] and [6] 6.3.3.4.2 5.1.2	m	
4	Unpack variable length SDUs or SDUs fragments on ARQ-enabled connections	[5] and [6] 6.3.3.4.2 5.1.2	m	
5	Do not perform packing of SDUs on Basic, Broadcast and Initial Ranging connections	[5] and [6] 6.3.2.3	m	
6	Perform packing of ARQ Feedback Payload	[5] and [6] 6.3.3.4.3	m	
7	Extracting ARQ Feedback IEs from received ARQ Feedback Payload.	[5] and [6] 6.3.3.4.3	m	

Comments:

Table A.194: CRC

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Compute and add CRC, and set CI bit based on connection properties	[5] and [6] 6.3.3.5	m	
2	Check CRC based on CI bit	[5] and [6] 6.3.3.5	m	

Comments:

A.5.1.2.2.2.3 ARQ

Table A.195: ARQ

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Pack several ARQ feedback information elements in a single ARQ feedback payload	[5] and [6] 6.3.4 and 5.1.3	m	
2	Insert a single ARQ feedback payload as first payload in a MAC PDU	[5] and [6] 6.3.4 and 5.1.3	m	

Comments:

A.5.1.2.2.2.4 Data Delivery Services for Base Network

Table A.196: Data Delivery Services for Base Network

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Unsolicited Grant service (UGS)	[5] 6.3.20.1.1 [6] 6.3.19.1.1	m	
2	Real-Time Variable Rate (RT-VR) Service	[5] 6.3.20.1.2 [6] 6.3.19.1.2	m	
3	Non-Real-Time Variable Rate (NRT-VR) Service	[5] 6.3.20.1.3 [6] 6.3.19.1.3	m	
4	Best Effort (BE) Service	[5] 6.3.20.1.4 [6] 6.3.19.1.4	m	
5	Extended Real-Time Variable Rate (ERT-VR) service	[5] 6.3.20.1.5 [6] 6.3.19.1.5	m	

Comments:

A.5.1.2.2.2.5 Request-Grant Mechanism

Table A.197: Request-Grant mechanism

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Incremental bandwidth request using BW request header	[5] and [6] 6.3.6.1	m	
2	Aggregate bandwidth request using BW request header	[5] and [6] 6.3.6.1	m	
3	Bandwidth request using Grant Management Subheader	[5] and [6] 6.3.2.2.2	m	
4	Request-Grant mechanism combined with UL Tx power report	[5] and [6] 6.3.2.1.2.1.2	m	
5	CQICH allocation request using CQICH allocation request header	[5] and [6] 6.3.2.1.2.1.4	m	
6	Contention-based CDMA bandwidth requests	[5] and [6] 6.3.6.5	m	
Comments:				

A.5.1.2.2.2.6 Network entry and initialization

Table A.198: Network entry and initialization

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	BS sends downlink parameters using periodic broadcast of the DCD message	[5] and [6] 6.3.9.2	m	
2	BS sends uplink parameters using periodic broadcast of the UCD message	[5] and [6] 6.3.9.3, 6.3.9.4	m	
3	BS allocates an initial ranging opportunity	[5] and [6] 6.3.9.5, 6.3.9.6	m	
4	BS commands MS to adjust power, timing and frequency during initial ranging	[5] and [6] 6.3.9.6	m	
5	BS negotiates basic capabilities	[5] and [6] 6.3.9.7	m	
6	BS performs authorization and key exchange	[5] and [6] 6.3.9.8, 7.2	m	
7	BS accepts registration request from MS to allow SS in network	[5] and [6] 6.3.9.9	m	
Comments:				

Table A.199: DL parameter transmission

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	BS sends DLFP correctly	[5] and [6] 8.4.4.3	m	
2	BS sends DL-MAP correctly	[5] and [6] 6.3.9.2	m	
3	BS sends DCD correctly	[5] and [6] 6.3.9.2	m	
Comments:				

Table A.200: UL parameter transmission

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	BS sends UCD correctly	[5] and [6] 6.3.9.3, 6.3.9.4	m	
2	BS sends UL-MAP correctly		m	
Comments:				

Table A.201: Initial ranging

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	BS sends UL-MAP containing initial ranging opportunity	[5] and [6] 6.3.10.3.1	m	
2	BS receives initial ranging code from MS	[5] and [6] 6.3.10.3.1, 8.4.7.1	m	
3	BS sends RNG-RSP with time and power corrections in response to initial ranging code from MS, including an accepted CDMA code and related information that help the MS identify destination of RNG-RSP	[5] and [6] 6.3.10.3.1	m	
4	BS receives initial ranging code transmitted in periodic ranging region after responding with RNG-RSP including status continue	[5] and [6] 6.3.10.3.1, 8.4.7.1	m	
5	BS sends CDMA allocation IE after sending RNG-RSP including status success so the MS can transmit RNG-REQ	[5] and [6] 6.3.10.3.1, 8.4.5.4.3	m	
6	BS receives RNG-REQ transmitted in UL slots allocated by CDMA allocation IE	[5] and [6] 6.3.10.3.1, 8.4.5.4.3	m	
7	BS assigns Basic and Primary Management CIDs in response to the first RNG-REQ message transmitted in UL slots allocated by CDMA allocation IE	[5] and [6] 6.3.10.3.1	m	

Comments: BS shall include an accepted CDMA code and related information for identifying SS that will use UL slots allocated by CDMA allocation IE.

Table A.202: BS basic capability negotiation

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	BS receives SBC-REQ	[5] and [6] 6.3.9.7	m	
2	BS sends SBC-RSP	[5] and [6] 6.3.9.7	m	

Comments:

Table A.203: Registration

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	BS receives REG-REQ	[5] and [6] 6.3.9.9	m	
2	BS sends REG-RSP	[5] and [6] 6.3.9.9	m	

Comments:

Table A.204: Periodic ranging

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	BS receives periodic ranging code	[5] and [6] 6.3.10.3.2	m	
2	BS sends RNG-RSP unsolicited or in response to a periodic ranging code with time and/or power and/or frequency corrections or none of above, including an accepted CDMA code and related information that help the MS identify the destination of RNG-RSP	[5] and [6] 6.3.10.3.2	m	

Comments:

A.5.1.2.2.2.7 Update of channel descriptors

Table A.205: Update of channel descriptors by BS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Simultaneous support of two channel descriptors	[5] and [6] 6.3.11	m	
2	BS sends UL channel descriptors at regular intervals using UCD message with identical Configuration change count	[5] and [6] 6.3.11	m	
3	BS sends new UL channel descriptors using UCD message with incremented Configuration change count (I+1 mod 256)	[5] and [6] 6.3.11	m	
4	BS sends DL channel descriptors at regular intervals using DCD message with identical Configuration change count	[5] and [6] 6.3.11	m	
5	BS sends new DL channel descriptors using DCD message with incremented Configuration change count (I+1 mod 256)	[5] and [6] 6.3.11	m	
6	Receive with the new uplink parameters starting from the first PS that is covered by the UL-MAP with UCD Count matching the new Configuration Change Count	[5] and [6] 6.3.11	m	
7	Transmit with the new downlink parameters starting from the frame with the first DL-MAP with a DCD Count matching the new Configuration Change Count	[5] and [6] 6.3.11	m	
Comments: For item 1, two channel descriptors are the current active set and the new pending set, during the transition period between a DCD or UCD configuration change and when the new configuration becomes active.				

A.5.1.2.2.2.8 QoS

Table A.206: Service flow operations

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Dynamic service flow creation - BS-initiated	[5] and [6] 6.3.14.7.1.2	m	
2	Dynamic service flow creation - MS-initiated	[5] and [6] 6.3.14.7.1.1	m	
3	Dynamic service flow change - BS-initiated	[5] and [6] 6.3.14.9.4.2	m	
4	Dynamic service flow change - MS-initiated	[5] and [6] 6.3.14.9.4.1	m	
5	Dynamic service flow deletion - BS-initiated	[5] and [6] 6.3.14.9.5.2	m	
6	Dynamic service flow deletion - MS-initiated	[5] and [6] 6.3.14.9.5.1	m	
Comments:				

A.5.1.2.2.2.9

Sleep Mode

Table A.207: Sleep Mode

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Sleep Mode Implementation in BS	[5] 6.3.21 [6] 6.3.20	m	
2	Power Saving Class type 1 support	[5] 6.3.21.2 [6] 6.3.20.2	m	
3	Support of Traffic Indication Message for Power Saving Class type 1	[5] 6.3.21.2 [6] 6.3.20.2	m	
4	Indicating DL traffic by SLPID bit map in TRF-IND	[5] 6.3.21.1 6.3.2.3.46 [6] 6.3.20.1, 6.3.2.3.41	m	
5	Indicating DL traffic by SLPID in TRF-IND	[5] 6.3.21.1 6.3.2.3.46 [6] 6.3.20.1, 6.3.2.3.41	m	
6	Support of SLPID_Update TLV in TRF-IND	[5] 6.3.2.3.46 11.1.8.2 [6] 6.3.2.3.41, 11.1.7.2	m	
7	Traffic triggered waking flag	[5] 6.3.2.3.44-45, 6.3.21.2 [6] 6.3.2.3.39-40, 6.3.20.2	m	
8	Activation of Power Saving Class by unsolicited SLP-RSP message from BS	[5] 6.3.2.3.45 6.3.21.1 [6] 6.3.2.3.40, 6.3.20.1	m	
9	DL sleep control extended subheader	[5] 6.3.2.2.7.2 11.7.25 [6] 6.3.2.2.7.2, 11.7.21	m	
10	Bandwidth request and uplink sleep control header	[5] 6.3.2.1.2.1.6 11.7.25 [6] 6.3.2.1.2.1.6, 11.7.21	m	
11	Support of periodic ranging in sleep mode	[5] 6.3.21.5 11.16.2 [6] 6.3.20.5, 11.16.2	m	
12	Sleep mode multicast CID support at BS	[5] 10.4 6.3.2.3.46 [6] 10.4, 6.3.2.3.41	m	
13	BS Support of triggered action indicated by Enabled-Action-Triggered TLV	[5] 6.3.2.3.6, 6.3.2.3.44-45, 6.3.21.1, 11.5, 11.6, 11.7.3, [6] 6.3.2.3.6, 6.3.2.3.39-40, 6.3.20.1, 11.5, 11.6, 11.7.3,	m	
Comments:				

A.5.1.2.2.2.10 Handover

Table A.208: Neighbour Advertisement

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Neighbour Advertisement	[5] 6.3.2.3.47, 6.3.22.1.1 [6] 6.3.2.3.42, 6.3.21.1.1	m	
2	Support BS index at the BS (Use BS index instead of BSID) in Scan/HO related messages, as numbered in MOB_NBR-ADV	[5] 6.3.2.3.48 to 51, 6.3.2.3.53 [6] 6.3.2.3.43 to 46, 6.3.2.3.48	m	
Comments:				

Table A.209: Scanning

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Scanning for cell selection (HO)	[5] 6.3.2.3.48 and 49, 6.3.22.1.2 [6] 6.3.2.3.43, 6.3.21.1.2	m	
2	BS allocates Scanning Interval in response to MS request	[5] 6.3.2.3.48 and 49, 6.3.22.1.2 [6] 6.3.2.3.43, 6.3.21.1.2	m	
3	Unsolicited Scanning Interval Allocation by BS	[5] 6.3.2.3.48 and 49, 6.3.22.1.2 [6] 6.3.2.3.43, 6.3.21.1.2	m	
4	BS commands MS to perform scanning triggered by serving BS metrics	[5] 6.3.22.1.2 [6] 6.3.21.1.2	m	
Comments:				

Table A.210: Scan Reporting Type Support

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Periodic reporting based on Report Period as indicated in MOB_SCN-RSP message	[5] 6.3.2.3.49, 11.4.1 [6] 6.3.2.3.44, 11.4.1	m	
2	BS commands MS to perform reporting triggered by metric conditions	[5] 6.3.2.3.49, 11.4.1 [6] 6.3.2.3.44, 11.4.1	m	
Comments:				

Table A.211: HO/Scan/Report Trigger Metrics

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Mean BS CINR	[5] 6.3.2.3.53, 11.8.7 [6] 6.3.2.3.48, 11.8.6	m	
2	Mean BS RSSI	[5] 6.3.2.3.53, 11.8.7 [6] 6.3.2.3.48, 11.8.6	m	
3	BS Round Trip Delay	[5] 6.3.2.3.53, 11.8.7 [6] 6.3.2.3.48, 11.8.6	m	
Comments:				

Table A.212: MAC Layer HO Procedures

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	General HO Support	[5] 6.3.22.2, 6.3.2.3.55 [6] 6.3.21.2, 6.3.2.3.50	m	
2	HO initiated by BS support at BS side	[5] 6.3.22.2 [6] 6.3.21.2	m	
3	HO initiated by MS support at BS side	[5] 6.3.22.2 [6] 6.3.21.2	m	
4	HO Indication	[5] 6.3.22.2.5 [6] 6.3.21.5	m	
5	Cancellation of HO	[5] 6.3.22.2.3 [6] 6.3.21.3	m	
6	Metric Triggered HO Requests	[5] 11.1.7 [6] 11.18.1	m	
7	Resource Retention Support	[5] 6.3.2.3.52, 6.3.2.3.54 [6] 6.3.2.3.47, 6.3.2.3.49	m	
8	CDMA HO Ranging	[5] and [6] 6.3.10.3.3	m	
9	HO_ID support	[5] 6.3.2.3.52, 6.3.2.3.54 [6] 6.3.2.3.47, 6.3.2.3.49	m	
10	Support negotiating of "HO authorization policy" during HO (i.e. between BSs)	[5] 6.3.2.3.52, 6.3.2.3.54 [6] 6.3.2.3.47, 6.3.2.3.49	m	
Comments:				

Table A.213: HO Optimization

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	HO Optimization Support	[5] 6.3.2.3.6, 6.3.22.2.7, 11.6 [6] 6.3.2.3.6, 6.3.21.2.7, 11.6	m	
2	Support Omission of SBC-REQ management messages	[5] 6.3.2.3.6, 6.3.22.2.7, 11.6	m	
3	Support Omission of PKM Authentication phase except TEK Phase	[5] 6.3.2.3.6, 6.3.22.2.7, 11.6 [6] 6.3.2.3.6, 6.3.21.2.7, 11.6	m	
4	Support Omission of PKM TEK creation phase during re-entry processing	[5] 6.3.2.3.6, 6.3.22.2.7, 11.6 [6] 6.3.2.3.6, 6.3.21.2.7, 11.6	m	
5	Support "Full State Sharing"- No exchange of network re-entry messages after ranging before resuming normal operations	[5] 6.3.2.3.6, 6.3.22.2.7, 11.6 [6] 6.3.2.3.6, 6.3.21.2.7, 11.6	m	
6	Unsolicited SBC-RSP management message with updated capabilities information	[5] 6.3.2.3.6, 6.3.22.2.7, 11.6 [6] 6.3.2.3.6, 6.3.21.2.7, 11.6	m	
7	Support SBC- RSP TLVs as part of RNG-RSP message	[5] and [6] 11.6	m	
8	Support Omission of REG-REQ during NW re-entry	[5] 6.3.2.3.6, 6.3.22.2.7, 11.6 [6] 6.3.2.3.6, 6.3.21.2.7, 11.6	m	
9	Unsolicited REG-RSP with updated capabilities information	[5] 6.3.2.3.6, 6.3.22.2.7, 11.6 [6] 6.3.2.3.6, 6.3.21.2.7, 11.6	m	
10	Support REG-RSP TLV as part of RNG-RSP message	[5] and [6] 11.6	m	
11	Support of ARQ continuation using SN report header after NW re-entry	[5] 6.3.2.3.6, 6.3.22.2.7, 11.6 [6] 6.3.2.3.6, 6.3.21.2.7, 11.6	m	
12	Support continuation of non-ARQ connection using SDU SN extended sub-header before handover and using SN report header after NW re-entry	[5] and [6] 6.3.2.2.7.8, 6.3.2.1.2.1.7	o	
13	Support receiving Bandwidth Request header with zero BR as a notification of MS's successful re-entry registration	[5] 6.3.22.2.7, 11.6 [6] 6.3.21.2.7, 11.6	m	
14	Support sending traffic IP address refresh bit	[5] and [6] 11.6	m	
15	Sending SN request extended subheader to request additional SN Report Header after network re-entry	[5] and [6] 6.3.2.2.7.7	o	
Comments:				

Table A.214: CID and SAID Update

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	CID update from BS by RNG-RSP	[5] 11.7.10, 11.6 [6] 11.7.9, 11.6	m	
2	CID update from BS by REG-RSP	[5] 11.7.10 [6] 11.7.9	m	
3	Compressed CID update from BS by RNG-RSP	[5] 11.7.10.1 [6] 11.7.9.1	m	
4	Compressed CID update from BS by REG-RSP	[5] 11.7.10.1 [6] 11.7.9.1	m	
5	SAID update from BS by RNG-RSP	[5] 11.7.18, 11.6 [6] 11.7.17, 11.6	m	
6	SAID update from BS by SA-TEK-RSP	[5] 11.7.21	m	
Comments:				

A.5.1.2.2.2.11 Idle Mode

Table A.215: Idle Mode

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	General Idle Mode functionality	[5] 6.3.24 [6] 6.3.23	m	
2	Idle mode initiation by DREG-REQ message from BS	[5] 6.3.24.1 [6] 6.3.23.1	m	
3	Idle Mode initiation by unsolicited DREG-CMD from BS	[5] 6.3.24.1 [6] 6.3.23.1	m	
4	Maintain connection information at BS side during Idle Mode initiation process	[5] 6.3.24.1 [6] 6.3.23.1	m	
5	Request from BS, MS to retain service and operational information by DREG-CMD message	[5] 6.3.24.1 [6] 6.3.23.1	m	
6	BS retention of service and operational information by DREG-REQ message	[5] 6.3.24.1 [6] 6.3.23.1	m	
7	BS capability of transmitting Broadcast Control Pointer IE	[5] 6.3.24.5 [6] 6.3.23.5	m	
8	Paging Group Update MS	[5] and [6] 6.3.4.8.1.1	m	
9	Timer Location Update MS	[5] 6.3.24.8.1.2 [6] 6.3.23.8.1.2	m	
10	Power Down Location Update MS	[5] 6.3.24.8.1.3 [6] 6.3.23.8.1.3	m	
11	Secure Location Update	[5] 6.3.24.8.2.1 [6] 6.3.23.8.2.1	m	
12	Un-secure Location Update	[5] 6.3.24.8.2.2 [6] 6.3.23.8.2.2	m	
13	Paging Preference	[5] 11.13.30 [6] 11.13.28	m	
14	Idle mode multicast CID support at BS	[5] and [6] 10.4	m	
Comments:				

A.5.1.2.2.2.11-a Expedited Re-entry from Idle Mode

Table A.216: Expedited Re-entry from Idle Mode

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Expedited network re-entry from Idle Mode support	[5] 6.3.24.9 [6] 6.3.23.9	m	
2	Support Omission of SBC-REQ management messages	[5] and [6] 11.6	m	
3	Support Omission of PKM Authentication phase except TEK phase	[5] and [6] 11.6	m	
4	Support Omission of PKM TEK creation phase during re-entry processing	[5] and [6] 11.6	m	
5	Support "Full State Sharing except ARQ state (blocks in ARQ window and associated timers)" - No exchange of network re-entry messages after ranging before resuming normal operations	[5] and [6] 11.6	m	
6	Unsolicited SBC-RSP management message with updated capabilities information	[5] and [6] 11.6	m	
7	Support SBC-RSP TLVs as part of RNG-RSP message	[5] and [6] 11.6	m	
8	Support Omission of REG-REQ during NW re-entry	[5] and [6] 11.6	m	
9	Unsolicited REG-RSP with updated capabilities information	[5] and [6] 11.6	m	
10	Support REG-RSP TLV as part of RNG-RSP message	[5] and [6] 11.6	m	
11	MS send Bandwidth Request header with zero BR as a notification of MS's successful re-entry registration.	[5] and [6] 11.6	m	
12	Support of transmission of IP refresh bit	[5] and [6] 11.6	m	
Comments:				

A.5.1.2.2.2.12 Feedback Mechanism

Table A.217: Feedback Mechanism

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Feedback Header	[5] and [6] 6.3.2.1.2.2.1	m	
2	Bandwidth request and UL Tx Power Report	[5] and [6] 6.3.2.1.2.1.2	m	
3	SN report header	[5] and [6] 6.3.2.1.2.1.7	m	
4	SN request extended subheader	[5] and [6] 6.3.2.2.7.7	o	
Comments:				

A.5.1.2.2.2.13 Multicast Traffic Connection

Table A.218: Multicast Traffic Connection

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Multicast traffic connection	[5] and [6] 6.3.13	m	
Comments:				

A.5.1.2.2.2.14 Security Sublayer

Table A.219: Security functions

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	BS supports two simultaneous active TEKs	[5] and [6] 6.3.9.8, 7.2.1	m	
2	BS supports SAID update using RNG-REQ/RNG-RSP	[5] and [6] 11.6	m	
3	BS supports SAID update using SA-TEK-REQ/SA-TEK-RSP	11.7.21	m	
4	BS receives PKMv2 EAP-Start	[5] and [6] 6.3.2.3.9.15	m	
5	BS exchanges PKMv2 EAP-Transfer	[5] and [6] 7.2.2.2	m	
6	BS derives AK	[5] and [6] 7.2.2.2	m	
7	BS derives KEK	[5] and [6] 7.2.2.2	m	
8	BS derives message authentication keys	[5] and [6] 7.2.2.2	m	
9	BS sends PKMv2 SA-TEK-Challenge	[5] and [6] 7.2.2.2	m	
10	BS re-sends PKMv2 SA-TEK-challenge when SACHallengeTimer timeout	[5] and [6] 7.8.1	m	
11	BS checks whether AKID is valid or not	[5] and [6] 7.8.1	m	
12	BS receives PKMv2 SA-TEK-Request	[5] and [6] 7.8.1	m	
13	BS sends PKMv2 SA-TEK-Response	[5] and [6] 7.8.1	m	
14	BS manages SAs it included in PKMv2 SA-TEK-Response	[5] and [6] 7.2.2.5	m	
15	BS receives PKMv2 Key-Request	[5] and [6] 7.8.1	m	
16	BS sends PKMv2 Key-Reply	[5] and [6] 7.8.1	m	
17	BS supports Dot16KDF algorithm	[5] and [6] 7.2.2.2, 7.5.4.6.1	m	
Comments: In case of initial network entry, BS shall not receive PKMv2 EAP-Start message.				

Table A.220: PKM message encodings support

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	(one or more) SA_TEK_Update	[5] 11.1.10 [6] 11.1.9	m	
2	Security negotiation parameters	[5] and [6] 11.8.4	m	
3	Display-String	[5] and [6] 11.9.1	o	
4	TEK	[5] and [6] 11.9.3	m	
5	Key lifetime	[5] and [6] 11.9.4	m	
6	Key sequence number	[5] and [6] 11.9.5	m	
7	SAID	[5] and [6] 11.9.7	m	
8	TEK-Parameters	[5] and [6] 11.9.8	m	
9	Error-code	[5] and [6] 11.9.10	m	
10	Security capabilities	[5] and [6] 11.9.13	m	
11	Cryptographic suite	[5] and [6] 11.9.14	m	
12	Cryptographic suite list	[5] and [6] 11.9.15	m	
13	SA descriptor(s)	[5] 11.9.17 [6] 11.9.16	m	
14	SA type	[5] 11.9.18 [6] 11.9.17	m	
15	PKM configuration settings	[5] 11.9.19 [6] 11.9.18	m	
16	Nonce	[5] 11.9.20 [6] 11.9.19	m	
17	MS_random	[5] 11.9.21 [6] 11.9.20	m	
18	BS_random	[5] 11.9.22 [6] 11.9.21	m	
19	CMAC Digest	[5] 11.9.27 [6] 11.9.26	m	
20	AKID	[5] 11.9.32 [6] 11.9.31	m	
21	EAP payload	[5] 11.9.33 [6] 11.9.32	m	
22	SA service type	[5] 11.9.35 [6] 11.9.34	m	
23	PKMv2 configuration settings	[5] 11.9.36	m	
24	Frame Number	[5] 11.9.37 [6] 11.9.35	m	

Comments:

Table A.221: Authorization Policy Support

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	802.16 Authorization policy support (this is about the capability of negotiating authorization policy)	[5] 11.7.8.7 [6] 11.7.8.6	m	

Comments:

Table A.222: PKM Version Support

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	PKMv2 Support	[5] and [6] 11.8.4.1	m	

Comments:

Table A.223: PKMv2 Authorization Policy Support-Initial Network Entry

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	No Authorization	[5] and [6] 11.8.4.2	m	
2	EAP-based authorization	[5] and [6] 11.8.4.2, 7.1.3.2 and 7.2.2.2.2	m	
Comments:				

Table A.224: PKMv2 Authorization Policy Support-Network Re-entry

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	No Authorization	[5] and [6] 11.8.4.2	m	
2	EAP-based authorization	[5] and [6] 11.8.4.2, 7.1.3.2 and 7.2.2.2.2	m	
Comments:				

Table A.225: Supported Cryptographic Suites

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	No data encryption, no data authentication and no key encryption	[5] and [6] 11.9.14	m	
2	CCM-Mode 128-bit AES, CCM-Mode, AES Key Wrap with 128-bit key	[5] and [6] 11.9.14	m	
Comments: For Item 1: This cryptographic suite means that no encryption and no TEK exchange.				

Table A.226: Message Authentication Code Mode

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	No message authentication	[5] and [6] 11.8.4.3	m	
2	CMAC	[5] and [6] 11.8.4.3	m	
Comments:				

Table A.227: Security Association

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Support of Static SA	[5] and [6] 7.2.1.1 and 7.3.2	m	
2	Support of Dynamic SA	[5] and [6] 7.2.1.1	m	
3	Support of Primary SA	[5] and [6] 7.2.1.1	m	
Comments:				

Table A.228: SA Service Type

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Unicast	[5] 11.9.35 [6] 11.9.34	m	
Comments:				

A.5.1.2.2.2.15 MBS

Table A.229: MBS

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Multi-BS-MBS	[5] and [6] 6.3.13	IO-MBS	
2	Support for MBS_MAP-IE	[5] and [6] 6.3.13.2.3	IO-MBS	
3	BS initiated MBS request using DSA-REQ	[5] 11.13.20 [6] 11.13.19	IO-MBS	
4	BS initiated MBS request using DSA-REQ	[5] 11.13.20 [6] 11.13.19	IO-MBS	
Comments:				

A.5.1.2.2.2.16 MS's Network Entry issued by BS restart

Table A.230: MS's Network Entry issued by BS restart

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	BS transmits BS restart counter TLV when applicable	[5] and [6] 6.3.9.11, 11.4.1	m	
Comments:				

A.5.1.2.2.2.17 MAC support for H-ARQ

Table A.231: MAC support for H-ARQ

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	HARQ Support	[5] 6.3.17 [6] 6.3.16	m	
2	HARQ Buffer Negotiation Capability	[5] 11.8.3.7.19 [6] 11.8.3.5.17	m	
3	HARQ Channel mapping	[5] 6.3.17, 11.13.32 [6] 6.2.16, 11.13.30	m	
4	Capability of DL HARQ channels Number negotiation	[5] 11.8.3.7.2 [6] 11.8.3.5.2	m	
5	Capability of UL HARQ channels Number negotiation	[5] 11.8.3.7.3 [6] 11.8.3.5.3	m	
6	Capability of HARQ ACK delay negotiation in DL transmission	[5] and [6] 11.4.1	m	
7	Capability of HARQ ACK delay negotiation in UL transmission	[5] and [6] 11.3.1	m	
8	PDU SN extended subheader for HARQ reordering	[5] 11.13.33 [6] 11.13.31	m	
Comments: All items above are conditional dependently on HARQ support. HARQ Channel mapping is determined by BS.				

A.6 List of PDUs, MAP IEs, sub-headers, and extended sub-headers

A.6.1 PDUs for MAC layer

A.6.1.1 PDUs for network entry and initialization

Table A.232: BS sending MAC PDUs for network entry and initialization

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	DL-MAP	[5] and [6] 6.3.9.2, 6.3.2.3.2	m	
2	DCD	[5] and [6] 6.3.9.2, 6.3.2.3.1	m	
3	UL-MAP	[5] and [6] 6.3.9.3, 6.3.2.3.4	m	
4	UCD	[5] and [6] 6.3.9.3, 6.3.2.3.3	m	
5	RNG-RSP	[5] and [6] 6.3.9.5, 6.3.2.3.6	m	
6	SBC-RSP	[5] and [6] 6.3.9.7, 6.3.2.3.24	m	
7	PKM-RSP	[5] and [6] 6.3.9.8, 6.3.2.3.9	m	
8	REG-RSP	[5] and [6] 6.3.9.9	m	
9	Compressed DL-MAP	[5] and [6] 8.4.5.6	m	
10	Compressed UL-MAP	[5] and [6] 8.4.5.6	m	

Comments:

Table A.233: BS receiving MAC PDUs for network entry and initialization

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	RNG-REQ	[5] and [6] 6.3.9.5, 6.3.2.3.5	m	
2	SBC-REQ	[5] and [6] 6.3.9.7, 6.3.2.3.23	m	
3	PKM-REQ	[5] and [6] 6.3.9.8, 6.3.2.3.9	m	
4	REG-REQ	[5] and [6] 6.3.9.9, 6.3.2.3.7	m	

Comments:

Table A.234: MS sending MAC PDUs for network entry and initialization

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	RNG-REQ	[5] and [6] 6.3.9.5, 6.3.2.3.5	m	
2	SBC-REQ	[5] and [6] 6.3.9.7, 6.3.2.3.23	m	
3	PKM-REQ	[5] and [6] 6.3.9.8, 6.3.2.3.9	m	
4	REG-REQ	[5] and [6] 6.3.9.9, 6.3.2.3.7	m	

Comments:

Table A.235: MS receiving MAC PDUs for network entry and initialization

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	DL-MAP	[5] and [6] 6.3.9.2, 6.3.2.3.2	m	
2	DCD	[5] and [6] 6.3.9.2, 6.3.2.3.1	m	
3	UL-MAP	[5] and [6] 6.3.9.3, 6.3.2.3.4	m	
4	UCD	[5] and [6] 6.3.9.3, 6.3.2.3.3	m	
5	RNG-RSP	[5] and [6] 6.3.9.5, 6.3.2.3.6	m	
6	SBC-RSP	[5] and [6] 6.3.9.7, 6.3.2.3.24	m	
7	PKM-RSP	[5] and [6] 6.3.9.8, 6.3.2.3.9	m	
8	REG-RSP	[5] and [6] 6.3.9.9	m	
9	Compressed DL-MAP	[5] and [6] 8.4.5.6	m	
10	Compressed UL-MAP	[5] and [6] 8.4.5.6	m	
Comments:				

A.6.1.2 PDUs for service flows

Table A.236: BS sending PDUs for service flows

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	DSA-REQ (create)	[5] and [6] 6.3.2.3.10	m	
2	DSA-RSP	[5] and [6] 6.3.2.3.11	m	
3	DSA-ACK	[5] and [6] 6.3.2.3.12	m	
4	DSC-REQ (change)	[5] and [6] 6.3.2.3.13	m	
5	DSC-RSP	[5] and [6] 6.3.2.3.14	m	
6	DSC-ACK	[5] and [6] 6.3.2.3.15	m	
7	DSD-REQ (delete)	[5] and [6] 6.3.2.3.16	m	
8	DSD-RSP	[5] and [6] 6.3.2.3.17	m	
9	DSX-RVD (creation or change)	[5] and [6] 6.3.2.3.27	m	
Comments:				

Table A.237: BS receiving PDUs for service flows

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	DSA-REQ (create)	[5] and [6] 6.3.2.3.10	m	
2	DSA-RSP	[5] and [6] 6.3.2.3.11	m	
3	DSA-ACK	[5] and [6] 6.3.2.3.12	m	
4	DSC-REQ (change)	[5] and [6] 6.3.2.3.13	m	
5	DSC-RSP	[5] and [6] 6.3.2.3.14	m	
6	DSC-ACK	[5] and [6] 6.3.2.3.15	m	
7	DSD-REQ (delete)	[5] and [6] 6.3.2.3.16	m	
8	DSD-RSP	[5] and [6] 6.3.2.3.17	m	
Comments:				

Table A.238: MS sending PDUs for service flows

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	DSA-REQ (create)	[5] and [6] 6.3.2.3.10	m	
2	DSA-RSP	[5] and [6] 6.3.2.3.11	m	
3	DSA-ACK	[5] and [6] 6.3.2.3.12	m	
4	DSC-REQ (change)	[5] and [6] 6.3.2.3.13	m	
5	DSC-RSP	[5] and [6] 6.3.2.3.14	m	
6	DSC-ACK	[5] and [6] 6.3.2.3.15	m	
7	DSD-REQ (delete)	[5] and [6] 6.3.2.3.16	m	
8	DSD-RSP	[5] and [6] 6.3.2.3.17	m	
Comments:				

Table A.239: MS receiving PDUs for service flows

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	DSA-REQ (create)	[5] and [6] 6.3.2.3.10	m	
2	DSA-RSP	[5] and [6] 6.3.2.3.11	m	
3	DSA-ACK	[5] and [6] 6.3.2.3.12	m	
4	DSC-REQ (change)	[5] and [6] 6.3.2.3.13	m	
5	DSC-RSP	[5] and [6] 6.3.2.3.14	m	
6	DSC-ACK	[5] and [6] 6.3.2.3.15	m	
7	DSD-REQ (delete)	[5] and [6] 6.3.2.3.16	m	
8	DSD-RSP	[5] and [6] 6.3.2.3.17	m	
9	DSX-RVD (creation or change)	[5] and [6] 6.3.2.3.27	m	
Comments:				

A.6.1.3 PDUs for ARQ

Table A.240: BS sending PDUs for ARQ

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	ARQ-feedback	[5] and [6] 6.3.4	m	
2	ARQ-discard	[5] and [6] 6.3.4	m	
3	ARQ-reset	[5] and [6] 6.3.4	m	
Comments:				

Table A.241: BS receiving PDUs for ARQ

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	ARQ-feedback	[5] and [6] 6.3.4	m	
2	ARQ-discard	[5] and [6] 6.3.4	m	
3	ARQ-reset	[5] and [6] 6.3.4	m	
Comments:				

Table A.242: MS sending PDUs for ARQ

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	ARQ-feedback	[5] and [6] 6.3.4	m	
2	ARQ-discard	[5] and [6] 6.3.4	m	
3	ARQ-reset	[5] and [6] 6.3.4	m	
Comments:				

Table A.243: MS receiving PDUs for ARQ

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	ARQ-feedback	[5] and [6] 6.3.4	M	
2	ARQ-discard	[5] and [6] 6.3.4	M	
3	ARQ-reset	[5] and [6] 6.3.4	M	
Comments:				

A.6.1.4 PDUs for miscellaneous capabilities

Table A.244: BS sending MAC PDUs for miscellaneous capabilities

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	RES-CMD	[5] and [6] 6.3.2.3.22	o	
2	CLK-CMP	[5] and [6] 6.3.2.3.25	o	
3	DREG-CMD	[5] and [6] 6.3.2.3.26	m	
4	DSX-RVD	[5] and [6] 6.3.2.3.27	m	
5	REP-REQ	[5] and [6] 6.3.2.3.33	m	
6	FPC	[5] and [6] 6.3.2.3.34	o	
Comments:				

Table A.245: BS receiving MAC PDUs for miscellaneous capabilities

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	DREG-REQ	[5] and [6] 6.3.2.3.43	m	
2	REP-RSP	[5] and [6] 6.3.2.3.33	m	
Comments:				

Table A.246: MS sending MAC PDUs for miscellaneous capabilities

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	DREG-REQ	[5] 6.3.2.3.42 [6] 6.3.2.3.37	m	
2	REP-RSP	[5] and [6] 6.3.2.3.33	m	
Comments:				

Table A.247: MS receiving MAC PDUs for miscellaneous capabilities

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	RES-CMD	[5] and [6] 6.3.2.3.22	o	
2	CLK-CMP	[5] and [6] 6.3.2.3.25	o	
3	DREG-CMD	[5] and [6] 6.3.2.3.26	m	
4	DSX-RVD	[5] and [6] 6.3.2.3.27	m	
5	REP-REQ	[5] and [6] 6.3.2.3.33	m	
6	FPC	[5] and [6] 6.3.2.3.34	m	
Comments:				

A.6.1.5 PDUs for security

Table A.248: BS sending MAC security messages

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	PKM-RSP PKMv2-EAP-Transfer	[5] and [6] 6.3.2.3.9	m	
2	PKM-RSP PKMv2-SA-TEK-Challenge	[5] and [6] 6.3.2.3.9	m	
3	PKM-RSP PKMv2-SA-TEK-Response	[5] and [6] 6.3.2.3.9	m	
4	PKM-RSP PKMv2-Key-Response	[5] and [6] 6.3.2.3.9	m	
5	PKM-RSP PKMv2-Key-Reject	[5] and [6] 6.3.2.3.9	m	
6	PKM-RSP PKMv2-SA-Addition	[5] and [6] 6.3.2.3.9	m	
7	PKM-RSP PKMv2-TEK-Invalid	[5] and [6] 6.3.2.3.9	m	
Comments:				

**Table A.249: BS receiving MAC security messages
(Including some PKMv1 which is needed also for PKMv2)**

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	PKM-REQ PKMv2-EAP-Start	[5] and [6] 6.3.2.3.9	m	
2	PKM-REQ PKMv2-EAP-Transfer	[5] and [6] 6.3.2.3.9	m	
3	PKM-REQ PKMv2-SA-TEK-Request	[5] and [6] 6.3.2.3.9	m	
4	PKM-REQ PKMv2-Key-Request	[5] and [6] 6.3.2.3.9	m	
Comments:				

**Table A.250: MS sending MAC security messages
(Including some PKMv1 which is needed also for PKMv2)**

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	PKM-REQ PKMv2-EAP-Start	[5] and [6] 6.3.2.3.9	m	
2	PKM-REQ/RSP PKMv2-EAP-Transfer	[5] and [6] 6.3.2.3.9	m	
3	PKM-REQ PKMv2-SA-TEK-Request	[5] and [6] 6.3.2.3.9	m	
4	PKM-REQ PKMv2-Key-Request	[5] and [6] 6.3.2.3.9	m	
Comments:				

Table A.251: MS receiving MAC security messages

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	PKM-REQ/RSP PKMv2-EAP-Transfer	[5] and [6] 6.3.2.3.9	m	
2	PKM-RSP PKMv2-SA-TEK-Challenge	[5] and [6] 6.3.2.3.9	m	
3	PKM-RSP PKMv2-SA-TEK-Response	[5] and [6] 6.3.2.3.9	m	
4	PKM-RSP PKMv2-Key-Response	[5] and [6] 6.3.2.3.9	m	
5	PKM-RSP PKMv2-Key-Reject	[5] and [6] 6.3.2.3.9	m	
6	PKM-RSP PKMv2-SA-Addition	[5] and [6] 6.3.2.3.9	m	
7	PKM-RSP PKMv2-TEK-Invalid	[5] and [6] 6.3.2.3.9	m	
Comments:				

A.6.1.6 PDUs for Sleep Mode

Table A.252: BS sending MAC PDUs for Sleep Mode

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	MOB_SLP-RSP message	[5] 6.3.2.3.45 [6] 6.3.2.40	m	
2	MOB_TRF-IND message	[5] 6.3.2.3.46 [6] 6.3.2.3.41	m	
3	DL Sleep control extended subheader	[5] 6.3.21.2 6.3.21.3 6.3.21.4 6.3.2.2.7.2 [6] 6.3.20.2 6.3.20.3 6.3.20.4 6.3.2.2.7.2	m	
Comments:				

Table A.253: BS receiving MAC PDUs for Sleep mode

Item	Capability	Reference	Status	Support
1	MOB_SLP-REQ message	[5] 6.3.2.3.44 [6] 6.3.2.3.39	m	
2	Bandwidth request and uplink sleep control header	[5] and [6] 6.3.2.1.1, 6.3.2.1.2.1.6	m	
Comments:				

Table A.254: MS receiving MAC PDUs for Sleep Mode

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	MOB_SLP-RSP message	[5] and [6] 6.3.2.3.45	m	
2	MOB_TRF-IND message	[5] and [6] 6.3.2.3.46	m	
3	DL Sleep control extended subheader	[5] and [6] 6.3.21.2 6.3.21.3 6.3.21.4 6.3.2.2.7.2	m	
Comments:				

Table A.255: MS sending MAC PDUs for Sleep Mode

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	MOB_SLP-REQ message	[5] 6.3.2.3.44 [6] 6.3.2.3.39	m	
2	Bandwidth request and uplink sleep control header	[5] and [6] 6.3.2.1.2.1.6	m	
Comments:				

A.6.1.7 PDUs for Handover

Table A.256: BS sending MAC PDUs for Handover

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	MOB_SCN-RSP	[5] 6.3.2.3.49 [6] 6.3.2.3.44	m	
2	MOB_NBR-ADV	[5] 6.3.2.3.47 [6] 6.3.2.3.42	m	
3	MOB_BSHO-REQ (Mode = 0x0b000)	[5] 6.3.2.3.52 [6] 6.3.2.3.47	m	
4	MOB_BSHO-REQ (Mode = 0x0b001 to 0xb110)	[5] 6.3.2.3.52 [6] 6.3.2.3.47	o	
5	MOB_BSHO-RSP (Mode = 0x0b000)	[5] 6.3.2.3.54 [6] 6.3.2.3.49	m	
6	MOB_BSHO-RSP (Mode = 0x0b001 to 0xb110)	[5] 6.3.2.3.54 [6] 6.3.2.3.49	o	
7	MOB_BSHO-RSP (Mode = 0b111)	[5] 6.3.2.3.54 [6] 6.3.2.3.49	o	
Comments:				

Table A.257: BS receiving MAC PDUs for Handover

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	MOB_SCN-REQ	[5] 6.3.2.3.48 [6] 6.3.2.3.43	m	
2	MOB_SCN-REP	[5] 6.3.2.3.50 [6] 6.3.2.3.45	m	
3	MOB_MSHO-REQ (Arrival Time Difference Indication = 0)	[5] 6.3.2.3.53 [6] 6.3.2.3.48	m	
4	MOB_MSHO-REQ (Arrival Time Difference Indication = 1)	[5] 6.3.2.3.53 [6] 6.3.2.3.48	o	
5	MOB_HO-IND(Mode = 0b00)	[5] 6.3.2.3.55 [6] 6.3.2.3.50	m	
6	MOB_HO-IND(Mode = 0b01 or 0b10)	[5] 6.3.2.3.55 [6] 6.3.2.3.50	o	
Comments:				

Table A.258: MS sending MAC PDUs for Handover

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	MOB_SCN-REQ	[5] 6.3.2.3.48 [6] 6.3.2.3.43	m	
2	MOB_SCN-REP	[5] 6.3.2.3.50 [6] 6.3.2.3.45	m	
3	MOB_MSHO-REQ (Arrival Time Difference Indication = 0)	[5] 6.3.2.3.53 [6] 6.3.2.3.48	m	
4	MOB_MSHO-REQ (Arrival Time Difference Indication = 1)	[5] 6.3.2.3.53 [6] 6.3.2.3.48	o	
5	MOB_HO-IND (Mode = 0b00)	[5] 6.3.2.3.55 [6] 6.3.2.3.50	m	
6	MOB_HO-IND (Mode = 0b01 or 0b10)	[5] 6.3.2.3.55 [6] 6.3.2.3.50	o	
Comments:				

Table A.259: MS receiving MAC PDUs for Handover

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	MOB_SCN-RSP	[5] 6.3.2.3.49 [6] 6.3.2.3.44	M	
2	MOB_NBR-ADV	[5] 6.3.2.3.47 [6] 6.3.2.3.42	M	
3	MOB_BSHO-REQ (Mode = 0x0b000)	[5] 6.3.2.3.52 [6] 6.3.2.3.47	M	
4	MOB_BSHO-REQ (Mode = 0x0b001 to 0xb110)	[5] 6.3.2.3.52 [6] 6.3.2.3.47	O	
5	MOB_BSHO-RSP (Mode = 0x0b000)	[5] 6.3.2.3.54 [6] 6.3.2.3.49	M	
6	MOB_BSHO-RSP (Mode = 0x0b001 to 0xb110)	[5] 6.3.2.3.54 [6] 6.3.2.3.49	O	
7	MOB_BSHO-RSP (Mode = 0xb111)	[5] 6.3.2.3.54 [6] 6.3.2.3.49	O	
Comments:				

A.6.1.8 PDUs for Idle mode

Table A.260: MS sending MAC PDUs for Idle Mode

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	DREG-REQ	[5] 6.3.2.3.42 [6] 6.3.2.3.37	m	
Comments:				

Table A.261: MS receiving MAC PDUs for Idle Mode

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	DREG-CMD	[5] and [6] 6.3.2.3.26	m	
2	MOB_PAG-ADV	[5] 6.3.2.3.56 [6] 6.3.2.3.51	m	
Comments:				

Table A.262: BS sending MAC PDUs for Idle Mode

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	DREG-CMD	[5] and [6] 6.3.2.3.26	m	
2	MOB_PAG-ADV	[[5] and [6] 6.3.2.3.26	m	
Comments:				

Table A.263: BS receiving MAC PDUs for Idle Mode

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	DREG-REQ	[5] 6.3.2.3.42 [6] 6.3.2.3.37	m	
Comments:				

A.6.1.9 PDUs for Feedback

Table A.264: MS sending MAC PDUs for Feedback

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	Feedback header	[5] and [6] 6.3.2.1.2.2.1	m	
2	Bandwidth request and UL Tx Power Report	[5] and [6] 6.3.2.1.2.1.2	m	
3	SN report header	[5] and [6] 6.3.2.1.2.1.7	m	
Comments:				

Table A.265: BS receiving MAC PDUs for Feedback

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	Feedback header	[5] and [6] 6.3.2.1.2.2.1	m	
2	Bandwidth request and UL Tx Power Report	[5] and [6] 6.3.2.1.2.1.2	m	
3	SN report header	[5] and [6] 6.3.2.1.2.1.7	m	
Comments:				

Table A.266: BS sending MAC PDUs for Feedback

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	SN request extended subheader	[5] and [6] 6.3.2.2.7.7	o	
Comments:				

Table A.267: MS receiving MAC PDUs for Feedback

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	SN request extended subheader	[5] and [6] 6.3.2.2.7.7	o	
Comments:				

A.6.1.10 PDUs and MAP IEs for Power Control

Table A.268: BS sending MAC PDUs and MAP IEs for Power Control

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	RNG_RSP message	[5] and [6] 8.4.10.3.1 and 11.6	m	
2	PMC_RSP message	[5] and [6] 8.4.10.3.2 and 6.3.2.3.59	m	
3	REP_REQ message	[5] and [6] 8.4.10.3 and 6.3.2.3.33	o	
4	Fast power control message	[5] and [6] 8.4.10.3 and 6.3.2.3.34	o	
5	power control IE	[5] and [6] 8.4.10.3 and 8.4.5.4.5	m	
6	UL interference and noise level IE	[5] and [6] 8.4.10.3 and 8.4.5.3.19	m	
7	Tx power report TLV in UCD	[5] and [6] 11.3.1	m	
8	Normalized C/N override 2 TLV in UCD	[5] and [6] 11.3.1	m	
9	Normalized C/N for Channel Sounding TLV in UCD	[5] and [6] 11.3.1	IO-BF	
10	OFDMA uplink power control support TLVs in SBC-RSP	[5] and [6] 11.8.3.7.11	m	
11	BS_EIRP TLV in DCD	[5] and [6] 6.3.9.5.1 and 11.4.1	m	
12	EIRxPIR,max TLV in DCD	[5] and [6] 6.3.9.5.1 and 11.4.1	m	
NOTE: PDU of Item 3 is only applicable to closed loop power control.				
Comments:				

Table A.269: BS receiving MAC PDUs and MAP IEs for Power Control

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	PMC_REQ message	[5] 8.4.10.3.2 and 6.3.2.3.58 [6] 8.4.10.3.2, 6.3.2.3.53	m	
2	REP_RSP message	[5] 8.4.10.3 and 6.3.2.3.33 [6] 8.4.10.3, 6.3.2.3.33	o	
3	Maximum transmit power TLV in SBC-REQ	[5] and [6] 11.8.3.2	m	
4	OFDMA uplink power control support TLVs in SBC-REQ	[5] 11.8.3.7.11 [6] 11.8.3.5.9	m	
5	Bandwidth request and UL Tx power report header	[5] and [6] 6.3.2.1.2.1.2	m	
NOTE: PDU of Item 2 is only applicable to closed loop power control.				
Comments:				

Table A.270: MS sending MAC PDUs and MAP IEs for Power Control

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	PMC_REQ message	[5] 8.4.10.3.2 and 6.3.2.3.58 [6] 8.4.10.3.2, 6.3.2.3.53	m	
2	REP_RSP message	[5] 8.4.10.3 and 6.3.2.3.33 [6] 8.4.10.3, 6.3.2.3.33	m	
3	Maximum transmit power TLV in SBC-REQ	[5] and [6] 11.8.3.2	m	
4	OFDMA uplink power control support TLVs in SBC-REQ	[5] 11.8.3.7.11 [6] 11.8.3.5.9	m	
5	Bandwidth request and UL Tx power report header	[5] and [6] 6.3.2.1.2.1.2	m	
NOTE: PDU of Item 2 is only applicable to closed loop power control.				
Comments: Message of Item 2 is mandatory as a response to REP-REQ.				

Table A.271: MS receiving MAC PDUs and MAP IEs for Power Control

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	RNG_RSP message	[5] and [6] 8.4.10.3.1 and 11.6	m	
2	PMC_RSP message	[5] 8.4.10.3.2 and 6.3.2.3.59 [6] 8.4.10.3.2, 6.3.2.3.54	m	
3	REP_REQ message	[5] and [6] 8.4.10.3 and 6.3.2.3.33	m	
4	Fast power control message	[5] and [6] 8.4.10.3 and 6.3.2.3.34	m	
5	power control IE	[5] and [6] 8.4.10.3 and 8.4.5.4.5	m	
6	UL interference and noise level IE	[5] and [6] 8.4.10.3 and 8.4.5.3.19	m	
7	Tx power report TLV in UCD	[5] and [6] 11.3.1	m	
8	Normalized C/N override 2 TLV in UCD	[5] and [6] 11.3.1	m	
9	Normalized C/N for Channel Sounding TLV in UCD	[5] and [6] 11.3.1	m	
10	OFDMA uplink power control support TLVs in SBC-RSP	[5] 11.8.3.7.11 [6] 11.8.3.5.9	m	
11	BS_EIRP TLV in DCD	[5] and [6] 6.3.9.5.1 and 11.4.1	m	
12	EIRxPIR,max TLV in DCD	[5] and [6] 6.3.9.5.1 and 11.4.1	m	
NOTE: PDU of Item 3 is only applicable to closed loop power control.				
Comments:				

A.6.1.11 PDUs for band AMC

Table A.272: BS sending MAC PDUs for band AMC

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	REP_REQ message (Channel Type Request : Type=1.3, Value = 0b01)	[5] 6.3.2.3.33, 6.3.19, 8.4.6.3.2 and 11.11 [6] 6.3.2.3.33, 6.3.18, 8.4.6.3.2 and 11.11	m	
Comments:				

Table A.273: BS receiving MAC PDUs for band AMC

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	REP_RSP message (Enhanced Band-AMC report: Type=2.4)	[5] 6.3.2.3.33, 6.3.19, 8.4.6.3.2 and 11.12 [6] 6.3.2.3.33, 6.3.18, 8.4.6.3.2 and 11.12	m	
Comments: The CINR shall be measured from the preamble.				

Table A.274: MS sending MAC PDUs for band AMC

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	REP_RSP message (Enhanced Band-AMC report: Type=2.4)	[5] 6.3.2.3.33, 6.3.19, 8.4.6.3.2 and 11.12 [6] 6.3.2.3.33, 6.3.18, 8.4.6.3.2 and 11.12	m	
Comments:				

Table A.275: MS receiving MAC PDUs for band AMC

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	REP_REQ message (Channel Type Request : Type=1.3, Value = 0b01)	[5] 6.3.2.3.33, 6.3.19, 8.4.6.3.2 and 11.11 [6] 6.3.2.3.33, 6.3.18, 8.4.6.3.2 and 11.11	m	
Comments: The CINR shall be measured from the preamble.				

A.6.2 MAP IEs

Table A.276: BS sending MAP IEs for DL

Base Station (BS)				
Item	Capabilities	Reference	Status	Support
1	DL-MAP IE (DIUC 0 ~ 12)	[5] and [6] 8.4.5.3	m	
2	DL-MAP IE (DIUC 15: Extended DIUC- General)	[5] and [6] 8.4.5.3	m	
3	DL-MAP IE (DIUC 14: Extended2 DIUC- General)	[5] and [6] 8.4.5.3	m	
4	Space-Time Coding (STC)/Zone switch IE	[5] and [6] 8.4.5.3.4	m	
5	CID Switch IE	[5] and [6] 8.4.5.3.7	m	
6	MIMO DL Basic IE	[5] and [6] 8.4.5.3.8	IO-MIMO	
7	HARQ and Sub-MAP pointer IE	[5] and [6] 8.4.5.3.10	m	
8	MBS MAP IE	[5] and [6] 8.4.5.3.12	IO-MBS	
9	MBS Data IE	[5] and [6] 6.3.2.3.57	IO-MBS	
10	UL Interference and Noise Level IE	[5] and [6] 8.4.5.3.19	m	
11	RCID IE	[5] and [6] 8.4.5.3.20.1	m	
12	HARQ DL-MAP IE	[5] and [6] 8.4.5.3.21	m	
13	DL HARQ Chase sub-burst IE	[5] and [6] 8.4.5.3.21	m	
14	MIMO DL Chase HARQ sub-burst IE	[5] and [6] 8.4.5.3.21	IO-MIMO	
15	Dedicated MIMO DL Control IE	[5] and [6] 8.4.5.3.21.1	IO-MIMO	
16	Broadcast Control Pointer IE	[5] and [6] 8.4.5.3.25	m	
NOTE 1: There can be two PUSC MIMO zones 1st with broadcasted pilots and 2 nd with dedicated pilots.				
NOTE 2: Beamforming to multiple users with different pilot patterns is not supported.				
Comments: With respect to item 16:				
<ul style="list-style-type: none"> • Limit "Control header" = "0b001 or 0b011" for MIMO information and possible CQI information (no closed loop MIMO). • Limit "N_Layers" = 0b00 for single layer. • If dedicated pilots are used for decoding [i.e. "Dedicated pilots" = 1] limit Num_beamformed_streams = 1, combination of MIMO and BF. 				

Table A.277: BS sending MAP IEs for UL

Base Station (BS)				
Item	Capability	Reference	Status	Support
1	UL-MAP IE (UIUC 1 ~ 10)	[5] and [6] 8.4.5.4	m	
2	UL-MAP IE (UIUC 0: Fast Feedback Channel == FAST-FEEDBACK allocation IE)	[5] and [6] 8.4.5.4, 8.4.5.4.1 8.4.5.4.9	m	
3	UL-MAP IE (UIUC 12: CDMA Bandwidth Request/CDMA Ranging)	[5] and [6] 8.4.5.4, 8.4.5.4.1	m	
4	UL-MAP IE (UIUC 13: PAPR reduction and safety zone allocation)	[5] and [6] 8.4.5.4, 8.4.5.4.2	IO-BF	
5	UL-MAP IE (UIUC 14: CDMA allocation IE)	[5] and [6] 8.4.5.4, 8.4.5.4.3	m	
6	UL-MAP IE (UIUC 15: Extended UIUC- General)	[5] and [6] 8.4.5.4, 8.4.5.4.3	m	
7	UL-MAP IE (UIUC 11: Extended UIUC2- General)	[5] and [6] 8.4.5.4, 8.4.5.4.3	m	
8	Power Control IE	[5] and [6] 8.4.5.4.5	m	
9	UL Zone switch IE	[5] and [6] 8.4.5.4.7	m	
10	MIMO UL Basic IE	[5] and [6] 8.4.5.4.11	IO-MIMO	
11	CQICH Allocation IE	[5] and [6] 8.4.5.4.12	m	
12	UL allocation start IE	[5] and [6] 8.4.5.4.15	m	
13	Fast Ranging IE	[5] and [6] 8.4.5.4.21	m	
14	HARQ UL-MAP IE	[5] and [6] 8.4.5.4.24	m	
15	UL HARQ Chase sub-burst IE	[5] and [6] 8.4.5.4.24	m	
16	MIMO UL Chase HARQ sub-burst IE	[5] and [6] 8.4.5.4.24	IO-MIMO	
17	Dedicated UL control IE	[5] and [6] 8.4.5.4.24.1	o	
18	HARQ ACKCH region allocation IE	[5] and [6] 8.4.5.4.25 and 8.4.5.4.13	m	
19	UL Sounding Command IE	[5] and [6] 8.4.5.4.26	IO-BF	
20	Feedback polling IE	[5] and [6] 8.4.5.4.28	m	

Comments: Applicable to item 17:

- Limited to "Num SDMA layers" = 0b01 to represent 2 layer Collaborative SM, and "Pilot pattern" =0b00 or 0b01, for pattern A or B.

Table A.278: MS receiving MAP IEs for DL

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	DL-MAP IE (DIUC 0 ~ 12)	[5] and [6] 8.4.5.3	m	
2	DL-MAP IE (DIUC 15: Extended DIUC- General)	[5] and [6] 8.4.5.3	m	
3	DL-MAP IE (DIUC 14: Extended2 DIUC- General)	[5] and [6] 8.4.5.3	m	
4	Space-Time Coding (STC)/Zone switch IE	[5] and [6] 8.4.5.3.4	m	
5	CID Switch IE	[5] and [6] 8.4.5.3.7	m	
6	MIMO DL Basic IE	[5] and [6] 8.4.5.3.8	m	
7	HARQ and Sub-MAP pointer IE	[5] and [6] 8.4.5.3.10	m	
8	MBS MAP IE	[5] and [6] 8.4.5.3.12	m	
9	MBS Data IE	[5] and [6] 6.3.2.3.57	m	
10	UL Interference and Noise Level IE	[5] and [6] 8.4.5.3.19	m	
11	RCID IE	[5] and [6] 8.4.5.3.20.1	m	
12	HARQ DL-MAP IE	[5] and [6] 8.4.5.3.21	m	
13	DL HARQ Chase sub-burst IE	[5] and [6] 8.4.5.3.21	m	
14	MIMO DL Chase HARQ sub-burst IE	[5] and [6] 8.4.5.3.21	m	
15	Dedicated MIMO DL Control IE	[5] and [6] 8.4.5.3.21.1	m	
16	Broadcast Control Pointer IE	[5] and [6] 8.4.5.3.25	m	
NOTE 1: There can be two PUSC MIMO zones, 1st with broadcasted pilots and 2 nd with dedicated pilots.				
NOTE 2: Beamforming to multiple users with different pilot patterns is not supported.				
Comments: With respect to item 15:				
<ul style="list-style-type: none"> • Limit "Control header" = "0b001 or 0b011" for MIMO information and possible CQI information (no closed loop MIMO). • Limit "N_Layers" = 0b00 for single layer. • If dedicated pilots are used for decoding [i.e. "Dedicated pilots" = 1] limit Num_beamformed_streams = 1, combination of MIMO and BF. 				

Table A.279: MS receiving MAP IEs for UL

Mobile Station (MS)				
Item	Capability	Reference	Status	Support
1	UL-MAP IE (UIUC 1 ~ 10)	[5] and [6] 8.4.5.4	m	
2	UL-MAP IE (UIUC 0: Fast Feedback Channel == FAST-FEEDBACK allocation IE)	[5] and [6] 8.4.5.4, 8.4.5.4.1 8.4.5.4.9	m	
3	UL-MAP IE (UIUC 12: CDMA Bandwidth Request/CDMA Ranging)	[5] and [6] 8.4.5.4, 8.4.5.4.1	m	
4	UL-MAP IE (UIUC 13: PAPR reduction and safety zone allocation)	[5] and [6] 8.4.5.4, 8.4.5.4.2	m	
5	UL-MAP IE (UIUC 14: CDMA allocation IE)	[5] and [6] 8.4.5.4, 8.4.5.4.3	m	
6	UL-MAP IE (UIUC 15: Extended UIUC- General)	[5] and [6] 8.4.5.4, 8.4.5.4.3	m	
7	UL-MAP IE (UIUC 11: Extended UIUC2- General)	[5] and [6] 8.4.5.4, 8.4.5.4.3	m	
8	Power Control IE	[5] and [6] 8.4.5.4.5	m	
9	UL Zone switch IE	[5] and [6] 8.4.5.4.7	m	
10	MIMO UL Basic IE	[5] and [6] 8.4.5.4.11	m	
11	CQICH Allocation IE	[5] and [6] 8.4.5.4.12	m	
12	UL allocation start IE	[5] and [6] 8.4.5.4.15	m	
13	Fast Ranging IE	[5] and [6] 8.4.5.4.21	m	
14	HARQ UL-MAP IE	[5] and [6] 8.4.5.4.24	m	
15	UL HARQ Chase sub-burst IE	[5] and [6] 8.4.5.4.24	m	
16	MIMO UL Chase HARQ sub-burst IE	[5] and [6] 8.4.5.4.24	m	
17	Dedicated UL control IE	[5] and [6] 8.4.5.4.24.1	m	
18	HARQ ACKCH region allocation IE	[5] and [6] 8.4.5.4.25	m	
19	UL Sounding Command IE	[5] and [6] 8.4.5.4.26	m	
20	Feedback polling IE	[5] and [6] 8.4.5.4.28	m	

Comments: Item 17 is limited to "Num SDMA layers" = 0b01 to represent 2 layer Collaborative SM, and "Pilot pattern" = 0b00 or 0b01, for pattern A or B.

A.7 PDU fields

A.7.1 Fields of PDUs for MAC layer

A.7.1.1 DL-MAP

Table A.280: PDU: DL-MAP

Item	Capability	Reference	Status	Support
1	Management Message type=2	[5] and [6] 6.3.2.3.2	m	
2	DCD count	[5] and [6] 6.3.2.3.2	m	
3	Base station ID	[5] and [6] 6.3.2.3.2	m	
4	PHY Synchronization Field	[5] and [6] 6.3.2.3.2	m	
Comments:				

Table A.281: PDU: Sub downlink/uplink map

Item	Capability	Reference	Status	Support
1	Compressed Map Indicator	[5] 6.3.2.3.60 [6] 6.3.2.3.55	m	
2	Map message length	[5] 6.3.2.3.60 [6] 6.3.2.3.55	m	
3	RCID_type	[5] 6.3.2.3.60 [6] 6.3.2.3.55	m	
4	HARQ ACK offset indicator	[5] 6.3.2.3.60 [6] 6.3.2.3.55	m	
5	DL HARQ AK offset	[5] 6.3.2.3.60 [6] 6.3.2.3.55	m	
6	UL HARQ ACK offset	[5] 6.3.2.3.60 [6] 6.3.2.3.55	m	
7	DL IE Count	[5] 6.3.2.3.60 [6] 6.3.2.3.55	m	
8	DL_MAP information elements	[5] 6.3.2.3.60 [6] 6.3.2.3.55	m	
9	OFDMA Symbol Offset	[5] 6.3.2.3.60 [6] 6.3.2.3.55	m	
10	Subchannel offset	[5] 6.3.2.3.60 [6] 6.3.2.3.55	m	
11	UL_MAP information elements	[5] 6.3.2.3.60 [6] 6.3.2.3.55	m	
Comments:				

Table A.282: PDU: Common Part of DL-MAP Information Elements

Item	Capability	Reference	Status	Support
1	CID only if INC_CID = 1	[5] and [6] 8.4.5.3	m	
2	DIUC	[5] and [6] 8.4.5.3	m	
3	N_CID only if INC_CID = 1	[5] and [6] 8.4.5.3	m	
4	RCID_IE if included in SUB-DL-UL-MAP	[5] and [6] 8.4.5.3	m	
Comments:				

Table A.283: PDU: Common Part of Extended DIUC

Item	Capability	Reference	Status	Support
1	Extended DIUC	[5] and [6] 8.4.5.3.1	m	
2	Length	[5] and [6] 8.4.5.3.1	m	
3	Unspecified data	[5] and [6] 8.4.5.3.1	m	

Comments:

Table A.284: PDU: Common Part of Extended-2 DIUC

Item	Capability	Reference	Status	Support
1	Extended-2 DIUC	[5] and [6] 8.4.5.3.2	m	
2	Length	[5] and [6] 8.4.5.3.2	m	
3	Unspecified data	[5] and [6] 8.4.5.3.2	m	

Comments:

A.7.1.2 DCD

Table A.285: PDU : DCD

Item	Capability	Reference	Status	Support
1	Management Message type=1	[5] and [6] 6.3.2.3.1	m	
2	Reserved (See Comments)	[5] and [6] 6.3.2.3.1	m	
3	Configuration Change count	[5] and [6] 6.3.2.3.1	m	

Comments:
Reserved bits shall be set to zero.

Table A.286: DCD TLV

Item	Capability	Reference	Status	Support
1	Frequency	[5] and [6] 11.4.1	m	
2	BS Id	[5] and [6] 11.4.1	m	
3	MAC version	[5] and [6] 11.4.1	m	
4	BS EIRP	[5] and [6] 11.4.1	m	
5	TTG	[5] and [6] 11.4.1	m	
6	RTG	[5] and [6] 11.4.1	m	
7	EIRxP _{IR,max}	[5] and [6] 11.4.1	m	
8	HO Type Support	[5] and [6] 11.4.1	m	
9	Paging Group ID	[5] and [6] 11.4.1	m	
10	Trigger, Compound TLV see next Trigger TLV	[5] and [6] 11.4.1	m	
11	BS Restart Count	[5] and [6] 11.4.1	m	
12	Default RSSI and CINR averaging parameter	[5] and [6] 11.4.1	m	
13	DL AMC Allocated Physical Bands Bitmap	[5] and [6] 11.4.1	m	
14	OFDMA Downlink_Burst_Profile	[5] and [6] 8.4.5.5	m	
15	Hysteresis margin	[5] and [6] 11.4.1	m	
16	Time to trigger duration	[5] and [6] 11.4.1	m	
17	MBS zone identifier list	[5] and [6] 11.4.1	IO-MBS	

Comments:

Table A.287: OFDMA Downlink_ Burst_Profile

Item	Capability	Reference	Status	Support
1	Type = 1	[5] and [6] 8.4.5.5, 11.4.2	m	
2	Length	[5] and [6] 8.4.5.5, 11.4.2	m	
3	Reserved (See Comments)	[5] and [6] 8.4.5.5, 11.4.2	m	
4	DIUC	[5] and [6] 8.4.5.5, 11.4.2	m	
5	FEC Code Type	[5] and [6] 11.4.2	m	
Comments: Reserved bits shall be set to zero.				

Table A.288: Trigger TLV

Item	Capability	Reference	Status	Support
1	Type/Function/Action	[5] and [6] 11.4.1	m	
2	Trigger Value	[5] and [6] 11.4.1	m	
3	Trigger Averaging Duration	[5] and [6] 11.4.1	m	
Comments:				

Table A.289: Type/Function/Action Description

Item	Capability	Reference	Status	Support
1	Type	[5] and [6] 11.4.1	m	
2	Function	[5] and [6] 11.4.1	m	
3	Action	[5] and [6] 11.4.1	m	
Comments:				

A.7.1.3 UCD

Table A.290: PDU: UCD

Item	Capability	Reference	Status	Support
1	Management Message type=0	[5] and [6] 6.3.2.3.3		
2	Configuration Change count	[5] and [6] 6.3.2.3.3		
3	Ranging backoff start	[5] and [6] 6.3.2.3.3		
4	Ranging backoff End	[5] and [6] 6.3.2.3.3		
5	Request backoff start	[5] and [6] 6.3.2.3.3		
6	Request backoff End	[5] and [6] 6.3.2.3.3		
Comments:				

Table A.291: UCD TLV

Item	Capability	Reference	Status	Support
1	Frequency	[5] and [6] 11.3.1	m	
2	Contention-based Reservation Timeout	[5] and [6] 11.3.1	m	
3	Start of Ranging Codes Group	[5] and [6] 11.3.1	m	
4	Band AMC Allocation Threshold	[5] and [6] 11.3.1	m	
5	Band AMC Release Threshold	[5] and [6] 11.3.1	m	
6	Band AMC Allocation Timer	[5] and [6] 11.3.1	m	
7	Band AMC Release Timer	[5] and [6] 11.3.1	m	
8	Band Status Reporting Max Period	[5] and [6] 11.3.1	m	
9	Band AMC Retry Timer	[5] and [6] 11.3.1	m	
10	Normalized C/N Override-2	[5] and [6] 11.3.1	m	
11	Handover Ranging Codes	[5] and [6] 11.3.1	m	
12	Initial Ranging Codes	[5] and [6] 11.3.1	m	
13	Initial Ranging interval	[5] and [6] 11.3.1	m	
14	Tx Power Report	[5] and [6] 11.3.1	m	
15	Normalized C/N for Channel Sounding	[5] and [6] 11.3.1	IO-BF	
16	Initial Ranging backoff start	[5] and [6] 11.3.1	m	
17	Initial Ranging backoff end	[5] and [6] 11.3.1	m	
18	Bandwidth request backoff start	[5] and [6] 11.3.1	m	
19	Bandwidth request backoff end	[5] and [6] 11.3.1	m	
20	Permutation Base	[5] and [6] 11.3.1	m	
21	UL allocated subchannels bitmap	[5] and [6] 11.3.1	m	
22	HARQ Ack Delay for DL burst	[5] and [6] 11.3.1	m	
23	UL AMC allocated physical bands bitmap	[5] and [6] 11.3.1	m	
24	Size of CQICH-ID field	[5] and [6] 11.3.1	m	
25	Band-AMC entry average CINR	[5] and [6] 11.3.1	m	
26	HO_ranging_start	[5] and [6] 11.3.1	m	
27	HO_ranging_end	[5] and [6] 11.3.1	m	
28	Periodic Ranging Codes	[5] and [6] 11.3.1	m	
29	Bandwidth Request Codes	[5] and [6] 11.3.1	m	
30	Periodic Ranging Backoff Start	[5] and [6] 11.3.1	m	
31	Periodic Ranging Backoff End	[5] and [6] 11.3.1	m	
32	CQICH Band AMC Transition Delay	[5] and [6] 11.3.1	m	
33	OFDMA Uplink_Burst_Profile	[5] and [6] 8.4.5.5	m	
34	Ranging Region	[5] and [6] 11.3.1	m	
35	FastFeedback Region	[5] and [6] 11.3.1	m	
36	HARQ Ack Region	[5] and [6] 11.3.1	m	
37	Sounding Region	[5] and [6] 11.3.1	IO-BF	
38	UL PUSC Subchannel Rotation	[5] and [6] 11.3.1	IO-BF	
39	MS Maximum Transmission Power Limitation Control	[5] and [6] 11.3.1	o	
Comments:				

Table A.292: OFDMA Uplink_Burst_Profile

Item	Capability	Reference	Status	Support
1	Type = 1	[5] and [6] 8.4.5.5	m	
2	Length	[5] and [6] 8.4.5.5	m	
3	Reserved (See Comments)	[5] and [6] 8.4.5.5	m	
4	UIUC	[5] and [6] 8.4.5.5	m	
5	FEC Code Type and Modulation Type	[5] and [6] 11.3.1.1	m	
Comments: Reserved bits shall be set to zero.				

A.7.1.4 UL-MAP

Table A.293: PDU: UL-MAP

Item	Capability	Reference	Status	Support
1	Management Message type=3	[5] and [6] 6.3.2.3.4	m	
2	Reserved (See Comments)	[5] and [6] 6.3.2.3.4	m	
3	UCD count	[5] and [6] 6.3.2.3.4	m	
4	Allocation start time	[5] and [6] 6.3.2.3.4	m	
Comments: Reserved bits shall be set to zero.				

Table A.294: UL-MAP Information Element(s)

Item	Capability	Reference	Status	Support
1	CID	[5] and [6] 8.4.5.4	m	
2	UIUC	[5] and [6] 8.4.5.4	m	
3	Duration	[5] and [6] 8.4.5.4	m	
4	OFDMA Symbol Offset if UIUC = 12	[5] and [6] 8.4.5.4	m	
5	Subchannel offset if UIUC = 12	[5] and [6] 8.4.5.4	m	
6	No. of OFDMA symbols if UIUC = 12	[5] and [6] 8.4.5.4	m	
7	No. subchannels if UIUC = 12	[5] and [6] 8.4.5.4	m	
8	Ranging method if UIUC = 12	[5] and [6] 8.4.5.4	m	
9	BS Sending of UL-MAP IE (UIUC = 12) with dedicated ranging indicator	[5] and [6] 8.4.5.4	o	
10	MS Receiving of UL-MAP IE (UIUC = 12) with dedicated ranging indicator	[5] and [6] 8.4.5.4	o	
11	Repetition coding indication	[5] and [6] 8.4.5.4	m	
12	Slot Offset if AAS or AMC UL Zone	[5] and [6] 8.4.5.4	m	
13	Padding nibble, if needed	[5] and [6] 8.4.5.4	m	
Comments:				

Table A.295: Extended UIUC dependent IE

Item	Capability	Reference	Status	Support
1	Extended UIUC	[5] and [6] 8.4.5.4.4.1	m	
2	Length	[5] and [6] 8.4.5.4.4.1	m	
3	Unspecified data	[5] and [6] 8.4.5.4.4.1	m	
Comments:				

Table A.296: Extended-2 UIUC dependent IE

Item	Capability	Reference	Status	Support
1	Extended-2 UIUC	[5] and [6] 8.4.5.4.4.2	m	
2	Length	[5] and [6] 8.4.5.4.4.2	m	
3	Unspecified data	[5] and [6] 8.4.5.4.4.2	m	
Comments:				

Table A.297: PAPR reduction, safety zone and sounding zone IE

Item	Capability	Reference	Status	Support
1	OFDMA symbol offset	[5] and [6] 8.4.5.4.2	IO-BF M for MS	
2	Subchannel offset	[5] and [6] 8.4.5.4.2	IO-BF M for MS	
3	No. OFDMA symbols	[5] and [6] 8.4.5.4.2	IO-BF M for MS	
4	No. subchannels	[5] and [6] 8.4.5.4.2	IO-BF M for MS	
5	PAPR Reduction/Safety zone	[5] and [6] 8.4.5.4.2	IO-BF M for MS	
6	Reserved	[5] and [6] 8.4.5.4.2	IO-BF M for MS	
7	Sounding Zone	[5] and [6] 8.4.5.4.2	IO-BF M for MS	
Comments:				

Table A.298: CDMA Allocation IE

Item	Capability	Reference	Status	Support
1	Duration	[5] and [6] 8.4.5.4.3	m	
2	UIUC	[5] and [6] 8.4.5.4.3	m	
3	Repetition Coding Indication	[5] and [6] 8.4.5.4.3	m	
4	Frame Number Index	[5] and [6] 8.4.5.4.3	m	
5	Ranging Code	[5] and [6] 8.4.5.4.3	m	
6	Ranging Symbol	[5] and [6] 8.4.5.4.3	m	
7	Ranging subchannel	[5] and [6] 8.4.5.4.3	m	
8	BW request mandatory	[5] and [6] 8.4.5.4.3	m	
Comments:				

Table A.299: Fast Feedback alloc IE

Item	Capability	Reference	Status	Support
1	OFDMA symbol offset	[5] and [6] 8.4.5.4.9	m	
2	Subchannel offset	[5] and [6] 8.4.5.4.9	m	
3	No. OFDMA symbols	[5] and [6] 8.4.5.4.9	m	
4	No subchannels	[5] and [6] 8.4.5.4.9	m	
5	reserved	[5] and [6] 8.4.5.4.9	m	

Comments:

A.7.1.5 RNG-REQ and RNG-RSP

Table A.300: PDU: RNG-REQ

Item	Capability	Reference	Status	Support
1	Management Message type=4	[5] and [6] 6.3.2.3.5	m	
2	Reserved (See Comments)	[5] and [6] 6.3.2.3.5	m	

Comments:
Reserved bits shall be set to zero.

Table A.301: RNG-REQ TLV

Item	Capability	Reference	Status	Support
1	Requested Downlink Burst profile	[5] and [6] 6.3.2.3.5, 11.5	m	
2	SS MAC address	[5] and [6] 6.3.2.3.5, 11.5	m	
3	MAC version	[5] and [6] 6.3.2.3.5, 11.5	m	
4	Serving BS ID	[5] and [6] 11.5	m	
5	HO ID	[5] and [6] 11.5	m	
6	Paging Controller ID	[5] and [6] 11.1.9.2	m	
7	Power_Down_Indicator	[5] and [6] 11.5	m	
8	Enabled_Action-Triggered	[5] and [6] 11.1.8.1	o	
9	Requested downlink repetition coding level	[5] and [6] 11.5	m	
10	Ranging Purpose Indication	[5] and [6] 11.5	m	
11	CMAC Tuple	[5] and [6] 11.1.2.2	m	

Comments:

Table A.302: PDU : RNG-RSP

Item	Capability	Reference	Status	Support
1	Management Message type=5	[5] and [6] 6.3.2.3.6	m	
2	Reserved (See Comments)	[5] and [6] 6.3.2.3.6	m	

Comments:
Reserved bits shall be set to zero.

Table A.303: RNG-RSP TLV

Item	Capability	Reference	Status	Support
1	Timing Adjust Information	[5] and [6] 6.3.2.3.6, 11.6	m	
2	Power Adjust Information	[5] and [6] 6.3.2.3.6, 11.6	m	
3	Ranging Status	[5] and [6] 6.3.2.3.6, 11.6	m	
4	DL Frequency Override	[5] and [6] 6.3.2.3.6, 11.6	m	
5	Basic CID	[5] and [6] 6.3.2.3.6, 11.6	m	
6	Primary Management CID	[5] and [6] 6.3.2.3.6, 11.6	m	
7	SS MAC Address	[5] and [6] 6.3.2.3.6, 11.6	m	
8	Ranging code attributes	[5] and [6] 6.3.2.3.6, 11.6	m	
9	CID_update	[5] and [6] 11.6	m	
10	Offset Frequency_Adjust	[5] and [6] 11.6	m	
11	Global_Service_Name	[5] and [6] 11.6	o	
12	QoS_Parameters	[5] and [6] 11.6	o	
13	SFID	[5] and [6] 11.6	o	
14	Resource_Retain_Flag	[5] and [6] 11.6	o	
15	HO_Process_Optimization	[5] and [6] 11.6	m	
16	HO_ID	[5] and [6] 11.6	m	
17	SBC-RSP_encoding	[5] and [6] 11.6	m	
18	REG-RSP encoding	[5] and [6] 11.6	m	
19	Location Update_Reponse	[5] and [6] 11.6	m	
20	Paging Information	[5] 11.1.9.3 [6] 11.1.8.3	m	
21	Paging_Contrller_ID	[5] 11.1.9.26 [6] 11.1.8.26	m	
22	Next_Periodic_Ranging	[5] 11.1.8.3 [6] 11.1.7.3	m	
23	Enabled-Action_Triggered	[5] 11.1.8.1 [6] 11.1.7.1	o	
24	CMAC Tuple	[5] and [6] 11.1.2.2	m	
Comments: In case of initial network entry, CMAC-Tuple TLV shall not be included.				

A.7.1.6 SBC-REQ and SBC-RSP

Table A.304: PDU: SBC-REQ

Item	Capability	Reference	Status	Support
1	Management Message type=26	[5] and [6] 6.3.2.3.23	m	
Comments:				

Table A.305: SBC-REQ TLV

Item	Capability	Reference	Status	Support
1	Physical Parameters supported (see table A.306)	[5] and [6] 11.8.1	m	
2	Capabilities for Construction and Transmission of MAC PDUs	[5] and [6] 11.8.2	m	
3	Security negotiation parameters	[5] and [6] 11.8.4	m	
4	Extension capability	[5] 11.8.6 [6] 11.8.5	m	
5	HO trigger metric support	[5] 11.8.7 [6] 11.8.6	m	
6	CMAC Tuple	[5] and [6] 11.1.2	m	
Comments: . In case of initial network entry, CMAC-Tuple TLV shall not be included.				

Table A.306: Physical Parameters Supported fields for SBC-REQ

Item	Capability	Reference	Status	Support
1	Subscriber transition gap	[5] and [6] 11.8.3.1	m	
2	Maximum transmit power	[5] and [6] 11.8.3.2	m	
3	Current transmit power	[5] and [6] 11.1.1, 11.8.3.3	m	
4	OFDMA MS FFT sizes	[5] 11.8.3.7.1 [6] 11.8.3.5.1	m	
5	OFDMA SS demodulator	[5] 11.8.3.7.2 [6] 11.8.3.5.2	m	
6	OFDMA SS modulator	[5] 11.8.3.7.3 [6] 11.8.3.5.3	m	
7	The number of UL HARQ channel	[5] 11.8.3.7.3 [6] 11.8.3.5.3	m	
8	OFDMA SS permutation support	[5] 11.8.3.7.4 [6] 11.8.3.5.4	m	
9	OFDMA SS CINR measurement capability	[5] 11.8.3.7.9 [6] 11.8.3.5.8	m	
10	The number of DL HARQ channel	[5] 11.8.3.7.2 [6] 11.8.3.5.2	m	
11	HARQ Chase combining and CC-IR buffer capability	[5] 11.8.3.7.19.2 [6] 11.8.3.5.17.2	m	
12	OFDMA SS uplink power control support	[5] 11.8.3.7.11 [6] 11.8.3.5.9	m	
13	OFDMA MAP capability	[5] 11.8.3.7.12 [6] 11.8.3.5.10	m	
14	Uplink control channel support	[5] 11.8.3.7.13 [6] 11.8.3.5.11	m	
15	OFDMA MS CSIT capability	[5] 11.8.3.7.14 [6] 11.8.3.5.12	m	
16	Maximum number of burst per frame capability in HARQ	[5] 11.8.3.7.15 [6] 11.8.3.5.13	m	
17	OFDMA SS demodulator for MIMO support	[5] 11.8.3.7.5 [6] 11.8.3.5.5	m	
18	OFDMA SS modulator for MIMO support	[5] 11.8.3.7.16 [6] 11.8.3.5.6	m	
19	OFDMA parameter sets	[5] 11.8.3.7.20 [6] 11.8.3.5.18	m	
Comments: With regards to item 3, MS may ignore power updates between RNG-RSP and this message.				

Table A.307: PDU: SBC-RSP

Item	Capability	Reference	Status	Support
1	Management Message type=27	[5] and [6] 6.3.2.3.24	m	

Comments:

Table A.308: SBC-RSP TLV

Item	Capability	Reference	Status	Support
1	Physical Parameters supported (see Table A.309)	[5] and [6] 11.8.2	m	
2	Capabilities for Construction and Transmission of MAC PDUs	[5] and [6] 11.8.2	m	
3	Security negotiation parameters	[5] and [6] 11.8.4	m	
4	Extension capability	[5] 11.8.6 [6] 11.8.5	m	
5	HO trigger metric support	[5] 11.8.7 [6] 11.8.6	m	
6	CMAC Tuple	[5] and [6] 11.1.2	m	

Comments: Item 2 Bandwidth allocation support: this does not apply to TDD systems.

Table A.309: Physical Parameters Supported fields for SBC-RSP

Item	Capability	Reference	Status	Support
1	Subscriber transition gap	[5] and [6] 11.8.3	m	
2	OFDMA MS FFT sizes	[5] 11.8.3.7.1 [6] 11.8.3.5.1	m	
3	OFDMA SS demodulator	[5] 11.8.3.7.2 [6] 11.8.3.5.2	m	
4	OFDMA SS modulator	[5] 11.8.3.7.3 [6] 11.8.3.5.3	m	
5	The number of UL HARQ channel	[5] 11.8.3.7.3 [6] 11.8.3.5.3	m	
6	OFDMA SS permutation support	[5] 11.8.3.7.4 [6] 11.8.3.5.4	m	
7	OFDMA SS CINR measurement capability	[5] 11.8.3.7.9 [6] 11.8.3.5.8	m	
8	The number of DL HARQ channel	[5] 11.8.3.7.2 [6] 11.8.3.5.2	m	
9	HARQ Chase combining and CC-IR buffer capability	[5] 11.8.3.7.19.2 [6] 11.8.3.5.17.2	m	
10	OFDMA SS uplink power control support	[5] 11.8.3.7.11 [6] 11.8.3.5.9	m	
11	OFDMA MAP capability	[5] 11.8.3.7.12 [6] 11.8.3.5.10	m	
12	Uplink control channel support	[5] 11.8.3.7.13 [6] 11.8.3.5.11	m	
13	OFDMA MS CSIT capability	[5] 11.8.3.7.14 [6] 11.8.3.5.12	IO-BF	
14	Maximum number of burst per frame capability in HARQ	[5] 11.8.3.7.15 [6] 11.8.3.5.13	m	
15	OFDMA SS demodulator for MIMO support	[5] 11.8.3.7.5 [6] 11.8.3.5.5	IO-MIMO	
16	OFDMA SS modulator for MIMO support	[5] 11.8.3.7.16 [6] 11.8.3.5.14	IO-MIMO	
17	OFDMA parameter sets	[5] 11.8.3.7.20 [6] 11.8.3.5.18	IO-MIMO	

Comments:

A.7.1.7 ARQ messages

Table A.310: PDU: ARQ feedback message

Item	Capability	Reference	Status	Support
1	Management Message type=33	[5] and [6] 6.3.2.3.30	m	
Comments:				

Table A.311: ARQ Feedback Information Elements

Item	Capability	Reference	Status	Support
1	CID	[5] and [6] 6.3.4.2	m	
2	last	[5] and [6] 6.3.4.2	m	
3	ACK type	[5] and [6] 6.3.4.2	m	
4	BSN	[5] and [6] 6.3.4.2	m	
5	Number of ACK maps	[5] and [6] 6.3.4.2	m	
6	ACK MAP(s)	[5] and [6] 6.3.4.2	m	
Comments:				

Table A.312: PDU: ARQ Discard message

Item	Capability	Reference	Status	Support
1	Management Message type=34	[5] and [6] 6.3.2.3.31	m	
2	Connection ID	[5] and [6] 6.3.2.3.31	m	
3	Fragmentation Sequence Number	[5] and [6] 6.3.2.3.31	m	
Comments:				

Table A.313: PDU: ARQ Reset message

Item	Capability	Reference	Status	Support
1	Management Message type=35	[5] and [6] 6.3.2.3.32	m	
2	Connection ID	[5] and [6] 6.3.2.3.32	m	
3	Type	[5] and [6] 6.3.2.3.32	m	
4	Direction	[5] and [6] 6.3.2.3.32	m	
5	Reserved	[5] and [6] 6.3.2.3.32	m	
Comments:				

A.7.1.8 RES-CMD

Table A.314: PDU: RES-CMD

Item	Capability	Reference	Status	Support
1	Management Message type=25	[5] and [6] 6.3.2.3.22	o	
Comments:				

Table A.315: RES-CMD TLV

Item	Capability	Reference	Status	Support
1	CMAC Tuple	[5] and [6] 11.1.2.2	o	
Comments:				

A.7.1.9 CLK-CMP

Table A.316: PDU: CLK-CMP

Item	Capability	Reference	Status	Support
1	Management Message type=28	[5] and [6] 6.3.2.3.25	o	
2	Clock count	[5] and [6] 6.3.2.3.25	o	
3	Clock Id	[5] and [6] 6.3.2.3.25	o	
4	Sequence number	[5] and [6] 6.3.2.3.25	o	
5	Clock comparison value	[5] and [6] 6.3.2.3.25	o	
Comments:				

A.7.1.10 DREG-REQ and DREG-CMD

Table A.317: PDU: DREG-REQ

Item	Capability	Reference	Status	Support
1	Management Message type=49	[5] 6.3.2.3.42 [6] 6.3.2.3.37	m	
2	De-registration request code	[5] 6.3.2.3.42 [6] 6.3.2.3.37	m	
Comments:				

Table A.318: DREG-REQ TLV

Item	Capability	Reference	Status	Support
1	CMAC Tuple	[5] 6.3.2.3.42 [6] 6.3.2.3.37	m	
2	Paging Cycle Request	[5] 6.3.2.3.42 [6] 6.3.2.3.37	m	
3	Idle Mode Retain Information	[5] 6.3.2.3.42 [6] 6.3.2.3.37	m	
Comments:				

Table A.319: PDU: DREG-CMD

Item	Capability	Reference	Status	Support
1	Management Message type=29	[5] and [6] 6.3.2.3.26	m	
2	action code	[5] and [6] 6.3.2.3.26	m	
Comments:				

Table A.320: DREG-CMD TLV

Item	Capability	Reference	Status	Support
1	CMAC Tuple	[5] and [6] 11.1.2.2	m	
2	Paging Information	[5] and [6] 11.14	m	
3	Paging Controller ID	[5] and [6] 11.14	m	
4	Idle Mode Retain Information	[5] and [6] 11.14	m	
5	REQ-Duration	[5] and [6] 11.14	m	
Comments:				

A.7.1.11 DSX-RVD

Table A.321: PDU: DSX-RVD

Item	Capability	Reference	Status	Support
1	Management Message type=30	[5] and [6] 6.3.2.3.27	m	
2	Transaction ID	[5] and [6] 6.3.2.3.27	m	
3	Confirmation Code	[5] and [6] 6.3.2.3.27	m	
Comments:				

A.7.1.12 REP-REQ and REP-RSP

Table A.322: PDU: REP-REQ

Item	Capability	Reference	Status	Support
1	Management Message type=36	[5] and [6] 6.3.2.3.33	m	
Comments:				

Table A.323: REP-REQ TLV for report request

Item	Capability	Reference	Status	Support
1	Report type	[5] and [6] 11.11	m	
2	Channel Type request	[5] and [6] 11.11	m	
3	Zone-specific physical CINR request	[5] and [6] 11.11	m	
4	Preamble physical CINR request	[5] and [6] 11.11	m	
5	Zone-specific effective CINR request	[5] and [6] 11.11	m	
Comments:				

Table A.324: PDU: REP-RSP

Item	Capability	Reference	Status	Support
1	Management Message type=37	[5] and [6] 6.3.2.3.33	m	

Comments:

Table A.325: REP-RSP TLV for report

Item	Capability	Reference	Status	Support
1	CINR report	[5] and [6] 11.12	m	
2	RSSI report	[5] and [6] 11.12	m	
3	Normal sub-channel Report (CQI value)	[5] and [6] 11.12	m	
4	Enhanced Band AMC Report	[5] and [6] 11.12	m	
5	physical CINR measured on PUSC zone with 'use all SC=0'	[5] and [6] 11.12	m	
6	physical CINR measured on PUSC zone with 'use all SC=1'	[5] and [6] 11.12	m	
7	physical CINR measured on FUSC zone	[5] and [6] 11.12	m	
8	physical CINR measured on AMC zone	[5] and [6] 11.12	m	
9	The estimation of physical CINR measured from preamble for frequency reuse configuration=1	[5] and [6] 11.12	m	
10	The estimation of physical CINR measured from preamble for frequency reuse configuration=3	[5] and [6] 11.12	m	
11	effective CINR measured on PUSC zone with 'use all SC=0'	[5] and [6] 11.12	m	
12	effective CINR measured on PUSC zone with 'use all SC=1' / PUSC AAS zone	[5] and [6] 11.12	m	
13	effective CINR measured on FUSC zone	[5] and [6] 11.12	m	
14	effective CINR measured on AMC AAS zone	[5] and [6] 11.12	m	

Comments:

A.7.1.13 FPC

Table A.326: PDU: FPC

Item	Capability	Reference	Status	Support
1	Management Message type=38	[5] and [6] 6.3.2.3.34	BS:o MS:m	
2	Number of stations	[5] and [6] 6.3.2.3.34	BS:o MS:m	
3	Basic CID	[5] and [6] 6.3.2.3.34	BS:o MS:m	
4	Power adjust	[5] and [6] 6.3.2.3.34	BS:o MS:m	

Comments: set of Basic CID and Power adjust values for each station defined.

A.7.1.14 REG-REQ and REG-RSP

Table A.327: PDU: Registration Request (REG-REQ)

Item	Capability	Reference	Status	Support
1	Management Message type=6	[5] and [6] 6.3.2.3.7	m	

Comments:

Table A.328: PDU: REG-REQ TLV

Item	Capability	Reference	Status	Support
1	SS management support	[5] and [6] 11.1.5	o	
2	IP management mode	[5] and [6] 11.1.5	o	
3	Vendor ID Encoding	[5] and [6] 11.1.5	o	
4	Vendor specific information	[5] and [6] 11.1.6	o	
5	Number of UL transport CIDs supported	[5] and [6] 11.7.6.1	m	
6	Number of DL transport CIDs supported	[5] and [6] 11.7.6.2	m	
7	CMAC Tuple	[5] and [6] 11.1.2.2	m	
8	Classification, PHS options, SDU encapsulation support	[5] and [6] 11.7.7.1	m	
9	Maximum number of classifiers	[5] and [6] 11.7.7.2	m	
10	PHS support	[5] and [6] 11.7.7.3	m	
11	ARQ support	[5] and [6] 11.7.8.1	m	
12	DSx flow control	[5] and [6] 11.7.8.2	m	
13	Maximum MAC data per frame support	[5] 11.7.8.10 [6] 11.7.8.5	m	
14	Packing support	[5] 11.7.8.11 [6] 11.7.8.6	m	
15	MAC extended rtPS support	[5] 11.7.8.12 [6] 11.7.8.7	m	
16	Maximum number of bursts transmitted concurrently to the MS	[5] 11.7.8.13 [6] 11.7.8.8	m	
17	Handover supported	[5] 11.7.13.5 [6] 11.7.12.5	m	
18	HO process optimization MS timer	[5] 11.7.13.2 [6] 11.7.12.2	m	
19	Handover Indication Readiness Timer	[5] 11.7.13.4 [6] 11.7.12.4	m	
20	BS Switching Timer	[5] 11.7.13.5 [6] 11.7.12.5	m	
21	Mobility feature supported	[5] 11.7.14.1 [6] 11.7.13.1	m	
22	Power saving class capability	[5] 11.7.14.2 [6] 11.7.13.2	m	
23	Sleep-mode recovery time	[5] 11.7.15 [6] 11.7.14	m	
24	Idle mode timeout	[5] 11.7.20.1 [6] 11.7.19.1	m	
25	ARQ-ACK type	[5] 11.7.23 [6] 11.7.20	m	
26	MS HO connections parameters processing time	[5] 11.7.24	m	
27	MS HO TEK processing time	[5] 11.7.24	m	
28	MAC header and subheader support	[5] 11.7.25 [6] 11.7.21	m	
29	MS periodic ranging timer information	[5] 11.7.27 [6] 11.7.23	o	

Comments:

Item 8 Classification, PHS options, SDU encapsulation support: Length field has the value of 2.

Table A.329: PDU: Registration Response (REG-RSP)

Item	Capability	Reference	Status	Support
1	Management Message type=7	[5] and [6] 6.3.2.3.8	m	
2	Response	[5] and [6] 6.3.2.3.8	m	
Comments:				

Table A.330: PDU: REG-RSP TLV

Item	Capability	Reference	Status	Support
1	SS management support	[5] and [6] 6.3.2.3.8, 11.7.2	o	
2	IP management mode	[5] and [6] 6.3.2.3.8, 11.7.3	o	
3	IP version	[5] and [6] 11.7.4	o	
4	Vendor ID Encoding	[5] and [6] 11.1.5	o	
5	Vendor-specific information	[5] and [6] 11.1.6	o	
6	SS management support	[5] and [6] 6.3.2.3.8, 11.7.2	m	
7	Uplink transport CIDs supported	[5] and [6] 11.7.6.1	m	
8	Downlink transport CIDs supported	[5] and [6] 11.7.6.2	m	
9	CMAC Tuple	[5] and [6] 11.1.2	m	
10	Classification, PHS options, SDU encapsulation support	[5] and [6] 11.7.7.1	m	
11	Maximum number of classifiers	[5] and [6] 11.7.7.2	m	
12	PHS support	[5] and [6] 11.7.7.3	m	
13	ARQ support	[5] and [6] 11.7.8.1	m	
14	DSx flow control	[5] and [6] 11.7.8.2	m	
15	Maximum MAC data per frame support	[5] 11.7.8.10 [6] 11.7.8.5	m	
16	Packing support	[5] 11.7.8.11 [6] 11.7.8.6	m	
17	MAC extended rtPS support	[5] 11.7.8.12 [6] 11.7.8.7	m	
18	Maximum number of bursts transmitted concurrently to the MS	[5] 11.7.8.13 [6] 11.7.8.8	m	
19	Handover supported	[5] 11.7.13.5 [6] 11.7.12.5	m	
20	HO process optimization MS timer	[5] 11.7.13.2 [6] 11.7.12.2	m	
21	Mobility feature supported	[5] 11.7.14.1 [6] 11.7.13.1	m	
22	Idle mode timeout	[5] 11.7.20.1 [6] 11.7.19.1	m	
23	ARQ-ACK type	[5] 11.7.23 [6] 11.7.20	m	
24	MS HO connections parameters processing time	[5] 11.7.24	m	
25	MS HO TEK processing time	[5] 11.7.24	m	
26	MAC header and subheader support	[5] 11.7.25 [6] 11.7.21	m	
27	CID update encodings	[5] 11.7.10 [6] 11.7.9	m	
28	Compressed CID update encodings	[5] 11.7.10.1 [6] 11.7.9.1	m	
29	System resource retain timer	[5] 11.7.13.1 [6] 11.7.12.1	m	
30	Handover Indication Readiness Timer	[5] 11.7.13.4 [6] 11.7.12.4	m	
31	Power saving class capability	[5] 11.7.14.2 [6] 11.7.13.2	m	
32	SAID update encodings	[5] 11.7.18 [6] 11.7.17	m	
33	Total number of provisional service flow	[5] 11.7.19 [6] 11.7.18	m	
34	Idle mode Timeout	[5] 11.7.20.1 [6] 11.7.19.1	m	
35	SA TEK update	[5] 11.7.21	m	

Comments: Item 9 Classification, PHS options, SDU encapsulation support: Length field has the value of 2.

A.7.1.15 PKM-REQ and PKM-RSP Messages

Table A.331: PDU: PKM Request (PKM-REQ)

Item	Capability	Reference	Status	Support
1	Management Message type=9	[5] and [6] 6.3.2.3.9	m	
2	Code	[5] and [6] 6.3.2.3.9	m	
3	PKM Identifier	[5] and [6] 6.3.2.3.9	m	
Comments:				

Table A.332: PDU: PKM Reply (PKM-RSP)

Item	Capability	Reference	Status	Support
1	Management Message type=10	[5] and [6] 6.3.2.3.9	m	
2	Code	[5] and [6] 6.3.2.3.9	m	
3	PKM Identifier	[5] and [6] 6.3.2.3.9	m	
Comments:				

Table A.333: PKMv2 SA_TEK_Challenge TLV support

Item	Capability	Reference	Status	Support
1	BS_random	[5] 11.9.22 [6] 11.9.21	m	
2	Key sequence number	[5] and [6] 11.9.5	m	
3	AKID	[5] 11.9.32 [6] 11.9.31	m	
4	Key lifetime	[5] and [6] 11.9.4	m	
5	CMAC Digest	[5] 11.9.27 [6] 11.9.26	m	
Comments:				

Table A.334: PKMv2 SA_TEK_Request TLV support

Item	Capability	Reference	Status	Support
1	MS_random	[5] 11.9.21 [6] 11.9.20	m	
2	BS_random	[5] 11.9.22 [6] 11.9.21	m	
3	Key sequence number	[5] and [6] 11.9.5	m	
4	AKID	[5] 11.9.32 [6] 11.9.31	m	
5	Security capabilities	[5] and [6] 11.9.13	m	
6	Security negotiation parameters	[5] and [6] 11.8.4	m	
7	CMAC Digest	[5] 11.9.27 [6] 11.9.26	m	
Comments:				

Table A.335: PKMv2 SA_TEK_Response TLV support

Item	Capability	Reference	Status	Support
1	MS_random	[5] 11.9.21 [6] 11.9.20	o	
2	BS_random	[5] 11.9.22 [6] 11.9.21	o	
3	Key sequence number	[5] and [6] 11.9.5	m	
4	AKID	[5] 11.9.32 [6] 11.9.31	m	
5	(one or more) SA_TEK_Update	[5] 11.7.21	m	
6	Frame Number	[5] 11.9.37 [6] 11.9.36	m	
7	(one or more) SA descriptor(s)	[5] 11.9.17 [6] 11.9.16	m	
8	Security negotiation parameters	[5] and [6] 11.8.4	m	
9	PKMv2 configuration settings	[5] 11.9.36 [6] 11.9.35	m	
10	CMAC Digest	[5] 11.9.27 [6] 11.9.26	m	
Comments: In case of initial network entry, SA_TEK_Update TLV shall not be included.				

Table A.336: PKMv2 EAP_Start TLV support

Item	Capability	Reference	Status	Support
1	Key sequence number	[5] and [6] 11.9.5	m	
2	CMAC Digest	[5] 11.9.27 [6] 11.9.26	m	
Comments:				

Table A.337: PKMv2 EAP_Transfer TLV support

Item	Capability	Reference	Status	Support
1	EAP payload	[5] 11.9.33 [6] 11.9.32	m	
2	Key sequence number	[5] and [6] 11.9.5	m	
3	CMAC Digest	[5] 11.9.27 [6] 11.9.26	m	
Comments:				

Table A.338: PKMv2 Key-Request TLV

Item	Capability	Reference	Status	Support
1	Key Sequence Number	[5] and [6] 11.9.5	m	
2	SAID	[5] and [6] 11.9.7	m	
3	Nonce	[5] 11.9.20 [6] 11.9.19	o	
4	CMAC Digest	[5] 11.9.27 [6] 11.9.26	m	
Comments:				

Table A.339: PKMv2 Key-Reply

Item	Capability	Reference	Status	Support
1	Key Sequence Number	[5] and [6] 11.9.5	m	
2	SAID	[5] and [6] 11.9.7	m	
3	TEK-Parameters (older)	[5] and [6] 11.9.8	m	
4	TEK-Parameters (newer)	[5] and [6] 11.9.8	m	
5	GKEK-Parameters (older)	[5] 11.9.28 [6] 11.9.27	o	
6	GKEK-Parameters (newer)	[5] 11.9.28 [6] 11.9.27	o	
7	Nonce	[5] 11.9.20 [6] 11.9.19	o	
8	CMAC Digest	[5] 11.9.27 [6] 11.9.26	m	
Comments:				

Table A.340: PKMv2 Key-Reject TLV

Item	Capability	Reference	Status	Support
1	Key Sequence Number	[5] and [6] 11.9.5	m	
2	SAID	[5] and [6] 11.9.7	m	
3	Error-code	[5] and [6] 11.9.10	m	
4	Display-String	[5] and [6] 11.9.1	o	
5	Nonce	[5] 11.9.20 [6] 11.9.19	o	
6	CMAC Digest	[5] 11.9.27 [6] 11.9.26	m	
Comments:				

Table A.341: PKMv2 SA-Addition

Item	Capability	Reference	Status	Support
1	Key Sequence Number	[5] and [6] 11.9.5	m	
2	SA-Descriptor	[5] 11.9.17 [6] 11.9.16	m	
3	CMAC Digest	[5] 11.9.27 [6] 11.9.26	m	
Comments:				

Table A.342: PKMv2 TEK-Invalid

Item	Capability	Reference	Status	Support
1	Key Sequence Number	[5] and [6] 11.9.5	m	
2	SAID	[5] and [6] 11.9.7	m	
3	Error-code	[5] and [6] 11.9.10	m	
4	Display-String	[5] and [6] 11.9.1	o	
5	CMAC Digest	[5] 11.9.27 [6] 11.9.26	m	
Comments:				

A.7.1.16 DSA-REQ, DSA-RSP and DSA-ACK messages

Table A.343: PDU: DSA-REQ

Item	Capability	Reference	Status	Support
1	Management Message type=11	[5] and [6] 6.3.2.3.10	m	
2	Transaction ID	[5] and [6] 6.3.2.3.10	m	
Comments:				

Table A.344: DSA-REQ parameters

Item	Capability	Reference	Status	Support
1	Service flow identifier - SFID transmitted from BS side, received at MS side	[5] and [6] 11.13.1	m	
2	CID transmitted from BS side, received at MS side	[5] and [6] 11.13.2	m	
3	Service class name	[5] and [6] 11.13.3	o	
4	QOS parameter set type	[5] and [6] 11.13.4	m	
5	Traffic priority	[5] and [6] 11.13.5	m	
6	Maximum sustained traffic rate	[5] and [6] 11.13.6	m	
7	Minimum reserved traffic rate	[5] and [6] 11.13.8	m	
8	Vendor specific QOS parameters	[5] 11.13.10 [6] 11.13.9	o	
9	Service flow scheduling type	[5] 11.13.11 [6] 11.13.10	m	
10	Request/transmission policy	[5] 11.13.12 [6] 11.13.11	m	
11	Tolerated jitter	[5] 11.13.13 [6] 11.13.12	m	
12	Maximum latency	[5] 11.13.14 [6] 11.13.13	m	
13	Fixed length versus variable length SDU indicator	[5] 11.13.15 [6] 11.13.14	m	
14	SDU size	[5] 11.13.16 [6] 11.13.15	o	
15	Target SAID	[5] 11.13.17 [6] 11.13.16	o	
16	ARQ enable	[5] 11.13.18.1 [6] 11.13.17.1	m	
17	ARQ_WINDOW_SIZE	[5] 11.13.18.2 [6] 11.13.17.2	m	
18	ARQ RETRY TIMEOUT- Transmitter Delay	[5] 11.13.18.3 [6] 11.13.17.3	m	
19	ARQ RETRY TIMEOUT- Receiver Delay	[5] 11.13.18.3 [6] 11.13.17.3	m	
20	ARQ_BLOCK_LIFETIME	[5] 11.13.18.4 [6] 11.13.17.4	m	
21	ARQ_SYNC_LOSS_TIMEOUT	[5] 11.13.18.5 [6] 11.13.17.5	m	
22	ARQ_DELIVER_IN_ORDER	[5] 11.13.18.6 [6] 11.13.17.6	m	
23	ARQ_RX_PURGE_TIMEOUT	[5] 11.13.18.7 [6] 11.13.17.7	m	
24	ARQ_BLOCK_SIZE	[5] 11.13.18.8 [6] 11.13.17.8	m	
25	RECEIVER_ARQ_ACK_PROCESSING_TIME	[5] 11.13.18.9 [6] 11.13.17.9	o	
26	Unsolicited Grant Interval	[5] 11.13.20 [6] 11.13.19	m	
27	Unsolicited Polling Interval	[5] 11.13.21 [6] 11.13.20	m	
28	FSN size	[5] 11.13.22 [6] 11.13.21	o	
29	MBS Service	[5] 11.13.23 [6] 11.13.22	m	
30	Global Service Class Name	[5] 11.13.24 [6] 11.13.23	m	
31	Type of Data Delivery Services	[5] 11.13.25 [6] 11.13.24	m	
32	Time Base	[5] 11.13.27 [6] 11.13.26	m	
33	MBS zone identifier assignment	[5] 11.13.29 [6] 11.13.27	IO-MBS	
34	Paging preference	[5] 11.13.30 [6] 11.13.28	m	
35	SN Feedback Enabled	[5] 11.13.31 [6] 11.13.29	m	

Item	Capability	Reference	Status	Support
36	HARQ Service Flows	[5] 11.13.32 [6] 11.13.30	m	
37	Authorization Token	[5] 11.13.34 [6] 11.13.32	o	
38	HARQ Channel mapping	[5] 11.13.35 [6] 11.13.33	m	
39	PDU SN extended subheader for HARQ reordering (TLV)	[5] 11.13.36 [6] 11.13.34	m	
40	CS specification	[5] 11.13.19.1 [6] 11.13.18.1	m	
41	Packet Classification Rule	[5] 11.13.19.3.4 [6] 11.13.18.3.3	m	
42	Classifier Rule Priority	[5] 11.13.19.3.4.1 [6] 11.13.18.3.3.1	m	
43	IP Type of Service/DSCP	[5] 11.13.19.3.4.2 [6] 11.13.18.3.3.2	m	
44	Protocol	[5] 11.13.19.3.4.3 [6] 11.13.18.3.3.3	m	
45	IP Masked Source Address	[5] 11.13.19.3.4.4 [6] 11.13.18.3.3.4	m	
46	IP Masked Destination Address	[5] 11.13.19.3.4.5 [6] 11.13.18.3.3.5	m	
47	Protocol Source Port Range	[5] 11.13.19.3.4.6 [6] 11.13.18.3.3.6	m	
48	Protocol destination Port Range	[5] 11.13.19.3.4.7 [6] 11.13.18.3.3.7	m	
49	Ethernet Destination MAC Address	[5] 11.13.19.3.4.8 [6] 11.13.18.3.3.8	IO-ETH1 or IO-ETH2 or IO-ETH3	
50	Ethernet Source MAC Address	[5] 11.13.19.3.4.9 [6] 11.13.18.3.3.9	IO-ETH1 or IO-ETH2 or IO-ETH3	
51	Ethertype/IEEE 802.2 [18] SAP	[5] 11.13.19.3.4.10 [6] 11.13.18.3.3.10	IO-ETH1 or IO-ETH2 or IO-ETH3	
52	Associated Payload Header Suppression Index	[5] 11.13.19.3.4.13 [6] 11.13.18.3.3.13	m	
53	Packet classification rule index	[5] 11.13.19.3.4.14 [6] 11.13.18.3.3.14	m	
54	Vendor Specific Classifier Parameters	[5] 11.13.19.3.4.15 [6] 11.13.18.3.3.15	o	
55	Classifier Action Rule	[5] 11.13.19.3.4.17	m	
56	Payload Header Suppression Rule	[5] 11.13.19.3.7 [6] 11.13.18.3.5	m	
57	Payload Header Suppression Index	[5] 11.13.19.3.7.1 [6] 11.13.18.3.5.1	m	
58	Payload Header Suppression Field	[5] 11.13.19.3.7.2 [6] 11.13.18.3.5.2	m	
59	Payload Header Suppression Mask	[5] 11.13.19.3.7.3 [6] 11.13.18.3.5.3	m	
60	Payload Header Suppression Size	[5] 11.13.19.3.7.4 [6] 11.13.18.3.5.4	m	
61	Payload Header Suppression Verification	[5] 11.13.19.3.7.5 [6] 11.13.18.3.5.5	m	
62	Vendor Specific PHS Parameters	[5] 11.13.19.3.7.6 [6] 11.13.18.3.5.6	o	
63	CMAC Tuple	[5] and [6] 6.3.2.3.10	m	
64	ROHC Parameter Payload	[5] 11.13.38 [6] 11.13.36	m	

Comments:

Table A.345: PDU: DSA-RSP

Item	Capability	Reference	Status	Support
1	Management Message type=12	[5] and [6] 6.3.2.3.11	m	
2	Transaction ID	[5] and [6] 6.3.2.3.11	m	
3	Confirmation code	[5] and [6] 6.3.2.3.11	m	
4	ARQ enable	[5] and [6] 11.13.18.1	m	
Comments:				

Table A.346: DSA-RSP TLV for Service flow parameters

Item	Capability	Reference	Status	Support
1	Service flow identifier - SFID transmitted from BS side, received at MS side	[5] and [6] 11.13.1	m	
2	CID transmitted from BS side, received at MS side	[5] and [6] 11.13.2	m	
3	Target SAID	[5] 11.13.17 [6] 11.13.16	m	
4	MBS Service	[5] 11.13.23 [6] 11.13.22	m	
5	ARQ TLVs for ARQ-enabled connections	[5] 11.13.18 [6] 11.13.16	m	
6	MBS zone identifier assignment	[5] 11.13.29 [6] 11.13.27	IO-MBS	
7	ROHC Parameter Payload	[5] 11.13.38 [6] 11.13.36	m	
8	CMAC Tuple	[5] and [6] 11.1.2.2	m	
Comments:				

Table A.347: PDU: DSA-ACK

Item	Capability	Reference	Status	Support
1	Management Message type=13	[5] and [6] 6.3.2.3.12	m	
2	Transaction ID	[5] and [6] 6.3.2.3.12	m	
3	Confirmation code	[5] and [6] 6.3.2.3.12	m	
Comments:				

Table A.348: DSA-ACK TLV

Item	Capability	Reference	Status	Support
1	CMAC Tuple	[5] and [6] 11.1.2.2	m	
Comments:				

A.7.1.17 DSC-REQ, DSC-RSP and DSC-ACK messages

Table A.349: PDU: DSC-REQ

Item	Capability	Reference	Status	Support
1	Management Message type=14	[5] and [6] 6.3.2.3.13	m	
2	Transaction ID	[5] and [6] 6.3.2.3.13	m	
Comments:				

Table A.350: DSC-REQ parameters

Item	Capability	Reference	Status	Support
1	Classifier DSC action	[4] 11.13.19.3.2	m	
2	CMAC Tuple	[5] and [6] 11.1.2.2	m	
3	Service flow identifier- SFID	[5] and [6] 11.13.1	m	
4	CID	[5] and [6] 11.13.2	m	
5	Service class name	[5] and [6] 11.13.3	o	
6	QOS parameter set type	[5] and [6] 11.13.4	m	
7	Traffic priority	[5] and [6] 11.13.5	m	
8	Maximum sustained traffic rate	[5] and [6] 11.13.6	m	
9	Minimum reserved traffic rate	[5] and [6] 11.13.8	m	
10	Vendor specific QOS parameters	[5] 11.13.10 [6] 11.13.9	o	
11	Tolerated jitter	[5] 11.13.13 [6] 11.13.12	m	
12	Maximum latency	[5] 11.13.14 [6] 11.13.13	m	
13	Unsolicited Grant Interval	[5] 11.13.20 [6] 11.13.19	m	
14	Unsolicited Polling Interval	[5] 11.13.21 [6] 11.13.20	m	
15	Global Service Class Name	[5] 11.13.24 [6] 11.13.23	o	
16	Time Base	[5] 11.13.27 [6] 11.13.26	m	
17	Paging preference	[5] 11.13.30 [6] 11.13.28	m	
18	SN Feedback Enabled	[5] 11.13.31 [6] 11.13.29	m	
19	Authorization Token	[5] 11.13.34 [6] 11.13.32	o	
20	ROHC Parameter Payload	[5] 11.13.38 [6] 11.13.36	m	
Comments:				

Table A.351: PDU : DSC-RSP

Item	Capability	Reference	Status	Support
1	Management Message type=15	[5] and [6] 6.3.2.3.14	m	
2	Transaction ID	[5] and [6] 6.3.2.3.14	m	
3	Confirmation code	[5] and [6] 6.3.2.3.14	m	

Comments:

Table A.352: DSC-RSP TLV

Item	Capability	Reference	Status	Support
1	ROHC Parameter Payload	[5] 11.13.38 [6] 11.13.36	m	
2	CMAC Tuple	[5] and [6] 11.1.2.2	m	

Comments:

Table A.353: PDU: DSC-ACK

Item	Capability	Reference	Status	Support
1	Management Message type=16	[5] and [6] 6.3.2.3.15	m	
2	Transaction ID	[5] and [6] 6.3.2.3.15	m	
3	Confirmation code	[5] and [6] 6.3.2.3.15	m	

Comments:

Table A.354: DSC-ACK TLV

Item	Capability	Reference	Status	Support
1	CMAC Tuple	[5] and [6] 11.1.2.2	m	

Comments:

A.7.1.18 DSD-REQ and DSD-RSP messages

Table A.355: PDU: DSD-REQ

Item	Capability	Reference	Status	Support
1	Management Message type=17	[5] and [6] 6.3.2.3.16	m	
2	Transaction ID	[5] and [6] 6.3.2.3.16	m	
3	Service flow ID	[5] and [6] 6.3.2.3.16	m	

Comments:

Table A.356: DSD-REQ TLV

Item	Capability	Reference	Status	Support
1	CMAC Tuple	[5] and [6] 11.1.2.2	m	

Comments:

Table A.357: PDU: DSD-RSP

Item	Capability	Reference	Status	Support
1	Management Message type=18	[5] and [6] 6.3.2.3.17	m	
2	Transaction ID	[5] and [6] 6.3.2.3.17	m	
3	Confirmation code	[5] and [6] 6.3.2.3.17	m	
4	Service flow ID	[5] and [6] 6.3.2.3.17	m	
Comments:				

Table A.358: DSD-RSP TLV

Item	Capability	Reference	Status	Support
1	CMAC Tuple	[5] and [6] 11.1.2.2	m	
Comments:				

A.7.1.19 TLVs for Handover, Sleep and Idle Mode

Table A.359: MOB_SLP-REQ TLV

Item	Capability	Reference	Status	Support
1	Enabled-Action-Triggered	[5] 6.3.2.3.44, 6.3.21.1, and 11.17.3 [6] 6.3.2.3.39, 6.3.20.1, 11.17.3	m	
2	CMAC Tuple	[5] 6.3.2.3.44, 11.1.2.1 and 11.1.2.2 [6] 6.3.2.3.39, 11.1.2.1, 11.1.2.2	m	
Comments:				

Table A.360: MOB_SLP-RSP TLV

Item	Capability	Reference	Status	Support
1	Enabled-Action-Triggered	[5] 6.3.2.3.45, 6.3.21.1, and 11.17.3 [6] 6.3.2.3.40, 6.3.20.1, 11.17.3	m	
2	CMAC Tuple	6.3.2.3.45, 11.1.2.1 and 11.1.2.2 [6] 6.3.2.3.45, 11.1.2.1, 11.1.2.2	m	
Comments:				

Table A.361: MOB_TRF-IND TLV

Item	Capability	Reference	Status	Support
1	SLPID_Update	[5] 6.3.2.3.46, 6.3.21.1, 6.3.21.5, and 11.16.1 [6] 6.3.2.3.41, 6.3.20.1, 6.3.20.5, 11.16.1	m	
Comments:				

Table A.362: PDU: MOB_SLP-REQ

Item	Capability	Reference	Status	Support
1	Management Message type=50	[5] 6.3.2.3.44 [6] 6.3.2.3.39	m	
2	Number of Classes	[5] 6.3.2.3.44 [6] 6.3.2.3.39	m	
3	Definition	[5] 6.3.2.3.44 [6] 6.3.2.3.39	m	
4	Operation	[5] 6.3.2.3.44 [6] 6.3.2.3.39	m	
5	Power_Saving_Class_ID	[5] 6.3.2.3.44 [6] 6.3.2.3.39	m	
6	Start_frame_number	[5] 6.3.2.3.44 [6] 6.3.2.3.39	m	
7	Reserved	[5] 6.3.2.3.44 [6] 6.3.2.3.39	m	
8	Power_Saving_Class_Type = 1	[5] 6.3.2.3.44 [6] 6.3.2.3.39	m	
9	Direction	[5] 6.3.2.3.44 [6] 6.3.2.3.39	m	
10	TRF-IND Required	[5] 6.3.2.3.44 [6] 6.3.2.3.39	m	
11	Traffic_triggered_wakening_flag	[5] 6.3.2.3.44 [6] 6.3.2.3.39	m	
12	Reserved	[5] 6.3.2.3.44 [6] 6.3.2.3.39	m	
13	Initial-sleep window	[5] 6.3.2.3.44 [6] 6.3.2.3.39	m	
14	Listening-window	[5] 6.3.2.3.44 [6] 6.3.2.3.39	m	
15	Final-sleep window base	[5] 6.3.2.3.44 [6] 6.3.2.3.39	m	
16	Final-sleep window exponent	[5] 6.3.2.3.44 [6] 6.3.2.3.39	m	
17	Number_of_Sleep_CIDs	[5] 6.3.2.3.44 [6] 6.3.2.3.39	m	
18	CID	[5] 6.3.2.3.44 [6] 6.3.2.3.39	m	
Comments:				

Table A.363: PDU: MOB_SLP-RSP

Item	Capability	Reference	Status	Support
1	Management Message type=51	[5] 6.3.2.3.45 [6] 6.3.2.3.40	m	
2	Number of Classes	[5] 6.3.2.3.45 [6] 6.3.2.3.40	m	
3	Length of Data	[5] 6.3.2.3.45 [6] 6.3.2.3.40	m	
4	Sleep Approved	[5] 6.3.2.3.45 [6] 6.3.2.3.40	m	
5	Definition	[5] 6.3.2.3.45 [6] 6.3.2.3.40	m	
6	Operation	[5] 6.3.2.3.45 [6] 6.3.2.3.40	m	
7	Power_Saving_Class_ID	[5] 6.3.2.3.45 [6] 6.3.2.3.40	m	
8	Start_frame_number	[5] 6.3.2.3.45 [6] 6.3.2.3.40	m	
9	Stop_CQI_Allocation_Flag	[5] 6.3.2.3.45 [6] 6.3.2.3.40	m	
10	Reserved	[5] 6.3.2.3.45 [6] 6.3.2.3.40	m	
11	Power_Saving_Class_Type	[5] 6.3.2.3.45 [6] 6.3.2.3.40	m	
12	Direction	[5] 6.3.2.3.45 [6] 6.3.2.3.40	m	
13	Initial-sleep window	[5] 6.3.2.3.45 [6] 6.3.2.3.40	m	
14	Listening-window	[5] 6.3.2.3.45 [6] 6.3.2.3.40	m	
15	Final-sleep window base	[5] 6.3.2.3.45 [6] 6.3.2.3.40	m	
16	Final-sleep window exponent	[5] 6.3.2.3.45 [6] 6.3.2.3.40	m	
17	TRF-IND required	[5] 6.3.2.3.45 [6] 6.3.2.3.40	m	
18	Traffic_triggered_wakenging_flag	[5] 6.3.2.3.45 [6] 6.3.2.3.40	m	
19	Reserved	[5] 6.3.2.3.45 [6] 6.3.2.3.40	m	
20	SLPID	[5] 6.3.2.3.45 [6] 6.3.2.3.40	m	
21	Reserved	[5] 6.3.2.3.45 [6] 6.3.2.3.40	m	
22	Number_of_CIDs	[5] 6.3.2.3.45 [6] 6.3.2.3.40	m	
23	CID	[5] 6.3.2.3.45 [6] 6.3.2.3.40	m	
24	Padding	[5] 6.3.2.3.45 [6] 6.3.2.3.40	m	
25	REQ-duration	[5] 6.3.2.3.45 [6] 6.3.2.3.40	m	
Comments:				

Table A.364: PDU: MOB_TRF-IND

Item	Capability	Reference	Status	Support
1	Management Message type=52	[5] 6.3.2.3.46 [6] 6.3.2.3.41	m	
2	FMT	[5] 6.3.2.3.46 [6] 6.3.2.3.41	m	
3	SLPID Group Indication bit-map	[5] 6.3.2.3.46 [6] 6.3.2.3.41	m	
4	Traffic Indication Bitmap	[5] 6.3.2.3.46 [6] 6.3.2.3.41	m	
5	Num_Pos	[5] 6.3.2.3.46 [6] 6.3.2.3.41	m	
6	SLPID	[5] 6.3.2.3.46 [6] 6.3.2.3.41	m	
7	Padding	[5] 6.3.2.3.46 [6] 6.3.2.3.41	m	
Comments:				

Table A.365: DL Sleep control extended subheader

Item	Capability	Reference	Status	Support
1	Power_Saving_Class_ID	[5] and [6] 6.3.2.7.2	m	
2	Operation	[5] and [6] 6.3.2.7.2	m	
3	Final_Sleep_Window_Exponent	[5] and [6] 6.3.2.7.2	m	
4	Final_Sleep_Window_Base	[5] and [6] 6.3.2.7.2	m	
5	Stop_CQI_Allocation_Flag	[5] and [6] 6.3.2.7.2	m	
6	Start frame	[5] and [6] 6.3.2.7.2	m	
Comments:				

Table A.366: Bandwidth request and uplink sleep control header

Item	Capability	Reference	Status	Support
1	Type	[5] and [6] 6.3.2.1.2.1.6	m	
2	BR	[5] and [6] 6.3.2.1.2.1.6	m	
3	Power_Saving_Class_ID	[5] and [6] 6.3.2.1.2.1.6	m	
4	Operation	[5] and [6] 6.3.2.1.2.1.6	m	
5	Reserved	[5] and [6] 6.3.2.1.2.1.6	m	
6	CID	[5] and [6] 6.3.2.1.2.1.6	m	
7	HCS	[5] and [6] 6.3.2.1.2.1.6	m	
Comments:				

A.7.1.20 MOB_NBR-ADV

Table A.367: PDU: MOB_NBR-ADV

Item	Capability	Reference	Status	Support
1	Management Message type=53	[5] 6.3.2.3.47 [6] 6.3.2.3.42	m	
2	Skip-optional-fields bitmap	[5] 6.3.2.3.47 [6] 6.3.2.3.42	m	
3	DCD Configuration Change Count	[5] 6.3.2.3.47 [6] 6.3.2.3.42	m	
4	UCD Configuration Change Count	[5] 6.3.2.3.47 [6] 6.3.2.3.42	m	

Comments:

Table A.368: MOB_NBR-ADV TLV

Item	Capability	Reference	Status	Support
1	Mobility Feature Supported	[5] 6.3.2.3.47, 11.7.14.1 [6] 6.3.2.3.42, 11.7.13,	m	
2	Paging Group ID	[5] 6.3.2.3.47 [6] 6.3.2.3.42	m	
3	DCD_settings	[5] 6.3.2.3.47, 11.1.7 [6] 6.3.2.3.42, 11.18.1	m	
4	UCD_settings	[5] 6.3.2.3.47, 11.1.7 [6] 6.3.2.3.42, 11.18.1	m	
5	PHY Mode ID	[5] 6.3.2.3.47, 11.18.1 [6] 6.3.2.3.42, 11.18.2	m	
6	Neighbour BS Trigger	[5] 6.3.2.3.47, 11.1.7 [6] 6.3.2.3.42, 11.18.1	m	

Comments:

A.7.1.21 MOB_SCN-REQ

Table A.369: PDU: MOB_SCN-REQ

Item	Capability	Reference	Status	Support
1	Management Message type=54	[5] 6.3.2.3.48 [6] 6.3.2.3.43	m	
2	Scan duration	[5] 6.3.2.3.48 [6] 6.3.2.3.43	m	
3	Interleaving interval	[5] 6.3.2.3.48 [6] 6.3.2.3.43	m	
4	Scan Iteration	[5] 6.3.2.3.48 [6] 6.3.2.3.43	m	
5	N_Recommended_BS_Index	[5] 6.3.2.3.48 [6] 6.3.2.3.43	m	
6	Configuration Change Count for MOB_NBR-ADV	[5] 6.3.2.3.48 [6] 6.3.2.3.43	m	
7	Neighbor_BS_Index	[5] 6.3.2.3.48 [6] 6.3.2.3.43	m	
8	Scanning type	[5] 6.3.2.3.48 [6] 6.3.2.3.43	m	
9	Recommended BS ID	[5] 6.3.2.3.48 [6] 6.3.2.3.43	m	
10	N_Recommended_BS_Full	[5] 6.3.2.3.48 [6] 6.3.2.3.43	m	

Comments:

Table A.370: MOB_SCN-REQ TLV

Item	Capability	Reference	Status	Support
1	CMAC Tuple	[5] and [6] 11.1.2.2	m	
Comments:				

A.7.1.22 MOB_SCN-RSP

Table A.371: PDU: MOB_SCN-RSP

Item	Capability	Reference	Status	Support
1	Management Message type=55	[5] 6.3.2.3.49 [6] 6.3.2.3.44	m	
2	Scan duration	[5] 6.3.2.3.49 [6] 6.3.2.3.44	m	
3	Report mode	[5] 6.3.2.3.49 [6] 6.3.2.3.44	m	
4	Report period	[5] 6.3.2.3.49 [6] 6.3.2.3.44	m	
5	Report metric	[5] 6.3.2.3.49 [6] 6.3.2.3.44	m	
6	Start Frame	[5] 6.3.2.3.49 [6] 6.3.2.3.44	m	
7	Interleaving interval	[5] 6.3.2.3.49 [6] 6.3.2.3.44	m	
8	Scan iteration	[5] 6.3.2.3.49 [6] 6.3.2.3.44	m	
9	Configuration Change Count for MOB_NBR-ADV	[5] 6.3.2.3.49 [6] 6.3.2.3.44	m	
10	N_Recommended_BS_Index	[5] 6.3.2.3.49 [6] 6.3.2.3.44	m	
11	Neighbor_BS_Index	[5] 6.3.2.3.49 [6] 6.3.2.3.44	m	
12	Scanning type	[5] 6.3.2.3.49 [6] 6.3.2.3.44	m	
13	N_Recommended_BS_Full	[5] 6.3.2.3.49 [6] 6.3.2.3.44	m	
14	Recommended BS ID	[5] 6.3.2.3.49 [6] 6.3.2.3.44	m	
15	Rendezvous time	[5] 6.3.2.3.49 [6] 6.3.2.3.44	o	
16	CDMA code	[5] 6.3.2.3.49 [6] 6.3.2.3.44	o	
17	Transmission opportunity offset	[5] 6.3.2.3.49 [6] 6.3.2.3.44	o	
Comments:				

Table A.372: MOB_SCN-RSP TLV

Item	Capability	Reference	Status	Support
1	CMAC Tuple	[5] and [6] 11.1.2.2	m	
Comments:				

A.7.1.23 MOB_SCN-REP

Table A.373: PDU: MOB_SCN-REP

Item	Capability	Reference	Status	Support
1	Management Message type=60	[5] 6.3.2.3.50 [6] 6.3.2.3.45	m	
2	Report mode	[5] 6.3.2.3.50 [6] 6.3.2.3.45	m	
3	N_current_Bs	[5] 6.3.2.3.50 [6] 6.3.2.3.45	m	
4	Report metric	[5] 6.3.2.3.50 [6] 6.3.2.3.45	m	
5	BS CINR mean	[5] 6.3.2.3.50 [6] 6.3.2.3.45	m	
6	BS RSSI mean	[5] 6.3.2.3.50 [6] 6.3.2.3.45	m	
7	BS RTD	[5] 6.3.2.3.50 [6] 6.3.2.3.45	m	
8	N_Neighbor_BS_Index	[5] 6.3.2.3.50 [6] 6.3.2.3.45	m	
9	N_Neighbor_BS_Full	[5] 6.3.2.3.50 [6] 6.3.2.3.45	m	
10	Configuration Change Count for MOB_NBR-ADV	[5] 6.3.2.3.50 [6] 6.3.2.3.45	m	
11	Neighbor_BS_Index	[5] 6.3.2.3.50 [6] 6.3.2.3.45	m	
12	Neighbour BSID	[5] 6.3.2.3.50 [6] 6.3.2.3.45	m	
Comments:				

Table A.374: MOB_SCN-REP TLV

Item	Capability	Reference	Status	Support
1	CMAC Tuple	[5] and [6] 11.1.2.2	m	
Comments:				

A.7.1.24 MOB_BSHO-REQ

Table A.375: PDU: MOB_BSHO-REQ

Item	Parameter	Reference	Status	Support
1	Management Message type=56	[5] 6.3.2.3.52 [6] 6.3.2.3.47	m	
2	Mode	[5] 6.3.2.3.52 [6] 6.3.2.3.47	m	
3	HO operation mode	[5] 6.3.2.3.52 [6] 6.3.2.3.47	m	
4	N_Recommended	[5] 6.3.2.3.52 [6] 6.3.2.3.47	m	
5	Resource Retain Flag	[5] 6.3.2.3.52 [6] 6.3.2.3.47	m	
6	Unsolicited UL grant for HO-IND flag	[5] 6.3.2.3.52 [6] 6.3.2.3.47	m	
7	Neighbour BSID	[5] 6.3.2.3.52 [6] 6.3.2.3.47	m	
8	Service Level Prediction	[5] 6.3.2.3.52 [6] 6.3.2.3.47	m	
9	Preamble Index/Subchannel Index	[5] 6.3.2.3.52 [6] 6.3.2.3.47	m	
10	HO process optimization	[5] 6.3.2.3.52 [6] 6.3.2.3.47	m	
11	Network Assisted HO supported per neighbour BS	[5] 6.3.2.3.52 [6] 6.3.2.3.47	m	
12	HO_ID_included_indication	[5] 6.3.2.3.52 [6] 6.3.2.3.47	m	
13	HO_authorization policy indicator	[5] 6.3.2.3.52 [6] 6.3.2.3.47	m	
14	HO_ID	[5] 6.3.2.3.52 [6] 6.3.2.3.47	m	
15	HO_authorization_policy_support	[5] 6.3.2.3.52 [6] 6.3.2.3.47	o	
16	Action Time	[5] 6.3.2.3.52 [6] 6.3.2.3.47	m	
Comments: In Item 9, only Preamble Index is applicable for OFDMA.				

Table A.376: MOB_BSHO-REQ TLV

Item	Capability	Reference	Status	Support
1	CMAC Tuple	[5] and [6] 11.1.2.2	m	
2	Resource Retain Time	[5] 6.3.2.3.52 [6] 6.3.2.3.47	m	
Comments:				

A.7.1.25 MOB_BSHO-RSP

Table A.377: PDU: MOB_BSHO-RSP

Item	Capability	Reference	Status	Support
1	Management Message type=58	[5] 6.3.2.3.54 [6] 6.3.2.3.49	m	
2	Mode	[5] 6.3.2.3.54 [6] 6.3.2.3.49	m	
3	Action Time	[5] 6.3.2.3.54 [6] 6.3.2.3.49	m	
4	Resource Retain Flag	[5] 6.3.2.3.54 [6] 6.3.2.3.49	m	
5	Unsolicited UL grant for HO-IND flag	[5] 6.3.2.3.54 [6] 6.3.2.3.49	m	
Comments:				

Table A.378: MOB_BSHO-RSP TLV

Item	Capability	Reference	Status	Support
1	CMAC Tuple	[5] and [6] 11.1.2	m	
2	Resource Retain Time	[5] 6.3.2.3.54 [6] 6.3.2.3.49	m	
Comments:				

A.7.1.26 MOB_MSHO-REQ

Table A.379: PDU: MOB_MSHO-REQ

Item	Capability	Reference	Status	Support
1	Management Message type=57	[5] 6.3.2.3.53 [6] 6.3.2.3.48	m	
2	Report metric	[5] 6.3.2.3.53 [6] 6.3.2.3.48	m	
3	N_New_BS_Index	[5] 6.3.2.3.53 [6] 6.3.2.3.48	m	
4	N_New_BS_Full	[5] 6.3.2.3.53 [6] 6.3.2.3.48	m	
5	Configuration Change Count for MOB_NBR-ADV	[5] 6.3.2.3.53 [6] 6.3.2.3.48	m	
6	Neighbor_BS_Index	[5] 6.3.2.3.53 [6] 6.3.2.3.48	m	
7	Neighbour BSID	[5] 6.3.2.3.53 [6] 6.3.2.3.48	m	
8	Preamble index/ Subchannel Index	[5] 6.3.2.3.53 [6] 6.3.2.3.48	m	
Comments:				

Table A.380: MOB_MSHO-REQ TLV

Item	Capability	Reference	Status	Support
1	CMAC Tuple	[5] and [6] 11.1.2.2	m	
Comments:				

A.7.1.27 MOB_HO-IND

Table A.381: PDU: MOB_HO-IND

Item	Parameter	Reference	Status	Support
1	Management Message type=59	[5] 6.3.2.3.55 [6] 6.3.2.3.50	m	
2	Mode	[5] 6.3.2.3.55 [6] 6.3.2.3.50	m	
3	HO_IND_TYPE	[5] 6.3.2.3.55 [6] 6.3.2.3.50	m	
4	Ranging Params valid indication	[5] 6.3.2.3.55 [6] 6.3.2.3.50	m	
5	Target_BS_ID	[5] 6.3.2.3.55 [6] 6.3.2.3.50	m	
6	Preamble Index/ Subchannel Index	[5] 6.3.2.3.55 [6] 6.3.2.3.50	m	
Comments:				

Table A.382: MOB_HO-IND TLV

Item	Capability	Reference	Status	Support
1	CMAC Tuple	[5] and [6] 11.1.2.2	m	
Comments:				

A.7.1.28 PDUs fields for Idle Mode

Table A.383: PDU: MOB_PAG-ADV

Item	Capability	Reference	Status	Support
1	MS MAC Address Hash	[5] 6.3.24.1 [6] 6.3.23.1	m	
2	Paging Group ID	[5] 6.3.24.8.1.1 [6] 6.3.23.8.1.1	m	
3	Action Code	[5] 6.3.2.3.56 [6] 6.3.2.3.51	m	
Comments:				

Table A.384: PHY Synchronization Field

Item	Capability	Reference	Status	Support
1	Frame size and frame number	[5] 6.3.24.3 [6] 6.3.23.3	m	
Comments:				

A.7.1.29 Feedback

Table A.385: PDU: Feedback Header

Item	Capability	Reference	Status	Support
1	CII	[5] and [6] 6.3.2.1.2.2.1	m	
2	Feedback Type	[5] and [6] 6.3.2.1.2.2.1	m	
3	Feedback Content	[5] and [6] 6.3.2.1.2.2.1	m	
4	HCS	[5] and [6] 6.3.2.1.2.2.1	m	
Comments:				

Table A.386: PDU: Feedback Header types

Item	Capability	Reference	Status	Support
1	MIMO feedback type + feedback payload (Type 0000)	[5] and [6] 6.3.2.1.2.2.2	m	
Comments: Feedback Type (from Table 302b) 0b000 - 0b010 (Fast DL measurement/Default Feedback) are valid Only CQICH Types = 000 is valid for WiMAX 0b000 = Fast DL measurement/Default Feedback with antenna grouping 0b001 = Fast DL measurement/Default Feedback with antenna selection 0b010 = Fast DL measurement/Default Feedback with reduced codebook Feedback Payload (from Table 298f) The possible payloads are identical to those available for the regular CQICH. 1. Define that the measurement configuration is the same as the last REP-REQ or CQICH. 2. Define that FH will not be used for reporting CQI if CQICH was allocated to the user, however, it can be used for MIMO mode feedback in the case we want to use CQICH channel to report CQI every frame. The feedback polling IE allocate will be restricted to the end of the frame when Dedicated UL Allocation Included.				

A.7.1.30 NSP Selection

Table A.387: PDU: Service Identity Information (SII-ADV) message

Item	Capability	Reference	Status	Support
1	Management Message Type=68	[6] 6.3.2.3.63	m	
Comments:				

Table A.388: TLVs for NSP Selection

Item	Capability	Reference	Status	Support
1	Service Information Query (SIQ) TLV	[6] 11.8.9	m	
2	NSP Change Count TLV	[6] 11.4.1, 6.3.2.3.63	m	
3	Verbose NSP Name List TLV	[6] 11.1.11.2	m	
4	Visited NSP ID TLV	[6] 11.8.11	m	
5	Visited NSP Realm TLV	[6] 11.8.13	m	
6	SII-ADV Message Pointer TLV	[6] 11.8.14	m	
Comments: For Item 1, scope of the TLV is SBC_RSP or SII-ADV. For Item 2, scope of the TLV is SBC_REQ. For Item 3, scope of the TLV is DCD For Item 4, scope of the TLV is SBC-RSP or SII-ADV. For Item 5, scope of the TLV is SBC-REQ. For Item 6, scope of the TLV is SBC-RSP. For Item 7, scope of the TLV is SBC-RSP.				

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