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**Universal Mobile Telecommunications System (UMTS);
Medium Access Control (MAC) protocol specification
(3GPP TS 25.321 version 13.1.0 Release 13)**



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Contents

Intellectual Property Rights	2
Foreword.....	2
Modal verbs terminology.....	2
Foreword.....	8
1 Scope	9
2 References	9
3 Definitions and abbreviations.....	10
3.1 Definitions	10
3.1.1 HS-DSCH Specific Definitions	10
3.1.2 E-DCH Specific Definitions	10
3.1.2.1 General	10
3.1.2.2 FDD.....	11
3.1.3 DTX-DRX and HS-SCCH less Specific definitions (FDD only)	12
3.1.4 HS-DSCH/E-DCH SPS Specific definitions (1.28 Mcps TDD only).....	13
3.1.5 Dual Cell E-DCH Specific definitions (FDD only)	13
3.2 Abbreviations	13
4 General	14
4.1 Objective	14
4.2 MAC architecture	15
4.2.1 MAC Entities	15
4.2.2 MAC-b.....	15
4.2.3 Traffic Related Architecture - UE Side.....	16
4.2.3.1 MAC-c/sh/m entity – UE Side	17
4.2.3.2 MAC-d entity – UE Side.....	19
4.2.3.3 MAC-hs entity – UE Side	20
4.2.3.4 MAC-e/es entity – UE Side.....	22
4.2.3.5 MAC-ehs entity – UE Side	23
4.2.3.6 MAC-i/is entity – UE Side.....	26
4.2.4 Traffic Related Architecture - UTRAN Side	29
4.2.4.1 MAC-c/sh/m entity – UTRAN Side.....	30
4.2.4.2 MAC-d entity – UTRAN Side	31
4.2.4.3 MAC-hs entity – UTRAN Side.....	33
4.2.4.4 MAC-es entity – UTRAN Side.....	35
4.2.4.5 MAC-e entity – UTRAN Side.....	36
4.2.4.6 MAC-ehs entity UTRAN Side	37
4.2.4.7 MAC-is entity – UTRAN Side.....	40
4.2.4.8 MAC-i entity – UTRAN Side	44
4.3 Channel structure.....	46
4.3.1 Transport channels.....	47
4.3.2 Logical Channels	47
4.3.2.1 Logical channel structure	47
4.3.2.2 Control Channels.....	48
4.3.2.3 Traffic Channels.....	48
5 Services provided to upper layers	48
5.1 Description of Services provided to upper layers.....	48
6 Functions	48
6.1 Description of the MAC functions	48
6.2 Relation between MAC Functions and Transport Channels	50
6.2.1 Relation between MAC Functions and Transport Channels in UTRAN	50
6.2.2 Relation of MAC Functions and Transport Channels in UE	51
7 Services expected from physical layer	51

8	Elements for layer-to-layer communication	51
8.1	Primitives between layers 1 and 2	52
8.1.1	Primitives	52
8.1.2	Parameters	52
8.2	Primitives between MAC and RLC	52
8.2.1	Primitives	52
8.2.2	Parameters	53
8.3	Primitives between MAC and RRC	54
8.3.1	Primitives	54
8.3.2	Parameters	55
9	Elements for peer-to-peer communication	58
9.1	Protocol data units	58
9.1.1	General	58
9.1.2	MAC PDU (not HS-DSCH or E-DCH)	58
9.1.3	MAC-d PDU (HS-DSCH)	59
9.1.4	MAC PDU (HS-DSCH)	59
9.1.5	MAC PDU (E-DCH)	61
9.2	Formats and parameters	65
9.2.1	MAC PDU: Parameters of the MAC PDU header (not HS-DSCH or E-DCH) and MAC-d PDU header (HS-DSCH and E-DCH)	65
9.2.1.1	MAC header for DTCH and DCCH (not mapped on HS-DSCH or E-DCH)	68
9.2.1.1a	MAC-d Header for DTCH and DCCH (mapped on HS-DSCH)	68
9.2.1.1b	MAC-d Header for DTCH and DCCH (mapped on E-DCH)	69
9.2.1.1c	MAC-d or MAC-c headers for DTCH and DCCH (mapped on HS-DSCH, FDD and 1.28 Mcps TDD only)	69
9.2.1.2	MAC header for BCCH	69
9.2.1.3	MAC header for PCCH	70
9.2.1.4	MAC header for CCCH	70
9.2.1.5	MAC Header for CTCH	70
9.2.1.6	MAC Header for SHCCH	70
9.2.2	MAC PDU: Parameters of the MAC header (HS-DSCH)	72
9.2.2.1	MAC header for DTCH and DCCH	74
9.2.3	Signalling of Transport Block size for HS-DSCH	74
9.2.3.1	Transport block size for FDD	74
9.2.3.2	Transport block size for 3.84 Mcps TDD	76
9.2.3.2a	Transport block size for 7.68 Mcps TDD	79
9.2.3.3	Transport block size for 1.28 Mcps TDD	82
9.2.4	MAC PDU: Parameters of the MAC header (E-DCH)	91
9.2.4.1	MAC-es header parameters	91
9.2.4.2	MAC-e header parameters	91
9.2.4.3	MAC-is header parameters	92
9.2.4.4	MAC-i header parameters	92
9.2.5	Signaling of control information for FDD E-DCH	93
9.2.5.1	HARQ information	93
9.2.5.2	DL Scheduling information	93
9.2.5.2.1	Relative Grants	93
9.2.5.2.2	Absolute Grant	96
9.2.5.2.2a	UL MIMO rank and offset	97
9.2.5.3	UL Scheduling information	97
9.2.5.3.1	Happy Bit	97
9.2.5.3.2	Scheduling Information	98
9.2.5.3a	UL MAC Control information	100
9.2.5.3a.1.1	Filtered UPH Report	101
9.2.5.3a.1.2	Ready to Switch	101
9.2.5.4	Transport block size	102
9.2.6	Signaling of control information for TDD E-DCH	103
9.2.6.1	HARQ information	103
9.2.6.2	DL Scheduling information	103
9.2.6.2.1	Absolute Grant	104
9.2.6.3	UL Scheduling Information	105
9.2.6.4	Transport block size	106

9.2.6.4.1	3.84 Mcps TDD Transport Block Size	106
9.2.6.4.2	7.68 Mcps TDD Transport Block Size	107
9.2.6.4.3	1.28 Mcps TDD Transport Block Size	108
9.2.6.5	Timing Advance and Synchronisation (3.84/7.68 Mcps TDD only).....	108
9.2.6.5.1	Unsynchronised Handover	108
9.2.6.5.2	Synchronisation	108
9.2.6.5.3	Timing Advance Request	108
9.2.6.5.4	Timing Advance Response.....	108
10	Handling of unknown, unforeseen and erroneous protocol data	109
11	Specific functions	110
11.1	Traffic volume measurement for dynamic radio bearer control	110
11.2	Control of RACH transmissions and Enhanced Uplink in CELL_FACH state and Idle mode transmissions	110
11.2.1	Access Service Class selection	110
11.2.2	Control of RACH transmissions for FDD mode.....	111
11.2.2A	Control of Enhanced Uplink in CELL_FACH state and Idle mode for FDD mode	114
11.2.3	Control of RACH transmissions for TDD	120
11.2.3.1	Control of RACH transmissions for 3.84 Mcps TDD and 7.68 Mcps TDD	120
11.2.3.1.1	Control of E-RUCCH transmissions	122
11.2.3.2	Control of RACH Transmissions for 1.28 Mcps TDD.....	123
11.2.3.2.1	Control of E-RUCCH transmissions	124
11.2.3.2.1.1	Access Service Class selection	125
11.2.3.2.1.2	Void	125
11.3	Void.....	125
11.4	Transport format combination selection in UE (non E-DCH).....	126
11.4.1	Transport Format Combination Transmission Mode Switching.....	127
11.5	Ciphering.....	128
11.6	Control of HS-DSCH transmission and reception.....	128
11.6.1	Network operation	128
11.6.1.1	Scheduler.....	128
11.6.1.2	HARQ entity	129
11.6.1.3	HARQ process	129
11.6.2	UE operation.....	130
11.6.2.1	HARQ Entity.....	130
11.6.2.2	HARQ process	130
11.6.2.3	Reordering entity.....	131
11.6.2.3.1	Definitions	131
11.6.2.3.2	Reordering functionality.....	132
11.6.2.4	Disassembly entity	134
11.6.2.5	MAC-hs Reset.....	134
11.6.2.6	Reconfiguration of MAC-hs parameters	134
11.6.2.7	HARQ procedure for HS-SCCH less operation (FDD only)	135
11.6.2.8	HARQ procedure for HS-DSCH SPS operation (1.28 Mcps TDD only).....	136
11.6.3	Network operation	137
11.6.3.1	Scheduler.....	137
11.6.3.2	HARQ entity	138
11.6.3.3	HARQ process	139
11.6.4	UE operation.....	139
11.6.4.1	HARQ Entity.....	139
11.6.4.2	HARQ process	140
11.6.4.3	Disassembly entity	141
11.6.4.4	Reordering queue distribution entity	142
11.6.4.5	Reordering entity.....	142
11.6.4.5.1	Definitions	142
11.6.4.5.2	Reordering functionality.....	143
11.6.4.6	Reassembly unit	145
11.6.4.7	Demultiplexing entity.....	146
11.6.4.8	MAC-ehs Reset	146
11.6.4.9	Reconfiguration of MAC-ehs parameters	147
11.6.4.10	HARQ procedure for HS-SCCH less operation (FDD only)	147

11.6.4.11	HARQ procedure for HS-DSCH SPS operation (1.28 Mcps TDD only).....	148
11.7	HS-DSCH Provided Bit Rate measurement	149
11.8	Control of E-DCH transmission and reception (FDD)	150
11.8.1	UE operation.....	150
11.8.1.1	HARQ Operation.....	150
11.8.1.1.1	HARQ entity.....	150
11.8.1.1.2	HARQ process.....	150
11.8.1.1.3	HARQ retransmission rules for uplink MIMO.....	152
11.8.1.2	Multiplexing and TSN setting entity	152
11.8.1.2.1	TSN setting process operation	152
11.8.1.2a	Segmentation entity.....	153
11.8.1.3	Serving Grant Update.....	153
11.8.1.3.1	Baseline Procedure	153
11.8.1.3.2	Handling at start of E-DCH transmission	158
11.8.1.3.3	Handling at serving cell change.....	159
11.8.1.3.4	Handling at TTI change.....	159
11.8.1.3.5	Higher Layer Signalling	159
11.8.1.3.6	Handling in UE DTX Cycle 2	160
11.8.1.3a	UL MIMO rank and offset update.....	160
11.8.1.3a.1	Baseline procedure	160
11.8.1.3a.2	Handling at initiation of UL MIMO	160
11.8.1.3a.3	Handling at serving cell change.....	160
11.8.1.4	E-TFC Selection.....	161
11.8.1.4a	E-TFC Selection for uplink MIMO.....	165
11.8.1.5	Happy Bit Setting.....	166
11.8.1.6	Scheduling Information reporting	167
11.8.1.6.1	Report Triggering when SG = 'Zero_Grant' or all processes are deactivated	168
11.8.1.6.2	Report Triggering when SG <> 'Zero_Grant' and at least one process is activated.....	169
11.8.1.6.3	HARQ delivery failure for triggered Scheduling Information and UL MAC Control Information	169
11.8.1.6a	Control Information reporting.....	170
11.8.1.6a.1	Filtered UPH Report.....	170
11.8.1.7	MAC-es/e Reset	170
11.8.1.8	Monitoring of Absolute and Relative Grant Channels	171
11.8.1.9	Release of common E-DCH resources (FDD only)	171
11.8.2	Node B operation.....	172
11.8.2.1	HARQ Operation	172
11.8.2.1.1	HARQ entity.....	172
11.8.2.1.2	HARQ process.....	172
11.8.2.2	De-multiplexing	172
11.8.2.3	Scheduler.....	172
11.8.2.4	E-DCH Provided Bit Rate measurement.....	172
11.8.2.5	Determination of UE-ID (FDD only) and collision resolution.....	173
11.8.3	RNC operation	173
11.8.3.1	Re-ordering entity for DTCH/DCCH transmission.....	173
11.8.3.2	Re-ordering and CRC entity for CCCH transmission	173
11.9	Control of E-DCH transmission and reception (TDD).....	174
11.9.1	UE operation.....	174
11.9.1.1	HARQ Operation	174
11.9.1.1.1	HARQ entity.....	175
11.9.1.1.2	HARQ process.....	176
11.9.1.2	Multiplexing and TSN setting entity	177
11.9.1.2a	Segmentation entity.....	177
11.9.1.3	Receiving a Grant.....	178
11.9.1.4	E-TFC Selection.....	178
11.9.1.4a	Scheduling Information reporting (3.84/7.68 Mcps TDD only).....	181
11.9.1.5	Scheduling Information reporting (1.28 Mcps TDD only).....	181
11.9.1.5a	Cell Reselection Indication in CELL_FACH state (1.28 Mcps TDD only).....	182
11.9.1.5b	Common E-RNTI selection in CELL_FACH state and idle mode (1.28 Mcps TDD only).....	183
11.9.1.6	MAC-es/e Reset (1.28 Mcps TDD only).....	183
11.9.2	Node B operation.....	184
11.9.2.1	HARQ Operation	184

11.9.2.1.1	HARQ entity.....	184
11.9.2.1.2	HARQ process.....	184
11.9.2.2	De-multiplexing	184
11.9.2.3	Scheduler.....	184
11.9.2.4	E-DCH Provided Bit Rate measurement.....	185
11.9.3	RNC operation.....	185
11.9.3.1	Re-ordering entity for DTCH/DCCH transmission.....	185
11.9.3.2	Re-ordering entity for CCCH transmissio (1.28 Mcps TDD only)	185
11.10	Filtered UE power headroom (FDD).....	185
Annex A (normative): HS-DSCH Transport Block Size Table for FDD		187
Annex B (normative): E-DCH Transport Block Size Tables for FDD.....		191
B.1	2ms TTI E-DCH Transport Block Size Table 0.....	191
B.2	2ms TTI E-DCH Transport Block Size Table 1	191
B.2a	2ms TTI E-DCH Transport Block Size Table 2	192
B.2b	2ms TTI E-DCH Transport Block Size Table 3	193
B.2c	2ms TTI E-DCH Transport Block Size Table 4	194
B.3	10ms TTI E-DCH Transport Block Size Table 0	194
B.4	10ms TTI E-DCH Transport Block Size Table 1	195
Annex BA (normative): E-DCH Transport Block Size Tables for 3.84 Mcps TDD		197
BA.1	10ms TTI E-DCH Transport Block Size Table 0	197
Annex BB (normative): E-DCH Transport Block Size Tables for 7.68 Mcps TDD		200
BB.1	10ms TTI E-DCH Transport Block Size Table 0	200
Annex BC (normative): E-DCH Transport Block Size Tables for 1.28 Mcps TDD		203
BC.1	5ms TTI E-DCH Transport Block Size Table 0	203
Annex C (informative): Pseudo-Code for E-TFC Selection (FDD).....		206
Annex CA (informative): Pseudo-Code for E-TFC Selection (TDD).....		208
Annex D (informative): Change history		210
History		218

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1 Scope

The present document specifies the MAC protocol.

The specification describes:

- MAC architecture;
- MAC entities;
- channel structure;
- services provided to upper layers;
- MAC functions;
- services expected from the physical layer;
- elements for layer-to-layer communication including primitives between MAC and RLC;
- elements for peer-to-peer communication;
- protocol data units, formats and parameters;
- elementary procedures.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] 3GPP TS 25.301: "Radio Interface Protocol Architecture".
- [3] 3GPP TS 25.302: "Services provided by the Physical Layer".
- [4] 3GPP TS 25.303: "Interlayer Procedures in Connected Mode".
- [5] 3GPP TS 25.304: "UE Procedures in Idle Mode and Procedures for Cell Reselection in Connected Mode".
- [6] 3GPP TS 25.322: "RLC Protocol Specification".
- [7] 3GPP TS 25.331: "Radio Resource Control (RRC); protocol specification".
- [8] 3GPP TR 25.921: "Guidelines and Principles for Protocol Description and Error Handling".
- [9] 3GPP TR 25.990: "Vocabulary for the UTRAN".
- [10] 3GPP TS 33.102: "Security architecture".
- [11] 3GPP TS 25.425: "UTRAN Iur Interface User Plane Protocols for Common Transport Channel Data Streams".