SLOVENSKI STANDARD
SIST ETS 300 607-1 E5:2005

01-februar-2005

Digitalni celiļ ni telekomunikacijski sistem (faza 2) - Specifikacija skladnosti mobilne postaje (MS) - 1. del: Specifikacija skladnosti (GSM 11.10-1, razliļ ica 4.18.1)

Digital cellular telecommunications system (Phase 2) (GSM); Mobile Station (MS) conformance specification; Part 1: Conformance specification (GSM 11.10-1 version 4.18.1)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST ETS 300 607-1 E5:2005
https://standards.iteh.ai/catalog/standards/sist/5eae583a-9e92-49c0-ab9d-ef09e1678332/sist-ets-300-607-1-e5-2005

Ta slovenski standard je istoveten z: ETS 300 607-1 Edition 5

ICS:

33.070.50	Globalni sistem za mobilno telekomunikacijo (GSM)	Global System for Mobile Communication (GSM)

SIST ETS 300 607-1 E5:2005 en

2003-01.Slovenski inštitut za standardizacijo. Razmnoževanje celote ali delov tega standarda ni dovoljeno.

SIST ETS 300 607-1 E5:2005

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST ETS 300 607-1 E5:2005
https://standards.iteh.ai/catalog/standards/sist/5eae583a-9e92-49c0-ab9d-ef09e1678332/sist-ets-300-607-1-e5-2005

SIST ETS 300 607-1 E5:2005

EUROPEAN TELECOMMUNICATION STANDARD

ETS 300 607-1

September 1997

Fifth Edition

Source: ETSI SMG

Reference: RE/SMG-07111OPR3-1

ICS: 33.020

Key words: Digital cellular telecommunications system, Global System for Mobile Communication (GSM)

GLOBAL SYSTEM FOR MOBILE COMMUNICATIONS

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Digital cellular telecommunication system (Phase 2); Mobile Station (MS) conformance specification; Part 1: Conformance specification

(GSM 11.10-1 version 4.18.1)

SIST ETS 300 607-1 E5:2005
https://standards.iteh.ai/catalog/standards/sist/ef09e1678332-4ef9-9ccb-ef09e1678332/sist-ets-300-607-1-e5-2005

ETSI

European Telecommunications Standards Institute

ETSI Secretariat

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

Tel.: +33 4 92 94 42 00 - Fax: +33 4 93 65 47 16

Copyright Notification: No part may be reproduced except as authorized by written permission. The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 1997. All rights reserved.

SIST ETS 300 607-1 E5:2005

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST ETS 300 607-1 E5:2005
https://standards.iteh.ai/catalog/standards/sist/5eae583a-9e92-49c0-ab9d-ef09e1678332/sist-ets-300-607-1-e5-2005

Whilst every care has been taken in the preparation and publication of this document, errors in content, typographical or otherwise, may occur. If you have comments concerning its accuracy, please write to "ETSI Editing and Standards Approval Dept." at the address shown on the title page.

SIST ETS 300 607-1 E5:2005

Contents

Foreword 29

1 Scope 31

2 Normative references 31

3 Definitions, conventions, and applicability 37
3.1 Mobile station definition and configurations 37
3.2 Applicability 38
3.2.1 Applicability of this specification 38
3.2.2 Applicability of the individual tests 38
3.2.3 Applicability to terminal equipment 58
3.3 Definitions 58
3.4 Conventions for mathematical notations 59
3.4.1 Mathematical signs 59
3.4.2 Powers to the base 10 59
3.5 Conventions on electrical terms 59
3.5.1 Radio Frequency (RF) input signal level 59
3.5.2 Reference sensitivity level 59
3.5.3 Power level of fading signal 60
3.6 Terms on test conditions 60
3.6.1 Radio test conditions 60

4 Test Equipment 60
4.1 Terms used to describe test equipment in this ETS 60
4.2 Functional requirements of test equipment 61

5 Testing methodology in general (layers 1, 2, and 3) 61
5.1 Testing of optional functions and procedures 61
5.2 Test interfaces and facilities 61
5.3 Different protocol layers 62
5.4 Information to be provided by the apparatus supplier 62
5.5 Definitions of transmit and receive times 62

6 Reference test methods. 62
6.1 General 62
6.2 Choice of frequencies in the frequency hopping mode 62
6.3 "Ideal" radio conditions 63
6.4 Standard test signals. 63
6.5 Power (control) levels. 63

7 Implicit testing 63

8 Measurement uncertainty 63

9 Format of tests 64

10 Generic call set up procedures 64
10.1 Generic call set-up procedure for mobile terminating speech calls 64
10.1.1 Initial conditions 64
10.1.2 Definition of system information messages 65
10.1.3 Procedure 67
10.1.4 Specific message contents 68
10.2 Generic call set-up procedure for mobile originating speech calls 69
10.2.1 Initial conditions 69
10.2.2 Definition of system information messages 69

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 607-1 E5:2005
https://standards.iteh.ai/catalog/standards/sist/5aae583a-9e92-49c0-ab9d-a009a1678332/sist-ets-300-607-1-e5-2005

SIST ETS 300 607-1 E5:2005

10.2.3 Procedure 70
10.2.4 Specific message contents 70
10.3 Generic call set-up procedure for mobile terminating data calls 72
10.3.1 Initial conditions 72
10.3.2 Definition of system information messages 72
10.3.3 Procedure 73
10.3.4 Specific message contents 73
10.4 Generic call set-up procedure for mobile originating data calls 75
10.4.1 Initial conditions 75
10.4.2 Definition of system information messages 75
10.4.3 Procedure 76
10.4.4 Specific message contents 76

11 General tests 79
11.1 Verification of support and non-support of services (multiple numbering scheme or ISDN) 79
11.1.1 Mobile Terminated (MT) calls 79
11.1.2 Mobile Originated (MO) calls 80
11.2 Verification of support of the single numbering scheme 81
11.3 Verification of non-support of services (Advice of Charge Charging (AoCC)) 82
11.4 Verification of non-support of services (call hold) 83
11.5 Verification of non-support of services (multiparty) 84
11.6 Verification of non-support of feature (Fixed Dialling Number (FDN)) 85
11.7 IMEI Security 86
11.8 Coding of the Bearer Capability information element 87
11.8.1 Network to MS Direction 88
11.8.1.1 BS 21 to 26 - Asynchronous Service 88
11.8.1.1.1 BS 21 88
11.8.1.1.2 BS 22 92
11.8.1.1.3 BS 24 92
11.8.1.1.4 BS 25 92
11.8.1.1.5 BS 26 92
11.8.1.1.6 BS 23 92
11.8.1.2 BS 31 to 34 - Synchronous Service 93
11.8.1.2.1 BS 32 93
11.8.1.2.2 BS 31 97
11.8.1.2.3 BS 33 98
11.8.1.2.4 BS 34 98
11.8.1.3 BS 61 - Alternate Speech / Data 98
11.8.1.3.1 Speech/Asynchronous Data, Transparent 99
11.8.1.3.2 Speech/Asynchronous Data, Non Transparent 101
11.8.1.3.3 Speech/Synchronous Data 103
11.8.1.4 BS 81 - Speech followed by Data 104
11.8.1.4.1 Speech followed by Asynchronous Data 104
11.8.1.4.2 Speech followed by Synchronous Data 104
11.8.1.5 TS 61 - Alternate Speech / Facsimile group 3 104
11.8.1.5.1 TS 61 - Alternate Speech / Facsimile group 3, Transparent 105
11.8.1.5.2 TS 61 - Alternate Speech / Facsimile group 3, Non-Transparent 106
11.8.1.6 TS 62 - Automatic Facsimile group 3 107
11.8.2 MS to SS direction 107
11.8.2.1 BS 21 to 26 - Asynchronous Service 107
11.8.2.1.1 BS 21 108
11.8.2.1.2 BS 22 112
11.8.2.1.3 BS 24 112
11.8.2.1.4 BS 25 112
11.8.2.1.5 BS 26 112
11.8.2.1.6 BS 23 112

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 607-1 E5:2005
https://standards.iteh.ai/catalog/standards/sist/36e7983a-9e92-49c0-ab9d-ef09e1b78832/sist-ets-300-607-1-e5-2005

SIST ETS 300 607-1 E5:2005

11.8.2.2 BS 31 to 34 - Synchronous Service 113
11.8.2.2.1 BS 32 113
11.8.2.2.2 BS 31 117
11.8.2.2.3 BS 33 118
11.8.2.2.4 BS 34 118
11.8.2.3 BS 41 to 46 - PAD Access Asynchronous 119
11.8.2.3.1 [2)] BS 41 119
11.8.2.3.2 BS 42 120
11.8.2.3.3 BS 44 121
11.8.2.3.4 BS 45 121
11.8.2.3.5 BS 46 121
11.8.2.3.6 BS 43 121
11.8.2.4 BS 51 to 53 - Packet Service Synchronous 122
11.8.2.4.1 [2)] BS 51 122
11.8.2.4.2 BS 52 122
11.8.2.4.3 BS 53 122
11.8.2.5 BS 61 - Alternate Speech / Data 123
11.8.2.5.1 Speech/Asynchronous Data, Transparent 123
11.8.2.5.2 Speech/Asynchronous Data, Non Transparent 125
11.8.2.5.3 Speech/Synchronous Data 127
11.8.2.6 BS 81 - Speech followed by Data 128
11.8.2.6.1 Speech followed by Asynchronous Data 128
11.8.2.6.2 Speech followed by Synchronous Data 128
11.8.2.7 TS 61 - Alternate Speech / Facsimile group 3 128
11.8.2.7.1 TS 61 - Alternate Speech / Facsimile group 3, Transparent 129
11.8.2.7.2 TS 61 - Alternate Speech / Facsimile group 3, Non Transparent 130
11.8.2.8 TS 62 - Automatic Facsimile group 3 131

12 Transceiver 132
12.1 Conducted spurious emissions 132
12.1.1 MS allocated a channel 132
12.1.2 MS in idle mode 133
12.2 Radiated spurious emissions 135
12.2.1 MS allocated a channel 135
12.2.2 MS in idle mode 137

13 Transmitter 140
13.1 Frequency error and phase error 140
13.2 Frequency error under multipath and interference conditions 143
13.3 Transmitter output power and burst timing 145
13.4 Output RF spectrum 152
13.5 Intermodulation attenuation 158

14 Receiver 160
14.1 Bad frame indication 165
14.1.1 Bad frame indication - TCH/FS 165
14.1.1.1 Bad frame indication - TCH/FS - Random RF input 165
14.1.1.2 Bad frame indication - TCH/FS - Frequency hopping and downlink DTX 166
14.1.2 Bad frame indication - TCH/HS 168
14.1.2.1 Bad frame indication - TCH/HS - Random RF input 168
14.1.2.2 Bad frame indication - TCH/HS - Frequency hopping and downlink DTX 169
14.1.3 Bad frame indication - TCH/FS - Frequency hopping and downlink DTX - Phase 2 MS in a phase 1 network 170
14.1.4 Bad frame indication - TCH/HS - Frequency hopping and downlink DTX - Phase 2 MS in a phase 1 network 172

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 607-1 E5:2005
https://standards.iteh.ai/catalog/standards/sist/5eae583a-9e92-49c0-ab9d-ef09e1678332/sist-ets-300-607-1-e5-2005

SIST ETS 300 607-1 E5:2005

14.2 Reference sensitivity 174
14.2.1 Reference sensitivity - TCH/FS 174
14.2.2 Reference sensitivity - TCH/HS (Speech frames) 176
14.2.3 Reference sensitivity - FACCH/F 179
14.2.4 Reference sensitivity - FACCH/H 180
14.2.5 Reference sensitivity - full rate data channels 181
14.2.6 Reference sensitivity - half rate data channels 182
14.3 Usable receiver input level range 183
14.4 Co-channel rejection 184
14.4.1 Co-channel rejection - TCH/FS. 184
14.4.2 Co-channel rejection - TCH/HS 186
14.4.3 Co-channel rejection - TCH/HS (SID frames) 188
14.4.4 Co-channel rejection - FACCH/F 190
14.4.5 Co-channel rejection - FACCH/H 191
14.5 Adjacent channel rejection 192
14.5.1 Adjacent channel rejection - speech channels 192
14.5.2 Adjacent channel rejection - control channels 194
14.6 Intermodulation rejection 196
14.6.1 Intermodulation rejection - speech channels 196
14.6.2 Intermodulation rejection - control channels 198
14.7 Blocking and spurious response 200
14.7.1 Blocking and spurious response - speech channels 200
14.7.2 Blocking and spurious response - control channels 203
14.8 AM suppression 206
14.8.1 AM suppression - speech channels 206
14.8.2 AM suppression - control channels 207

15 Timing advance and absolute delay 210

16 Reception time tracking speed 212

17 Access times during handover 214
17.1 Intra cell channel change 214
17.2 Inter cell handover 216

18 Temporary reception gaps 219

19 Channel release after unrecoverable errors 221
19.1 Channel release after unrecoverable errors - 1 221
19.2 Channel release after unrecoverable errors - 2 222
19.3 Channel release after unrecoverable errors - 3 223

20 Cell selection and reselection 225
20.1 Cell selection 226
20.2 Cell selection with varying signal strength values 228
20.3 Basic cell reselection 230
20.4 Cell reselection using TEMPORARY_OFFSET, CELL_RESELECT_OFFSET, POWER_OFFSET and PENALTY_TIME parameters 232
20.5 Cell reselection using parameters transmitted in the System Information type 2bis, type 2ter, type 7 and type 8 messages. 234
20.5.5 Test Requirements 235
20.6 Cell reselection timings 236
20.6.1 Definition and applicability 236
20.6.2 Conformance requirement 236
20.6.3 Test purpose 236
20.6.4 Method of test 236
20.6.4.1 Initial conditions 236
20.6.4.2 Procedure 236
20.6.5 Test requirements 237
20.7 Priority of cells 237
20.7.4.2 Procedure 238
20.7.5 Test requirements 239
20.8 Cell reselection when C1 (serving cell) < 0 for 5 seconds 239

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 607-1 E5:2005
https://standards.iteh.ai/catalog/standards/sist/5cae583a-9c92-49c0-ab9d-ef09e1678332/sist-ets-300-607-1-e5-2005

SIST ETS 300 607-1 E5:2005

20.8.1 Definition and applicability 239
20.8.2 Conformance requirement 239
20.8.3 Test purpose 239
20.8.4 Method of test 239
20.8.4.1 Initial conditions 239
20.8.4.2 Procedure 239
20.8.5 Test requirements 240
20.9 Running average of the surrounding cell BCCH carrier signal levels 240
20.9.1 Definition and applicability 240
20.9.2 Conformance requirement 240
20.9.3 Test purpose 240
20.9.4 Method of test 240
20.9.4.1 Initial conditions 240
20.9.4.2 Procedure 241
20.9.5 Test requirements 241
20.10 Running average of the serving cell BCCH carrier signal level 241
20.10.1 Definition and applicability 241
20.10.2 Conformance requirement 241
20.10.3 Test purpose 241
20.10.4 Method of test 241
20.10.4.1 Initial conditions 241
20.10.4.2 Procedure 242
20.10.5 Test requirement 242
20.11 Updating the list of six strongest neighbour carriers and decoding the BCCH information of a new carrier on the list 242
20.11.1 Definition and applicability 242
20.11.2 Conformance requirement 242
20.11.3 Test purpose 242
20.11.4 Method of test 242
20.11.4.1 Initial conditions 242
20.11.4.2 Procedure 243
20.11.5 Test requirements 243
20.12 Decoding the BCCH information of the neighbour carriers on the list of six strongest neighbour carriers 243
20.12.1 Definition and applicability 243
20.12.2 Conformance requirement 243
20.12.3 Test purpose 243
20.12.4 Method of test 244
20.12.4.1 Initial conditions 244
20.12.4.2 Procedure 244
20.12.5 Test requirements 244
20.13 Decoding the BSIC of the neighbour carriers on the list of six strongest neighbour carriers 244
20.13.1 Definition and applicability 244
20.13.2 Conformance requirement 244
20.13.3 Test purpose 244
20.13.4 Method of test 245
20.13.4.1 Initial conditions 245
20.13.4.2 Procedure 245
20.13.5 Test requirements 245
20.14 Emergency calls 245
20.14.1 Definition and applicability 245
20.14.2 Conformance requirement 245
20.14.3 Test purpose 245
20.14.4 Method of test 246
20.14.4.1 Initial conditions 246
20.14.4.2 Procedure 246
20.14.5 Test requirements 246
20.15 Cell reselection due to MS rejection "LA not allowed" 246
20.15.1 Definition and applicability 246
20.15.2 Conformance requirement 247
20.15.3 Test purpose 247
20.15.4 Method of test 247

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 607-1 E5:2005
https://standards.iteh.ai/catalog/standards/sist/5eac383a-9e92-49c0-ab9d-e0ba16783332/sist-ets-300-607-1-e5-2005

SIST ETS 300 607-1 E5:2005

20.15.4.1 Initial conditions 247
20.15.4.2 Procedure 247
20.15.5 Test requirements 248
20.16 Downlink signalling failure 248
20.16.1 Definition and applicability 248
20.16.2 Conformance requirement 248
20.16.3 Test purpose 249
20.17 Cell selection if no suitable cell found in 10 s 249
20.18 Cell reselection due to MS rejection "Roaming not allowed in this LA" 250
20.18.5 Test requirements 251
20.19 Cell selection on release of SDCCH and TCH 252
20.19.1 Definition and applicability 252
20.19.2 Conformance requirement 252
20.19.3 Test purpose 252
20.19.4 Method of test 252
20.19.4.1 Initial conditions 252
20.19.4.2 Test procedure 252
20.19.5 Test requirements 253
20.20 Multiband cell selection and reselection 253
20.20.1 Multiband cell selection and reselection / Cell Selection 253
20.20.2 Multiband cell selection and reselection / Cell reselection 255

21 Received signal measurements 257
21.1 Signal strength 257
21.2 Signal strength selectivity 260
21.3 Signal quality under static conditions 261
21.3.1 Signal quality under static conditions - TCH/FS 261
21.3.2 Signal quality under static conditions - TCH/HS 263
21.3.2.4.2 Procedure 264
21.4 Signal quality under TU50 propagation conditions 265
21.4.4.1 Initial conditions 266
21.4.4.2 Procedure 266

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 607-1 E5:2005
https://standards.iteh.ai/catalog/standards/sist/5eae583a-9e92-49c0-ab9d-eff09e1678332/sist-ets-300-607-1-e5-2005

Error! Cannot open file referenced on page 28

25 Tests of the layer 2 signalling functions 271
25.1 Introduction, objective and scope 271
25.1.1 General 271
25.1.2 Test configurations 271
25.1.3 Pre-conditions 271
25.1.4 Layer 2 test frames 272
25.1.5 Establishment of the dedicated physical resource 272
25.1.6 Release of the dedicated physical resource 273
25.2 Test sequences 273
25.2.1 Initialization 274
25.2.1.1 Initialization when contention resolution required 274
25.2.1.1.1 Normal initialization 274
25.2.1.1.2 Initialization failure 275
25.2.1.1.2.1 Loss of UA frame 275
25.2.1.1.2.2 UA frame with different information field 276
25.2.1.1.2.3 Information frame and supervisory frames in response to an SABM frame 277
25.2.1.1.3 Initialization denial 277
25.2.1.1.4 Total initialization failure 278
25.2.1.2 Initialization, contention resolution not required 279
25.2.1.2.1 Normal initialization without contention resolution 279
25.2.1.2.2 Initialization failure 280
25.2.1.2.3 Initialization denial 282
25.2.1.2.4 Total initialization failure 282
25.2.2 Normal information transfer 283
25.2.2.1 Sequence counting and I frame acknowledgements 283

SIST ETS 300 607-1 E5:2005

25.2.2.2 Receipt of an I frame in the timer recovery state 286
25.2.2.3 Segmentation and concatenation 288
25.2.3 Normal layer 2 disconnection 291
25.2.4 Test of link failure 291
25.2.4.1 I frame loss (MS to SS) 291
25.2.4.2 RR response frame loss (SS to MS) 292
25.2.4.3 RR response frame loss (MS to SS) 293
25.2.5 Test of frame transmission with incorrect C/R values 294
25.2.5.1 I frame with C bit set to zero 294
25.2.5.2 SABM frame with C bit set to zero 295
25.2.6 Test of errors in the control field 296
25.2.6.1 N(S) sequence error 296
25.2.6.2 N(R) sequence error 298
25.2.6.3 Improper F bit 298
25.2.7 Test on receipt of invalid frames 299

26 Testing of layer 3 functions 304
26.1 Default conditions and structured sequence of tests 304
26.1.1 Default test conditions during layer 3 tests 304
26.1.2 Structured sequence of the tests 305
26.1.3 General rules for message parameters 306
26.1.4 General rules for layer 3 testing 306
26.1.5 Format of layer 3 test descriptions 306
26.2 Initial tests 308
26.2.1 Channel request 308
26.2.1.1 Channel request / initial time 308
26.2.1.2 Channel request / repetition time 309
26.2.1.3 Channel request / random reference 311
26.2.2 IMSI detach and IMSI attach 312
26.2.3 Sequenced MM / CM message transfer 316
26.2.4 Establishment cause 317
26.3 Test of MS functions in idle mode 326
26.3.1 Initial conditions 326
26.3.2 MS indication of available PLMNs 328
26.3.3 MS will send only if BSS is "on air" 329
26.3.4 Manual mode of PLMN selection 329
26.4 Lower layer failures in layer 3 testing 331
26.4.1 Introduction 331
26.4.2 Layer 1 reception failures 331
26.4.3 Data link layer failures 331
26.4.4 Lower layer failures, used for the tests in clause 25 331
26.5 Handling of unknown, unforeseen, and erroneous protocol data, and of parallel transactions 332
26.5.1 Handling of unknown, unforeseen, and erroneous protocol data, and of parallel transactions / unknown protocol discriminator 332
26.5.2 Handling of unknown, unforeseen, and erroneous protocol data, and of parallel transactions / TI and skip indicator 333
26.5.2.1 TI and skip indicator / RR 333
26.5.2.1.1 TI and skip indicator / RR / Idle Mode 333
26.5.2.1.2 TI and skip indicator / RR / RR-Connection established 334
26.5.2.2 TI and skip indicator / MM 335
26.5.2.3 TI and skip indicator / CC 337
26.5.3 Handling of unknown, unforeseen, and erroneous protocol data, and of parallel transactions / undefined or unexpected message type 339
26.5.3.1 Undefined or unexpected message type / undefined message type / CC 339
26.5.3.2 Undefined or unexpected message type / undefined message type / MM 340
26.5.3.3 Undefined or unexpected message type / undefined message type / RR 342
26.5.3.4 Undefined or unexpected message type / unexpected message type / CC 343

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 607-1 E5:2005
https://standards.iteh.ai/catalog/standards/sist/5eae8c34-9e92-49c0-ab9d-c05e167833c2/sist-ets-300-607-1-e5-2005

SIST ETS 300 607-1 E5:2005

26.5.4 Handling of unknown, unforeseen, and erroneous protocol data, and of parallel transactions / unforeseen information elements in the non-imperative message part 344
26.5.4.1 Unforeseen information elements in the non-imperative message part / duplicated information elements 344
26.5.5 Handling of unknown, unforeseen, and erroneous protocol data, and of parallel transactions / non-semantical mandatory IE errors 346
26.5.5.1 Non-semantical mandatory IE errors / RR 346
26.5.5.1.1 Non-semantical mandatory IE errors / RR / missing mandatory IE error 346
26.5.5.1.1.1 Non-semantical mandatory IE errors / RR / missing mandatory IE error / special case 346
26.5.5.1.1.2 Non-semantical mandatory IE errors / RR / missing mandatory IE error / general case 347
26.5.5.1.2 Non-semantical mandatory IE errors / RR / comprehension required 348
26.5.5.2 Non-semantical mandatory IE errors / MM 349
26.5.5.2.1 Non-semantical mandatory IE errors / MM / syntactically incorrect mandatory IE 349
26.5.5.2.2 Non-semantical mandatory IE errors / MM / syntactically incorrect mandatory IE 350
26.5.5.2.3 Non-semantical mandatory IE errors / MM / comprehension required 352
26.5.5.3 Non-semantical mandatory IE errors / CC 354
26.5.5.3.1 Non-semantical mandatory IE errors / CC / missing mandatory IE 354
26.5.5.3.1.1 Non-semantical mandatory IE errors / CC / missing mandatory IE / disconnect message 354
26.5.5.3.1.2 Non-semantical mandatory IE errors / CC / missing mandatory IE / general case 355
26.5.5.3.2 Non-semantical mandatory IE errors / CC / comprehension required 356
26.5.6 Handling of unknown, unforeseen, and erroneous protocol data, and of parallel transactions / unknown IE, comprehension not required 357
26.5.6.1 Unknown information elements in the non-imperative message part / MM 357
26.5.6.1.1 Unknown IE, comprehension not required / MM / IE unknown in the protocol 357
26.5.6.1.2 Unknown IE, comprehension not required / MM / IE unknown in the message 359
26.5.6.2 Unknown information elements in the non-imperative message part / CC 360
26.5.6.2.1 Unknown information elements in the non-imperative message part / CC / Call establishment 360
26.5.6.2.2 Unknown information elements in the non-imperative message part / CC / disconnect 361
26.5.6.2.3 Unknown information elements in the non-imperative message part / CC / release 362
26.5.6.2.4 Unknown information elements in the non-imperative message part / CC / release complete 363

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 607-1 E5:2005
https://standards.iteh.ai/catalog/standards/sist/5e4e58ba-9892-49ed-ab94-ef09e1678332/sist-ets-300-607-1-e5-2005

SIST ETS 300 607-1 E5:2005

26.5.6.3 Unknown IE in the non-imperative message part, comprehension not required / RR 364
26.5.7 Handling of unknown, unforeseen, and erroneous protocol data, and of parallel transactions / spare bits 366
26.5.7.1 Spare bits / RR 366
26.5.7.1.1 Spare bits / RR / paging channel 366
26.5.7.1.2 Spare bits / RR / BCCH 367
26.5.7.1.3 Spare bits / RR / AGCH 369
26.5.7.1.4 Spare bits / RR / Connected Mode 371
26.5.7.2 Spare bits / MM 373
26.5.7.3 Spare bits / CC 374
26.5.8 Default contents of messages 377
26.6 Test of the elementary procedures for radio resource management 380
26.6.1 Immediate assignment 380
26.6.1.1 Immediate assignment / SDCCH or TCH assignment 380
26.6.1.2 Immediate assignment / extended assignment 381
26.6.1.3 Immediate assignment / assignment rejection 383
26.6.1.4 Immediate assignment / ignore assignment 385
26.6.1.5 Immediate assignment after immediate assignment reject 387
26.6.2 Test of paging 388
26.6.2.1 Normal paging 388
26.6.2.1.1 Paging / normal / type 1 388
26.6.2.1.2 Paging / normal / type 2 390
26.6.2.1.3 Paging / normal / type 3 392
26.6.2.2 Paging / extended 394
26.6.2.3 Paging / reorganization 398
26.6.2.3.1 Paging / reorganization / procedure 1 398
26.6.2.3.2 Paging / reorganization / procedure 2 401
26.6.2.4 Paging / same as before 402
26.6.2.5 Paging / multislot CCCH 403
26.6.3 Test of measurement report 404
26.6.3.1 Measurement / no neighbours 405
26.6.3.2 Measurement / all neighbours present 408
26.6.3.3 Measurement / barred cells and non-permitted NCCs 412
26.6.3.4 Measurement / DTX 417
26.6.3.5 Measurement / Frequency Formats 421
26.6.3.6 Measurement / multiband environment 424
26.6.4 Test of the channel assignment procedure 429
26.6.4.1 Dedicated assignment / successful case 429
26.6.4.2 Dedicated assignment / failure 440
26.6.4.2.1 Dedicated assignment / failure / failure during active state 440
26.6.4.2.2 Dedicated assignment / failure / general case 441
26.6.5 Test of handover 443
26.6.5.1 Handover / successful / active call / non-synchronized 444
26.6.5.2 Handover / successful / call under establishment / non-synchronized 459
26.6.5.3 Handover / successful / active call / finely synchronized 477
26.6.5.4 Handover / successful / call under establishment / finely synchronized 482
26.6.5.5 Pre-synchronized handovers 492
26.6.5.5.1 Handover / successful / active call / pre-synchronized / Timing Advance IE not included 492
26.6.5.5.2 Handover / successful / call being established / pre-synchronized / timing advance IE is included / reporting of observed time difference requested. 494
26.6.5.6 Handover / successful / active call / pseudo synchronized 496
26.6.5.7 Handover / successful / active call / non-synchronized / reporting of observed time difference requested. 498
26.6.5.8 Handover / layer 3 failure 499

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 607-1 E5:2005
https://standards.iteh.ai/catalog/standards/sist/5eae58ae-9e92-49c0-ab9d-a0de1678332/sist-ets-300-607-1-e5-2005

SIST ETS 300 607-1 E5:2005

26.6.5.9 Handover / layer 1 failure 501
26.6.6 Test of frequency redefinition 502
26.6.6.1 Frequency redefinition 502
26.6.7 Test of the channel mode modify procedure 507
26.6.7.1 Test of the channel mode modify procedure / full rate 508
26.6.7.2 Test of the channel mode modify procedure / half rate 510
26.6.8 Test of ciphering mode setting 512
26.6.8.1 Ciphering mode / start ciphering 512
26.6.8.2 Ciphering mode / no ciphering 513
26.6.8.3 Ciphering mode / old cipher key 515
26.6.8.4 Ciphering mode / change of mode, algorithm and key 516
26.6.8.5 Ciphering mode / IMEISV request 523
26.6.9 Test of additional assignment 525
26.6.10 Test of partial release 525
26.6.11 Test of classmark 525
26.6.11.1 Classmark change 525
26.6.11.2 Classmark interrogation 527
26.6.12 Test of channel release 529
26.6.12.1 Channel release / SDCCH 529
26.6.12.2 Channel release / SDCCH - no L2 ACK 530
26.6.12.3 Channel release / TCH-F 532
26.6.12.4 Channel release / TCH-F - no L2 ACK 533
26.6.13 Test of starting time 534
26.6.13.1 Dedicated assignment with starting time / successful case / time not elapsed 536
26.6.13.2 Dedicated assignment with starting time / successful case / time elapsed 537
26.6.13.3 Dedicated assignment with starting time and frequency redefinition / failure case / time not elapsed 539
26.6.13.4 Dedicated assignment with starting time and frequency redefinition / failure case / time elapsed 542
26.6.13.5 Handover with starting time / successful case / time not elapsed 544
26.6.13.6 Handover with starting time / successful case / time elapsed 546
26.6.13.7 Handover with starting time and frequency redefinition / failure case / time not elapsed 548
26.6.13.8 Handover with starting time and frequency redefinition / failure case / time elapsed 551
26.6.13.9 Immediate assignment with starting time / successful case / time not elapsed 553
26.6.13.10 Immediate assignment with starting time / successful case / time elapsed 555
26.6.14 Default contents of GSM 900 layer 3 messages for RR tests 557
26.6.15 Default contents of DCS 1 800 layer 3 messages for RR tests 568
26.7 Elementary procedures of mobility management 579
26.7.1 TMSI reallocation 579
26.7.2 Authentication 582
26.7.2.1 Authentication accepted 582
26.7.2.2 Authentication rejected 583
26.7.3 Identification 586
26.7.3.1 General Identification 586
26.7.3.2 Handling of IMSI shorter than the maximum length 588
26.7.4 Location updating 591
26.7.4.1 Location updating / accepted 591
26.7.4.2 Location updating / rejected 594
26.7.4.2.1 Location updating / rejected / IMSI invalid 594
26.7.4.2.2 Location updating / rejected / PLMN not allowed 597
26.7.4.2.3 Location updating / rejected / location area not allowed 601

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 607-1 E5:2005
https://standards.iteh.ai/catalog/standards/sist/5eae583a-9e92-49c0-ab9d-ef09e1b7834f/sist-ets-300-607-1-e5-2005

SIST ETS 300 607-1 E5:2005

26.7.4.2.4 Location updating / rejected / roaming not allowed in this location area 604
26.7.4.3 Location updating / abnormal cases 611
26.7.4.3.1 Location updating / abnormal cases / random access fails 611
26.7.4.3.2 Location updating / abnormal cases / attempt counter less or equal to 4, LAI different 613
26.7.4.3.3 Location updating / abnormal cases / attempt counter equal to 4 619
26.7.4.3.4 Location updating / abnormal cases / attempt counter less or equal to 4, stored LAI equal to broadcast LAI 627
26.7.4.4 Location updating / release / expiry of T3240 635
26.7.4.5 Location updating / periodic 636
26.7.4.5.1 Location updating / periodic spread 636
26.7.4.5.2 Location updating / periodic normal / test 1 637
26.7.4.5.3 Location updating / periodic normal / test 2 639
26.7.4.5.4 Location updating / periodic HPLMN search 642
26.7.4.5.4.1 Location updating / periodic HPLMN search / MS waits time T 642
26.7.4.5.4.2 Location updating / periodic HPLMN search / MS in manual mode 643
26.7.4.5.4.3 Location updating / periodic HPLMN search / MS waits at least two minutes and at most T minutes 644
26.7.4.6 Location updating / interworking of attach and periodic 646
26.7.5 MM connection 648
26.7.5.1 Introduction 648
26.7.5.2 MM connection / establishment with cipher 648
26.7.5.3 MM connection / establishment without cipher 650
26.7.5.4 MM connection / establishment rejected 651
26.7.5.5 MM connection / establishment rejected cause 4 652
26.7.5.6 MM connection / expiry T3230 653
26.7.5.7 MM connection / abortion by the network 654
26.7.5.7.1 MM connection / abortion by the network / cause #6 654
26.7.5.7.2 MM connection / abortion by the network / cause not equal to #6 657
26.7.5.8 MM connection / follow-on request pending 658
26.7.5.8.1 MM connection / follow-on request pending / test 1 658
26.7.5.8.2 MM connection / follow-on request pending / test 2 659
26.7.5.8.3 MM connection / follow-on request pending / test 3 660
26.7.6 Default contents of messages 662
26.8 Tests related to circuit switched call control 666
26.8.1 Circuit switched Call Control (CC) state machine verification 666
26.8.1.1 General on CC state machine verification 666
26.8.1.2 Establishment of an outgoing call 667
26.8.1.2.1 Outgoing call / U0 null state 669
26.8.1.2.1.1 Outgoing call / U0 null state / MM connection requested 669
26.8.1.2.2 Outgoing call / U0.1 MM connection pending 670
26.8.1.2.2.1 Outgoing call / U0.1 MM connection pending / CM service rejected 670
26.8.1.2.2.2 Outgoing call / U0.1 MM connection pending / CM service accepted 671

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 607-1 E5:2005
https://standards.iteh.ai/catalog/standards/sist/5eac383a-9857-49c0-ab9d-a0b81678332/sist-ets-300-607-1-e5-2005