SLOVENSKI STANDARD
SIST ETS 300 609-2 E3:2003

01-december-2003

Digitalni celiļ ni telekomunikacijski sistem (faza 2) âï Specifikacija opreme sistema baznih postaj (BSS) ï 2. del: Signalizacijski vidiki (GSM 11.23, razliļ ica 4.9.1)

Digital cellular telecommunications system (Phase 2) (GSM); Base Station System (BSS) equipment specification; Part 2: Signalling aspects (GSM 11.23 version 4.9.1)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Ta slovenski standard je istoveten z: ETS 300 609-2 Edition 3

SIST ETS 300 609-2 E3:2003
https://standards.iteh.ai/catalog/standards/sist/231ba690-17d5-4ea1-a7bf-94b5dfd3d8cc/sist-ets-300-609-2-e3-2003

ICS:

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

SIST ETS 300 609-2 E3:2003 **en**

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

SIST ETS 300 609-2 E3:2003

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST ETS 300 609-2 E3:2003
https://standards.iteh.ai/catalog/standards/sist/231ba690-17d5-4ea1-a7bf-94b5dfd3d8cc/sist-ets-300-609-2-e3-2003

SIST ETS 300 609-2 E3:2003

EUROPEAN TELECOMMUNICATION STANDARD

ETS 300 609-2

October 1998

Third Edition

Source: SMG

Reference: RE/SMG-081123PR2

ICS: 33.020

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

iTeh STANDARD PREVIEW
(standards.iteh.ai)

GLOBAL SYSTEM FOR MOBILE COMMUNICATIONS

Digital cellular telecommunications system (Phase 2); Base Station System (BSS) equipment specification; Part 2: Signalling aspects (GSM 11.23 version 4.9.1)

SIST ETS 300 609-2 E3:2003
https://standards.iteh.ai/catalog/standards/sist/231ba690-17d5-4ea1-a7bf-

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
Internet: secretariat@etsi.fr - http://www.etsi.org

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 1998. All rights reserved.

SIST ETS 300 609-2 E3:2003

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST ETS 300 609-2 E3:2003
https://standards.iteh.ai/catalog/standards/sist/231ba690-17d5-4ea1-a7bf-94b5dfd3d8cc/sist-ets-300-609-2-e3-2003

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 Standards Making Support Dept." at the address shown on the title page.

SIST ETS 300 609-2 E3:2003

Contents

Foreword 11

1 Scope 13

2 Normative references 13

3 Abbreviations 15

4 Guide to this ETS 15
4.1 Layer 2 signalling 15
4.2 Layer 3 signalling 15
4.3 Core Specifications 15

5 Testing of Layer 2 (LAPDm) functions 16
5.1 Scope 16
5.2 Introduction 16
5.3 Layer 2 test frames 16
5.4 General requirements 17
5.5 Establishment of the dedicated physical resource 18
5.5.1 MS-originated 18
5.5.1.1 Contention resolution on FACCH or SDCCH 18
5.5.1.2 No Contention resolution on FACCH or SDCCH 19
5.5.1.3 No Contention resolution on FACCH (No immediate Assign procedures) 20
5.5.1.4 No contention resolution on SACCH (Short Message Service) 21
5.5.2 BSS-originated 21
5.5.2.1 Short Message Service 21
5.6 Release of the dedicated physical resource 21
5.6.1 MS-originated 21
5.6.2 BSS-originated 21
5.7 LAPDm idle state 21
5.8 Signalling connections (SAPI=0) 23
5.8.1 Link establishment 24
5.8.1.1 Normal initialization (contention resolution) 24
5.8.1.2 Initialization failure (contention resolution) 24
5.8.1.2.1 Repeated SABM (loss of UA frame) 24
5.8.1.2.2 SABMs with different information fields 25
5.8.1.3 Normal initialization (no contention resolution) 26
5.8.2 Normal information transfer 27
5.8.2.1 Sequence counting and I frame acknowledgements 27
5.8.2.2 Receipt of an I frame in the timer recovery state 30
5.8.2.3 Segmentation and Concatenation 32
5.8.2.4 Sequence of Segmented and non Segmented I frames 33
5.8.3 Normal Layer 2 release by MS 34
5.8.4 Normal Layer 2 release by BSS 35
5.8.5 Abnormal release 35
5.8.5.1 Abnormal data link release 35
5.8.5.2 Layer 2 release by MS while segmented I frames being exchanged 37
5.8.5.3 Layer 2 release while BSS in the timer recovery state 37
5.8.6 Frame loss 38
5.8.6.1 I Frame loss (BSS to BSSTE) 38
5.8.6.2 RR Response frame loss (BSSTE to BSS) 38
5.8.6.3 RR response frame loss (BSS to BSSTE) 39
5.8.6.4 UA frame loss (BSS to MS) 39

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 609-2 E3:2003
https://standards.iteh.ai/catalog/standards/sist/231ba600-17d5-4ea1-a7bf-94b54f8f3d8c/sist-ets-300-609-2-e3-2003

SIST ETS 300 609-2 E3:2003

5.8.7 Reception of REJ frames ... 40
5.8.7.1 Data link layer not in the timer recovery state ... 40
5.8.7.2 Data link layer in the timer recovery state, reception of a REJ response frame ... 41
5.8.7.3 Data link layer in the timer recovery state, reception of a REJ command frame ... 42
5.8.8 Frame transmission with incorrect C/R values ... 44
5.8.8.1 I frame with C bit set to one ... 44
5.8.8.2 SABM frame with C bit set to one ... 45
5.8.9 Link failure ... 46
5.8.10 Errors in the Control Field ... 47
5.8.10.1 N(S) sequence error ... 47
5.8.10.2 N(R) sequence error ... 49
5.8.10.3 Improper F bit ... 50
5.8.11 Receipt of invalid frames ... 52
5.9 Short Message Services (SMS) (SAPI=3) ... 55
5.9.1 MS-originated link establishment ... 56
5.9.2 BSS-originated link establishment ... 56
5.9.2.1 Normal initialization (no contention resolution) ... 56
5.9.2.2 Initialization failure (no contention resolution) ... 57
5.9.2.3 Initialization denial (no contention resolution) ... 58
5.9.2.4 Total initialization failure (no contention resolution) ... 59
5.9.3 Normal information transfer ... 59
5.9.4 Normal layer 2 release by MS ... 60
5.9.5 Normal Layer 2 release by BSS ... 60
5.9.6 Abnormal release ... 61
5.9.7 Frame loss ... 62
5.9.8 Reception of REJ frames ... 62
5.9.8.1 Data link layer not in the timer recovery state ... 62
5.9.8.2 Data link layer in the timer recovery state, reception of a REJ response frame ... 63
5.9.8.3 Data link layer in the timer recovery state, reception of a REJ command frame ... 64
5.9.9 Frame transmission with incorrect C/R values ... 66
5.9.9.1 I frame with C bit set to one ... 66
5.9.9.2 SABM frame with C bit set to one ... 67
5.9.10 Link failure ... 68
5.9.11 Errors in the Control Field ... 69
5.9.12 Receipt of invalid frames ... 69
5.10 Simultaneous transactions on both SAPIs ... 70
5.10.1 Normal information transfer ... 70
5.10.1.1 Transmission and receipt of non segmented I frames on both SAPIs ... 70
5.10.2 Normal layer 2 release ... 71
5.10.2.1 Normal release on SAPI 3 while segmented I frames being exchanged simultaneously on both SAPIs ... 71
5.10.2.2 Normal release on SAPI 0 while segmented I frames being exchanged simultaneously on both SAPIs ... 73
5.10.3 Abnormal Release ... 74
5.10.3.1 Abnormal release on SAPI 3 while segmented I frames being exchanged simultaneously on both SAPIs ... 74
5.10.3.2 Abnormal release on SAPI 0 while segmented I frames being exchanged simultaneously on both SAPIs ... 75
5.10.4 Frame Loss ... 77
5.10.4.1 I frame loss simultaneously on both SAPIs ... 77
5.11 Layer 3 functions ... 78
5.12 Short Message Service Cell Broadcast (SMSCB) ... 79

6 Internal ABIS interfacing ... 79
6.1 Layer 1 ... 79
6.2 Signalling transport mechanism, layer 2 ... 79
6.2.1 Base Station Controller ... 79
6.2.1.1 Successful TEI allocation - fixed TEI ... 80

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 609-2 E3:2003
https://standards.iteh.ai/catalog/standards/sist/231ba690-17d5-4ea1-a7bf-94b5dfd3d8cc/sist-ets-300-609-2-e3-2003

SIST ETS 300 609-2 E3:2003

6.2.1.2 Denied TEI allocation - fixed TEI 81
6.2.1.3 Successful TEI allocation - additional TEI 82
6.2.1.4 Denied TEI allocation - additional TEI 83
6.2.2 Base Transceiver Station 84
6.2.2.1 Successful TEI allocation - fixed TEI 85
6.2.2.2 Denied TEI allocation - fixed TEI 86
6.2.2.3 Successful TEI allocation - additional TEI 87
6.2.2.4 Denied TEI allocation - additional TEI 88
6.3 LAYER 3 90

7 Interfacing with the mobile services switching centre 91
7.1 Physical interface layer 1 91
7.2 Signalling transport mechanism, layer 2 91
7.3 Layer 3 protocol 91

8 Base station system network aspects 92
8.1 Base station system network functions 92
8.1.1 General 92
8.1.2 Testing of the DTAP 93
8.1.2.1 Messages from MSC to MS 93
8.1.2.2 Messages from MS to MSC 94
8.1.3 Testing of the BSSMAP and RR functions 94
8.1.3.1 System information 96
8.1.3.1.1 Dedicated resource set up 96
8.1.3.1.2 No dedicated resource established 97
8.1.3.2 Service requests in SABM frames 98
8.1.3.2.1 Allowed messages 98
8.1.3.2.2 Not allowed messages 99
8.1.3.3 Random access by MS and immediate assignment 100
8.1.3.3.1 Normal Case - SDCCH 100
8.1.3.3.2 Normal Case - TCH 101
8.1.3.3.3 T3101 expiry case 103
8.1.3.3.4 No radio resources available 104
8.1.3.3.5 Immediate assignment extended 105
8.1.3.4 Paging 106
8.1.3.4.1 Normal case 106
8.1.3.4.2 Paging reorganization 107
8.1.3.4.3 Channel needed 108
8.1.3.5 Measurement reporting 108
8.1.3.6 Assignment 109
8.1.3.6.1 Normal case - data/one speech version 109
8.1.3.6.2 Normal case - several permitted speech versions 110
8.1.3.6.3 Not supported speech versions 111
8.1.3.6.4 Internal Directed Retry - several permitted speech versions 112
8.1.3.6.5 Internal Directed Retry - data/one speech version 113
8.1.3.6.6 External Directed Retry - several permitted speech versions 115
8.1.3.6.7 External Directed Retry - data/one speech version 116
8.1.3.6.8 T10 expiry 118
8.1.3.6.9 Terrestrial resources already allocated 120
8.1.3.6.10 Reverse to old channel 120
8.1.3.7 External handover as seen from the old BSS 122
8.1.3.7.1 Normal case 122
8.1.3.7.2 T8 expiry 123
8.1.3.7.3 Reversion to old channel 124
8.1.3.8 External handover as seen from the new BSS 126
8.1.3.8.1 Non-synchronized network 126
8.1.3.8.1.1 Normal Case data/one speech version 126

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 609-2 E3:2003
https://standards.iteh.ai/catalog/standards/sist/231ba690-17d5-4ea1-a781-94b5dfd3d8cc/sist-ets-300-609-2-e3-2003

SIST ETS 300 609-2 E3:2003

8.1.3.8.1.2 Normal case - several permitted speech versions ... 128
8.1.3.8.1.3 No LAPDm connection ... 130
8.1.3.8.1.4 Wrong Handover Reference ... 132
8.1.3.8.1.5 Wrong physical channel ... 133
8.1.3.8.1.6 No radio resources available ... 134
8.1.3.8.1.7 Clear Command from the MSC ... 135
8.1.3.8.1.8 No terrestrial resource available ... 136
8.1.3.8.1.9 Handover - CLM2 ... 137
8.1.3.8.1.10 Handover - CLM2 and CLM3 ... 137
8.1.3.8.2 Synchronized network ... 138
8.1.3.9 Internal handover ... 138
8.1.3.9.1 Internal inter-cell handover ... 138
8.1.3.9.1.1 Normal case ... 139
8.1.3.9.1.2 No LAPDm connection ... 141
8.1.3.9.2 Internal intra-cell handover ... 142
8.1.3.9.2.1 Intra-cell handover by the assignment procedure ... 142
8.1.3.9.2.1.1 Normal case ... 142
8.1.3.9.2.1.2 T10 expiry ... 144
8.1.3.9.2.1.3 Revert to old channel ... 145
8.1.3.9.2.1.4 CLM2 ... 146
8.1.3.9.2.2 Intra-cell handover by the handover procedure ... 147
8.1.3.9.2.2.1 Normal case ... 147
8.1.3.9.2.2.2 T8 expiry ... 148
8.1.3.9.2.2.3 Reverse to old channel ... 149
8.1.3.10 Frequency redefinition ... 150
8.1.3.11 Transmission mode change ... 151
8.1.3.12 Ciphering mode setting ... 152
8.1.3.12.1 Cipher Mode Complete ... 152
8.1.3.12.2 DTAP message ... 154
8.1.3.12.3 IMEISV request without starting encryption ... 155
8.1.3.12.4 IMEISV request with invalid answer ... 156
8.1.3.12.5 IMEISV not requested with invalid answer ... 157
8.1.3.13 Additional assignment ... 158
8.1.3.14 Partial release ... 158
8.1.3.15 Classmark ... 159
8.1.3.15.1 Classmark change ... 159
8.1.3.15.2 Classmark Interrogation ... 159
8.1.3.16 Channel release ... 160
8.1.3.16.1 Normal case ... 161
8.1.3.16.2 T3109 expiry ... 162
8.1.3.16.3 Radio resources out of service ... 163
8.1.3.17 Radio link failure ... 164
8.1.3.18 Blocking ... 164
8.1.3.18.1 Single circuit blocking ... 164
8.1.3.18.1.1 Normal Case ... 164
8.1.3.18.1.2 Blocking a terrestrial circuit already used on a call ... 166
8.1.3.18.1.3 No response to the Unblocking message ... 167
8.1.3.18.1.4 Unblocking, Normal case ... 168
8.1.3.18.1.5 MSC Reset during Blocking procedure ... 169
8.1.3.18.2 Circuit group blocking ... 170
8.1.3.18.2.1 Circuit group block - Normal case ... 170
8.1.3.18.2.2 Circuit group unblock - Normal case ... 171
8.1.3.19 Resource indication ... 172
8.1.3.19.1 Spontaneous indication ... 172
8.1.3.19.2 One single indication ... 173
8.1.3.19.3 Periodic indication ... 174

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 609-2 E3:2003
https://standards.iteh.ai/catalog/standards/sist/23166d9b-17d8-4ea1-a7bf-94b5db3d8c0a/sist-ets-300-609-2-e3-2003

SIST ETS 300 609-2 E3:2003

8.1.3.19.4 No indication 175
8.1.3.19.5 Extended resource indicator 176
8.1.3.20 Reset 177
8.1.3.20.1 Global reset 177
8.1.3.20.1.1 Global reset at the BSS 177
8.1.3.20.1.2 Global reset at the MSC 178
8.1.3.20.2 Reset circuit 179
8.1.3.20.2.1 Reset circuit at the BSS 180
8.1.3.20.2.2 Reset circuit at the MSC 181
8.1.3.21 Handover candidate enquiry 182
8.1.3.21.1 Handover candidate enquiry for 3 MSs 182
8.1.3.21.2 Handover candidate enquiry for 1 MS. 183
8.1.3.21.3 Repetition of the Handover candidate enquiry message 184
8.1.3.22 Trace invocation 186
8.1.3.22.1 Trace invoked by the MSC 186
8.1.3.22.2 Trace invoked by the BSS 186
8.1.3.23 Flow control 186
8.1.3.23.1 Overload in the MSC 187
8.1.3.23.2 Overload in the BSS 187
8.1.3.24 Data link control for SAPI not equal to 0 187
8.1.3.24.1 MSC-originated transaction 187
8.1.3.24.1.1 Normal case 187
8.1.3.24.1.2 MS failure 188
8.1.3.24.1.3 SAPI 3 transactions rejected in the OMC 189
8.1.3.24.2 MS-originated transaction 190
8.1.3.24.2.1 Normal case 190
8.1.3.25 Queuing indication 191
8.1.3.25.1 Assignment case 191
8.1.3.25.2 Handover case 193
8.1.3.26 Short Message Service Cell Broadcast (SMSCB) 194
8.1.3.27 Unequipped circuit 194
8.1.3.27.1 Normal case 194
8.1.3.27.2 Assignment request message 195
8.1.3.27.3 Handover request message 196
8.1.3.27.4 Blocking acknowledge message 197
8.1.3.27.5 Unblocking acknowledge message 197
8.1.3.27.6 Reset circuit message 198
8.1.3.27.7 Circuit group blocking acknowledge message 199
8.1.3.27.8 Circuit group unblocking acknowledge message 200
8.1.3.27.9 Unequipped circuit message 201
8.1.3.28 Confusion 201
8.1.3.28.1 Reserved element used 201
8.1.3.28.2 Zero length value 202
8.1.3.28.3 Inconsistent length value 203
8.1.4 Multiband Management 204
8.1.4.1 Controlled Early Classmark Sending Option 204
8.1.4.2 External handover as seen from the new multiband BSS . 206
8.1.4.2.1 Non-synchronized network 206
8.1.4.2.2 Synchronized network 208
8.1.4.2.3 No GSM resources available 208
8.1.4.2.4 No DCS 1800 resources available 208
8.1.4.3 External Directed Retry 208
8.1.4.3.1 External Directed Retry - No resources in one band 210
8.1.4.4 Internal Directed Retry 211
8.1.4.5 Internal handover 212
8.1.4.6 Specific System Information Management 212
8.1.4.6.1 No dedicated resource established 212
8.1.4.6.2 Dedicated resource set up 213

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 609-2 E3:2003
https://standards.iteh.ai/catalog/standards/sist/231ba690-17d5-4ea1-a70f-94b5dfd3d8cc/sist-ets-300-609-2-e3-2003

SIST ETS 300 609-2 E3:2003

9 Base station controller network aspects 215
9.1 Base station controller network functions 215
9.1.1 General 215
9.1.2 Transparent messages 216
9.1.3 Non-transparent messages 216
9.1.3.1 Link establishment indication 217
9.1.3.2 Link establishment request 219
9.1.3.3 Link release indication 220
9.1.3.4 Link release request 221
9.1.3.5 Transmission of transparent L3-message in acknowledged mode 223
9.1.3.6 Reception of transparent L3-message in acknowledged mode 223
9.1.3.7 Transmission of transparent L3-message in unacknowledged mode 224
9.1.3.8 Reception of transparent L3-message in unacknowledged mode 224
9.1.3.9 Link error indication 225
9.1.3.10 Channel activation 225
9.1.3.11 Channel mode modify 227
9.1.3.12 Handover detection 229
9.1.3.13 Encryption 230
9.1.3.13.1 Start of encryption 230
9.1.3.13.2 Stop of encryption 231
9.1.3.13.3 Failure case 232
9.1.3.14 Measurement reporting 234
9.1.3.14.1 Basic measurement reporting 234
9.1.3.14.2 Pre-processed measurement reporting (optional) 234
9.1.3.14.3 Pre-processing configuration (optional) 234
9.1.3.15 Deactivate SACCH 235
9.1.3.16 Radio channel release 236
9.1.3.17 MS power control (optional) 237
9.1.3.18 Transmission power control (optional) 238
9.1.3.19 Connection failure 239
9.1.3.20 Physical context request (optional) 240
9.1.3.21 SACCH Info modify 241
9.1.3.22 Channel request by MS 242
9.1.3.23 Paging 242
9.1.3.24 Delete indication 243
9.1.3.25 CCCH load indication 243
9.1.3.26 Broadcast information modify 243
9.1.3.27 Immediate assignment 244
9.1.3.28 Short Message Service Cell Broadcast (SMSCB) 244
9.1.3.29 Radio resource indication 244
9.1.3.30 SACCH filling information modify 246
9.1.3.31 Flow control 247
9.1.3.32 Error reporting 247

10 Base transceiver station network aspects 248
10.1 Base transceiver station network aspects functions 248
10.1.1 General 248
10.1.2 Transparent messages 248
10.1.3 Non-transparent messages 248
10.1.3.1 Link establishment indication 249
10.1.3.1.1 SDCCH, Contention Resolution 250
10.1.3.1.2 FACCH, Contention Resolution, Channel Mode modify, Sapi3 251
10.1.3.1.3 No Contention Resolution, Normal Case 252
10.1.3.2 Link establishment request 253
10.1.3.2.1 Normal Case 253

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 609-2 E3:2003
https://standards.iteh.ai/catalog/standards/sist/251bab90-17d5-4ea1-a7bf-94b5dfd3d8cc/sist-ets-300-609-2-e3-2003

SIST ETS 300 609-2 E3:2003

10.1.3.2.2 T200 x (N200 + 1) times expiry....254
10.1.3.3 Link release indication....255
10.1.3.4 Link release request....256
10.1.3.4.1 Normal Case....256
10.1.3.4.2 T200 x (N200 + 1) times expiry....257
10.1.3.5 Transmission of transparent L3-message in acknowledged mode....259
10.1.3.6 Reception of transparent L3-message in acknowledged mode....260
10.1.3.7 Transmission of transparent L3-message in unacknowledged mode....261
10.1.3.8 Reception of transparent L3-message in unacknowledged mode....261
10.1.3.9 Link error indication....261
10.1.3.10 Channel activation....261
10.1.3.11 Channel mode modify....262
10.1.3.11.1 Normal Case....263
10.1.3.11.2 Abnormal Case....263
10.1.3.12 Handover detection....264
10.1.3.12.1 Non-synchronized case....264
10.1.3.12.2 Synchronized case....266
10.1.3.13 Start of encryption....267
10.1.3.13.1 Ciphering mode complete....267
10.1.3.13.2 DTAP message....269
10.1.3.13.3 Start of encryption with unavailable algorithm....270
10.1.3.13.4 Stop ciphering....271
10.1.3.13.5 Failure case....272
10.1.3.14 Measurement reporting....273
10.1.3.14.1 Basic measurement reporting....273
10.1.3.14.2 Pre-processed measurement reporting (optional)....274
10.1.3.14.3 Pre-processing configuration (optional)....274
10.1.3.15 Deactivate SACCH....275
10.1.3.16 Radio channel release....275
10.1.3.17 MS power control....276
10.1.3.18 Transmission power control (optional)....277
10.1.3.19 Connection failure....278
10.1.3.20 Physical context request (optional)....279
10.1.3.21 Channel request by MS....279
10.1.3.22 Paging....280
10.1.3.23 Delete indication....282
10.1.3.24 CCCH load indication....282
10.1.3.25 Broadcast information modify....282
10.1.3.26 Immediate assignment....284
10.1.3.26.1 Normal case....284
10.1.3.26.2 Extended immediate assignment procedure....285
10.1.3.26.3 Reject immediate assignment procedure....286
10.1.3.27 Short Message Service Cell Broadcast (SMSCB)....287
10.1.3.27.1 SMS broadcast request....287
10.1.3.27.2 SMS broadcast command....288
10.1.3.28 Radio resource indication....288
10.1.3.29 SACCH filling information modify....289
10.1.3.30 Flow control....290
10.1.3.31 Error reporting....291

11 GSM Phases interworking....292
11.1 Interworking between phase 1 mobile and phase 2 network....292
11.2 Interworking between phase 2 mobile and phase 1 network....292
11.2.1 Scope....292

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 609-2 E3:2003
https://standards.iteh.ai/catalog/standards/sist/231ba690-17d5-4ea1-a7bf-9db5d0d3d8cc/sist-ets-300-609-2-e3-2003

SIST ETS 300 609-2 E3:2003

11.2.2 References 292
11.2.3 Radio Interface 292
11.2.3.1 Information Elements 292
11.2.3.1.1 Mobile Classmark 1 292
11.2.3.1.1.1 Revision Level 292
11.2.3.1.1.1.1 Location updating - revision level 00 293
11.2.3.1.1.1.2 Location updating - revision level 01 293
11.2.3.1.1.1.3 Location updating - revision level 10 294
11.2.3.1.1.1.4 Location updating - revision level 11 295
11.2.3.1.1.2 Encryption algorithm A5/1 296
11.2.3.1.1.2.1 Location updating - encryption algorithm A5/1 296
11.2.3.1.2 Mobile classmark 2 296
11.2.3.1.2.1 Revision level 296
11.2.3.1.2.1.1 CM Service - revision level 00 297
11.2.3.1.2.1.2 CM Service - revision level 01 298
11.2.3.1.2.1.3 CM Service - revision level 10 298
11.2.3.1.2.1.4 CM Service - revision level 11 299
11.2.3.1.2.2 Encryption algorithm A5/1 300
11.2.3.1.2.2.1 CM Service - encryption algorithm A5/1 300
11.2.3.1.2.3 Frequency capability 301
11.2.3.1.2.3.1 CM Service 301
11.2.3.1.2.4 SS Screening Indicator 302
11.2.3.1.2.4.1 CM Service - SS Screening Indicator 01 302
11.2.3.1.2.4.2 CM Service - SS Screening Indicator 10 303
11.2.3.1.2.4.3 CM Service - SS Screening Indicator 11 303
11.2.3.1.2.5 PS Capability 304
11.2.3.1.2.5.1 CM Service - PS Capability 304
11.2.3.1.2.6 Encryption Algorithm A5/2, A5/3 305
11.2.3.1.2.6.1 CM Service - Encryption Algorithm A5/2 305
11.2.3.1.2.6.2 CM Service - Encryption Algorithm A5/3 306
11.2.3.1.2.6.3 CM Service - Encryption Algorithm A5/2, A5/3 307
11.2.3.1.3 Location Updating Type 308
11.2.3.1.3.1 Location Updating - Location - Updating Type 308
11.2.3.2 Radio Resource Procedures 309
11.2.3.2.1 Assignment Procedure 309
11.2.3.2.1.1 Assignment Failure - RR cause 09 309
11.2.3.2.1.2 Assignment Failure - RR cause 0A 310
11.2.3.2.2 Handover Procedure 311
11.2.3.2.2.1 Handover Failure - RR cause 09 311
11.2.3.2.2.2 Handover Failure - RR cause 0A 312
11.2.3.3 Transmission Mode Change 314
11.2.3.3.1 Channel Mode Modify 314
11.2.3.4 Messages 315
11.2.3.4.1 Classmark Change 315
11.2.3.4.1.1 Mobile Station Classmark 3 315
11.2.4 Abis-interface 316
11.2.5 A-interface 316

Annex A (informative): Change history 317

History 318

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 609-2 E3:2003
https://standards.iteh.ai/catalog/standards/sist/251ba690-17d5-4ea1-a7bf-94b5dfd3d8cc/sist-ets-300-609-2-e3-2003

SIST ETS 300 609-2 E3:2003

Foreword

This European Telecommunication Standard (ETS) has been produced by the Special Mobile Group (SMG) of the European Telecommunications Standards Institute (ETSI).

This ETS describes the signalling tests for the Base Station System (BSS) within the digital cellular telecommunications system (Phase 2).

Transposition dates	
Date of adoption of this ETS:	23 October 1998
Date of latest announcement of this ETS (doa):	31 January 1999
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	31 July 1999
Date of withdrawal of any conflicting National Standard (dow):	31 July 1999

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 609-2 E3:2003
https://standards.iteh.ai/catalog/standards/sist/231ba690-17d5-4ea1-a7bf-94b5dfd3d8cc/sist-ets-300-609-2-e3-2003

SIST ETS 300 609-2 E3:2003

Blank page

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 609-2 E3:2003
https://standards.iteh.ai/catalog/standards/sist/231ba690-17d5-4ea1-a7bf-94b5dfd3d8cc/sist-ets-300-609-2-e3-2003

SIST ETS 300 609-2 E3:2003

1 Scope

This European Telecommunication Standard (ETS) contains the signalling aspects of the Base Station System for GSM. The set of signalling tests cover major areas of functionality on the air, Abis and A-interfaces, but is not designed to be a complete set of all the possible scenarios.

The tests were designed from the set of core specifications that exist for the GSM network and any changes that occur these specifications will be reflected in the test set documented within.

2 Normative references

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

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

[2] ETS 300 521 (GSM 03.01): "Digital cellular telecommunications system (Phase 2); Network functions".

[3] ETS 300 555 (GSM 04.06): "Digital cellular telecommunications system (Phase 2); Mobile Station - Base Station System (MS - BSS) interface Data Link (DL) layer specification".

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

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[5] ETS 300 560 (GSM 04.12): "Digital cellular telecommunications system (Phase 2); Short Message Service Cell Broadcast (SMSCB) support on the mobile radio interface".

SIST ETS 300 609-2 E3:2003
https://standards.iteh.ai/catalog/standards/sist/231ba690-17d5-4ea1-a7bf-94b5dfd3d8cc/sist-ets-300-609-2-e3-2003

[6] ETS 300 574 (GSM 05.02): "Digital cellular telecommunications system (Phase 2); Multiplexing and multiple access on the radio path".

[7] ETS 300 577 (GSM 05.05): "Digital cellular telecommunications system (Phase 2); Radio transmission and reception".

[8] ETS 300 587-2 (GSM 08.02): "Digital cellular telecommunications system (Phase 2); Base Station System - Mobile-services Switching Centre (BSS - MSC) interface; Interface Principles".

[9] ETS 300 589 (GSM 08.06): "Digital cellular telecommunications system (Phase 2); Signalling transport mechanism specification for the Base Station System - Mobile-services Switching Centre (BSS - MSC) interface".

[10] ETS 300 590 (GSM 08.08): "Digital cellular telecommunications system (Phase 2); Mobile Switching Centre - Base Station System (MSC - BSS) interface Layer 3 specification".

[11] ETS 300 593 (GSM 08.52): "Digital cellular telecommunications system (Phase 2); Base Station Controller - Base Transceiver Station (BSC - BTS) interface principles".

[12] ETS 300 595 (GSM 08.56): "Digital cellular telecommunications system (Phase 2); Base Station Controller - Base Transceiver Station (BSC - BTS) interface Layer 2 specification".