



**GEO-Mobile Radio Interface Specifications (Release 3);  
Third Generation Satellite Packet Radio Service;  
Part 4: Radio interface protocol specifications;  
Sub-part 4: Layer 1 General Requirements;  
GMR-1 3G 44.004**

---

Reference

RTS/SES-00328-4-4

---

Keywords3G, GMR, GSM, GSO, interface, layer 1, MES,  
mobile, MSS, radio, satellite, S-PCN***ETSI***

---

650 Route des Lucioles  
F-06921 Sophia Antipolis Cedex - FRANCE

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

Siret N° 348 623 562 00017 - NAF 742 C  
Association à but non lucratif enregistrée à la  
Sous-Préfecture de Grasse (06) N° 7803/88

---

***Important notice***

Individual copies of the present document can be downloaded from:  
<http://www.etsi.org>

The present document may be made available in more than one electronic version or in print. In any case of existing or perceived difference in contents between such versions, the reference version is the Portable Document Format (PDF). In case of dispute, the reference shall be the printing on ETSI printers of the PDF version kept on a specific network drive within ETSI Secretariat.

Users of the present document should be aware that the document may be subject to revision or change of status.  
Information on the current status of this and other ETSI documents is available at  
<http://portal.etsi.org/tb/status/status.asp>

If you find errors in the present document, please send your comment to one of the following services:  
[http://portal.etsi.org/chaircor/ETSI\\_support.asp](http://portal.etsi.org/chaircor/ETSI_support.asp)

---

***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 2012.  
All rights reserved.

**DECT™, PLUGTESTS™, UMTS™** and the ETSI logo are Trade Marks of ETSI registered for the benefit of its Members.  
**3GPP™** and **LTE™** are Trade Marks of ETSI registered for the benefit of its Members and  
of the 3GPP Organizational Partners.

**GSM®** and the GSM logo are Trade Marks registered and owned by the GSM Association.

---

## Contents

Intellectual Property Rights .....	4
Foreword.....	4
Introduction .....	5
1    Scope .....	7
2    References .....	7
2.1    Normative references .....	7
2.2    Informative references.....	8
3    Definitions and abbreviations.....	8
3.1    Definitions.....	8
3.2    Abbreviations .....	8
4    Interfaces to the physical layer.....	8
4.1    Interface to the data link layer .....	8
4.2    Interface to radio resource management.....	8
4.3    Interface to other functional units.....	8
5    Service of the physical layer .....	8
5.1    Service Access Point .....	8
5.2    Service of the physical layer.....	8
5.2.1    Specific services of the physical layer in the MES .....	9
6    Block transmission .....	9
6.1    SACCH3 block format (A/Gb mode only).....	9
6.2    SACCH6 block format (A/Gb mode only).....	9
6.3    SACCH9 block format (A/Gb mode only).....	9
6.4    BCCH/PCH/AGCH/CBCH block format .....	9
6.5    BACH block format (A/Gb mode only).....	9
6.6    GBCH block format (A/Gb mode only).....	9
6.6a    GBCH3 block format (Iu mode only).....	9
6.7    RACH block format (A/Gb mode only).....	10
6.7a    RACH3 block format (Iu mode only).....	10
6.8    SDCCH block format (A/Gb mode only).....	10
6.9    FACCH3 block format (A/Gb mode only).....	10
6.10    FACCH6 block format (A/Gb mode only).....	10
6.11    FACCH9 block format (A/Gb mode only).....	10
6.12    TACCH block format (A/Gb mode only).....	10
6.13    Packet Data Traffic Channel (PDTCH) block format .....	11
6.14    Dedicated Channel (DCH) block formats (Iu mode only).....	11
6.14.1    2,6 kbps DACCH Block .....	11
6.14.2    4,0 kbps DACCH Block .....	11
6.14.3    2,45 kbps Speech Block.....	12
6.14.4    4,0 kbps Speech Block.....	12
6.15    PRACH format (A/Gb mode).....	12
6.15a    PRACH3 format (Iu mode).....	13
6.16    Order of bit transmission.....	13
7    Power Control Status Field.....	13
8    Public User Information (PUI) .....	13
9    Uplink Map (ULMAP) (Iu mode only) .....	14
Annex A (informative):      Bibliography.....	15
History .....	16