



**GEO-Mobile Radio Interface Specifications (Release 3);
Third Generation Satellite Packet Radio Service;
Part 3: Network specifications;
Sub-part 10: Functions related to
Mobile Earth Station (MES) in idle mode;**

ETSI GMR-1 3G 43.022 (2-12)

<https://standards.iteh.ai/catalog/standards/etsi/852318bf-cf6c-40be-b7a9-2745336b7bb8/etsi-ts-101-376-3-10-v3-3-1-2012-12>

Reference

RTS/SES-00328-3-10

Keywords

3G, GMPRS, GMR, GPRS, GSM, GSO,
interface, MES, mobile, MSS, radio, satellite,
S-PCN

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Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee Satellite Earth Stations and Systems (SES).

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- the third digit (n) is incremented when editorial only changes have been incorporated in the specification;
- the second digit (m) is incremented for all other types of changes, i.e. technical enhancements, corrections, updates, etc.

The present document is part 3, sub-part 10 of a multi-part deliverable covering the GEO-Mobile Radio Interface Specifications (Release 3); Third Generation Satellite Packet Radio Service, as identified below:

Part 1: "General specifications";

Part 2: "Service specifications";

Part 3: "Network specifications":

Sub-part 1: "Network Functions; GMR-1 03.001";

Sub-part 2: "Network Architecture; GMR-1 03.002";

Sub-part 3: "Numbering, addressing and identification; GMR-1 23.003";

Sub-part 4: "Organization of Subscriber Data; GMR-1 03.008";

Sub-part 5: "Technical realization of Supplementary Services; GMR-1 03.011";

Sub-part 6: "Location Registration and Position Identification Procedures; GMR-1 03.012";

Sub-part 7: "Discontinuous Reception (DRX); GMR-1 03.013";

Sub-part 8: "Support of Dual-Tone Multifrequency Signalling (DTMF); GMR-1 03.014";

Sub-part 9: "Security related Network Functions; GMR-1 03.020";

Sub-part 10: "Functions related to Mobile Earth Station (MES) in idle mode; GMR-1 3G 43.022";

Sub-part 11: "Technical realization of the Short Message Service (SMS) Point-to-Point (PP); GMR-1 03.040";

- Sub-part 12: "Technical realization of the Short Message Service Cell Broadcast (SMSCB); GMR-1 03.041";
- Sub-part 13: "Technical realization of group 3 facsimile using transparent mode of transmission; GMR-1 03.045";
- Sub-part 14: Transmission Planning Aspects of the Speech Service in the GMR-1 system; GMR-1 03.050";
- Sub-part 15: "Line Identification supplementary service - Stage 2; GMR-1 03.081";
- Sub-part 16: "Call Barring (CB) supplementary services - Stage 2; GMR-1 03.088";
- Sub-part 17: "Unstructured Supplementary Service Data (USSD) - Stage 2; GMR-1 03.290";
- Sub-part 18: "Terminal-to-Terminal Call (TtT); GMR-1 03.296";
- Sub-part 19: "Optimal Routing technical realization; GMPRS-1 03.297";
- Sub-part 20: "Technical realization of High-Penetration Alerting; GMR-1 03.298";
- Sub-part 21: "Position Reporting services; Stage 2 Service description; GMR-1 03.299";
- Sub-part 22: "Overall description of the GMPRS radio interface; Stage 2; GMR-1 3G 43.064";
- Sub-part 23: "Radio Access Network; Overall description - Stage 2; GMR-1 3G 43.051";
- Part 4: "Radio interface protocol specifications";
- Part 5: "Radio interface physical layer specifications";
- Part 6: "Speech coding specifications";
- Part 7: "Terminal adaptor specifications".

Introduction

GMR stands for GEO (Geostationary Earth Orbit) Mobile Radio interface, which is used for Mobile Satellite Services (MSS) utilizing geostationary satellite(s). GMR is derived from the terrestrial digital cellular standard GSM and supports access to GSM core networks.

The present document is part of the GMR Release 3 specifications. Release 3 specifications are identified in the title and can also be identified by the version number:

- Release 1 specifications have a GMR 1 prefix in the title and a version number starting with "1" (V1.x.x).
- Release 2 specifications have a GMPRS 1 prefix in the title and a version number starting with "2" (V2.x.x).
- Release 3 specifications have a GMR-1 3G prefix in the title and a version number starting with "3" (V3.x.x).

The GMR release 1 specifications introduce the GEO Mobile Radio interface specifications for circuit mode Mobile Satellite Services (MSS) utilizing geostationary satellite(s). GMR release 1 is derived from the terrestrial digital cellular standard GSM (phase 2) and it supports access to GSM core networks.

The GMR release 2 specifications add packet mode services to GMR release 1. The GMR release 2 specifications introduce the GEO Mobile Packet Radio Service (GMPRS). GMPRS is derived from the terrestrial digital cellular standard GPRS (included in GSM Phase 2+) and it supports access to GSM/GPRS core networks.

The GMR release 3 specifications evolve packet mode services of GMR release 2 to 3rd generation UMTS compatible services. The GMR release 3 specifications introduce the GEO-Mobile Radio Third Generation (GMR-1 3G) service. Where applicable, GMR-1 3G is derived from the terrestrial digital cellular standard 3GPP and it supports access to 3GPP core networks.