

ETSI TS 101 851-3-3 V3.1.1 (2011-09)



**Satellite Earth Stations and Systems (SES);
Satellite Component of UMTS/IMT-2000;
Part 3: Spreading and modulation;
Sub-part 3: G-family enhancements
(S-UMTS-G enhanced 25.213)**

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Contents

Intellectual Property Rights	5
Foreword.....	5
Introduction	5
1 Scope	7
2 References	7
2.1 Normative references	7
2.2 Informative references.....	7
3 Symbols and abbreviations.....	8
3.1 Symbols.....	8
3.2 Abbreviations	8
4 Uplink spreading and modulation	9
4.1 Overview	9
4.2 Spreading.....	9
4.2.1 DPCCH/DPDCH	9
4.2.2 PRACH.....	11
4.2.2.1 PRACH preamble part	11
4.2.2.2 PRACH message part.....	11
4.3 Code generation and allocation	12
4.3.1 Channelization codes.....	12
4.3.1.1 Code definition.....	12
4.3.1.2 Code allocation for DPCCH/DPDCH	13
4.3.1.3 Code allocation for PRACH message part	13
4.3.2 Scrambling codes.....	13
4.3.2.1 General	13
4.3.2.2 Long scrambling sequence.....	13
4.3.2.3 Short scrambling sequence.....	15
4.3.2.4 DPCCH/DPDCH scrambling code.....	16
4.3.2.5 PRACH message part scrambling code.....	16
4.3.3 PRACH preamble codes.....	17
4.3.3.1 Preamble code construction	17
4.3.3.2 Preamble scrambling code	17
4.3.3.3 Preamble signature.....	18
4.4 Modulation	18
4.4.1 Modulating chip rate.....	18
4.4.2 Modulation.....	18
5 Downlink spreading and modulation	19
5.1 Spreading.....	19
5.2 Code generation and allocation	20
5.2.1 Channelization codes.....	20
5.2.2 Scrambling code	20
5.2.3 Synchronization codes	22
5.2.3.1 Code generation for normal operation.....	22
5.2.3.2 Code generation for optional mode C	23
5.2.3.3 Code allocation of SSC	24
5.3 Modulation	25
5.3.1 Modulating chip rate.....	25
5.3.2 Modulation.....	25
Annex A (informative): Generalized Hierarchical Golay Sequences.....	26
A.1 Alternative generation	26
Annex B (normative): Description of G-family enhancements.....	27

B.1	Definition of the optional modes A and C.....	27
B.2	Description of Optional mode A	27
B.3	Description of Optional mode C	27
Annex C (informative):	Change history	29
C.1	A-family optional features.....	29
C.2	C-family optional features.....	29
History		32

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Foreword

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

The present document is specifying the Satellite Radio Interface referenced as SRI Family G at ITU-R, in the frame of the modification of ITU-R Recommendation M.1457 [4]. This modification has been approved at SG8 meeting in November 2005.

The present document is part 3, sub-part 3 of a multi-part deliverable covering Satellite Earth Stations and Systems (SES); Satellite Component of UMTS/IMT-2000; G-family enhancements, as identified below:

Part 1: "Physical channels and mapping of transport channels into physical channels";

Part 2: "Multiplexing and channel coding";

Part 3: "Spreading and modulation";

Sub-part 1: "G-family (S-UMTS-G 25.213)";

Sub-part 2: "A-family (S-UMTS-A 25.213)";

Sub-part 3: "G-family enhancements (S-UMTS-G enhanced 25.213)";

Part 4: "Physical layer procedures";

Part 5: "UE Radio Transmission and Reception";

Part 6: "Ground stations and space segment radio transmission and reception".

Introduction

S-UMTS stands for the Satellite component of the Universal Mobile Telecommunication System. S-UMTS systems will complement the Terrestrial UMTS (T-UMTS) and inter-work with other IMT-2000 family members through the UMTS core network. S-UMTS will be used to deliver 3rd generation Mobile Satellite Services (MSS) utilizing either low (LEO) or medium (MEO) earth orbiting, or geostationary (GEO) satellite(s). S-UMTS systems are based on terrestrial 3GPP specifications and will support access to GSM/UMTS core networks.

NOTE 1: The term T-UMTS will be used in the present document to further differentiate the Terrestrial UMTS component.

Due to the differences between terrestrial and satellite channel characteristics, some modifications to the terrestrial UMTS (T-UMTS) standards are necessary. Some specifications are directly applicable, whereas others are applicable with modifications. Similarly, some T-UMTS specifications do not apply, whilst some S-UMTS specifications have no corresponding T-UMTS specification.