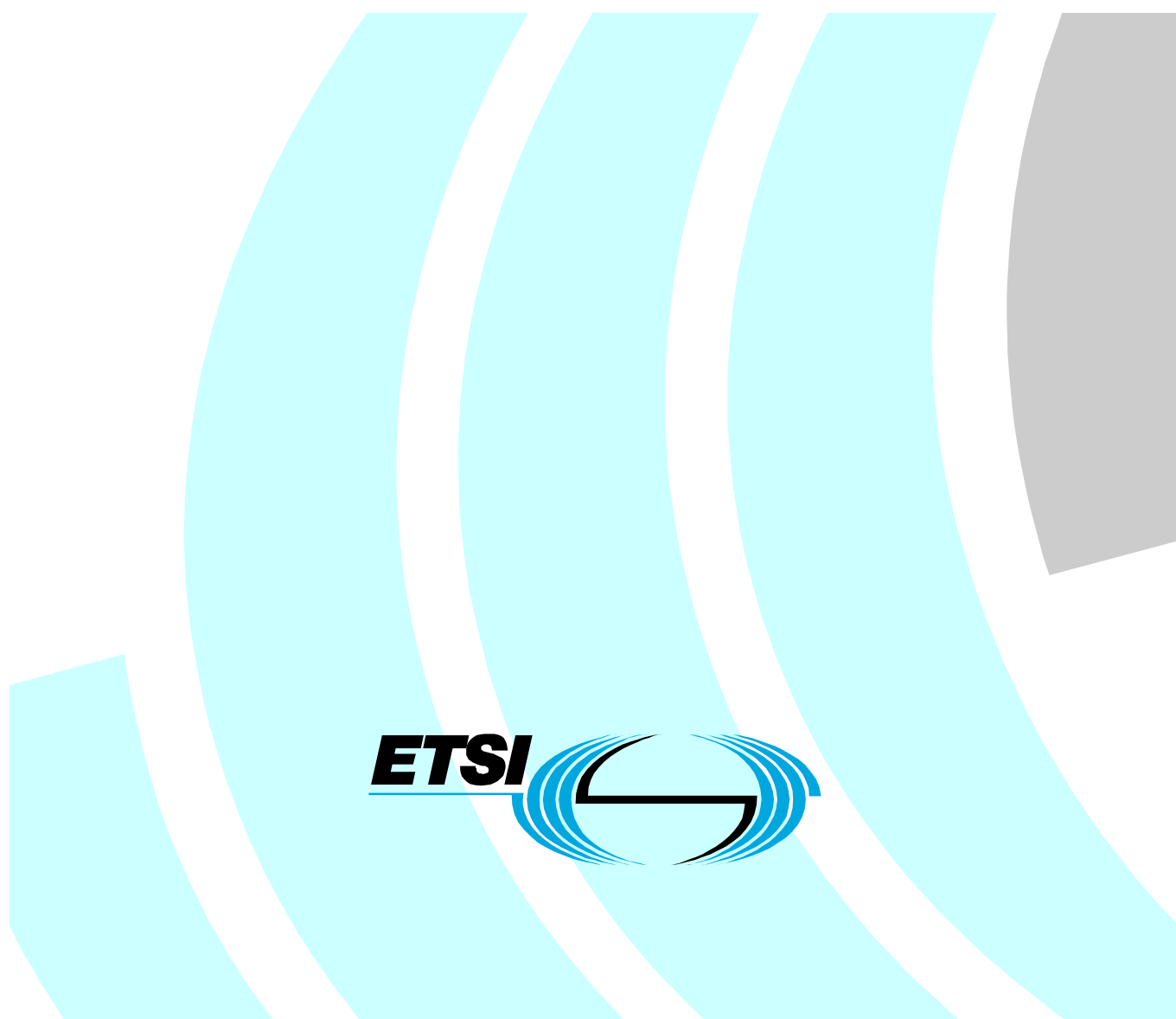


ETSI TS 102 442-4 V1.1.1 (2006-11)

Technical Specification

**Satellite Earth Stations and Systems (SES);
Satellite Component of UMTS/IMT-2000;
Multimedia Broadcast/Multicast Services;
Part 4: Interworking with terrestrial UMTS networks**



Reference

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Keywords

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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

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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 part 4 of a multi-part deliverable covering Satellite Earth Stations and Systems (SES); Satellite Component of UMTS/IMT-2000; Multimedia Broadcast/Multicast Services, as identified below:

- Part 1: "Services definitions";
- Part 2: "Architecture and functional description";
- Part 3: "Introduction in the Radio Access Network (RAN)";
- Part 4: "Interworking with terrestrial UMTS networks";**
- Part 5: "Performances over the radio interface";
- Part 6: "Security".

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 geo-stationary (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.

- Since S-UMTS is derived from T-UMTS, the organization of the S-UMTS specifications closely follows the original 3rd Generation Partnership Project (3GPP) structure.

An S-UMTS system is defined by the combination of a family of S-UMTS specifications and 3GPP specifications, as follows:

- If an S-UMTS specification exists it takes precedence over the corresponding 3GPP specification (if any). This precedence rule applies to any references in the corresponding 3GPP specifications.

NOTE 2: Any references to 3GPP specifications within the S-UMTS specifications are not subject to this precedence rule. For example, an S-UMTS specification may contain specific references to the corresponding 3GPP specification.

- If an S-UMTS specification does not exist, the corresponding 3GPP specification may or may not apply. The exact applicability of the complete list of 3GPP specifications shall be defined at a later stage.

1 Scope

The present document specifies requirements for interworking with 2G/3G terrestrial networks.

Interworking with 2G/3G terrestrial networks includes any of the following situations:

- unicast point to point channel is provided by 2G/3G terrestrial networks;
- possibility to distribute S-MBMS services over a 2G/3G terrestrial networks.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication and/or edition number or version number) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

Referenced documents which are not found to be publicly available in the expected location might be found at <http://docbox.etsi.org/Reference>.

NOTE: While any hyperlinks included in this clause were valid at the time of publication ETSI cannot guarantee their long term validity.

- [1] ETSI TS 102 442-2: "Satellite Earth Stations and Systems (SES); Satellite Component of UMTS/IMT-2000; Multimedia Broadcast/Multicast Services; Part 2: Architecture and functional description".
- [2] ETSI TS 125 346 (Release 6): "Universal Mobile Telecommunications System (UMTS); Introduction of the Multimedia Broadcast/Multicast Service (MBMS) in the Radio Access Network (RAN); Stage 2 (3GPP TS 25.346 Release 6)".

3 Abbreviations

For the purposes of the present document, the following terms and definitions apply:

3GPP	3 rd Generation Partnership Project
GEO	Geostationary Earth Orbit
LEO	Low Earth Orbit
MEO	Medium Earth Orbit
MSS	Mobile Satellite Service
S-MBMS	Satellite-Multimedia Broadcast Multicast Service

4 Interface requirements

The interfaces between the USRAN and the 3GPP system identified in TS 102 442-2 [1] shall comply with the interfaces specified in 3GPP specifications see [2]. This includes the following interfaces:

- Gmb;
- Gi;
- Uu;
- Um.

History

Document history		
V1.1.1	November 2006	Publication