

ETSI EN 301 442 V2.1.1 (2016-06)



**Satellite Earth Stations and Systems (SES);
Harmonised Standard for NGSO Mobile Earth Stations (MES)
including handheld earth stations, for Satellite
Personal Communications Networks (S-PCN)
operating in the 1 980 MHz to 2 010 MHz (earth-to-space) and
2 170 MHz to 2 200 MHz (space-to-earth) frequency bands
under the Mobile Satellite Service (MSS) covering
the essential requirements of article 3.2 of the Directive 2014/53/EU**

Reference

REN/SES-00384

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Foreword

This Harmonised European Standard (EN) has been produced by ETSI Technical Committee Satellite Earth Stations and Systems (SES).

The present document has been prepared under the Commission's standardisation request C(2015) 5376 final [i.2] to provide one voluntary means of conforming to the essential requirements of Directive 2014/53/EU on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC [7].

Once the present document is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of the present document given in table A.1 confers, within the limits of the scope of the present document, a presumption of conformity with the corresponding essential requirements of that Directive and associated EFTA regulations.

National transposition dates	
Date of adoption of this EN:	12 May 2016
Date of latest announcement of this EN (doa):	31 August 2016
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	28 February 2017
Date of withdrawal of any conflicting National Standard (dow):	28 February 2018

Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the [ETSI Drafting Rules](#) (Verbal forms for the expression of provisions).

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Introduction

The present document is part of a set of standards developed by ETSI and is designed to fit in a modular structure to cover all radio and telecommunications terminal equipment within the scope of the Directive 2014/53/EU [7]. The modular structure is shown in ETSI EG 201 399 [i.1].

1 Scope

The present document applies to Mobile Earth Station (MES) radio equipment which have the following characteristics:

- these MES operate in a non-geostationary orbit (NGSO) mobile-satellite system;
- these MES have both transmit and receive capabilities and operate in a Satellite-Personal Communications Network (S-PCN). An S-PCN MES may be handheld, portable, vehicle-mounted, host connected, semi-fixed or fixed equipment, or may be an element in a multi-mode terminal. It may consist of a number of modules with associated connections and user interface, or may be a self-contained single unit;
- these LMESs are controlled and monitored by a Network Control Facility (NCF). The NCF is outside the scope of the present document;
- if the MES is an element in a multi-mode terminal, unless otherwise stated in the present document, its requirements apply only to the S-PCN MES element of the terminal operating in the MSS frequency bands given in table 1;
- these MES are capable in operating in all or part of the frequency bands shown in table 1.

Table 1: Mobile Satellite Service (MSS) frequency bands

MES	MSS frequency bands
Transmit (earth to space)	1 980 MHz to 2 010 MHz
Receive (space to earth)	2 170 MHz to 2 200 MHz

The present document is intended to cover the provisions of Directive 2014/53/EU [7] (RE Directive) article 3.2 which states that "...radio equipment shall be so constructed that it both effectively uses and supports the efficient use of radio spectrum in order to avoid harmful interference".

In addition to the present document, other ENs that specify technical requirements in respect of essential requirements under other parts of article 3 of the Directive 2014/53/EU [7] may apply to equipment within the scope of the present document.

NOTE: A list of such ENs is included on the ETSI web site.

2 References

2.1 Normative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) 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.

The following referenced documents are necessary for the application of the present document.

- [1] Void.
- [2] Recommendation ITU-T O.153 (1992): "Basic parameters for the measurement of error performance at bit rates below the primary rate".
- [3] IEC 60068-2-1 (March 2007): "Environmental testing - Part 2-1: Tests - Test A: Cold".
- [4] IEC 60068-2-2 (July 2007): "Environmental testing - Part 2-2: Tests - Test B: Dry heat".