SLOVENSKI STANDARD
oSIST prEN 300 487 V2.2.0:2024

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Satelitske zemeljske postaje in sistemi (SES) - Sprejemne mobilne zemeljske postaje (ROMES), ki zagotavljajo podatkovne komunikacije in delujejo v frekvenčnem pasu 1,5 GHz - Harmonizirani standard za dostop do radijskega spektra

Satellite Earth Stations and Systems (SES) - Receive-Only Mobile Earth Stations (ROMES) providing data communications operating in the 1,5 GHz frequency band - Harmonised Standard for access to radio spectrum

Ta slovenski standard je istoveten z: **ETSI EN 300 487 V2.2.0 (2024-09)**

ICS:

33.060.30	Radiorelejni in fiksni satelitski komunikacijski sistemi	Radio relay and fixed satellite communications systems

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Satellite Earth Stations and Systems (SES); Receive-Only Mobile Earth Stations (ROMES) providing data communications operating in the 1,5 GHz frequency band; Harmonised Standard for access to radio spectrum

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Contents

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Foreword

This draft Harmonised European Standard (EN) has been produced by ETSI Technical Committee Satellite Earth Stations and Systems (SES), and is now submitted for the combined Public Enquiry and Vote phase of the ETSI Standardisation Request deliverable Approval Procedure.

The present document has been prepared under the Commission's standardisation request C(2015) 5376 final [i.1] 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 [i.2].

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.

Proposed national transposition dates	
Date of latest announcement of this EN (doa):	3 months after ETSI publication
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	6 months after doa
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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 intended to cover the provisions of Directive 2014/53/EU [i.2] (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*".

Recital 10 of Directive 2014/53/EU [i.2] states that "*in order to ensure that radio equipment uses the radio spectrum effectively and supports the efficient use of radio spectrum, radio equipment should be constructed so that: in the case of a transmitter, when the transmitter is properly installed, maintained and used for its intended purpose it generates radio waves emissions that do not create harmful interference, while unwanted radio waves emissions generated by the transmitter (e.g. in adjacent channels) with a potential negative impact on the goals of radio spectrum policy should be limited to such a level that, according to the state of the art, harmful interference is avoided; and, in the case of a receiver, it has a level of performance that allows it to operate as intended and protects it against the risk of harmful interference, in particular from shared or adjacent channels, and, in so doing, supports improvements in the efficient use of shared or adjacent channel*".

Recital 11 of Directive 2014/53/EU [i.2] states that "*although receivers do not themselves cause harmful interference, reception capabilities are an increasingly important factor in ensuring the efficient use of radio spectrum by way of an increased resilience of receivers against harmful interference and unwanted signals on the basis of the relevant essential requirements of Union harmonisation legislation*".

As a consequence, the present document includes receiving parameters aiming to maximize the efficient use of radio spectrum.

1 Scope

The present document specifies technical characteristics and methods of measurement for Receive-Only Mobile Earth Stations (ROMES) radio equipment operating under the Land Mobile Satellite Service (LMSS), in the frequency band 1 518 MHz to 1 559 MHz (space-to-earth band).

The ROMESs operate as part of a satellite system providing one-way data communications.

ROMESs could have several configurations, including:

- either Portable Equipment (PE) or Vehicle Installed Equipment (VIE);
- a number of modules including a display/control interface to the user.

NOTE: The relationship between the present document and essential requirements of article 3.2 of Directive 2014/53/EU [i.2] is given in annex A.

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] ETSI ETS 300 133-5 ed.2 (11-1997): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Enhanced Radio MEssage System (ERMES); Part 5: Receiver conformance specification".

2.2 Informative 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.

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The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

[i.1] Commission Implementing Decision C(2015) 5376 final of 4.8.2015 on a standardisation request to the European Committee for Electrotechnical Standardisation and to the European Telecommunications Standards Institute as regards radio equipment in support of Directive 2014/53/EU of the European Parliament and of the Council.

[i.2] Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 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.

[i.3] ETSI EG 203 336 (V1.2.1): "Guide for the selection of technical parameters for the production of Harmonised Standards covering article 3.1(b) and article 3.2 of Directive 2014/53/EU".

3 Definition of terms, symbols and abbreviations

3.1 Terms

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

bearer type: carrier with certain bandwidth, certain modulation type and using certain error coding rate

effective receive operating band: receive band within 1 518 MHz to 1 559 MHz where the tests associated with table 3 are met

in-band signals: signals which are located in the operating band plus an offset of 10 MHz outside this operating band

operating frequency band: frequency range 1 518 MHz to 1 559 MHz

transition frequency: frequency which separates adjacent frequency ranges in a table of limits

3.2 Symbols

Void.

3.3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

BW	Bandwidth
CDMA	Code Division Multiple Access
CW	Continuous Wave
E_b/N_0	Energy per bit to noise power spectral density ratio
EC	European Commission
EFTA	European Free Trade Association
EIRP	Equivalent Isotropically Radiated Power
ETS	European Telecommunication Standard
EUT	Equipment Under Test
LMSS	Land Mobile Satellite Service
LO	Local Oscillator
LTE	Long Term Evolution
PE	Portable Equipment
QoS	Quality of Service
RED	Radio Equipment Directive
RF	Radio Frequency
ROMES	Receive-Only Mobile Earth Station
SNR	Signal to Noise Ratio
STE	Special Test Equipment
VIE	Vehicle Installed Equipment
VSWR	Voltage Standing Wave Ratio

4 Test conditions

4.1 Environment profile

The technical requirements of the present document apply under the environmental conditions described in clause 5.1.