

SLOVENSKI STANDARD
SIST EN 301 489-19 V1.2.1:2003
01-marec-2003

Elektromagnetna združljivost (EMC) in zadeve v zvezi z radijskim spektrom (ERM) - Standard elektromagnetne združljivosti (EMC) za radijsko opremo in storitve - 19. del: Posebni pogoji za sprejemne mobilne zemeljske postaje (ROMES), ki zagotavljajo podatkovne komunikacije in delujejo v pasu 1,5 GHz

Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 19: Specific conditions for Receive Only Mobile Earth Stations (ROMES) operating in the 1,5 GHz band providing data communications

(standards.iteh.ai)

<https://standards.iteh.ai/catalog/standards/sist/cc6c570d-0bd5-4518-9b66-43b2877ae562/sist-en-301-489-19-v1-2-1-2003>

Ta slovenski standard je istoveten z: EN 301 489-19 Version 1.2.1

ICS:

33.060.01	Radijske komunikacije na splošno	Radiocommunications in general
33.070.40	Satelit	Satellite
33.100.01	Elektromagnetna združljivost na splošno	Electromagnetic compatibility in general

SIST EN 301 489-19 V1.2.1:2003 **en**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 301 489-19 V1.2.1:2003](https://standards.iteh.ai/catalog/standards/sist/cc6c570d-0bd5-4518-9b66-43b2877ae562/sist-en-301-489-19-v1-2-1-2003)

<https://standards.iteh.ai/catalog/standards/sist/cc6c570d-0bd5-4518-9b66-43b2877ae562/sist-en-301-489-19-v1-2-1-2003>

ETSI EN 301 489-19 V1.2.1 (2002-11)

Candidate Harmonized European Standard (Telecommunications series)

**Electromagnetic compatibility
and Radio spectrum Matters (ERM);
ElectroMagnetic Compatibility (EMC) standard
for radio equipment and services;
Part 19: Specific conditions for Receive Only Mobile
Earth Stations (ROMES) operating in the 1,5 GHz band
providing data communications**

**iTeh STANDARD PREVIEW
(standards.iteh.ai)**

[SIST EN 301 489-19 V1.2.1:2003](https://standards.iteh.ai/catalog/standards/sist/cc6c570d-0bd5-4518-9b66-43b2877ae562/sist-en-301-489-19-v1-2-1-2003)

<https://standards.iteh.ai/catalog/standards/sist/cc6c570d-0bd5-4518-9b66-43b2877ae562/sist-en-301-489-19-v1-2-1-2003>



Reference

REN/ERM-EMC-230-19

Keywords

data, earth station, EMC, mobile, MSS, radio,
receiver, regulation, satellite, testing

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

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 301 489-19 V1.2.1:2003

<https://standards.iteh.ai/catalog/standards/sist/cc6c570d-0bd5-4518-9b66-43b2877ae562/301-489-19-v1-2-1-2003>

Important notice

Individual copies of the present document can be downloaded from:

<http://www.etsi.org>

The present document may be made available in more than one electronic version or in print. In any case of existing or perceived difference in contents between such versions, the reference version is the Portable Document Format (PDF). In case of dispute, the reference shall be the printing on ETSI printers of the PDF version kept on a specific network drive within ETSI Secretariat.

Users of the present document should be aware that the document may be subject to revision or change of status. Information on the current status of this and other ETSI documents is available at

<http://portal.etsi.org/tb/status/status.asp>

If you find errors in the present document, send your comment to:

editor@etsi.org

Copyright Notification

No part may be reproduced except as authorized by written permission.
The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 2002.
All rights reserved.

DECT™, **PLUGTESTS™** and **UMTS™** are Trade Marks of ETSI registered for the benefit of its Members.
TIPHON™ and the **TIPHON logo** are Trade Marks currently being registered by ETSI for the benefit of its Members.
3GPP™ is a Trade Mark of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners.

Contents

Intellectual Property Rights	4
Foreword.....	4
1 Scope	5
2 References	5
3 Definitions and abbreviations.....	6
3.1 Definitions	6
3.2 Abbreviations	6
4 Test conditions	6
4.1 General	6
4.2 Arrangements for test signals	6
4.2.1 Arrangements for test signals at the input of receivers (ROMES).....	6
4.2.2 Arrangements for test signals at the output of receivers (ROMES).....	7
4.3 Exclusion bands.....	7
4.3.1 Receiver exclusion band	7
4.4 Narrow band responses of receivers	7
4.5 Normal test modulation	7
5 Performance assessment.....	7
5.1 General	7
5.2 Equipment which can provide a continuous communications link.....	8
5.3 Equipment which does not provide a continuous communications link.....	8
5.4 Ancillary equipment.....	8
5.5 Equipment classification	8
6 Performance criteria	8
6.1 General performance criteria.....	8
6.2 Performance criteria for Continuous phenomena applied to ROMES receivers (CR)	8
6.3 Performance criteria for Transient phenomena applied to ROMES receivers (TR).....	9
6.4 Performance criteria for equipment which does not provide a continuous communication link.....	9
7 Applicability overview	9
7.1 Emission	9
7.1.1 General.....	9
7.1.2 Special conditions	9
7.2 Immunity	10
7.2.1 General.....	10
7.2.2 Special conditions	10
Annex A (normative): Definitions of ROMES within the scope of the present document	11
A.1 Receive Only Mobile Earth Stations (ROMES) operating in the 1,5 GHz band	11
Annex B (informative): Bibliography	12
History	13

Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: "*Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards*", which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (<http://webapp.etsi.org/IPR/home.asp>).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Foreword

This Candidate Harmonized European Standard (Telecommunications series) has been produced by ETSI Technical Committee Electromagnetic compatibility and Radio spectrum Matters (ERM).

The present document has been produced by ETSI in response to a mandate from the European Commission issued under Council Directive 98/34/EC (as amended) laying down a procedure for the provision of information in the field of technical standards and regulations.

The present document is intended to become a Harmonized Standard, the reference of which will be published in the Official Journal of the European Communities referencing the Council Directive on the approximation of the laws of the Member States relating to electromagnetic compatibility ("the EMC Directive") (89/336/EEC [3] as amended) and Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity ("the R&TTE Directive" [2]).

The present document is part 19 of a multi-part deliverable. Full details of the entire series can be found in part 1 [1].

SIST EN 301 489-19 V1.2.1:2003

<https://standards.iteh.ai/catalog/standards/sist/cc6c570d-0bd5-4518-9b66-43b2877ae562/sist-en-301-489-19-v1-2-1-2003>
National transition dates

Date of adoption of this EN:	8 November 2002
Date of latest announcement of this EN (doa):	28 February 2003
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 August 2003
Date of withdrawal of any conflicting National Standard (dow):	28 February 2006

1 Scope

The present document, together with EN 301 489-1 [1], covers the assessment of Receive Only Mobile Earth Stations (ROMES), as defined in annex A, and associated ancillary equipment in respect of ElectroMagnetic Compatibility (EMC).

Technical specifications related to the antenna port and emissions from the enclosure port of ROMES are not included in the present document. Such technical specifications are found in the relevant product standards for the effective use of the radio spectrum.

The present document specifies the applicable test conditions, performance assessment and performance criteria for ROMES and associated ancillary equipment.

ROMESs can have several configurations, including:

- portable equipment;
- fixed equipment;
- a number of modules including a display/control interface to the user.

The performance criteria used in the present document require that the satellite communications system of which the ROMES is a part provides reliable delivery of data or messages.

In case of differences (for instance concerning special conditions, definitions, abbreviations) between the present document and EN 301 489-1 [1], the provisions of the present document take precedence.

The environmental classification and the emission and immunity requirements used in the present document are as stated in EN 301 489-1 [1], except for any special conditions included in the present document. The applicable environments referred to in EN 301 489-1 [1] where ROMES may be used shall be declared by the manufacturer.

SIST EN 301 489-19 V1.2.1:2003

2 References

<https://standards.iteh.ai/catalog/standards/sist/cc6c570d-0bd5-4518-9b66-43b2877ae562/sist-en-301-489-19-v1-2-1-2003>

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.

[1] ETSI EN 301 489-1: "Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements".

[2] Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity (R&TTE Directive).

[3] Council Directive 89/336/EEC of 3 May 1989 on the approximation of the laws of the Member States relating to electromagnetic compatibility (EMC Directive).

[4] Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations.

[5] ITU-R Radio Regulations (1998).

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in EN 301 489-1 [1] and the following apply:

stand-by mode of operation: mode of operation in which the receiver is capable of receiving calls

3.2 Abbreviations

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

CR	Continuous phenomena applied to ROMES
EMC	ElectroMagnetic Compatibility
EUT	Equipment Under Test
LMSS	Land Mobile Satellite Service
RF	Radio Frequency
ROMES	Receive Only Mobile Earth Station
TR	Transient phenomena applied to ROMES

4 Test conditions

For the purposes of the present document, the test conditions of EN 301 489-1 [1], clause 4, shall apply as appropriate. Further product related test conditions for ROMES are specified in the present document.

4.1 General

For emission and immunity tests the test modulation, test arrangements, etc., as specified in the present document, clauses 4.1 to 4.5, shall apply.

In the following clauses, the Equipment Under Test (EUT) is the ROMES with the selected configuration of ancillary equipment.

4.2 Arrangements for test signals

The provisions of EN 301 489-1 [1], clause 4.2 shall apply.

4.2.1 Arrangements for test signals at the input of receivers (ROMES)

The provisions of EN 301 489-1 [1] clause 4.2.3 shall apply with the following modifications.

The manufacturer may, at the time of submitting the ROMES for testing, supply, if necessary, a test fixture and a message generator to generate the wanted input signal.

The wanted RF input signal level for ROMES, modulated with the normal test modulation, shall be set to a value significantly above the threshold sensitivity but below the overload characteristics of the ROMES (the threshold sensitivity and overload characteristic shall be specified by the manufacturer).

The source of the wanted input signal, modulated with normal test modulation (see clause 4.5), shall be located outside the test environment and the signal level used shall be chosen to be a value significantly above the threshold sensitivity but below the overload characteristics of the ROMES (the threshold sensitivity and overload characteristic shall be specified by the manufacturer). Adequate measures shall be taken to protect the measuring equipment from the effect of the test environment.

4.2.2 Arrangements for test signals at the output of receivers (ROMES)

The provisions of EN 301 489-1 [1], clause 4.2.4 shall apply with the following modifications.

For the performance check before and after the test it shall be possible to assess the performance of the ROMES from the presented messages and/or the call received alert signal(s) of the ROMES.

During the spot frequency test of the immunity test with radiated RF electromagnetic fields (EN 301 489-1 [1], clause 9.2) the call received alert signal output of the ROMES shall be coupled to the outside of the test environment and it shall be possible to assess the performance of the equipment from the call received alert signal(s) of the ROMES.

4.3 Exclusion bands

The provision of EN 301 489-1 [1], clause 4.3 shall apply with the following modifications:

- the receiver exclusion band as defined below shall apply,
- there shall be no exclusion bands for the ancillary equipment.

4.3.1 Receiver exclusion band

The receiver exclusion band is the band of frequencies over which no tests of radiated immunity of a receiver are made.

The lower frequency of the receiver exclusion band is the lower frequency of the complete receive band of the EUT minus 5 % of that lower frequency.

The upper frequency of the receiver exclusion band is the upper frequency of the complete receive band of the EUT plus 5 % of that upper frequency.

iTEH STANDARD PREVIEW
(standards.iteh.ai)

4.4 Narrow band responses of receivers

The provision of EN 301 489-1 [1], clause 4.4 shall apply.

4.5 Normal test modulation

The test modulation signal to be used for the calling function shall be a signal representing selective messages generated by a signal generator. The signal generator may be supplied by the manufacturer.

5 Performance assessment

5.1 General

The provision of EN 301 489-1 [1], clause 5.1 shall apply with the following modification.

If the ROMES has several optional features or configurations, tests shall be performed on the minimum representative configuration of the EUT.

In all cases, the minimum configuration of the EUT as marketed, shall comply with the EMC requirements of the present document.

The manufacturer shall keep on record information about the ancillary equipment intended for use with the ROMES and make this information available to the user.

In addition to the information requested from the manufacturer in EN 301 489-1 [1], clause 5.1, the manufacturer shall keep on record the following information:

- the optional features of the equipment and the actual features of the equipment which are assessed for the performance or degradation of performance.