

SLOVENSKI STANDARD

SIST EN 62272-2:2007

01-julij-2007

**Digitalna zvokovna radiodifuzija v frekvenčnih pasovih pod 30 MHz – 2. del:
Metode za meritve radijskih oddajnikov (IEC 62272-2:2007)**

Digital radio mondiale (DRM) -- Part 2: Digital radio in the bands below 30 MHz -
Methods of measurement for DRM transmitters

Digital radio mondiale (DRM) -- Teil 2: Digitaler Rundfunk in den Bändern unterhalb 30
MHz - Messverfahren für DRM-Sender

Digital radio mondiale (DRM) -- Partie 2 : Radiodiffusion numérique dans les bandes de
fréquences en dessous de 30 MHz - Méthodes de mesure des émetteurs DRM

[SIST EN 62272-2:2007](https://standards.iteh.ai/catalog/standards/sist/01666a54-c0d9-4175-ad0d-37469287f82d/sist-en-62272-2-2007)

[https://standards.iteh.ai/catalog/standards/sist/01666a54-c0d9-4175-ad0d-](https://standards.iteh.ai/catalog/standards/sist/01666a54-c0d9-4175-ad0d-37469287f82d/sist-en-62272-2-2007)

Ta slovenski standard je istoveten z: EN 62272-2:2007

ICS:

33.170

Televizijska in radijska
difuzija

Television and radio
broadcasting

SIST EN 62272-2:2007

en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 62272-2:2007

<https://standards.iteh.ai/catalog/standards/sist/01666a54-c0d9-4175-ad0d-37469287f82d/sist-en-62272-2-2007>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 62272-2

April 2007

ICS 33.060.20

English version

**Digital radio mondiale (DRM) -
Part 2: Digital radio in the bands below 30 MHz -
Methods of measurement for DRM transmitters
(IEC 62272-2:2007)**

Digital radio mondiale (DRM) -
Partie 2: Radiodiffusion numérique
dans les bandes de fréquences
en dessous de 30 MHz -
Méthodes de mesure des émetteurs DRM
(CEI 62272-2:2007)

Digital radio mondiale (DRM) -
Teil 2: Digitaler Rundfunk
in den Bändern unterhalb 30 MHz -
Messverfahren für DRM-Sender
(IEC 62272-2:2007)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

This European Standard was approved by CENELEC on 2007-04-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 103/64/FDIS, future edition 1 of IEC 62272-2, prepared by IEC TC 103, Transmitting equipment for radio communication, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62272-2 on 2007-04-01.

The following dates were fixed:

- | | | |
|--|-------|------------|
| – latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement | (dop) | 2008-01-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2010-04-01 |

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62272-2:2007 was approved by CENELEC as a European Standard without any modification.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 62272-2:2007
<https://standards.iteh.ai/catalog/standards/sist/01666a54-c0d9-4175-ad0d-37469287f82d/sist-en-62272-2-2007>

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60215	- ¹⁾	Safety requirements for radio transmitting equipment	EN 60215	1989 ²⁾
IEC 60244-1	- ¹⁾	Methods of measurement for radio transmitters - Part 1: General characteristics for broadcast transmitters	EN 60244-1	2000 ²⁾
IEC 60244-15	- ¹⁾	Methods of measurement for radio transmitters - Part 15: Amplitude-modulated transmitters for sound broadcasting	EN 60244-15	2000 ²⁾
ITU-R	- ¹⁾	Radio Regulations	-	-
ITU-R Recommendation V.663	- ¹⁾	Use of certain terms linked with physical quantities	-	-

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 62272-2:2007

<https://standards.iteh.ai/catalog/standards/sist/01666a54-c0d9-4175-ad0d-37469287f82d/sist-en-62272-2-2007>

INTERNATIONAL STANDARD

IEC
62272-2

First edition
2007-03

Digital radio mondiale (DRM) –

Part 2:

Digital radio in the bands below 30 MHz –

Methods of measurement for DRM transmitters

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 62272-2:2007](https://standards.iteh.ai/catalog/standards/sist/01666a54-c0d9-4175-ad0d-37469287f82d/sist-en-62272-2-2007)

<https://standards.iteh.ai/catalog/standards/sist/01666a54-c0d9-4175-ad0d-37469287f82d/sist-en-62272-2-2007>

© IEC 2007 — Copyright - all rights reserved

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Electrotechnical Commission, 3, rue de Varembé, PO Box 131, CH-1211 Geneva 20, Switzerland
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

PRICE CODE

R

For price, see current catalogue

CONTENTS

FOREWORD.....	3
1 Scope.....	5
2 Normative references.....	5
3 Terms, definitions and abbreviations	6
3.1 Terms and definitions	6
3.2 Abbreviations.....	6
4 General conditions of operation.....	7
5 General conditions of measurement	7
5.1 Input and output measurement arrangements	7
5.2 Temperature and humidity	8
5.3 Conditions for primary power supply.....	8
5.4 Output power	8
6 General characteristics	8
6.1 Output power	8
6.2 Frequency	9
7 Transmission performance characteristics	11
7.1 Spurious emissions.....	11
7.2 Out-of-band emissions (spectrum mask)	12
7.3 Modulation error ratio (MER).....	13
7.4 Bit error ratio (BER).....	13
8 Protection against atmospheric discharge	14
9 Acoustic noise	15
10 Safety.....	15
Annex A (informative) Measuring arrangements.....	16
Annex B (informative) Out-of-band emission limits for DRM transmitters.....	18
Annex C (informative) Additional measuring details	20
Figure 1 – Spectrum occupancy for 9 kHz channels	10
Figure 2 – Spectrum occupancy for 10 kHz channels	10
Figure 3 – PRBS generator	14
Figure A.1 – Arrangement A	16
Figure A.2 – Arrangement B	16
Figure A.3 – Arrangement C	17
Figure A.4 – Arrangement D	17
Figure B.1 – Out-of-band emission limits (upper half only of a symmetrical spectrum mask shown).....	18
Table B.1 – Out-of-band emission limits	18

INTERNATIONAL ELECTROTECHNICAL COMMISSION

DIGITAL RADIO MONDIALE (DRM) –

Part 2: Digital radio in the bands below 30 MHz –
Methods of measurement for DRM transmitters

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
<https://standards.iteh.ai/catalog/standards/sist/01666a54-c0d9-4175-ad0d-74995d638a/iec-62272-2-2007>
- 5) IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC Publication.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 62272-2 has been prepared by IEC technical committee 103: Transmitting equipment for radiocommunication.

The text of this standard is based on the following documents:

FDIS	Report on voting
103/64/FDIS	103/66/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN 62272-2:2007

<https://standards.iteh.ai/catalog/standards/sist/01666a54-c0d9-4175-ad0d-37469287f82d/sist-en-62272-2-2007>

DIGITAL RADIO MONDIALE (DRM) –

Part 2: Digital radio in the bands below 30 MHz – Methods of measurement for DRM transmitters

1 Scope

This part of IEC 62272 describes the methods of measurement to assess the performance characteristics of digital modulated radio transmitters in the bands below 30 MHz for sound and/or data broadcasting in the LF, MF and HF bands, and to facilitate the comparison of measurements which are carried out by different personnel.

It contains details of specially selected methods for determining the most important performance parameters of digital radio transmitters. The measurement methods described apply to a limited number of performance parameters, i.e. those which can give rise to ambiguous interpretation due to the use of different methods and conditions. They are neither restrictive nor mandatory: measurements can be chosen for each particular case.

The measurement methods described in this standard are intended to be used for type approval tests, quality control tests or acceptance test measurements in factories and on site.

Fewer or additional measurements may be carried out by agreement between customer and supplier. Any additional test should comply with standards which have been established by other study groups, subcommittees of the IEC or other international or suitably accredited organizations.

<https://standards.iteh.ai/catalog/standards/sist/01666a54-c0d9-4175-ad0d-37469287f82d/sist-en-62272-2-2007>

This standard does not specify limiting values for acceptable performance as these are usually given in the equipment specification or in requirements laid down by the responsible regulation bodies. However, some values are quoted, where appropriate, for guidance in the presentation of the results.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60244-1, *Methods of measurement for radio transmitters – Part 1: General characteristics for broadcast transmitters*

IEC 60244-15, *Methods of measurement for radio transmitters – Part 15: Amplitude-modulated transmitters for sound broadcasting*

IEC 60215, *Safety requirements for radio transmitting equipment*

ITU *Radio Regulations*

ITU-R Recommendation V.663, *Use of certain terms linked with physical quantities*