

STN	Prenosové zariadenia pre službu celosvetového digitálneho rozhlasového systému (DRM) Harmonizovaná norma pre prístup k rádiovému spektru	STN EN 302 245 V2.2.1
		87 2245

Transmitting equipment for the Digital Radio Mondiale (DRM) service; Harmonised Standard for access to radio spectrum

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 09/22

Obsahuje: EN 302 245 V2.2.1:2022

135461



ETSI EN 302 245 v2.2.1 (2022-05)



**Transmitting equipment for the
Digital Radio Mondiale (DRM) service;
Harmonised Standard for access to radio spectrum**

Reference

REN/ERM-TG17-202

Keywordsaudio, broadcasting, digital, DRM, harmonised
standard, radio, terrestrial, transmitter***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 - APE 7112B
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° w061004871***Important notice***The present document can be downloaded from:
<http://www.etsi.org/standards-search>

The present document may be made available in electronic versions and/or in print. The content of any electronic and/or print versions of the present document shall not be modified without the prior written authorization of ETSI. In case of any existing or perceived difference in contents between such versions and/or in print, the prevailing version of an ETSI deliverable is the one made publicly available in PDF format at www.etsi.org/deliver.

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
<https://portal.etsi.org/TB/ETSIDeliverableStatus.aspx>

If you find errors in the present document, please send your comment to one of the following services:
<https://portal.etsi.org/People/CommitteeSupportStaff.aspx>

If you find a security vulnerability in the present document, please report it through our
Coordinated Vulnerability Disclosure Program:
<https://www.etsi.org/standards/coordinated-vulnerability-disclosure>

Notice of disclaimer & limitation of liability

The information provided in the present deliverable is directed solely to professionals who have the appropriate degree of experience to understand and interpret its content in accordance with generally accepted engineering or other professional standard and applicable regulations.

No recommendation as to products and services or vendors is made or should be implied.
In no event shall ETSI be held liable for loss of profits or any other incidental or consequential damages.

Any software contained in this deliverable is provided "AS IS" with no warranties, express or implied, including but not limited to, the warranties of merchantability, fitness for a particular purpose and non-infringement of intellectual property rights and ETSI shall not be held liable in any event for any damages whatsoever (including, without limitation, damages for loss of profits, business interruption, loss of information, or any other pecuniary loss) arising out of or related to the use of or inability to use the software.

Copyright Notification

No part may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm except as authorized by written permission of ETSI.

The content of the PDF version shall not be modified without the written authorization of ETSI.
The copyright and the foregoing restriction extend to reproduction in all media.

© ETSI 2022.
All rights reserved.

Contents

Intellectual Property Rights	5
Foreword.....	5
Modal verbs terminology.....	6
1 Scope	7
2 References	7
2.1 Normative references	7
2.2 Informative references.....	7
3 Definition of terms, symbols and abbreviations.....	8
3.1 Terms.....	8
3.2 Symbols.....	9
3.3 Abbreviations	9
4 Technical requirements specifications	9
4.1 Environmental profile.....	9
4.2 Conformance requirements	9
4.2.1 Rated output power.....	9
4.2.1.1 Definition	9
4.2.1.2 Limit.....	9
4.2.1.3 Conformance.....	10
4.2.2 Frequency stability.....	10
4.2.2.1 Definition	10
4.2.2.2 Limit.....	10
4.2.2.2.1 DRM transmitters operating below 30 MHz	10
4.2.2.2.2 DRM transmitters operating between 30 MHz and 300 MHz.....	10
4.2.2.3 Conformance.....	10
4.2.3 Spurious emissions	10
4.2.3.1 Definition	10
4.2.3.2 Limit.....	10
4.2.3.2.1 DRM transmitters operating below 30 MHz	10
4.2.3.2.2 DRM transmitters operating between 30 MHz and 300 MHz.....	11
4.2.3.3 Conformance.....	12
4.2.4 Transmitter muting during frequency shift	12
4.2.4.1 Definition	12
4.2.4.2 Limits	12
4.2.4.3 Conformance.....	12
4.2.5 Out-of-band emissions.....	12
4.2.5.1 Definition	12
4.2.5.2 Limit.....	13
4.2.5.2.1 DRM transmitters operating below 30 MHz	13
4.2.5.2.2 DRM transmitters operating between 30 MHz and 300 MHz.....	14
4.2.5.3 Conformance.....	15
4.2.6 Modulation Error Ratio (MER)	15
4.2.6.1 Definition	15
4.2.6.2 Limit.....	16
4.2.6.2.1 DRM transmitters operating below 30 MHz	16
4.2.6.2.2 DRM transmitters operating between 30 MHz and 300 MHz.....	16
4.2.6.3 Conformance.....	16
5 Testing for compliance with technical requirements.....	16
5.1 Environmental conditions for testing	16
5.2 Test modulating signal	16
5.3 Methods of measurement	16
5.3.1 Rated output power.....	16
5.3.1.1 Initial conditions	16
5.3.1.2 Procedure	17
5.3.1.3 Test requirements.....	17

5.3.2	Frequency stability.....	17
5.3.2.1	Initial conditions	17
5.3.2.2	Procedure	17
5.3.2.3	Test requirements.....	17
5.3.3	Spurious emissions	17
5.3.3.1	Initial conditions	17
5.3.3.2	Procedure	18
5.3.3.3	Test requirements.....	18
5.3.4	Transmitter muting during frequency shift	18
5.3.4.1	Initial conditions	18
5.3.4.2	Procedure	18
5.3.4.3	Test requirements.....	18
5.3.5	Out-of-band emissions.....	18
5.3.5.1	Initial conditions	18
5.3.5.2	Procedure	19
5.3.5.3	Test requirements.....	19
5.3.6	Modulation Error Ratio (MER)	19
5.3.6.1	Initial conditions	19
5.3.6.2	Procedure	19
5.3.6.3	Test requirements.....	20
Annex A (informative):	Relationship between the present document and the essential requirements of Directive 2014/53/EU.....	21
Annex B (normative):	Measuring arrangements	22
B.1	Testing arrangements for antenna port (and MER) measurements	22
B.2	Test load characteristics	22
Annex C (informative):	Maximum measurement uncertainty.....	23
Annex D (informative):	Change history	24
History		25

Intellectual Property Rights

Essential patents

IPRs essential or potentially essential to normative deliverables may have been declared to ETSI. The declarations pertaining to these essential IPRs, if any, are 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 (<https://ipr.etsi.org/>).

Pursuant to the ETSI Directives including the ETSI IPR Policy, no investigation regarding the essentiality of IPRs, 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.

Trademarks

The present document may include trademarks and/or tradenames which are asserted and/or registered by their owners. ETSI claims no ownership of these except for any which are indicated as being the property of ETSI, and conveys no right to use or reproduce any trademark and/or tradename. Mention of those trademarks in the present document does not constitute an endorsement by ETSI of products, services or organizations associated with those trademarks.

DECT™, PLUGTESTS™, UMTS™ and the ETSI logo are trademarks of ETSI registered for the benefit of its Members. **3GPP™** and **LTE™** are trademarks of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners. **oneM2M™** logo is a trademark of ETSI registered for the benefit of its Members and of the oneM2M Partners. **GSM®** and the **GSM** logo are trademarks registered and owned by the GSM Association.

Foreword

This Harmonised European Standard (EN) has been produced by ETSI Technical Committee Electromagnetic compatibility and Radio spectrum Matters (ERM).

The present document has been prepared under the Commission's standardisation request C(2015) 5376 final [i.4] 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.1].

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:	17 May 2022
Date of latest announcement of this EN (doa):	31 August 2022
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	28 February 2023
Date of withdrawal of any conflicting National Standard (dow):	29 February 2024

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).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

1 Scope

The present document specifies technical characteristics and methods of measurements for transmitting equipment for the Digital Radio Mondiale (DRM) sound broadcasting service operating in the LF band, MF band, HF band and VHF band.

NOTE: The relationship between the present document and essential requirements of article 3.2 of Directive 2014/53/EU [i.1] 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 <https://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] ETSI ES 201 980 (V4.2.1) (01-2021): "Digital Radio Mondiale (DRM); System 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.

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

- [i.1] 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.2] Void.
- [i.3] Void.
- [i.4] 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.

koniec náhľadu – text d'alej pokračuje v platenej verzii STN