

ILNAS

Institut luxembourgeois de la normalisation
de l'accréditation, de la sécurité et qualité
des produits et services

ILNAS-EN 303 340 V1.2.1 (2020-09)

**Digital Terrestrial TV Broadcast
Receivers; Harmonised Standard for
access to radio spectrum**

National Foreword

This European Standard EN 303 340 V1.2.1 (2020-09) was adopted as Luxembourgish Standard ILNAS-EN 303 340 V1.2.1 (2020-09).

Every interested party, which is member of an organization based in Luxembourg, can participate for FREE in the development of Luxembourgish (ILNAS), European (CEN, CENELEC) and International (ISO, IEC) standards:

- Participate in the design of standards
- Foresee future developments
- Participate in technical committee meetings

<https://portail-qualite.public.lu/fr/normes-normalisation/participer-normalisation.html>

ETSI EN 303 340 v1.2.1 (2020-09)



Digital Terrestrial TV Broadcast Receivers; Harmonised Standard for access to radio spectrum



Reference

REN/ERM-TG17-32

Keywordsbroadcast, digital, harmonised standard, radio,
receiver***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

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>

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 2020.
All rights reserved.

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.

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	10
4 Technical requirements specifications	11
4.1 Environmental profile.....	11
4.2 Conformance requirements	11
4.2.1 DVB-T and DVB-T2 configurations for testing	11
4.2.1.1 Modulation Parameters	11
4.2.1.2 Receiver Configuration	12
4.2.2 Interference and wanted test signals	12
4.2.3 Sensitivity	12
4.2.3.1 Definition	12
4.2.3.2 Method of Measurement	12
4.2.3.2.1 Test arrangement description.....	12
4.2.3.2.2 Test procedure	13
4.2.3.3 Limits	13
4.2.4 Adjacent channel selectivity	14
4.2.4.1 Definition	14
4.2.4.2 Method of Measurement	14
4.2.4.2.1 Test arrangement description.....	14
4.2.4.2.2 Requirements for the ACLR of the interfering signal	14
4.2.4.2.3 Test procedure	14
4.2.4.3 Limits	16
4.2.5 Blocking.....	17
4.2.5.1 Definition	17
4.2.5.2 Method of Measurement	17
4.2.5.2.1 Test arrangement description.....	17
4.2.5.2.2 Requirements for the ACLR of the interfering signal	17
4.2.5.2.3 Test procedure	17
4.2.5.3 Limits	17
4.2.6 Overloading	18
4.2.6.1 Definition	18
4.2.6.2 Method of Measurement	18
4.2.6.2.1 Test arrangement description.....	18
4.2.6.2.2 Requirements for the ACLR of the interfering signal	18
4.2.6.2.3 Test procedure	18
4.2.6.3 Limits	19
5 Testing for compliance with technical requirements.....	19
5.1 Environmental conditions for testing	19
5.2 Void.....	19
Annex A (informative): Relationship between the present document and the essential requirements of Directive 2014/53/EU	20
Annex B (informative): Summary of study work	21

B.1	Overview	21
B.2	Selection of interferer waveforms	21
B.2.1	UE waveform	21
B.2.2	BS waveforms	22
B.3	Reception conditions for LTE UE 700 MHz interference	24
B.3.1	Calculation of maximum coupling gain	24
B.3.2	Calculation of maximum received UE interference power	25
B.4	Choice of BS interference power in receiver tests	25
Annex C (informative):	Measurement records.....	26
Annex D (informative):	Additional information to assist measurements.....	28
D.1	Optional elements of the test arrangement	28
D.2	Instrument settings for measuring the power of bursty interference signals	28
D.3	Improving ACLR	28
D.4	Measuring ACLR	29
Annex E (normative):	Applicable tests	30
E.1	Applicable tests for different receiver variants	30
Annex F (normative):	Requirements for the interfering signal minimum ACLR.....	32
Annex G (informative):	Justification of omitted receiver parameters.....	33
G.1	Receiver parameters omitted	33
G.1.1	Co-channel rejection.....	33
G.1.2	Spurious response rejection.....	33
G.1.3	Intermodulation	33
G.1.3.0	General.....	33
G.1.3.1	Second order intermodulation.....	34
G.1.3.2	Third order intermodulation.....	34
G.1.4	Dynamic range	34
G.1.5	Reciprocal mixing	34
G.1.6	Desensitisation	35
Annex H (informative):	Change History	36
History	37	