

BS EN 62634:2011



BSI Standards Publication

Radio data system (RDS) — Receiver products and characteristics — Methods of measurement

bsi.

...making excellence a habit.
AVA Documents™
Document Sharing Hub

National foreword

This British Standard is the UK implementation of EN 62634:2011. It is identical to IEC 62634:2011. It supersedes BS EN 60315-9:1997 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee EPL/100, Audio, video and multimedia systems and equipment.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© BSI 2011

ISBN 978 0 580 76033 4

ICS 33.060.20

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 September 2011.

Amendments issued since publication

Date	Text affected
------	---------------

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 62634

August 2011

ICS 33.060.20

Supersedes EN 60315-9:1996

English version

**Radio data system (RDS) -
Receiver products and characteristics -
Methods of measurement
(IEC 62634:2011)**

Système de radiodiffusion de données -
Caractéristiques et méthodes de mesure
des récepteurs RDS
(CEI 62634:2011)

RDS-Empfänger-Produkte und -
Eigenschaften -
Messverfahren
(IEC 62634:2011)

This European Standard was approved by CENELEC on 2011-08-02. 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, Croatia, 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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

© 2011 CENELEC - All rights of exploitation in any form and by any means reserved worldwide for CENELEC members.

Ref. No. EN 62634:2011 E

 **Documents**
Document Sharing Hub

Foreword

The text of document 100/1813/FDIS, future edition 1 of IEC 62634, prepared by IEC TC 100, Audio, video and multimedia systems and equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62634 on 2011-08-02.

This European Standard supersedes EN 60315-9:1996.

EN 62634:2011 includes the following significant technical changes with respect to EN 60315-9:1996:

- use of state-of-the-art measuring methods based on today's RDS products,
- provision of realistic performance targets,
- is complementary to RDS standard EN 62106:2009,
- it covers the challenging RDS receiving conditions “weak signal”, “adjacent channel” and “strong signal” to verify the required RDS sensitivity and selectivity for three different RDS product categories.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

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) | 2012-05-02 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2014-08-02 |

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62634:2011 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

- | | | |
|------------------|------|---|
| IEC 60315-9:1996 | NOTE | Harmonized as EN 60315-9:1996 (not modified). |
| ISO 14819 series | NOTE | Harmonized in EN ISO 14819 series. |
-

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 62106	2009	Specification of the Radio Data System (RDS) for VHF/FM sound broadcasting in the frequency range from 87,5 MHz to 108,0 MHz	EN 62106	2009

CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	7
2 Normative references	7
3 Terms, definitions and abbreviations	7
3.1 Terms and definitions	7
3.2 Abbreviations	8
4 Measuring method	8
4.1 Standard measuring signal	8
4.2 RDS data conditions.....	9
4.2.1 General	9
4.2.2 Matching circuit	9
5 Measurement of the RDS sensitivity	10
5.1 General.....	10
5.2 Method of measurement.....	10
5.3 Presentation of the results.....	10
6 Measurement of the RDS data acquisition	10
6.1 General.....	10
6.2 Time to synchronise	10
6.3 Time to detect a first PI	11
6.4 Method of measurement.....	11
7 Measurement of the large signal capabilities	11
7.1 General.....	11
7.2 Resistance to high wanted signal levels	11
7.2.1 Method of measurement	11
7.2.2 Large wanted signal requirement.....	11
7.3 RDS performance at large unwanted signal	11
7.3.1 Method of measurement	11
7.3.2 Large unwanted signal requirements	12
8 Measurement of the RDS selectivity	12
8.1 General.....	12
8.2 Method of measurement.....	12
9 Considerations and guidelines for evaluation of the dynamic RDS performance	13
9.1 General.....	13
9.2 RDS dynamic behaviour	13
9.3 Traffic announcements TA/TP	14
9.3.1 TA message	14
9.3.2 End of TA message	14
9.3.3 TP search.....	14
9.3.4 TA announcement skip	14
9.4 Regionalisation	15
9.4.1 Implementations	15
9.4.2 Requirement.....	15
Bibliography.....	16

Figure 1 – Coupling circuit	9
Figure 2 – Matching circuits for RDS product devices with three different input impedances	9
Table 1 – Presentation of the measurement result	12
Table 2 – AF example	15