

INTERNATIONAL STANDARD

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



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IEC Central Office
3, rue de Varembe
CH-1211 Geneva 20
Switzerland
Email: inmail@iec.ch
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INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

PRICE CODE

ICS 33.060.20; 33.170; 35.240.99

ISBN 2-8318-1054-1

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

SPECIFICATION OF THE RADIO DATA SYSTEM (RDS) FOR VHF/FM SOUND BROADCASTING IN THE FREQUENCY RANGE FROM 87,5 MHz TO 108,0 MHz

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International Standard IEC 62106 has been prepared by technical area 1: Terminals for audio, video and data services and content, of IEC technical committee 100: Audio, video and multimedia systems and equipment.

This second edition cancels and replaces the first edition, published in 2000 and constitutes a technical revision.

The main changes with respect to the previous edition are listed below.

- the list of RDS country codes, inclusive of the extended country codes, has been updated in Annexes D and N;
- Annex E, containing the character code tables to be used in RDS has been updated;
- RadioText Plus has been added as a new feature in Annex P;
- Enhanced RadioText has been added as a new feature in Annex Q.

NOTE 1 IEC 62106:2000 (first edition) and IEC 62106:2009 (second edition) have the same main text and annex structure. However, the main text of this edition is slightly restructured to more closely conform to ISO/IEC Directives, Part 2. Nevertheless, cross-referencing between this edition and the previous edition remains

possible. To find the corresponding subclause quickly, it is basically sufficient to subtract 3 clauses. Example: see 6.1.5.1 becomes, see 3.1.5.1 in the first edition.

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

CDV	Report on voting
100/1454/CDV	100/1557/RVC

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.

NOTE 2 For technical reasons equations and some figures had to be left unchanged and are not 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;
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A bilingual version of the publication may be issued at a later date.

SPECIFICATION OF THE RADIO DATA SYSTEM (RDS) FOR VHF/FM SOUND BROADCASTING IN THE FREQUENCY RANGE FROM 87,5 MHz TO 108,0 MHz

1 Scope

This International Standard describes the Radio Data System, RDS, intended for application to VHF/FM sound broadcasts in the range 87,5 MHz to 108,0 MHz which may carry either stereophonic (pilot-tone system) or monophonic programmes (see clause 2 – Normative references ITU-R Recommendations BS 450-3 and BS 643-2). The main objectives of RDS are to enable improved functionality for FM receivers and to make them more user-friendly by using features such as Programme Identification, Programme Service name display and where applicable, automatic tuning for portable and car radios, in particular. The relevant basic tuning and switching information therefore has to be implemented by the type 0 group (see 6.1.5.1), and it is not optional unlike many of the other possible features in RDS.

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.

ISO/IEC 10646, *Information technology – Universal Multiple-Octet Coded Character Set (UCS)*

ISO 14819 (all parts), *Traffic and Traveller Information (TTI) – TTI messages via traffic message Coding (TMC)*

ITU-R Recommendation BS.450-3, *Transmission standards for FM sound broadcasting at VHF*

ITU-R Recommendation BS.643-2, *System for automatic tuning and other applications in FM radio receivers for use with the pilot-tone system*

ITU-T Recommendation E.212, *For the three digit Mobile Country Codes used in Annex M of this RDS specification refer to Complement to ITU-T Rec. E.212 (05/2004) published by ITU Geneva as Annex to ITU Operational Bulletin 897, dated 2007-12-01*

US NRSC-4-A, *National Radio Systems Committee – NRSC-4-A: United States RBDS standard*

ETSI EN 301 700, *Digital Audio Broadcasting (DAB); VHF/FM broadcasting: cross referencing to simulcast DAB services by RDS-ODA 147*

3 Abbreviations and conventions

For the purposes of this document, the following terms and definitions apply.

3.1

AM

amplitude modulation (broadcasting)