

# INTERNATIONAL STANDARD

---

**Radio data system (RDS) – VHF/FM sound broadcasting in the frequency range  
from 64,0 MHz to 108,0 MHz –  
Part 4: Registered code tables**





## THIS PUBLICATION IS COPYRIGHT PROTECTED

Copyright © 2018 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, 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 either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

IEC Central Office  
3, rue de Varembe  
CH-1211 Geneva 20  
Switzerland

Tel.: +41 22 919 02 11  
[info@iec.ch](mailto:info@iec.ch)  
[www.iec.ch](http://www.iec.ch)

### About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

### About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigenda or an amendment might have been published.

#### IEC Catalogue - [webstore.iec.ch/catalogue](http://webstore.iec.ch/catalogue)

The stand-alone application for consulting the entire bibliographical information on IEC International Standards, Technical Specifications, Technical Reports and other documents. Available for PC, Mac OS, Android Tablets and iPad.

#### IEC publications search - [webstore.iec.ch/advsearchform](http://webstore.iec.ch/advsearchform)

The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee,...). It also gives information on projects, replaced and withdrawn publications.

#### IEC Just Published - [webstore.iec.ch/justpublished](http://webstore.iec.ch/justpublished)

Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and also once a month by email.

#### Electropedia - [www.electropedia.org](http://www.electropedia.org)

The world's leading online dictionary of electronic and electrical terms containing 21 000 terms and definitions in English and French, with equivalent terms in 16 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

#### IEC Glossary - [std.iec.ch/glossary](http://std.iec.ch/glossary)

67 000 electrotechnical terminology entries in English and French extracted from the Terms and Definitions clause of IEC publications issued since 2002. Some entries have been collected from earlier publications of IEC TC 37, 77, 86 and CISPR.

#### IEC Customer Service Centre - [webstore.iec.ch/csc](http://webstore.iec.ch/csc)

If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: [sales@iec.ch](mailto:sales@iec.ch).



IEC 62106-4

Edition 1.0 2018-09

# INTERNATIONAL STANDARD

---

**Radio data system (RDS) – VHF/FM sound broadcasting in the frequency range  
from 64,0 MHz to 108,0 MHz –  
Part 4: Registered code tables**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

---

ICS 33.160.40

ISBN 978-2-8322-6069-2

**Warning! Make sure that you obtained this publication from an authorized distributor.**

## CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	7
2 Normative references .....	7
3 Terms, definitions, abbreviated terms and conventions .....	7
4 Registration procedure .....	7
4.1 Registration authority.....	7
4.2 Registration of a value in an existing table .....	8
4.3 Registration of a new table .....	8
5 Registered code tables for RDS and RDS2.....	8
5.1 Country identification .....	8
5.2 Basic and extended RDS character sets .....	13
5.3 Programme type codes .....	32
Annex A (informative) Translated PTY terms.....	36
Bibliography.....	57
Table 1 – ITU Region 1 – ECC and CI codes .....	9
Table 2 – ITU Region 2 – ECC and CI codes .....	11
Table 3 – ITU Region 3 – ECC and CI codes .....	12
Table 4 – Basic RDS character set .....	13
Table 5 – Non-transmitted UCS-2 equivalents.....	14
Table 6 – Character codes used in the European Broadcasting Area .....	21
Table 7 – Programme type codes and corresponding terms for display .....	33
Table 8 – Definition of the terms used to denote Programme Type (PTY).....	34
Table A.1 – PTY code descriptions and abbreviations in Bulgarian .....	37
Table A.2 – PTY code descriptions and abbreviations in Croatian.....	38
Table A.3 – PTY code descriptions and abbreviations in Czech .....	39
Table A.4 – PTY code descriptions and abbreviations in Danish .....	40
Table A.5 – PTY code descriptions and abbreviations in Dutch .....	41
Table A.6 – PTY code descriptions and abbreviations in Estonian .....	42
Table A.7 – PTY code descriptions and abbreviations in Finnish.....	43
Table A.8 – PTY code descriptions and abbreviations in French .....	44
Table A.9 – PTY code descriptions and abbreviations in German.....	45
Table A.10 – PTY code descriptions and abbreviations in Hungarian .....	46
Table A.11 – PTY code descriptions and abbreviations in Italian.....	47
Table A.12 – PTY code descriptions and abbreviations in Lithuanian .....	48
Table A.13 – PTY code descriptions and abbreviations in Norwegian.....	49
Table A.14 – PTY code descriptions and abbreviations in Polish.....	50
Table A.15 – PTY code descriptions and abbreviations in Portuguese .....	51
Table A.16 – PTY code descriptions and abbreviations in Romanian .....	52

Table A.17 – PTY code descriptions and abbreviations in Russian.....	53
Table A.18 – PTY code descriptions and abbreviations in Slovene.....	54
Table A.19 – PTY code descriptions and abbreviations in Spanish.....	55
Table A.20 – PTY code descriptions and abbreviations in Swedish .....	56

# INTERNATIONAL ELECTROTECHNICAL COMMISSION

## **RADIO DATA SYSTEM (RDS) – VHF/FM SOUND BROADCASTING IN THE FREQUENCY RANGE FROM 64,0 MHz TO 108,0 MHz –**

### **Part 4: Registered code tables**

#### **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.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 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 62106-4 has been prepared by technical area 1: Terminals for audio, video and data services and contents, of IEC technical committee 100: Audio, video and multimedia systems and equipment.

This first edition, together with IEC 62106-1, IEC 62106-2, IEC 62106-3, IEC 62106-5 and IEC 62106-6, cancels and replaces IEC 62106:2015, and constitutes a technical revision.

This edition includes the following significant technical changes with respect to IEC 62106:2015:

- Provision has been made to carry RDS on multiple data-streams (RDS2).
- The country identification table has been updated by adding some countries.
- Translated PTY terms for 20 languages have been added.

The text of this International Standard is based on the following documents:

CDV	Report on voting
100/2908/CDV	100/3058/RVC

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

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

A list of all parts in the IEC 62106 series, published under the general title *Radio data system (RDS) – VHF/FM sound broadcasting in the frequency range from 64,0 MHz to 108,0 MHz*, can be found on the IEC website.

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

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

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

## INTRODUCTION

Since the mid-1980s a fascinating development has taken place. Most of the multimedia applications and standards have been created or redefined significantly. Hardware has become extremely powerful with dedicated software and middleware. In the mid-1980s, Internet as well as its protocols did not exist. Navigation systems became affordable in the late 1990s, and a full range of attractive smartphones now exist. The computing power of all these new products is comparable with that of the mainframe installations in that era.

Listener expectations have grown faster than the technology. Visual experience is now very important, like the Internet look and feel. Scrolling text or delivering just audio is nowadays perceived as insufficient for FM radio, specifically for smartphone users. New types of radio receivers with added value features are therefore required. RDS has so far proven to be very successful.

FM radio with RDS is an analogue-digital hybrid system, which is still a valid data transmission technology and only the applications need adaptation. Now the time has come to solve the only disadvantage, the lack of sufficient data capacity. With RDS2, the need to increase the data capacity can be fulfilled.

RDS was introduced in the early 1980s. During the introductory phase in Europe, the car industry became very involved and that was the start of an extremely successful roll-out. Shortly afterwards, RDS (RBDS) was launched in the USA.

The RDS Forum has investigated a solution to the issue of limited data capacity. For RDS2, both sidebands around the RDS 57 kHz subcarrier can be repeated a few times, up to three, centred on additional subcarriers higher up in the FM multiplex still remaining compatible with the ITU Recommendations.

The core elements of RDS2 are the additional subcarriers, which will enable a significant increase of RDS data capacity to be achieved, and then only new additional data applications will have to be created, using the RDS-ODA feature, which has been part of the RDS standard IEC 62106 for many years.

In order to update IEC 62106:2015 to the specifications of RDS2, IEC 62106 has been restructured as follows:

Part 1: Modulation characteristics and baseband coding

Part 2: RDS message format, coding and definition of RDS features

Part 3: Usage and registration of Open Data Applications ODAs

Part 4: Registered code tables

Part 5: Marking of RDS and RDS2 devices

Part 6: Compilation of technical specifications for Open Data Applications in the public domain

The following future parts are planned:

Part 7: RBDS

Part 8: Universal Encoder Communication Protocol UECP

The original specifications of the RDS system have been maintained and the extra functionalities of RDS2 have been added.

Obsolete or unused functions from the original RDS standard have been deleted.

# **RADIO DATA SYSTEM (RDS) – VHF/FM SOUND BROADCASTING IN THE FREQUENCY RANGE FROM 64,0 MHz TO 108,0 MHz –**

## **Part 4: Registered code tables**

### **1 Scope**

This part of IEC 62106 provides a number of tables for use in the implementation of the RDS system. This document specifies the procedure for registering a new value in an existing table or the registration of a new table.

### **2 Normative references**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 62106 (all parts), *Radio Data System (RDS) – VHF/FM sound broadcasting in the frequency range from 64,0 MHz to 108,0 MHz*

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

### **3 Terms, definitions, abbreviated terms and conventions**

For the purposes of this document, the terms, definitions and abbreviated terms given in IEC 62106-1 and IEC 62106-2 apply. The notation and conventions given in IEC 62106-1 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

### **4 Registration procedure**

#### **4.1 Registration authority**

The content of this document is maintained by the RDS Forum Office. Applications for the registration of a value in an existing table or registration of a new table are to be sent to the address below. Note that only applications which are in line with the rules described in the following clauses can be accepted by the registration authority.

Applications for registration should be sent to:

RDS Forum Office  
E-mail: [rdsforum@bluewin.ch](mailto:rdsforum@bluewin.ch)