

INTERNATIONAL STANDARD

IEC
62328-3

First edition
2005-07

Multimedia home server systems – Interchangeable volume/file structure adaptation for broadcasting receivers –

Part 3: Broadcasting system specific recording structure – ISDB

© IEC 2005 — Copyright - all rights reserved

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 the publisher.

International Electrotechnical Commission, 3, rue de Varembé, PO Box 131, CH-1211 Geneva 20, Switzerland
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

PRICE CODE

XA

For price, see current catalogue

CONTENTS

FOREWORD.....	5
INTRODUCTION.....	7
1 Scope.....	8
2 Normative references	8
3 Terms and definitions.....	9
4 Abbreviations	10
5 Notation	11
5.1 Numerical values.....	11
6 General.....	11
6.1 Character set field in Dstring[n]	11
7 File and directory.....	12
7.1 TYPE1 each PGR specific area in structure PGR	12
7.2 Structure MDE (meta data entry) in MetaDataTable stream file	13
7.3 Programme information in PROGxxxx.PIF file	17
Annex A (informative) Partial TS format.....	34
Annex B (informative) Japanese digital TV specific information	37
Annex C (informative) D-VHS specific information	51
Annex D (normative) Coexistence with domestic services of individual countries	52
Bibliography.....	53
Figure 1 – Structure of programme information	18
Figure 2 – Structure of TYPE1 components information	24
Figure 3 – Structure of component group information.....	27
Table 1 – Structure Dstring[n].....	11
Table 2 – Interpretation of character set	12
Table 3 – Structure of TYPE1 PGRSA	12
Table 4 – Structure of FL1	13
Table 5 – Structure of MDE.....	13
Table 6 – MDE TYPE interpretation	13
Table 7 – Structure of TYPE 1 MDE.....	13
Table 8 – Structure of FLMDE.....	14
Table 9 – User ID type interpretation	15
Table 10 – Structure of programme general information.....	18
Table 11 – Programme identification type interpretation.....	18
Table 12 – Service type interpretation.....	19
Table 13 – Structure of broadcasting TV programme information	19
Table 14 – BTVPI TYPE interpretation	19
Table 15 – Structure of TYPE1 broadcasting TV programme information	20
Table 16 – Structure of descriptors in the case of D-VHS specific type	22

Table 17 – Structure of component information	23
Table 18 – COMPI TYPE interpretation	23
Table 19 – Structure of component information header	24
Table 20 – Structure of CFL	24
Table 21 – Structure of CC	25
Table 22 – Structure of PR	26
Table 23 – Structure of component group information search pointer	27
Table 24 – Structure of component group information header	27
Table 25 – Structure of component information	28
Table 26 – Stream type interpretation	28
Table 27 – Structure of CIFL	29
Table 28 – Structure of CC	29
Table 29 – Structure of stream type dependant data (video mode)	30
Table 30 – Structure of stream type dependant data (audio mode)	31
Table 31 – Structure of ESI	31
Table 32 – Structure of stream type dependant data (data mode)	32
Table 33 – Structure of stream type dependant data (additional data)	32
Table 34 – Structure of TYPE2 component information	33
Table A.1 – PSI/SI tables	34
Table A.2 – PID and table ID mapping for PSI/SI	34
Table A.3 – Programme association section	35
Table A.4 – Programme map section	35
Table A.5 – Descriptors in PMT in partial TS	36
Table A.6 – Discontinuity information section	36
Table A.7 – Selection information section	37
Table A.8 – Descriptors in SIT	37
Table B.1 – Tag values of descriptors	38
Table B.2 – Structure of C ₁ descriptor	39
Table B.3 – Structure of service list descriptor	39
Table B.4 – Structure of stuffing descriptor	39
Table B.5 – Structure of service descriptor	40
Table B.6 – Structure of short-event descriptor	40
Table B.7 – Structure of extended-event descriptor	40
Table B.8 – Structure of component descriptor	41
Table B.9 – Structure of stream identifier descriptor	41
Table B.10 – Structure of content descriptor	41
Table B.11 – Structure of parental rating descriptor	41
Table B.12 – Structure of partial transport stream descriptor	42
Table B.13 – Structure of broadcast id descriptor	42
Table B.14 – Structure of hierarchical transmission descriptor	42
Table B.15 – Structure of digital copy control descriptor	43
Table B.16 – Structure of network identification descriptor	43
Table B.17 – Structure of partial TS time descriptor	44
Table B.18 – Structure of audio component descriptor	44

Table B.19 – Structure of hyperlink descriptor.....	44
Table B.20 – Structure of target region descriptor.....	45
Table B.21 – Structure of data content descriptor.....	45
Table B.22 – Structure of video decode control descriptor.....	45
Table B.23 – Structure of TS information descriptor.....	46
Table B.24 – Structure of extended broadcaster descriptor.....	46
Table B.25 – Structure of series descriptor.....	47
Table B.26 – Structure of event group descriptor.....	47
Table B.27 – Structure of broadcaster name descriptor.....	48
Table B.28 – Structure of component group descriptor.....	48
Table B.29 – Structure of content availability descriptor.....	48
Table B.30 – Structure of emergency information descriptor.....	49
Table B.31 – Structure of data component descriptor.....	49
Table B.32 – Structure of NIT.....	49
Table B.33 – Structure of EIT.....	50
Table C.1 – Tag values of descriptors.....	51
Table C.2 – Structure of DTCP descriptor.....	51
Table D.1 – Reserved directories.....	52

Currently in preview, click buy full version

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**MULTIMEDIA HOME SERVER SYSTEMS –
INTERCHANGEABLE VOLUME/FILE STRUCTURE ADAPTATION
FOR BROADCASTING RECEIVERS –**

Part 3: Broadcasting system specific recording structure – ISDB

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 provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC Publication.
- 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 informative 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 62328-3 has been prepared by IEC technical committee 100: Audio, video and multimedia systems and equipment.

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

FDIS	Report on voting
100/965/FDIS	100/989/RVD

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.

IEC 62328 consists of the following parts, under the general title *Multimedia home server systems – Interchangeable volume/file structure adaptation for broadcasting receivers*:

Part 1: General description and architecture

Part 2: General recording structure

Part 3: Broadcasting system specific recording structure – ISDB

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

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

INTRODUCTION

Broadcast data in a transport stream can contain multiple associated objects. When that data is distributed on interchangeable storage media, for example, optical disks, the associated objects should be synchronized. Open distribution of the media requires that the data be adapted to a standardized volume and file structure, which should conform to the existing basic volume and file structure.

Currently in preview, click buy full version

MULTIMEDIA HOME SERVER SYSTEMS – INTERCHANGEABLE VOLUME/FILE STRUCTURE ADAPTATION FOR BROADCASTING RECEIVERS –

Part 3: Broadcasting system specific recording structure – ISDB

1 Scope

This part of IEC 62328 defines the volume and file structure required for interchanging multimedia data of a home server/broadcasting receiver, which consists of an AV stream with multiple associated objects.

This part of IEC 62328 specifies the broadcasting system specific recording structure for ISDB.

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.

IEC 62328-2, *Multimedia home server systems – Interchangeable volume/file structure adaptation for broadcasting receivers – Part 2: General recording structure*

ISO/IEC 646, *Information technology – ISO 7-bit coded character set for information interchange*

ISO/IEC 10646-1, *Information technology – Universal Multiple-Octet Coded Character Set (UCS) – Part 1: Architecture and Basic Multilingual Plane*

ISO/IEC 13818-1:2000, *Information technology – Generic coding of moving pictures and associated audio information: Systems*

ISO/IEC 13818-2:2000, *Information technology – Generic coding of moving pictures and associated audio information: Video*

ISO/IEC 13818-6:1998, *Information technology – Generic coding of moving pictures and associated audio information – Part 6: Extensions for DSM-CC*

ISO/IEC 13818-7:2003, *Information technology – Generic coding of moving pictures and associated audio information – Part 7: Advanced Audio Coding (AAC)*

ISO/IEC 11172-2:1993, *Information technology – Coding of moving pictures and associated audio for digital storage media at up to about 1,5 Mbit/s – Part 2: Video*

ISO 8859 (all parts), *Information technology – 8-bit single-byte coded graphic character sets*