



SLOVENSKI STANDARD
SIST EN 300 468 V1.17.1:2023

01-januar-2023

Digitalna videoradiodifuzija (DVB) - Specifikacija za servisne informacije (SI) v sistemih DVB

Digital Video Broadcasting (DVB) - Specification for Service Information (SI) in DVB systems

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 300 468 V1.17.1:2023](https://standards.iteh.ai/standards/sist/en-300-468-v1-17-1-2023)

Ta slovenski standard je istoveten z: <https://standards.iteh.ai/standards/sist/en-300-468-v1-17-1-2023> ETSI EN 300 468 V1.17.1 (2022-10)

ICS:

33.170

Televizijska in radijska
difuzija

Television and radio
broadcasting

SIST EN 300 468 V1.17.1:2023

en

ETSI EN 300 468 V1.17.1 (2022-10)



**Digital Video Broadcasting (DVB);
Specification for Service Information (SI) in DVB systems**
(standards.itech.ai)

[SIST EN 300 468 V1.17.1:2023](https://standards.itech.ai/catalog/standards/sist/fe6cb6f6-05a6-4a86-9c61-d848bdd99f4c/sist-en-300-468-v1-17-1-2023)

<https://standards.itech.ai/catalog/standards/sist/fe6cb6f6-05a6-4a86-9c61-d848bdd99f4c/sist-en-300-468-v1-17-1-2023>

EBU DVB[®]

Reference

REN/JTC-DVB-397

Keywordsbroadcasting, digital, DVB, MPEG, service, TV,
video**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 - APE 7112B
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° w061004871

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://standards.iteh.ai/> <https://portal.etsi.org/People/CommitteeSupportStaff.aspx> | -d848bdd99f4c/sist-

If you find a security vulnerability in the present document, please report it through our

Coordinated Vulnerability Disclosure Program:

<https://www.etsi.org/standards/coordinated-vulnerability-disclosure>

Notice of disclaimer & limitation of liability

The information provided in the present deliverable is directed solely to professionals who have the appropriate degree of experience to understand and interpret its content in accordance with generally accepted engineering or other professional standard and applicable regulations.

No recommendation as to products and services or vendors is made or should be implied.

In no event shall ETSI be held liable for loss of profits or any other incidental or consequential damages.

Any software contained in this deliverable is provided "AS IS" with no warranties, express or implied, including but not limited to, the warranties of merchantability, fitness for a particular purpose and non-infringement of intellectual property rights and ETSI shall not be held liable in any event for any damages whatsoever (including, without limitation, damages for loss of profits, business interruption, loss of information, or any other pecuniary loss) arising out of or related to the use of or inability to use the software.

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 2022.

© European Broadcasting Union 2022.

All rights reserved.

Contents

Intellectual Property Rights	8
Foreword.....	8
Modal verbs terminology.....	9
1 Scope	10
2 References	10
2.1 Normative references	10
2.2 Informative references.....	13
3 Definition of terms, symbols and abbreviations.....	13
3.1 Terms.....	13
3.2 Symbols.....	17
3.3 Abbreviations	17
4 Service information description	20
5 Service information tables.....	21
5.1 Service information table mechanism	21
5.1.1 Use of table sections	21
5.1.2 Mapping of sections into DVB transport stream packets.....	22
5.1.3 Coding of PID and table_id fields	23
5.1.4 Repetition rates and random access	24
5.1.5 Scrambling.....	24
5.1.6 Bit order and transmission order.....	25
5.2 Table definitions.....	26
5.2.0 Introduction.....	26
5.2.1 Network Information Table	27
5.2.2 Bouquet Association Table.....	28
5.2.3 Service Description Table.....	30
5.2.4 Event Information Table.....	32
5.2.5 Time and Date Table.....	34
5.2.6 Time Offset Table.....	35
5.2.7 Running Status Table.....	35
5.2.8 Stuffing Table	36
5.2.9 Discontinuity Information Table.....	37
5.2.10 Selection Information Table	37
6 Descriptors	37
6.0 Introduction	37
6.1 Descriptor identification and location	37
6.2 Descriptor coding	39
6.2.0 General principles.....	39
6.2.1 Adaptation field data descriptor.....	39
6.2.2 Ancillary data descriptor.....	40
6.2.3 Announcement support descriptor	40
6.2.4 Bouquet name descriptor	42
6.2.5 CA identifier descriptor	42
6.2.6 Cell frequency link descriptor.....	42
6.2.7 Cell list descriptor.....	43
6.2.8 Component descriptor.....	44
6.2.9 Content descriptor.....	52
6.2.10 Country availability descriptor	54
6.2.11 Data broadcast descriptor.....	55
6.2.12 Data broadcast id descriptor.....	56
6.2.13 Delivery system descriptors.....	56
6.2.13.1 Cable delivery system descriptor	56
6.2.13.2 Satellite delivery system descriptor.....	57
6.2.13.3 S2 satellite delivery system descriptor	59

6.2.13.4	Terrestrial delivery system descriptor	60
6.2.14	DSNG descriptor	62
6.2.15	Extended event descriptor	63
6.2.16	Extension descriptor	64
6.2.17	Frequency list descriptor	64
6.2.18	FTA content management descriptor	65
6.2.18.1	Semantics and syntax of the FTA content management descriptor	65
6.2.18.2	Scope of the FTA content management descriptor	67
6.2.19	Linkage descriptor	68
6.2.19.1	Semantics and syntax of the linkage descriptor	68
6.2.19.2	Mobile hand-over linkage	69
6.2.19.3	Event linkage	70
6.2.19.4	Extended event linkage	71
6.2.20	Local time offset descriptor	73
6.2.21	Mosaic descriptor	75
6.2.22	Multilingual bouquet name descriptor	77
6.2.23	Multilingual component descriptor	78
6.2.24	Multilingual network name descriptor	79
6.2.25	Multilingual service name descriptor	79
6.2.26	NVOD reference descriptor	80
6.2.27	Network name descriptor	81
6.2.28	Parental rating descriptor	81
6.2.29	Partial TS descriptor	82
6.2.30	PDC descriptor	82
6.2.31	Private data specifier descriptor	82
6.2.32	Scrambling descriptor	82
6.2.33	Service descriptor	83
6.2.34	Service availability descriptor	84
6.2.35	Service list descriptor	85
6.2.36	Service move descriptor	85
6.2.37	Short event descriptor	86
6.2.38	Short smoothing buffer descriptor	87
6.2.39	Stream identifier descriptor	89
6.2.40	Stuffing descriptor	89
6.2.41	Subtitling descriptor	89
6.2.42	Telephone descriptor	90
6.2.43	Teletext descriptor	92
6.2.44	Time shifted event descriptor	92
6.2.45	Time shifted service descriptor	93
6.2.46	Transport stream descriptor	93
6.2.47	VBI data descriptor	94
6.2.48	VBI teletext descriptor	95
6.3	Extended descriptor identification and location	96
6.4	Extended descriptor coding	97
6.4.0	General principles	97
6.4.1	Audio preselection descriptor	97
6.4.2	CID ancillary data descriptor	100
6.4.3	CP descriptor	100
6.4.4	CP identifier descriptor	101
6.4.5	CPCM delivery signalling descriptor	101
6.4.6	Delivery system descriptors	101
6.4.6.1	C2 delivery system descriptor	101
6.4.6.2	SH delivery system descriptor	103
6.4.6.3	T2 delivery system descriptor	108
6.4.6.4	C2 bundle delivery system descriptor	110
6.4.6.5	S2X satellite delivery system descriptor	111
6.4.7	Image icon descriptor	114
6.4.8	Message descriptor	116
6.4.9	Network change notify descriptor	117
6.4.10	Service relocated descriptor	119
6.4.11	Supplementary audio descriptor	120
6.4.12	Target region descriptor	122

6.4.13	Target region name descriptor	124
6.4.14	T2-MI descriptor.....	125
6.4.15	URI linkage descriptor.....	126
6.4.16	Video depth range descriptor.....	127
6.4.16.1	Semantics and syntax of the video depth range descriptor.....	127
6.4.16.2	Production disparity hint	128
6.5	Scoping rules for scoping descriptors.....	128
7	Storage Media Interoperability measures.....	129
7.0	Introduction	129
7.1	SMI tables	129
7.1.0	General principles.....	129
7.1.1	Discontinuity Information Table.....	129
7.1.2	Selection Information Table	130
7.2	SMI descriptors	131
7.2.0	Introduction.....	131
7.2.1	Partial transport stream descriptor	131
Annex A (normative): Coding of text characters		133
A.0	General principles	133
A.1	Control codes.....	133
A.2	Selection of character table	133
Annex B (informative): Void		147
Annex C (informative): Conversion between time and date conventions		148
Annex D (normative): Service information implementation of AC-3, Enhanced AC-3, and AC-4 audio in DVB systems.....		150
D.0	Introduction	150
D.1	AC-3 and Enhanced AC-3 component types.....	150
D.2	AC-3 descriptor	151
D.3	AC-3 descriptor syntax and semantics	151
D.4	Enhanced AC-3 descriptor	153
D.5	Enhanced AC-3 descriptor syntax and semantics	153
D.6	AC-4 descriptor	156
D.7	AC-4 descriptor syntax and semantics	156
D.8	Use of the supplementary audio descriptor with AC-4	157
Annex E (normative): Usage of the scrambling descriptor		158
Annex F (informative): ISO 639 language descriptor for "original audio" soundtrack.....		159
Annex G (normative): Service information implementation of DTS coded audio in DVB systems		160
G.0	Introduction	160
G.1	DTS and DTS-HD descriptors	160
G.2	DTS descriptor	160
G.2.0	Use of the DTS descriptor.....	160
G.2.1	Syntax and semantics for the DTS descriptor	160
G.3	DTS-HD descriptor	163
G.3.1	DTS-HD descriptor syntax	163
G.3.2	Substream information	164

G.3.3	Asset information	166
G.3.4	Component type	167
G.4	Use of DTS-HD in Receiver Mixed Applications for Single PID and Multiple PID Implementations	168
G.5	DTS-UHD descriptors	169
G.5.1	DTS-UHD descriptor	169
G.5.2	DTS-UHD and the audio preselection descriptor	170
G.5.2.1	The DTS-UHD Broadcast Chunk and audio preselections	170
G.6	Use of the supplementary audio descriptor with DTS-UHD	171
Annex H (normative):	Service information implementation of AAC coded audio in DVB systems	172
H.0	Introduction	172
H.1	AAC Audio descriptor	172
H.2	AAC descriptor	172
H.2.0	Use of the AAC descriptor	172
H.2.1	Syntax and semantics for the AAC descriptor	172
Annex I (normative):	Assignment and interpretation of the service_type field	174
I.1	Background	174
I.2	Assignment of service_type	174
I.2.0	General principles	174
I.2.1	service_type "digital television service" (0x01)	174
I.2.2	service_type "H.264/AVC" (various)	175
I.2.3	service_type "H.264/AVC frame compatible stereoscopic HD" (various)	175
I.2.4	service_type "advanced codec digital radio sound service" (0x0A)	176
I.2.5	service_type "HEVC digital television service" (0x1F)	176
I.2.5.0	General principles	176
I.2.5.1	Signalling for service frame compatible plano-stereoscopic 3DTV for HEVC coded services	177
I.2.5.2	Signalling for HDR and/or frame rate of 100 Hz, 120 0001 001 Hz, or 120 Hz, but with a HEVC half frame rate temporal video sub-bitstream frame rate lower than or equal to 60 Hz	178
I.2.5.3	Spatial, temporal, and dynamic range characteristics	179
I.2.5.4	Summary of signalling for different bitstream profiles using service_type 0x1F	179
I.2.6	service_type HEVC UHD digital television service (0x20)	180
I.2.6.1	General principles	180
I.2.6.2	Summary of signalling for different bitstream profiles using service_type 0x20	182
I.2.7	Summary of signalling for HEVC bitstream profiles using service_type 0x1F or 0x20	184
Annex J (normative):	Signalling of supplementary audio	188
J.1	Overview	188
J.2	Receiver-mix supplementary audio	188
J.2.1	Introduction	188
J.2.2	PSI PMT signalling	189
J.2.3	EIT signalling	189
J.2.3.1	General principles	189
J.2.3.2	Visually impaired audio description	189
J.3	Broadcast-mix supplementary audio	190
J.3.1	Introduction	190
J.3.2	PSI PMT signalling	190
J.3.3	EIT signalling	190
J.3.3.1	General principles	190
J.3.3.2	Visually impaired audio description	190
J.4	PSI signalling of audio purpose	191
J.5	SAOC-DE parametric data streams	191

J.5.1	Introduction	191
J.5.2	PSI PMT signalling	191
J.5.3	EIT signalling.....	192
Annex K (normative):	Use of the extended_event_linkage_info	193
Annex L (normative):	Service information implementation of DTS Neural™ Surround coded audio in DVB systems	195
L.0	Introduction	195
L.1	DTS Neural descriptor.....	195
Annex M (normative):	Signalling of next-generation audio.....	197
M.1	Overview	197
M.2	PSI PMT signalling	197
M.3	Mapping of codec-specific values to the audio preselection descriptor (informative).....	197
Annex N (informative):	Examples for using multiple component descriptors	200
Annex O (informative):	Bibliography.....	201
Annex P (informative):	Change History	202
History		204

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 300 468 V1.17.1:2023](https://standards.iteh.ai/catalog/standards/sist/fe6cb6f6-05a6-4a86-9c61-d848bdd99f4c/sist-en-300-468-v1-17-1-2023)

<https://standards.iteh.ai/catalog/standards/sist/fe6cb6f6-05a6-4a86-9c61-d848bdd99f4c/sist-en-300-468-v1-17-1-2023>

Intellectual Property Rights

Essential patents

IPRs essential or potentially essential to normative deliverables may have been declared to ETSI. The declarations pertaining to these essential IPRs, if any, are publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: "*Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards*", which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (<https://ipr.etsi.org/>).

Pursuant to the ETSI Directives including the ETSI IPR Policy, no investigation regarding the essentiality of IPRs, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Trademarks

The present document may include trademarks and/or tradenames which are asserted and/or registered by their owners. ETSI claims no ownership of these except for any which are indicated as being the property of ETSI, and conveys no right to use or reproduce any trademark and/or tradename. Mention of those trademarks in the present document does not constitute an endorsement by ETSI of products, services or organizations associated with those trademarks.

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.

Foreword

This European Standard (EN) has been produced by Joint Technical Committee (JTC) Broadcast of the European Broadcasting Union (EBU), Comité Européen de Normalisation ELECTrotechnique (CENELEC) and the European Telecommunications Standards Institute (ETSI).

NOTE: The EBU/ETSI JTC Broadcast was established in 1990 to co-ordinate the drafting of standards in the specific field of broadcasting and related fields. Since 1995 the JTC Broadcast became a tripartite body by including in the Memorandum of Understanding also CENELEC, which is responsible for the standardization of radio and television receivers. The EBU is a professional association of broadcasting organizations whose work includes the co-ordination of its members' activities in the technical, legal, programme-making and programme-exchange domains. The EBU has active members in about 60 countries in the European broadcasting area; its headquarters is in Geneva.

European Broadcasting Union
CH-1218 GRAND SACONNEX (Geneva)
Switzerland
Tel: +41 22 717 21 11
Fax: +41 22 717 24 81

The DVB Project is an industry-led consortium of broadcasters, manufacturers, network operators, software developers, regulators and others from around the world committed to designing open, interoperable technical specifications for the global delivery of digital media and broadcast services. DVB specifications cover all aspects of digital television from transmission through interfacing, conditional access and interactivity for digital video, audio and data. The consortium came together in 1993.

National transposition dates	
Date of adoption of this EN:	10 October 2022
Date of latest announcement of this EN (doa):	31 January 2023
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 July 2023
Date of withdrawal of any conflicting National Standard (dow):	31 July 2023

Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the [ETSI Drafting Rules](#) (Verbal forms for the expression of provisions).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 300 468 V1.17.1:2023](#)

<https://standards.iteh.ai/catalog/standards/sist/fe6cb6f6-05a6-4a86-9c61-d848bdd99f4c/sist-en-300-468-v1-17-1-2023>

1 Scope

The present document specifies the Service Information (SI) data which forms a part of Digital Video Broadcasting (DVB) bitstreams, in order that the user can be provided with information to assist in selection of services and/or events within the bitstream, and so that the Integrated Receiver Decoder (IRD) can automatically configure itself for the selected service. SI data for automatic configuration is mostly specified within ISO/IEC 13818-1 [1] as Program Specific Information (PSI).

The present document specifies additional data which complements the PSI by providing data to aid automatic tuning of IRDs, and additional information intended for display to the user. The manner of presentation of the information is not specified in the present document, and IRD manufacturers have freedom to choose appropriate presentation methods.

It is expected that Electronic Programme Guide (EPG) will be a feature of Digital Television (TV) transmissions.

The definition of an EPG is outside the scope of the present document (i.e. the SI specification), but the data contained within the SI specified in the present document may be used as the basis for an EPG.

Rules of operation for the implementation of the present document are specified in ETSI TS 101 211 [i.1].

2 References

2.1 Normative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

Referenced documents which are not found to be publicly available in the expected location might be found at <https://docbox.etsi.org/Reference/>.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are necessary for the application of the present document.

- [1] ISO/IEC 13818-1: "Information technology - Generic coding of moving pictures and associated audio information - Part 1: Systems".
- [2] ETSI EN 300 743: "Digital Video Broadcasting (DVB); Subtitling systems".
- [3] ETSI EN 301 192: "Digital Video Broadcasting (DVB); DVB specification for data broadcasting".
- [4] ETSI EN 301 210: "Digital Video Broadcasting (DVB); Framing structure, channel coding and modulation for Digital Satellite News Gathering (DSNG) and other contribution applications by satellite".
- [5] ETSI EN 301 775: "Digital Video Broadcasting (DVB); Specification for the carriage of Vertical Blanking Information (VBI) data in DVB bitstreams".
- [6] ETSI EN 301 790: "Digital Video Broadcasting (DVB); Interaction channel for satellite distribution systems".
- [7] ETSI EN 302 307-1: "Digital Video Broadcasting (DVB); Second generation framing structure, channel coding and modulation systems for Broadcasting, Interactive Services, News Gathering and other broadband satellite applications; Part 1: DVB-S2".
- [8] ETSI EN 302 307-2: "Digital Video Broadcasting (DVB); Second generation framing structure, channel coding and modulation systems for Broadcasting, Interactive Services, News Gathering and other broadband satellite applications; Part 2: DVB-S2 Extensions (DVB-S2X)".

- [9] ETSI EN 302 769: "Digital Video Broadcasting (DVB); Frame structure channel coding and modulation for a second generation digital transmission system for cable systems (DVB-C2)".
- [10] ETSI EN 302 583: "Digital Video Broadcasting (DVB); Framing Structure, channel coding and modulation for Satellite Services to Handheld devices (SH) below 3 GHz".
- [11] ETSI EN 302 755: "Digital Video Broadcasting (DVB); Frame structure channel coding and modulation for a second generation digital terrestrial television broadcasting system (DVB-T2)".
- [12] ETSI EN 303 560: "Digital Video Broadcasting (DVB); TTML subtitling systems".
- [13] ETSI ES 201 812: "Digital Video Broadcasting (DVB); Multimedia Home Platform (MHP) Specification 1.0.3".
- [14] ETSI TS 101 154: "Digital Video Broadcasting (DVB); Specification for the use of Video and Audio Coding in Broadcast and Broadband Applications".
- [15] ETSI TS 101 162: "Digital Video Broadcasting (DVB); Allocation of identifiers and codes for Digital Video Broadcasting (DVB) systems".
- [16] ETSI TS 101 547-2: "Digital Video Broadcasting (DVB); Plano-stereoscopic 3DTV; Part 2: Frame Compatible Plano-stereoscopic 3DTV".
- [17] ETSI TS 101 547-3: "Digital Video Broadcasting (DVB); Plano-stereoscopic 3DTV; Part 3: HDTV Service Compatible Plano-stereoscopic 3DTV".
- [18] ETSI TS 101 547-4: "Digital Video Broadcasting (DVB); Plano-stereoscopic 3DTV; Part 4: Service frame compatible Plano-stereoscopic 3DTV for HEVC coded services".
- [19] ETSI TS 102 005: "Digital Video Broadcasting (DVB); Specification for the use of Video and Audio Coding in DVB services delivered directly over IP protocols".
- [20] ETSI TS 102 006: "Digital Video Broadcasting (DVB); Specification for System Software Update in DVB Systems".
- [21] ETSI TS 102 323: "Digital Video Broadcasting (DVB); Carriage and signalling of TV-Anytime information in DVB transport streams".
- [22] ETSI TS 102 770: "Digital Video Broadcasting (DVB); System Renewability Messages (SRM) in DVB Systems".
- [23] ETSI TS 102 772: "Digital Video Broadcasting (DVB); Specification of Multi-Protocol Encapsulation - inter-burst Forward Error Correction (MPE-iFEC)".
- [24] ETSI TS 102 773: "Digital Video Broadcasting (DVB); Modulator Interface (T2-MI) for a second generation digital terrestrial television broadcasting system (DVB-T2)".
- [25] ETSI TS 102 809: "Digital Video Broadcasting (DVB); Signalling and carriage of interactive applications and services in Hybrid Broadcast/Broadband environments".
- [26] ETSI TS 102 812: "Digital Video Broadcasting (DVB); Multimedia Home Platform (MHP) Specification 1.1.3".
- [27] ETSI TS 102 825 (parts 1 to 5, 7, 9 and 10): "Digital Video Broadcasting (DVB); Content Protection and Copy Management (DVB-CPCM)".
- [28] ETSI EN 300 231: "Television systems; Specification of the domestic video Programme Delivery Control system (PDC)".
- [29] ETSI EN 300 401: "Radio Broadcasting Systems; Digital Audio Broadcasting (DAB) to mobile, portable and fixed receivers".
- [30] ETSI EN 300 706: "Enhanced Teletext specification".
- [31] EN 50221: "Common interface specification for conditional access and other digital video broadcasting decoder applications", (produced by CENELEC).

- [32] IETF RFC 2045: "Multipurpose Internet Mail Extensions (MIME) Part One: Format of Internet Message Bodies".
- [33] IETF RFC 3986: "Uniform Resource Identifiers (URI): Generic Syntax".
- [34] ISO 3166 (all parts): "Codes for the representation of names of countries and their subdivisions".
- [35] ISO 639-2: "Codes for the representation of names of languages - Part 2: Alpha-3 code".
- [36] ISO 8601: "Data elements and interchange formats - Information interchange - Representation of dates and times".
- [37] ISO/IEC 6937: "Information technology - Coded graphic character set for text communication - Latin alphabet".
- [38] ISO/IEC 8859-1: "Information technology - 8-bit single-byte coded graphic character sets - Part 1: Latin alphabet No. 1".
- [39] ISO/IEC 8859-2: "Information technology - 8-bit single-byte coded graphic character sets - Part 2: Latin alphabet No. 2".
- [40] ISO/IEC 8859-3: "Information technology - 8-bit single-byte coded graphic character sets - Part 3: Latin alphabet No. 3".
- [41] ISO/IEC 8859-4: "Information technology - 8-bit single-byte coded graphic character sets - Part 4: Latin alphabet No. 4".
- [42] ISO/IEC 8859-5: "Information technology - 8-bit single-byte coded graphic character sets - Part 5: Latin/Cyrillic alphabet".
- [43] ISO/IEC 8859-6: "Information technology - 8-bit single-byte coded graphic character sets - Part 6: Latin/Arabic alphabet".
- [44] ISO/IEC 8859-7: "Information technology - 8-bit single-byte coded graphic character sets - Part 7: Latin/Greek alphabet".
- [45] ISO/IEC 8859-8: "Information technology - 8-bit single-byte coded graphic character sets - Part 8: Latin/Hebrew alphabet".
- [46] ISO/IEC 8859-9: "Information technology - 8-bit single-byte coded graphic character sets - Part 9: Latin alphabet No. 5".
- [47] ISO/IEC 8859-10: "Information technology - 8-bit single-byte coded graphic character sets - Part 10: Latin alphabet No. 6".
- [48] ISO/IEC 8859-11: "Information technology - 8-bit single-byte coded graphic character sets - Part 11: Latin/Thai alphabet".
- [49] ISO/IEC 8859-13: "Information technology - 8-bit single-byte coded graphic character sets - Part 13: Latin alphabet No. 7".
- [50] ISO/IEC 8859-14: "Information technology - 8-bit single-byte coded graphic character sets - Part 14: Latin alphabet No. 8 (Celtic)".
- [51] ISO/IEC 8859-15: "Information technology - 8-bit single-byte coded graphic character sets - Part 15: Latin alphabet No. 9".
- [52] ISO/IEC 10646: "Information technology - Universal Coded Character Set (UCS)".
- [53] GB-2312-1980: "Code of Chinese graphic character set for information interchange, primary set".
- [54] KS X 1001-2014: "Code for Information Interchange (Hangeul and Hanja)", Korean Agency for Technology and Standards, 2014.

NOTE: Available at <https://kssn.net/en/search/stdtdetail.do?itemNo=K001010102764>. Also see <https://standard.go.kr/KSCI/standardIntro/getStandardSearchView.do?ksNo=KSX1001>. This document has been published in Korean only.

2.2 Informative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

- [i.1] ETSI TS 101 211: "Digital Video Broadcasting (DVB); Implementation and usage of Service Information (SI)".
- [i.2] ETSI TS 102 727: "Digital Video Broadcasting (DVB); Multimedia Home Platform (MHP) Specification 1.2.2".
- [i.3] ETSI TS 103 205: "Digital Video Broadcasting (DVB); Extensions to the CI Plus™ Specification".
- [i.4] ETSI TS 103 286-2: "Digital Video Broadcasting (DVB); Companion Screens and Streams; Part 2: Content Identification and Media Synchronization".
- [i.5] ETSI TR 102 825 (parts 6, 8, 11 to 13): "Digital Video Broadcasting (DVB); Content Protection and Copy Management (DVB-CPCM)".
- [i.6] ATIS 0800006: "IIF Default Scrambling Algorithm (IDSA) IPTV Interoperability Specification".
- [i.7] IEC 61883 (parts 1 and 4): "Consumer audio/video equipment - Digital interface".
- [i.8] IEEE™ 1394.1: "IEEE Standard for High Performance Serial Bus Bridges".

3 Definition of terms, symbols and abbreviations

3.1 Terms

For the purposes of the present document, the following terms apply:

AC-3: coding of audio using the Dolby AC-3 audio compression method as defined in ETSI TS 101 154 [14], clause 6.2

NOTE: The service information requirements for AC-3 streams carried in DVB systems are described in annex D. The carriage of AC-3 elementary streams as private data within MPEG systems is described in ETSI TS 101 154 [14], clause 6.2.

AC-4: coding of audio using the Dolby AC-4 audio compression method as defined in clause 6.6 and clause 6.7 of ETSI TS 101 154 [14]

NOTE: The Service Information requirements for AC-4 streams carried in DVB systems are described in annex D. The carriage of AC-4 elementary streams as private data within MPEG systems is described in clause 6.6 and clause 6.7 of ETSI TS 101 154 [14].

audio preselection: set of audio programme components representing a version of the audio programme that may be selected by a user for simultaneous decoding

NOTE: An audio preselection is a sub-selection from all available audio programme components of one audio programme. An audio preselection can be considered the NGA equivalent of audio services in predecessor systems, which each utilized complete mixes.