



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

**(<https://standards.iteh.ai>)
Document Preview**

[ETSI EN 300 468 V1.13.1 \(2012-08\)](https://standards.iteh.ai/catalog/standards/etsi/5a4e1101-f2c5-40c6-bb3c-c2a8962327f6/etsi-en-300-468-v1-13-1-2012-08)

<https://standards.iteh.ai/catalog/standards/etsi/5a4e1101-f2c5-40c6-bb3c-c2a8962327f6/etsi-en-300-468-v1-13-1-2012-08>



ReferenceREN/JTC-DVB-314

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 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

iteh Standards
(<https://standards.iteh.ai>)
Document Preview

Important notice

Individual copies of the present document can be downloaded from:

<http://www.etsi.org>

The present document may be made available in more than one electronic version or in print. In any case of existing or perceived difference in contents between such versions, the reference version is the Portable Document Format (PDF). In case of dispute, the reference shall be the printing on ETSI printers of the PDF version kept on a specific network drive within ETSI Secretariat.

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

<http://portal.etsi.org/tb/status/status.asp>

If you find errors in the present document, please send your comment to one of the following services:

http://portal.etsi.org/chaicor/ETSI_support.asp

Copyright Notification

No part may be reproduced except as authorized by written permission.
The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 2012.

© European Broadcasting Union 2012.

All rights reserved.

DECTTM, PLUGTESTSTM, UMTSTM and the ETSI logo are Trade Marks of ETSI registered for the benefit of its Members.
3GPPTM and LTETM are Trade Marks of ETSI registered for the benefit of its Members and
of the 3GPP Organizational Partners.
GSM[®] and the GSM logo are Trade Marks registered and owned by the GSM Association.

Contents

Intellectual Property Rights	7
Foreword.....	7
1 Scope	8
2 References	8
2.1 Normative references	8
2.2 Informative references.....	11
3 Definitions and abbreviations.....	11
3.1 Definitions.....	11
3.2 Abbreviations	14
4 Service Information (SI) description.....	17
5 Service Information (SI) tables	19
5.1 SI table mechanism	19
5.1.1 Explanation.....	19
5.1.2 Mapping of sections into Transport Stream (TS) packets.....	20
5.1.3 Coding of PID and table_id fields	20
5.1.4 Repetition rates and random access	21
5.1.5 Scrambling.....	21
5.2 Table definitions.....	21
5.2.1 Network Information Table (NIT).....	22
5.2.2 Bouquet Association Table (BAT).....	23
5.2.3 Service Description Table (SDT).....	25
5.2.4 Event Information Table (EIT).....	26
5.2.5 Time and Date Table (TDT).....	29
5.2.6 Time Offset Table (TOT).....	29
5.2.7 Running Status Table (RST).....	30
5.2.8 Stuffing Table (ST).....	31
5.2.9 Discontinuity Information Table (DIT).....	31
5.2.10 Selection Information Table (SIT).....	31
6 Descriptors	31
6.1 Descriptor identification and location	31
6.2 Descriptor coding	33
6.2.1 Adaptation field data descriptor.....	33
6.2.2 Ancillary data descriptor.....	34
6.2.3 Announcement support descriptor	35
6.2.4 Bouquet name descriptor	36
6.2.5 CA identifier descriptor	37
6.2.6 Cell frequency link descriptor.....	37
6.2.7 Cell list descriptor.....	38
6.2.8 Component descriptor.....	39
6.2.9 Content descriptor.....	42
6.2.10 Country availability descriptor	44
6.2.11 Data broadcast descriptor.....	45
6.2.12 Data broadcast id descriptor.....	46
6.2.13 Delivery system descriptors.....	46
6.2.13.1 Cable delivery system descriptor	46
6.2.13.2 Satellite delivery system descriptor.....	48
6.2.13.3 S2 satellite delivery system descriptor	49
6.2.13.4 Terrestrial delivery system descriptor	50
6.2.14 DSNG descriptor	52
6.2.15 Extended event descriptor.....	52
6.2.16 Extension descriptor	54
6.2.17 Frequency list descriptor.....	54
6.2.18 FTA content management descriptor.....	55

6.2.18.1	Scope of FTA content management descriptor	57
6.2.19	Linkage descriptor	57
6.2.19.1	Mobile hand-over linkage	59
6.2.19.2	Event linkage.....	59
6.2.19.3	Extended event linkage	60
6.2.20	Local time offset descriptor	63
6.2.21	Mosaic descriptor.....	64
6.2.22	Multilingual bouquet name descriptor.....	66
6.2.23	Multilingual component descriptor.....	67
6.2.24	Multilingual network name descriptor.....	68
6.2.25	Multilingual service name descriptor.....	68
6.2.26	Near Video On Demand (NVOD) reference descriptor.....	69
6.2.27	Network name descriptor.....	70
6.2.28	Parental rating descriptor	70
6.2.29	Partial Transport Stream (TS) descriptor	70
6.2.30	PDC descriptor.....	71
6.2.31	Private data specifier descriptor.....	71
6.2.32	Scrambling descriptor	71
6.2.33	Service descriptor	72
6.2.34	Service availability descriptor.....	73
6.2.35	Service list descriptor.....	74
6.2.36	Service move descriptor.....	74
6.2.37	Short event descriptor	75
6.2.38	Short smoothing buffer descriptor	75
6.2.39	Stream identifier descriptor.....	77
6.2.40	Stuffing descriptor	77
6.2.41	Subtitling descriptor.....	78
6.2.42	Telephone descriptor.....	79
6.2.43	Teletext descriptor	80
6.2.44	Time shifted event descriptor.....	81
6.2.45	Time shifted service descriptor.....	81
6.2.46	Transport stream descriptor	81
6.2.47	VBI data descriptor.....	82
6.2.48	VBI teletext descriptor.....	83
6.3	Extended descriptor identification and location	83
6.4	Extended descriptor coding	84
6.4.1	CP descriptor	84
6.4.2	CP identifier descriptor	85
6.4.3	CPCM delivery signalling descriptor.....	85
6.4.4	Delivery system descriptors	85
6.4.4.1	C2 delivery system descriptor	85
6.4.4.2	SH delivery system descriptor.....	87
6.4.4.3	T2 delivery system descriptor	91
6.4.5	Image icon descriptor.....	94
6.4.6	Message descriptor	96
6.4.7	Network change notify descriptor.....	96
6.4.8	Service relocated descriptor	98
6.4.9	Supplementary audio descriptor	99
6.4.10	Target region descriptor.....	100
6.4.11	Target region name descriptor	101
6.4.12	T2-MI descriptor.....	103
6.4.13	Video depth range descriptor	103
6.4.13.1	Production disparity hint	104
6.5	Scoping rules for scoping descriptors.....	105
7	Storage Media Interoperability (SMI) measures	105
7.1	SMI tables	105
7.1.1	Discontinuity Information Table (DIT)	106
7.1.2	Selection Information Table (SIT).....	106
7.2	SMI descriptors	107
7.2.1	Partial Transport Stream (TS) descriptor	107

Annex A (normative):	Coding of text characters	109
A.1	Control codes.....	109
A.2	Selection of character table	109
Annex B (normative):	CRC decoder model.....	122
Annex C (informative):	Conversion between time and date conventions	123
Annex D (informative):	Service information implementation of AC-3 and Enhanced AC-3 audio in DVB systems.....	125
D.1	AC-3 and Enhanced AC-3 component types.....	125
D.2	AC-3 Descriptor	126
D.3	AC-3 Descriptor Syntax	126
D.3.1	Semantics for the AC-3 descriptor	127
D.4	Enhanced_AC-3 Descriptor	128
D.5	Enhanced_AC-3 Descriptor Syntax	128
D.5.1	Semantics for the Enhanced AC-3 descriptor.....	129
Annex E (normative):	Usage of the Scrambling_descriptor	131
Annex F (informative):	ISO 639 Language Descriptor for "original audio" Soundtrack	132
Annex G (informative):	Service information implementation of DTS coded audio in DVB systems	133
G.1	DTS Audio descriptor	133
G.2	DTS Descriptor Syntax	133
G.2.1	Semantics for the DTS descriptor.....	133
Annex H (informative):	Service information implementation of AAC coded audio in DVB systems	136
H.1	AAC Audio descriptor.....	136
H.2	AAC_Descriptor Syntax.....	136
H.2.1	Semantics for the AAC descriptor.....	136
Annex I (normative):	Assignment and interpretation of the service_type field.....	138
I.1	Background	138
I.2	Assignment of service_type	138
I.2.1	service_type "digital television service" (0x01).....	138
I.2.2	service_type "advanced codec" (various).....	139
I.2.3	service_type "advanced codec frame compatible stereoscopic HD" (various).....	139
Annex J (normative):	Signalling of Receiver-Mixed and Broadcast-Mixed Supplementary Audio.....	140
J.1	Overview	140
J.2	Receiver-mixed supplementary audio	140
J.2.1	Introduction	140
J.2.2	PSI PMT signalling	140
J.2.3	EIT signalling.....	140
J.3	Broadcast-mixed supplementary audio	141
J.3.1	Introduction	141
J.3.2	PSI PMT signalling	141
J.3.3	EIT signalling.....	141

J.4	PSI signalling of audio purpose.....	142
Annex K (informative):	Bibliography.....	143
History		144

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[ETSI EN 300 468 V1.13.1 \(2012-08\)](https://standards.iteh.ai/catalog/standards/etsi/5a4e1101-f2c5-40c6-bb3c-c2a8962327f6/etsi-en-300-468-v1-13-1-2012-08)

<https://standards.iteh.ai/catalog/standards/etsi/5a4e1101-f2c5-40c6-bb3c-c2a8962327f6/etsi-en-300-468-v1-13-1-2012-08>

Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is 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 (<http://ipr.etsi.org>).

Pursuant to the ETSI IPR Policy, no investigation, 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.

Foreword

This final draft 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), and is now submitted for the ETSI standards One-step Approval Procedure.

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 SACCONNEX (Geneva)
Switzerland
Tel: +41 22 717 21 11
Fax: +41 22 717 24 81

The Digital Video Broadcasting Project (DVB) is an industry-led consortium of broadcasters, manufacturers, network operators, software developers, regulatory bodies, content owners and others committed to designing global standards for the delivery of digital television and data services. DVB fosters market driven solutions that meet the needs and economic circumstances of broadcast industry stakeholders and consumers. DVB standards 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 to provide global standardisation, interoperability and future proof specifications.

Proposed national transposition dates

Date of latest announcement of this EN (doa):	3 months after ETSI publication
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	6 months after doa
Date of withdrawal of any conflicting National Standard (dow):	6 months after doa