

STN	Funkcie zákazníckeho terminálu pre prístup k IPTV a otvoreným internetovým multimediálnym službám Časť 2-1: Mediálne formáty	STN EN 62766-2-1 36 8028
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Consumer terminal function for access to IPTV and open internet multimedia services - Part 2-1: Media formats

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 08/17

Obsahuje: EN 62766-2-1:2017, IEC 62766-2-1:2016

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 62766-2-1

April 2017

ICS 33.170; 35.240.95

English Version

**Consumer terminal function for access to IPTV and open internet
multimedia services -
Part 2-1: Media formats
(IEC 62766-2-1:2016)**

Fonction des terminaux grand public pour l'accès aux
services IPTV et multimédias de l'internet ouvert -
Partie 2-1: Formats des médias
(IEC 62766-2-1:2016)

Verbraucher Endgeräte Funktion für den Zugriff auf IPTV
und offene Internet Multimedia Dienstleistungen -
Teil 2-1: Medienformate
(IEC 62766-2-1:2016)

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Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

European foreword

The text of document 100/2487/CDV, future edition 1 of IEC 62766-2-1, prepared by IEC/TC 100 "Audio, video and multimedia systems and equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62766-2-1:2017.

The following dates are fixed:

- latest date by which the document has to be (dop) 2017-10-21
implemented at national level by
publication of an identical national
standard or by endorsement
- latest date by which the national (dow) 2020-04-21
standards conflicting with the
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IEC 62766-2-2 NOTE Harmonized as EN 62766-2-2.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 62481-2	2013	Digital living network alliance (DLNA) home networked device interoperability guidelines - Part 2: DLNA media formats	EN 62481-2	2014
IEC 62766-1	-	Consumer terminal function for access to IPTV and open internet multimedia services - Part 1: General	EN 62766-1 ¹⁾	-
IEC 62766-3	2016	Consumer terminal function for access to IPTV and open internet multimedia services - Part 3: Content metadata	EN 62766-3	2017
IEC 62766-4-1	-	Consumer terminal function for access to IPTV and open multimedia services - Part 4-1: Protocols	-	-
IEC 62766-5-1	-	Consumer terminal function for access to IPTV and open multimedia services - Part 5-1: Declarative Application Environment	-	-
IEC 62766-6	-	Consumer terminal function for access to IPTV and open internet multimedia services - Part 6: Procedural application environment	-	-
IEC 62766-7	-	Consumer terminal function for access to IPTV and open multimedia services - Part 7: Authentication, Content Protection and Service Protection	-	-
ISO/IEC 11172-3	1993	Information technology - Coding of moving pictures and associated audio for digital storage media at up to about 1,5 Mbit/s - Part 3: Audio	EN ISO/IEC 11172-3	1995
COR1	1996			
ISO/IEC 13818-1	2015	Information technology - Generic coding of moving pictures and associated audio information - Part 1: Systems	-	-
ISO/IEC 13818-2	2013	Information technology - Generic coding of moving pictures and associated audio information - Part 2: Video	-	-

¹⁾ At draft stage.

EN 62766-2-1:2017

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO/IEC 14496-2	2004	Information Technology - Coding of audio-visual objects - Part 2: Visual	-	-
ISO/IEC 14496-3	2009	Information technology - Coding of audio-visual objects - Part 3: Audio	-	-
ISO/IEC 14496-10	2005	Information technology - Coding of audio-visual objects - Part 10: Advanced Video Coding	-	-
ISO/IEC 14496-12	2012	Information technology - Coding of audio-visual objects - Part-12: ISO base media file format	-	-
ISO/IEC 14496-14	2003	Information technology - Coding of Audio-Visual Objects - Part 14: MP4 file format	-	-
ISO/IEC 14496-15	2014	Information technology - Coding of audio-visual objects - Part 15: Carriage of network abstraction layer (NAL) unit structured video in ISO base media file format	-	-
ISO/IEC 23001-7	2015	Information technology - MPEG systems technologies - Part 7: Common encryption in ISO base media file format files	-	-
ISO/IEC 23003-1 + COR2	2007 2009	Information technology - MPEG audio technologies - Part 1: MPEG Surround	-	-
ITU-T Recommendation G.711	-	Pulse code modulation (PCM) of voice frequencies	-	-
ITU-T Recommendation G.719	-	Low-complexity, full-band audio coding for high-quality, conversational applications	-	-
ITU-T Recommendation G.722	-	7 kHz audio-coding within 64 kbit/s	-	-
ITU-T Recommendation G.729	2012	Coding of speech at 8 kbit/s using conjugate-structure algebraic-code-excited linear prediction (CS-ACELP)	-	-
ITU-T Recommendation G.729.1	-	G.729-based embedded variable bit-rate coder: An 8-32 kbit/s scalable wideband coder bitstream interoperable with G.729	-	-
ITU-T Recommendation H.262	-	Information technology - Generic coding of moving pictures and associated audio information: Video	-	-
ITU-T Recommendation H.263	2005	Video coding for low bitrate communication-	-	-
ITU-T Recommendation H.264	-	Advanced video coding for generic audiovisual services	-	-
ETSI EN 300 468 V1.13.1	2012	Digital Video Broadcasting (DVB); Specification for Service Information (SI) in DVB systems	-	-

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ETSI EN 300 472 V1.3.1	2003	Digital Video Broadcasting (DVB) - Specification for conveying ITU-R system B teletext in DVB bitstreams	-	-
ETSI EN 300 743 V1.4.1	2011	Digital Video Broadcasting (DVB); Subtitling systems	-	-
ETSI TS 101 154 V1.11.1	2012	Digital Video Broadcasting (DVB); Specification for the use of Video and Audio Coding in Broadcasting applications based on the MPEG-2 Transport Stream	-	-
ETSI TS 101 547 V1.1.1	2012	Digital Video Broadcasting (DVB); Frame Compatible Plano-stereoscopic 3DTV	-	-
ETSI TS 102 034 V1.5.1	2014	Digital Video Broadcasting (DVB); Transport of MPEG-2 TS Based DVB Services over IP Networks	-	-
ETSI TS 102 114 V1.4.1	2012	DTS Coherent Acoustics; Core and Extensions	-	-
ETSI TS 102 366 V1.2.1	2008	Digital Audio Compression (AC-3, Enhanced AC-3) Standard	-	-
ETSI TS 102 809 V1.2.1	2013	Digital Video Broadcasting (DVB); Signalling and carriage of interactive applications and services in hybrid broadcast / broadband environments	-	-
ETSI TS 126 114 V10.0.0	2011	IMS Multimedia Telephony; media handling- and interaction	-	-
ETSI TS 181 005 V3.3.1	2009	TISPAN Service and Capability Requirements	-	-

3GPP TS 26.171, Speech codec speech processing functions; Adaptive Multi-Rate - Wideband (AMR-WB) speech codec; General description

3GPP TS 26.190, Speech codec speech processing functions; Adaptive Multi-Rate - Wideband (AMR-WB) speech codec; Transcoding functions

3GPP TS 26.234 (2010-06), Transparent end-to-end Packet-switched; Streaming Service (PSS); Protocols and codecs (Release 9)

3GPP TS 26.245, Transparent end-to-end Packet switched Streaming Service (PSS); Timed text format

3GPP TS 26.290, Audio codec processing functions; Extended Adaptive Multi-Rate - Wideband (AMR-WB+) codec; Transcoding functions

3GPP TS 26.401, General audio codec audio processing functions; Enhanced aacPlus general audio codec; General description

Marlin Developer Community, Marlin Broadband Transport Stream Specification, Version 1.0, July 2008, available from <http://www.marlin-community.com/develop/downloads>

Marlin Developer Community, Marlin Dynamic Media Zones, Version 1.1, available from <http://www.marlin-community.com/develop/downloads>

Marlin Developer Community, "Marlin – File Formats Specification", Version 1.1, July 2008, and latest version of "Marlin Errata: Marlin – File Formats Specification V1.1", available from <http://www.marlin-community.com/develop/downloads>.

Marlin Developer Community, OMARlin Specification, Version 1.0.1, July 2008, available from <http://www.marlin-community.com/develop/downloads>

3GPP TS 26.071, Mandatory speech CODEC speech processing functions; AMR speech Codec; General description

Consumer Technology Association CTA-708-E (2013), Digital Television (DTV) Closed Captioning

CompuServe Incorporated, Columbus, Ohio, Graphics Interchange Format version 89a, © 1987, 1988, 1989, 1990

Eric Hamilton, C-Cube Microsystems, September 1, 1992, JPEG File Interchange Format, Version 1.02



INTERNATIONAL STANDARD

NORME INTERNATIONALE

Consumer terminal function for access to IPTV and open internet multimedia services –

Part 2-1: Media formats

Fonction des terminaux grand public pour l'accès aux services IPTV et multimédias de l'internet ouvert –

Partie 2-1: Formats des médias



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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Consumer terminal function for access to IPTV and open internet multimedia services –

Part 2-1: Media formats

Fonction des terminaux grand public pour l'accès aux services IPTV et multimédias de l'internet ouvert –

Partie 2-1: Formats des médias

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**CONSUMER TERMINAL FUNCTION FOR ACCESS TO IPTV
AND OPEN INTERNET MULTIMEDIA SERVICES –****Part 2-1: Media formats****FOREWORD**

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International Standard IEC 62766-2-1 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:

CDV	Report on voting
100/2487/CDV	100/2657/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.

This International Standard is to be used in conjunction with IEC 62766-1.

A list of all parts in the IEC 62766 series, published under the general title *Consumer terminal function for access to IPTV and open internet multimedia services* 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.

INTRODUCTION

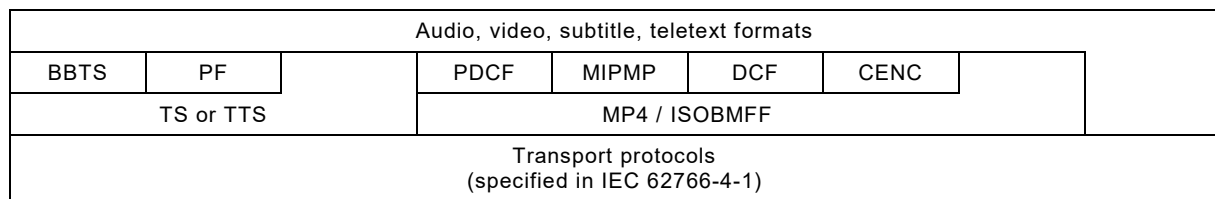
The IEC 62766 series is based on a series of specifications that was originally developed by the OPEN IPTV FORUM (OIPF). They specify the user-to-network interface (UNI) for consumer terminals to access IPTV and open internet multimedia services over managed or non-managed networks as defined by OIPF.

The set of media formats specified in this standard comprises:

- audio-video media formats (Clause 4), being combinations of the individual formats below.
- systems layer formats (Clause 5),
- video codecs and their usage (Clause 6),
- subtitle formats and their usage (Clause 7),
- teletext formats and their usage (Clause 8),
- audio codecs and their usage (Clause 9), and
- graphics and still image codecs and formats (Clause 10).

For each of these codecs and formats, it is specified how they apply to the overall system and to the various IPTV services (described in IEC 62766-1), including the implications for interoperability.

Figure 1 summarises the set of media formats specified by the present document in the form of a media formats stack. Media formats are specified at the content layer (audio, video, etc.) and for the systems layer. Transport protocols below the systems layer are specified in IEC 62766-4-1.



IEC

Figure 1 – Media formats stack

CONSUMER TERMINAL FUNCTION FOR ACCESS TO IPTV AND OPEN INTERNET MULTIMEDIA SERVICES –

Part 2-1: Media formats

1 Scope

This part of IEC 62766 specifies formats for the audio/video content provided by IPTV services using fixed line access networks or mobile access networks and voice and video telephony services. It does not apply to the broadcast channel input of hybrid devices except where explicitly specified.

This part of IEC 62766 defines formats for the delivery of 3D video. At the present time, delivery to fixed terminals is targeted. No special provision is made for mobile or portable devices.

This standard defines the media formats utilised on the UNI reference point UNIT-17 of the Open IPTV Forum functional architecture.

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 62481-2:2013, *Digital living network alliance (DLNA) home networked device interoperability guidelines – Part 2: DLNA media formats*

IEC 62766-1¹, *Consumer terminal function for access to IPTV and open internet multimedia services – part 1: General*

IEC 62766-3:2016, *Consumer terminal function for access to IPTV and open internet multimedia services – part 3: Content metadata*

IEC 62766-4-1², *Consumer terminal function for access to IPTV and open internet multimedia services – part 4-1: Protocols*

IEC 62766-5-1³, *Consumer terminal function for access to IPTV and open internet multimedia services – part 5-1: Declarative application environment*

IEC 62766-6⁴, *Consumer terminal function for access to IPTV and open internet multimedia services – part 6: Procedural application environment*

¹ Under preparation. Stage at the time of publication: IEC/CDV 62766-1:2015

² Under preparation. Stage at the time of publication: IEC/CDV 62766-4-1:2015

³ Under preparation. Stage at the time of publication: IEC/CDV 62766-5-1:2015

⁴ Under preparation. Stage at the time of publication: IEC/CDV 62766-6:2015

IEC 62766-7:—⁵, *Consumer terminal function for access to IPTV and open internet multimedia services – part 7: Authentication, content protection and service protection*

ISO/IEC 11172-3, *Information technology – Coding of moving pictures and associated audio for digital storage media at up to about 1,5 Mbit/s – Part 3: Audio*
ISO/IEC 11172-3:1993/Cor 1:1996

ISO/IEC 13818-1:2015, *Information technology – Generic coding of moving pictures and associated audio information – Part 1: Systems*

ISO/IEC 13818-2:2013, *Information technology – Generic coding of moving pictures and associated audio information – Part 2: Video*

ISO/IEC 14496-2:2004, *Information technology – Coding of audio-visual objects – Part 2: Visual*

ISO/IEC 14496-3:2009, *Information technology – Coding of audio-visual objects – Part 3: Audio*

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