

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Digital audio – Interface for non-linear PCM encoded audio bitstreams applying IEC 60958 –

Part 11: MPEG-4 AAC and its extensions in LATM/LOAS

Audionumérique – Interface pour les flux de bits audio à codage MIC non linéaire conformément à la CEI 60958 –

Partie 11: MPEG-4 AAC et ses extensions en LATM/LOAS



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

DIGITAL AUDIO – INTERFACE FOR NON-LINEAR PCM ENCODED AUDIO BITSTREAMS APPLYING IEC 60958 –

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This bilingual version, published in 2011-02, corresponds to the English version.

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

CDV	Report on voting
100/1491/CDV	100/1580/RVC

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

The French version of this standard has not been voted upon.

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

A list of all parts of IEC 61937, under the general title *Digital audio – Interface for non-linear PCM encoded audio bitstreams applying IEC 60958* can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability 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- withdrawn,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.

INTRODUCTION

Modern digital video broadcasting standards such as DVB include support for the MPEG-4 HE AAC and/or HE AAC v2 audio codecs as specified in ISO/IEC 14496-3. An increasing number of countries are adopting these new codecs for their standard definition and high definition digital video broadcasting services and have started with implementations.

For MPEG-2 AAC audio (ISO/IEC 13818-7) the specified framing format for the audio bit stream is ADTS and its transport over an IEC 60958 interface is specified in IEC 61937-6.

However, the MPEG-4 (ISO/IEC 14496-3) audio codecs introduce new features and capabilities that require a framing format that supports more flexible signaling and delivery mechanisms. Therefore, MPEG-2 Systems (ISO/IEC 13818-1) specifies the MPEG-4 LATM/LOAS framing format for MPEG-4 audio codecs to overcome the limitations of ADTS.

In order to be able to pass the MPEG-4 audio bit stream from a Set Top Box to an A/V receiver connected via the IEC 60958 interface without needing to reframe the audio bit stream within ADTS, the MPEG-4 LATM/LOAS framing format needs to be supported by IEC 61937.

DIGITAL AUDIO – INTERFACE FOR NON-LINEAR PCM ENCODED AUDIO BITSTREAMS APPLYING IEC 60958 –

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1 Scope

This part of IEC 61937 describes the method to convey non-linear PCM bitstreams encoded according to the MPEG-4 AAC format and its extensions spectral band replication, parametric stereo and MPEG surround, framed in MPEG-4 LATM/LOAS.

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 60958 (all parts), *Digital audio interface*

IEC 61937-1, *Digital audio – Interface for non-linear PCM encoded audio bitstreams applying IEC 60958 – Part 1: General*

IEC 61937-2, *Digital audio – Interface for non-linear PCM encoded audio bitstreams applying IEC 60958 – Part 2: Burst-info*

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

3 Terms, definitions and abbreviations

For the purposes of this document the terms, definitions and abbreviations of IEC 61937-1, IEC 61937-2 and the following apply.

3.1 Terms and definitions

3.1.1

access unit

smallest entity to which timing information can be attributed; an access unit is the smallest individually decodable unit; a decoder consumes access units

3.1.2

AudioMuxElement(1)

LATM element that carries payload data for at least one audio elementary stream, related payload length information and multiplex configuration information

NOTE This element carries payload data in form of PayloadMux elements. The number in brackets indicates multiplexing configuration (StreamMuxConfig) is multiplexed into AudioMuxElements, that is in-band transmission.

3.1.3

AudioSpecificConfig

configuration structure used to convey parameters to initialize the MPEG-4 audio decoder