

Digital audio - Interface for non-linear PCM encoded audio bitstreams applying IEC 60958 - Part 3: Non-linear PCM bitstreams according to the AC-3 format

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 61937-3:2009 sisaldab Euroopa standardi EN 61937-3:2009 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 30.10.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 13.08.2009.

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This Estonian standard EVS-EN 61937-3:2009 consists of the English text of the European standard EN 61937-3:2009.

This standard is ratified with the order of Estonian Centre for Standardisation dated 30.10.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

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English version

**Digital audio -
Interface for non-linear PCM encoded audio bitstreams
applying IEC 60958 -
Part 3: Non-linear PCM bitstreams according to the AC-3
and enhanced AC-3 formats
(IEC 61937-3:2007)**

Audionumérique -
Interface pour les flux de bits audio
à codage MIC non linéaire
conformément à la CEI 60958 -
Partie 3: Flux de bits MIC non linéaire
conformément aux formats AC-3
et AC-3 amélioré
(CEI 61937-3:2007)

Digitalton -
Schnittstelle für nichtlinear-PCM-codierte
Audio-Bitströme unter Verwendung
von IEC 60958 -
Teil 3: Nichtlineare PCM-Bitströme
nach dem AC-3- und dem erweiterten
AC-3-Format
(IEC 61937-3:2007)

This European Standard was approved by CENELEC on 2009-07-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 100/1207/CDV, future edition 2 of IEC 61937-3, prepared by technical area 4, Digital system interfaces, of IEC TC 100, Audio, video and multimedia systems and equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61937-3 on 2009-07-01.

This European Standard supersedes EN 61937-3:2003.

EN 61937-3:2009 contains the following significant technical changes with respect to EN 61937-3:2003.

- the definition of the audio data-burst required to deliver enhanced AC-3 bitstreams has been added;
- the definition of the latency of an enhanced AC-3 decoder has been added;
- the use of pause data-bursts when delivering enhanced AC-3 bitstreams has been added.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2010-04-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2012-07-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61937-3:2007 was approved by CENELEC as a European Standard without any modification.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

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

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60958	Series	Digital audio interface	EN 60958	Series
IEC 61937-1	2007	Digital audio - Interface for non-linear PCM encoded audio bitstreams applying IEC 60958 - Part 1: General	EN 61937-1	2007
IEC 61937-2	2007	Digital audio - Interface for non-linear PCM encoded audio bitstreams applying IEC 60958 - Part 2: Burst-info	EN 61937-2	2007
ETSI TS 102 366	- ¹⁾	Digital Audio Compression (AC-3, Enhanced AC-3)	-	-
ATSC A/52B	- ¹⁾	Digital Audio Compression (AC-3, E-AC-3), Rev. B	-	-

¹⁾ Undated reference.

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

Part 3: Non-linear PCM bitstreams according to the AC-3 and enhanced AC-3 formats

1 Scope

This part of IEC 61937 describes the method used to convey non-linear PCM bitstreams encoded according to the AC-3 and enhanced AC-3 formats.

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 61937-1:2007, *Digital audio interface for non-linear PCM encoded audio bitstreams applying IEC 60958 – Part 1: General*

IEC 61937-2:2007, *Digital audio interface for non-linear PCM encoded audio bitstreams applying IEC 60958 – Part 2: Burst-info*

ATSC Standard A/52B, *Digital Audio Compression (AC-3, E-AC-3), Rev. B*

ETSI TS 102 366, *Digital Audio Compression (AC-3, Enhanced AC-3)*

3 Terms and definitions

For the purposes of this standard, the following terms, definitions and abbreviations apply.

3.1 Terms and definitions

3.1.1

latency

delay time of an external audio decoder to decode an AC-3 or enhanced AC-3 data burst, defined as the sum of two values of the receiving delay time and the decoding delay time.

3.1.2

stream type

an enhanced AC-3 bitstream is constructed from one or more substreams, with each substream being constructed from a sequence of frames. The stream type parameter of an enhanced AC-3 frame identifies the type of substream of which the frame is a part