BSI Standards Publication

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

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National foreword

This British Standard is the UK implementation of
IEC 61937-3:2017+A1:2020. It supersedes BS IEC 61937-3:2017, which
is withdrawn.

The UK participation in its preparation was entrusted to Technical
Committee EPL/100, Audio-visual equipment.

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Amendments/corrigenda issued since publication

Date	Text affected
30 June 2021	Implementation of IEC amendment 1:2020: deletion of final paragraph of 5.3.4 (see Introduction to Amendment 1 for details)

IEC 61937-3

Edition 3.0   2017-07

INTERNATIONAL STANDARD

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

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FOREWORD

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International Standard IEC 61937-3 has been prepared by subcommittee technical area 4: Digital system interfaces and protocols, of IEC technical committee 100: Audio, video and multimedia systems and equipment.

This third edition of IEC 61937-3 cancels and replaces the second edition published in 2007. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) removal of support for enhanced AC-3 bitstreams with a sampling frequency of 32 kHz;

b) updates to normative and informative references;

c) clarification of pause data-burst usage for enhanced AC-3 bitstreams.

IEC 61937-3:2017+A1:2020
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The text of this International Standard is based on the following documents:

CDV	Report on voting
100/2720/CDV	100/2934/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.

A list of all parts in the IEC 61973 series, published 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 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.

A bilingual version of this publication may be issued at a later date.

INTRODUCTION to Amendment 1

This amendment to 61937-3:2017 is necessary to remove the last paragraph from the Enhanced AC-3 provisions that does not apply to Enhanced AC-3. It only applies to AC-3 and was inadvertantly copied when Enhanced AC-3 was authored.

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

IEC 61937-1:2007/AMD1:2011, *Digital audio interface for non-linear PCM encoded audio bit streams applying IEC 60958 – Part 1: General*

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

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

3   Terms, definitions and abbreviated terms

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

**3.1
block identification flag**
flag used to indicate that the first audio block of an enhanced AC-3 syncframe with a stream type value of two formed the first audio block in the AC-3 syncframe from which it was converted

**3.2
converter synchronization flag**
flag used for synchronization by a device that converts an enhanced AC-3 bitstream to a bitstream compliant with an AC-3 decoder and indicates that the first block in this enhanced AC-3 syncframe will form the first block of the AC-3 syncframe output by the conversion process