IEC 61937-3

Edition 3.1   2020-09
CONSOLIDATED VERSION

INTERNATIONAL STANDARD

colour inside

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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colour
inside

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

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

_____

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

FOREWORD

This consolidated version of the official IEC Standard and its amendment has been prepared for user convenience.

IEC 61937-3 edition 3.1 contains the third edition (2017-07) [documents 100/2720/CDV and 100/2934/RVC] and its amendment 1 (2020-09) [documents 100/3392/CDV and 100/3456/RVC].

In this Redline version, a vertical line in the margin shows where the technical content is modified by amendment 1. Additions are in green text, deletions are in strikethrough red text. A separate Final version with all changes accepted is available in this publication.

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 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.

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 the base publication and its amendment 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• withdrawn,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.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

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.

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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