

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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PRICE CODE

CONTENTS

FOREWORD.....	3
1 Scope.....	5
2 Normative references.....	5
3 Terms, definitions and abbreviations	5
3.1 Terms and definitions.....	5
3.2 Abbreviations.....	6
4 Mapping of the audio bitstream on to IEC 61937-1	6
4.1 General.....	6
4.2 AC-3 and enhanced AC-3 burst-info.....	6
5 Format of AC-3 and enhanced AC-3 data-bursts	6
5.1 General	6
5.2 Pause data-burst	7
5.3 Audio data-bursts	7
5.3.1 AC-3 data	7
5.3.2 Latency of AC-3 decoding	8
5.3.3 Enhanced AC-3 data.....	9
5.3.4 Latency of the enhanced AC-3 decoder.....	10
Bibliography.....	13
Figure 1 – AC-3 data-burst, with reference point R.....	7
Figure 2 – Latency of AC-3 decoding	8
Figure 3 – Enhanced AC-3 data-burst.....	10
Figure 4 – Latency of enhanced AC-3 decoding	11
Table 1 – Fields of burst-info.....	6
Table 2 – Repetition period of the pause data-bursts	7
Table 3 – Data-type-dependent information when data-type = 1	7
Table 4 – Data-type-dependent information when data-type = 21	10
Table 5 – Frame repetition period and maximum data rate for enhanced AC-3 bitstreams.....	10

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

This second edition of IEC 61937-3 cancels and replaces the first edition published in 2003. This edition contains the following significant technical changes with respect to the previous edition.

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

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

CDV	Report on voting
100/1207/CDV	100/1291/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.

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

The list of all the parts of the IEC 61937 series, 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 maintenance result 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.

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

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