IEC 61937-17

Edition 1.0 2025-07

INTERNATIONAL STANDARD

Digital audio - Interface for non-linear PCM encoded audio bitstreams applying IEC 60958 -
Part 17: Non-linear PCM bitstreams according to the AVS3-P3 format

ICS 33.160.30; 33.160.60; 35.040.40

ISBN 978-2-8327-0512-4

IEC 61937-17:2025-07(en)

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IEC 61937-17 has been prepared by technical area 20: Analogue and digital audio, of IEC technical committee 100: Audio, video and multimedia systems and equipment. It is an International Standard.

The text of this International Standard is based on the following documents:

Draft	Report on voting
100/4187/CDV	100/4264/RVC

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all the parts in the IEC 61937 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 webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

1 Scope

This part of IEC 61937 specifies the method to convey non-linear PCM bitstreams encoded according to the AVS3-P3 format.

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 61937-1:2021, *Digital audio – Interface for non-linear PCM encoded audio bitstreams applying IEC 60958 – Part 1: General*

3 Terms and definitions

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

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

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

3.1
AVS3-P3 frame
bitstream generated by an AVS3-P3 encoder per block of PCM audio samples based on T/AI 109.3, treated as a basic audio block for further use such as decoding, transmission, or storage

3.2
AVS3-P3 frame length
number of PCM audio samples per audio frame

3.3
decoding latency
delay time of an external audio decoder to decode an AVS3-P3 data burst, defined as the sum of two values of the receiving delay time and the decoding delay time

4 Mapping of the audio bitstream on to IEC 61937-1

4.1 General

The coding of the bitstream and data-burst is in accordance with IEC 61937-1:2021 and AVS3-P3.

4.2 AVS3-P3 burst-info

Pc bits 0 to 7 shall indicate extended data-type according to IEC 61937-1:2021, 6.1.8.3. As all bits are used in the preamble word of Pc, the value of data-type bits 0 to 7 in Pc is set to be 1 Fh. The extended data-type burst preamble Pe is used and the value is set to be 0x0002 h. The 16-bit burst-info of Pe is used to convey the information on AVS3-P3 audio frames and the repetition period as described in Table 1.