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INTERNATIONAL STANDARD

Digital audio – Interface for non-linear PCM encoded audio bitstreams applying IEC 60958 –
Part 15: Non-linear PCM bit streams according to Auro-Cx format

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FOREWORD

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IEC 61937-15 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
100/3462/CDV	100/3536/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/standardsdev/publications.

A list of all 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- withdrawn,
- replaced by a revised edition, or
- amended.

INTRODUCTION

The Auro-3D®[1] format has brought immersive 3D audio to the digital cinema and consumer electronics markets since 2011, and started a revolution in the audio industry, bringing the next generation audio experience to the user.

To accommodate the shift towards the use of streaming using set-top boxes, smart TVs and other connected devices, a new audio codec was developed: Auro-Cx®[2].

To be able to pass the Auro-Cx bit stream from said connected devices to an AV-receiver for decoding via the IEC 60958 interface, the IEC 61937 series must support the Auro-Cx format.

[1] Auro-3D is a trademark owned by Auro Technologies NV. This information is given for the convenience of users of this document and does not constitute an endorsement by IEC of the product named. Equivalent products may be used if they can be shown to lead to the same results.

[2] Auro-Cx is the trademark of a product supplied by Auro Technologies NV. This information is given for the convenience of users of this document and does not constitute an endorsement by IEC of the product named. Equivalent products may be used if they can be shown to lead to the same results.

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

Part 15: Non-linear PCM bit streams according to Auro-Cx format

1 Scope

This part of IEC 61937 describes the method to convey non-linear PCM bit streams in accordance with the Auro-Cx 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 60958 (all parts), *Digital audio interface*

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

IEC 61937-2:2021, *Digital audio interface for non-linear PCM encoded audio bitstreams applying IEC 60958 – Part 2: Burst Information*

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 Terms and definitions

3.1.1
Auro-Cx block
block containing all Auro-Cx audio data and metadata, formatted in accordance with the Auro-Cx Bit Stream format

3.1.2
block size
number of samples represented by an Auro-Cx block, indicated by the value of the BlockSize Auro-Cx bit stream parameter

3.1.3
latency
delay time introduced by an external Auro-Cx decoder while decoding an Auro-Cx data block, defined as the sum of the receiving delay time and the decoding delay time