

TECHNICAL SPECIFICATION



**Guideline for synchronization of audio and video –
Part 1-1: Measurement methods for synchronization of audio and video
equipment and systems – General**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 33.160.01

ISBN 978-2-8322-6218-4

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Part 1-1: Measurement methods for synchronization of audio and video equipment and systems – General

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as “IEC Publication(s)”). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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- the required support cannot be obtained for the publication of an International Standard, despite repeated efforts, or
- the subject is still under technical development or where, for any other reason, there is the future but no immediate possibility of an agreement on an International Standard.

Technical specifications are subject to review within three years of publication to decide whether they can be transformed into International Standards.

IEC TS 62312-1, which is a technical specification, has been prepared by technical area 11: Quality for audio, video and multimedia systems, of IEC technical committee 100: Audio, video and multimedia systems and equipment.

This second edition cancels and replaces the first edition published in 2008. This edition constitutes a technical revision.

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

- a) new Annex B informs of general measurement and test method of audio latency;
- b) comments from SMPTE (including small technical issues).

The text of this Technical Specifications is based on the following documents:

Enquiry draft	Report on voting
100/3048/DTS	100/3105/RVDTS

Full information on the voting for the approval of this technical specification 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.

The list of all the parts of IEC 62312, published under the general title *Guideline for synchronization of audio and video*, 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

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- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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INTRODUCTION

Audio and video equipment processes or reproduces the input signals of audio and video, then outputs these signals in various forms. Audio and video equipment needs time to process or reproduce the input signal. This time depends on the signal format, the architecture of the equipment and the design of the equipment. Hence, audio and video equipment may have different output delays for audio and video signals, and this causes unsynchronised audio and video outputs.

This Technical Specification is the general part of the measurement method for that time difference between audio and video outputs. The other parts of IEC ~~TS~~ 62312-1 describe specific measurement methods for specific audio and video equipment.

GUIDELINE FOR SYNCHRONIZATION OF AUDIO AND VIDEO –

Part 1-1: Measurement methods for synchronization of audio and video equipment and systems – General

1 Scope

The IEC 62312 series gives guidelines for methods of ~~synchronization of~~ synchronizing audio and video.

This part of IEC 62312-1 describes general measurement methods for the synchronization of audio and video equipment.

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 TS 62312-2:2018, *Guideline for synchronization of audio and video – Part 2: Methods for synchronization of audio and video systems*

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

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