AES standard for digital audio — Digital input-output interfacing — Serial transmission format for two-channel linearly-represented digital audio data — Part 1: Audio Content

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Abstract

AES3 provides for the serial digital transmission of two channels of periodically sampled and uniformly quantized audio signals on various media.

This Part specifies the semantics of the audio data, including the "validity" flag. It also specifies the sampling frequency by reference to AES5, *AES recommended practice for professional digital audio — Preferred sampling frequencies for applications employing pulse-code modulation*.

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Foreword

This foreword is not part of the *AES3-1-2009, AES standard for digital audio — Digital input-output interfacing — Serial transmission format for two-channel linearly represented digital audio data, Part 1: Audio Content*.

AES3 has been under constant review since the standard was first issued in 1985, and the present edition reflects the collective experience and opinions of many users, manufacturers, and organizations familiar with equipment or systems employing AES3.

This document was adapted by R. Caine from the 2003 edition as amended by Amendments 5 and 6, and its technical content is believed to be identical to the relevant parts of that version. Other members of the writing group that developed this document in draft included: C. Travis, C. Langen, H. Jahne, J. Grant, J. Woodgate, M. Natter, M. Poimboeuf, R. Cabot, S. Heinzmann, M. Werwein, and M. Yonge.

J Grant, chair
SC-02-02 Working Group on Digital Input-Output Interfacing
May 2009

Note on normative language

In AES standards documents, sentences containing the word “shall” are requirements for compliance with the document. Sentences containing the verb “should” are strong suggestions (recommendations). Sentences giving permission use the verb “may”. Sentences expressing a possibility use the verb “can”.

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AES standard for digital audio — Digital input-output interfacing — Serial transmission format for two-channel linearly-represented digital audio data — Part 1: Audio Content

1 Scope

These four documents specify an interface for the serial digital transmission of two channels of periodically sampled and linearly represented digital audio data from one transmitter to one receiver. This Part 1 defines the format for coding audio used for the audio content.

It is expected that the audio data will have been sampled at any of the sampling frequencies recognized by the AES5 *Recommended Practice for Professional Digital Audio Applications Employing Pulse-Code Modulation — Preferred Sampling Frequencies*. Note that conformance with this interface specification does not require equipment to utilise these rates. The capability of the interface to indicate other sample rates does not imply that it is recommended that equipment support these rates. To eliminate doubt, equipment specifications should define supported sampling frequencies.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this document. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this document are encouraged to investigate the possibility of applying the most recent editions of the indicated standards.

AES5-2008, *AES Recommended Practice for Professional Digital Audio Applications Employing Pulse Code Modulation—Preferred Sampling Frequencies*, Audio Engineering Society, New York, NY, USA.

ITU-R BS.450-3, *Transmission standards for FM sound broadcasting at VHF*, International Telecommunication Union, Geneva, Switzerland (was previously CCIR Rec 450-1).

ITU-T J.17, *Pre-emphasis used on sound-program circuits*, International Telecommunication Union, Geneva, Switzerland.

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