

CTA Bulletin

A/V Synchronization Processing Recommended Practice

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(Formulated under the cognizance of the CTA **R4 Video Systems Committee.**)

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FOREWORD

This bulletin was developed under the auspices of the Consumer Electronics Association (CEA) R4 Video Committee.

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A/V Synchronization Processing Recommended Practice

1 Scope

This Recommended Practice outlines the steps that an MPEG decoder should take to ensure and maintain audio/video synchronization. Such synchronization is necessary for end-viewer satisfaction.

2 References

2.1 Informative References

The following references contain provisions, which, through reference in this text, constitute informative provisions of this Recommended Practice. At the time of publication, the editions indicated below were valid. All documents are subject to revision, and parties to agreement based on this Recommended Practice are encouraged to investigate the possibility of applying the most recent editions of the documents listed below.

2.1.1 Informative Reference List

1. ISO/IEC IS 13818-1:2007 (E), Information technology - Generic coding of moving pictures and associated audio information: systems (2007)
2. ISO/IEC IS 13818-2:2003 (E), International Standard, Information technology—Generic coding of moving pictures and associated audio information: video (2003)
3. ATSC A/53, Part 3:2007, Service Multiplex and Transport Subsystem Characteristics
4. ATSC A/53, Part 4:2007, with Amendment No. 1, MPEG-2 Video System Characteristics
5. ATSC A/53, Part 5:2007, AC-3 Audio System Characteristics
6. ATSC A/78A, ATSC Recommended Practice: Transport Stream Verification, 9 May 2007
7. SCTE 142 2007, Recommended Practice for Transport Stream Verification
8. ETSI TR 101 290, V1.2.1, Digital Video Broadcasting (DVB); Measurement guidelines for DVB Systems
9. Blu-ray Disc, System Description, Blu-ray Disc Read-Only Format, Part 3: audio Visual Basic Specifications, Version 1.0
10. DLNA Networked Device Interoperability Guidelines, Volume 1: Architectures and Protocols (expanded: October 2006)
11. OC-SP-CCIF2.0_I15-080620, OpenCable Specifications, CableCARD™ Interface 2.0 Specification
12. ISO/IEC 13818-9:1996 Information Technology – Coding of audio visual objects – Part 9: Extension for real time interface for systems decoders
13. IEC 61937-3:2007 (E), Digital Audio – Interface for non-linear PCM encoded audio bitstreams applying
14. IEC 60958 – Part 3: Non-linear PCM bitstreams according to the AC-3 and enhanced AC-3 formats
15. ATIS-0800005, IPTV Packet Loss Issue Report, December 2006

2.1.2 Informative Reference Acquisition

ATIS Documents:

- Alliance for Telecommunications Industry Solutions, 1200 G Street NW, Suite 500, Washington, DC 20005, USA; Phone 202-628-6380; Fax 202-393-5453; Internet <http://www.atis.org>

ATSC Standards:

- The Advanced Television Systems Committee, 1776 K St N.W., Washington, DC 20006-2304, USA; Phone 202-872-9160; Fax 202-872-9161; Internet <http://www.atsc.org>

BluRay Standards:

- BluRay Disc Association, Internet <http://us.blu-raydisc.com>