

SCTE | **STANDARDS**

Digital Video Subcommittee

SCTE STANDARD

SCTE 194-2 2024

**DTS-HD AUDIO SYSTEM – Part 2:
Constraints for Carriage over MPEG-2 Transport**

NOTICE

The Society of Cable Telecommunications Engineers (SCTE) Standards and Operational Practices (hereafter called “documents”) are intended to serve the public interest by providing specifications, test methods and procedures that promote uniformity of product, interoperability, interchangeability, best practices, and the long term reliability of broadband communications facilities. These documents shall not in any way preclude any member or non-member of SCTE from manufacturing or selling products not conforming to such documents, nor shall the existence of such standards preclude their voluntary use by those other than SCTE members.

SCTE assumes no obligations or liability whatsoever to any party who may adopt the documents. Such adopting party assumes all risks associated with adoption of these documents and accepts full responsibility for any damage and/or claims arising from the adoption of such documents.

NOTE: The user’s attention is called to the possibility that compliance with this document may require the use of an invention covered by patent rights. By publication of this document, no position is taken with respect to the validity of any such claim(s) or of any patent rights in connection therewith. If a patent holder has filed a statement of willingness to grant a license under these rights on reasonable and nondiscriminatory terms and conditions to applicants desiring to obtain such a license, then details may be obtained from the standards developer. SCTE shall not be responsible for identifying patents for which a license may be required or for conducting inquiries into the legal validity or scope of those patents that are brought to its attention.

Patent holders who believe that they hold patents which are essential to the implementation of this document have been requested to provide information about those patents and any related licensing terms and conditions. Any such declarations made before or after publication of this document are available on the SCTE web site at <https://scte.org>.

All Rights Reserved
© 2024 Society of Cable Telecommunications Engineers, Inc.
140 Philips Road
Exton, PA 19341

Document Tags

☒ Specification	☐ Checklist	☐ Facility
☐ Test or Measurement	☐ Metric	☒ Access Network
☐ Architecture or Framework	☒ Cloud	☒ Customer Premises
☐ Procedure, Process or Method		

Document Release History

Release	Date
SCTE 194-2 2013	2013
SCTE 194-2 2014	2014
SCTE 194-2 2018	2018
SCTE 194-2 2024	7/29/2024

Note: Standards that are released multiple times in the same year use: a, b, c, etc. to indicate normative balloted updates and/or r1, r2, r3, etc. to indicate editorial changes to a released document after the year.

Table of Contents

Title	Page Number
NOTICE.....	Error! Bookmark not defined.
Table of Contents.....	4
1. Introduction.....	5
1.1. Scope.....	5
2. Normative References.....	5
2.1. SCTE References.....	5
2.2. Standards from Other Organizations.....	5
2.3. Published Materials.....	5
3. Informative References.....	5
3.1. SCTE References.....	5
3.2. Standards from Other Organizations.....	6
3.3. Published Materials.....	6
4. Compliance Notation.....	6
5. Abbreviations and Definitions.....	6
5.1. Abbreviations.....	6
5.2. Definitions.....	6
6. Transport of DTS-HD audio.....	7
6.1. MPEG-2 Systems Signaling.....	7
6.1.1. Stream Type.....	7
6.1.2. Buffering Model.....	8
6.1.3. Registration Descriptor.....	8
6.1.4. DTS-HD Audio Descriptor.....	8
6.2. DTS-HD PES Packet Encapsulation.....	14
6.2.1. Stream ID.....	14
6.2.2. Audio Access Unit Alignment in the PES packet.....	14

List of Figures

Title	Page Number
Figure 1 - PES Packet Payload.....	14

List of Tables

Title	Page Number
Table 1 - DTS-HD Audio Descriptor.....	9
Table 2 - Substream.....	9
Table 3 - Asset.....	10
Table 4 - sampling_frequency.....	11
Table 5 - asset_construction.....	12
Table 6 - component_type.....	13
Table 7 - Full Service Flag.....	13
Table 8 - Service Type Flags.....	13
Table 9 - Number of Channels Flags.....	13
Table 10 - DTS-HD Sync Words.....	14

1. Introduction

1.1. Scope

This document describes the carriage of DTS-HD audio in MPEG-2 systems. The descriptor necessary to signal DTS-HD audio is defined in this document. Multiplexing and transport for cable using MPEG-2 systems are defined in SCTE 54 [2]. Coding constraints for DTS-HD audio elementary streams are defined in SCTE 194-1 [1].

2. Normative References

The following documents contain provisions, which, through reference in this text, constitute provisions of this document. At the time of Subcommittee approval, the editions indicated were valid. All documents are subject to revision; and while parties to any agreement based on this document are encouraged to investigate the possibility of applying the most recent editions of the documents listed below, they are reminded that newer editions of those documents might not be compatible with the referenced version.

2.1. SCTE References

- [1] SCTE 194-1 2024, "DTS-HD Audio System – Part 1: Coding Constraints for Cable Television"
- [2] SCTE 54 2024, "Digital Video Service Multiplex and Transport System Standard for Cable Television"

2.2. Standards from Other Organizations

- [3] ETSI TS 102 114 v 1.6.1, "DTS Coherent Acoustics; Core and Extensions with Additional Profiles"
- [4] ISO/IEC 13818-1:2022, "Information Technology - Generic coding of moving pictures and associated audio information: Systems".
- [5] ISO/IEC 639-2:1998, "Codes for the representation of names of languages - Part 2: Alpha-3 code"

2.3. Published Materials

- No normative references are applicable.

3. Informative References

The following documents might provide valuable information to the reader but are not required when complying with this document.

3.1. SCTE References

- No informative references are applicable.