

SCTE | **STANDARDS**

Digital Video Subcommittee

SCTE STANDARD

ANSI/SCTE 54 2024

**Digital Video Service Multiplex and Transport System
Standard for Cable Television**

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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 54 2002	2002
SCTE 54 2003	2003
SCTE 54 2004	2004
SCTE 54 2006	2006
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SCTE 54 2015	2015
SCTE 54 2020	2020
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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.

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1. Scope

This document describes the transport subsystem characteristics and normative specifications of the in-band Service Multiplex and Transport Subsystem Standard for Cable Television.¹

2. Normative References

The following documents contain provisions which, through reference in this text, constitute provisions of this document. The editions indicated were valid at the time of subcommittee approval. 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

- | | |
|--------------|---|
| [SCTE 128-1] | SCTE 128-1 (2020) AVC Video Constraints for Cable Television Part 1: Coding |
| [SCTE 194-1] | ANSI/SCTE 194-1 (2018) DTS-HD Audio System – Part 1: Coding Constraints for Cable Television |
| [SCTE 193-1] | SCTE 193-1 (2020) MPEG-4 AAC Family Audio System – Part 1 Coding Constraints for Cable Television |
| [SCTE 242-1] | ANSI/SCTE 242-1 (2017) Next Generation Audio Coding Constraints for Cable Systems: Part 1 – Introduction and Common Constraints |
| [SCTE 242-2] | ANSI/SCTE 242-2 (2017) Next Generation Audio Coding Constraints for Cable Systems: Part 2 – AC-4 Audio Coding Constraints |
| [SCTE 242-3] | ANSI/SCTE 242-3 (2017) Next Generation Audio Coding Constraints for Cable Systems: Part 3 –MPEG-H Audio Carriage Constraints |
| [SCTE 242-4] | ANSI/SCTE 242-4 (2018) Next Generation Audio Coding Constraints for Cable Systems: Part 4 – DTS-UHD Audio Coding Constraints |

2.2. Standards from Other Organizations

- | | |
|---------------|--|
| [ATSC A/52] | ATSC A/52:2018, Digital Audio Compression (AC-3, E-AC-3) Standard. |
| [ATSC A/53-3] | ATSC A/53 Part 3:2013, Service Multiplex and Transport Subsystem Characteristics |
| [ATSC A/53-4] | ATSC A/53 Part 4:2009, MPEG-2 Video System Characteristics |
| [ATSC A/65] | ATSC A/65: 2013, Program and System Information Protocol (PSIP) for Terrestrial Broadcast and Cable. |

¹ Informative note: This standard applies only to Transport Streams transmitted on cable using 64-QAM or 256-QAM in accordance with [SCTE 07] *Digital Video Transmission Standard for Cable Television*.

- [ISO/IEC 13818-1] ISO/IEC 13818-1, (2022), “Information Technology—Generic coding of moving pictures and associated audio—Part1: Systems.”
- [ISO/IEC 13818-2] ISO/IEC IS 13818-2, (2013), “Information Technology—Generic coding of moving pictures and associated audio—Part 2: Video.”
- [ANSI-J-STD-42-C] ANSI-J-STD-42-C-2018, Emergency Alert Messaging for Cable.
- [ATSC A/53-5] ATSC A/53 Part 5:2014, AC-3 Audio System Characteristics
- [ATSC A/53-6] ATSC A/53 Part 6:2013, Enhanced AC-3 Audio System Characteristics

2.3. Other 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

- [SCTE 07] ANSI/SCTE 07 2018, Digital Video Transmission Standard for Cable Television
- [SCTE 128-2] SCTE 128-2 2018 AVC Video Constraints for Cable Television Part 2: Transport
- [SCTE 193-2] SCTE 193-2 (2020) MPEG-4 AAC Family Audio System – Part 2 Constraints for Carriage over MPEG-2 Transport
- [SCTE 194-2] ANSI/SCTE 194-2 (2018) DTS-HD Audio System – Part 2: Constraints for Carriage over MPEG-2 Transport
- [SCTE 215-1] SCTE 215-1 2024 HEVC Video Constraints for Cable Television Part 1- Coding
- [SCTE 215-2] ANSI/SCTE 215-2 2018 HEVC Video Constraints for Cable Television Part 2- Transport
- [SCTE 243-1] ANSI/SCTE 243-1 2017 Next Generation Audio Carriage Constraints for Cable Systems: Part 1 – Common Transport Signaling
- [SCTE 243-2] ANSI/SCTE 243-2 2017 Next Generation Audio Carriage Constraints for Cable Systems: Part 2 – AC-4 Audio Carriage Constraints
- [SCTE 243-3] ANSI/SCTE 243-3 2017 Next Generation Audio Carriage Constraints for Cable Systems: Part 3 – MPEG-H Audio Carriage Constraints
- [SCTE 243-4] ANSI/SCTE 243-4 2018 Next Generation Audio Carriage Constraints for Cable Systems: Part 4 – DTS-UHD Audio Carriage Constraints

3.2. Standards from Other Organizations

[CEA 766 D] ANSI/CEA-766-D (2013), U.S. and Canadian Rating Region Tables (RRT) and Content Advisory Descriptors for Transport of Content Advisory Information Using ATSC Program and System Information Protocol (PSIP).

[ATSC A/71] ATSC A/71:2012 Parameterized Services Standard

[ATSC Code Point Registry] available at <https://www.atsc.org/standards/code-point-registry/>

[ETSI TS 103 190-2 V1.2.1] Digital Audio Compression (AC-4) Standard; Part 2: Immersive and personalized audio (2018-02).

3.3. Other Published Materials

No informative references are applicable.

4. Compliance Notation

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5. Abbreviations and Definitions

5.1. Abbreviations

64-QAM	64-state quadrature amplitude modulation
256-QAM	256-state quadrature amplitude modulation
AAC	advanced audio coding
AC-3	Audio Codec 3 or Advanced Codec 3 (also Dolby Digital)
ADTS	audio data transport stream
ANSI	American National Standards Institute
ASCII	American Standard Code for Information Interchange
ATSC	Advanced Television Systems Committee
AVC	advanced video coding