



***Society of Cable
Telecommunications
Engineers***

ENGINEERING COMMITTEE
Digital Video Subcommittee

AMERICAN NATIONAL STANDARD

ANSI/SCTE 105 2005

**Uni-Directional Receiving Device Standard for
Digital Cable**

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1 SCOPE

1.1 Uni-Directional Receiving Device Overview

The goal of this standard is to define certain requirements for host devices that are interoperable across cable systems in North America. Information is presented in this document to define the minimum requirements for Uni-Directional Receiving Devices (“UDRDs”) to operate on North American Digital Cable systems. This standard details requirements on UDRDs necessary to ensure that the UDRD:

- (1) Will not technically disrupt, impede or impair delivery of services to cable subscribers,
- (2) Will not cause physical harm to the cable network or the POD¹,
- (3) Will not facilitate theft of service or otherwise interfere with reasonable actions taken by Cable Operators to prevent theft of service,
- (4) Will not jeopardize the security of any services offered over the cable system,
- (5) Will not interfere with or disable the ability of a Cable Operator to communicate with or disable a POD Module or to disable services being transmitted through a POD Module, or
- (6) Will not impede or impair control of content protection.

In general, UDRDs:

1. Are also capable of receiving analog cable television services provided according to ANSI/SCTE 40 2004 [23].
2. Are compatible with secure services provided via a renewable and replaceable core encryption system (POD module).
3. Co-exist with existing set-top devices, such as those leased by cable operators.

Note that this standard does not attempt to define certification requirements, license terms or encoding rules applicable to Uni-Directional Receiving Devices, which are out of scope.

2 REFERENCES

2.1 Normative References

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

¹ The term CableCARD™ is a marketing term that has been adopted by the cable and consumer electronics industries for the Point of Deployment (POD) security module. It is used with the permission of CableLabs.

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- [1] ANSI/SCTE 54 2004: Digital Video Service Multiplex and Transport System Standard for Cable Television
 - [2] ANSI/SCTE 55-1 2002: Digital Broadband Delivery System: Out-of-band Transport – Mode A
 - [3] ANSI/SCTE 55-2 2002: Digital Broadband Delivery System: Out-of-band Transport – Mode B
 - [4] ANSI/SCTE 65 2002: Service Information Delivered Out-of-Band for Digital Cable Television
 - [5] ATSC A/53C: ATSC Digital Television Standard, Rev. C, with amendment No. 1.
 - [6] CEA-542-B: Cable Television Channel Identification Plan
 - [7] CEA-608-B: Recommended Practice for Line 21 Data Service
 - [8] FCC 47 CFR Part 15 – Radio Frequency Devices, Class B
 - [9] FCC 47 CFR Part 76 – Cable Television Service
 - [10] ANSI/SCTE 28 2004 POD/Host Interface Specification
 - [11] CEA-766-A: U.S. and Canadian Region Rating Table (RRT) and Content Advisory Descriptor for Transport of Content Advisory Information Using ATSC A/65, A66 and A67, Program and System Information Protocol (PSIP)
 - [12] ANSI/SCTE 41 2004 POD Copy Protection System Specification
 - [13] ITU-T Recommendation X.509 (03/2000), Information technology - Open Systems Interconnection - The Directory: Public-key and attribute certificate frameworks
 - [14] PKCS #1: RSA Encryption Standard, Version 1.5, RSA Laboratories, November 1, 1993
 - [15] ANSI/SCTE 07 2000 (formerly DVS 031), Digital Video Transmission Standard for Television
 - [16] ANSI/SCTE 20 2004 Standard Methods for Carriage of Closed Captions and Non-Real Time Sampled Video
 - [17] ANSI/SCTE 21 2001 (formerly DVS 053), Standard for Carriage of NTSC VBI Data in Cable Digital Transport Streams
 - [18] IETF RFC 3280, “Internet X.509 Public Key Infrastructure Certificate and CRL Profile”, R. Housley, W. Ford, W. Polk, D. Solo, January 2002
 - [19] CEA-23-A Measurement Procedures for Determining Compliance with FCC Rules for “Cable-Ready Consumer Electronics Equipment”, December 2004

2.2 Informative References

- [20] ANSI-J-STD-042-2002 Emergency Alert Message for Cable
- [21] ANSI/SCTE 43 2004 Digital Video Systems Characteristics Standard for Cable Television
- [22] ATSC A/52A: ATSC Digital Audio Compression Standard
- [23] ANSI/SCTE 40 2004 Digital Cable Network Interface Specification
- [24] CEA 708B: Digital Television (DTV) Closed Captioning
- [25] ISO/IEC 13818-1:2000: Information technology -- Generic coding of moving pictures and associated audio information: Systems (MPEG-2 Systems)

2.3 Reference Acquisition

SCTE Standards:

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CEA Standards:

- Global Engineering Documents, World Headquarters, 15 Inverness Way East, Englewood, CO
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global@ihs.com

FCC Documents:

- Qualex International. Room CY- B402, 445 12th Street, SW, Washington, DC, 20554 Phone 202-
863-2893; email: QUALEXINT@AOL.COM

ATSC Standards:

- Advanced Television Systems Committee (ATSC), 1750 K Street NW, Suite 1200, Washington,
DC 20006; Phone 202-872-9160; Fax 202-872-9161; Internet <http://www.atsc.org>.

ISO/IEC Standards:

- Global Engineering Documents, World Headquarters, 15 Inverness Way East, Englewood, CO.
USA 80112-5776; Phone 800-854-7179; Fax 303-397-2740; Internet <http://global.ihs.com>; email
global@ihs.com.

IETF:

- IETF Secretariat c/o Corporation for National Research Initiatives 1895 Preston White Drive,
Suite 100 Reston, VA 20191 IETF
- Request For Comments: Internet <http://www.ietf.org/rfc.html>

ITU-T Recommendations:

- International Telecommunications Union, Place des Nations, CH-1211 Geneva 20, Switzerland;
Phone +41 22 730 51 11; Fax +41 22 733 7256; Internet <http://www.itu.int>.

RSA Standards:

- RSA Security, 174 Middlesex Turnpike, Bedford, MA USA 01730; Phone 781 515 5000; Fax 781
515 5010; Internet <http://www.rsasecurity.com>