

specified subscriber terminals may be required by the Commission or the local franchiser to secure compliance with the technical standards.

(d) The provisions of paragraphs (b) and (c) of this section shall not apply to any cable television system having fewer than 1,000 subscribers: *Provided, however,* that any cable television system using any frequency spectrum other than that allocated to over-the-air television and FM broadcasting (as described in §§ 73.603 and 73.210 of this chapter) is required to conduct all tests, measurements and monitoring of signal leakage that are required by this subpart. A cable television system operator complying with the monitoring, logging and the leakage repair requirements of § 76.614, shall be considered to have met the requirements of this paragraph. However, the leakage log shall be retained for five years rather than the two years prescribed in § 76.1706.

NOTE 1 TO § 76.601: Prior to requiring any additional testing pursuant to § 76.601(c), the local franchising authority shall notify the cable operator who will be allowed thirty days to come into compliance with any perceived signal quality problems which need to be corrected. The Commission may request cable operators to test their systems at any time.

NOTE 2 TO § 76.601: Section 76.1717 contains recordkeeping requirements for each system operator in order to show compliance with the technical rules of this subpart.

NOTE 3 TO § 76.601: Section 76.1704 contains recordkeeping requirements for proof of performance tests.

[65 FR 53615, Sept. 5, 2000]

#### § 76.602 Incorporation by reference.

(a) The materials listed in this section are incorporated by reference in this part. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and notice of any change in these materials will be published in the FEDERAL REGISTER. The materials are available for purchase at the corresponding addresses as noted, and all are available for inspection at the Federal Communications Commission, 445 12th. St., SW., Reference Information

Center, Room CY-A257, Washington, DC 20554 and at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(b) The following materials are available for purchase from at least one of the following addresses: Global Engineering Documents, 15 Inverness Way East, Englewood, CO 80112 or at <http://global.ihs.com>; or American National Standards Institute, 25 West 43rd Street, 4th Floor, New York, NY 10036 or at <http://webstore.ansi.org/ansidocstore/default.asp>; or Society of Cable Telecommunications Engineers at <http://www.scte.org/standards/index.cfm>; or Advanced Television Systems Committee, 1750 K Street, NW., Suite 1200, Washington, DC 20006 or at <http://www.atsc.org/standards>.

(1) ANSI/SCTE 26 2001 (formerly DVS 194): “Home Digital Network Interface Specification with Copy Protection,” 2001, IBR approved for § 76.640.

(2) SCTE 28 2003 (formerly DVS 295): “Host-POD Interface Standard,” 2003, IBR approved for § 76.640.

(3) SCTE 41 2003 (formerly DVS 301): “POD Copy Protection System,” 2003, IBR approved for § 76.640.

(4) ANSI/SCTE 54 2003 (formerly DVS 241), “Digital Video Service Multiplex and Transport System Standard for Cable Television,” 2003, IBR approved for § 76.640.

(5) ANSI/SCTE 65 2002 (formerly DVS 234), “Service Information Delivered Out-of-Band for Digital Cable Television,” 2002, IBR approved for § 76.640.

(6) CEA-931-A, “Remote Control Command Pass-through Standard for Home Networking,” 2003, IBR approved for § 76.640.

(7) SCTE 40 2003 (formerly DVS 313), “Digital Cable Network Interface Standard,” 2003, IBR approved for § 76.640.

(8) ATSC A/65B: “ATSC Standard: Program and System Information Protocol for Terrestrial Broadcast and Cable (Revision B),” March 18, 2003, IBR approved for § 76.640.

(9) CEA-542-B: “CEA Standard: Cable Television Channel Identification

Plan,” July 2003, IBR approved for § 76.605.

[68 FR 66734, Nov. 28, 2003, as amended at 69 FR 18803, Apr. 9, 2004; 69 FR 57861, Sept. 28, 2004]

#### § 76.605 Technical standards.

(a) The following requirements apply to the performance of a cable television system as measured at any subscriber terminal with a matched impedance at the termination point or at the output of the modulating or processing equipment (generally the headend) of the cable television system or otherwise as noted. The requirements are applicable to each NTSC or similar video downstream cable television channel in the system:

(1)(i) The cable television channels delivered to the subscriber’s terminal shall be capable of being received and displayed by TV broadcast receivers used for off-the-air reception of TV broadcast signals, as authorized under part 73 of this chapter; and

(ii) Cable television systems shall transmit signals to subscriber premises equipment on frequencies in accordance with the channel allocation plan set forth in CEA-542-B: “Standard: Cable Television Channel Identification Plan.” (Incorporated by reference, see § 76.602).

(2) The aural center frequency of the aural carrier must be 4.5 MHz  $\pm$  5 kHz above the frequency of the visual carrier at the output of the modulating or processing equipment of a cable television system, and at the subscriber terminal.

(3) The visual signal level, across a terminating impedance which correctly matches the internal impedance of the cable system as viewed from the subscriber terminal, shall not be less than 1 millivolt across an internal impedance of 75 ohms (0 dBmV). Additionally, as measured at the end of a 30 meter (100 foot) cable drop that is connected to the subscriber tap, it shall not be less than 1.41 millivolts across an internal impedance of 75 ohms (+3 dBmV). (At other impedance values, the minimum visual signal level, as viewed from the subscriber terminal, shall be the square root of 0.0133 (Z) millivolts and, as measured at the end of a 30 meter (100 foot) cable drop that

is connected to the subscriber tap, shall be 2 times the square root of 0.00662(Z) millivolts, where Z is the appropriate impedance value.)

(4) The visual signal level on each channel, as measured at the end of a 30 meter cable drop that is connected to the subscriber tap, shall not vary more than 8 decibels within any six-month interval, which must include four tests performed in six-hour increments during a 24-hour period in July or August and during a 24-hour period in January or February, and shall be maintained within:

(i) 3 decibels (dB) of the visual signal level of any visual carrier within a 6 MHz nominal frequency separation;

(ii) 10 dB of the visual signal level on any other channel on a cable television system of up to 300 MHz of cable distribution system upper frequency limit, with a 1 dB increase for each additional 100 MHz of cable distribution system upper frequency limit (e.g., 11 dB for a system at 301–400 MHz; 12 dB for a system at 401–500 MHz, *etc.*); and

(iii) A maximum level such that signal degradation due to overload in the subscriber’s receiver or terminal does not occur.

(5) The rms voltage of the aural signal shall be maintained between 10 and 17 decibels below the associated visual signal level. This requirement must be met both at the subscriber terminal and at the output of the modulating and processing equipment (generally the headend). For subscriber terminals that use equipment which modulate and remodulate the signal (e.g., baseband converters), the rms voltage of the aural signal shall be maintained between 6.5 and 17 decibels below the associated visual signal level at the subscriber terminal.

(6) The amplitude characteristic shall be within a range of  $\pm 2$  decibels from 0.75 MHz to 5.0 MHz above the lower boundary frequency of the cable television channel, referenced to the average of the highest and lowest amplitudes within these frequency boundaries. The amplitude characteristic shall be measured at the subscriber terminal.

(7) The ratio of RF visual signal level to system noise shall not be less than 43 decibels. For class I cable television