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the change in delay time of the chrominance component of the signal relative to the luminance component, shall be within 170 nanoseconds.

(ii) The differential gain for the color subcarrier of the television signal, which is measured as the difference in amplitude between the largest and smallest segments of the chrominance signal (divided by the largest and expressed in percent), shall not exceed ±20%.

(iii) The differential phase for the color subcarrier of the television signal which is measured as the largest phase difference in degrees between each segment of the chrominance signal and reference segment (the segment at the blanking level of O IRE), shall not exceed ±10 degrees.

(12) As an exception to the general provision requiring measurements to be made at subscriber terminals, and without regard to the type of signals carried by the cable television system, signal leakage from a cable television system shall be measured in accordance with the procedures outlined in §76.609(h) and shall be limited as follows:

Frequencies	Signal leakage limit (micro-volt/meter)	Distance in meters (m)
Less than and including 54 MHz, and over 216 MHz	15	30
Over 54 up to and including 216 MHz	20	3

(b) Cable television systems distributing signals by using methods such as nonconventional coaxial cable techniques, noncoaxial copper cable techniques, specialized coaxial cable and fiber optical cable hybridization techniques or specialized compression techniques or specialized receiving devices, and which, because of their basic design, cannot comply with one or more of the technical standards set forth in paragraph (a) of this section, may be permitted to operate: Provided, That an adequate showing is made pursuant to §76.7 which establishes that the public interest is benefited. In such instances, the Commission may prescribe special technical requirements to ensure that subscribers to such systems are provided with an equivalent level of good quality service.

NOTE 1: Local franchising authorities of systems serving fewer than 1000 subscribers may adopt standards less stringent than those in §76.605(a). Any such agreement shall be reduced to writing and be associated with the system's proof-of-performance records.

NOTE 2: For systems serving rural areas as defined in §76.5, the system may negotiate with its local franchising authority for standards less stringent than those in §§76.605(a)(3), 76.605(a)(7), 76.605(a)(8), 76.605(a)(10) and 76.605(a)(11). Any such agreement shall be reduced to writing and be associated with the system's proof-of-performance records.

NOTE 3: The requirements of this section shall not apply to devices subject to the provisions of §§15.601 through 15.626.

NOTE 4: Should subscriber complaints arise from a system failing to meet §76.605(a)(6) prior to December 30, 1999, the cable operator will be required to provide a converter that will allow the system to meet the standard immediately at the complaining subscriber's terminal. Further, should the problem be found to be system-wide, the Commission may order all converters on the system be changed to meet the standard.

NOTE 5: Should subscriber complaints arise from a system failing to meet §76.605(a)(10), the cable operator will be required to remedy the complaint and perform test measurements on §76.605(a)(10) containing the full number of channels as indicated in §76.601(c)(2) at the complaining subscriber's terminal. Further, should the problem be found to be system-wide, the Commission may order that the full number of channels as indicated in §76.601(c)(2) be tested at all required locations for future proof-of-performance tests.

NOTE 6: No State or franchising authority may prohibit, condition, or restrict a cable system's use of any type of subscriber equipment or any transmission technology.

[37 FR 3278, Feb. 12, 1972, as amended at 37 FR 13867, July 14, 1972; 40 FR 2690, Jan. 15, 1975; 40 FR 3296, Jan. 21, 1975; 41 FR 53028, Dec. 3, 1976; 42 FR 21782, Apr. 29, 1977; 47 FR 21503, May 18, 1982; 50 FR 52466, Dec. 24, 1985; 51 FR 1255, Jan. 10, 1986; 52 FR 22461, June 12, 1987; 57 FR 11002, Apr. 1, 1992; 57 FR 61010, Dec. 23, 1992; 58 FR 44952, Aug. 25, 1993; 59 FR 25342, May 16, 1994; 61 FR 18510, Apr. 26, 1996; 61 FR 18978, Apr. 30, 1996]

§76.606 Closed captioning.

(a) As of June 30, 1992, the operator of each cable television system shall not take any action to remove or alter closed captioning data contained on line 21 of the vertical blanking interval.

(b) As of July 1, 1993, the operator of each cable television system shall deliver intact closed captioning data contained on line 21 of the vertical blanking interval, as it arrives at the headend or from another origination source, to subscriber terminals and (when so delivered to the cable system) in a format that can be recovered and displayed by decoders meeting § 15.119 of this chapter.

[57 FR 11003, Apr. 1, 1992]

§ 76.607 Resolution of complaints.

Cable system operators shall establish a process for resolving complaints from subscribers about the quality of the television signal delivered. These records shall be maintained for at least a one-year period. Aggregate data based upon these complaints shall be made available for inspection by the Commission and franchising authorities, upon request. Subscribers shall be advised, at least once each calendar year, of the procedures for resolution of complaints by the cable system operator, including the address of the responsible officer of the local franchising authority.

NOTE: Prior to being referred to the Commission, complaints from subscribers about the quality of the television signal delivered must be referred to the local franchising authority and the cable system operator.

[57 FR 61011, Dec. 23, 1992]

§ 76.609 Measurements.

(a) Measurements made to demonstrate conformity with the performance requirements set forth in §§ 76.601 and 76.605 shall be made under conditions which reflect system performance during normal operations, including the effect of any microwave relay operated in the Cable Television Relay (CARS) Service intervening between pickup antenna and the cable distribution network. Amplifiers shall be operated at normal gains, either by the insertion of appropriate signals or by manual adjustment. Special signals inserted in a cable television channel for measurement purposes should be operated at levels approximating those used for normal operation. Pilot tones, auxiliary or substitute signals, and nontelevision signals normally carried on the cable television system should be operated at normal levels to the extent possible. Some exemplary, but not mandatory, measurement procedures are set forth in this section.

(b) When it may be necessary to remove the television signal normally carried on a cable television channel in order to facilitate a performance measurement, it will be permissible to disconnect the antenna which serves the channel under measurement and to substitute therefor a matching resistance termination. Other antennas and inputs should remain connected and normal signal levels should be maintained on other channels.

(c) As may be necessary to ensure satisfactory service to a subscriber, the Commission may require additional tests to demonstrate system performance or may specify the use of different test procedures.

(d) The frequency response of a cable television channel may be determined by one of the following methods, as appropriate:

(1) By using a swept frequency or a manually variable signal generator at the sending end and a calibrated attenuator and frequency-selective voltmeter at the subscriber terminal; or

(2) By using either a multiburst generator or vertical interval test signals and either a modulator or processor at the sending end, and by using either a demodulator and either an oscilloscope display or a waveform monitor display at the subscriber terminal.

(e) System noise may be measured using a frequency-selective voltmeter (field strength meter) which has been suitably calibrated to indicate rms noise or average power level and which has a known bandwidth. With the system operating at normal level and with a properly matched resistive termination substituted for the antenna, noise power indications at the subscriber terminal are taken in successive increments of frequency equal to the bandwidth of the frequency-selective voltmeter, summing the power indications to obtain the total noise power present over a 4 MHz band centered within the cable television channel. If it is established that the noise