

measurements at the unfiltered IF output port. Where appropriate, the Commission will consider allowing alternative measurement methods.

(1) *Adjacent channel interference.* In the presence of a lower adjacent channel CW signal that is 1.5 MHz below the desired visual carrier in frequency and 10 dB below the desired visual carrier in amplitude, spurious signals within the IF passband shall be attenuated at least 55 dB below the visual carrier of the desired signal. The desired input signal shall be an NTSC visual carrier modulated with a 10 IRE flat field with color burst and the aural carrier which is 10 dB below the visual carrier should be unmodulated. Measurements are to be performed for input signal levels of 0 dBmV and + 15 dBmV, with the receiver tuned to ten evenly spaced EIA IS-132 channels covering the band 54 MHz to 804 MHz.

(2) *Image channel interference.* Image channel interference within the IF passband shall be attenuated below the visual carrier of the desired channel by at least 60 dB from 54 MHz to 714 MHz and 50 dB from 714 MHz to 804 MHz. The 60 dB standard applies at 714 MHz. In testing for compliance with this standard, the desired input signal is to be an NTSC signal on which the visual carrier is modulated with a 10 IRE flat field with color burst and the aural carrier is unmodulated and 10 dB below the visual carrier. The undesired test signal shall be a CW signal equal in amplitude to the desired visual carrier and located 90 MHz above the visual carrier frequency of the desired channel. Measurements shall be performed for input signals of 0 dBmV and + 15 dBmV, with the receiver tuned to at least ten evenly spaced EIA IS-132 channels covering the band 54 MHz to 804 MHz.

(3) *Direct pickup interference.* The direct pickup (DPU) of a co-channel interfering ambient field by a cable ready device shall not exceed the following criteria. The ratio of the desired to undesired signal levels at the IF passband on each channel shall be at least 45 dB. The average ratio over the six channels shall be at least 50 dB. The desired input signal shall be an NTSC signal having a visual carrier level of 0 dBmV. The visual carrier is modulated

with a 10 IRE flat field with color burst, visual to aural carrier ratio of 10 dB, aural carrier unmodulated. The equipment under test (EUT) shall be placed on a rotatable table that is one meter in height. Any excess length of the power cord and other connecting leads shall be coiled on the floor under the table. The EUT shall be immersed in a horizontally polarized uniform CW field of 100 mV/m at a frequency 2.55 MHz above the visual carrier of the EUT tuned channel. Measurements shall be made with the EUT tuned to six EIA IS-132 channels, two each in the low VHF, high VHF and UHF broadcast bands. On each channel, the levels at the IF passband due to the desired and interfering signals are to be measured.

(4) *Tuner overload.* Spurious signals within the IF passband shall be attenuated at least 55 dB below the visual carrier of the desired channel using a comb-like spectrum input with each visual carrier signal individually set at + 15 dBmV from 54 to 550 MHz. The desired input signal is to be an NTSC signal on which the visual carrier is modulated with a 10 IRE flat field with color burst and the aural carrier is unmodulated and 10 dB below the visual carrier. Measurements shall be made with the receiver tuned to at least seven evenly spaced EIA IS-132 channels covering the band 54 MHz to 550 MHz. In addition, spurious signals within the IF passband shall be attenuated at least 51 dB below the visual carrier of the desired channel using a comb spectrum input with each signal individually set at + 15 dBmV from 550 to 804 MHz. Measurements shall be made with the receiver tuned to at least three evenly spaced EIA IS-132 channels covering the band 550 MHz to 804 MHz.

(5) *Cable input conducted emissions.* (i) Conducted spurious emissions that appear at the cable input to the device must meet the following criteria. The input shall be an NTSC video carrier modulated with a 10 IRE flat field with color burst at a level of 0 dBmV and with a visual to aural ratio of 10 dB. The aural carrier shall be unmodulated. The peak level of the spurious signals will be measured using

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a spectrum analyzer connected by a directional coupler to the cable input of the equipment under test. Spurious signal levels must not exceed the limits in the following table:

From 54 MHz up to and including 300 MHz-26 dBmV
From 300 MHz up to and including 450 MHz-20 dBmV
From 450 MHz up to and including 804 MHz-15 dBmV

(ii) The average of the measurements on multiple channels from 450 MHz up to and including 804 MHz shall be no greater than -20 dBmV. Measurements shall be made with the receiver tuned to at least four EIA IS-132 channels in each of the above bands. The test channels are to be evenly distributed across each of the bands. Measurements for conducted emissions caused by sources internal to the device are to be made in a shielded room. Measurements for conducted emissions caused by external signal sources shall be made in an ambient RF field whose field strength is 100 mV/m, following the same test conditions as described in paragraph (c)(3) of this section.

(d) The field strength of radiated emissions from cable ready consumer electronics equipment shall not exceed the limits in §15.109(a) when measured in accordance with the applicable procedures specified in §§15.31 and 15.35 for unintentional radiators, with the following modifications. During testing the NTSC input signal level is to be +15 dBmV, with a visual to aural ratio of 10 dB. The visual carrier is to be modulated by a 10 IRE flat field with color burst; the aural carrier is to be unmodulated. Measurements are to be taken on six EIA IS-132 channels evenly spaced across the required RF input range of the equipment under test.

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§ 15.119 [Reserved]

§ 15.120 Program blocking technology requirements for television receivers.

(a) Effective July 1, 1999, manufacturers of television broadcast receivers as

defined in section 15.3(w) of this chapter, including personal computer systems meeting that definition, must ensure that one-half of their product models with picture screens 33 cm (13 in) or larger in diameter shipped in interstate commerce or manufactured in the United States comply with the provisions of paragraphs (c), (d), and (e) of this section.

NOTE: This paragraph places no restrictions on the shipping or sale of television receivers that were manufactured before July 1999.

(b) All TV broadcast receivers as defined in §15.3(w), including personal computer systems meeting that definition, with picture screens 33 cm (13 in) or larger, measured diagonally, or with displays in the 16:9 aspect ratio that are 19.8 cm (7.8 in) or greater in height and digital television receivers without an associated display device shipped in interstate commerce or manufactured in the United States shall comply with the provisions of paragraphs (c), (d), and (e) of this section.

(c) *Transmission format.* (1) Analog television program rating information shall be transmitted on line 21 of field 2 of the vertical blanking interval of television signals, in accordance with §73.682(a)(22) of this chapter.

(2) Digital television program rating information shall be transmitted in digital television signals in accordance with §73.682(d) of this chapter.

(d) *Operation.* (1) Analog television receivers will receive program ratings transmitted pursuant to EIA-744: "Transport of Content Advisory Information Using Extended Data Service (XDS)" (incorporated by reference, see §15.38) and EIA-608: "Recommended Practice for Line 21 Data Service" (incorporated by reference, see §15.38). Blocking of programs shall occur when a program rating is received that meets the pre-determined user requirements.

(2) Digital television receivers shall react in a similar manner as analog televisions when programmed to block specific rating categories. Digital television receivers will receive program rating descriptors transmitted pursuant to industry standard EIA/CEA-766-A "U.S. and Canadian Region Rating Tables (RRT) and Content Advisory