

**§ 25.217**

**47 CFR Ch. I (10–1–10 Edition)**

1610 MHz band-segment to an extent determined by linear interpolation from –70 dBW/MHz at 1605 MHz to –10 dBW/MHz at 1610 MHz averaged over any 2 millisecond active transmission interval. The e.i.r.p of discrete emissions of less than 700 Hz bandwidth from such stations shall not exceed a level determined by linear interpolation from –80 dBW at 1605 MHz to –20 dBW at 1610 MHz, averaged over any 2 millisecond active transmission interval.

(h) Mobile earth stations manufactured more than six months after FEDERAL REGISTER publication of the rule changes adopted in FCC 03-283 with assigned uplink frequencies in the 1626.5–1660.5 MHz band shall suppress the power density of emissions in the 1605–1610 MHz band-segment to an extent determined by linear interpolation from –70 dBW/MHz at 1605 MHz to –46 dBW/MHz at 1610 MHz, averaged over any 2 millisecond active transmission interval. The e.i.r.p of discrete emissions of less than 700 Hz bandwidth from such stations shall not exceed a level determined by linear interpolation from –80 dBW at 1605 MHz to –56 dBW at 1610 MHz, averaged over any 2 millisecond active transmission interval.

(i) The e.i.r.p density of carrier-off state emissions from mobile earth stations manufactured more than six months after FEDERAL REGISTER publication of the rule changes adopted in FCC 03-283 with assigned uplink frequencies between 1 and 3 GHz shall not exceed –80 dBW/MHz in the 1559–1610 MHz band averaged over any two millisecond interval.

(j) A Root-Mean-Square detector shall be used for all power density measurements.

[69 FR 5710, Feb. 6, 2004, as amended at 70 FR 19318, Apr. 13, 2005]

**§ 25.217 Default service rules.**

(a) The technical rules in this section apply only to licenses to operate a satellite system in a frequency band granted after a domestic frequency allocation has been adopted for that frequency band, but before any frequency-band-specific service rules have been adopted for that frequency band.

(b)(1) For all NGSO-like satellite licenses for which the application was filed pursuant to the procedures set forth in §25.157 after August 27, 2003, authorizing operations in a frequency band for which the Commission has not adopted frequency band-specific service rules at the time the license is granted, the licensee will be required to comply with the following technical requirements, notwithstanding the frequency bands specified in these rule provisions: §§ 25.142(d), 25.143(b)(2)(ii), 25.143(b)(2)(iii), 25.204(g), 25.210(c), 25.210(d), 25.210(f), 25.210(i), 25.210(k), and 25.210(l).

(2) In addition to the requirements set forth in paragraph (b)(1) of this section, the Commission will coordinate with the National Telecommunications and Information Administration (NTIA) regarding the operations of any licensees authorized to operate in a shared government/non-government frequency band, pursuant to the procedure set forth in §25.142(b)(2)(i).

(3) Earth station licensees authorized to operate with one or more space stations described in paragraph (b)(1) of this section shall comply with the requirements in §25.136. In addition, earth station licensees authorized to operate with one or more space stations described in paragraph (b)(1) of this section in frequency bands shared with terrestrial wireless services shall comply with the requirements in §25.203(c).

(c)(1) For all GSO-like satellite licenses for which the application was filed pursuant to the procedures set forth in §25.158 after August 27, 2003, authorizing operations in a frequency band for which the Commission has not adopted frequency band-specific service rules at the time the license is granted, the licensee will be required to comply with the following technical requirements, notwithstanding the frequency bands specified in these rule provisions: §§ 25.142(d), 25.143(b)(2)(iv), 25.204(g), 25.210(c), 25.210(d), 25.210(f), 25.210(i), 25.210(j), 25.210(k), and 25.210(l).

(2) In addition to the requirements set forth in paragraph (c)(1) of this section, the Commission will coordinate with the National Telecommunications and Information Administration (NTIA) regarding the operations of any

licensees authorized to operate in a shared government/non-government frequency band, pursuant to the procedure set forth in § 25.142(b)(2)(ii).

(3) Earth station licensees authorized to operate with one or more space stations described in paragraph (c)(1) of this section shall comply with the earth station antenna performance verification requirements in § 25.132, and the antenna gain pattern requirements in §§ 25.209(a) and (b). In addition, earth station licensees authorized to operate with one or more space stations described in paragraph (c)(1) of this paragraph in frequency bands shared with terrestrial wireless services shall comply with the requirements in § 25.203(c).

(4) In addition to the requirements set forth in paragraph (c)(3) of this section, earth station licensees with a gain equivalent or higher than the gain of a 1.2 meter antenna operating in the 14.0–14.5 GHz band, authorized to operate with one or more space stations described in paragraph (c)(1) of this paragraph in frequency bands greater than 14.5 GHz shall be required to comply with the antenna input power density requirements set forth in § 25.212(c).

(d) [Reserved]

(e) In the event that the Commission adopts frequency band-specific service rules for a particular frequency band after it has granted one or more space

station or earth station licenses for operations in that frequency band, those licensees will be required to come into compliance with the frequency band-specific service rules within 30 days of the effective date of those rules, unless otherwise specified by either Commission or Bureau Order.

[68 FR 51508, Aug. 27, 2003, as amended at 70 FR 59277, Oct. 12, 2005]

**§ 25.218 Off-axis EIRP envelopes for FSS earth station operations.**

(a) This section applies to all earth station applications, except for:

- (1) ESV and VMES applications,
- (2) Analog video earth station applications,
- (3) Applications for feeder-link earth stations in the 17/24 GHz BSS.

(b) Earth station applications subject to this section are eligible for routine processing if they meet the applicable off-axis EIRP envelope set forth in this section below. For purposes of this section, the term “extended Ku-band” is the 10.7 through 11.7 GHz, 12.75 through 13.25 GHz, and 13.75 through 14.0 GHz band. The term “conventional Ku-band” is defined in § 25.201 of this chapter.

(c) *C-band analog earth station operations.* (1) In the plane of the geostationary satellite orbit as it appears at the particular earth station location:

29.5–25log <sub>10</sub> θ .....	dBW/4 kHz .....	For .....	1.5° ≤ θ ≤ 7°
8.5 .....	dBW/4 kHz .....	For .....	7° < θ ≤ 9.2°
32.5–25log <sub>10</sub> θ .....	dBW/4 kHz .....	For .....	9.2° < θ ≤ 48°
–9.5 .....	dBW/4 kHz .....	For .....	48° < θ ≤ 180°

where θ is the angle in degrees from the line connecting the focal point of the antenna to the target satellite, and the geostationary orbit plane is determined by the focal point of the antenna and the line tangent to the arc of the geostationary satellite orbit at the position of the target satellite. For the purposes of this section, the peak EIRP of an individual sidelobe may not exceed the envelope defined above for θ between 1.5° and 7.0°.

For θ greater than 7.0°, the envelope may be exceeded by no more than 10% of the sidelobes, provided no individual sidelobe exceeds the envelope given above by more than 3 dB.

(2) In all other directions, or in the plane of the horizon including any out-of-plane potential terrestrial interference paths:

32.5–25log <sub>10</sub> θ .....	dBW/4 kHz .....	For .....	3° ≤ θ ≤ 48°
–9.5 .....	dBW/4 kHz .....	For .....	48° < θ ≤ 180°