

(3) Has been submitted for coordination to the International Telecommunication Union.

(d) Earth station applicants requesting authority to operate with a non-U.S.-licensed space station and non-U.S.-licensed satellite operators filing letters of intent or petitions for declaratory ruling to access the U.S. market must demonstrate that the non-U.S.-licensed space station has complied with all applicable Commission requirements for non-U.S. licensed systems to operate in the United States, including but not limited to the following:

- (1) Milestones;
- (2) Reporting requirements;
- (3) Any other applicable service rules;
- (4) For non-U.S.-licensed satellites that are not in orbit and operating, a bond must be posted. This bond must be in the amount of \$5 million for NGSO satellite systems, or \$3 million for GSO satellites, denominated in U.S. dollars, and compliant with the terms of § 25.165 of this chapter. The party posting the bond will be permitted to reduce the amount of the bond upon a showing that a milestone has been met, in accordance with the terms of § 25.165(d) of this chapter.

(5) Non-U.S. licensed GSO-like space station operators with a total of five requests for access to the U.S. market in a particular frequency band, or a total of five previously granted requests for access to the U.S. market with unbuilt GSO-like space stations in a particular frequency band, or a combination of pending GSO-like requests and granted requests for unbuilt GSO-like space stations in a particular frequency band that equals five, will not be permitted to request access to the U.S. market with another GSO-like space station license in that frequency band. In addition, non-U.S.-licensed NGSO-like satellite system operators with one request on file with the Commission in a particular frequency band, or one granted request for an unbuilt NGSO-like satellite system in a particular frequency band, will not be permitted to request access to the U.S. market with another NGSO-like satellite system in that frequency band.

(e) A non-U.S.-licensed satellite operator that is seeking to serve the United States pursuant to a Letter of Intent

may amend its request by submitting an additional Letter of Intent. Such additional Letters of Intent will be treated on the same basis as amendments filed by U.S. space station applicants for purposes of determining the order in which the Letters of Intent will be considered relative to other pending applications.

(f) A non-U.S.-licensed satellite operator that has been permitted to serve the United States pursuant to a Letter of Intent or Petition for Declaratory Ruling, may modify its U.S. operations under the procedures set forth in § 25.117(d). In addition, a non-U.S.-licensed satellite operator that has been permitted to serve the United States pursuant to a Petition for Declaratory Ruling, may modify its U.S. operations under the procedures set forth in § 25.118(e).

(g) A non-U.S.-licensed satellite operator that has been permitted to serve the United States pursuant to a Petition for Declaratory Ruling must notify the Commission if it plans to transfer control or assign its license to another party, so that the Commission can afford interested parties an opportunity to comment on whether the proposed transaction affects any of the considerations we made when we allowed the satellite operator to enter the U.S. market. If the transferee or assignee is not licensed by or seeking a license from a country that is a member of the World Trade Organization for services covered under the World Trade Organization Basic Telecommunications Agreement, the non-U.S.-licensed satellite operator will be required to make the showing described in paragraph (a) of this section.

[62 FR 64172, Dec. 4, 1997, as amended at 64 FR 61792, Nov. 15, 1999; 65 FR 16327, Mar. 28, 2000; 65 FR 59143, Oct. 4, 2000; 68 FR 51503, Aug. 27, 2003; 68 FR 62249, Nov. 3, 2003; 69 FR 51587, Aug. 20, 2004; 78 FR 8422, Feb. 6, 2013]

**§ 25.138 Licensing requirements for GSO FSS Earth Stations in the 18.3–18.8 GHz (space-to-Earth), 19.7–20.2 GHz (space-to-Earth), 28.35–28.6 GHz (Earth-to-space), and 29.25–30.0 GHz (Earth-to-space) bands.**

(a) Applications for earth station licenses in the GSO FSS in the 18.3–18.8 GHz, 19.7–20.2 GHz, 28.35–28.6 GHz, and 29.25–30.0 GHz bands that indicate that

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the following requirements will be met and include the information required by paragraph (d) of this section will be routinely processed:

(1) GSO FSS earth station antenna off-axis EIRP spectral density for co-polarized signals shall not exceed the following values, within  $\pm 3^\circ$  of the GSO arc, under clear sky conditions:

18.5–25log( $\theta$ )–10log(N) .....	dBW/40kHz .....	for $2.0^\circ \leq \theta \leq 7^\circ$
– 2.63–10log(N) .....	dBW/40kHz .....	for $7^\circ \leq \theta \leq 9.23^\circ$
21.5–25log( $\theta$ )–10log(N) .....	dBW/40kHz .....	for $9.23^\circ \leq \theta \leq 48^\circ$
– 10.5–10log(N) .....	dBW/40kHz .....	for $48^\circ < \theta \leq 180^\circ$

Where:

stations in the receive beam of the satellite; N=1 for TDMA and FDMA systems.

$\theta$  is the angle in degrees from the axis of the main lobe; for systems where more than one earth station is expected to transmit simultaneously in the same bandwidth, *e.g.*, CDMA systems,

(2) GSO FSS earth station antenna off-axis EIRP spectral density for co-polarized signals shall not exceed the following values, for all directions other than within  $\pm 3^\circ$  of the GSO arc, under clear sky conditions:

N is the likely maximum number of simultaneously transmitting co-frequency earth

21.5–25log( $\theta$ )–10log(N) .....	dBW/40kHz .....	for $3.5^\circ \leq \theta \leq 7^\circ$
0.37–10log(N) .....	dBW/40kHz .....	for $7^\circ < \theta \leq 9.23^\circ$
24.5–25log( $\theta$ )–10log(N) .....	dBW/40kHz .....	for $9.23^\circ < \theta \leq 48^\circ$
– 7.5–10log(N) .....	dBW/40kHz .....	for $48^\circ < \theta \leq 180^\circ$

Where:

ceeded by 3 dB, for values of  $\theta > 10^\circ$ , provided that the total angular range over which this occurs does not exceed  $20^\circ$  when measured along both sides of the GSO arc.

$\theta$ : is the angle in degrees from the axis of the main lobe; for systems where more than one earth station is expected to transmit simultaneously in the same bandwidth, *e.g.*, CDMA systems.

N: is the likely maximum number of simultaneously transmitting co-frequency earth stations in the receive beam of the satellite; N=1 for TDMA and FDMA systems.

(4) GSO FSS earth station antenna off-axis EIRP spectral density for cross-polarized signals shall not exceed the following values, in all directions relative to the GSO arc, under clear sky conditions:

(3) The values given in paragraphs (a) (1) and (2) of this section may be ex-

8.5–25log( $\theta$ )–10log(N) .....	dBW/40 kHz .....	For .....	$2.0^\circ < \theta \leq 7.0^\circ$
– 12.63–10log(N) .....	dBW/40 kHz .....	For .....	$7.0^\circ < \theta \leq 9.23^\circ$

where  $\theta$  is the angle in degrees from the axis of the main lobe. For systems where more than one earth station is expected to transmit simultaneously in the same bandwidth, *e.g.*, CDMA systems, N is the likely maximum number of simultaneously transmitting co-frequency earth stations in the receive beam of the satellite. N=1 for TDMA and FDMA systems.

(6) Power flux-density (PFD) at the Earth’s surface produced by emissions from a space station for all conditions, including clear sky, and for all methods of modulation shall not exceed a level of  $-118$  dBW/m<sup>2</sup>/MHz, in addition to the limits specified in § 25.208 (d).

(5) [Reserved]

(b) An applicant proposing levels in excess of those specified in paragraph

(a) of this section must certify that operators of all co-frequency GSO FSS space stations within 6 degrees of the proposed satellite point(s) of communication are aware of the applicant's proposal to operate with the higher power densities and have stated that they have no objection to such operation.

(c) Licensees authorized pursuant to paragraph (b) of this section shall bear the burden of coordinating with any future applicants or licensees whose proposed compliant operations at 6 degrees or smaller orbital spacing, as defined by paragraph (a) of this section, is potentially or actually adversely affected by the operation of the non-compliant licensee. If no good faith agreement can be reached, however, the non-compliant licensee shall reduce its earth station and space station power density levels to be compliant with those specified in paragraph (a) of this section.

(d)(1) Except as provided in paragraph (d)(2) of this section, the applicant must provide, for each earth station antenna type, a series of radiation patterns measured on a production antenna. The measurements must be performed on a calibrated antenna range and, at a minimum, must be made at the bottom, middle, and top frequencies of each requested uplink band. The radiation patterns are:

(i) Co-polarized patterns in the E- and H-planes for linear-polarized antennas or in two orthogonal planes for circularly-polarized antennas:

(A) In the azimuth plane, plus and minus 10 degrees and plus and minus 180 degrees from beam peak.

(B) In the elevation plane, 0 to 30 degrees.

(ii) Cross-polarization patterns in the E- and H-planes for linear-polarized antennas or in two orthogonal planes for circularly-polarized antennas, plus and minus 10 degrees from beam peak.

(iii) Main beam gain.

(2) For antennas more than 3 meters in diameter that will only be assembled on-site, on-site measurements may be submitted. If on-site data is to be submitted, the test frequencies and number of patterns should follow, where possible, the requirements in paragraph (d)(1) of this section for at least

one frequency. Certification that the on-site testing has been satisfactorily performed must be included with the certification filed pursuant to § 25.133(b).

(e) Protection of downlink reception from adjacent satellite interference is based on either the antenna performance specified in § 25.209 (a) and (b), or the actual receiving earth station antenna performance, if actual performance provides greater isolation from adjacent satellite interference. For purposes of ensuring the correct level of protection, the applicant must provide, for each earth station antenna type, antenna performance plots for the 18.3–18.8 GHz and 19.7–20.2 GHz bands in the format prescribed in paragraph (d) of this section.

(f) The holder of a blanket license pursuant to this section will be responsible for operation of any transceiver to receive service provided by that licensee or provided by another party with the blanket licensee's consent. Space station operators may not transmit communications to or from user transceivers in the United States in the 18.3–18.8 GHz, 19.7–20.2 GHz, 28.35–28.6 GHz, or 29.25–30.0 GHz band unless such communications are authorized under an FCC earth station license.

(g) A licensee applying for renewal of a license issued pursuant to this section must specify on FCC Form 312R the number of constructed earth stations.

[65 FR 54169, Sept. 7, 2000, as amended at 66 FR 63515, Dec. 7, 2001; 68 FR 16966, Apr. 8, 2003; 69 FR 5710, Feb. 6, 2004; 73 FR 70900, Nov. 24, 2008; 79 FR 8319, Feb. 12, 2014]

**§ 25.139 NGSO FSS coordination and information sharing between MVDDS licensees in the 12.2 GHz to 12.7 GHz band.**

(a) NGSO FSS licensees shall maintain a subscriber database in a format that can be readily shared with MVDDS licensees for the purpose of determining compliance with the MVDDS transmitting antenna spacing requirement relating to qualifying existing NGSO FSS subscriber receivers set forth in § 101.129 of this chapter. This information shall not be used for purposes other than set forth in § 101.129 of