

§ 25.254

causing interference to U.S. radio astronomy service (RAS) observations in the 1660–1660.5 MHz band.

(3) Not generate EIRP density, averaged over any two-millisecond active transmission interval, greater than –70 dBW/MHz in the 1559–1605 MHz band or greater than a level determined by linear interpolation in the 1605–1610 MHz band, from –70 dBW/MHz at 1605 MHz to –46 dBW/MHz at 1610 MHz. The EIRP, averaged over any two-millisecond active transmission interval, of discrete out-of-band emissions of less than 700 Hz bandwidth from such mobile terminals shall not exceed –80 dBW in the 1559–1605 MHz band or exceed a level determined by linear interpolation in the 1605–1610 MHz band, from –80 dBW at 1605 MHz to –56 dBW at 1610 MHz. The EIRP density of carrier-off-state emissions from such mobile terminals shall not exceed –80 dBW/MHz in the 1559–1610 MHz band, averaged over a two-millisecond interval. A root-mean-square detector function with a resolution bandwidth of one megahertz or equivalent and no less video bandwidth shall be used to measure wideband EIRP density for purposes of this rule, and narrowband EIRP shall be measured with a root-mean-square detector function with a resolution bandwidth of one kilohertz or equivalent.

(h) When implementing multiple base stations and/or base stations using multiple carriers, where any third-order intermodulation product of these base stations falls on an L-band MSS band coordinated for use by another MSS operator with rights to the coordinated band, the MSS ATC licensee must notify the MSS operator. The MSS operator may request coordination to modify the base station carrier frequencies, or to reduce the maximum base station EIRP on the frequencies contributing to the third-order intermodulation products. The threshold for this notification and coordination is when the sum of the calculated signal levels received by an MSS receiver exceeds –70 dBm. The MSS receiver used in these calculations can be assumed to have an antenna with 0 dBi gain. Free-space propagation between the base station antennas and the MSS terminals can be assumed and actual signal

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polarizations for the ATC signals and the MSS system may be used.

[70 FR 19319, Apr. 13, 2005]

§ 25.254 Special requirements for ancillary terrestrial components operating in the 1610–1626.5 MHz/2483.5–2500 MHz bands.

(a) An applicant for an ancillary terrestrial component in these bands must demonstrate that ATC base stations shall:

(1) Not exceed a peak EIRP of 32 dBW in 1.25 MHz;

(2) Not cause unacceptable interference to systems identified in paragraph (c) of this section and, in any case, shall not exceed out-of-channel emissions of –44.1 dBW/30 kHz at the edge of the MSS licensee's authorized frequency assignment;

(3) At the time of application, that it has taken, or will take steps necessary to avoid causing interference to other services sharing the use of the 2450–2500 MHz band through frequency coordination; and

(4) Base stations operating in frequencies above 2483.5 MHz shall not generate EIRP density, averaged over any two-millisecond active transmission interval, greater than –70 dBW/MHz in the 1559–1610 MHz band. The EIRP, averaged over any two-millisecond active transmission interval, of discrete out-of-band emissions of less than 700 Hz bandwidth from such base stations shall not exceed –80 dBW in the 1559–1610 MHz band. A root-mean-square detector function with a resolution bandwidth of one megahertz or equivalent and no less video bandwidth shall be used to measure wideband EIRP density for purposes of this rule, and narrowband EIRP shall be measured with a root-mean-square detector function with a resolution bandwidth of one kilohertz or equivalent.

(b) An applicant for an ancillary terrestrial component in these bands must demonstrate that mobile terminals shall:

(1) Meet the requirements contained in § 25.213 to protect radio astronomy service (RAS) observations in the 1610.6–1613.8 MHz band from unacceptable interference;

(2) Observe a peak EIRP limit of 1.0 dBW in 1.25 MHz;

(3) Observe an out-of-channel EIRP limit of -57.1 dBW/30 kHz at the edge of the licensed MSS frequency assignment.

(4) ATC mobile terminals operating in assigned frequencies in the 1610–1626.5 MHz band shall not generate EIRP density, averaged over any two-millisecond active transmission interval, greater than -70 dBW/MHz in the 1559–1605 MHz band or greater than a level determined by linear interpolation in the 1605–1610 MHz band, from -70 dBW/MHz at 1605 MHz to -10 dBW/MHz at 1610 MHz. The EIRP, averaged over any two-millisecond active transmission interval, of discrete out-of-band emissions of less than 700 Hz bandwidth from such mobile terminals shall not exceed -80 dBW in the 1559–1605 MHz band or exceed a level determined by linear interpolation in the 1605–1610 MHz band, from -80 dBW at 1605 MHz to -20 dBW at 1610 MHz. The EIRP density of carrier-off-state emissions from such mobile terminals shall not exceed -80 dBW/MHz in the 1559–1610 MHz band, averaged over a two-millisecond interval. A root-mean-square detector function with a resolution bandwidth of one megahertz or equivalent and no less video bandwidth shall be used to measure wideband EIRP density for purposes of this rule, and narrowband EIRP shall be measured with a root-mean-square detector function with a resolution bandwidth of one kilohertz or equivalent.

(c) Applicants for an ancillary terrestrial component to be used in conjunction with a mobile-satellite service system using CDMA technology shall coordinate the use of the Big LEO MSS spectrum designated for CDMA systems using the framework established by the ITU in Recommendation ITU-R M.1186 “Technical Considerations for the Coordination Between Mobile Satellite Service (MSS) Networks Utilizing Code Division Multiple Access (CDMA) and Other Spread Spectrum Techniques in the 1–3 GHz Band” (1995). Recommendation ITU-R M.1186 is incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of this standard can be inspected at the Federal Communica-

tions Commission, 445 12th Street, SW., Washington, DC (Reference Information Center) or 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. The ITU-R Recommendations can also be purchased from the International Telecommunication Union (ITU), Place des Nations, CH-1211 Geneva 20, Switzerland.

NOTE to §25.254: The preceding rules of §25.254 are based on cdma2000 and IS-95 system architecture. To the extent that a Big LEO MSS licensee is able to demonstrate that the use of different system architectures would produce no greater potential interference than that produced as a result of implementing the rules of this section, an MSS licensee is permitted to apply for ATC authorization based on another system architecture.

[68 FR 33653, June 5, 2003, as amended at 69 FR 18803, Apr. 9, 2004; 70 FR 19320, Apr. 13, 2005]

§ 25.255 Procedures for resolving harmful interference related to operation of ancillary terrestrial components operating in the 1.5/1.6 GHz, 1.6/2.4 GHz and 2 GHz bands.

If harmful interference is caused to other services by ancillary MSS ATC operations, either from ATC base stations or mobile terminals, the MSS ATC operator must resolve any such interference. If the MSS ATC operator claims to have resolved the interference and other operators claim that interference has not been resolved, then the parties to the dispute may petition the Commission for a resolution of their claims.

[68 FR 33653, June 5, 2003]

§ 25.256 Special Requirements for operations in the 3.65–3.7 GHz band.

Upon request from a terrestrial licensee authorized under Subpart Z, Part 90 that seeks to place base and fixed stations in operation within 150 km of a primary earth station, licensees of earth stations operating on a primary basis in the fixed satellite service in the 3.65–3.7 GHz band must negotiate in good faith with that terrestrial licensee to arrive at mutually agreeable