

Annex – FCC Regulations regarding MVDDS/NGSO FSS sharing in 12 GHz Band

§101.103 Frequency coordination procedures.

(f) *Coordination and information sharing between MVDDS and NGSO FSS licensees in the 12.2 GHz to 12.7 GHz band.* Prior to the construction or addition of an MVDDS transmitting antenna in this frequency band, the MVDDS licensee shall provide notice of intent to construct the proposed antenna site to NGSO FSS licensees operating in the 12.2-12.7 GHz frequency band and maintain an Internet web site of all existing transmitting sites and transmitting antennas that are scheduled for operation within one year including the “in service” dates. In addition to the location of a proposed new transmitting antenna, MVDDS licensees shall provide to the NGSO FSS licensees a technical description of the operating characteristics of the proposed transmission facility. At a minimum, the following information must be included in each notification:

- Name of MVDDS licensee
- Geographic location (including NAD83 coordinates) of proposed MVDDS transmitting antenna
- Maximum EIRP per 24 MHz
- Height above average terrain of the transmitting antenna
- Type of antenna to be utilized
- Main beam azimuth and altitude orientation for the proposed transmitting antenna
- Theoretically modeled antenna radiation pattern
- Type(s) of emissions
- Description of the proposed service area.

If the proposed MVDDS antenna site does not meet the minimum spacing requirements on the date of original notification or on subsequent annual anniversary dates of non-operation as set forth in §101.129 of this part, then the MVDDS licensee shall not construct the proposed transmission facility unless all NGSO FSS licensees having active subscribers within the minimum separation distance agree to a shorter spacing. Nothing in this section shall preclude MVDDS and NGSO FSS licensees from agreeing to accept the siting of new MVDDS transmitting antennas that do not meet the minimum distance set forth in §101.129 of this part. Incumbent point-to-point licensees (those not licensed as MVDDS) facilities are to be operated in the band 12,200-12,700 MHz following the procedures, technical standards, and requirements of § 101.105 of this part in order to protect stations providing Direct Broadcast Satellite Service.

§101.105 Interference protection criteria.

(i) To accommodate co-primary NGSO FSS earth stations in the 12.2-12.7 GHz band, the PFD of an MVDDS transmitting system must not exceed -135 dBW/m² in any 4 kHz band at a reference point at the surface of the earth at a distance greater than 3 kilometers from the MVDDS transmitting antenna.

§ 101.113 Transmitter power limitations.

The EIRP for MVDDS stations is limited to 14.0 dBm per 24 MHz (-16.0 dBW per 24 MHz). Incumbent point-to-point stations may use up to +50 dBW except for low power systems which were licensed under Section 101.147(q) of this part.

§101.129 Transmitter location.

(b) In the 12.2-12.7 GHz band, licensees must not locate MVDDS transmitting antennas within 10 km of any qualifying NGSO FSS receiver unless mutual agreement is obtained between the MVDDS and NGSO FSS licensees. Such agreements must be retained by the licensees and made available for inspection by interested parties upon request.

(1) A qualifying NGSO FSS receiver, for the purposes of this section, is deemed to be one that is in regular use by an NGSO FSS subscriber for normal reception purposes in the 12.2-12.7 GHz band and

not one for monitoring or testing purposes. In addition, qualifying receivers must either be in operation on the date or already be under construction and then operating within thirty days of the date that the MVDDS licensee notifies the NGSO FSS licensee of its intent to construct a new MVDDS transmitting antenna at a specified location.

(2) Except as provided in section (b)(3) below, the 10 kilometer spacing requirement for each MVDDS transmitting antenna site shall not apply with respect to NGSO FSS receivers that might be installed or become operational (except for those under construction and operating within thirty days as specified in paragraph (b)(1) of this section) subsequent to the original date that the MVDDS licensee provided notice of its intention to construct a given transmission facility.

(3) In the event that a proposed MVDDS transmitting antenna for which notice has been duly given to the NGSO FSS licensees has not been placed in normal operation within one calendar year of the date of notice, then the MVDDS licensee loses the benefit of the original notice. Upon such anniversary, the MVDDS licensees must re-determine compliance with the minimum 10 kilometer spacing requirement based upon locations of qualifying NGSO FSS receivers on that anniversary date. A new determination of compliance with the spacing requirement shall be made for each succeeding anniversary of non-operation for each proposed MVDDS transmission site or additional antenna. This provision contemplates that failure to commence normal operation at a given MVDDS transmitting antenna site within one year of the date of NGSO FSS notification may require successive relocations of the proposed transmitter site in order to meet the minimum spacing distance as determined on each anniversary of non-operation.

§ 25.208 Power flux density limits.

(o) In the band 12.2-12.7 GHz, for NGSO FSS space stations, the low-angle power flux-density at the Earth's surface produced by emissions from a space station for all conditions and for all methods of modulation shall not exceed the lower of the following values:

-158 dB(W/m²) in any 4 kHz band for angles of arrival between 0 and 2 degrees above the horizontal plane; and

-158+ 3.33(δ-2) dB(W/m²) in any 4 kHz band for angles of arrival (δ) (in degrees) between 2 and 5 degrees above the horizontal plane.

Note to paragraph (o): These limits relate to the power flux density, which would be obtained under assumed free-space propagation conditions.