

and receiving antennas meeting performance standard B in any area. If a Fixed Service or Fixed Satellite Service licensee or applicant makes a showing that it is likely to receive interference from such fixed station and that such interference would not exist if the fixed station used an antenna meeting performance standard A, the fixed station licensee must modify its use. Specifically, the fixed station licensee must either substitute an antenna meeting performance standard A or operate its system with an EIRP reduced so as not to radiate, in the direction of the other licensee, an EIRP in excess of that which would be radiated by a station using a Category A antenna and operating with the maximum EIRP allowed by the rules. A licensee or prior applicant using an antenna that does not meet performance Standard A may object to a prior coordination notice based on interference only if such interference would be predicted to exist if the licensee or prior

applicant used an antenna meeting performance standard A.

(g) In the event harmful interference is caused to the operation of other stations, the Commission may, after notice and opportunity for hearing, order changes to be made in the height, orientation, gain and radiation pattern of the antenna system.

[61 FR 26677, May 28, 1996, as amended at 62 FR 4924, Feb. 3, 1997; 62 FR 24582, May 6, 1997; 63 FR 6105, Feb. 6, 1998; 65 FR 38329, June 20, 2000; 65 FR 59358, Oct. 5, 2000; 67 FR 43038, June 26, 2002; 68 FR 4957, Jan. 31, 2003; 69 FR 3267, Jan. 23, 2004; 70 FR 29997, May 25, 2005; 72 FR 55677, Oct. 1, 2007; 73 FR 55775, Sept. 26, 2008]

EFFECTIVE DATE NOTE: At 76 FR 59572, Sept. 27, 2011, §101.115 was amended by adding the entry “6.875–7.125” to the table in paragraph (b), effective October 27, 2011. For the convenience of the user, the added text is set forth as follows:

§ 101.115 Directional antennas.

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(b) * * *

ANTENNA STANDARDS

| Frequency (MHz) | Category | Maximum beamwidth to 3 dB points ¹ (included angle in degrees) | Minimum antenna gain (dBi) | Minimum radiation suppression to angle in degrees from centerline of main beam in decibels | | | | | | | |
|----------------------|----------|---|----------------------------------|---|---------------|---------------|---------------|----------------|--------------------|--------------------|---|
| | | | | 5° to 10° | 10° to 15° | 15° to 20° | 20° to 30° | 30° to 100° | 100° to 140° | 140° to 180° | |
| * | * | * | * | | | | | | | | * |
| 6,875 to 7,125 | A | 2.2 | 38 | 25 | 29 | 33 | 36 | 42 | 55 | 55 | |
| | B | 2.2 | 38 | 21 | 25 | 29 | 32 | 35 | 39 | 45 | |
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§ 101.117 Antenna polarization.

Except as set forth herein, stations operating in the radio services included in this part are not limited as to the type of polarization of the radiated signal that may be employed. However, in the event interference in excess of permissible levels is caused to the operation of other stations as a result of employing other than linear polarization, the Commission may order a licensee to change its system polarization to mitigate the interference. No

change in polarization may be made without prior authorization from the Commission. Unless otherwise allowed, only linear polarization (horizontal and vertical) shall be used. For LMDS systems, unless otherwise authorized, system operators are permitted to use any polarization within its service area, but only vertical and/or horizontal polarization for antennas located within 20 kilometers of the outermost edge of their service area.

[68 FR 4957, Jan. 31, 2003]