

(3) For demonstrating compliance with the attenuation requirements for frequency modulation and digital modulation in paragraph (a) of this section, the resolution bandwidth ( $B_{RES}$ ) of the measuring equipment used for measurements removed from the center frequency by more than 250 percent of the authorized bandwidth shall be 100 kHz for operating frequencies below 1 GHz, and 1 MHz for operating frequencies above 1 GHz. The resolution bandwidth for frequencies removed from the center frequency by less than 250 percent of the authorized bandwidth shall be the reference bandwidth ( $B_{REF}$ ) specified in the individual emission limitations, but may be reduced to not less than one percent of the authorized bandwidth ( $B$ ), adjusted upward to the nearest greater resolution bandwidth available on the measuring equipment. In all cases, if  $B_{RES}$  and  $B_{REF}$  are not equal, then the attenuation requirement must be increased (or decreased) as determined by a factor of  $10 \log_{10} [(B_{REF} \text{ in megahertz}) / (B_{RES} \text{ in megahertz})]$  decibels, where a positive factor indicates an increase in the attenuation requirement and a negative factor indicates a decrease in the attenuation requirement.

(4) Stations licensed pursuant to an application filed before March 17, 2005, using equipment not conforming with the emission limitations specified above, may continue to operate indefinitely in accordance with the terms of their current authorizations, subject to periodic renewal. Existing equipment and equipment of product lines in production before April 16, 2003, authorized via certification or verification before March 17, 2005, for equipment not conforming to the emission limitations requirements specified above, may continue to be manufactured and/or marketed, but may not be authorized for use under a station license except at stations licensed pursuant to an application filed before March 17, 2005. Any non-conforming equipment authorized under a station license, and replaced on or after March 17, 2005, must be replaced by conforming equipment.

(e) The following limitations apply to the operation of aural broadcast microwave booster stations:

(1) The booster station must receive and amplify the signals of the originating station and retransmit them on the same frequency without significantly altering them in any way. The characteristics of the booster transmitter output signal shall meet the requirements applicable to the signal of the originating station.

(2) The licensee is responsible for correcting any condition of interference that results from the radiation of radio frequency energy outside the assigned channel. Upon notice by the FCC to the station licensee that interference is being caused, operation of the apparatus must be immediately suspended and may not be resumed until the interference has been eliminated or it can be demonstrated that the interference is not due to spurious emissions. However, short term test transmissions may be made during the period of suspended operation to determine the efficacy of remedial measures.

(3) In each instance where suspension of operation is required, the licensee must submit a full report to the FCC after operation is resumed. The report must contain details of the nature of the interference, the source of interfering signals, and the remedial steps taken to eliminate the interference.

[28 FR 13716, Dec. 14, 1963, as amended at 48 FR 50332, Nov. 1, 1983; 49 FR 7130, Feb. 27, 1984; 49 FR 37777, Sept. 26, 1984; 50 FR 48599, Nov. 26, 1985; 68 FR 12766, March 17, 2003.]

#### § 74.536 Directional antenna required.

(a) Aural broadcast STL and ICR stations are required to use a directional antenna with the minimum beamwidth necessary, consistent with good engineering practice, to establish the link.

(b) An aural broadcast STL or intercity relay station operating in the 17.7–19.7 GHz band shall employ an antenna that meets the performance standards for Category A, except that in areas not subject to frequency congestion, antennas meeting standards for Category B may be employed. However, the Commission may require the replacement, at the licensee's expense, of any antenna or periscope antenna system of a permanent fixed station that does not meet performance Standard A,

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which is specified in the table in paragraph (c) of this section, upon a showing that said antenna causes or is likely to cause interference to (or receive interference from) any other authorized or proposed station; provided that an antenna meeting performance Standard A is unlikely to involve such interference.

(c) Licensees shall comply with the antenna standards table shown in this paragraph in the following manner:

(1) With either the maximum beamwidth to 3 dB points requirement or with the minimum antenna gain requirement; and

(2) With the minimum radiation suppression to angle requirement.

**ANTENNA STANDARDS**

Frequency (GHz)	Category	Maximum beamwidth to 3 dB points <sup>1</sup> (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°
17.7 to 19.7 .....	A	2.2	38	25	29	33	36	42	55	55
	B	2.2	38	20	24	28	32	35	36	36

<sup>1</sup> If a licensee chooses to show compliance using maximum beamwidth to 3 dB points, the beamwidth limit shall apply in both the azimuth and the elevation planes.

[48 FR 50333, Nov. 1, 1983, as amended at 49 FR 7130, Feb. 27, 1984; 50 FR 48599, Nov. 26, 1985; 51 FR 19840, June 3, 1986; 62 FR 4922, Feb. 3, 1997; 68 FR 12767, Mar. 17, 2003]

**§ 74.537 Temporary authorizations.**

(a) Special temporary authority may be granted for aural broadcast STL or intercity relay station operation which cannot be conducted in accordance with § 74.24. Such authority will normally be granted only for operations of a temporary nature. Where operation is seen as likely on a continuing annual basis, an application for a regular authorization should be submitted.

(b) A request for special temporary authority for the operation of an aural broadcast STL or an intercity relay station must be made in accordance with the procedures of § 1.931(b) of this chapter.

(c) All requests for special temporary authority of an aural broadcast auxiliary stations must include full particulars including: licensee's name and address, facility identification number of the associated broadcast station(s), call letters of the aural broadcast STL or intercity relay station, if assigned, type and manufacturer of equipment, effective isotropic radiated power, emission, frequency or frequencies proposed for use, commencement and termination date and location of the proposed operation, and purpose for which request is made including any particular justification.

(d) A request for special temporary authorization shall specify a frequency or frequencies consistent with the provisions of § 74.502. However, in the case of events of widespread interest and importance which cannot be transmitted successfully on these frequencies, frequencies assigned to other services may be requested upon a showing that operation thereon will not cause interference to established stations. In no case will operation of an aural broadcast STL or intercity relay station be authorized on frequencies employed for the safety of life or property.

(e) When the transmitting equipment utilized is not licensed to the user, the user shall nevertheless have full control over the use of the equipment during the period it is operated.

(f) Special temporary authorization to permit operation of aural broadcast STL or intercity relay stations or systems pending FCC action on an application for regular authority will normally not be granted.

[47 FR 9220, Mar. 4, 1982, as amended at 50 FR 23709, June 5, 1985; 58 FR 19775, Apr. 16, 1993; 68 FR 12767, Mar. 17, 2003]