

Federal Communications Commission

§ 74.462

transmitting equipment which the licensee is authorized to use.

(Sec. 5, 48 Stat. 1068; 47 U.S.C. 155)

[41 FR 29686, July 19, 1976, as amended at 42 FR 14728, Mar. 16, 1977; 42 FR 43636, Aug. 30, 1977; 43 FR 14661, Apr. 7, 1978; 45 FR 28142, Apr. 28, 1980; 63 FR 36604, July 7, 1998; 68 FR 12765, Mar. 17, 2003]

§ 74.452 Equipment changes.

(a) Modifications may be made to an existing authorization in accordance with §§ 1.929 and 1.947 of this chapter.

(b) All transmitters initially installed after November 30, 1977, must be certificated for use in this service or other service as specified in § 74.451(a).

[68 FR 12765, Mar. 17, 2003]

§ 74.461 Transmitter power.

(a) Transmitter power is the power at the transmitter output terminals and delivered to the antenna, antenna transmission line, or any other impedance-matched, radio frequency load. For the purpose of this Subpart, the transmitter power is the carrier power.

(b) The authorized transmitter power for a remote pickup broadcast station shall be limited to that necessary for satisfactory service and, in any event, shall not be greater than 100 watts, except that a station to be operated

aboard an aircraft shall normally be limited to a maximum authorized power of 15 watts. Specific authorization to operate stations on board aircraft with an output power exceeding 15 watts will be issued only upon an adequate engineering showing of need, and of the procedures that will be taken to avoid harmful interference to other licensees.

(Sec. 5, 48 Stat. 1068; 47 U.S.C. 155)

[41 FR 29686, July 19, 1976, as amended at 43 FR 14662, Apr. 7, 1978]

§ 74.462 Authorized bandwidth and emissions.

(a) Each authorization for a new remote pickup broadcast station or system shall require the use of certificated equipment and such equipment shall be operated in accordance with emission specifications included in the grant of certification and as prescribed in paragraphs (b), (c), and (d) of this section.

(b) The maximum authorized bandwidth of emissions corresponding to the types of emissions specified below, and the maximum authorized frequency deviation in the case of frequency or phase modulated emission, shall be as follows:

Frequencies	Authorized bandwidth (kHz)	Maximum frequency deviation ¹ (kHz)	Type of emission ²
MHz:			
25.87 to 26.03	40	10	Frequencies 25.87 to 153.3575 MHz: A3E, F1E, F3E, F9E.
26.07 to 26.47	20	5	
152.8625 to 153.3575 ³	30/60	5/10	
160.860 to 161.400	60	10	
161.625 to 161.775	30	5	
166.25 and 170.15 ⁴	12.5/25	5	
450.00625 to 450.025	Frequencies 160.860 to 455.950 MHz: A1A, A1B, A1D, A1E, A2A, A2B, A2D, A2E, A3E, F1A, F1B, F1D, F1E, F2A, F2B, F2D, F2E, F3E, F9E.		
450.98125 to 450.99375			
455.00625 to 455.025			
455.98125 to 455.99375			
.....			
Up to 12.5			
.....			
1.5			
450.03125 to 450.61875			
455.03125 to 455.61875	Up to 25	5	
450.6375 to 450.8625			
455.6375 to 455.8625	25-50	10	
450.900, 450.950			
455.900, 455.950	50-100	35	

¹ Applies where F1A, F1B, F1D, F1E, F2A, F2B, F2D, F2E, F3E, or F9E emissions are used.
² Stations operating above 450 MHz shall show a need for employing A1A, A1B, A1D, A1E, A2A, A2B, A2D, A2E, F1A, F1B, F1D, F1E, F2A, F2B, F2D, or F2E emission.

§ 74.463

47 CFR Ch. I (10–1–08 Edition)

³New or modified licenses for use of the frequencies will not be granted to utilize transmitters on board aircraft, or to use a bandwidth in excess of 30 kHz and maximum deviation exceeding 5 kHz.

⁴For stations licensed or applied for before April 16, 2003, the sum of the bandwidth of emission and tolerance on frequencies 166.25 MHz or 170.15 MHz shall not exceed 25 kHz, and such operation may continue until January 1, 2005. For new stations licensed or applied for on or after April 16, 2003, the sum of the bandwidth of emission and tolerance on these frequencies shall not exceed 12.5 kHz. For all remote pickup broadcast stations, the sum of the bandwidth of emission and tolerance on these frequencies shall not exceed 12.5 kHz on or after January 1, 2005.

(c) For emissions on frequencies above 25 MHz with authorized bandwidths up to 30 kHz, the emissions shall comply with the emission mask and transient frequency behavior requirements of §§ 90.210 and 90.214 of this chapter. For all other emissions, the mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the following schedule:

(1) On any frequency removed from the assignment frequency by more than 50 percent up to and including 100 percent of the authorized bandwidth: at least 25 dB;

(2) On any frequency removed from the assigned frequency by more than 100 percent up to and including 250 percent of the authorized bandwidth: at least 35 dB;

(3) On any frequency removed from the assigned frequency by more than 250 percent on the authorized bandwidth: at least 43 plus 10 log¹⁰ (mean output power, in watts) dB.

(d) In the event a station's emissions outside its authorized channel cause harmful interference, the Commission may, at its discretion, require the licensee to take such further steps as may be necessary to eliminate the interference.

NOTE: The measurements of emission power can be expressed in peak or mean values provided they are expressed in the same parameters as the unmodulated transmitter carrier power.

(Sec. 5, 48 Stat. 1068; 47 U.S.C. 155)

[41 FR 29686, July 19, 1976, as amended at 41 FR 32429, Aug. 3, 1976; 41 FR 35068, Aug. 19, 1976; 43 FR 14662, Apr. 7, 1978; 43 FR 38391, Aug. 28, 1978; 44 FR 65765, Nov. 15, 1979; 56 FR 28498, June 21, 1991; 63 FR 36604, July 7, 1998; 68 FR 12765, Mar. 17, 2003; 68 FR 25540, May 13, 2003]

§ 74.463 Modulation requirements.

(a) Each new remote pickup broadcast station authorized to operate with a power output in excess of 3 watts shall be equipped with a device which

will automatically prevent modulation in excess of the limits set forth in this subpart.

(b) If amplitude modulation is employed, modulation shall not exceed 100 percent on negative peaks.

(c) If frequency modulation is employed, emission shall conform to the requirements specified in § 74.462.

[41 FR 29686, July 19, 1976, as amended at 47 FR 54448, Dec. 3, 1982]

§ 74.464 Frequency tolerance.

For operations on frequencies above 25 MHz using authorized bandwidths up to 30 kHz, the licensee of a remote pickup broadcast station or system shall maintain the operating frequency of each station in compliance with the frequency tolerance requirements of § 90.213 of this chapter. For all other operations, the licensee of a remote pickup broadcast station or system shall maintain the operating frequency of each station in accordance with the following:

Frequency range	Tolerance (percent)	
	Base station	Mobile station
25 to 30 MHz:		
3 W or less .....	.002	.005
Over 3 W .....	.002	.002
30 to 300 MHz:		
3 W or less .....	.0005	.005
Over 3 W .....	.0005	.0005
300 to 500 MHz, all powers .....	.00025	.0005

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082 (47 U.S.C. 154, 155, 303))

[41 FR 29686, July 19, 1976, as amended at 42 FR 2071, Jan. 10, 1977; 43 FR 38391, Aug. 28, 1978; 44 FR 65765, Nov. 15, 1979; 68 FR 12766, Mar. 17, 2003; 68 FR 25540, May 13, 2003]

§ 74.465 Frequency monitors and measurements.

The licensee of a remote pickup station or system shall provide the necessary means to assure that all operating frequencies are maintained within the allowed tolerances.

[51 FR 4603, Feb. 6, 1986]