

§ 101.807 Transmitter power.

Stations in this service will not be authorized to use transmitters having a rated power output in excess of the limits set forth in §101.113(b) and a standby transmitter having a rated power output in excess of that of the main transmitter with which it is associated will not be authorized. As an exception, operations on frequencies listed in §§74.602(a), 78.18(a)(6), and 78.18(a)(7) of this chapter are subject to the power limitations of §§74.636 and 78.101(a).

[68 FR 12777, Mar. 17, 2003]

§ 101.809 Bandwidth and emission limitations.

(a) Stations in this service operating on frequencies in the 27.23–27.28 MHz band will be authorized to employ only amplitude modulated or frequency modulated emission for radiotelephony. The authorization to use such emissions will be construed to include authority to employ unmodulated emission only for temporary or short periods necessary for equipment testing incident to the construction and maintenance of the station.

(b) Stations in the service operating on frequencies above 940 MHz may be authorized to use amplitude modulated, frequency modulated or pulse type of emission for radiotelephony and television. In addition, the use of unmodulated emission may be authorized in appropriate cases.

(c) The maximum bandwidths which will normally be authorized for single channel operation on frequencies below 500 MHz in this service must not exceed the limits set forth below:

| Type of emission   | Authorized bandwidth (kHz) |
|--------------------|----------------------------|
| A3E .....          | 8                          |
| F3E or (G3E) ..... | 40                         |

(d) Maximum bandwidths in the following frequency bands must not exceed the limits set forth below:

| MAXIMUM AUTHORIZED   |                 |
|----------------------|-----------------|
| Frequency band (MHz) | Bandwidth (MHz) |
| 3,700 to 4,200 ..... | 120             |

MAXIMUM AUTHORIZED—Continued

| Frequency band (MHz)   | Bandwidth (MHz)   |
|------------------------|-------------------|
| 5,925 to 6,425 .....   | 130               |
| 6,425 to 6,525 .....   | 25                |
| 10,700 to 12,200 ..... | 1 <sup>2</sup> 40 |
| 13,200 to 13,250 ..... | 25                |
| 21,200 to 23,600 ..... | 150               |

<sup>1</sup>The maximum bandwidth that will be authorized for each particular frequency in this band is detailed in the appropriate frequency table in §101.147.

<sup>2</sup>As of March 1, 2005, no new LTTS operators will be licensed in the 11.7–12.2 GHz band. LTTS operators authorized prior to March 1, 2005 may continue to operate in 11.7–12.2 GHz band until their license expires; no existing LTTS licensees will be renewed in the 11.7–12.2 GHz band.

(e) The bandwidths authorized on frequencies above 500 MHz must be appropriate to the type of operation in any particular case. An application requesting such authorization must fully describe the modulation, emission, and bandwidth desired and must specify the bandwidth to be occupied.

[61 FR 26677, May 28, 1996, as amended at 68 FR 4961, Jan. 31, 2003; 70 FR 4788, Jan. 31, 2005]

§ 101.811 Modulation requirements.

(a) The use of modulating frequencies higher than 3000 hertz for single channel radiotelephony or tone signaling on frequencies below 500 MHz is not authorized.

(b) When amplitude modulation is used, the modulation percentage must be sufficient to provide efficient communication and must normally be maintained above 70 percent on positive peaks, but may not exceed 100 percent on negative peaks.

(c) When phase or frequency modulation is used for single channel radiotelephony on frequencies below 500 MHz, the deviation arising from modulation may not exceed plus or minus 15 kHz from the unmodulated carrier.

(d) Each unmultiplexed radiotelephone transmitter having more than 3 watts plate power input to the final radio frequency stage and initially installed at the station in this service after September 4, 1956, must be provided with a device that will automatically prevent modulation in excess of that specified in paragraphs (b) and (c) of this section which may be caused by greater than normal audio level.