§ 15.235 Operation within the band 49.82–49.90 MHz.

(a) The field strength of any emission within this band shall not exceed 10,000 microvolts/meter at 3 meters. The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in §15.35 for limiting peak emissions apply.

(b) The field strength of any emissions appearing between the band edges and up to 10 kHz above and below the band edges shall be attenuated at least 26 dB below the level of the unmodulated carrier or to the general limits in §15.209, whichever permits the higher emission levels. The field strength of any emissions removed by more than 10 kHz from the band edges shall not exceed the general radiated emission limits in §15.209. All signals exceeding 20 microvolts/meter at 3 meters shall be reported in the application for certification.

(c) For a home-built intentional radiator, as defined in §15.23(a), operating within the band 49.82–49.90 MHz, the following standards may be employed:

(1) The RF carrier and modulation products shall be maintained within the band 49.82–49.90 MHz.

(2) The total input power to the device measured at the battery or the power line terminals shall not exceed 100 milliwatts under any condition of modulation.

(3) The antenna shall be a single element, one meter or less in length, permanently mounted on the enclosure containing the device.

(4) Emissions outside of this band shall be attenuated at least 20 dB below the level of the unmodulated carrier.

(5) The regulations contained in §15.23 of this part apply to intentional radiators constructed under the provisions of this paragraph.

(d) Cordless telephones are not permitted to operate under the provisions of this section.

§ 15.237 Operation in the bands 72.0–73.0 MHz, 74.6–74.8 MHz and 75.2–76.0 MHz.

(a) The intentional radiator shall be restricted to use as an auditory assistance device.

(b) Emissions from the intentional radiator shall be confined within a band 200 kHz wide centered on the operating frequency. The 200 kHz band shall lie wholly within the above specified frequency ranges.

(c) The field strength of any emissions within the permitted 200 kHz band shall not exceed 80 millivolts/meter at 3 meters. The field strength of any emissions radiated on any frequency outside of the specified 200 kHz band shall not exceed 1500 microvolts/meter at 3 meters. The emission limits in this paragraph are based on measurement instrumentation employing an average detector. The provisions in §15.35 for limiting peak emissions apply.

§ 15.239 Operation in the band 88–108 MHz.

(a) Emissions from the intentional radiator shall be confined within a band 200 kHz wide centered on the operating frequency. The 200 kHz band
§ 15.240 Operation in the band 433.5–434.5 MHz.

(a) Operation under the provisions of this section is restricted to devices that use radio frequency energy to identify the contents of commercial shipping containers. Operations must be limited to commercial and industrial areas such as ports, rail terminals and warehouses. Two-way operation is permitted to interrogate and to load data into devices. Devices operated pursuant to the provisions of this section shall not be used for voice communications.

(b) The field strength of any emissions radiated within the specified frequency band shall not exceed 11,000 microvolts per meter measured at a distance of 3 meters. The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The peak level of any emissions within the specified frequency band shall not exceed 55,000 microvolts per meter measured at a distance of 3 meters. Additionally, devices authorized under these provisions shall be provided with a means for automatically limiting operation so that the duration of each transmission shall not be greater than 60 seconds and be only permitted to reinitiate an interrogation in the case of a transmission error. Absent such a transmission error, the silent period between transmissions shall not be less than 10 seconds.

(c) The field strength of emissions radiated on any frequency outside of the specified band shall not exceed the general radiated emission limits in §15.209.

(d) A custom built telemetry intentional radiator operating in the frequency band 88–108 MHz and used for experimentation by an educational institute need not be certified provided the device complies with the standards in this part and the educational institution notifies the Engineer in Charge of the local FCC office, in writing, in advance of operation, providing the following information:

(1) The dates and places where the device will be operated;

(2) The purpose for which the device will be used;

(3) A description of the device, including the operating frequency, RF power output, and antenna; and,

(4) A statement that the device complies with the technical provisions of this part.

§ 15.240 Operation in the band 433.5–434.5 MHz.

(a) Operation under the provisions of this section is restricted to devices that use radio frequency energy to identify the contents of commercial shipping containers. Operations must be limited to commercial and industrial areas such as ports, rail terminals and warehouses. Two-way operation is permitted to interrogate and to load data into devices. Devices operated pursuant to the provisions of this section shall not be used for voice communications.

(b) The field strength of any emissions radiated within the specified frequency band shall not exceed 11,000 microvolts per meter measured at a distance of 3 meters. The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The peak level of any emissions within the specified frequency band shall not exceed 55,000 microvolts per meter measured at a distance of 3 meters. Additionally, devices authorized under these provisions shall be provided with a means for automatically limiting operation so that the duration of each transmission shall not be greater than 60 seconds and be only permitted to reinitiate an interrogation in the case of a transmission error. Absent such a transmission error, the silent period between transmissions shall not be less than 10 seconds.

(c) The field strength of emissions radiated on any frequency outside of the specified band shall not exceed the general radiated emission limits in §15.209.

(d) A custom built telemetry intentional radiator operating in the frequency band 88–108 MHz and used for experimentation by an educational institute need not be certified provided the device complies with the standards in this part and the educational institution notifies the Engineer in Charge of the local FCC office, in writing, in advance of operation, providing the following information:

(1) The dates and places where the device will be operated;

(2) The purpose for which the device will be used;

(3) A description of the device, including the operating frequency, RF power output, and antenna; and,

(4) A statement that the device complies with the technical provisions of this part.

§ 15.240 Operation in the band 433.5–434.5 MHz.

(a) Operation under the provisions of this section is restricted to devices that use radio frequency energy to identify the contents of commercial shipping containers. Operations must be limited to commercial and industrial areas such as ports, rail terminals and warehouses. Two-way operation is permitted to interrogate and to load data into devices. Devices operated pursuant to the provisions of this section shall not be used for voice communications.

(b) The field strength of any emissions radiated within the specified frequency band shall not exceed 11,000 microvolts per meter measured at a distance of 3 meters. The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The peak level of any emissions within the specified frequency band shall not exceed 55,000 microvolts per meter measured at a distance of 3 meters. Additionally, devices authorized under these provisions shall be provided with a means for automatically limiting operation so that the duration of each transmission shall not be greater than 60 seconds and be only permitted to reinitiate an interrogation in the case of a transmission error. Absent such a transmission error, the silent period between transmissions shall not be less than 10 seconds.

(c) The field strength of emissions radiated on any frequency outside of the specified band shall not exceed the general radiated emission limits in §15.209.