§ 15.509 Technical requirements for ground penetrating radars and wall imaging systems.

(a) The UWB bandwidth of an imaging system operating under the provisions of this section must be below 10.6 GHz.

(b) Operation under the provisions of this section is limited to GPRs and wall imaging systems operated for purposes associated with law enforcement, fire fighting, emergency rescue, scientific research, commercial mining, or construction.

(1) Parties operating this equipment must be eligible for licensing under the provisions of part 90 of this chapter.

(2) The operation of imaging systems under this section requires coordination, as detailed in §15.525.

(c) A GPR that is designed to be operated while being hand held and a wall imaging system shall contain a manually operated switch that causes the transmitter to cease operation within 10 seconds of being released by the operator. In lieu of a switch located on the imaging system, it is permissible to operate an imaging system by remote control provided the imaging system ceases transmission within 10 seconds of the remote switch being released by the operator.

(d) The radiated emissions at or below 960 MHz from a device operating under the provisions of this section shall not exceed the emission levels in §15.209. The radiated emissions above 960 MHz from a device operating under the provisions of this section shall not exceed the following average limits when measured using a resolution bandwidth of 1 MHz:

Frequency in MHz	EIRP in dBm
960–1610	–65.3
1610–1990	–53.3
1990–3100	–51.3
3100–10600	–41.3
Above 10600	–51.3

(e) In addition to the radiated emission limits specified in the table in paragraph (d) of this section, UWB transmitters operating under the provisions of this section shall not exceed the following average limits when measured using a resolution bandwidth of no less than 1 kHz:

Frequency in MHz	EIRP in dBm
1164–1240	–75.3
1559–1610	–75.3

(f) For UWB devices where the frequency at which the highest radiated emission occurs, f_M, is above 960 MHz, there is a limit on the peak level of the emissions contained within a 50 MHz bandwidth centered on f_M. That limit is 0 dBm EIRP. It is acceptable to employ a different resolution bandwidth, and a correspondingly different peak emission limit, following the procedures described in §15.521.

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§ 15.510 Technical requirements for through D-wall imaging systems.

(a) The UWB bandwidth of an imaging system operating under the provisions of this section must be below 960 MHz or the center frequency, f_C, and the frequency at which the highest radiated emission occurs, f_M, must be contained between 1990 MHz and 10600 MHz.

(b) Operation under the provisions of this section is limited to through-wall imaging systems operated by law enforcement, emergency rescue or firefighting organizations that are under the authority of a local or state government.

(c) For through-wall imaging systems operating with the UWB bandwidth below 960 MHz:

(1) Parties operating this equipment must be eligible for licensing under the provisions of part 90 of this chapter.

(2) The operation of these imaging systems requires coordination, as detailed in §15.525.

(3) The imaging system shall contain a manually operated switch that causes the transmitter to cease operation within 10 seconds of being released by the operator. In lieu of a switch located on the imaging system, it is permissible to operate an imaging system by remote control provided the imaging system ceases transmission within 10 seconds of the remote switch being released by the operator.

(4) The radiated emissions at or below 960 MHz shall not exceed the emission levels in §15.209. The radiated emissions above 960 MHz shall not exceed the following average limits when