§ 15.521

Technical requirements applicable to all UWB devices.

(a) UWB devices may not be employed for the operation of toys. Operation onboard an aircraft, a ship or a satellite is prohibited.

(b) Manufacturers and users are reminded of the provisions of §§15.203 and 15.204.

(c) Emissions from digital circuitry used to enable the operation of the UWB transmitter shall comply with the limits in §15.209, rather than the limits specified in this subpart, provided it can be clearly demonstrated that those emissions from the UWB device are due solely to emissions from digital circuitry contained within the transmitter and that the emissions are not intended to be radiated from the transmitter’s antenna. Emissions from associated digital devices, as defined in §15.3(k), e.g., emissions from digital circuitry used to control additional functions or capabilities other than the UWB transmission, are subject to the limits contained in Subpart B of this part.

(d) Within the tables in §§15.509, 15.511, 15.513, 15.515, 15.517, and 15.519, the tighter emission limit applies at the band edges. Radiated emission levels at and below 960 MHz are based on measurements employing a CISPR quasi-peak detector. Radiated emission levels above 960 MHz are based on RMS average measurements over a 1 MHz resolution bandwidth. The RMS average measurement is based on the use of a spectrum analyzer with a resolution bandwidth of 1 MHz, an RMS detector, and a 1 millisecond or less averaging period.

\[
\begin{array}{|c|c|}
\hline
\text{Frequency in MHz} & \text{EIRP in dBm} \\
\hline
960–1610 & -75.3 \\
1610–1990 & -63.3 \\
1990–3100 & -61.3 \\
3100–10600 & -41.3 \\
\text{Above 10600} & -61.3 \\
\hline
\end{array}
\]

\[
\begin{array}{|c|c|}
\hline
\text{Frequency in MHz} & \text{EIRP in dBm} \\
\hline
1164–1240 & -85.3 \\
\hline
\end{array}
\]
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§ 15.525 Measurement procedures.

Measurements shall be made in accordance with the procedures specified by the Commission.

§ 15.525 Coordination requirements.

(a) UWB imaging systems require coordination through the FCC before the equipment may be used. The operator shall comply with any constraints on equipment usage resulting from this coordination.

(b) The highest frequency employed in §15.33 to determine the frequency range over which radiated measurements are made shall be based on the center frequency, \( f_c \), unless a higher frequency is generated within the UWB device. For measuring emission levels, the spectrum shall be investigated from the lowest frequency generated in the UWB transmitter, without going below 9 kHz, up to the frequency range shown in §15.33(a) or up to \( f_c + 3 \) (pulse width in seconds), whichever is higher. There is no requirement to measure emissions beyond 40 GHz provided \( f_c \) is less than 10 GHz; beyond 100 GHz if \( f_c \) is at or above 10 GHz and below 30 GHz; or beyond 200 GHz if \( f_c \) is at or above 30 GHz.

(i) The prohibition in §2.201(f) and 15.5(d) of this chapter against Class B (damped wave) emissions does not apply to UWB devices operating under this subpart.

(j) Responsible parties are reminded of the other standards and requirements cross referenced in §15.505, such as a limit on emissions conducted onto the AC power lines.


§ 15.523 Measurement procedures.

Measurements shall be made in accordance with the procedures specified by the Commission.