

EXHIBIT 6: RF Hazard Information Per Sec. 1.1307

For transmitters operating in the 5725-5825 MHz frequency range, paragraph 1.1310 limits maximum permissible exposure (MPE) to 1 mW/cm² for uncontrolled environments, and 5 mW/cm² for controlled environments.

The maximum distance from the antenna at which MPE is met or exceeded is calculated from the equation relating field strength in V/m, transmit power in watts, transmit antenna gain, and separation distance in meters:

$$E, \text{V/m} = (\sqrt{30 \cdot P \cdot G})/d$$

$$\text{Power density, mW/m}^2 = E^2/3770$$

$$E \text{ for MPE } 1 \text{ mW/m}^2 = 61.4 \text{ V/m}$$

$$E \text{ for MPE } 5 \text{ mW/m}^2 = 136 \text{ V/m}$$

Simplifying and rearranging terms:

$$d = (\sqrt{30 \cdot P \cdot G})/61.4 \quad \text{Converting to decibels:}$$

$$20 \log d = 10 \log 30 + 10 \log P \text{ watts} + G \text{ dBi} - 35.8 \text{ dB}$$

$$20 \log d = 14.77 + \text{PdBm} - 30 \text{ dB} - 35.8 + \text{GdBi}$$

$$20 \log d = P \text{ dBm} + G \text{ dBi} - 51 ; \quad d = 10^{(P \text{ dBm} + G \text{ dBi} - 51)/20}$$

$$15.407 \text{ Maximum allowed EIRP, dBm: } 17 + 10 \log(12) + 23 = 50.8 \text{ dBm EIRP}$$

Worst-case assumption is for 1.0 mW/cm² uncontrolled environment:

Antenna	50.8 - G dBi	MPE distance, cm	Comments
34 dBi	16.8 dBm	97.7	max EIRP per 15.407
26 dBi	24.8 dBm	97.7	max EIRP per 15.407
22 dBi	27.8 dBm	87.1	max EIRP per 15.407
14 dBi	27.8 dBm	34.7	max EIRP per 15.407
18.5 dBi	27.8 dBm	58.2	max EIRP per 15.407