

## Maximum Public Exposure to RF (MPE) CFR 1.1310 (e)

The maximum exposure level to the public from the RF power of the EUT shall not exceed a power density, **S**, of 0.2 mW/cm<sup>2</sup> at a distance, d, of 20 cm from the EUT.

Therefore, for:

Peak Power (dBm) = -15.75 dBm (rated max output)

Peak Power (Watts) = 0.0266 mW

Gain of Transmit Antenna = -19.0 dB<sub>i</sub> = 0.0126, numeric

d = Distance = 20 cm = 0.2 m

$$S = (PG / 4\pi d^2) = EIRP / 4A = 0.0266 / 4 * \pi * 20^2 = 0.00000529 \text{ mW/cm}^2$$

Which is << less than 0.2 mW/cm<sup>2</sup>

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f <sup>2</sup>	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz \* = Plane-wave equivalent power density