

§ 1.1310 Radiofrequency radiation exposure limits

FCC ID: HDLUSA-60750-KE-E

Conducted Power (dBm):	51.8	150 Watts	or
Maximum Antenna Gain (dBi):	13.5		
Minimum TX Cable Loss (dB):	1.25		
Minimum TX Jumpers and Adapter Loss(dB):	1		
EIRP (dBm):	63.0	or	2000 Watts
At frequency (MHz):	869		
General MPE Limit (mW/cm^2):	0.579		
Occupational MPE Limit (mW/cm^2):	2.897		

Given the following equation

Equation 1:

$$P_d = \frac{P_t G_t}{4\pi r^2}$$

Solve for r:

Equation 2:

$$r = \sqrt{\frac{P_t G_t}{4\pi P_d}}$$

Using Equation 1, the power density at 20 cm is:

397.95 mW/cm^2

General Results:

Using Equation 2, the MPE limit is met at:

524.2 cm or 5.24 meters

Occupational Results:

Using Equation 2, the MPE limit is met at:

234.4 cm or 2.34 meters

To comply with Maximum Permissible Exposure (MPE) requirements, the maximum composite output from the antenna cannot exceed 1000 Watts EIRP (2000 Watts EIRP for rural areas) and the antenna must be permanently installed in a fixed location that provides at least 5.24 meters of separation from all persons.