

RF exposure

The output power of the EUT is 2 mW and the gain of the antenna is 2dBi

The following information provides the minimum separation distance for the EUT, as calculated from **FCC OET 65 Appendix B, Table 1B** "Guidelines for General Population/Uncontrolled Exposure"

This calculation is based on the highest EIRP possible from the EUT considering maximum power and antenna gain. The formulas were used:

GP limit is = 0.29 mW/cm² for 434 MHz (from F/1500)
 $P_{\text{watts}} \times G_{\text{gain}}$ or ERP = $10^{(P_{\text{dBm}} - 30 + G_{\text{dBi}})/10}$ = 0.003 Watts
 0.003 Watts = 5 dBm

$S = E^2 / 3770 \text{ mW/cm}^2$
 $E \text{ or } V/m = (ERP \times 30)^{0.5} / d$, (d in meters)
 $d = ((ERP \times 30) / 3770 \times S)^{0.5}$

	S	Maximum	Antenna			MSD		
Freq.	GP limit	RF power	Gain	ERP	E	d		
MHz	mW/cm ²	dBm	dBi	watts	V/m	meters		
434	0.289333	3	2	0.003	33.0	0.009		
GP is the limit for general Population/Uncontrolled Exposure								
MSD is the minimum Separation Distance								

NOTE: For mobile or fixed location transmitters, minimum separation distance is 20 cm, even if calculations indicate MPE distance is less