

RF Exposure Evaluation

hField Technologies
FCC ID: UILHFWFG10

Operating Frequency: 2400 to 2483.5 MHz

The expected RF exposure at 20 cm is calculated as follows:

$$S = \frac{P G}{4 \pi D^2}$$

Where:

S = Power density in mW/cm²

P = Power to antenna in mW

G = Numeric gain of antenna

D = separation distance in cm (20 cm)

Power to Antenna:

P_{measured} (dBm) = 16.1 dBm

Converting to mw:

P_{measured} (mW) = 10^{(P_{measured}(dBm)/10)}

P_{measured} (mW) = 10^(16.1/10) = 10^(1.61) = 40.73 mW

Antenna Gain:

G = 10.4 dBi

Converting to numeric gain:

G_{numeric} = 10^{(G (dBi)/10)}

G_{numeric} = 10^(10.4/10) = 10^(1.04) = 10.96

$$S = \frac{40.73 * 10.96}{4 \pi 20^2}$$

$$S = \frac{446.4}{5026.554}$$

$$S = 0.0888 \text{ mW/cm}^2$$

The expected RF exposure complies with Table B (limits for General Population / Uncontrolled Environments) of OET Bulletin 65, Supplement C, Appendix A where:

$$S_{\text{max}} = 1.0 \text{ mW/cm}^2$$