

MPE calculation

Maximum Power output: 91.2mW (19.6dBm)

Max Antenna gain,: 2.0 dBi

One-half power: 16.6 dBm

Maximum EIRP from transmit antenna is $16.6 + 1.4 = 18.0$ dBm EIRP

To determine the overall exposure at 20 cm from the EUT.

The field strength contribution from each antenna is calculated using the equation

$$E, \text{ V/m} = (30 * \text{EIRP, watts})^{0.5} / \text{separation distance}$$

Maximum EIRP from transmit antenna is 18.0 dBm EIRP = 0.0456 watt EIRP

$$S, \text{ mW/cm}^2 = E/3770, \text{ E in V/m}$$

Total exposure at 20cm: 0.0015 mW.cm^2

The duty cycle is 100% the final exposure at 20cm: 0.0015 mW.cm^2

FCC Limit: 1.0 mW/cm^2