

R.F Exposure/Safety

The typical placement of the E.U.T. is on a communication tower. The typical distance between the E.U.T. and the user is at least 42cm.

Calculation of Maximum Permissible Exposure (MPE)

Based on 47CFR1 Section 1.1307(b)(1)

(a) FCC Limit is: $1 \frac{mW}{cm^2}$

Using Table 1 of 47CFR1 Section 1.1310 limit for general population/uncontrolled exposures, the above levels are an average over 30 minutes.

(b) The power density produced by the E.U.T. is:

$$S = \frac{P_t G_t}{4\pi R^2}$$

P_t = Conducted Transmitted Power 23.35dBm

G_t = Antenna Gain 20 dBi

R = Distance From Transmitter 42 cm

(c) The peak power density produced by the E.U.T. is:

$$23.35dBm + 20 = 43.35dBm = 21627mW$$

$$S = 21627 / 4\pi / (42^2) = 0.98 mW/cm^2$$

(d) This is below the FCC limit.