7.0 RF Safety Requirements to 2.1091/95.1125 for Mobile Transmitters

Part 95 transmitters are considered categorically excluded from routine environmental evaluation as given in 47 CFR 2.1091. However, the following information is presented to prove compliance with the limits.

Power Output

The EUT's maximum output power as measured directly from the transmitter module according to the manufacturers theory of operation is +23.0 dBm (200 mW). The EUT may utilize 2 different types of antenna's (0 dBi monopole, +1.5 dBi omnidirectional, +3.0 dBi OEM).

Frequency of Fundamental (MHz)	Measurement (Watt)	Antenna Gain (dBi)	P_{EIRP} (Watt)
1395.4 – 1429.1	0.200	3.0	0.398

Source Based Time Averaging

Source Time Averaging has not been evaluated regarding this product.

MPE Calculations

The limits for this unit (uncontrolled exposure) are 0.9333 mW/cm^2. Taking the RF Density Field Equation:

S = (EIRP in mW)/($4\pi R^2$) and solving for Distance R

R = SQRT (EIRP in mW)/($S4\pi$)

Solving the above equation yields

R (cm) = SQRT (398(mw))/(0.9333(mW/cm^2)*4*π) = 5.8 cm

Since the EUT is designed only for mobile applications (where the expected separation distance between antenna and humans is greater than 20 cm), all manual instructions have specified 20 cm as the minimum exposure distance.