

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 at the antenna is +11.39 dBm (13.7 mW). The EUT utilize 1 type of antenna (Circular Polarization Patch)

Frequency of Fundamental (MHz)	Measurement (dBm)*	Antenna Gain (dBi)	P _{EIRP} (Watt)
608 -614	12.2	-3.0	0.0083

The maximum EIRP expected is with a 0.-3 dBi gain Circular Polarization patch antenna.

This would yield a maximum EIRP of 9.2 dBm.

Source Time Averaging has not been evaluated regarding this product.

Antilog (8.39 dBm/10) = 8.3 mW

MPE Calculations

The limits for this unit (uncontrolled exposure) are 0.4 mW/cm².

Taking the RF Denisty Field Equation :

$S = (\text{EIRP in mW}) / (4R^2)$ and solving for Density S at 20 cm.

$$\begin{aligned} S &= 8.3 / 4 * 20^2 \\ &= 8.3 / 5026.55 \end{aligned}$$

$$S = 0.0017 \text{ mW/cm}^2$$

All manual instructions will specify 20 cm for all installations.