

RF Exposure evaluation

FCC 2.1091

The maximum measured RF conducted output power was 36.1 dBm. The highest antenna gain that will be used with the equipment is 16.5 dBi. Therefore, the maximum calculated EIRP is $36.1 + 16.5 = 52.6 \text{ dBm} = 182.0 \text{ W}$.

Using the formula for the Power Density, $S = \text{EIRP} / 4\pi D^2$, D = distance, where the Maximum Permissible Exposure (MPE) satisfies the FCC 1.1310 limit for General Population/Uncontrolled Exposure, can be calculated as:

$$D \geq \sqrt{(\text{EIRP} / 4\pi S)}$$

The MPE Limit is 1 mW/cm^2 , therefore $D \geq 120 \text{ cm}$ is the minimum safe distance.

The end user/installer will be instructed to maintain a distance of at least 120 cm between the antenna and persons.