

Section 11. Maximum Permissible Exposure

MPE estimate is given per 2.1091 of FCC Rules:

Calculation Equation:

$$d = 0.282 \times \frac{10^{\frac{P+G}{20}}}{\sqrt{S}}$$

Where, P(DL)= 39.6dBm, G=16 dBi (Server Antenna), P(UL)= 34.0dBm, G=126dBi (Donor Antenna), and from §1.1310 Table 1 (B), S = 0.55 mW/cm²

Plug all three items into the equation, and yields,

Power Density MPE Limit (mW/ cm ²)	Output Power (dBm)	Server Antenna Gain (dBi)	Donor Antenna Gain (dBi)	Server MPE Distance (cm)	Donor MPE Distance (cm)
0.55	39.6/34.0	16	16	229	218

NOTE:

For mobile or fixed location transmitters, the minimum separation distance is 20 cm, even if calculations indicate that the MPE distance would be less.