

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)= 10dBm*, G=0 dBi (Server Antenna), P(UL)= 7dBm, G=7 dBi (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 | 10/7 | 0 | 7 | 1.20 | 1.90 |

*DL worst case: two DL antennas are collocated .

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.