

MPE Calculations

The device is not a portable device (i.e. intended to be worn on the body or be hand-held), so it is classified as being either a mobile device or a fixed mounted device. The OEM installation requires a minimum separation distance of at least 20cm, consistent with this classification.

FCC part 1.1310, Table 1 limits the power density for uncontrolled exposure. The power density, P_d (mW/cm^2) calculated from the maximum EIRP, P_t (mW) and the distance, d (m), between the transmitting antenna and the closest person, can be calculated using:

$$P_d = P_t / (4 \pi d^2)$$

Frequency	MPE Limit (mW/cm^2)	Output Power (mW)	Max. Antenna Gain (dBi)	EIRP (mW)	P_d at 20cm (mW/cm^2)	Distance where P_d = limit (cm)
2412 to 2462 MHz	1.00	190.5	3.6	436.5	0.09	5.9
5745 to 5825 MHz	1.00	141.3	5.3	478.6	0.10	6.2
5180 to 5320 MHz	1.00	40.7	5.6	147.9	0.03	3.4

As shown in the calculations above, the power density 20cm from the device is below the maximum permitted level for uncontrolled exposure.