

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 user's manual specifies 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)	Pd at 20cm (mW/cm^2)	Distance where Pd = limit (cm)
DTS						
2412 to 2462 MHz	1.00	45.7	3.2	95.5	0.02	2.8
2422 to 2452 MHz	1.00	38.0	3.2	79.4	0.02	2.5
5745 to 5825 MHz	1.00	33.9	5.0	107.2	0.02	2.9
5755 to 5795 MHz	1.00	34.7	5.0	109.6	0.02	3.0
NII						
5180 to 5240 MHz	1.00	33.9	3.6	77.6	0.02	2.5
5190 to 5230 MHz	1.00	31.6	3.6	72.4	0.01	2.4
5260 to 5320 MHz	1.00	33.1	3.7	77.6	0.02	2.5
5270 to 5310 MHz	1.00	28.8	3.7	67.6	0.01	2.3
5500 to 5700 MHz	1.00	34.7	4.8	104.7	0.02	2.9
5510 to 5670 MHz	1.00	35.5	4.8	107.2	0.02	2.9
Part 27						
2499 to 2688 MHz	1.00	269.2	2.8	512.9	0.1	6.4
2501 to 2685 MHz	1.00	229.1	2.8	436.5	0.09	5.9

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