MPE Calculations (Fixed Location)

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 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, Pd (mW/cm2) calculated from the maximum EIRP, Pt (mW) and the distance, d (m), between the transmitting antenna and the closest person, can be calculated using:

Formula is:

$$Pd = Pt / (4*pi*d^2)$$

Frequency (MHz)	MPE Limit (mW/cm^2)	Eirp (mW)	Pd at 20cm (mW/cm^2)	Distance where Pd = Limit (cm)
2400 - 5250	1	831.86	0.17	8.1

Band	Mode	Output Power		Antenna gain (Max)	EIRP		Channels Available	Channels Used	Total EIRP	
		Peak	Average		dBm	W			W	dBm
2400 - 2483.5	CCK	-	21.5	6.6	28.1	0.65	11	1	0.646	28.10
5150 - 5250	OFDM	-	16.0	6.7	22.7	0.19	10	1	0.186	22.70
							Totals:	2	0.832	29.20

MPE exposure is based on two 2.4GHz with two 5GHz transmitter. Device can be programmed to transmitt simultaneously.

Please not that under "Antenna Gain (Max)" normal gain for 2.4GHz is 3.6dBi and 5GHz is 3.7dBi. In this MPE calculation used the MIMO antenna gain, which doubles due to the coherent nature of the device.