

### **MPE Calculations (Mobile)**

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, Pd (mW/cm<sup>2</sup>) 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 <sup>2</sup> )	Eirp (mW)	Calculated Pd at 20cm (mW/cm <sup>2</sup> )
2400 - 2480	1	79.00	0.0157

Frequency (MHz)	MPE Limit (mW/cm <sup>2</sup> )	Measured Pd at 20cm (mW/cm <sup>2</sup> )
410	0.273333333	0.20000

Total PSD from both radios: 0.2157 mW/cm<sup>2</sup>

Worst case MPE limit: 0.2733 mW/cm<sup>2</sup>

Pass

Band	Mode	Output Power (dBm)		Antenna gain (Max)	EIRP		Channels Available	Channels Used	Total EIRP	
		Peak	Average		dBm	W			W	dBm
2400 - 2480	-	-	0.0	0.0	0.0	0.001	79	79	0.0790	18.98
410 - 470	-			0.0					Refer to note below	

MPE exposure is based on one 2.4GHz pre-approved modules with one 450 MHz transmitter. Device can be programmed to transmit simultaneously.

**Refer to MPE report. Report will show that the measured power density for a 0dBi antenna is .200 mW/cm<sup>2</sup>. The total value from the BT and 450MHz module was used to determine co-location compliance to the worst case MPE limit which is .273 mW/cm<sup>2</sup> based on 410Mz/1500 formula.**