

# RF Exposure for IQue M5

The IQue M5 is a pocket PC system using the Blue Tooth wireless technology specifications for wireless data transfer authorized under part 15.247 of CFR 47. MPE calculations are shown below demonstrating compliance.

MPE Calculator MPE uses EIRP for calculation. EIRP is based on TX power added to the antenna gain in dBi.  
 dBi = dB gain compared to an isotropic radiator.  
 S = power density in mW/cm<sup>2</sup>

Antenna Gain (dBi) **2.17**  
 dBi to dBd 2.17  
 Antenna Gain (dBd) **0**

Tx Frequency (MHz) **2440** Output Power Average (Watts) **0.0013** dBd + 2.17 = dBi  
 Cable Loss (dB) **0.0** (dBm) 1.14 Antenna minus cable (dBi) 2.17

Calculated ERP (mw) 1.300 EIRP = Po(dBm) + Gain (dB)  
 Calculated EIRP (mw) 2.143 Radiated (EIRP) dBm 3.309  
 ERP = EIRP - 2.17 dB  
 Radiated (ERP) dBm 1.139

Occupational Limit (300-1500 MHz)	Power density (S)
8.13333 mW/cm <sup>2</sup>	EIRP
	----- = mW/cm <sup>2</sup>
General Public Limit (300-1500 MHz)	$4 \pi r^2$
1.62667 mW/cm <sup>2</sup>	r (cm) EIRP (mW)

FCC radio frequency radiation exposure limits per 1.1310		
Frequency (MHz)	Occupational Limit	Public Limit
300-1,500	1/300	1/1500
1,500-10,000	5	1

FCC radio frequency radiation exposure limits per 1.1310		
Frequency (MHz)	Occupational Limit @ Tx Freq (mW/cm <sup>2</sup> )	Public Limit @ Tx Freq (mW/cm <sup>2</sup> )
300-1,500	8.133333333	1.626666667
1,500-10,000	5	1

EIRP	Distance	Distance	S
milliwatts	cm	inches	mW/cm <sup>2</sup>
2.143	30.00	11.81	0.00019
2.143	20.00	7.87	0.00043
2.143	10.00	3.94	0.00171
2.143	5.00	1.97	0.00682
2.143	2.00	0.79	0.04263
2.143	1.00	0.39	0.17050
2.143	0.90	0.35	0.21050
2.143	0.80	0.31	0.26641
2.143	0.70	0.28	0.34797
2.143	0.60	0.24	0.47362
2.143	0.50	0.20	0.68201
2.143	0.49	0.19	0.71014
2.143	0.48	0.19	0.74003
2.143	0.47	0.19	0.77186
2.143	0.46	0.18	0.80578
2.143	0.45	0.18	0.84199
2.143	0.44	0.17	0.88070
2.143	0.43	0.17	0.92214
2.143	0.42	0.17	0.96657
2.143	0.41	0.16	1.01430
2.143	0.40	0.16	1.06565
2.143	0.30	0.12	1.89448
2.143	0.20	0.08	4.26259
2.143	0.10	0.04	17.05036

Frequency (MHz)	Occupational Limit minimum Distance (cm)	Public Limit minimum distance (cm)
300-1,500	N/A	N/A
1,500-10,000	0.20	0.40

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Garmin International, Inc.  
 MODEL: IQue M5  
 Test #: 040715  
 Test to: FCC Parts 2 and 80

FCCID#: IPH-00793