

Section 8A

Addendum

RF Exposure Information

This addendum to the “8A FCC MPE_PCEx25100 SR5738_Rev 1_02_080213.PDF” document provides an additional analysis of the external antenna for a maximum antenna gain of 7.5 dBi. The information contained in this addendum does not replace the original document but is to be used in addition to the original document.

As described in the original report, the following formula is used to determine the worst-case MPE prediction.

$$S = \frac{cP_mG_t}{4\pi d^2 L} F$$

Where S = power density (mW/cm²)

c = .1053 (10.53%, maximum transmitter duty cycle)

P_m = 1.67 watts

G_t = 5.6234 (linear value of antenna gain relative to isotropic radiator)

F = 2.56 (relative field factor)

d = 20 cm

L = 1 (linear value of coax loss)

Tx Frequency (MHz)	Env./User Category	MPE Spec Limit (mW/cm ²)		Duty Cycle (%)	Max Power (W)	Antenna #	Ant Gain (dBi)	Cable loss, L (dB)	Dist. d (cm)	MPE Calc (mW/cm ²)
		FCC	ICNIRP							
2496	Uncontrolled	1.00	1.00	10.53	1.67	501-0512-0000	7.5	0	20	0.504
2593	Uncontrolled	1.00	1.00	10.53	1.67	501-0512-0000	7.5	0	20	0.504
2690	Uncontrolled	1.00	1.00	10.53	1.67	501-0512-0000	7.5	0	20	0.504

Conclusion:

The MPE results per the assessment above are compliant to the FCC General population/Uncontrolled exposure limits of 1.00 mW/cm² for the frequency ranges of 2496-2690 MHz, per 47 CFR §1.1310 titled “Radio frequency radiation exposure limits”.

The MPE results are also compliant to the ICNIRP General population/Uncontrolled exposure limits of 1.00 mW/cm² for the frequency ranges of 2496-2690 MHz, per ICNIRP (1998) Guidelines for limiting exposure in time-varying electric, magnetic, and electromagnetic fields (up to 300GHz).