



Friday 7th July 2006

EXLT03-A2 Exalt Communications Inc , Model EX-5r

Maximum Permissible Exposure Calculations

FCC, Part 15 Subpart C §15.247(i)
Industry Canada RSS-Gen §5.5

Calculations for Maximum Permissible Exposure Levels

$$\text{Power Density} = P_d \text{ (mW/cm}^2\text{)} = \text{EIRP}/(4\pi d^2)$$

$$\text{EIRP} = P * G$$

P = Peak output power (mW)

G = Antenna numeric gain (numeric)

d = Separation distance (cm)

$$\text{Numeric Gain} = 10 ^ {(G \text{ (dBi)})/10}$$

P (Worst case) = +29.98 dBm, (995.4 num)

Antenna gains = 20 dBi (100 num), 28 dBi (631 num.), 37.5 dBi (5623 num.)

Because the EUT belongs to the General Population / Uncontrolled Exposure the limit of power density is 1.0 mW/cm²

Antenna Gain (dBi)	Single/ Dual Pole	Numeric Gain (numeric)	Peak Output Power (dBm)		Peak Output Power (mW)		Calculated Safe Distance @ 1mW/cm ² Limit (cm)
			Ant Port #1	Ant Port #2	Ant Port #1	Ant Port #2	
20.0	Dual	100	+26.98	+26.98	498.9	498.9	89.0
28.0	Single	631	+29.98		995.4		223.6
37.5	Dual	5623	+26.98	+26.98	498.9	498.9	667.4