

## Maximum Permissible Exposure

**FCC, Part 15 Subpart C §15.247(i)**

**Industry Canada RSS-Gen §5.5**

### Calculations for Maximum Permissible Exposure Levels – Portable Device

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

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

P = Peak output power (mW)

G = Antenna numeric gain (numeric)

d = Separation distance (cm)

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

**FCC KDB 447498 item 4) c) iii) (3) - SAR required if device operates within 5 cm with source-based time-averaged power greater than  $300 / \sqrt{f}$  (f in GHz). At 2.437 GHz power = 123mW (+20.9 dBm)**

Client declared that the Ki Pro A/V Controller will be used no less than 10cm (4 in) from the head and exhibits a maximum peak output power of +19.21 dBm. System duty cycle will be a maximum of 0631 in any 100mS period. Because the EUT belongs to the General Population/Uncontrolled Exposure the limit of power density is 1.0 mW/cm<sup>2</sup>

Freq. Band (GHz)	Antenna Gain (dBi)	Numeric Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)
2.4(g)	2	1.59	+19.21	83.37

Duty Cycle (100ms period)                      100      No relaxation for duty cycle operation sought

Max. Peak Power Density (100%):      0.105    mW/cm<sup>2</sup>

From the above results the Ki Pro is one order of magnitude less than the 1 mW/cm<sup>2</sup> limit

## Specification

### Maximum Permissible Exposure Limits

**§15.247(i)** Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency levels in excess of the Commission's guidelines.

**FCC §1.1310** Limit = 1mW / cm<sup>2</sup> from 1.310 Table 1

**RSS-Gen §5.5** Before equipment certification is granted, the applicable requirements of RSS-102 shall be met.