

December 9, 2009

## ICON09 –iCHIME

### 1.1.1. Maximum Permissible Exposure

**FCC, Part 15 Subpart C §15.247(i)**

**Industry Canada RSS-Gen §5.5**

#### **Calculations for Maximum Permissible Exposure Levels**

Power Density =  $P_d$  (mW/cm<sup>2</sup>) =  $EIRP / (4\pi d^2)$

$EIRP = P * G$

$P$  = Peak output power (mW)

$G$  = Antenna numeric gain (numeric)

$d$  = Separation distance (cm)

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

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)	Calculated Safe Distance @ 1mW/cm <sup>2</sup> Limit(cm)	Minimum Separation Distance (cm)
2.4	14.0	25.12	+16.72	46.99	9.7	20.0

**\*Note:** for mobile or fixed location transmitters the minimum separation distance is 20cm, even if calculations indicate the MPE distance to be less.

### **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.