

US Tech Test Report:  
FCC ID:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

FCC Part 15 Certification  
O7P-ISM4319F1  
11-0263  
April 11, 2012  
Inventek Systems  
ISM4319-E, ISM4319-U, ISM4319-C

**Maximum Public Exposure to RF (MPE) CFR 15.247 (i)**

The maximum exposure level to the public from the RF power of the EUT shall not exceed a power density, **S**, of 1 mW/cm<sup>2</sup> at a distance, **d**, of 20 cm from the EUT.

Therefore, for:

**Highest Gain Dipole Antenna= 2.15 dBi**

Peak Power (Watts) = 0.0589 (from Table 16 of Test Report)  
Gain of Transmit Antenna = 2.15 dBi = 1.641, numeric (from Table 4 of Test Report)  
**d** = Distance = 20 cm = 0.2 m

$$\begin{aligned} S &= (PG/ 4\pi d^2) = EIRP/4A = 0.0589 (1.641)/4*\pi*0.2*0.2 \\ &= 0.0967/0.503 = 0.1922 \text{ W/m}^2 \\ &= (\text{W/m}^2) (1\text{m}^2/\text{W}) (0.1 \text{ mW/cm}^2) \\ &= 0.01922 \text{ mW/cm}^2 \end{aligned}$$

which is << less than 1.0 mW/cm<sup>2</sup>

**Highest Gain Chip Antenna= 1.85 dBi**

Peak Power (Watts) = 0.0589 (from Table 16 of Test Report)  
Gain of Transmit Antenna = 1.85 dBi = 1.531, numeric (from Table 4 of Test Report)  
**d** = Distance = 20 cm = 0.2 m

$$\begin{aligned} S &= (PG/ 4\pi d^2) = EIRP/4A = 0.0589 (1.531)/4*\pi*0.2*0.2 \\ &= 0.0902/0.503 = 0.1793 \text{ W/m}^2 \\ &= (\text{W/m}^2) (1\text{m}^2/\text{W}) (0.1 \text{ mW/cm}^2) \\ &= 0.01793 \text{ mW/cm}^2 \end{aligned}$$

which is << less than 1.0 mW/cm<sup>2</sup>

**Highest Gain Trace Antenna= 0 dBi**

Peak Power (Watts) = 0.0589 (from Table 16 of Test Report)  
Gain of Transmit Antenna = 0 dBi = 1.0, numeric (from Table 4 of Test Report)  
**d** = Distance = 20 cm = 0.2 m

$$\begin{aligned} S &= (PG/ 4\pi d^2) = EIRP/4A = 0.0589 (1)/4*\pi*0.2*0.2 \\ &= 0.0589/0.503 = 0.1171 \text{ W/m}^2 \\ &= (\text{W/m}^2) (1\text{m}^2/\text{W}) (0.1 \text{ mW/cm}^2) \\ &= 0.01171 \text{ mW/cm}^2 \end{aligned}$$

which is << less than 1.0 mW/cm<sup>2</sup>