

US Tech Test Report:

FCC Part 15 Certification

IC RSS210-Certification

FCC ID:

O7P-362

IC:

10147A-362

Test Report Number:

13-0186

Issue Date:

July 29, 2013

Customer:

Inventek Systems

Model:

ISM43362-M3G-L44-E and ISM43362-M3G-L44-U

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^2 at a distance, d , of 20 cm from the EUT.

Therefore, for:

Highest Gain Dipole Antenna= 2.15 dBi

Peak Power (Watts) = 0.0977 (from Table 19 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

$$\begin{aligned} S &= (PG / 4\pi d^2) = \text{EIRP} / 4\pi = 0.0977(1.641) / 4\pi * 0.2 * 0.2 \\ &= 0.1603 / 0.503 = 0.3187 \text{ W/m}^2 \\ &= (\text{W/m}^2) (1\text{m}^2/\text{W}) (0.1 \text{ mW/cm}^2) \\ &= 0.03187 \text{ mW/cm}^2 \end{aligned}$$

which is << less than 1.0 mW/cm^2

Highest Gain Trace Antenna= 0 dBi

Peak Power (Watts) = 0.0977 (from Table 19 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

$$\begin{aligned} S &= (PG / 4\pi d^2) = \text{EIRP} / 4\pi = 0.0977(1) / 4\pi * 0.2 * 0.2 \\ &= 0.0977 / 0.503 = 0.1942 \text{ W/m}^2 \\ &= (\text{W/m}^2) (1\text{m}^2/\text{W}) (0.1 \text{ mW/cm}^2) \\ &= 0.01942 \text{ mW/cm}^2 \end{aligned}$$

which is << less than 1.0 mW/cm^2