

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

FCC Part 95  
20-0075 & 20-0090  
April 15, 2020  
Radio Systems Corporation  
RAC00-16950 and RAC00-16953  
KE3-3003600

### **Maximum Permissible Exposure to RF (MPE) CFR 1.1310**

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 Antenna= -15 dBi**

\*Peak Power (Watts) = 4.65 dBm = 0.0029 W

Gain of Transmit Antenna = -15 dBi = 0.03, numeric (EUT uses an external Loop antenna)

**d** = Distance = 20 cm = 0.2 m

$$\begin{aligned}\mathbf{S} &= (\text{PG} / 4\pi d^2) = \text{EIRP} / 4\text{A} = 0.0029 * (0.03) / 4 * \pi * 0.2 * 0.2 \\ &= 0.000087 / 0.5030 = 0.00017 \text{ W/m}^2 \\ &= (\text{W/m}^2) (1\text{m}^2/\text{W}) (0.1 \text{ mW/cm}^2) \\ &= 0.000017 \text{ mW/cm}^2\end{aligned}$$

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

(\*) Peak Power = 4.65 dBm from Table 4 of the Part 95 Test report.