

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/cm² 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

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

which is << less than 1.0 mW/cm²

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