

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

FCC Part 95
19-0396
November 13, 2019
Radio Systems Corporation
RAC00-16950 and RAC00-16993
KE3-3003600

Maximum Public 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) = 1.5 dBm = 0.0014 W
Gain of Transmit Antenna = -15 dBi = 0.03, numeric (EUT uses an external Loop antenna)
d = Distance = 20 cm = 0.2 m

$$\begin{aligned} \mathbf{S} &= (PG/ 4\pi d^2) = \text{EIRP}/4A = 0.0014*(0.03)/4*\pi*0.2*0.2 \\ &= 0.000042/0.5030 = 0.000083 \text{ W/m}^2 \\ &= (\text{W/m}^2) (1\text{m}^2/\text{W}) (0.1 \text{ mW/cm}^2) \\ &= 0.0000083 \text{ mW/cm}^2 \end{aligned}$$

which is << less than 1.0 mW/cm²