

US Tech
Test Report:
Date:
Model:
Customer:

FCC ID: TWV-SXL1
10-0191
March 30, 2011
SXL1
Numerex Corp

Maximum Public Exposure to RF (MPE)

The maximum exposure level to the public from the RF power of the EUT shall not exceed a power density, **S**, of 0.60 mW/cm² at a distance, d, of 20 cm from the EUT.

EUT Antenna= 2 dBi

Peak Power (Watts) = 0.000135 (from Table 9 of Test Report)

Gain of Transmit Antenna = 2 dB_i = 1.585, numeric (from Table 3 of Test Report)

d = Distance = 20 cm = 0.20 m

$$\begin{aligned} \mathbf{S} &= (PG/ 4\pi d^2) = EIRP/4A = 0.000135 (1.585)/4*p*0.20*0.20 \\ &= 0.000214/0.502 = 0.000426 \text{ W/m}^2 \\ &= (\text{W/m}^2) (1\text{m}^2/\text{W}) (0.1 \text{ mW/cm}^2) \\ &= 0.0000426 \text{ mW/cm}^2 \end{aligned}$$

which is << less than 0.60 mW/cm²

The maximum exposure level to the public from the RF power of the 1.6GHz transmitter module, FCC ID: L2V-STX2-1 shall not exceed a power density, **S**, of 1 mW/cm² at a distance, d, of 20 cm from the EUT.

1.6GHz Antenna= 5dBi

Peak Power (Watts) = 17.3 dBm (0.054 Watts) (from UST report 10-0190)

Gain of Transmit Antenna = 5.0 dB_i = 3.16, numeric (from UST report 10-0190)

d = Distance = 20 cm = 0.2 m

$$\begin{aligned} \mathbf{S} &= (PG/ 4\pi d^2) = EIRP/4A = 0.054(3.16)/4*p*0.2*0.2 \\ &= 0.171/0.502 = 0.34 \text{ W/m}^2 \\ &= 0.0340 \text{ mW/cm}^2 \end{aligned}$$

Which is << less than 1 mW/cm²