

## 1.0 Maximum Permissible Exposure Evaluation (Supplements the test report.)

The results of power measurement and intended use/proximity are compared against the requirements for safety of RF exposure.

### 1.2 Criteria

Section Reference	Date
2.1091, FCC OET Bulletin 65, KDB 447498 Section 4.3.1 RSS-102	2014-11-11

### 1.3 Procedure

Using measurement of peak power and intended application, determine the permissible exposure level or whether additional exposure tests (SAR) are indicated. Justify conclusion for selected exposure area and separation distance.

### 1.4 Calculation

This device is operated typically outdoors and facing vehicle traffic lanes. The operating band is 24000-24250 MHz. Power is determined from the measured field strength at 1 meter and used to determine EIRP. The uncontrolled public separation distance is 20 cm.

**Table 1.4.1 Power Calculation**

Measured Power Field Strength dB $\mu$ V/m*	At Distance	EIRP Power dBm	Source Duty Cycle Factor dB	Calculated Average Power dBm	Calculated EIRP mW
115.1	1 m	10.73	0	10.73	11.8

\*This is the peak measurement.

Field density is determined at 20 cm as:

$$\begin{aligned} S &= \text{EIRP} / (4 \pi 20^2) \\ S &= 11.8 \text{ mW} / 5026.55 \text{ cm}^2 \\ S &= 0.00235 \text{ mW/cm}^2 \end{aligned}$$

Ref. FCC Bulletin OET-65 Equation (4)

The calculations have shown that the equipment meets the General Public Exposure Levels described in FCC 47 CFR 1.1310 Guidelines at a 20 cm point of investigation.

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