

# RF Exposure Statement

## Requirement:

According to CFR 15 §1.1307 (b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

## SAR Testing:

The peak EIRP rating of the DUT when employing TX2(LR) mode is 29.8 dBm or 955 mW with an on-time of 17.8 ms in every 53.0 ms period. The Peak EIRP rating of the DUT when in TX1(SR) mode is 21.8 dBm or 151 mW with an on-time of 18.2 ms in every 50.3 ms period, as detailed in the radar test report. Thus, the average output power under normal worst-case operation of the Radar is computed as:

$$\text{EIRP}_{\text{avg}} (\text{mW}) = (955 \text{ mW} \times 17.8 \text{ ms} + 151 \text{ mW} \times 18.2 \text{ ms}) / 50.3 \text{ ms} = 393 \text{ mW} \text{ or } 25.9 \text{ dBm.}$$

Per the calculations below, SAR measurements are not necessary.

## Health Hazard:

The following table summarizes the power density at a minimum separation distance of 5.6 cm and at 20 cm as calculated from FCC OET Bulletin 65.

**Potential Health Hazard Radiation Level**

Worst Case	Pk EIRP meas. (dBm)	Avg EIRP comp. (dBm)	S <sub>5.6cm</sub> (mW/cm <sup>2</sup> )	S <sub>20cm</sub> (mW/cm <sup>2</sup> )
Normal Operation	29.8	25.9	1.0	0.078

The following equations were used in calculating power density (S)

$$EIRP(\text{mW}) = P_o(\text{mW}) \cdot 10^{\frac{\text{Gain}(\text{dB})}{10}}$$

$$S(\text{mW} / \text{cm}^2) = \frac{EIRP(\text{mW})}{4 \cdot \Pi \cdot R(\text{cm})^2}, R = 20 \text{ cm}$$