

# RF Exposure

FCC ID: LLB2020001

This calculation is based on the highest EIRP possible from the EUT considering maximum power and antenna gain. The highest peak output power of the EUT is 0.933 W and the max gain of the antenna is 5 dBi.

There is a firmware-controlled duty cycle. The firmware is set to limit duty cycle at 10% duty cycle or less in any given 6-minute period.

## 1.0 RF EXPOSURE PER FCC 1.1310

| MHz | Max Power dBm | Max Ant Gain dBi | Duty Cycle % | EIRP Watts | (S) GP Limit mW/cm <sup>2</sup> | Declared Minimum separation Distance (cm) | EUT power Density mW/cm <sup>2</sup> | Result |
|-----|---------------|------------------|--------------|------------|---------------------------------|---|--------------------------------------|--------|
| 450 | 29.70         | 5                | 10           | 0.295      | 0.300                           | 20.0                                      | 0.059                                | Pass   |
| 460 | 29.50         | 5                | 10           | 0.282      | 0.307                           | 20.0                                      | 0.056                                | Pass   |
| 470 | 28.90         | 5                | 10           | 0.245      | 0.313                           | 20.0                                      | 0.049                                | Pass   |

Notes on the above table:

- S is the power density General Population Limit from FCC 1.1310 Table 1
- EIRP Power is the Peak Effective Radiated Power.  
EIRP = (Average Conducted Power + Antenna gain) \* Duty Cycle.

### POWER DENSITY

Power density is given by:

$$S = \text{EIRP} / (4 * \text{Pi} * \text{D}^2)$$

Where

S = Power density in mW/cm<sup>2</sup>

EIRP = Equivalent Isotropic Radiated Power in mW

D = Separation distance in cm

Since the calculated power density is less than the limit, this product fully meets the OET 65 requirements for the general population.