

RF Exposure

FCC ID: LLB2017023

This calculation is based on the highest EIRP possible from the EUT considering maximum power and antenna gain.

The highest output power of the EUT is 1.00 W and the gain of the antenna is 3 dBi.

There is be firmware control duty cycle. The firmware is set to limit duty cycle a 40% duty cycle or less in any given 6-minute period. In most cases, the duty cycle is much less than 40%. For all all calculations, 40% will be used as a worst-case in any given 6-minute period, as this is a worst case.

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 ² | Declared Minimum seperation Distance (cm) | EUT power Density mW/cm ² | Result |
|-----|---------------|------------------|--------------|------------|---------------------------------|---|--------------------------------------|--------|
| 450 | 29.9 | 3 | 40 | 0.7799 | 0.300 | 20.0 | 0.1552 | Pass |
| 460 | 30.0 | 3 | 40 | 0.7981 | 0.307 | 20.0 | 0.1588 | Pass |
| 470 | 29.9 | 3 | 40 | 0.7799 | 0.313 | 20.0 | 0.1552 | 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.
$$\text{EIRP} = (\text{Average Conducted Power} + \text{Antenna gain}) * \text{Duty Cycle}.$$

POWER DENSITY

Power density is given by:

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

Where

S = Power density in mW/cm²

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.