

# RF Exposure

FCC ID: LLB2019006

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 0.794 W and the max gain of the antenna is 3 dBi.

There is a firmware control duty cycle. The firmware is set to limit duty cycle at 40% duty cycle or less in any given 6-minute period. In most cases, the duty cycle is much less than 40%. For 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 <sup>2</sup>	Declared Minimum separation Distance (cm)	EUT power Density mW/cm <sup>2</sup>	Result
450	29.00	3	40	0.634	0.300	20.0	0.126	Pass
460	28.85	3	40	0.612	0.307	20.0	0.122	Pass
470	28.90	3	40	0.620	0.313	20.0	0.123	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.