

RF Exposure

FCC ID: LLBY84092-1

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 1.06 W and the max gain of the antenna is 2.2 dBi.

There is a firmware-controlled duty cycle. The firmware is set to limit duty cycle at 40% 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 ²	Declared Minimum separation Distance (cm)	EUT power Density mW/cm ²	Result
450	29.95	2.2	40	0.656	0.300	20.0	0.131	Pass
460	29.95	2.2	40	0.656	0.307	20.0	0.131	Pass
470	30.25	2.2	40	0.703	0.313	20.0	0.140	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/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.