RF Exposure

FCC ID: LLB2017013

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 0.971 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 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/cm2	Result
450	29.87	3	40	0.7746	0.300	20.0	0.1541	Pass
460	29.77	3	40	0.7569	0.307	20.0	0.1506	Pass
470	29.67	3	40	0.7397	0.313	20.0	0.1472	Pass

Notes on the above table:
   a. S is the power density General Population Limit from FCC 1.1310 Table 1
   b. EIRP Power is the Peak Effective Radiated Power.
       EIRP = (Average Conducted Power + Antenna gain) * Duty Cycle.

POWER DENSITY

Power density is given by:

$$S = EIRP / (4 * Pi * D^2)$$

Where

S = Power density in mW/cm^2
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.