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^2	Declared Minimum seperation Distance (cm)	EUT power Density mW/cm2	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:

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.