

MPE CALCULATION

FCC ID: 2ABZJ-100-00014PS

RF Exposure Requirements:

47 CFR §1. 1307(b)

RF Radiation Exposure Limits:

47 CFR §1. 1310

RF Radiation Exposure Guidelines:

FCC OST/OET Bulletin Number 65

EUT Frequency Band:

5150-5825 , 4950-4980 MHz

Limits for General Population/Uncontrolled Exposure in the band of:

1500 - 100,000 MHz

Power Density Limit:

1 mW / cm²

Equation: $S = PG / 4\pi R^2$ or $R = \sqrt{PG / 4\pi S}$

Where, S = Power Density

P = Power Input to Antenna

G = Antenna Gain

R = distance to the center of radiated antenna

Antenna Gain (dBi):	0	Distance (cm):	100
Frequency band	Max Power (dBm)	MPE (power density) (mW / cm ²)	Limit (mW / cm ²)
4.9GHz	32	0.0126	1
5.1GHz	29.8	0.0076	1
5.2GHz	23.54	0.0018	1
5.4GHz	23.66	0.0018	1
5.8GHz	29.85	0.0077	1
EUT can support two frequency bands transmit at the same time.			
Total MPE when 2 radios transmit at the same time =		0.0203	

Antenna Gain (dBi):	25	Distance (cm):	100
Frequency band	Max Power (dBm)	MPE (power density) (mW / cm2)	Limit (mW / cm2)
4.9GHz	3	0.0050	1
5.1GHz	17.25*	0.1336	1
5.2GHz	4.89	0.0078	1
5.4GHz	4.88	0.0077	1
5.8GHz	21.9*	0.3898	1
EUT can support two frequency bands transmit at the same time.			
Total MPE when 2 radios transmit at the same time =		0.5234	
*Average power -Peak to average ratio is 7dB , 5.1G peak power is 24.25dBm , 5.8G peak power is 28.9dBm			

The Above Result had shown that the device complied with MPE requirement at a prediction distance of 100cm .

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