

MPE CALCULATION
FCC ID: 2ALKS-WALL02

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

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

Frequency Range (MHz)	Power Density (mW/cm²)
1,500-100,000	1.0
300-1,500	f/1500

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

Prediction distance 20cm

Radio Mode	Ch Freq	Conducted Power(dBm)	Tune-Up Tolerance	Tolerance Max Power (dBm)	Antenna Gain (dBi)	Measurement Distance (cm)	Power Density (mw/cm ²)	MPE Limit (mw/cm ²)	Pass / Fail
BLE	2440MHz	1.77	±1dB	2.77	0.5	20	0.000422	1	Pass
WLAN	2462 MHz	22.44	±1dB	23.44	3	20	0.0876	1	Pass

If BLE & WLAN Transmit Simultaneously,

Total MPE = 0.000422+0.0876 = 0.088022 < 1

The Above Result had shown that the Device complied with MPE requirement.

Completed By: Vijay Chaudhary



SIEMIC, Inc.

775 Montague Expressway, Milpitas, CA 95035

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