

## MPE CALCULATION

FCC ID: Q8A-CTM1-DDM1

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: 2402MHz-2480MHz

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

Frequency Range (MHz)	Power Density (mW/cm <sup>2</sup> )
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

(Bluetooth-LE): Output Power = 0.278dBm, Antenna Gain = 3 dBi , Power density =0.000423 mW/cm<sup>2</sup>

Type	CH Freq (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Tune-Up Tolerance	Tolerance Max Power (dBm)	Measurement Distance (cm)	Calculated MPE (mW/cm <sup>2</sup> )	MPE Limit (mW/cm <sup>2</sup> )	Pass/Fail
Bluetooth LE	2402	0.278	3	±1dB	1.278	20	0.000423	1	Pass

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

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