MPE CALCULATION

FCC ID: 2AA9B11

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:	2402-2480 MHz
Limits for General Population/Uncontrolled Exposure in the band of:	1500 - 100,000 MHz
Power Density Limit:	1 mW / cm^2

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

EUT: BMD-345 Bluetooth 5 BLE + 802.15.4 module, Model No.: BMD-345

(2.4GHz BLE): Power = 12.56 dBm, Directional Gain = 0.5 dBi, Power density = 0.005 mW/ cm^2

(2.4GHz Zigbee): Power = 12.50 dBm, Directional Gain = 0.5 dBi, Power density = 0.005 mW/ cm^2

Type	CH Freq (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Directional Gain (dBi)	Tune-Up Tolerance	Tolerance Max Power (dBm)	Measurement Distance (cm)	Calculated MPE (mW/cm^2)	MPE Limit (mW/cm^2)	Pass/Fail
BLE	2402	12.56	0.5	0.5	±1dB	13.56	20	0.005	1	Pass
Zigbee	2402	12.50	0.5	0.5	±1dB	13.50	20	0.005	1	Pass

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

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