## FCC MPE Evaluation (FCC ID: BYM7000)

**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: 2402-2480MHz

Limits for General Population/Uncontrolled Exposure in the band of: 300 - 1500 MHz

Power Density Limit: f/1500 mW/cm2

Limits for General Population/Uncontrolled Exposure in the band of: 1500 - 100,000 MHz

Power Density Limit: 1 mW / cm<sup>2</sup>

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

Where, S = Power Density

P = Power Input to Antenna

G = Antenna Gain

R = distance to the center of radiated antenna

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Prediction distance 20 cm

## **EUT: Base Transceiver**

Radio	Frequency (MHz)	Max Conducted Output Power (dBm)	Antenna Gain (dBi)	Separation distance (cm)	Power Density (mW/ cm²)	MPE Limit (mW/cm²)
BLE	2402-2480	7.85	2	20	0.0019	1
5GHz	5180-5240	24.69	3	20	0.1169	1
5GHz	5260-5320	22.71	3	20	0.0741	1
5GHz	5500-5720	22.28	3	20	0.0671	1
5GHz	5745-5825	24.04	3	20	0.1006	1

The BLE is able to transmit simultaneously with WLAN.

The ratio = 0.0019/1 + 0.1169/1 = 0.1188 < 1.0

The above results show that the device complies with the MPE requirement.

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