

MPE CALCULATION

FCC ID

BT: 2AHXDBC127-X, LTE: 2AHXD1EIQN2NN

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/cm ²)
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

BCycle : Smart Kit

Type	CH Freq (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Measurement distance (cm)	Calculated MPE (mW/m ²)	MPE Limit (mW/m ²)	Pass / Fail
BT EDR	2442 MHz	7.11	0	20	0.0010	1	Pass
LTE Band 4	1732.5 MHz	22.46	3.5	20	0.0785	1	Pass
LTE Band 13	782 MHz	22.09	1	20	0.0405	0.521	Pass

If 1) BT & LTE Band 4 Transmit Simultaneously.

BT = $(0.0010/0.541) * 100 = 18\%$

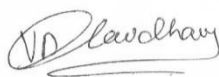
LTE Band 4 = $(0.0785/0.428) * 100 = 18\%$. Total MPE $0.18 + 0.18 = 0.36 < 1$

2) BT & LTE Band 13 Transmit Simultaneously

LTE Band 13 = $(0.0405/0.248) * 100 = 16\%$. Total MPE $0.18 + 0.16 = 0.34 < 1$

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

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