

MPE Calculation

$S = \text{EIRP} / (4R^2\pi)$
 S = Maximum power density (mW/cm²)
 P = Power input to the antenna (mW)
 G = Numeric power gain of the antenna
 R = Distance to the center of the radiation of the antenna
 EIRP = Equivalent Isotropic Radiated Power(mW) (=P*G)

Frequency range (MHz)			Electric Field strength (V/m)	Magnetic field strength (A/m)	Power Density (mW/cm ²)	Averageing time (minutes)
0.3	~	1.34	614	1.63	*100	30
1.34	~	30	824 / f	2.19 / f	*180 / f ²	30
30	~	300	27.5	0.073	0.2	30
300	~	1,500			f / 1500	30
1,500	~	100,000			1	30

Model Name : **HEIS.TCU String-Power 6Ah**
 FCC ID : **2BNNP-STRINGTCU**
 Separation distance (R) : **20.0 cm**

Modulation	Frequency (MHz)	Measured Maximum Average power	Tune-up tolerance	Max. Power with tune-up tolerance (P)		Antenna Gain (G)		Power Density (S)	Limit of Power Density (S)	Result
		(dBm)		(dBm)	(mW)	(dBi)	(numeric)	(mW/cm ²)	(mW/cm ²)	
BLE 1M	2402	1.34	± 1.00	2.34	1.71	4.56	2.86	0.0010	1.00	PASS
	2440	1.33		2.33	1.71	4.56	2.86	0.0010	1.00	PASS
	2480	1.33		2.33	1.71	4.56	2.86	0.0010	1.00	PASS
Zigbee	2405	7.98	± 1.00	8.98	7.91	2.00	1.58	0.0025	1.00	PASS
	2440	8.10		9.10	8.13	2.00	1.58	0.0026	1.00	PASS
	2480	9.19		10.19	10.45	2.00	1.58	0.0033	1.00	PASS

Note : BLE max output power pls refer to original RF report No.: 2APB6-BOT-NLE521, FCC ID:2APB6-BOT-NLE521.
 Zigbee max output power pls refer to original RF report No.: E2/2018/50099-01, FCC ID:SH6MDBT50Q.
 The EUT will only be used with a separation of 20 centimeters or greater between the antenna and the body of the user.