

Maximum Permissible Exposure Evaluation

FCC ID: 2ASB5-CCB007AA

1. Client Information

Applicant	:	CAMELLIA LABS. INC
Address	:	155,BOVET RD,SUITE 302,SAN MATEO,CA USA-94402
Manufacturer	:	Shenzhen Sun Cupid Industries Ltd. Longgang Branch
Address	:	No. 7, Gao Ke Blvd., Bao Long Sub-district, Long Gang District, Shen Zhen, Guang Dong, China.

2. General Description of EUT

EUT Name	:	The Chai Brewer	
Models No.	:	CCB007AA	
Model Difference	:	N/A	
Product Description	:	Operation Frequency:	Bluetooth (BLE): 2402~2480 MHz
	:	RF Output Power:	BLE: -0.285 dBm(Max)
	:	Antenna Gain:	2.81 dBi PCB Antenna
Power Rating	:	AC 120V/60 Hz	
Software Version	:	N/A	
Hardware Version	:	N/A	
Connecting I/O Port(S)	:	Please refer to the User's Manual	

Note: More test information about the EUT please refer the RF Test Report.

MPE Calculations for BLE

1. Antenna Gain:

PCB Antenna: 2.81dBi.

2. EUT Operation Condition:

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

3. Exposure Evaluation:

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S=(PG)/4\pi R^2$$

Where

S: power density

P: power input to the antenna

G: power gain of the antenna in the direction of interest relative to an isotropic radiator.

R: distance to the center of radiation of the antenna

4. Test Result:

Frequency (GHz)	Conducted Power(max) (dBm)	Turn-up Power (dB)	Max tune up power (dBm) [P]	ANT Gain (dBi) [G]	Distance (cm) [R]	Power Density (mW/ cm ²) [S]
2.402	-0.285	0±1	1	2.81	20	0.00047835
2.442	-1.072	-1±1	0	2.81	20	0.00037996
2.480	-2.205	-2±1	-1	2.81	20	0.00030182

5. Conclusion:

As specified in Table 1B of 47 CFR 1.1310- Limits for Maximum Permissible Exposure (MPE),

Limits for General Population/ Uncontrolled Exposure

Frequency Range (MHz)	Power density (mW/ cm ²)
300-1,500	F/1500
1,500-100,000	1.0

For BLE: 2402~2480 MHz

MPE limit S: 1mW/ cm²

The MPE is calculated as $0.00047835\text{mW} / \text{cm}^2 < \text{limit } 1\text{mW} / \text{cm}^2$. So, RF exposure limit warning or SAR test are not required.

The EUT will only be used with a separation of 20cm or greater between the antenna and nearby persons and can therefore be considered a mobile transmitter per 47 CFR2.1091 (b).

The RF Exposure Information page from the manual is included here for reference.

Note

For a more detailed features description, please refer to the RF Test Report.

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