

RF Exposure Evaluation

FCC ID: 2ACI2HMX01

1. Client Information

Applicant : SHENZHEN HILLMISSION TECHNOLOGY CO.,LTD
Address : Room No.1509, Jinluan Times Building, Heping East Road, Longhua District, Shenzhen City, Guangdong Province, China
Manufacturer : SHENZHEN HILLMISSION TECHNOLOGY CO.,LTD
Address : Room No.1509, Jinluan Times Building, Heping East Road, Longhua District, Shenzhen City, Guangdong Province, China

2. General Description of EUT

EUT Name	:	Plus
Models No.	:	H1001, H1001-01, H1001-02, H1001-03, H1001-04, H1001-05, H1001-06
Model Difference	:	All models are identical in the same PCB layout, interior structure and electrical circuits. The only difference is appearance color of the product.
Product Description	:	Operation Frequency: 2402MHz~2480MHz
	:	Number of Channel: Bluetooth 4.0 (BLE): 40 channels see note(3)
	:	RF Output Power: -0.988 dBm Conducted Power
	:	Antenna Gain: 0.5 dBi (Chip Antenna)
	:	Modulation Type: GFSK
	:	Bit Rate of Transmitter: 1Mbps(GFSK)
Power Supply	:	DC power charging by USB charger DC Voltage supplied from Li-Polymer battery.
Power Rating	:	DC 5V by USB charger DC 3.7V 60mAh from Li-ion battery
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

1. FCC: According to KDB 447498 D01 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies v05r02.

- (1) Clause 4.3: General SAR test reduction and exclusion guidance

- Sub clause 4.31: Standalone SAR test exclusion considerations

- 1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6GHz at test separation distance ≤ 50 mm are determined by:

- $$\frac{[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] \times [\sqrt{f_{(\text{GHz})}}]}{\leq 3.0 \text{ for 1-g SAR}}$$

- $$\frac{[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] \times [\sqrt{f_{(\text{GHz})}}]}{\leq 7.5.0 \text{ for 10-g SAR}}$$

2.

Calculation:

Bluetooth BLE (GFSK)						
Frequency (GHz)	Conducted Power (dBm)	Ant Gain (dBi)	TX Power (mW)	Distance (mm)	Calculation Value	Threshold Value
2.402	-1.026	0.5	0.886	5	0.275	3.0
2.442	-0.988	0.5	0.894	5	0.277	3.0
2.480	-1.502	0.5	0.794	5	0.246	3.0

So standalone SAR measurements are not required.