



Maximum Permissible Exposure Evaluation FCC ID:2AKBP-BR1

1. Client Information

Applicant	:	Shenzhen Hysiry Technology Co., Ltd.
Address	:	2403D, 24th floor, coast huanqing building, no.24 futian road , xu town community, futian street, futian district, shenzhen
Manufacturer	:	Shenzhen Hysiry Technology Co., Ltd.
Address	:	2403D, 24th floor, coast huanqing building, no.24 futian road , xu town community, futian street, futian district, shenzhen

2. General Description of EUT (Equipment Under Test)

EUT Name	:	Bluetooth remote control	
Model No.	:	BR1	
Series Model No.	:	N/A	
Product Description	:	Operation Frequency:	2402MHz~2480MHz
		Modulation Type:	GFSK
		Antenna Designation:	1.7dBi PCB Antenna
		Bluetooth version:	Bluetooth 5.0
		EIRP Power: (Average)	BLE 1M:-9.51dBm BLE 2M:-9.48dBm
Power Supply	:	DC Voltage Supplied.	
Power Rating	:	Input: DC 3V for button battery	
Software Version	:	V1.0	
Hardware Version	:	V1.0	
Connecting I/O Port(S)	:	Please refer to the User's Manual	

MPE Calculations for

1. Antenna Gain:

PCB Antenna: 1.7dBi

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:

Mode	Channel frequency (MHz)	Test Result (dBm)	Limit (dBm)
BLE 1M	2402	-10.755	30
	2442	-9.975	
	2480	-9.511	
BLE 2M	2402	-10.709	
	2442	-9.937	
	2480	-9.477	

Mode	Channel Frequency(MHz)	Turn-up power (dB)	Max tune up power (dBm) [P]	ANT Gain (dBi) [G]	Distance (cm) [R]	Power Density (mW/cm ²) [S]
BLE 1M	2402	-10±1	-9	1.48	20	-0.00265
	2442	-9±1	-8	1.48	20	-0.00235
	2480	-9±1	-8	1.48	20	-0.00235
BLE 2M	2402	-10±1	-9	1.48	20	-0.00265
	2442	-9±1	-8	1.48	20	-0.00235
	2480	-9±1	-8	1.48	20	-0.00235

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/cm²)
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 $-0.00235\text{mW/cm}^2 < 1\text{mW/cm}^2$. So, RF exposure limit warning or SAR test are not required.

The EUT will only be used with a separation of 20 cm or greater between the antenna and nearby persons and can therefore be considered a mobile transmitter per 47 CFR 2.1091(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.

--End of Report--