

Maximum Permissible Exposure Evaluation

FCC ID: 2AZWI-3542LEQI

1. Client Information

Applicant	:	Shenzhen Leqi Network Technology Co., LTD
Address	:	Room 101, Building 9 & Room 401, Building 12, Yazhou Industrial Park, Bantian, Longgang, Shenzhen, Guangdong, China.
Manufacturer	:	Shenzhen Leqi Network Technology Co., LTD
Address	:	Room 101, Building 9 & Room 401, Building 12, Yazhou Industrial Park, Bantian, Longgang, Shenzhen, Guangdong, China.

2. General Description of EUT

EUT Name	:	Motorized Slider
Models No.	:	MS-10
Product Description	Operation Frequency:	Bluetooth 4.2(BLE): 2402MHz~2480MHz
	Number of Channel:	Bluetooth 4.2(BLE): 40 channels
	RF Output Power:	GFSK: -15.42dBm
	Antenna Gain:	1.7dBi PCB Antenna
Power Rating	:	Input: DC 5V,2A /7.5V, 2A
Software Version	:	V1.0.0
Hardware Version	:	V1.0.0
Connecting I/O Port(S)	:	Please refer to the User's Manual
Remark	:	the MPE report used the EUT (202201-0027-01-02).

MPE Calculations for WIFI

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:

Worst Maximum MPE Result								
Mode	N T X	Freq. (MHz)	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]
BLE (GFSK)	1	2402	-15.42	-15±1	-14	1.7	20	0.0000
		2440	-15.6	-15±1	-14	1.7	20	0.0000
		2480	-15.54	-15±1	-14	1.7	20	0.0000
Note: (1) N _{TX} = Number of Transmit Antennas (2) RF Output power specifies that Maximum Conducted Peak Output Power.								

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 $0.0000 \text{ mW} / \text{cm}^2 < \text{limit } 1 \text{mW} / \text{cm}^2$. 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.

6. Conclusion:

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

-----END OF REPORT-----