Maximum Permissible Exposure Evaluation

FCC ID: 2AR9V-BT2LOCK

1. Client Information

Applicant	:	QuickSafes LLC
Addres	:	1250 North 200 West, PO BOX 137, Nephi, UT 84648,Nephi,USA.
Manufacturer	:	Shanxi Fuding International Trade Co.,Ltd
Address	:	Room 7007-7009, Yifeng Building, No246 Fuxi Street, Taiyuan, Shanxi, China

1A/F., Bldg.6, Yusheng Industrial Zone, The National Road No.107 Xixiang Section 467, Xixiang, Bao'an, Shenzhen, China
Tel: +86 75526509301 Fax: +86 75526509195

2. General Description of EUT

EUT Name	:	RFID-BT Lock	
Models No.	:	BT2 Lock	
Model Difference	:	N/A	
Product Description	:	Operation Frequency:	Bluetooth: 2402~2480 MHz
		RF Output Power:	BLE: 2.419 dBm(Max)
		Antenna Gain:	-3dBi PCB Antenna
Power Rating	:	DC 6V (1.5V AA batteries*4)	
Software Version	:	N/A	
Hardware Version	:	N/A	
Connecting I/O Port(S)	:	Please refer to the User's Manual	

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MPE Calculations for WIFI

1. Antenna Gain:

PCBAntenna: -3dBi.

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	2.419	2±1	3	-3	20	0.00019895
2.442	2.266	2±1	3	-3	20	0.00019895
2.480	1.514	2±1	3	-3	20	0.00019895

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: $1mW/cm^2$
The MPE is calculated as ***$0.00019895mW/cm^2 < limit\ 1mW/cm^2$***. 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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