

RF Exposure Evaluation

FCC ID: 2AHHF-JL651S

1. Client Information

Applicant : Shenzhen JILU Smart Technology CO.,LTD.
Address : 10th Floor, Building 3, Hanhaida Industrial Park, Gongming Town, Guangming New District, Shenzhen, China
Manufacturer : Shenzhen JILU Smart Technology CO.,LTD.
Address : 10th Floor, Building 3, Hanhaida Industrial Park, Gongming Town, Guangming New District, Shenzhen, China

2. General Description of EUT

EUT Name	:	Electric scooter	
Models No.	:	JL651S, JL451S, JL801S, JL1001S, JL1001E, JL651E, JL452S, JL652S, JL802S, JL1002S, JL1002E, JL652E	
Model difference	:	All these models are identical in the same PCB, layout and electrical circuit, the only difference is model name for commercial.	
Product Description	:	Operation Frequency: Bluetooth 3.0:2402~2480MHz	
		Number of Channel:	Bluetooth:79 Channels
		Max Peak Output Power:	Bluetooth: 3.32 dBm(π /4-DQPSK)
		Antenna Gain:	1.2 dBi PCB Antenna
		Modulation Type:	GFSK 1Mbps(1 Mbps) π /4-DQPSK(2 Mbps)
Power Supply	:	DC Voltage supplied from Switching Power Supply. DC power by Li-ion Battery.	
Power Rating	:	Switching Power Supply: Input: AC 100~240V, 50/60Hz 2.5A. Output: DC 42V, 2A. DC 36V 4400mAh 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.

SAR Test Exclusion 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 ≤ 5 mm are determined by:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{(\text{GHz})}}] \leq 3.0 \text{ for 1-g SAR}$$
$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{(\text{GHz})}}] \leq 7.5.0 \text{ for 10-g SAR}$$

2.

Calculation:

Test separation: 5mm					
Bluetooth Mode (GFSK)					
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	2.33	± 0.5	1.919	0.595	3.0
2.441	2.41	± 0.5	1.954	0.611	3.0
2.480	2.34	± 0.5	1.923	0.606	3.0
Bluetooth Mode ($\pi/4$ -DQPSK)					
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	3.18	± 0.5	2.333	0.723	3.0
2.441	3.32	± 0.5	2.410	0.753	3.0
2.480	3.26	± 0.5	2.377	0.749	3.0

So standalone SAR measurements are not required.