

Chongqing Lihua Automatic Technology Co.,Ltd.

MPE ASSESSMENT REPORT

Report Type:

FCC MPE assessment report

Model:

TY202201K

REPORT NUMBER:

220501948SHA-002

ISSUE DATE:

July 15, 2022

DOCUMENT CONTROL NUMBER:

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TEST REPORT

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Report no.: 220501948SHA-002

Applicant: Chongqing Lihua Automatic Technology Co.,Ltd.
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Manufacturer: Chongqing Lihua Automatic Technology Co.,Ltd.
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Chongqing 400000 China (Peoples Republic Of)

Factory Chongqing Lihua Automatic Technology Co.,Ltd.
No.9 Yangliubei Road, Yubei District
Chongqing 400000 China (Peoples Republic Of)

FCC ID: 2AL6E-LHT202201K

SUMMARY:

The equipment complies with the requirements according to the following standard(s) or Specification:

KDB447498 D01 General RF Exposure Guidance v06
FCC Part2.1091, FCC Part2.1093 FCC Part1.1307(b)

PREPARED BY:

REVIEWED BY:



Project Engineer
Damon Ding

Reviewer
Eric Li

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Revision History

Report No.	Version	Description	Issued Date
220501948SHA-002	Rev. 01	Initial issue of report	July 15, 2022

1 GENERAL INFORMATION

1.1 Description of Equipment Under Test (EUT)

Product name:	Bluetooth module
Type/Model:	TY202201K
Description of EUT:	The EUT is Bluetooth module, it supports bluetooth functions, there is only one model, We test it and list the worst results in this report.
Rating:	DC 3.3V
EUT type:	<input checked="" type="checkbox"/> Table top <input type="checkbox"/> Floor standing
Software Version:	/
Hardware Version:	/
Sample Identification No.:	0220613-18
Sample received date:	2022.6.15
Date of test:	2022.6.15-2022.7.15

1.2 Technical Specification

Frequency Band:	2400MHz ~ 2483.5MHz
Support Standards:	Bluetooth LE
Type of Modulation:	GFSK
Channel Number:	40 (0 - 39)
Data Rate:	1Mbps
Channel Separation:	2 MHz

Antenna information:			
No.	Antenna Type	Gain (dBi)	Note
1	PCB Antenna	0	-

1.3 Description of Test Facility

Name:	Intertek Testing Services Shanghai
Address:	Building 86, No. 1198 Qinzhou Road(North), Shanghai 200233, P.R. China
Telephone:	86 21 61278200
Telefax:	86 21 54262353

The test facility is recognized, certified, or accredited by these organizations:	CNAS Accreditation Lab Registration No. CNAS L0139
	FCC Accredited Lab Designation Number: CN0175
	IC Registration Lab CAB identifier.: CN0014
	VCCI Registration Lab Registration No.: R-14243, G-10845, C-14723, T-12252
	A2LA Accreditation Lab Certificate Number: 3309.02

2 MPE Assessment

Test result: Pass

2.1 MPE Assessment Limit

Mobile device exposure for standalone operations:

Frequency range	E-field strength (V/m)	H-field strength (A/m)	B-field (uT)	Equivalent plane wave power density S_{eq} (W/m ²)
0-1 Hz	-	$3,2 \times 10^4$	4×10^4	-
1-8 Hz	10 000	$3,2 \times 10^4/f^2$	$4 \times 10^4/f^2$	-
8-25 Hz	10 000	$4\,000/f$	$5\,000/f$	-
0,025-0,8 kHz	$250/f$	$4/f$	$5/f$	-
0,8-3 kHz	$250/f$	5	6,25	-
3-150 kHz	87	5	6,25	-
0,15-1 MHz	87	$0,73/f$	$0,92/f$	-
1-10 MHz	$87/f^{1/2}$	$0,73/f$	$0,92/f$	-
10-400 MHz	28	0,073	0,092	2
400-2 000 MHz	$1,375 f^{1/2}$	$0,0037 f^{1/2}$	$0,0046 f^{1/2}$	$f/200$
2-300 GHz	61	0,16	0,20	10

Mobile device exposure for simultaneous transmission operations: **the sum of the MPE ratios for all simultaneously transmitting antennas incorporated in a host device is ≤ 1.0**

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2.2 Assessment Results

Power density (S) is calculated according to the formula:

$$S = P / (4\pi R^2)$$

Where S = power density in mW/cm²

P = Radiated transmit power in mW

R = distance (cm)

As we can see from the test report 220501948SHA-001:

Here R is chosen to be 20cm,

Mode	Frequency Range	Power		R	S	Limits
	(MHz)	dBm	mW	(cm)	(mW/cm ²)	(mW/cm ²)
BLE	2402 - 2480	0.36	1.09	20	0.0002	1

Appendix I

Definition below must be outlined in the User Manual:

To satisfy FCC RF exposure requirements, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation. To ensure compliance, operations at closer than this distance is not recommended.

***** END *****