

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:**

TTRFFCCMPE-01\_V1 © 2018 Intertek



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

**Manufacturer:** Chongqing Lihua Automatic Technology Co.,Ltd.  
No.9 Yangliubei Road, Yubei District  
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:**

---

Project Engineer  
Damon Ding

**REVIEWED BY:**

---

Reviewer  
Eric Li

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

**TEST REPORT****Revision History**

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

**TEST REPORT****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	-

**TEST REPORT****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

**TEST REPORT****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 <sup>2</sup> )
0-1 Hz	-	$3,2 \times 10^4$	$4 \times 10^4$	-
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  $\leq 1.0$**

**TEST REPORT****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/cm<sup>2</sup>

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 <sup>2</sup> )	(mW/cm <sup>2</sup> )
BLE	2402 - 2480	0.36	1.09	20	0.0002	1

**TEST REPORT****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 \*\*\*\*\*