

Qingdao Richmat Intelligence Technology Inc

MPE ASSESSMENT REPORT

Report Type:

FCC MPE assessment report

Model:

HJ8258

REPORT NUMBER:

231200308HAN-002

ISSUE DATE:

January 18, 2024

DOCUMENT CONTROL NUMBER:

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TEST REPORT

Applicant: Qingdao Richmat Intelligence Technology Inc
NO.78 Kongquehe 4th Road, Qingdao Clothing Industry park, Jimo,
Qingdao, Shandong Province, China.

Manufacturer: Qingdao Richmat Intelligence Technology Inc
NO.78 Kongquehe 4th Road, Qingdao Clothing Industry park, Jimo,
Qingdao, Shandong Province, China.

Factory: Qingdao Richmat Intelligence Technology Inc
NO.78 Kongquehe 4th Road, Qingdao Clothing Industry park, Jimo,
Qingdao, Shandong Province, China.

FCC ID: 2AJJGHJ8258

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 Part1.1307(b)

PREPARED BY:

REVIEWED BY:



Offa Zhou
Project Engineer



Wakeyou Wang
Reviewer

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Revision History

Report No.	Version	Description	Issued Date
231200308HAN-002	Rev. 01	Initial issue of report	January 18, 2024

TEST REPORT

1 GENERAL INFORMATION

1.1 Description of Equipment Under Test (EUT)

Product name:	Module
Type/Model:	HJ8258
Description of EUT:	The report is C2PC report, the following host model(supplied by DC power) was added. Therefore, host model was tested.
Host models:	HJC53 Ble
Rating:	Module: DC 3.3V
EUT type:	☒ Table top ☐ Floor standing
Software Version:	/
Hardware Version:	/
Sample received date:	December 11, 2023
Date of test:	December 20, 2023 ~ December 27, 2023

1.2 Technical Specification

Frequency Range:	2402MHz – 2480 MHz
Support Standards:	Bluetooth LE
Type of Modulation:	GFSK
Channel Number:	40
Data Rate:	1Mbps
Channel Separation:	2MHz
Antenna Information:	PCB antenna, 3dBi

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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-4243, G-845, C-4723, T-2252
	A2LA Accreditation Lab Certificate Number: 3309.02

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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:

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

Where S = power density in mW/cm²

P = Radiated transmit power in mW

G = numeric gain of transmit antenna

R = distance (cm)

The calculations in the table below use the highest gain of antenna for client EUT. These calculations represent worst case in terms of the exposure levels.

Mode	Frequency band	EIRP	R	S	Limits
	(MHz)	dBm	(cm)	(mW/cm ²)	(mW/cm ²)
BLE	2402 -2480	5.193	20	0.00066	1

Note: 1 mW/cm² from 1.310 Table 1

The MPE assessment value is 0.00066 < 1.0, therefore, the MPE requirement is deemed to be satisfied without test.

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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 *****