

# Shenzhen Ronghui Technology Co., LTD.

## MPE ASSESSMENT REPORT

**Report Type:**

FCC Part §2.1091, §2.1093 and §1.1307(b) assessment report

**Model:**

RH-MSR-GF01/704AAR

**REPORT NUMBER:**

2401B1484SHA-002

**ISSUE DATE:**

April 12, 2024

**DOCUMENT CONTROL NUMBER:**

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**Manufacturer:** Shenzhen Ronghui Technology Co., LTD.  
14D, Microsoft Ketong Building, No. 55, South Nine Road, High-tech  
Community, Yuehai Street, Nanshan District, Shenzhen, China

**Manufacturing site:** Shanghai Baolong Automotive (Anhui) Co. Ltd.  
No.1588 Tiandu Road, Hefei Economic Development Zone, Anhui  
Province, P.R.China

**Product Name:** Millimeter wave radar

**Type/Model:** RH-MSR-GF01/704AAR

**FCC ID:** 2BE8F-SZRHMSRGF01

## 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:



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Dylan Tang

## REVIEWED BY:



Reviewer  
Wakeyou Wang

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## Revision History

Report No.	Version	Description	Issued Date
2401B1484SHA-002	Rev. 01	Initial issue of report	April 12, 2024

## 1 GENERAL INFORMATION

### 1.1 Description of Equipment Under Test (EUT)

Product name:	Millimeter wave radar
Type/Model:	RH-MSR-GF01/704AAR
Description of EUT:	The EUT is a Millimeter wave radar, it has only one model.
Rating:	DC 9-16V
Highest operating frequency:	<77GHz
Category of EUT:	Class B
EUT type:	<input checked="" type="checkbox"/> Table top <input type="checkbox"/> Floor standing
Software Version:	00.00.01
Hardware Version:	HW0.7.0.0
Sample received date:	January 3, 2024
Date of test:	January 3, 2024~ April 10, 2024

### 1.2 Technical Specification

Frequency Range:	76000MHz ~ 77000MHz
Type of Modulation:	FMCW
Channel Number:	1
Antenna Information:	Integrated antenna

### 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 <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:

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

Where S = power density in mW/cm<sup>2</sup>

P = Radiated transmit power in mW

G = numeric gain of transmit antenna

R = distance (cm)

PG = Output Power including antenna gain

As we can see from the test report: 2401B1484SHA-001.

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.

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Frequency	Output Power		Distance	Power Density	Limits
(MHz)	P <sub>ERIP</sub>		R	S	
	dBm	mW	(cm)	(mW/cm <sup>2</sup> )	
76000 – 77000	29.2	831.76	20	0.166	1

Note: 1 mW/cm<sup>2</sup> from 1.310 Table 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\*\*\*\*\*