Certificate #5505.02

MPE REPORT

Report No.: SRTC2024-9004(F)-24052102(I)

Product Name: Edge Computer

Product ID: EC954-FQ38

Applicant: Beijing InHand Networks Technology Co., Ltd.

Manufacturer: Beijing InHand Networks Technology Co., Ltd.

FCC ID：2AANY-EC954FQ38

Reference Specification
FCC Part §1.1310

The State Radio_monitoring_center Testing Center (SRTC)

15th Building, No.30, Shixing Street, Shijingshan District,

Beijing, P.R.China

Tel: 86-10-57996183 Fax: 86-10-57996388

CONTENTS

1 GENERAL INFORMATION 2

1.1 NOTES OF THE TEST REPORT 2
1.2 INFORMATION ABOUT THE TESTING LABORATORY 2
1.3 APPLICANT’S DETAILS 2
1.4 MANUFACTURER’S DETAILS 3
1.5 TEST ENVIRONMENT 3

2 DESCRIPTION OF THE DEVICE UNDER TEST 4

2.1 FINAL EQUIPMENT BUILD STATUS 4

3 REFERENCE SPECIFICATION 5

4 RESULT SUMMARY 5

5.CALCULATION RESULT 6

5.1 MAXIMUM PERMISSIBLE EXPOSURE (MPE) 6

1 GENERAL INFORMATION

1.1 Notes of the test report

The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written permission of The State Radio_monitoring_center Testing Center (SRTC).The test results relate only to individual items of the samples which have been tested.The certification and accreditation identifiers used in this report shall not be applicable to the tested or calibrated samples thereof. The manufacturer shall not mark the tested samples or items (or a separate part of the item) with the identifiers of certification and accreditation to mislead relevant parties about the tested samples or items.

1.2 Information about the testing laboratory

Company:	The State Radio_monitoring_center Testing Center (SRTC)
Test Site 1:	15th Building, No.30 Shixing Street, Shijingshan District
Test Site 2:	No.80, Zhaojiachang, Beizang, Daxing District
City:	Beijing
Country or Region:	P.R.China
Contacted person:	Liu Jia
Tel:	+86 10 57996183
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Email:	liujiaf@srtc.org.cn
Designation Number:	CN1267
Registration number:	239125

1.3 Applicant’s details

Company:	Beijing InHand Networks Technology Co., Ltd.
Address:	Room 501, floor 5, building 3, yard 18, ziyue road, chaoyang district, Beijing
City:	Beijing
Country or Region:	China
Contacted person:	GuJichi
Tel:	15281366255
Email:	gujc@inhand.com.cn

1.4 Manufacturer's details

Company:	Beijing InHand Networks Technology Co., Ltd.
Address:	Room 501, floor 5, building 3, yard 18, ziyue road, chaoyang district, Beijing
City:	Beijing
Country or Region:	China
Contacted person:	GuJichi
Tel:	15281366255
Email:	gujc@inhand.com.cn

1.5 Test Environment

Date of Receipt of test sample at SRTC:	2024/5/23
Testing Start Date:	2024/5/24
Testing End Date:	2024/7/5

Environmental Data:	Temperature (°C)	Humidity (%)
Ambient	25	40
Maximum Extreme	75	---
Minimum Extreme	-30	---

Normal Supply Voltage (V d.c.):	12
Maximum Extreme Supply Voltage (V d.c.):	48
Minimum Extreme Supply Voltage (V d.c.):	12

2 DESCRIPTION OF THE DEVICE UNDER TEST

2.1 Final Equipment Build Status

Wi-Fi 2.4G

Frequency Band:	2.412GHz~2.462GHz
Number of Channel For 20MHz:	11
Number of Channel For 40MHz:	7
Modulation Type:	802.11b 802.11g 802.11n (HT20/HT40)
Power Supply:	DC supply
Antenna gain:	For Power/PSD: ANT0：2.72dBi(max) ANT1：2.72dBi(max)
Directional Gain:	For Power/PSD:2.72dBi(Uncorrelated)
Software Revision:	N/A
Hardware Revision:	N/A
IMEI:	N/A
Antenna type:	Sucker antenna

Wi-Fi 5G

Frequency Band(s)**:**	U-NII-1:5150MHz-5250MHz U-NII-3:5725MHz-5850MHz
Modulation Type:	802.11a 802.11n (HT20/HT40) 802.11ac (VHT20/VHT40/VHT80)
Antenna Type**:**	Sucker antenna
Antenna gain	For Power/PSD: ANT0：0.21dBi(max) ANT1：0.21dBi(max)
Directional Gain:	For Power/PSD:0.21dBi(Uncorrelated)
Power Supply**:**	DC supply
Software Revision:	N/A
Hardware Revision:	N/A
IMEI:	N/A

3 REFERENCE SPECIFICATION

Specification	Version	Title
Part 1.1310	Latest	Radio frequency radiation exposure limits.

4 RESULT SUMMARY

Case	Verdict
MPE	Pass

Note: This report's data refers to the MPE report of the 4G module.
The 4G module's MPE report number: R1806A0301-M1V3
4G module's FCC ID: XMR201808EC25AF

This Test Report Is Issued by: Mr. Peng Zhen	Checked by: Mr. Li Bin
Tested by: Mr. Hui Wen	Issued date: 2024/07/29

5.CALCULATION RESULT

5.1 Maximum permissible exposure (MPE)

Limit:

(A) Limits for Occupational/Controlled Exposure ☐

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm2)	Averaging Time |E|2, |H|2 or S (minutes)
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f^2	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

(B) Limits for General Population/Uncontrolled Exposure ☑

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm2)	Averaging Time |E|2, |H|2 or S (minutes)
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f^2	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz *Plane-wave equivalent power density

Result:

According to §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines.

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

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

Where S = power density in mW/cm^2

P = transmit power in mW

G = numeric gain of transmit antenna

R = distance (cm)

Standalone Transmission Result

Band	Freq. (MHz)	Maximum Power (dBm)	ANT Gain (dBi)	Maximum EIRP (dBm)	Maximum EIRP(mW)	Power Density at 20cm (mW/cm^2)	Limit (mW/cm^2)	Power Density/ Limit
WCDMA II	1880	21.49	4	25.49	353.997	0.070	1	0.070
WCDMA IV	1732.6	21.62	4	25.62	364.754	0.073	1	0.073
WCDMA V	836.6	19.22	4	23.22	209.894	0.042	0.550	0.076
LTE Band2	1880	21.75	4	25.75	375.837	0.075	1	0.075
LTE Band4	1732.5	22.08	4	26.08	405.509	0.081	1	0.081
LTE Band5	836.5	19.69	4	23.69	233.884	0.047	0.550	0.085
LTE Band12	707.5	16.48	4	20.48	111.686	0.022	0.470	0.047
LTE Band13	782	19.63	4	23.63	230.675	0.046	0.520	0.088
LTE Band14	793	19.48	4	23.48	222.844	0.044	0.530	0.084
LTE Band66	1745	23.51	4	27.51	563.638	0.112	1	0.112
LTE Band71	680.5	18.72	4	22.72	187.068	0.037	0.450	0.083
WIFI 2.4G	2412	16.57	2.72	19.29	84.918	0.017	1	0.017
WIFI 5.2G	5240	12.97	0.21	13.18	20.797	0.004	1	0.004
WIFI 5.8G	5785	15.76	0.21	15.97	39.537	0.008	1	0.008

NOTE : The table above reuses test data from Part 22,24,27 and 99 of the report R1806A0301-R1V1 EC25-AF MINIPCIE FCC for the MPE evaluation of the WCDMA and LTE sections.

Simultaneous Transmission Result

Power Density1 / Limit (LTE66)	Powe Density2 / Limit WIFI 2.4G (WIFI 2.4G)	Σ(Power Density / Limit)
0.112	0.017	0.129

Note: Simultaneous Transmission Limit = Power_1 / Limit_1 + Power_2 / Limit_2 < 1.

---End of Test Report---