

MPE TEST REPORT

Report No.: SHE24080045-02HE

Date: 2024-11-22

Page 1 of 19

Applicant

Address of Applicant

Product Name

Brand Name

Model Name

Sample Acquisition Method

Sample No.

FCC ID

Standard

:

:

:

:

:

:

:

:

:

SKYTECH USA LLC.

INCORP SERVICES, INC. 3458 LAKESHORE DRIVE
TALLAHASSEE, FL 32312 US

ALL IN ONE

STGSivir & STGSivir

SIV0323

Sent by Client

E24080045-02#03

2BGCASIV0323

FCC Part 2.1091

Date of Receipt

Date of Test

Date of Issue

:

:

:

2024-09-10

2024-09-10~ 2024-11-22

2024-11-22

Remark:
This report details the results of the testing carried out on one sample, the results contained in this report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

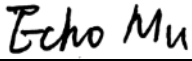
Prepared by:

Reviewed by:

Approved by:







(Erik Yang)

(Jennifer Zhou)

(Authorized signatory: Echo Mu)

MPE TEST REPORT

Contents

1

GENERAL INFORMATION

3

1.1

TESTING LABORATORY

3

1.2

ENVIRONMENTAL CONDITIONS

3

1.3

DETAILS OF APPLICATION

3

1.4

DETAILS OF EUT

3

2

MAXIMUM PERMISSIBLE EXPOSURE (MPE)

4

2.1

LIMITS

4

2.2

ASSESSMENT METHODS

5

2.3

TEST RESULT

5

2.4

CONCLUSION

5

3

APPENDIXES

6

3.1

SAMPLE PHOTOGRAPH.....

6

MPE TEST REPORT

Report No.: SHE24080045-02HE

Date: 2024-11-22

Page 3 of 19

1 General Information

1.1 Testing Laboratory

Company Name	ICAS Testing Technology Service (Shanghai) Co., Ltd.
Address	No.1298, Pingan Road, Minhang District, Shanghai, China
Telephone	0086 21-51682999
Fax	0086 21-54711112
Homepage	www.icasiso.com

1.2 Environmental conditions

Temperature (°C)	15-35
Humidity (%RH)	30-60
Barometric Pressure (mbar)	860-1060
Ambient noise & Reflection (W/kg)	< 0.012

1.3 Details of Application

Applicant Company Name	SKYTECH USA LLC.
Address	INCorp SERVICES, INC. 3458 LAKESHORE DRIVE TALLAHASSEE, FL 32312 US
Contact Person	Hu yan
Telephone	001-647-8892-868
Email	yan.hu@astsys.com
Manufacturer Company Name	SKYTECH USA LLC.
Address	INCorp SERVICES, INC. 3458 LAKESHORE DRIVE TALLAHASSEE, FL 32312 US
Factory Company Name	SKYTECH USA LLC.
Address	INCorp SERVICES, INC. 3458 LAKESHORE DRIVE TALLAHASSEE, FL 32312 US

1.4 Details of EUT

Product Name	ALL IN ONE	
Brand Name	STGsivir & STGSivir	
Test Model Name	SIV0323	
FCC ID	2BGCASIV0323	
Mode of Operation	WIFI 802.11b/g/n(HT20/40) for 2.4GHz WIFI 802.11a/n(HT20/HT40)/ac(VHT20/VHT40/VHT80) for 5GHz Bluetooth dual mode	
Frequency Range	Mode of Operation	Frequency Range (MHz)
	802.11b/g/n(HT20/HT40)	2412~2462

MPE TEST REPORT

	802.11a/n(20M/40M)/ac(20M/40M/80M)	5180~5240
		5745~5825
	Bluetooth	2402~2480
Modulation Type	DSSS/OFDM for WLAN 2.4GHz and OFDM for WIFI 5GHz GFSK/8DPSK/Π/4DQPSK for Bluetooth	
Antenna Type	Internal Antenna	
Antenna Gain	WIFI 2.4GHz: 1.83dBi WIFI 5GHz: 2.97dBi Bluetooth: 1.83dBi	
Hardware version	4.6.5.4	
Software version	10.0.19045.4894	

- Note:
- The above information was declared by the manufacture.
 - For more details, please refer to the User’s manual of the EUT.

2 Maximum Permissible Exposure (MPE)

2.1 Limits

According to KDB 447498 D01 General RF Exposure Guidance v06, Per § 1.1310(d)(2) MPE limits in § 1.1310(e)(1) - Table 1, systems operating under the provisions of this section shall be operated in a manner the ensures that the public is not exposed to radio frequency energy level in excess of the commission’s guidelines.

TABLE 1 TO § 1.1310(E)(1)—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm²)	Averaging time (minutes)
(i) Limits for Occupational/Controlled Exposure				
0.3–3.0	614	1.63	*(100)	≤6
3.0–30	1842/f	4.89/f	*(900/f²)	<6
30–300	61.4	0.163	1.0	<6
300–1,500			f/300	<6
1,500–100,000			5	<6
(ii) Limits for General Population/Uncontrolled Exposure				
0.3–1.34	614	1.63	*(100)	<30
1.34–30	824/f	2.19/f	*(180/f²)	<30
30–300	27.5	0.073	0.2	<30
300–1,500			f/1500	<30
1,500–100,000			1.0	<30

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

MPE TEST REPORT

Report No.: SHE24080045-02HE

Date: 2024-11-22

Page 5 of 19

2.2 Assessment methods

Calculation Formula from FCC OET 65:

$$S = \frac{P * G}{4 * \pi * R^2}$$

Where:

S = Power Density (mW/cm²)

P = Input Power of the Antenna (mW)

G = Antenna Gain Relative to an Isotropic Antenna

R = Distance from the Antenna to the Point of Investigation (cm)

2.3 Test Result

Operation Mode	Frequency Range (MHz)	Max Conducted Power (dBm)	Antenna Gain (dBi)	Max EIRP (mW)	Power Density at R = 20 cm (mW/cm ²)	Limit (mW/cm ²)
WIFI 2.4GHz	2412~2462	12.93	1.83	29.92	0.00595	1.0
BR/EDR	2402~2480	7.82	1.83	9.23	0.00184	1.0
BLE	2402~2480	5.27	1.83	5.13	0.00102	1.0
WIFI 5GHz	5180~5240	12.71	2.97	36.98	0.00736	1.0
	5745~5825	13.50	2.97	44.36	0.00882	1.0

Note(s):

1. For 300 – 1,500MHz: Power Density limit is f/1500 mW/cm²
2. For 1,500 – 100,000MHz: Power Density limit is 1.0 mW/cm²
3. The device can not transmit with WIFI and BT simultaneously, In addition, the chain interface of 2.4Gwifi and 5Gwifi cannot be transmitted simultaneously, so MPE is not evaluated in this configuration.

2.4 Conclusion

The Power Density at the position which is 20 cm far from the EUT is smaller than the General Population/Uncontrolled Exposure limit.

MPE TEST REPORT

Report No.: SHE24080045-02HE

Date: 2024-11-22

Page 6 of 19

3 Appendixes

3.1 Sample Photograph



All of the sample



Front of the sample

MPE TEST REPORT

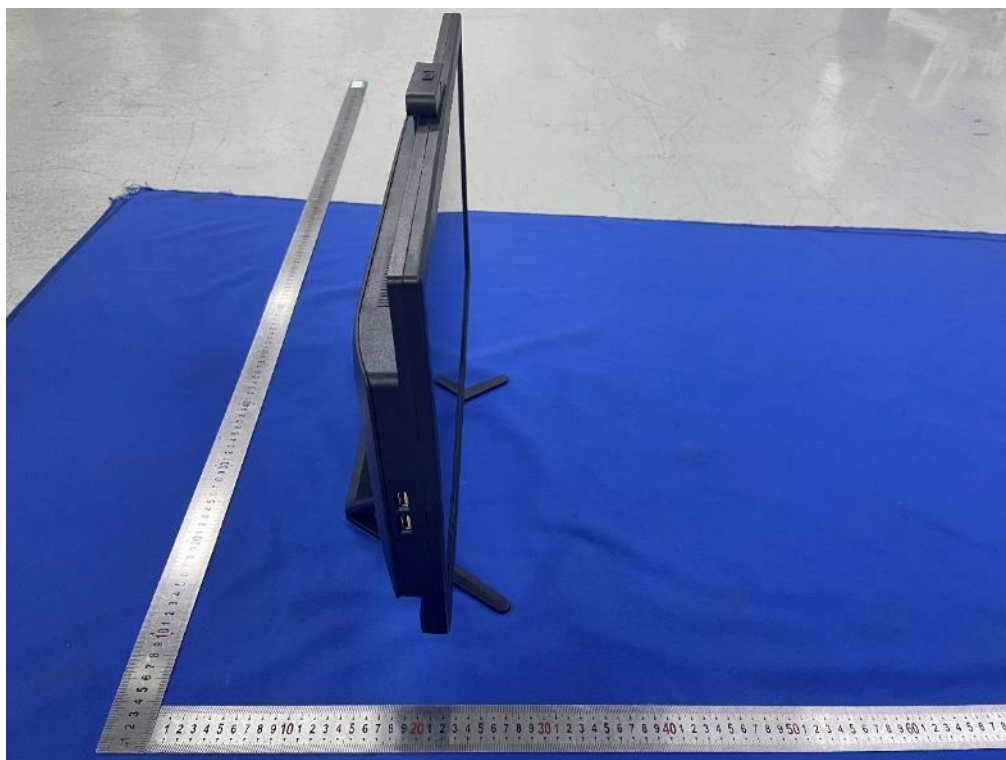
Report No.: SHE24080045-02HE

Date: 2024-11-22

Page 7 of 19



Rear of the sample



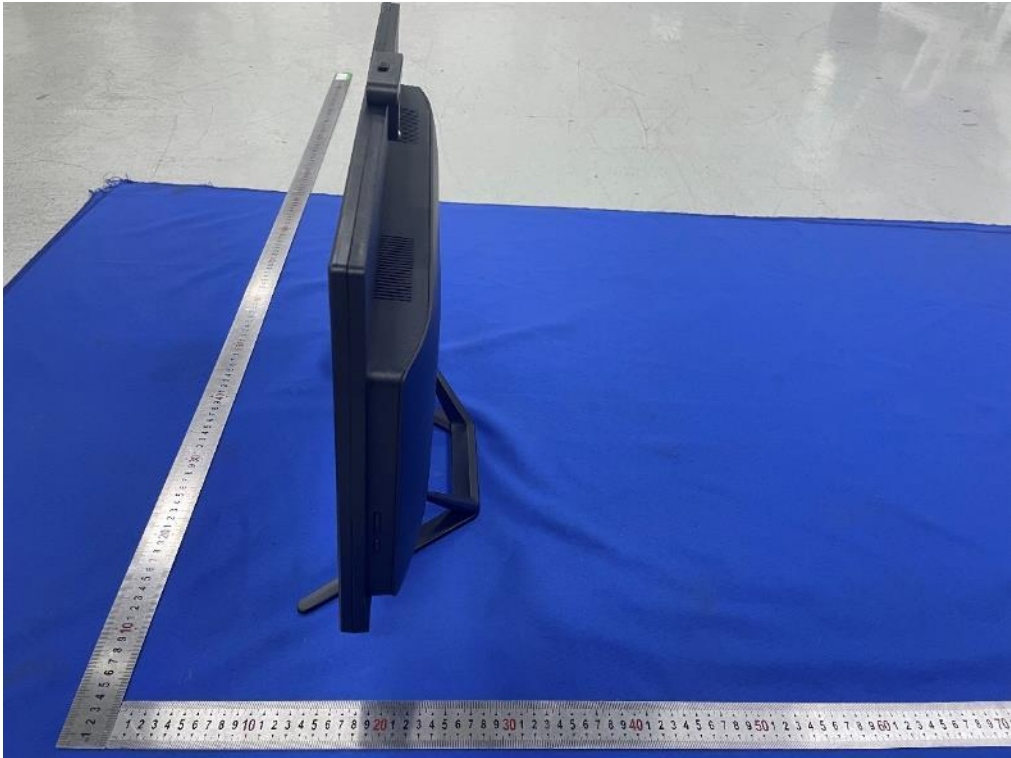
Left of the sample

MPE TEST REPORT

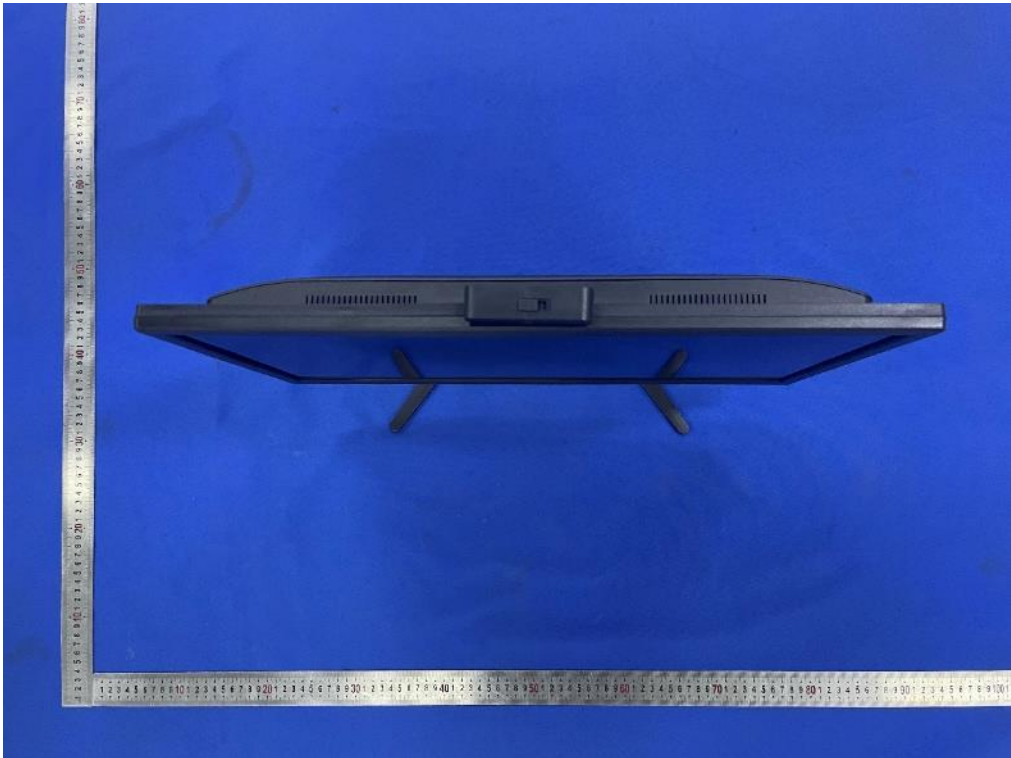
Report No.: SHE24080045-02HE

Date: 2024-11-22

Page 8 of 19



Right of the sample



Top of the sample

MPE TEST REPORT

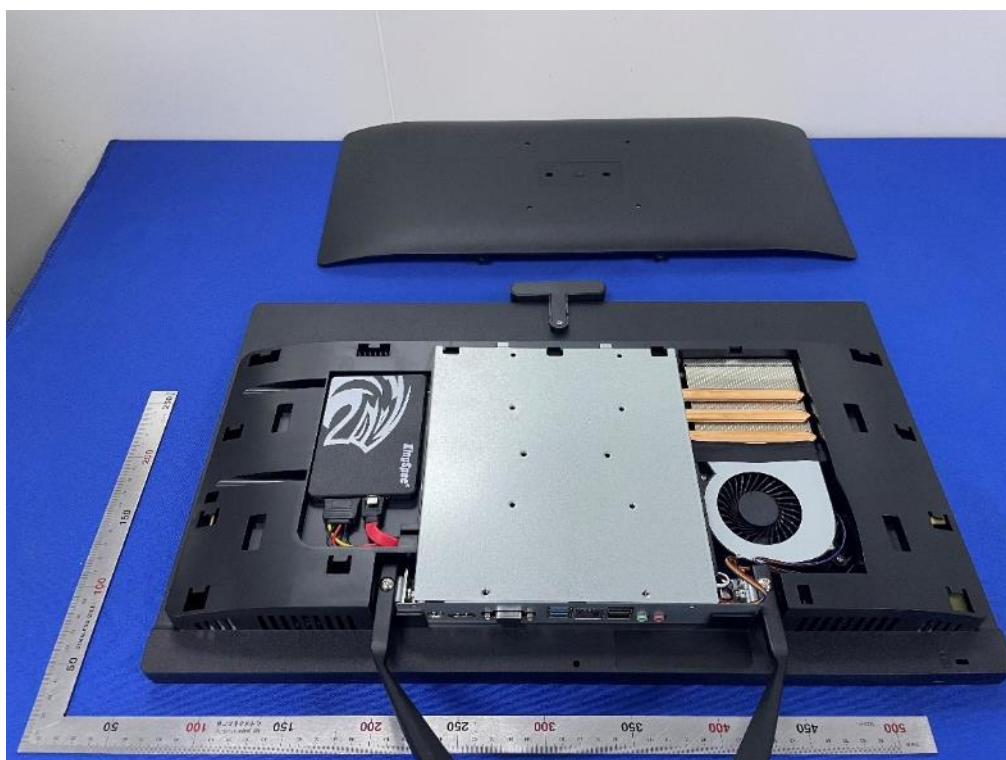
Report No.: SHE24080045-02HE

Date: 2024-11-22

Page 9 of 19



Bottom of the sample



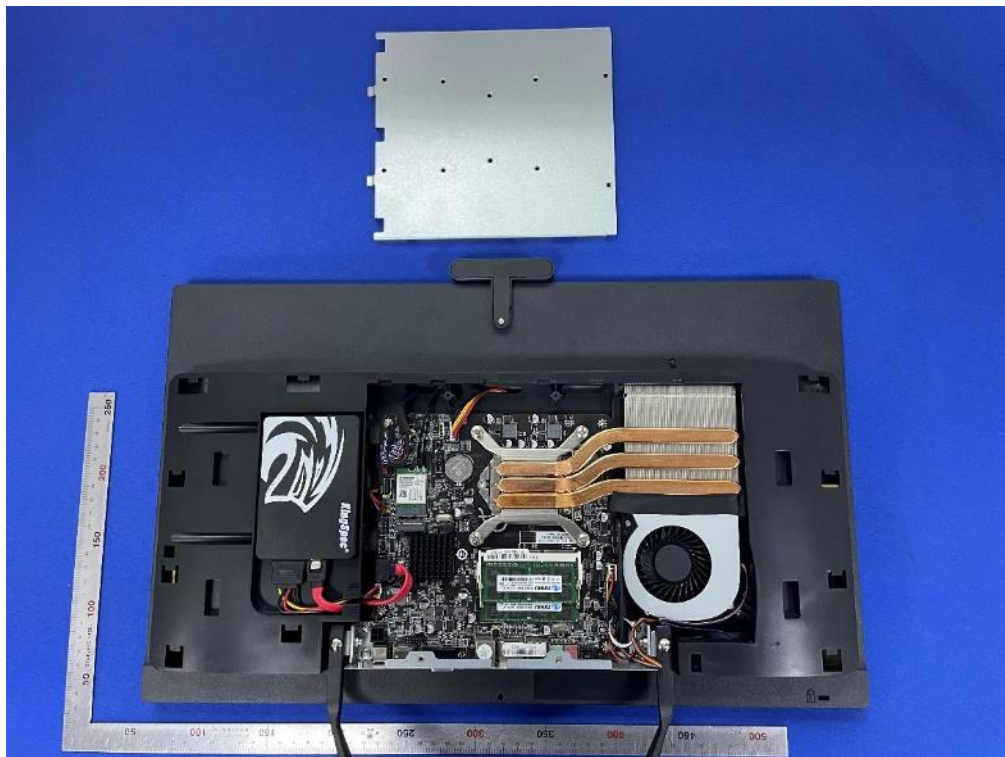
Open-1 of the sample

MPE TEST REPORT

Report No.: SHE24080045-02HE

Date: 2024-11-22

Page 10 of 19



Open-2 of the sample



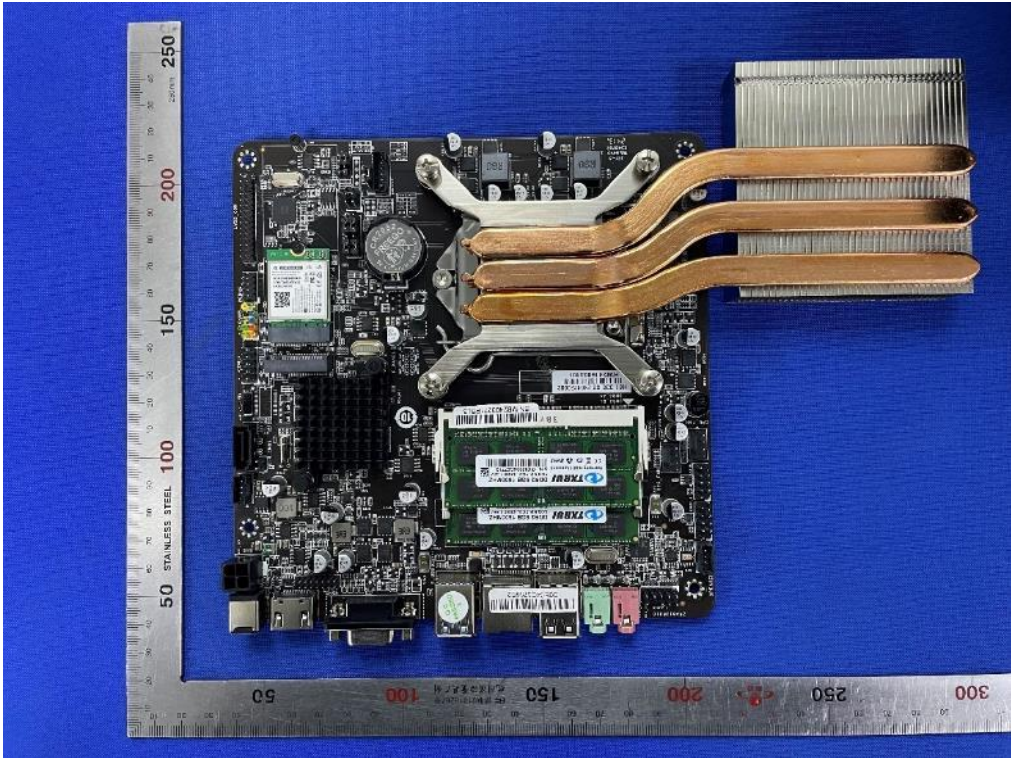
Open-3 of the sample

MPE TEST REPORT

Report No.: SHE24080045-02HE

Date: 2024-11-22

Page 11 of 19



Internal-1 of the sample



Internal-2 of the sample

MPE TEST REPORT

Report No.: SHE24080045-02HE

Date: 2024-11-22

Page 12 of 19



Internal-3 of the sample



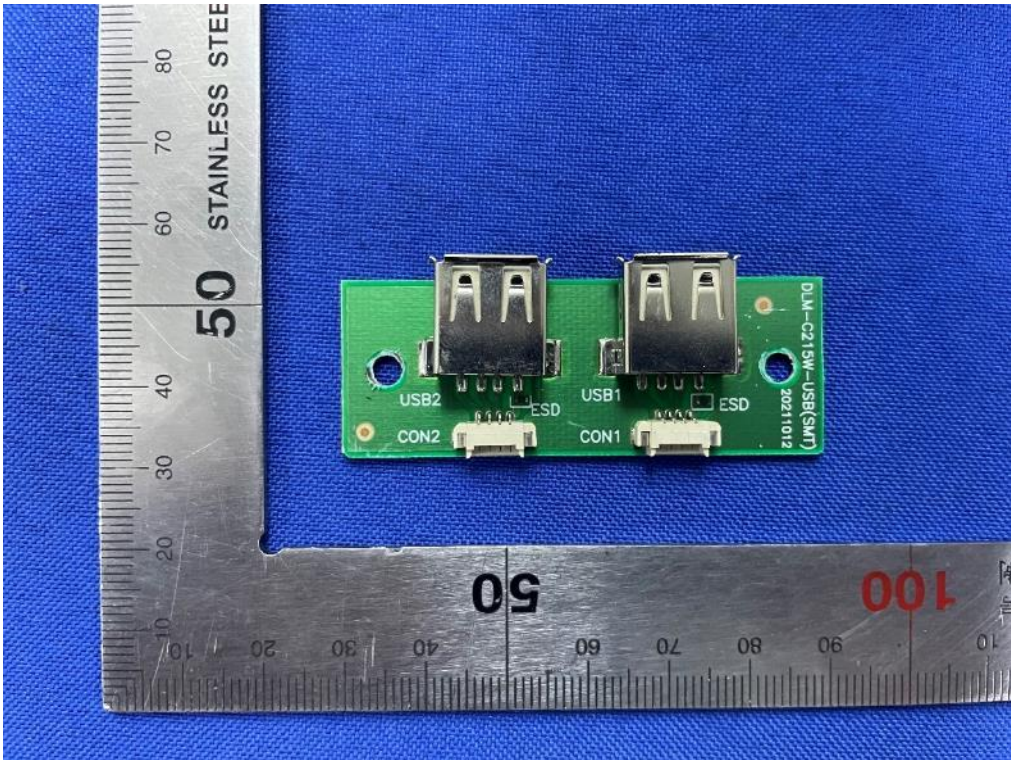
Internal-4 of the sample

MPE TEST REPORT

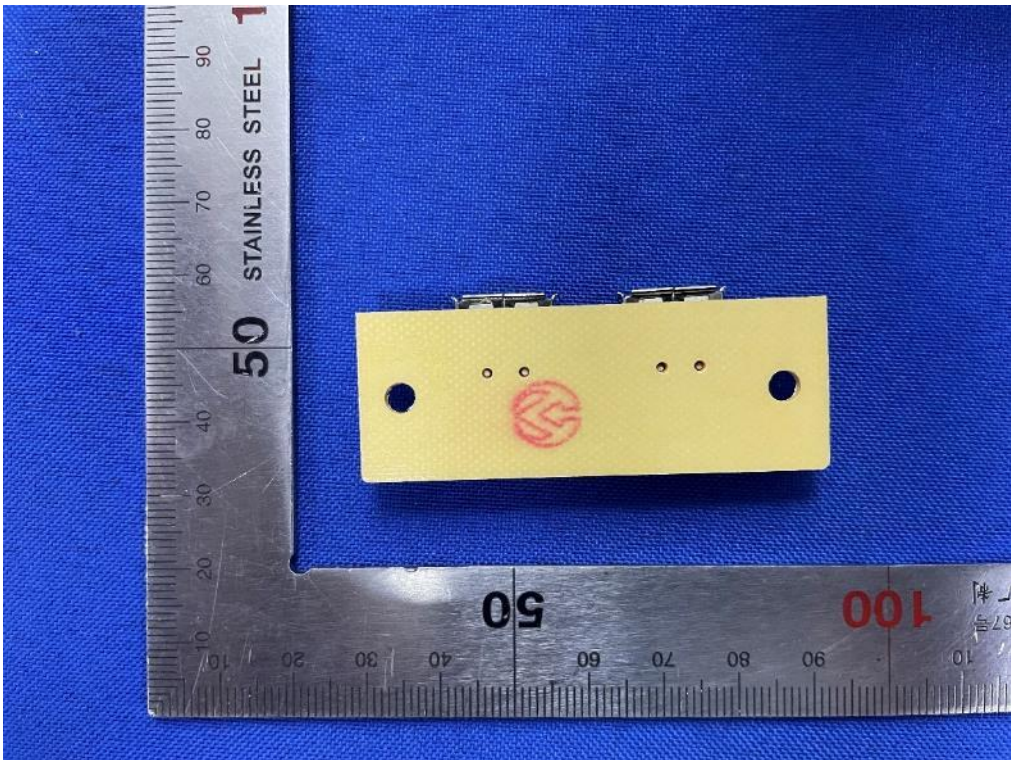
Report No.: SHE24080045-02HE

Date: 2024-11-22

Page 13 of 19



Internal-5 of the sample



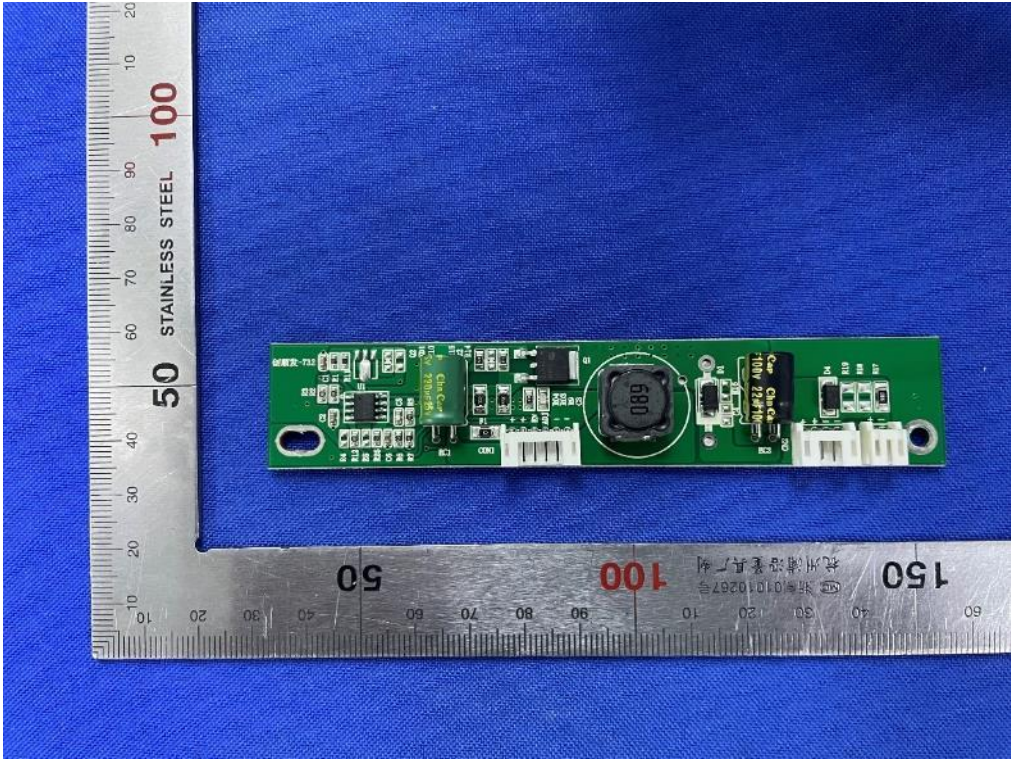
Internal-6 of the sample

MPE TEST REPORT

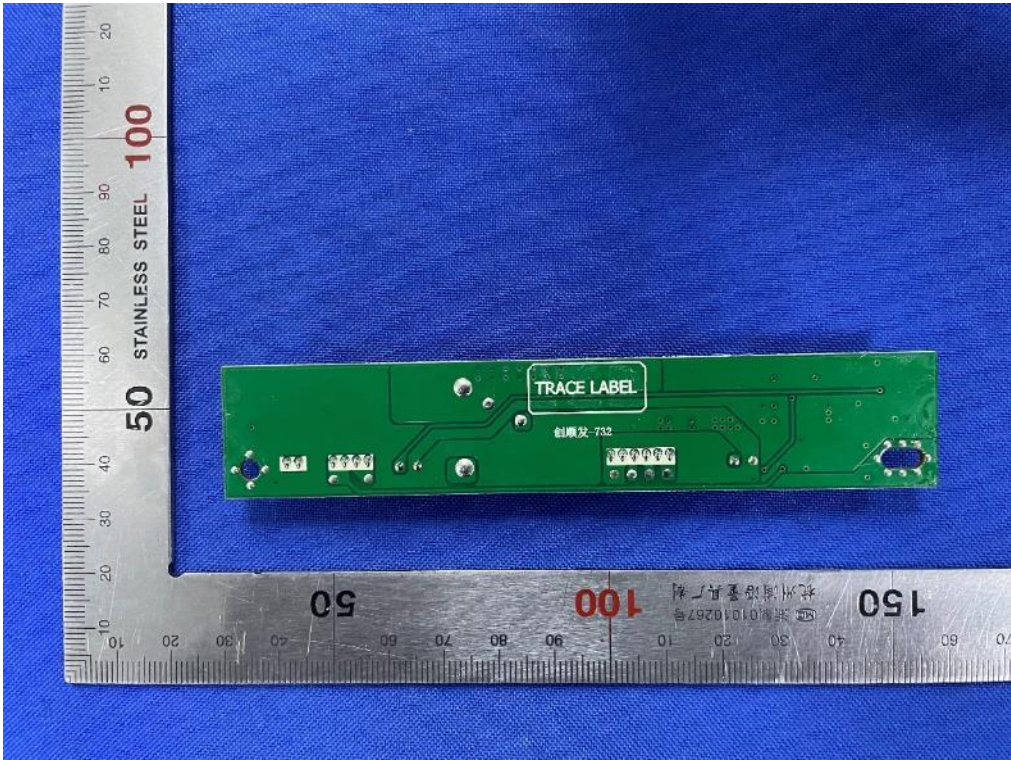
Report No.: SHE24080045-02HE

Date: 2024-11-22

Page 14 of 19



Internal-7 of the sample



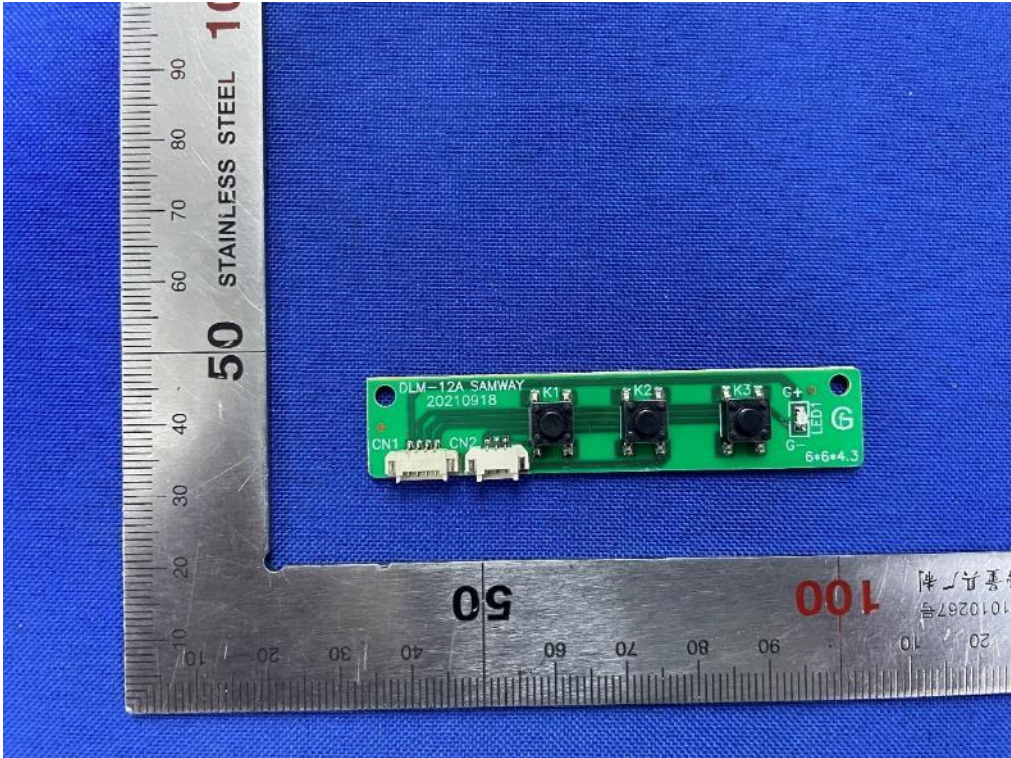
Internal-8 of the sample

MPE TEST REPORT

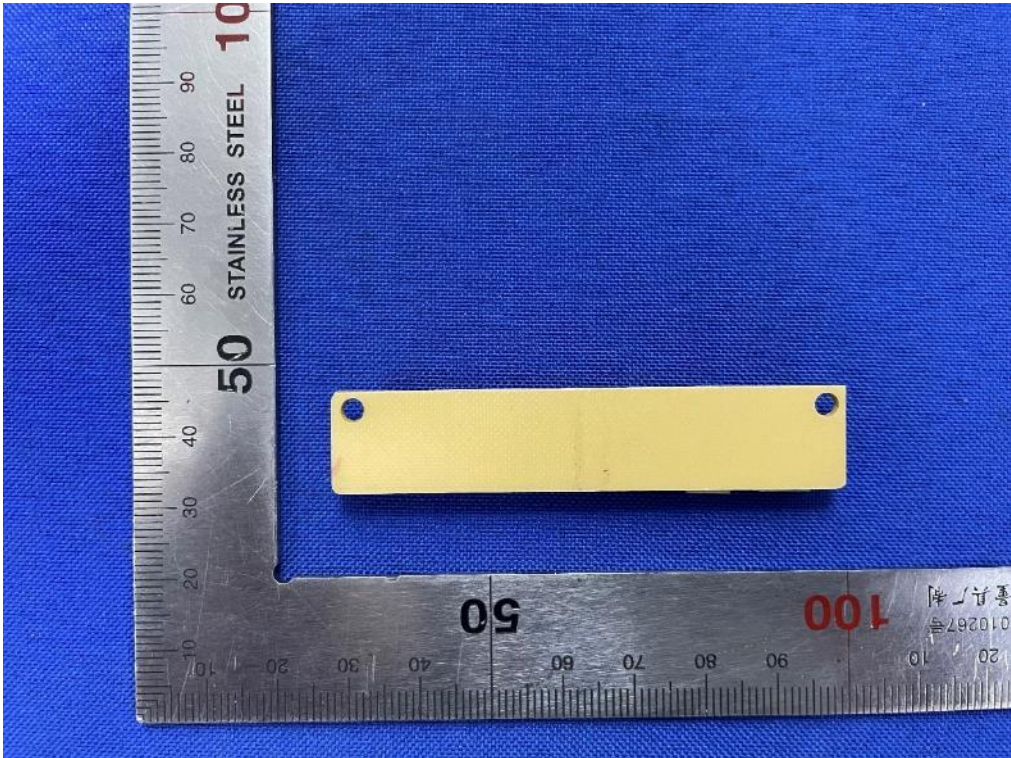
Report No.: SHE24080045-02HE

Date: 2024-11-22

Page 15 of 19



Internal-9 of the sample



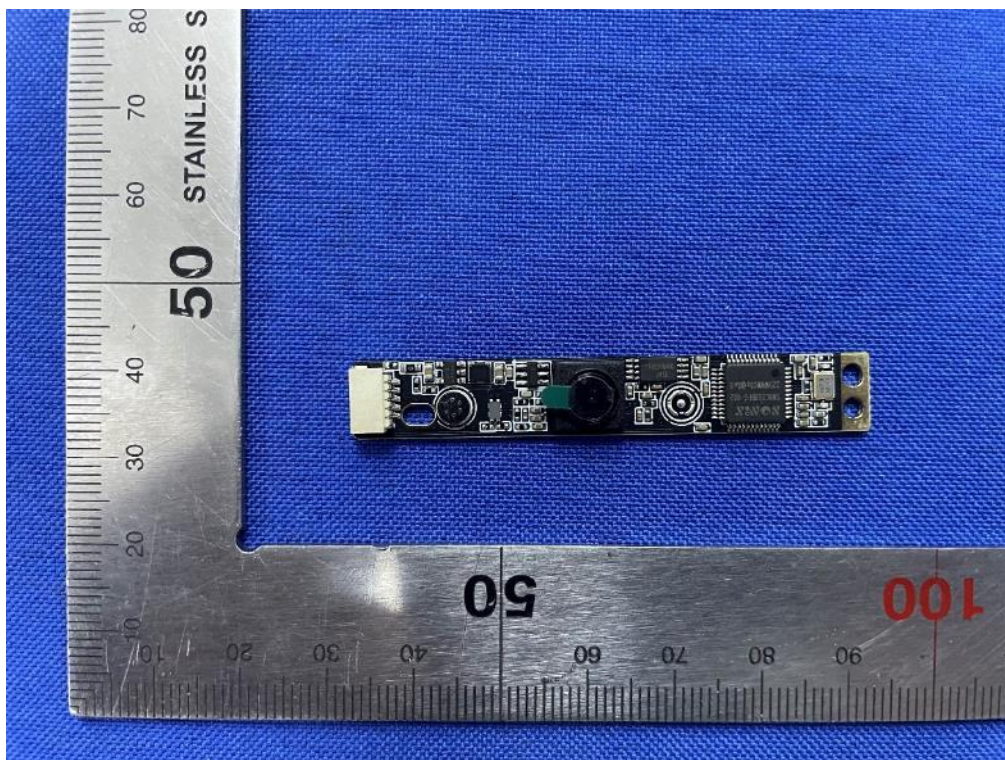
Internal-10 of the sample

MPE TEST REPORT

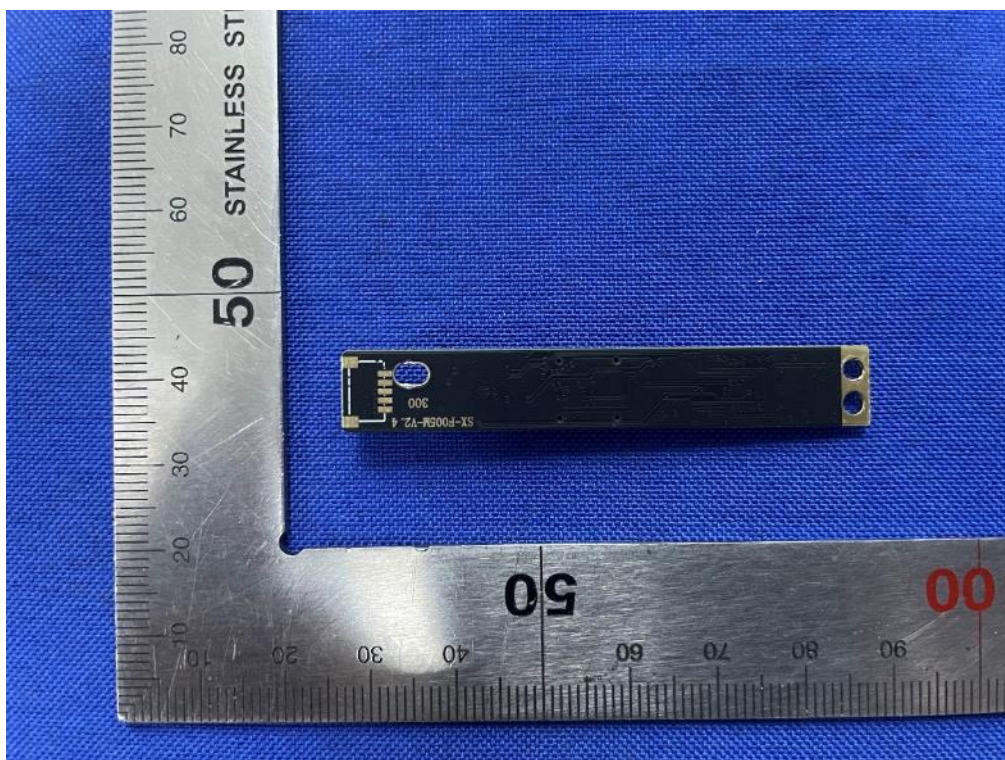
Report No.: SHE24080045-02HE

Date: 2024-11-22

Page 16 of 19



Internal-11 of the sample



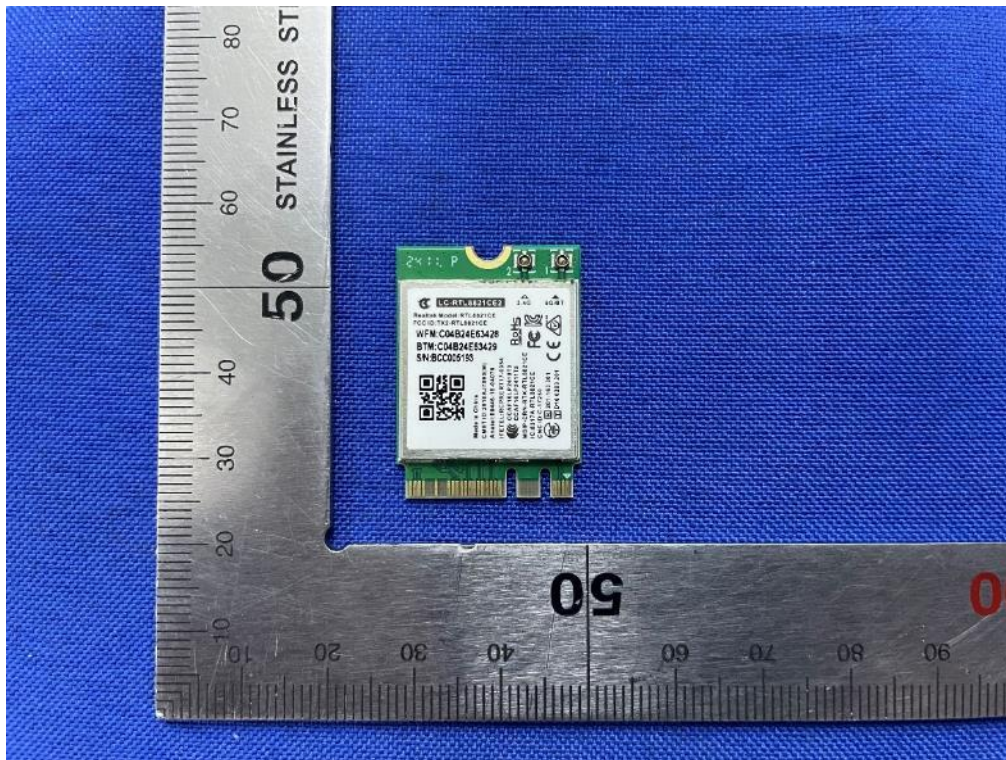
Internal-12 of the sample

MPE TEST REPORT

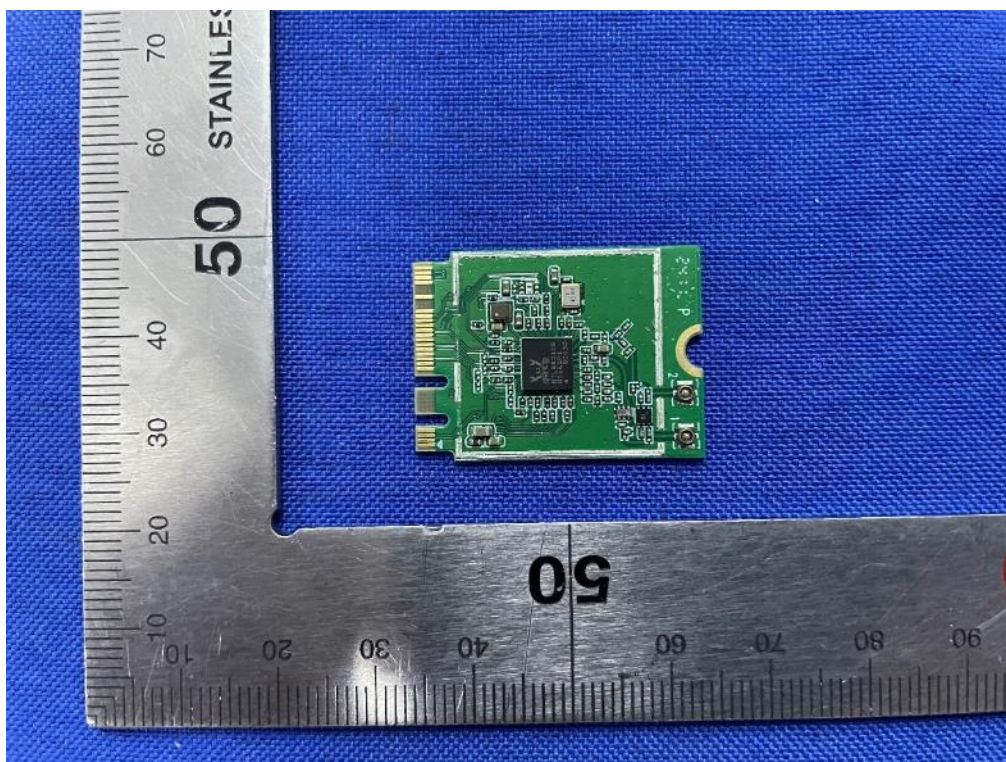
Report No.: SHE24080045-02HE

Date: 2024-11-22

Page 17 of 19



Internal-13 of the sample



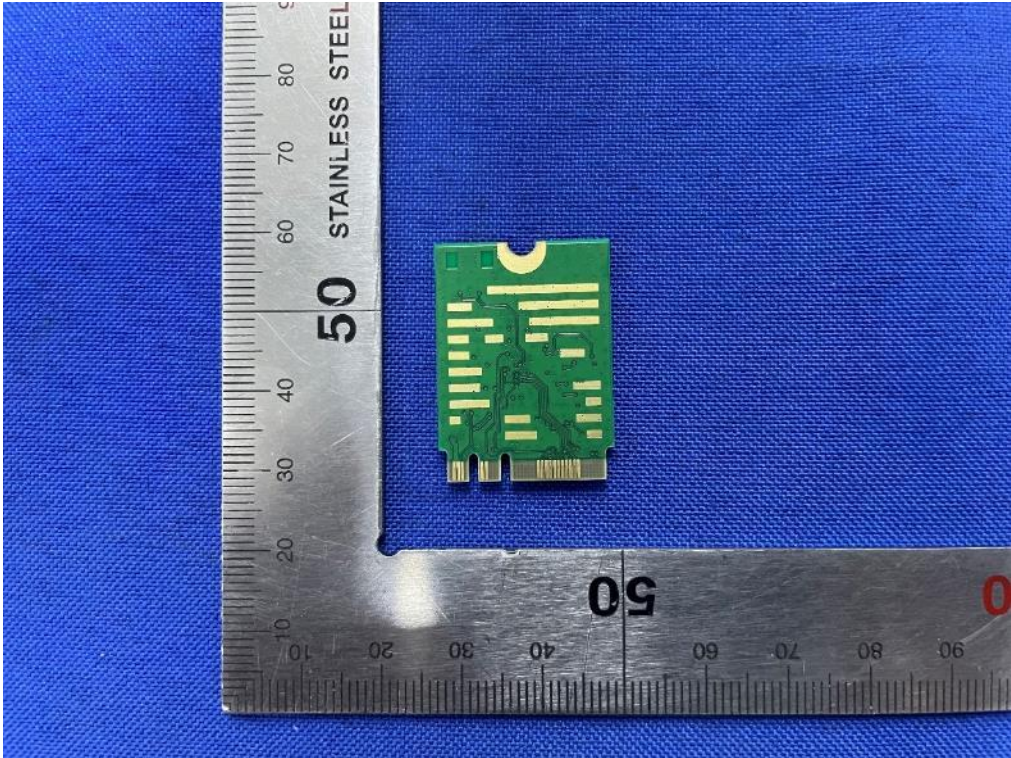
Internal-14 of the sample

MPE TEST REPORT

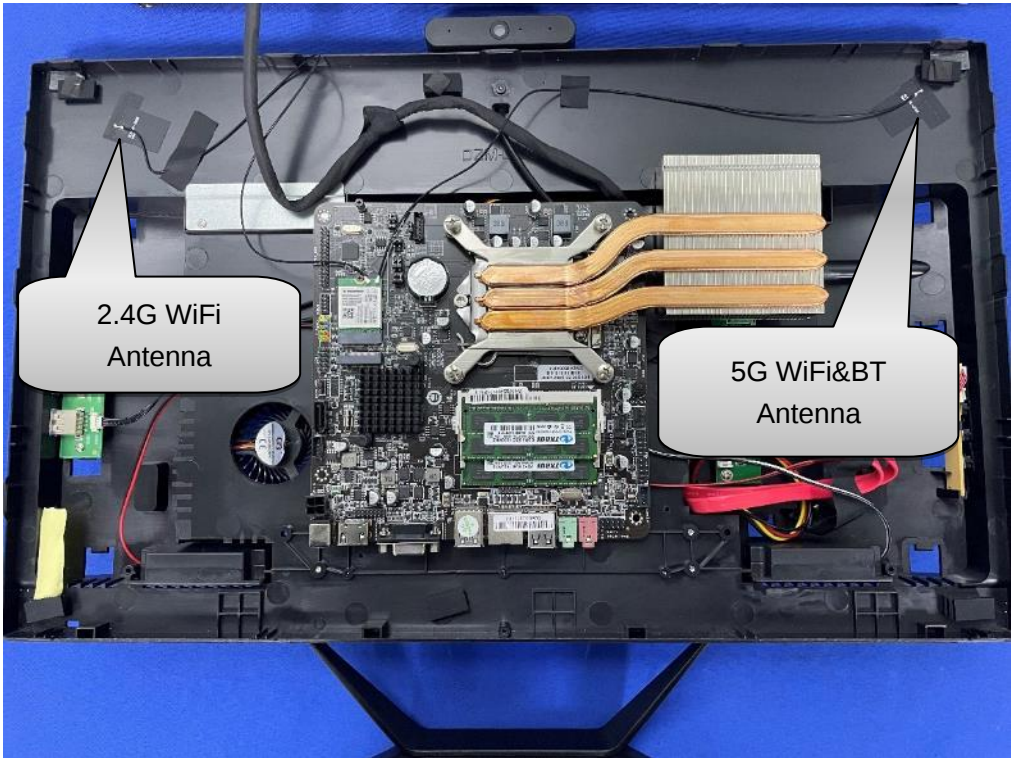
Report No.: SHE24080045-02HE

Date: 2024-11-22

Page 18 of 19



Internal-15 of the sample

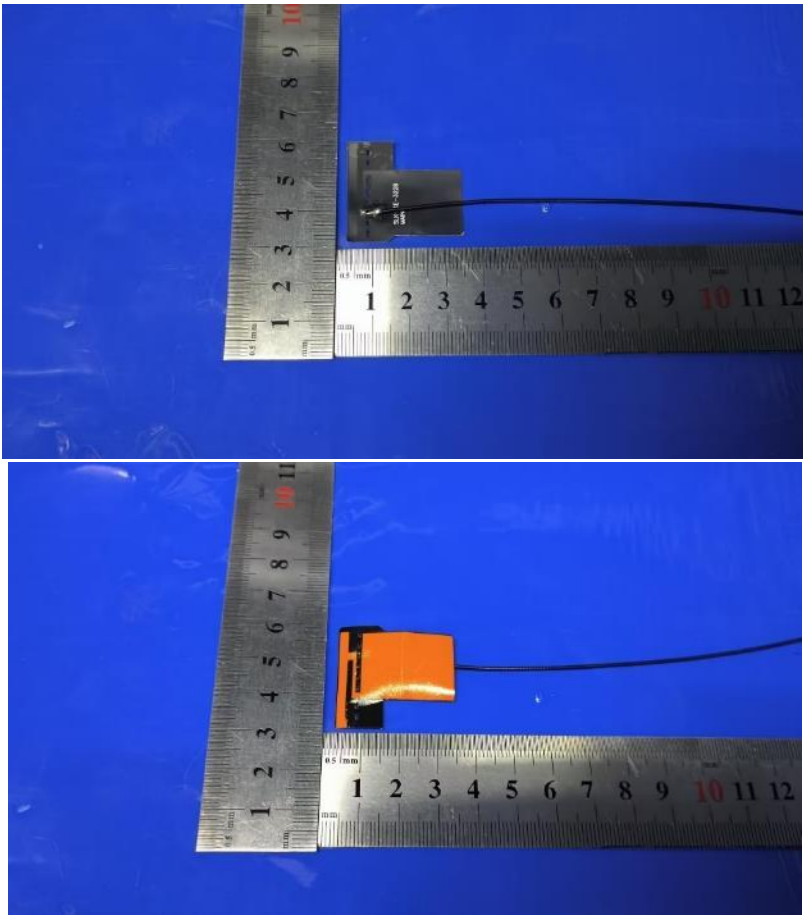


Antenna Position

MPE TEST REPORT



Antenna Interface



Antenna Photo

End of the report