



EMC TEST REPORT

Product Name: One Raven Home Server

Model Number: OR-HS100

FCC ID: 2BXG8-OR-HS100

Issued For : One Raven, Inc.

16641 N 91st Street, Suite 101, Scottsdale, Arizona
85260, United States

Issued By : Shenzhen LGT Test Service Co., Ltd.

Room 205, Building 13, Zone B, Zhenxiong Industrial
Park, No.177, Renmin West Road, Jinsha, Kengzi Street,
Pingshan District, Shenzhen, Guangdong, China.

Report Number: LGT26H170EM03

Sample Received Date: Aug. 24, 2026

Date of Test: Aug. 24, 2026 ~ Sep. 09, 2026

Date of Issue: Sep. 09, 2026

The test report is effective only with both signature and specialized stamp. This report shall not be reproduced except in full without the written approval of the Laboratory. The results in this report only apply to the tested sample.



TEST REPORT CERTIFICATION

Applicant: One Raven, Inc.
Address: 16641 N 91st Street, Suite 101, Scottsdale, Arizona 85260, United States
Manufacturer: Shenzhen Pretech Industrial Co., Ltd
Address: Room 808, Qiancheng Commercial Center, No. 5 Haicheng Road, Mabu Community, Xixiang Street, Bao'an District, Shenzhen, China
Product Name: One Raven Home Server
Trademark: One Raven
Model Number: OR-HS100
Sample Status: Normal

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC 47 CFR Part 15 Subpart B ANSI C63.4-2014	PASS

Prepared by:

Terry Zhao

Terry Zhao
Engineer

Approved by:

Vita Li

Vita Li
Technical Director





Table of Contents

1. TEST SUMMARY	5
1.1 TEST LABORATORY	6
1.2 MEASUREMENT UNCERTAINTY	6
2. GENERAL INFORMATION	7
2.1 GENERAL DESCRIPTION OF THE EUT	7
2.2 DESCRIPTION OF THE TEST MODES	8
2.3 DESCRIPTION OF THE SUPPORT UNITS	8
2.4 MEASUREMENT INSTRUMENTS LIST	9
3. EMC EMISSION TEST	10
3.1 CONDUCTED EMISSION MEASUREMENT	10
3.2 RADIATED EMISSION MEASUREMENT	14
APPENDIX I - TEST SETUP	18
APPENDIX II - PHOTOGRAPHS OF EUT CONSTRUCTIONAL DETAILS	20



Revision History

Rev.	Issue Date	Revisions
00	Sep. 09, 2026	Initial Issue



1. TEST SUMMARY

EMC Emission				
Standard	Test Item	Limit	Judgement	Remark
FCC 47 CFR Part 15 Subpart B ANSI C63.4-2014	Conducted Emissions	Class B	PASS	
	Radiated Emissions Below 1GHz	Class B	PASS	
	Radiated Emissions Above 1GHz	Class B	PASS	Note 2

Note:

- 1 "N/A" denotes test is not applicable in this Test Report
- 2 If the highest frequency of the internal sources of the EUT is less than 108 MHz, the measurement shall only be made up to 1 GHz. If the highest frequency of the internal sources of the EUT is between 108 MHz and 500 MHz, the measurement shall only be made up to 2 GHz. If the highest frequency of the internal sources of the EUT is between 500 MHz and 1 GHz, measurement shall only be made up to 5 GHz. If the highest frequency of the internal sources of the EUT is above 1 GHz, the measurement shall be made up to 5 times the highest frequency or 40 GHz, whichever is less.



1.1 TEST LABORATORY

Company Name:	Shenzhen LGT Test Service Co., Ltd.
Address:	Room 205, Building 13, Zone B, Zhenxiong Industrial Park, No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan District, Shenzhen, Guangdong, China
Accreditation Certificate:	FCC Registration No.: 746540
	CAB ID: CN0136

1.2 MEASUREMENT UNCERTAINTY

Test Item	Measurement Frequency Range MHz	Uncertainty dB
Conducted Emissions at AC mains power port	0.009 ~ 30	2.80
Radiated Emissions	0.009 ~ 30	2.16
Radiated Emissions	30 ~ 1000	4.61
Radiated Emissions	1000 ~ 18000	5.49
Radiated Emissions	18000 ~ 40000	4.31
Note: 1. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2. 2. The measurement uncertainty is not included in the test result.		



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF THE EUT

Product Name:	One Raven Home Server
Test Model Number:	OR-HS100
Series Number:	N/A
Model Difference:	N/A
Adapter:	Input: AC 100-240V 50/60Hz 0.6A Max Output: DC 5.0V 3.0A 15.0W, 9.0V 2.22A 19.98W, 12.0V 1.67A 20.0W Max
Test Voltage:	AC 120V/60Hz for adapter
Hardware Version:	N/A
Software Version:	N/A
Connecting I/O Port(s):	Please refer to the Note 1.

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
2. The EUT information in the table of section 2.1 is provided by the applicant.
3. LGT is not responsible for wrong test results due to incorrect information (e.g., max. internal operating frequency, antenna gain, cable loss, etc) is provided by the applicant. (If applicable).
4. LGT is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (If applicable).
5. Sample source: sent by customer.



2.2 DESCRIPTION OF THE TEST MODES

To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possibly have effect on EMI emission level. Each of these EUT operating mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Test Mode	Description
Mode 1	Charging+LTE link+Radar+BT+Wi-Fi+802.15.4

Note: Only the data of worst-case was recorded in this report.

2.3 DESCRIPTION OF THE SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Accessories Equipment

Description	Manufacturer	Model	S/N	Rating
USB-C to USB-C Cable	N/A	N/A	N/A	1.5m,2pcs
Adapter	Shenzhen Flypower Technology Co., Ltd.	PS20C120K1670UC	N/A	Input: 100-240V 50/60Hz 0.6A Max Output: 5.0V 3.0A 15.0W, 9.0V 2.22A 19.98W, 12.0V 1.67A 20.0W Max

Auxiliary Equipment

Description	Manufacturer	Model	S/N	Rating

Note:

- (1) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (2) “YES” means “with core”; “NO” means “without core”.



2.4 MEASUREMENT INSTRUMENTS LIST

Conducted Emission					
Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Until
EMI Test Receiver	R&S	ESCI	100458	2026-04-21	2027-04-20
LISN	COM-POWER	LI-115	02032	2026-03-03	2027-03-02
LISN	SCHWARZBECK	NNLK 8122	00160	2026-03-03	2027-03-02
LISN	EMTRACE	PWL-50-3200	00317	2026-03-03	2027-03-02
LISN	EMTRACE	PVDC-150R-200	00353	2026.03.03	2027-03-02
ISN	FCC	T4-02	91317	2026-03-02	2027-03-01
ISN	SCHWARZBECK	NTFM 8158	00303	2026-03-02	2027-03-01
Transient Limiter	EMTRACE	PL00903	2318	2026-03-03	2027-03-02
Temperature & Humidity	BT-3	JINGCHUAG	N.A	2026-03-05	2027-03-04
Testing Software	SKET	EMC-I	V1.4.0.3	N/A	N/A
Radiated Emission					
Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Until
EMI Test Receiver	R&S	ESU8	100372	2026-03-02	2027-03-01
Spectrum Analyzer	Keysight	N9020A	MY50530994	2026-03-02	2027-03-01
Spectrum Analyzer	Keysight	N9010B	MY60242508	2026-03-03	2027-03-02
Active loop Antenna	ETS	6502	00049544	2025-03-11	2028-03-10
Trilog Broadband Antenna	SCHWARZBECK	VULB 9168	01447	2024-05-17	2027-05-16
Horn Antenna (1-18G)	SCHWARZBECK	3115	10SL0060	2025-03-10	2028-03-09
Horn Antenna (18-40G)	SCHWARZBECK	BBHA 9170	685	2023-10-23	2026-10-22
Pre-amplifier (9kHz-1GHz)	EMtrace	RP01A	02017	2026-03-02	2027-03-01
Pre-amplifier (1-26.5G)	Agilent	8449B	3008A4722	2026-03-02	2027-03-01
Temperature & Humidity	BT-3	JINGCHUANG	N.A	2026-03-05	2027-03-04
Testing Software	SKET	EMC-I	V1.4.0.3	N/A	N/A



3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 LIMITS

FREQUENCY (MHz)	Conducted Emission Limits (dBuV)			
	Class A		Class B	
	Quasi-peak	Average	Quasi-peak	Average
0.15 ~ 0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.5 ~ 5	73.00	60.00	56.00	46.00
5 ~ 30	73.00	60.00	60.00	50.00

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.
- (3) The test result calculated as following:
Measurement Value = Reading Level + Correct Factor
Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor
Margin Level = Measurement Value - Limit Value

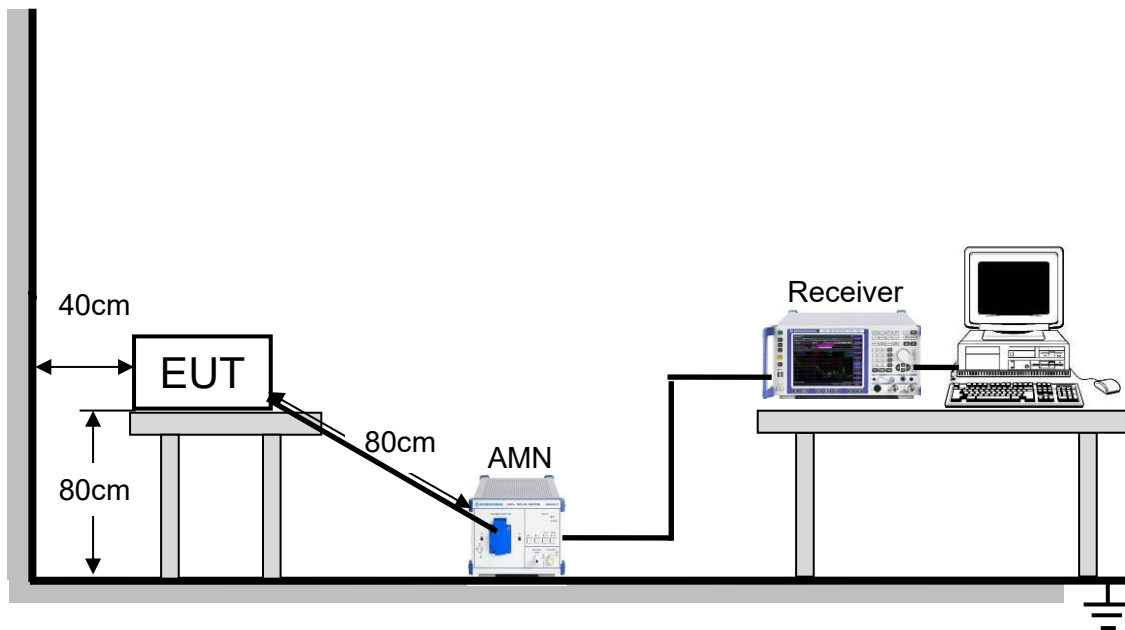
The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.1.2 TEST PROCEDURE

- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provides 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item - EUT Test Photos.

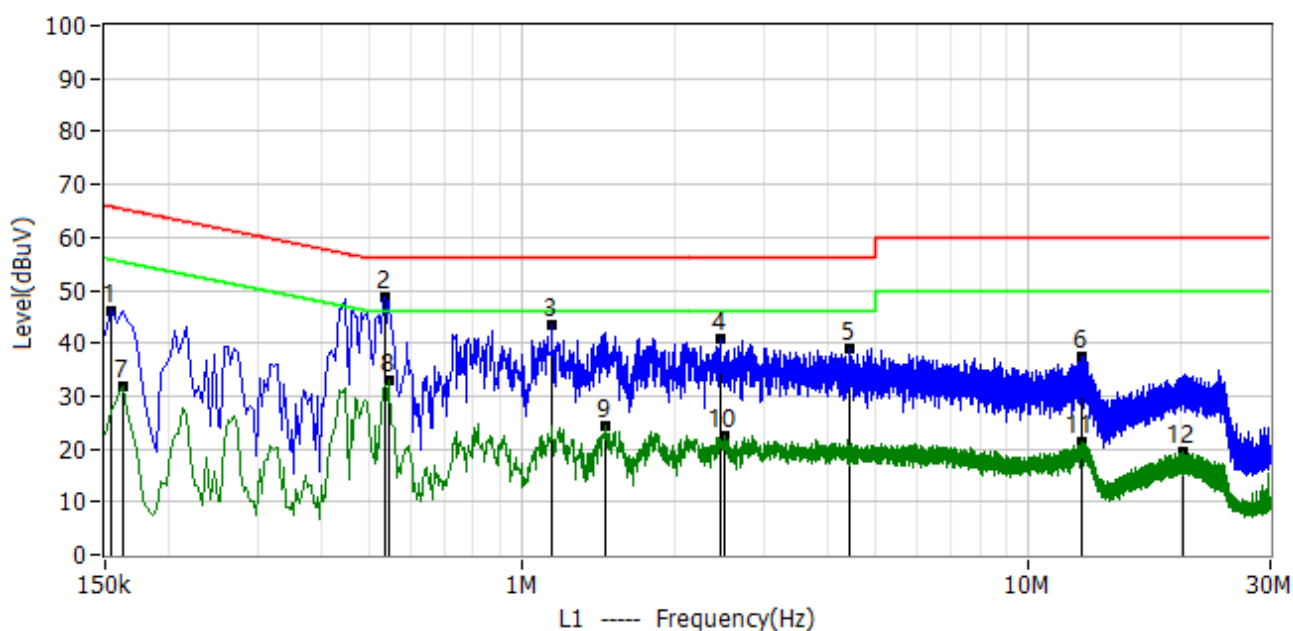
3.1.3 TEST SETUP





3.1.4 TEST RESULTS

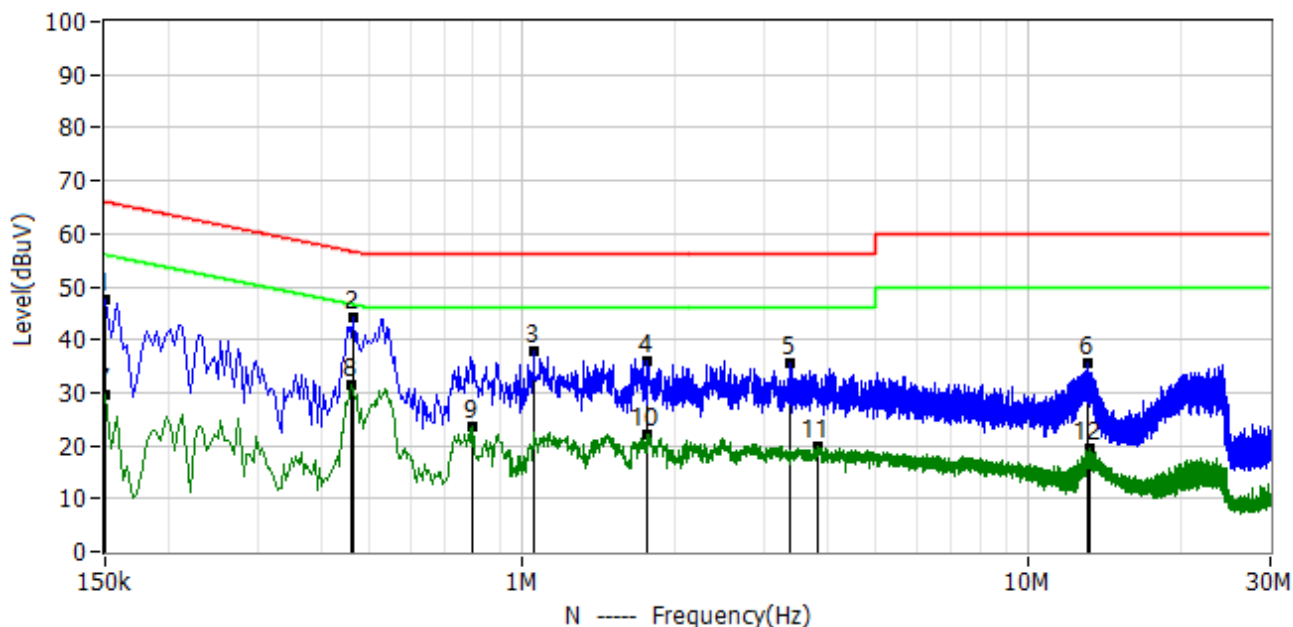
Project: LGT26H170	Test Engineer: Bill Chen
EUT: One Raven Home Serve	Temperature: 25.9°C
M/N: OR-HS100	Humidity: 55%RH
Test Voltage: AC 120V/60Hz	Test Date: 2026-08-27
Test Mode: Charging+LTE link+Radar+BT+Wi-Fi+802.15.4	
Note: AC Mains port	



No.	Frequency MHz	Reading dBuV	Factor dB	Result dBuV	Limit dBuV	Margin dB	Detector	Polar
1*	0.154	35.61	10.64	46.25	65.78	-19.53	QP	L1
2*	0.534	37.97	10.63	48.60	56.00	-7.40	QP	L1
3*	1.142	32.78	10.69	43.47	56.00	-12.53	QP	L1
4*	2.454	30.04	10.90	40.94	56.00	-15.06	QP	L1
5*	4.414	27.90	10.99	38.89	56.00	-17.11	QP	L1
6*	12.746	25.92	11.37	37.29	60.00	-22.71	QP	L1
7*	0.162	21.05	10.64	31.69	55.36	-23.67	AV	L1
8*	0.546	22.36	10.63	32.99	46.00	-13.01	AV	L1
9*	1.458	13.68	10.76	24.44	46.00	-21.56	AV	L1
10*	2.518	11.55	10.90	22.45	46.00	-23.55	AV	L1
11*	12.702	10.14	11.37	21.51	50.00	-28.49	AV	L1
12*	20.174	7.92	11.55	19.47	50.00	-30.53	AV	L1



Project: LGT26H170	Test Engineer: Bill Chen
EUT: One Raven Home Serve	Temperature: 25.9°C
M/N: OR-HS100	Humidity: 55%RH
Test Voltage: AC 120V/60Hz	Test Date: 2026-08-27
Test Mode: Charging+LTE link+Radar+BT+Wi-Fi+802.15.4	
Note: AC Mains port	



No.	Frequency MHz	Reading dBuV	Factor dB	Result dBuV	Limit dBuV	Margin dB	Detector	Polar
1*	0.150	37.01	10.65	47.66	66.00	-18.34	QP	N
2*	0.462	33.45	10.65	44.10	56.66	-12.56	QP	N
3*	1.050	27.31	10.68	37.99	56.00	-18.01	QP	N
4*	1.770	25.24	10.83	36.07	56.00	-19.93	QP	N
5*	3.374	24.59	10.93	35.52	56.00	-20.48	QP	N
6*	13.118	24.07	11.40	35.47	60.00	-24.53	QP	N
7*	0.150	19.07	10.65	29.72	56.00	-26.28	AV	N
8*	0.458	20.64	10.65	31.29	46.73	-15.43	AV	N
9*	0.794	13.10	10.66	23.76	46.00	-22.24	AV	N
10*	1.770	11.44	10.83	22.27	46.00	-23.73	AV	N
11*	3.834	8.74	10.96	19.70	46.00	-26.30	AV	N
12*	13.194	8.05	11.40	19.45	50.00	-30.55	AV	N



3.2 RADIATED EMISSION MEASUREMENT

3.2.1 LIMITS

Below 1 GHz

Frequency (MHz)	Class A	Class B
	Field strength (dBuV/m) (at 3m)	Field strength (dBuV/m) (at 3m)
30 - 88	49.5	40
88 - 216	53.9	43.5
216 - 960	56.9	46
Above 960	60	54

Above 1 GHz

Frequency (MHz)	Class A		Class B	
	Field strength (dBuV/m) (at 3m)		Field strength (dBuV/m) (at 3m)	
	Peak	Average	Peak	Average
Above 1000	80	60	74	54

Frequency Range of Radiated Disturbance Measurement

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 - 108	1000
108 - 500	2000
500 - 1000	5000
Above 1000	5th harmonic of the highest frequency or 40 GHz, whichever is lower

Note:

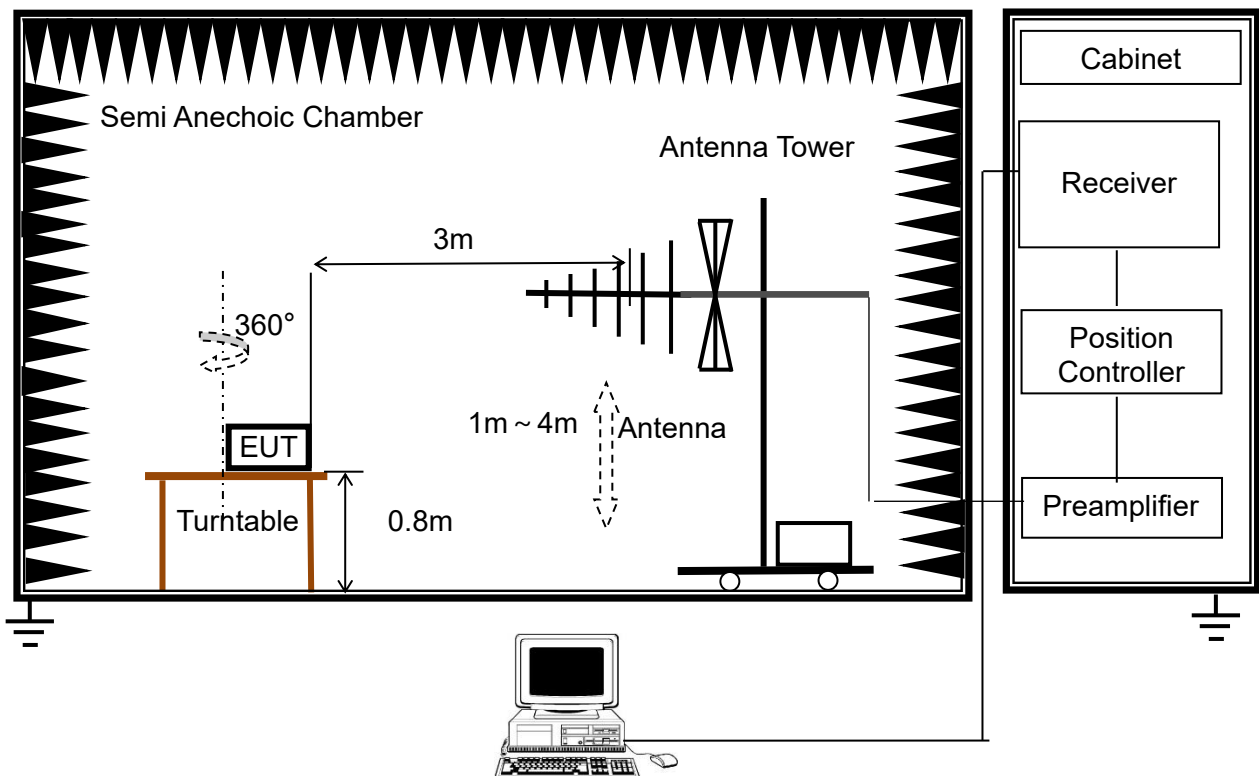
- (1) The limit for radiated test was performed according to FCC Part 15, Subpart B;
- (2) The tighter limit applies at the band edges;
- (3) The test result calculated as following:
Measurement Value = Reading Level + Correct Factor,
Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use),
Margin Level = Measurement Value - Limit Value.

3.2.2 TEST PROCEDURE

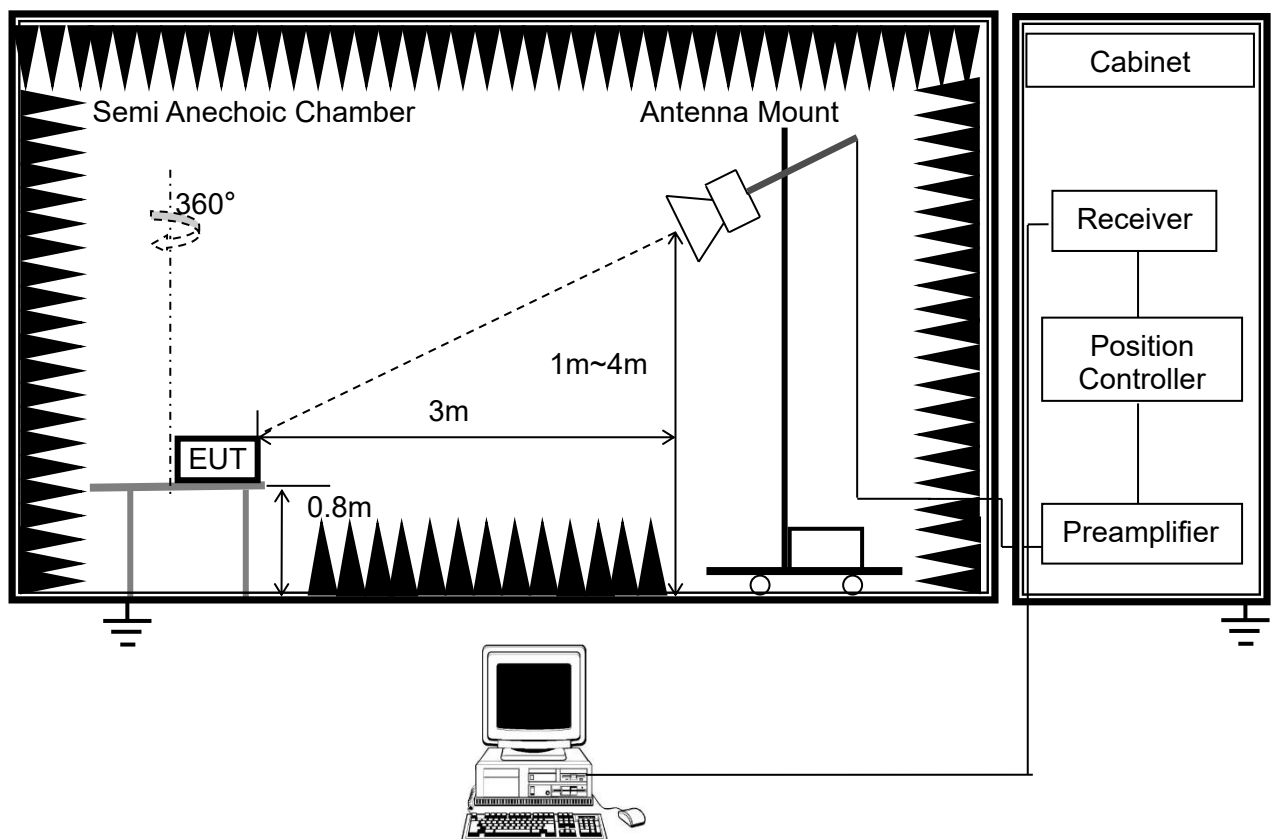
- The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- EUT as the center to the edge of the auxiliary device, the distance from the maximum edge to the center of the antenna is 3 meter.
- The height of antenna is varied from 1 meter to 4 meter above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meter and the rotatable table was turned from 0 degrees to 360 degree to find the maximum reading.
- The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1GHz.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.2.3 TEST SETUP

(A) Radiated Emission Test Set-Up Frequency Below 1 GHz



(B) Radiated Emission Test Set-Up Frequency Above 1GHz

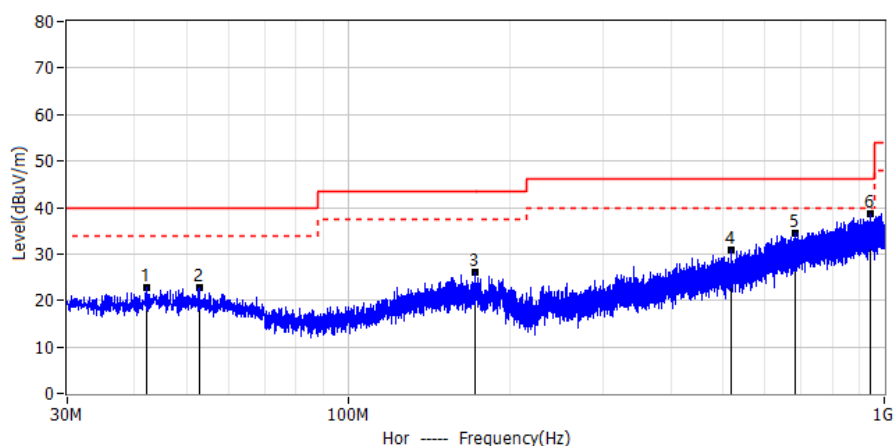




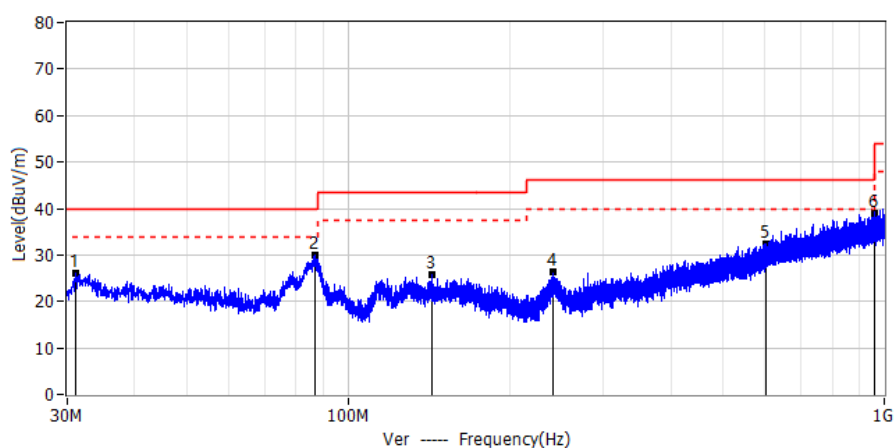
3.2.4 TEST RESULTS

BELOW 1GHZ

Project: LGT26H170	Test Engineer: zhangchengxiang
EUT: One Raven Home Serve	Temperature: 25.1°C
M/N: OR-HS100	Humidity: 46%RH
Test Voltage: AC 120V/60Hz	Test Date: 2026-08-27
Test Mode: Charging+LTE link+Radar+BT+Wi-Fi+802.15.4	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	42.187	2.05	20.81	22.86	40.00	-17.14	QP	Hor
2*	52.783	1.92	20.92	22.84	40.00	-17.16	QP	Hor
3*	172.316	5.27	20.92	26.19	43.50	-17.31	QP	Hor
4*	518.979	2.98	27.78	30.76	46.00	-15.24	QP	Hor
5*	681.392	3.94	30.61	34.55	46.00	-11.45	QP	Hor
6*	944.685	3.86	34.88	38.74	46.00	-7.26	QP	Hor

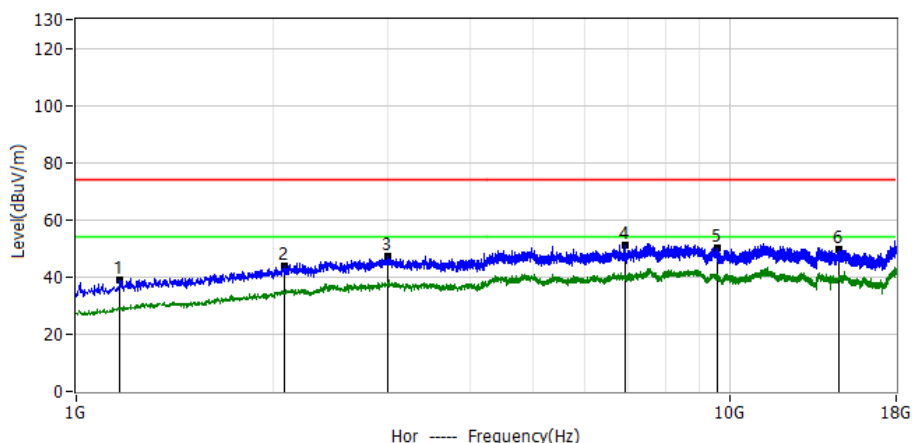


No.	Frequency MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	31.094	6.23	19.69	25.92	40.00	-14.08	QP	Ver
2*	86.658	13.34	16.66	30.00	40.00	-10.00	QP	Ver
3*	143.813	4.03	21.71	25.74	43.50	-17.76	QP	Ver
4*	241.162	6.67	19.55	26.22	46.00	-19.78	QP	Ver
5*	602.748	3.05	29.44	32.49	46.00	-13.51	QP	Ver
6*	956.673	4.14	34.96	39.10	46.00	-6.90	QP	Ver

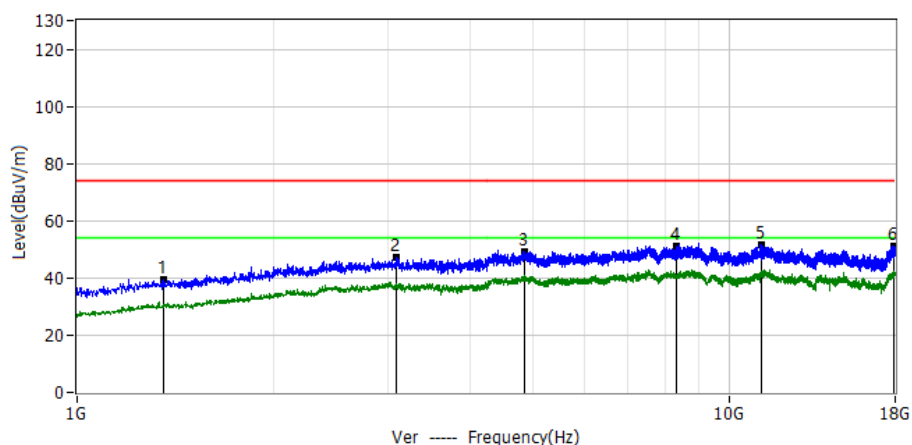


ABOVE 1GHZ

Project: LGT26H170	Test Engineer: zhangchengxiang
EUT: One Raven Home Serve	Temperature: 25.1°C
M/N: OR-HS100	Humidity: 46%RH
Test Voltage: AC 120V/60Hz	Test Date: 2026-08-27
Test Mode: Charging+LTE link+Radar+BT+Wi-Fi+802.15.4	
Note:	



No.	Frequency	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1.1657GHz	62.28	-23.51	38.77	74.00	-35.23	PK	Hor
2*	2.0816GHz	57.81	-14.01	43.80	74.00	-30.20	PK	Hor
3*	2.9954GHz	55.41	-8.14	47.27	74.00	-26.73	PK	Hor
4*	6.9181GHz	58.24	-7.16	51.08	74.00	-22.92	PK	Hor
5*	9.5701GHz	57.28	-7.19	50.09	74.00	-23.91	PK	Hor
6*	14.7424GHz	54.57	-5.11	49.46	74.00	-24.54	PK	Hor



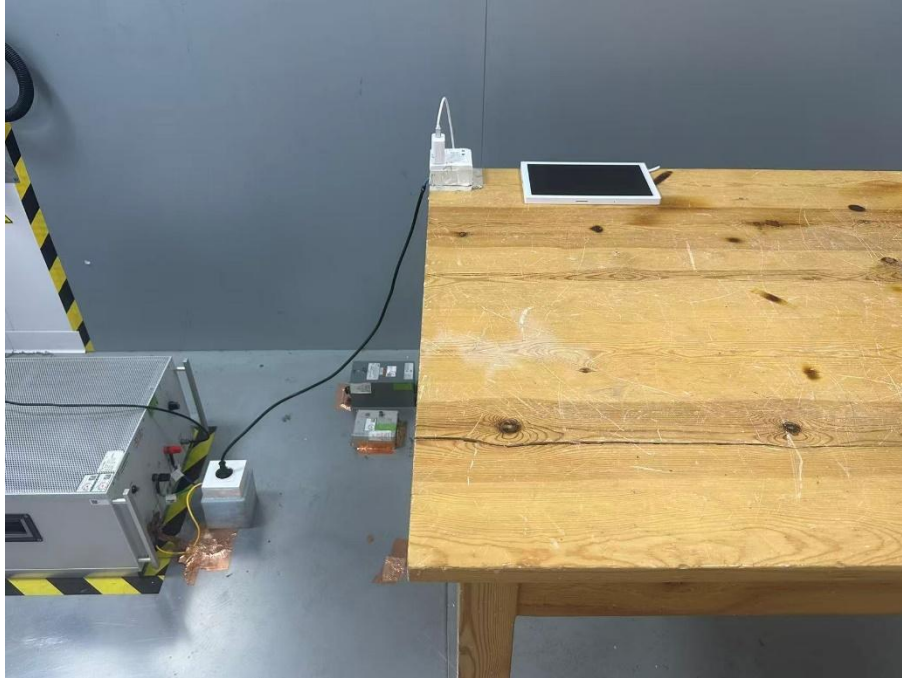
No.	Frequency	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1.3570GHz	60.92	-21.57	39.35	74.00	-34.65	PK	Ver
2*	3.0910GHz	55.43	-8.15	47.28	74.00	-26.72	PK	Ver
3*	4.8632GHz	55.29	-5.90	49.39	74.00	-24.61	PK	Ver
4*	8.2930GHz	58.94	-7.69	51.25	74.00	-22.75	PK	Ver
5*	11.2297GHz	56.82	-5.06	51.76	74.00	-22.24	PK	Ver
6*	17.8704GHz	54.40	-3.21	51.19	74.00	-22.81	PK	Ver

Remark:

In frequency ranges 18~40GHz no any other harmonic emissions detected which are tested to compliance with the limit. No recording in the test report. No any other emissions level which are attenuated less than 20dB below the limit. No recording in the test report.

APPENDIX I - TEST SETUP

Set-up for Conducted Emission on AC Mains (CE)



Set-up for Radiated Emission (RE), Below 1GHz



Set-up for Radiated Emission (RE), Above 1GHz



APPENDIX II - PHOTOGRAPHS OF EUT CONSTRUCTIONAL DETAILS

Photo 1

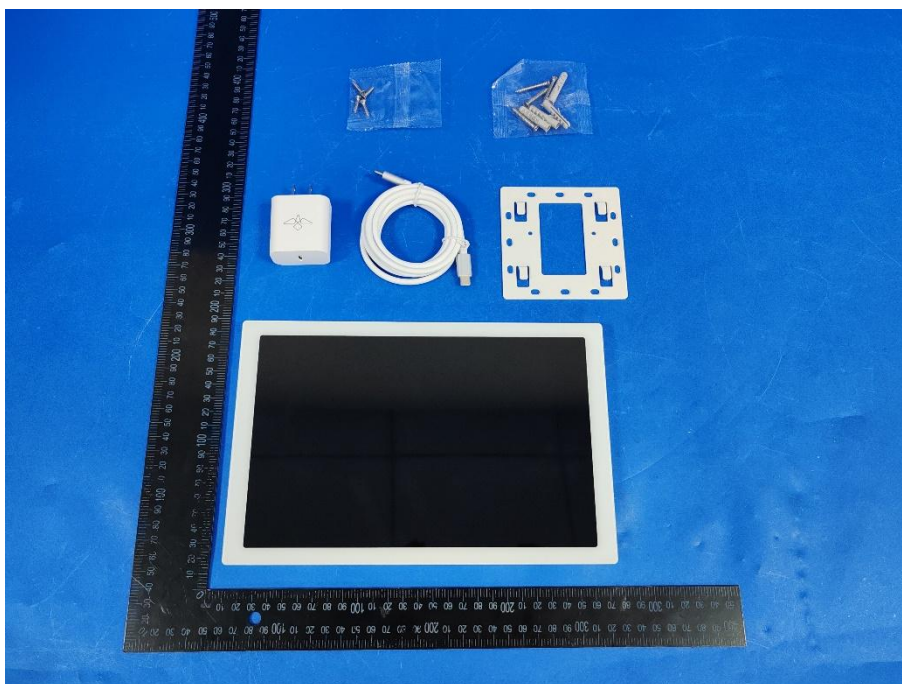


Photo 2

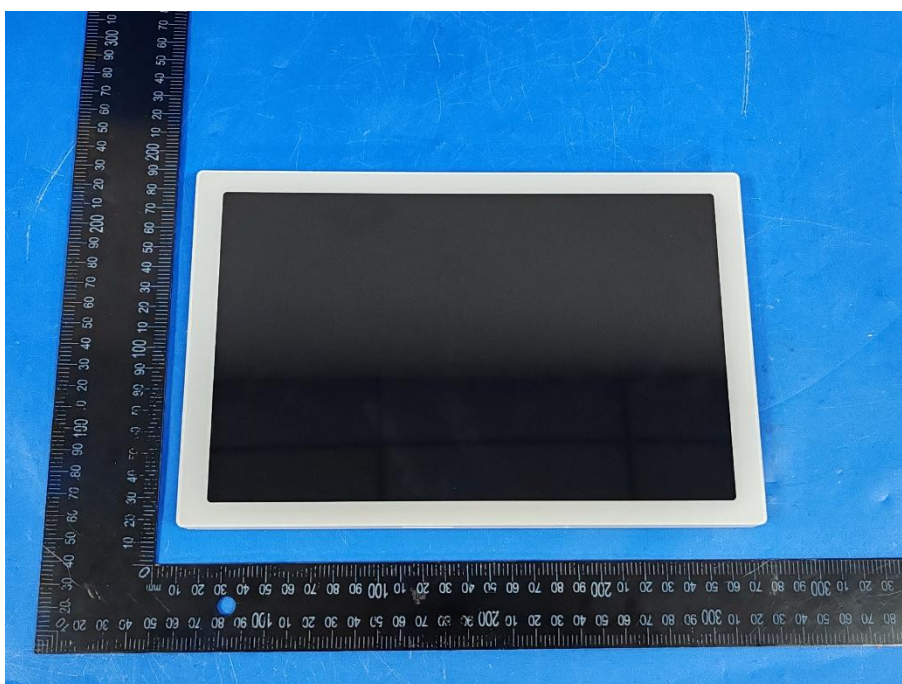


Photo 3

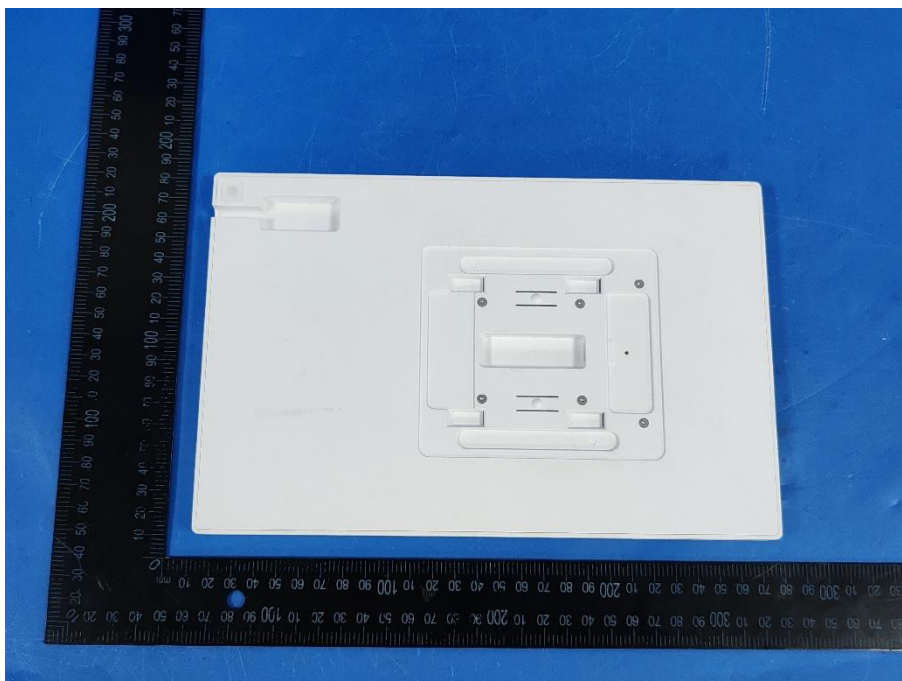


Photo 4

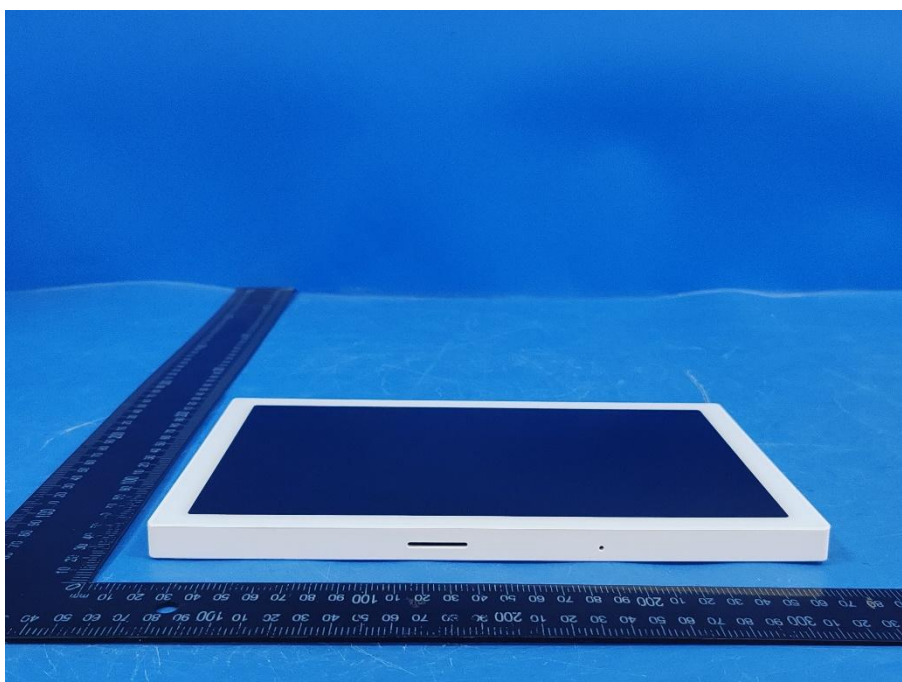


Photo 5

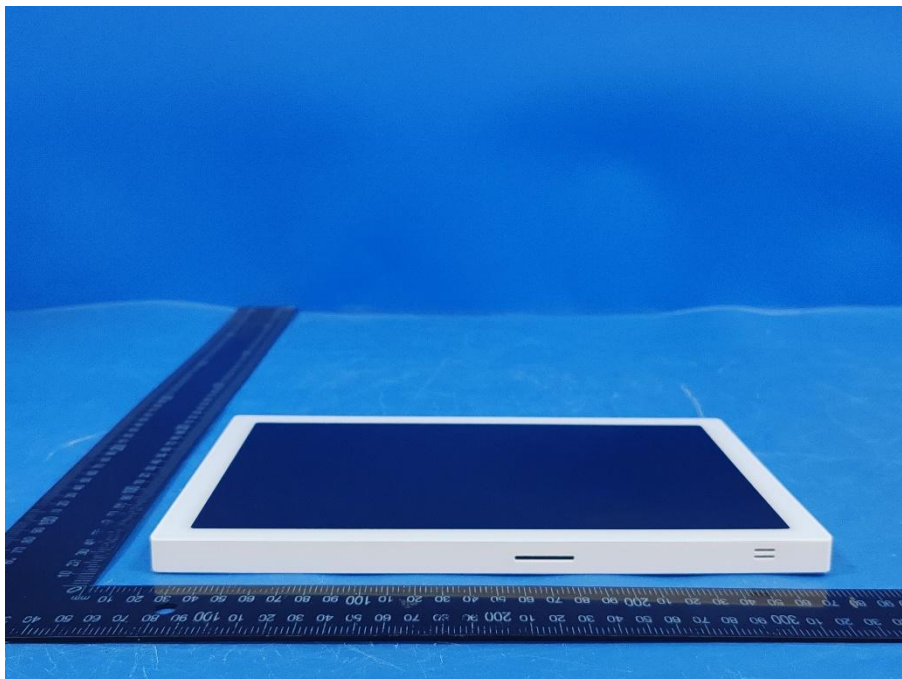


Photo 6

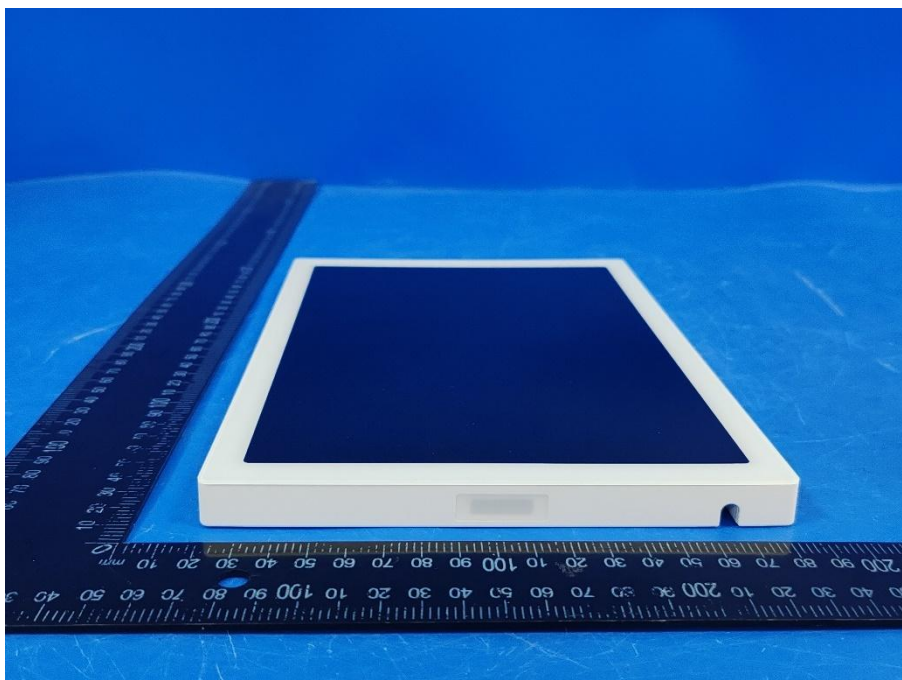


Photo 7

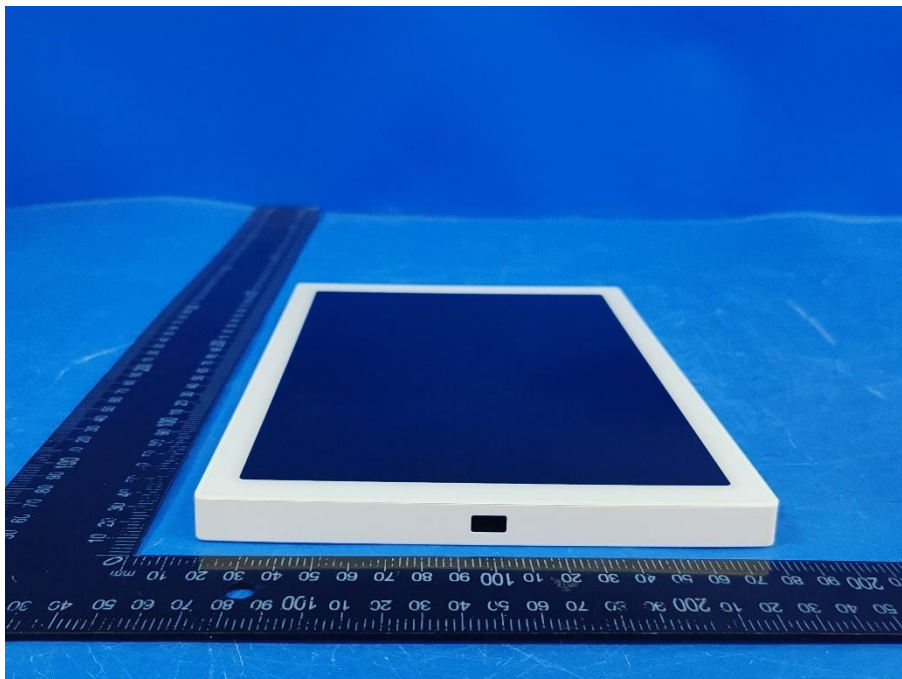


Photo 8



Photo 9



Photo 10



Photo 11

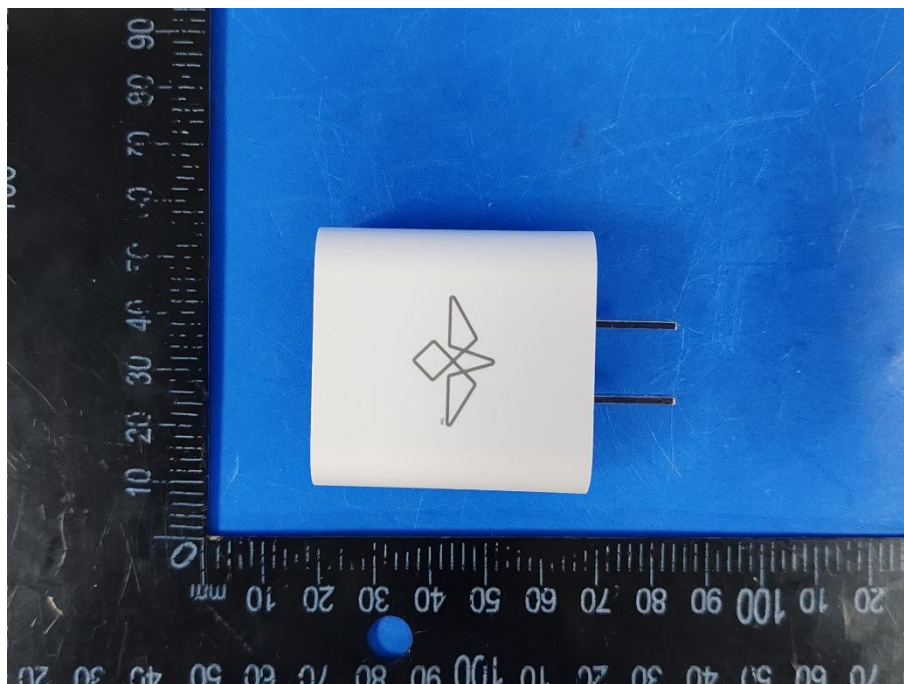


Photo 12



Photo 13

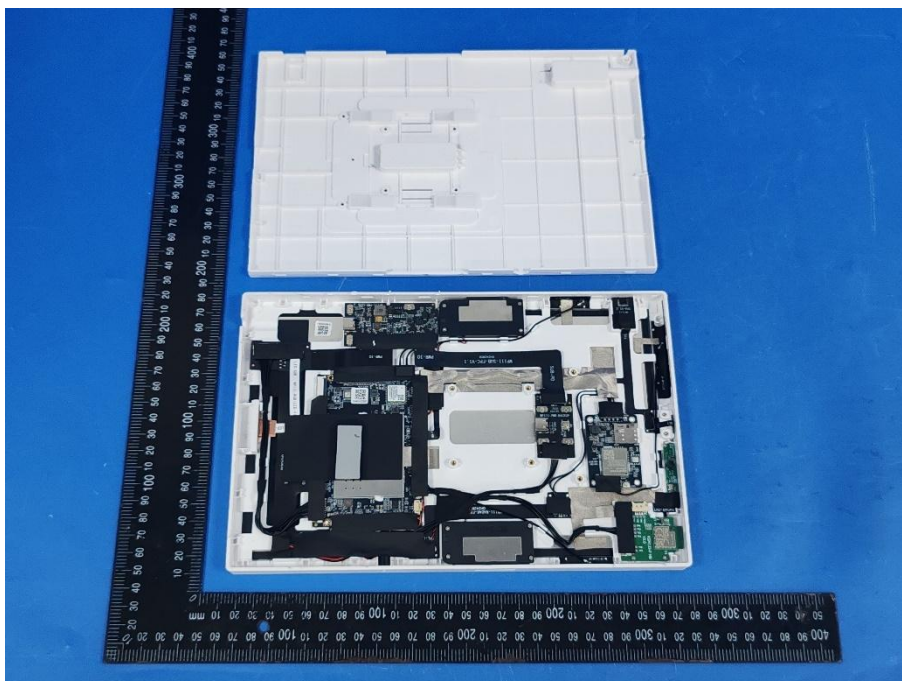


Photo 14

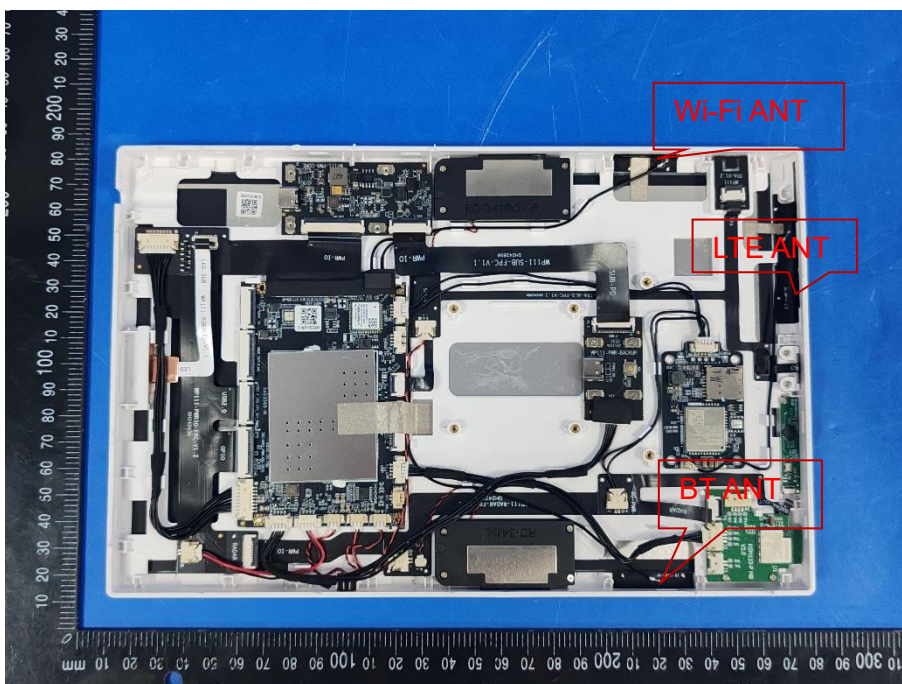


Photo 17

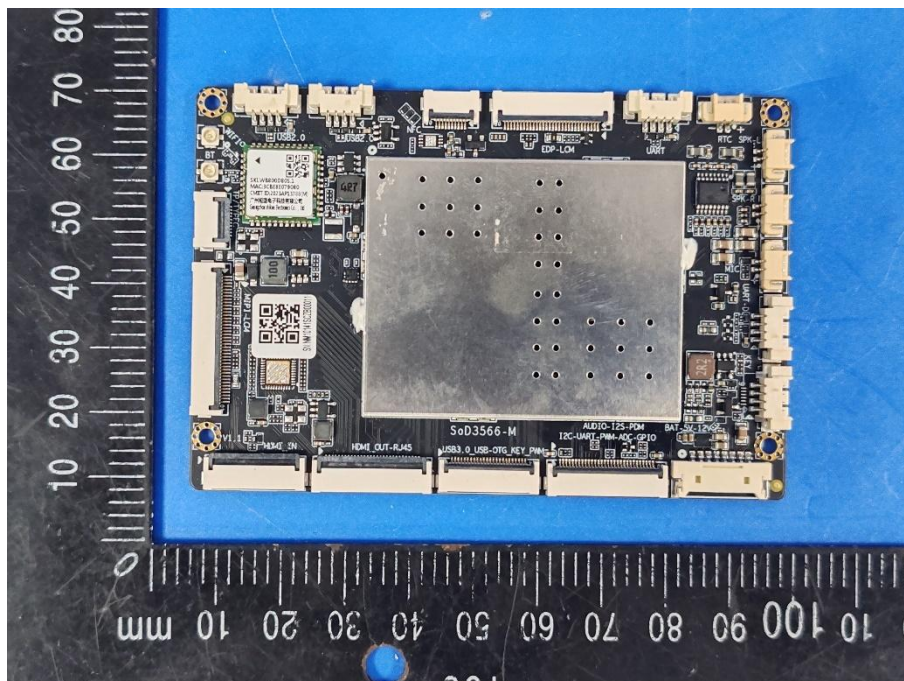


Photo 18

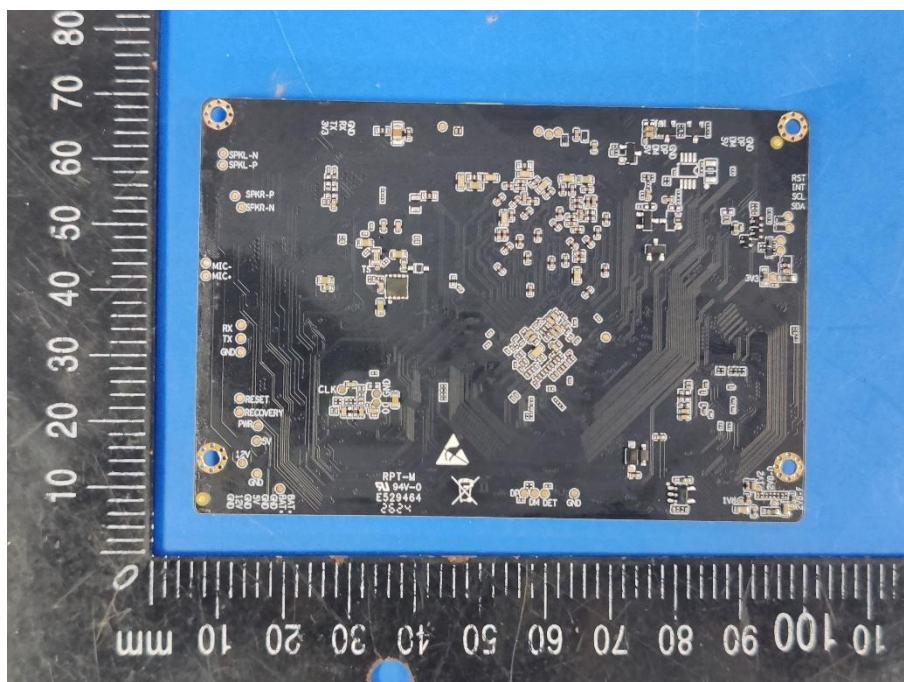


Photo 19

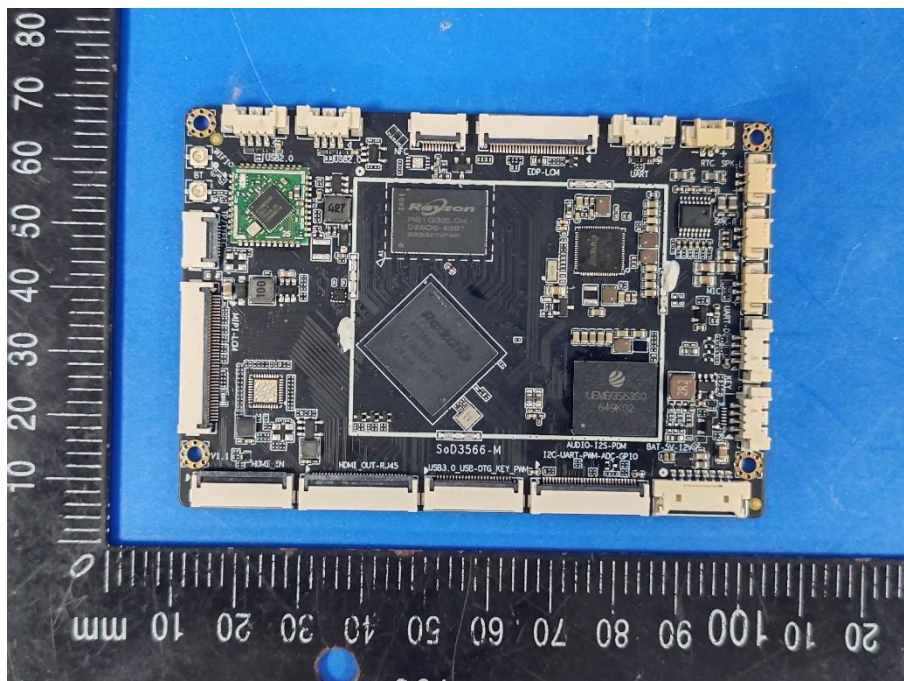


Photo 20

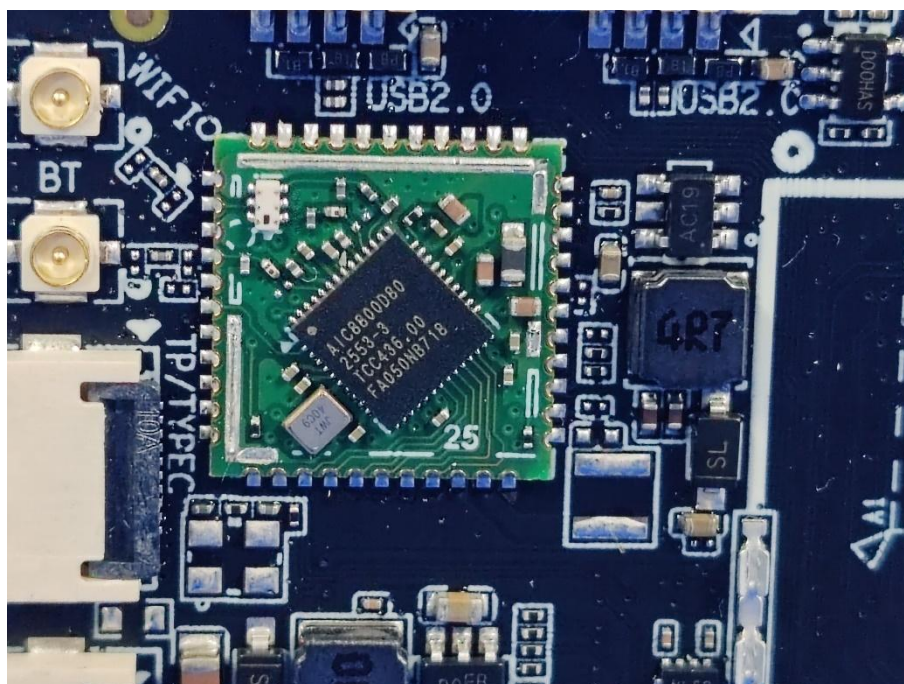


Photo 21

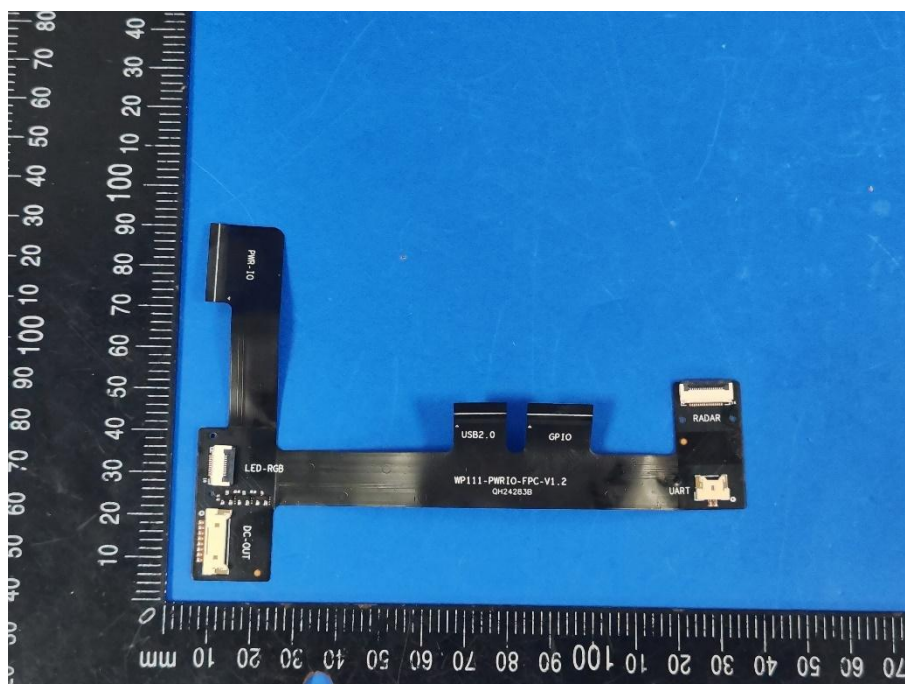


Photo 22

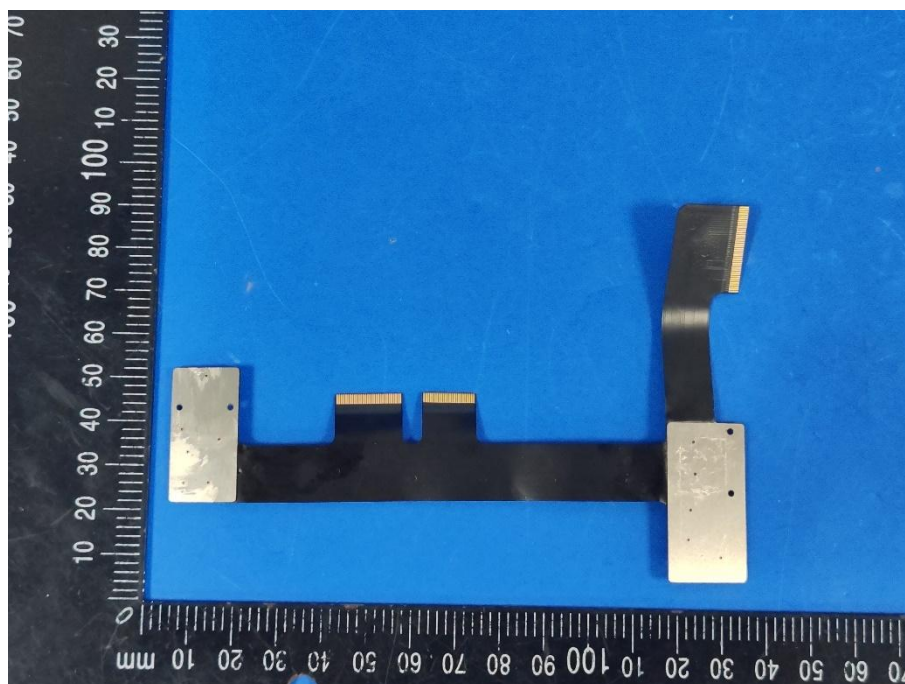


Photo 23

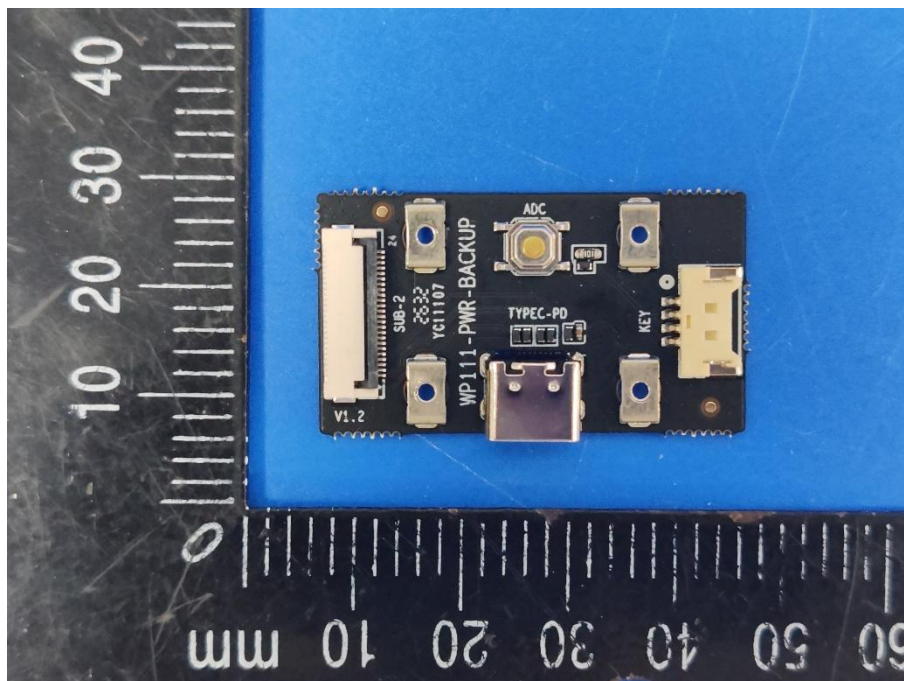


Photo 24

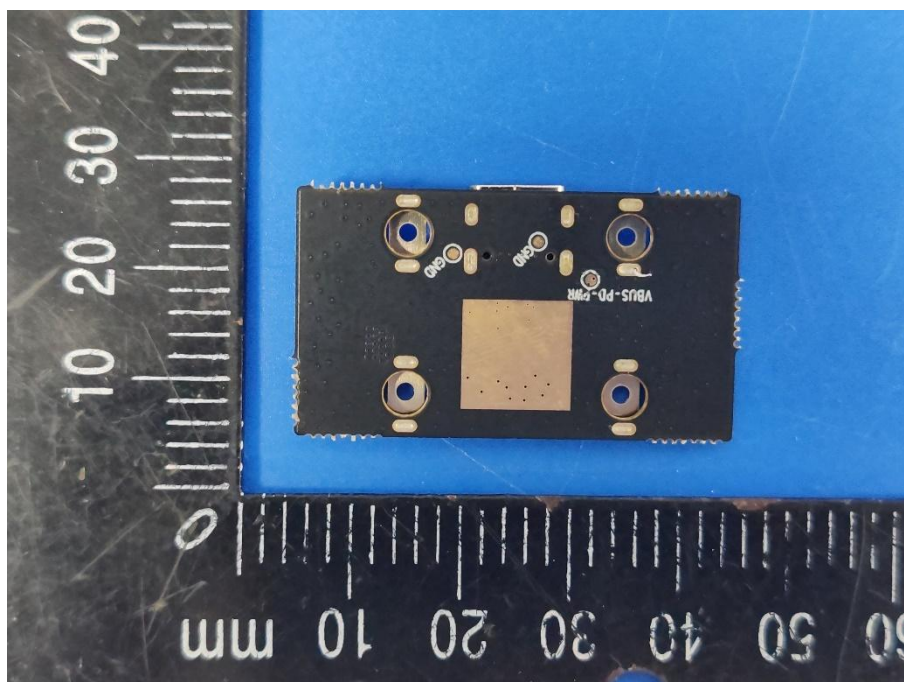


Photo 25

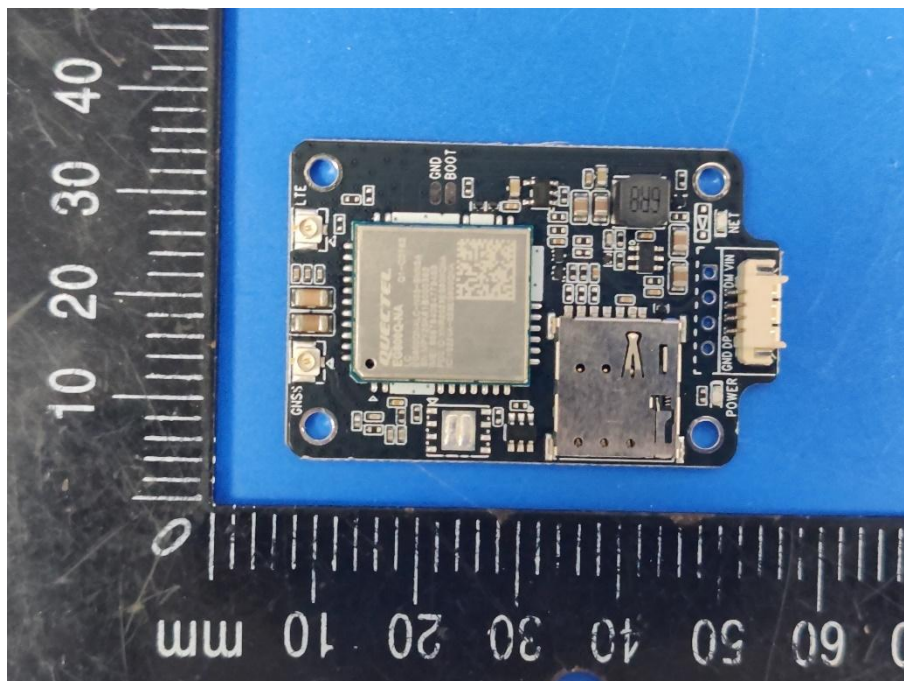


Photo 26



Photo 27

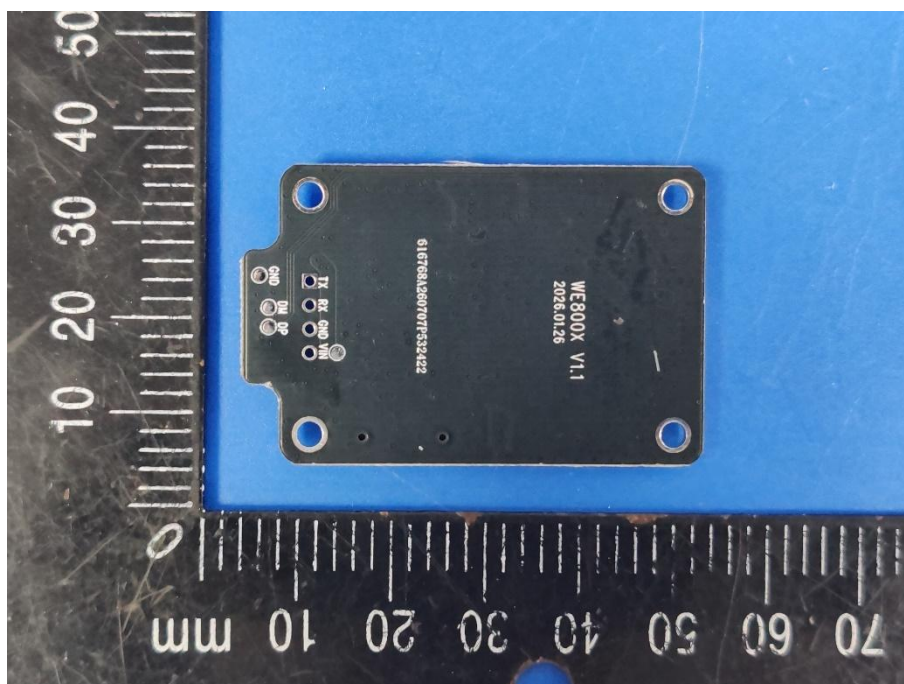


Photo 28

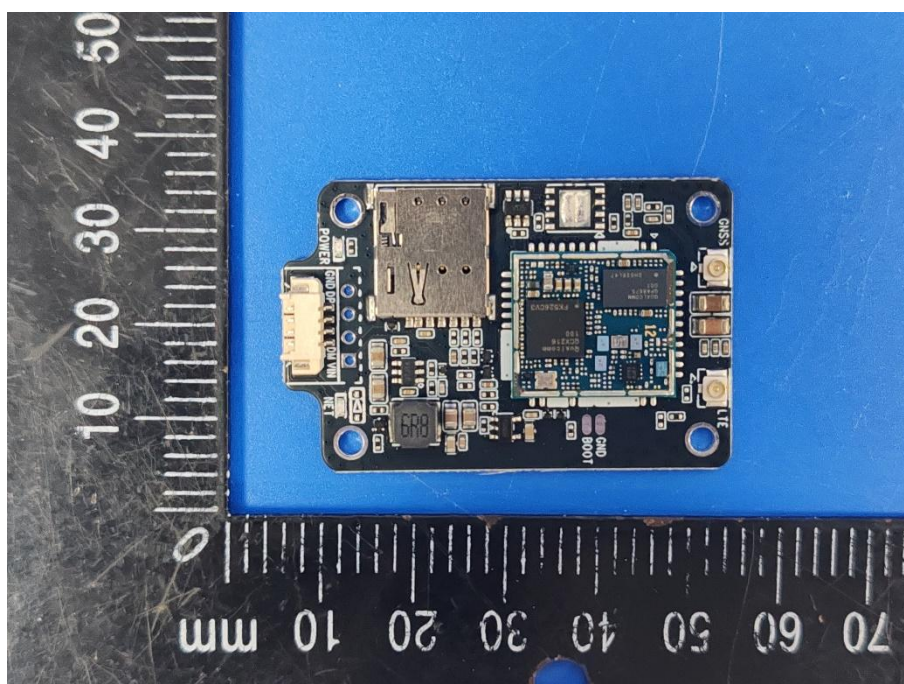


Photo 29

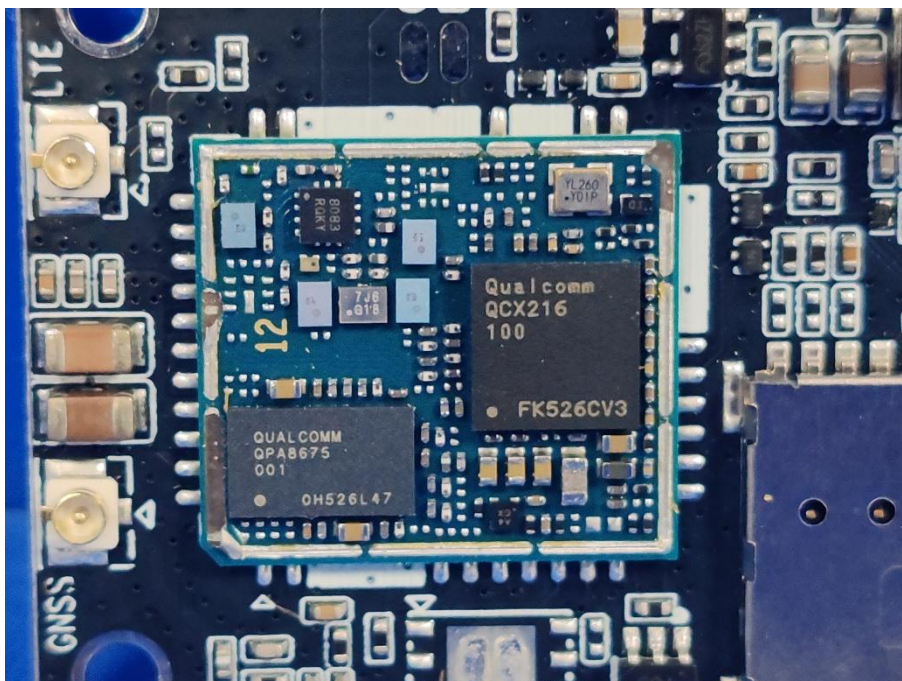


Photo 30

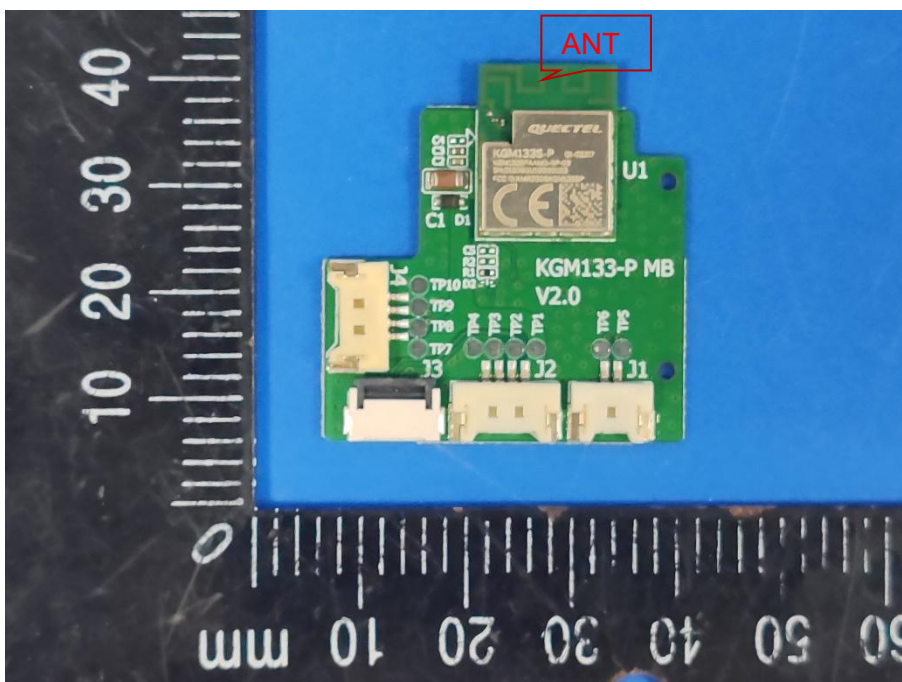


Photo 31



Photo 32

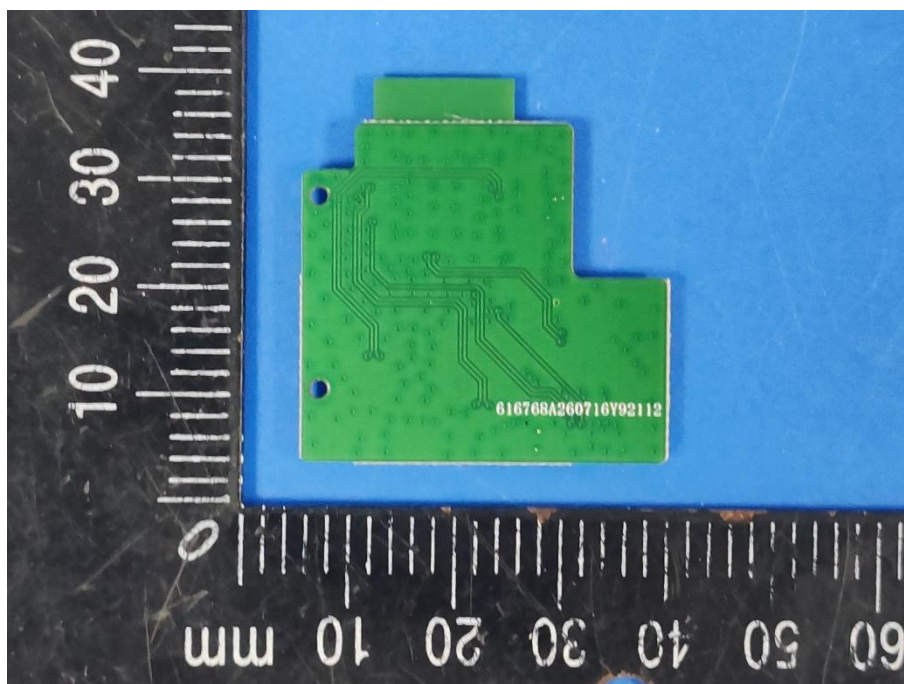


Photo 33

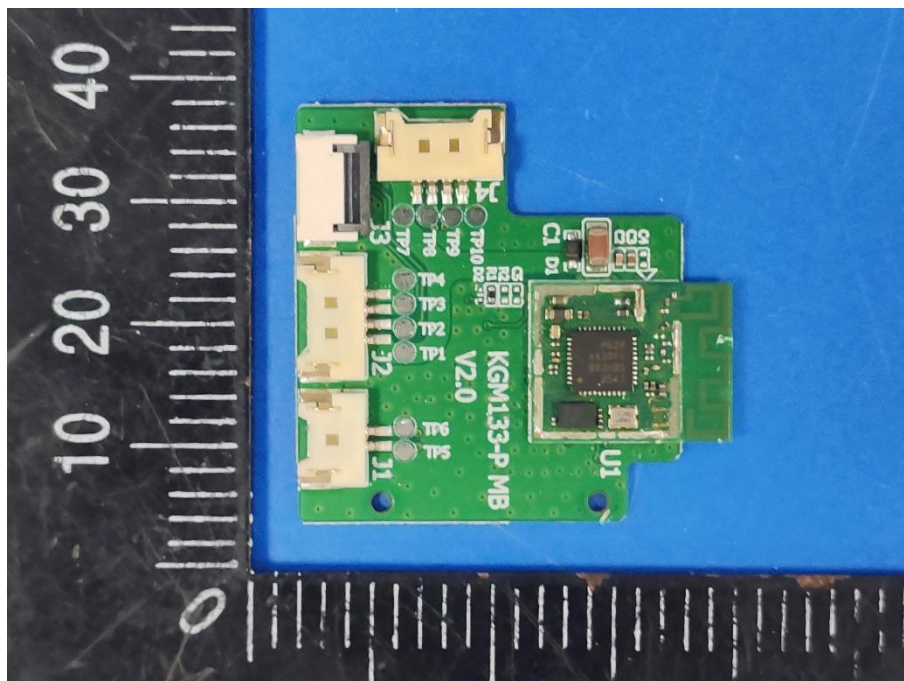


Photo 34

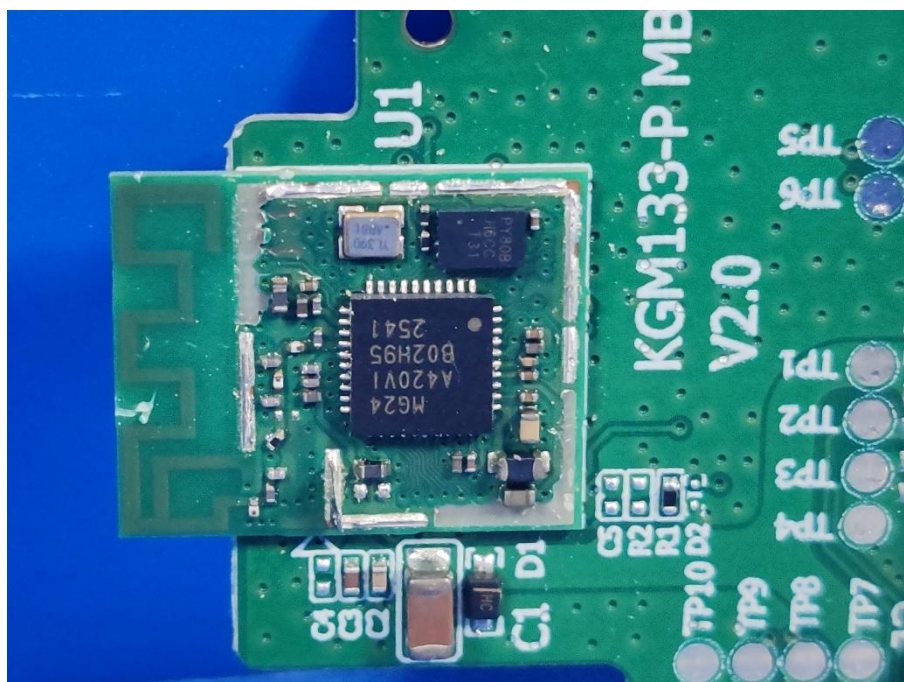


Photo 35

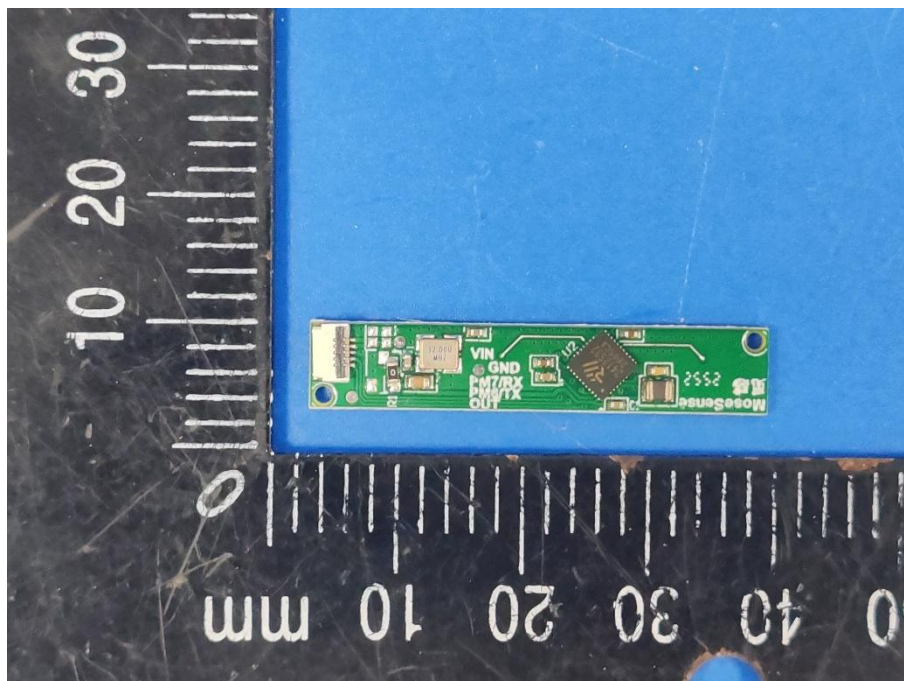
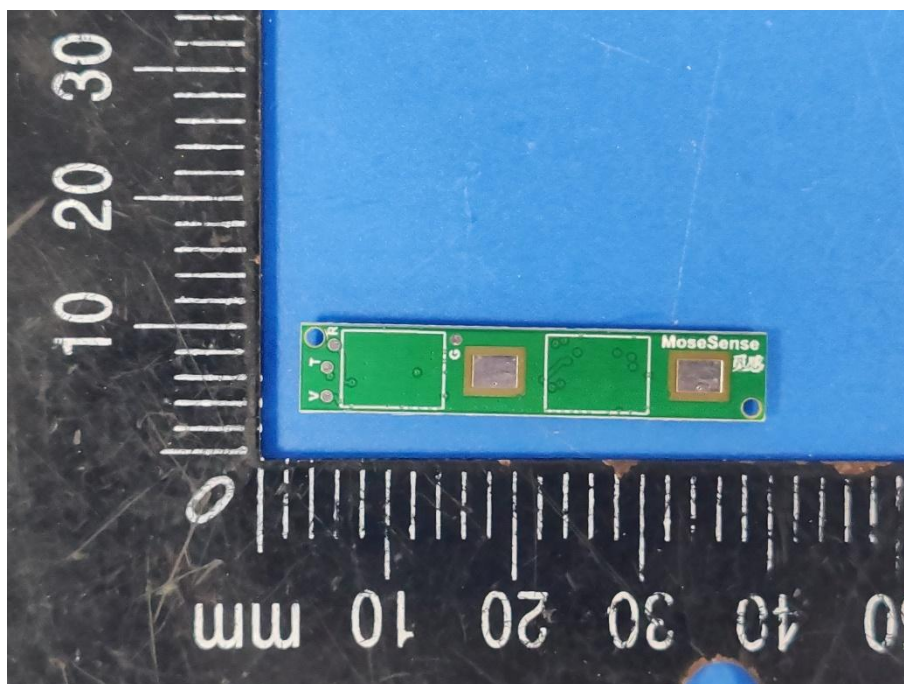


Photo 36



*****END OF THE REPORT*****