FCC Part 15B TESTREPORT

Applicant	:	Shenzhen Gotron Electronic CO.,LTD.
Product Name	:	Smart Phone
Brand Name	:	ulefone
Model Name	:	GQ5012
Series Model	:	Armor 29 Pro,Armor 29 Ultra,Armor 29,Armor 29T Ultra, Armor 29T Pro,Armor 29 Lite,Armor 29s,Armor 29s Pro
FCC ID	:	2AOWK-5012
Test Standard	:	FCC 47 CFR Part 15: Subpart B
Date of Test	:	Mar. 20, 2025~Mar. 25, 2025

Report Prepared by : Jacob. Cai

(Jacob Cai)

Report Approved by : Jason Wu

(Jason Wu)

Authorized Signatory : Robinson Luo

(Robinson Luo)

Authorized Signature:

Robinson Luo
Laboratory Manager

This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver

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Revision History

Rev.	Issue Date	Report No.	Effect Page	Contents
00	May 25,2025	GTSL2025060033F09	ALL	Initial Issue

DECLARATION OF REPORT

1. The device has been tested by GTS, and the test results show that the equipment under test (EUT)is in compliance with the requirements of The FCC Rules and Regulations,Title 47,Part 15 And it is applicable only to the tested sample identified in the report.
2. This report shall not be reproduced except in full, without the written approval of GTS, this document only be altered or revised by GTS, personal only, and shall be noted in the revision of the document.
3. The general information of EUT in this report is provided by the customer or manufacture, GTS is only responsible for the test data but not for the information provided by the customer or manufacture.

The results in this report is only apply to the sample as tested under conditions. The customer or manufacturer is responsible for ensuring that the additional production units of this model have the same electrical and mechanical components.

1.GENERAL DESCRIPTION

1.1 APPLICANT

Name	:	Shenzhen Gotron Electronic CO.,LTD.
Address	:	7B01, Building A, Block 1, Anhongji Tianyao Plaza, Longhua District, Shenzhen City, Guangdong Province China

1.2 MANUFACTURER

Name	:	Shenzhen Gotron Electronic CO.,LTD.
Address	:	7B01, Building A, Block 1, Anhongji Tianyao Plaza, Longhua District, Shenzhen City, Guangdong Province China

1.3 FACTORY

Name	:	Shenzhen Gotron Electronic CO.,LTD.
Address	:	7B01, Building A, Block 1, Anhongji Tianyao Plaza, Longhua District, Shenzhen City, Guangdong Province China

2. SUMMARY OF THE TEST RESULTS

Test procedures according to the technical standards:

EMC Emission				
Standard	Test Item	Limit	Judgment	Remark
FCC 47 CFR Part 15: Subpart B	Conducted Emissions	Class B	Pass	/
	Radiated Emissions	Class B	Pass	/

Note:

(1) "N/A"denotes test is not applicable in this Test Report.

3. GENERAL INFORMATION

3.1 General Description Of The EUT

Product Name	Smart Phone
Brand Name	ulefone
Model Name	GQ5012
Series Model	Armor 29 Pro,Armor 29 Ultra,Armor 29,Armor 29T Ultra, Armor 29T Pro,Armor 29 Lite,Armor 29s,Armor 29s Pro
Product Differences	All the same except for model name
Test Sample Number	20250206001001-B01
Power Source	Input:DC 7.74V for battery DC 5V/9V/12V/15V/20V for adapter
Adapter	Model :HJ-PD120W-US Input:AC 100-240V~50/60Hz, 1.8A Output:DC 5.0V/3.0A 15W,DC 9.0V/3.0A 27W,DC 12.0V/3A 36W,DC 15V/3A 45W,DC 20V/5A 100W MAX PPS:3.6V-20V/6A 120W MAX
Battery	Model:5012 Rated Voltage:DC 7.74V Charge Limit Voltage:DC 8.9V Capacity:10600mAh
Hardware Version Number	/
Software Version Number	/

3.2 Description Of The Test Modes

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

For Conducted Emissions		
Pretest Mode	Description	The Worst Mode
Mode 1	Front-facing camera operating + Charging(The battery level <10%)	
Mode 2	Rear camera operating + Charging(The battery level <10%)	
Mode 3	Video plays color bar signal+1KHz audio playing + Charging(The battery level <10%)	
Mode 4	FM 88MHz+Charging(The battery level <10%)	
Mode 5	FM 98MHz+Charging(The battery level <10%)	
Mode 6	FM 108MHz+Charging(The battery level <10%)	
Mode 7	FM 88MHz+Charging(The battery level <10%)+ flashlight	
Mode 8	FM 88MHz+Charging(The battery level <10%)+ flashlight+ Earphone	
Mode 9	SD Transmitting with PC+Mobile phone Charging	√

For Radiated Emissions Below 1GHz		
Pretest Mode	Description	The Worst Mode
Mode 1	Front-facing camera operating + Charging(The battery level <10%)	
Mode 2	Rear camera operating + Charging(The battery level <10%)	
Mode 3	Video plays color bar signal+1KHz audio playing + Charging(The battery level <10%)	
Mode 4	FM 88MHz+Charging(The battery level <10%)	
Mode 5	FM 98MHz+Charging(The battery level <10%)	
Mode 6	FM 108MHz+Charging(The battery level <10%)	
Mode 7	Video plays color bar signal+1KHz audio playing + Charging(The battery level <10%)+ flashlight	
Mode 8	Video plays color bar signal+1KHz audio playing + Charging(The battery level <10%)+ flashlight+ Earphone	
Mode 9	Video plays color bar signal+1KHz audio playing + flashlight+Battery（DC 7.74V）	
Mode 10	SD Transmitting with PC+Mobile phone Charging	√

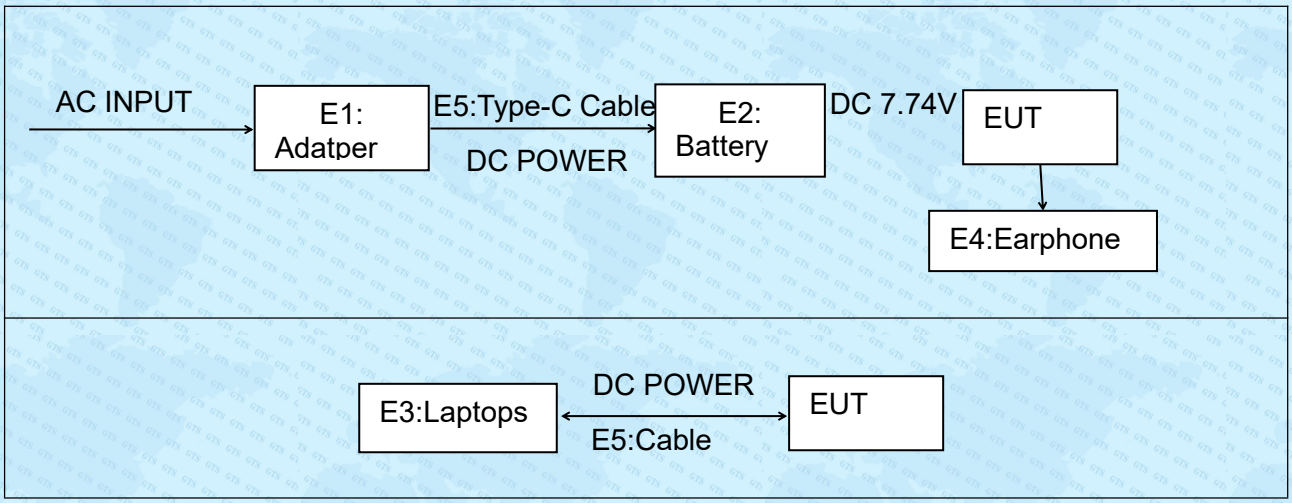
For Radiated Emissions Above 1GHz		
Pretest Mode	Description	The Worst Mode
Mode 1	Front-facing camera operating + Charging(The battery level <10%)	√
Mode 2	Rear camera operating + Charging(The battery level <10%)	
Mode 3	Video plays color bar signal+1KHz audio playing + Charging(The battery level <10%)	
Mode 4	SD Transmitting with PC+Mobile phone charging	

Note:

(1) For Conducted Emissions, the worst case was presented and recorded in this report.

(2) For Radiated Emissions, the worst case was presented and recorded in this report.

3.3 Test Configuration Diagram



3.4 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

Item	Equipment	Manufacturer	Model No.	Serial No.
E1	Adapter	Shenzhen Huajin Electronics Co.,Ltd	HJ-PD120W-EU	/
E2	Battery	/	5012	/

Auxiliary Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.
E3	Laptops	Redmi	JYU4371CN	35170/81SC0025 4
E4	Earphone	/	/	/

CableType

Item	Signal CableType	Shielded Type	Ferrite Core	Length
E5	Type-C Cable	Unshielded	NO	93cm

Note:

(1) The support equipment was authorized by Declaration of Confirmation.

(2) For detachable type I/O cable should be specified the length in cm in『Length』column.

(3) “YES” is means “shielded” “with core”; “NO” is means “unshielded” “without core”.

3.5 Laboratory Information

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC —Registration No.: 381383**
  Designation Number: CN5029
  Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files.
- **ISED—Registration No.: 9079A**
  CAB identifier: CN0091
  The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of ISED for radio equipment testing.
- **NVLAP (LAB CODE:600179-0)**
  Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

All tests were performed at:
Global United Technology Services Co., Ltd.
Address: No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102
Tel: 0755-27798480
Fax: 0755-27798960

3.6 Measurement Uncertainty

The reported uncertainty of measurement y ± U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence ofapproximately 95 %.

A. Conducted Emissions:

MeasurementFrequencyRange	U(dB)	Note
9kHz ~ 150kHz	3.4	/
150kHz ~ 30MHz	3.73	/

B. Radiated Emissions:

MeasurementFrequencyRange	U(dB)	Note
30MHz ~ 1GHz	3.6	/
1GHz ~ 6GHz	5.2	/
6GHz ~ 18GHz	5.4	/

3.7 MEASUREMENT INSTRUMENTS LIST

3.7.1 Conducted Emissions

Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
EMI Test Receiver	R&S	ESPI	100679	2025.03.17	2026.03.16
LISN	R&S	ENV216	101300	2025.03.17	2026.03.16
CE Cable	Chuangcexing	2M	EMI0014	2025.03.17	2026.03.16
Temperature & Humidity	Deli	Deli	EMI0015	2024.07.18	2025.07.17
Testing Software	FALA	EZ-EMC(Ver.EMC-CON 3A1.1)	EMI0044	N/A	N/A

3.7.2 Radiated Emissions

Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
EMI Test Receiver	R&S	ESCI	100469	2025.03.17	2026.03.16
Bi-log Antenna	SCHWARZBECK	VULB9168	01174	2024.05.17	2025.05.16
Pre-amplifier (10M-1G)	JPT	JPA-10M1G32	2101010 0035001	2025.03.17	2026.03.16
Horn Antenna	SCHWARZBECK	BBHA 9120D	02334	2024.05.17	2025.05.16
Pre-amplifier (1G-18GHz)	JPT	JPA0118-55-303A	19100018 00055000	2025.03.17	2026.03.16
Temperature & Humidity	DeLi	DeLi	EMI0016	2024.07.18	2025.07.17
Antenna Tower	Brilliant	BK-4AT-BS	SK23ABS3	N/A	N/A
Turntable	Brilliant	BK-1.5P1.0T	SK23ABS3	N/A	N/A
Station Control	Brilliant	SKC1000	SK23KC3	N/A	N/A
Testing Software	FALA	EZ-EMC(Ver.FA-03A2 RE)	EMI0045	N/A	N/A

4. EMC EMISSION TEST

4.1 Conducted Emissions

4.1.1 Conducted Emissions 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 *
0.50 -5.0	73.00	60.00	56.00	46.00
5.0 -30.0	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.

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

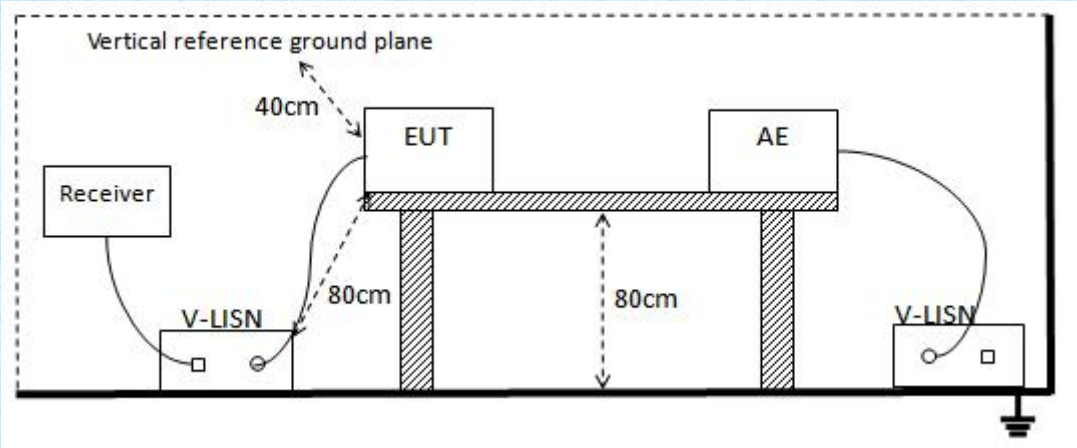
4.1.2Power Line Conducted Test Procedure

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 provide 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 1m.
d. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.1.3 Deviation From Test Standard

No deviation

4.1.4 Test Setup

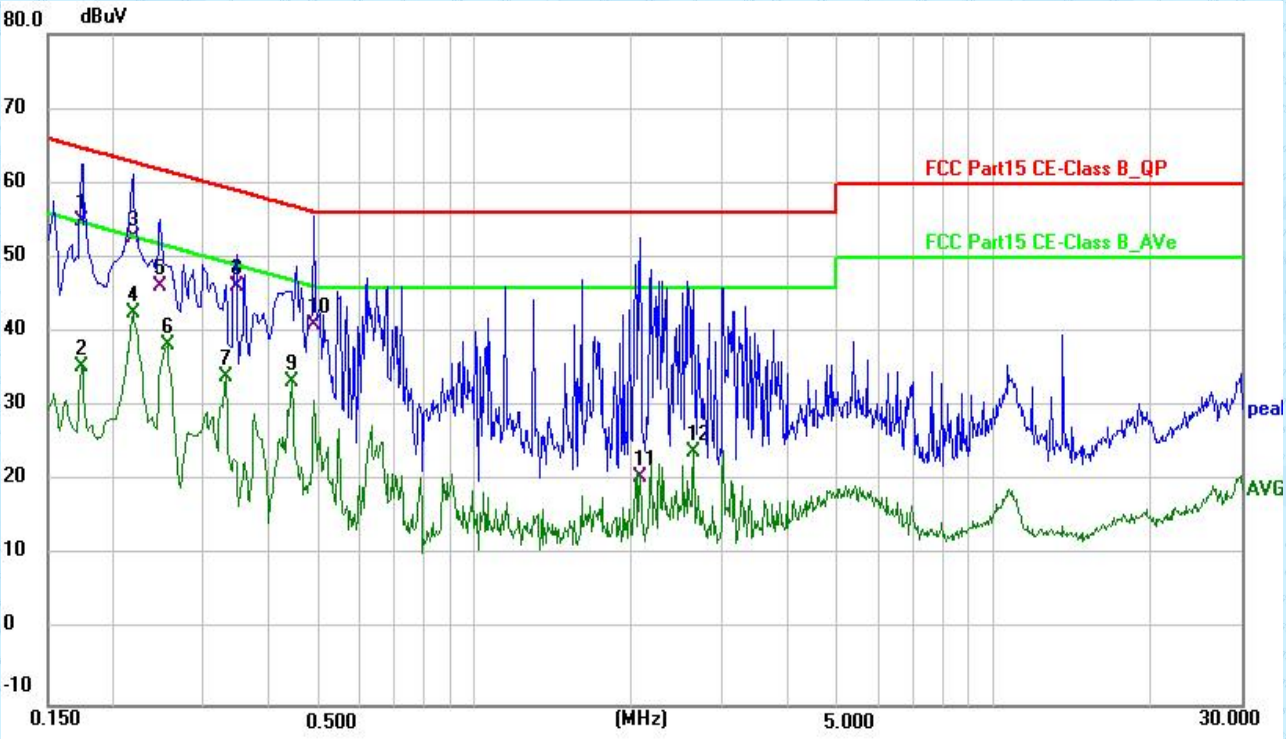


4.1.5 EUT Operating Conditions

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

4.1.6 Test Results

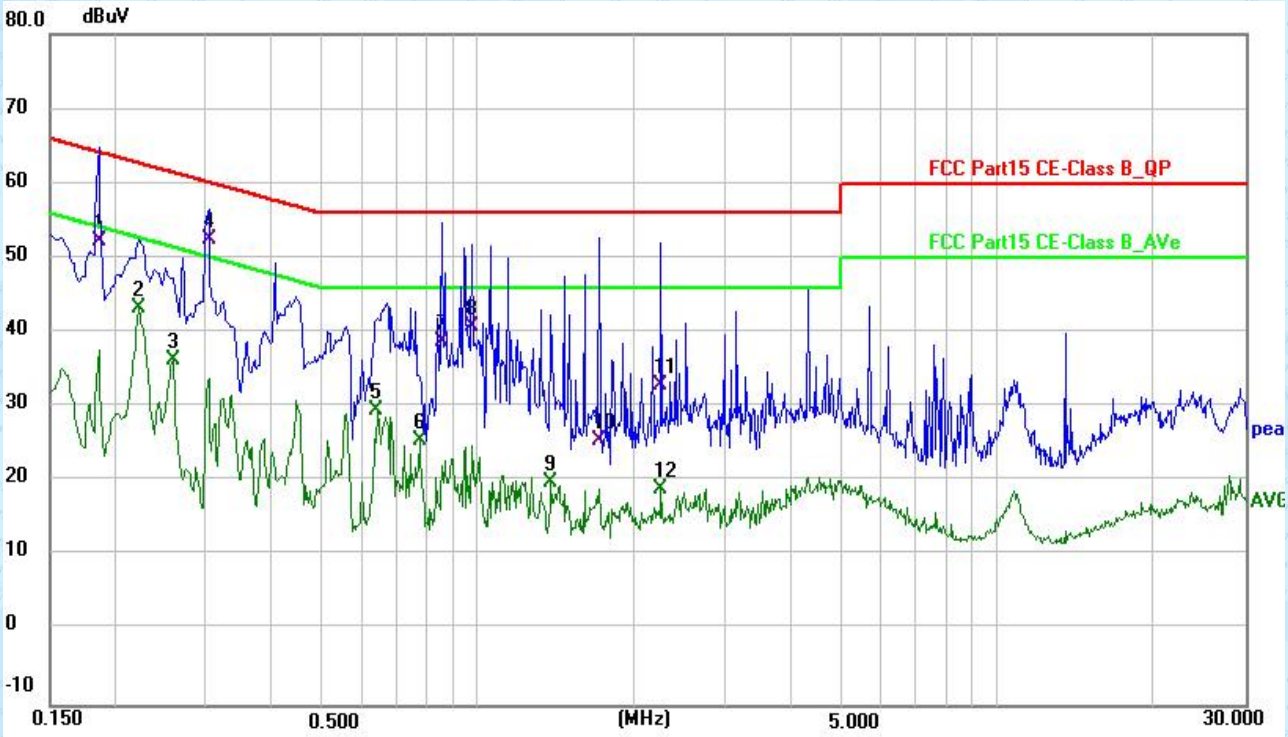
Temperature:	20℃	Relative Humidity:	57%
Phase:	L	Test Mode:	Mode 9
Test Voltage:	AC120V/60Hz	Test Date:	2025.03.21



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1740	35.51	19.43	54.94	64.77	-9.83	QP
2	0.1740	16.08	19.43	35.51	54.77	-19.26	AVG
3	0.2180	33.25	19.43	52.68	62.89	-10.21	QP
4	0.2180	23.10	19.43	42.53	52.89	-10.36	AVG
5	0.2460	26.68	19.43	46.11	61.89	-15.78	QP
6	0.2540	18.91	19.44	38.35	51.63	-13.28	AVG
7	0.3300	14.66	19.45	34.11	49.45	-15.34	AVG
8	0.3460	26.65	19.46	46.11	59.06	-12.95	QP
9	0.4420	14.00	19.48	33.48	47.02	-13.54	AVG
10	0.4900	21.64	19.47	41.11	56.17	-15.06	QP
11	2.0780	1.00	19.60	20.60	56.00	-35.40	QP
12	2.6380	4.29	19.63	23.92	46.00	-22.08	AVG

Remark:
1.When the PEAK value conforms to the limit, the QP value also conforms to the limit
2.The emission level of the six frequencies is marked as the highest level
3.Margin value = Emission level – Limit value
4.Emission Level = Correction Factor + Reading Value
5.CorrectFactor=Cable Loss +AMN Factor

Temperature:	20℃	Relative Humidity:	57%
Phase:	N	Test Mode:	Mode 9
Test Voltage:	AC120V/60Hz	Test Date:	2025.03.21



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1860	32.95	19.42	52.37	64.21	-11.84	QP
2	0.2220	23.87	19.42	43.29	52.74	-9.45	AVG
3	0.2580	16.97	19.43	36.40	51.50	-15.10	AVG
4	0.3020	33.09	19.43	52.52	60.19	-7.67	QP
5	0.6419	10.04	19.51	29.55	46.00	-16.45	AVG
6	0.7740	6.04	19.50	25.54	46.00	-20.46	AVG
7	0.8540	19.26	19.50	38.76	56.00	-17.24	QP
8	0.9780	21.22	19.51	40.73	56.00	-15.27	QP
9	1.3820	0.49	19.55	20.04	46.00	-25.96	AVG
10	1.7140	6.09	19.56	25.65	56.00	-30.35	QP
11	2.2580	13.40	19.60	33.00	56.00	-23.00	QP
12	2.2580	-0.45	19.60	19.15	46.00	-26.85	AVG

Remark:
1.When the PEAK value conforms to the limit, the QP value also conforms to the limit
2.The emission level of the six frequencies is marked as the highest level
3.Margin value = Emission level – Limit value
4.Emission Level = Correction Factor + Reading Value
5.CorrectFactor=Cable Loss +AMN Factor

4.2 Radiated Emissions

4.2.1 Radiated Emissions Limits

Class A Radiated Limits Below 1 GHz:

Frequencies (MHz)	Class A (dBμV/m)
	Quasi-peak
30~88	49.5
88~216	53.9
216~960	56.9
960~1000	60

Class B Radiated Limits Below 1 GHz:

Frequencies (MHz)	Class B (dBμV/m)
	Quasi-peak
30~88	40
88~216	43.5
216~960	46
960~1000	54

Limits Of Radiated Emissions Measurement

FREQUENCY (MHz)	Class A (dBuV/m) (at 3M)		Class B (dBuV/m) (at 3M)	
	PEAK	AVERAGE	PEAK	AVERAGE
Above 1000	80	60	74	54

Note:

(1) The tighter limit applies at the band edges.

(2) Emission level (dBuV/m)=20log Emission level (uV/m).

Frequency Range Of The Radiated Measurement (For unintentional radiators)

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

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak
Start Frequency	1000 MHz(Peak/AV)
Stop Frequency	5th harmonic (Peak/AV)
RB / VB (emission in restricted band)	30MHz to 1000MHz:100 KHz / 300 KHz Above 1000MHz: 1 MHz / 3 MHz

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	30MHz to 1000MHz: 100 KHz / 300 KHz Above 1000MHz: 1 MHz / 3 MHz

4.2.2 Test Procedure

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meters semi-anechoic chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
b. 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 meters.
c. The height of antenna is varied from 1 meter to 4 meters 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.
d. 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 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
e. 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.
f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

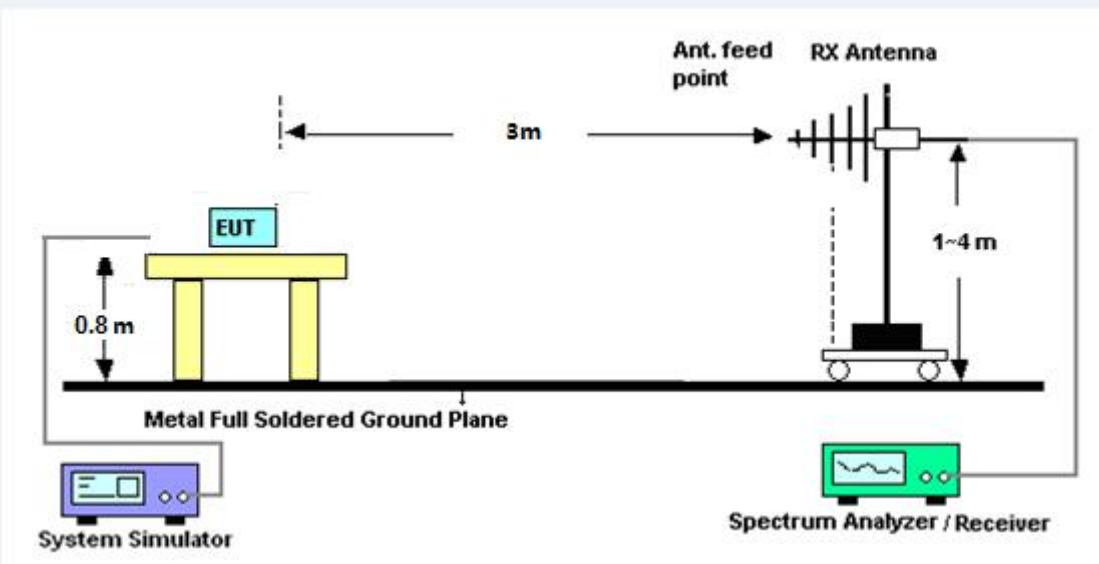
Note: Both horizontal and vertical antenna polarities were testedand performed pretest to three orthogonal axis. The worst case emissions were reported

4.2.3 Deviation From Test Standard

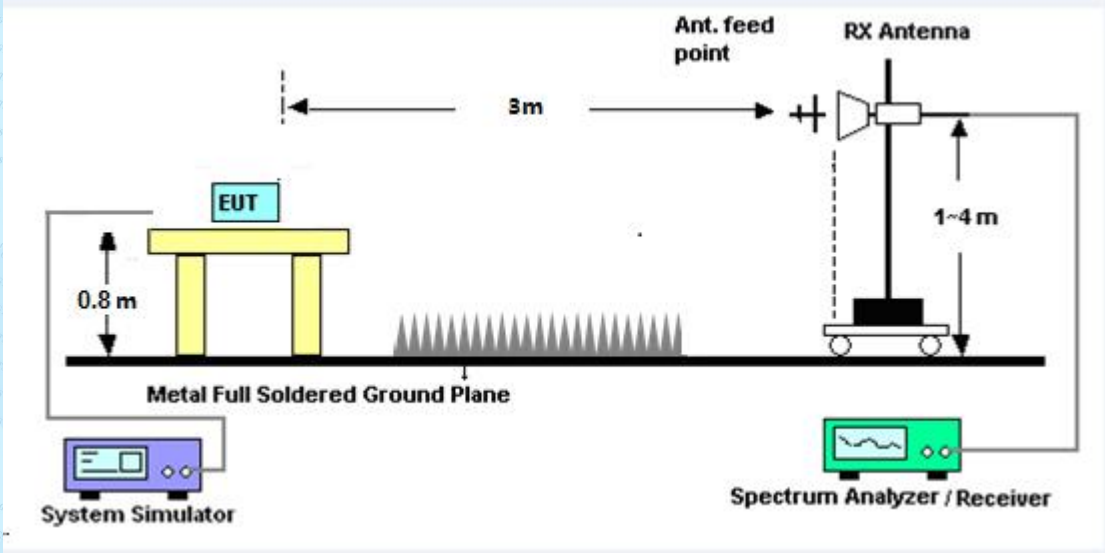
No deviation

4.2.4 TestSetup

（A）Radiated Emissions Test-Up Frequency Below 1 GHz



（B）Radiated Emissions Test-Up Frequency Above 1GHz



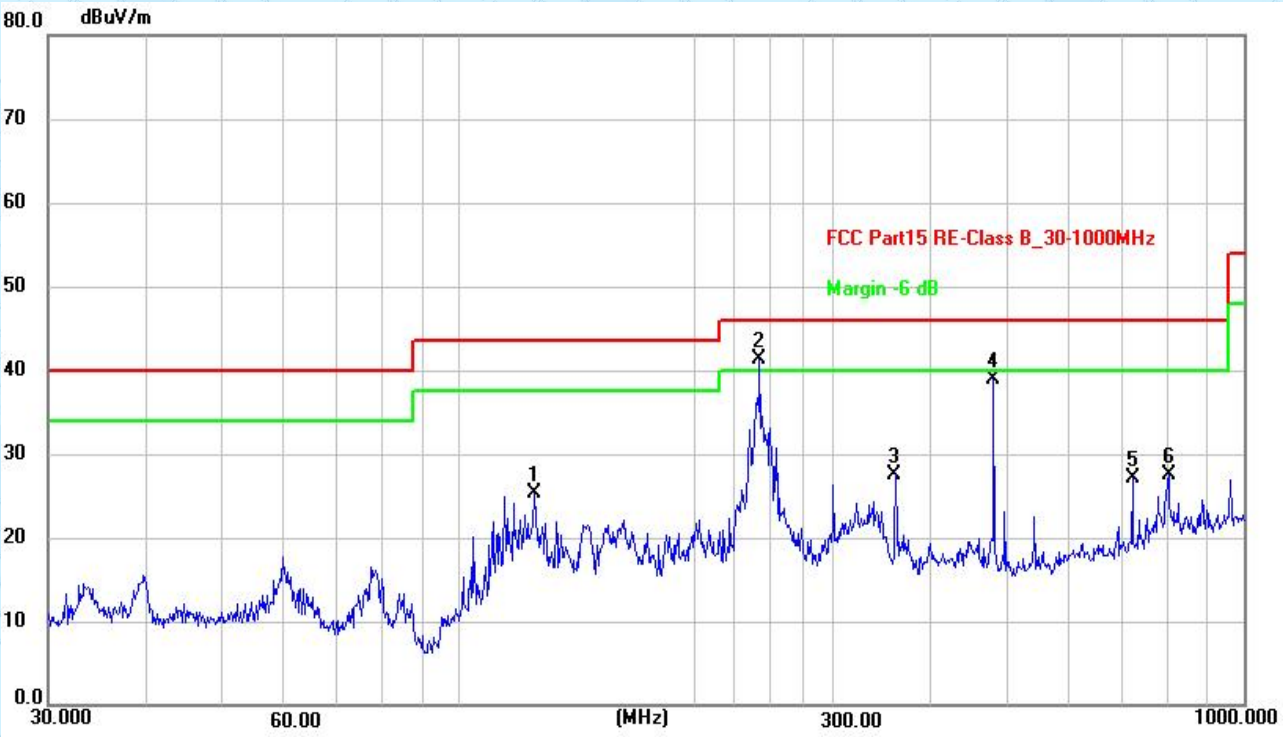
4.2.5 EUT Operating Conditions

The EUT tested system was configured as the statements of 3.3 Unless otherwise a special operating condition is specified in the following during the testing.

4.2.6 Test Results

30MHz -1000MHz

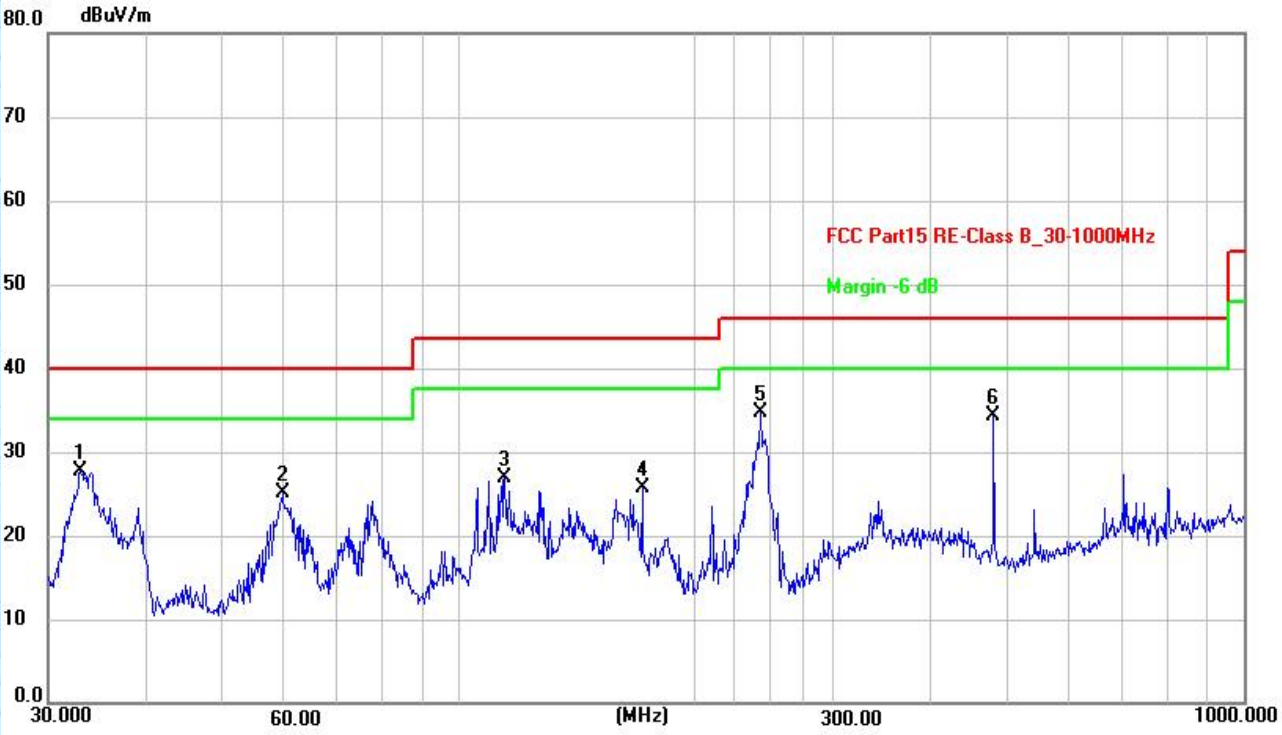
Temperature:	24℃	Relative Humidity:	50%
Phase:	Horizontal	Test Mode:	Mode 10
Test Voltage:	AC120V/60Hz	Test Date:	2025.03.25



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	125.0066	56.83	-31.61	25.22	43.50	-18.28	peak
2	241.6763	71.87	-30.65	41.22	46.00	-4.78	peak
3	360.4476	54.85	-27.29	27.56	46.00	-18.44	peak
4	480.5276	62.82	-23.95	38.87	46.00	-7.13	peak
5	721.7259	46.23	-19.16	27.07	46.00	-18.93	peak
6	801.7863	45.29	-17.75	27.54	46.00	-18.46	peak

Remark:
1.When the PEAK value conforms to the limit, the QP value also conforms to the limit
2. Margin = Result (Result =Reading + Factor)–Limit
3.Factor= Cable Loss +Antenna Factor-Amplifier Gain

Temperature:	24℃	Relative Humidity:	50%
Phase:	Vertical	Test Mode:	Mode 10
Test Voltage:	AC120V/60Hz	Test Date:	2025.03.25

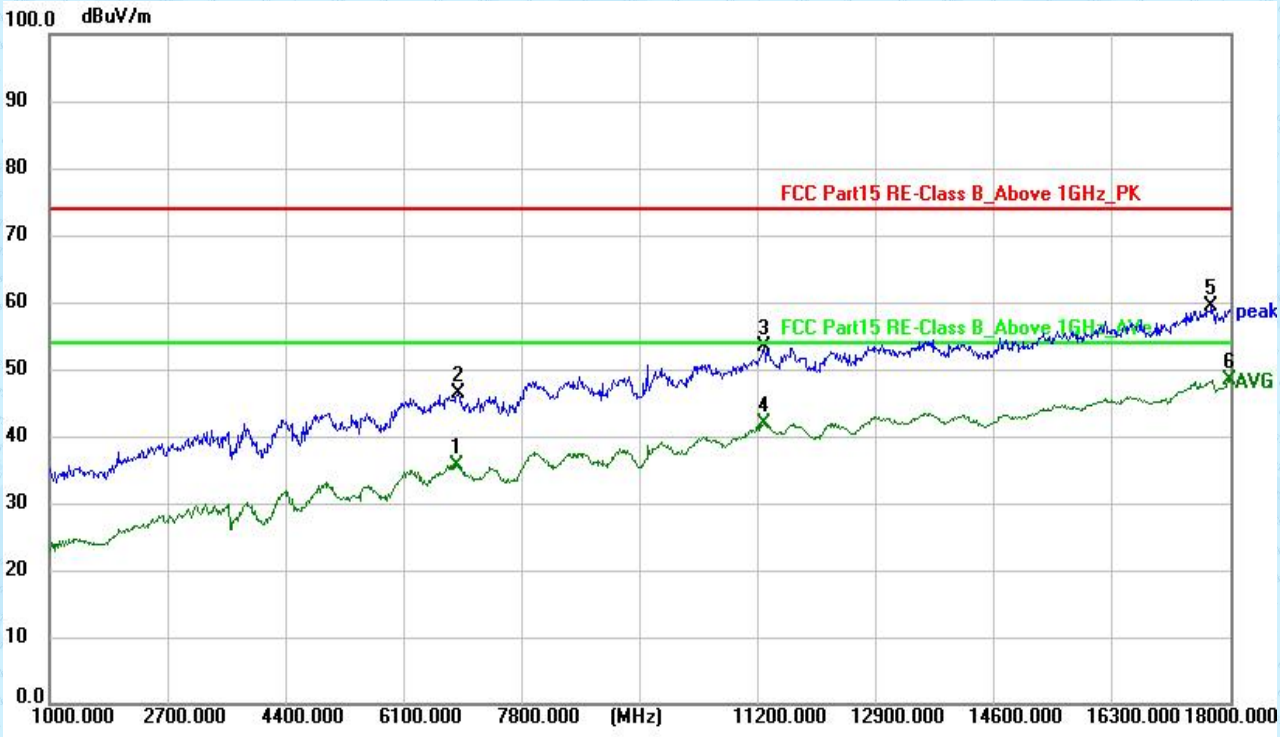


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	32.9791	57.33	-29.67	27.66	40.00	-12.34	peak
2	59.6493	54.35	-29.32	25.03	40.00	-14.97	peak
3	114.5146	59.25	-32.32	26.93	43.50	-16.57	peak
4	171.3926	55.63	-30.01	25.62	43.50	-17.88	peak
5	242.5253	65.32	-30.60	34.72	46.00	-11.28	peak
6	480.5276	58.24	-23.95	34.29	46.00	-11.71	peak

Remark:
1.When the PEAK value conforms to the limit, the QP value also conforms to the limit
2. Margin = Result (Result =Reading + Factor)–Limit
3.Factor= Cable Loss +Antenna Factor-Amplifier Gain

1000MHz -18000MHz

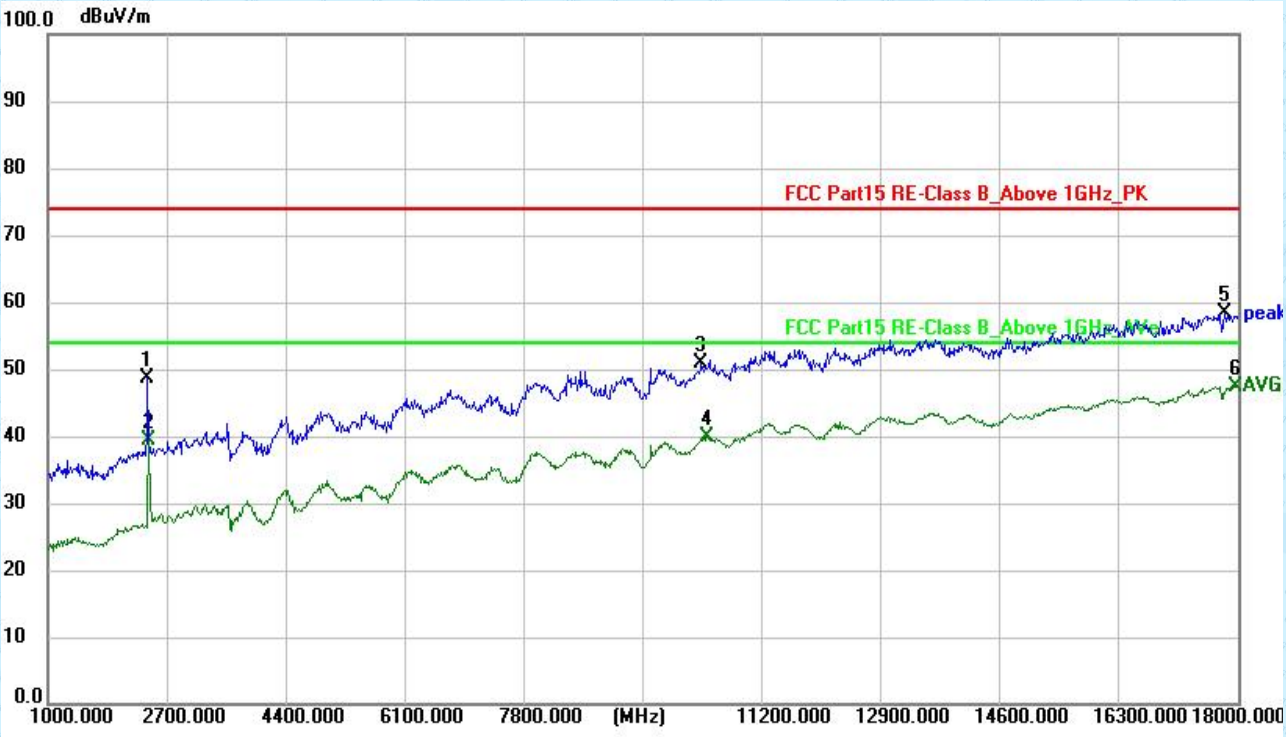
Temperature:	22℃	Relative Humidity:	51%
Phase:	Horizontal	Test Mode:	Mode 1
Test Voltage:	AC120V/60Hz	Test Date:	2025.03.20



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	6865.000	36.17	-0.44	35.73	54.00	-18.27	AVG
2	6882.000	46.72	-0.41	46.31	74.00	-27.69	peak
3	11285.000	45.75	7.53	53.28	74.00	-20.72	peak
4	11285.000	34.42	7.53	41.95	54.00	-12.05	AVG
5	17728.000	41.96	17.35	59.31	74.00	-14.69	peak
6	17983.000	29.89	18.52	48.41	54.00	-5.59	AVG

Remark:
1.The emission level of the six frequencies is marked as the highest level
2.Margin value = Emission level – Limit value
3.Emission Level = Correction Factor + Reading Value
4.Correct Factor= Cable Loss +Antenna Factor-Amplifier Gain

Temperature:	22℃	Relative Humidity:	51%
Phase:	Vertical	Test Mode:	Mode 1
Test Voltage:	AC120V/60Hz	Test Date:	2025.03.20



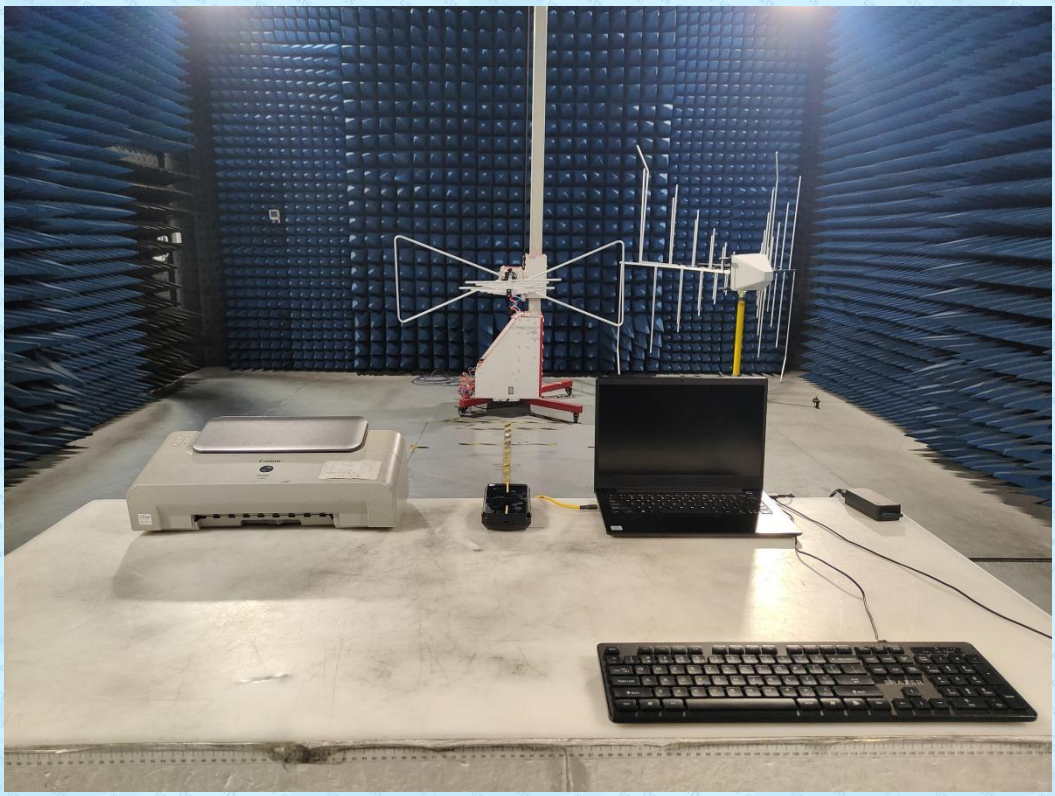
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	2428.000	64.25	-15.67	48.58	74.00	-25.42	peak
2	2445.000	55.02	-15.55	39.47	54.00	-14.53	AVG
3	10333.000	45.15	5.69	50.84	74.00	-23.16	peak
4	10418.000	34.05	5.86	39.91	54.00	-14.09	AVG
5	17813.000	40.59	17.73	58.32	74.00	-15.68	peak
6	17966.000	29.03	18.45	47.48	54.00	-6.52	AVG

Remark:
1.The emission level of the six frequencies is marked as the highest level
2.Margin value = Emission level － Limit value
3.Emission Level = Correction Factor + Reading Value
4.Correct Factor= Cable Loss +Antenna Factor-Amplifier Gain

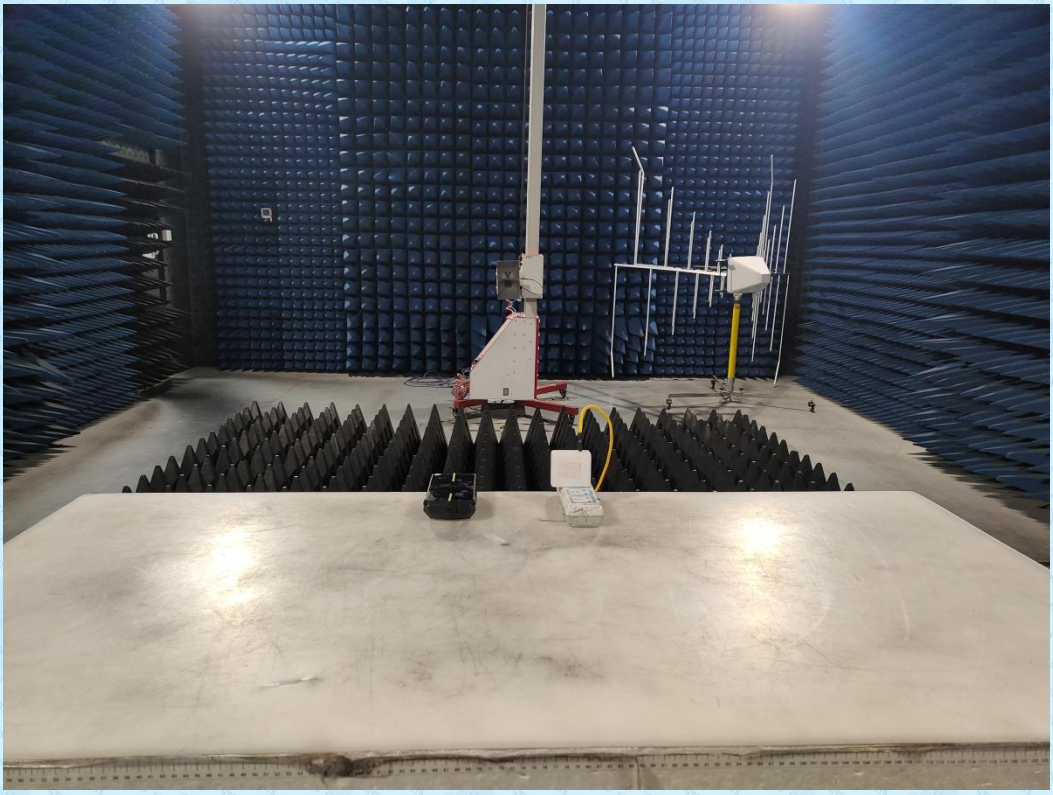
5.PHOTOS OF THE TEST SETUP

Conducted Emissions

Radiated Emissions (30 - 1000)MHz



Radiated Emissions (1000 - 18000)MHz



6. EUT EXTERNAL PHOTOGRAPHS

Photo 1

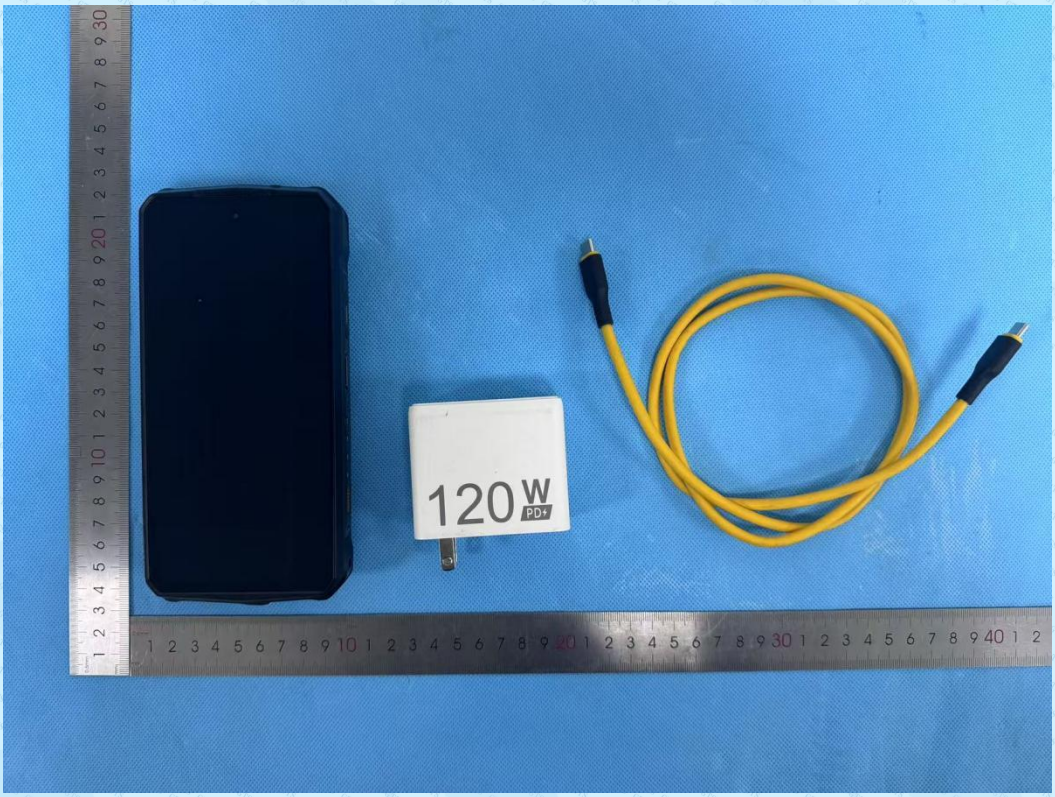


Photo 2

Photo 3

Photo 4

Photo 5

Photo 6

Photo 7

Photo 8

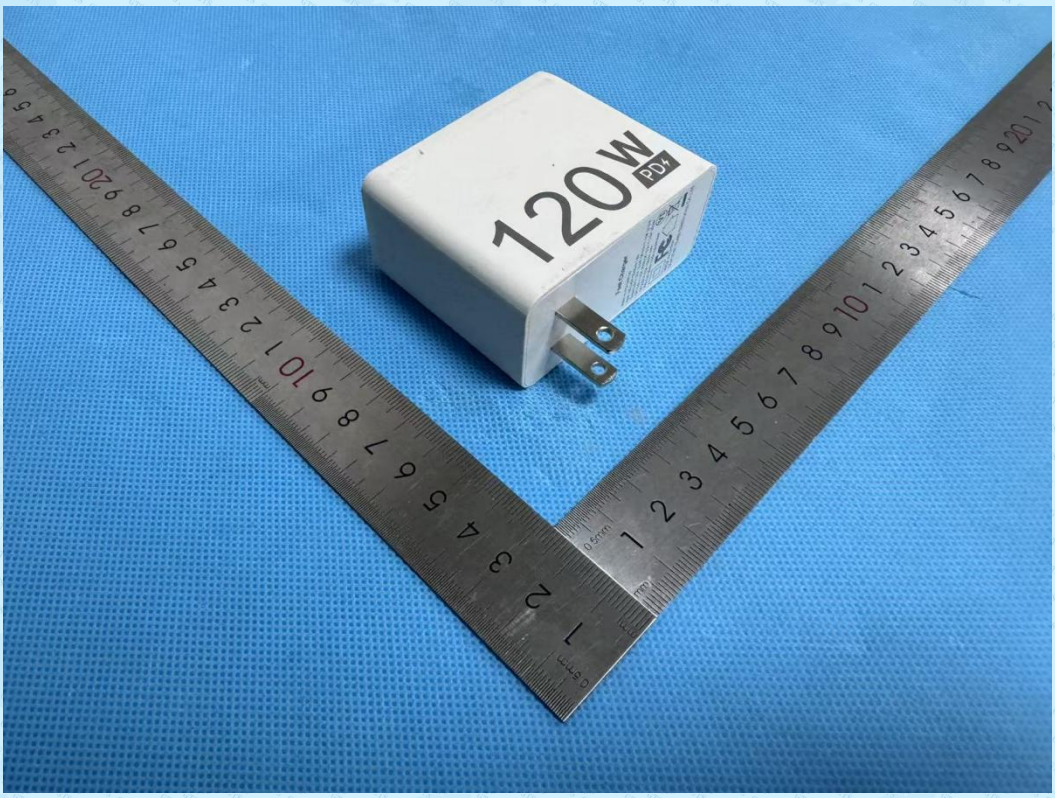


Photo 9

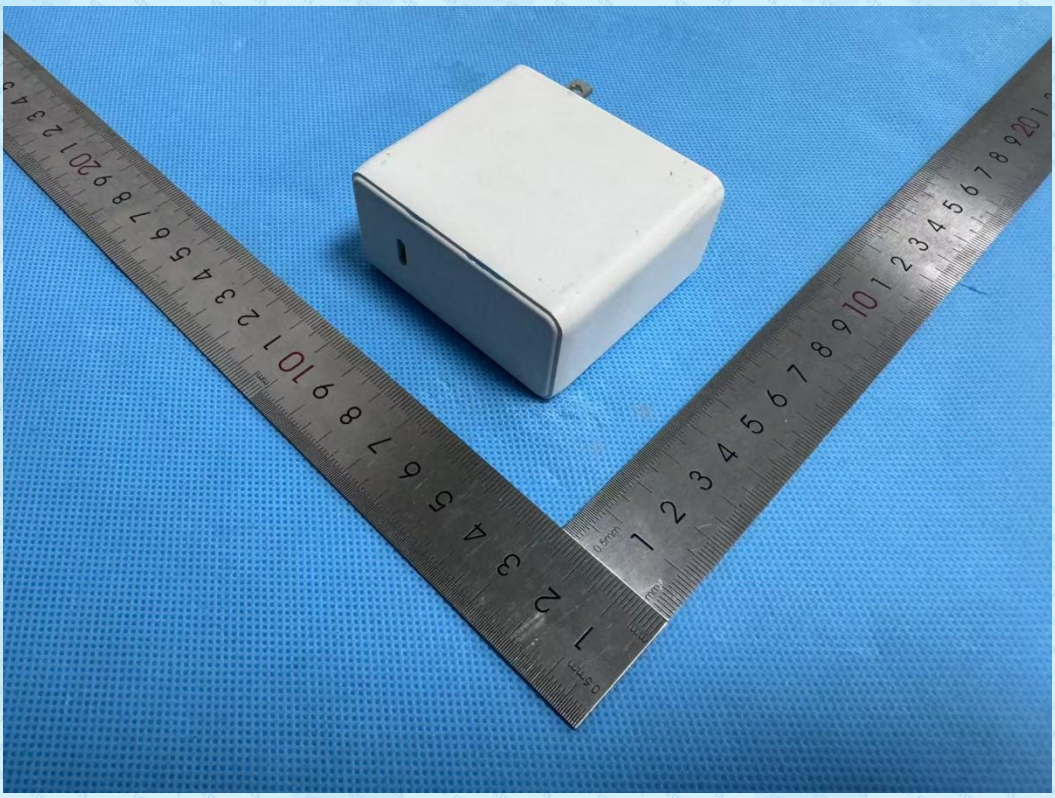


Photo 10

7. EUT INTERNAL PHOTOGRAPHS

Photo 1

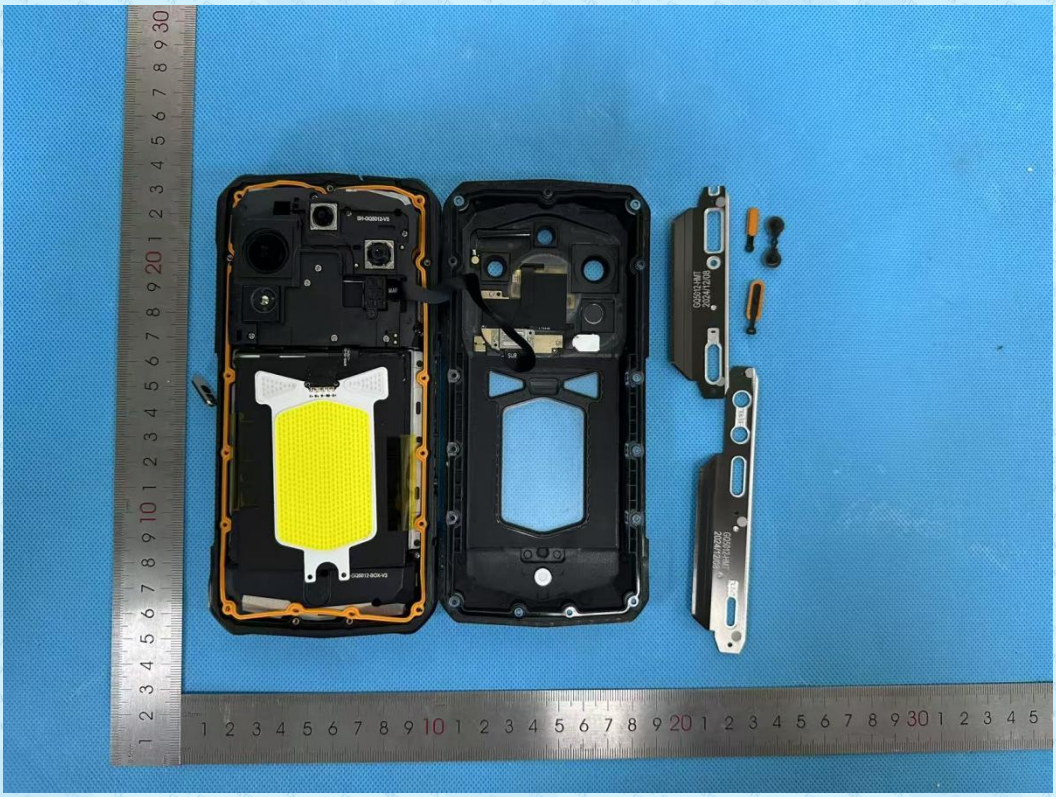


Photo 2