

**EN 55032:2015+A11:2020+A1:2020
EN 55035:2017+A11:2020
EN IEC 61000-6-3:2021
EN IEC 61000-6-1:2019**

TEST REPORT

For

Rechargeable Li-ion Battery

MODEL NUMBER: BLPD09

REPORT NUMBER: 4791827948.1-6

ISSUE DATE: July 4, 2025

Prepared for

**Dongguan NVT Technology Co., Ltd.
No.8, Xingguo Road, Dongkeng Town, 523443 Dongguan City, Guangdong, P. R.
China**

Prepared by

**UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch
Room 101, Building 2, No.4, Information Road, Songshan Lake, Dongguan,
Guangdong, China**

**Tel: +86 769 22038881
Fax: +86 769 33244054
Website: www.ul.com**

The results reported herein have been performed in accordance with the laboratory's terms of accreditation. This report shall not be reproduced except in full without the written approval of the Laboratory. The results in this report apply to the test sample(s) mentioned above at the time of the testing period only and are not to be used to indicate applicability to other similar products.

Revision History

Rev.	Issue Date	Revisions	Revised By
V0	July 4, 2025	Initial Issue	

Summary of Test Results

Emission			
Standard	Test Item	Limit	Result
EN 55032:2015+A11:2020+A1:2020	Conducted emissions (AC mains power ports)	Clause 5	N/A (NOTE 1, 2)
EN IEC 61000-6-3:2021		Clause 8	
EN IEC 61000-6-3:2021	Conducted emissions (DC mains power ports)	Clause 8	N/A (NOTE 1, 5)
EN 55032:2015+A11:2020+A1:2020	Radiated emissions below 1GHz	Clause 5	Pass
EN IEC 61000-6-3:2021		Clause 8	
EN 55032:2015+A11:2020+A1:2020	Radiated emissions above 1GHz	Clause 5	N/A (NOTE 1, 3)
EN IEC 61000-6-3:2021		Clause 8	

Immunity (EN 55035:2017+A11:2020)				
Basic Standard	Test Item	Test Specification	Criteria	Result
IEC 61000-4-2:2008	Electrostatic Discharge	Contact +/- 4 kV; Air +/- 2 kV; +/- 4 kV; +/- 8 kV	Table Clause 1.4	Pass
IEC 61000-4-3:2006+A1:2007+A2:2010	Continuous RF electromagnetic field disturbances	3 V/m, 80 %; 1 kHz, AM 80 MHz-1000 MHz; 1800 MHz, 2600 MHz, 3500 MHz, 5000 MHz	Table Clause 1.2, Table Clause 1.3	Pass
IEC 61000-4-8:2009	Power frequency magnetic field	50 Hz, 1 A/m	Table Clause 1.1	N/A (NOTE 1, 4)

Immunity (EN IEC 61000-6-1:2019)				
Basic Standard	Test Item	Test Specification	Criteria	Result
IEC 61000-4-2:2008	Electrostatic Discharge	Contact +/- 4 kV; Air +/- 2 kV; +/- 4 kV; +/- 8 kV	Table Clause 1.4	Pass
IEC 61000-4-3:2006+A1:2007+A2:2010	Continuous RF electromagnetic field disturbances	3 V/m, 80 %; 1 kHz, AM 80 MHz-1000 MHz; 1400 MHz-6000 MHz	Table Clause 1.2, Table Clause 1.3	Pass

IEC 61000-4-8:2009	Power frequency magnetic field	50 Hz, 1 A/m	Table Clause 1.1	N/A (NOTE 1, 4)
--------------------	--------------------------------	--------------	------------------	--------------------

Note:

1. N/A: In this whole report not applicable.
2. This test is only applicable for devices which can be charged or powered by AC mains power cable.
3. 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, the 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 6 GHz, whichever is less.
4. Only applicable to EUT containing devices susceptible to magnetic fields, such as CRT monitors, Hall elements, electrodynamic microphones, magnetic field sensors or audio frequency transformers.
5. The EUT is internal battery, with no external DC input.

*This test report is only published to and used by the applicant, and it is not for evidence purpose in China.

*The measurement result for the sample received is <Pass> according to < EN 55032:2015+A11:2020+A1:2020, EN 55035:2017+A11:2020, EN IEC 61000-6-3:2021, EN IEC 61000-6-1:2019> when <Simple Acceptance> decision rule is applied.

CONTENTS

1. ATTESTATION OF TEST RESULTS.....	6
2. TEST METHODOLOGY.....	7
3. FACILITIES AND ACCREDITATION.....	7
4. CALIBRATION AND UNCERTAINTY	8
4.1. <i>MEASURING INSTRUMENT CALIBRATION</i>	<i>8</i>
4.2. <i>MEASUREMENT UNCERTAINTY</i>	<i>8</i>
5. EQUIPMENT UNDER TEST	9
5.1. <i>DESCRIPTION OF EUT</i>	<i>9</i>
5.2. <i>TEST MODE.....</i>	<i>9</i>
5.1. <i>MONITORING OF EUT FOR ALL IMMUNITY TEST.....</i>	<i>9</i>
5.2. <i>SUPPORT UNITS FOR SYSTEM TEST</i>	<i>9</i>
6. MEASURING EQUIPMENT AND SOFTWARE USED.....	10
7. EMISSION TEST	11
7.1. <i>RADIATED EMISSIONS BELOW 1GHZ.....</i>	<i>11</i>
8. IMMUNITY TEST	17
8.1. <i>PERFORMANCE CRITERIA.....</i>	<i>17</i>
8.2. <i>ELECTROSTATIC DISCHARGE</i>	<i>20</i>
8.3. <i>CONTINUOUS RF ELECTROMAGNETIC FIELD DISTURBANCES</i>	<i>23</i>
APPENDIX: PHOTOGRAPHS OF TEST CONFIGURATION	26
APPENDIX: PHOTOGRAPHS OF THE EUT	28

1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name: Dongguan NVT Technology Co.,Ltd.
Address: No.8, Xingguo Road, Dongkeng Town, 523443 Dongguan City, Guangdong, P. R. China

Manufacturer Information


Company Name: Dongguan NVT Technology Co.,Ltd.
Address: No.8, Xingguo Road, Dongkeng Town, 523443 Dongguan City, Guangdong, P. R. China

EUT Information

EUT Name: Rechargeable Li-ion Battery
Model: BLPD09
Brand: SUPERVOOC
Sample Received Date: June 17, 2025
Sample Status: Normal
Sample ID: 85893482-1
Date of Tested: June 23, 2025 to June 24, 2025

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
EN 55032:2015+A11:2020+A1:2020	Pass
EN 55035:2017+A11:2020	Pass
EN IEC 61000-6-3:2021	Pass
EN IEC 61000-6-1:2019	Pass

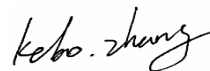
Prepared By:



Karl Wu

Engineer Project Associate

Checked By:



Kebo Zhang

Senior Project Engineer

Approved By:



Stephen Guo

Operations Manager

2. TEST METHODOLOGY

All tests were performed in accordance with the standard EN 55032:2015+A11:2020+A1:2020, EN 55035:2017+A11:2020, EN IEC 61000-6-3:2021, EN IEC 61000-6-1:2019

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	<p>A2LA (Certificate No.: 4102.01) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA.</p> <p>FCC (FCC Designation No.: CN1187) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules.</p> <p>ISED (Company No.: 21320) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with ISED. The Company Number is 21320 and the test lab Conformity Assessment Body Identifier (CABID) is CN0046.</p>
---------------------------	--

Note:

All tests measurement facilities use to collect the measurement data are located at Room 101, Building 2, No.4, Information Road, Songshan Lake, Dongguan, Guangdong, China.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognized national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Item	Measurement Frequency Range	K	U(dB)
Radiated emissions below 1GHz	30MHz -1GHz	2	4.13
Note1: This uncertainty represents an expanded uncertainty expressed at approximately the 95 % confidence level using a coverage factor of k=2.			
Note 2: According to the standard CISPR 16-4-2, the MU for the Conducted emissions from the AC mains power ports using AMN should not exceed 3.8 in range of 9kHz to 150kHz and 3.4 in range of 150kHz to 30MHz. We have considered the test results containing the value of U _{lab} (in dB) for the measurement instrumentation actually used for the measurements.			

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

EUT Name	Rechargeable Li-ion Battery
Model	BLPD09
EUT Classification	Class B
Highest Internal Frequency	Below 108MHz
Ratings	Nominal Voltage: 7.56Vdc Rated Capacity: 3425mAh

5.2. TEST MODE

Test Mode	Description
M01	Charging
M02	Discharging

5.1. MONITORING OF EUT FOR ALL IMMUNITY TEST

Other	Monitor the charging status via display of DC Source. Monitor the discharging current/voltage of the EUT via current/voltage meter
-------	---

5.2. SUPPORT UNITS FOR SYSTEM TEST

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.

Item	Equipment	Mfr./Brand	Model/Type No.	Series No.	Note
1.	DC power supply	ZHAOXIN	PS-305D	201606172929	UL Support
2.	Dummy Load	N/A	N/A	N/A	UL Support
3.	Current Meter	N/A	85C1	N/A	UL Support

The following cables were used to form a representative test configuration during the tests.

Item	Type of cable	Shielded Type	Ferrite Core	Length
1.	DC cable	Unshielded	NO	0.5 m/1.0 m

6. MEASURING EQUIPMENT AND SOFTWARE USED

Test Equipment of Radiated emissions below 1GHz					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
Hybrid Log Periodic Antenna	TDK	HLP-3003C	130960	Jun. 28, 2024	Jun. 27, 2027
MXE EMI Receiver	KEYSIGHT	N9038A	MY56400036	Sep. 28, 2024	Sep. 27, 2025
Amplifier	HP	8447F	2944A03683	Sep. 28, 2024	Sep. 27, 2025
Test Software for Radiated Emission	Farad	EZ-EMC	Ver.UL-3A1	N/A	N/A

Test Equipment of Electrostatic Discharge					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
ESD Generator	TESEQ	NSG437	1578	Nov. 12, 2024	Nov. 11, 2025

Test Equipment of Continuous RF electromagnetic field disturbances					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
EPM Series Power Meter	Keysight	N1914A-CFG001	MY55316009	Sep. 28, 2024	Sep. 27, 2025
Power Sensor	Keysight	E9304A	MY55320006	Sep. 28, 2024	Sep. 27, 2025
EXG Analog Signal Generator	Keysight	N5171B	MY53051396	Sep. 28, 2024	Sep. 27, 2025
Power Amplifier	AR	250W1000B M1	344582	Sep. 28, 2024	Sep. 27, 2025
Power Amplifier	AR	100S1G6M1	0344699	Sep. 28, 2024	Sep. 27, 2025
Antenna	Schwarzbeck	STLP 9129	0310	/	/
Test Software for RS	Farad	EMC-RS	2.03	N/A	N/A

Other Instrument					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
Temperature humidity probe	OMEGA	ITHX-SD-5	18470007	Oct.8, 2024	Oct.7, 2025
Barometer	Yiyi	Baro	N/A	Oct.10, 2024	Oct.9, 2025
Attenuator	Agilent	8495B	2814a12853	Sep.28, 2024	Sep.27, 2025

7. EMISSION TEST

7.1. RADIATED EMISSIONS BELOW 1GHZ

LIMITS

(a). Limits up to 1 GHz

FREQUENCY (MHz)	Class A		Class B	
	At 10 m	At 3 m	At 10 m	At 3 m
	dB μ V/m	dB μ V/m	dB μ V/m	dB μ V/m
30 – 230	40	50	30	40
230 – 1000	47	57	37	47

Note:

- (1) The limit for radiated test was performed according to CISPR 32 & IEC 61000-6-3.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dB μ V/m)=20log Emission level (uV/m).
- (4) 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, the 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 6 GHz, whichever is less.

TEST PROCEDURE

Below 1 GHz and above 30 MHz

The setting of the spectrum analyzer

RBW	120 kHz
VBW	300 kHz
Sweep	Auto
Detector	Peak and QP
Trace	Max hold

1. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp was used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
2. The EUT was placed on a turntable with 80 cm above ground.
3. 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.

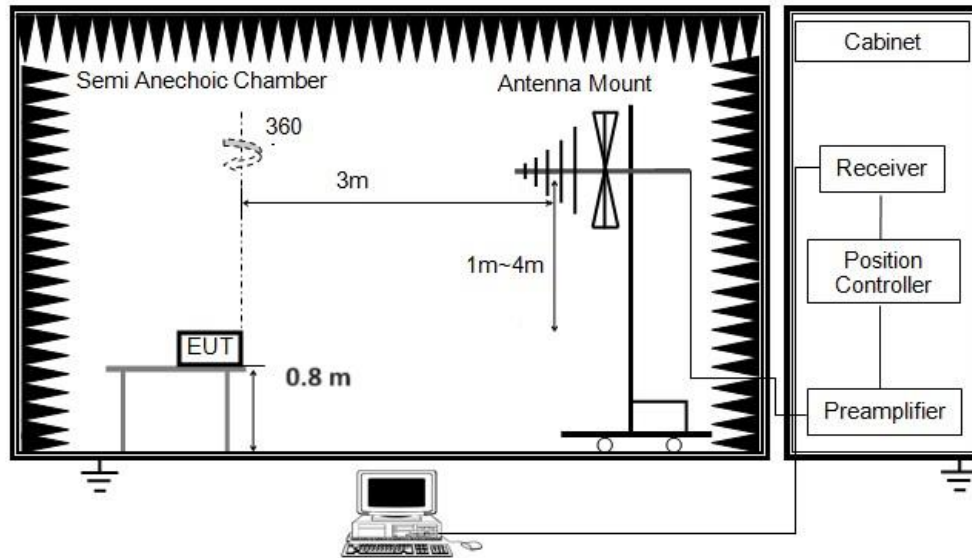
4. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

5. Cables of hand-operated devices, such as keyboards and mice, shall be placed as for normal used.

6. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

7. For measurement below 1 GHz, the initial step in collecting Radiated emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.

TEST SETUP



Below 1 GHz and above 30 MHz

TEST ENVIRONMENT

Temperature	22.3°C	Relative Humidity	59%
Atmosphere Pressure	101kPa		

TEST DATE / ENGINEER

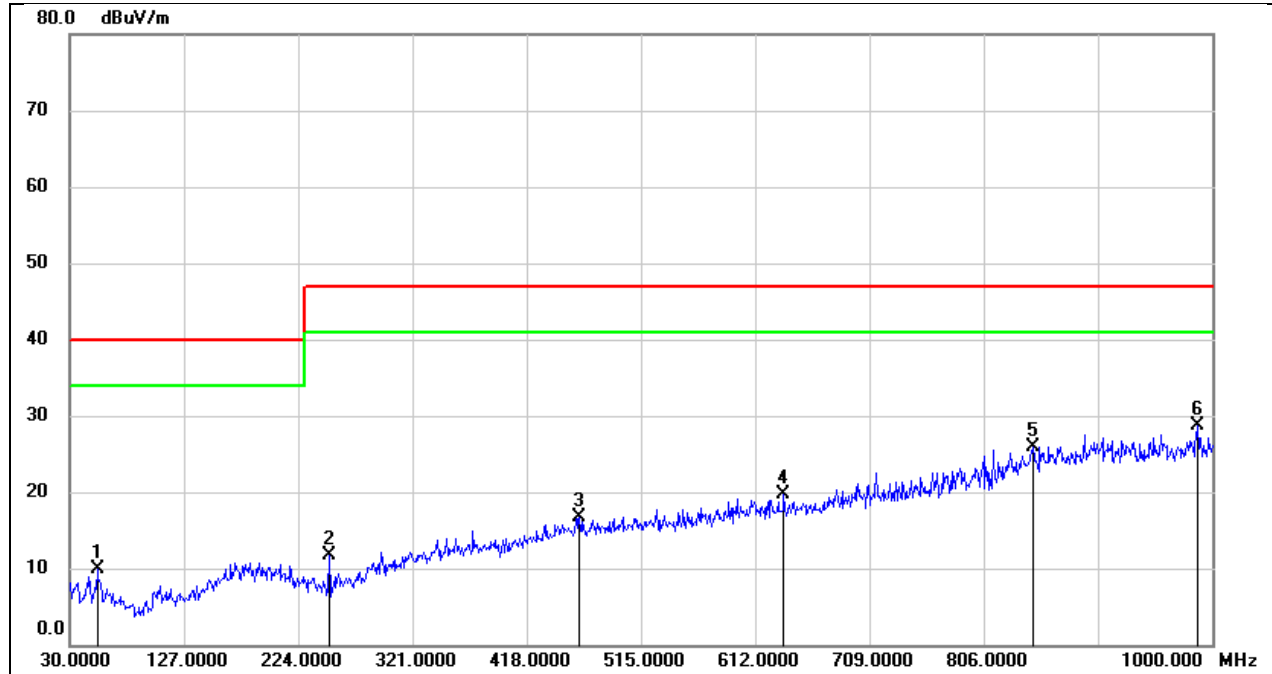
Test Date	June 23, 2025	Test By	Stipe Zheng
-----------	---------------	---------	-------------

TEST MODE

Pre-test Mode:	M01 ~ M02
Final Test Mode:	M01 ~ M02

TEST RESULTS

Test Mode:	M01	Polarity:	Horizontal
Test Voltage:	AC 230V_50Hz (from DC power supply)		

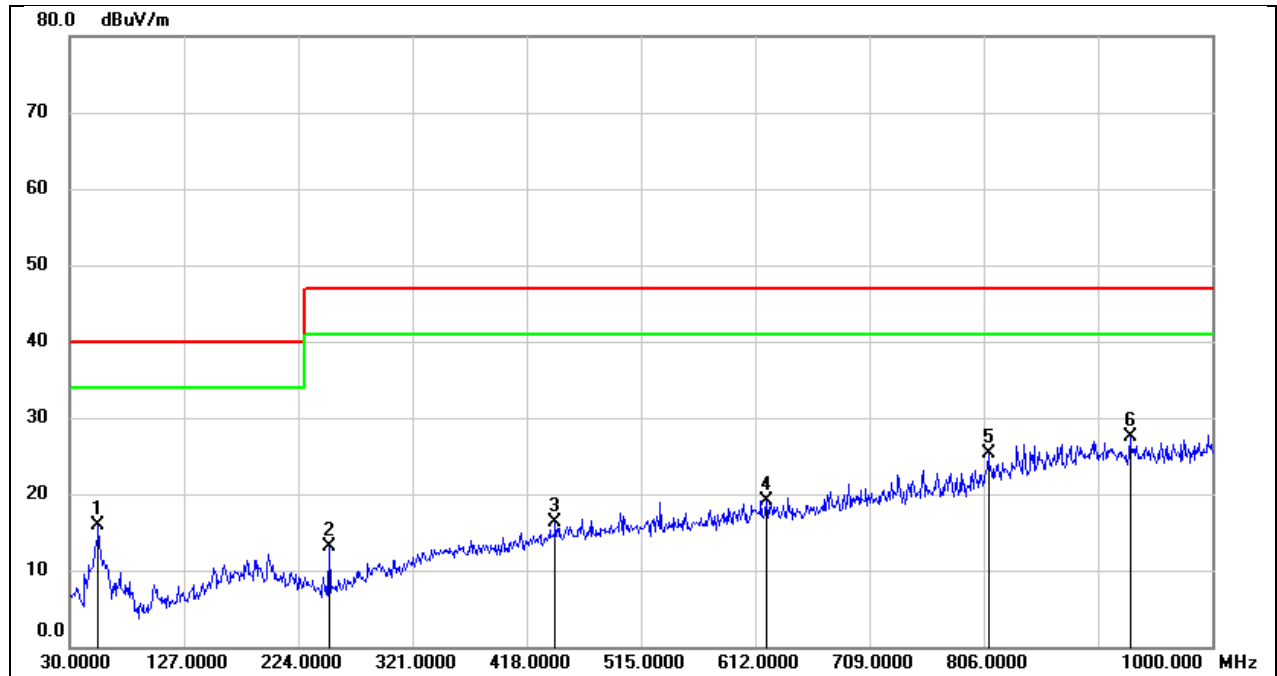


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	53.2800	24.98	-15.03	9.95	40.00	-30.05	QP
2	250.1900	26.20	-14.56	11.64	47.00	-35.36	QP
3	462.6200	24.78	-8.02	16.76	47.00	-30.24	QP
4	636.2500	25.34	-5.63	19.71	47.00	-27.29	QP
5	847.7100	27.23	-1.35	25.88	47.00	-21.12	QP
6	987.3900	29.07	-0.30	28.77	47.00	-18.23	QP

Note: 1. Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)

2. Margin = Result - Limit

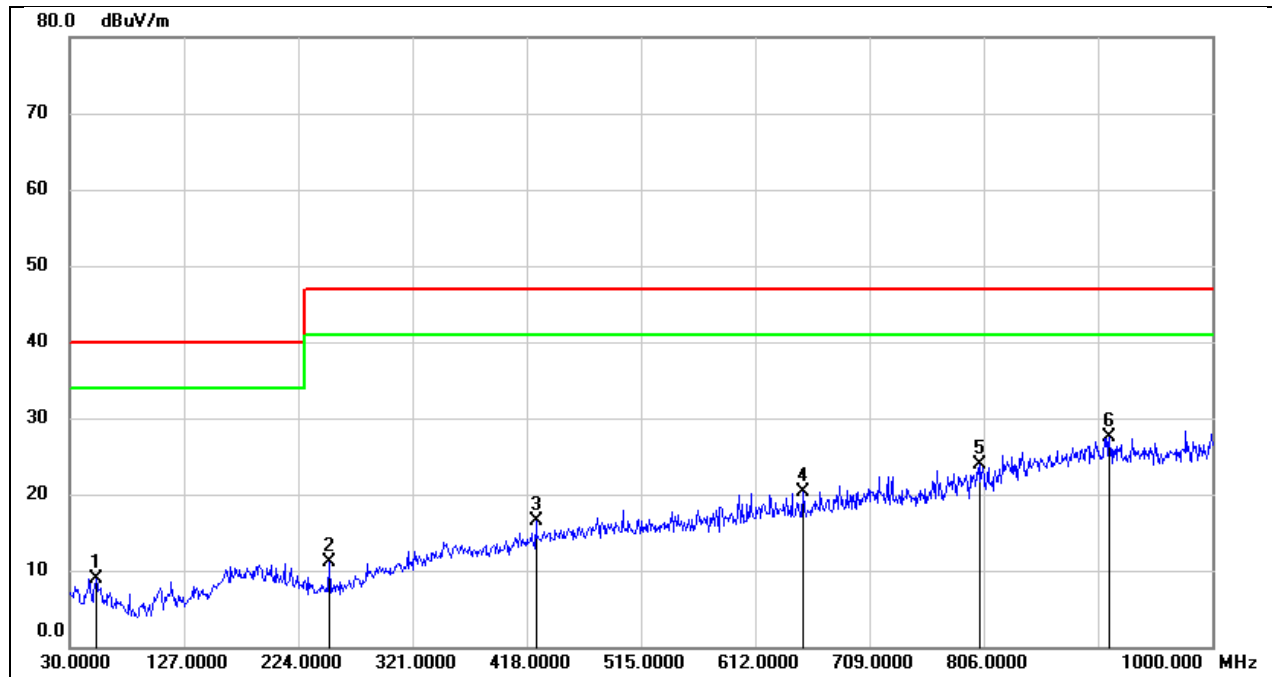
Test Mode:	M01	Polarity:	Vertical
Test Voltage:	AC 230V_50Hz (from DC power supply)		



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	54.2500	30.95	-15.02	15.93	40.00	-24.07	QP
2	250.1900	27.67	-14.56	13.11	47.00	-33.89	QP
3	442.2500	24.65	-8.37	16.28	47.00	-30.72	QP
4	621.7000	24.83	-5.68	19.15	47.00	-27.85	QP
5	809.8800	27.57	-2.36	25.21	47.00	-21.79	QP
6	930.1600	28.22	-0.67	27.55	47.00	-19.45	QP

Note: 1. Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)
2. Margin = Result - Limit

Test Mode:	M02	Polarity:	Horizontal
Test Voltage:	DC 7.56V		

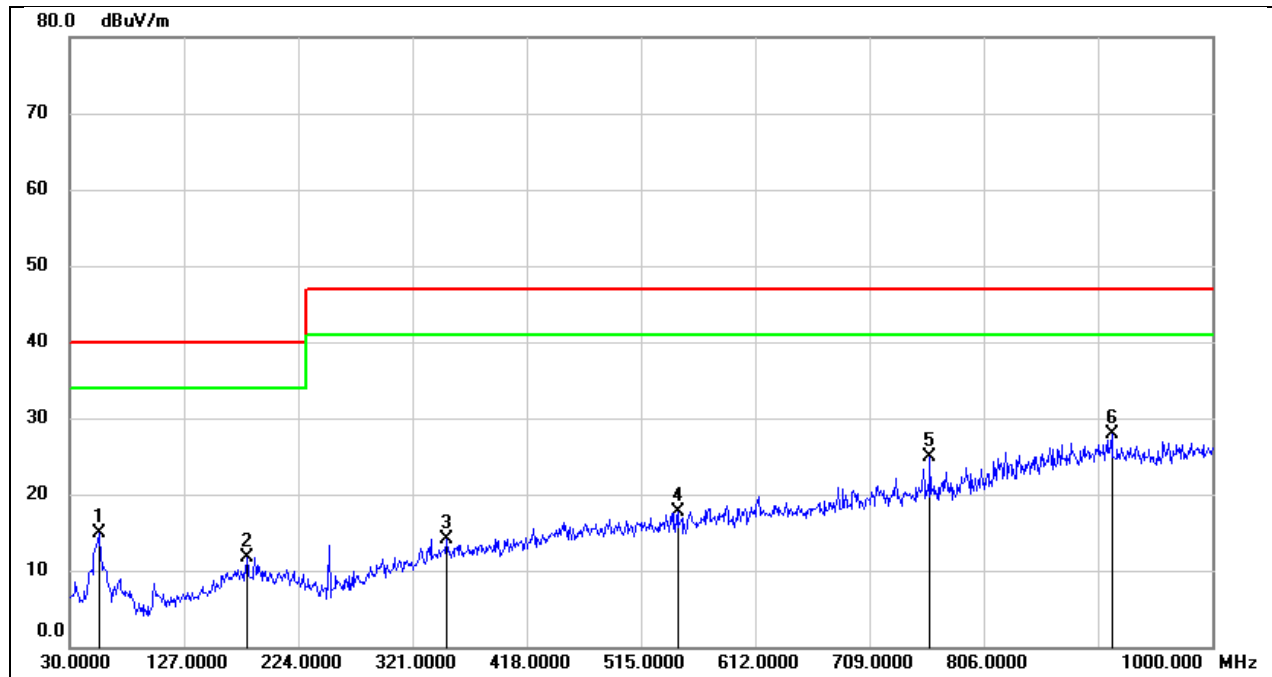


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	52.3100	23.99	-15.05	8.94	40.00	-31.06	QP
2	250.1900	25.62	-14.56	11.06	47.00	-35.94	QP
3	425.7600	25.30	-8.86	16.44	47.00	-30.56	QP
4	652.7400	25.76	-5.52	20.24	47.00	-26.76	QP
5	803.0900	26.47	-2.55	23.92	47.00	-23.08	QP
6	912.7000	28.05	-0.54	27.51	47.00	-19.49	QP

Note: 1. Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)

2. Margin = Result - Limit

Test Mode:	M02	Polarity:	Vertical
Test Voltage:	DC 7.56V		



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	55.2200	29.89	-15.00	14.89	40.00	-25.11	QP
2	180.3500	23.63	-11.84	11.79	40.00	-28.21	QP
3	350.1000	23.67	-9.53	14.14	47.00	-32.86	QP
4	546.0400	24.71	-7.08	17.63	47.00	-29.37	QP
5	760.4099	28.27	-3.35	24.92	47.00	-22.08	QP
6	914.6400	28.42	-0.55	27.87	47.00	-19.13	QP

Note: 1. Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)
2. Margin = Result - Limit

8. IMMUNITY TEST

8.1. PERFORMANCE CRITERIA

EN 55035:2017+A11:2020 & EN IEC 61000-6-1:2019

GENERAL PERFORMANCE CRITERIA

According to EN 55035 standard, the general performance criteria as following:

Criteria A	The equipment shall continue to operate as intended without operator intervention. No degradation of performance, loss of function or change of operating state is allowed below a performance level specified by the manufacturer when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.
Criteria B	During the application of the disturbance, degradation of performance is allowed. However, no unintended change of actual operating state or stored data is allowed to persist after the test. After the test, the equipment shall continue to operate as intended without operator intervention; no degradation of performance or loss of function is allowed, below a performance level specified by the manufacturer, when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance. If the minimum performance level (or the permissible performance loss), or recovery time, is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.
Criteria C	Loss of function is allowed, provided the function is self-recoverable, or can be restored by the operation of the controls by the user in accordance with the manufacturer's instructions. A reboot or re-start operation is allowed. Information stored in non-volatile memory, or protected by a battery backup, shall not be lost.

PERFORMANCE CRITERIA FOR BROADCAST RECEPTION FUNCTION

The broadcast reception function shall comply with the general performance criteria given in Clause 8 and any relevant annex with the deviations defined in Table A.2.

Table A.2 – Modified test levels for performance criterion A for the broadcast reception function			
Performance criteria	Test type table clause	Group 1	Group 2
Criterion A	1.2 1.3	The disturbance level is reduced to 1 V/m for in-band frequencies.	No test requirements apply
	2.1 3.1 4.1	The disturbance level is reduced to 1 V for in-band frequencies.	

In-band is defined as the entire tuneable operating range of the selected broadcast reception function.

The tuned channel $\pm 0,5$ MHz (lower edge frequency – 0,5 MHz up to the upper edge frequency + 0,5 MHz of the tuned channel) is excluded from testing.

Note: In some countries, there is a requirement to test the tuned channels. Refer to the relevant regional requirements for guidance.

PERFORMANCE CRITERIA FOR PRINT FUNCTION

Criterion A	Refer to chapter B.3.1 of EN 55035:2017+A11:2020
Criterion B	Refer to chapter B.3.2 of EN 55035:2017+A11:2020
Criterion C	Refer to chapter B.3.3 of EN 55035:2017+A11:2020

PERFORMANCE CRITERIA FOR SCAN FUNCTION

Criterion A	Refer to chapter C.3.1 of EN 55035:2017+A11:2020
Criterion B	Refer to chapter C.3.2 of EN 55035:2017+A11:2020
Criterion C	Refer to chapter C.3.3 of EN 55035:2017+A11:2020

PERFORMANCE CRITERIA FOR DISPLAY AND DISPLAY OUTPUT FUNCTION

Criterion A	Refer to chapter D.3.1 and D.3.2 of EN 55035:2017+A11:2020
Criterion B	Refer to chapter D.3.3 of EN 55035:2017+A11:2020
Criterion C	Refer to chapter D.3.4 of EN 55035:2017+A11:2020

PERFORMANCE CRITERIA FOR MUSICAL TONE GENERATING FUNCTION

Criterion A	Refer to chapter E.3.2 of EN 55035:2017+A11:2020
Criterion B	Refer to chapter E.3.3 of EN 55035:2017+A11:2020
Criterion C	Refer to chapter E.3.4 of EN 55035:2017+A11:2020

PERFORMANCE CRITERIA FOR NETWORKING FUNCTION

General requirements for network functions	
Criterion A	Refer to chapter F.3.3.1 of EN 55035:2017+A11:2020
Criterion B	Refer to chapter F.3.3.2 of EN 55035:2017+A11:2020
Criterion C	Refer to chapter F.3.3.3 of EN 55035:2017+A11:2020

Requirements for CPE containing xDSL ports	
Criterion A	Refer to chapter F.4.2 of EN 55035:2017+A11:2020
Criterion B	Refer to chapter F.4.3 of EN 55035:2017+A11:2020
Criterion C	Refer to chapter F.4.4 of EN 55035:2017+A11:2020

PERFORMANCE CRITERIA FOR AUDIO OUTPUT FUNCTION

Criterion A	Refer to chapter G.7.1 of EN 55035:2017+A11:2020
Criterion B	Refer to chapter G.7.2 of EN 55035:2017+A11:2020
Criterion C	Refer to chapter G.7.3 of EN 55035:2017+A11:2020

PERFORMANCE CRITERIA FOR TELEPHONY FUNCTION

Criterion A	Refer to chapter H.4 Table H.1 of EN 55035:2017+A11:2020
Criterion B	Refer to chapter H.4 Table H.1 of EN 55035:2017+A11:2020
Criterion C	Refer to chapter H.4 Table H.1 of EN 55035:2017+A11:2020

According to EN IEC 61000-6-1 standard, the general performance criteria as following:

Criteria A	The apparatus shall continue to operate as intended during and after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. The performance level may be replaced by a permissible loss of performance. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, either of these may be derived from the product description and documentation and what the user may reasonably expect from the apparatus if used as intended.
Criteria B	The apparatus shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. The performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is however allowed. No change of actual operating state or stored data is allowed. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, either of these may be derived from the product description and documentation and what the user may reasonably expect from the apparatus if used as intended.
Criteria C	Temporary loss of function is allowed, provided the function is self-recoverable or can be restored by the operation of the controls.

8.2. ELECTROSTATIC DISCHARGE

TEST SPECIFICATION

Standard:	EN 55035:2017+A11:2020 & EN IEC 61000-6-1:2019 IEC 61000-4-2:2008
Criterion Required:	Performance criteria B
Discharge Impedance:	330(1±10 %) Ω / 150(1±10 %) pF
Polarity:	Positive & Negative
Number of Discharge:	Minimum 10 times at each test point
Discharge Mode:	Single Discharge
Discharge Period:	1 second minimum
Test Level:	Air Discharge: 2 kV, 4 kV, 8 kV (Direct); Contact Discharge: 4 kV (Direct/Indirect)

TEST PROCEDURE

The test generator necessary to perform direct and indirect application of discharges to the EUT in the following manner:

- a. Contact discharge was applied to conductive surfaces and coupling planes of the EUT.

During the test, it was performed with single discharges. For the single discharge time between successive single discharges was at least 1 second.

Vertical Coupling Plane (VCP):

The coupling plane, of dimensions 0.5 m x 0.5 m, is placed parallel to, and positioned at a distance 0.1 m from, the EUT, with the Discharge Electrode touching the coupling plane.

The four faces of the EUT will be performed with electrostatic discharge.

Horizontal Coupling Plane (HCP):

The coupling plane is placed under to the EUT. The generator shall be positioned vertically at a distance of 0.1 m from the EUT, with the Discharge Electrode touching the coupling plane.

The four faces of the EUT will be performed with electrostatic discharge.

- b. Air discharges at insulation surfaces of the EUT.

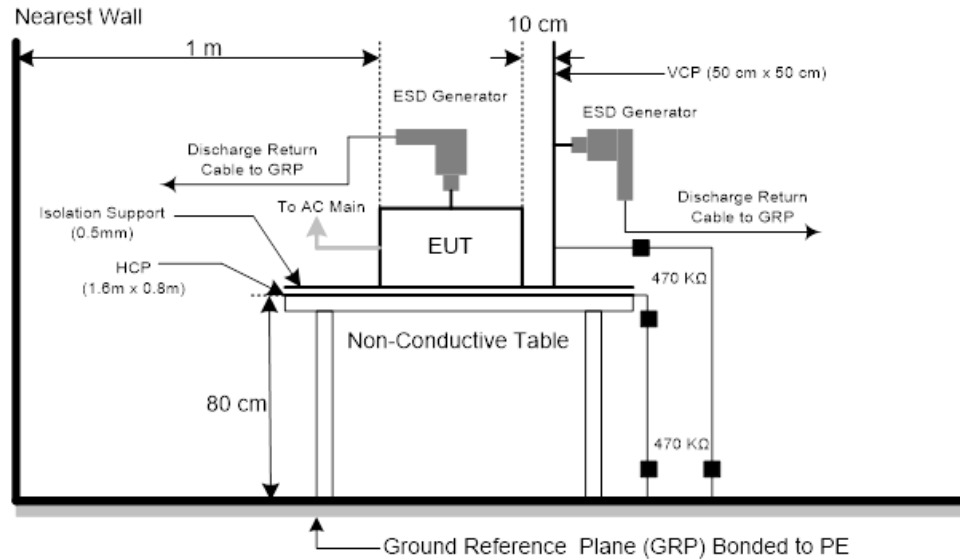
It was at least ten single discharges with positive and negative at the same selected point.

- c. The test shall be performed with single discharges. On each pre-selected point at least 10 single discharges (in the most sensitive polarity) shall be applied.

- d. For air discharge testing, the test shall be applied at all test levels 2 kV, 4 kV and 8 kV.

- e. For the actual test configuration, please refer to the related Item: EUT Test Photos.

TEST SETUP



TEST ENVIRONMENT

Temperature	20.9°C	Relative Humidity	52.3%
Atmosphere Pressure	101kPa	Test Voltage	DC 7.56V AC 230V_50Hz (from DC power supply)

TEST DATE / ENGINEER

Test Date	June 24, 2025	Test By	Zhenlang Li
-----------	---------------	---------	-------------

TEST MODE

Test Mode:	M01, M02
------------	----------

TEST RESULTS (EN 55035 & EN IEC 61000-6-1)

Mode	Level(kV)	Polarity	Test Point	Criteria	Result	Judgement
Air Discharge	2,4,8	+	All Slot	B	A	Pass
Air Discharge	2,4,8	-	All Slot	B	A	Pass
Contact Discharge	4	+	All Metal	B	A	Pass
Contact Discharge	4	-	All Metal	B	A	Pass
Horizontal Coupling	4	+	Front,rear,left,right	B	A	Pass
Horizontal Coupling	4	-	Front,rear,left,right	B	A	Pass
Vertical Coupling	4	+	Front,rear,left,right	B	A	Pass
Vertical Coupling	4	-	Front,rear,left,right	B	A	Pass
Air Discharge	15	+	All Slot	/	/	/
Air Discharge	15	-	All Slot	/	/	/
Contact Discharge	8	+	All Metal	/	/	/
Contact Discharge	8	-	All Metal	/	/	/
Observation: A: No degradation in the performance of the EUT was observed. Conclusion: The EUT met the requirements of the standard						

8.3. CONTINUOUS RF ELECTROMAGNETIC FIELD DISTURBANCES

TEST SPECIFICATION

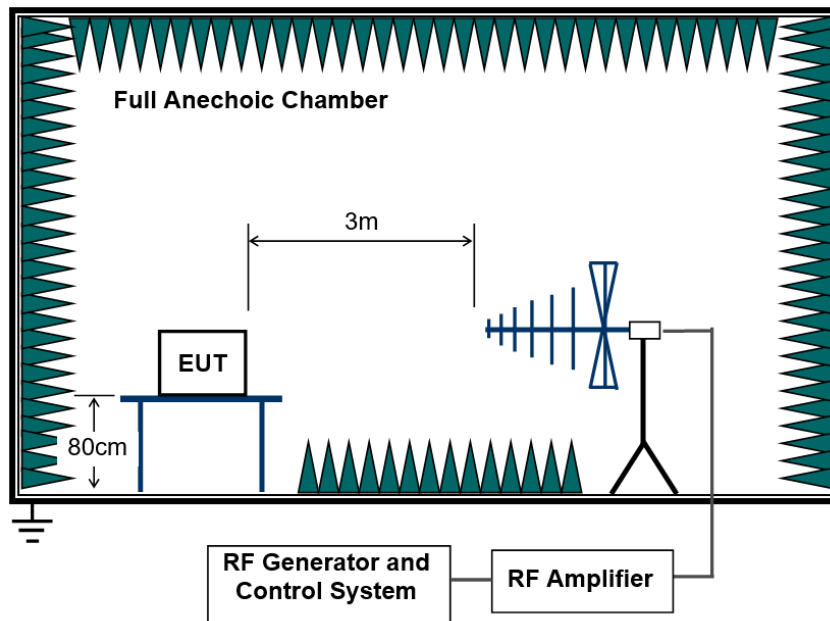
Standard:	EN 55035:2017+A11:2020 & EN IEC 61000-6-1:2019 IEC 61000-4-3:2006 +A1:2007+A2:2010
Criterion Required:	Performance criteria A
Spot test:	1 800 MHz, 2 600 MHz, 3 500 MHz, 5 000 MHz
Test Level:	Level 2: 3 V/m (measured unmodulated)
Modulation:	The test signal shall be amplitude modulated to a depth of 80 % by a sinusoidal audio signal of 1 000 Hz.
Frequency Step:	1 % of fundamental
Dwell time:	1 seconds
Antenna Polarization:	Horizontal and vertical

TEST PROCEDURE

The test procedure was in accordance with EN 61000-4-3.

- a. The testing was performed in a fully anechoic chamber. The transmit antenna was located at a distance of 3 meters from the EUT.
- b. The disturbance test signal shall be 80 % amplitude modulated by a sine wave, preferably having a frequency of 1 kHz. A frequency other than 1 kHz may be used where permitted within EN 55035 (for example Clause G.3).
- c. 1 % step size is preferred, the frequency range can be swept incrementally with a step size not exceeding 4 % of the previous frequency with a test level of twice the value of the specified test level.
- d. The dwell time at each frequency shall not be less than the time necessary for the EUT to be exercised and to be able to respond. However, the dwell time should not exceed 5 s at each of the frequencies during the scan.
- e. The test was performed with the EUT exposed to both vertically and horizontally polarized fields.

TEST SETUP



Note 1: For the 1000MHz to 6000 MHz tests, the antenna will change to horn antenna.

Note 2: For the actual test configuration, please refer to Appendix I: Photographs of the Test Configuration.

TEST ENVIRONMENT

Temperature	22.1℃	Relative Humidity	62.3%
Atmosphere Pressure	101kPa	Test Voltage	DC 7.56V AC 230V_50Hz (from DC power supply)

TEST DATE / ENGINEER

Test Date	June 24, 2025	Test By	Zhenlang Li
-----------	---------------	---------	-------------

TEST MODE

Test Mode:	M01, M02
------------	----------

TEST RESULTS (EN 55035)

Freq.Range (MHz)	Position (Face)	Polarity (H or V)	Field Strength (V/m) (unmodulated,r.m.s)	Criterion	Result	Judgment
80-1000, 1800, 2600, 3500, 5000,	0°	H&V	3 V/m	A	A	Pass
80-1000, 1800, 2600, 3500, 5000,	90°	H&V	3 V/m	A	A	Pass
80-1000, 1800, 2600, 3500, 5000,	180°	H&V	3 V/m	A	A	Pass
80-1000, 1800, 2600, 3500, 5000,	270°	H&V	3 V/m	A	A	Pass
Observation: A: No observable change. Conclusion: The EUT met the requirements of the standard						

TEST RESULTS (EN IEC 61000-6-1)

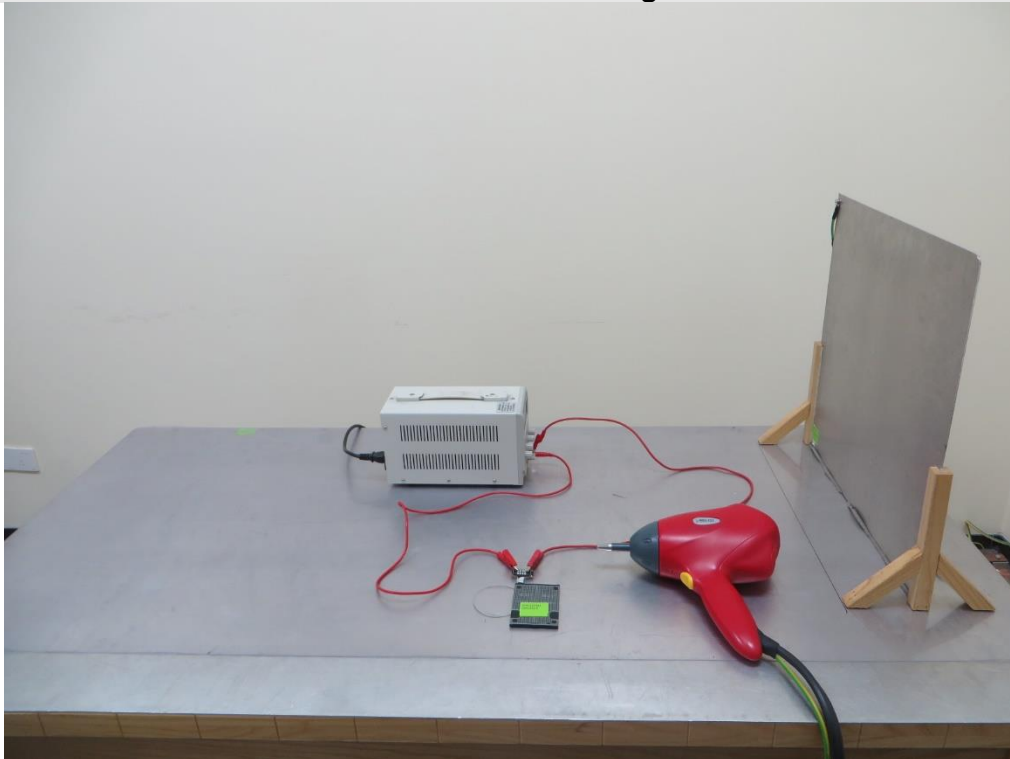
Freq.Range (MHz)	Position (Face)	Polarity (H or V)	Field Strength (V/m) (unmodulated,r.m.s)	Criterion	Result	Judgment
80-1000, 1400-6000	0°	H&V	3 V/m	A	A	Pass
80-1000, 1400-6000	90°	H&V	3 V/m	A	A	Pass
80-1000, 1400-6000	180°	H&V	3 V/m	A	A	Pass
80-1000, 1400-6000	270°	H&V	3 V/m	A	A	Pass
Observation: A: No observable change. Conclusion: The EUT met the requirements of the standard						

APPENDIX: PHOTOGRAPHS OF TEST CONFIGURATION

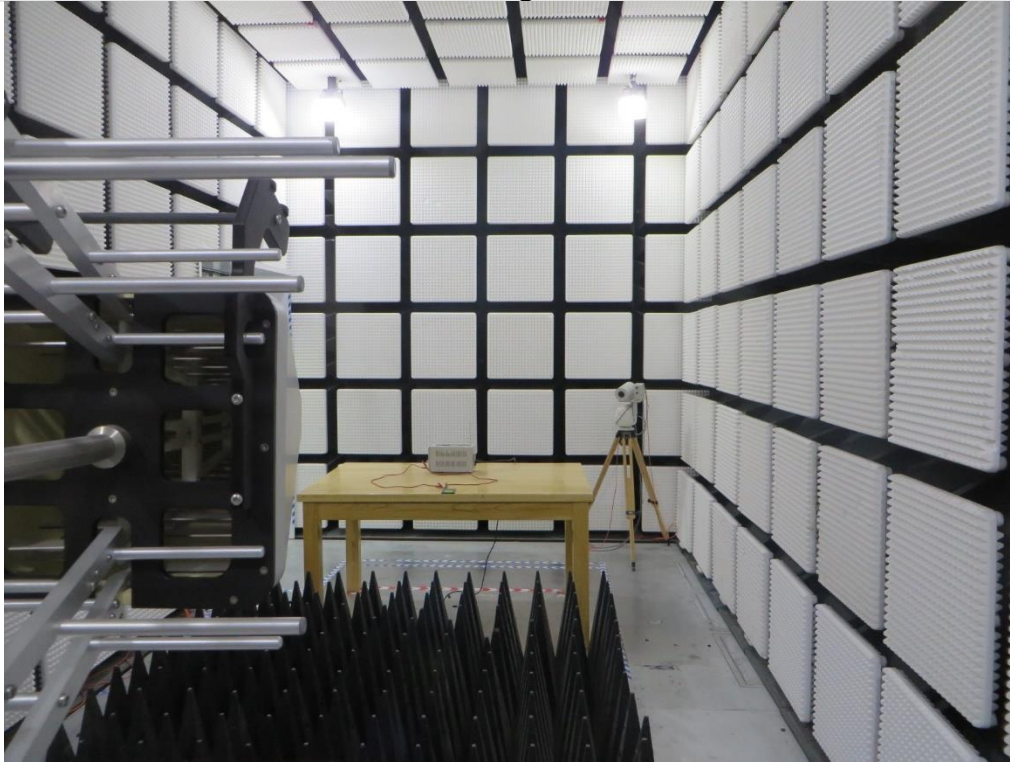
Radiated emissions below 1GHz



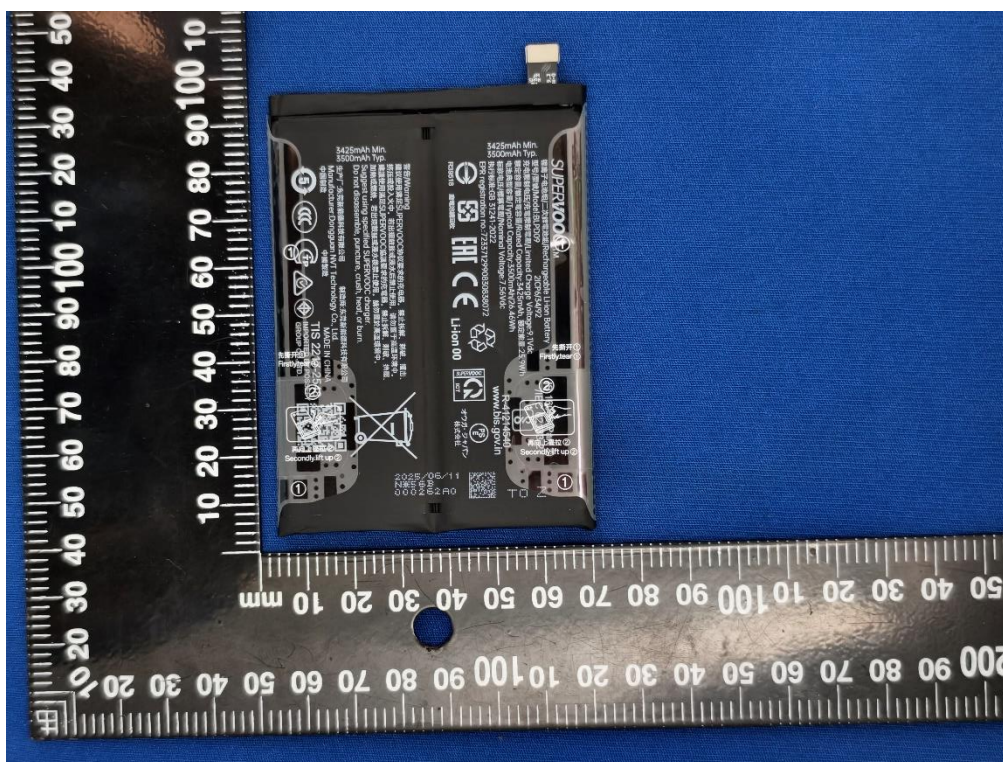
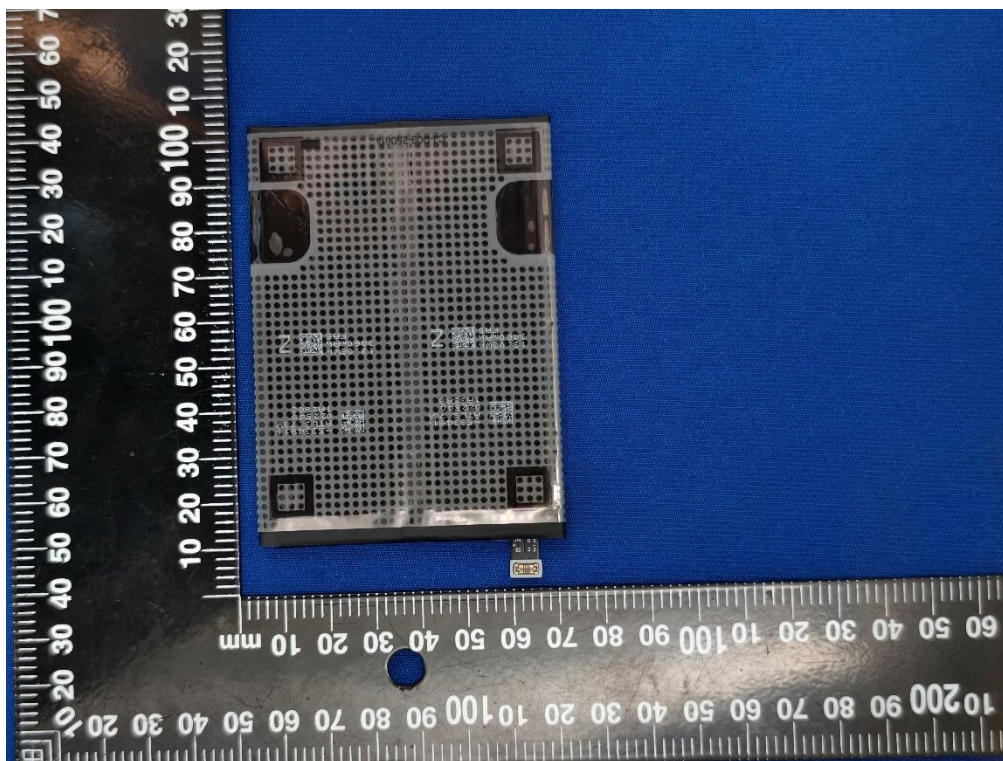
Electrostatic Discharge



Continuous RF electromagnetic field disturbances



APPENDIX: PHOTOGRAPHS OF THE EUT



END OF REPORT