EMC Test Report

Report No.: STS2511044E01

Issued for

Mid Ocean Brands B.V.

Unit 711-716, 7/F., Tower A, 83 King Lam Street
Cheung Sha Wan, Kowloon, Hong Kong

Product Name:	Cooler bag with temperature display
Brand Name:	N/A
Model Name:	MO2810
Series Model(s):	N/A
Test Standards:	EN IEC 55014-1:2021 EN IEC 55014-2:2021

.

TEST REPORT

Applicant's Name.....:	Mid Ocean Brands B.V.
Address .....:	Unit 711-716, 7/F., Tower A, 83 King Lam Street Cheung Sha Wan, Kowloon, Hong Kong
Manufacturer's Name.....:	Mid Ocean Brands B.V.
Address .....:	Unit 711-716, 7/F., Tower A, 83 King Lam Street Cheung Sha Wan, Kowloon, Hong Kong

Product description

Product Name.....:	Cooler bag with temperature display
Brand Name.....:	N/A
Model Name .....:	MO2810
Series Model(s).....:	N/A
Test Standards .....:	EN IEC 55014-1:2021 EN IEC 55014-2:2021

The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Shenzhen STS Test Services Co., Ltd.

Date of Test .....:	
Date of Receipt of Test Item .....:	06 Nov. 2025
Date (s) of performance of Tests .....:	06 Nov. 2025 ~ 14 Nov. 2025
Date of Issue .....:	14 Nov. 2025
Test Result.....:	**Pass**

Testing Engineer : Stan · Deng

(Star Deng)

Technical Manager : Brave Wu

(Brave Wu)

Authorized Signatory : Bovey Yang

(Bovey Yang)

SHENZHEN STS TEST SERVICES CO., LTD. TESTING APPROVAL

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Revision History

Rev.	Issue Date	Report No.	Effect Page	Contents
00	14 Nov. 2025	STS2511044E01	ALL	Initial Issue

1. TEST SUMMARY

Test procedures according to the technical standards:

EMC Emission				
Standard	Test Item	Limit	Judgment	Remark
EN IEC 55014-1:2021	Conducted Emission on Mains Ports 150kHz to 30MHz	---	N/A	
	Disturbance Power(30-300MHz)	Meets the requirements	N/A	**NOTE (1)**
	Radiated Emissions	---	PASS	

EMC Immunity				
Section EN IEC 55014-2:2021	Test Item	Performance Criteria	Judgment	Remark
EN IEC 61000-4-2:2025	Electrostatic Discharge	B	PASS	
EN IEC 61000-4-3:2020	Continuous RF electromagnetic field disturbances	A	PASS	
EN 61000-4-4:2012	Electrical fast transients/burst	B	N/A	
EN 61000-4-5:2014/A1:2017	Surges	B	N/A	
EN IEC 61000-4-6:2023	Continuous induced RF disturbances	A	N/A	
EN 61000-4-8:2010	Power Frequency Magnetic Field	A	N/A	
EN IEC 61000-4-11:2020	Voltage dips and interruptions	C / C / C	N/A	

Note: (1) Clock frequency less than 30MHz and absorbing clamp met applicable limits (Table 7) reduced by the margin (Table 8).

(2) For client's request and manual description, the test will not be executed.

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

1.1 TEST FACTORY

Company Name:	Shenzhen STS Test Services Co. Ltd.
Address:	101, Building B, Zhuoke Science Park, No.190 Chongqing Road, ZhanChengShequ, Fuhai Sub-District, Bao'an District, Shenzhen, Guang Dong, China
Telephone:	+86-755 3688 6288
Fax:	+86-755 3688 6277
Registration No.:	FCC test Firm Registration Number: 625569
	IC test Firm Registration Number: 12108A
	A2LA Certificate No.: 4338.01

1.2 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 of approximately **95** %.

A. Conducted Measurement :

Test Site	Method	Measurement Frequency Range	U · (dB)	NOTE
STSC01	CISPR 16-4-2	9KHz-150KHz	2.32	
		150 KHz ~ 30MHz	3.06	

B. Radiated Measurement :

Test Site	Method	Measurement Frequency Range	U · (dB)	NOTE
STSC02	CISPR 16-4-2	30MHz ~ 1000MHz	4.23	
		1GHz ~ 6 GHz	5.13	

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Product Name	Cooler bag with temperature display
Brand Name	N/A
Model Name	MO2810
Series Model(s)	N/A
Model Difference	N/A
Product Description	The EUT is a Cooler bag with temperature display. Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an Home Appliances Device. More details of EUT technical specification, please refer to the User's Manual.
Immunity test category	Category III
Rating	Input: 1.5VDC Button Cell
Battery	N/A
Adapter	N/A
Hardware version number	N/A
Software version number	N/A

2.2 DESCRIPTION OF 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.

Pretest Mode	Description
Mode 1	Working

For Radiated Test	
Final Test Mode	Description
Mode 1	Working

For EMS Test	
Final Test Mode	Description
Mode 1	Working

2.3 DESCRIPTION OF TEST SETUP

2.4 DESCRIPTION TEST PERIPHERAL AND EUT PERIPHERAL

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.	Note
N/A	N/A	N/A	N/A	N/A

Item	Equipment	Ferrite Core	Length	Note
N/A	N/A	N/A	N/A	N/A

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.

2.5 MEASUREMENT INSTRUMENTS LIST

2.5.1 RADIATED TEST SITE

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
EMI Test Receiver	R&S	ESCI	101427	2025.9.25	2026.9.24
Bi-log Antenna	TESEQ	CBL6111D	45873	2025.9.21	2026.9.20
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1343	2025.9.27	2026.9.26
Pre-amplifier(1G-26.5G)	Agilent	HP8449B	3008A02383	2025.2.22	2026.2.21
Pre-amplifier(0.1M-3GHz)	EM	EM330	060665	2025.2.22	2026.2.21
Spectrum Analyzer	Agilent	N9020A	MY49100060	2025.9.24	2026.9.23
RE Cable (9K-1G)	N/A	R01	N/A	2025.9.24	2026.9.23
RE Cable (1G-26G)	N/A	R02	N/A	2025.9.24	2026.9.23
Temperature & Humidity	topris	TP502V4-P	6900000422328	2025.8.26	2026.8.25
SAC	ChengYu	9*6*6	N/A	2025.8.13	2028.8.12
Testing Software	EZ-EMC(Ver.STSLAB-03A1 RE)				

2.5.2 ESD

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
ESD TEST GENERATOR	TESEQ	NSG438	1175	2025.10.27	2026.10.26
Temperature & Humidity	N/A	WS1066	N/A	2025.2.25	2026.2.24

2.5.3 RS

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
Power Meter	Agilent	E4419B	QB43312265	2025.9.25	2026.9.24
Power Sensor	hp	E9300A	US39210170	2025.9.25	2026.9.24
Power Sensor	hp	E9300A	US39210476	2025.9.25	2026.9.24
Signal Generator	Agilent	N5181A	MY56144718	2025.9.26	2026.9.25
Power Amplifier	MICOTOP	MPA-80-1000-250	MPA1711489	2025.9.26	2026.9.25
Power Amplifier	MICOTOP	MPA-1000-6000-100	MPA1904132	2025.9.26	2026.9.25
RS Test Antenna (80-1GHz)	SCHWARZBECK	VULP 9118E	000999	N/A	N/A
RS Test Antenna (1G-10GHz)	SCHWARZBECK	STLP 9149	000648	N/A	N/A
Universal Radio Communication Tester	R&S	CMU200	116337	2025.2.22	2026.2.21
Audio Analyzer	R&S	UPL	100689	2025.2.22	2026.2.21
Audio Breakthrough Shielding Box	SKET	SB_ABT/C35	N/A	N/A	N/A
Ear Simulator	SKET	AE_ABT/C35	N/A	N/A	N/A
Mouth Simulator	SKET	AM_ABT/C35	N/A	N/A	N/A
1KHz Standard Source	SKET	MSC_ABT/C35	N/A	2025.9.24	2026.9.23
Field Probe	Narda	EP601	611WX80261	2025.2.26	2026.2.25
Temperature & Humidity	topris	TP502V4-P	6900000421895	2025.10.9	2026.10.8
Testing Software	EMC-S V1.4.0.53				

3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	At load terminals and additional terminals (dBuV)		At mains terminals (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	80.00	70.00	66 - 56 *	59 - 46 *
0.50 – 5.0	74.00	64.00	56.00	46.00
5.0 – 30.0	74.00	64.00	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

3.1.2 TEST PROCEDURE

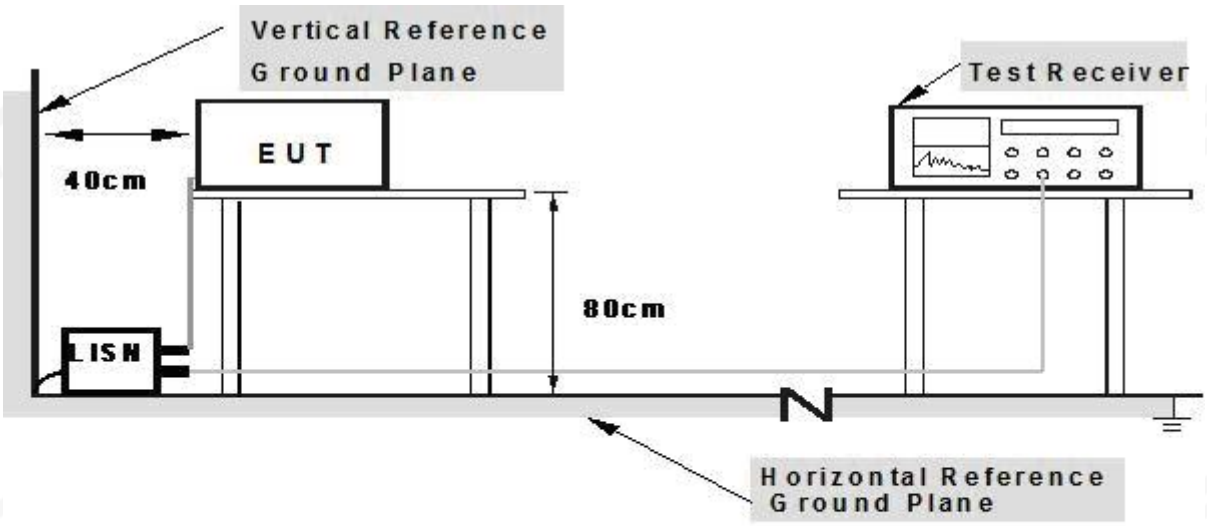
a. The EUT was placed 0.4 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

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 1 m.

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

3.1.3 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

3.1.4 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of **2.3** Unless otherwise a special operating condition is specified in the follows during the testing.

3.1.5 TEST RESULTS

Temperature:	--℃	Relative Humidity:	--%
Phase:	N/A	Test Mode:	N/A
Test Voltage:	N/A	Test Date:	N/A

Note: Test is not applicable.

3.2 DISTURBANCE POWER MEASUREMENT

3.2.1 LIMITS OF THE DISTURBANCE POWER MEASUREMENT (30MHz-300MHz)

Table 7 - Disturbance power limits - 30 MHz to 300 MHz

Frequency range	General		Tools					
			P≤700 W		700 W < P≤ 1000W		P > 1 000 W	
1	2	3	4	5	6	7	8	9
MHz	Quasi-peak	Average dBpW	Quasi-peak dBpW	Average dBpW	Quasi-peak dBpW	Average dBpW	Quasi-peak dBpW	Average dBpW
30 ~ 300	Increasing linearly with the frequency from:							
	44 ~ 55	35 ~ 45	44 ~ 55	35 ~ 45	49 ~ 59	39 ~ 49	55 ~ 65	45 ~ 55
Key P = rated power of the motor only.								

If the quasi-peak measurements meet the average limit, the EUT shall be deemed to meet both limits and the measurements using the average detector need not be carried out.

Table 8 - Reduction applicable to Table 7 limits

Frequency range	General		Tools					
			P≤700 W		700 W < P≤ 1000W		P > 1 000 W	
1	2	3	4	5	6	7	8	9
MHz	Quasi-peak	Average dBpW	Quasi-peak dBpW	Average dBpW	Quasi-peak dBpW	Average dBpW	Quasi-peak dBpW	Average dBpW
200 ~ 300	Increasing linearly with the frequency from:							
	0 ~ 10	0	0 ~ 10	0	0 ~ 10	0	0 ~ 10	0
NOTE This table only applies if method a) specified in 4.3.4.2 is followed.								

Notes:

(1) The limit for radiated test was performed in the following: CISPR14.1

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

3.2.2 TEST PROCEDURE

a. 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.

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 meter.

c. 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.

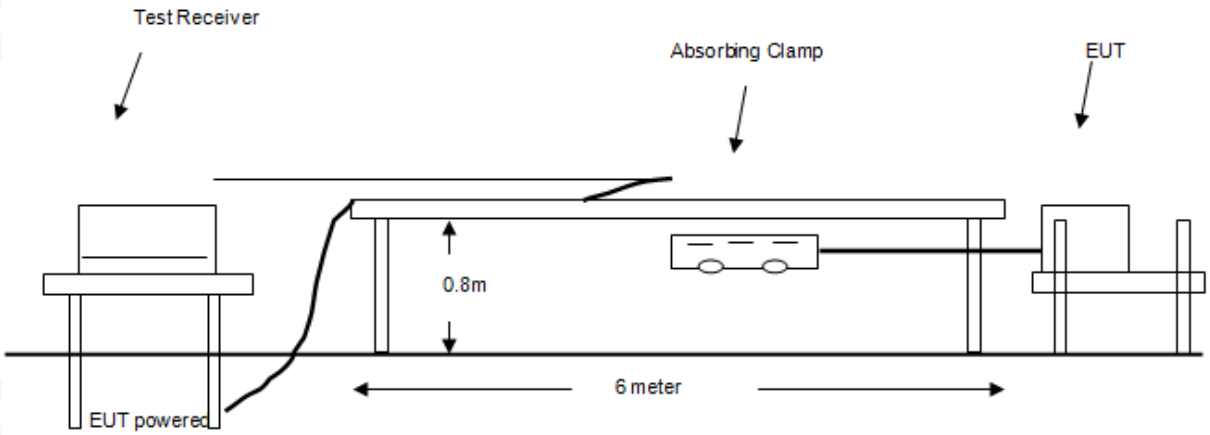
d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meter and the rotatable table was turned from 0 degrees to 360 degree to find the maximum reading.

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.

3.2.3 TEST SETUP

Disturbance Power Test Set-Up



3.2.4 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of **2.3** Unless otherwise a special operating condition is specified in the follows during the testing.

3.2.5 DISTURBANCE POWER RESUL (30-300MHz)

Temperature:	--℃	Relative Humidity:	--%
Phase:	N/A	Test Mode:	N/A
Test Voltage:	N/A	Test Date:	N/A

Note: Not applicable

3.3 RADIATED EMISSION MEASUREMENT

3.3.1 LIMITS OF RADIATED EMISSION MEASUREMENT

FREQUENCY (MHz)	At 10m	At 3m
	Quasi-peak (dBuV/m)	Quasi-peak (dBuV/m)
30 ~ 230	30	40
230 ~ 300	37	47
230 ~ 1000	37	47

FREQUENCY (MHz)	At 3m	
	Peak (dBuV/m)	Avg (dBuV/m)
1000 ~ 3000	70	50
3000 ~ 6000	74	54

Notes:

(1) The limit for radiated test was performed in the following: CISPR 14-1

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

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

3.3.2 TEST PROCEDURE

a. 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.

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 meter.

c. 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.

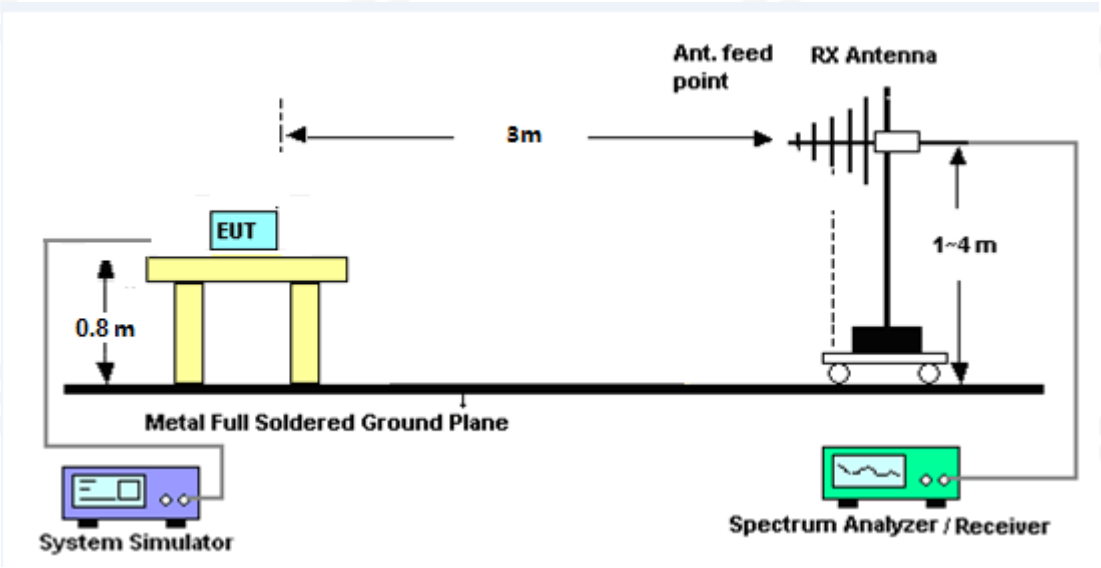
d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meter and the rotatable table was turned from 0 degrees to 360 degree to find the maximum reading.

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.

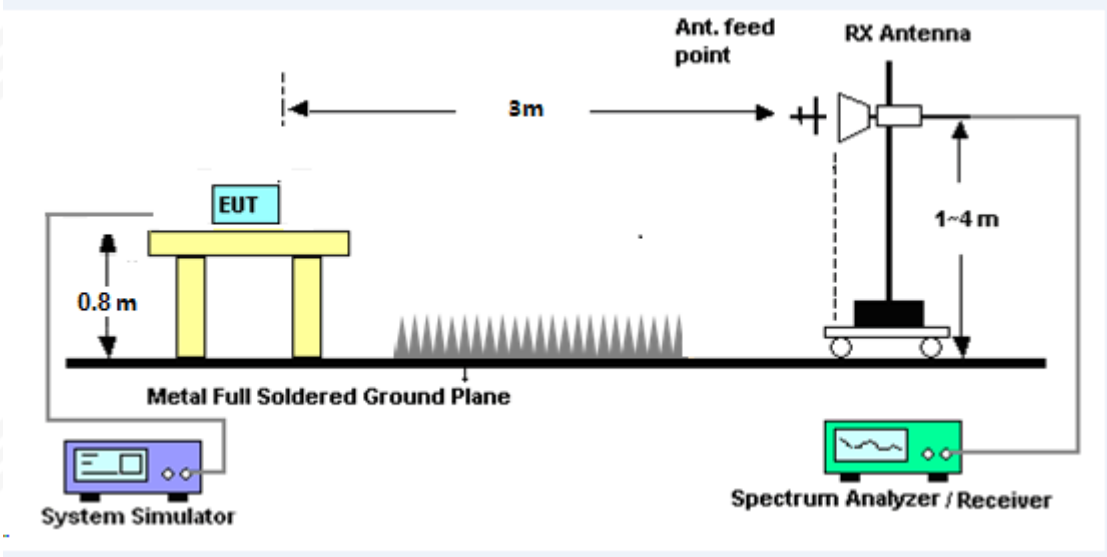
f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.3.3 TEST SETUP

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



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



3.3.4 EUT OPERATING CONDITIONS

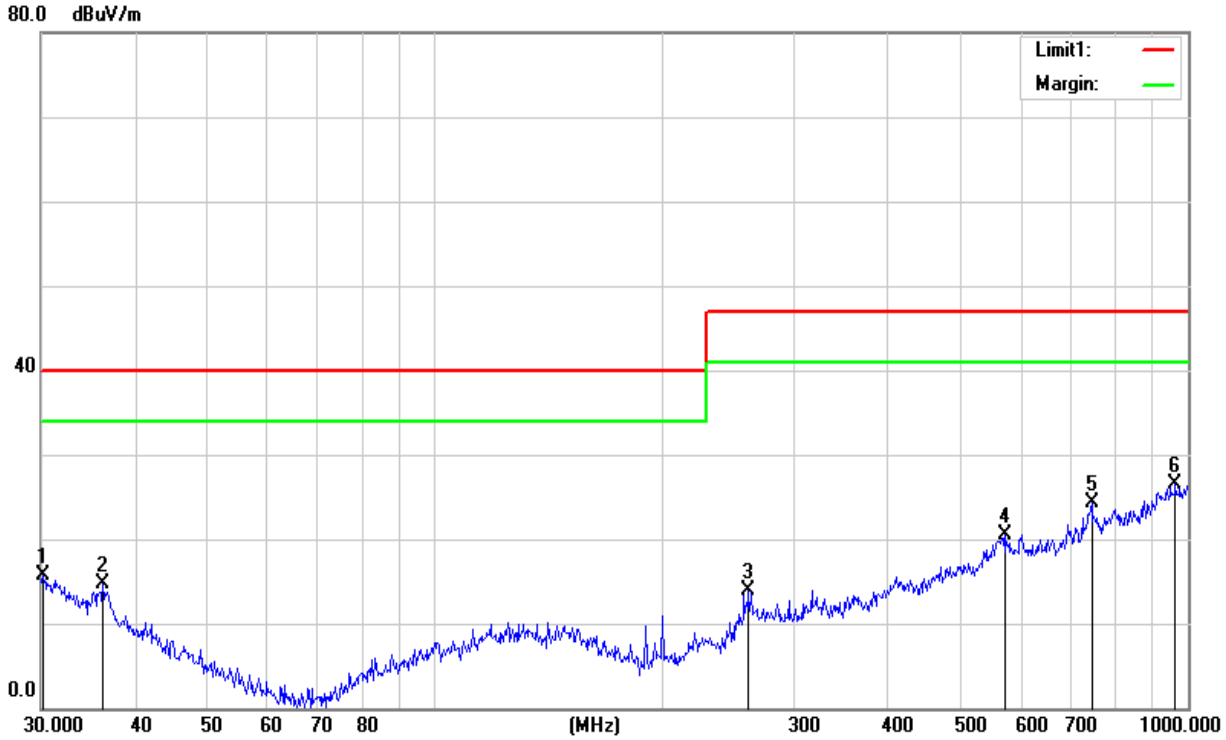
The EUT tested system was configured as the statements of **2.3** Unless otherwise a special operating condition is specified in the follows during the testing.

3.3.5 TEST RESULTS (30MHz-1000MHz)

Temperature:	25.2℃	Relative Humidity:	63%
Phase:	Horizontal	Test Mode:	Mode 1
Test Voltage:	DC 1.5V from battery	Test Date:	2025.11.06

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.2111	26.88	-11.15	15.73	40.00	-24.27	QP
2	36.2541	29.28	-14.51	14.77	40.00	-25.23	QP
3	261.0583	28.83	-14.83	14.00	47.00	-33.00	QP
4	572.6144	29.06	-8.52	20.54	47.00	-26.46	QP
5	744.8661	29.00	-4.63	24.37	47.00	-22.63	QP
6	962.1623	28.36	-1.92	26.44	47.00	-20.56	QP

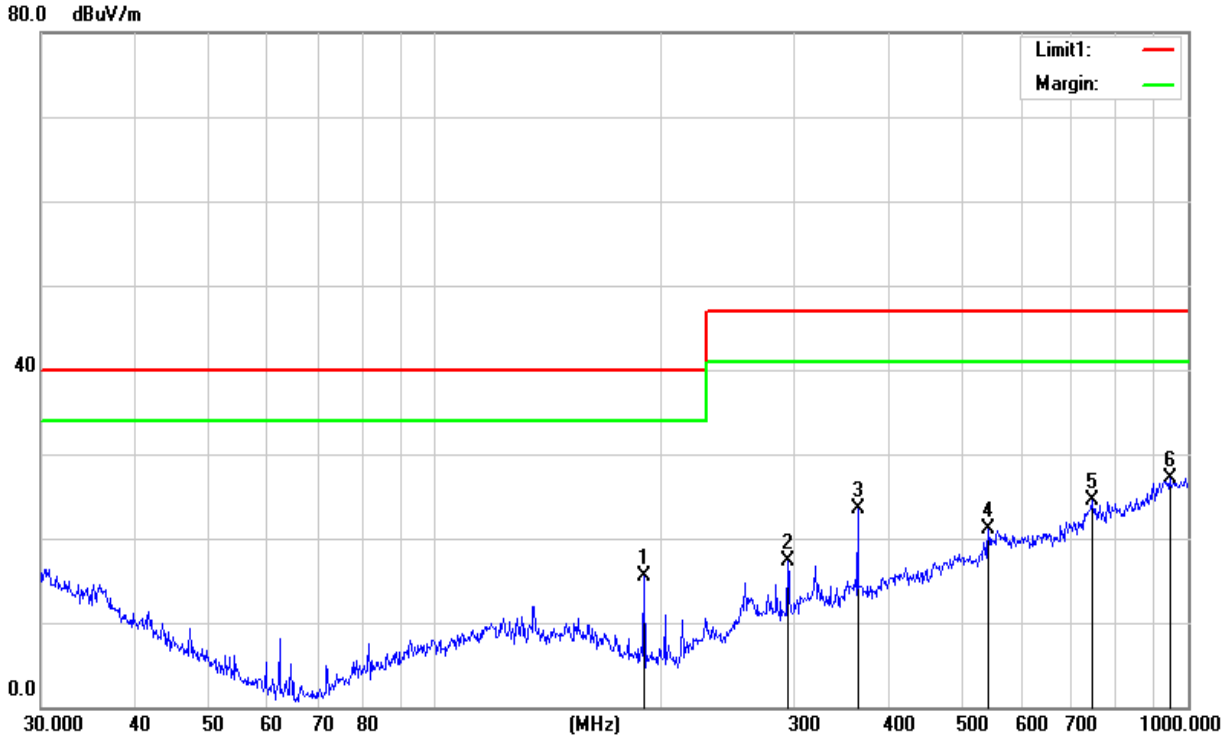
Remark:
1. All readings are Quasi-Peak.
2. Margin = Result (Result =Reading + Factor)–Limit.
3. Factor= Cable Loss +Antenna Factor-Amplifier Gain.



Temperature:	25.2℃	Relative Humidity:	63%
Phase:	Vertical	Test Mode:	Mode 1
Test Voltage:	DC 1.5V from battery	Test Date:	2025.11.06

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	189.7384	37.01	-21.52	15.49	40.00	-24.51	QP
2	294.1136	33.92	-16.54	17.38	47.00	-29.62	QP
3	364.2595	37.88	-14.29	23.59	47.00	-23.41	QP
4	543.2741	30.01	-9.00	21.01	47.00	-25.99	QP
5	744.8660	29.17	-4.63	24.54	47.00	-22.46	QP
6	945.4398	29.38	-2.27	27.11	47.00	-19.89	QP

Remark:
1. All readings are Quasi-Peak.
2. Margin = Result (Result =Reading + Factor)–Limit.
3. Factor= Cable Loss +Antenna Factor-Amplifier Gain.



4. EMC IMMUNITY TEST

4.1 STANDARD COMPLIANCE/SERVRITY LEVEL/CRITERIA

Tests Standard No.	TEST SPECIFICATION	Test Mode Test Ports	Perform. Criteria
1. ESD IEC/EN 61000-4-2	8KV air discharge 4KV contact discharge	Direct Mode	B
	4KV HCP discharge 4KV VCP discharge	Indirect Mode	B
2. RS IEC/EN 61000-4-3	80 MHz - 1000 MHz, 1000Hz, 80%, AM modulated	Enclosure	A

4.2 GENERAL PERFORMANCE CRITERIA

According to **EN 55014-2** standard, the general performance criteria as following:

Criterion A	The apparatus shell continues 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 apparatus is used as intended. The performance level may be replaced by a permissible loss of performance. If the manufacturer does not specify the minimum performance level or the permissible performance loss, 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.
Criterion B	After test, the apparatus shell continues to operate as intended without operator intervention. No degradation of performance or loss of function is allowed, after the application of the phenomenon 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. However, no change of operating state if stored data is allowed to persist after the test. If the manufacturer does not specify the minimum performance level or the permissible performance loss, 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.
Criterion C	Temporary loss of function is allowed, provided the functions is self-recoverable or can be restored by the operation of controls by the user in accordance with the manufacturer instructions. Functions, and/or information stored in non-volatile memory, or protected by a battery backup, shall not be lost.

4.2.1 GENERAL PERFORMANCE CRITERIA TEST SETUP

The EUT tested system was configured as the statements of **2.3** Unless otherwise a special operating condition is specified in the follows during the testing.

4.3 ELECTROSTATIC DISCHARGE IMMUNITY TEST (ESD)

4.3.1 TEST SPECIFICATION

Basic Standard:	IEC/EN 61000-4-2
Discharge Impedance:	330 ohm / 150 pF
Required Performance:	B
Discharge Voltage:	Air Discharge：8KV (Direct) Contact Discharge：4KV (Direct/Indirect)
Polarity:	Positive & Negative
Number of Discharge:	Air Discharge: at least 10 times on each point Contact Discharge: at least 10 times on each point 20 times at each test point
Discharge Mode:	Single Discharge
Discharge Period:	1 second minimum

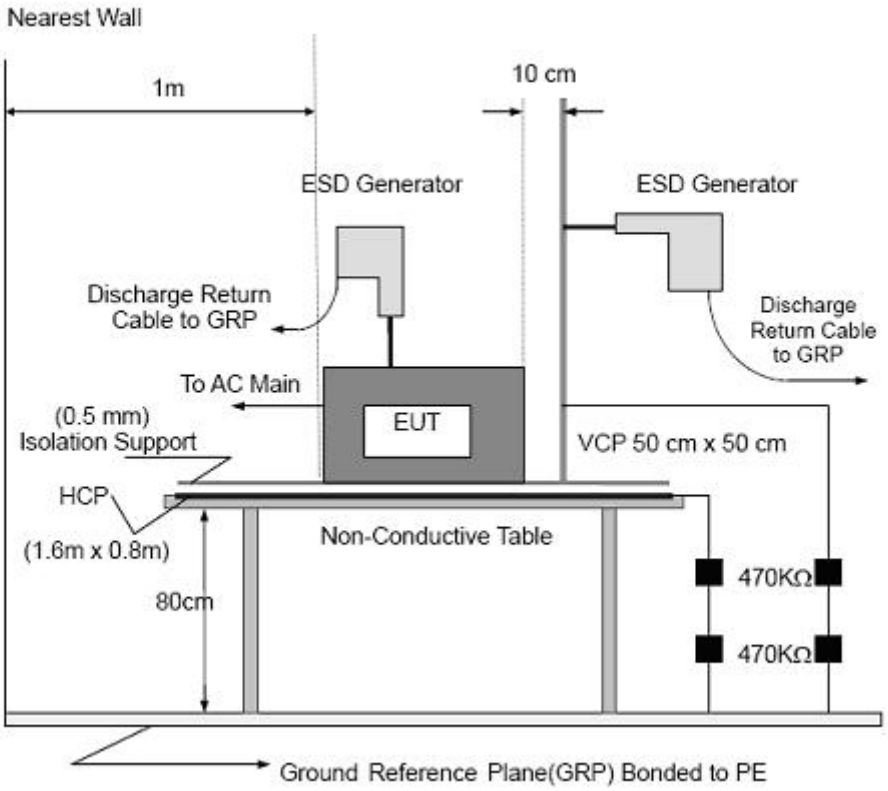
4.3.2 TEST PROCEDURE

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

a. Electrostatic discharges were applied only to those points and surfaces of the EUT that are accessible to users during normal operation
The test was performed with at least ten single discharges on the pre-selected points in the most sensitive polarity.
The time interval between two successive single discharges was at least 1 second.
The ESD generator was held perpendicularly to the surface to which the discharge was applied and the return cable was at least 0.2 meter from the EUT.
Contact discharges were applied to the non-insulating coating, with the pointed tip of the generator penetrating the coating and contacting the conducting substrate.
Air discharges were applied with the round discharge tip of the discharge electrode approaching the EUT as fast as possible (without causing mechanical damage) to touch the EUT. After each discharge, the ESD generator was removed from the EUT and re-triggered for a new single discharge. The test was repeated until all discharges were complete.
Vertical Coupling Plane (VCP):
The coupling plane of dimensions 0.5m x 0.5m, is placed parallel to and positioned at a distance 0.1m 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 0.1m 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.

4.3.3 TEST SETUP



Note:

TABLE-TOP EQUIPMENT

The configuration consisted of a wooden table 0.8 meter high standing on the Ground Reference Plane. The GRP consisted of a sheet of aluminum at least 0.25mm thick. A Horizontal Coupling Plane (1.6m x 0.8m) was placed on the table and attached to the GRP by means of a cable with 940kΩ total impedance. The equipment under test was installed in a representative system as described in section 7 of EN 61000-4-2, and its cables were placed on the HCP and isolated by an insulating support of 0.5mm thickness. A distance of 0.8-meter minimum was provided between the EUT and the walls of the laboratory and any other metallic structure.

FLOOR-STANDING EQUIPMENT

The equipment under test was installed in a representative system as described in section 7 of EN 61000-4-2, and its cables were isolated from the Ground Reference Plane by an insulating support of 0.1 meter thickness. The GRP was consisted of a sheet of aluminum that is at least 0.25mm thick, and extended at least 0.5 meter from the EUT on all sides.

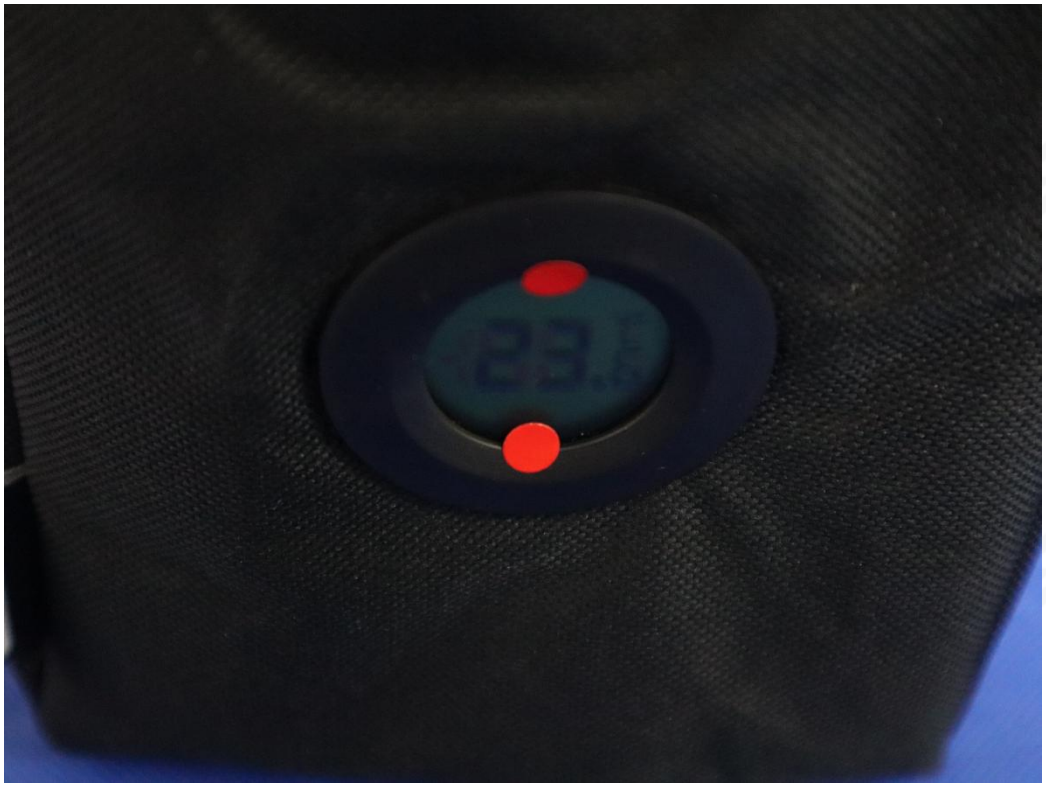
4.3.4 TEST RESULTS

Temperature:	24.1℃	Relative Humidity:	53%
Test Date:	2025.11.13	Test Mode:	Mode 1
Test Voltage:	DC 1.5V from battery		

Discharge Level	Polarity	Test Points	Contact Discharge	Air Discharge	Criterion	Test Result
4	+/-	VCP/HCP	Note	N/A	B	A
8	+/-	Red Dot	N/A	Note	B	A

Note: The EUT function was correct during the test
Red Dot —Air Discharged
Green Dot —Contact Discharged

The Photo for Discharge Points of EUT



4.4 RADIATED, RADIO-FREQUENCY, ELECTROMAGNETIC FIELD IMMUNITY TEST (RS)

4.4.1 TEST SPECIFICATION

Basic Standard:	IEC/EN 61000-4-3
Required Performance:	A
Test Frequency Range:	80 MHz - 1000 MHz
Field Strength:	3 V/m
Modulation:	1kHz Sine Wave, 80%, AM Modulation
Frequency Step:	1 % of fundamental
Polarity of Antenna:	Horizontal and Vertical
Test Distance:	3 m
Antenna Height:	1.5 m
Dwell Time:	at least 3 seconds

4.4.2 TEST PROCEDURE

a) The testing was performed in a fully anechoic chamber. The transmit antenna was located at a distance of 3 meters from the EUT.

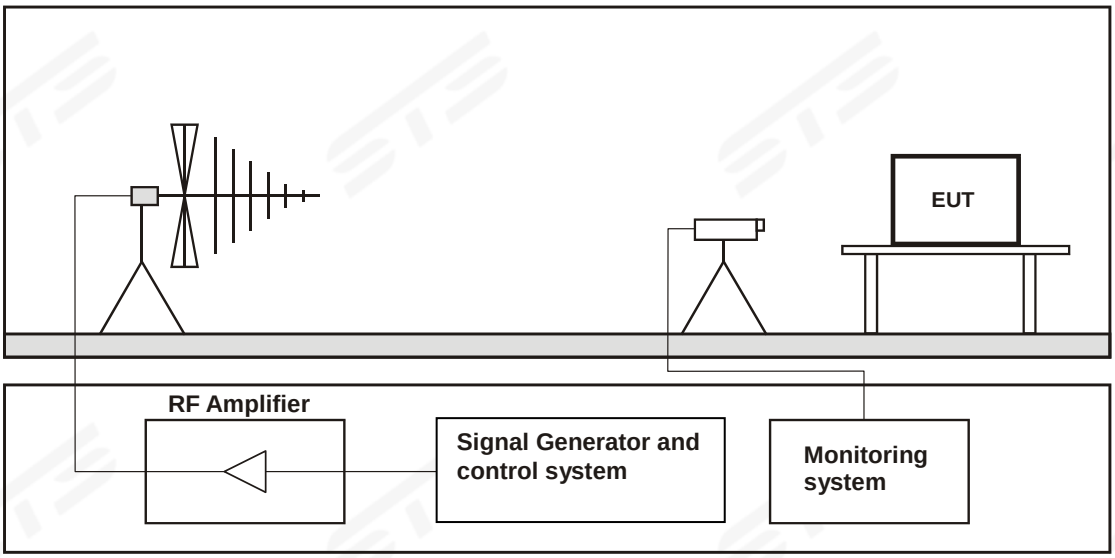
b) The frequency range is swept from 80 MHz to 1000 MHz, with the signal 80% amplitude modulated with a 1kHz sine-wave. The rate of sweep did not exceed 3s, where the frequency range is swept incrementally, the step size was 1% of preceding frequency value.

c) The dwell time at each frequency shall be not less than the time necessary for the EUT to be able to respond.

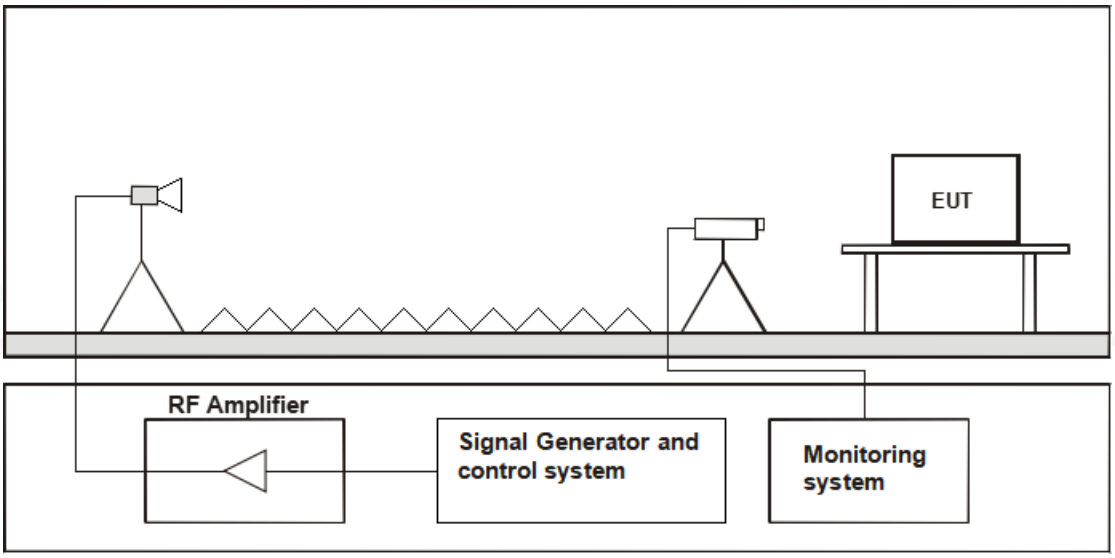
e) The test was performed with the EUT exposed to both vertically and horizontally polarized fields on each of the four sides.

4.4.3 TEST SETUP

(A) RS Test Set-Up Frequency Below 1GHz



(B) RS Test Set-Up Frequency Above 1GHz



Note:

TABLE-TOP EQUIPMENT

The EUT installed in a representative system as described in section 7 of IEC/EN 61000-4-3 was placed on a non-conductive table 0.8 meters in height. The system under test was connected to the power and signal wire according to relevant installation instructions.

FLOOR-STANDING EQUIPMENT

The EUT installed in a representative system as described in section 7 of IEC/EN 61000-4-3 was placed on a non-conductive wood support 0.1 meters in height. The system under test was connected to the power and signal wire according to relevant installation instructions.

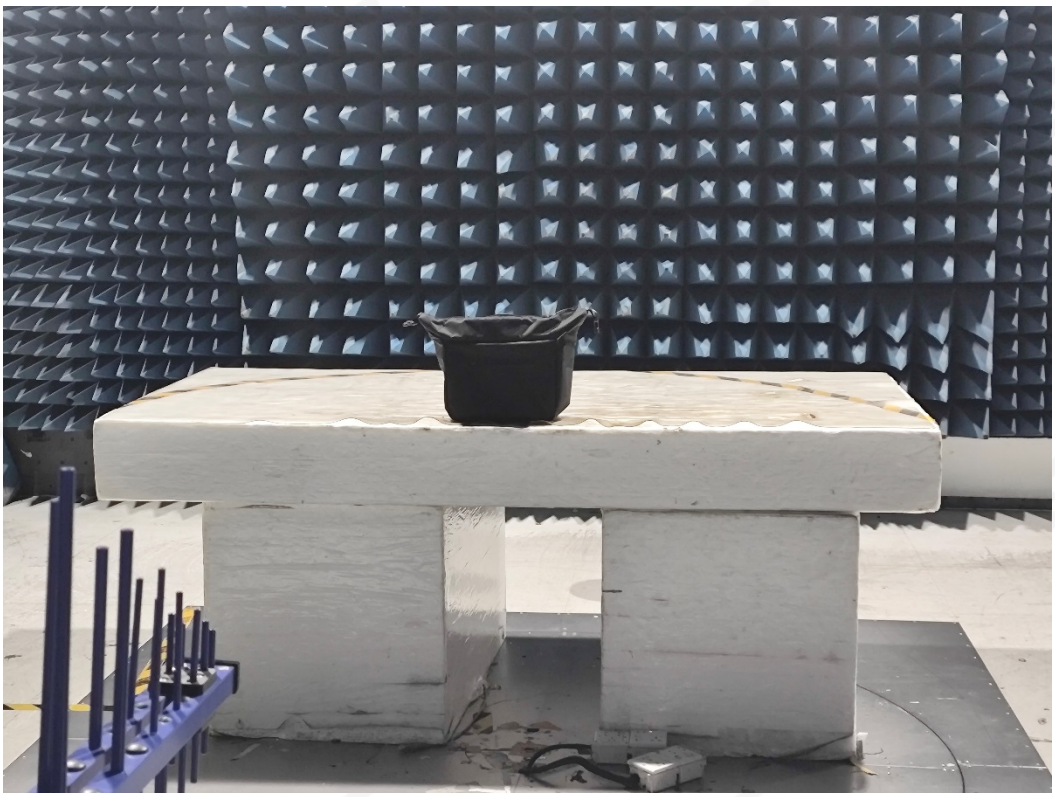
4.4.4 TEST RESULTS

Temperature:	24.1℃	Relative Humidity:	53%
Test Date:	2025.11.13	Test Mode:	Mode 1
Test Voltage:	DC 1.5V from battery		

Frequency Range (MHz)	RF Field Position	R.F. Field Strength	Azimuth	Perform. Criteria	Results	Judgement
80MHz - 1000MHz	H / V	3 V/m (rms) AM Modulated 1000Hz, 80%	Front	A	A	PASS
			Rear			
			Left			
			Right			

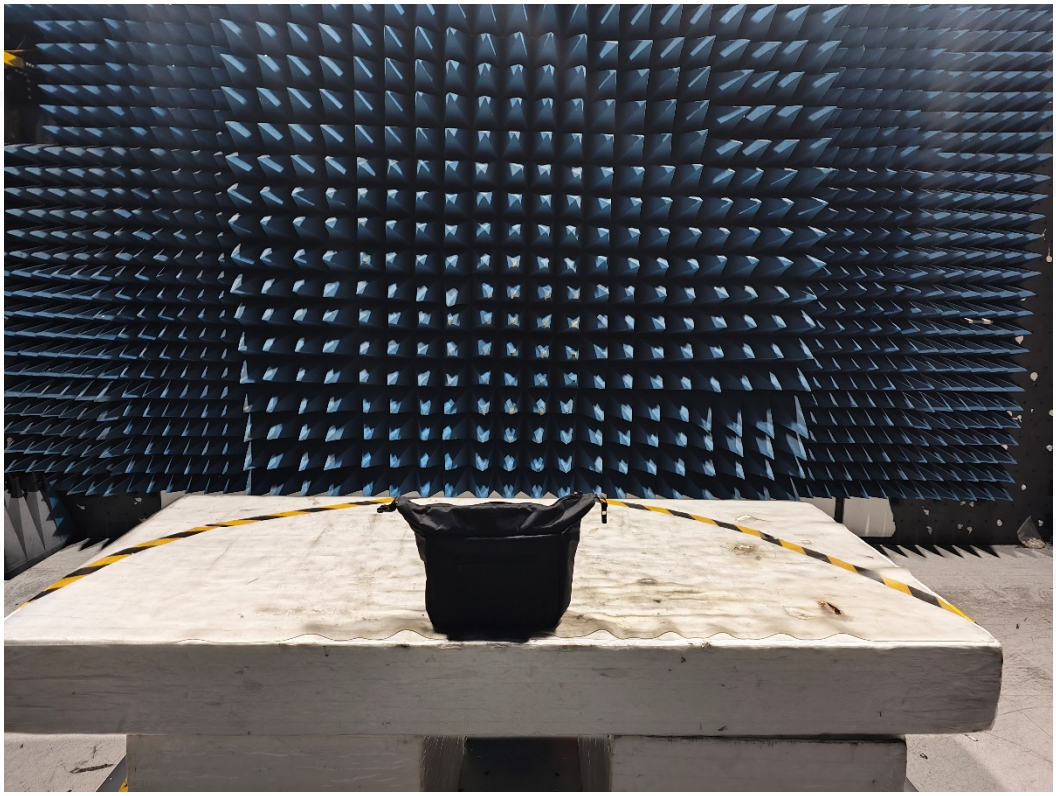
APPENDIX 1-PHOTO TEST OF EUT

RE (30 - 1000 MHz)



ESD

RS (80 - 1000 MHz)



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