EMC Test Report

Report No.: STS2604079E01

Issued for

SAFIERY PTY LTD

Unit45, 8 Distribution Court Arundel, QLD4214, Australia

Product Name:	Radar Sensor
Brand Name:	SAFIERY
Model Name:	STAR TANK
Series Model(s):	N/A
Test Standards:	EN 60945:2002

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.

TEST REPORT

Applicant's name	:	SAFIERY PTY LTD
Address	:	Unit45, 8 Distribution Court Arundel, QLD4214, Australia
Manufacturer's Name	:	SAFIERY PTY LTD
Address	:	Unit45, 8 Distribution Court Arundel, QLD4214, Australia

Product description

Product Name	:	Radar Sensor
Brand Name	:	SAFIERY
Model Name	:	STAR TANK
Series Model(s)	:	N/A
Test Standards	:	EN 60945:2002

This device described above has been tested by STS, and the test results show that the equipment under test (EUT) is in compliance with the EMC Directive 2014/30/EU requirements. And it is applicable only to the tested sample identified in the report.
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	:	14 Apr. 2026
Date (s) of Performance of Tests	:	14 Apr. 2026 ~ 28 Apr. 2026
Date of Issue	:	28 Apr. 2026
Test Result	:	**Pass**

Testing Engineer : Star Deng
(Star Deng)

Technical Manager : Skylar Li
(Skylar Li)

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	28 Apr. 2026	STS2604079E01	ALL	Initial Issue

1. TEST SUMMARY

Test procedures according to the technical standards:

DURABILITY AND RESISTANCE TO ENVIRONMENTAL CONDITIONS				
	Portable	**Protected**	**Exposed**	**Submerged**
Dry heat	+55 °C (storage +70 °C)	+55 °C	+55 °C (storage +70 °C)	(storage +70 °C)
Damp heat	+40 °C 93 % relative humidity 1 cycle			*
Low temperature	–20 °C (storage –30 °C)	–15 °C	–25 °C	*
Thermal shock	45 K into water	*		
Drop onto hard surface	6 drops from 1 m	*		
Drop into water	3 drops from 20 m	*		
Vibration	Sweep 2 Hz – 13.2 Hz at ± 1 mm, 13.2 Hz – 100 Hz at 7 m/s 2 and for 2 h on each resonance, otherwise 2 h at 30 Hz in all three axes			
Rain and spray	*	*	12.5 mm nozzle 100 l/min at 3 m	*
Water immersion	100 kPa (1 bar) for 5 min 10 kPa (0.1 bar) for two-way VHF	*		600 kPa (6 bar) for 12 h
Solar radiation	1120 W/m 2 80 h	*	*	*
Oil resistance	ISO Oil No. 1 24 h, 19 °C	*	*	*
Corrosion	Four periods of seven days at 40 °C with 90 % – 95 % relative humidity after 2 h salt spray			

EMC Emission				
Standard EN 60945:2002	Test Item	Limit	Judgment	Remark
EN 60945:2002	Conducted Emissions (9.2)	------	N/A	
	Radiated Emissions (9.3)	------	PASS	
EN 61000-3-3:2013/A2:2021/AC:2022	Voltage Fluctuations & Flicker	------	N/A	

EMC Immunity				
Section EN 60945:2002	Test Item	Performance Criteria	Judgment	Remark
EN IEC 61000-4-2:2025	Electrostatic Discharge (10.9)	B	PASS	
EN IEC 61000-4-3:2020	Radiated Disturbance (10.4)	A	PASS	
EN 61000-4-4:2012	Fast Transients (bursts) (10.5)	B	N/A	
EN 61000-4-5:2014/A1:2017	Slow Transients (surges)(10.6)	B	N/A	
EN IEC 61000-4-6: 2023	Conducted radio Frequency disturbance (10.3)	A	N/A	
EN 61000-4-8:2010	Power supply short Term variation (10.7)	B / C / C	N/A	
EN IEC 61000-4-11:2020	Power Supply Failure (10.8)	B / C / C	N/A	

NOTE: (1) 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 1GHz, 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 of the highest frequency or 6 GHz, whichever is less.

(2) The power consumption of EUT is less than 75W and no Limits apply

(3) N/A=Not Applicable.

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.:	IC Registration No.: 12108A
	FCC test Firm Registration Number: 625569
	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	2.14	
		150 KHz ~ 30MHz	3.02	

B. Radiated Measurement :

Test Site	Method	Measurement Frequency Range	U，(dB)	NOTE
STSC02	CISPR 16-4-2	30MHz ~ 1000MHz	3.87	
		1GHz ~ 6GHz	4.82	

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Radar Sensor
Brand Name	SAFIERY
Model Name	STAR TANK
Series Model(s)	N/A
Model Difference	N/A
Product Description	The EUT is Radar Sensor. Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an Ultrasonic Weather Station Device. More details of EUT technical specification, please refer to the User's Manual.
Adapter	N/A
Battery	N/A
Rating	Input: DC 3V
Test Voltage	DC 3V from battery
Hardware version number	N/A
Software version number	N/A

2.2 DESCRIPTION OF TEST MODES

For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

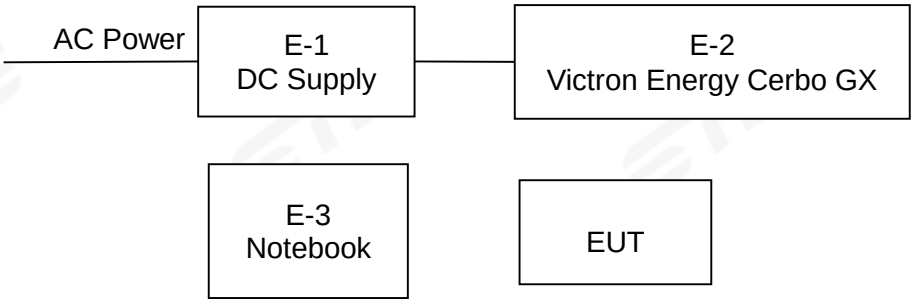
To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration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

Auxiliary Equipment List and Details

Item	Description	Manufacturer	Model/Type No.	Serial Number
E-1	DC Supply	HONGSHENGFENC	QJ6005E	N/A
E-2	Victron Energy Cerbo GX	N/A	N/A	N/A
E-3	Notebook	DELL	Inspiron 3501	N/A

Special Cable List and Details

Item	Equipment	Length (m)	Shielded/Unshielded	With / Without Ferrite
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	2026.2.8	2027.2.7
Pre-amplifier(0.1M-3GHz)	EM	EM330	060665	2026.2.5	2027.2.4
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	2026.2.5	2027.2. 4

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	2026.2.4	2027.2.3
Audio Analyzer	R&S	UPL	100689	2026.2.4	2027.2.3
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	2026.2.6	2027.2.5
Temperature & Humidity	topris	TP502V4-P	6900000421895	2025.10.9	2026.10.8
Testing Software	EMC-S V1.4.0.53				

3. EMC EMISSION TEST

During the measurements for electromagnetic emission, the EUT shall operate under normal test conditions, and the setting of controls which may affect the level of conducted or radiated emission shall be varied in order to ascertain the maximum emission level. If the EUT has more than one energized state, for example operate, stand-by, etc., the state which produces the maximum emission level shall be ascertained, and full measurements for that state shall be made. The antenna connection of the EUT, if any, shall be terminated in a non-radiating artificial antenna.

For radiated emission tests, equipment including a radio transmitter operating within the measurement bands shall be in the operational state but not the transmitting state.

For conducted emission tests with equipment including a radio transmitter, there shall be an exclusion band of 200 kHz cent red at the fundamental and any harmonics within the measurement band.

Particular interfaces of the EUT with the external electromagnetic environment are referred to as ports. The physical boundary of the EUT through which electromagnetic fields may radiate or impinge is the enclosure port(as below)

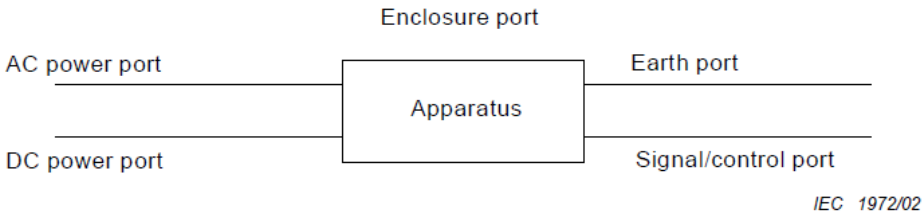


Figure 1 – Examples of ports referred to in electromagnetic emission and immunity tests

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION (Frequency Range 10KHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)
	Quasi-peak
0.01 -0.15	96 dBμV – 50 dBμV
0.15 -0.35	60 dBμV – 50 dBμV
0.35 -30.0	50 dBμV

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

3.1.2TEST PROCEDURE

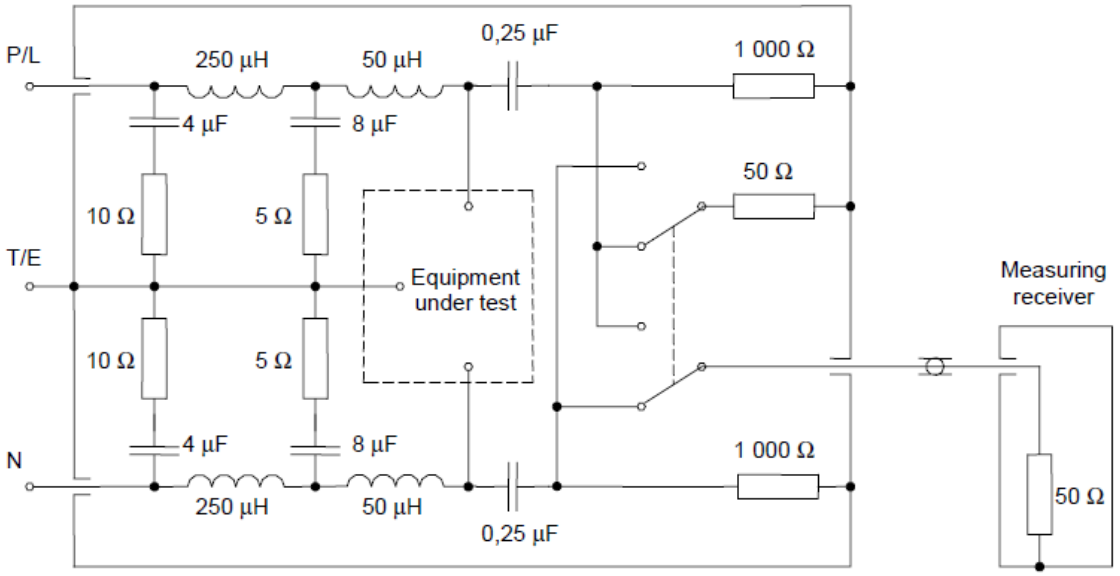
a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 Ohm/ 50uH of coupling 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.

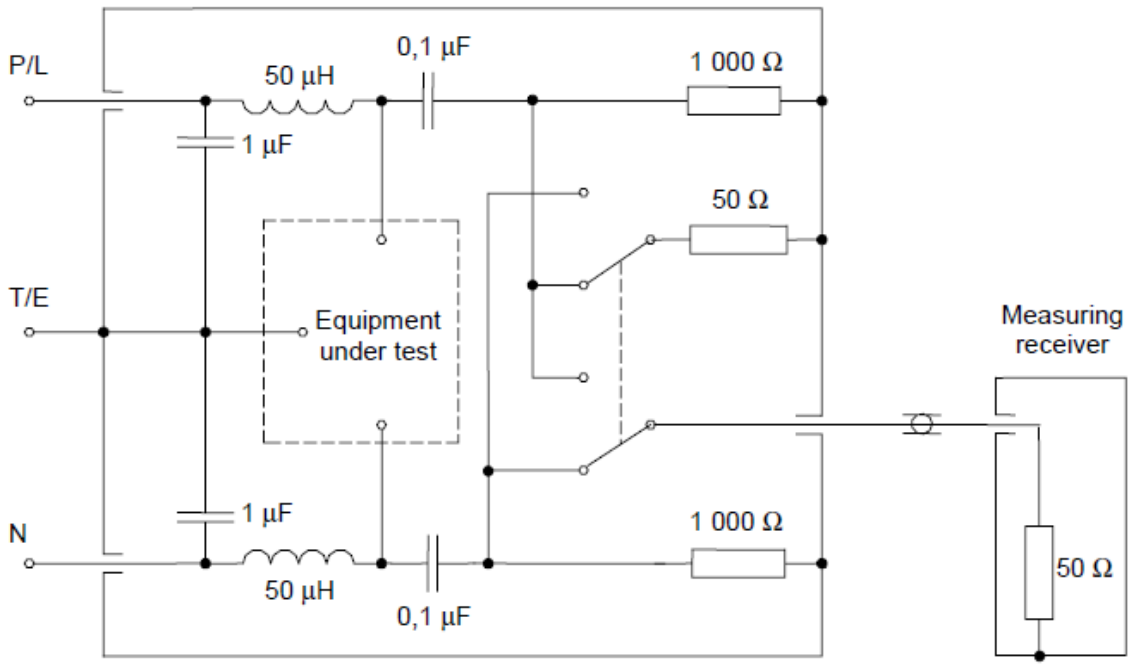
c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

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.



artificial mains 50 Ω/50 µH + 5 Ω V-network for use in the frequency range 10 kHz to 150 kHz



3.1.3EUT 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.

3.1.4TEST RESULTS

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

Note: Not applicable

3.2 RADIATED EMISSION MEASUREMENT

3.2.1 LIMITS OF THE RADIATED EMISSION MEASUREMENT

FREQUENCY (MHz)	dBuV/m
0.15-0.3(magnetic H field)	80 to 52
0.3-30(magnetic H field)	52 to 34
30-156	54
156-165	24
165-2000	54

Notes:

(1) The limit for radiated test was performed in the following: EN 60945

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

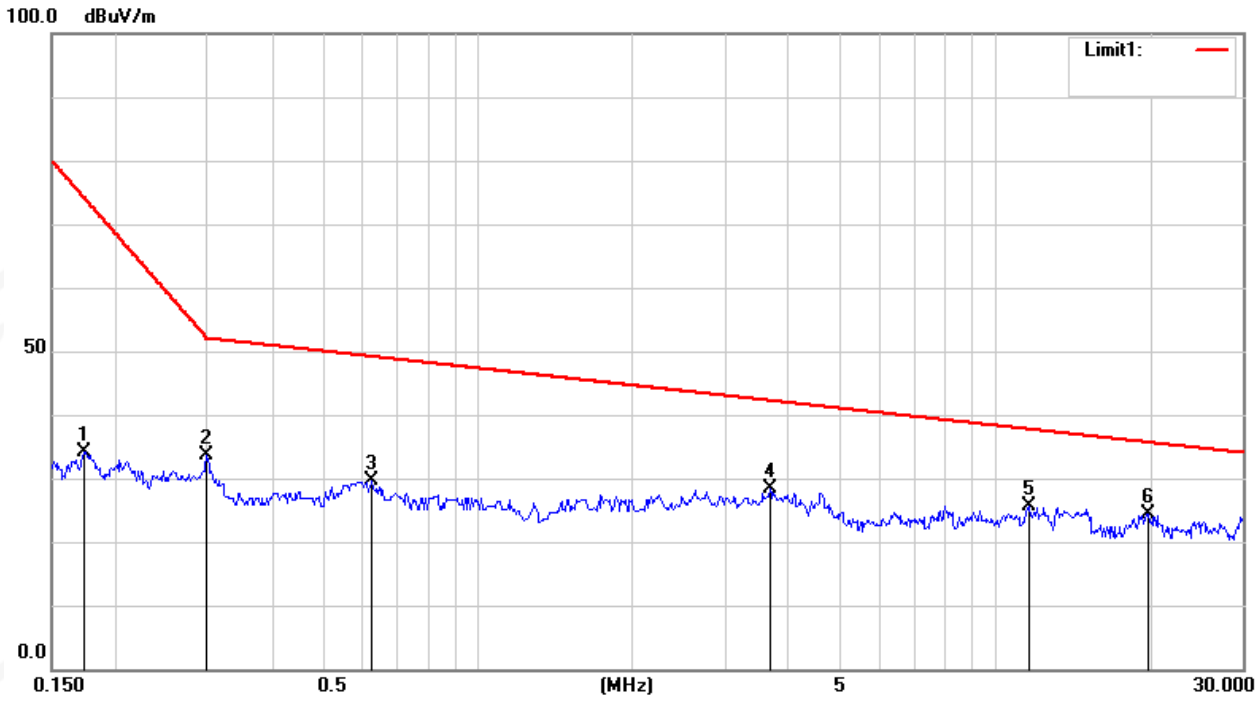
(3) Emission level (dBuV/m)=20log Emission level (uV/m).

3.2.2 TEST PROCEDURE

a. The quasi-peak measuring receivers specified in CISPR 16-1 shall be used. The receiver bandwidth in the frequency ranges 150 kHz to 30 MHz shall be 9 kHz and in the frequency ranges 30 MHz to 2 GHz shall be 120 kHz.
For frequencies from 150 kHz to 30 MHz measurements shall be made of the magnetic H field. The measuring antenna shall be an electrically screened loop antenna of dimension so that the antenna can be completely enclosed by a square having sides of 60 cm in length, or an appropriate ferrite rod as described in CISPR 16-1.
The correction factor for the antenna shall include the factor +51,5 dB to convert the magnetic field strength to equivalent electric field strength.
For frequencies above 30 MHz measurements shall be made of the electric E field. The measuring antenna shall be a balanced dipole of resonant length, or alternate shortened dipole or higher gain antenna as described in CISPR 16-1. The dimension of the measuring antenna in the direction of the EUT shall not exceed 20 % of its distance from the EUT. At frequencies above 80 MHz it shall be possible to vary the height of the cent red of the measuring antenna above the ground over a range of 1 m to 4 m.
The test site shall be compliant with CISPR 16-1, using a metal ground plane and of dimensions to allow a measurement distance of 3 m.
The EUT shall be fully assembled, complete with its associated interconnecting cables and mounted in its normal plane of operation
When the EUT consists of more than one unit, the interconnecting cables (other than antenna feeders) between the main unit and all other units shall be the maximum length as specified by the manufacturer or 20 m whichever is shorter. Available input and output ports shall be connected to the maximum length of cable as specified by the manufacturer or 20 m whichever is shorter, and terminated to simulate the impedance of the ancillary equipment to which they are normally connected.
The excess length of these cables shall be bundled at the approximate cent red of the cable with bundles 30 cm to 40 cm in length running in the horizontal plane from the port to which they are connected. If it is impractical to do so because of cable bulk or stiffness, the disposition of the excess cable shall be as close as possible to that required, and shall be precisely described in the test report.
The test antenna shall be placed at a distance of 3 m from the EUT. The cent red of the antenna shall be at least 1,5 m above the ground plane. The E-field antenna only shall be adjusted in height and rotated to give horizontal and vertical polarization, one being parallel to the ground, in order to determine the maximum emission level. Finally the antenna shall either be moved around the EUT, again in order to determine the maximum emission level, or alternatively, the EUT may be placed on a plane orthogonal to the test antenna at its mid-point and rotated to achieve the same effect.
b. The test antenna shall be placed at a distance of 3 m from the EUT. The cent red of the antenna shall be at least 1,5 m above the ground plane. The E-field antenna only shall be adjusted in height and rotated to give horizontal and vertical polarization, one being parallel to the ground, in order to determine the maximum emission level. Finally the antenna shall either be moved around the EUT, again in order to determine the maximum emission level, or alternatively, the EUT may be placed on a plane orthogonal to the test antenna at its mid-point and rotated to achieve the same effect.
c. Alternatively, for the frequency band 156 MHz to165 MHz, a peak receiver or a frequency analyzer may be used, in accordance with the agreement between the manufacturer and the test house.

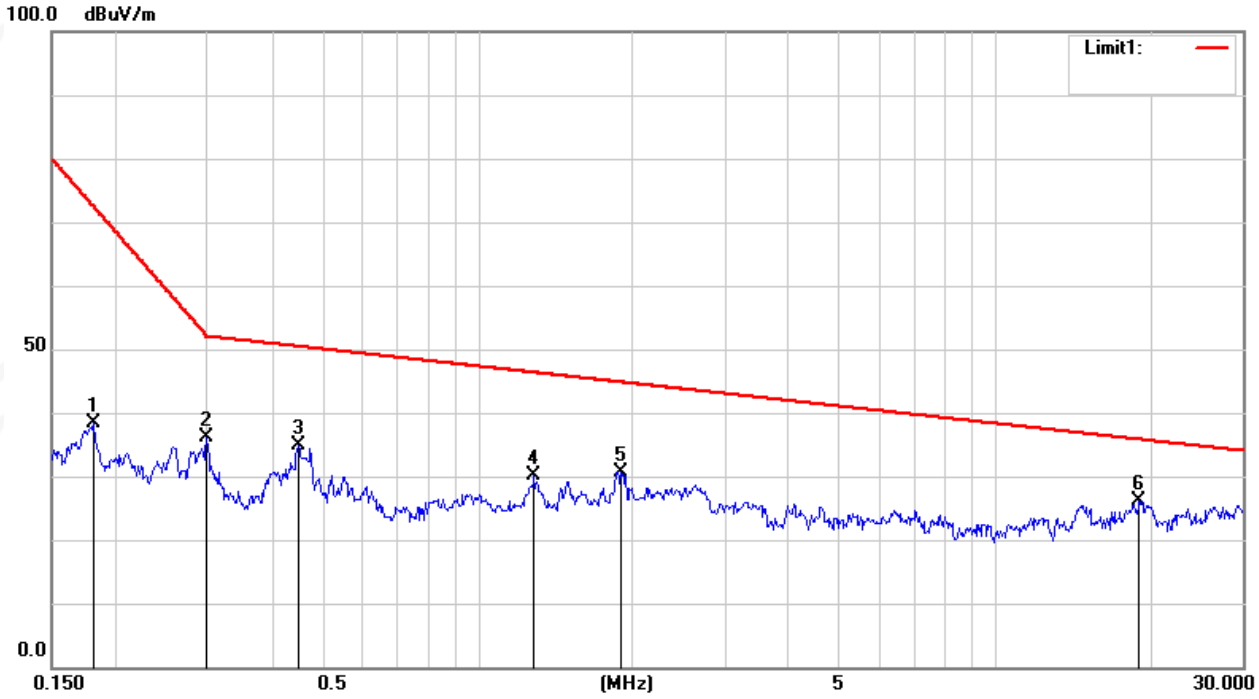
3.2.3 TEST RESULTS (150KHz-30MHz)

Temperature:	23.3℃	Relative Humidity:	51%
Phase:	Horizontal	Test Mode:	Mode 1
Test Voltage:	DC 3V from battery	Test Date:	2026.04.24



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.1731	16.13	18.10	34.23	74.21	-39.98	QP
2	0.2993	13.40	20.12	33.52	52.09	-18.57	QP
3	0.6238	9.36	20.25	29.61	49.14	-19.53	QP
4	3.6722	7.96	20.30	28.26	42.21	-13.95	QP
5	11.5823	5.01	20.55	25.56	37.72	-12.16	QP
6	19.8211	1.90	22.46	24.36	35.62	-11.26	QP

Temperature:	23.3℃	Relative Humidity:	51%
Phase:	Vertical	Test Mode:	Mode 1
Test Voltage:	DC 3V from battery	Test Date:	2026.04.24

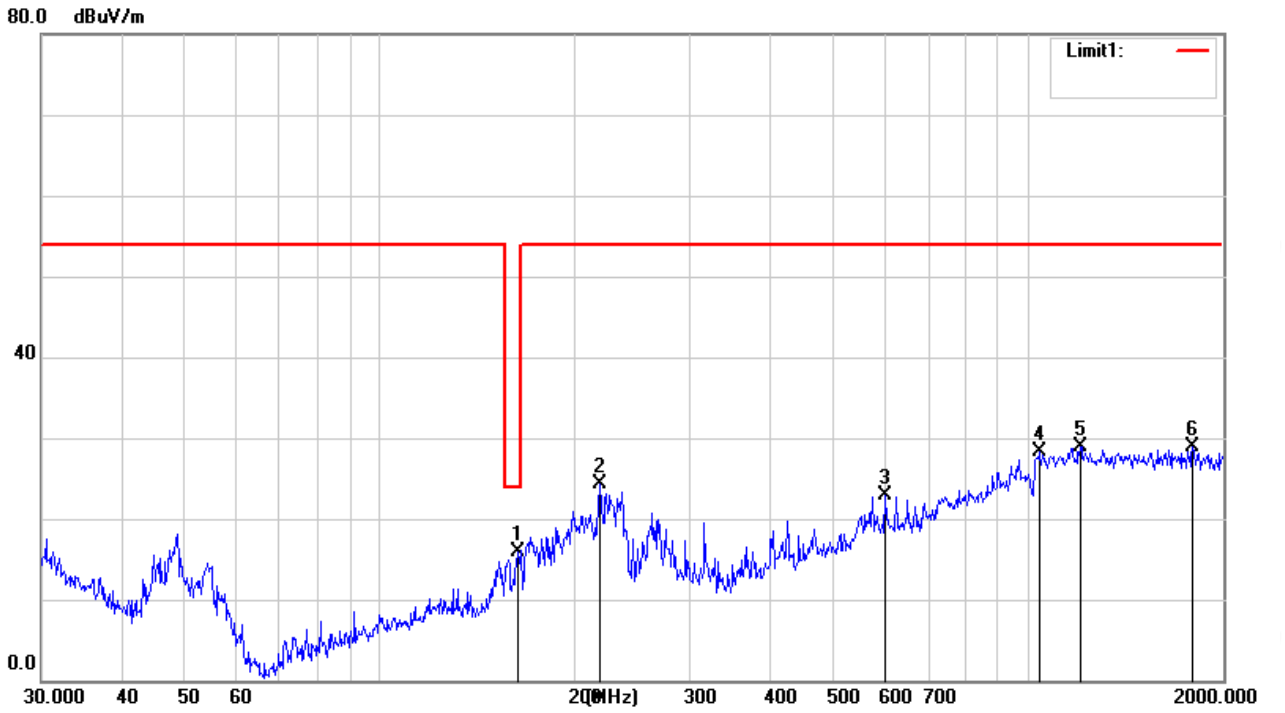


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.1806	20.14	18.30	38.44	72.50	-34.06	QP
2	0.2993	15.90	20.12	36.02	52.09	-16.07	QP
3	0.4490	14.63	20.18	34.81	50.42	-15.61	QP
4	1.2842	9.98	20.26	30.24	46.32	-16.08	QP
5	1.8874	10.35	20.38	30.73	44.81	-14.08	QP
6	18.9555	3.96	22.25	26.21	35.79	-9.58	QP

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

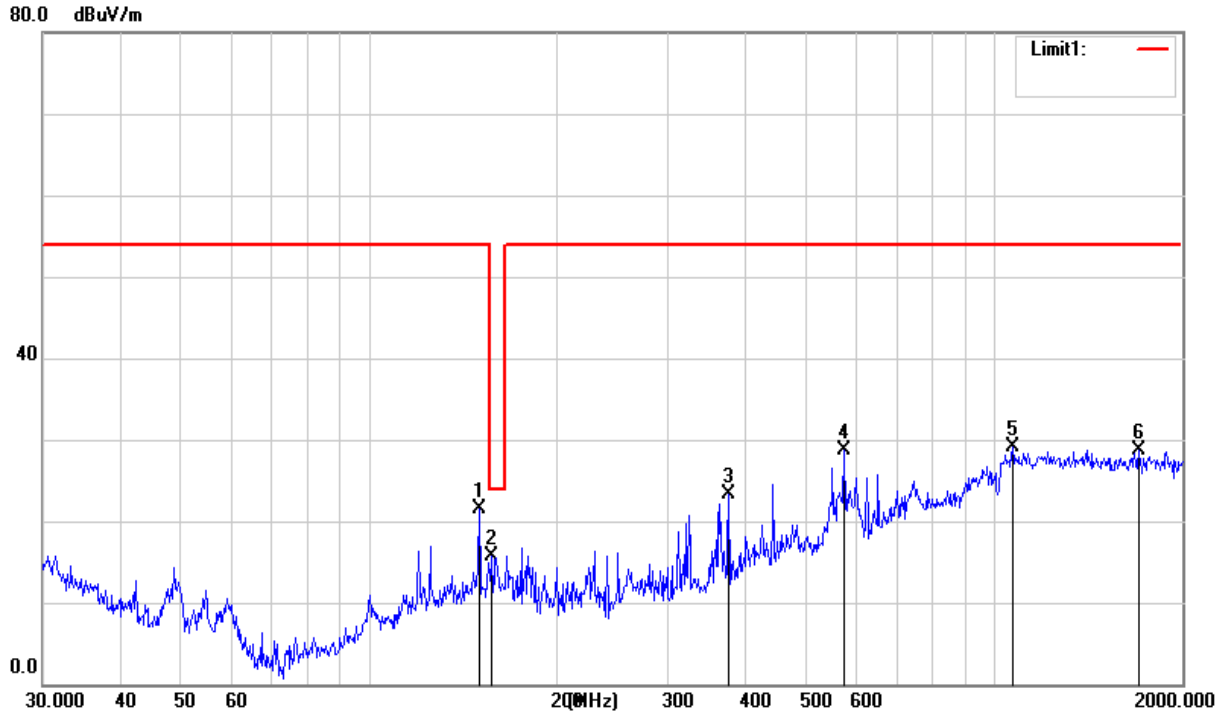
3.2.3 TEST RESULTS (30MHz-2000MHz)

Temperature:	23.3℃	Relative Humidity:	51%
Phase:	Horizontal	Test Mode:	Mode 1
Test Voltage:	DC 3V from battery	Test Date:	2026.04.24



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	162.9883	34.89	-19.04	15.85	24.00	-8.15	QP
2	218.6904	44.21	-19.85	24.36	54.00	-29.64	QP
3	601.7165	31.45	-8.58	22.87	54.00	-31.13	QP
4	1043.096	30.42	-2.08	28.34	54.00	-25.66	QP
5	1203.198	30.88	-1.98	28.90	54.00	-25.10	QP
6	1793.116	30.68	-1.79	28.89	54.00	-25.11	QP

Temperature:	23.3℃	Relative Humidity:	51%
Phase:	Vertical	Test Mode:	Mode 1
Test Voltage:	DC 3V from battery	Test Date:	2026.04.24



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	149.8574	39.59	-18.09	21.50	54.00	-32.50	QP
2	156.9428	34.17	-18.49	15.68	24.00	-8.32	QP
3	375.9363	37.81	-14.54	23.27	54.00	-30.73	QP
4	574.5516	37.28	-8.63	28.65	54.00	-25.35	QP
5	1069.714	31.36	-2.16	29.20	54.00	-24.80	QP
6	1704.988	30.55	-1.81	28.74	54.00	-25.26	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 GENERAL PERFORMANCE CRITERIA

4.1.1 PERFORMANCE CRITERIA

Criteria	During the test
A	the EUT shall continue to operate as intended during and after the test. No degradation of performance or loss of function is allowed, as defined in the relevant equipment standard and in the technical specification published by the manufacturer;
B	the EUT shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed, as defined in the relevant equipment standard and in the technical specification published by the manufacturer. During the test, degradation or loss of function or performance which is self-recoverable is however, allowed, but no change of actual operating state or stored data is allowed.
C	temporary degradation or loss of function or performance is allowed during the test, provided the function is self-recoverable, or can be restored at the end of the test by the operation of the controls, as defined in the relevant equipment standard and in the technical specification published by the manufacturer.

NOTE 1: Degradation of performance during the test is understood as a degradation to a level not below a minimum performance level specified by the manufacturer for the use of the apparatus as intended. In some cases the specified minimum performance level may be replaced by a permissible degradation of performance. If the minimum performance level or the permissible performance degradation is not specified by the manufacturer then either of these may be derived from the product description and documentation (including leaflets and advertising) and what the user may reasonably expect from the apparatus if used as intended.

NOTE 2: no degradation of performance after the test is understood as any degradation below a minimum performance level specified by the manufacturer for the use of the apparatus as intended. In some cases the specified minimum performance level may be replaced by a permissible degradation of performance. After the test no change of actual operating data or user retrievable data is allowed. If the minimum performance level or the permissible performance degradation is not specified by the manufacturer then either of these may be derived from the product description and documentation (including leaflets and advertising) and what the user may reasonably expect from the apparatus if used as intended.

4.1.2 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 following during the testing.

4.2 ELECTROSTATIC DISCHARGE (10.9)

4.2.1 TEST SPECIFICATION

Basic Standard:	IEC/EN 61000-4-2
Discharge Impedance:	330 ohm / 150 pF
Required Performance:	B
Discharge Voltage:	Air Discharge：2KV/4KV/8KV (Direct) Contact Discharge：2KV/4KV/6KV (Direct/Indirect)
Polarity:	Positive & Negative
Number of Discharge:	Air Discharge: min. 20 times at each test point Contact Discharge: min. 200 times in total
Discharge Mode:	AC Discharge
Discharge Period:	1 second minimum

4.2.2 TEST PROCEDURE

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

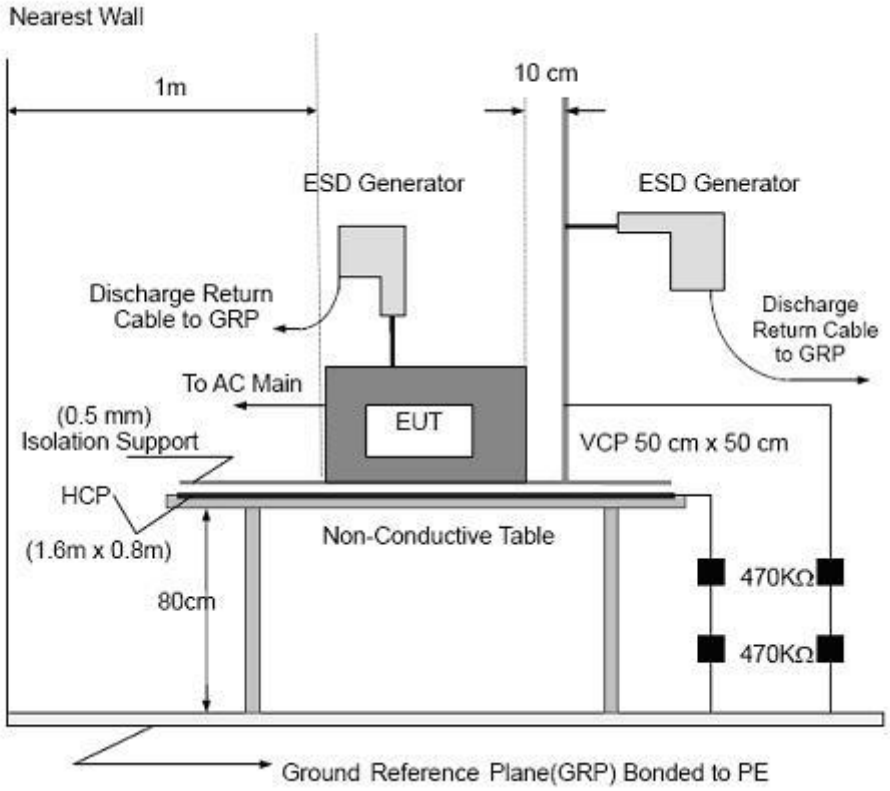
a. The EUT shall be placed on, but insulated from, a metal ground plane which projects at least 0,5 m beyond the EUT on all sides (figures 11 and 12). Discharges from the generator shall be applied to those points and surfaces that are accessible to personnel during normal usage.

b. The ESD generator shall be held perpendicular to the surface, and the positions at which discharges can be applied selected by an exploration with 20 discharges per second. Each position shall then be tested with 10 discharges positive and negative with intervals of at least 1 s between discharges to allow for any mis-operation of the EUT to be observed. Contact discharge is the preferred method; but air discharge shall be used where contact discharge cannot be applied, such as on painted surfaces declared by the manufacturer to be insulating.

c. In order to simulate discharges on objects placed or installed near to the EUT, 10 single contact discharges, positive and negative, shall be applied to the ground plane at positions on each side of and 0.1 m from, the EUT. A further 10 discharges shall be applied to the cent red of one edge of a vertical coupling plane (VCP), with this plane in enough different positions so that the four faces of the EUT are completely illuminated

d. The test levels shall be 6 kV contact discharge and 8 kV air discharge.

4.2.3 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 IEC /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 IEC/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.

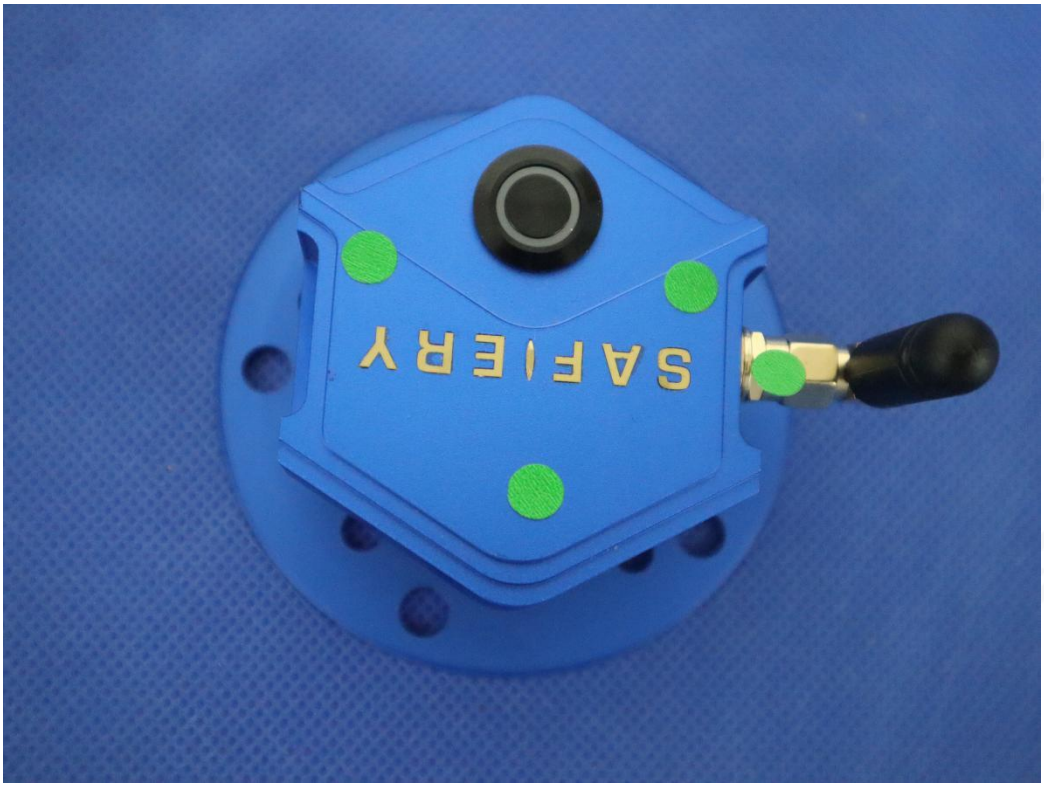
4.2.4 TEST RESULTS

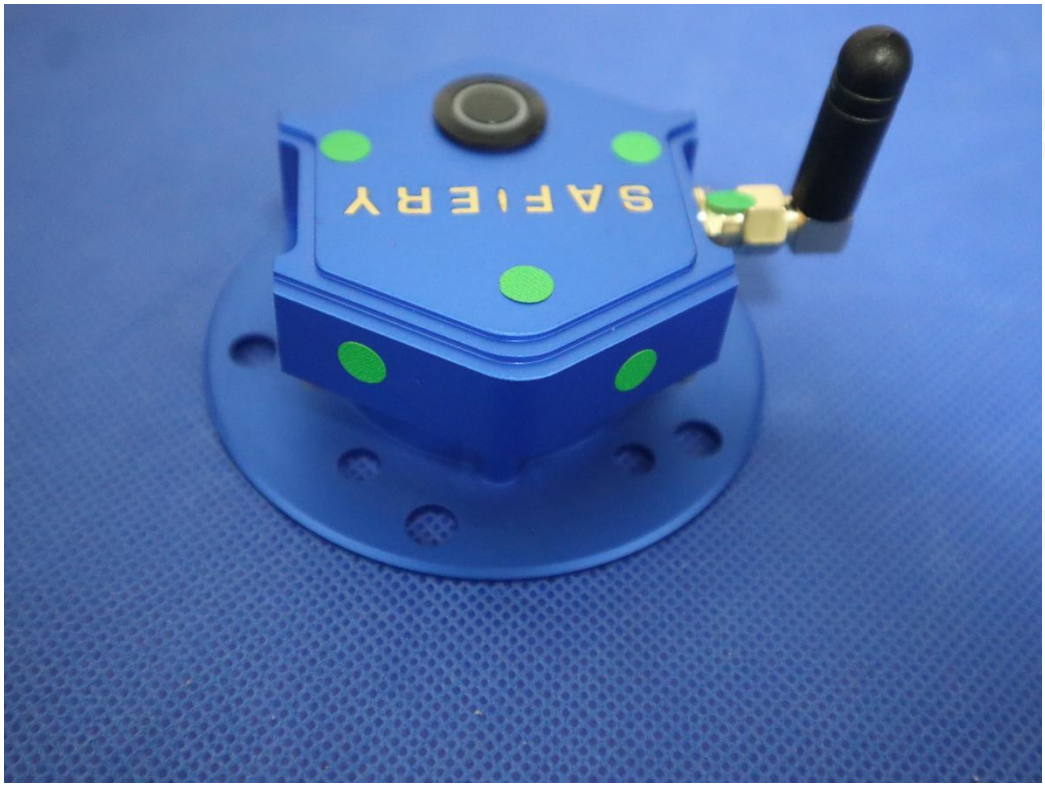
Temperature:	24.6℃	Relative Humidity:	53%
Test Date:	2026.04.27	Test Mode:	Mode 1
Test Voltage:	DC 3V from battery		

Discharge Level	Polarity	Test Points	Contact Discharge	Air Discharge	Criterion	Test Result
6	+/-	VCP/HCP	Note	N/A	B	A
6	+/-	Green Dot	Note	N/A	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






SAFIERY
StarTank 94:BF:DC
OTA

4.3 RADIATED DISTURBANCE (10.4)

4.3.1 TEST SPECIFICATION

Basic Standard:	IEC/EN 61000-4-3
Required Performance:	A
Frequency Range:	80 MHz-2000 MHz,
Field Strength:	10 V/m
Modulation:	400Hz Sine Wave, 80%, AM Modulation
Frequency Step:	1.5×10^{-3} decades/s for the frequency range 80 MHz to 1 GHz and 0.5×10^{-3} decades/s for the frequency range 1 GHz to 2 GHz
Polarity of Antenna:	Horizontal and Vertical
Test Distance:	3 m
Antenna Height:	1.5 m

4.3.2 TEST PROCEDURE

The EUT and support equipment, which are placed on a table that is 0.8 meter above ground and the testing was performed in a fully-anechoic chamber.
The testing distance from antenna to the EUT was 1 meters.
The other condition need as following manners:

a) The field strength level was 10V/m.

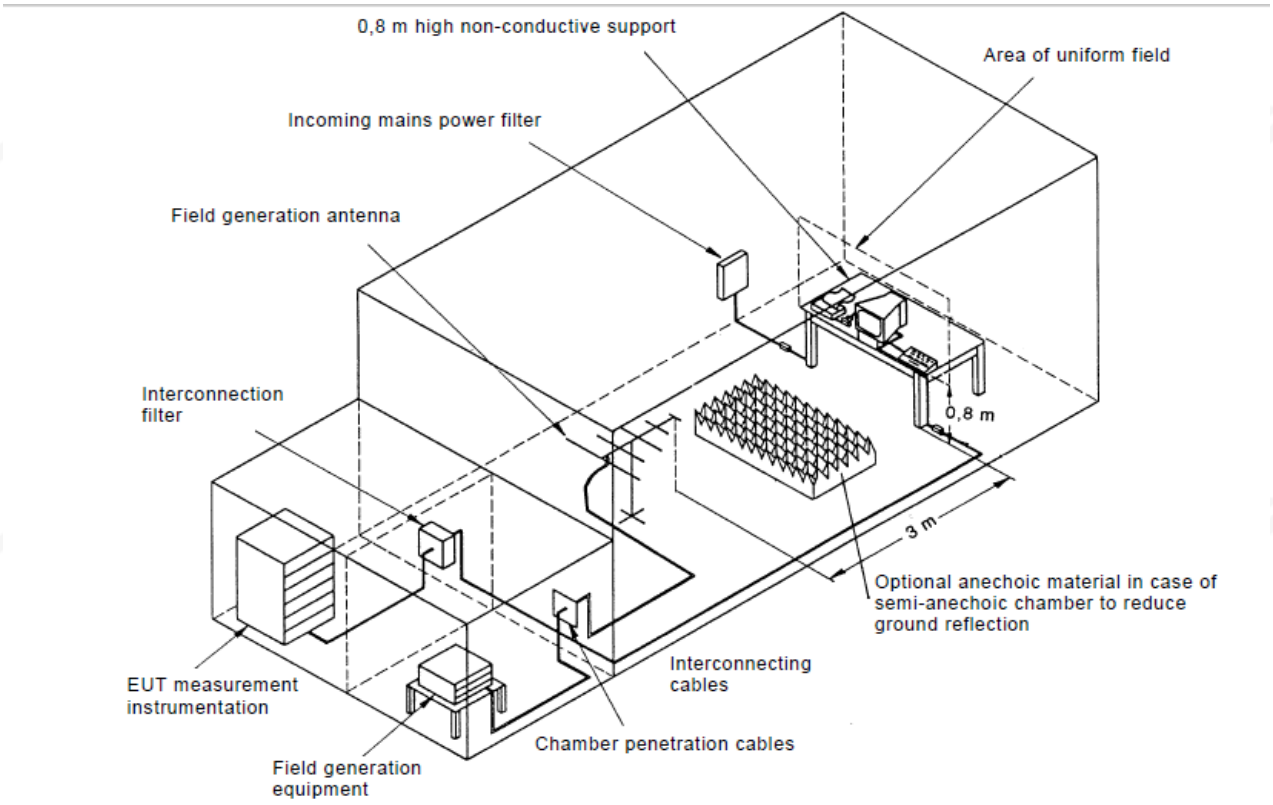
b) The frequency range shall be swept at a rate in the order of 1.5×10^{-3} decades/s for the frequency range 80 MHz to 1 GHz and 0.5×10^{-3} decades/s for the frequency range 1 GHz to 2 GHz, and shall be slow enough to allow the detection of any malfunction of the EUT. Any sensitive frequencies or frequencies of dominant interest shall be discretely analyzed.

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

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

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

4.3.3 TEST SETUP



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.

4.3.4 TEST RESULTS

Temperature:	24.6℃	Relative Humidity:	53%
Test Date:	2026.04.27	Test Mode:	Mode 1
Test Voltage:	DC 3V from battery		

Frequency Range (MHz)	RF Field Position	R.F. Field Strength	Azimuth	Observation	Perform. Criteria	Results	Judgement
80MHz -2000MHz	H / V	10 V/m (rms) AM Modulated 1000Hz, 80%	Front	CT,CR	A	A	PASS
			Rear				
			Left				
			Right				

Note:

1) P/N denotes the Positive/Negative polarity of the output voltage.

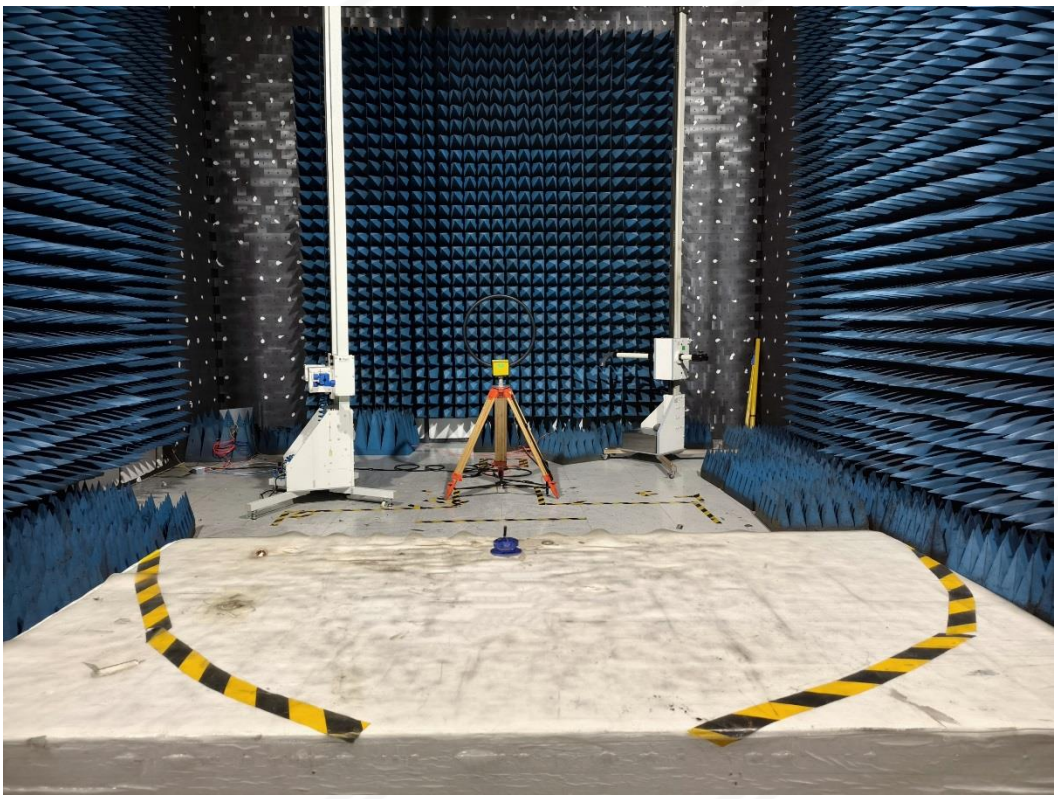
2) N/A - denotes test is not applicable in this test report.

3) There was no change operated with initial operating during the test.

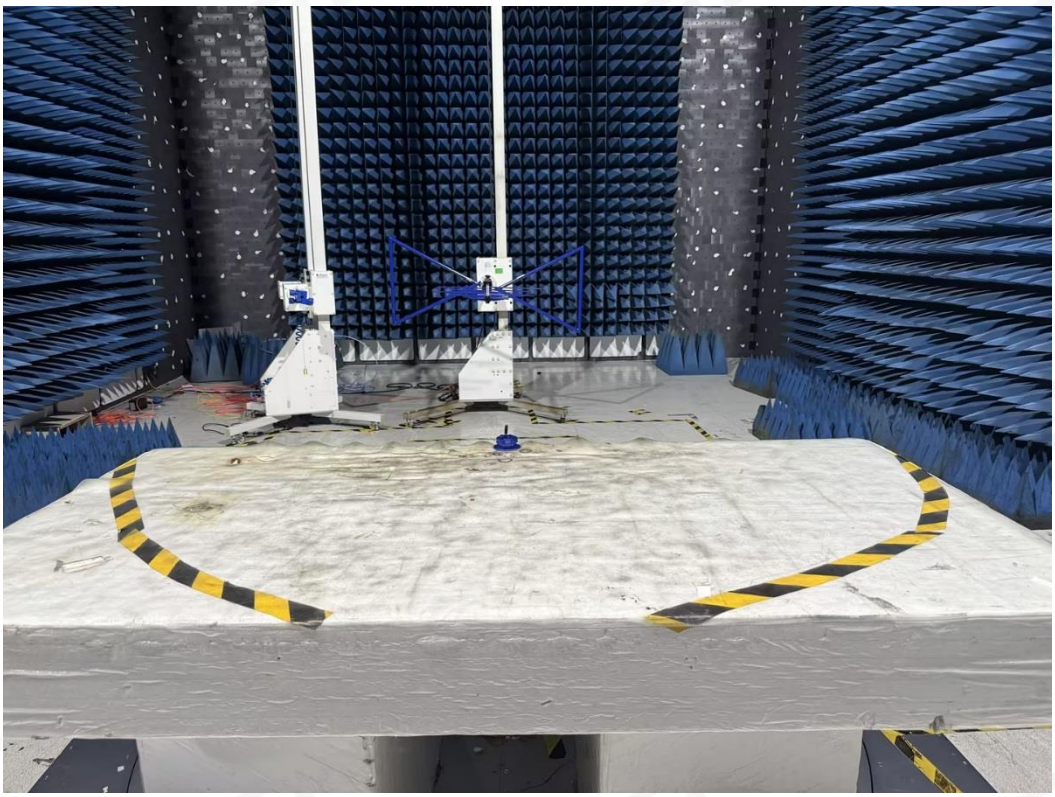
4) There was not any unintentional transmission in standby mode

APPENDIX 1-PHOTO TEST OF EUT

RE (0.15 - 30 MHz)

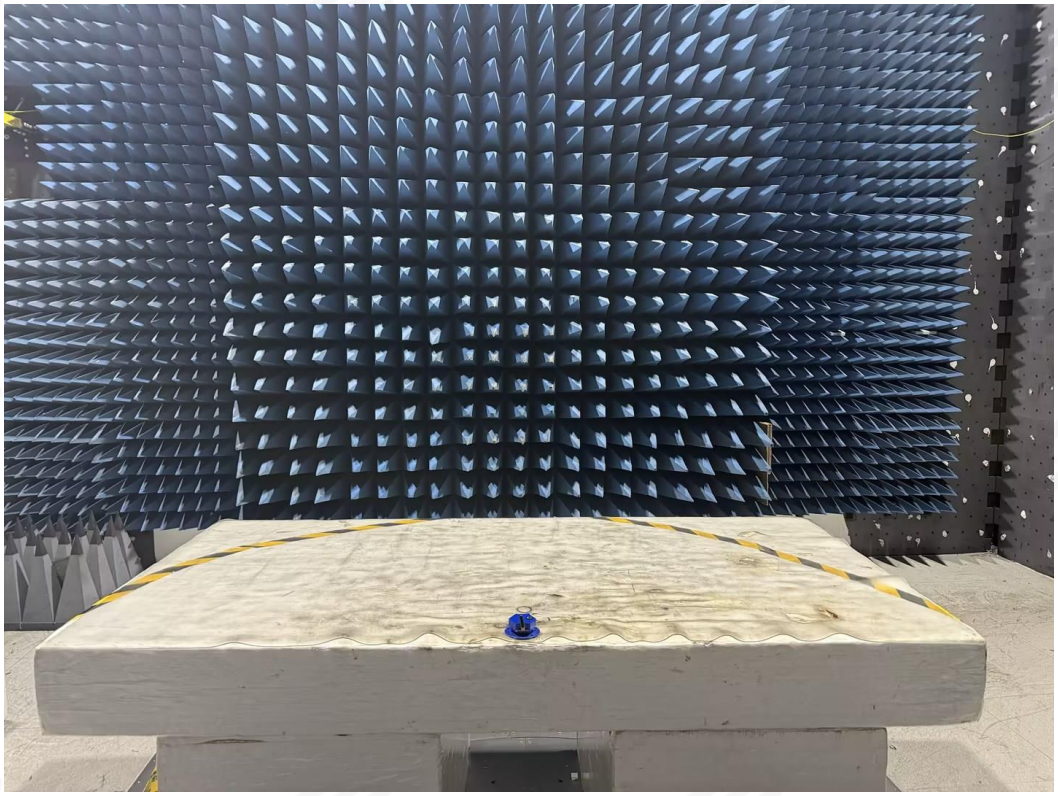


RE (30 - 1000 MHz)



ESD

RS (80 - 2000 MHz)



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