



EMC REPORT

Product Type: Electric Sprayer

Test Model: D-20L-01

Model No.:

D-8L,D-12L,D-16L,D-20L,DJQ-2L,D-15L-16,D-15L-16A,D-18L-01,
D-18L-03D,D-16L-11,D-16L-11A,D-20L-11,D-20L-11A,D-20L-11D,
D-20L-11DA,D-16L-01,D-16L-01A,D-20L-01,D-20L-01A,D-22L-01,
D-16L-19,D-16L-19A,D-16L-03,D-18L-03,D-16L-03D,D-18L-03D,
D-16L-07,D-20L-07,D-16L-02,D-16L-02A,DH-5L,DH-8L,DH-12L,
D-768-20L,D-768-25L,D-767-20L,D-767-25L,D-18L-08,D-18L-02,
D-20L-09,D-15L-04,DB-03,DB-04,DB-04D,SD-16L-02,SD-20L-02,
SD-16L-01,SD-20L-01,ED-20L-09,ED-20L-09B,ED-16L-07,ED-16L-07B,
ED-20L-07B,ED-10L-01B,DHE-20L-11,DHE-20L-11D,DHE-18L-05,
DHE-18L-05D,DHE-16L-04,DHE-16L-01B,DHE-20L-01B,DHE-16L-01D,
DHE-20L-01D,DHE-16L-02,DHE-18L-01,DHE-18L-08,DHE-16L-03B,
D-9030B,D-9030BW,D-9015A,D-9015AW,A3022-E,B1018-E,D-1250B,
D-1350B,D-1550A,D-1580A,D-15120A

Trademark: /

Applicant:

Zhejiang Sanqi Science And Technology Co.,Ltd
No.431-2 Kenao Village,Duqiao,Linhai,Taizhou City,Zhejiang Province,
China

Manufacturer:

Zhejiang Sanqi Science And Technology Co.,Ltd
No.431-2 Kenao Village,Duqiao,Linhai,Taizhou City,Zhejiang Province,
China

Factory:

Zhejiang Sanqi Science And Technology Co.,Ltd
No.431-2 Kenao Village,Duqiao,Linhai,Taizhou City,Zhejiang Province,
China

Report Number: OVIS202508147E

Testing Standard:

EN IEC 61000-6-3:2021, EN EN IEC 61000-6-1:2019,
EN IEC 61000-3-2:2019+A1:2021+A2:2024,
EN 61000-3-3:2013+A1:2019+A2:2021

Date of Test:

Aug. 20, 2025 to Sept. 09, 2025

Date of Report:

Sept. 10, 2025

Test Result:



Positive



Negative

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Revision Record			
Version	Description	Date	Remark
Ver.0.0	Original	Sept. 10, 2025	/

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Kim Luo

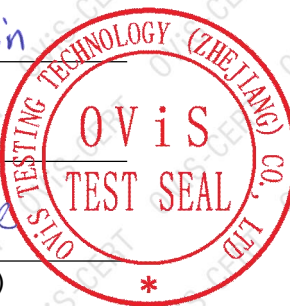
(Kim Luo)

Approved by

:

Thomas Nie

(Thomas Nie)





2 Test Summary

Emission Part				
Item	Standard	Method	Requirement	Result
Harmonics On Ac Mains	EN IEC 61000-3-2: 2019+A1:2021+A2:2024	EN IEC 61000-3-2	Class A	Pass
Voltage Changes, Voltage Fluctuations And Flicker On Ac Mains	EN 61000-3-3:2013 +A1:2019+A2:2021	EN 61000-3-3	Clause 5	Pass
Conducted Emissions at Mains Terminals (150kHz-30MHz)	EN IEC 61000-6-3:2021	CISPR 16-2-1	Table 3	Pass
Radiated Emissions (30MHz-1GHz)	EN IEC 61000-6-3:2021	CISPR 16-2-3	Table 4	Pass

Immunity Part				
Item	Standard	Method	Requirement	Result
Electrostatic Discharge	EN EN IEC 61000-6-1:2019	EN IEC 61000-4-2	4kV Contact Discharge 8kV Air Discharge	Pass
Electrical Fast Transients/Burst at Power Port	EN EN IEC 61000-6-1:2019	EN IEC 61000-4-4	1kV 5/50ns Tr/Td 5kHz Repetition Frequency	Pass
Surge at Power Port	EN EN IEC 61000-6-1:2019	EN IEC 61000-4-5	1.2/50us Tr/Td 1kV Line to Line 2kV Line to Ground	Pass
Voltage Dips and Interruptions	EN EN IEC 61000-6-1:2019	EN IEC 61000-4-11	For 50Hz 0 % UT for 0.5per 0 % UT for 1per 70 % UT for 25per 0 % UT for 250per	Pass
Conducted Immunity at Power Port (150kHz-80MHz)	EN EN IEC 61000-6-1:2019	EN IEC 61000-4-6	3Vrms (emf),80%,1kHz Amp. Mod.	Pass
Radiated Immunity (80MHz -6GHz)	EN EN IEC 61000-6-1:2019	EN IEC 61000-4-3	80MHz -1GHz 3V/m 1.4GHz -6GHz 3V/m 80%,1kHz	Pass
Power frequency magnetic field immunity	EN EN IEC 61000-6-1:2019	EN IEC 61000-4-8	N/A	N/A*

N/A: Not applicable

N/A*: Equipment without magnetic sensitive component

Declaration of EUT Family Grouping:

Note: There are series models mentioned in this report, and they are the similar in electrical and electronic characters. Only the model D-20L-01 was tested since their differences were the model number and appearance.



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4 General Information**4.1**

Details of E.U.T.

Power supply: 220-240V,50Hz

Test voltage: 230V,50Hz

Signal wire cable: N/A

Maximum Clock Frequency: <108MHz

4.2

Description of Support Units

The EUT has been tested as an independent unit

4.3

Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Conducted Emission at mains port using AMN	3.28 dB (150kHz to 30MHz)
2	Radiated Emission(H)	4.40 dB (30MHz-200MH)
		4.67 dB (200MHz-1000MH)
3	Radiated Emission(V)	4.52 dB (30MHz-200MH)
		4.56 dB (200MHz-1000MH)

Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

4.4

Test Location

All tests were performed at:

OVIS Testing Technology (Zhejiang) Co., Ltd.

Building 31, Feiyue Park, Xiachen Street, Jiaojiang District, Taizhou City, Zhejiang Province, China

Tel: 400-8008-959

4.5

Deviation from Standards

None

4.6

Abnormalities from Standard Conditions

None

4.7

Monitoring of EUT for All Immunity Test

Visual: Monitor the work status

5 Equipment List

Harmonics on AC Mains,Voltage changes, voltage fluctuations and flicker on AC mains					
Equipment	Manufacturer	Model No	Inventory No	Cal Date Cal	Due Date
Harmonics and Flicker Analyzer	EVERFINE	HFM-3000	OVIS-YQ151	2025-01-08	2026-01-07

Conducted Emissions at Mains Terminals (150kHz-30MHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date Cal	Due Date
EMI test receiver	Rohde&Schwarz	ESR3	OVIS-YQ132	2025-05-06	2026-05-05
Artificial mains network	AFJ	LT32C	OVIS-YQ133	2025-05-06	2026-05-05
Shielding Room	Everfine	SR-500	/	2022-08-24	2027-08-23

Radiated Emissions (30MHz-1GHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date Cal	Due Date
EMI test receiver	Rohde&Schwarz	ESR3	OVIS-YQ125	2025-05-06	2026-05-05
Controller	Maturo	XTJC-1	OVIS-YQ128	/	/
Receiving antenna	SCHWARZBECK	VULB9163	OVIS-YQ129	2025-05-06	2026-05-05
ANTENNA MAST	Maturo	XTJC-2	/	/	/
TURN DEVICE	Noyetec	XTJC-3	/	/	/
Pre-Amplifier	Noyetec	NYP A0930	OVIS-YQ131	2025-05-06	2026-05-05
Semi/Fully Anechoic	Noyetec	966	/	2022-08-24	2027-08-23

Electrostatic Discharge Test Setup					
Equipment	Manufacturer	Model No	Inventory No	Cal Date Cal	Due Date
ESD generator	Everfine	EMS61000-2A	OVIS-YQ124	2025-05-06	2026-05-05

Electrical Fast Transients/Burst at Power Port					
Equipment	Manufacturer	Model No	Inventory No	Cal Date Cal	Due Date
Burst generator	Everfine	EMS61000-4A	OVIS-YQ127	2025-05-06	2026-05-05
Coupling clamp	Everfine	EFTC-2	OVIS-YQ128	2025-05-06	2026-05-05

Surge at Power Port					
Equipment	Manufacturer	Model No	Inventory No	Cal Date Cal	Due Date
Lightning surge generator	Everfine	EMS61000-5A	OVIS-YQ125	2025-05-06	2026-05-05
Coupling / Decoupling Network (CDN)	Everfine	CDNI-3A	OVIS-YQ126	2025-05-06	2026-05-05

Conducted Immunity at Power Port (150kHz-230MHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date Cal	Due Date
Signal generator	Rigol	DSG821	OVIS-YQ134	2025-05-06	2026-05-05
Power Amplifier	Noyetec	NYP A 0123-100	OVIS-YQ135	2025-05-06	2026-05-05
6dB Attenuator	Noyetec	ATT01	OVIS-YQ136	2025-05-06	2026-05-05
Coupling and Decoupling Network (CDN)	SCHWARZBECK	CDN M2/M3PE	OVIS-YQ137	2025-05-06	2026-05-05
Impedance matching	Noyetec	SR100-6W	OVIS-YQ139	2025-05-06	2026-05-05

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converter					
Shielding Room	Everfine	SR-500	/	2022-08-24	2027-08-23
Coupling and Decoupling Network (CDN)	SCHWARZBECK	CDN M4PE	OVIS-YQ141	2025-05-06	2026-05-05

Voltage Dips and Interruptions

Equipment	Manufacturer	Model No	Inventory No	Cal Date Cal	Due Date
Three-phase cycle drop generator	Everfine	EMS61000-11 CA	OVIS-YQ129	2025-05-06	2026-05-05
Manual step transformer	Everfine	SG-15KVA	OVIS-YQ130	2025-05-06	2026-05-05

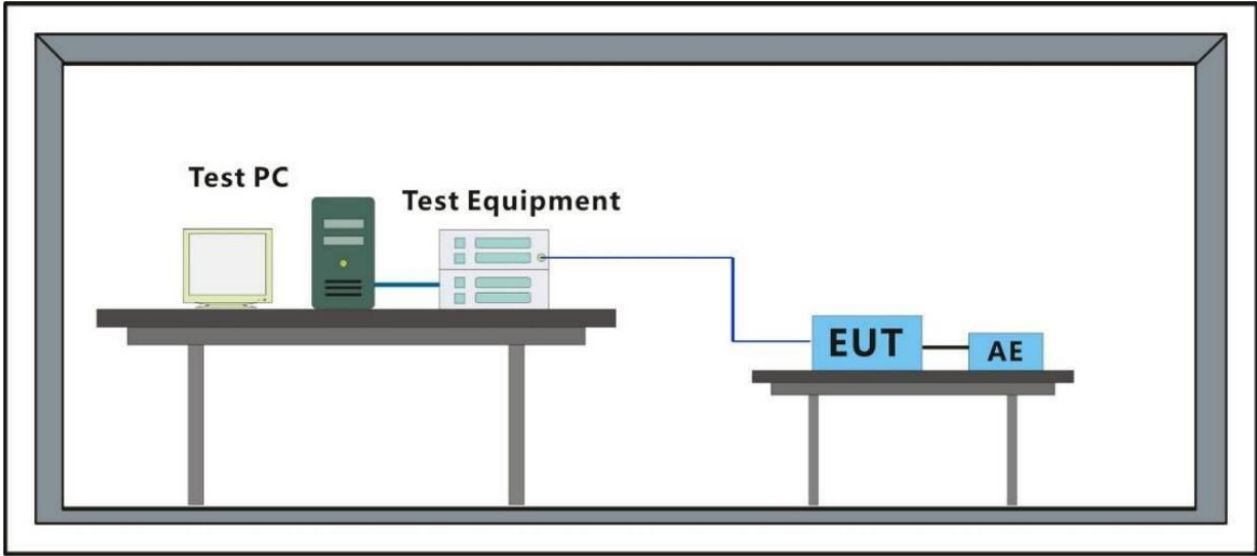
Radiated Immunity (80MHz-1GHz)

Equipment	Manufacturer	Model No	Inventory No	Cal Date Cal	Due Date
Signal generator	Rigol	DSG836	OVIS-YQ134	2025-05-06	2026-05-05
Antenna	SCHWARZBECK	VUSLP9111E	OVIS-YQ145	2025-05-06	2026-05-05
Amplifier	Noyetec	NYP A0810-200	OVIS-YQ144	2025-05-06	2026-05-05
Power meter sensor	Ceyear	87230	OVIS-YQ148	2025-05-06	2026-05-05
Power meter sensor	Ceyear	87230	OVIS-YQ149	2025-05-06	2026-05-05
Electro Magnetic Field Probe	Narda	EP601	OVIS-YQ149	2025-05-06	2026-05-05
Shielding Room	Everfine	SR-500	OVIS-YQ127	2022-08-24	2027-08-23

General used equipment

Equipment	Manufacturer	Model No	Inventory No	Cal Date Cal	Due Date
Digital pressure meter	YIOU	DPH-103	OVIS-YQ073	2025-05-06	2026-05-05
Temperature& humidity recorder	Dongguan Jinghe Electronic Technology Co., Ltd	MC501	OVIS-YQ095	2025-05-06	2026-05-05

Software	Manufacturer	Software version
EZ-EMC	Farad Technology	Software version:EMEC-3A1+
ESD generator Software	Everfine	Software version:V1.0
Three-phase cycle drop generator Software	Everfine	Software version:V2.07
Lightning surge generator Software	Everfine	Software version:V2.07
Radiated Immunity	Noyetec	Software version:V1.0
EFT Software	Everfine	Software version:V2.07
Conducted Immunity Software	Noyetec	Software version:V4.0

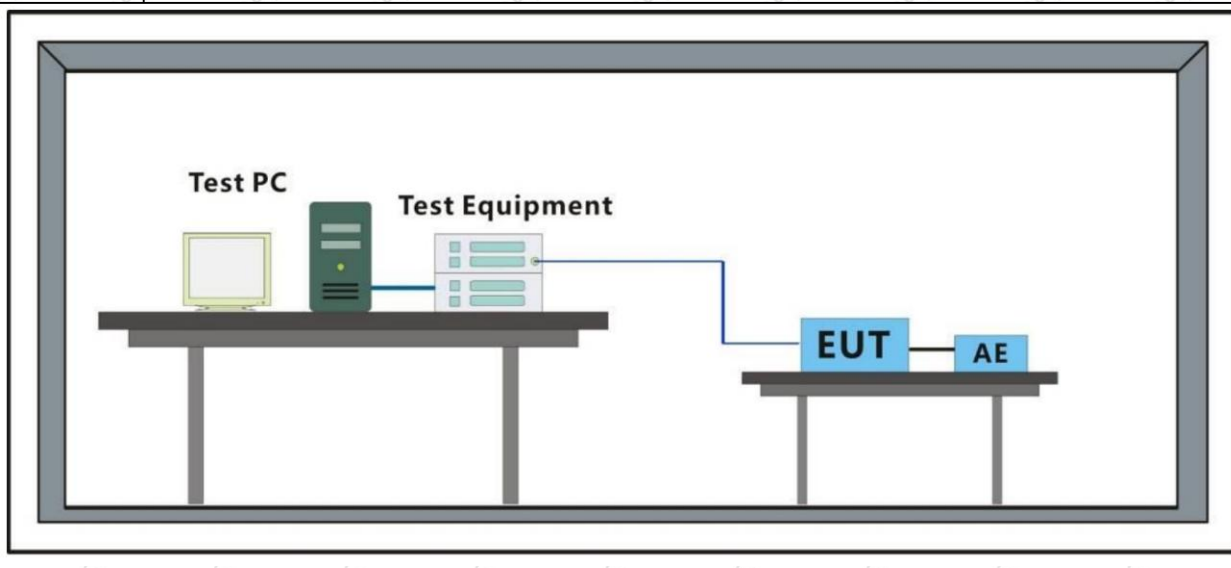
6	Emission Test Results
6.1	Harmonics on AC Mains
	Test Requirement: EN IEC 61000-3-2:2019+A1:2021+A2:2024
	Test duration:2.5min
	Harmonic order:2-40 th
	Frequency Range: 0-2 kHz
	Equipment category:Class A
6.1.1	E.U.T. Operation
	Operating Environment:
	Temperature: 23.7℃ Humidity: 58 % RH Atmospheric Pressure: 1020 mbar
	Test mode :Standby operation__keep EUT running continual.
6.1.2	Harmonic currents measurement result
6.1.3	Test Setup Diagram
	
6.1.4	Measurement Procedure and Data
	Frequency Range: 100Hz to 2kHz

Average harmonic current results							
Hn	I _{eff} [A]	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Result
2	0.0004	1.0800	N/A	0.0007	1.6200	N/A	Pass
3	0.1669	2.3000	7.26	0.2030	3.4500	5.88	Pass
4	0.0013	0.4300	N/A	0.0016	0.6450	N/A	Pass
5	0.1474	1.1400	12.93	0.1742	1.7100	10.19	Pass
6	0.0012	0.3000	N/A	0.0017	0.4500	N/A	Pass
7	0.1219	0.7700	15.83	0.1376	1.1550	11.91	Pass
8	0.0012	0.2300	N/A	0.0017	0.3450	N/A	Pass
9	0.0941	0.4000	23.53	0.1000	0.6000	16.67	Pass
10	0.0012	0.1840	N/A	0.0017	0.2760	N/A	Pass
11	0.0688	0.3300	20.85	0.0693	0.4950	14.00	Pass
12	0.0012	0.1533	N/A	0.0016	0.2300	N/A	Pass
13	0.0506	0.2100	24.10	0.0525	0.3150	16.67	Pass
14	0.0012	0.1314	N/A	0.0015	0.1971	N/A	Pass
15	0.0422	0.1500	28.13	0.0486	0.2250	21.60	Pass
16	0.0012	0.1150	N/A	0.0015	0.1725	N/A	Pass
17	0.0401	0.1324	30.29	0.0482	0.1985	24.28	Pass
18	0.0012	0.1022	N/A	0.0014	0.1533	N/A	Pass
19	0.0392	0.1184	33.11	0.0452	0.1776	25.45	Pass
20	0.0012	0.0920	N/A	0.0015	0.1380	N/A	Pass
21	0.0369	0.1071	34.45	0.0398	0.1607	24.77	Pass
22	0.0012	0.0836	N/A	0.0015	0.1255	N/A	Pass
23	0.0332	0.0978	33.95	0.0347	0.1467	23.65	Pass
24	0.0013	0.0767	N/A	0.0015	0.1150	N/A	Pass
25	0.0297	0.0900	33.00	0.0322	0.1350	23.85	Pass
26	0.0013	0.0708	N/A	0.0016	0.1062	N/A	Pass
27	0.0276	0.0833	33.13	0.0315	0.1250	25.20	Pass
28	0.0013	0.0657	N/A	0.0016	0.0986	N/A	Pass
29	0.0264	0.0776	34.02	0.0308	0.1164	26.46	Pass
30	0.0013	0.0613	N/A	0.0016	0.0920	N/A	Pass
31	0.0257	0.0726	35.40	0.0289	0.1089	26.54	Pass
32	0.0013	0.0575	N/A	0.0016	0.0863	N/A	Pass
33	0.0246	0.0682	36.07	0.0265	0.1023	25.90	Pass
34	0.0013	0.0541	N/A	0.0016	0.0812	N/A	Pass
35	0.0230	0.0643	35.77	0.0247	0.0964	25.62	Pass
36	0.0013	0.0511	N/A	0.0016	0.0767	N/A	Pass
37	0.0214	0.0608	35.20	0.0236	0.0912	25.88	Pass
38	0.0013	0.0484	N/A	0.0016	0.0726	N/A	Pass
39	0.0201	0.0577	34.84	0.0230	0.0865	26.59	Pass
40	0.0013	0.0460	N/A	0.0016	0.0690	N/A	Pass

N/A:Harmonic currents less than 0.6% of the input current measured under the test conditions, or less than 5 mA, whichever is greater, are disregarded.

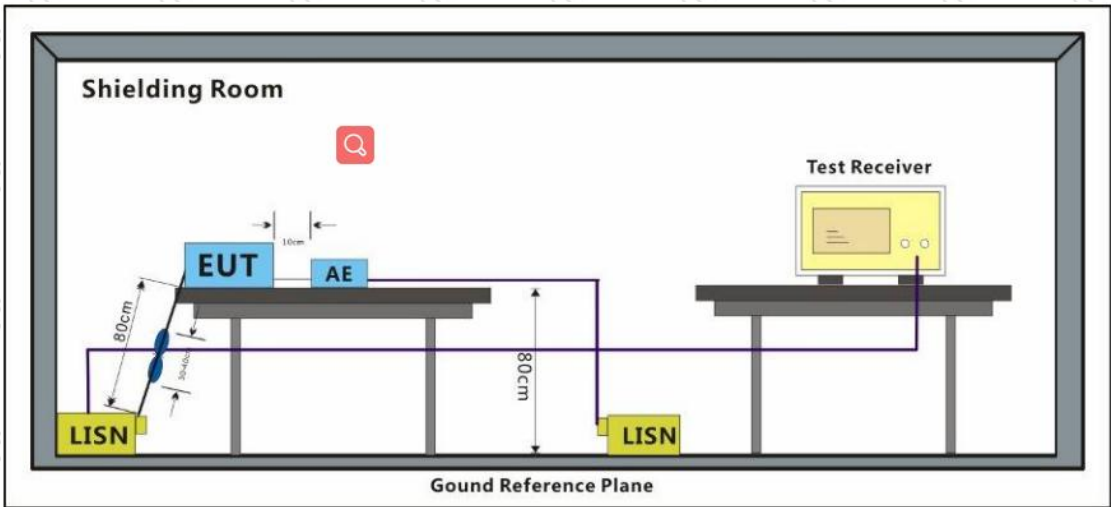
Maximum harmonic voltage results					
Hn	Ueff [V]	Ueff [%]	Limit [%]	Result	
2	0.01%	0.20	4.62%	PASS	
3	0.01%	0.90	0.91%	PASS	
4	0.00%	0.20	2.39%	PASS	
5	0.01%	0.40	1.58%	PASS	
6	0.00%	0.20	0.51%	PASS	
7	0.00%	0.30	0.46%	PASS	
8	0.00%	0.20	1.38%	PASS	
9	0.01%	0.20	5.06%	PASS	
10	0.00%	0.20	2.02%	PASS	
11	0.00%	0.10	4.21%	PASS	
12	0.00%	0.10	3.99%	PASS	
13	0.01%	0.10	5.62%	PASS	
14	0.00%	0.10	2.20%	PASS	
15	0.01%	0.10	7.46%	PASS	
16	0.00%	0.10	1.41%	PASS	
17	0.00%	0.10	3.95%	PASS	
18	0.00%	0.10	0.94%	PASS	
19	0.01%	0.10	5.38%	PASS	
20	0.00%	0.10	1.03%	PASS	
21	0.01%	0.10	11.26%	PASS	
22	0.00%	0.10	0.96%	PASS	
23	0.01%	0.10	9.05%	PASS	
24	0.00%	0.10	1.06%	PASS	
25	0.01%	0.10	8.76%	PASS	
26	0.00%	0.10	0.97%	PASS	
27	0.01%	0.10	11.27%	PASS	
28	0.00%	0.10	0.93%	PASS	
29	0.01%	0.10	8.77%	PASS	
30	0.00%	0.10	1.02%	PASS	
31	0.01%	0.10	8.35%	PASS	
32	0.00%	0.10	0.94%	PASS	
33	0.01%	0.10	10.02%	PASS	
34	0.00%	0.10	1.10%	PASS	
35	0.01%	0.10	6.68%	PASS	
36	0.00%	0.10	1.07%	PASS	
37	0.01%	0.10	7.87%	PASS	
38	0.00%	0.10	1.06%	PASS	
39	0.01%	0.10	8.89%	PASS	
40	0.00%	0.10	1.09%	PASS	

6.2	Voltage changes, voltage fluctuations and flicker on AC mains
	Test Requirement:EN 61000-3-3:2013+A1:2019+A2:2021 Test Method:EN 61000-3-3
6.2.1	E.U.T. Operation
	Operating Environment:
	Temperature: 20.5℃ Humidity: 58 % RH Atmospheric Pressure: 1020 mbar
	Test mode :Standby operation__keep EUT running continual.
6.2.2	Following are the measurement results obtained via an automatic testing system
6.2.3	Test Setup Diagram

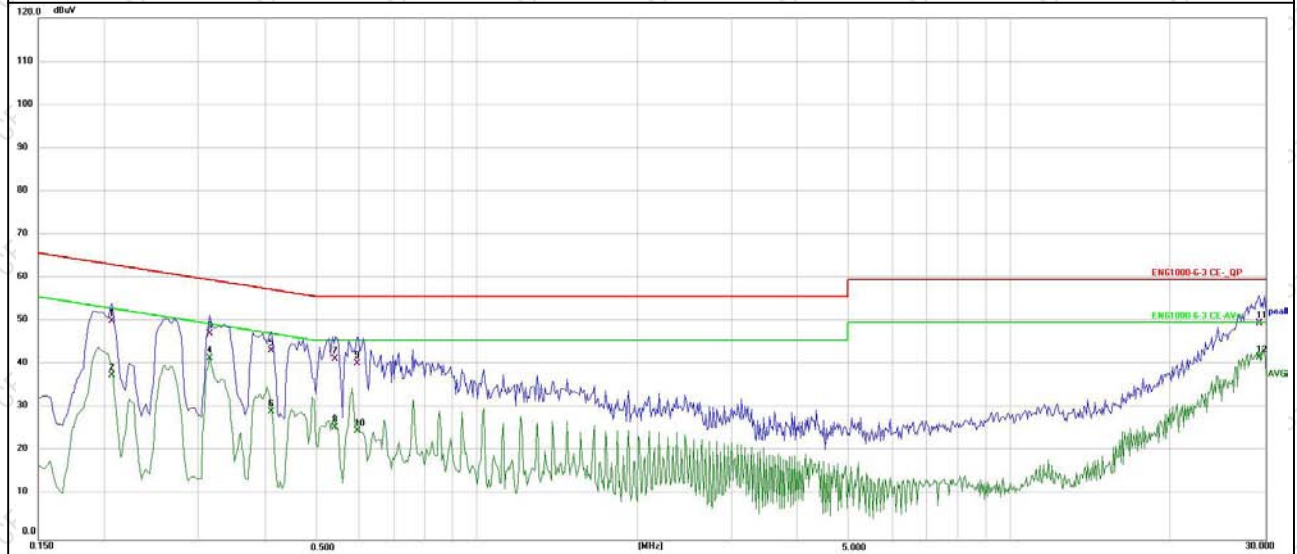


6.2.4 Measurement Procedure and Data Maximum Flicker results

	EUT values	Limit
Tmax [s]	0.00	0.50
dmax [%]	0.00	4.00
dc [%]	0.00	3.30
Pst	0.025	1.000

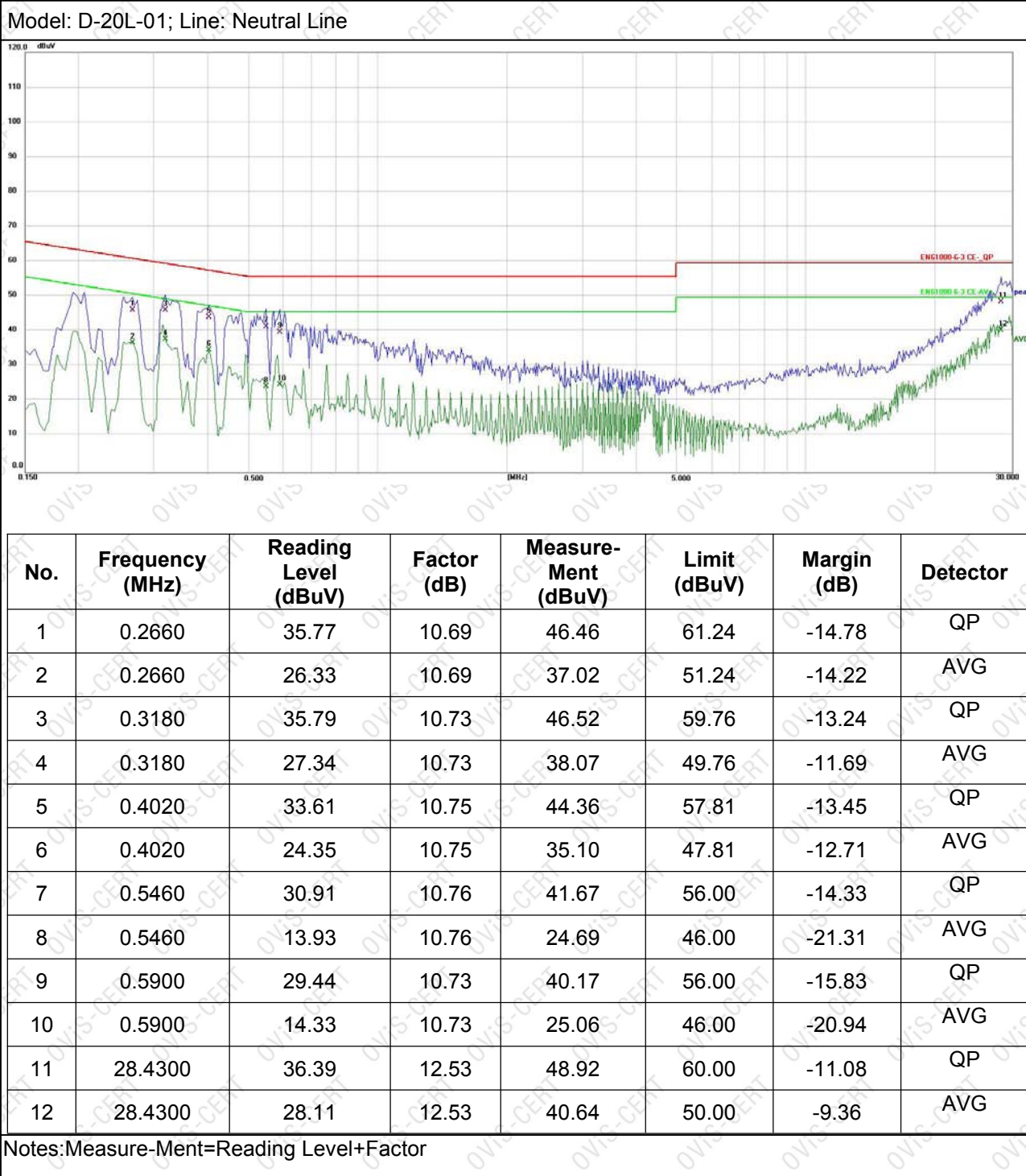
6.3	Conducted Emissions at Mains Terminals (150kHz-30MHz)
	Test Requirement: EN IEC 61000-6-3:2021
	Test Method: CISPR 16-2-1
	Frequency Range: 150kHz to 30MHz
	Limit: 0.15M-0.5MHz 66dB(μV)-56dB(μV) quasi-peak, 56dB(μV)-46dB(μV) average 0.5M-5MHz 56dB(μV) quasi-peak, 46dB(μV) average 5M-30MHz 60dB(μV) quasi-peak, 50dB(μV) average
	Detector: Peak for pre-scan (9kHz resolution bandwidth) 0. 15MHz to 30MHz
6.3.1	E.U.T. Operation
	Operating Environment:
	Temperature: 23.5℃ Humidity: 58 % RH Atmospheric Pressure: 1020 mbar
	Test mode :Standby operation__keep EUT running continual.
6.3.2	Test Setup Diagram
	 The diagram illustrates the test setup within a Shielding Room. An EUT (Equipment Under Test) is placed on a table, with an AE (Antenna) positioned 10cm above it. A LISN (Line Impedance Stabilization Network) is connected to the EUT and the ground reference plane. The Test Receiver is connected to the LISN and the ground reference plane. The ground reference plane is at a height of 80cm. The LISN is also connected to the ground reference plane. The diagram shows the EUT, AE, LISN, and Test Receiver connected to the ground reference plane.
6.3.3	Measurement Data
	An initial pre-scan was performed with peak detector.Quasi-Peak or Average measurement were performed at the frequencies with maximized peak emission were detected

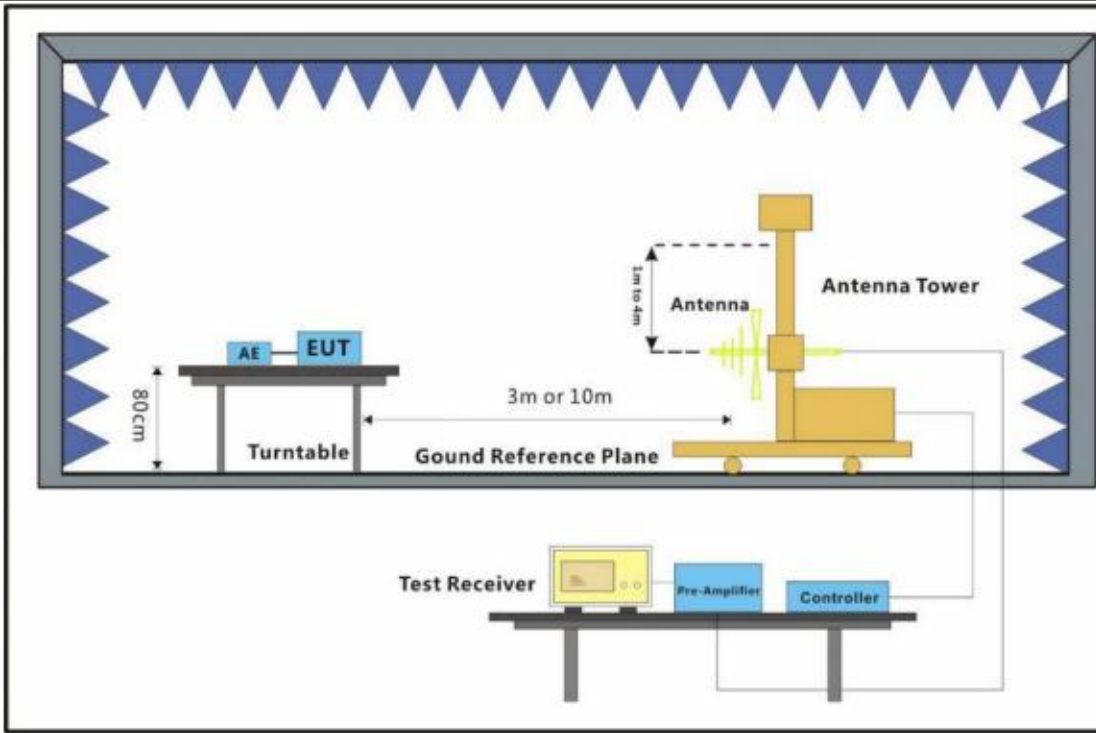
Model: D-20L-01; Line: Live Line

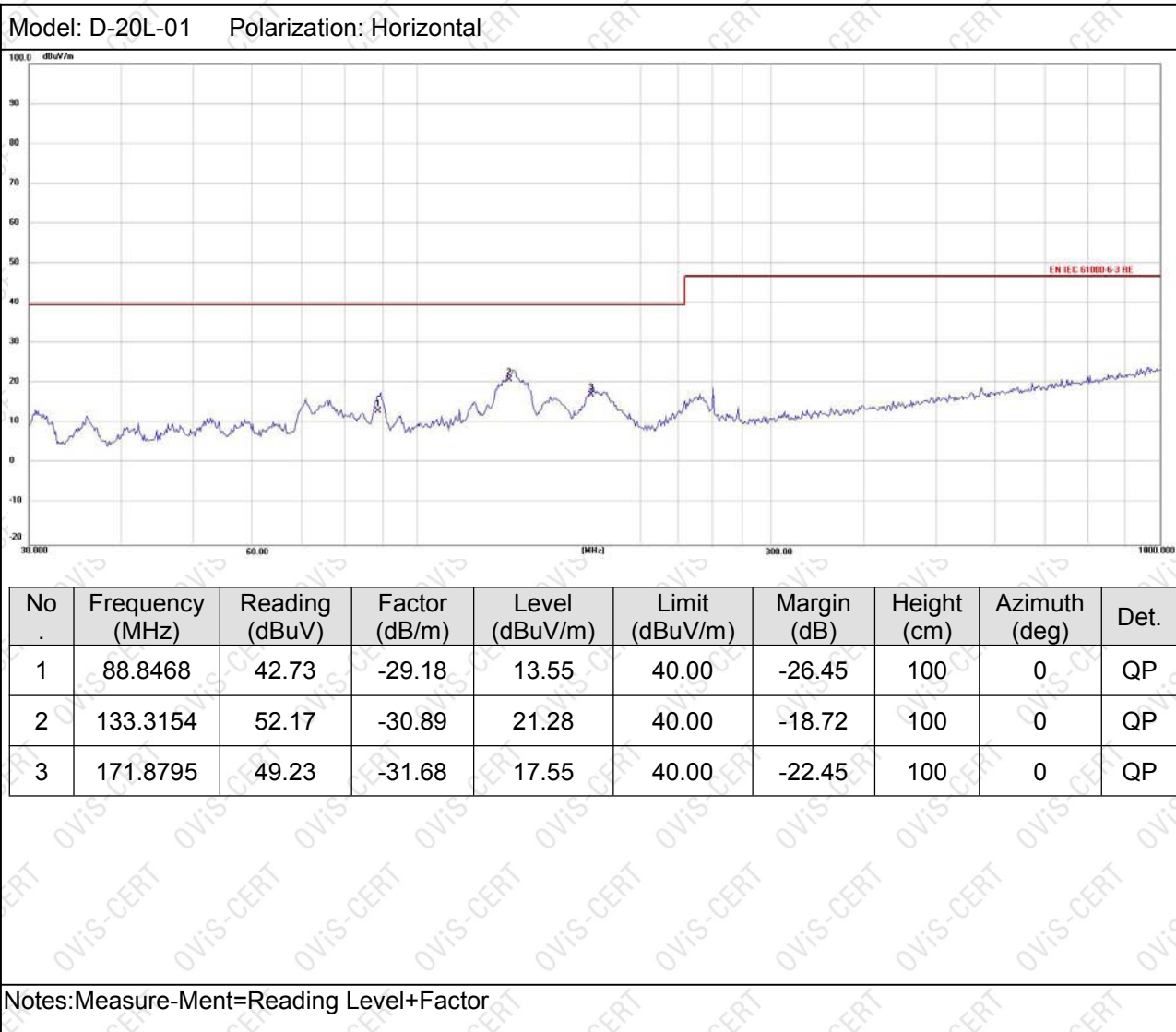


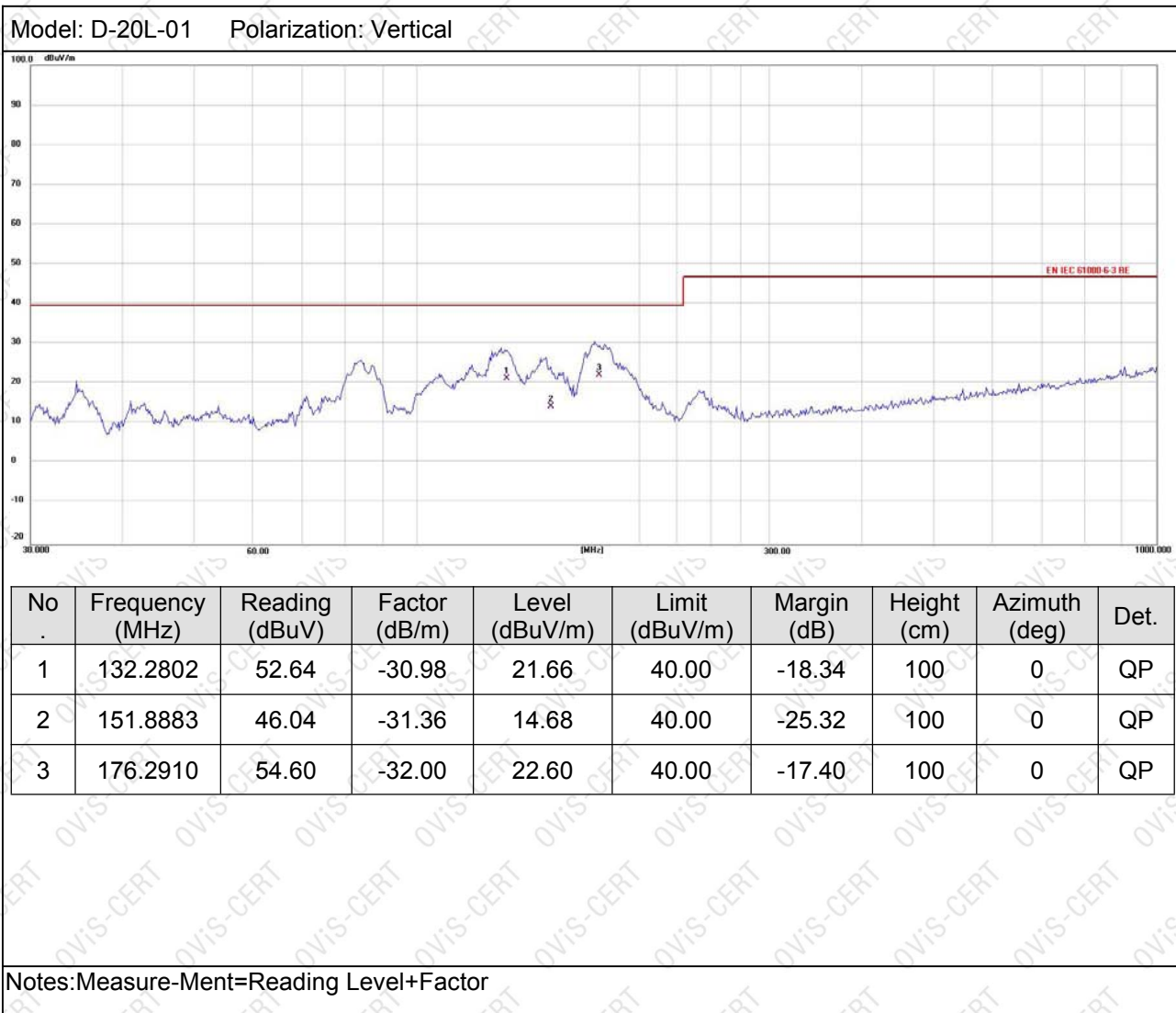
No.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB)	Measure-Ment (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2060	39.54	10.76	50.30	63.37	-13.07	QP
2	0.2060	27.17	10.76	37.93	53.37	-15.44	AVG
3	0.3140	36.72	10.76	47.48	59.86	-12.38	QP
4	0.3140	31.17	10.76	41.93	49.86	-7.93	AVG
5	0.4100	32.84	10.78	43.62	57.65	-14.03	QP
6	0.4100	18.76	10.78	29.54	47.65	-18.11	AVG
7	0.5420	30.80	10.80	41.60	56.00	-14.40	QP
8	0.5420	15.24	10.80	26.04	46.00	-19.96	AVG
9	0.5940	29.86	10.77	40.63	56.00	-15.37	QP
10	0.5940	14.30	10.77	25.07	46.00	-20.93	AVG
11	29.3260	36.97	12.86	49.83	60.00	-10.17	QP
12	29.3260	29.20	12.86	42.06	50.00	-7.94	AVG

Notes: Measure-Ment=Reading Level+Factor

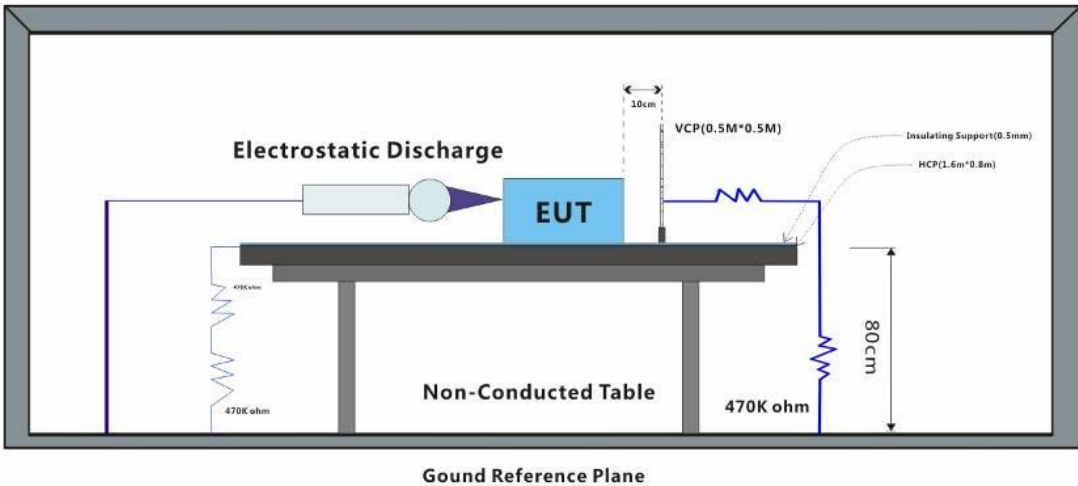


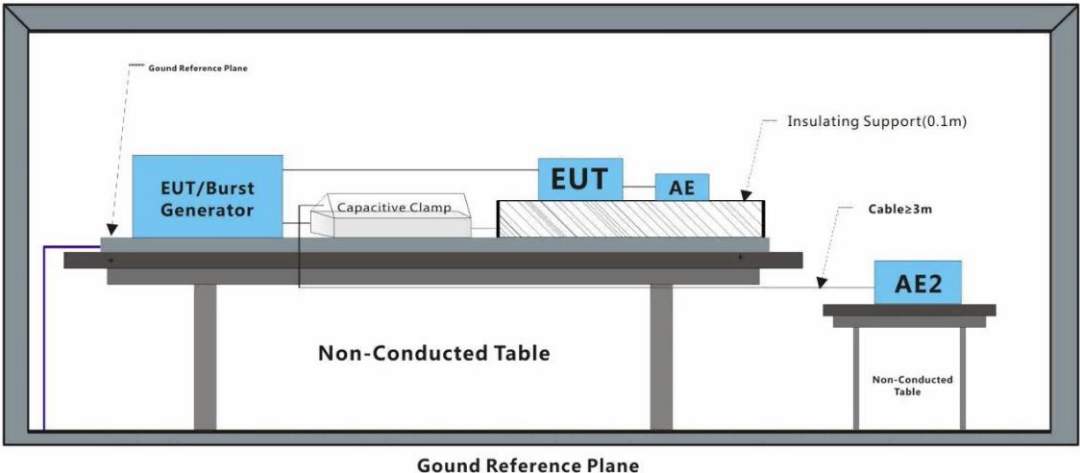
6.4	Radiated Emissions (30MHz-1GHz)
	Test Requirement: EN IEC 61000-6-3:2021
	Test Method: CISPR 16-2-3
	Frequency Range: 30MHz to 1GHz
	Limit: 30MHz - 230MHz 40 dB(μV/m) quasi-peak 230MHz - 1GHz 47 dB(μV/m) quasi-peak
	Detector: Peak for pre-scan (120kHz resolution bandwidth) 30MHz to 1000MHz
6.4.1	E.U.T. Operation
	Operating Environment:
	Temperature: 23.4℃ Humidity: 58 % RH Atmospheric Pressure: 1020 mbar
	Test mode :Standby operation__keep EUT running continual.
6.4.2	Test Setup Diagram
	
6.4.3	Measurement Data
	An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities.

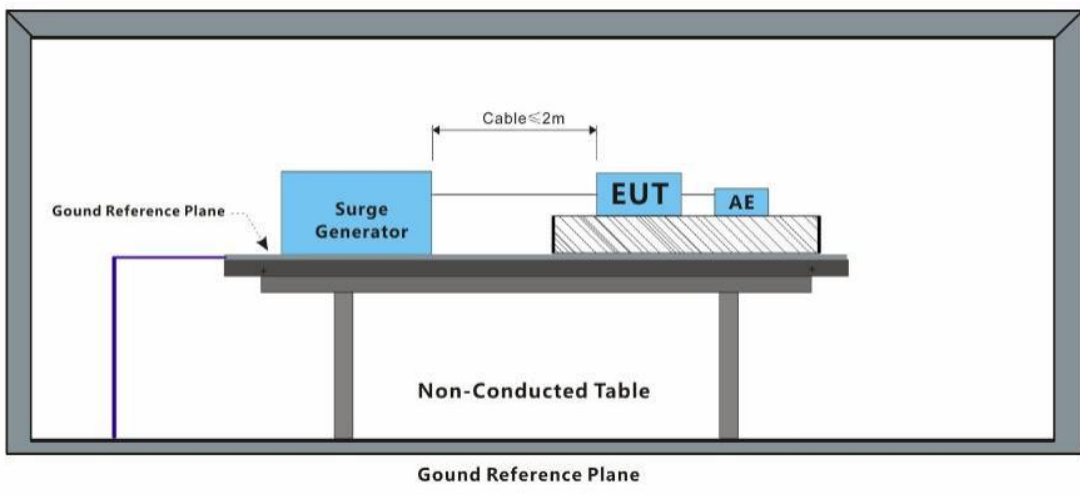


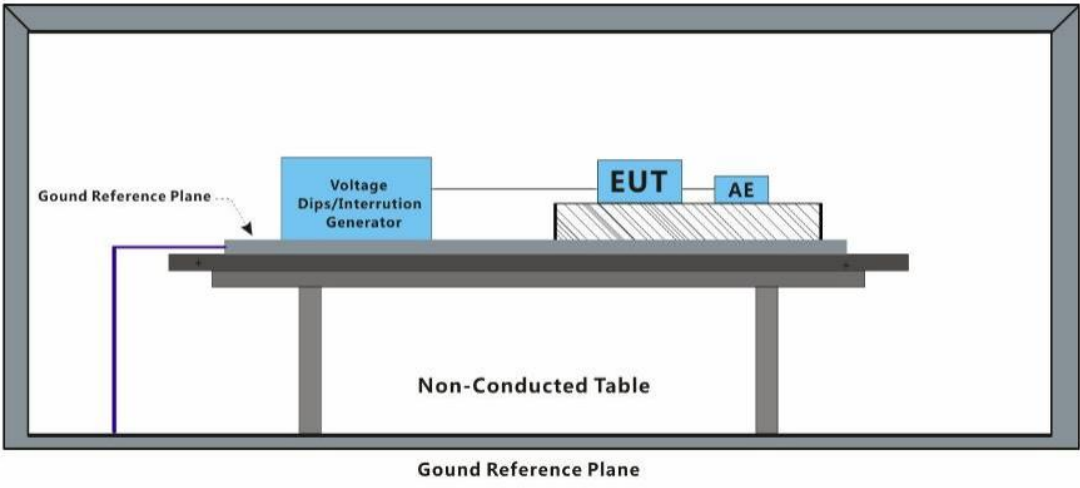


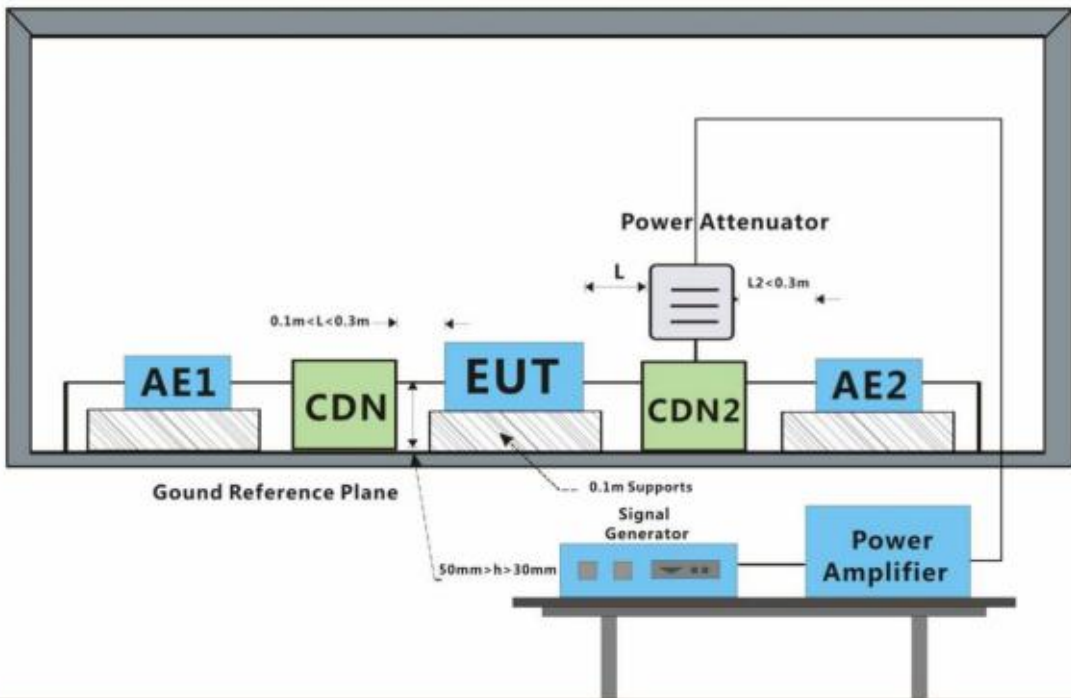
7	Immunity Test Results
7.1 Performance Criteria Description in EN IEC 61000-6-1:2019	
Criterion A	The apparatus shall continue to operate as intended during the test. No degradation of performance or loss of function is allowed below a performance level (or permissible loss of performance) specified by the manufacturer, when the apparatus is used as intended. 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 from what the user may reasonably expect from the apparatus if used as intended.
Criterion 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 (or permissible loss of performance) specified by the manufacturer, when the apparatus is used as intended. During the test, degradation of performance is allowed, however. No change of actual operating state or stored data is allowed to persist after the test. 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 from what the user may reasonably expect from the apparatus if used as intended.
Criterion C	Temporary loss of function is allowed, provided the function is self recoverable or can be restored by the operation of the controls, or by any operation specified in the instructions for use.

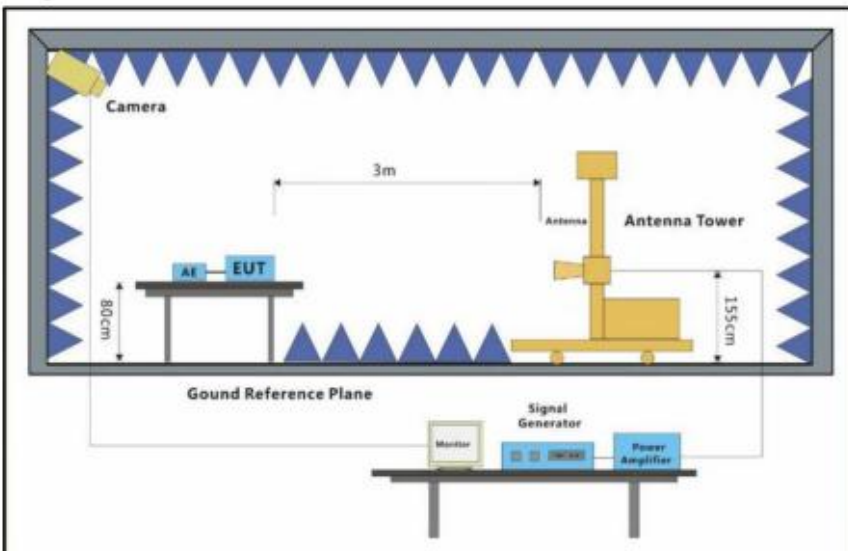
7.2	Electrostatic Discharge																																													
	Test Requirement: EN IEC 61000-6-1:2019																																													
	Test Method: IEC 61000-4-2																																													
	Performance Criterion: B																																													
	Discharge Impedance: 330Ω/150pF																																													
	Number of Discharge: Minimum 10 times at each test point																																													
	Discharge Mode: Single Discharge																																													
	Discharge Period: 1 second minimum																																													
7.2.1	E.U.T. Operation																																													
	Operating Environment:																																													
	Temperature: 23.8℃ Humidity: 58 % RH Atmospheric Pressure: 1020 mbar																																													
	Test mode: Standby operation__keep EUT running continual.																																													
7.2.2	Test Setup Diagram																																													
																																														
7.2.3	Test Results																																													
	Observations: Test Point: 1. All insulated enclosure and seams. 2. All accessible metal parts of the enclosure. 3. All side																																													
	<table><tr><th>Discharge type</th><th>Level (kV)</th><th>Polarity</th><th>Test Point</th><th>Result / Observations</th></tr><tr><td>Air Discharge</td><td>2,4,8</td><td>+</td><td>1</td><td>A</td></tr><tr><td>Air Discharge</td><td>2,4,8</td><td>-</td><td>1</td><td>A</td></tr><tr><td>Contact Discharge</td><td>4</td><td>+</td><td>2</td><td>A</td></tr><tr><td>Contact Discharge</td><td>4</td><td>-</td><td>2</td><td>A</td></tr><tr><td>Horizontal Coupling</td><td>4</td><td>+</td><td>3</td><td>A</td></tr><tr><td>Horizontal Coupling</td><td>4</td><td>-</td><td>3</td><td>A</td></tr><tr><td>Vertical Coupling</td><td>4</td><td>+</td><td>3</td><td>A</td></tr><tr><td>Vertical Coupling</td><td>4</td><td>-</td><td>3</td><td>A</td></tr></table>	Discharge type	Level (kV)	Polarity	Test Point	Result / Observations	Air Discharge	2,4,8	+	1	A	Air Discharge	2,4,8	-	1	A	Contact Discharge	4	+	2	A	Contact Discharge	4	-	2	A	Horizontal Coupling	4	+	3	A	Horizontal Coupling	4	-	3	A	Vertical Coupling	4	+	3	A	Vertical Coupling	4	-	3	A
Discharge type	Level (kV)	Polarity	Test Point	Result / Observations																																										
Air Discharge	2,4,8	+	1	A																																										
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Horizontal Coupling	4	-	3	A																																										
Vertical Coupling	4	+	3	A																																										
Vertical Coupling	4	-	3	A																																										
	Results: A: No degradation in the performance of the EUT was observed.																																													

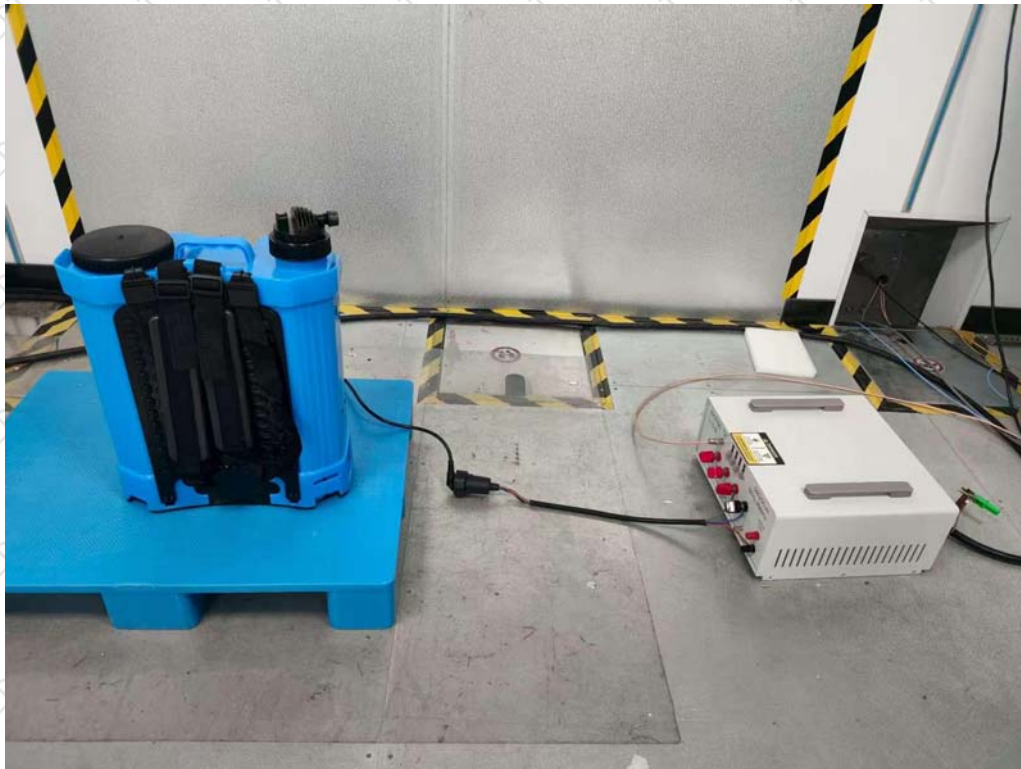
7.3	ELECTRICAL FAST TRANSIENTS/BURST AT POWER PORT				
	Test Requirement: EN IEC 61000-6-1:2019				
	Test Method: IEC 61000-4-4				
	Performance Criterion: B				
	Repetition Frequency: 5kHz				
	Burst Period: 300ms				
	Test Duration: 2 minute per level & polarity				
7.3.1	E.U.T. Operation				
	Operating Environment:				
	Temperature: 24.1℃ Humidity: 58 % RH Atmospheric Pressure: 1020 mbar				
	Test mode: Standby operation__keep EUT running continual.				
7.3.2	Test Setup Diagram				
					
7.3.3	Test Results				
	Test Line	Level (kV)	Polarity	CDN/Clamp	Result / Observations
	AC power port	1	+	CDN	A
	AC power port	1	-	CDN	A
	Results: A: No degradation in the performance of the EUT was observed.				

7.4	SURGE AT POWER PORT				
	Test Requirement: EN IEC 61000-6-1:2019				
	Test Method: IEC 61000-4-5				
	Performance Criterion: B				
	Interval: 60s between each surge				
	Burst Period: 300ms				
	No. of surges: 5 positive at 0°,90°,180°,270°, 5 negative at 0°,90°,180°,270°.				
7.4.1	E.U.T. Operation				
	Operating Environment:				
	Temperature: 23.9℃ Humidity: 58 % RH Atmospheric Pressure: 1020 mbar				
	Test mode: Standby operation__keep EUT running continual.				
7.4.2	Test Setup Diagram				
					
7.4.3	Test Results				
	Test Line	Level (kV)	Polarity	Phase(deg)	Result / Observations
	L-N	1	+	0°,90°,180°,270°	A
	L-N	1	-	0°,90°,180°,270°	A
	L-PE	2	+	0°,90°,180°,270°	A
	L-PE	2	-	0°,90°,180°,270°	A
	N-PE	2	+	0°,90°,180°,270°	A
	N-PE	2	-	0°,90°,180°,270°	A
Results: A: No degradation in the performance of the EUT was observed.					

7.5	VOLTAGE DIPS AND INTERRUPTIONS				
	Test Requirement: EN IEC 61000-6-1:2019				
	Test Method: IEC 61000-4-11				
	Performance Criterion: For 50Hz: 0% of UT (Rated Voltage) for 0.5 Cycle: B; 0% of UT for 1 Cycle: B; 70% of UT for 25 Cycle: C 0% of UT for 250 Cycle: C				
	No. of Dips / Interruptions:3 per Level				
	Time between dropout : 10s				
7.5.1	E.U.T. Operation				
	Operating Environment:				
	Temperature: 23.7℃ Humidity: 58 % RH Atmospheric Pressure: 1020 mbar				
	Test mode: standby operation__keep EUT running continual.				
7.5.2	Test Setup Diagram				
					
7.5.3	Test Results				
	Level % UT	Phase(deg)	Duration	No. of Dips / Interruptions	Result / Observations
	0	0°	0.5 Cycles	3	A
	0	180°	0.5 Cycles	3	A
	0	0°	1Cycles	3	A
	0	180°	1Cycles	3	A
	70	0°	25 Cycles	3	B
	70	180°	25 Cycles	3	B
	0	0°	250 Cycles	3	B
	0	180°	250 Cycles	3	B
Results: A: No degradation in the performance of the EUT was observed.					

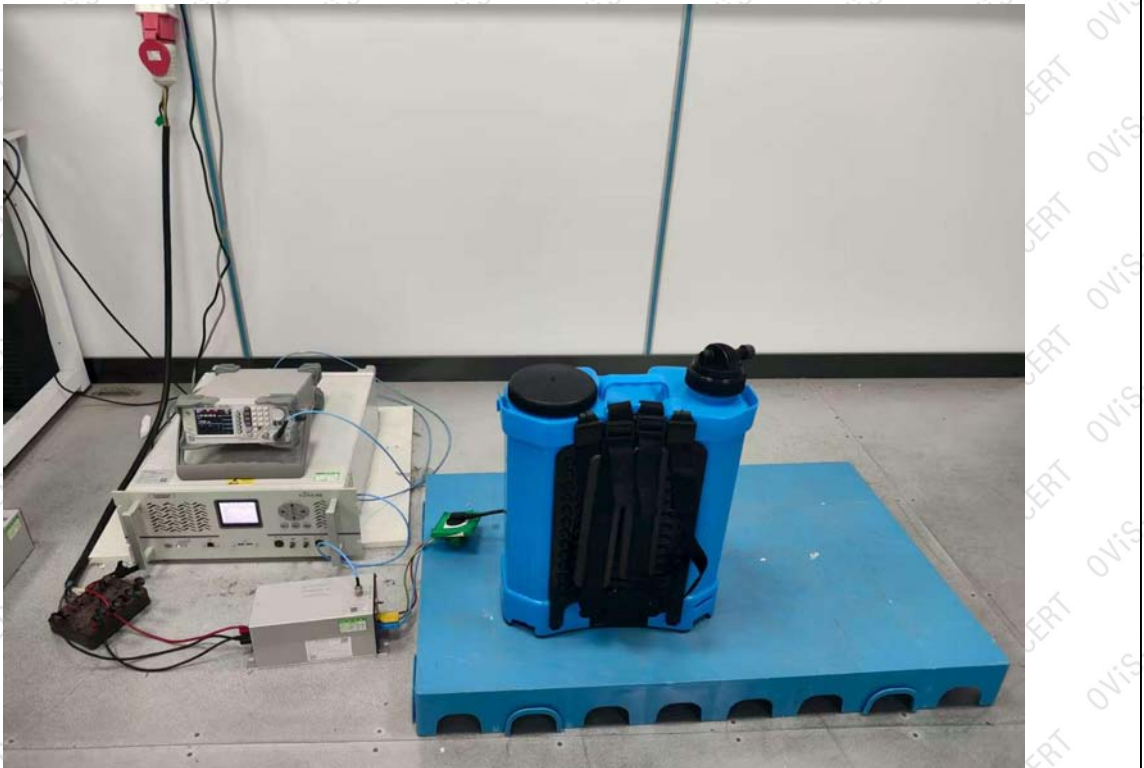
7.6	CONDUCTED IMMUNITY AT POWER PORT (150KHz-80MHz)				
	Test Requirement: EN IEC 61000-6-1:2019				
	Test Method: IEC 61000-4-6				
	Performance Criterion: A				
	Frequency Range: 0.15MHz to 80MHz				
	Modulation: 80%, 1kHz Amplitude Modulation				
	Step Size :1%				
7.6.1	E.U.T. Operation				
	Operating Environment:				
	Temperature: 23.5℃ Humidity: 58 % RH Atmospheric Pressure: 1020 mbar				
	Test mode: Standby operation__keep EUT running continual.				
7.6.2	Test Setup Diagram				
					
7.6.3	Test Results				
	Cable port	Level (Vrms)	CDN/Clamp	Dwell time	Result / Observations
	AC power port	3	CDN	3S	A
	Results: A: No degradation in the performance of the EUT was observed.				

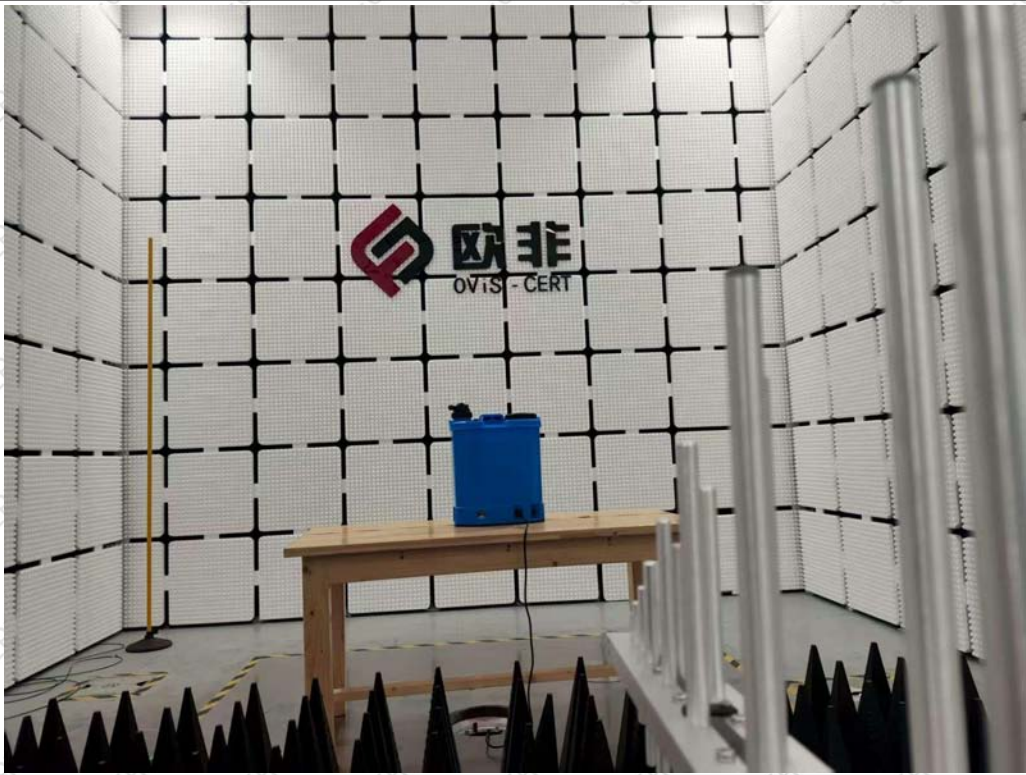
7.7	RADIATED IMMUNITY (80MHz-6GHz)				
	Test Requirement: EN IEC 61000-6-1:2019				
	Test Method: IEC 61000-4-3				
	Performance Criterion: A				
	Frequency Range: 80MHz to 6GHz				
	Antenna Polarisation: Vertical and Horizontal				
	Modulation: :1kHz,80% Amp.Mod,1% increment				
7.7.1	E.U.T. Operation				
	Operating Environment:				
	Temperature: 24.5℃ Humidity: 58 % RH Atmospheric Pressure: 1020 mbar				
	Test mode: Standby operation__keep EUT running continual.				
7.7.2	Test Setup Diagram				
					
7.7.3	Test Results				
	Frequency	Level (V/m)	EUT Face	Dwell time	Result / Observations
	80MHz-1GHz	3	Front	3S	A
	1.4GHz--6GHz				
	80MHz-1GHz	3	Back	3S	A
	1.4GHz--6GHz				
	80MHz-1GHz	3	Left	3S	A
	1.4GHz--6GHz				
	80MHz-1GHz	3	Right	3S	A
	1.4GHz--6GHz				
	80MHz-1GHz	3	Top	3S	A
	1.4GHz--6GHz				
	80MHz-1GHz	3	Underside	3S	A
	1.4GHz--6GHz				
Results: A: No degradation in the performance of the EUT was observed.					

8	Photographs
8.1	HARMONICS EMISSIONS AND VOLTAGE CHANGES, VOLTAGE FLUCTUATIONS AND FLICKER TEST SETUP
	
8.2	CONDUCTED EMISSIONS AT MAINS TERMINALS (150KHZ-30MHZ) TEST SETUP
	

8.3	RADIATED EMISSIONS (30MHz-1GHz) TEST SETUP
	 A photograph of a radiated emissions test setup. A blue electronic device is placed on a wooden table inside an anechoic chamber. The chamber walls are covered with white absorbers and black cross-shaped markers. A yellow vertical rod is visible on the left. The floor has yellow and black safety markings.
8.4	ELECTROSTATIC DISCHARGE TEST SETUP
	 A photograph of an electrostatic discharge (ESD) test setup. A blue ESD test chamber is on a white table. Next to it is a blue ESD generator with a digital display and a white ESD gun. A clipboard with a checklist is on the wall behind the equipment.

8.5	ELECTRICAL FAST TRANSIENTS/BURST AT POWER PORT TEST SETUP
	
8.6	SURGE AT POWER PORT TEST SETUP
	

8.7	VOLTAGE DIPS AND INTERRUPTIONS TEST SETUP
	
8.8	CONDUCTED IMMUNITY AT POWER PORT (150KHz-80MHz) TEST SETUP
	

8.9	RADIATED IMMUNITY (80MHz-1GHz) TEST SETUP
	 A photograph showing the radiated immunity test setup. A blue EUT (Equipment Under Test) is placed on a wooden table inside an anechoic chamber. The chamber walls are lined with white absorbers. A yellow vertical rod is visible on the left, and black conical absorbers are on the floor. The OVIS-CERT logo is visible on the wall.
8.10	EUT CONSTRUCTIONAL DETAILS (EUT PHOTOS)
	 A photograph showing the EUT (Equipment Under Test) constructional details. A blue plastic container with a black handle and a black hose is shown. A yellow measuring tape is placed on the floor next to it for scale.

REMARKS

1. This report is invalid without the seal of special stamp for OVIS test report and invalid if altered.
2. The copy of this report is invalid without a new seal of special stamp for OVIS test report and invalid if altered.
3. This report is invalid without seals or signatures of Tester, Checker and Approval.
4. If there is no special announcement in this report, the information of producer and samples is not identified by OVIS, the customer is responsible for truth of the samples.
5. Objections to the test report must be submitted to OVIS within 15 days.
6. The test results shown in this report is only applicable for the samples supplied directly by the customer and accepted by the test organization, the customer shall not propagandize improperly without permission by OVIS.
7. "P" means "pass", "F" means "fail", "N/A" or "—" means "not applicable" and " / " means "not test".

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