

TEST REPORT

Reference No...... : WTD24D02030231W001
Applicant..... : Jiangxi EQi Industrial Co., Ltd
Address..... : Luliang Road, Yining Town, Xiushui County, Jiujiang City, Jiangxi Province,China
Manufacturer : Jiangxi EQi Industrial Co., Ltd
Address : Luliang Road, Yining Town, Xiushui County, Jiujiang City, Jiangxi Province,China
Product..... : Power Station
Model(s) : L2301
Standards : FCC Part 15 Subpart B:2021
Date of Receipt sample : 2024-02-26
Date of Test : 2024-02-26 to 2024-03-14
Date of Issue..... : 2024-03-29
Test Result..... : **Pass**

Remarks:

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

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2 Revision History

Test Report No.	Date of Receipt sample	Date of Test	Date of Issue	Purpose	Comment	Approved
WTD24D02030231W001	2024-02-26	2024-02-26 to 2024-03-14	2024-03-29	Original	-	Valid

3 General Information

3.1 General Description of E.U.T.

Product : Power Station

Model(s)..... : L2301

Model Description..... : N/A

Remark..... : N/A

3.2 Details of E.U.T.

Technical data : AC 120V, 60Hz

3.3 Subcontracted

Whether parts of tests for the product have been subcontracted to other labs:

Yes No

If Yes, list the related test items and lab information:

Test Lab: N/A

Lab address: N/A

Test items: N/A

3.4 Abnormalities from Standard Conditions

None.

4 Test Summary

Test Item	Test Requirement	Test Result
AC Power Line Conducted Emission (150kHz to 30MHz)	FCC Part 15 Subpart B	Pass
Disturbance voltage at the antenna terminals (30MHz to 2150MHz)	FCC Part 15 Subpart B	N/A
Radiated Emission (30MHz to 1GHz)	FCC Part 15 Subpart B	Pass
Radiated Emission (Above 1GHz)	FCC Part 15 Subpart B	N/A

Remark:

Pass Test item meets the requirement

Fail Test item does not meet the requirement

N/A Test case does not apply to the test object

5 Equipment Used during Test

5.1 Equipment List

Conducted emissions from the AC mains power ports (#1)						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1	EMI Test Receiver	R&S	ESCI	100947	2023-07-27	2024-07-26
2	LISN	R&S	ENV216	100115	2023-07-27	2024-07-26
3	Cable	Top	TYPE16(3.5M)	-	2023-07-27	2024-07-26
3m Semi-anechoic Chamber for Radiation (TDK)						
Item	Equipment	Manufacturer	Model No.	Serial No	Last Calibration Date	Calibration Due Date
1	Test Receiver	R&S	ESCI	101296	2023-04-24	2024-04-23
2	Trilog Broadband Antenna	SCHWARZBECK	VULB9160	9160-3325	2023-11-04	2024-11-03
3	Amplifier	ANRITSU	MH648A	M43381	2023-04-24	2024-04-23
4	Cable	HUBER+SUHNER	CBL2	525178	2023-04-24	2024-04-23

Test Software:

Test Item	Software name	Software version
Conduction disturbance Radiated Emission(3m)	EZ-EMC	EZ-EMC(RA-03A1-1)

5.2 Description of Support Units

Equipment	Manufacturer	Model No.	Series No.
/	/	/	/

5.3 Measurement Uncertainty

Parameter	Uncertainty (Note 1)
Temperature	±1°C
Humidity	±5%
DC and low frequency voltages	±3%
Conducted Emission (150kHz-30MHz)	±3.64dB
Radiated Emission_3m (30MHz-1000MHz)	±4.53 dB
Radiated Emission_10m (30MHz-1000MHz)	±5.24 dB
Radiated Emission(1GHz~18GHz)	±5.03dB

Note 1: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

5.4 Test Mode

Test Item	Test Mode	Test Voltage
AC Power Line Conducted Emission (150KHz-30MHz)	Idle mode	AC 120V/60Hz
	Normal working*	AC 120V/60Hz
Radiated Emissions (30MHz-1GHz)	Idle mode	AC 120V/60Hz
	Normal working*	AC 120V/60Hz
** shows the worst case mode which were recorded in this report.		

6 Emission Test Results

6.1 AC Power Line Conducted Emission, 150kHz to 30MHz

Test Requirement..... : FCC Part 15 Subpart B

Test Method..... : ANSI C63.4

Test Result : Pass

Frequency Range..... : 150kHz to 30MHz

Class..... : Class B

Limit..... :

Frequency (MHz)	Limit (dB μ V)	
	Quasi-peak	Average
0.15 to 0.5	66 to 56	56 to 46
0.5 to 5	56	46
5 to 30	60	50

6.1.1 E.U.T. Operation

Operating Environment:

Temperature..... : 22.7°C

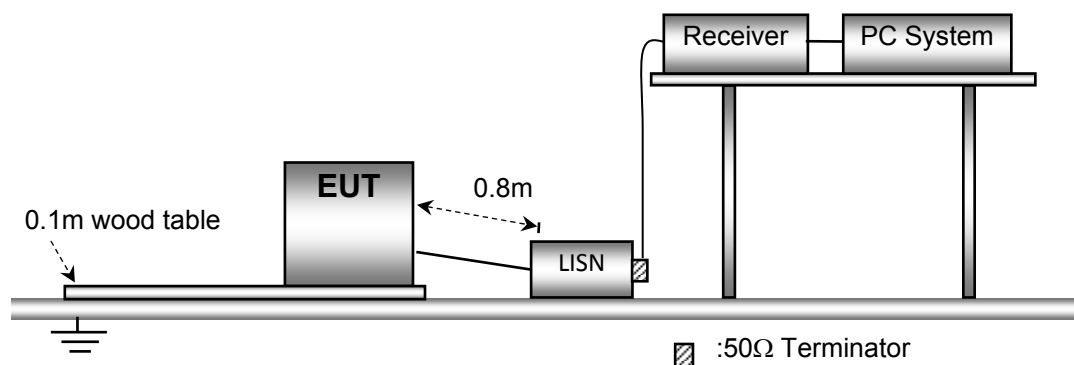
Humidity..... : 46.2%RH

Atmospheric Pressure..... : 101.2kPa

EUT Operation : Refer to section 5.4.

6.1.2 Block Diagram of Test Setup

The AC Power Line Conducted Emissions tests were performed in accordance with the ANSI C63.4 .

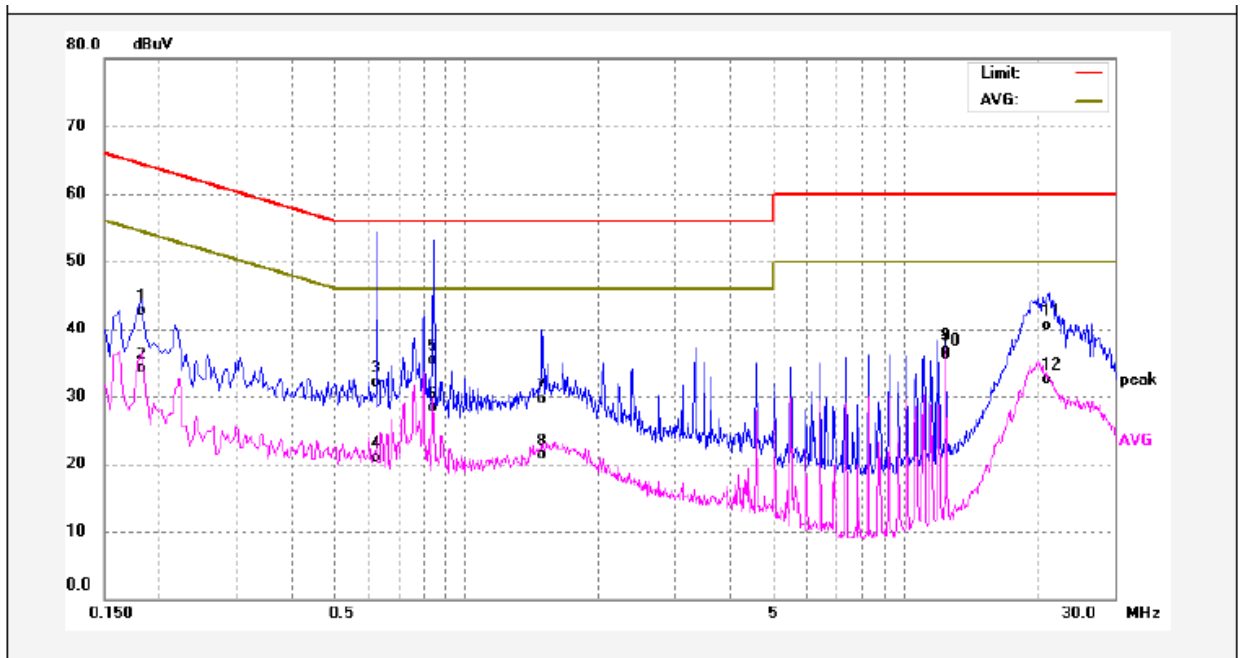


6.1.3 Measurement Data

The maximised peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within 6dB of the average limit line. According to the data in section 6.1.4, the EUT complied with the FCC PART 15, SUBPART B standards.

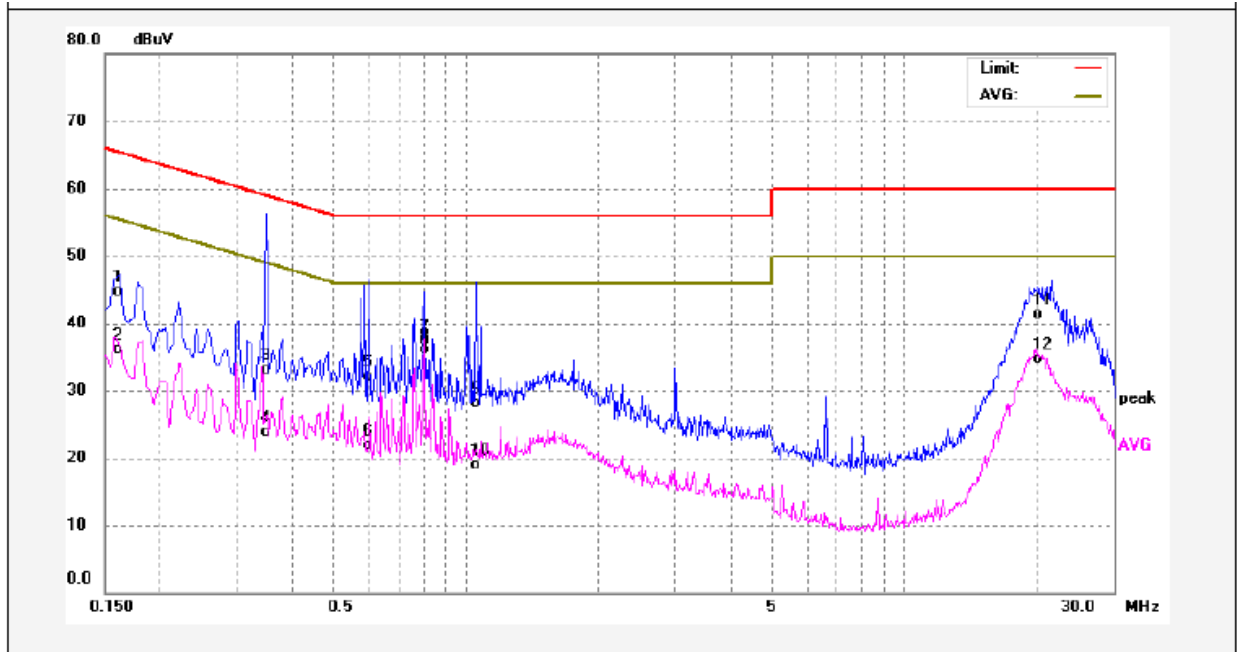
6.1.4 AC Power Line Conducted Emission Test Data

Live Line:



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1819	32.35	10.30	42.65	64.39	-21.74	QP	
2	0.1819	23.78	10.30	34.08	54.39	-20.31	AVG	
3	0.6260	21.48	10.55	32.03	56.00	-23.97	QP	
4	0.6260	10.41	10.55	20.96	46.00	-25.04	AVG	
5	0.8460	24.74	10.66	35.40	56.00	-20.60	QP	
6	0.8460	17.58	10.66	28.24	46.00	-17.76	AVG	
7	1.4900	18.82	10.77	29.59	56.00	-26.41	QP	
8	1.4900	10.56	10.77	21.33	46.00	-24.67	AVG	
9	12.3979	26.01	10.89	36.90	60.00	-23.10	QP	
10	12.3979	25.31	10.89	36.20	50.00	-13.80	AVG	
11	21.2780	29.43	11.01	40.44	60.00	-19.56	QP	
12	21.2780	21.57	11.01	32.58	50.00	-17.42	AVG	

Neutral Line:



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1620	34.68	10.12	44.80	65.36	-20.56	QP	
2	0.1620	26.06	10.12	36.18	55.36	-19.18	AVG	
3	0.3500	22.93	10.22	33.15	58.96	-25.81	QP	
4	0.3500	13.64	10.22	23.86	48.96	-25.10	AVG	
5	0.5980	21.66	10.53	32.19	56.00	-23.81	QP	
6	0.5980	11.44	10.53	21.97	46.00	-24.03	AVG	
7	0.8020	26.65	10.66	37.31	56.00	-18.69	QP	
8	0.8020	25.48	10.66	36.14	46.00	-9.86	AVG	
9	1.0540	17.30	10.73	28.03	56.00	-27.97	QP	
10	1.0540	8.18	10.73	18.91	46.00	-27.09	AVG	
11	20.1980	30.39	11.01	41.40	60.00	-18.60	QP	
12	20.1980	23.61	11.01	34.62	50.00	-15.38	AVG	

6.2 Radiation Emission, 30MHz to 1000MHz

Test Requirement..... : FCC Part 15 Subpart B

Test Method..... : ANSI C63.4

Test Result : Pass

Frequency Range..... : 30MHz to 1000MHz

Class..... : Class B

Limit..... :

Frequency (MHz)	Distance (Meter)	Limit (dB μ V/m)
		Quasi-peak
30 to 88	3	40
88 to 216	3	43.5
216 to 960	3	46
960 to 1000	3	54

6.2.1 E.U.T. Operation

Operating Environment:

Temperature..... : 23.6°C

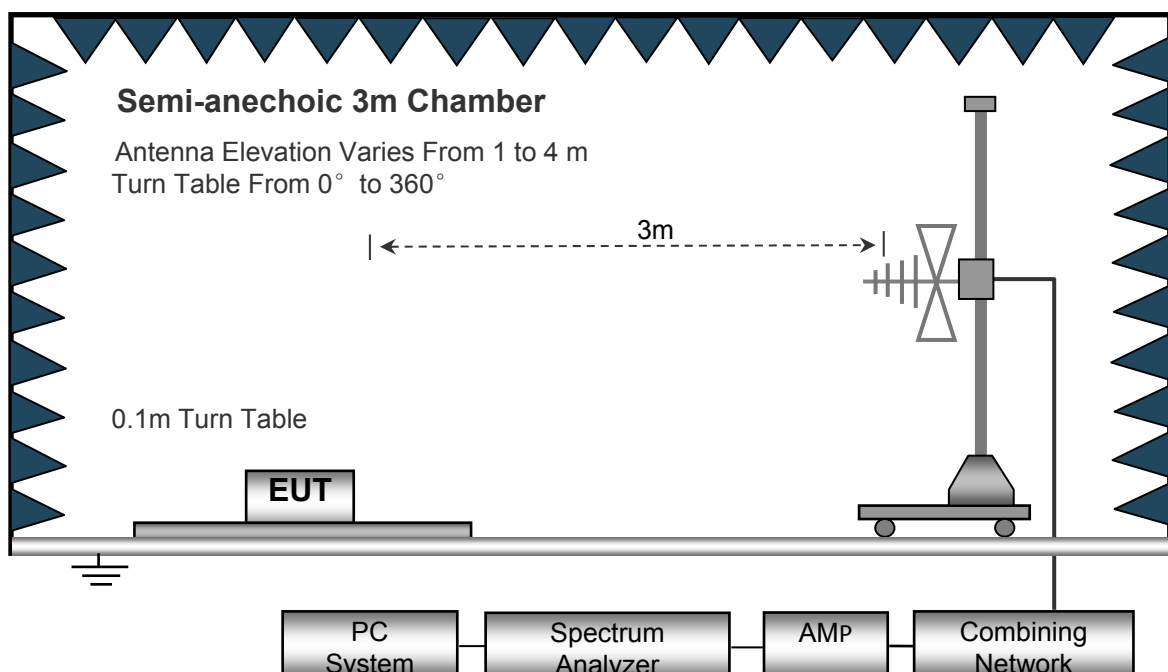
Humidity..... : 48.6%RH

Atmospheric Pressure..... : 101.8kPa

EUT Operation : Refer to section 5.4.

6.2.2 Block Diagram of Test Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site, using the setup accordance with the ANSI C63.4.

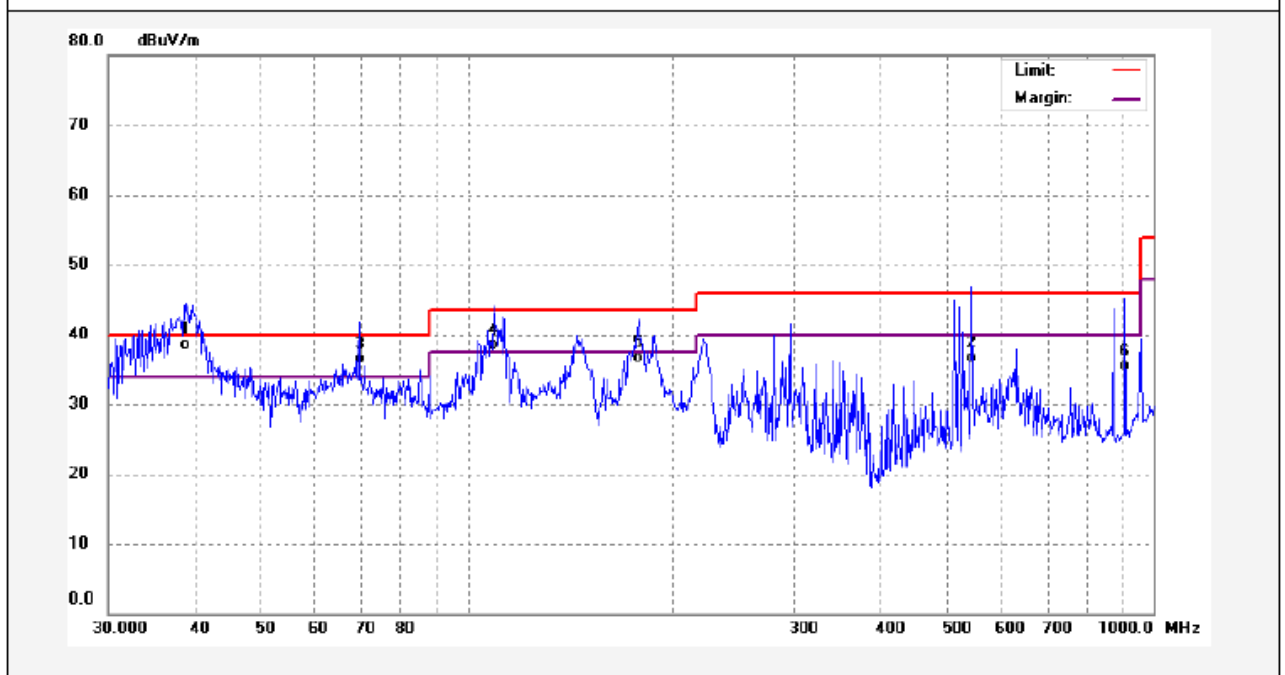


6.2.3 Measurement Data

The maximised peak emissions from the EUT was scanned and measured for both the Antenna Vertical Polarization and Antenna Horizontal Polarization. Quasi-peak measurements were performed if peak emissions were within 6dB of the Quasi-peak limit line.

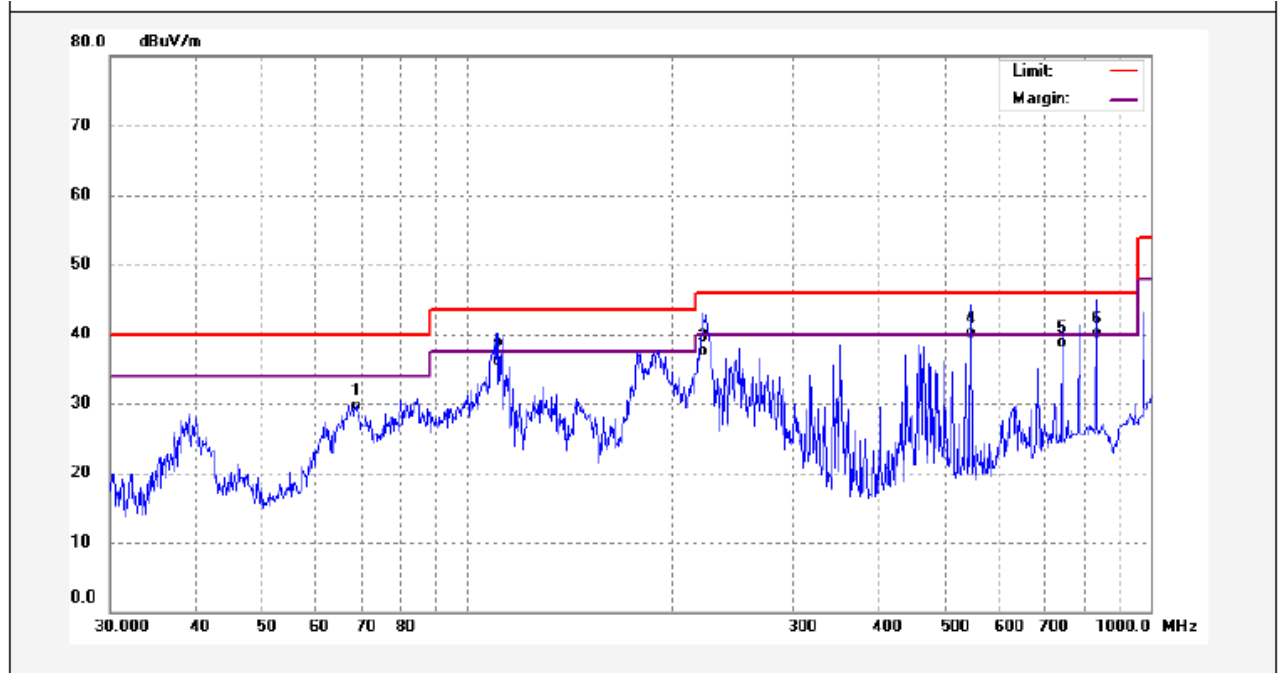
6.2.4 Radiated Emission Test Data, 30MHz to 1000MHz

Antenna Polarization: Vertical



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	38.8878	54.79	-16.29	38.50	40.00	-1.50	QP	
2	543.2742	45.86	-9.06	36.80	46.00	-9.20	QP	
3	69.6004	54.46	-17.86	36.60	40.00	-3.40	QP	
4	109.4116	55.45	-16.95	38.50	43.50	-5.00	QP	
5	177.5091	52.59	-15.79	36.80	43.50	-6.70	QP	
6	909.6666	37.88	-2.38	35.50	46.00	-10.50	QP	

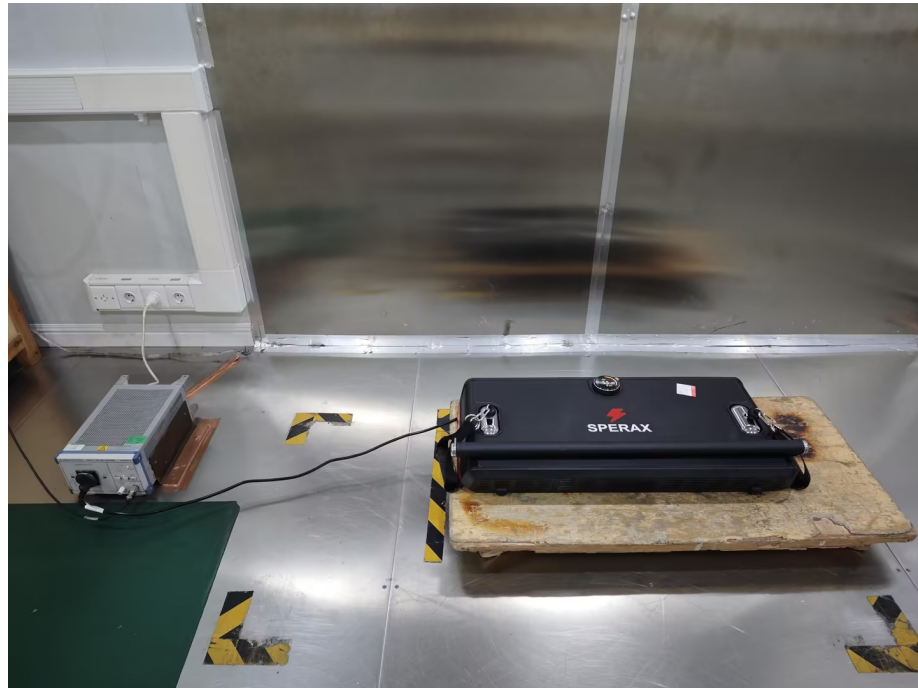
Antenna Polarization: Horizontal



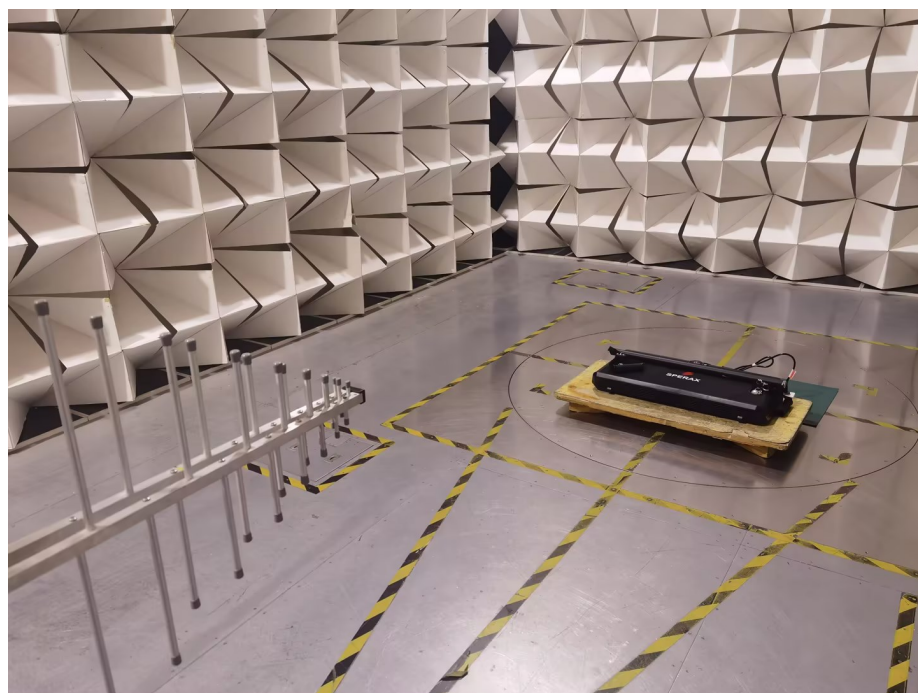
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	68.6310	47.49	-17.69	29.80	40.00	-10.20	QP	
2	110.9571	53.00	-16.80	36.20	43.50	-7.30	QP	
3	221.3921	47.85	-10.35	37.50	46.00	-8.50	QP	
4	545.1826	49.55	-9.45	40.10	46.00	-5.90	QP	
5	742.2587	42.26	-3.56	38.70	46.00	-7.30	QP	
6	833.3171	42.79	-2.59	40.20	46.00	-5.80	QP	

7 Photographs – Test Setup

7.1 Photograph –AC Power Line Conducted Emission Test Setup



7.2 Photograph – Radiated Emission Test Setup For 30MHz-1000MHz



8 Photographs – Constructional Details

Note: Please refer to appendix: Appendix-L2301-Photos.

=====**End of Report**=====