

Test Report

Report No. : MTi260423016-0201E1
Date of issue : 2026-05-13
Applicant : XIRGO HOLDINGS, INC
Product : XVA-CBL-IOX-01
Model(s) : XVA-CBL-IOX-01

Shenzhen Microtest Co., Ltd.



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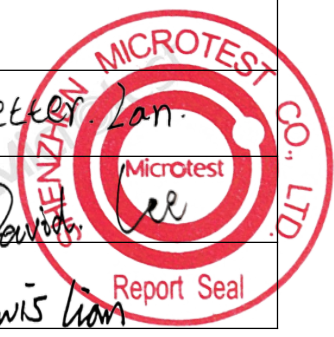
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Test Result Certification		
Applicant	XIRGO HOLDINGS, INC	
Applicant Address	2100 GOLF RD Rolling Meadows SUITE 290, IL. 60008 United States	
Manufacturer	XIRGO HOLDINGS, INC	
Manufacturer Address	2100 GOLF RD Rolling Meadows SUITE 290, IL. 60008 United States	
Factory	SfereComm Wenzhou Hetai Electronics Co., Ltd.	
Factory Address	No.5 Changsheng Road Xinao Industry Zone 325608 China.	
Product description		
Product name	XVA-CBL-IOX-01	
Trademark	Xirgo	
Model name	XVA-CBL-IOX-01	
Series Model(s)	N/A	
Standards	47 CFR Part 15, Subpart B	
Test Method	ANSI C63.4-2014	
Testing Information		
Date of test	2026-05-11 to 2026-05-12	
Test result	Pass	
Prepared by:	Letter Lan	
Reviewed by:	David Lee	
Approved by:	Lewis Lian	



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1 General Description

1.1 Description of the EUT

Product name:	XVA-CBL-IOX-01
Model name:	XVA-CBL-IOX-01
Series Model(s):	N/A
Model difference:	N/A
Electrical rating:	Input: 12V-24VDC
Accessories:	N/A
Hardware version:	XVA-IOX-001
Software version:	XVA-IOX-001
Test sample(s) number:	MTi260423016-02-E001

1.2 Description of test modes

For test, the EUT has been pre-tested under the following test modes, Only the worst case data will be shown in the report.

No.	Emission test modes
Mode1	Normal Working(12V Input)
Mode2	Normal Working(24V Input)

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1.3 Environmental Conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15°C ~ 35°C
Humidity:	20% RH ~ 75% RH
Atmospheric pressure:	98 kPa ~ 101 kPa

1.4 Description of support units

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.

Support equipment list

Description	Model	Serial No.	Manufacturer
Accumulator	55D23LX	/	CAMEL
Accumulator	55D23LX	/	CAMEL

Support cable list

Description	Length (m)	From	To
/	/	/	/

1.5 Measurement uncertainty

Measurement	Uncertainty
Radiated emissions (30MHz~1GHz)	±4.7dB
Radiated emissions (above 1GHz)	±5.1dB
Temperature	±1 °C
Humidity	± 5 %

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

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2 Summary of Test Result

No.	Item	Standard	Requirement	Result
1	Radiated emissions (Below 1GHz)	47 CFR Part 15, Subpart B	15.109, Class B	Pass
2	Radiated emissions (Above 1GHz)	47 CFR Part 15, Subpart B	15.109, Class B	Pass

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3 Test Facilities and accreditations

3.1 Test laboratory

Test laboratory:	Shenzhen Microtest Co., Ltd.
Test site location:	101, No.7, Zone 2, Xinxing Industrial Park, Fuhai Avenue, Xinhe Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Telephone:	(86-755)88850135
Fax:	(86-755)88850136
CNAS Registration No.:	CNAS L5868
FCC Registration No.:	448573
IC Registration No.:	21760
CABID:	CN0093

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4 List of test equipment

No.	Equipment	Manufacturer	Model	Serial No.	Cal. date	Cal. Due
Radiated emissions (Below 1GHz)						
1	EMI Test Receiver	Rohde&schwarz	ESCi7	101166	2026-03-10	2027-03-09
2	TRILOG Broadband Antenna	schwarabeck	VULB 9163	9163-1338	2025-05-23	2027-05-22
3	Amplifier	Hewlett-Packard	8447F	3113A06184	2026-03-10	2027-03-09
4	EMI Measurement Software	Farad	EZ-EMC Ver.EMEC- 3A1	/	/	/
Radiated emissions (Above 1GHz)						
1	EMI Test Receiver	Rohde&schwarz	ESCi7	101166	2026-03-10	2027-03-09
2	Double Ridged Broadband Horn Antenna	schwarabeck	BBHA 9120 D	2278	2025-05-27	2027-05-26
3	Amplifier	Agilent	8449B	3008A01120	2026-03-10	2027-03-09
4	EMI Measurement Software	Farad	EZ-EMC Ver.EMEC- 3A1	/	/	/

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5 Emission Test Results (EMI)

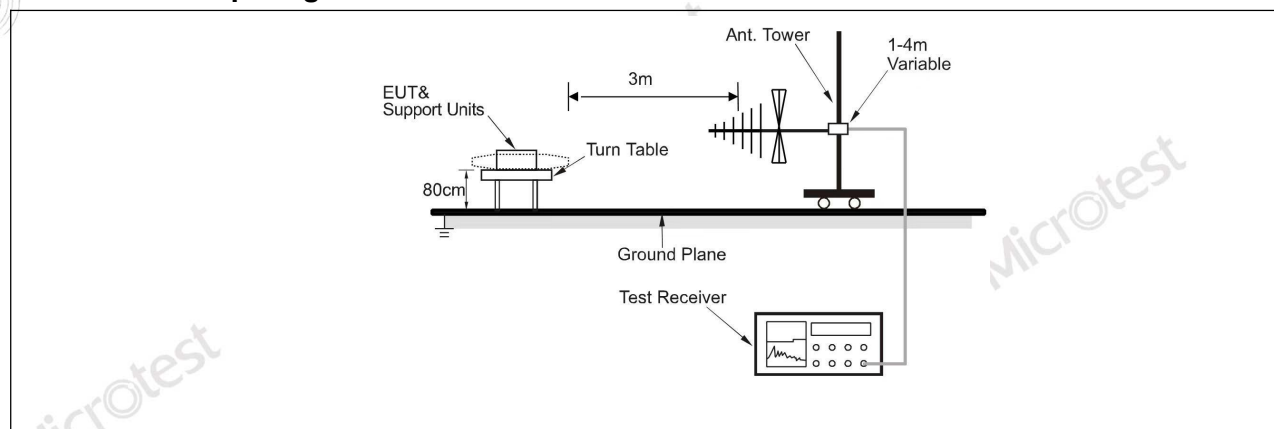
5.1 Radiated emissions (Below 1GHz)

Test Requirement:	15.109, Class B																																
Test Limit:	Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values: <table border="1"> <thead> <tr> <th rowspan="2">Frequency of emission (MHz)</th><th colspan="2">Field strength @3m</th><th colspan="2">Field strength @10m</th></tr> <tr> <th>($\mu\text{V/m}$)</th><th>(dB$\mu\text{V/m}$)</th><th>($\mu\text{V/m}$)</th><th>(dB$\mu\text{V/m}$)</th></tr> </thead> <tbody> <tr> <td>30 – 88</td><td>100</td><td>40</td><td>30</td><td>29.5</td></tr> <tr> <td>88 – 216</td><td>150</td><td>43.5</td><td>45</td><td>33.1</td></tr> <tr> <td>216 – 960</td><td>200</td><td>46</td><td>60</td><td>35.6</td></tr> <tr> <td>Above 960</td><td>500</td><td>54</td><td>150</td><td>43.5</td></tr> </tbody> </table>				Frequency of emission (MHz)	Field strength @3m		Field strength @10m		($\mu\text{V/m}$)	(dB $\mu\text{V/m}$)	($\mu\text{V/m}$)	(dB $\mu\text{V/m}$)	30 – 88	100	40	30	29.5	88 – 216	150	43.5	45	33.1	216 – 960	200	46	60	35.6	Above 960	500	54	150	43.5
Frequency of emission (MHz)	Field strength @3m		Field strength @10m																														
	($\mu\text{V/m}$)	(dB $\mu\text{V/m}$)	($\mu\text{V/m}$)	(dB $\mu\text{V/m}$)																													
30 – 88	100	40	30	29.5																													
88 – 216	150	43.5	45	33.1																													
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Above 960	500	54	150	43.5																													
Test Method:	ANSI ANSI C63.4-2014																																
Procedure:	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. Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor																																

5.1.1 E.U.T. Operation:

Operating Environment:					
Temperature:	23.4 °C	Humidity:	65 %	Atmospheric Pressure:	101 kPa
Pre test mode:	Mode1, Mode2				
Final test mode:	All of the listed pre-test mode were tested, only the data of the worst mode (Mode2) is recorded in the report				

5.1.2 Test Setup Diagram:

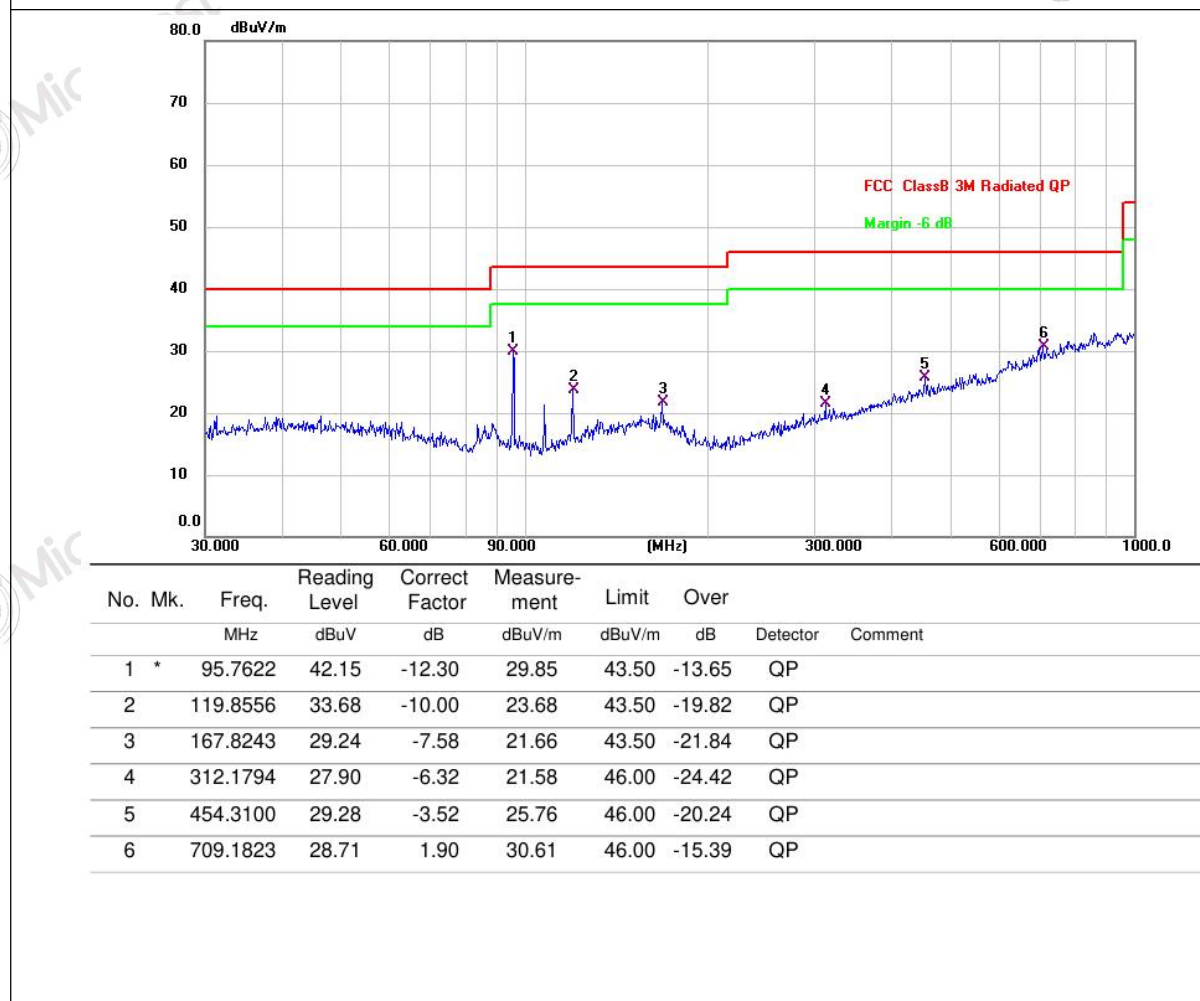


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5.1.3 Test Data:

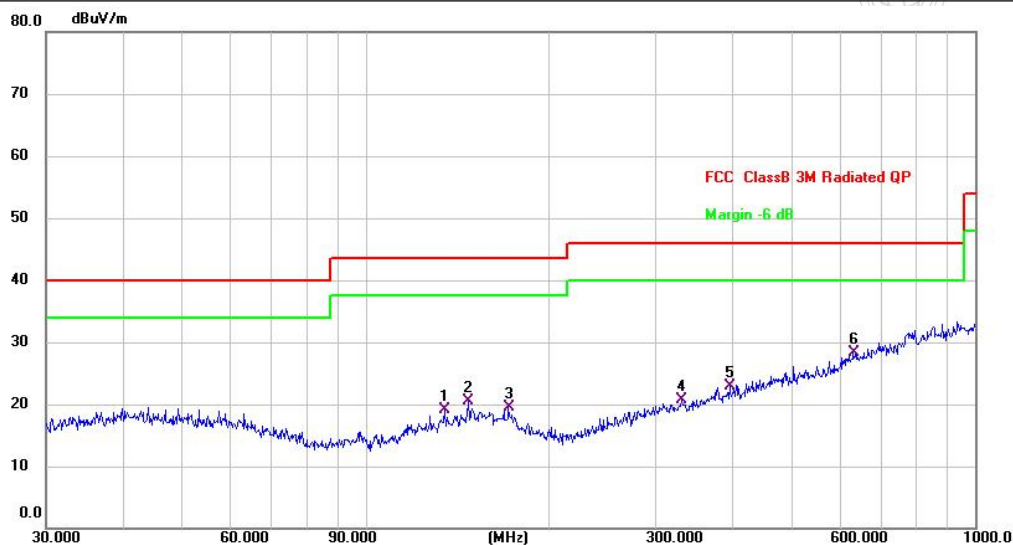
Mode2 / Polarization: Horizontal



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Mode2 / Polarization: Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		134.5592	27.66	-8.53	19.13	43.50	-24.37	QP	
2		147.4036	28.24	-7.78	20.46	43.50	-23.04	QP	
3		171.3926	27.14	-7.72	19.42	43.50	-24.08	QP	
4		330.1949	26.83	-6.12	20.71	46.00	-25.29	QP	
5		396.2415	27.55	-4.69	22.86	46.00	-23.14	QP	
6	*	631.6884	27.85	0.41	28.26	46.00	-17.74	QP	

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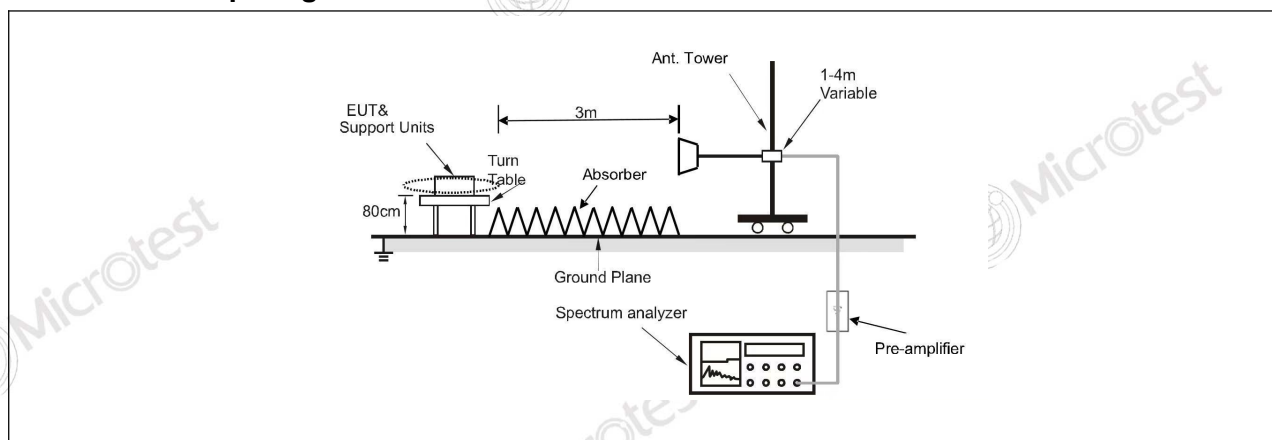
5.2 Radiated emissions (Above 1GHz)

Test Requirement:	15.109, Class B			
Test Limit:	Frequency of emission (MHz)	Field strength @3m		
		Average (uV/m)	Average(d BuV/m)	Peak (dBuV/m)
	Above 1GHz	500	54	74
Test Method:	ANSI ANSI C63.4-2014			
Procedure:	An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. For below 1GHz test, Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities. For above 1GHz test, Average measurements were conducted based on the peak sweep graph. The EUT was measured by Horn antenna with 2 orthogonal polarities. Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor			

5.2.1 E.U.T. Operation:

Operating Environment:					
Temperature:	22.5 °C	Humidity:	43 %	Atmospheric Pressure:	101 kPa
Pre test mode:	Mode1, Mode2				
Final test mode:	All of the listed pre-test mode were tested, only the data of the worst mode (Mode2) is recorded in the report				

5.2.2 Test Setup Diagram:

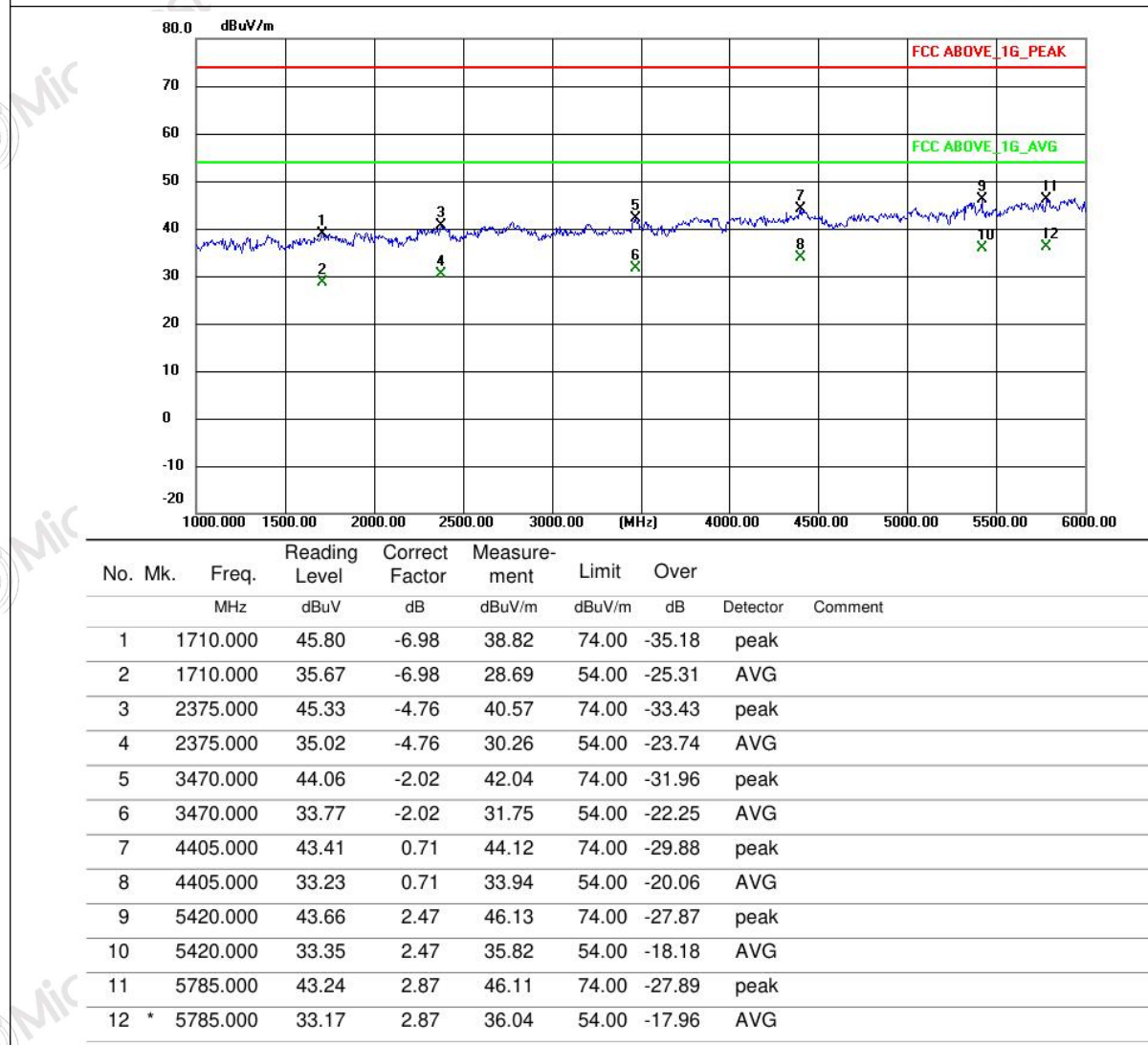


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5.2.3 Test Data:

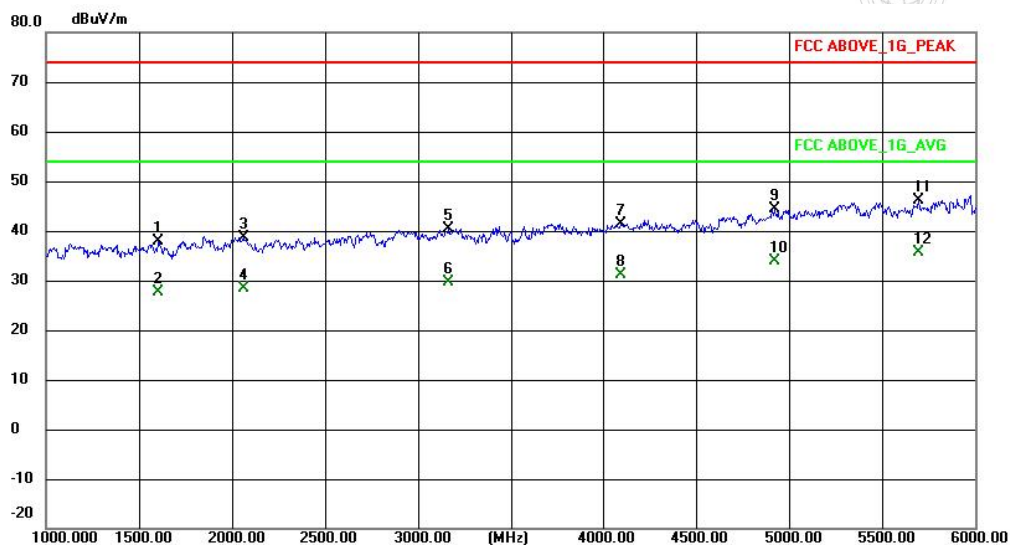
Mode2 / Polarization: Horizontal



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Mode2 / Polarization: Vertical



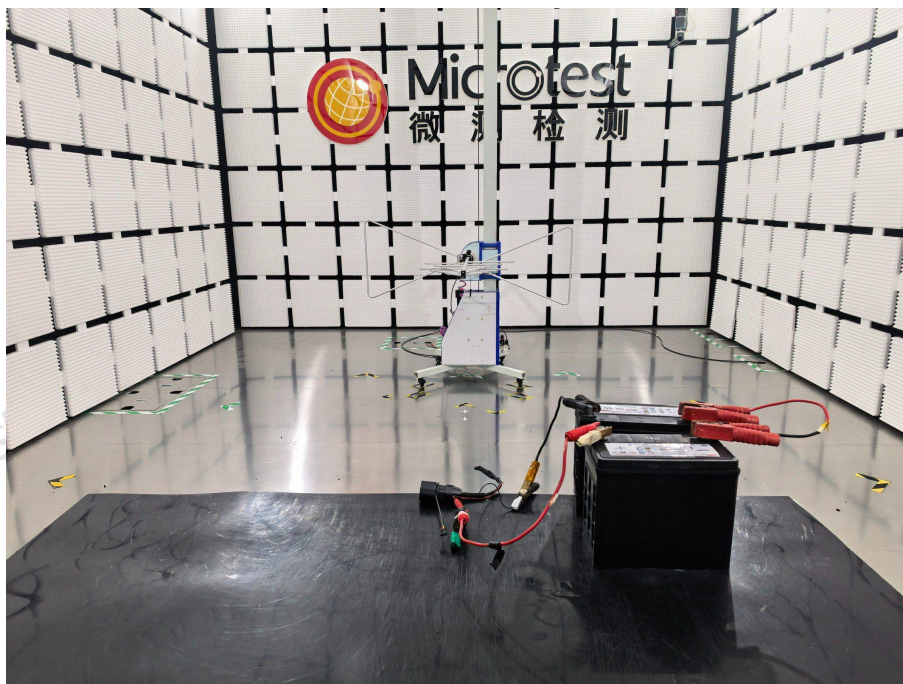
No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over		
		MHz	Level	Factor	ment				
			dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		1605.000	45.35	-7.41	37.94	74.00	-36.06	peak	
2		1605.000	35.09	-7.41	27.68	54.00	-26.32	AVG	
3		2060.000	44.31	-5.70	38.61	74.00	-35.39	peak	
4		2060.000	34.12	-5.70	28.42	54.00	-25.58	AVG	
5		3165.000	43.02	-2.58	40.44	74.00	-33.56	peak	
6		3165.000	32.31	-2.58	29.73	54.00	-24.27	AVG	
7		4095.000	41.66	-0.21	41.45	74.00	-32.55	peak	
8		4095.000	31.29	-0.21	31.08	54.00	-22.92	AVG	
9		4920.000	42.27	2.05	44.32	74.00	-29.68	peak	
10		4920.000	31.90	2.05	33.95	54.00	-20.05	AVG	
11		5695.000	43.41	2.64	46.05	74.00	-27.95	peak	
12	*	5695.000	33.07	2.64	35.71	54.00	-18.29	AVG	

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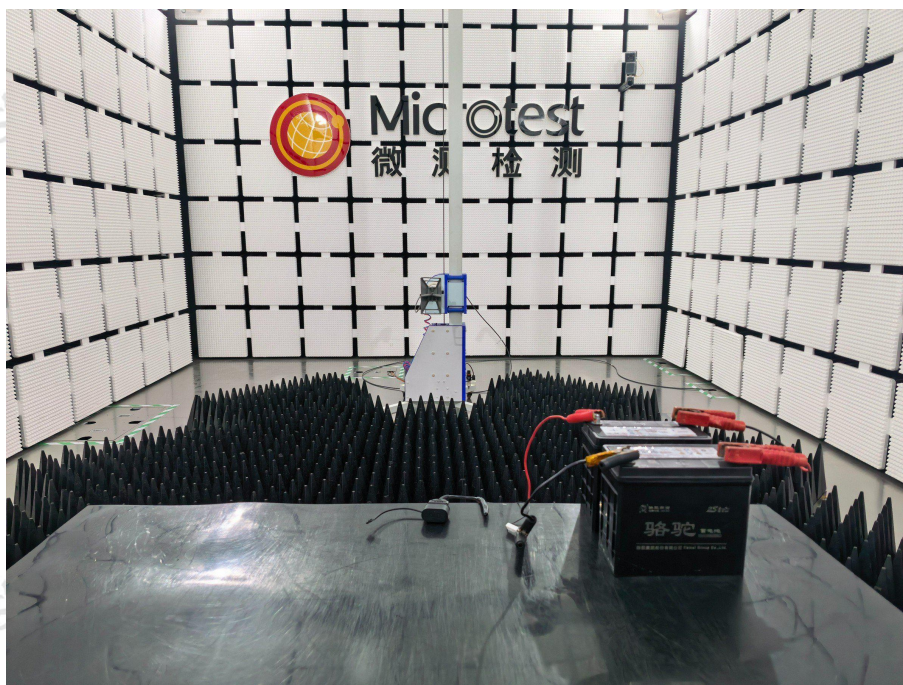
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Photographs of the test setup

Radiated emissions (Below 1GHz)



Radiated emissions (Above 1GHz)



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Photographs of the EUT

Refer to Appendix - EUT Photos

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Statement

1. This report is invalid without the seal and signature of the laboratory.
2. The test results of this report are only responsible for the samples submitted. Client shall be responsible for representativeness of the sample and authenticity of the material.
3. The report shall not be partially reproduced without the written consent of the Laboratory.
4. This report is invalid if transferred, altered or tampered with in any form without authorization.
5. The observations or tests with special mark fall outside the scope of accreditation, and are only used for purpose of commission, research, training, internal quality control etc.
6. Any objection to this report shall be submitted to the laboratory within 15 days from the date of receipt of the report.

***** END OF REPORT *****