



FCC PART 15 SUBPART A MEASUREMENT AND TEST REPORT

FOR

Maicatech
Crkviste 5A, Belgrade

FCC ID: 2BOK7-1

Model: 1.0

May 20, 2025

This Report Concerns:	Equipment Type:
☒ Original Report	Basis
Test Engineer:	LBi Li/ <i>LBi Li</i>
Report Number:	QCT25DR-1406E-01
Test Date:	May 05, 2025~May 14, 2025
Test Result:	Pass
Reviewed By:	Acob Ye/ <i>Acob Ye</i>
Approved By:	Kendy Wang / <i>Kendy Wang</i>
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1 - GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: Maicatech
Address of applicant: Crkviste 5A, Belgrade
Manufacturer: Maicatech
Address of manufacturer: Crkviste 5A, Belgrade

General Description of E.U.T

Product Description: Basis
Trade Mark: Maicatech
Model No.: 1.0
Test Model No.: 1.0
Sample No.: Y25C1406E01WC
Rated Supply: AC 120-240V, 50/60Hz
Highest internal frequency: <108MHz
Adapter Information: N/A

Remark: * The test data gathered are from the production sample provided by the manufacturer.

General Description of Test Auxiliary

AUX Description:	Manufacturer	Model No.	Remark
/	/	/	/

1.2 Test Standards

The following Declaration of Conformity report of EUT is prepared in accordance with FCC Rules and Regulations Part 15 Subpart B

The objective of the manufacturer is to demonstrate compliance with the described above standards.



1.3 Test Summary

For the EUT described above. The standards used were FCC Part 15 Subpart B for Emissions

Table 1: Tests Carried Out Under FCC Part 15 Subpart B

Standard	Test Items	Test Results
FCC Part 15 Subpart A	Conduction Emission (0.15MHz to 30MHz)	PASS
FCC Part 15 Subpart A	Radiation Emission (30MHz to 1GHz)	PASS
FCC Part 15 Subpart A	Radiation Emission (Above 1GHz)	PASS

"N/A" means "not applicable"

Note 1: All results of Pass/Fail in this report are opinions expressed by Shenzhen QC Testing Laboratory Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.

Note 2: In the configuration tested, the EUT complied with the standards specified above.

1.4 Test Methodology

All measurements contained in this report were conducted with CISPR 16-1-1, radio disturbance and immunity measuring apparatus, and CISPR 16-2-3, Method of measurement of disturbances and immunity.

All measurement required was performed at **Shenzhen QC Testing Laboratory Co., Ltd.** at East of 1/F., Building E, Xinghong Science Park, No.111, Shuike Road, Fenghuanggang, Xixiang Street, Bao'an District, Shenzhen, Guangdong, China.

1.5 Test Facility

Test Firm: Shenzhen QC Testing Laboratory Co., Ltd.

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19. The testing quality system of our laboratory meets with ISO/IEC-17025 requirements. This approval result is accepted by MRA of APLAC.

Our test facility is recognized, certified, or accredited by the following organizations:

CNAS – Registration No.: L8464

The EMC Laboratory has been accredited by CNAS, and in compliance with ISO/IEC 17025:2017 General Requirements for testing Laboratories.

A2LA Certificate Number: 6759.01

The EMC Laboratory has been accredited by A2LA, and in compliance with ISO/IEC 17025:2017 General Requirements for testing Laboratories.

FCC Registration Number: 561109

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission.



IC Registration Number: 29628

CAB identifier: CN0141

The EMC Laboratory has been registered and fully described in a report filed with the (IC) Industry Canada.

1.6 Measurement Uncertainty

Parameter	Uncertainty
Disturbance Voltage (9kHz-0.15MHz)	$\pm 2.25\text{dB}$
Disturbance Voltage (150kHz-30MHz)	$\pm 1.80\text{dB}$
Radiated electromagnetic disturbance (9kHz-30MHz)	$\pm 2.66\text{dB}$
Radiated electromagnetic disturbance (30MHz-1000MHz)	$\pm 4.04\text{dB}$
Radiated electromagnetic disturbance (1000MHz-18000MHz)	$\pm 4.70\text{dB}$
Radiated electromagnetic disturbance (18GHz-40GHz)	$\pm 4.80\text{dB}$
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.	

2 - SYSTEM TEST CONFIGURATION

2.1 Justification

The system was configured for testing in a typical fashion (as only used by a typical user).

2.2 EUT Exercise Software

The EUT exercising program used during radiated and conducted testing was designed to exercise the various system components in a manner similar to a typical use. The software offered by manufacturer, can let the EUT being **HIGH Mode**.

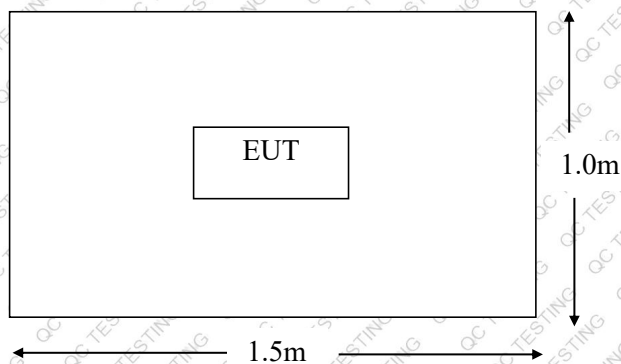
2.3 Special Accessories

As shown in section 2.5, interface cable used for compliance testing is shielded as normally supplied by **Millplan Electric Appliance (ShenZhen) Co., Limited** and its respective support equipment manufacturers.

2.4 Equipment Modifications

The EUT tested was not modified by QCT.

2.5 Configuration of Test System



3 - DISTURBANCE VOLTAGE AT THE MAINS TERMINALS

3.1 Limit of Disturbance Voltage at the Mains Terminals

Frequency Range (MHz)	Class A Limits (dBμV)		Class B Limits (dBμV)	
	Quasi-Peak	Average	Quasi-Peak	Average
0.150~0.500	79.0	66.0	66.0~56.0*	56.0~46.0*
0.500~5.000	73.0	60.0	56.0	46.0
5.000~30.00	73.0	60.0	60.0	50.0

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.
- (3) The test result calculated as following:
 Measurement Value = Reading Level+Correct Factor
 Correct Factor = Insertion Loss + Cable Loss +Attenuator Factor(if use)
 Margin Level = Measurement Value- Limit Value

3.2 EUT Setup

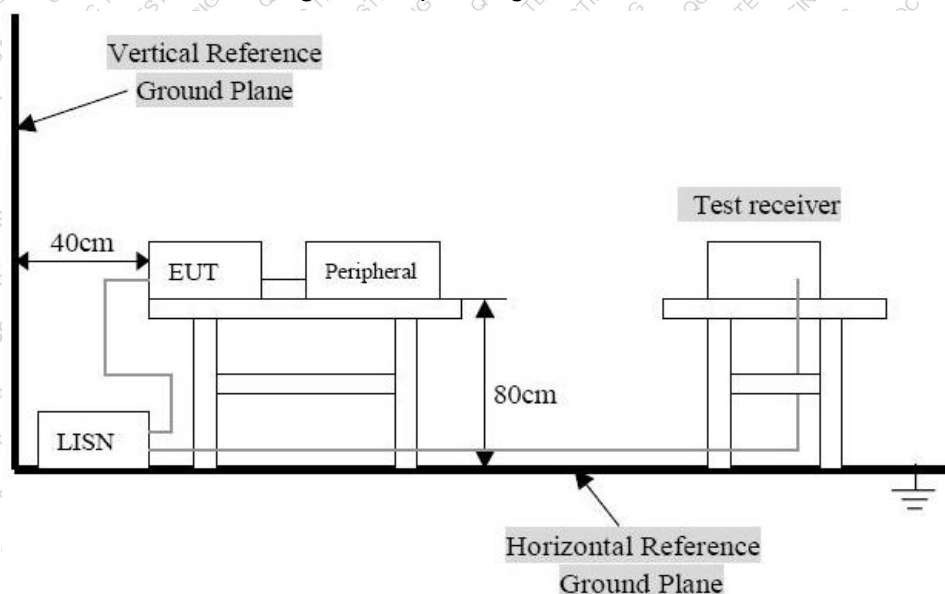
The setup of EUT is according with ANSI C63.4-2014 measurement procedure. The specification used was the FCC Rules and Regulations Part 15 Subpart B limits.

The EUT was placed center and the back edge of the test table.

The AV cables were draped along the test table and bundled to 30-40cm in the middle.

The spacing between the peripherals was 10 cm.

Maximum emission emitted from EUT was determined by manipulating the EUT, support equipment, interconnecting cables and varying the mode of operation and the levels in the final result of the test were recorded with the EUT running in the operating mode that maximum emission was emitted.





3.3 Instrument Setup

The test receiver was set with the following configurations:

Test Receiver Setting:

Frequency Range.....150 KHz to 30 MHz
Detector.....Peak & Quasi-Peak & Average
Sweep Speed.....Auto
IF Band Width.....9 KHz

3.4 Test Procedure

During the conducted emission test, the EUT power cord was connected to the auxiliary outlet of the first Artificial Mains.

Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance using all installation combination.

All data was recorded in the peak detection mode. Quasi-peak and Average readings were only performed when an emission was found to be marginal (within -10 dB μ V of specification limits). Quasi-peak readings are distinguished with a "QP". Average readings are distinguished with a "AV".

3.5 Summary of Test Results

According to the data in section 3.8, the EUT complied with the FCC Part 15 B Conducted margin, with the worst margin reading of:

3.6 Disturbance Voltage Test Data

Temperature (°C)	23
Humidity (%RH)	52
Barometric Pressure (kpa)	101
EUT	Basis
M/N	1.0
Operating Mode	Normal working

Test data see following pages

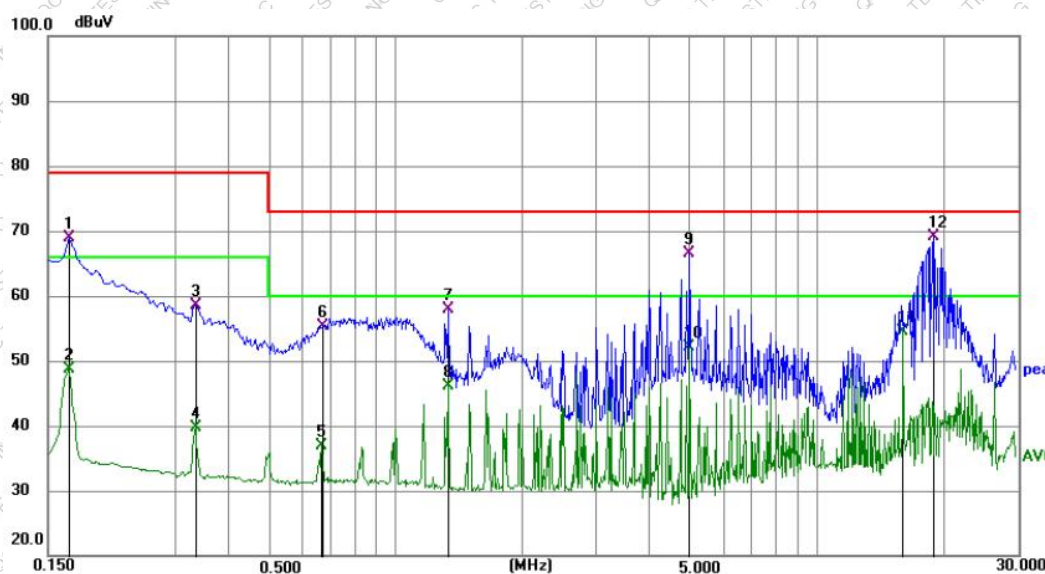
Remark: (1) When PK reading is less than relevant limit 20dB, the QP reading and AV reading will not be recorded.
(2) Where QP reading is less than relevant AV limit, the AV reading will not be measured



3.7 Test Equipment List and Details

No.	Equipment	Manufacturer	Model	Serial No.	Last Cal.	Cal.Due
1	EMI Test Receiver	Rohde&Schwarz	ESIB 7	2277573376	2025.03.13	2026.03.12
2	EMI Test Receiver	Rohde&Schwarz	ESC13	101820	2024.08.06	2025.08.05
3	Artificial Mains Network	SCHWARZBECK	NSLK8126	8126200	2024.08.06	2025.08.05
4	PULSE LIMITER	Rohde&Schwarz	ESH3-Z2	100058	2025.03.13	2026.03.12
5	Test Software	Tonscend	TS+ JS32-CE Ver 5.0.0	N/A	N/A	N/A

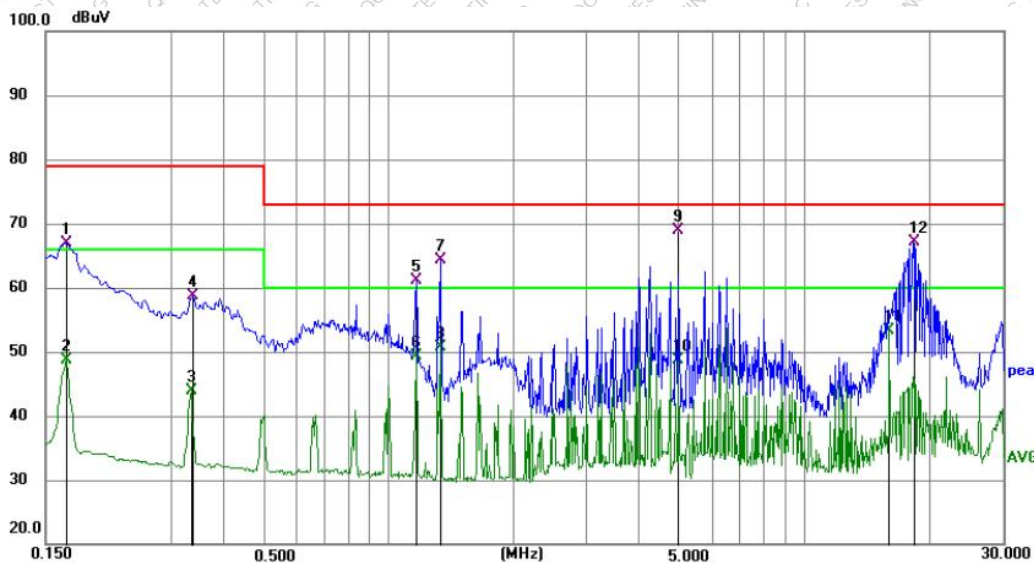
3.8 Test Result Line:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1680	58.39	10.58	68.97	79.00	-10.03	QP
2	0.1680	38.16	10.58	48.74	66.00	-17.26	AVG
3	0.3345	47.99	10.60	58.59	79.00	-20.41	QP
4	0.3345	29.15	10.60	39.75	66.00	-26.25	AVG
5	0.6673	26.20	10.65	36.85	60.00	-23.15	AVG
6	0.6720	44.73	10.65	55.38	73.00	-17.62	QP
7	1.3333	47.18	10.65	57.83	73.00	-15.17	QP
8	1.3333	35.36	10.65	46.01	60.00	-13.99	AVG
9	5.0000	55.77	10.73	66.50	73.00	-6.50	QP
10	5.0000	41.41	10.73	52.14	60.00	-7.86	AVG
11	16.0029	43.60	10.99	54.59	60.00	-5.41	AVG
12 *	18.9100	57.93	11.08	69.01	73.00	-3.99	QP



Neutral:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1680	56.41	10.58	66.99	79.00	-12.01	QP
2	0.1680	38.16	10.58	48.74	66.00	-17.26	AVG
3	0.3345	33.31	10.60	43.91	66.00	-22.09	AVG
4	0.3390	48.01	10.60	58.61	79.00	-20.39	QP
5	1.1670	50.44	10.64	61.08	73.00	-11.92	QP
6	1.1670	38.66	10.64	49.30	60.00	-10.70	AVG
7	1.3334	53.69	10.65	64.34	73.00	-8.66	QP
8	1.3334	40.01	10.65	50.66	60.00	-9.34	AVG
9 *	5.0000	58.23	10.73	68.96	73.00	-4.04	QP
10	5.0000	38.02	10.73	48.75	60.00	-11.25	AVG
11	16.0029	42.26	10.99	53.25	60.00	-6.75	AVG
12	18.2394	56.09	11.06	67.15	73.00	-5.85	QP

4 - RADIATED DISTURBANCES

4.1 Limit of Radiated Disturbances

☒ Limit for radiated emissions at frequencies up to 1 GHz for class A equipment

Frequency (MHz)	Distance (Meters)	Field Strengths Limits (μV/m)	Field Strengths Limits (dBμV/m)
30 ~ 88	3	300	49.5
88~216	3	500	54.0
216 ~ 960	3	700	56.9
Above 960	3	1000	60.0

☐ Limit for radiated emissions at frequencies up to 1 GHz for class B equipment

Frequency (MHz)	Distance (Meters)	Field Strengths Limits (μV/m)	Field Strengths Limits (dBμV/m)
30 ~ 88	3	100	40.0
88~216	3	150	43.5
216 ~ 960	3	200	46.0
Above 960	3	500	54.0

☒ Limit for radiated emissions at frequencies above 1 GHz for class A equipment

Frequency (MHz)	Distance (Meters)	Field Strengths Limits (dBμV/m)	
Above 960	3	Peak	Average
		80	60

☐ Limit for radiated emissions at frequencies above 1 GHz for class B equipment

Frequency (MHz)	Distance (Meters)	Field Strengths Limits (dBμV/m)	
Above 960	3	Peak	Average
		74	54

Note:

- (1) The tighter limit applies at the band edges.
- (2) Emission level (dBuV/m)=20log Emission level (uV/m).
- (3) The test result calculated as following:
 Measurement Value =Reading Level +Correct Factor
 Correct Factor = Antenna Factor +Cable Loss -Amplifier Gain(ifuse)
 Margin Level= Measurement Value-Limit Value

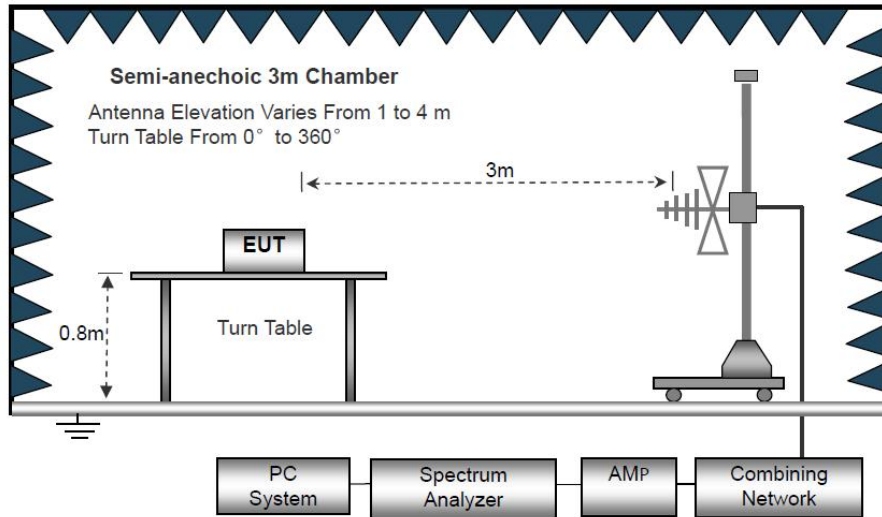
4.2 EUT Setup

The radiated emission tests were performed in the in the 3-meter anechoic chamber, using the setup accordance with the ANSI C63.4-2014. The specification used was the FCC Part 15 Subpart B limits.

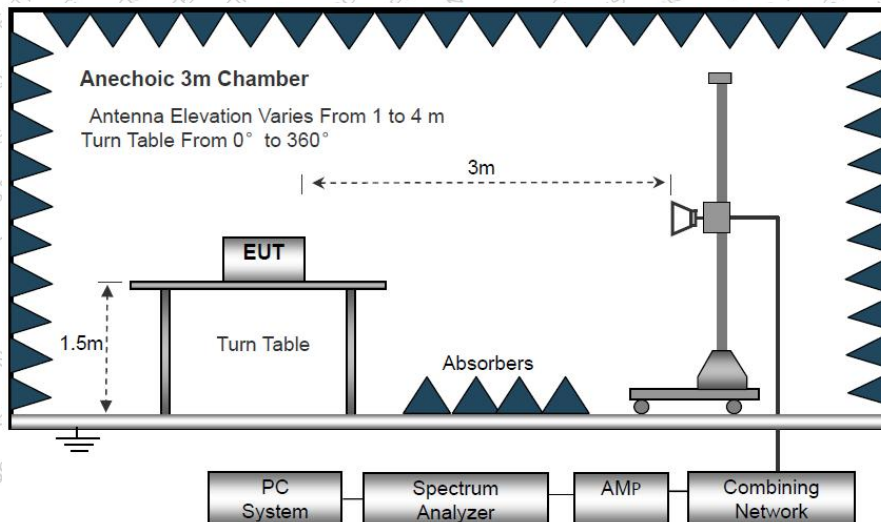
The EUT was placed on the center of the test table.

Maximum emission emitted from EUT was determined by manipulating the EUT, support equipment, interconnecting cables and varying the mode of operation and the levels in the final result of the test were recorded with the EUT running in the operating mode that maximum emission was emitted.

Block diagram of test setup (In chamber)



The test setup for emission measurement from 30 MHz to 1 GHz.



The test setup for emission measurement above 1 GHz

4.3 Test Receiver Setup

According to FCC Part 15 rule, the frequency was investigated from 30 to 1000 MHz. During the radiated emission test, the test receiver was set with the following configurations:

Test Receiver Setting:

Detector..... Peak & Quasi-Peak & Average
IF Band Width..... 120KHz/1MHz



Frequency Range..... 30MHz to 1000MHz
Turntable Rotated..... 0 to 360 degrees
Antenna Position:
Height..... 1m to 4m
Polarity..... Horizontal and Vertical

4.4 Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

All data was recorded in the peak detection mode. Quasi-peak readings performed only when an emission was found to be marginal (within -10 dB μ V of specification limits), and are distinguished with a "QP" in the data table.

4.5 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\text{Corr. Ampl.} = \text{Indicated Reading} + \text{Antenna Factor} + \text{Cable Factor} - \text{Amplifier Gain}$$

The "Margin" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7dB μ V means the emission is 7dB μ V below the maximum limit for Subpart B. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corr. Ampl.}$$

4.6 Radiated Emissions Test Result

Temperature (°C)	25
Humidity (%RH)	49
Barometric Pressure (kpa)	101
EUT	Basis
M/N	1.0
Operating Mode	Normal Working



4.7 Test Equipment List and Details

No.	Equipment	Manufacturer	Model	Serial No.	Last Cal.	Cal.Due
1	EMI Test Receiver	R&S	ESIB 7	2277573376	2025.03.13	2026.03.12
2	EMI Test Receiver	ESPI3	ESPI3	101131	2025.03.13	2026.03.12
3	Spectrum Analyzer	Rohde&Schwarz	FSV 40	101458	2025.03.13	2026.03.12
4	TRILOG Broadband Test-Antenna	SCHWARZBECK	VULB9168	VULB9168- 588	2023.04.01	2025.03.31
5	Loop Antenna	EMCO	6502	2133	2025.03.17	2026.03.16
6	horn antenna	SCHWARZBECK	BBHA9120D	2069	2024.08.10	2025.08.09
7	Horn Antenna	COM-MW	ZLB7-18-40G -950	12221225	2024.08.10	2026.08.09
8	Pre-amplifier	MITEQ	TTA0001-18	2063645	2024.03.27	2025.03.26
9	Pre-amplifier	COM-MW	DLAN-18000 -40000-02	10229104	2025.03.13	2026.03.12
10	966 Camber	ZhongYU	9*6*6	/	2023.05.08	2026.05.07
11	Test Software	Farad	EZ-EMC Ver QCT03A2 RE+	N/A	N/A	N/A

4.8 Test Result

PASS



Radiated Emission Test Data of Below 1GHz

Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	71.5931	58.19	-17.91	40.28	49.50	-9.22	QP
2	108.0391	61.49	-17.36	44.13	54.00	-9.87	QP
3 *	163.3535	62.69	-14.20	48.49	54.00	-5.51	QP
4	348.7604	49.58	-12.80	36.78	56.90	-20.12	QP
5	806.2972	39.85	-3.92	35.93	56.90	-20.97	QP
6	948.7608	42.14	-2.02	40.12	56.90	-16.78	QP



Vertical:

90.0 dBuV/m



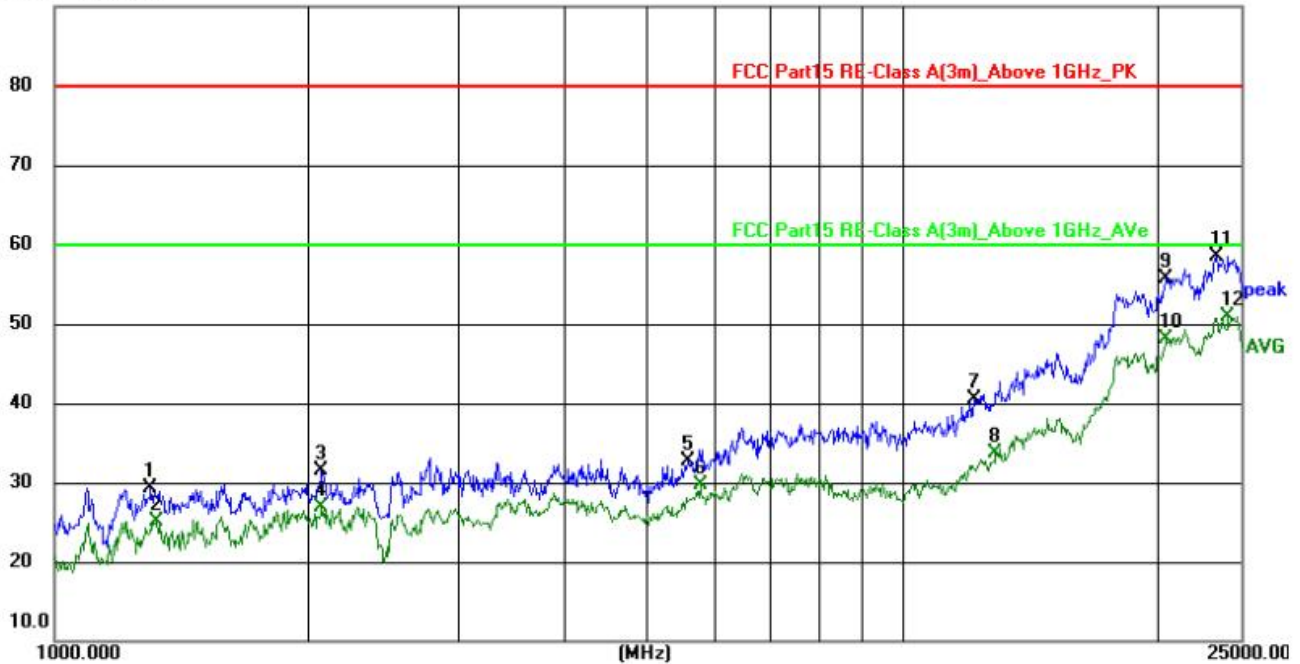
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	73.0511	63.39	-17.79	45.60	49.50	-3.90	QP
2	123.4384	65.16	-16.06	49.10	54.00	-4.90	QP
3	155.7734	62.35	-14.68	47.67	54.00	-6.33	QP
4	197.3384	52.68	-18.33	34.35	54.00	-19.65	QP
5	343.9630	45.11	-13.62	31.49	56.90	-25.41	QP
6	824.1631	45.02	-2.82	42.20	56.90	-14.70	QP



Radiated Emission Test Data of Above 1GHz

Horizontal:

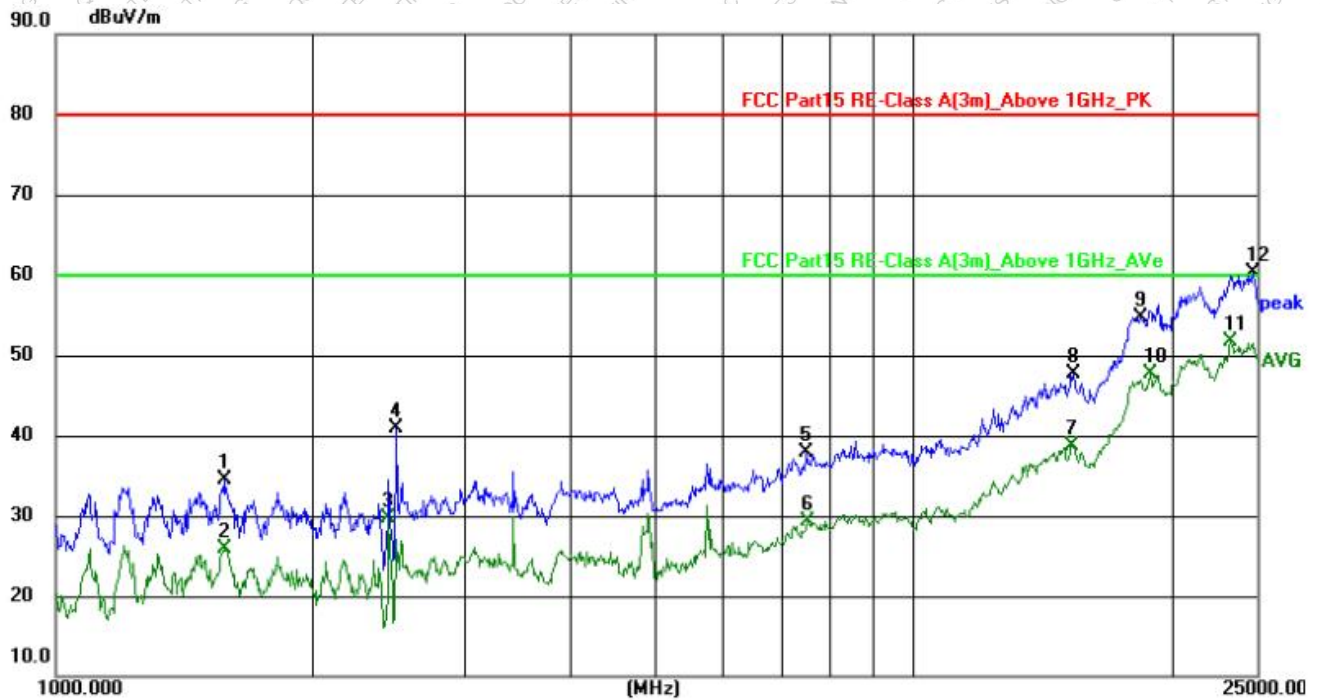
90.0 dBuV/m



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F
1	1301.200	37.18	-7.93	29.25	80.00	-50.75	peak	100	0	P
2	1319.200	33.07	-7.92	25.15	60.00	-34.85	AVG	100	0	P
3	2068.000	37.18	-5.74	31.44	80.00	-48.56	peak	100	0	P
4	2068.000	32.59	-5.74	26.85	60.00	-33.15	AVG	100	0	P
5	5587.600	30.62	2.11	32.73	80.00	-47.27	peak	100	0	P
6	5761.600	26.78	2.88	29.66	60.00	-30.34	AVG	100	0	P
7	12131.200	29.80	10.61	40.41	80.00	-39.59	peak	100	0	P
8	12846.400	21.67	12.11	33.78	60.00	-26.22	AVG	100	0	P
9	20434.000	55.69	0.00	55.69	80.00	-24.31	peak	100	0	P
10	20434.000	48.11	0.00	48.11	60.00	-11.89	AVG	100	0	P
11	23369.200	58.59	0.00	58.59	80.00	-21.41	peak	100	0	P
12 *	24168.400	50.88	0.00	50.88	60.00	-9.12	AVG	100	0	P



Vertical:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F
1	1572.400	41.58	-7.16	34.42	80.00	-45.58	peak	100	0	P
2	1572.400	33.00	-7.16	25.84	60.00	-34.16	AVG	100	0	P
3	2444.800	34.08	-4.47	29.61	60.00	-30.39	AVG	100	0	P
4	2488.000	45.18	-4.33	40.85	80.00	-39.15	peak	100	0	P
5	7488.400	32.34	5.54	37.88	80.00	-42.12	peak	100	0	P
6	7507.600	23.69	5.55	29.24	60.00	-30.76	AVG	100	0	P
7	15256.000	25.90	12.86	38.76	60.00	-21.24	AVG	100	0	P
8	15282.400	34.95	12.84	47.79	80.00	-32.21	peak	100	0	P
9	18338.800	54.68	0.00	54.68	80.00	-25.32	peak	100	0	P
10	18806.800	47.78	0.00	47.78	60.00	-12.22	AVG	100	0	P
11 *	23330.800	51.80	0.00	51.80	60.00	-8.20	AVG	100	0	P
12	24740.800	60.30	0.00	60.30	80.00	-19.70	peak	100	0	P



APPENDIX I -- TEST SETUP PHOTOGRAPH

Please refer to separated files Appendix I -- Test Setup Photograph

APPENDIX II -- EXTERNAL PHOTOGRAPH

Please refer to separated files Appendix II -- External Photograph

APPENDIX III -- INTERNAL PHOTOGRAPH

Please refer to separated files Appendix III -- Internal Photograph

*****End of Test Report*****