

FCC EMC Test Report

Report No. : BTL-FCCE-1-2412T077
Equipment : LCD Color Display
Model Name : AMM215WTTXXXX (X= 0~9, A~Z, a~z, "-" or blank)
Brand Name : Barco
Applicant : BARCO, INC.
Address : 3059 Premiere Parkway, Suite 400 Duluth, GA 30097 U.S.A.

FCC Rule Part(s) : FCC CFR Title 47, Part 15, Subpart B Class B
Measurement : ANSI C63.4-2014
Procedure(s) : ANSI C63.4a-2017

Date of Receipt : 2024/12/31
Date of Test : 2025/1/6 ~ 2025/1/16
Issued Date : 2025/3/26

The above equipment has been tested and found in compliance with the requirement of the above standards by BTL Inc.

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Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** assumes no responsibility for the data provided by the Customer, any statements, inferences or generalizations drawn by the customer or others from the reports issued by **BTL**.

This report is the confidential property of the client. As a mutual protection to the clients, the public and ourselves, the test report shall not be reproduced, except in full, without our written approval.

BTL's laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

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REVISION HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCCE-1-2412T077	R00	Original Report.	2025/3/5	Invalid
BTL-FCCE-1-2412T077	R01	Added test sample S/N: 4LTC100112.	2025/3/26	Valid

1 SUMMARY OF TEST RESULTS

Emission			
Standard	Test Item	Limit	Judgment
FCC CFR Title 47, Part 15, Subpart B	AC power line conducted emissions	Class B	PASS
	Radiated emissions below 1 GHz	Class B	PASS
	Radiated emissions above 1 GHz	Class B	PASS

Statement of Conformity
The statement of conformity is based on the binary decision rule according to IEC Guide 115 and ILAC G8 "simple acceptance" principle. Without considering measurement uncertainty, its specific risk is less than 50% PFA. (PFA: Probability of False Accept)

NOTE:

- (1) "N/A" denotes test is not applicable in this Test Report.
- (2) The report format version is TP.1.1.2.

1.1 TEST FACILITY

TAF Accreditation Number is 0659

The facilities used to collect the test data in this report are:

No.18, Ln. 171, Sec. 2, Jiuzong Rd., Neihu Dist., Taipei City 114, Taiwan

FCC Designation Number is TW1115.

C03 CB18 CB19

No. 68-1, Ln. 169, Sec. 2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan

FCC Designation Number is TW1151.

C05 CB08 CB11

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k = 2$, providing a level of confidence of approximately 95 %. The measurement instrumentation uncertainty considerations contained in CISPR 16-4-2. The BTL measurement uncertainty is less than the CISPR 16-4-2 U_{cisp} requirement.

A. AC power line conducted emissions test:

Test Site	Measurement Frequency Range	U_{Lab} (dB)	U_{CISPR} (dB)
C03	150 kHz ~ 30 MHz	3.06	3.44

B. Radiated emissions below 1 GHz test:

Test Site	Measurement Frequency Range	Ant. H / V	U_{Lab} (dB)	U_{CISPR} (dB)
CB08 (10 m)	30 MHz ~ 200 MHz	V	4.32	5.03
	30 MHz ~ 200 MHz	H	3.78	5.05
	200 MHz ~ 1000 MHz	V	4.06	5.21
	200 MHz ~ 1000 MHz	H	3.68	5.20

C. Radiated emissions above 1 GHz test:

Test Site	Measurement Frequency Range	Ant. H / V	U_{Lab} (dB)	U_{CISPR} (dB)
CB11 (3 m)	1 GHz ~ 6 GHz	V	4.86	5.18
	1 GHz ~ 6 GHz	H	4.44	5.18

NOTE:

Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Environment Condition	Tested by
Conducted emissions	22°C, 64%	Jimmy Tsai
Radiated emissions below 1 GHz	22°C, 65%	Bruce Lu
Radiated emissions above 1 GHz	20°C, 54%	Eric Tai

2 GENERAL INFORMATION

2.1 EUT INFORMATION

Equipment	LCD Color Display
Model Name	AMM215WTTXXXXX (X= 0~9, A~Z, a~z, "-" or blank)
Brand Name	Barco
Model Difference	Different models distribute to different area.
Power Source	DC Voltage supplied from AC/DC adapter.
Power Rating	For EUT: 12VDC, 3A For Adapter (BPM050S12F09): I/P: 100-240VAC~, 50-60Hz, 1.5A (1.5A-0.7A) O/P: +12VDC, 4.2A
Products Covered	1* 21.5" LCD Panel: LG 1* Adapter: Bridge Power Corp. / BPM050S12F09
Test Model	AMM215WTP
Sample Status	Engineering Sample (S/N: 4LTC100112)
Highest Internal Frequency	148.5 MHz
EUT Modification(s)	N/A

NOTE:

(1) The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

2.2 TEST MODES

The test system was pre-tested based on the consideration of all possible combinations of EUT operation modes according to test plan.

Pretest Mode	Description
Mode 1	FULL SYSTEM DVI 1920*1080/60Hz+Picture Rotation 0°+With Stand
Mode 2	FULL SYSTEM D-SUB 1920*1080/60Hz+Picture Rotation 0°+With Stand
Mode 3	FULL SYSTEM DVI 1280*1024/75Hz+Picture Rotation 0°+With Stand
Mode 4	FULL SYSTEM DVI 640*480/60Hz+Picture Rotation 0°+With Stand
Mode 5	FULL SYSTEM DVI 1920*1080/60Hz+Picture Rotation 90°+With Stand
Mode 6	FULL SYSTEM DVI 1920*1080/60Hz+Sky Faced +With Stand
Mode 7	FULL SYSTEM DVI 1920*1080/60Hz+Picture Rotation 0°+Without Stand
Mode 8	FULL SYSTEM DVI 1920*1080/60Hz+Picture Rotation 90°+Without Stand
Mode 9	FULL SYSTEM DVI 1920*1080/60Hz+Sky Faced +Without Stand

Following mode(s) was (were) found to be the worst case(s) and selected for the final test.

AC power line conducted emissions test	
Final Test Mode	Description
Mode 1	FULL SYSTEM DVI 1920*1080/60Hz+Picture Rotation 0°+With Stand

Radiated emissions below 1 GHz test	
Final Test Mode	Description
Mode 1	FULL SYSTEM DVI 1920*1080/60Hz+Picture Rotation 0°+With Stand

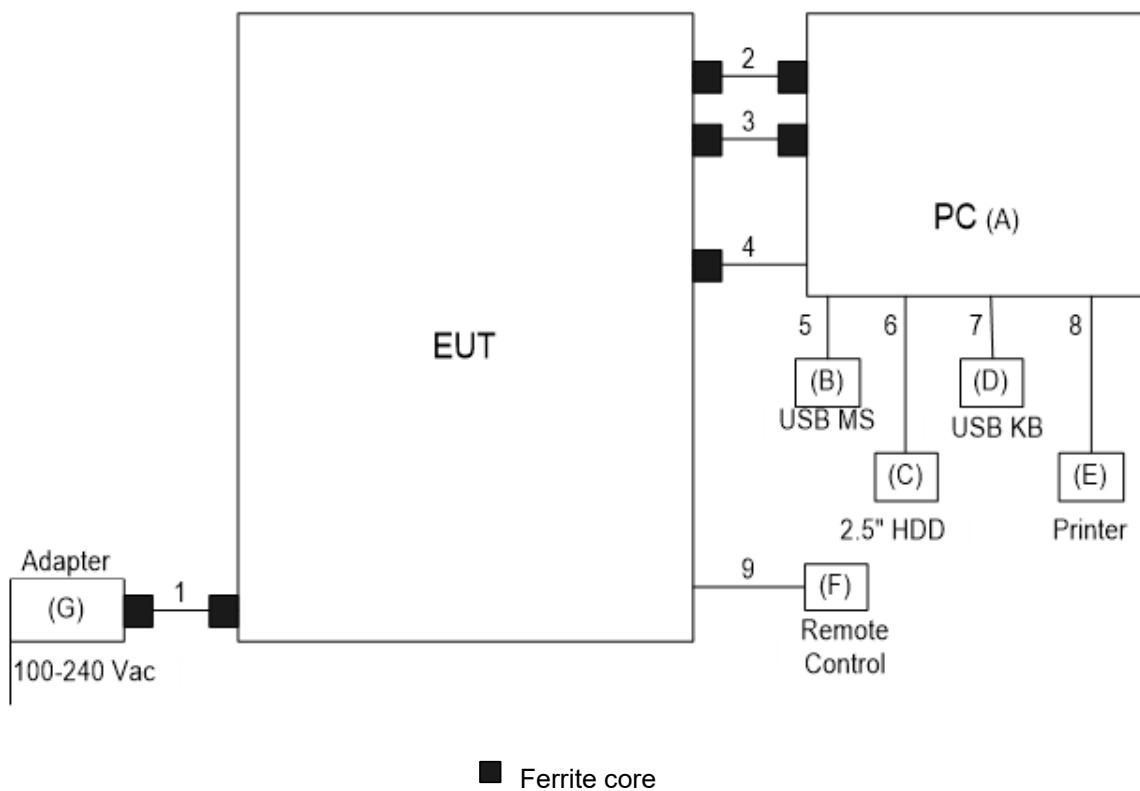
Radiated emissions above 1 GHz test	
Final Test Mode	Description
Mode 1	FULL SYSTEM DVI 1920*1080/60Hz+Picture Rotation 0°+With Stand

2.3 EUT OPERATING CONDITION

The EUT exercise program (BurninTEST V9.0) used during radiated and/or conducted emissions measurement was designed to exercise the various system components in a manner similar to a typical use.

2.4 TESTED CONFIGURATION DIAGRAM

Equipment letters and Cable numbers refer to item numbers described in the tables of clause 2.5.



2.5 SUPPORT UNITS

Item	Equipment	Brand	Model No.	Series No.	Remarks
A (RE)	PC	DELL	OptiPlex 790 MT	64NJV BX	Furnished by test lab.
A (CE)	PC	DELL	OptiPlex 9020 MT	JC22052	Furnished by test lab.
B	USB Mouse	DELL	MOCZUL	CN-049TWY- PRC00-79E-01HA	Furnished by test lab.
C	USB 3.0 HDD (My Passport Ultra)	WD	WDBC3C0010BSL- 0B	WX81A88ALJUC	Furnished by test lab.
D	USB K/B	DELL	KB216t	CN-0W33XP- L0300-797-05TY- A03	Furnished by test lab.
E	Printer	HP	SNPRH-1504	N/A	Furnished by test lab.
F	Remote Control	N/A	N/A	N/A	Supplied by test requester.
G	ADAPTER	BridgePower	BPM050S12F09	C 24050123	Supplied by test requester.

Item	Cable Type	Shielded	Ferrite Core	Length	Remarks
1	Power Cable	YES	YES	3m	Supplied by test requester.
2	D-SUB Cable	YES	YES	4.5m	Supplied by test requester.
3	DVI Cable	YES	YES	1.8m	Supplied by test requester.
4	USB Cable	YES	YES	4.5m	Supplied by test requester.
5	USB Cable	YES	NO	1.7m	Type: USB 2.0 Furnished by test lab.
6	USB Cable	YES	NO	1.8m	Type: USB 3.2 Gen1 Furnished by test lab.
7	USB Cable	YES	NO	1.7m	Type: USB 2.0 Furnished by test lab.
8	USB Cable	YES	NO	1.8m	Type: USB 2.0 Furnished by test lab.
9	RJ-12 Cable	NO	NO	1.5m	Supplied by test requester.

3 EMC EMISSION TEST

3.1 CONDUCTED EMISSIONS TEST

3.1.1 LIMITS

Frequency (MHz)	Class A (dB μ V)		Class B (dB μ V)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56 *	56 - 46 *
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

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

Calculation example:

Reading Level (dB μ V)		Correct Factor (dB)		Measurement Value (dB μ V)
38.22	+	3.45	=	41.67

Measurement Value (dB μ V)		Limit Value (dB μ V)		Margin Level (dB)
41.67	-	60	=	-18.33

3.1.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	TWO-LINE V-NETWORK	R&S	ENV216	101050	2024/5/10	2025/5/9
2	Test Cable	EMCI	EMCRG142S-BM-BMR-5000	230912	2024/12/10	2025/12/9
3	EMI Test Receiver	R&S	ESR3	101854	2024/12/17	2025/12/16
4	Measurement Software	Farad	EZ_EMCA (Ver. NB-03A1-01)	N/A	N/A	N/A

REMARK:

- (1) "N/A" denotes no model name, no serial no. or no calibration specified.
- (2) All calibration period of equipment list is one year.

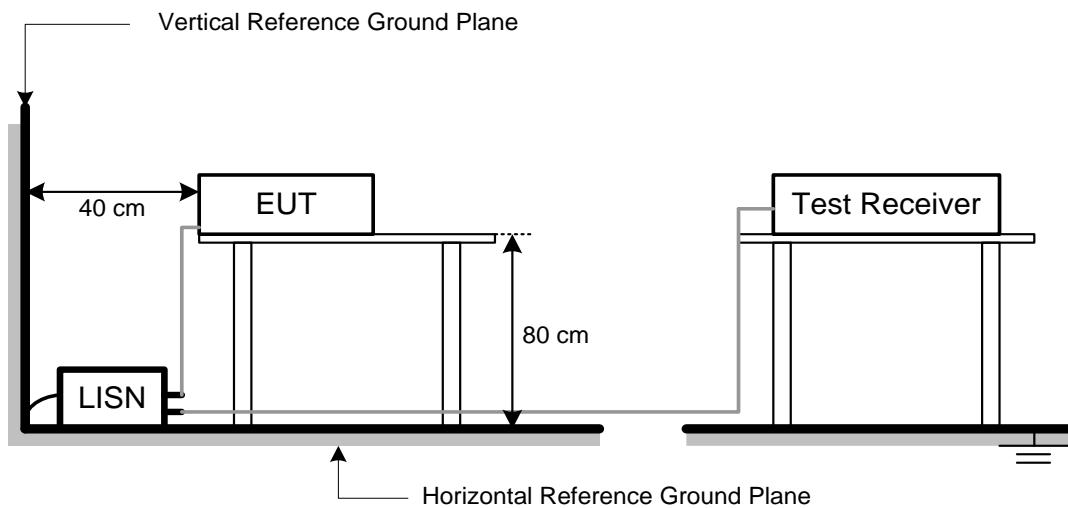
3.1.3 TEST PROCEDURE

- a. The EUT was placed 0.8 m above the horizontal ground plane with the EUT being connected to the power mains through a line impedance stabilization network (LISN).
All other support equipment were powered from an additional LISN(s).
The LISN provides 50 Ohm/50uH of 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 to keep the cable above 40 cm.
- c. Excess I/O cables that are not connected to a peripheral shall be bundled in the center.
The end of the cable will be terminated, using the correct terminating impedance.
The overall length shall not exceed 1 m.
- d. The LISN is spaced at least 80 cm from the nearest part of the EUT chassis.
- e. The receiver was set to quasi-peak and average detect function and specified bandwidth with maximum hold mode.
- f. For the actual test configuration, please refer to the related Item - TEST PHOTOS.

3.1.4 DEVIATION FROM TEST STANDARD

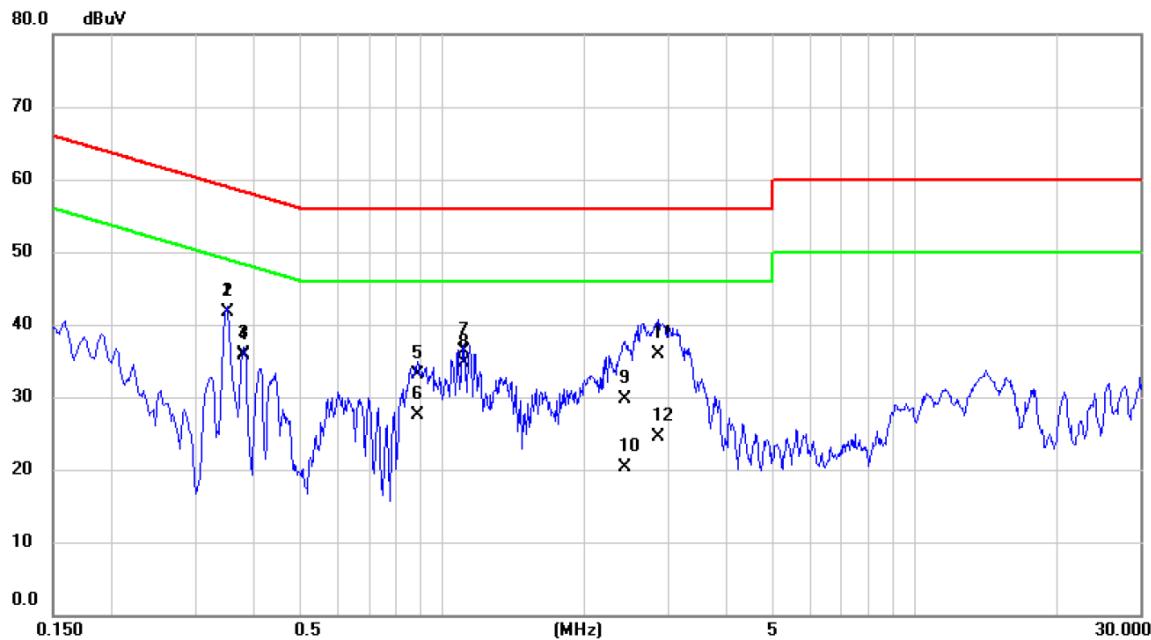
No deviation.

3.1.5 TEST SETUP



3.1.6 TEST RESULT

Test Mode	Mode 1	Tested Date	2025/1/15
Test Voltage	AC 120V/60Hz	Phase	Line

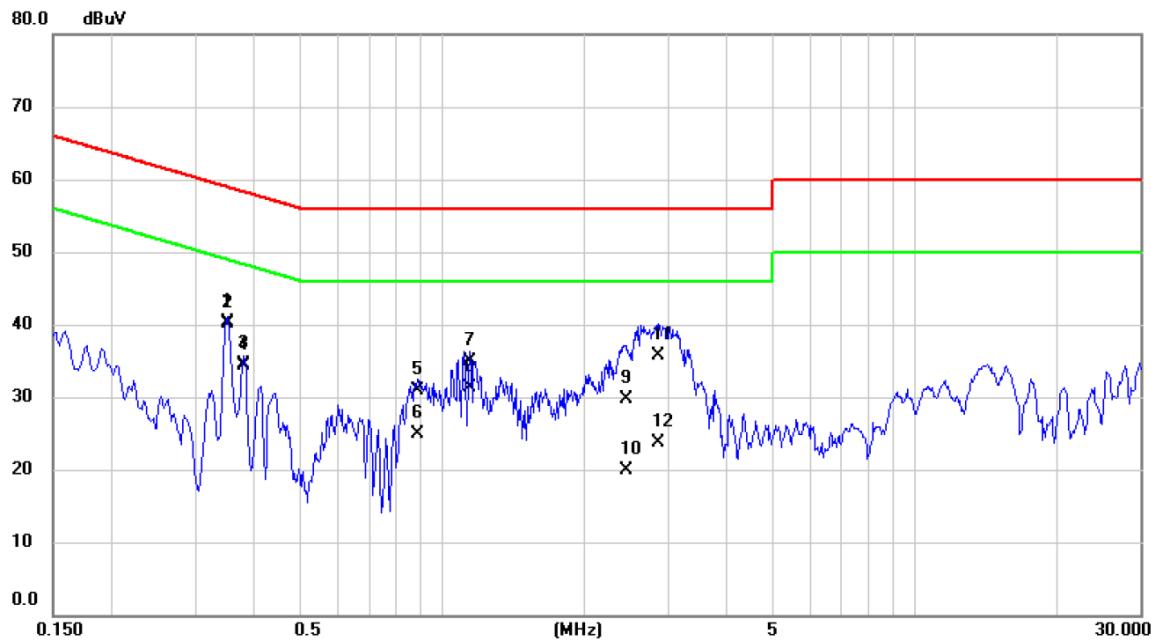


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.3502	32.10	9.70	41.80	58.96	-17.16	QP		
2 *	0.3502	32.00	9.70	41.70	48.96	-7.26	AVG		
3	0.3795	26.20	9.70	35.90	58.29	-22.39	QP		
4	0.3795	26.10	9.70	35.80	48.29	-12.49	AVG		
5	0.8880	23.40	9.72	33.12	56.00	-22.88	QP		
6	0.8880	17.80	9.72	27.52	46.00	-18.48	AVG		
7	1.1085	26.60	9.73	36.33	56.00	-19.67	QP		
8	1.1085	24.90	9.73	34.63	46.00	-11.37	AVG		
9	2.4338	19.90	9.83	29.73	56.00	-26.27	QP		
10	2.4338	10.50	9.83	20.33	46.00	-25.67	AVG		
11	2.8545	26.00	9.84	35.84	56.00	-20.16	QP		
12	2.8545	14.70	9.84	24.54	46.00	-21.46	AVG		

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	Mode 1	Tested Date	2025/1/15
Test Voltage	AC 120V/60Hz	Phase	Neutral



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.3502	30.70	9.69	40.39	58.96	-18.57	QP	
2	*	0.3502	30.50	9.69	40.19	48.96	-8.77	AVG	
3		0.3795	24.90	9.69	34.59	58.29	-23.70	QP	
4		0.3795	24.70	9.69	34.39	48.29	-13.90	AVG	
5		0.8880	21.10	9.71	30.81	56.00	-25.19	QP	
6		0.8880	15.20	9.71	24.91	46.00	-21.09	AVG	
7		1.1445	25.10	9.72	34.82	56.00	-21.18	QP	
8		1.1445	21.50	9.72	31.22	46.00	-14.78	AVG	
9		2.4472	19.80	9.82	29.62	56.00	-26.38	QP	
10		2.4472	10.10	9.82	19.92	46.00	-26.08	AVG	
11		2.8545	25.80	9.84	35.64	56.00	-20.36	QP	
12		2.8545	13.80	9.84	23.64	46.00	-22.36	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

3.2 RADIATED EMISSIONS BELOW 1 GHZ TEST

3.2.1 LIMITS

FCC CFR Title 47, Part 15, Subpart B:

Frequency (MHz)	Class A (at 10 m)		Class A (at 3 m)*		Class B (at 3 m)	
	(uV/m) Field strength	(dBuV/m) Field strength	(dBuV/m) Field strength	(uV/m) Field strength	(dBuV/m) Field strength	
30 - 88	90	39	49.46	100	40	
88 - 216	150	43.5	53.96	150	43.5	
216 - 960	210	46.4	56.86	200	46	
Above 960	300	49.5	59.96	500	54	

* FCC CFR Title 47, Part 15, Subpart A, section 15.31(f)(1), the distance could be extrapolated by using 20 dB/decade factor.

Alternative Limits:

Frequency (MHz)	Class A (at 10 m)		Class B (at 10 m)	
	dB μ V/m		dB μ V/m	
30 - 230	40		30	
230 - 1000	47		37	

FCC CFR Title 47, Part 15, Subpart B, section 15.109(g) provides, as an alternative, compliance to the CISPR 22 (Third Edition) radiated emission limits in the 30 MHz to 1000 MHz range.

Frequency range of radiated measurements (For unintentional radiators)

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 - 108	1000
108 - 500	2000
500 - 1000	5000
Above 1000	5 th harmonic of the highest frequency or 40 GHz, whichever is lower

NOTE:

- (1) The tighter limit applies at the band edges.
- (2) Emission level (dB μ V/m) = 20log Emission level (uV/m).
3 m Emission level = 10 m Emission level + 20log(10 m/3 m).
- (3) The test result calculated as following:

Measurement Value = Reading Level + Correct Factor
Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain (if use)
Margin Level = Measurement Value - Limit Value

Calculation example:

Reading Level (dB μ V)		Correct Factor (dB/m)		Measurement Value (dB μ V/m)
19.11	+	2.11	=	21.22

Measurement Value (dB μ V/m)		Limit Value (dB μ V/m)		Margin Level (dB)
21.22	-	40	=	-18.78

3.2.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Log-Bicon Antenna	Schwarzbeck	VULB 9168	9168-641	2024/2/23	2025/2/22
2	Attenuator	Inmet	EMCI-N-6-05	AT-N0507	2024/2/23	2025/2/22
3	Pre-Amplifier	EMCI	EMC 9135	980282	2024/9/13	2025/9/12
4	Test Cable	EMCI	EMC104-SM-SM-800	230906	2024/9/13	2025/9/12
5	Test Cable	EMCI	EMCCFD400-NM-NM-8000	230903	2024/9/13	2025/9/12
6	Test Cable	EMCI	EMCCFD400-NM-NM-3500	230904	2024/9/13	2025/9/12
7	Test Cable	EMCI	EMC104-NM-SM-2500	230908	2024/9/13	2025/9/12
8	EMI Test Receiver	Keysight	N9038A	MY57190113	2024/3/18	2025/3/17
9	Log-Bicon Antenna	Schwarzbeck	VULB 9168	9168-673	2024/2/23	2025/2/22
10	Attenuator	Inmet	EMCI-N-6-06	AT-N0615	2024/2/23	2025/2/22
11	Pre-Amplifier	EMCI	EMC 9135	980281	2024/9/13	2025/9/12
12	Test Cable	EMCI	EMC104-SM-SM-1000	230905	2024/9/13	2025/9/12
13	Test Cable	EMCI	EMC104-SM-SM-2500	230907	2024/9/13	2025/9/12
14	Test Cable	EMCI	EMCCFD400-NM-NM-8000	230902	2024/9/13	2025/9/12
15	Test Cable	EMCI	EMCCFD400-NM-NM-11000	230901	2024/9/13	2025/9/12
16	EXA Signal Analyzer	Keysight	N9010A	MY54200483	2024/11/21	2025/11/20
17	Measurement Software	Farad	EZ_EMC (Ver. NB-03A1-01)	N/A	N/A	N/A

REMARK:

- (1) "N/A" denotes no model name, no serial no. or no calibration specified.
- (2) All calibration period of equipment list is one year.

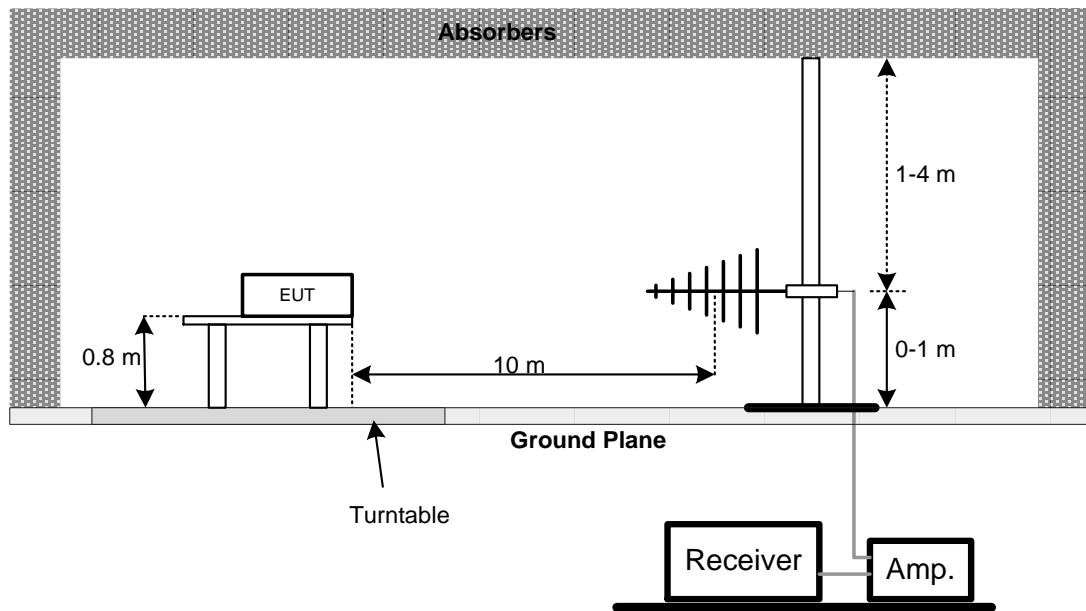
3.2.3 TEST PROCEDURE

- a. The separation distance of 10 m was used for measurements below 1 GHz. The EUT was placed on the top of a rotating table 0.8 m above the ground in a 10 m semi-anechoic chamber.
- b. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the receive antenna was varied between 1 m and 4 m. Both horizontal and vertical polarizations of the antenna were checked.
- d. For each suspected emission, the EUT was arranged at its worst case and then the antenna was scanned in height to find the maximum. The tower Bore sight function was used.
- e. The receiver was set to quasi-peak detect function and specified bandwidth with maximum hold mode.
- f. For the actual test configuration, please refer to the related Item - TEST PHOTOS.

3.2.4 DEVIATION FROM TEST STANDARD

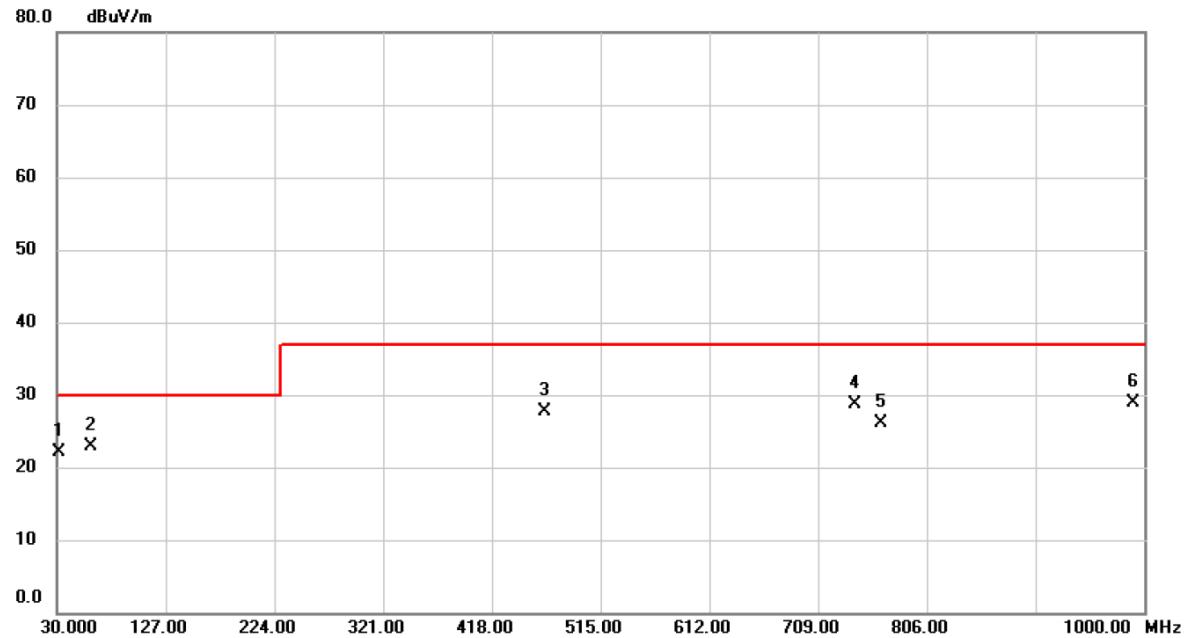
No deviation.

3.2.5 TEST SETUP



3.2.6 TEST RESULT

Test Mode	Mode 1	Tested Date	2025/1/6
Test Voltage	AC 120V/60Hz	Polarization	Vertical

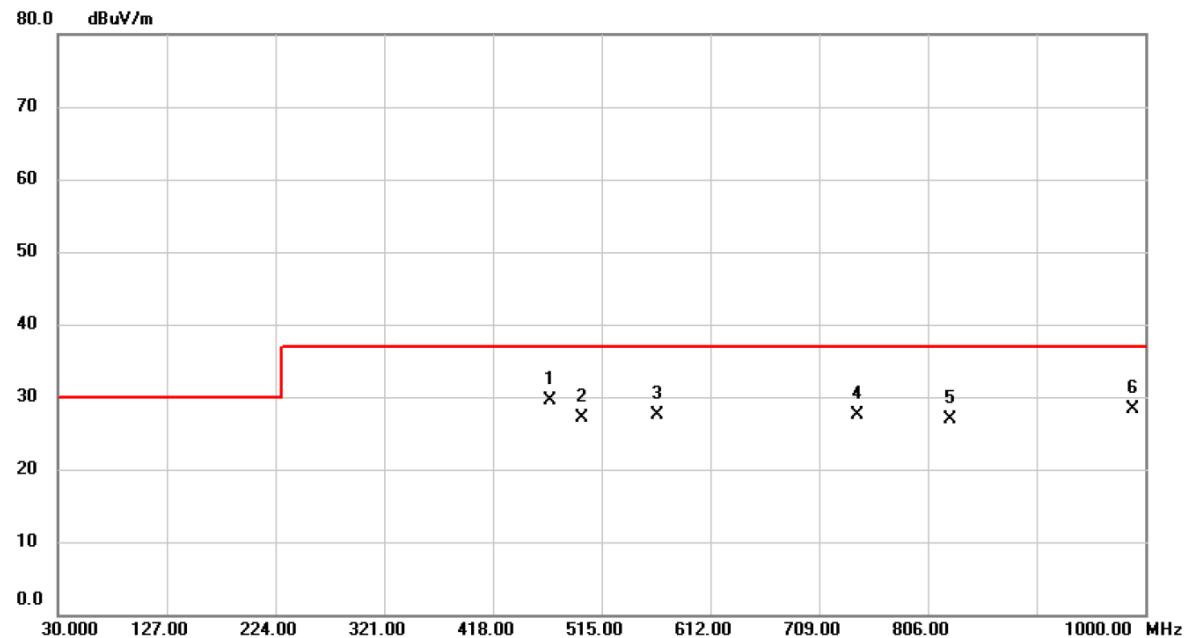


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		31.9400	40.23	-18.22	22.01	30.00	-7.99	QP	123	0
2	*	60.0700	39.71	-16.78	22.93	30.00	-7.07	QP	100	100
3		465.5300	38.56	-10.80	27.76	37.00	-9.24	QP	100	325
4		741.9800	34.43	-5.81	28.62	37.00	-8.38	QP	200	360
5		765.2600	31.52	-5.46	26.06	37.00	-10.94	QP	200	360
6		990.3000	31.69	-2.77	28.92	37.00	-8.08	QP	200	355

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	Mode 1	Tested Date	2025/1/6
Test Voltage	AC 120V/60Hz	Polarization	Horizontal



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Antenna	Table		
			Level	Factor	ment			Height	Degree		
			MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	Comment
1	*	469.4100	41.23	-11.64	29.59	37.00	-7.41	QP	200	80	
2		497.5400	38.54	-11.42	27.12	37.00	-9.88	QP	200	11	
3		564.4700	37.63	-10.14	27.49	37.00	-9.51	QP	101	360	
4		742.9500	34.11	-6.69	27.42	37.00	-9.58	QP	299	73	
5		826.3700	32.56	-5.70	26.86	37.00	-10.14	QP	100	147	
6		988.3600	31.92	-3.52	28.40	37.00	-8.60	QP	299	111	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.
 (2) Margin Level = Measurement Value - Limit Value.

3.3 RADIATED EMISSIONS ABOVE 1 GHZ TEST

3.3.1 LIMITS

Frequency (GHz)	Class A				Class B	
	(dB μ V/m) (at 3 m)		(dB μ V/m) (at 10 m)		(dB μ V/m) (at 3 m)	
	Peak	Average	Peak	Average	Peak	Average
Above 1	80	60	69.5	49.5	74	54

Frequency range of radiated measurements (For unintentional radiators)

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 - 108	1000
108 - 500	2000
500 - 1000	5000
Above 1000	5 th harmonic of the highest frequency or 40 GHz, whichever is lower

NOTE:

- (1) The tighter limit applies at the band edges.
- (2) Emission level (dB μ V/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 (if use)

Margin Level = Measurement Value - Limit Value

Calculation example:

Reading Level (dB μ V)		Correct Factor (dB/m)		Measurement Value (dB μ V/m)
36.89	+	4.23	=	41.12

Measurement Value (dB μ V/m)		Limit Value (dB μ V/m)		Margin Level (dB)
41.12	-	54	=	-12.88

3.3.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Horn Antenna	RFSPIN	DRH18-E	210108A18E	2024/5/9	2025/5/8
2	Pre-Amplifier	EMCI	EMC012645SE	980411	2024/1/20	2025/1/19
3	Test Cable	EMCI	EMC104-SM-SM-2500	150306	2024/11/14	2025/11/13
4	Test Cable	EMCI	EMC104-SM-SM-7000	230909	2024/11/14	2025/11/13
5	Test Cable	EMCI	EMC104-SM-SM-800	150332	2024/11/14	2025/11/13
6	EMI Test Receiver	Agilent	N9038A	MY51210215	2024/12/4	2025/12/3
7	Measurement Software	Farad	EZ EMC (Ver. NB-03A1-01)	N/A	N/A	N/A

REMARK:

- (1) "N/A" denotes no model name, no serial no. or no calibration specified.
- (2) All calibration period of equipment list is one year.

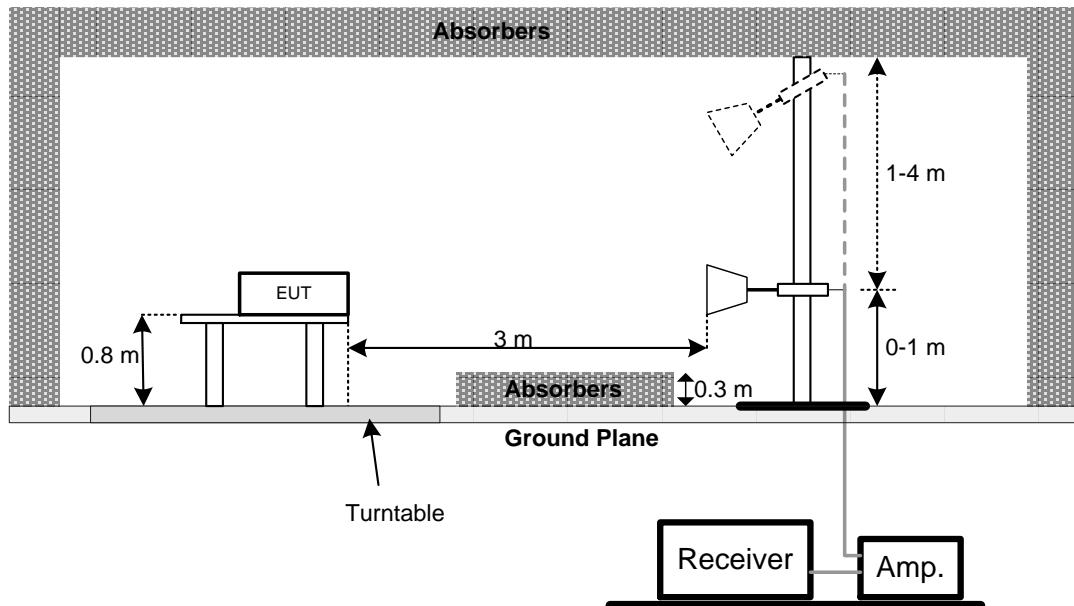
3.3.3 TEST PROCEDURE

- a. The separation distance of 3 m was used for measurements above 1 GHz.
The test limits were altered using the 20 dB/decade extrapolation factor.
The EUT was placed on the top of a rotating table 0.8 m above the ground in a 3 m semi-anechoic chamber.
- b. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the receive antenna was varied between 1 m and 4 m. Both horizontal and vertical polarizations of the antenna were checked.
- d. For each suspected emission, the EUT was arranged at its worst case and then the antenna was scanned in height to find the maximum. The tower Bore sight function was used.
- e. The receiver/spectrum analyzer was set to peak and average detect function and specified bandwidth with maximum hold mode.
- f. For the actual test configuration, please refer to the related Item - TEST PHOTOS.

3.3.4 DEVIATION FROM TEST STANDARD

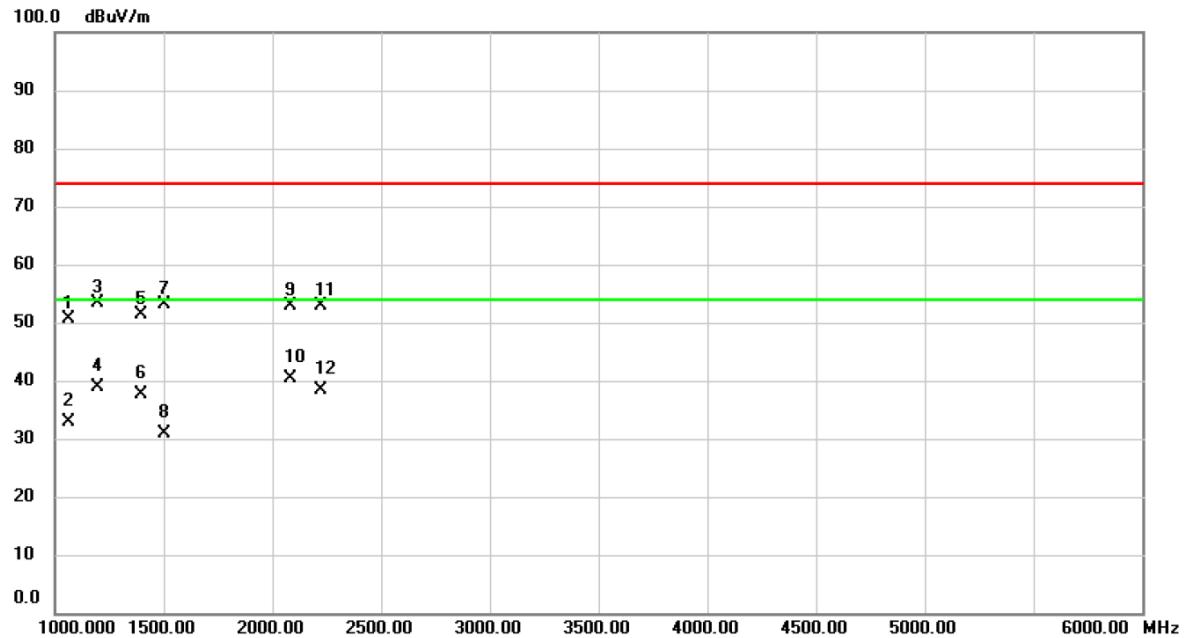
No deviation.

3.3.5 TEST SETUP



3.3.6 TEST RESULT

Test Mode	Mode 1	Tested Date	2025/1/7
Test Voltage	AC 120V/60Hz	Polarization	Vertical

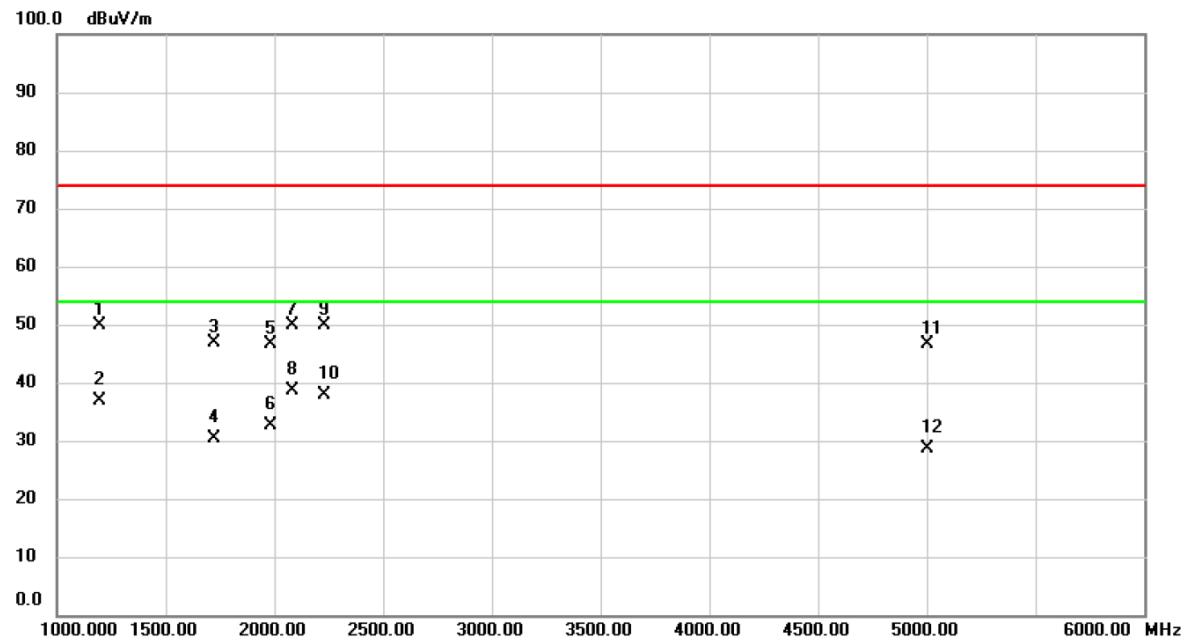


No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin	Antenna	Table		
			Level	Factor	ment			Height	Degree		
			MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	Comment
1		1060.000	73.83	-23.20	50.63	74.00	-23.37	peak	144	360	
2		1060.000	56.19	-23.20	32.99	54.00	-21.01	AVG	144	360	
3		1195.000	76.15	-22.78	53.37	74.00	-20.63	peak	100	0	
4		1195.000	61.55	-22.78	38.77	54.00	-15.23	AVG	100	0	
5		1395.000	73.50	-22.13	51.37	74.00	-22.63	peak	114	360	
6		1395.000	59.84	-22.13	37.71	54.00	-16.29	AVG	114	360	
7		1500.000	74.82	-21.79	53.03	74.00	-20.97	peak	150	360	
8		1500.000	52.60	-21.79	30.81	54.00	-23.19	AVG	150	360	
9		2080.000	71.30	-18.39	52.91	74.00	-21.09	peak	200	171	
10	*	2080.000	58.67	-18.39	40.28	54.00	-13.72	AVG	200	171	
11		2225.000	70.80	-18.00	52.80	74.00	-21.20	peak	200	171	
12		2225.000	56.48	-18.00	38.48	54.00	-15.52	AVG	200	171	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	Mode 1	Tested Date	2025/1/7
Test Voltage	AC 120V/60Hz	Polarization	Horizontal



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin	Antenna	Table		
			Level	Factor	ment			Height	Degree		
			MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	Comment
1		1195.000	72.61	-22.78	49.83	74.00	-24.17	peak	100	117	
2		1195.000	59.66	-22.78	36.88	54.00	-17.12	AVG	100	117	
3		1725.000	67.19	-20.36	46.83	74.00	-27.17	peak	100	216	
4		1725.000	50.65	-20.36	30.29	54.00	-23.71	AVG	100	216	
5		1985.000	65.28	-18.70	46.58	74.00	-27.42	peak	100	216	
6		1985.000	51.37	-18.70	32.67	54.00	-21.33	AVG	100	216	
7		2080.000	68.27	-18.39	49.88	74.00	-24.12	peak	100	237	
8	*	2080.000	56.93	-18.39	38.54	54.00	-15.46	AVG	100	237	
9		2230.000	67.93	-17.99	49.94	74.00	-24.06	peak	100	54	
10		2230.000	55.87	-17.99	37.88	54.00	-16.12	AVG	100	54	
11		5000.000	56.81	-10.10	46.71	74.00	-27.29	peak	100	340	
12		5000.000	38.75	-10.10	28.65	54.00	-25.35	AVG	100	340	

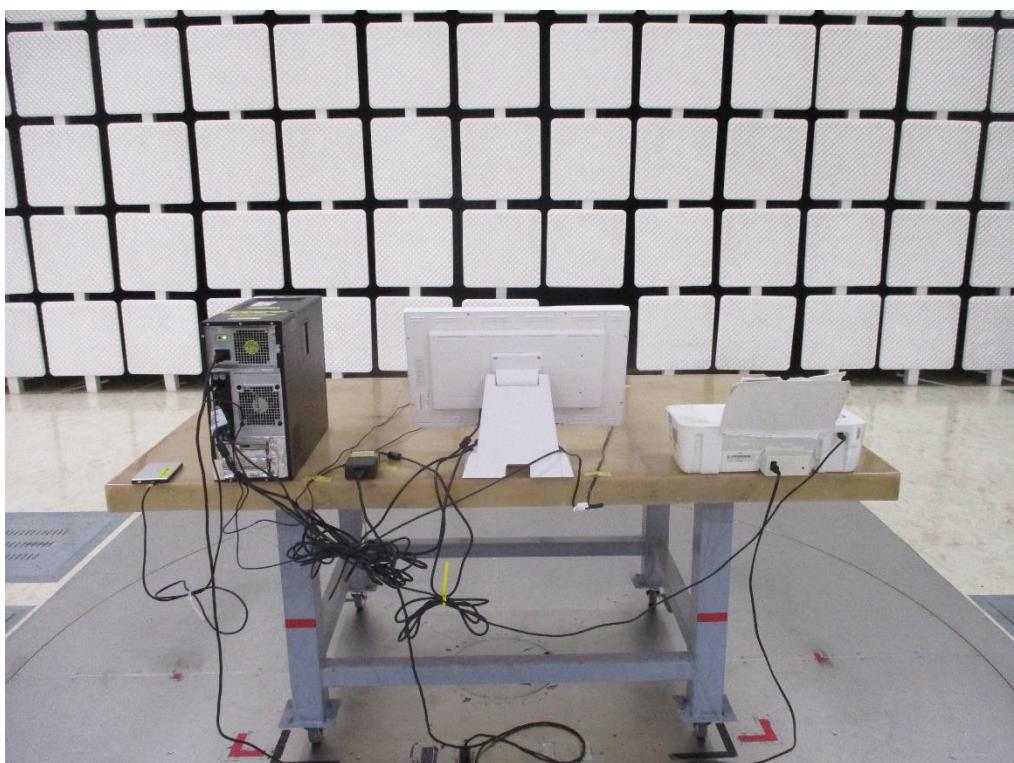
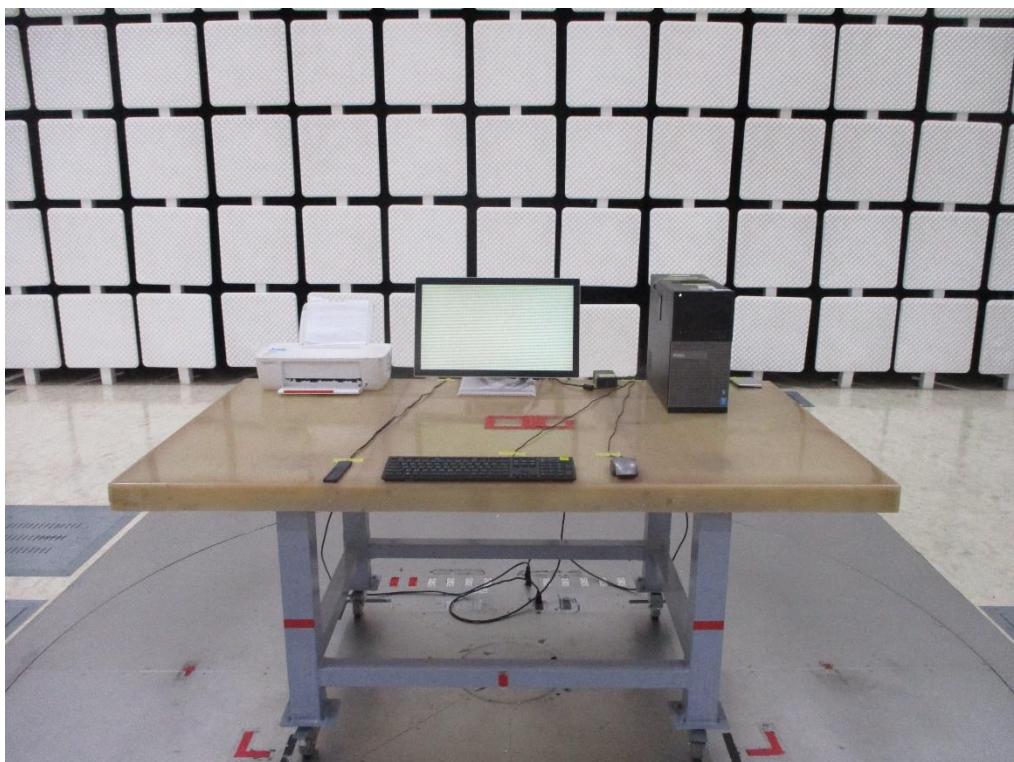
REMARKS:

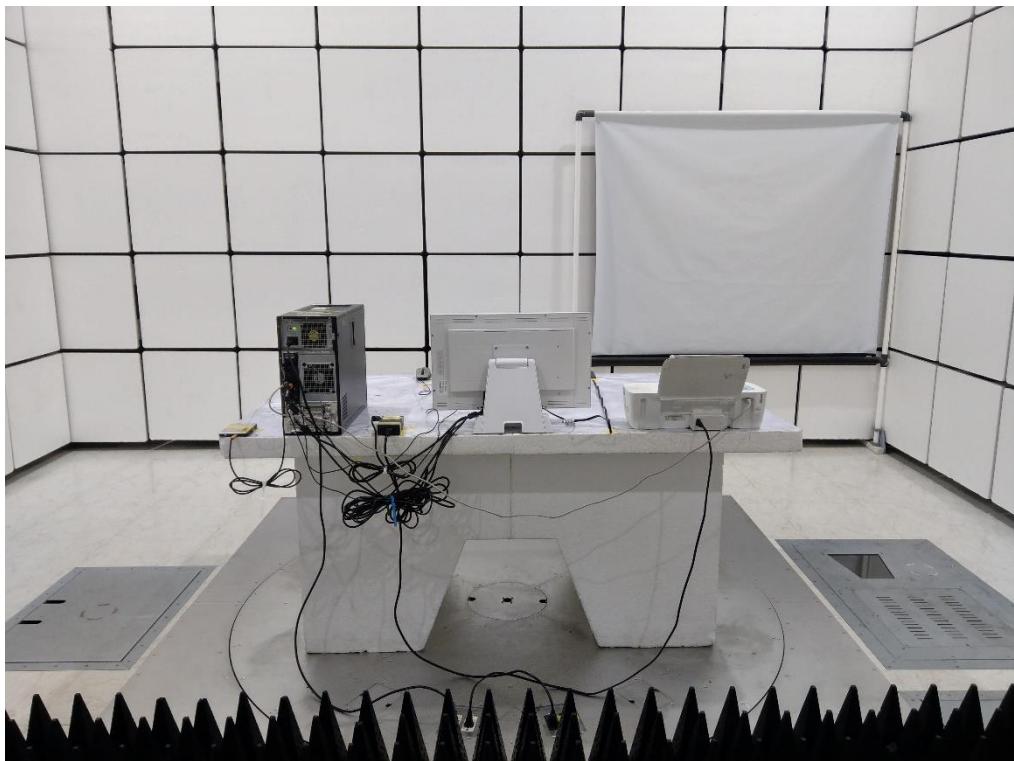
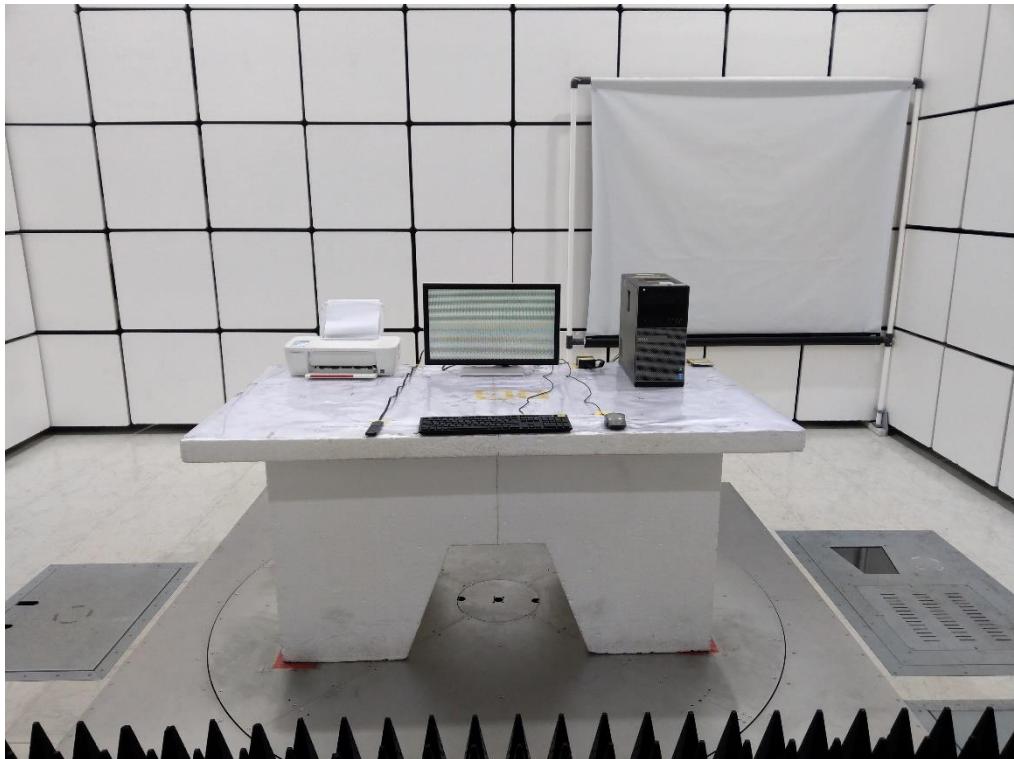
(1) Measurement Value = Reading Level + Correct Factor.
 (2) Margin Level = Measurement Value - Limit Value.

4 TEST PHOTOS

AC power line conducted emissions test photos



Radiated emissions below 1 GHz test photos

Radiated emissions above 1 GHz test photos

5 EUT PHOTOS

Please refer to document Appendix No.: EP-2412T077-1 (APPENDIX-EUT PHOTOS).

End of Test Report