



FCC EMC Test Report

Project No. : 2409C069C
Equipment : LCD Monitor
Brand Name : N/A
Model Name : 25G4S
Series Model : **25G4****, **CS25**** (*=0-9,A-Z,a-z,+,-,/, \ or blank), 25G4SRE
Applicant : TPV Electronics (Fujian) Co., Ltd.
Address : Rongqiao Economic and Technological Development Zone, Fuqing City,
Fujian Province, P.R. China
Date of Receipt : Apr. 02, 2025
Date of Test : Apr. 02, 2025 ~ Apr. 23, 2025
Issued Date : Apr. 28, 2025
Report Version : R00
Test Sample : Engineering Sample No.: DG20250402108
Standard(s) : FCC CFR Title 47, Part 15, Subpart B

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc. (Dongguan)

Prepared by : Jeter Wang
Jeter Wang

Approved by : Kang Zhang
Kang Zhang

No.3, Jinshagang 1st Road, Dalang, Dongguan, Guangdong People's Republic of China.
Tel: +86-769-8318-3000 Web: www.newbtl.com Service mail: btl_qa@newbtl.com

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**.

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BTL's laboratory quality assurance procedures are in compliance with the ISO/IEC 17025: 2017 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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REPORT ISSUED HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCCE-1-2409C069C	R00	This is a supplementary report to the original test report (BTL-FCCE-1-2409C069B). 1. Added series model. 2. Added a base. So the radiated emissions used the original worst mode to retest and record. The other test results please refer to original report.	Apr. 28, 2025	Valid

1. SUMMARY OF TEST RESULTS

Emission		
Standard(s)	Test Item	Result
FCC CFR Title 47, Part 15, Subpart B ANSI C63.4-2014 ANSI C63.4-2014 amended as per ANSI C63.4a-2017	AC Power Line Conducted Emissions	PASS (Note 1)
	Radiated Emissions 30 MHz to 1 GHz	PASS
	Radiated Emissions Above 1 GHz	PASS

NOTE:

- (1) The test results please refer to original report: BTL-FCCE-1-2409C069B.

1.1 TEST FACILITY

The test facilities used to collect the test data in this report No.3, Jinshagang 1st Road, Dalang, Dongguan, Guangdong People's Republic of China.

1.2 MEASUREMENT UNCERTAINTY

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

The BTL measurement uncertainty as below table:

A. Radiated emissions test:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U , (dB)
DG-CB08 (10m)	CISPR	30MHz ~ 200MHz	V	4.48
		30MHz ~ 200MHz	H	4.50
		200MHz ~ 1,000MHz	V	4.60
		200MHz ~ 1,000MHz	H	4.84

Test Site	Method	Measurement Frequency Range	U , (dB)
DG-CB08 (3m)	CISPR	1GHz ~ 6GHz	4.24

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	Temperature	Humidity	Tested By	Test Date
Radiated emissions 30 MHz to 1 GHz	22°C	52%	Zinco Chen	Apr. 16, 2025
Radiated emissions above 1 GHz	22°C	52%	Zinco Chen	Apr. 16, 2025

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	LCD Monitor
Brand Name	N/A
Model Name	25G4S
Series Model	**25G4*****, **CS25**** (*=0-9,A-Z,a-z,+,-,/,\ or blank), 25G4SRE
Model Difference(s)	Only differ in model name due to marketing purpose.
Identification No. of EUT(S/N)	N/A
Dimensions and mass	56cm x 32.5cm x 5cm
Component unit of EUT	<input checked="" type="checkbox"/> Single unit <input type="checkbox"/> Multiple unit
Sample Status	<input checked="" type="checkbox"/> Engineering sample <input type="checkbox"/> Final shipment prototype
Power Source	AC Mains.
Power Rating	100-240V~ 50/60Hz 1.5A
Connecting I/O Port(s)	1* AC port 2* HDMI port 1* DP port 1* Earphone port
Classification of EUT	Class B
Highest Internal Frequency(Fx)	571MHz

Cable Type	Shielded Type	Ferrite Core	Length(m)	Note
AC Power Cord	Non-shielded	NO	1.8/1.5/1.2	-
HDMI	Shielded	YES	1.8/1.5/1.2	Bonded two Ferrite Cores
DP	Shielded	NO	1.8/1.5/1.2	-

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possibly have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	HDMI1 1920*1080/240Hz PC 1.8m

Radiated Emissions 30 MHz to 1 GHz Test	
Final Test Mode	Description
Mode 1	HDMI1 1920*1080/240Hz PC 1.8m

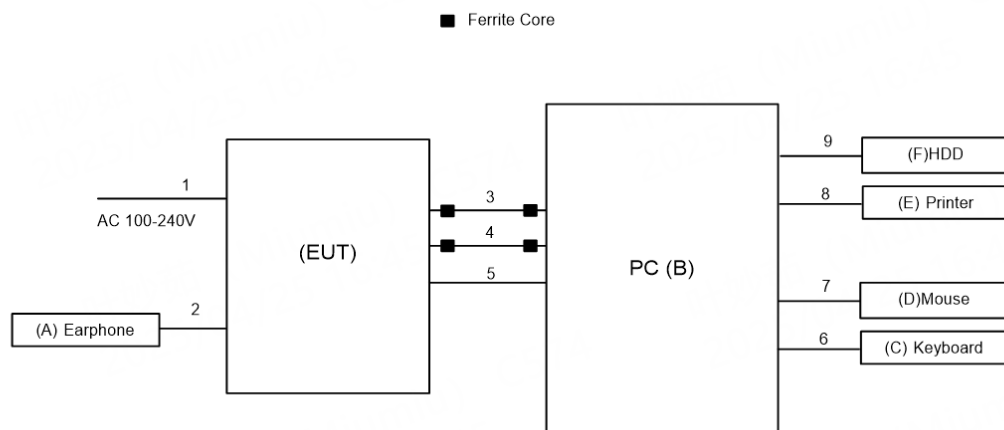
Radiated emissions above 1 GHz Test	
Final Test Mode	Description
Mode 1	HDMI1 1920*1080/240Hz PC 1.8m

2.3 EUT OPERATING CONDITIONS

The EUT exercise program used during radiated and/or conducted emission measurement was designed to exercise the various system components in a manner similar to a typical use. The standard test signals and output signal as following:

1. EUT connected to Earphone via Earphone Cable.
2. EUT connected to PC via HDMI & DP Cable.
3. Mouse and Keyboard connected to PC via USB Cable.
4. Printer connected to PC via USB Cable.
5. HDD connected to PC via USB Cable.

2.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



2.5 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.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.
A	Earphone	Apple	N/A	N/A
B	PC	DELL	8920-D16N8S	GZS91L2
C	Keyboard	DELL	KB212-B	CN0HTXH97158125004DXA01
D	Mouse	DELL	MS111-P	CN011D3V71581279OLOT
E	Printer	HP	VCVRA-2201-01	S88N4-80012
F	HDD	WD	WDBYVG0010BBK-CES N	WX12A931ESJ2

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	AC Cable	NO	NO	1.8/1.5/1.2m
2	Earphone Cable	NO	NO	1.2m
3	HDMI Cable	YES	YES	1.8/1.5/1.2m
4	HDMI Cable	YES	YES	1.8/1.5/1.2m
5	DP Cable	YES	NO	1.8/1.5/1.2m
6	USB Cable	YES	NO	1.8m
7	USB Cable	YES	NO	1.8m
8	USB Cable	YES	NO	1.8m
9	USB Cable	YES	NO	1.8m

3. EMC EMISSION TEST

3.1 RADIATED EMISSIONS 30 MHZ TO 1 GHZ

3.1.1 LIMIT

Limits For FCC CFR Title 47, Part 15, Subpart B (use alternative limits: CISPR 22 third edition)

Frequency (MHz)	Class B (at 10m)
	dB μ V/m Quasi-peak
30 - 230	30
230 - 1000	37

NOTE:

- (1) The tighter limit applies at the band edges.
- (2) Emission level (dB μ V/m) = 20log Emission level (μ V/m).
3m Emission level = 10m Emission level + 20log(10m/3m).
- (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

3.1.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Receiver	Keysight	N9038A	MY54450004	Jun. 01, 2025
2	MXE EMI Receiver	Agilent	N9038A	MY53220133	Jun. 01, 2025
3	Pre-Amplifier	EMC INSTRUMENT	EMC 9135	980284	May 31, 2025
4	Pre-Amplifier	EMC INSTRUMENT	EMC 9135	980283	May 31, 2025
5	Trilog-Broadband Antenna	Schwarzbeck	VULB9168	947	Nov. 06, 2025
6	Attenuator	EMCI	EMCI-N-6-06	AT-N0670	Nov. 06, 2025
7	Trilog-Broadband Antenna	Schwarzbeck	VULB9168	1461	Nov. 27, 2025
8	Attenuator	EMC INSTRUMENT	EMCI-N-6-06	AT-06010	Nov. 27, 2025
9	Measurement Software	Farad	EZ-EMC Ver.BTL-2ANT-1	N/A	N/A
10	Multi-Device Controller	ETS-Lindgren	2090	N/A	N/A
11	Controller	MF	MF-7802	MF780208159	N/A
12	Cable	RW	LMR400-NMNM-10M	N/A	Dec. 01, 2025
13	Cable	RW	LMR400-NMNM-7M	N/A	Dec. 01, 2025
14	Cable	RW	LMR400-NMNM-3.5M	N/A	Dec. 01, 2025
15	Cable	RW	LMR400-NMNM-8M	N/A	Apr. 02, 2026
16	Cable	RW	LMR400-NMNM-3.5M	N/A	Apr. 02, 2026
17	Cable	RW	LMR400-NMNM-14M	N/A	Apr. 02, 2026

Remark: "N/A" denotes no model name, no serial no. or no calibration specified.

All calibration period of equipment list is one year.

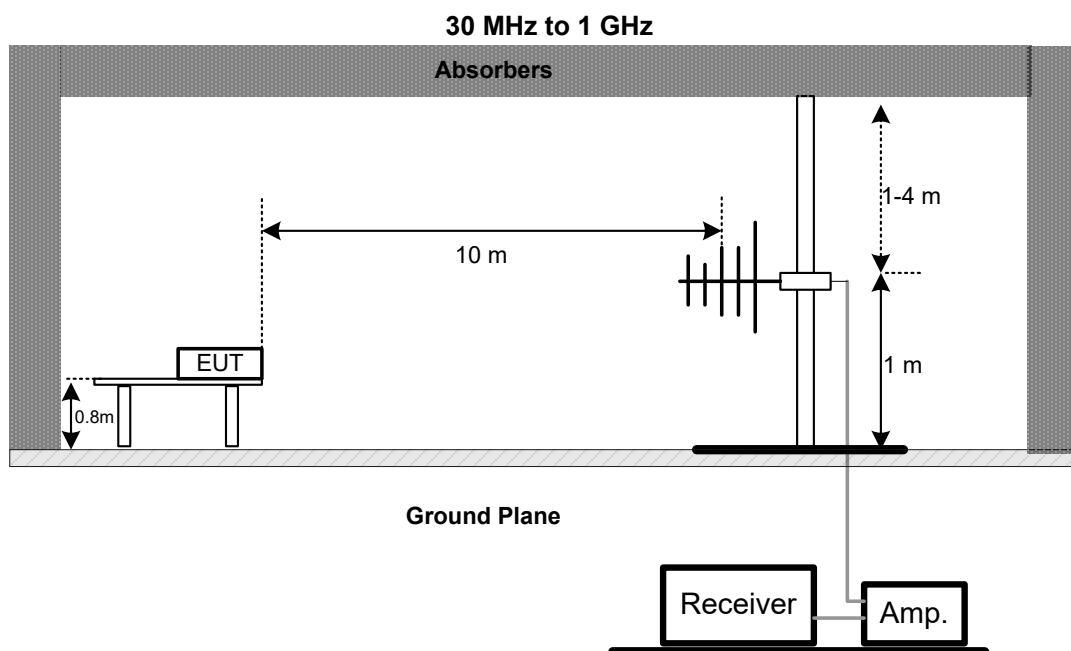
3.1.3 TEST PROCEDURE

- The measuring distance of 10 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The height of the equipment or of the substitution antenna shall be 0.8 m, the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
- For the actual test configuration, please refer to the related Item - EUT Test Photos.

3.1.4 DEVIATION FROM TEST STANDARD

No deviation

3.1.5 TEST SETUP

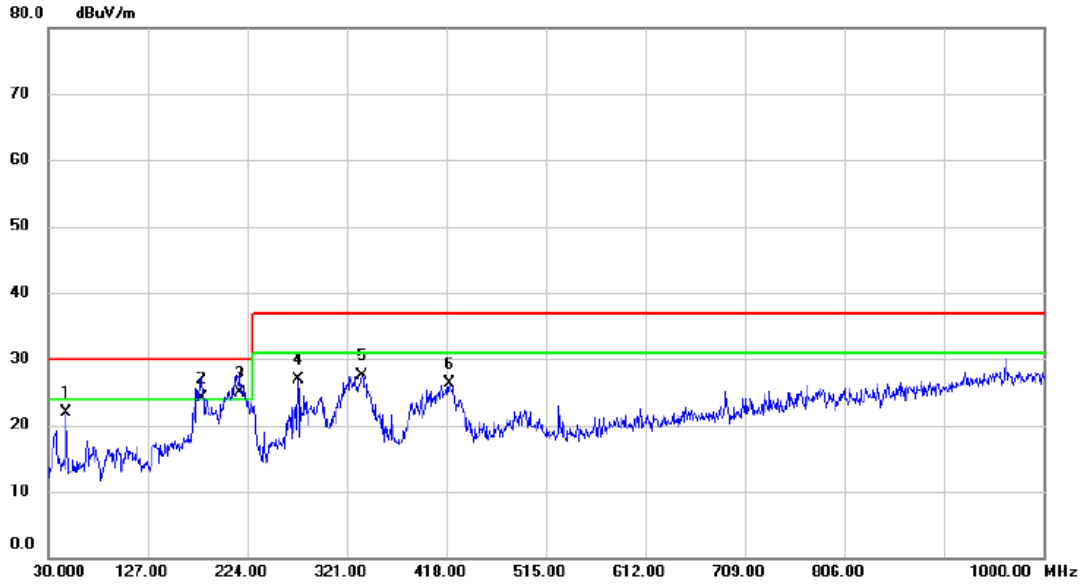


3.1.6 TEST RESULTS

Remark:

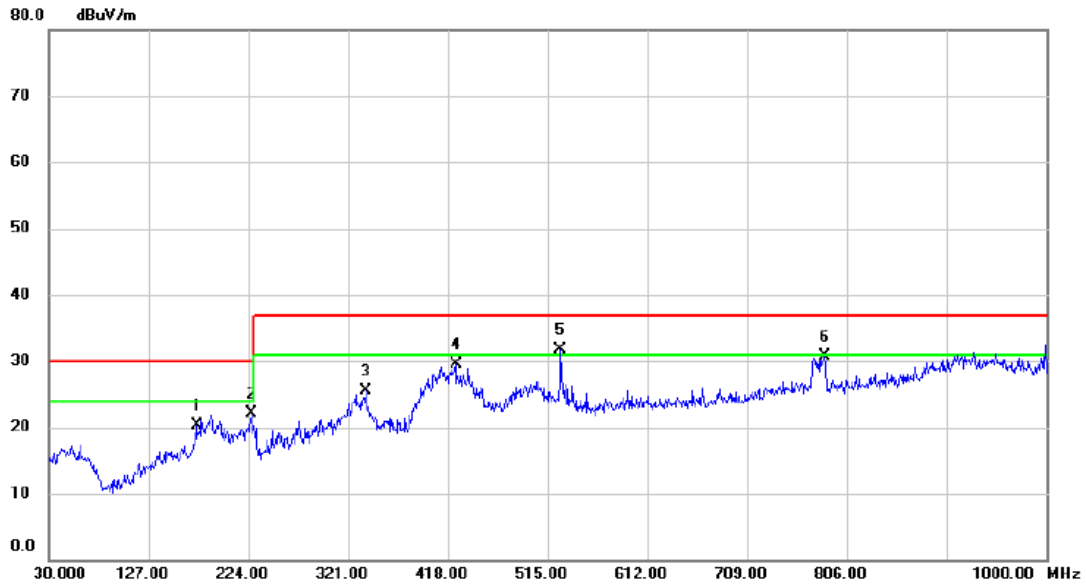
- Measuring frequency range from 30 MHz to 1000 MHz
- If the peak scan value lower limit more than 20 dB, then this signal data does not show in table.

Test Voltage	AC 120V/60Hz	Polarization	Vertical
Test Mode	Mode 1		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		47.4600	39.55	-17.66	21.89	30.00	-8.11	QP	
2	!	179.3800	41.08	-17.02	24.06	30.00	-5.94	QP	
3	*	217.2100	43.54	-18.70	24.84	30.00	-5.16	QP	
4		273.4700	42.38	-15.49	26.89	37.00	-10.11	QP	
5		335.5500	40.92	-13.42	27.50	37.00	-9.50	QP	
6		420.9100	38.17	-11.86	26.31	37.00	-10.69	QP	

Test Voltage	AC 120V/60Hz	Polarization	Horizontal
Test Mode	Mode 1		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		173.5600	38.15	-17.80	20.35	30.00	-9.65	QP	
2		226.9100	41.72	-19.65	22.07	30.00	-7.93	QP	
3		338.4600	40.25	-14.78	25.47	37.00	-11.53	QP	
4		425.7600	42.05	-12.49	29.56	37.00	-7.44	QP	
5	*	527.6100	42.38	-10.76	31.62	37.00	-5.38	QP	
6		784.6600	38.23	-7.59	30.64	37.00	-6.36	QP	

3.2 RADIATED EMISSIONS ABOVE 1 GHZ

3.2.1 LIMIT

Frequency (MHz)	Class B	
	(dB μ V/m) (at 3m)	
	Peak	Average
Above 1000	74	54

FREQUENCY RANGE OF RADIATED MEASUREMENT (FOR UNINTENTIONAL RADIATORS)

Highest internal frequency (F _x)	Highest measurement frequency (F _M)
F _x ≤ 108 MHz	1 GHz
108 MHz < F _x ≤ 500 MHz	2 GHz
500 MHz < F _x ≤ 1 GHz	5 GHz
F _x > 1 GHz	5 x F _x up to a maximum of 40 GHz

Note: F_x is the highest fundamental frequency generated and/or used in the ITE or digital apparatus under test.

NOTE:

- (1) The tighter limit applies at the band edges.
- (2) Emission level (dB μ V/m) = 20log Emission level (uV/m).
1m Emission level = 3m Emission level + 20log(3m/1m).
- (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

3.2.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Horn Antenna	ETS	3115	9605-4803	Jul. 07, 2025
2	MXE EMI Receiver	Agilent	N9038A	MY53220133	Jun. 01, 2025
3	Preamplifier	EMC INSTRUMENT	EMC118A45SE	981003	Oct. 29, 2025
4	Measurement Software	Farad	EZ-EMC Ver.BTL-2ANT-1	N/A	N/A
5	Multi-Device Controller	ETS-Lindgren	2090	N/A	N/A
6	Controller	MF	MF-7802	MF780208159	N/A
7	Cable	RegalWay	RWLP50-4.0A-SMSM-9M	N/A	Sep. 02, 2025
8	Cable	RW	RWLP50-4.0A-NMRASM-1M	N/A	Sep. 02, 2025
9	Cable	RW	RWLP50-4.0A-NMRASM-4M	N/A	Sep. 02, 2025

Remark: "N/A" denotes no model name, no serial no. or no calibration specified.

All calibration period of equipment list is one year.

3.2.3 TEST PROCEDURE

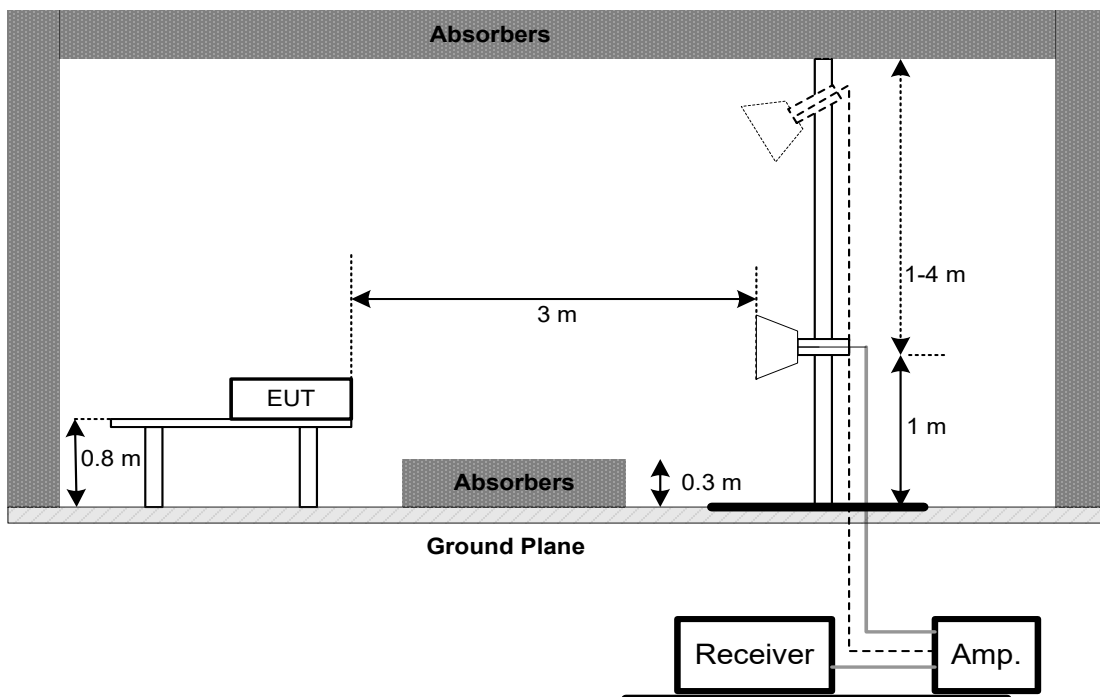
- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The height of the equipment or of the substitution antenna shall be 0.8 m, the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- c. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- d. The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then AVG detector mode re-measured.
- e. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.
- f. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform.
- g. For the actual test configuration, please refer to the related Item - EUT Test Photos.

3.2.4 DEVIATION FROM TEST STANDARD

No deviation

3.2.5 TEST SETUP

Above 1 GHz

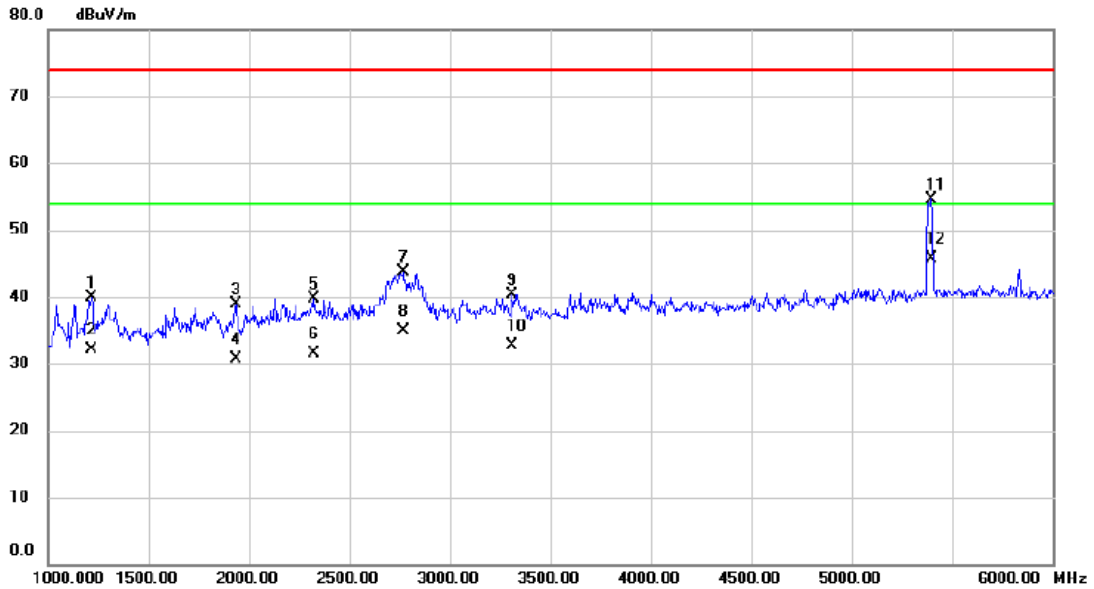


3.2.6 TEST RESULTS

Remark:

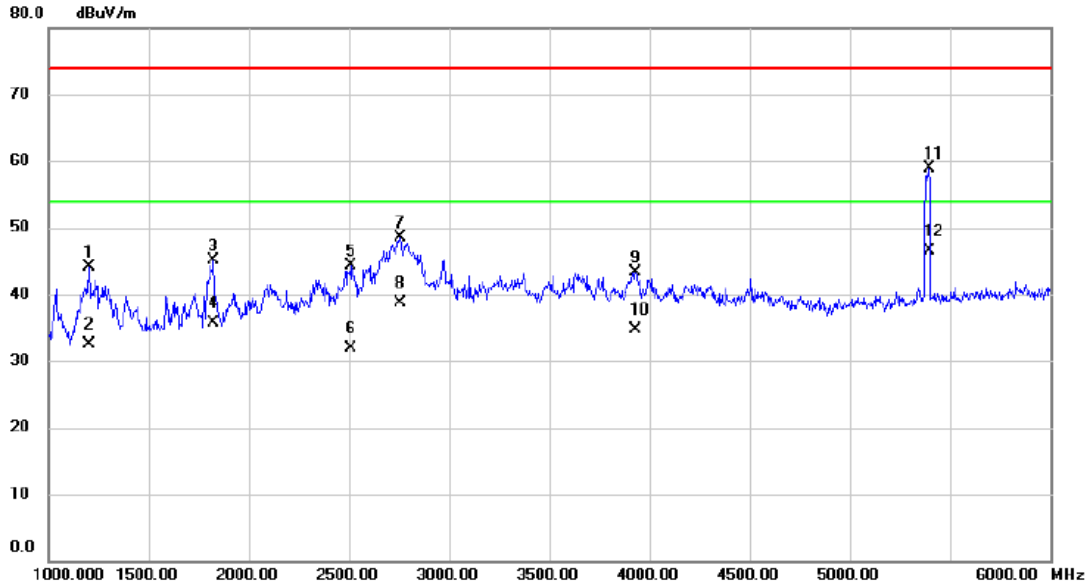
- (1) Radiated emissions measured in frequency range above 1000 MHz were made with an instrument using Peak detector mode and AV detector mode of the emission.
- (2) Data of measurement within this frequency range shown “*” in the table above means the reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
- (3) A preamp was used for this test in order to provide sufficient measurement sensitivity.

Test Voltage	AC 120V/60Hz	Polarization	Vertical
Test Mode	Mode 1		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		1217.500	45.31	-5.31	40.00	74.00	-34.00	peak	
2		1217.500	37.47	-5.31	32.16	54.00	-21.84	AVG	
3		1937.500	41.71	-2.81	38.90	74.00	-35.10	peak	
4		1937.500	33.47	-2.81	30.66	54.00	-23.34	AVG	
5		2325.000	41.55	-1.76	39.79	74.00	-34.21	peak	
6		2325.000	33.20	-1.76	31.44	54.00	-22.56	AVG	
7		2767.500	44.16	-0.39	43.77	74.00	-30.23	peak	
8		2767.500	35.36	-0.39	34.97	54.00	-19.03	AVG	
9		3312.500	39.23	1.14	40.37	74.00	-33.63	peak	
10		3312.500	31.51	1.14	32.65	54.00	-21.35	AVG	
11		5397.500	50.51	4.09	54.60	74.00	-19.40	peak	
12	*	5397.500	41.56	4.09	45.65	54.00	-8.35	AVG	

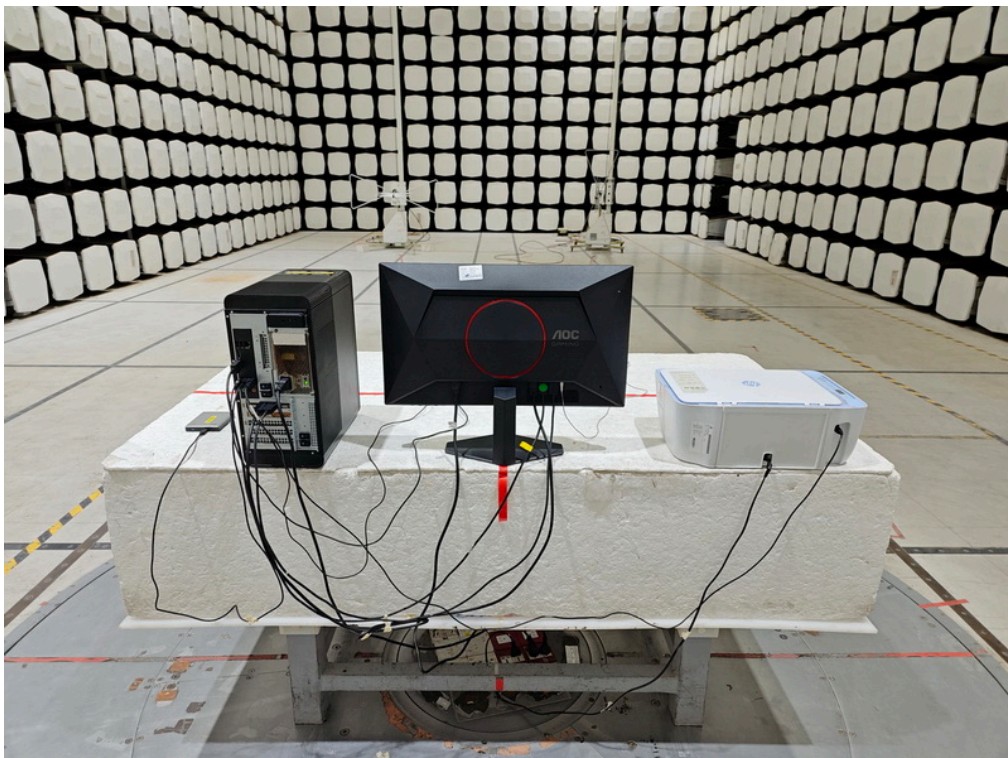
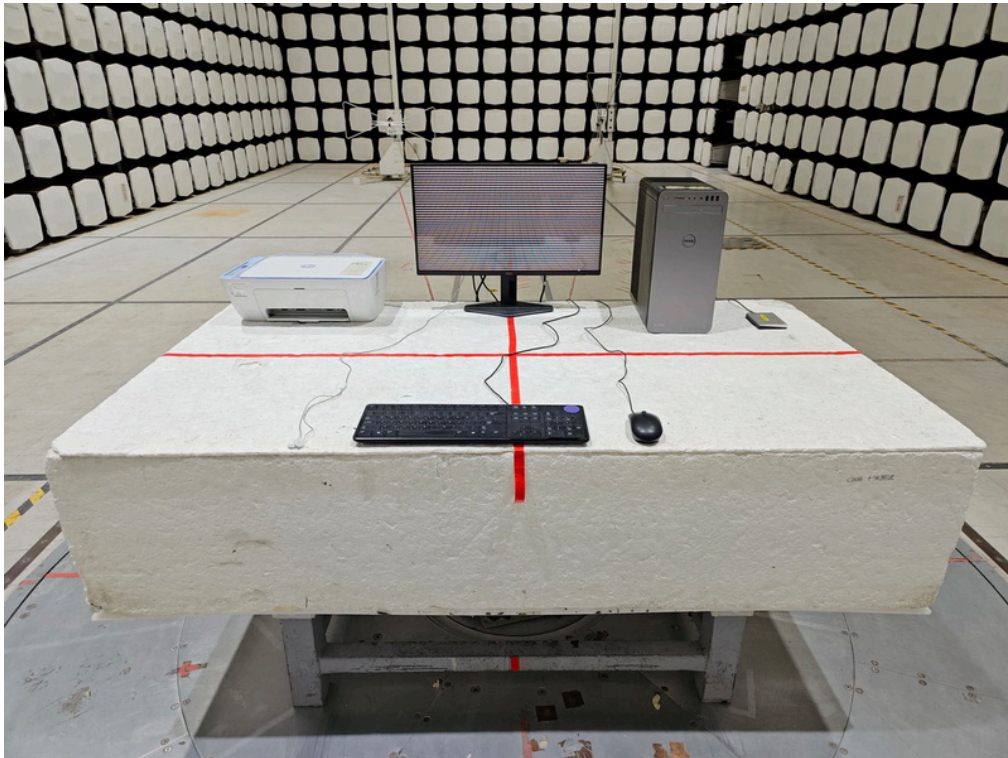
Test Voltage	AC 120V/60Hz	Polarization	Horizontal
Test Mode	Mode 1		



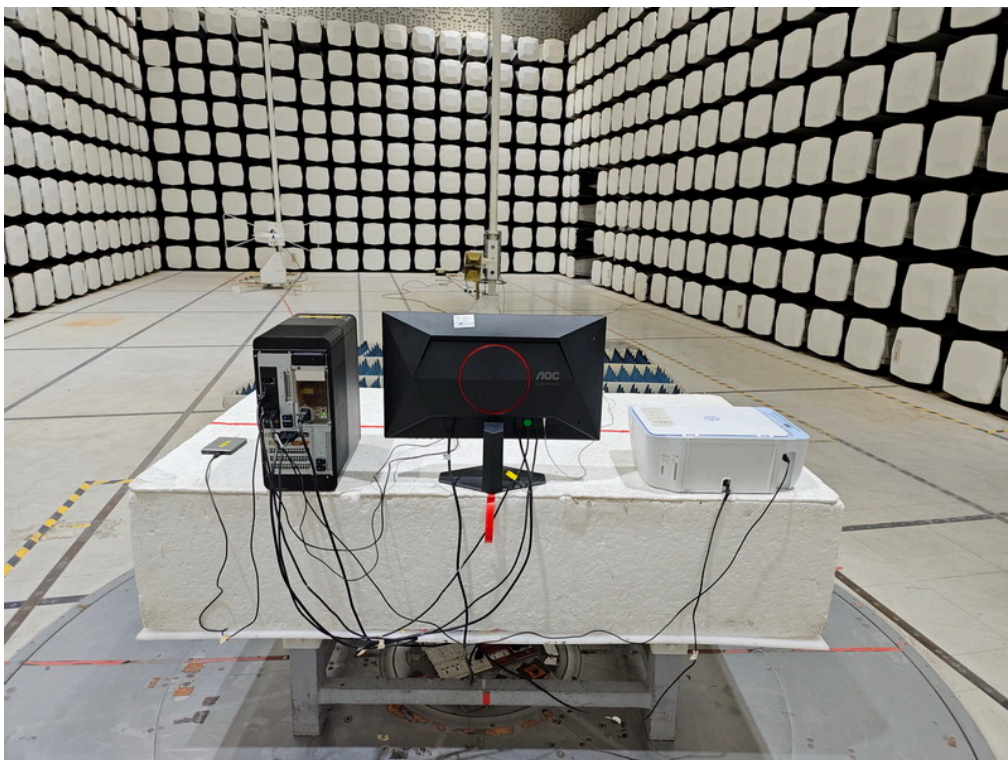
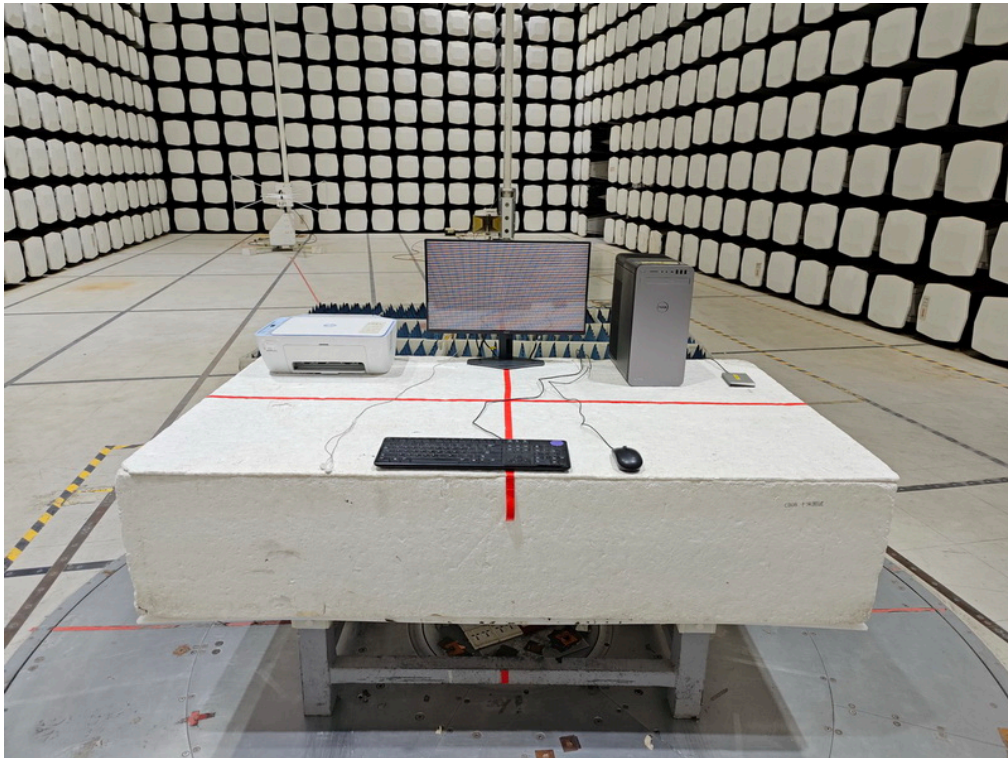
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		1200.000	49.38	-5.36	44.02	74.00	-29.98	peak	
2		1200.000	37.94	-5.36	32.58	54.00	-21.42	AVG	
3		1825.000	48.30	-3.25	45.05	74.00	-28.95	peak	
4		1825.000	38.91	-3.25	35.66	54.00	-18.34	AVG	
5		2512.500	45.66	-1.30	44.36	74.00	-29.64	peak	
6		2512.500	33.29	-1.30	31.99	54.00	-22.01	AVG	
7		2755.000	48.99	-0.43	48.56	74.00	-25.44	peak	
8		2755.000	39.09	-0.43	38.66	54.00	-15.34	AVG	
9		3932.500	40.60	2.70	43.30	74.00	-30.70	peak	
10		3932.500	31.96	2.70	34.66	54.00	-19.34	AVG	
11		5397.500	54.73	4.09	58.82	74.00	-15.18	peak	
12	*	5397.500	42.47	4.09	46.56	54.00	-7.44	AVG	

4. EUT TEST PHOTO

Radiated Emissions 30 MHz to 1 GHz



Radiated Emissions Above 1 GHz

**End of Test Report**