FCC EMC TEST REPORT

Applicant	:	TPV Electronics (Fujian) Co., Ltd.
Address	:	Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P.R. China
Equipment under Test	:	LCD Monitor
Model No.	:	24E4U,24P4U,24E4CV,24E4********,24P4******** ("*" = 0-9, A-Z, a-z, +, -, /, \ or blank)
Report No.	:	DDT-B25033103-1E02
Issue Date	:	Apr. 27, 2025
Issued By	:	Tianjin Dongdian Testing Service Co., Ltd.
Address	:	Building D-1, No. 19, Weisi Road, Microelectronics Industrial Park, Development Area, Tianjin, China. Tel: +86-022-58038033, E-mail: ddt@gddt.com http://www.ddttest.com

REPORT

CONTENTS

Test Report Declare

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Test Standard Used:
47 CFR Part 15 Subpart B,IEEE/ANSI C63.4-2014,IEEE/ANSI C63.4a-2017

We Declare:
The equipment described above is tested and assessed by Tianjin Dongdian Testing Service Co., Ltd. and in the configuration assessed the equipment complied with the standards specified above. The tested and assessed results are contained in this test report and Tianjin Dongdian Testing Service Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these assessments.
After test and evaluation, our opinion is that the equipment provided for test compliance with the requirement of the above standards.

Report No.:	DDT-B25033103-1E02		
Date of Receipt:	Apr. 01, 2025	**Date of Test:**	Apr. 13, 2025~Apr. 14, 2025

Prepared By:

Evan Zheng

Evan Zheng/Engineer

Approved By:

Aaron Zhang

Aaron Zhang/EMC Manager

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Tianjin Dongdian Testing Service Co., Ltd.
The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

Revision History

Rev.	Revisions	Issue Date	Revised By
---	Initial issue	Apr. 27, 2025	

1 Summary of Test Results

Description of Test Item	Standard	Result
Conducted Emissions (AC mains power ports)	IEEE/ANSI C63.4-2014, IEEE/ANSI C63.4a-2017, 47 CFR Part 15 Subpart B	Pass
Radiated Emissions (30MHz to 1GHz)	IEEE/ANSI C63.4-2014, IEEE/ANSI C63.4a-2017, 47 CFR Part 15 Subpart B	Pass
Radiated Emissions (Above 1GHz)	IEEE/ANSI C63.4-2014, IEEE/ANSI C63.4a-2017, 47 CFR Part 15 Subpart B	Pass

2 General Test Information

2.1 Description of EUT

EUT Name	:	LCD Monitor
Model Number	:	24E4U,24P4U,24E4CV,24E4********,24P4******** ("*" = 0-9, A-Z, a-z, +, -, /, \ or blank)
Model Differences	:	All models difference is in sale marketing.
Serial Number	:	N/A
Test Model	:	24E4U
Sample No.	:	Y25033103-01
Power supply	:	AC 100-240V ~ 50/60Hz
Test Power supply	:	AC 120V 60Hz
EUT Class	:	Class B
Maximum work frequency	:	285.5 MHz

2.2 Port of EUT

Port	Description
AC mains power port	1 PC
HDMI in Port	1 PC
DP in Port	1 PC
VGA in Port	1 PC
USB-B Port	1 PC
USB-A Port	4 PCS
Audio out Port	1 PC
Audio in Port	1 PC

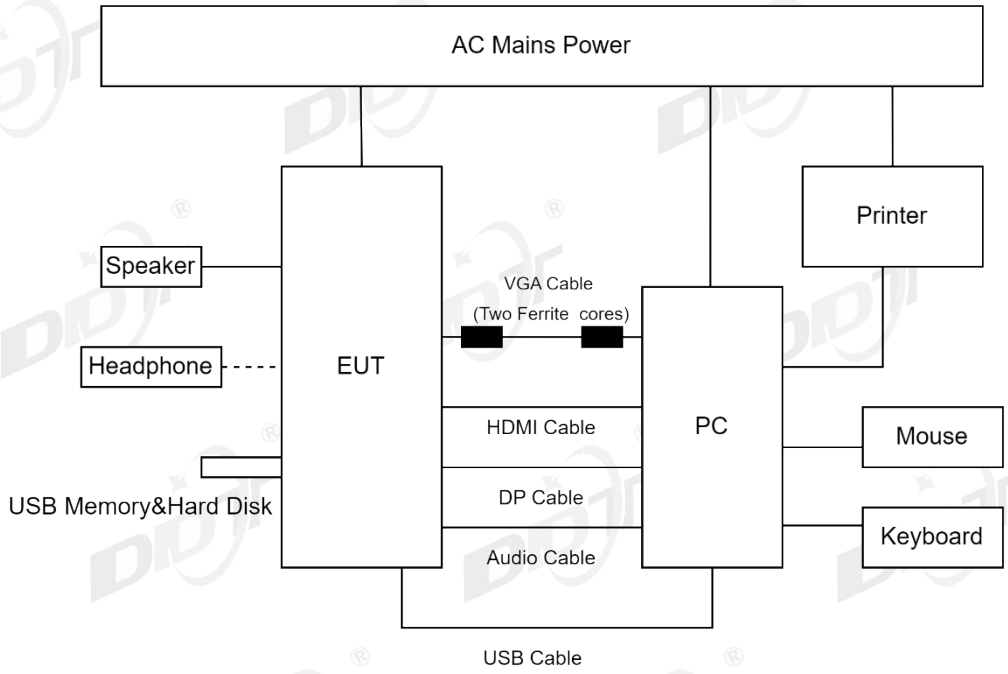
2.3 Accessories of EUT

Accessories	Manufacturer	Model No.	Description	Remark
AC Cable	N/A	N/A	Length: 1.2m/1.5m/1.8m, Unshielded	N/A
DP Cable	N/A	N/A	Length: 1.2m/1.5m/1.8m, Shielded	N/A
HDMI Cable	N/A	N/A	Length: 1.2m/1.5m/1.8m, Shielded	N/A
VGA Cable	N/A	N/A	Length: 1.2m/1.5m/1.8m, Shielded	N/A
USB Cable	N/A	N/A	Length: 1.2m/1.5m/1.8m, Shielded	N/A

2.4 Test peripherals

Device	Manufacturer	Model No.	Description	Remark
Audio Cable	N/A	N/A	N/A	N/A
Hard Disk	TOSHIBA	DTB410	2157T08BTLSH	N/A
Headphone	N/A	N/A	N/A	N/A
Keyboard	DELL	N/A	N/A	N/A
Mouse	DELL	N/A	N/A	N/A
PC	LENOVO	GeekPro-14ACN	M70Q5KC0	N/A
Printer	SAMSUNG	CLP-365W/SEE	Z8DLBABC200070K	N/A
Speaker	JBL	GO2+	N/A	N/A
USB Memory	N/A	N/A	N/A	N/A

2.5 Block diagram EUT configuration for test



2.6 EUT operating mode(s)

Mode 1	Connect HDMI cable from PC's HDMI port to EUT's HDMI Port. Connect DP cable from PC's DP port to EUT's DP Port. Connect VGA cable from PC's VGA port to EUT's VGA Port. Connect the audio cable from the PC's audio output interface to the EUT's audio input interface. Connect EUT to speaker audio out port. Connect USB cable from PC's USB port to EUT's USB-B Port. Connect hard disk and USB memory to EUT's USB-A port. Switch source to HDMI. The test signal is scrolling 'H' with 1kHz audio playing.

Mode 2	Connect HDMI cable from PC's HDMI port to EUT's HDMI Port. Connect DP cable from PC's DP port to EUT's DP Port. Connect VGA cable from PC's VGA port to EUT's VGA Port. Connect the audio cable from the PC's audio output interface to the EUT's audio input interface. Connect EUT to speaker audio out port. Connect USB cable from PC's USB port to EUT's USB-B Port. Connect hard disk and USB memory to EUT's USB-A port. Switch source to DP. The test signal is scrolling 'H' with 1kHz audio playing.
Mode 3	Connect HDMI cable from PC's HDMI port to EUT's HDMI Port. Connect DP cable from PC's DP port to EUT's DP Port. Connect VGA cable from PC's VGA port to EUT's VGA Port. Connect the audio cable from the PC's audio output interface to the EUT's audio input interface. Connect EUT to speaker audio out port. Connect USB cable from PC's USB port to EUT's USB-B Port. Connect hard disk and USB memory to EUT's USB-A port. Switch source to VGA. The test signal is scrolling 'H' with 1kHz audio playing.

2.7 Deviations of test standard

No Deviation.

2.8 Test laboratory

Tianjin Dongdian Testing Service Co., Ltd.
Address: Building D-1, No. 19, Weisi Road, Microelectronics Industrial Park Development Area, Tianjin, China.
Tel: +86-22-58038033, http://www.ddttest.com, Email: ddt@dgddt.com
NVLAP (National Voluntary Laboratory Accreditation Program) CODE: 500036-0
CNAS (China National Accreditation Service for Conformity Assessment) CODE: L13402
FCC Designation Number: CN5004; FCC Test Firm Registration Number: 368676
ISED (Innovation, Science and Economic Development Canada) Company Number: 27768
Conformity Assessment Body Identifier: CN0125
VCCI Facility Registration Number: C-20089, T-20093, R-20125, G-20122

2.9 Measurement uncertainty

Test Item	Uncertainty
Conducted Emissions at Mains Power Port	3.4 dB (150KHz-30MHz)
Radiated Emissions (30MHz to 1GHz)	5.2 dB (Antenna Polarize: Hor.)
	5.2 dB (Antenna Polarize: Ver.)
Radiated Emissions (Above 1GHz)	5.0 dB
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

2.10 Abbreviations

For the purposes of the present document, the following abbreviations apply:
EUT: Equipment Under Test
QP: Quasi-Peak
PK: Peak,
AV: Average
CAV: CISPR Average
CDN: Coupling Decoupling Network
AM: Amplitude Modulation
N/A: Not Applicable

3 Conducted Emissions (AC mains power ports)

3.1 General Information

Test date	Apr. 14, 2025	**Test engineer**	Wendy Sun	
Climate condition	**Ambient temperature**	23.7°C	**Relative humidity**	30.6%
	Atmospheric pressure	100.5kPa		
Test place	Shield Room 2#			

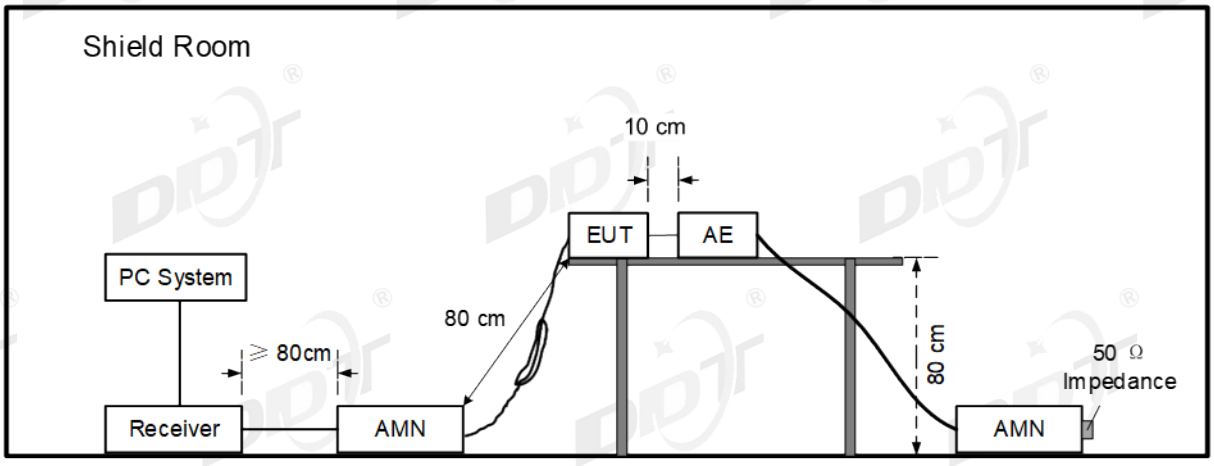
3.2 Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Test Software	TOYO	EP5/CE	Ver 5.4.40	N/A	N/A
EMI Test Receiver	Rohde & Schwarz	ESCI	100375	Feb. 17, 2025	1 Year
Two-Line V-Network	Rohde & Schwarz	ENV216	101122	Feb. 17, 2025	1 Year
Two-Line V-Network	Rohde & Schwarz	ENV216	101254	Feb. 17, 2025	1 Year

3.3 Reference Standard

IEEE/ANSI C63.4-2014,
IEEE/ANSI C63.4a-2017,
47 CFR Part 15 Subpart B

3.4 Test Arrangement



The EUT was placed on a non-metallic table, 80cm above the ground plane.
The EUT's power adapter was connected to the power mains through a line impedance stabilization network (AMN). which this provided a 50-ohm coupling impedance for the EUT (Please refer to the block diagram of the test setup and photographs). Both sides of power line were checked for maximum conducted disturbance.
The bandwidth of test receiver is set at 9 kHz.
The frequency range from 150 kHz to 30MHz is checked.
Pre-scan measurements were performed in all operating mode or resolution. But final measurements were performed in worst cases based on pre-scan measurements.

The EUT with following test modes were pre-tested:

No.	Operation Mode	Cable Length	Resolution	Rotation	Audio	Stand Position
1.	Mode 1 HDMI	1.8m	1920*1080@120Hz	Landscape	External Speaker	HAS Stand-up
2.		1.8m	1920*1080@60Hz	Landscape	External Speaker	HAS Stand-up
3.		1.8m	1280*720@60Hz	Landscape	External Speaker	HAS Stand-up
4.		1.8m	800*600@60Hz	Landscape	External Speaker	HAS Stand-up
5.		1.5m	1920*1080@120Hz	Landscape	External Speaker	HAS Stand-up
6.		1.2m	1920*1080@120Hz	Landscape	External Speaker	HAS Stand-up
7.	Mode 2 DP	1.8m	1920*1080@120Hz	Landscape	External Speaker	HAS Stand-up
8.		1.8m	1920*1080@60Hz	Landscape	External Speaker	HAS Stand-up
9.		1.8m	1280*720@60Hz	Landscape	External Speaker	HAS Stand-up
10.		1.8m	800*600@60Hz	Landscape	External Speaker	HAS Stand-up
11.		1.5m	1920*1080@120Hz	Landscape	External Speaker	HAS Stand-up
12.		1.2m	1920*1080@120Hz	Landscape	External Speaker	HAS Stand-up
13.	Mode 3 VGA	1.8m	1920*1080@75Hz	Landscape	External Speaker	HAS Stand-up
14.		1.8m	1920*1080@60Hz	Landscape	External Speaker	HAS Stand-up
15.		1.8m	1280*720@60Hz	Landscape	External Speaker	HAS Stand-up
16.		1.8m	800*600@60Hz	Landscape	External Speaker	HAS Stand-up
17.		1.5m	1920*1080@75Hz	Landscape	External Speaker	HAS Stand-up
18.		1.2m	1920*1080@75Hz	Landscape	External Speaker	HAS Stand-up
19.	The worst case above with 1.5m power cord			Landscape	External Speaker	HAS Stand-up
20.	The worst case above with 1.2m power cord			Landscape	External Speaker	HAS Stand-up

21.	The worst case above with 1.8m power cord	Portrait (-90 degree)	External Speaker	HAS Stand-up
22.	The worst case above with 1.8m power cord	Portrait (-270 degree)	External Speaker	HAS Stand-up
23.	The worst case above with 1.8m power cord	Landscape	External Speaker	HAS Stand-down

3.5 Test Specification and Limit

Class B

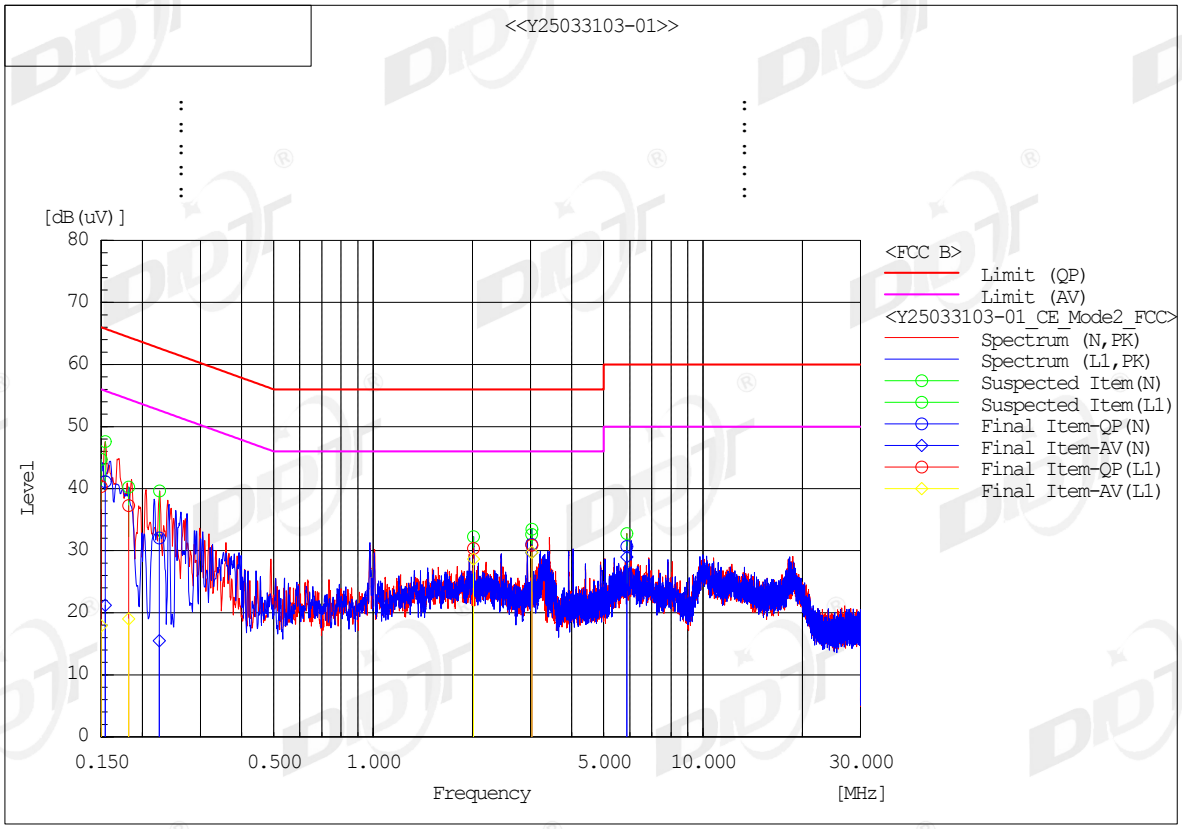
Frequency			Quasi-Peak Level dB(μV)	Average Level dB(μV)
150kHz	~	500kHz	66 ~ 56*	56 ~ 46*
500kHz	~	5MHz	56	46
5MHz	~	30MHz	60	50

Notes: 1. * Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

Note for test result
Note1): According pre-test, the worst test modes decided as below and reported. Only data of worst mode was reported in test result.
Note2) Line = Polarity of input power (Live or Neutral), N: Abbreviation of Neutral Polarity, L1: Abbreviation of Live Polarity,
Note3) Level (Quasi-Peak and/or C/Average) = Meter Reading + Factor,
Note4) Factor = AMN (or AAN) Insertion Loss + Cable Loss,
Note5) Margin = Limit – Level (Quasi-Peak and/or C/Average)

3.6 Test Result

Sample No.	Operation Mode	Remarks	Result
Y25033103-01	Mode 1	Pre-scan measurement	Pass
Y25033103-01	Mode 2	Final measurement,minimum margin 16.3 dB	Pass
Y25033103-01	Mode 3	Pre-scan measurement	Pass



Final Result

--- N Phase ---

No.	Frequency [MHz]	Reading QP [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB]	Result QP [dB(uV)]	Result CAV [dB(uV)]	Limit QP [dB(uV)]	Limit AV [dB(uV)]	Margin QP [dB]	Margin CAV [dB]
1	3.02678	21.0	19.7	10.0	31.0	29.7	56.0	46.0	25.0	16.3
2	5.87167	20.7	19.0	10.0	30.7	29.0	60.0	50.0	29.3	21.0
3	0.15433	31.3	11.4	9.8	41.1	21.2	65.8	55.8	24.7	34.6
4	0.22522	22.2	5.7	9.8	32.0	15.5	62.6	52.6	30.6	37.1

--- L1 Phase ---

No.	Frequency [MHz]	Reading QP [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB]	Result QP [dB(uV)]	Result CAV [dB(uV)]	Limit QP [dB(uV)]	Limit AV [dB(uV)]	Margin QP [dB]	Margin CAV [dB]
1	3.02743	20.9	19.7	10.0	30.9	29.7	56.0	46.0	25.1	16.3
2	2.01714	20.5	18.8	9.9	30.4	28.7	56.0	46.0	25.6	17.3
3	0.18187	27.5	9.2	9.8	37.3	19.0	64.4	54.4	27.1	35.4
4	0.15005	30.6	8.1	9.8	40.4	17.9	66.0	56.0	25.6	38.1

4 Radiated Emissions (30MHz to 1GHz)

4.1 General Information

Test date	Apr. 13, 2025	**Test engineer**	Dominic Du	
Climate condition	**Ambient temperature**	24.5°C	**Relative humidity**	34.8%
	Atmospheric pressure	100.1kPa		
Test place	10m Chamber			

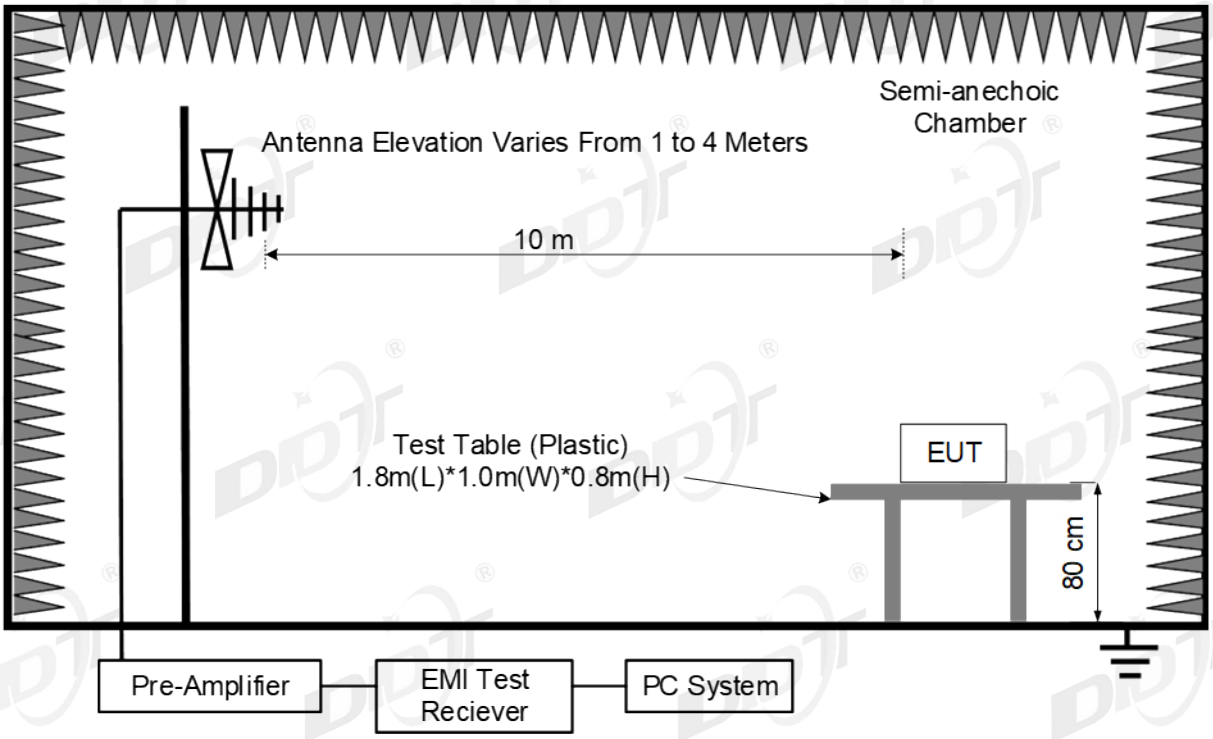
4.2 Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
EMI Test Receiver	Rohde & Schwarz	ESCI	101024	Feb. 17, 2025	1 Year
BiLog Antenna	TESEQ	CBL 6112D	29068	Oct. 10, 2024	2 Year
Low Noise Amplifier	SONOMA	310N	300913	Feb. 17, 2025	1 Year
RF Selector 4CH	TOYO	NS4904N	Selector1	N/A	N/A
RF Selector 4CH	TOYO	NS4904N	Selector2	N/A	N/A
Mast Control	INNCO	CONTROLLER CO2000	ZOAA97AZ100013D	N/A	N/A
BiLog Antenna	TESEQ	CBL 6112D	29069	Oct. 10, 2024	2 Year
EMI Test Receiver	Rohde & Schwarz	ESCI	101030	Feb. 17, 2025	1 Year
Low Noise Amplifier	SONOMA	310N	334532	Feb. 17, 2025	1 Year
Test Software	TOYO	EP5/RE	Ver 5.7.10	N/A	N/A

4.3 Reference Standard

IEEE/ANSI C63.4-2014,
IEEE/ANSI C63.4a-2017,
47 CFR Part 15 Subpart B

4.4 Test Arrangement



Procedure of Preliminary Test
The EUT and Support equipment, if needed, were put placed on a non-metallic table, 80cm above the ground plane.
Configuration EUT to simulate typical usage as described in operation modes.
All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.
Mains cables, telephone lines or other connections to auxiliary equipment located outside the test are shall drape to the floor, be fitted with ferrite clamps or ferrite tubes placed on the floor at the point where the cable reaches the floor and then routed to the place where they leave the turntable. No extension cords shall be used to mains receptacle.
The antenna was placed at 10 meters away from the EUT as stated in ANSI C63.4. The antenna connected to the Spectrum Analyzer via a cable and at times a pre-amplifier would be used.
The Analyzer / Receiver quickly scanned from 30MHz to 1GHz. The EUT test program was started. Emissions were scanned and measured rotating the EUT to 360 degrees and positioning the antenna 1 to 4 meters above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level.
The test mode(s) described were scanned during the preliminary test:
After the preliminary scan, we found the test mode producing the highest emission level. The EUT and cable configuration, antenna position, polarization and turntable position of the above highest emission level were recorded for the final test.
Procedure of Final Test
EUT and support equipment were set up on the turntable as per the configuration with highest emission level in the preliminary test.
Recorded at least the six highest emissions. Emission frequency, amplitude, antenna position, polarization and turntable position were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit and only Q.P. reading is presented.
The test data of the worst-case condition(s) was recorded.

The EUT with following test modes were pre-tested:

No.	Operation Mode	Cable Length	Resolution	Rotation	Audio	Stand Position
1.	Mode 1 HDMI	1.8m	1920*1080@120Hz	Landscape	External Speaker	HAS Stand-up
2.		1.8m	1920*1080@60Hz	Landscape	External Speaker	HAS Stand-up
3.		1.8m	1280*720@60Hz	Landscape	External Speaker	HAS Stand-up
4.		1.8m	800*600@60Hz	Landscape	External Speaker	HAS Stand-up
5.		1.5m	1920*1080@120Hz	Landscape	External Speaker	HAS Stand-up
6.		1.2m	1920*1080@120Hz	Landscape	External Speaker	HAS Stand-up
7.	Mode 2 DP	1.8m	1920*1080@120Hz	Landscape	External Speaker	HAS Stand-up
8.		1.8m	1920*1080@60Hz	Landscape	External Speaker	HAS Stand-up
9.		1.8m	1280*720@60Hz	Landscape	External Speaker	HAS Stand-up
10.		1.8m	800*600@60Hz	Landscape	External Speaker	HAS Stand-up
11.		1.5m	1920*1080@120Hz	Landscape	External Speaker	HAS Stand-up
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16.		1.8m	800*600@60Hz	Landscape	External Speaker	HAS Stand-up
17.		1.5m	1920*1080@75Hz	Landscape	External Speaker	HAS Stand-up
18.		1.2m	1920*1080@75Hz	Landscape	External Speaker	HAS Stand-up
19.	The worst case above with 1.5m power cord			Landscape	External Speaker	HAS Stand-up
20.	The worst case above with 1.2m power cord			Landscape	External Speaker	HAS Stand-up

21.	The worst case above with 1.8m power cord	Portrait (-90 degree)	External Speaker	HAS Stand-up
22.	The worst case above with 1.8m power cord	Portrait (-270 degree)	External Speaker	HAS Stand-up
23.	The worst case above with 1.8m power cord	Landscape	External Speaker	HAS Stand-down
24.	The worst case above with 1.8m power cord	Landscape	Headphone	HAS Stand-up
25.	The worst case above with 1.8m power cord	Landscape	Internal Speaker	HAS Stand-up
26.	The worst mode 1920*1080@60Hz with 1.8m power cord	Landscape	Headphone	HAS Stand-up
27.	The worst mode 1920*1080@60Hz with 1.8m power cord	Landscape	Internal Speaker	HAS Stand-up

4.5 Test Specification and Limit

Class B

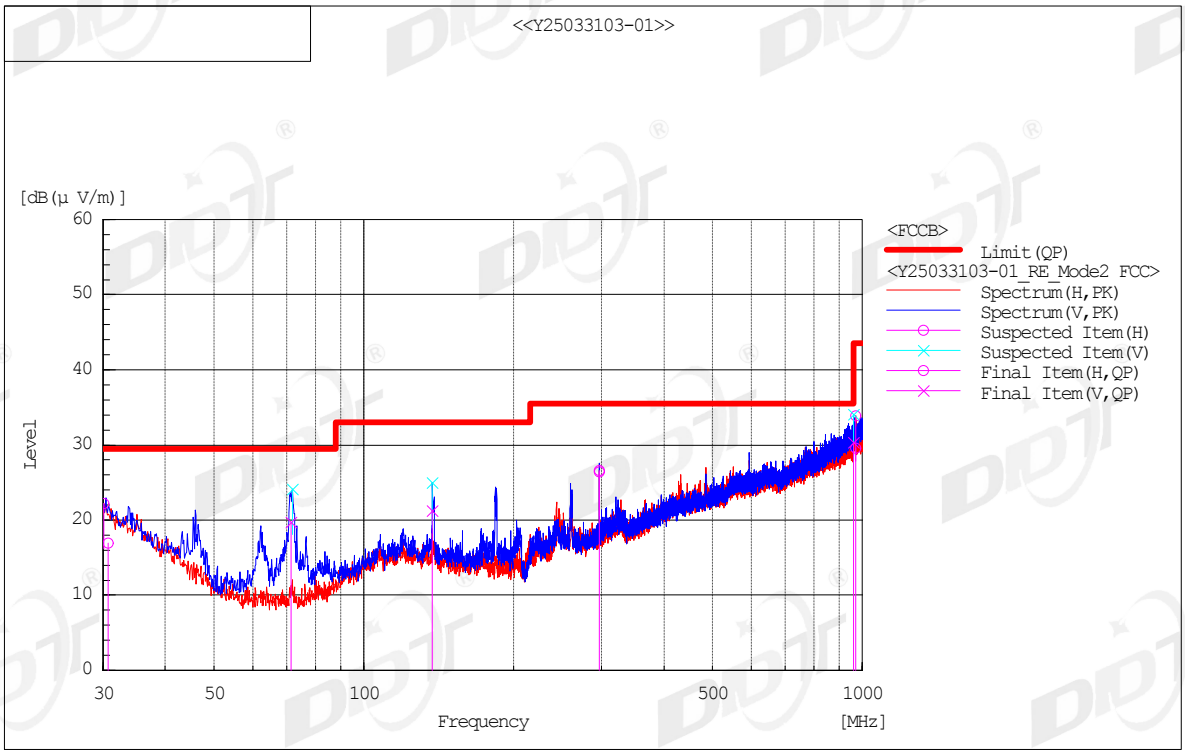
Frequencies (MHz)	**Radiated Emissions Limits at 10 meters (dBμV/m)**
30-88	29.5
88-216	33.0
216-230	35.5
230-960	
960-1000	43.5

Note:
1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note for test result
Note1): According pre-test, the worst test modes decided as below and reported. Only data of worst mode was reported in test result.
Note2) (P): Abbreviation of Antenna Polarity
Note3) Receiving antenna polarization: Horizontal and/or Vertical. Antenna Height: 1 m to 4 m
Note4) Level QP (Quasi-Peak) = Reading QP + Factor
Note5) Factor = Antenna Factor + Cable Loss - Amp. Gain
Note6) Margin = Limit – Level QP

4.6 Test Result

Sample No.	**Operation Mode**	**Remarks**	**Result**
Y25033103-01	Mode 1	Pre-scan measurement	Pass
Y25033103-01	Mode 2	Final measurement , minimum margin 9.1 dB	Pass
Y25033103-01	Mode 3	Pre-scan measurement	Pass



Final Result

No.	Frequency	(P)	Reading QP	c.f	Result QP	Limit QP	Margin QP	Height	Angle	System
	[MHz]		[dB(μ V)]	[dB(1/m)]	[dB(μ V/m)]	[dB(μ V/m)]	[dB]	[cm]	[°]	
1	30.677	H	21.9	-5.0	16.9	29.5	12.6	127.0	169.2	1
2	297.002	H	34.1	-7.7	26.4	35.5	9.1	315.0	128.2	1
3	969.895	H	23.9	5.7	29.6	43.5	13.9	129.0	170.2	1
4	71.526	V	36.6	-16.9	19.7	29.5	9.8	221.0	77.1	2
5	137.448	V	32.8	-11.6	21.2	33.0	11.8	146.0	162.0	2
6	962.029	V	23.7	6.6	30.3	43.5	13.2	378.0	184.3	2

5 Radiated Emissions (Above 1GHz)

5.1 General Information

Test date	Apr. 13, 2025	**Test engineer**	Dominic Du	
Climate condition	**Ambient temperature**	24.5°C	**Relative humidity**	34.8%
	Atmospheric pressure	100.1kPa		
Test place	10m Chamber			

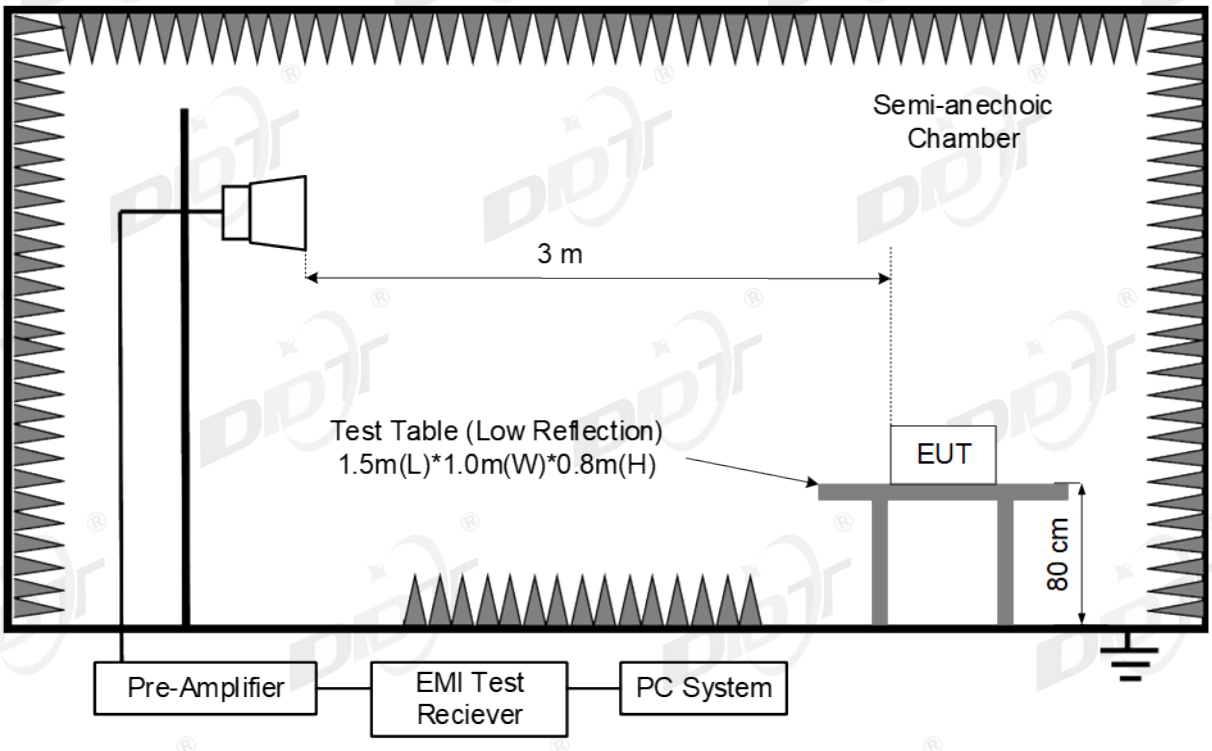
5.2 Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
EMI Test Receiver	Rohde & Schwarz	ESU26	100244	Feb. 17, 2025	1 Year
Broadband Horn Antenna	TESEQ	BHA 9118	31754	Oct. 11, 2023	2 Year
Amplifier	COM-MW	DPA8 1000 18000-1012	09211739	Feb. 17, 2025	1 Year
Test Software	TOYO	EP5/RE	Ver 5.7.10	N/A	N/A

5.3 Reference Standard

IEEE/ANSI C63.4-2014,
IEEE/ANSI C63.4a-2017,
47 CFR Part 15 Subpart B

5.4 Test Arrangement



Procedure of Preliminary Test
The EUT and Support equipment, if needed, were put placed on a non-metallic table, 80cm above

the ground plane.
Configuration EUT to simulate typical usage as described in operation modes.
All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.
Mains cables, telephone lines or other connections to auxiliary equipment located outside the test are shall drape to the floor, be fitted with ferrite clamps or ferrite tubes placed on the floor at the point where the cable reaches the floor and then routed to the place where they leave the turntable. No extension cords shall be used to mains receptacle.
The antenna was placed at 3 meters away from the EUT as stated in ANSI C63.4. The antenna connected to the Spectrum Analyzer via a cable and at times a pre-amplifier would be used.
The Analyzer / Receiver quickly scanned above 1GHz. The EUT test program was started.
Emissions were scanned and measured rotating the EUT to 360 degrees and positioning the antenna 1 to 4 meters above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level.
The test mode(s) described were scanned during the preliminary test:
After the preliminary scan, we found the test mode producing the highest emission level. The EUT and cable configuration, antenna position, polarization and turntable position of the above highest emission level were recorded for the final test.
Procedure of Final Test
EUT and support equipment were set up on the turntable as per the configuration with highest emission level in the preliminary test.
Recorded at least the six highest emissions. Emission frequency, amplitude, antenna position, polarization and turntable position were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.
For emissions above 1GHz, both Peak and Average level were measured with Spectrum Analyzer, and the RBW is set at 1MHz
The test data of the worst-case condition(s) was recorded.

Frequency Range (For unintentional radiators)

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

The EUT with following test modes were pre-tested:

No.	Operation Mode	Cable Length	Resolution	Rotation	Audio	Stand Position
1.	Mode 1 HDMI	1.8m	1920*1080@120Hz	Landscape	External Speaker	HAS Stand-up
2.		1.8m	1920*1080@60Hz	Landscape	External Speaker	HAS Stand-up
3.		1.8m	1280*720@60Hz	Landscape	External Speaker	HAS Stand-up
4.		1.8m	800*600@60Hz	Landscape	External Speaker	HAS Stand-up
5.		1.5m	1920*1080@120Hz	Landscape	External Speaker	HAS Stand-up
6.		1.2m	1920*1080@120Hz	Landscape	External Speaker	HAS Stand-up
7.	Mode 2 DP	1.8m	1920*1080@120Hz	Landscape	External Speaker	HAS Stand-up
8.		1.8m	1920*1080@60Hz	Landscape	External Speaker	HAS Stand-up
9.		1.8m	1280*720@60Hz	Landscape	External Speaker	HAS Stand-up
10.		1.8m	800*600@60Hz	Landscape	External Speaker	HAS Stand-up
11.		1.5m	1920*1080@120Hz	Landscape	External Speaker	HAS Stand-up
12.		1.2m	1920*1080@120Hz	Landscape	External Speaker	HAS Stand-up
13.	Mode 3 VGA	1.8m	1920*1080@75Hz	Landscape	External Speaker	HAS Stand-up
14.		1.8m	1920*1080@60Hz	Landscape	External Speaker	HAS Stand-up

15.		1.8m	1280*720@60Hz	Landscape	External Speaker	HAS Stand-up
16.		1.8m	800*600@60Hz	Landscape	External Speaker	HAS Stand-up
17.		1.5m	1920*1080@75Hz	Landscape	External Speaker	HAS Stand-up
18.		1.2m	1920*1080@75Hz	Landscape	External Speaker	HAS Stand-up
19.	The worst case above with 1.5m power cord			Landscape	External Speaker	HAS Stand-up
20.	The worst case above with 1.2m power cord			Landscape	External Speaker	HAS Stand-up
21.	The worst case above with 1.8m power cord			Portrait (-90 degree)	External Speaker	HAS Stand-up
22.	The worst case above with 1.8m power cord			Portrait (-270 degree)	External Speaker	HAS Stand-up
23.	The worst case above with 1.8m power cord			Landscape	External Speaker	HAS Stand-down
24.	The worst case above with 1.8m power cord			Landscape	Headphone	HAS Stand-up
25.	The worst case above with 1.8m power cord			Landscape	Internal Speaker	HAS Stand-up
26.	The worst mode 1920*1080@60Hz with 1.8m power cord			Landscape	Headphone	HAS Stand-up
27.	The worst mode 1920*1080@60Hz with 1.8m power cord			Landscape	Internal Speaker	HAS Stand-up

5.5 Test Specification and Limit

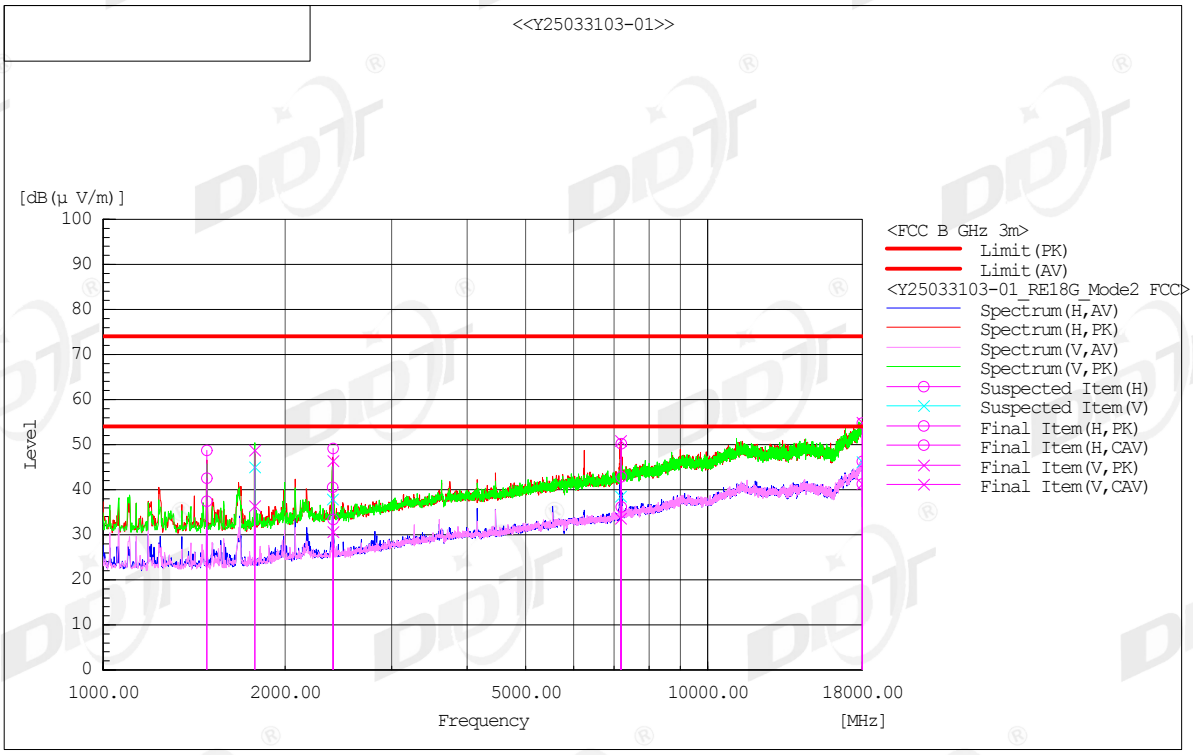
Class B

Frequency (MHz)	**Radiated Emissions Limits at 3 meters (dBμV/m)**
Above 1000	Avg: 54
Above 1000	Peak: 74

Note for test result
Note1): According pre-test, the worst test modes decided as below and reported. Only data of worst mode was reported in test result.
Note2) (P) : Abbreviation of Antenna Polarity
Note3) Reading PK / C/AV: Received raw Peak / C/Average signal
Note4) Level PK / C/AV = Reading PK / C/AV + Factor, Real signal Peak / C/Average level
Note5) Factor = Antenna factor + Cable loss – Amplifier gain
Note6) Margin PK / C/AV = Limit – Level PK / C/AV

5.6 Test Result

Sample No.	Operation Mode	Remarks	Result
Y25033103-01	Mode 1	Pre-scan measurement	Pass
Y25033103-01	Mode 2	Final measurement , minimum margin 12.7 dB	Pass
Y25033103-01	Mode 3	Pre-scan measurement	Pass



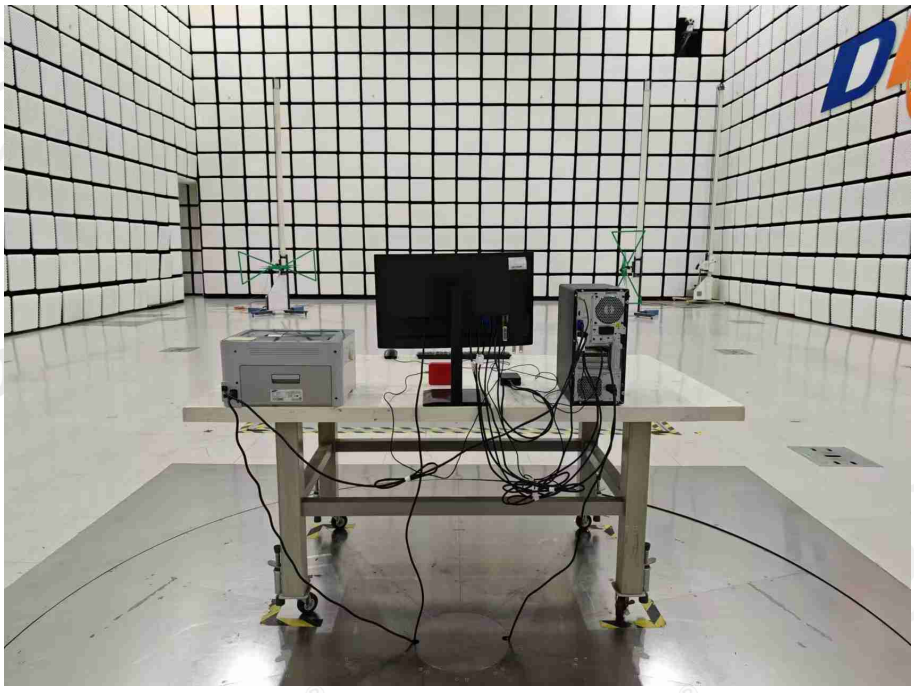
Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(µ V)]	Reading CAV [dB(µ V)]	c.f [dB(1/m)]	Result PK [dB(µ V/m)]	Result CAV [dB(µ V/m)]	Limit PK [dB(µ V/m)]	Limit AV [dB(µ V/m)]	Margin PK [dB]	Margin CAV [dB]	Height [cm]	Angle [°]
1	1485.043	H	78.1	66.8	-29.4	48.7	37.4	74.0	54.0	25.3	16.6	124.0	156.6
2	2399.054	H	75.6	59.9	-26.5	49.1	33.4	74.0	54.0	24.9	20.6	187.0	219.2
3	7185.003	H	66.0	52.0	-15.8	50.2	36.2	74.0	54.0	23.8	17.8	116.0	74.9
4	17998.890	H	59.0	45.5	-4.2	54.8	41.3	74.0	54.0	19.2	12.7	180.0	142.4
5	1782.010	V	77.3	65.0	-28.6	48.7	36.4	74.0	54.0	25.3	17.6	132.0	165.6
6	2399.019	V	72.9	57.1	-26.5	46.4	30.6	74.0	54.0	27.6	23.4	118.0	194.2
7	7172.171	V	66.8	49.5	-15.9	50.9	33.6	74.0	54.0	23.1	20.4	186.0	337.9
8	17987.490	V	59.2	45.6	-4.3	54.9	41.3	74.0	54.0	19.1	12.7	120.0	180.3

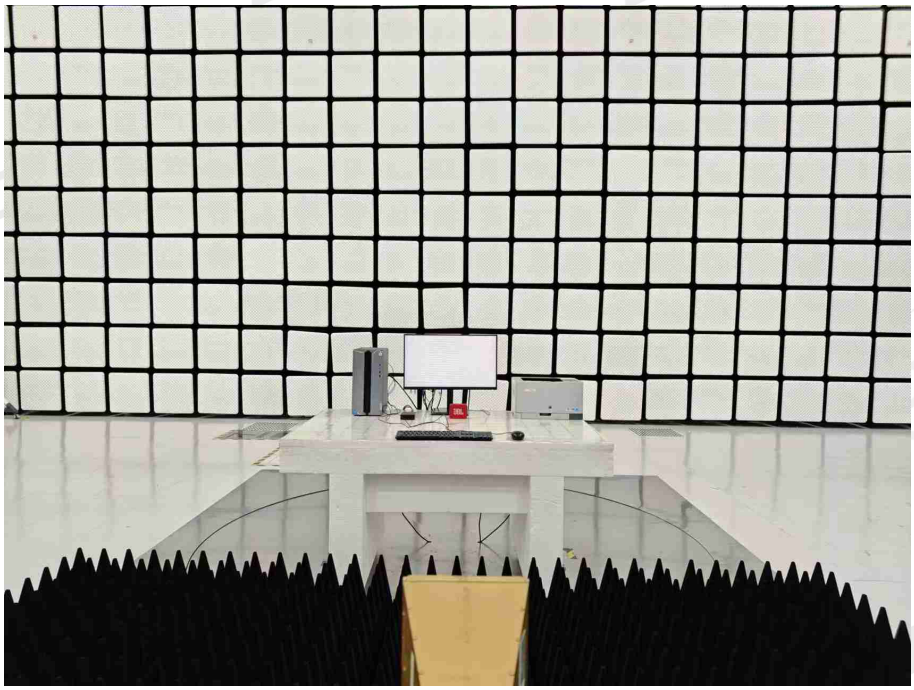
Annex A.Test Setup Photos

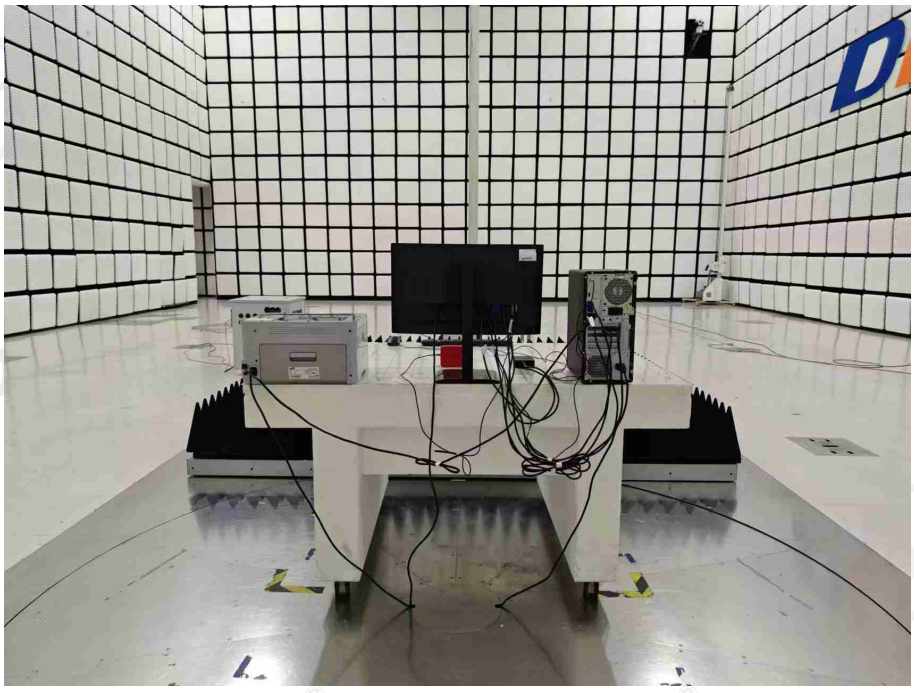
A.1 Conducted Emissions (AC mains power ports)

A.2 Radiated Emissions (30MHz to 1GHz)



A.3 Radiated Emissions (Above 1GHz)





Regulatory Statement and Label Marking Advice for the FCC SDoC

1. Marking Suggested for the label:

Trade Name and Model Number This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

2. Statement suggested for the User Manual:

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help.

Note: If shielded cables or special accessories are required for compliance, a statement must be included which instructs the user to employ them, for example, shielded cables must be used with this unit to ensure compliance with the Class B FCC limits.

Statement

1. The report is invalid without the inspection and testing special seal of the company.
2. This report is invalid if altered.
3. This report is responsible for the conformance testing of sample(s) received.
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Address: Building D-1, No. 19, Weisi Road, Microelectronics Industrial Park Development Area, Tianjin, China.

Postcode: 300385

Tel: 022-58038033

Fax: 022-58038033

Website: http://www.ddttest.com

END OF REPORT