



FCC Supplier's Declaration of Conformity (SDoC) Test Report

For

NINGBO LESLI INDUSTRY CO., LTD.

Clothes Dryer

Test Model: GDZ45-303M

Additional Models : please refer to Model list

Prepared for : NINGBO LESLI INDUSTRY CO., LTD.
Address : No.68, DONGWU STRETCH, YINXIAN AVENUE, NINGBO, ZHEJIANG, CHINA(315113)

Prepared by : Ningbo LCS Standard Technology Service Co., Ltd.
Address : Room 101-106, 202-206, Building 037, No. 166, Jinhua Road, Meixu Street, Ningbo High-tech Zone, Yinzhou District, Ningbo City, Zhejiang Province, China

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Date of receipt of test sample : September 25, 2023
Number of tested samples : 1
Serial number : Prototype
Date of Test : September 25, 2023 - September 27, 2023
Date of Report : September 27, 2023





FCC SDoC TEST REPORT
CFR47 FCC Part 15 Subpart B

Radio Frequency Devices - Unintentional Radiators

Report Reference No.....: LCSE09253008E

Date of Issue.....: September 27, 2023

Testing Laboratory Name.....: Ningbo LCS Standard Technology Service Co., Ltd.

Address.....: Room 101-106, 202-206, Building 037, No. 166, Jinghua Road, Meixu Street, Ningbo High-tech Zone, Yinzhou District, Ningbo City, Zhejiang Province, China

Testing Procedure.....: Full application of Harmonised standards
Partial application of Harmonised standards
Other standard testing method

Applicant's Name.....: NINGBO LESLI INDUSTRY CO., LTD.

Address.....: No.68, DONGWU STRETCH, YINXIAN AVENUE, NINGBO, ZHEJIANG, CHINA(315113)

Test Specification:

Standard.....: CFR47 FCC Part 15 Subpart B
ANSI C63.4-2014

Test Report Form No.....: LCSEMC-2.3

TRF Originator.....: Ningbo LCS Standard Technology Service Co., Ltd.

Master TRF.....: Dated 2019-03

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Equipment Under Test.....: Clothes Dryer

Trademark.....: N/A

Test Model/Type.....: GDZ45-303M

Rating.....: AC 120V, 60Hz, 830W;

Results: PASS

Compiled by:

Feng Liang / Engineer

Supervised by:

Dawson Yu / Technique Director

Approved by:

Lh Li / Manager





FCC SDoC - TEST REPORT

Test Report No.....: LCSE09253008E

Applicant.....:	NINGBO LESLI INDUSTRY CO., LTD.
Address.....:	No.68, DONGWU STRETCH, YINXIAN AVENUE, NINGBO, ZHEJIANG, CHINA(315113)
Telephone.....:	/
Fax.....:	/
Manufacturer.....:	NINGBO LESLI INDUSTRY CO., LTD.
Address.....:	No.68, DONGWU STRETCH, YINXIAN AVENUE, NINGBO, ZHEJIANG, CHINA(315113)
Telephone.....:	/
Fax.....:	/
Factory.....:	NINGBO LESLI INDUSTRY CO., LTD.
Address.....:	No.68, DONGWU STRETCH, YINXIAN AVENUE, NINGBO, ZHEJIANG, CHINA(315113)
Telephone.....:	/
Fax.....:	/

The applicant and manufacturer information, product name, model, trademark and other information in this report are all provided by the applicant, and this laboratory is not responsible for verifying its authenticity.

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.





ENVIRONMENTAL CONDITIONS

The climatic conditions during the test are within the limits specified by the manufacturer for the operation of the EUT and the test equipment. the climatic conditions during the test were in the following Limits:

Ambient temperature	15°C - 30°C
Relative Humidity air	30% - 75%
Atmospheric pressure	86 kPa - 106 kPa

Climate values will be recorded and recorded separately if specifically required in the base standard or application product/product series standard.

POSSIBLE TEST CASE VERDICTS

Test cases does not apply to test object	N/A
Test object does meet requirement	P(Pass) / PASS
Test object does not meet requirement	F(Fail) / FAIL
Not measured	N/M

DEFINITION OF SYMBOLS USED IN THIS TEST REPORT

<input checked="" type="checkbox"/> Indicate that the conditions, standards or equipment listed is applicable to this report / test / EUT.
<input type="checkbox"/> Indicate that the conditions, standards or equipment listed is not applicable to this report / test / EUT.

REVISION HISTORY

Revision	Issue Date	Revision Content	Revised by
000	September 27, 2023	Initial Issue	-

Remark:
000) : “---”





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1. GENERAL INFORMATION

1.1. GENERAL DESCRIPTION OF THE ITEM(S)

Equipment Under Test	Clothes Dryer
Test Model/Type	GDZ45-303M
Additional Models/Type	See Model list
Description of Model difference	-
Rating	AC 120V, 60Hz, 830W;
Mounting position	<input type="checkbox"/> Table top equipment <input type="checkbox"/> Floor standing equipment <input type="checkbox"/> Rack mounted <input type="checkbox"/> Hand-held equipment <input checked="" type="checkbox"/> Other
Classification of device	<input type="checkbox"/> Class A <input checked="" type="checkbox"/> Class B

Information of the Equipment Under Test(EUT)

The EUT is general radio frequency devices. the product contains electronic control circuits.
for more information refer to client's DoC letter.

Model	Rating
GDZ40-301M, GDZ40-302M, GDZ45-303M, GDZ45-305M, ES315308AAW, ES315309AAW, GDZ60-506M, GDZ60-505M, ES315310AAW, GDZ70-503M, GDZ80-603M, GDZ80-606M, GDZ80-605M	AC 120V, 60Hz
The applicant states: - All models use the same circuit and PCB layout. - This report after information review and verification, the model "GDZ45-303M" were chosen as the representative model to perform all the tests.	





1.2. OPERATING MODE(S) USED OF TESTS

During the tests, the following operating mode(s) has(have) been used.

Operating Mode	Operating Mode description	Used for testing
1	Normal operation	<input type="checkbox"/>
2	Bluetooth	<input type="checkbox"/>
3	HDMI	<input type="checkbox"/>
4	Working	<input checked="" type="checkbox"/>

1.3. SUPPORT / AUXILIARY EQUIPMENT FOR THE EUT

EUT has been tested using the following auxiliary equipment :

Auxeq	Model/Type	Manufacturer	Supplied by
--			-

1.4. DESCRIPTION OF TEST FACILITY

Test Location	Ningbo LCS Standard Technology Service Co., Ltd. Room 101-106, 202-206, Building 037, No. 166, Jinghua Road, Meixu Street, Ningbo High-tech Zone, Yinzhou District, Ningbo City, Zhejiang Province, China CNAS Registration Number is L13445.
Date of receipt of test item	September 25, 2023
Date(s) of performance of test	September 25, 2023 - September 27, 2023





2. STATEMENT OF THE MEASUREMENT UNCERTAINTY

The data and results referenced in this document are true and accurate. the reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. the measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 "Specification for radio disturbance and immunity measuring apparatus and methods - Part 4: Uncertainty in EMC Measurements" and is documented in the LCS quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. the manufacturer has the sole responsibility of continued compliance of the device.

Measurement	Uncertainty (U_{lab})	Uncertainty (U_{cisp})
Conducted disturbance (9kHz - 150kHz)	± 2.63 dB	± 3.8 dB
Conducted disturbance (150kHz - 30MHz)	± 2.35 dB	± 3.4 dB
Radiated disturbance (30MHz - 200MHz)	± 3.48 dB	± 5.3 dB
Radiated disturbance (200MHz - 1GHz)	± 3.48 dB	± 5.3 dB

Supplementary information:

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor of $k=2$, which for a normal distribution corresponds to a coverage probability of approximately 95%.





3. MEASURING DEVICES AND TEST EQUIPMENT

CONDUCTED DISTURBANCE						
Item	Test equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	EMI Test Software	AUDIX	E3	N/A	/	/
2	EMI Test Receiver	R&S	ESR 3	102519	2023-05-29	2024-05-28
3	Artificial Mains	R&S	ENV216	102318	2023-05-29	2024-05-28
4	shielded room	MAORUI	843	160218835	2021-04-12	2024-04-11

RADIATED DISTURBANCE						
Item	Test equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	EMI Test Software	AUDIX	E3	N/A	/	/
2	3m Semi Anechoic Chamber	MAORUI	9m*6m*6	160218849	2021-04-12	2024-04-11
3	By-log Antenna	SCHWARZBECK	VULB9168	9168-988	2023-05-29	2024-05-28
4	Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-2049	2021-05-31	2024-05-30
5	EMI Test Receiver	R&S	ESRP	101372	2023-05-29	2024-05-28
6	AMPLIFIER	SCHWARZBECK	BBV9745	136	2023-05-29	2024-05-28
7	RF Cable	Hubber Suhner	CBL-RE	/	/	/
8	AMPLIFIER	SCHWARZBECK	BBV9718C	21	2023-05-29	2024-05-28





4. VERDICT SUMMARY SECTION

This chapter present an overview of the standards and results. Refer the next chapter for details of measured test results and applied test levels.

4.1. STANDARD(S)

CFR47 FCC Part 15 Subpart B - Radio frequency devices Subpart B - Unintentional radiators.

ANSI C63.4-2014 - American national standard for methods of measurement of radio noise emissions from low-voltage electrical and electronic equipment in the range of 9 kHz to 40 GHz.

4.2. OVERVIEW OF RESULTS

EMISSION TESTS - CFR47 FCC Part 15 Subpart B		
Requirement - Test case	Limit	Verdict
Conducted Disturbance	Clause 15.107	PASS
Radiated Disturbance	Clause 15.109	PASS

Supplementary information : ---



5. EMISSION TESTS

5.1. CONDUCTED DISTURBANCE

Standard	CFR47 FCC Part 15 Subpart B
Referenced Standard(s)	ANSI C63.4-2014

Disturbance voltage limits at AC power ports of Class B equipment

Frequency range [MHz]	Limit: Quasi-peak [dB(μV)]	Limit: Average [dB(μV)]	IF BW
0,15 - 0,5	66 - 56	56 - 46	9 kHz
0,5 - 5,0	56	46	
5,0 - 30	60	50	

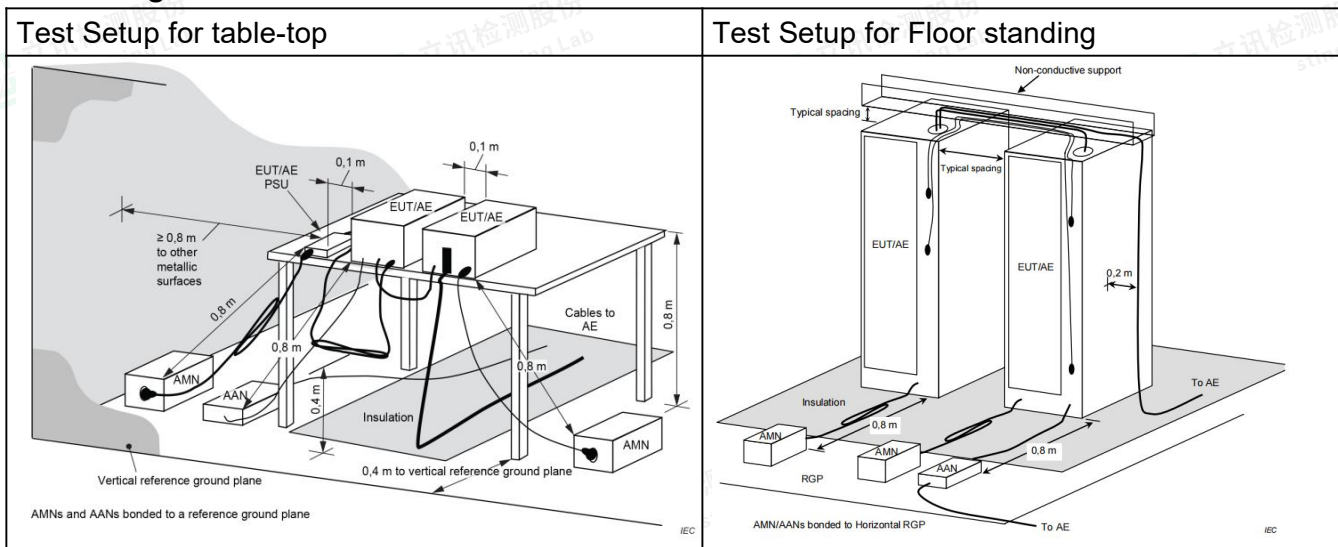
1) At the transition frequency, the lower limit applies.

Disturbance voltage limits at AC power ports of Class A equipment

Frequency range [MHz]	Limit: Quasi-peak [dB(μV)]	Limit: Average [dB(μV)]	IF BW
0,15 - 0,5	79	66	9 kHz
0,5 - 30	73	60	

1) At the transition frequency, the lower limit applies.

Test configuration



Test Procedure Description

For Table-top, EUT shall be placed at $(0,8 \pm 0,05)$ m above the reference plane of the test site selected for measurement. for Floor standing, EUT shall be placed at $(0,12 \pm 0,04)$ m above the reference plane of the test site selected for measurement. and connected to the AC mains through artificial mains network (LISN). EUT is powered by V-type artificial power network, and the distance from LISN or is 0,8m. the part of the EUT power cord exceeding 0,8m folds in parallel to form a 0,3-0,4 m eights harness.

Test Results refer to Annex A.1





5.2. RADIATED DISTURBANCE

Standard	CFR47 FCC Part 15 Subpart B
Referenced Standard(s)	ANSI C63.4-2014
Test method	Semi Anechoic Chamber (SAC)

SAC Radiated disturbance limit for Class B equipment (3 m distance)

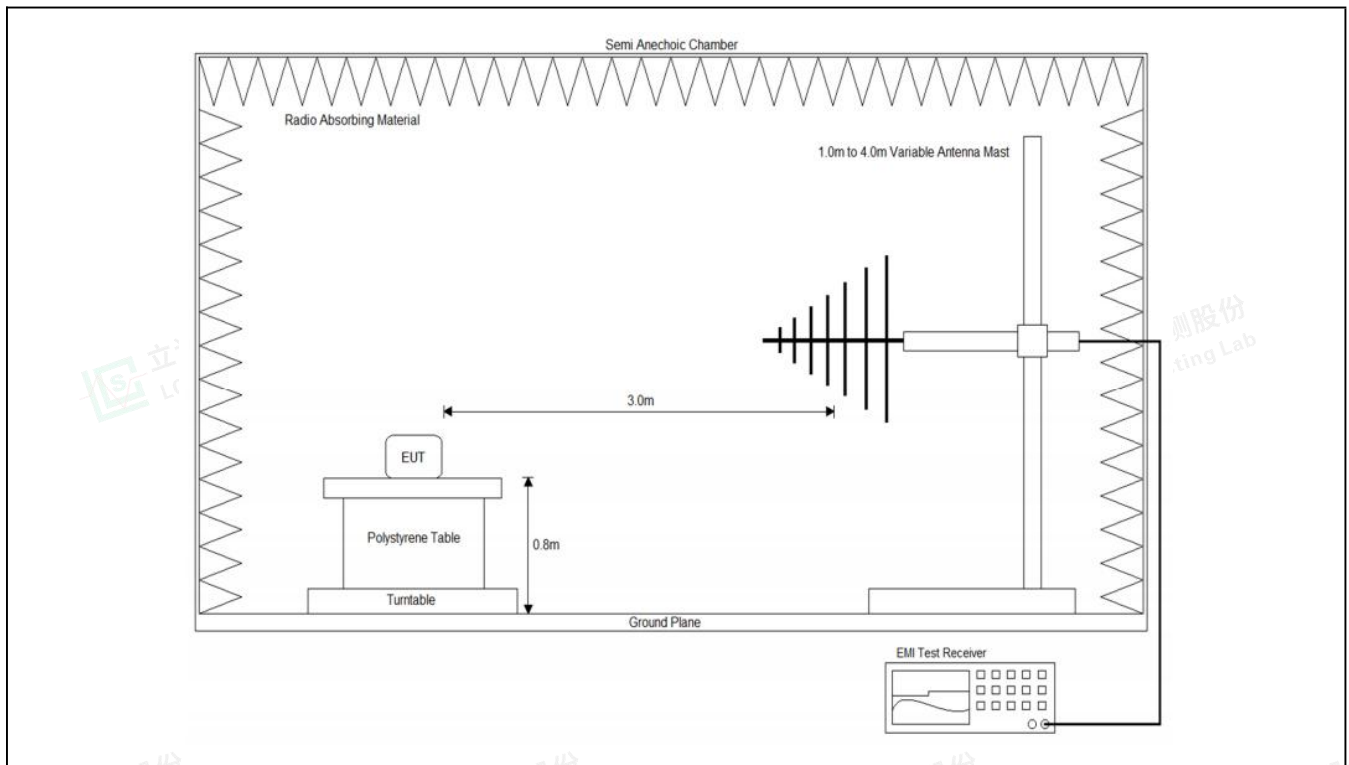
Frequency range [MHz]	Limit: Quasi-peak		IF BW
	[$\mu\text{V}/\text{m}$]	[dB($\mu\text{V}/\text{m}$)]	
30 - 88	100	40	120 KHz
88 - 216	150	43.5	
216 - 960	200	46	
960 - 1000	500	54	

SAC Radiated disturbance limit for Class A equipment (10 m distance)

Frequency range [MHz]	Limit: Quasi-peak		IF BW
	[$\mu\text{V}/\text{m}$]	[dB($\mu\text{V}/\text{m}$)]	
30 - 88	90	39	120 KHz
88 - 216	150	43.5	
216 - 960	210	46.5	
960 - 1000	300	49.5	

- 1) At the transition frequency, the lower limit applies.
- 2) Emission level (dB) μV = 20 log Emission level $\mu\text{V}/\text{m}$.

Test configuration





Test Procedure Description

Radiated Emissions were measured 3 metres away from the EUT in the Semi Anechoic Chamber facility, which is an ANSI C63.4 compliant semi-anechoic chamber with ground plane. The EUT was placed on a non-conductive table, at a height of 0.8m above the ground plane. the turntable can rotate 360 degrees to determine the position of the maximum emission level. the EUT is set 3 meters away from the receiving antenna, which is mounted on an antenna tower. the antenna can be moved up and down from 1 to 4 meters to find out the maximum emission level. Log-periodic antenna or horn antenna is used as a receiving antenna. both horizontal and vertical polarization of the antenna is set on test.

Test Results refer to Annex A.2

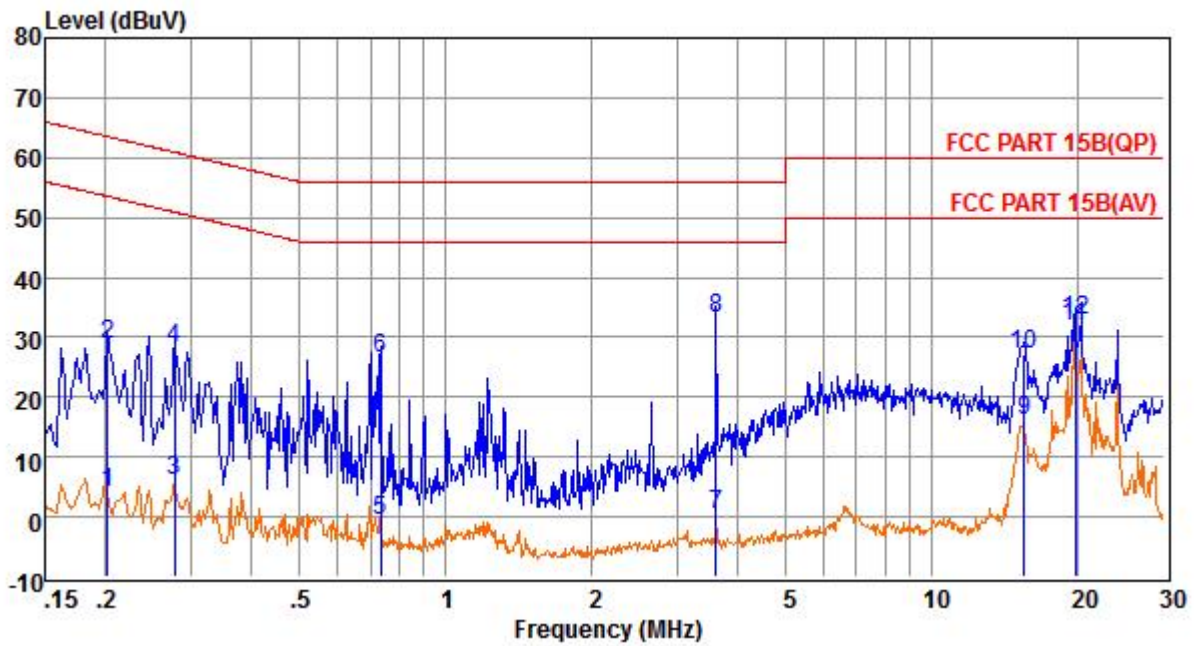




ANNEX A - TEST RESULTS

A.1. CONDUCTED DISTURBANCE TEST RESULTS

Environmental Conditions	25.4°C, 53% RH
Model	GDZ45-303M
Operating mode	Mode 4 (worst case)
Test voltage	AC 120V, 60Hz
Test engineer	FENG LIANG
Pol	Line



Pol: LINE

	Freq	Reading	LisnFac	CabLos	Measured	Limit	Over	Remark
	MHz	dBpW	dB	dB	dBpW	dBpW	dB	
1	0.20	-5.68	9.65	0.00	3.97	53.54	-49.57	Average
2	0.20	19.32	9.65	0.00	28.97	63.54	-34.57	QP
3	0.28	-3.76	9.75	0.00	5.99	50.90	-44.91	Average
4	0.28	18.24	9.75	0.00	27.99	60.90	-32.91	QP
5	0.74	-10.26	9.73	0.00	-0.53	46.00	-46.53	Average
6	0.74	16.74	9.73	0.00	26.47	56.00	-29.53	QP
7	3.60	-9.44	9.76	0.00	0.32	46.00	-45.68	Average
8	3.60	23.56	9.76	0.00	33.32	56.00	-22.68	QP
9	15.47	6.51	9.65	0.00	16.16	50.00	-33.84	Average
10	15.47	17.51	9.65	0.00	27.16	60.00	-32.84	QP
11	19.74	22.22	9.64	0.00	31.86	50.00	-18.14	Average
12	19.74	23.22	9.64	0.00	32.86	60.00	-27.14	QP

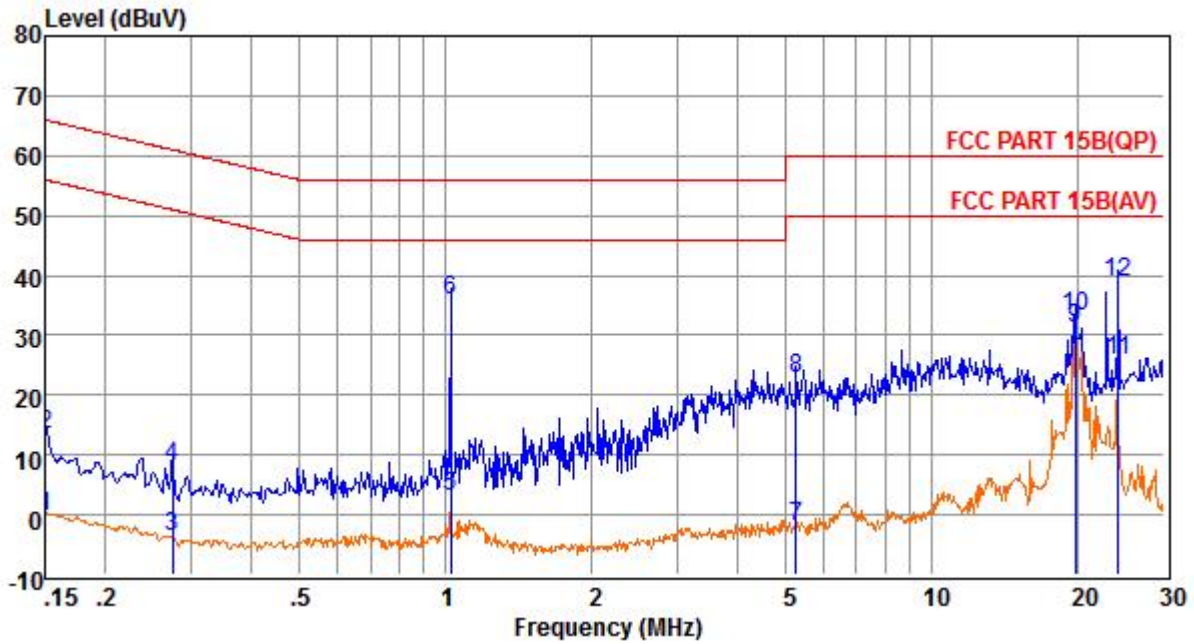
Remarks: 1. Measured = Reading + Lisn Factor +Cable Loss.

2. The emission levels that are 20dB below the official limit are not reported.





Environmental Conditions	25.4°C, 53% RH
Model	GDZ45-303M
Operating mode	Mode 4 (worst case)
Test voltage	AC 120V, 60Hz
Test engineer	FENG LIANG
Pol	Neutral



Pol: NEUTRAL

	Freq	Reading	LisnFac	CabLos	Measured	Limit	Over	Remark
	MHz	dBpW	dB	dB	dBpW	dBpW	dB	
1	0.15	-10.06	9.61	0.00	-0.45	56.00	-56.45	Average
2	0.15	3.94	9.61	0.00	13.55	66.00	-52.45	QP
3	0.27	-13.55	9.74	0.00	-3.81	50.98	-54.79	Average
4	0.27	-1.55	9.74	0.00	8.19	60.98	-52.79	QP
5	1.03	-6.90	9.87	0.00	2.97	46.00	-43.03	Average
6	1.03	26.10	9.87	0.00	35.97	56.00	-20.03	QP
7	5.25	-11.80	9.73	0.00	-2.07	50.00	-52.07	Average
8	5.25	13.20	9.73	0.00	22.93	60.00	-37.07	QP
9	19.74	21.56	9.55	0.00	31.11	50.00	-18.89	Average
10	19.74	23.56	9.55	0.00	33.11	60.00	-26.89	QP
11	24.14	16.10	9.59	0.00	25.69	50.00	-24.31	Average
12	24.14	29.10	9.59	0.00	38.69	60.00	-21.31	QP

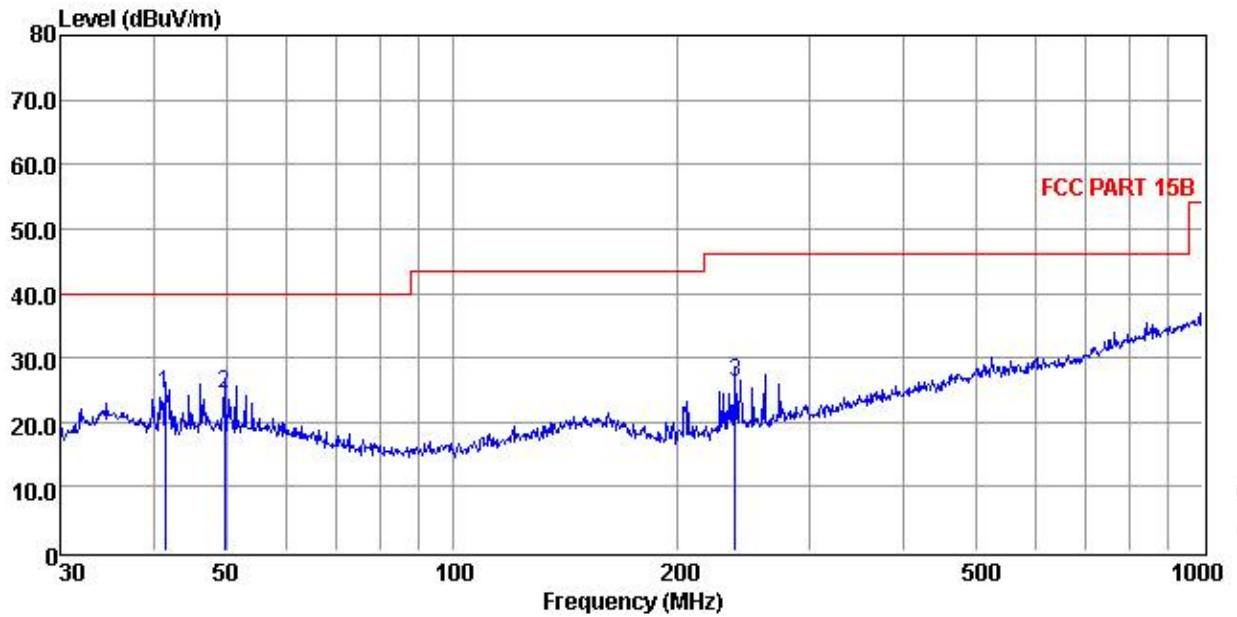
Remarks: 1. Measured = Reading + Lisn Factor +Cable Loss.
 2. The emission levels that are 20dB below the official limit are not reported.





A.2. RADIATED DISTURBANCE TEST RESULTS

Environmental Conditions	25.4°C, 54% RH
Model	GDZ45-303M
Operating mode	Mode 4 (worst case)
Test voltage	AC 120V, 60Hz
Test engineer	FENG LIANG
Pol	Vertical



Site : 3m chamber

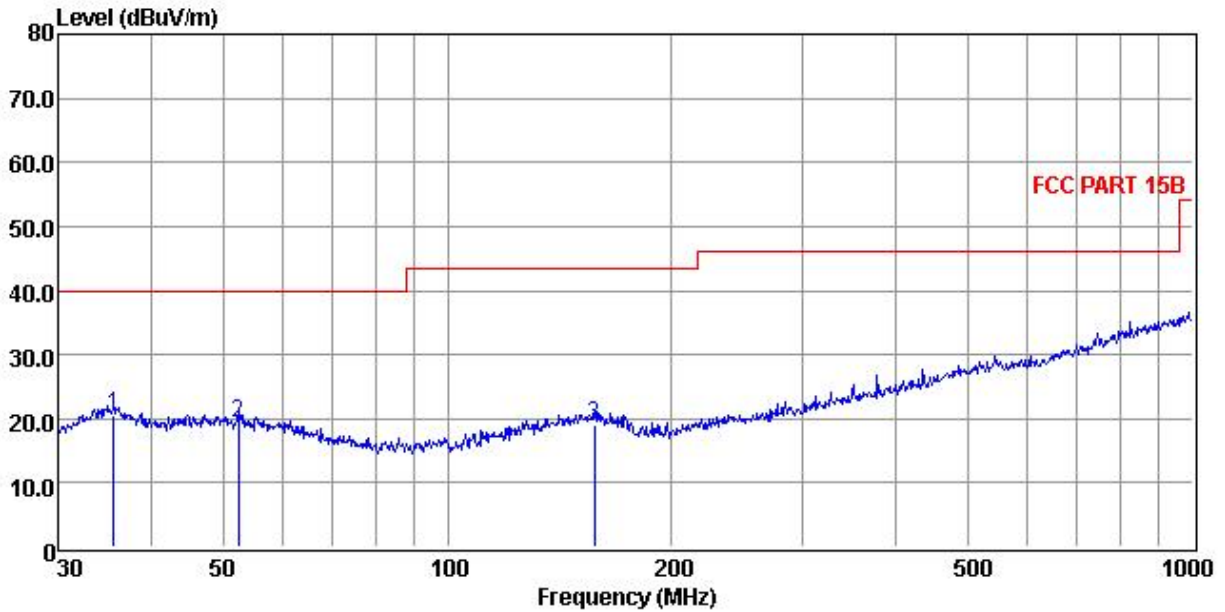
Condition : FCC PART 15B 3m VULB9168 NB 2 VERTICAL

	Read	Cable	Antenna	Preamp	Limit	Over	
Freq	Level	Loss	Factor	Factor	Level	Line	Limit Remark
MHz	dBuV	dB	dB/m	dB	dBuV/m	dBuV/m	dB
1	41.42	38.34	2.28	13.25	29.62	24.25	40.00 -15.75 QP
2	49.71	38.15	2.41	13.49	29.60	24.45	40.00 -15.55 QP
3	238.31	40.15	4.31	11.70	29.93	26.23	46.00 -19.77 QP





Environmental Conditions	25.4°C, 54% RH
Model	GDZ45-303M
Operating mode	Mode 4 (worst case)
Test voltage	AC 120V, 60Hz
Test engineer	FENG LIANG
Pol	Horizontal



Site : 3m chamber
 Condition : FCC PART 15B 3m VULB9168 NB 2 HORIZONTAL

	Read Freq	Level	Cable Loss	Antenna Factor	Preamp Factor	Limit Level	Over Limit	Remark
	MHz	dBuV	dB	dB/m	dB	dBuV/m	dB	
1	35.62	32.62	2.18	15.37	29.64	20.53	40.00	-19.47 QP
2	52.39	33.19	2.45	13.22	29.62	19.24	40.00	-20.76 QP
3	157.56	32.24	3.62	13.13	29.83	19.16	43.50	-24.34 QP



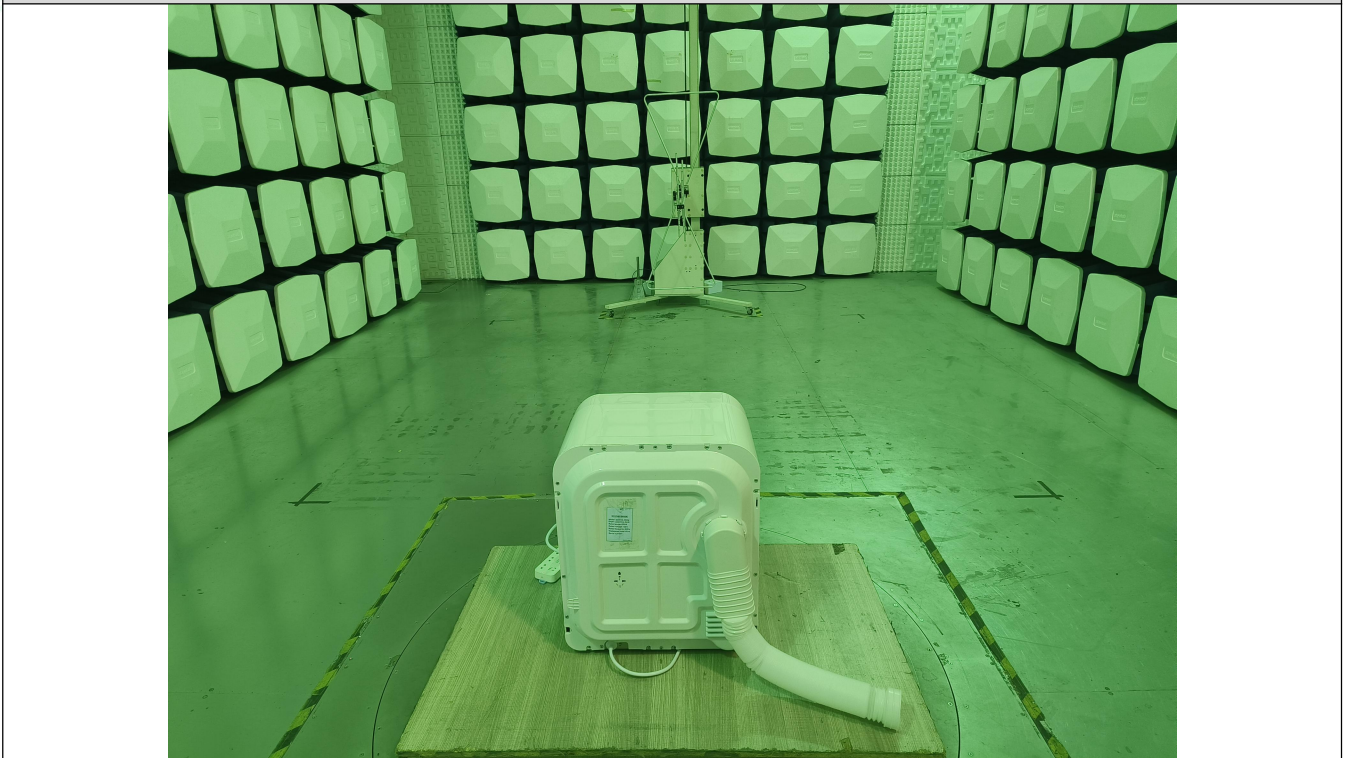


ANNEX B - TEST PHOTOS

B.1. Conducted Disturbance



B.2. Radiated Disturbance





ANNEX C - EXTERNAL AND INTERNAL PHOTOS OF THE EUT

The photographs show the equipment under test.



Figure. 1 (GDZ45-303M)



Figure. 2 (GDZ45-303M)



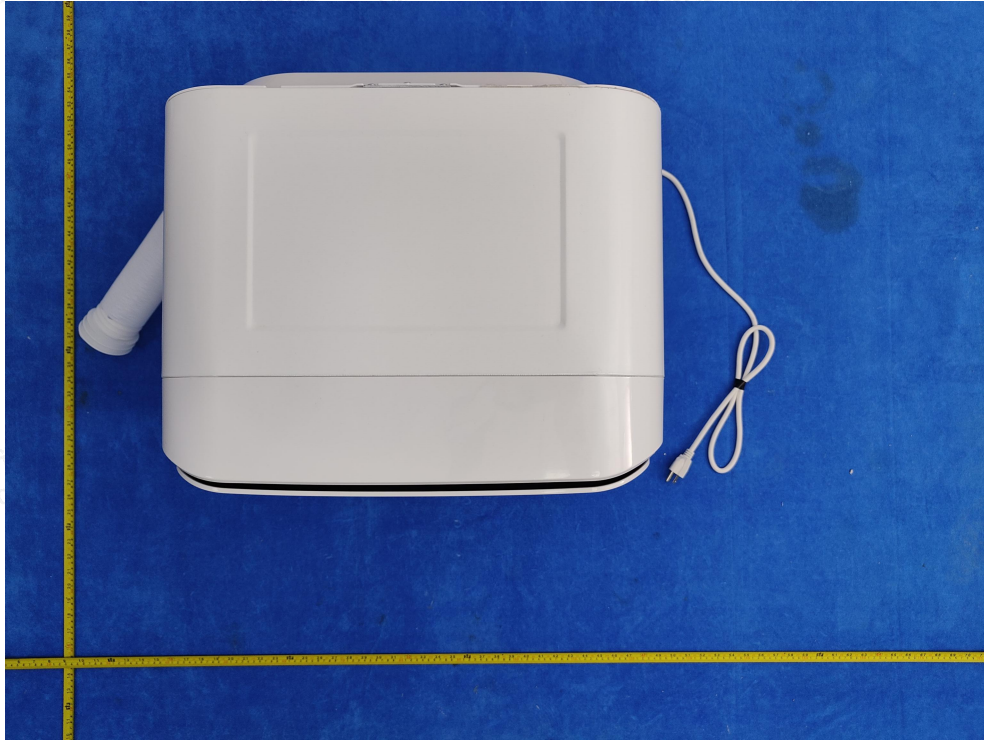


Figure. 3 (GDZ45-303M)



Figure. 4 (GDZ45-303M)



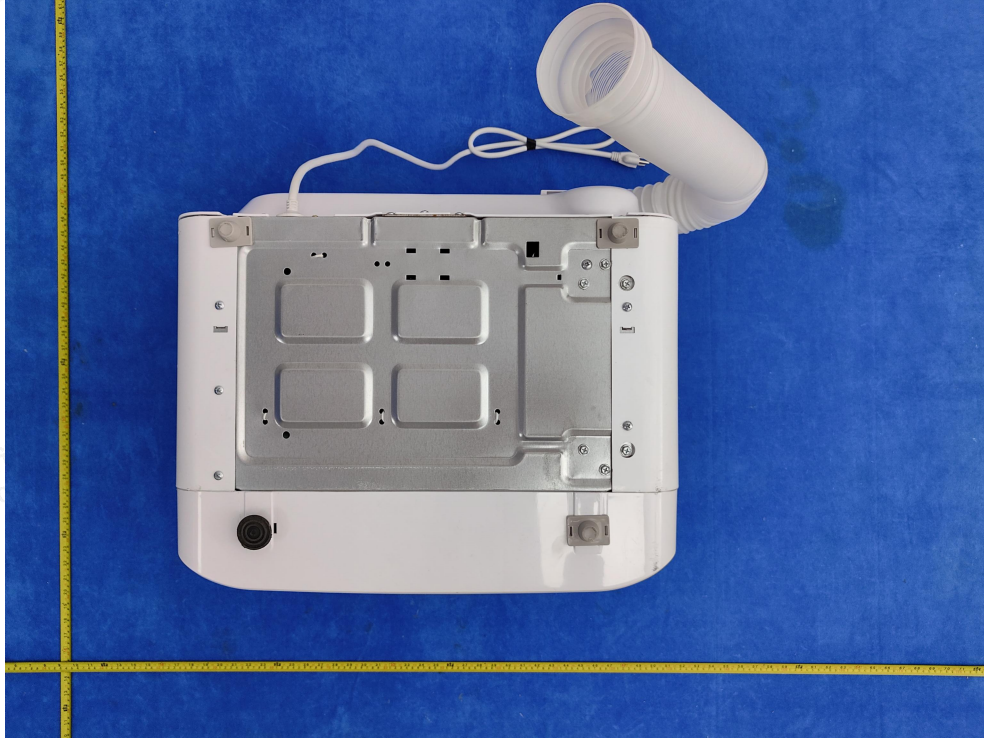


Figure. 5 (GDZ45-303M)

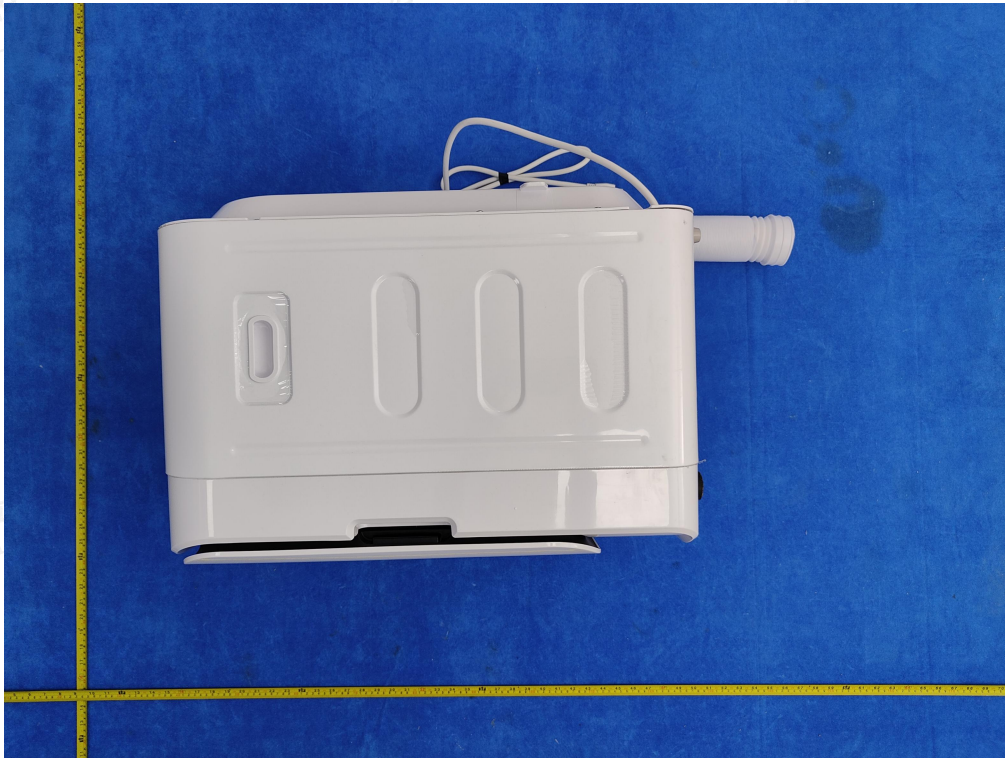


Figure. 6 (GDZ45-303M)

----- END -----

