

Wuhu jiahong New Material co.,Ltd

EMC TEST REPORT

Report Type:

FCC Part 15B EMC report

Model:

ET-72GW

REPORT NUMBER:

2509B2232SHA-002

ISSUE DATE:

August 28, 2026

DOCUMENT CONTROL NUMBER:

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TEST REPORT

APPLICANT: Wuhu jiahong New Material co.,Ltd
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MANUFACTURER: Wuhu jiahong New Material co.,Ltd
NO.86 Guandou Road, Jiujiang district

Factory: Wuhu jiahong New Material co.,Ltd
NO.86 Guandou Road, Jiujiang district

FCC ID: 2A7S726082472

SUMMARY:

The equipment complies with the requirements according to the following standard(s) or Specification:

47CFR Part 15 (2024): Radio Frequency Devices (Subpart B)

ANSI C63.4 (2014+A1:2017): 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

PREPARED BY:



Project Engineer
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REVIEWED BY:



Reviewer
Eric Li

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TEST REPORT

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Revision History

Report No.	Version	Description	Issued Date
2509B2232SHA-002	Rev. 01	Initial issue of report	August 28, 2026

Measurement result summary

TEST ITEM	FCC REFERENCE	RESULT
Power line conducted emission	15.107	Pass
Radiated emission	15.109	Pass

Notes: 1: NA =Not Applicable

2: Determination of the test conclusion is based on IEC Guide 115 in consideration of measurement uncertainty.

3: Additions, Deviations and Exclusions from Standards: None.

1 GENERAL INFORMATION

1.1 Description of Equipment Under Test (EUT)

Product name:	Temperature controller
Type/Model:	ET-72GW
Description of EUT:	The EUT is a Temperature controller with WiFi function. The WiFi module has been approved with FCC ID: 2ANDL-WBR3. The worst data is listed in the report.
Rating:	120V/208V/240V, 50/60Hz
Category of EUT:	Class B
EUT type:	☒ Table top ☐ Floor standing
Highest operating frequency	<2483.5MHz
Software Version:	/
Hardware Version:	/
Sample received date:	August 15, 2026
Date of test:	August 15, 2026~ August 28, 2026

1.2 Description of Test Facility

Name:	Intertek Testing Services (Shanghai FTZ) Co., Ltd.
Address:	Building 86, No. 1198 Qinzhou Road(North), Shanghai 200233, P.R. China
Telephone:	86 21 61278200
Telefax:	86 21 54262353

The test facility is recognized, certified, or accredited by these organizations:	CNAS Accreditation Lab Registration No. CNAS L21189
	FCC Accredited Lab Designation Number: CN0175
	IC Registration Lab CAB identifier.: CN0014
	VCCI Registration Lab Registration No.: R-14243, G-10845, C-14723, T-12252
	A2LA Accreditation Lab Certificate Number: 3309.02

2 TEST SPECIFICATIONS

2.1 Standards or specification

47CFR Part 15 (2024)
ANSI C63.4 (2014+A1:2017)

2.2 Mode of operation during the test

Within this test report, EUT was tested under all available operation modes and tested under its rating voltage and frequency. Other voltage and frequency is specified if used.

2.3 Test software list

Test Items	Software	Manufacturer	Version
Conducted emission	ESxS-K1	R&S	V2.1.0
Radiated emission	ES-K1	R&S	V1.71

2.4 Test peripherals list

Item No.	Name	Band and Model	Description
1	Mobile telephone	Iphone 15	/
2	Router	R7800	/

2.5 Test environment condition:

Test items	Temperature	Humidity
Power line conducted emission	22°C	55% RH
Radiated Emissions	22°C	55% RH

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2.6 Instrument list

Conducted Emission					
Used	Equipment	Manufacturer	Type	Internal no.	Due date
☒	Test Receiver	R&S	ESR7	EC 6194	2027-02-27
☒	A.M.N.	R&S	ESH2-Z5	EC 3119	2027-07-22
☒	Shielded room	Zhongyu	-	EC 2838	2027-01-11
Radiated Emission					
Used	Equipment	Manufacturer	Type	Internal no.	Due date
☒	Test Receiver	R&S	ESIB 26	EC 3045	2027-08-18
☒	TRILOG broadband Antenna	Schwarzbeck	VULB9168	EC 6402	2027-03-19
☒	Pre-amplifier	Tonscend	tap01018050	EC 6432-1	2026-12-07
☒	Horn antenna	Tonscend	bha9120d	EC 6432-2	2027-03-20
☒	Horn antenna	ETS	3116c	EC 5955	2027-08-14
☒	Semi-anechoic chamber	Albatross	-	EC 3048	2027-07-11
Additional instrument					
Used	Equipment	Manufacturer	Type	Internal no.	Due date
☒	Therom-Hygrograph	Testo	175h1	EC 6640	2026-08-29
☒	Therom-Hygrograph	Testo	175h1	EC 6641	2026-08-29

2.7 Measurement uncertainty

The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Test item	Measurement uncertainty
Radiated Emissions in restricted frequency bands below 1GHz	$\pm 4.90\text{dB}$
Radiated Emissions in restricted frequency bands above 1GHz	$\pm 5.02\text{dB}$
Power line conducted emission	$\pm 3.19\text{dB}$

3 Radiated Emissions

Test result: Pass

3.1 Limit

3.1.1 Limits for radiated disturbance of class A device

FCC

Frequency (MHz)	Permitted limit in dB μ V/m (Quasi-peak) of Measurement Distance 10m
30 – 88	39
88 – 216	43.5
216 – 960	46.4
Above 960	49.5
Note: for the measurement distance other than 3m and 10m, the limit is varied according to 20dB/10 decades.	

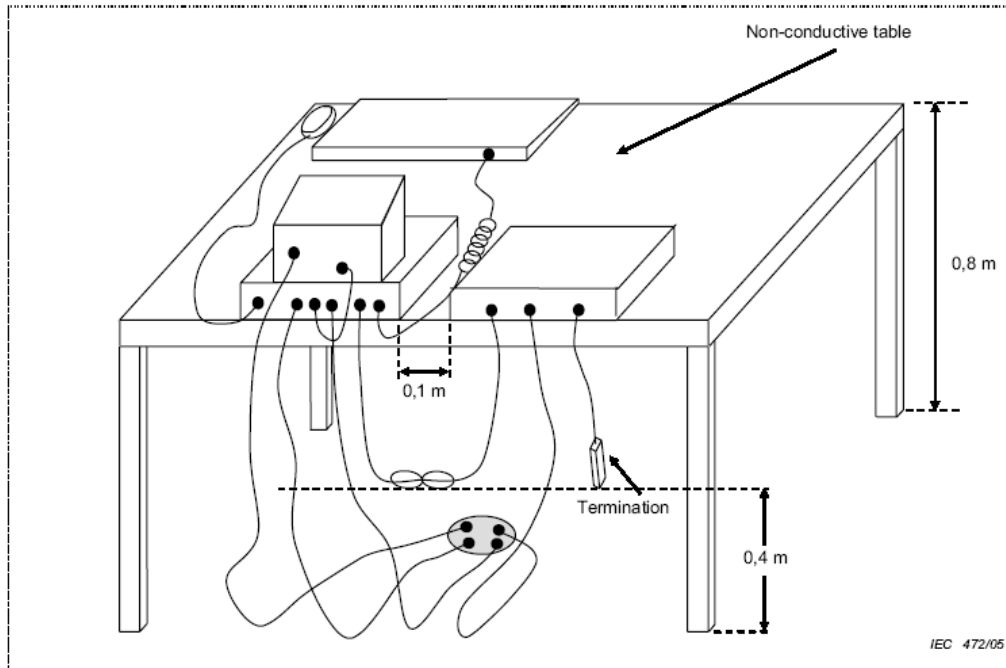
3.1.2 Limits for radiated disturbance of class B device

FCC

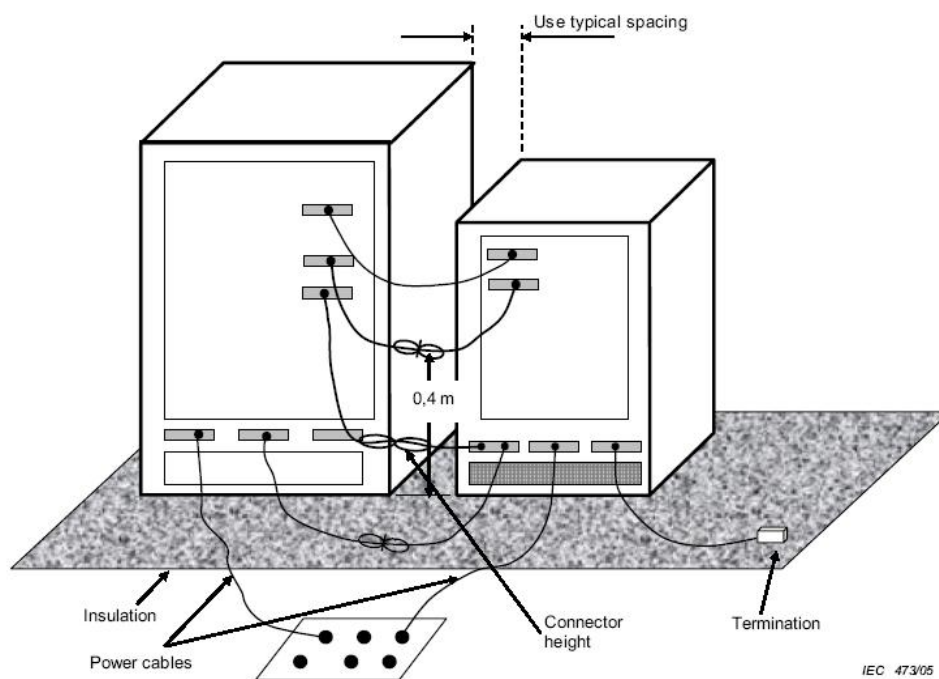
Frequency (MHz)	Permitted limit in dB μ V/m (Quasi-peak) of Measurement Distance 3m
30 – 88	40.0
88 – 216	43.5
216 – 960	46.0
Above 960	54.0
Note: for the measurement distance other than 3m and 10m, the limit is varied according to 20dB/10 decades.	

3.2 Block diagram and test set up

For table top equipment



For floor standing equipment



3.3 Measurement Procedure

The measurement was performed in a semi-anechoic chamber. While testing for spurious emission higher than 1GHz, the pre-amplifier (and high pass filter if necessary) is equipped just at the output terminal of the antenna.

The distance from EUT to receiving antenna is 3 meters.

Measurement was performed according to clause 4 and clause 5 of ANSI 63.4.

Test procedure was according to clause 8.3 of ANSI 63.4.

EUT arrangement and operate condition were according to clause 6 and clause 8 of ANSI 63.4.

The radiated emission was measured using the test receiver with the resolutions bandwidth set as:

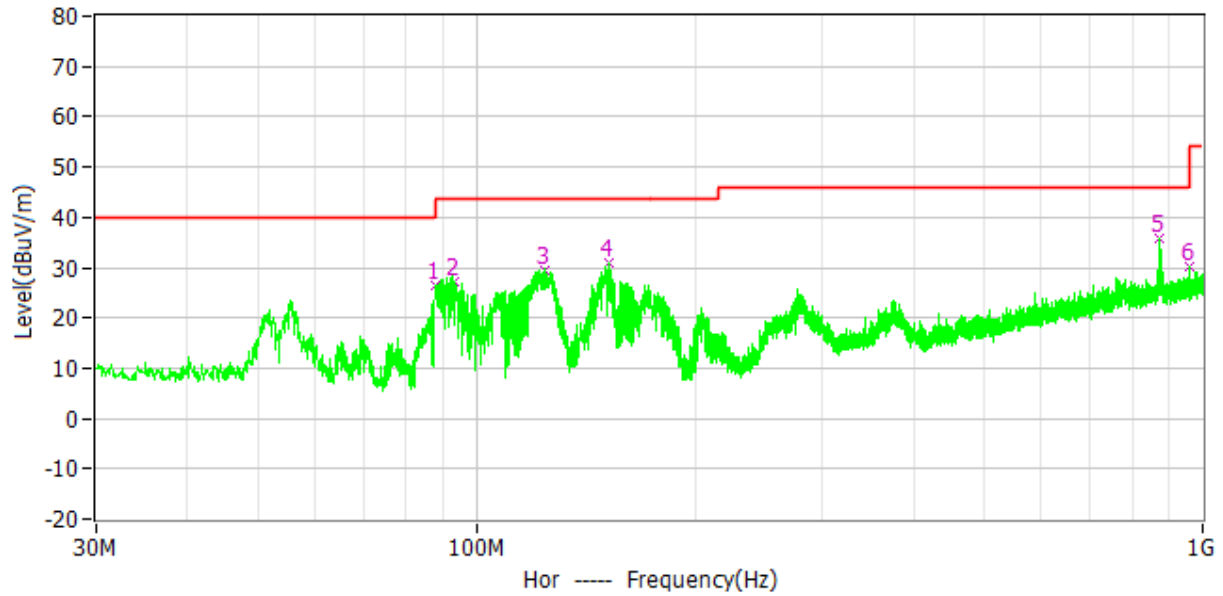
RBW = 100kHz, VBW = 300kHz (30MHz~1GHz)

RBW = 1MHz, VBW = 3MHz (>1GHz for PK)

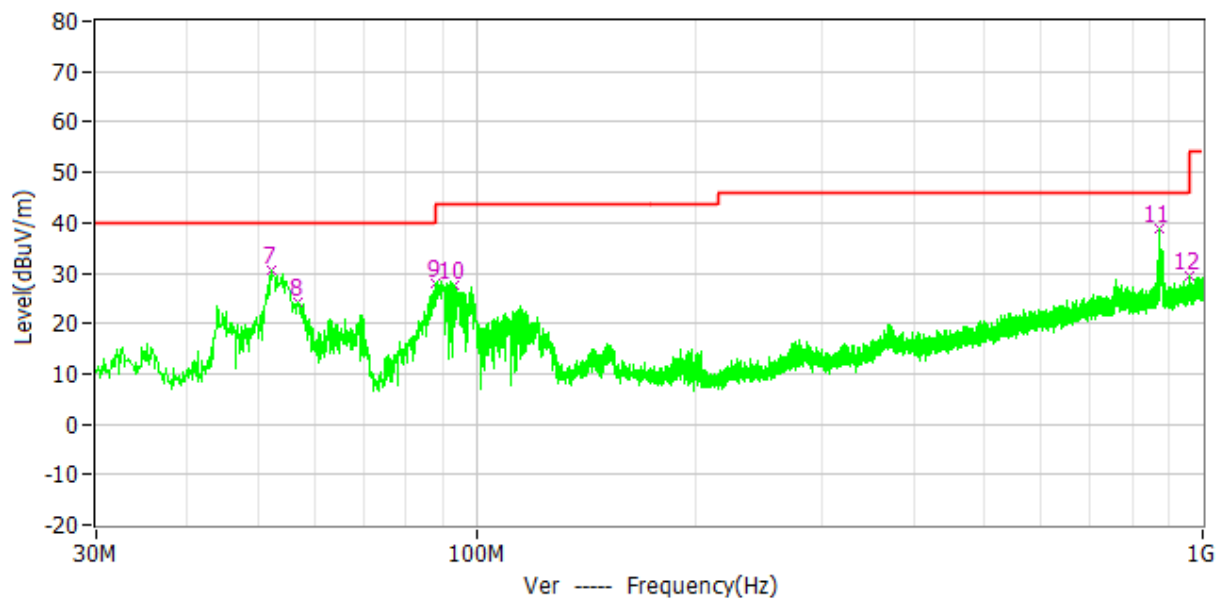
Highest internal frequency (F _x)	Highest measured frequency F _M for radiated measurement	Measured Bandwidth
F _x ≤ 108 MHz	1 GHz	120kHz
108 MHz < F _x ≤ 500 MHz	2 GHz	1MHz
500 MHz < F _x ≤ 1 GHz	5 GHz	1MHz
F _x > 1 GHz	5 × F _x up to a maximum of 40 GHz	1MHz
Note: 1. F _x is the highest fundamental frequency generated and/or used in the ITE or digital apparatus under test.		

3.4 Test Results of Radiated Emissions

Horizontal



Vertical

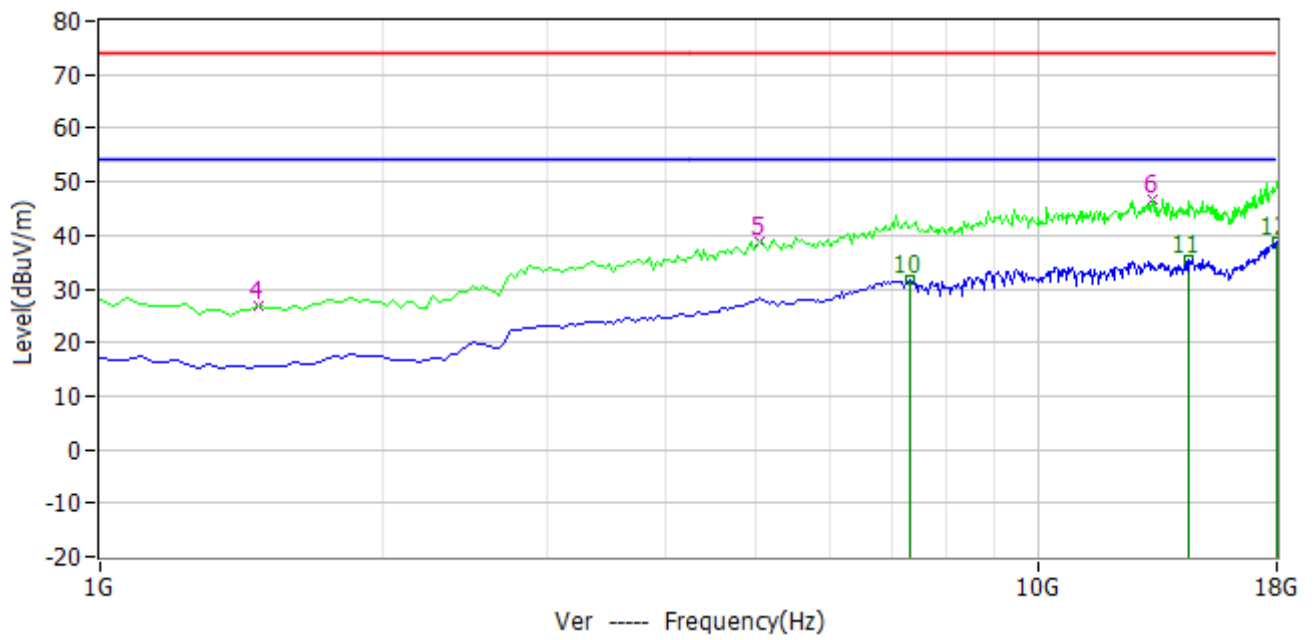
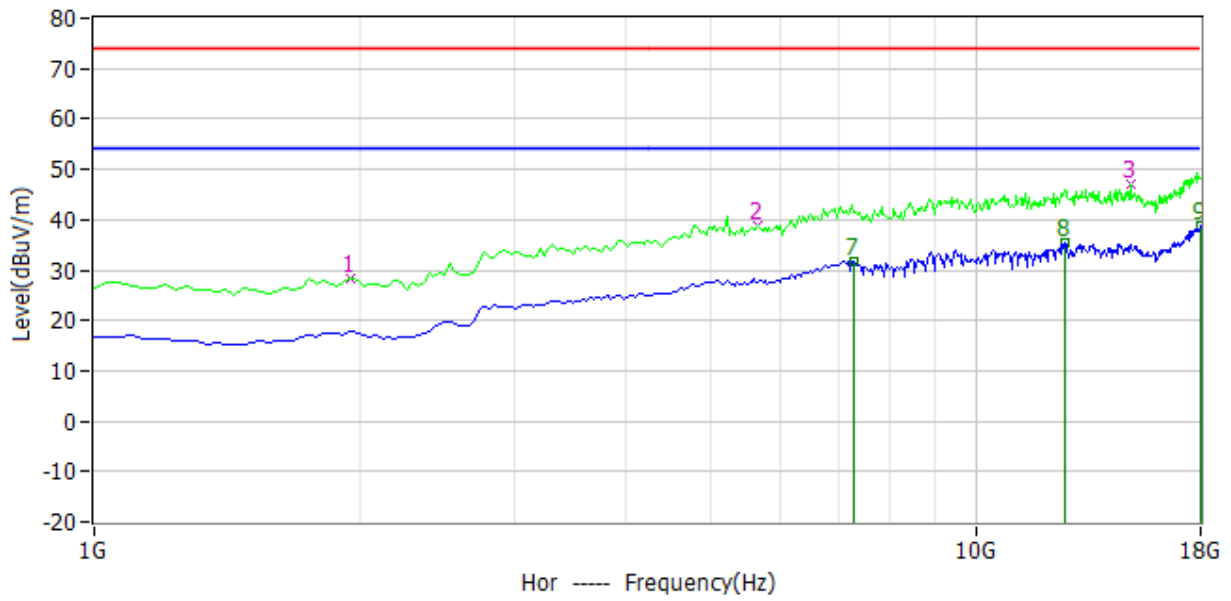


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Test data :

Frequency	Limit dBuV/m	Level dBuV/m	Delta dB	Reading dBuV	Factor dB/m	Detector	Polar
87.909MHz	40.0	26.3	-13.7	17.6	8.7	QP	Hor
93.535MHz	43.5	27.1	-16.4	18.1	9.0	QP	Hor
124.090MHz	43.5	29.6	-13.9	17.3	12.3	QP	Hor
152.317MHz	43.5	31.1	-12.4	16.5	14.6	QP	Hor
869.147MHz	46.0	35.9	-10.1	8.3	27.6	QP	Hor
959.745MHz	46.0	30.1	-15.9	1.8	28.3	QP	Hor
52.213MHz	40.0	30.5	-9.5	16.7	13.8	QP	Ver
56.772MHz	40.0	24.1	-15.9	10.5	13.6	QP	Ver
87.812MHz	40.0	27.9	-12.1	19.2	8.7	QP	Ver
93.341MHz	43.5	27.6	-15.9	18.6	9.0	QP	Ver
869.147MHz	46.0	38.7	-7.3	11.1	27.6	QP	Ver
959.745MHz	46.0	29.6	-16.4	1.3	28.3	QP	Ver

Above 1GHz



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Test data

Frequency	Limit dBuV/m	Level dBuV/m	Delta dB	Reading dBuV	Factor dB/m	Detector	Polar
1.954GHz	74.00	28.24	-45.76	50.37	-22.13	PK	Hor
5.667GHz	74.00	38.74	-35.26	50.29	-11.55	PK	Hor
14.968GHz	74.00	46.91	-27.09	44.70	2.21	PK	Hor
1.477GHz	74.00	26.67	-47.33	50.06	-23.39	PK	Ver
5.054GHz	74.00	38.82	-35.18	50.53	-11.71	PK	Ver
13.265GHz	74.00	46.63	-27.37	45.54	1.09	PK	Ver
7.269GHz	54.00	31.78	-22.22	39.55	-7.77	AV	Hor
12.651GHz	54.00	35.37	-18.63	34.68	0.69	AV	Hor
18.000GHz	54.00	38.84	-15.16	32.06	6.78	AV	Hor
7.303GHz	54.00	31.66	-22.34	39.41	-7.75	AV	Ver
14.525GHz	54.00	35.47	-18.53	33.42	2.05	AV	Ver
18.000GHz	54.00	38.81	-15.19	32.03	6.78	AV	Ver

- Remark: 1. Factor = Antenna Factor + Cable Loss (+ Amplifier, for higher than 1GHz), the value was added to Original Receiver Reading by the software automatically.
2. Level = Original Receiver Reading + Factor
3. Delta = Level – Limit
4. If the PK Level is lower than AV limit, the AV test can be elided.

4 Power line conducted emission

Test result: Pass

4.1 Limit

4.1.1 Limits for conducted disturbance voltage at the mains ports of class A device

Frequency range (MHz)	Limits dB(μV)	
	Quasi-peak	Average
0.15 ~ 0.5	79	66
0.5 ~ 30	73	60
Note: If the limit for the measurement with the average detector is met when using a receiver with a quasi-peak detector, the equipment under test shall be deemed to meet both limits and the measurement using the receiver with an average detector need not be carried out.		

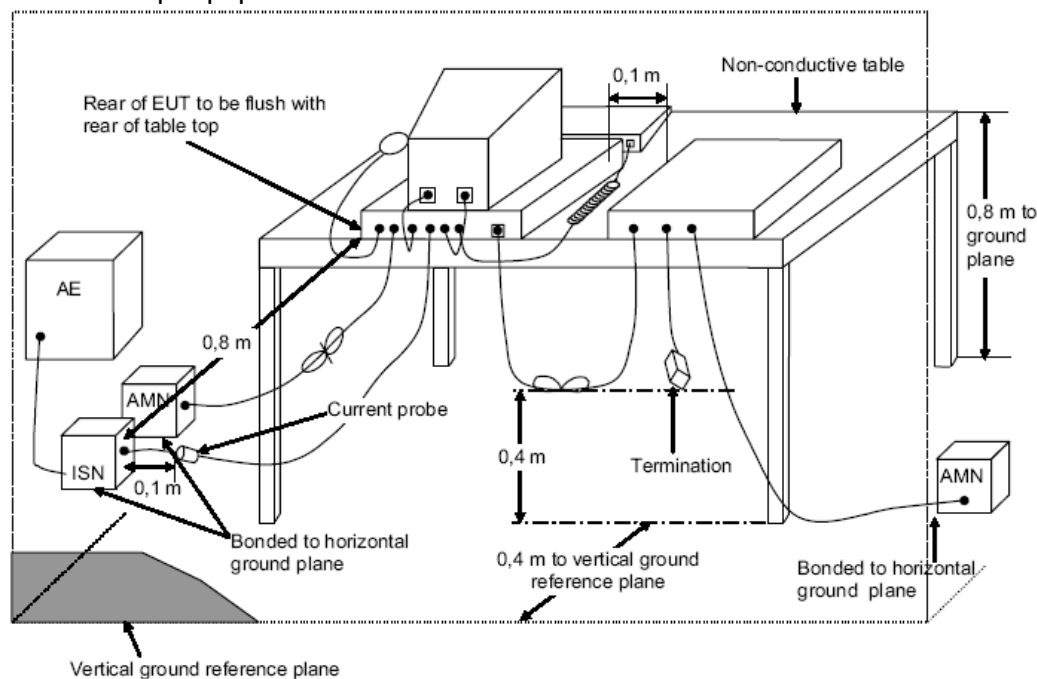
4.1.2 Limits for conducted disturbance voltage at the mains ports of class B device

Frequency range (MHz)	Limits dB(μV)	
	Quasi-peak	Average
0.15 ~ 0.5	66 ~ 56 *	56 ~ 46 *
0.5 ~ 5	56	46
5 ~ 30	60	50
Note: 1. * Means the limit decreasing linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz 2. If the limit for the measurement with the average detector is met when using a receiver with a quasi-peak detector, the equipment under test shall be deemed to meet both limits and the measurement using the receiver with an average detector need not be carried out.		

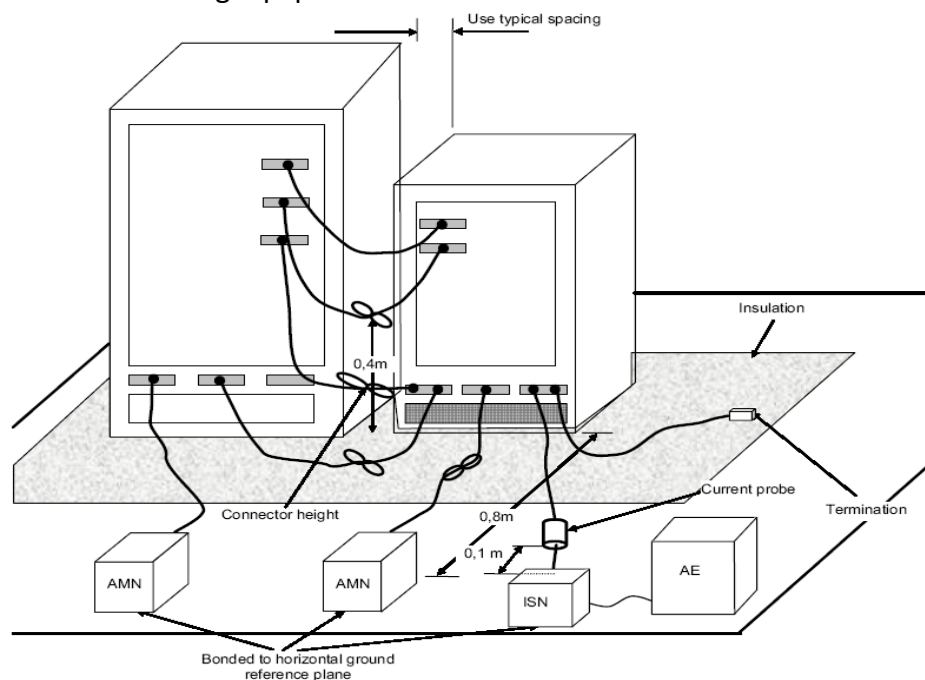
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4.2 Block diagram and test set up

For table top equipment



For floor standing equipment



4.3 Measurement Procedure

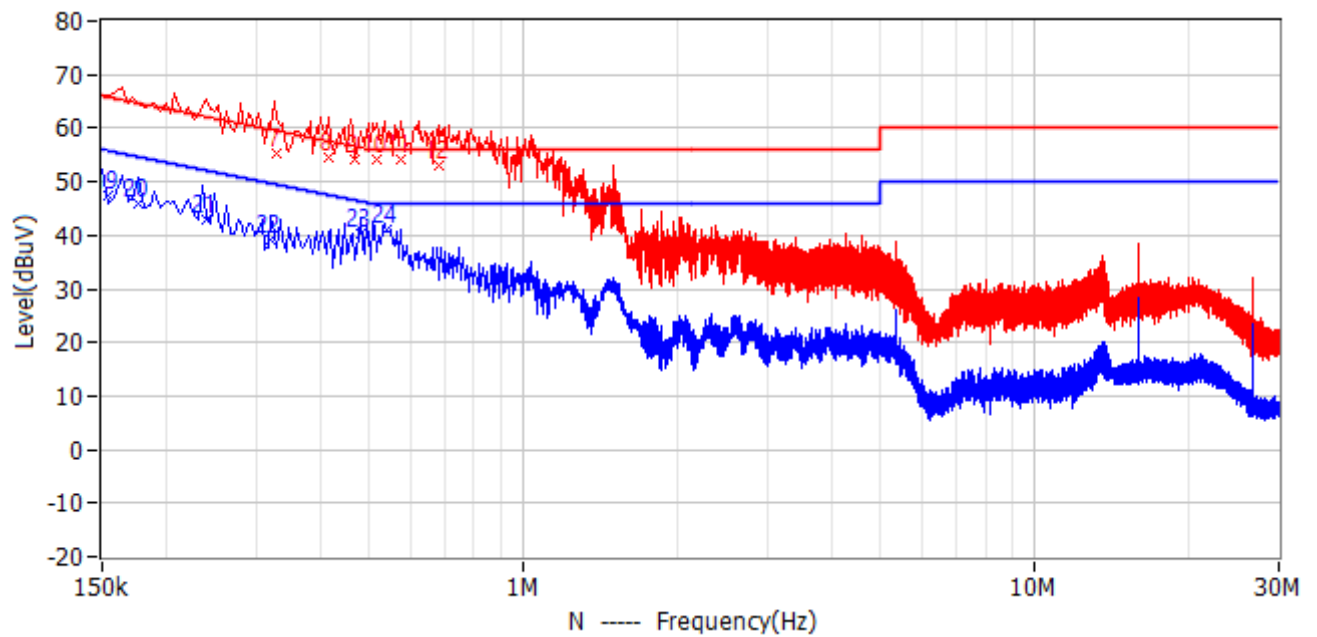
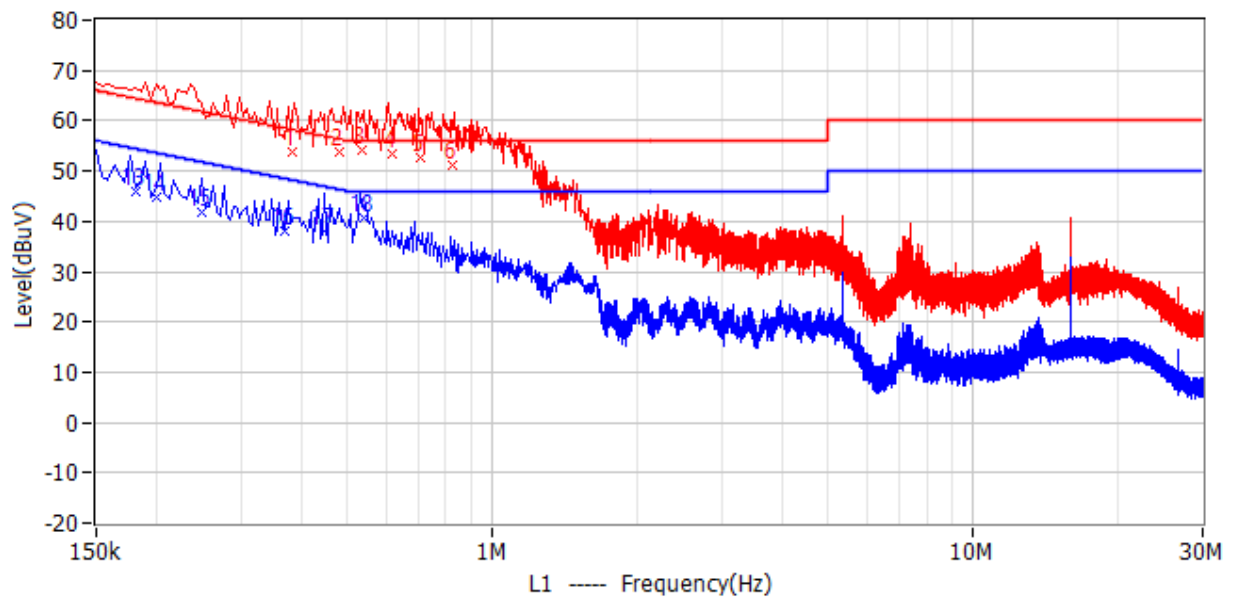
Measured levels of ac power-line conducted emission shall be the emission voltages from the voltage probe, where permitted, or across the 50 Ω LISN port (to which the EUT is connected), where permitted, terminated into a 50 Ω measuring instrument. All emission voltage and current measurements shall be made on each current-carrying conductor at the plug end of the EUT power cord by the use of mating plugs and receptacles on the LISN, if used. Equipment shall be tested with power cords that are normally supplied or recommended by the manufacturer and that have electrical and shielding characteristics that are the same as those cords normally supplied or recommended by the manufacturer. For those measurements using a LISN, the 50 Ω measuring port is terminated by a measuring instrument having 50 Ω input impedance. All other ports are terminated in 50 Ω loads.

Tabletop devices shall be placed on a platform of nominal size 1 m by 1.5 m, raised 80 cm above the reference ground plane. The vertical conducting plane or wall of an RF-shielded (screened) room shall be located 40 cm to the rear of the EUT. Floor-standing devices shall be placed either directly on the reference ground-plane or on insulating material as described in ANSI C63.4. All other surfaces of tabletop or floor-standing EUTs shall be at least 80 cm from any other grounded conducting surface, including the case or cases of one or more LISNs.

The bandwidth of the test receiver is set at 9 kHz.

4.4 Test Results of Power line conducted emission

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No.	Frequency	Limit dBuV	Level dBuV	Delta dB	Reading dBuV	Factor dB	Detector	Phase
1	384.000kHz	58.19	53.77	-4.42	43.57	10.20	QP	L1
2	478.500kHz	56.37	53.95	-2.42	43.75	10.20	QP	L1
3	537.000kHz	56.00	54.15	-1.85	43.95	10.20	QP	L1
4	618.000kHz	56.00	53.24	-2.76	43.04	10.20	QP	L1
5	708.000kHz	56.00	52.63	-3.37	42.43	10.20	QP	L1
6	825.000kHz	56.00	51.22	-4.78	40.92	10.30	QP	L1
7	330.000kHz	59.45	55.40	-4.05	45.30	10.10	QP	N
8	415.500kHz	57.54	54.44	-3.10	44.24	10.20	QP	N
9	469.500kHz	56.52	54.04	-2.48	43.84	10.20	QP	N
10	514.500kHz	56.00	54.26	-1.74	44.06	10.20	QP	N
11	577.500kHz	56.00	54.03	-1.97	43.83	10.20	QP	N
12	685.500kHz	56.00	52.92	-3.08	42.72	10.20	QP	N
13	181.500kHz	54.42	45.80	-8.62	35.60	10.20	CAV	L1
14	199.500kHz	53.63	44.97	-8.66	34.77	10.20	CAV	L1
15	249.000kHz	51.79	41.80	-9.99	31.60	10.20	CAV	L1
16	370.500kHz	48.49	38.10	-10.39	27.90	10.20	CAV	L1
17	447.000kHz	46.93	37.93	-9.00	27.73	10.20	CAV	L1
18	541.500kHz	46.00	40.77	-5.23	30.57	10.20	CAV	L1
19	154.500kHz	55.75	47.40	-8.35	37.30	10.10	CAV	N
20	177.000kHz	54.63	45.81	-8.82	35.71	10.10	CAV	N
21	240.000kHz	52.10	42.88	-9.22	32.78	10.10	CAV	N
22	321.000kHz	49.68	39.25	-10.43	29.15	10.10	CAV	N
23	478.500kHz	46.37	40.18	-6.19	29.98	10.20	CAV	N
24	541.500kHz	46.00	41.20	-4.80	31.00	10.20	CAV	N

Remark: 1. Factor = LISN Factor + Cable Loss, the value was added to Original Receiver Reading by the software automatically.

2. Level = Original Receiver Reading + Correct Factor

3. Delta = Level - Limit

4. If the PK Corrected Reading is lower than AV limit, the AV test can be elided.

Example: Assuming LISN Factor = 10.00dB, Cable Loss = 2.00dB,

Original Receiver Reading = 10.00dBuV, Limit = 66.00dBuV.

Then Factor = 10.00 + 2.00 = 12.00dB;

Level = 10dBuV + 12.00dB = 22.00dBuV;

Delta = 22.00dBuV – 66.00dBuV = -44.00dB.

Appendix I: Photograph of equipment under test

Refer to EUT external and internal photos.

***** END *****