

FCC Test Report

Prepared For:

Shenzhen Rongpu Electronic Technology Co., Ltd
402 Building 1 Factory Building 1 Baolu Industrial Zone Songbai Road
Longteng Community Shiyan Street Bao'an District Shenzhen City
Guangdong, China

Product Name: PoE Switch

Trade Mark: N/A

Product Model(s): POE-SW501G, POE-SW501, POE-SW502G,
POE-SW800G, POE-SW801, POE-SW802G,
POE-SW1602A, POE-SW1602G,
POE-SW1602E, POE-SW1611G,
POE-SW2402E, POE-XXXXXXX(X=A~Z, 0~9)

FCC ID: 2A9UK-POE-SW501G

Date of Test: Dec. 18, 2025 – Dec. 23, 2025

Date of Report: Dec. 23, 2025

Report Number: HK2512196595-E

Prepared By:

Shenzhen HUAKE Testing Technology Co., Ltd.
1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping,
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Test Report Verification

Applicant : Shenzhen Rongpu Electronic Technology Co., Ltd
Address : 402 Building 1 Factory Building 1 Baolu Industrial Zone Songbai Road
Longteng Community Shiyan Street Bao'an District Shenzhen City
Guangdong, China
Manufacturer : Shenzhen Rongpu Electronic Technology Co., Ltd
Address : 402 Building 1 Factory Building 1 Baolu Industrial Zone Songbai Road
Longteng Community Shiyan Street Bao'an District Shenzhen City
Guangdong, China
Product Name : PoE Switch
(A) Product Model : POE-SW501G
POE-SW501, POE-SW502G, POE-SW800G, POE-SW801,
(B) Series Model(s) : POE-SW802G, POE-SW1602A, POE-SW1602G, POE-SW1602E,
POE-SW1611G, POE-SW2402E, POE-XXXXXXX(X=A~Z, 0~9)
Input: AC100-240V, 50/60Hz, 1.5A
(C) Power Supply : Output: DC54V, 1.21A

Standards FCC Part 15 Subpart B
ANSI C63.4

This device described above has been tested by HUAKE, and the test results show that the equipment under test (EUT) is in compliance with Part 15 of FCC Rules. And it is applicable only to the tested sample identified in the report. This report shall not be reproduced except in full, without the written approval of HUAKE, this document may be altered or revised by HUAKE, personal only, and shall be noted in the revision of the document.

Date (s) of Performance of Tests..... Dec. 18, 2025 ~ Dec. 23, 2025

Date of Issue Dec. 23, 2025

Test Result Pass

Testing Engineer

Len Liao

Len Liao

Technical Manager

Sliver Wan

Sliver Wan

Authorized Signatory

Jason Zhou

Jason Zhou

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 15 days only. The document is issued by Shenzhen HUAKE Testing Technology Co., Ltd., this document cannot be reproduced except in full with our prior written permission.

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**** Issued History ****

Revision	Description	Issued Date	Remark
Revision 1.0	Initial Test Report Release	Dec. 23, 2025	Jason Zhou

1. Test Summary

Test procedures according to the technical standards:

EMC Emission				
Standard	Test Item	Limit	Judgment	Remark
FCC Part 15 Subpart B ANSI C63.4	AC Conducted Emission	Class B	PASS	
	Radiated Emission	Class B	PASS	

NOTE:

- 1. PASS: Test item meets the requirement.
- 2. Fail: Test item does not meet the requirement.
- 3. N/A: Test case does not apply to the test object.
- 4. The test result judgment is decided by the limit of test standard.

1.1. Information of the Test Laboratory

Shenzhen HUAKE Testing Technology Co., Ltd.

Add.: 1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

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%**.

A. Conducted Measurement:

Measurement Frequency Range	Uncertainty	NOTE
150 KHz ~ 30MHz	$\pm 2.71\text{dB}$	

B. Radiated Measurement:

Measurement Frequency Range	Uncertainty	NOTE
30MHz ~ 1000MHz	$\pm 3.90\text{dB}$	
1GHz ~ 6GHz	$\pm 4.28\text{dB}$	

2. General Information

2.1. General Description of EUT

Product Name	PoE Switch				
Product Model	POE-SW501G				
Series Model(s)	POE-SW501, POE-SW502G, POE-SW800G, POE-SW801, POE-SW802G, POE-SW1602A, POE-SW1602G, POE-SW1602E, POE-SW1611G, POE-SW2402E, POE-XXXXXXX(X=A~Z, 0~9)				
Model Difference	All model's the function, software and electric circuit are the same, only with product model named different. Test sample model: POE-SW501G.				
Product Description	The EUT is a PoE Switch. <table border="1"> <tr> <td>Operating frequency:</td><td>N/A</td></tr> <tr> <td>Connecting I/O port:</td><td>N/A</td></tr> </table> Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.	Operating frequency:	N/A	Connecting I/O port:	N/A
Operating frequency:	N/A				
Connecting I/O port:	N/A				
Power Source	AC Voltage				
Power Rating	Input: AC100-240V, 50/60Hz, 1.5A Output: DC54V, 1.21A				

2.2. Description of Test Modes

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

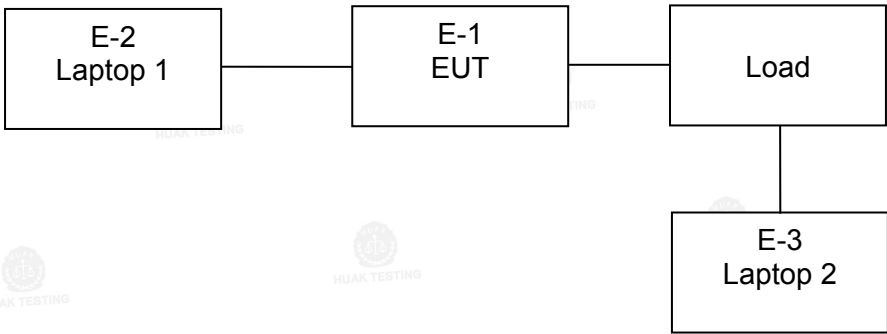
Pretest Mode	Description
Mode 1	Running

For AC Conducted Test	
Final Test Mode	Description
Mode 1	Running

For Radiated Test	
Final Test Mode	Description
Mode 1	Running

2.3. Description of Test Setup

Mode 1:



2.4. Description Test Peripheral and EUT Peripheral

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	Trade Mark	Model/Type No.	Specification	Note
E-1	PoE Switch	N/A	POE-SW501G	DC54V, 1.21A	EUT
E-2	Laptop 1	N/A	ThinkPad L480	DC20V, 2.25/3.25A	Peripheral
E-3	Laptop 2	N/A	ThinkPad E14 Gen 5	DC20V, 3.25A	Peripheral

Item	Shielded Type	Ferrite Core	Length	Note

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (3) “YES” is means “shielded” “with core”; “NO” is means “unshielded” “without core”.

2.5. Measurement Instruments List

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	L.I.S.N.	R&S	ENV216	HKE-002	Feb. 19, 2025	1 Year
2.	L.I.S.N.	R&S	ENV216	HKE-059	Feb. 19, 2025	1 Year
3.	EMI Test Receiver	R&S	ESR	HKE-005	Feb. 19, 2025	1 Year
4.	Spectrum analyzer	Agilent	N9020A	HKE-025	Feb. 19, 2025	1 Year
5.	Spectrum analyzer	R&S	FSV3044	HKE-126	Feb. 19, 2025	1 Year
6.	Preamplifier	EMCI	EMC051845S	HKE-006	Feb. 19, 2025	1 Year
7.	Preamplifier	Schwarzbeck	BBV 9743	HKE-016	Feb. 19, 2025	1 Year
8.	Preamplifier	A.H. Systems	SAS-574	HKE-182	Feb. 19, 2025	1 Year
9.	6dB Attenuator	Pasternack	6db	HKE-184	Feb. 19, 2025	1 Year
10.	EMI Test Receiver	Rohde & Schwarz	ESR-7	HKE-010	Feb. 19, 2025	1 Year
11.	Broadband Antenna	Schwarzbeck	VULB9168	HKE-167	Feb. 21, 2024	2 Year
12.	Loop Antenna	COM-POWER	AL-130R	HKE-014	Feb. 21, 2024	2 Year
13.	Horn Antenna	Schwarzbeck	9120D	HKE-013	Feb. 21, 2024	2 Year
14.	EMI Test Software	Tonscend	JS32-CE 2.5.0.6	HKE-081	/	/
15.	EMI Test Software	Tonscend	JS32-RE 5.0.0	HKE-082	/	/

3. EMC Emission Test

3.1. AC Conducted Emission Measurement

3.1.1. Power Line Conducted Emission (Frequency Range 150KHz-30MHz)

Frequency(MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.50 -5.0	73.00	60.00	56.00	46.00
5.0 -30.0	73.00	60.00	60.00	50.00

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.

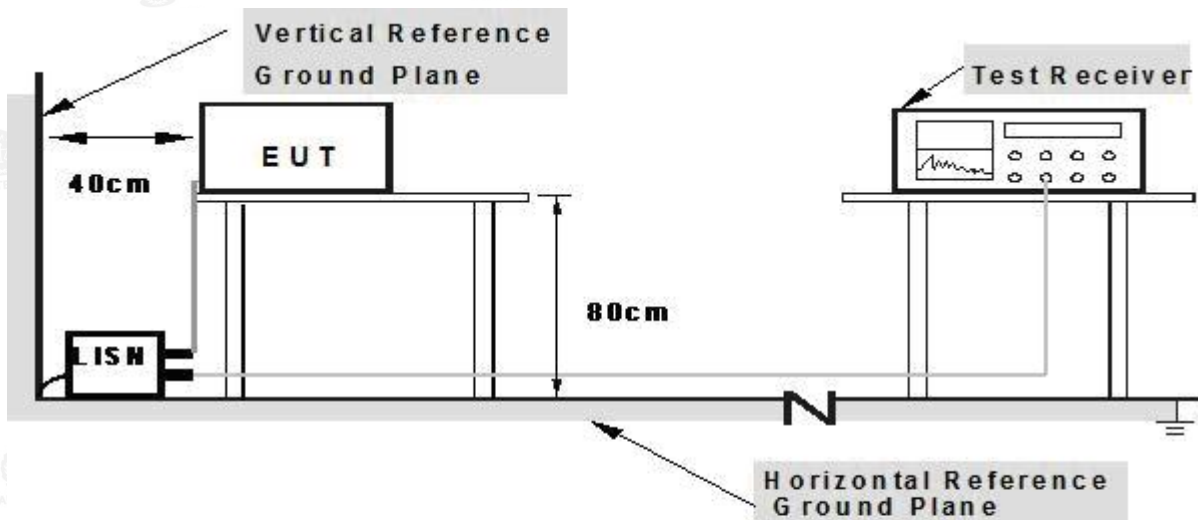
The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.1.2. Test Procedure

- The EUT was placed 0.4 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- LISN at least 80 cm from nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3. Test Setup



Note: 1.Support units were connected to second LISN.

2.Both of LISN s (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

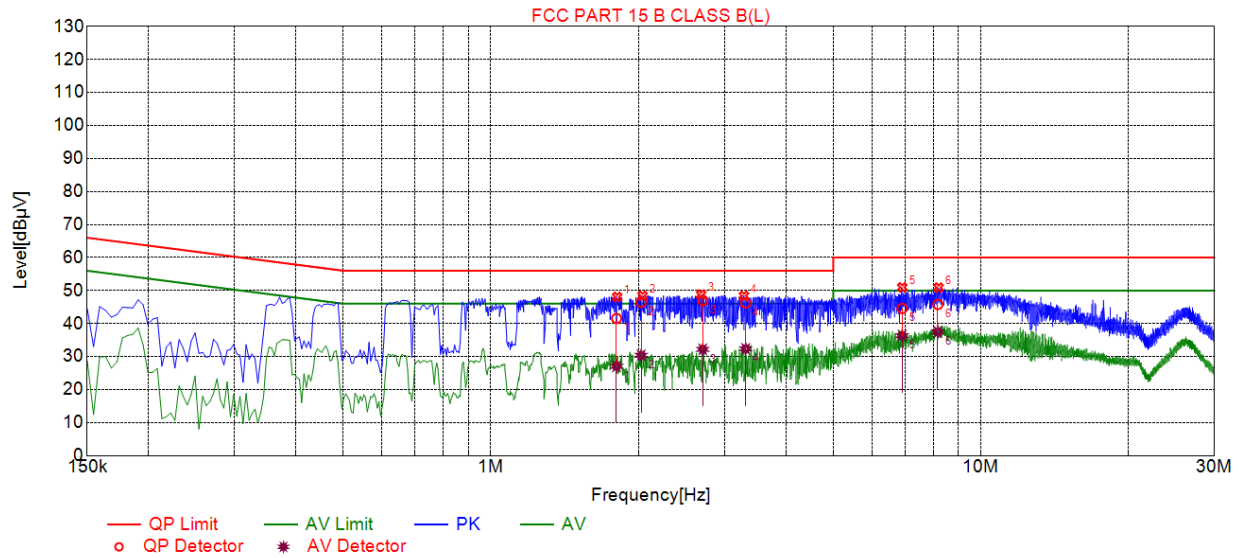
3.1.4. EUT Operating Conditions

The EUT tested system was configured as the statements of 2.3 unless otherwise a special operating condition is specified in the follows during the testing.

3.1.5. Test Results

Note: All the test modes completed for test. Only the worst result of was reported.

EUT:	PoE Switch	Model Name:	POE-SW501G
Temperature:	24 °C	Relative Humidity:	54%
Pressure:	1010 hPa	Test Date:	2025-12-22
Test Mode:	Mode 1	Polarization:	L
Test Voltage :	AC120V/60Hz		



Suspected List

NO.	Freq. [MHz]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Reading [dBμV]	Detector	Type
1	1.8105	48.07	20.08	56.00	7.93	27.99	PK	L
2	2.0400	48.42	20.15	56.00	7.58	28.27	PK	L
3	2.6880	48.77	20.24	56.00	7.23	28.53	PK	L
4	3.2865	48.39	20.30	56.00	7.61	28.09	PK	L
5	6.9180	50.97	20.40	60.00	9.03	30.57	PK	L
6	8.2050	50.90	20.70	60.00	9.10	30.20	PK	L

Final Data List

NO.	Freq. [MHz]	Correction factor[dB]	QP Value [dBμV]	QP Limit [dBμV]	QP Margin [dB]	QP Reading [dBμV]	AV Value [dBμV]	AV Limit [dBμV]	AV Margin [dB]	AV Reading [dBμV]	Type
1	1.8054	20.08	41.55	56.00	14.45	21.47	27.05	46.00	18.95	6.97	L
2	2.0273	20.15	46.44	56.00	9.56	26.29	30.38	46.00	15.62	10.23	L
3	2.7078	20.25	46.96	56.00	9.04	26.71	32.19	46.00	13.81	11.94	L
4	3.3136	20.31	46.23	56.00	9.77	25.92	32.34	46.00	13.66	12.03	L
5	6.9134	20.40	44.58	60.00	15.42	24.18	36.36	50.00	13.64	15.96	L
6	8.1751	20.69	45.79	60.00	14.21	25.10	37.47	50.00	12.53	16.78	L

Remark: Margin = Limit – Level

Correction factor = Cable lose + LISN insertion loss

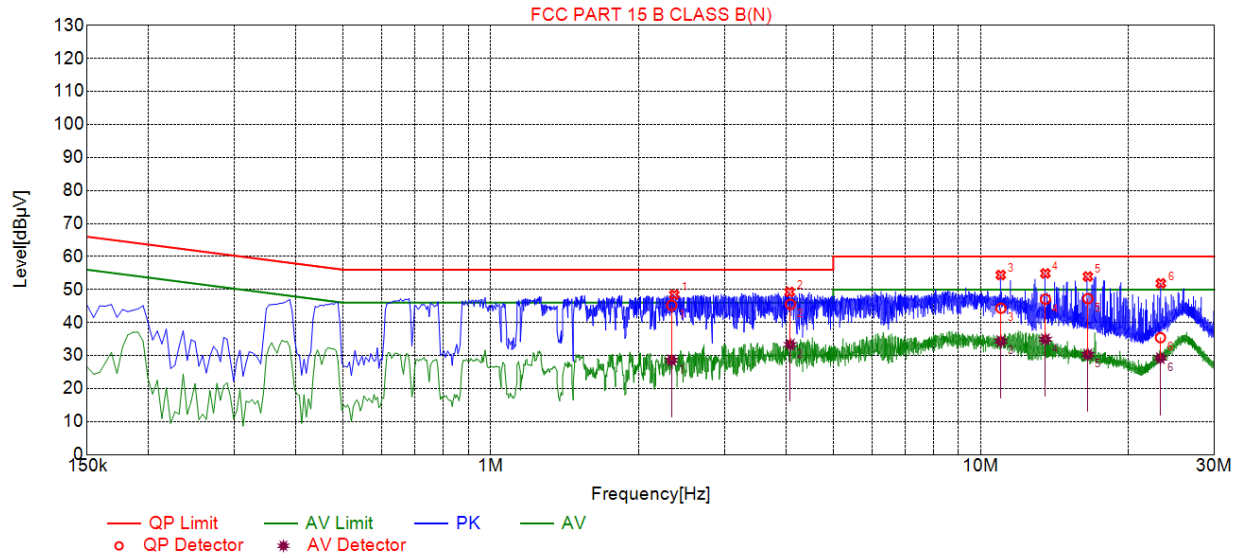
Level=Test receiver reading + correction factor

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 15 days only. The document is issued by Shenzhen HUAKE Testing Technology Co., Ltd., this document cannot be reproduced except in full with our prior written permission.

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Add.: 1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

EUT:	PoE Switch	Model Name:	POE-SW501G
Temperature:	24 °C	Relative Humidity:	54%
Pressure:	1010 hPa	Test Date:	2025-12-22
Test Mode:	Mode 1	Polarization:	N
Test Voltage:	AC120V/60Hz		



Suspected List

NO.	Freq. [MHz]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Reading [dBμV]	Detector	Type
1	2.3685	48.45	20.00	56.00	7.55	28.45	PK	N
2	4.0740	49.27	20.16	56.00	6.73	29.11	PK	N
3	10.9905	54.40	21.09	60.00	5.60	33.31	PK	N
4	13.5555	54.89	21.50	60.00	5.11	33.39	PK	N
5	16.5480	53.95	22.16	60.00	6.05	31.79	PK	N
6	23.3250	51.87	23.93	60.00	8.13	27.94	PK	N

Final Data List

NO.	Freq. [MHz]	Correction factor[dB]	QP Value [dBμV]	QP Limit [dBμV]	QP Margin [dB]	QP Reading [dBμV]	AV Value [dBμV]	AV Limit [dBμV]	AV Margin [dB]	AV Reading [dBμV]	Type
1	2.3391	20.00	45.22	56.00	10.78	25.22	28.58	46.00	17.42	8.58	N
2	4.0863	20.16	45.56	56.00	10.44	25.40	33.33	46.00	12.67	13.17	N
3	10.9972	21.09	44.34	60.00	15.66	23.25	34.37	50.00	15.63	13.28	N
4	13.5517	21.50	47.10	60.00	12.90	25.60	34.94	50.00	15.06	13.44	N
5	16.5466	22.16	47.26	60.00	12.74	25.10	30.30	50.00	19.70	8.14	N
6	23.2751	23.92	35.42	60.00	24.58	11.50	29.22	50.00	20.78	5.30	N

Remark: Margin = Limit – Level

Correction factor = Cable lose + LISN insertion loss

Level=Test receiver reading + correction factor

3.2. Radiated Emission Measurement

3.2.1. Limits of Radiated Emission Measurement

Frequency(MHz)	Class A (at 10m)	Class B (at 3m)
	dBuV/m	dBuV/m
30 ~ 88	39.0	40.0
88 ~ 216	43.5	43.5
216 ~ 960	46.5	46.0
Above 960	49.5	54.0

Notes:

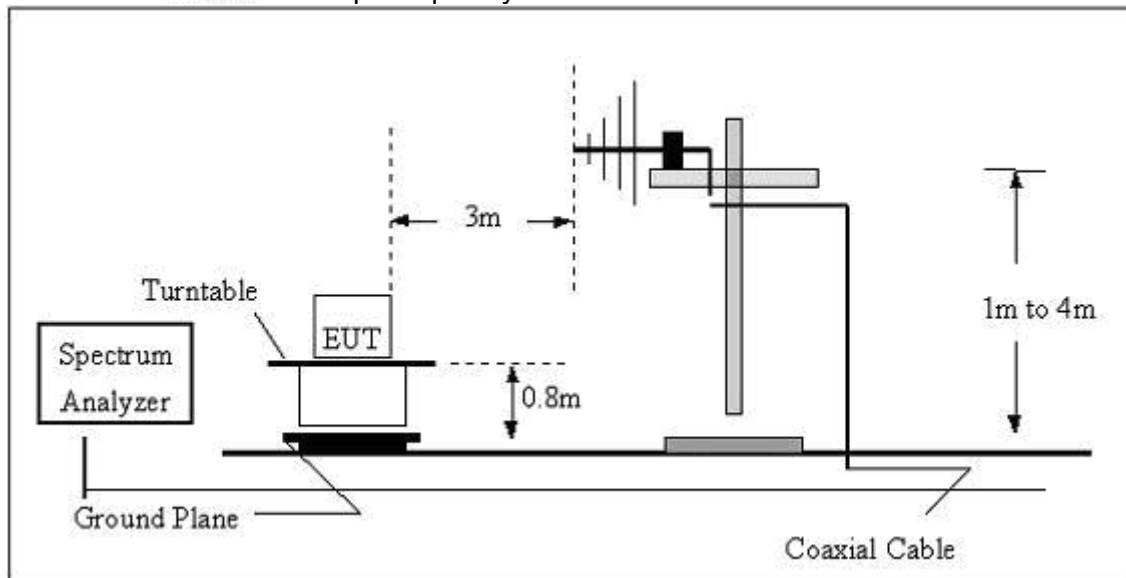
- (1) The limit for radiated test was performed according to as following: FCC PART 15B.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

3.2.2. Test Procedure

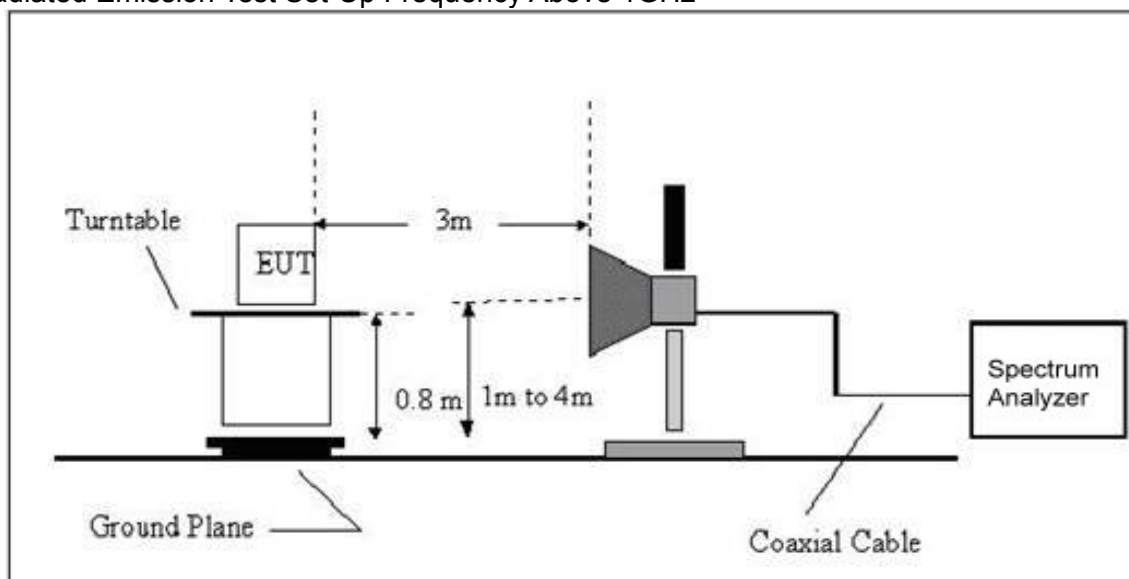
- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. 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.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured, above 1G Average detector mode will be instead.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP(AV) Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.2.3. Test Setup

a) Radiated Emission Test Set-Up Frequency Below 1 GHz



b) Radiated Emission Test Set-Up Frequency Above 1GHz



3.2.4. EUT Operating Conditions

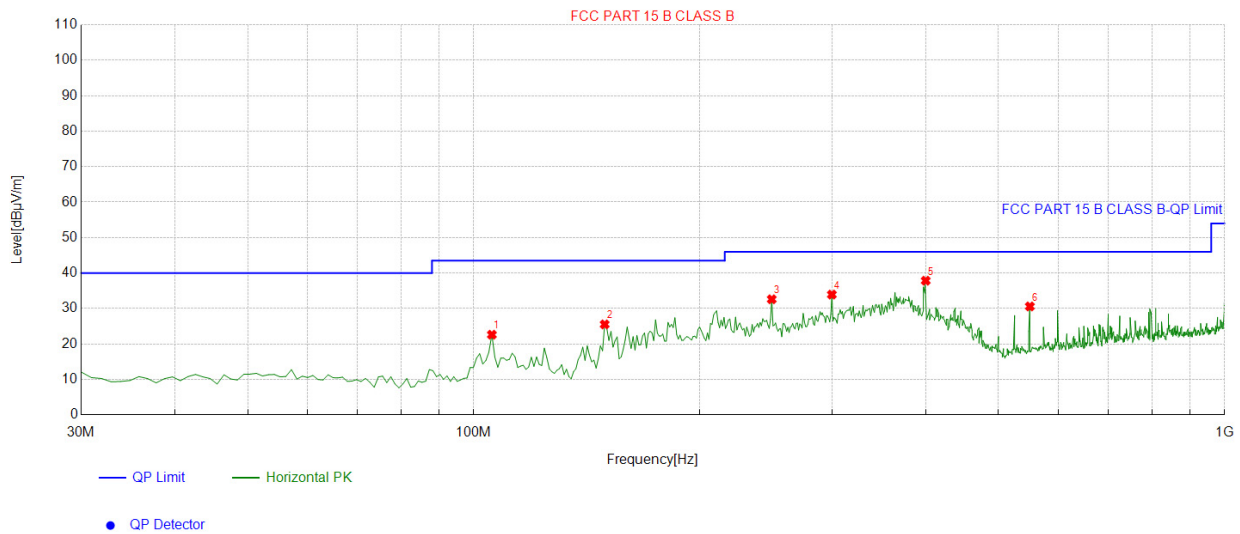
The EUT tested system was configured as the statements of 2.3 unless otherwise a special operating condition is specified in the follows during the testing.

3.2.5. Test Results (Below 1GHz)

Note:

All the test modes completed for test. Only the worst result of was reported.

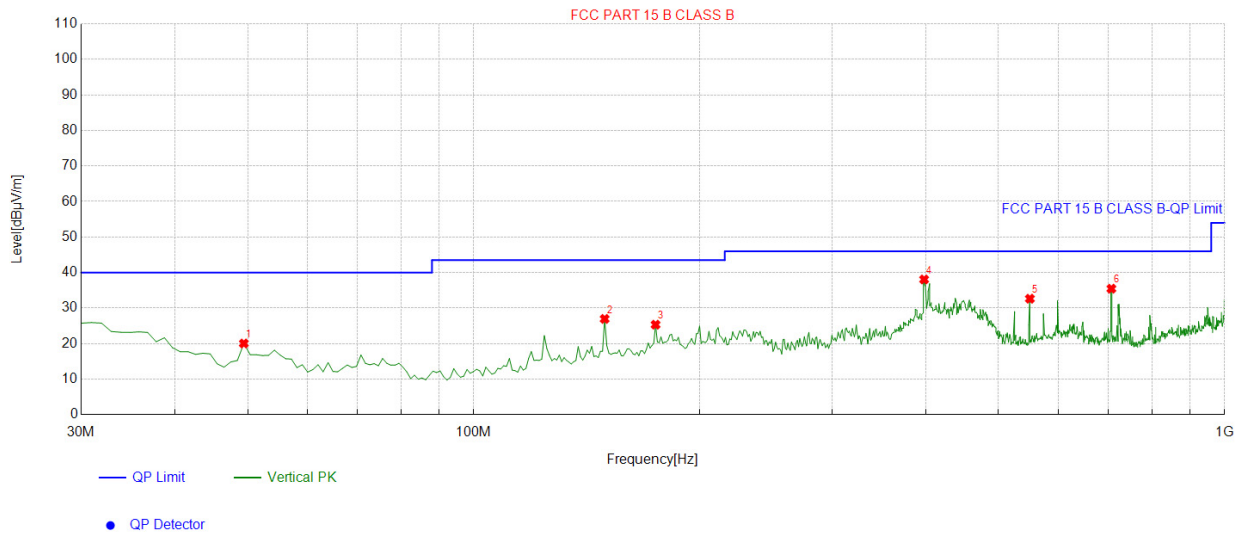
EUT:	PoE Switch	Model Name:	POE-SW501G
Temperature:	24 °C	Relative Humidity:	54%
Pressure:	1010 hPa	Test Date:	2025-12-22
Test Mode:	Mode 1	Polarization:	Horizontal
Test Power:	AC120V/60Hz		



Suspected List									
NO.	Freq. [MHz]	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	105.7357	-14.49	37.11	22.62	43.50	20.88	100	241	Horizontal
2	149.4294	-18.08	43.61	25.53	43.50	17.97	100	201	Horizontal
3	249.4394	-13.41	46.02	32.61	46.00	13.39	100	267	Horizontal
4	299.9299	-11.71	45.64	33.93	46.00	12.07	100	88	Horizontal
5	399.9399	-9.84	47.68	37.84	46.00	8.16	100	209	Horizontal
6	550.4404	-7.13	37.72	30.59	46.00	15.41	100	278	Horizontal

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Limit – Level

EUT:	PoE Switch	Model Name:	POE-SW501G
Temperature:	24 °C	Relative Humidity:	54%
Pressure:	1010 hPa	Test Date:	2025-12-22
Test Mode:	Mode 1	Polarization:	Vertical
Test Power:	AC120V/60Hz		



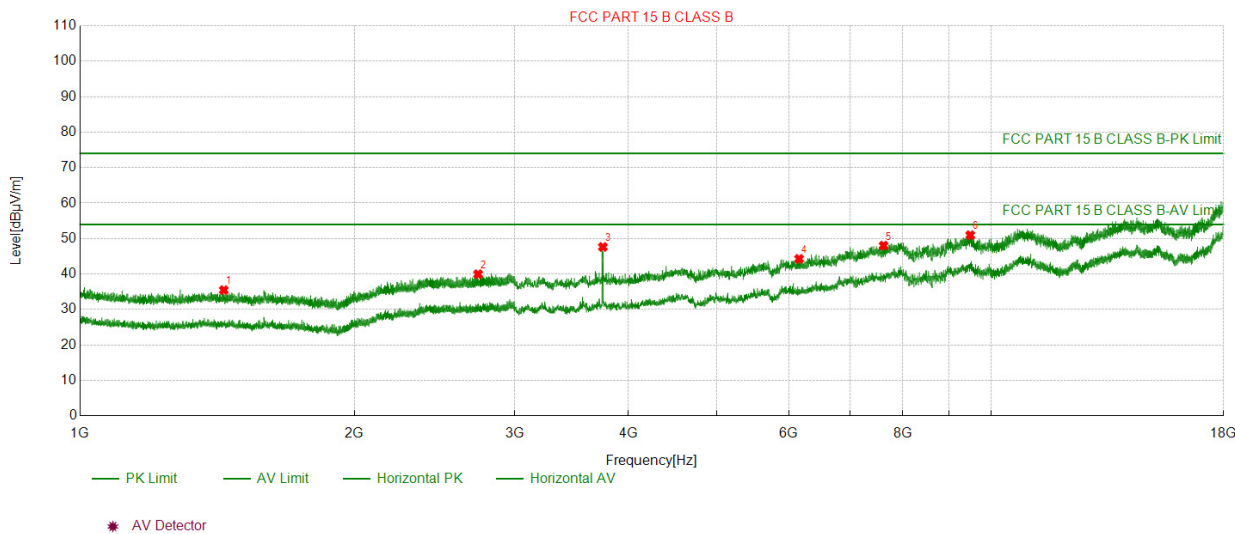
Suspected List

NO.	Freq. [MHz]	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	49.4194	-13.14	33.18	20.04	40.00	19.96	100	326	Vertical
2	149.4294	-18.08	45.03	26.95	43.50	16.55	100	24	Vertical
3	174.6747	-16.85	42.18	25.33	43.50	18.17	100	60	Vertical
4	397.9980	-9.55	47.61	38.06	46.00	7.94	100	275	Vertical
5	550.4404	-7.13	39.77	32.64	46.00	13.36	100	166	Vertical
6	706.7668	-4.17	39.63	35.46	46.00	10.54	100	93	Vertical

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Limit – Level

3.2.6. Test Results (Above 1GHz)

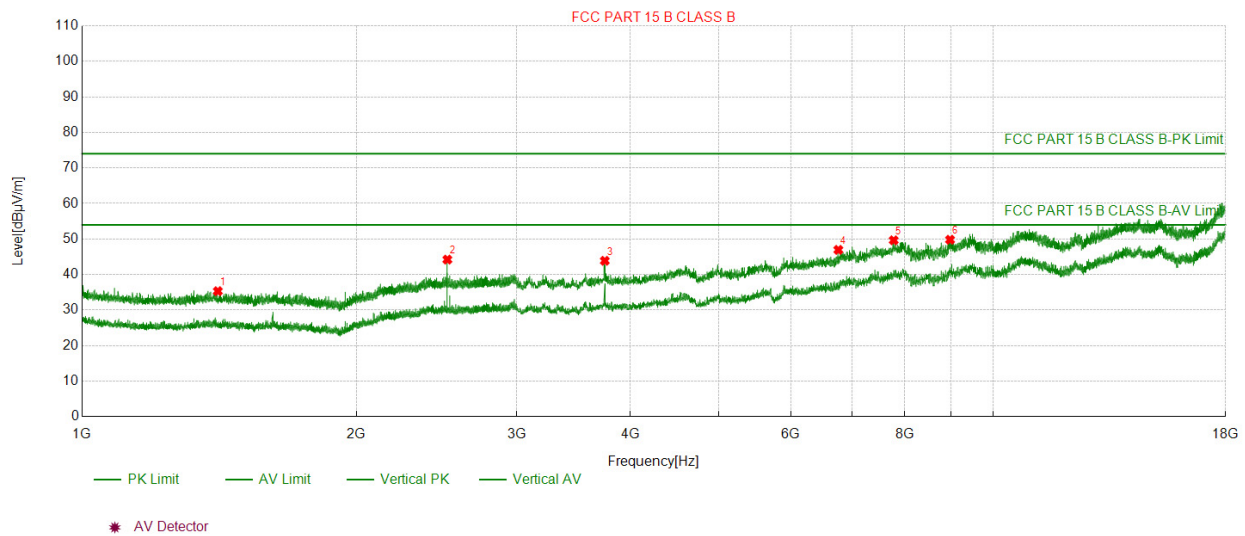
EUT:	PoE Switch	Model Name:	POE-SW501G
Temperature:	24 °C	Relative Humidity:	54%
Pressure:	1010 hPa	Test Date:	2025-12-22
Test Mode:	Mode 1	Polarization:	Horizontal
Test Power:	AC120V/60Hz		



Suspected Data List								
NO.	Freq. [MHz]	PK Level [dBμV/m]	Factor [dB]	PK Limit [dBμV/m]	PK Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1438.043	35.46	-18.67	74.00	38.54	150	209	Horizontal
2	2734.773	39.96	-14.45	74.00	34.04	150	37	Horizontal
3	3748.574	47.64	-11.96	74.00	26.36	150	350	Horizontal
4	6156.315	44.28	-7.40	74.00	29.72	150	140	Horizontal
5	7621.962	48.01	-3.12	74.00	25.99	150	254	Horizontal
6	9488.148	50.96	0.23	74.00	23.04	150	13	Horizontal

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Limit – Level

EUT:	PoE Switch	Model Name:	POE-SW501G
Temperature:	24 °C	Relative Humidity:	54%
Pressure:	1010 hPa	Test Date:	2025-12-22
Test Mode:	Mode 1	Polarization:	Vertical
Test Power:	AC120V/60Hz		



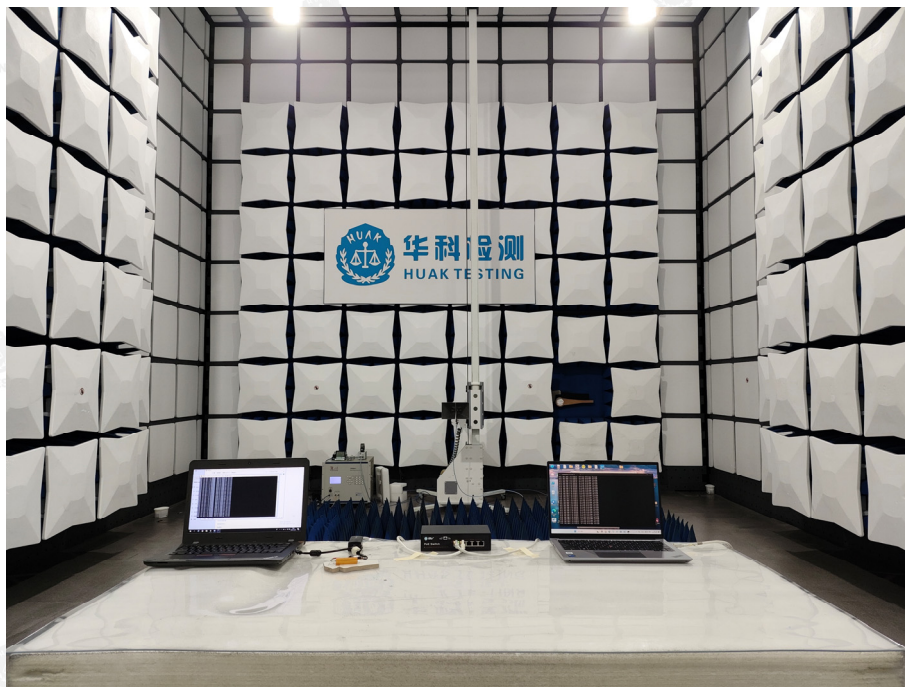
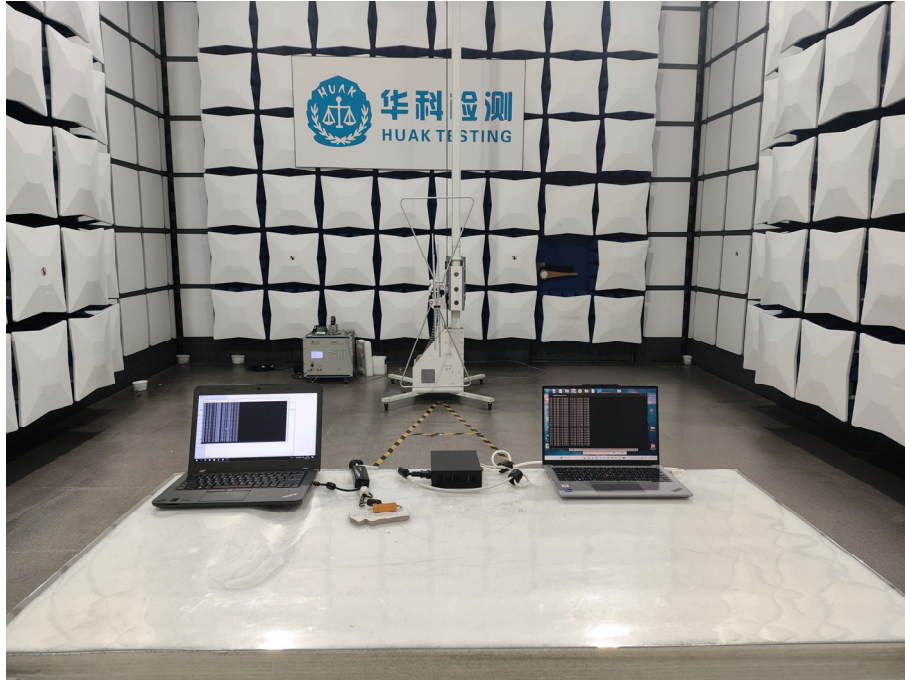
Suspected Data List

NO.	Freq. [MHz]	PK Level [dBμV/m]	Factor [dB]	PK Limit [dBμV/m]	PK Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1409.440	35.32	-18.56	74.00	38.68	150	271	Vertical
2	2517.951	44.21	-14.59	74.00	29.79	150	89	Vertical
3	3748.574	43.87	-11.96	74.00	30.13	150	191	Vertical
4	6763.876	46.95	-5.52	74.00	27.05	150	332	Vertical
5	7779.477	49.64	-2.55	74.00	24.36	150	69	Vertical
6	8970.597	49.81	-0.93	74.00	24.19	150	20	Vertical

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Limit – Level

4. EUT Test Photos

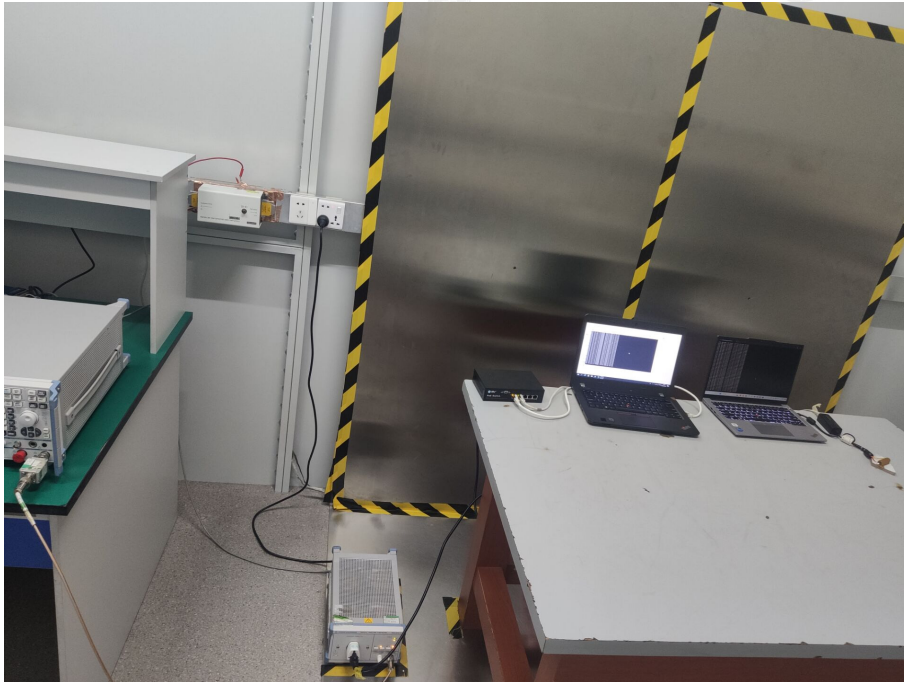
Radiated Emission



The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 15 days only. The document is issued by Shenzhen HUAK Testing Technology Co., Ltd., this document cannot be reproduced except in full with our prior written permission.

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AC Conducted Emission



5. Photographs of EUT

Reference to the report: ANNEX A of external photos and ANNEX B of internal photos

----- End of test report -----