NVLAP TESTING
NVLAP LAB CODE 600338-0

BACL Bay Area Compliance Labs Corp.

FCC PART 15.231

TEST REPORT

For

ZHEJIANG JIECANG LINEAR MOTION TECHNOLOGY CO., LTD

No.19 XinTao Road, Provincial High Tech Park, XinChang county, ZheJiang Province, 312500 China

FCC ID: 2ANKDRFPSRFGW2024

Report Type:	**Product Name:**
Original Report	PowerShades RF Gateway 2.0

Report Number:	RSHA240522001-00B
Report Date:	2024-11-15
Reviewed By:	Bard Liu
Approved By:	Kyle Xu
Test Laboratory:	Bay Area Compliance Laboratories Corp. (Kunshan) No.248 Chenghu Road, Kunshan, Jiangsu province, China Tel: +86-512-86175000 Fax: +86-512-88934268 www.baclcorp.com.cn

TABLE OF CONTENTS

REPORT REVISION HISTORY

Number of Revisions	Report No.	Version	Issue Date	Description
0	RSHA240522001-00B	R1V1	2024-11-15	Initial Release

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	ZHEJIANG JIECANG LINEAR MOTION TECHNOLOGY CO., LTD
Product Name:	PowerShades RF Gateway 2.0
Tested Model:	JCP-Y4Y6-H-0
Power Supply:	DC 5V from adapter or DC 48V from POE
RF Function:	SRD
Operating Band/Frequency:	433.92 MHz
Field Strength of Fundamental	74.98 dBμV/m@3m
Channel Number:	1
Modulation Type:	GFSK
Antenna Type:	PCB Antenna

Adapter Information:
Model: MLF-A260502000UU
Input: AC 100-240V, 50/60Hz, 0.4A max
Output: DC 5.0V, 2.0A

All measurement and test data in this report was gathered from production sample serial number: RSHA240522001-1 (Assigned by the BACL (Kunshan). The EUT supplied by the applicant was received on 2024-05-22.)

Objective

This test report is prepared for *ZHEJIANG JIECANG LINEAR MOTION TECHNOLOGY CO., LTD.* All the test measurements were performed according to the measurement procedure described in ANSI C63.10 - 2013.

The tests were performed in order to determine compliance with FCC Part 15, Subpart C, section 15.203, 15.205, 15.207, 15.209, 15.35(c) and 15.231 rules.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10 - 2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

Measurement Uncertainty

Item		Uncertainty
AC Power Lines Conducted Emissions		3.19 dB
RF conducted test with spectrum		0.9 dB
Radiated emission	9 kHz~150 kHz	3.8 dB
	150 kHz~30 MHz	3.4 dB
	30 MHz~1 GHz	6.11 dB
	1 GHz~6 GHz	4.45 dB
	6 GHz~18 GHz	5.23 dB
Occupied Bandwidth		0.5 kHz
Temperature		1.0 ℃
Humidity		6%

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Kunshan) to collect test data is located on the No.248 Chenghu Road, Kunshan, Jiangsu province, China.

Bay Area Compliance Laboratories Corp. (Kunshan) is accredited in accordance with ISO/IEC 17025:2017 by NVLAP (Lab code: 600338-0), and the lab has been recognized as the FCC accredited lab under the KDB 974614 D01, the FCC Designation No.: CN5055.

SYSTEM TEST CONFIGURATION

Justification

Channel List:

Channel	Frequency (MHz)
1	433.92

EUT Exercise Software

Engineering Mode was provided by manufacturer★. The maximum power was configured default setting.

Equipment Modifications

No modification was made to the EUT.

Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
TP-LINK	POE	TL-POE160S	4244287002000
Lenovo	Notebook	Y700P	PF2B7PL5
Tenda	Router	AC11 v2	210489920110025171
/	Telephone	/	TX-KS-A044
Rohde & Schwarz	ENV216	LISN 2	3560.6550.16

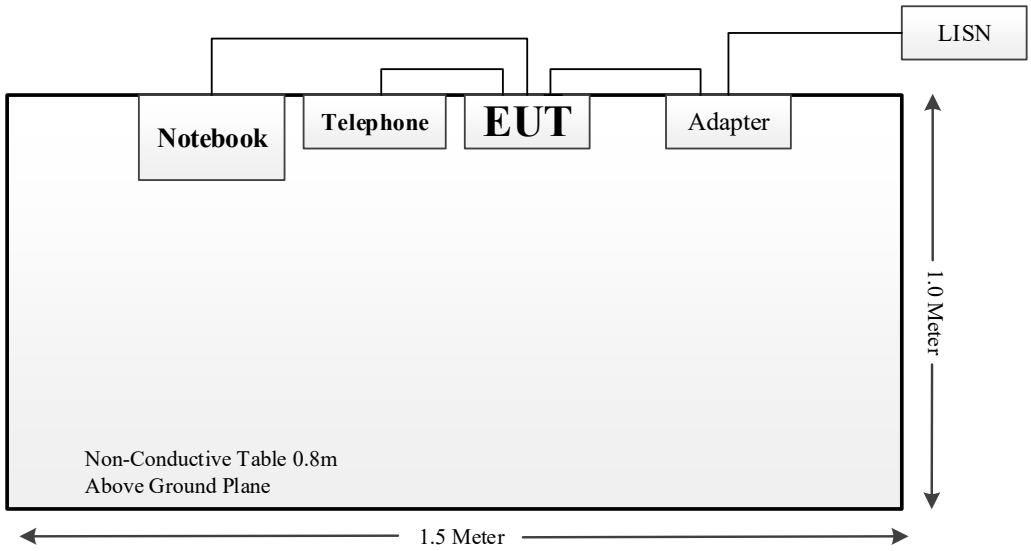
External I/O Cable

Cable Description	Length (m)	From Port	To Port
Power Cable 1	1.0	AC Source/LISN	POE
Power Cable 2	1.0	AC Source/LISN	Adapter
USB Cable	3.0	EUT	Adapter
RJ45 Cable 1	1.5	EUT	POE
RJ45 Cable 2	1.5	EUT	Notebook
RJ45 Cable 3	1.5	POE	Router
RJ11 Cable	3.0	EUT	Telephone

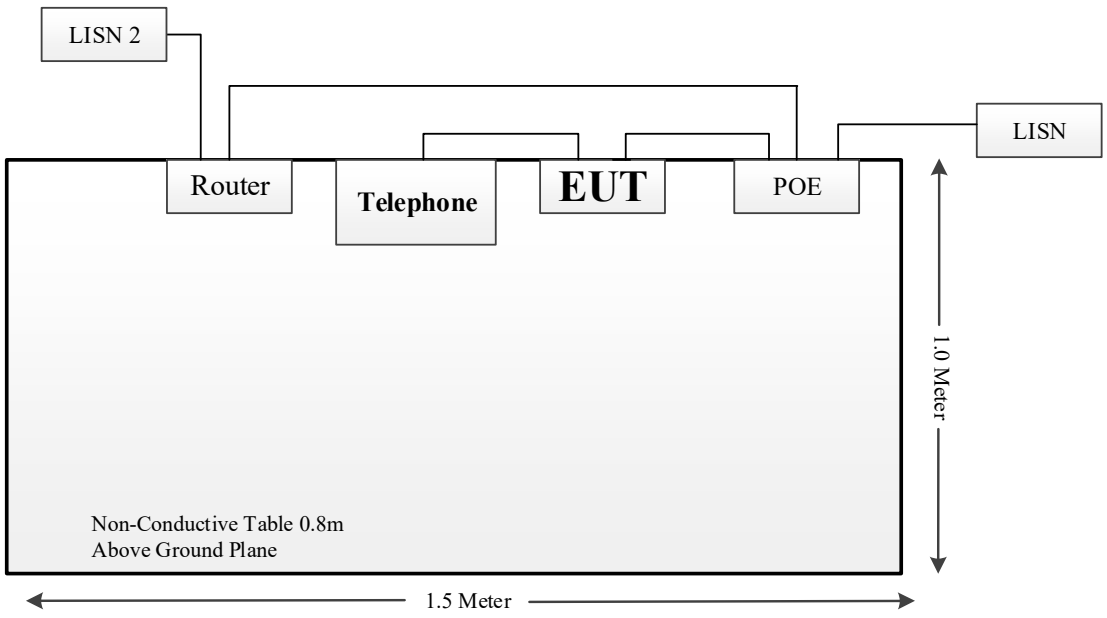
Block Diagram of Test Setup

For Conducted Emissions:

For adapter

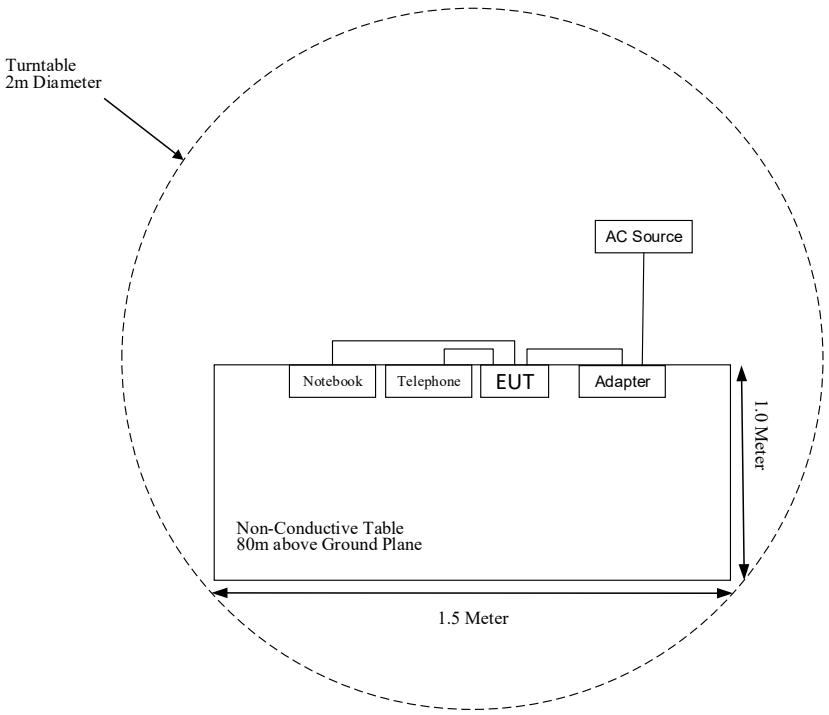


For POE

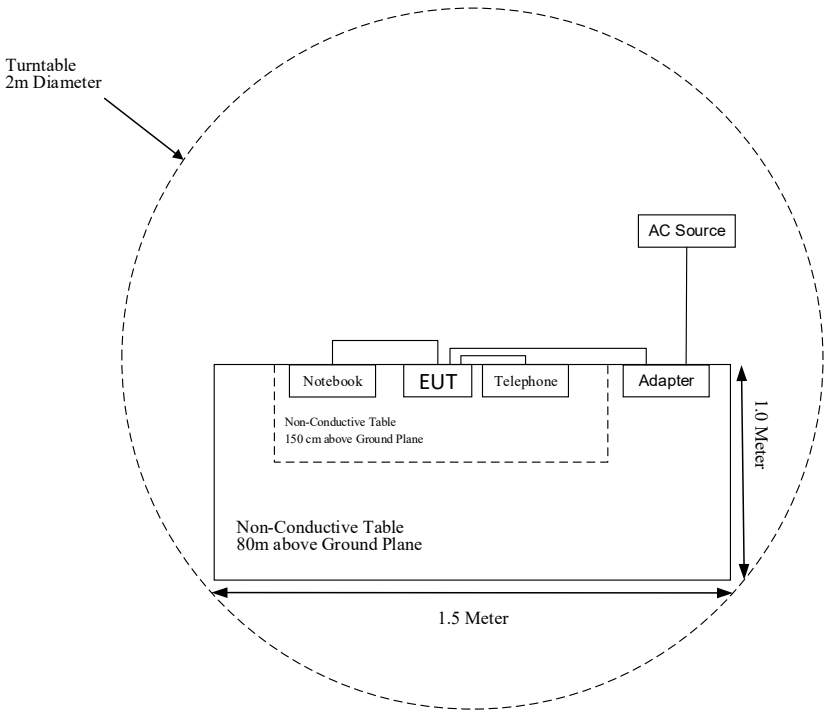


For Radiated Emissions(Below 1GHz & Abve 1GHz):

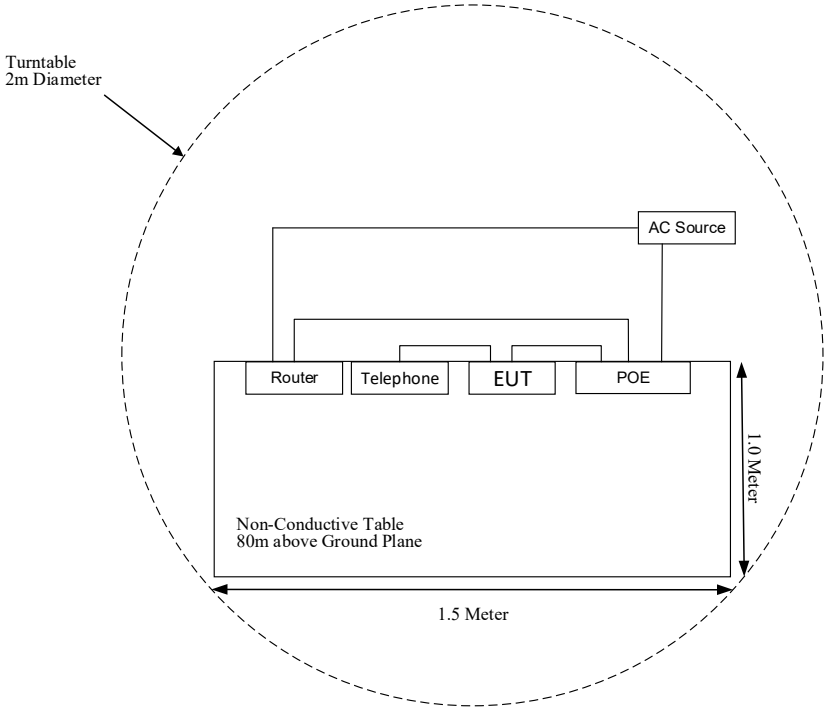
For adapter (Below 1GHz)



For adapter (Abve 1GHz)



For POE (Below 1GHz)



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§1.1310 & §2.1091	MAXIMUM PERMISSIBLE EXPOSURE (MPE)	Compliant
§15.203	Antenna Requirement	Compliant
§15.207(a)	Conducted Emissions	Compliant
§15.205, §15.209, §15.231(b)	Radiated Emissions	Compliant
§15.231 (c)	20dB Emission Bandwidth	Compliant
§15.231 (a) (1)	Deactivation	Compliant

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test (Chamber 1#)					
Rohde & Schwarz	EMI Test Receiver	ESCI	100195	2024-04-23	2025-04-22
Sunol Sciences	Hybrid Antenna	JB3	A090314-1	2023-11-11	2024-11-10
Narda	6dB Attenuator	773-6	10690812-2-1	2023-11-11	2024-11-10
Sonoma Instrunent	Amplifier	310N	171205	2024-04-23	2025-04-22
ETS-LINDGREN	Loop Antenna	6512	108100	2023-11-09	2024-11-08
MICRO-COAX	Coaxial Cable	Cable-8	008	2024-04-23	2025-04-22
MICRO-COAX	Coaxial Cable	Cable-9	009	2024-04-23	2025-04-22
MICRO-COAX	Coaxial Cable	Cable-10	010	2024-04-23	2025-04-22
Rohde & Schwarz	Test Software	EMC32	100361	N/A	N/A
Rohde & Schwarz	Spectrum Analyzer	FSU26	200103	2024-04-24	2025-04-23
Radiated Emission Test (Chamber 2#)					
Rohde & Schwarz	EMI Test Receiver	ESU40	100207/040	2024-04-25	2025-04-23
ETS-LINDGREN	Horn Antenna	3115	9311-4159	2023-12-02	2024-12-01
A.H.Systems,inc	Amplifier	PAM-0118P	512	2024-04-25	2025-04-24
MICRO-COAX	Coaxial Cable	Cable-11	011	2024-04-25	2025-04-24
MICRO-COAX	Coaxial Cable	Cable-12	012	2024-04-25	2025-04-24
MICRO-COAX	Coaxial Cable	Cable-13	013	2024-04-25	2025-04-24
Rohde & Schwarz	Test Software	EMC32	100361	N/A	N/A
Conducted Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESR	101746	2024-04-23	2025-04-22
Rohde & Schwarz	LISN	ENV216	101115	2024-04-23	2025-04-22
Audix	Test Software	e3	V9	N/A	N/A
Rohde & Schwarz	Pulse Limiter	ESH3-Z2	0357.8810.54	2024-04-23	2025-04-22
MICRO-COAX	Coaxial Cable	Cable-15	015	2024-04-23	2025-04-22

Statement of Traceability: Bay Area Compliance Laboratories Corp. (Kunshan) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

FCC §1.1310 & §2.1091 - MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart §2.1091 and subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	**Electric Field Strength (V/m)**	**Magnetic Field Strength (A/m)**	**Power Density (mW/cm^2)**	**Averaging Time (minutes)**
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f^2)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

f = frequency in MHz; * = Plane-wave equivalent power density;

According to §1.1310 and §2.1091 RF exposure is calculated.

Calculated Formulary

Predication of MPE limit at a given distance
$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm^2);
P = power input to the antenna (in appropriate units, e.g., mW);
G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

For simultaneously transmit system, the calculated power density should comply with:

$$\sum_i \frac{S_i}{S_{Limit,i}} \leq 1$$

Calculated Data:

Mode	Frequency Range (MHz)	Antenna Gain		Tune-up Output Power★		Evaluation Distance (cm)	Power Density (mW/cm^2)	MPE Limit (mW/cm^2)
		(dBi)	(numeric)	(dBm)	(mW)			
802.11b	2412-2462	3.96	2.49	20	100.00	20	0.0495	1.0
802.11g		3.96	2.49	19	79.43	20	0.0393	1.0
802.11n-HT20		3.96	2.49	19	79.43	20	0.0393	1.0
802.11n-HT40	2422-2452	3.96	2.49	18.5	70.79	20	0.0351	1.0
BLE-1M	2402-2480	3.96	2.49	7.0	5.01	20	0.0025	1.0
BLE-2M		3.96	2.49	7.0	5.01	20	0.0025	1.0

Mode	Frequency Range (MHz)	Tune-up EIRP★		Evaluation Distance (cm)	Power Density (mW/cm^2)	MPE Limit (mW/cm^2)
		(dBm)	(mW)			
SRD	433.92	-20	0.01	20	<0.0001	0.3

Note:
1. For the above tune up power were declared by the manufacturer.
2. The EUT contains a module which exactly the same as FCC ID: 2AC7Z-ESPC3MINI1 (Grant on: 06/16/2021) without any modifications
3. The SRD EIRP = 74.98 dBμV/m -95.2 = -20.22 dBm.
4. The worst condition of transmit simultaneously (WiFi&SRD) is as below:

$$\sum_i \frac{S_i}{S_{Limit,i}} = 0.0495+0.0003=0.0498 < 1.0$$

Conclusion: The device meets MPE at distance 20cm.

FCC§15.203 - ANTENNA REQUIREMENT

Applicable Standard

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

Antenna Connected Construction

The EUT has a PCB antenna which were permanently attached, fulfill the requirement of this section. Please refer to EUT photos.

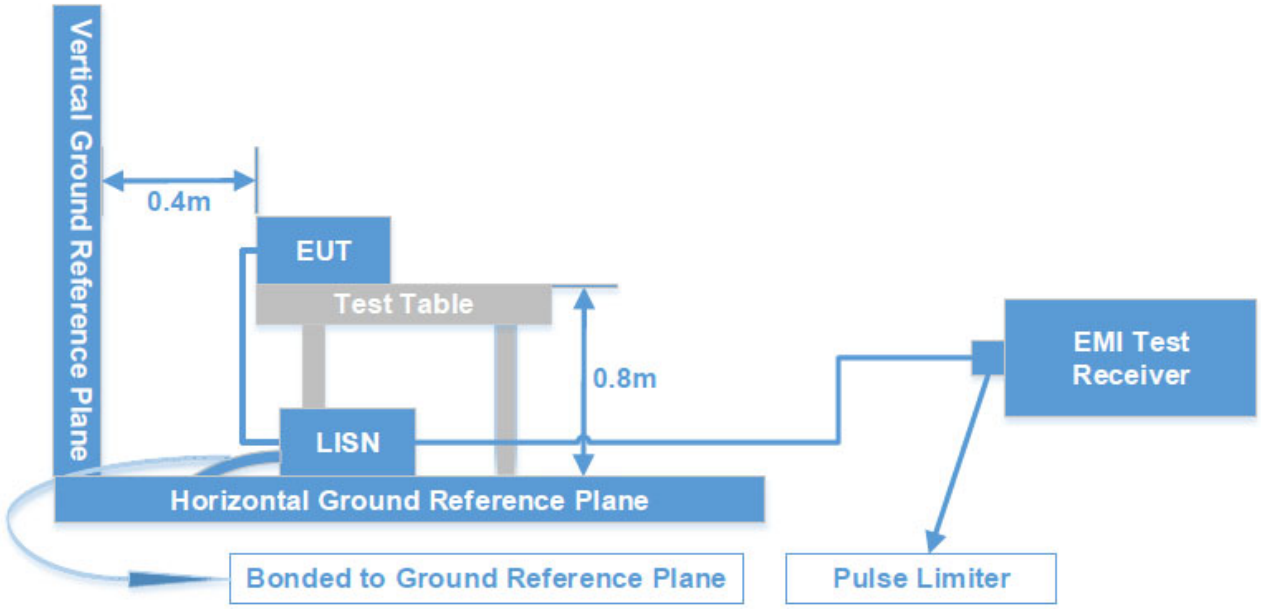
Result: Compliant.

FCC §15.207 (a) – AC POWER LINE CONDUCTED EMISSIONS

Applicable Standard

FCC §15.207(a)

Test System Setup



The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

EMI Test Receiver Setup

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	RBW	VBW
150 kHz - 30 MHz	9 kHz	30 kHz

Test Procedure

During the conducted emission test, the EUT was connected to the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

If the maximum peak value of the emissions is below the average limit, the QP value and average value measurement will not need to be performed and only record the maximum peak measured value to meet the requirements.

Level & Over Limit Calculation

The Level is calculated by adding LISN VDF (Voltage Division Factor), Cable Loss and Transient Limiter Attenuation from the Meter Reading. The basic equation is as follows:

Factor (dB) = LISN VDF (dB) + Cable Loss (dB) + Transient Limiter Attenuation (dB)
Level (dBμV) = Read level (dBμV) + Factor (dB)

The "**Over Limit**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, an Over Limit of 7 dB means the emission is 7 dB above the limit. The equation for Over Limit calculation is as follows:

Over Limit (dB) = Level (dBμV) - Limit (dBμV)

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Part 15.207.

Test Data: See Appendix

FCC §15.205, §15.209, §15.231 (b) - RADIATED EMISSIONS

Applicable Standard

FCC §15.205, §15.209, §15.231 (b)

According to FCC §15.231(b), the field strength of emissions from intentional radiators operated under this section shall not exceed the following:

Fundamental frequency (MHz)	Field strength of fundamental (microvolts/meter)	Field strength of spurious emission (microvolts/meter)
40.66-40.70	2250	225
70-130	1250	125
130-174	[1]1250 to 3750	[1]125 to 375
174-260	3750	375
260-470	[1]3750 to 12500	[1]375 to 1250
Above 470	12500	1250

[1] Linear interpolations.

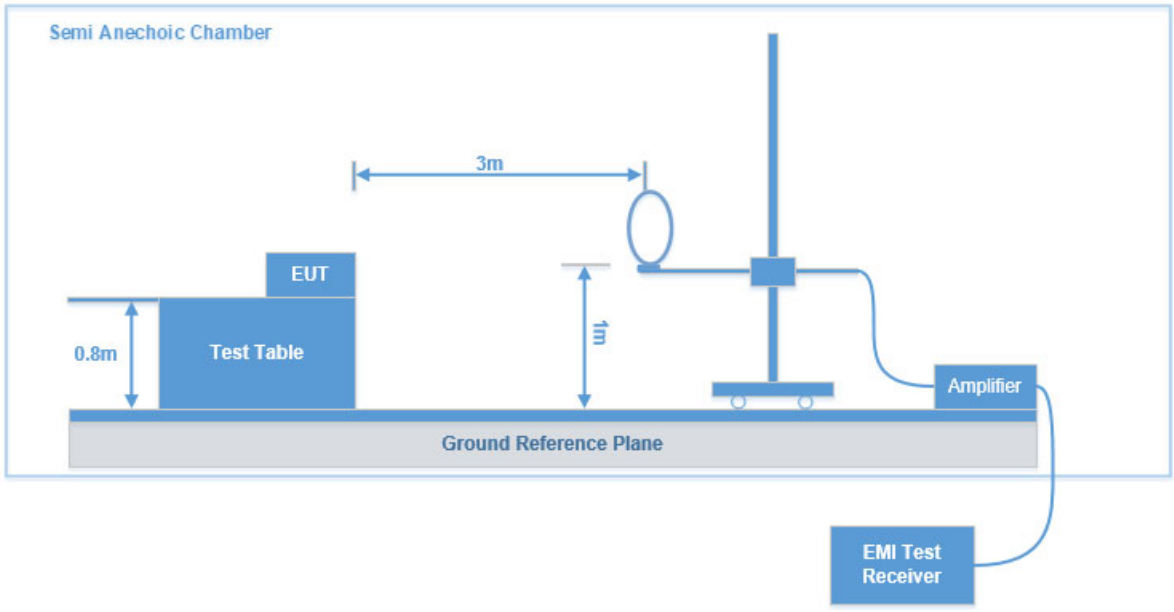
(1) The above field strength limits are specified at a distance of 3 meters. The tighter limits apply at the band edges.

(2) Intentional radiators operating under the provisions of this section shall demonstrate compliance with the limits on the field strength of emissions, as shown in the above table, based on the average value of the measured emissions. As an alternative, compliance with the limits in the above table may be based on the use of measurement instrumentation with a CISPR quasi-peak detector. The specific method of measurement employed shall be specified in the application for equipment authorization. If average emission measurements are employed, the provisions in §15.35 for averaging pulsed emissions and for limiting peak emissions apply. Further, compliance with the provisions of §15.205 shall be demonstrated using the measurement instrumentation specified in that section.

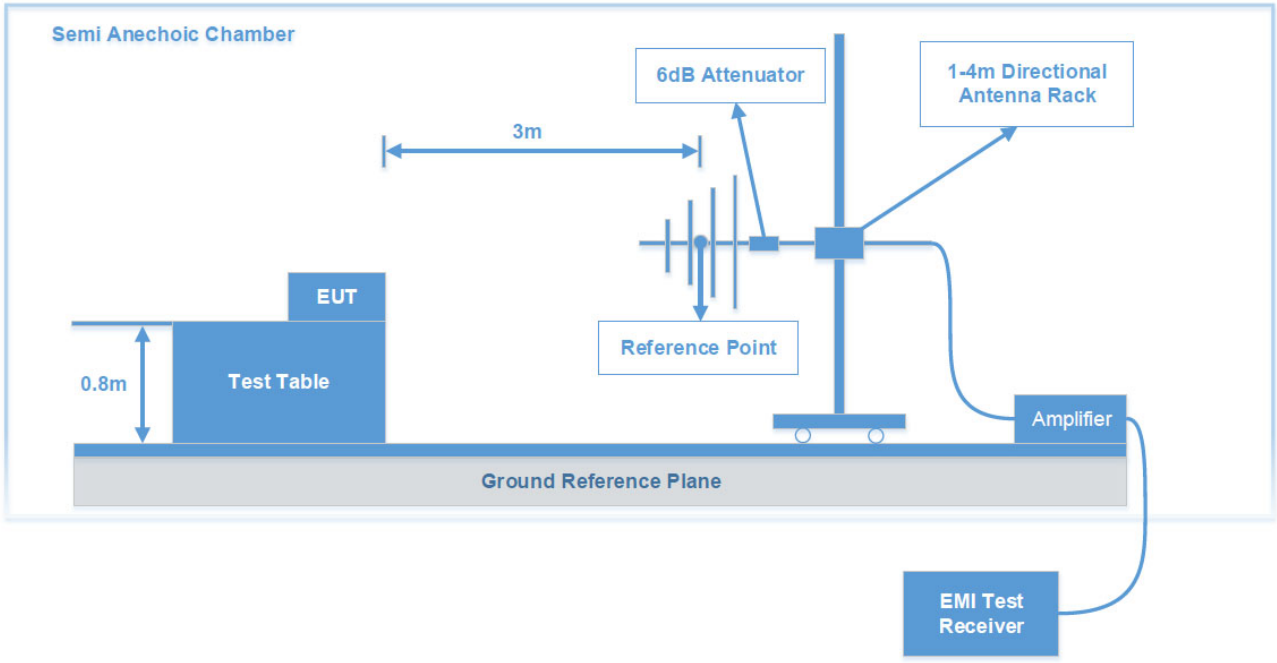
(3) The limits on the field strength of the spurious emissions in the above table are based on the fundamental frequency of the intentional radiator. Spurious emissions shall be attenuated to the average (or, alternatively, CISPR quasi-peak) limits shown in this table or to the general limits shown in §15.209, whichever limit permits a higher field strength.

Test System Setup

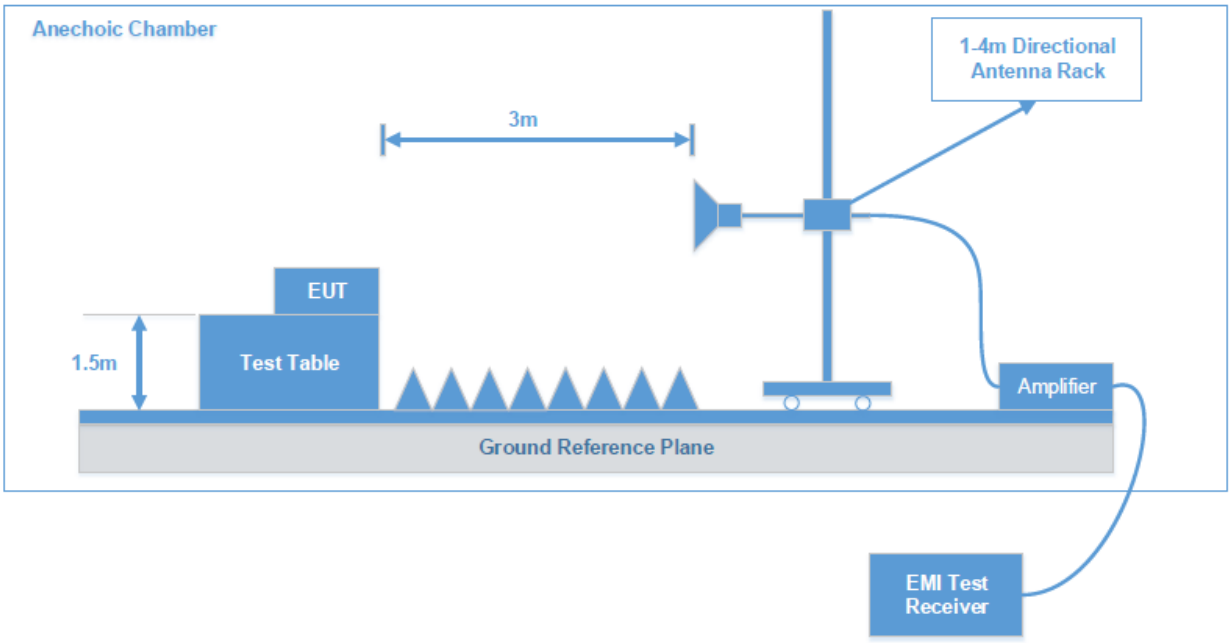
9 kHz-30 MHz:



30 MHz-1 GHz:



Above 1 GHz:



The radiated emission tests were performed in the 3 meters test site, using the setup accordance with the ANSI C63.10 - 2013. The specification used was the FCC 15 § 15.209, 15.205 and 15.231.

EMI Test Receiver Setup

During the radiated emission test, the EMI test Receiver was set with the following configurations:

Frequency Range	RBW	VBW	IF B/W	Measurement
9 kHz – 150 kHz	200 Hz	1 kHz	200 Hz	QP/Average
150 kHz – 30 MHz	9 kHz	30 kHz	9 kHz	QP/ Average
30 MHz – 1000 MHz	100 kHz	300 kHz	/	Peak
	/	/	120 kHz	QP
ABOVE 1GHz	1MHz	3 MHz	/	Peak

For 9 kHz-30 MHz test, the lowest height of the magnetic antenna shall be 1 m above the ground and three antenna orientations (parallel, perpendicular, and ground-parallel) shall be measured.

Test Procedure

Maximizing procedure was performed on at least six (6) highest emissions to ensure that the EUT complied with all installation combinations.

If the measured peak level of the emissions that the measuring receiver reading level plus corrected factor is at least 6 dB below the QP emission limit, there's no need to record the measured QP level of the emissions in the report.

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corrected Amplitude (dBμV/m) = Meter Reading (dBμV) + Antenna Factor (dB/m) + Cable Loss (dB) - Amplifier Gain (dB)

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin (dB) = Limit (dBμV/m) – Corrected Amplitude (dBμV/m)

Test Results Summary

According to the data in the following table, the EUT complied with the FCC §15.205, §15.209, §15.231 (b).

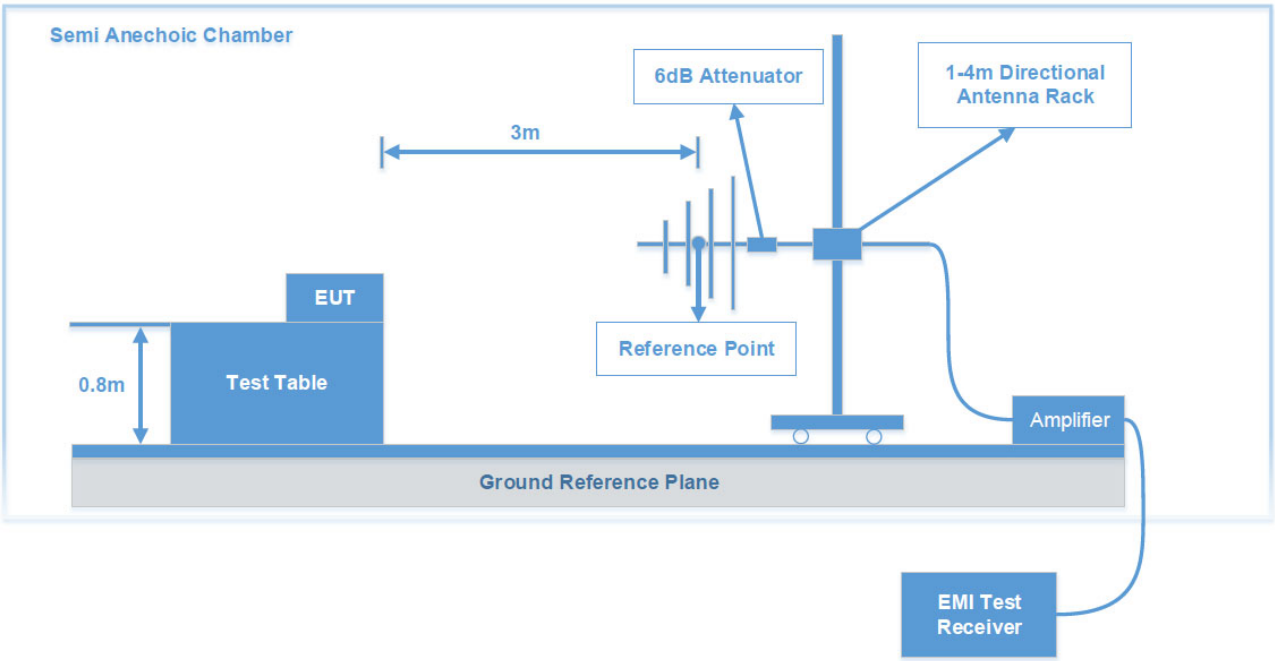
Test Data: See Appendix

FCC §15.231(a) (2) - DEACTIVATION TESTING

Applicable Standard

Per FCC §15.231(a), (2) A transmitter activated automatically shall cease transmission within 5 seconds after activation.

Test System Setup



Test Procedure

1. With the EUT's antenna attached, the waveform was received by the test antenna which was connected to the spectrum analyzer.
2. Set center frequency of spectrum analyzer=operating frequency.
3. Set the spectrum analyzer as RBW=100k VBW=300k Span=0Hz.
4. Repeat above procedures until all frequency measured was complete.

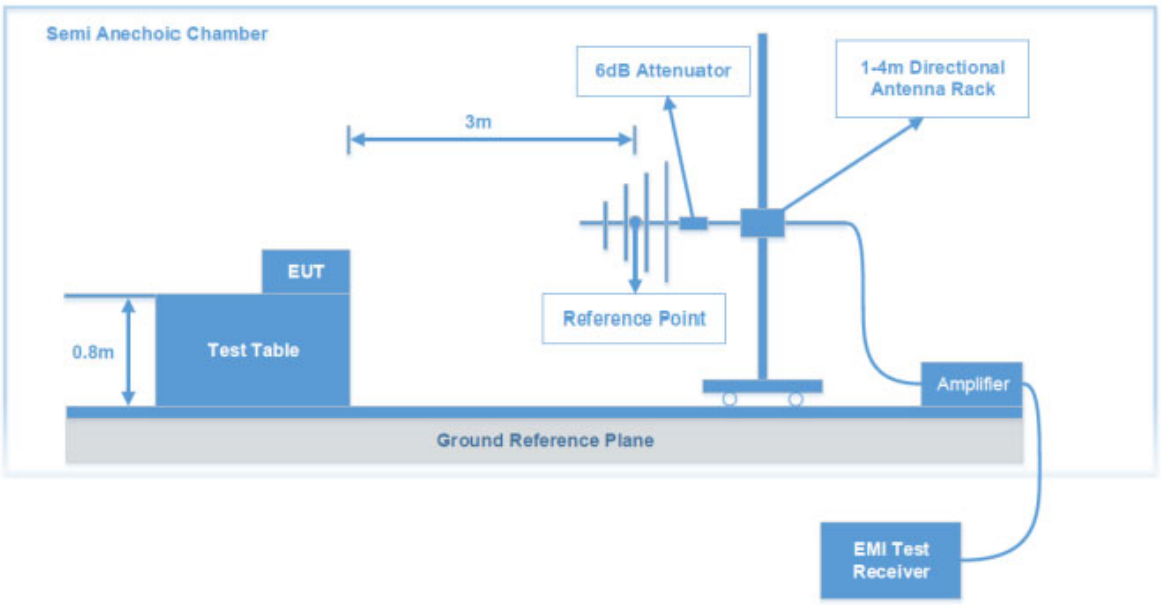
Test Data: See Appendix

FCC §15.231(c) - 20dB EMISSION BANDWIDTH TESTING

Applicable Standard

Per 15.231(c), The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900 MHz. Bandwidth is determined at the points 20 dB down from the modulated carrier.

Test System Setup



Test Procedure

With the EUT's antenna attached, the waveform was received by the test antenna which was connected to the spectrum analyzer, plot the 20 dB bandwidth.

Test Data: See Appendix

APPENDIX - TEST DATA

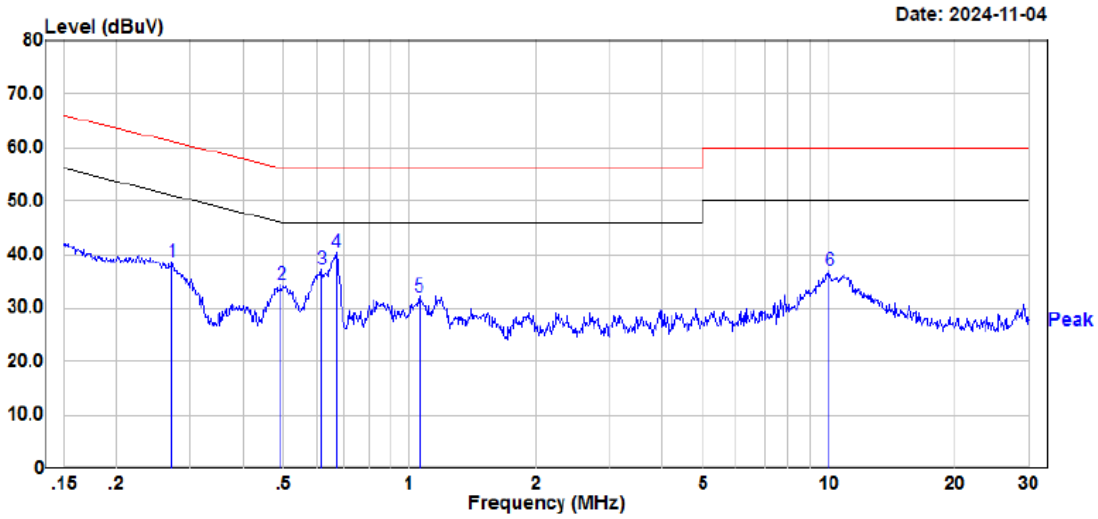
Environmental Conditions & Test Information

Test Item:	AC POWER LINE CONDUCTED EMISSIONS	RADIATED EMISSIONS		
		9 kHz-30 MHz	30 MHz-1 GHz	Above 1 GHz
Test Date:	2024-11-04 to 2024-11-05	2024-06-26 to 2024-11-08	2024-07-03	2024-06-26
Temperature:	21-21.3 ℃	20.3-26.2 ℃	22.9 ℃	23.3 ℃
Relative Humidity:	58-72 %	47-61 %	47 %	61 %
ATM Pressure:	102.4-102.8 kPa	100.1-102.8 kPa	100.1 kPa	102.0 kPa
Test Result:	Pass	Pass	Pass	Pass
Test Engineer:	Myles Miao	Leah Li&Jerry Yan	Richard Wen	Destine Wu

Test Item:	DEACTIVATION TESTING	20dB EMISSION BANDWIDTH TESTING
Test Date:	2024-10-14	2024-10-09
Temperature:	26.2 ℃	24.2 ℃
Relative Humidity:	54 %	55 %
ATM Pressure:	101.6 kPa	102.2 kPa
Test Result:	Pass	Pass
Test Engineer:	Neil Zhou	Neil Zhou

AC POWER LINE CONDUCTED EMISSIONS

For adapter

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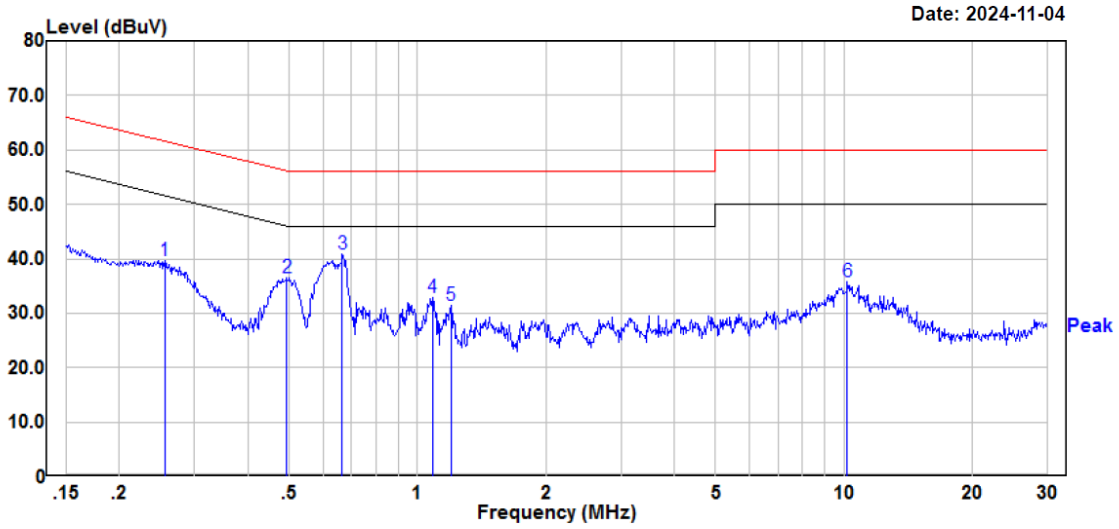
Site                : CE
Condition           : limit\FCC PART 15.207
                    : DET:Peak
Project No.         : RSHA240522001
Model               : JCP-Y4Y6-H-0
Phase               : L
Voltage             : 120V/60Hz
Mode                : Transmitting
Test Equipment      : ENV216,ESR
Temperature         : 21.3℃
Humidity            : 72%
Atmospheric pressure: 102.4kPa
Test Engineer       : Myles Miao
```

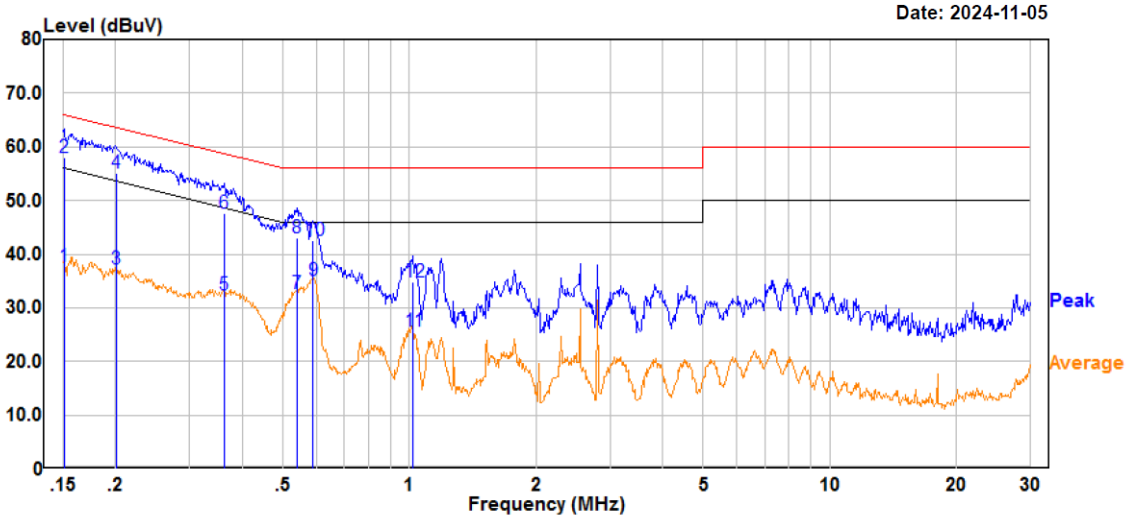
	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.271	18.44	20.15	38.59	61.07	-22.48	Peak
2	0.494	14.16	20.15	34.31	56.11	-21.80	Peak
3	0.615	17.11	20.09	37.20	56.00	-18.80	Peak
4	0.669	20.22	20.07	40.29	56.00	-15.71	Peak
5	1.053	12.42	19.75	32.17	56.00	-23.83	Peak
6	10.021	16.86	20.01	36.87	60.00	-23.13	Peak



Site : CE
Condition : limit\FCC PART 15.207
: DET:Peak
Project No. : RSHA240522001
Model : JCP-Y4Y6-H-0
Phase : N
Voltage : 120V/60Hz
Mode : Transmitting
Test Equipment : ENV216,ESR
Temperature : 21.3℃
Humidity : 72%
Atmospheric pressure: 102.4kPa
Test Engineer : Myles Miao

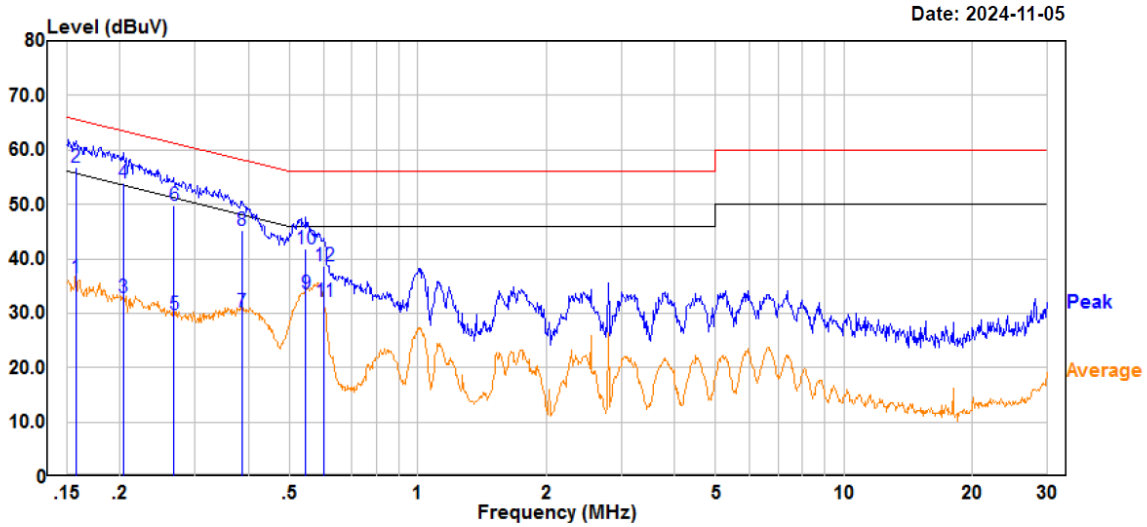
	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.256	19.48	20.14	39.62	61.57	-21.95	Peak
2	0.494	16.42	20.15	36.57	56.11	-19.54	Peak
3	0.666	20.87	20.07	40.94	56.00	-15.06	Peak
4	1.085	13.01	19.77	32.78	56.00	-23.22	Peak
5	1.199	11.63	19.83	31.46	56.00	-24.54	Peak
6	10.172	15.80	20.00	35.80	60.00	-24.20	Peak

For POE




```
Site                  : CE
Condition             : limit\FCC PART 15.207
                      : DET:Peak
Project No.           : RSHA240522001
Model                 : JCP-Y4Y6-H-0
Phase                 : L
Voltage               : 120V/50Hz
Mode                  : Transmitting
Test Equipment        : ENV216,ESR
Temperature           : 21.0℃
Humidity              : 58%
Atmospheric pressure: 102.8kPa
Test Engineer         : Myles Miao
```

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.151	17.60	20.12	37.72	55.96	-18.24	Average
2	0.151	37.80	20.12	57.92	65.96	-8.04	QP
3	0.200	17.10	20.11	37.21	53.60	-16.39	Average
4	0.200	35.10	20.11	55.21	63.60	-8.39	QP
5	0.362	12.29	20.20	32.49	48.67	-16.18	Average
6	0.362	27.49	20.20	47.69	58.67	-10.98	QP
7	0.540	12.40	20.12	32.52	46.00	-13.48	Average
8	0.540	22.90	20.12	43.02	56.00	-12.98	QP
9	0.591	15.00	20.10	35.10	46.00	-10.90	Average
10	0.591	22.50	20.10	42.60	56.00	-13.40	QP
11	1.022	5.90	19.73	25.63	46.00	-20.37	Average
12	1.022	15.20	19.73	34.93	56.00	-21.07	QP



Site : CE
Condition : limit\FCC PART 15.207
: DET:Peak
Project No. : RSHA240522001
Model : JCP-Y4Y6-H-0
Phase : N
Voltage : 120V/60Hz
Mode : Transmitting
Test Equipment : ENV216,ESR
Temperature : 21.0℃
Humidity : 58%
Atmospheric pressure: 102.8kPa
Test Engineer : Myles Miao

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.158	16.41	20.11	36.52	55.59	-19.07	Average
2	0.158	36.81	20.11	56.92	65.59	-8.67	QP
3	0.203	12.80	20.11	32.91	53.47	-20.56	Average
4	0.203	33.80	20.11	53.91	63.47	-9.56	QP
5	0.267	9.60	20.15	29.75	51.20	-21.45	Average
6	0.267	29.60	20.15	49.75	61.20	-11.45	QP
7	0.387	10.10	20.20	30.30	48.13	-17.83	Average
8	0.387	25.00	20.20	45.20	58.13	-12.93	QP
9	0.545	13.60	20.11	33.71	46.00	-12.29	Average
10	0.545	21.80	20.11	41.91	56.00	-14.09	QP
11	0.603	12.11	20.09	32.20	46.00	-13.80	Average
12	0.603	18.51	20.09	38.60	56.00	-17.40	QP

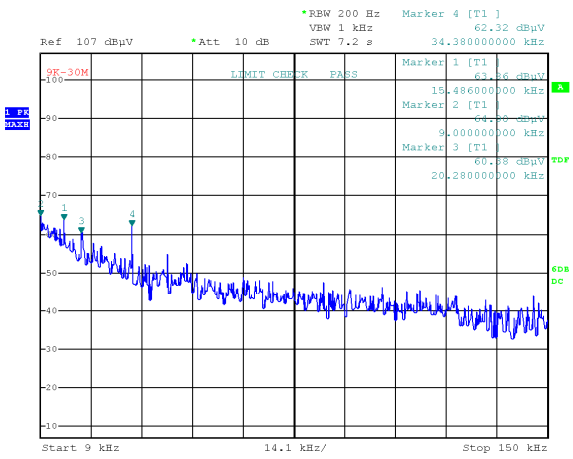
RADIATED EMISSIONS

Test mode: Transmitting
After pre-scan in the X, Y and Z axes of orientation, the worst case X axes is below:

For adapter

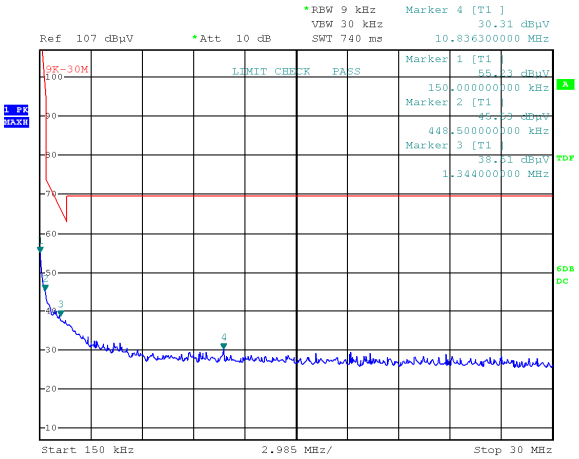
9 kHz-30 MHz:
Parallel(worst case)

9kHz-150kHz



Project No.RSHA240522001 Tester:Leah Li
Date: 26.JUN.2024 17:42:12

150kHz-30MHz



Project No.RSHA240522001 Tester:Leah Li
Date: 26.JUN.2024 18:00:06

9kHz-150kHz

Frequency (MHz)	Corrected Amplitude (dBµV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBµV/m) @3m	Margin (dB)
0.00900	64.9	PK	57.00	128.52	63.62
0.01549	63.86	PK	52.87	123.81	59.95
0.02028	60.38	PK	49.92	121.46	61.08
0.03438	62.32	PK	46.06	116.88	54.56

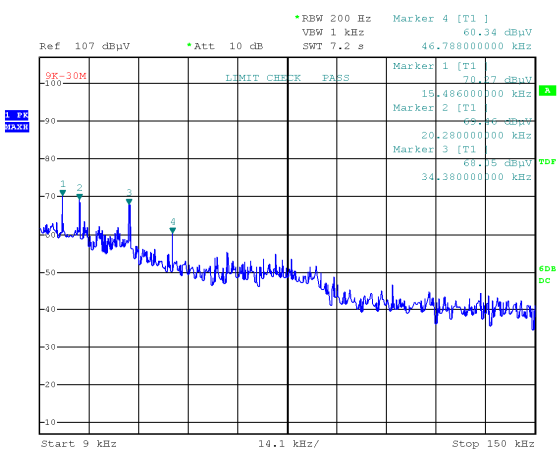
150kHz-30MHz

Frequency (MHz)	Corrected Amplitude (dBµV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBµV/m) @3m	Margin (dB)
0.15000	55.23	PK	50.90	104.08	48.85
0.44850	45.53	PK	24.52	94.57	49.04
1.34400	38.51	PK	5.87	65.04	26.53
10.83630	30.31	PK	6.33	69.54	39.23

For POE

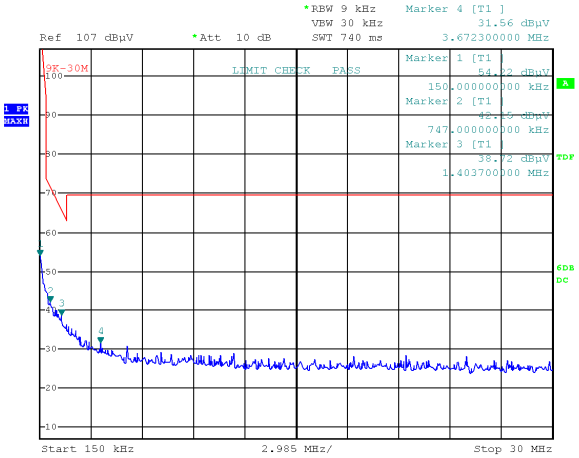
9 kHz-30 MHz:
Parallel(worst case)

9kHz-150kHz



Project No.RSHA240522001 Tester:Jerry Yan
Date: 8.NOV.2024 16:39:07

150kHz-30MHz



Project No.RSHA240522001 Tester:Jerry Yan
Date: 8.NOV.2024 16:49:37

9kHz-150kHz

Frequency (MHz)	Corrected Amplitude (dBµV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBµV/m) @3m	Margin (dB)
0.01549	70.27	PK	52.87	123.81	53.54
0.02028	69.46	PK	49.92	121.46	52.00
0.03438	68.05	PK	46.06	116.88	48.83
0.04679	60.34	PK	42.84	114.20	53.86

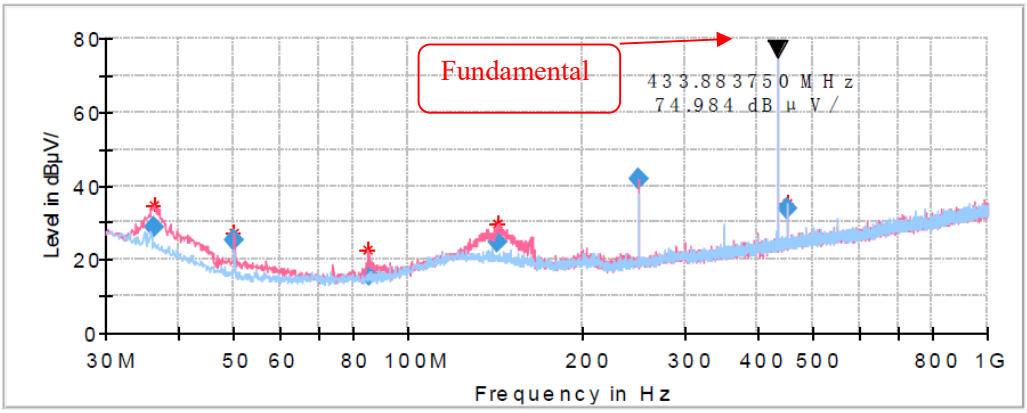
150kHz-30MHz

Frequency (MHz)	Corrected Amplitude (dBµV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBµV/m) @3m	Margin (dB)
0.15000	54.22	PK	50.90	104.08	49.86
0.74700	42.15	PK	20.11	70.14	27.99
1.40370	38.72	PK	6.65	64.66	25.94
3.67230	31.56	PK	16.12	69.54	37.98

For adapter
30 MHz-1 GHz:

Common Information

Project No:	RSHA240522001
EUT Model:	JCP-Y4Y6-H-0
Test Mode:	Transmitting in SRD mode
Standard:	FCC Part 15.231 & FCC Part 15.205 & FCC Part 15.209
Test Equipment:	ESCI, JB3, 310N
Temperature:	22.9℃
Humidity:	47%
Barometric Pressure:	100.1kPa
Test Engineer:	Richard Wen
Test Date:	2024/7/3



Final_Result

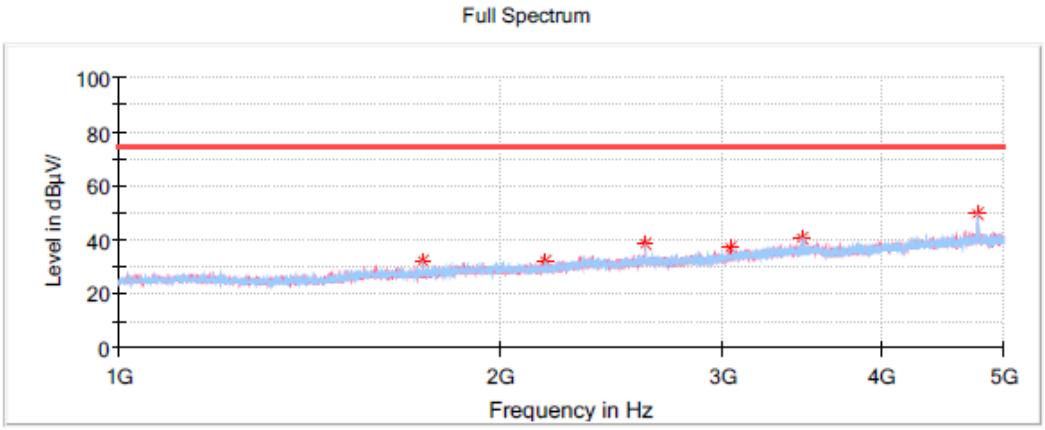
Frequency (MHz)	QuasiPeak (dBu V/m)	Limit (dBu V/m)	Margin (dB)	Pol	Corr. (dB)
36.311950	28.53	40.00	11.47	V	-9.0
50.011350	25.02	40.00	14.98	V	-16.8
85.577950	15.44	40.00	24.56	V	-17.1
142.277000	24.86	43.50	18.64	V	-11.5
250.029450	41.72	46.00	4.28	V	-12.3
433.883750	74.984	80.83	5.846	H	-7.1
450.044500	33.76	46.00	12.24	H	-6.7

Note: If the spurious emissions maximized peak measured value complies with the QP/Average limit, it is unnecessary to perform QP/Average measurement.

1 GHz-5 GHz:

Common Information

Project No.:	RSHA240522001
Test Mode:	Transmitting
Standard:	FCC Part 15.231& FCC Part 15.205 & FCC Part 15.209
Test Engineer:	Destine Hu



Critical_Freqs

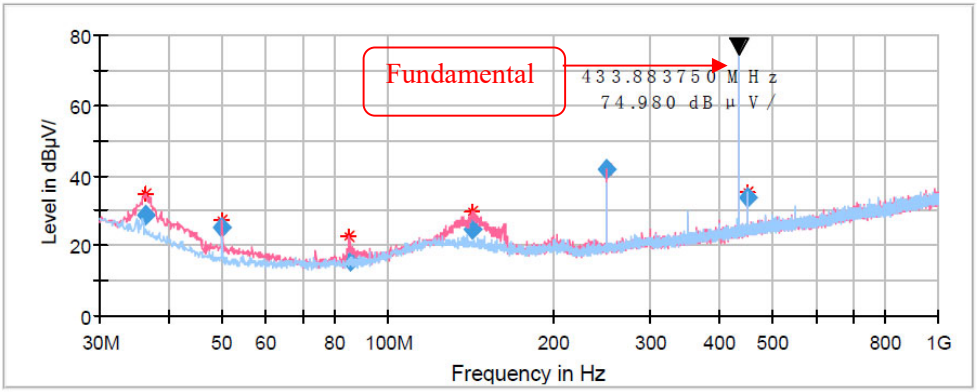
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1735.200000	32.46	---	74.00	41.54	H	-13.3
2169.200000	32.48	---	74.00	41.52	H	-11.2
2603.200000	38.13	---	74.00	35.87	H	-9.8
3037.200000	36.92	---	74.00	37.08	V	-8.3
3467.600000	40.81	---	74.00	33.19	H	-6.5
4773.200000	49.89	---	74.00	24.11	H	-3.3

Note: If the spurious emissions maximized peak more than 20dB below peak limit which can complies with the Average limit, it is unnecessary to perform Average measurement.

For POE
30 MHz-1 GHz:

Common Information

Project No:	RSHA240522001
EUT Model:	JCP-Y4Y6-H-0
Test Mode:	Transmitting in SRD mode
Standard:	FCC Part 15.231 & FCC Part 15.205 & FCC Part 15.209
Test Equipment:	ESCI, JB3, 310N
Temperature:	22.9℃
Humidity:	47%
Barometric Pressure:	100.1kPa
Test Engineer:	Richard Wen
Test Date:	2024/7/3



Final_Result

Frequency (MHz)	QuasiPeak (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Pol	Corr. (dB)
36.311950	28.53	40.00	11.47	V	-9.0
50.011350	25.02	40.00	14.98	V	-16.8
85.577950	15.44	40.00	24.56	V	-17.1
142.277000	24.86	43.50	18.64	V	-11.5
250.029450	41.72	46.00	4.28	V	-12.3
433.883750	74.98	80.83	5.85	H	-7.1
450.044500	33.76	46.00	12.24	H	-6.7

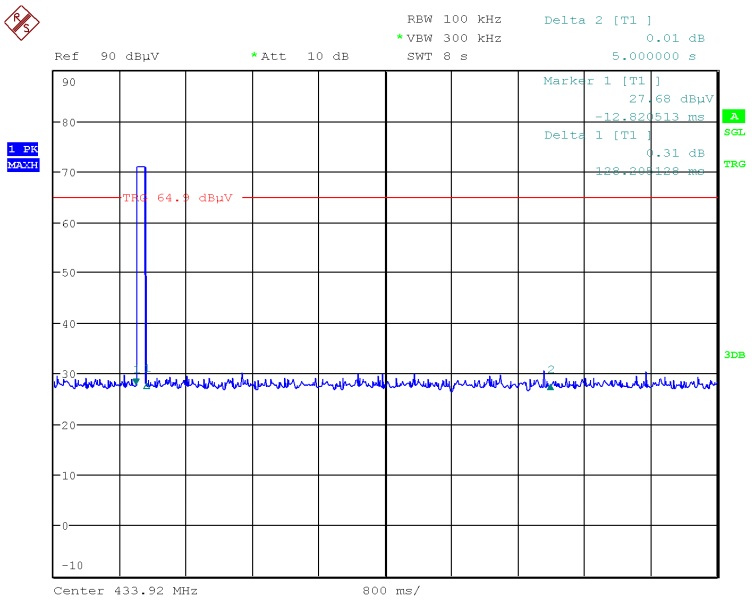
Note: If the spurious emissions maximized peak measured value complies with the QP/Average limit, it is unnecessary to perform QP/Average measurement.

DEACTIVATION TESTING

Test mode: Transmitting

Channel Frequency (MHz)	Limit (s)	Result
433.92	<5	Pass

T_{stop} <5s



ProjectNo.:RSHA240522001 Tester:Neil Zhou
Date: 14.OCT.2024 11:26:44

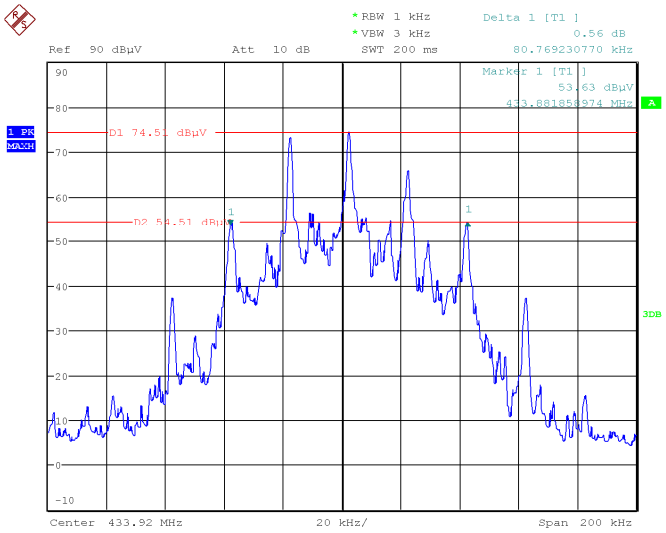
20 dB EMISSION BANDWIDTH TESTING

Test Mode: Transmitting

Channel Frequency (MHz)	20dB Bandwidth (kHz)	Limit (kHz)	Result
433.92	80.769	1084.8	Pass

Note: Limit = 0.25% * Center Frequency = 0.25% * 433.92 MHz = 1084.8 kHz

20 dB Emission Bandwidth



EUT PHOTOGRAPHS

Please refer to the attachment EXHIBIT A - EUT EXTERNAL PHOTOGRAPHS and EXHIBIT B - EUT INTERNAL PHOTOGRAPHS.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment EXHIBIT C - TEST SETUP PHOTOGRAPHS.

Declarations

1. The laboratory is not responsible for the authenticity of any information provided by the applicant. Information from the applicant that may affect test results is marked with "★".

2. The test data was only valid for the test sample(s).

3. This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

4. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

5. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor k=2 with the 95.45% confidence interval.

******* END OF REPORT *******