TEST REPORT

Applicant Name:	Grandstream Networks, Inc.
Address:	126 Brookline Ave., 3rd Floor Boston, MA 02215, USA
Report Number:	2401W47375E-EM-00
FCC ID:	YZZGRP2610P

Test Standard (s)

FCC Part 15, Subpart B (Class B)

Sample Description

Product Type:	IP Phone
Model No.:	GRP2610P
Multiple Model(s) No.:	GRP2610
Trade Mark:	GRANDSTREAM
Date Received:	2024/08/15
Issue Date:	2024/09/30

Test Result:	Pass▲

▲ In the configuration tested, the EUT complied with the standards above.

Prepared and Checked By:

Ethan Bu
EMC Engineer

Approved By:

Moon Liu
EMC Supervisor

Note: The information marked # is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report. Customer model name, addresses, names, trademarks etc. are included.
This report cannot be reproduced except in full, without prior written approval of the Company. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. 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.
This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP or any agency of the U.S. Government.
This report may contain data that are not covered by the NVLAP accreditation and are marked with an asterisk "▼".

TABLE OF CONTENTS

DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	2401W47375E-EM-00	Original Report	2024/09/30

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product	IP Phone
Tested Model	GRP2610P
Multiple Model(s)	GRP2610
Voltage Range	GRP2610P: DC 44-57V by POE or DC 5V by adapter GRP2610: DC 5V by adapter
Highest operating frequency#	1 GHz (Provided by the applicant)
Equipment Class	Class B
Sample number	GRP2610P: 2Q2N-1 GRP2610: 2Q2N-2 (Assigned by BACL, Shenzhen)
Sample/EUT Status	Good condition
Adapter Information	Adapter 1 Model: DCT06W050060US-D0 Input: 100-240V~50/60Hz 200mA Output: DC 5.0V, 0.6A Adapter 2 Model: GQ06-050060-ZU Input: 100-240V~50/60Hz 0.3A Max Output: DC 5.0V, 0.6A Adapter 3 Model: TS-A003-050060A4 Input: 100-240V~50/60Hz 0.2A Output: DC 5.0V, 0.6A 3.0W
Note 1: The Multiple models are electrically identical with the test model except for power supply. Please refer to the declaration letter# for more detail, which was provided by manufacturer. Note 2: The model GRP2610P supports POE power supply, model GRP2610 does not support POE power supply, so according to the main test, select the worst set of adapters for "AC line conducted emission" and "radiation emission" difference test. Note 3: For POE test, the power supply voltage is DC 48V.	

Objective

This test report is in accordance with Part 2-Subpart J, Part 15B Subparts A and B of the Federal Communication Commissions rules.

The objective of the manufacturer is to determine the compliance of the EUT with FCC Part 15B.

Measurement Uncertainty

Item	Frequency Range		Expanded Measurement uncertainty
Conducted Emissions	AC Mains	150 kHz ~30MHz	3.84dB(k=2, 95% level of confidence)
Radiated Disturbance	30MHz~200MHz	Horizontal	4.48dB(k=2, 95% level of confidence)
	30MHz~200MHz	Vertical	4.55dB(k=2, 95% level of confidence)
	200MHz~1000MHz	Horizontal	4.85dB(k=2, 95% level of confidence)
	200MHz~1000MHz	Vertical	5.05dB(k=2, 95% level of confidence)
	1GHz~6GHz	/	5.35dB(k=2, 95% level of confidence)
	6GHz~18GHz	/	5.44dB(k=2, 95% level of confidence)
	18GHz~40GHz	/	5.16dB(k=2, 95% level of confidence)

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 5F(B-West) , 6F, 7F, the 3rd Phase of Wan Li Industrial Building D, Shihua Rd, FuTian Free Trade Zone, Shenzhen, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 715558, the FCC Designation No. : CN5045.

Each test item follows test standards and with no deviation.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in worst case condition.

Test Mode: Talking

EUT exercise software

No exercise software was used.

Equipment Modifications

No modification was made to the EUT tested.

Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
DELL	PC	Latitude E7270	1JH13G2
TP-Link	POE	TL-POE4824G	/
AIO100	SIP Server	1S1O	DD12-0106-2014-0109
Grandstream	IP phone	GRP2611G	/
SNOM	Headset	A310D	/

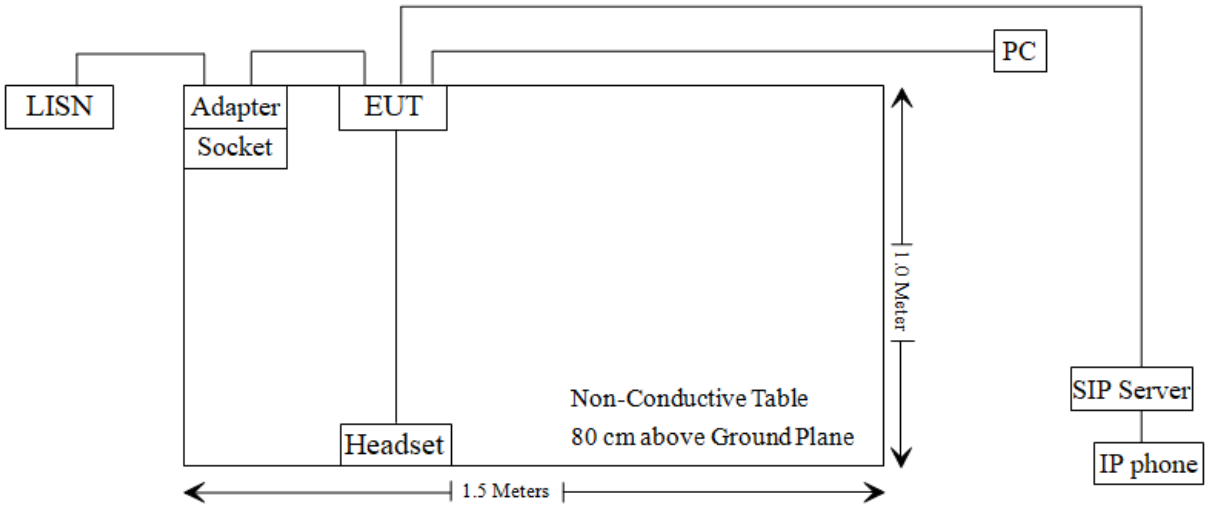
External I/O Cable

Cable Description	Length (m)	From/Port	To
Unshielded detachable RJ45 cable	8.0	EUT	POE
Unshielded detachable RJ45 cable	1.5	POE	SIP Server
Unshielded detachable RJ45 cable	1.5	SIP Server	IP phone
Unshielded detachable RJ45 cable	8.0	EUT	PC
Unshielded Un-detachable headset cable	1.2	EUT	Headset
Unshielded Un-detachable DC cable	1.8	EUT	Adapter
Unshielded Un-detachable AC cable	1.6	Socket	Mains
Unshielded Un-detachable AC cable	1.0	Socket	LISN
Unshielded detachable AC cable	1.0	POE	LISN
Unshielded detachable RJ45 cable	1.2	EUT	POE

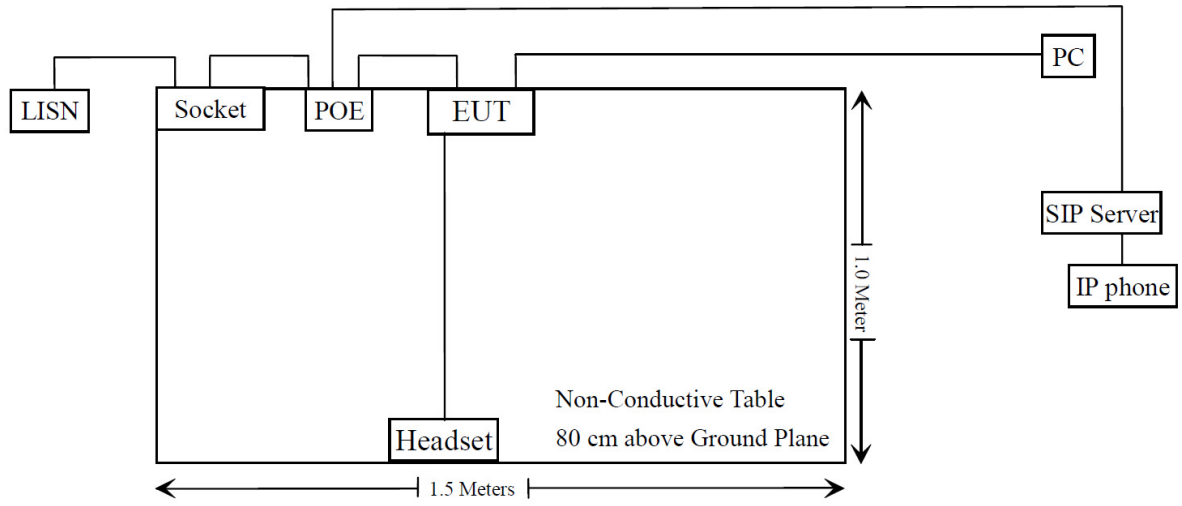
Block Diagram of Test Setup

Conducted Emissions

Powered by adapter

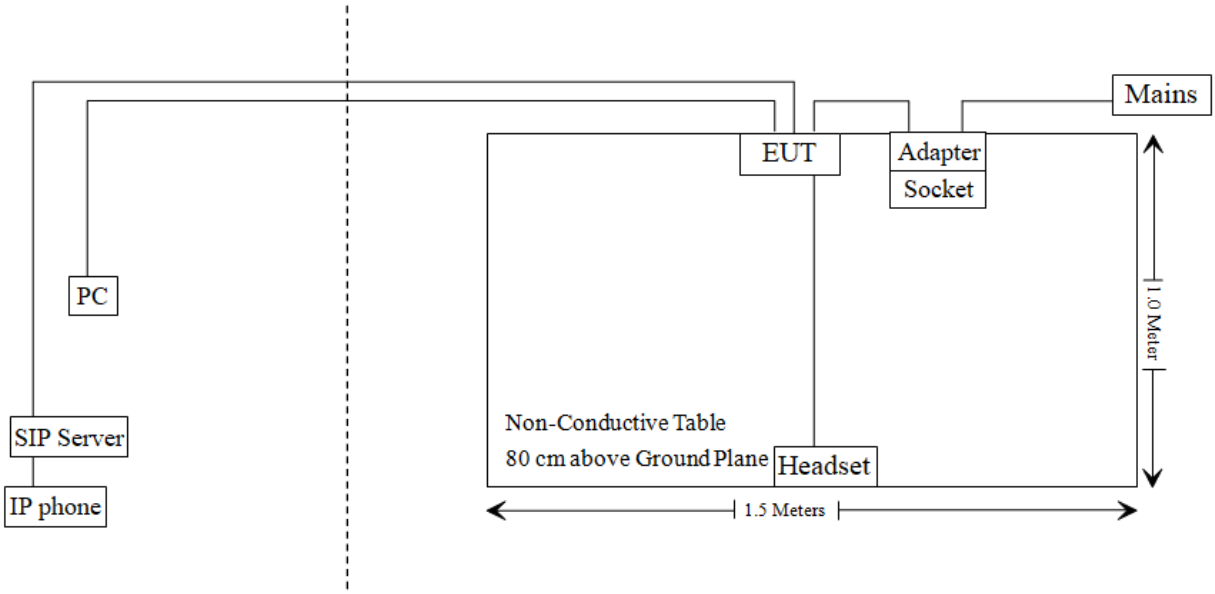


Powered by POE

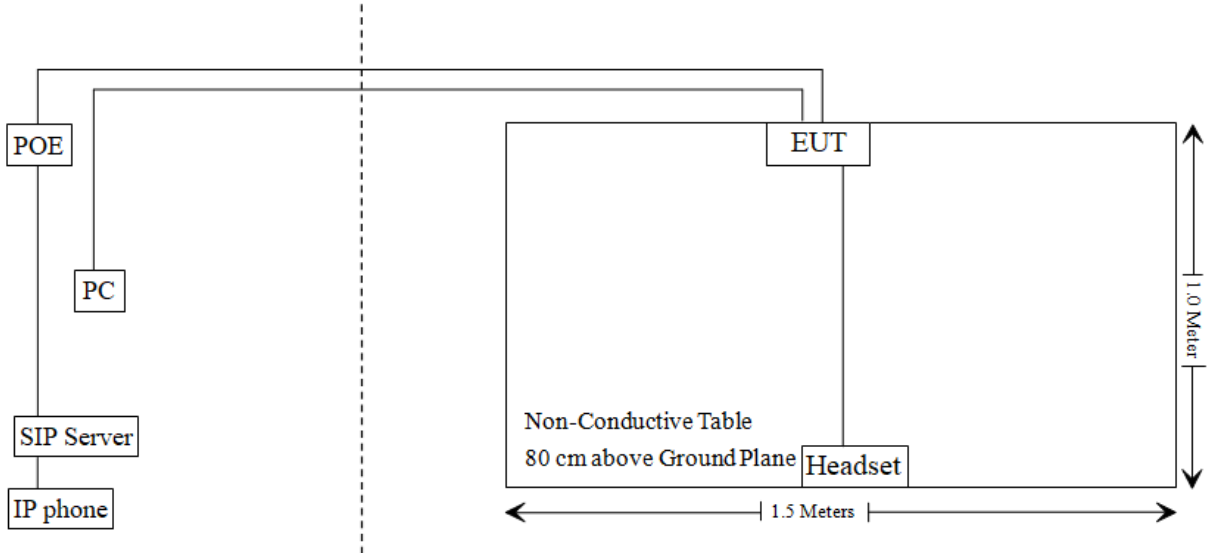


Radiated Emissions

Powered by adapter



Powered by POE



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Results
§15.107	AC Line Conducted Emissions	Compliant
§15.109	Radiated Emissions	Compliant

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
AC Line Conducted Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESCI	101120	2024/01/16	2025/01/15
Rohde & Schwarz	LISN	ENV216	101613	2024/01/16	2025/01/15
Rohde & Schwarz	Transient Limiter	ESH3Z2	DE25985	2024/05/21	2025/05/20
Unknown	CE Cable	Unknown	UF A210B-1-0720-504504	2024/05/21	2025/05/20
Audix	EMI Test software	E3	191218(V9)	NCR	NCR
Radiated Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESR3	102455	2024/01/16	2025/01/15
Sonoma instrument	Pre-amplifier	310 N	186238	2024/05/21	2025/05/20
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2023/07/20	2026/07/19
Unknown	Cable	Chamber A Cable 1	N/A	2024/06/18	2025/06/17
Unknown	Cable	XH500C	J-10M-A	2024/06/18	2025/06/17
Unknown	Cable	2Y194	0735	2024/05/21	2025/05/20
Unknown	Cable	PNG214	1354	2024/05/21	2025/05/20
Audix	EMI Test software	E3	19821b(V9)	NCR	NCR
Rohde & Schwarz	Spectrum Analyzer	FSV40	101605	2024/03/27	2025/03/26
COM-POWER	Pre-amplifier	PA-122	181919	2024/06/18	2025/06/17
Schwarzbeck	Horn Antenna	BBHA9120D(1201)	1143	2023/07/26	2026/07/25
Unknown	RF Cable	KMSE	735	2024/06/18	2025/06/17
Unknown	RF Cable	UFA147	219661	2024/06/18	2025/06/17
Unknown	RF Cable	XH750A-N	J-10M	2024/06/18	2025/06/17
JD	Multiplex Switch Test Control Set	DT7220FSU	DQ77926	2024/06/18	2025/06/17
Audix	EMI Test software	E3	191218(V9)	NCR	NCR

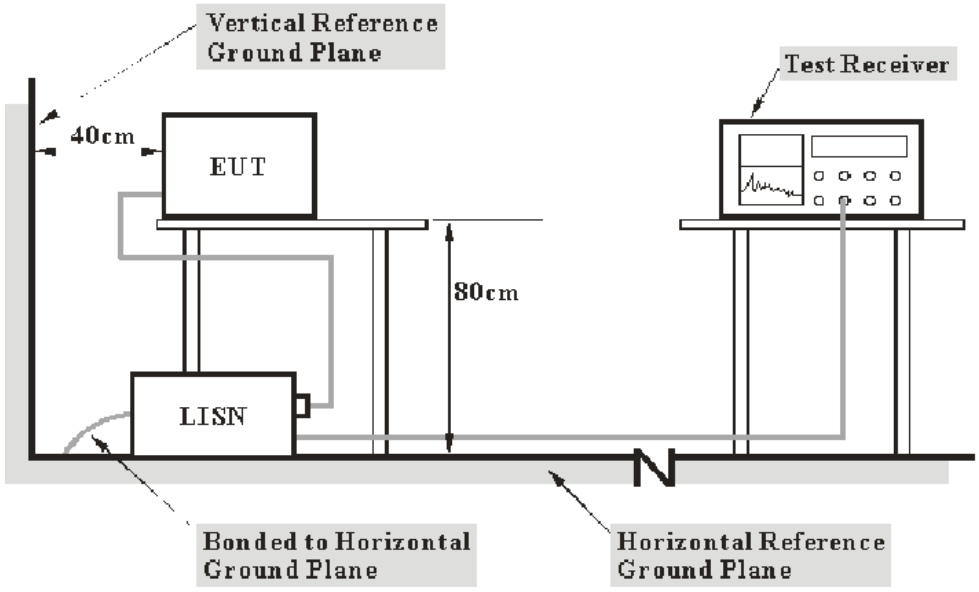
*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

FCC §15.107 - AC LINE CONDUCTED EMISSIONS

Applicable Standard

According to FCC§15.107

EUT Setup



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The measurement procedure of EUT setup is according with ANSI C63.4-2014. The related limit was specified in FCC Part 15.107.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

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

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

Test Procedure

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

All final data was recorded in the Quasi-peak and average detection mode.

Level & Over Limit Calculation

The Level is calculated by adding the LISN Factor, Cable Loss and the Read Level. The basic equation is as follows:

Level (dBuV) =Read Level (dBuV) +LISN Factor +Cable Loss

The "**Over limit**" column of the following data tables indicates the degree of compliance with the applicable limit.

Over Limit (dB) =Level (dBuV) -Limit Line (dBuV)

Note: The term "cable loss" refers to the combination of a cable and a 10dB transient limiter (attenuator).

Test Data

Environmental Conditions

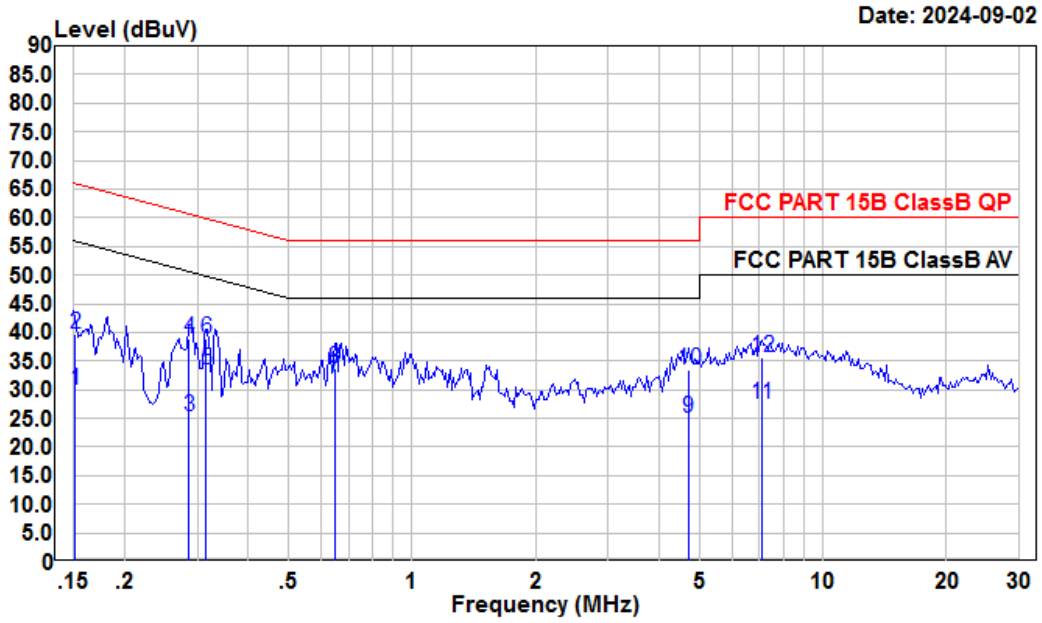
Temperature:	25~27 ℃
Relative Humidity:	62~65 %
ATM Pressure:	101.0 kPa

The testing was performed by Macy Shi on 2024-09-02 and 2024-09-14.

For Model GRP2610P

For adapter 1

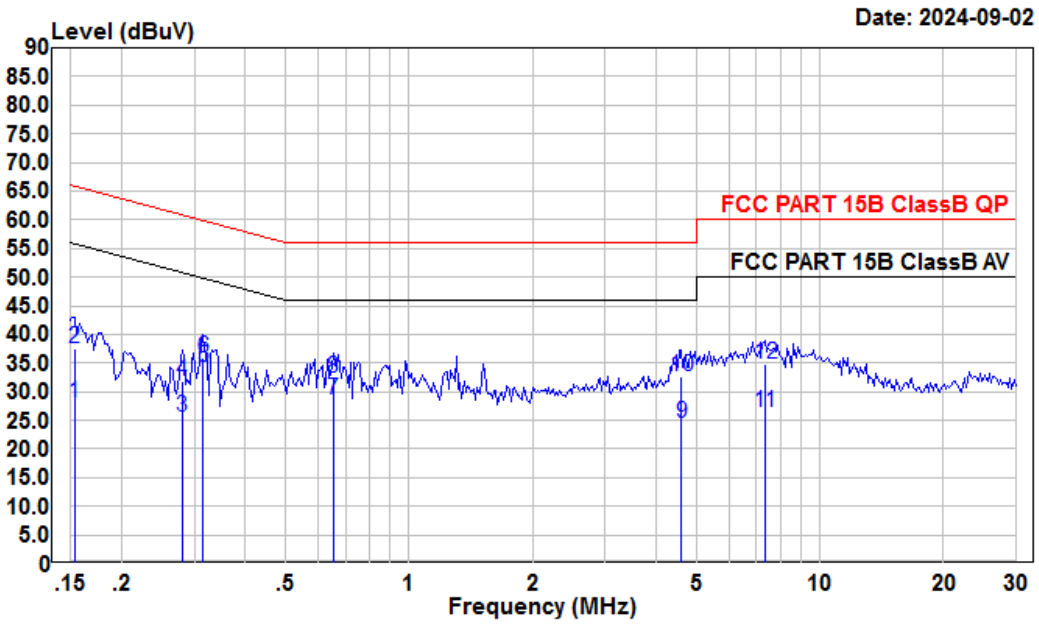
AC 120V/60 Hz, Line



Condition: Line
Project : 2401W47375E-EM
test Mode: Talking
tester : Macy.shi

	Freq	Read Level	LISN Level	Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.152	8.76	29.79	10.90	10.13	55.91	-26.12	Average
2	0.152	18.74	39.77	10.90	10.13	65.91	-26.14	QP
3	0.286	4.62	25.40	10.68	10.10	50.63	-25.23	Average
4	0.286	18.12	38.90	10.68	10.10	60.63	-21.73	QP
5	0.315	12.59	33.35	10.65	10.11	49.84	-16.49	Average
6	0.315	18.08	38.84	10.65	10.11	59.84	-21.00	QP
7	0.647	11.44	32.07	10.50	10.13	46.00	-13.93	Average
8	0.647	13.14	33.77	10.50	10.13	56.00	-22.23	QP
9	4.696	4.53	25.08	10.36	10.19	46.00	-20.92	Average
10	4.696	12.82	33.37	10.36	10.19	56.00	-22.63	QP
11	7.100	6.67	27.36	10.50	10.19	50.00	-22.64	Average
12	7.100	14.87	35.56	10.50	10.19	60.00	-24.44	QP

AC 120V/60 Hz, Neutral

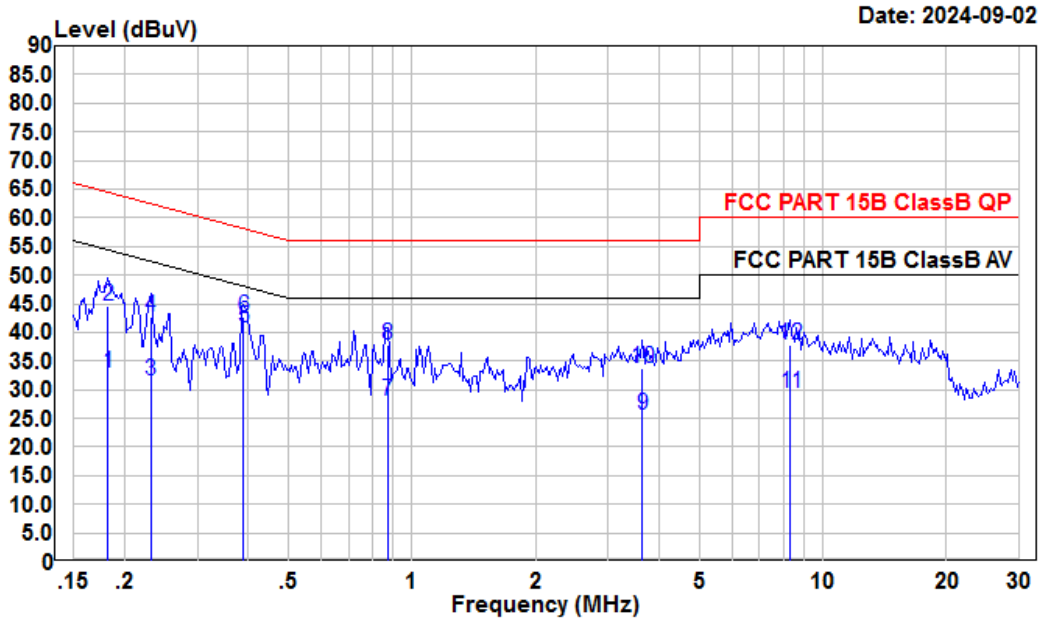


Condition: Neutral
Project : 2401W47375E-EM
test Mode: Talking
tester : Macy.shi

	Freq	Read Level	Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.153	7.37	28.09	10.59	10.13	55.82	-27.73	Average
2	0.153	16.93	37.65	10.59	10.13	65.82	-28.17	QP
3	0.280	4.84	25.45	10.51	10.10	50.81	-25.36	Average
4	0.280	11.26	31.87	10.51	10.10	60.81	-28.94	QP
5	0.315	13.73	34.39	10.55	10.11	49.84	-15.45	Average
6	0.315	15.36	36.02	10.55	10.11	59.84	-23.82	QP
7	0.654	7.74	28.58	10.70	10.14	46.00	-17.42	Average
8	0.654	11.55	32.39	10.70	10.14	56.00	-23.61	QP
9	4.598	3.83	24.49	10.47	10.19	46.00	-21.51	Average
10	4.598	12.11	32.77	10.47	10.19	56.00	-23.23	QP
11	7.329	5.54	26.44	10.71	10.19	50.00	-23.56	Average
12	7.329	13.89	34.79	10.71	10.19	60.00	-25.21	QP

For adapter 2

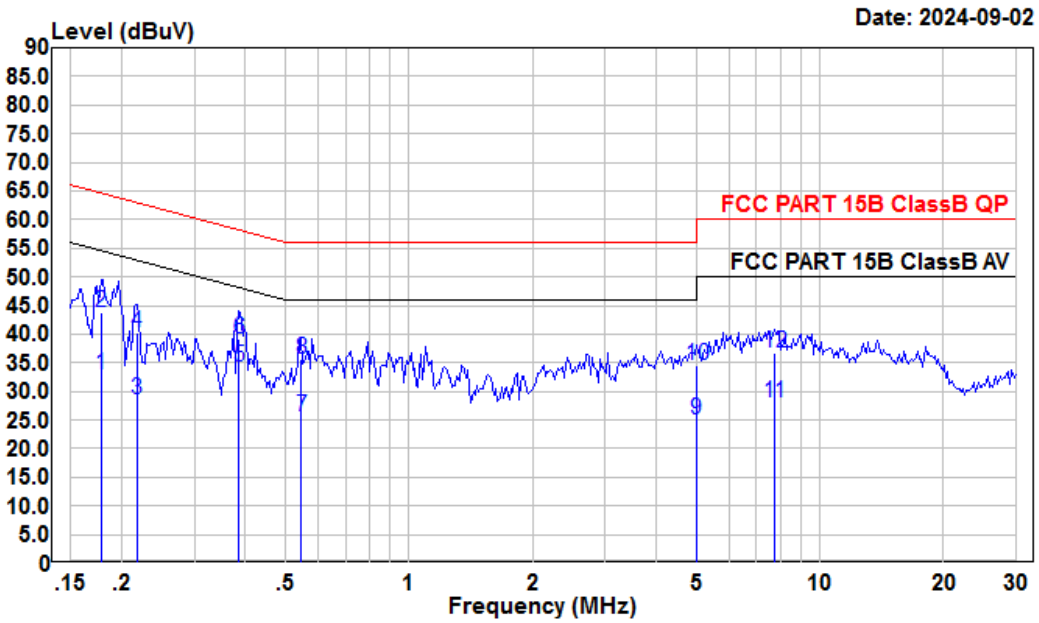
AC 120V/60 Hz, Line



Condition: Line
Project : 2401W47375E-EM
test Mode: Talking
tester : Macy.shi

	Freq	Read Level	LISN Level	Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.182	11.87	32.80	10.83	10.10	54.42	-21.62	Average
2	0.182	23.67	44.60	10.83	10.10	64.42	-19.82	QP
3	0.232	10.59	31.42	10.75	10.08	52.39	-20.97	Average
4	0.232	21.76	42.59	10.75	10.08	62.39	-19.80	QP
5	0.389	20.20	40.88	10.58	10.10	48.08	-7.20	Average
6	0.389	22.06	42.74	10.58	10.10	58.08	-15.34	QP
7	0.871	7.47	28.02	10.44	10.11	46.00	-17.98	Average
8	0.871	17.21	37.76	10.44	10.11	56.00	-18.24	QP
9	3.642	4.97	25.51	10.34	10.20	46.00	-20.49	Average
10	3.642	13.16	33.70	10.34	10.20	56.00	-22.30	QP
11	8.323	8.63	29.38	10.55	10.20	50.00	-20.62	Average
12	8.323	16.96	37.71	10.55	10.20	60.00	-22.29	QP

AC 120V/60 Hz, Neutral

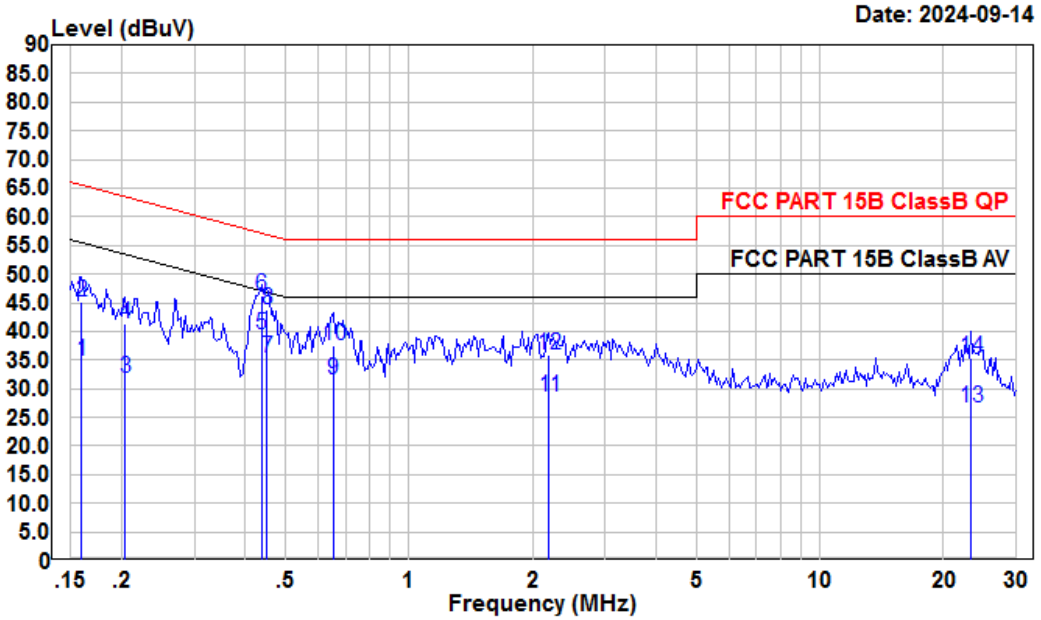


Condition: Neutral
Project : 2401W47375E-EM
test Mode: Talking
tester : Macy.shi

	Freq	Read Level	LISN Level	Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.178	12.40	32.98	10.48	10.10	54.59	-21.61	Average
2	0.178	23.11	43.69	10.48	10.10	64.59	-20.90	QP
3	0.217	8.09	28.61	10.43	10.09	52.93	-24.32	Average
4	0.217	19.79	40.31	10.43	10.09	62.92	-22.61	QP
5	0.385	13.63	34.35	10.61	10.11	48.17	-13.82	Average
6	0.385	18.50	39.22	10.61	10.11	58.17	-18.95	QP
7	0.546	4.86	25.69	10.70	10.13	46.00	-20.31	Average
8	0.546	14.84	35.67	10.70	10.13	56.00	-20.33	QP
9	5.005	4.42	25.12	10.52	10.18	50.00	-24.88	Average
10	5.005	13.94	34.64	10.52	10.18	60.00	-25.36	QP
11	7.728	7.22	28.14	10.73	10.19	50.00	-21.86	Average
12	7.728	15.87	36.79	10.73	10.19	60.00	-23.21	QP

For adapter 3

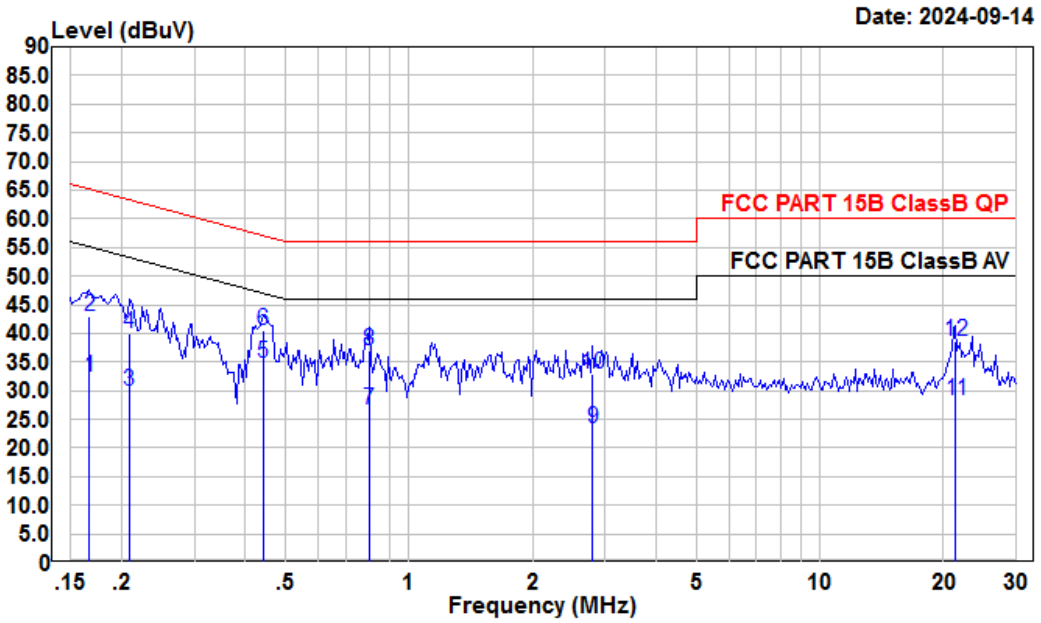
AC 120V/60 Hz, Line



Condition: Line
Project : 2401W47375E-EM
test Mode: Talking
tester : Macy.shi

	Freq	Read Level	LISN Level	Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.160	13.73	34.73	10.88	10.12	55.47	-20.74	Average
2	0.160	24.10	45.10	10.88	10.12	65.47	-20.37	QP
3	0.204	10.81	31.69	10.79	10.09	53.45	-21.76	Average
4	0.204	20.34	41.22	10.79	10.09	63.45	-22.23	QP
5	0.437	18.91	39.56	10.54	10.11	47.11	-7.55	Average
6	0.437	25.54	46.19	10.54	10.11	57.11	-10.92	QP
7	0.452	14.80	35.45	10.53	10.12	46.85	-11.40	Average
8	0.452	23.10	43.75	10.53	10.12	56.85	-13.10	QP
9	0.654	10.98	31.62	10.50	10.14	46.00	-14.38	Average
10	0.654	16.81	37.45	10.50	10.14	56.00	-18.55	QP
11	2.190	7.73	28.47	10.56	10.18	46.00	-17.53	Average
12	2.190	15.22	35.96	10.56	10.18	56.00	-20.04	QP
13	23.263	5.86	26.79	10.75	10.18	50.00	-23.21	Average
14	23.263	14.47	35.40	10.75	10.18	60.00	-24.60	QP

AC 120V/60 Hz, Neutral

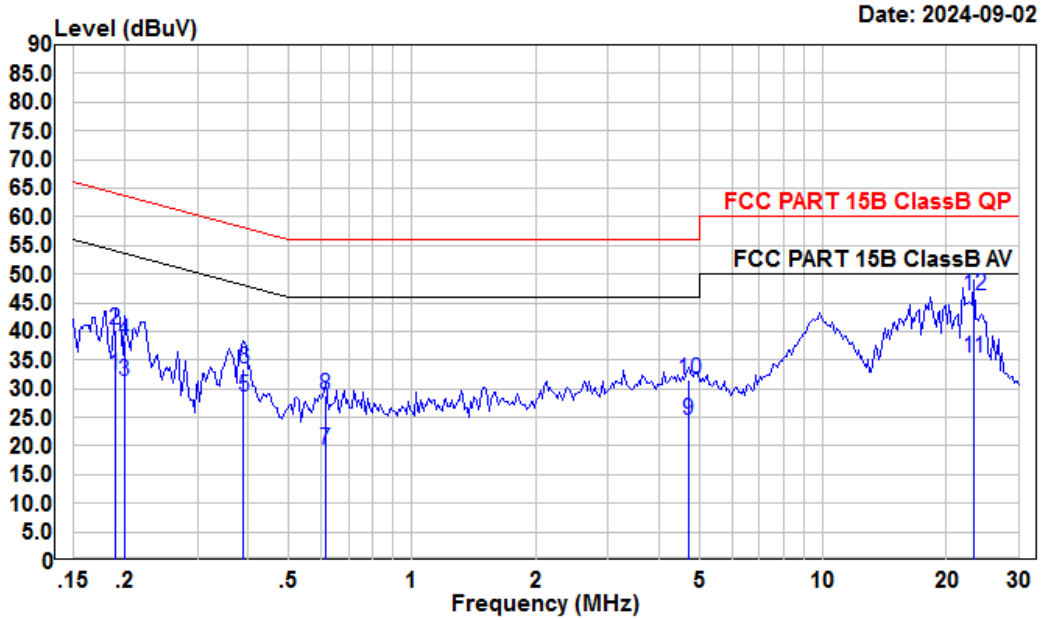


Condition: Neutral
Project : 2401W47375E-EM
test Mode: Talking
tester : Macy.shi

	Freq	Read Level	Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.167	11.77	32.40	10.53	10.10	55.12	-22.72	Average
2	0.167	22.46	43.09	10.53	10.10	65.12	-22.03	QP
3	0.208	9.49	29.99	10.41	10.09	53.27	-23.28	Average
4	0.208	19.43	39.93	10.41	10.09	63.27	-23.34	QP
5	0.442	13.98	34.76	10.66	10.12	47.02	-12.26	Average
6	0.442	19.69	40.47	10.66	10.12	57.02	-16.55	QP
7	0.800	5.68	26.58	10.78	10.12	46.00	-19.42	Average
8	0.800	16.14	37.04	10.78	10.12	56.00	-18.96	QP
9	2.794	2.90	23.48	10.40	10.18	46.00	-22.52	Average
10	2.794	12.38	32.96	10.40	10.18	56.00	-23.04	QP
11	21.373	7.48	28.33	10.67	10.18	50.00	-21.67	Average
12	21.373	17.76	38.61	10.67	10.18	60.00	-21.39	QP

For POE

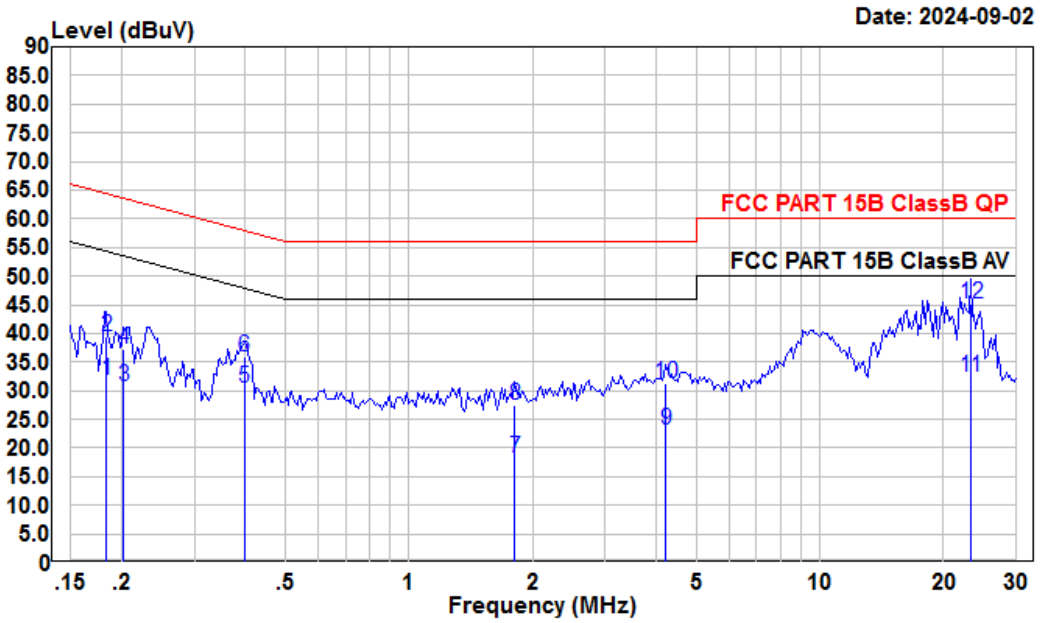
AC 120V/60 Hz, Line



Condition: Line
Project : 2401W47375E-EM
test Mode: Talking
tester : Macy.shi

	Freq	Read Level	LISN Level	Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.189	11.35	32.26	10.82	10.09	54.06	-21.80	Average
2	0.189	19.21	40.12	10.82	10.09	64.06	-23.94	QP
3	0.200	10.32	31.21	10.80	10.09	53.62	-22.41	Average
4	0.200	17.34	38.23	10.80	10.09	63.62	-25.39	QP
5	0.389	8.01	28.69	10.58	10.10	48.08	-19.39	Average
6	0.389	12.86	33.54	10.58	10.10	58.08	-24.54	QP
7	0.614	-1.43	19.19	10.50	10.12	46.00	-26.81	Average
8	0.614	8.12	28.74	10.50	10.12	56.00	-27.26	QP
9	4.696	4.05	24.60	10.36	10.19	46.00	-21.40	Average
10	4.696	11.04	31.59	10.36	10.19	56.00	-24.41	QP
11	23.263	14.40	35.33	10.75	10.18	50.00	-14.67	Average
12	23.263	25.22	46.15	10.75	10.18	60.00	-13.85	QP

AC 120V/60 Hz, Neutral

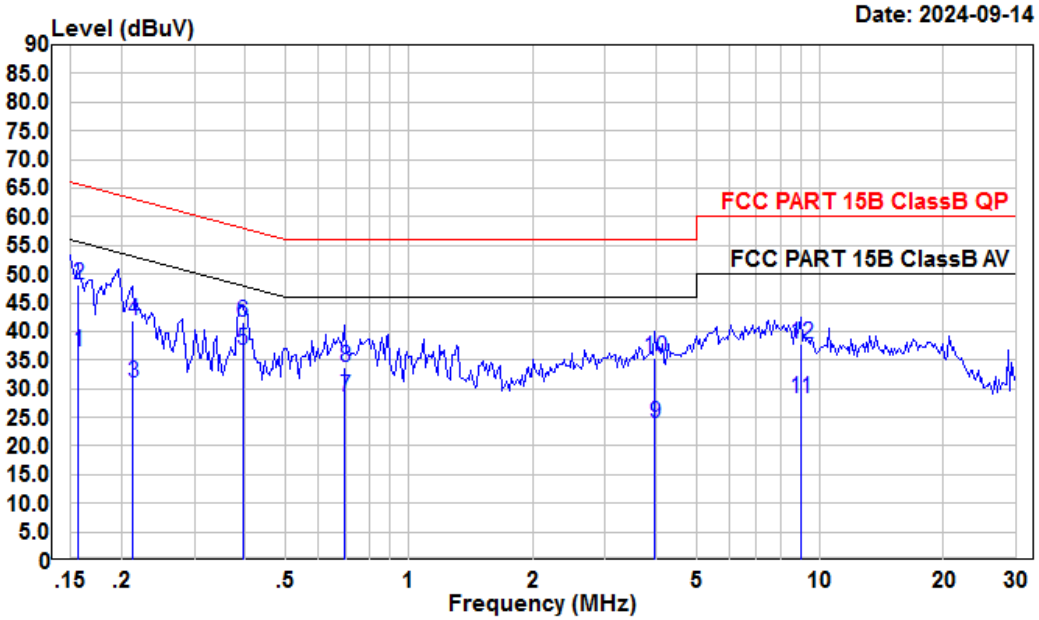


Condition: Neutral
Project : 2401W47375E-EM
test Mode: Talking
tester : Macy.shi

	Freq	Read Level	LISN Level	Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.183	11.32	31.88	10.46	10.10	54.33	-22.45	Average
2	0.183	18.81	39.37	10.46	10.10	64.33	-24.96	QP
3	0.202	10.34	30.83	10.40	10.09	53.54	-22.71	Average
4	0.202	16.81	37.30	10.40	10.09	63.54	-26.24	QP
5	0.398	9.63	30.35	10.62	10.10	47.90	-17.55	Average
6	0.398	15.30	36.02	10.62	10.10	57.90	-21.88	QP
7	1.810	-2.31	18.34	10.47	10.18	46.00	-27.66	Average
8	1.810	6.78	27.43	10.47	10.18	56.00	-28.57	QP
9	4.224	2.36	22.99	10.43	10.20	46.00	-23.01	Average
10	4.224	10.52	31.15	10.43	10.20	56.00	-24.85	QP
11	23.263	11.46	32.27	10.63	10.18	50.00	-17.73	Average
12	23.263	24.37	45.18	10.63	10.18	60.00	-14.82	QP

For Model GRP2610

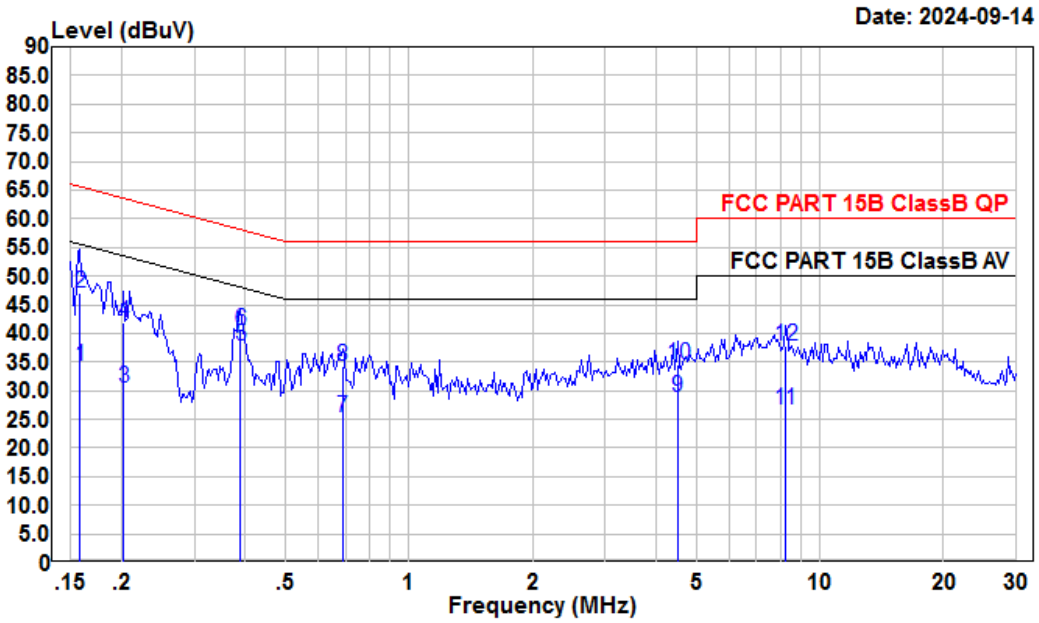
AC 120V/60 Hz, Line



Condition: Line
Project : 2401W47375E-EM
test Mode: Talking
tester : Macy.shi

	Freq	Read Level	LISN Level	Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.156	15.51	36.52	10.89	10.12	55.65	-19.13	Average
2	0.156	27.03	48.04	10.89	10.12	65.65	-17.61	QP
3	0.213	10.26	31.13	10.78	10.09	53.10	-21.97	Average
4	0.213	20.90	41.77	10.78	10.09	63.10	-21.33	QP
5	0.393	16.17	36.85	10.58	10.10	47.99	-11.14	Average
6	0.393	20.94	41.62	10.58	10.10	57.99	-16.37	QP
7	0.697	7.87	28.52	10.50	10.15	46.00	-17.48	Average
8	0.697	13.10	33.75	10.50	10.15	56.00	-22.25	QP
9	3.964	3.46	23.97	10.30	10.21	46.00	-22.03	Average
10	3.964	14.94	35.45	10.30	10.21	56.00	-20.55	QP
11	8.964	7.46	28.23	10.57	10.20	50.00	-21.77	Average
12	8.964	17.05	37.82	10.57	10.20	60.00	-22.18	QP

AC 120V/60 Hz, Neutral



Condition: Neutral
Project : 2401W47375E-EM
test Mode: Talking
tester : Macy.shi

	Freq	Read Level	Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.158	13.65	34.33	10.56	10.12	55.56	-21.23	Average
2	0.158	26.26	46.94	10.56	10.12	65.56	-18.62	QP
3	0.202	10.02	30.51	10.40	10.09	53.54	-23.03	Average
4	0.202	21.33	41.82	10.40	10.09	63.54	-21.72	QP
5	0.389	16.98	37.70	10.62	10.10	48.08	-10.38	Average
6	0.389	19.71	40.43	10.62	10.10	58.08	-17.65	QP
7	0.690	4.51	25.36	10.70	10.15	46.00	-20.64	Average
8	0.690	13.35	34.20	10.70	10.15	56.00	-21.80	QP
9	4.501	8.09	28.74	10.46	10.19	46.00	-17.26	Average
10	4.501	14.00	34.65	10.46	10.19	56.00	-21.35	QP
11	8.235	5.61	26.56	10.75	10.20	50.00	-23.44	Average
12	8.235	16.97	37.92	10.75	10.20	60.00	-22.08	QP

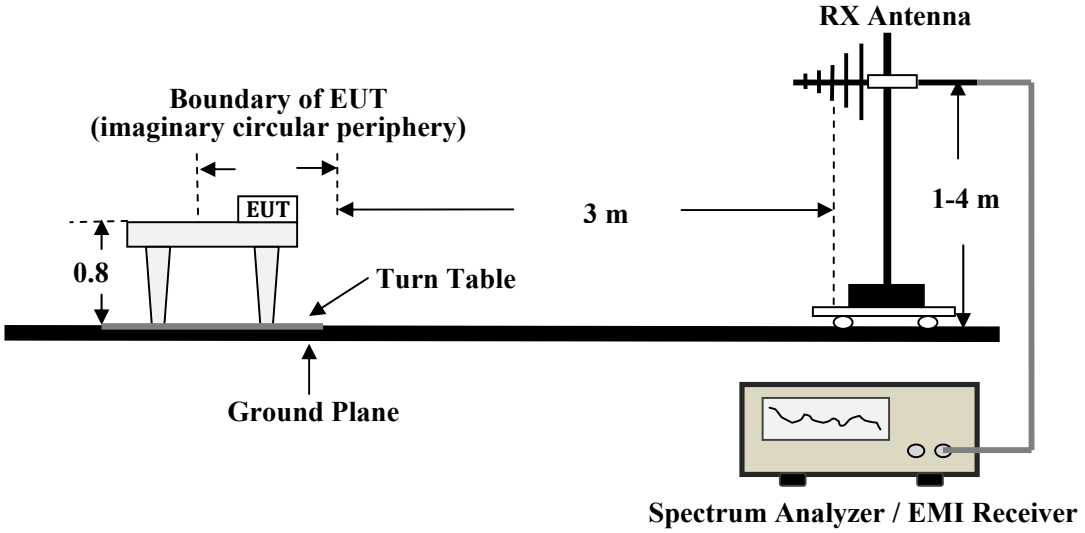
FCC §15.109 - RADIATED EMISSIONS

Applicable Standard

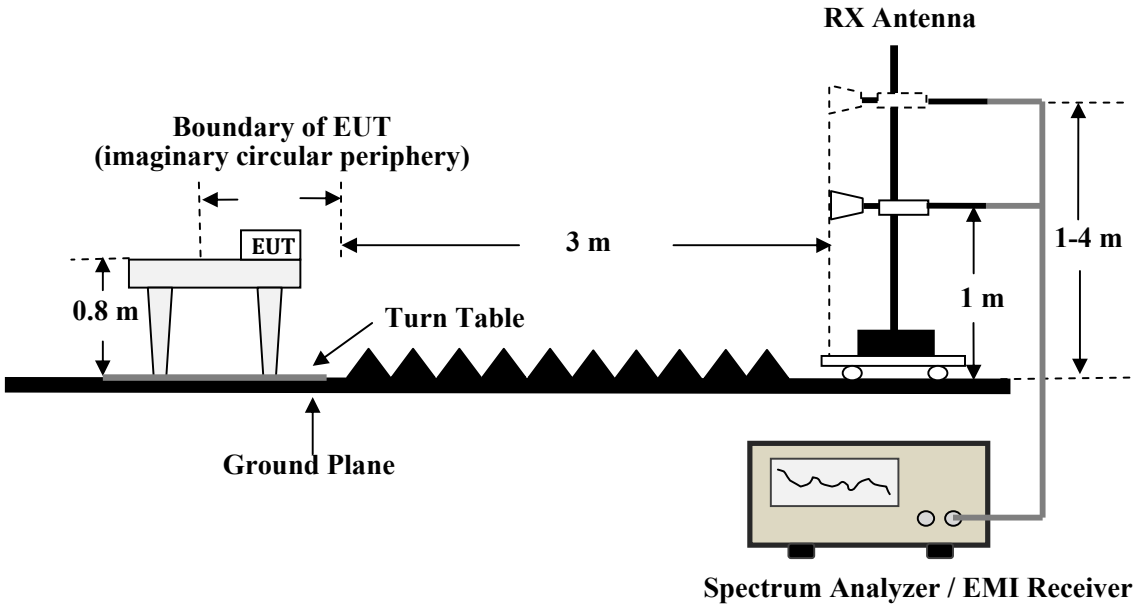
FCC §15.109

EUT Setup

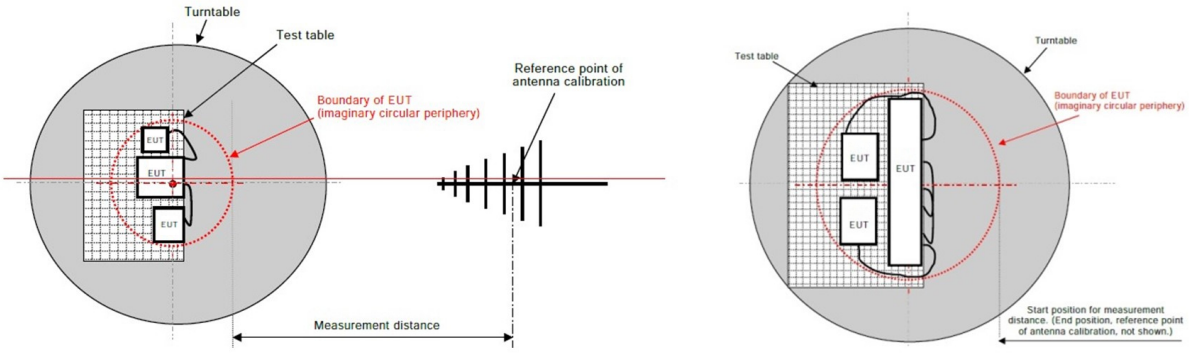
Below 1GHz for Radiated Emissions



Above 1GHz for Radiated Emissions



Radiated Emissions Setup Configuration



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.4-2014. The related limit was specified in FCC Part 15B.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

EMI Test Receiver and Spectrum analyzer Setup

During the radiated emission test, the EMI test receiver and spectrum analyzer setup was set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
30 MHz – 1000 MHz	100 kHz	300 kHz	120 kHz	QP
Above 1 GHz	1MHz	3 MHz	/	PK
	1MHz	10 Hz	/	Ave.

Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

If emission level of the EUT in Peak measurement mode is 20dB lower than peak limit line (that means the emission level in Peak measurement mode complies with both Peak and average limit lines) then only Peak measurement result is reported .Otherwise, Emission in average measurement mode shall be measured, and reported for frequency range above 1GHz.

Level & Over Limit Calculation

The Level is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Read Level. The basic equation is as follows:

Factor = Antenna Factor + Cable Loss - Amplifier Gain

Level = Read Level + Factor

The "Over limit" column of the following data tables indicates the degree of compliance with the applicable limit. For example, an Over limit of -6 dB means the emission is 6dB below the limit for Class B. The equation for Over Limit calculation is as follows:

Over limit = Level– Limit

Test Data

Environmental Conditions

Temperature:	22~25.8 ℃
Relative Humidity:	52~55 %
ATM Pressure:	101.0 kPa

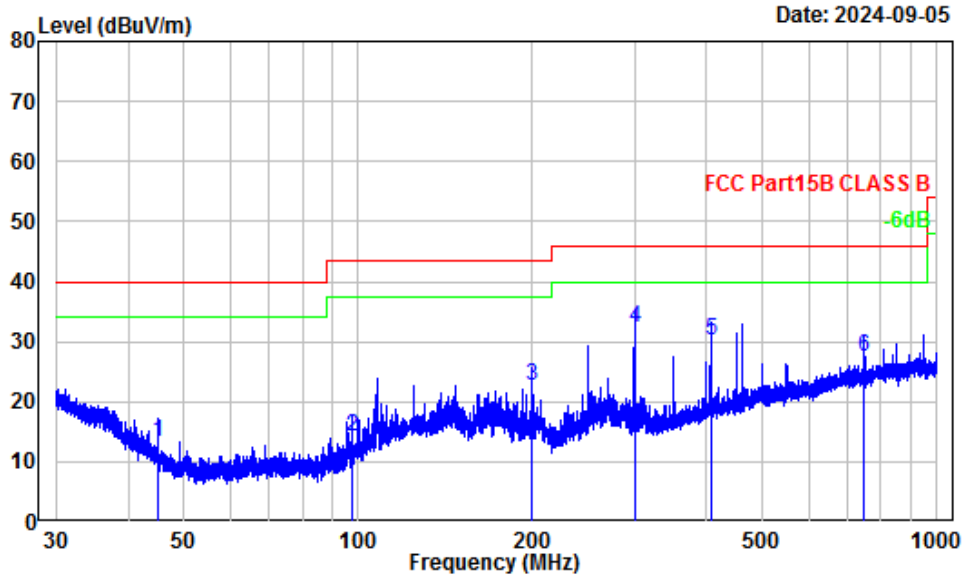
The testing was performed by Jack Liu on 2024-09-05 and 2024-09-23 for below 1GHz and Sadow Tan on 2024-09-05 and Jim Cheng on 2024-09-23 and 2024-09-27 for above 1GHz.

For Model GRP2610P

For adapter 1

30 MHz~1 GHz

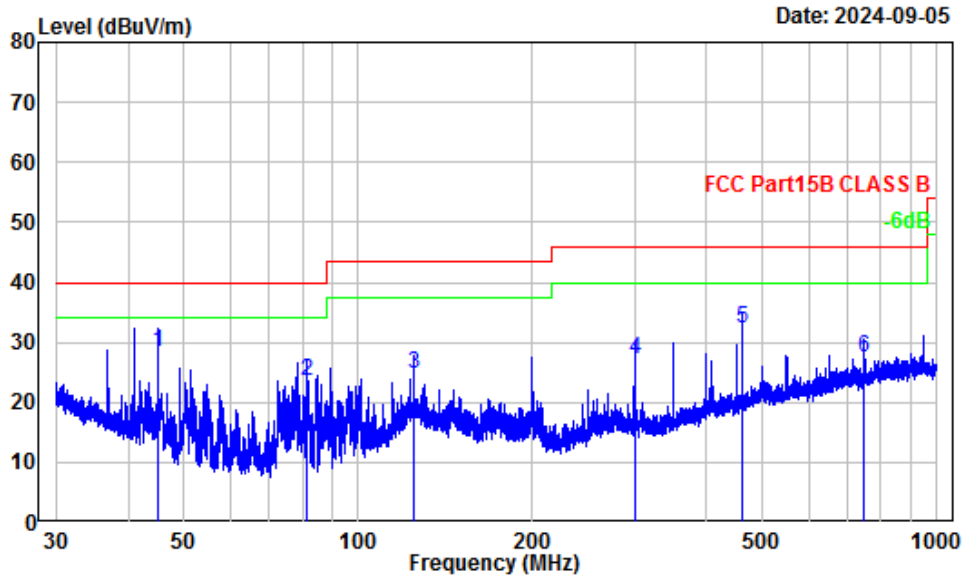
Horizontal



Site : Chamber A
Condition : 3m Horizontal
Project Number: 2401W47375E-EM
Test Mode : Talking
Tester : Jack Liu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	45.06	-15.92	29.11	13.19	40.00	-26.81	QP
2	97.67	-16.61	30.94	14.33	43.50	-29.17	QP
3	200.07	-13.07	35.65	22.58	43.50	-20.92	QP
4	299.97	-11.20	43.36	32.16	46.00	-13.84	QP
5	406.27	-8.22	38.51	30.29	46.00	-15.71	QP
6	750.11	-2.88	30.48	27.60	46.00	-18.40	QP

Vertical

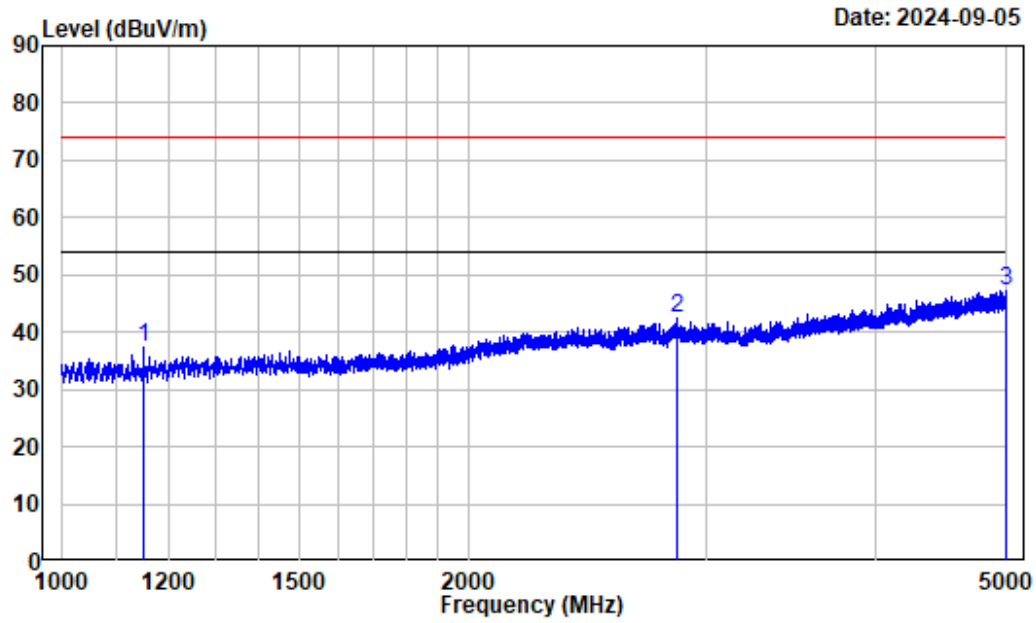


Site : Chamber A
Condition : 3m Vertical
Project Number: 2401W47375E-EM
Test Mode : Talking
Tester : Jack Liu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	45.06	-15.92	44.19	28.27	40.00	-11.73	QP
2	81.25	-18.00	41.57	23.57	40.00	-16.43	QP
3	125.01	-11.12	35.89	24.77	43.50	-18.73	QP
4	299.97	-11.20	38.24	27.04	46.00	-18.96	QP
5	460.53	-7.09	39.25	32.16	46.00	-13.84	QP
6	750.11	-2.88	30.39	27.51	46.00	-18.49	QP

1 ~ 5 GHz

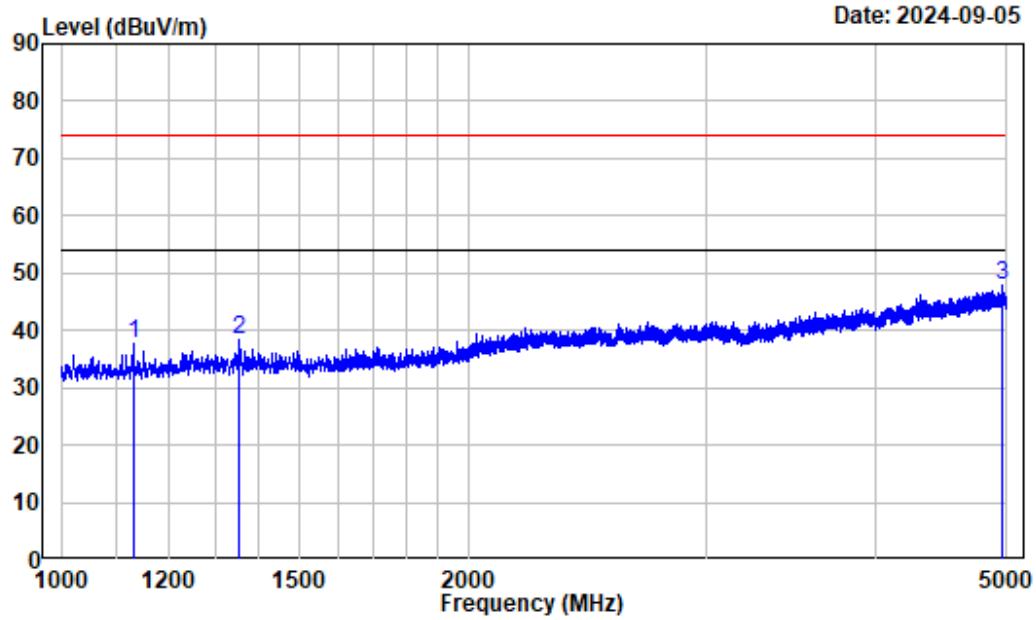
Horizontal



Site : chamber B
Condition : Horizontal
Project No.: 2401W47375E-EM
Tester : Sadow Tan
Test Mode : Talking

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	1150.000	-8.24	45.76	37.52	74.00	-36.48	Peak
2	2849.000	-2.53	44.89	42.36	74.00	-31.64	Peak
3	4994.500	2.94	44.42	47.36	74.00	-26.64	Peak

Vertical



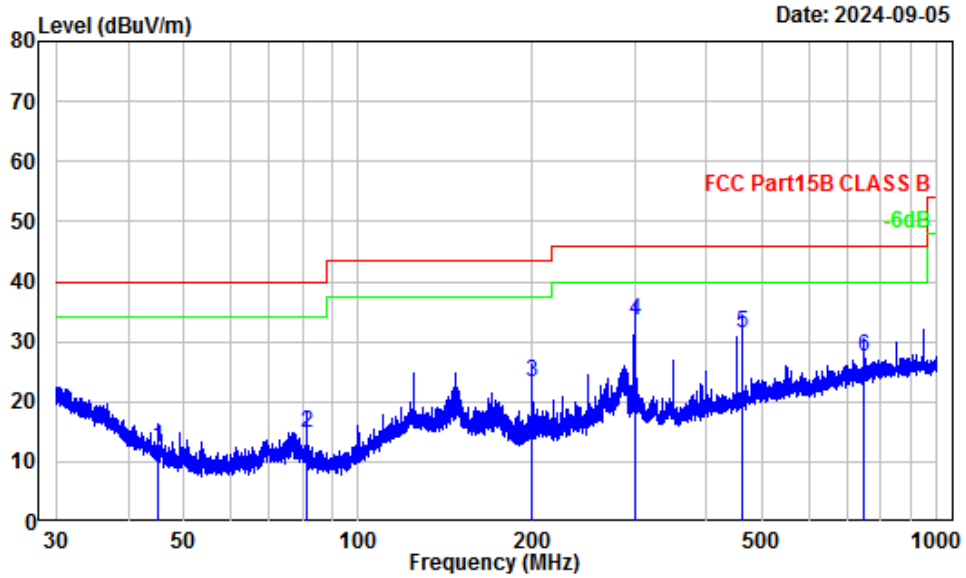
Site : chamber B
Condition : Vertical
Project No.: 2401W47375E-EM
Tester : Sadow Tan
Test Mode : Talking

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	1131.000	-8.18	45.80	37.62	74.00	-36.38	Peak
2	1354.000	-7.19	45.61	38.42	74.00	-35.58	Peak
3	4967.500	2.73	44.99	47.72	74.00	-26.28	Peak

For adapter 2

30 MHz~1 GHz

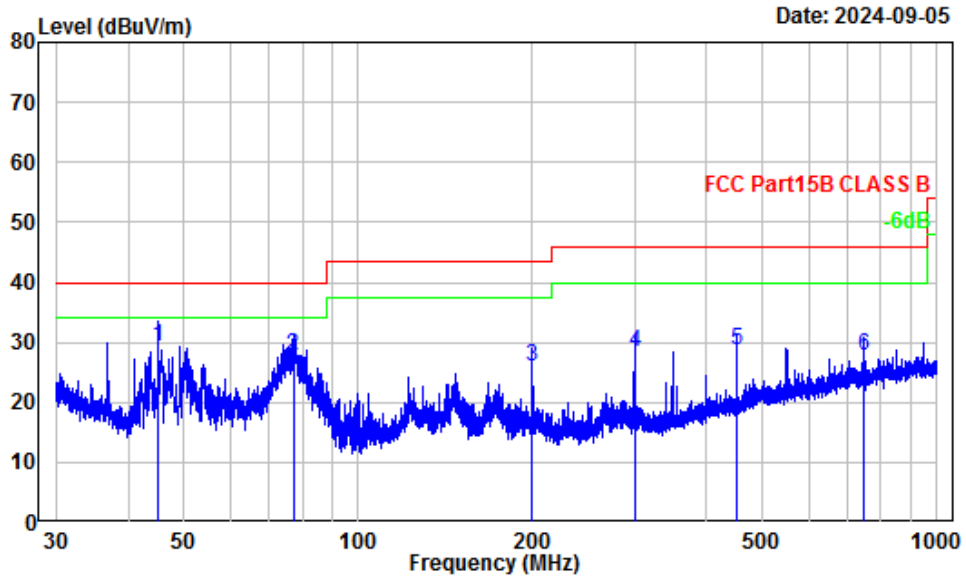
Horizontal



Site : Chamber A
Condition : 3m Horizontal
Project Number: 2401W47375E-EM
Test Mode : Talking
Tester : Jack Liu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	45.06	-15.92	28.25	12.33	40.00	-27.67	QP
2	81.25	-18.00	32.87	14.87	40.00	-25.13	QP
3	199.99	-13.06	36.33	23.27	43.50	-20.23	QP
4	299.97	-11.20	44.75	33.55	46.00	-12.45	QP
5	460.53	-7.09	38.56	31.47	46.00	-14.53	QP
6	750.11	-2.88	30.24	27.36	46.00	-18.64	QP

Vertical

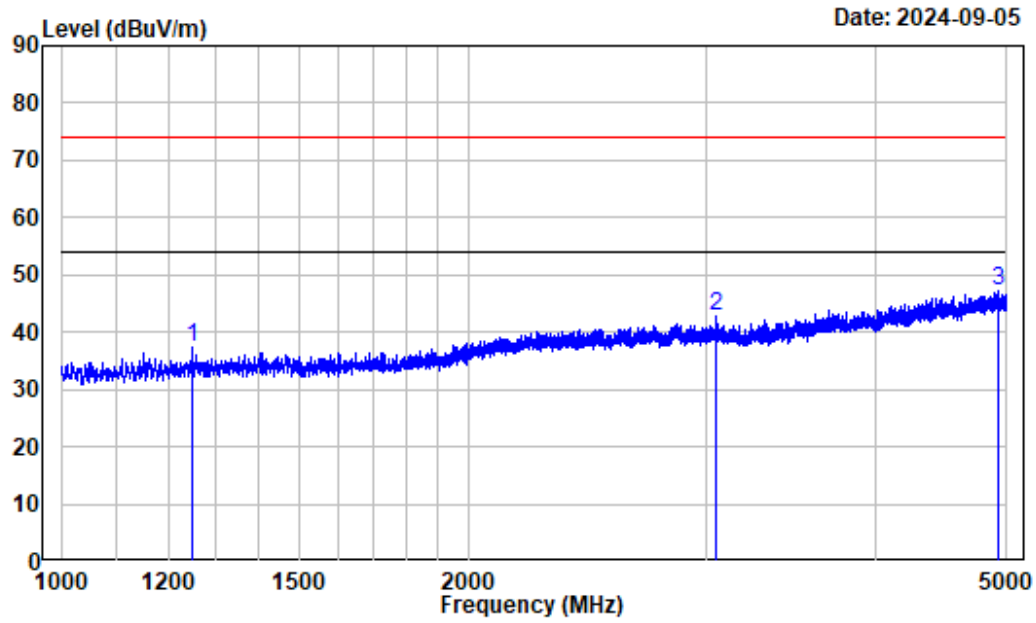


Site : Chamber A
Condition : 3m Vertical
Project Number: 2401W47375E-EM
Test Mode : Talking
Tester : Jack Liu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	45.06	-15.92	45.29	29.37	40.00	-10.63	QP
2	77.15	-17.82	45.66	27.84	40.00	-12.16	QP
3	199.99	-13.06	38.97	25.91	43.50	-17.59	QP
4	299.97	-11.20	39.48	28.28	46.00	-17.72	QP
5	450.15	-7.53	36.15	28.62	46.00	-17.38	QP
6	750.11	-2.88	30.71	27.83	46.00	-18.17	QP

1 ~ 5 GHz

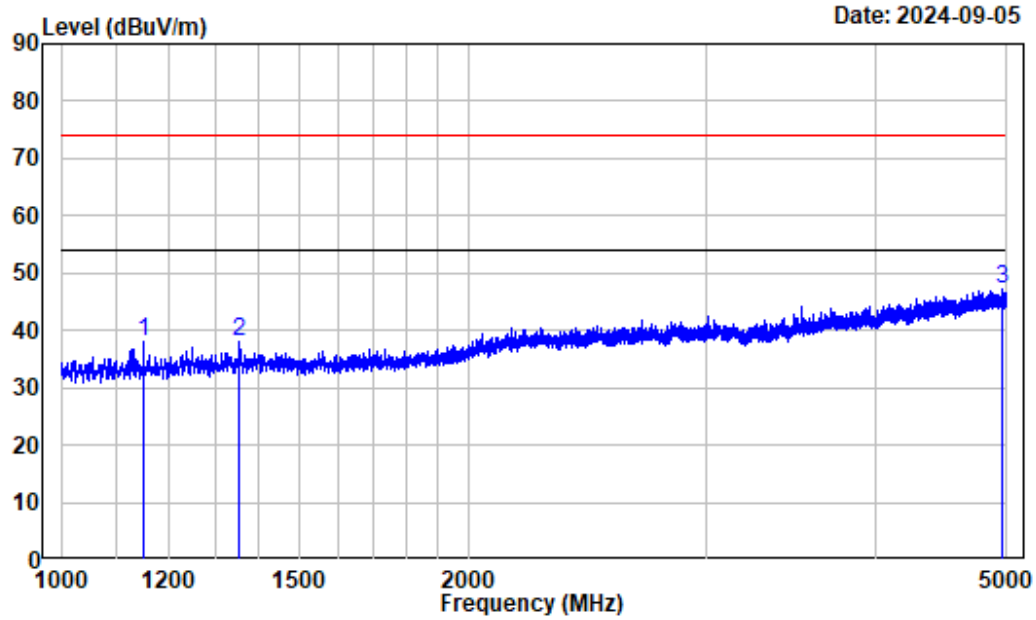
Horizontal



Site : chamber B
Condition : Horizontal
Project No.: 2401W47375E-EM
Tester : Sadow Tan
Test Mode : Talking

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	1250.000	-7.52	45.01	37.49	74.00	-36.51	Peak
2	3046.500	-2.32	45.22	42.90	74.00	-31.10	Peak
3	4932.500	2.61	44.47	47.08	74.00	-26.92	Peak

Vertical



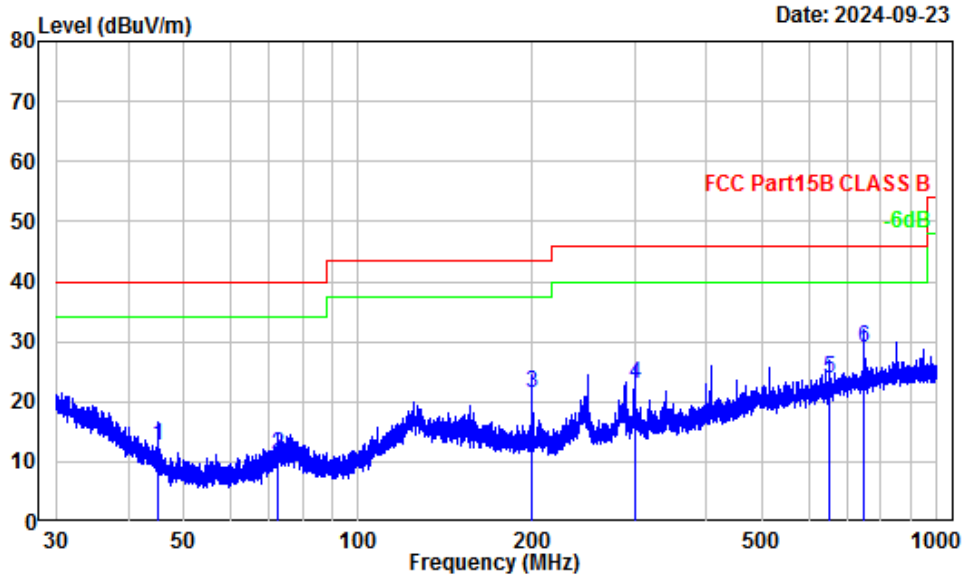
Site : chamber B
Condition : Vertical
Project No.: 2401W47375E-EM
Tester : Sadow Tan
Test Mode : Talking

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	1150.000	-8.24	46.19	37.95	74.00	-36.05	Peak
2	1354.500	-7.19	45.16	37.97	74.00	-36.03	Peak
3	4968.000	2.74	44.34	47.08	74.00	-26.92	Peak

For adapter 3

30 MHz~1 GHz

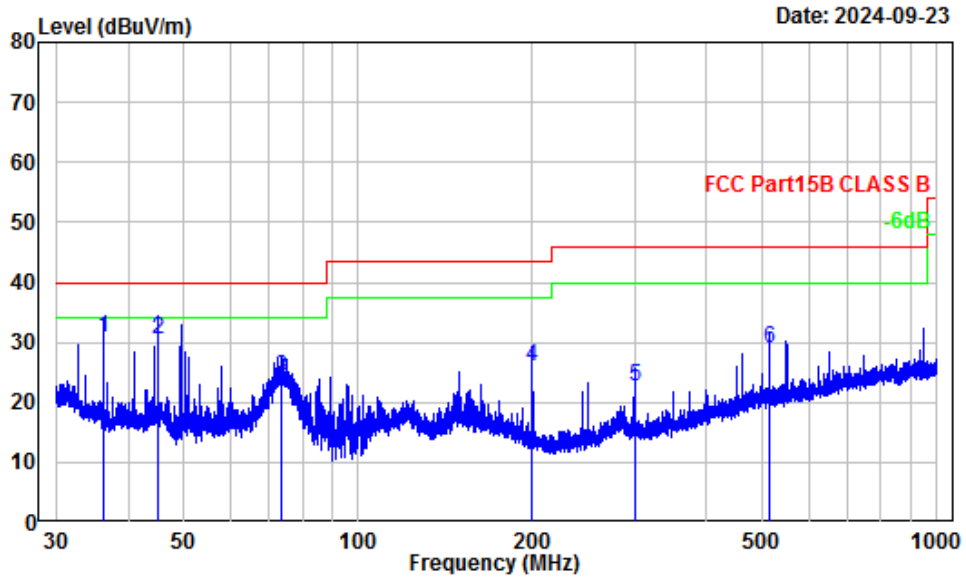
Horizontal



Site : Chamber A
Condition : 3m Horizontal
Project Number: 2401W47375E-EM
Test Mode : Talking
Tester : Jack Liu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	45.06	-15.92	28.61	12.69	40.00	-27.31	QP
2	72.34	-17.85	29.07	11.22	40.00	-28.78	QP
3	199.99	-13.06	34.53	21.47	43.50	-22.03	QP
4	299.97	-11.20	34.05	22.85	46.00	-23.15	QP
5	650.23	-4.13	28.01	23.88	46.00	-22.12	QP
6	750.11	-2.88	31.96	29.08	46.00	-16.92	QP

Vertical

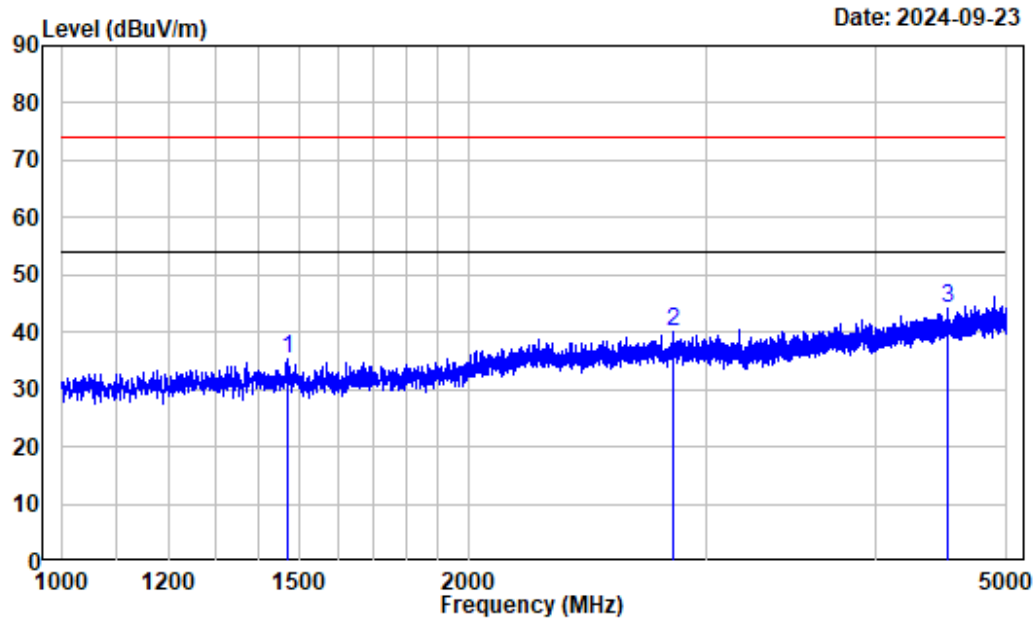


Site : Chamber A
Condition : 3m Vertical
Project Number: 2401W47375E-EM
Test Mode : Talking
Tester : Jack Liu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	36.37	-9.77	40.64	30.87	40.00	-9.13	QP
2	45.06	-15.92	46.32	30.40	40.00	-9.60	QP
3	73.75	-17.85	41.93	24.08	40.00	-15.92	QP
4	199.99	-13.06	39.06	26.00	43.50	-17.50	QP
5	299.97	-11.20	33.79	22.59	46.00	-23.41	QP
6	514.76	-5.88	34.80	28.92	46.00	-17.08	QP

1 ~ 5 GHz

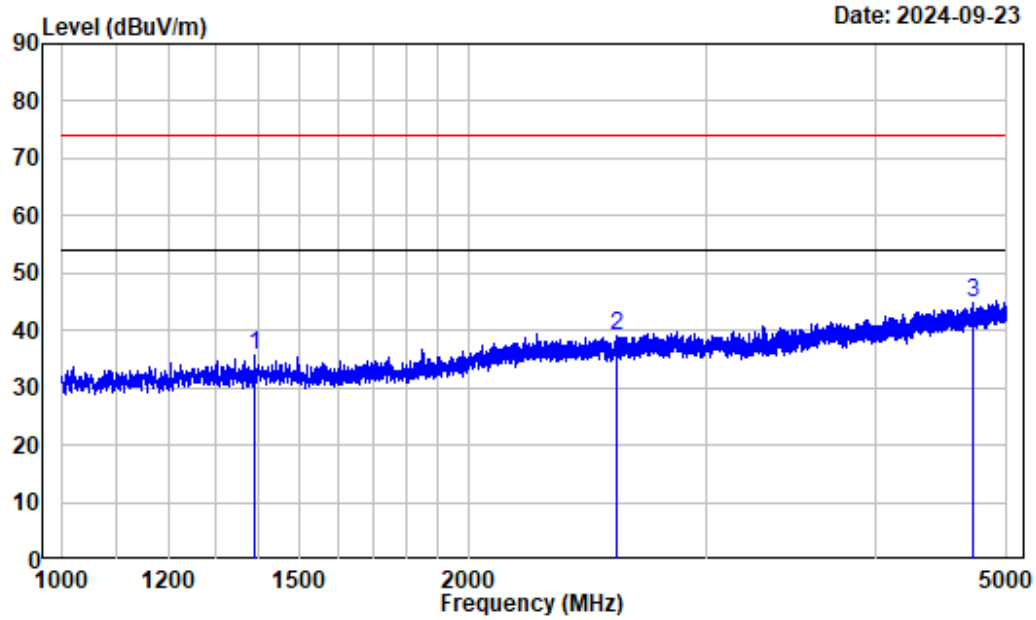
Horizontal



Site : chamber B
Condition : Horizontal
Project No.: 2401W47375E-EM
Tester : Jim Cheng
Test Mode : Talking

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	1472.500	-7.12	42.41	35.29	74.00	-38.71	Peak
2	2834.375	-2.61	42.83	40.22	74.00	-33.78	Peak
3	4518.125	1.52	42.68	44.20	74.00	-29.80	Peak

Vertical



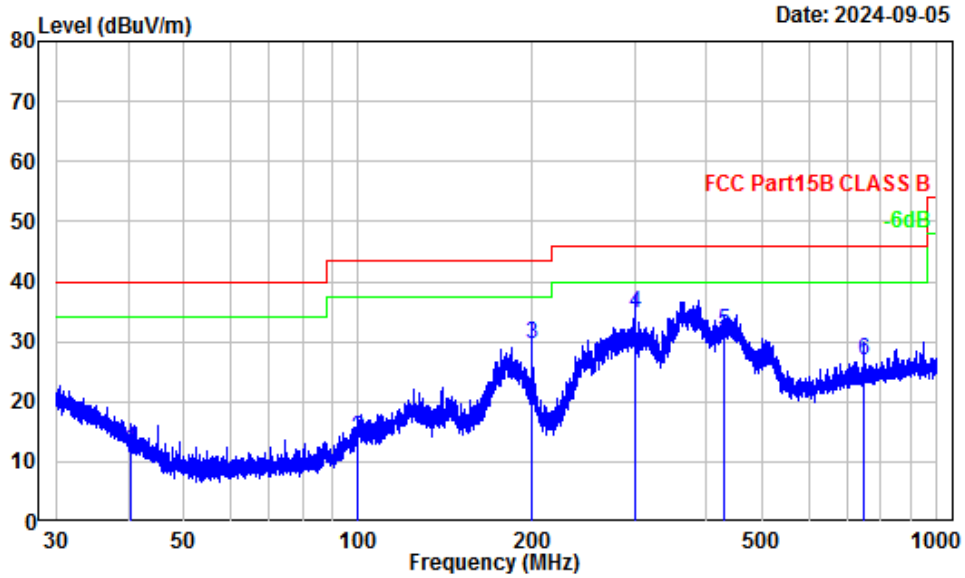
Site : chamber B
Condition : Vertical
Project No.: 2401W47375E-EM
Tester : Jim Cheng
Test Mode : Talking

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	1389.500	-7.02	42.56	35.54	74.00	-38.46	Peak
2	2572.000	-3.03	42.06	39.03	74.00	-34.97	Peak
3	4719.500	2.17	42.57	44.74	74.00	-29.26	Peak

For POE

30 MHz~1 GHz

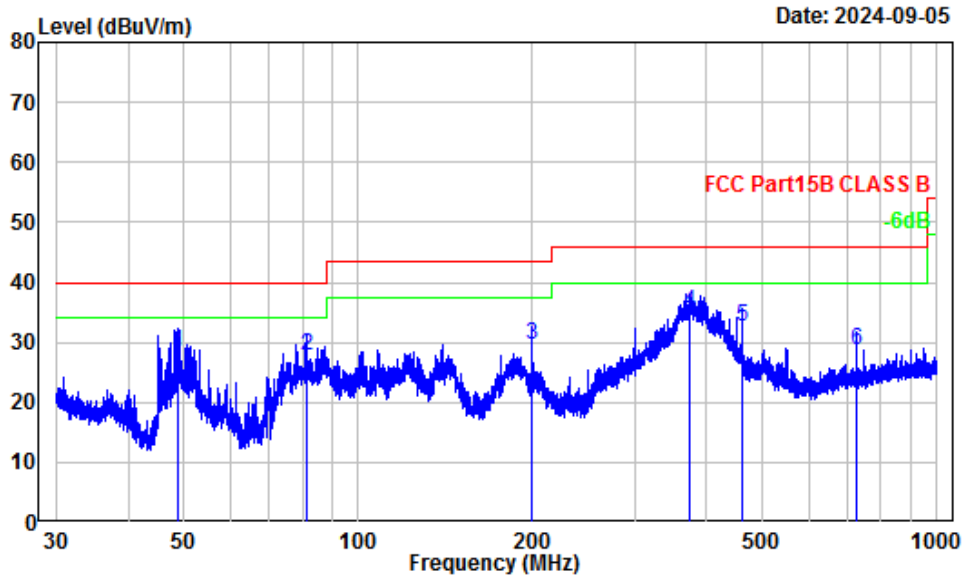
Horizontal



Site : Chamber A
Condition : 3m Horizontal
Project Number: 2401W47375E-EM
Test Mode : Talking
Tester : Jack Liu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	40.31	-12.59	24.74	12.15	40.00	-27.85	QP
2	99.97	-15.90	29.92	14.02	43.50	-29.48	QP
3	199.99	-13.06	42.77	29.71	43.50	-13.79	QP
4	300.10	-11.20	45.92	34.72	46.00	-11.28	QP
5	429.52	-7.82	39.52	31.70	46.00	-14.30	QP
6	750.11	-2.88	29.72	26.84	46.00	-19.16	QP

Vertical

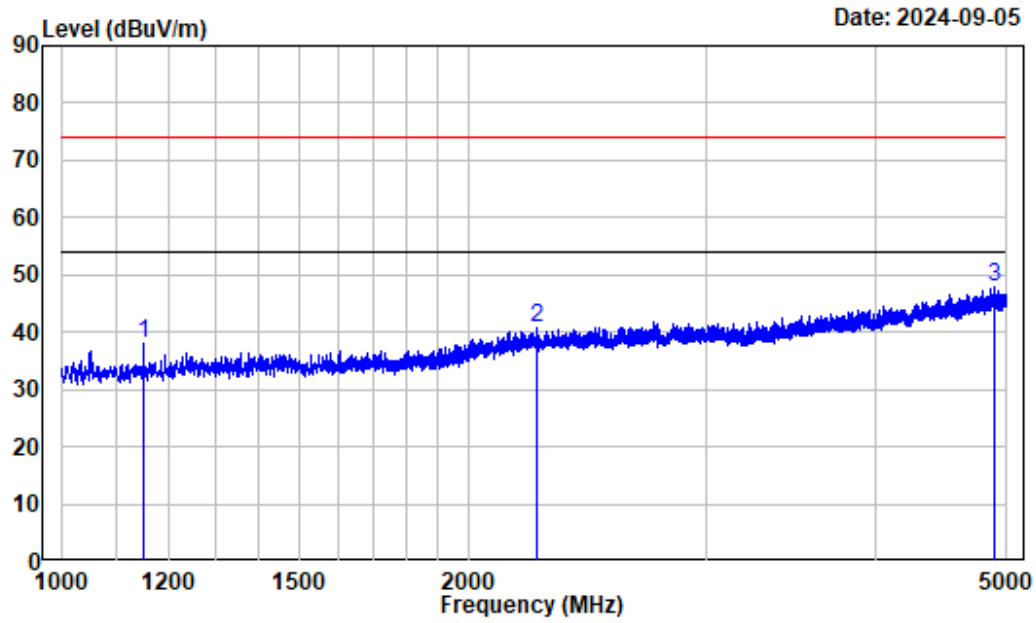


Site : Chamber A
Condition : 3m Vertical
Project Number: 2401W47375E-EM
Test Mode : Talking
Tester : Jack Liu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	48.67	-17.60	45.90	28.30	40.00	-11.70	QP
2	81.50	-17.99	45.71	27.72	40.00	-12.28	QP
3	199.99	-13.06	42.58	29.52	43.50	-13.98	QP
4	374.13	-9.32	44.35	35.03	46.00	-10.97	QP
5	460.53	-7.09	39.82	32.73	46.00	-13.27	QP
6	727.12	-3.16	31.81	28.65	46.00	-17.35	QP

1 ~ 5 GHz

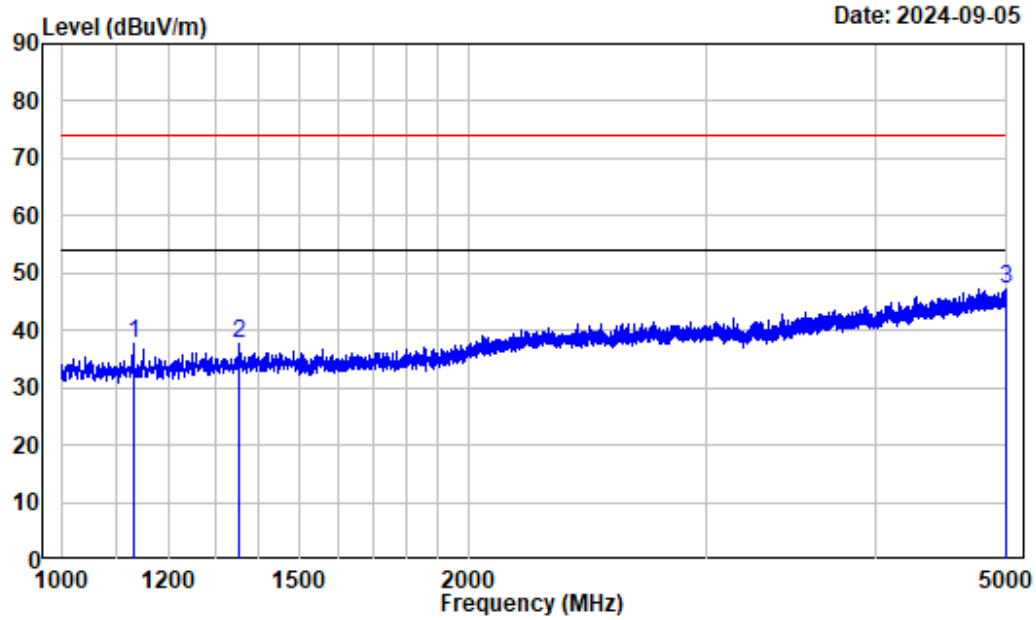
Horizontal



Site : chamber B
Condition : Horizontal
Project No.: 2401W47375E-EM
Tester : Sadow Tan
Test Mode : Talking

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	1150.000	-8.24	46.23	37.99	74.00	-36.01	Peak
2	2244.000	-3.39	44.23	40.84	74.00	-33.16	Peak
3	4898.500	2.64	45.10	47.74	74.00	-26.26	Peak

Vertical



Site : chamber B
Condition : Vertical
Project No.: 2401W47375E-EM
Tester : Sadow Tan
Test Mode : Talking

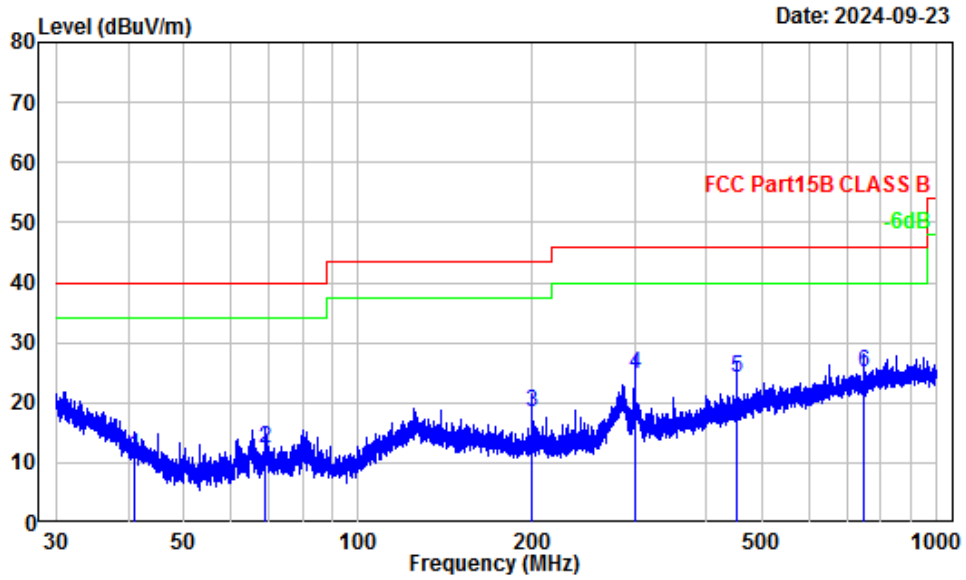
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	1130.000	-8.18	45.77	37.59	74.00	-36.41	Peak
2	1354.000	-7.19	44.72	37.53	74.00	-36.47	Peak
3	4989.500	2.89	44.42	47.31	74.00	-26.69	Peak

For Model GRP2610

For adapter 2

30 MHz~1 GHz

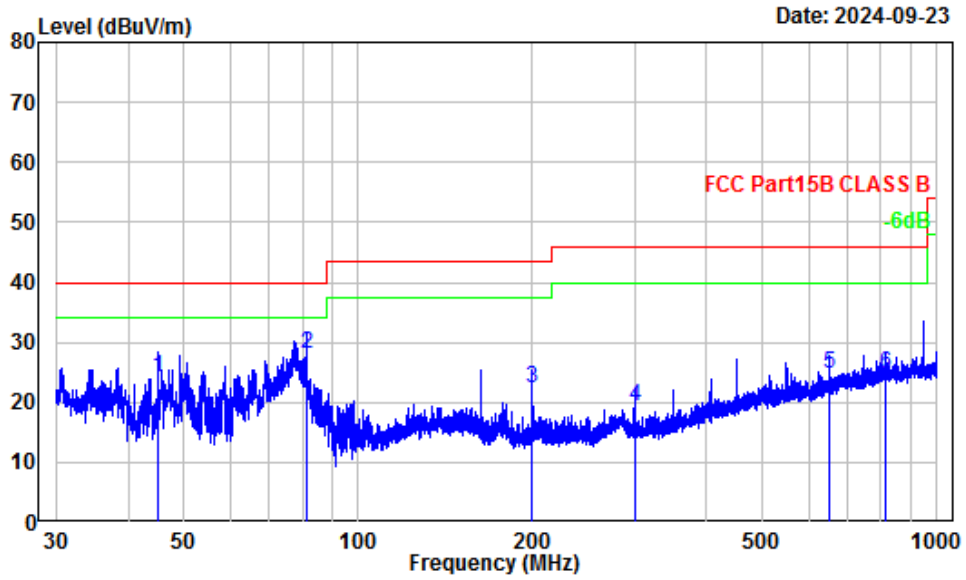
Horizontal



Site : Chamber A
Condition : 3m Horizontal
Project Number: 2401W47375E-EM
Test Mode : Talking
Tester : Jack Liu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	40.97	-13.06	24.18	11.12	40.00	-28.88	QP
2	69.17	-17.87	30.33	12.46	40.00	-27.54	QP
3	199.99	-13.06	31.36	18.30	43.50	-25.20	QP
4	299.97	-11.20	35.87	24.67	46.00	-21.33	QP
5	450.15	-7.53	31.66	24.13	46.00	-21.87	QP
6	750.11	-2.88	27.92	25.04	46.00	-20.96	QP

Vertical

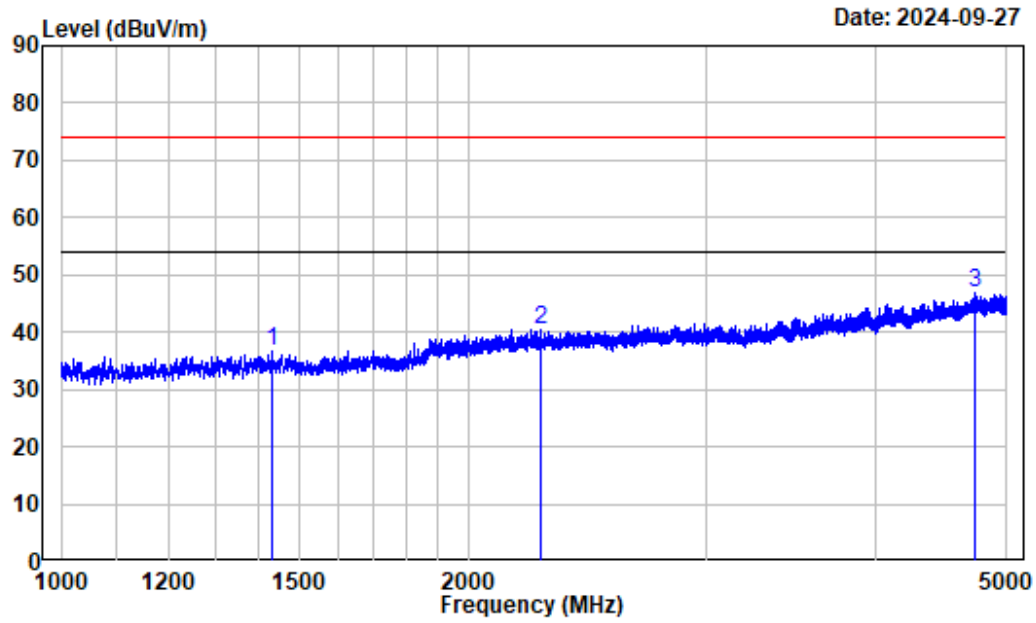


Site : Chamber A
Condition : 3m Vertical
Project Number: 2401W47375E-EM
Test Mode : Talking
Tester : Jack Liu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	45.04	-15.90	40.14	24.24	40.00	-15.76	QP
2	81.25	-18.00	46.13	28.13	40.00	-11.87	QP
3	200.07	-13.07	35.35	22.28	43.50	-21.22	QP
4	299.97	-11.20	30.50	19.30	46.00	-26.70	QP
5	650.23	-4.13	29.00	24.87	46.00	-21.13	QP
6	815.61	-2.03	26.90	24.87	46.00	-21.13	QP

1 ~ 5 GHz

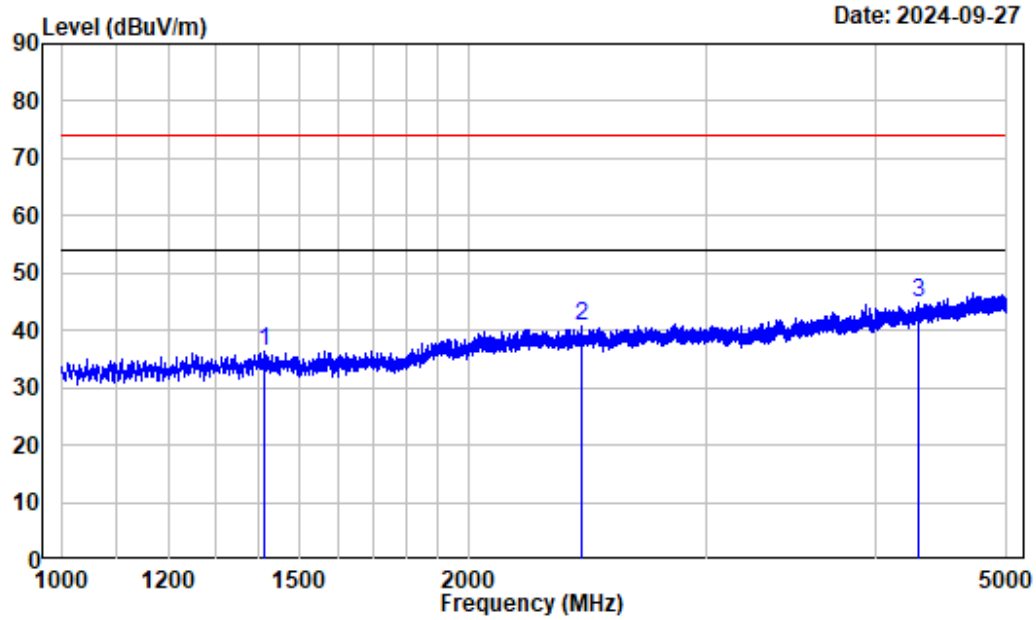
Horizontal



Site : chamber B
Condition : Horizontal
Project No.: 2401W47375E-EM
Tester : Jim Cheng
Test Mode : Talking

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	1432.500	-6.99	43.55	36.56	74.00	-37.44	Peak
2	2260.500	-3.36	43.84	40.48	74.00	-33.52	Peak
3	4743.500	2.40	44.37	46.77	74.00	-27.23	Peak

Vertical



Site : chamber B
Condition : Vertical
Project No.: 2401W47375E-EM
Tester : Jim Cheng
Test Mode : Talking

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	1413.500	-6.99	43.39	36.40	74.00	-37.60	Peak
2	2426.000	-3.16	44.07	40.91	74.00	-33.09	Peak
3	4309.500	0.93	43.83	44.76	74.00	-29.24	Peak

EUT PHOTOGRAPHS

Please refer to the attachment 2401W47375E-EM External photo and 2401W47375E-EM Internal photo.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2401W47375E-EM Test Setup photo.

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