

TEST REPORT

Applicant Name: Grandstream Networks, Inc.
Address: 126 Brookline Ave., 3rd Floor Boston, MA 02215, USA
Report Number: 2501X39127E-EM-00
FCC ID: YZZGWN7062M

Test Standard (s)

FCC Part 15, Subpart B (Class B)

Sample Description

Product Type: High-Performance Wi-Fi 6 Router
Model No.: GWN7062M
Multiple Model(s) No.: GWN7062F
Trade Mark: GRANDSTREAM
Date Received: 2025/09/16
Issue Date: 2025/11/25

Test Result:	Pass▲
--------------	-------

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

Prepared and Checked By:

Carl Lu

Carl Lu
EMC Engineer

Approved By:

Moon Liu

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 "▼".

Bay Area Compliance Laboratories Corp. (Shenzhen)

5F(B-West) , 6F, 7F, the 3rd Phase of Wan Li Industrial Building D, Shihua Rd, FuTian Free Trade Zone, Shenzhen, China
Tel: +86-755-33320018 Fax: +86-755-33320008 www.baclcorp.com.cn

TABLE OF CONTENTS

DOCUMENT REVISION HISTORY	3
GENERAL INFORMATION	4
PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT).....	4
OBJECTIVE	4
TEST METHODOLOGY.....	4
MEASUREMENT UNCERTAINTY	5
TEST FACILITY	5
SYSTEM TEST CONFIGURATION.....	6
DESCRIPTION OF TEST CONFIGURATION	6
EUT EXERCISE SOFTWARE	6
EQUIPMENT MODIFICATIONS	6
SUPPORT EQUIPMENT LIST AND DETAILS	6
EXTERNAL I/O CABLE.....	7
BLOCK DIAGRAM OF TEST SETUP	7
SUMMARY OF TEST RESULTS	9
TEST EQUIPMENT LIST	10
FCC §15.107 - AC LINE CONDUCTED EMISSIONS	11
APPLICABLE STANDARD	11
EUT SETUP	11
EMI TEST RECEIVER SETUP	11
TEST PROCEDURE.....	12
LEVEL & OVER LIMIT CALCULATION	12
TEST DATA.....	12
FCC §15.109 - RADIATED EMISSIONS	21
APPLICABLE STANDARD	21
EUT SETUP	21
EMI TEST RECEIVER AND SPECTRUM ANALYZER SETUP	22
TEST PROCEDURE.....	22
LEVEL & OVER LIMIT CALCULATION	23
TEST DATA.....	23
EUT PHOTOGRAPHS	48
TEST SETUP PHOTOGRAPHS	49

DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	2501X39127E-EM-00	Original Report	2025/11/25

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product	High-Performance Wi-Fi 6 Router
Tested Model	GWN7062M
Multiple Model(s)	GWN7062F
Voltage Range	DC 12.0V from adapter
Highest operating frequency [#]	5895MHz (Provided by the applicant)
Equipment Class	Class B
Sample number	GWN7062M: 3A3F-1 Adapter (DCT18W120150US-A0): 3A3F-5 Adapter (TS-A018-120150AJ): 3A3F-6 Adapter (GLH1201500): 3A3F-7 Adapter (DCT24W120150US-A3): 3A3F-14 (Assigned by BACL, Shenzhen)
Sample/EUT Status	Good condition
Adapter Information	Adapter 1 Model: DCT18W120150US-A0 Input: 100-240V~50/60Hz, 0.7A max. Output: 12.0V, 1.5A Adapter 2 Model: GLH1201500 Input: 100-240V~50/60Hz, 0.5A Output: 12.0V, 1.5A, 18.0W Adapter 3 Model: TS-A018-120150AJ Input: 100-240V~50/60Hz, 0.6A Output: 12.0V, 1.5A, 18.0W Adapter 4 Model: DCT24W120150US-A3 Input: 100-240V~50/60Hz, 0.7A max. Output: 12.0V, 1.5A
Note: The Multiple models are electrically identical with the test model except for model name and sales channels. Please refer to the declaration letter [#] for more detail, which was provided by manufacturer.	

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.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2014, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

All emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters. Each test item follows test standards and with no deviation.

Measurement Uncertainty

Item	Frequency Range		Expanded Measurement uncertainty
Conducted Emissions	AC Mains	150 kHz ~30MHz	3.66dB(k=2, 95% level of confidence)
Radiated Disturbance	30MHz~200MHz	Horizontal	5.32dB(k=2, 95% level of confidence)
	30MHz~200MHz	Vertical	5.43dB(k=2, 95% level of confidence)
	200MHz~1000MHz	Horizontal	5.77dB(k=2, 95% level of confidence)
	200MHz~1000MHz	Vertical	5.73dB(k=2, 95% level of confidence)
	1GHz~6GHz	/	5.34dB(k=2, 95% level of confidence)
	6GHz~18GHz	/	5.40dB(k=2, 95% level of confidence)
	18GHz~40GHz	/	5.64dB(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 Mode1: Data transmitting + Power by adapter (DCT18W120150US-A0)

Test Mode2: Data transmitting + Power by adapter (TS-A018-120150AJ)

Test Mode3: Data transmitting + Power by adapter (GLH1201500)

Test Mode4: Data transmitting + Power by adapter (DCT24W120150US-A3)

Note: EUT connects two computers, runs traffic through traffic generation software, transfers data via USB-connected U disk, and inputs network through optical port connection to a router.

EUT exercise software

"LanTest" exercise software was used.

Equipment Modifications

No modification was made to the EUT tested.

Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
TECLAST	U disk	A6JN	/
DELL	PC1	Latitude E7270	1JH13G2
DELL	PC2	Latitude E6520	DL0ZCS1
HIKVISION	Router	DS-3WR03	10021642429
POTRON	Optical to electric module	10GBASE-T	PT240419A00004
TP-link	Load	/	/

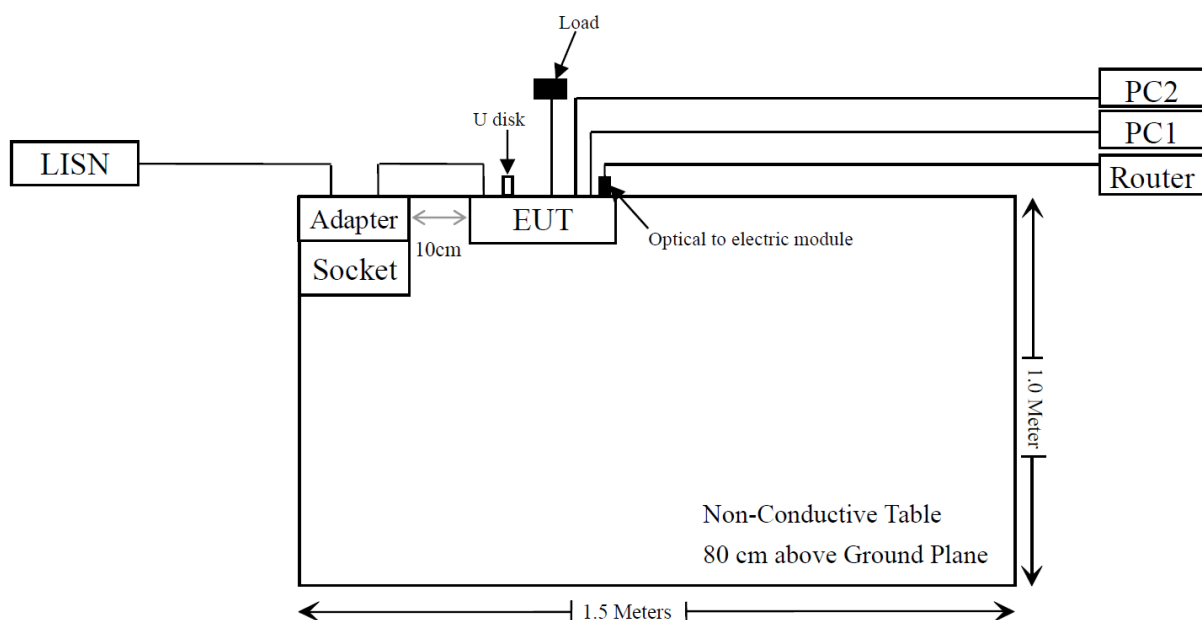
External I/O Cable

Cable Description	Length (m)	From/Port	To
Unshielded Un-detachable AC cable	1.2	Socket	Mains
Unshielded Un-detachable AC cable	1.2	Socket	LISN
Unshielded Un-detachable DC cable	2.5	EUT	Adapter
Unshielded detachable RJ45 cable	10.0	EUT	PC1
Unshielded detachable RJ45 cable	10.0	EUT	PC2
Unshielded detachable RJ45 cable	10.0	Optical to electric module	Router
Unshielded detachable RJ45 cable*3	1.0	EUT	Load

Block Diagram of Test Setup

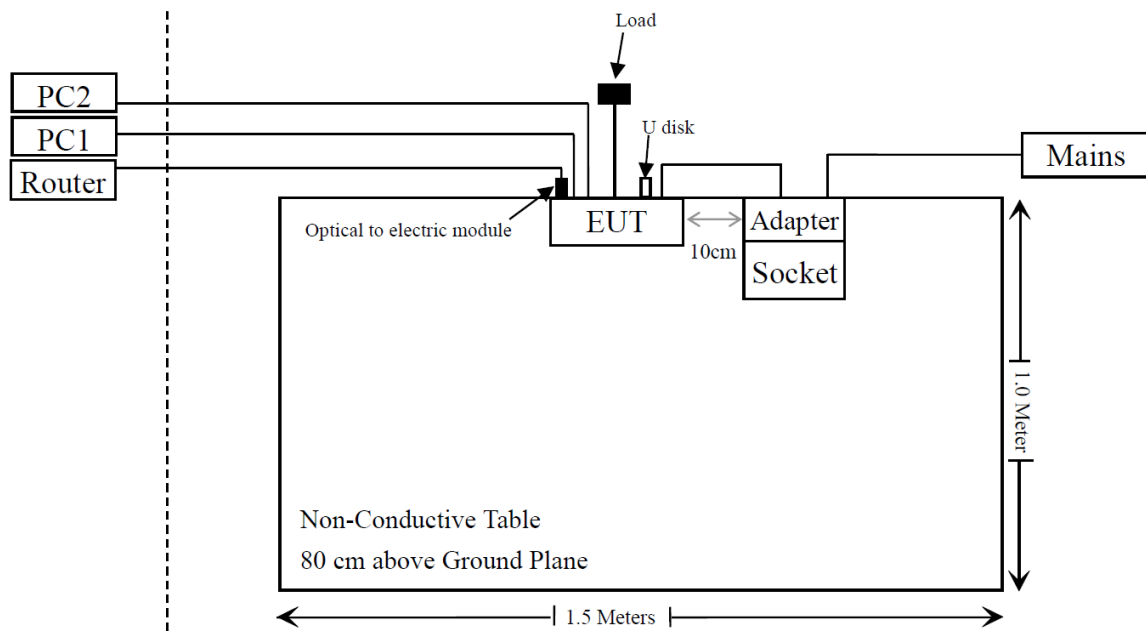
For Conducted Emission:

Test mode1&2&3&4:



For Radiated Emission

Test model1&2&3&4:



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	2025/09/01	2026/08/31
Rohde & Schwarz	LISN	ENV216	101613	2024/12/04	2025/12/03
Rohde & Schwarz	Transient Limiter	ESH3Z2	DE25985	2025/04/29	2026/04/28
Unknown	CE Cable	Unknown	UF A210B-1-0720-504504	2025/04/29	2026/04/28
Audix	EMI Test software	E3	191218(V9)	NCR	NCR
Radiated Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESR3	102455	2025/09/01	2026/08/31
Sonoma instrument	Pre-amplifier	310 N	186238	2025/04/29	2026/04/28
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2023/07/20	2026/07/19
Unknown	Cable	Chamber A Cable 1	N/A	2025/04/29	2026/04/28
Unknown	Cable	XH500C	J-10M-A	2025/04/29	2026/04/28
Audix	EMI Test software	E3	19821b(V9)	NCR	NCR
Rohde & Schwarz	Spectrum Analyzer	FSV40	101605	2025/09/01	2026/08/31
A.H.System	Preamplifier	PAM-0118P	489	2024/11/15	2025/11/14
Schwarzbeck	Horn Antenna	BBHA9120D (1201)	1143	2023/07/26	2026/07/25
Unknown	RF Cable	KMSE	735	2024/12/06	2025/12/05
Unknown	RF Cable	UFA147	219661	2024/12/06	2025/12/05
Unknown	RF Cable	XH750A-N	J-10M	2024/12/06	2025/12/05
JD	Filter Switch Unit	DT7220FSU	DS79906	2025/08/12	2026/08/11
JD	Multiplex Switch Test Control Set	DT7220SCU	DS79903	2025/08/12	2026/08/11
SNSD	2.4G Band Reject filter	BSF2402-2480MN-0898-001	2.4G filter	2025/06/26	2026/06/25
Audix	EMI Test software	E3	191218(V9)	NCR	NCR
A.H.System	Pre-amplifier	PAM-1840VH	190	2025/04/29	2026/04/28
UTIFLEX	RF Cable	NO. 13	232308-001	2024/12/18	2025/12/17
Electro-Mechanics Co	Horn Antenna	3116	9510-2270	2023/09/18	2026/09/17

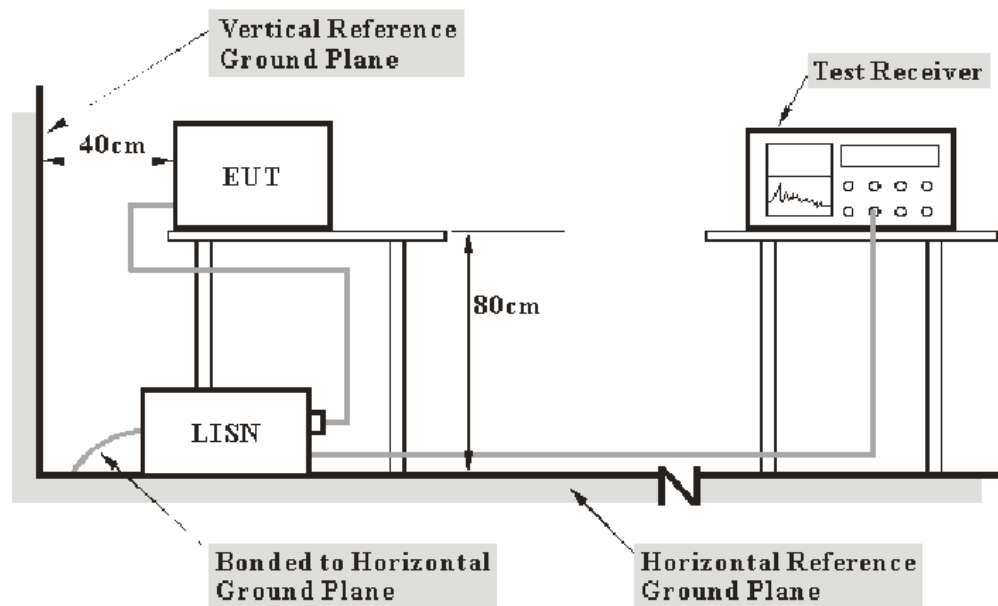
* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

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	RBW
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:

$$\text{Level (dBuV)} = \text{Read Level (dBuV)} + \text{LISN Factor} + \text{Cable Loss}$$

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

$$\text{Over Limit (dB)} = \text{Level (dBuV)} - \text{Limit Line (dBuV)}$$

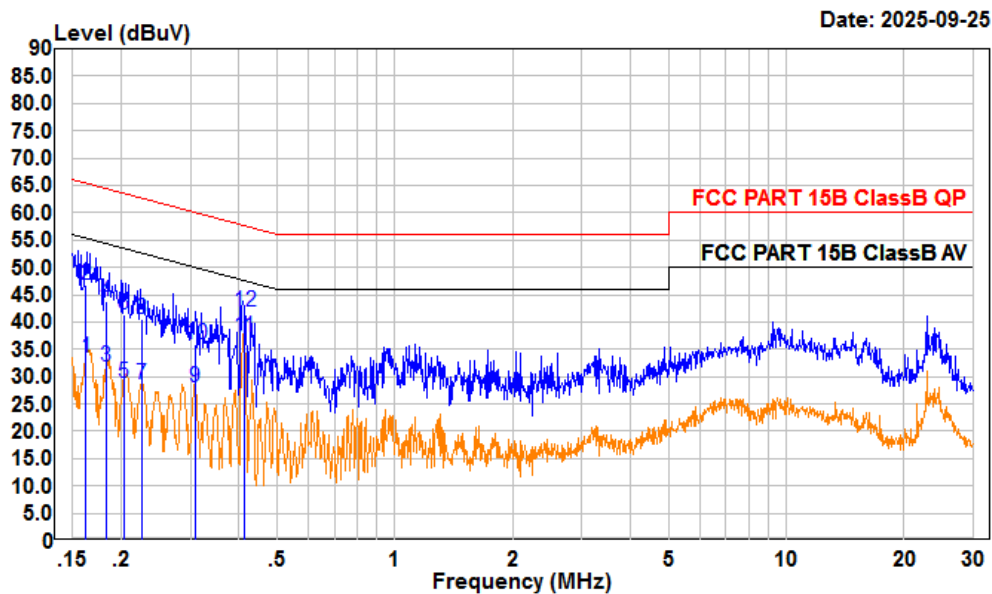
Note: The term "cable loss" refers to the combination of a cable and a 10dB transient limiter (attenuator).

Test Data

Environmental Conditions

Temperature:	25.5~26.1 °C
Relative Humidity:	38~60 %
ATM Pressure:	99.9~101.2 kPa

The testing was performed by Macy Shi and Alex Yan from 2025-09-25 to 2025-11-25.

*Test Model:***AC 120V/60 Hz, Line**

Condition: Line

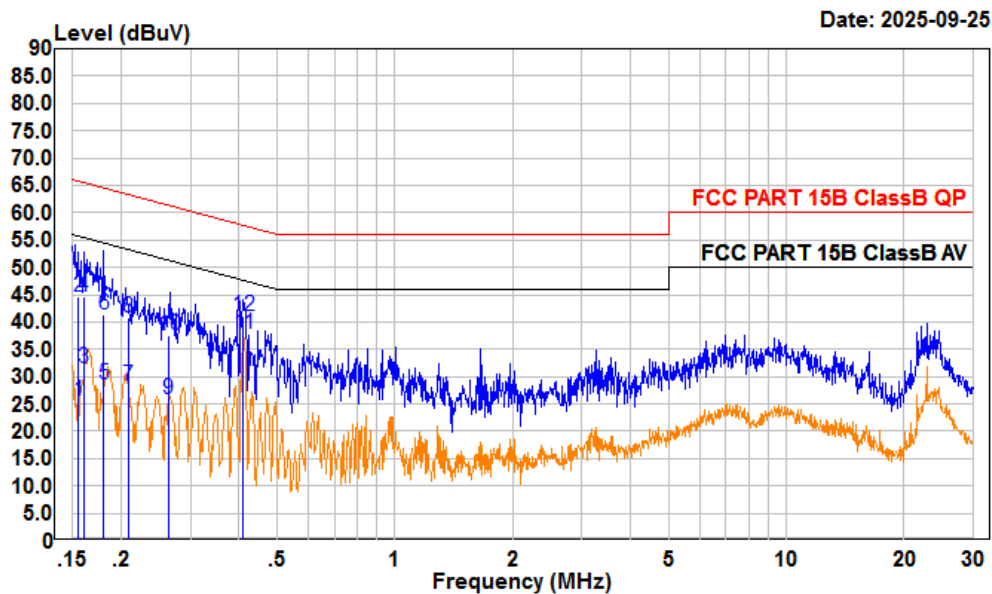
Project : 2501X39127E-EM

test Mode: Model

tester : Macy.shi Setting:RBW:9kHz

	Freq	Read Level	LISN Level	Cable Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.162	12.88	33.54	10.48	10.18	55.34	-21.80	Average
2	0.162	26.23	46.89	10.48	10.18	65.34	-18.45	QP
3	0.183	11.04	31.84	10.61	10.19	54.36	-22.52	Average
4	0.183	23.04	43.84	10.61	10.19	64.36	-20.52	QP
5	0.203	7.96	28.85	10.70	10.19	53.50	-24.65	Average
6	0.203	20.32	41.21	10.70	10.19	63.50	-22.29	QP
7	0.225	7.61	28.47	10.67	10.19	52.64	-24.17	Average
8	0.225	19.54	40.40	10.67	10.19	62.64	-22.24	QP
9	0.309	7.29	28.09	10.61	10.19	50.00	-21.91	Average
10	0.309	14.99	35.79	10.61	10.19	60.00	-24.21	QP
11	0.411	16.50	37.26	10.54	10.22	47.63	-10.37	Average
12	0.411	21.22	41.98	10.54	10.22	57.63	-15.65	QP

AC 120V/60 Hz, Neutral



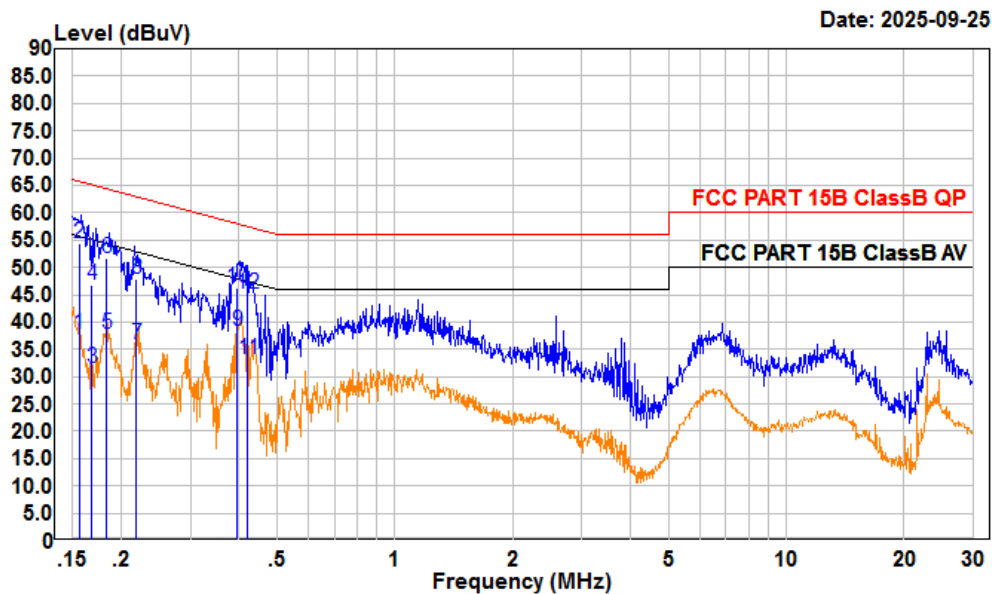
Condition: neutral

Project : 2501X39127E-EM

test Mode: Mode1

tester : Macy.shi Setting:RBW:9kHz

	Freq	Read Level	LISN Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.155	4.95	25.57	10.45	10.17	55.71	-30.14	Average
2	0.155	23.89	44.51	10.45	10.17	65.71	-21.20	QP
3	0.161	11.00	31.67	10.49	10.18	55.44	-23.77	Average
4	0.161	23.96	44.63	10.49	10.18	65.44	-20.81	QP
5	0.180	7.66	28.51	10.66	10.19	54.47	-25.96	Average
6	0.180	20.60	41.45	10.66	10.19	64.47	-23.02	QP
7	0.208	7.25	28.23	10.79	10.19	53.27	-25.04	Average
8	0.208	19.75	40.73	10.79	10.19	63.27	-22.54	QP
9	0.264	5.03	25.94	10.71	10.20	51.30	-25.36	Average
10	0.264	16.73	37.64	10.71	10.20	61.30	-23.66	QP
11	0.410	16.93	37.72	10.57	10.22	47.65	-9.93	Average
12	0.410	20.38	41.17	10.57	10.22	57.65	-16.48	QP

*Test Mode2:***AC 120V/60 Hz, Line**

Condition: Line

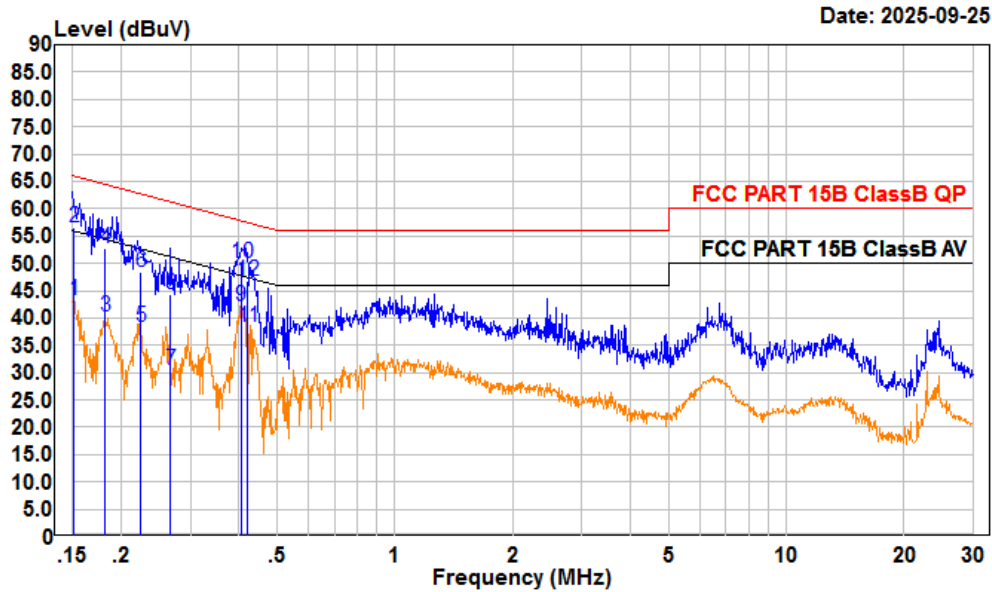
Project : 2501X39127E-EM

test Mode: Mode2

tester : Macy.shi Setting:RBW:9kHz

	Freq	Read Level	LISN Level	Cable Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.156	17.24	37.85	10.44	10.17	55.66	-17.81	Average
2	0.156	33.71	54.32	10.44	10.17	65.66	-11.34	QP
3	0.168	10.84	31.55	10.52	10.19	55.07	-23.52	Average
4	0.168	26.04	46.75	10.52	10.19	65.07	-18.32	QP
5	0.183	17.10	37.90	10.61	10.19	54.34	-16.44	Average
6	0.183	30.79	51.59	10.61	10.19	64.34	-12.75	QP
7	0.218	15.04	35.91	10.68	10.19	52.88	-16.97	Average
8	0.218	27.06	47.93	10.68	10.19	62.88	-14.95	QP
9	0.395	17.68	38.45	10.55	10.22	47.95	-9.50	Average
10	0.395	25.49	46.26	10.55	10.22	57.95	-11.69	QP
11	0.421	12.34	33.09	10.54	10.21	47.43	-14.34	Average
12	0.421	24.47	45.22	10.54	10.21	57.43	-12.21	QP

AC 120V/60 Hz, Neutral



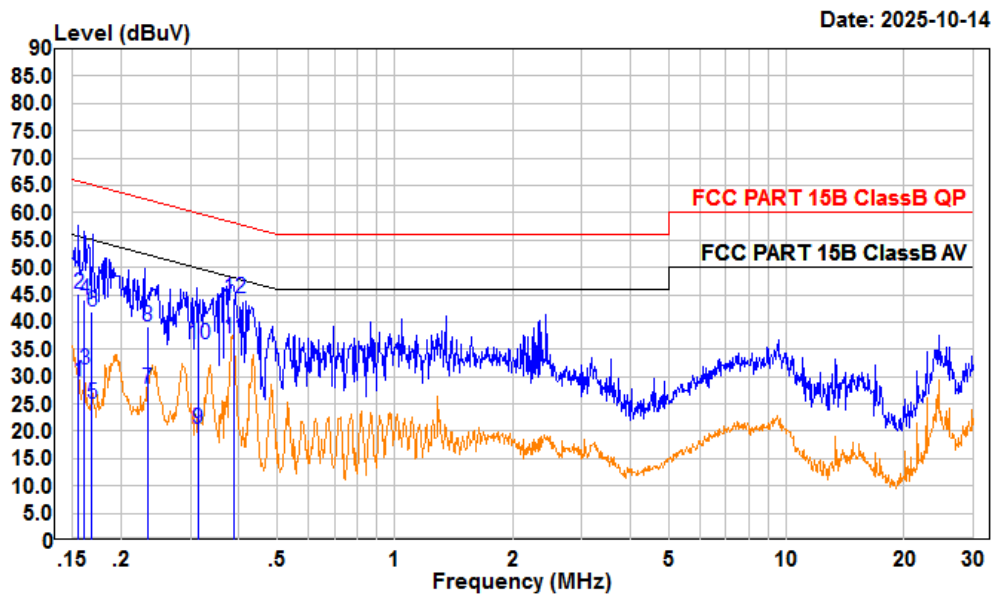
Condition: neutral

Project : 2501X39127E-EM

test Mode: Mode2

tester : Macy.shi Setting:RBW:9kHz

	Freq	Read Level	LISN Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.151	22.72	43.29	10.41	10.16	55.92	-12.63	Average
2	0.151	36.10	56.67	10.41	10.16	65.92	-9.25	QP
3	0.182	19.39	40.25	10.67	10.19	54.39	-14.14	Average
4	0.182	31.89	52.75	10.67	10.19	64.39	-11.64	QP
5	0.224	17.29	38.24	10.76	10.19	52.68	-14.44	Average
6	0.224	27.44	48.39	10.76	10.19	62.68	-14.29	QP
7	0.267	9.50	30.40	10.70	10.20	51.20	-20.80	Average
8	0.267	23.50	44.40	10.70	10.20	61.20	-16.80	QP
9	0.404	21.38	42.17	10.57	10.22	47.76	-5.59	Average
10	0.404	29.14	49.93	10.57	10.22	57.76	-7.83	QP
11	0.421	17.59	38.36	10.56	10.21	47.44	-9.08	Average
12	0.421	25.88	46.65	10.56	10.21	57.44	-10.79	QP

*Test Mode3:***AC 120V/60 Hz, Line**

Condition: Line

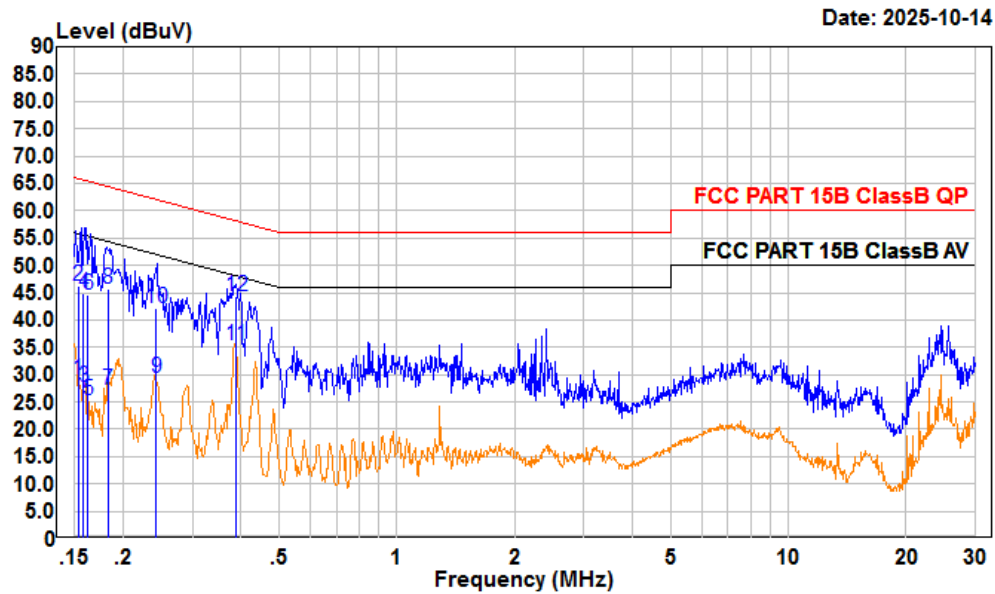
Project : 2501X39127E-EM

test Mode: Mode3

tester : Macy.shi Setting:RBW:9kHz

	Freq	Read Level	LISN Level	Cable Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.155	9.32	29.04	9.70	10.02	55.71	-26.67	Average
2	0.155	25.39	45.11	9.70	10.02	65.71	-20.60	QP
3	0.161	11.48	31.20	9.70	10.02	55.42	-24.22	Average
4	0.161	24.40	44.12	9.70	10.02	65.42	-21.30	QP
5	0.168	5.31	25.03	9.70	10.02	55.06	-30.03	Average
6	0.168	22.21	41.93	9.70	10.02	65.06	-23.13	QP
7	0.233	7.90	27.65	9.72	10.03	52.33	-24.68	Average
8	0.233	19.32	39.07	9.72	10.03	62.33	-23.26	QP
9	0.314	0.50	20.28	9.75	10.03	49.88	-29.60	Average
10	0.314	16.16	35.94	9.75	10.03	59.88	-23.94	QP
11	0.388	17.19	36.99	9.77	10.03	48.12	-11.13	Average
12	0.388	24.46	44.26	9.77	10.03	58.12	-13.86	QP

AC 120V/60 Hz, Neutral



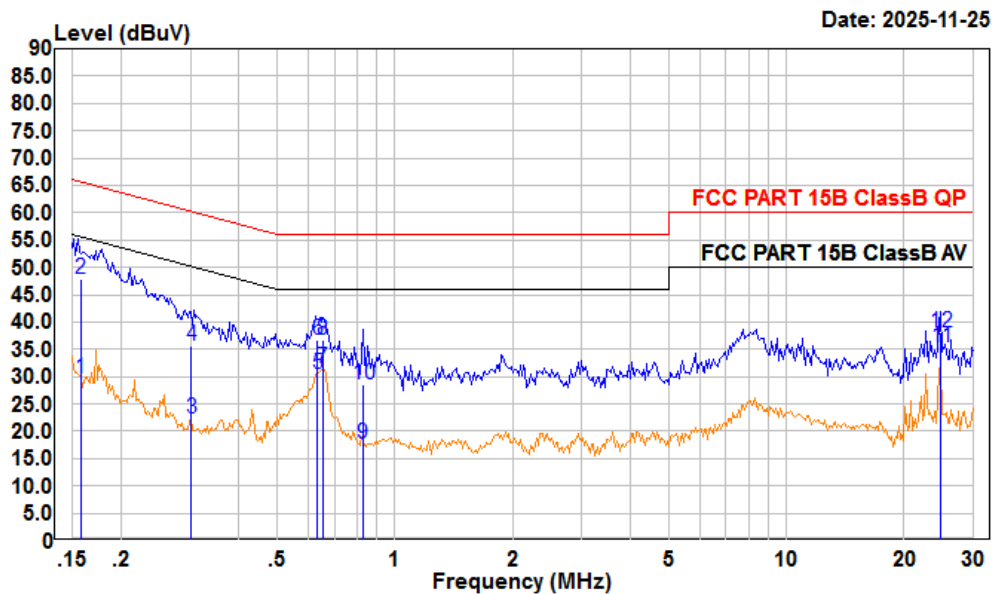
Condition: neutral

Project : 2501X39127E-EM

test Mode: Mode3

tester : Macy.shi Setting:RBW:9kHz

	Freq	Read Level	LISN Level	Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.154	9.62	29.24	9.60	10.02	55.80	-26.56	Average
2	0.154	26.62	46.24	9.60	10.02	65.80	-19.56	QP
3	0.158	8.00	27.62	9.60	10.02	55.57	-27.95	Average
4	0.158	25.36	44.98	9.60	10.02	65.57	-20.59	QP
5	0.162	5.64	25.26	9.60	10.02	55.34	-30.08	Average
6	0.162	25.08	44.70	9.60	10.02	65.34	-20.64	QP
7	0.183	7.70	27.33	9.60	10.03	54.37	-27.04	Average
8	0.183	25.96	45.59	9.60	10.03	64.37	-18.78	QP
9	0.243	9.75	29.38	9.60	10.03	52.01	-22.63	Average
10	0.243	22.66	42.29	9.60	10.03	62.01	-19.72	QP
11	0.387	15.71	35.34	9.60	10.03	48.13	-12.79	Average
12	0.387	24.57	44.20	9.60	10.03	58.13	-13.93	QP

*Test Mode4:***AC 120V/60 Hz, Line**

Condition: Line

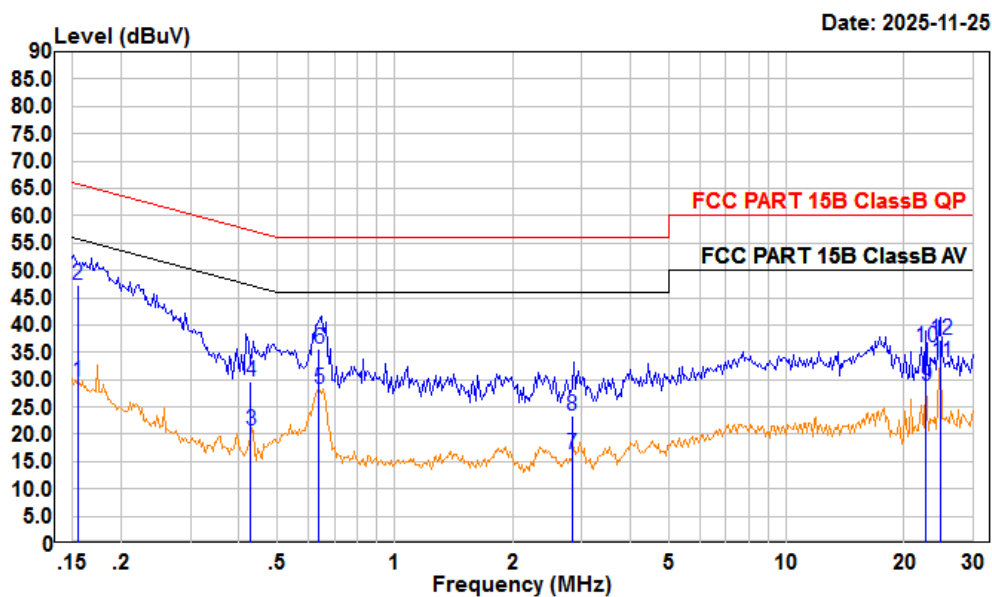
Project : 2501X39127E-EM

test Mode: Mode4

tester : Alex Yan Setting:RBW:9kHz

	Freq	Read Level	LISN Level	Cable Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.157	9.90	29.72	9.80	10.02	55.61	-25.89	Average
2	0.157	28.16	47.98	9.80	10.02	65.61	-17.63	QP
3	0.302	2.36	22.19	9.80	10.03	50.18	-27.99	Average
4	0.302	15.76	35.59	9.80	10.03	60.18	-24.59	QP
5	0.635	10.61	30.45	9.80	10.04	46.00	-15.55	Average
6	0.635	16.86	36.70	9.80	10.04	56.00	-19.30	QP
7	0.653	11.62	31.46	9.80	10.04	46.00	-14.54	Average
8	0.653	16.97	36.81	9.80	10.04	56.00	-19.19	QP
9	0.829	-2.19	17.65	9.80	10.04	46.00	-28.35	Average
10	0.829	8.65	28.49	9.80	10.04	56.00	-27.51	QP
11	24.840	10.79	35.43	14.16	10.48	50.00	-14.57	Average
12	24.840	13.37	38.01	14.16	10.48	60.00	-21.99	QP

AC 120V/60 Hz, Neutral



Condition: neutral

Project : 2501X39127E-EM

test Mode: Mode4

tester : Alex Yan Setting:RBW:9kHz

	Freq	Read Level	LISN Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.154	9.87	29.69	9.80	10.02	55.76	-26.07	Average
2	0.154	27.60	47.42	9.80	10.02	65.76	-18.34	QP
3	0.428	0.95	20.78	9.80	10.03	47.30	-26.52	Average
4	0.428	9.77	29.60	9.80	10.03	57.30	-27.70	QP
5	0.640	8.46	28.30	9.80	10.04	46.00	-17.70	Average
6	0.640	15.78	35.62	9.80	10.04	56.00	-20.38	QP
7	2.840	-3.80	16.40	10.00	10.20	46.00	-29.60	Average
8	2.840	3.21	23.41	10.00	10.20	56.00	-32.59	QP
9	22.710	4.32	28.71	13.93	10.46	50.00	-21.29	Average
10	22.710	11.49	35.88	13.93	10.46	60.00	-24.12	QP
11	24.840	8.65	33.14	14.01	10.48	50.00	-16.86	Average
12	24.840	12.79	37.28	14.01	10.48	60.00	-22.72	QP

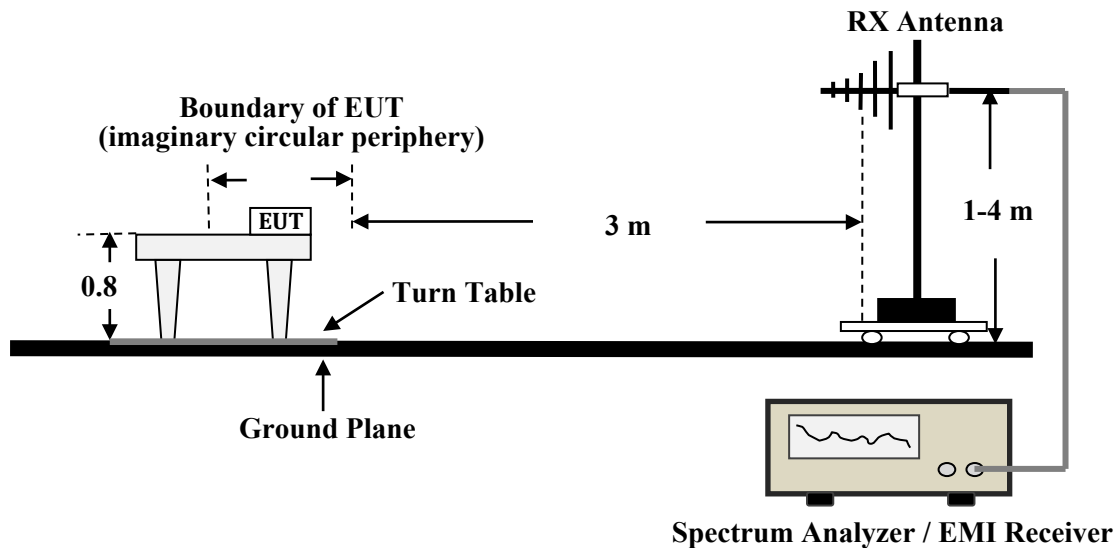
FCC §15.109 - RADIATED EMISSIONS

Applicable Standard

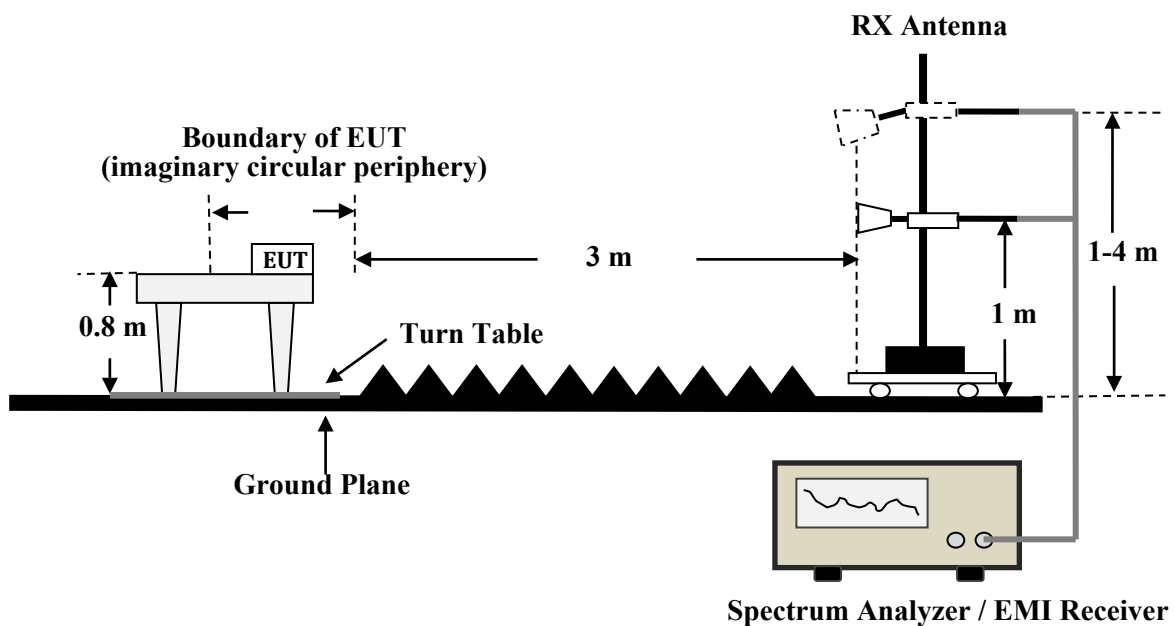
FCC §15.109

EUT Setup

Below 1GHz for Radiated Emissions



Above 1GHz for Radiated Emissions



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	/	PK

Test Procedure

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

If the emission level of the EUT in Peak mode was 6dB lower than the limit specified, Peak values of EUT will be reported. Otherwise, the emission will be repeated by using the Quasi-Peak method and reported for frequency range below 1GHz.

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:

$$\text{Factor} = \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

$$\text{Level} = \text{Read Level} + \text{Factor}$$

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:

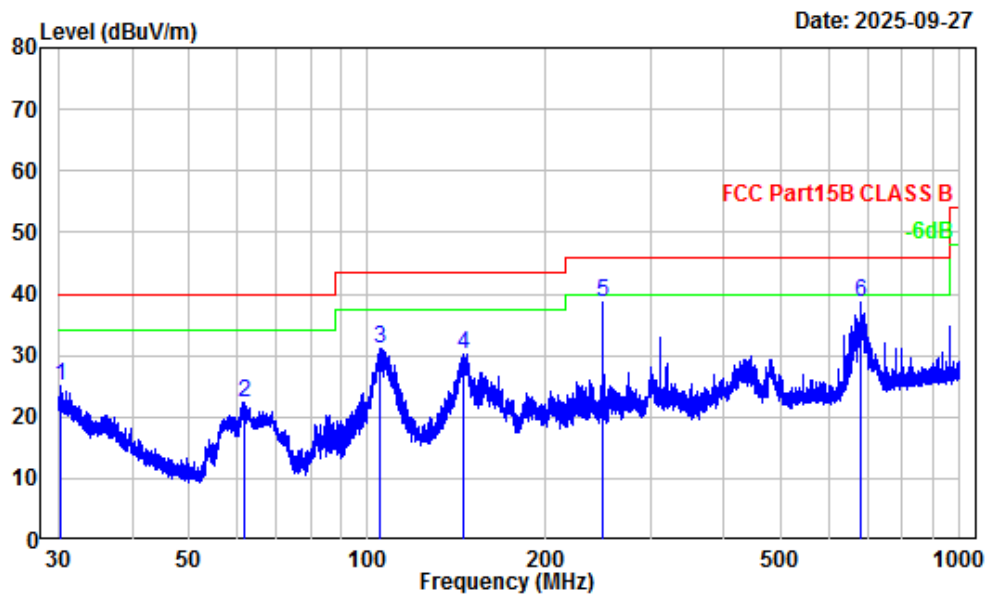
$$\text{Over limit} = \text{Level} - \text{Limit}$$

Test Data

Environmental Conditions

Temperature:	23~25.4 °C
Relative Humidity:	40~53 %
ATM Pressure:	100.1~102 kPa

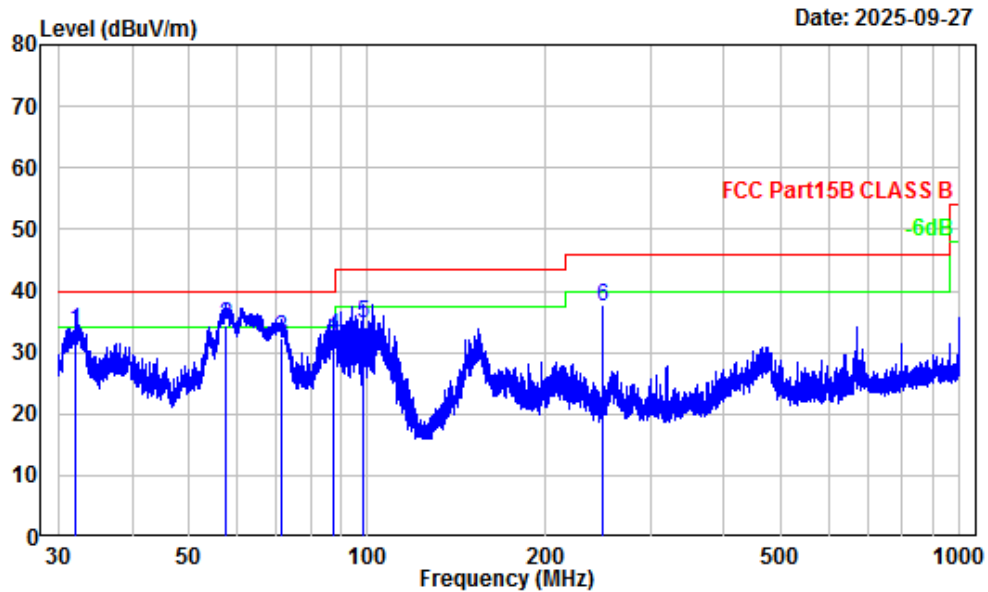
The testing was performed by Nico Wu from 2025-09-27 to 2025-11-25 for below 1GHz and Wing K Ji from 2025-10-01 to 2025-11-24 for above 1GHz.

*Test Model:***30 MHz~1 GHz****Horizontal**

Site : Chamber A
Condition : 3m Horizontal
Project Number : 2501X39127E-EM
Test Mode : Mode1
Detector: Peak RBW/VBW: 100/300kHz
Tester : Nico Wu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	30.24	-6.08	31.12	25.04	40.00	-14.96	Peak
2	61.91	-18.11	40.58	22.47	40.00	-17.53	Peak
3	104.67	-14.51	45.50	30.99	43.50	-12.51	Peak
4	145.29	-12.20	42.43	30.23	43.50	-13.27	Peak
5	250.08	-13.09	51.72	38.63	46.00	-7.37	Peak
6	679.66	-3.72	42.47	38.75	46.00	-7.25	Peak

Vertical

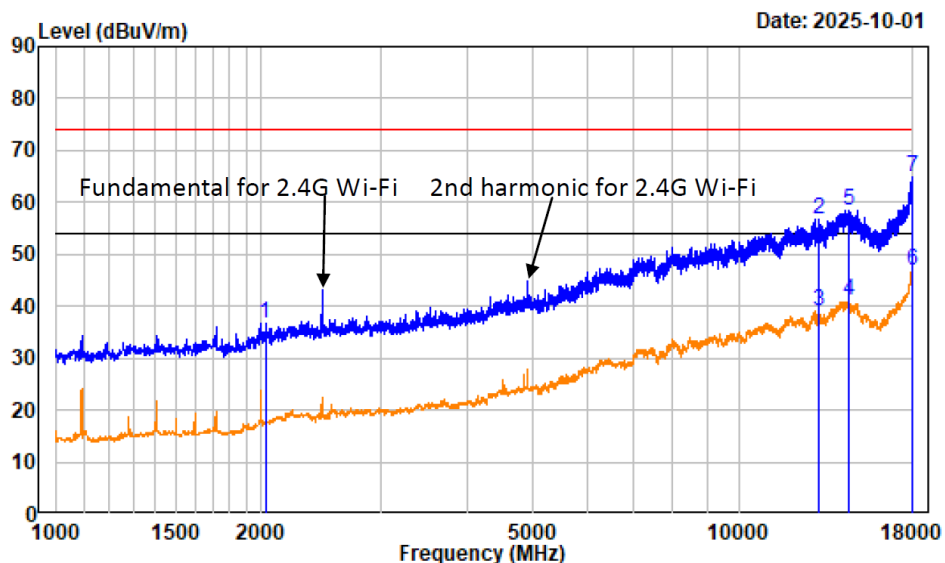


Site : Chamber A
Condition : 3m Vertical
Project Number : 2501X39127E-EM
Test Mode : Mode1
Detector: Peak RBW/VBW: 100/300kHz
Detector QP RBW : 120kHz
Tester : Nico Wu

	Freq Factor		Read		Limit	Over	Remark
	MHz	dB/m	Level	Level	Line	Limit	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	32.05	-7.10	40.50	33.40	40.00	-6.60	QP
2	57.62	-18.26	52.70	34.44	40.00	-5.56	QP
3	71.64	-17.86	50.10	32.24	40.00	-7.76	QP
4	87.46	-18.08	50.70	32.62	40.00	-7.38	QP
5	98.44	-16.38	51.21	34.83	43.50	-8.67	QP
6	249.97	-13.09	50.67	37.58	46.00	-8.42	Peak

1 ~ 18 GHz

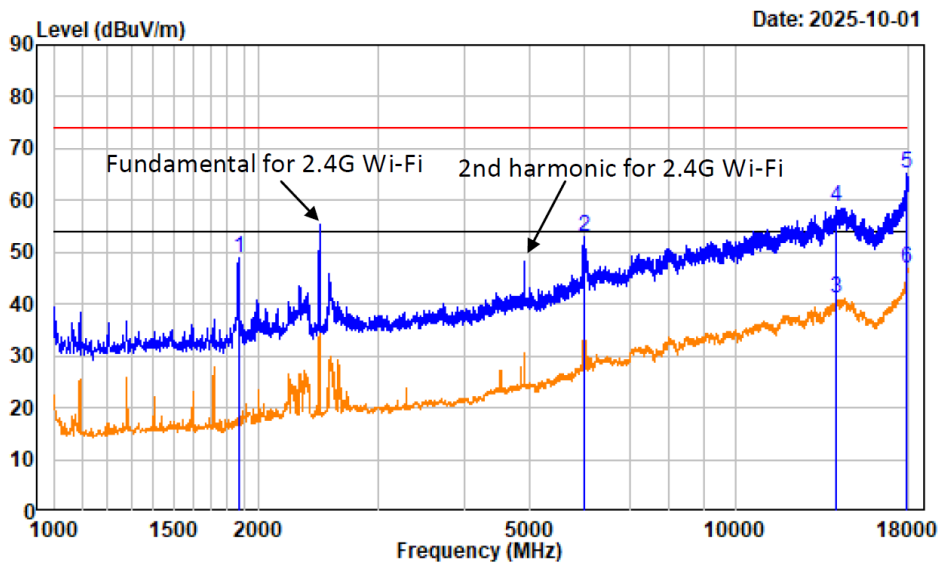
Horizontal



Site : chamber B
Condition : Horizontal
Project Number : 2501X39127E-EM
Test mode : Model
Tester : Wing K Ji
Spectrum setting: Peak reading: RBW:1MHz VBW:3MHz Detector:Peak
: Average reading: RBW:1MHz VBW:10Hz Detector:Peak

Freq Factor		Read Level		Limit	Over	Remark
MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2028.500	-12.33	49.09	36.76	74.00	-37.24 Peak
2	13118.880	5.70	51.09	56.79	74.00	-17.21 Peak
3	13118.880	5.70	33.45	39.15	54.00	-14.85 Average
4	14489.500	7.18	34.00	41.18	54.00	-12.82 Average
5	14489.500	7.18	51.39	58.57	74.00	-15.43 Peak
6	17927.750	12.89	34.07	46.96	54.00	-7.04 Average
7	17927.750	12.89	51.92	64.81	74.00	-9.19 Peak

Vertical

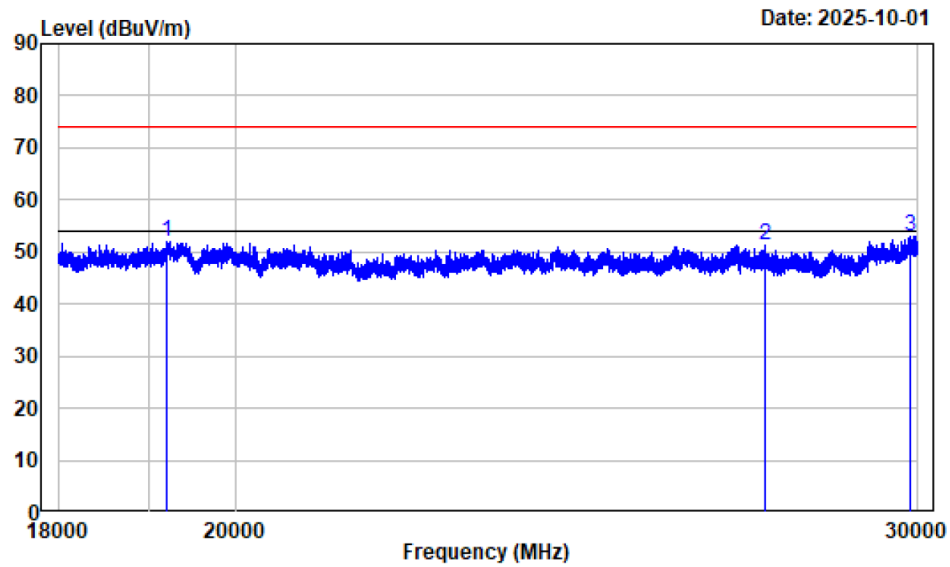


Site : chamber B
Condition : Vertical
Project Number : 2501X39127E-EM
Test mode : Model
Tester : Wing K Ji
Spectrum setting: Peak reading: RBW:1MHz VBW:3MHz Detector:Peak
: Average reading: RBW:1MHz VBW:10Hz Detector:Peak

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	1867.000	-13.60	62.42	48.82	74.00	-25.18	Peak
2	6004.375	-4.46	57.47	53.01	74.00	-20.99	Peak
3	14098.500	7.72	33.48	41.20	54.00	-12.80	Average
4	14098.500	7.72	50.96	58.68	74.00	-15.32	Peak
5	17908.630	12.80	52.33	65.13	74.00	-8.87	Peak
6	17908.630	12.80	34.23	47.03	54.00	-6.97	Average

18 ~ 30 GHz

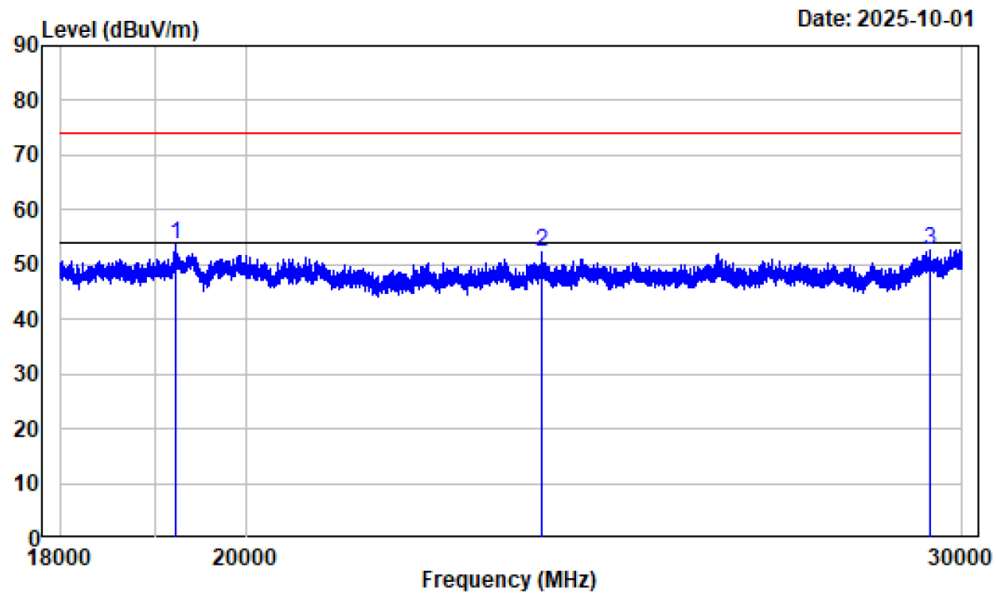
Horizontal



Site : chamber B
Condition : Horizontal
Project Number : 2501X39127E-EM
Test mode : Model
Tester : Wing K Ji
Spectrum setting: Peak reading: RBW:1MHz VBW:3MHz Detector:Peak

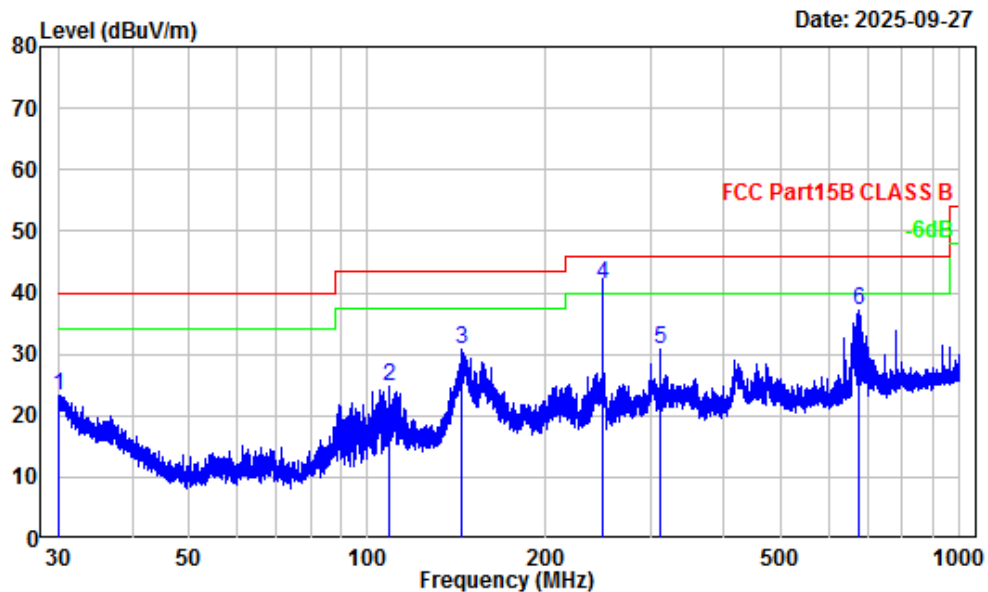
	Freq Factor		Read		Limit	Over	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	19198.650	15.40	36.68	52.08	74.00	-21.92	Peak
2	27388.170	18.19	33.18	51.37	74.00	-22.63	Peak
3	29879.980	18.78	34.25	53.03	74.00	-20.97	peak

Vertical



Site : chamber B
Condition : Vertical
Project Number : 2501X39127E-EM
Test mode : Mode1
Tester : Wing K Ji
Spectrum setting: Peak reading: RBW:1MHz VBW:3MHz Detector:Peak

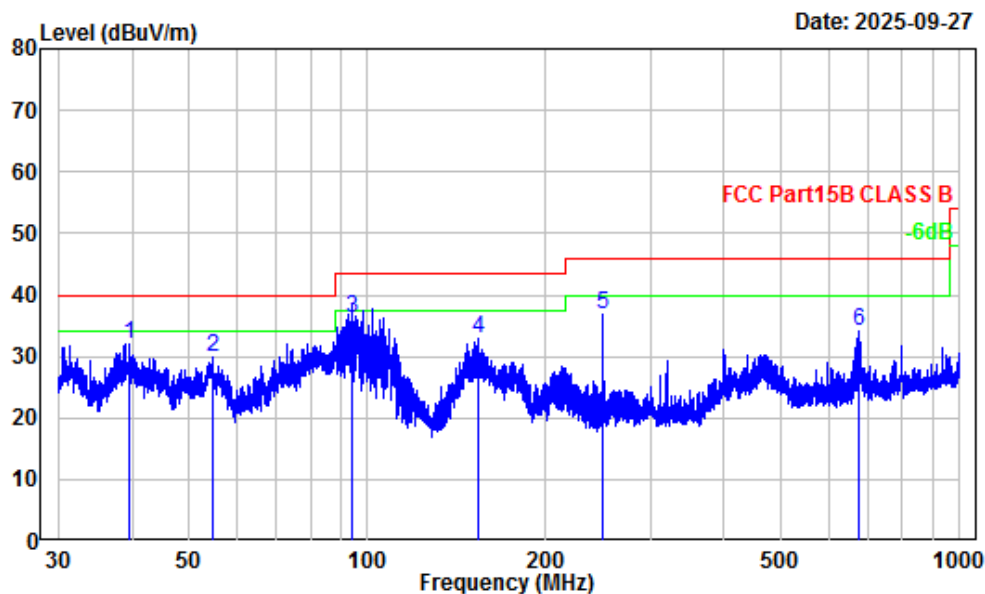
Freq Factor		Read	Limit	Over	Remark
MHz	dB/m	Level	Level	Line	
		dBuV	dBuV/m	dBuV/m	dB
1	19212.150	15.40	38.21	53.61	74.00 -20.39 peak
2	23652.710	16.70	35.47	52.17	74.00 -21.83 Peak
3	29459.930	18.36	34.31	52.67	74.00 -21.33 Peak

*Test Mode2:***30 MHz~1 GHz****Horizontal**

Site : Chamber A
Condition : 3m Horizontal
Project Number : 2501X39127E-EM
Test Mode : Mode2
Detector: Peak RBW/VBW: 100/300kHz
Detector QP RBW : 120kHz
Tester : Nico Wu

	Freq	Factor	Read Level	Level	Limit	Over	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	Remark
1	30.04	-5.98	29.10	23.12	40.00	-16.88	Peak
2	108.79	-13.45	38.17	24.72	43.50	-18.78	Peak
3	144.46	-12.18	42.98	30.80	43.50	-12.70	Peak
4	249.97	-13.09	54.50	41.41	46.00	-4.59	QP
5	312.59	-10.99	41.63	30.64	46.00	-15.36	Peak
6	675.21	-3.82	41.08	37.26	46.00	-8.74	Peak

Vertical

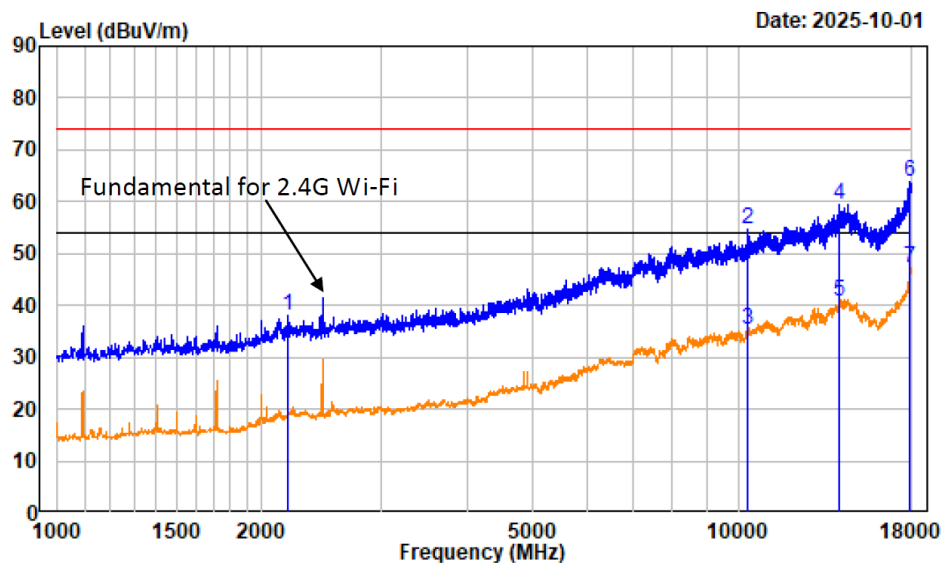


Site : Chamber A
Condition : 3m Vertical
Project Number : 2501X39127E-EM
Test Mode : Mode2
Detector: Peak RBW/VBW: 100/300kHz
Detector QP RBW : 120kHz
Tester : Nico Wu

	Freq Factor		Read		Limit	Over	Remark
	MHz	dB/m	Level	Level	Line	Limit	
			dBuV	dBuV/m	dBuV/m	dB	
1	39.68	-12.15	44.19	32.04	40.00	-7.96	Peak
2	54.57	-18.31	48.28	29.97	40.00	-10.03	Peak
3	94.39	-17.45	53.79	36.34	43.50	-7.16	QP
4	154.14	-12.55	45.50	32.95	43.50	-10.55	Peak
5	250.08	-13.09	49.77	36.68	46.00	-9.32	Peak
6	675.50	-3.81	37.79	33.98	46.00	-12.02	Peak

1 ~ 18 GHz

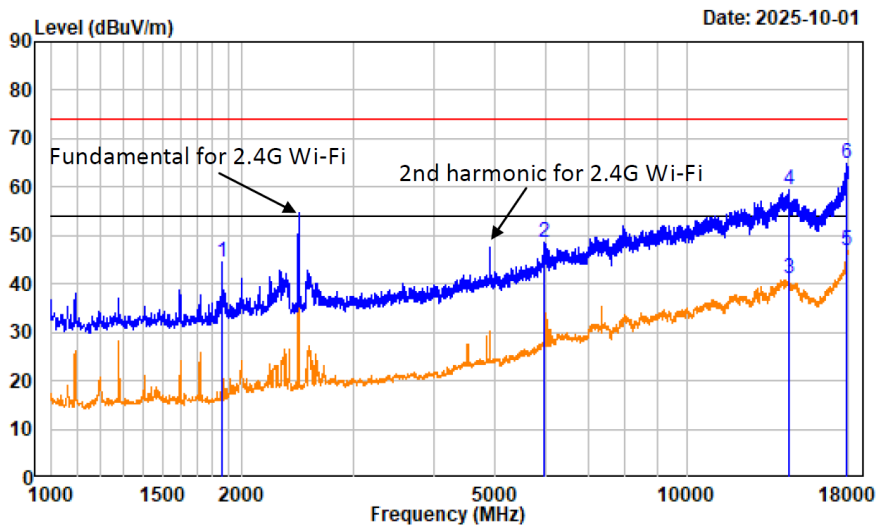
Horizontal



Site : chamber B
Condition : Horizontal
Project Number : 2501X39127E-EM
Test mode : Mode2
Tester : Wing K Ji
Spectrum setting: Peak reading: RBW:1MHz VBW:3MHz Detector:Peak
: Average reading: RBW:1MHz VBW:10Hz Detector:Peak

	Freq	Factor	Read		Limit	Over	Remark
			Level	Level	Line	Limit	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2190.000	-10.95	48.98	38.03	74.00	-35.97	Peak
2	10330.880	2.49	52.04	54.53	74.00	-19.47	Peak
3	10330.880	2.49	32.95	35.44	54.00	-18.56	Average
4	14087.880	7.66	51.87	59.53	74.00	-14.47	Peak
5	14087.880	7.66	33.25	40.91	54.00	-13.09	Average
6	17912.880	12.82	51.05	63.87	74.00	-10.13	Peak
7	17912.880	12.82	34.30	47.12	54.00	-6.88	Average

Vertical

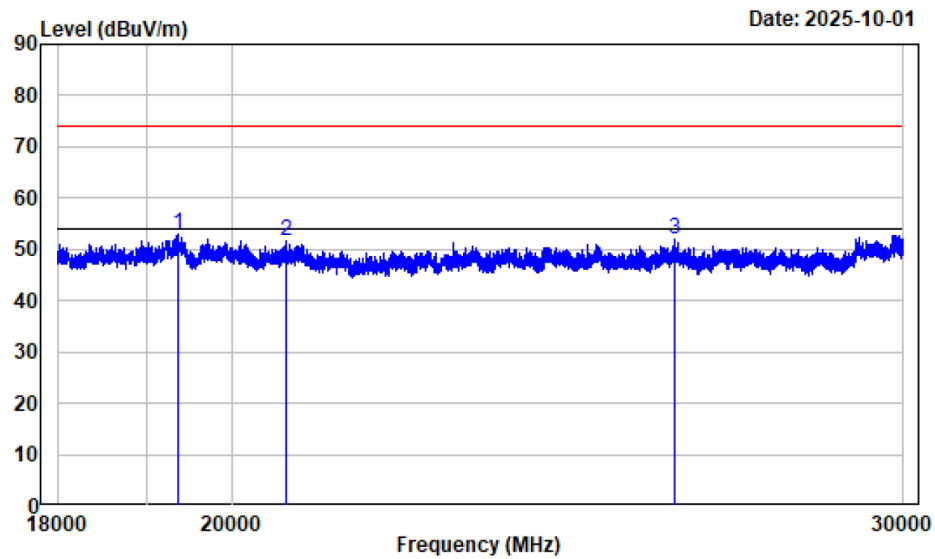


Site : chamber B
Condition : Vertical
Project Number : 2501X39127E-EM
Test mode : Mode2
Tester : Wing K Ji
Spectrum setting: Peak reading: RBW:1MHz VBW:3MHz Detector:Peak
: Average reading: RBW:1MHz VBW:10Hz Detector:Peak

Freq Factor		Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB
1	1862.750	-13.63	58.22	44.59	74.00	-29.41 Peak
2	5983.125	-4.47	53.05	48.58	74.00	-25.42 Peak
3	14493.750	7.19	34.00	41.19	54.00	-12.81 Average
4	14493.750	7.19	52.37	59.56	74.00	-14.44 Peak
5	17906.500	12.79	34.16	46.95	54.00	-7.05 Average
6	17906.500	12.79	52.10	64.89	74.00	-9.11 Peak

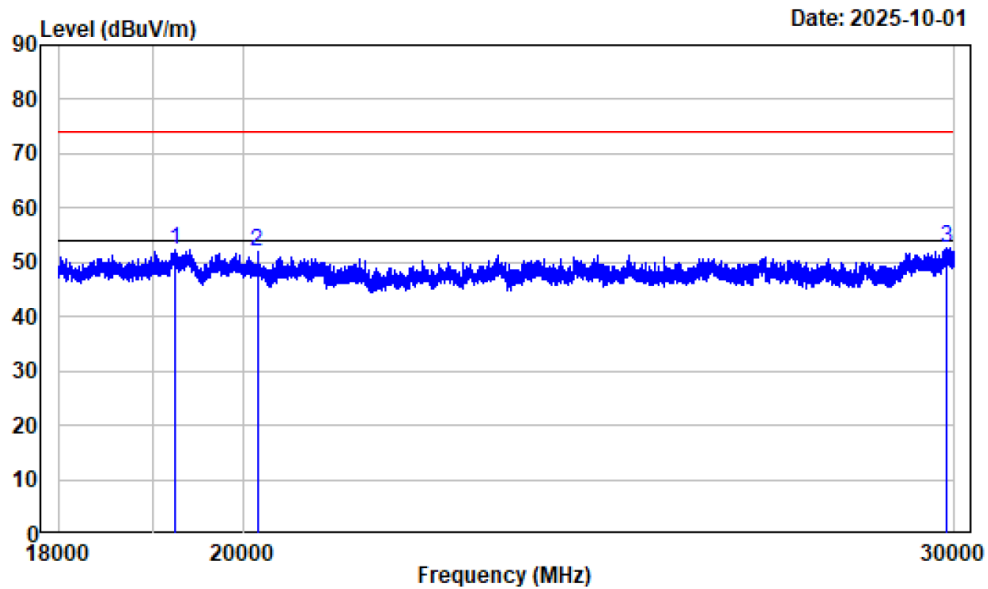
18 ~ 30 GHz

Horizontal



Site : chamber B
Condition : Horizontal
Project Number : 2501X39127E-EM
Test mode : Mode2
Tester : Wing K Ji
Spectrum setting: Peak reading: RBW:1MHz VBW:3MHz Detector:Peak

			Read		Limit	Over	
	Freq	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	19371.170	15.44	37.62	53.06	74.00	-20.94	peak
2	20671.830	15.74	35.82	51.56	74.00	-22.44	Peak
3	26125.020	17.78	34.05	51.83	74.00	-22.17	Peak

Vertical

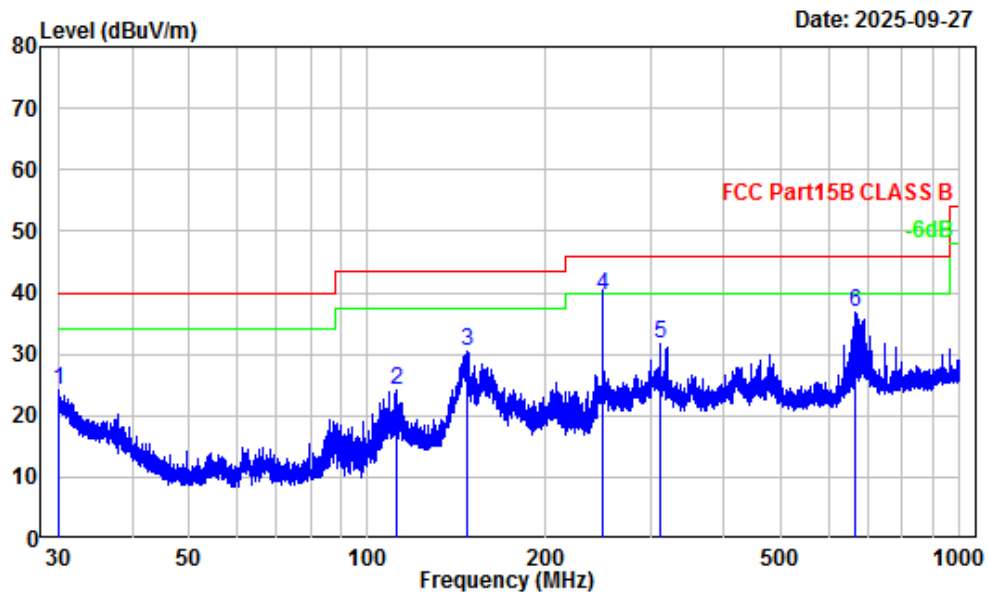
Site : chamber B
Condition : Vertical
Project Number : 2501X39127E-EM
Test mode : Mode2
Tester : Wing K Ji
Spectrum setting: Peak reading: RBW:1MHz VBW:3MHz Detector:Peak

	Freq	Factor	Read		Limit	Over	Remark
			Level	Level	Line	Limit	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	19246.660	15.42	36.95	52.37	74.00	-21.63	Peak
2	20161.770	15.28	36.75	52.03	74.00	-21.97	Peak
3	29867.980	18.77	34.03	52.80	74.00	-21.20	peak

Test Mode3:

30 MHz~1 GHz

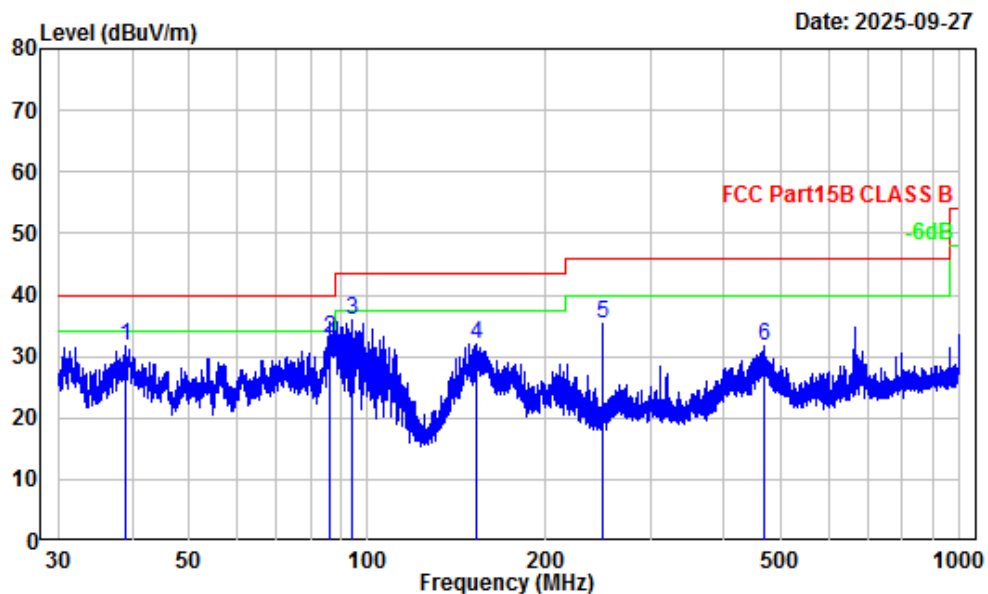
Horizontal



Site : Chamber A
Condition : 3m Horizontal
Project Number : 2501X39127E-EM
Test Mode : Mode3
Detector: Peak RBW/VBW: 100/300kHz
Detector QP RBW : 120kHz
Tester : Nico Wu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	30.08	-6.00	30.21	24.21	40.00	-15.79	Peak
2	111.54	-12.82	36.91	24.09	43.50	-19.41	Peak
3	147.08	-12.28	42.81	30.53	43.50	-12.97	Peak
4	249.97	-13.09	52.50	39.41	46.00	-6.59	QP
5	312.59	-10.99	42.59	31.60	46.00	-14.40	Peak
6	664.64	-3.88	40.81	36.93	46.00	-9.07	Peak

Vertical

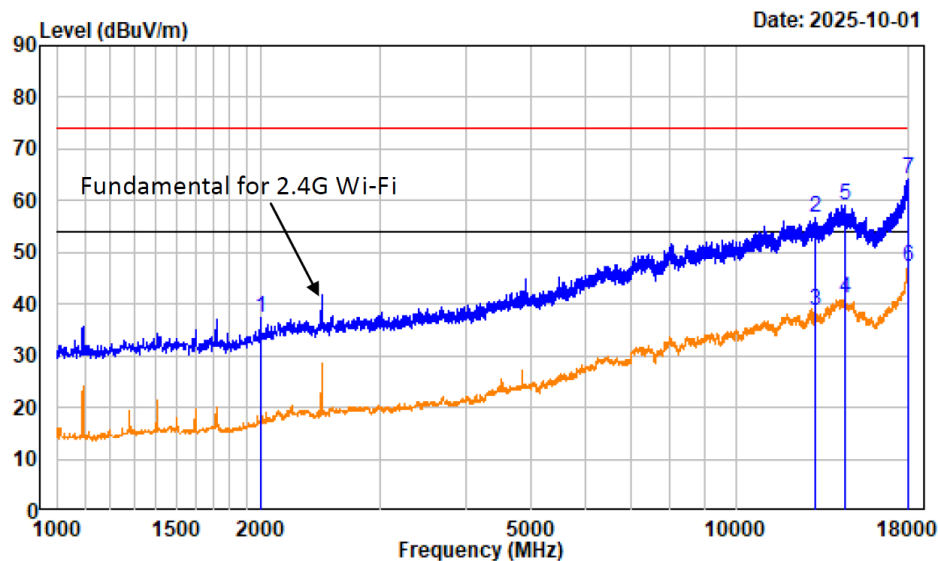


Site : Chamber A
Condition : 3m Vertical
Project Number : 2501X39127E-EM
Test Mode : Mode3
Detector: Peak RBW/VBW: 100/300kHz
Detector QP RBW : 120kHz
Tester : Nico Wu

	Freq Factor		Read Level		Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	38.96	-11.65	43.26	31.61	40.00	-8.39	Peak
2	86.05	-18.08	50.90	32.82	40.00	-7.18	QP
3	94.35	-17.46	53.35	35.89	43.50	-7.61	Peak
4	152.40	-12.55	44.46	31.91	43.50	-11.59	Peak
5	250.08	-13.09	48.27	35.18	46.00	-10.82	Peak
6	468.05	-6.84	38.48	31.64	46.00	-14.36	Peak

1 ~ 18 GHz

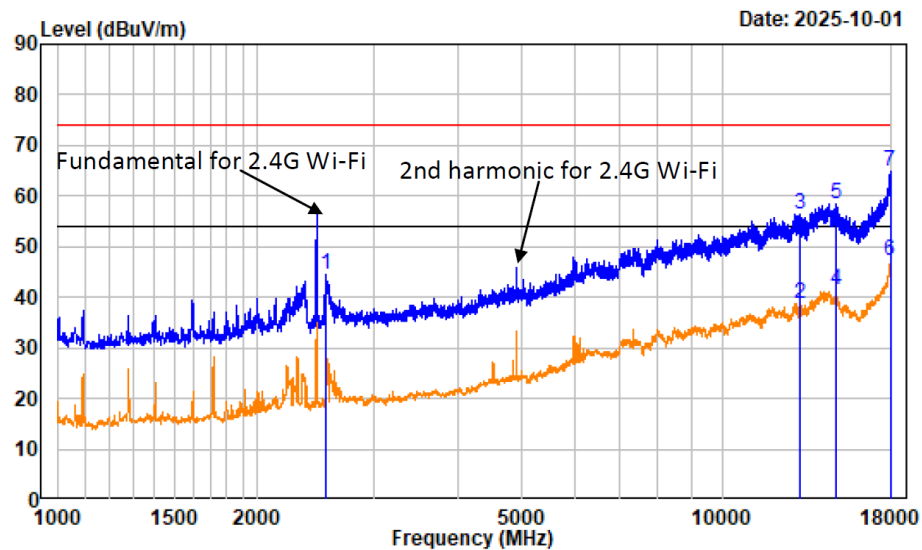
Horizontal



Site : chamber B
Condition : Horizontal
Project Number : 2501X39127E-EM
Test mode : Mode3
Tester : Wing K Ji
Spectrum setting: Peak reading: RBW:1MHz VBW:3MHz Detector:Peak
: Average reading: RBW:1MHz VBW:10Hz Detector:Peak

	Freq	Factor	Read		Limit	Over	Remark
			Level	Level			
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	1998.750	-12.65	50.11	37.46	74.00	-36.54	Peak
2	13106.130	5.88	50.99	56.87	74.00	-17.13	Peak
3	13106.130	5.88	33.00	38.88	54.00	-15.12	Average
4	14502.250	7.20	34.01	41.21	54.00	-12.79	Average
5	14502.250	7.20	51.89	59.09	74.00	-14.91	Peak
6	17966.000	13.08	34.18	47.26	54.00	-6.74	Average
7	17966.000	13.08	51.21	64.29	74.00	-9.71	Peak

Vertical

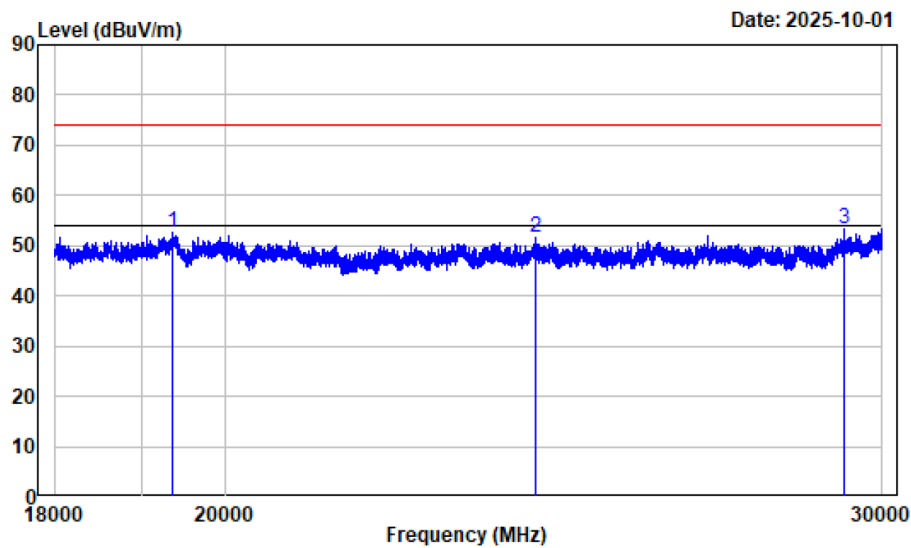


```
Site           : chamber B
Condition      : Vertical
Project Number : 2501X39127E-EM
Test mode      : Mode3
Tester         : Wing K Ji
Spectrum setting: Peak reading: RBW:1MHz VBW:3MHz Detector:Peak
                : Average reading: RBW:1MHz VBW:10Hz Detector:Peak
```

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2536.375	-10.94	55.37	44.43	74.00	-29.57	Peak
2	13112.500	5.78	32.81	38.59	54.00	-15.41	Average
3	13112.500	5.78	50.56	56.34	74.00	-17.66	Peak
4	14872.000	5.51	35.81	41.32	54.00	-12.68	Average
5	14872.000	5.51	53.01	58.52	74.00	-15.48	Peak
6	17919.250	12.84	34.21	47.05	54.00	-6.95	Average
7	17919.250	12.84	52.19	65.03	74.00	-8.97	Peak

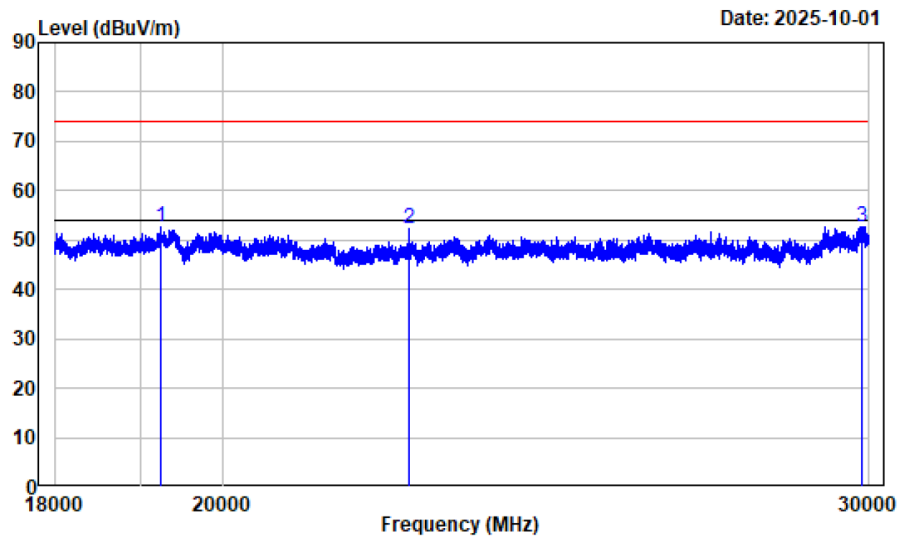
18 ~ 30 GHz

Horizontal



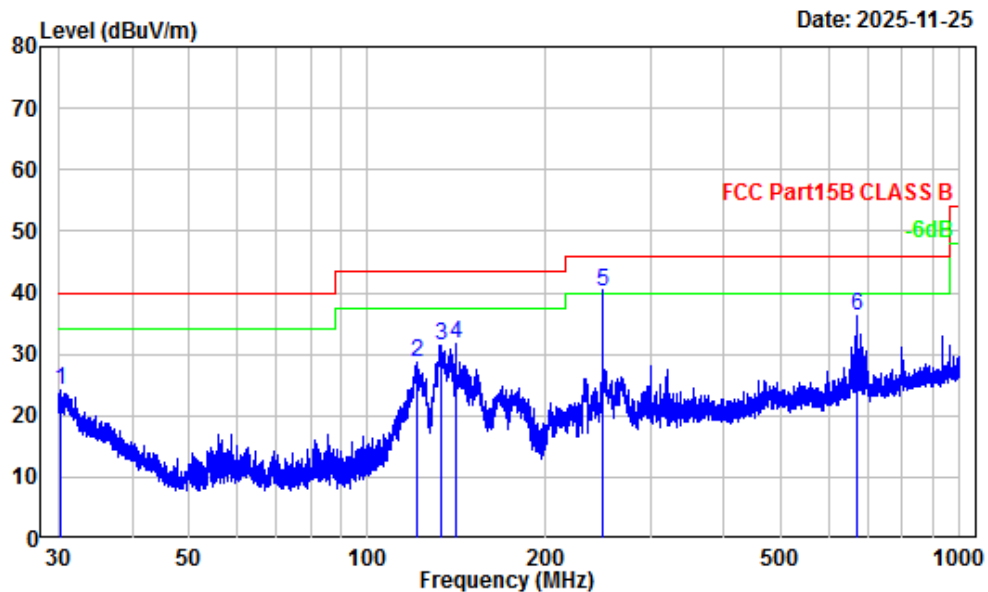
Site : chamber B
Condition : Horizontal
Project Number : 2501X39127E-EM
Test mode : Mode3
Tester : Wing K Ji
Spectrum setting: Peak reading: RBW:1MHz VBW:3MHz Detector:Peak

	Freq	Factor	Read		Limit	Over	Remark
			Level	Level	Line	Limit	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	19360.670	15.44	37.10	52.54	74.00	-21.46	Peak
2	24233.280	16.88	34.68	51.56	74.00	-22.44	Peak
3	29291.910	18.18	35.20	53.38	74.00	-20.62	peak

Vertical

Site : chamber B
Condition : Vertical
Project Number : 2501X39127E-EM
Test mode : Mode3
Tester : Wing K Ji
Spectrum setting: Peak reading: RBW:1MHz VBW:3MHz Detector:Peak

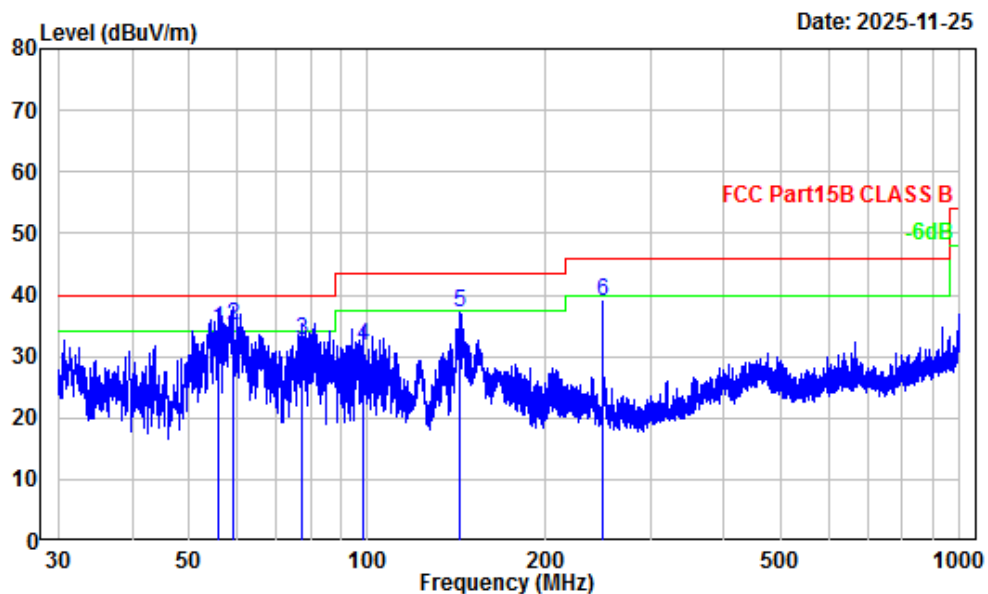
	Freq Factor		Read Level		Limit	Over	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	19234.650	15.42	37.17	52.59	74.00	-21.41	Peak
2	22485.560	16.06	36.23	52.29	74.00	-21.71	Peak
3	29872.480	18.77	33.98	52.75	74.00	-21.25	peak

*Test Mode4:***30 MHz~1 GHz****Horizontal**

Site : Chamber A
Condition : 3m Horizontal
Project Number : 2501X39127E-EM
Test Mode : Mode4
Detector: Peak RBW/VBW: 120/500kHz
Detector: QP RBW : 120kHz
Tester : Nico Wu

	Freq Factor		Read	Limit	Over	Remark
	MHz	dB/m	Level	Level	Line	
			dBuV	dBuV/m	dBuV/m	dB
1	30.22	-6.07	30.14	24.07	40.00	-15.93 Peak
2	121.07	-11.34	39.90	28.56	43.50	-14.94 Peak
3	132.74	-11.37	42.76	31.39	43.50	-12.11 Peak
4	141.14	-11.90	43.66	31.76	43.50	-11.74 Peak
5	249.97	-13.09	53.20	40.11	46.00	-5.89 QP
6	671.96	-3.84	40.08	36.24	46.00	-9.76 Peak

Vertical

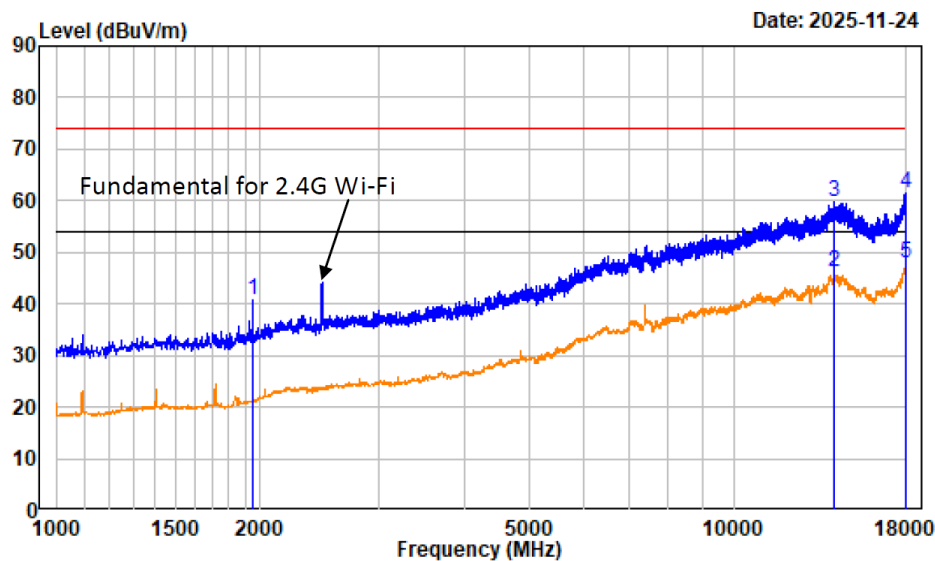


Site : Chamber A
Condition : 3m Vertical
Project Number : 2501X39127E-EM
Test Mode : Mode4
Detector: Peak RBW/VBW: 120/500kHz
Detector: QP RBW : 120kHz
Tester : Nico Wu

	Freq Factor		Read		Limit	Over	Remark
	MHz	dB/m	Level	Level	Line	Limit	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	56.00	-18.32	52.70	34.38	40.00	-5.62	QP
2	59.18	-18.20	53.10	34.90	40.00	-5.10	QP
3	77.19	-17.82	50.30	32.48	40.00	-7.52	QP
4	98.40	-16.39	48.11	31.72	43.50	-11.78	QP
5	142.70	-12.05	49.11	37.06	43.50	-6.44	Peak
6	249.97	-13.09	51.95	38.86	46.00	-7.14	Peak

1 ~ 18 GHz

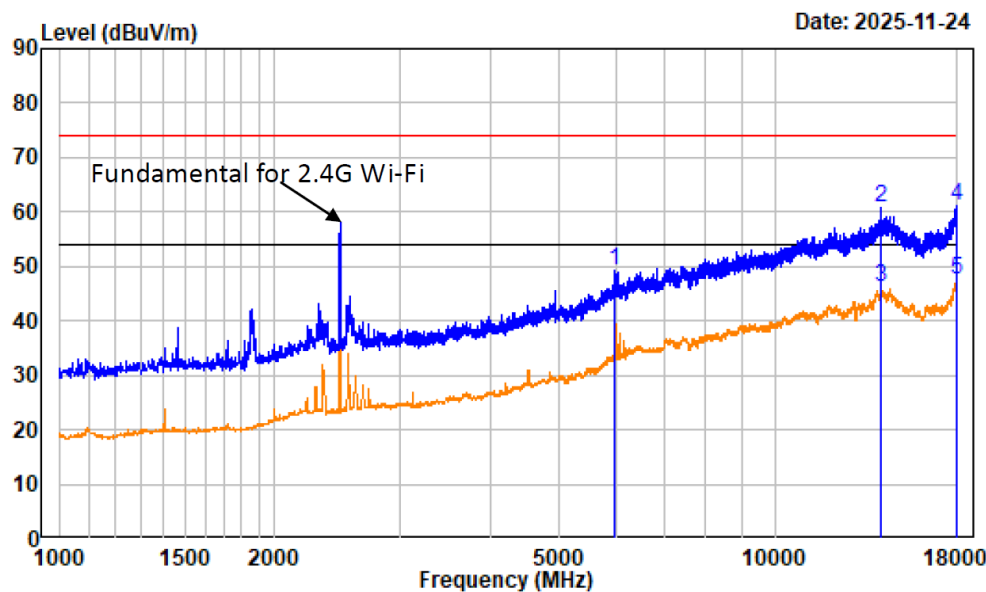
Horizontal



Site : chamber B
Condition : Horizontal
Project Number : 2501X39127E-EM
Test mode : Mode4
Tester : Wing K Ji
Spectrum setting: Peak reading: RBW:1MHz VBW:3MHz Detector:Peak
: Average reading: RBW:1MHz VBW:10Hz Detector:Peak

	Freq	Factor	Read Level	Level	Limit	Over	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	1949.875	-12.65	53.46	40.81	74.00	-33.19	Peak
2	14107.000	9.84	36.29	46.13	54.00	-7.87	Average
3	14107.000	9.84	50.07	59.91	74.00	-14.09	Peak
4	17942.630	11.50	50.04	61.54	74.00	-12.46	Peak
5	17942.630	11.50	36.26	47.76	54.00	-6.24	Average

Vertical

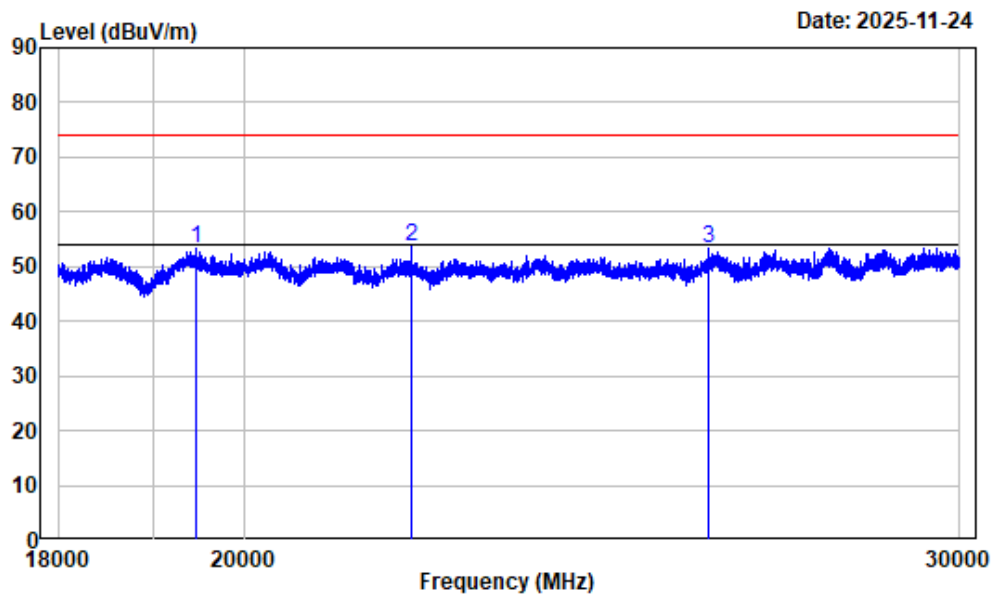


Site : chamber B
Condition : Vertical
Project Number : 2501X39127E-EM
Test mode : Mode4
Tester : Wing K Ji
Spectrum setting: Peak reading: RBW:1MHz VBW:3MHz Detector:Peak
: Average reading: RBW:1MHz VBW:10Hz Detector:Peak

Freq Factor		Read		Limit	Over	Remark
MHz	dB/m	Level	Level	Line	Limit	
1	5981.000	-2.99	52.26	49.27	74.00	-24.73 Peak
2	14100.630	9.89	50.76	60.65	74.00	-13.35 Peak
3	14100.630	9.89	36.19	46.08	54.00	-7.92 Average
4	17997.880	11.73	49.46	61.19	74.00	-12.81 Peak
5	17997.880	11.73	35.95	47.68	54.00	-6.32 Average

18 ~ 30 GHz

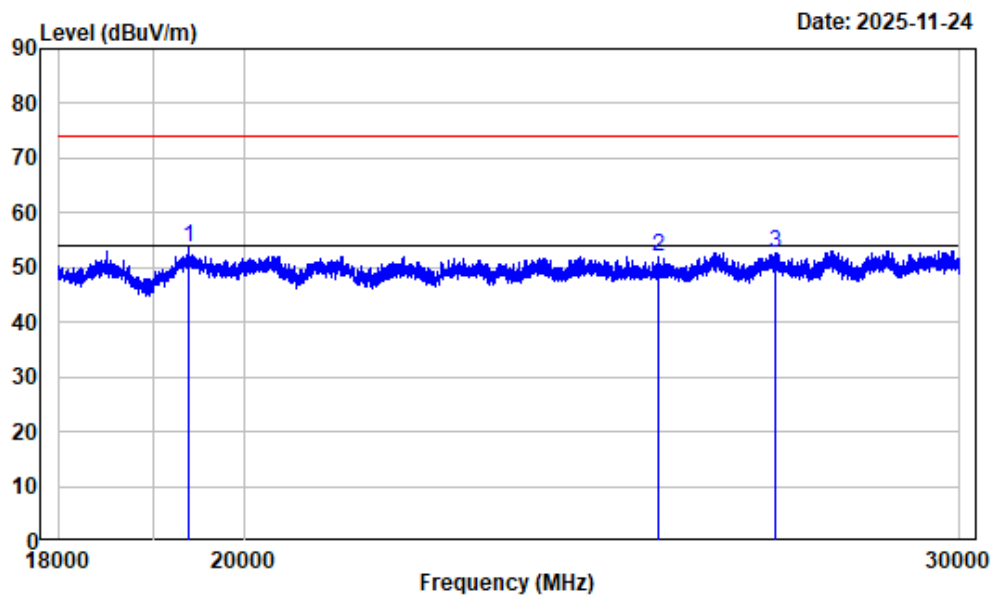
Horizontal



Site : chamber B
Condition : Horizontal
Project Number : 2501X39127E-EM
Test mode : Mode4
Tester : Wing K Ji
Spectrum setting: Peak reading: RBW:1MHz VBW:3MHz Detector:Peak

	Freq Factor		Read		Limit	Over	Remark
	MHz	dB/m	Level	Level	Line	Limit	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	19454.000	15.45	37.80	53.25	74.00	-20.75	Peak
2	21992.000	15.61	38.21	53.82	74.00	-20.18	peak
3	26032.000	17.66	35.69	53.35	74.00	-20.65	Peak

Vertical



Site : chamber B
Condition : Vertical
Project Number : 2501X39127E-EM
Test mode : Mode4
Tester : Wing K Ji
Spectrum setting: Peak reading: RBW:1MHz VBW:3MHz Detector:Peak

	Freq	Factor	Read		Limit	Over	Remark
			Level	Level			
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	19382.000	15.45	38.09	53.54	74.00	-20.46	peak
2	25298.000	16.80	35.29	52.09	74.00	-21.91	Peak
3	27020.000	18.21	34.58	52.79	74.00	-21.21	Peak

EUT PHOTOGRAPHS

Please refer to the attachment 2501X39127E-RF-EXP External photo and 2501X39127E-RF-INP Internal photo.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2501X39127E-EM-00-TSP Test Setup photo.

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