TEST REPORT

Applicant Name:	Shenzhen Hua Xin Information Technology Co.,Ltd
Address:	B101-B801, building 4, No.7 Industrial Area, Heshuikou Community, Matian Street, Guangming District, Shenzhen,China
Report Number:	2401Y37315E-RF-00A
FCC ID:	2AMYQ-2024HXL

Test Standard (s)

FCC PART 15.247

Sample Description

Product Type:	Robotic vacuum cleaner
Model No.:	H660, H680, H1500
Multiple Model(s) No.:	N/A
Trade Mark:	N/A
Date Received:	2024-10-11
Issue Date:	2024-11-18

Test Result:	Pass▲

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

Prepared and Checked By:

GaLa Liu

RF Engineer

Approved By:

Nancy Wang

RF 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 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	2401Y37315E-RF-00A	Original Report	2024-11-18

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product	Robotic vacuum cleaner
Tested Model	H660, H680, H1500
Multiple Model(s)	N/A
Frequency Range	2412~2462MHz
Maximum Conducted Output Peak Power	17.99dBm
Modulation Technique	DSSS, OFDM
Antenna Specification#	4.60dBi (provided by the applicant)
Voltage Range	Model H660: DC 19V from Charging Base or DC 14.4V from Battery Model H680: DC 19V from Intelligent Sweeping Robot Dust Collector or DC 14.4V from Battery Model H1500: DC 19V from Base Station or DC 14.4V from Battery
Sample serial number	2SMP-3(H680) /2SMX-1(H660) /2TXS-1(H1500) for Conducted Emissions Test/Radiated Emissions Test 2SMP-4 for RF Conducted Test (Assigned by BACL, Shenzhen)
Sample/EUT Status	Good condition
Adapter Information	Only For model H660 Adapter 1 Model: GQ20-190100-AU Input: AC 100-240V, 50/60Hz, 0.8A, Max Output: DC 19.0V, 1.0A Adapter 2 Model: GQ20-190060-AU Input: AC 100-240V, 50/60Hz, 0.8A, Max Output: DC 19.0V, 0.6A Adapter 3 Model: HA012A-190060UH Input: AC 100-240V, 50/60Hz, 0.5A Output: DC 19.0V, 0.6A Adapter 4 Model: HA018A-190100U Input: AC 100-240V, 50/60Hz, 0.5A Output: DC 19.0V, 1.0A

Battery Information	Battery 1(For model H660/H680/H1500): Model: ICR18650-26V 4S2P PCM5200 Nominal Capacity/Voltage: 5200mAh, 14.4V_{DC}, 74.88Wh Battery 2(For model H660/H680/H1500): Model: ICR18650/26V-4S2P-II Nominal Capacity/Voltage: 5100mAh, 14.4V_{DC}, 73.44Wh Battery 3(For model H660): Model: ICR18650-26V 4S1P PCM2600 Nominal Capacity/Voltage: 2600mAh, 14.4V_{DC}, 37.44Wh Battery 4(For model H660): Model: JY-ICR18650/26V(2600)-4S1P-II Nominal Capacity/Voltage: 2550mAh, 14.4V_{DC}, 36.72Wh
Note: 1. All tests were performed with the worst case was 5200mAh battery. 2. The Multiple models are electrically identical with the test model except for model name, package type, adapter, battery and bottom view of vacumm cleaner. 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 15-Subparts A and C of the Federal Communication Commission's rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 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.

And KDB 558074 D01 15.247 Meas Guidance v05r02.

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

Parameter		Uncertainty
Occupied Channel Bandwidth		109.2kHz(k=2, 95% level of confidence)
RF output power, conducted		0.86dB(k=2, 95% level of confidence)
AC Power Lines Conducted Emissions	9kHz~150 kHz	3.63dB(k=2, 95% level of confidence)
	150 kHz ~30MHz	3.66dB(k=2, 95% level of confidence)
Radiated Emissions	0.009MHz~30MHz	3.60dB(k=2, 95% level of confidence)
	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)
Temperature		±1℃
Humidity		±1%
Supply voltages		±0.4%

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.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

For Wi-Fi mode, total 11 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	8	2447
2	2417	9	2452
3	2422	10	2457
4	2427	11	2462
5	2432	/	/
6	2437	/	/
7	2442	/	/

802.11 b&802.11g&802.11n-HT20 mode was tested with Channel 1, 6 and 11.
802.11n-HT40 mode was tested with Channel 3, 6 and 9.

EUT Exercise Software

Exercise Software#		Secure CRT		
Mode	Data rate	Power Level#		
		Low Channel	Middle Channel	High Channel
802.11b	1Mbps	40	40	40
802.11g	6Mbps	40	40	40
802.11n20	MCS0	40	40	40
802.11n40	MCS0	40	40	40
Note: The worst-case data rates are determined to be as follows for each mode based upon inverstigation by measuring the power and PSD across all data rates, bandwidths and modulations.				

Special Accessories

No special accessory.

Equipment Modifications

No modification was made to the EUT tested.

Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Bull	Receptacle	unknown	unknown
Hua Xin	Base Station	H1500	unknown

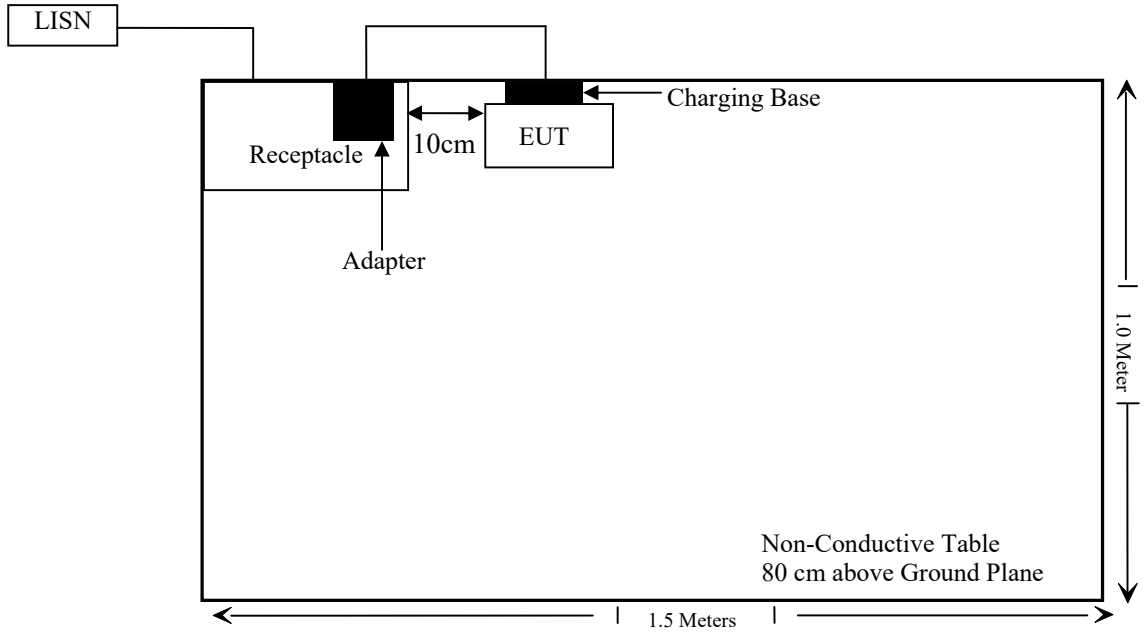
External I/O Cable

Cable Description	Length (m)	From Port	To
Unshielded Un-detachable AC Cable	1.0	Receptacle	LISN
Shielded Un-detachable AC Cable	1.5	Receptacle	AC Mains
Unshielded Un-detachable DC Cable	1.5	Adapter	Charging Base
Unshielded Un-detachable AC Cable	1.2	LISN/Receptacle	Intelligent Sweeping Robot Dust Collector/Base Station
Unshielded Detachable AC Cable	1.5	LISN/Receptacle	Base Station

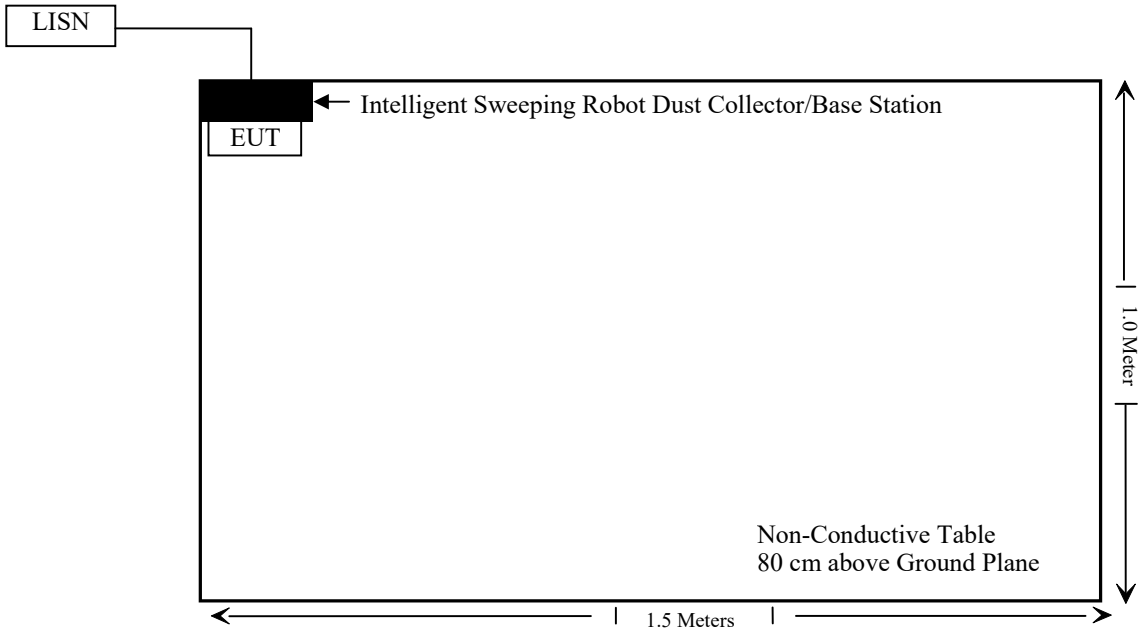
Block Diagram of Test Setup

For Conducted Emissions:

Model H660:

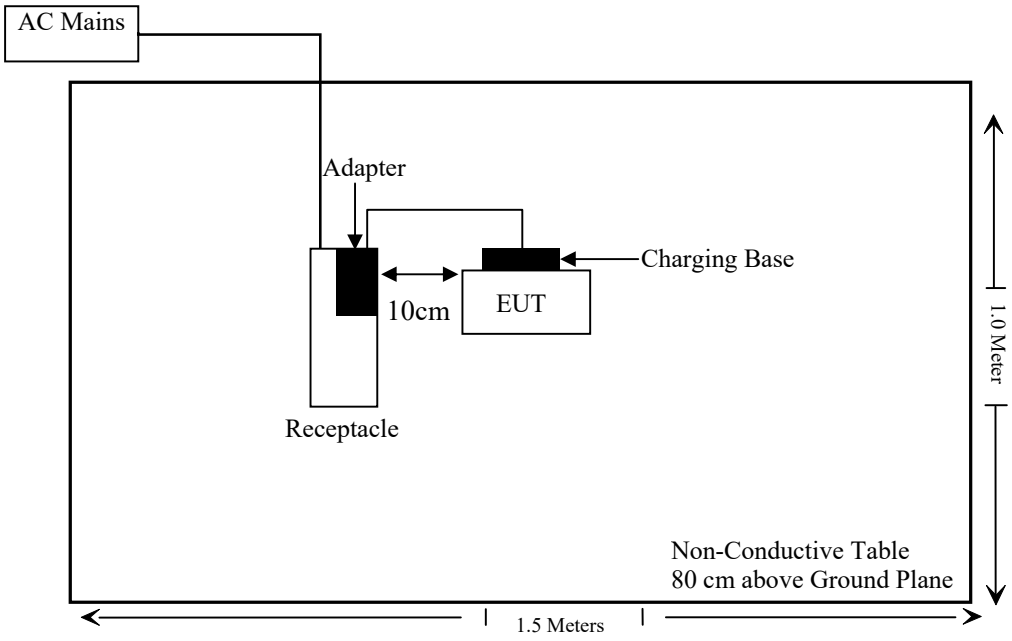


Model H680/H1500:

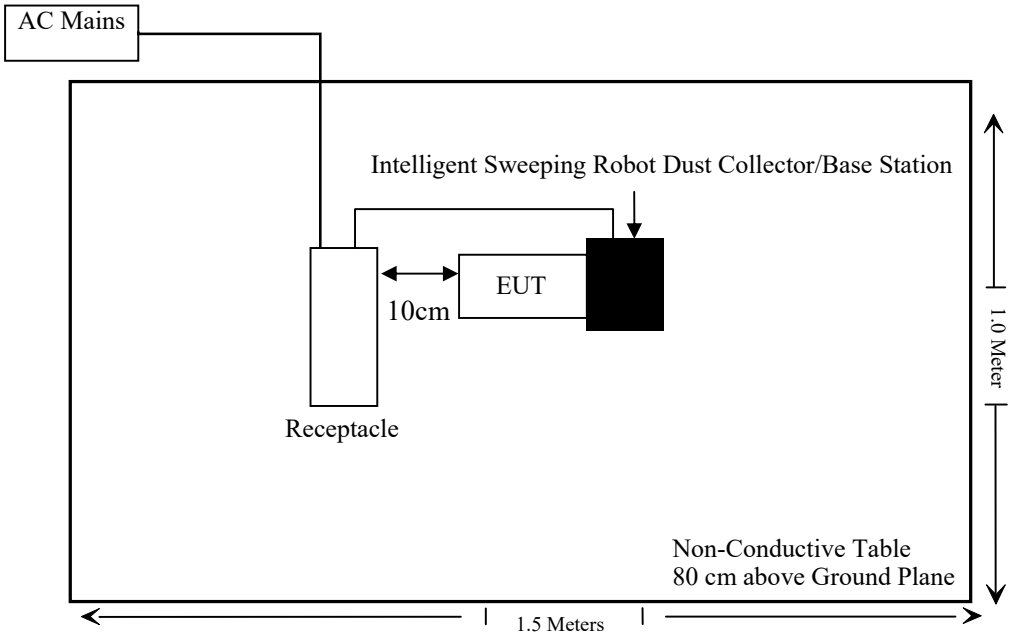


For Radiated Emissions Below 1GHz:

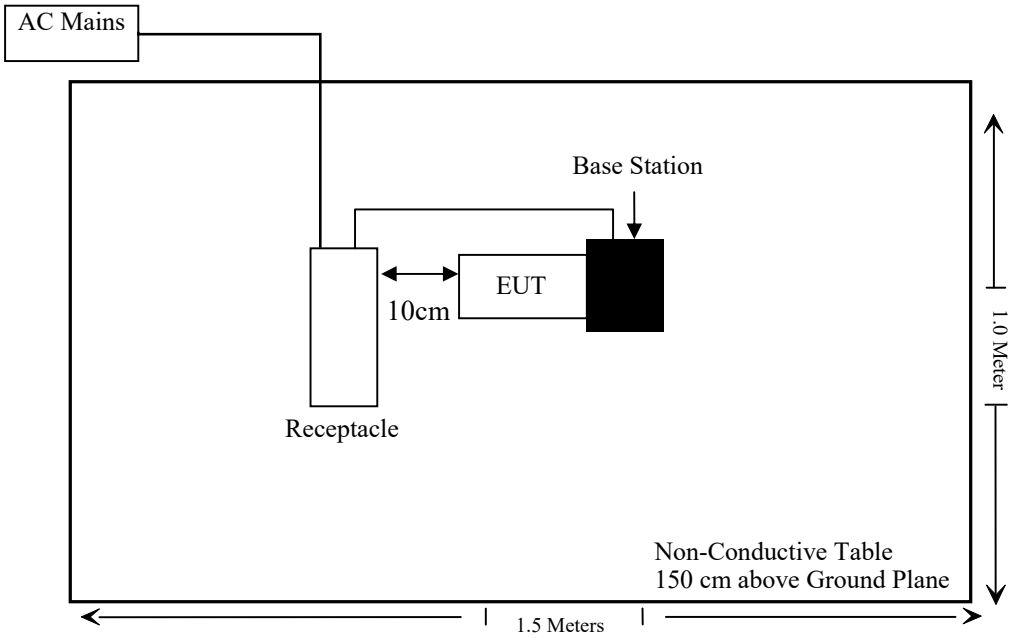
Model H660:



Model H680/H1500:



For Radiated Emissions Above 1GHz:



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
FCC §15.207(a)	AC Line Conducted Emissions	PASS
FCC §15.205,§15.209,§15.247(d)	Radiated Spurious Emission	PASS
FCC §15.207(a)(2)	6dB Emission Bandwidth	PASS
FCC §15.247(b)(1)	Maximum Conducted Output Power	PASS
FCC §15.247(d)	100 kHz Bandwidth of Frequency Band Edge	PASS
FCC §15.247(e)	Power Spectral Density	PASS
C63.10 §11.6	Duty Cycle	PASS
FCC §1.1307&§2.1091&§15.247 (i)	RF Exposure	PASS

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Conducted Emission Test					
Rohde & Schwarz	LISN	ENV216	101613	2024/01/16	2025/01/15
Audix	EMI Test software	E3	19821b(V9)	NCR	NCR
Rohde & Schwarz	EMI Test Receiver	ESCI	101120	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
Radiated Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESR3	102455	2024/01/16	2025/01/15
Sonoma instrument	Pre-amplifier	310N	186238	2024/05/21	2025/05/20
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2023/07/20	2026/07/19
Unknown	Cable	XH500C	J-10M-A	2024/06/18	2025/06/17
Unknown	Cable	Chamber Cable 1	F-03-EM236	2024/06/18	2025/06/17
BACL	Active Loop Antenna	1313-1A	4031911	2024/05/14	2027/05/13
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	UFA147	219661	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
A.H.System	Pre-amplifier	PAM-1840VH	190	2024/06/18	2025/06/17
Electro-Mechanics Co	Horn Antenna	3116	9510-2270	2023/09/18	2026/09/17
UTIFLEX	RF Cable	NO. 13	232308-001	2024/06/18	2025/06/17

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF Conducted Test					
WEINSCHEL	3dB Attenuator	Unknown	F-03-EM220	2024/06/27	2025/06/26
R&S	Spectrum Analyzer	FSV40	101942	2024/09/20	2025/09/19
ANRITSU	Microwave peak power sensor	MA24418A	12622	2024/05/21	2025/05/20

*** 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).

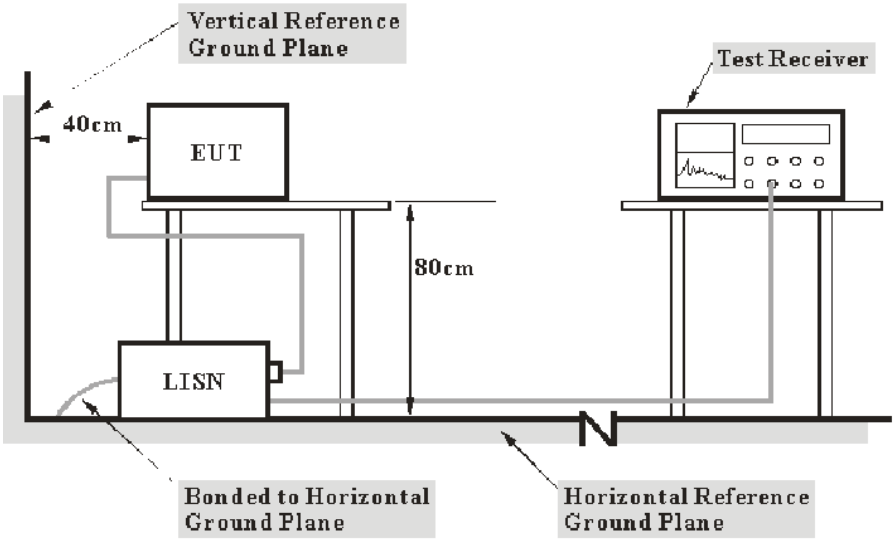
REQUIREMENTS AND TEST PROCEDURES

AC Line Conducted Emissions

Applicable Standard

FCC§15.207

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 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

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.

Factor & Over Limit Calculation

The factor is calculated by adding LISN VDF (Voltage Division Factor) and Cable Loss. The basic equation is as follows:

Factor = LISN VDF + Cable Loss

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 below the limit. The equation for margin calculation is as follows:

Over Limit = level – Limit
Level= reading level+ Factor

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

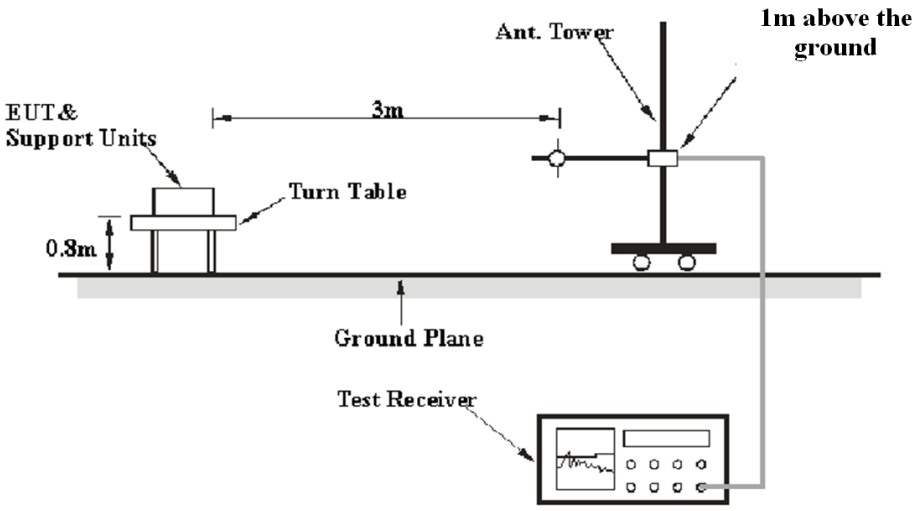
Spurious Emissions

Applicable Standard

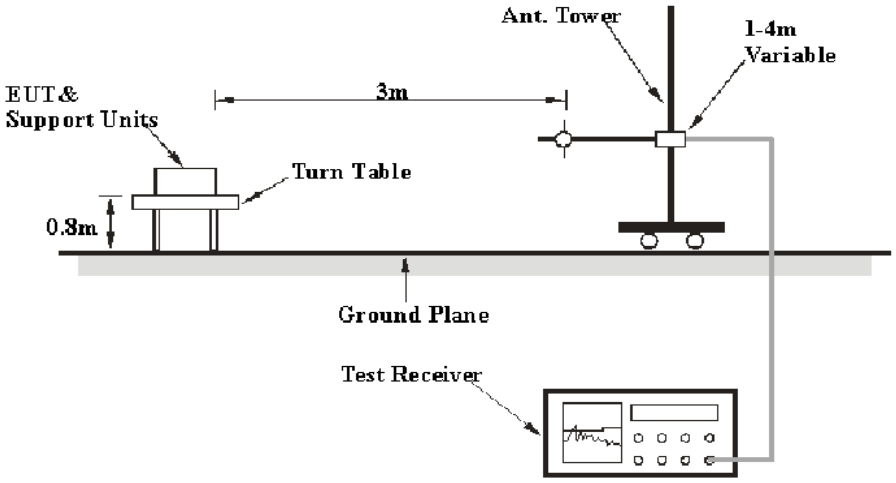
FCC §15.247 (d); §15.209; §15.205;

EUT Setup

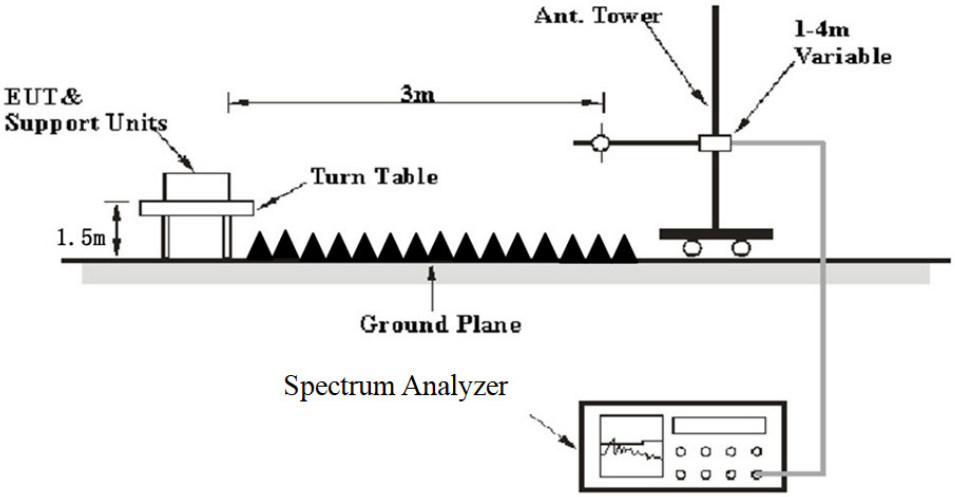
9 kHz-30MHz:



30MHz-1GHz:



Above 1GHz:



The radiated emission performed in the 3 meters, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, FCC 15.247 limits.

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 9 kHz to 25 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

9 kHz-1GHz:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
9 kHz – 150 kHz	/	/	200 Hz	QP
	300 Hz	1 kHz	/	PK
150 kHz – 30 MHz	/	/	9 kHz	QP
	10 kHz	30 kHz	/	PK
30 MHz – 1000 MHz	/	/	120 kHz	QP
	100 kHz	300 kHz	/	PK

1-25GHz:

Measurement	Duty cycle	RBW	Video B/W
PK	Any	1MHz	3 MHz
Average	>98%	1MHz	≥10 Hz Note 1
	<98%	1MHz	≥1/Ton Note 2
Note 1: The detail test parameters please refer to duty cycle section. Note 2: Ton is minimum transmission duration.			

If the maximized peak measured value complies with under the QP/Average limit more than 6dB, then it is unnecessary to perform an QP/Average measurement.

Test Procedure

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

All final data was recorded in Quasi-peak detection mode except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz, average detection modes for frequency bands 9–90 kHz and 110–490 kHz, peak and average detection modes for frequencies above 1 GHz.

For 9 kHz-30MHz, the report shall list the six emissions with the smallest margin relative to the limit, for each of the three antenna orientations (parallel, perpendicular, and ground-parallel) unless the margin is greater than 20 dB.

All emissions under the average limit and under the noise floor have not recorded in the report.

Factor & Over Limit/Margin Calculation

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

Factor = Antenna Factor + Cable Loss - Amplifier Gain

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

Over Limit/Margin = Level/Corrected Amplitude – Limit
Level / Corrected Amplitude = Read Level + Factor

6 dB Emission Bandwidth

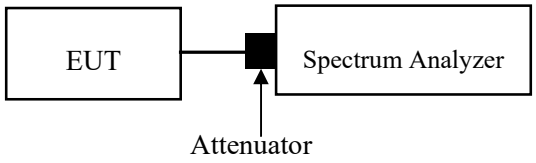
Applicable Standard

According to FCC §15.247(a) (2)
Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

Test Procedure

Test Method: ANSI C63.10-2013 Clause 11.8.1

a) Set RBW = 100 kHz.
b) Set the VBW ≥ [3 × RBW].
c) Detector = peak.
d) Trace mode = max hold.
e) Sweep = auto couple.
f) Allow the trace to stabilize.
g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by6 dB relative to the maximum level measured in the fundamental emission.



Note: A short RF cable with low cable loss connected to the EUT antenna port, which was provided by client or lab, the cable loss was add with offset into test equipment, the total offset consists of attenuator and/or RF cable and/or power splitter loss.

Maximum Conducted Output Power

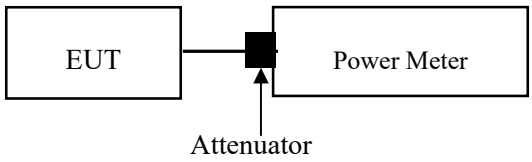
Applicable Standard

According to FCC §15.247(b) (3), for systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

Test Procedure

Test method: ANSI C63.10-2013 clause 11.9.1.3 for peak power method or clause 11.9.2.3.2 for average power method.

1. Place the EUT on a bench and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to one test equipment.
3. Add a correction factor to the display.



Note: A short RF cable with low cable loss connected to the EUT antenna port, which was provided by client or lab, the cable loss was add with offset into test equipment, the total offset consists of attenuator and/or RF cable and/or power splitter loss.

100 kHz Bandwidth of Frequency Band Edge

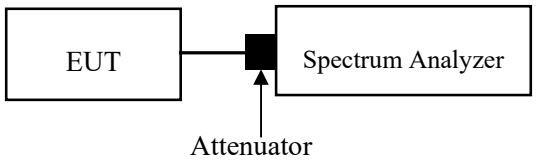
Applicable Standard

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

Test Procedure

Test Method: ANSI C63.10-2013 Clause 11.11

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.



Note: A short RF cable with low cable loss connected to the EUT antenna port, which was provided by client or lab, the cable loss was add with offset into test equipment, the total offset consists of attenuator and/or RF cable and/or power splitter loss.

Power Spectral Density

Applicable Standard

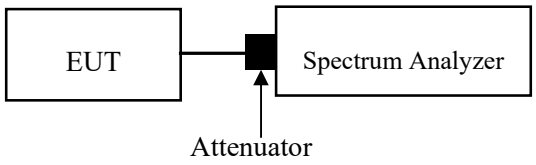
For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

Test Procedure

Test Method: ANSI C63.10-2013 Clause 11.10.2

Use this procedure when the maximum peak conducted output power in the fundamental emission is used to demonstrate compliance.

1. Set the RBW to: 3kHz≤ RBW≤100 kHz.
2. Set the VBW ≥ 3×RBW.
3. Set the span to 1.5 times the DTS bandwidth.
4. Detector = peak.
5. Sweep time = auto couple.
6. Trace mode = max hold.
7. Allow trace to fully stabilize.
8. Use the peak marker function to determine the maximum amplitude level within the RBW.
9. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.



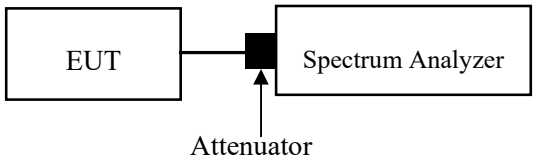
Note: A short RF cable with low cable loss connected to the EUT antenna port, which was provided by client or lab, the cable loss was add with offset into test equipment, the total offset consists of attenuator and/or RF cable and/or power splitter loss.

Duty Cycle

Test Procedure

According to ANSI C63.10-2013 Section 11.6

The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the ON and OFF times of the transmitted signal:
1) Set the center frequency of the instrument to the center frequency of the transmission.
2) Set RBW ≥ OBW if possible; otherwise, set RBW to the largest available value.
3) Set VBW ≥ RBW. Set detector = peak or average.
4) The zero-span measurement method shall not be used unless both RBW and VBW are > 50/T and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring the duty cycle shall not be used if T ≤ 16.7 μs.)



Note: A short RF cable with low cable loss connected to the EUT antenna port, which was provided by client or lab, the cable loss was add with offset into test equipment, the total offset consists of attenuator and/or RF cable and/or power splitter loss.

ANTENNA REQUIREMENT

Applicable Standard

According to FCC § 15.203, 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. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

Antenna Connector Construction

The EUT has an internal antenna arrangement, which was permanently attached, the antenna gain[#] is 4.6dBi, fulfill the requirement of this section. Please refer to the EUT photos.

Result: Compliant

TEST DATA AND RESULTS

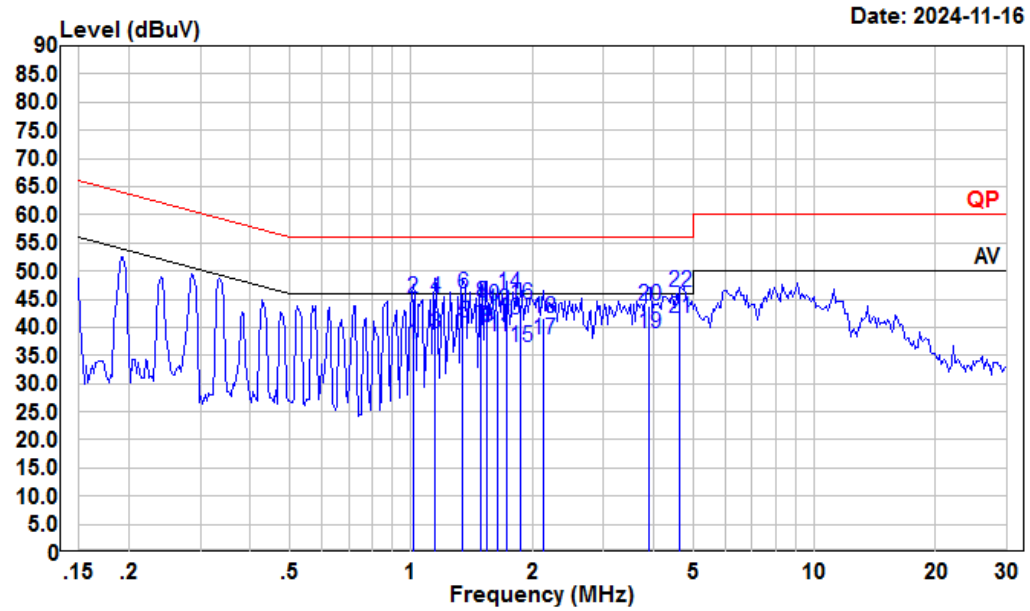
AC Line Conducted Emissions

Environmental Conditions

Temperature (℃)	24-26	**Relative Humidity (%)**	59-60
ATM Pressure (kPa)	101	**Test engineer**	Macy Shi
Test date	2024/10/31-2024/11/16		
EUT operation mode	Transmitting (Maximum output power mode, 802.11b Middle channel)		

For Model: H660

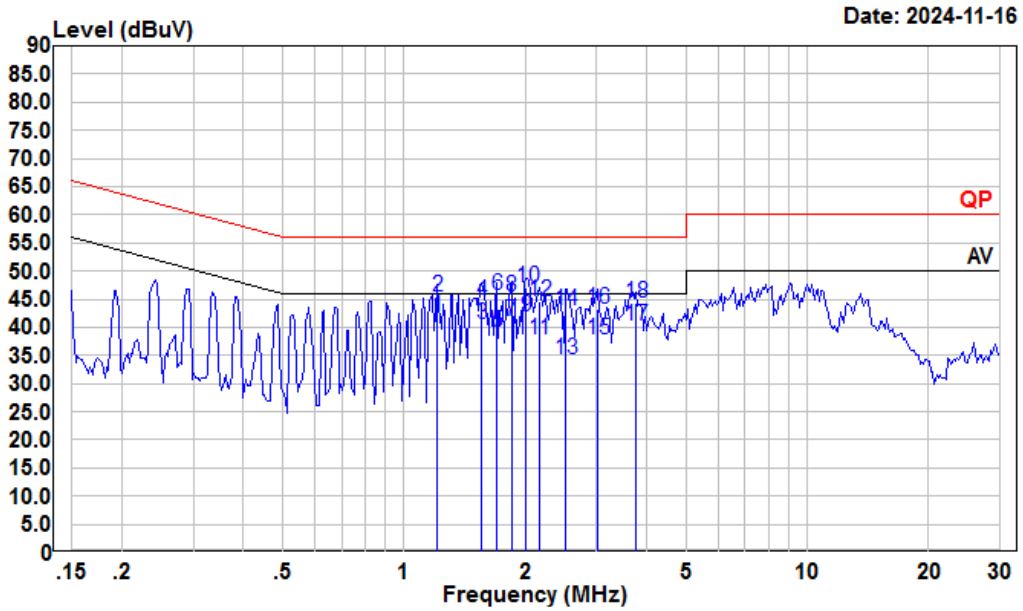
For Adapter 1



Condition: Line
Project : 2401Y37315E-RF
tester : Macy.shi
Note : 2.4G WIFI Transmitting

	Freq	Read Level	Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	1.010	16.36	36.87	10.40	10.11	46.00	-9.13	Average
2	1.010	24.53	45.04	10.40	10.11	56.00	-10.96	QP
3	1.147	18.25	38.82	10.44	10.13	46.00	-7.18	Average
4	1.147	24.53	45.10	10.44	10.13	56.00	-10.90	QP
5	1.345	20.14	40.78	10.49	10.15	46.00	-5.22	Average
6	1.345	25.36	46.00	10.49	10.15	56.00	-10.00	QP
7	1.495	19.31	39.99	10.52	10.16	46.00	-6.01	Average
8	1.495	23.65	44.33	10.52	10.16	56.00	-11.67	QP
9	1.544	19.39	40.08	10.53	10.16	46.00	-5.92	Average
10	1.544	23.21	43.90	10.53	10.16	56.00	-12.10	QP
11	1.645	17.52	38.23	10.54	10.17	46.00	-7.77	Average
12	1.645	22.15	42.86	10.54	10.17	56.00	-13.14	QP
13	1.734	20.50	41.23	10.56	10.17	46.00	-4.77	Average
14	1.734	25.11	45.84	10.56	10.17	56.00	-10.16	QP
15	1.868	15.69	36.45	10.58	10.18	46.00	-9.55	Average
16	1.868	23.37	44.13	10.58	10.18	56.00	-11.87	QP

	Freq	Read Level	Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
17	2.121	17.02	37.78	10.57	10.19	46.00	-8.22	Average
18	2.121	20.85	41.61	10.57	10.19	56.00	-14.39	QP
19	3.881	18.49	39.01	10.31	10.21	46.00	-6.99	Average
20	3.881	23.15	43.67	10.31	10.21	56.00	-12.33	QP
21	4.647	21.09	41.63	10.35	10.19	46.00	-4.37	Average
22	4.647	25.74	46.28	10.35	10.19	56.00	-9.72	QP

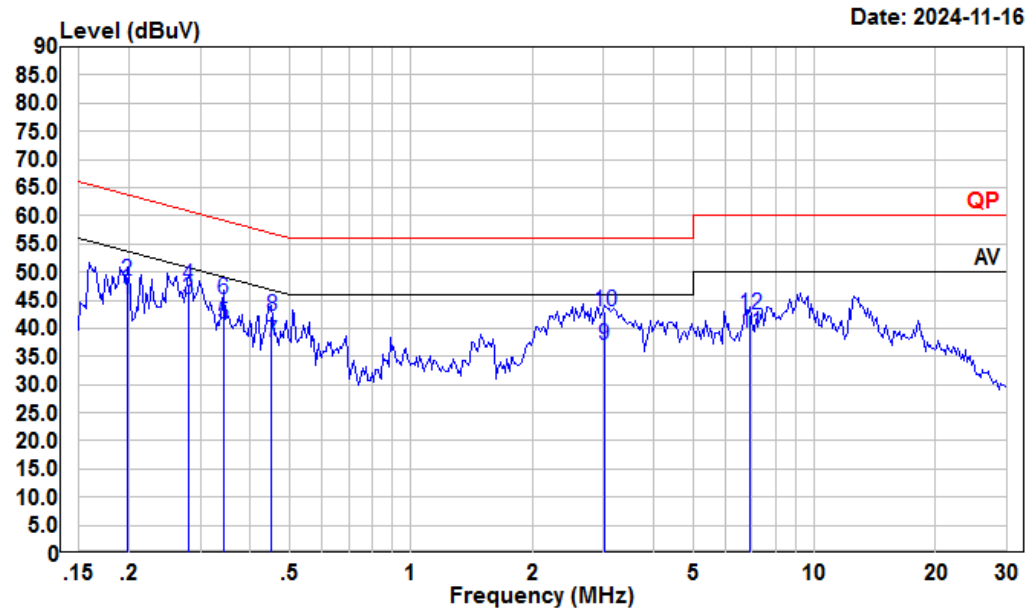


Condition: Neutral
Project : 2401Y37315E-RF
tester : Macy.shi
Note : 2.4G WIFI Transmitting

	Freq	Read Level	Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	1.210	21.03	41.93	10.76	10.14	46.00	-4.07	Average
2	1.210	24.63	45.53	10.76	10.14	56.00	-10.47	QP
3	1.560	19.86	40.60	10.58	10.16	46.00	-5.40	Average
4	1.560	23.96	44.70	10.58	10.16	56.00	-11.30	QP
5	1.698	18.57	39.26	10.52	10.17	46.00	-6.74	Average
6	1.698	25.12	45.81	10.52	10.17	56.00	-10.19	QP
7	1.848	20.53	41.17	10.46	10.18	46.00	-4.83	Average
8	1.848	24.88	45.52	10.46	10.18	56.00	-10.48	QP
9	2.012	21.41	42.00	10.40	10.19	46.00	-4.00	Average
10	2.012	26.35	46.94	10.40	10.19	56.00	-9.06	QP
11	2.167	17.24	37.82	10.40	10.18	46.00	-8.18	Average
12	2.167	23.99	44.57	10.40	10.18	56.00	-11.43	QP
13	2.513	13.69	34.26	10.40	10.17	46.00	-11.74	Average
14	2.513	22.30	42.87	10.40	10.17	56.00	-13.13	QP
15	3.009	17.20	37.78	10.40	10.18	46.00	-8.22	Average
16	3.009	22.55	43.13	10.40	10.18	56.00	-12.87	QP

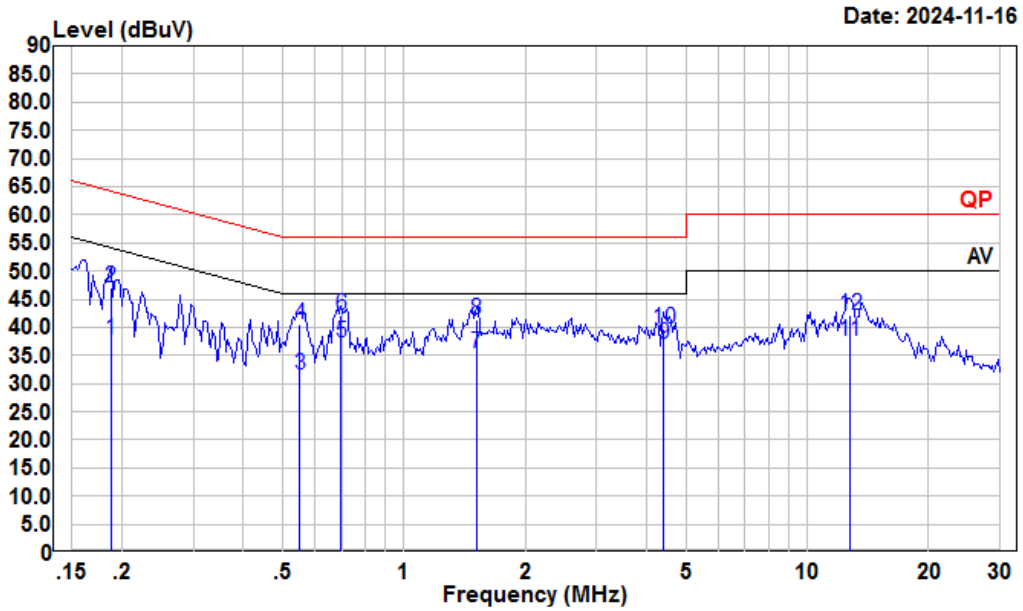
	Freq	Read Level	LISN Level	Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
17	3.759	19.60	40.20	10.40	10.20	46.00	-5.80	Average
18	3.759	23.60	44.20	10.40	10.20	56.00	-11.80	QP

For Adapter 2



Condition: Line
Project : 2401Y37315E-RF
tester : Macy.shi
Note : 2.4G WIFI Transmitting

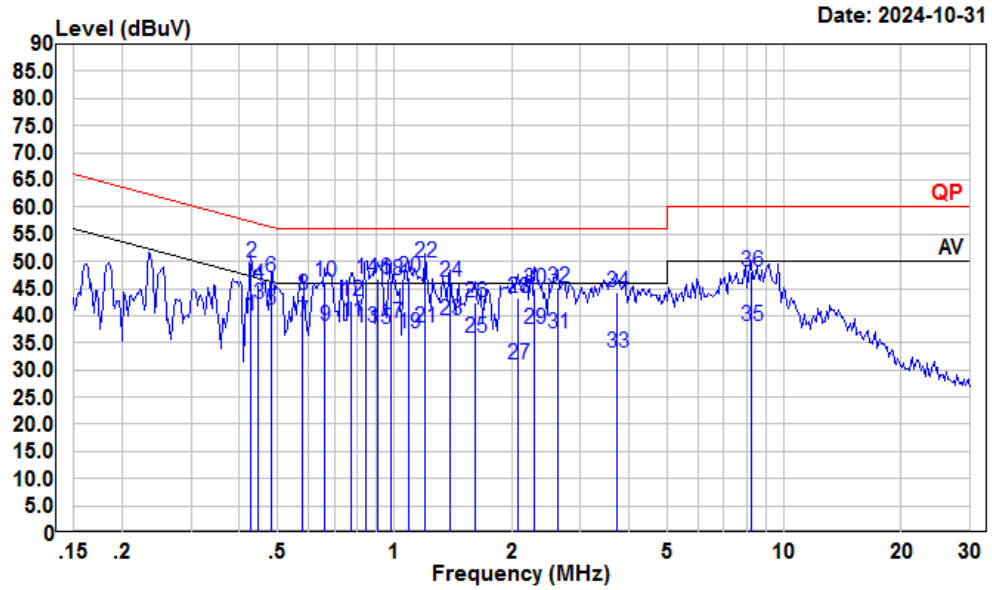
	Freq	Read Level	Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.198	24.31	45.20	10.80	10.09	53.71	-8.51	Average
2	0.198	27.60	48.49	10.80	10.09	63.71	-15.22	QP
3	0.280	24.30	45.09	10.69	10.10	50.81	-5.72	Average
4	0.280	26.90	47.69	10.69	10.10	60.81	-13.12	QP
5	0.343	20.17	40.91	10.62	10.12	49.13	-8.22	Average
6	0.343	24.35	45.09	10.62	10.12	59.13	-14.04	QP
7	0.452	16.90	37.55	10.53	10.12	46.85	-9.30	Average
8	0.452	21.50	42.15	10.53	10.12	56.85	-14.70	QP
9	3.009	16.30	36.90	10.42	10.18	46.00	-9.10	Average
10	3.009	22.50	43.10	10.42	10.18	56.00	-12.90	QP
11	6.951	18.60	39.29	10.50	10.19	50.00	-10.71	Average
12	6.951	21.70	42.39	10.50	10.19	60.00	-17.61	QP



Condition: Neutral
Project : 2401Y37315E-RF
tester : Macy.shi
Note : 2.4G WIFI Transmitting

	Freq	Read Level	Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.187	17.30	37.84	10.45	10.09	54.15	-16.31	Average
2	0.187	26.58	47.12	10.45	10.09	64.15	-17.03	QP
3	0.552	10.70	31.53	10.70	10.13	46.00	-14.47	Average
4	0.552	19.80	40.63	10.70	10.13	56.00	-15.37	QP
5	0.697	16.30	37.15	10.70	10.15	46.00	-8.85	Average
6	0.697	21.40	42.25	10.70	10.15	56.00	-13.75	QP
7	1.511	14.60	35.36	10.60	10.16	46.00	-10.64	Average
8	1.511	20.60	41.36	10.60	10.16	56.00	-14.64	QP
9	4.407	16.23	36.88	10.45	10.20	46.00	-9.12	Average
10	4.407	19.15	39.80	10.45	10.20	56.00	-16.20	QP
11	12.716	16.47	37.49	10.80	10.22	50.00	-12.51	Average
12	12.716	21.16	42.18	10.80	10.22	60.00	-17.82	QP

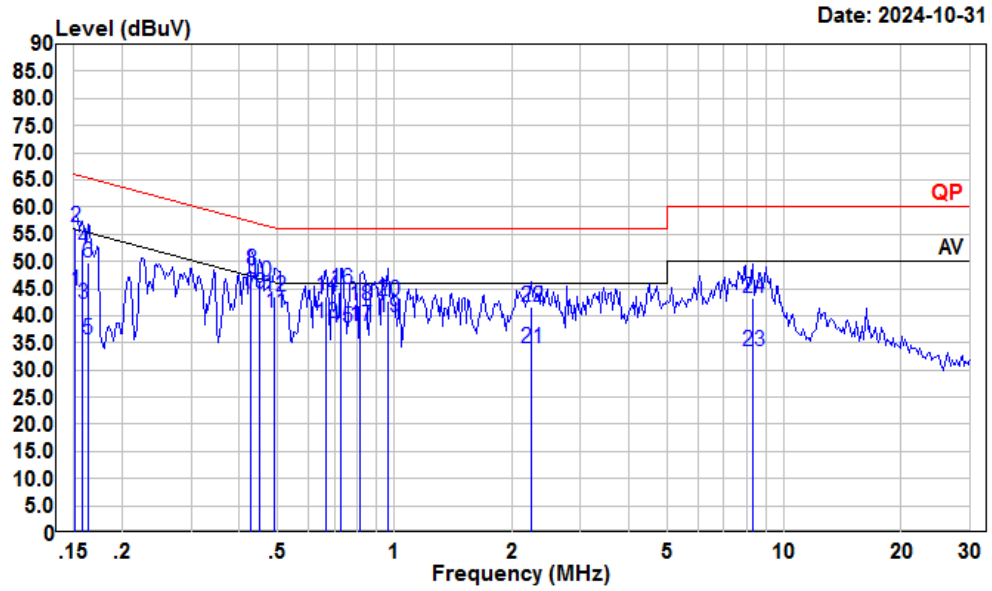
For Adapter 3



Condition: Line
Project : 2401Y37315E-RF
tester : Macy.shi
Note : 2.4G WIFI Transmitting

	Freq	Read Level	LISN Level	Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.428	19.41	40.07	10.55	10.11	47.29	-7.22	Average
2	0.428	29.14	49.80	10.55	10.11	57.29	-7.49	QP
3	0.447	21.40	42.06	10.54	10.12	46.93	-4.87	Average
4	0.447	24.90	45.56	10.54	10.12	56.93	-11.37	QP
5	0.481	20.41	41.05	10.51	10.13	46.32	-5.27	Average
6	0.481	26.41	47.05	10.51	10.13	56.32	-9.27	QP
7	0.582	18.20	38.82	10.50	10.12	46.00	-7.18	Average
8	0.582	23.10	43.72	10.50	10.12	56.00	-12.28	QP
9	0.661	17.40	38.04	10.50	10.14	46.00	-7.96	Average
10	0.661	25.50	46.14	10.50	10.14	56.00	-9.86	QP
11	0.775	18.30	38.90	10.47	10.13	46.00	-7.10	Average
12	0.775	22.10	42.70	10.47	10.13	56.00	-13.30	QP
13	0.844	17.30	37.86	10.45	10.11	46.00	-8.14	Average
14	0.844	26.20	46.76	10.45	10.11	56.00	-9.24	QP
15	0.909	17.10	37.63	10.43	10.10	46.00	-8.37	Average
16	0.909	26.30	46.83	10.43	10.10	56.00	-9.17	QP

	Freq	Read Level	Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
17	0.979	18.09	38.61	10.41	10.11	46.00	-7.39	Average
18	0.979	26.09	46.61	10.41	10.11	56.00	-9.39	QP
19	1.088	16.21	36.75	10.42	10.12	46.00	-9.25	Average
20	1.088	26.41	46.95	10.42	10.12	56.00	-9.05	QP
21	1.197	17.33	37.92	10.45	10.14	46.00	-8.08	Average
22	1.197	29.28	49.87	10.45	10.14	56.00	-6.13	QP
23	1.388	18.61	39.25	10.49	10.15	46.00	-6.75	Average
24	1.388	25.71	46.35	10.49	10.15	56.00	-9.65	QP
25	1.610	15.19	35.90	10.54	10.17	46.00	-10.10	Average
26	1.610	21.69	42.40	10.54	10.17	56.00	-13.60	QP
27	2.077	10.20	30.97	10.58	10.19	46.00	-15.03	Average
28	2.077	22.60	43.37	10.58	10.19	56.00	-12.63	QP
29	2.285	16.85	37.57	10.54	10.18	46.00	-8.43	Average
30	2.285	24.12	44.84	10.54	10.18	56.00	-11.16	QP
31	2.622	16.11	36.76	10.48	10.17	46.00	-9.24	Average
32	2.622	24.41	45.06	10.48	10.17	56.00	-10.94	QP
33	3.720	12.70	33.23	10.33	10.20	46.00	-12.77	Average
34	3.720	23.70	44.23	10.33	10.20	56.00	-11.77	QP
35	8.235	17.25	38.00	10.55	10.20	50.00	-12.00	Average
36	8.235	27.27	48.02	10.55	10.20	60.00	-11.98	QP

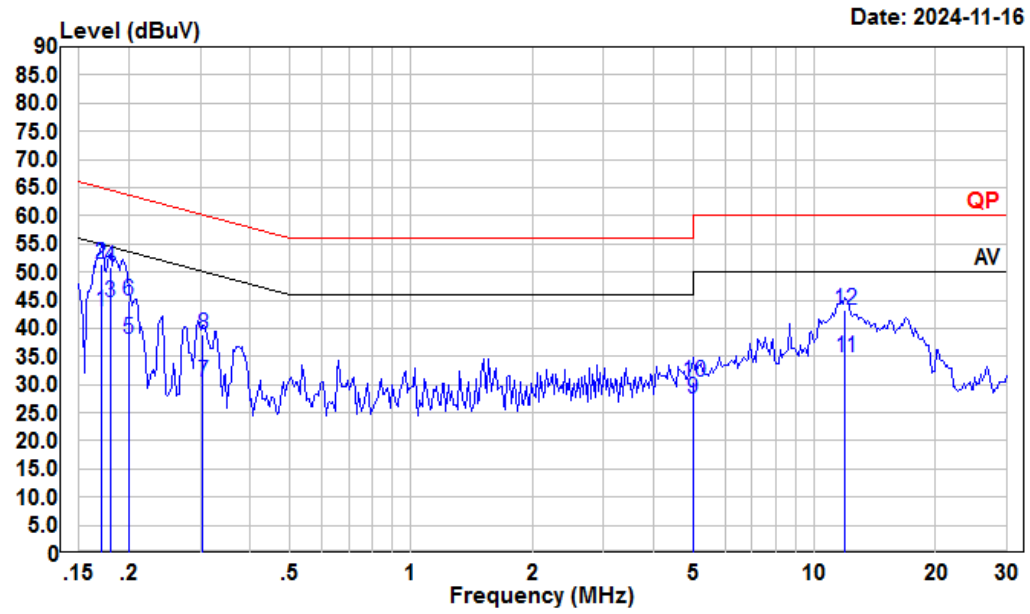


Condition: Neutral
Project : 2401Y37315E-RF
tester : Macy.shi
Note : 2.4G WIFI Transmitting

	Freq	Read Level	LISN Level	Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.152	23.76	44.48	10.59	10.13	55.91	-11.43	Average
2	0.152	35.67	56.39	10.59	10.13	65.91	-9.52	QP
3	0.158	21.40	42.08	10.56	10.12	55.56	-13.48	Average
4	0.158	31.40	52.08	10.56	10.12	65.56	-13.48	QP
5	0.163	14.90	35.55	10.54	10.11	55.30	-19.75	Average
6	0.163	29.10	49.75	10.54	10.11	65.30	-15.55	QP
7	0.428	23.33	44.09	10.65	10.11	47.29	-3.20	Average
8	0.428	27.62	48.38	10.65	10.11	57.29	-8.91	QP
9	0.452	23.30	44.09	10.67	10.12	46.85	-2.76	Average
10	0.452	25.50	46.29	10.67	10.12	56.85	-10.56	QP
11	0.491	19.80	40.63	10.69	10.14	46.14	-5.51	Average
12	0.491	22.60	43.43	10.69	10.14	56.14	-12.71	QP
13	0.668	17.90	38.74	10.70	10.14	46.00	-7.26	Average
14	0.668	22.60	43.44	10.70	10.14	56.00	-12.56	QP
15	0.727	16.99	37.85	10.72	10.14	46.00	-8.15	Average
16	0.727	24.03	44.89	10.72	10.14	56.00	-11.11	QP

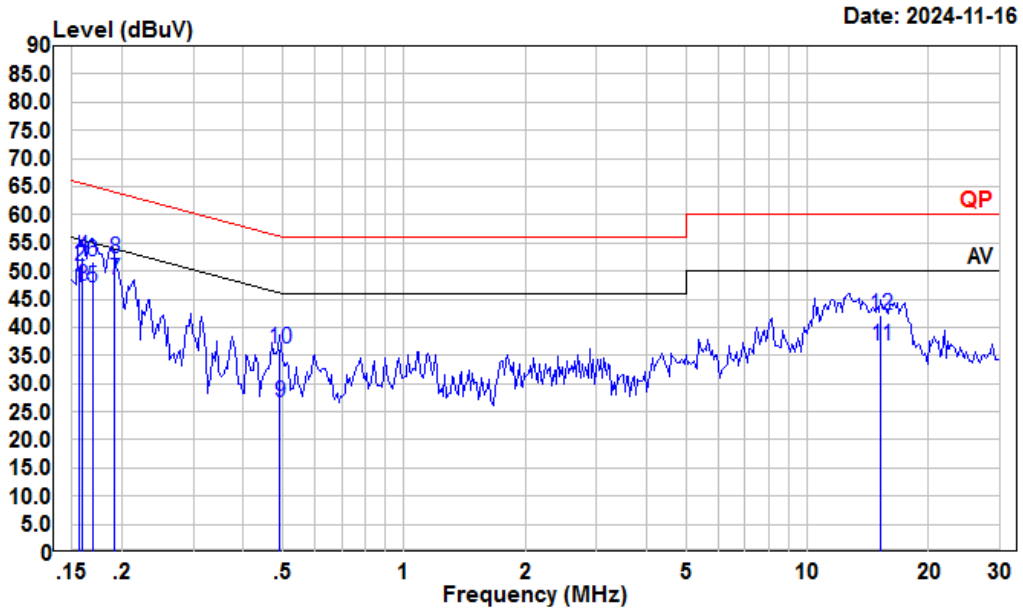
	Freq	Read Level	LISN Level	Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
17	0.817	17.19	38.10	10.79	10.12	46.00	-7.90	Average
18	0.817	20.99	41.90	10.79	10.12	56.00	-14.10	QP
19	0.958	18.59	39.58	10.88	10.11	46.00	-6.42	Average
20	0.958	21.59	42.58	10.88	10.11	56.00	-13.42	QP
21	2.237	13.50	34.08	10.40	10.18	46.00	-11.92	Average
22	2.237	20.95	41.53	10.40	10.18	56.00	-14.47	QP
23	8.323	12.51	33.46	10.75	10.20	50.00	-16.54	Average
24	8.323	22.21	43.16	10.75	10.20	60.00	-16.84	QP

For Adapter 4



Condition: Line
Project : 2401Y37315E-RF
tester : Macy.shi
Note : 2.4G WIFI Transmitting

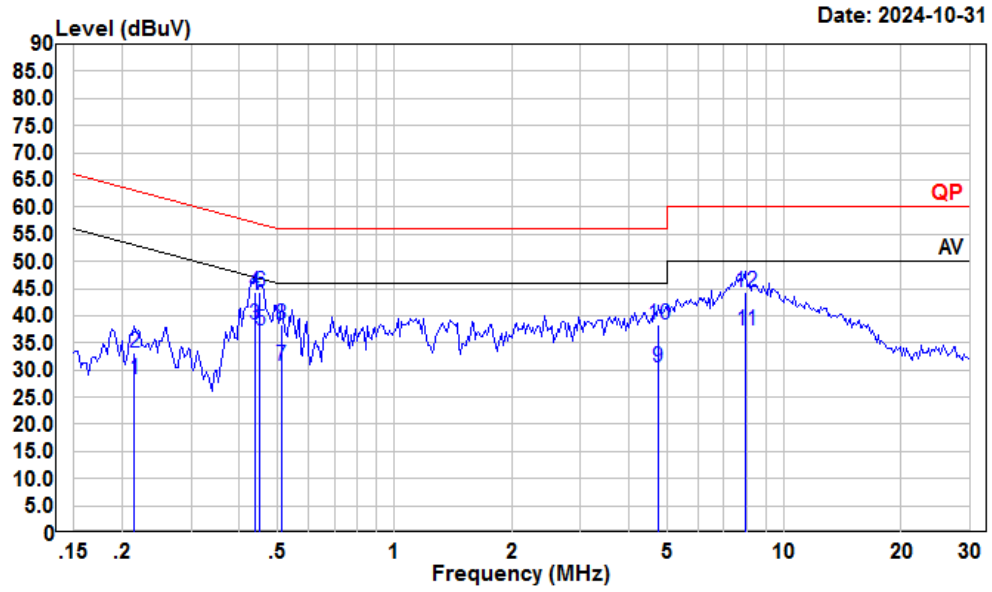
	Freq	Read Level	Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.170	22.59	43.09	10.40	10.10	54.94	-11.85	Average
2	0.170	30.90	51.40	10.40	10.10	64.94	-13.54	QP
3	0.180	24.20	44.70	10.40	10.10	54.50	-9.80	Average
4	0.180	30.30	50.80	10.40	10.10	64.50	-13.70	QP
5	0.200	17.47	37.96	10.40	10.09	53.62	-15.66	Average
6	0.200	24.45	44.94	10.40	10.09	63.62	-18.68	QP
7	0.305	9.93	30.35	10.31	10.11	50.10	-19.75	Average
8	0.305	18.35	38.77	10.31	10.11	60.10	-21.33	QP
9	5.005	6.86	27.52	10.48	10.18	50.00	-22.48	Average
10	5.005	9.76	30.42	10.48	10.18	60.00	-29.58	QP
11	11.933	14.43	34.77	10.13	10.21	50.00	-15.23	Average
12	11.933	22.80	43.14	10.13	10.21	60.00	-16.86	QP



Condition: Neutral
Project : 2401Y37315E-RF
tester : Macy.shi
Note : 2.4G WIFI Transmitting

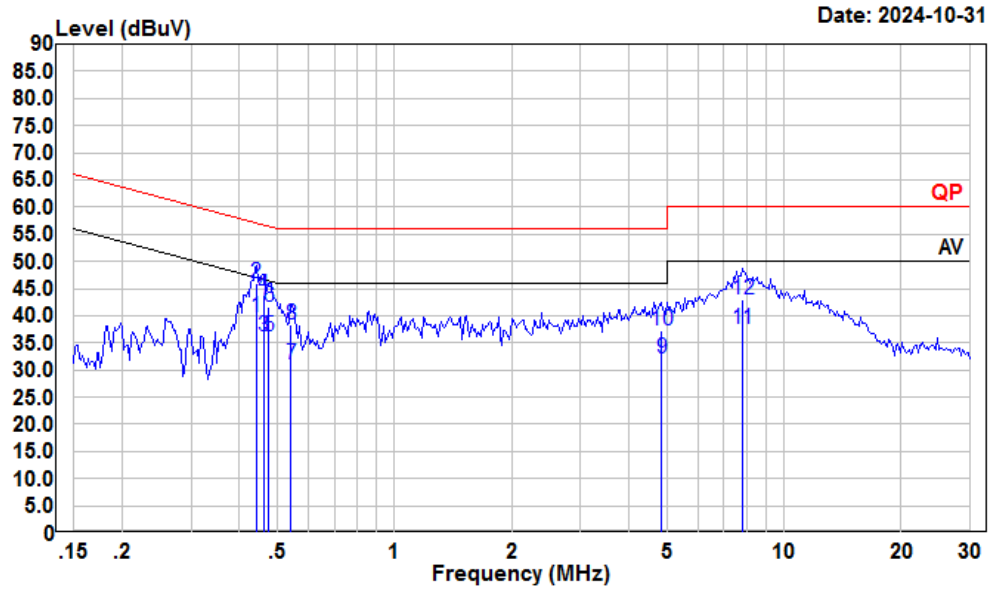
	Freq	Read Level	LISN Level	Cable Factor	Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.156	26.66	47.04	10.26	10.12	55.65	-8.61	Average
2	0.156	30.56	50.94	10.26	10.12	65.65	-14.71	QP
3	0.160	26.81	47.22	10.29	10.12	55.47	-8.25	Average
4	0.160	32.13	52.54	10.29	10.12	65.47	-12.93	QP
5	0.169	26.52	46.98	10.36	10.10	55.03	-8.05	Average
6	0.169	31.14	51.60	10.36	10.10	65.03	-13.43	QP
7	0.191	27.85	48.48	10.54	10.09	53.98	-5.50	Average
8	0.191	31.58	52.21	10.54	10.09	63.98	-11.77	QP
9	0.491	5.68	26.62	10.80	10.14	46.14	-19.52	Average
10	0.491	15.27	36.21	10.80	10.14	56.14	-19.93	QP
11	15.226	16.23	36.84	10.39	10.22	50.00	-13.16	Average
12	15.226	21.45	42.06	10.39	10.22	60.00	-17.94	QP

For Model: H680



Condition: Line
Project : 2401Y37315E-RF
tester : Macy.shi
Note : 2.4G WIFI Transmitting

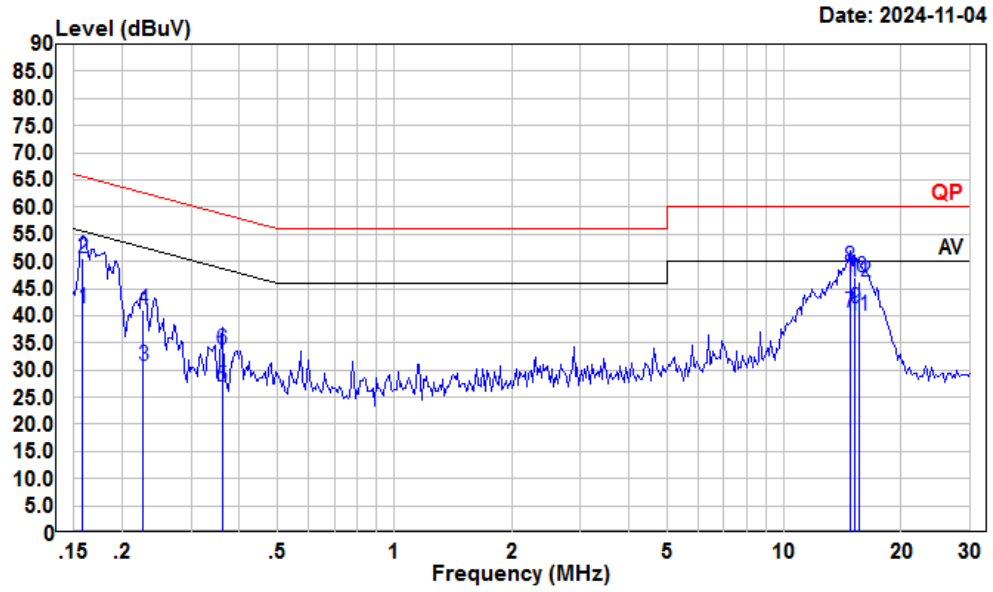
	Freq	Read Level	LISN Level	Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.215	7.78	28.25	10.38	10.09	53.01	-24.76	Average
2	0.215	12.72	33.19	10.38	10.09	63.01	-29.82	QP
3	0.437	18.09	38.43	10.23	10.11	47.11	-8.68	Average
4	0.437	23.90	44.24	10.23	10.11	57.11	-12.87	QP
5	0.452	16.90	37.24	10.22	10.12	46.85	-9.61	Average
6	0.452	24.00	44.34	10.22	10.12	56.85	-12.51	QP
7	0.513	10.39	30.75	10.22	10.14	46.00	-15.25	Average
8	0.513	17.95	38.31	10.22	10.14	56.00	-17.69	QP
9	4.746	9.85	30.50	10.46	10.19	46.00	-15.50	Average
10	4.746	17.82	38.47	10.46	10.19	56.00	-17.53	QP
11	7.977	16.64	37.22	10.38	10.20	50.00	-12.78	Average
12	7.977	23.85	44.43	10.38	10.20	60.00	-15.57	QP



Condition: Neutral
Project : 2401Y37315E-RF
tester : Macy.shi
Note : 2.4G WIFI Transmitting

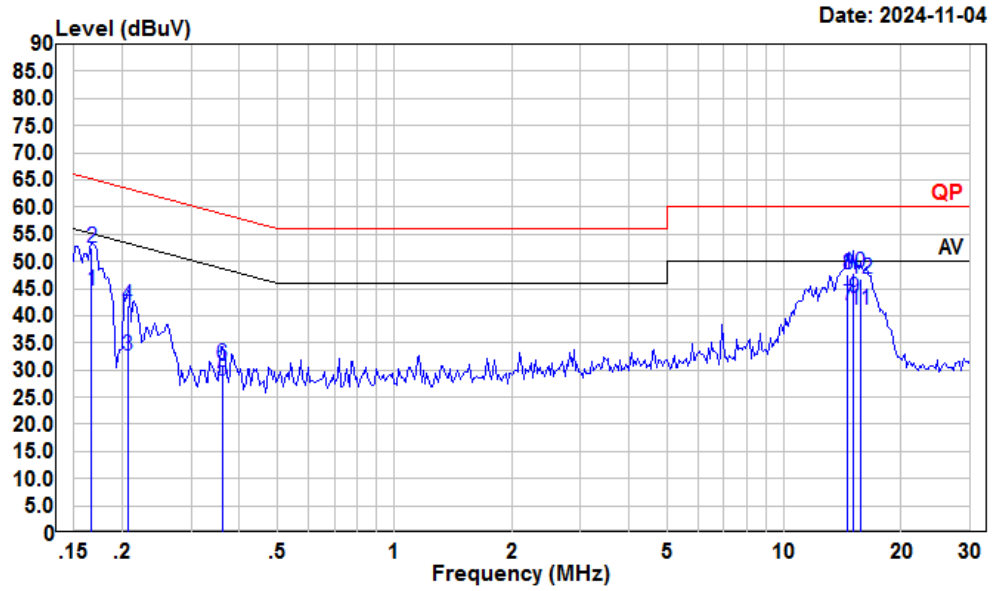
	Freq	Read Level	LISN Level	Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.442	18.94	39.83	10.77	10.12	47.02	-7.19	Average
2	0.442	25.19	46.08	10.77	10.12	57.02	-10.94	QP
3	0.461	15.41	36.31	10.78	10.12	46.67	-10.36	Average
4	0.461	22.81	43.71	10.78	10.12	56.67	-12.96	QP
5	0.476	15.30	36.22	10.79	10.13	46.41	-10.19	Average
6	0.476	20.80	41.72	10.79	10.13	56.41	-14.69	QP
7	0.541	10.12	30.98	10.73	10.13	46.00	-15.02	Average
8	0.541	17.58	38.44	10.73	10.13	56.00	-17.56	QP
9	4.848	11.54	32.12	10.40	10.18	46.00	-13.88	Average
10	4.848	16.64	37.22	10.40	10.18	56.00	-18.78	QP
11	7.810	16.84	37.50	10.46	10.20	50.00	-12.50	Average
12	7.810	22.41	43.07	10.46	10.20	60.00	-16.93	QP

For Model: H1500



Condition: Line
Project : 2401Y37315E -RF
tester : Macy.shi
Note : 2.4G Transmitting

	Freq	Read Level	LISN Level	Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.158	20.83	41.35	10.40	10.12	55.56	-14.21	Average
2	0.158	30.04	50.56	10.40	10.12	65.56	-15.00	QP
3	0.227	10.35	30.80	10.37	10.08	52.57	-21.77	Average
4	0.227	20.50	40.95	10.37	10.08	62.57	-21.62	QP
5	0.361	6.53	26.92	10.27	10.12	48.69	-21.77	Average
6	0.361	13.34	33.73	10.27	10.12	58.69	-24.96	QP
7	14.750	20.07	40.58	10.29	10.22	50.00	-9.42	Average
8	14.750	28.56	49.07	10.29	10.22	60.00	-10.93	QP
9	15.226	20.69	41.23	10.32	10.22	50.00	-8.77	Average
10	15.226	26.59	47.13	10.32	10.22	60.00	-12.87	QP
11	15.552	19.29	39.85	10.35	10.21	50.00	-10.15	Average
12	15.552	25.79	46.35	10.35	10.21	60.00	-13.65	QP



Condition: Neutral
Project : 2401Y37315E -RF
tester : Macy.shi
Note : 2.4G Transmitting

	Freq	Read Level	LISN Level	Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.167	24.15	44.60	10.35	10.10	55.12	-10.52	Average
2	0.167	32.17	52.62	10.35	10.10	65.12	-12.50	QP
3	0.206	12.04	32.74	10.61	10.09	53.36	-20.62	Average
4	0.206	21.23	41.93	10.61	10.09	63.36	-21.43	QP
5	0.361	7.07	27.92	10.73	10.12	48.69	-20.77	Average
6	0.361	10.09	30.94	10.73	10.12	58.69	-27.75	QP
7	14.594	21.19	41.82	10.41	10.22	50.00	-8.18	Average
8	14.594	26.89	47.52	10.41	10.22	60.00	-12.48	QP
9	15.066	22.51	43.13	10.40	10.22	50.00	-6.87	Average
10	15.066	27.23	47.85	10.40	10.22	60.00	-12.15	QP
11	15.718	20.42	41.00	10.37	10.21	50.00	-9.00	Average
12	15.718	26.22	46.80	10.37	10.21	60.00	-13.20	QP

Spurious Emissions

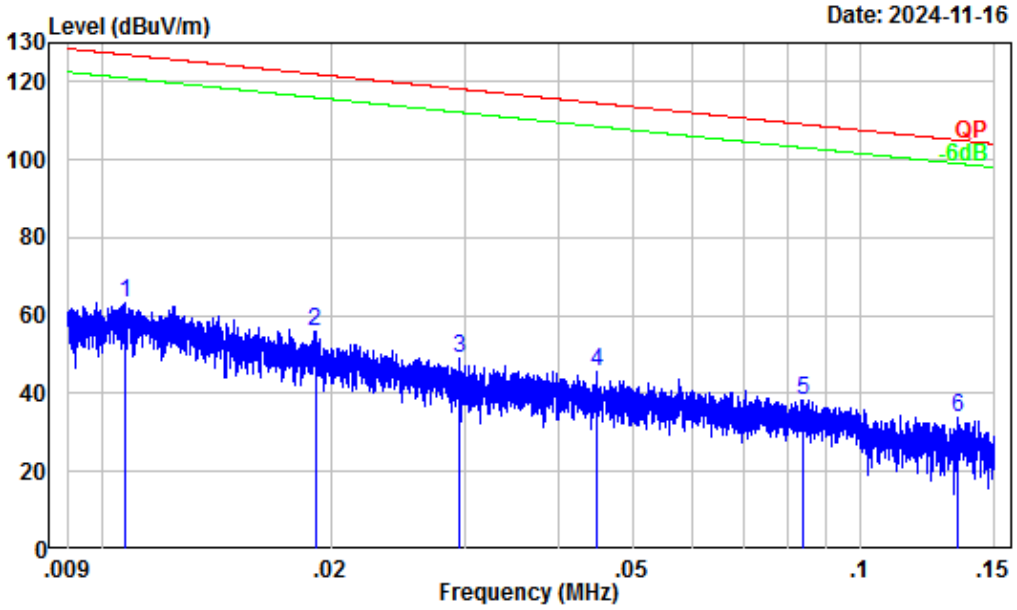
Environmental Conditions

Temperature (℃)	22-24	**Relative Humidity (%)**	44-47
ATM Pressure (kPa):	101	**Test engineer:**	Anson Su, Carl Zhu, Zenos Qiao
Test date:	2024.10.29-2024.11.16		
EUT operation mode:	Below 1GHz: Transmitting (Maximum output power mode, 802.11b Middle channel) Above 1GHz: Transmitting		
Note:	For 9kHz- 30MHz, only the worst case parallel was recorded. For above 18GHz, only the worst case 802.11b 2437MHz was recorded.		

Below 1GHz:

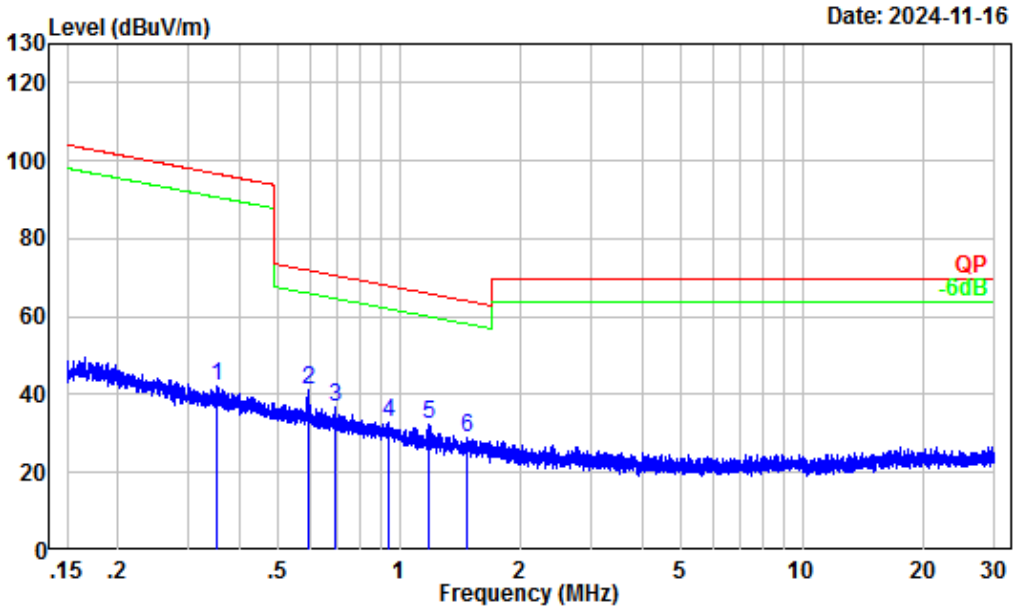
For Model: H660

For Adapter 1



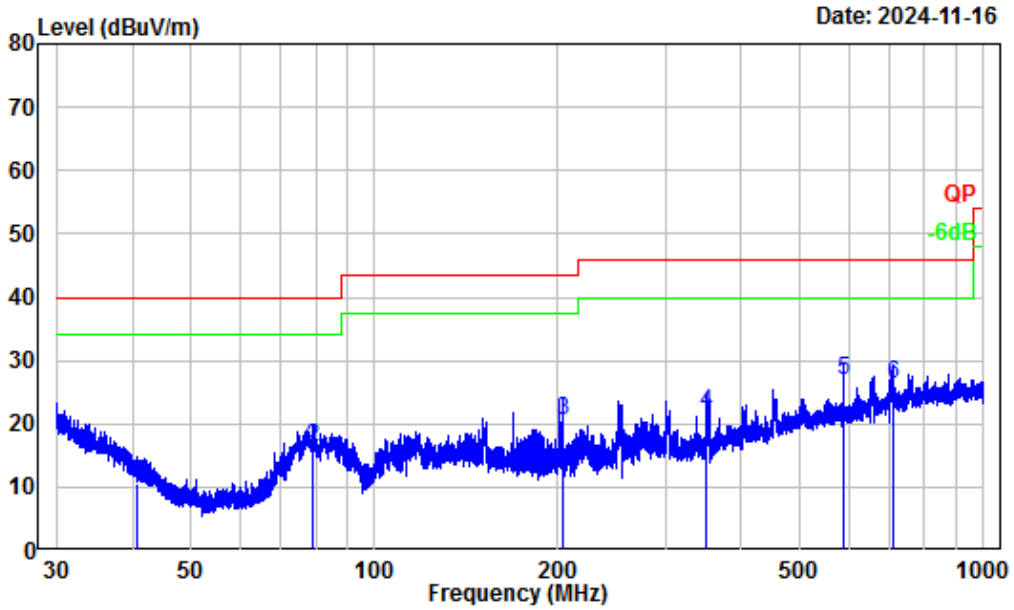
Site : Chamber A
Condition : 3m
Project Number: 2401Y37315E-RF
Test Mode : 2.4G WIFI Transmitting
Tester : Anson Su

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.01	37.33	25.90	63.23	127.01	-63.78	Peak
2	0.02	33.05	23.03	56.08	121.99	-65.91	Peak
3	0.03	27.73	21.46	49.19	118.21	-69.02	Peak
4	0.04	24.21	21.42	45.63	114.58	-68.95	Peak
5	0.08	18.65	19.67	38.32	109.13	-70.81	Peak
6	0.13	15.45	18.48	33.93	105.04	-71.11	Peak



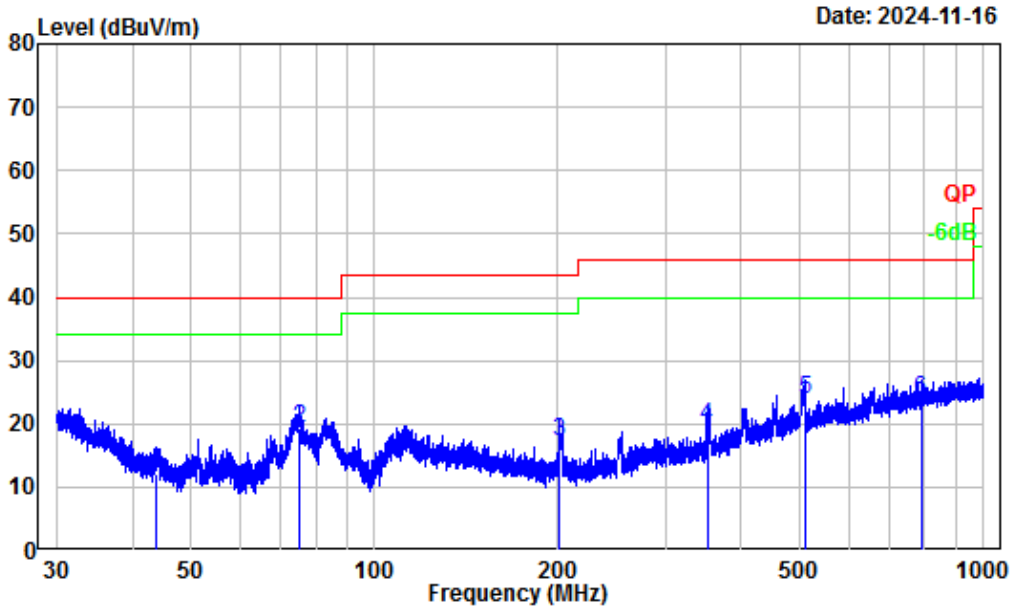
Site : Chamber A
Condition : 3m
Project Number: 2401Y37315E-RF
Test Mode : 2.4G WIFI Transmitting
Tester : Anson Su

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.35	6.59	35.83	42.42	96.64	-54.22	Peak
2	0.60	2.33	38.97	41.30	72.06	-30.76	Peak
3	0.70	1.14	35.80	36.94	70.69	-33.75	Peak
4	0.94	-1.17	33.98	32.81	67.99	-35.18	Peak
5	1.19	-2.25	34.55	32.30	65.94	-33.64	Peak
6	1.46	-3.21	32.19	28.98	64.09	-35.11	Peak



Site : Chamber A
Condition : 3m Horizontal
Project Number: 2401Y37315E-RF
Test Mode : 2.4G WIFI Transmitting
Tester : Anson Su

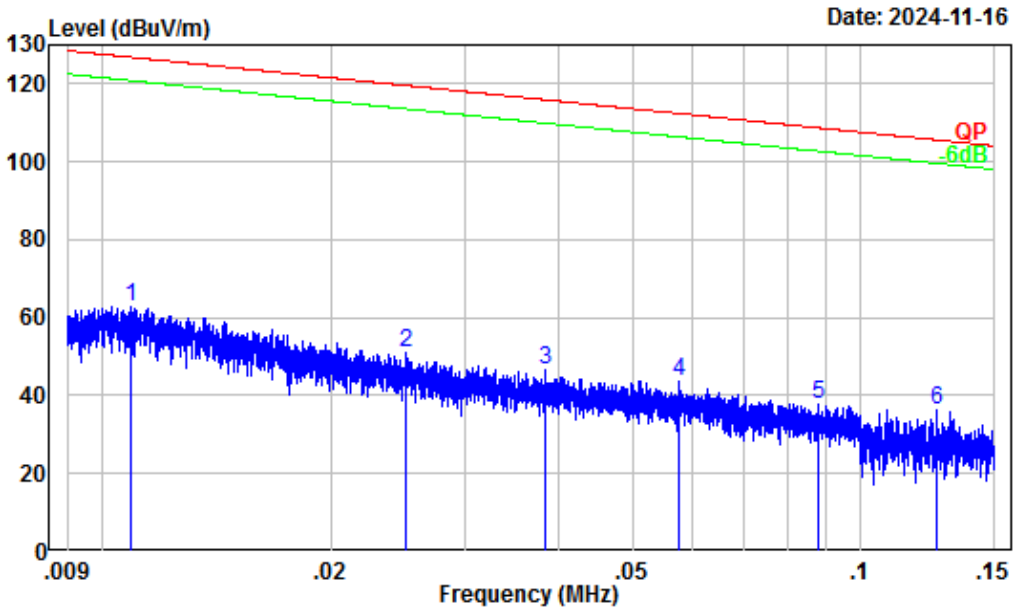
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	40.72	-12.87	23.53	10.66	40.00	-29.34	QP
2	79.35	-17.90	34.15	16.25	40.00	-23.75	QP
3	203.61	-13.33	33.90	20.57	43.50	-22.93	QP
4	351.09	-10.13	31.86	21.73	46.00	-24.27	QP
5	589.94	-5.27	32.06	26.79	46.00	-19.21	QP
6	711.36	-3.38	29.75	26.37	46.00	-19.63	QP



Site : Chamber A
Condition : 3m Vertical
Project Number: 2401Y37315E-RF
Test Mode : 2.4G WIFI Transmitting
Tester : Anson Su

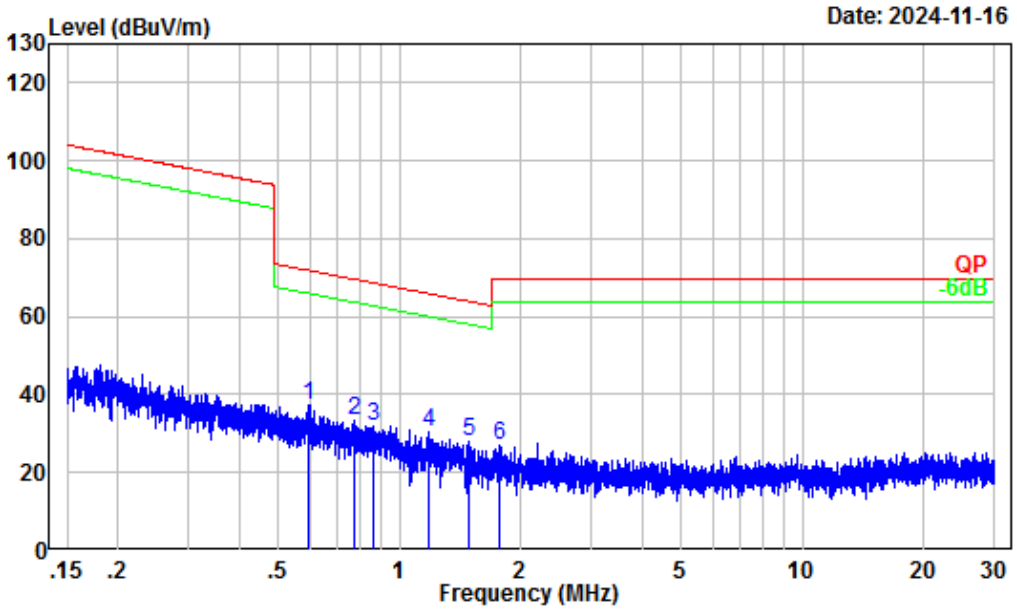
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	43.83	-15.07	27.22	12.15	40.00	-27.85	QP
2	75.22	-17.83	37.27	19.44	40.00	-20.56	QP
3	200.86	-13.13	30.39	17.26	43.50	-26.24	QP
4	351.55	-10.12	29.74	19.62	46.00	-26.38	QP
5	508.26	-5.77	29.64	23.87	46.00	-22.13	QP
6	789.23	-2.26	26.12	23.86	46.00	-22.14	QP

For Adapter 2



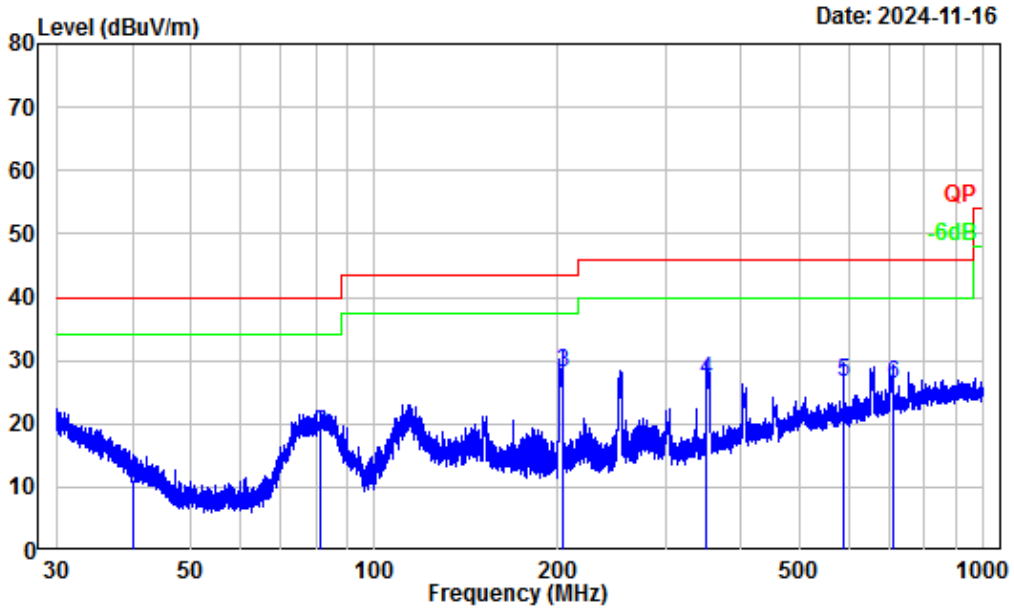
Site : Chamber A
Condition : 3m
Project Number: 2401Y37315E-RF
Test Mode : 2.4G WIFI Transmitting
Tester : Anson Su

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.01	37.23	25.59	62.82	126.85	-64.03	Peak
2	0.03	29.96	21.22	51.18	119.59	-68.41	Peak
3	0.04	25.62	20.92	46.54	115.91	-69.37	Peak
4	0.06	22.03	21.60	43.63	112.38	-68.75	Peak
5	0.09	18.27	19.61	37.88	108.75	-70.87	Peak
6	0.13	15.83	20.61	36.44	105.59	-69.15	Peak



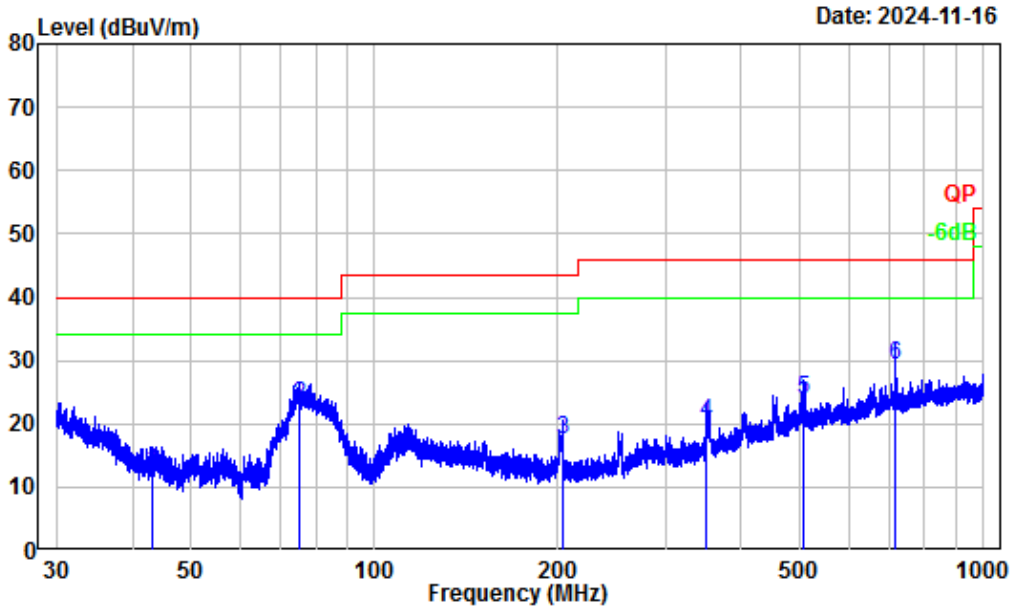
Site : Chamber A
Condition : 3m
Project Number: 2401Y37315E-RF
Test Mode : 2.4G WIFI Transmitting
Tester : Anson Su

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.59	2.37	35.06	37.43	72.12	-34.69	Peak
2	0.77	0.24	33.12	33.36	69.78	-36.42	Peak
3	0.86	-0.56	32.68	32.12	68.81	-36.69	Peak
4	1.18	-2.23	32.50	30.27	65.98	-35.71	Peak
5	1.49	-3.28	31.20	27.92	63.96	-36.04	Peak
6	1.77	-4.26	31.25	26.99	69.54	-42.55	Peak



Site : Chamber A
Condition : 3m Horizontal
Project Number: 2401Y37315E-RF
Test Mode : 2.4G WIFI Transmitting
Tester : Anson Su

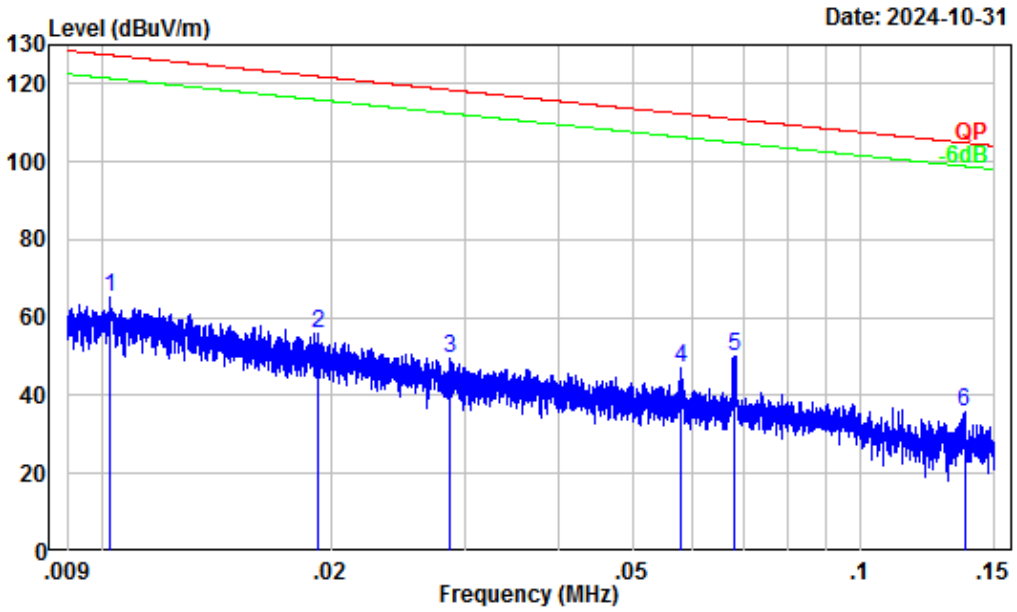
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	40.19	-12.50	23.71	11.21	40.00	-28.79	QP
2	81.64	-17.99	36.55	18.56	40.00	-21.44	QP
3	203.43	-13.32	41.44	28.12	43.50	-15.38	QP
4	351.40	-10.12	36.92	26.80	46.00	-19.20	QP
5	590.20	-5.26	31.88	26.62	46.00	-19.38	QP
6	711.36	-3.38	29.73	26.35	46.00	-19.65	QP



Site : Chamber A
Condition : 3m Vertical
Project Number: 2401Y37315E-RF
Test Mode : 2.4G WIFI Transmitting
Tester : Anson Su

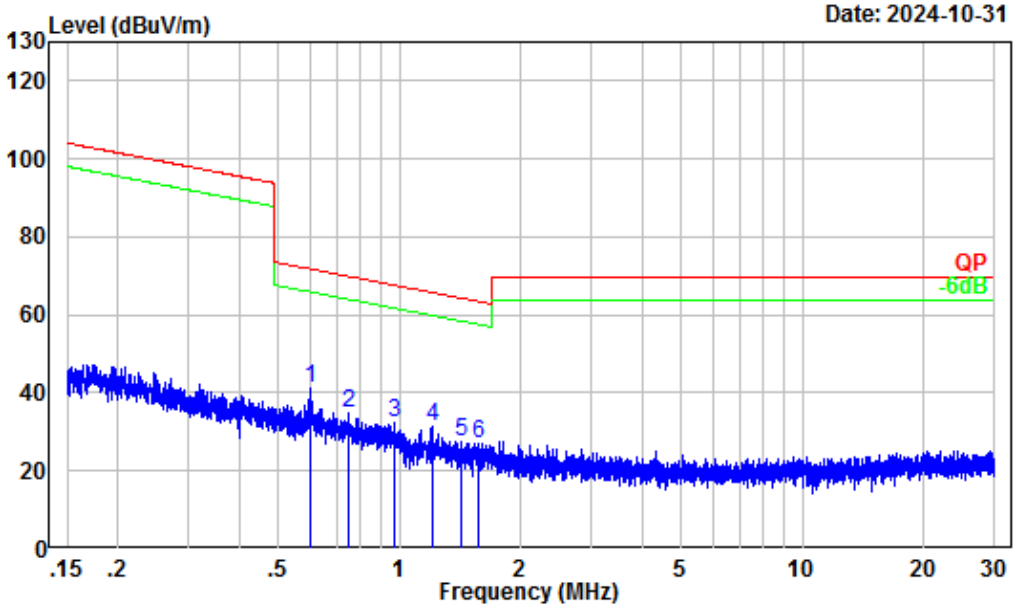
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	43.14	-14.67	26.96	12.29	40.00	-27.71	QP
2	75.35	-17.83	40.68	22.85	40.00	-17.15	QP
3	203.17	-13.30	30.71	17.41	43.50	-26.09	QP
4	351.40	-10.12	30.20	20.08	46.00	-25.92	QP
5	507.81	-5.77	29.71	23.94	46.00	-22.06	QP
6	717.94	-3.25	32.65	29.40	46.00	-16.60	QP

For Adapter 3



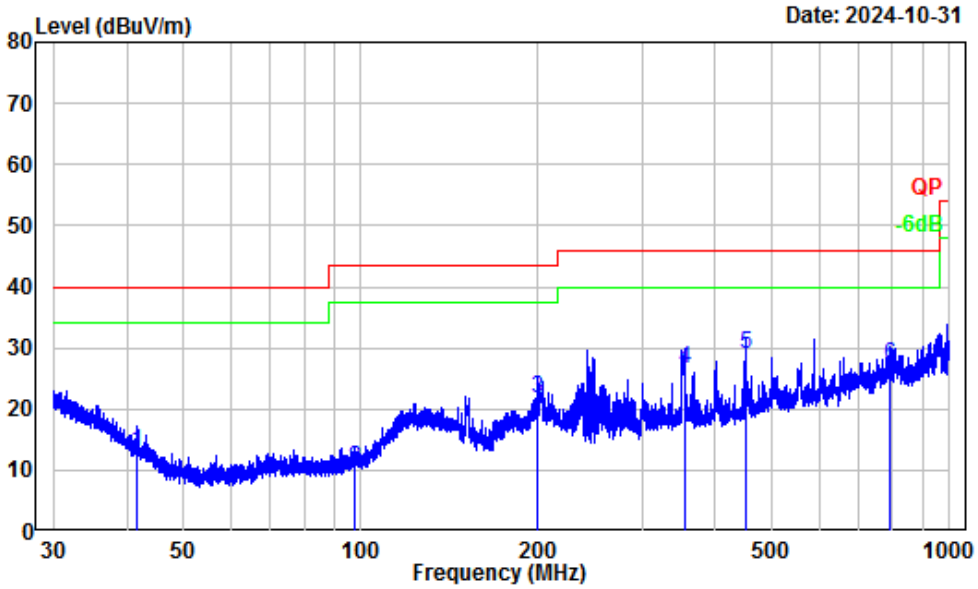
Site : Chamber A
Condition : 3m
Project Number: 2401Y37315E-RF
Test Mode : 2.4G WIFI Transmitting
Tester : Anson Su

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.01	37.57	27.90	65.47	127.40	-61.93	Peak
2	0.02	32.95	22.97	55.92	121.90	-65.98	Peak
3	0.03	28.12	21.40	49.52	118.43	-68.91	Peak
4	0.06	22.01	25.33	47.34	112.36	-65.02	Peak
5	0.07	20.63	29.56	50.19	110.94	-60.75	Peak
6	0.14	15.33	20.42	35.75	104.88	-69.13	Peak



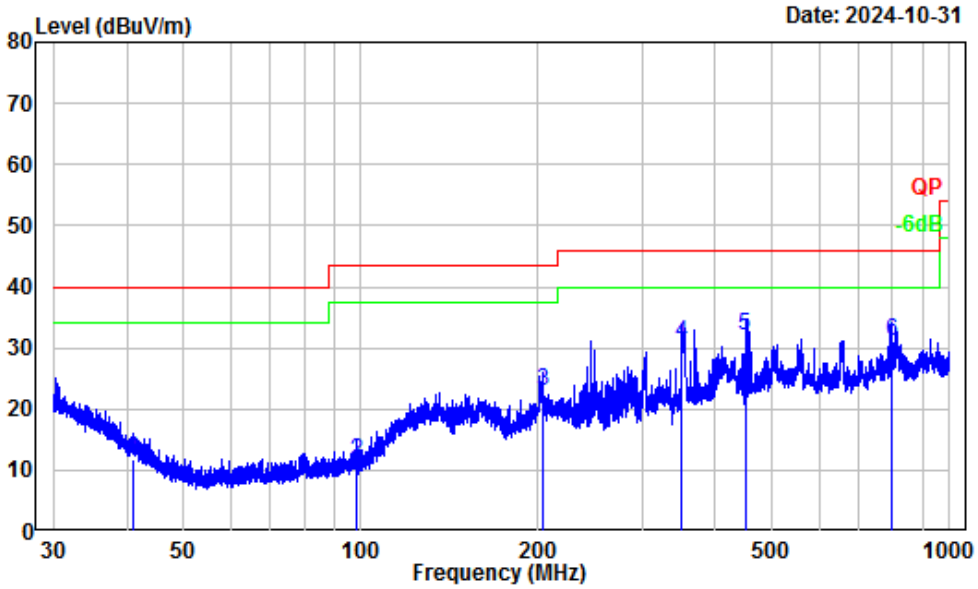
Site : Chamber A
Condition : 3m
Project Number: 2401Y37315E-RF
Test Mode : 2.4G WIFI Transmitting
Tester : Anson Su

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.60	2.28	38.70	40.98	72.00	-31.02	Peak
2	0.75	0.53	34.14	34.67	70.07	-35.40	Peak
3	0.97	-1.36	33.87	32.51	67.76	-35.25	Peak
4	1.20	-2.30	33.87	31.57	65.82	-34.25	Peak
5	1.43	-3.08	30.70	27.62	64.30	-36.68	Peak
6	1.58	-3.61	30.81	27.20	63.42	-36.22	Peak



Site : Chamber A
Condition : 3m Horizontal
Project Number: 2401Y37315E-RF
Test Mode : 2.4G WIFI Transmitting
Tester : Anson Su

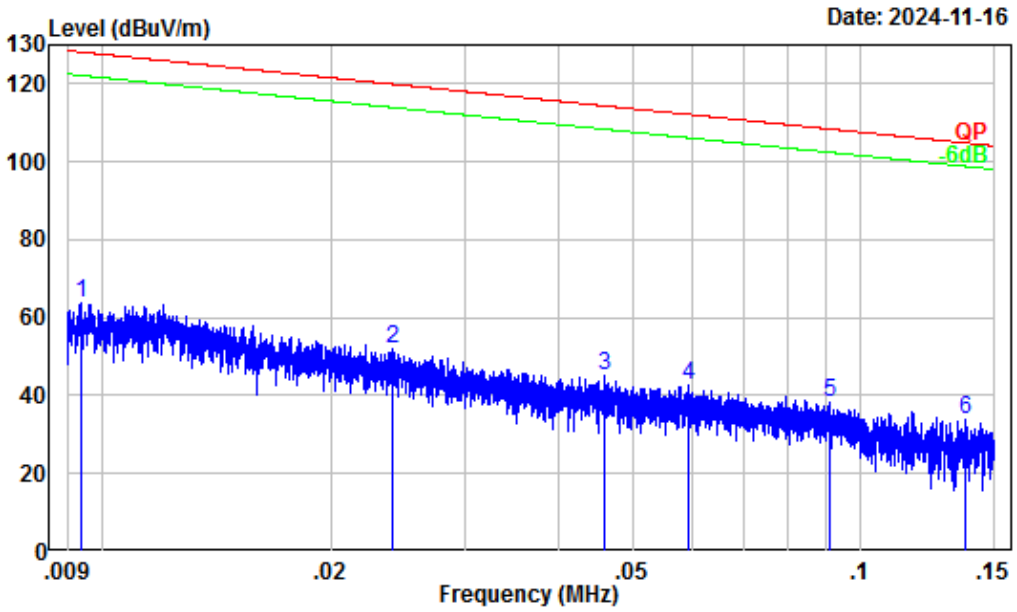
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	41.60	-13.55	26.66	13.11	40.00	-26.89	QP
2	97.54	-16.65	26.86	10.21	43.50	-33.29	QP
3	200.07	-13.07	34.94	21.87	43.50	-21.63	QP
4	356.05	-10.00	36.68	26.68	46.00	-19.32	QP
5	450.54	-7.51	36.38	28.87	46.00	-17.13	QP
6	791.31	-2.25	29.28	27.03	46.00	-18.97	QP



Site : Chamber A
Condition : 3m Vertical
Project Number: 2401Y37315E-RF
Test Mode : 2.4G WIFI Transmitting
Tester : Anson Su

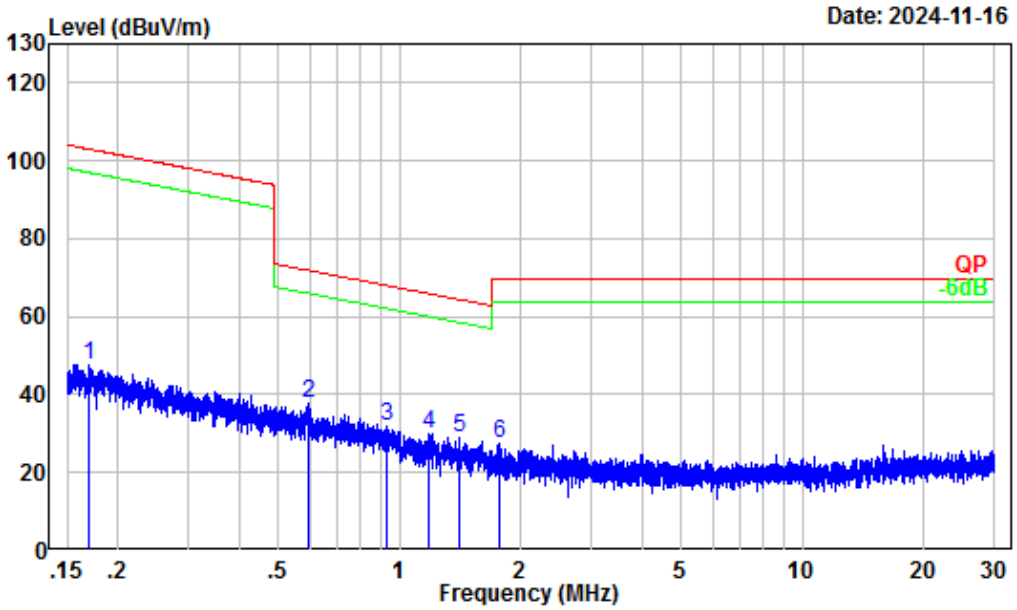
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	41.10	-13.16	25.06	11.90	40.00	-28.10	QP
2	98.31	-16.41	28.01	11.60	43.50	-31.90	QP
3	203.52	-13.33	36.26	22.93	43.50	-20.57	QP
4	351.09	-10.13	40.96	30.83	46.00	-15.17	QP
5	449.36	-7.54	39.44	31.90	46.00	-14.10	QP
6	797.93	-2.18	33.19	31.01	46.00	-14.99	QP

For Adapter 4



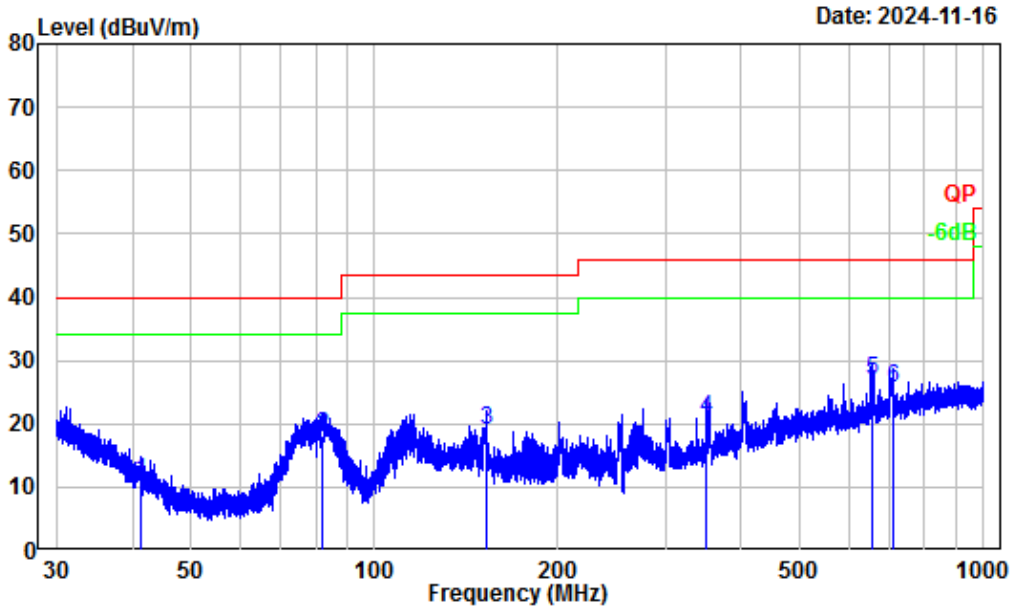
Site : Chamber A
Condition : 3m
Project Number: 2401Y37315E-RF
Test Mode : 2.4G WIFI Transmitting
Tester : Anson Su

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.01	38.19	25.62	63.81	128.17	-64.36	Peak
2	0.02	30.50	21.31	51.81	119.97	-68.16	Peak
3	0.05	23.96	21.02	44.98	114.36	-69.38	Peak
4	0.06	21.84	20.66	42.50	112.17	-69.67	Peak
5	0.09	17.95	20.17	38.12	108.44	-70.32	Peak
6	0.14	15.30	18.55	33.85	104.84	-70.99	Peak



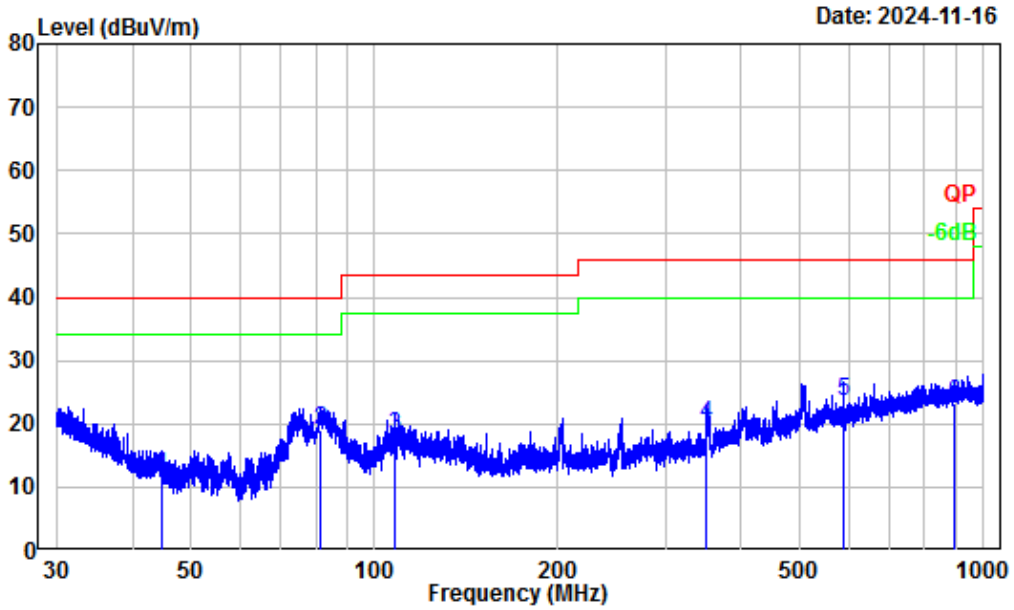
Site : Chamber A
Condition : 3m
Project Number: 2401Y37315E-RF
Test Mode : 2.4G WIFI Transmitting
Tester : Anson Su

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.17	13.79	34.02	47.81	103.00	-55.19	Peak
2	0.59	2.37	35.61	37.98	72.12	-34.14	Peak
3	0.93	-1.07	33.00	31.93	68.12	-36.19	Peak
4	1.19	-2.25	32.12	29.87	65.94	-36.07	Peak
5	1.41	-3.01	31.72	28.71	64.44	-35.73	Peak
6	1.78	-4.30	31.77	27.47	69.54	-42.07	Peak



Site : Chamber A
Condition : 3m Horizontal
Project Number: 2401Y37315E-RF
Test Mode : 2.4G WIFI Transmitting
Tester : Anson Su

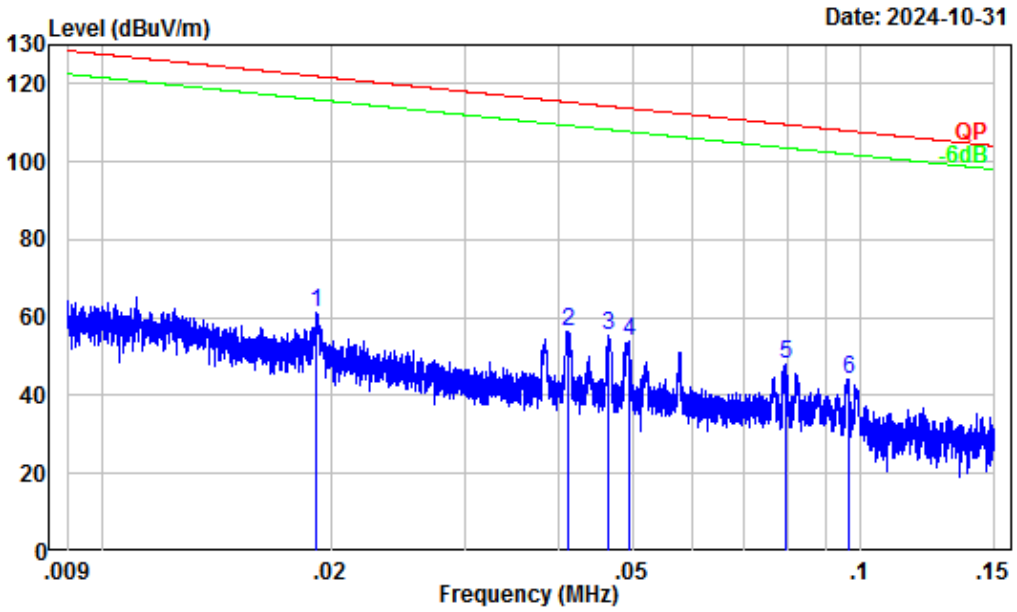
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	41.42	-13.41	24.19	10.78	40.00	-29.22	QP
2	82.00	-18.00	36.21	18.21	40.00	-21.79	QP
3	152.53	-12.55	31.43	18.88	43.50	-24.62	QP
4	350.94	-10.14	30.86	20.72	46.00	-25.28	QP
5	656.82	-4.00	30.86	26.86	46.00	-19.14	QP
6	711.99	-3.37	29.00	25.63	46.00	-20.37	QP



Site : Chamber A
Condition : 3m Vertical
Project Number: 2401Y37315E-RF
Test Mode : 2.4G WIFI Transmitting
Tester : Anson Su

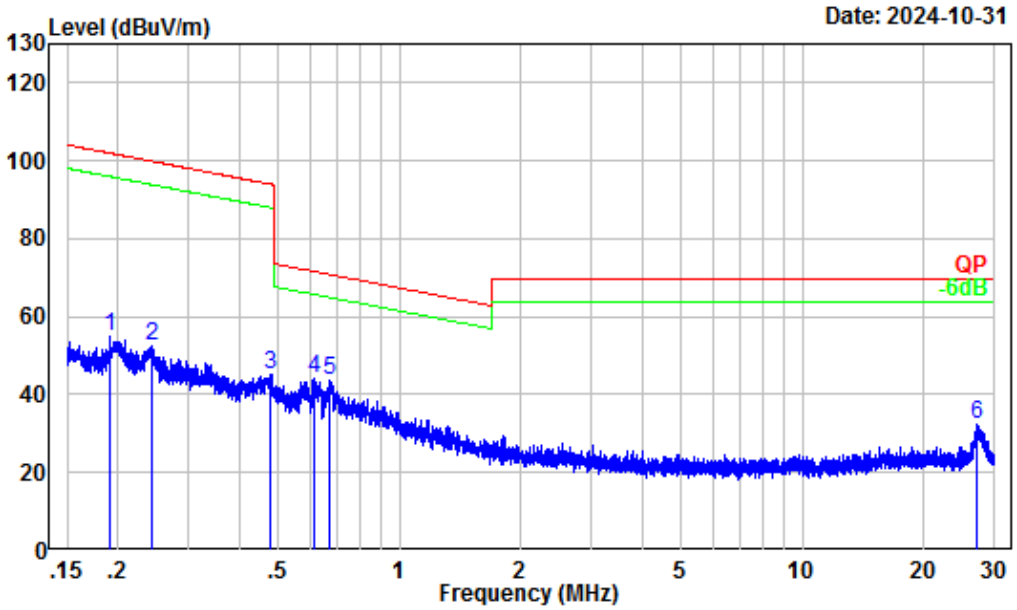
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	44.67	-15.65	27.47	11.82	40.00	-28.18	QP
2	81.53	-17.99	36.98	18.99	40.00	-21.01	QP
3	108.12	-13.59	31.81	18.22	43.50	-25.28	QP
4	351.40	-10.12	30.13	20.01	46.00	-25.99	QP
5	589.94	-5.27	28.94	23.67	46.00	-22.33	QP
6	893.07	-1.35	24.71	23.36	46.00	-22.64	QP

For Model: H680



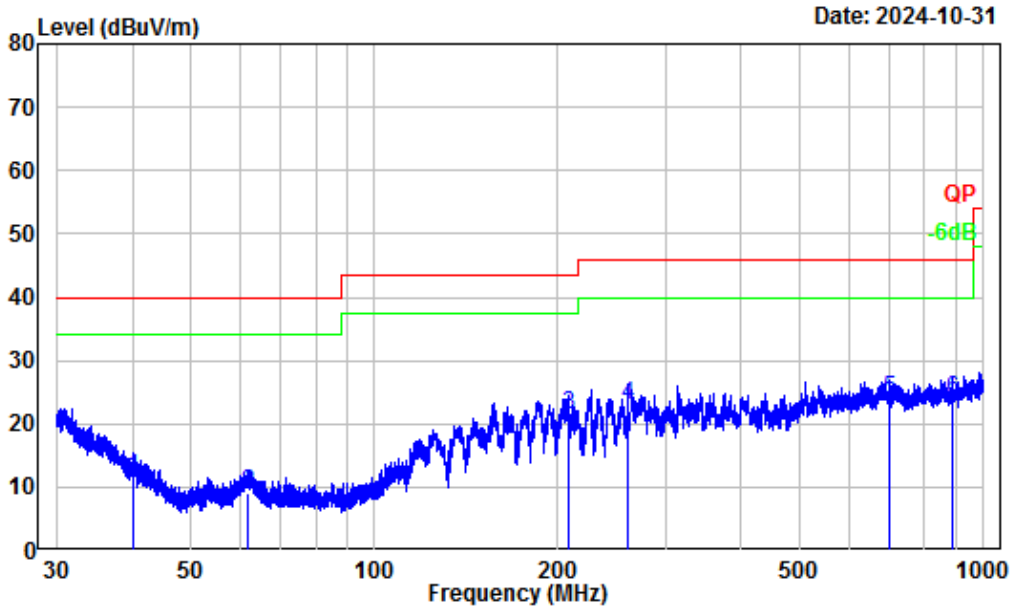
Site : Chamber A
Condition : 3m
Project Number: 2401Y37315E-RF
Test Mode : 2.4G WIFI Transmitting
Tester : Anson Su

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.02	33.03	28.24	61.27	121.97	-60.70	Peak
2	0.04	25.03	31.51	56.54	115.33	-58.79	Peak
3	0.05	23.85	31.52	55.37	114.26	-58.89	Peak
4	0.05	23.20	31.00	54.20	113.73	-59.53	Peak
5	0.08	19.08	28.92	48.00	109.59	-61.59	Peak
6	0.10	17.43	26.87	44.30	107.94	-63.64	Peak



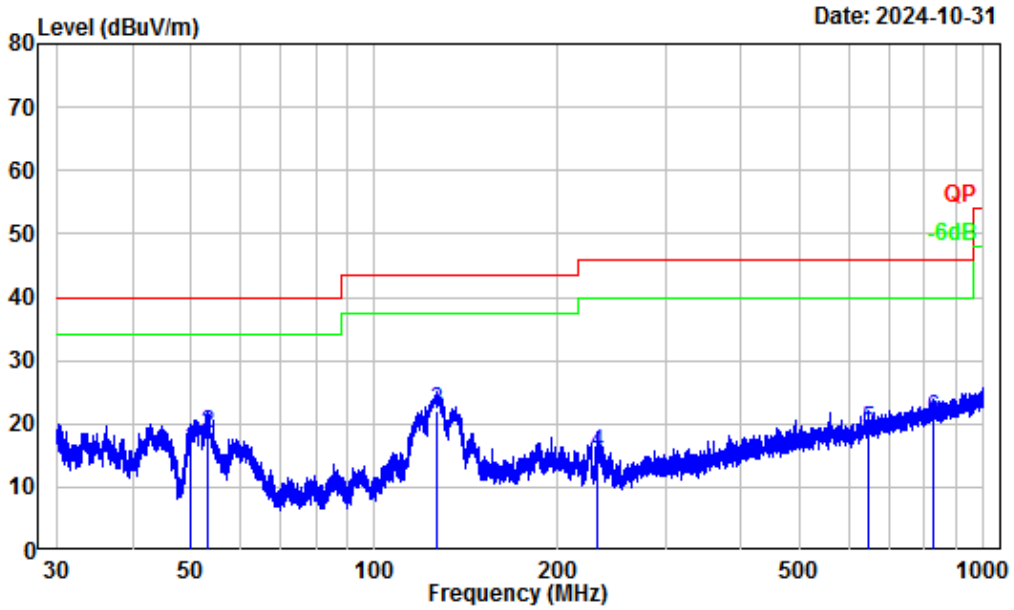
Site : Chamber A
Condition : 3m
Project Number: 2401Y37315E-RF
Test Mode : 2.4G WIFI Transmitting
Tester : Anson Su

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.19	12.76	42.03	54.79	101.94	-47.15	Peak
2	0.24	10.37	42.16	52.53	99.88	-47.35	Peak
3	0.48	3.99	41.11	45.10	94.05	-48.95	Peak
4	0.62	2.09	41.86	43.95	71.77	-27.82	Peak
5	0.67	1.44	42.23	43.67	71.02	-27.35	Peak
6	27.18	-4.83	37.44	32.61	69.54	-36.93	Peak



Site : Chamber A
Condition : 3m Horizontal
Project Number: 2401Y37315E-RF
Test Mode : 2.4G WIFI Transmitting
Tester : Anson Su

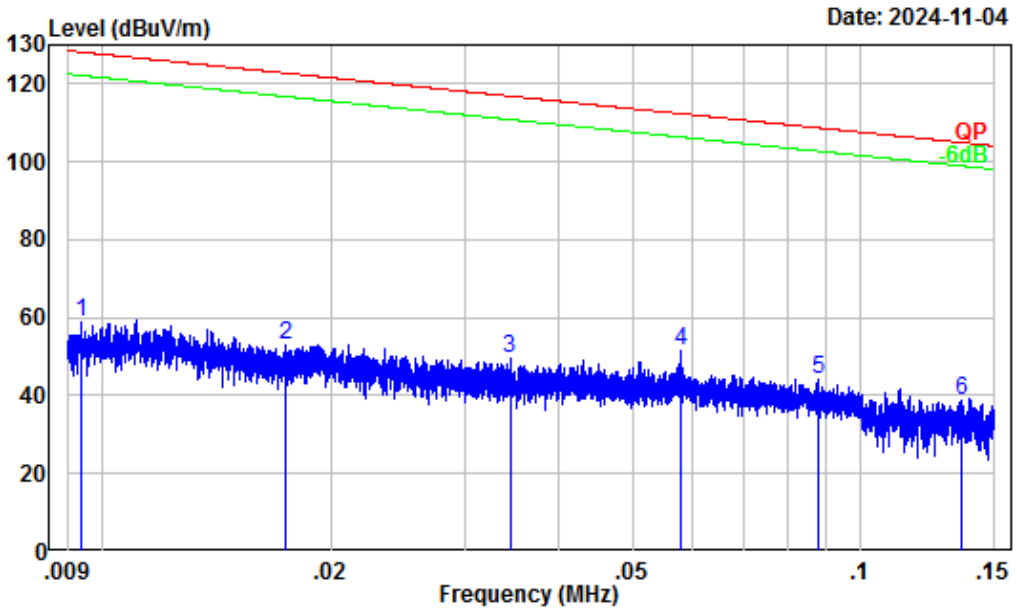
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	40.08	-13.26	24.75	11.49	40.00	-28.51	QP
2	61.83	-18.84	27.99	9.15	40.00	-30.85	QP
3	208.03	-13.58	34.92	21.34	43.50	-22.16	QP
4	260.03	-14.44	37.52	23.08	46.00	-22.92	QP
5	699.00	-6.61	30.53	23.92	46.00	-22.08	QP
6	889.95	-3.77	27.73	23.96	46.00	-22.04	QP



Site : Chamber A
Condition : 3m Vertical
Project Number: 2401Y37315E-RF
Test Mode : 2.4G WIFI Transmitting
Tester : Anson Su

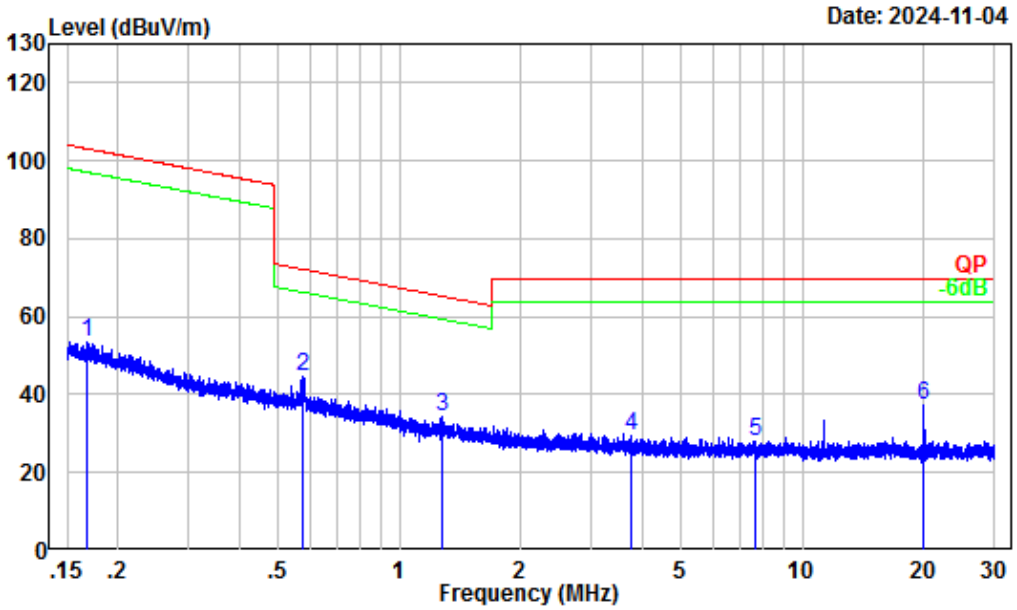
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	49.97	-18.73	34.76	16.03	40.00	-23.97	QP
2	53.32	-19.11	37.50	18.39	40.00	-21.61	QP
3	126.27	-12.30	34.35	22.05	43.50	-21.45	QP
4	232.53	-14.57	30.09	15.52	46.00	-30.48	QP
5	645.40	-7.21	26.27	19.06	46.00	-26.94	QP
6	824.60	-4.62	25.56	20.94	46.00	-25.06	QP

For Model: H1500



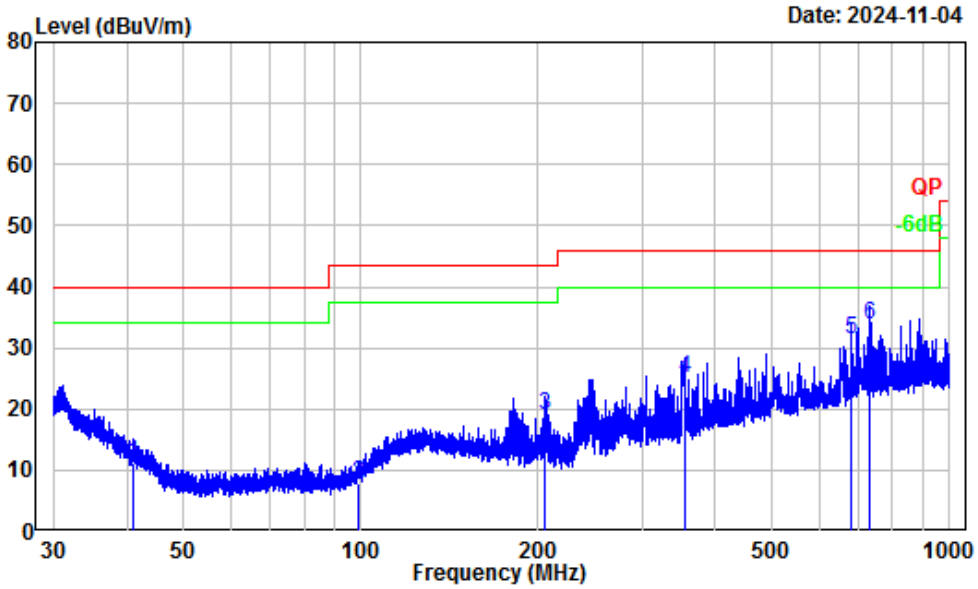
Site : Chamber A
Condition : 3m
Project Number: 2401Y37315E-RF
Test Mode : Transmitting
Tester : Carl Zhu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.01	32.42	26.34	58.76	128.16	-69.40	Peak
2	0.02	30.89	22.03	52.92	122.78	-69.86	Peak
3	0.03	28.03	21.35	49.38	116.85	-67.47	Peak
4	0.06	25.60	25.73	51.33	112.34	-61.01	Peak
5	0.09	22.86	21.14	44.00	108.74	-64.74	Peak
6	0.14	19.89	19.09	38.98	104.95	-65.97	Peak



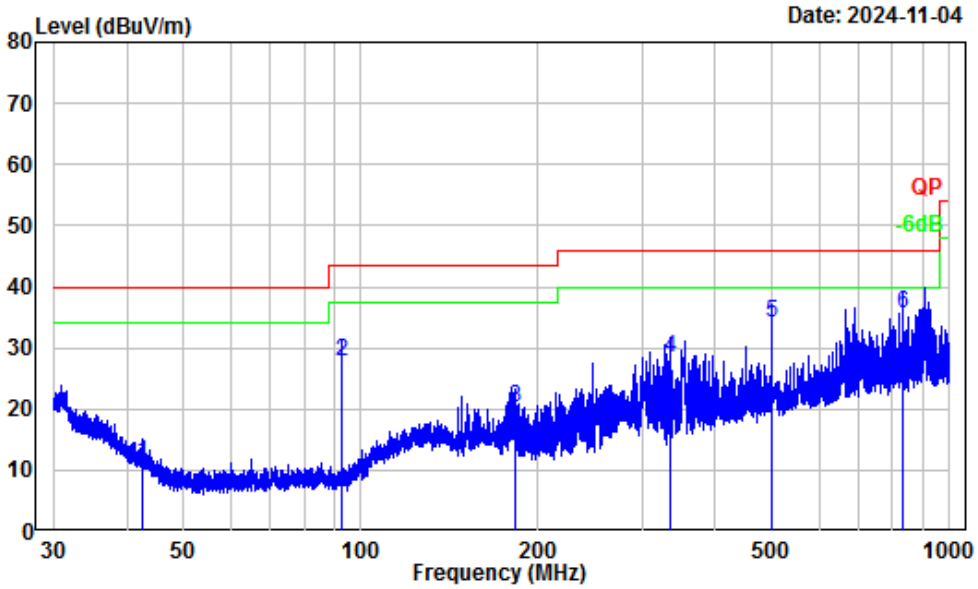
Site : Chamber A
Condition : 3m
Project Number: 2401Y37315E-RF
Test Mode : Transmitting
Tester : Carl Zhu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.17	17.96	35.52	53.48	103.08	-49.60	Peak
2	0.58	5.43	39.13	44.56	72.32	-27.76	Peak
3	1.28	0.41	34.00	34.41	65.26	-30.85	Peak
4	3.75	-2.56	32.03	29.47	69.54	-40.07	Peak
5	7.66	-2.98	30.88	27.90	69.54	-41.64	Peak
6	20.07	-3.10	40.25	37.15	69.54	-32.39	Peak



Site : Chamber A
Condition : 3m Horizontal
Project Number: 2401Y37315E-RF
Test Mode : Transmitting
Tester : Carl Zhu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	41.11	-13.16	24.33	11.17	40.00	-28.83	QP
2	99.09	-16.17	24.10	7.93	43.50	-35.57	QP
3	205.13	-13.46	32.46	19.00	43.50	-24.50	QP
4	355.74	-10.01	35.21	25.20	46.00	-20.80	QP
5	681.75	-3.69	35.07	31.38	46.00	-14.62	QP
6	731.60	-3.10	36.92	33.82	46.00	-12.18	QP



Site : Chamber A
Condition : 3m Vertical
Project Number: 2401Y37315E-RF
Test Mode : Transmitting
Tester : Carl Zhu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	42.54	-14.26	25.45	11.19	40.00	-28.81	QP
2	92.46	-17.76	45.44	27.68	43.50	-15.82	QP
3	182.56	-13.87	34.12	20.25	43.50	-23.25	QP
4	336.04	-10.50	39.00	28.50	46.00	-17.50	QP
5	500.08	-5.76	39.93	34.17	46.00	-11.83	QP
6	832.59	-1.88	37.63	35.75	46.00	-10.25	QP

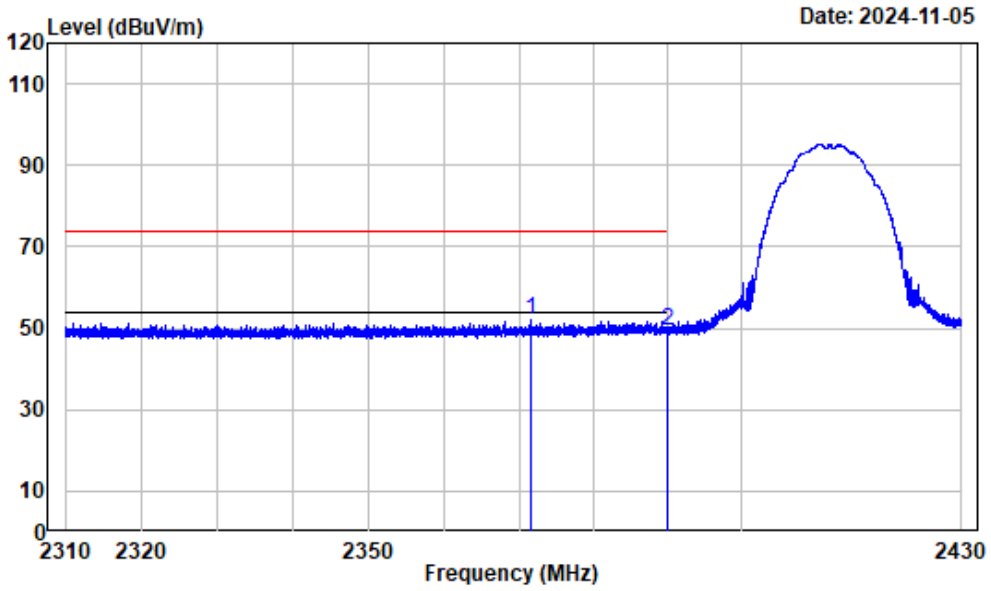
Above 1GHz: *Worst Case is Model H1500*

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	PK/Ave					
802.11b							
Low Channel							
4824	49.59	PK	H	2.45	52.04	74	-21.96
4824	48.41	PK	V	2.45	50.86	74	-23.14
Middle Channel							
4874	50.17	PK	H	2.56	52.73	74	-21.27
4874	49.02	PK	V	2.56	51.58	74	-22.42
High Channel							
4924	49.72	PK	H	2.63	52.35	74	-21.65
4924	48.63	PK	V	2.63	51.26	74	-22.74
802.11g							
Low Channel							
4824	47.08	PK	H	2.45	49.53	74	-24.47
4824	46.76	PK	V	2.45	49.21	74	-24.79
Middle Channel							
4874	46.94	PK	H	2.56	49.5	74	-24.5
4874	46.6	PK	V	2.56	49.16	74	-24.84
High Channel							
4924	47.29	PK	H	2.63	49.92	74	-24.08
4924	46.87	PK	V	2.63	49.5	74	-24.5

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	PK/Ave					
802.11n20							
Low Channel							
4824	46.95	PK	H	2.45	49.4	74	-24.6
4824	46.52	PK	V	2.45	48.97	74	-25.03
Middle Channel							
4874	46.78	PK	H	2.56	49.34	74	-24.66
4874	46.46	PK	V	2.56	49.02	74	-24.98
High Channel							
4924	47.14	PK	H	2.63	49.77	74	-24.23
4924	46.83	PK	V	2.63	49.46	74	-24.54
802.11n40							
Low Channel							
4844	46.83	PK	H	2.45	49.28	74	-24.72
4844	46.49	PK	V	2.45	48.94	74	-25.06
Middle Channel							
4874	46.71	PK	H	2.56	49.27	74	-24.73
4874	46.37	PK	V	2.56	48.93	74	-25.07
High Channel							
4904	47.05	PK	H	2.64	49.69	74	-24.31
4904	46.72	PK	V	2.64	49.36	74	-24.64

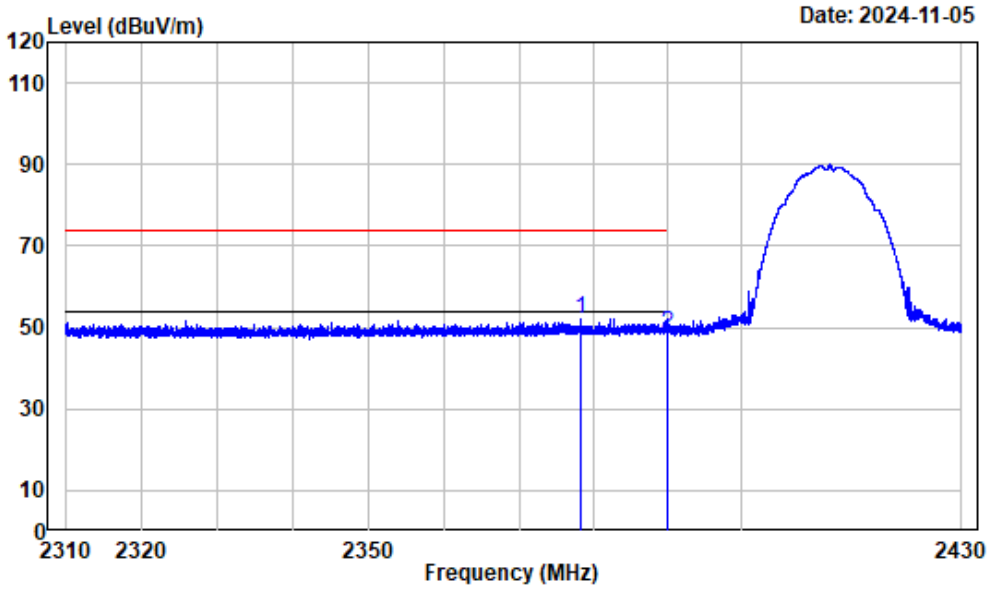
Note:
Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Corrected. Amplitude - Limit
The other spurious emission which is in the noise floor level was not recorded.
The test result of peak was less than the limit of average, so just peak values were recorded.

Test plots



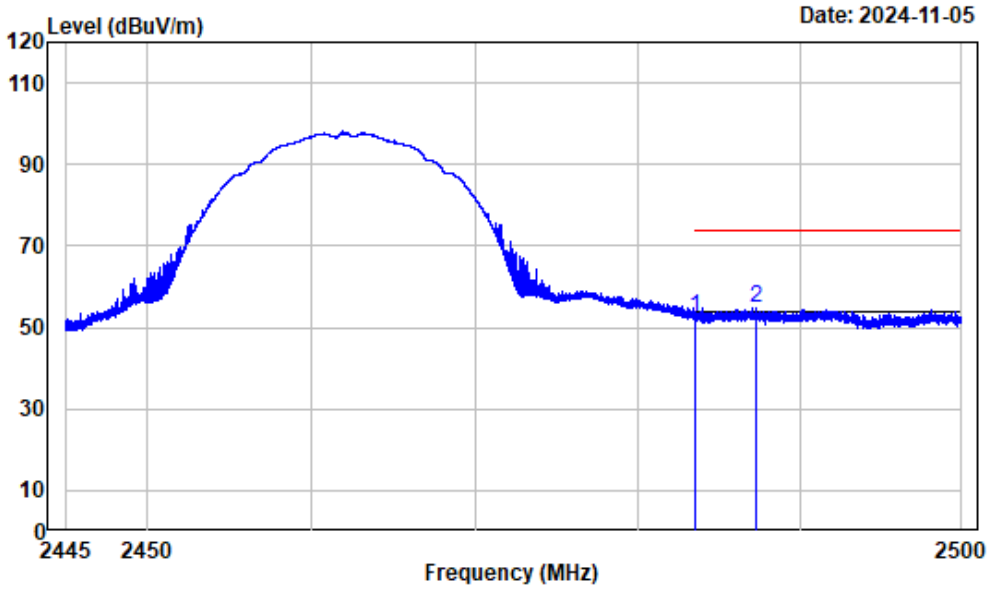
Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2412

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2371.703	-3.17	55.44	52.27	74.00	-21.73	Peak
2	2390.000	-3.20	52.73	49.53	74.00	-24.47	Peak



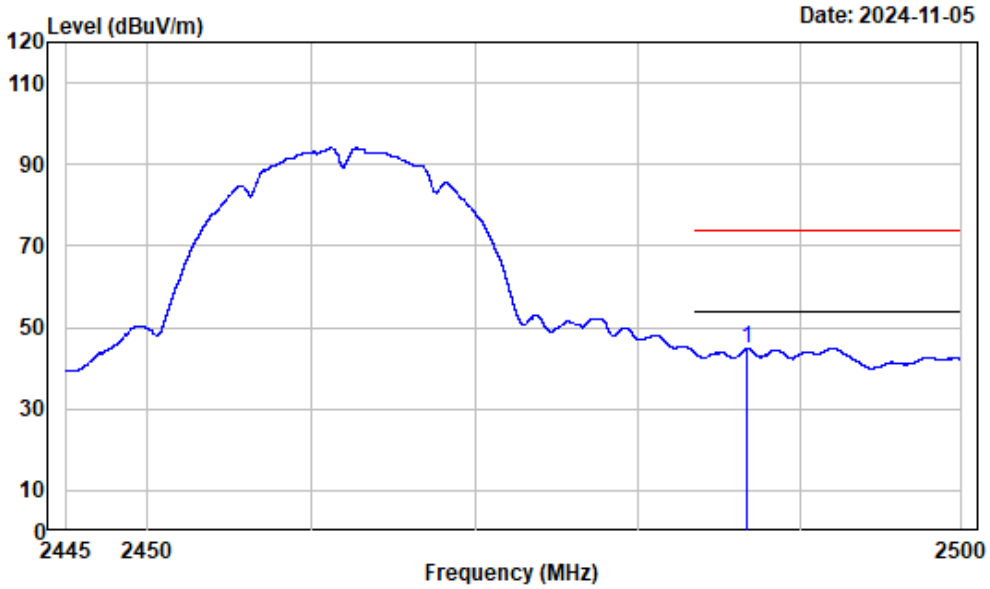
Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2412

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2378.379	-3.19	55.33	52.14	74.00	-21.86	Peak
2	2390.000	-3.20	51.62	48.42	74.00	-25.58	Peak



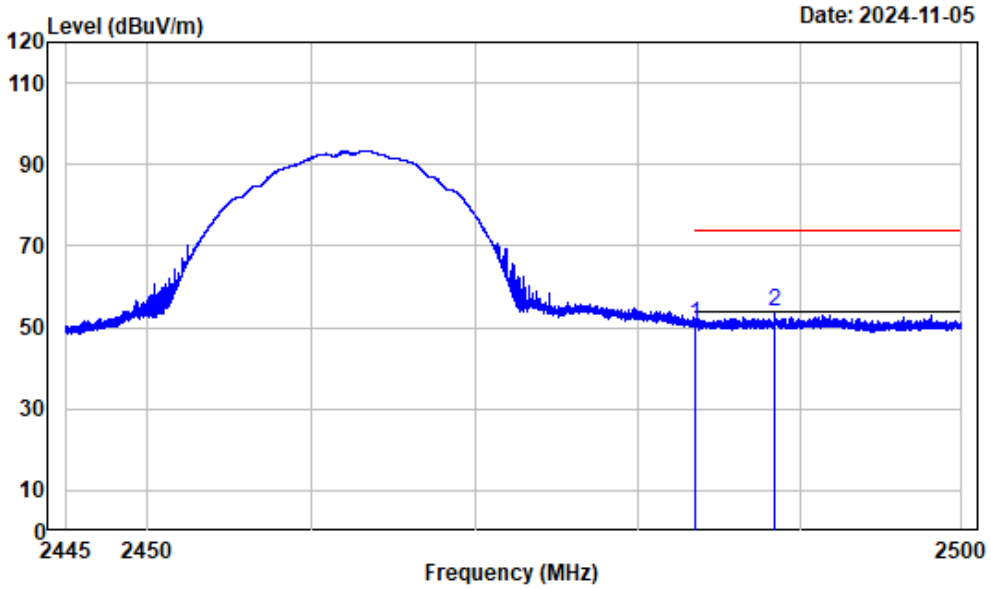
Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	55.80	52.63	74.00	-21.37	Peak
2	2487.273	-3.17	58.13	54.96	74.00	-19.04	Peak



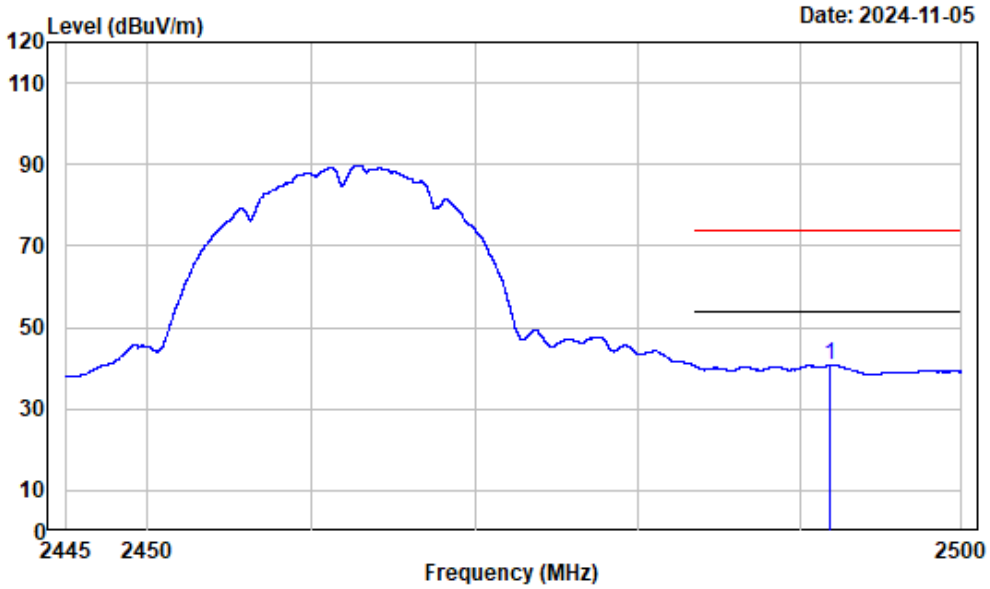
Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2486.764	-3.17	48.05	44.88	54.00	-9.12	Average



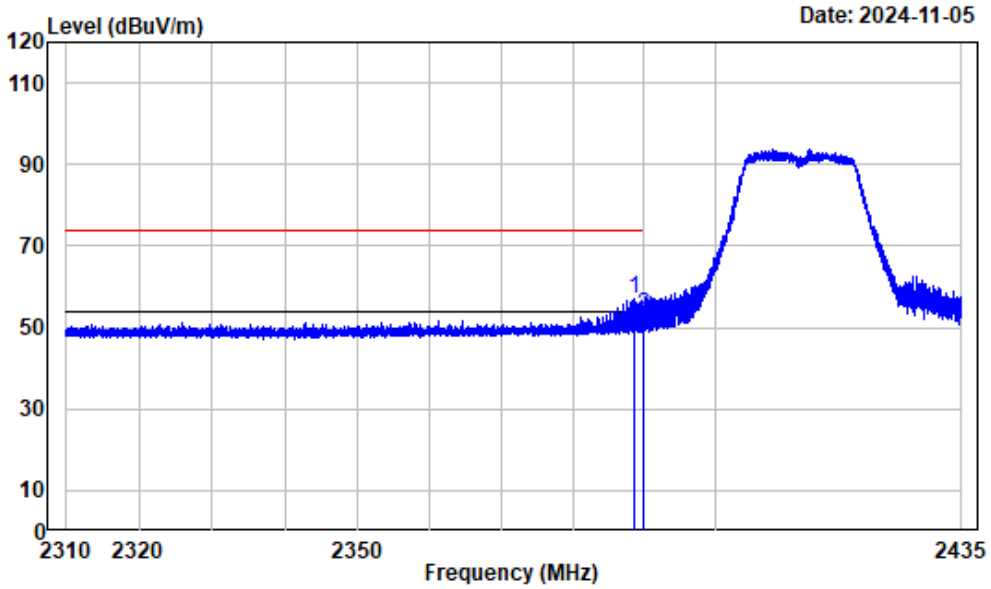
Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	53.74	50.57	74.00	-23.43	Peak
2	2488.442	-3.18	57.18	54.00	74.00	-20.00	Peak



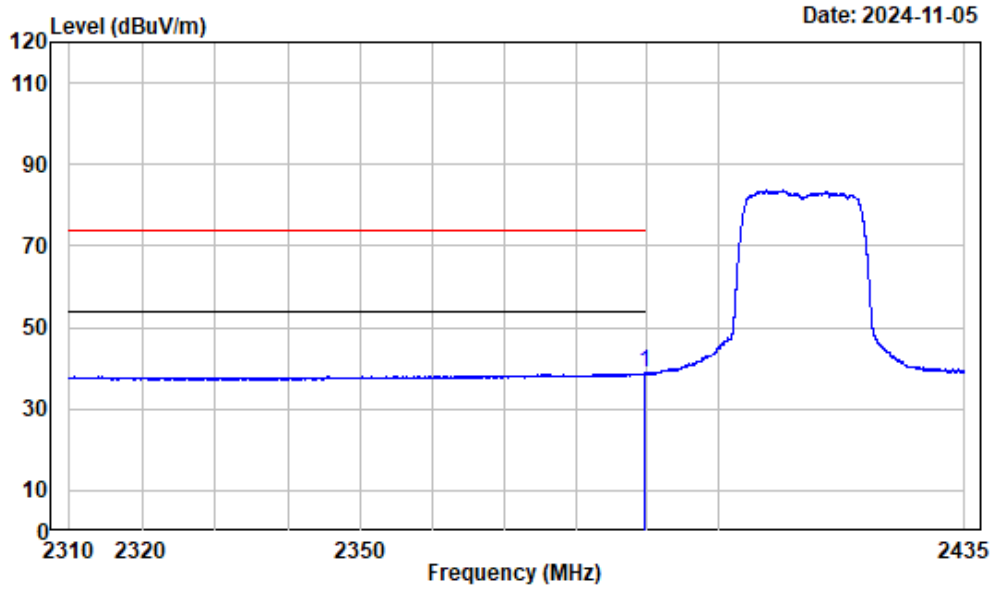
Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2491.818	-3.18	44.00	40.82	54.00	-13.18	Average



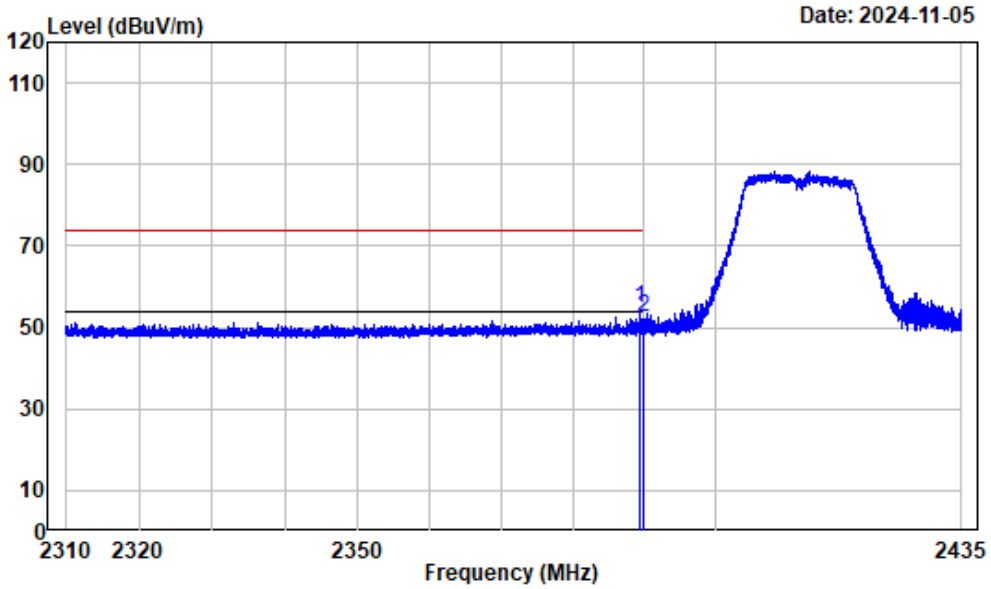
Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2412

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2388.525	-3.20	60.32	57.12	74.00	-16.88	Peak
2	2390.000	-3.20	56.20	53.00	74.00	-21.00	Peak



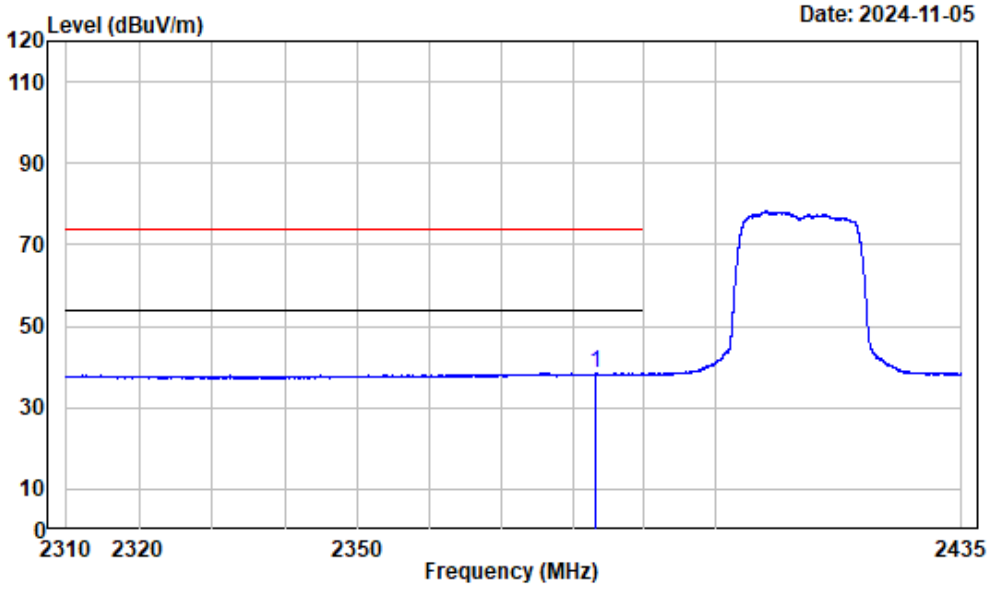
Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2412

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.573	-3.20	42.04	38.84	54.00	-15.16	Average



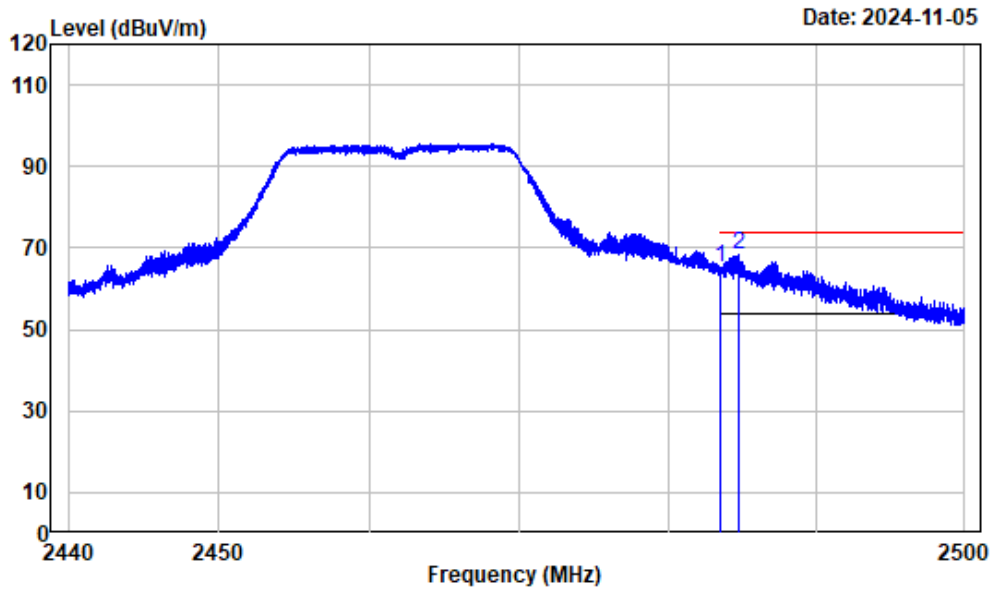
Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2412

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.416	-3.20	57.94	54.74	74.00	-19.26	Peak
2	2390.000	-3.20	55.83	52.63	74.00	-21.37	Peak



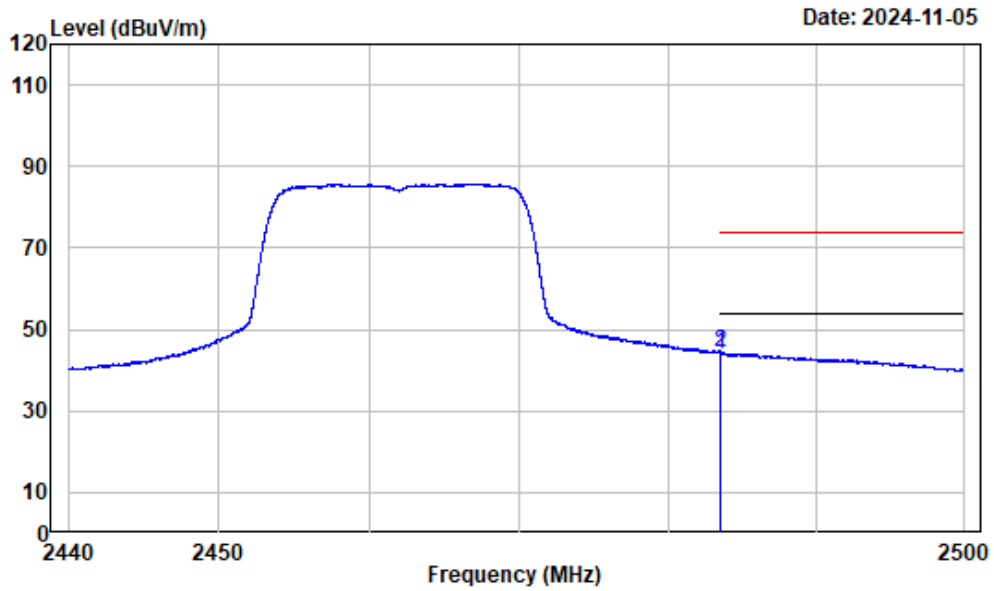
Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2412

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2383.150	-3.20	41.65	38.45	54.00	-15.55	Average



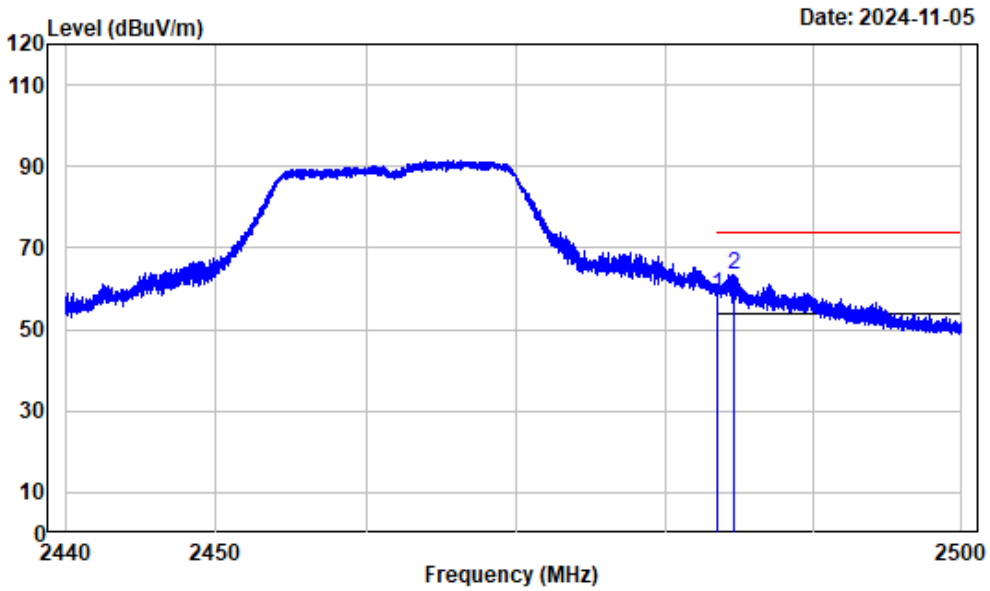
Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	68.24	65.07	74.00	-8.93	Peak
2	2484.731	-3.17	71.49	68.32	74.00	-5.68	Peak



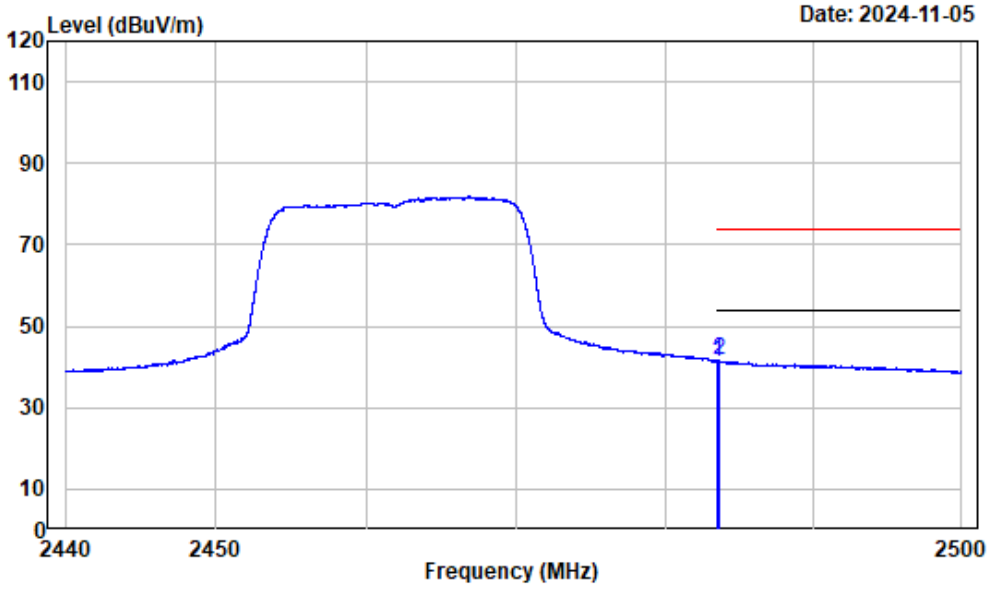
Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	47.31	44.14	54.00	-9.86	Average
2	2483.529	-3.17	47.65	44.48	54.00	-9.52	Average



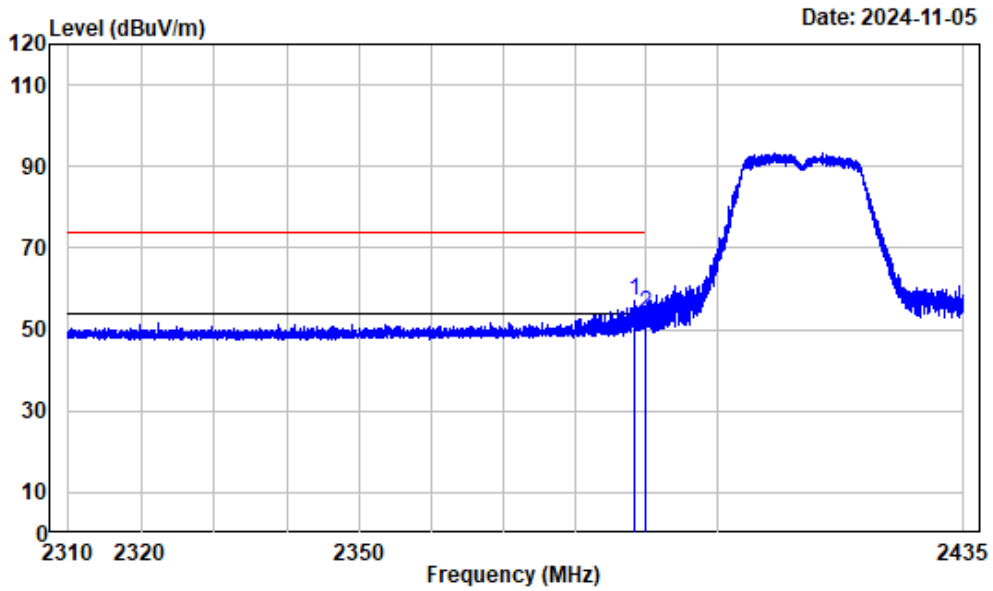
Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	61.52	58.35	74.00	-15.65	Peak
2	2484.577	-3.17	66.51	63.34	74.00	-10.66	Peak



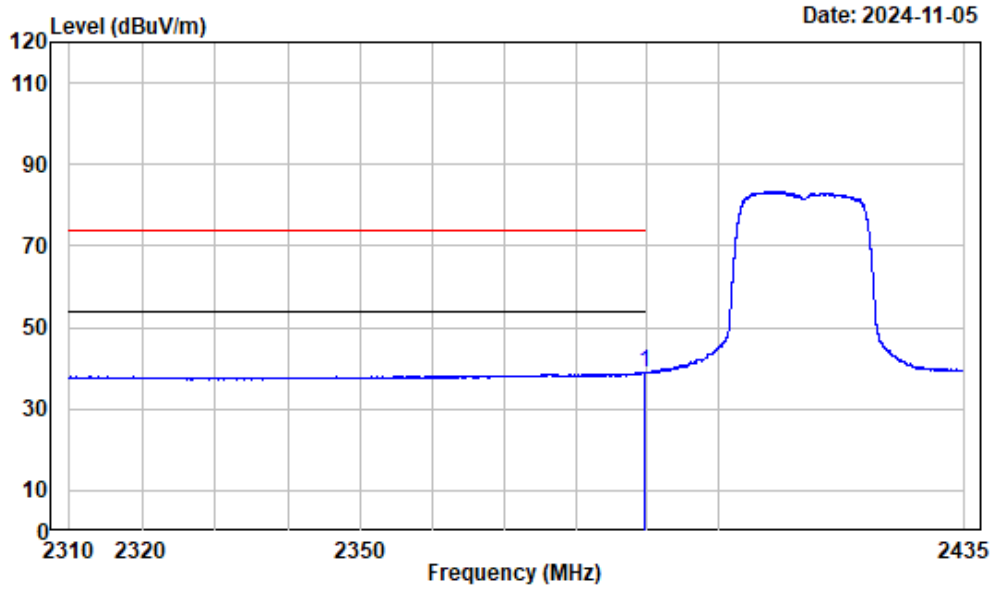
Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	44.37	41.20	54.00	-12.80	Average
2	2483.675	-3.17	44.62	41.45	54.00	-12.55	Average



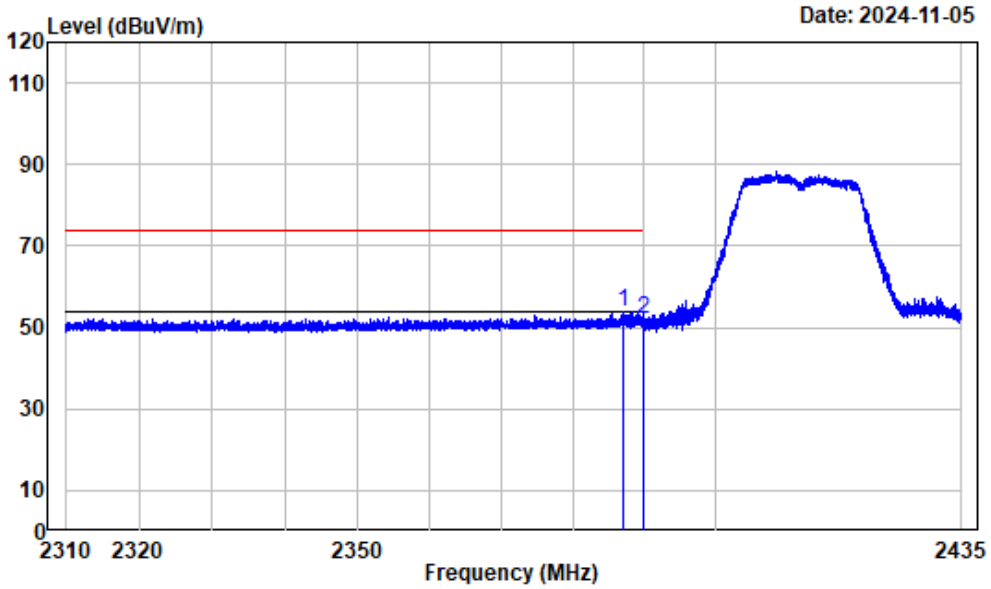
Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n20-2412

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2388.229	-3.20	60.12	56.92	74.00	-17.08	Peak
2	2390.000	-3.20	57.16	53.96	74.00	-20.04	Peak



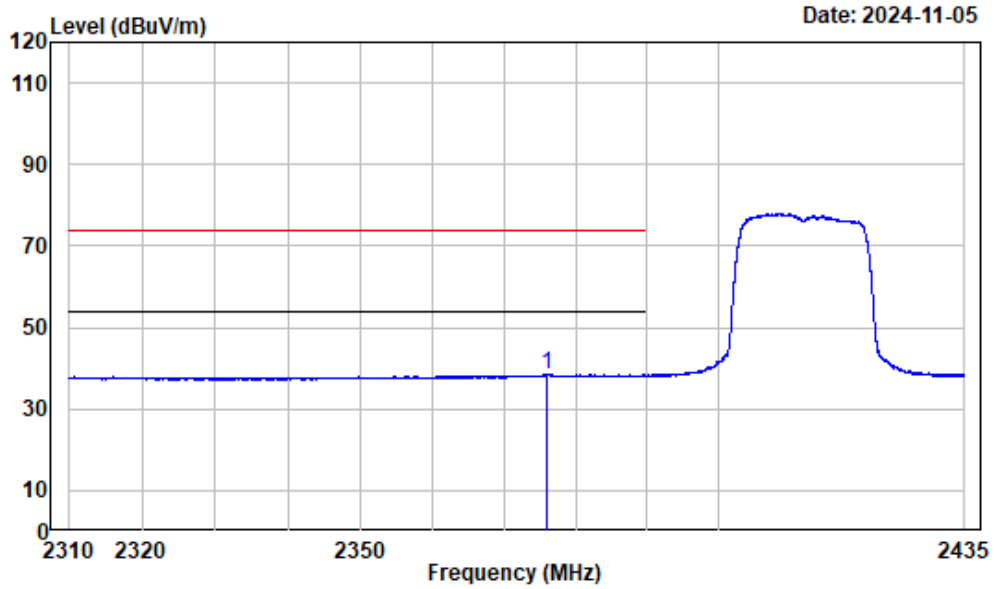
Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n20-2412

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.619	-3.20	42.28	39.08	54.00	-14.92	Average



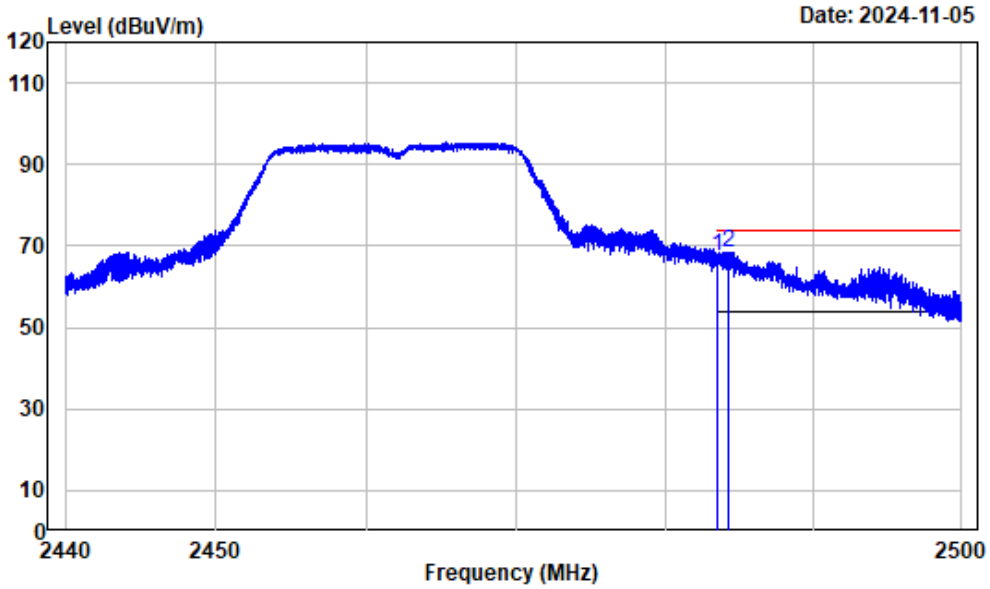
Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n20-2412

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2387.150	-3.19	57.21	54.02	74.00	-19.98	Peak
2	2390.000	-3.20	55.14	51.94	74.00	-22.06	Peak



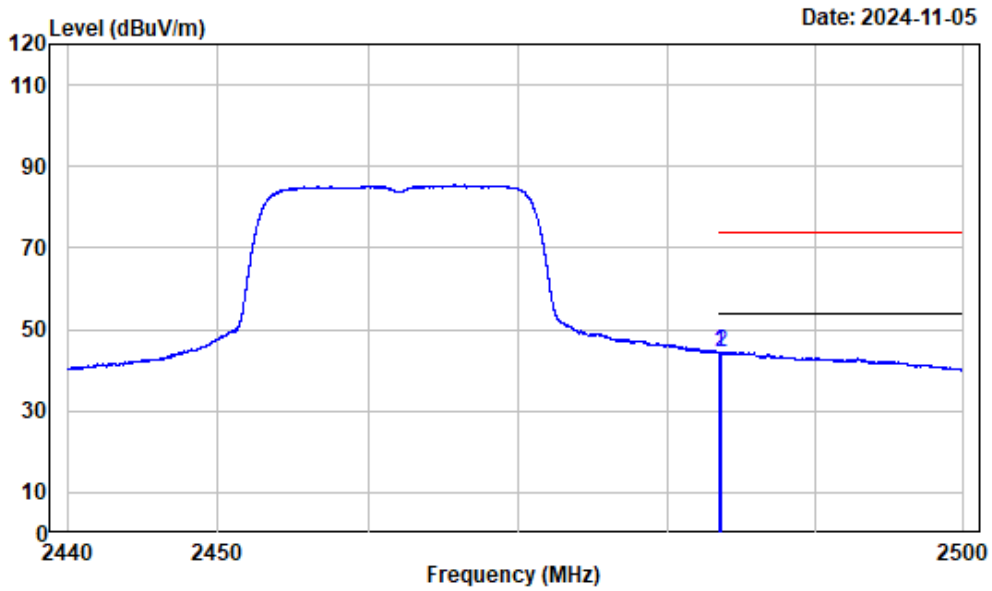
Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n20-2412

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2376.040	-3.18	41.77	38.59	54.00	-15.41	Average



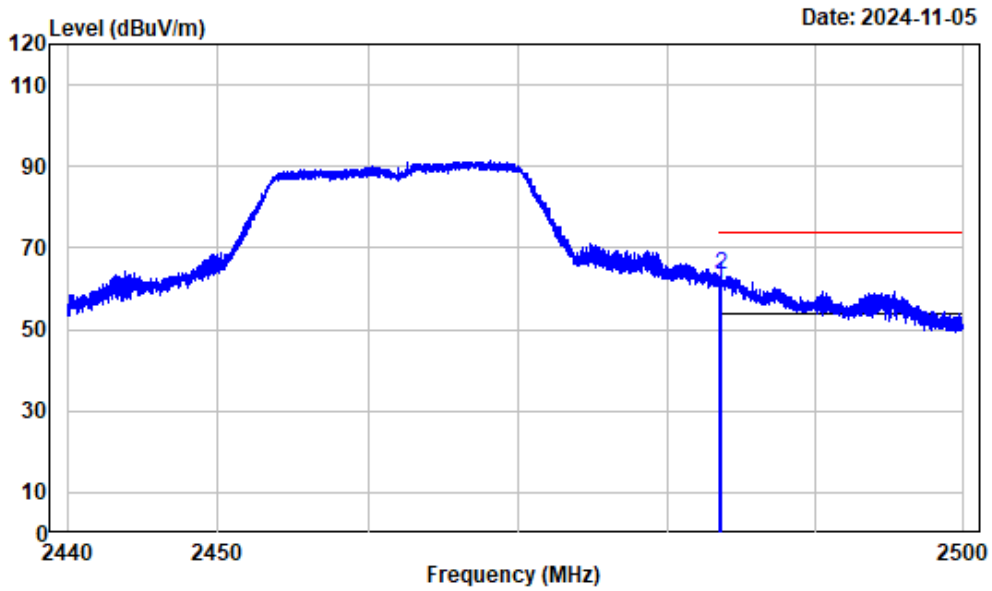
Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n20-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	70.59	67.42	74.00	-6.58	Peak
2	2484.210	-3.17	71.75	68.58	74.00	-5.42	Peak



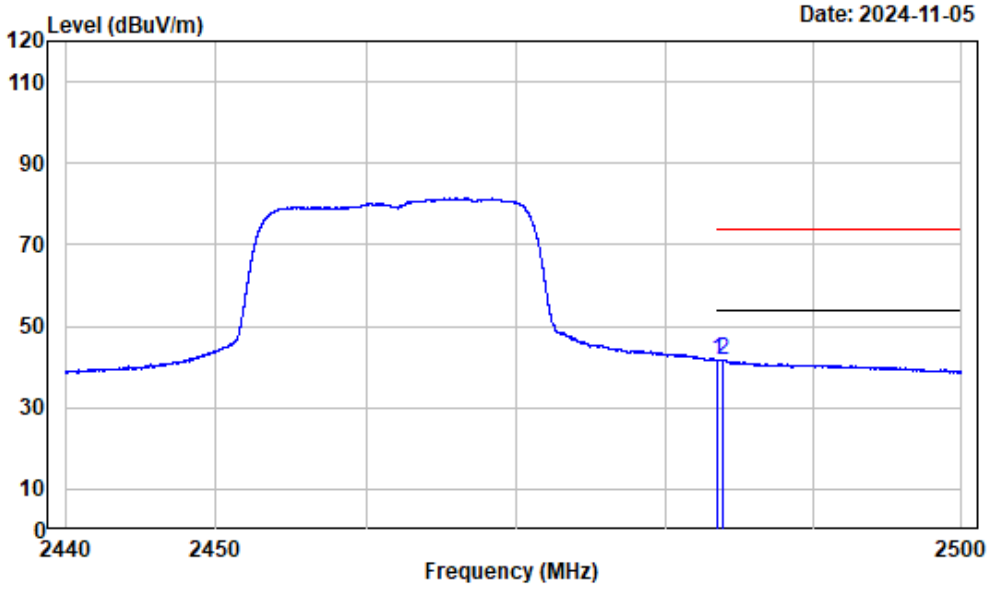
Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n20-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	47.45	44.28	54.00	-9.72	Average
2	2483.618	-3.17	47.67	44.50	54.00	-9.50	Average



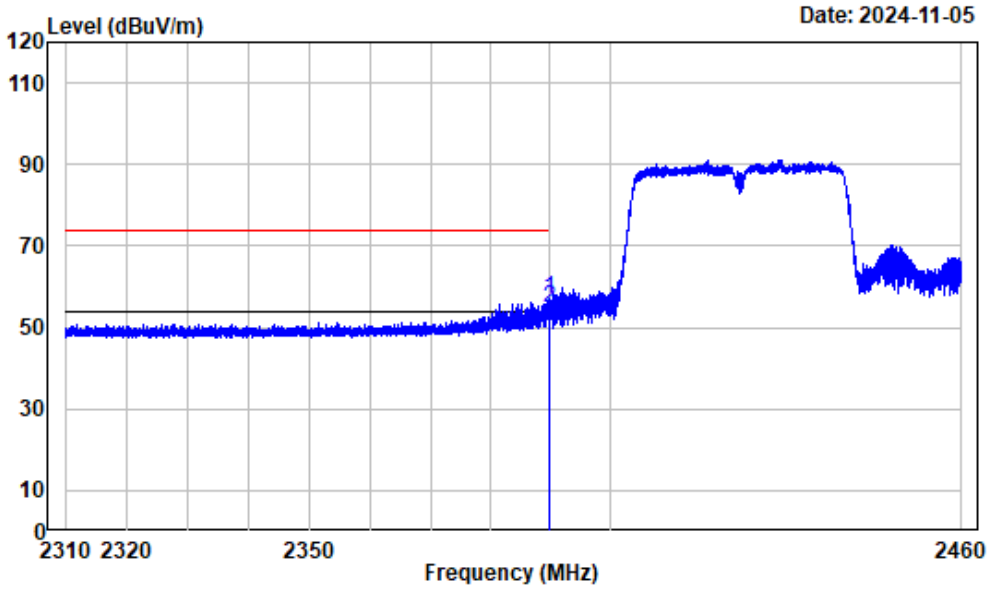
Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n20-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	64.28	61.11	74.00	-12.89	Peak
2	2483.603	-3.17	66.61	63.44	74.00	-10.56	Peak



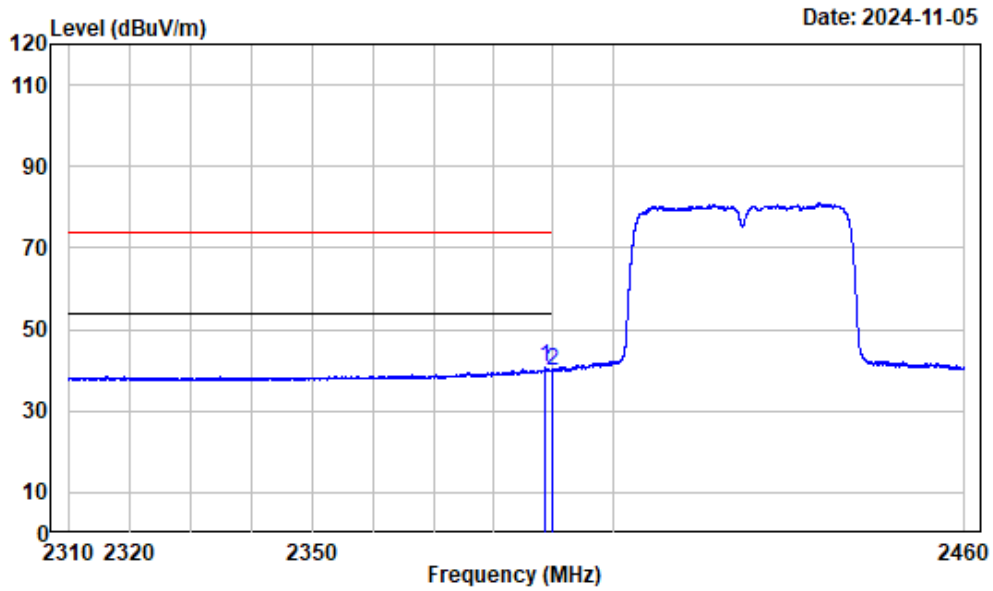
Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n20-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	44.94	41.77	54.00	-12.23	Average
2	2483.835	-3.17	45.04	41.87	54.00	-12.13	Average



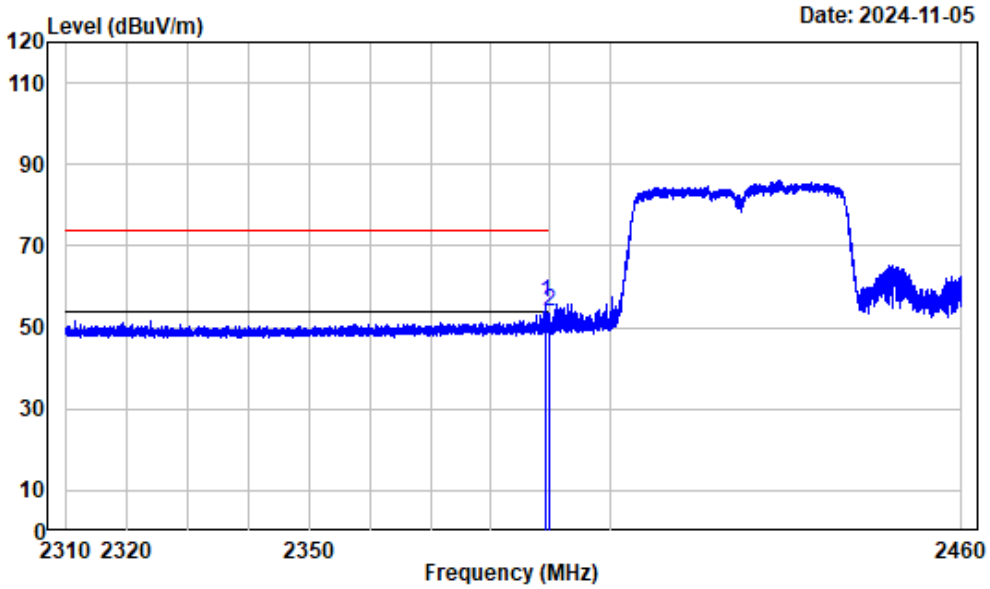
Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2422

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.923	-3.20	60.25	57.05	74.00	-16.95	Peak
2	2390.000	-3.20	58.20	55.00	74.00	-19.00	Peak



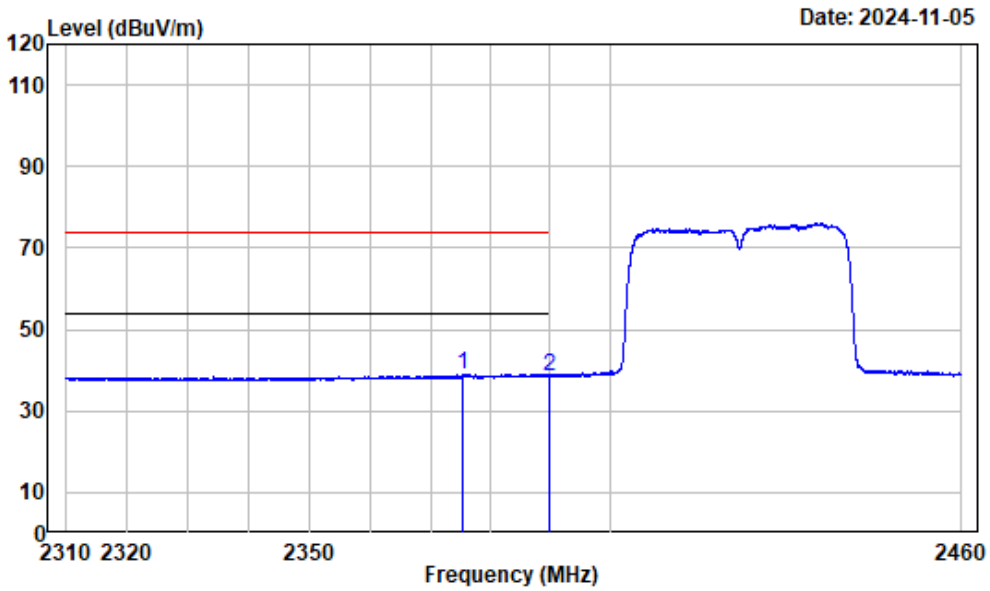
Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2422

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2388.704	-3.20	43.74	40.54	54.00	-13.46	Average
2	2390.000	-3.20	43.20	40.00	54.00	-14.00	Average



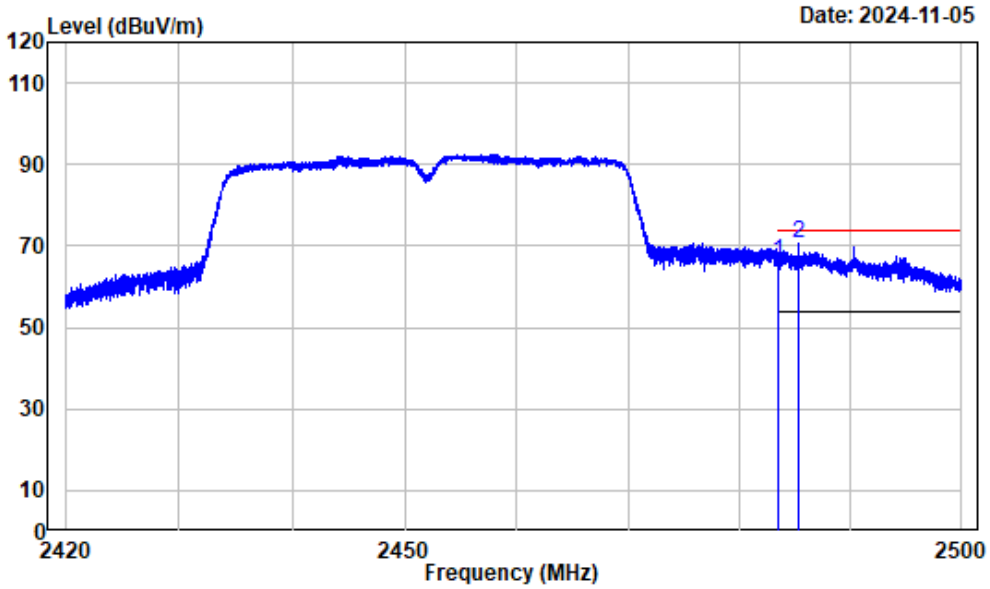
Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2422

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.266	-3.20	59.42	56.22	74.00	-17.78	Peak
2	2390.000	-3.20	57.20	54.00	74.00	-20.00	Peak



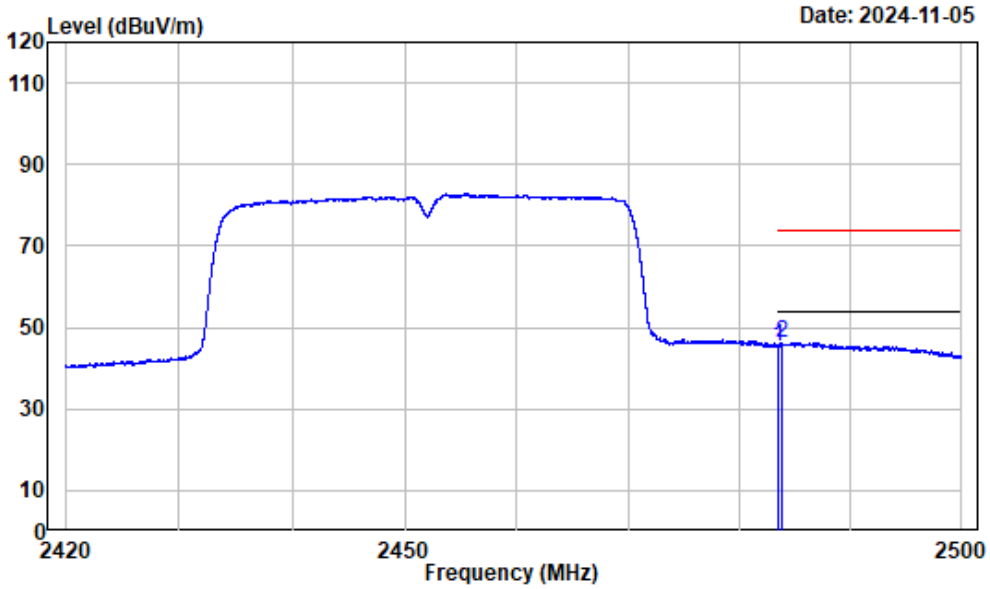
Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2422

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2375.446	-3.18	42.24	39.06	54.00	-14.94	Average
2	2390.000	-3.20	41.89	38.69	54.00	-15.31	Average



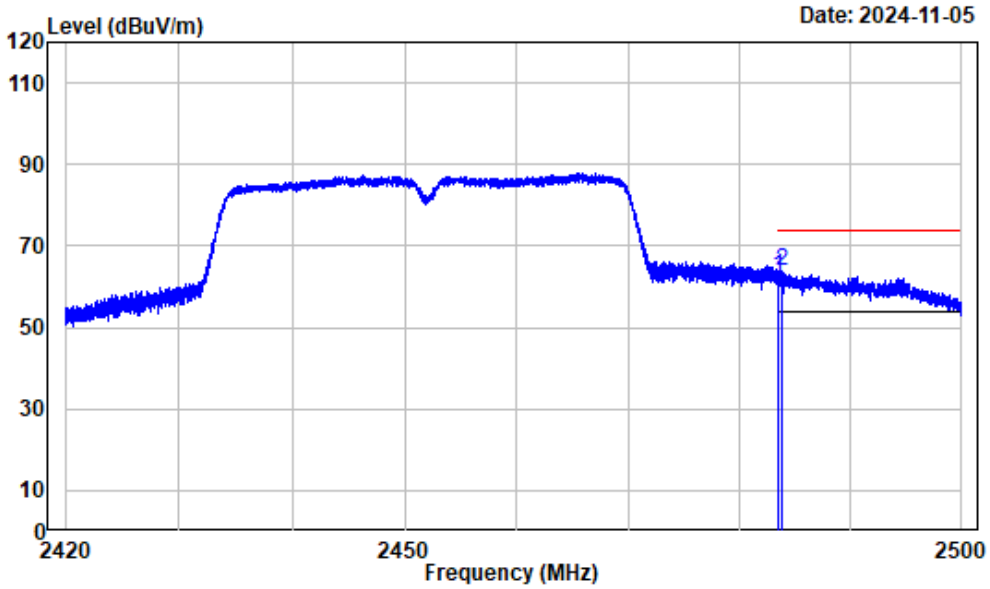
Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	69.07	65.90	74.00	-8.10	Peak
2	2485.268	-3.17	73.61	70.44	74.00	-3.56	Peak



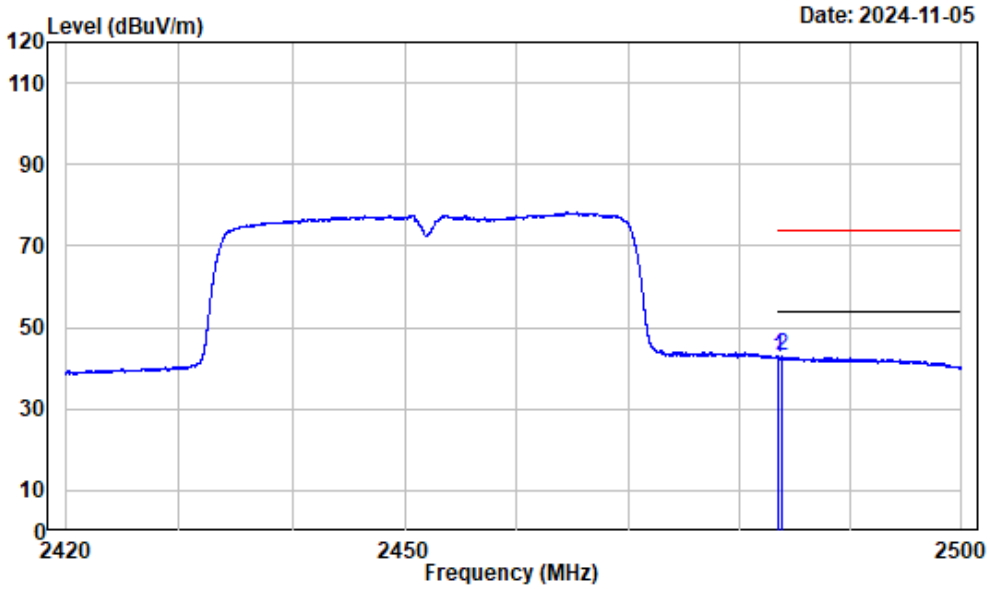
Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	48.61	45.44	54.00	-8.56	Average
2	2483.688	-3.17	49.38	46.21	54.00	-7.79	Average



Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2452

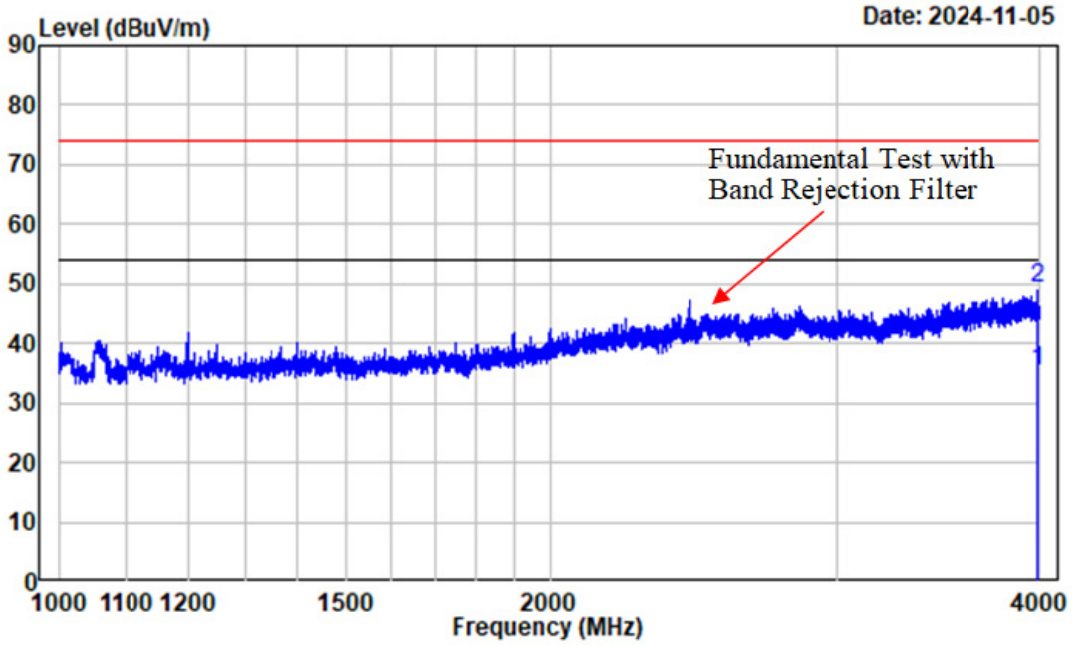
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	65.57	62.40	74.00	-11.60	Peak
2	2483.698	-3.17	66.93	63.76	74.00	-10.24	Peak



Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2452

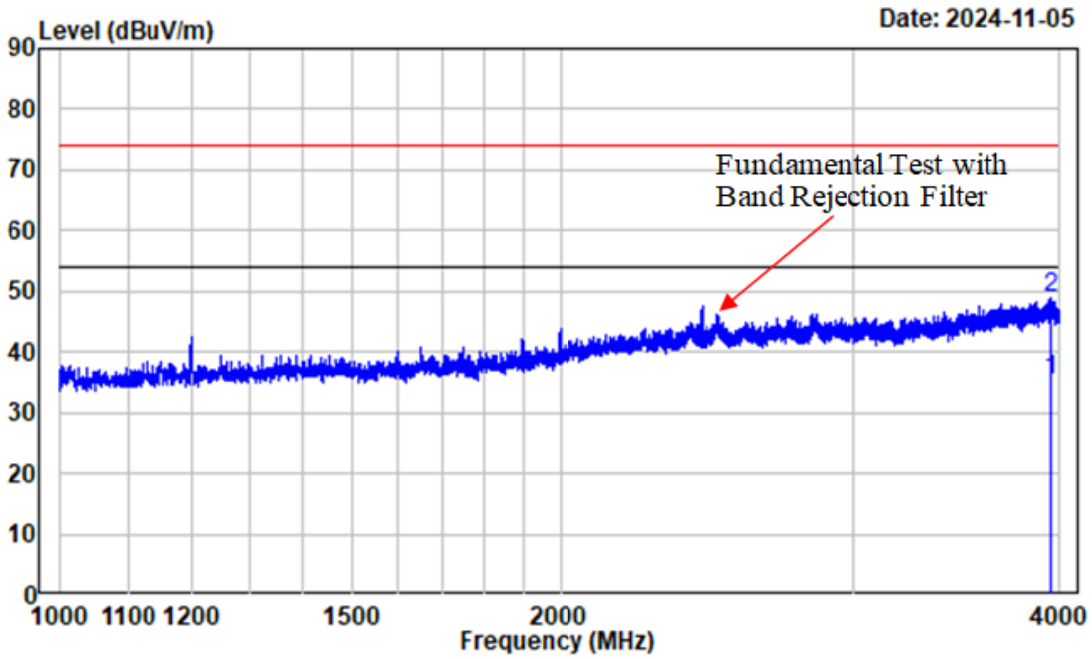
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	45.77	42.60	54.00	-11.40	Average
2	2483.708	-3.17	46.10	42.93	54.00	-11.07	Average

Listed with the worst harmonic margin test plot:



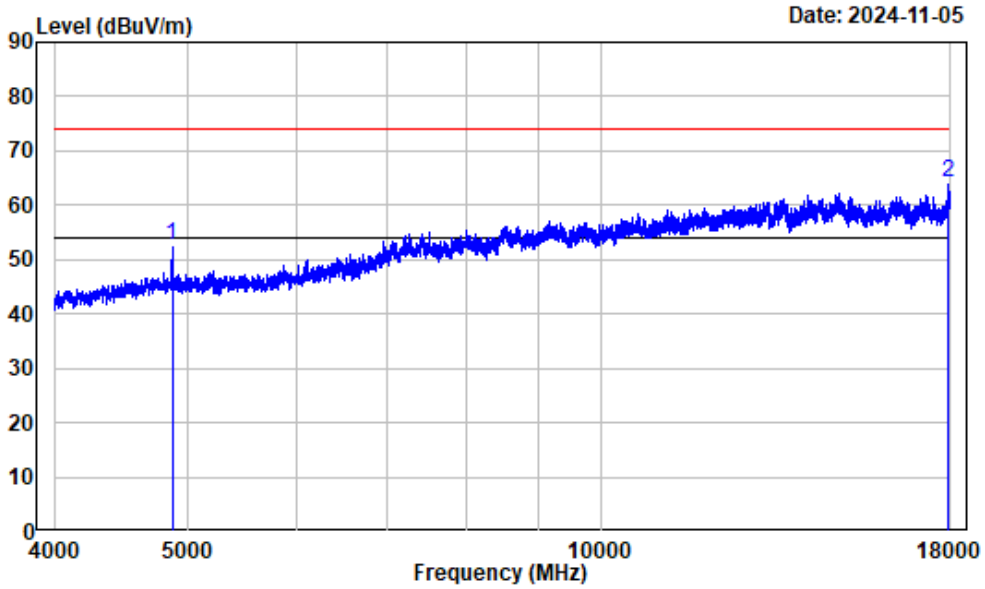
Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2437

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3983.123	-0.20	35.68	35.48	54.00	-18.52	Average
2	3983.123	-0.20	49.49	49.29	74.00	-24.71	Peak



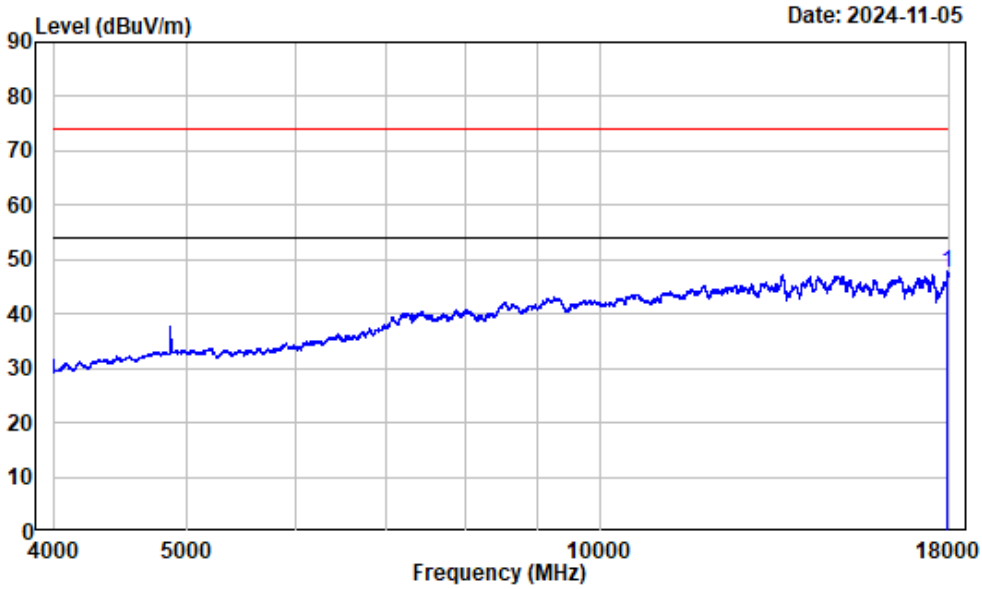
Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2437

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3946.743	-0.20	35.46	35.26	54.00	-18.74	Average
2	3946.743	-0.20	49.25	49.05	74.00	-24.95	Peak



Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2437

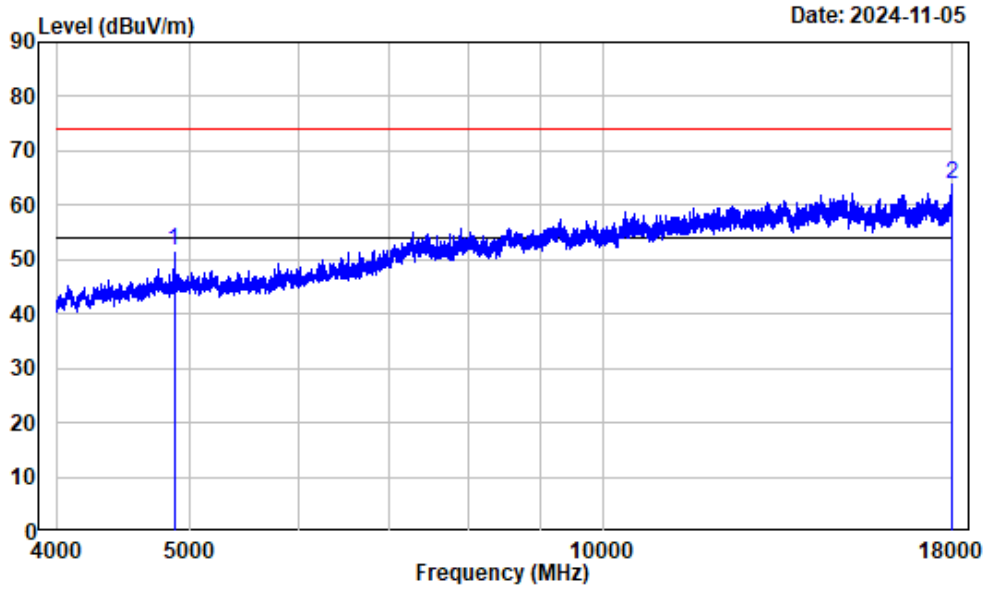
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4874.000	2.56	50.17	52.73	74.00	-21.27	Peak
2	17943.990	24.22	39.96	64.18	74.00	-9.82	Peak



Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2437

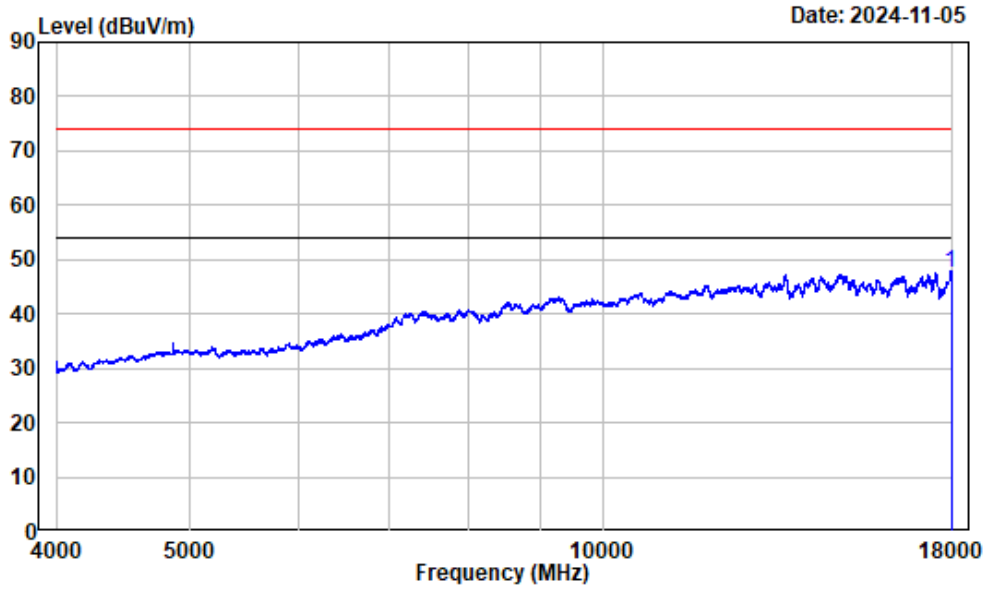
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	17947.490	24.24	23.43	47.67	54.00	-6.33	Average

Note: Spectrum Analyzer Setting: RBW=1MHz, VBW=5kHz



Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2437

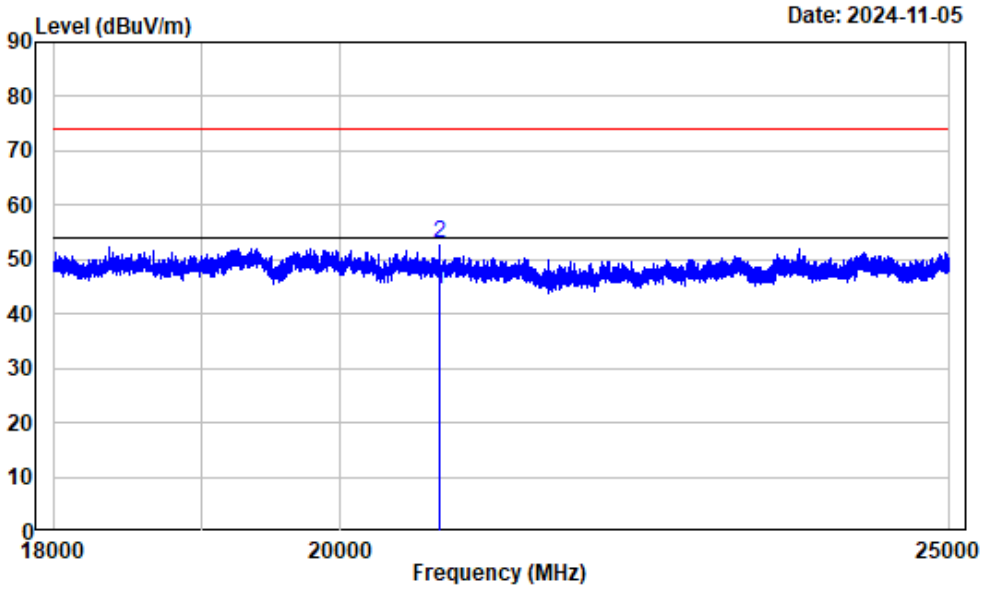
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4874.000	2.56	49.02	51.58	74.00	-22.42	Peak
2	17998.250	24.61	39.33	63.94	74.00	-10.06	Peak



Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2437

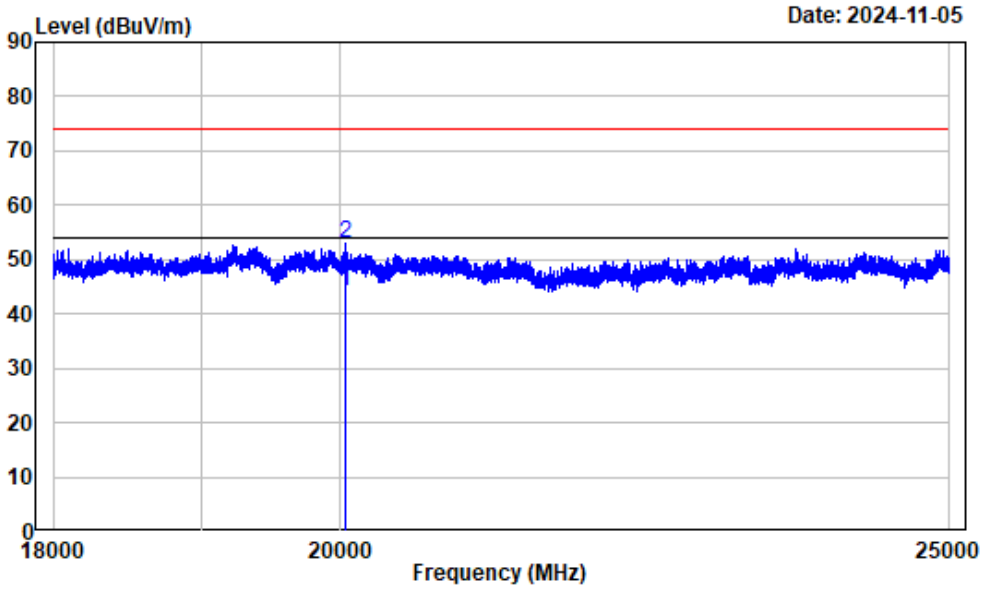
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	17957.990	24.33	23.15	47.48	54.00	-6.52	Average

Note: Spectrum Analyzer Setting: RBW=1MHz, VBW=5kHz



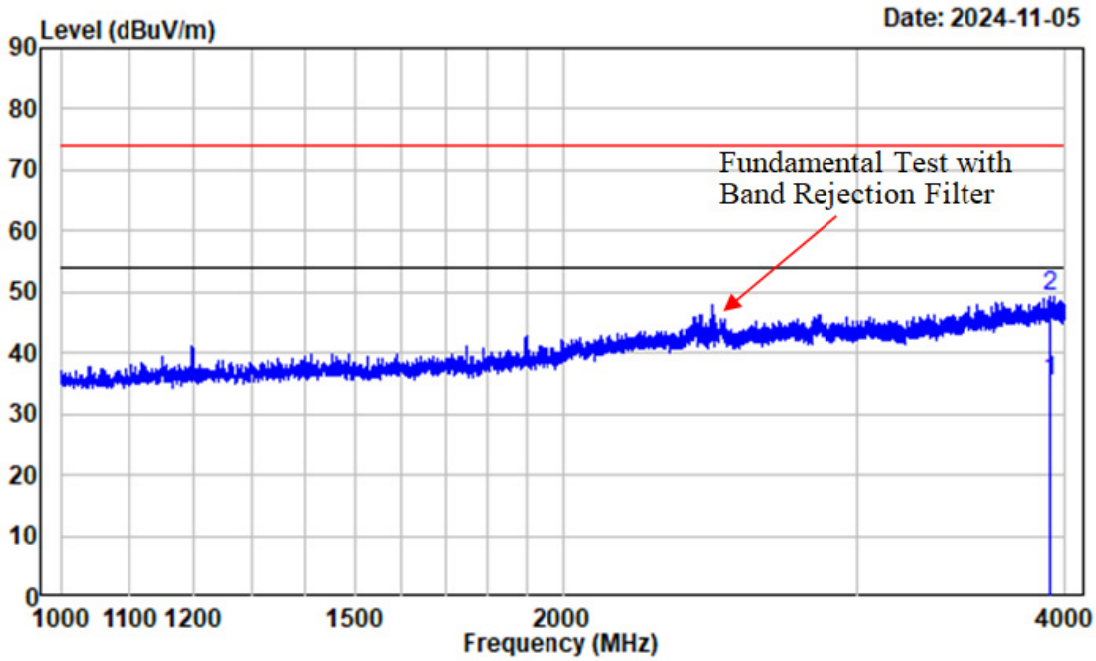
Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2437

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	20732.970	15.50	28.89	44.39	54.00	-9.61	Average
2	20732.970	15.50	37.57	53.07	74.00	-20.93	Peak



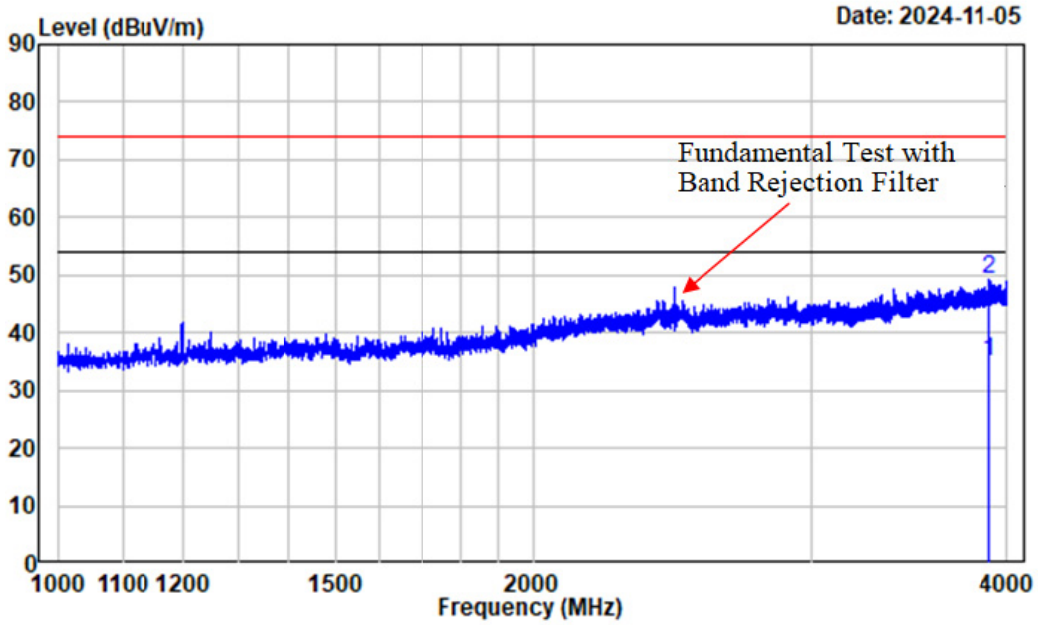
Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2437

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	20028.500	15.46	28.53	43.99	54.00	-10.01	Average
2	20028.500	15.46	37.40	52.86	74.00	-21.14	Peak



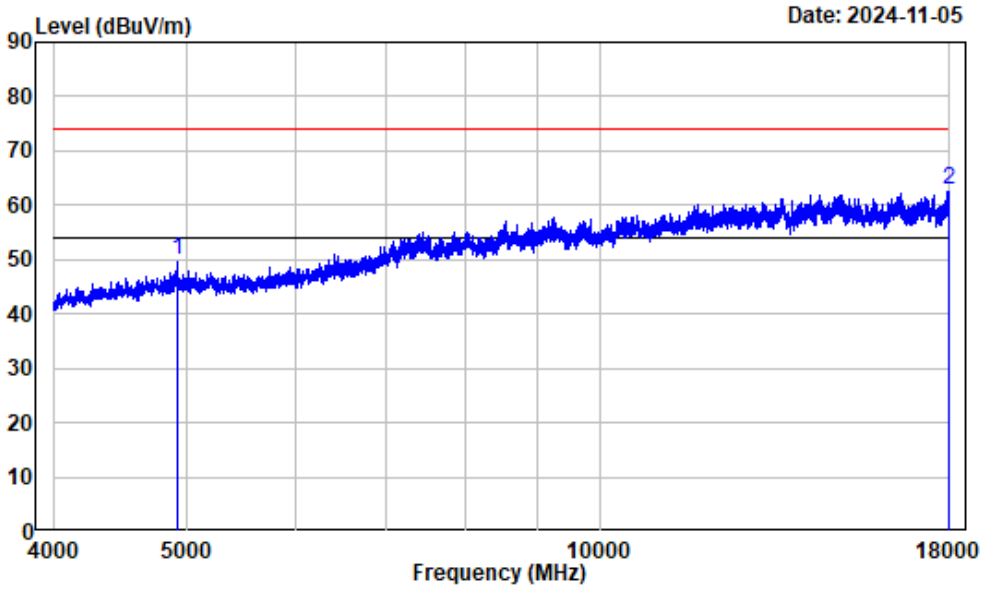
Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3922.740	-0.36	35.57	35.21	54.00	-18.79	Average
2	3922.740	-0.36	49.69	49.33	74.00	-24.67	Peak



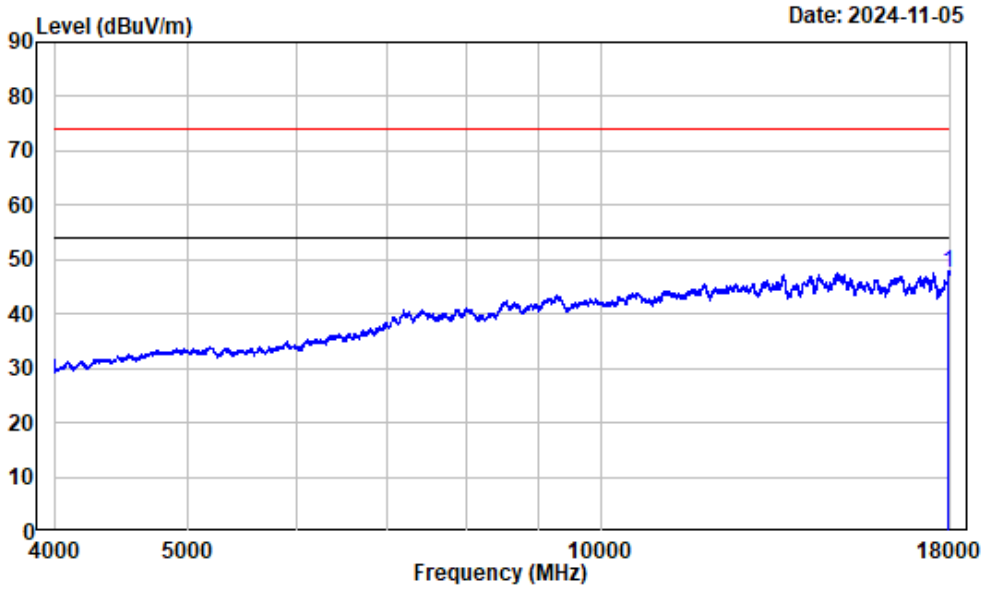
Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3890.486	-0.57	35.38	34.81	54.00	-19.19	Average
2	3890.486	-0.57	49.74	49.17	74.00	-24.83	Peak



Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2462

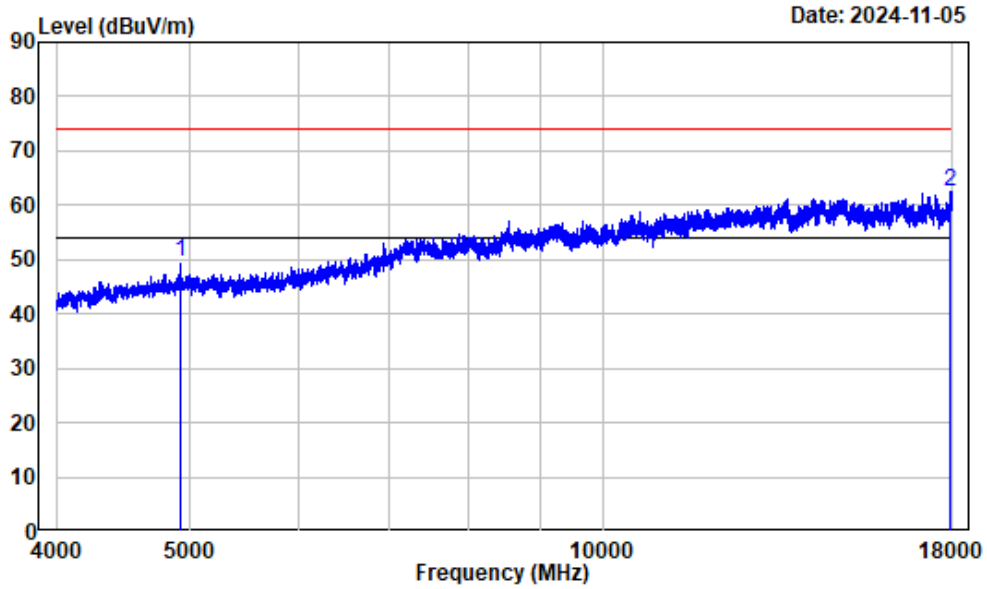
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	47.29	49.92	74.00	-24.08	Peak
2	17979.000	24.46	38.52	62.98	74.00	-11.02	Peak



Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2462

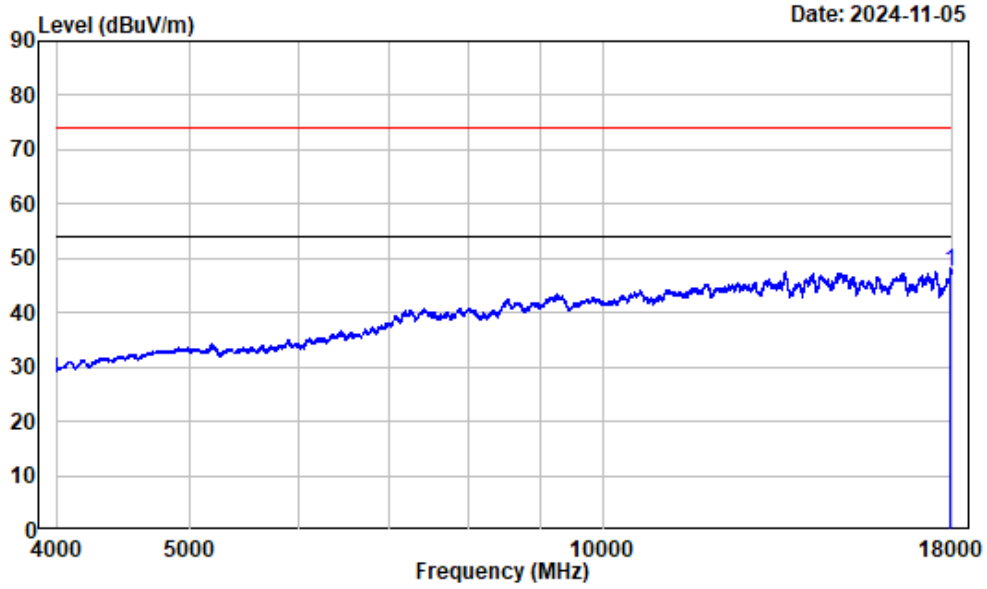
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	17943.990	24.22	23.49	47.71	54.00	-6.29	Average

Note: Spectrum Analyzer Setting: RBW=1MHz, VBW=5kHz



Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2462

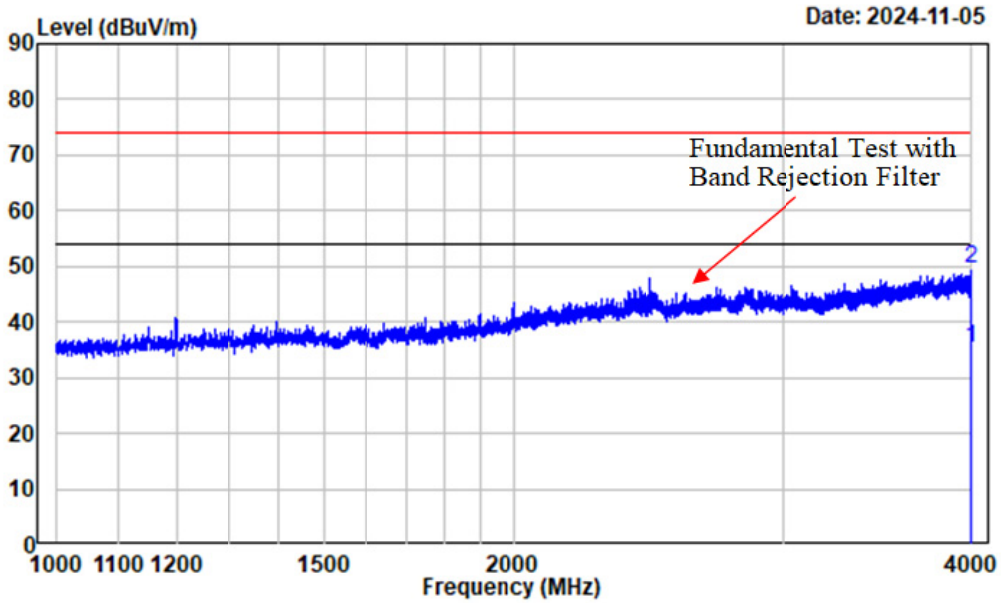
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	46.87	49.50	74.00	-24.50	Peak
2	17942.240	24.21	38.43	62.64	74.00	-11.36	Peak



Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2462

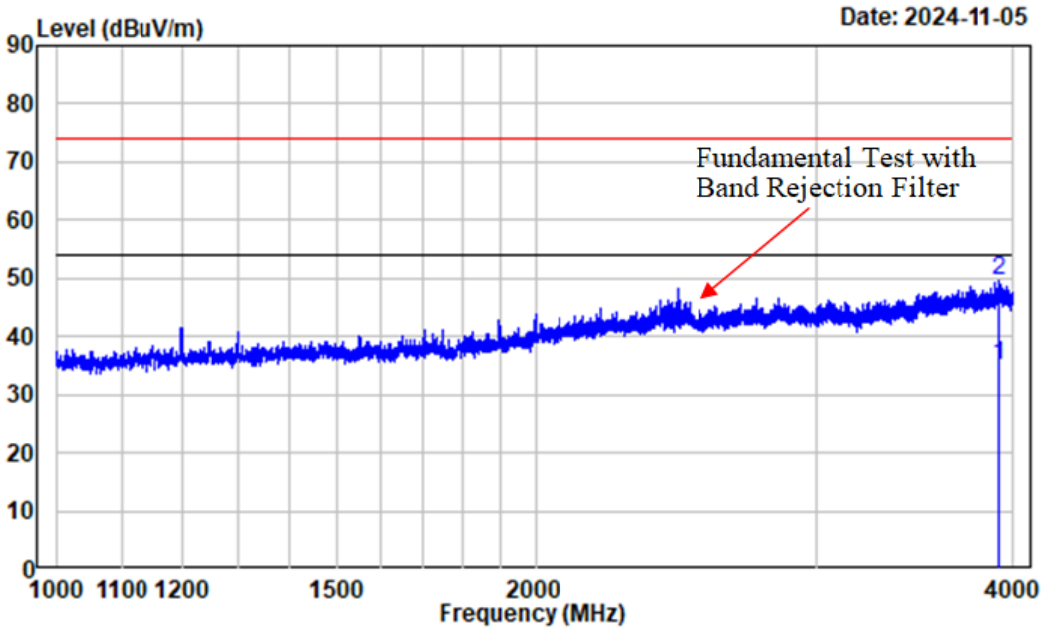
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	17949.240	24.25	23.25	47.50	54.00	-6.50	Average

Note: Spectrum Analyzer Setting: RBW=1MHz, VBW=5kHz



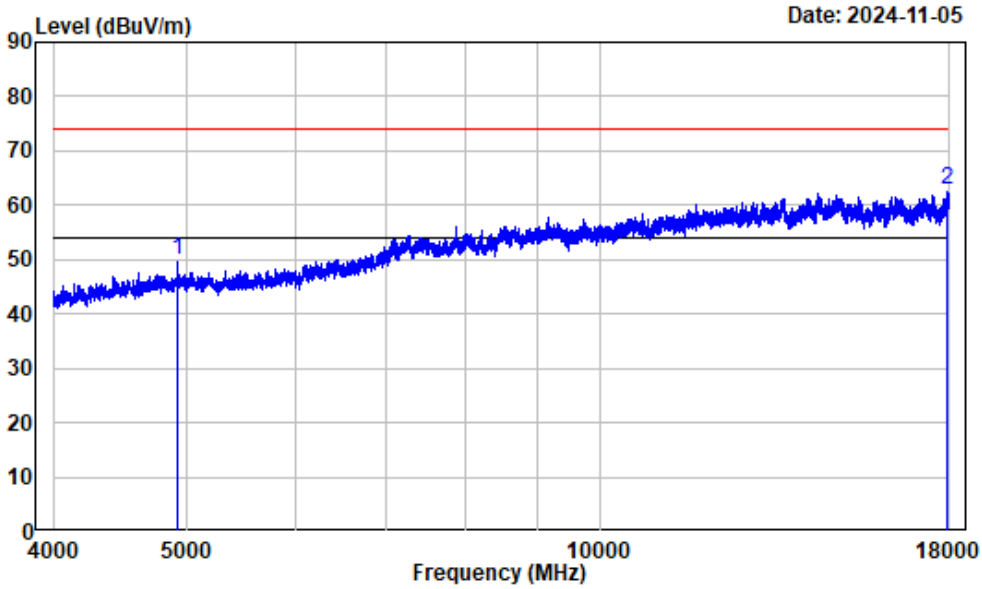
Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n20-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3999.625	-0.21	35.70	35.49	54.00	-18.51	Average
2	3999.625	-0.21	49.94	49.73	74.00	-24.27	Peak



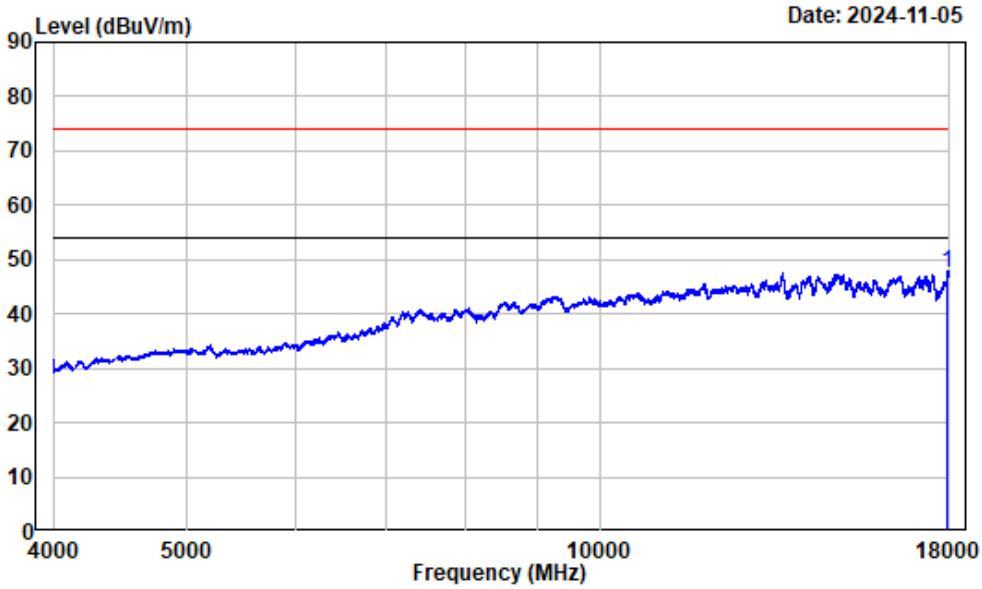
Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n20-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3918.990	-0.39	35.54	35.15	54.00	-18.85	Average
2	3918.990	-0.39	49.89	49.50	74.00	-24.50	Peak



Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n20-2462

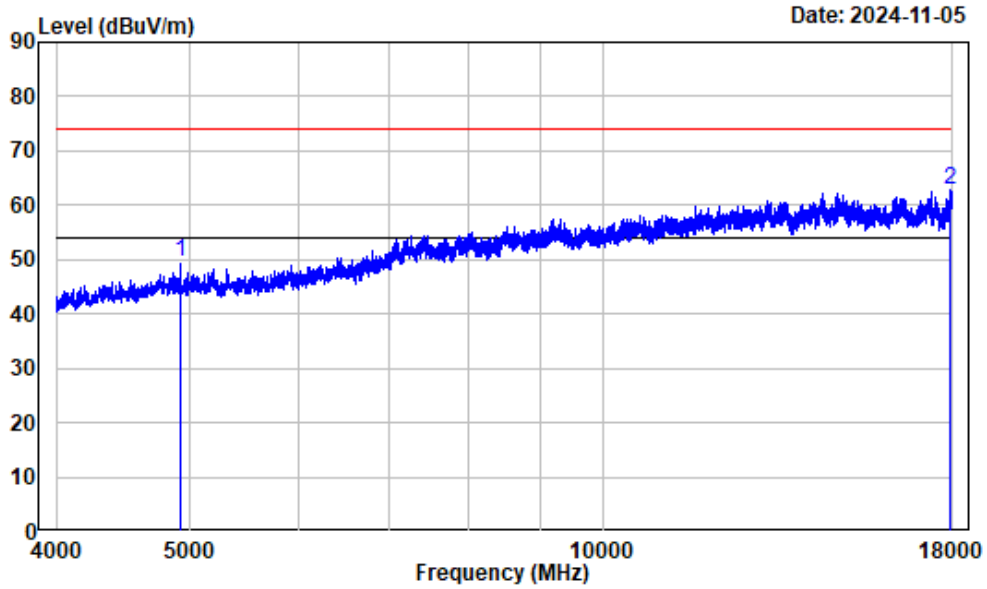
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	47.14	49.77	74.00	-24.23	Peak
2	17943.990	24.22	38.70	62.92	74.00	-11.08	Peak



Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n20-2462

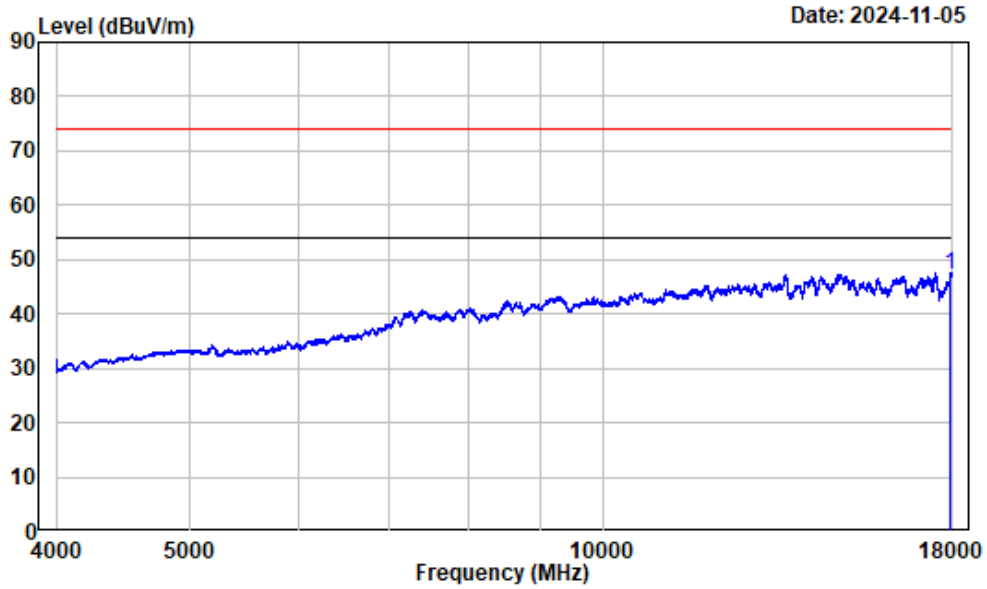
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	17940.490	24.19	23.36	47.55	54.00	-6.45	Average

Note: Spectrum Analyzer Setting: RBW=1MHz, VBW=5kHz



Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n20-2462

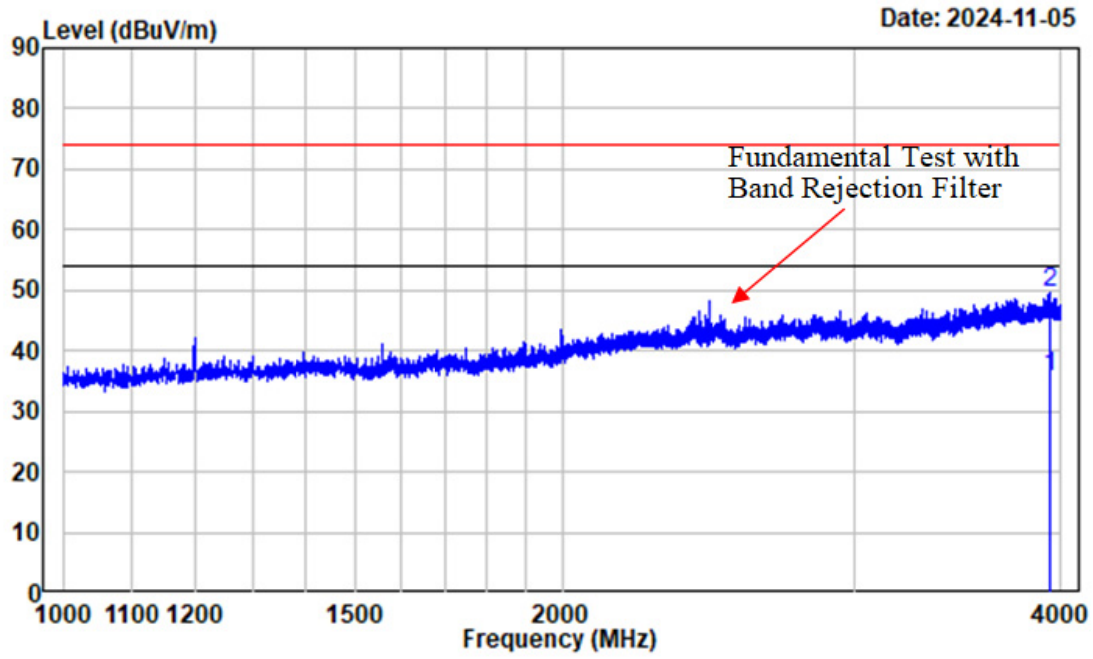
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	46.83	49.46	74.00	-24.54	Peak
2	17936.990	24.17	38.63	62.80	74.00	-11.20	Peak



Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n20-2462

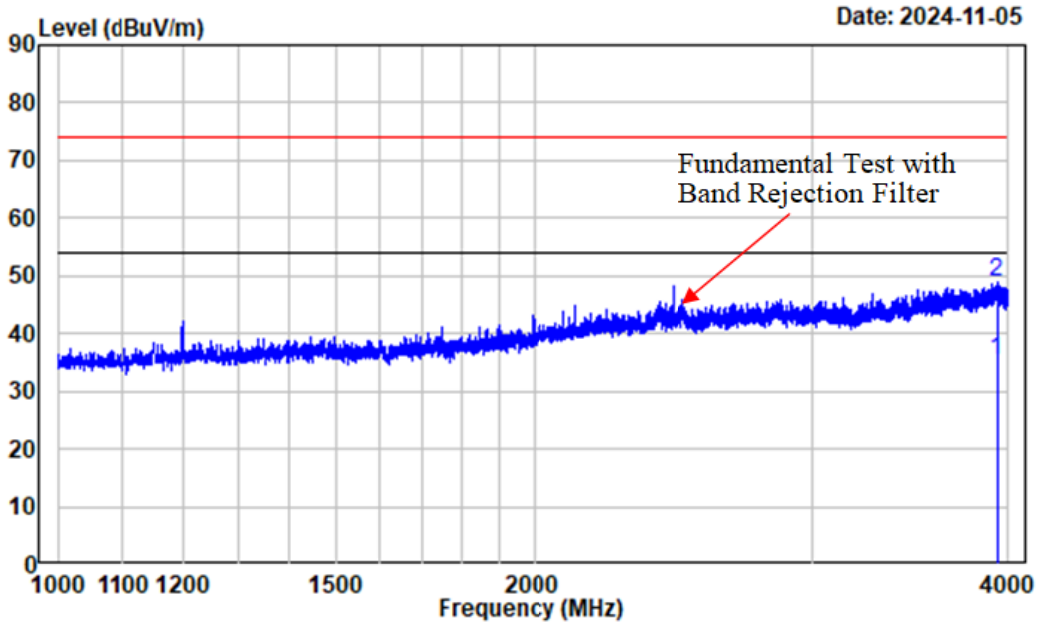
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	17936.990	24.17	23.09	47.26	54.00	-6.74	Average

Note: Spectrum Analyzer Setting: RBW=1MHz, VBW=5kHz



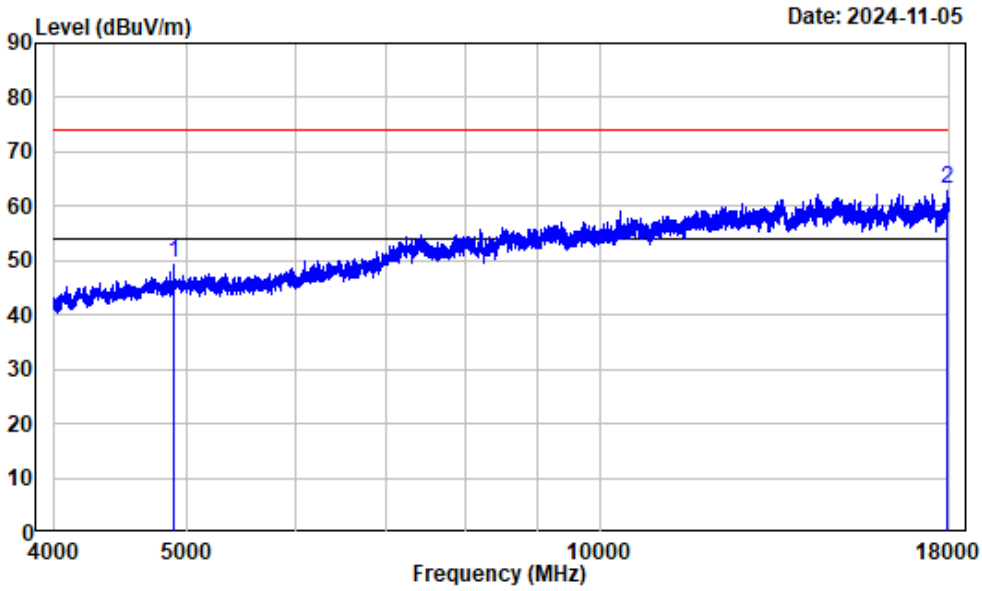
Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3939.992	-0.24	35.96	35.72	54.00	-18.28	Average
2	3939.992	-0.24	49.68	49.44	74.00	-24.56	Peak



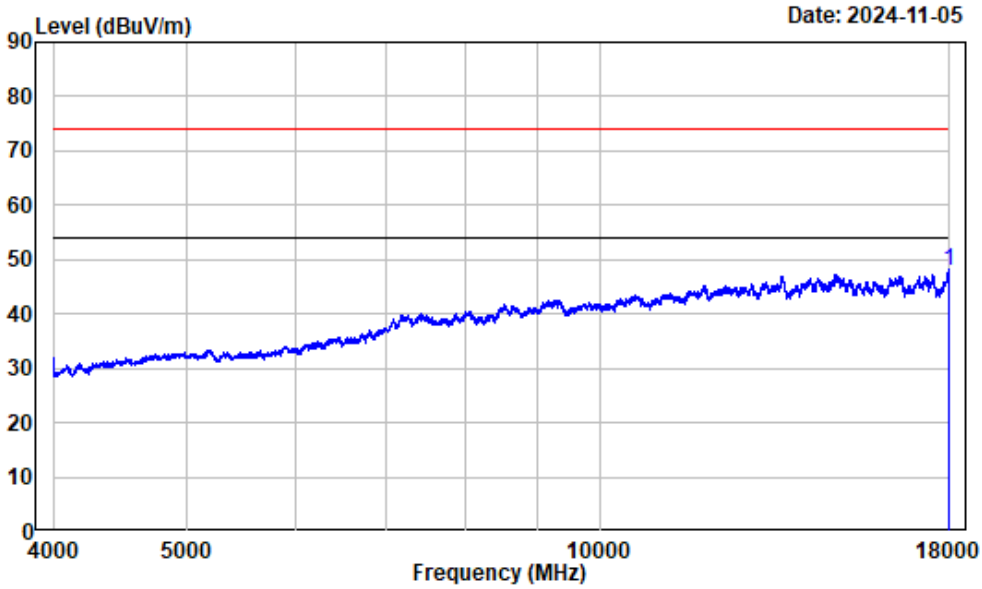
Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3934.742	-0.28	35.74	35.46	54.00	-18.54	Average
2	3934.742	-0.28	49.15	48.87	74.00	-25.13	Peak



Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2452

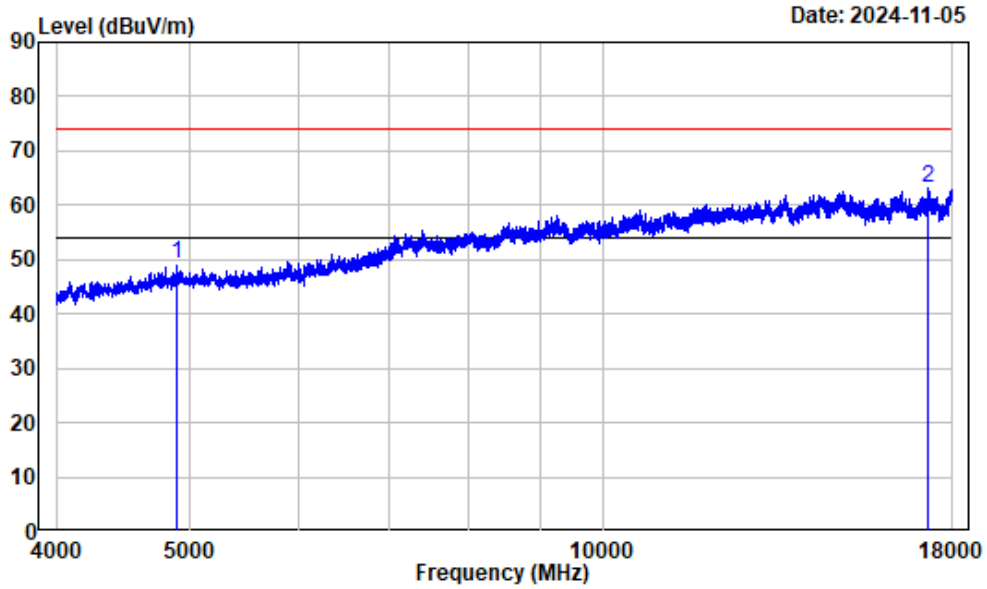
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4904.000	2.64	47.05	49.69	74.00	-24.31	Peak
2	17921.240	24.07	39.24	63.31	74.00	-10.69	Peak



Condition : Horizontal
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2452

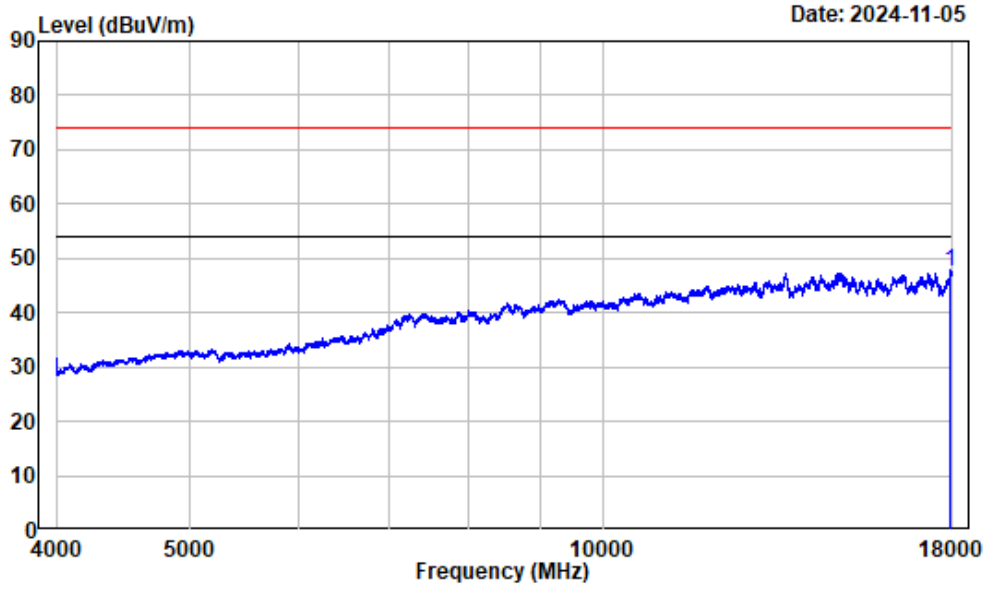
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	17959.740	24.34	23.56	47.90	54.00	-6.10	Average

Note: Spectrum Analyzer Setting: RBW=1MHz, VBW=5kHz



Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4904.000	2.64	46.72	49.36	74.00	-24.64	Peak
2	17299.910	19.34	43.84	63.18	74.00	-10.82	Peak



Condition : Vertical
Project No.: 2401Y37315E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	17950.990	24.28	23.35	47.63	54.00	-6.37	Average

Note: Spectrum Analyzer Setting: RBW=1MHz, VBW=5kHz

6dB Emission Bandwidth

Test Information:

Sample No.:	2SMP-4	**Test Date:**	2024/10/23
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Cheeb Huang	**Test Result:**	Pass

Environmental Conditions:

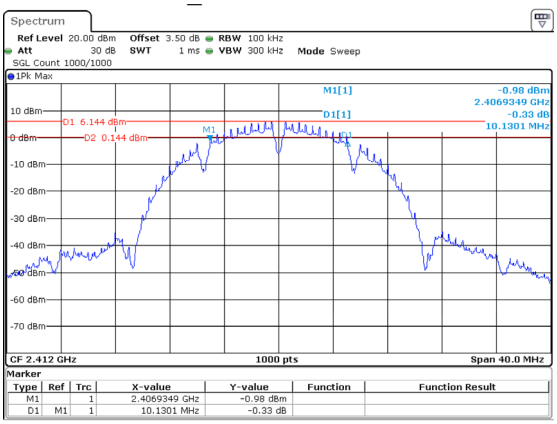
Temperature: (°C):	25.2	**Relative Humidity: (%)**	57	**ATM Pressure: (kPa)**	101

Test Data:

Mode	Test Frequency (MHz)	Result (MHz)	Limit (MHz)	Verdict
802.11b	2412	10.130	≥0.5	Pass
	2437	9.650	≥0.5	Pass
	2462	9.650	≥0.5	Pass
802.11g	2412	16.376	≥0.5	Pass
	2437	16.376	≥0.5	Pass
	2462	16.416	≥0.5	Pass
802.11n20	2412	17.618	≥0.5	Pass
	2437	17.337	≥0.5	Pass
	2462	17.618	≥0.5	Pass
802.11n40	2422	35.315	≥0.5	Pass
	2437	35.476	≥0.5	Pass
	2452	35.476	≥0.5	Pass

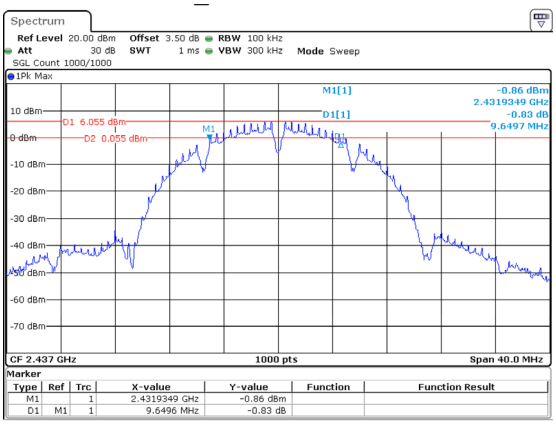
2.4G

802.11b_2412MHz 10.130MHz



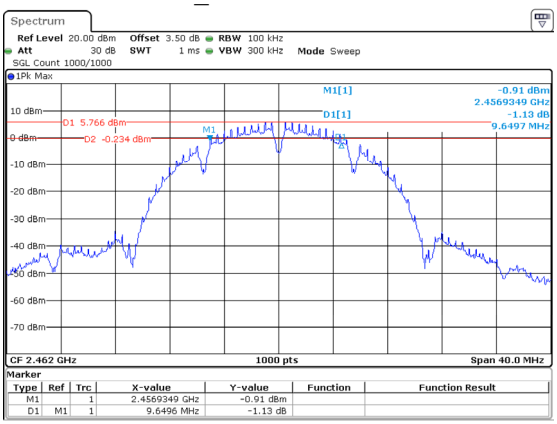
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 23.OCT.2024 15:42:20

802.11b_2437MHz 9.650MHz



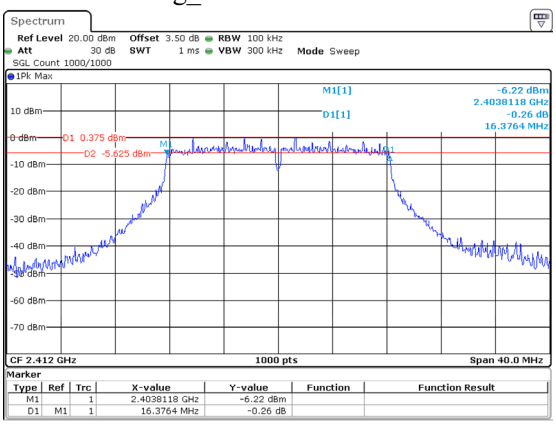
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 23.OCT.2024 15:43:14

802.11b_2462MHz 9.650MHz



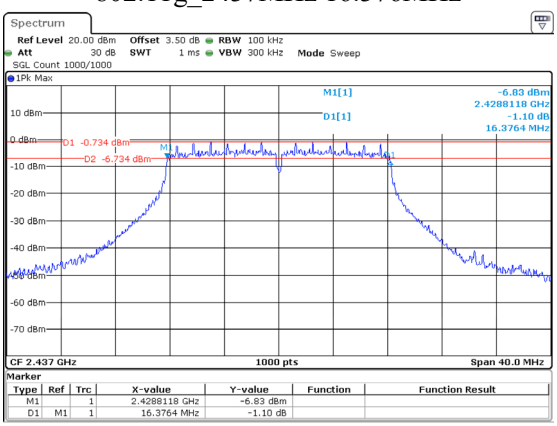
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 23.OCT.2024 15:45:00

802.11g_2412MHz 16.376MHz



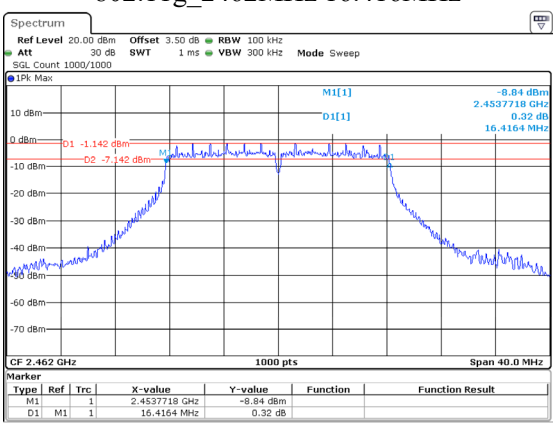
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 23.OCT.2024 15:46:36

802.11g_2437MHz 16.376MHz



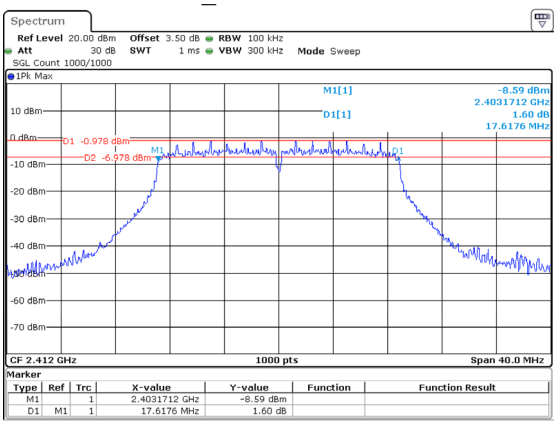
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 23.OCT.2024 15:48:53

802.11g_2462MHz 16.416MHz



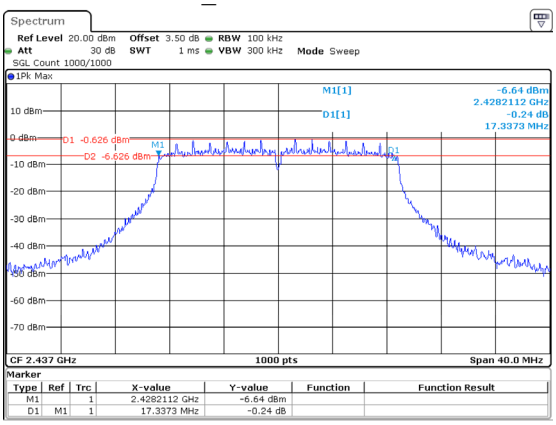
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 23.OCT.2024 15:49:49

802.11n20_2412MHz 17.618MHz



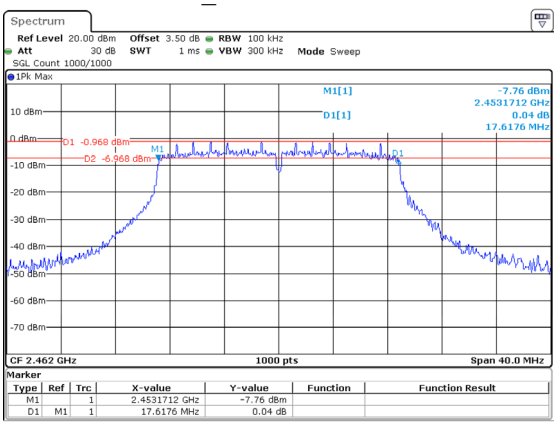
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 23.OCT.2024 15:50:48

802.11n20_2437MHz 17.337MHz



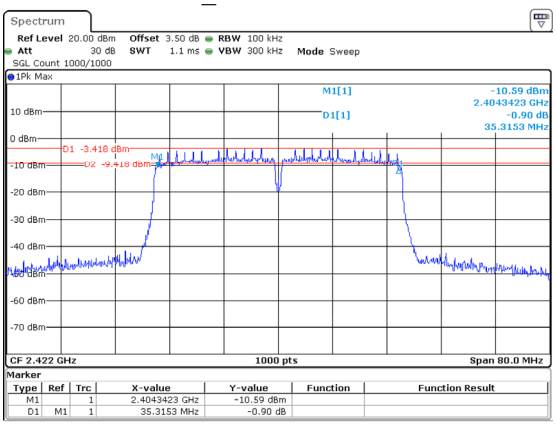
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 23.OCT.2024 15:51:53

802.11n20_2462MHz 17.618MHz



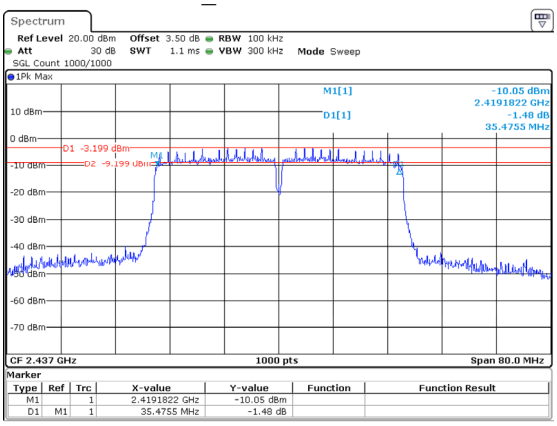
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 23.OCT.2024 15:52:47

802.11n40_2422MHz 35.315MHz



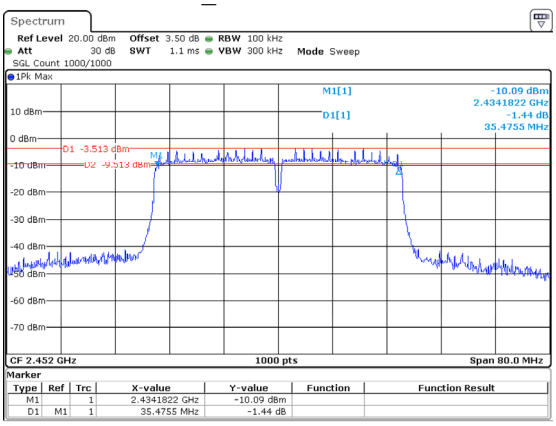
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 23.OCT.2024 15:53:10

802.11n40_2437MHz 35.476MHz



ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 23.OCT.2024 15:53:31

802.11n40_2452MHz 35.476MHz



ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 23.OCT.2024 15:54:29

Maximum Conducted Output Power

Test Information:

Sample No.:	2SMP-4	**Test Date:**	2024/10/23~2024/10/24
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Cheeb Huang	**Test Result:**	Pass

Environmental Conditions:

Temperature: (°C):	25.2	**Relative Humidity: (%)**	57	**ATM Pressure: (kPa)**	101

Test Data:

Mode	Test Frequency (MHz)	Peak Output Power(dBm)	Average Output Power(dBm)	Limit (dBm)	Verdict
802.11b	2412	17.81	14.72	30	Pass
	2437	**17.99**	14.61	30	Pass
	2462	17.73	14.53	30	Pass
802.11g	2412	17.68	10.21	30	Pass
	2437	17.72	10.29	30	Pass
	2462	17.60	10.18	30	Pass
802.11n20	2412	17.60	10.30	30	Pass
	2437	17.73	10.52	30	Pass
	2462	17.55	10.09	30	Pass
802.11n40	2422	17.78	10.49	30	Pass
	2437	17.69	10.65	30	Pass
	2452	17.60	10.57	30	Pass

100 kHz Bandwidth of Frequency Band Edge

Test Information:

Sample No.:	2SMP-4	**Test Date:**	2024/10/23
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Cheeb Huang	**Test Result:**	Pass

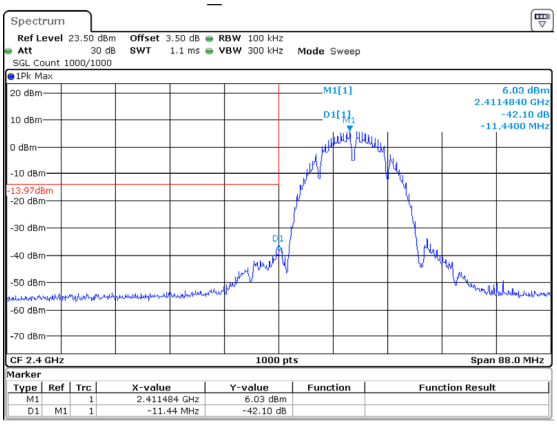
Environmental Conditions:

Temperature: (°C):	25.2	**Relative Humidity: (%)**	57	**ATM Pressure: (kPa)**	101

Test Data:

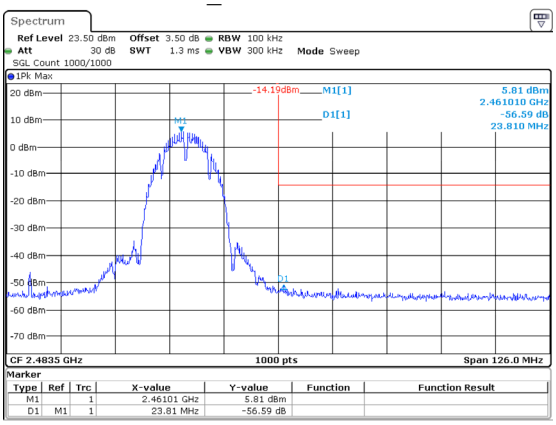
2.4G

802.11b_2412MHz 42.10dB



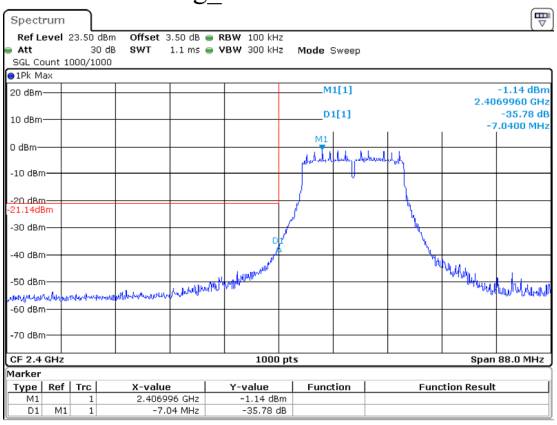
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 23.OCT.2024 16:34:17

802.11b_2462MHz 56.59dB



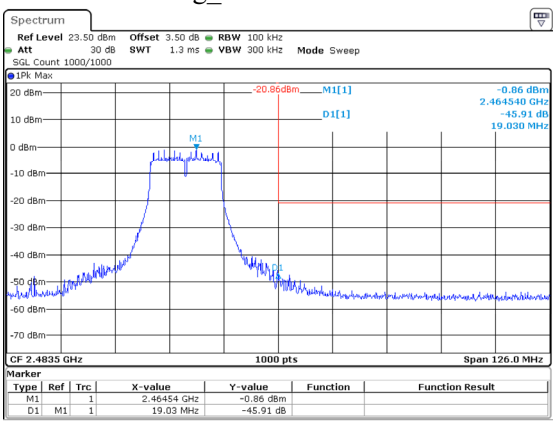
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 23.OCT.2024 16:35:18

802.11g_2412MHz 35.78dB



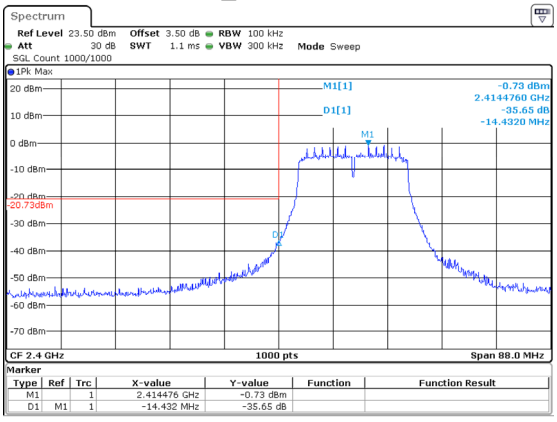
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 23.OCT.2024 16:35:53

802.11g_2462MHz 45.91dB



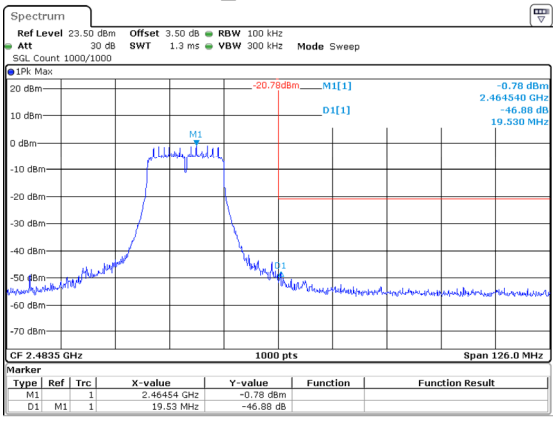
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 23.OCT.2024 16:36:36

802.11n20_2412MHz 35.65dB



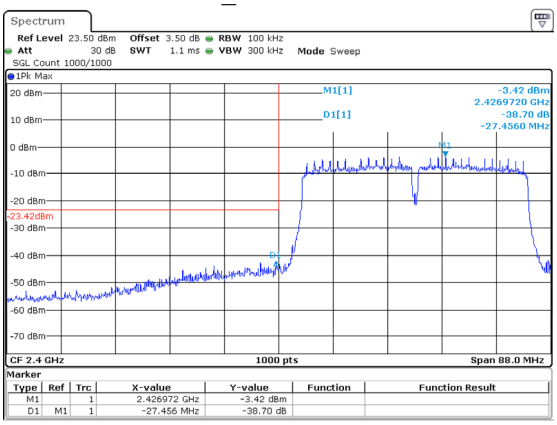
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 23.OCT.2024 16:37:06

802.11n20_2462MHz 46.88dB



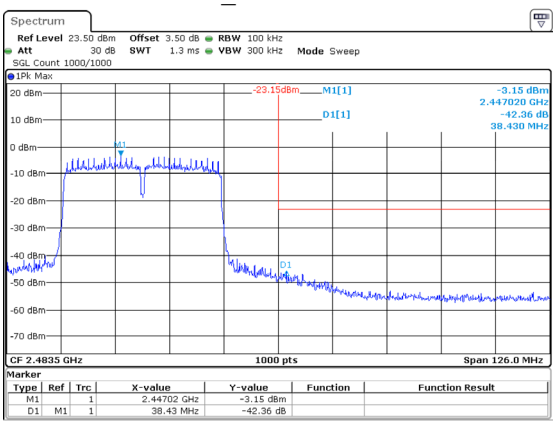
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 23.OCT.2024 16:37:46

802.11n40_2422MHz 38.70dB



ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 23.OCT.2024 16:38:20

802.11n40_2452MHz 42.36dB



ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 23.OCT.2024 16:39:04

Power Spectral Density

Test Information:

Sample No.:	2SMP-4	**Test Date:**	2024/10/24
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Cheeb Huang	**Test Result:**	Pass

Environmental Conditions:

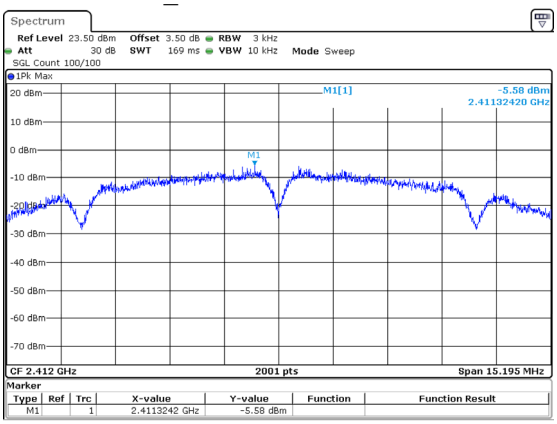
Temperature: (°C):	25.2	**Relative Humidity: (%)**	57	**ATM Pressure: (kPa)**	101

Test Data:

Mode	Test Frequency (MHz)	Result (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
802.11b	2412	**-5.58**	8	Pass
	2437	-6.42	8	Pass
	2462	-6.64	8	Pass
802.11g	2412	-14.85	8	Pass
	2437	-13.82	8	Pass
	2462	-14.60	8	Pass
802.11n20	2412	-14.39	8	Pass
	2437	-14.46	8	Pass
	2462	-14.58	8	Pass
802.11n40	2422	-17.48	8	Pass
	2437	-17.17	8	Pass
	2452	-17.12	8	Pass

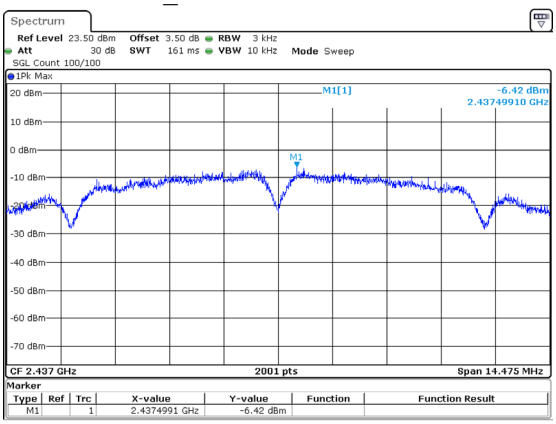
2.4G

802.11b_2412MHz -5.58dBm/3kHz



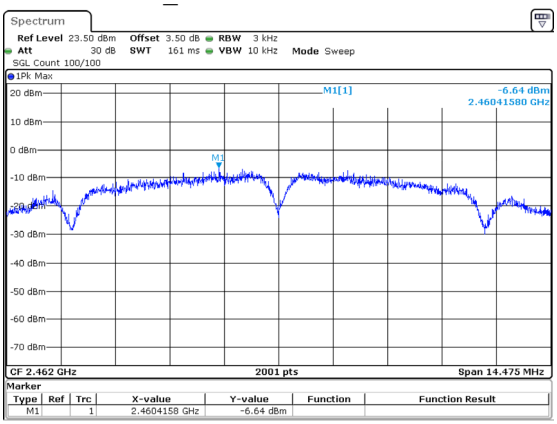
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 24.OCT.2024 09:00:49

802.11b_2437MHz -6.42dBm/3kHz



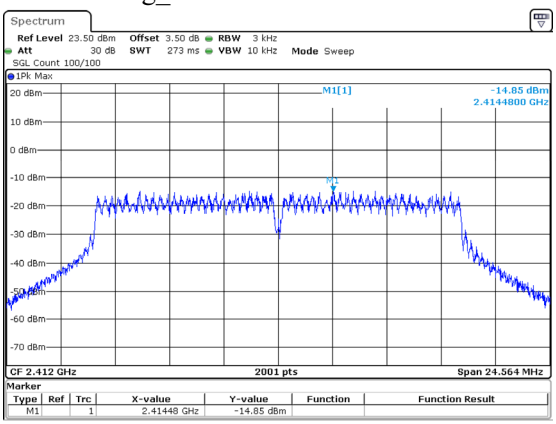
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 24.OCT.2024 09:01:27

802.11b_2462MHz -6.64dBm/3kHz



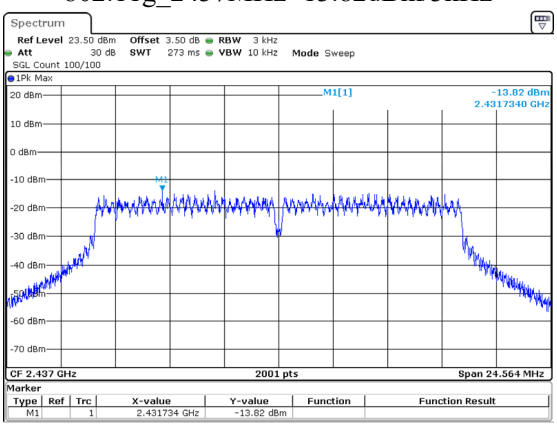
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 24.OCT.2024 09:02:10

802.11g_2412MHz -14.85dBm/3kHz



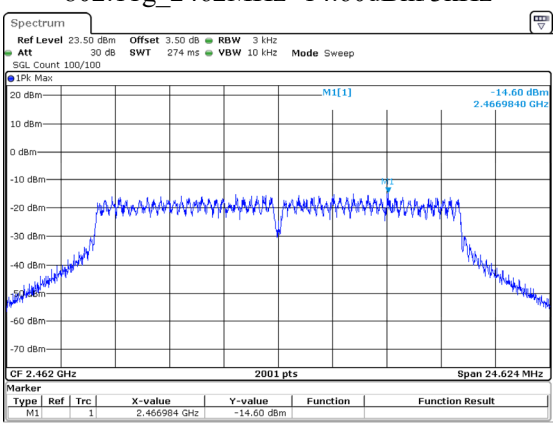
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 24.OCT.2024 09:03:05

802.11g_2437MHz -13.82dBm/3kHz



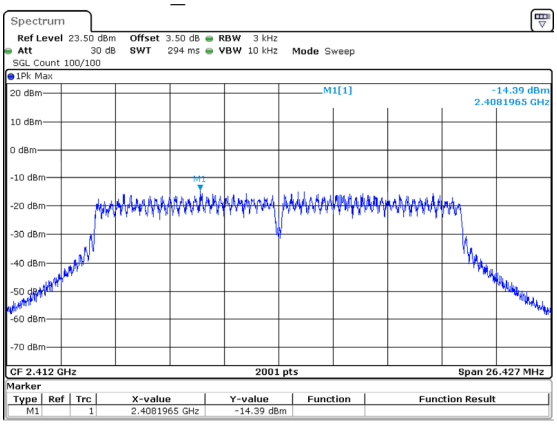
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 24.OCT.2024 09:03:57

802.11g_2462MHz -14.60dBm/3kHz



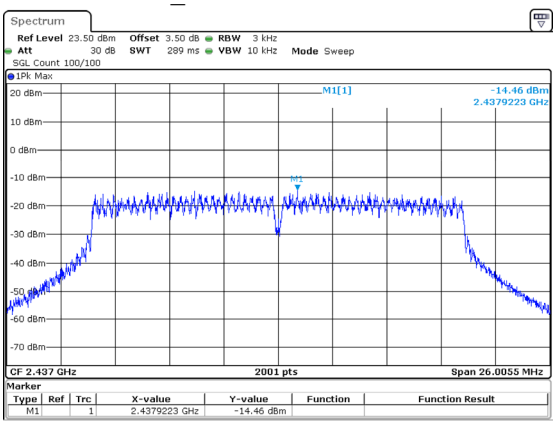
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 24.OCT.2024 09:04:50

802.11n20_2412MHz -14.39dBm/3kHz



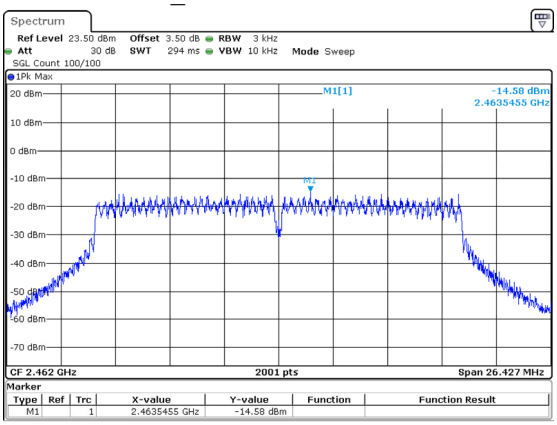
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 24.OCT.2024 09:05:43

802.11n20_2437MHz -14.46dBm/3kHz



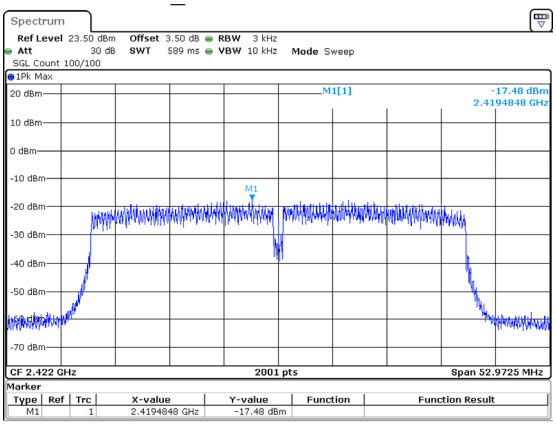
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 24.OCT.2024 09:06:38

802.11n20_2462MHz -14.58dBm/3kHz



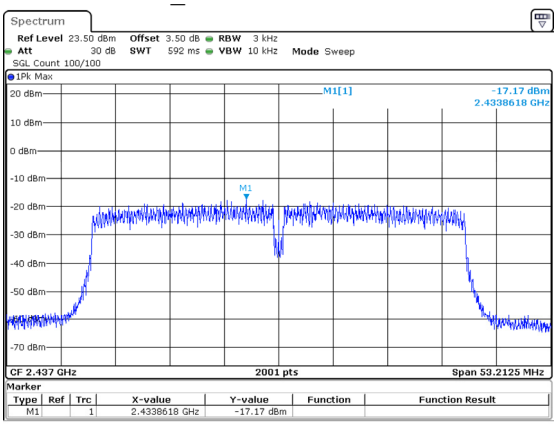
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 24.OCT.2024 09:07:40

802.11n40_2422MHz -17.48dBm/3kHz



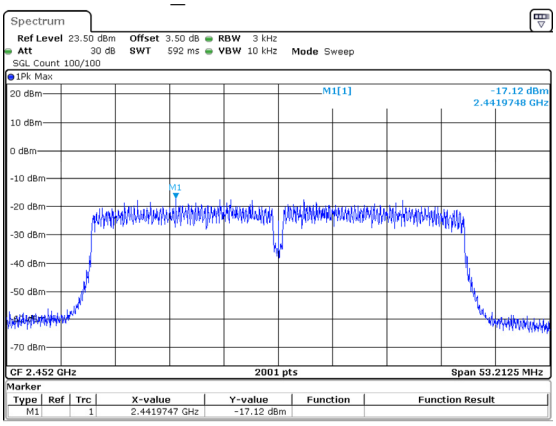
ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 24.OCT.2024 09:09:28

802.11n40_2437MHz -17.17dBm/3kHz



ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 24.OCT.2024 09:10:55

802.11n40_2452MHz -17.12dBm/3kHz



ProjectNo.:2401Y37315E-RF Tester:Cheeb Huang
Date: 24.OCT.2024 09:12:32

Duty Cycle

Test Information:

Sample No.:	2SMP-4	**Test Date:**	2024/10/23
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Cheeb Huang	**Test Result:**	N/A

Environmental Conditions:

Temperature: (°C):	25.2	**Relative Humidity: (%)**	57	**ATM Pressure: (kPa)**	101

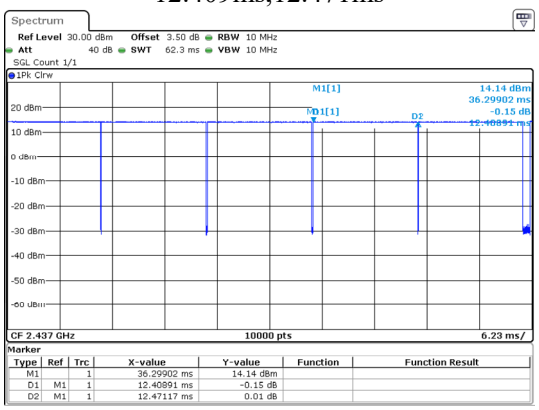
Test Data:

Mode	Test Frequency (MHz)	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty Cycle Factor(dB)	1/Ton (Hz)	VBW Setting (kHz)
802.11b	2437	**12.409**	12.471	99.50	/	/	0.010
802.11g	2437	2.049	2.124	96.47	0.16	488	0.500
802.11n20	2437	1.907	2.017	94.55	0.24	524	1
802.11n40	2437	0.939	1.074	87.43	0.58	1065	2

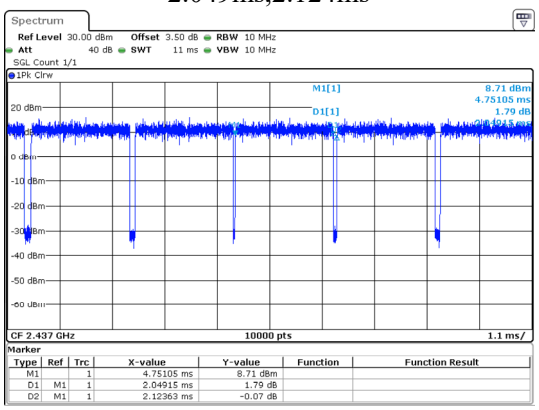
Duty Cycle = Ton/(Ton+Toff)*100%

2.4G

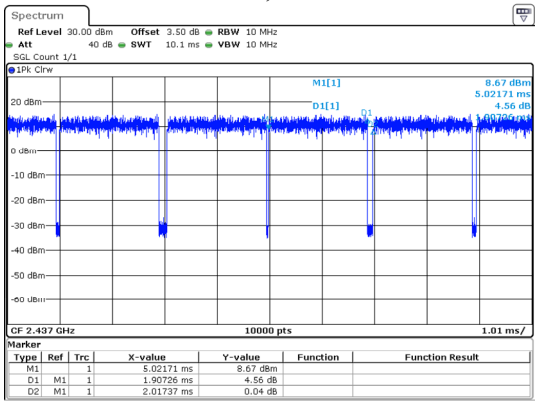
802.11b_2437MHz
12.409ms,12.471ms



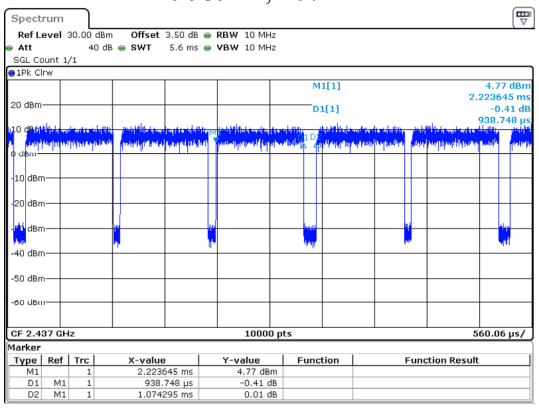
802.11g_2437MHz
2.049ms,2.124ms



802.11n20_2437MHz
1.907ms,2.017ms



802.11n40_2437MHz
0.939ms,1.074ms



RF EXPOSURE EVALUATION

MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart 15.247 (i) and subpart 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

According to KDB 447498 D04 Interim General RF Exposure Guidance

MPE-Based Exemption:
General frequency and separation-distance dependent MPE-based effective radiated power(ERP) thresholds are in Table B.1 [Table 1 of § 1.1307(b)(3)(i)(C)] to support an exemptionfrom further evaluation from 300 kHz through 100 GHz.

Table 1 to § 1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation

RF Source frequency (MHz)	Threshold ERP (watts)
0.3-1.34	1,920 R^2.
1.34-30	3,450 R^2/f^2.
30-300	3.83 R^2.
300-1,500	0.0128 R^2f.
1,500-100,000	19.2R^2.

Ris the minimum separation distance in meters
f = frequency in MHz

Result

Mode	Frequency (MHz)	Tune up conducted power#(dBm)	Antenna Gain#		ERP		Evaluation Distance (m)	ERP Limit (W)
			(dBi)	(dBd)	(dBm)	(W)		
2.4G WIFI	2412-2462	18.5	4.6	2.45	20.95	0.1245	0.2	0.768

Note: 1. The tune up conducted power and antenna gain was declared by the applicant.
2. The BT and 2.4G Wi-Fi cannot transmit at same time.
3. 0dBd=2.15dBi

To maintain compliance with the FCC's RF exposure guidelines, place the equipment at least 20cm from nearby persons.

Result: Compliant

EUT PHOTOGRAPHS

Please refer to the attachment 2401Y37315E-RF External photo and 2401Y37315E-RF Internal photo.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2401Y37315E-RF Test Setup photo.

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