TEST REPORT

Applicant Name:	Tianjin Siguo intelligent technology co.，ltd
Address:	No.3 zhaowei industrial park,chengquan road,Dongli District,tianjin,China
Report Number:	2401X29266E-RF-00
FCC ID:	2BLVE-CMP-0201PW

Test Standard (s)

FCC PART 15.247

Sample Description

Product Type:	Controllers
Model No.:	CM-02-01-CPW
Multiple Model(s) No.:	CM-02-16-PW, CM-04-01-PW, CM-04-16-PW, CN-FF-WIFI-1-PW, CN-T-WIFI-1-PW, CM-02-01-PW, CM-02-16-CPW, CM-04-01-CPW, CM-04-16-CPW, CN-FF-WIFI-1-CPW, CN-T-WIFI-1-CPW
Trade Mark:	N/A
Date Received:	2024/10/08
Issue Date:	2025/02/28

Test Result:	Pass▲

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

Prepared and Checked By:

Jack Zeng

RF Engineer

Approved By:

Nancy Wang

RF Supervisor

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	2401X29266E-RF-00	Original Report	2025/02/28

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product	Controllers
Tested Model	CM-02-01-CPW
Multiple Model(s)	CM-02-16-PW, CM-04-01-PW, CM-04-16-PW, CN-FF-WIFI-1-PW, CN-T-WIFI-1-PW, CM-02-01-PW, CM-02-16-CPW, CM-04-01-CPW, CM-04-16-CPW, CN-FF-WIFI-1-CPW, CN-T-WIFI-1-CPW
Frequency Range	2412-2462MHz
Maximum Conducted Peak Output Power	20.97dBm
Modulation Technique	DSSS,OFDM
Antenna Specification#	ANT0/1: 2.49dBi (provided by the applicant)
Voltage Range	AC 100-240V or DC 11.1V from Battery or DC 3.7V from backup battery
Sample serial number	2SF6-1 (Assigned by BACL, Shenzhen)
Sample/EUT Status	Good condition
Adapter Information	N/A
Note: The Multiple models are electrically identical with the test model except for software function permissions. 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.

Equipment Modifications

No modification was made to the EUT tested.

EUT Exercise Software

"SecureCRT"[#] exercise software was used and the power level is below. The software and power level was provided by the manufacturer.

The worst case was performed under:

Mode	Data rate	Power Level[#]		
		Low Channel	Middle Channel	High Channel
802.11b	1Mbps	12	12	12
802.11g	6Mbps	12	12	12
802.11n-HT20	MCS0	12	12	12
802.11n-HT40	MCS0	12	12	12

Note:
1. 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.
2. The device support SISO mode only.
3. All the antenna ports have the same power level.

Support Equipment List and Details

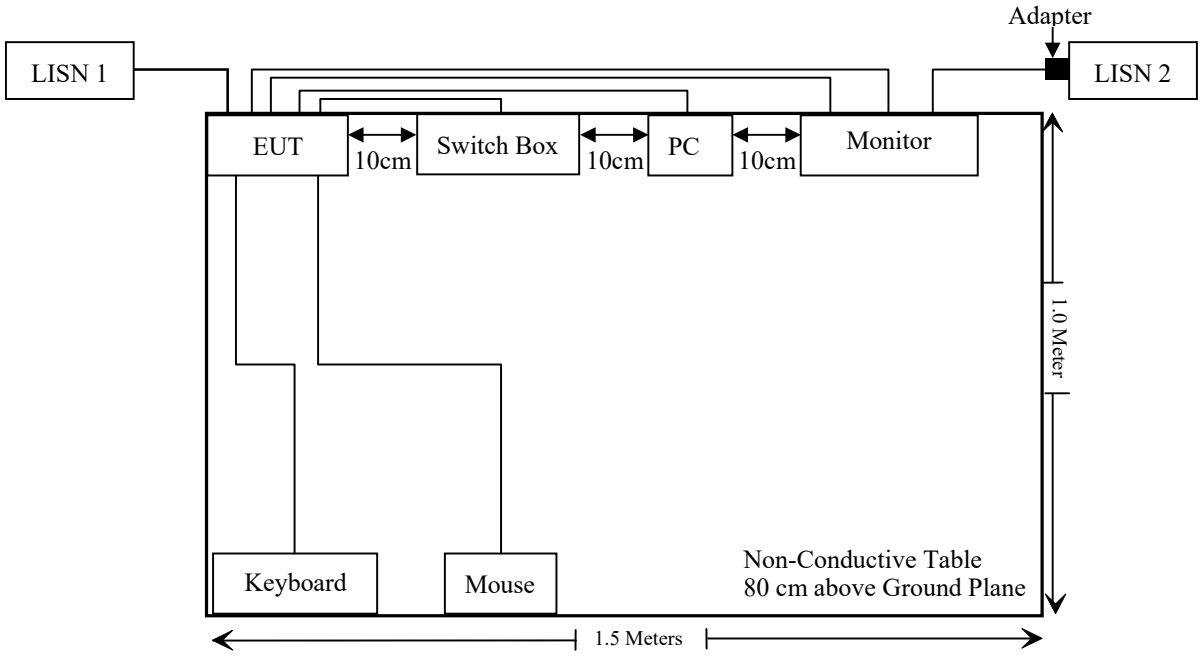
Manufacturer	Description	Model	Serial Number
Unknown	Receptacle	Unknown	Unknown
DELL	PC	Latitude E7280	9RVYFH2
Redmi	Monitor	A22FAB-RA	47366/107100099058
MI	Adapter	AD-0241200200CN-1	Unknown
Lenovo	Keyboard	EKB-536A	811A19A5
DELL	Mouse	Ms116P	Ms116P
Unknown	Switch Box	Unknown	Unknown

External I/O Cable

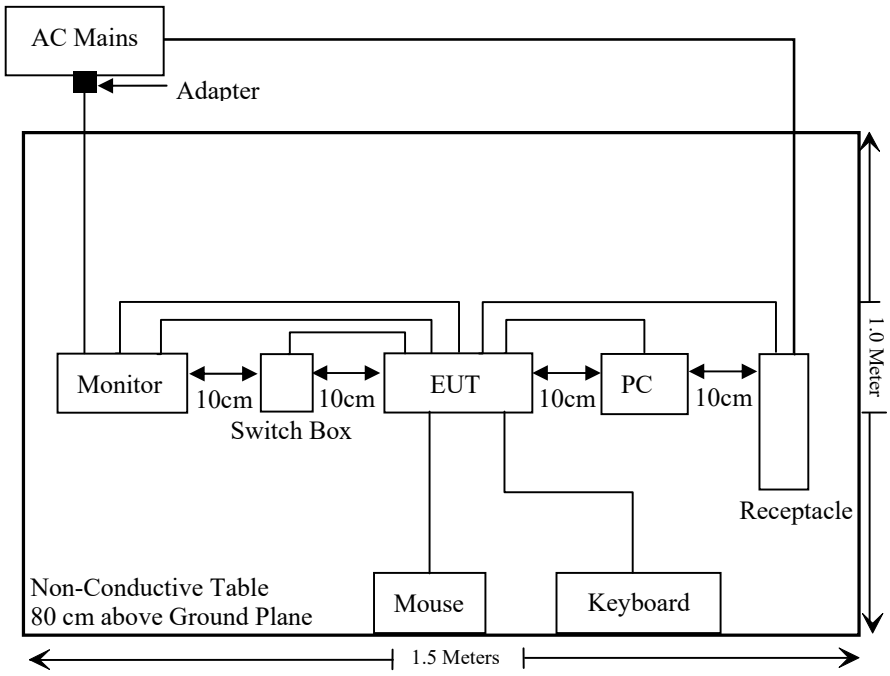
Cable Description	Length (m)	From Port	To
Un-Shielded Un-detachable AC Cable	1.5	Receptacle	AC Mains
Un-Shielded Detachable AC Cable	1.2	Receptacle/LISN1	EUT
Shielded Detachable RJ45 cable	1.0	EUT	PC
Un-Shielded Detachable HDMI cable	1.6	EUT	Monitor
Shielded Detachable VGA cable	1.6	EUT	Monitor
Un-Shielded Un-detachable DC Cable	1.2	Adapter	Monitor
Un-Shielding Un-detachable I/O Cable	0.6	EUT	Switch Box
Shielded Un-detachable USB Cable	1.2	EUT	Keyboard
Un-Shielded Un-detachable USB Cable	1.2	EUT	Mouse

Block Diagram of Test Setup

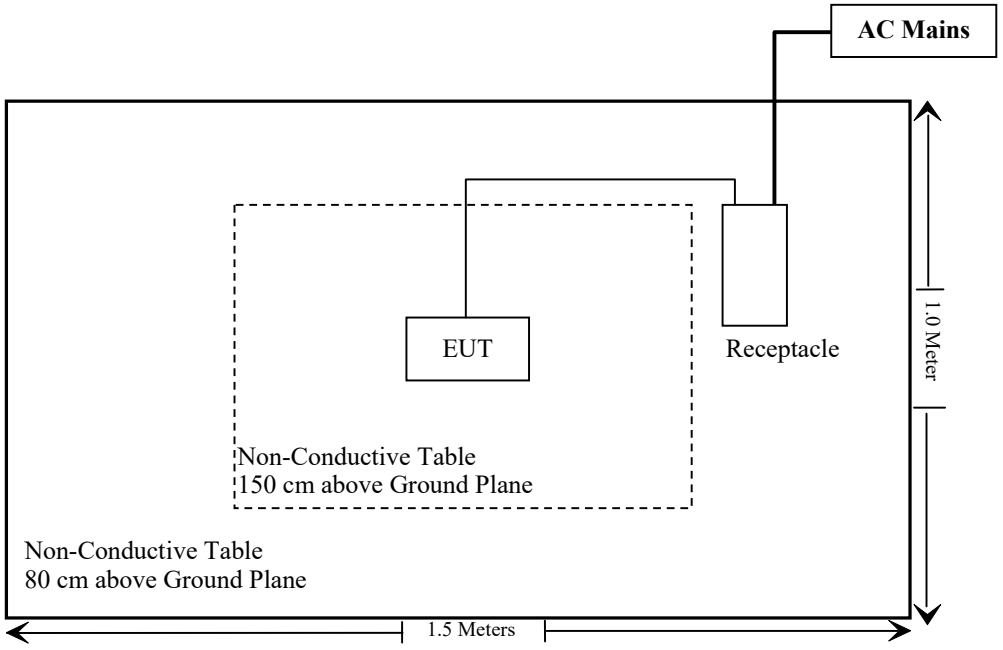
For Conducted Emissions:



For Radiated Emissions below 1GHz:



For Radiated Emissions above 1GHz:



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.247 (i), §1.1307 (b) & §2.1091	MPE-Based Exemption	Compliant
§15.203	Antenna Requirement	Compliant
§15.207 (a)	AC Line Conducted Emissions	Compliant
§15.205, §15.209, §15.247(d)	Spurious Emissions	Compliant
§15.247 (a)(2)	6 dB Emission Bandwidth	Compliant
§15.247(b)(3)	Maximum Conducted Output Power	Compliant
§15.247(d)	100 kHz Bandwidth of Frequency Band Edge	Compliant
§15.247(e)	Power Spectral Density	Compliant
C63.10 §11.6	Duty Cycle	/

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Conducted Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESCI	101120	2024/01/16	2025/01/15
Rohde & Schwarz	LISN	ENV216	101613	2024/01/16	2025/01/15
Rohde & Schwarz	Transient Limiter	ESH3Z2	DE25985	2024/05/21	2025/05/20
Unknown	CE Cable	Unknown	UF A210B-1-0720-504504	2024/05/21	2025/05/20
Audix	EMI Test software	E3	191218(V9)	NCR	NCR
Radiated Emissions Test					
Rohde & Schwarz	EMI Test Receiver	ESR3	102455	2024/01/16	2025/01/15
Sonoma instrument	Pre-amplifier	310 N	186238	2024/05/21	2025/05/20
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2023/07/20	2026/07/19
Unknown	Cable	Chamber A Cable 1	N/A	2024/06/18	2025/06/17
Unknown	Cable	XH500C	J-10M-A	2024/06/18	2025/06/17
BACL	Active Loop Antenna	1313-1A	4031911	2024/05/14	2027/05/13
Unknown	Cable	2Y194	0735	2024/05/21	2025/05/20
Unknown	Cable	PNG214	1354	2024/05/21	2025/05/20
Audix	EMI Test software	E3	19821b(V9)	NCR	NCR
Rohde & Schwarz	Spectrum Analyzer	FSV40	101605	2024/03/27	2025/03/26
COM-POWER	Pre-amplifier	PA-122	181919	2024/06/18	2025/06/17
Schwarzbeck	Horn Antenna	BBHA9120D (1201)	1143	2023/07/26	2026/07/25
Unknown	RF Cable	KMSE	735	2024/06/18	2025/06/17
Unknown	RF Cable	UFA147	219661	2024/06/18	2025/06/17
Unknown	RF Cable	XH750A-N	J-10M	2024/06/18	2025/06/17
JD	Filter Switch Unit	DT7220FSU	DS79906	2024/09/09	2025/09/08
JD	Multiplex Switch Test Control Set	DT7220SCU	DS79903	2024/09/09	2025/09/08
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
Audix	EMI Test software	E3	191218(V9)	NCR	NCR

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF Conducted Test					
Tonscend	RF control Unit	JS0806-2	19D8060154	2024/08/06	2025/08/05
ANRITSU	Microwave peak power sensor	MA24418A	12622	2024/05/21	2025/05/20
Rohde & Schwarz	Spectrum Analyzer	FSV40	101473	2024/01/16	2025/01/15
Unknown	10dB Attenuator	Unknown	F-03-EM190	2024/06/27	2025/06/26

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

FCC §15.247 (I) & §1.1307 (B) & §2.1091- MPE-BASED EXEMPTION

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.

R is the minimum separation distance in meters
f = frequency in MHz

Result

Mode	Frequency (MHz)	Tune up conducted power#	Antenna Gain#		ERP		Evaluation Distance (m)	ERP Limit (mW)
		(dBm)	(dBi)	(dBd)	(dBm)	(mW)		
Wi-Fi	2412-2462	21.0	2.49	0.34	21.34	136.14	0.2	768

Note: The tune up conducted power and antenna gain was declared by the applicant.

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

Result: Compliant

FCC §15.203 - 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 two external antennas with unique antenna connector and the antenna gain[#] is 2.49dBi, fulfill the requirement of this section. Please refer to the EUT photos.

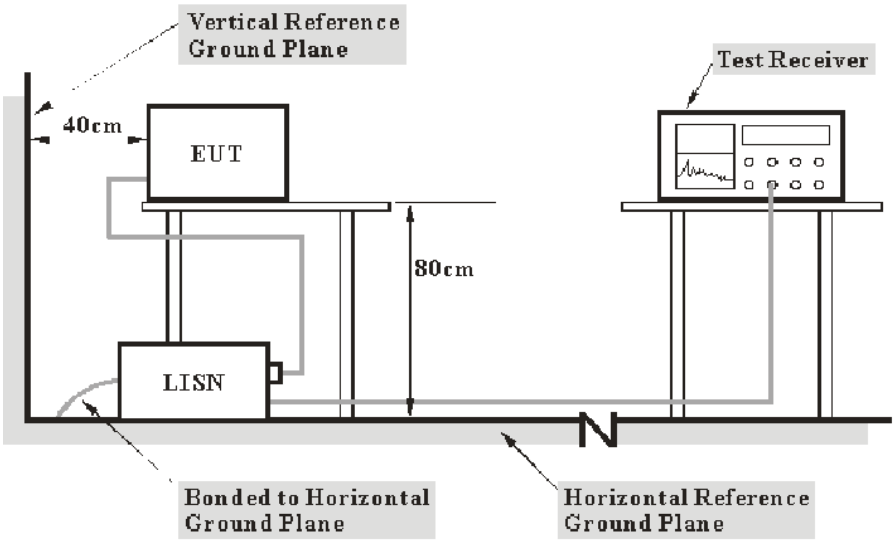
Result: Compliant

FCC §15.207 (a) - 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

During the conducted emission test, the device was connected to the outlet of the LISN.

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).

Test Data

Environmental Conditions

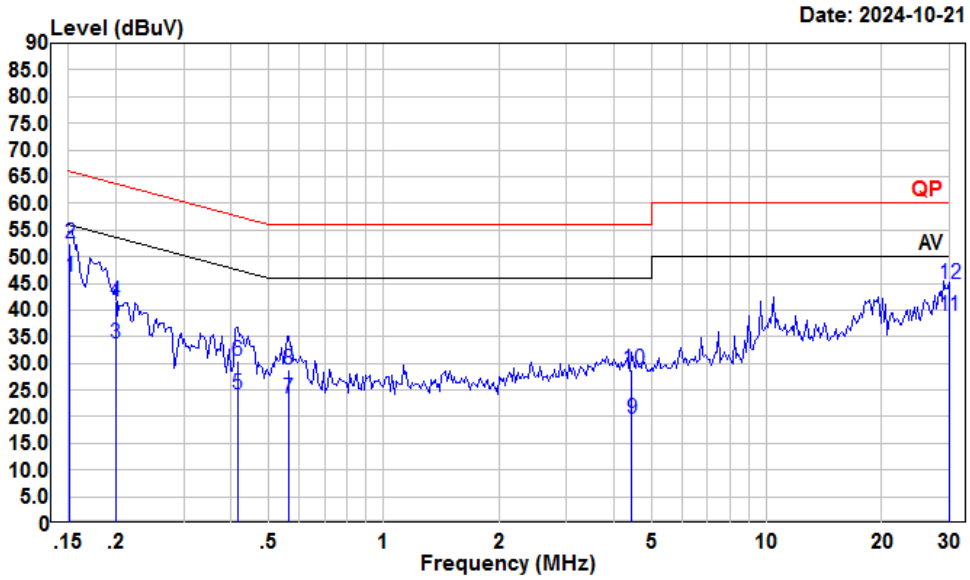
Temperature:	25 ℃
Relative Humidity:	52 %
ATM Pressure:	101 kPa

The testing was performed by Macy Shi on 2024-10-21.

EUT operation mode: Transmitting (Maximum output power mode, ANT1 802.11g low channel)

Wi-Fi:

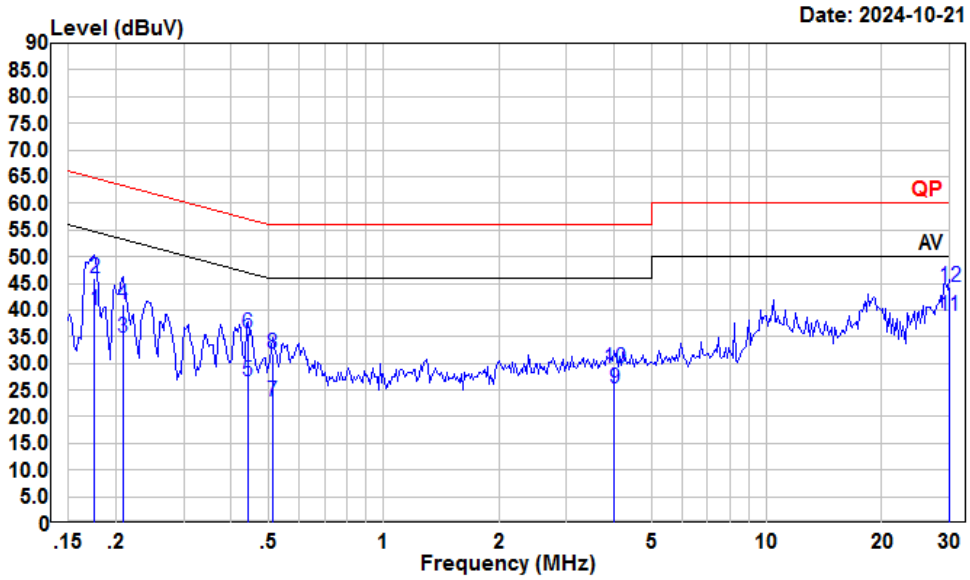
AC 120V/60 Hz, Line



Condition: Line
Project : 2401X29266E-RF
tester : Macy.shi
Note : Transmitting

	Freq	Read Level	LISN Level	Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.15	25.72	46.25	10.40	10.13	55.91	-9.66	Average
2	0.15	31.91	52.44	10.40	10.13	65.91	-13.47	QP
3	0.20	13.22	33.71	10.40	10.09	53.62	-19.91	Average
4	0.20	21.14	41.63	10.40	10.09	63.62	-21.99	QP
5	0.41	3.97	24.32	10.24	10.11	47.55	-23.23	Average
6	0.41	10.07	30.42	10.24	10.11	57.55	-27.13	QP
7	0.56	3.01	23.41	10.27	10.13	46.00	-22.59	Average
8	0.56	8.56	28.96	10.27	10.13	56.00	-27.04	QP
9	4.45	-0.93	19.71	10.44	10.20	46.00	-26.29	Average
10	4.45	8.17	28.81	10.44	10.20	56.00	-27.19	QP
11	30.00	18.10	38.92	10.60	10.22	50.00	-11.08	Average
12	30.00	24.06	44.88	10.60	10.22	60.00	-15.12	QP

AC 120V/60 Hz, Neutral



Condition: Neutral
Project : 2401X29266E-RF
tester : Macy.shi
Note : Transmitting

	Freq	Read Level	LISN Level	Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.18	19.56	40.08	10.42	10.10	54.68	-14.60	Average
2	0.18	25.57	46.09	10.42	10.10	64.68	-18.59	QP
3	0.21	14.18	34.88	10.61	10.09	53.27	-18.39	Average
4	0.21	20.37	41.07	10.61	10.09	63.27	-22.20	QP
5	0.44	5.67	26.56	10.77	10.12	47.02	-20.46	Average
6	0.44	14.68	35.57	10.77	10.12	57.02	-21.45	QP
7	0.51	1.93	22.85	10.78	10.14	46.00	-23.15	Average
8	0.51	11.03	31.95	10.78	10.14	56.00	-24.05	QP
9	4.01	4.76	25.37	10.40	10.21	46.00	-20.63	Average
10	4.01	8.50	29.11	10.40	10.21	56.00	-26.89	QP
11	30.00	18.47	38.99	10.30	10.22	50.00	-11.01	Average
12	30.00	23.95	44.47	10.30	10.22	60.00	-15.53	QP

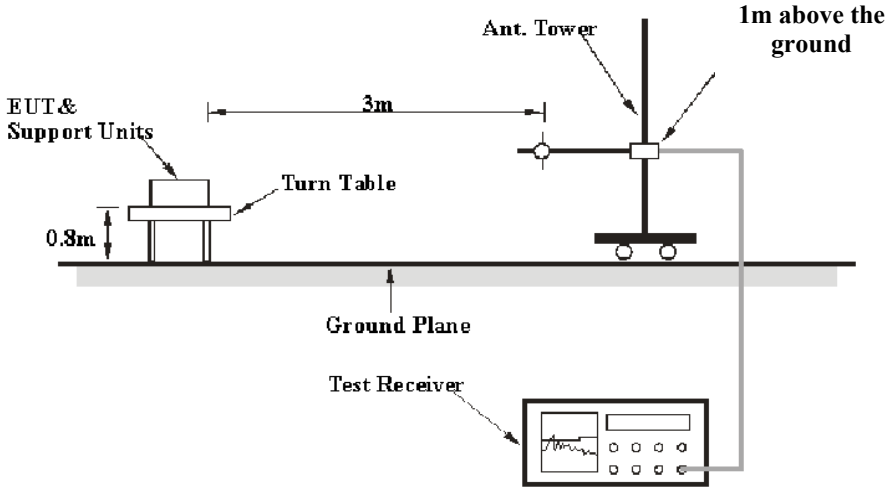
FCC §15.209, §15.205 & §15.247(d) - SPURIOUS EMISSIONS

Applicable Standard

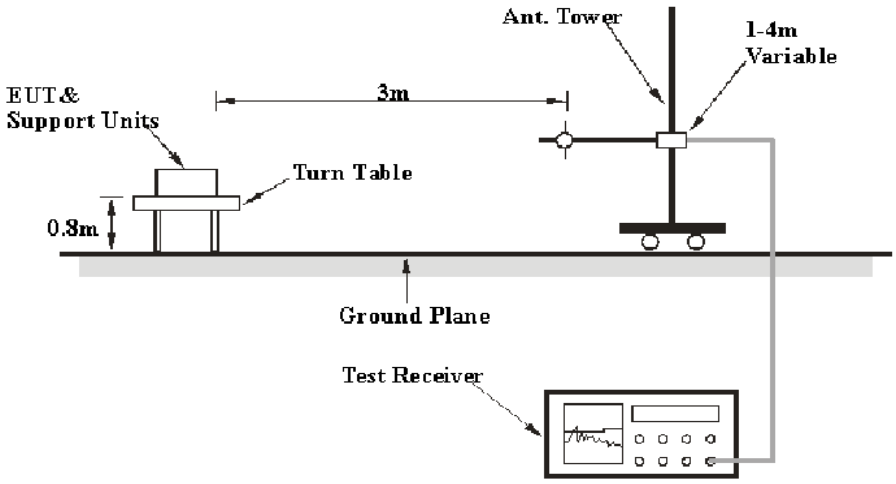
FCC §15.247 (d); §15.209; §15.205;

EUT Setup

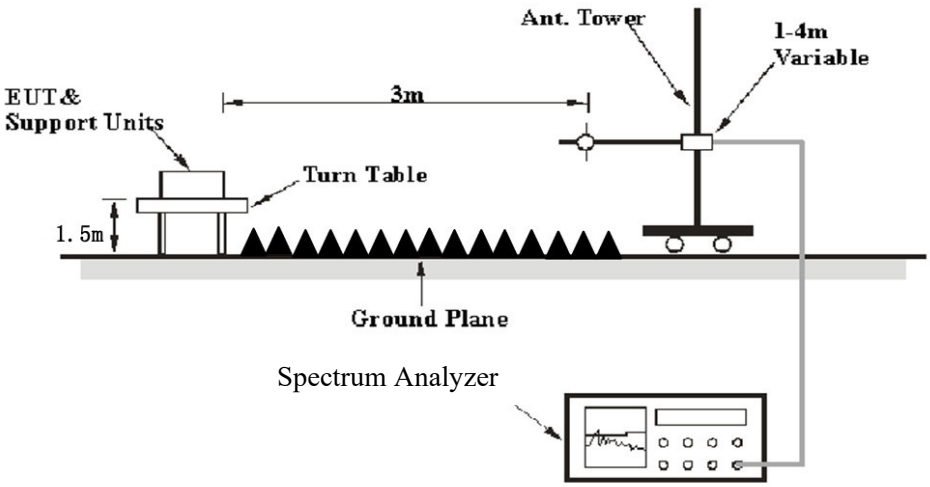
9 kHz-30MHz:



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:
Pre-scan

Measurement	Duty cycle	RBW	Video B/W
PK	Any	1MHz	3 MHz
AV	>98%	1MHz	5 kHz
	<98%	1MHz	≥1/Ton, not less than 5 kHz

Final measurement for emission identified during pre-scan

Measurement	Duty cycle	RBW	Video B/W
PK	Any	1MHz	3 MHz
AV	>98%	1MHz	10 Hz
	<98%	1MHz	≥1/Ton

Note: 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

Test Data

Environmental Conditions

Temperature:	24~25.6 ℃
Relative Humidity:	50~52 %
ATM Pressure:	101 kPa

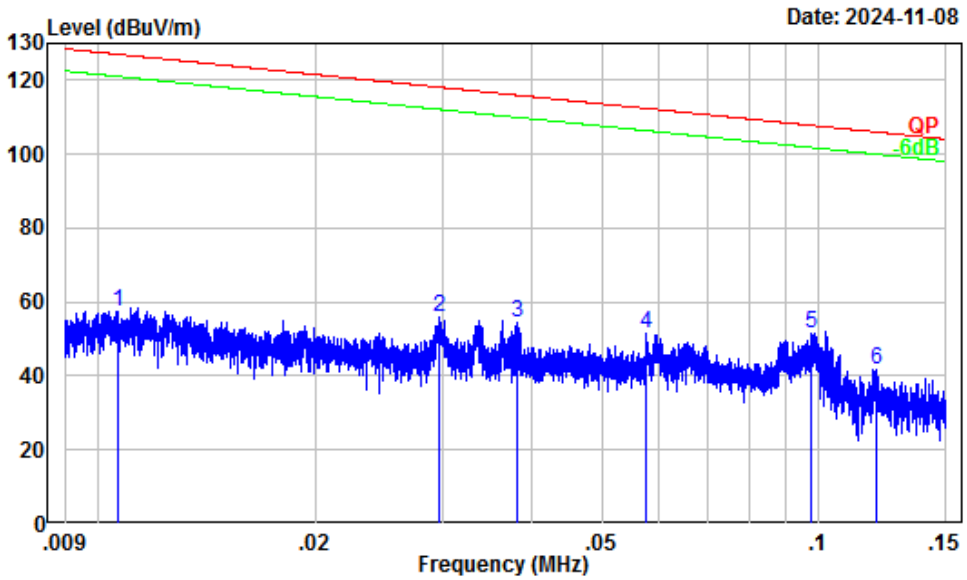
The testing was performed by Carl Zhu on 2024-11-08 for below 1GHz and Karl Xu from 2024-11-05 to 2024-11-18 for above 1GHz.

EUT operation mode: Transmitting

9 kHz-30MHz: *(Maximum output power mode, ANT1 802.11g low channel)*

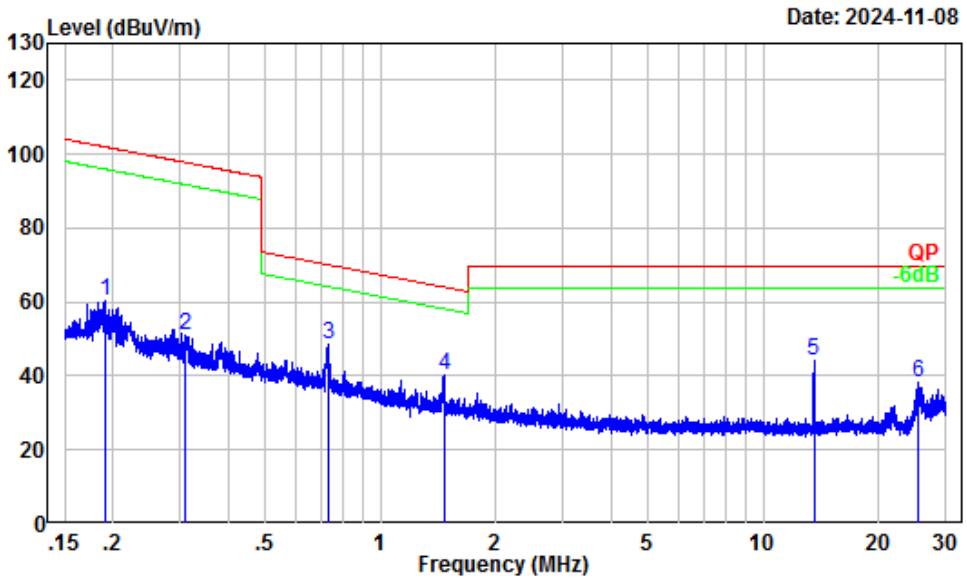
Note: When the test result of peak was less than the limit of QP/Average more than 6dB, just peak value were recorded.

Parallel (worst case)



Site : Chamber A
Condition : 3m
Project Number: 2401X29266E-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	32.17	25.36	57.53	127.03	-69.50	Peak
2	0.03	28.54	27.53	56.07	118.12	-62.05	Peak
3	0.04	27.64	26.68	54.32	115.97	-61.65	Peak
4	0.06	25.63	25.74	51.37	112.39	-61.02	Peak
5	0.10	22.16	29.47	51.63	107.80	-56.17	Peak
6	0.12	20.82	21.03	41.85	106.02	-64.17	Peak

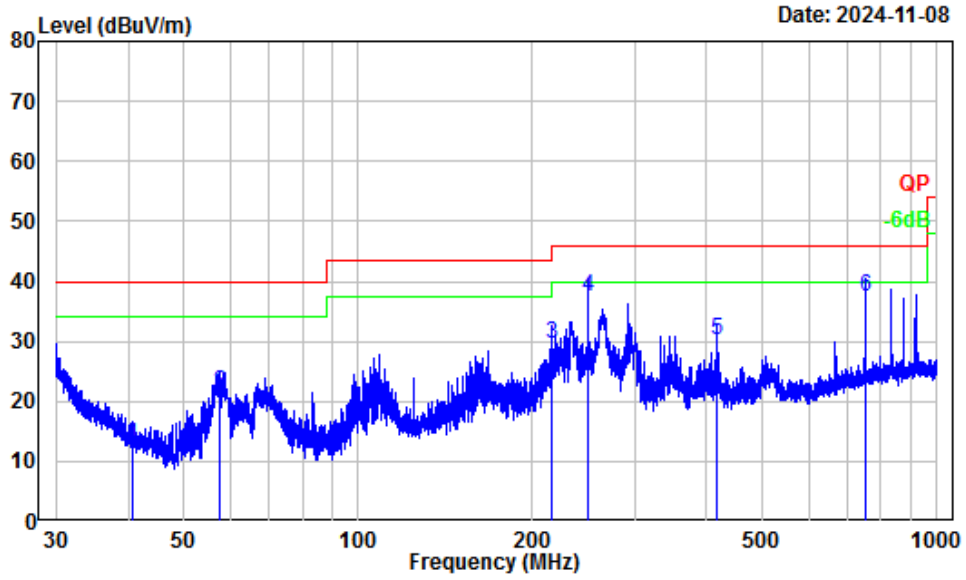


Site : Chamber A
Condition : 3m
Project Number: 2401X29266E-RF
Test Mode : Transmitting
Tester : Carl Zhu

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.19	16.64	43.49	60.13	101.99	-41.86	Peak
2	0.31	10.03	40.92	50.95	97.81	-46.86	Peak
3	0.73	3.57	45.06	48.63	70.27	-21.64	Peak
4	1.46	-0.10	40.32	40.22	64.09	-23.87	Peak
5	13.56	-2.72	47.03	44.31	69.54	-25.23	Peak
6	25.44	-3.24	41.50	38.26	69.54	-31.28	Peak

30MHz-1GHz: *(Maximum output power mode, ANT1 802.11g low channel)*

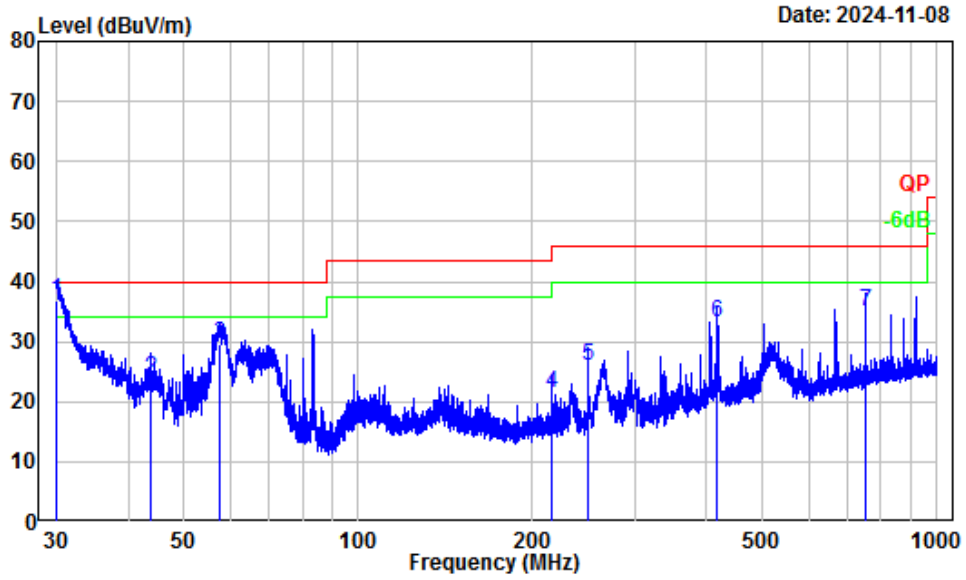
Horizontal



Site : Chamber A
Condition : 3m Horizontal
Project Number: 2401X29266E-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	40.61	-12.80	25.41	12.61	40.00	-27.39	QP
2	57.52	-18.27	39.71	21.44	40.00	-18.56	QP
3	216.02	-14.20	43.78	29.58	46.00	-16.42	QP
4	249.97	-13.09	50.62	37.53	46.00	-8.47	QP
5	417.46	-7.97	38.07	30.10	46.00	-15.90	QP
6	751.42	-2.85	40.22	37.37	46.00	-8.63	QP

Vertical



Site : Chamber A
Condition : 3m Vertical
Project Number: 2401X29266E-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	30.01	-5.97	42.90	36.93	40.00	-3.07	QP
2	43.81	-15.06	39.00	23.94	40.00	-16.06	QP
3	57.44	-18.28	47.90	29.62	40.00	-10.38	QP
4	216.02	-14.20	35.53	21.33	46.00	-24.67	QP
5	249.97	-13.09	39.16	26.07	46.00	-19.93	QP
6	417.46	-7.97	41.06	33.09	46.00	-12.91	QP
7	751.75	-2.84	37.92	35.08	46.00	-10.92	QP

1-25 GHz:

ANT0

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	PK/AV					
802.11b							
Low Channel 2412MHz							
4824.00	45.96	PK	H	2.45	48.41	74	-25.59
4824.00	32.4	AV	H	2.45	34.85	54	-19.15
4824.00	45.56	PK	V	2.45	48.01	74	-25.99
4824.00	32.41	AV	V	2.45	34.86	54	-19.14
Middle Channel 2437MHz							
4874.00	46.13	PK	H	2.56	48.69	74	-25.31
4874.00	32.53	AV	H	2.56	35.09	54	-18.91
4874.00	45.61	PK	V	2.56	48.17	74	-25.83
4874.00	32.94	AV	V	2.56	35.50	54	-18.50
High Channel 2462MHz							
4924.00	47.64	PK	H	2.63	50.27	74	-23.73
4924.00	34.7	AV	H	2.63	37.33	54	-16.67
4924.00	46.89	PK	V	2.63	49.52	74	-24.48
4924.00	33.04	AV	V	2.63	35.67	54	-18.33
802.11g							
Low Channel 2412MHz							
4824.00	47.31	PK	H	2.45	49.76	74	-24.24
4824.00	35.56	AV	H	2.45	38.01	54	-15.99
4824.00	48.18	PK	V	2.45	50.63	74	-23.37
4824.00	34.14	AV	V	2.45	36.59	54	-17.41
Middle Channel 2437MHz							
4874.00	47.59	PK	H	2.56	50.15	74	-23.85
4874.00	35.61	AV	H	2.56	38.17	54	-15.83
4874.00	48.23	PK	V	2.56	50.79	74	-23.21
4874.00	34.68	AV	V	2.56	37.24	54	-16.76
High Channel 2462MHz							
4924.00	48.26	PK	H	2.63	50.89	74	-23.11
4924.00	35.71	AV	H	2.63	38.34	54	-15.66
4924.00	48.39	PK	V	2.63	51.02	74	-22.98
4924.00	35.43	AV	V	2.63	38.06	54	-15.94

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11n20							
Low Channel 2412MHz							
4824.00	45.27	PK	H	2.45	47.72	74	-26.28
4824.00	33.34	AV	H	2.45	35.79	54	-18.21
4824.00	45.49	PK	V	2.45	47.94	74	-26.06
4824.00	33.29	AV	V	2.45	35.74	54	-18.26
Middle Channel 2437MHz							
4874.00	45.41	PK	H	2.56	47.97	74	-26.03
4874.00	33.59	AV	H	2.56	36.15	54	-17.85
4874.00	45.73	PK	V	2.56	48.29	74	-25.71
4874.00	33.66	AV	V	2.56	36.22	54	-17.78
High Channel 2462MHz							
4924.00	47.64	PK	H	2.63	50.27	74	-23.73
4924.00	34.61	AV	H	2.63	37.24	54	-16.76
4924.00	47.44	PK	V	2.63	50.07	74	-23.93
4924.00	34.37	AV	V	2.63	37.00	54	-17.00
802.11n40							
Low Channel 2422MHz							
4844.00	46.21	PK	H	2.47	48.68	74	-25.32
4844.00	33.7	AV	H	2.47	36.17	54	-17.83
4844.00	46.92	PK	V	2.47	49.39	74	-24.61
4844.00	33.79	AV	V	2.47	36.26	54	-17.74
Middle Channel 2437MHz							
4874.00	46.37	PK	H	2.56	48.93	74	-25.07
4874.00	33.89	AV	H	2.56	36.45	54	-17.55
4874.00	46.98	PK	V	2.56	49.54	74	-24.46
4874.00	33.91	AV	V	2.56	36.47	54	-17.53
High Channel 2452MHz							
4904.00	46.84	PK	H	2.64	49.48	74	-24.52
4904.00	34.29	AV	H	2.64	36.93	54	-17.07
4904.00	47.11	PK	V	2.64	49.75	74	-24.25
4904.00	34.75	AV	V	2.64	37.39	54	-16.61

ANT1

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11b							
Low Channel 2412MHz							
4824.00	50.60	PK	H	2.45	53.05	74	-20.95
4824.00	41.91	AV	H	2.45	44.36	54	-9.64
4824.00	50.24	PK	V	2.45	52.69	74	-21.31
4824.00	41.52	AV	V	2.45	43.97	54	-10.03
Middle Channel 2437MHz							
4874.00	51.27	PK	H	2.56	53.83	74	-20.17
4874.00	42.05	AV	H	2.56	44.61	54	-9.39
4874.00	50.43	PK	V	2.56	52.99	74	-21.01
4874.00	41.69	AV	V	2.56	44.25	54	-9.75
High Channel 2462MHz							
4924.00	52.83	PK	H	2.63	55.46	74	-18.54
4924.00	42.96	AV	H	2.63	45.59	54	-8.41
4924.00	50.77	PK	V	2.63	53.40	74	-20.60
4924.00	42.56	AV	V	2.63	45.19	54	-8.81
802.11g							
Low Channel 2412MHz							
4824.00	47.62	PK	H	2.45	50.07	74	-23.93
4824.00	34.81	AV	H	2.45	37.26	54	-16.74
4824.00	47.79	PK	V	2.45	50.24	74	-23.76
4824.00	35.38	AV	V	2.45	37.83	54	-16.17
Middle Channel 2437MHz							
4874.00	48.13	PK	H	2.56	50.69	74	-23.31
4874.00	35.22	AV	H	2.56	37.78	54	-16.22
4874.00	48.59	PK	V	2.56	51.15	74	-22.85
4874.00	35.46	AV	V	2.56	38.02	54	-15.98
High Channel 2462MHz							
4924.00	49.42	PK	H	2.63	52.05	74	-21.95
4924.00	36.01	AV	H	2.63	38.64	54	-15.36
4924.00	48.44	PK	V	2.63	51.07	74	-22.93
4924.00	35.13	AV	V	2.63	37.76	54	-16.24

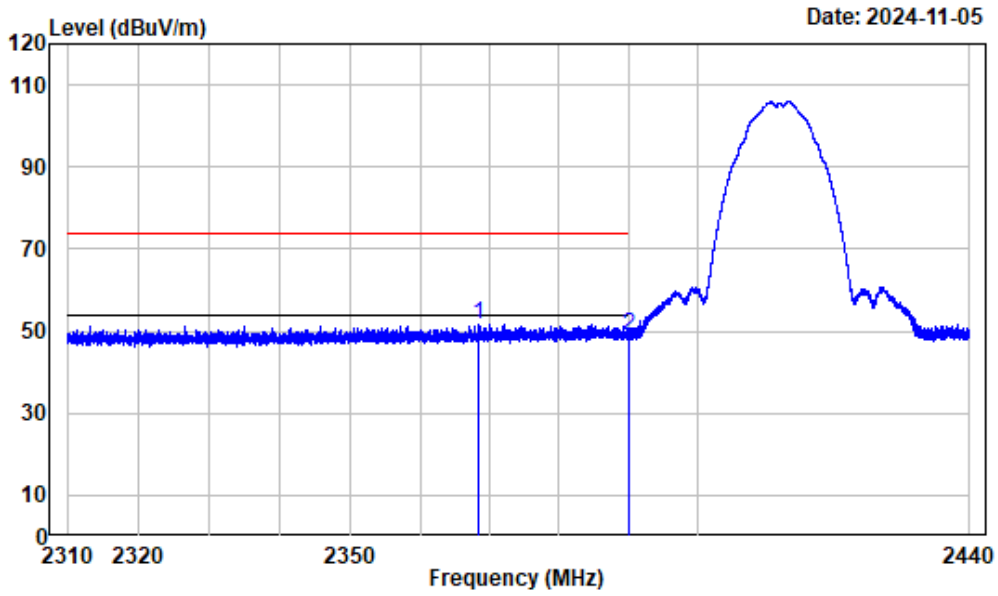
Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11n20							
Low Channel 2412MHz							
4824.00	47.55	PK	H	2.45	50.00	74	-24.00
4824.00	34.75	AV	H	2.45	37.20	54	-16.80
4824.00	46.74	PK	V	2.45	49.19	74	-24.81
4824.00	34.91	AV	V	2.45	37.36	54	-16.64
Middle Channel 2437MHz							
4874.00	47.89	PK	H	2.56	50.45	74	-23.55
4874.00	35.16	AV	H	2.56	37.72	54	-16.28
4874.00	47.26	PK	V	2.56	49.82	74	-24.18
4874.00	34.98	AV	V	2.56	37.54	54	-16.46
High Channel 2462MHz							
4924.00	48.45	PK	H	2.63	51.08	74	-22.92
4924.00	35.82	AV	H	2.63	38.45	54	-15.55
4924.00	47.04	PK	V	2.63	49.67	74	-24.33
4924.00	35.02	AV	V	2.63	37.65	54	-16.35
802.11n40							
Low Channel 2422MHz							
4844.00	46.44	PK	H	2.47	48.91	74	-25.09
4844.00	33.95	AV	H	2.47	36.42	54	-17.58
4844.00	46.41	PK	V	2.47	48.88	74	-25.12
4844.00	34.50	AV	V	2.47	36.97	54	-17.03
Middle Channel 2437MHz							
4874.00	46.51	PK	H	2.56	49.07	74	-24.93
4874.00	34.08	AV	H	2.56	36.64	54	-17.36
4874.00	46.62	PK	V	2.56	49.18	74	-24.82
4874.00	34.68	AV	V	2.56	37.24	54	-16.76
High Channel 2452MHz							
4904.00	46.57	PK	H	2.64	49.21	74	-24.79
4904.00	34.75	AV	H	2.64	37.39	54	-16.61
4904.00	46.70	PK	V	2.64	49.34	74	-24.66
4904.00	34.91	AV	V	2.64	37.55	54	-16.45

Note:
Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Factor + Reading
Margin = Corrected. Amplitude - Limit
The other spurious emission which is in the noise floor level was not recorded.

Test plots for Band Edge Measurements (Radiated):

ANT0

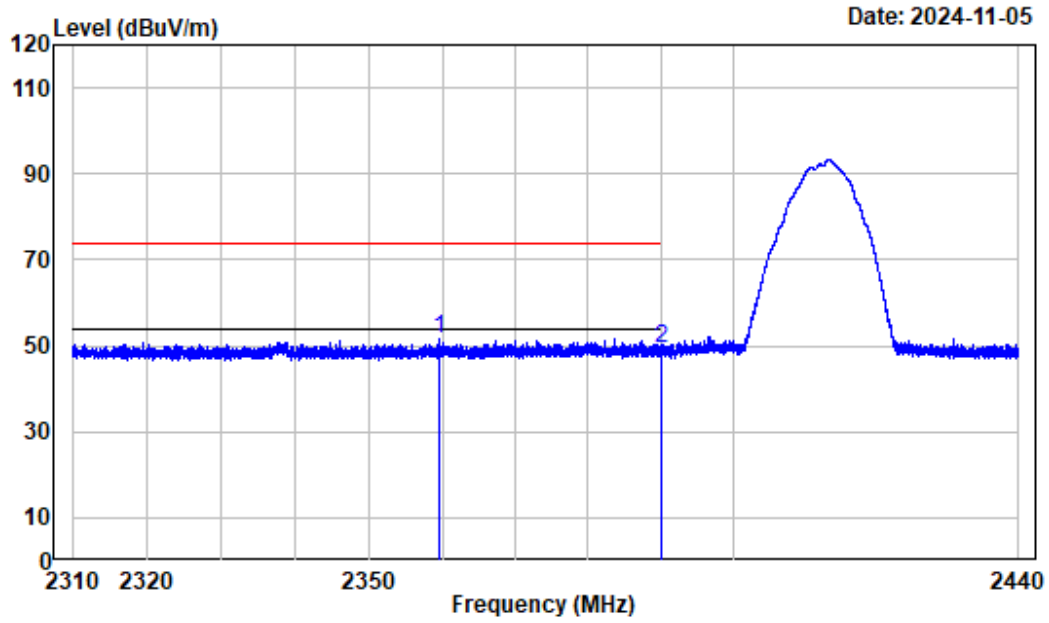
802.11b			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Horizontal**



Condition : Horizontal
Project Number: 2401X29266E-RF
Tester : Karl Xu
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	2368.458	-3.17	54.98	51.81	74.00	-22.19	peak
2	2390.000	-3.20	52.23	49.03	74.00	-24.97	Peak

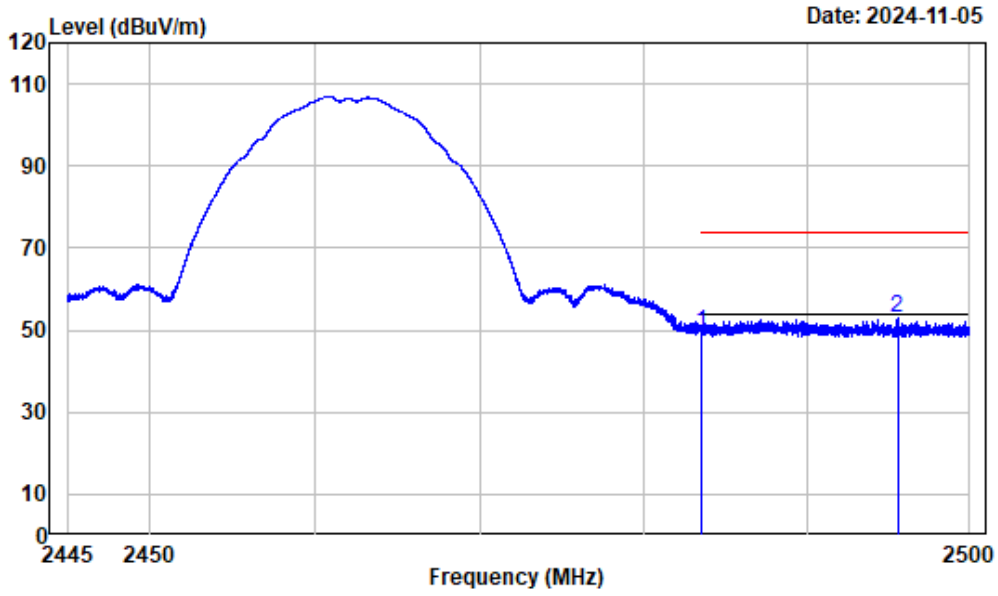
802.11b			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Vertical**



Condition : Vertical
Project Number: 2401X29266E-RF
Tester : Karl Xu
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	2359.471	-3.16	54.66	51.50	74.00	-22.50	peak
2	2390.000	-3.20	52.74	49.54	74.00	-24.46	Peak

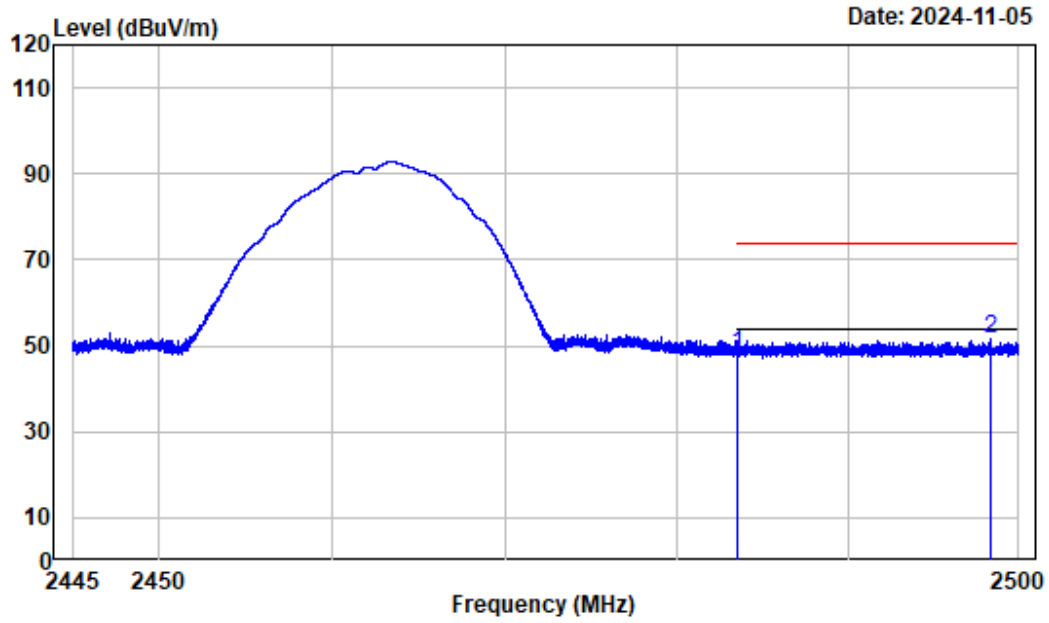
802.11b			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Horizontal**



Condition : Horizontal
Project Number: 2401X29266E-RF
Tester : Karl Xu
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	52.69	49.52	74.00	-24.48	Peak
2	2495.565	-3.19	56.35	53.16	74.00	-20.84	peak

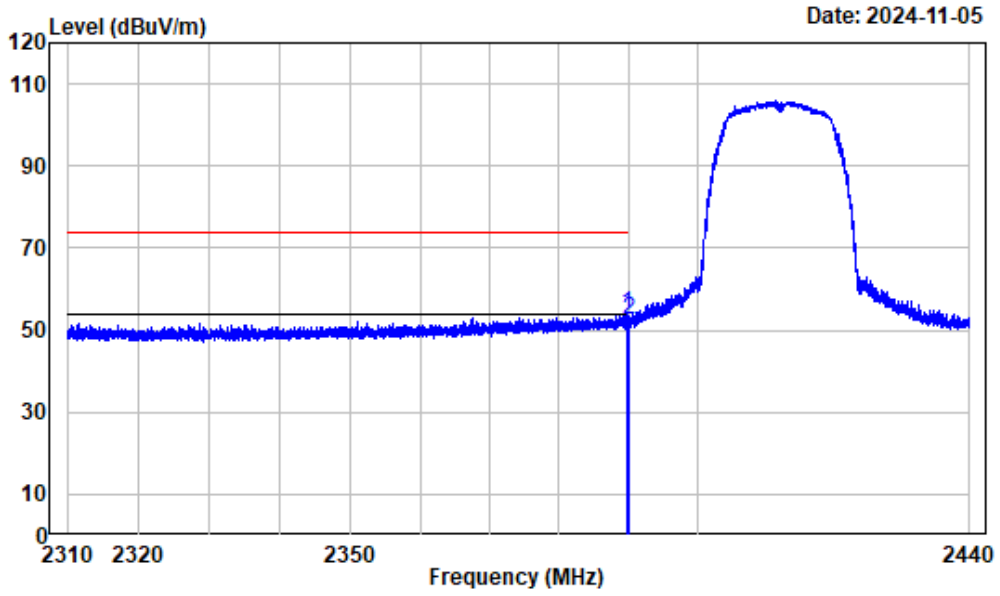
802.11b			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Vertical**



Condition : Vertical
Project Number: 2401X29266E-RF
Tester : Karl Xu
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	50.96	47.79	74.00	-26.21	Peak
2	2498.384	-3.20	54.80	51.60	74.00	-22.40	peak

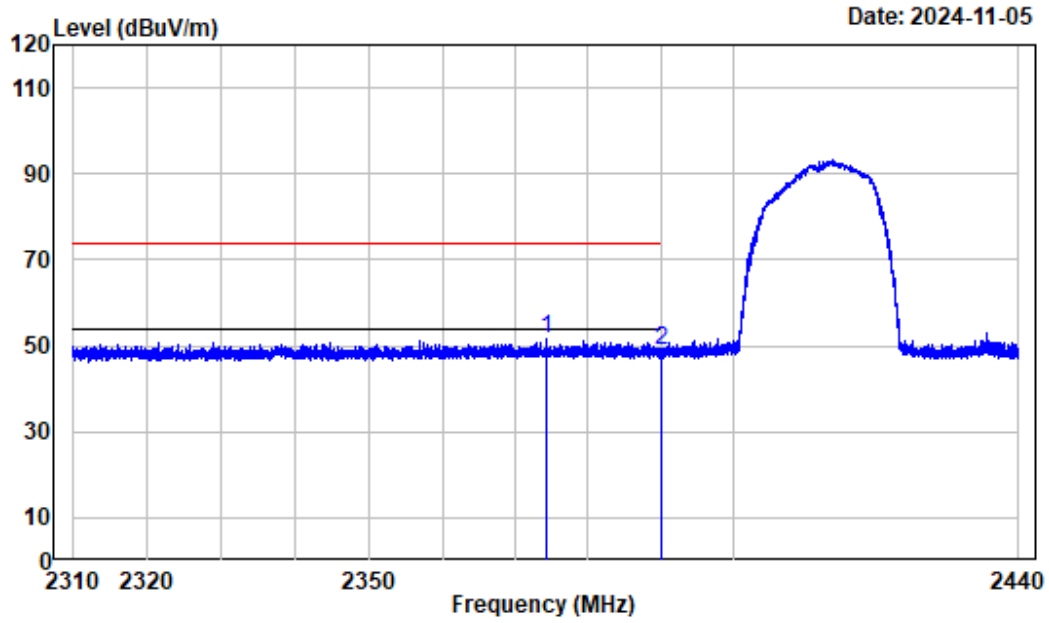
802.11g			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Horizontal-Peak**



Condition : Horizontal
Project Number: 2401X29266E-RF
Tester : Karl Xu
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	2389.700	-3.20	56.88	53.68	74.00	-20.32	peak
2	2390.000	-3.20	55.87	52.67	74.00	-21.33	Peak

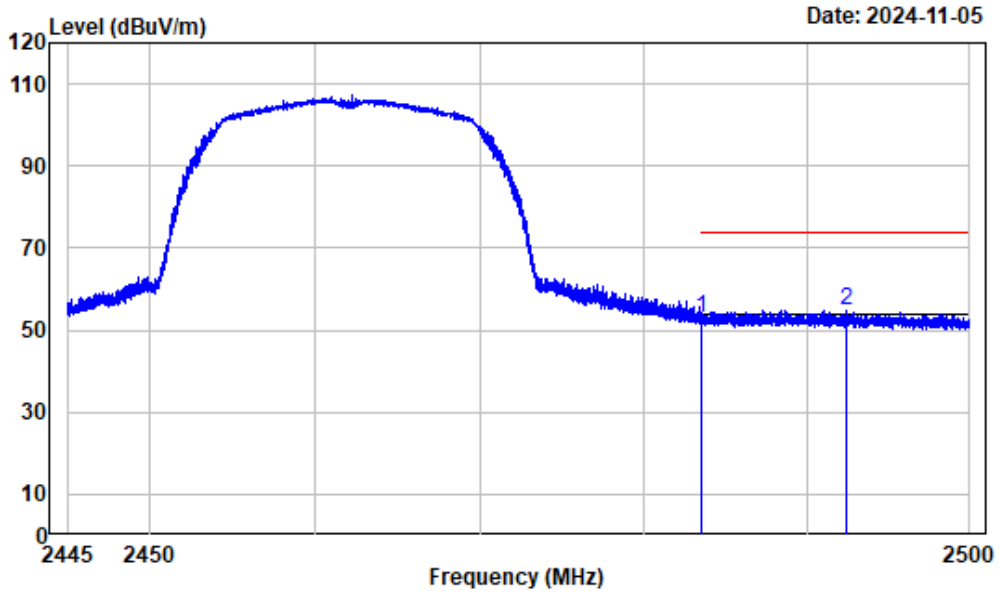
802.11g			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Vertical**



Condition : Vertical
Project Number: 2401X29266E-RF
Tester : Karl Xu
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	2374.358	-3.18	54.68	51.50	74.00	-22.50	peak
2	2390.000	-3.20	52.11	48.91	74.00	-25.09	Peak

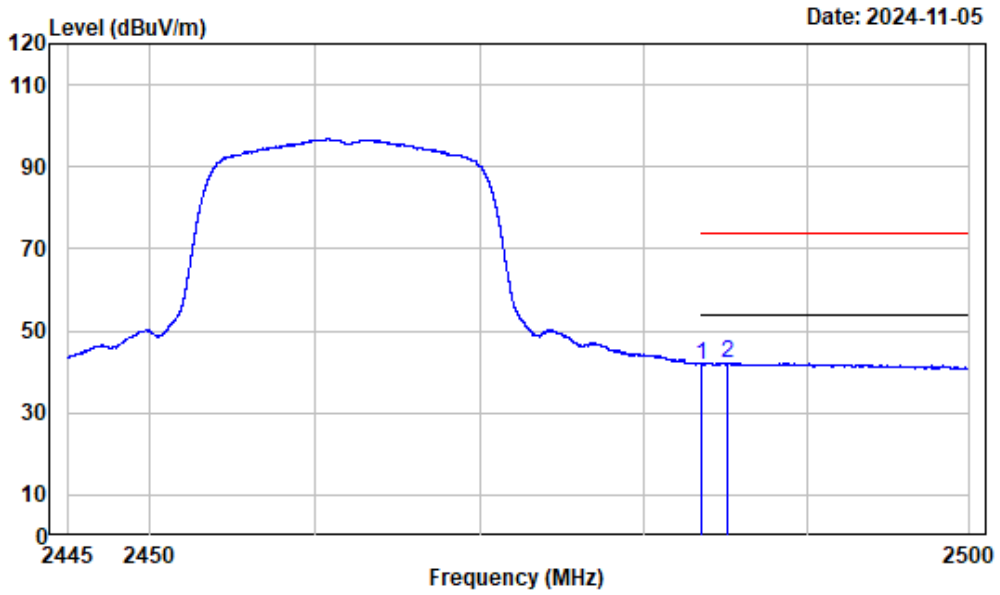
802.11g			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Horizontal-Peak**



Condition : Horizontal
Project Number: 2401X29266E-RF
Tester : Karl Xu
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	56.08	52.91	74.00	-21.09	Peak
2	2492.457	-3.18	58.14	54.96	74.00	-19.04	peak

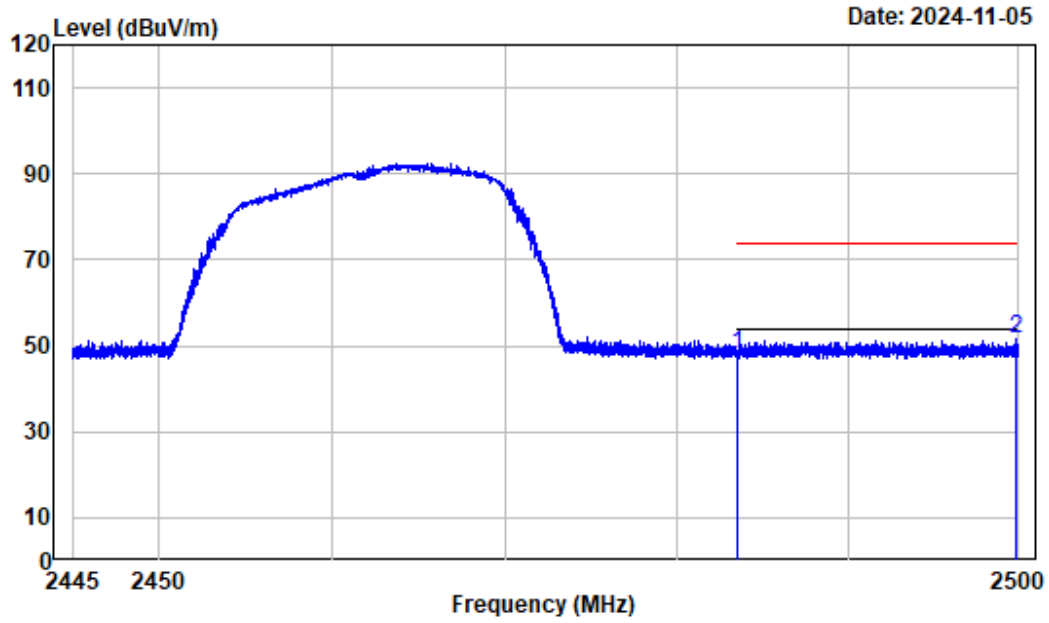
802.11g			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Horizontal-Average**



Condition : Horizontal
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4Gwifi-g-2462_AV

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	45.03	41.86	54.00	-12.14	Average
2	2485.176	-3.17	45.36	42.19	54.00	-11.81	Average

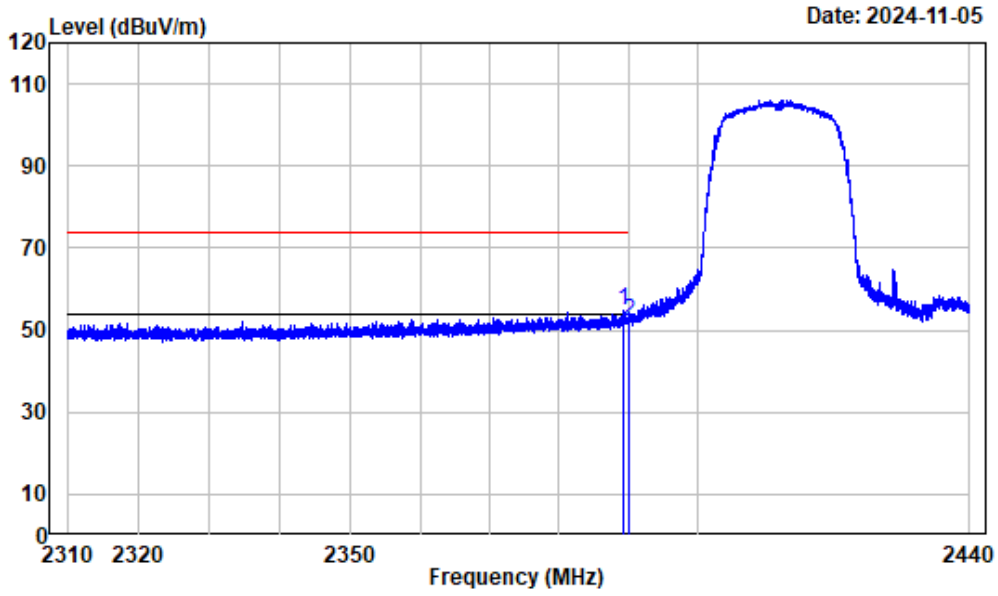
802.11g			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Vertical**



Condition : Vertical
Project Number: 2401X29266E-RF
Tester : Karl Xu
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	51.30	48.13	74.00	-25.87	Peak
2	2499.890	-3.20	54.74	51.54	74.00	-22.46	peak

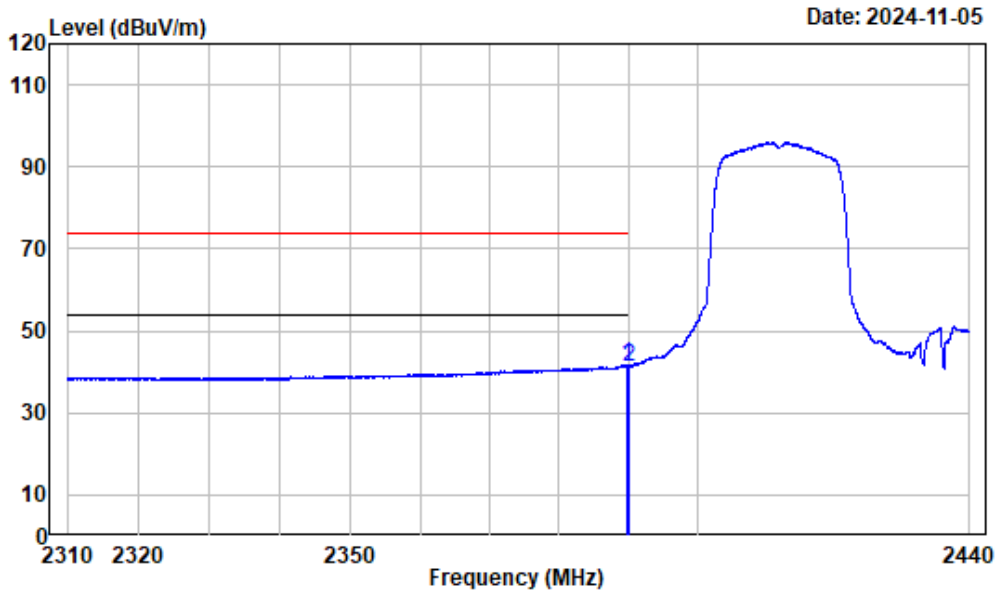
802.11n20			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Horizontal-Peak**



Condition : Horizontal
Project Number: 2401X29266E-RF
Tester : Karl Xu
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	2389.180	-3.20	58.20	55.00	74.00	-19.00	peak
2	2390.000	-3.20	55.26	52.06	74.00	-21.94	Peak

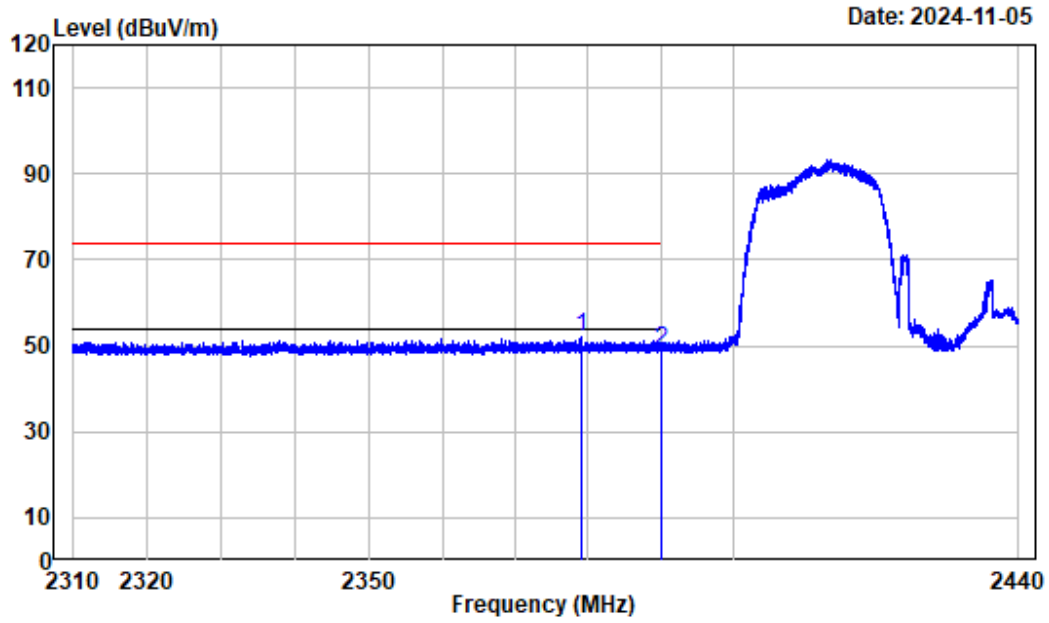
802.11n20			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Horizontal-Average**



Condition : Horizontal
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4Gwifi-n20-2412_AV

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.700	-3.20	44.78	41.58	54.00	-12.42	Average
2	2390.000	-3.20	44.59	41.39	54.00	-12.61	Average

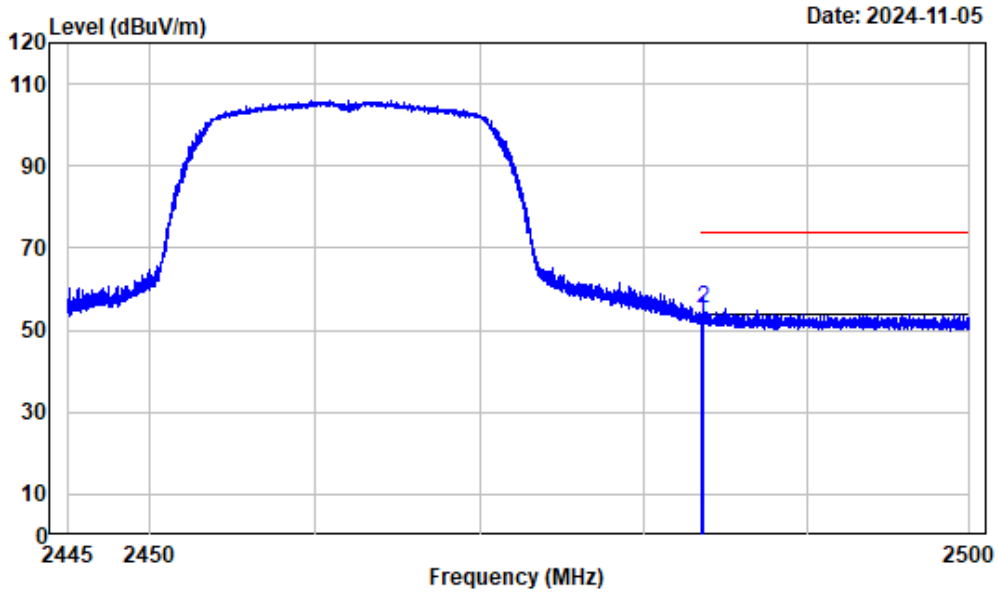
802.11n20			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Vertical**



Condition : Vertical
Project Number: 2401X29266E-RF
Tester : Karl Xu
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	2379.006	-3.19	55.20	52.01	74.00	-21.99	Peak
2	2390.000	-3.20	52.12	48.92	74.00	-25.08	Peak

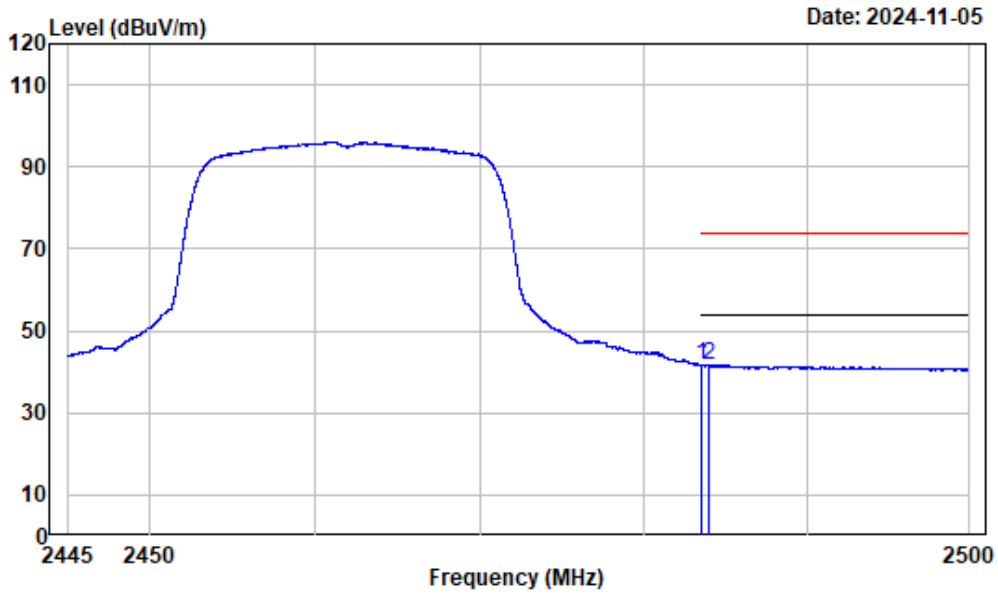
802.11n20			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Horizontal-Peak**



Condition : Horizontal
Project Number: 2401X29266E-RF
Tester : Karl Xu
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	55.65	52.48	74.00	-21.52	Peak
2	2483.608	-3.17	58.50	55.33	74.00	-18.67	peak

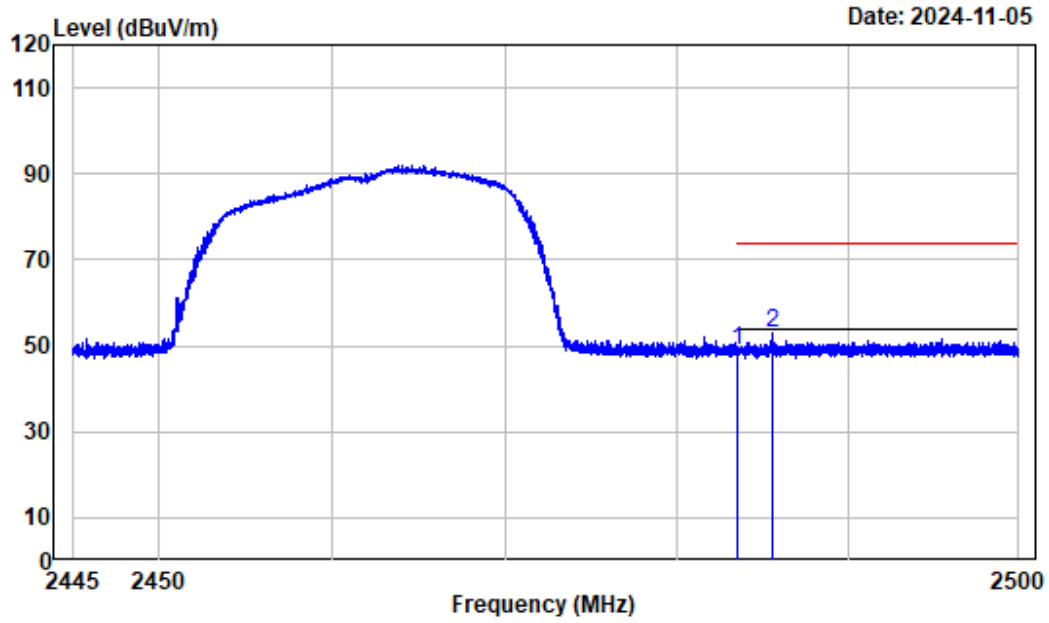
802.11n20			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Horizontal-Average**



Condition : Horizontal
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4Gwifi-n20-2462_AV

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	44.70	41.53	54.00	-12.47	Average
2	2484.014	-3.17	45.01	41.84	54.00	-12.16	Average

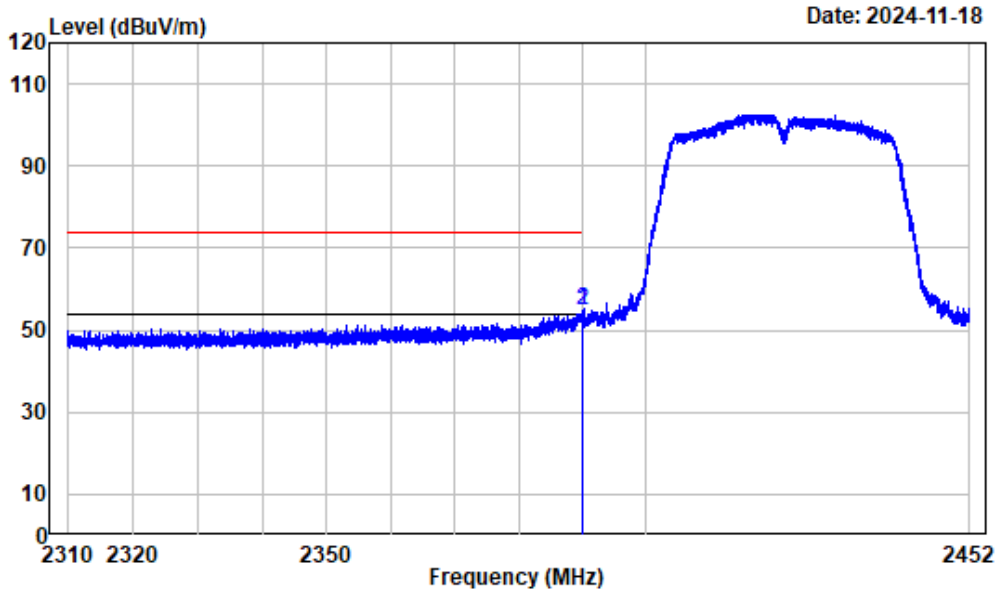
802.11n20			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Vertical**



Condition : Vertical
Project Number: 2401X29266E-RF
Tester : Karl Xu
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	52.21	49.04	74.00	-24.96	Peak
2	2485.581	-3.17	56.03	52.86	74.00	-21.14	peak

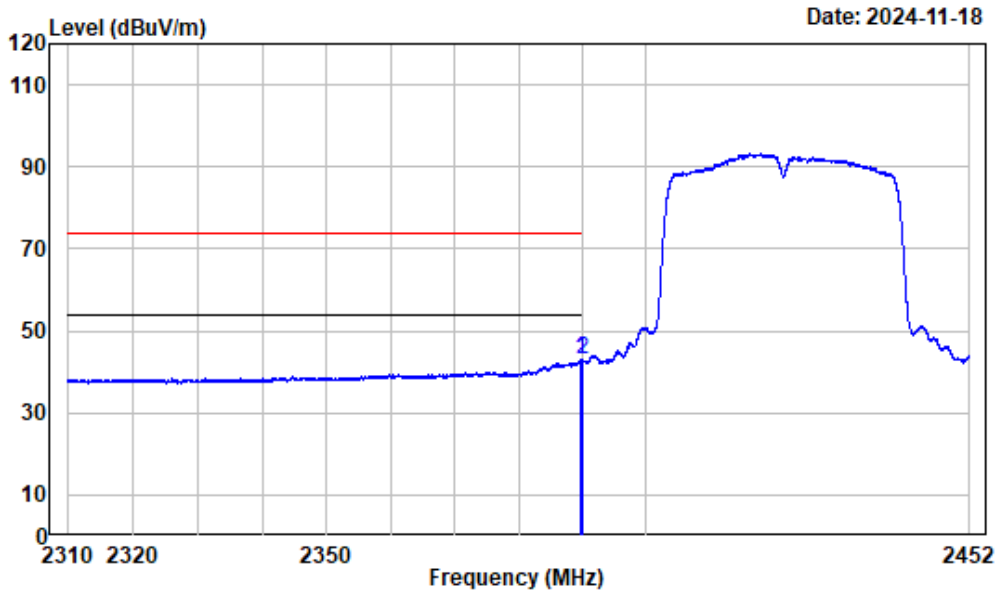
802.11n40			
Test Channel:	**2422MHz**	**Ant. Polar. :**	**Horizontal-Peak**



Condition : Horizontal
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4wifi_n40_2422

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.938	-3.20	58.06	54.86	74.00	-19.14	Peak
2	2390.000	-3.20	57.78	54.58	74.00	-19.42	Peak

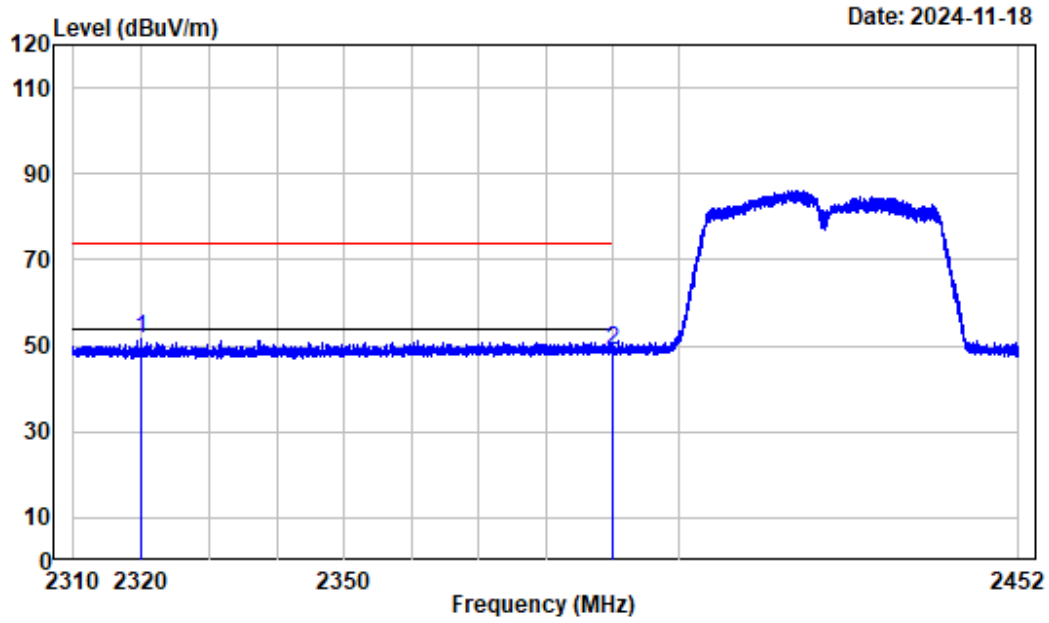
802.11n40			
Test Channel:	**2422MHz**	**Ant. Polar. :**	**Horizontal-Average**



Condition : Horizontal
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4wifi_n40_2422_AV

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.867	-3.20	46.33	43.13	54.00	-10.87	Average
2	2390.000	-3.20	46.22	43.02	54.00	-10.98	Average

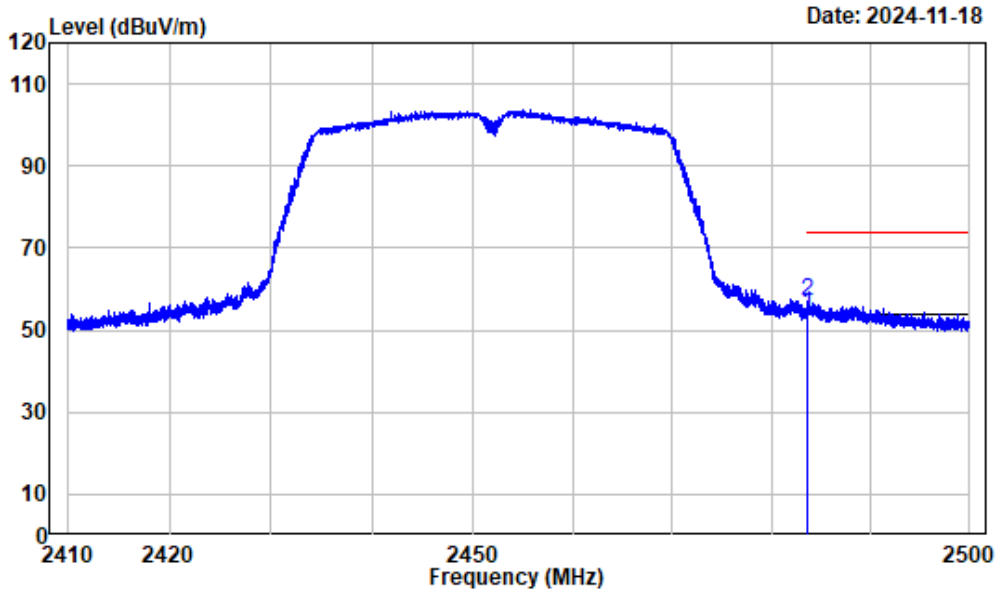
802.11n40			
Test Channel:	**2422MHz**	**Ant. Polar. :**	**Vertical**



Condition : Vertical
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4wifi_n40_2422

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2319.959	-3.11	54.59	51.48	74.00	-22.52	Peak
2	2390.000	-3.20	51.93	48.73	74.00	-25.27	Peak

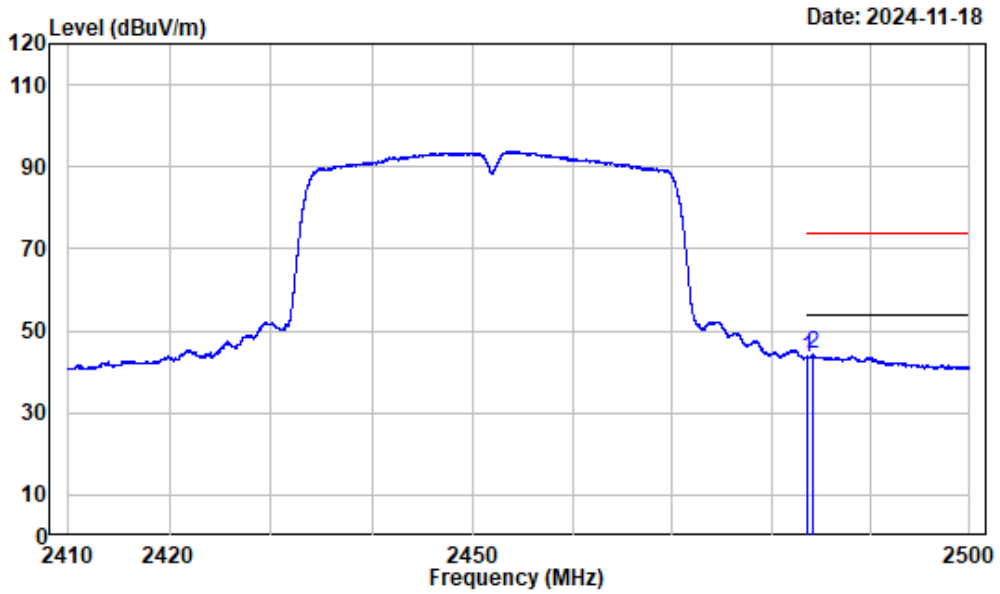
802.11n40			
Test Channel:	**2452MHz**	**Ant. Polar. :**	**Horizontal-Peak**



Condition : Horizontal
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4wifi_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	57.06	53.89	74.00	-20.11	Peak
2	2483.573	-3.17	60.14	56.97	74.00	-17.03	peak

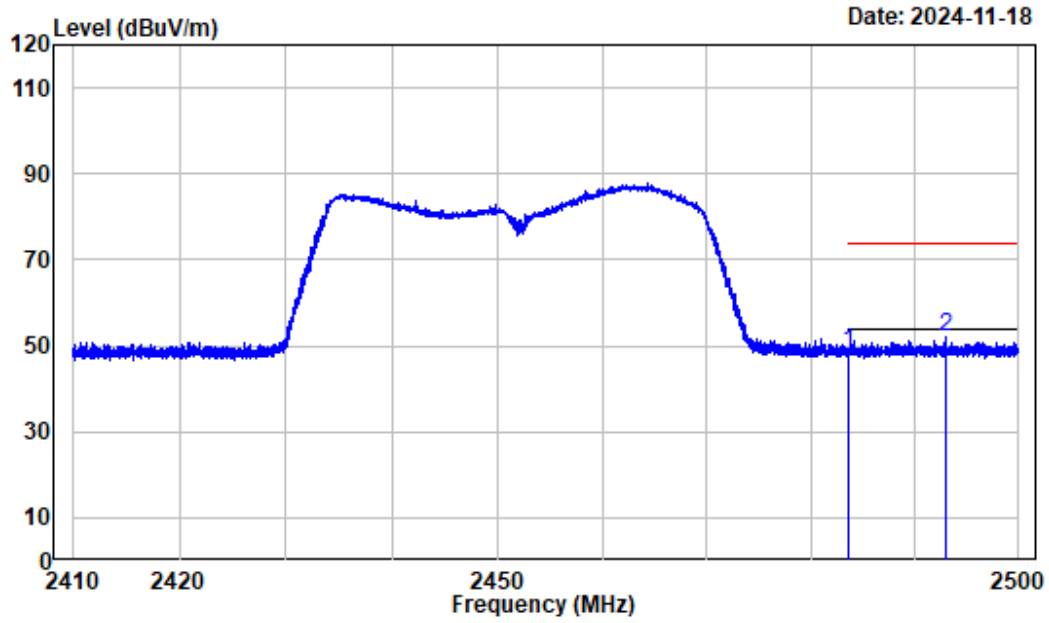
802.11n40			
Test Channel:	**2452MHz**	**Ant. Polar. :**	**Horizontal-Average**



Condition : Horizontal
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4wifi_n40_2452_AV

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	46.51	43.34	54.00	-10.66	Average
2	2484.169	-3.17	47.62	44.45	54.00	-9.55	Average

802.11n40			
Test Channel:	**2452MHz**	**Ant. Polar. :**	**Vertical**

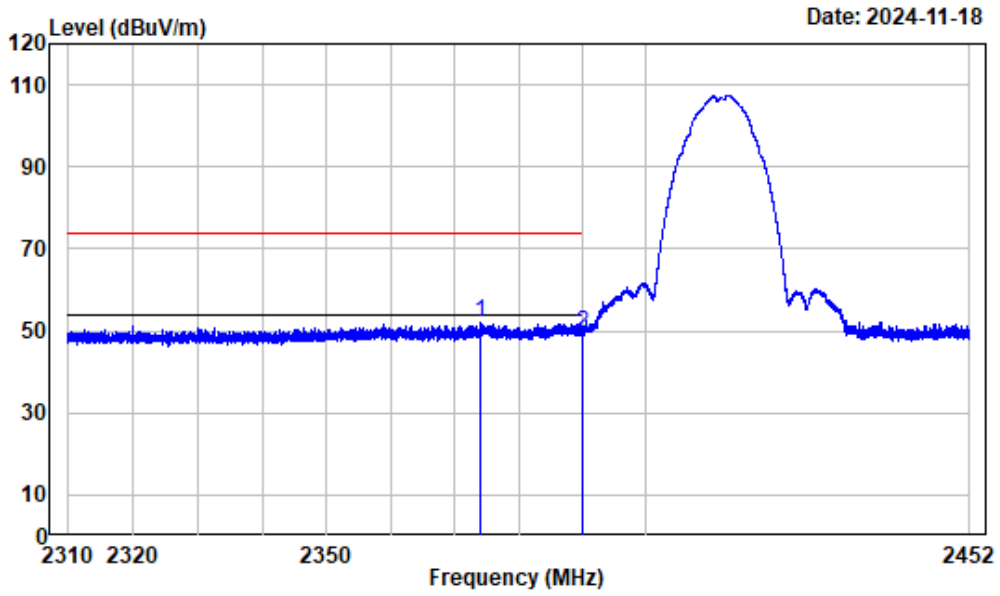


Condition : Vertical
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4wifi_n40_2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	51.76	48.59	74.00	-25.41	Peak
2	2492.912	-3.19	55.27	52.08	74.00	-21.92	peak

ANT1

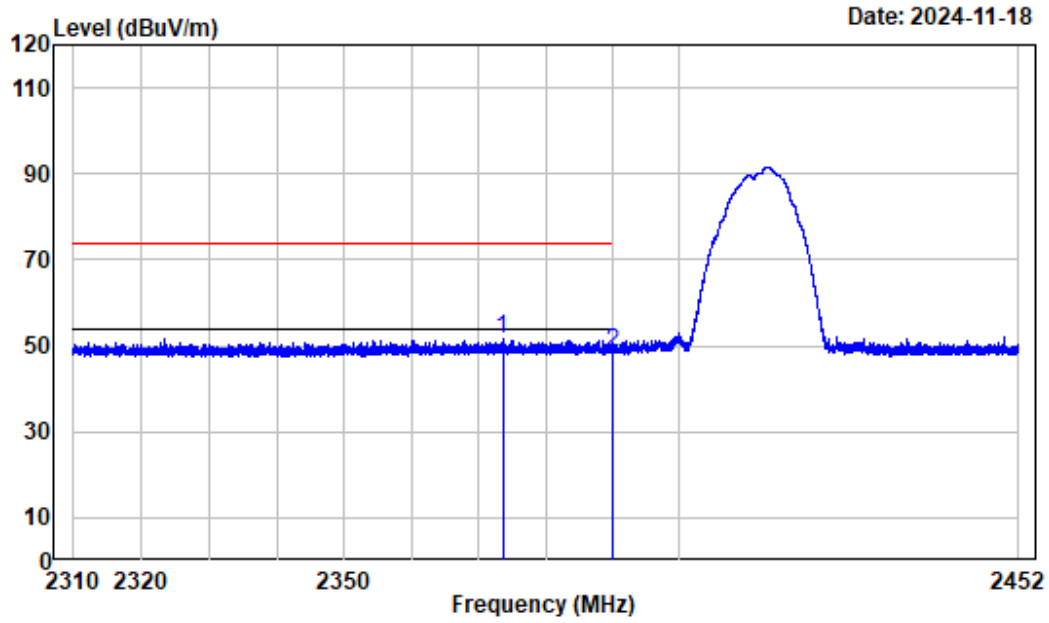
802.11b			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Horizontal**



Condition : Horizontal
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
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	2373.961	-3.18	55.03	51.85	74.00	-22.15	peak
2	2390.000	-3.20	52.78	49.58	74.00	-24.42	Peak

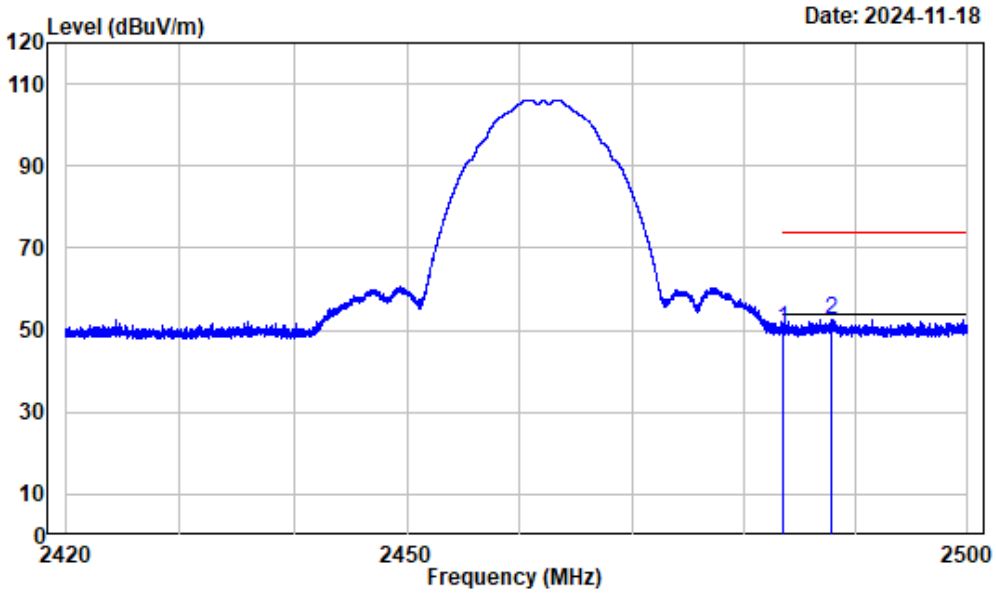
802.11b			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Vertical**



Condition : Vertical
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
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	2373.517	-3.18	54.76	51.58	74.00	-22.42	Peak
2	2390.000	-3.20	51.85	48.65	74.00	-25.35	Peak

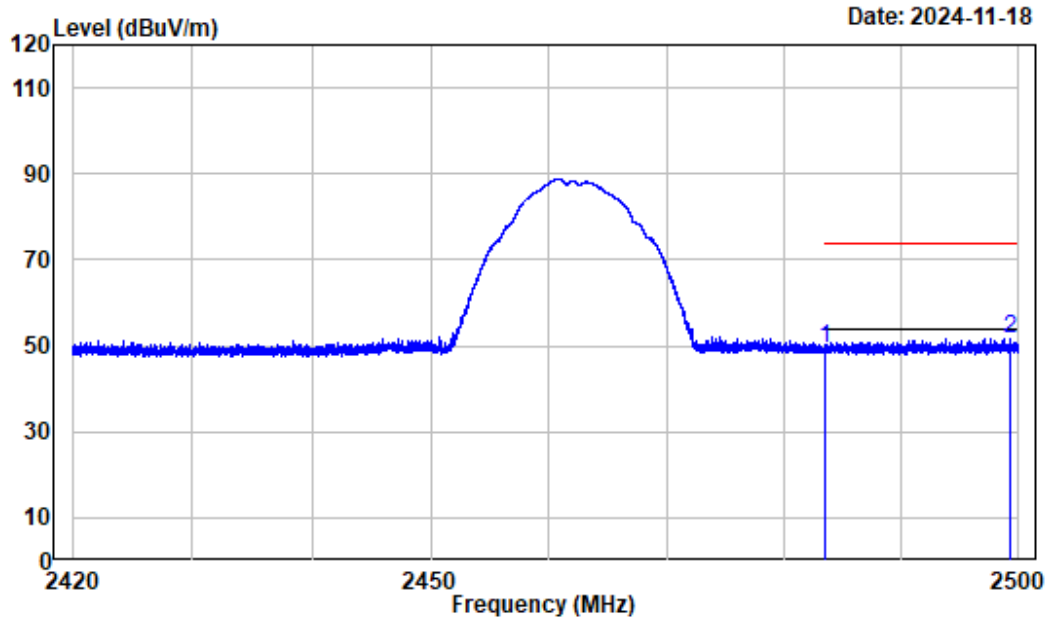
802.11b			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Horizontal**



Condition : Horizontal
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
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	53.31	50.14	74.00	-23.86	Peak
2	2487.729	-3.18	55.93	52.75	74.00	-21.25	Peak

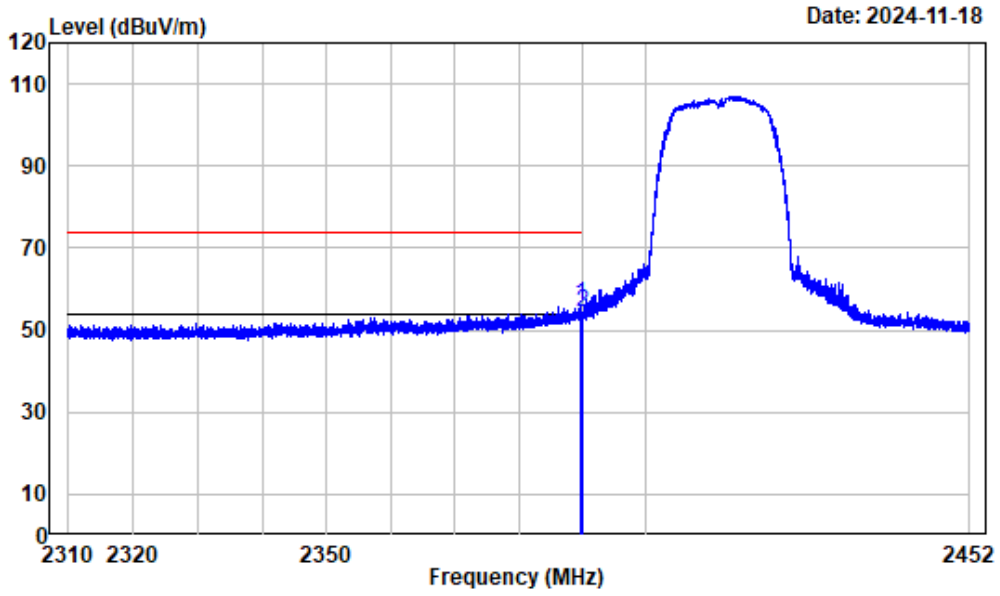
802.11b			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Vertical**



Condition : Vertical
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
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	52.37	49.20	74.00	-24.80	Peak
2	2499.320	-3.20	54.91	51.71	74.00	-22.29	Peak

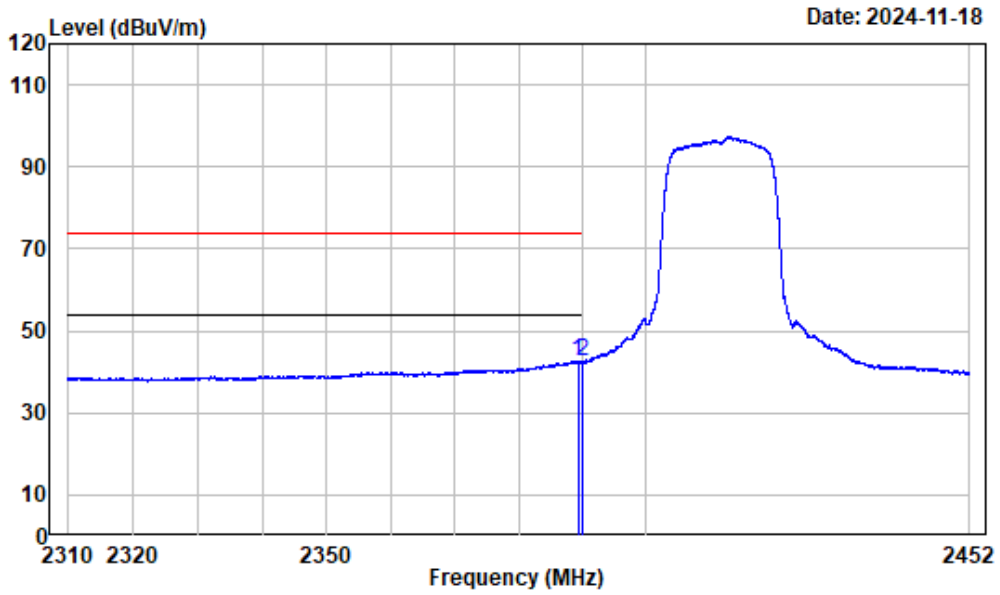
802.11g			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Horizontal-Peak**



Condition : Horizontal
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
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	2389.796	-3.20	59.55	56.35	74.00	-17.65	peak
2	2390.000	-3.20	57.52	54.32	74.00	-19.68	Peak

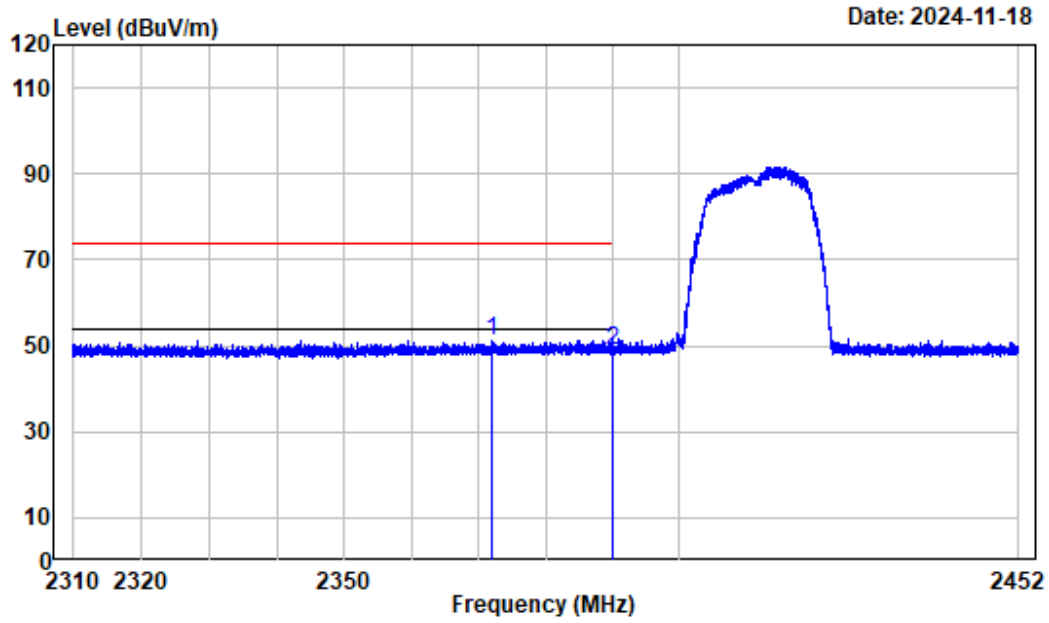
802.11g			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Horizontal-Average**



Condition : Horizontal
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
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	2389.317	-3.20	45.86	42.66	54.00	-11.34	Average
2	2390.000	-3.20	45.61	42.41	54.00	-11.59	Average

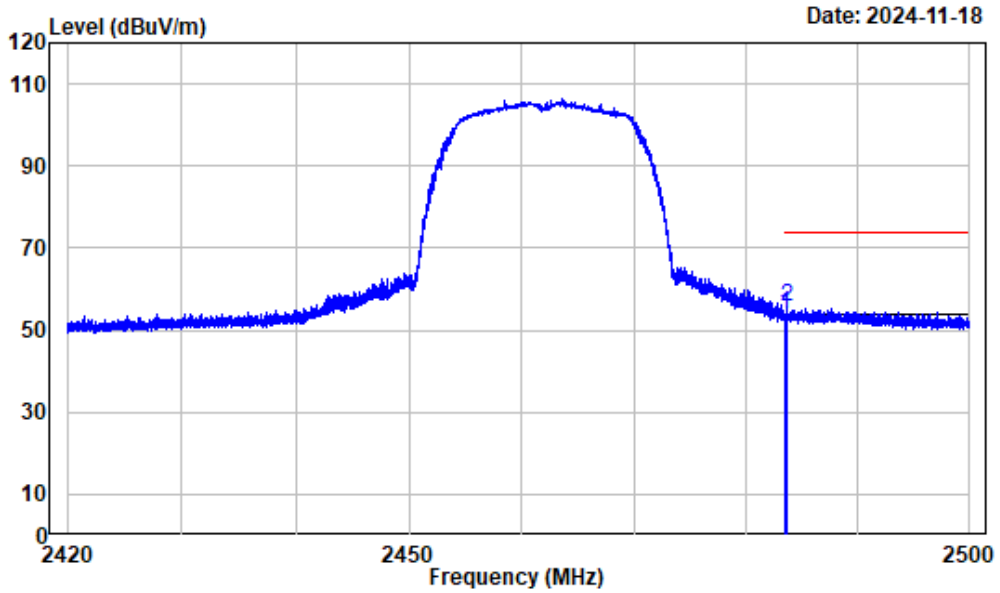
802.11g			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Vertical**



Condition : Vertical
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
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	2371.920	-3.17	54.50	51.33	74.00	-22.67	Peak
2	2390.000	-3.20	52.07	48.87	74.00	-25.13	Peak

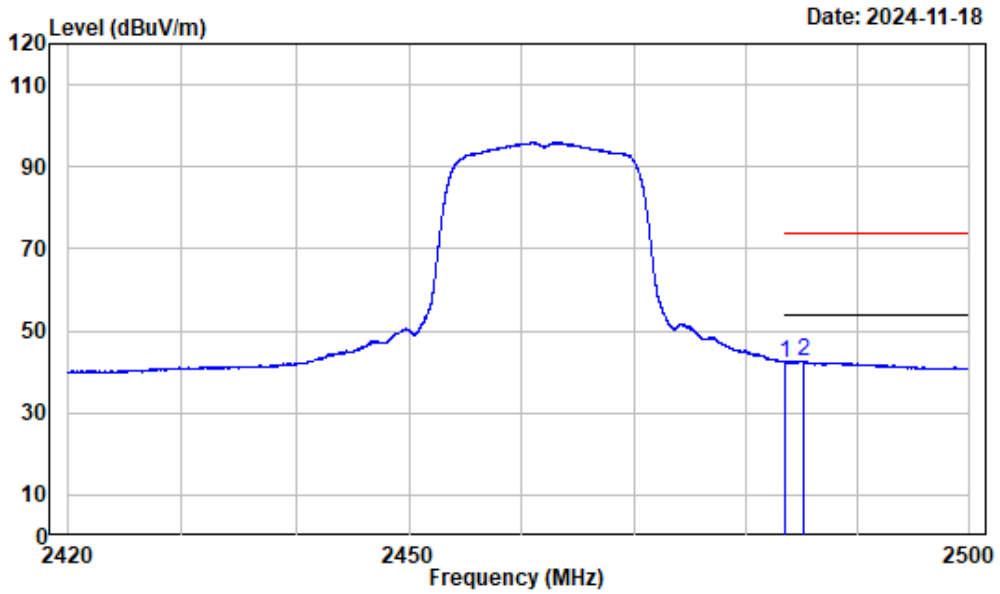
802.11g			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Horizontal-Peak**



Condition : Horizontal
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
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	56.91	53.74	74.00	-20.26	Peak
2	2483.548	-3.17	58.70	55.53	74.00	-18.47	peak

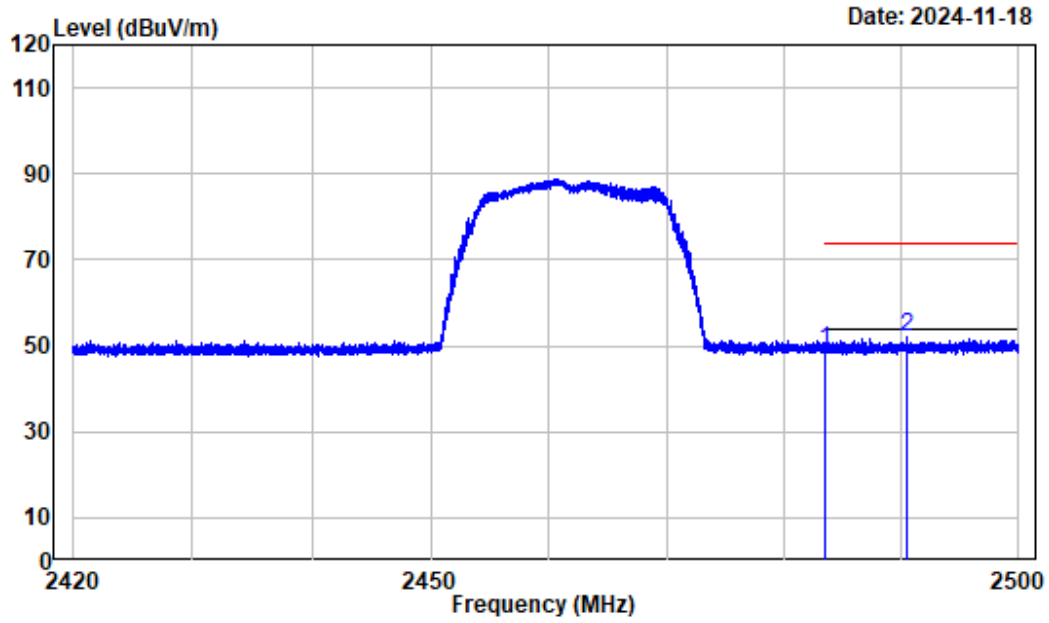
802.11g			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Horizontal-Average**



Condition : Horizontal
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
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	45.49	42.32	54.00	-11.68	Average
2	2485.018	-3.17	45.89	42.72	54.00	-11.28	Average

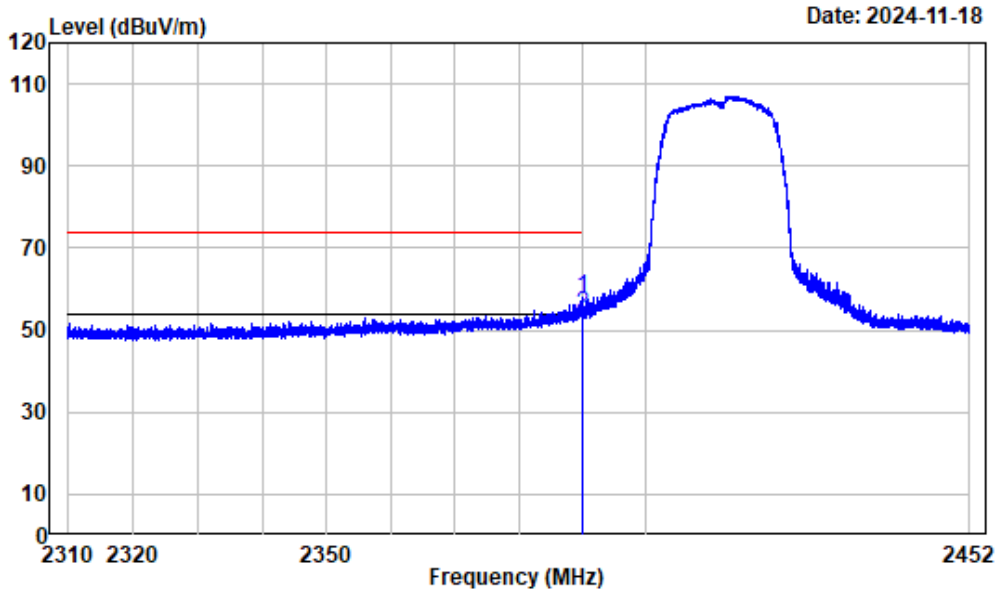
802.11g			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Vertical**



Condition : Vertical
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
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	52.07	48.90	74.00	-25.10	Peak
2	2490.459	-3.18	55.06	51.88	74.00	-22.12	Peak

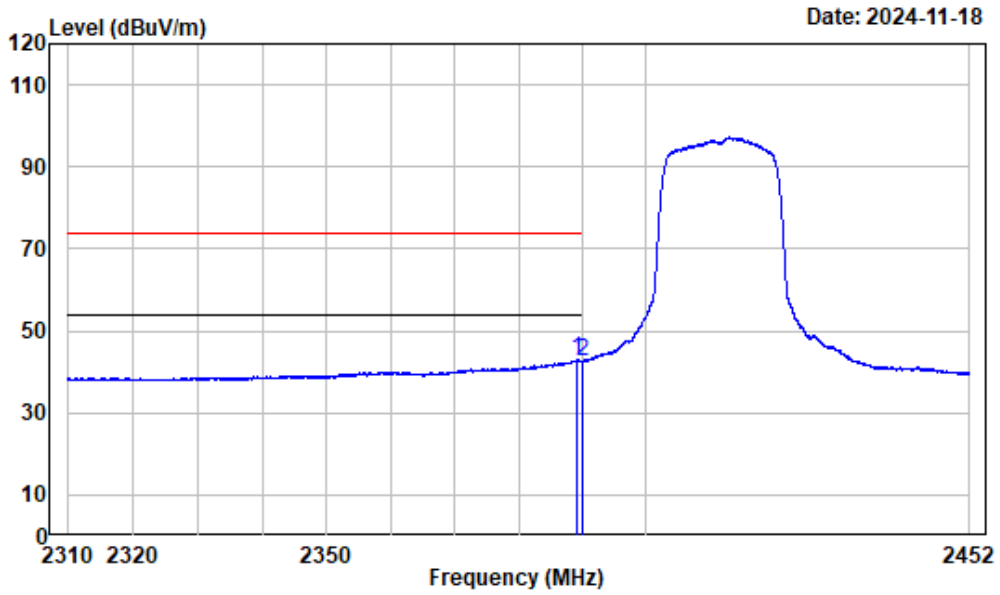
802.11n20			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Horizontal-Peak**



Condition : Horizontal
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
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	2389.938	-3.20	61.03	57.83	74.00	-16.17	peak
2	2390.000	-3.20	57.23	54.03	74.00	-19.97	Peak

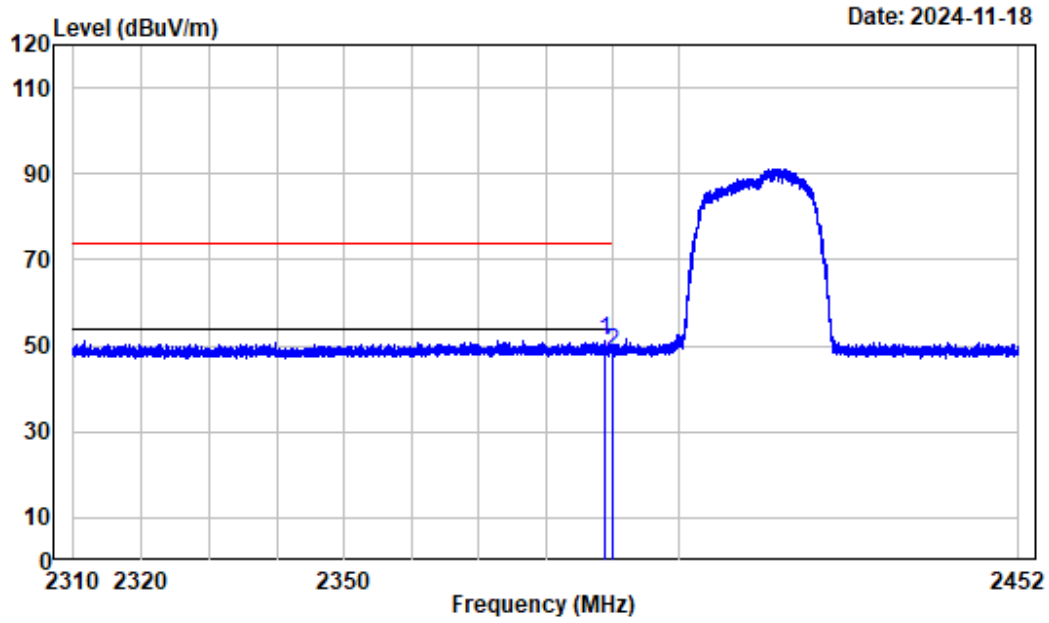
802.11n20			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Horizontal-Average**



Condition : Horizontal
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
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	2389.264	-3.20	46.23	43.03	54.00	-10.97	Average
2	2390.000	-3.20	45.88	42.68	54.00	-11.32	Average

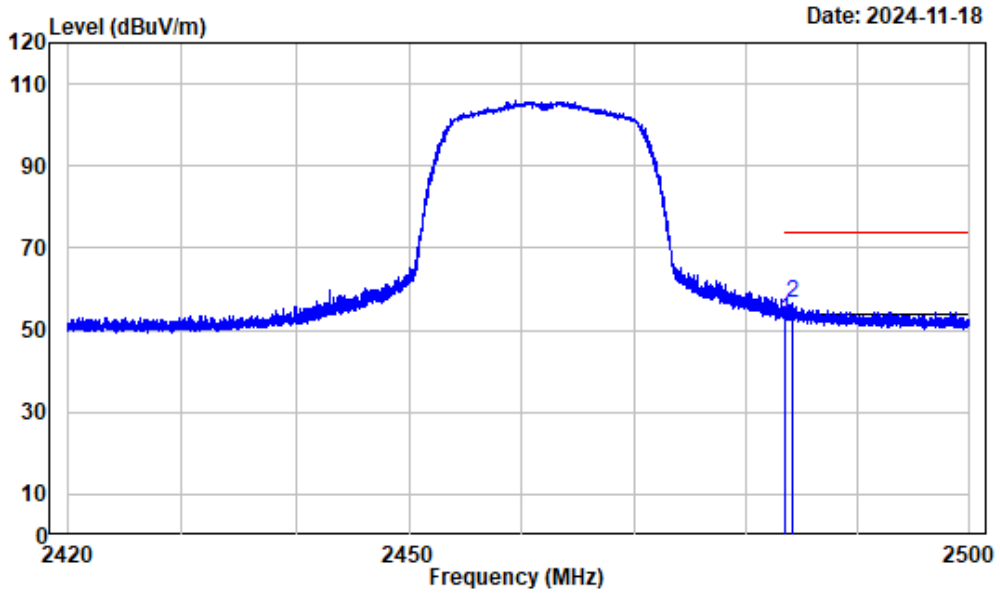
802.11n20			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Vertical**



Condition : Vertical
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
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	2388.855	-3.20	54.54	51.34	74.00	-22.66	Peak
2	2390.000	-3.20	51.62	48.42	74.00	-25.58	Peak

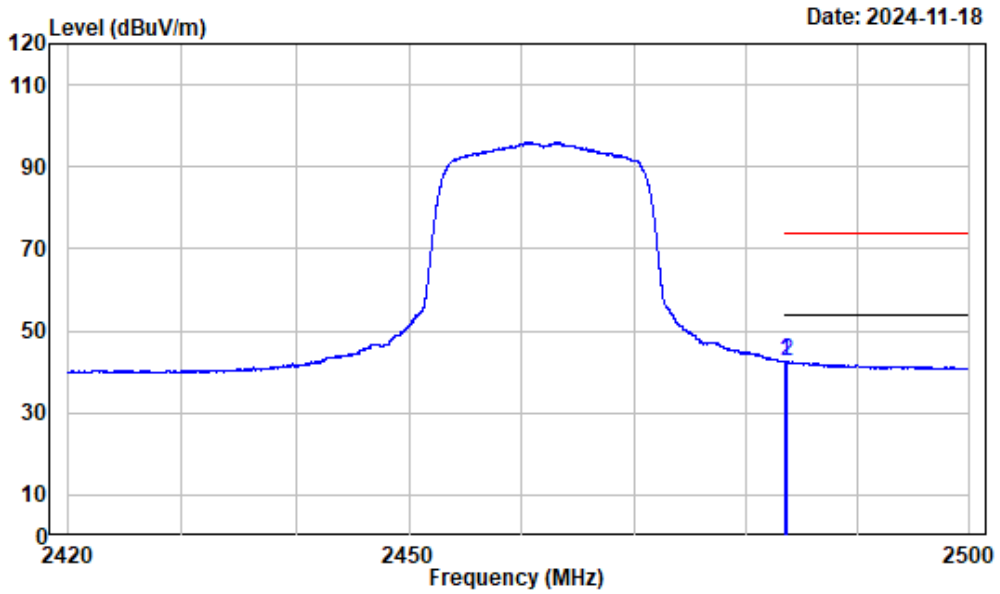
802.11n20			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Horizontal-Peak**



Condition : Horizontal
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
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	55.75	52.58	74.00	-21.42	Peak
2	2484.038	-3.17	59.62	56.45	74.00	-17.55	peak

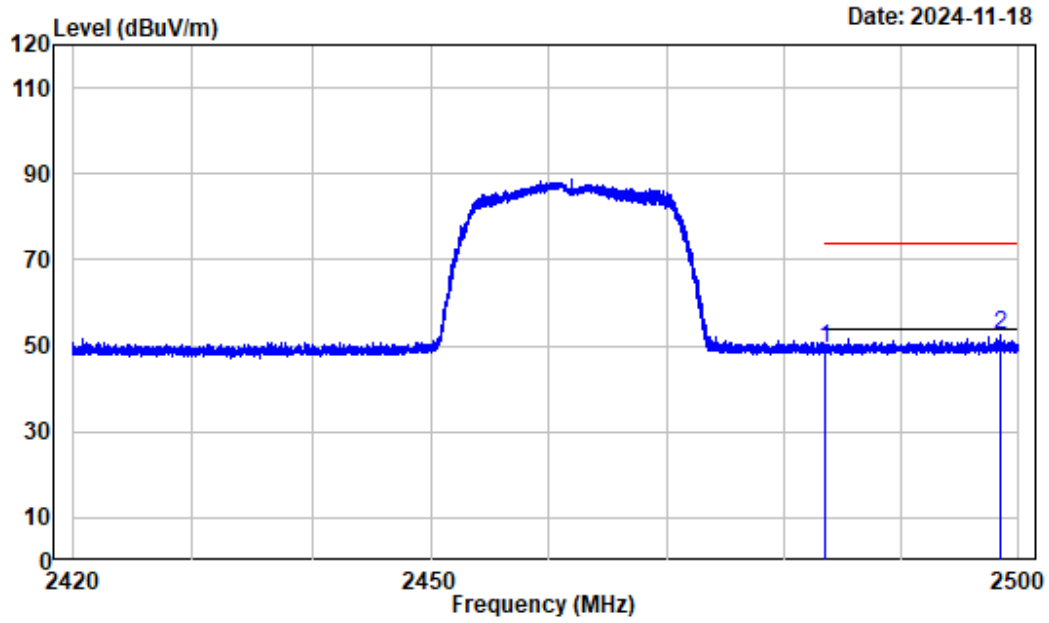
802.11n20			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Horizontal-Average**



Condition : Horizontal
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
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	45.52	42.35	54.00	-11.65	Average
2	2483.668	-3.17	45.89	42.72	54.00	-11.28	Average

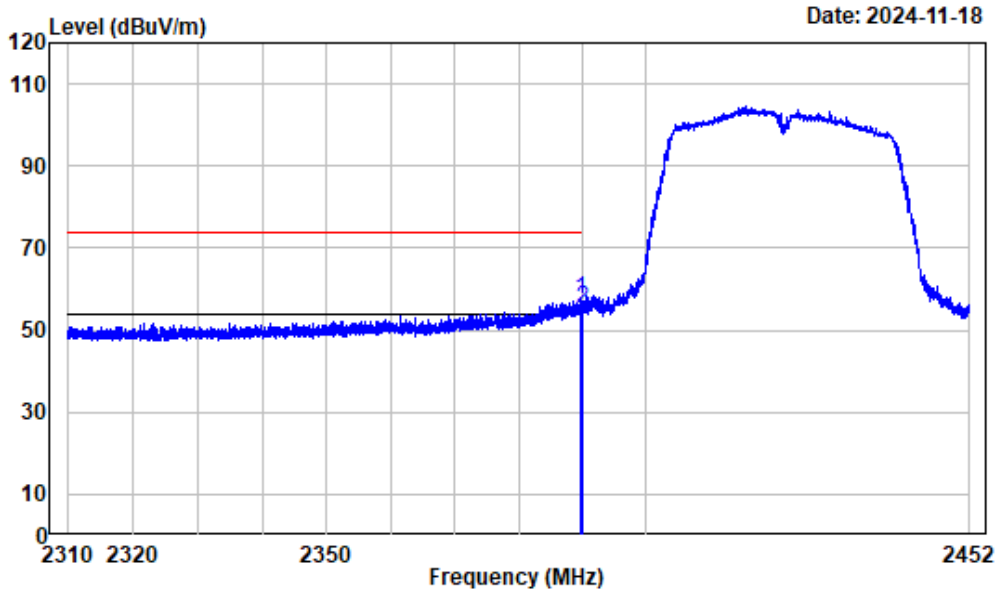
802.11n20			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Vertical**



Condition : Vertical
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
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	52.49	49.32	74.00	-24.68	Peak
2	2498.440	-3.20	55.76	52.56	74.00	-21.44	Peak

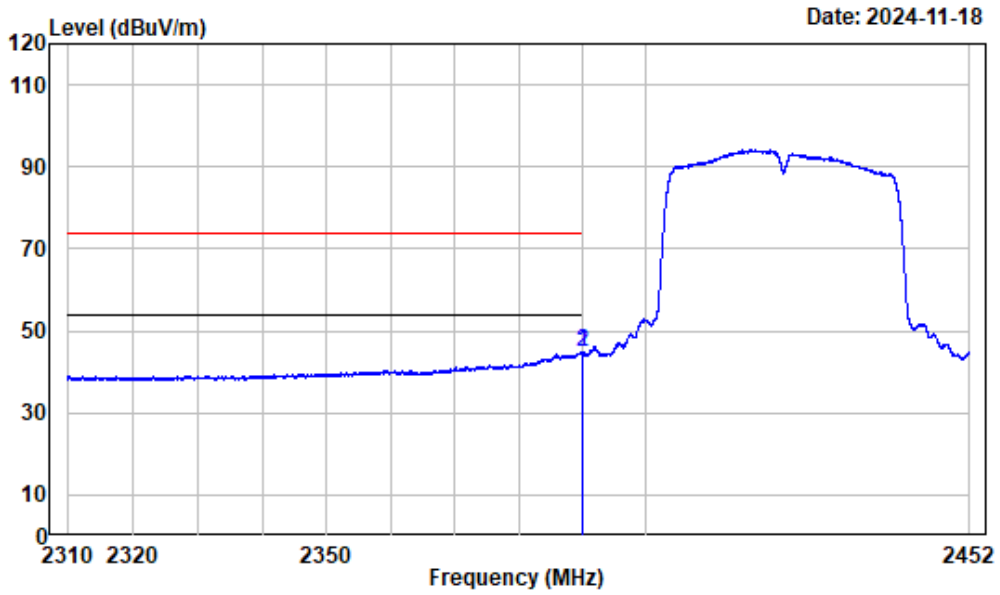
802.11n40			
Test Channel:	**2422MHz**	**Ant. Polar. :**	**Horizontal-Peak**



Condition : Horizontal
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
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	2389.903	-3.20	60.61	57.41	74.00	-16.59	peak
2	2390.000	-3.20	58.62	55.42	74.00	-18.58	Peak

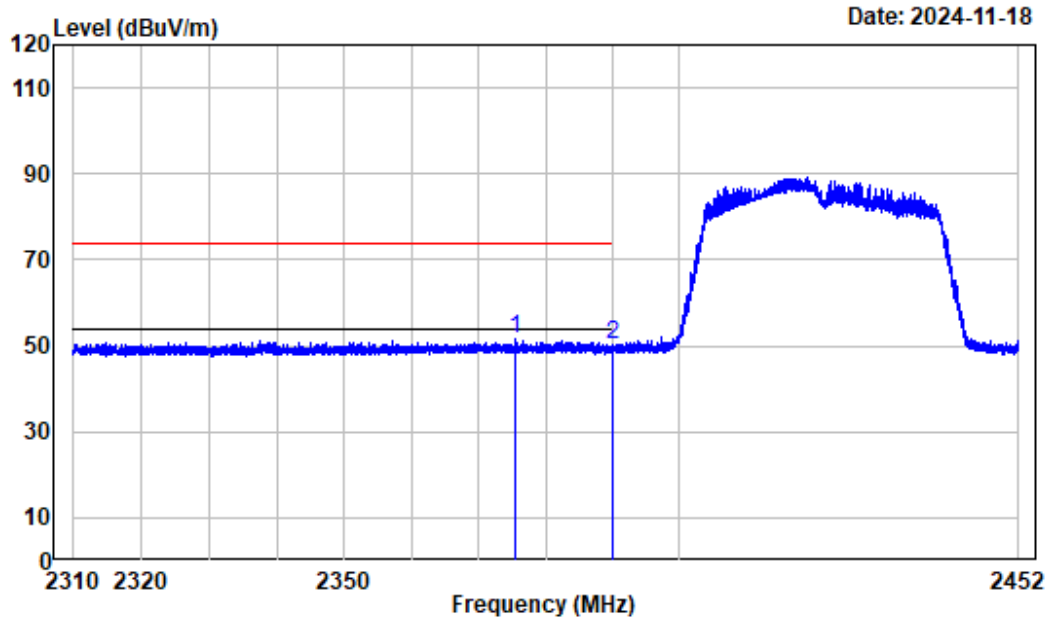
802.11n40			
Test Channel:	**2422MHz**	**Ant. Polar. :**	**Horizontal-Average**



Condition : Horizontal
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
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	2389.991	-3.20	48.03	44.83	54.00	-9.17	Average
2	2390.000	-3.20	48.03	44.83	54.00	-9.17	Average

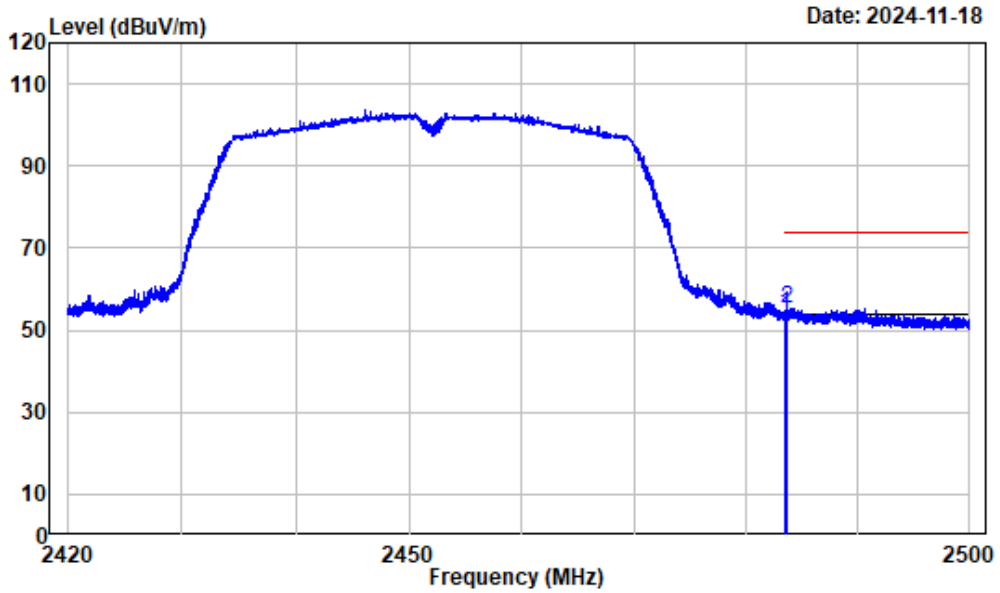
802.11n40			
Test Channel:	**2422MHz**	**Ant. Polar. :**	**Vertical**



Condition : Vertical
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
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	2375.470	-3.18	54.80	51.62	74.00	-22.38	Peak
2	2390.000	-3.20	53.25	50.05	74.00	-23.95	Peak

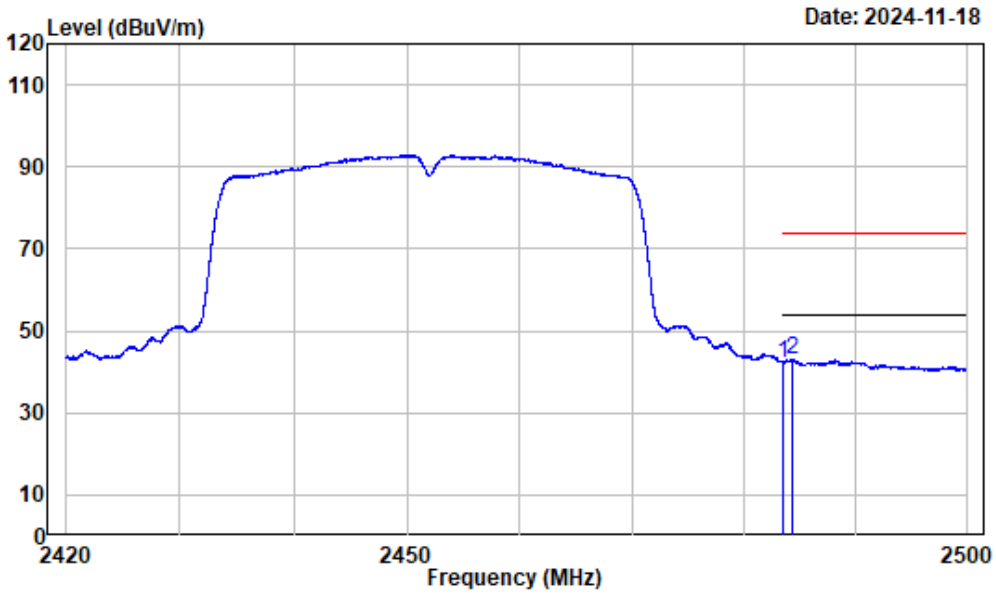
802.11n40			
Test Channel:	**2452MHz**	**Ant. Polar. :**	**Horizontal-Peak**



Condition : Horizontal
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
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	57.00	53.83	74.00	-20.17	Peak
2	2483.678	-3.17	58.61	55.44	74.00	-18.56	peak

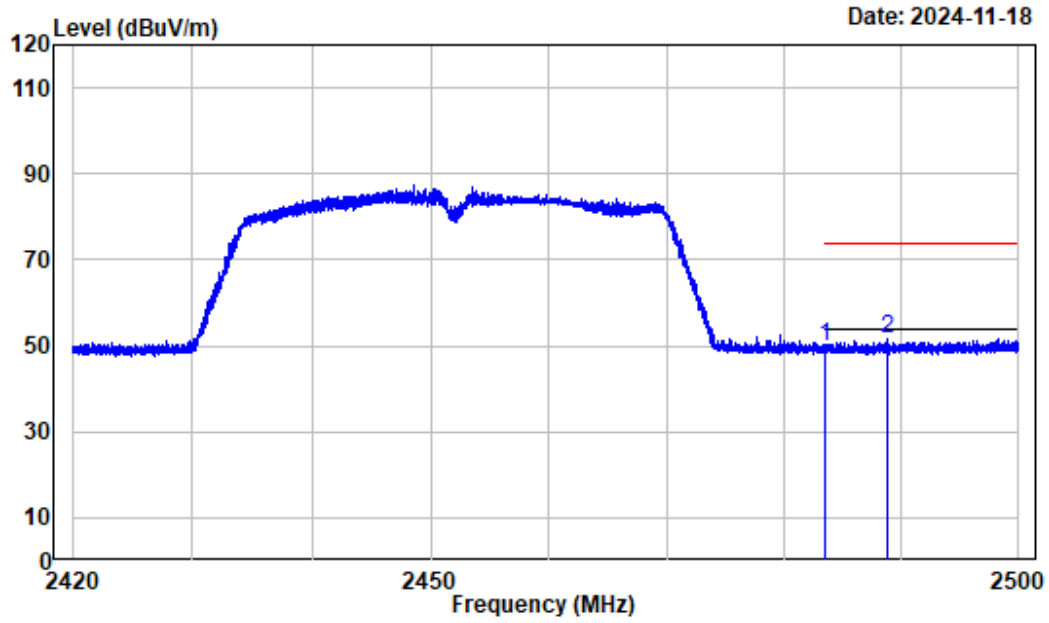
802.11n40			
Test Channel:	**2452MHz**	**Ant. Polar. :**	**Horizontal-Average**



Condition : Horizontal
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
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	45.44	42.27	74.00	-31.73	Peak
2	2484.268	-3.17	46.22	43.05	74.00	-30.95	Peak

802.11n40			
Test Channel:	**2452MHz**	**Ant. Polar. :**	**Vertical**

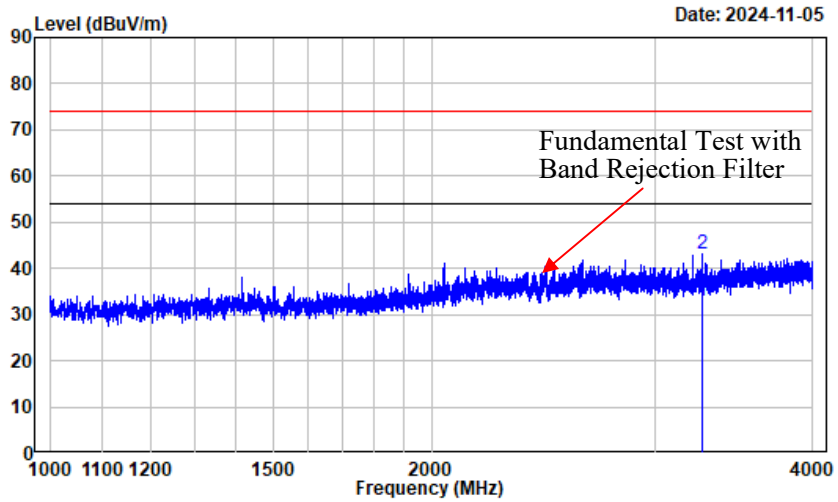


Condition : Vertical
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
Note : 2.4Gwifi_n40_2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	53.18	50.01	74.00	-23.99	Peak
2	2488.819	-3.18	54.97	51.79	74.00	-22.21	Peak

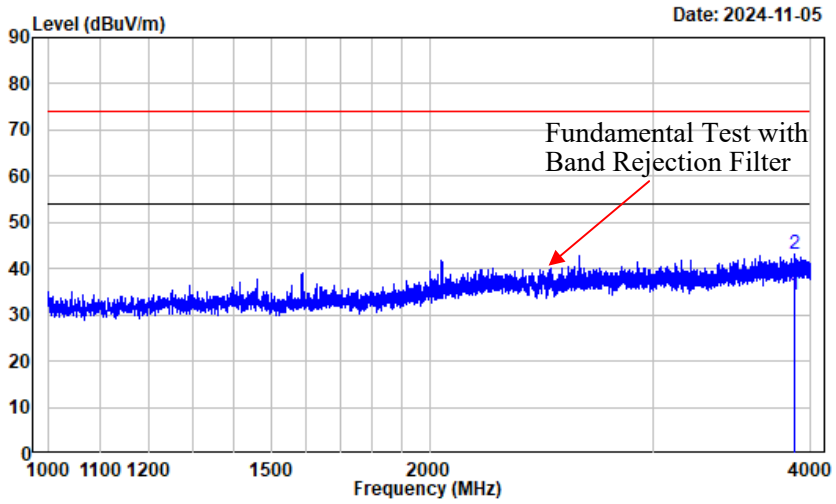
Listed with the worst harmonic margin test plot:
ANT0

802.11b

Horizontal	
1-4GHz	 Condition : Horizontal Project Number: 2401X29266E-RF Tester : Karl Xu Note : 2.4Gwifi-b-2462 Freq / Factor / Read Level / Limit Level / Limit Line / Over Limit / Remark MHz / dB/m / dBuV / dBuV/m / dBuV/m / dB 1 3269.409 -2.67 35.61 32.94 54.00 -21.06 Average 2 3269.409 -2.67 45.74 43.07 74.00 -30.93 Peak

Vertical

1-4GHz

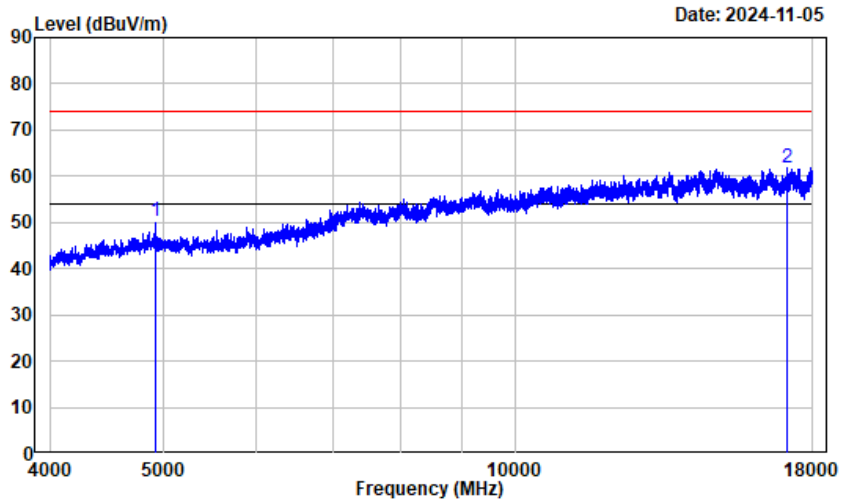


Condition : Vertical
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4Gwifi-b-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3879.985	-0.63	34.83	34.20	54.00	-19.80	Average
2	3879.985	-0.63	43.87	43.24	74.00	-30.76	Peak

Horizontal-Peak

4-18GHz

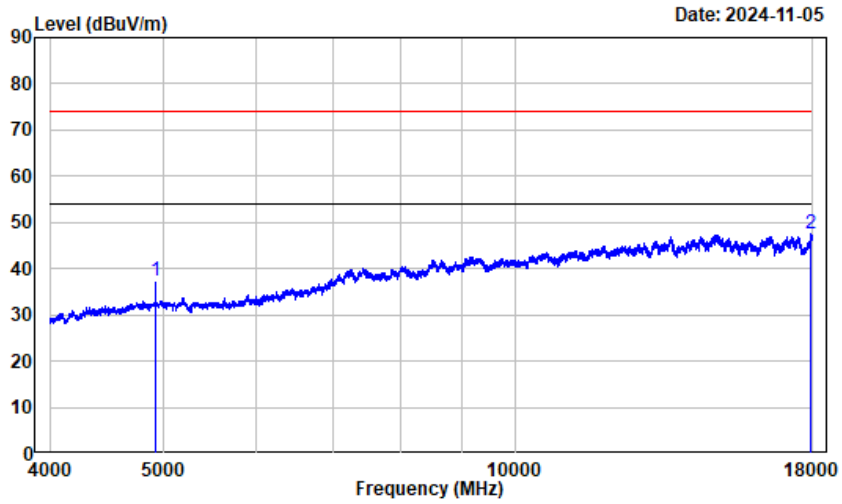


Condition : Horizontal
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4Gwifi-b-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	47.64	50.27	74.00	-23.73	Peak
2	17123.140	18.17	43.69	61.86	74.00	-12.14	Peak

Horizontal-Average

4-18GHz



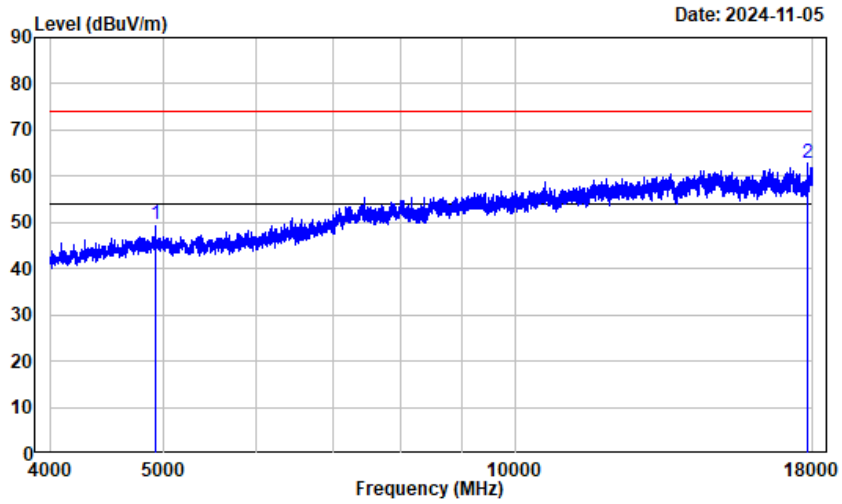
Condition : Horizontal
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4Gwifi-b-2462_AV

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	34.70	37.33	54.00	-16.67	Average
2	17935.240	24.16	23.38	47.54	54.00	-6.46	Average

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

Vertical-Peak

4-18GHz

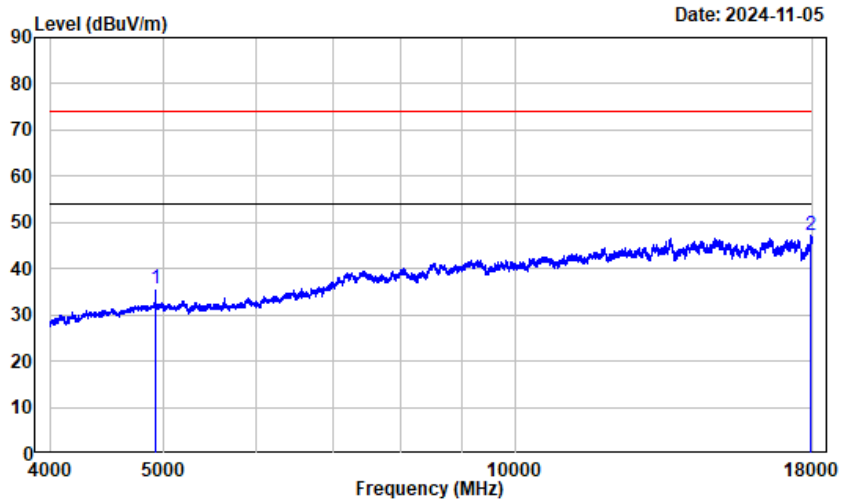


Condition : Vertical
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4Gwifi-b-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	46.89	49.52	74.00	-24.48	Peak
2	17817.980	22.60	40.29	62.89	74.00	-11.11	Peak

Vertical-Average

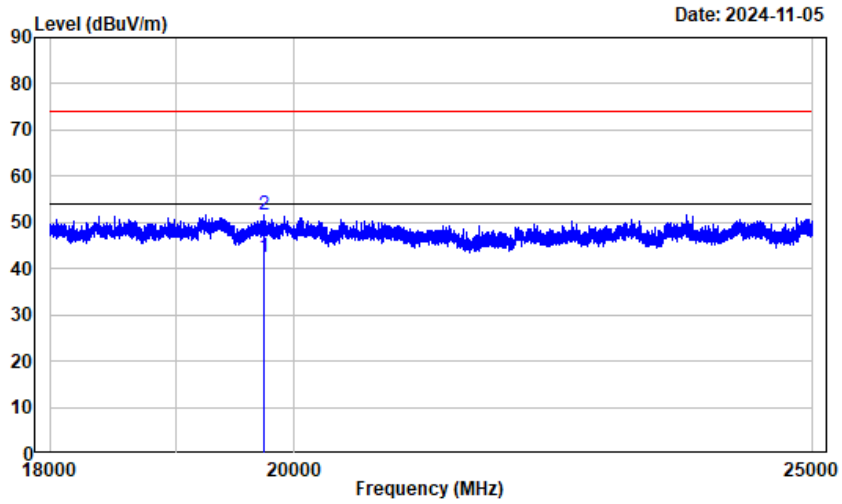
4-18GHz



Condition : Vertical
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4Gwifi-b-2462_AV

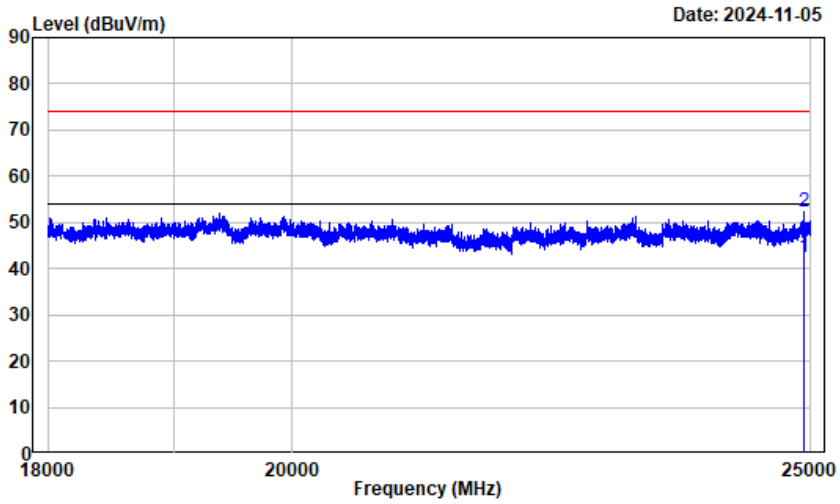
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	33.04	35.67	54.00	-18.33	Average
2	17947.490	24.24	23.04	47.28	54.00	-6.72	Average

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

Horizontal	
18-25GHz	 Condition : Horizontal Project Number: 2401X29266E-RF Tester : Karl Xu Note : 2.4Gwifi-b-2462 Freq / Factor / Read Level / Limit Level / Limit Line / Over Limit / Remark MHz / dB/m / dBuV / dBuV/m / dBuV/m / dB 1 19744.970 15.39 26.97 42.36 54.00 -11.64 Average 2 19744.970 15.39 36.39 51.78 74.00 -22.22 Peak

Vertical

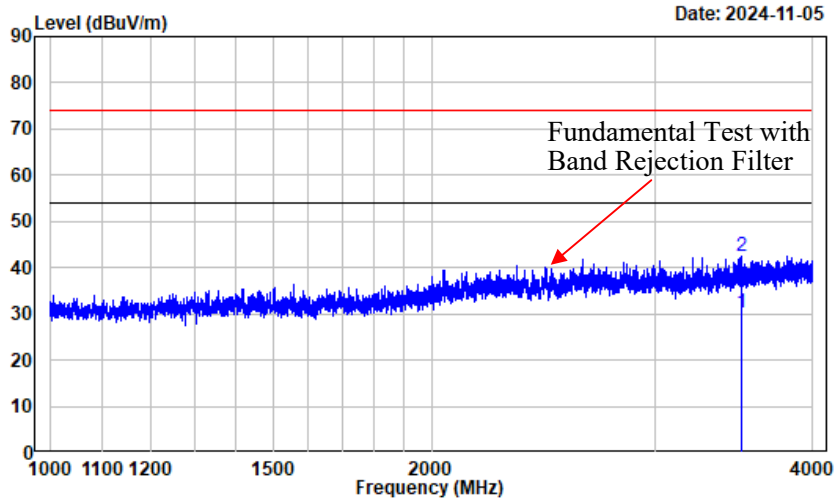
18-25GHz



Condition : Vertical
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4Gwifi-b-2462

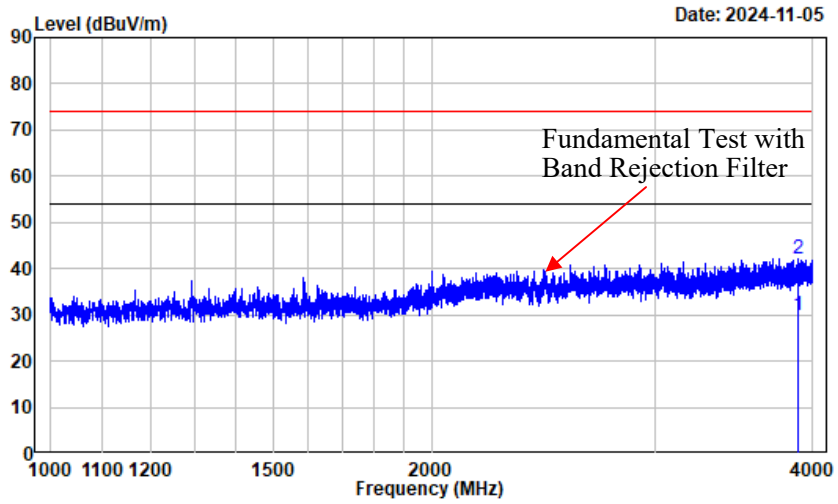
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	24923.870	16.97	25.41	42.38	54.00	-11.62	Average
2	24923.870	16.97	35.22	52.19	74.00	-21.81	Peak

802.11g

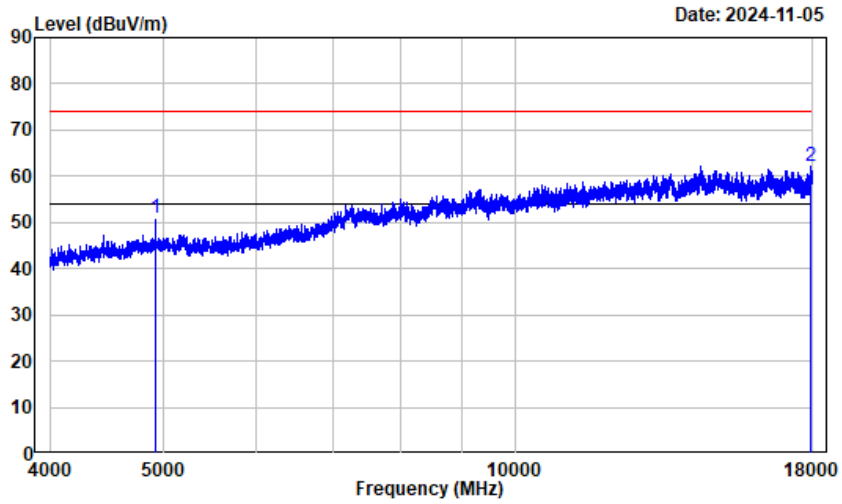
Horizontal	
1-4GHz	

Condition : Horizontal
Project Number: 2401X29266E-RF
Tester : Karl Xu
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	3516.189	-1.72	31.82	30.10	54.00	-23.90	Average
2	3516.189	-1.72	44.04	42.32	74.00	-31.68	Peak

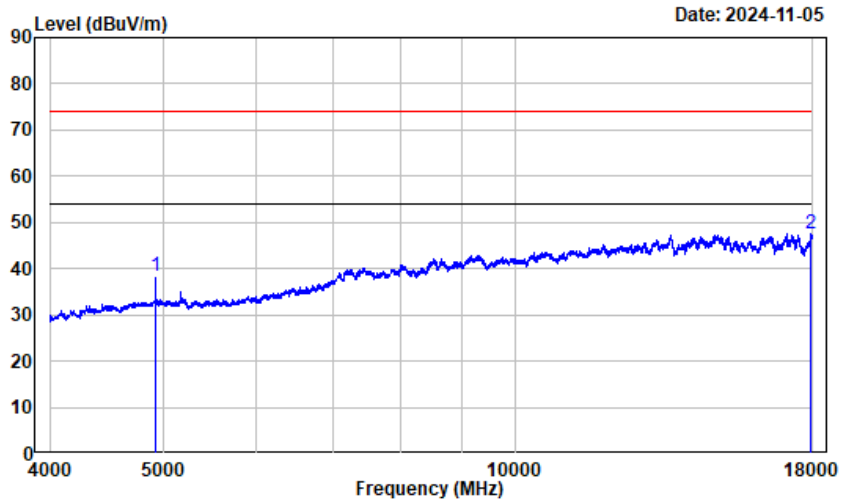
Vertical	
1-4GHz	 Condition : Vertical Project Number: 2401X29266E-RF Tester : Karl Xu Note : 2.4Gwifi-g-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3896.487	-0.54	30.57	30.03	54.00	-23.97	Average
2	3896.487	-0.54	42.74	42.20	74.00	-31.80	Peak

Horizontal-Peak	
4-18GHz	 Condition : Horizontal Project Number: 2401X29266E-RF Tester : Karl Xu 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 48.26 50.89 74.00 -23.11 Peak 2 17945.740 24.23 37.98 62.21 74.00 -11.79 Peak

Horizontal-Average

4-18GHz



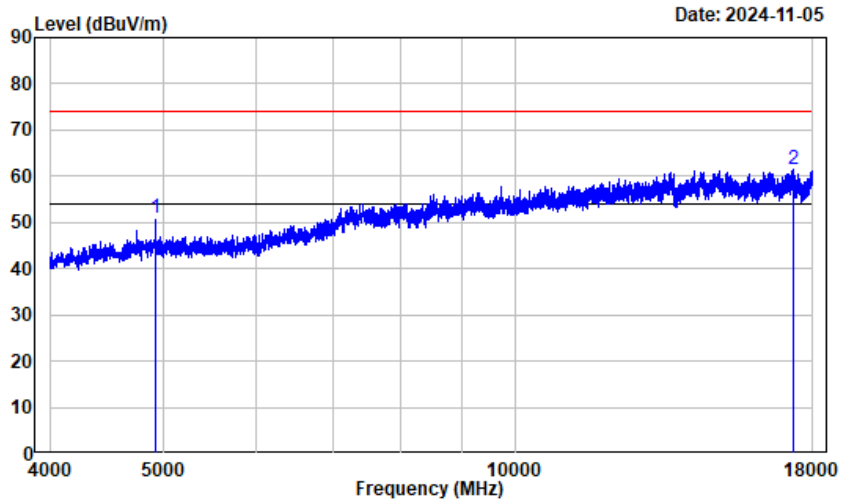
Condition : Horizontal
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4Gwifi-g-2462_AV

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	35.71	38.34	54.00	-15.66	Average
2	17942.240	24.21	23.45	47.66	54.00	-6.34	Average

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

Vertical-Peak

4-18GHz

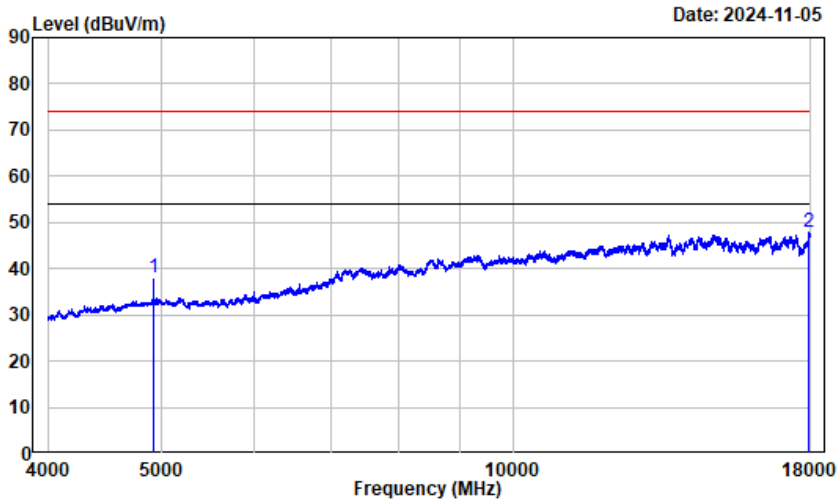


Condition : Vertical
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4Gwifi-g-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	48.39	51.02	74.00	-22.98	Peak
2	17312.160	19.41	42.17	61.58	74.00	-12.42	Peak

Vertical-Average

4-18GHz



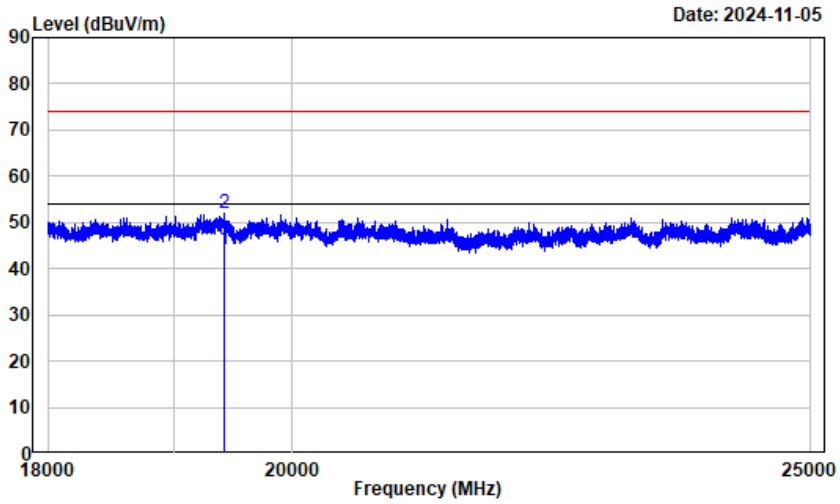
Condition : Vertical
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4Gwifi-g-2462_AV

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	35.43	38.06	54.00	-15.94	Average
2	17945.740	24.23	23.66	47.89	54.00	-6.11	Average

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

Horizontal

18-25GHz

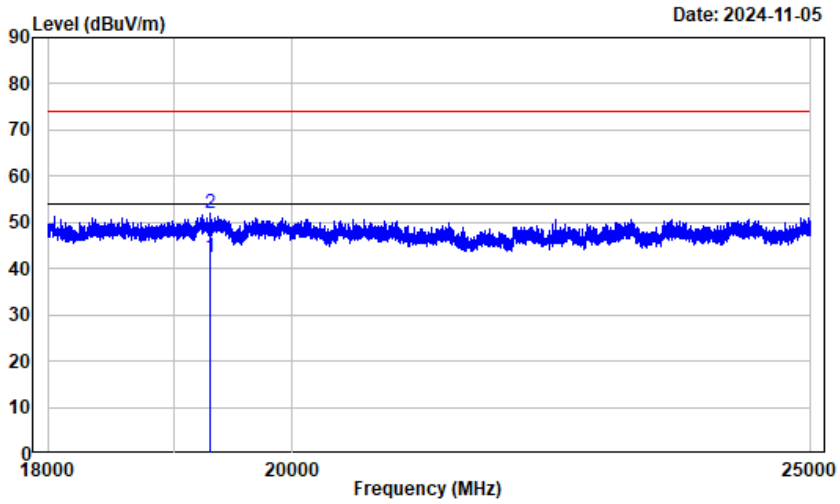


Condition : Horizontal
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4Gwifi-g-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	19415.050	15.10	28.94	44.04	54.00	-9.96	Average
2	19415.050	15.10	36.95	52.05	74.00	-21.95	Peak

Vertical

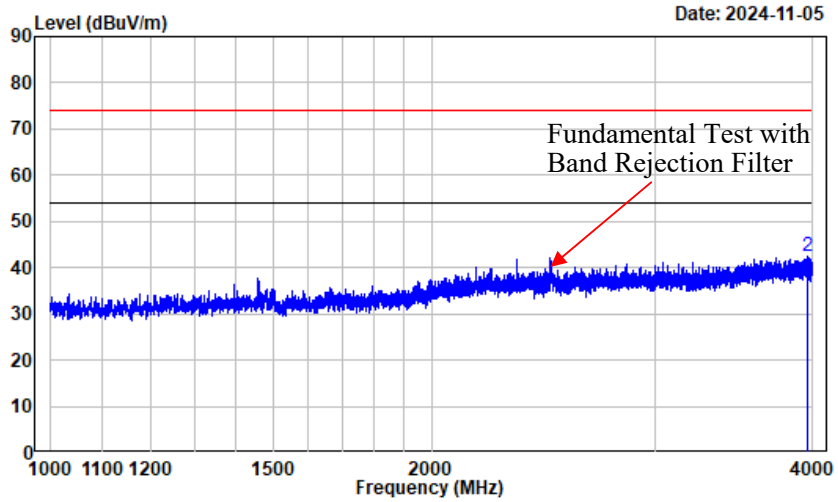
18-25GHz



Condition : Vertical
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4Gwifi-g-2462

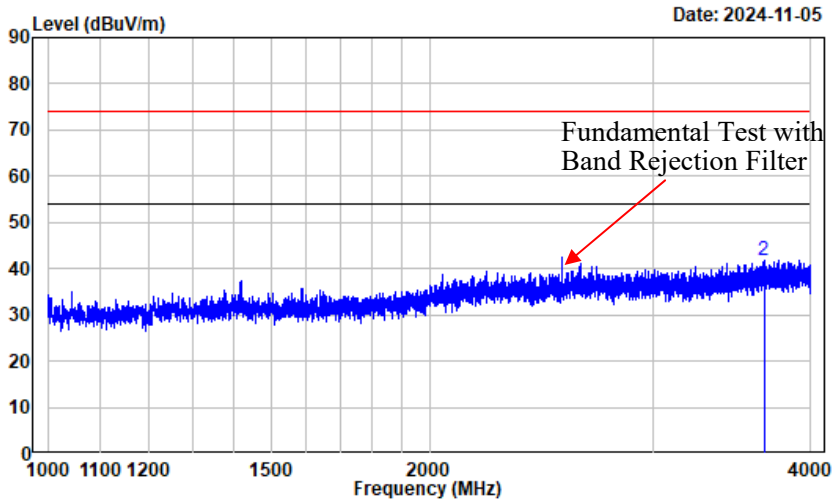
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	19309.160	15.19	27.39	42.58	54.00	-11.42	Average
2	19309.160	15.19	36.70	51.89	74.00	-22.11	Peak

802.11n20

Horizontal	
1-4GHz	 Condition : Horizontal Project Number: 2401X29266E-RF Tester : Karl Xu Note : 2.4Gwifi-n20-2462 Freq / Factor / Read Level / Limit Line / Over Limit / Remark MHz / dB/m / dBuV / dBuV/m / dBuV/m / dB 1 3962.120 -0.17 36.96 36.79 54.00 -17.21 Average 2 3962.120 -0.17 42.60 42.43 74.00 -31.57 Peak

Vertical

1-4GHz

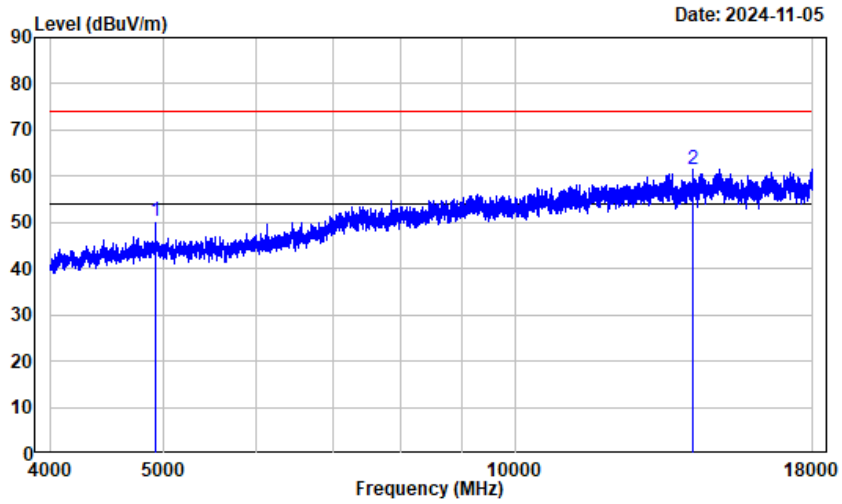


Condition : Vertical
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4Gwifi-n20-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3674.084	-1.29	37.57	36.28	54.00	-17.72	Average
2	3674.084	-1.29	43.15	41.86	74.00	-32.14	Peak

Horizontal-Peak

4-18GHz

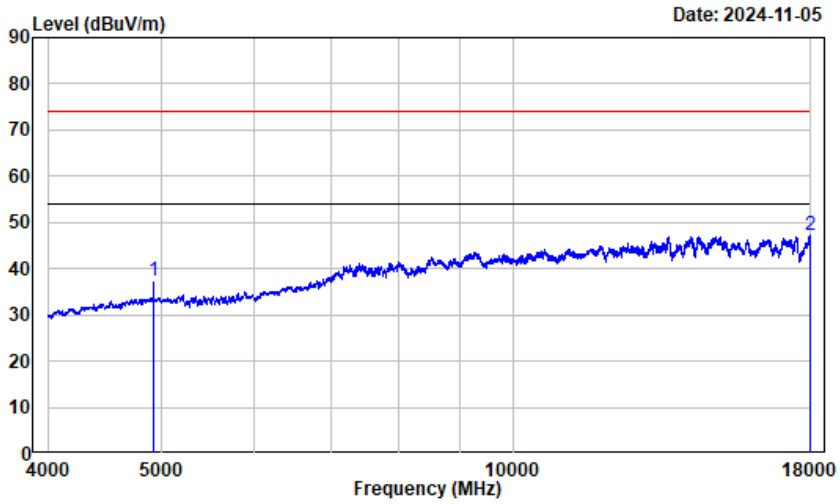


Condition : Horizontal
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4Gwifi-n20-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	47.64	50.27	74.00	-23.73	Peak
2	14231.780	17.23	44.28	61.51	74.00	-12.49	Peak

Horizontal-Average

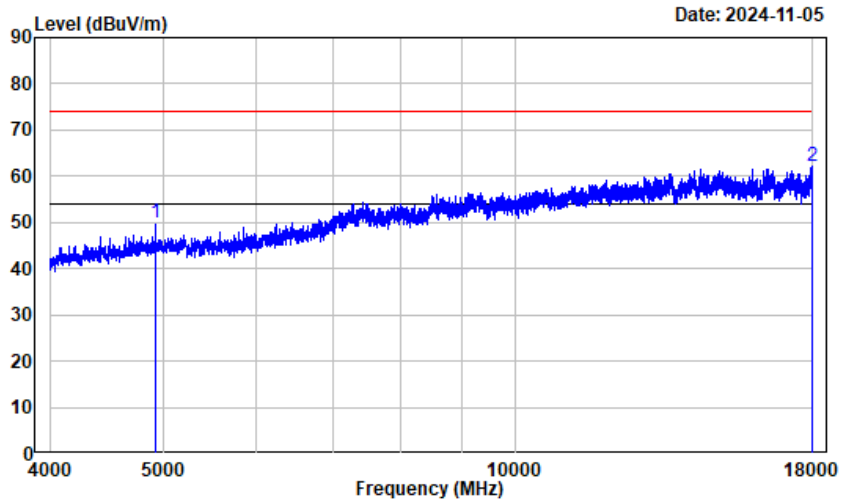
4-18GHz



Condition : Horizontal
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4Gwifi-n20-2462_AV

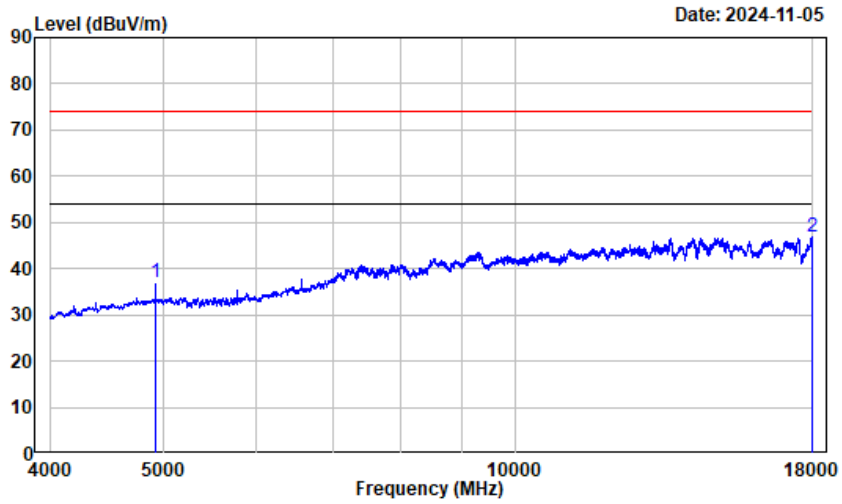
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	34.61	37.24	54.00	-16.76	Average
2	17959.740	24.34	22.88	47.22	54.00	-6.78	Average

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

Vertical-Peak	
4-18GHz	 Condition : Vertical Project Number: 2401X29266E-RF Tester : Karl Xu 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 47.44 50.07 74.00 -23.93 Peak 2 17968.500 24.40 37.84 62.24 74.00 -11.76 Peak

Vertical-Average

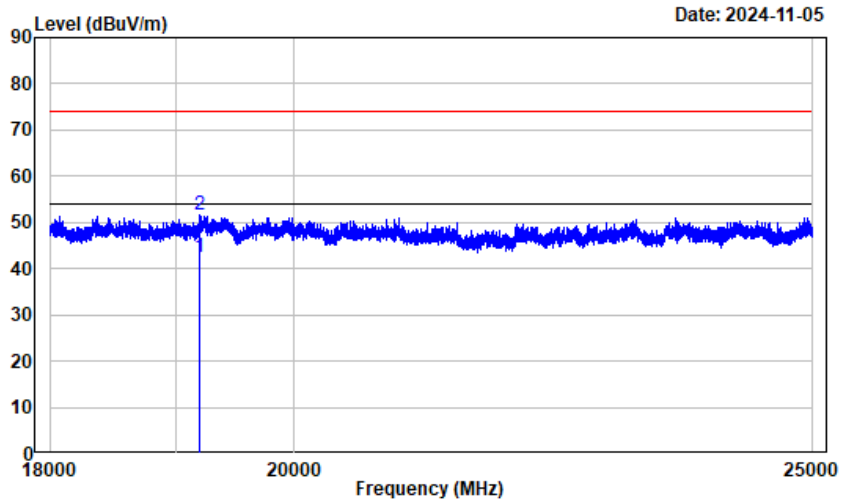
4-18GHz

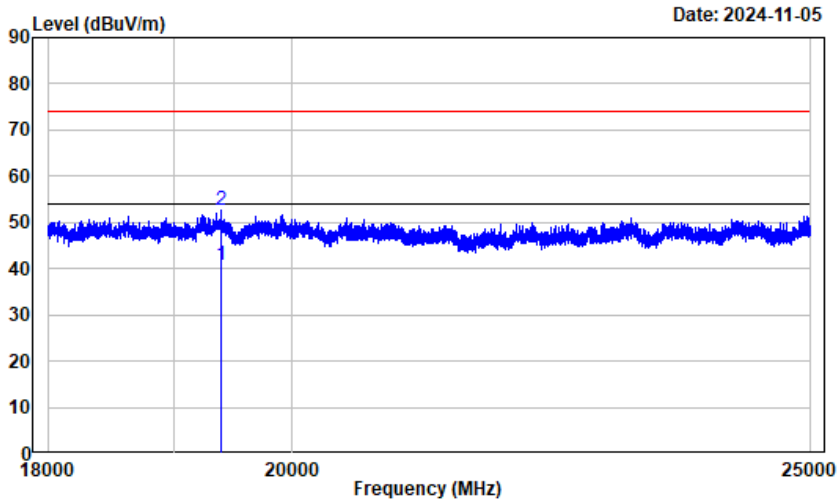


Condition : Vertical
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4Gwifi-n20-2462_AV

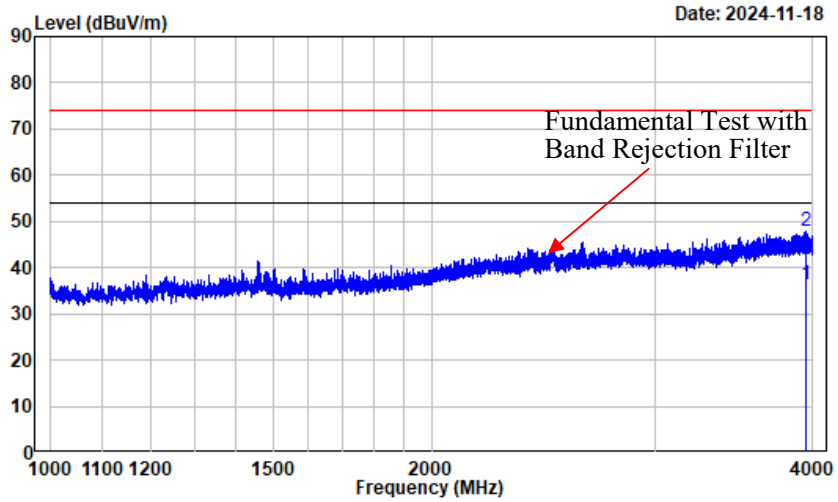
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	34.37	37.00	54.00	-17.00	Average
2	17970.250	24.41	22.30	46.71	54.00	-7.29	Average

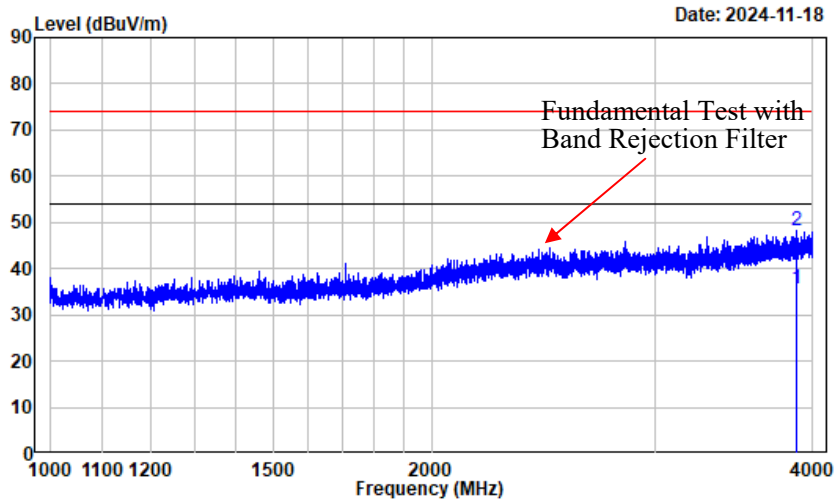
Note: Spectrum Analyzer Setting: RBW=1MHz, VBW=5kHz

Horizontal	
18-25GHz	 Condition : Horizontal Project Number: 2401X29266E-RF Tester : Karl Xu Note : 2.4Gwifi-n20-2462 Freq / Factor / Read Level / Limit Level / Limit Line / Over Limit / Remark MHz / dB/m / dBuV / dBuV/m / dBuV/m / dB 1 19198.900 15.32 27.18 42.50 54.00 -11.50 Average 2 19198.900 15.32 36.14 51.46 74.00 -22.54 Peak

Vertical	
18-25GHz	 Condition : Vertical Project Number: 2401X29266E-RF Tester : Karl Xu Note : 2.4Gwifi-n20-2462 Freq / Factor / Read Level / Limit Level / Limit Line / Over Limit / Remark MHz / dB/m / dBuV / dBuV/m / dBuV/m / dB 1 19394.050 15.09 25.71 40.80 54.00 -13.20 Average 2 19394.050 15.09 37.56 52.65 74.00 -21.35 Peak

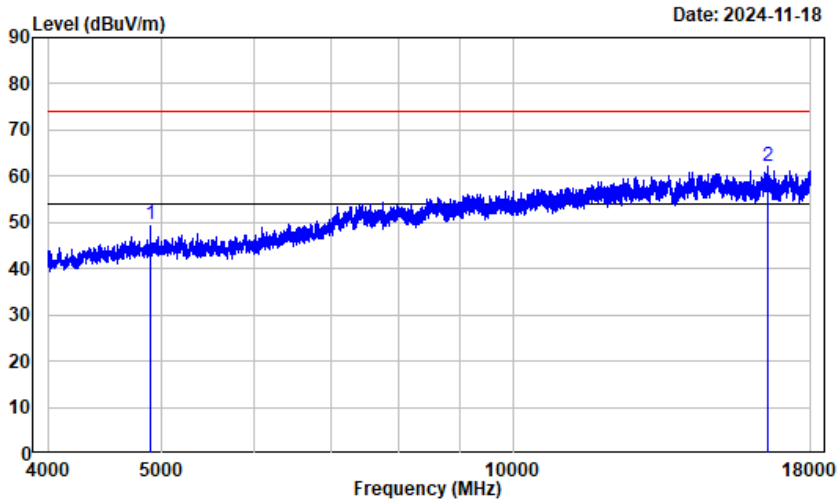
802.11n40

Horizontal	
1-4GHz	 Condition : Horizontal Project Number: 2401X29266E-RF Tester : Karl Xu Note : 2.4wifi_n40_2452 Freq / Factor / Read Level / Limit Line / Over Limit / Remark MHz / dB/m / dBuV / dBuV/m / dBuV/m / dB 1 3949.369 -0.17 36.41 36.24 54.00 -17.76 Average 2 3949.369 -0.17 48.00 47.83 74.00 -26.17 Peak

Vertical	
1-4GHz	

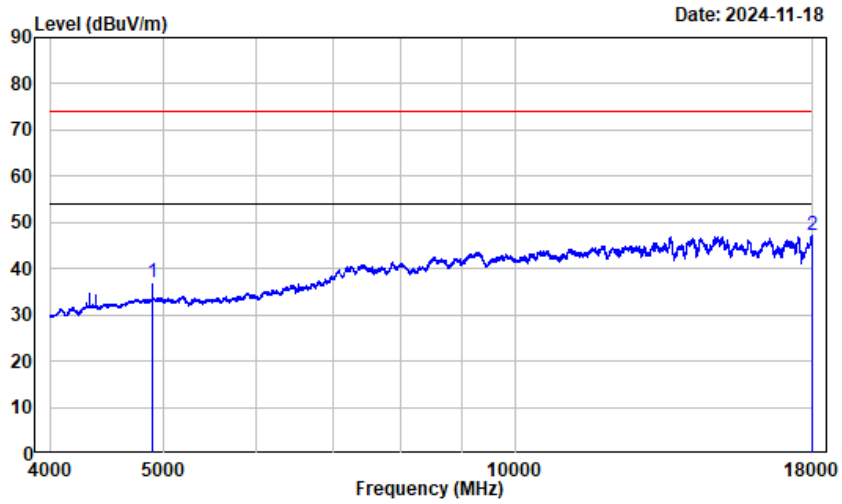
Condition : Vertical
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4wifi_n40_2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3888.611	-0.59	36.30	35.71	54.00	-18.29	Average
2	3888.611	-0.59	48.67	48.08	74.00	-25.92	Peak

Horizontal-Peak	
4-18GHz	 Condition : Horizontal Project Number: 2401X29266E-RF Tester : Karl Xu Note : 2.4wifi_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 46.84 49.48 74.00 -24.52 Peak 2 16526.320 15.79 46.52 62.31 74.00 -11.69 Peak

Horizontal-Average

4-18GHz



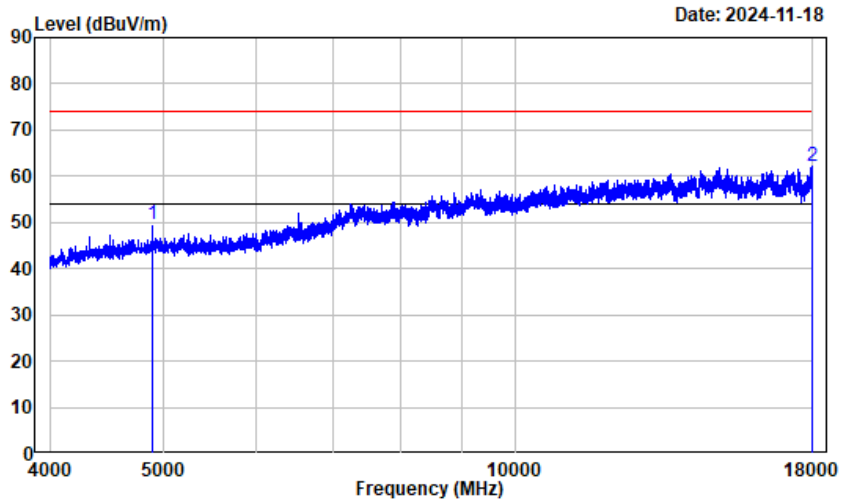
Condition : Horizontal
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4wifi_n40_2452_AV

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4904.000	2.64	34.29	36.93	54.00	-17.07	Average
2	17994.750	24.58	22.56	47.14	54.00	-6.86	Average

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

Vertical-Peak

4-18GHz

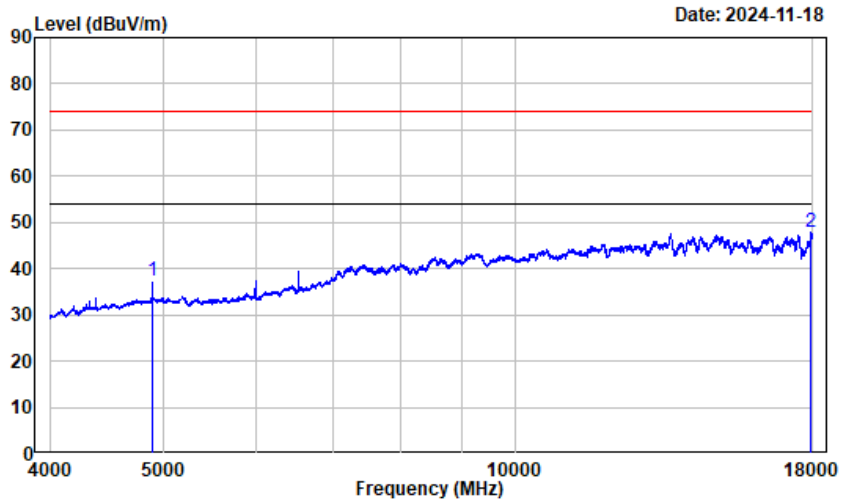


Condition : Vertical
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4wifi_n40_2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4904.000	2.64	47.11	49.75	74.00	-24.25	Peak
2	17959.740	24.34	37.88	62.22	74.00	-11.78	Peak

Vertical-Average

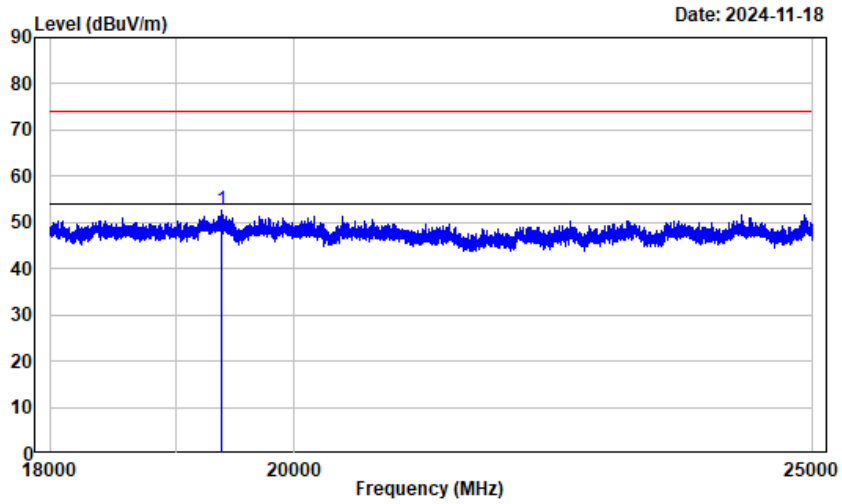
4-18GHz

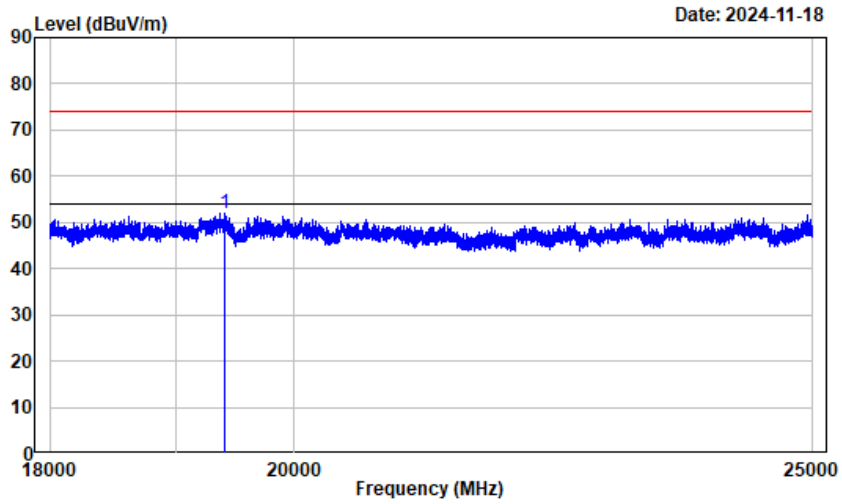


Condition : Vertical
Project Number: 2401X29266E-RF
Tester : Karl Xu
Note : 2.4wifi_n40_2452_AV

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4904.000	2.64	34.75	37.39	54.00	-16.61	Average
2	17943.990	24.22	23.53	47.75	54.00	-6.25	Average

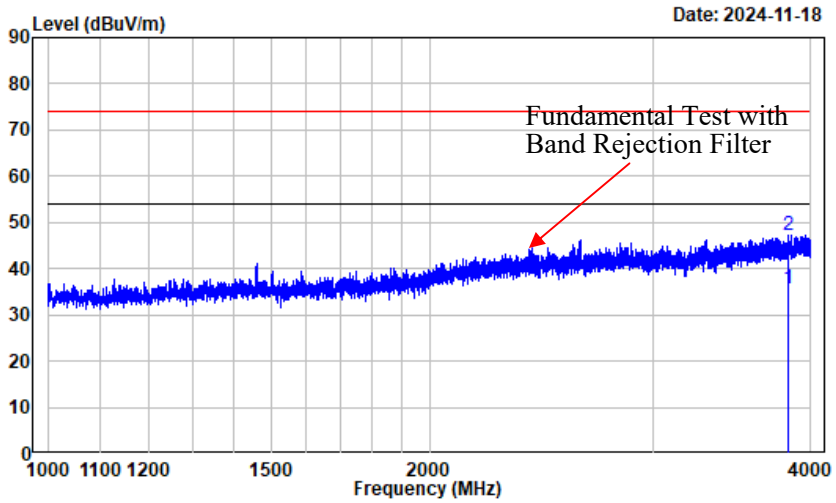
Note: Spectrum Analyzer Setting: RBW=1MHz, VBW=5kHz

Horizontal	
18-25GHz	 Condition : Horizontal Project Number: 2401X29266E-RF Tester : Karl Xu Note : 2.4wifi_n40_2452 Freq / Factor / Read Level / Limit Level / Limit Line / Over Limit / Remark MHz / dB/m / dBuV / dBuV/m / dBuV/m / dB 1 19380.920 15.11 37.67 52.78 74.00 -21.22 Peak

Vertical	
18-25GHz	 Condition : Vertical Project Number: 2401X29266E-RF Tester : Karl Xu Note : 2.4wifi_n40_2452 Freq / Factor / Read Level / Limit Level / Limit Line / Over Limit / Remark MHz / dB/m / dBuV / dBuV/m / dBuV/m / dB 1 19404.550 15.09 36.93 52.02 74.00 -21.98 Peak

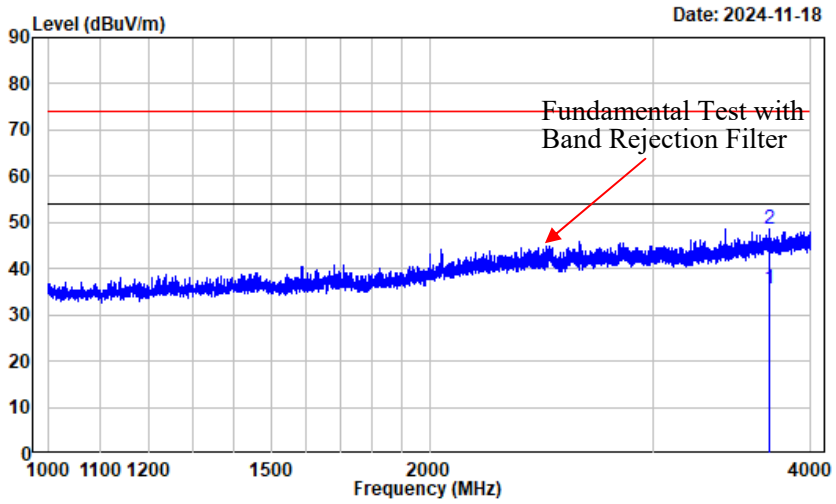
ANT1

802.11b

Horizontal	
1-4GHz	 Condition : Horizontal Project Number: 2401X29266E-RF_ANT1 Tester : Karl Xu Note : 2.4Gwifi_b_2462 Freq / Factor / Read Level / Limit Level / Limit Line / Over Limit / Remark MHz / dB/m / dBuV / dBuV/m / dBuV/m / dB 1 3835.729 -0.77 36.39 35.62 54.00 -18.38 Average 2 3835.729 -0.77 48.11 47.34 74.00 -26.66 Peak

Vertical

1-4GHz

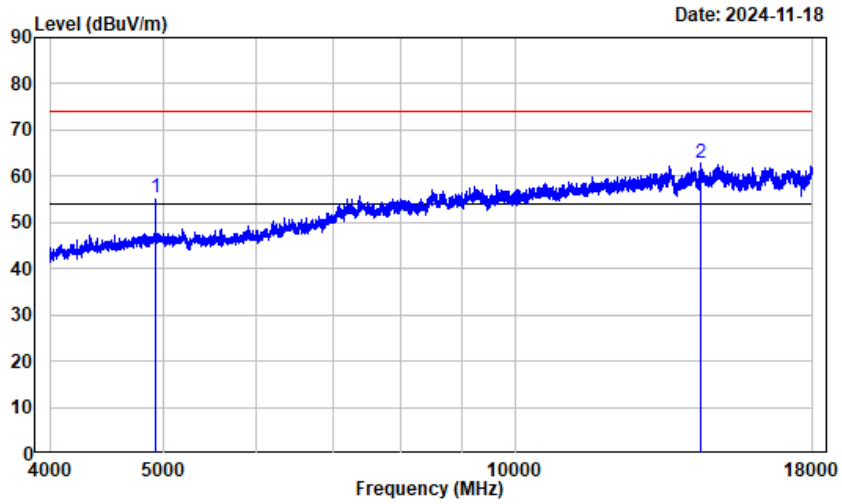



```
Condition      : Vertical
Project Number: 2401X29266E-RF_ANT1
Tester         : Karl Xu
Note           : 2.4Gwifi_b_2462
```

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3709.714	-1.11	36.87	35.76	54.00	-18.24	Average
2	3709.714	-1.11	49.82	48.71	74.00	-25.29	Peak

Horizontal-Peak

4-18GHz

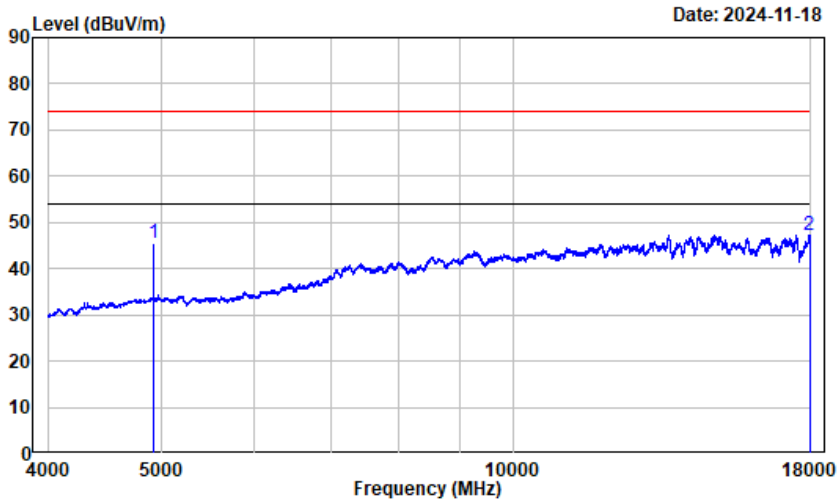


Condition : Horizontal
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
Note : 2.4Gwifi_b_2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	52.83	55.46	74.00	-18.54	Peak
2	14420.800	17.28	45.56	62.84	74.00	-11.16	Peak

Horizontal-Average

4-18GHz



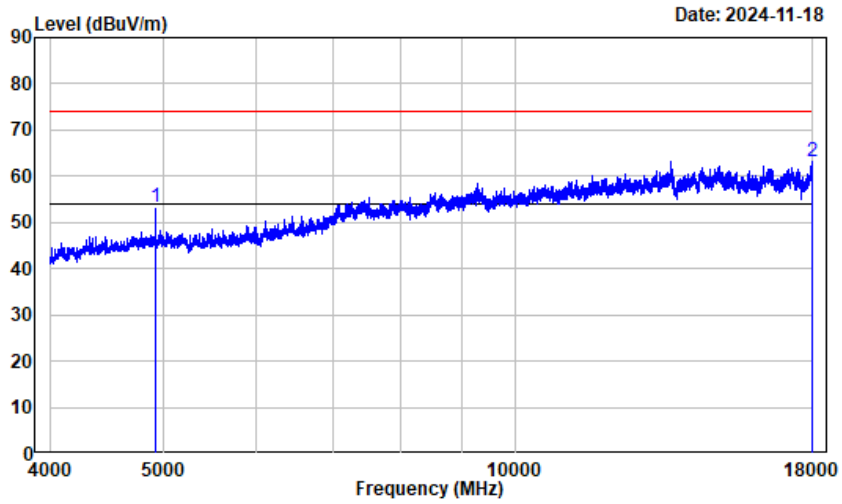
Condition : Horizontal
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
Note : 2.4Gwifi_b_2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	42.96	45.59	54.00	-8.41	Average
2	17956.240	24.31	23.05	47.36	54.00	-6.64	Average

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

Vertical-Peak

4-18GHz

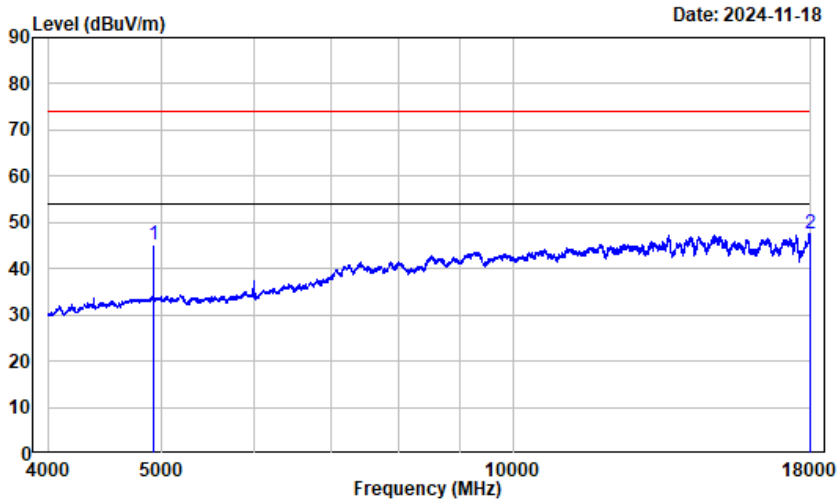


Condition : Vertical
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
Note : 2.4Gwifi_b_2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	50.77	53.40	74.00	-20.60	Peak
2	17966.750	24.39	38.75	63.14	74.00	-10.86	Peak

Vertical-Average

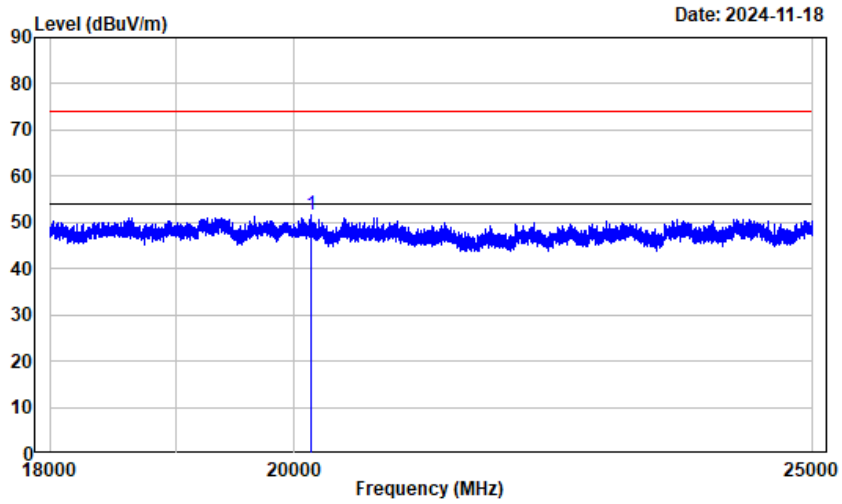
4-18GHz

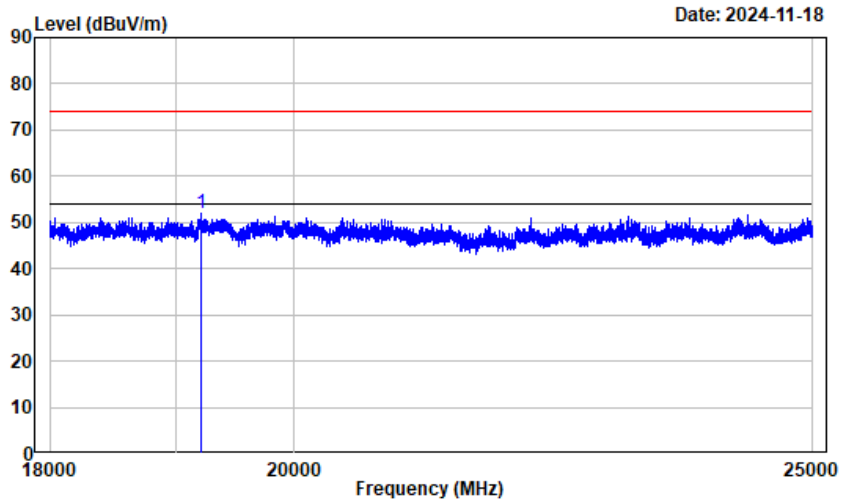


Condition : Vertical
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
Note : 2.4Gwifi_b_2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	42.56	45.19	54.00	-8.81	Average
2	17994.750	24.58	23.09	47.67	54.00	-6.33	Average

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

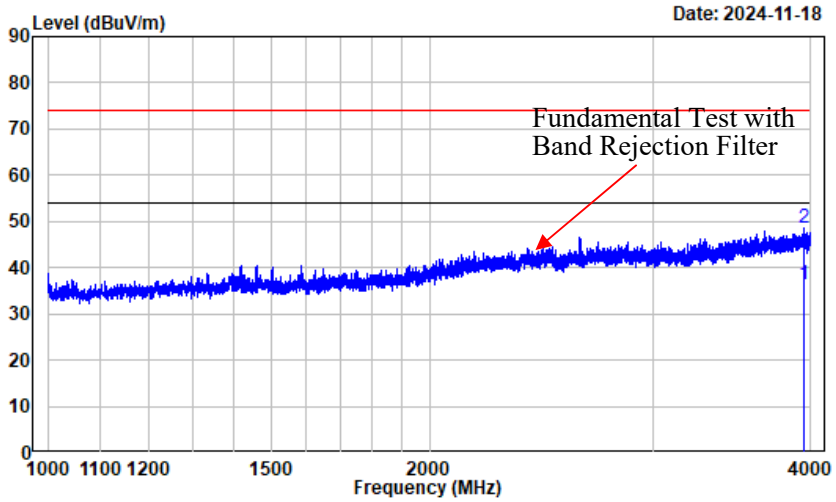
Horizontal	
18-25GHz	 Condition : Horizontal Project Number: 2401X29266E-RF_ANT1 Tester : Karl Xu Note : 2.4Gwifi_b_2462 Freq / Factor / Read Level / Limit Level / Limit Line / Over Limit / Remark MHz / dB/m / dBuV / dBuV/m / dBuV/m / dB 1 20137.890 15.48 36.12 51.60 74.00 -22.40 Peak

Vertical	
18-25GHz	 Condition : Vertical Project Number: 2401X29266E-RF_ANT1 Tester : Karl Xu Note : 2.4Gwifi_b_2462 Freq / Factor / Read Level / Limit Level / Limit Line / Over Limit / Remark MHz / dB/m / dBuV / dBuV/m / dBuV/m / dB 1 19213.780 15.30 36.68 51.98 74.00 -22.02 Peak

802.11g

Horizontal

1-4GHz

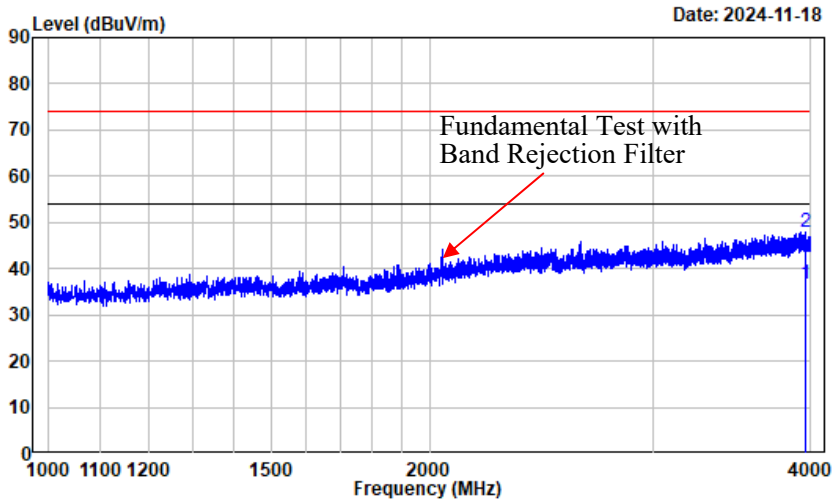



```
Condition      : Horizontal
Project Number: 2401X29266E-RF_ANT1
Tester         : Karl Xu
Note           : 2.4Gwifi_g_2462
```

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3947.118	-0.20	36.48	36.28	54.00	-17.72	Average
2	3947.118	-0.20	48.74	48.54	74.00	-25.46	Peak

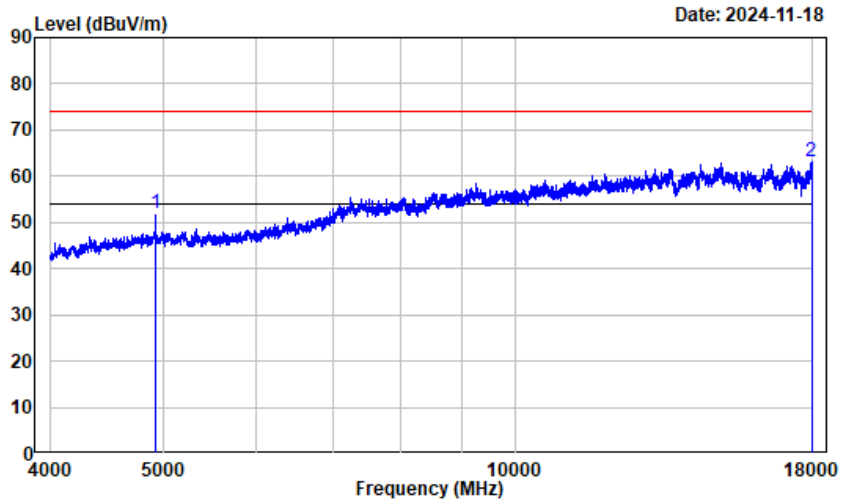
Vertical

1-4GHz



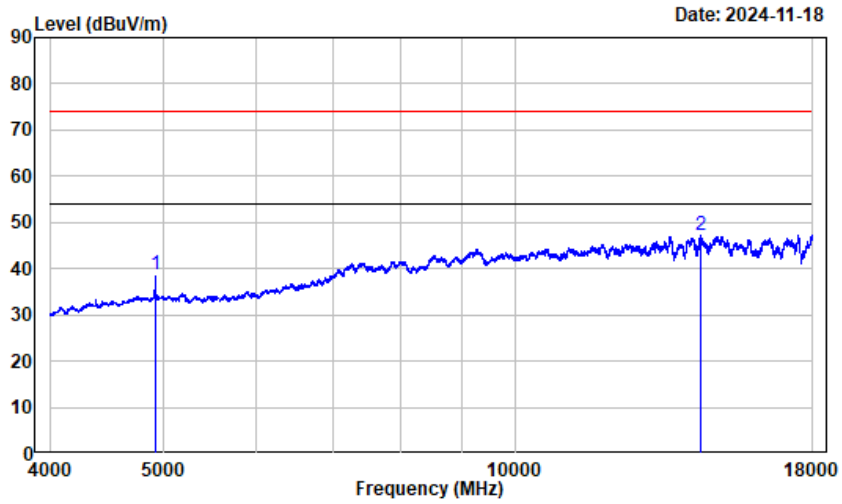
Condition : Vertical
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
Note : 2.4Gwifi_g_2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3958.745	-0.18	36.99	36.81	54.00	-17.19	Average
2	3958.745	-0.18	48.04	47.86	74.00	-26.14	Peak

Horizontal-Peak	
4-18GHz	 Condition : Horizontal Project Number: 2401X29266E-RF_ANT1 Tester : Karl Xu Note : 2.4Gwifi_g_2462 Freq / Factor / Read Level / Limit Level / Limit Line / Over Limit / Remark MHz / dB/m / dBuV / dBuV/m / dBuV/m / dB 1 4924.000 2.63 49.42 52.05 74.00 -21.95 Peak 2 17957.990 24.33 38.79 63.12 74.00 -10.88 Peak

Horizontal-Average

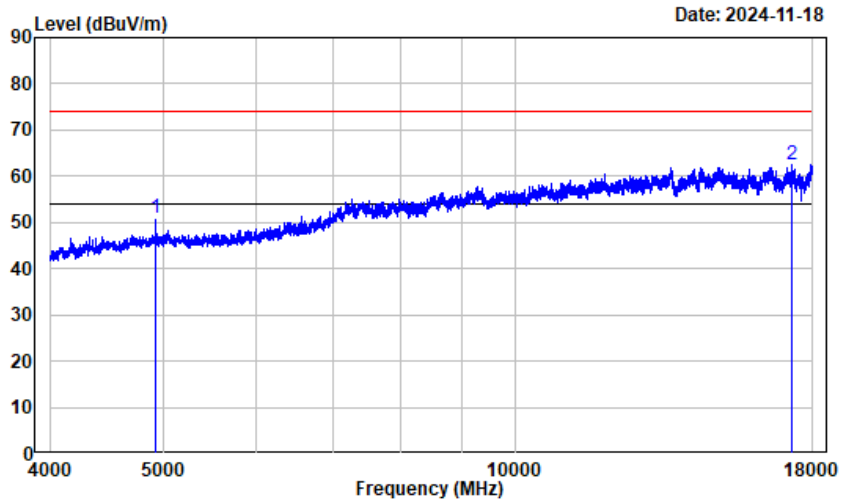
4-18GHz



Condition : Horizontal
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
Note : 2.4Gwifi_g_2462

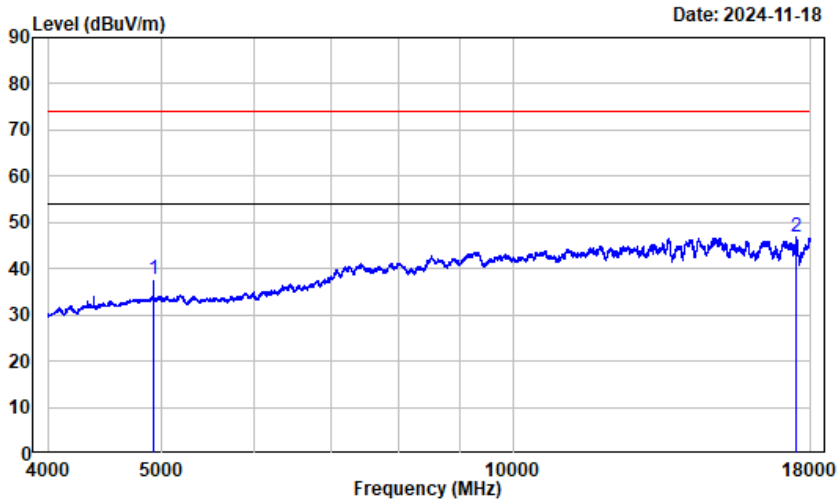
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	36.01	38.64	54.00	-15.36	Average
2	14429.550	17.31	29.90	47.21	54.00	-6.79	Average

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

Vertical-Peak	
4-18GHz	 Condition : Vertical Project Number: 2401X29266E-RF_ANT1 Tester : Karl Xu 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 | 4924.116 | 2.63 | 48.44 | 51.07 | 74.00 | -22.93 | Average | | 2 | 17266.660 | 19.11 | 43.51 | 62.62 | 74.00 | -11.38 | Peak |

Vertical-Average

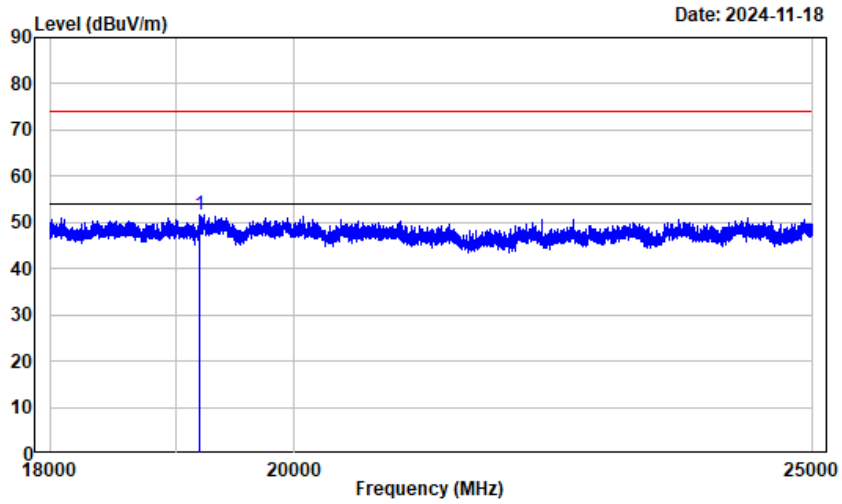
4-18GHz



Condition : Vertical
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
Note : 2.4Gwifi_g_2462

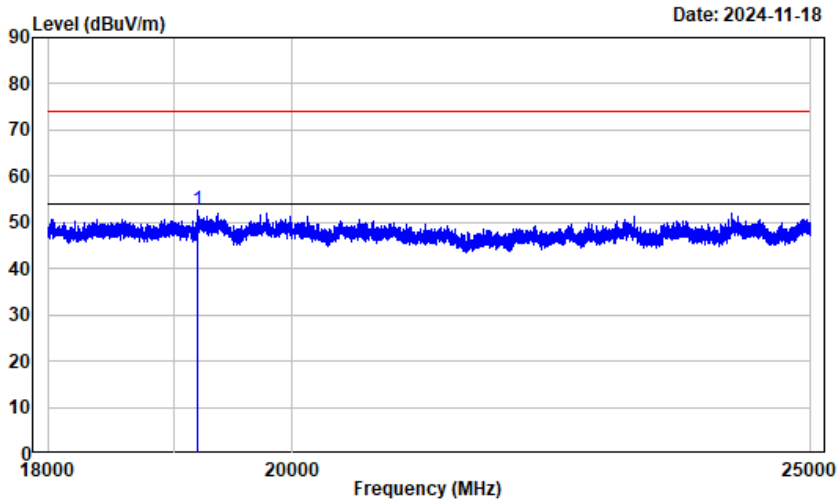
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	35.13	37.76	54.00	-16.24	Average
2	17508.190	20.39	26.43	46.82	54.00	-7.18	Average

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

Horizontal	
18-25GHz	 Condition : Horizontal Project Number: 2401X29266E-RF_ANT1 Tester : Karl Xu Note : 2.4Gwifi_g_2462 Freq / Factor / Read Level / Limit Level / Limit Line / Over Limit / Remark MHz / dB/m / dBuV / dBuV/m / dBuV/m / dB 1 19203.280 15.32 36.44 51.76 74.00 -22.24 Peak

Vertical

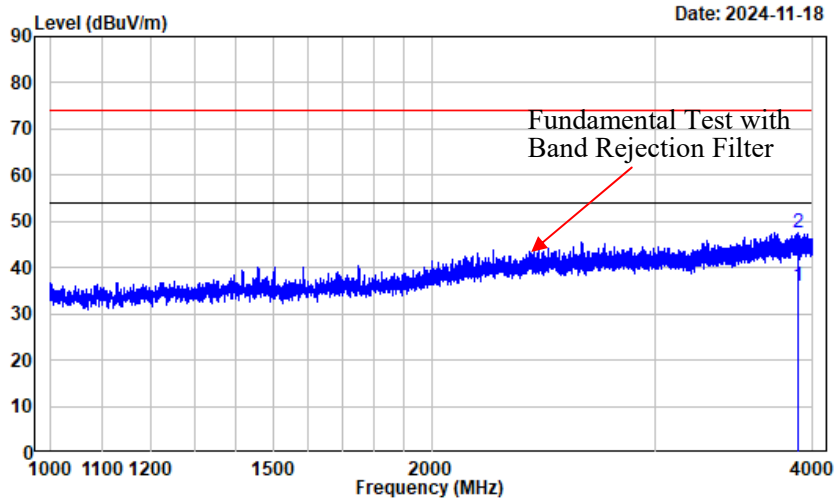
18-25GHz

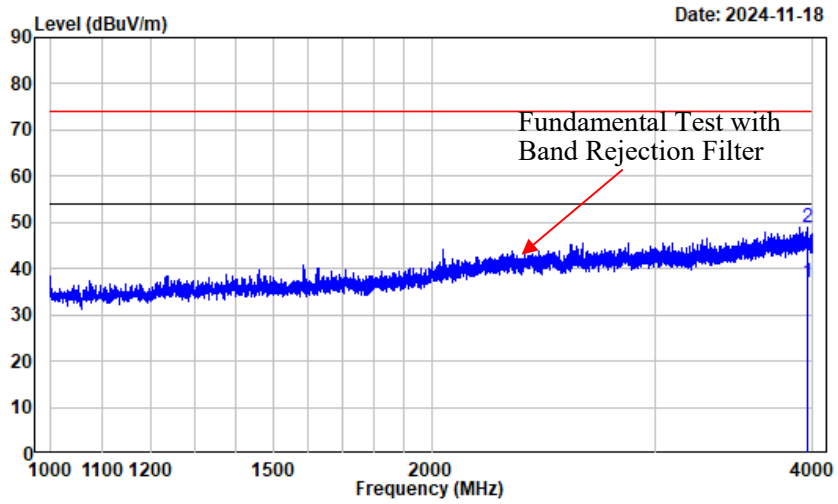


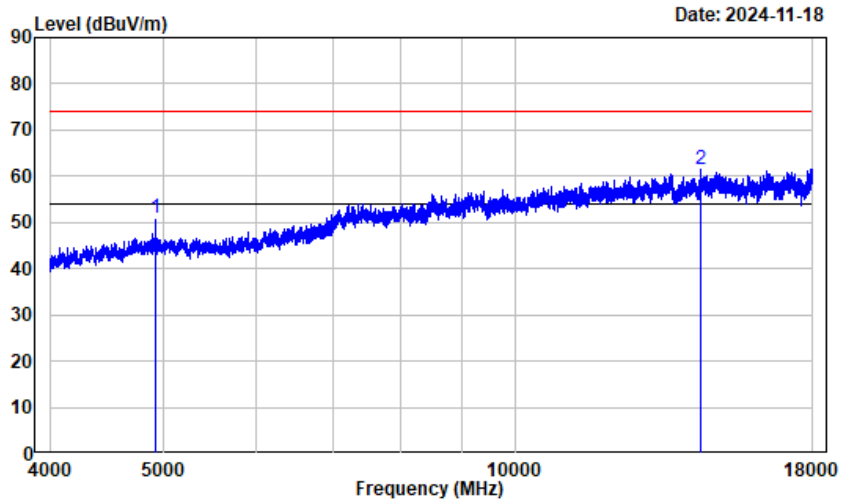
Condition : Vertical
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
Note : 2.4Gwifi_g_2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	19202.400	15.32	37.34	52.66	74.00	-21.34	Peak

802.11n20

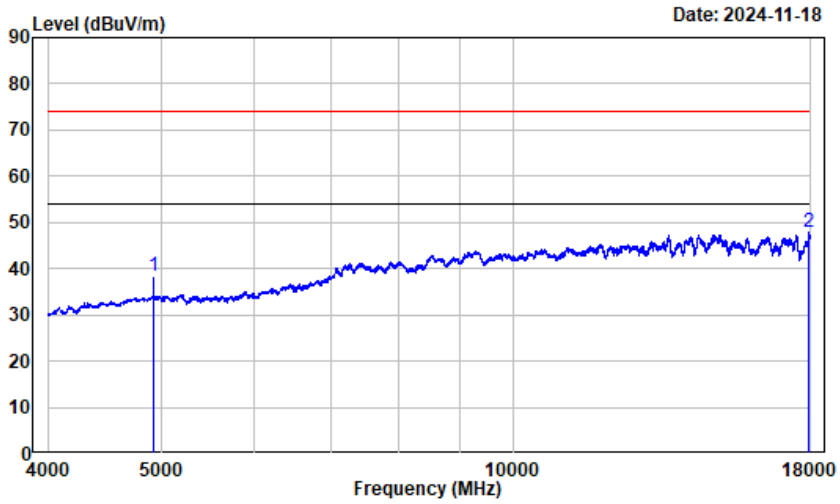
Horizontal	
1-4GHz	 Condition : Horizontal Project Number: 2401X29266E-RF_ANT1 Tester : Karl Xu Note : 2.4Gwifi_n20_2462 Freq / Factor / Read Level / Limit Level / Limit Line / Over Limit / Remark MHz / dB/m / dBuV / dBuV/m / dBuV/m / dB 1 3896.112 -0.55 36.59 36.04 54.00 -17.96 Average 2 3896.112 -0.55 48.05 47.50 74.00 -26.50 Peak

Vertical	
1-4GHz	 Condition : Vertical Project Number: 2401X29266E-RF_ANT1 Tester : Karl Xu Note : 2.4Gwifi_n20_2462 Freq / Factor / Read Level / Limit Level / Limit Line / Over Limit / Remark MHz / dB/m / dBuV / dBuV/m / dBuV/m / dB 1 3965.871 -0.18 37.18 37.00 54.00 -17.00 Average 2 3965.871 -0.18 49.20 49.02 74.00 -24.98 Peak

Horizontal-Peak	
4-18GHz	 Condition : Horizontal Project Number: 2401X29266E-RF_ANT1 Tester : Karl Xu 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 48.45 51.08 74.00 -22.92 Peak 2 14417.300 17.27 44.20 61.47 74.00 -12.53 Peak

Horizontal-Average

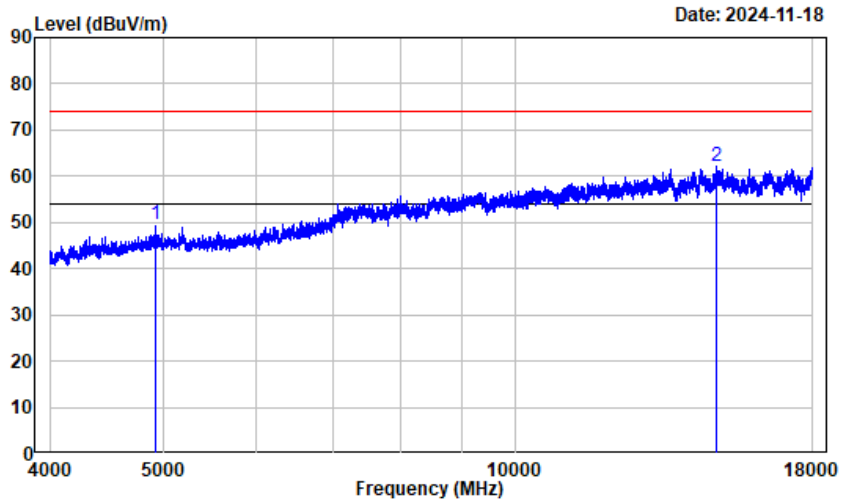
4-18GHz



Condition : Horizontal
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
Note : 2.4Gwifi_n20_2462

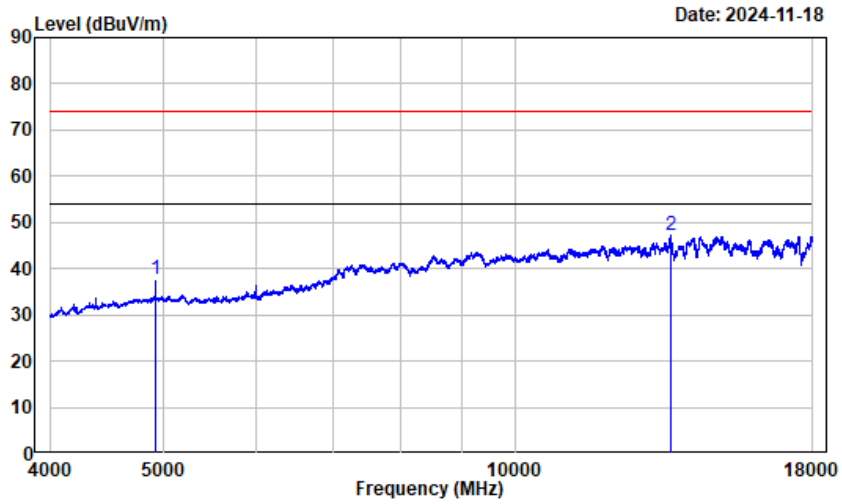
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	35.82	38.45	54.00	-15.55	Average
2	17952.740	24.29	23.49	47.78	54.00	-6.22	Average

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

Vertical-Peak	
4-18GHz	 Condition : Vertical Project Number: 2401X29266E-RF_ANT1 Tester : Karl Xu 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 | 47.04 | 49.67 | 74.00 | -24.33 | Peak | | 2 | 14877.610 | 16.65 | 45.35 | 62.00 | 74.00 | -12.00 | Peak |

Vertical-Average

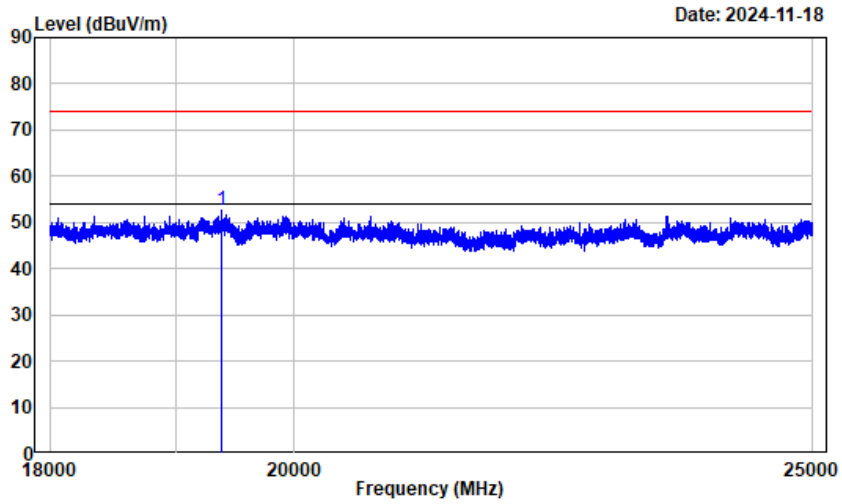
4-18GHz

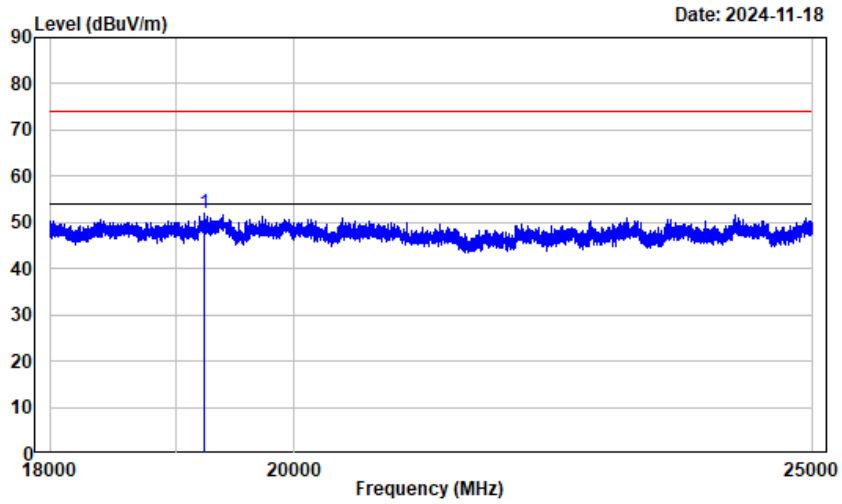


Condition : Vertical
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
Note : 2.4Gwifi_n20_2462

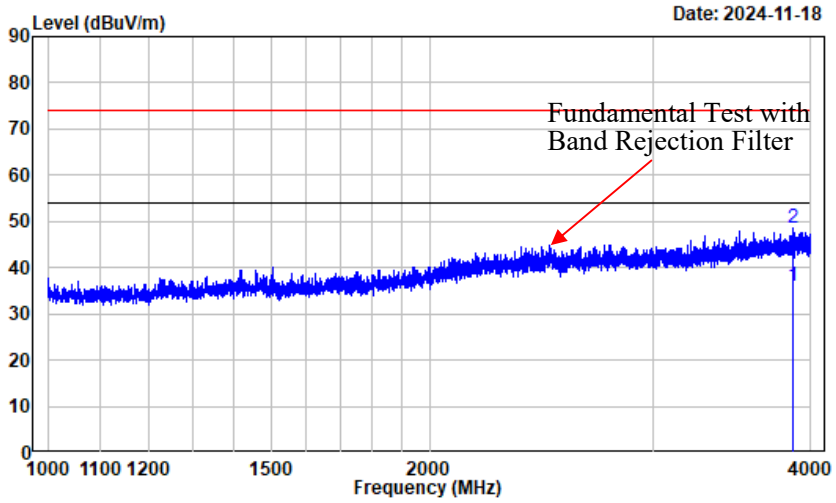
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	35.02	37.65	54.00	-16.35	Average
2	13601.700	15.25	31.92	47.17	54.00	-6.83	Average

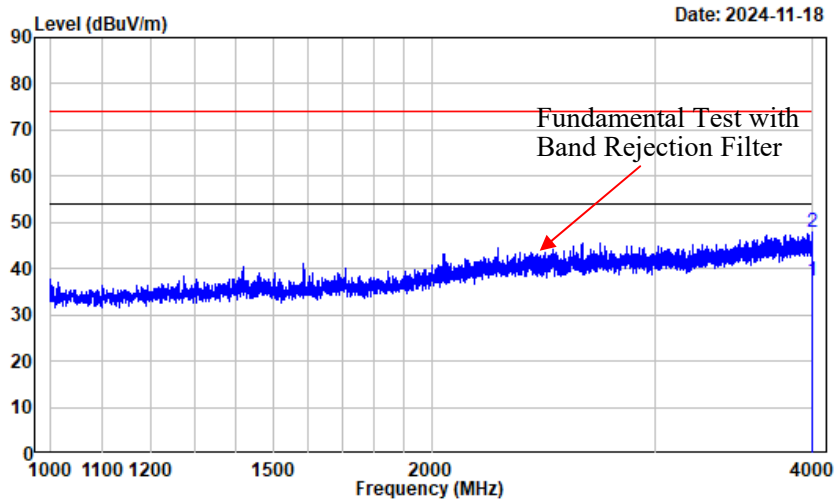
Note: Spectrum Analyzer Setting: RBW=1MHz, VBW=5kHz

Horizontal	
18-25GHz	 Condition : Horizontal Project Number: 2401X29266E-RF_ANT1 Tester : Karl Xu Note : 2.4Gwifi_n20_2462 Freq / Factor / Read Level / Limit Level / Limit Line / Over Limit / Remark MHz / dB/m / dBuV / dBuV/m / dBuV/m / dB 1 19383.550 15.11 37.40 52.51 74.00 -21.49 Peak

Vertical	
18-25GHz	 Condition : Vertical Project Number: 2401X29266E-RF_ANT1 Tester : Karl Xu Note : 2.4Gwifi_n20_2462 Freq / Factor / Read Level / Limit Level / Limit Line / Over Limit / Remark MHz / dB/m / dBuV / dBuV/m / dBuV/m / dB 1 19236.530 15.28 36.62 51.90 74.00 -22.10 Peak

802.11n40

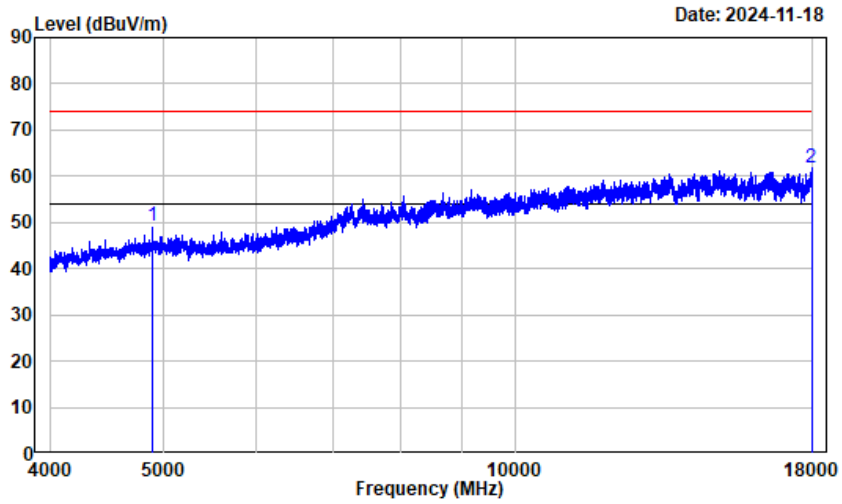
Horizontal	
1-4GHz	 Condition : Horizontal Project Number: 2401X29266E-RF_ANT1 Tester : Karl Xu Note : 2.4Gwifi_n40_2452 Freq / Factor / Read Level / Limit Level / Limit Line / Over Limit / Remark MHz / dB/m / dBuV / dBuV/m / dBuV/m / dB 1 3876.610 -0.65 36.55 35.90 54.00 -18.10 Average 2 3876.610 -0.65 49.09 48.44 74.00 -25.56 Peak

Vertical	
1-4GHz	 Condition : Vertical Project Number: 2401X29266E-RF_ANT1 Tester : Karl Xu 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	3995.125	-0.20	37.42	37.22	54.00	-16.78	Average
2	3995.125	-0.20	47.95	47.75	74.00	-26.25	Peak

Horizontal-Peak

4-18GHz

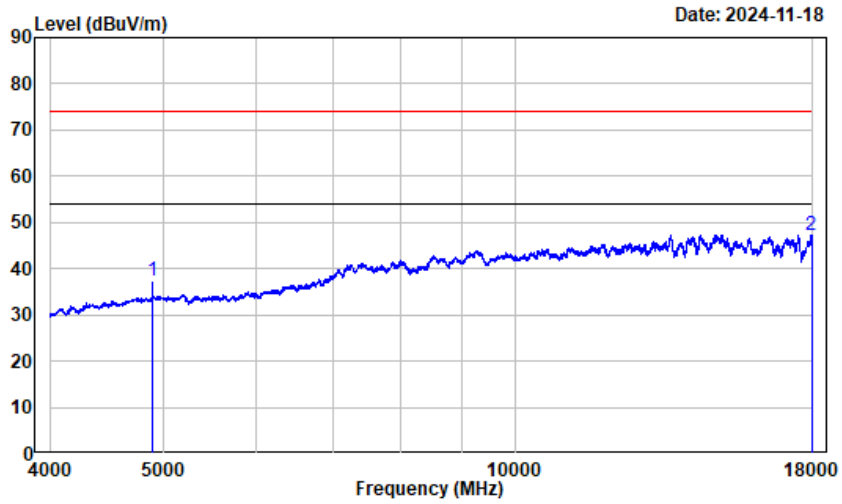


Condition : Horizontal
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
Note : 2.4Gwifi_n40_2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4904.000	2.64	46.57	49.21	74.00	-24.79	Peak
2	17957.990	24.33	37.63	61.96	74.00	-12.04	Peak

Horizontal-Average

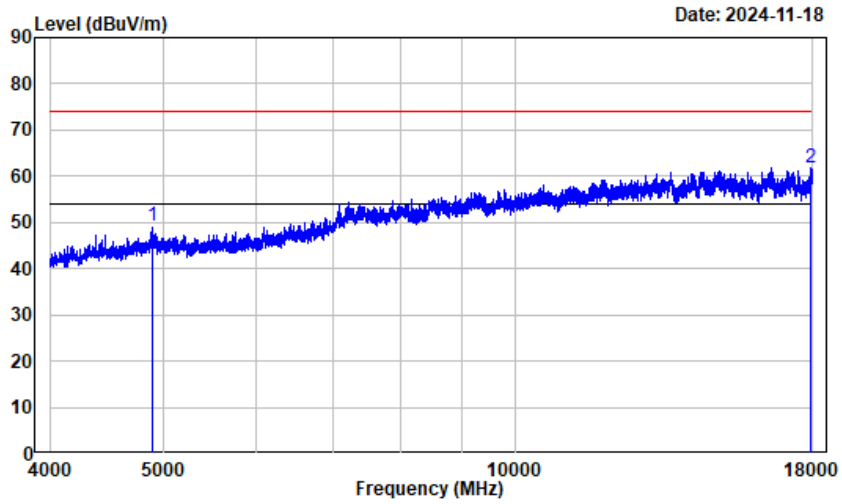
4-18GHz



Condition : Horizontal
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
Note : 2.4Gwifi_n40_2452

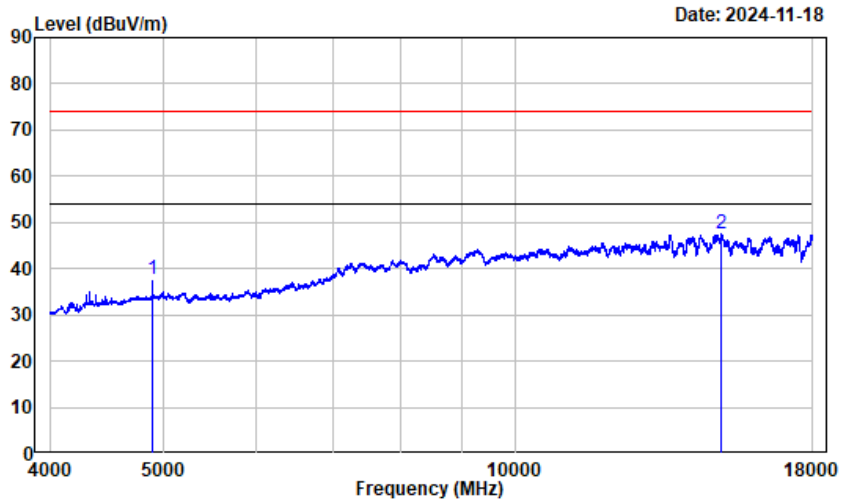
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4904.000	2.64	34.75	37.39	54.00	-16.61	Average
2	17956.240	24.31	23.06	47.37	54.00	-6.63	Average

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

Vertical-Peak	
4-18GHz	 Condition : Vertical Project Number: 2401X29266E-RF_ANT1 Tester : Karl Xu 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 46.70 49.34 74.00 -24.66 Peak 2 17952.740 24.29 37.41 61.70 74.00 -12.30 Peak

Vertical-Average

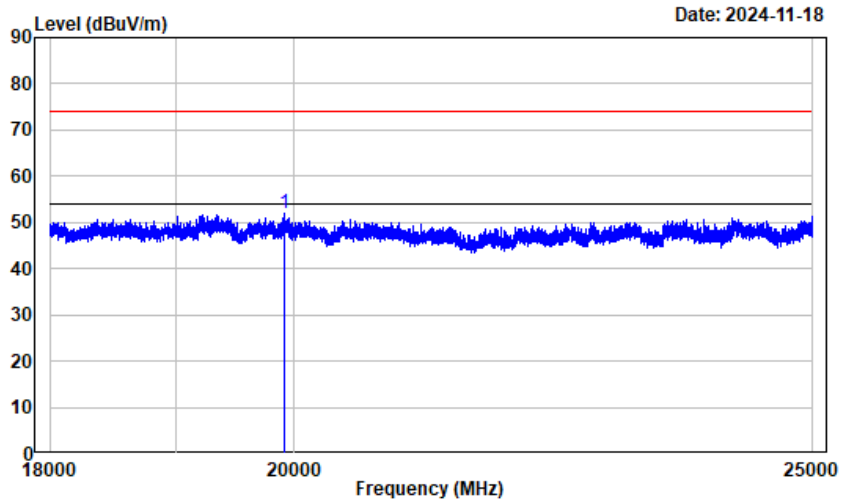
4-18GHz

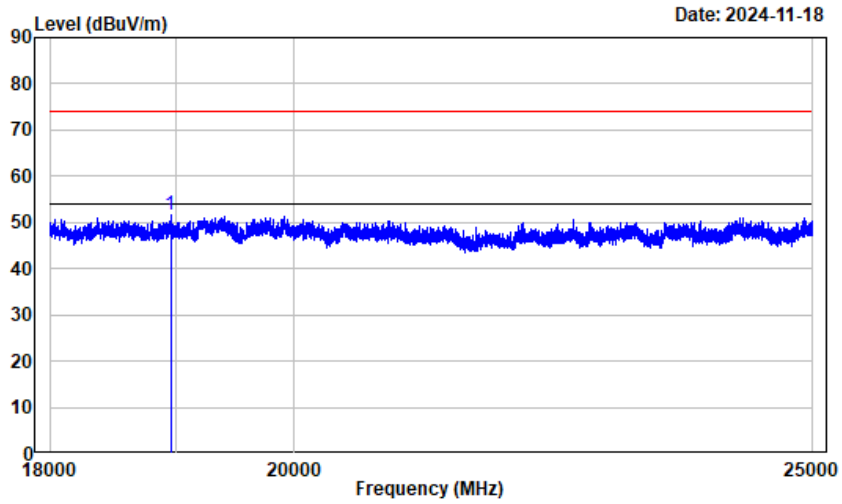


Condition : Vertical
Project Number: 2401X29266E-RF_ANT1
Tester : Karl Xu
Note : 2.4Gwifi_n40_2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4904.000	2.64	34.91	37.55	54.00	-16.45	Average
2	15047.380	16.10	31.35	47.45	54.00	-6.55	Average

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

Horizontal	
18-25GHz	 Condition : Horizontal Project Number: 2401X29266E-RF_ANT1 Tester : Karl Xu Note : 2.4Gwifi_n40_2452 Freq / Factor / Read Level / Limit Level / Limit Line / Over Limit / Remark MHz / dB/m / dBuV / dBuV/m / dBuV/m / dB 1 19915.620 15.42 36.47 51.89 74.00 -22.11 Peak

Vertical	
18-25GHz	 Condition : Vertical Project Number: 2401X29266E-RF_ANT1 Tester : Karl Xu Note : 2.4Gwifi_n40_2452 Freq / Factor / Read Level / Limit Level / Limit Line / Over Limit / Remark MHz / dB/m / dBuV / dBuV/m / dBuV/m / dB 1 18959.990 15.15 36.54 51.69 74.00 -22.31 Peak

FCC §15.247(a) (2) - 6 dB EMISSION BANDWIDTH

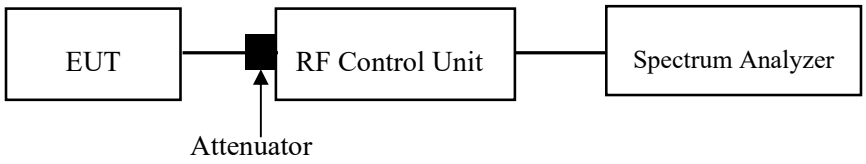
Applicable Standard

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 & Clause 6.9.3

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 it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 6 dB from the reference level. Record the frequency difference as the emission bandwidth.
4. Repeat above procedures until all frequencies measured were complete.



Test Data

Environmental Conditions

Temperature:	25 ℃
Relative Humidity:	55 %
ATM Pressure:	101 kPa

The testing was performed by Navilite Cai on 2024-11-05.

EUT operation mode: Transmitting

Test Result: Compliant. Please refer to the Appendix.

FCC §15.247(b) (3) - MAXIMUM CONDUCTED OUTPUT POWER

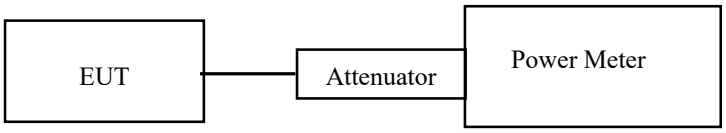
Applicable Standard

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 11.9.2.3 & 11.9.2.3.2

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.

Test Data

Environmental Conditions

Temperature:	25 ℃
Relative Humidity:	55 %
ATM Pressure:	101 kPa

The testing was performed by Navilite Cai on 2024-11-05.

EUT operation mode: Transmitting

Test Result: Compliant. Please refer to the Appendix.

FCC §15.247(d) - 100 kHz BANDWIDTH OF FREQUENCY BAND EDGE

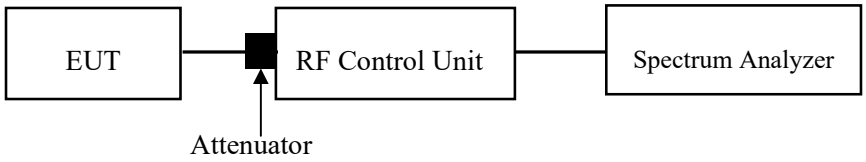
Applicable Standard

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.



Test Data

Environmental Conditions

Temperature:	25 ℃
Relative Humidity:	55 %
ATM Pressure:	101 kPa

The testing was performed by Navilite Cai on 2024-11-05.

EUT operation mode: Transmitting

Test Result: Compliant. Please refer to the Appendix.

FCC §15.247(e) - POWER SPECTRAL DENSITY

Applicable Standard

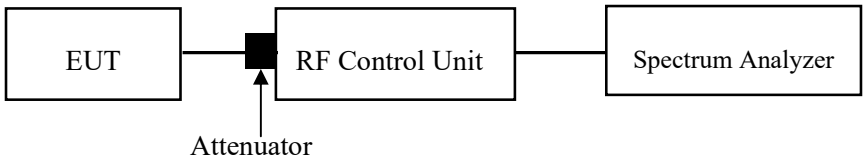
For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of 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.

Test Data

Environmental Conditions

Temperature:	25 ℃
Relative Humidity:	55 %
ATM Pressure:	101 kPa

The testing was performed by Navilite Cai on 2024-11-05.

EUT operation mode: Transmitting

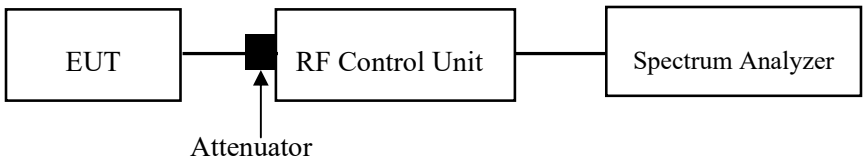
Test Result: Compliant. Please refer to the Appendix.

C63.10 §11.6- 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.)



Test Data

Environmental Conditions

Temperature:	25~28 ℃
Relative Humidity:	52~55 %
ATM Pressure:	101 kPa

The testing was performed by Navilite Cai from 2024-11-05 to 2024-11-25.

EUT operation mode: Transmitting

Test Result: Compliant. Please refer to the Appendix.

EUT PHOTOGRAPHS

Please refer to the attachment 2401X29266E-RF External photo and 2401X29266E-RF Internal photo.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2401X29266E-RF Test Setup photo.

APPENDIX_ ANT1

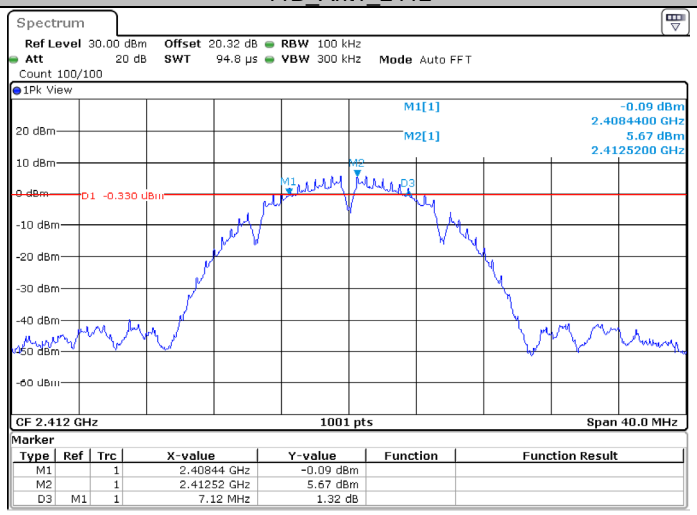
Appendix A: DTS Bandwidth

Test Result

Test Mode	Antenna	Freq.[MHz]	DTS BW [MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	7.12	0.5	PASS
		2437	7.08	0.5	PASS
		2462	7.08	0.5	PASS
11G	Ant1	2412	14.44	0.5	PASS
		2437	15.80	0.5	PASS
		2462	15.08	0.5	PASS
11N20SISO	Ant1	2412	16.04	0.5	PASS
		2437	15.08	0.5	PASS
		2462	15.44	0.5	PASS
11N40SISO	Ant1	2422	35.12	0.5	PASS
		2437	35.12	0.5	PASS
		2452	35.12	0.5	PASS

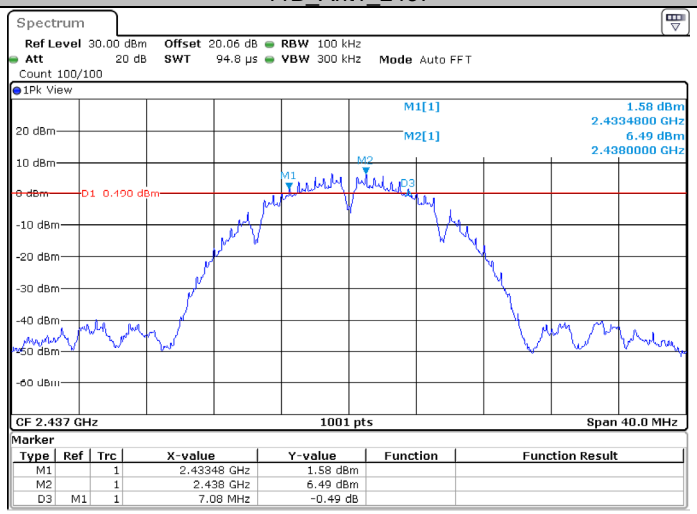
Test Graphs

11B_Ant1_2412



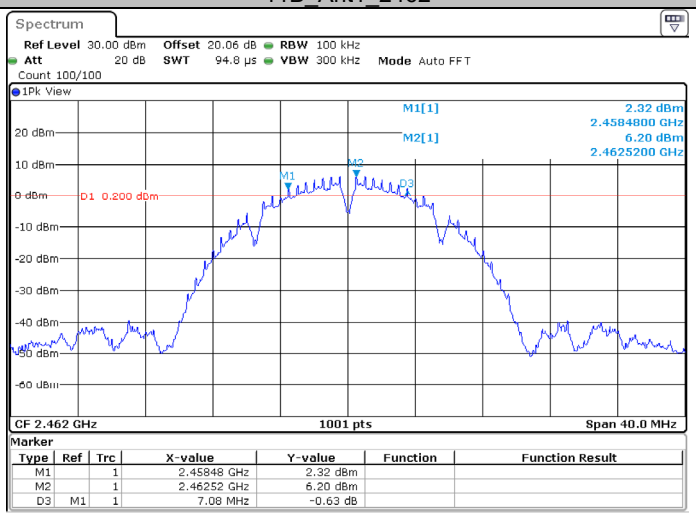
ProjectNo.:2401X29266E-RF-1 Tester:Navilite.Cai
Date: 5.NOV.2024 10:21:26

11B_Ant1_2437



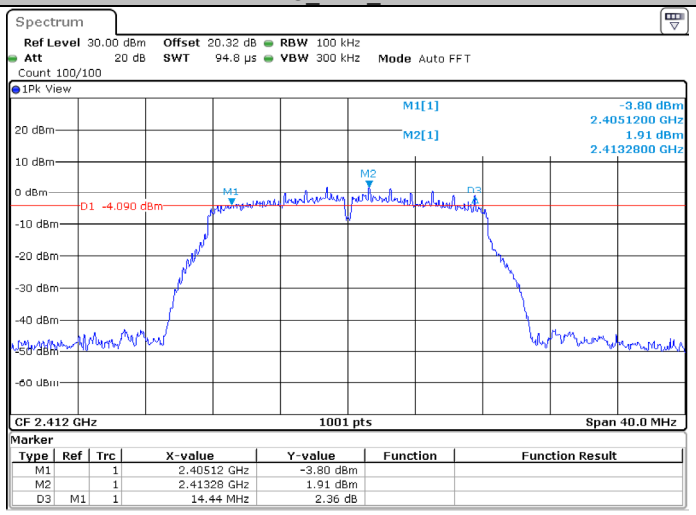
ProjectNo.:2401X29266E-RF-1 Tester:Navilite.Cai
Date: 5.NOV.2024 10:28:36

11B_Ant1_2462



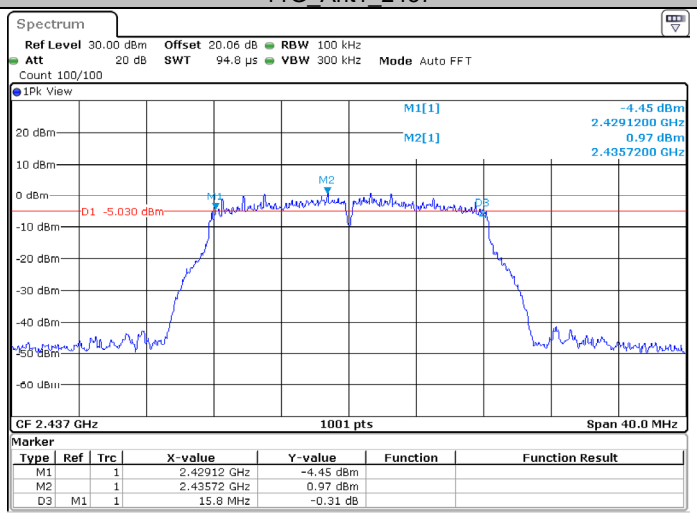
ProjectNo.:2401X29266E-RF-1 Tester:Navilite.Cai
Date: 5.NOV.2024 10:30:38

11G_Ant1_2412



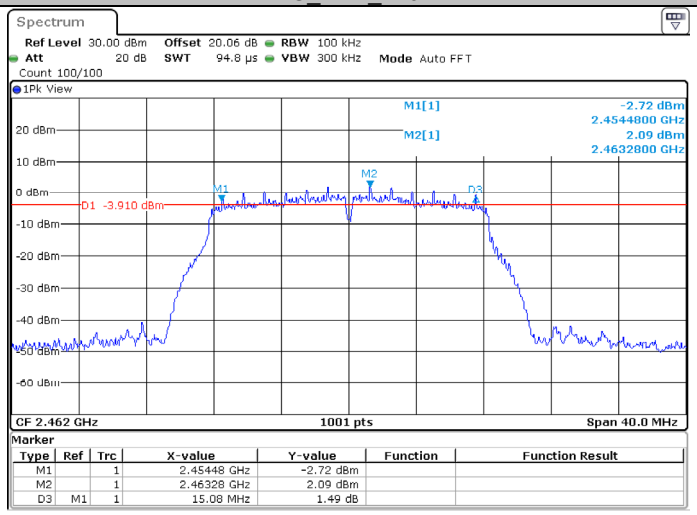
ProjectNo.:2401X29266E-RF-1 Tester:Navilite.Cai
Date: 5.NOV.2024 10:32:20

11G_Ant1_2437



ProjectNo.:2401X29266E-RF-1 Tester:Navilite.Cai
Date: 5.NOV.2024 10:33:49

11G_Ant1_2462



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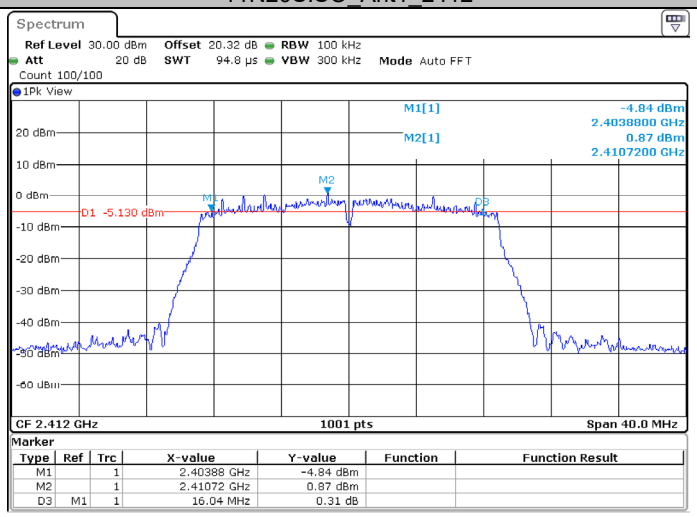
Date: 5.NOV.2024 10:35:17

11N20SISO_Ant1_2412



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Date: 5.NOV.2024 10:37:42

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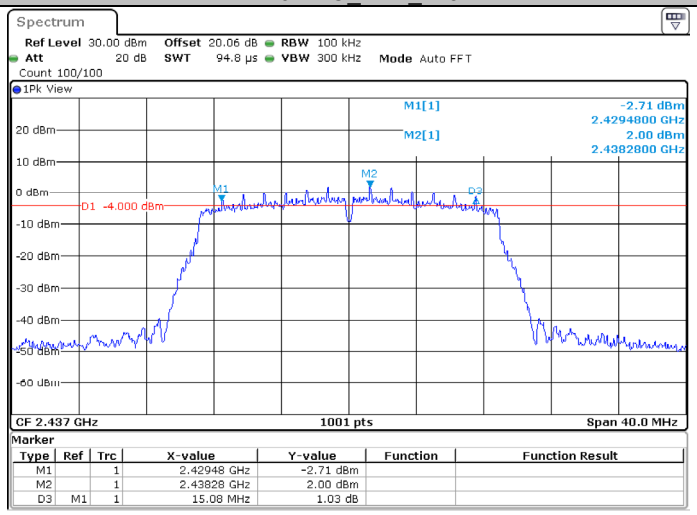

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Date: 5.NOV.2024 10:41:30

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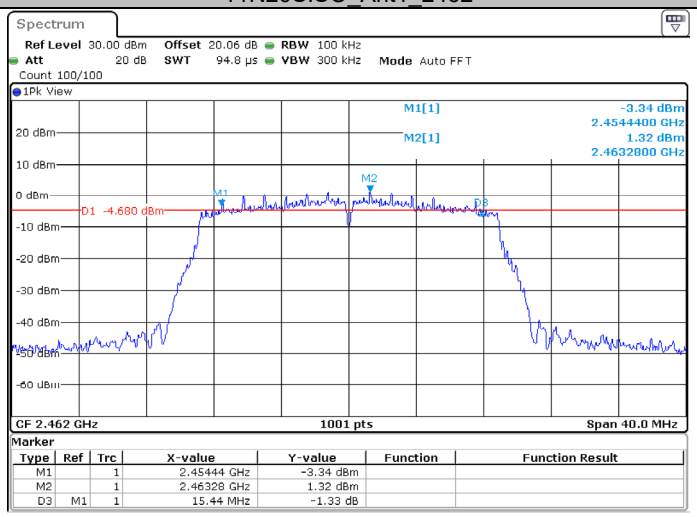
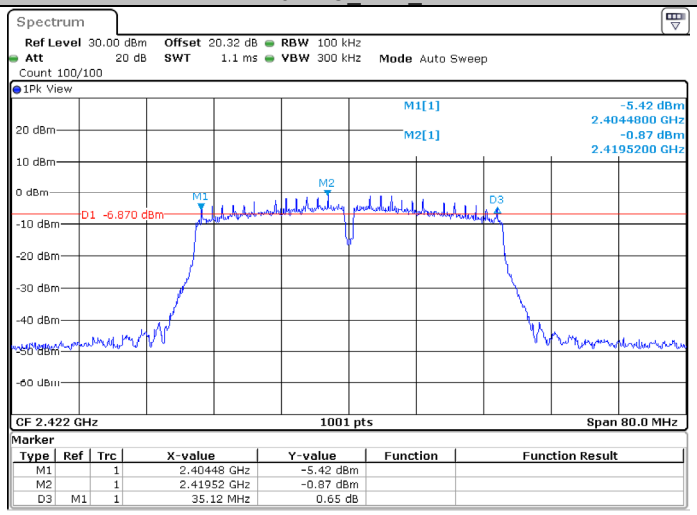


ProjectNo.:2401X29266E-RF-1 Tester:Navilite.Cai

Date: 5.NOV.2024 10:42:47

11N40SISO_Ant1_2422



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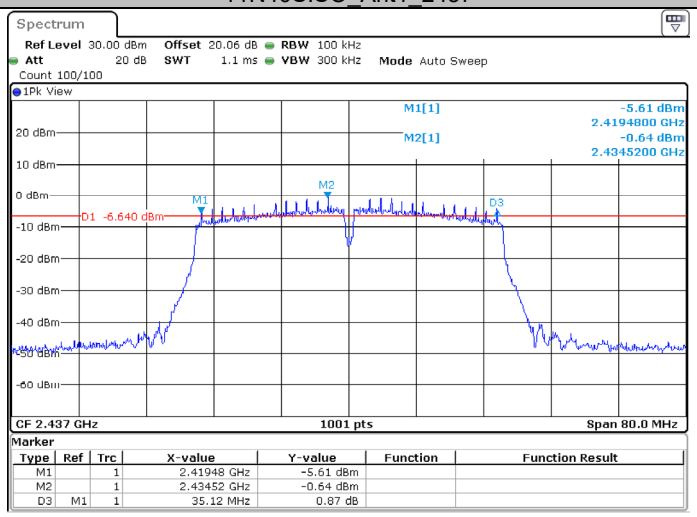
Date: 5.NOV.2024 10:46:01

11N40SISO_Ant1_2437



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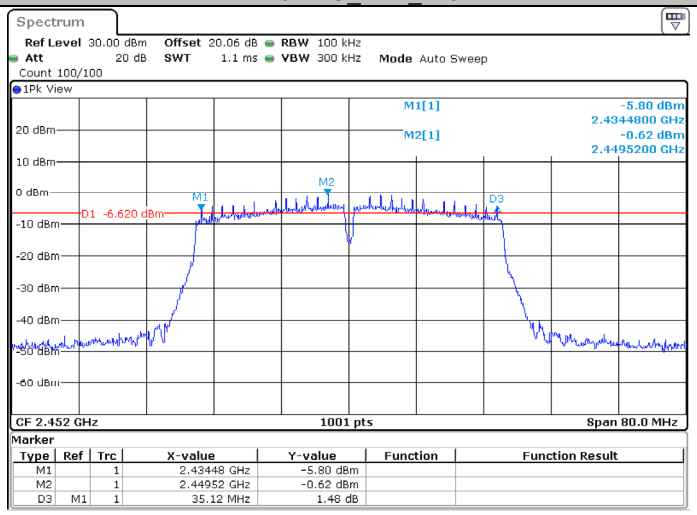
Date: 5.NOV.2024 10:47:29

11N40SISO_Ant1_2452



ProjectNo.:2401X29266E-RF-1 Tester:Navilite.Cai
Date: 5.NOV.2024 10:49:03

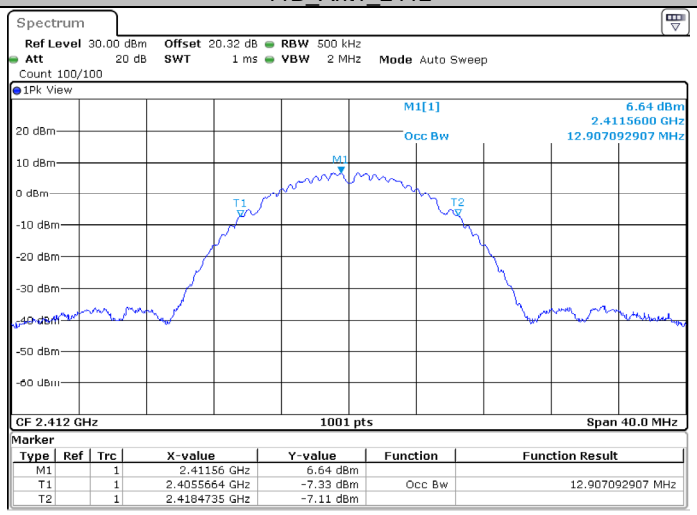
Appendix B: Occupied Channel Bandwidth

Test Result

Test Mode	Antenna	Freq. [MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	12.907	2405.5664	2418.4735	2400 to 2483.5	PASS
		2437	12.907	2430.6064	2443.5135	2400 to 2483.5	PASS
		2462	12.867	2455.6064	2468.4735	2400 to 2483.5	PASS
11G	Ant1	2412	17.183	2403.4486	2420.6314	2400 to 2483.5	PASS
		2437	17.183	2428.4486	2445.6314	2400 to 2483.5	PASS
		2462	17.183	2453.4486	2470.6314	2400 to 2483.5	PASS
11N20SISO	Ant1	2412	17.982	2403.049	2421.031	2400 to 2483.5	PASS
		2437	18.062	2428.009	2446.0709	2400 to 2483.5	PASS
		2462	18.062	2453.009	2471.0709	2400 to 2483.5	PASS
11N40SISO	Ant1	2422	36.444	2403.8581	2440.3017	2400 to 2483.5	PASS
		2437	36.364	2418.9381	2455.3017	2400 to 2483.5	PASS
		2452	36.364	2433.9381	2470.3017	2400 to 2483.5	PASS

Test Graphs

11B_Ant1_2412

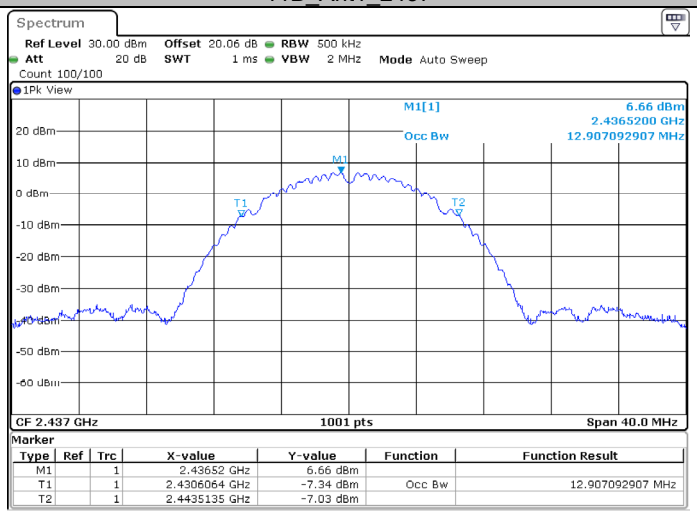


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.41156 GHz	6.64 dBm		
T1		1	2.4055664 GHz	-7.33 dBm	Occ Bw	12.907092907 MHz
T2		1	2.4184735 GHz	-7.11 dBm		

ProjectNo.:2401X29266E-RF-1 Tester:Navilite.Cai
Date: 5.NOV.2024 10:21:32

11B_Ant1_2437

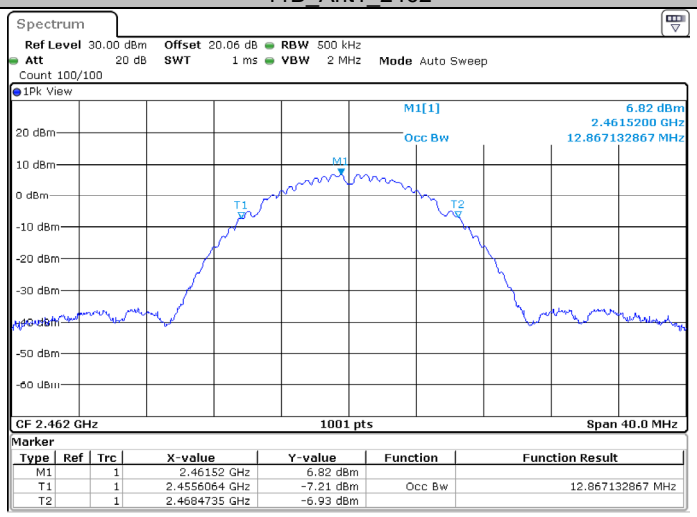


Marker

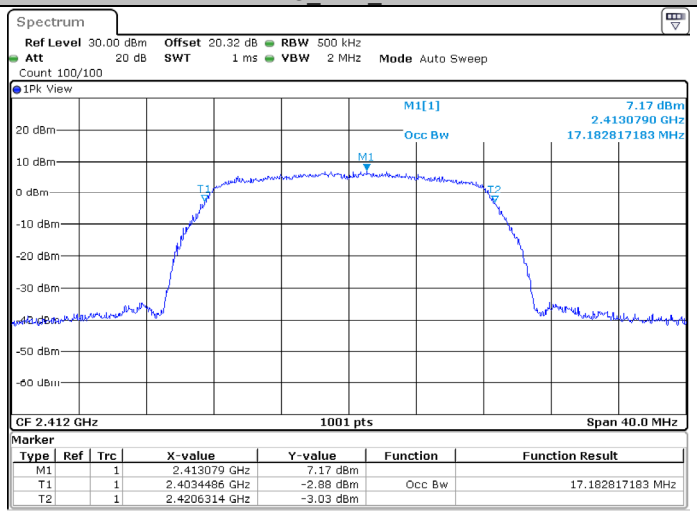
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.43652 GHz	6.66 dBm		
T1		1	2.4306064 GHz	-7.34 dBm	Occ Bw	12.907092907 MHz
T2		1	2.4435135 GHz	-7.03 dBm		

ProjectNo.:2401X29266E-RF-1 Tester:Navilite.Cai
Date: 5.NOV.2024 10:28:42

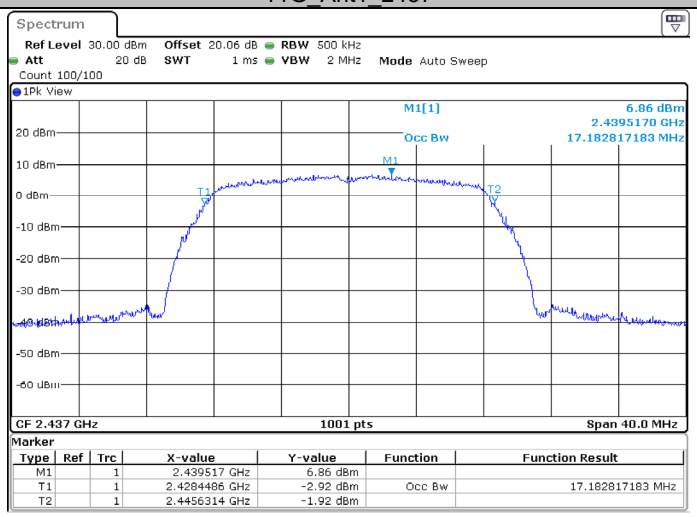
11B_Ant1_2462



11G_Ant1_2412



11G_Ant1_2437



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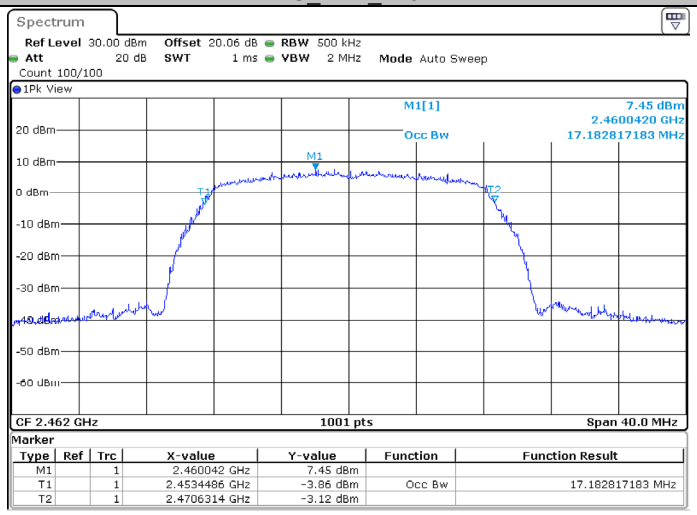
Date: 5.NOV.2024 10:33:54

11G_Ant1_2462



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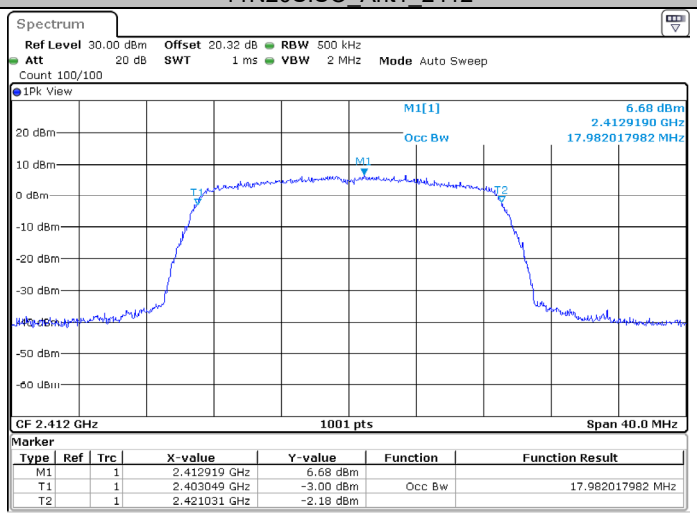
Date: 5.NOV.2024 10:35:23

11N20SISO_Ant1_2412



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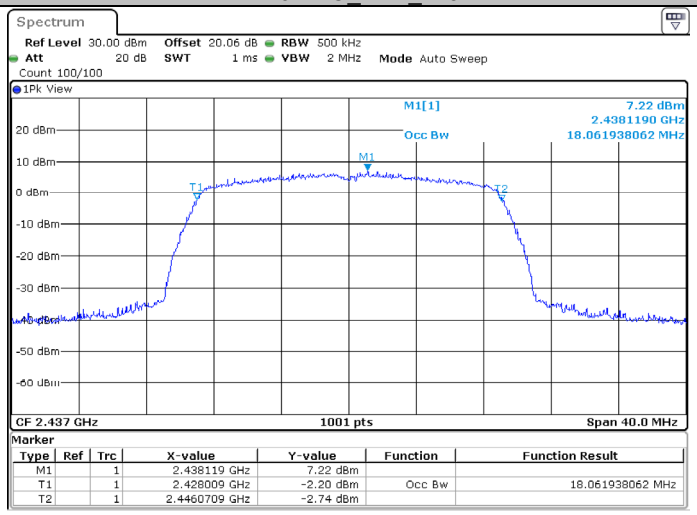
Date: 5.NOV.2024 10:37:48

11N20SISO_Ant1_2437



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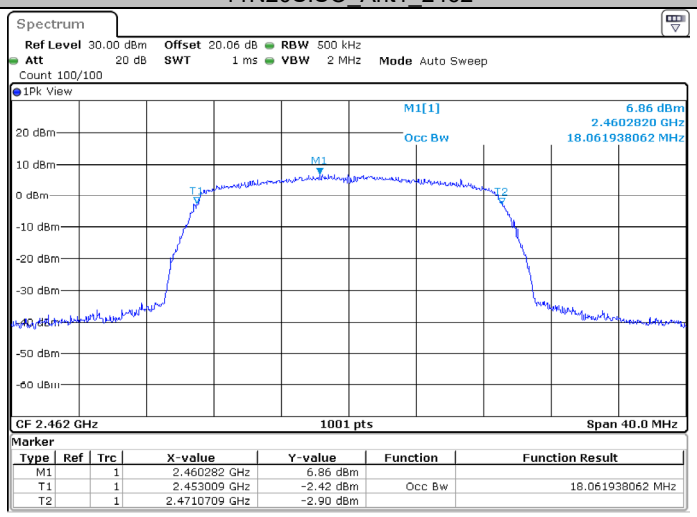
Date: 5.NOV.2024 10:41:35

11N20SISO_Ant1_2462



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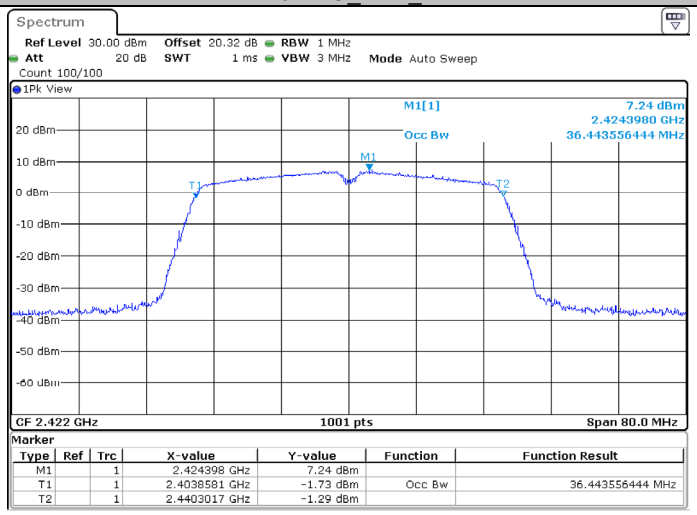
Date: 5.NOV.2024 10:42:53

11N40SISO_Ant1_2422



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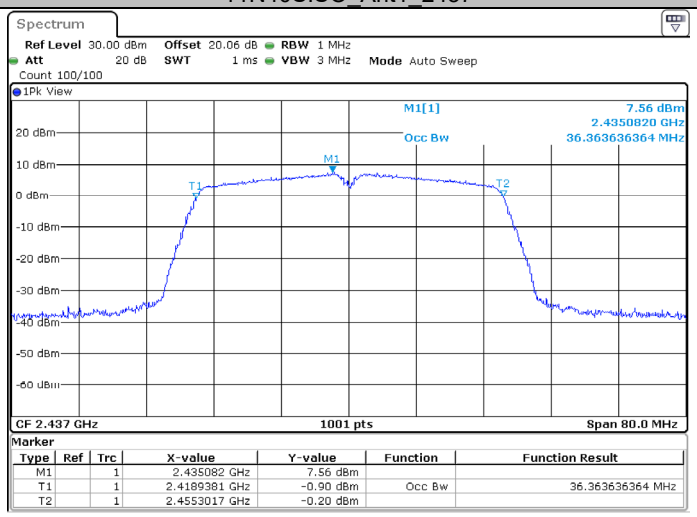
Date: 5.NOV.2024 10:46:07

11N40SISO_Ant1_2437



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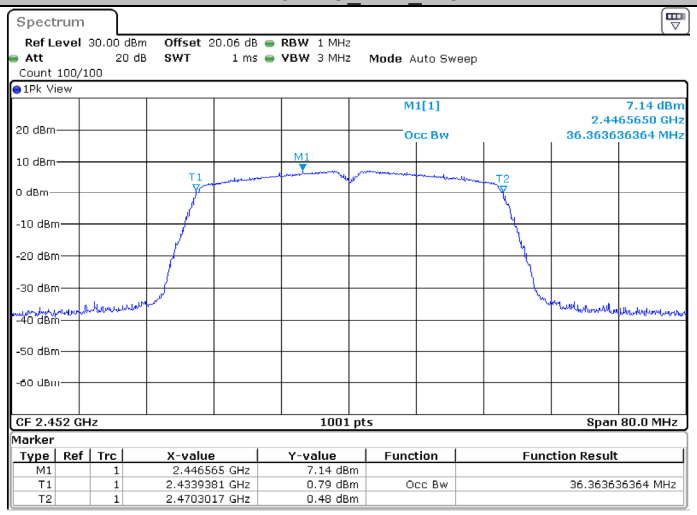
Date: 5.NOV.2024 10:47:35

11N40SISO_Ant1_2452



ProjectNo.:2401X29266E-RF-1 Tester:Navilite.Cai
Date: 5.NOV.2024 10:49:09

Appendix C: Maximum conducted output power

Test Result Peak

Test Mode	Antenna	Freq.[MHz]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	17.17	≤30.00	PASS
		2437	17.53	≤30.00	PASS
		2462	17.23	≤30.00	PASS
11G	Ant1	2412	19.90	≤30.00	PASS
		2437	20.37	≤30.00	PASS
		2462	20.11	≤30.00	PASS
11N20SISO	Ant1	2412	19.79	≤30.00	PASS
		2437	20.24	≤30.00	PASS
		2462	19.98	≤30.00	PASS
11N40SISO	Ant1	2422	19.74	≤30.00	PASS
		2437	20.12	≤30.00	PASS
		2452	20.15	≤30.00	PASS

Test Result Average

Test Mode	Antenna	Freq.[MHz]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	14.10	≤30.00	PASS
		2437	14.53	≤30.00	PASS
		2462	14.48	≤30.00	PASS
11G	Ant1	2412	12.15	≤30.00	PASS
		2437	12.65	≤30.00	PASS
		2462	12.61	≤30.00	PASS
11N20SISO	Ant1	2412	12.09	≤30.00	PASS
		2437	12.50	≤30.00	PASS
		2462	12.49	≤30.00	PASS
11N40SISO	Ant1	2422	12.04	≤30.00	PASS
		2437	12.54	≤30.00	PASS
		2452	12.45	≤30.00	PASS

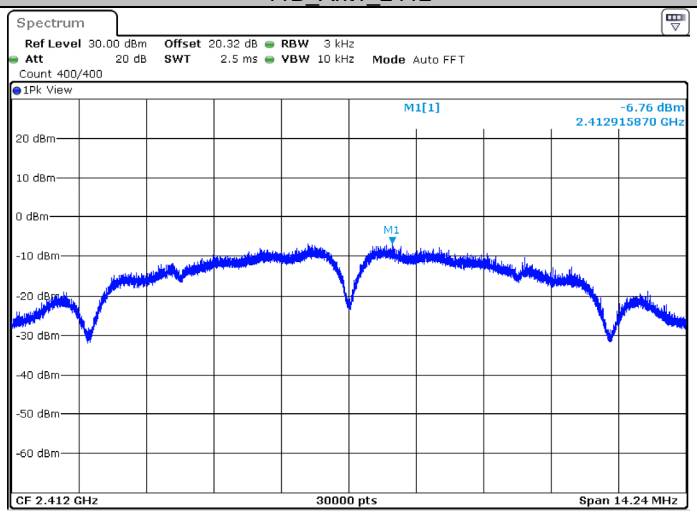
Appendix D: Maximum power spectral density

Test Result

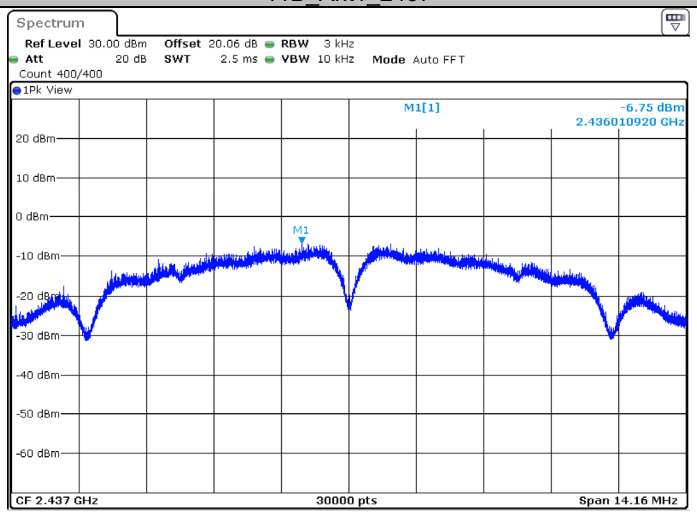
Test Mode	Antenna	Freq.[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-6.76	≤8.00	PASS
		2437	-6.75	≤8.00	PASS
		2462	-5.54	≤8.00	PASS
11G	Ant1	2412	-9.48	≤8.00	PASS
		2437	-9.83	≤8.00	PASS
		2462	-10.06	≤8.00	PASS
11N20SISO	Ant1	2412	-11.37	≤8.00	PASS
		2437	-10.44	≤8.00	PASS
		2462	-11.01	≤8.00	PASS
11N40SISO	Ant1	2422	-14.48	≤8.00	PASS
		2437	-13.57	≤8.00	PASS
		2452	-13.68	≤8.00	PASS

Test Graphs

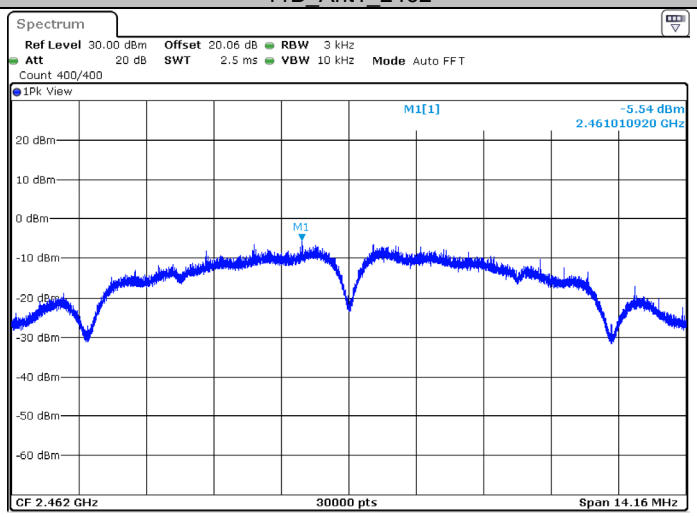
11B_Ant1_2412



11B_Ant1_2437

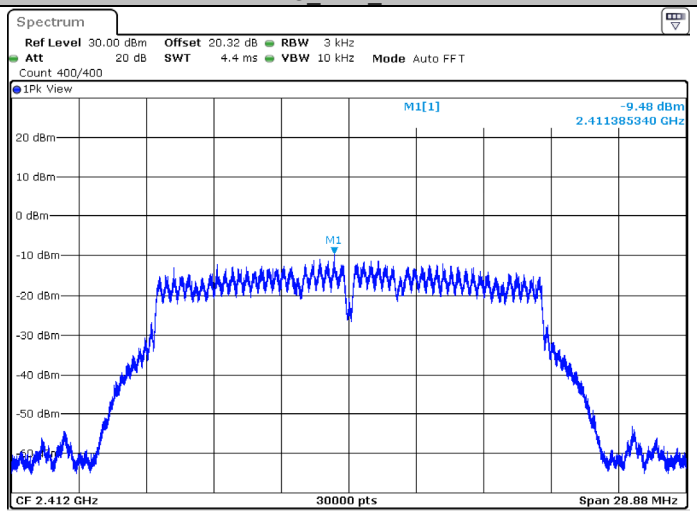


11B_Ant1_2462



ProjectNo.:2401X29266E-RF-1 Tester:Navilite.Cai
Date: 5.NOV.2024 10:31:04

11G_Ant1_2412



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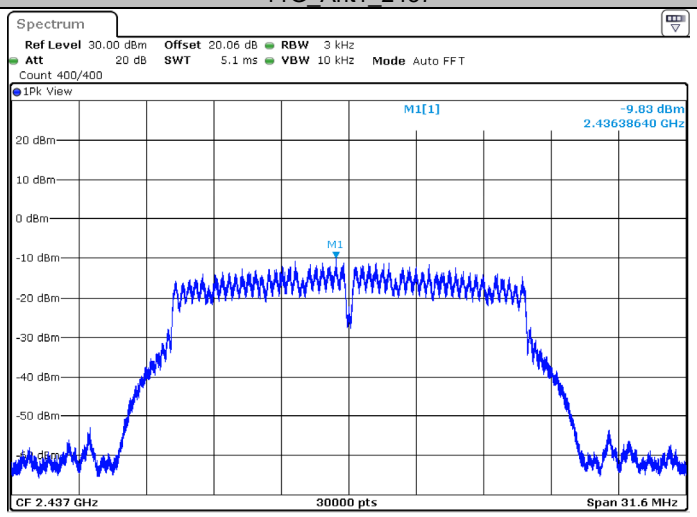
Date: 5.NOV.2024 10:32:46

11G_Ant1_2437



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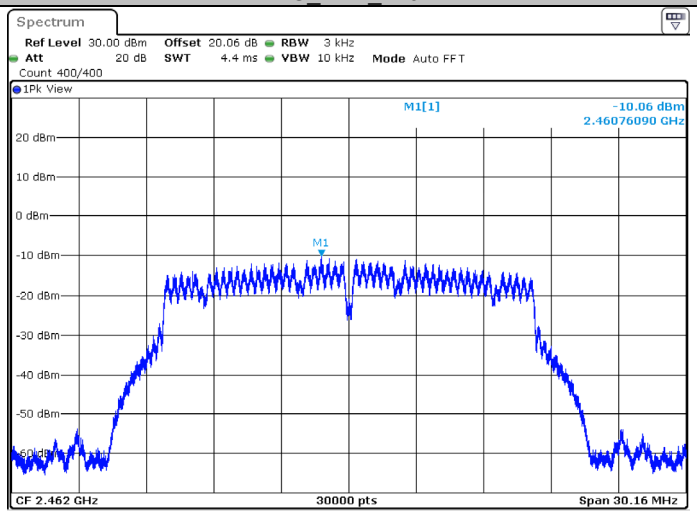
Date: 5.NOV.2024 10:34:14

11G_Ant1_2462



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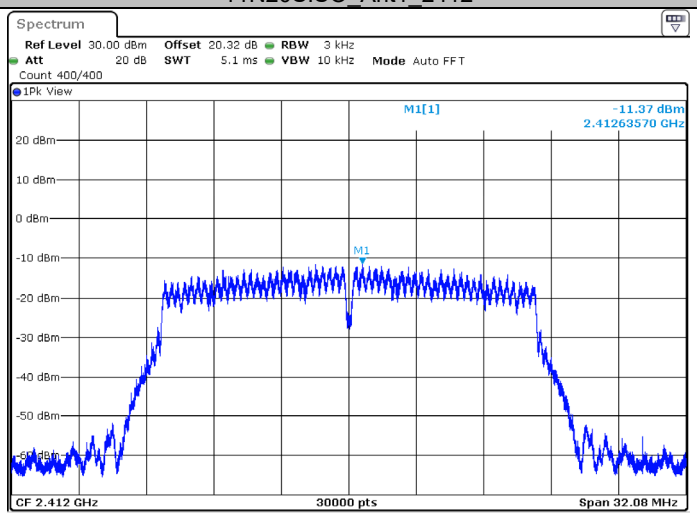
Date: 5.NOV.2024 10:35:43

11N20SISO_Ant1_2412



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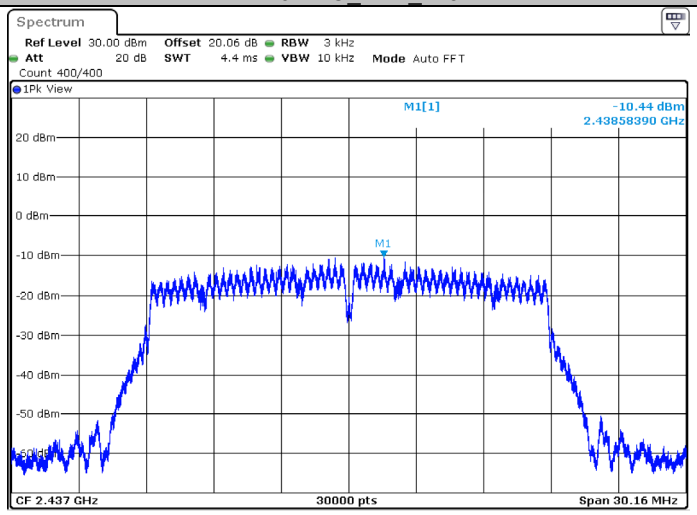

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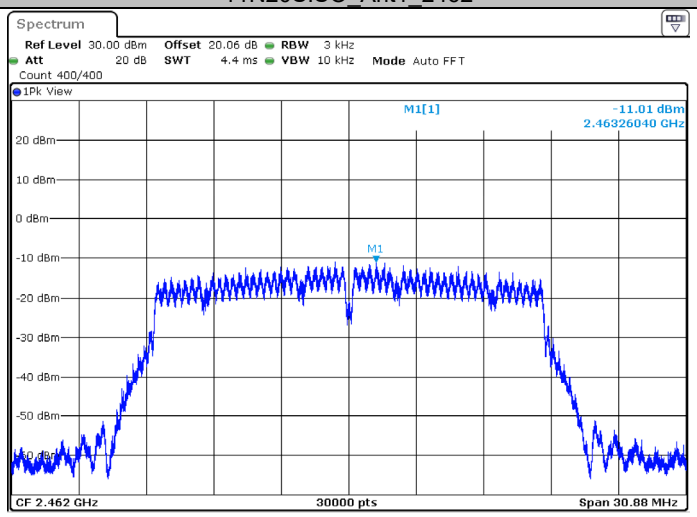
Date: 5.NOV.2024 10:41:55

11N20SISO_Ant1_2462



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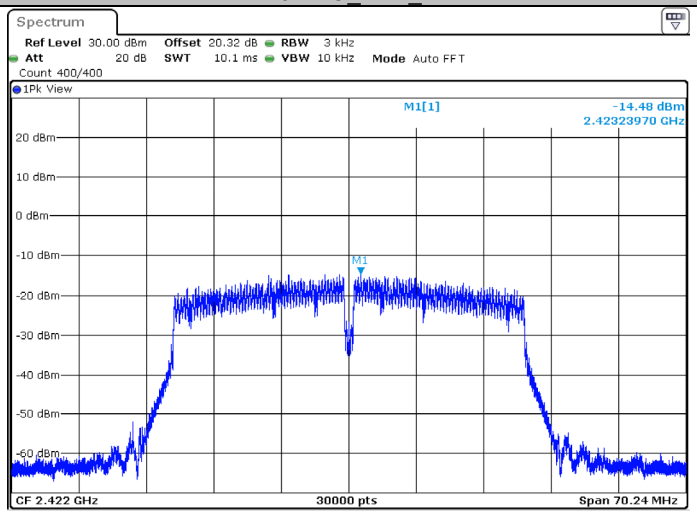
Date: 5.NOV.2024 10:43:13

11N40SISO_Ant1_2422



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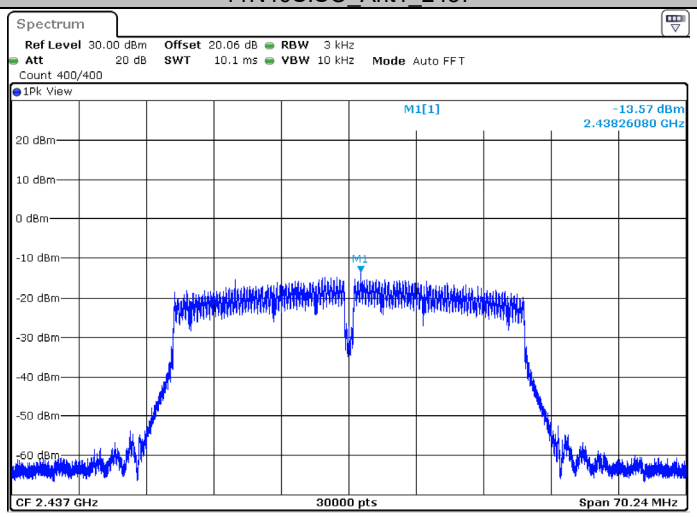
Date: 5.NOV.2024 10:46:32

11N40SISO_Ant1_2437



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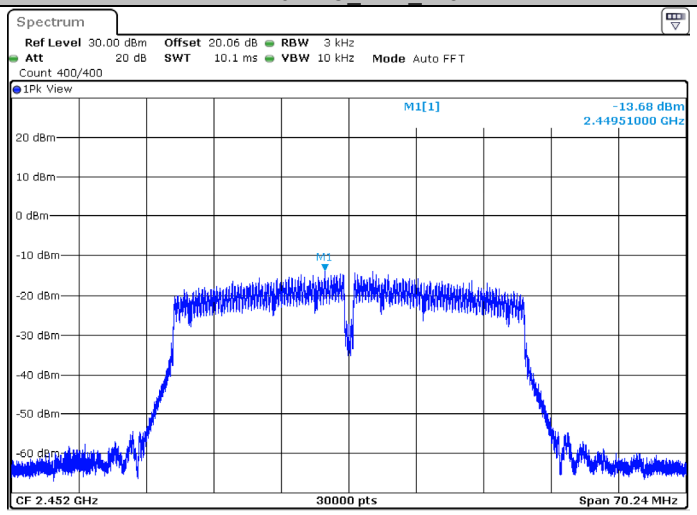
Date: 5.NOV.2024 10:48:00

11N40SISO_Ant1_2452

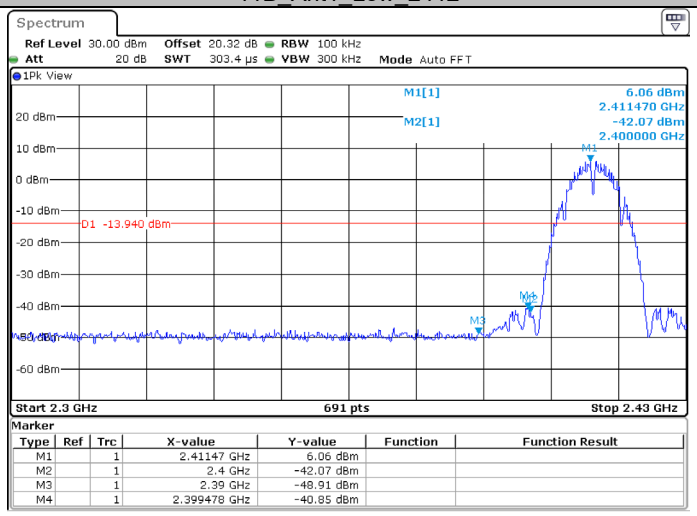


ProjectNo.:2401X29266E-RF-1 Tester:Navilite.Cai
Date: 5.NOV.2024 10:49:34

Appendix E: Band edge measurements

Test Graphs

11B_Ant1_Low_2412

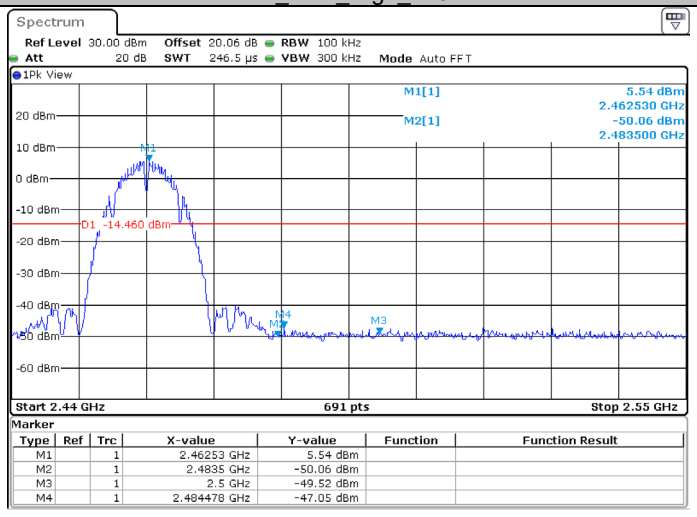


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.41147 GHz	6.06 dBm		
M2		1	2.4 GHz	-42.07 dBm		
M3		1	2.39 GHz	-48.91 dBm		
M4		1	2.399478 GHz	-40.85 dBm		

ProjectNo.:2401X29266E-RF-1 Tester:Navilite.Cai
Date: 5.NOV.2024 10:27:04

11B_Ant1_High_2462

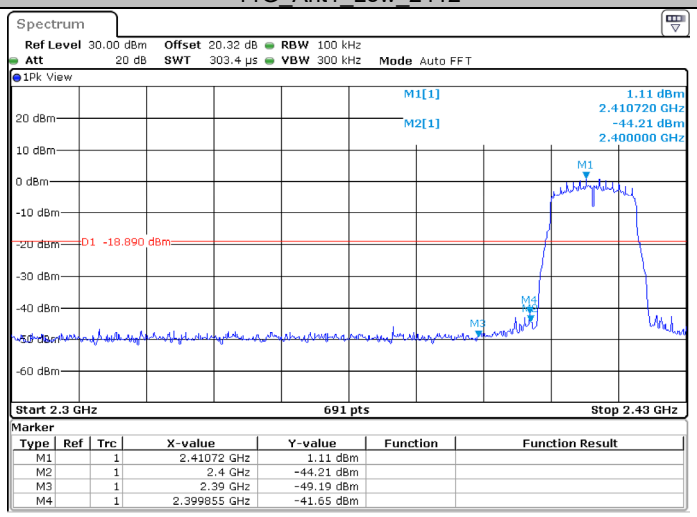


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.46253 GHz	5.54 dBm		
M2		1	2.4835 GHz	-50.06 dBm		
M3		1	2.5 GHz	-49.52 dBm		
M4		1	2.484478 GHz	-47.05 dBm		

ProjectNo.:2401X29266E-RF-1 Tester:Navilite.Cai
Date: 5.NOV.2024 10:31:13

11G_Ant1_Low_2412

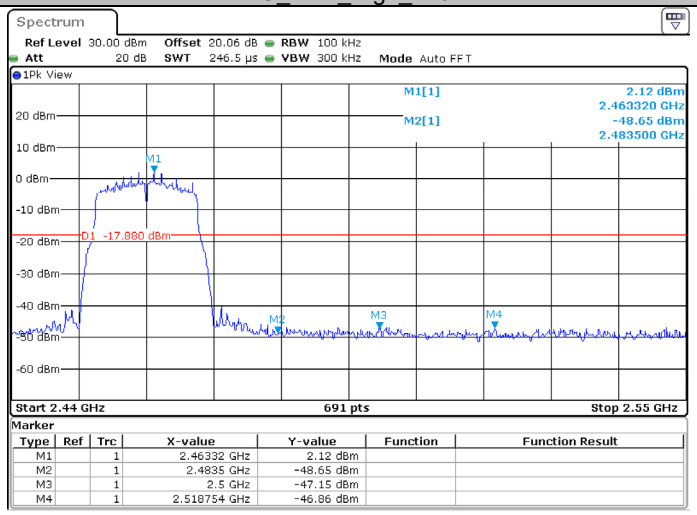


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.41072 GHz	1.11 dBm		
M2		1	2.4 GHz	-44.21 dBm		
M3		1	2.39 GHz	-49.19 dBm		
M4		1	2.399855 GHz	-41.65 dBm		

ProjectNo.:2401X29266E-RF-1 Tester:Navilite.Cai
Date: 5.NOV.2024 10:32:55

11G_Ant1_High_2462

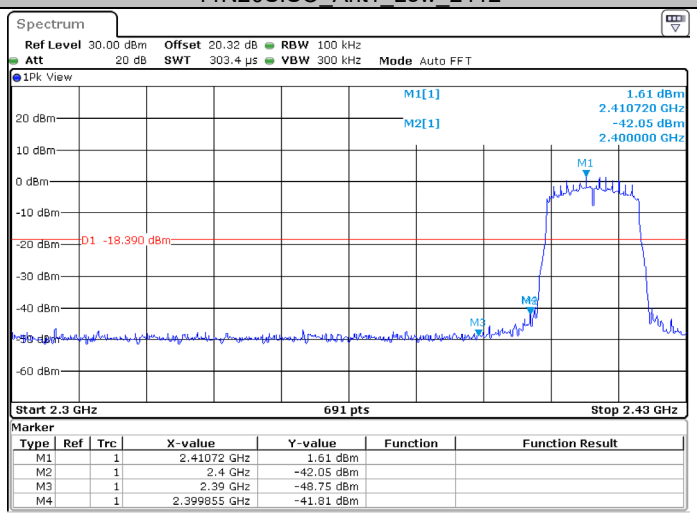


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.46332 GHz	2.12 dBm		
M2		1	2.4835 GHz	-48.65 dBm		
M3		1	2.5 GHz	-47.15 dBm		
M4		1	2.518754 GHz	-46.86 dBm		

ProjectNo.:2401X29266E-RF-1 Tester:Navilite.Cai
Date: 5.NOV.2024 10:35:52

11N20SISO_Ant1_Low_2412

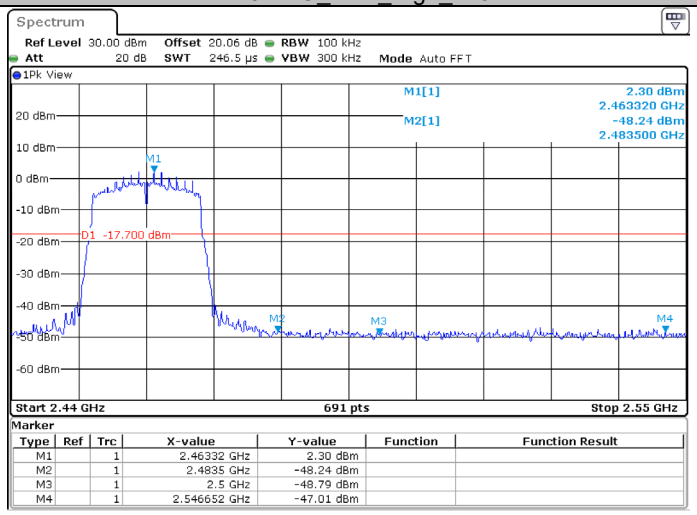


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.41072 GHz	1.61 dBm		
M2		1	2.4 GHz	-42.05 dBm		
M3		1	2.39 GHz	-48.75 dBm		
M4		1	2.399855 GHz	-41.81 dBm		

ProjectNo.:2401X29266E-RF-1 Tester:Navilite.Cai
Date: 5.NOV.2024 10:38:17

11N20SISO_Ant1_High_2462

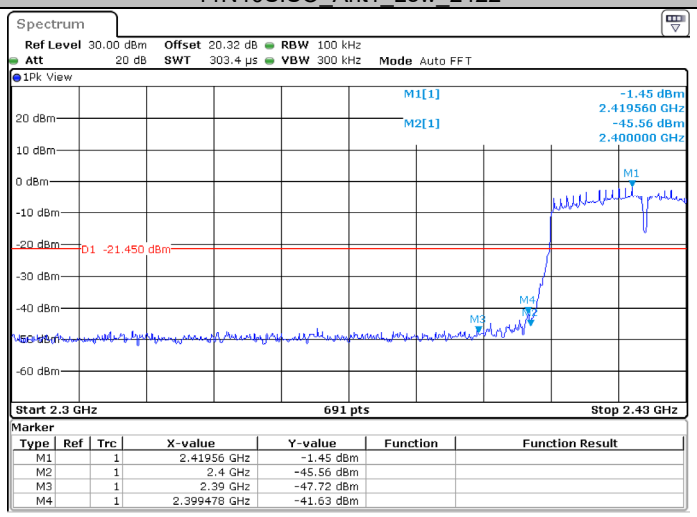


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.46332 GHz	2.30 dBm		
M2		1	2.4835 GHz	-48.24 dBm		
M3		1	2.5 GHz	-48.79 dBm		
M4		1	2.546652 GHz	-47.01 dBm		

ProjectNo.:2401X29266E-RF-1 Tester:Navilite.Cai
Date: 5.NOV.2024 10:43:22

11N40SISO_Ant1_Low_2422

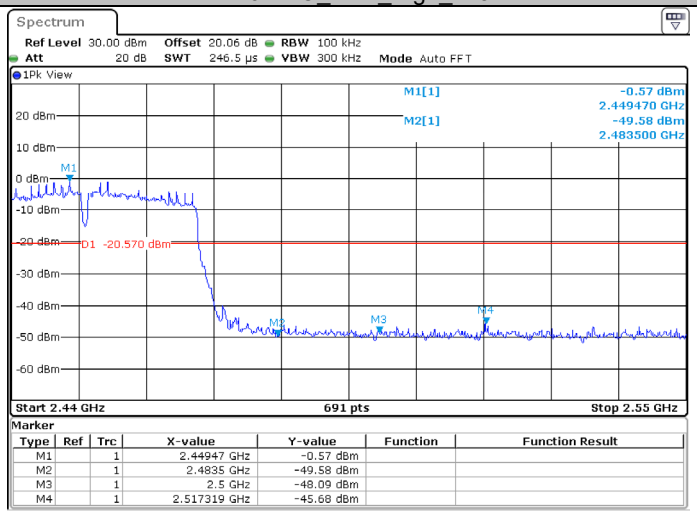


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.41956 GHz	-1.45 dBm		
M2		1	2.4 GHz	-45.56 dBm		
M3		1	2.39 GHz	-47.72 dBm		
M4		1	2.399478 GHz	-41.63 dBm		

ProjectNo.:2401X29266E-RF-1 Tester:Navilite.Cai
Date: 5.NOV.2024 10:46:41

11N40SISO_Ant1_High_2452



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.44947 GHz	-0.57 dBm		
M2		1	2.4835 GHz	-49.58 dBm		
M3		1	2.5 GHz	-48.09 dBm		
M4		1	2.517319 GHz	-45.68 dBm		

ProjectNo.:2401X29266E-RF-1 Tester:Navilite.Cai
Date: 5.NOV.2024 10:49:43

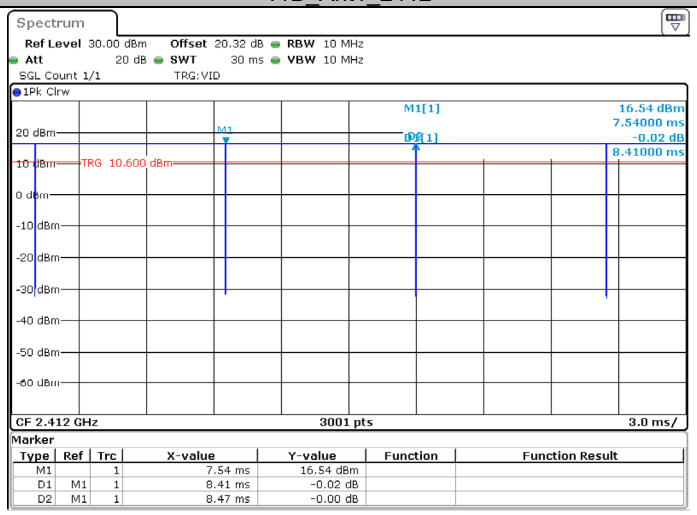
Appendix F: Duty Cycle

Test Result

Test Mode	Antenna	Freq. [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T [Hz]	VBW Setting [Hz]
11B	Ant1	2412	8.41	8.47	99.29	/	10
		2437	8.41	8.47	99.29	/	10
		2462	8.41	8.47	99.29	/	10
11G	Ant1	2412	1.39	1.45	95.86	719	1000
		2437	1.40	1.46	95.89	714	1000
		2462	1.39	1.45	95.86	719	1000
11N20SISO	Ant1	2412	1.31	1.37	95.62	763	1000
		2437	1.31	1.37	95.62	763	1000
		2462	1.31	1.37	95.62	763	1000
11N40SISO	Ant1	2422	0.64	0.70	91.43	1563	2000
		2437	0.64	0.70	91.43	1563	2000
		2452	0.65	0.71	91.55	1538	2000

Test Graphs

11B_Ant1_2412

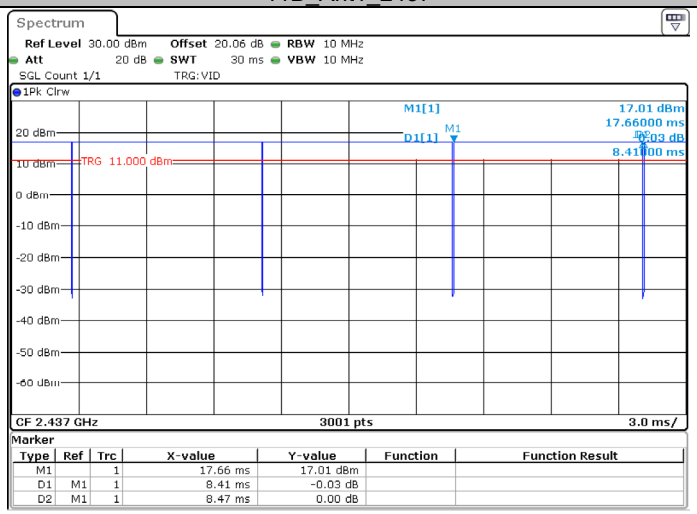


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	7.54 ms	16.54 dBm		
D1	M1	1	8.41 ms	-0.02 dB		
D2	M1	1	8.47 ms	-0.00 dB		

ProjectNo.:2401X29266E-RF-2 Tester:Navilite.Cai
Date: 25.NOV.2024 18:12:09

11B_Ant1_2437

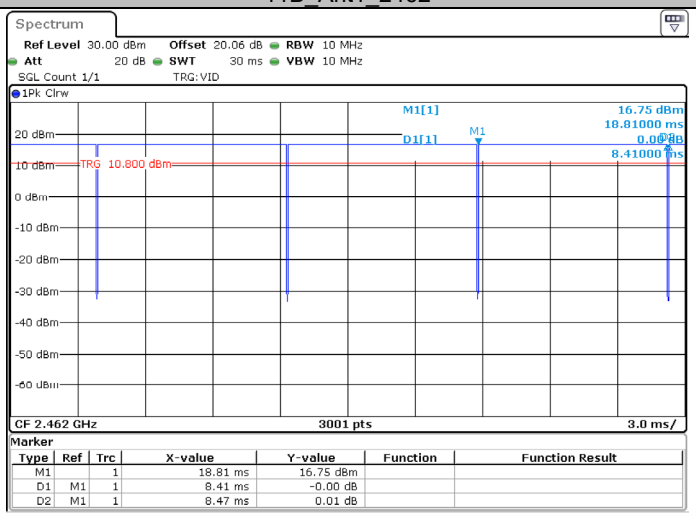


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	17.66 ms	17.01 dBm		
D1	M1	1	8.41 ms	-0.03 dB		
D2	M1	1	8.47 ms	0.00 dB		

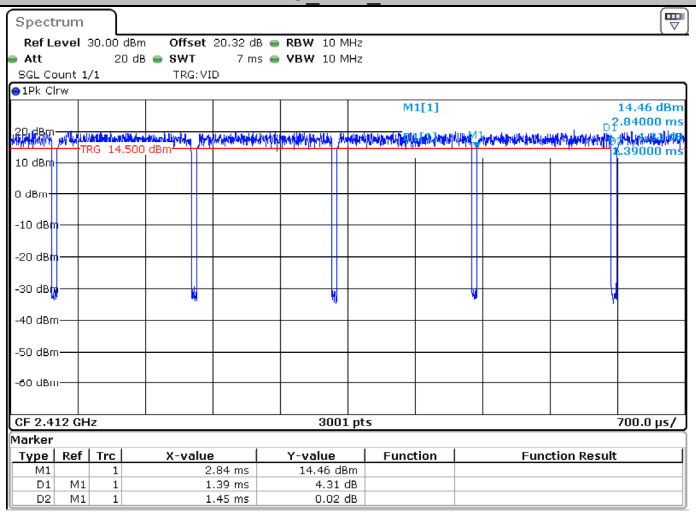
ProjectNo.:2401X29266E-RF-2 Tester:Navilite.Cai
Date: 25.NOV.2024 18:12:53

11B_Ant1_2462



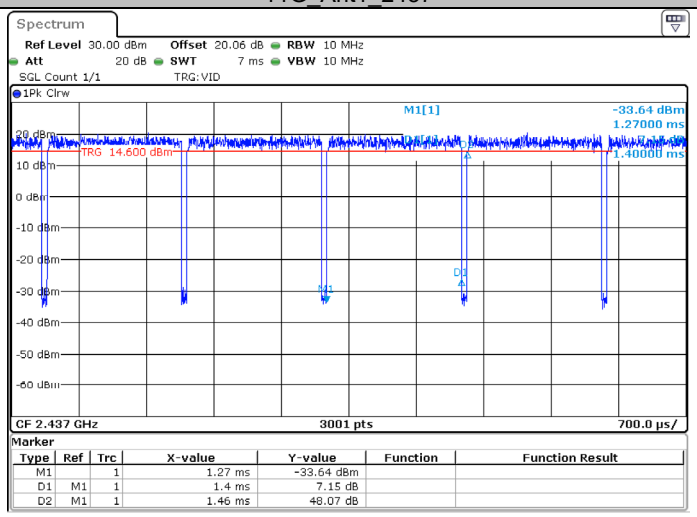
ProjectNo.:2401X29266E-RF-2 Tester:Navilite.Cai
Date: 25.NOV.2024 18:24:46

11G_Ant1_2412



ProjectNo.:2401X29266E-RF-2 Tester:Navilite.Cai
Date: 5.NOV.2024 11:34:03

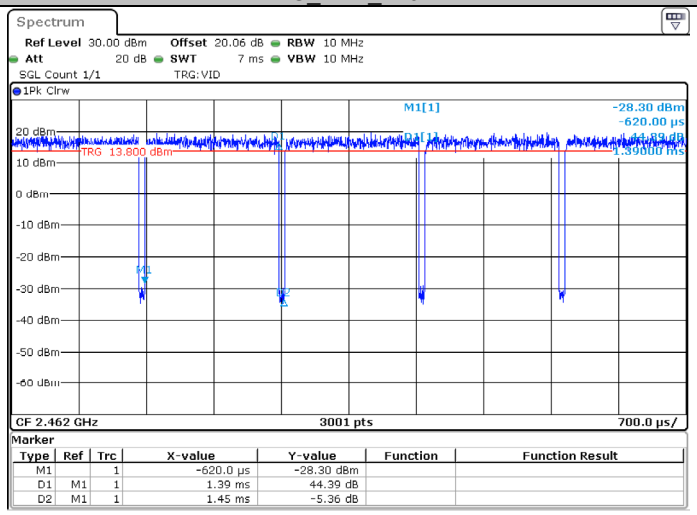
11G_Ant1_2437



ProjectNo.:2401X29266E-RF-2 Tester:Navilite.Cai

Date: 5.NOV.2024 11:39:55

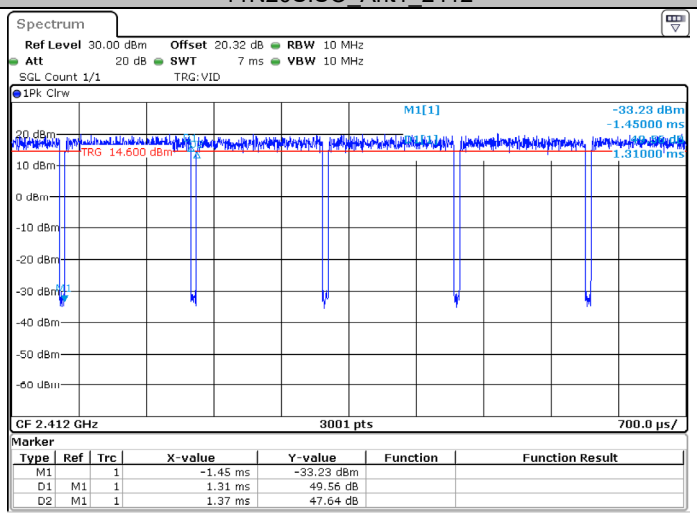
11G_Ant1_2462



ProjectNo.:2401X29266E-RF-2 Tester:Navilite.Cai

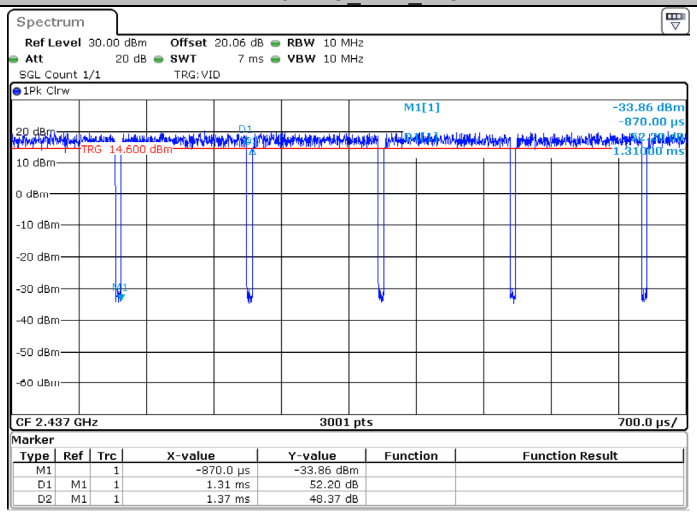
Date: 5.NOV.2024 11:38:34

11N20SISO_Ant1_2412



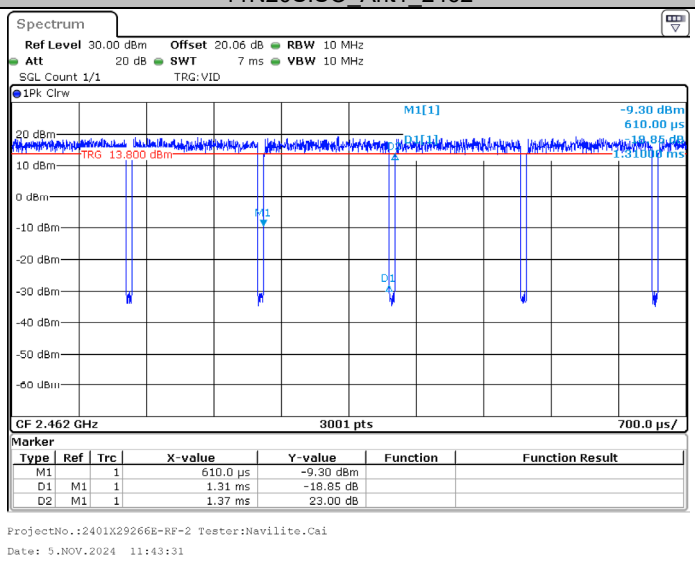
ProjectNo.:2401X29266E-RF-2 Tester:Navilite.Cai
Date: 5.NOV.2024 11:40:37

11N20SISO_Ant1_2437

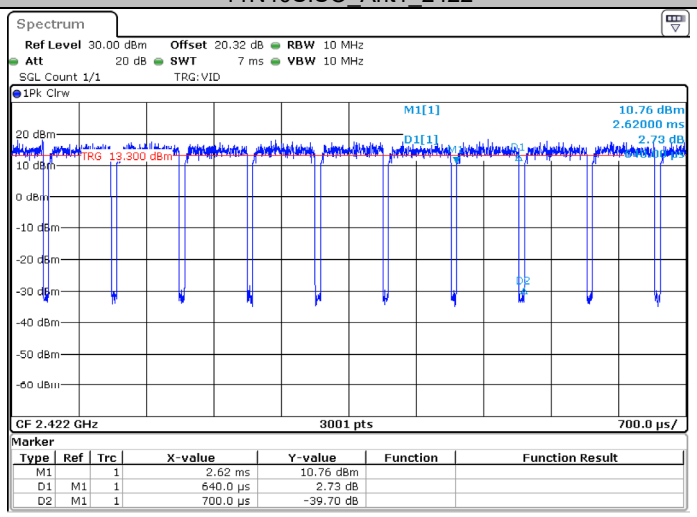


ProjectNo.:2401X29266E-RF-2 Tester:Navilite.Cai
Date: 5.NOV.2024 11:41:55

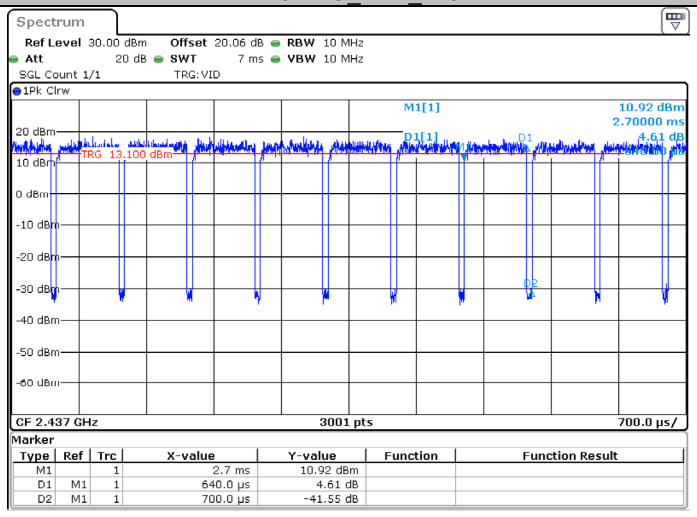
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452