TEST REPORT

Applicant Name:	Invixium Access Inc.
Address:	300-111 Gordon Baker Road Toronto M2H 3R1 Canada
Report Number:	2401W43894E-RF-00B
FCC ID:	S38-IXM6490

Test Standard (s)

FCC PART 15.247

Sample Description

Product Type:	IXM6490
Model No.:	IXM6490
Multiple Model(s) No.:	N/A
Trade Mark:	Invixium
Date Received:	2024/08/28
Issue Date:	2025/01/15

Test Result:	Pass▲

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

Prepared and Checked By:

Gala Liu

RF Engineer

Approved By:

Nancy Wang

RF Supervisor

Note: The information marked# is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report. Customer model name, addresses, names, trademarks etc. are included.

This report may contain data that are not covered by the NVLAP accreditation and are marked with an asterisk "▼".

TABLE OF CONTENTS

DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	2401W43894E-RF-00B	Original Report	2025/01/15

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product	IXM6490
Tested Model	IXM6490
Multiple Model(s)	N/A
Frequency Range	BLE: 2402-2480MHz Wi-Fi: 2412-2462MHz
Maximum Conducted Output Peak Power	BLE: 6.54dBm Wi-Fi: 29.51dBm
Modulation Technique	BLE: GFSK Wi-Fi: DSSS, OFDM, OFDMA
Antenna Specification#	2.50dBi (provided by the applicant)
Voltage Range	3.3V_{DC}
Sample serial number	2QNT-1 (Assigned by BACL, Shenzhen)
Sample/EUT Status	Good condition
Adapter Information	N/A

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	9kHz - 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 2.4GHz 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	/	/

802.11b, 802.11g, 802.11n-HT20, 802.11ax20 mode was tested with Channel 1, 6 and 11.
802.11n-HT40, 802.11ax40 mode was tested with Channel 3, 6 and 9.

For BLE mode, 40 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	20	2442
1	2404	21	2444
2	2406	22	2446
3	2408	23	2448
4	2410	24	2450
5	2412	25	2452
6	2414	26	2454
7	2416	27	2456
8	2418	28	2458
9	2420	29	2460
10	2422	30	2462
11	2424	31	2464
12	2426	32	2466
13	2428	33	2468
14	2430	34	2470
15	2432	35	2472
16	2434	36	2474
17	2436	37	2476
18	2438	38	2478
19	2440	39	2480

EUT was tested with Channel 0, 19 and 39.

Equipment Modifications

No modification was made to the EUT tested.

EUT Exercise Software

"QRCT 4"[#] exercise software was used. The software and power level was provided by the manufacturer.

The device was tested with the worst case was performed as below:

Mode	Data rate	Power Level[#]		
		Low Channel	Middle Channel	High Channel
802.11b	1Mbps	17	17	17
802.11g	6Mbps	15	15	15
802.11n-HT20	MCS0	15	15	15
802.11n-HT40	MCS0	15	15	15
802.11ax-HE20	MCS0	16	16	16
802.11ax-HE40	MCS0	16	16	16
BLE	1/2Mbps	Default	Default	Default

The worst-case data rates are determined to be as follows for each mode based upon inverstigation by measuring the peak power and PSD across all data rates, bandwidths and modulations.

The device support SISO and MIMO, for 802.11n/ax mode, the MIMO mode support beamforming, the SISO/MIMO and beamforming/nonbeamforming modes have same parameter, which was declared by applicant. The MIMO/beamforming was the worst mode which was selected to test.

For 802.11 ax modes, the device not support partial RU mode.

All the antenna ports have the same power level.

Support Equipment List and Details

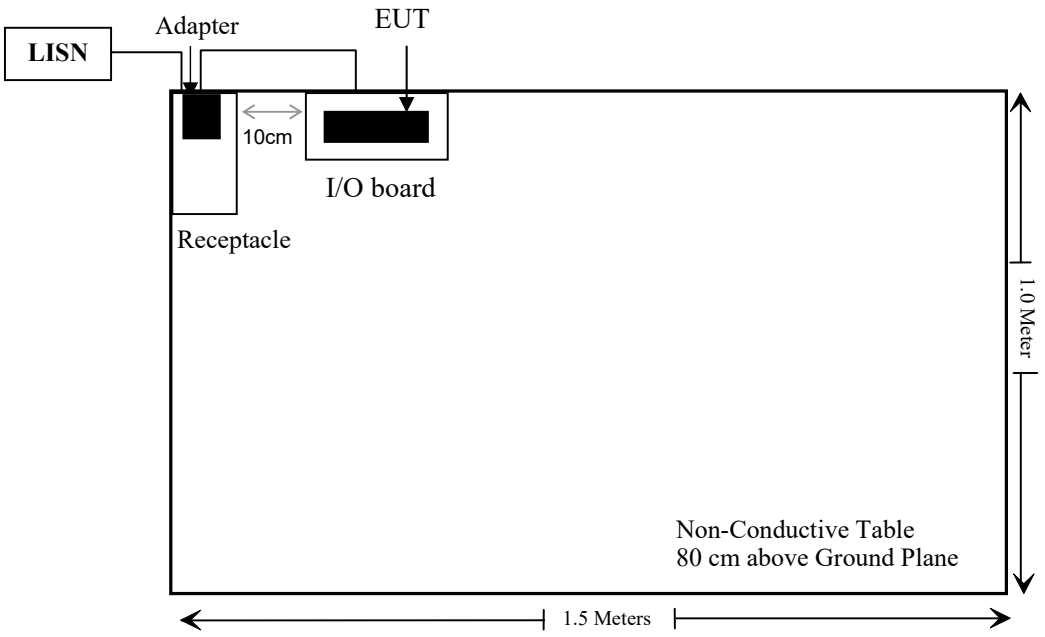
Manufacturer	Description	Model	Serial Number
GUANDONG LIANYONDA ELECTRONIC CO.,LTD	Adapter	LYD1202000B	Unknown
Invixium Access Inc.	I/O board	TITAN ONE	Unknown

External I/O Cable

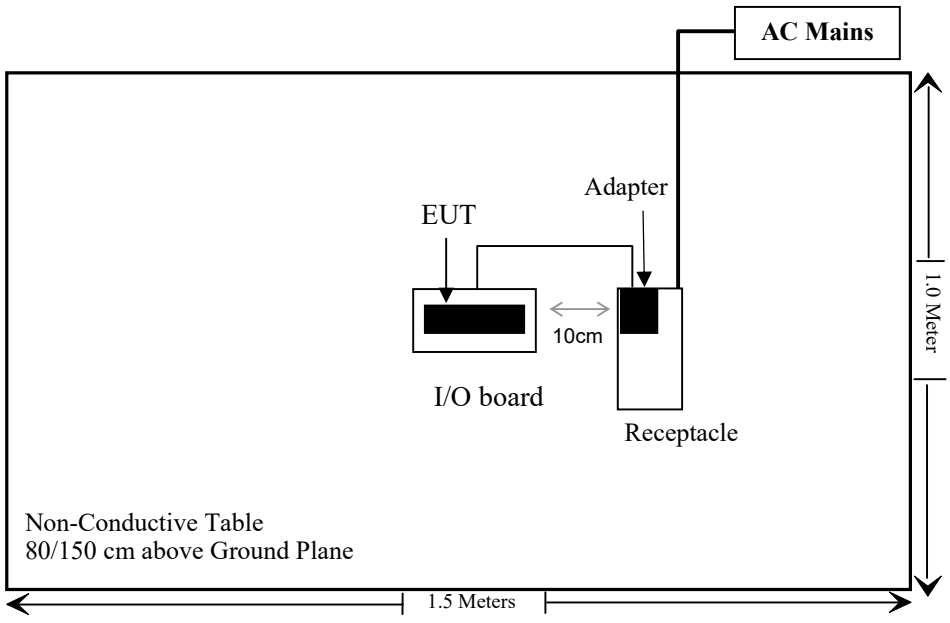
Cable Description	Length (m)	From Port	To
Un-shielding Un-Detachable AC Cable	1.0	Receptacle	LISN/AC Mains
Un-shielding Un-Detachable DC Cable	1.5	Adapter	I/O board

Block Diagram of Test Setup

For Conducted Emissions



For Radiated Emissions:



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.247 (i), §1.1310 & §2.1091	Maximum Permissible Exposure (MPE)	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 & Occupied Channel 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 Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESR3	102455	2024/01/16	2025/01/15
Sonoma instrument	Pre-amplifier	310 N	186238	2024/05/21	2025/05/20
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2023/07/20	2026/07/19
Unknown	Cable	Chamber A Cable 1	N/A	2024/06/18	2025/06/17
Unknown	Cable	XH500C	J-10M-A	2024/06/18	2025/06/17
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
JD	Multiplex Switch Test Control Set	DT7220FSU	DQ77926	2024/06/18	2025/06/17
Audix	EMI Test software	E3	191218(V9)	NCR	NCR
A.H.System	Pre-amplifier	PAM-1840VH	190	2024/06/18	2025/06/17
Electro-Mechanics Co	Horn Antenna	3116	9510-2270	2023/09/18	2026/09/17
UTIFLEX	RF Cable	NO. 13	232308-001	2024/06/18	2025/06/17
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) &§1.1310 & §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart 15.247(i)and subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

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

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

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

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

Result

Calculation formula:

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

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

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

Calculated Data:

For worst case:

Mode	Frequency (MHz)	Antenna Gain#		Max Tune-up Power#		Evaluation Distance (cm)	Power Density (mW/cm^2)	MPE Limit (mW/cm^2)
		(dBi)	(numeric)	(dBm)	(mW)			
BT	2402-2480	2.50	1.78	2.5	1.78	25	0.0004	1.0
BLE	2402-2480	2.50	1.78	7.0	5.01	25	0.0011	1.0
2.4G Wi-Fi	2412-2462	5.51	3.56	30.0	1000	25	0.4533	1.0
5G Wi-Fi	5150-5250	5.61	3.64	15.5	35.48	25	0.0164	1.0
	5250-5350	5.61	3.64	16.5	44.67	25	0.0207	1.0
	5470-5725	5.61	3.64	16.0	39.81	25	0.0185	1.0
	5725-5850	5.61	3.64	19.0	79.43	25	0.0368	1.0
	5850-5895	5.61	3.64	20.5	112.20	25	0.0520	1.0
6G Wi-Fi	5925-6425	5.61	3.64	12.0	15.85	25	0.0073	1.0
	6425-6525	5.61	3.64	11.0	12.59	25	0.0058	1.0
	6525-6875	5.61	3.64	11.0	12.59	25	0.0058	1.0
	6875-7125	5.61	3.64	11.0	12.59	25	0.0058	1.0

Note:
1) The tune up conducted power and antenna gain was declared by the applicant.
2) For the Wi-Fi mode, the antenna gain should be the directional gain.
3) The BT, 2.4G Wi-Fi, 5G Wi-Fi and 6G Wi-Fi cannot Simultaneous transmitting.

To maintain compliance with the FCC's RF exposure guidelines, place the equipment at least 25cm 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

No standard antenna connect port with this module,The EUT tested with one FPC antenna arrangement for BLE and two FPC antennas arrangement for Wi-Fi which were integrated on the tested board use the MHF-Type connector and no consideration of replacement, fulfill the requirement of this section. Please refer to the EUT photos.

Antenna Type	Antenna Type	Antenna Gain	Impedance	Frequency Range
BLE ANT & Wi-Fi ANT1	FPC	2.5dBi	50 Ω	2.4~2.5GHz
Wi-Fi ANT2	FPC	2.5dBi	50 Ω	2.4~2.5GHz

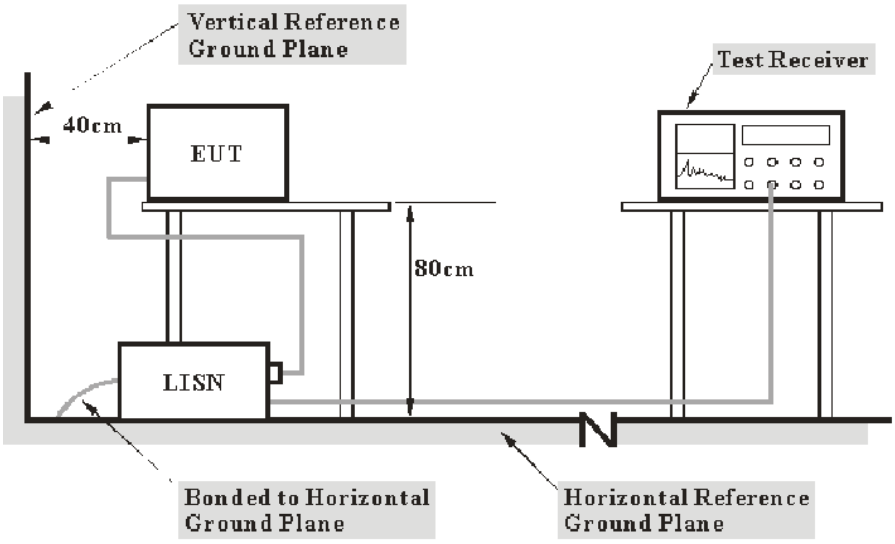
Result: Compliant

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 adapter 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 calculation is as follows:

Over Limit = Level – Limit
Level = Read Level + Factor

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

Test Data

Environmental Conditions

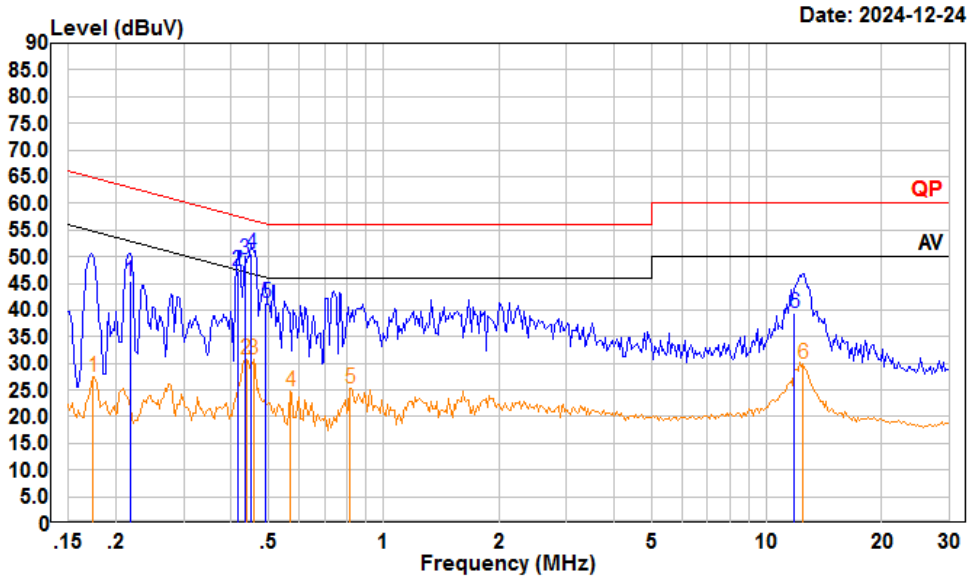
Temperature:	25 ℃
Relative Humidity:	52 %
ATM Pressure:	101 kPa

The testing was performed by Macy Shi on 2024-12-24.

EUT operation mode: Transmitting

BLE: *(Maximum output power mode, BLE 2M Low channel)*

AC 120V/60 Hz, Line



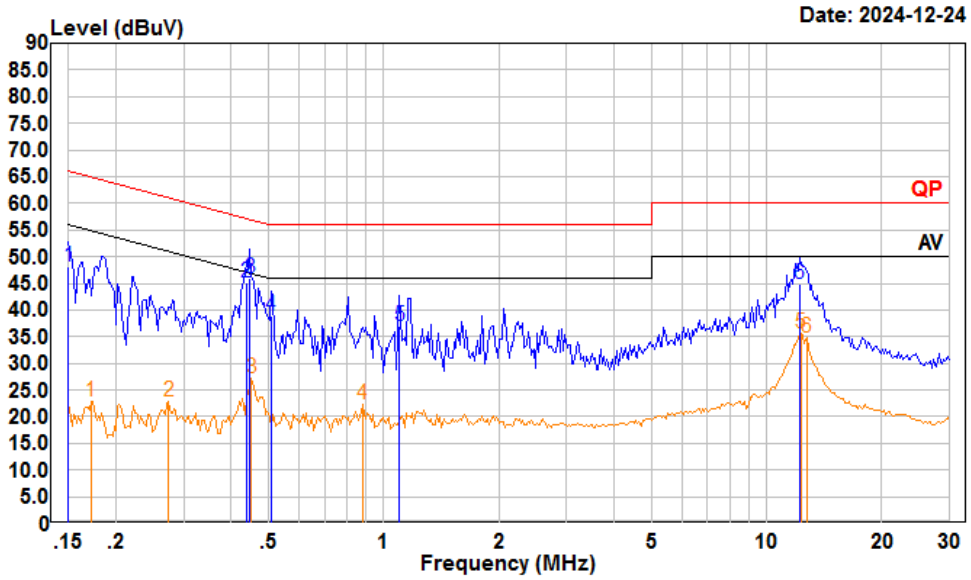
Trace: 1

Condition: Line
Project : 2401W43894E-RF
tester : Macy.shi Note:Transmitting
Setting : RBW:9kHz VBW:Auto SWT:Auto

	Freq	Read Level	LISN Level	Cable Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.217	24.50	45.36	10.77	10.09	62.92	-17.56	QP
2	0.415	26.60	47.27	10.56	10.11	57.55	-10.28	QP
3	0.433	28.80	49.46	10.55	10.11	57.20	-7.74	QP
4	0.452	30.00	50.65	10.53	10.12	56.85	-6.20	QP
5	0.491	20.69	41.34	10.51	10.14	56.14	-14.80	QP
6	11.807	18.50	39.31	10.60	10.21	60.00	-20.69	QP

	Freq	Read Level	LISN Level	Cable Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.174	6.63	27.58	10.85	10.10	54.77	-27.19	Average
2	0.437	10.21	30.86	10.54	10.11	47.11	-16.25	Average
3	0.456	10.14	30.79	10.53	10.12	46.76	-15.97	Average
4	0.570	4.24	24.87	10.50	10.13	46.00	-21.13	Average
5	0.817	4.82	25.40	10.46	10.12	46.00	-20.60	Average
6	12.449	9.18	29.99	10.60	10.21	50.00	-20.01	Average

AC 120V/60 Hz, Neutral



Trace: 1

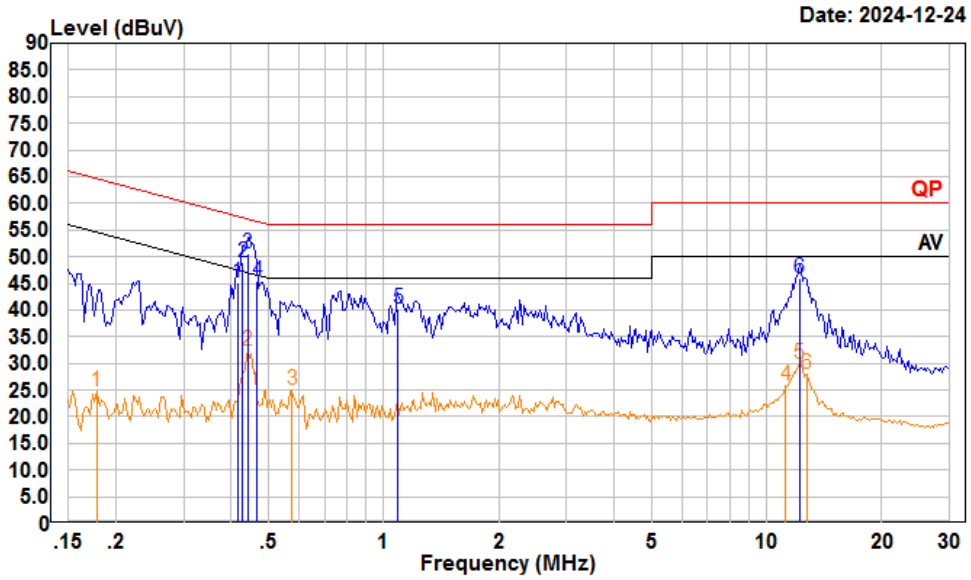
Condition: Neutral
Project : 2401W43894E-RF
tester : Macy.shi Note:Transmitting
Setting : RBW:9kHz VBW:Auto SWT:Auto

	Freq	Read Level	LISN Level	Cable Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.150	27.30	48.03	10.60	10.13	66.00	-17.97	QP
2	0.437	24.30	45.07	10.66	10.11	57.11	-12.04	QP
3	0.447	25.10	45.88	10.66	10.12	56.93	-11.05	QP
4	0.507	18.10	38.94	10.70	10.14	56.00	-17.06	QP
5	1.100	16.11	37.06	10.83	10.12	56.00	-18.94	QP
6	12.188	23.90	44.91	10.80	10.21	60.00	-15.09	QP

	Freq	Read Level	LISN Level	Cable Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.172	2.22	22.82	10.50	10.10	54.86	-32.04	Average
2	0.274	2.14	22.73	10.50	10.09	50.98	-28.25	Average
3	0.452	6.39	27.18	10.67	10.12	46.85	-19.67	Average
4	0.880	1.35	22.28	10.83	10.10	46.00	-23.72	Average
5	12.318	14.69	35.70	10.80	10.21	50.00	-14.30	Average
6	12.716	13.68	34.70	10.80	10.22	50.00	-15.30	Average

2.4G Wi-Fi: *(Maximum output power mode, 802.11ax40 2422MHz)*

AC 120V/60 Hz, Line



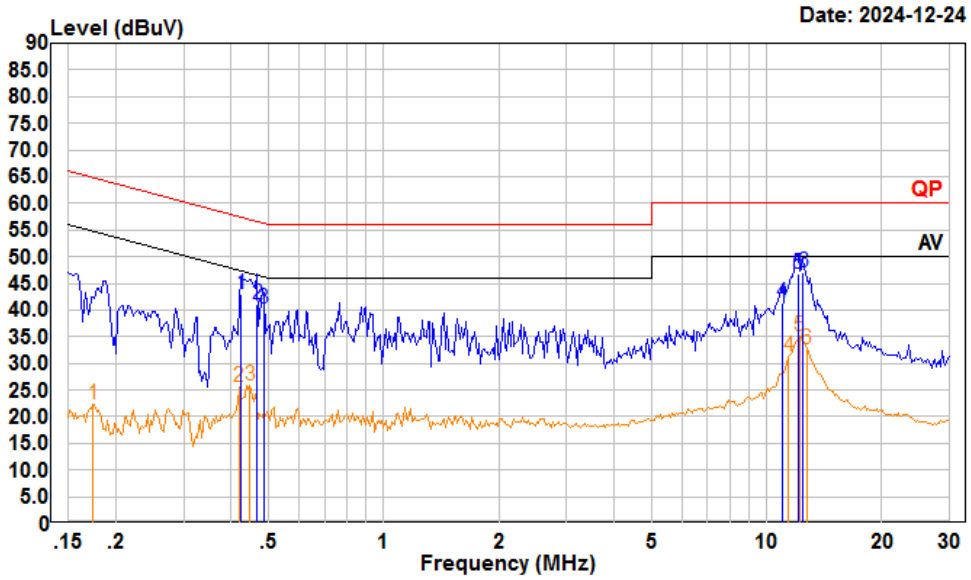
Trace: 1

Condition: Line
Project : 2401W43894E-RF
tester : Macy.shi Note:Transmitting
Setting : RBW:9kHz VBW:Auto SWT:Auto

	Freq	Read Level	LISN Level	Cable Factor	Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.415	24.50	45.17	10.56	10.11	57.55	-12.38	QP
2	0.428	28.30	48.96	10.55	10.11	57.29	-8.33	QP
3	0.442	30.00	50.66	10.54	10.12	57.02	-6.36	QP
4	0.466	24.70	45.35	10.52	10.13	56.58	-11.23	QP
5	1.088	19.61	40.15	10.42	10.12	56.00	-15.85	QP
6	12.188	25.10	45.91	10.60	10.21	60.00	-14.09	QP

	Freq	Read Level	LISN Level	Cable Factor	Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.178	3.69	24.63	10.84	10.10	54.59	-29.96	Average
2	0.442	11.58	32.24	10.54	10.12	47.02	-14.78	Average
3	0.576	4.52	25.14	10.50	10.12	46.00	-20.86	Average
4	11.198	5.03	25.84	10.60	10.21	50.00	-24.16	Average
5	12.188	9.21	30.02	10.60	10.21	50.00	-19.98	Average
6	12.716	7.13	27.95	10.60	10.22	50.00	-22.05	Average

AC 120V/60 Hz, Neutral



Trace: 1

Condition: Neutral
Project : 2401W43894E-RF
tester : Macy.shi Note:Transmitting
Setting : RBW:9kHz VBW:Auto SWT:Auto

	Freq	Read Level	LISN Level	Cable Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.424	22.30	43.06	10.65	10.11	57.37	-14.31	QP
2	0.466	20.29	41.10	10.68	10.13	56.58	-15.48	QP
3	0.486	19.51	40.33	10.69	10.13	56.23	-15.90	QP
4	10.963	20.20	41.21	10.80	10.21	60.00	-18.79	QP
5	12.060	25.70	46.71	10.80	10.21	60.00	-13.29	QP
6	12.449	25.90	46.91	10.80	10.21	60.00	-13.09	QP

	Freq	Read Level	LISN Level	Cable Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.174	1.82	22.42	10.50	10.10	54.77	-32.35	Average
2	0.419	4.94	25.69	10.64	10.11	47.46	-21.77	Average
3	0.447	4.95	25.73	10.66	10.12	46.93	-21.20	Average
4	11.438	10.14	31.15	10.80	10.21	50.00	-18.85	Average
5	12.188	13.97	34.98	10.80	10.21	50.00	-15.02	Average
6	12.716	11.49	32.51	10.80	10.22	50.00	-17.49	Average

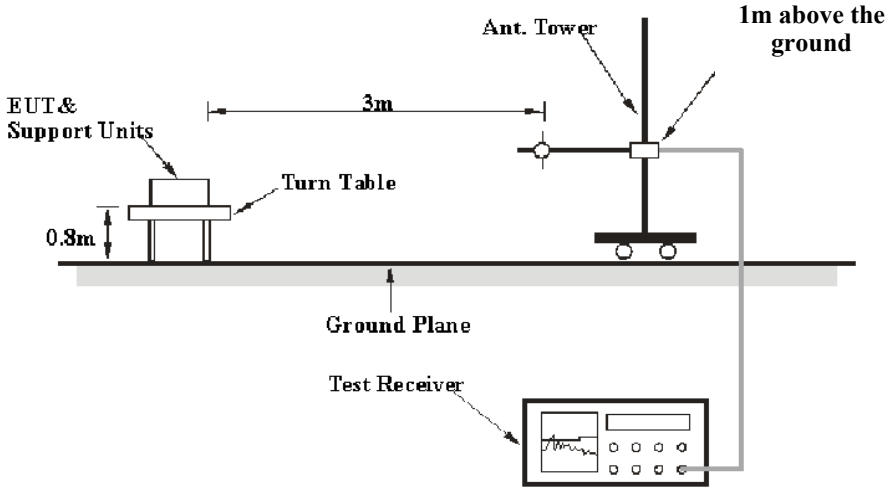
FCC §15.209, §15.205 & §15.247(d) - SPURIOUS EMISSIONS

Applicable Standard

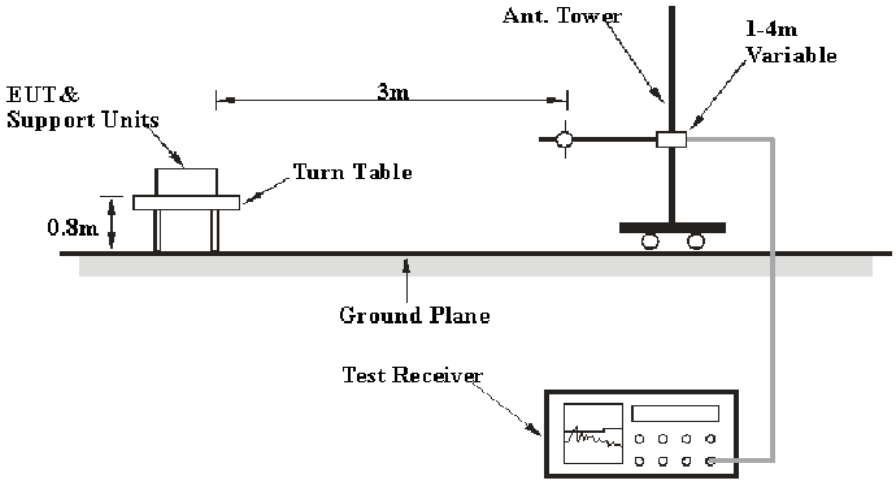
FCC §15.247 (d); §15.209; §15.205;

EUT Setup

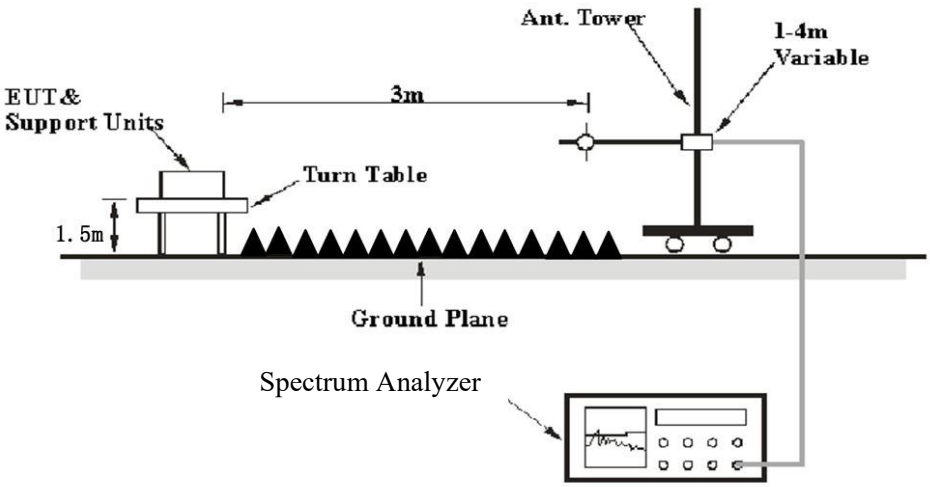
9 kHz-30MHz:



30MHz-1GHz:



Above 1GHz:



The radiated emission tests were performed in the 3 meters test site, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, and 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:	22~25 ℃
Relative Humidity:	50~54 %
ATM Pressure:	101 kPa

The testing was performed by Anson Su on 2024-10-08 for below 1GHz and Zenos Qiao from 2024-10-11 to 2024-10-12 for above 1GHz.

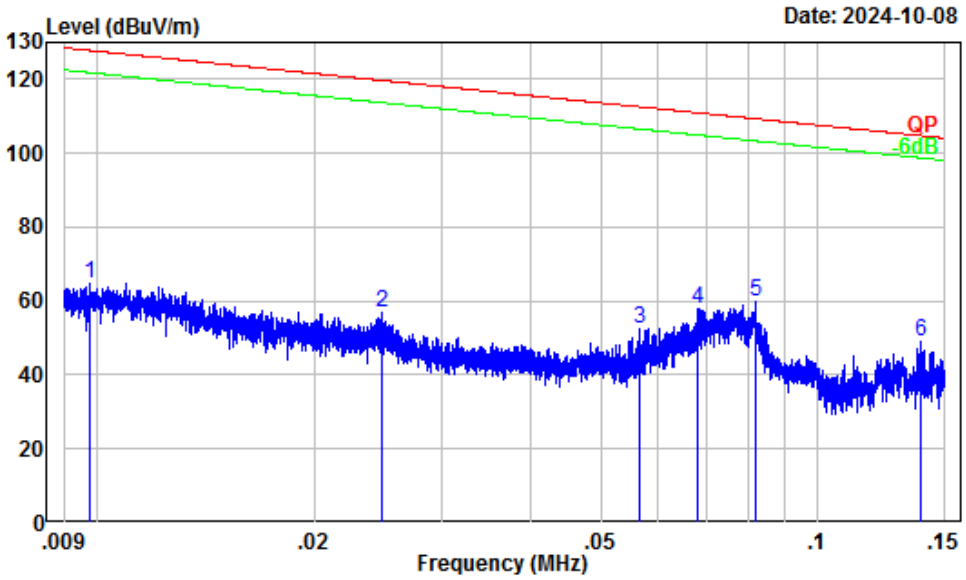
EUT operation mode: Transmitting

Note: Pre-scan in the X, Y and Z axes of orientation, the worst case Z-axis of orientation was recorded.

BLE: *(Maximum output power mode, BLE 2M Low channel)*

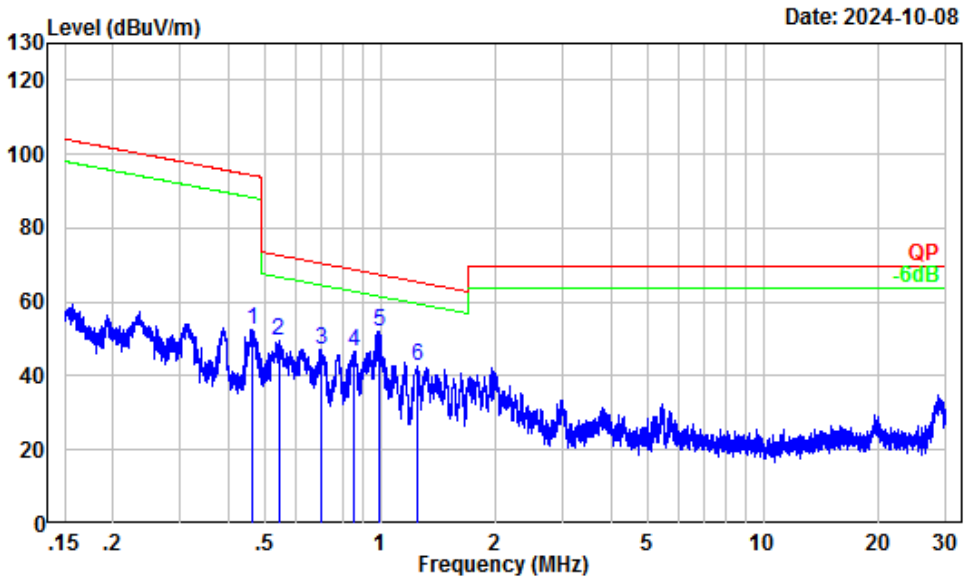
9 kHz-30MHz: *Parallel (worst case)*

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



Site : Chamber A
Condition : 3m
Project Number: 2401W43894E-RF
Test Mode : BLE Transmitting
Tester : Anson Su

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.01	37.87	27.10	64.97	127.81	-62.84	Peak
2	0.02	30.14	26.80	56.94	119.72	-62.78	Peak
3	0.06	22.20	30.17	52.37	112.57	-60.20	Peak
4	0.07	20.62	37.42	58.04	110.92	-52.88	Peak
5	0.08	18.83	40.97	59.80	109.33	-49.53	Peak
6	0.14	15.23	33.76	48.99	104.75	-55.76	Peak

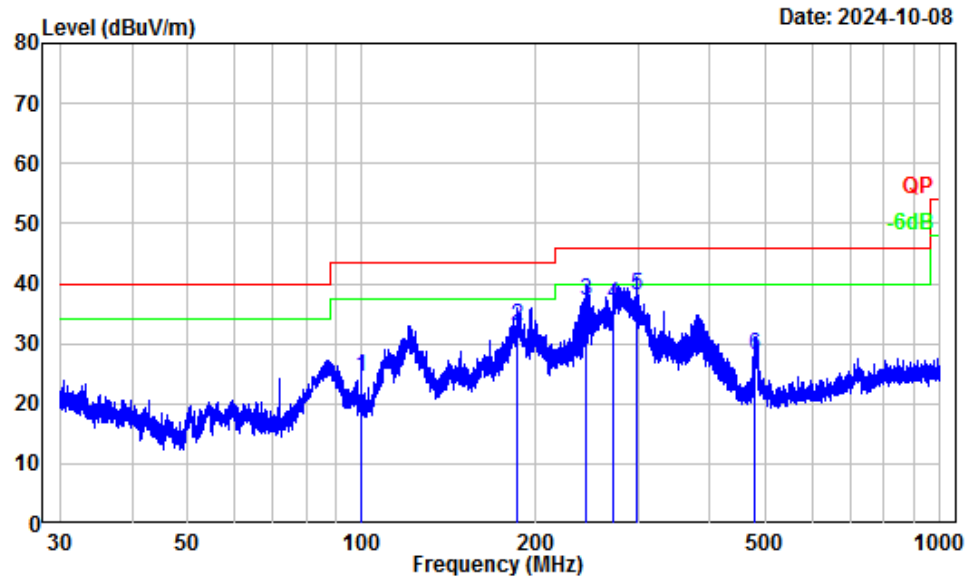


Site : Chamber A
Condition : 3m
Project Number: 2401W43894E-RF
Test Mode : BLE Transmitting
Tester : Anson Su

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.46	4.29	47.99	52.28	94.31	-42.03	Peak
2	0.54	2.97	46.59	49.56	72.90	-23.34	Peak
3	0.70	1.09	45.85	46.94	70.64	-23.70	Peak
4	0.85	-0.47	47.23	46.76	68.93	-22.17	Peak
5	1.00	-1.57	53.46	51.89	67.50	-15.61	Peak
6	1.25	-2.45	45.26	42.81	65.52	-22.71	Peak

30MHz-1GHz:

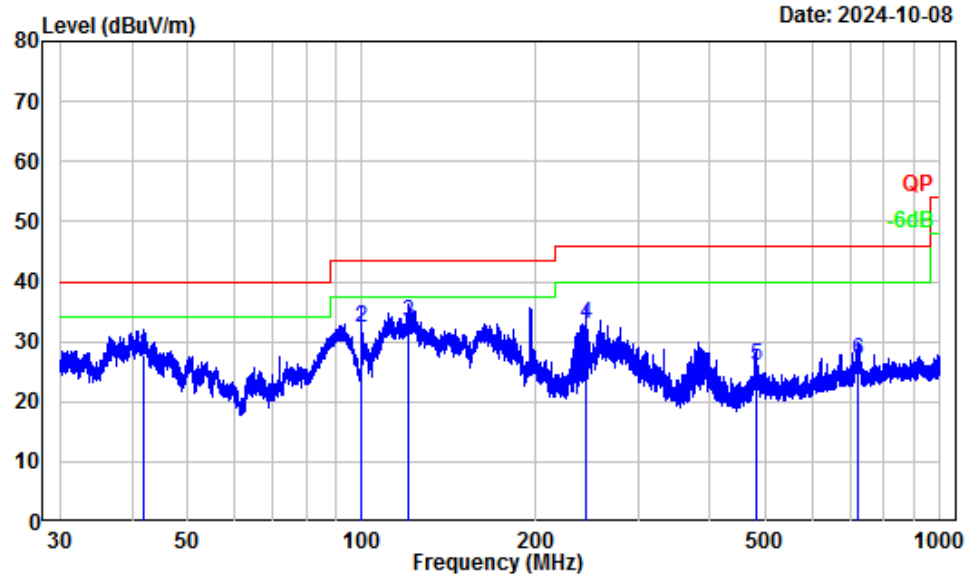
Horizontal



Site : Chamber A
Condition : 3m Horizontal
Project Number: 2401W43894E-RF
Test Mode : BLE Transmitting
Tester : Anson Su

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	99.75	-15.97	40.52	24.55	43.50	-18.95	QP
2	186.11	-14.15	47.05	32.90	43.50	-10.60	QP
3	244.66	-13.22	50.22	37.00	46.00	-9.00	QP
4	272.04	-11.65	48.20	36.55	46.00	-9.45	QP
5	299.45	-11.20	49.11	37.91	46.00	-8.09	QP
6	478.85	-6.37	34.55	28.18	46.00	-17.82	QP

Vertical



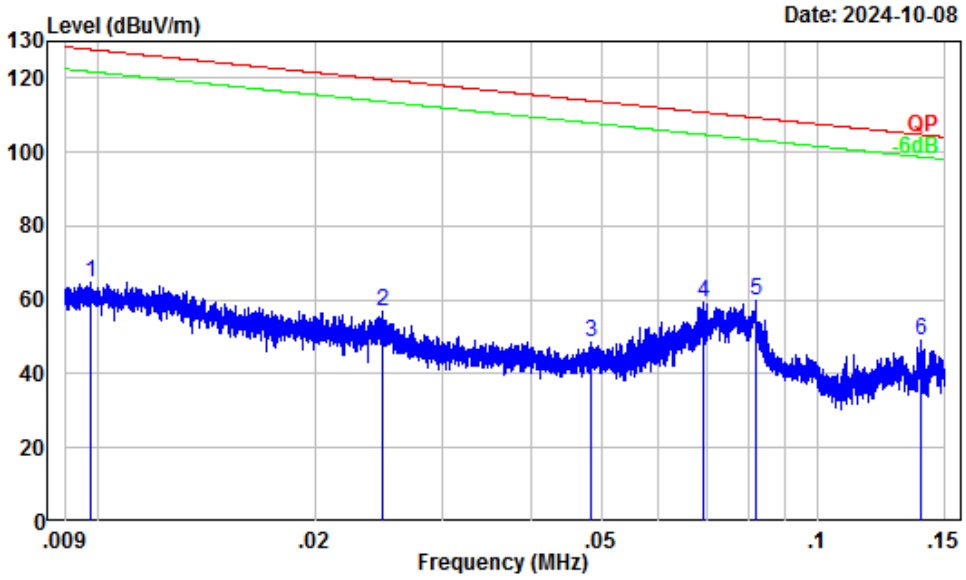
Site : Chamber A
Condition : 3m Vertical
Project Number: 2401W43894E-RF
Test Mode : BLE Transmitting
Tester : Anson Su

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	41.88	-13.77	41.67	27.90	40.00	-12.10	QP
2	99.88	-15.93	48.30	32.37	43.50	-11.13	QP
3	120.65	-11.39	44.45	33.06	43.50	-10.44	QP
4	244.77	-13.21	46.01	32.80	46.00	-13.20	QP
5	482.43	-6.25	32.19	25.94	46.00	-20.06	QP
6	720.15	-3.20	30.12	26.92	46.00	-19.08	QP

2.4G Wi-Fi: *(Maximum output power mode, 802.11ax40 2422MHz)*

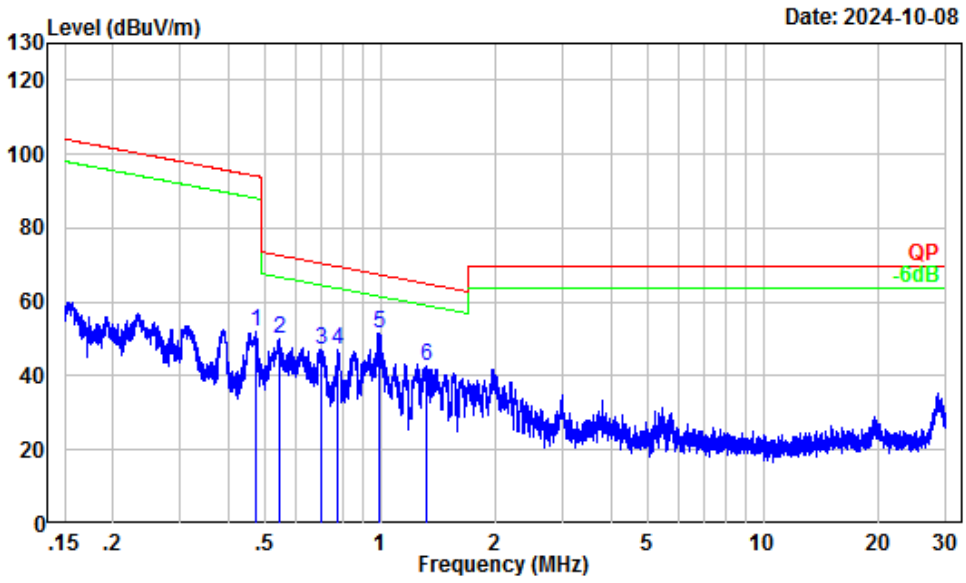
9 kHz-30MHz: *Parallel (worst case)*

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



Site : Chamber A
Condition : 3m
Project Number: 2401W43894E-RF
Test Mode : 2.4G WIFI Transmitting
Tester : Anson Su

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.01	37.87	27.10	64.97	127.81	-62.84	Peak
2	0.02	30.14	26.80	56.94	119.72	-62.78	Peak
3	0.05	23.41	25.22	48.63	113.90	-65.27	Peak
4	0.07	20.47	38.87	59.34	110.79	-51.45	Peak
5	0.08	18.83	40.97	59.80	109.33	-49.53	Peak
6	0.14	15.23	33.76	48.99	104.75	-55.76	Peak

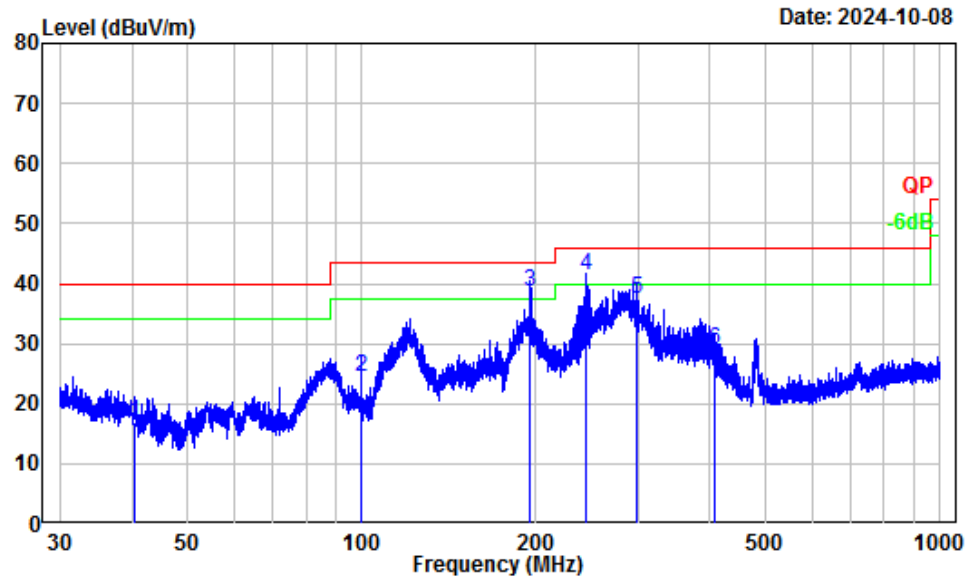


Site : Chamber A
Condition : 3m
Project Number: 2401W43894E-RF
Test Mode : 2.4G WIFI Transmitting
Tester : Anson Su

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.47	4.06	47.71	51.77	94.11	-42.34	Peak
2	0.54	2.95	46.98	49.93	72.86	-22.93	Peak
3	0.70	1.11	46.02	47.13	70.67	-23.54	Peak
4	0.78	0.17	46.79	46.96	69.72	-22.76	Peak
5	1.00	-1.57	53.16	51.59	67.50	-15.91	Peak
6	1.32	-2.72	45.39	42.67	64.98	-22.31	Peak

30MHz-1GHz:

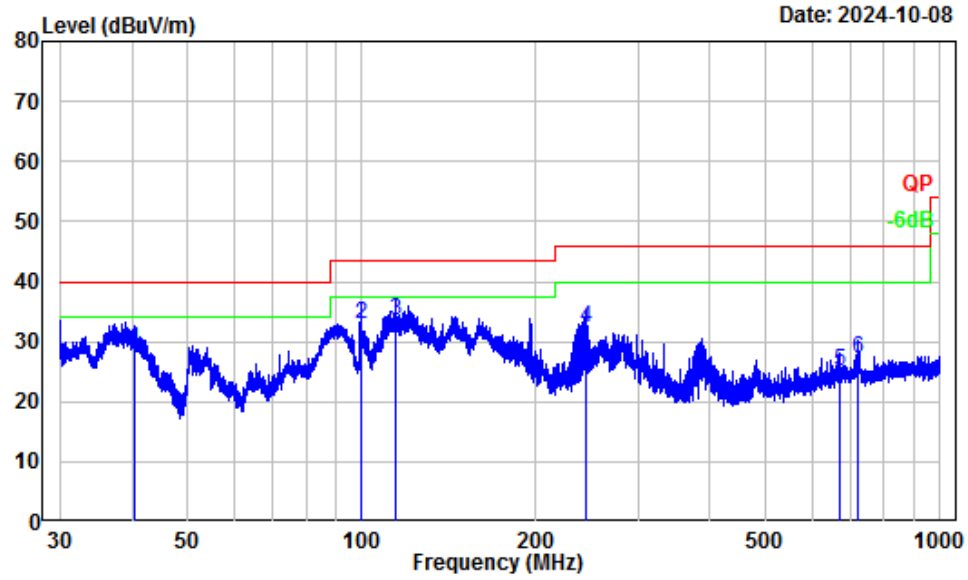
Horizontal



Site : Chamber A
Condition : 3m Horizontal
Project Number: 2401W43894E-RF
Test Mode : 2.4G WIFI Transmitting
Tester : Anson Su

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	40.35	-12.61	29.60	16.99	40.00	-23.01	QP
2	99.62	-16.01	40.54	24.53	43.50	-18.97	QP
3	195.82	-13.52	52.30	38.78	43.50	-4.72	QP
4	244.77	-13.21	54.70	41.49	46.00	-4.51	QP
5	299.71	-11.20	48.50	37.30	46.00	-8.70	QP
6	406.98	-8.22	37.19	28.97	46.00	-17.03	QP

Vertical



Site : Chamber A
Condition : 3m Vertical
Project Number: 2401W43894E-RF
Test Mode : 2.4G WIFI Transmitting
Tester : Anson Su

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	40.29	-12.58	41.22	28.64	40.00	-11.36	QP
2	99.88	-15.93	48.96	33.03	43.50	-10.47	QP
3	114.67	-12.19	45.74	33.55	43.50	-9.95	QP
4	244.77	-13.21	45.42	32.21	46.00	-13.79	QP
5	672.25	-3.83	28.96	25.13	46.00	-20.87	QP
6	720.15	-3.20	30.34	27.14	46.00	-18.86	QP

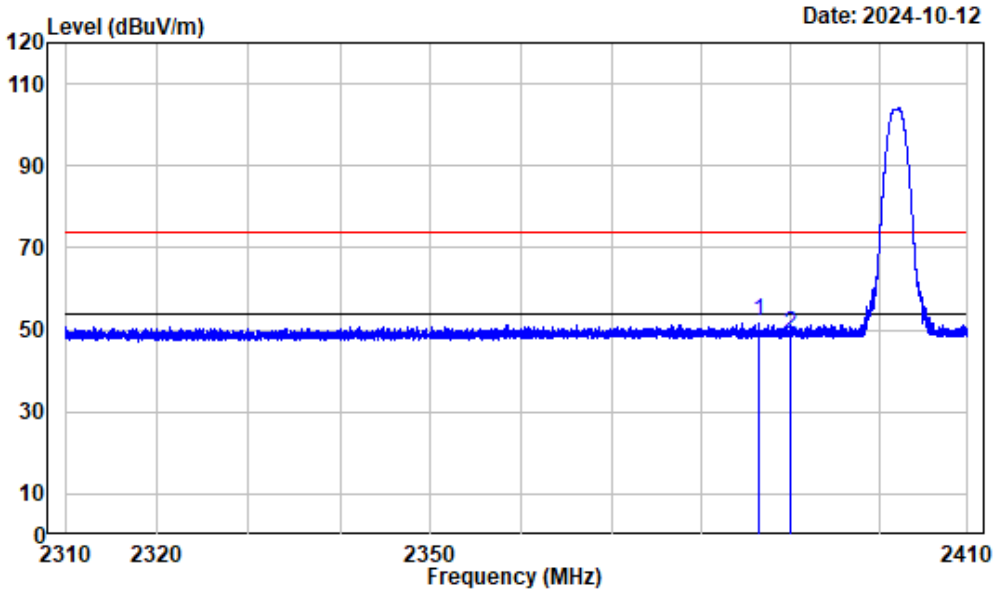
1-25 GHz:

Frequency (MHz)	Reading (dBµV)	PK/AV	Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
BLE 1M							
Low Channel 2402MHz							
4804.00	48.09	PK	H	2.42	50.51	74	-23.49
4804.00	34.77	AV	H	2.42	37.19	54	-16.81
4804.00	47.85	PK	V	2.42	50.27	74	-23.73
4804.00	34.62	AV	V	2.42	37.04	54	-16.96
Middle Channel 2440MHz							
4880.00	47.67	PK	H	2.58	50.25	74	-23.75
4880.00	34.55	AV	H	2.58	37.13	54	-16.87
4880.00	47.44	PK	V	2.58	50.02	74	-23.98
4880.00	34.43	AV	V	2.58	37.01	54	-16.99
High Channel 2480MHz							
4960.00	48.36	PK	H	2.68	51.04	74	-22.96
4960.00	34.93	AV	H	2.68	37.61	54	-16.39
4960.00	48.12	PK	V	2.68	50.80	74	-23.20
4960.00	34.75	AV	V	2.68	37.43	54	-16.57
BLE 2M							
Low Channel 2402MHz							
4804.00	47.87	PK	H	2.42	50.29	74	-23.71
4804.00	35.18	AV	H	2.42	37.60	54	-16.40
4804.00	47.69	PK	V	2.42	50.11	74	-23.89
4804.00	35.02	AV	V	2.42	37.44	54	-16.56
Middle Channel 2440MHz							
4880.00	48.04	PK	H	2.58	50.62	74	-23.38
4880.00	35.26	AV	H	2.58	37.84	54	-16.16
4880.00	47.85	PK	V	2.58	50.43	74	-23.57
4880.00	35.13	AV	V	2.58	37.71	54	-16.29
High Channel 2480MHz							
4960.00	48.21	PK	H	2.68	50.89	74	-23.11
4960.00	35.37	AV	H	2.68	38.05	54	-15.95
4960.00	47.98	PK	V	2.68	50.66	74	-23.34
4960.00	35.19	AV	V	2.68	37.87	54	-16.13

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

Test plots for Band Edge Measurements (Radiated):

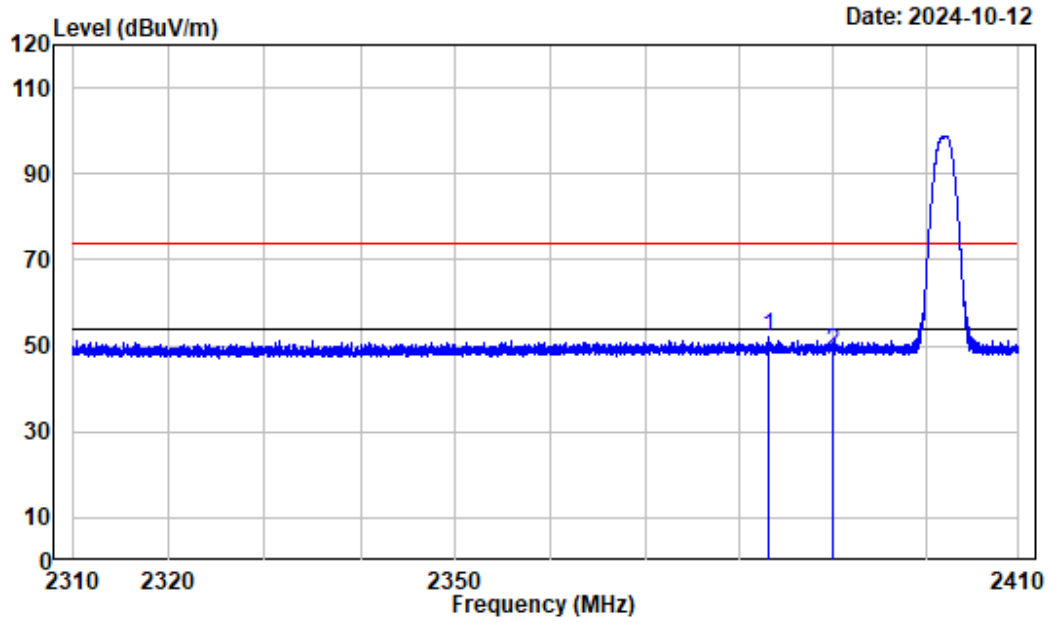
BLE 1M			
Test Channel:	**2402MHz**	**Ant. Polar. :**	**Horizontal**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : BLE1M-2402

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2386.413	-3.19	55.36	52.17	74.00	-21.83	Peak
2	2390.000	-3.20	51.97	48.77	74.00	-25.23	Peak

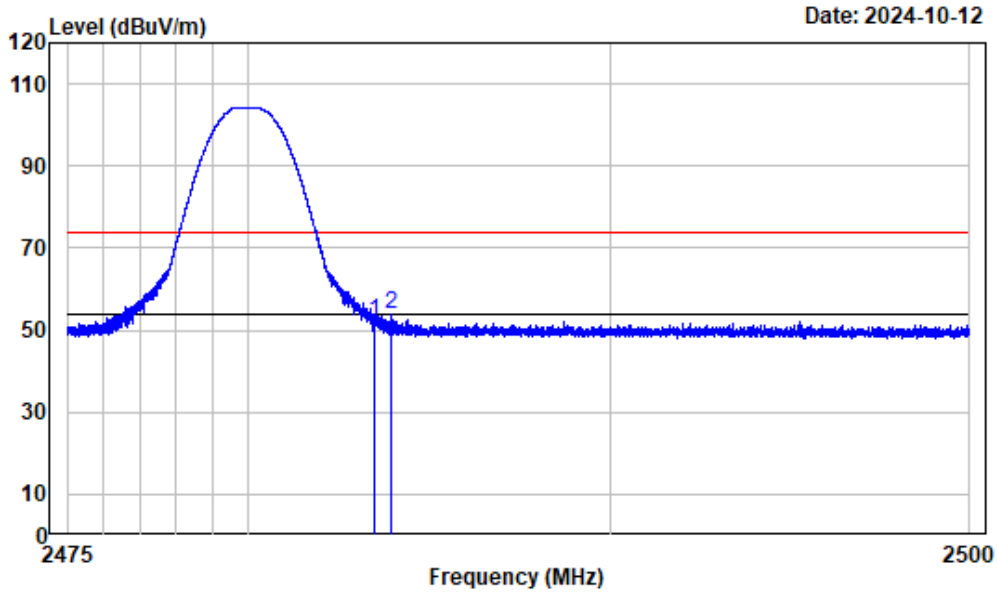
BLE 1M			
Test Channel:	**2402MHz**	**Ant. Polar. :**	**Vertical**



Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : BLE1M-2402

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2383.087	-3.20	55.15	51.95	74.00	-22.05	Peak
2	2390.000	-3.20	51.79	48.59	74.00	-25.41	Peak

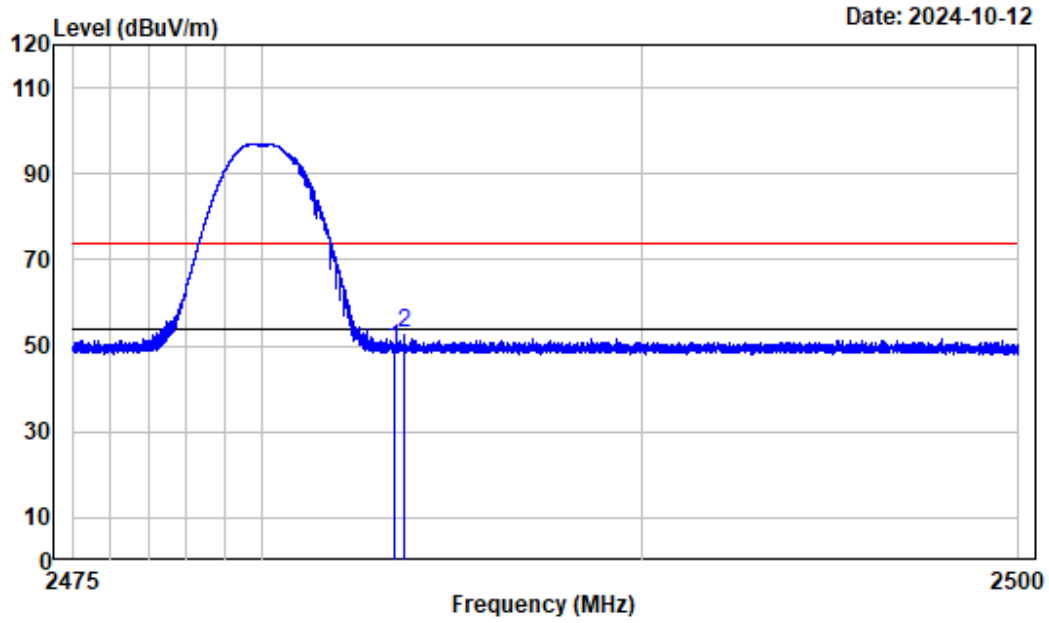
BLE 1M			
Test Channel:	**2480MHz**	**Ant. Polar. :**	**Horizontal**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : BLE1M-2480

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	55.28	52.11	74.00	-21.89	Peak
2	2483.925	-3.17	57.01	53.84	74.00	-20.16	Peak

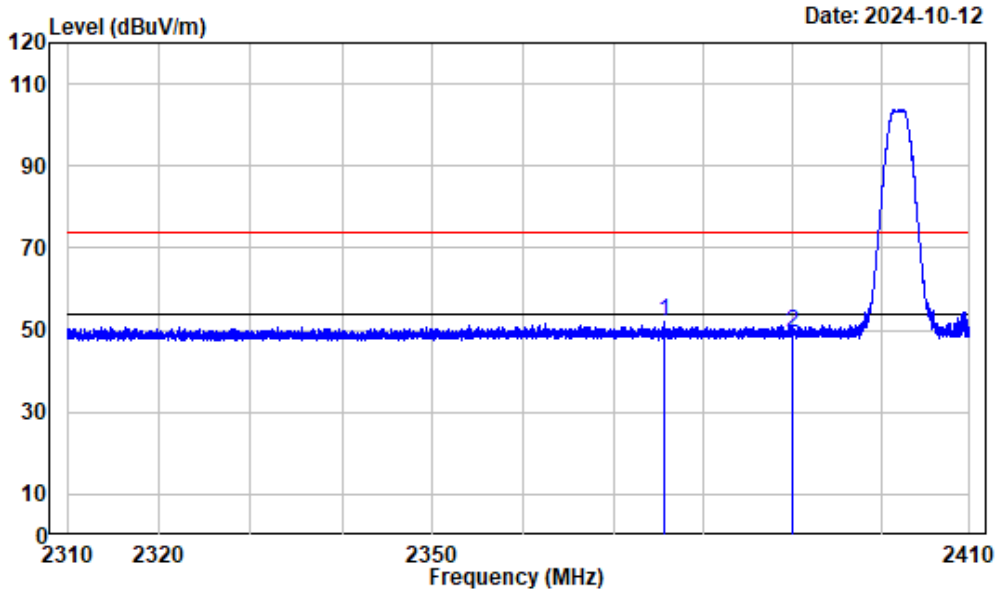
BLE 1M			
Test Channel:	**2480MHz**	**Ant. Polar. :**	**Vertical**



Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : BLE1M-2480

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	52.64	49.47	74.00	-24.53	Peak
2	2483.744	-3.17	56.24	53.07	74.00	-20.93	Peak

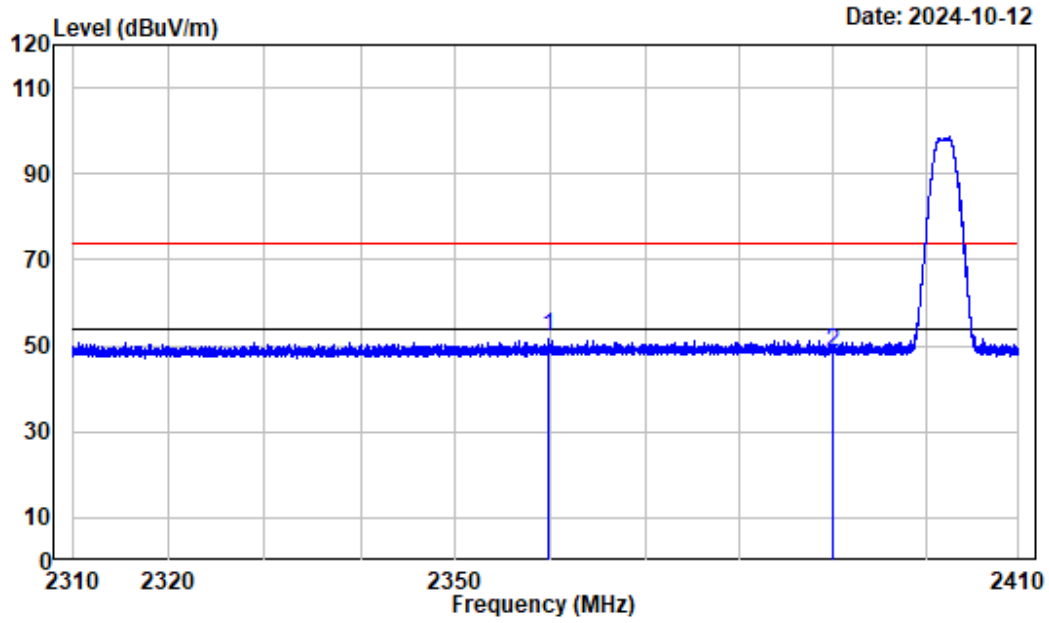
BLE 2M			
Test Channel:	**2402MHz**	**Ant. Polar. :**	**Horizontal**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : BLE2M-2402

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2375.613	-3.18	55.30	52.12	74.00	-21.88	Peak
2	2390.000	-3.20	52.42	49.22	74.00	-24.78	Peak

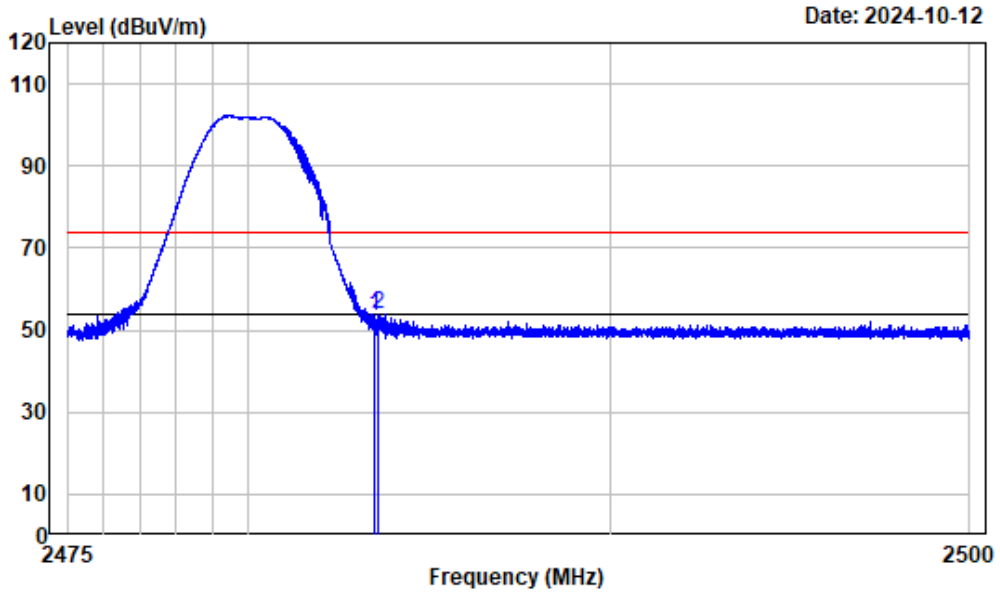
BLE 2M			
Test Channel:	**2402MHz**	**Ant. Polar. :**	**Vertical**



Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : BLE2M-2402

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2359.825	-3.16	55.11	51.95	74.00	-22.05	Peak
2	2390.000	-3.20	51.50	48.30	74.00	-25.70	Peak

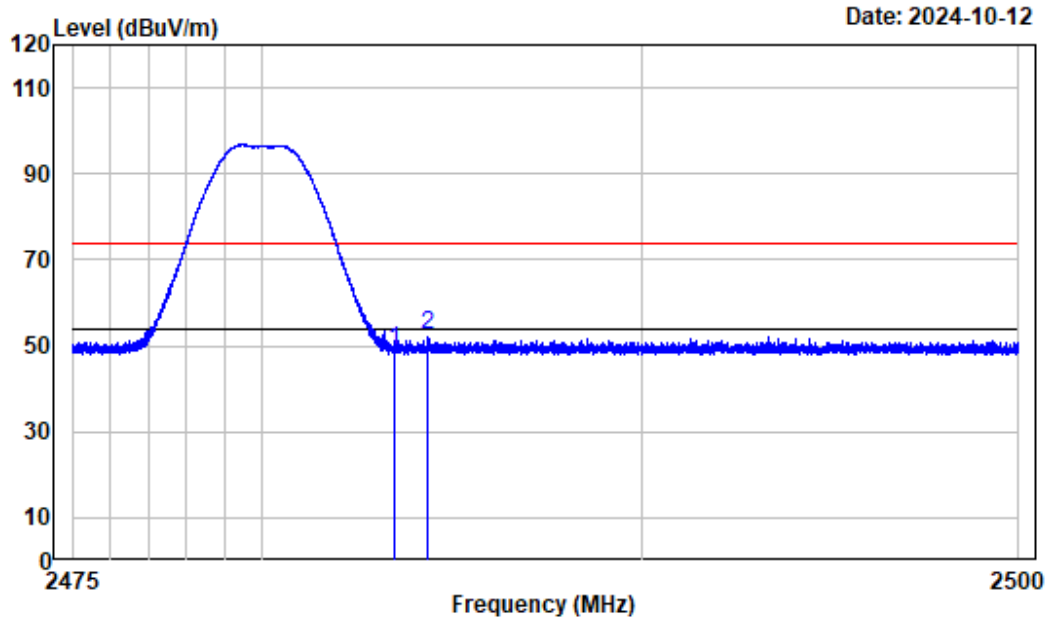
BLE 2M			
Test Channel:	**2480MHz**	**Ant. Polar. :**	**Horizontal**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : BLE2M-2480

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	56.68	53.51	74.00	-20.49	Peak
2	2483.581	-3.17	57.12	53.95	74.00	-20.05	Peak

BLE 2M			
Test Channel:	**2480MHz**	**Ant. Polar. :**	**Vertical**

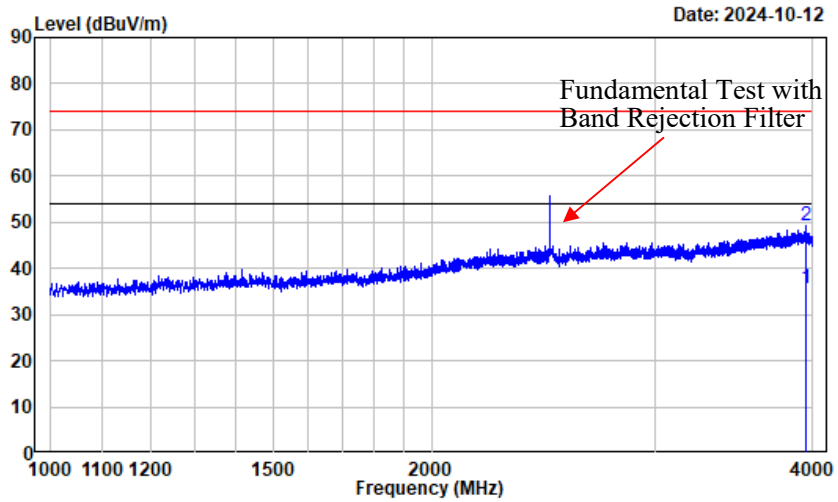


Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : BLE2M-2480

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	52.05	48.88	74.00	-25.12	Peak
2	2484.341	-3.17	55.75	52.58	74.00	-21.42	Peak

1-18GHz (*Listed with the worst harmonic margin test plots*):

BLE 1M

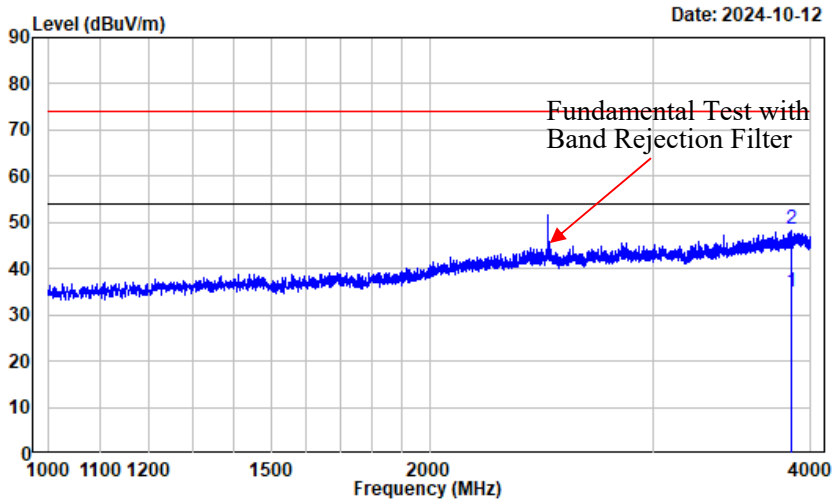
Horizontal	
1-4GHz	

Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : BLE1M-2480

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3953.750	-0.17	35.68	35.51	54.00	-18.49	Average
2	3953.750	-0.17	49.27	49.10	74.00	-24.90	Peak

Vertical

1-4GHz

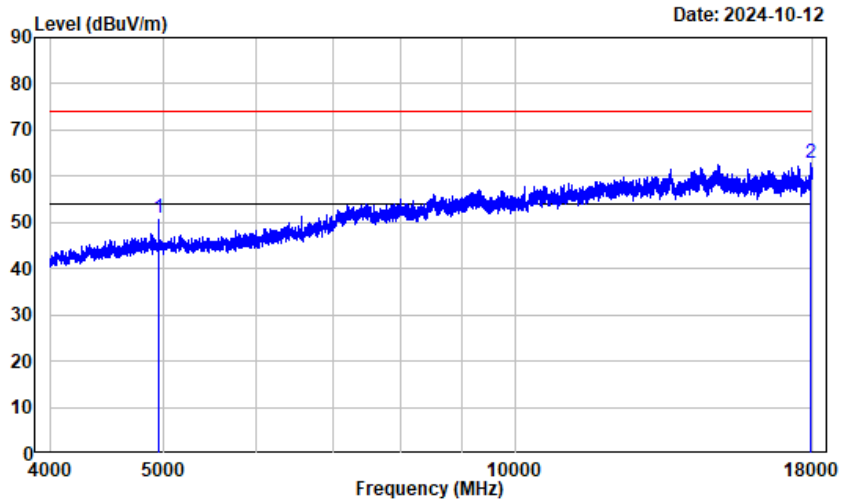


Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : BLE1M-2480

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3866.250	-0.71	35.58	34.87	54.00	-19.13	Average
2	3866.250	-0.71	49.36	48.65	74.00	-25.35	Peak

Horizontal-Peak

4-18GHz

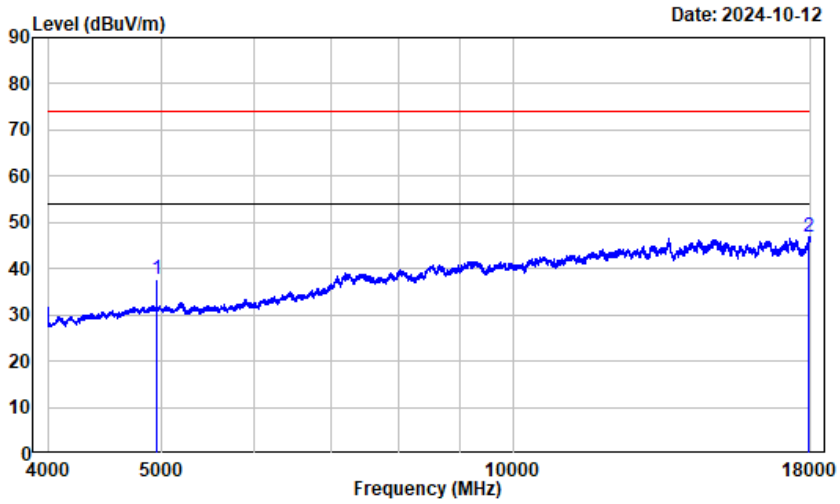


Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : BLE1M-2480

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4960.000	2.68	48.36	51.04	74.00	-22.96	Peak
2	17938.740	24.18	38.79	62.97	74.00	-11.03	Peak

Horizontal-Average

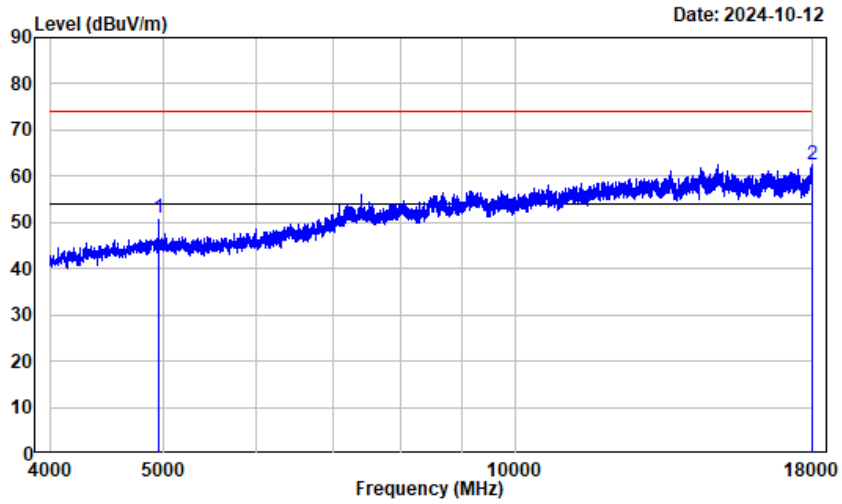
4-18GHz



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : BLE1M-2480

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4960.000	2.68	34.93	37.61	54.00	-16.39	Average
2	17942.240	24.21	22.64	46.85	54.00	-7.15	Average

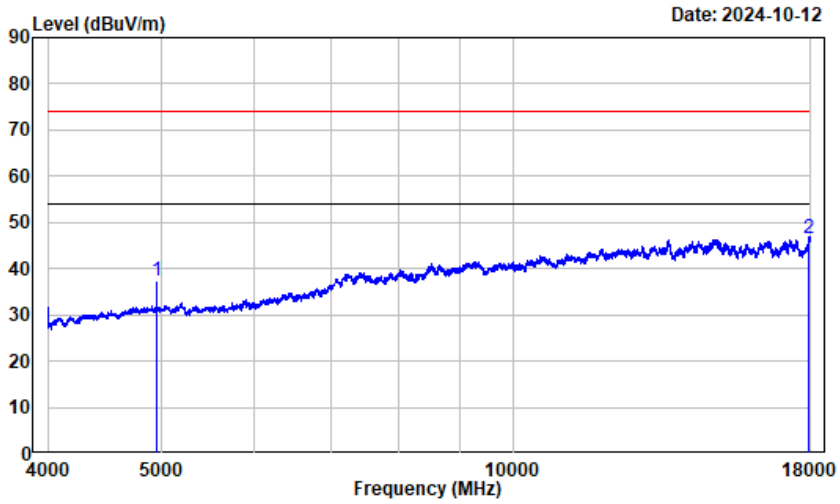
Note: Spectrum Analyzer Setting: RBW=1MHz, VBW=5kHz

Vertical-Peak	
4-18GHz	 Condition : Vertical Project No.: 2401W43894E-RF Tester : Zenos Qiao Note : BLE1M-2480

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4960.000	2.68	48.12	50.80	74.00	-23.20	Peak
2	17968.500	24.40	38.09	62.49	74.00	-11.51	Peak

Vertical-Average

4-18GHz

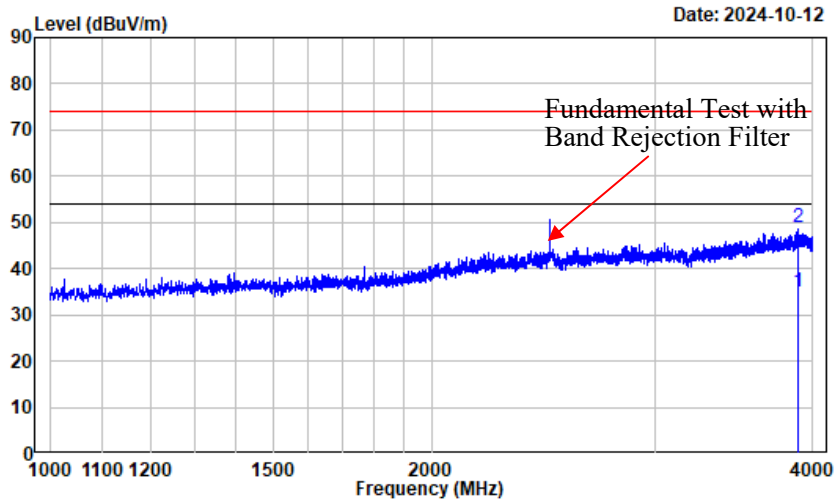


Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : BLE1M-2480

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4960.000	2.68	34.75	37.43	54.00	-16.57	Average
2	17929.990	24.12	22.57	46.69	54.00	-7.31	Average

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

BLE 2M

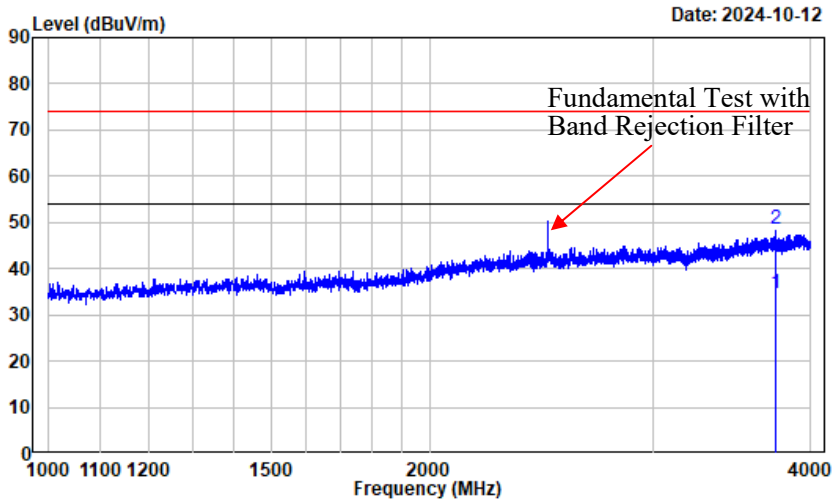
Horizontal	
1-4GHz	

Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : BLE2M-2480

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3900.000	-0.53	35.59	35.06	54.00	-18.94	Average
2	3900.000	-0.53	49.50	48.97	74.00	-25.03	Peak

Vertical

1-4GHz

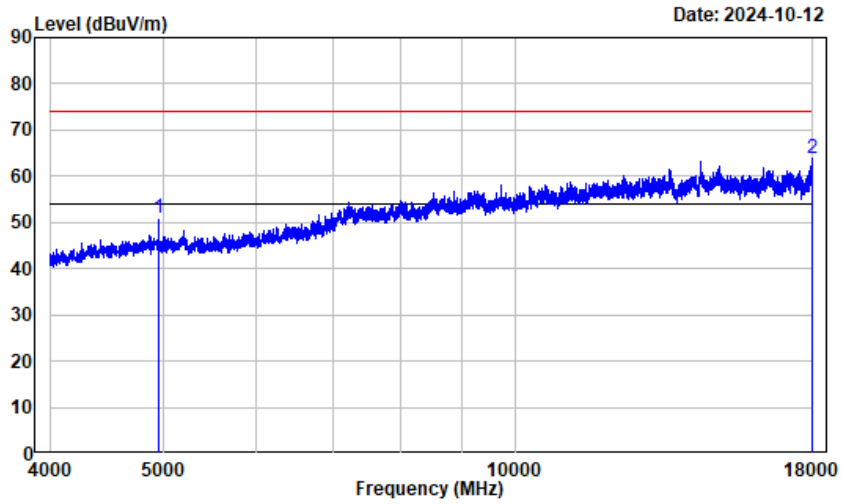


Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : BLE2M-2480

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3758.750	-0.87	35.40	34.53	54.00	-19.47	Average
2	3758.750	-0.87	49.35	48.48	74.00	-25.52	Peak

Horizontal-Peak

4-18GHz

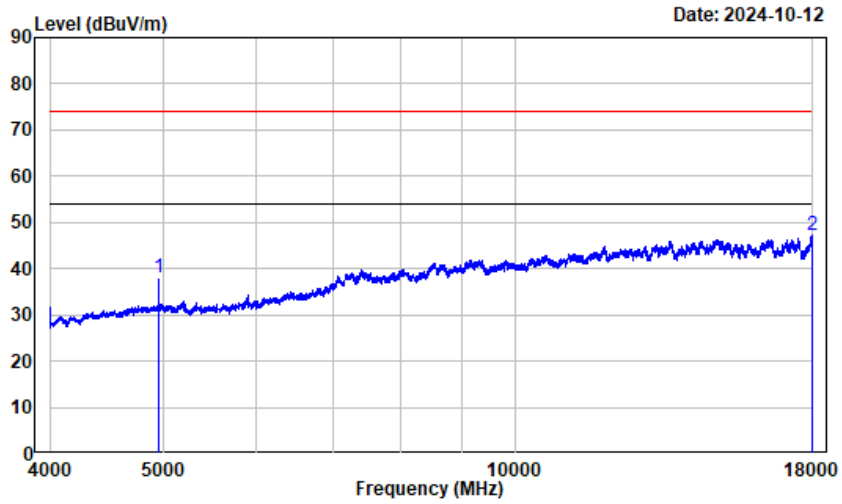


Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : BLE2M-2480

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4960.000	2.68	48.21	50.89	74.00	-23.11	Peak
2	17959.740	24.34	39.35	63.69	74.00	-10.31	Peak

Horizontal-Average

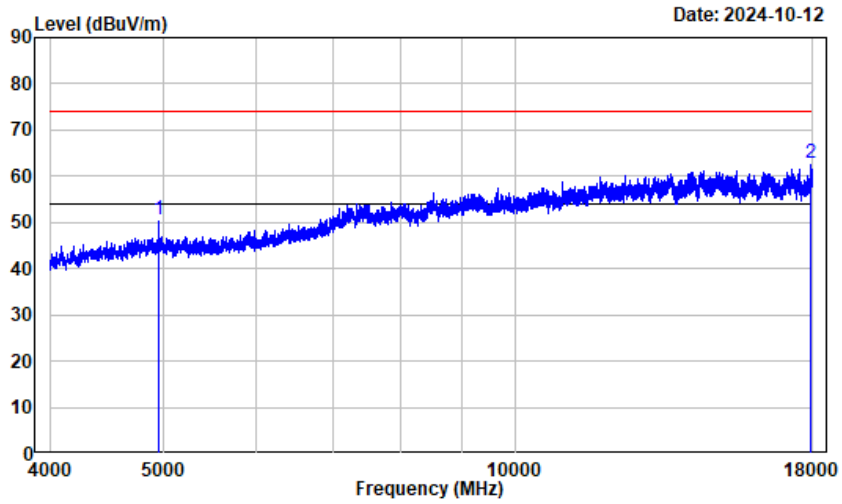
4-18GHz



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : BLE2M-2480

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4960.000	2.68	35.37	38.05	54.00	-15.95	Average
2	17963.250	24.36	22.81	47.17	54.00	-6.83	Average

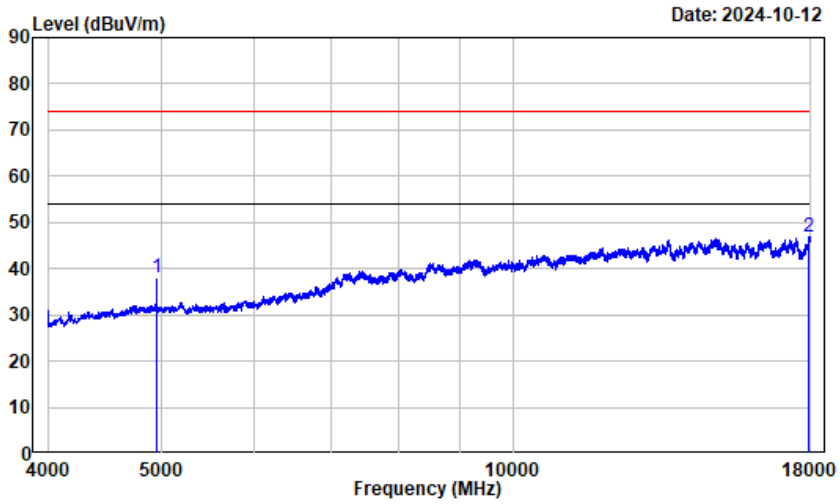
Note: Spectrum Analyzer Setting: RBW=1MHz, VBW=5kHz

Vertical-Peak	
4-18GHz	 Condition : Vertical Project No.: 2401W43894E-RF Tester : Zenos Qiao Note : BLE2M-2480

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4960.000	2.68	47.98	50.66	74.00	-23.34	Peak
2	17943.990	24.22	38.70	62.92	74.00	-11.08	Peak

Vertical-Average

4-18GHz



Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : BLE2M-2480

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4960.000	2.68	35.19	37.87	54.00	-16.13	Average
2	17949.240	24.25	22.71	46.96	54.00	-7.04	Average

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

2.4G Wi-Fi

Frequency (MHz)	Reading (dBμV)	PK/AV	Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
802.11b							
Low Channel 2412MHz							
4824.00	49.32	PK	H	2.45	51.77	74	-22.23
4824.00	35.81	AV	H	2.45	38.26	54	-15.74
4824.00	48.26	PK	V	2.45	50.71	74	-23.29
4824.00	35.04	AV	V	2.45	37.49	54	-16.51
Middle Channel 2437MHz							
4874.00	49.93	PK	H	2.56	52.49	74	-21.51
4874.00	38.56	AV	H	2.56	41.12	54	-12.88
4874.00	48.75	PK	V	2.56	51.31	74	-22.69
4874.00	37.67	AV	V	2.56	40.23	54	-13.77
High Channel 2462MHz							
4924.00	50.15	PK	H	2.63	52.78	74	-21.22
4924.00	38.74	AV	H	2.63	41.37	54	-12.63
4924.00	49.02	PK	V	2.63	51.65	74	-22.35
4924.00	37.89	AV	V	2.63	40.52	54	-13.48
802.11g							
Low Channel 2412MHz							
4824.00	48.36	PK	H	2.45	50.81	74	-23.19
4824.00	34.12	AV	H	2.45	36.57	54	-17.43
4824.00	47.21	PK	V	2.45	49.66	74	-24.34
4824.00	33.37	AV	V	2.45	35.82	54	-18.18
Middle Channel 2437MHz							
4874.00	48.72	PK	H	2.56	51.28	74	-22.72
4874.00	34.50	AV	H	2.56	37.06	54	-16.94
4874.00	47.67	PK	V	2.56	50.23	74	-23.77
4874.00	33.68	AV	V	2.56	36.24	54	-17.76
High Channel 2462MHz							
4924.00	49.24	PK	H	2.63	51.87	74	-22.13
4924.00	34.98	AV	H	2.63	37.61	54	-16.39
4924.00	48.15	PK	V	2.63	50.78	74	-23.22
4924.00	34.06	AV	V	2.63	36.69	54	-17.31

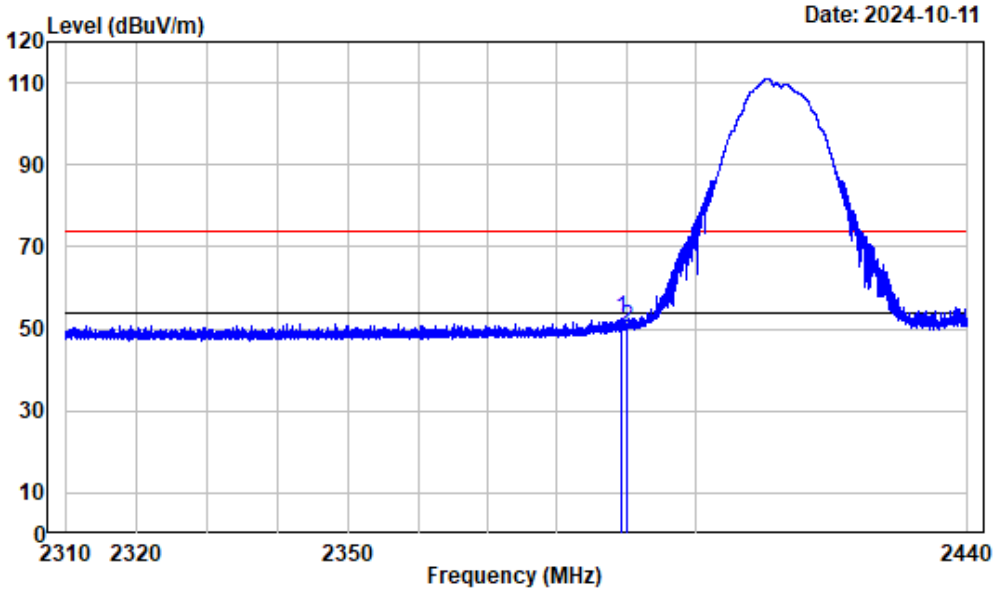
Frequency (MHz)	Reading (dBµV)	PK/AV	Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
802.11n20							
Low Channel 2412MHz							
4824.00	48.22	PK	H	2.45	50.67	74	-23.33
4824.00	33.45	AV	H	2.45	35.90	54	-18.10
4824.00	48.03	PK	V	2.45	50.48	74	-23.52
4824.00	33.28	AV	V	2.45	35.73	54	-18.27
Middle Channel 2437MHz							
4874.00	48.40	PK	H	2.56	50.96	74	-23.04
4874.00	33.54	AV	H	2.56	36.10	54	-17.90
4874.00	48.21	PK	V	2.56	50.77	74	-23.23
4874.00	33.32	AV	V	2.56	35.88	54	-18.12
High Channel 2462MHz							
4924.00	48.84	PK	H	2.63	51.47	74	-22.53
4924.00	33.75	AV	H	2.63	36.38	54	-17.62
4924.00	48.60	PK	V	2.63	51.23	74	-22.77
4924.00	33.52	AV	V	2.63	36.15	54	-17.85
802.11n40							
Low Channel 2422MHz							
4844.00	47.58	PK	H	2.45	50.03	74	-23.97
4844.00	32.75	AV	H	2.45	35.20	54	-18.80
4844.00	47.43	PK	V	2.45	49.88	74	-24.12
4844.00	32.61	AV	V	2.45	35.06	54	-18.94
Middle Channel 2437MHz							
4874.00	47.86	PK	H	2.56	50.42	74	-23.58
4874.00	32.98	AV	H	2.56	35.54	54	-18.46
4874.00	47.67	PK	V	2.56	50.23	74	-23.77
4874.00	32.79	AV	V	2.56	35.35	54	-18.65
High Channel 2452MHz							
4904.00	48.20	PK	H	2.64	50.84	74	-23.16
4904.00	33.43	AV	H	2.64	36.07	54	-17.93
4904.00	47.89	PK	V	2.64	50.53	74	-23.47
4904.00	33.17	AV	V	2.64	35.81	54	-18.19

Frequency (MHz)	Reading (dBµV)	PK/AV	Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
802.11ax20							
Low Channel 2412MHz							
4824.00	47.87	PK	H	2.45	50.32	74	-23.68
4824.00	33.25	AV	H	2.45	35.70	54	-18.30
4824.00	47.63	PK	V	2.45	50.08	74	-23.92
4824.00	33.04	AV	V	2.45	35.49	54	-18.51
Middle Channel 2437MHz							
4874.00	48.15	PK	H	2.56	50.71	74	-23.29
4874.00	33.41	AV	H	2.56	35.97	54	-18.03
4874.00	47.92	PK	V	2.56	50.48	74	-23.52
4874.00	33.20	AV	V	2.56	35.76	54	-18.24
High Channel 2462MHz							
4924.00	48.39	PK	H	2.63	51.02	74	-22.98
4924.00	33.57	AV	H	2.63	36.20	54	-17.80
4924.00	48.16	PK	V	2.63	50.79	74	-23.21
4924.00	33.43	AV	V	2.63	36.06	54	-17.94
802.11ax40							
Low Channel 2422MHz							
4844.00	47.78	PK	H	2.45	50.23	74	-23.77
4844.00	33.16	AV	H	2.45	35.61	54	-18.39
4844.00	47.59	PK	V	2.45	50.04	74	-23.96
4844.00	32.95	AV	V	2.45	35.40	54	-18.60
Middle Channel 2437MHz							
4874.00	48.02	PK	H	2.56	50.58	74	-23.42
4874.00	33.27	AV	H	2.56	35.83	54	-18.17
4874.00	47.84	PK	V	2.56	50.40	74	-23.60
4874.00	33.11	AV	V	2.56	35.67	54	-18.33
High Channel 2452MHz							
4904.00	48.34	PK	H	2.64	50.98	74	-23.02
4904.00	33.45	AV	H	2.64	36.09	54	-17.91
4904.00	48.12	PK	V	2.64	50.76	74	-23.24
4904.00	33.28	AV	V	2.64	35.92	54	-18.08

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):

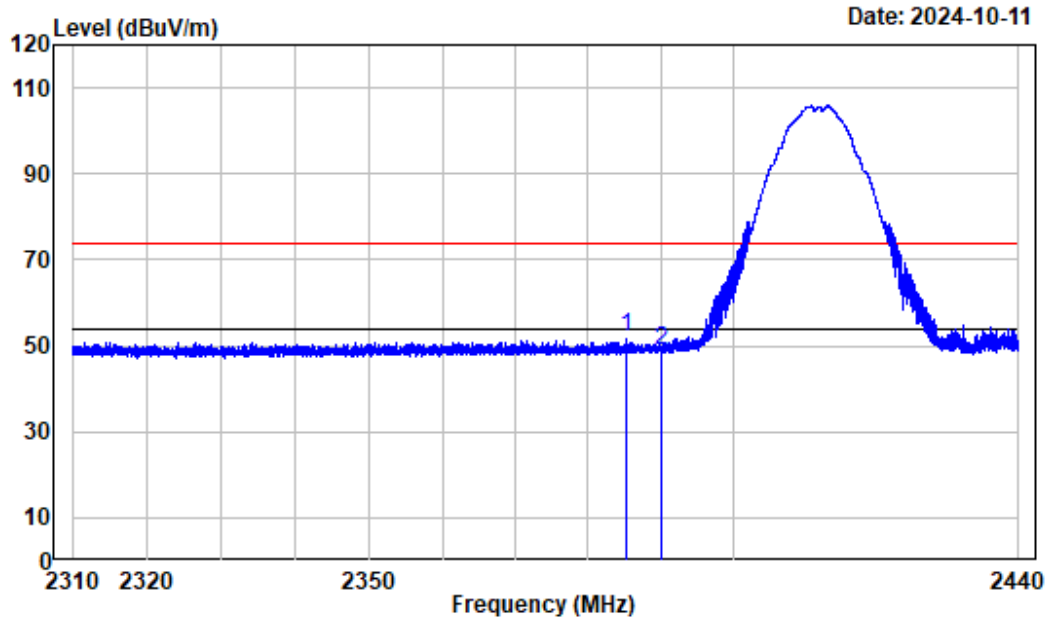
802.11b			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Horizontal**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2412

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.300	-3.20	55.56	52.36	74.00	-21.64	Peak
2	2390.000	-3.20	53.65	50.45	74.00	-23.55	Peak

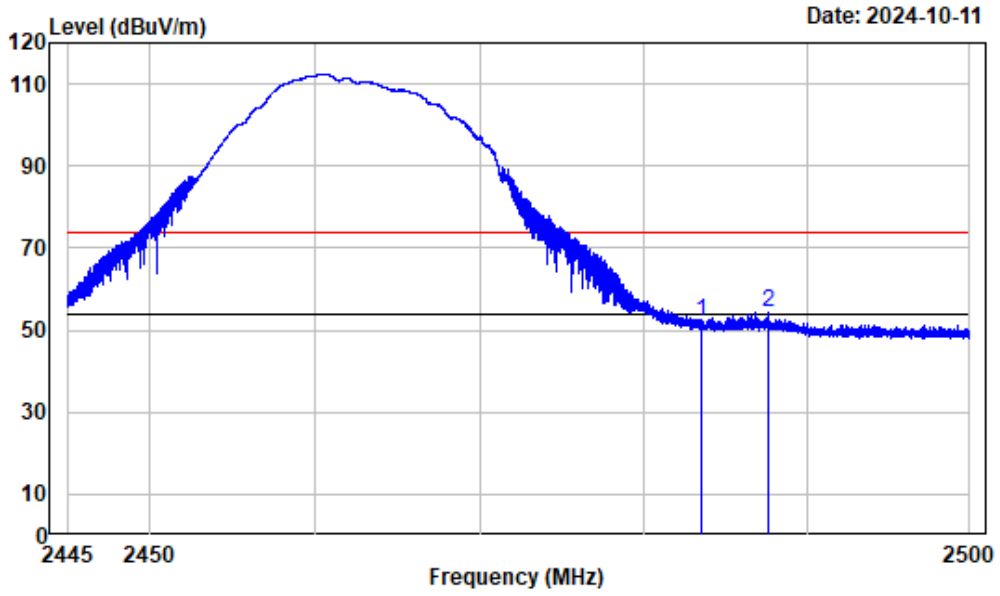
802.11b			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Vertical**



Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2412

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2385.205	-3.19	55.15	51.96	74.00	-22.04	Peak
2	2390.000	-3.20	52.30	49.10	74.00	-24.90	Peak

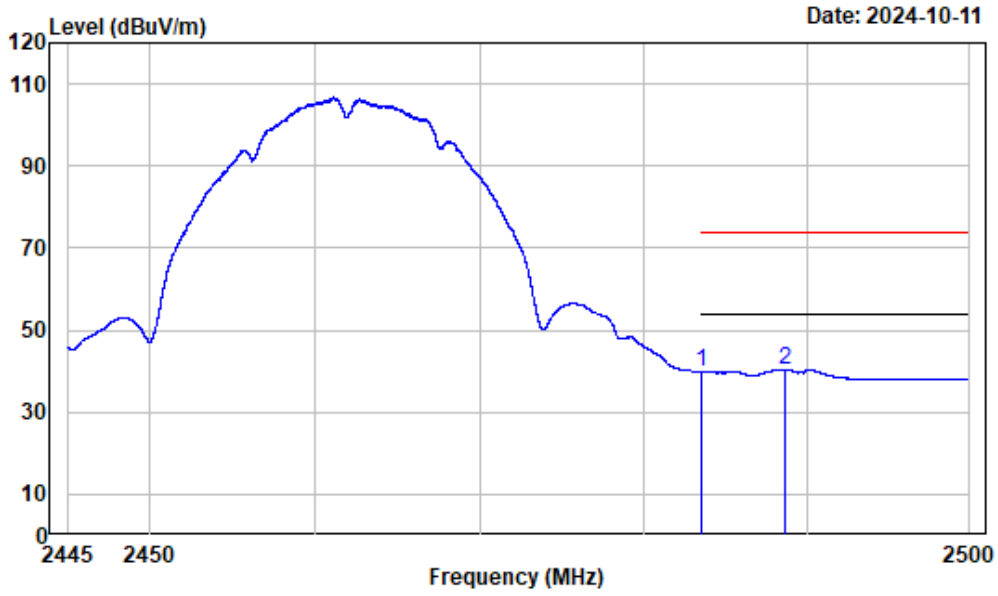
802.11b			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Horizontal-Peak**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	55.10	51.93	74.00	-22.07	Peak
2	2487.584	-3.18	57.68	54.50	74.00	-19.50	Peak

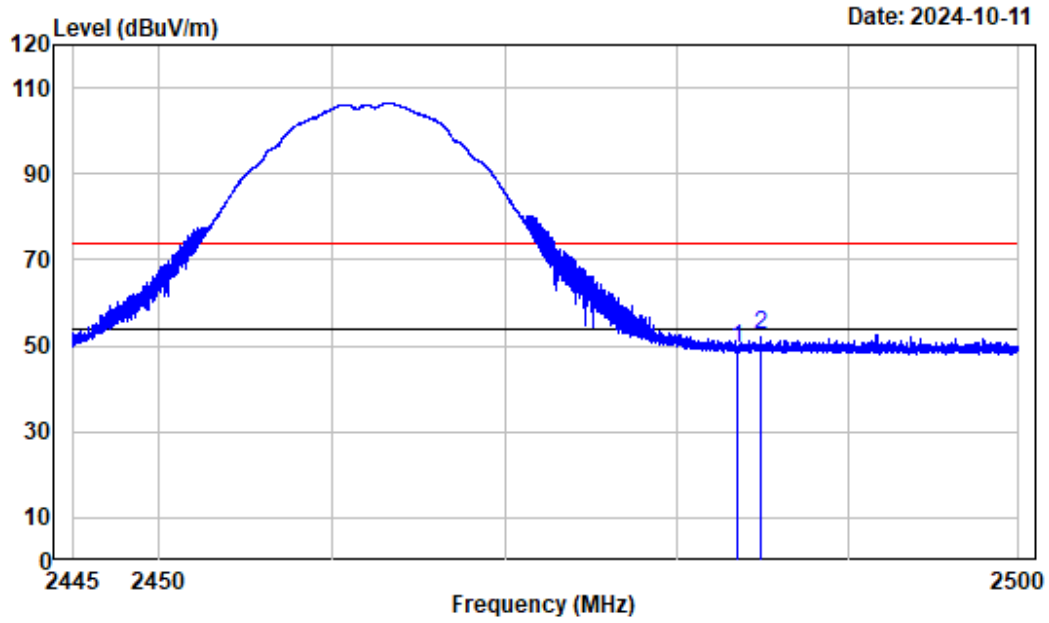
802.11b			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Horizontal-Average**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	43.10	39.93	54.00	-14.07	Average
2	2488.614	-3.18	43.55	40.37	54.00	-13.63	Average

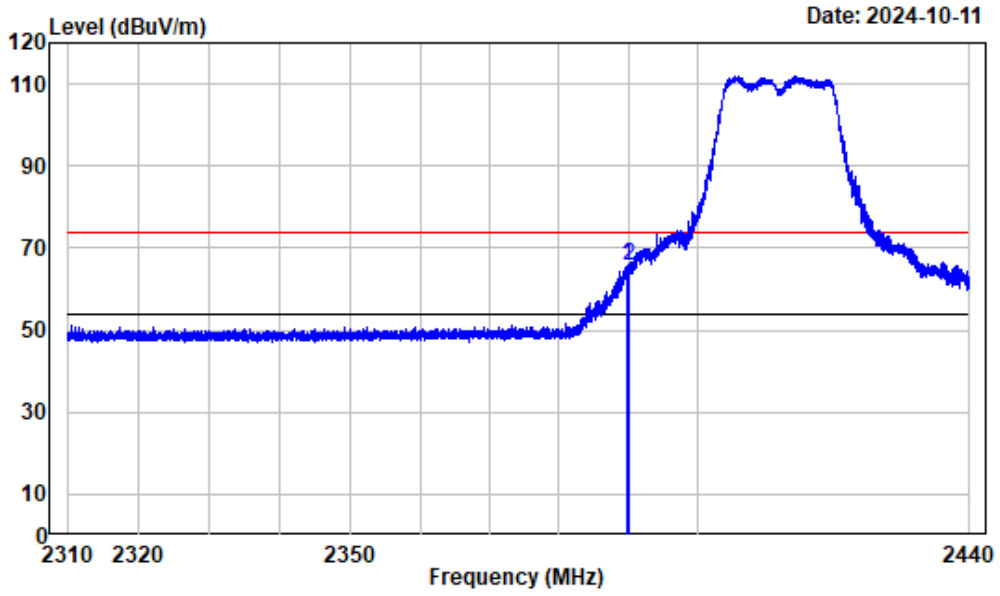
802.11b			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Vertical-Peak**



Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	52.65	49.48	74.00	-24.52	Peak
2	2484.868	-3.17	55.84	52.67	74.00	-21.33	Peak

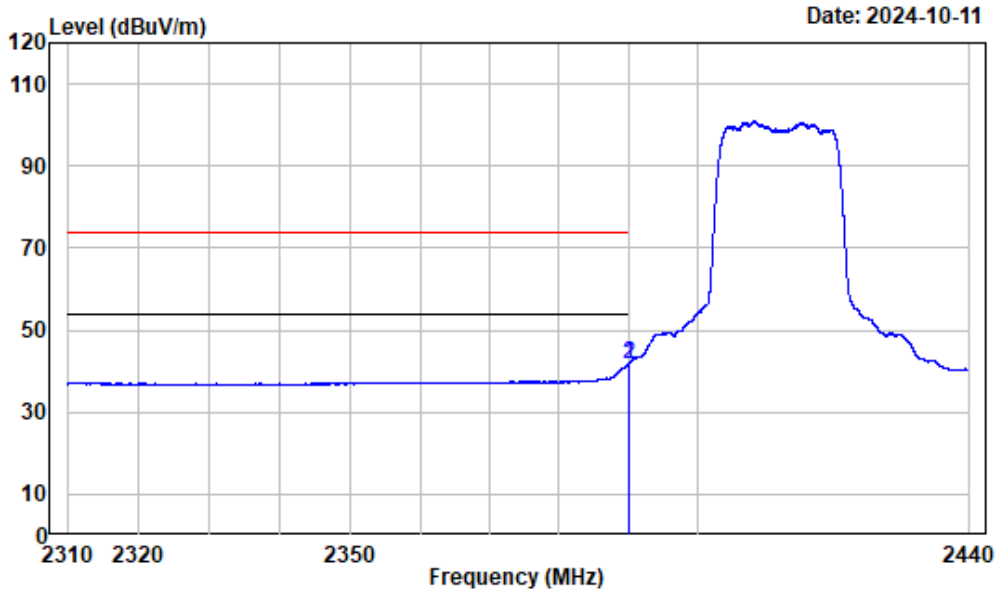
802.11g			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Horizontal-Peak**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2412

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.934	-3.20	69.05	65.85	74.00	-8.15	Peak
2	2390.000	-3.20	69.01	65.81	74.00	-8.19	Peak

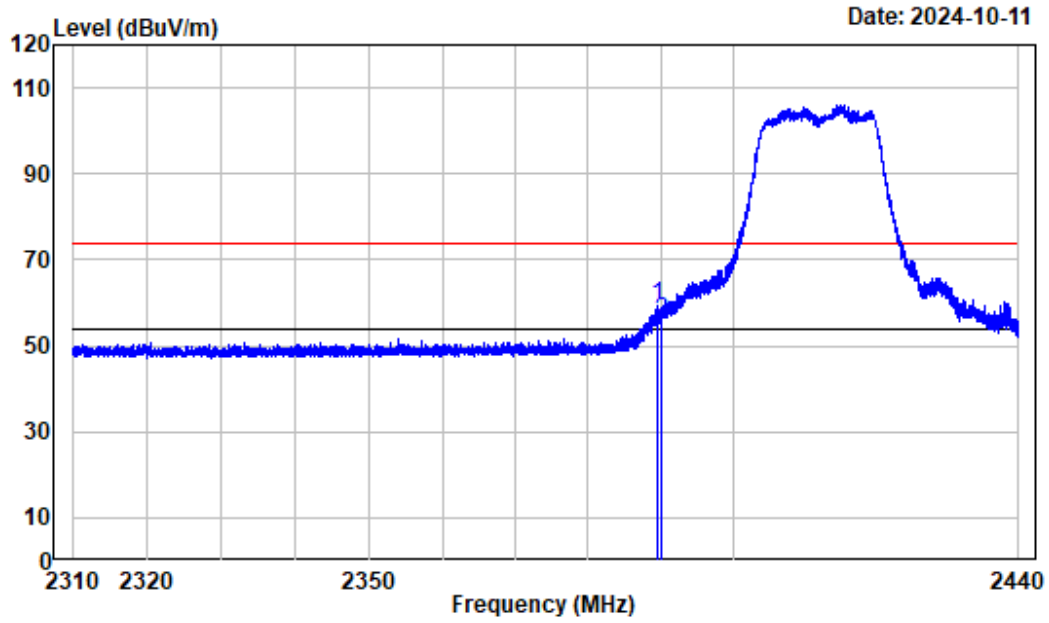
802.11g			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Horizontal-Average**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2412

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.992	-3.20	44.90	41.70	54.00	-12.30	Average
2	2390.000	-3.20	44.76	41.56	54.00	-12.44	Average

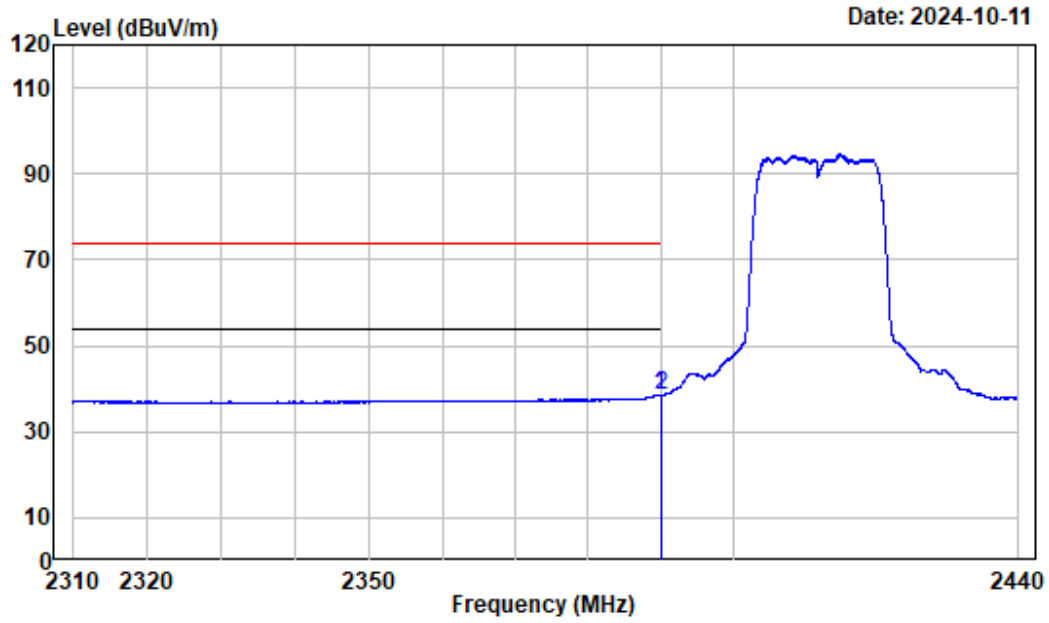
802.11g			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Vertical-Peak**



Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2412

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.560	-3.20	62.46	59.26	74.00	-14.74	Peak
2	2390.000	-3.20	58.97	55.77	74.00	-18.23	Peak

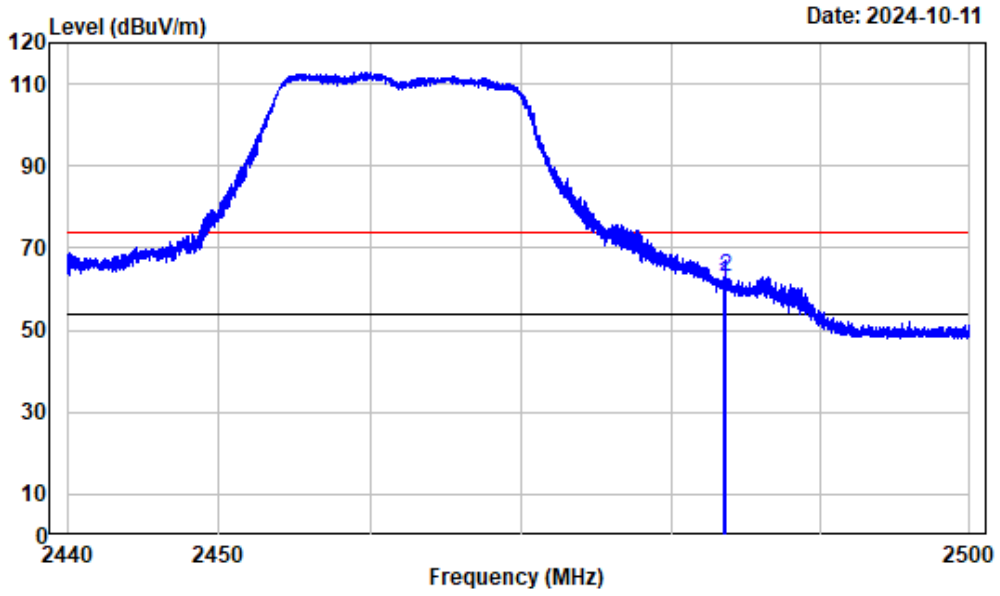
802.11g			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Vertical-Average**



Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2412

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.960	-3.20	41.88	38.68	54.00	-15.32	Average
2	2390.000	-3.20	41.77	38.57	54.00	-15.43	Average

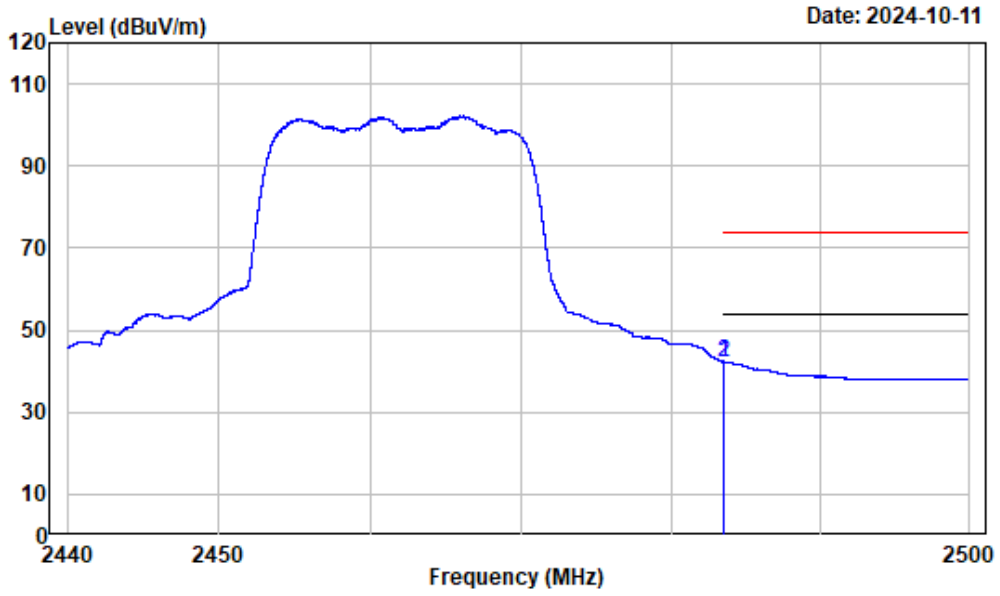
802.11g			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Horizontal-Peak**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	64.83	61.66	74.00	-12.34	Peak
2	2483.605	-3.17	66.33	63.16	74.00	-10.84	Peak

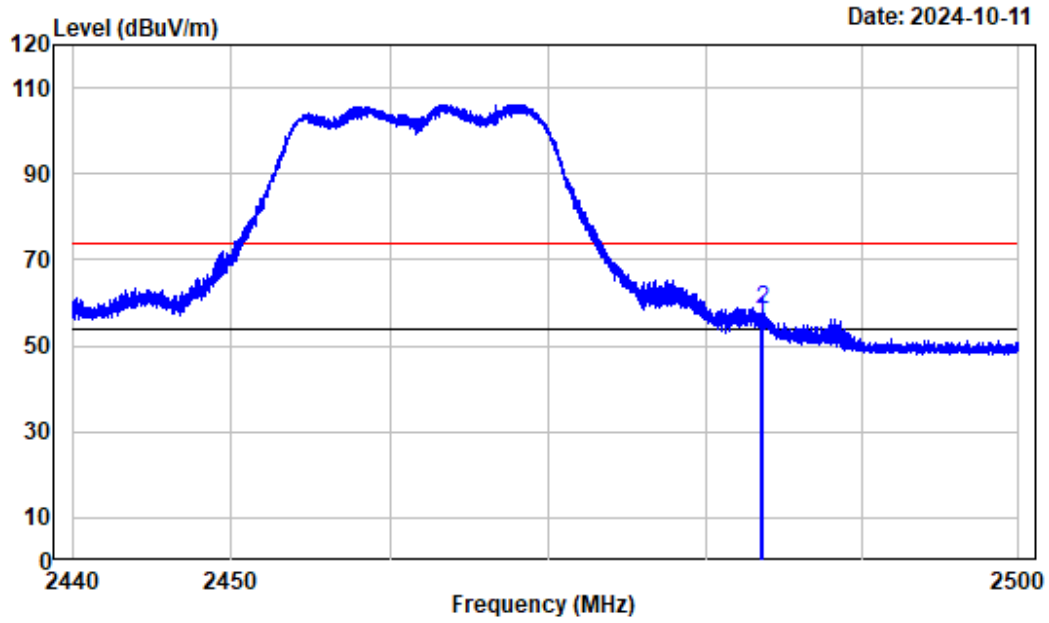
802.11g			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Horizontal-Average**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	45.32	42.15	54.00	-11.85	Average
2	2483.512	-3.17	45.44	42.27	54.00	-11.73	Average

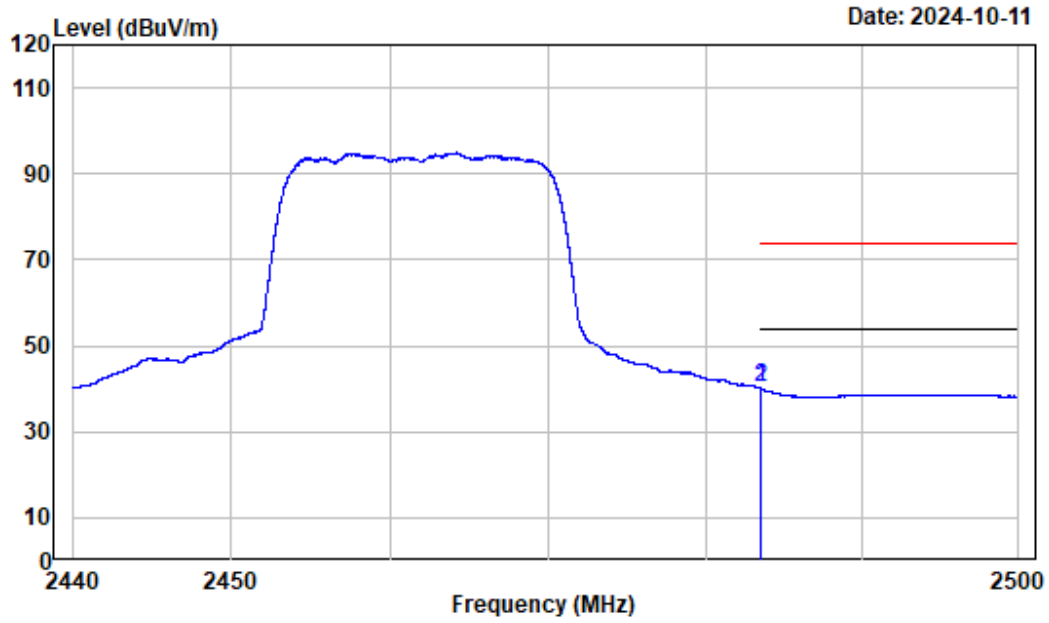
802.11g			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Vertical-Peak**



Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	58.77	55.60	74.00	-18.40	Peak
2	2483.613	-3.17	61.48	58.31	74.00	-15.69	Peak

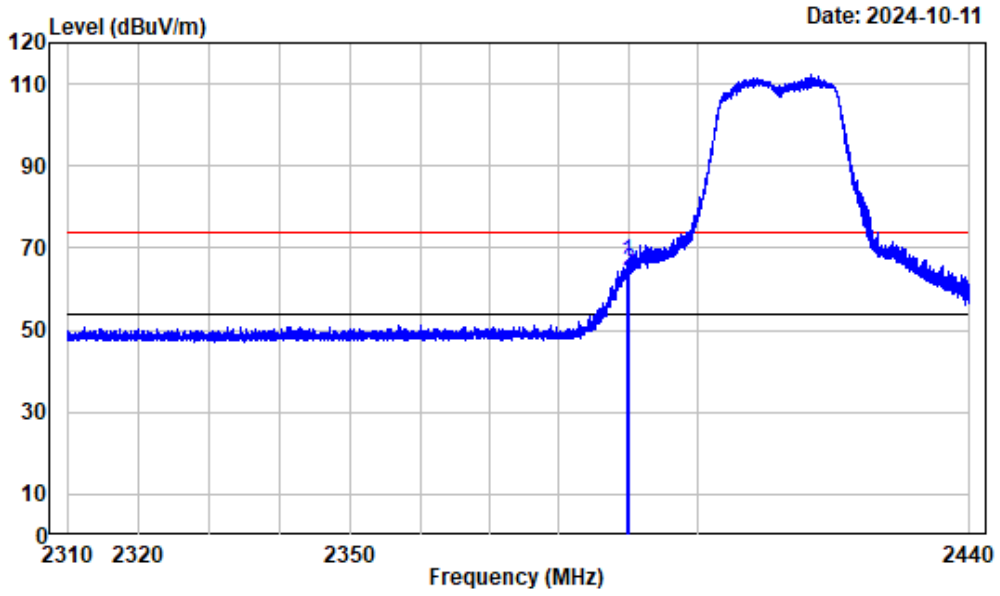
802.11g			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Vertical-Average**



Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	43.35	40.18	54.00	-13.82	Average
2	2483.514	-3.17	43.46	40.29	54.00	-13.71	Average

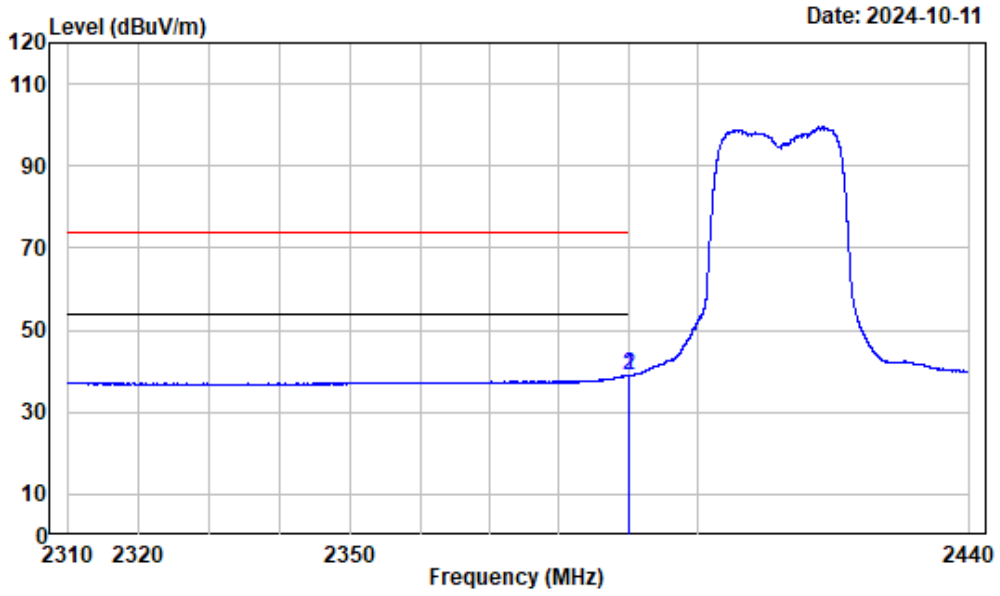
802.11n20			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Horizontal-Peak**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n20-2412

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.820	-3.20	69.63	66.43	74.00	-7.57	Peak
2	2390.000	-3.20	67.63	64.43	74.00	-9.57	Peak

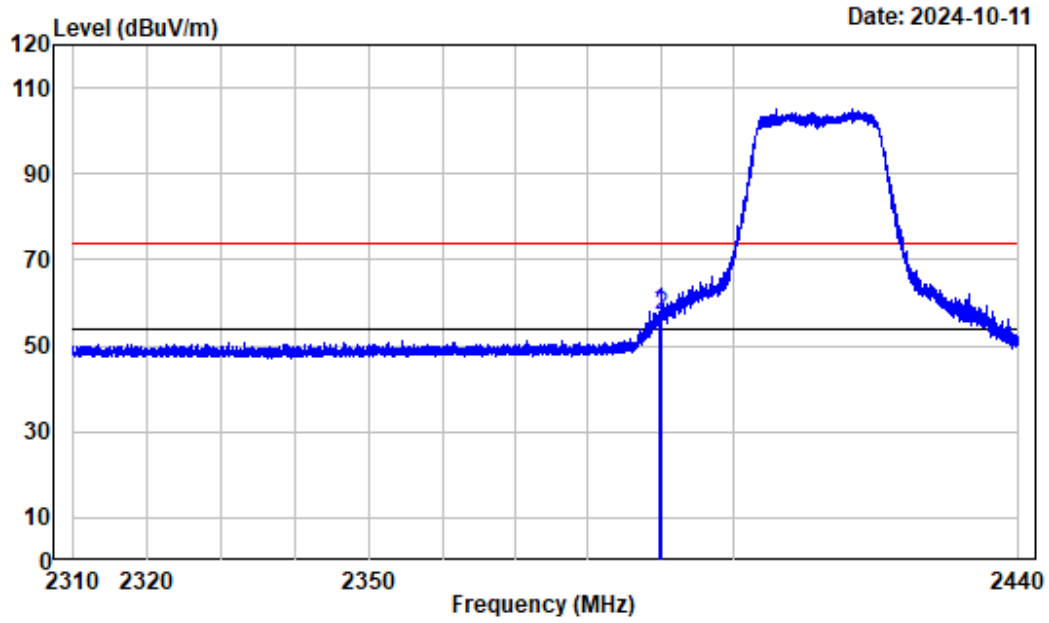
802.11n20			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Horizontal-Average**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n20-2412

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.976	-3.20	42.15	38.95	54.00	-15.05	Average
2	2390.000	-3.20	42.01	38.81	54.00	-15.19	Average

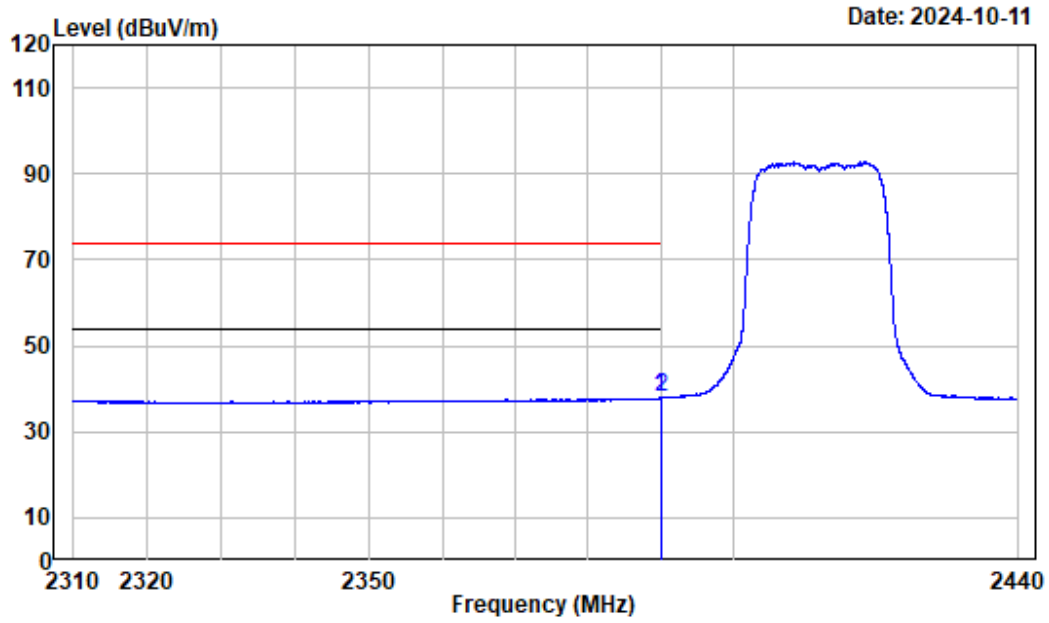
802.11n20			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Vertical-Peak**



Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n20-2412

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.950	-3.20	61.37	58.17	74.00	-15.83	Peak
2	2390.000	-3.20	60.29	57.09	74.00	-16.91	Peak

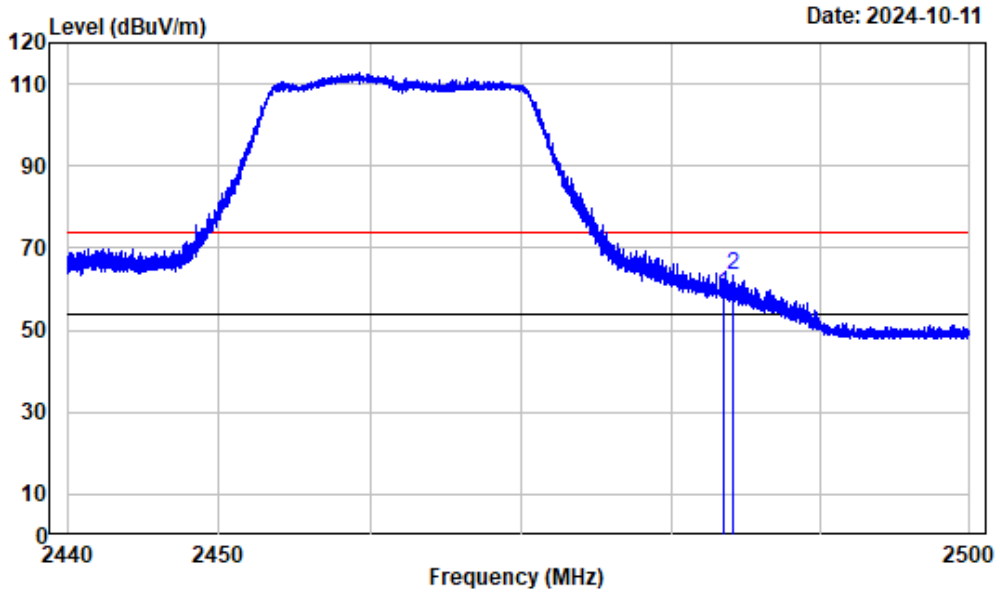
802.11n20			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Vertical-Average**



Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n20-2412

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.960	-3.20	41.13	37.93	54.00	-16.07	Average
2	2390.000	-3.20	41.02	37.82	54.00	-16.18	Average

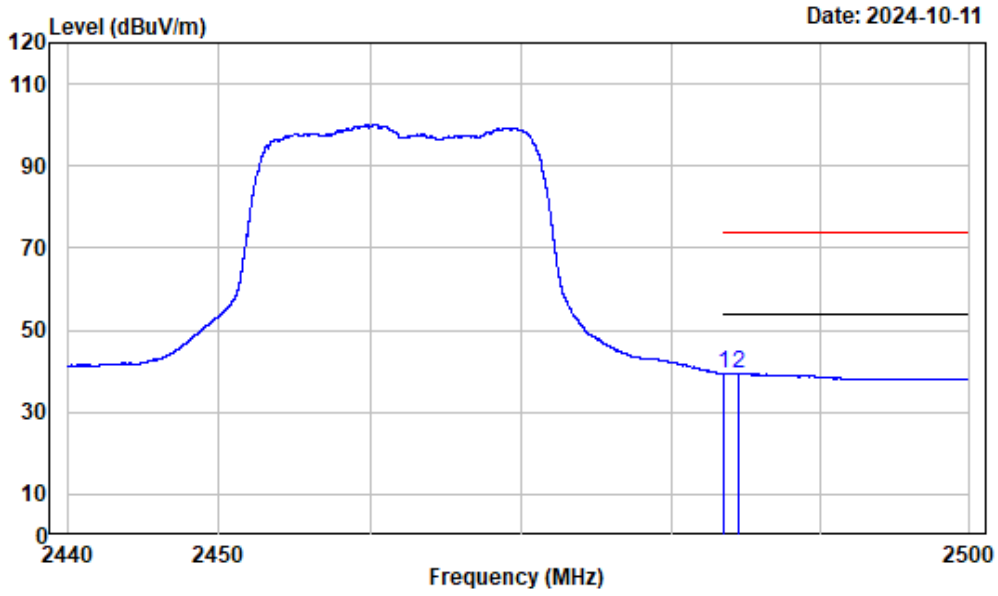
802.11n20			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Horizontal-Peak**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n20-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	62.05	58.88	74.00	-15.12	Peak
2	2484.160	-3.17	66.60	63.43	74.00	-10.57	Peak

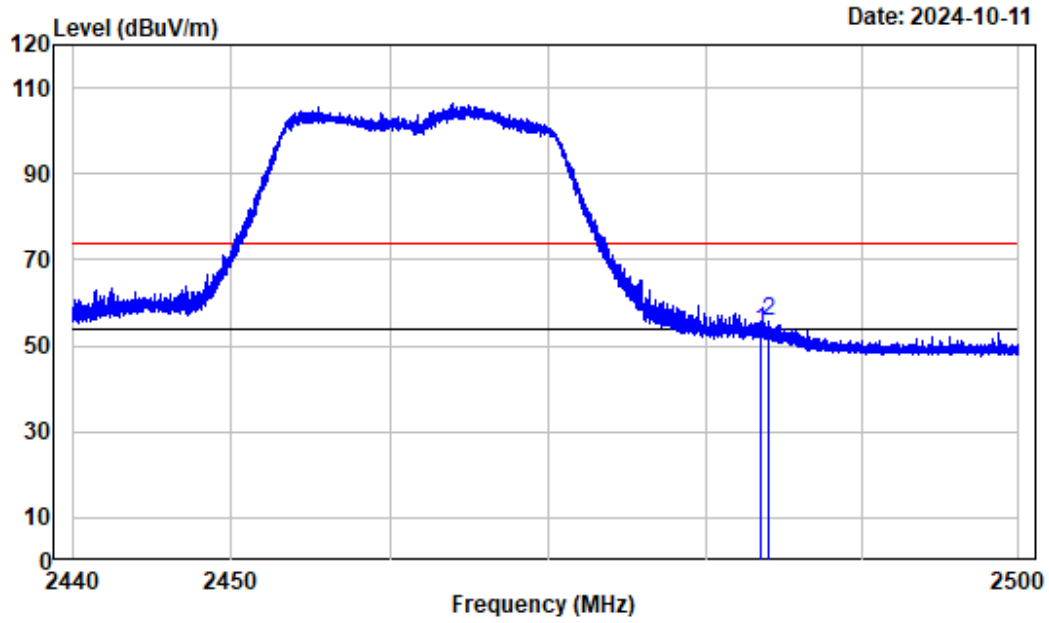
802.11n20			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Horizontal-Average**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n20-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	42.58	39.41	54.00	-14.59	Average
2	2484.488	-3.17	42.71	39.54	54.00	-14.46	Average

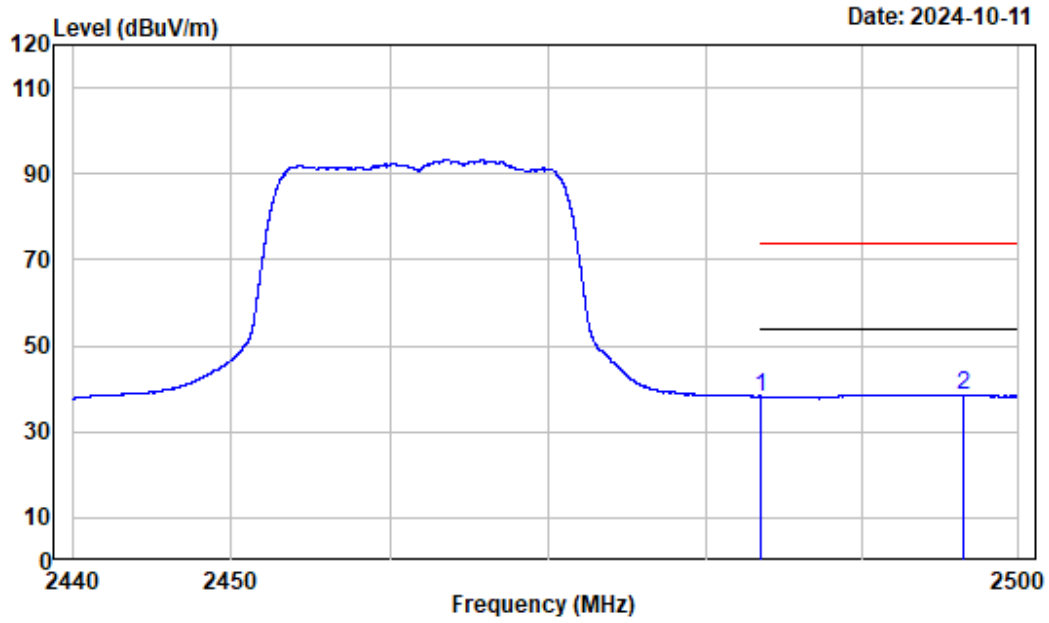
802.11n20			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Vertical-Peak**



Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n20-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	56.73	53.56	74.00	-20.44	Peak
2	2483.950	-3.17	59.00	55.83	74.00	-18.17	Peak

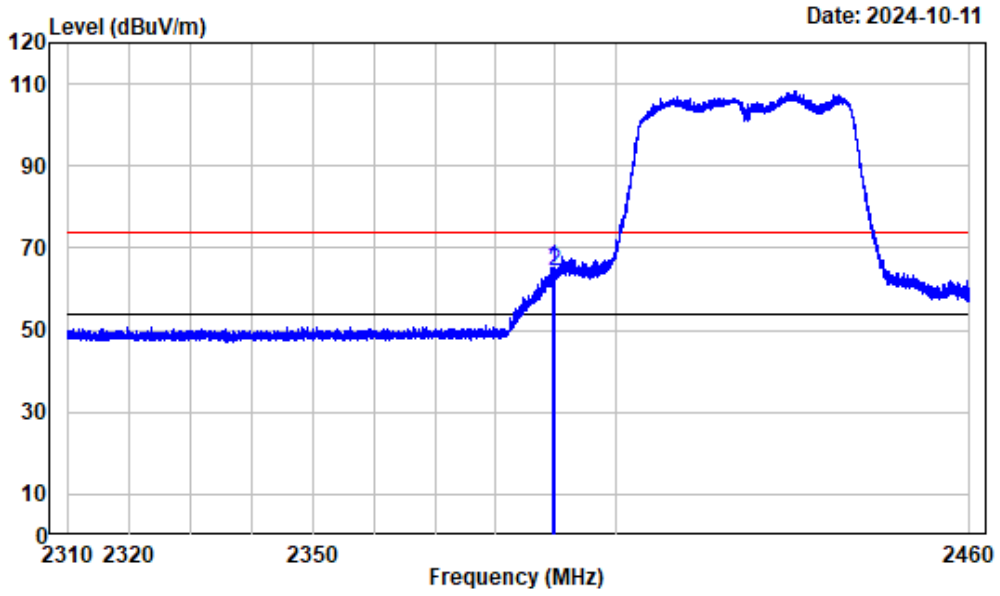
802.11n20			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Vertical-Average**



Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n20-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	41.43	38.26	54.00	-15.74	Average
2	2496.429	-3.19	41.83	38.64	54.00	-15.36	Average

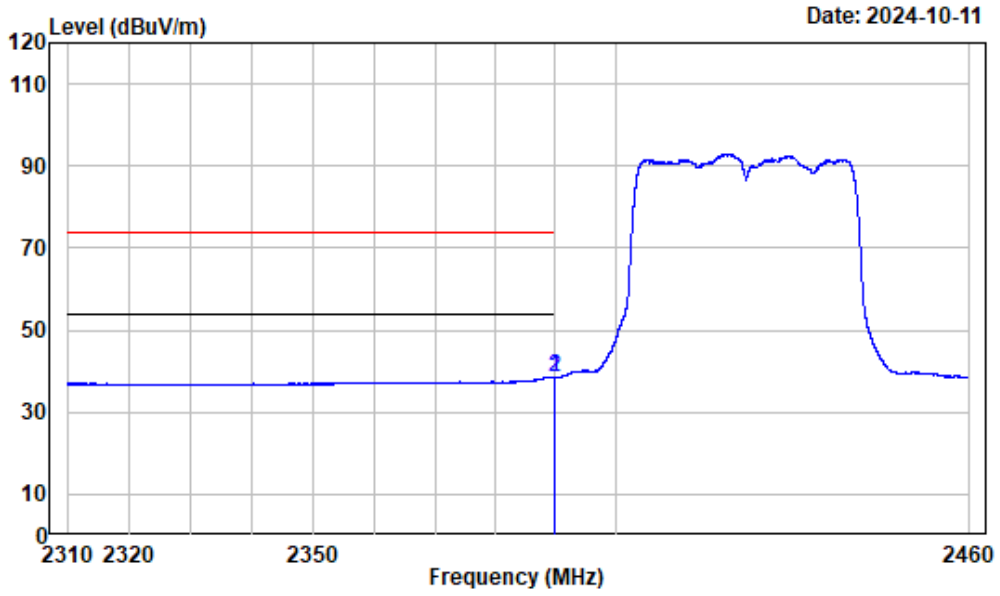
802.11n40			
Test Channel:	**2422MHz**	**Ant. Polar. :**	**Horizontal-Peak**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2422

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.631	-3.20	68.61	65.41	74.00	-8.59	Peak
2	2390.000	-3.20	67.33	64.13	74.00	-9.87	Peak

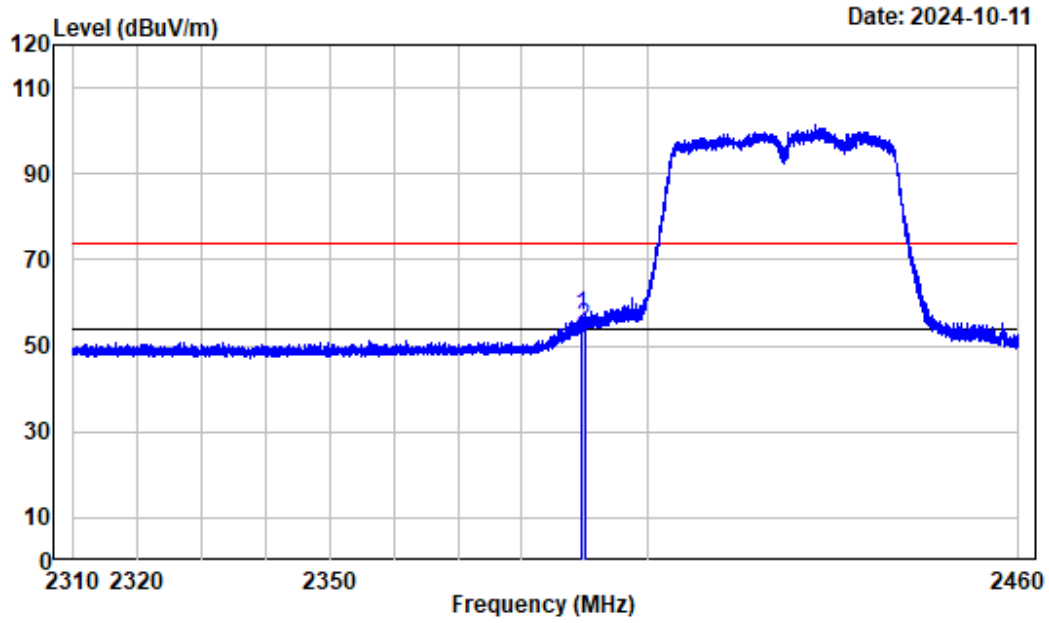
802.11n40			
Test Channel:	**2422MHz**	**Ant. Polar. :**	**Horizontal-Average**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2422

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.772	-3.20	41.85	38.65	54.00	-15.35	Average
2	2390.000	-3.20	41.77	38.57	54.00	-15.43	Average

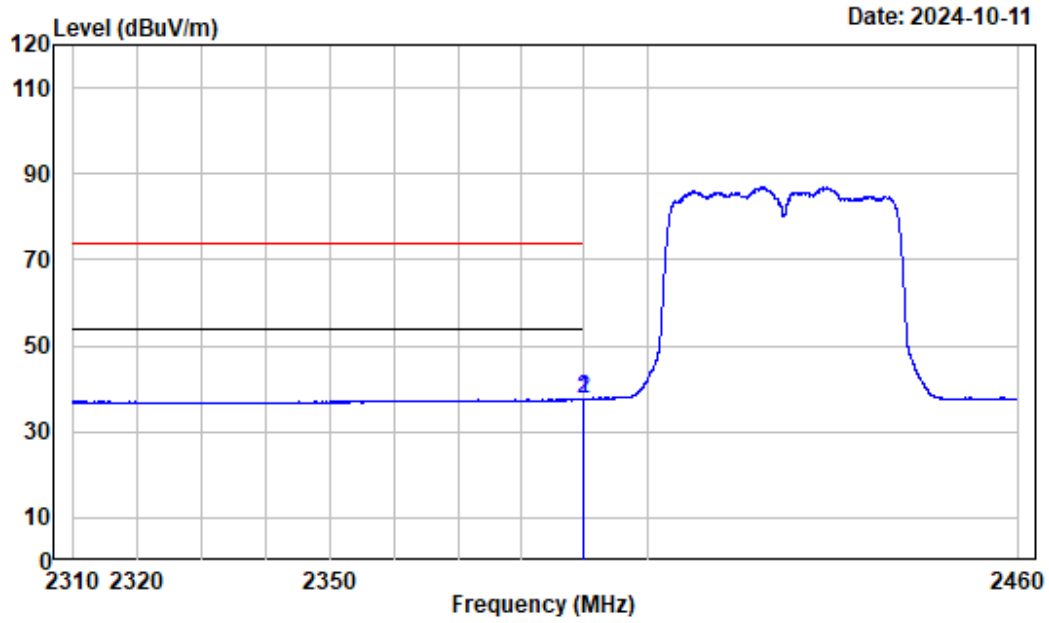
802.11n40			
Test Channel:	**2422MHz**	**Ant. Polar. :**	**Vertical-Peak**



Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2422

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.556	-3.20	60.38	57.18	74.00	-16.82	Peak
2	2390.006	-3.20	57.61	54.41	74.00	-19.59	Peak

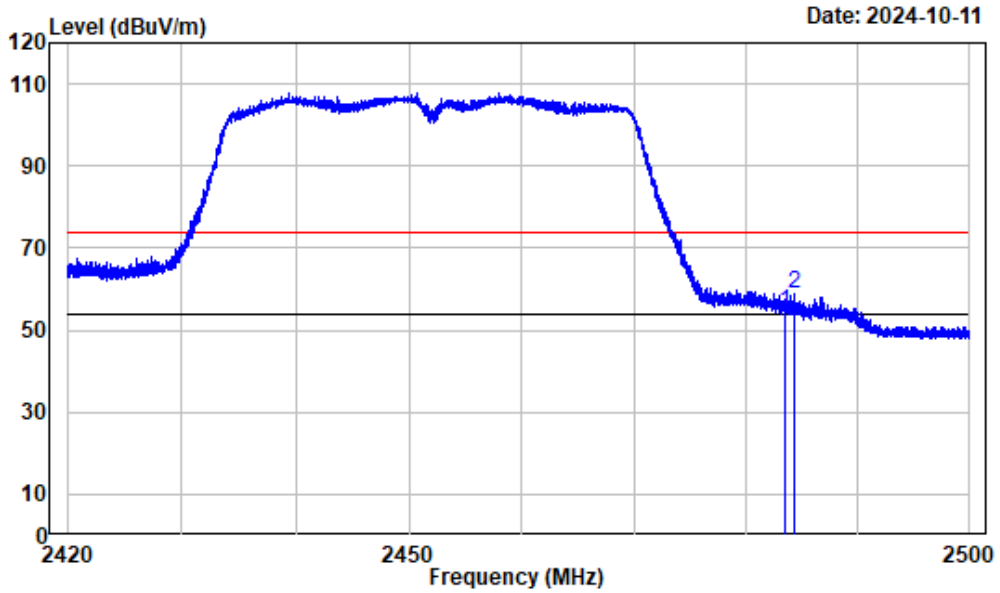
802.11n40			
Test Channel:	**2422MHz**	**Ant. Polar. :**	**Vertical-Average**



Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2422

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.791	-3.20	40.81	37.61	54.00	-16.39	Average
2	2390.000	-3.20	40.77	37.57	54.00	-16.43	Average

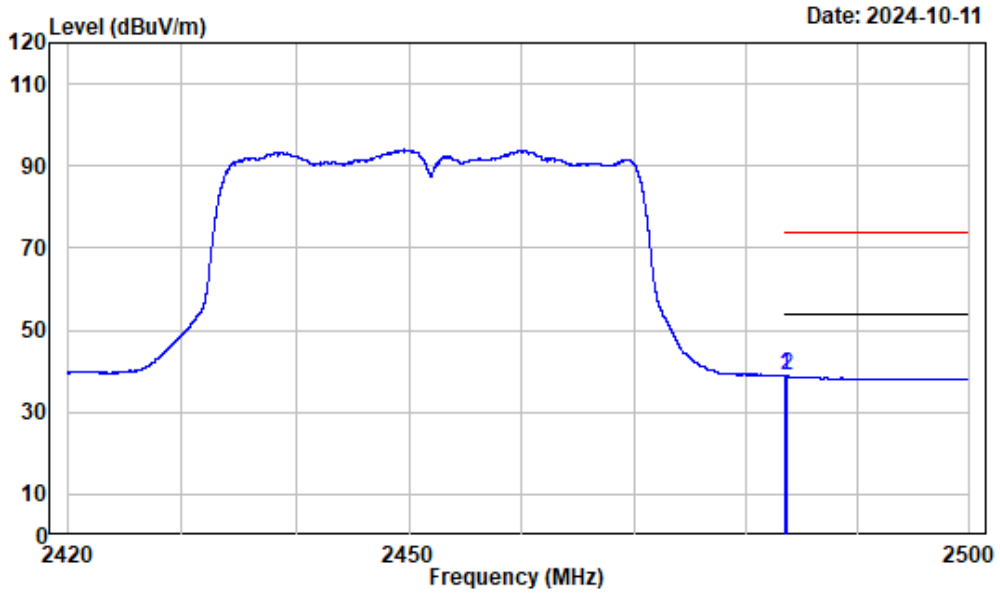
802.11n40			
Test Channel:	**2452MHz**	**Ant. Polar. :**	**Horizontal-Peak**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	57.60	54.43	74.00	-19.57	Peak
2	2484.190	-3.17	61.84	58.67	74.00	-15.33	Peak

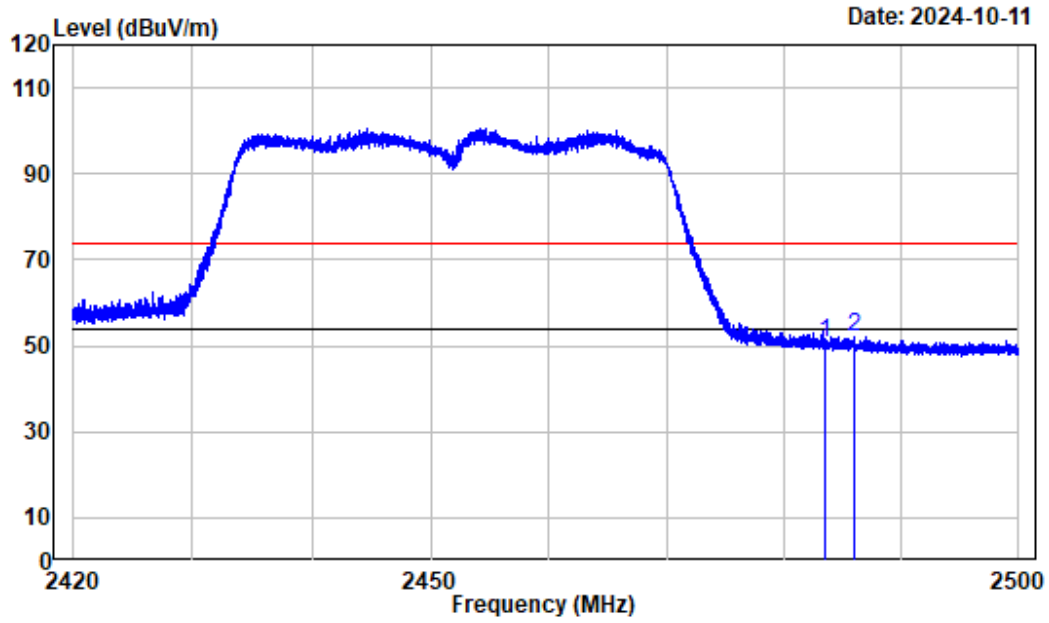
802.11n40			
Test Channel:	**2452MHz**	**Ant. Polar. :**	**Horizontal-Average**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	41.97	38.80	54.00	-15.20	Average
2	2483.628	-3.17	42.01	38.84	54.00	-15.16	Average

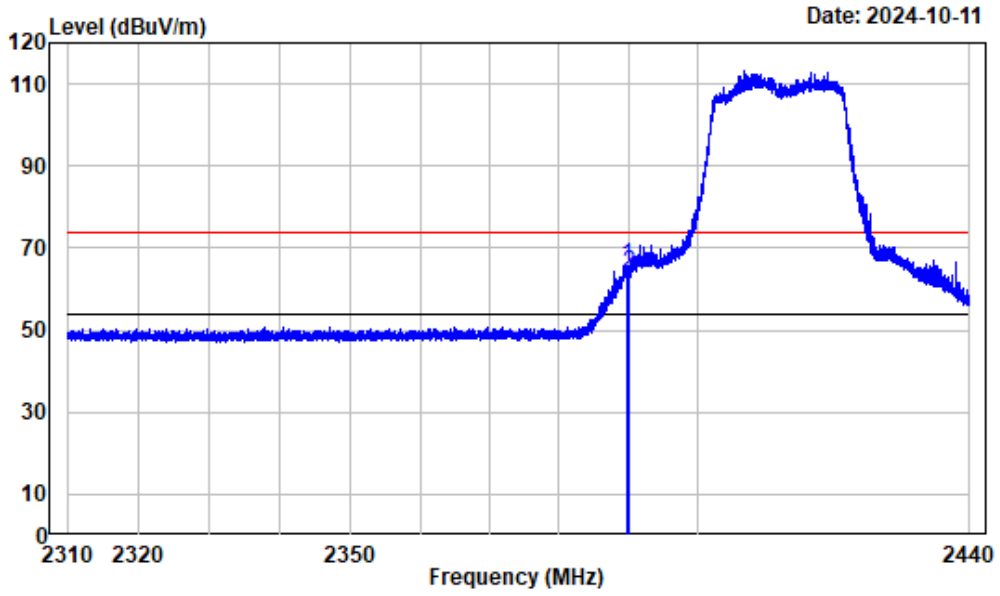
802.11n40			
Test Channel:	**2452MHz**	**Ant. Polar. :**	**Vertical-Peak**



Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	53.97	50.80	74.00	-23.20	Peak
2	2485.920	-3.17	55.41	52.24	74.00	-21.76	Peak

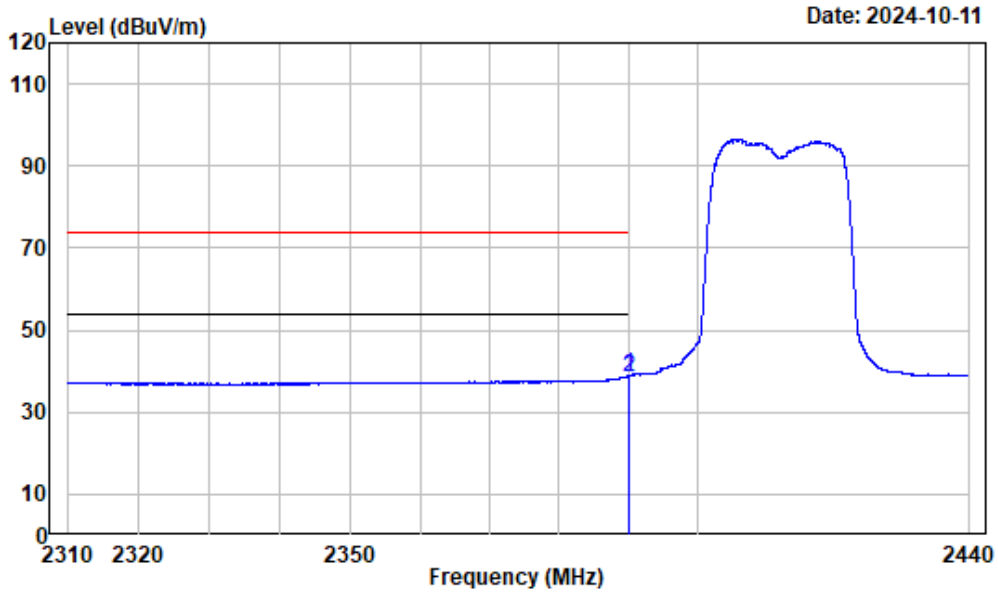
802.11ax20			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Horizontal-Peak**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-ax20-2412

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.722	-3.20	69.07	65.87	74.00	-8.13	Peak
2	2390.000	-3.20	66.89	63.69	74.00	-10.31	Peak

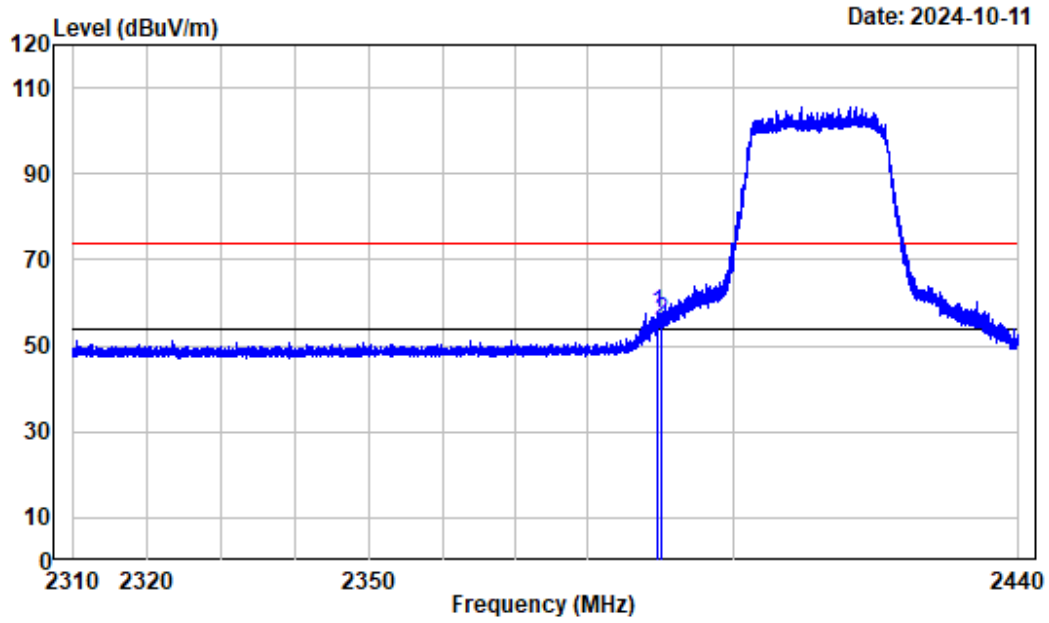
802.11ax20			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Horizontal-Average**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-ax20-2412

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.992	-3.20	41.96	38.76	54.00	-15.24	Average
2	2390.000	-3.20	41.87	38.67	54.00	-15.33	Average

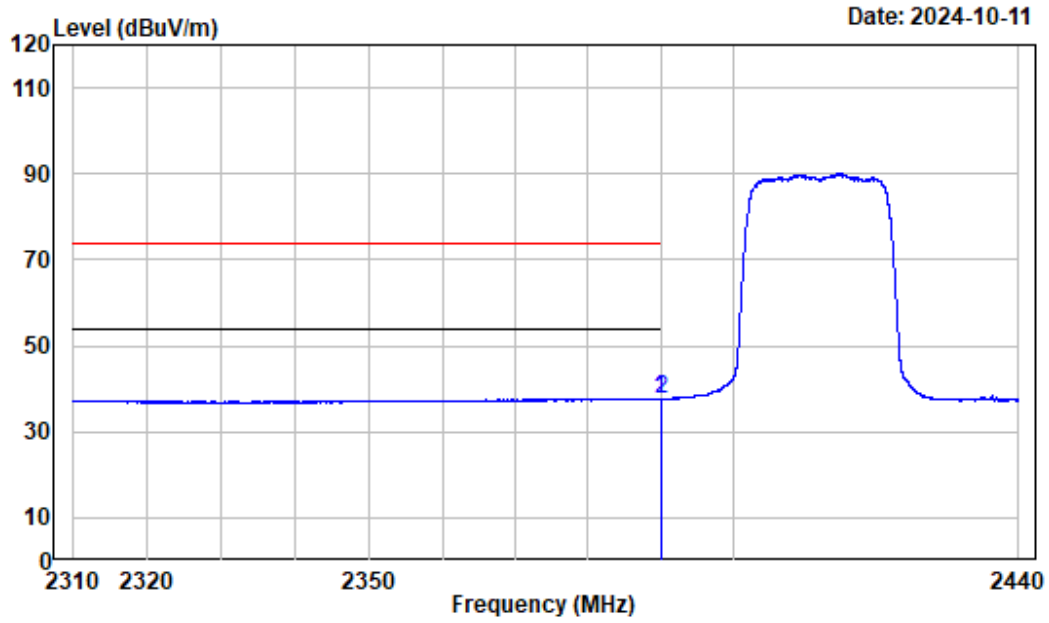
802.11ax20			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Vertical-Peak**



Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-ax20-2412

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.446	-3.20	60.77	57.57	74.00	-16.43	Peak
2	2390.000	-3.20	58.69	55.49	74.00	-18.51	Peak

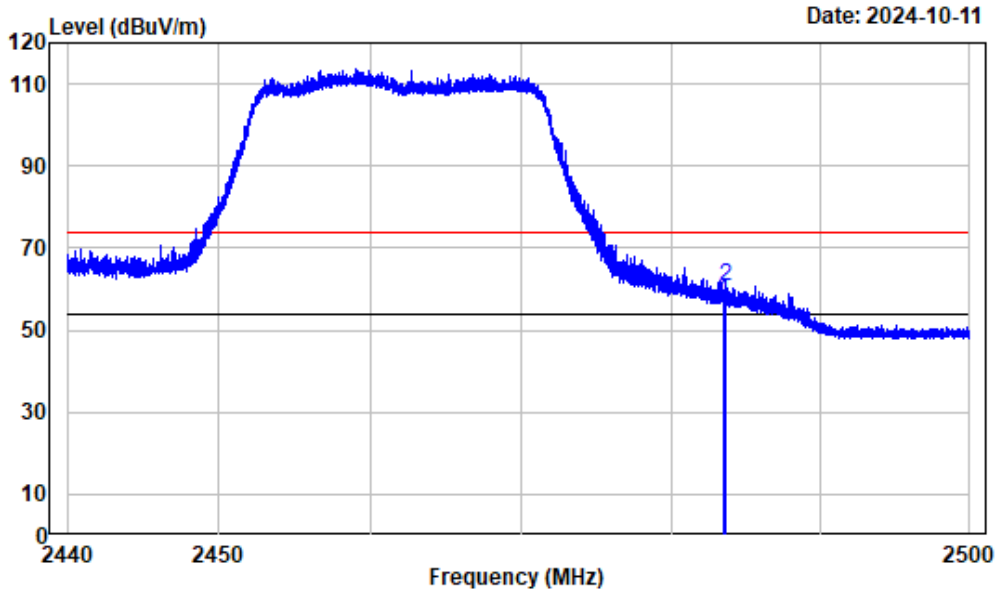
802.11ax20			
Test Channel:	**2412MHz**	**Ant. Polar. :**	**Vertical-Average**



Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-ax20-2412

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.960	-3.20	40.92	37.72	54.00	-16.28	Average
2	2390.000	-3.20	40.89	37.69	54.00	-16.31	Average

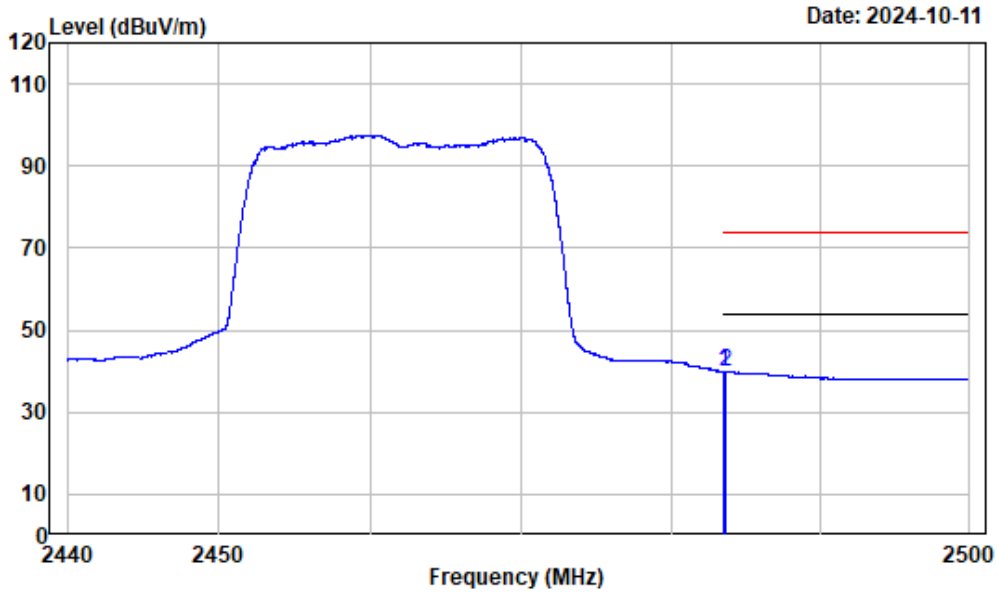
802.11ax20			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Horizontal-Peak**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-ax20-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	60.11	56.94	74.00	-17.06	Peak
2	2483.643	-3.17	63.96	60.79	74.00	-13.21	Peak

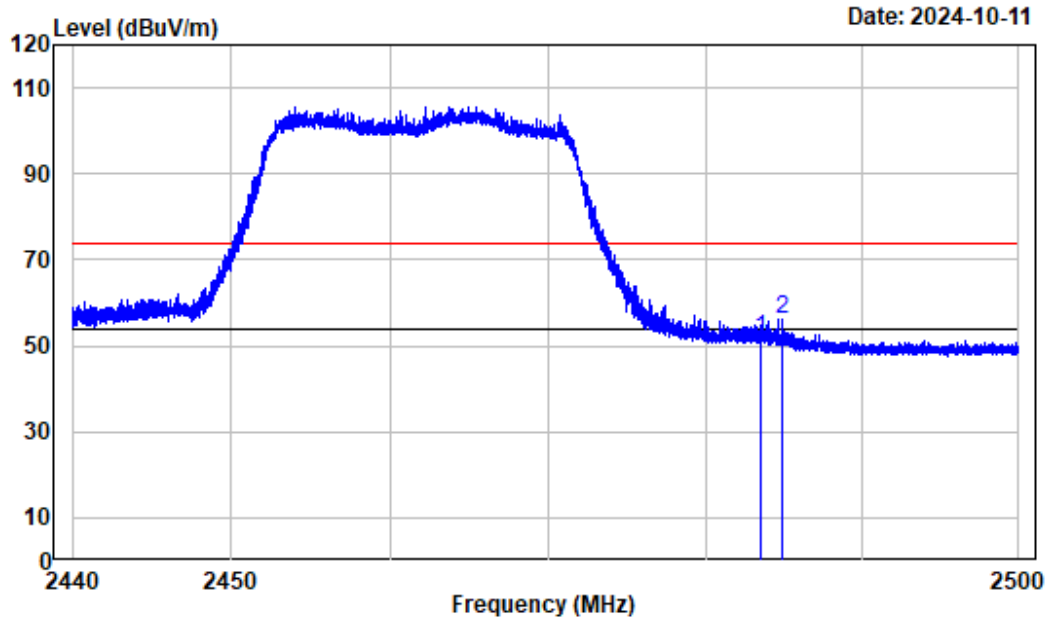
802.11ax20			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Horizontal-Average**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-ax20-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	43.08	39.91	54.00	-14.09	Average
2	2483.595	-3.17	43.15	39.98	54.00	-14.02	Average

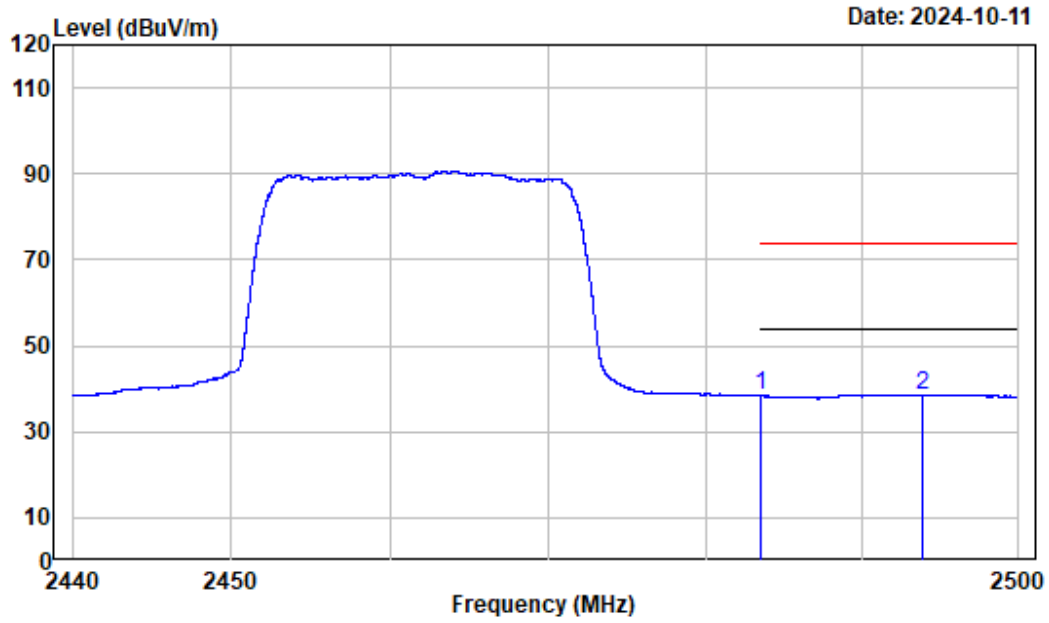
802.11ax20			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Vertical-Peak**



Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-ax20-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	54.90	51.73	74.00	-22.27	Peak
2	2484.903	-3.17	59.53	56.36	74.00	-17.64	Peak

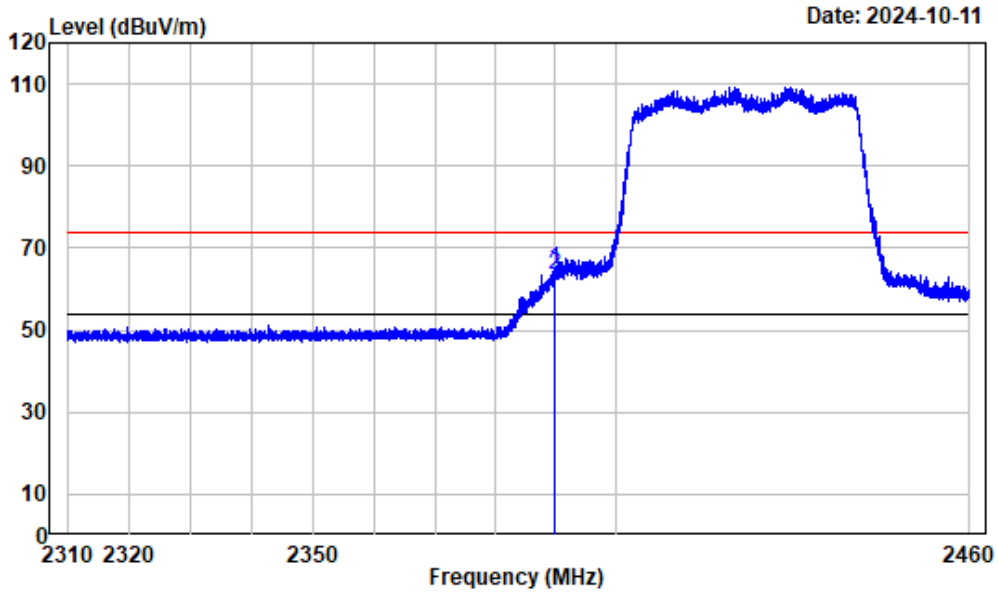
802.11ax20			
Test Channel:	**2462MHz**	**Ant. Polar. :**	**Vertical-Average**



Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-ax20-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	41.50	38.33	54.00	-15.67	Average
2	2493.827	-3.19	41.79	38.60	54.00	-15.40	Average

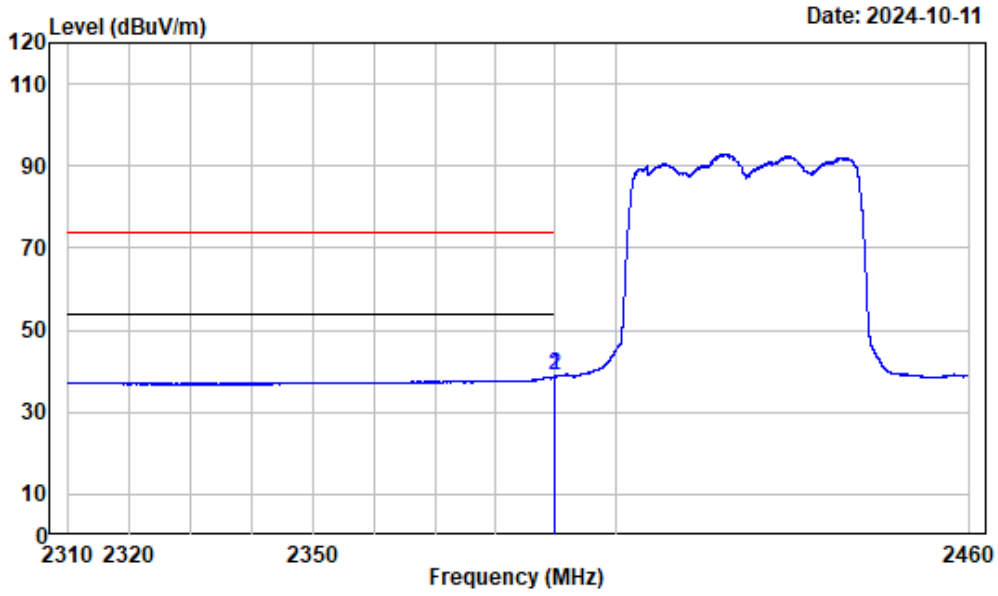
802.11ax40			
Test Channel:	**2422MHz**	**Ant. Polar. :**	**Horizontal-Peak**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-ax40-2422

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.800	-3.20	67.78	64.58	74.00	-9.42	Peak
2	2390.000	-3.20	66.64	63.44	74.00	-10.56	Peak

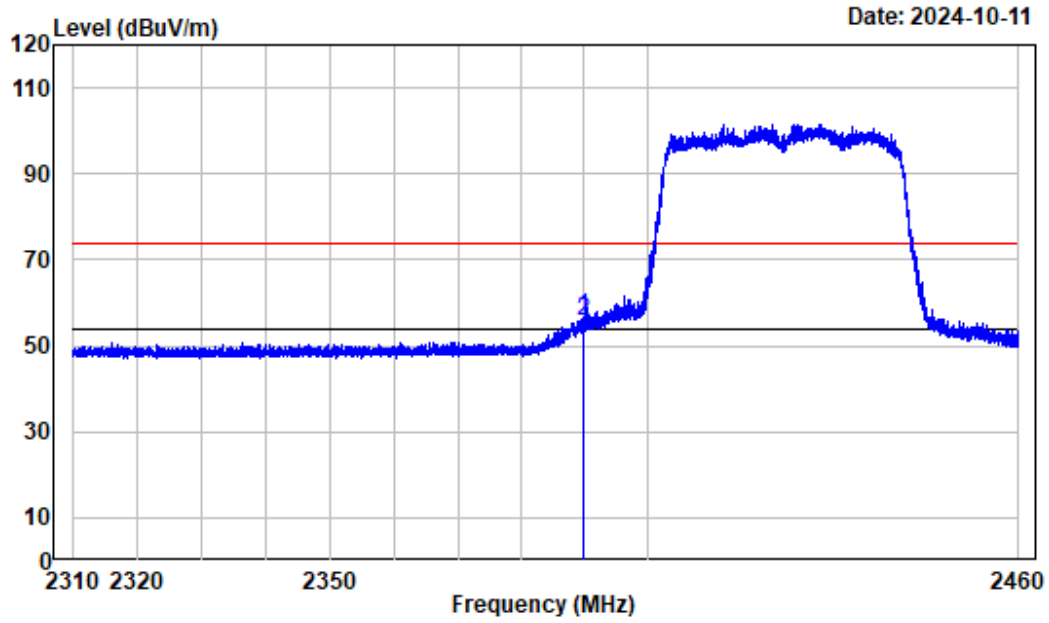
802.11ax40			
Test Channel:	**2422MHz**	**Ant. Polar. :**	**Horizontal-Average**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-ax40-2422

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.960	-3.20	41.98	38.78	54.00	-15.22	Average
2	2390.000	-3.20	41.94	38.74	54.00	-15.26	Average

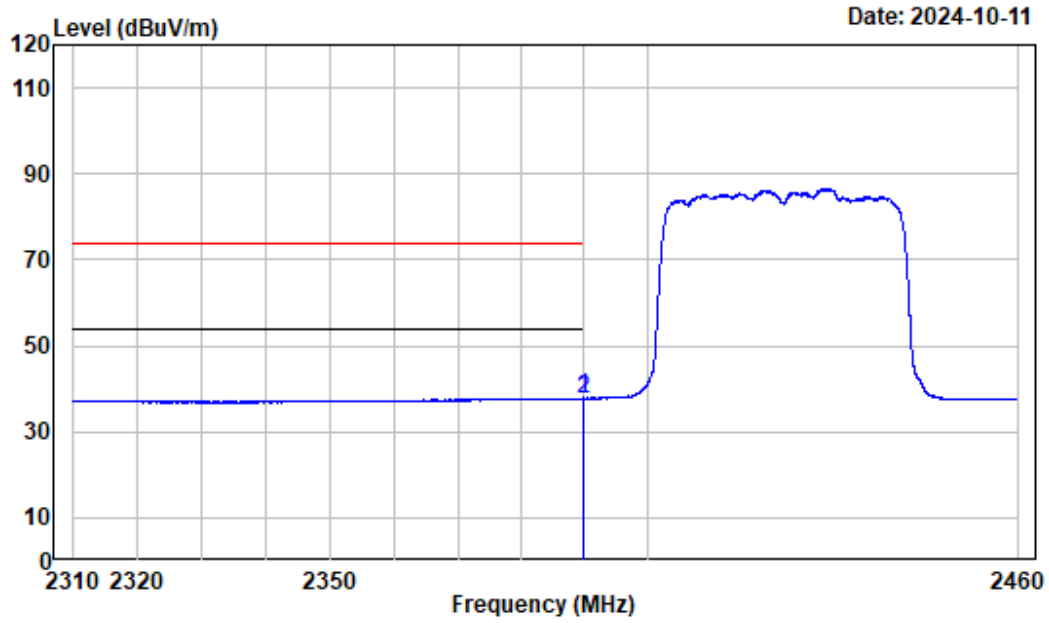
802.11ax40			
Test Channel:	**2422MHz**	**Ant. Polar. :**	**Vertical-Peak**



Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-ax40-2422

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.950	-3.20	59.77	56.57	74.00	-17.43	Peak
2	2390.000	-3.20	58.73	55.53	74.00	-18.47	Peak

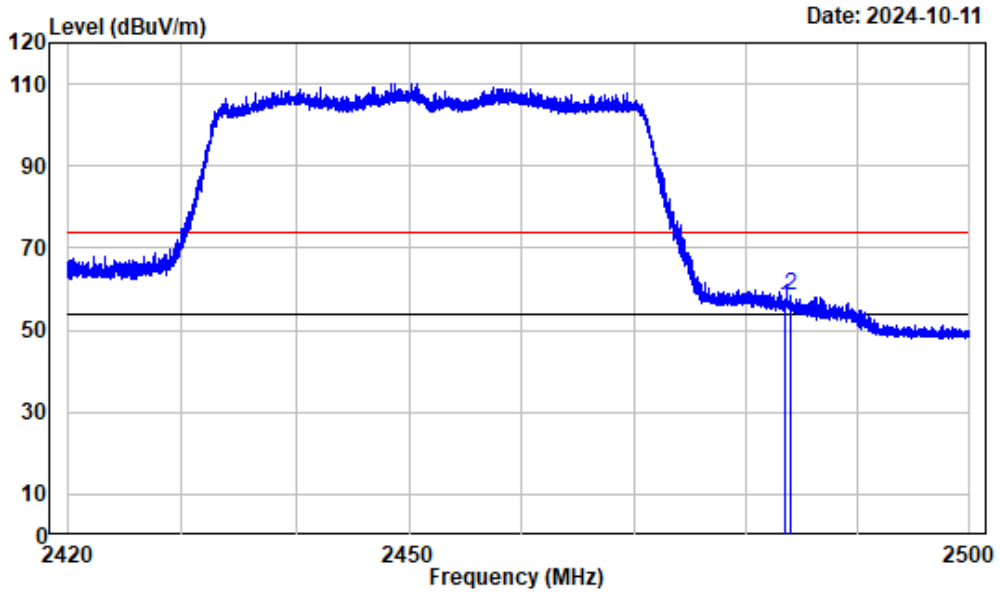
802.11ax40			
Test Channel:	**2422MHz**	**Ant. Polar. :**	**Vertical-Average**



Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-ax40-2422

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.885	-3.20	41.03	37.83	54.00	-16.17	Average
2	2390.000	-3.20	40.86	37.66	54.00	-16.34	Average

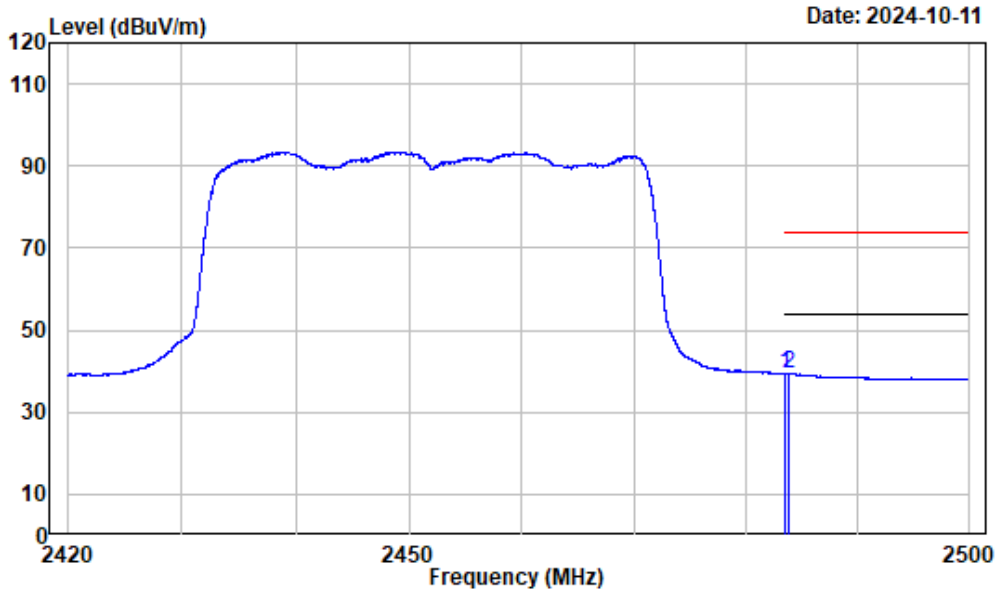
802.11ax40			
Test Channel:	**2452MHz**	**Ant. Polar. :**	**Horizontal-Peak**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-ax40-2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	58.76	55.59	74.00	-18.41	Peak
2	2484.010	-3.17	61.74	58.57	74.00	-15.43	Peak

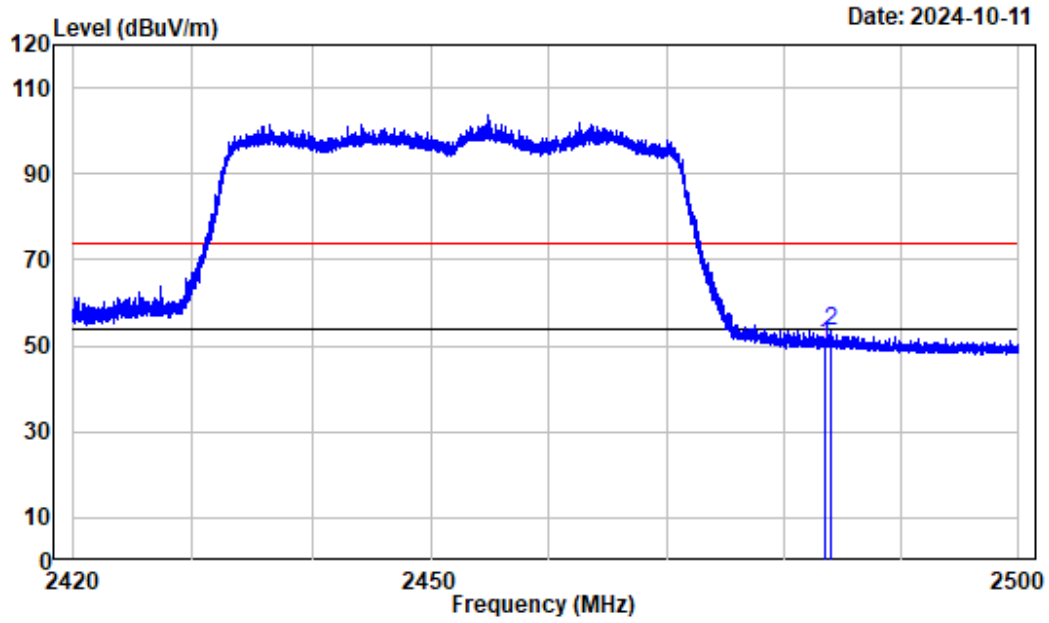
802.11ax40			
Test Channel:	**2452MHz**	**Ant. Polar. :**	**Horizontal-Average**



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-ax40-2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	42.49	39.32	54.00	-14.68	Average
2	2483.818	-3.17	42.58	39.41	54.00	-14.59	Average

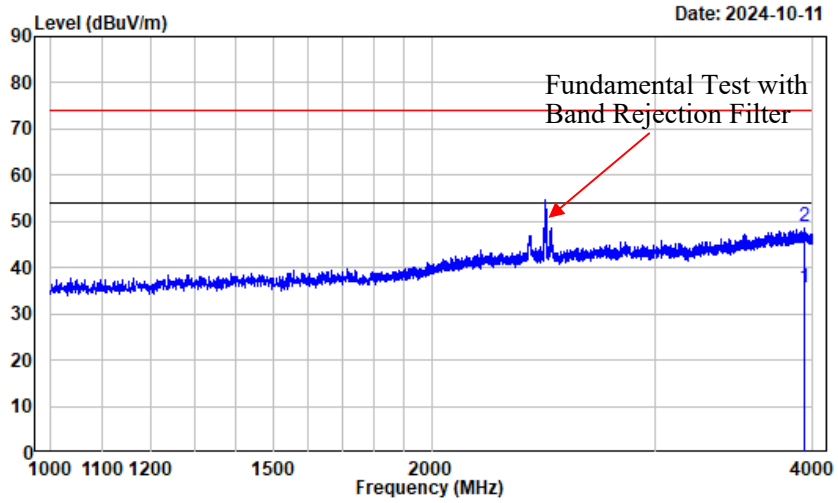
802.11ax40			
Test Channel:	**2452MHz**	**Ant. Polar. :**	**Vertical-Peak**



Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-ax40-2452

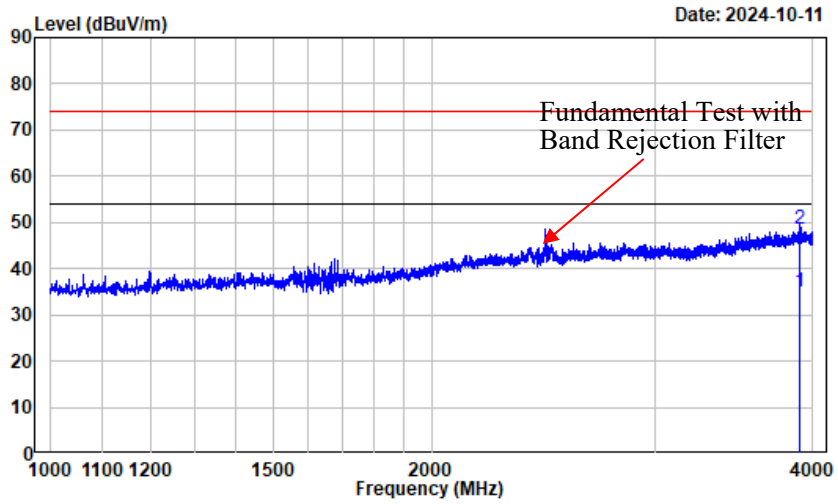
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-3.17	53.61	50.44	74.00	-23.56	Peak
2	2483.910	-3.17	56.50	53.33	74.00	-20.67	Peak

1-18GHz (*Listed with the worst harmonic margin test plots***):**
802.11b

Horizontal	
1-4GHz	 Condition : Horizontal Project No.: 2401W43894E-RF Tester : Zenos Qiao 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 3939.375 -0.24 35.75 35.51 54.00 -18.49 Average 2 3939.375 -0.24 49.17 48.93 74.00 -25.07 Peak

Vertical

1-4GHz

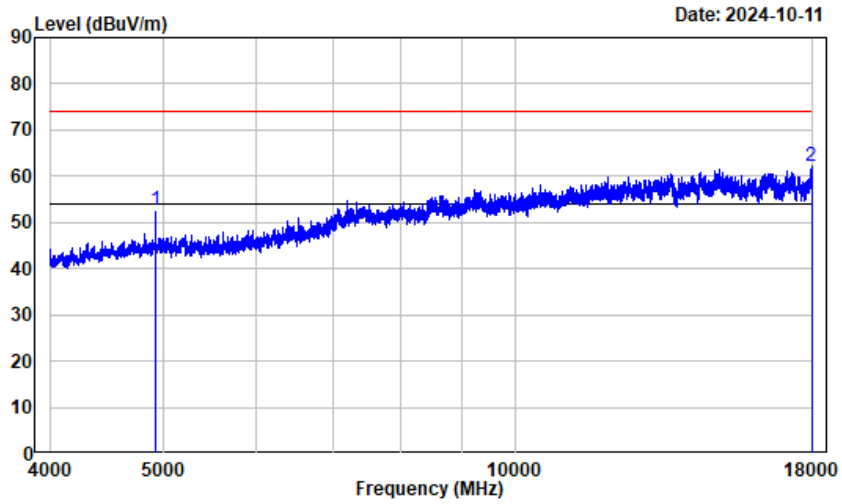


Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3908.750	-0.47	35.39	34.92	54.00	-19.08	Average
2	3908.750	-0.47	49.11	48.64	74.00	-25.36	Peak

Horizontal-Peak

4-18GHz

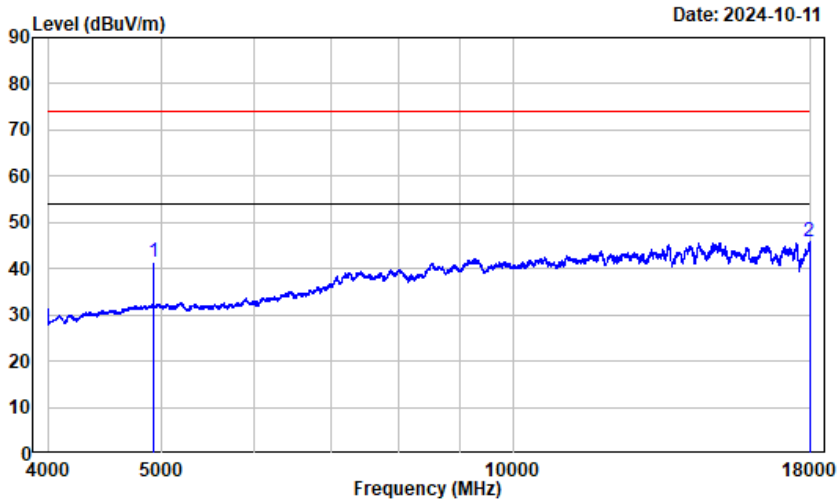


Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	50.15	52.78	74.00	-21.22	Peak
2	17956.240	24.31	37.93	62.24	74.00	-11.76	Peak

Horizontal-Average

4-18GHz



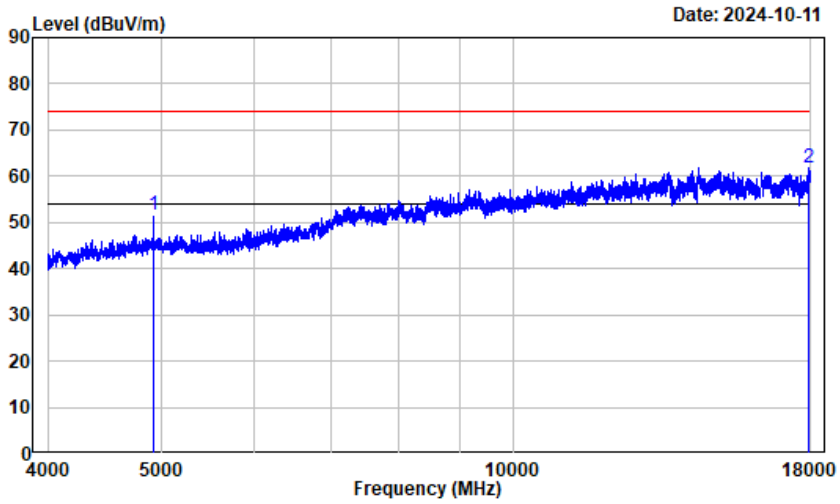
Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	38.74	41.37	54.00	-12.63	Average
2	17956.240	24.31	21.44	45.75	54.00	-8.25	Average

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

Vertical-Peak

4-18GHz

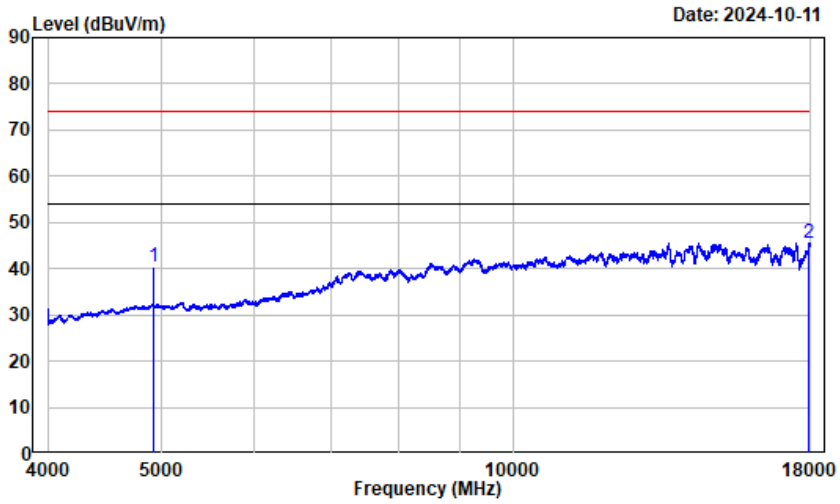


Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	49.02	51.65	74.00	-22.35	Peak
2	17928.240	24.11	37.72	61.83	74.00	-12.17	Peak

Vertical-Average

4-18GHz

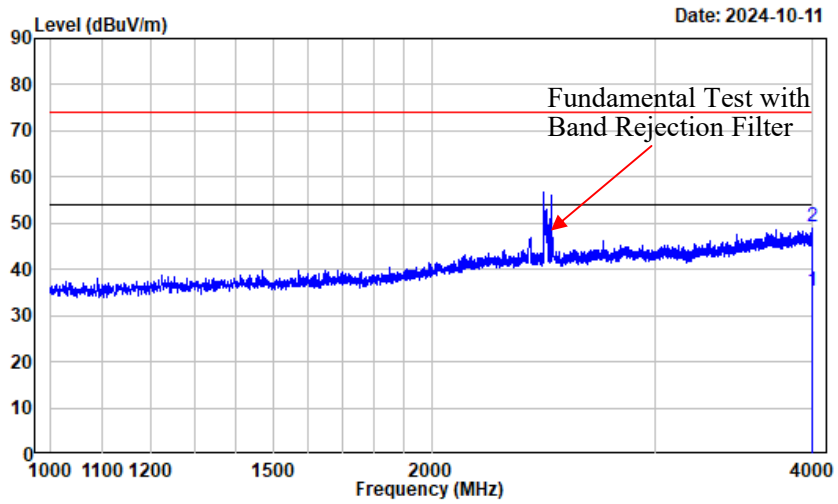


Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	37.89	40.52	54.00	-13.48	Average
2	17936.990	24.17	21.37	45.54	54.00	-8.46	Average

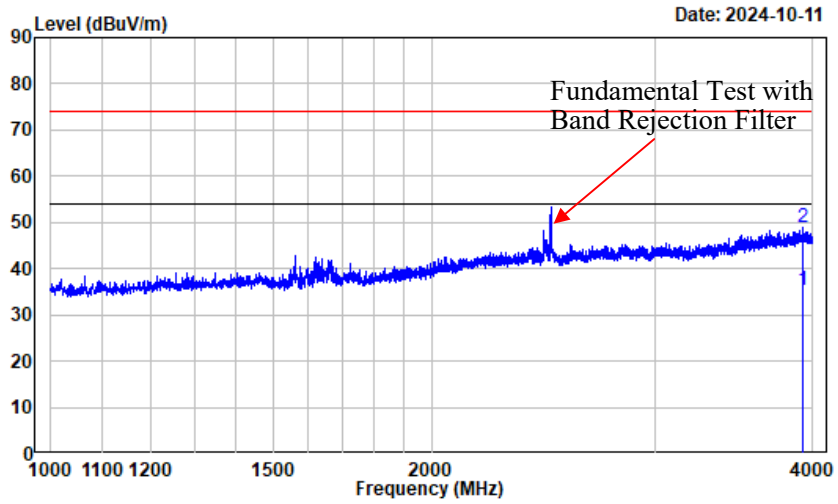
Note: Spectrum Analyzer Setting: RBW=1MHz, VBW=5kHz

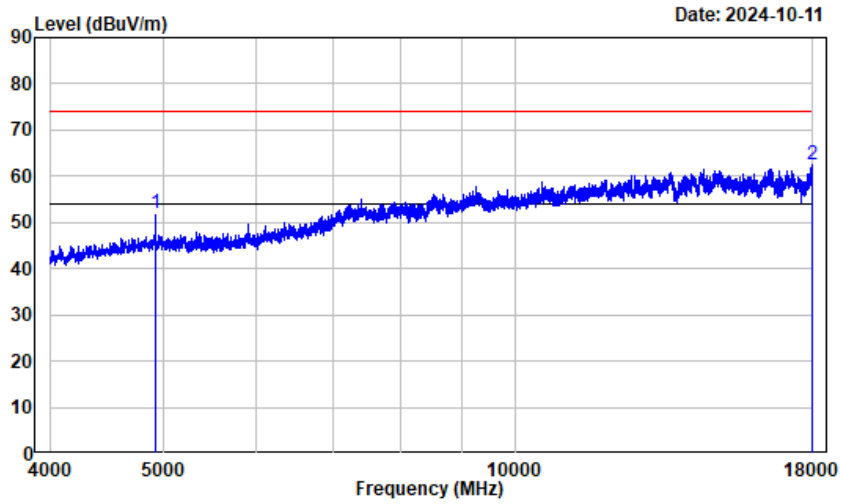
802.11g

Horizontal	
1-4GHz	

Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2462

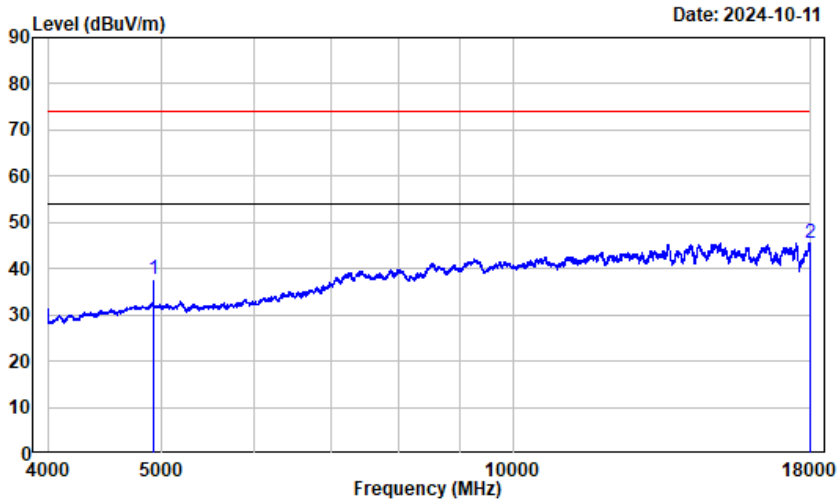
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3993.125	-0.21	35.65	35.44	54.00	-18.56	Average
2	3993.125	-0.21	49.34	49.13	74.00	-24.87	Peak

Vertical	
1-4GHz	 Condition : Vertical Project No.: 2401W43894E-RF Tester : Zenos Qiao 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 3931.250 -0.30 35.47 35.17 54.00 -18.83 Average 2 3931.250 -0.30 49.27 48.97 74.00 -25.03 Peak

Horizontal-Peak	
4-18GHz	 Condition : Horizontal Project No.: 2401W43894E-RF Tester : Zenos Qiao Note : 2.4GWiFi-g-2462 Freq / Factor / Read Level / Level / Limit Line / Over Limit / Remark MHz / dB/m / dBuV / dBuV/m / dBuV/m / dB 1 4924.000 2.63 49.24 51.87 74.00 -22.13 Peak 2 17998.250 24.61 37.92 62.53 74.00 -11.47 Peak

Horizontal-Average

4-18GHz



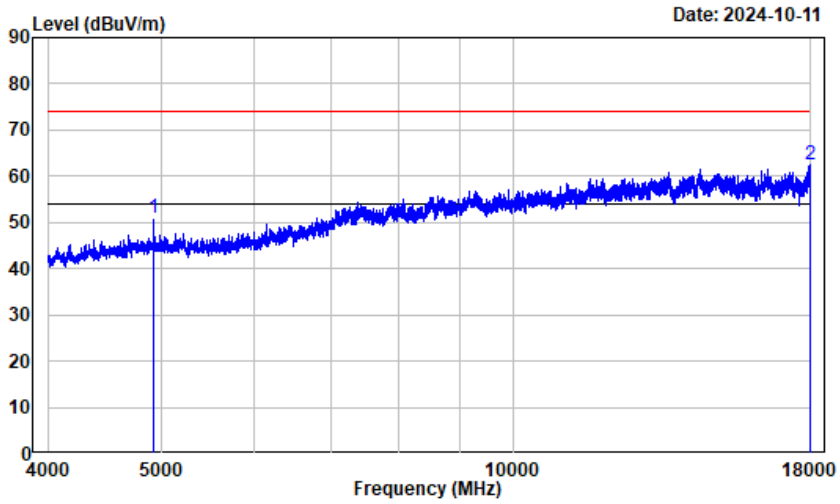
Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	34.98	37.61	54.00	-16.39	Average
2	17996.500	24.60	21.06	45.66	54.00	-8.34	Average

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

Vertical-Peak

4-18GHz

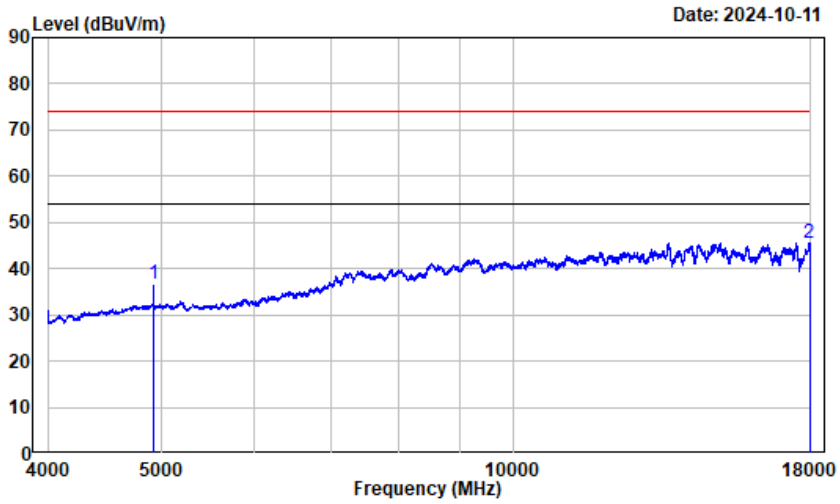


Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	48.15	50.78	74.00	-23.22	Peak
2	17973.750	24.44	37.94	62.38	74.00	-11.62	Peak

Vertical-Average

4-18GHz

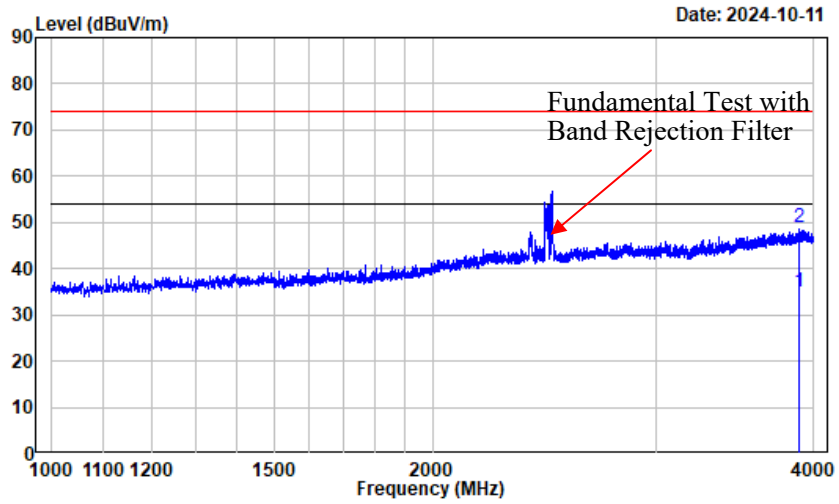


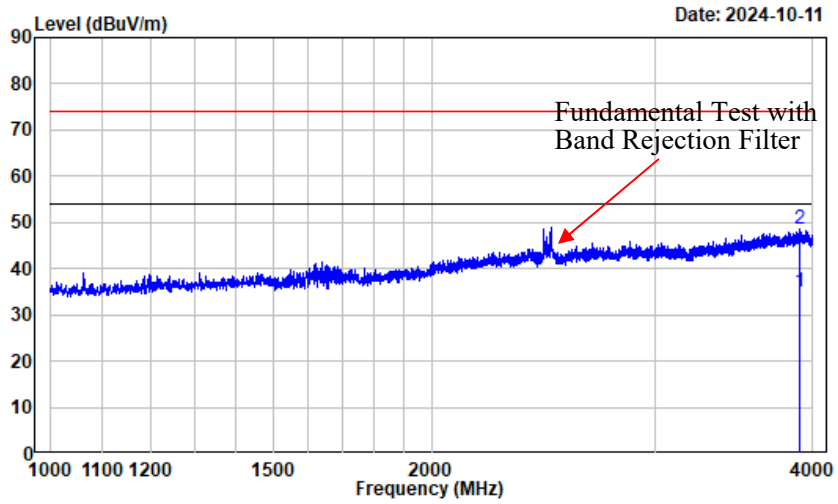
Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-g-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	34.06	36.69	54.00	-17.31	Average
2	17956.240	24.31	21.16	45.47	54.00	-8.53	Average

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

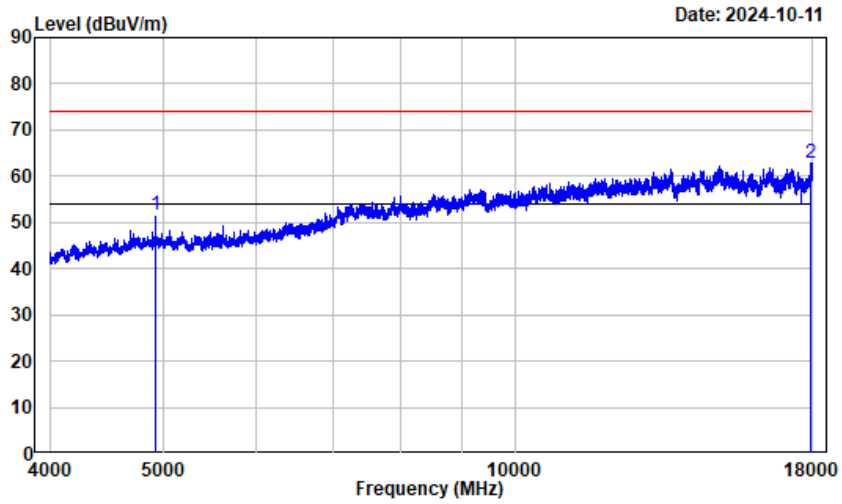
802.11n20

Horizontal	
1-4GHz	 Condition : Horizontal Project No.: 2401W43894E-RF Tester : Zenos Qiao Note : 2.4GWiFi-n20-2462 Freq / Factor / Read Level / Limit Level / Over Limit / Remark MHz / dB/m / dBuV / dBuV/m / dBuV/m / dB 1 3893.750 -0.55 35.68 35.13 54.00 -18.87 Average 2 3893.750 -0.55 49.50 48.95 74.00 -25.05 Peak

Vertical	
1-4GHz	 Condition : Vertical Project No.: 2401W43894E-RF Tester : Zenos Qiao Note : 2.4GWiFi-n20-2462 | | Freq | Factor | Read Level | Level | Limit Line | Over Limit | Remark | | | MHz | dB/m | dBuV | dBuV/m | dBuV/m | dB | | | 1 | 3904.375 | -0.49 | 35.50 | 35.01 | 54.00 | -18.99 | Average | | 2 | 3904.375 | -0.49 | 48.96 | 48.47 | 74.00 | -25.53 | Peak |

Horizontal-Peak

4-18GHz

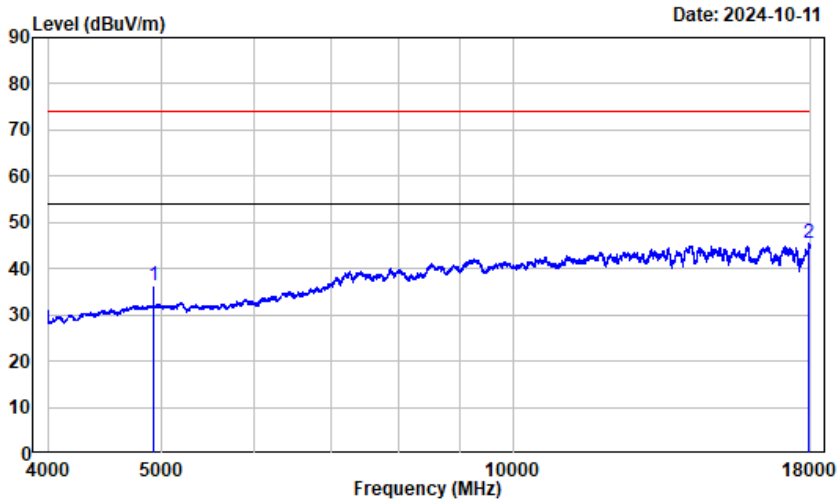


Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n20-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	48.84	51.47	74.00	-22.53	Peak
2	17945.740	24.23	38.51	62.74	74.00	-11.26	Peak

Horizontal-Average

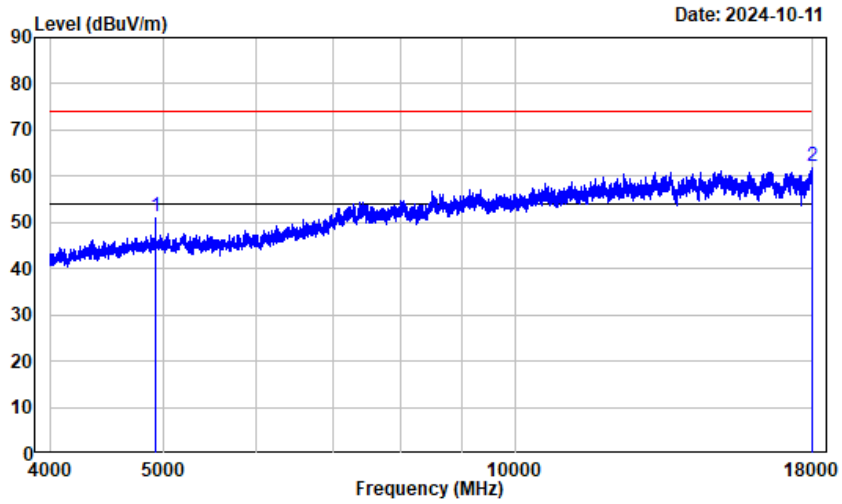
4-18GHz



Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n20-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	33.75	36.38	54.00	-17.62	Average
2	17945.740	24.23	21.38	45.61	54.00	-8.39	Average

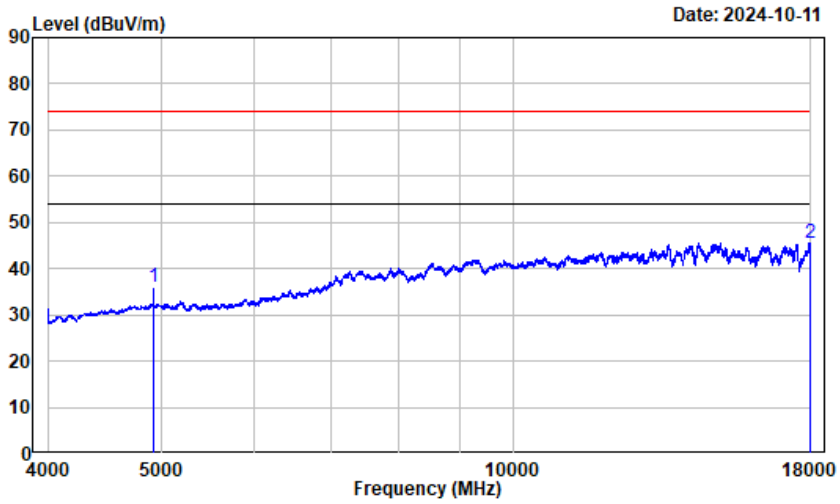
Note: Spectrum Analyzer Setting: RBW=1MHz, VBW=5kHz

Vertical-Peak	
4-18GHz	 Condition : Vertical Project No.: 2401W43894E-RF Tester : Zenos Qiao Note : 2.4GWiFi-n20-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	48.60	51.23	74.00	-22.77	Peak
2	17987.750	24.53	37.78	62.31	74.00	-11.69	Peak

Vertical-Average

4-18GHz

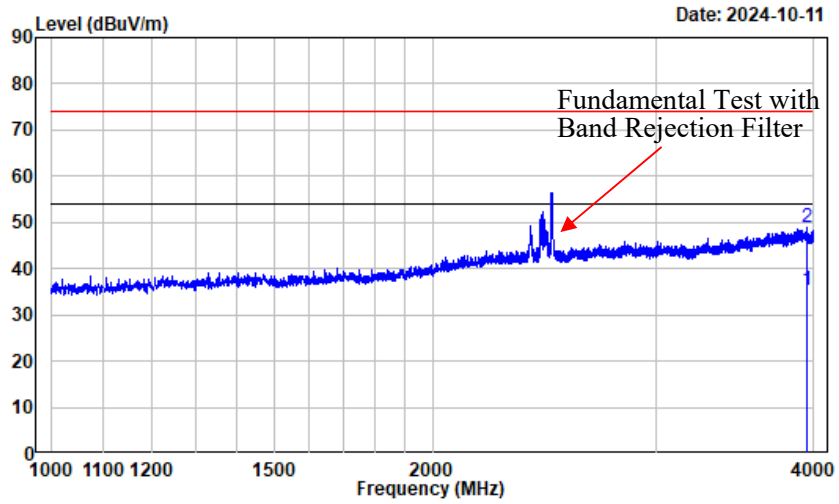


Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n20-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	33.52	36.15	54.00	-17.85	Average
2	17998.250	24.61	20.83	45.44	54.00	-8.56	Average

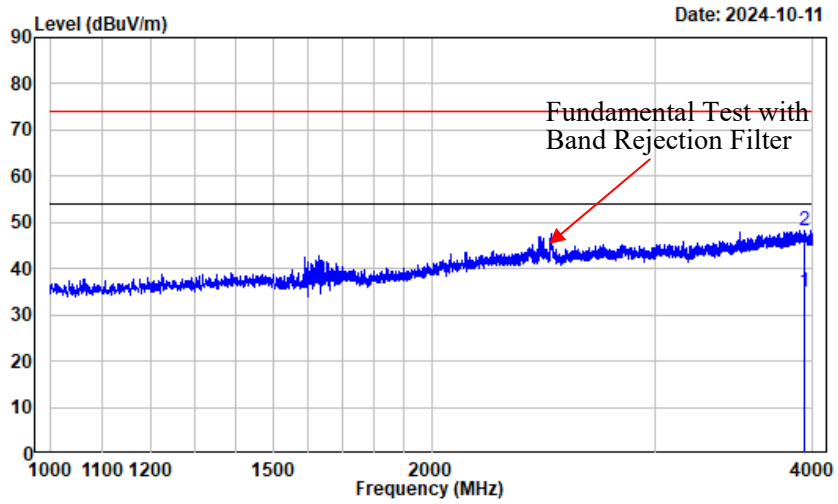
Note: Spectrum Analyzer Setting: RBW=1MHz, VBW=5kHz

802.11n40

Horizontal	
1-4GHz	 Condition : Horizontal Project No.: 2401W43894E-RF Tester : Zenos Qiao 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 3948.750 -0.18 35.58 35.40 54.00 -18.60 Average 2 3948.750 -0.18 48.95 48.77 74.00 -25.23 Peak

Vertical

1-4GHz

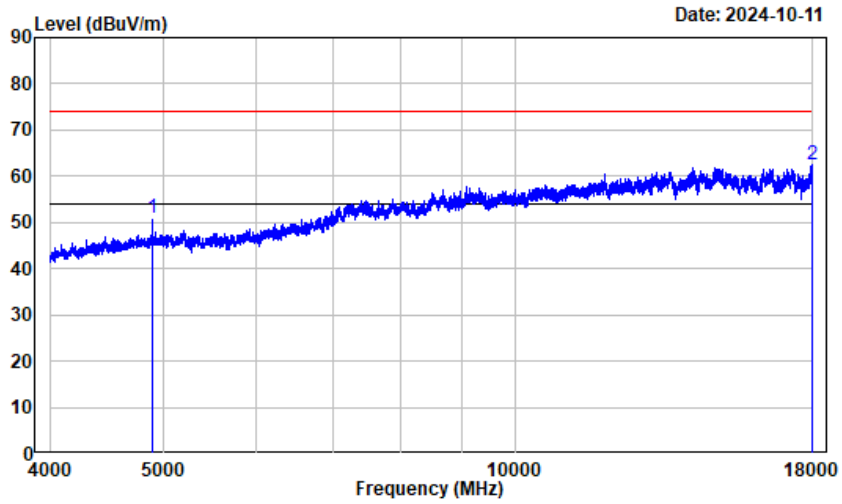


Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3938.750	-0.25	35.32	35.07	54.00	-18.93	Average
2	3938.750	-0.25	48.59	48.34	74.00	-25.66	Peak

Horizontal-Peak

4-18GHz

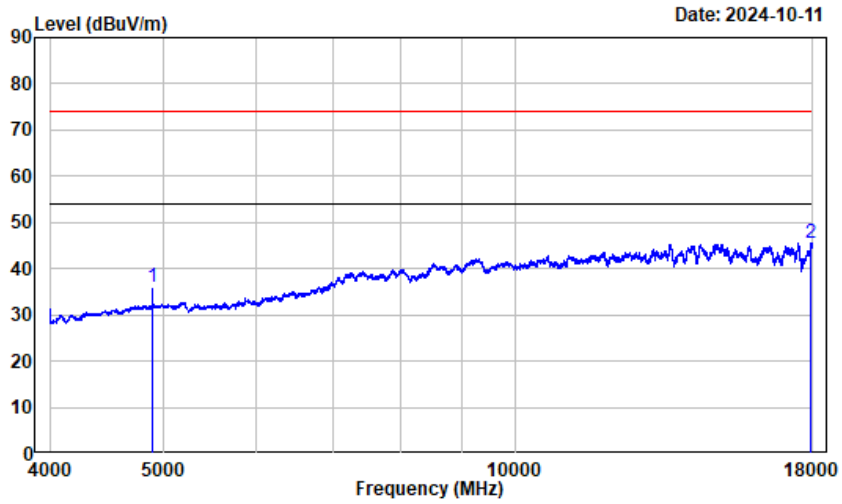


Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4904.000	2.64	48.20	50.84	74.00	-23.16	Peak
2	17980.750	24.48	37.92	62.40	74.00	-11.60	Peak

Horizontal-Average

4-18GHz



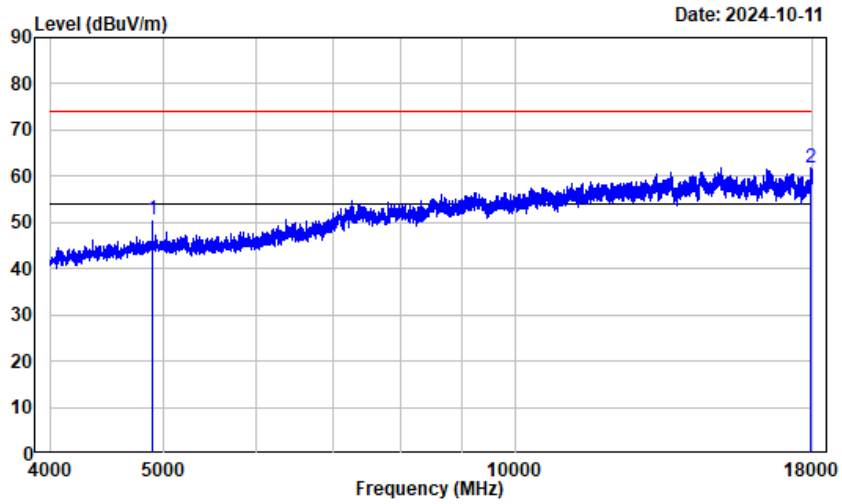
Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4904.000	2.64	33.43	36.07	54.00	-17.93	Average
2	17952.740	24.29	21.36	45.65	54.00	-8.35	Average

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

Vertical-Peak

4-18GHz

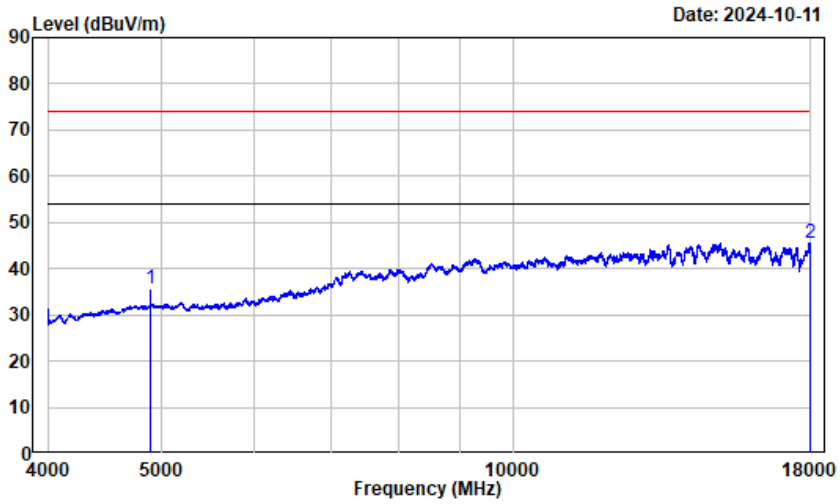


Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4904.000	2.64	47.89	50.53	74.00	-23.47	Peak
2	17954.490	24.30	37.67	61.97	74.00	-12.03	Peak

Vertical-Average

4-18GHz

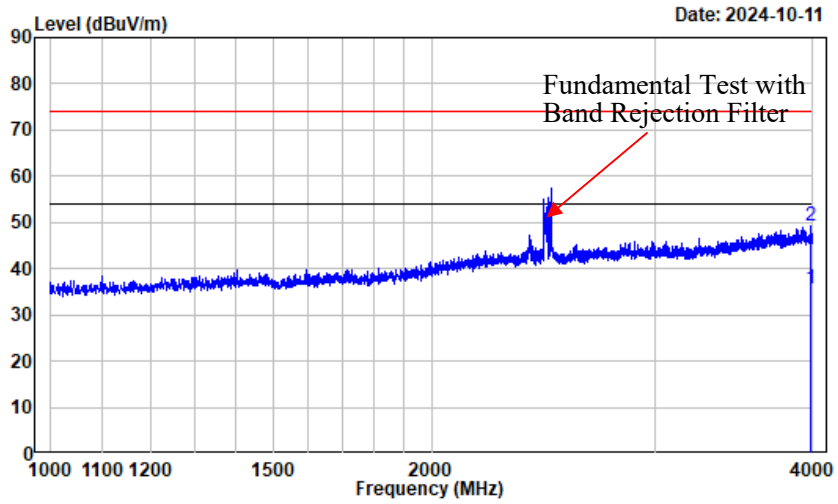


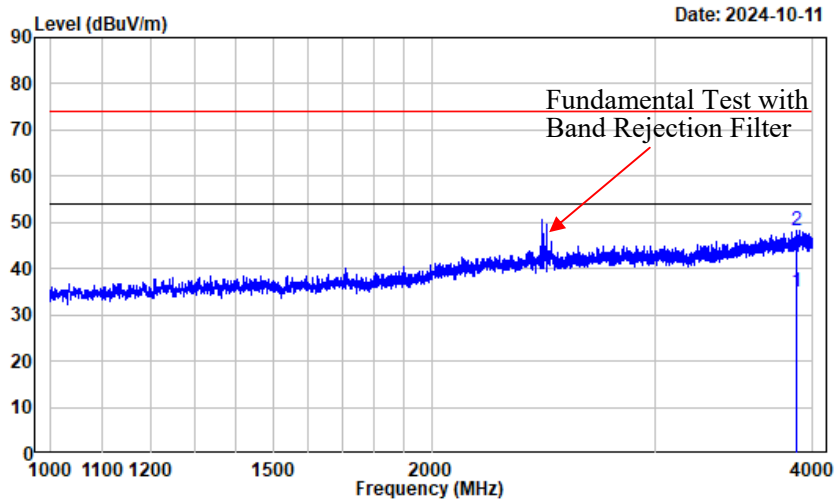
Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-n40-2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4904.000	2.64	33.17	35.81	54.00	-18.19	Average
2	17994.750	24.58	20.85	45.43	54.00	-8.57	Average

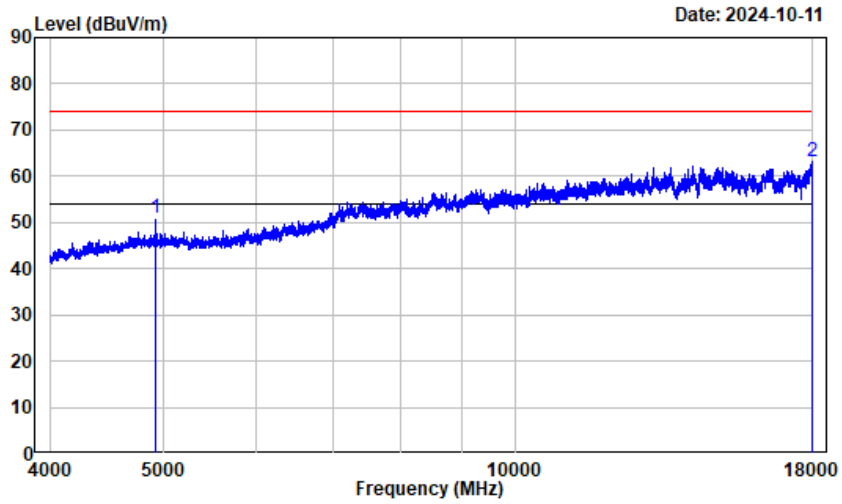
Note: Spectrum Analyzer Setting: RBW=1MHz, VBW=5kHz

802.11ax20

Horizontal	
1-4GHz	 Condition : Horizontal Project No.: 2401W43894E-RF Tester : Zenos Qiao Note : 2.4GWiFi-ax20-2462 Freq / Factor / Read Level / Limit Level / Limit Line / Over Limit / Remark MHz / dB/m / dBuV / dBuV/m / dBuV/m / dB 1 3990.000 -0.20 35.86 35.66 54.00 -18.34 Average 2 3990.000 -0.20 49.35 49.15 74.00 -24.85 Peak

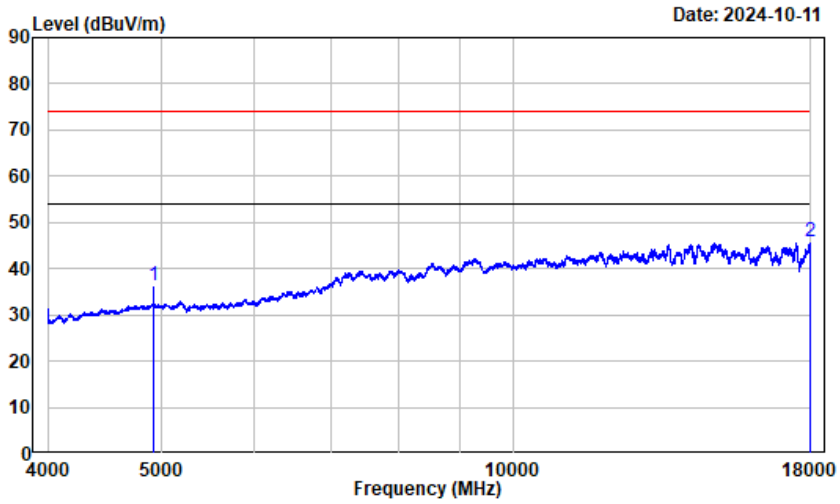
Vertical	
1-4GHz	 Condition : Vertical Project No.: 2401W43894E-RF Tester : Zenos Qiao Note : 2.4GWiFi-ax20-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3885.000	-0.60	35.67	35.07	54.00	-18.93	Average
2	3885.000	-0.60	48.95	48.35	74.00	-25.65	Peak

Horizontal-Peak	
4-18GHz	 Condition : Horizontal Project No.: 2401W43894E-RF Tester : Zenos Qiao Note : 2.4GWiFi-ax20-2462 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 17963.250 24.36 38.70 63.06 74.00 -10.94 Peak

Horizontal-Average

4-18GHz



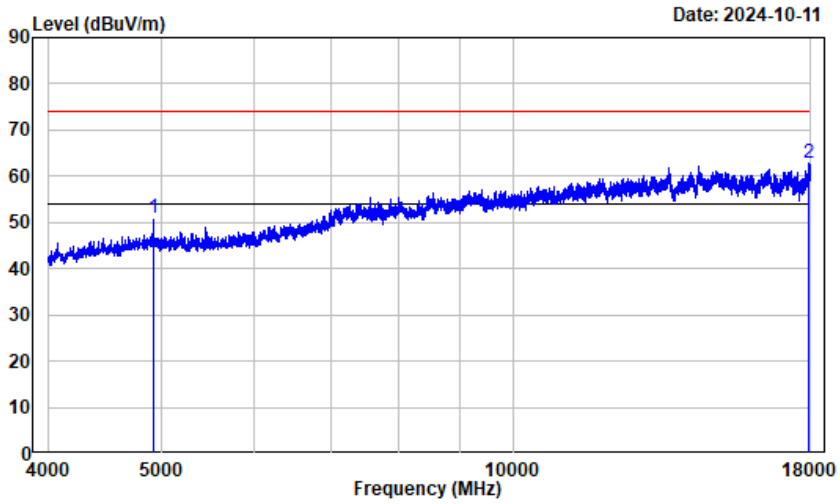
Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-ax20-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	33.57	36.20	54.00	-17.80	Average
2	17998.250	24.61	21.08	45.69	54.00	-8.31	Average

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

Vertical-Peak

4-18GHz

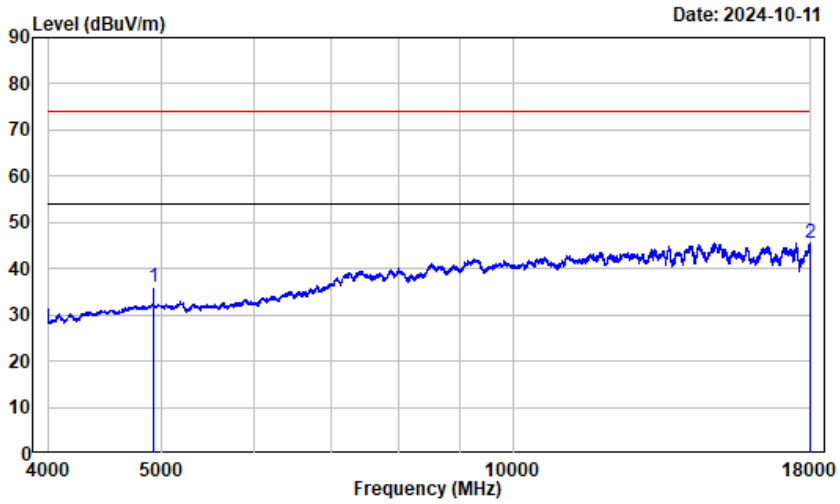


Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-ax20-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	48.16	50.79	74.00	-23.21	Peak
2	17954.490	24.30	38.39	62.69	74.00	-11.31	Peak

Vertical-Average

4-18GHz

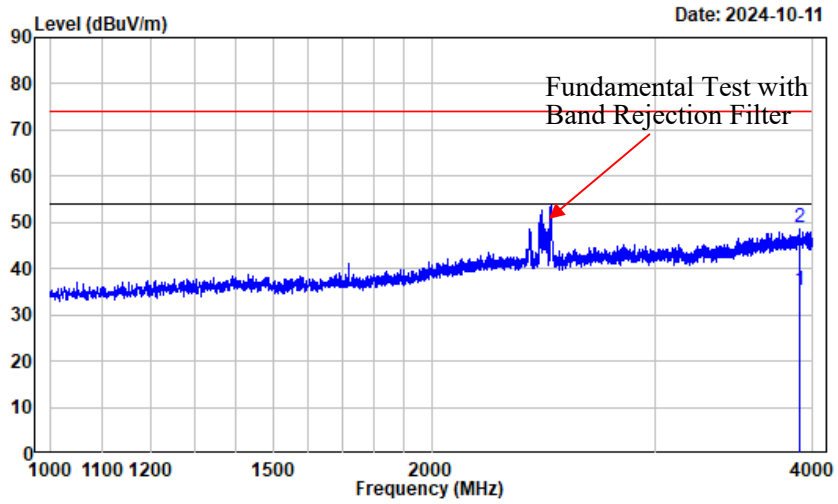


Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-ax20-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	2.63	33.43	36.06	54.00	-17.94	Average
2	17993.000	24.57	20.83	45.40	54.00	-8.60	Average

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

802.11ax40

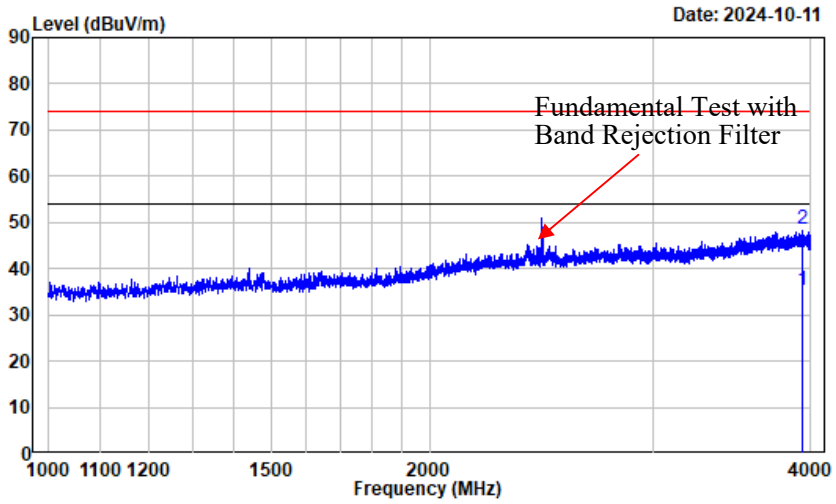
Horizontal	
1-4GHz	

Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-ax40-2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3910.625	-0.46	35.89	35.43	54.00	-18.57	Average
2	3910.625	-0.46	49.26	48.80	74.00	-25.20	Peak

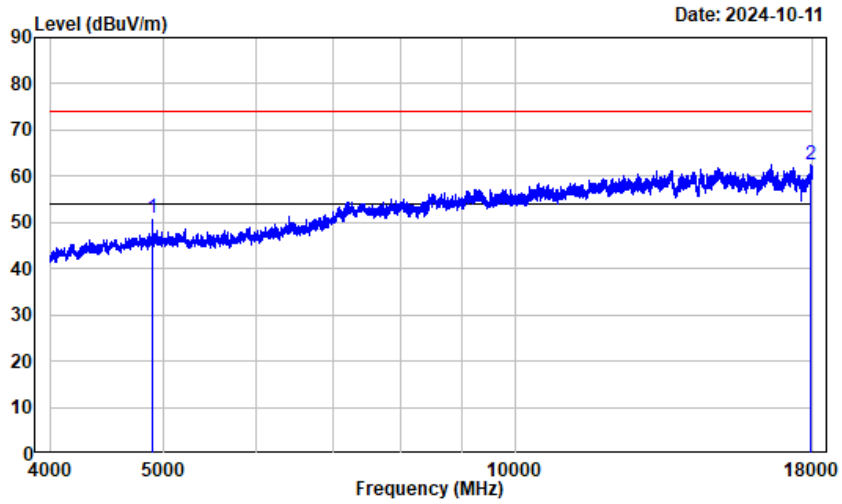
Vertical

1-4GHz



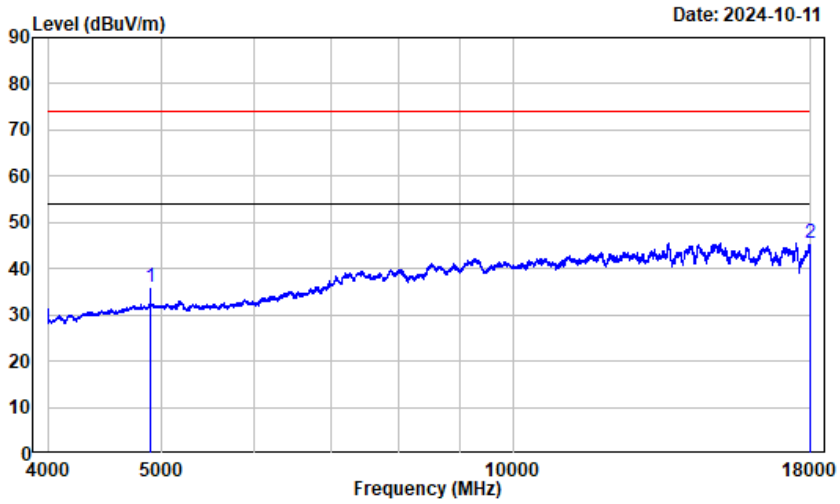
Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-ax40-2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3941.250	-0.23	35.51	35.28	54.00	-18.72	Average
2	3941.250	-0.23	48.90	48.67	74.00	-25.33	Peak

Horizontal-Peak	
4-18GHz	 Condition : Horizontal Project No.: 2401W43894E-RF Tester : Zenos Qiao Note : 2.4GWiFi-ax40-2452 Freq / Factor / Read Level / Level / Limit Line / Over Limit / Remark MHz / dB/m / dBuV / dBuV/m / dBuV/m / dB 1 4904.000 2.64 48.34 50.98 74.00 -23.02 Peak 2 17945.740 24.23 38.38 62.61 74.00 -11.39 Peak

Horizontal-Average

4-18GHz



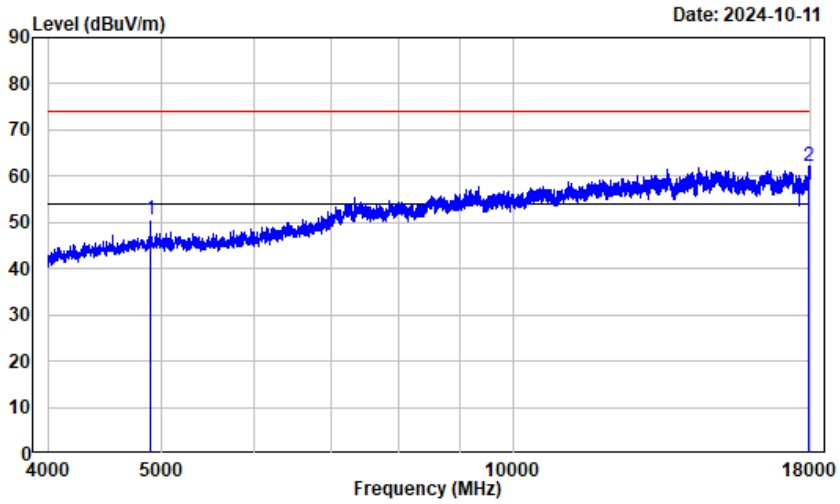
Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-ax40-2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4904.000	2.64	33.45	36.09	54.00	-17.91	Average
2	17996.550	24.62	20.98	45.60	54.00	-8.40	Average

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

Vertical-Peak

4-18GHz

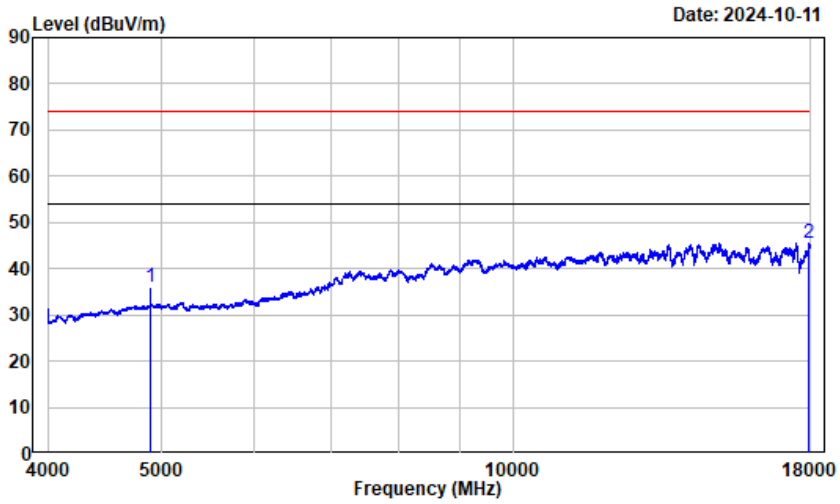


Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-ax40-2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4904.000	2.64	48.12	50.76	74.00	-23.24	Peak
2	17942.240	24.21	37.78	61.99	74.00	-12.01	Peak

Vertical-Average

4-18GHz

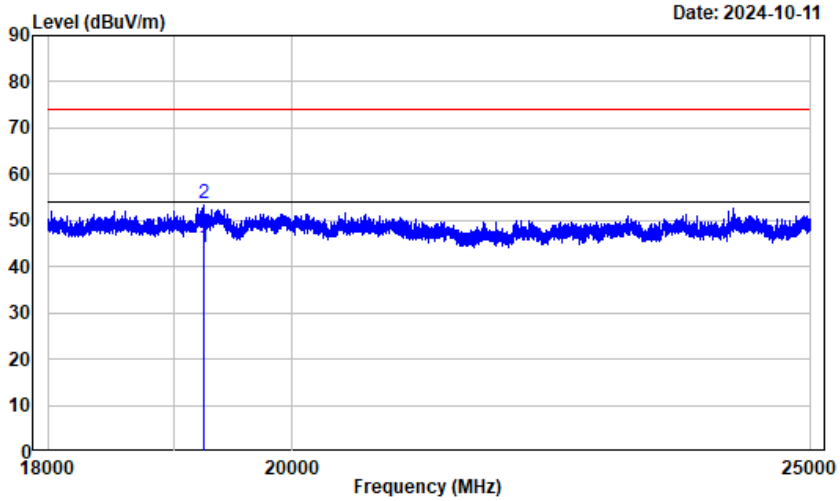


Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-ax40-2452

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4904.000	2.64	33.28	35.92	54.00	-18.08	Average
2	17943.990	24.22	21.13	45.35	54.00	-8.65	Average

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

18-25GHz (*Only with worst case margin mode plot***):**

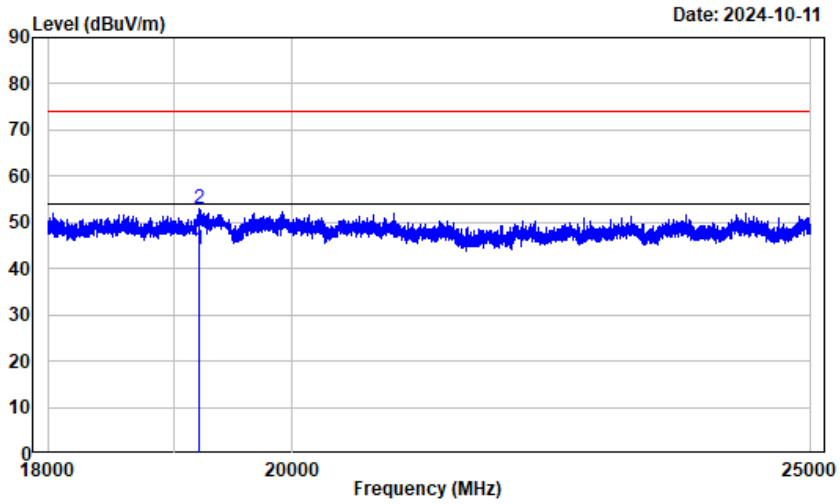
Horizontal	
18-25GHz	

Condition : Horizontal
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	19249.660	15.27	28.95	44.22	54.00	-9.78	Average
2	19249.660	15.27	38.27	53.54	74.00	-20.46	Peak

Vertical

18-25GHz



Condition : Vertical
Project No.: 2401W43894E-RF
Tester : Zenos Qiao
Note : 2.4GWiFi-b-2462

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	19211.150	15.31	28.69	44.00	54.00	-10.00	Average
2	19211.150	15.31	37.84	53.15	74.00	-20.85	Peak

FCC §15.247(a) (2) - 6 dB Emission Bandwidth &Occupied Channel Bandwidth

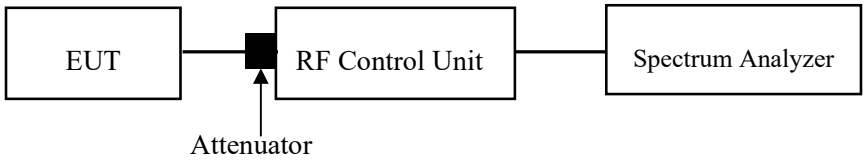
Applicable Standard

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 6.9.2 & 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. For the 99% emission bandwidth, the trace data points are recovered and directly summed in linear power level terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached, and that frequency recorded. The process is repeated for the highest frequency data points (starting at the highest frequency, at the right side of the span, and going down in frequency). This frequency is then recorded. The difference between the two recorded frequencies is the occupied bandwidth (or the 99% emission bandwidth).
5. Repeat above procedures until all frequencies measured were complete.



Test Data

Environmental Conditions

Temperature:	25~26 ℃
Relative Humidity:	55~56 %
ATM Pressure:	101 kPa

The testing was performed by Tom Tan from 2024-10-11 to 2024-12-02.

EUT operation mode: Transmitting

Test Result: Compliant. Please refer to the Appendix.

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

Applicable Standard

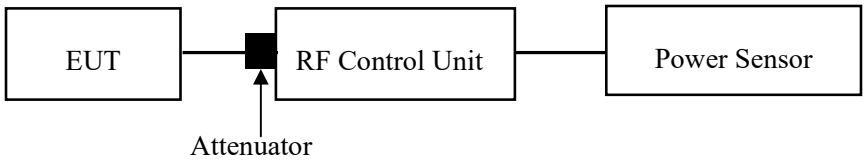
According to FCC §15.247(b) (3), for systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted 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

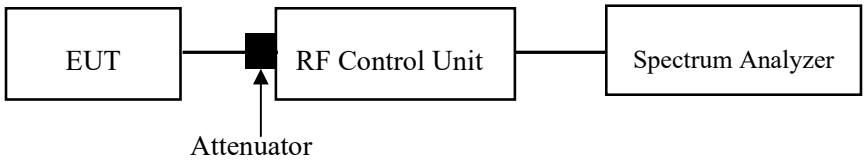
Test Method: ANSI C63.10-2013 Clause 11.9.1.1 for BLE & Clause 11.9.1.3 for Wi-Fi

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.

For Wi-Fi mode:



For BLE mode:



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:	25~26 ℃
Relative Humidity:	55~56 %
ATM Pressure:	101 kPa

The testing was performed by Tom Tan from 2024-10-11 to 2024-10-13.

EUT operation mode: Transmitting

Test Result: Compliant. Please refer to the Appendix.

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

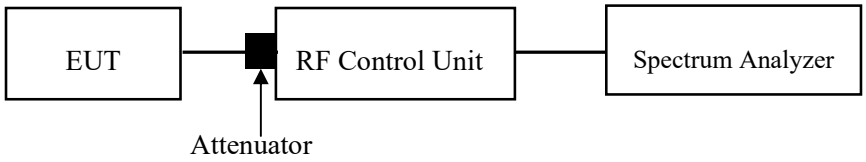
Applicable Standard

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:	25~26 ℃
Relative Humidity:	55~56 %
ATM Pressure:	101 kPa

The testing was performed by Tom Tan from 2024-10-11 to 2024-12-02.

EUT operation mode: Transmitting

Test Result: Compliant. Please refer to the Appendix.

FCC §15.247(e) - POWER SPECTRAL DENSITY

Applicable Standard

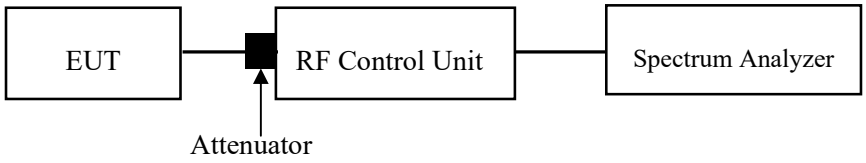
For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of 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:	25~26 ℃
Relative Humidity:	55~56 %
ATM Pressure:	101 kPa

The testing was performed by Tom Tan from 2024-10-11 to 2025-01-13.

EUT operation mode: Transmitting

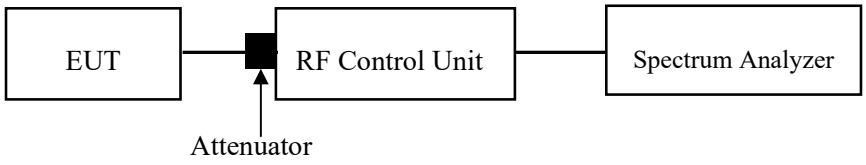
Test Result: Compliant. Please refer to the Appendix.

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:	25~26 ℃
Relative Humidity:	55~56 %
ATM Pressure:	101 kPa

The testing was performed by Tom Tan from 2024-10-11 to 2024-12-02.

EUT operation mode: Transmitting

Test Result: Compliant. Please refer to the Appendix.

EUT PHOTOGRAPHS

Please refer to the attachment 2401W43894E-RF External photo and 2401W43894E-RF Internal photo.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2401W43894E-RFA Test Setup photo.

APPENDIX---BLE

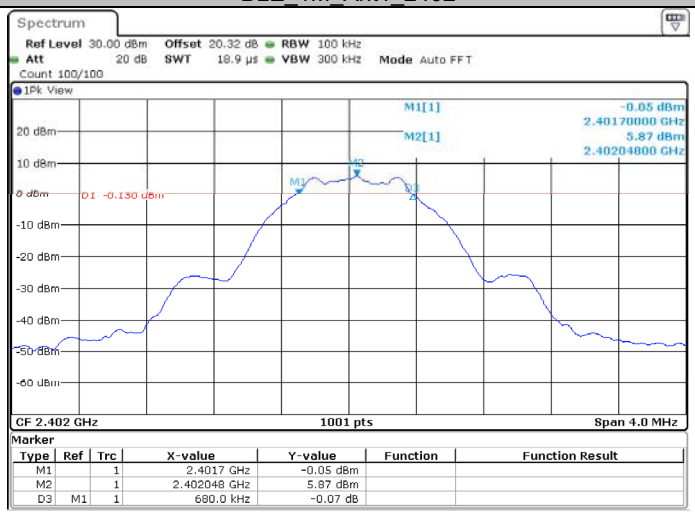
Appendix A: DTS Bandwidth

Test Result

Test Mode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.680	2401.70	2402.38	0.5	PASS
		2440	0.680	2439.70	2440.38	0.5	PASS
		2480	0.676	2479.70	2480.38	0.5	PASS
BLE_2M	Ant1	2402	1.140	2401.47	2402.61	0.5	PASS
		2440	1.144	2439.47	2440.61	0.5	PASS
		2480	1.148	2479.46	2480.61	0.5	PASS

Test Graphs

BLE_1M_Ant1_2402

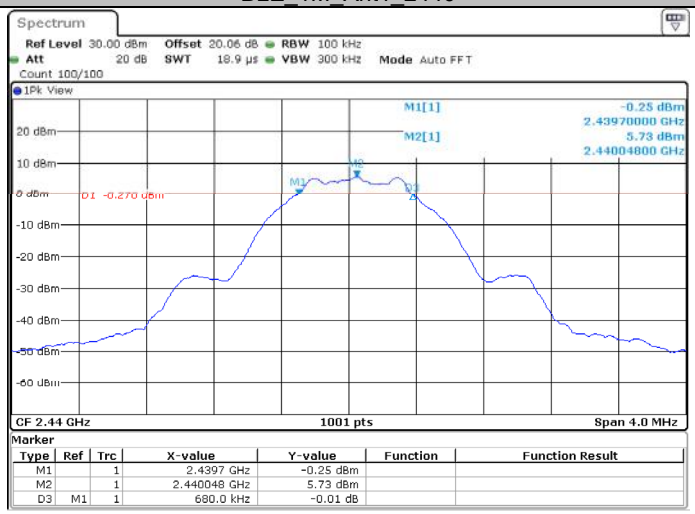


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.4017 GHz	-0.05 dBm		
M2		1	2.402048 GHz	5.87 dBm		
D3	M1	1	680.0 kHz	-0.07 dB		

ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 21:30:20

BLE_1M_Ant1_2440

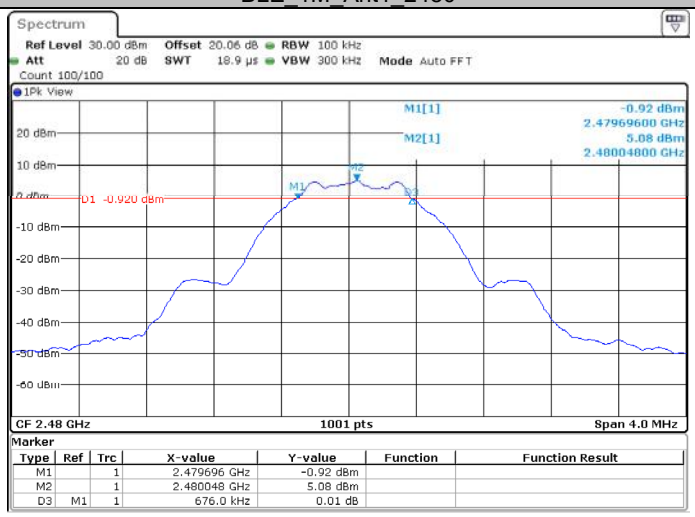


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.4397 GHz	-0.25 dBm		
M2		1	2.440048 GHz	5.73 dBm		
D3	M1	1	680.0 kHz	-0.01 dB		

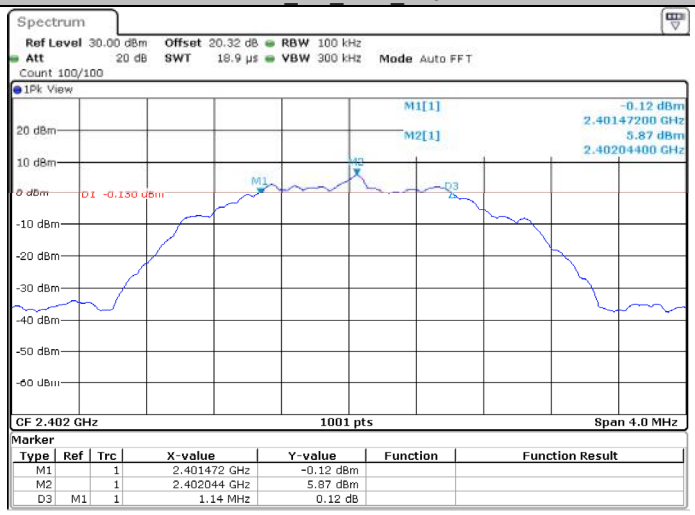
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 21:31:39

BLE_1M_Ant1_2480



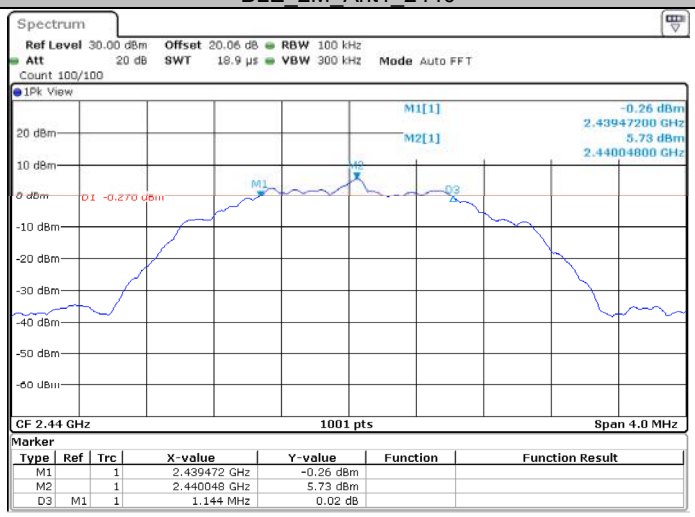
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 21:32:39

BLE_2M_Ant1_2402



ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 21:26:51

BLE_2M_Ant1_2440

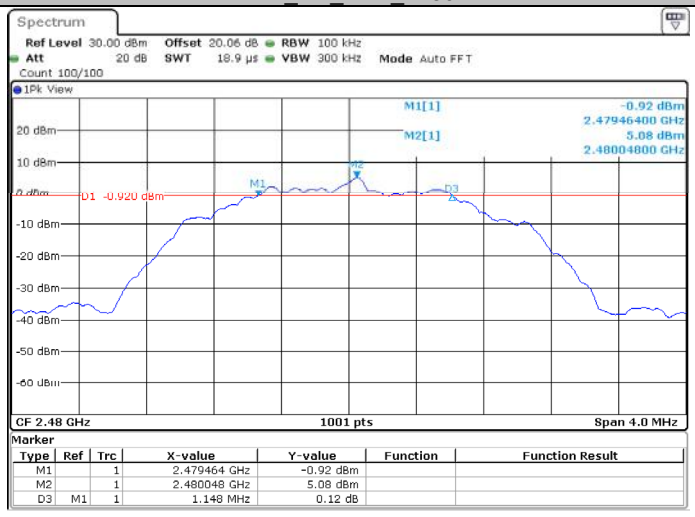


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.439472 GHz	-0.26 dBm		
M2		1	2.440048 GHz	5.73 dBm		
D3	M1	1	1.144 MHz	0.02 dB		

ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 21:28:32

BLE_2M_Ant1_2480



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.479464 GHz	-0.92 dBm		
M2		1	2.480048 GHz	5.08 dBm		
D3	M1	1	1.148 MHz	0.12 dB		

ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 21:29:15

Appendix B: Occupied Channel Bandwidth

Test Result

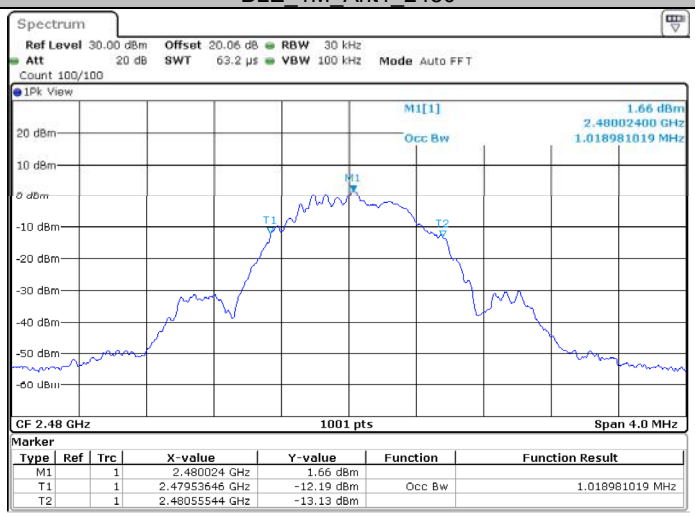
Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.023	2401.5365	2402.5594	---	---
		2440	1.023	2439.5365	2440.5594	---	---
		2480	1.019	2479.5365	2480.5554	---	---
BLE_2M	Ant1	2402	1.998	2401.0609	2403.0589	---	---
		2440	1.998	2439.0609	2441.0589	---	---
		2480	1.994	2479.0569	2481.0509	---	---

Test Graphs

BLE_1M_Ant1_2402

BLE_1M_Ant1_2440

BLE_1M_Ant1_2480

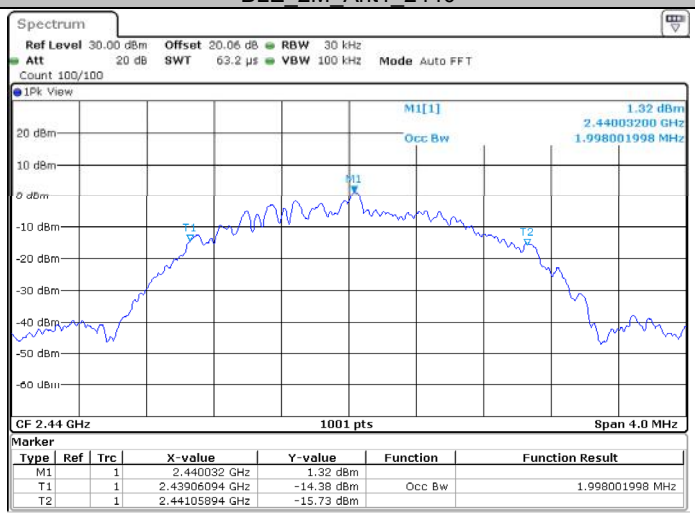


ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 21:32:45

BLE_2M_Ant1_2402

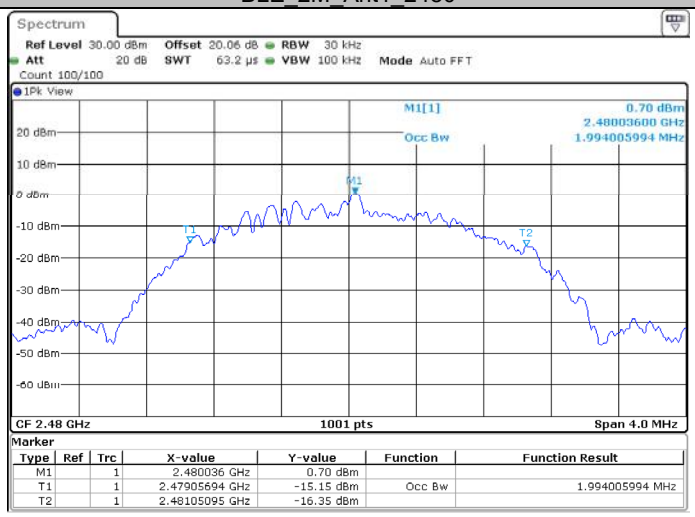
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 21:26:57

BLE_2M_Ant1_2440



ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 21:28:37

BLE_2M_Ant1_2480



ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 21:29:21

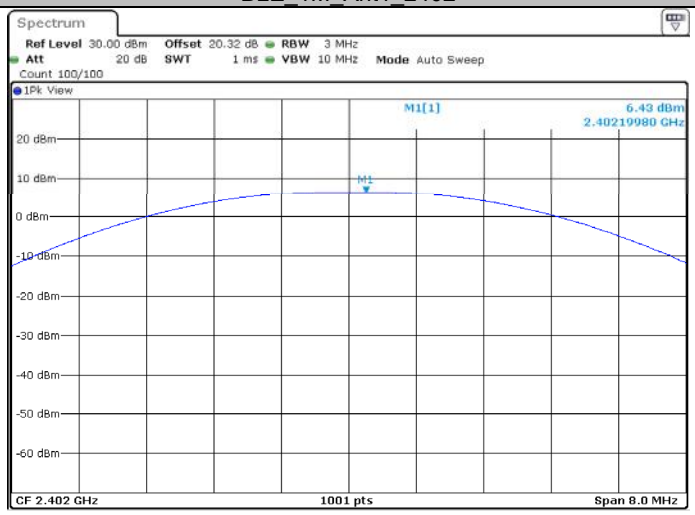
Appendix C: Maximum conducted output power

Test Result Peak

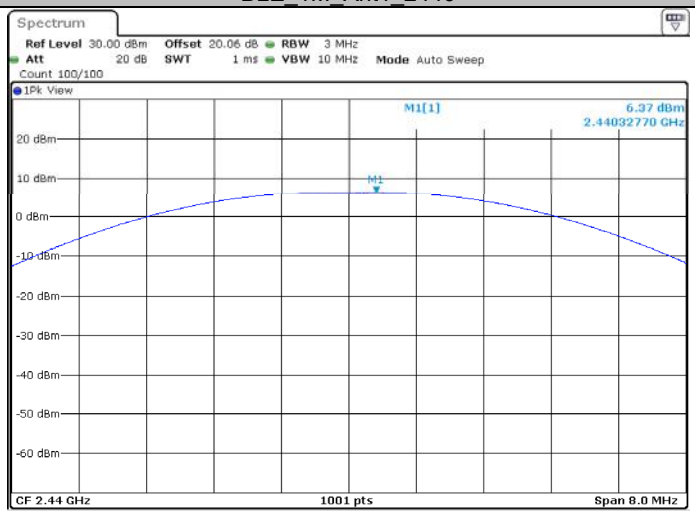
Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	6.43	≤30	PASS
		2440	6.37	≤30	PASS
		2480	5.70	≤30	PASS
BLE_2M	Ant1	2402	6.54	≤30	PASS
		2440	6.47	≤30	PASS
		2480	5.81	≤30	PASS

Test Graphs Peak

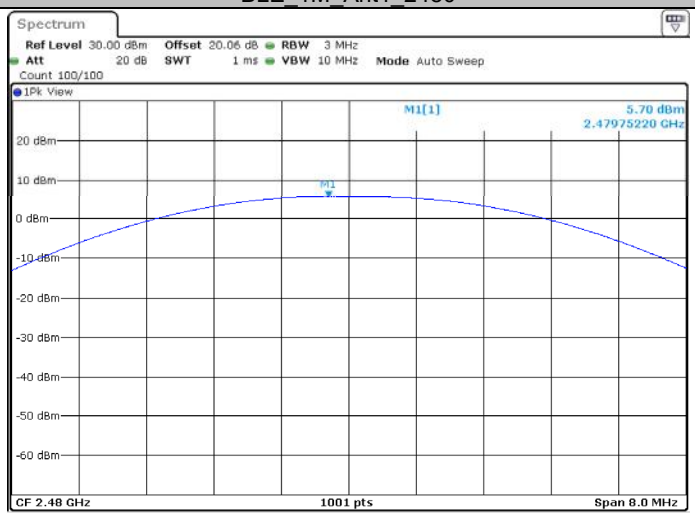
BLE_1M_Ant1_2402



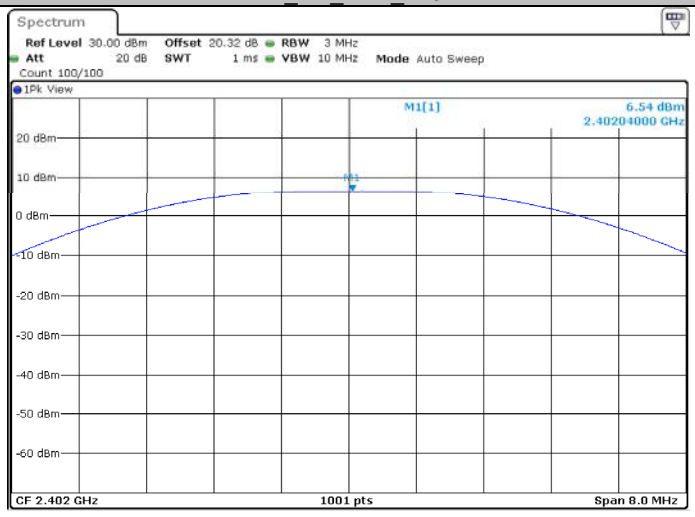
BLE_1M_Ant1_2440



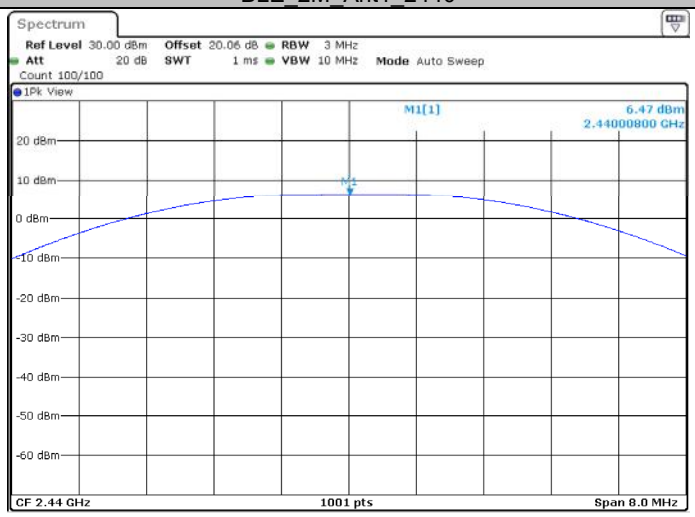
BLE_1M_Ant1_2480



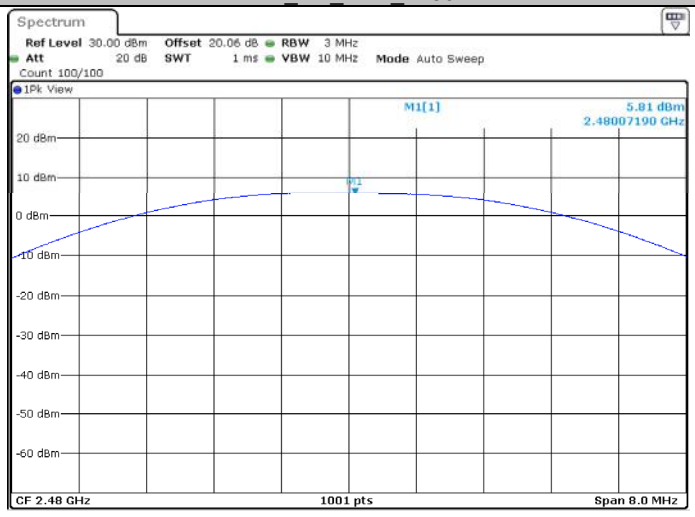
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



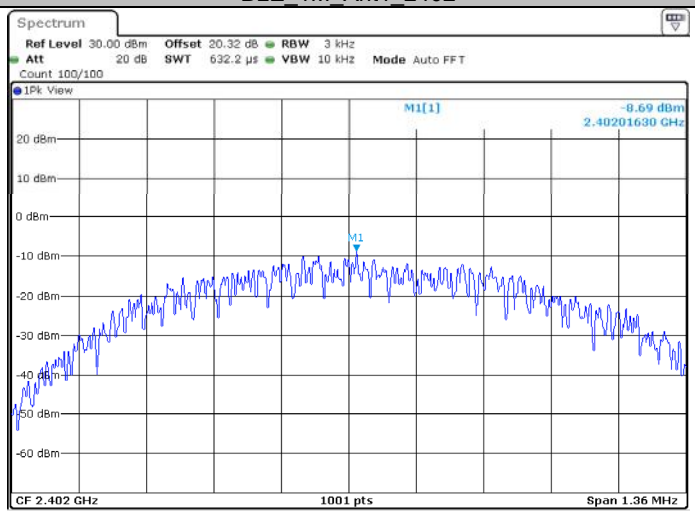
Appendix D: Maximum power spectral density

Test Result

Test Mode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-8.69	≤8.00	PASS
		2440	-8.72	≤8.00	PASS
		2480	-9.44	≤8.00	PASS
BLE_2M	Ant1	2402	-11.62	≤8.00	PASS
		2440	-11.68	≤8.00	PASS
		2480	-12.34	≤8.00	PASS

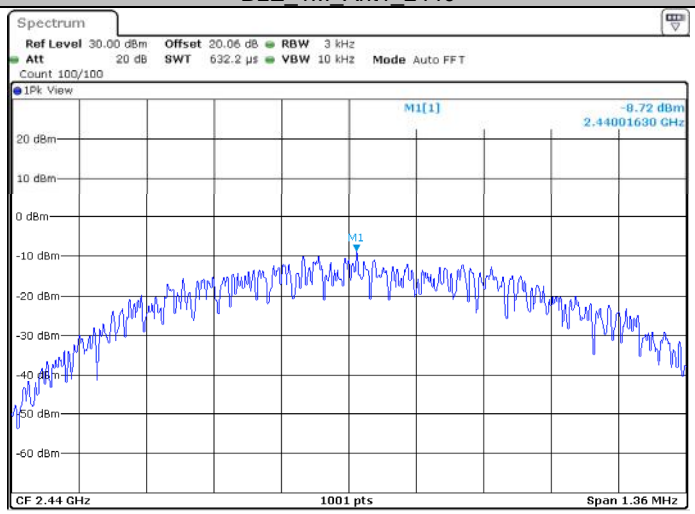
Test Graphs

BLE_1M_Ant1_2402



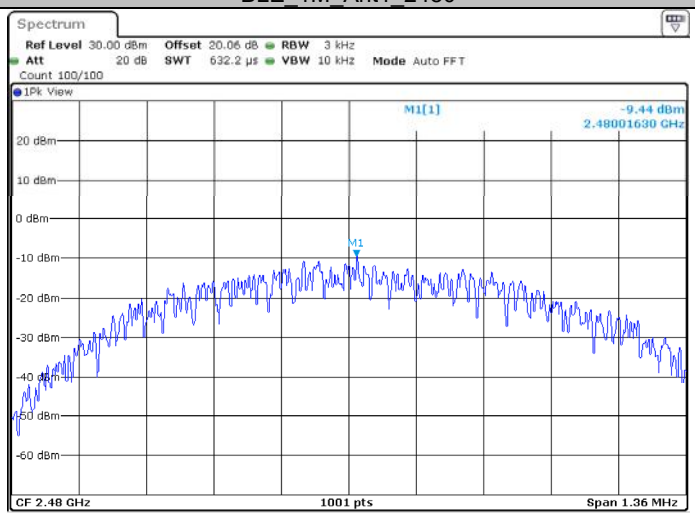
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 21:30:38

BLE_1M_Ant1_2440



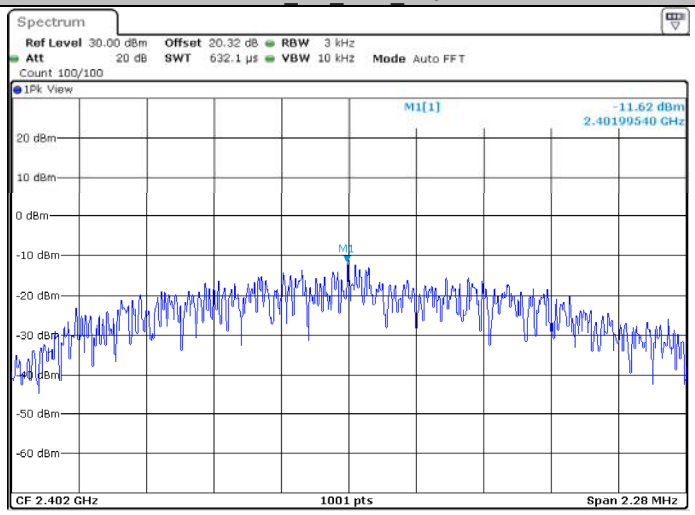
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 21:31:57

BLE_1M_Ant1_2480



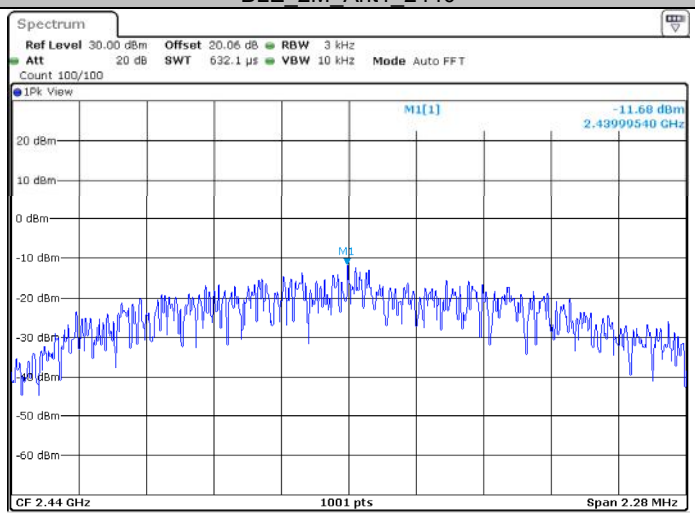
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 21:32:57

BLE_2M_Ant1_2402



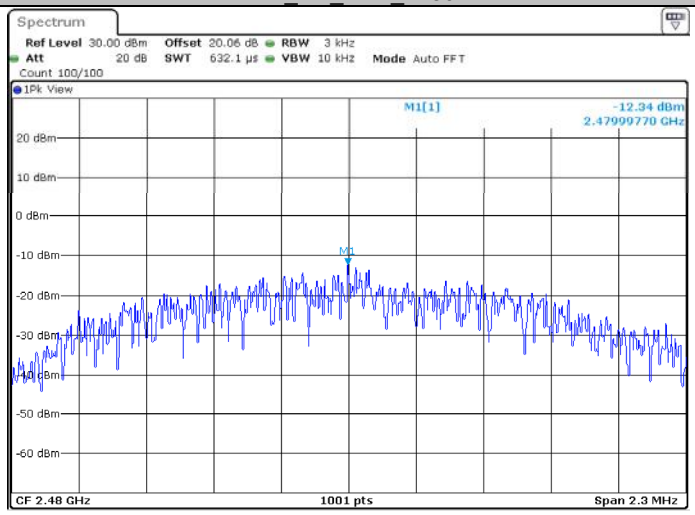
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 21:27:09

BLE_2M_Ant1_2440



ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 21:28:50

BLE_2M_Ant1_2480

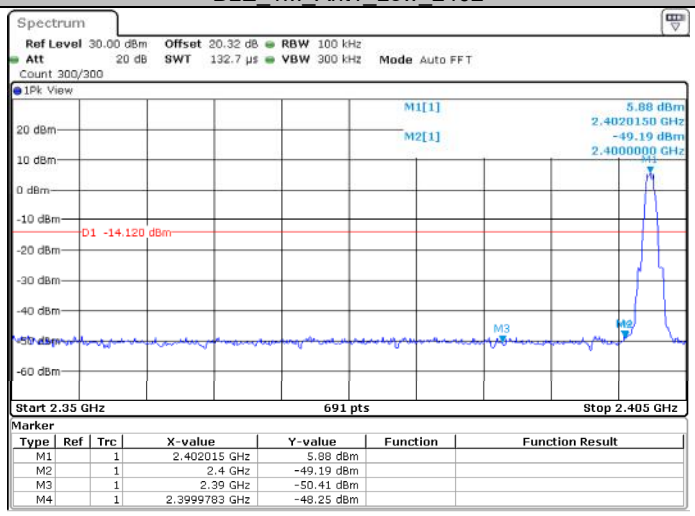


ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 21:29:34

Appendix E: Band edge measurements

Test Graphs

BLE_1M_Ant1_Low_2402

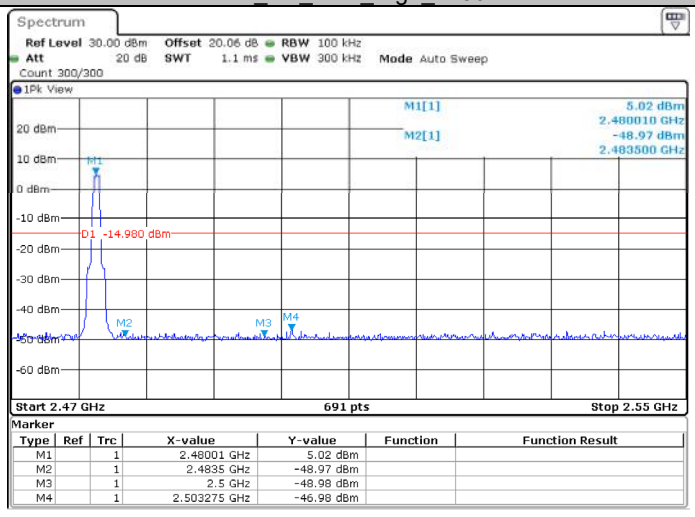


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.402015 GHz	5.88 dBm		
M2		1	2.4 GHz	-49.19 dBm		
M3		1	2.39 GHz	-50.41 dBm		
M4		1	2.3999783 GHz	-48.25 dBm		

ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 21:30:47

BLE_1M_Ant1_High_2480

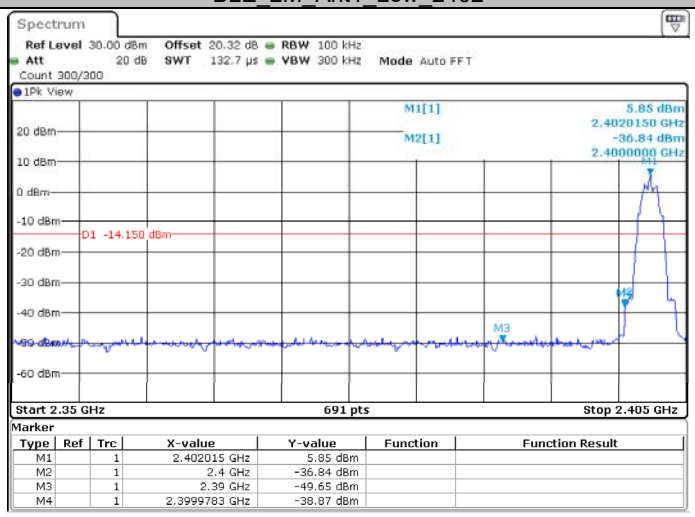


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.48001 GHz	5.02 dBm		
M2		1	2.4835 GHz	-48.97 dBm		
M3		1	2.5 GHz	-48.98 dBm		
M4		1	2.503275 GHz	-46.98 dBm		

ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 21:33:06

BLE_2M_Ant1_Low_2402

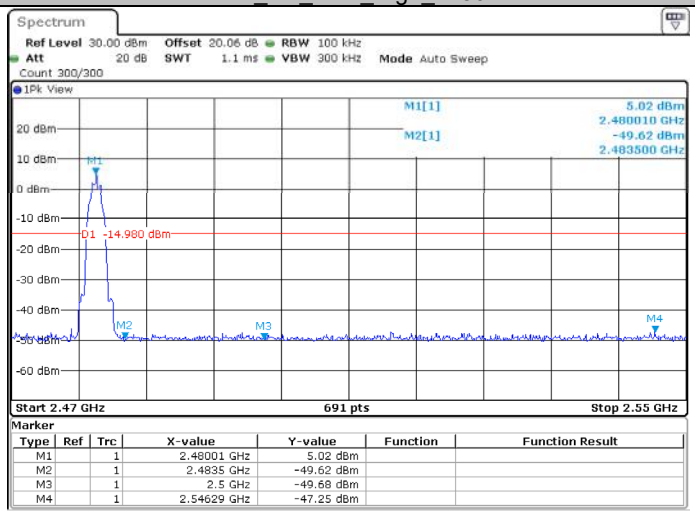


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.402015 GHz	5.85 dBm		
M2		1	2.4 GHz	-36.84 dBm		
M3		1	2.39 GHz	-49.65 dBm		
M4		1	2.3999783 GHz	-38.87 dBm		

ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 21:27:18

BLE_2M_Ant1_High_2480



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.48001 GHz	5.02 dBm		
M2		1	2.4835 GHz	-49.62 dBm		
M3		1	2.5 GHz	-49.68 dBm		
M4		1	2.54629 GHz	-47.25 dBm		

ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 21:29:42

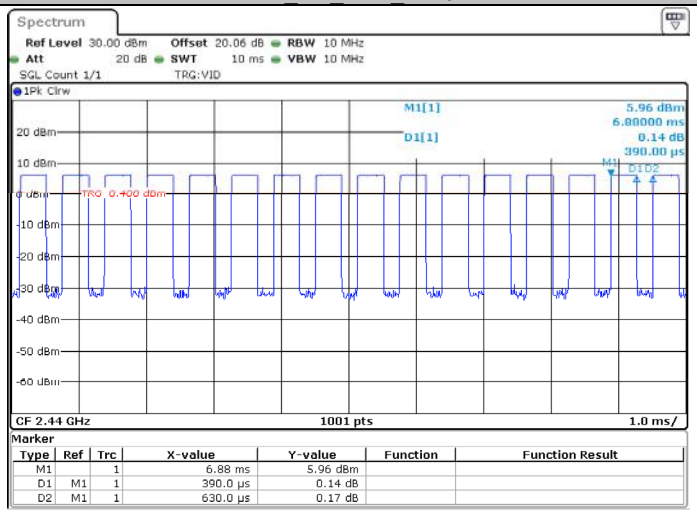
Appendix F: Duty Cycle

Test Result

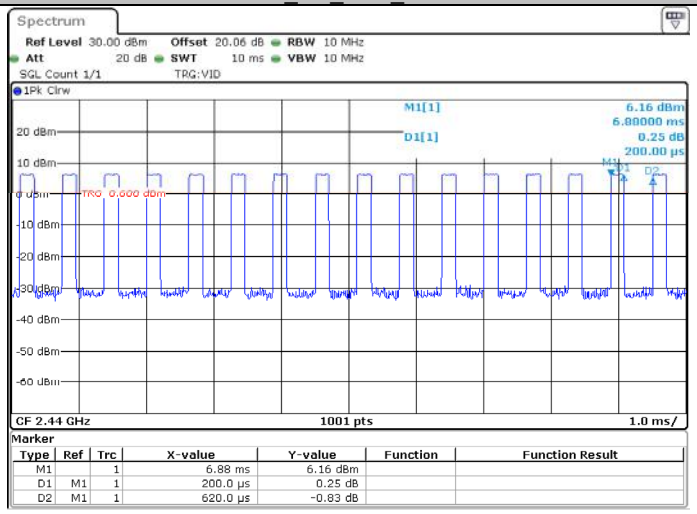
Test Mode	Antenna	Frequency [MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	1/T[Hz]	VBW Setting [Hz]
BLE_1M	Ant1	2440	0.39	0.63	61.90	2564	3000
BLE_2M	Ant1	2440	0.20	0.62	32.26	5000	5000

Test Graphs

BLE_1M_Ant1_2440



BLE_2M_Ant1_2440



APPENDIX---2.4G Wi-Fi

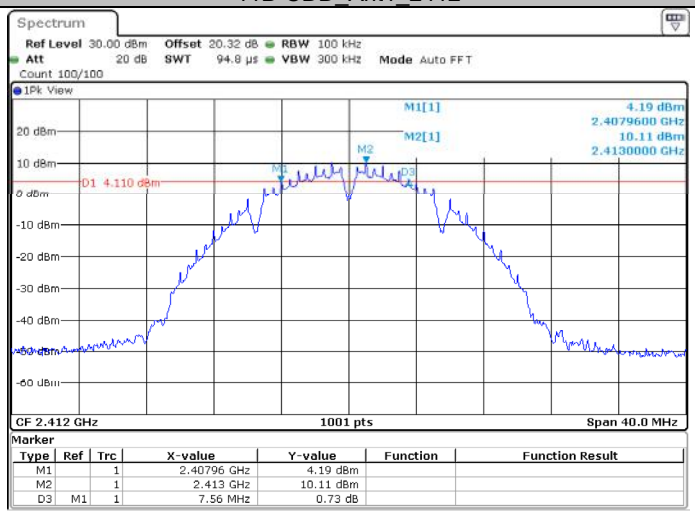
Appendix A: DTS Bandwidth

Test Result

Test Mode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B-CDD	Ant1	2412	7.56	2407.96	2415.52	0.5	PASS
	Ant2	2412	7.08	2408.44	2415.52	0.5	PASS
	Ant1	2437	7.12	2433.44	2440.56	0.5	PASS
	Ant2	2437	7.12	2433.44	2440.56	0.5	PASS
	Ant1	2462	7.32	2458.24	2465.56	0.5	PASS
	Ant2	2462	7.52	2458.24	2465.76	0.5	PASS
11G-CDD	Ant1	2412	16.32	2403.84	2420.16	0.5	PASS
	Ant2	2412	16.32	2403.84	2420.16	0.5	PASS
	Ant1	2437	16.32	2428.84	2445.16	0.5	PASS
	Ant2	2437	16.32	2428.84	2445.16	0.5	PASS
	Ant1	2462	16.28	2453.84	2470.12	0.5	PASS
	Ant2	2462	16.32	2453.84	2470.16	0.5	PASS
11N20MIMO	Ant1	2412	17.56	2403.20	2420.76	0.5	PASS
	Ant2	2412	17.52	2403.24	2420.76	0.5	PASS
	Ant1	2437	17.52	2428.24	2445.76	0.5	PASS
	Ant2	2437	17.60	2428.20	2445.80	0.5	PASS
	Ant1	2462	17.64	2453.16	2470.80	0.5	PASS
	Ant2	2462	17.56	2453.20	2470.76	0.5	PASS
11N40MIMO	Ant1	2422	35.68	2404.08	2439.76	0.5	PASS
	Ant2	2422	36.08	2404.08	2440.16	0.5	PASS
	Ant1	2437	36.32	2418.84	2455.16	0.5	PASS
	Ant2	2437	36.32	2418.84	2455.16	0.5	PASS
	Ant1	2452	35.44	2434.16	2469.60	0.5	PASS
	Ant2	2452	35.12	2434.48	2469.60	0.5	PASS
11AX20MIMO	Ant1	2412	19.08	2402.48	2421.56	0.5	PASS
	Ant2	2412	19.04	2402.52	2421.56	0.5	PASS
	Ant1	2437	19.04	2427.44	2446.48	0.5	PASS
	Ant2	2437	19.12	2427.44	2446.56	0.5	PASS
	Ant1	2462	19.08	2452.44	2471.52	0.5	PASS
	Ant2	2462	19.08	2452.44	2471.52	0.5	PASS
11AX40MIMO	Ant1	2422	37.84	2403.12	2440.96	0.5	PASS
	Ant2	2422	37.52	2403.36	2440.88	0.5	PASS
	Ant1	2437	37.76	2418.12	2455.88	0.5	PASS
	Ant2	2437	37.76	2418.12	2455.88	0.5	PASS
	Ant1	2452	36.80	2433.76	2470.56	0.5	PASS
	Ant2	2452	37.20	2433.28	2470.48	0.5	PASS

Test Graphs

11B-CDD_Ant1_2412

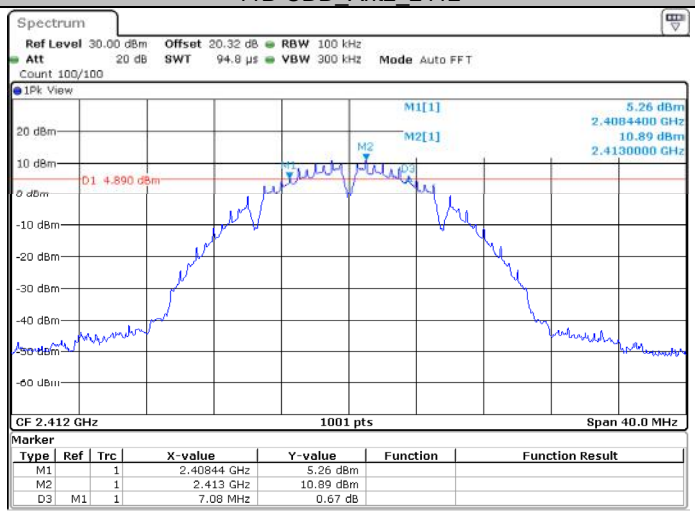


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40796 GHz	4.19 dBm		
M2		1	2.413 GHz	10.11 dBm		
D3	M1	1	7.56 MHz	0.73 dB		

ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:24:27

11B-CDD_Ant2_2412

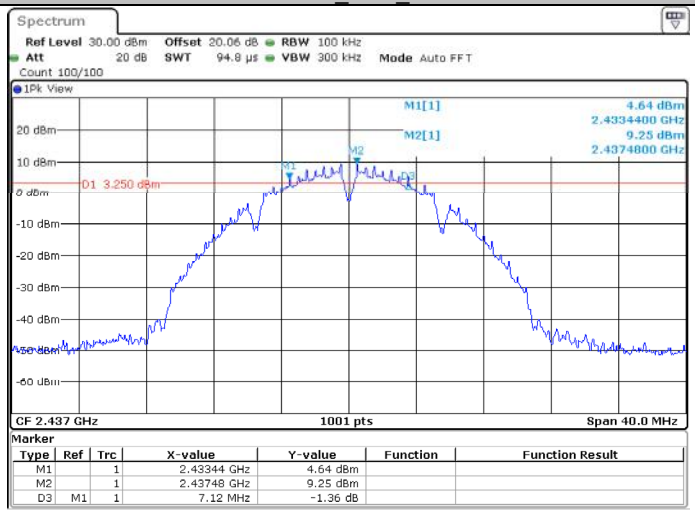


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40844 GHz	5.26 dBm		
M2		1	2.413 GHz	10.89 dBm		
D3	M1	1	7.08 MHz	0.67 dB		

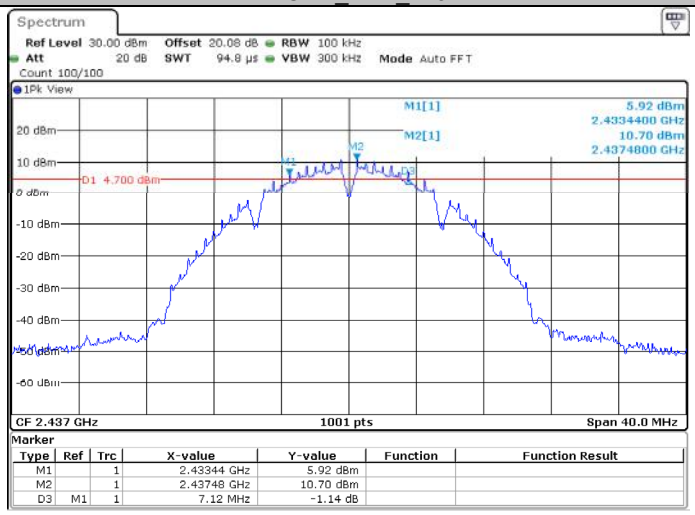
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:25:11

11B-CDD_Ant1_2437



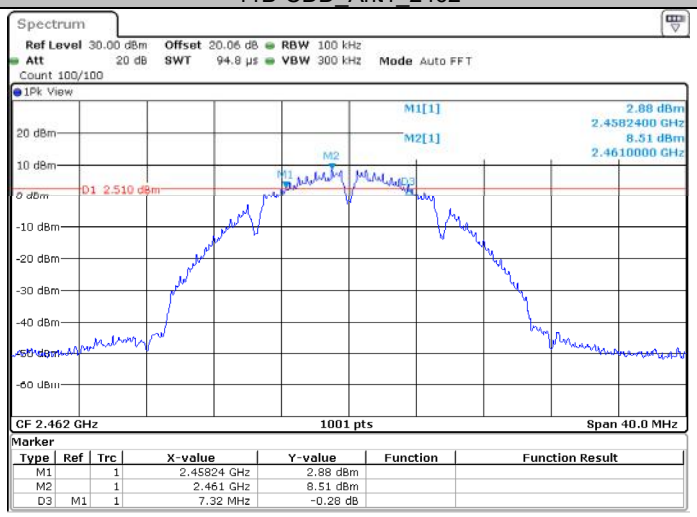
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:29:39

11B-CDD_Ant2_2437



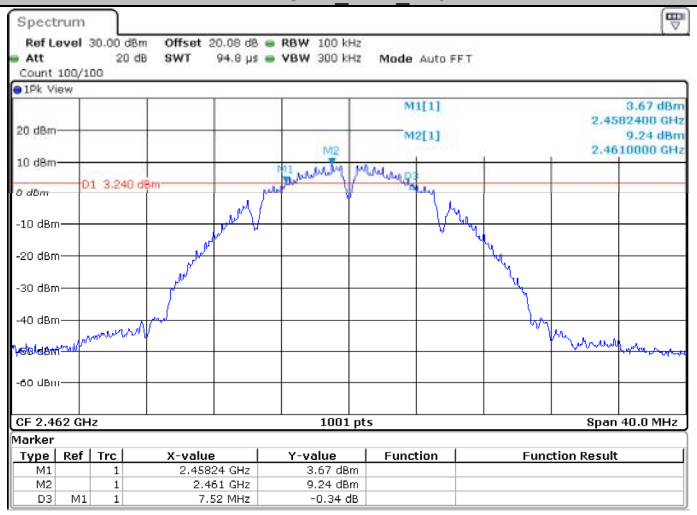
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:30:17

11B-CDD_Ant1_2462



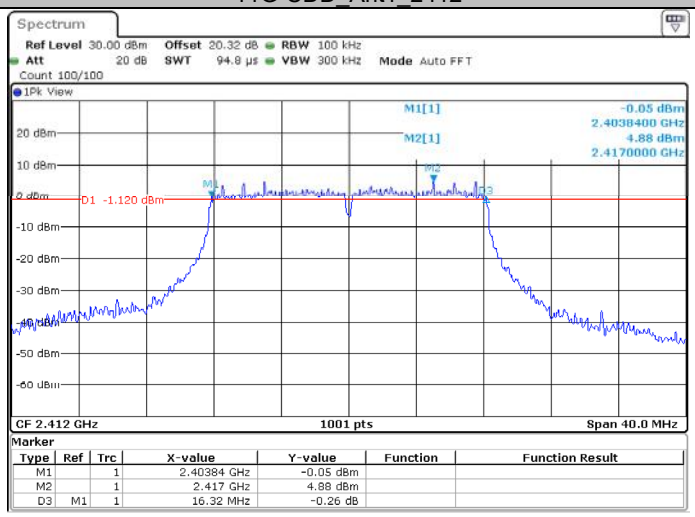
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:38:08

11B-CDD_Ant2_2462



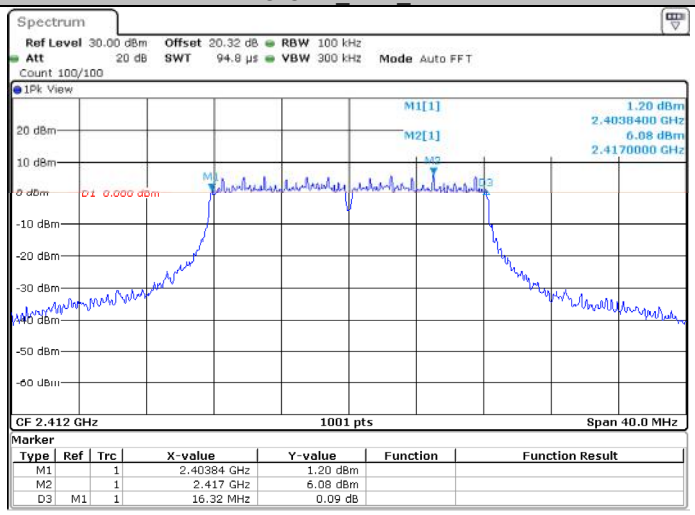
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:38:43

11G-CDD_Ant1_2412



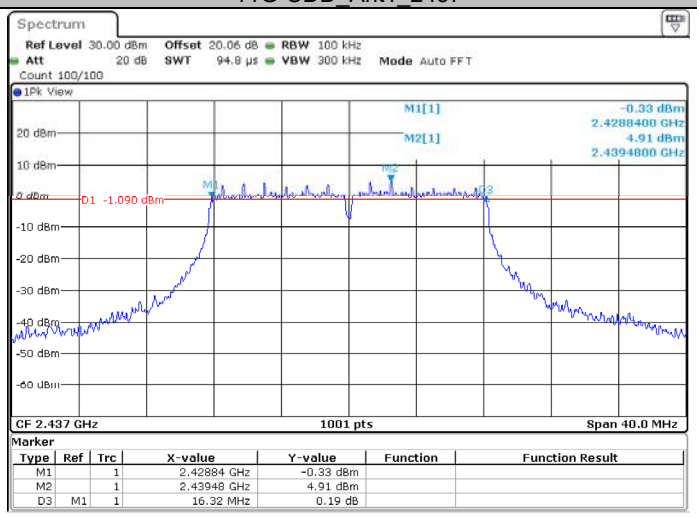
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:46:38

11G-CDD_Ant2_2412



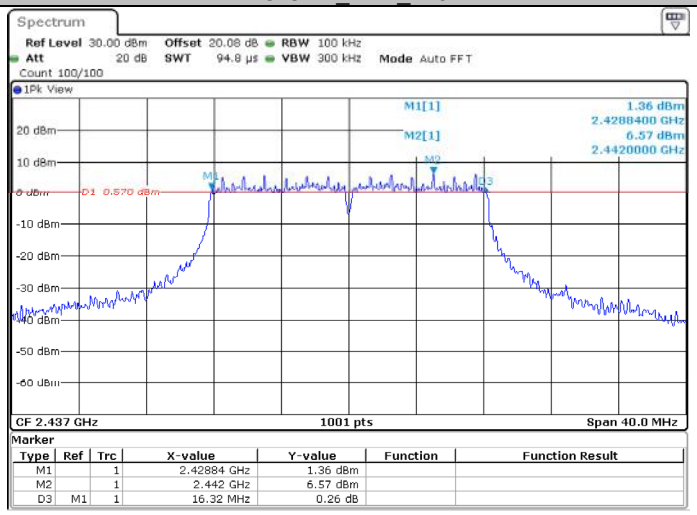
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:47:14

11G-CDD_Ant1_2437



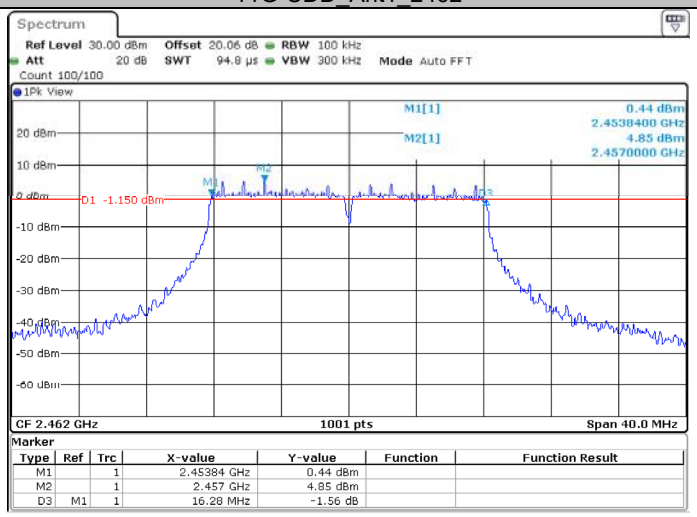
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:48:36

11G-CDD_Ant2_2437



ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:49:14

11G-CDD_Ant1_2462

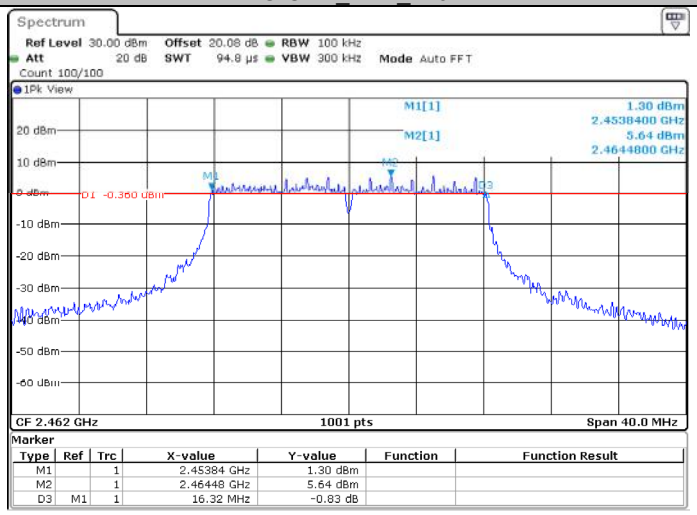


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.45384 GHz	0.44 dBm		
M2		1	2.457 GHz	4.85 dBm		
D3	M1	1	16.28 MHz	-1.56 dB		

ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:52:29

11G-CDD_Ant2_2462

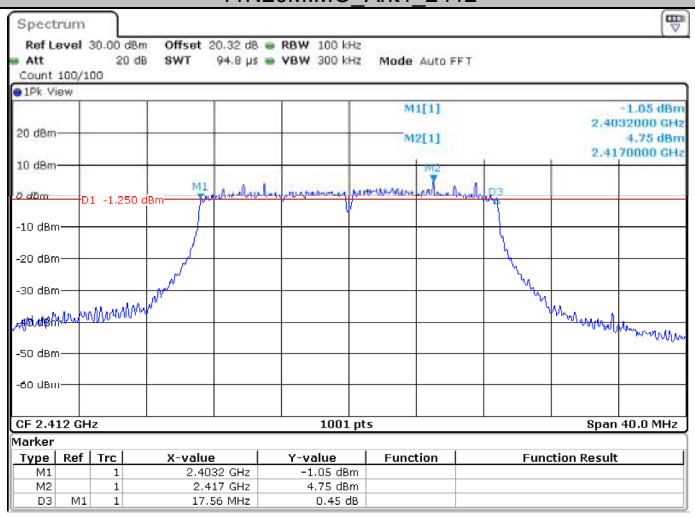


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.45384 GHz	1.30 dBm		
M2		1	2.46448 GHz	5.64 dBm		
D3	M1	1	16.32 MHz	-0.83 dB		

ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:53:05

11N20MIMO_Ant1_2412

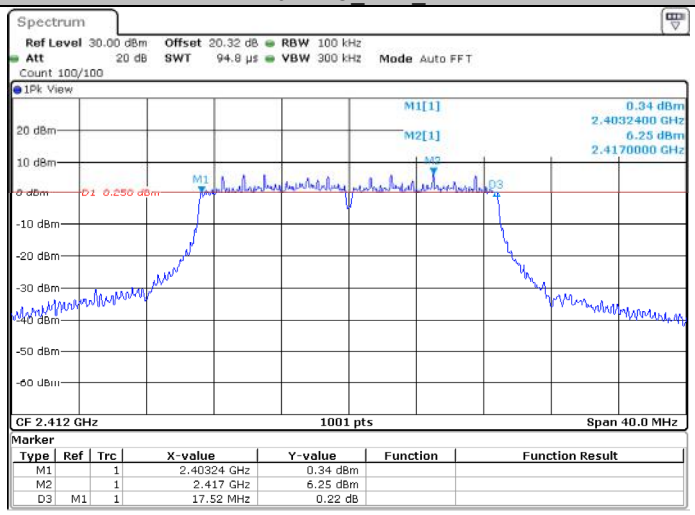


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.4032 GHz	-1.05 dBm		
M2		1	2.417 GHz	4.75 dBm		
D3	M1	1	17.56 MHz	0.45 dB		

ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:55:23

11N20MIMO_Ant2_2412

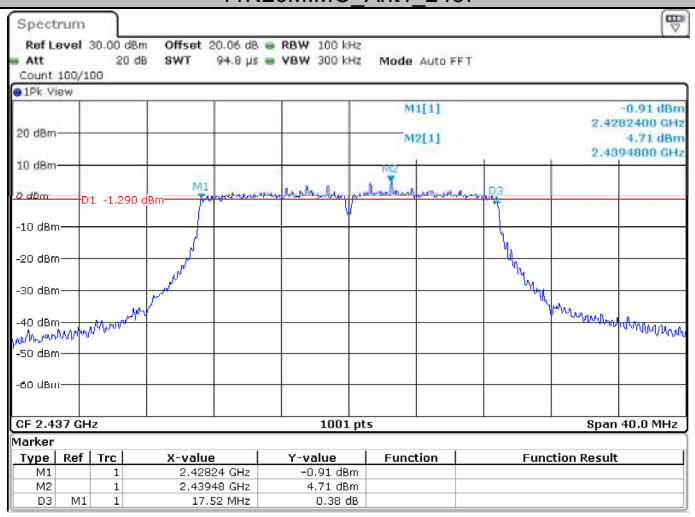


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40324 GHz	0.34 dBm		
M2		1	2.417 GHz	6.25 dBm		
D3	M1	1	17.52 MHz	0.22 dB		

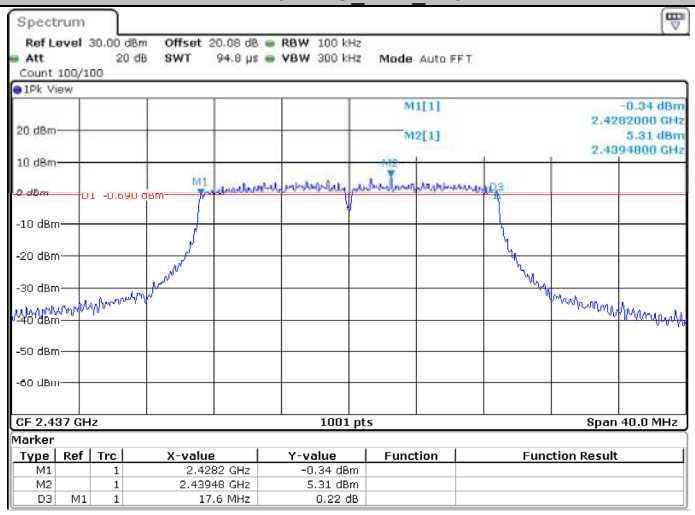
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:55:58

11N20MIMO_Ant1_2437



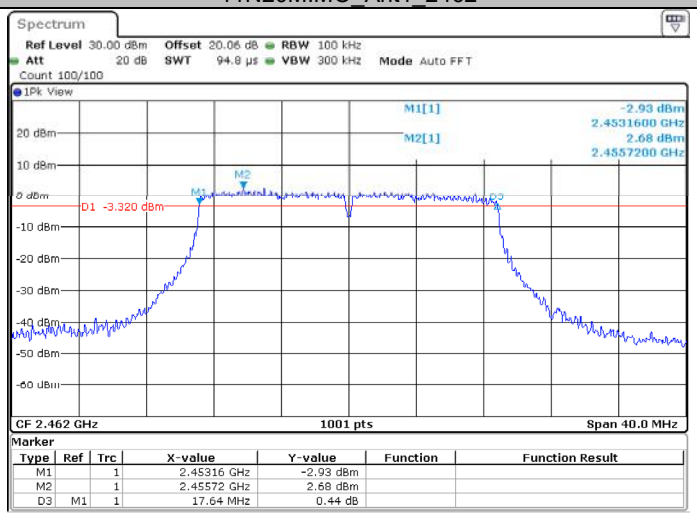
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:57:41

11N20MIMO_Ant2_2437



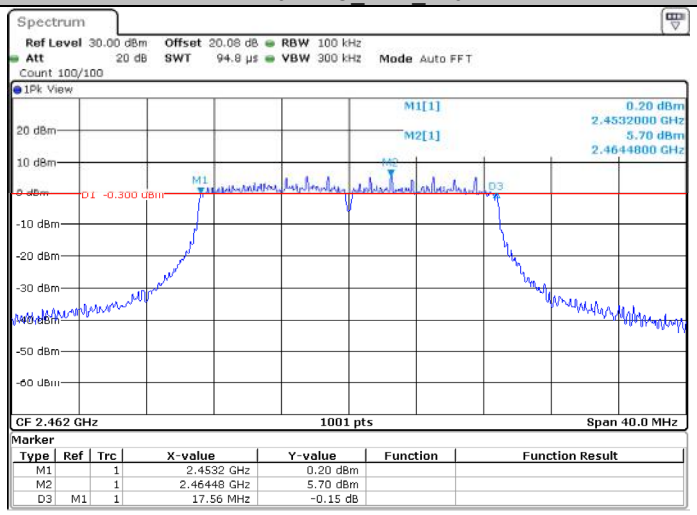
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:58:20

11N20MIMO_Ant1_2462



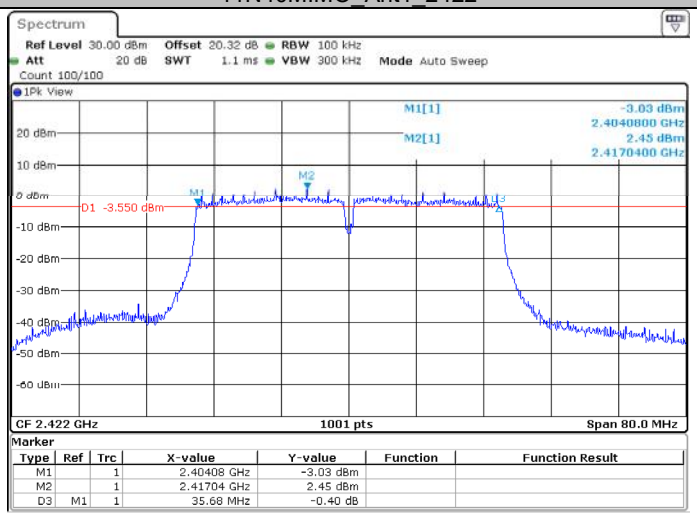
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 12.OCT.2024 00:00:55

11N20MIMO_Ant2_2462



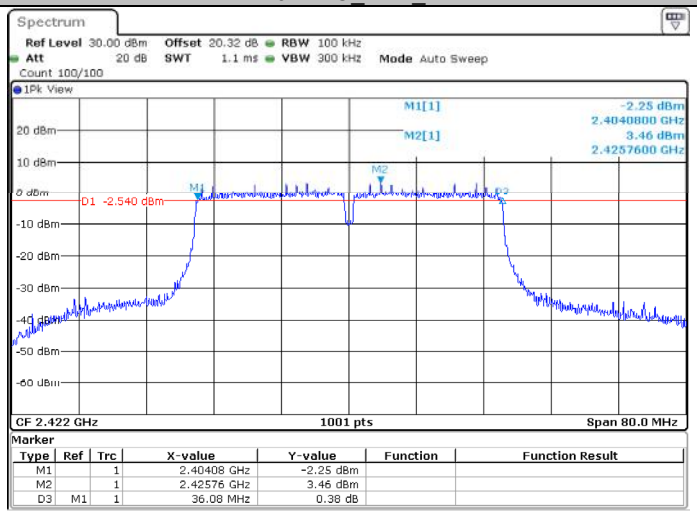
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 12.OCT.2024 00:01:31

11N40MIMO_Ant1_2422



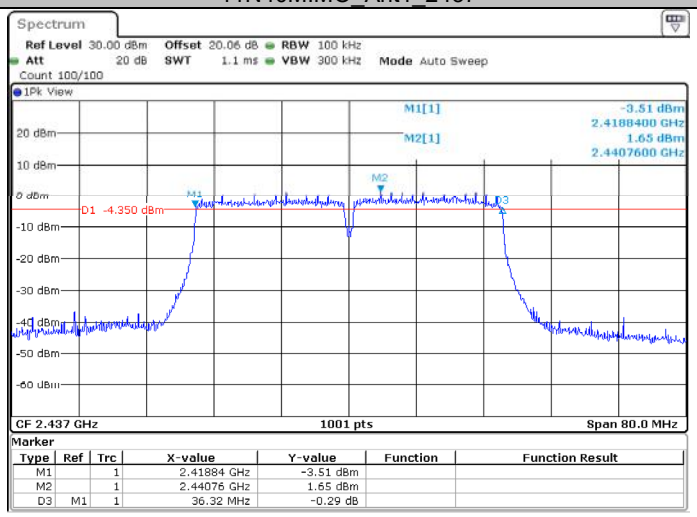
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 12.OCT.2024 00:03:14

11N40MIMO_Ant2_2422



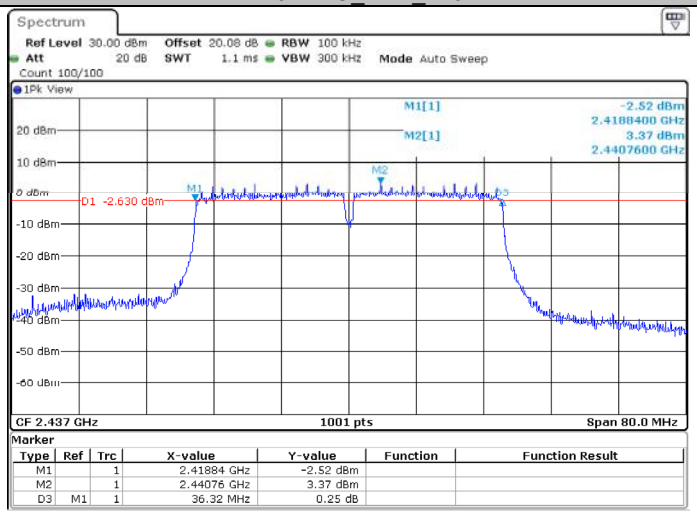
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 12.OCT.2024 00:03:50

11N40MIMO_Ant1_2437



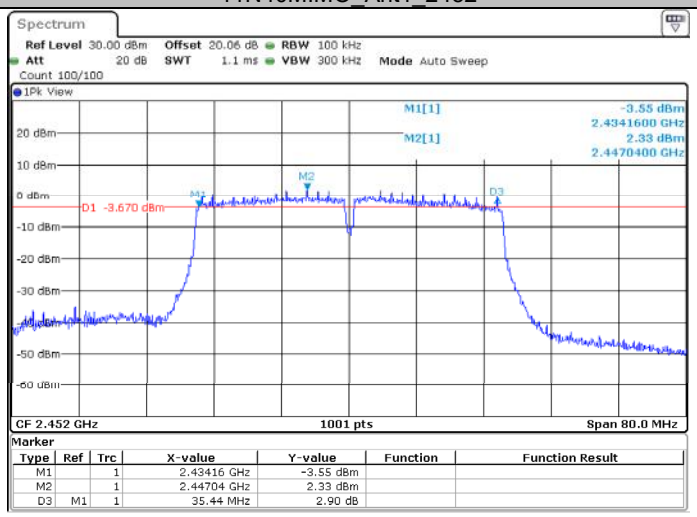
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 12.OCT.2024 00:05:31

11N40MIMO_Ant2_2437



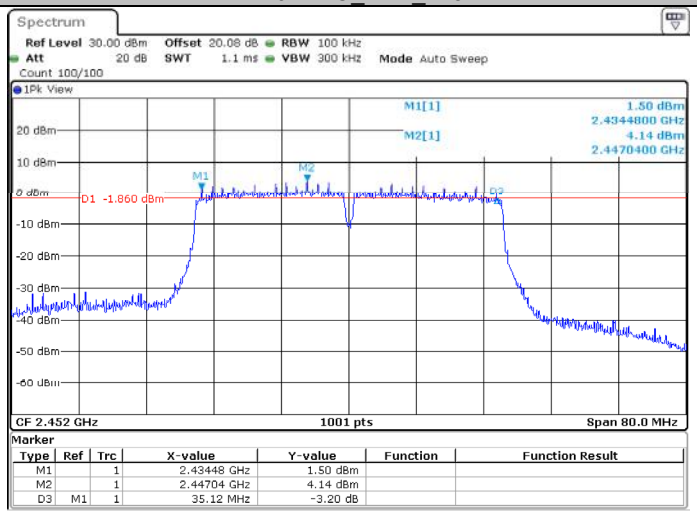
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 12.OCT.2024 00:06:08

11N40MIMO_Ant1_2452



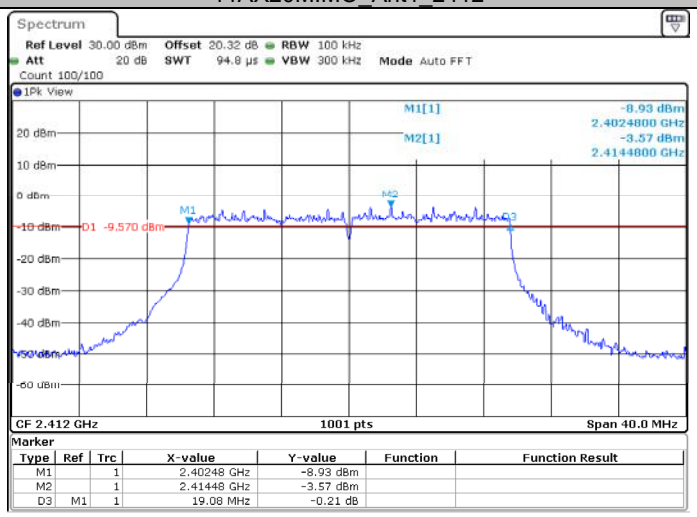
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 12.OCT.2024 00:09:02

11N40MIMO_Ant2_2452



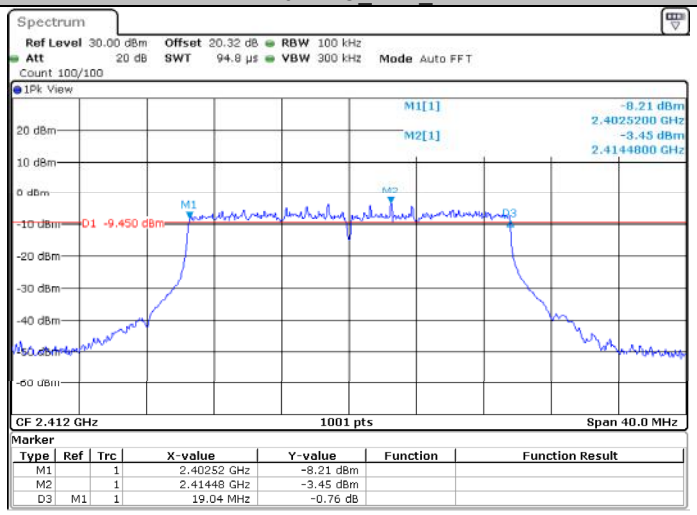
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 12.OCT.2024 00:09:37

11AX20MIMO_Ant1_2412



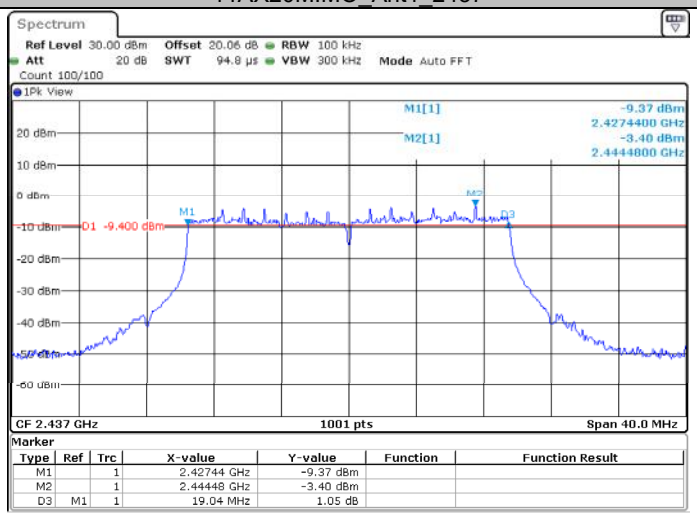
ProjectNo.:2401W43894E-RF Tester:Tom Tan
Date: 2.DEC.2024 20:07:59

11AX20MIMO_Ant2_2412



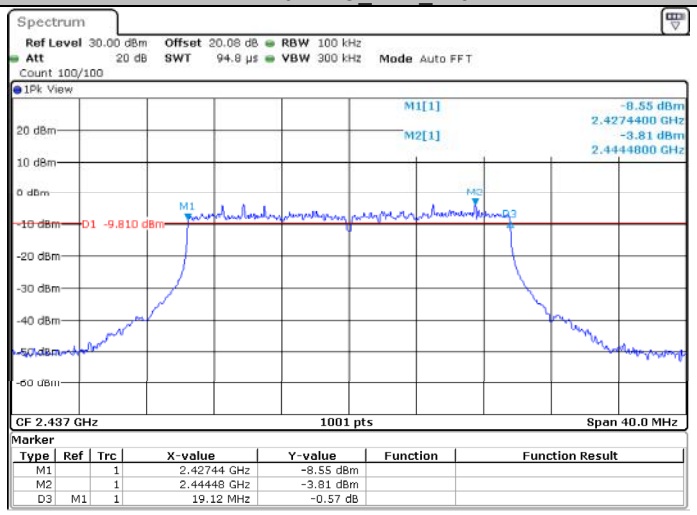
ProjectNo.:2401W43894E-RF Tester:Tom Tan
Date: 2.DEC.2024 20:08:06

11AX20MIMO_Ant1_2437



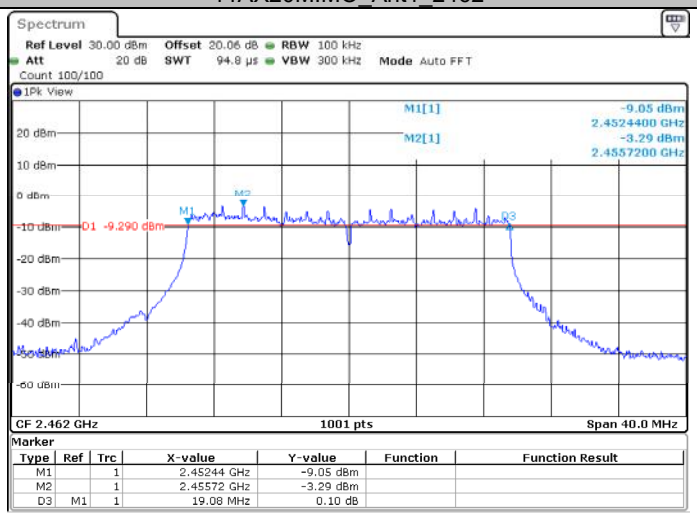
ProjectNo.:2401W43894E-RF Tester:Tom Tan
Date: 2.DEC.2024 20:09:15

11AX20MIMO_Ant2_2437



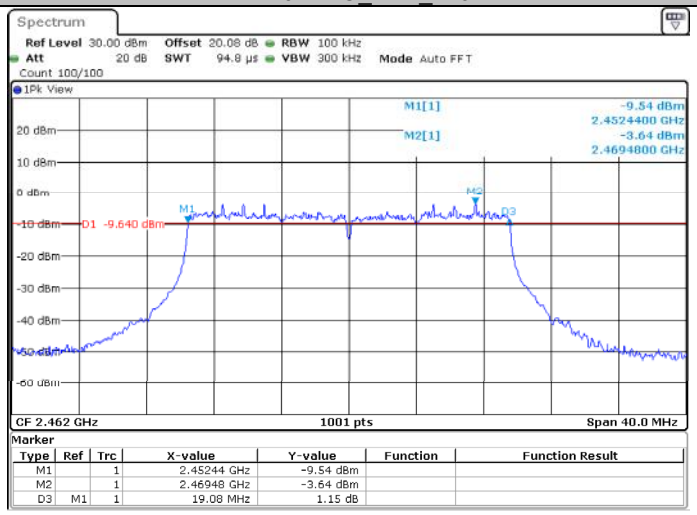
ProjectNo.:2401W43894E-RF Tester:Tom Tan
Date: 2.DEC.2024 20:09:21

11AX20MIMO_Ant1_2462



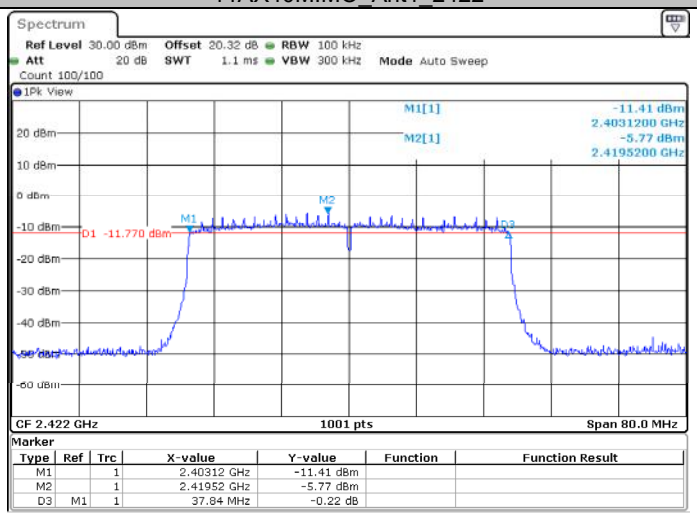
ProjectNo.:2401W43894E-RF Tester:Tom Tan
Date: 2.DEC.2024 20:10:20

11AX20MIMO_Ant2_2462



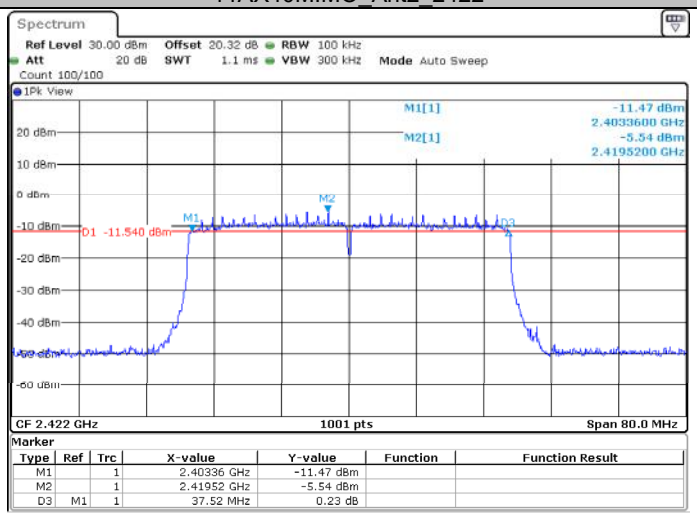
ProjectNo.:2401W43894E-RF Tester:Tom Tan
Date: 2.DEC.2024 20:10:27

11AX40MIMO_Ant1_2422



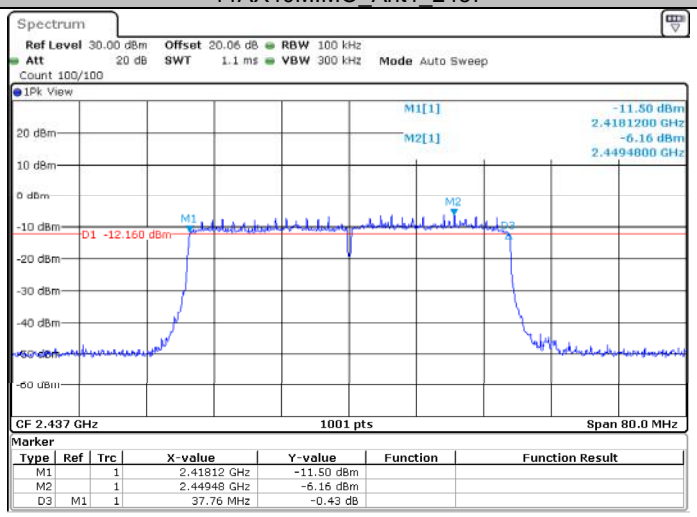
ProjectNo.:2401W43894E-RF Tester:Tom Tan
Date: 2.DEC.2024 20:15:03

11AX40MIMO_Ant2_2422



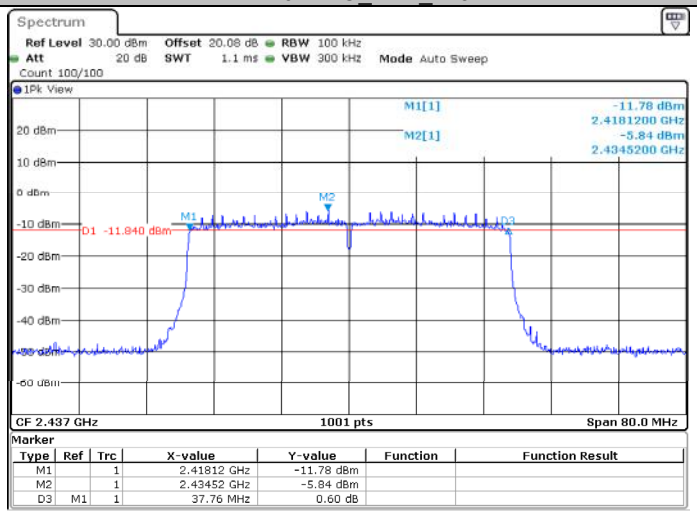
ProjectNo.:2401W43894E-RF Tester:Tom Tan
Date: 2.DEC.2024 20:15:10

11AX40MIMO_Ant1_2437



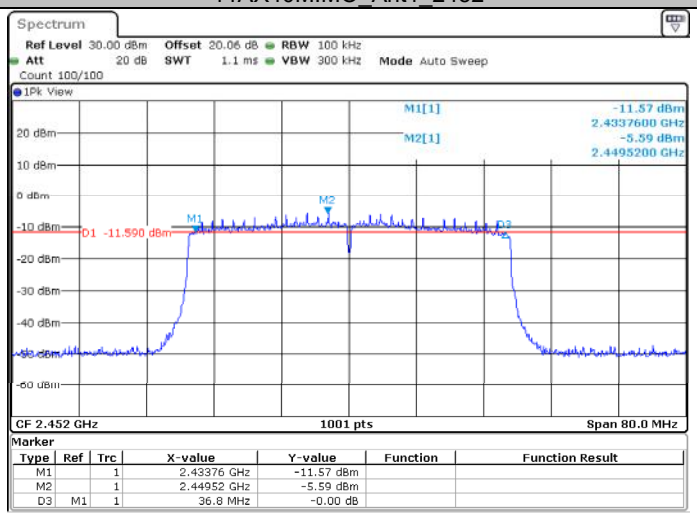
ProjectNo.:2401W43894E-RF Tester:Tom Tan
Date: 2.DEC.2024 20:15:55

11AX40MIMO_Ant2_2437



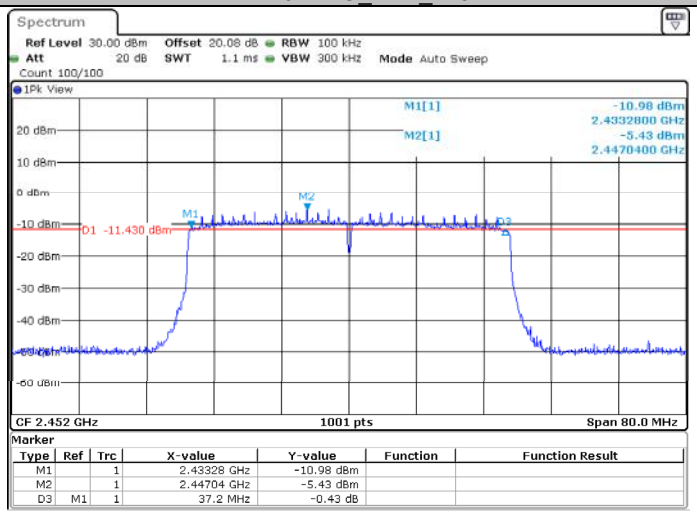
ProjectNo.:2401W43894E-RF Tester:Tom Tan
Date: 2.DEC.2024 20:16:02

11AX40MIMO_Ant1_2452



ProjectNo.:2401W43894E-RF Tester:Tom Tan
Date: 2.DEC.2024 20:16:43

11AX40MIMO_Ant2_2452



ProjectNo.:2401W43894E-RF Tester:Tom Tan
Date: 2.DEC.2024 20:16:50

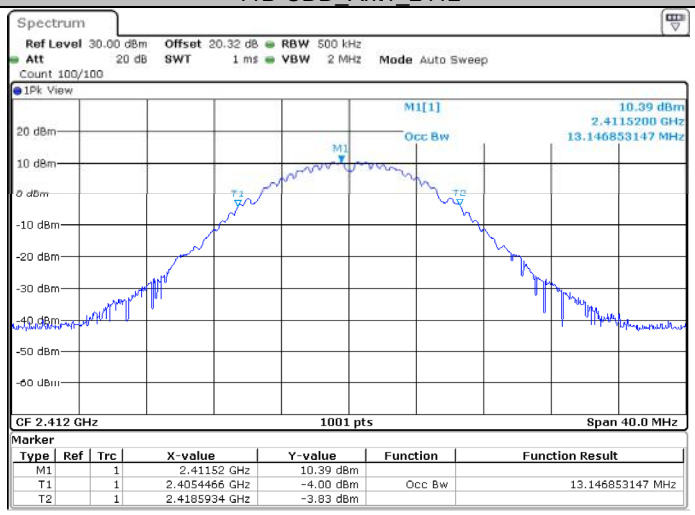
Appendix B: Occupied Channel Bandwidth

Test Result

Test Mode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B-CDD	Ant1	2412	13.147	2405.4466	2418.5934	---	---
	Ant2	2412	13.067	2405.4865	2418.5534	---	---
	Ant1	2437	13.227	2430.3666	2443.5934	---	---
	Ant2	2437	13.067	2430.4865	2443.5534	---	---
	Ant1	2462	13.107	2455.3666	2468.4735	---	---
	Ant2	2462	13.027	2455.4466	2468.4735	---	---
11G-CDD	Ant1	2412	16.663	2403.6484	2420.3117	---	---
	Ant2	2412	16.623	2403.6883	2420.3117	---	---
	Ant1	2437	16.783	2428.6084	2445.3916	---	---
	Ant2	2437	16.663	2428.6883	2445.3516	---	---
	Ant1	2462	16.823	2453.4885	2470.3117	---	---
	Ant2	2462	16.663	2453.6484	2470.3117	---	---
11N20MIMO	Ant1	2412	17.782	2403.1289	2420.9111	---	---
	Ant2	2412	17.822	2403.0889	2420.9111	---	---
	Ant1	2437	17.862	2428.0889	2445.9510	---	---
	Ant2	2437	17.782	2428.1289	2445.9111	---	---
	Ant1	2462	17.862	2453.0090	2470.8711	---	---
	Ant2	2462	17.862	2453.0490	2470.9111	---	---
11N40MIMO	Ant1	2422	36.204	2403.9381	2440.1419	---	---
	Ant2	2422	36.284	2403.9381	2440.2218	---	---
	Ant1	2437	36.284	2418.8581	2455.1419	---	---
	Ant2	2437	36.204	2418.9381	2455.1419	---	---
	Ant1	2452	36.124	2433.9381	2470.0619	---	---
	Ant2	2452	36.204	2433.8581	2470.0619	---	---
11AX20MIMO	Ant1	2412	19.021	2402.4895	2421.5105	---	---
	Ant2	2412	19.061	2402.4895	2421.5504	---	---
	Ant1	2437	19.061	2427.4895	2446.5504	---	---
	Ant2	2437	19.061	2427.4895	2446.5504	---	---
	Ant1	2462	19.061	2452.4496	2471.5105	---	---
	Ant2	2462	19.021	2452.4895	2471.5105	---	---
11AX40MIMO	Ant1	2422	37.962	2403.0589	2441.0210	---	---
	Ant2	2422	37.882	2403.1389	2441.0210	---	---
	Ant1	2437	37.882	2418.1389	2456.0210	---	---
	Ant2	2437	37.962	2418.0589	2456.0210	---	---
	Ant1	2452	37.882	2433.0589	2470.9411	---	---
	Ant2	2452	37.882	2432.9790	2470.8611	---	---

Test Graphs

11B-CDD_Ant1_2412

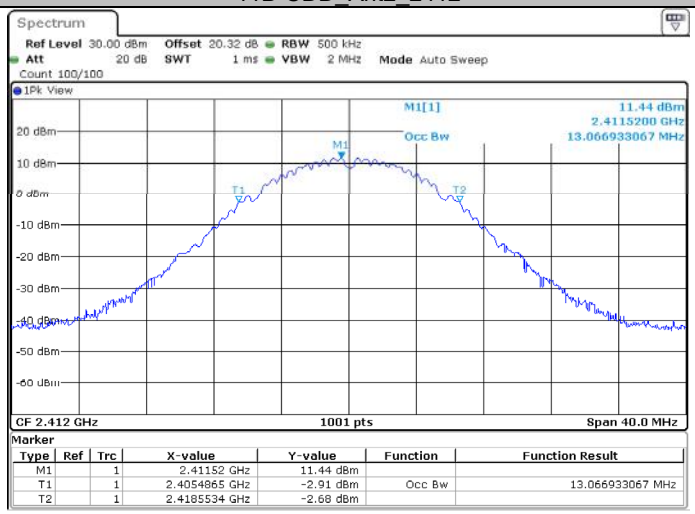


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.41152 GHz	10.39 dBm		
T1		1	2.4054466 GHz	-4.00 dBm	Occ Bw	13.146853147 MHz
T2		1	2.4185934 GHz	-3.83 dBm		

ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:24:33

11B-CDD_Ant2_2412

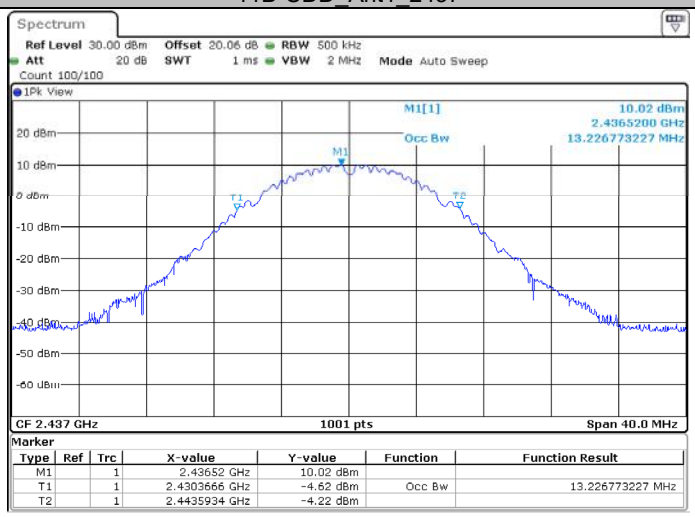


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.41152 GHz	11.44 dBm		
T1		1	2.4054865 GHz	-2.91 dBm	Occ Bw	13.066933067 MHz
T2		1	2.4185534 GHz	-2.68 dBm		

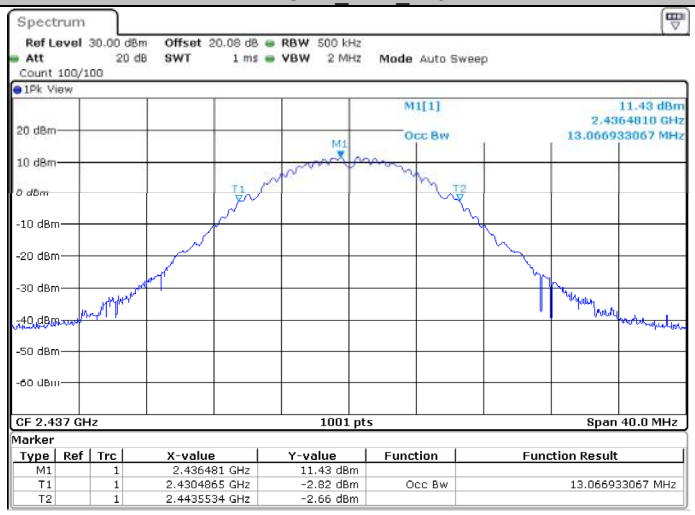
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:25:17

11B-CDD_Ant1_2437



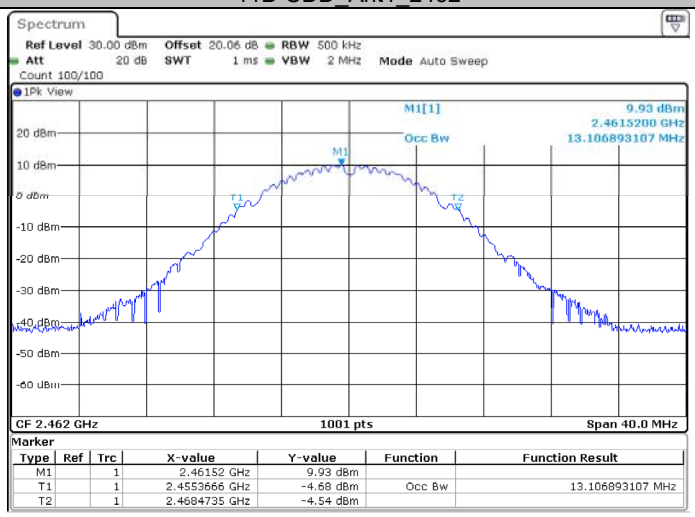
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:29:45

11B-CDD_Ant2_2437



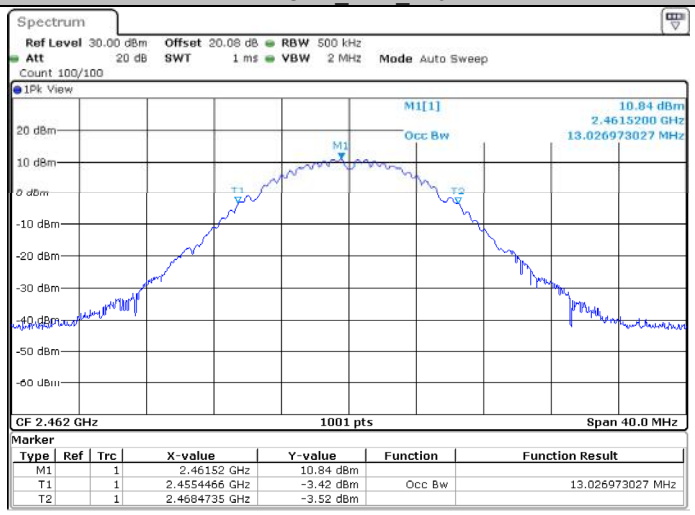
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:30:23

11B-CDD_Ant1_2462



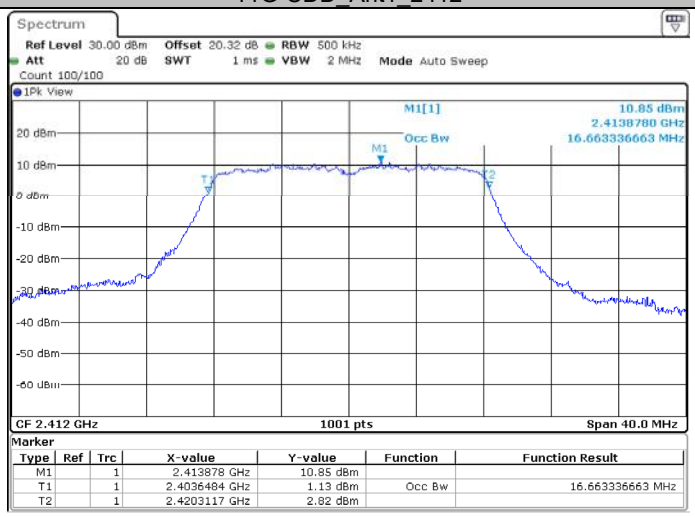
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:38:14

11B-CDD_Ant2_2462



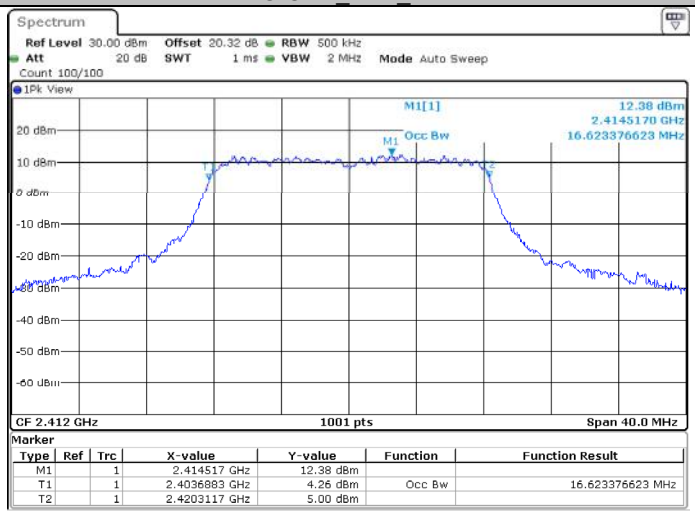
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:38:49

11G-CDD_Ant1_2412



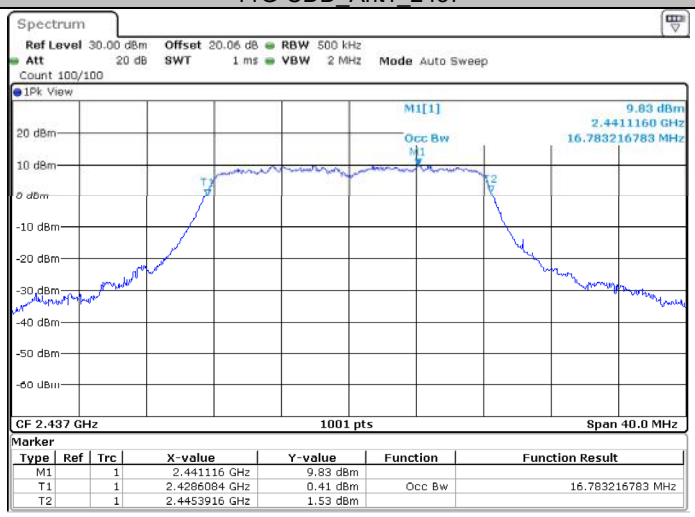
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:46:44

11G-CDD_Ant2_2412



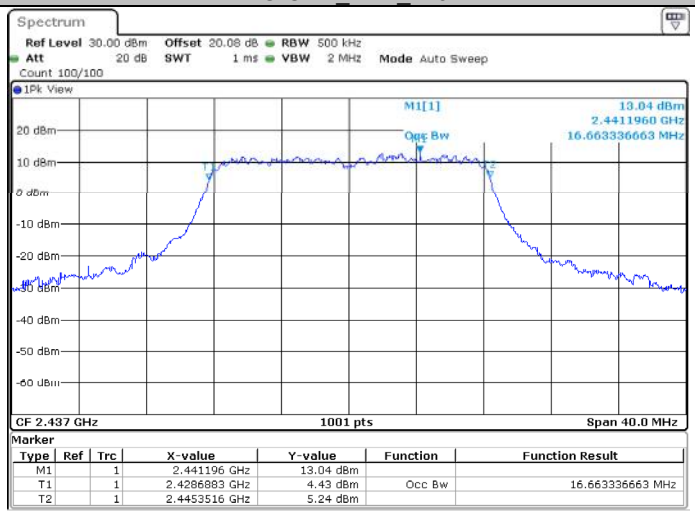
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:47:20

11G-CDD_Ant1_2437



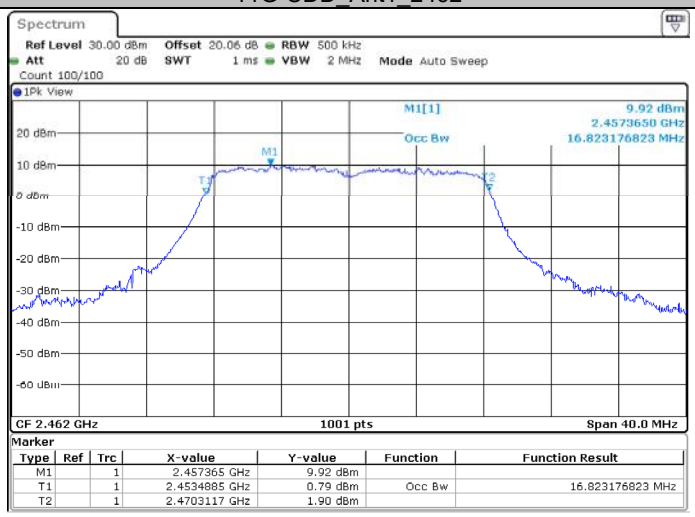
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:48:42

11G-CDD_Ant2_2437



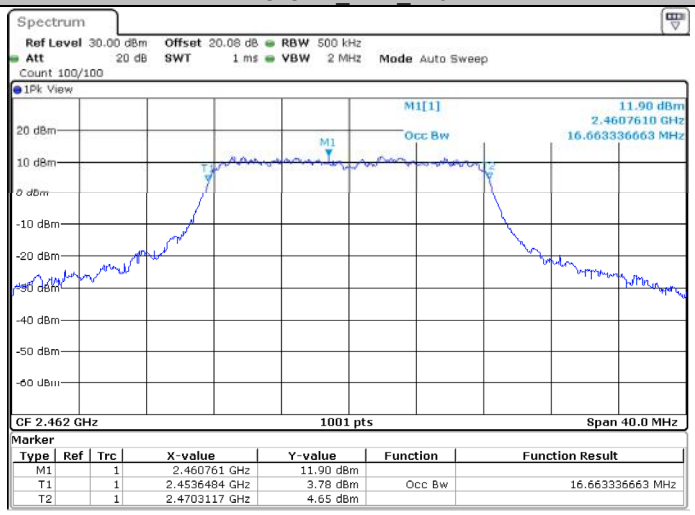
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:49:20

11G-CDD_Ant1_2462



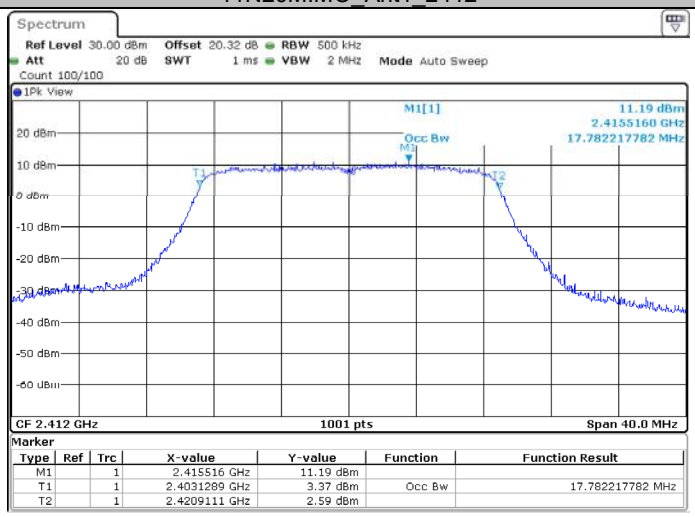
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:52:35

11G-CDD_Ant2_2462



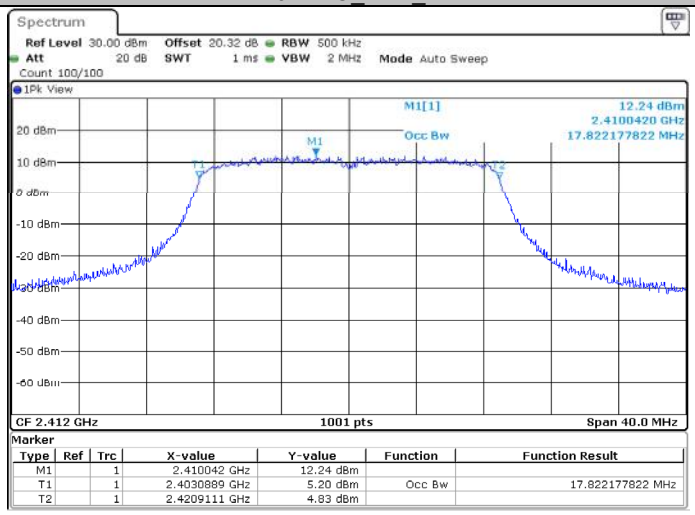
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:53:11

11N20MIMO_Ant1_2412



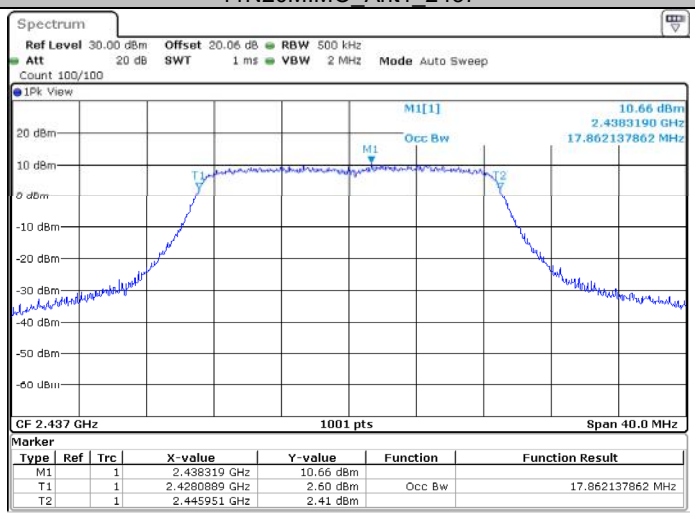
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:55:29

11N20MIMO_Ant2_2412



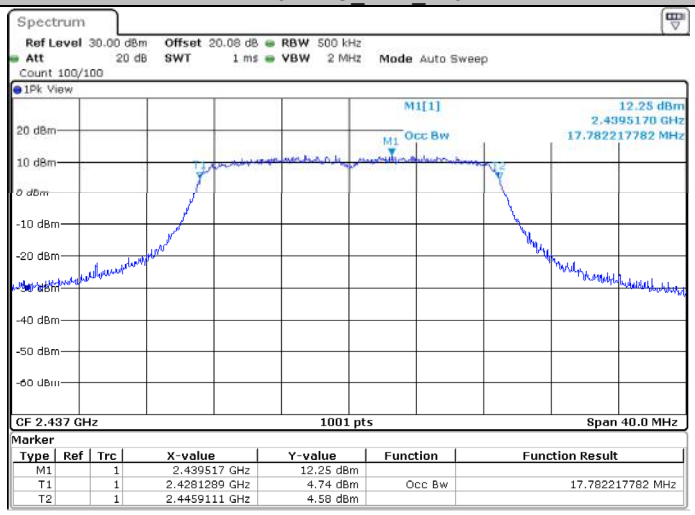
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:56:04

11N20MIMO_Ant1_2437



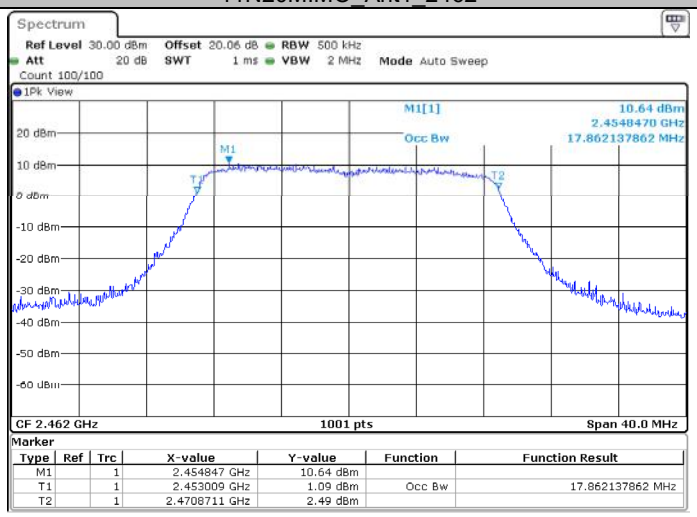
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:57:46

11N20MIMO_Ant2_2437



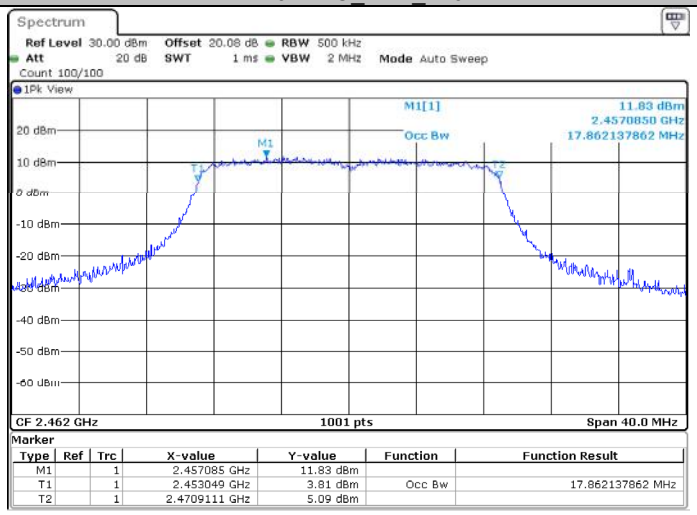
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 11.OCT.2024 23:58:26

11N20MIMO_Ant1_2462



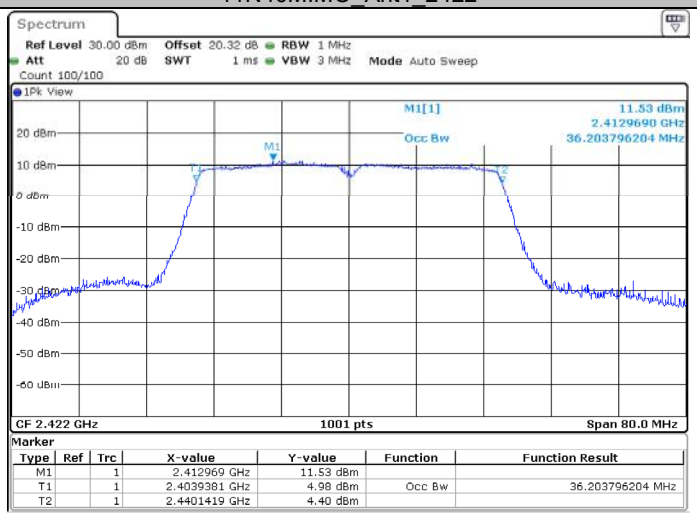
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 12.OCT.2024 00:01:01

11N20MIMO_Ant2_2462



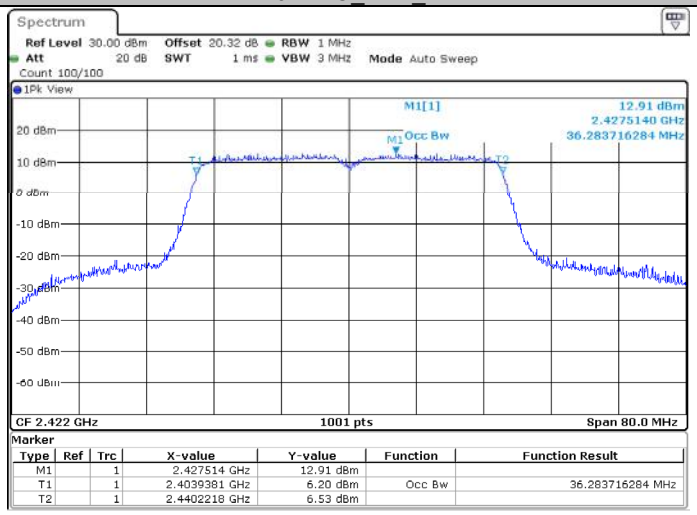
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 12.OCT.2024 00:01:36

11N40MIMO_Ant1_2422



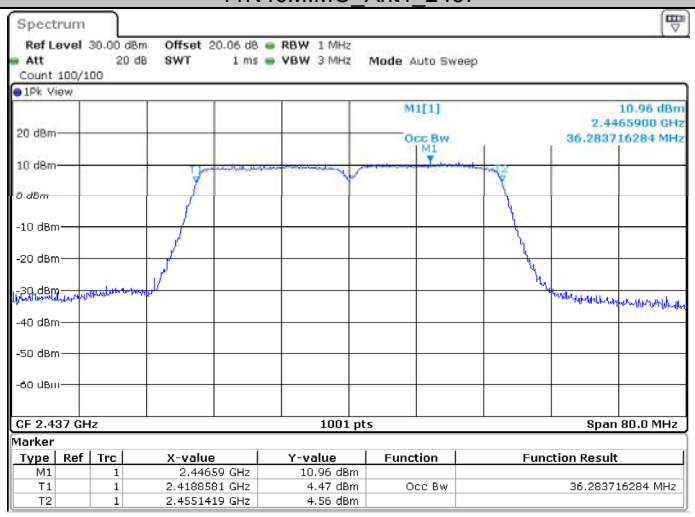
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 12.OCT.2024 00:03:20

11N40MIMO_Ant2_2422



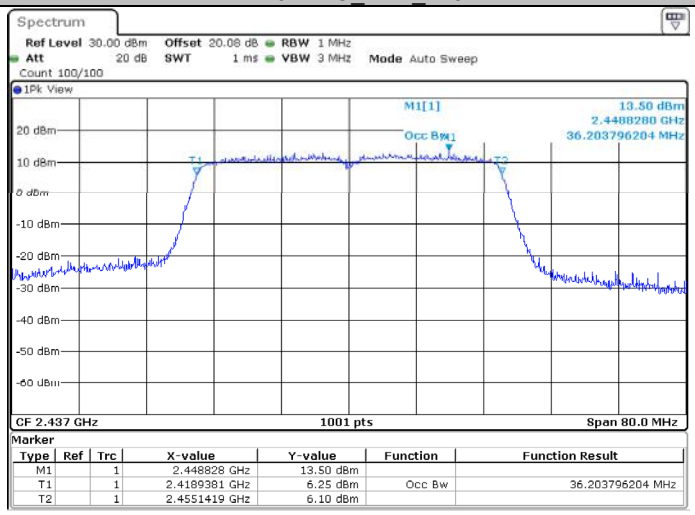
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 12.OCT.2024 00:03:56

11N40MIMO_Ant1_2437



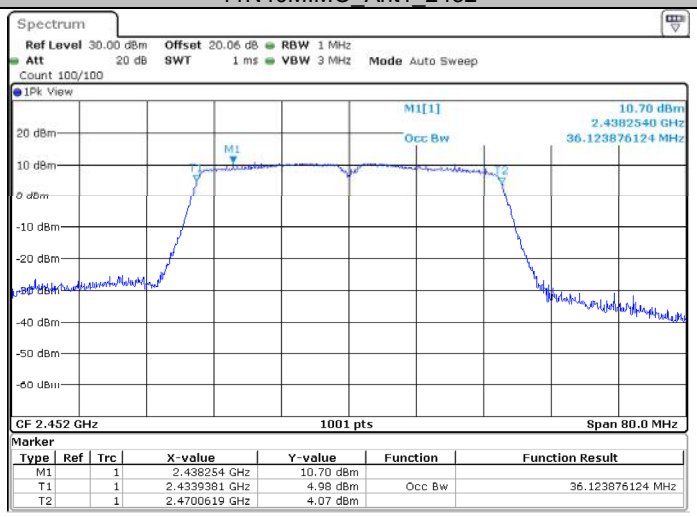
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 12.OCT.2024 00:05:37

11N40MIMO_Ant2_2437



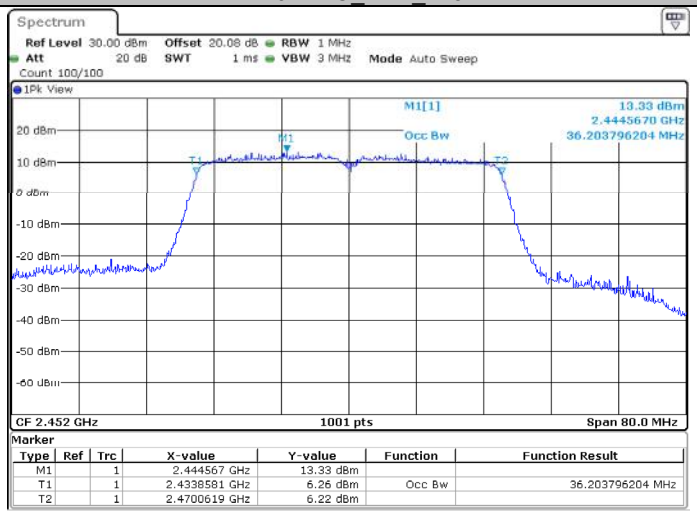
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 12.OCT.2024 00:06:14

11N40MIMO_Ant1_2452



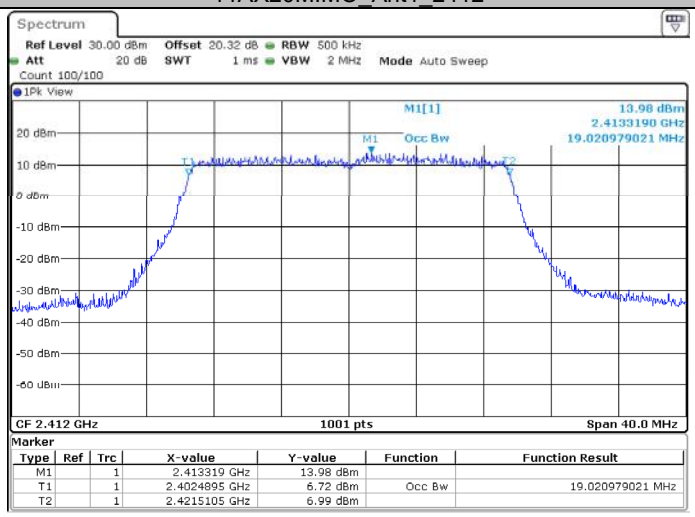
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 12.OCT.2024 00:09:08

11N40MIMO_Ant2_2452



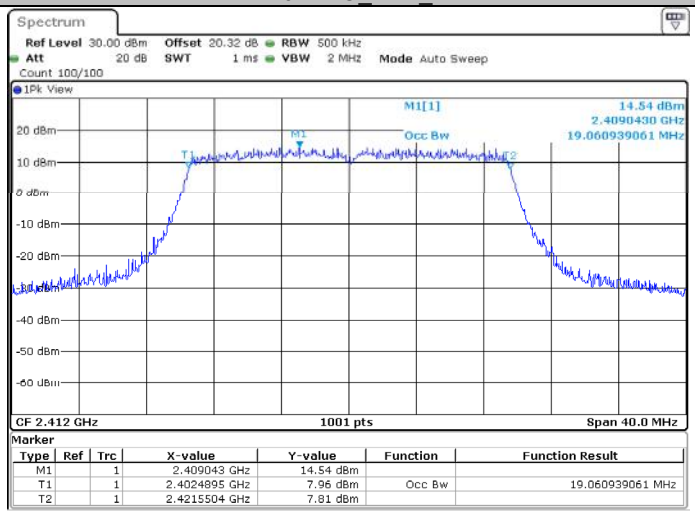
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 12.OCT.2024 00:09:43

11AX20MIMO_Ant1_2412



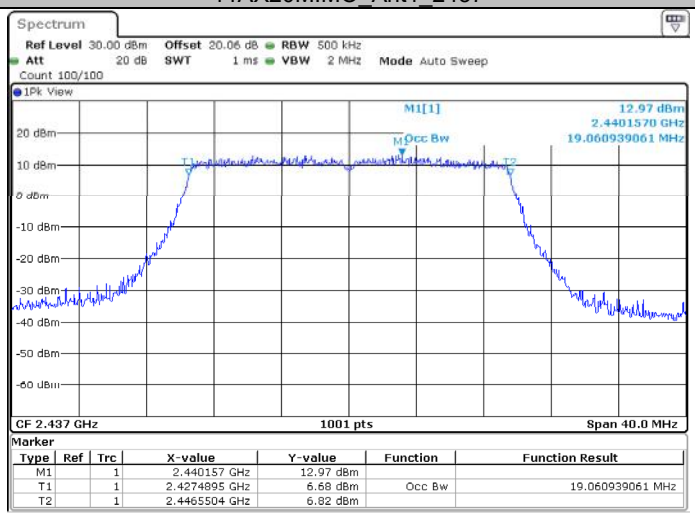
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 12.OCT.2024 00:34:34

11AX20MIMO_Ant2_2412



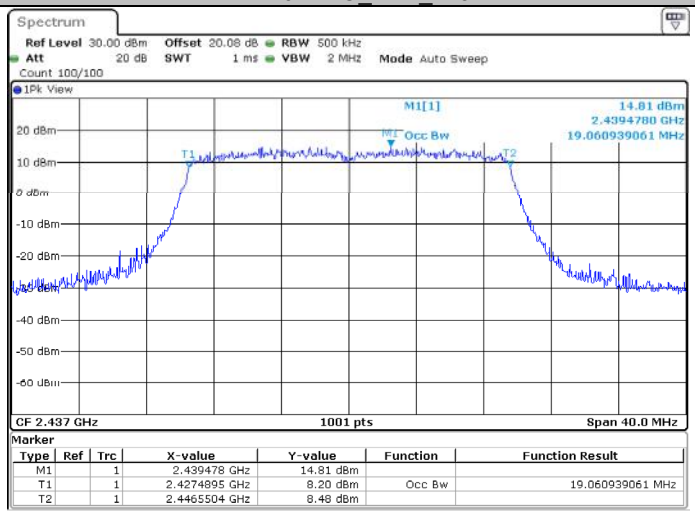
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 12.OCT.2024 00:35:08

11AX20MIMO_Ant1_2437



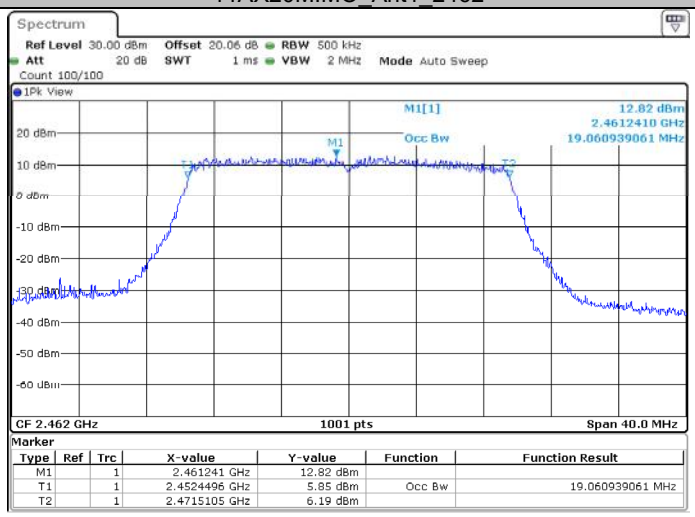
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 12.OCT.2024 00:37:45

11AX20MIMO_Ant2_2437



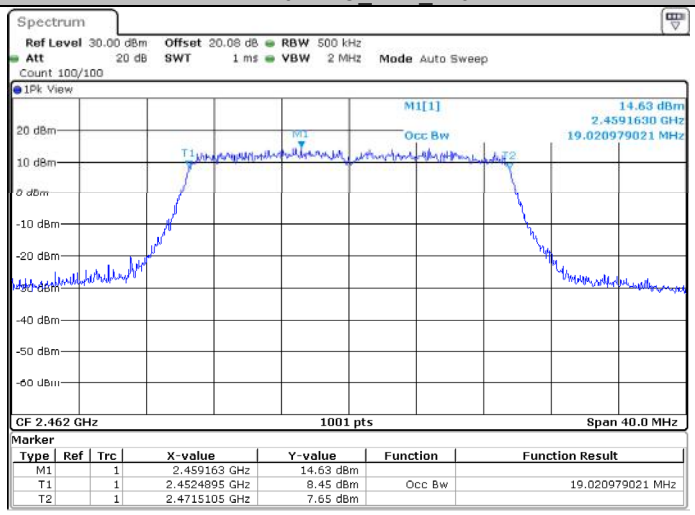
ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 12.OCT.2024 00:38:30

11AX20MIMO_Ant1_2462



ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 12.OCT.2024 00:42:11

11AX20MIMO_Ant2_2462



ProjectNo.:2401W43894E-RFTester:Tom Tan
Date: 12.OCT.2024 00:42:47