

TEST REPORT

Applicant Name: JEM ACCESSORIES INC.
Address: 32 Brunswick Avenue, Edison, New Jersey, United States, 08817
Report Number: 2501R31585E-RF-00A
FCC ID: 2AHAS-EOP11004J

Test Standard (s)

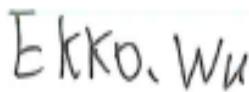
FCC PART 15.247

Sample Description

Product Type: Smart 5Ghz 2K socket camera with light
Model No.: EOP1-1004-WHT
Multiple Model(s) No.: EOP1-1003, EOP1-1003-BLK, EOP1-1003-WHT, EOP1-1004, EOP1-1004-BLK
Trade Mark: Energizer **Energizer**[®]
Date Received: 2025-03-24
Issue Date: 2025-06-25

Test Result:	Pass▲
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▲ In the configuration tested, the EUT complied with the standards above.

Prepared and Checked By:

Ekko Wu
RF Engineer

Approved By:

Michelle Zeng
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.

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	2501R31585E-RF-00A	Original Report	2025-06-25

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product	Smart 5Ghz 2K socket camera with light
Tested Model	EOP1-1004-WHT
Multiple Model(s)	EOP1-1003,EOP1-1003-BLK, EOP1-1003-WHT, EOP1-1004,EOP1-1004-BLK
Frequency Range	2412~2462MHz
Maximum Conducted Output Peak Power	22.25dBm
Modulation Technique	DSSS, OFDM
Antenna Specification[#]	2.97dBi (provided by the applicant)
Voltage Range	AC 120V
Sample serial number	For model: EOP1-1004-WHT:307J-2 For model: EOP1-1003-BLK: 307J-3 for Conducted and Radiated Emissions Test 307J-1 for RF Conducted Test (Assigned by BACL, Shenzhen)
Sample/EUT Status	Good condition
Adapter Information	N/A

Note 1: The multiple models are electrically identical with the test model except for model No. and color, appearance, power board and light board, they are electrical identical in RF schematics that model EOP1-1004-WHT was selected for fully testing and model EOP1-1003-BLK, was selected for “conducted emission & radiated emission below 1 GHz test”, please refer to the declaration letter[#] for more detail, which was provided by manufacturer.

Objective

This test report is in accordance with Part 2-Subpart J, Part 15-Subparts A and C of the Federal Communication Commission's rules.

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

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2020, 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)
Power Spectral Density		0.90dB(k=2, 95% level of confidence)
AC Power Lines Conducted Emissions	9kHz~150 kHz	3.63dB(k=2, 95% level of confidence)
	150 kHz ~30MHz	3.66dB(k=2, 95% level of confidence)
Radiated Emissions	0.009MHz~30MHz	3.60dB(k=2, 95% level of confidence)
	30MHz~200MHz (Horizontal)	5.32dB(k=2, 95% level of confidence)
	30MHz~200MHz (Vertical)	5.43dB(k=2, 95% level of confidence)
	200MHz~1000MHz (Horizontal)	5.77dB(k=2, 95% level of confidence)
	200MHz~1000MHz (Vertical)	5.73dB(k=2, 95% level of confidence)
	1GHz - 6GHz	5.34dB(k=2, 95% level of confidence)
	6GHz - 18GHz	5.40dB(k=2, 95% level of confidence)
	18GHz - 40GHz	5.64dB(k=2, 95% level of confidence)
Temperature		±1°C
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 and 802.11n-HT20 mode was tested with Channel 1, 6 and 11.

802.11n-HT40 mode was tested with Channel 3, 6 and 9.

EUT Exercise Software

Exercise Software [#]		SecureCRTPortable.exe		
Mode	Data rate	Power Level [#]		
		Low Channel	Middle Channel	High Channel
802.11b	1Mbps	-12	-12	-12
802.11g	6Mbps	-16	-16	-16
802.11n20	MCS0	-16	-16	-16
802.11n40	MCS0	-16	-16	-16

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

Special Accessories

No special accessory.

Equipment Modifications

No modification was made to the EUT tested.

Support Equipment List and Details

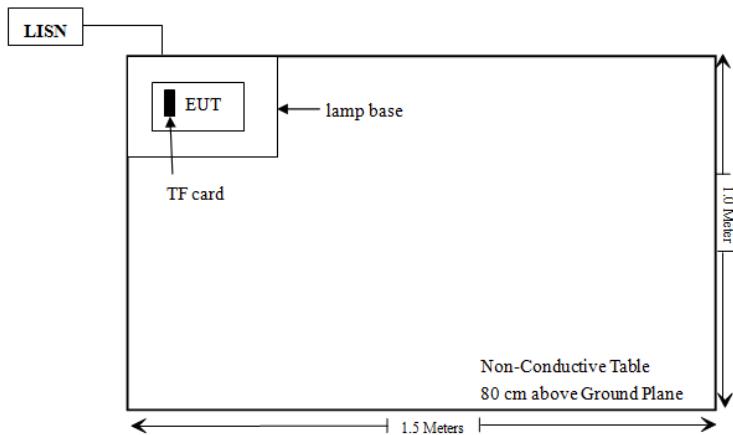
Manufacturer	Description	Model	Serial Number
Unknown	Lamp base	Unknown	Unknown
Sandisk	TF card	Unknown	Unknown

External I/O Cable

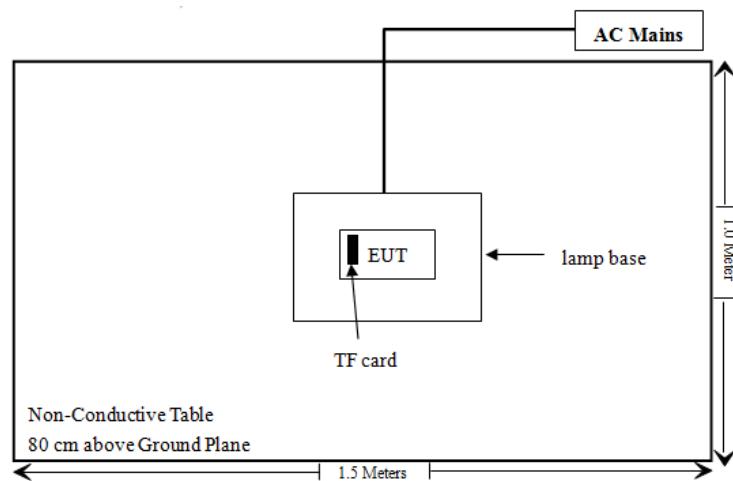
Cable Description	Length (m)	From Port	To
Unshielded detachable AC cable	1.5	lamp base	LISN/AC Mains

Block Diagram of Test Setup

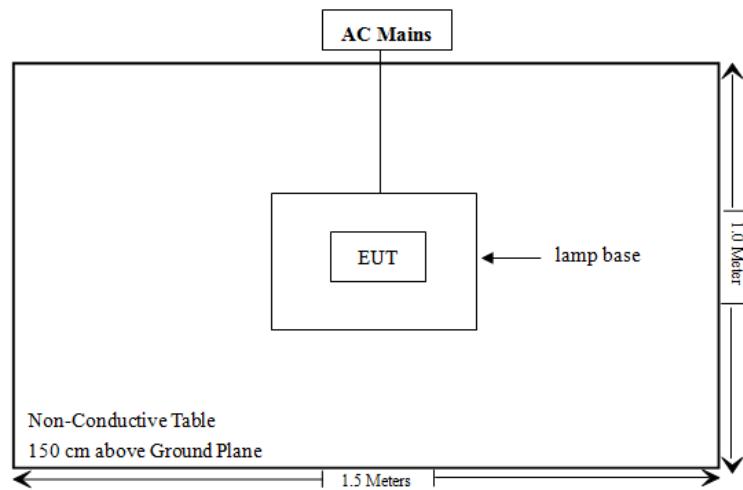
For Conducted Emissions:



For Radiated Emissions below 1GHz:



For Radiated Emissions above 1GHz:



SUMMARY OF TEST RESULTS

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

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Conducted Emission Test					
Rohde & Schwarz	LISN	ENV216	101613	2024/12/04	2025/12/03
Unknown	CE Cable	Unknown	UF A210B-1-0720-504504	2024/05/21	2025/05/20
Unknown	CE Cable	Unknown	UF A210B-1-0720-504504	2025/04/29	2026/04/28
Rohde & Schwarz	Transient Limiter	ESH3Z2	DE25985	2024/05/21	2025/05/20
Rohde & Schwarz	Transient Limiter	ESH3Z2	DE25985	2025/04/29	2026/04/28
Audix	EMI Test software	E3	191218(V9)	NCR	NCR
Rohde & Schwarz	EMI Test Receiver	ESCI	101120	2024/12/04	2025/12/03
Radiated Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESR3	102455	2024/12/04	2025/12/03
Sonoma instrument	Pre-amplifier	310N	186238	2024/05/21	2025/05/20
Sonoma instrument	Pre-amplifier	310 N	186238	2025/04/29	2026/04/28
Unknown	Cable	XH500C	J-10M-A	2025/04/29	2026/04/28
Unknown	Cable	Chamber A Cable 1	N/A	2025/04/29	2026/04/28
BACL	Active Loop Antenna	1313-1A	4031911	2024/05/14	2027/05/13
Audix	EMI Test software	E3	19821b(V9)	NCR	NCR
Unknown	Cable	PNG214	1354	2024/12/04	2025/12/03
Unknown	Cable	2Y194	0735	2024/12/04	2025/12/03
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2023/07/20	2026/07/19
Rohde&Schwarz	Spectrum Analyzer	FSV40	101605	2025/03/26	2026/03/25
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	0735	2024/12/06	2025/12/05
Unknown	RF Cable	UFA147	219661	2024/12/06	2025/12/05
Unknown	RF Cable	XH750A-N	J-10M	2024/12/06	2025/12/05
JD	Multiplex Switch Test Control Set	DT7220FSU	DQ77926	2024/06/18	2025/06/17
JD	Filter Switch Unit	DT7220FSU	DS79906	2024/09/09	2025/09/08
A.H.System	Pre-amplifier	PAM-1840VH	190	2024/06/18	2025/06/17
Electro-Mechanics Co	Horn Antenna	3116	9510-2270	2023/09/18	2026/09/17
UTIFLEX	RF Cable	NO. 13	232308-001	2024/12/18	2025/12/17

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF Conducted Test					
ANRITSU	Microwave peak power sensor	MA24418A	12622	2024/05/21	2025/05/20
Rohde&Schwarz	Spectrum Analyzer	FSV40-N	102259	2024/12/04	2025/12/03
Unknown	10dB Attenuator	Unknown	F-03-EM065	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).

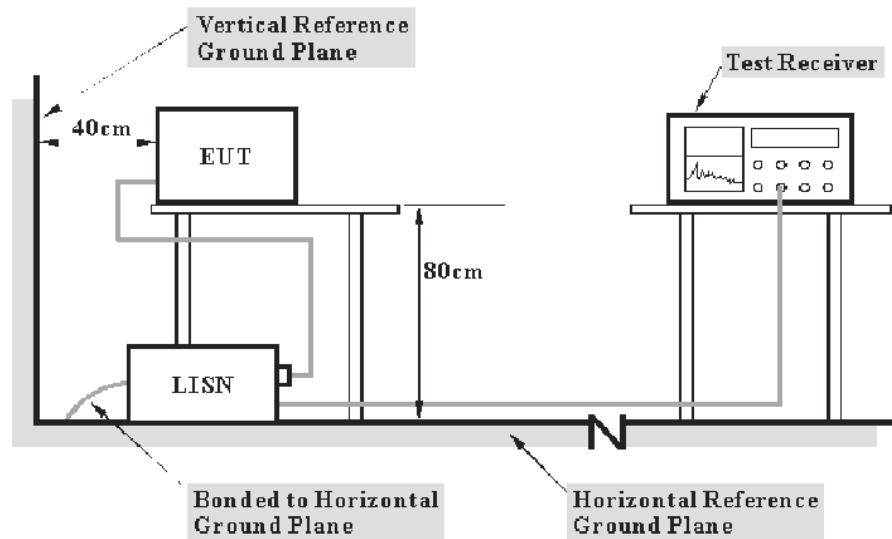
REQUIREMENTS AND TEST PROCEDURES

AC Line Conducted Emissions

Applicable Standard

FCC§15.207

EUT Setup



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

The setup of EUT is according with per ANSI C63.10-2020 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	RBW
150 kHz – 30 MHz	9 kHz

Test Procedure

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

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

Factor & Over Limit Calculation

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

$$\text{Factor} = \text{LISN VDF} + \text{Cable Loss}$$

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

$$\text{Over Limit} = \text{level} - \text{Limit}$$

$$\text{Level} = \text{reading level} + \text{Factor}$$

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

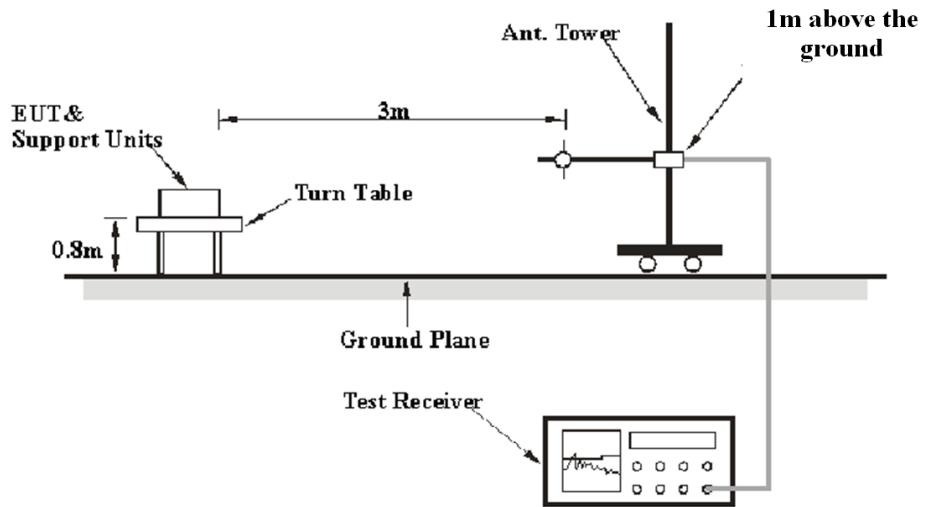
Spurious Emissions

Applicable Standard

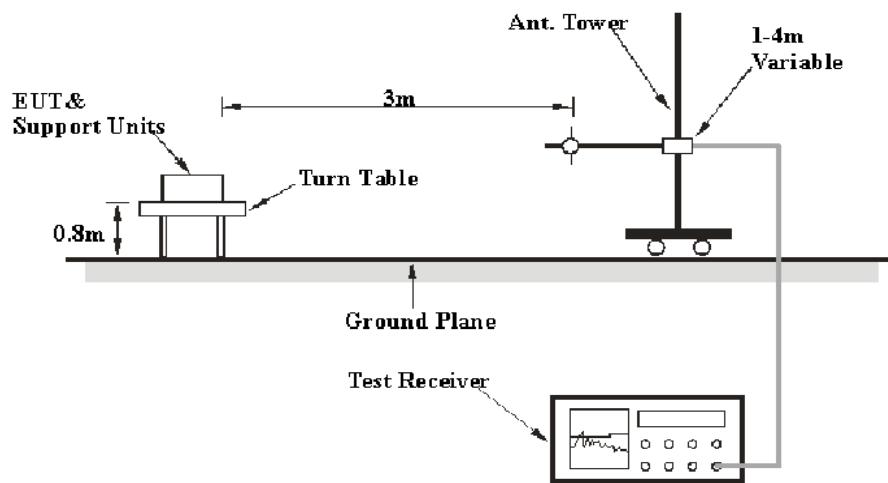
FCC §15.247 (d); §15.209; §15.205;

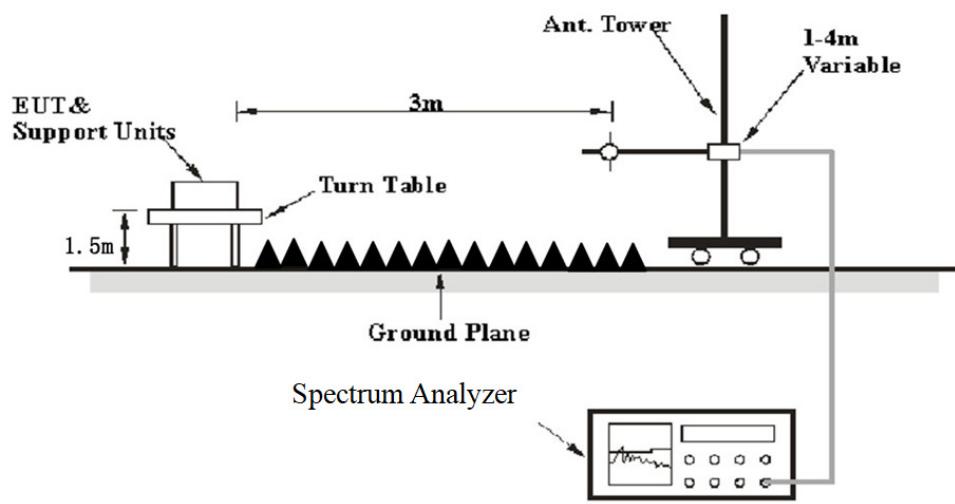
EUT Setup

9 kHz-30MHz:



30MHz-1GHz:



Above 1GHz:

The radiated emission performed in the 3 meters, using the setup accordance with the ANSI C63.10-2020. The specification used was the FCC 15.209, FCC 15.247 limits.

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 9 kHz to 25 GHz.

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

9 kHz-1GHz:

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

1-25GHz:
Pre-scan

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

Final measurement for emission identified during pre-scan

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

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:

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

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:

$$\begin{aligned} \text{Over Limit/Margin} &= \text{Level/Corrected Amplitude} - \text{Limit} \\ \text{Level / Corrected Amplitude} &= \text{Read Level} + \text{Factor} \end{aligned}$$

6 dB Emission Bandwidth

Applicable Standard

According to FCC §15.247(a) (2)

Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

Test Procedure

Test Method: ANSI C63.10-2020 Clause 11.8.1 & Clause 6.9.3

The steps for the first option are as follows:

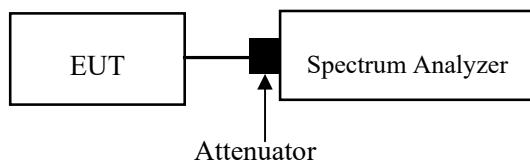
- a) Set RBW = shall be in the range of 1% to 5% of the OBW but not less than 100 kHz.
- b) Set the VBW $\geq [3 \times \text{RBW}]$.
- c) Detector = peak.
- d) Trace mode = max-hold.
- e) Sweep = No faster than coupled (auto) time.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission by placing two markers, one at the lowest frequency and the other at the highest frequency of the envelope of the spectral display, such that each marker is at or slightly below the “–6 dB down amplitude”. If a marker is below this “–6 dB down amplitude” value, then it shall be as close as possible to this value.

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission. The following procedure shall be used for measuring 99% power bandwidth:

- a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
- b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be at least three times the RBW, unless otherwise specified by the applicable requirement.
- c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than $[10 \log (\text{OBW}/\text{RBW})]$ below the reference level. Specific guidance is given in 4.1.6.2.
- d) Step a) through step c) might require iteration to adjust within the specified range.
- e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max-hold mode (until the trace stabilizes) shall be used.
- f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.

g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power 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; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.

h) The occupied bandwidth shall be reported by providing spectral plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).



Maximum Conducted Output Power

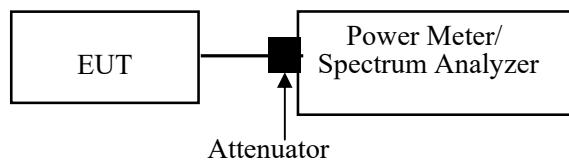
Applicable Standard

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 C63.10-2020 clause 11.9.1.2 for peak power method or clause 11.9.2.3.2 for average power method.

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



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

100 kHz Bandwidth of Frequency Band Edge

Applicable Standard

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

Test Procedure

Test Method: ANSI C63.10-2020 Clause 11.11.3

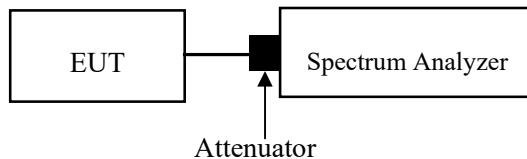
Establish an emission level by using the following procedure:

- a) Set the center frequency and span to encompass frequency range to be measured. Note that the frequency range might need to be divided into multiple frequency ranges to retain frequency resolution.

NOTE—the number of points can also be increased for large spans to retain frequency resolution

- b) Set the RBW = 100 kHz.
- c) Set the VBW $\geq [3 \times \text{RBW}]$.
- d) Detector = peak.
- e) Sweep time = No faster than coupled (auto) time.
- f) Trace mode = max-hold.
- g) Allow trace to fully stabilize.
- h) Use the peak marker function to determine the maximum amplitude level.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11. Report the three highest emissions relative to the limit.



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 C63.10-2020 Clause 11.10.2

The following procedure shall be used if maximum peak conducted output power was used to determine compliance, and it is optional if the maximum conducted (average) output power was used to determine compliance:

- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span >1.5 times the DTS bandwidth.
- c) Set the RBW to $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- d) Set the VBW $\geq [3 \times \text{RBW}]$.
- e) Detector = peak.
- f) Sweep time = No faster than coupled (auto) time.
- g) Trace mode = max-hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.
- j) If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat.

Test Method: ANSI C63.10-2020 Clause 11.10.3 Method AVGPSD-1

The following procedure may be used when the maximum (average) conducted output power was used to determine compliance to the fundamental output power limit. This is the baseline method for determining the maximum (average) conducted PSD level. If the instrument has a power averaging (rms) detector, then it must be used; otherwise, use the sample detector. The EUT must be configured to transmit continuously ($D \geq 98\%$), or else sweep triggering/signal gating must be implemented to help ensure that measurements are made only when the EUT is transmitting at its maximum power control level (no transmitter OFF time to be considered):

- a) Set instrument center frequency to DTS channel center frequency.
- b) Set span to > 1.5 times the OBW.

- c) Set RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- d) Set VBW $\geq [3 \times \text{RBW}]$.
- e) Detector = power averaging (rms) or sample detector (when rms not available).
- f) Ensure that the number of measurement points in the sweep $\geq [2 \times \text{span} / \text{RBW}]$.
- g) Sweep time = auto couple.
- h) Employ trace averaging (rms) mode over a minimum of 100 traces.
- i) Use the peak marker function to determine the maximum amplitude level.
- j) If the measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat (note that this might require zooming in on the emission of interest and reducing the span to meet the minimum measurement point requirement as the RBW is reduced).

Test Method: ANSI C63.10-2020 Clause 11.10.5 Method AVGPSD-2

The following procedure is applicable when the EUT cannot be configured to transmit continuously (i.e., $D < 98\%$), when sweep triggering/signal gating cannot be used to measure only when the EUT is transmitting at its maximum power control level, and when the transmission duty cycle is constant (i.e., duty cycle variations are less than $\pm 2\%$):

- a) Measure the duty cycle (D) of the transmitter output signal as described in 11.6.
- b) Set instrument center frequency to DTS channel center frequency.
- c) Set span to > 1.5 times the OBW.
- d) Set RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- e) Set VBW $\geq [3 \times \text{RBW}]$.
- f) Detector = power averaging (rms) or sample detector (when rms not available).
- g) Ensure that the number of measurement points in the sweep $\geq [2 \times \text{span} / \text{RBW}]$.
- h) Sweep time = auto couple.
- i) Do not use sweep triggering; allow sweep to “free run.”
- j) Employ trace averaging (rms) mode over a minimum of 100 traces.
- k) Use the peak marker function to determine the maximum amplitude level.
- l) Add $[10 \log (1 / D)]$, where D is the duty cycle measured in step a), to the measured PSD to compute the average PSD during the actual transmission time.

m) If measured value exceeds requirement specified by regulatory agency, then reduce RBW (but no less than 3 kHz) and repeat (note that this might require zooming in on the emission of interest and reducing the span to meet the minimum measurement point requirement as the RBW is reduced).

Test Method: ANSI C63.10-2020 Clause 11.10.7 Method AVGPSD-3

The following procedure is applicable when the EUT cannot be configured to transmit continuously (i.e., $D < 98\%$), when sweep triggering/signal gating cannot be used to measure only when the EUT is transmitting at its maximum power control level, and when the transmission duty cycle is not constant (i.e., duty cycle variations exceed $\pm 2\%$):

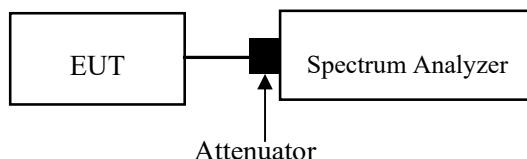
- a) Set the instrument span to > 1.5 times the OBW.
- b) Set sweep trigger to “free run.”
- c) Set RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- d) Set VBW $\geq [3 \times \text{RBW}]$.
- e) Number of points in sweep $\geq [2 \times \text{span} / \text{RBW}]$. (This ensures that bin-to-bin spacing is
- f) $\leq \text{RBW} / 2$, so that narrowband signals are not lost between frequency bins.)

g) Sweep time $\leq [(\text{number of points in sweep}) \times T]$, where T is defined in 11.6.

NOTE—If this results in a sweep time less than the auto sweep time of the instrument, then this method shall not be used (use AVGPSD-2A instead). The purpose of this step is to ensure that averaging time in each bin is less than or equal to the minimum time of a transmission.

- h) Detector = Power averaging (rms).
- i) Trace mode = max-hold.
- j) Allow max-hold to run for at least 60 s or longer as needed to allow the trace to stabilize.
- k) Use the peak marker function to determine the maximum PSD level.

l) If the measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat (note that this might require zooming in on the emission of interest and reducing the span to meet the minimum measurement point requirement as the RBW is reduced).



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

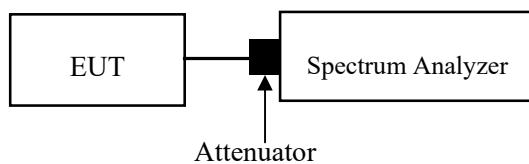
Duty Cycle

Test Procedure

According to ANSI C63.10-2020 Section 11.6

Measurements of duty cycle and transmission duration shall be performed using one of the following techniques:

- a) A diode detector and an oscilloscope that together have a sufficiently short response time to permit accurate measurements of the ON and OFF times of the transmitted signal.
- b) 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 $RBW \geq OBW$ if possible; otherwise, set RBW to the largest available value.
 - 3) Set $VBW \geq RBW$. 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 $T \leq 16.7 \mu s$.)



ANTENNA REQUIREMENT

Applicable Standard

According to FCC § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

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

Antenna Connector Construction

The EUT has an internal antenna arrangement, which was permanently attached, the antenna gain[#] is 2.97dBi, fulfill the requirement of this section. Please refer to the EUT photos.

Result: Compliant

TEST DATA AND RESULTS

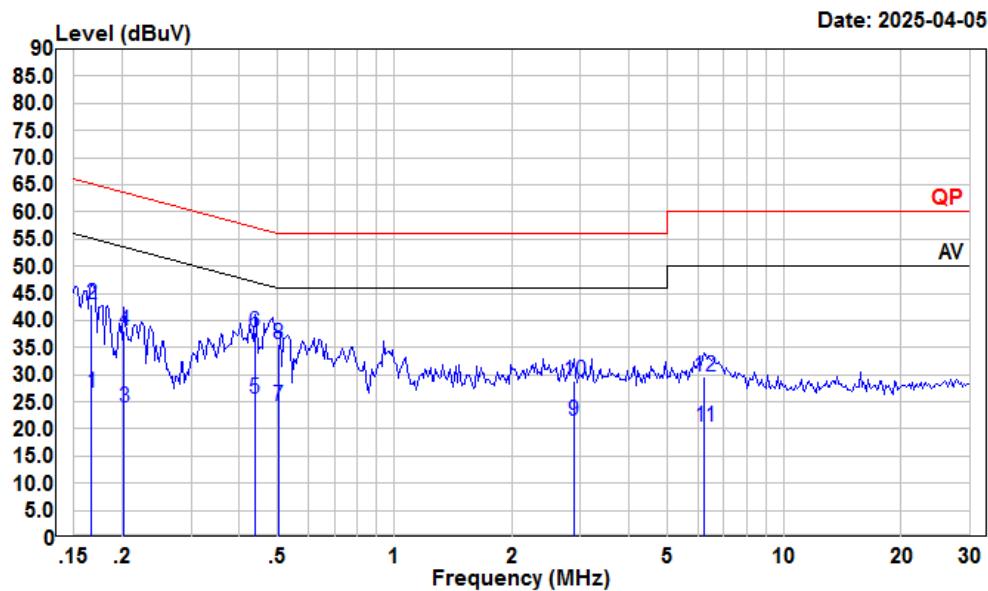
AC Line Conducted Emissions

Environmental Conditions

Temperature (°C)	22.9	Relative Humidity (%)	59~67
ATM Pressure (kPa)	100.2~100.9	Test engineer	Macy.shi
Test date	2025.4.5~2025.5.30		
EUT operation mode	Transmitting with maximum output power mode 802.11g, high channel		

For model: EOP1-1004-WHT

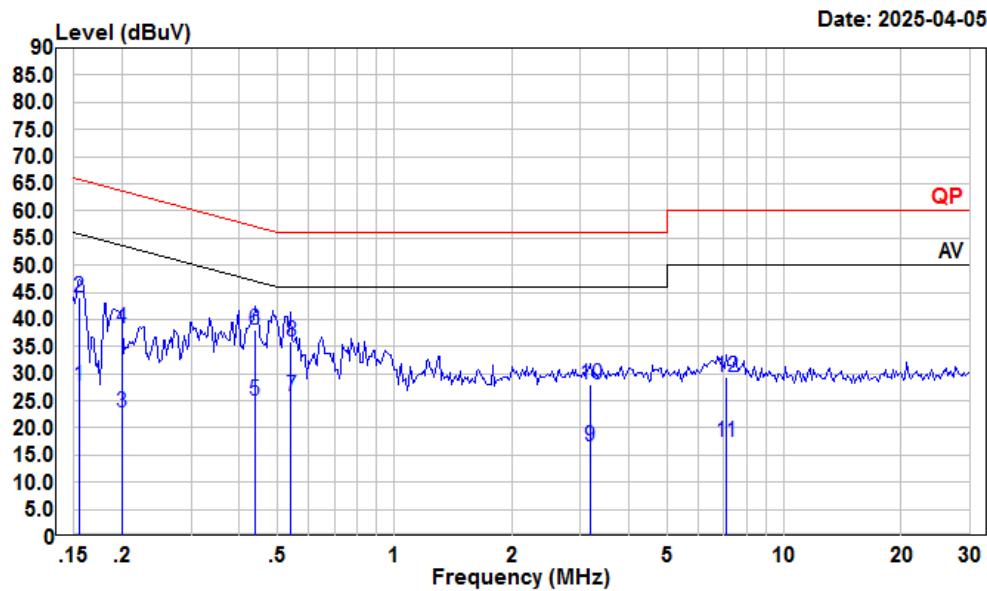
AC 120V 60 Hz, Line



Condition: Line
 Project : 2501R31585E-RF
 tester : Macy.shi Note:Transmitting
 Setting : RBW:9kHz

	Freq	Read Level	LISN Level	Cable Factor	Limit Loss	Line Limit	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.167	6.56	26.75	10.09	10.10	55.12	-28.37	Average
2	0.167	22.86	43.05	10.09	10.10	65.12	-22.07	QP
3	0.202	3.96	23.96	9.91	10.09	53.54	-29.58	Average
4	0.202	18.03	38.03	9.91	10.09	63.54	-25.51	QP
5	0.437	5.13	25.65	10.41	10.11	47.11	-21.46	Average
6	0.437	17.24	37.76	10.41	10.11	57.11	-19.35	QP
7	0.502	3.46	24.10	10.50	10.14	46.00	-21.90	Average
8	0.502	14.97	35.61	10.50	10.14	56.00	-20.39	QP
9	2.884	1.04	21.36	10.14	10.18	46.00	-24.64	Average
10	2.884	8.64	28.96	10.14	10.18	56.00	-27.04	QP
11	6.252	-0.34	20.33	10.48	10.19	50.00	-29.67	Average
12	6.252	9.00	29.67	10.48	10.19	60.00	-30.33	QP

AC 120V 60 Hz, Neutral



Condition: Neutral

Project : 2501R31585E-RF

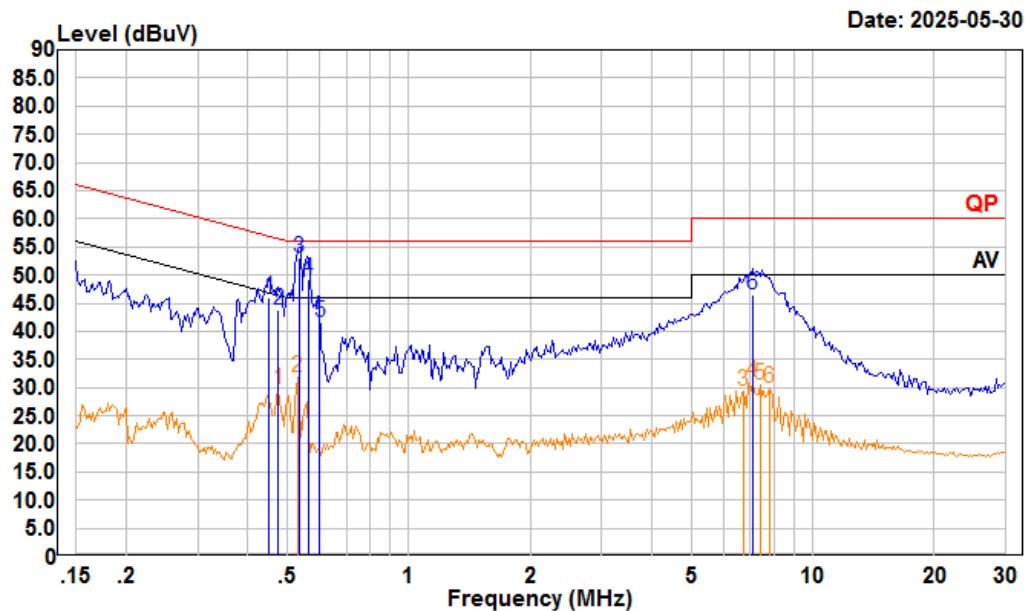
tester : Macy.shi Note:Transmitting

Setting : RBW:9kHz

Freq	Read	LISN	Cable	Limit	Over	Remark
	MHz	dBuV	dBuV	dB	dB	
1	0.155	7.28	27.68	10.28	10.12	55.74 -28.06 Average
2	0.155	23.60	44.00	10.28	10.12	65.74 -21.74 QP
3	0.200	2.76	22.95	10.10	10.09	53.62 -30.67 Average
4	0.200	18.20	38.39	10.10	10.09	63.62 -25.23 QP
5	0.437	4.42	25.06	10.53	10.11	47.11 -22.05 Average
6	0.437	17.41	38.05	10.53	10.11	57.11 -19.06 QP
7	0.541	5.27	25.98	10.58	10.13	46.00 -20.02 Average
8	0.541	15.30	36.01	10.58	10.13	56.00 -19.99 QP
9	3.173	-3.81	16.55	10.17	10.19	46.00 -29.45 Average
10	3.173	7.59	27.95	10.17	10.19	56.00 -28.05 QP
11	7.100	-3.31	17.47	10.59	10.19	50.00 -32.53 Average
12	7.100	8.51	29.29	10.59	10.19	60.00 -30.71 QP

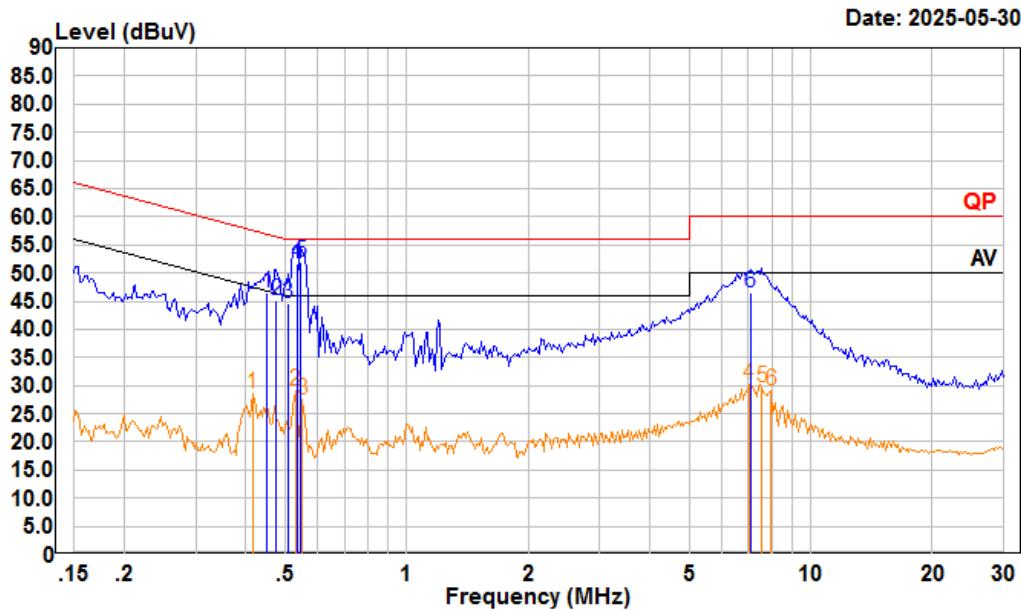
For model: EOP1-1003-BLK

AC 120V 60 Hz, Line



Freq	Read		LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV					
1	0.452	25.20	45.83	10.43	10.20	56.85	-11.02 QP
2	0.476	23.00	43.66	10.47	10.19	56.41	-12.75 QP
3	0.535	32.20	52.94	10.54	10.20	56.00	-3.06 QP
4	0.564	28.50	49.28	10.57	10.21	56.00	-6.72 QP
5	0.601	20.70	41.54	10.61	10.23	56.00	-14.46 QP
6	7.100	25.60	46.42	10.59	10.23	60.00	-13.58 QP
Freq	Read		LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV					
1	0.476	8.90	29.56	10.47	10.19	46.41	-16.85 Average
2	0.529	10.97	31.69	10.53	10.19	46.00	-14.31 Average
3	6.733	8.67	29.47	10.56	10.24	50.00	-20.53 Average
4	7.100	10.12	30.94	10.59	10.23	50.00	-19.06 Average
5	7.407	9.76	30.54	10.55	10.23	50.00	-19.46 Average
6	7.810	9.19	29.94	10.51	10.24	50.00	-20.06 Average

AC 120V 60 Hz, Neutral



Condition: Neutral

Project : 2501R31585E-RF

tester : Macy.shi Note: 2.4G WIFI Transmitting

Setting : RBW:9kHz

Freq	Read		LISN	Cable	Limit	Over	Remark
	MHz	dBuV					
1	0.452	25.70	46.44	10.54	10.20	56.85	-10.41 QP
2	0.476	24.40	45.16	10.57	10.19	56.41	-11.25 QP
3	0.507	23.80	44.58	10.60	10.18	56.00	-11.42 QP
4	0.535	30.80	51.58	10.58	10.20	56.00	-4.42 QP
5	0.546	31.21	51.98	10.57	10.20	56.00	-4.02 QP
6	7.100	25.80	46.62	10.59	10.23	60.00	-13.38 QP
Read		LISN		Cable		Over	
Freq	Level	Level	Factor	Loss	Line	Limit	Remark
Freq	MHz	dBuV	dBuV	dB	dBuV	dB	
1	0.415	7.83	28.54	10.50	10.21	47.55	-19.01 Average
2	0.529	8.20	28.97	10.58	10.19	46.00	-17.03 Average
3	0.552	6.73	27.51	10.57	10.21	46.00	-18.49 Average
4	7.025	9.39	30.22	10.60	10.23	50.00	-19.78 Average
5	7.566	8.76	29.56	10.56	10.24	50.00	-20.44 Average
6	7.977	8.27	29.04	10.53	10.24	50.00	-20.96 Average

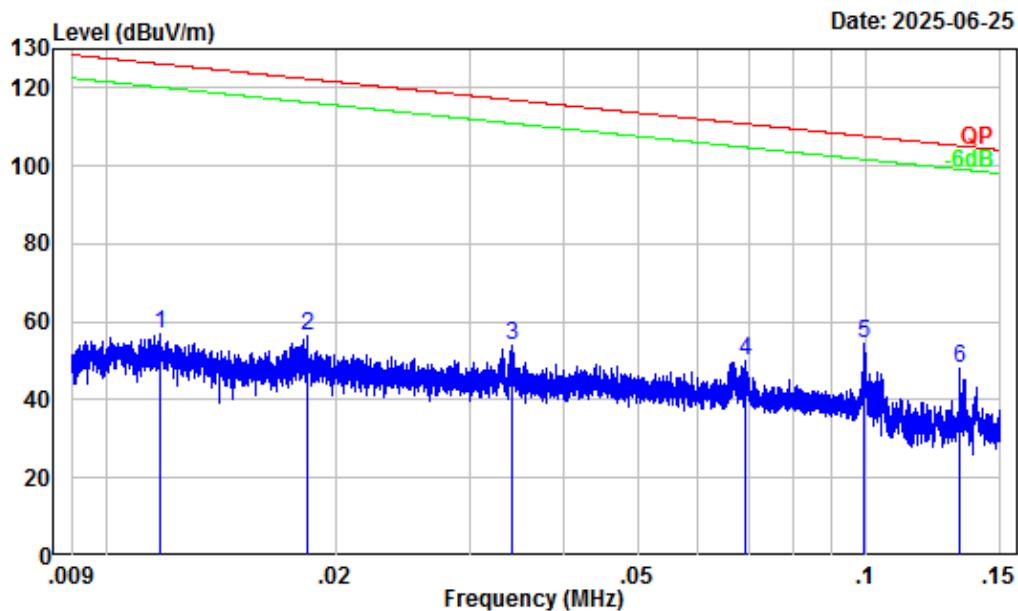
Spurious Emissions

Environmental Conditions

Temperature (°C)	22.9&25.8	Relative Humidity (%)	49&50.1
ATM Pressure (kPa):	100.5&101.3	Test engineer:	Alex Yan&Zenos Qiao
Test date:	2025.4.18~2025.6.25		
EUT operation mode:	Below 1GHz: Transmitting with maximum output power mode 802.11g, high channel Above 1GHz: Transmitting		
Note:	<ol style="list-style-type: none">1. For the radiated spurious emission below 30MHz, only the worst case (parallel) was recorded.2. For the radiated spurious emission below 1 GHz, When the test result of peak was less than the limit of QP/Average more than 6dB, just peak value were recorded.3. After pre-scan in the X, Y and Z axes of orientation, the worst case z-axis of orientation were recorded.		

Below 1GHz:
For model: EOP1-1004-WHT

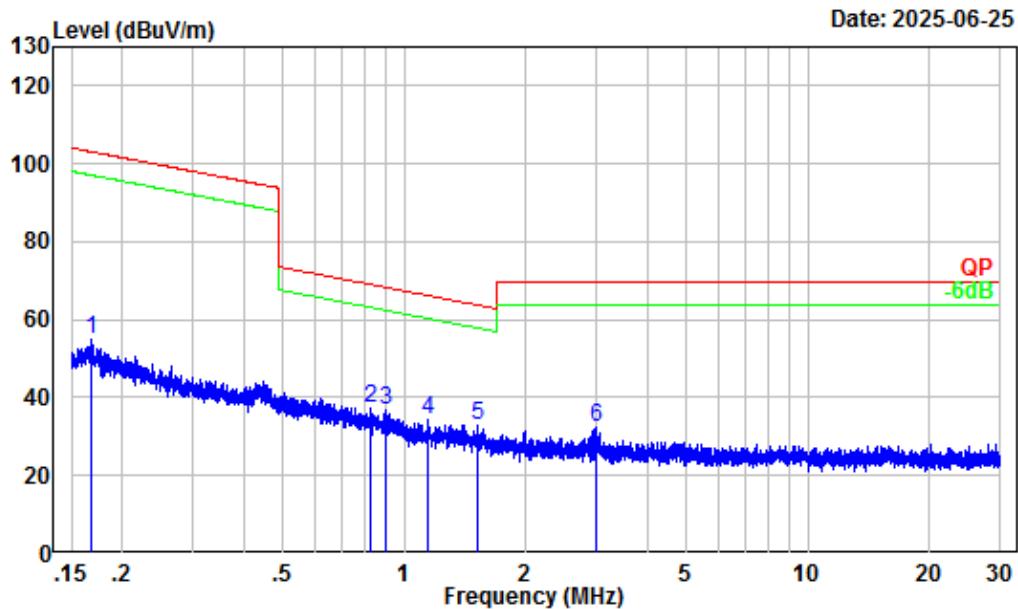
9kHz-150kHz



Site : Chamber A
Condition : 3m
Project Number : 2501R31585E-RF
Test Mode : 2.4G WIFI Transmitting
Detector: Peak RBW/VBW: 0.3/1kHz
Tester : Alex Yan

Freq	Factor	Read	Limit	Over	Remark
		Level	Level	Line	
1	0.012	31.96	24.89	56.85	126.19 -69.34 Peak
2	0.018	30.70	25.64	56.34	122.31 -65.97 Peak
3	0.034	28.07	25.83	53.90	116.95 -63.05 Peak
4	0.069	24.47	25.55	50.02	110.79 -60.77 Peak
5	0.100	22.03	32.40	54.43	107.65 -53.22 Peak
6	0.133	20.07	27.93	48.00	105.15 -57.15 Peak

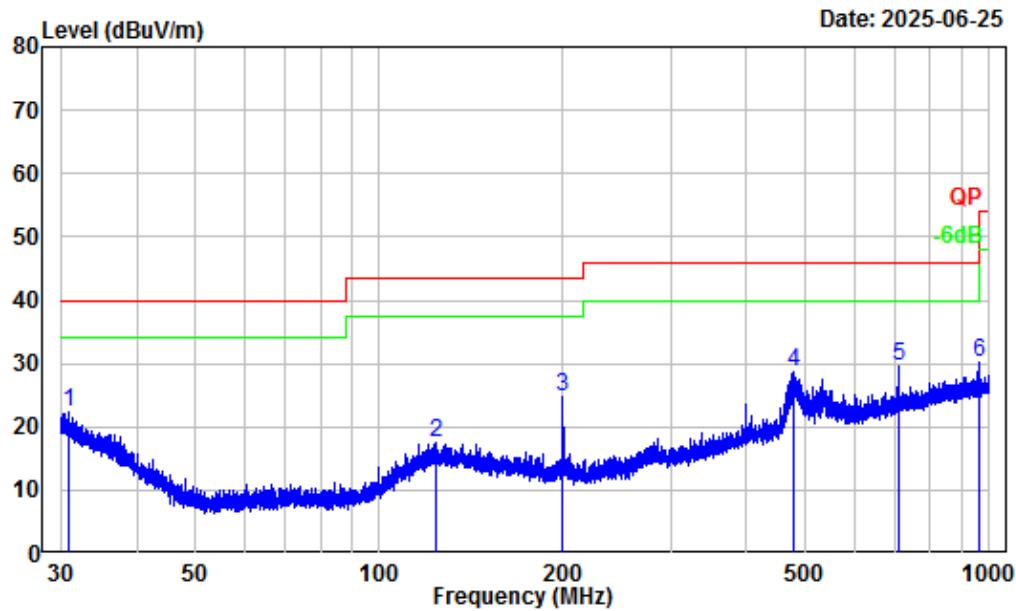
150kHz-30MHz



Site : Chamber A
Condition : 3m
Project Number : 2501R31585E-RF
Test Mode : 2.4G WIFI Transmitting
Detector: Peak RBW/VBW: 10/30kHz
Tester : Alex Yan

Freq	Factor	Read	Limit	Over	Remark
		Level	Level	Line	
1	0.167	18.02	36.95	54.97	103.13 -48.16 Peak
2	0.827	2.50	34.79	37.29	69.16 -31.87 Peak
3	0.904	1.92	34.71	36.63	68.37 -31.74 Peak
4	1.146	0.79	33.63	34.42	66.27 -31.85 Peak
5	1.523	-0.27	33.34	33.07	63.74 -30.67 Peak
6	2.984	-2.14	34.36	32.22	69.54 -37.32 Peak

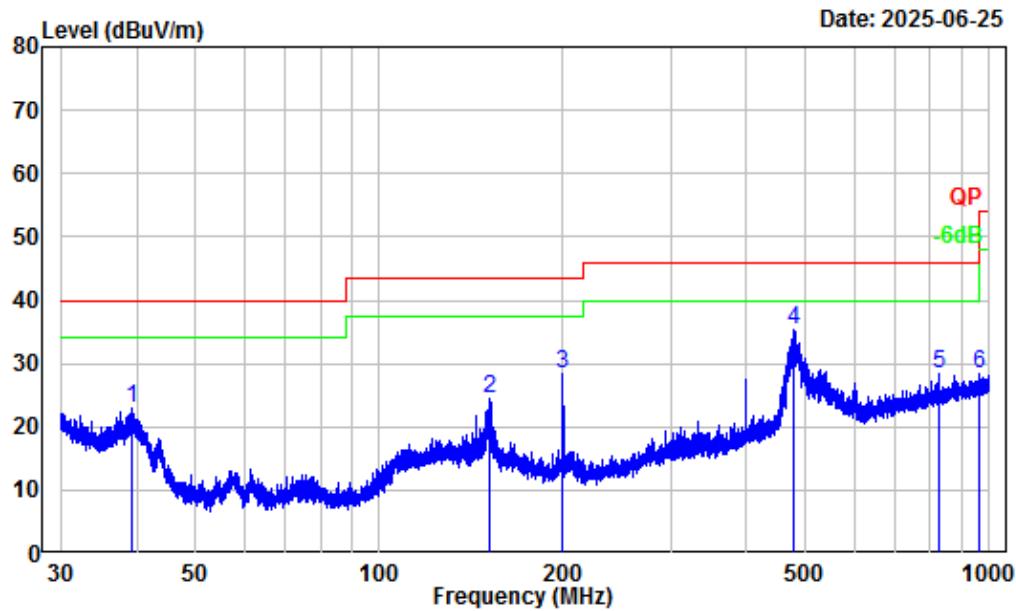
30MHz-1GHz_Horizontal



Site : Chamber A
Condition : 3m Horizontal
Project Number : 2501R31585E-RF
Test Mode : 2.4G WIFI Transmitting
Detector: Peak RBW/VBW: 100/300kHz
Tester : Alex Yan

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	Line	
1	30.87	-6.40	28.82	22.42	40.00	-17.58	Peak
2	123.75	-11.14	28.57	17.43	43.50	-26.07	Peak
3	200.07	-13.07	37.86	24.79	43.50	-18.71	Peak
4	477.59	-6.41	35.18	28.77	46.00	-17.23	Peak
5	708.56	-3.41	33.07	29.66	46.00	-16.34	Peak
6	961.74	-0.87	31.20	30.33	54.00	-23.67	Peak

30MHz-1GHz_Verical

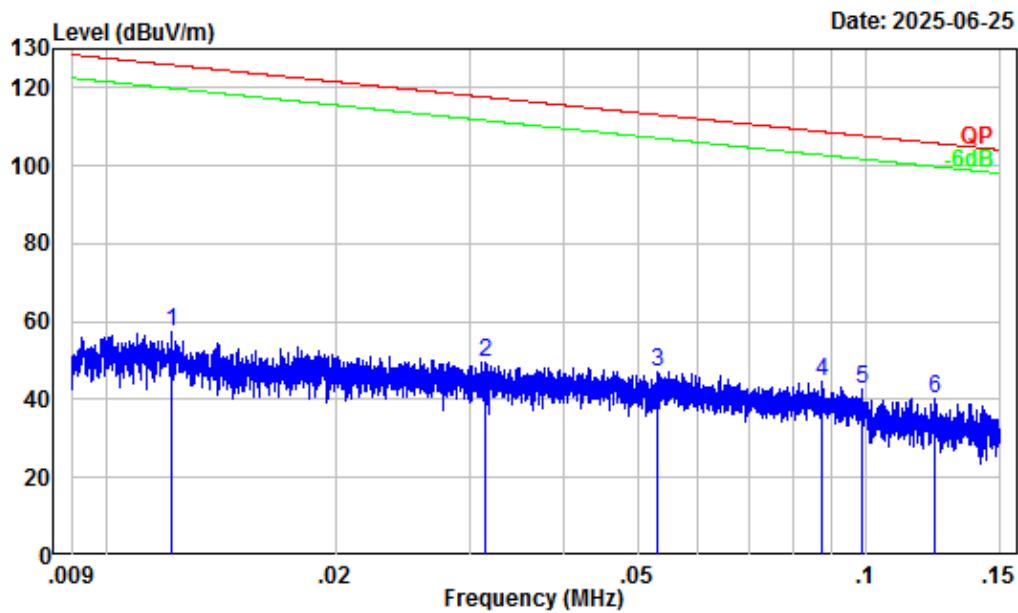


Site : Chamber A
Condition : 3m Vertical
Project Number : 2501R31585E-RF
Test Mode : 2.4G WIFI Transmitting
Detector: Peak RBW/VBW: 100/300kHz
Tester : Alex Yan

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	Line	
1	39.32	-11.89	34.76	22.87	40.00	-17.13	Peak
2	151.80	-12.53	37.09	24.56	43.50	-18.94	Peak
3	199.99	-13.06	41.54	28.48	43.50	-15.02	Peak
4	477.80	-6.40	41.87	35.47	46.00	-10.53	Peak
5	827.86	-1.93	30.40	28.47	46.00	-17.53	Peak
6	960.06	-0.86	29.16	28.30	54.00	-25.70	Peak

For model: EOP1-1003-BLK

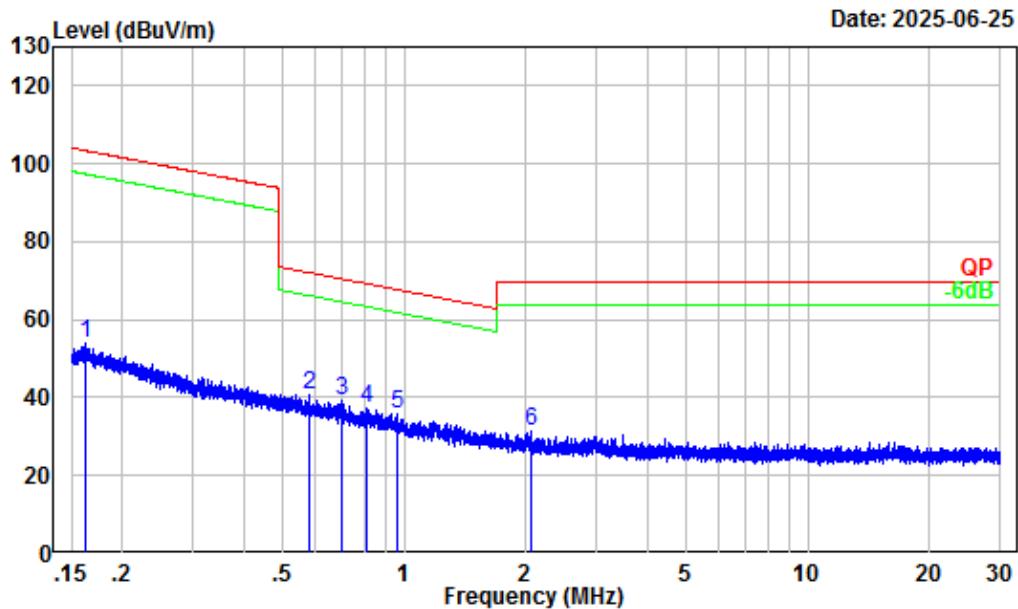
9kHz-150kHz



Site : Chamber A
Condition : 3m
Project Number : 2501R31585E-RF
Test Mode : 2.4G WIFI Transmitting
Detector: Peak RBW/VBW: 0.3/1kHz
Tester : Alex Yan

Freq	Factor	Read	Limit	Over	Remark
		Level	Level	Line	
1	0.012	31.88	25.46	57.34	125.88 -68.54 Peak
2	0.031	28.35	21.29	49.64	117.65 -68.01 Peak
3	0.053	26.08	20.98	47.06	113.08 -66.02 Peak
4	0.087	22.90	21.55	44.45	108.79 -64.34 Peak
5	0.098	22.11	20.36	42.47	107.74 -65.27 Peak
6	0.123	20.63	19.48	40.11	105.79 -65.68 Peak

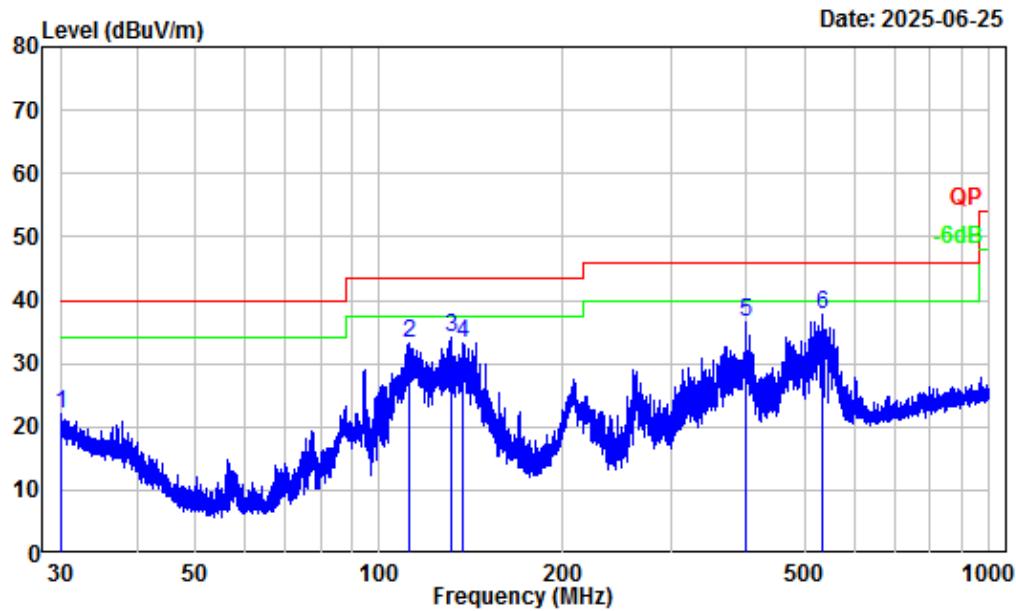
150kHz-30MHz



Site : Chamber A
Condition : 3m
Project Number : 2501R31585E-RF
Test Mode : 2.4G WIFI Transmitting
Detector: Peak RBW/VBW: 10/30kHz
Tester : Alex Yan

Freq	Factor	Read	Limit	Over	Remark	
		Level	Level	Line		
1	0.162	18.36	35.75	54.11	103.43	-49.32 Peak
2	0.580	5.42	35.16	40.58	72.31	-31.73 Peak
3	0.703	3.89	35.32	39.21	70.59	-31.38 Peak
4	0.806	2.65	34.48	37.13	69.38	-32.25 Peak
5	0.959	1.50	34.55	36.05	67.84	-31.79 Peak
6	2.066	-1.64	33.13	31.49	69.54	-38.05 Peak

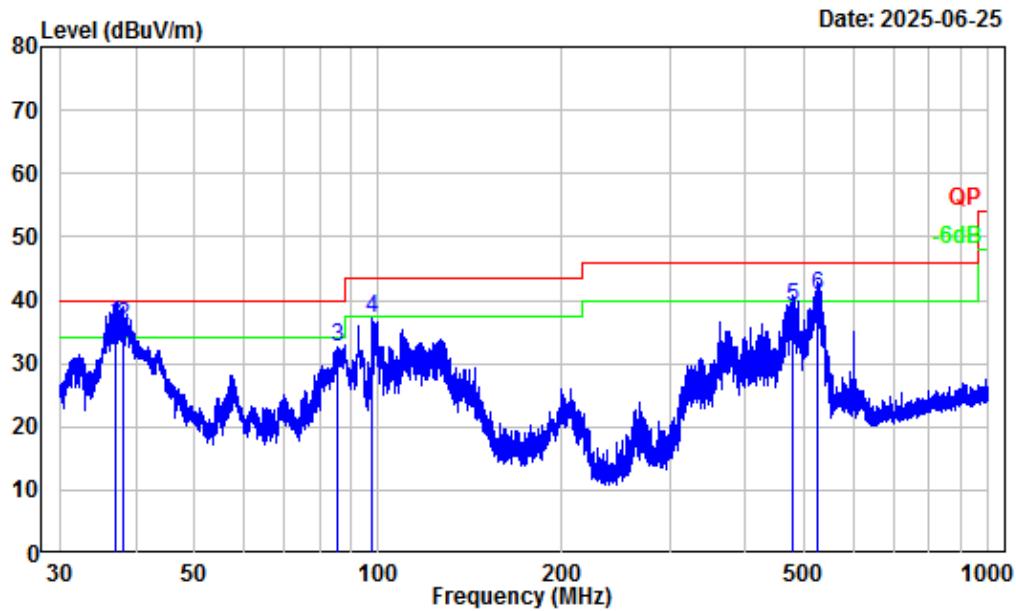
30MHz-1GHz_Horizontal



Site : Chamber A
Condition : 3m Horizontal
Project Number : 2501R31585E-RF
Test Mode : 2.4G WIFI Transmitting
Detector: Peak RBW/VBW: 100/300kHz
Tester : Alex Yan

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	Line	
1	30.16	-6.04	27.97	21.93	40.00	-18.07	Peak
2	111.59	-12.81	45.94	33.13	43.50	-10.37	Peak
3	131.30	-11.31	45.57	34.26	43.50	-9.24	Peak
4	137.36	-11.64	44.94	33.30	43.50	-10.20	Peak
5	400.08	-8.41	45.06	36.65	46.00	-9.35	Peak
6	532.66	-5.75	43.34	37.59	46.00	-8.41	Peak

30MHz-1GHz_Verical



Site : Chamber A
Condition : 3m Vertical
Project Number : 2501R31585E-RF
Test Mode : 2.4G WIFI Transmitting
Detector: Peak RBW/VBW: 100/300kHz
Tester : Alex Yan

Freq	Factor	Read	Limit	Over	Remark	
		Level	Level	Line		
1	37.11	-10.35	46.72	36.37	40.00	-3.63 QP
2	38.18	-11.10	46.95	35.85	40.00	-4.15 QP
3	85.75	-18.09	50.83	32.74	40.00	-7.26 Peak
4	97.54	-16.65	53.75	37.10	43.50	-6.40 Peak
5	477.38	-6.42	45.27	38.85	46.00	-7.15 QP
6	524.32	-5.80	46.68	40.88	46.00	-5.12 QP

Above 1GHz:

Frequency (MHz)	Reading (dB μ V)	PK/AV	Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
802.11b							
Low Channel							
4824	58.94	PK	H	-7.75	51.19	74	-22.81
4824	58.12	PK	V	-7.75	50.37	74	-23.63
Middle Channel							
4874	59.35	PK	H	-7.61	51.74	74	-22.26
4874	58.48	PK	V	-7.61	50.87	74	-23.13
High Channel							
4924	58.59	PK	H	-7.57	51.02	74	-22.98
4924	57.66	PK	V	-7.57	50.09	74	-23.91
802.11g							
Low Channel							
4824	55.34	PK	H	-7.75	47.59	74	-26.41
4824	54.5	PK	V	-7.75	46.75	74	-27.25
Middle Channel							
4874	55.68	PK	H	-7.61	48.07	74	-25.93
4874	54.87	PK	V	-7.61	47.26	74	-26.74
High Channel							
4924	56.06	PK	H	-7.57	48.49	74	-25.51
4924	55.23	PK	V	-7.57	47.66	74	-26.34
802.11n20							
Low Channel							
4824	55.28	PK	H	-7.75	47.53	74	-26.47
4824	54.45	PK	V	-7.75	46.7	74	-27.3
Middle Channel							
4874	55.6	PK	H	-7.61	47.99	74	-26.01
4874	54.76	PK	V	-7.61	47.15	74	-26.85
High Channel							
4924	55.95	PK	H	-7.57	48.38	74	-25.62
4924	55.12	PK	V	-7.57	47.55	74	-26.45

Frequency (MHz)	Reading (dB μ V)	PK/AV	Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
802.11n40							
Low Channel							
4844	52.64	PK	H	-7.72	44.92	74	-29.08
4844	52.08	PK	V	-7.72	44.36	74	-29.64
Middle Channel							
4874	53.08	PK	H	-7.61	45.47	74	-28.53
4874	52.57	PK	V	-7.61	44.96	74	-29.04
High Channel							
4904	53.45	PK	H	-7.53	45.92	74	-28.08
4904	52.92	PK	V	-7.53	45.39	74	-28.61

Note:

Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor

Corrected Amplitude/Level = Corrected Factor + Reading

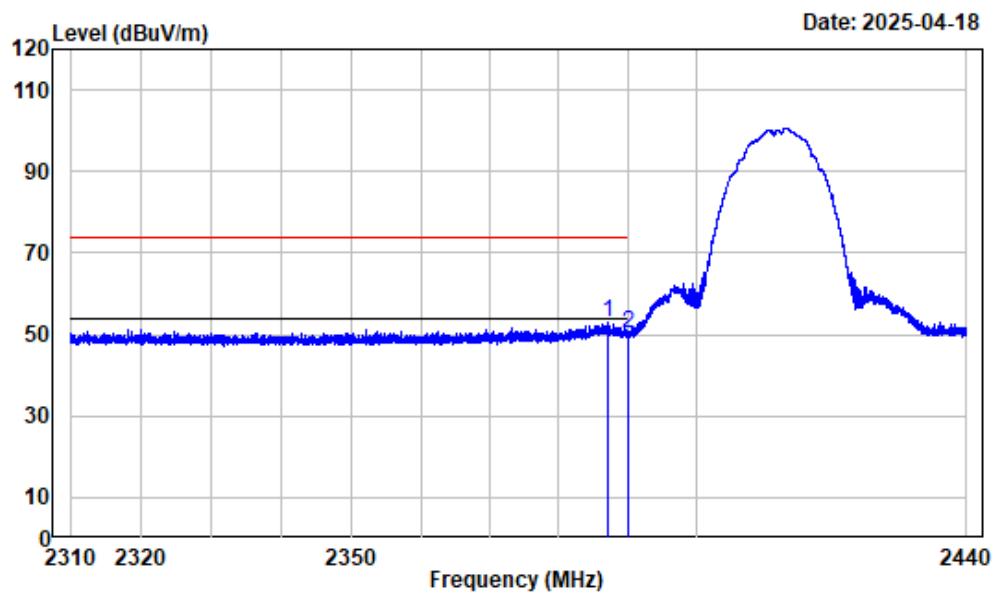
Margin = Corrected Amplitude/Level – Limit

The test result of peak was less than the limit of average, so it meets the average limit that just peak values were recorded.

The other spurious emission which is in the noise floor level was not recorded.

Test plots

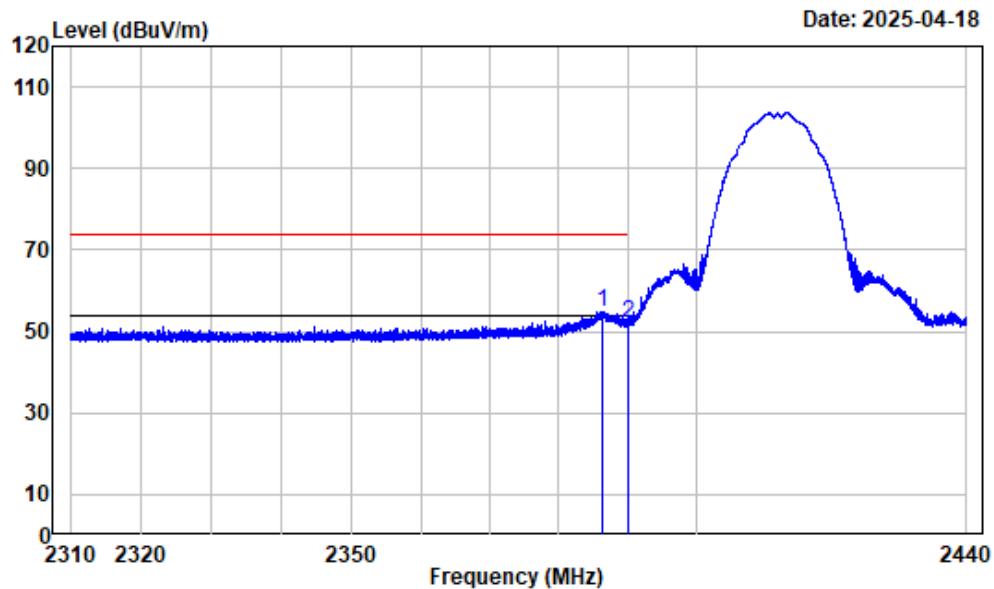
802.11b
Left Bandedge_Horizontal_Peak



Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-b-2412

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	2387.051	-10.97	63.82	52.85	74.00	-21.15	Peak
2	2390.000	-10.98	61.15	50.17	74.00	-23.83	Peak

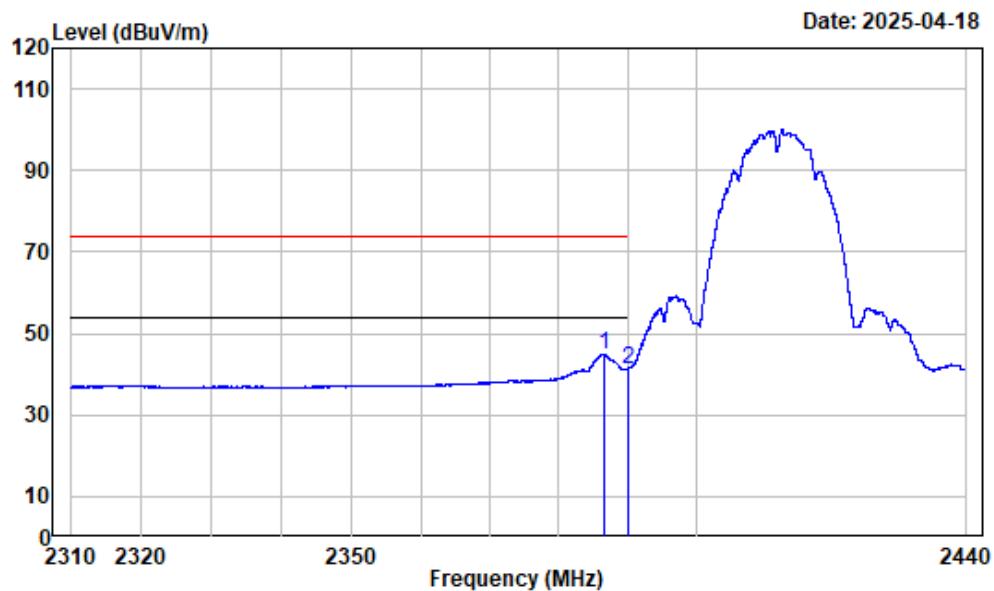
Left Bandedge_Vertical_Peak



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-b-2412

	Freq	Read Factor	Level	Limit Level	Over Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2386.417	-10.97	65.88	54.91	74.00	-19.09	Peak
2	2390.000	-10.98	62.86	51.88	74.00	-22.12	Peak

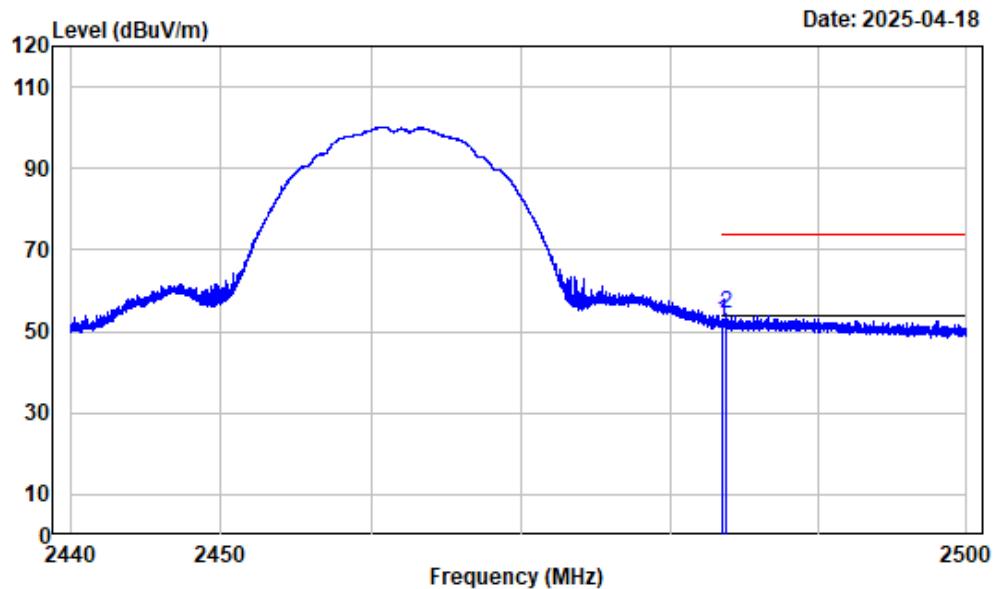
Left Bandedge_Vertical_Average



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:100Hz Detector:Peak
Note : 2.4GWiFi-b-2412

	Freq	Read Factor	Level	Limit Level	Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2386.612	-10.97	55.84	44.87	54.00	-9.13	Average
2	2390.000	-10.98	52.34	41.36	54.00	-12.64	Average

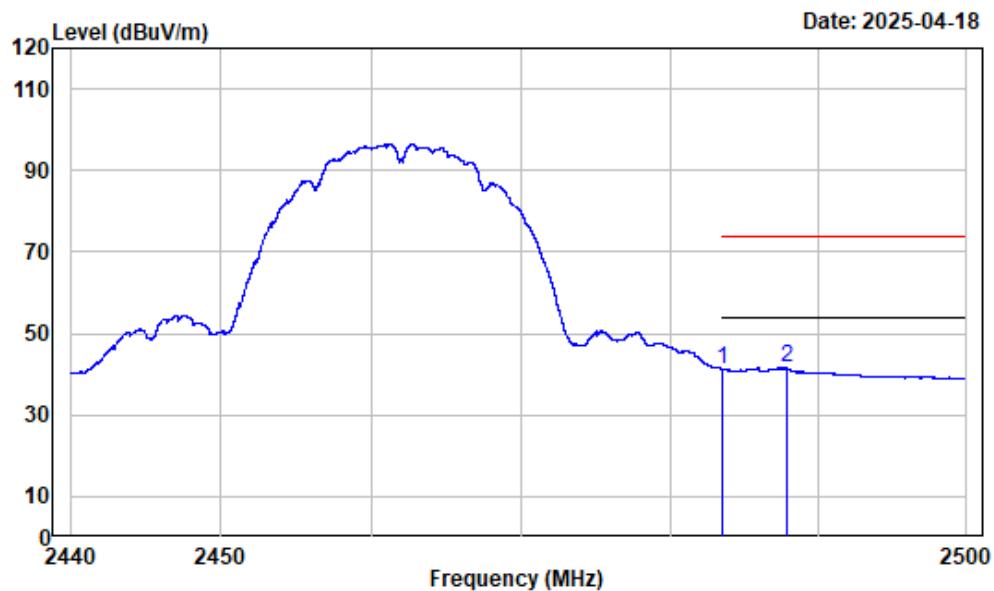
Right Bandedge_Horizontal_Peak



Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-b-2462

	Freq	Read Factor	Level	Limit Level	Over Line	Limit	Remark
1	2483.500	-10.97	63.41	52.44	74.00	-21.56	Peak
2	2483.730	-10.97	65.36	54.39	74.00	-19.61	Peak

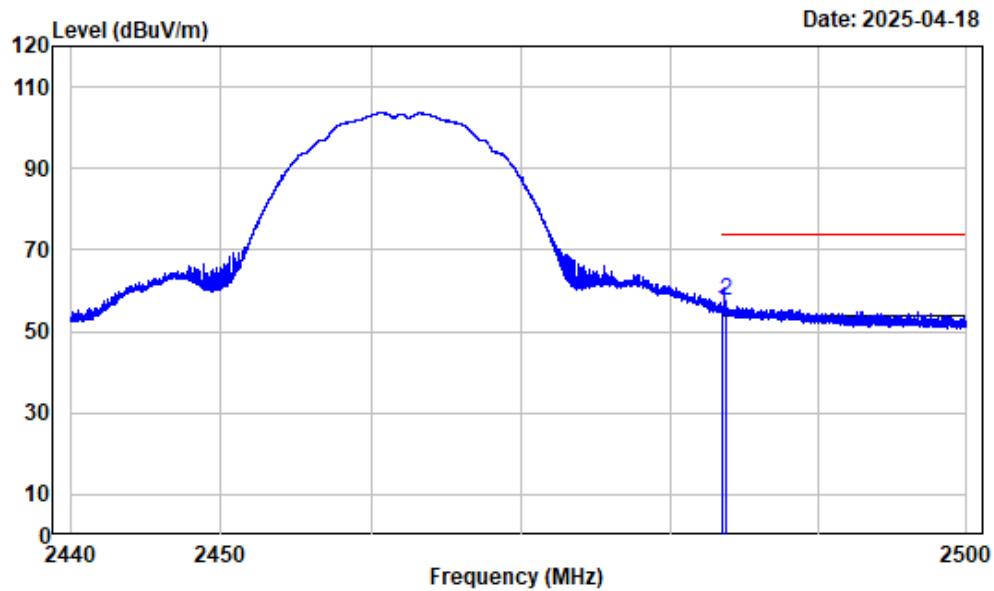
Right Bandedge_Horizontal_Average



Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:100Hz Detector:Peak
Note : 2.4GWiFi-b-2462

Freq	Factor	Read		Limit		Over	Remark
		Level	Level	Line	Line		
1	2483.500	-10.97	52.31	41.34	54.00	-12.66	Average
2	2487.826	-10.98	52.50	41.52	54.00	-12.48	Average

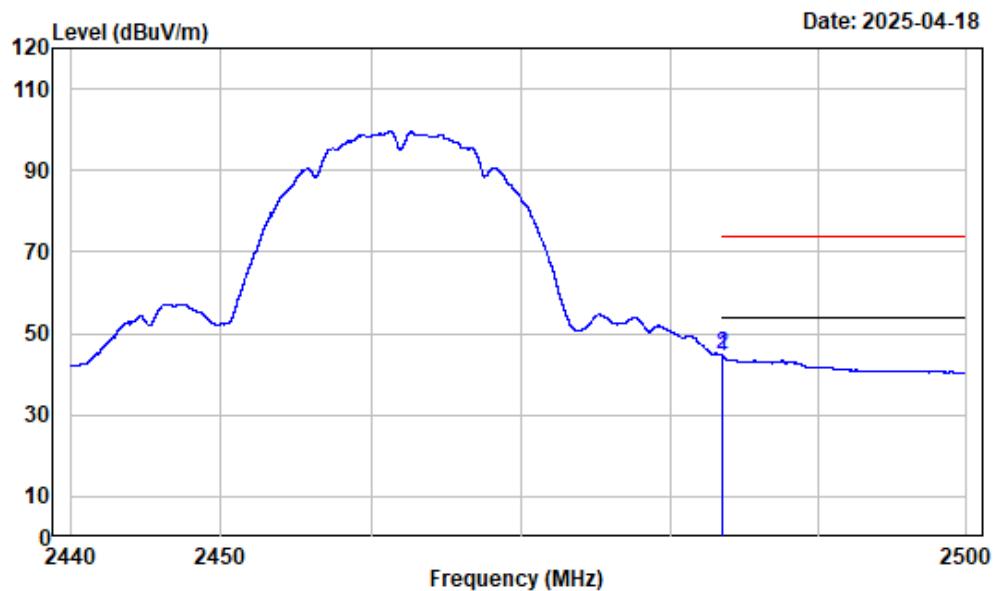
Right Bandedge_Vertical_Peak



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-b-2462

	Freq	Read Factor	Level	Limit Level	Over Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-10.97	66.04	55.07	74.00	-18.93	Peak
2	2483.798	-10.97	68.28	57.31	74.00	-16.69	Peak

Right Bandedge_Vertical_Average



Condition : Vertical

Project No. : 2501R31585E-RF

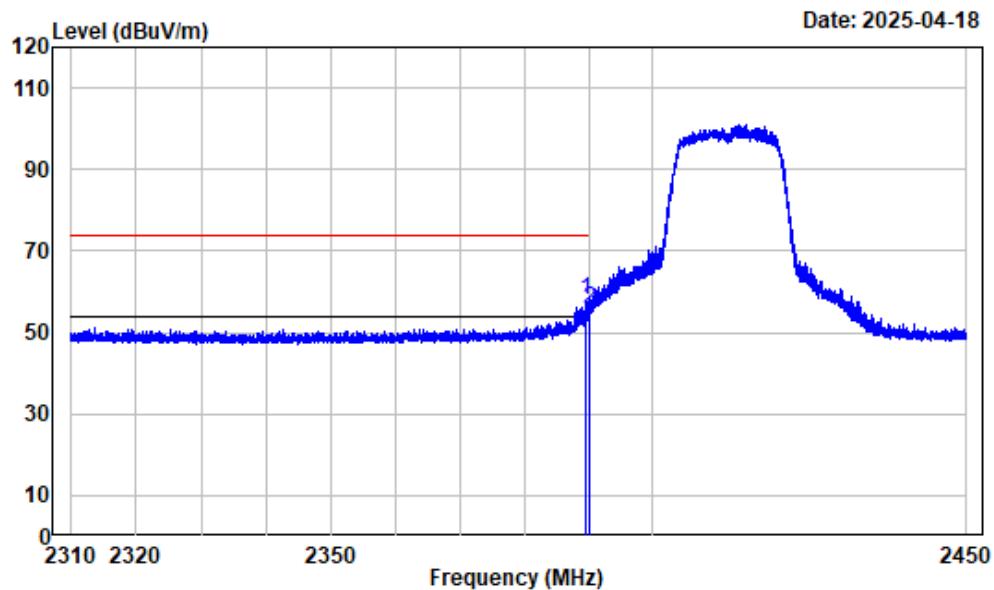
Tester : Zenos Qiao

Spectrum setting: Average reading:RBW:1MHz VBW:100Hz Detector:Peak

Note : 2.4GWiFi-b-2462

	Freq	Read Factor	Level	Limit Level	Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-10.97	55.47	44.50	54.00	-9.50	Average
2	2483.515	-10.97	55.58	44.61	54.00	-9.39	Average

802.11g
Left Bandedge_Horizontal_Peak



Condition : Horizontal

Project No. : 2501R31585E-RF

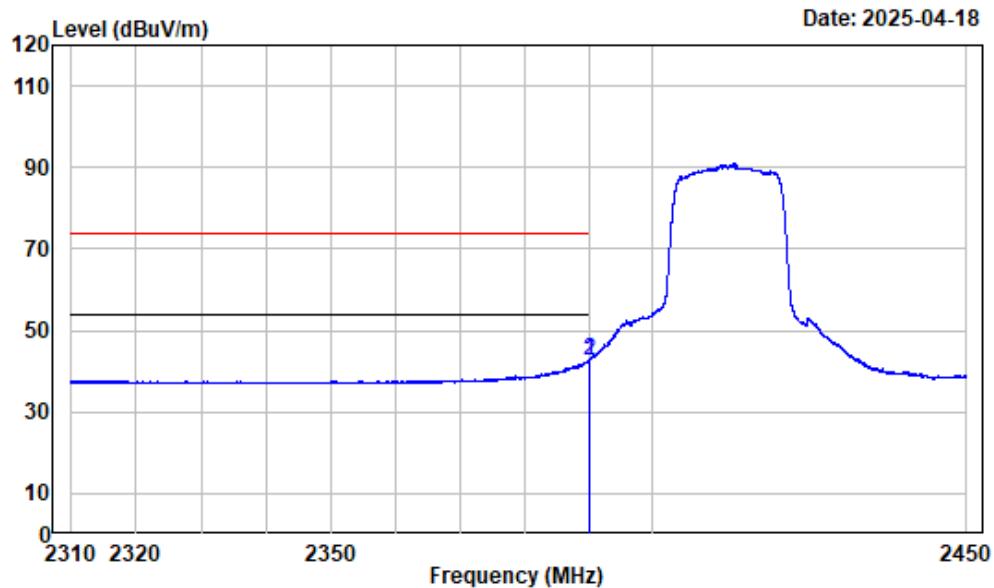
Tester : Zenos Qiao

Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak

Note : 2.4GWiFi-g-2412

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	2389.635	-10.98	69.10	58.12	74.00	-15.88	Peak
2	2390.000	-10.98	66.46	55.48	74.00	-18.52	Peak

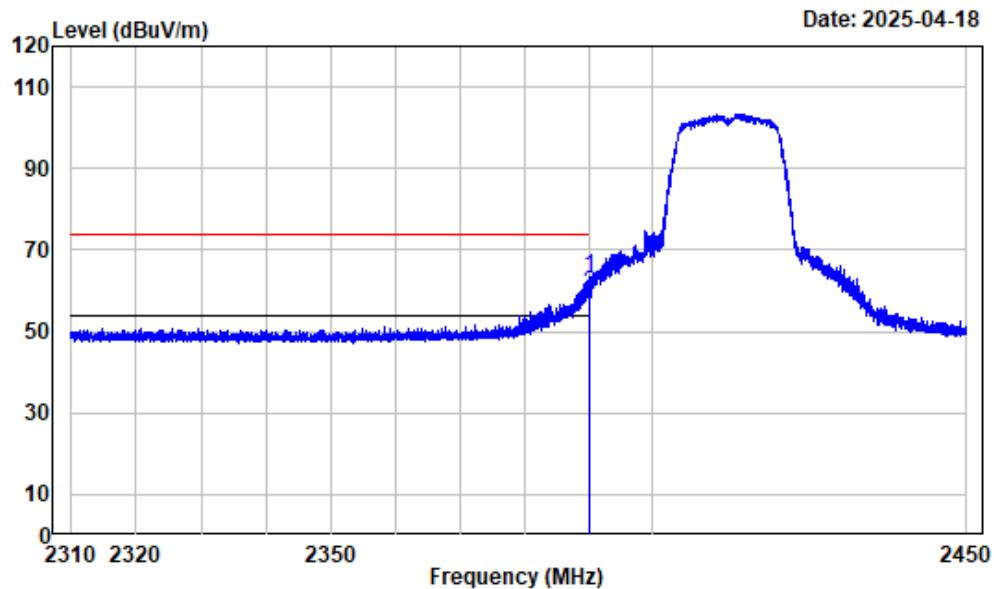
Left Bandedge_Horizontal_Average



Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 2.4GWiFi-g-2412

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	2389.968	-10.98	53.63	42.65	54.00	-11.35	Average
2	2390.000	-10.98	53.54	42.56	54.00	-11.44	Average

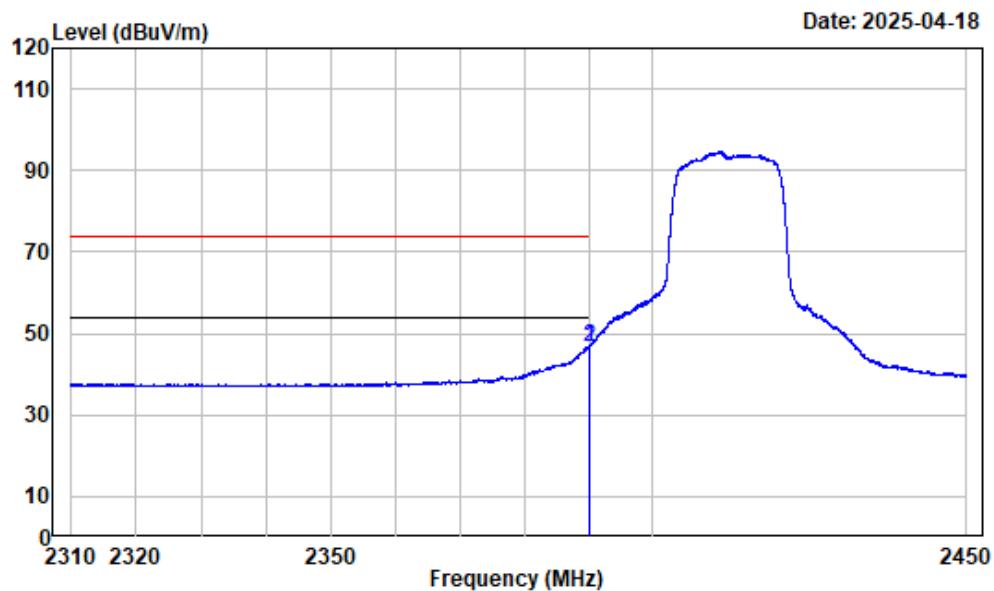
Left Bandedge_Vertical_Peak



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-g-2412

	Freq	Read Factor	Level	Limit Level	Over Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.985	-10.98	74.17	63.19	74.00	-10.81	Peak
2	2390.000	-10.98	70.24	59.26	74.00	-14.74	Peak

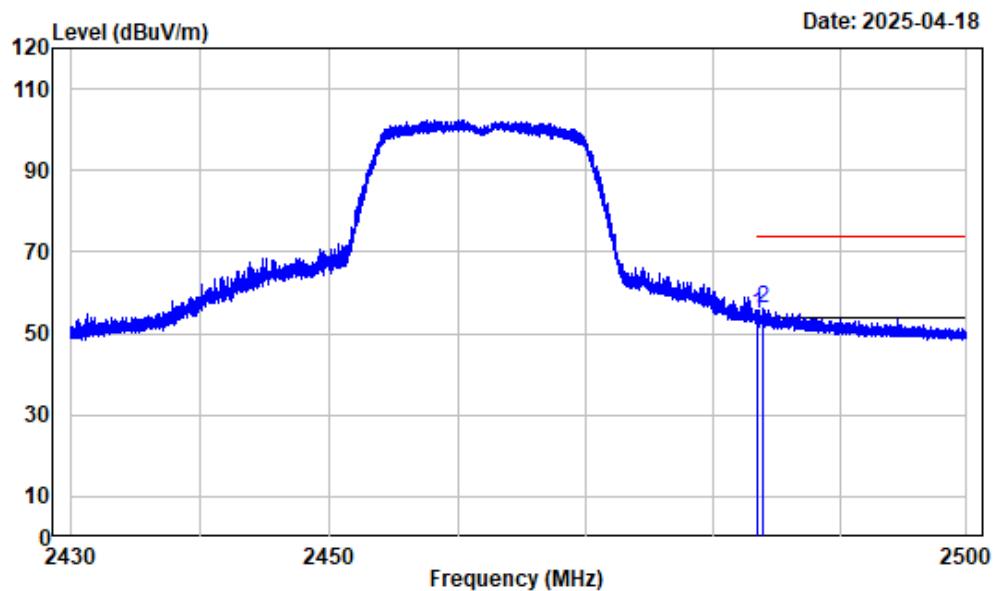
Left Bandedge_Vertical_Average



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 2.4GWiFi-g-2412

	Freq	Read Factor	Level	Limit Level	Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.968	-10.98	57.72	46.74	54.00	-7.26	Average
2	2390.000	-10.98	57.66	46.68	54.00	-7.32	Average

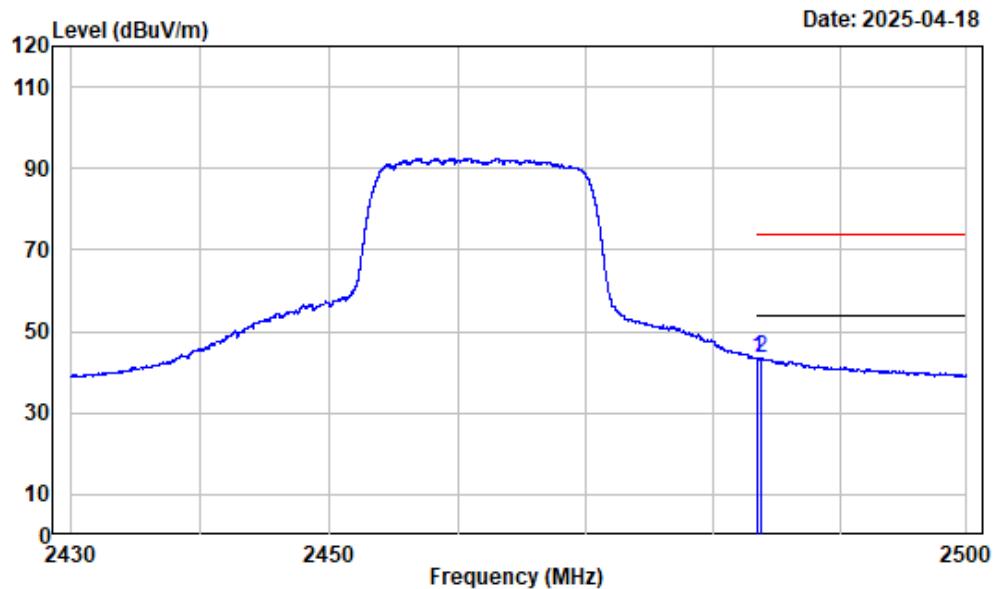
Right Bandedge_Horizontal_Peak



Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-g-2462

	Freq	Read Factor	Level	Limit Level	Over Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-10.97	65.57	54.60	74.00	-19.40	Peak
2	2483.889	-10.97	67.23	56.26	74.00	-17.74	Peak

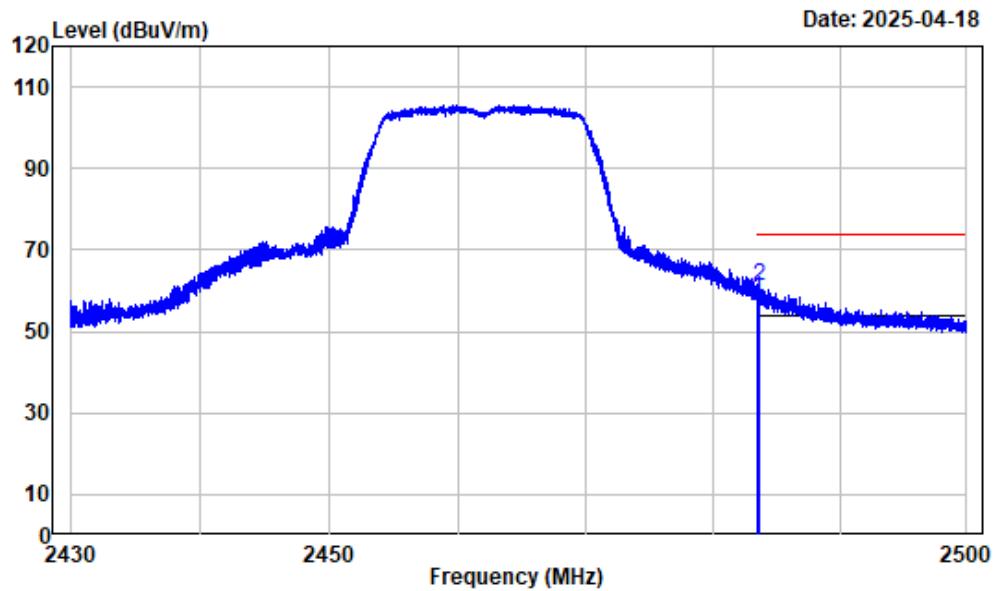
Right Bandedge_Horizontal_Average



Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 2.4GWiFi-g-2462

Freq	Factor	Read		Limit		Over	Remark
		Level	Level	Line	Line		
1	2483.500	-10.97	54.32	43.35	54.00	-10.65	Average
2	2483.775	-10.97	54.57	43.60	54.00	-10.40	Average

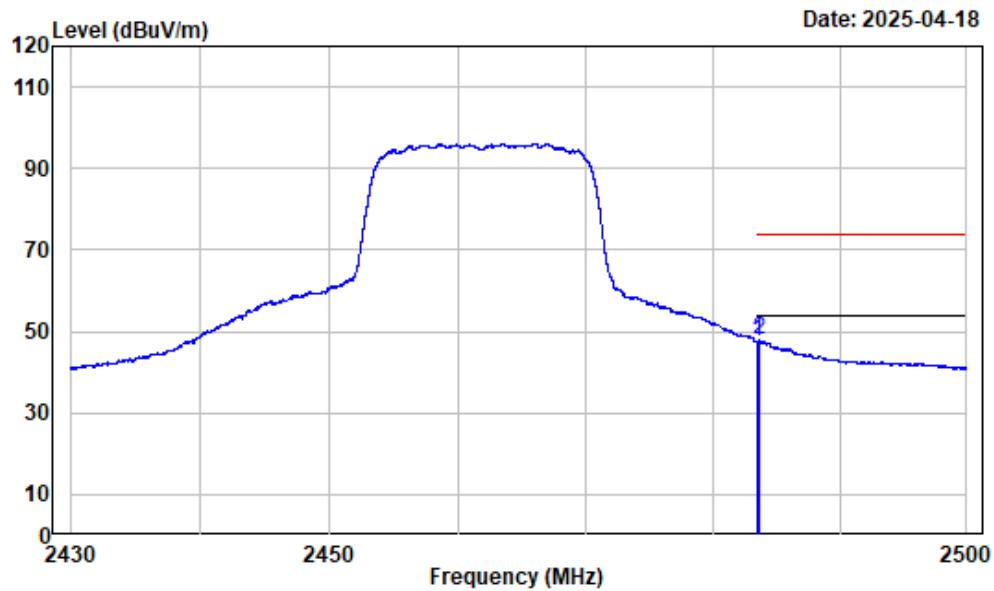
Right Bandedge_Vertical_Peak



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-g-2462

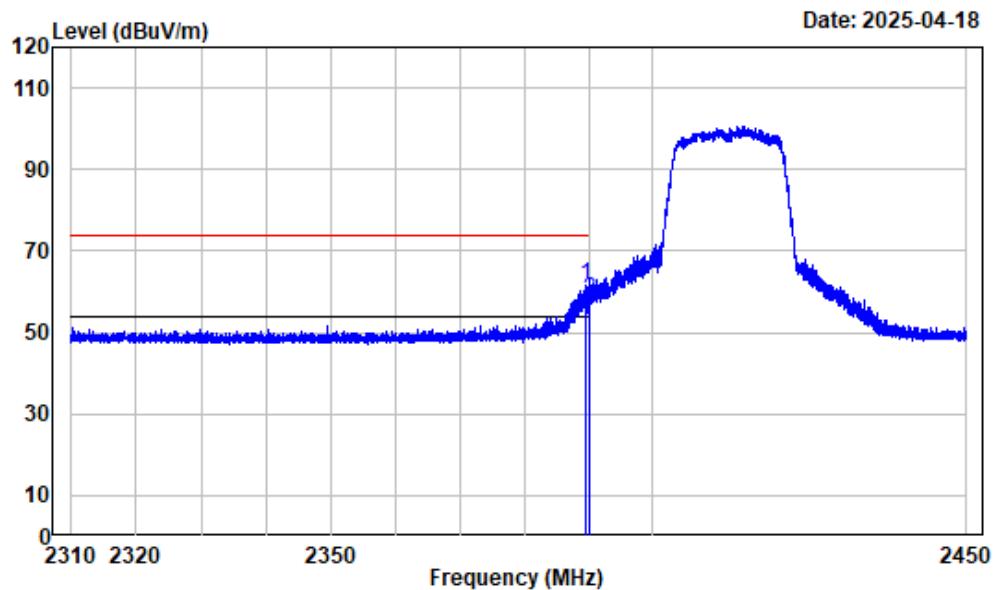
	Freq	Read Factor	Level	Limit Level	Over Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-10.97	68.89	57.92	74.00	-16.08	Peak
2	2483.697	-10.97	71.93	60.96	74.00	-13.04	Peak

Right Bandedge_Vertical_Average



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 2.4GWiFi-g-2462

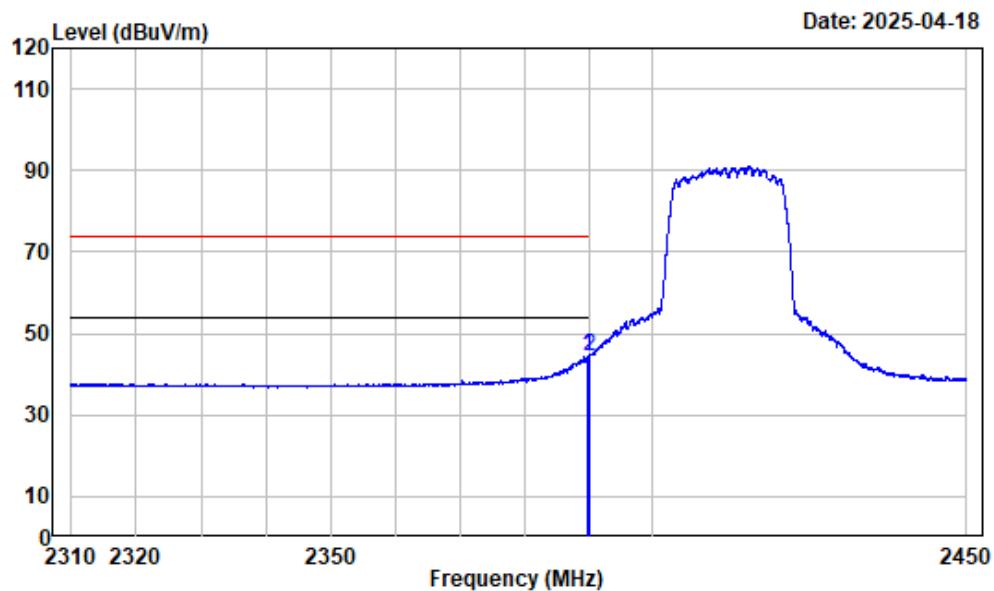
	Freq	Read Factor	Level	Limit Level	Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-10.97	58.69	47.72	54.00	-6.28	Average
2	2483.635	-10.97	58.85	47.88	54.00	-6.12	Average

802.11n20
Left Bandedge_Horizontal_Peak

Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-n20-2412

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	2389.652	-10.98	72.46	61.48	74.00	-12.52	Peak
2	2390.000	-10.98	68.82	57.84	74.00	-16.16	Peak

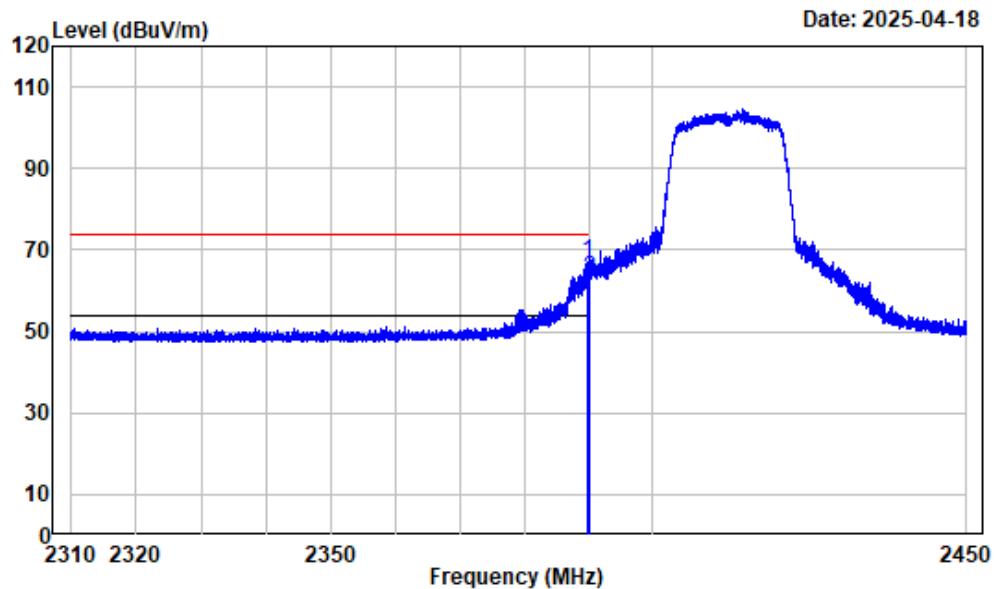
Left Bandedge_Horizontal_Average



Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 2.4GWiFi-n20-2412

	Freq	Read Factor	Level	Limit Level	Over Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.863	-10.98	55.31	44.33	54.00	-9.67	Average
2	2390.000	-10.98	55.20	44.22	54.00	-9.78	Average

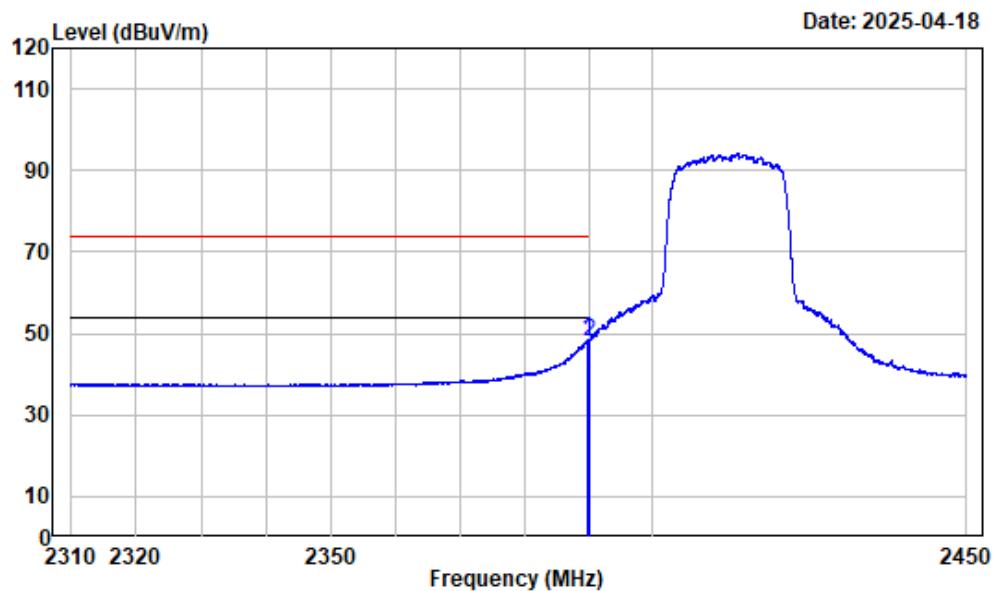
Left Bandedge_Vertical_Peak



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-n20-2412

	Freq	Read Factor	Level	Limit Level	Over Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.932	-10.98	77.85	66.87	74.00	-7.13	Peak
2	2390.000	-10.98	73.87	62.89	74.00	-11.11	Peak

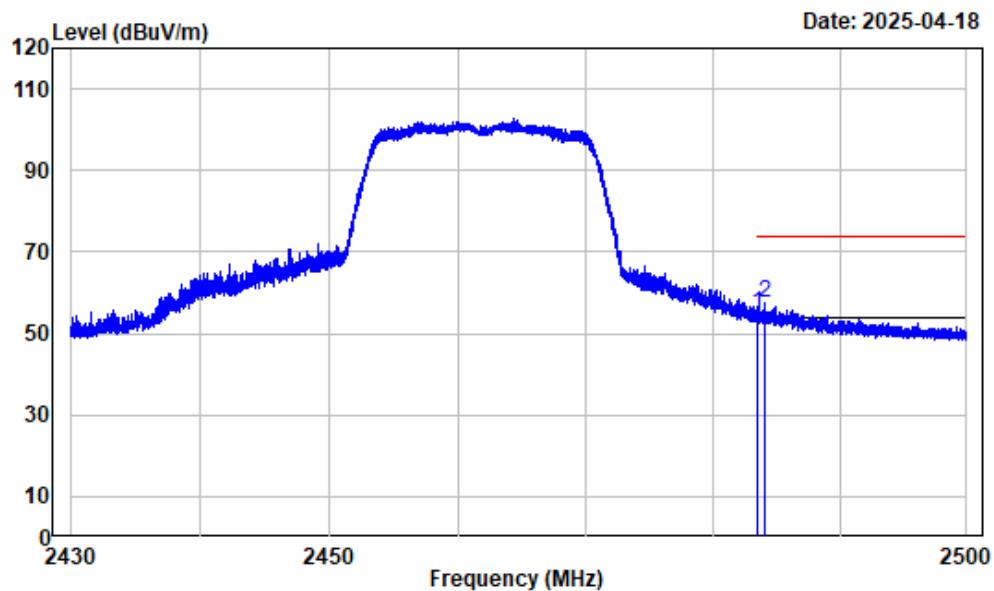
Left Bandedge_Vertical_Average



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 2.4GWiFi-n20-2412

	Freq	Read Factor	Level	Limit Level	Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2389.880	-10.98	59.60	48.62	54.00	-5.38	Average
2	2390.000	-10.98	58.92	47.94	54.00	-6.06	Average

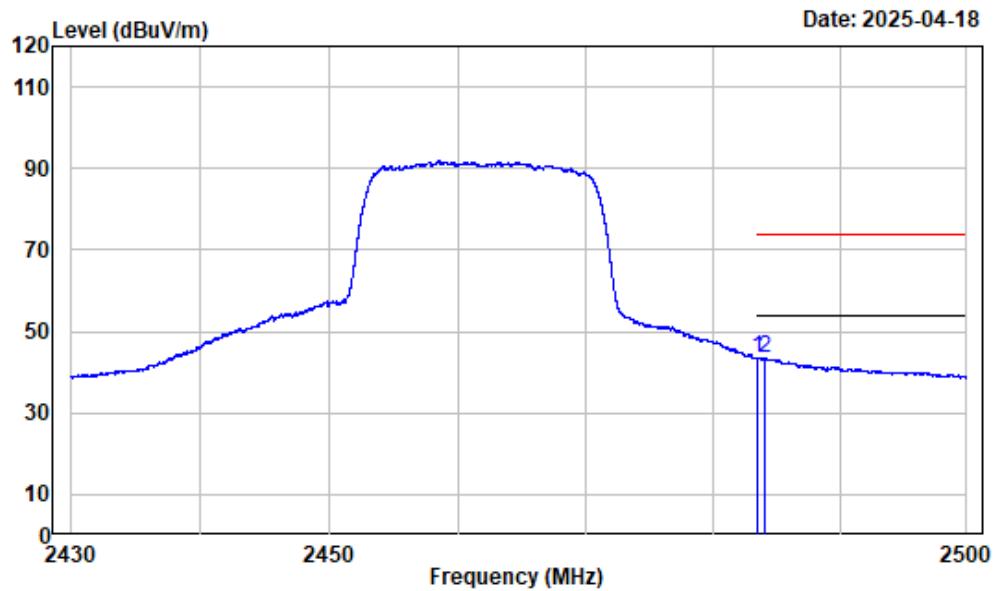
Right Bandedge_Horizontal_Peak



Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-n20-2462

	Freq	Read Factor	Level	Limit Level	Over Line	Limit	Remark
1	2483.500	-10.97	65.75	54.78	74.00	-19.22	Peak
2	2484.073	-10.97	68.44	57.47	74.00	-16.53	Peak

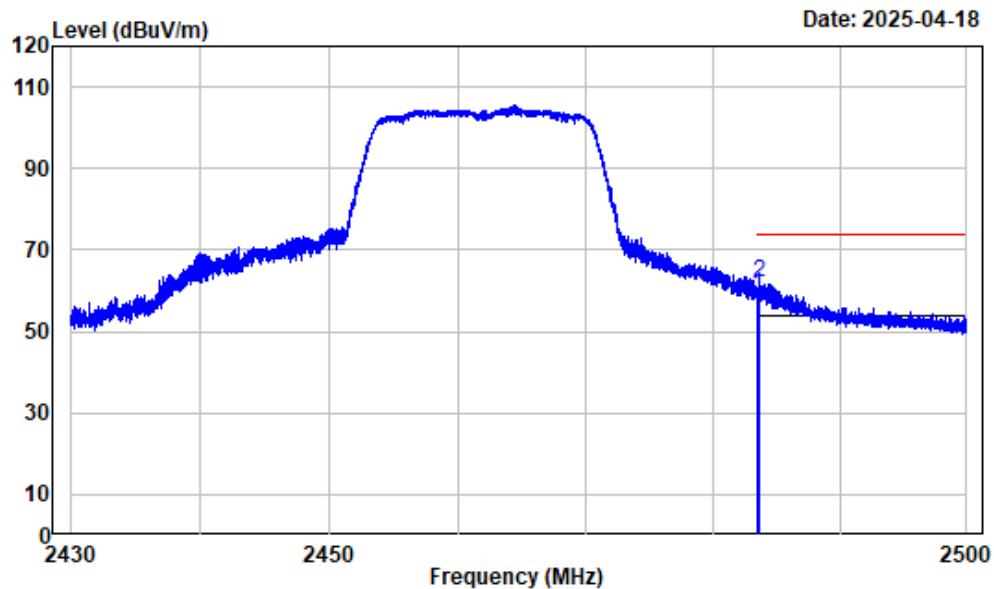
Right Bandedge_Horizontal_Average



Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 2.4GWiFi-n20-2462

	Freq	Read Factor	Level	Limit Level	Over Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-10.97	54.49	43.52	54.00	-10.48	Average
2	2484.064	-10.97	54.61	43.64	54.00	-10.36	Average

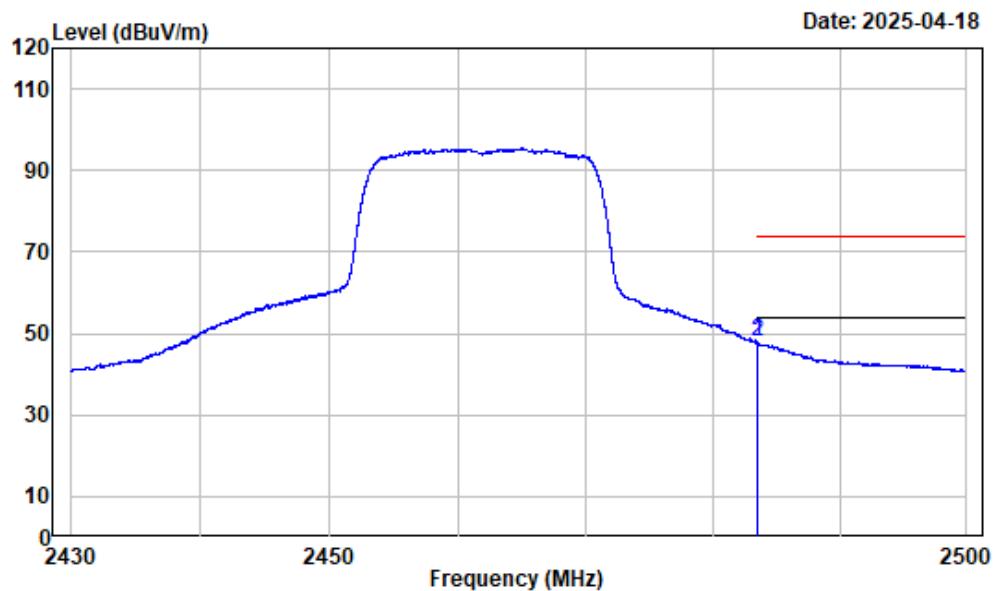
Right Bandedge_Vertical_Peak



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-n20-2462

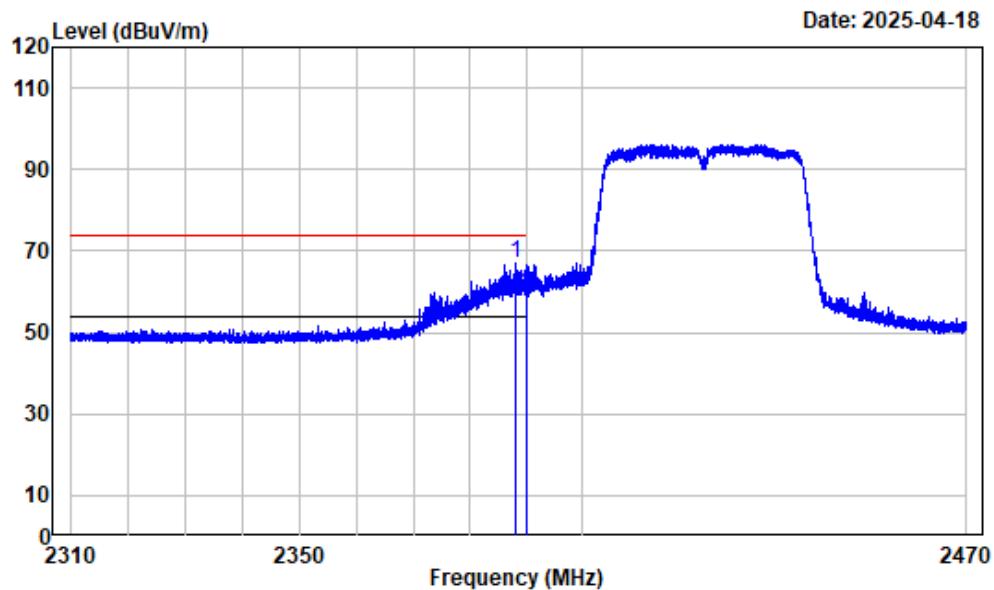
	Freq	Read Factor	Level	Limit Level	Over Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-10.97	69.66	58.69	74.00	-15.31	Peak
2	2483.600	-10.97	73.20	62.23	74.00	-11.77	Peak

Right Bandedge_Vertical_Average



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 2.4GWiFi-n20-2462

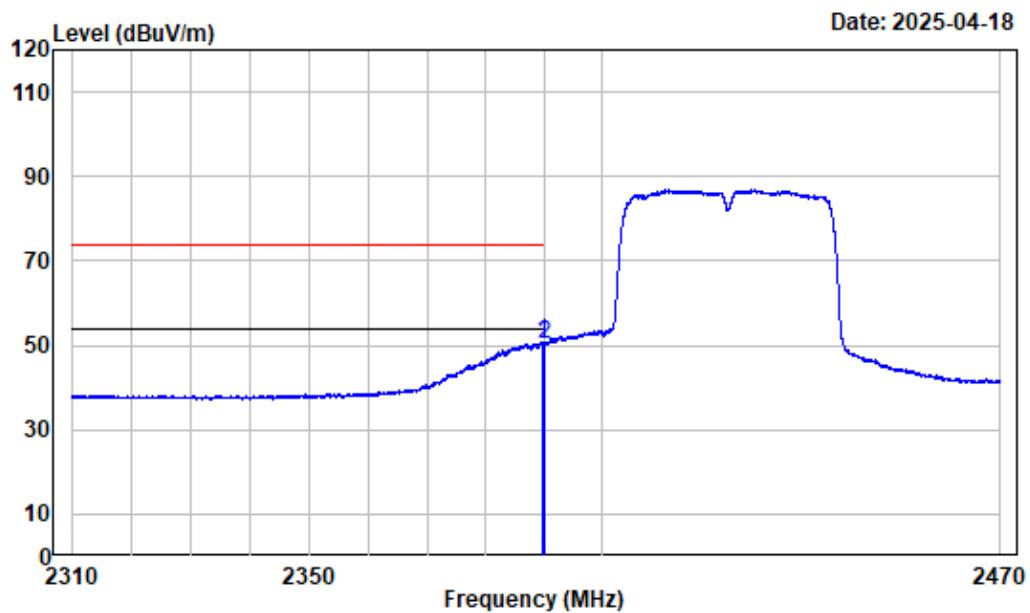
	Freq	Read Factor	Level	Limit Level	Over Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-10.97	58.81	47.84	54.00	-6.16	Average
2	2483.539	-10.97	58.92	47.95	54.00	-6.05	Average

802.11n40
Left Bandedge_Horizontal_Peak

Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-n40-2422

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	2388.170	-10.98	78.16	67.18	74.00	-6.82	Peak
2	2390.000	-10.98	70.39	59.41	74.00	-14.59	Peak

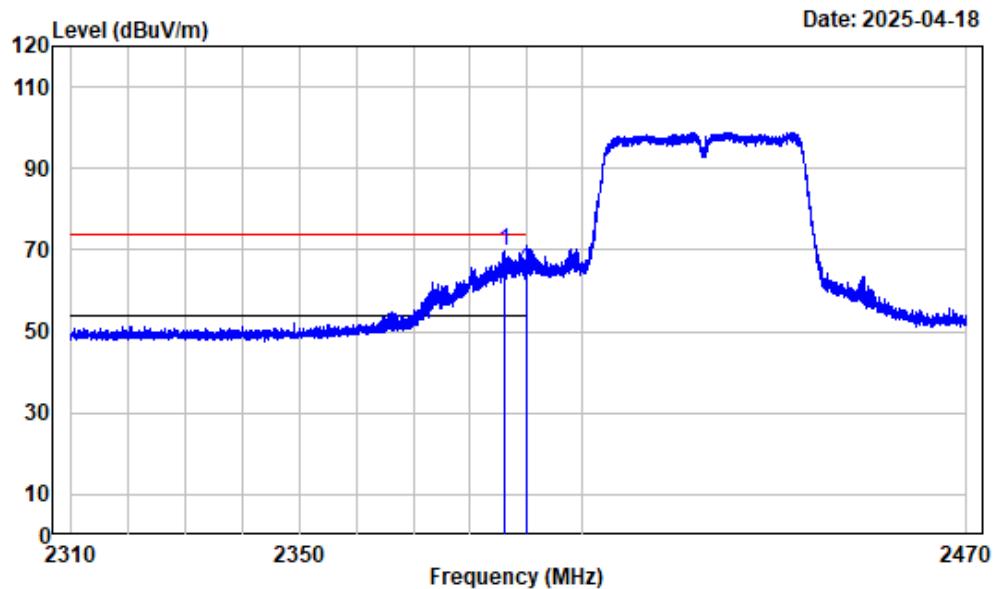
Left Bandedge_Horizontal_Average



Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:2kHz Detector:Peak
Note : 2.4GWiFi-n40-2422

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dB _{UV}	dB _{UV} /m		
1	2389.810	-10.98	61.92	50.94	54.00	-3.06	Average
2	2390.000	-10.98	61.41	50.43	54.00	-3.57	Average

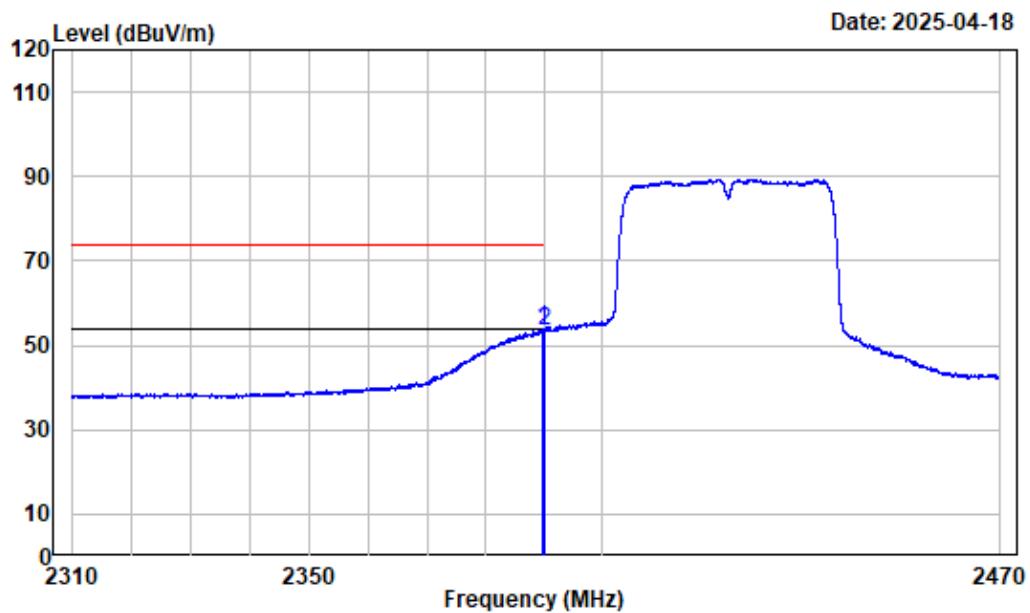
Left Bandedge_Vertical_Peak



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-n40-2422

	Freq	Read Factor	Level	Limit Level	Over Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2386.212	-10.97	80.87	69.90	74.00	-4.10	Peak
2	2390.000	-10.98	75.91	64.93	74.00	-9.07	Peak

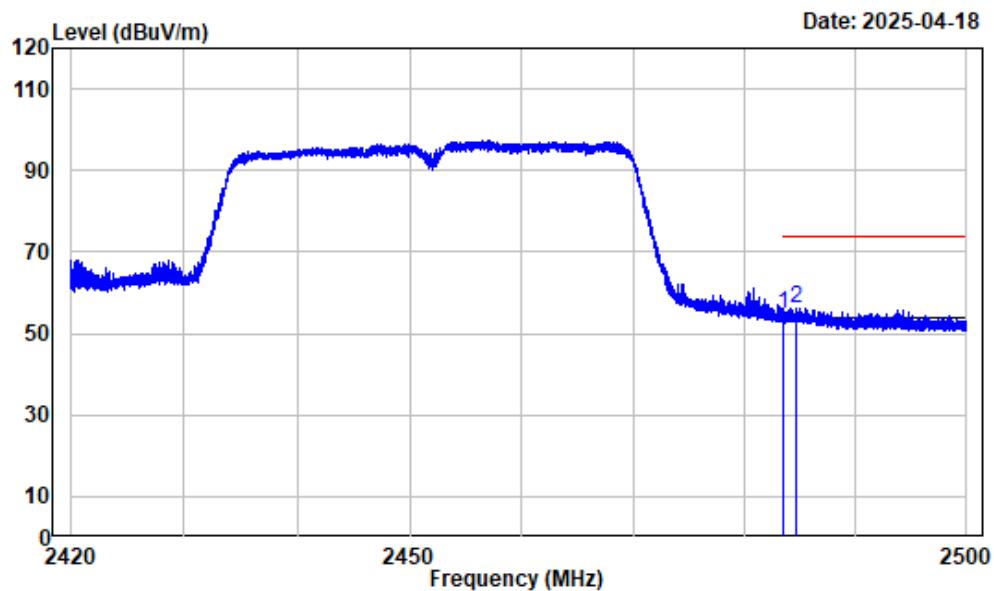
Left Bandedge_Vertical_Average



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:2kHz Detector:Peak
Note : 2.4GWiFi-n40-2422

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	2389.810	-10.98	64.73	53.75	54.00	-0.25	Average
2	2390.000	-10.98	64.58	53.60	54.00	-0.40	Average

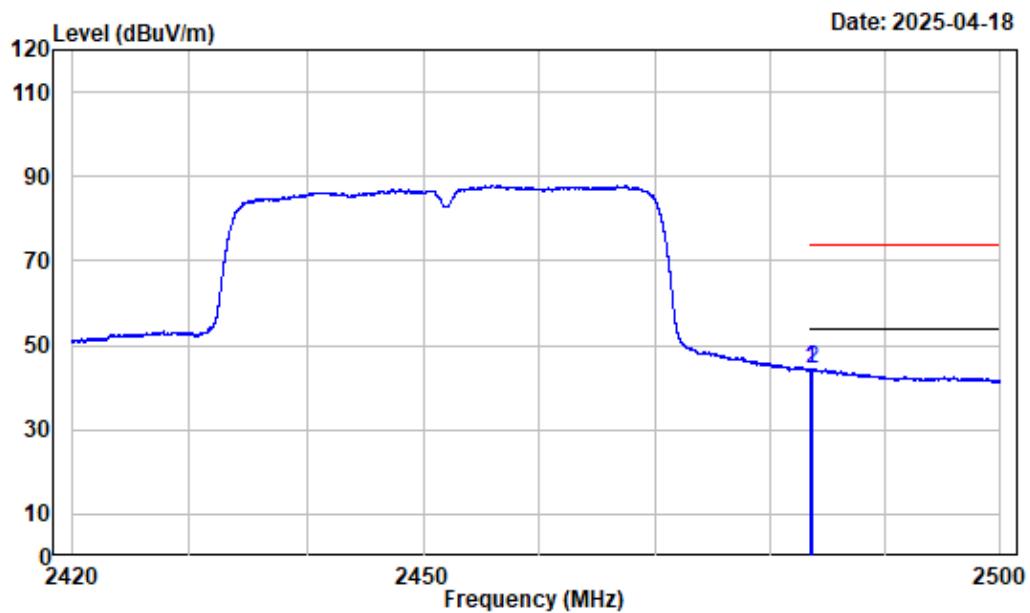
Right Bandedge_Horizontal_Peak



Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-n40-2452

	Freq	Read Factor	Level	Limit Level	Over Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-10.97	65.75	54.78	74.00	-19.22	Peak
2	2484.528	-10.97	67.32	56.35	74.00	-17.65	Peak

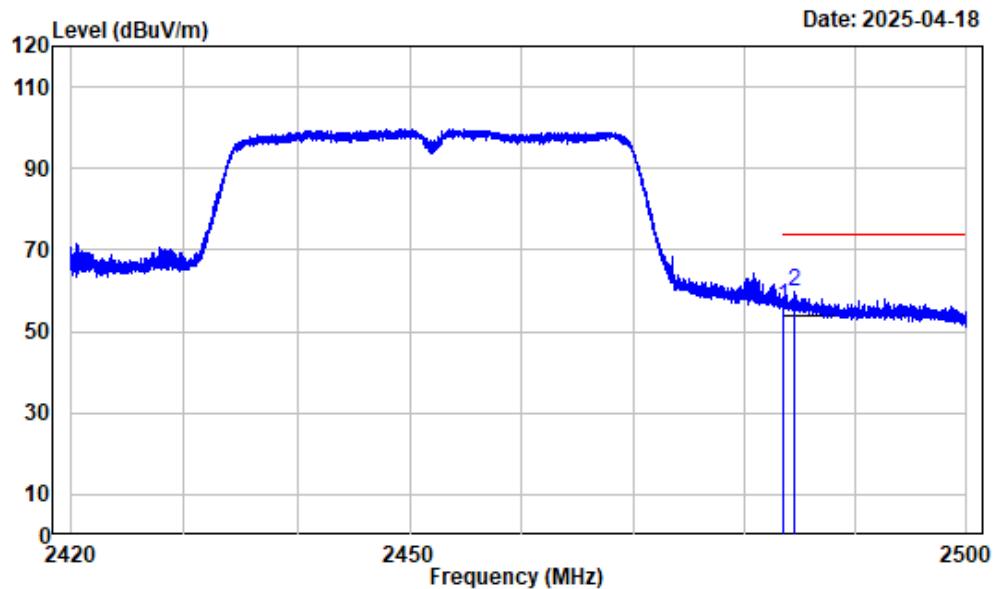
Right Bandedge_Horizontal_Average



Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:2kHz Detector:Peak
Note : 2.4GWiFi-n40-2452

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dB _{uV}	dB _{uV/m}		
1	2483.500	-10.97	55.26	44.29	54.00	-9.71	Average
2	2483.528	-10.97	55.37	44.40	54.00	-9.60	Average

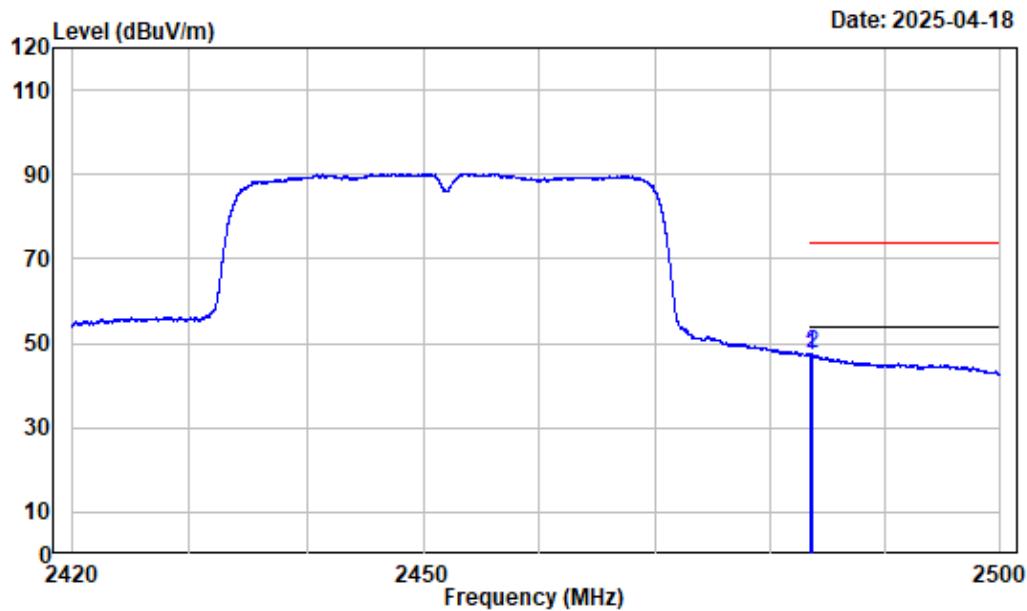
Right Bandedge_Vertical_Peak



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-n40-2452

	Freq	Read Factor	Level	Limit Level	Over Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2483.500	-10.97	67.26	56.29	74.00	-17.71	Peak
2	2484.458	-10.97	70.56	59.59	74.00	-14.41	Peak

Right Bandedge_Vertical_Average

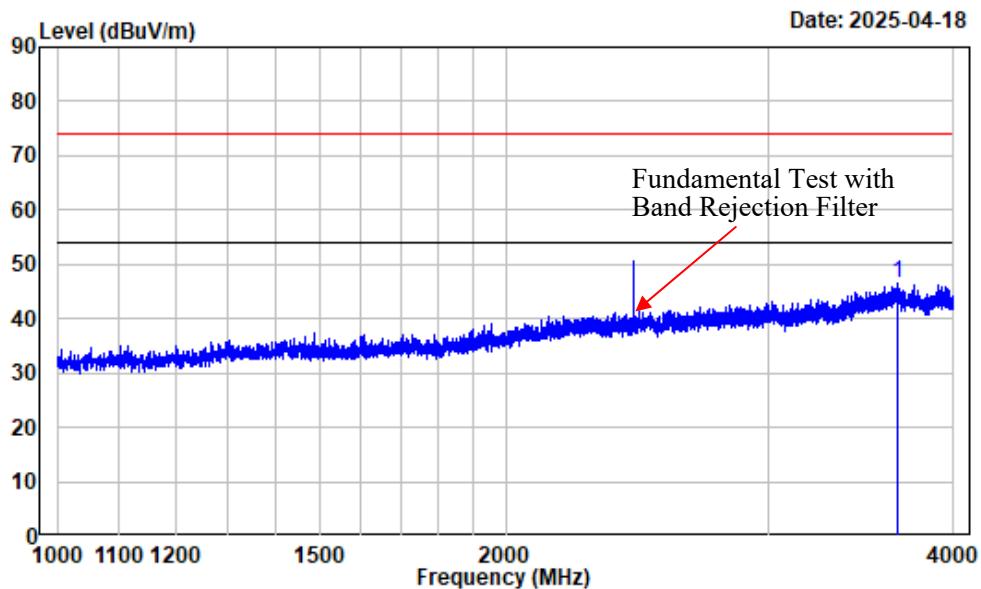


Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:2kHz Detector:Peak
Note : 2.4GWiFi-n40-2452

Freq	Factor	Read		Limit		Over	Limit	Remark
		MHz	dB/m	dBuV	dBuV/m			
1	2483.500	-10.97	58.11	47.14	54.00	-6.86	Average	
2	2483.638	-10.97	58.40	47.43	54.00	-6.57	Average	

1-18GHz (Listed with the worst harmonic margin test plot for each mode)

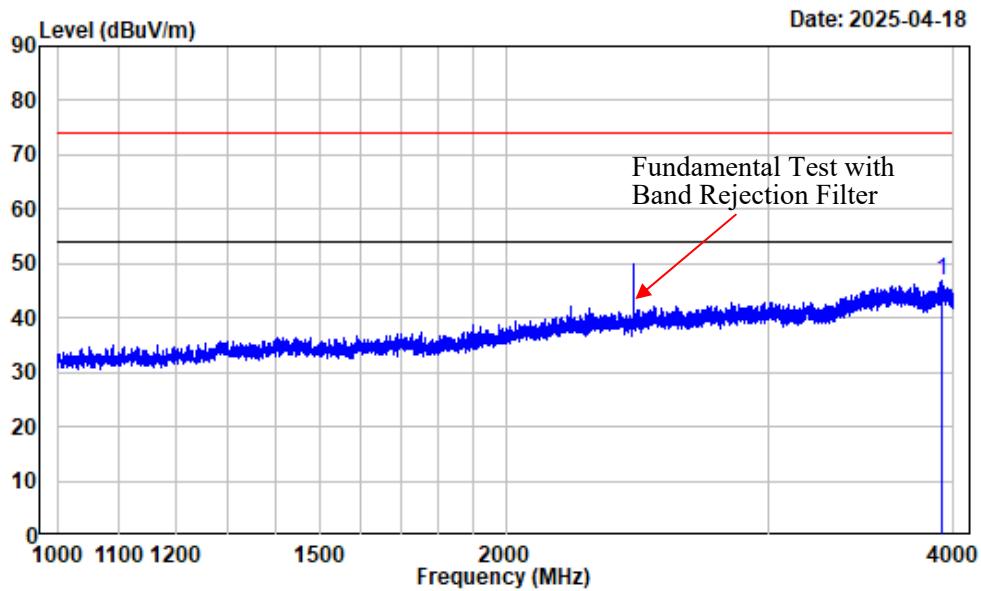
802.11b
1-4GHz_Horizontal



Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-b-2437

	Freq	Factor	Read Level	Limit Level	Line	Over Limit	Remark
1	3668.458	dB/m	56.32	46.65	74.00	-27.35	Peak

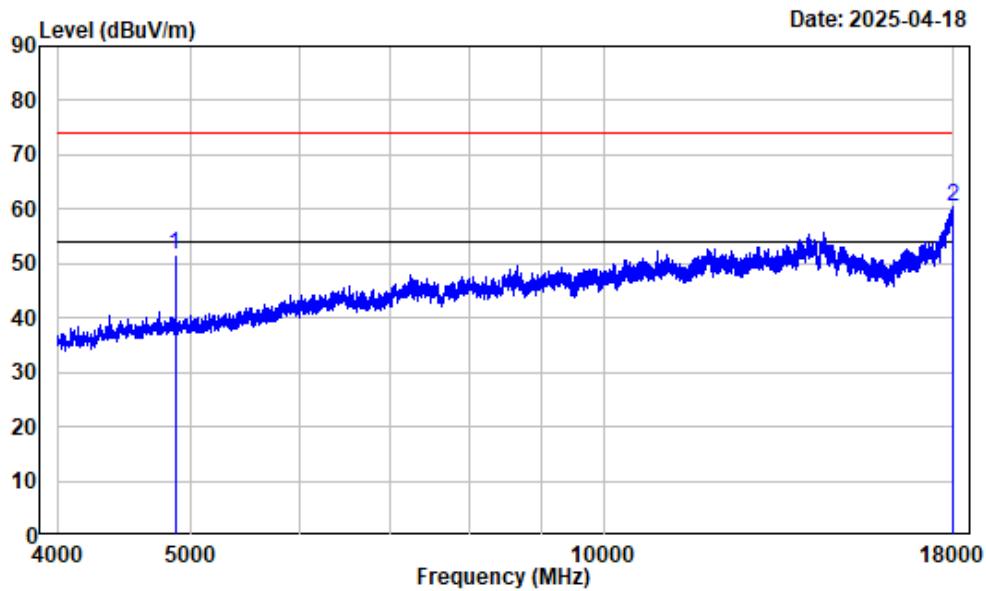
1-4GHz_Vertical



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-b-2437

	Freq	Read Factor	Level	Limit Level	Over Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3930.991	-9.52	56.52	47.00	74.00	-27.00	Peak

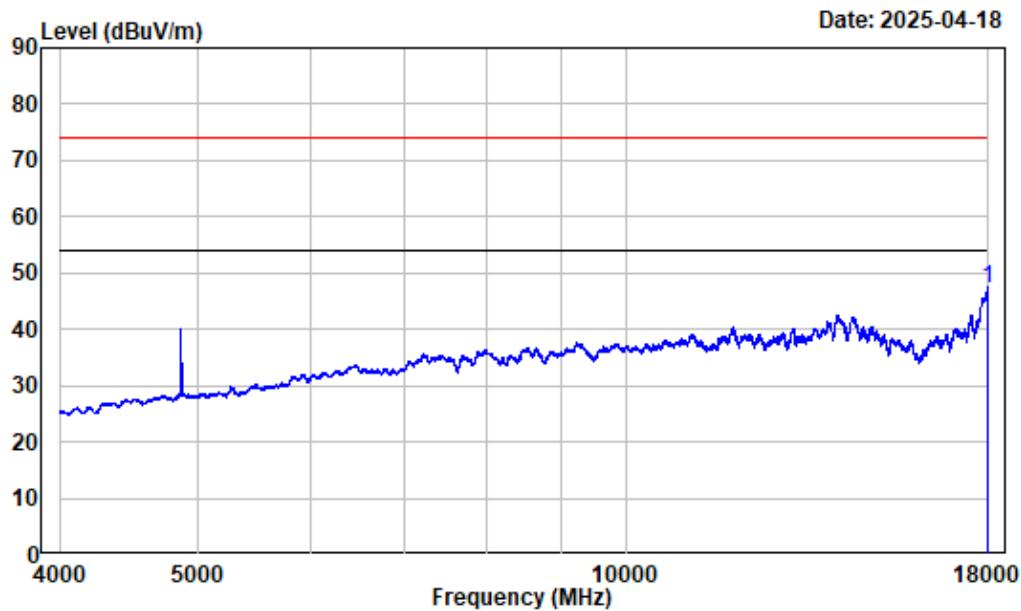
4-18GHz_Horizontal_Peak



Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-b-2437

	Freq	Read Factor	Level	Limit Level	Over Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4874.000	-7.61	59.35	51.74	74.00	-22.26	Peak
2	17973.750	13.08	47.46	60.54	74.00	-13.46	Peak

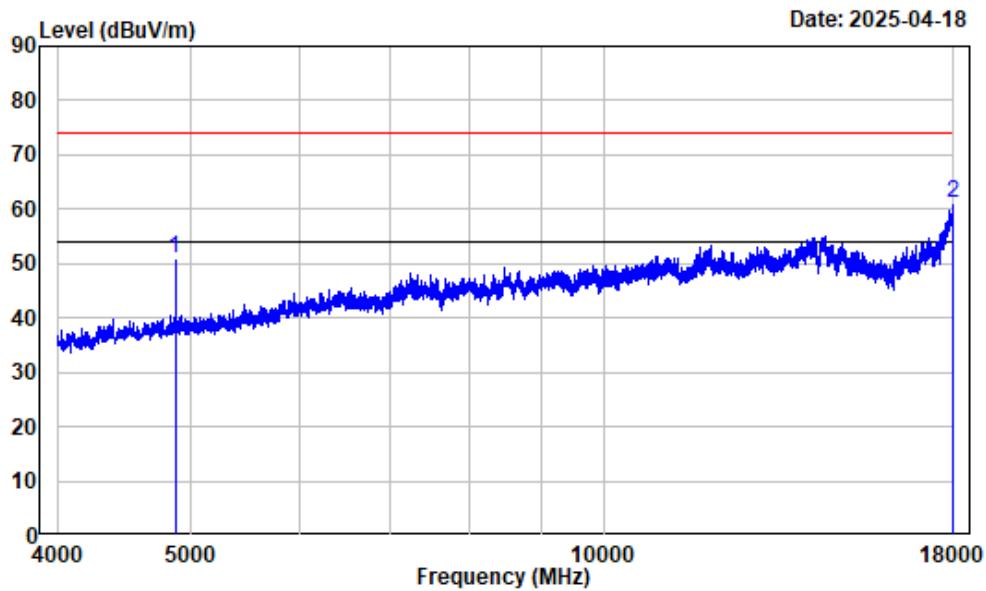
4-18GHz_Horizontal_Average



Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 2.4GWiFi-b-2437

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dB _{uV}	dB _{uV/m}		
1	17994.750	13.17	34.12	47.29	54.00	-6.71	Average

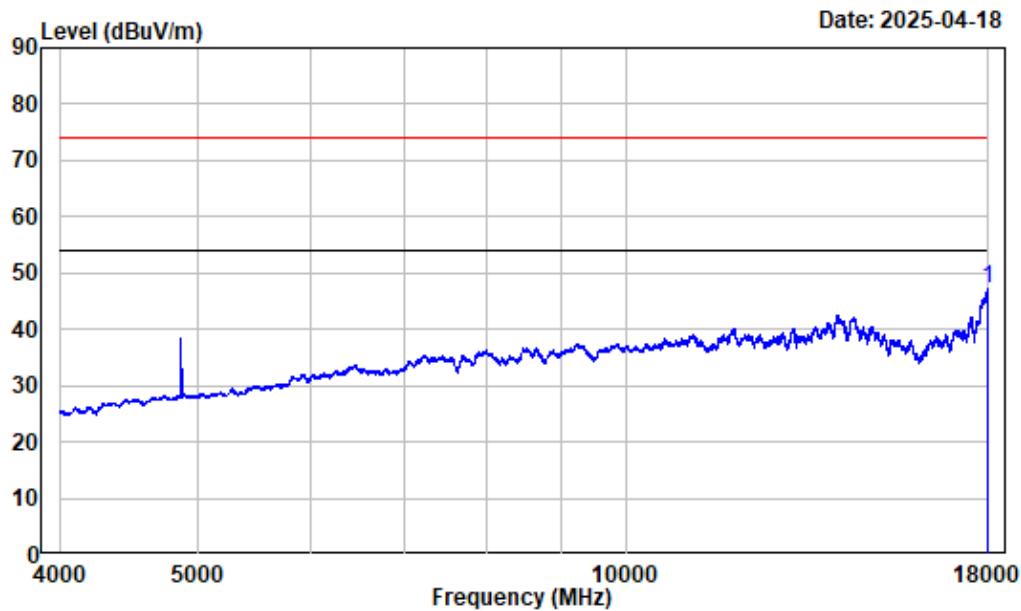
4-18GHz_Vertical_Peak



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-b-2437

	Freq	Read Factor	Level	Limit Level	Over Line	Over Limit	Remark
1	4874.000	-7.61	58.48	50.87	74.00	-23.13	Peak
2	17998.630	13.20	47.81	61.01	74.00	-12.99	Peak

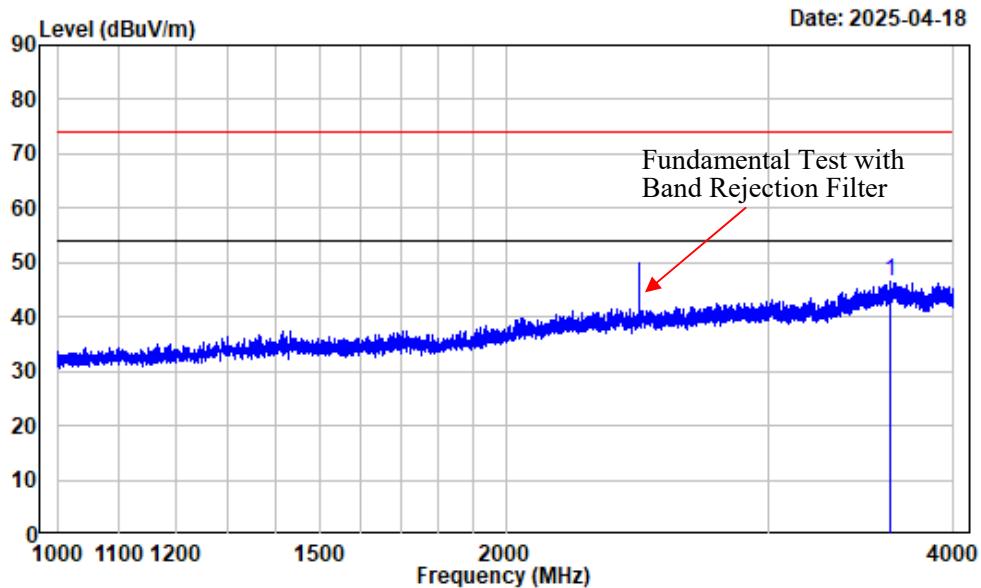
4-18GHz_Vertical_Average



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 2.4GWiFi-b-2437

Freq	Factor	Read		Limit		Over	Remark
		Level	Level	Line	Line		
MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		
1 17998.250	13.19	33.95	47.14	54.00	-6.86	Average	

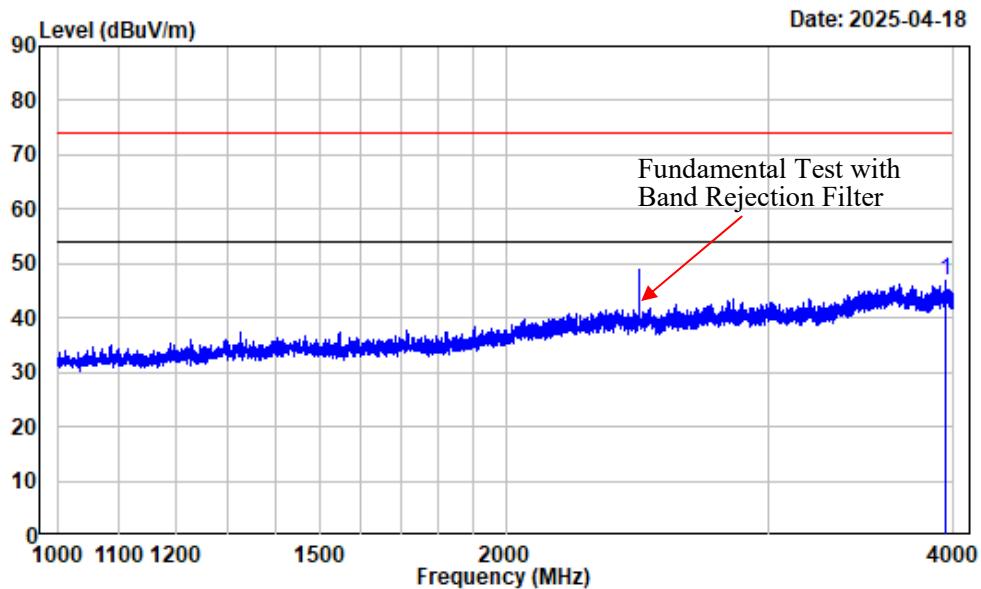
802.11g
1-4GHz_Horizontal



Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-g-2462

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	3631.704	-9.92	56.46	46.54	74.00	-27.46	Peak

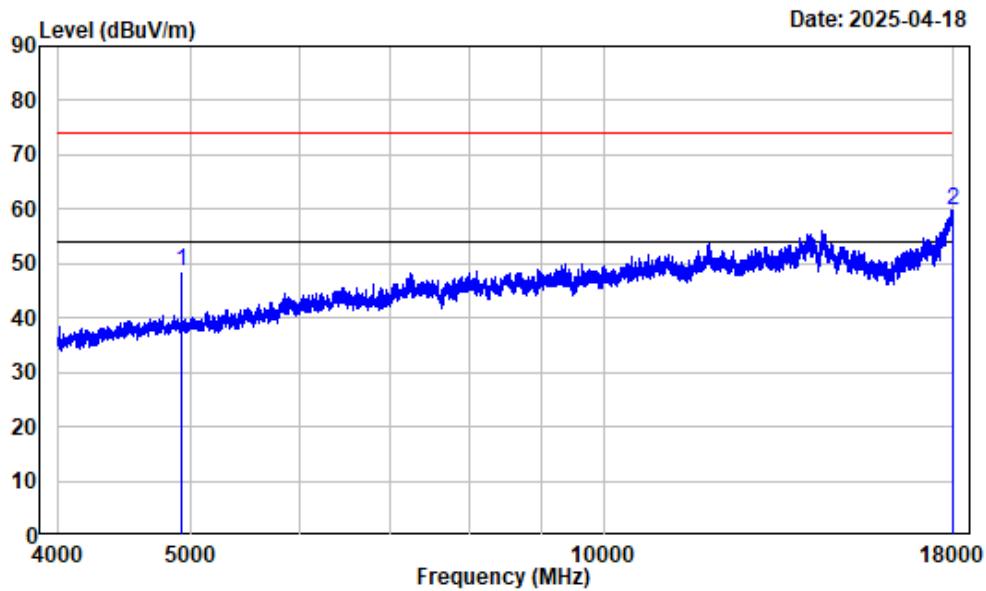
1-4GHz_Vertical



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-g-2462

	Freq	Read Factor	Level	Limit Level	Over Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3946.743	-9.36	56.16	46.80	74.00	-27.20	Peak

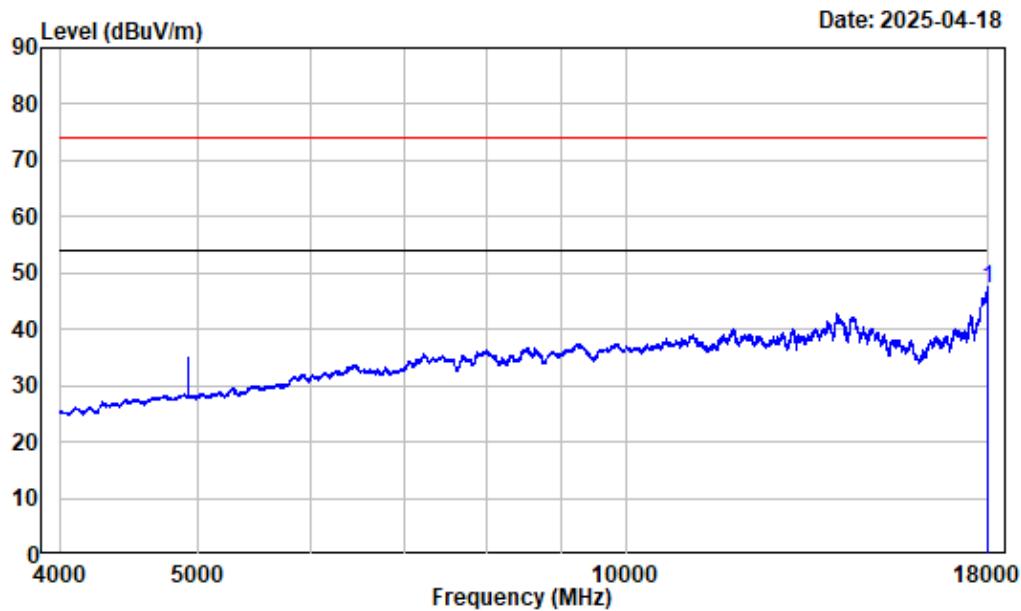
4-18GHz_Horizontal_Peak



Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-g-2462

	Freq	Read Factor	Level	Limit Level	Over Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	-7.57	56.06	48.49	74.00	-25.51	Peak
2	17984.250	13.12	46.76	59.88	74.00	-14.12	Peak

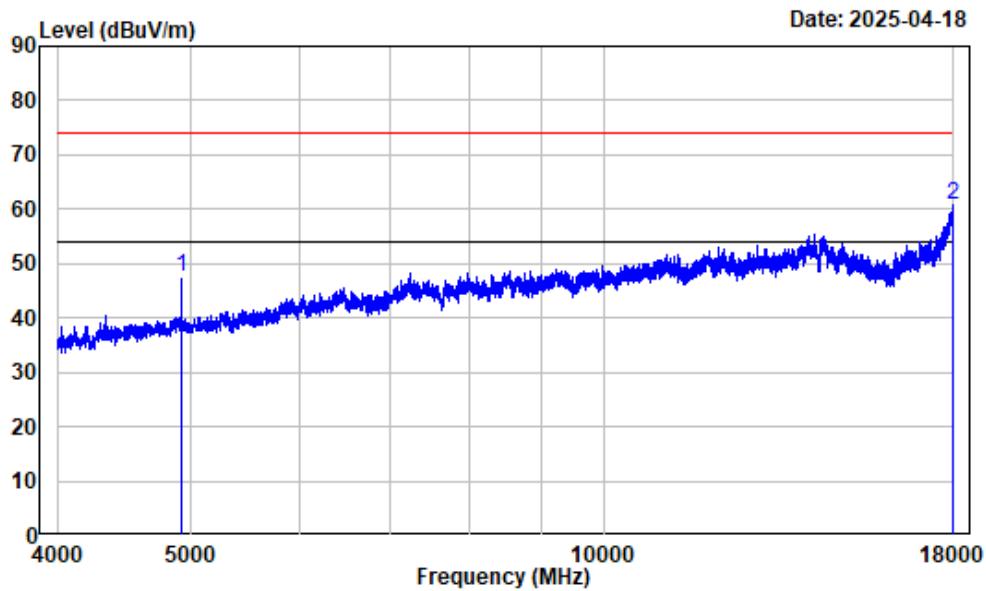
4-18GHz_Horizontal_Average



Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 2.4GWiFi-g-2462

Freq	Factor	Read		Limit		Over	Remark
		Level	Level	Line	Line		
MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		
1 17996.500	13.19	34.13	47.32	54.00	-6.68	Average	

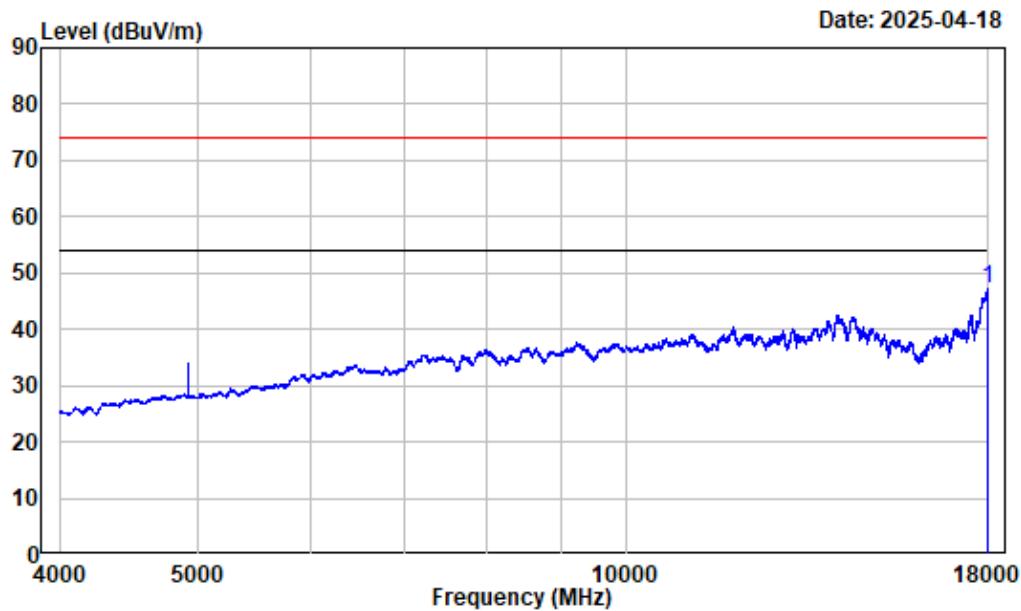
4-18GHz_Vertical_Peak



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-g-2462

	Freq	Read Factor	Level	Limit Level	Over Line	Over Limit	Remark
1	4924.000	-7.57	55.23	47.66	74.00	-26.34	Peak
2	17966.750	13.03	47.77	60.80	74.00	-13.20	Peak

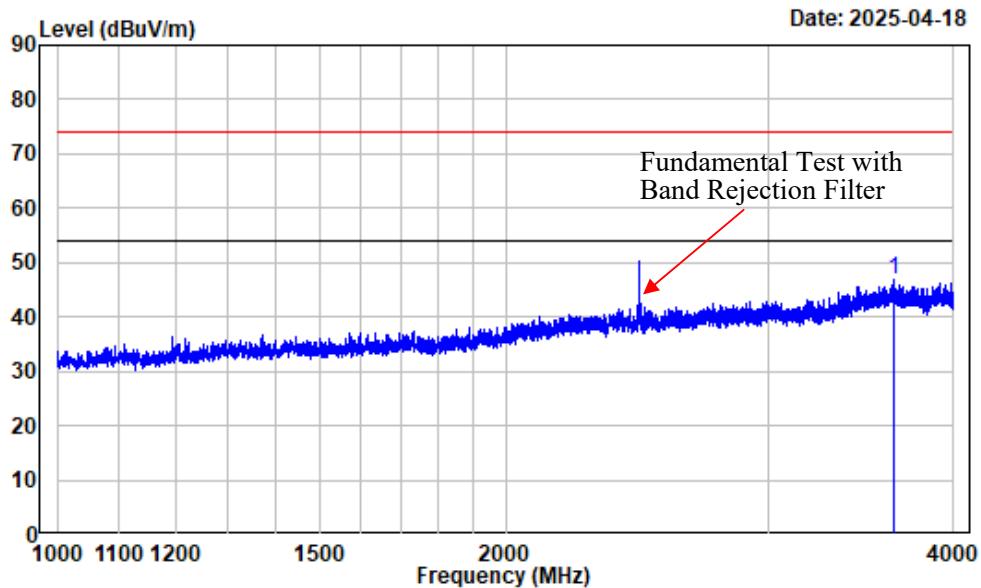
4-18GHz_Vertical_Average



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 2.4GWiFi-g-2462

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	17993.000	13.17	34.10	47.27	54.00	-6.73	Average

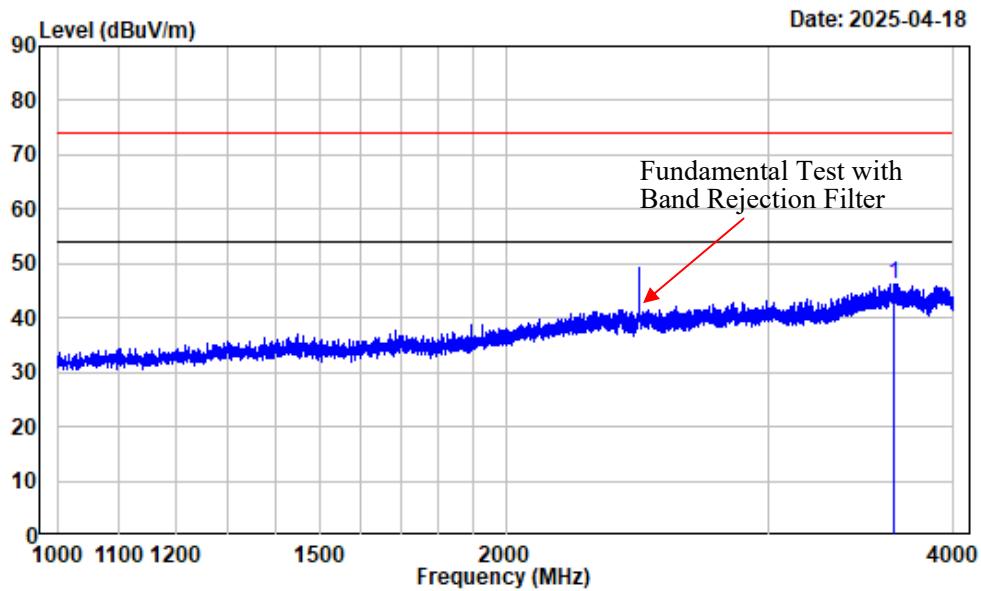
802.11n20
1-4GHz_Horizontal



Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-n20-2462

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	3648.581	-9.79	56.65	46.86	74.00	-27.14	Peak

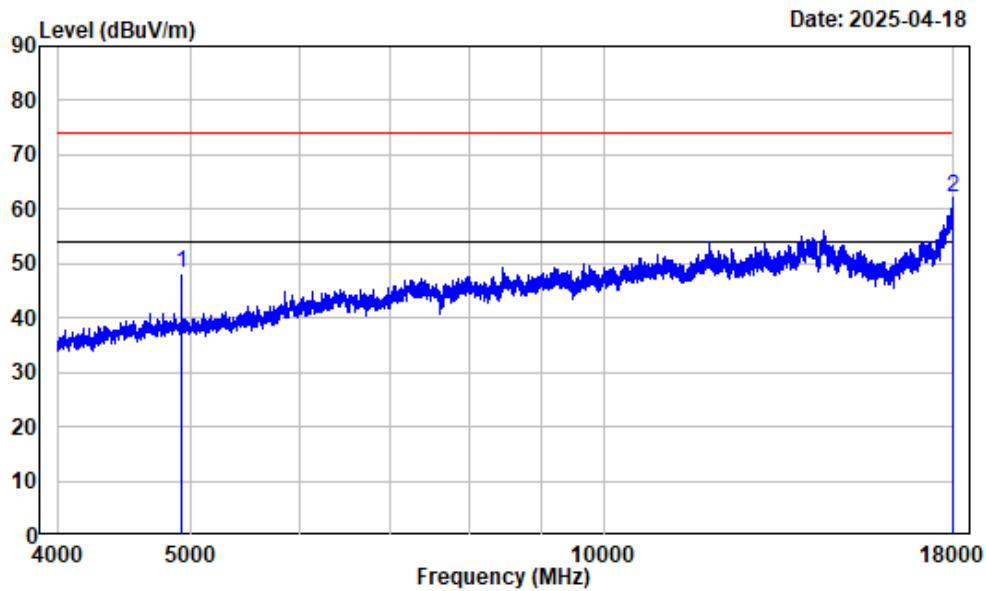
1-4GHz_Vertical



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-n20-2462

	Freq	Read Factor	Level	Limit Level	Over Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3652.707	-9.76	56.00	46.24	74.00	-27.76	Peak

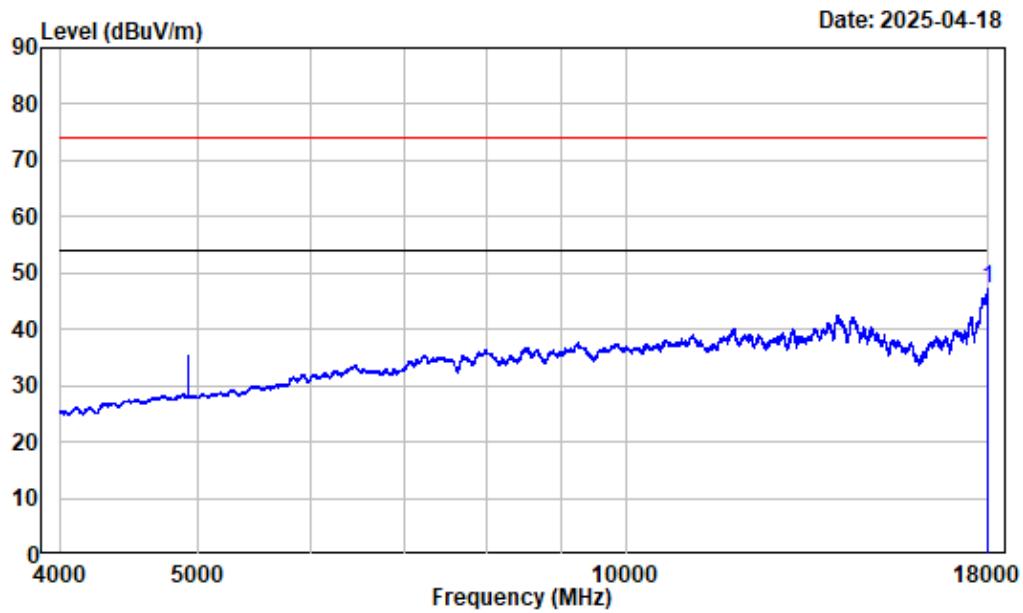
4-18GHz_Horizontal_Peak



Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-n20-2462

	Freq	Read Factor	Level	Limit Level	Over Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4924.000	-7.57	55.95	48.38	74.00	-25.62	Peak
2	17982.500	13.11	49.19	62.30	74.00	-11.70	Peak

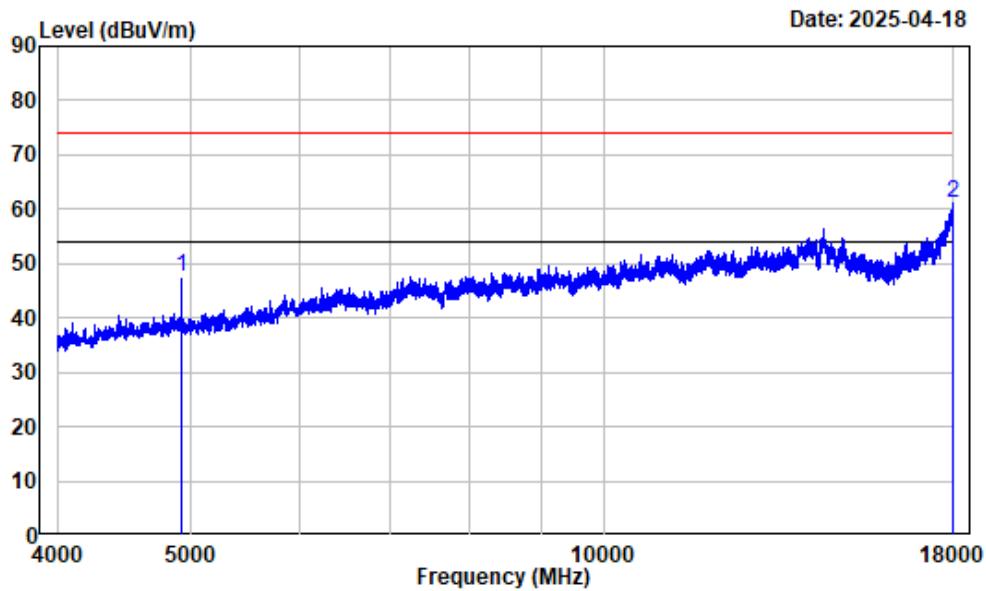
4-18GHz_Horizontal_Average



Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 2.4GWiFi-n20-2462

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	17993.000	13.17	34.10	47.27	54.00	-6.73	Average

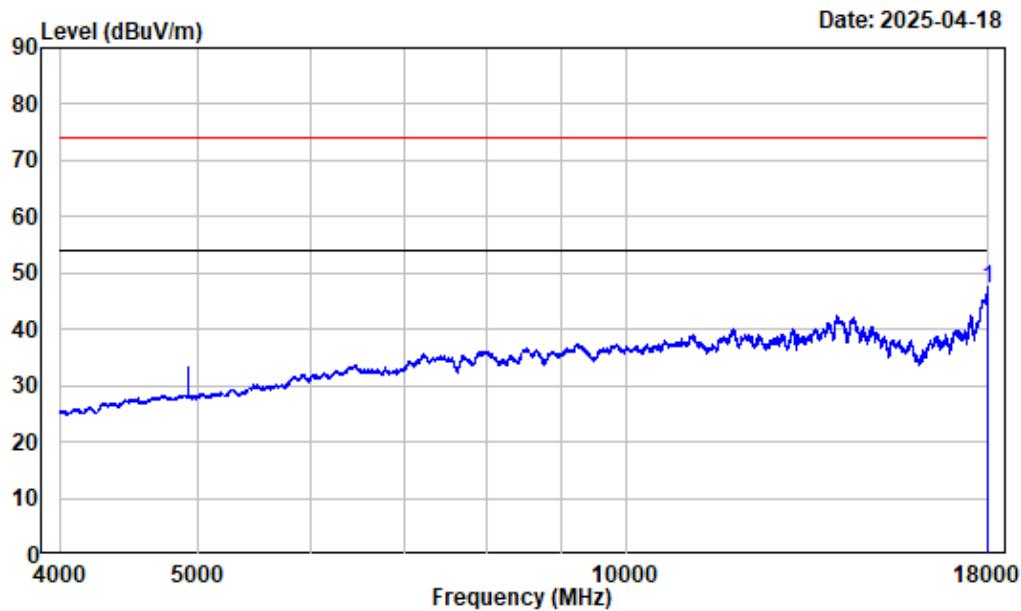
4-18GHz_Vertical_Peak



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-n20-2462

	Freq	Read Factor	Level	Limit Level	Over Line	Limit	Remark
1	4924.000	-7.57	55.12	47.55	74.00	-26.45	Peak
2	17987.750	13.13	48.00	61.13	74.00	-12.87	Peak

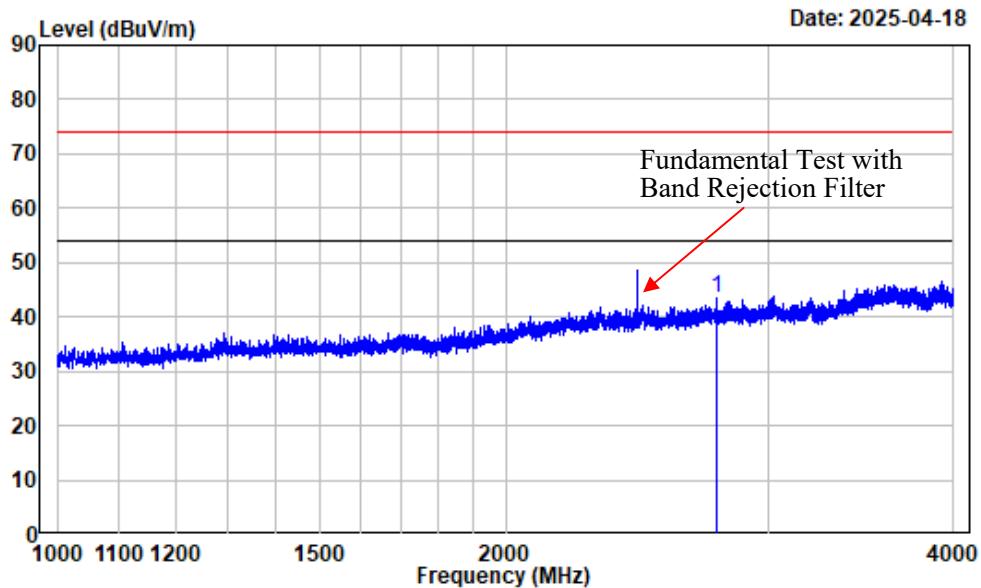
4-18GHz_Vertical_Average



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 2.4GWiFi-n20-2462

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dB _{uV}	dB _{uV/m}		
1	17994.450	13.17	34.07	47.24	54.00	-6.76	Average

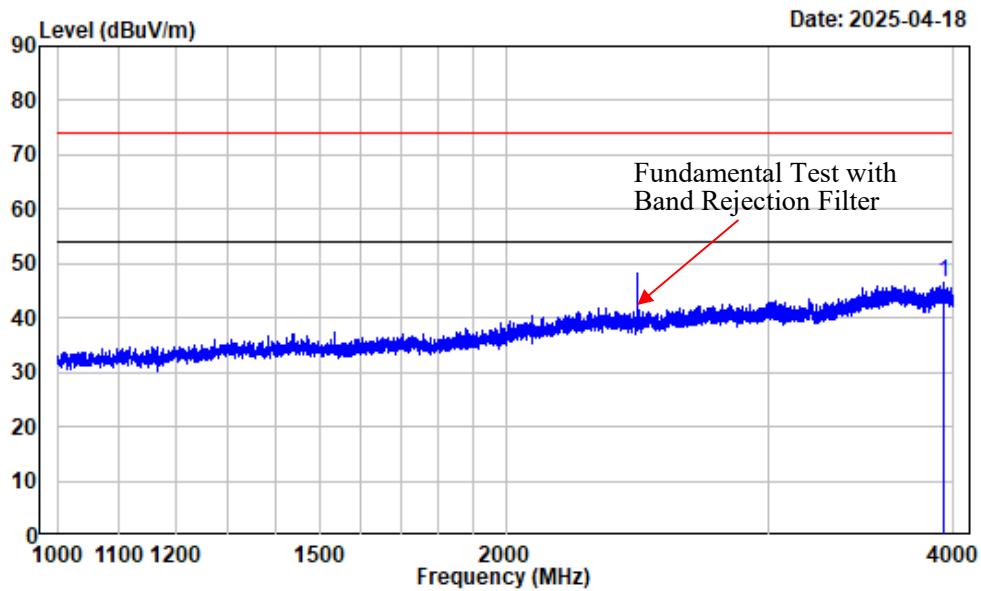
802.11n40
1-4GHz_Horizontal



Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-n40-2452

Freq	Factor	Read		Limit		Over	Remark
		Level	Level	Line	Line		
		MHz	dB/m	dBuV	dBuV/m	dB	
1		2774.722	-10.62	54.14	43.52	74.00	-30.48 Peak

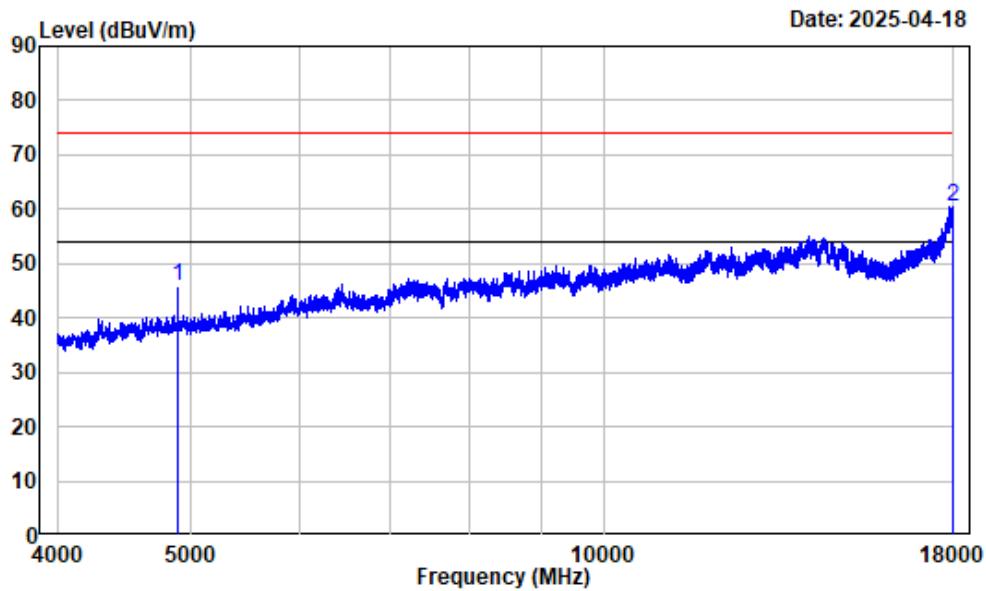
1-4GHz_Vertical



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-n40-2452

	Freq	Read Factor	Level	Limit Level	Over Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	3944.493	-9.39	55.77	46.38	74.00	-27.62	Peak

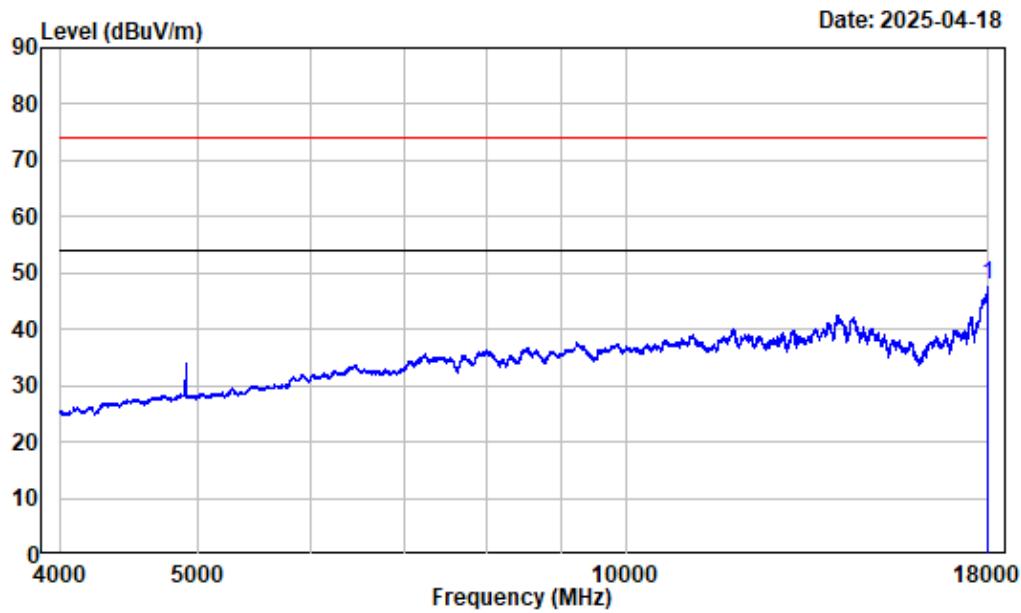
4-18GHz_Horizontal_Peak



Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-n40-2452

	Freq	Read Factor	Level	Limit Level	Over Line	Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4904.000	-7.53	53.45	45.92	74.00	-28.08	Peak
2	17986.000	13.13	47.44	60.57	74.00	-13.43	Peak

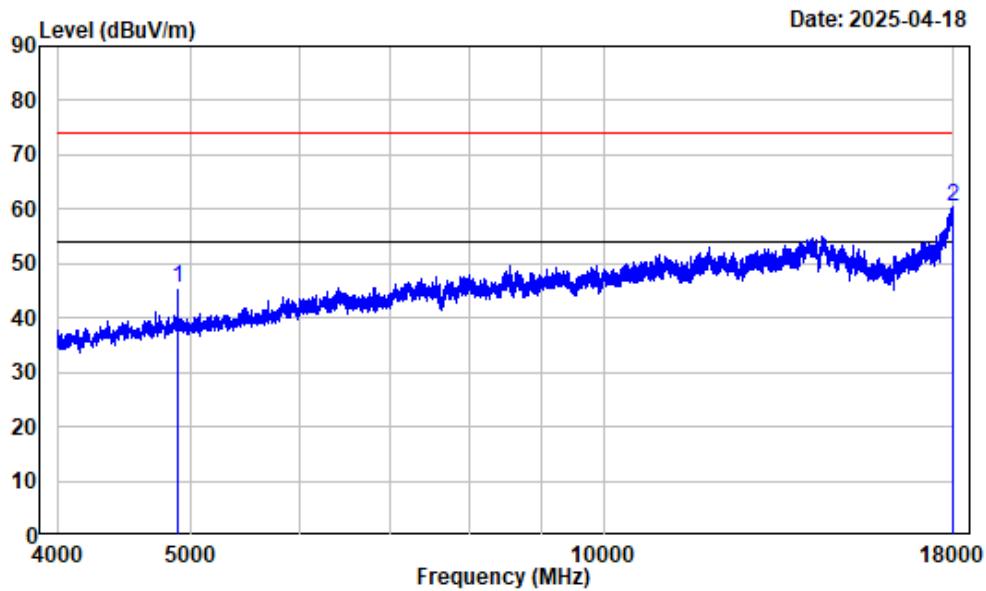
4-18GHz_Horizontal_Average



Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:2kHz Detector:Peak
Note : 2.4GWiFi-n40-2452

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dB _{uV}	dB _{uV/m}		
1	17998.250	13.19	34.59	47.78	54.00	-6.22	Average

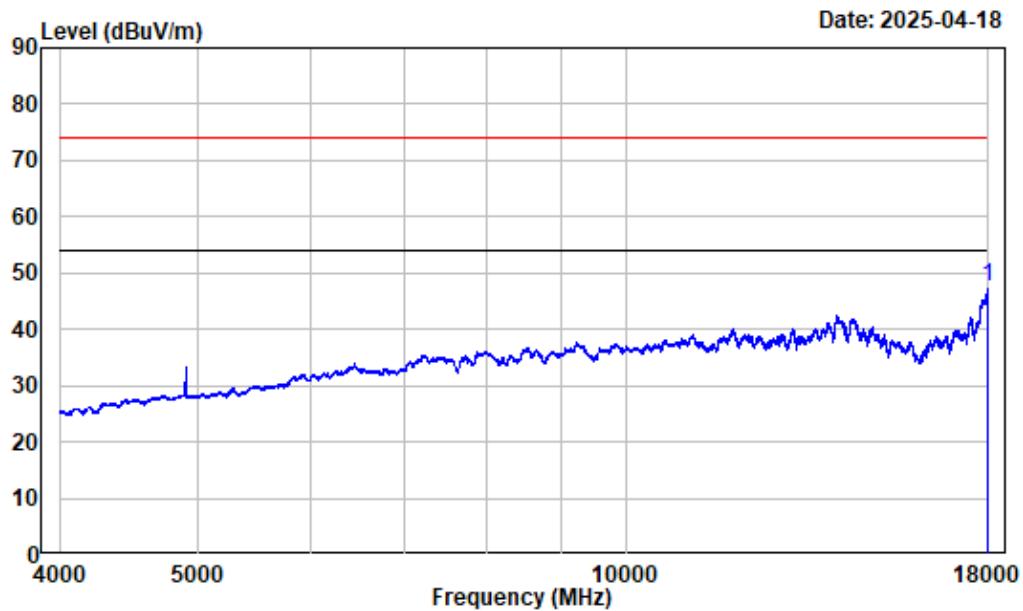
4-18GHz_Vertical_Peak



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-n40-2452

	Freq	Read Factor	Level	Limit Level	Over Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4904.000	-7.53	52.92	45.39	74.00	-28.61	Peak
2	17993.000	13.17	47.31	60.48	74.00	-13.52	Peak

4-18GHz_Vertical_Average

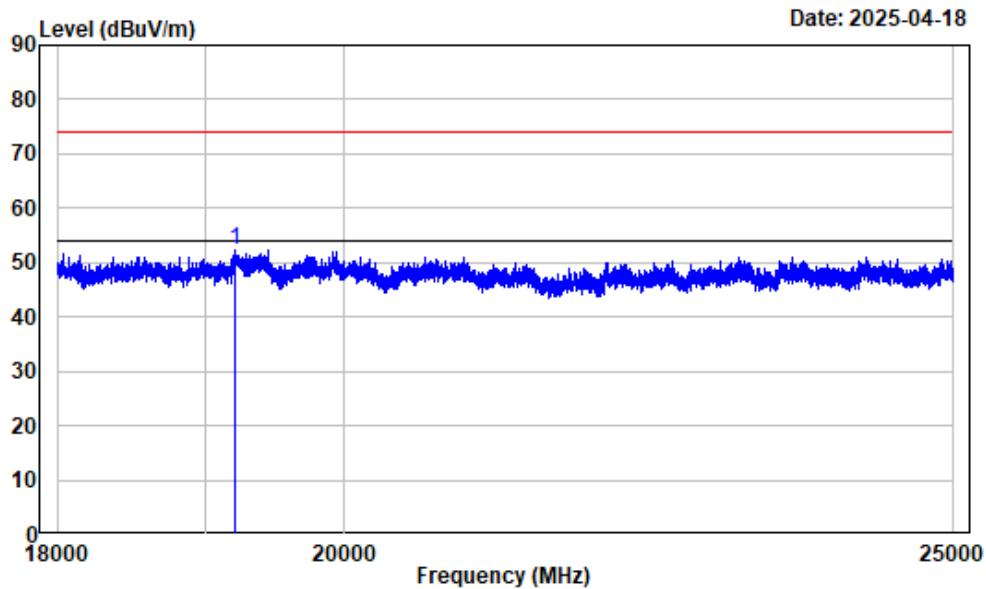


Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:2kHz Detector:Peak
Note : 2.4GWiFi-n40-2452

Freq	Factor	Read		Limit		Over	Remark
		Level	Level	Line	Line		
MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		
1 17996.500	13.19	34.42	47.61	54.00	-6.39	Average	

18-25GHz (Only with worst case margin mode plot 802.11g middle channel):

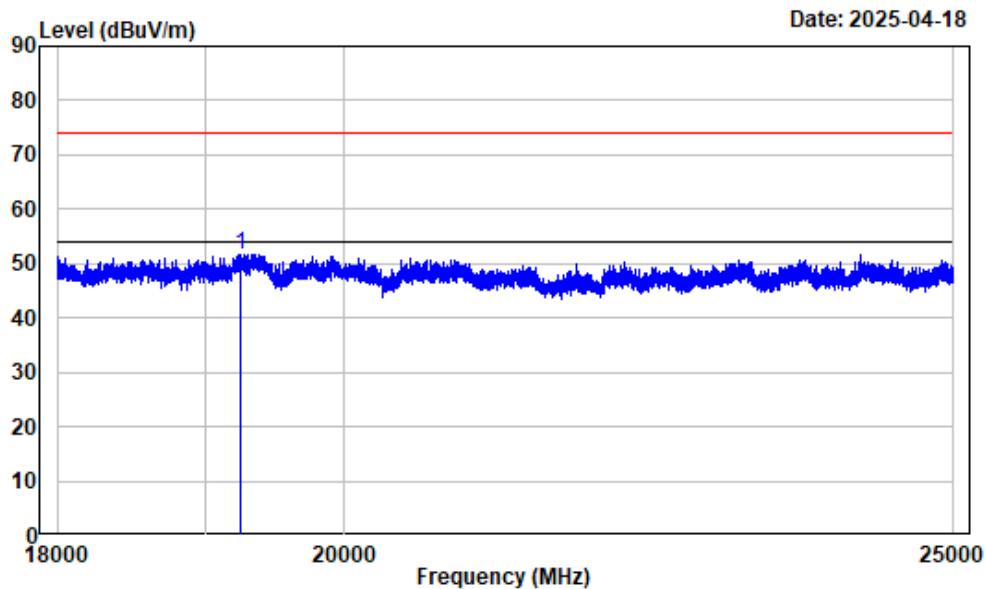
18-25GHz_Horizontal



Condition : Horizontal
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-b-2437

Freq	Factor	Read	Limit	Over	Remark
		Level	Level	Line	
1	19213.780	15.40	36.88	52.28	74.00 -21.72 peak

18-25GHz_Vertical



Condition : Vertical
Project No. : 2501R31585E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 2.4GWiFi-b-2437

Freq	Factor	Read		Limit		Over	Remark
		Level	Level	Line	dBuV/m		
1	19247.910	15.42	36.35	51.77	74.00	-22.23	peak

6dB Emission Bandwidth**Test Information:**

Sample No.:	307J-1	Test Date:	2025/04/09
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rainbow Zhu	Test Result:	Pass

Environmental Conditions:

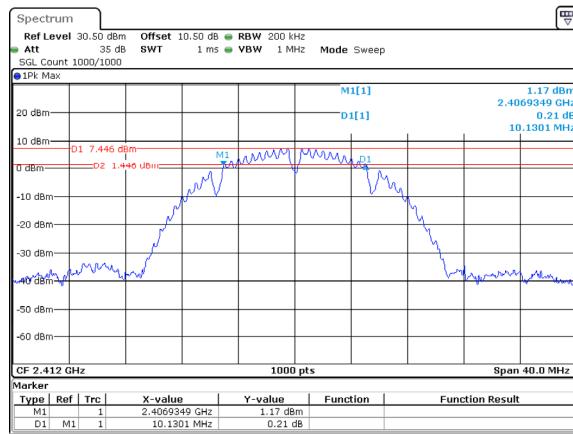
Temperature: (°C)	25.3	Relative Humidity: (%)	46	ATM Pressure: (kPa)	100.7
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Test Data:

Mode	Test Frequency (MHz)	Result (MHz)	Limit (MHz)	Verdict
802.11b	2412	10.130	≥0.5	Pass
	2437	10.130	≥0.5	Pass
	2462	10.130	≥0.5	Pass
802.11g	2412	16.216	≥0.5	Pass
	2437	16.216	≥0.5	Pass
	2462	16.216	≥0.5	Pass
802.11n20	2412	17.337	≥0.5	Pass
	2437	17.297	≥0.5	Pass
	2462	17.057	≥0.5	Pass
802.11n40	2422	35.636	≥0.5	Pass
	2437	36.196	≥0.5	Pass
	2452	36.116	≥0.5	Pass

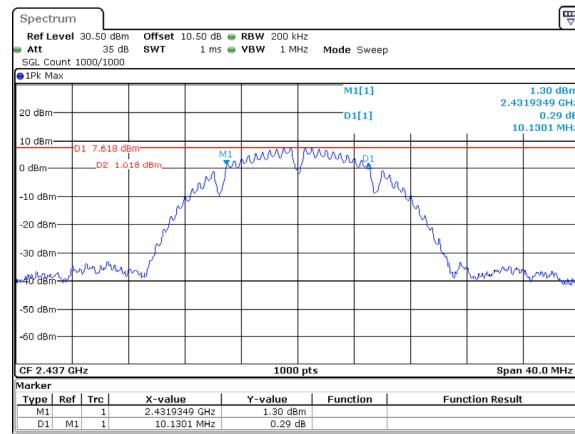
2412~2462

802.11b_2412MHz



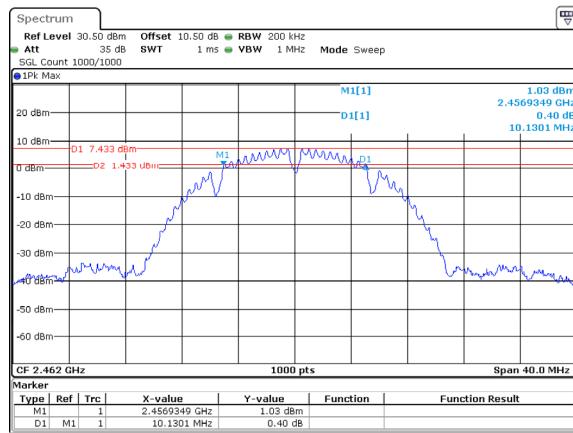
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Date: 9.APR.2025 14:23:43

802.11b_2437MHz



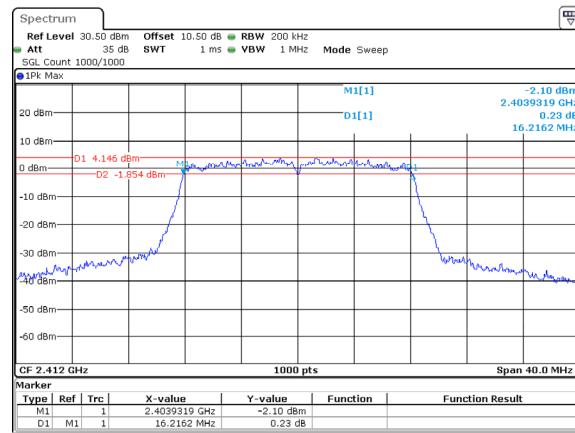
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Date: 9.APR.2025 14:27:26

802.11b_2462MHz



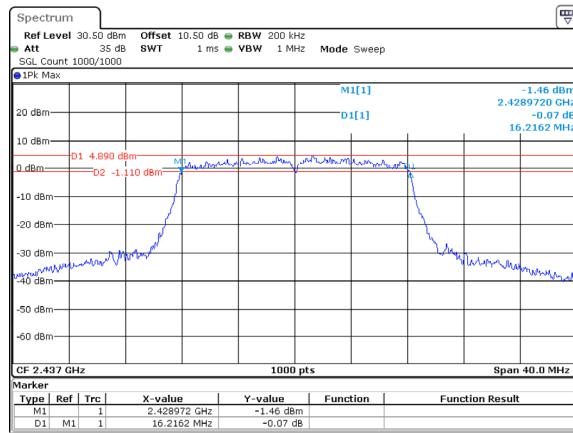
ProjectNo.:2501R31585E-RF Tester:Rainbow Zhu
Date: 9.APR.2025 14:30:54

802.11g_2412MHz



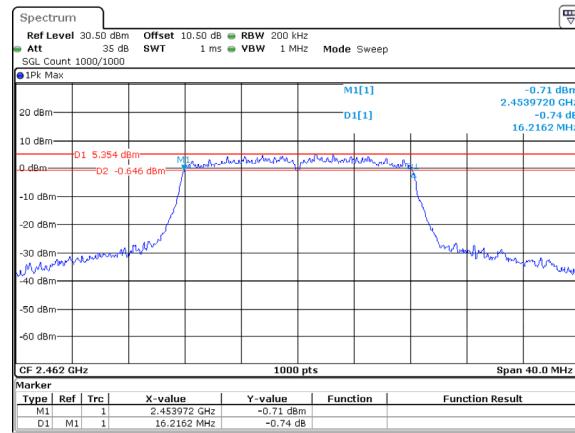
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Date: 9.APR.2025 14:39:42

802.11g_2437MHz



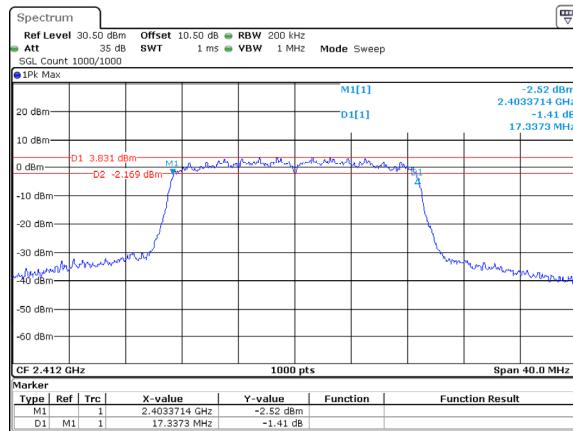
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Date: 9.APR.2025 14:45:00

802.11g_2462MHz

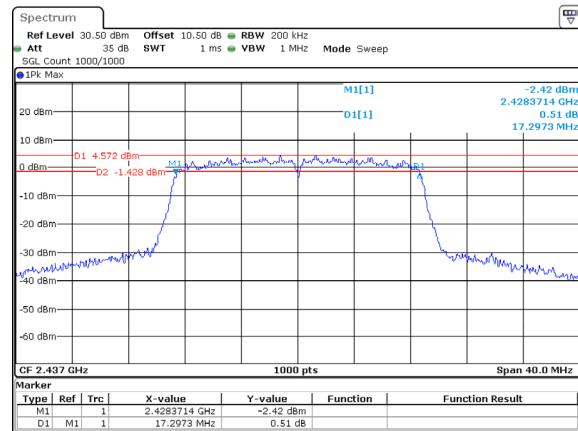


ProjectNo.:2501R31585E-RF Tester:Rainbow Zhu
Date: 9.APR.2025 14:51:06

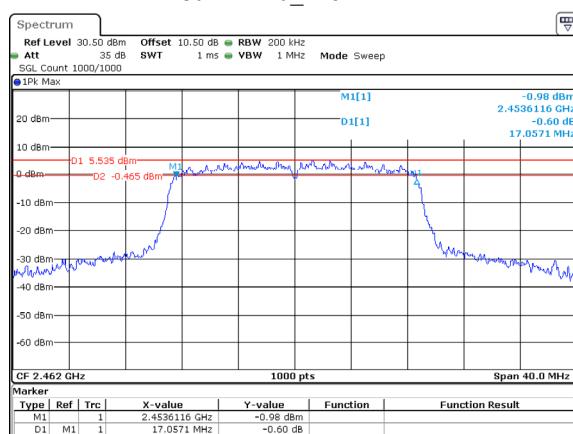
802.11n20_2412MHz



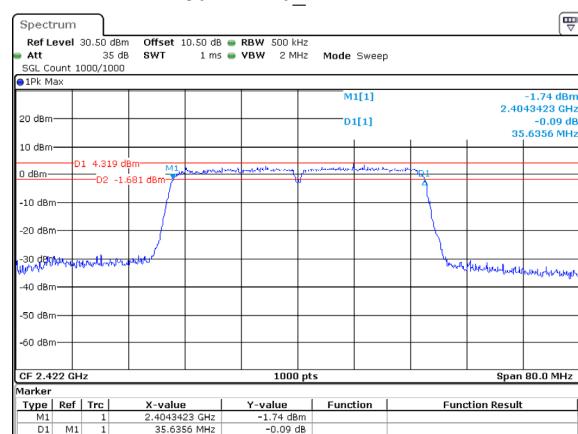
802.11n20_2437MHz



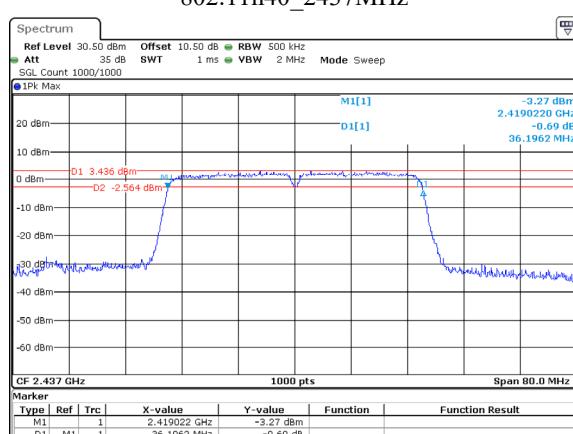
802.11n20_2462MHz



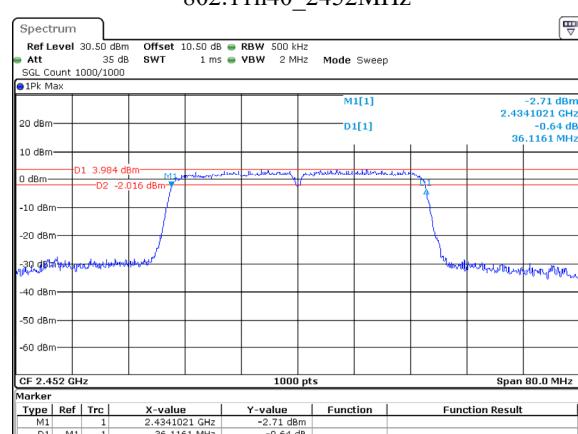
802.11n40_2422MHz



802.11n40_2437MHz



802.11n40_2452MHz



99% Occupied Bandwidth**Test Information:**

Sample No.:	307J-1	Test Date:	2025/04/09
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rainbow Zhu	Test Result:	Pass

Environmental Conditions:

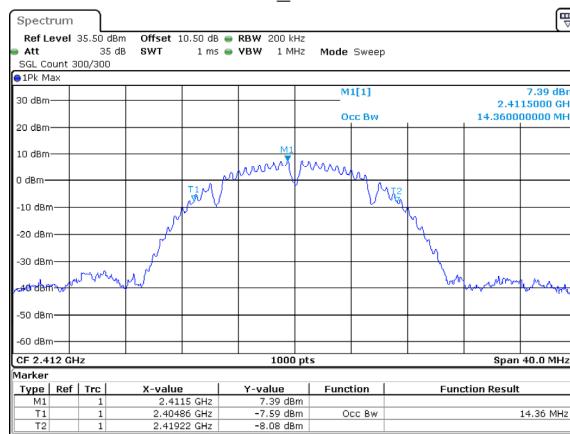
Temperature: (°C)	25.3	Relative Humidity: (%)	46	ATM Pressure: (kPa)	100.7
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Test Data:

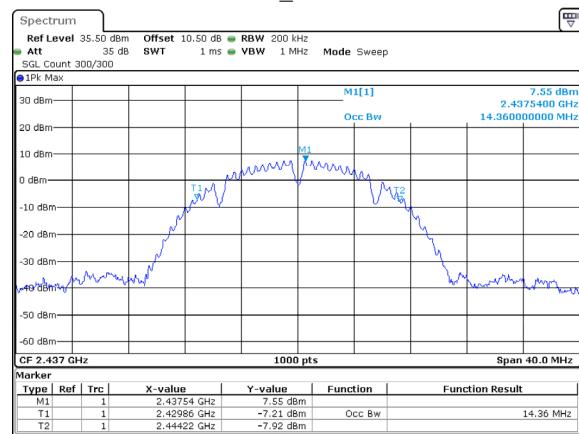
Mode	Test Frequency (MHz)	99% OBW (MHz)
802.11b	2412	14.360
	2437	14.360
	2462	14.400
802.11g	2412	16.400
	2437	16.360
	2462	16.360
802.11n20	2412	17.360
	2437	17.360
	2462	17.400
802.11n40	2422	35.920
	2437	35.920
	2452	35.840

2412~2462

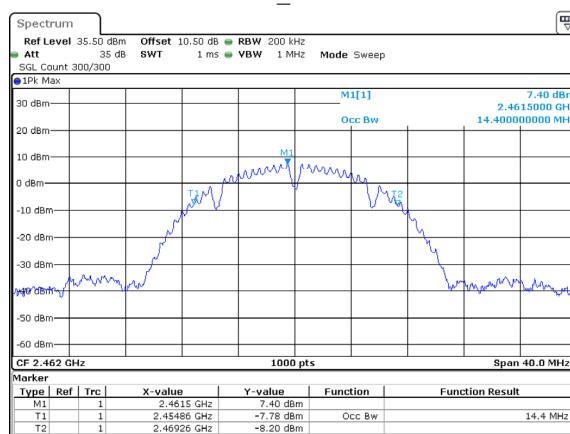
802.11b_2412MHz



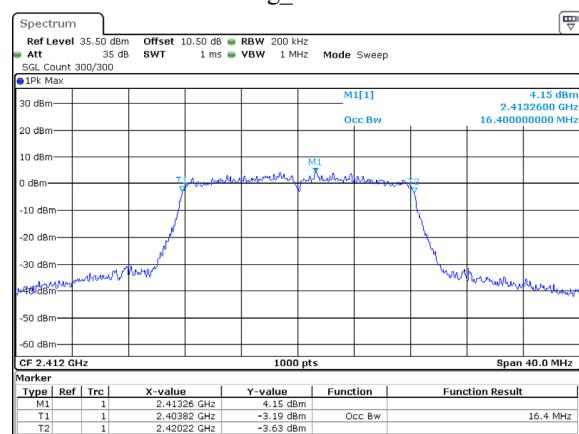
802.11b_2437MHz



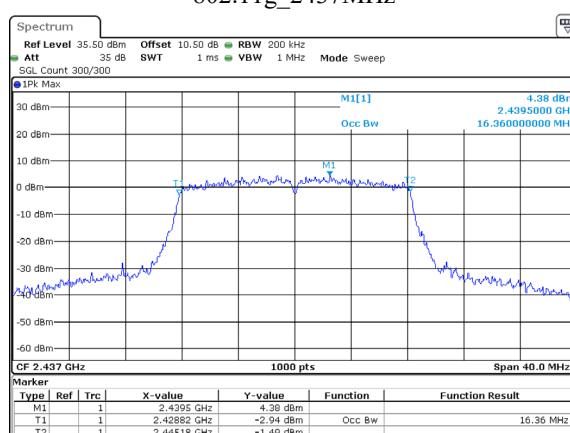
802.11b_2462MHz



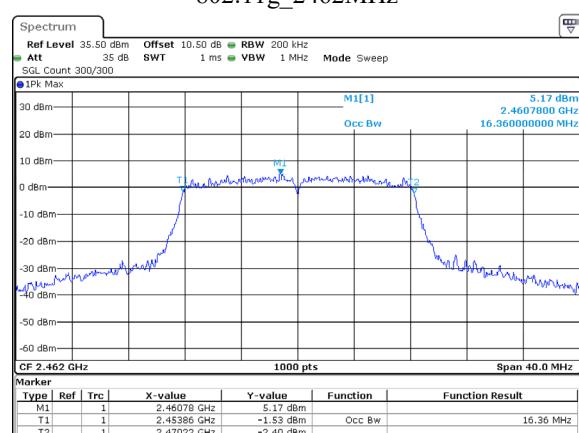
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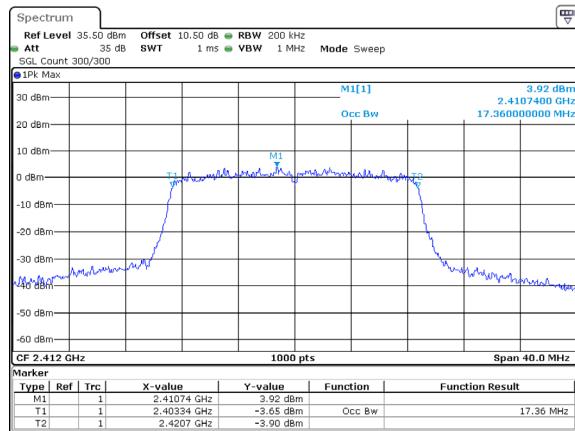
802.11g_2437MHz



802.11g_2462MHz

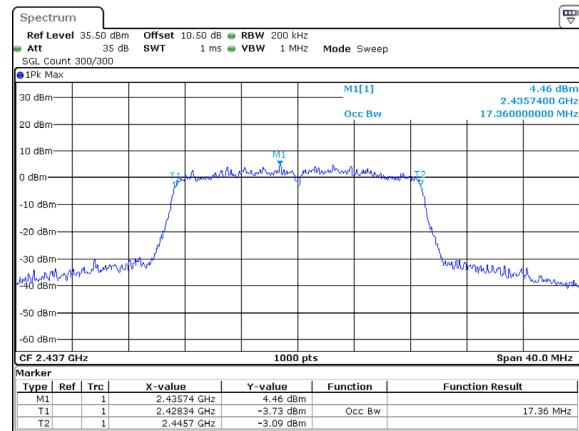


802.11n20_2412MHz



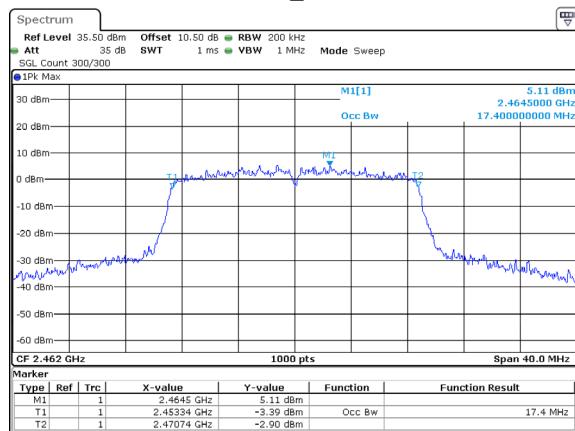
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Date: 9.APR.2025 14:54:59

802.11n20_2437MHz



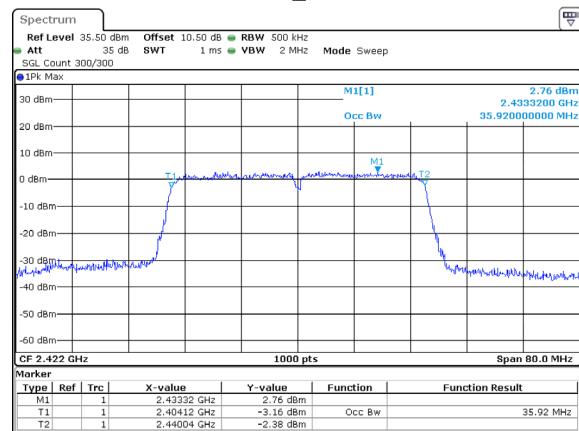
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Date: 9.APR.2025 14:58:54

802.11n20_2462MHz



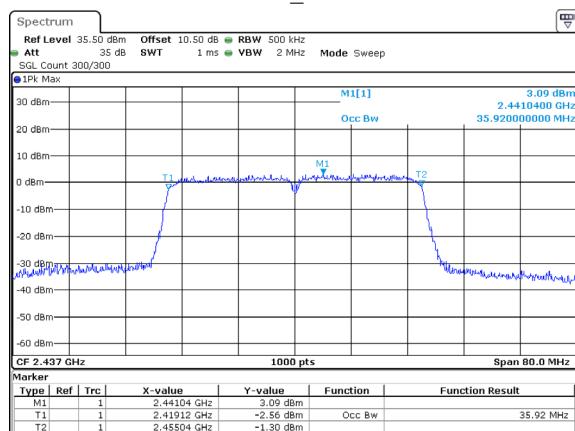
ProjectNo.:2501R31585E-RF Tester:Rainbow Zhu
Date: 9.APR.2025 15:01:54

802.11n40_2422MHz



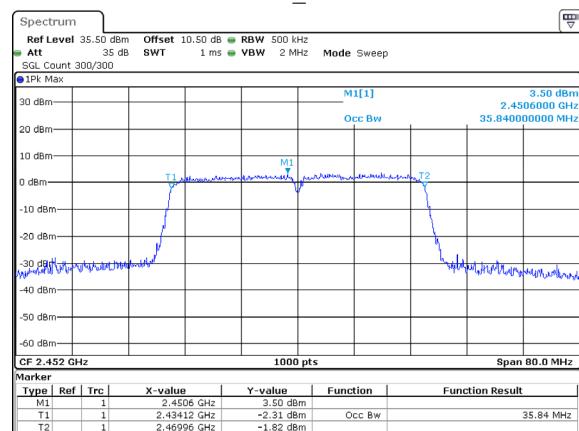
ProjectNo.:2501R31585E-RF Tester:Rainbow Zhu
Date: 9.APR.2025 15:05:21

802.11n40_2437MHz



ProjectNo.:2501R31585E-RF Tester:Rainbow Zhu
Date: 9.APR.2025 15:08:54

802.11n40_2452MHz



ProjectNo.:2501R31585E-RF Tester:Rainbow Zhu
Date: 9.APR.2025 15:13:01

Maximum Conducted Output Power**Test Information:**

Sample No.:	307J-1	Test Date:	2025/04/09
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rainbow Zhu	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.3	Relative Humidity: (%)	46	ATM Pressure: (kPa)	100.7
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Test Data:

Mode	Test Frequency (MHz)	Peak Output Power(dBm)	Average Output Power(dBm)	Limit (dBm)	Verdict
802.11b	2412	19.04	15.92	30	Pass
	2437	19.22	16.08	30	Pass
	2462	19.13	15.83	30	Pass
802.11g	2412	21.09	14.00	30	Pass
	2437	21.71	14.43	30	Pass
	2462	22.25	15.09	30	Pass
802.11n20	2412	21.10	13.96	30	Pass
	2437	21.67	14.32	30	Pass
	2462	22.20	15.02	30	Pass
802.11n40	2422	20.17	12.81	30	Pass
	2437	20.18	12.92	30	Pass
	2452	20.61	13.25	30	Pass

Power Spectral Density**Test Information:**

Sample No.:	307J-1	Test Date:	2025/04/09
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rainbow Zhu	Test Result:	Pass

Environmental Conditions:

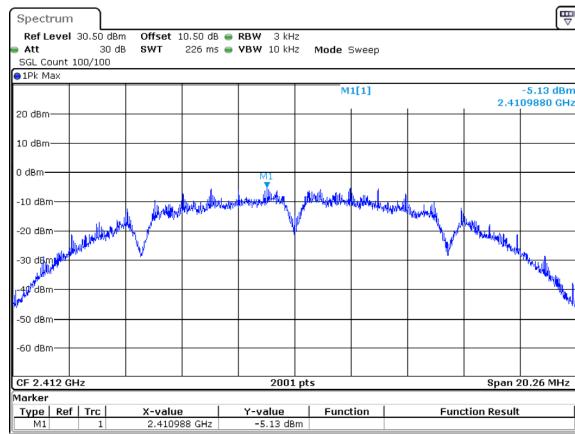
Temperature: (°C)	25.3	Relative Humidity: (%)	46	ATM Pressure: (kPa)	100.7
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Test Data:

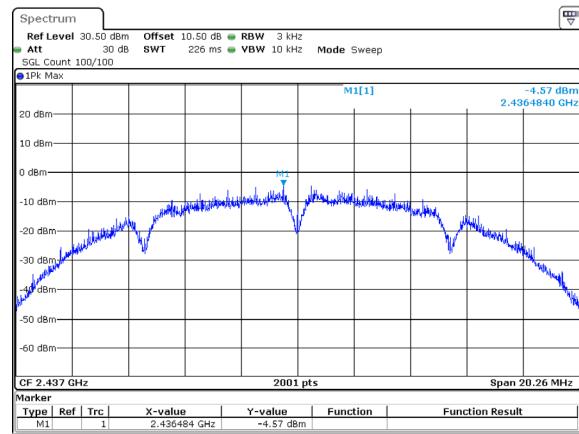
Mode	Test Frequency (MHz)	Result (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
802.11b	2412	-5.13	8	Pass
	2437	-4.57	8	Pass
	2462	-5.10	8	Pass
802.11g	2412	-11.00	8	Pass
	2437	-11.34	8	Pass
	2462	-9.51	8	Pass
802.11n20	2412	-10.76	8	Pass
	2437	-10.40	8	Pass
	2462	-10.82	8	Pass
802.11n40	2422	-14.98	8	Pass
	2437	-13.57	8	Pass
	2452	-12.60	8	Pass

2412~2462

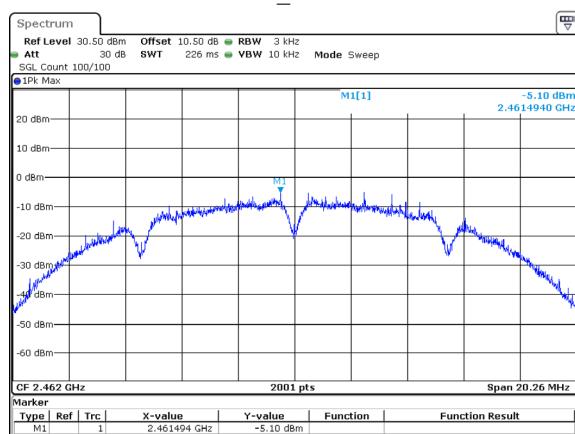
802.11b_2412MHz



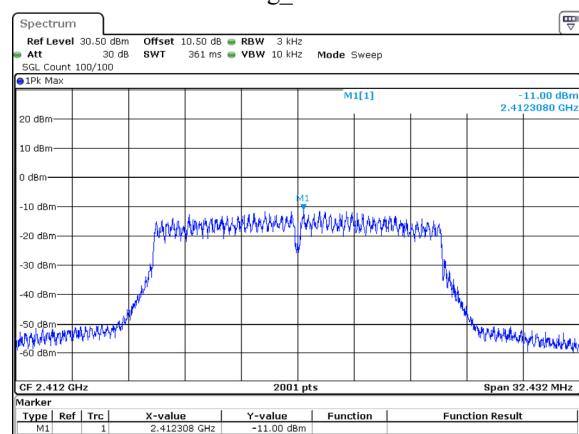
802.11b_2437MHz



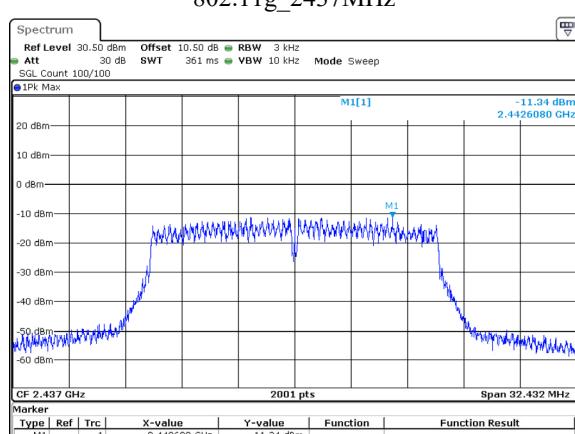
802.11b_2462MHz



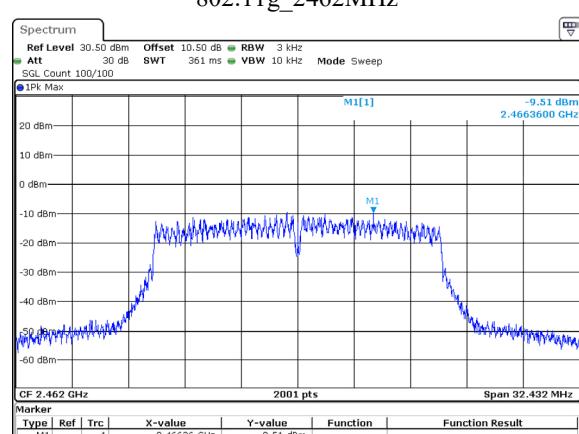
802.11g_2412MHz



802.11g_2437MHz



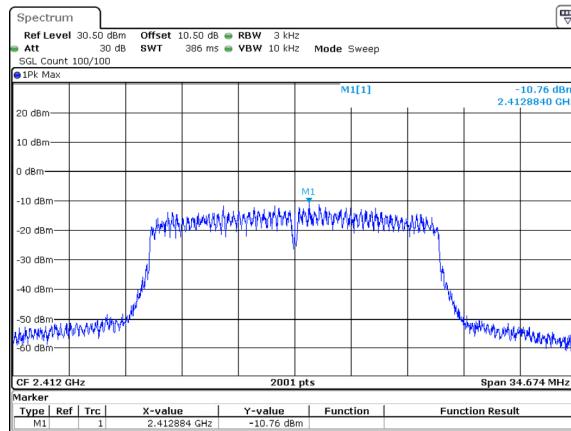
802.11g_2462MHz



ProjectNo.:2501R31585E-RF Tester:Rainbow Zhu
Date: 9.APR.2025 14:46:33

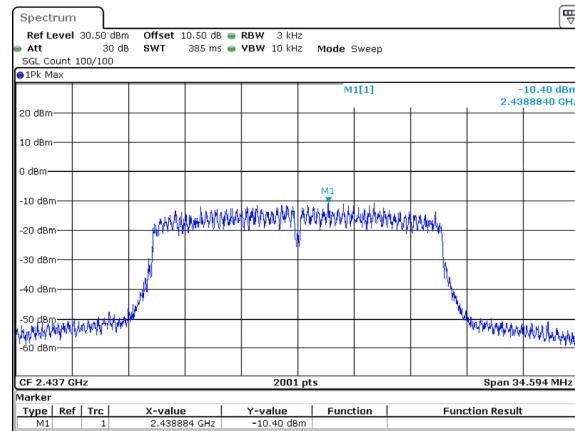
ProjectNo.:2501R31585E-RF Tester:Rainbow Zhu
Date: 9.APR.2025 14:53:02

802.11n20_2412MHz



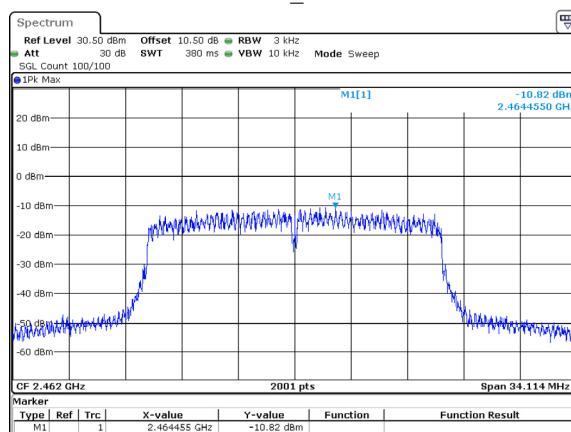
ProjectNo.:2501R31585E-RF Tester:Rainbow Zhu
Date: 9.APR.2025 14:56:45

802.11n20_2437MHz



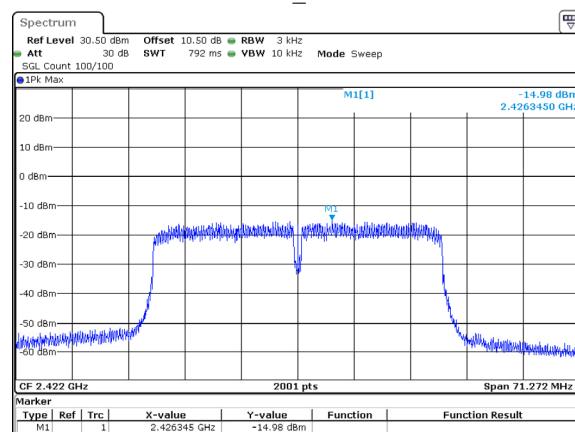
ProjectNo.:2501R31585E-RF Tester:Rainbow Zhu
Date: 9.APR.2025 15:00:13

802.11n20_2462MHz



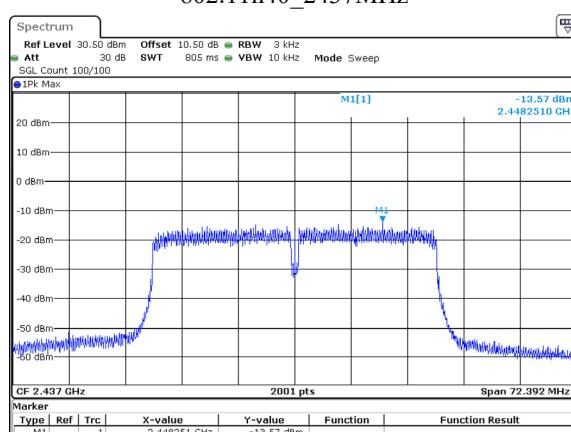
ProjectNo.:2501R31585E-RF Tester:Rainbow Zhu
Date: 9.APR.2025 15:03:30

802.11n40_2422MHz



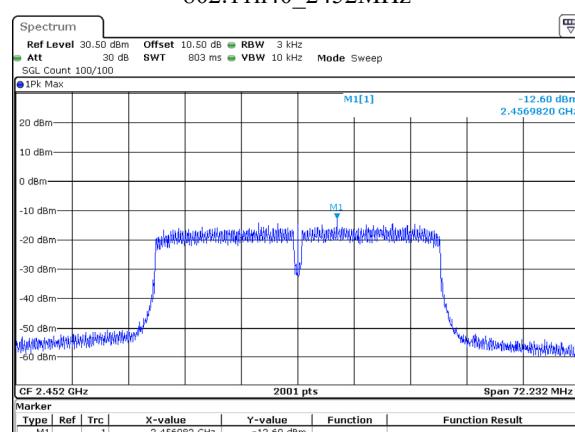
ProjectNo.:2501R31585E-RF Tester:Rainbow Zhu
Date: 9.APR.2025 15:07:55

802.11n40_2437MHz



ProjectNo.:2501R31585E-RF Tester:Rainbow Zhu
Date: 9.APR.2025 15:11:09

802.11n40_2452MHz



ProjectNo.:2501R31585E-RF Tester:Rainbow Zhu
Date: 9.APR.2025 15:16:01

100 kHz Bandwidth of Frequency Band Edge**Test Information:**

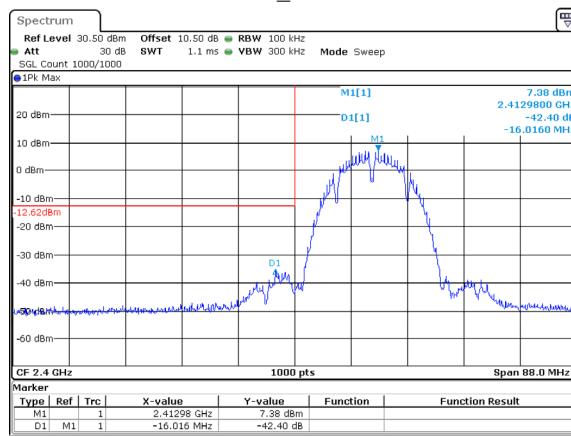
Sample No.:	307J-1	Test Date:	2025/04/09
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rainbow Zhu	Test Result:	Pass

Environmental Conditions:

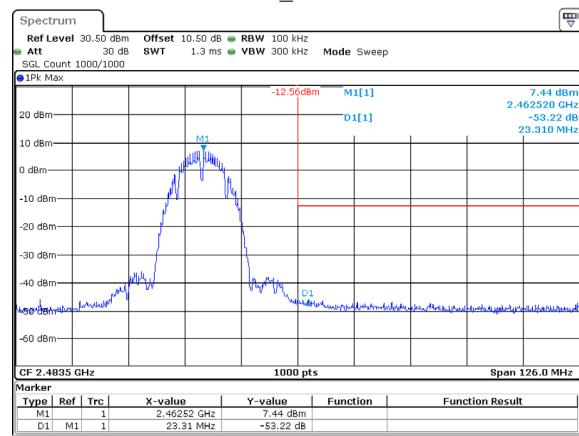
Temperature: (°C)	25.3	Relative Humidity: (%)	46	ATM Pressure: (kPa)	100.7
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2412~2462

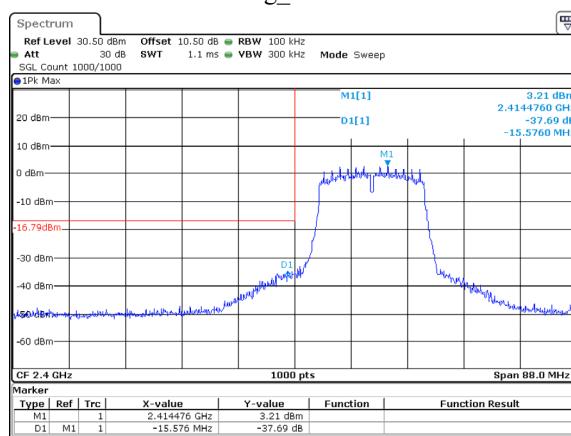
802.11b_2412MHz



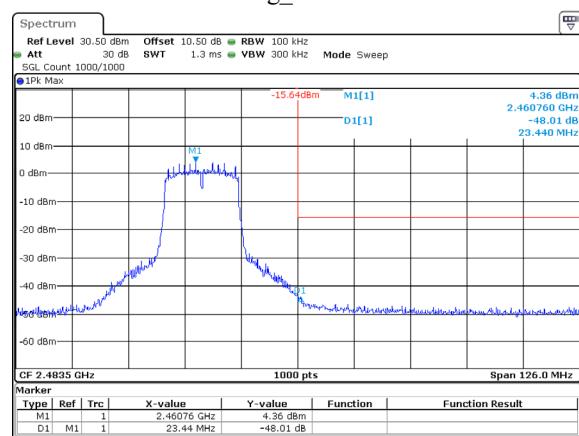
802.11b_2462MHz



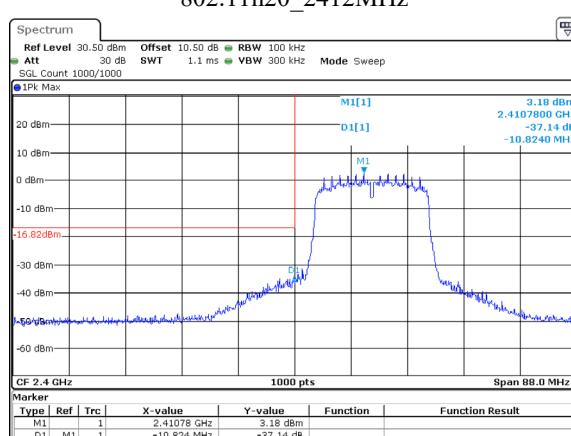
802.11g_2412MHz



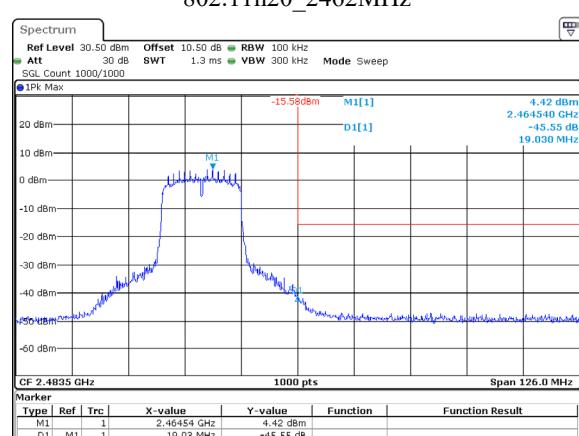
802.11g_2462MHz



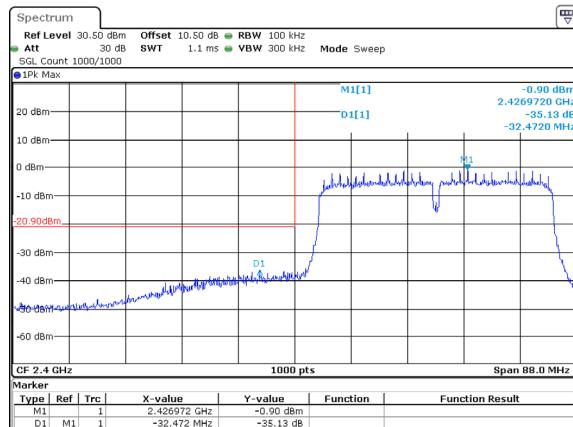
802.11n20_2412MHz



802.11n20_2462MHz

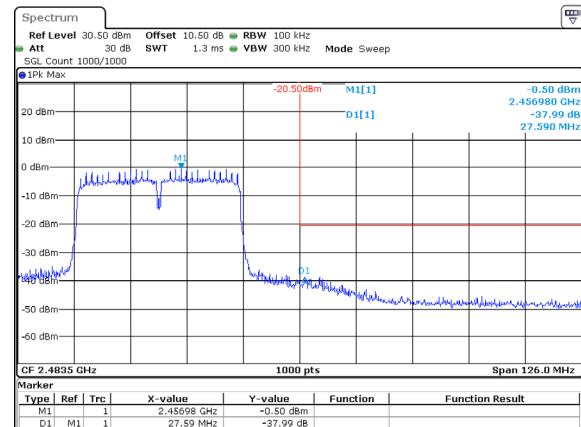


802.11n40_2422MHz



ProjectNo.:2501R31585E-RF Tester:Rainbow Zhu
Date: 9.APR.2025 15:05:54

802.11n40_2452MHz



ProjectNo.:2501R31585E-RF Tester:Rainbow Zhu
Date: 9.APR.2025 15:13:59

Duty Cycle**Test Information:**

Sample No.:	307J-1	Test Date:	2025/04/09~2025/04/28
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rainbow Zhu	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	23.5~25.3	Relative Humidity: (%)	46~49	ATM Pressure: (kPa)	100.7~101.1
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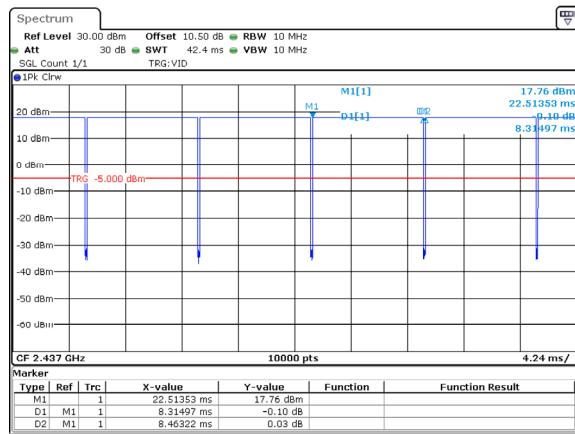
Test Data:

Mode	Test Frequency (MHz)	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty Cycle Factor(dB)	1/Ton (Hz)	VBW Setting (kHz)
802.11b	2437	8.315	8.463	98.25	/	/	0.010
802.11g	2437	1.376	1.555	88.49	0.53	727	1
802.11n20	2437	1.287	1.458	88.27	0.54	777	1
802.11n40	2437	0.639	0.682	93.70	0.28	1565	2

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

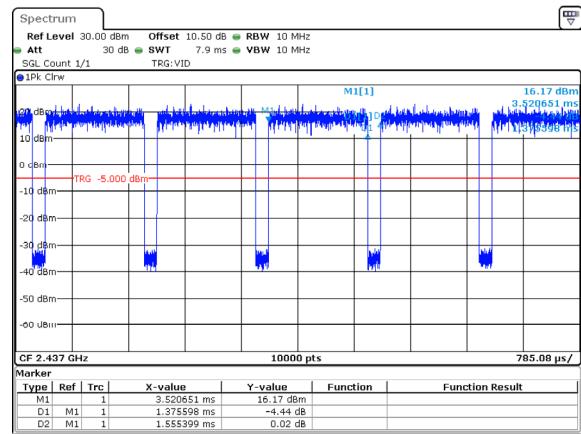
2412~2462

802.11b_2437MHz



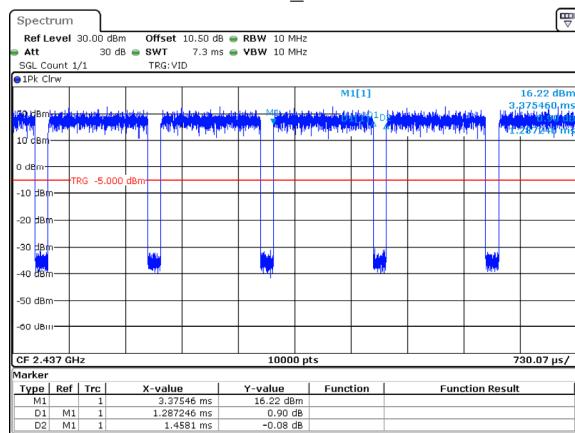
ProjectNo.:2501R31585E-RF Tester:Rainbow Zhu
Date: 28.APR.2025 19:25:22

802.11g_2437MHz



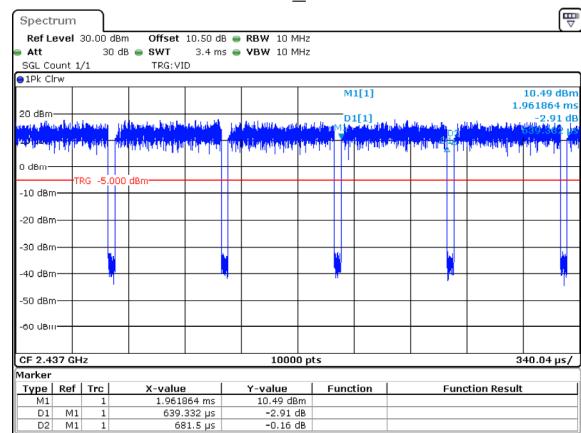
ProjectNo.:2501R31585E-RF Tester:Rainbow Zhu
Date: 9.APR.2025 14:18:54

802.11n20_2437MHz



ProjectNo.:2501R31585E-RF Tester:Rainbow Zhu
Date: 9.APR.2025 14:20:09

802.11n40_2437MHz



ProjectNo.:2501R31585E-RF Tester:Rainbow Zhu
Date: 9.APR.2025 14:21:08

RF EXPOSURE EVALUATION

MPE-Based Exemption

Applicable Standard

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

According to KDB 447498 D04 v01 Interim General RF Exposure Guidance

MPE-Based Exemption:

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

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

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

R is the minimum separation distance in meters

f = frequency in MHz

Result

Mode	Frequency (MHz)	Tune up conducted power [#] (dBm)	Antenna Gain [#]		ERP		Evaluation Distance (m)	ERP Limit (W)
			(dBi)	(dBd)	(dBm)	(W)		
2.4G Wi-Fi	2412-2462	23.00	2.97	0.82	23.82	0.241	0.2	0.768

Note: 1. The tune up conducted power[#] and antenna gain[#] were declared by the applicant.

2. The 2.4G and 5G Wi-Fi cannot transmit at same time.

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

Result: Compliant

EUT PHOTOGRAPHS

Please refer to the attachment 2501R31585E-RF External photo and 2501R31585E-RF Internal photo.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2501R31585E-RFA Test Setup photo.

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