TEST REPORT

Applicant Name:	Telepower Communication Co., Ltd.
Address:	5 Bld, Zone A, Hantian Technology Town No.17 ShenHai RD, Nanhai District Foshan China
Report Number:	2401A35544E-RF-00D
FCC ID:	2AJ2B-M1K

Test Standard (s)

FCC PART 15.407

Sample Description

Product Type:	POS Terminal
Model No.:	M1
Multiple Model(s) No.:	M1K, M1KC
Trade Mark:	Telpo
Date Received:	2024-12-03
Issue Date:	2025-04-11

Test Result:	Pass▲

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

Prepared and Checked By:

GaLa Liu

RF Engineer

Approved By:

Nancy Wang

RF Supervisor

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

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

TABLE OF CONTENTS

DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	2401A35544E-RF-00D	Original Report	2025-04-11

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product Type	POS Terminal
Test Model	M1
Multiple Model(s)	M1K, M1KC
Frequency Range	5150-5250MHz;
Mode	802.11a/n20/n40/ac20/ac40/ac80
Maximum Conducted Average Output Power	5150-5250MHz: 17.29dBm
Modulation Technique	OFDM
Antenna Specification#	3.26dBi (provided by the applicant)
Voltage Range	DC 7.60V from Li-ion Battery or DC 5V from Adapter
Sample serial number	2VH5-2 for Conducted and Radiated Emissions Test 2VH6-3 for RF Conducted Test (Assigned by BACL, Shenzhen)
Sample/EUT Status	Good condition
Adapter Information	Model: TPA-147A050200UU01 Input: 100-240V~50/60Hz 0.3A Output: 5.0V, 2.0A
Note: The Multiple models are electrically identical with the test model except for model name and sales channels. Please refer to the declaration letter# for more detail, which was provided by manufacturer.	

Objective

This test report is in accordance with Part 2-Subpart J, Part 15-Subparts A and E of the Federal Communication Commissions rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart E, section 15.203, 15.205, 15.207, 15.209 and 15.407 rules.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

And KDB789033 D02 General U-NII Test Procedures New Rules v02r01.

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 Frequency		56.6Hz(k=2, 95% level of confidence)
RF output power, conducted		0.86dB(k=2, 95% level of confidence)
Unwanted Emission, conducted		1.60dB(k=2, 95% level of confidence)
Power Spectral Density		0.90dB(k=2, 95% level of confidence)
AC Power Lines Conducted Emissions	9kHz-150kHz	3.63dB(k=2, 95% level of confidence)
	150kHz-30MHz	3.66dB(k=2, 95% level of confidence)
Radiated Emissions	9kHz - 30MHz	3.60dB(k=2, 95% level of confidence)
	30MHz~200MHz (Horizontal)	5.32dB(k=2, 95% level of confidence)
	30MHz~200MHz (Vertical)	5.43dB(k=2, 95% level of confidence)
	200MHz~1000MHz (Horizontal)	5.77dB(k=2, 95% level of confidence)
	200MHz~1000MHz (Vertical)	5.73dB(k=2, 95% level of confidence)
	1GHz - 6GHz	5.34dB(k=2, 95% level of confidence)
	6GHz - 18GHz	5.40dB(k=2, 95% level of confidence)
	18GHz - 40GHz	5.64dB(k=2, 95% level of confidence)
Temperature		±1℃
Humidity		±1%
Supply voltages		±0.4%

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 5F(B-West) , 6F, 7F, the 3rd Phase of Wan Li Industrial Building D, Shihua Rd, FuTian Free Trade Zone, Shenzhen, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 715558, the FCC Designation No. : CN5045.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in an engineering mode, which was provided by manufacturer.

For 5150-5250MHz Band, 7 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220
38	5190	46	5230
40	5200	48	5240
42	5210	/	/

For 802.11a/ac20 mode: channel 36, 40, 48 were tested;
For 802.11ac40 mode: channel 38, 46 were tested;
For 802.11ac80 mode, channel 42 was tested.

EUT Exercise Software

Exercise Software#	Engineering mode		
5150-5250 MHz Band			
Mode	**Test Channels**	**Data rate**	**Power Level#**
			ANT 0
802.11a	Low	6Mbps	16
	Middle	6Mbps	16
	High	6Mbps	16
802.11ac-VHT20	Low	MCS0	16
	Middle	MCS0	16
	High	MCS0	16
802.11ac-VHT40	Low	MCS0	16
	High	MCS0	16
802.11ac-VHT80	Middle	MCS0	14

Note:
1. The worst-case data rates are determined to be as follows for each mode based upon inverstigation by measuring the average power and PSD across all data rates bandwidths, and modulations.
2. The n20/n40 mode was reduced test as identical parameter with ac20/ac40 mode.

Special Accessories

No special accessory.

Equipment Modifications

No modification was made to the EUT tested.

Support Equipment List and Details

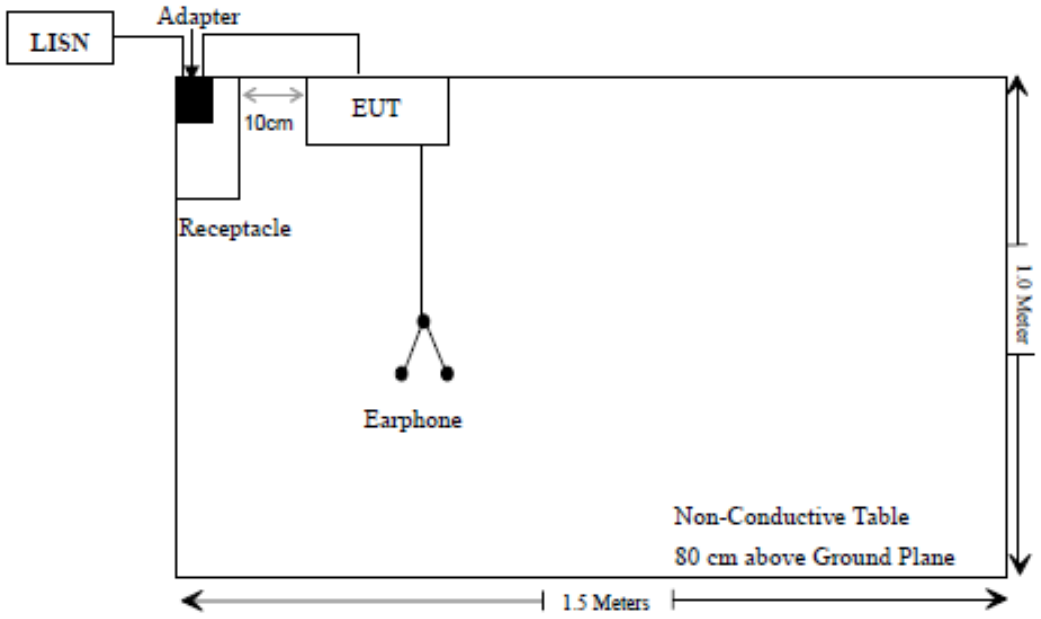
Manufacturer	Description	Model	Serial Number
Unknown	Receptacle	Unknown	Unknown
Unknown	Earphone	Unknown	Unknown

External I/O Cable

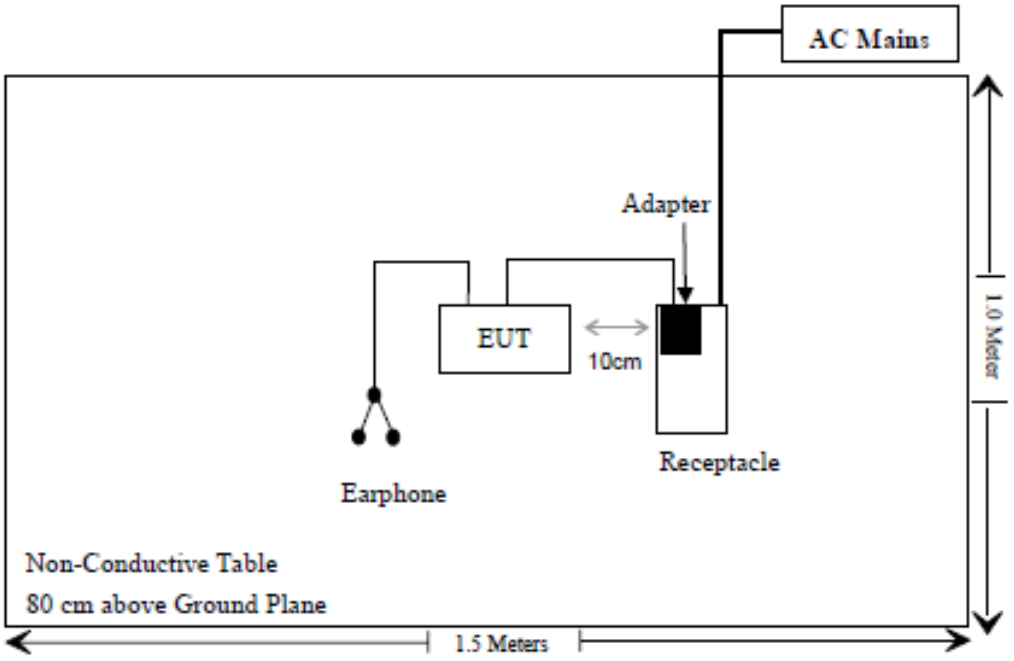
Cable Description	Length (m)	From Port	To
Unshielded Un-detachable AC Cable	1.5	Receptacle	LISN/AC Mains
Un-shielding Detachable USB Cable	0.8	EUT	Adapter
Un-shielded Detachable Audio cable	1.2	EUT	Earphone

Block Diagram of Test Setup

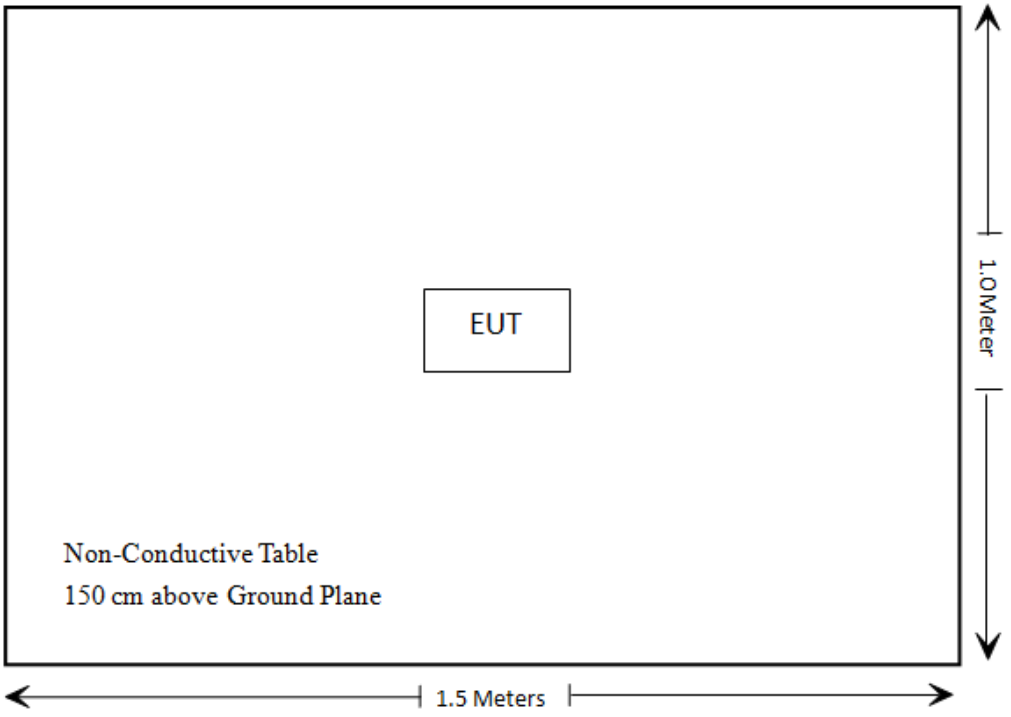
For Conducted Emissions:



For Radiated Emissions below 1GHz:



For Radiated Emissions above 1GHz:



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
FCC §15.203	Antenna Requirement	Compliant
FCC §15.207(a)	AC Line Conducted Emissions	Compliant
FCC § 15.205& §15.209 &§15.407(b)	Undesirable Emission& Restricted Bands	Compliant
FCC§15.407(a)	Emission Bandwidth & 99% Occupied Bandwidth	Compliant
FCC§15.407 (a)	Maximum Conducted Output Power	Compliant
FCC§15.407 (a)	Power Spectral Density	Compliant
§15.407 (h)	Transmit Power Control (TPC)	Not Applicable
§15.407 (h)	Dynamic Frequency Selection (DFS)	Not Applicable
C63.10 §11.6	Duty Cycle	/
FCC §1.1307&§2.1093	RF Exposure	Compliant

Not Applicable: The device cannot operate at 5250-5350MHz/5470-5725MHz.

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Conducted Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESCI	101120	2024/12/04	2025/12/03
Rohde & Schwarz	LISN	ENV216	101613	2024/12/04	2025/12/03
Rohde & Schwarz	Transient Limiter	ESH3Z2	DE25985	2024/05/21	2025/05/20
Unknown	CE Cable	Unknown	UF A210B-1-0720-504504	2024/05/21	2025/05/20
Audix	EMI Test software	E3	191218(V9)	NCR	NCR
Radiated Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESR3	102455	2024/12/04	2025/12/03
Sonoma instrument	Pre-amplifier	310N	186238	2024/05/21	2025/05/20
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2023/07/20	2026/07/19
Unknown	Cable	Chamber Cable 1	F-03-EM236	2024/06/18	2025/06/17
Unknown	Cable	XH500C	J-10M-A	2024/06/18	2025/06/17
BACL	Active Loop Antenna	1313-1A	4031911	2024/05/14	2027/05/13
Audix	EMI Test software	E3	19821b(V9)	NCR	NCR
Rohde&Schwarz	Spectrum Analyzer	FSV40	101605	2024/03/27	2025/03/26
A.H.System	Preamplifier	PAM-0118P	489	2024/11/15	2025/11/14
Schwarzbeck	Horn Antenna	BBHA9120D(1201)	1143	2023/07/26	2026/07/25
Unknown	RF Cable	KMSE	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	Filter Switch Unit	DT7220FSU	DS79906	2024/09/09	2025/09/08
JD	Multiplex Switch Test Control Set	DT7220SCU	DS79903	2024/09/09	2025/09/08
A.H.System	Pre-amplifier	PAM-1840VH	190	2024/06/18	2025/06/17
Electro-Mechanics Co	Horn Antenna	3116	9510-2270	2023/09/18	2026/09/17
UTIFLEX	RF Cable	NO. 13	232308-001	2024/12/18	2025/12/17
Audix	EMI Test software	E3	191218(V9)	NCR	NCR
RF Conducted Test					
Rohde & Schwarz	Spectrum Analyzer	FSU26	200982	2024/09/20	2025/09/19
Rohde & Schwarz	Spectrum Analyzer	FSV40	101942	2024/09/20	2025/09/19
ANRITSU	Microwave peak	MA24418A	12622	2024/05/21	2025/05/20
Unknown	10dB Attenuator	Unknown	F-03-EM190	2024/06/27	2025/06/26

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

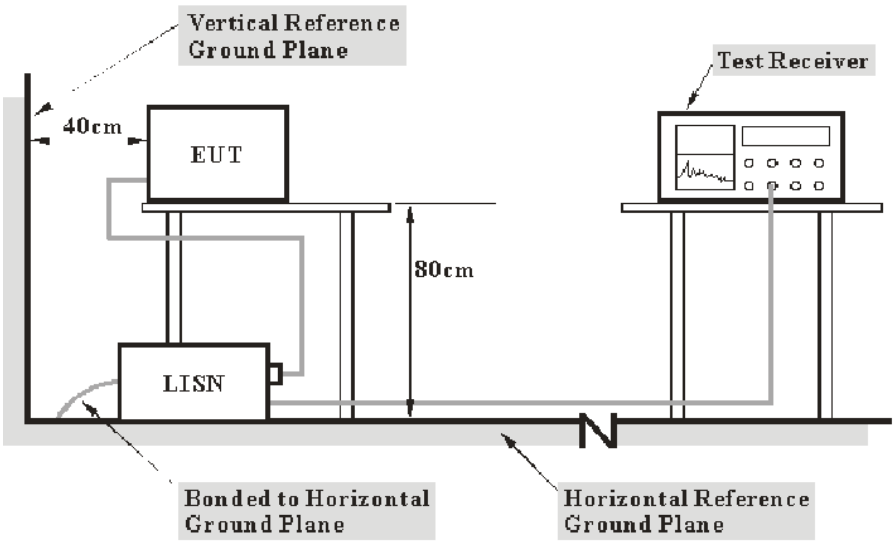
REQUIREMENTS AND TEST PROCEDURES

Conducted Emissions

Applicable Standard

FCC §15.207

EUT Setup



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

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

Test Procedure

During the conducted emission test, the adapter was connected to the LISN.

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

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

Factor & Over Limit Calculation

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

Factor = LISN VDF + Cable Loss

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

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

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

Undesirable Emission

Applicable Standard

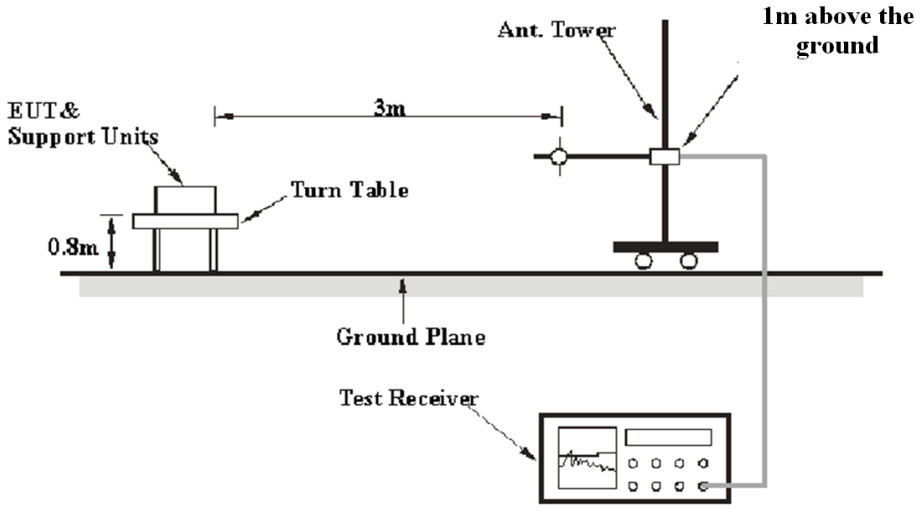
FCC §15.407 (b); §15.209; §15.205;

(b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:
(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(4) For transmitters operating in the 5.725-5.85 GHz band:
(i) All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

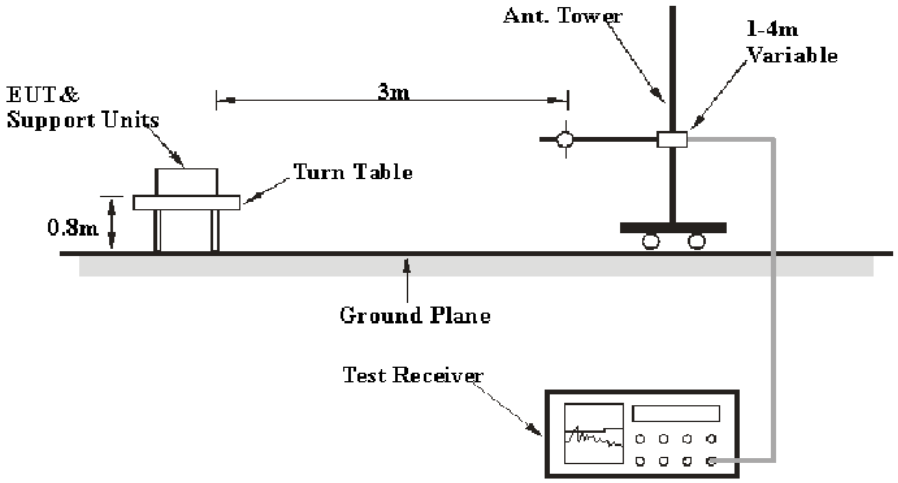
Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209.

EUT Setup

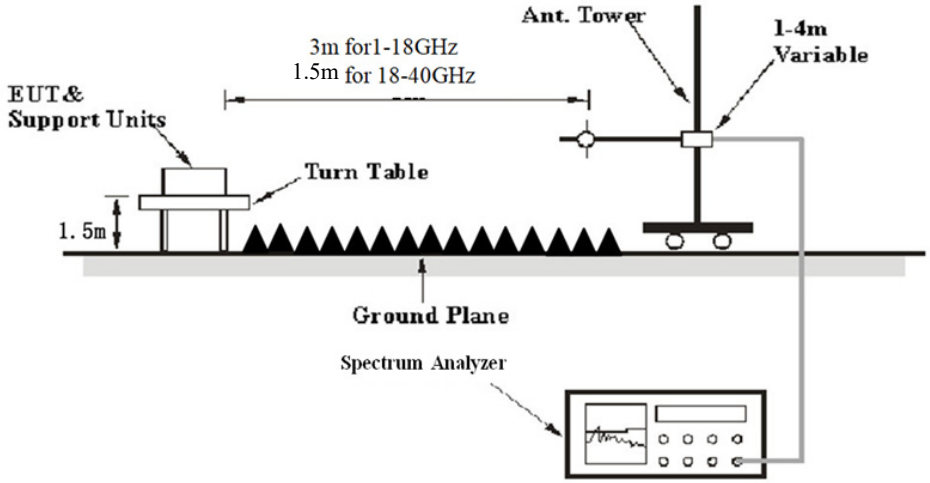
9 kHz-30MHz:



30MHz-1GHz:



Above 1 GHz:



The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC 15.209 and FCC 15.407 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 9 kHz to 40 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

1-40GHz:

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
AV	>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

Radiated Spurious Emission

During the radiated emission test, the adapter was connected to the AC floor outlet.

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

According to ANSI C63.10-2013,9.4: For field strength measurements made at other than the distance at which the applicable limit is specified, extrapolate the measured field strength to the field strength at the distance specified by the limit using an inverse distance correction factor (20 dB/decade of distance). In some cases, a different distance correction factor may be required;

$$E_{\mathrm{SpecLimit}} = E_{\mathrm{Meas}} + 20\log\left(\frac{d_{\mathrm{Meas}}}{d_{\mathrm{SpecLimit}}}\right)$$

where

$E_{\mathrm{SpecLimit}}$	is the field strength of the emission at the distance specified by the limit, in dBμV/m
E_{Meas}	is the field strength of the emission at the measurement distance, in dBμV/m
d_{Meas}	is the measurement distance, in m
$d_{\mathrm{SpecLimit}}$	is the distance specified by the limit, in m

So the extrapolation factor of 1.5m is 20*log(1.5/3)= -6.0 dB, for 18-40GHz range, the limit of 1.5m distance was added by 6.0dB from limit of 3m to compared with the result measurement at 1.5m distance.

Factor & Over Limit/Margin Calculation

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

Factor = Antenna Factor + Cable Loss - Amplifier Gain

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

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

26 dB & 6dB Emission Bandwidth

Applicable Standard

The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements in the 5.725-5.85 GHz band are made over a reference bandwidth of 500 kHz or the 26 dB emission bandwidth of the device, whichever is less. Measurements in the 5.15-5.25 GHz, 5.25-5.35 GHz, and the 5.47-5.725 GHz bands are made over a bandwidth of 1 MHz or the 26 dB emission bandwidth of the device, whichever is less. A narrower resolution bandwidth can be used, provided that the measured power is integrated over the full reference bandwidth.

Test Procedure

According to KDB789033 D02 section II.C and section II.D

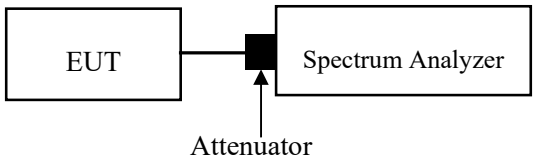
1. Emission Bandwidth (EBW)
a) Set RBW = approximately 1% of the emission bandwidth.
b) Set the VBW > RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

2. 99% Occupied Bandwidth:

According to ANSI C63.10-2013 Section 12.4.2&6.9.3

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 approximately 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 (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.5.2.
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 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).



Conducted Transmitter Output Power

Applicable Standard

For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

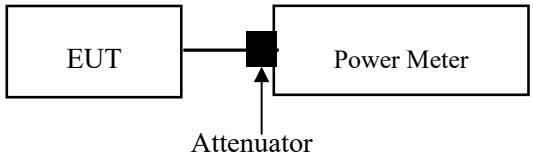
For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

Test Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method PM-G should be applied

a. Place the EUT on a bench and set it in transmitting mode.
b. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to one test equipment.



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

Power Spectral Density

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

Test Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01

Duty cycle ≥98%

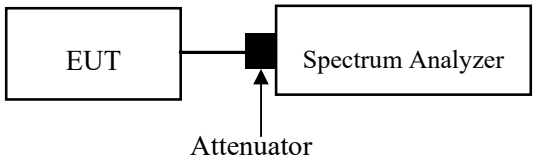
KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-1 should be applied.

Duty cycle <98%, duty cycle variations are less than ±2%

KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-2 should be applied.

Duty cycle <98%, duty cycle variations exceed ±2%

KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-3 should be applied.



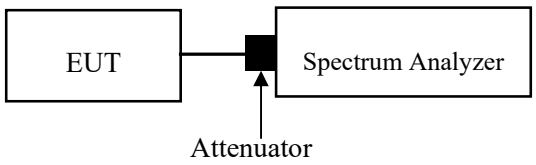
Note: A short RF cable with low cable loss connected to the EUT antenna port, which was provided by client or lab, the cable loss was add with offset into test equipment, the total offset consists of attenuator and/or RF cable and/or power splitter loss

Duty Cycle

Test Procedure

According to ANSI C63.10-2013 Section 12.2

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



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 3.26dBi, fulfill the requirement of this section. Please refer to the EUT photos.

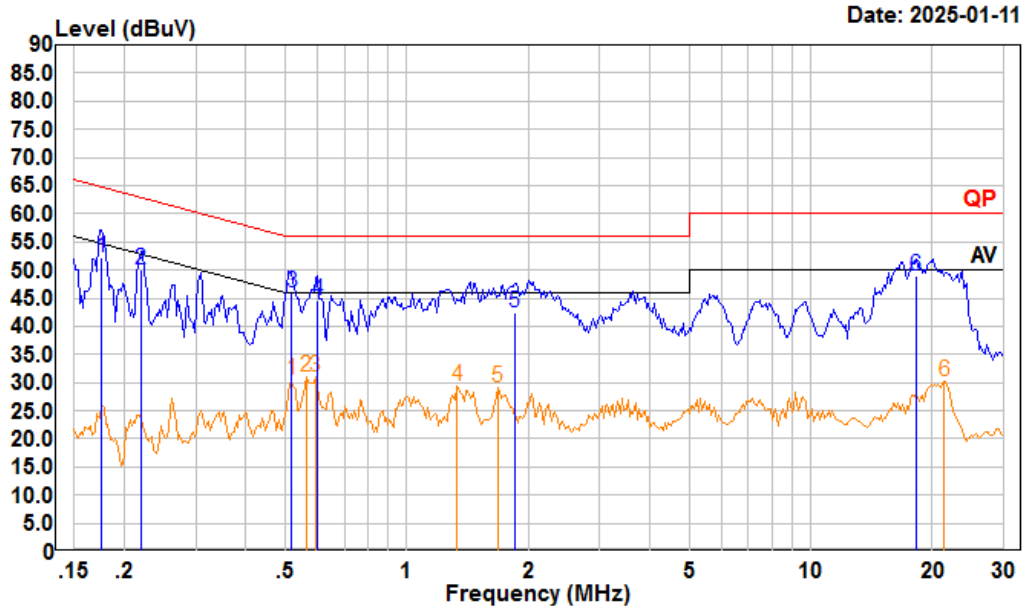
Result: Compliant

TEST DATA AND RESULTS

Conducted Emissions

Temperature (℃)	24	**Relative Humidity (%)**	54
ATM Pressure (kPa)	101	**Test engineer**	Macy Shi
Test date	2025.01.11		
EUT operation mode	Transmitting (Maximum output power mode, 802.11ac40 5190MHz)		

AC 120V 60 Hz, Line



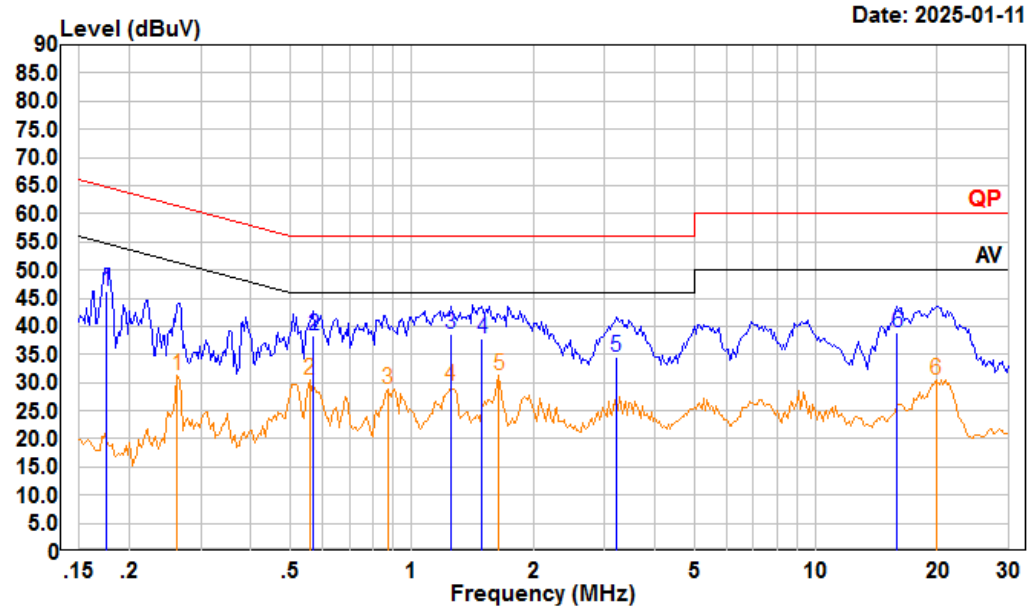
Trace: 1

Condition: Line
Project : 2401A35544E-RF
tester : Macy.shi Note:Transmitting
Setting : RBW:9kHz

	Freq	Read Level	LISN Level	Cable Factor	Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.176	31.59	52.26	10.57	10.10	64.68	-12.42	QP
2	0.220	29.40	50.17	10.68	10.09	62.83	-12.66	QP
3	0.518	25.30	45.98	10.54	10.14	56.00	-10.02	QP
4	0.601	23.90	44.74	10.72	10.12	56.00	-11.26	QP
5	1.848	21.20	42.42	11.04	10.18	56.00	-13.58	QP
6	18.232	27.90	48.86	10.77	10.19	60.00	-11.14	QP

	Freq	Read Level	LISN Level	Cable Factor	Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.518	9.75	30.43	10.54	10.14	46.00	-15.57	Average
2	0.564	10.29	31.06	10.64	10.13	46.00	-14.94	Average
3	0.595	10.24	31.07	10.71	10.12	46.00	-14.93	Average
4	1.331	8.42	29.38	10.81	10.15	46.00	-16.62	Average
5	1.680	8.03	29.17	10.97	10.17	46.00	-16.83	Average
6	21.373	9.00	30.10	10.92	10.18	50.00	-19.90	Average

AC 120V 60 Hz, Neutral



Trace: 1

Condition: Neutral
Project : 2401A35544E-RF
tester : Macy.shi Note:Transmitting
Setting : RBW:9kHz

	Freq	Read Level	Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.176	25.50	46.22	10.62	10.10	64.68	-18.46	QP
2	0.570	17.59	38.26	10.54	10.13	56.00	-17.74	QP
3	1.249	17.70	38.61	10.77	10.14	56.00	-17.39	QP
4	1.495	17.00	37.90	10.74	10.16	56.00	-18.10	QP
5	3.207	13.40	34.49	10.90	10.19	56.00	-21.51	QP
6	15.885	18.30	38.97	10.46	10.21	60.00	-21.03	QP

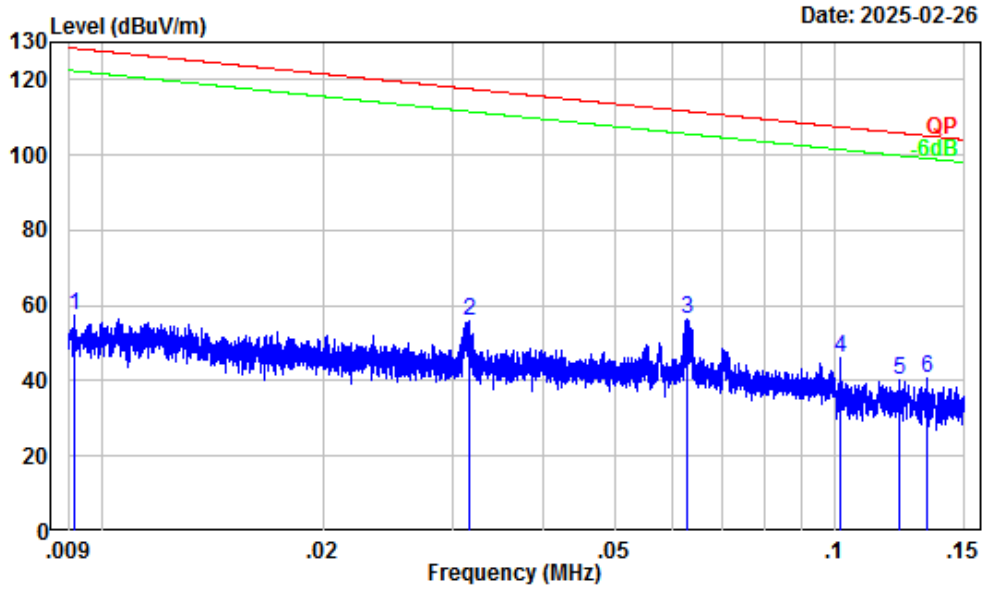
	Freq	Read Level	Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.263	10.51	31.31	10.71	10.09	51.34	-20.03	Average
2	0.558	9.92	30.58	10.53	10.13	46.00	-15.42	Average
3	0.871	8.02	28.85	10.72	10.11	46.00	-17.15	Average
4	1.249	8.52	29.43	10.77	10.14	46.00	-16.57	Average
5	1.645	10.34	31.24	10.73	10.17	46.00	-14.76	Average
6	19.845	9.32	30.57	11.08	10.17	50.00	-19.43	Average

Undesirable Emission

Temperature (℃)	24-25	**Relative Humidity (%)**	53-54
ATM Pressure (kPa):	101-101.3	**Test engineer:**	Alex Yan & Zenos Qiao
Test date:	2025.01.08-2025.02.26		
EUT operation mode:	Below 1GHz: Transmitting(Maximum output power mode, 802.11ac40 5190MHz) Above 1GHz: Transmitting		
Note:	1. For the radiated spurious emission below 30MHz, only the worst case (parallel) was recorded. 2. 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:

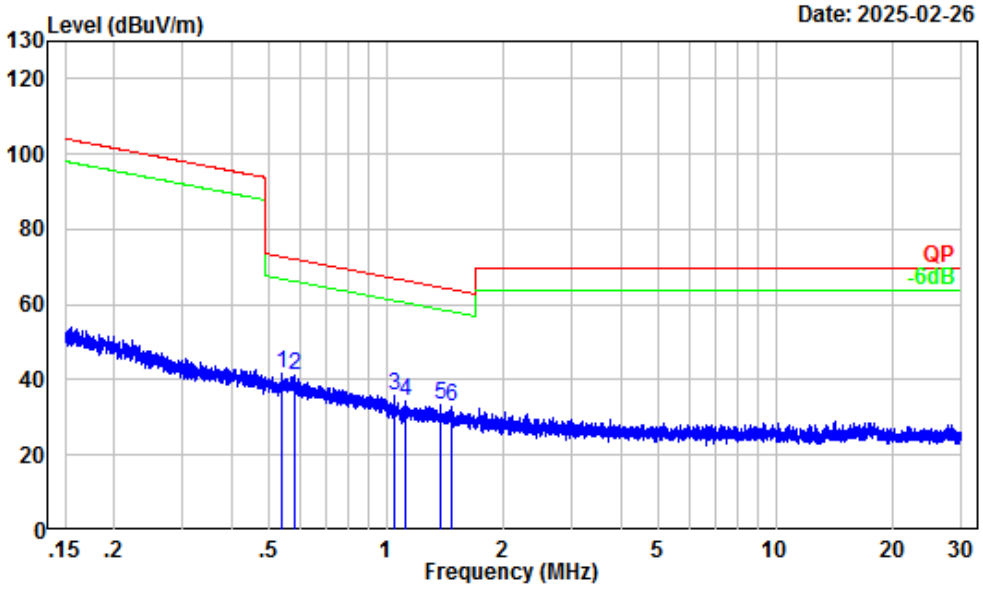
9kHz-150kHz



Site : Chamber A
Condition : 3m
Project Number : 2401A35544E-RF
Test Mode : 5G WIFI Transmitting
Detector: Peak RBW/VBW: 0.3/1kHz
Tester : Alex Yan

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.01	32.47	24.93	57.40	128.36	-70.96	Peak
2	0.03	28.32	27.36	55.68	117.58	-61.90	Peak
3	0.06	25.12	31.25	56.37	111.65	-55.28	Peak
4	0.10	21.90	24.04	45.94	107.45	-61.51	Peak
5	0.12	20.68	19.42	40.10	105.85	-65.75	Peak
6	0.13	20.03	20.60	40.63	105.11	-64.48	Peak

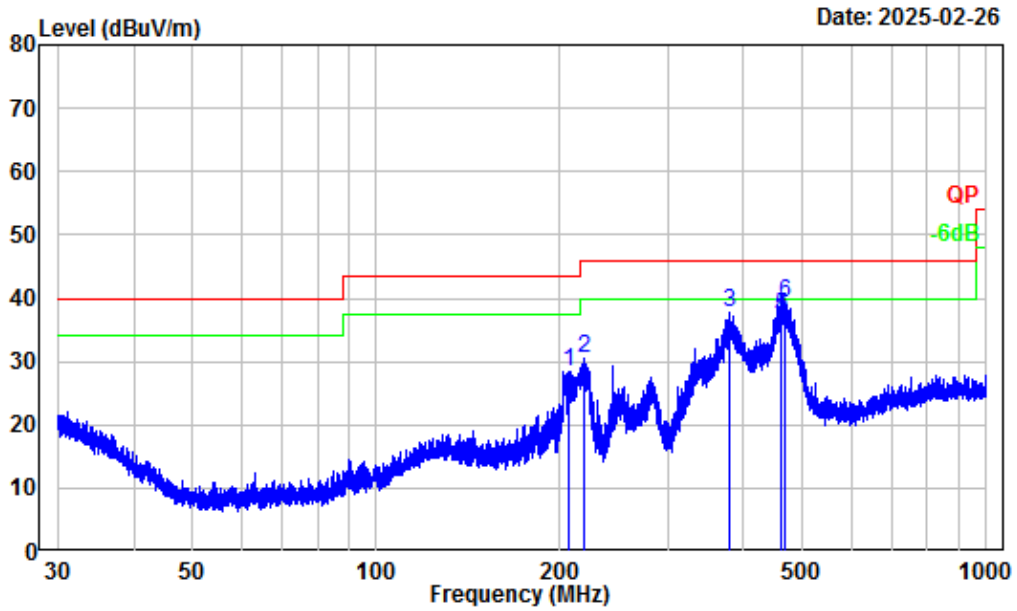
150kHz-30MHz



Site : Chamber A
Condition : 3m
Project Number : 2401A35544E-RF
Test Mode : 5G WIFI Transmitting
Detector: Peak RBW/VBW: 10/30kHz
Tester : Alex Yan

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.54	5.92	35.64	41.56	72.96	-31.40	Peak
2	0.58	5.41	35.57	40.98	72.30	-31.32	Peak
3	1.05	1.05	34.52	35.57	67.02	-31.45	Peak
4	1.12	0.88	33.41	34.29	66.51	-32.22	Peak
5	1.38	0.13	33.09	33.22	64.59	-31.37	Peak
6	1.47	-0.11	32.82	32.71	64.07	-31.36	Peak

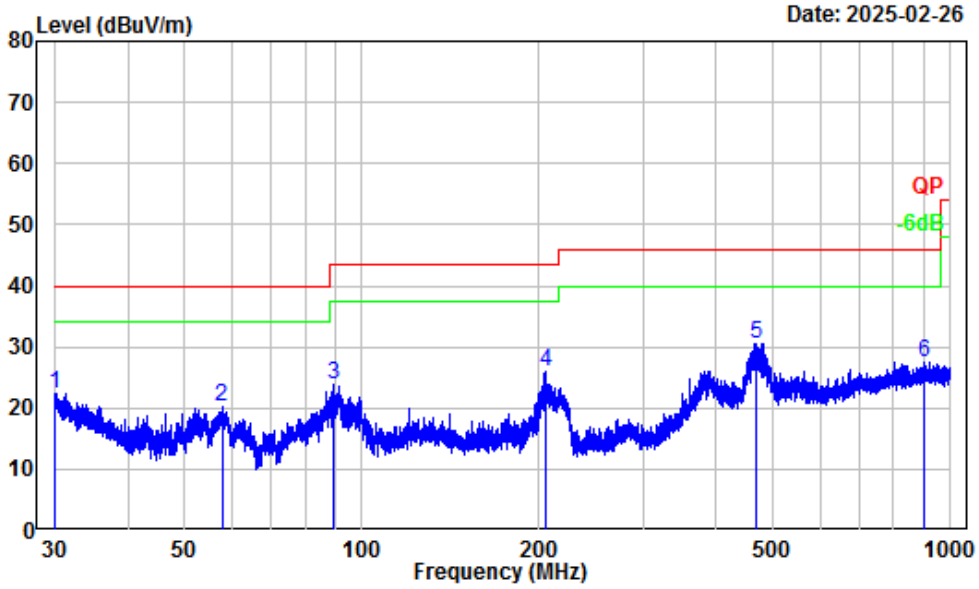
30MHz-1GHz_Horizontal



Site : Chamber A
Condition : 3m Horizontal
Project Number : 2401A35544E-RF
Test Mode : 5G WIFI Transmitting
Detector: Peak RBW/VBW: 100/300kHz
Tester : Alex Yan

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	207.03	-13.68	42.16	28.48	43.50	-15.02	Peak
2	218.88	-14.20	44.64	30.44	46.00	-15.56	Peak
3	378.92	-9.18	46.80	37.62	46.00	-8.38	Peak
4	459.52	-7.12	44.00	36.88	46.00	-9.12	QP
5	462.35	-7.02	44.09	37.07	46.00	-8.93	QP
6	467.03	-6.87	46.15	39.28	46.00	-6.72	Peak

30MHz-1GHz_Vertical



Site : Chamber A
Condition : 3m Vertical
Project Number : 2401A35544E-RF
Test Mode : 5G WIFI Transmitting
Detector: Peak RBW/VBW: 100/300kHz
Tester : Alex Yan

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	30.16	-6.04	28.44	22.40	40.00	-17.60	Peak
2	57.80	-18.24	38.59	20.35	40.00	-19.65	Peak
3	89.59	-18.01	41.77	23.76	43.50	-19.74	Peak
4	205.05	-13.45	39.35	25.90	43.50	-17.60	Peak
5	468.47	-6.82	37.41	30.59	46.00	-15.41	Peak
6	904.50	-1.23	28.82	27.59	46.00	-18.41	Peak

Above 1GHz:

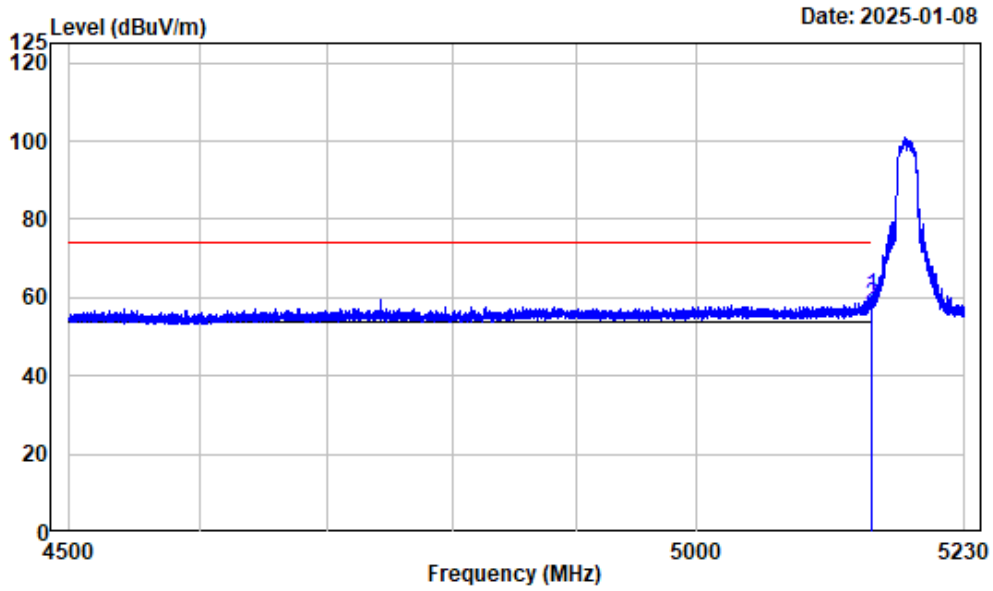
5150-5250 MHz

Frequency (MHz)	Reading (dBµV)	PK/Ave	Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
802.11a							
Low Channel							
10360	51.6	PK	H	2.53	54.13	68.2	-14.07
10360	52.35	PK	V	2.53	54.88	68.2	-13.32
Middle Channel							
10400	52.04	PK	H	2.55	54.59	68.2	-13.61
10400	52.87	PK	V	2.55	55.42	68.2	-12.78
High Channel							
10480	52.44	PK	H	2.25	54.69	68.2	-13.51
10480	53.12	PK	V	2.25	55.37	68.2	-12.83
802.11ac20							
Low Channel							
10360	51.27	PK	H	2.53	53.8	68.2	-14.4
10360	52.06	PK	V	2.53	54.59	68.2	-13.61
Middle Channel							
10400	51.69	PK	H	2.55	54.24	68.2	-13.96
10400	52.48	PK	V	2.55	55.03	68.2	-13.17
High Channel							
10480	52.06	PK	H	2.25	54.31	68.2	-13.89
10480	52.83	PK	V	2.25	55.08	68.2	-13.12
802.11ac40							
Low Channel							
10380	52.31	PK	H	2.54	54.85	68.2	-13.35
10380	52.64	PK	V	2.54	55.18	68.2	-13.02
High Channel							
10460	52.57	PK	H	2.32	54.89	68.2	-13.31
10460	52.98	PK	V	2.32	55.3	68.2	-12.9
802.11ac80							
Middle Channel							
10420	51.69	PK	H	2.48	54.17	68.2	-14.03
10420	52.02	PK	V	2.48	54.5	68.2	-13.7

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

Test plots:

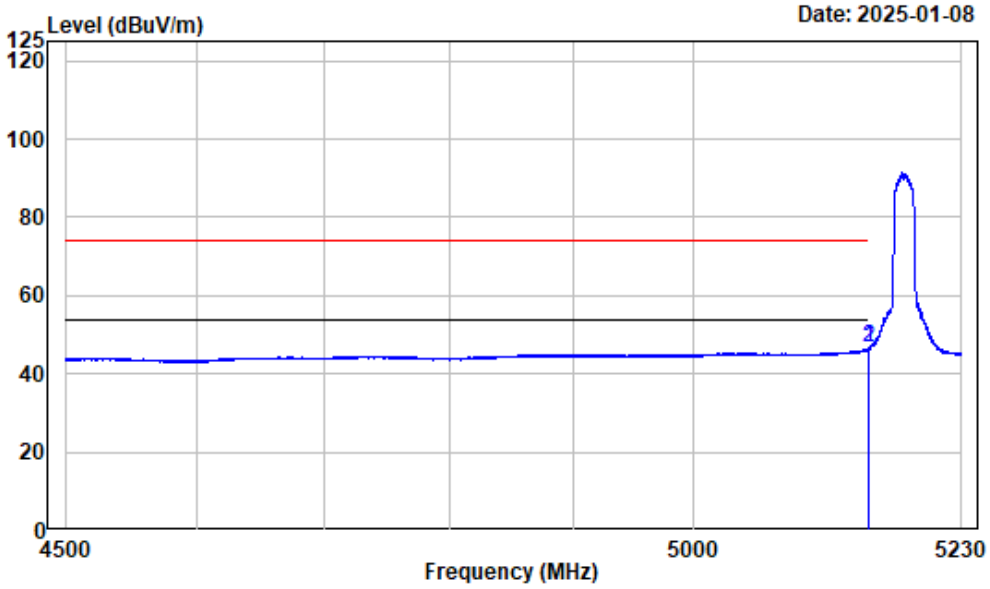
Left Band edge_Horizontal_Peak_802.11a_5180MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-A-5180

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5149.599	-7.46	67.85	60.39	74.00	-13.61	Peak
2	5150.000	-7.46	65.64	58.18	74.00	-15.82	Peak

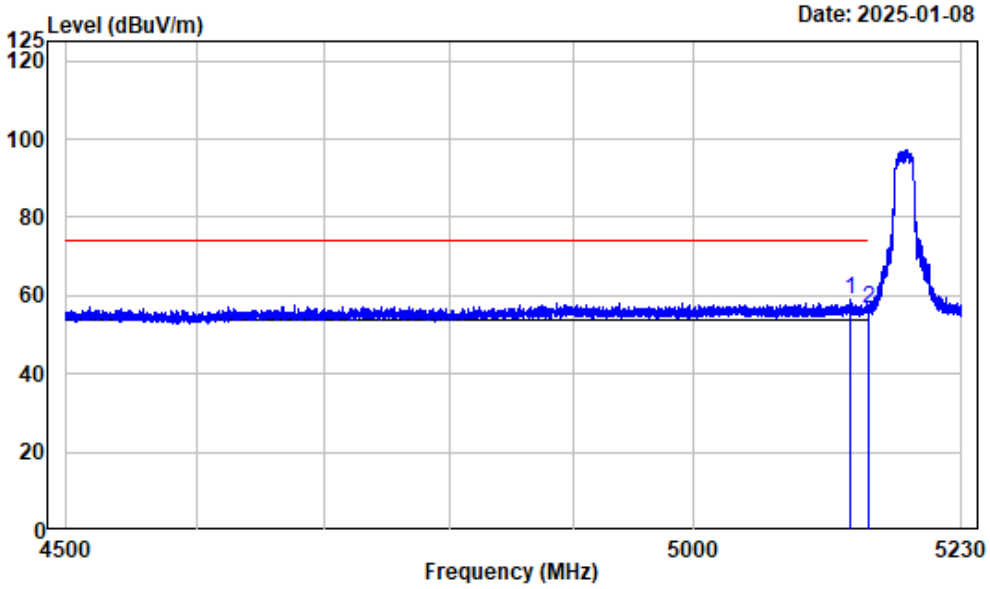
Left Band edge_Horizontal_Average_802.11a_5180MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 5GWiFi-Band1-A-5180

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5149.873	-7.46	54.17	46.71	54.00	-7.29	Average
2	5150.000	-7.46	54.08	46.62	54.00	-7.38	Average

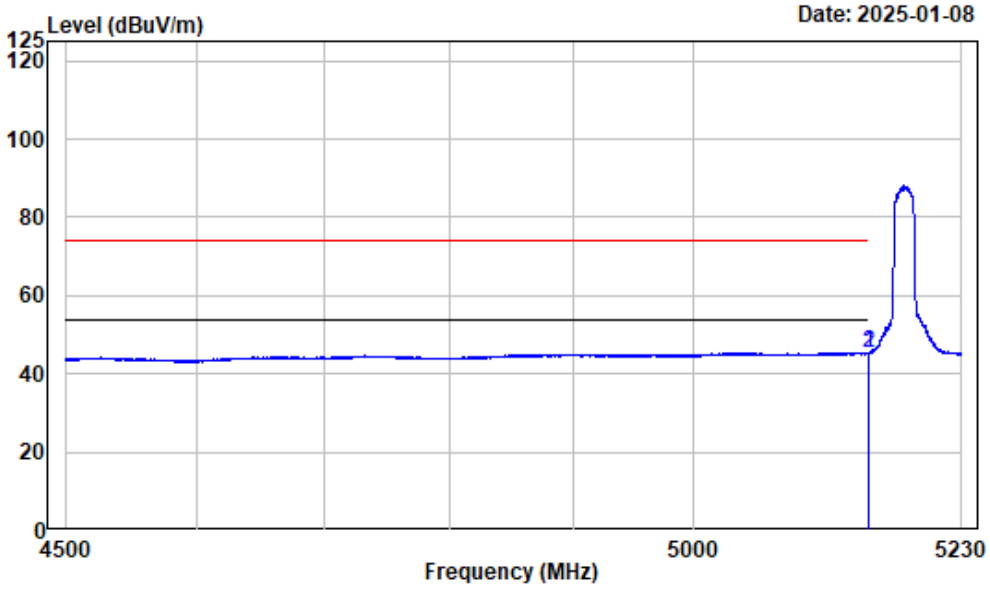
Left Band edge_Vertical_Peak_802.11a_5180MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-A-5180

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5133.719	-7.47	66.47	59.00	74.00	-15.00	Peak
2	5150.000	-7.46	63.94	56.48	74.00	-17.52	Peak

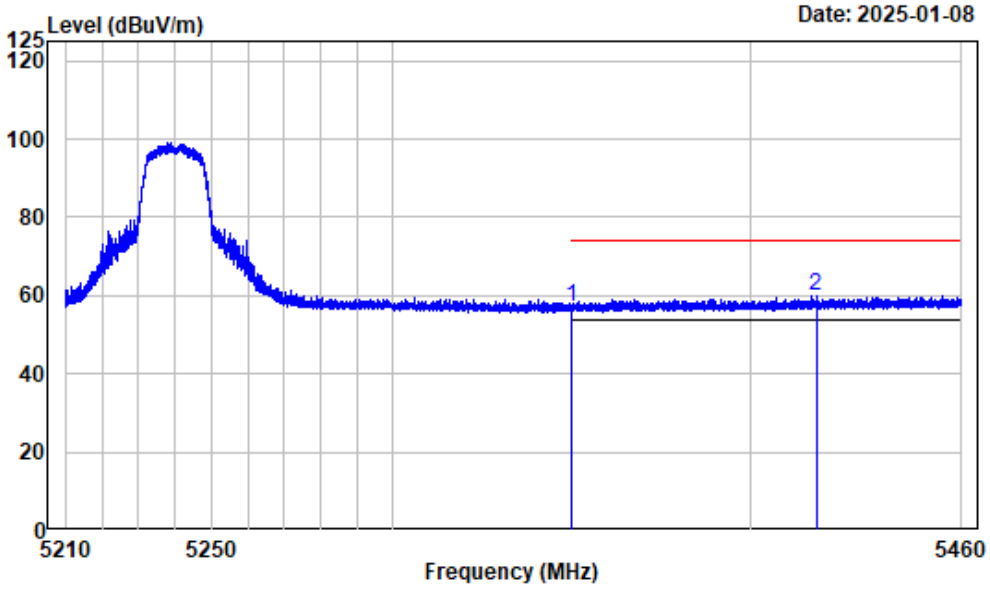
Left Band edge_Vertical_Average_802.11a_5180MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 5GWiFi-Band1-A-5180

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5149.873	-7.46	52.94	45.48	54.00	-8.52	Average
2	5150.000	-7.46	52.77	45.31	54.00	-8.69	Average

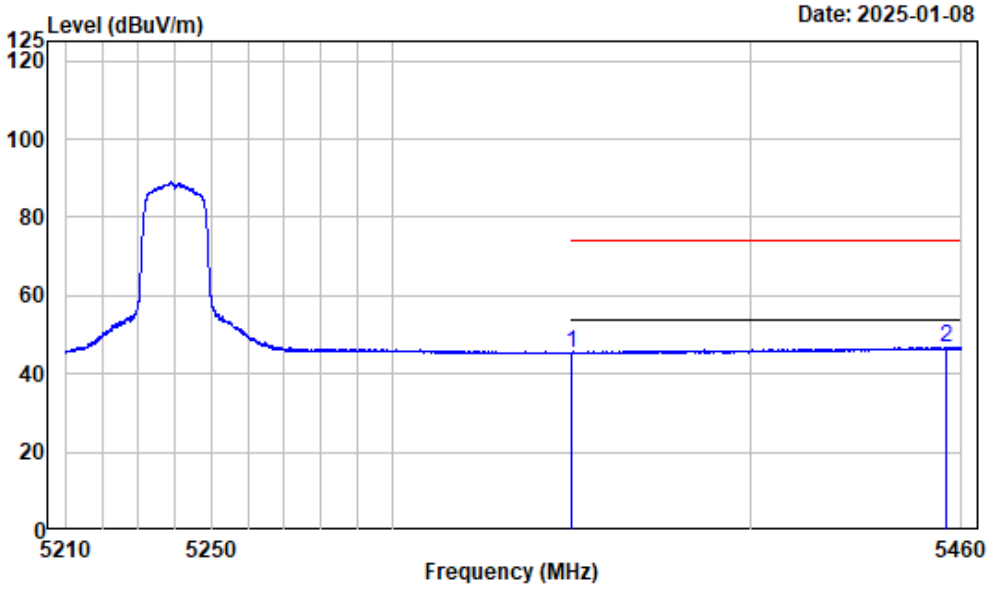
Right Band edge_Horizontal_Peak_802.11a_5240MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-A-5240

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5350.000	-6.74	63.67	56.93	74.00	-17.07	Peak
2	5418.651	-6.49	66.60	60.11	74.00	-13.89	Peak

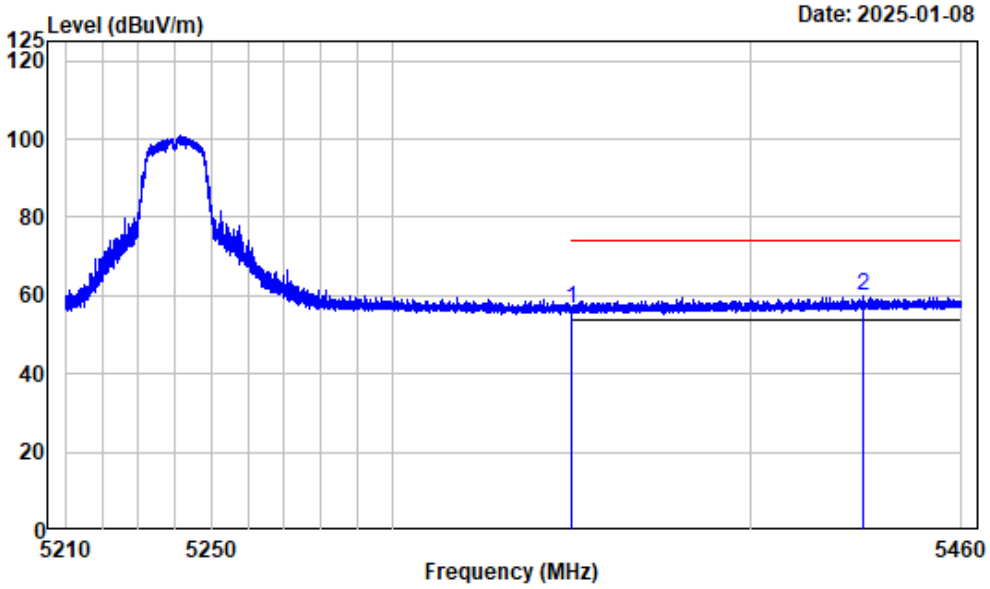
Right Band edge_Horizontal_Average_802.11a_5240MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 5GWiFi-Band1-A-5240

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5350.000	-6.74	52.13	45.39	54.00	-8.61	Average
2	5455.437	-6.31	53.09	46.78	54.00	-7.22	Average

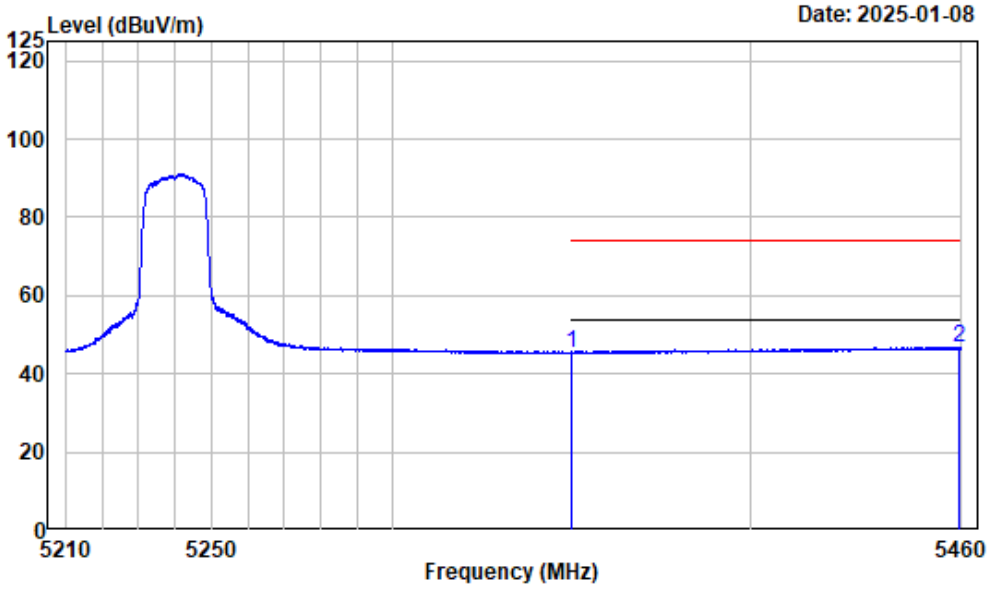
Right Band edge_Vertical_Peak_802.11a_5240MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-A-5240

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5350.000	-6.74	63.56	56.82	74.00	-17.18	Peak
2	5432.215	-6.43	66.28	59.85	74.00	-14.15	Peak

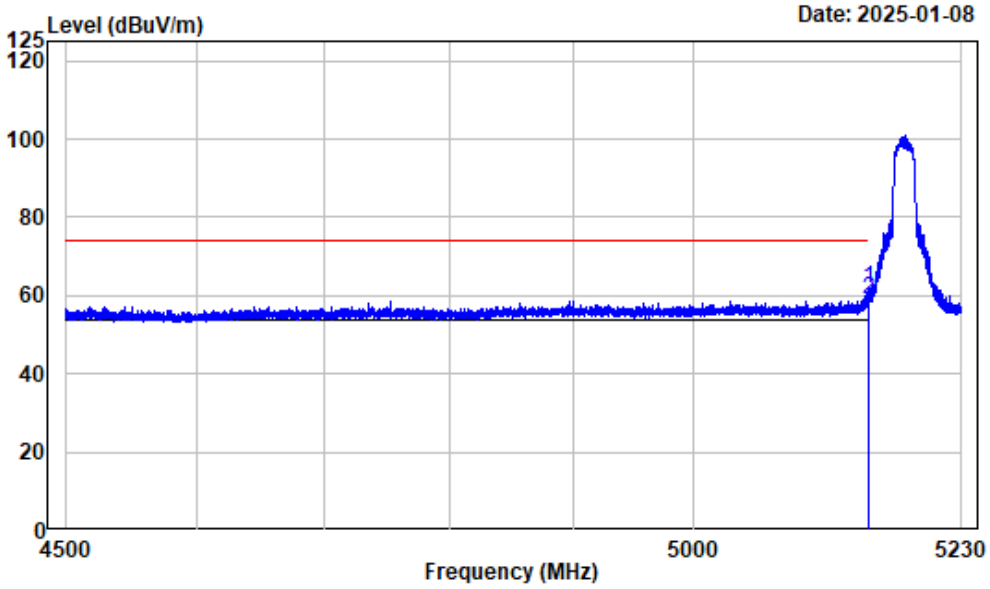
Right Band edge_Vertical_Average_802.11a_5240MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 5GWiFi-Band1-A-5240

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5350.000	-6.74	52.16	45.42	54.00	-8.58	Average
2	5459.188	-6.29	53.04	46.75	54.00	-7.25	Average

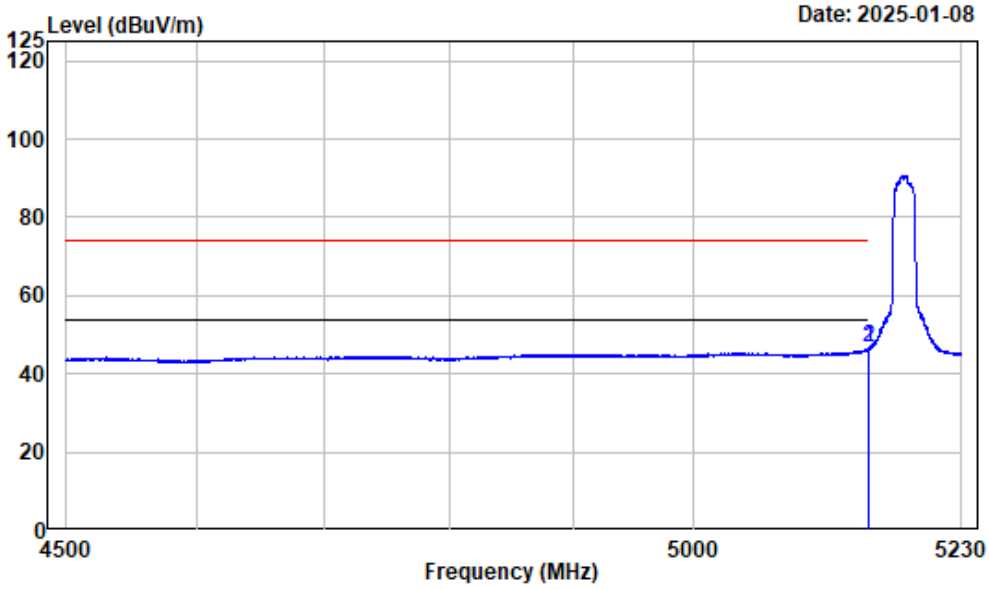
Left Band edge_Horizontal_Peak_802.11ac-VHT20_5180MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-AC20-5180

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5149.781	-7.46	69.12	61.66	74.00	-12.34	Peak
2	5150.000	-7.46	66.46	59.00	74.00	-15.00	Peak

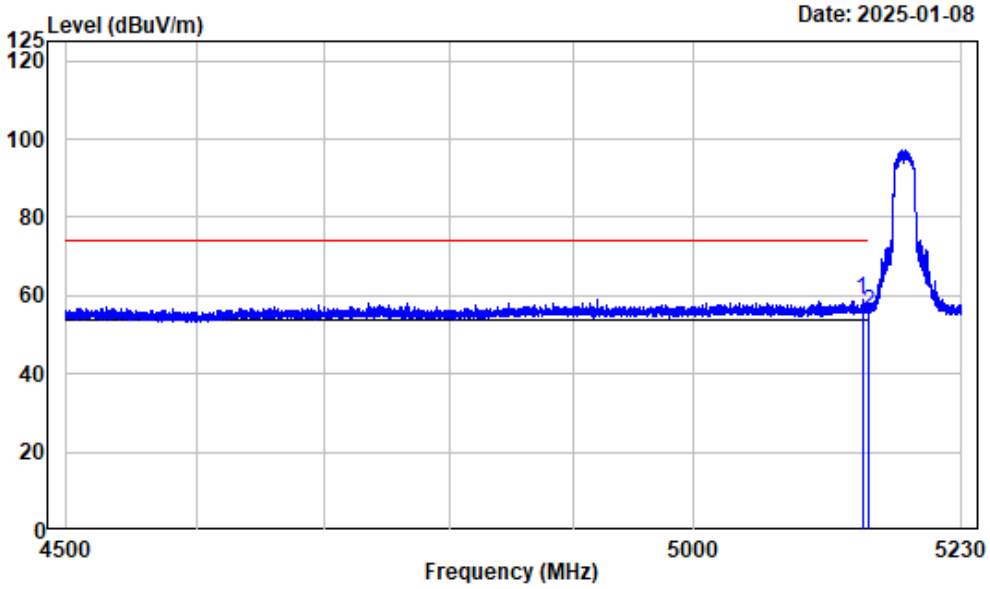
Left Band edge_Horizontal_Average_802.11ac-VHT20_5180MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 5GWiFi-Band1-AC20-5180

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5149.964	-7.46	54.18	46.72	54.00	-7.28	Average
2	5150.000	-7.46	54.07	46.61	54.00	-7.39	Average

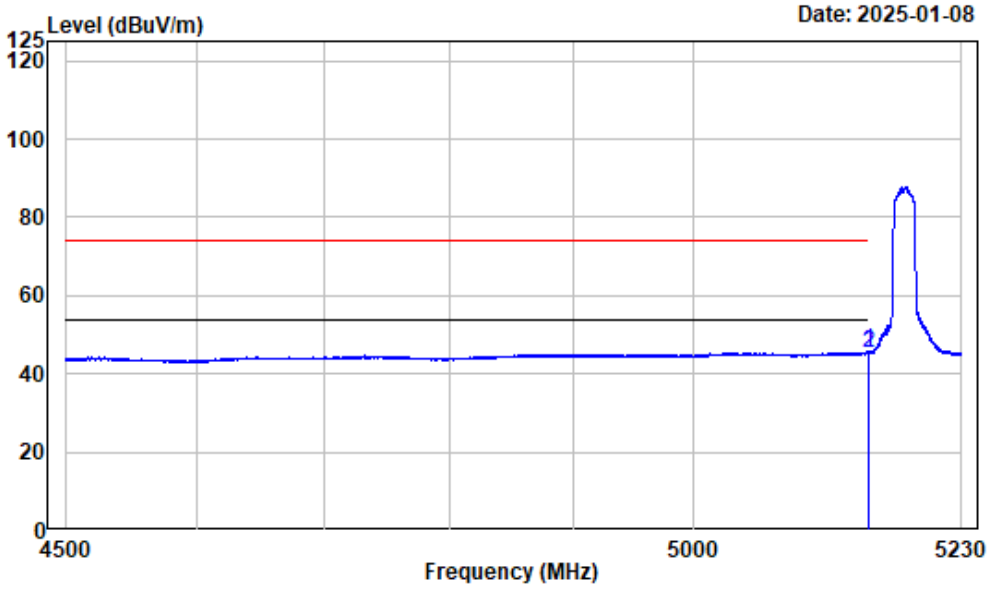
Left Band edge_Vertical_Peak_802.11ac-VHT20_5180MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-AC20-5180

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5143.667	-7.46	66.28	58.82	74.00	-15.18	Peak
2	5150.000	-7.46	63.35	55.89	74.00	-18.11	Peak

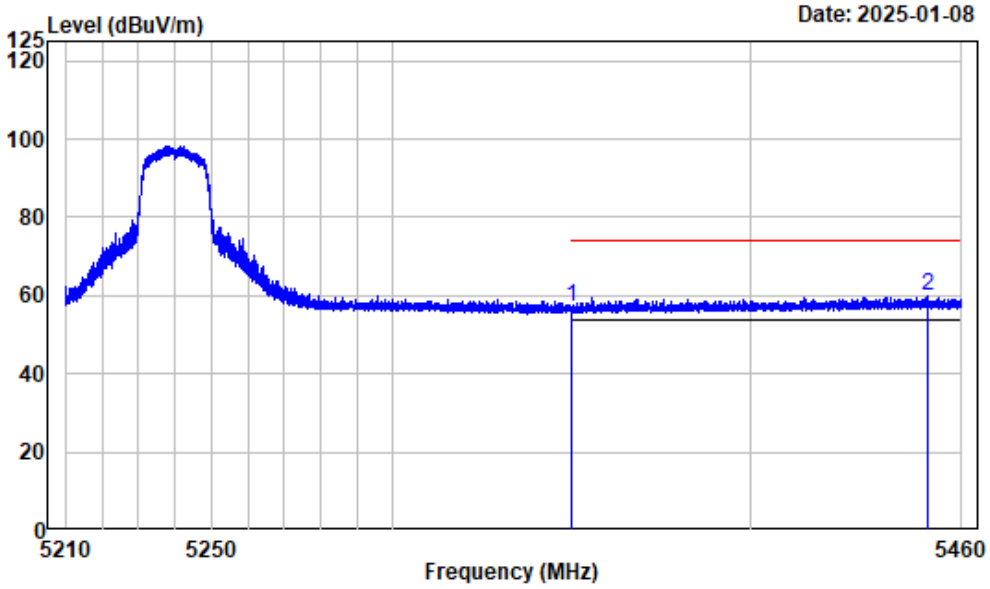
Left Band edge_Vertical_Average_802.11ac-VHT20_5180MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 5GWiFi-Band1-AC20-5180

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5149.051	-7.46	53.10	45.64	54.00	-8.36	Average
2	5150.000	-7.46	52.97	45.51	54.00	-8.49	Average

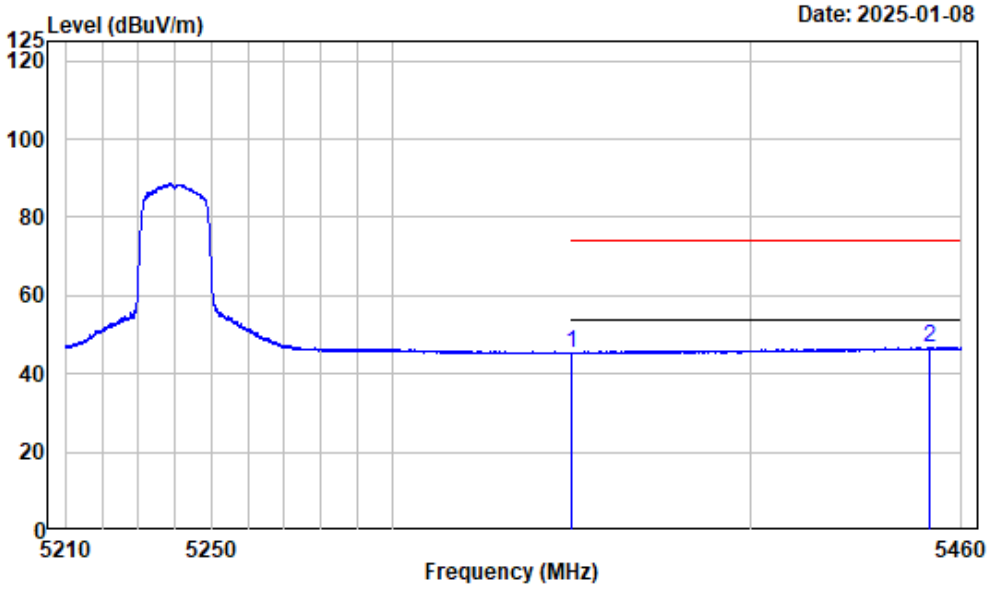
Right Band edge_Horizontal_Peak_802.11ac-VHT20_5240MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-AC20-5240

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5350.000	-6.74	63.91	57.17	74.00	-16.83	Peak
2	5450.217	-6.32	66.20	59.88	74.00	-14.12	Peak

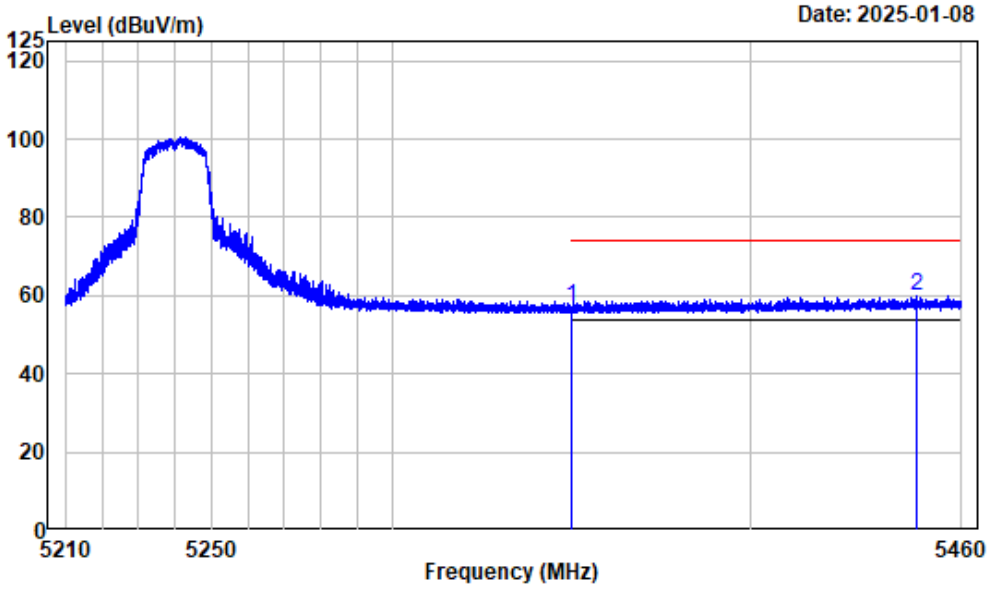
Right Band edge_Horizontal_Average_802.11ac-VHT20_5240MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 5GWiFi-Band1-AC20-5240

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5350.000	-6.74	52.04	45.30	54.00	-8.70	Average
2	5451.093	-6.32	53.12	46.80	54.00	-7.20	Average

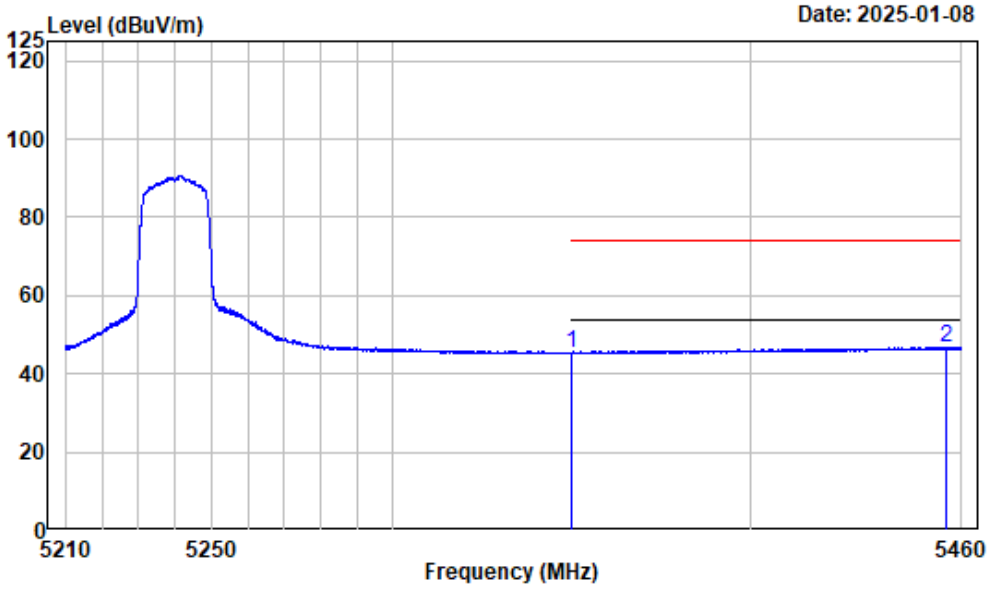
Right Band edge_Vertical_Peak_802.11ac-VHT20_5240MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-AC20-5240

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5350.000	-6.74	63.59	56.85	74.00	-17.15	Peak
2	5447.030	-6.35	66.26	59.91	74.00	-14.09	Peak

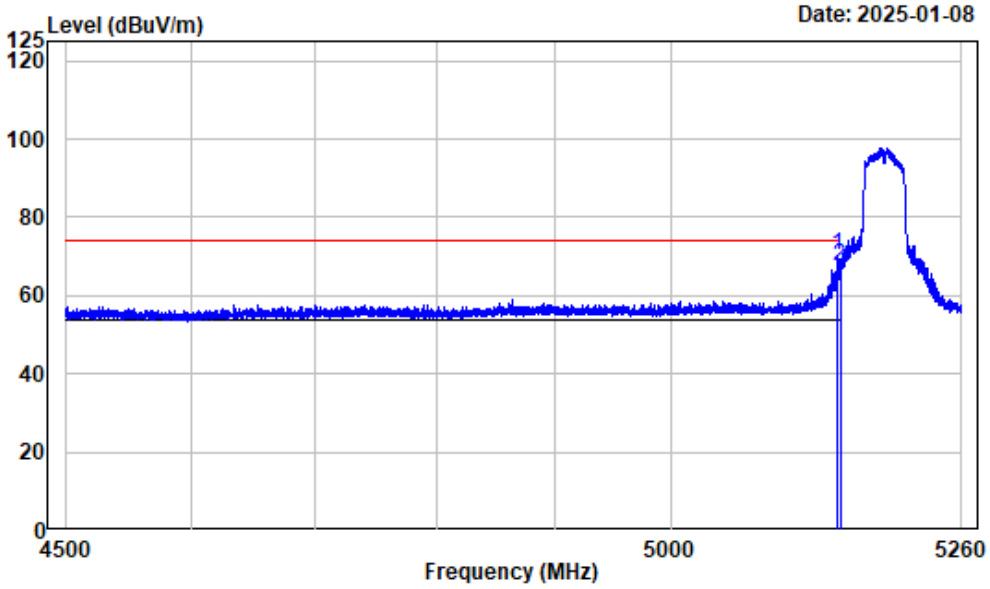
Right Band edge_Vertical_Average_802.11ac-VHT20_5240MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 5GWiFi-Band1-AC20-5240

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5350.000	-6.74	52.01	45.27	54.00	-8.73	Average
2	5455.468	-6.31	53.01	46.70	54.00	-7.30	Average

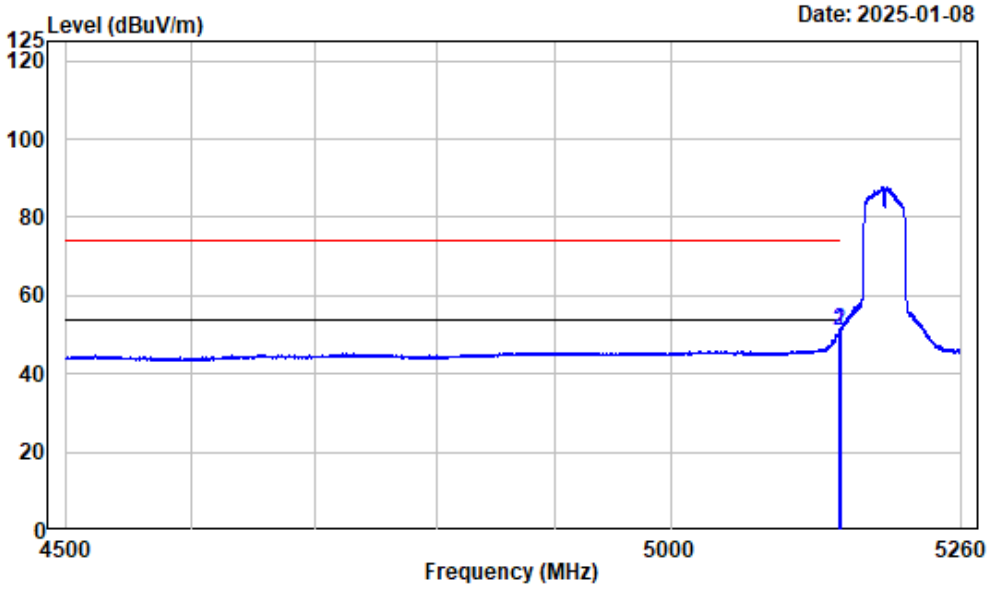
Left Band edge_Horizontal_Peak_802.11ac-VHT40_5190MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-AC40-5190

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5147.601	-7.46	77.51	70.05	74.00	-3.95	Peak
2	5150.000	-7.46	75.11	67.65	74.00	-6.35	Peak

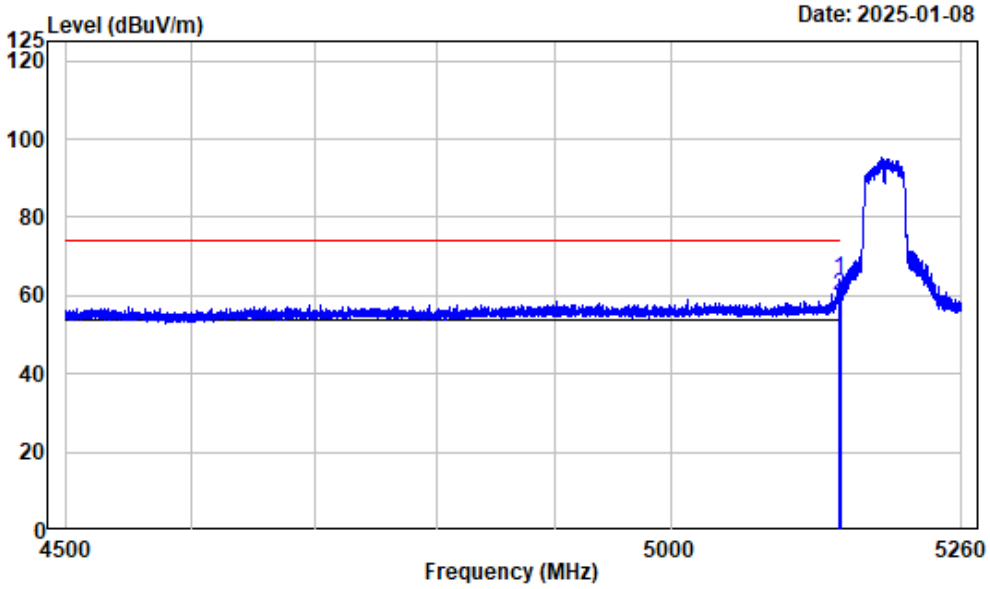
Left Band edge_Horizontal_Average_802.11ac-VHT40_5190MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:2kHz Detector:Peak
Note : 5GWiFi-Band1-AC40-5190

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5149.406	-7.46	58.45	50.99	54.00	-3.01	Average
2	5150.000	-7.46	58.20	50.74	54.00	-3.26	Average

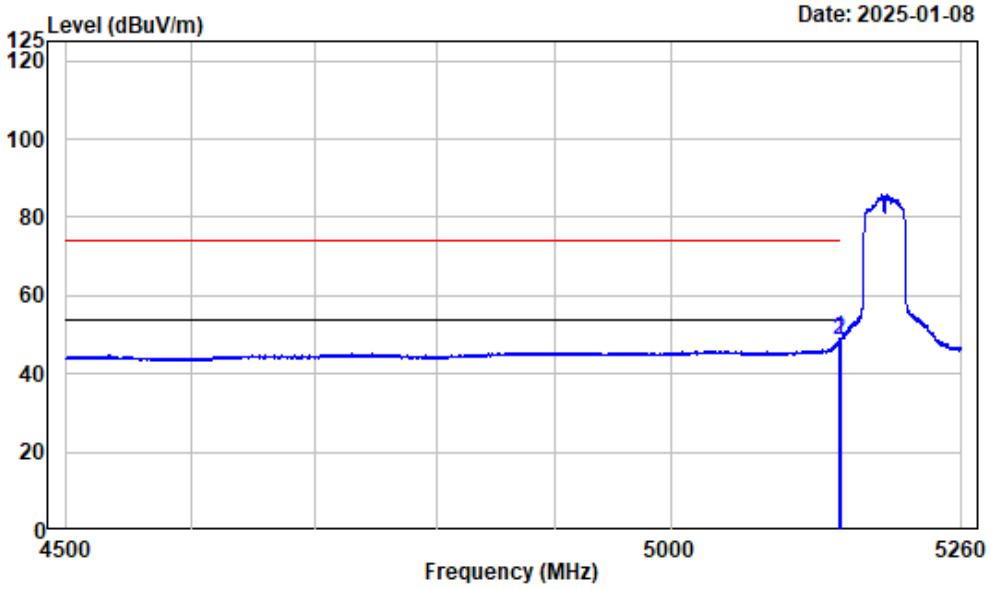
Left Band edge_Vertical_Peak_802.11ac-VHT40_5190MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-AC40-5190

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5149.786	-7.46	71.58	64.12	74.00	-9.88	Peak
2	5150.000	-7.46	67.36	59.90	74.00	-14.10	Peak

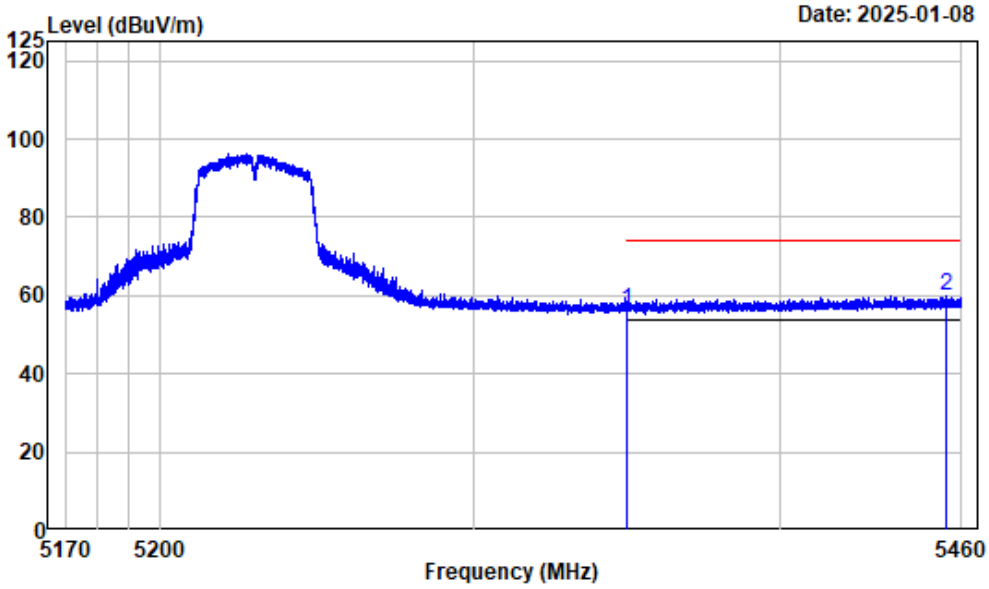
Left Band edge_Vertical_Average_802.11ac-VHT40_5190MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:2kHz Detector:Peak
Note : 5GWiFi-Band1-AC40-5190

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5149.691	-7.46	56.50	49.04	54.00	-4.96	Average
2	5150.000	-7.46	56.04	48.58	54.00	-5.42	Average

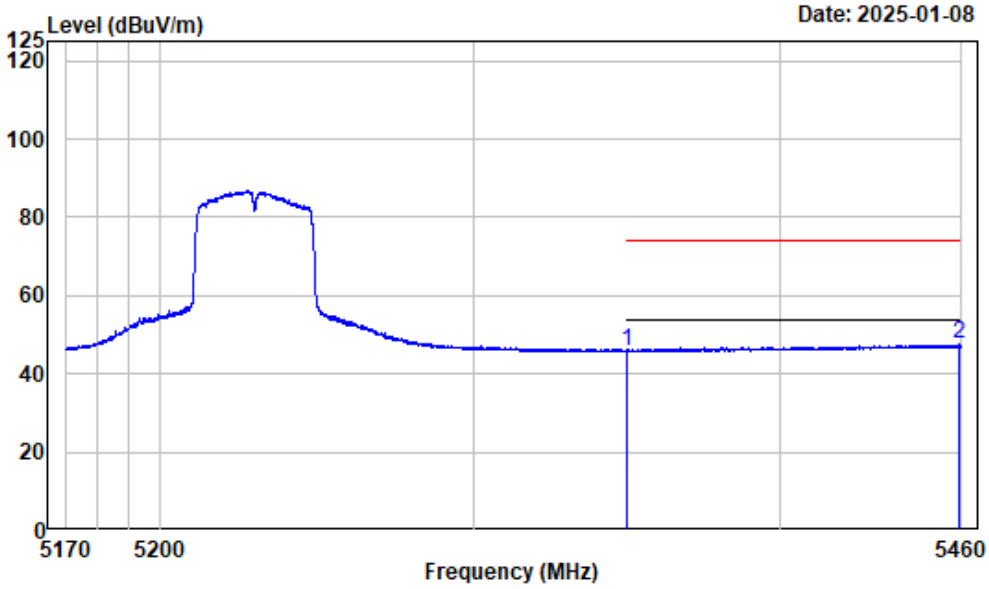
Right Band edge_Horizontal_Peak_802.11ac-VHT40_5230MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-AC40-5230

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5350.000	-6.74	63.05	56.31	74.00	-17.69	Peak
2	5455.214	-6.31	66.26	59.95	74.00	-14.05	Peak

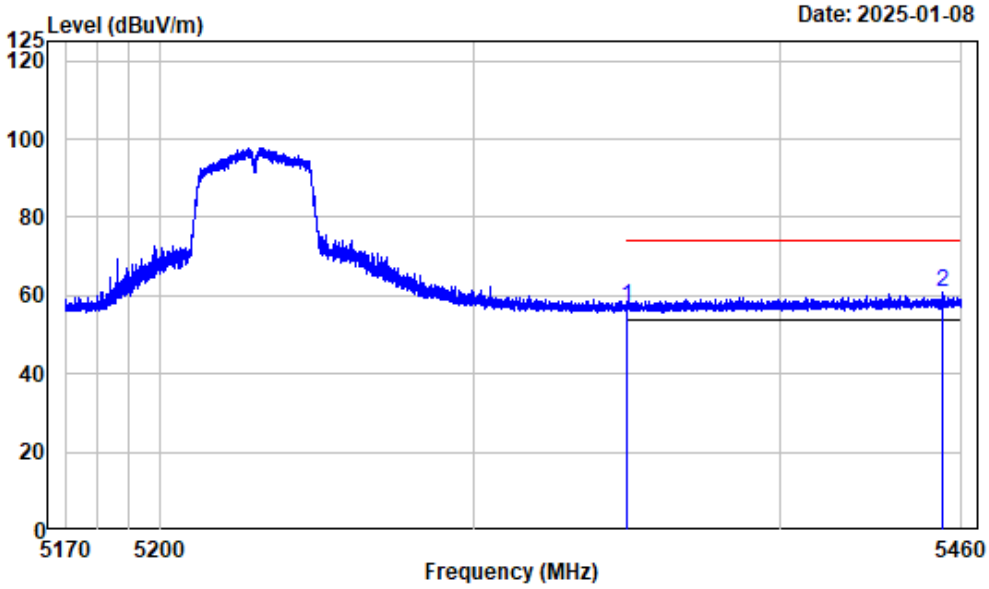
Right Band edge_Horizontal_Average_802.11ac-VHT40_5230MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:2kHz Detector:Peak
Note : 5GWiFi-Band1-AC40-5230

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5350.000	-6.74	52.69	45.95	54.00	-8.05	Average
2	5459.203	-6.29	53.70	47.41	54.00	-6.59	Average

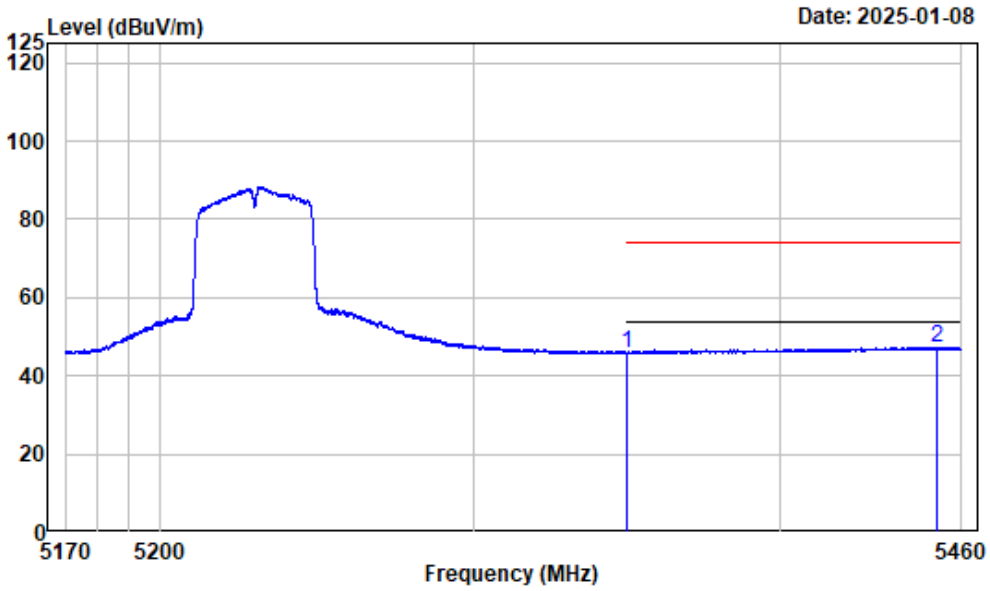
Right Band edge_Vertical_Peak_802.11ac-VHT40_5230MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-AC40-5230

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5350.000	-6.74	63.62	56.88	74.00	-17.12	Peak
2	5453.873	-6.31	66.93	60.62	74.00	-13.38	Peak

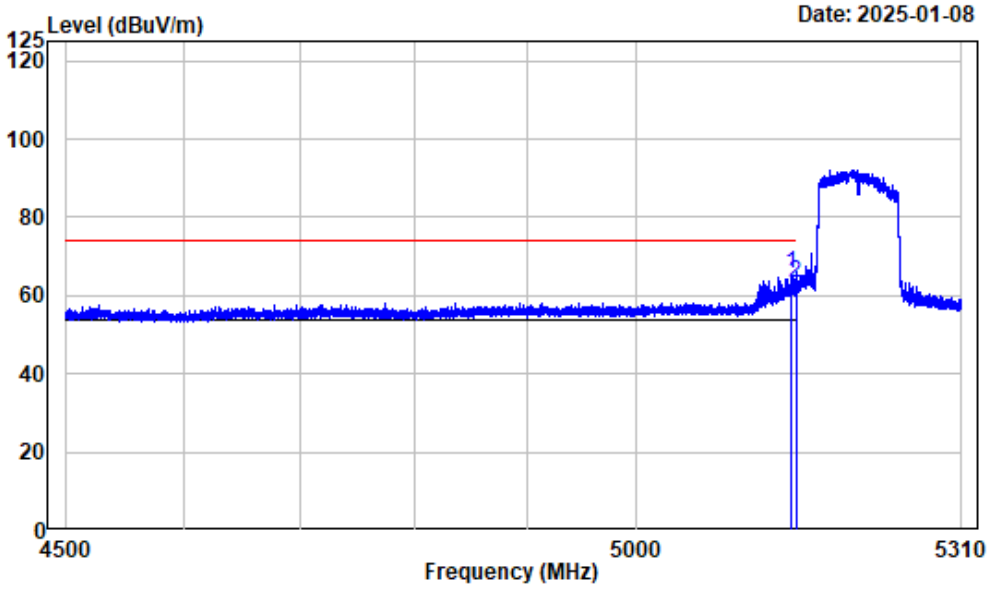
Right Band edge_Vertical_ Average _802.11ac-VHT40_5230MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:2kHz Detector:Peak
Note : 5GWiFi-Band1-AC40-5230

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5350.000	-6.74	52.60	45.86	54.00	-8.14	Average
2	5451.734	-6.32	53.72	47.40	54.00	-6.60	Average

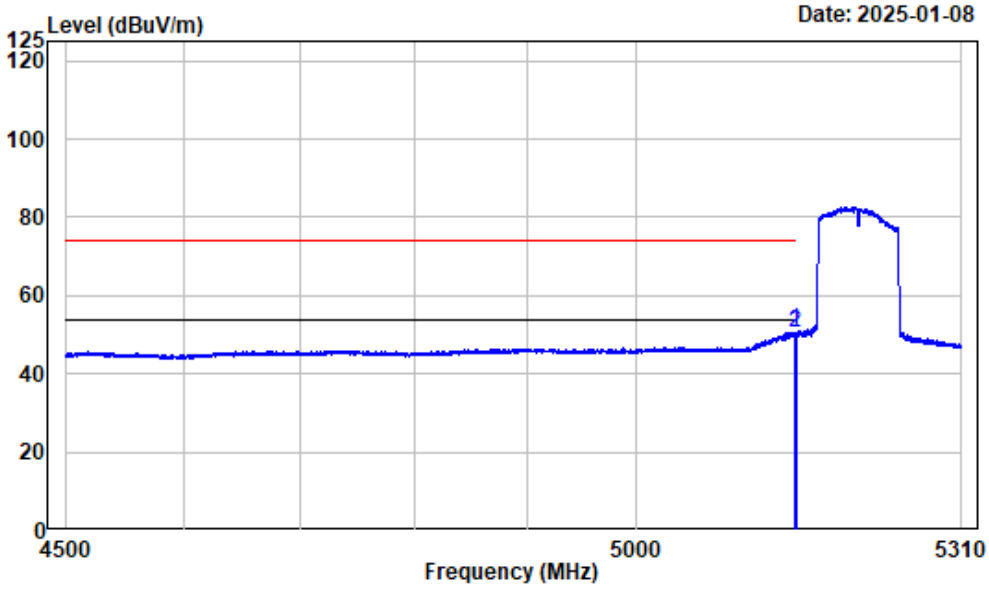
Left Band edge_Horizontal_Peak_802.11ac-VHT80_5210MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-AC80-5210

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5145.955	-7.46	73.21	65.75	74.00	-8.25	Peak
2	5150.000	-7.46	70.48	63.02	74.00	-10.98	Peak

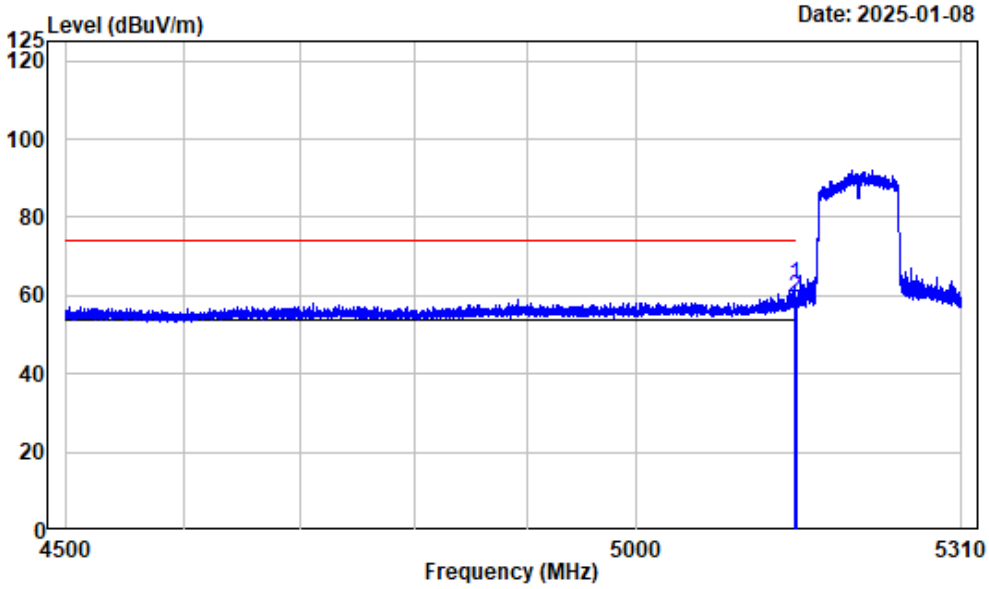
Left Band edge_Horizontal_Average_802.11ac-VHT80_5210MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:5kHz Detector:Peak
Note : 5GWiFi-Band1-AC80-5210

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5149.397	-7.46	58.37	50.91	54.00	-3.09	Average
2	5150.000	-7.46	58.08	50.62	54.00	-3.38	Average

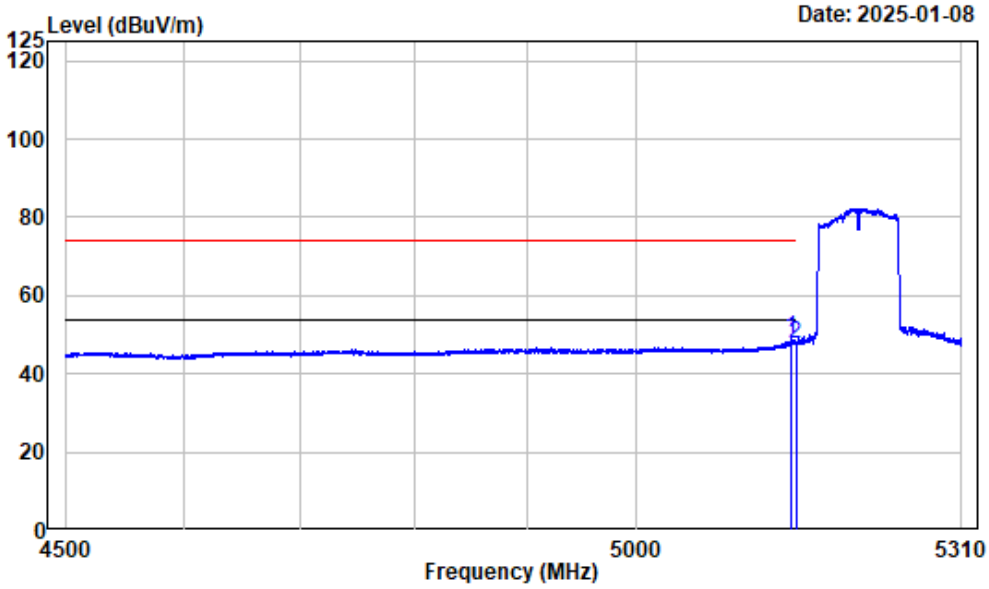
Left Band edge_Vertical_Peak_802.11ac-VHT80_5210MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-AC80-5210

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5149.094	-7.46	70.29	62.83	74.00	-11.17	Peak
2	5150.000	-7.46	66.99	59.53	74.00	-14.47	Peak

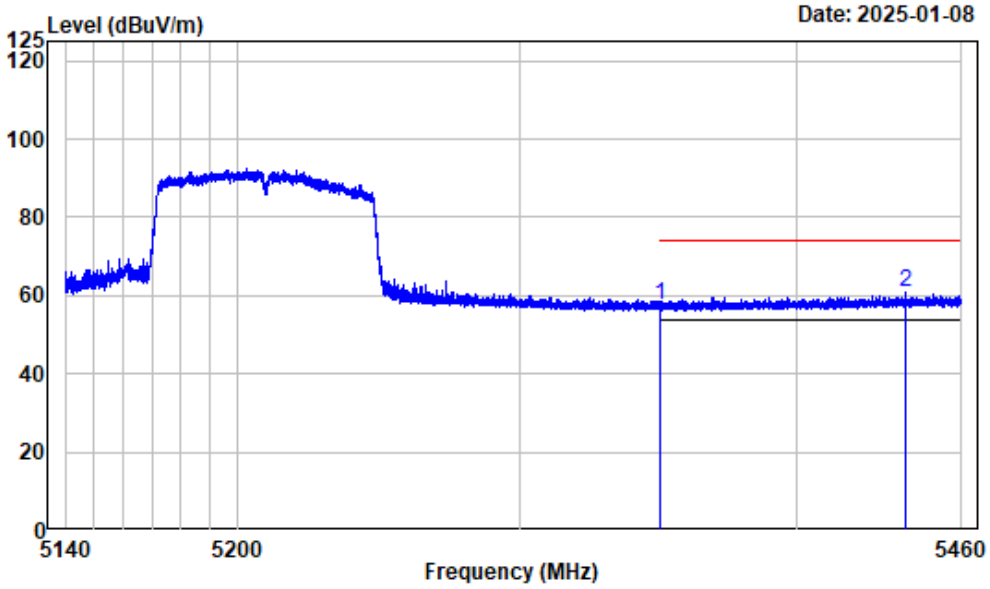
Left Band edge_Vertical_Average_802.11ac-VHT80_5210MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:5kHz Detector:Peak
Note : 5GWiFi-Band1-AC80-5210

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5145.752	-7.46	56.40	48.94	54.00	-5.06	Average
2	5150.000	-7.46	55.12	47.66	54.00	-6.34	Average

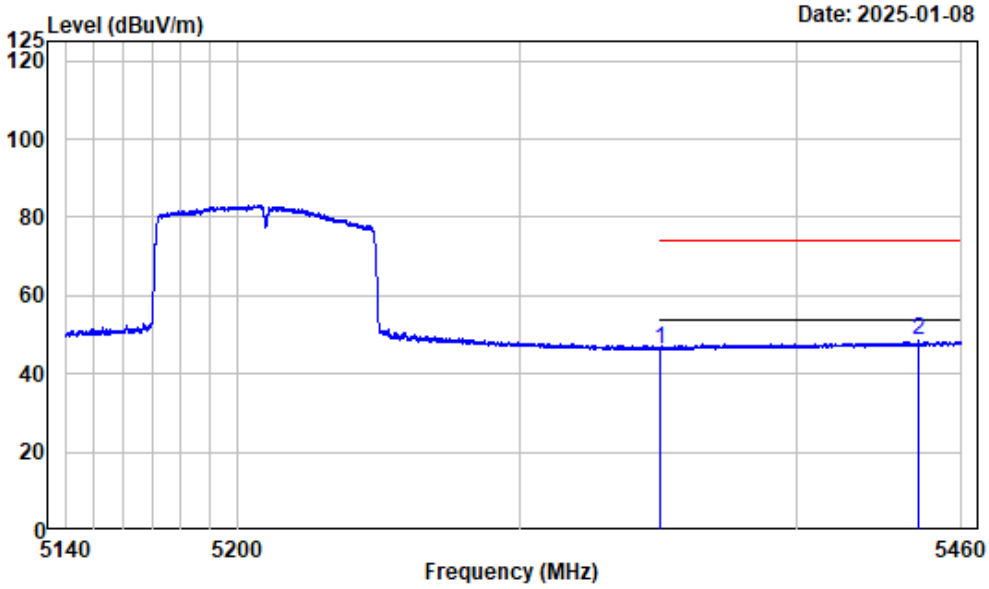
Right Band edge_Horizontal_Peak_802.11ac-VHT80_5210MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-AC80-5210

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5350.000	-6.74	64.13	57.39	74.00	-16.61	Peak
2	5439.717	-6.38	67.10	60.72	74.00	-13.28	Peak

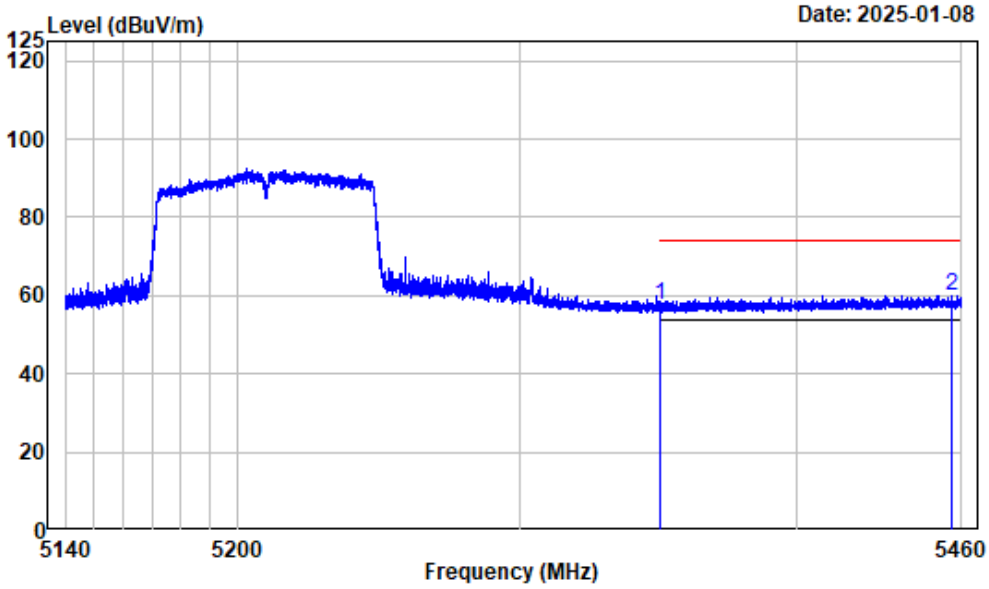
Right Band edge_ Horizontal _Average_802.11ac-VHT80_5210MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:5kHz Detector:Peak
Note : 5GWiFi-Band1-AC80-5210

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5350.000	-6.74	53.16	46.42	54.00	-7.58	Average
2	5444.358	-6.35	54.92	48.57	54.00	-5.43	Average

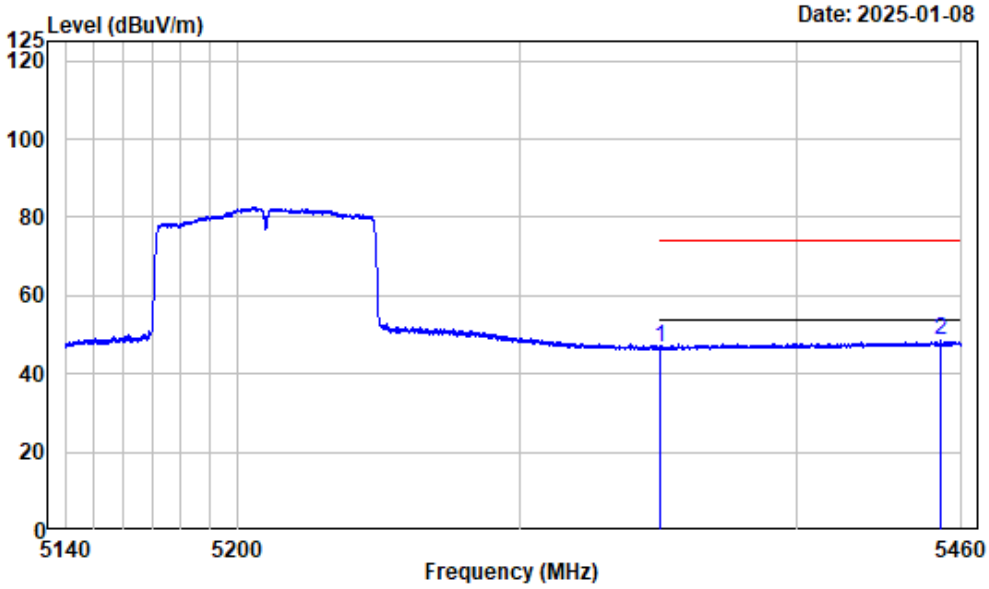
Right Band edge_Vertical_Peak_802.11ac-VHT80_5210MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-AC80-5210

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5350.000	-6.74	64.37	57.63	74.00	-16.37	Peak
2	5456.120	-6.31	66.37	60.06	74.00	-13.94	Peak

Right Band edge_Vertical_Average_802.11ac-VHT80_5210MHz

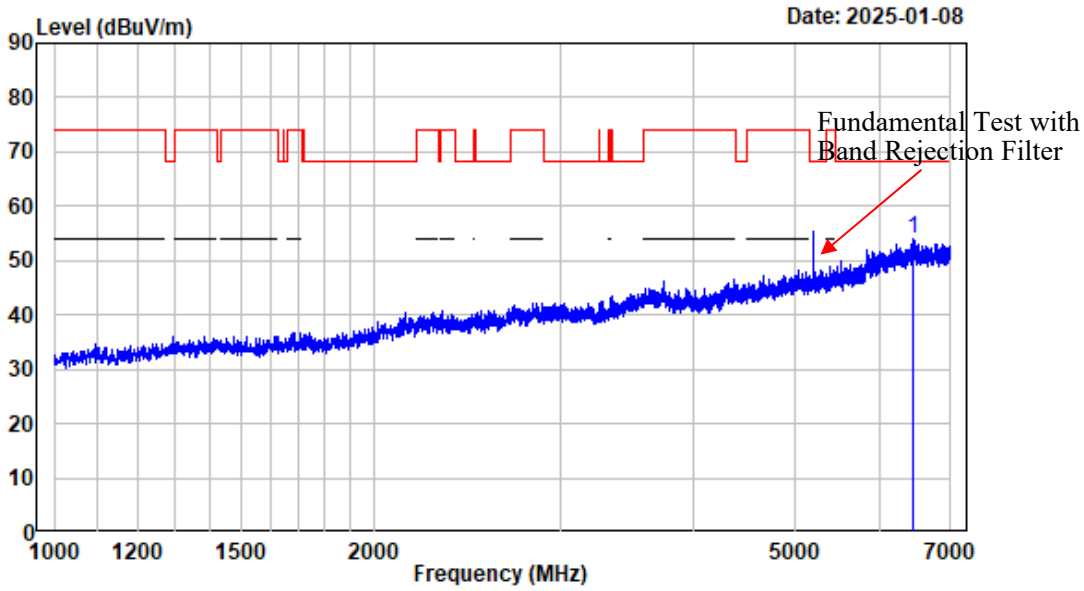


Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:5kHz Detector:Peak
Note : 5GWiFi-Band1-AC80-5210

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5350.000	-6.74	53.22	46.48	54.00	-7.52	Average
2	5452.119	-6.32	54.70	48.38	54.00	-5.62	Average

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

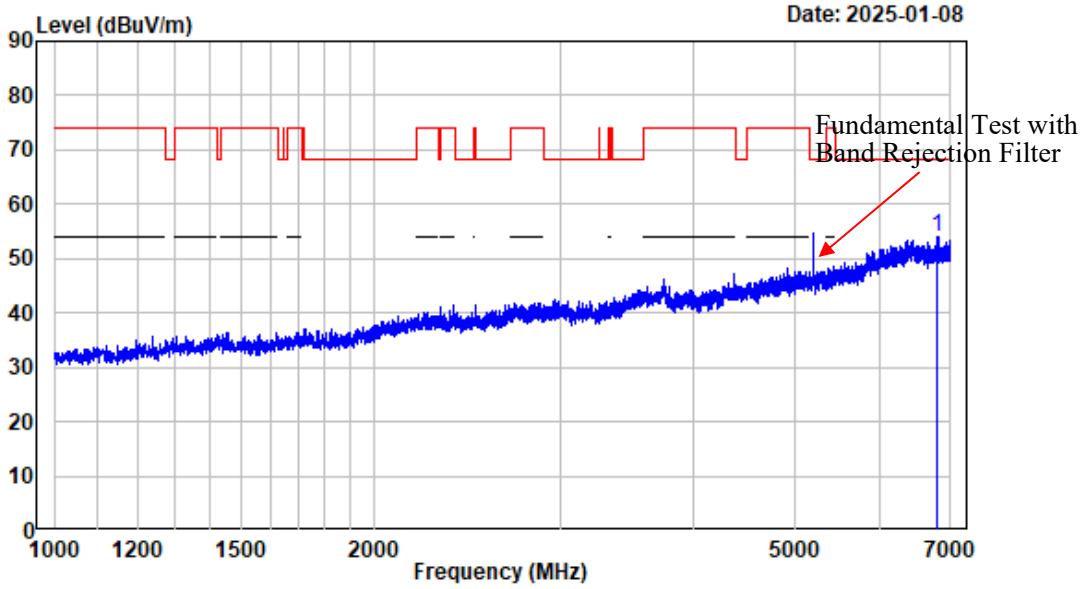
1-7GHz_Horizontal_802.11a_5200MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-A-5200

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	6446.431	-2.88	56.91	54.03	68.20	-14.17	Peak

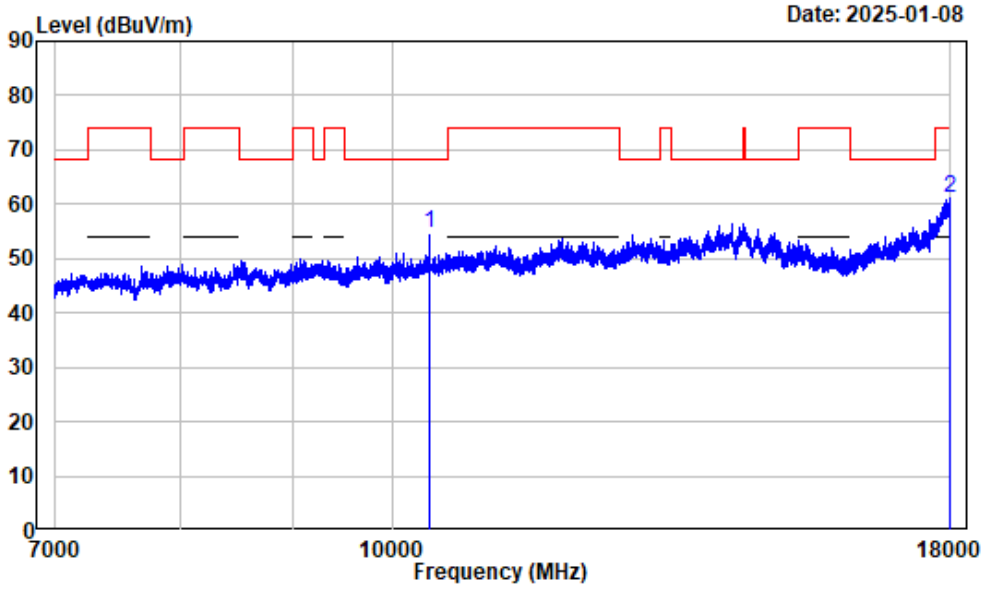
1-7GHz_Vertical_802.11a_5200MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-A-5200

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	6803.476	-3.34	57.19	53.85	68.20	-14.35	Peak

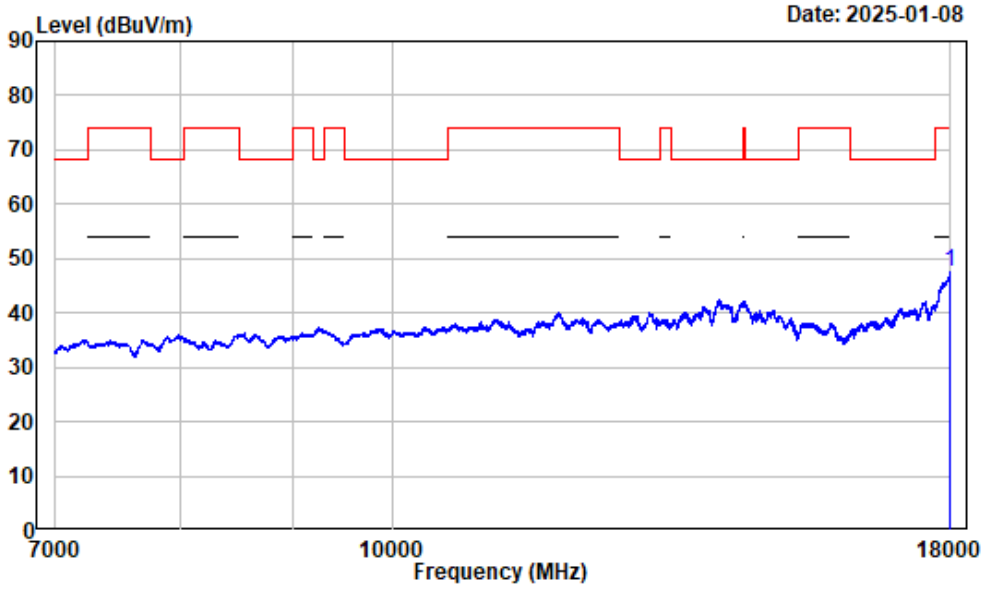
7-18GHz_Horizontal_Peak_802.11a_5200MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-A-5200

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	10400.000	2.55	52.04	54.59	68.20	-13.61	Peak
2	17990.370	13.15	48.05	61.20	74.00	-12.80	Peak

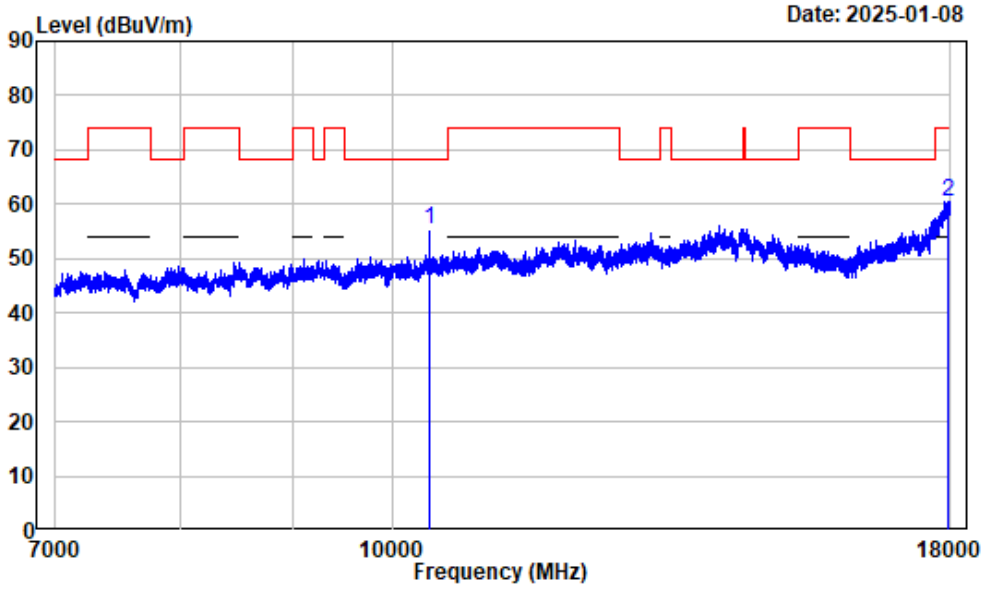
7-18GHz_Horizontal_Average_802.11a_5200MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 5GWiFi-Band1-A-5200

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	17998.630	13.20	34.27	47.47	54.00	-6.53	Average

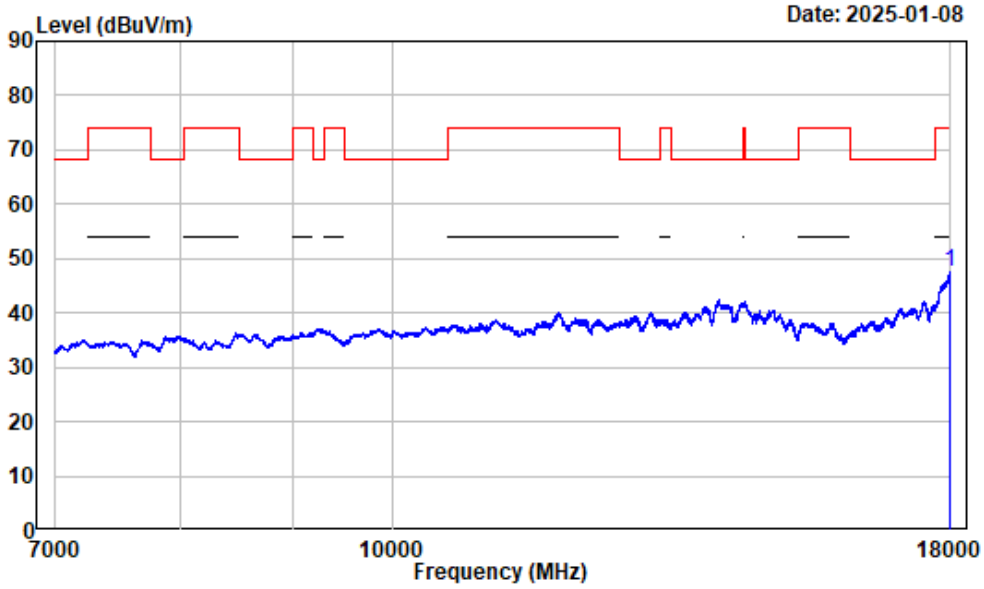
7-18GHz_Vertical_Peak_802.11a_5200MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-A-5200

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	10400.000	2.55	52.87	55.42	68.20	-12.78	Peak
2	17958.740	12.99	47.60	60.59	74.00	-13.41	Peak

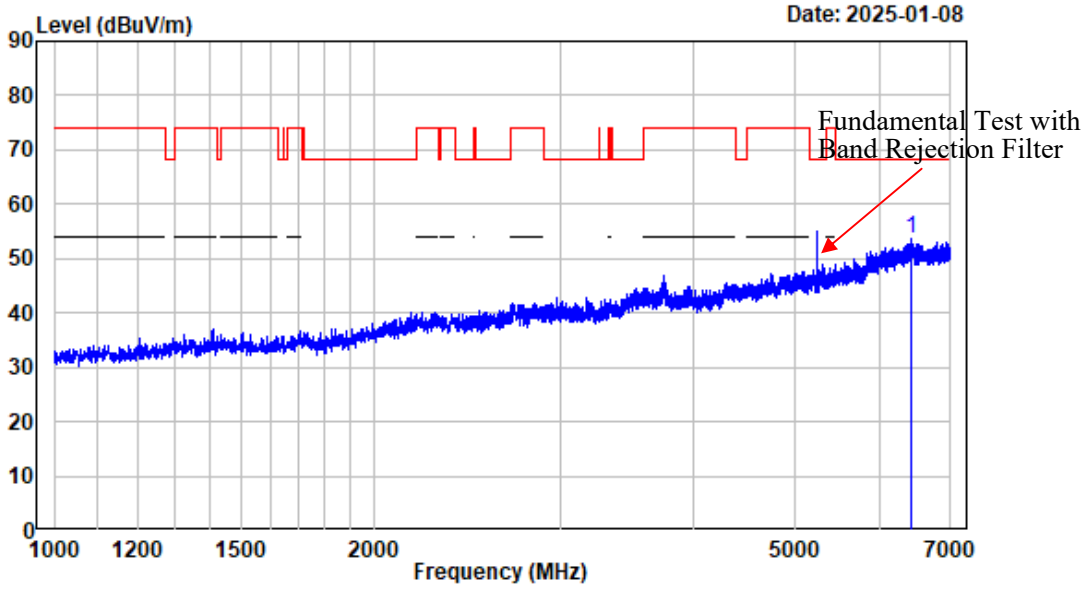
7-18GHz_Vertical_Average_802.11a_5200MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 5GWiFi-Band1-A-5200

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	17991.750	13.16	34.24	47.40	54.00	-6.60	Average

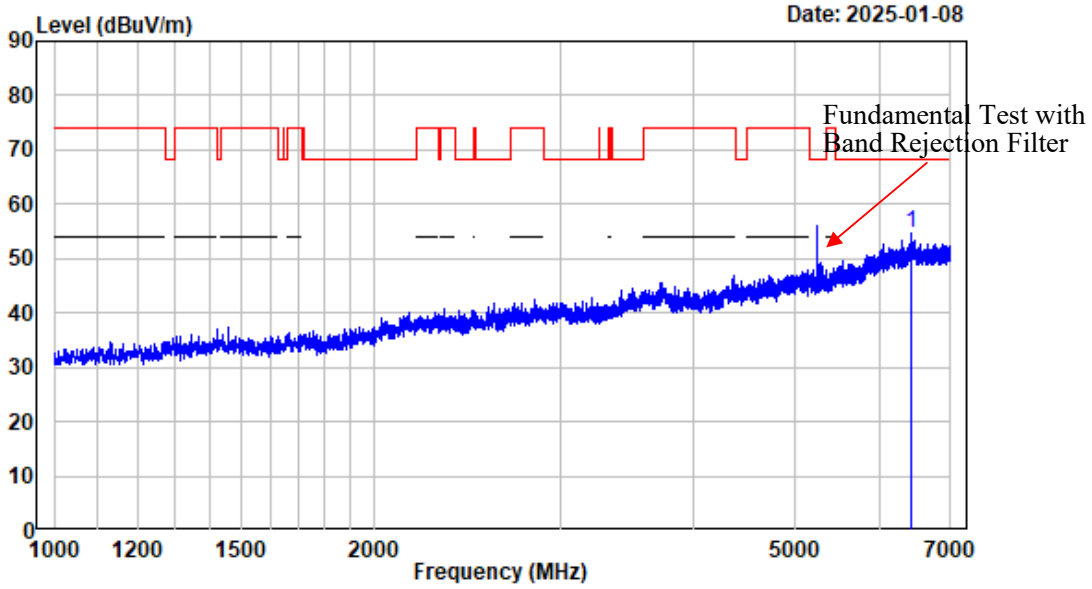
1-7GHz_Horizontal_802.11ac_5240MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-AC20-5240

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	6433.679	-2.88	56.43	53.55	68.20	-14.65	Peak

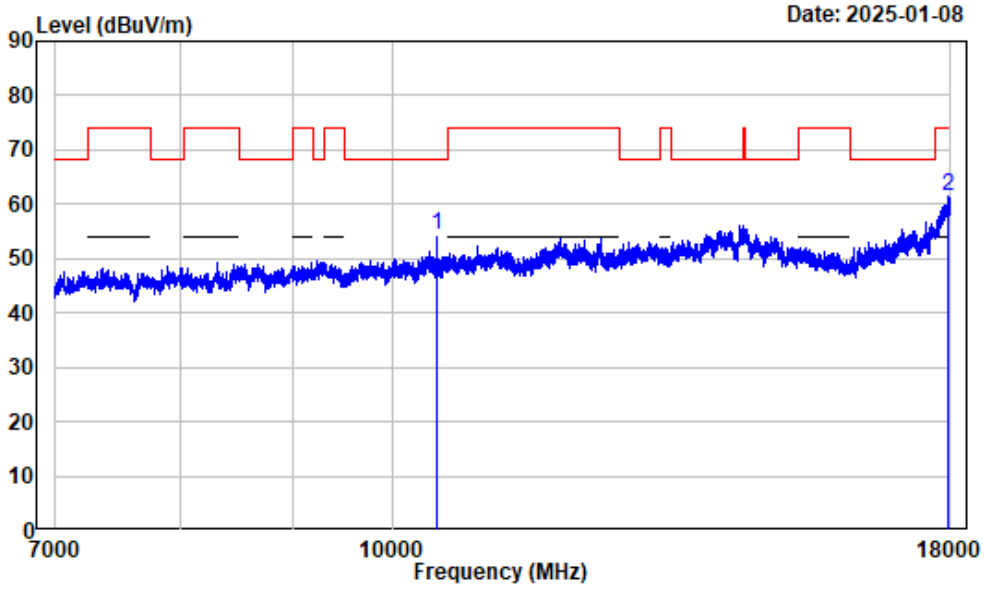
1-7GHz_Vertical_802.11ac_5240MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-AC20-5240

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	6439.680	-2.87	57.70	54.83	68.20	-13.37	Peak

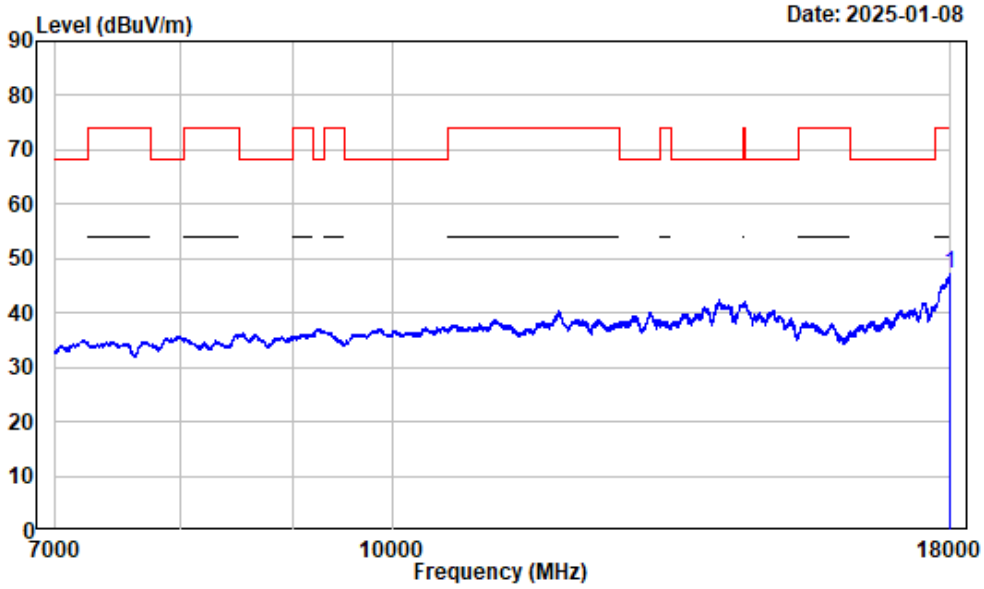
7-18GHz_Horizontal_Peak_802.11ac_5240MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-AC20-5240

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	10480.000	2.25	52.06	54.31	68.20	-13.89	Peak
2	17950.490	12.95	48.46	61.41	74.00	-12.59	Peak

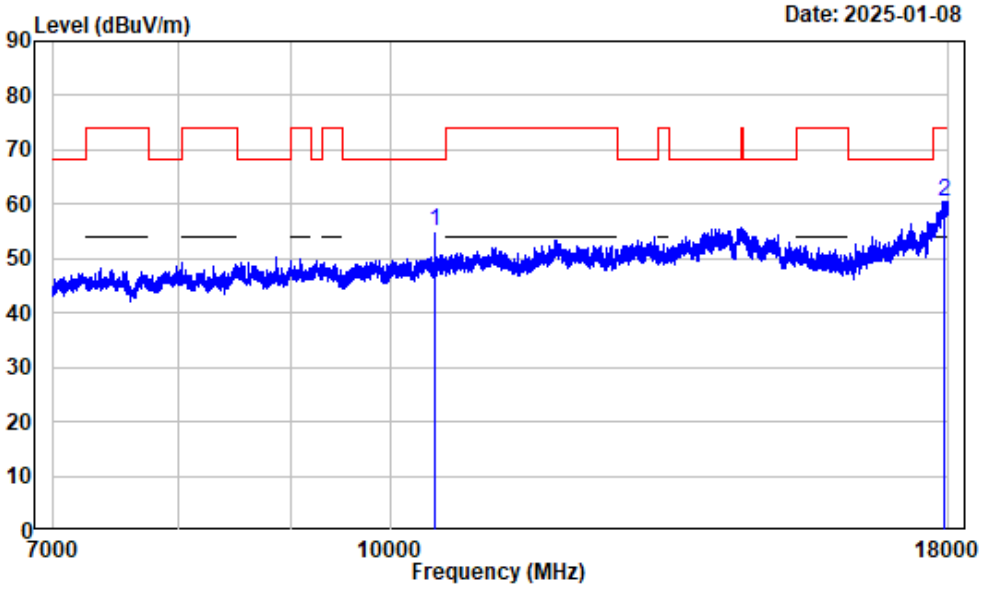
7-18GHz_Horizontal_Average_802.11ac_5240MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 5GWiFi-Band1-AC20-5240

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	17995.880	13.18	34.17	47.35	54.00	-6.65	Average

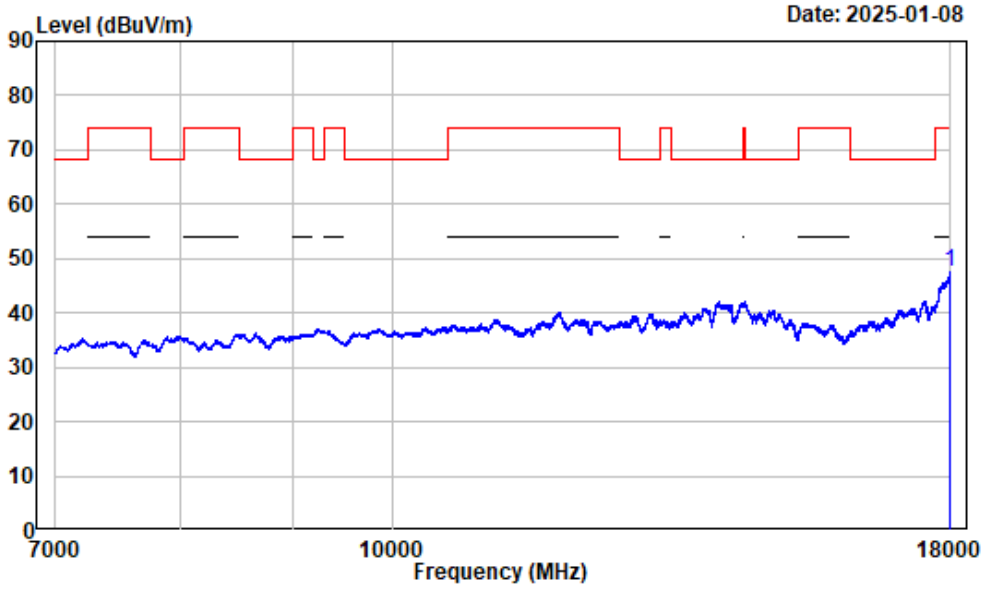
7-18GHz_Vertical_Peak_802.11ac_5240MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-AC20-5240

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	10480.000	2.25	52.83	55.08	68.20	-13.12	Peak
2	17929.870	12.86	47.63	60.49	74.00	-13.51	Peak

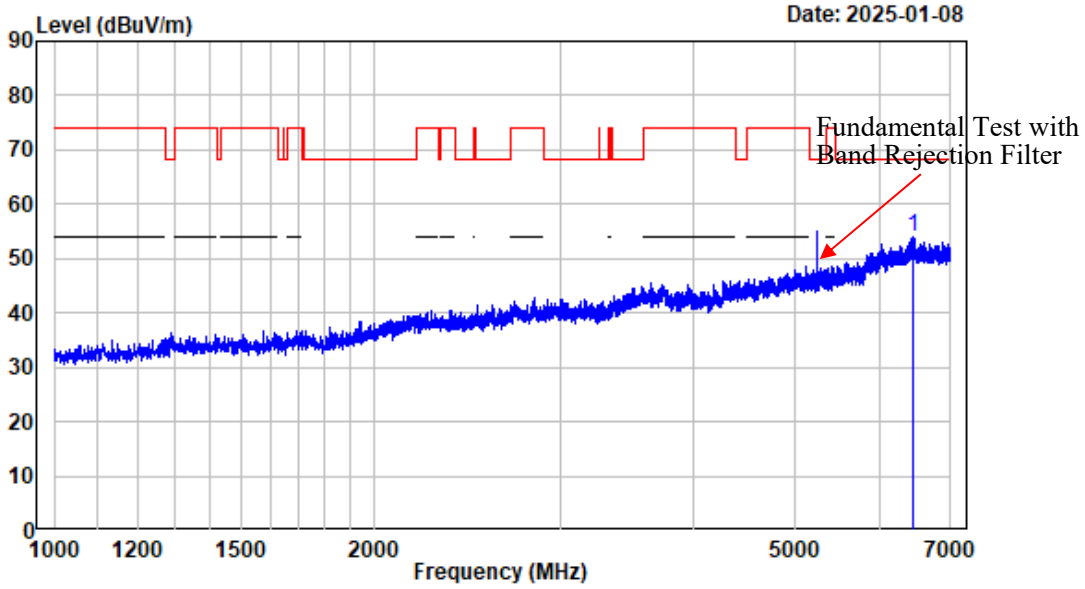
7-18GHz_Vertical_Average_802.11ac_5240MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading:RBW:1MHz VBW:1kHz Detector:Peak
Note : 5GWiFi-Band1-AC20-5240

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	17986.250	13.12	34.26	47.38	54.00	-6.62	Average

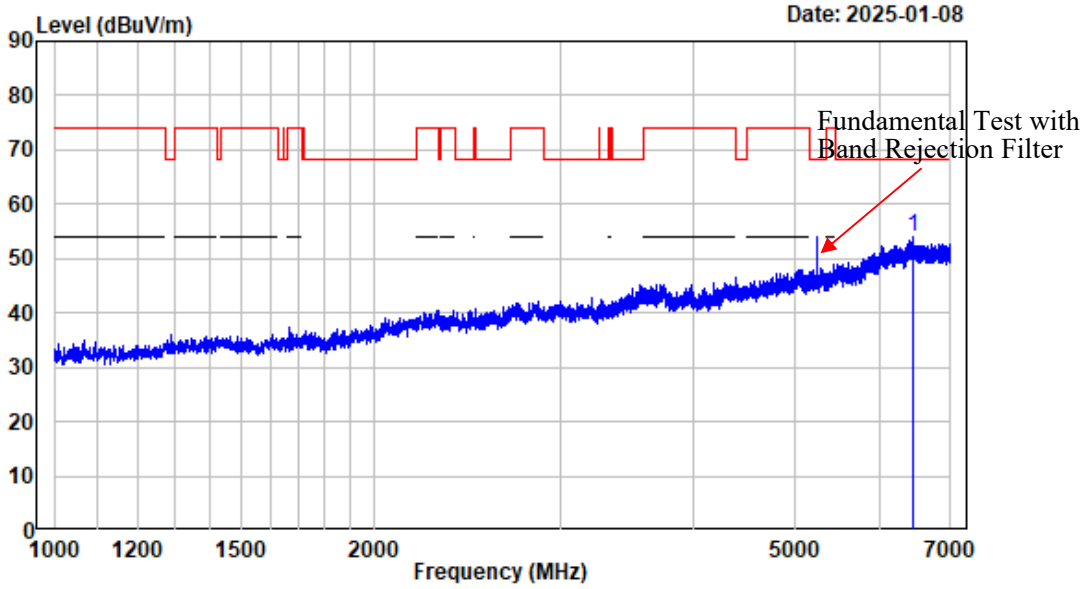
1-7GHz_Horizontal_802.11ac40_5230MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-AC40-5230

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	6446.431	-2.88	57.03	54.15	68.20	-14.05	Peak

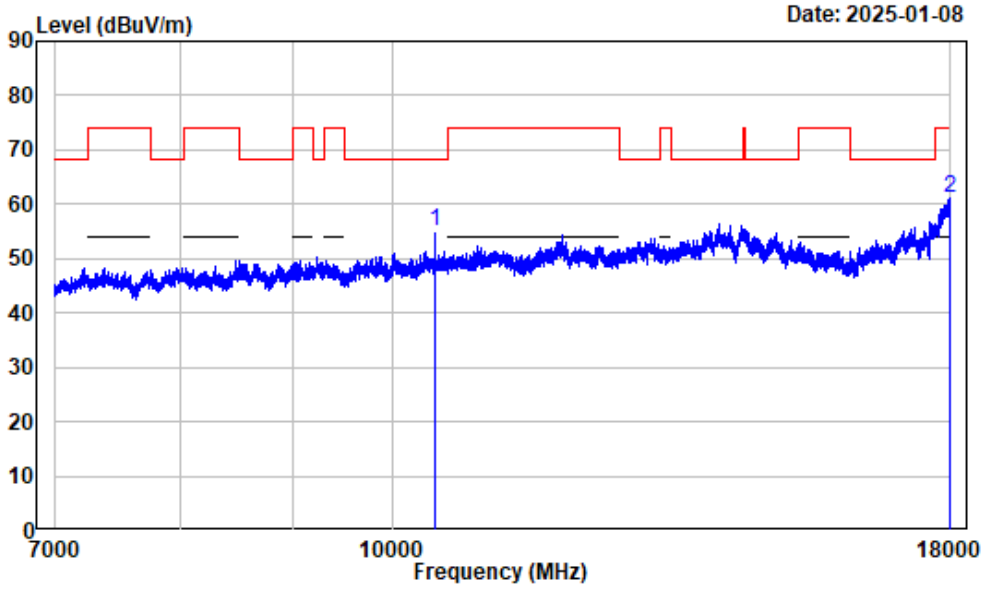
1-7GHz_Vertical_802.11ac40_5230MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-AC40-5230

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	6457.682	-2.88	57.04	54.16	68.20	-14.04	Peak

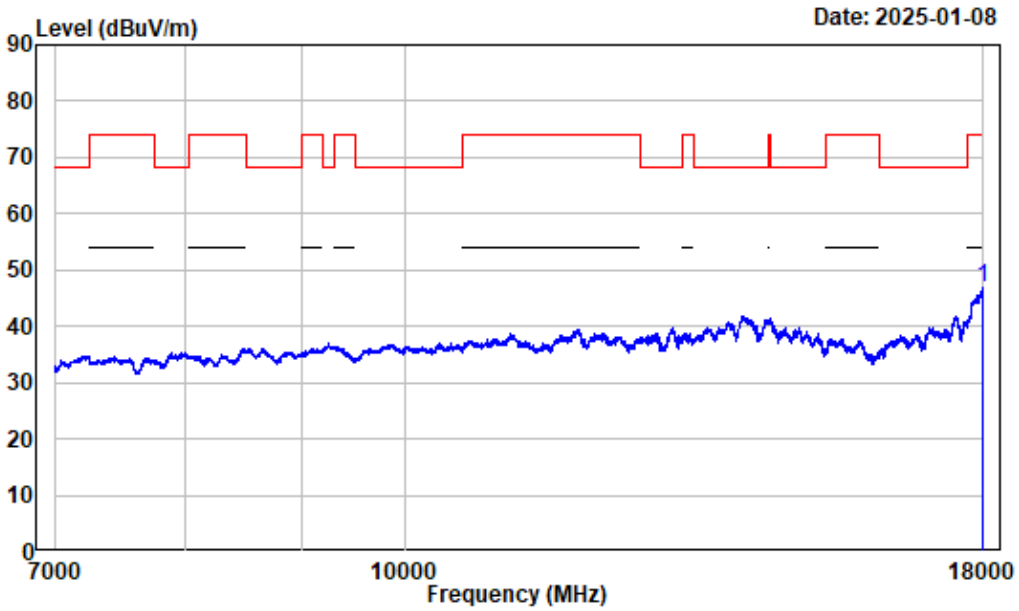
7-18GHz_Horizontal_Peak_802.11ac40_5230MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-AC40-5230

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	10460.000	2.32	52.57	54.89	68.20	-13.31	Peak
2	17997.250	13.19	47.92	61.11	74.00	-12.89	Peak

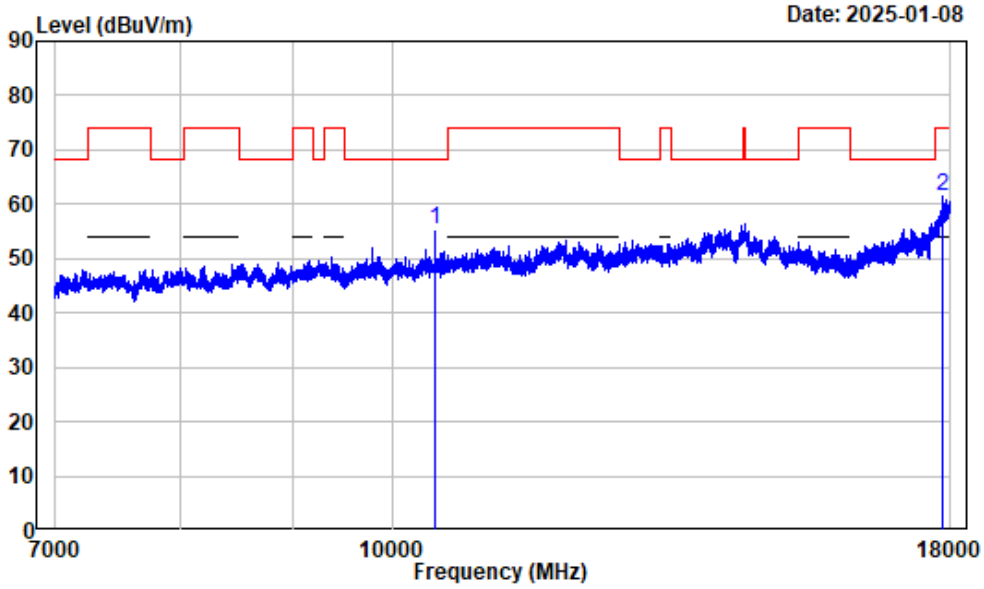
7-18GHz_Horizontal_Average_802.11ac40_5230MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading: RBW:1MHz VBW:2kHz Detector:Peak
Note : 5GWiFi-Band1-AC40-5230

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	17995.880	13.18	33.54	46.72	54.00	-7.28	Average

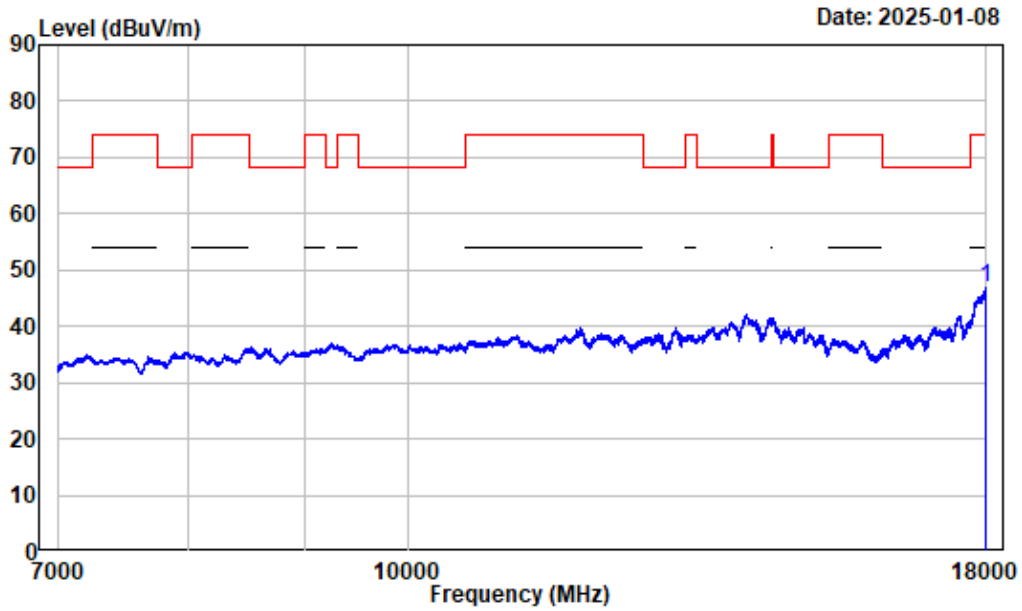
7-18GHz_Vertical_Peak_802.11ac40_5230MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-AC40-5230

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	10460.000	2.32	52.98	55.30	68.20	-12.90	Peak
2	17852.860	11.83	49.56	61.39	74.00	-12.61	Peak

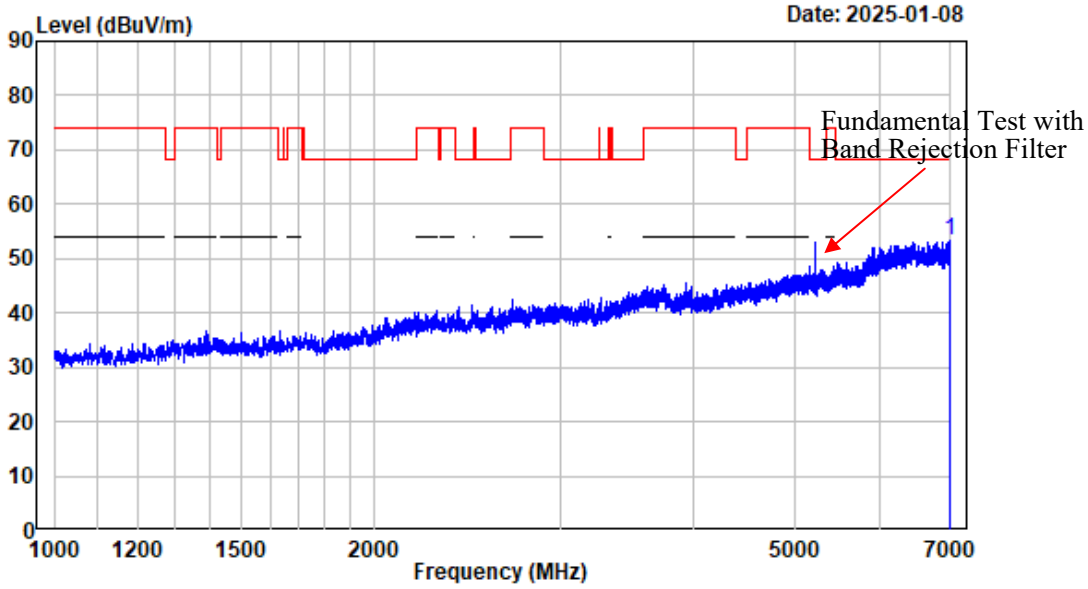
7-18GHz_Vertical_Average_802.11ac40_5230MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading: RBW:1MHz VBW:2kHz Detector:Peak
Note : 5GWiFi-Band1-AC40-5230

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	17991.750	13.16	33.54	46.70	54.00	-7.30	Average

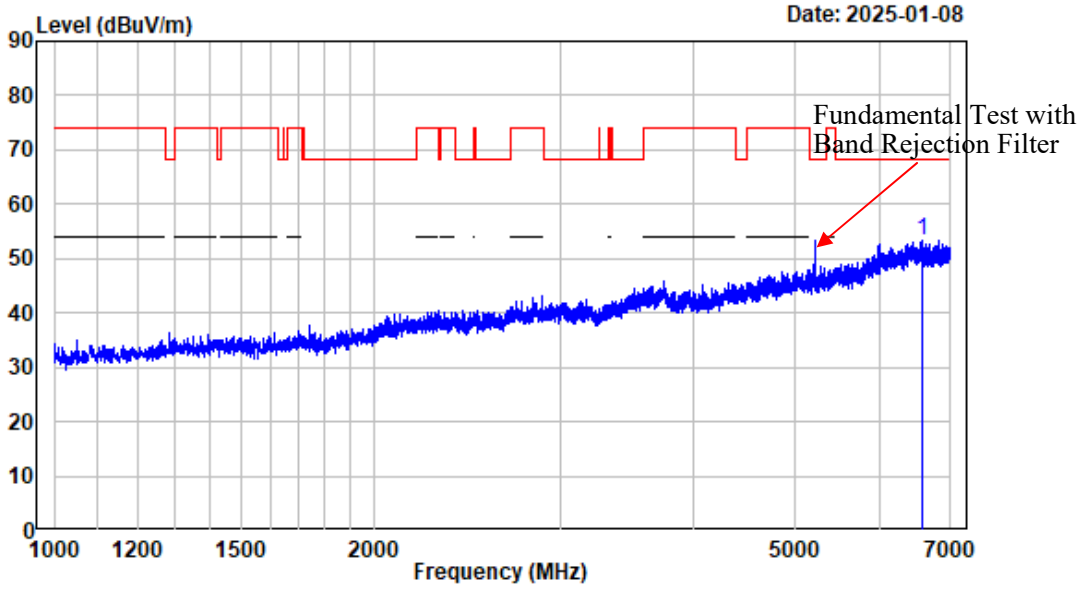
1-7GHz_Horizontal_802.11ac80_5210MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-AC80-5210

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	6983.498	-2.86	56.23	53.37	68.20	-14.83	Peak

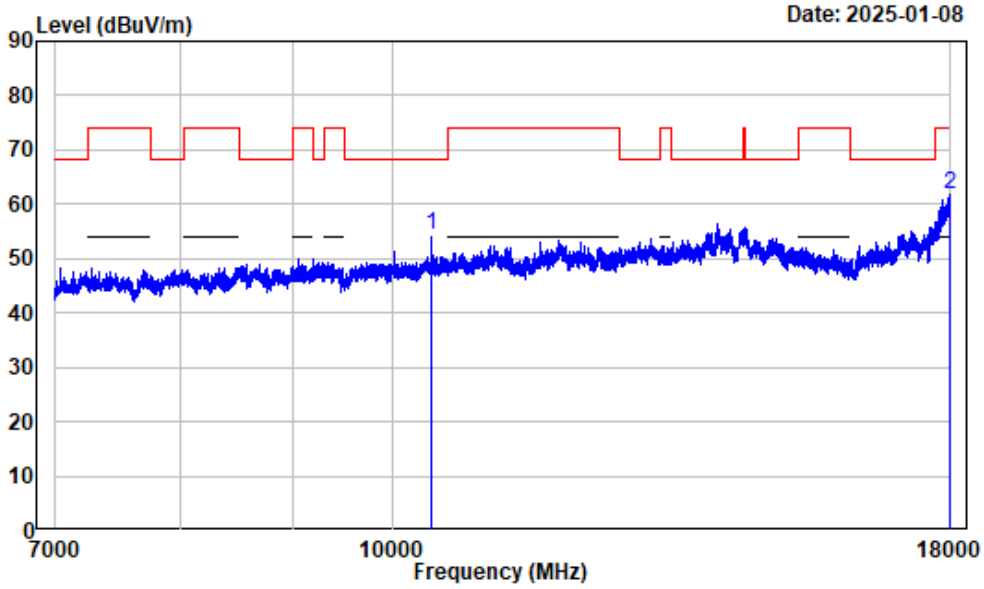
1-7GHz_Vertical_802.11ac80_5210MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-AC80-5210

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	6577.697	-3.08	56.30	53.22	68.20	-14.98	Peak

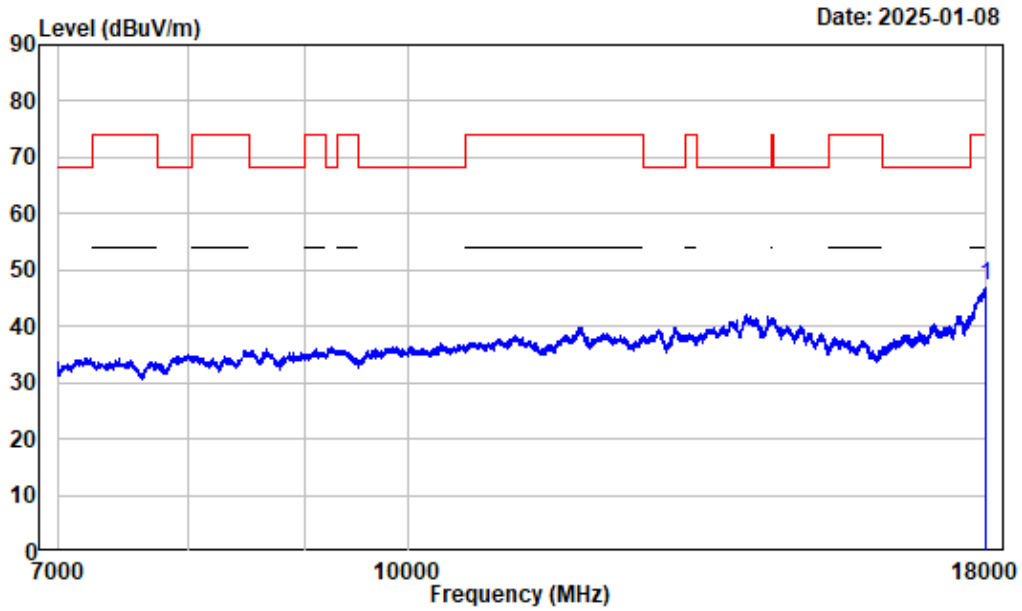
7-18GHz_Horizontal_Peak_802.11ac80_5210MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-AC80-5210

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	10420.000	2.48	51.69	54.17	68.20	-14.03	Peak
2	17980.750	13.11	48.68	61.79	74.00	-12.21	Peak

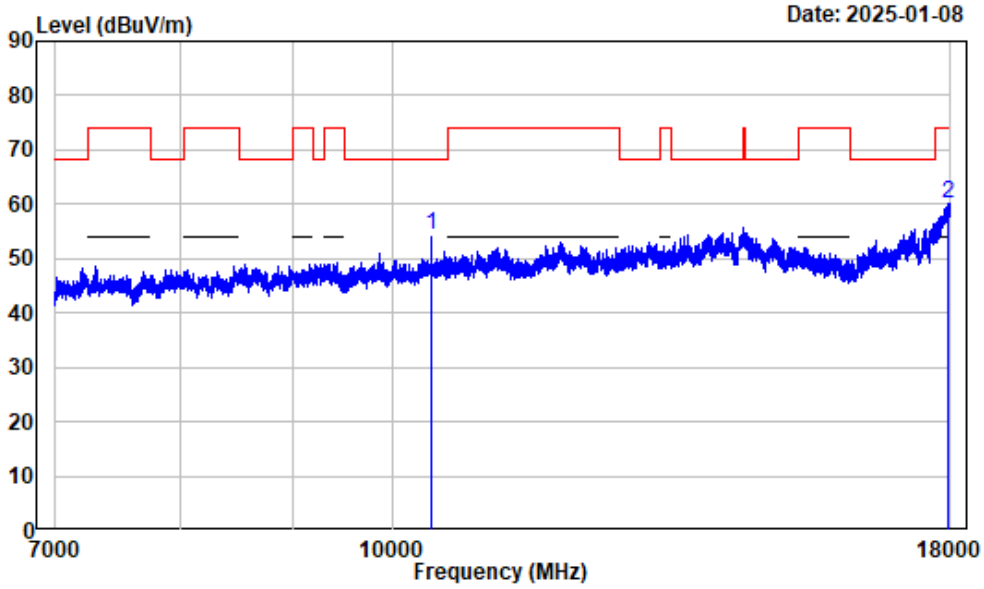
7-18GHz_Horizontal_Average_802.11ac80_5210MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading: RBW:1MHz VBW:5kHz Detector:Peak
Note : 5GWiFi-Band1-AC80-5210

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	17999.890	13.20	34.02	47.22	54.00	-6.78	Average

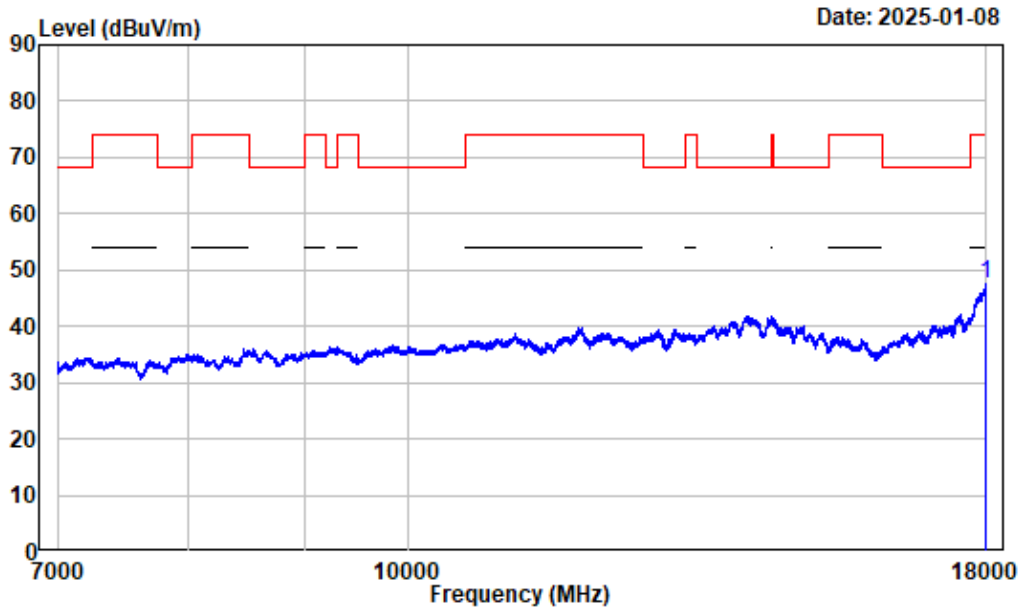
7-18GHz_Vertical_Peak_802.11ac80_5210MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-AC80-5210

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	10420.000	2.48	52.02	54.50	68.20	-13.70	Peak
2	17949.120	12.95	47.25	60.20	74.00	-13.80	Peak

7-18GHz_Vertical_Average_802.11ac80_5210MHz

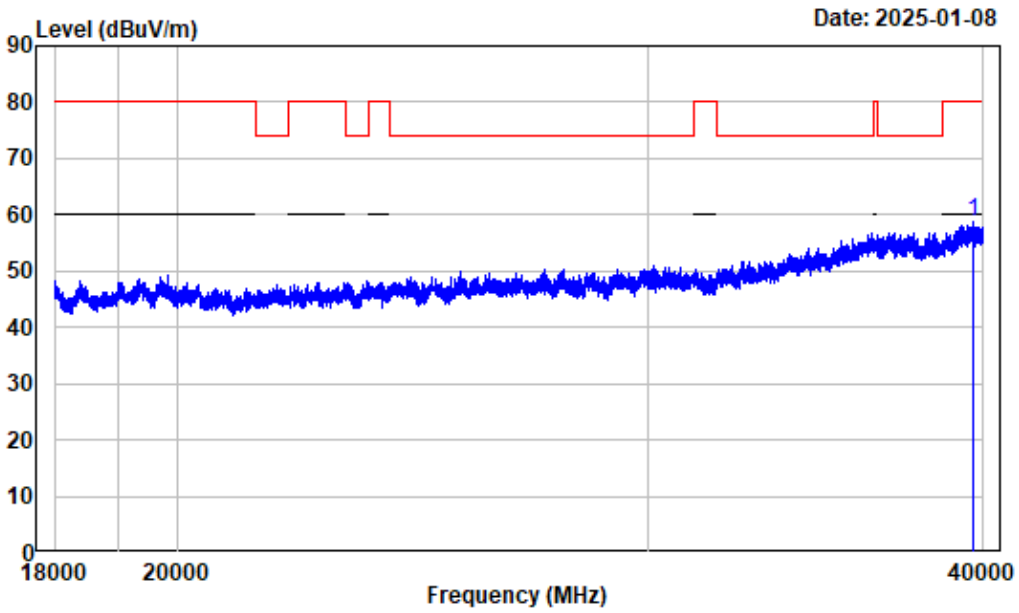


Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Average reading: RBW:1MHz VBW:5kHz Detector:Peak
Note : 5GWiFi-Band1-AC80-5210

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	17998.630	13.19	34.30	47.49	54.00	-6.51	Average

18-40GHz (Only with worst case margin mode plot)

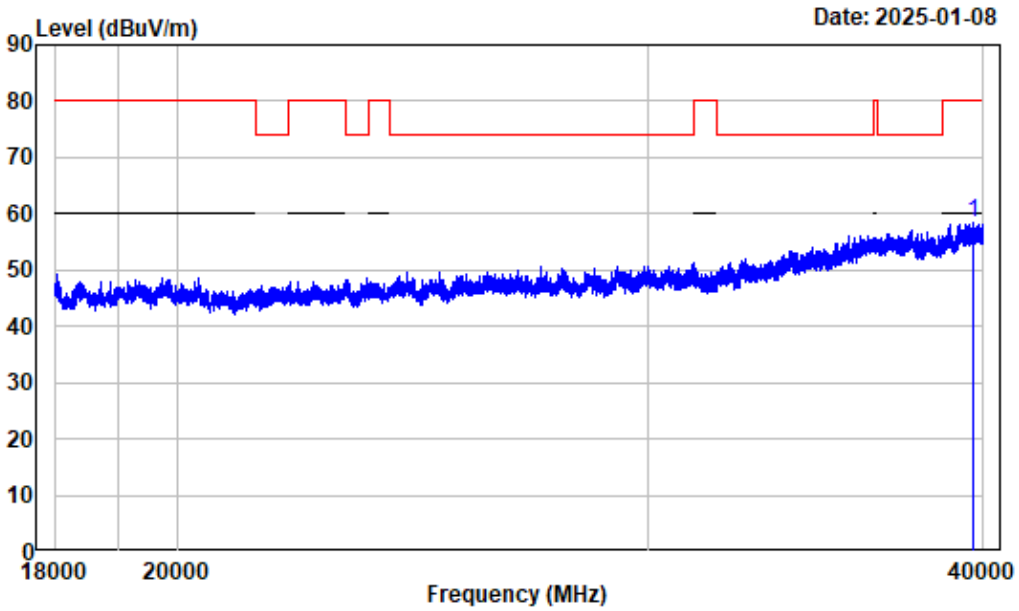
18-40GHz_Horizontal_802.11a_5200MHz



Condition : Horizontal
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-A-5200

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	39678.210	22.67	36.02	58.69	80.00	-21.31	Peak

18-40GHz_Vertical_802.11a_5200MHz



Condition : Vertical
Project No. : 2401A35544E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band1-A-5200

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	39664.460	22.69	35.61	58.30	80.00	-21.70	Peak

RF Conducted data

Emission Bandwidth

Test Information:

Sample No.:	2VH6-3	**Test Date:**	2025/03/13
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Brian Li	**Test Result:**	Pass

Environmental Conditions:

Temperature: (°C)	25	**Relative Humidity: (%)**	45	**ATM Pressure: (kPa)**	101

Test Data:

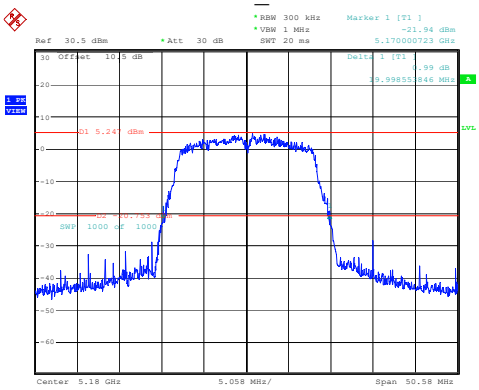
26dB Emission Bandwidth

5150-5250MHz

Mode	Test Frequency (MHz)	Result (MHz)
802.11a	5180	19.999
	5200	19.925
	5240	19.953
802.11ac20	5180	19.886
	5200	19.939
	5240	19.921
802.11ac40	5190	39.897
	5230	39.968
802.11ac80	5210	80.718

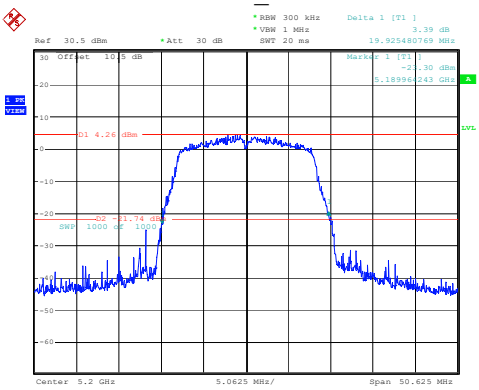
5150-5250MHz

802.11a_5180MHz



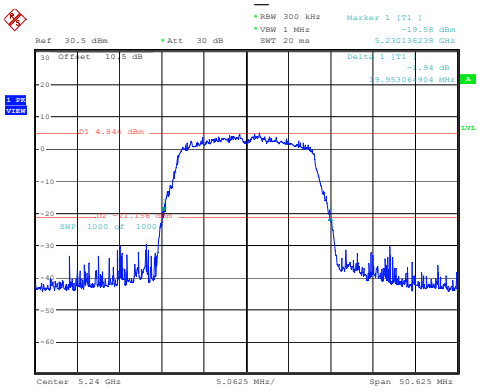
ProjectNo.:2401A35544E-RF Tester:Brian Li
Date: 13.MAR.2025 14:40:37

802.11a_5200MHz



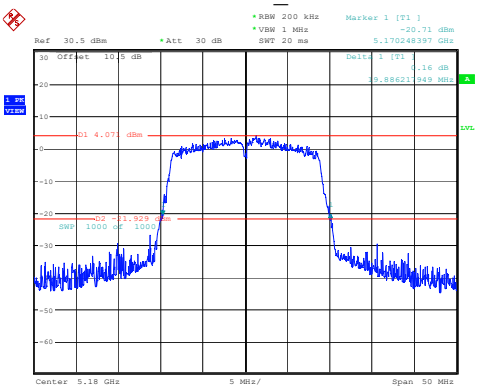
ProjectNo.:2401A35544E-RF Tester:Brian Li
Date: 13.MAR.2025 14:46:24

802.11a_5240MHz



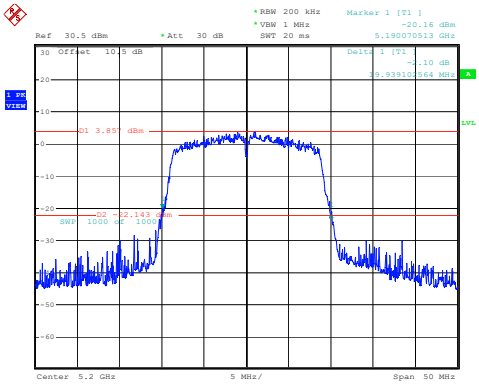
ProjectNo.:2401A35544E-RF Tester:Brian Li
Date: 13.MAR.2025 14:50:33

802.11ac20_5180MHz



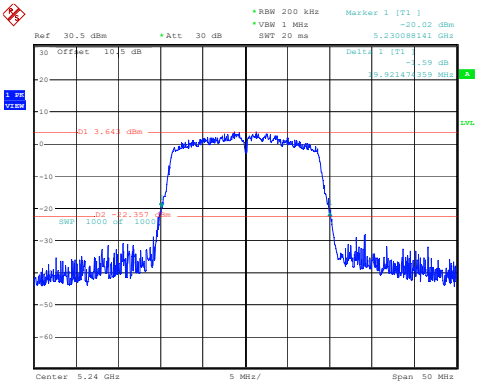
ProjectNo.:2401A35544E-RF Tester:Brian Li
Date: 13.MAR.2025 14:59:40

802.11ac20_5200MHz



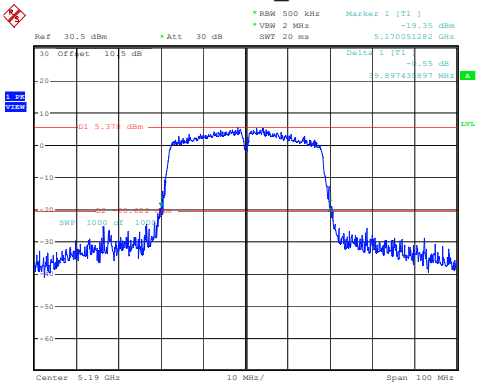
ProjectNo.:2401A35544E-RF Tester:Brian Li
Date: 13.MAR.2025 15:02:36

802.11ac20_5240MHz



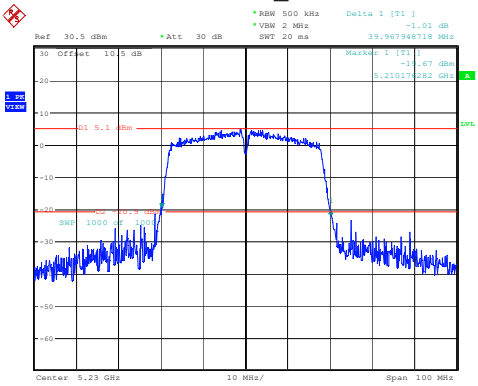
ProjectNo.:2401A35544E-RF Tester:Brian Li
Date: 13.MAR.2025 15:10:30

802.11ac40_5190MHz



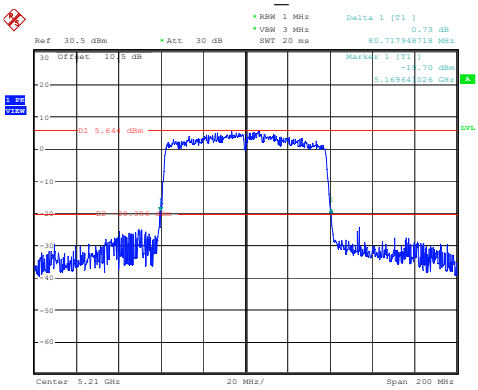
ProjectNo.:2401A35544E-RF Tester:Brian Li
Date: 13.MAR.2025 15:17:41

802.11ac40_5230MHz



ProjectNo.:2401A35544E-RF Tester:Brian Li
Date: 13.MAR.2025 15:26:51

802.11ac80_5210MHz



ProjectNo.:2401A35544E-RF Tester:Brian Li
Date: 13.MAR.2025 15:35:19

99% Occupied Bandwidth

Test Information:

Sample No.:	2VH6-3	**Test Date:**	2024/12/16~2025/03/12
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Brian Li	**Test Result:**	N/A

Environmental Conditions:

Temperature: (°C)	25-27	**Relative Humidity: (%)**	45-48	**ATM Pressure: (kPa)**	101

Test Data:

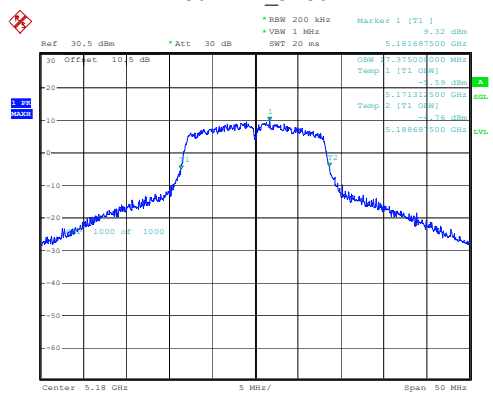
5150-5250MHz

Mode	Test Frequency (MHz)	99% OBW (MHz)
802.11a	5180	17.375
	5200	17.375
	5240	17.188
802.11ac20	5180	17.750
	5200	17.750
	5240	17.800
802.11ac40	5190	36.500
	5230	36.500
802.11ac80	5210	**75.400**

Note:
The 99% Occupied Bandwidth have not fall into the band 5250-5350MHz, please refer to the test plots of 99% Occupied Bandwidth.

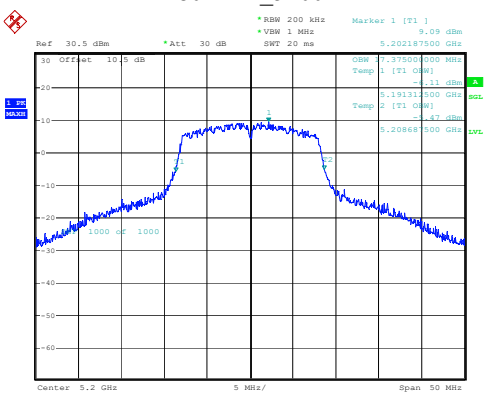
5150-5250MHz

802.11a_5180MHz



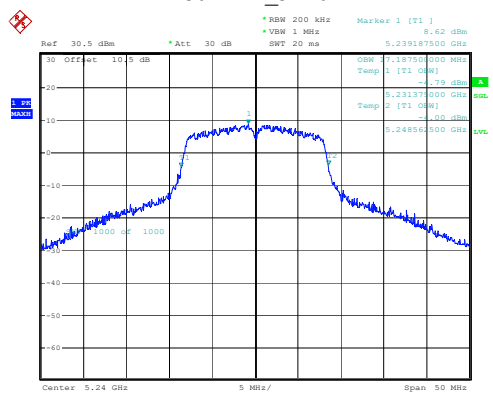
ProjectNo.:2401A35544E-RF Tester:Brian Li
Date: 16.DEC.2024 14:59:53

802.11a_5200MHz



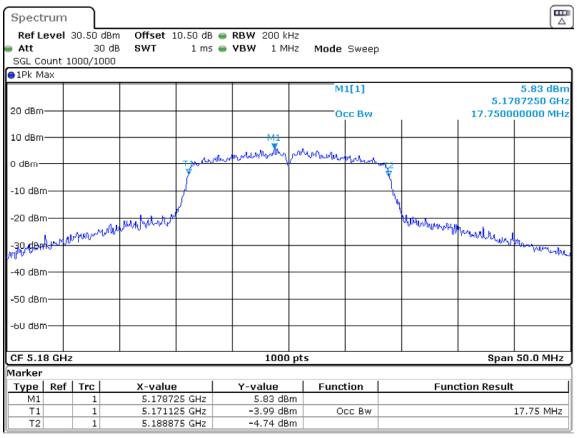
ProjectNo.:2401A35544E-RF Tester:Brian Li
Date: 16.DEC.2024 15:22:12

802.11a_5240MHz



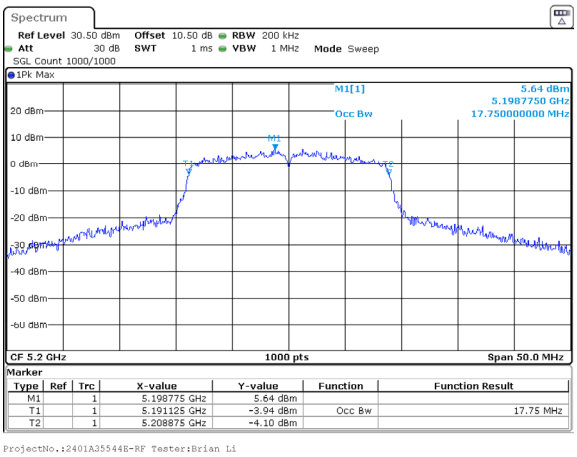
ProjectNo.:2401A35544E-RF Tester:Brian Li
Date: 16.DEC.2024 15:25:15

802.11ac20_5180MHz



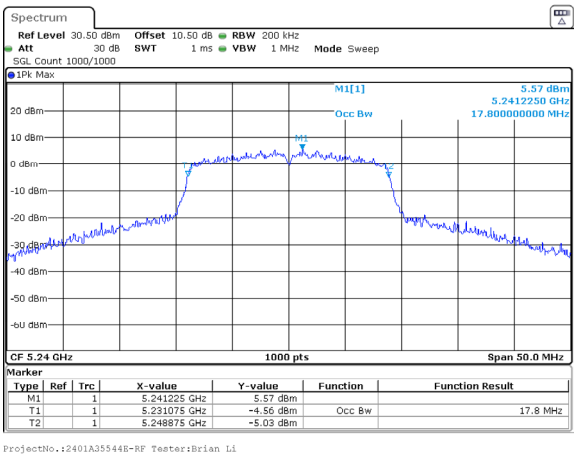
ProjectNo.:2401A35544E-RF Tester:Brian Li
Date: 12.MAR.2025 21:49:26

802.11ac20_5200MHz



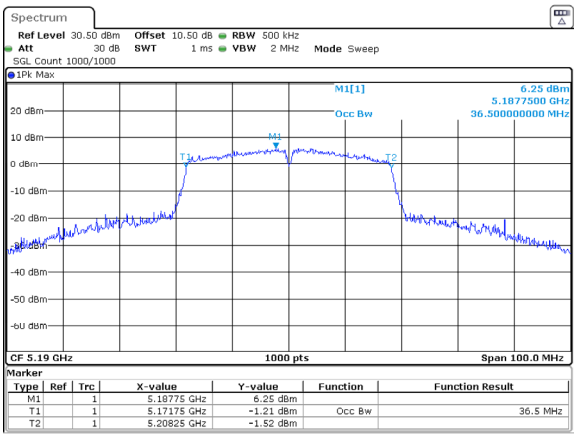
ProjectNo.:2401A35544E-RF Tester:Brian Li
Date: 12.MAR.2025 21:50:32

802.11ac20_5240MHz



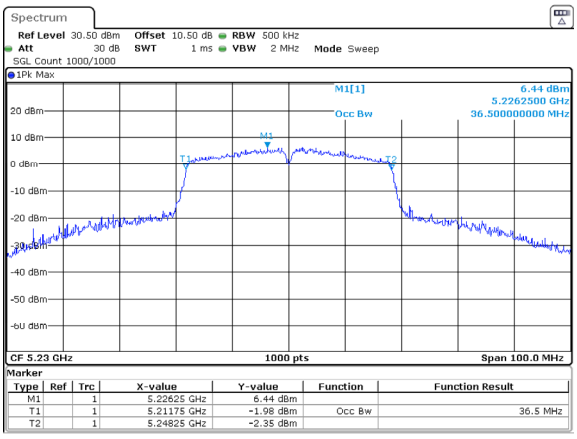
ProjectNo.:2401A35544E-RF Tester:Brian Li
Date: 12.MAR.2025 21:51:30

802.11ac40_5190MHz



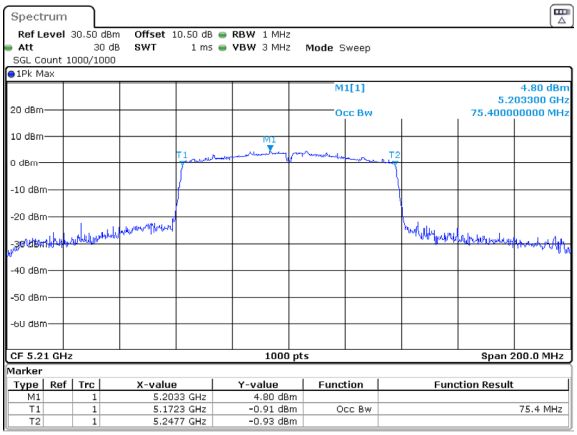
ProjectNo.:2401A35544E-RF Tester:Brian Li
Date: 12.MAR.2025 21:52:56

802.11ac40_5230MHz



ProjectNo.:2401A35544E-RF Tester:Brian Li
Date: 12.MAR.2025 21:53:44

802.11ac80_5210MHz



ProjectNo.:2401A35544E-RF Tester:Brian Li
Date: 12.MAR.2025 21:55:14

Maximum Conducted Output Power

Test Information:

Sample No.:	2VH6-3	**Test Date:**	2024/12/16~2025/01/09
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Brian Li	**Test Result:**	Pass

Environmental Conditions:

Temperature: (°C)	25~26.2	**Relative Humidity: (%)**	45~52	**ATM Pressure: (kPa)**	101

Test Data:

5150-5250MHz

Mode	Test Frequency (MHz)	Average Output Power(dBm)	Limit (dBm)	Verdict
802.11a	5180	15.70	24	Pass
	5200	15.46	24	Pass
	5240	15.31	24	Pass
802.11ac20	5180	16.99	24	Pass
	5200	16.77	24	Pass
	5240	16.64	24	Pass
802.11ac40	5190	**17.29**	24	Pass
	5230	17.17	24	Pass
802.11ac80	5210	16.87	24	Pass

Note: The EUT is a client device.

Power Spectral Density

Test Information:

Sample No.:	2VH6-3	**Test Date:**	2024/12/16
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Brian Li	**Test Result:**	Pass

Environmental Conditions:

Temperature: (°C)	25	**Relative Humidity: (%)**	45	**ATM Pressure: (kPa)**	101

Test Data:

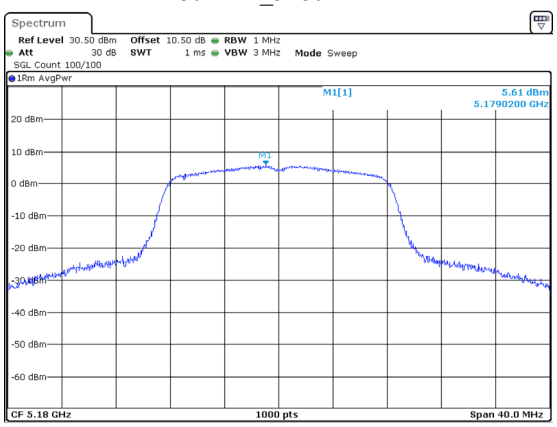
5150-5250MHz

Mode	Test Frequency (MHz)	Reading (dBm/MHz)	Duty Cycle Factor(dB)	Result (dBm/MHz)	Limit (dBm/MHz)	Verdict
802.11a	5180	5.61	0.25	5.86	11	Pass
	5200	5.27	0.25	5.52	11	Pass
	5240	5.18	0.25	5.43	11	Pass
802.11ac20	5180	6.80	0.15	**6.95**	11	Pass
	5200	6.37	0.15	6.52	11	Pass
	5240	6.15	0.15	6.30	11	Pass
802.11ac40	5190	4.14	0.29	4.43	11	Pass
	5230	4.13	0.29	4.42	11	Pass
802.11ac80	5210	0.59	0.60	1.19	11	Pass

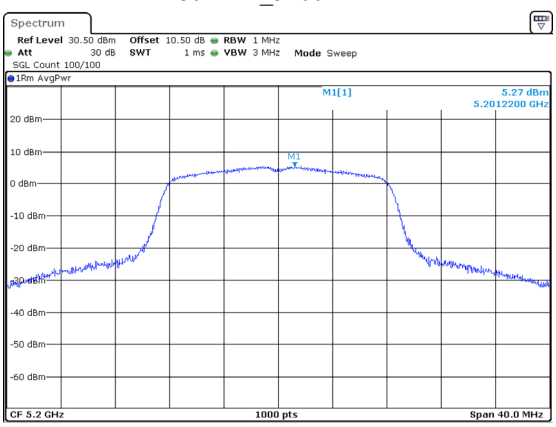
Result = Reading + Duty Cycle Factor

5150-5250MHz

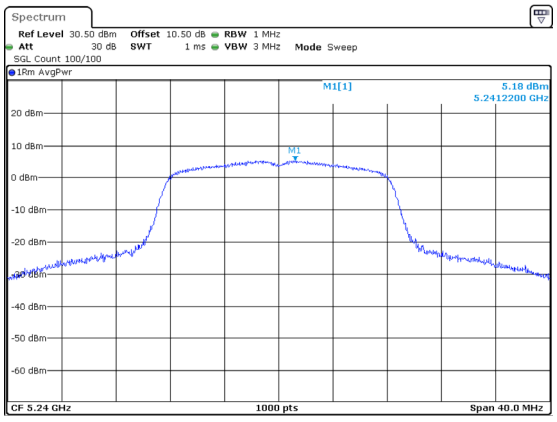
802.11a_5180MHz



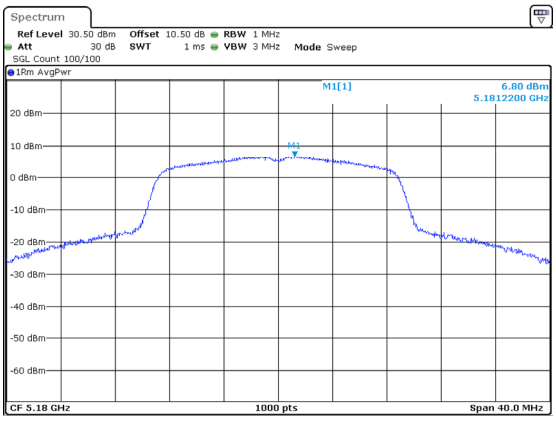
802.11a_5200MHz



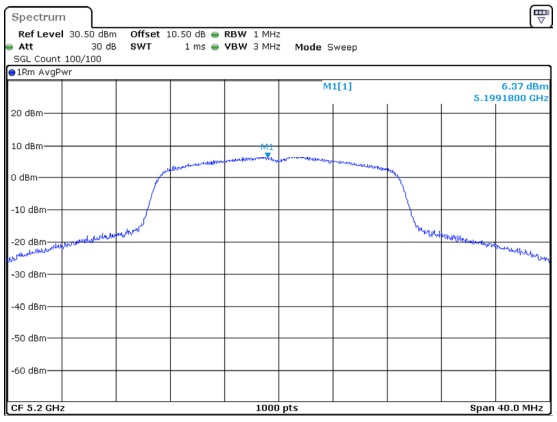
802.11a_5240MHz



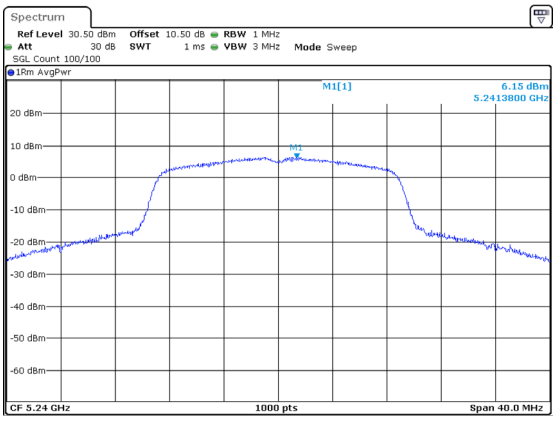
802.11ac20_5180MHz



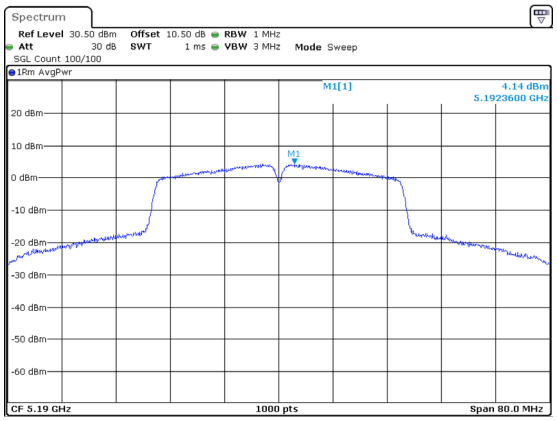
802.11ac20_5200MHz



802.11ac20_5240MHz

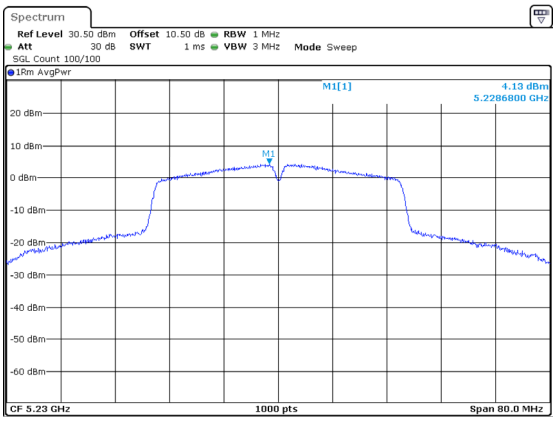


802.11ac40_5190MHz



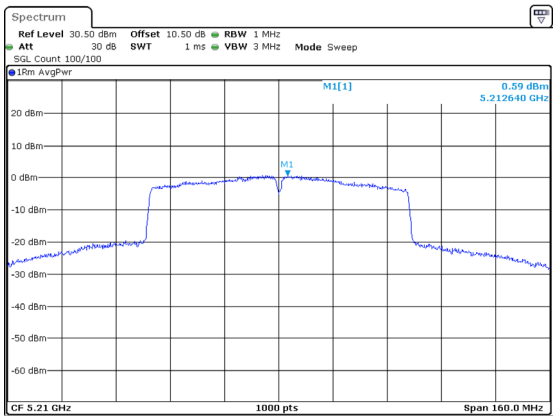
ProjectNo.:2401A35544E-RF Tester:Brian Li
Date: 16.DEC.2024 22:45:38

802.11ac40_5230MHz



ProjectNo.:2401A35544E-RF Tester:Brian Li
Date: 16.DEC.2024 22:46:56

802.11ac80_5210MHz



ProjectNo.:2401A35544E-RF Tester:Brian Li
Date: 16.DEC.2024 22:48:57

Duty Cycle

Test Information:

Sample No.:	2VH6-3	**Test Date:**	2024/12/16
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Brian Li	**Test Result:**	N/A

Environmental Conditions:

Temperature: (°C)	25	**Relative Humidity: (%)**	45	**ATM Pressure: (kPa)**	101

Test Data:

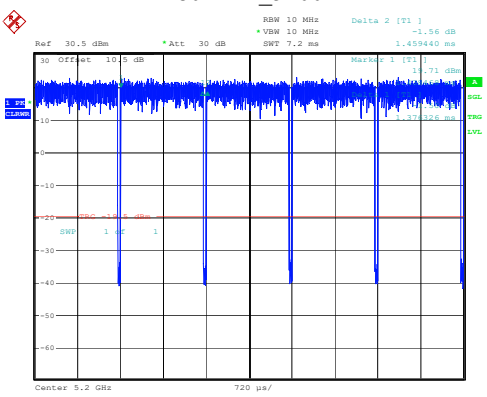
5150-5250MHz

Mode	Test Frequency (MHz)	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty Cycle Factor(dB)	1/Ton (Hz)	VBW Setting (kHz)
802.11a	5200	**1.376**	1.459	94.31	0.25	727	1
802.11ac20	5200	1.311	1.357	96.61	0.15	763	1
802.11ac40	5190	0.651	0.696	93.53	0.29	1536	2
802.11ac80	5210	0.322	0.370	87.03	0.60	3106	5

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

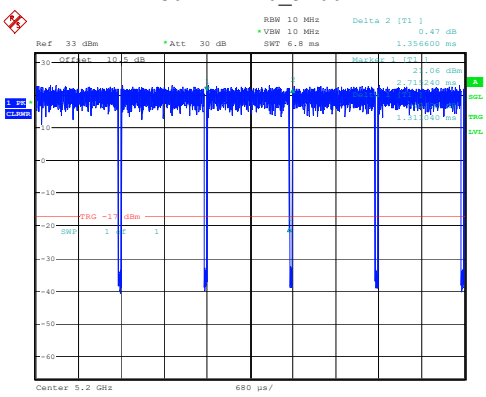
5150-5250MHz

802.11a_5200MHz



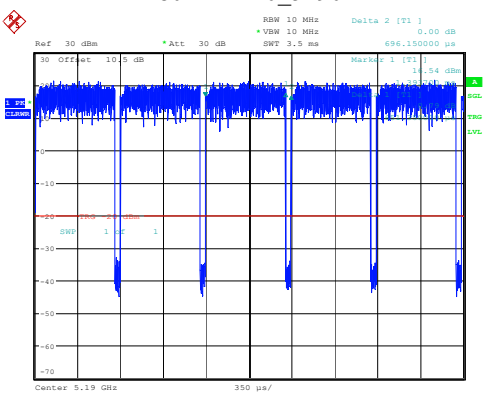
ProjectNo.:2401A35544E-RF Tester:Brian Li
Date: 16.DEC.2024 13:59:48

802.11ac20_5200MHz



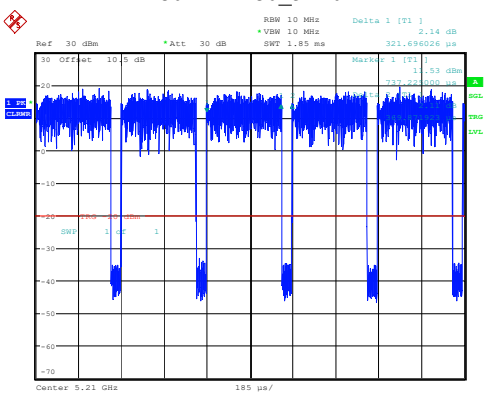
ProjectNo.:2401A35544E-RF Tester:Brian Li
Date: 16.DEC.2024 14:03:35

802.11ac40_5190MHz



ProjectNo.:2401A35544E-RF Tester:Brian Li
Date: 16.DEC.2024 14:04:48

802.11ac80_5210MHz



ProjectNo.:2401A35544E-RF Tester:Brian Li
Date: 16.DEC.2024 14:12:01

RF EXPOSURE EVALUATION

Applicable Standard

FCC§1.1310 and §2.1093.

Test Result

Compliance, please refer to the SAR report: 2401A35544E-SAA.

EUT PHOTOGRAPHS

Please refer to the attachment 2401A35544E-RF External photo and 2401A35544E-RF Internal photo.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2401A35544E-RFB Test Setup photo.

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