

# TEST REPORT

Applicant Name : NOVISOLUTIONS CIA LTDA  
Address : Ponceano N73 y Mariano Paredes QUITO ECUADOR Ecuador  
Report Number : 2504U66843E-RF-00D  
FCC ID: 2BO97-TABGOPRO

## Test Standard (s)

FCC PART 15.407

## Sample Description

Product Type: Tablet PC  
Model No.: ENV TAB GO PRO  
Trade Mark: ENV  
Date Received: 2025-07-22  
Date of Test: 2025-07-22 to 2025-08-04  
Report Date: 2025-08-05

Test Result:	The EUT complied with the standards above.
--------------	--

### Prepared and Checked By:

*Roger.Ling*

---

Roger.Ling  
EMC Engineer

### Approved By:

*Bob.Liao*

---

Bob Liao  
EMC Engineer

Note: This report must not be used by the customer to claim product certification, approval, or endorsement by A2LA, or any agency of the Federal Government. 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 but no need marked.

This report cannot be reproduced except in full, without prior written approval of the Company. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

---

### Shenzhen Accurate Technology Co., Ltd.

Floor 1, KuMaKe Building, Dongzhou Community, Guangming Street, Guangming District, Shenzhen, Guangdong, China.

Tel: +86 755-26503290

Web: [www.atc-lab.com](http://www.atc-lab.com)

# TABLE OF CONTENTS

<b>DOCUMENT REVISION HISTORY</b>	4
<b>GENERAL INFORMATION</b>	5
PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	5
OBJECTIVE	6
TEST METHODOLOGY	6
TEST FACILITY	6
MEASUREMENT UNCERTAINTY	6
<b>SYSTEM TEST CONFIGURATION</b>	7
SPECIAL ACCESSORIES	7
EQUIPMENT MODIFICATIONS	7
DUTY CYCLE	7
SUPPORT EQUIPMENT LIST AND DETAILS	8
EXTERNAL I/O CABLE	8
BLOCK DIAGRAM OF TEST SETUP	8
<b>SUMMARY OF TEST RESULTS</b>	10
<b>TEST EQUIPMENT LIST</b>	11
<b>FCC §1.1307(b)&amp;§2.1093 - RF EXPOSURE</b>	13
APPLICABLE STANDARD	13
TEST RESULT	13
<b>FCC §15.203-ANTENNA REQUIREMENT</b>	14
APPLICABLE STANDARD	14
ANTENNA CONNECTOR CONSTRUCTION	14
<b>FCC §15.407 (B) (8) §15.207 (A)-CONDUCTED EMISSIONS</b>	15
APPLICABLE STANDARD	15
EUT SETUP	15
EMI TEST RECEIVER SETUP	15
TEST PROCEDURE	15
CALCULATION	16
TEST DATA	16
<b>FCC §15.205 &amp; §15.209 &amp; §15.407(B) (1), (4), (8), (9), (10)-UNDESIRABLE EMISSION</b>	19
APPLICABLE STANDARD	19
EUT SETUP	19
EMI TEST RECEIVER & SPECTRUM ANALYZER SETUP	21
TEST PROCEDURE	21
CALCULATION	22
TEST DATA	22
<b>FCC §15.407(a)(e)-BANDWIDTH</b>	84
APPLICABLE STANDARD	84
TEST PROCEDURE	84
TEST DATA	85
<b>FCC §15.407(a) (1) (3)-CONDUCTED TRANSMITTER OUTPUT POWER</b>	86
APPLICABLE STANDARD	86
TEST PROCEDURE	86
TEST DATA	86
<b>FCC §15.407(a) (1) (3)-POWER SPECTRAL DENSITY</b>	87
APPLICABLE STANDARD	87
TEST PROCEDURE	88
TEST DATA	88

<b>APPENDIX .....</b>	<b>89</b>
EMISSION BANDWIDTH.....	90
99% OCCUPIED BANDWIDTH .....	93
MAXIMUM CONDUCTED OUTPUT POWER .....	96
POWER SPECTRAL DENSITY .....	97
DUTY CYCLE.....	100
<b>EXHIBIT A-EUT PHOTOGRAPHS .....</b>	<b>102</b>
<b>EXHIBIT B-TEST SETUP PHOTOGRAPHS .....</b>	<b>103</b>

## DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
Rev.00	2504U66843E-RF-00D	Original Report	2025-08-05

## GENERAL INFORMATION

### Product Description for Equipment under Test (EUT)

Product	Tablet PC
Tested Model	ENV TAB GO PRO
Voltage Range <sup>#</sup>	DC 5V from adapter DC 3.8V from rechargeable battery
Adapter Information <sup>#</sup>	MODEL: M050200-S86USU INPUT: 100-240VAC 50/60Hz 0.5A OUTPUT: 5V ---2.0A/ 10.0W

Frequency Range	5G Wi-Fi: 5150-5250MHz
Mode	802.11 a/n20/n40/ac20/ac40/ac80
Maximum Conducted Average Output Power	12.31 dBm
Modulation Technique	OFDM
Antenna Specification <sup>#</sup>	Internal Antenna: 5150-5250MHz: -3.57 dBi (It is provided by the applicant.)
Sample Serial Number	372N-1 (CE&RE), 372M-1 (RF Conducted Test) (Assigned by ATC, Shenzhen)
Sample/EUT Status	Good condition

## Objective

This type approval 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 C63.10-2020, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices. And KDB789033D02 General U-NII Test Procedures New Rules v02r01.

Unless otherwise stated there are no any additions to, deviations, or exclusions from the method.

## Test Facility

The test site used by Shenzhen Accurate Technology Co., Ltd. to collect test data is located on the Floor 1, KuMaKe Building, Dongzhou Community, Guangming Street, Guangming District, Shenzhen, Guangdong, China.

Accredited by American Association for Laboratory Accreditation (A2LA). The Certificate Number is 4297.01.

## Measurement Uncertainty

Parameter	Uncertainty	
Occupied Channel Bandwidth	5 %	
RF Frequency	$0.064 \times 10^{-7}$	
RF output power, conducted	0.3 dB	
Unwanted Emission, conducted	1.2 dB	
AC Power Lines Conducted Emissions	2.7 dB	
Emissions, Radiated	9kHz - 30MHz	2.1 dB
	30MHz - 1GHz	4.3 dB
	1GHz - 18GHz	4.9 dB
	18GHz - 26.5GHz	5.2 dB
	26.5GHz - 40GHz	4.6 dB
Temperature	1 °C	
Humidity	7 %	
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.*

## SYSTEM TEST CONFIGURATION

### Description of Test Configuration

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

The device supports 802.11a/n20/n40/ac20/ac40/ac80 modes. The 802.11n20/n40 modes were reduced since the identical parameters with 802.11 ac20/ac40.

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

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

For 802.11a/ac20, Channel 36, 40 and 48 were tested.

For 802.11ac40, Channel 38, 46 were tested.

For 802.11ac80, Channel 42 was tested.

### EUT Exercise Software and Power Level<sup>#</sup>

<b>Exercise Software:</b>		Testing in the engineering mode.		
<b>For 5150-5250MHz:</b>				
<b>Mode</b>		<b>Power Level</b>		
		<b>Lowest Channel</b>		
802.11 a	6Mbps	14	14	14
802.11 ac20	MCS0	15	15	15
802.11 ac40	MCS0	14	/	14
802.11 ac80	MCS0	/	14	/

Note 1: The information in the above table is provided by the applicant.

Note 2: The worse-case data rates are determined to be as above for each mode based upon investigations by measuring the output 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.

### Duty Cycle

**Test result:** Please refer to Appendix.

## Support Equipment List and Details

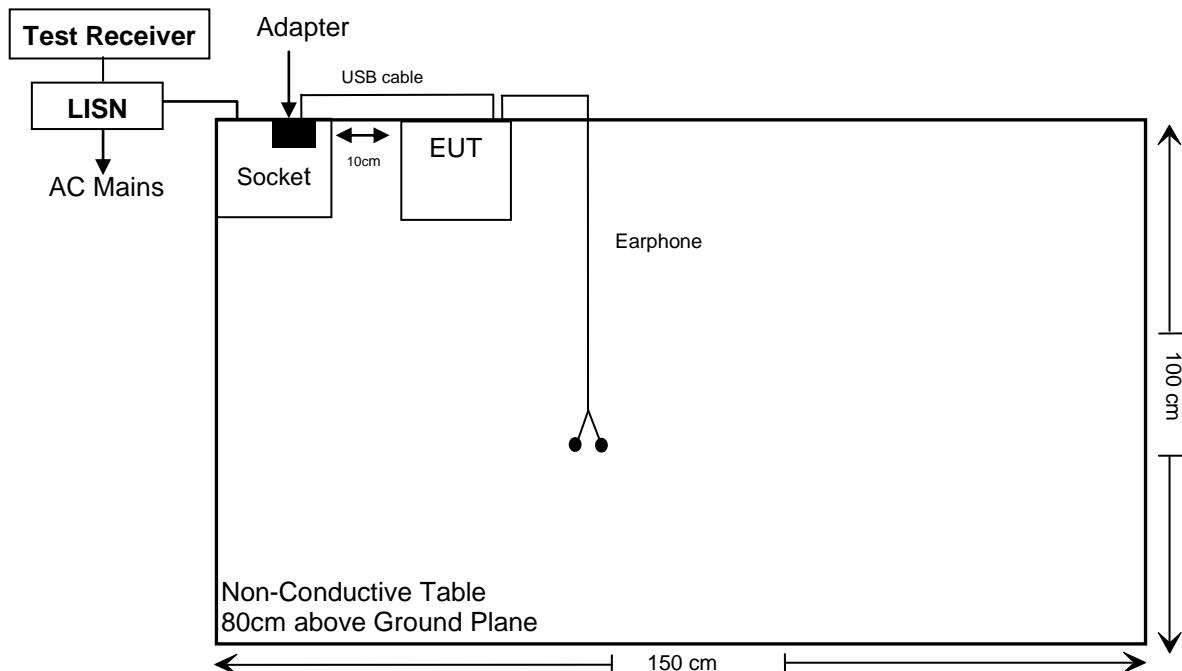
Manufacturer	Description	Model	Serial Number
Unknown	Earphone	Unknown	Unknown

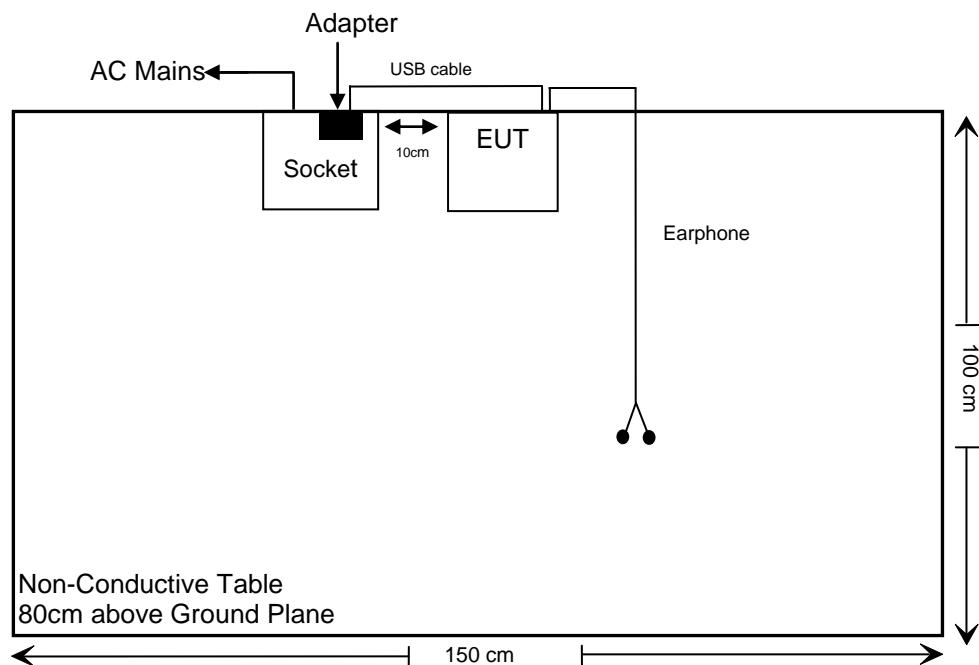
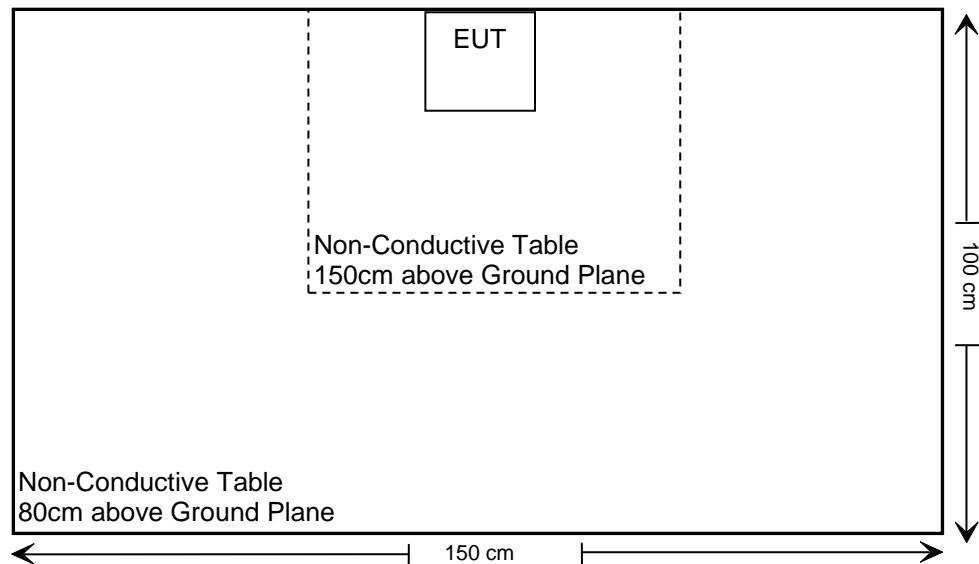
## External I/O Cable

Cable Description	Shielding Type	Length (m)	From Port	To
USB Cable	NO	1.0	Adapter	EUT
Earphone cable	NO	1.2	EUT	Earphone

## Block Diagram of Test Setup

### For Conducted Emission:



**For Radiated Emission Below 1GHz:****For Radiated Emission Above 1GHz:**

## SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§2.1093	RF Exposure(SAR)	Compliance
§15.203	Antenna Requirement	Compliance
§15.407(b)(8), §15.207(a)	Conducted Emissions	Compliance
§15.205, §15.209, §15.407(b)(1),(4),(8),(9),(10)	Undesirable Emission& Restricted Bands	Compliance
§15.407(a)(12),(e)	Bandwidth	Compliance
§15.407(a) (1),(3)	Conducted Transmitter Output Power	Compliance
§15.407(a) (1),(3)	Power Spectral Density	Compliance
§15.407(h) (1), (2)	Transmit Power Control (TPC) & Dynamic Frequency Selection (DFS)	Not Applicable

Note 1: Not Applicable: the EUT not operating within frequency range of 5250-5350MHz & 5470-5725MHz.

Note 2: For AC line conducted emissions, the maximum output power mode and channel was tested.

Note 3: For Radiated Spurious Emissions 9kHz~1GHz/18GHz~40GHz, the maximum output power mode and channel was tested.

Note 4: For Radiated Spurious Emissions, after pre-scan in the X, Y and Z axes of orientation, the worst case as setup photos was recorded.

Note 5: The cable loss is 0.5 dB, which was added into the all RF test results.

**TEST EQUIPMENT LIST**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
<b>Conducted Emissions Test</b>					
Rohde & Schwarz	EMI Test Receiver	ESCI	100784	2024/11/08	2025/11/07
Rohde & Schwarz	L.I.S.N.	ENV216	101314	2024/11/08	2025/11/07
Anritsu Corp	50 Coaxial Switch	MP59B	6100237248	2024/10/08	2025/10/07
Rohde & Schwarz	Pulse Limiter	ESH3-Z2	100312	2025/05/30	2026/05/29
Unknown	RF Coaxial Cable	No.17	N0350	2025/05/30	2026/05/29
Test Software: e3 191218 (V9)					
<b>Radiated Spurious Emission Test(Below 1GHz)</b>					
Rohde & Schwarz	Test Receiver	ESR	102725	2024/11/08	2025/11/07
SONOMA INSTRUMENT	Amplifier	310N	186131	2025/03/26	2026/03/25
Schwarzbeck	Bilog Antenna	VULB9163	9163-323	2024/08/08	2027/08/07
Unknown	RF Coaxial Cable	No.12	N040	2025/05/30	2026/05/29
Unknown	RF Coaxial Cable	No.13	N300	2025/05/30	2026/05/29
Unknown	RF Coaxial Cable	No.14	N800	2025/05/30	2026/05/29
BACL	LOOP ANTENNA	1313-1A	3110711	2024/01/16	2027/01/15
Test Software: e3 191218 (V9)					
<b>Radiated Spurious Emission Test(Above 1GHz)</b>					
Rohde & Schwarz	Spectrum Analyzer	FSV40	101949	2024/10/08	2025/10/07
Decentest	Filter Switch Unit	DT7220FSU	DQ77927	2024/10/08	2025/10/07
Decentest	Multiplex Switch Test Control Set	DT7220CSU	DQ77924	2024/10/08	2025/10/07
A.H. Systems, inc.	Preamplifier	PAM-0118	226	2025/03/20	2026/03/19
Schwarzbeck	Horn Antenna	BBHA9120D	837	2023/02/22	2026/02/21
Unknown	RF Coaxial Cable	No.10	N050	2025/05/30	2026/05/29
Unknown	RF Coaxial Cable	No.11	N1000	2025/05/30	2026/05/29
Unknown	RF Coaxial Cable	No.19	N500	2025/05/30	2026/05/29
Schwarzbeck	HORN ANTENNA	BBHA9170	9170-359	2023/12/12	2026/12/11
BACL	Amplifier	BACL-1313-A1840	4012521	2025/05/30	2026/05/29
Unknown	RF Coaxial Cable	No.15	N600	2025/05/30	2026/05/29
Unknown	RF Coaxial Cable	No.16	N650	2025/05/30	2026/05/29
Test Software: e3 191218 (V9)					

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
<b>RF Conducted test</b>					
Rohde & Schwarz	Spectrum Analyzer	FSV-40	101948	2024/10/08	2025/10/07
Anritsu	Microwave Peak Power Sensor	MA24418A	12619	2025/03/26	2026/03/25
WEINSCHEL	10dB Attenuator	5324	AU 3842	2025/03/26	2026/03/25
Test Software: JDAutoTestSystem V1.0.0					

**\* Statement of Traceability:** Shenzhen Accurate Technology Co., Ltd. attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

## **FCC §1.1307(b)&§2.1093 - RF EXPOSURE**

### **Applicable Standard**

FCC§1.1310 and §2.1093.

### **Test Result**

Please refer to the SAR report number: 2504U66843E-SA.

## FCC §15.203-ANTENNA REQUIREMENT

### Applicable Standard

According to § 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 user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

- a. Antenna must be permanently attached to the unit.
- b. Antenna must use a unique type of connector to attach to the EUT.
- c. Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

And according to FCC 47 CFR section 15.407 (a), if the transmitting antennas of directional gain greater than 6dBi are used, the transmit power and power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

### Antenna Connector Construction

The EUT has one antenna arrangement for 5G Wi-Fi, which were permanently attached to the EUT, fulfill the requirement of this section. Please refer to the EUT photos.

Frequency Range	Antenna gain
5150-5250MHz	-3.57dBi

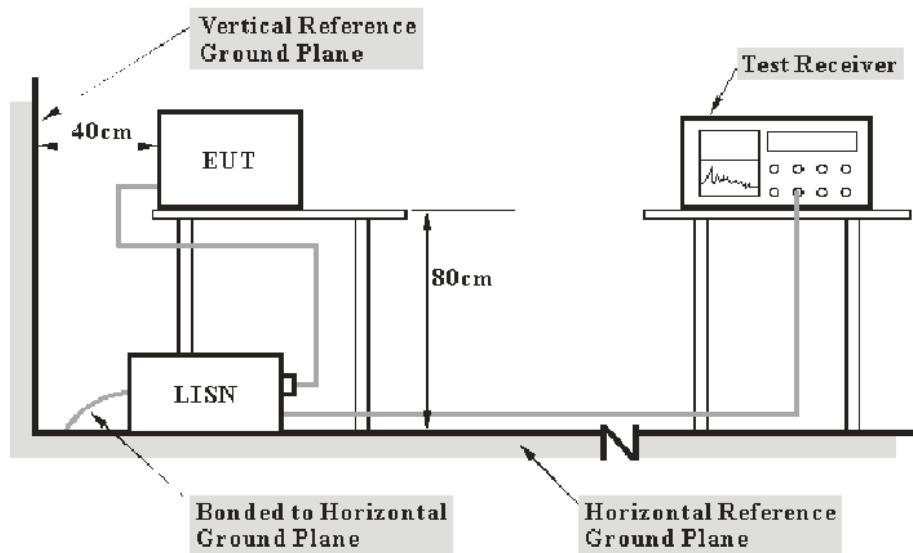
**Result:** Compliance.

## FCC §15.407 (B) (8) §15.207 (A)-CONDUCTED EMISSIONS

### Applicable Standard

FCC §15.207, §15.407(b) (8)

### 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	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.

## Calculation

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

$$\text{Factor} = \text{LISN VDF} + \text{Cable Loss} + 10\text{dB Attenuation(Limiter)}$$

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:

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

$$\text{Level} = \text{Read Level} + \text{Factor}$$

## Test Data

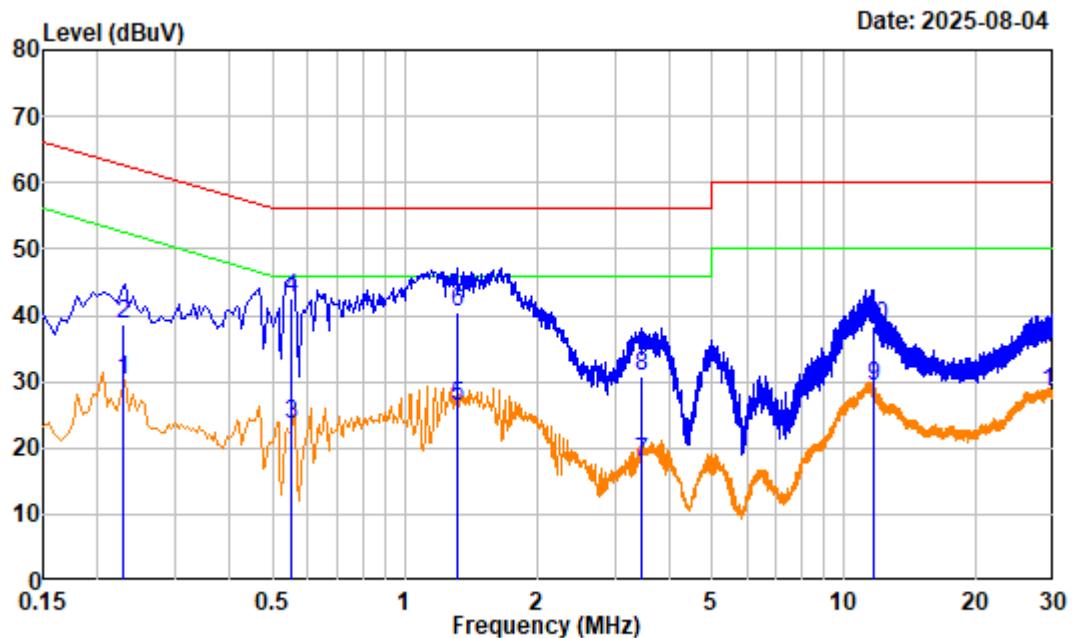
### Environmental Conditions

Temperature:	24.6 °C
Relative Humidity:	45 %
ATM Pressure:	99.3 kPa
Test Engineer:	Jason Fan
Test Date:	2025-08-04
EUT Operation Mode:	5G WiFi Transmitting

**Test Result:** Compliance, please refer to the below data.

*Note: The maximum output power mode and channel: 802.11AC20 High Channel 5240MHz was tested.*

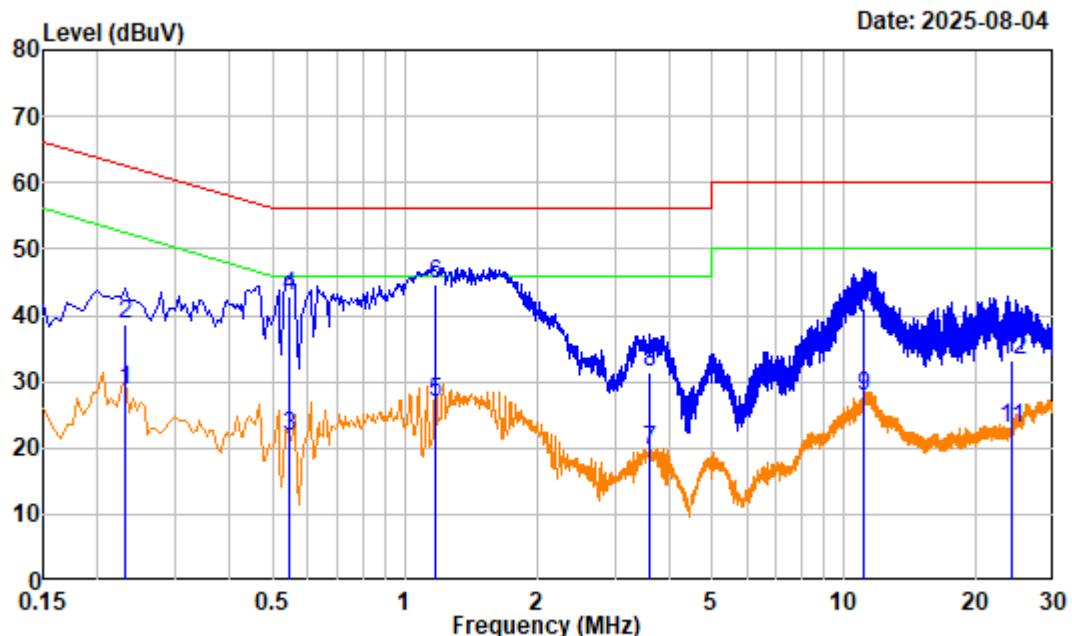
## AC 120V/60Hz, Line:



Site : Shielding Room  
 Condition: Line  
 Job No. : 2504U66843E-RF  
 Test Mode: 5G WiFi Transmitting  
 Tester : Jason Fan  
 Setting : IF B/W 9kHz PK/AV

Freq	Factor	Read	Limit	Over	Remark
		Level	Level	Line	
1	0.229	19.97	10.35	30.32	52.49 -22.17 Average
2	0.229	19.97	18.79	38.76	62.49 -23.73 QP
3	0.554	20.08	3.50	23.58	46.00 -22.42 Average
4	0.554	20.08	22.44	42.52	56.00 -13.48 QP
5	1.310	20.41	5.81	26.22	46.00 -19.78 Average
6	1.310	20.41	20.06	40.47	56.00 -15.53 QP
7	3.445	21.28	-3.47	17.81	46.00 -28.19 Average
8	3.445	21.28	9.38	30.66	56.00 -25.34 QP
9	11.636	23.04	6.16	29.20	50.00 -20.80 Average
10	11.636	23.04	15.30	38.34	60.00 -21.66 QP
11	29.891	24.94	3.42	28.36	50.00 -21.64 Average
12	29.891	24.94	10.07	35.01	60.00 -24.99 QP

## AC 120V/60Hz, Neutral:



Site : Shielding Room  
 Condition: neutral  
 Job No. : 2504U66843E-RF  
 Test Mode: 5G WiFi Transmitting  
 Tester : Jason Fan  
 Setting : IF B/W 9kHz PK/AV

Freq	Factor	Read		Limit		Over Line	Over Limit	Remark
		MHz	dB	dBuV	dBuV			
1	0.231	19.93	8.81	28.74	52.42	-23.68	Average	
2	0.231	19.93	18.75	38.68	62.42	-23.74	QP	
3	0.547	20.03	1.56	21.59	46.00	-24.41	Average	
4	0.547	20.03	22.77	42.80	56.00	-13.20	QP	
5	1.167	20.56	6.45	27.01	46.00	-18.99	Average	
6	1.167	20.56	24.00	44.56	56.00	-11.44	QP	
7	3.602	21.28	-1.78	19.50	46.00	-26.50	Average	
8	3.602	21.28	10.08	31.36	56.00	-24.64	QP	
9	11.038	23.06	4.61	27.67	50.00	-22.33	Average	
10	11.038	23.06	17.97	41.03	60.00	-18.97	QP	
11	24.085	24.47	-1.51	22.96	50.00	-27.04	Average	
12	24.085	24.47	8.61	33.08	60.00	-26.92	QP	

## FCC §15.205 & §15.209 & §15.407(B) (1), (4), (8), (9), (10)-UNDESIRABLE EMISSION

### Applicable Standard

FCC §15.407 (b) (1), (4), (8), (9), (10); §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.

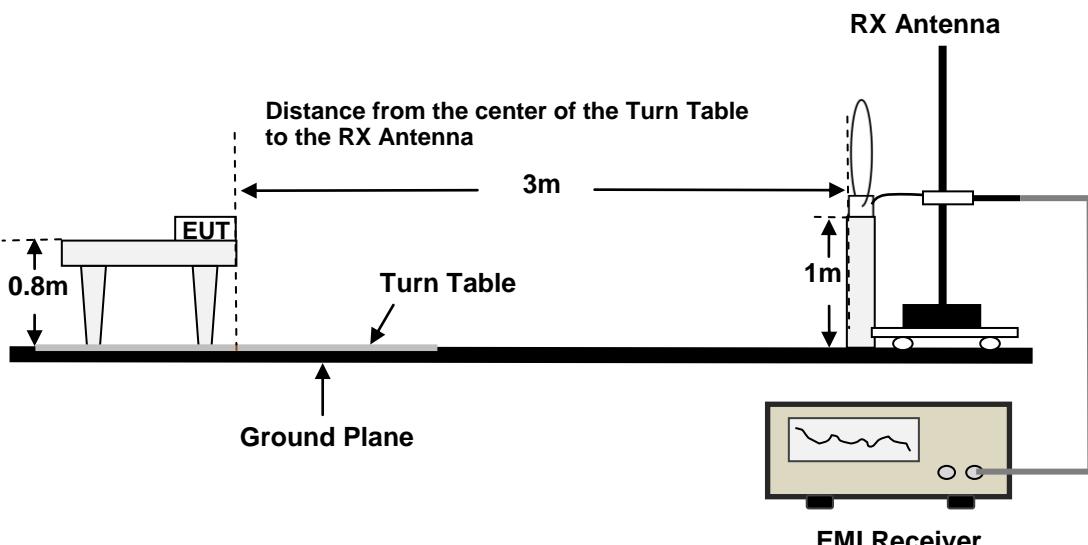
(4) For transmitters operating in the 5.725-5.85 GHz band:

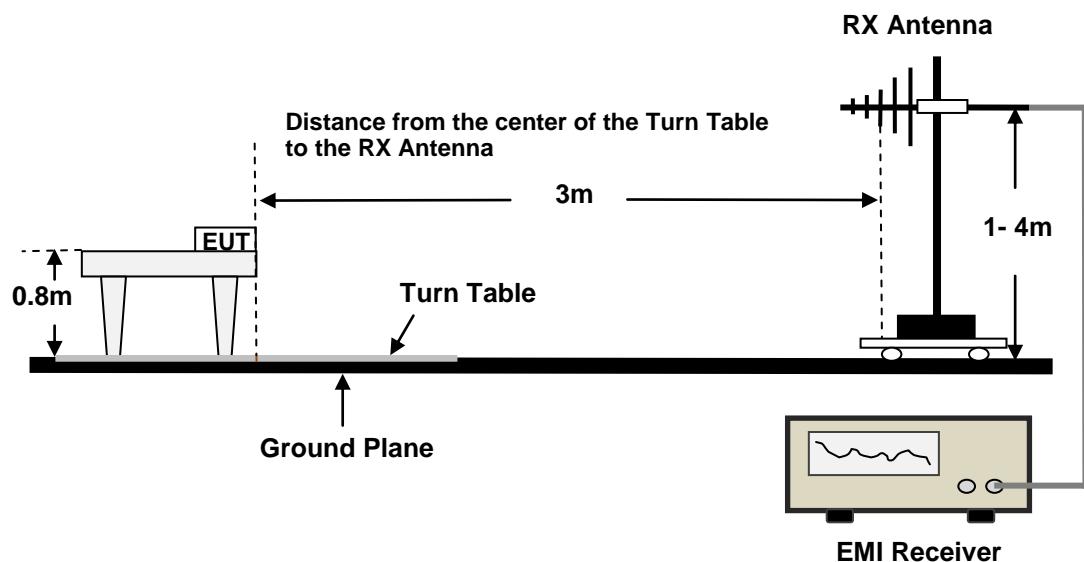
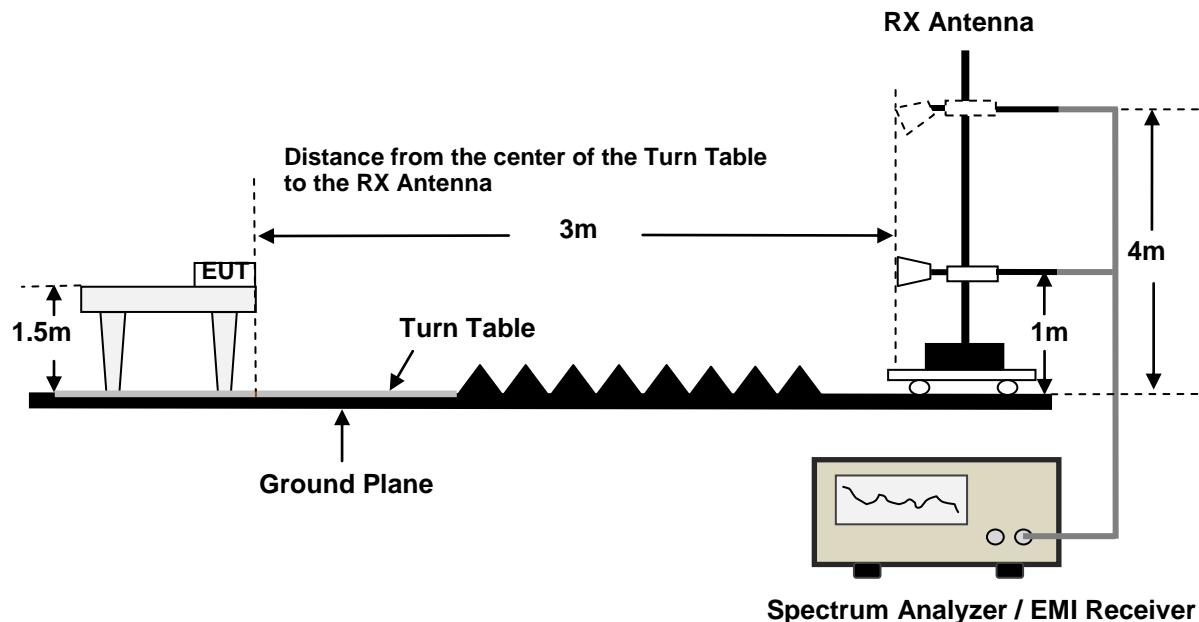
(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the 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

9kHz - 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 15.407 limits.

## EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 9kHz to 40GHz.

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

9kHz - 1000MHz:

Frequency Range	Measurement	RBW	Video B/W	IF B/W	Detector
9kHz - 150kHz	PK	0.3kHz	1kHz	/	PK
	QP/AV	/	/	200Hz	QP/AV
150kHz - 30MHz	PK	10kHz	30kHz	/	PK
	QP/AV	/	/	9kHz	QP/AV
30MHz - 1000MHz	PK	100kHz	300kHz	/	PK
	QP	/	/	120kHz	QP

1GHz -40GHz:

Pre-scan:

Measurement	Detector	Duty cycle	RBW	Video B/W
PK	Peak	Any	1MHz	3MHz
		>98%	1MHz	5kHz
		<98%	1MHz	≥1/T, no less than 5 kHz

Final measurement for emission identified during the pre-scan:

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

Note 1: T is minimum transmission duration

Note 2: The 1GHz-6.6GHz testing use the notch filter and the 6.6GHz-18GHz testing use high-pass filter.

Note 3: The band edge testing use 10dB attenuator.

Note 4: The filters and attenuators are all integrated within the filter switch unit.

## Test Procedure

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

The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

According to ANSI C63.10-2020, 9.2: For field strength measurements made at other than the distance specified by the limit, 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).

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

where

- $E_{\text{SpecLimit}}$  is the field strength of the emission at the distance specified by the limit, in dBuV/m
- $E_{\text{Meas}}$  is the field strength of the emission at the measurement distance, in dBuV/m
- $D_{\text{Meas}}$  is the measurement distance, in m
- $D_{\text{SpecLimit}}$  is the distance specified by the limit, in m

Note 1: If the maximized peak measured value is under the QP/Average limit by more than 6dB, then it is unnecessary to perform an QP/Average measurement.

Note 2: For above 1GHz, the test result of peak was 20dB below to the limit of peak, which can be compliant to the average limit, so just peak value was recorded.

## 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:

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

## Test Data

### 9kHz-1GHz

#### Environmental Conditions

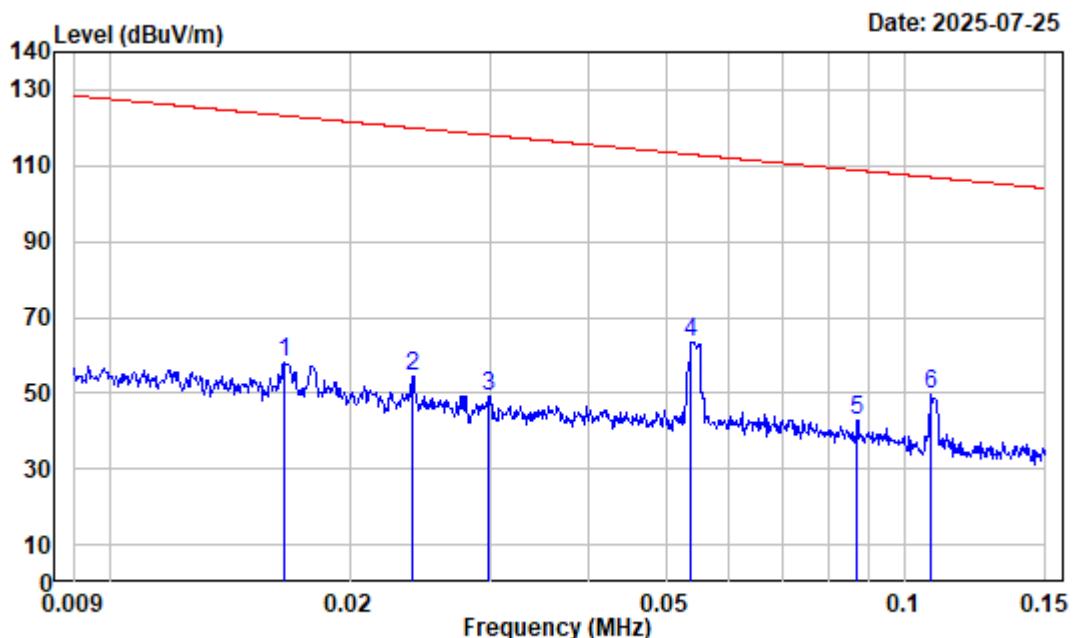
Temperature:	24.2 °C
Relative Humidity:	55 %
ATM Pressure:	100.1 kPa
Test Engineer:	Colin Lin
Test Date:	2025-07-25
EUT Operation Mode:	5G WiFi Transmitting

**Test Result:** Compliance, please refer to the below data.

*Note 1: The Loop Antenna were tested in parallel, perpendicular, and ground-parallel. The worst orientation was parallel and the data was recorded in report.*

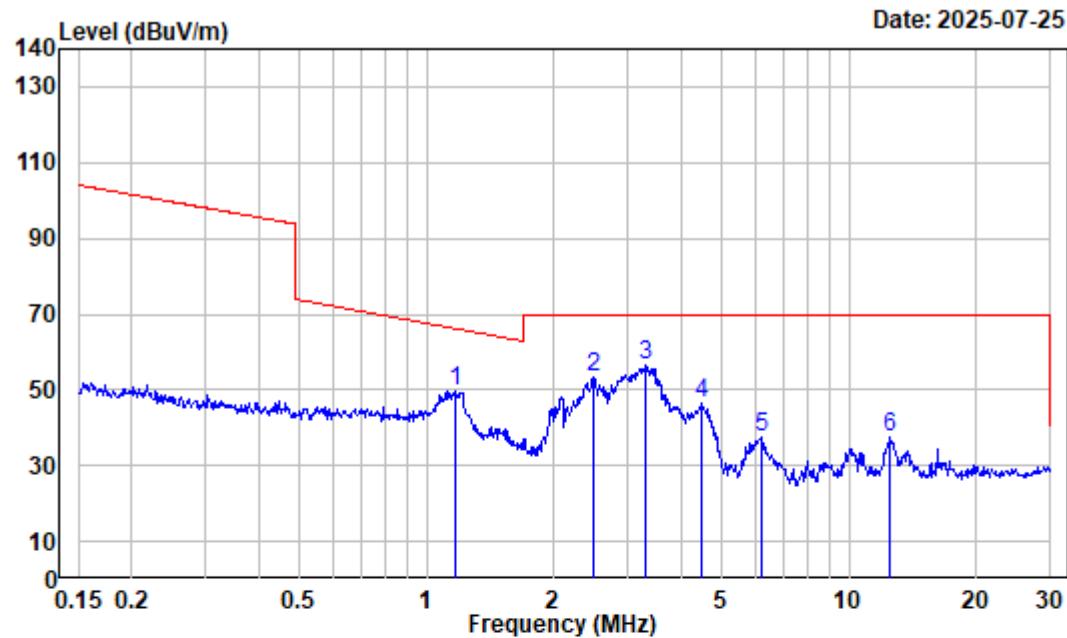
*Note 2: The maximum output power mode and channel: 5G WIFI 802.11AC20 High Channel was tested.*

9kHz~30MHz:



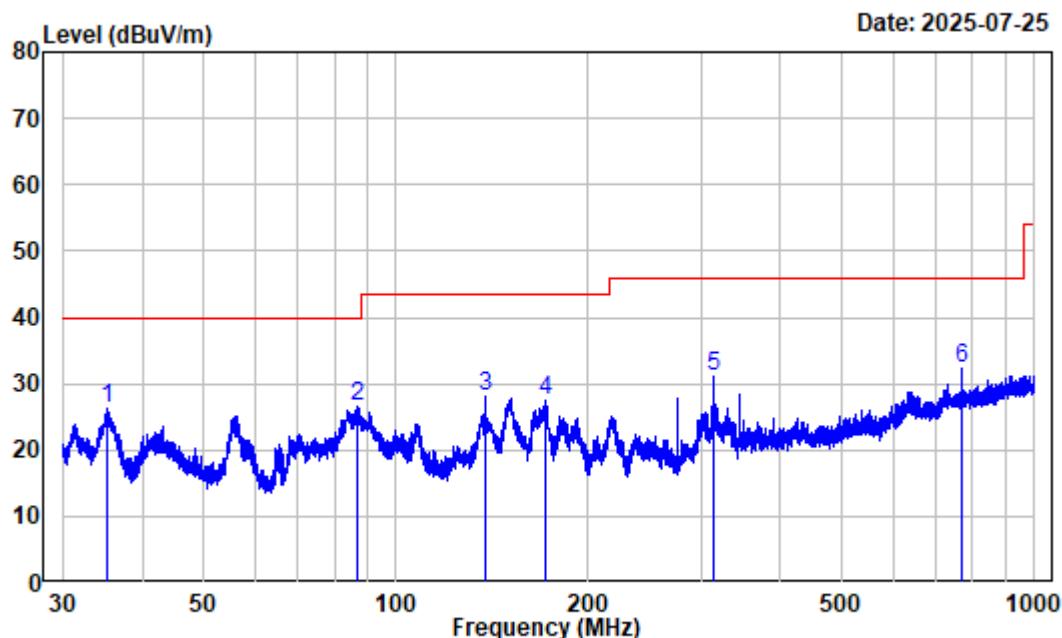
Site : Chamber  
Condition : 3m  
Job No. : 2504U66843E-RF  
Polarization : Parallel Tester: Colin Lin  
Test Mode : 5G WIFI Transmitting  
Receiver Setting: RBW:300Hz VBW:1kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	Line	
1	0.017	32.92	25.25	58.17	123.22	-65.05	Peak
2	0.024	29.60	25.05	54.65	119.99	-65.34	Peak
3	0.030	26.99	22.26	49.25	118.09	-68.84	Peak
4	0.054	22.28	41.32	63.60	113.00	-49.40	Peak
5	0.087	17.80	24.81	42.61	108.82	-66.21	Peak
6	0.108	16.08	33.72	49.80	106.94	-57.14	Peak



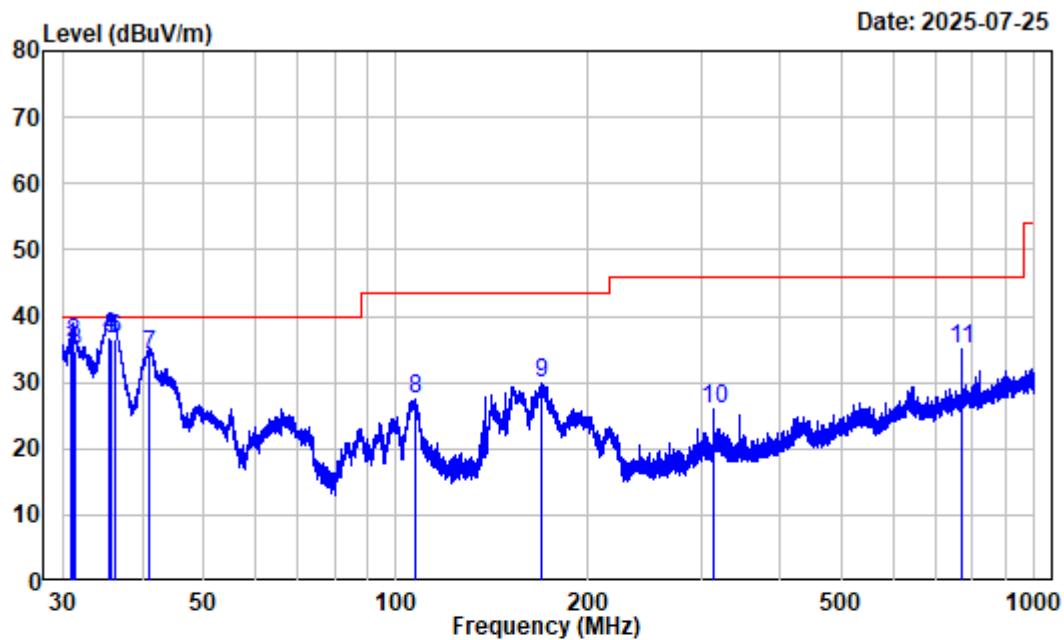
Site : Chamber  
Condition : 3m  
Job No. : 2504U66843E-RF  
Polarization : Parallel Tester: Colin Lin  
Test Mode : 5G WIFI Transmitting  
Receiver Setting: RBW:10kHz VBW:30kHz

Freq	Factor	Read	Limit	Over	Remark
		Level	Level	Line	
1	1.166	-2.42	52.16	49.74	66.11 -16.37 Peak
2	2.474	-5.60	58.91	53.31	69.54 -16.23 Peak
3	3.293	-5.97	62.38	56.41	69.54 -13.13 Peak
4	4.478	-6.30	52.89	46.59	69.54 -22.95 Peak
5	6.186	-6.17	43.75	37.58	69.54 -31.96 Peak
6	12.516	-4.73	42.04	37.31	69.54 -32.23 Peak

**30MHz~1GHz:**

Site : Chamber  
Condition : 3m HORIZONTAL  
Job No. : 2504U66843E-RF Tester: Colin Lin  
Test Mode : 5G WIFI Transmitting  
Receiver Setting: RBW:100kHz VBW:300kHz

	Freq	Factor	Read Level	Limit Level	Over Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	35.344	-11.54	37.66	26.12	40.00	-13.88	Peak
2	86.845	-15.02	41.61	26.59	40.00	-13.41	Peak
3	137.963	-14.90	43.13	28.23	43.50	-15.27	Peak
4	171.543	-13.51	41.06	27.55	43.50	-15.95	Peak
5	314.928	-8.62	39.73	31.11	46.00	-14.89	Peak
6	768.075	0.25	31.90	32.15	46.00	-13.85	Peak



Site : Chamber  
Condition : 3m VERTICAL  
Job No. : 2504U66843E-RF Tester: Colin Lin  
Test Mode : 5G WIFI Transmitting  
Receiver Setting: RBW:100kHz VBW:300kHz

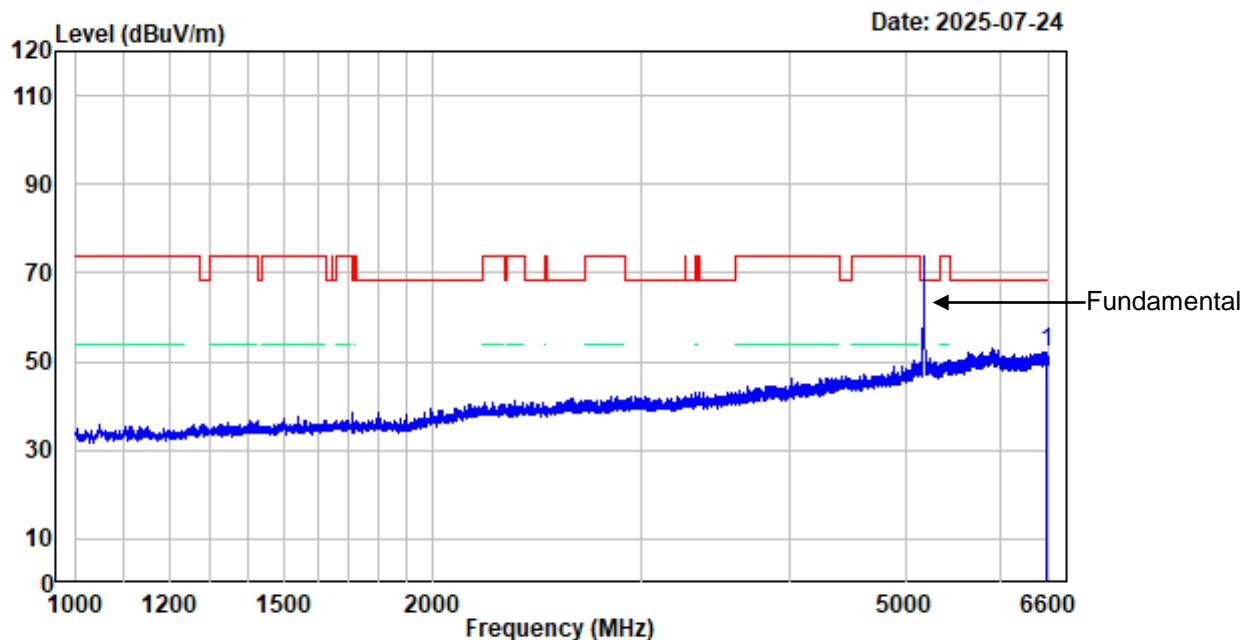
	Freq	Factor	Read Level	Limit Level	Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	30.975	-11.97	47.31	35.34	40.00	-4.66	QP
2	31.193	-11.97	47.95	35.98	40.00	-4.02	QP
3	31.482	-11.97	46.76	34.79	40.00	-5.21	QP
4	35.406	-11.53	48.40	36.87	40.00	-3.13	QP
5	35.828	-11.49	47.91	36.42	40.00	-3.58	QP
6	36.159	-11.43	48.00	36.57	40.00	-3.43	QP
7	41.132	-10.38	44.63	34.25	40.00	-5.75	QP
8	107.369	-11.20	38.59	27.39	43.50	-16.11	Peak
9	168.414	-13.77	43.74	29.97	43.50	-13.53	Peak
10	314.928	-8.62	34.70	26.08	46.00	-19.92	Peak
11	768.075	0.25	34.64	34.89	46.00	-11.11	Peak

**1GHz-25GHz****Environmental Conditions**

<b>Temperature:</b>	25.1 to 26.3 °C
<b>Relative Humidity:</b>	51 to 56 %
<b>ATM Pressure:</b>	100.1 kPa
<b>Test Engineer:</b>	Kevin Lv
<b>Test Date:</b>	2025-07-24 to 2025-07-30
<b>EUT Operation Mode:</b>	Transmitting

**Test Result:** Compliance, please refer to the below data.

*Note: For 18GHz-40GHz, the maximum output power mode and channel: 802.11AC20 High Channel 5240MHz was tested.*

**802.11A Low Channel 1GHz-6.6GHz\_HORIZONTAL**

Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504U66843E-RF

Test Mode : Transmitting

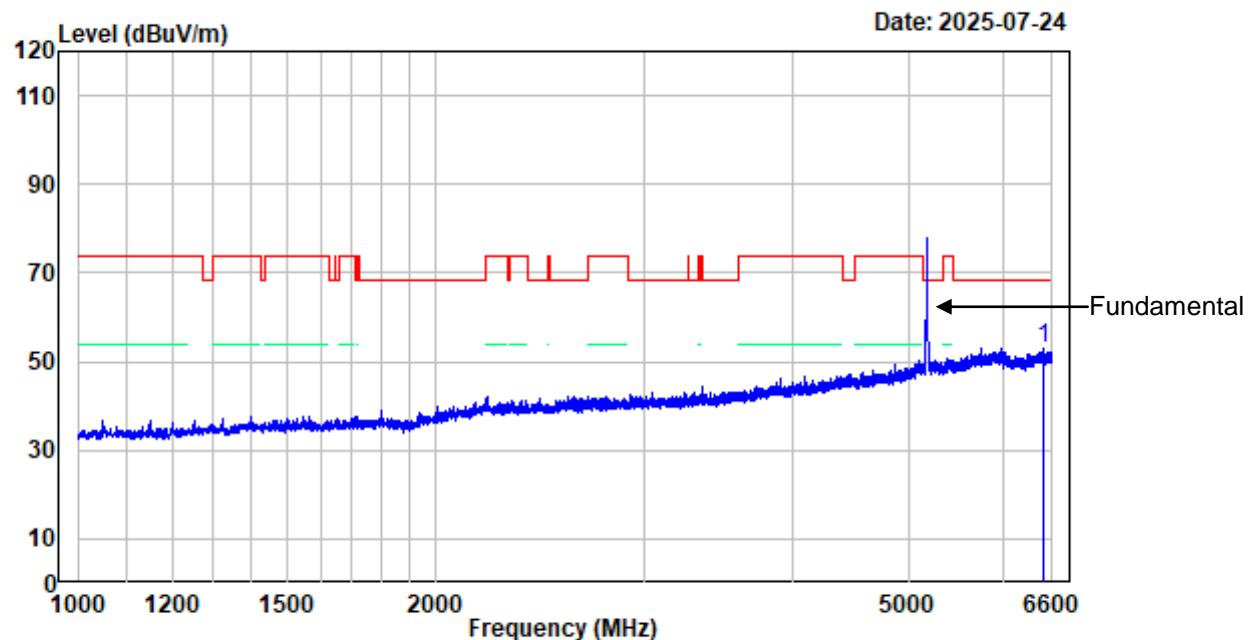
Tester:Kevin Lv

Note : 802.11A Low Channel 5180MHz 1GHz-6.6GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	6569.200	-3.58	55.74	52.16	68.20	-16.04	Peak

## 802.11A Low Channel 1GHz-6.6GHz\_VERTICAL



Site : chamber

Condition : 3m VERTICAL

Project No.: 2504U66843E-RF

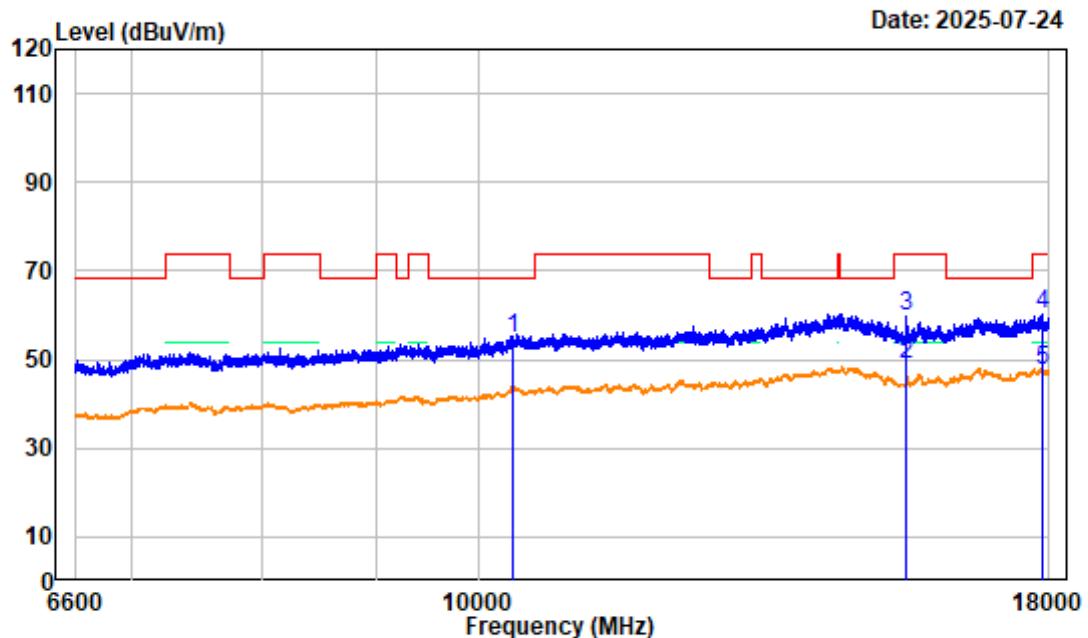
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11A Low Channel 5180MHz 1GHz-6.6GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	6485.900	-3.73	56.61	52.88	68.20	-15.32	Peak

## 802.11A Low Channel 6.6GHz-18GHz\_HORIZONTAL



Site : chamber

Condition : 3m HORIZONTAL

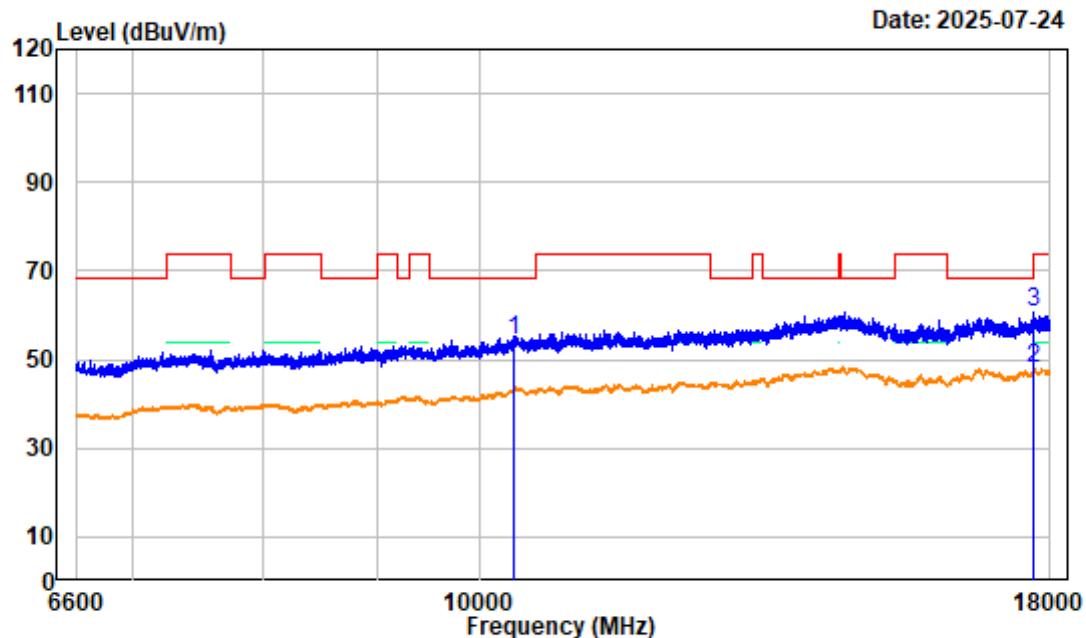
Project No.: 2504U66843E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11A Low Channel 5180MHz 6.6GHz-18GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	Line	
1	10360.580	3.99	50.78	54.77	68.20	-13.43	Peak
2	15549.000	4.88	44.13	49.01	54.00	-4.99	Average
3	15549.000	4.88	54.82	59.70	74.00	-14.30	Peak
4	17864.630	8.30	51.84	60.14	74.00	-13.86	Peak
5	17864.630	8.30	39.32	47.62	54.00	-6.38	Average

**802.11A Low Channel 6.6GHz-18GHz\_VERTICAL**

Site : chamber

Condition : 3m VERTICAL

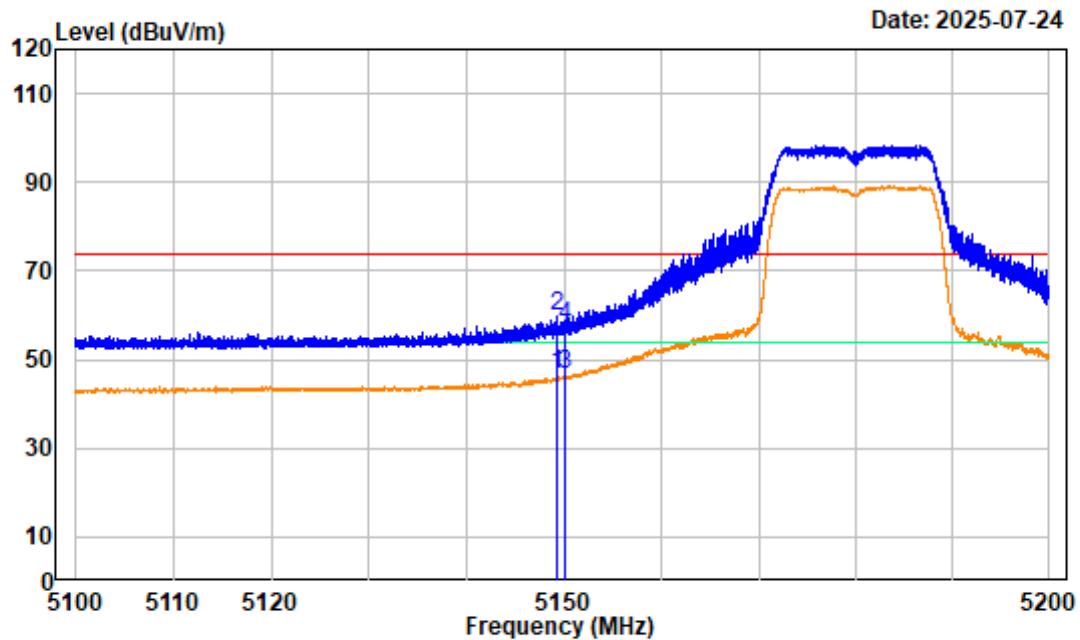
Project No.: 2504U66843E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11A Low Channel 5180MHz 6.6GHz-18GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	Line	
1	10360.580	3.99	50.37	54.36	68.20	-13.84	Peak
2	17706.450	7.66	40.11	47.77	54.00	-6.23	Average
3	17706.450	7.66	53.06	60.72	74.00	-13.28	Peak

**802.11A Low Channel Bandedge\_HORIZONTAL**

Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504U66843E-**RF**

Test Mode : Transmitting

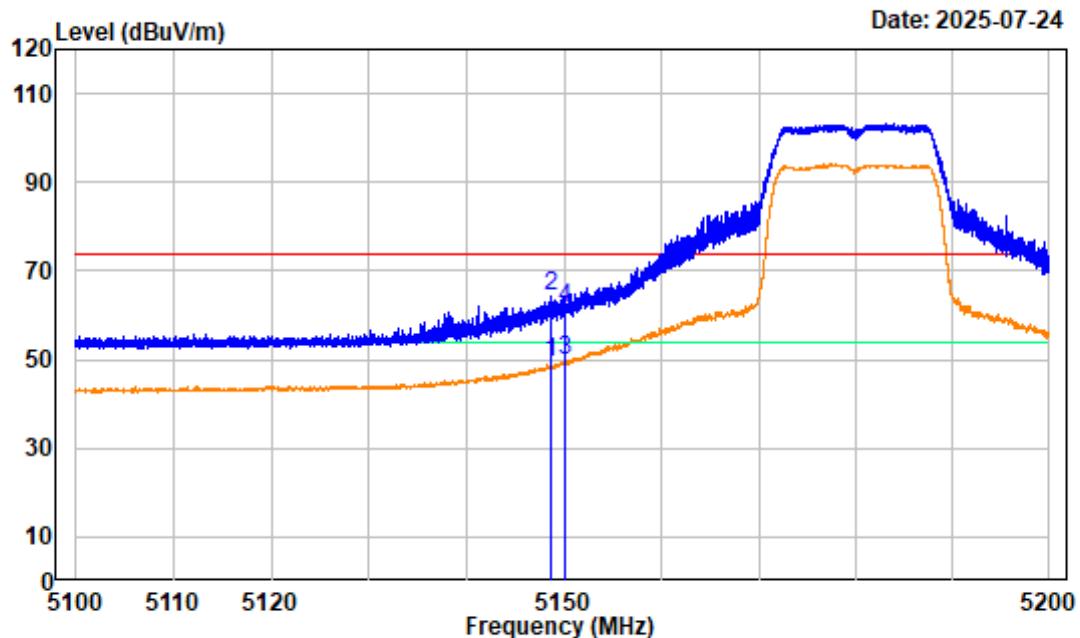
Tester:Kevin Lv

Note : 802.11A Low Channel 5180MHz Bandedge

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	Line	
1	5149.212	-6.04	52.75	46.71	54.00	-7.29	Average
2	5149.212	-6.04	65.67	59.63	74.00	-14.37	Peak
3	5150.000	-6.04	52.71	46.67	54.00	-7.33	average
4	5150.000	-6.04	63.71	57.67	74.00	-16.33	Peak

## 802.11A Low Channel Bandedge\_VERTICAL



Site : chamber

Condition : 3m VERTICAL

Project No.: 2504U66843E-RF

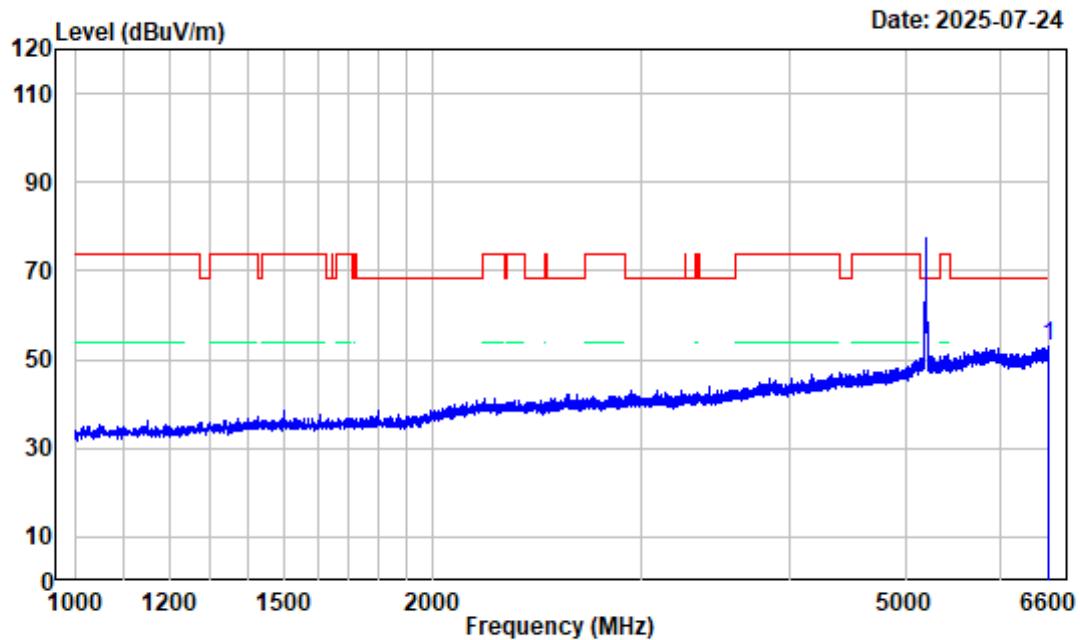
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11A Low Channel 5180MHz Bandedge

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	Line	
1	5148.712	-6.04	55.41	49.37	54.00	-4.63	Average
2	5148.712	-6.04	70.33	64.29	74.00	-9.71	Peak
3	5150.000	-6.04	55.98	49.94	54.00	-4.06	Average
4	5150.000	-6.04	67.67	61.63	74.00	-12.37	Peak

## 802.11A Middle Channel 1GHz-6.6GHz\_HORIZONTAL



Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504U66843E-RF

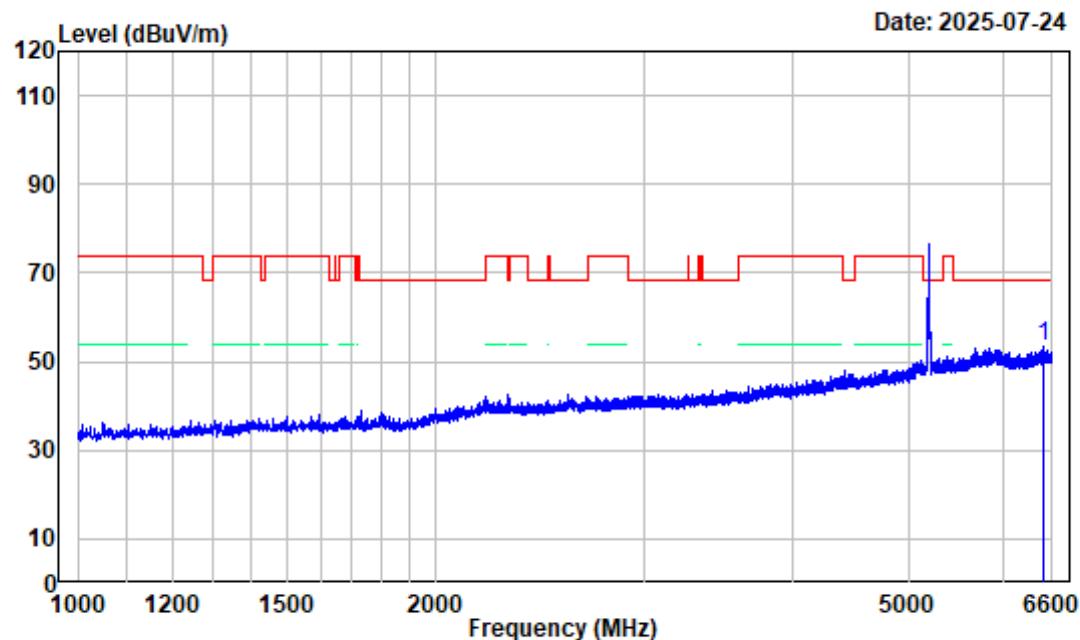
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11A Middle Channel 5200MHz 1GHz-6.6GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	6583.900	-3.54	56.34	52.80	68.20	-15.40	Peak

## 802.11A Middle Channel 1GHz-6.6GHz\_VERTICAL



Site : chamber

Condition : 3m VERTICAL

Project No.: 2504U66843E-RF

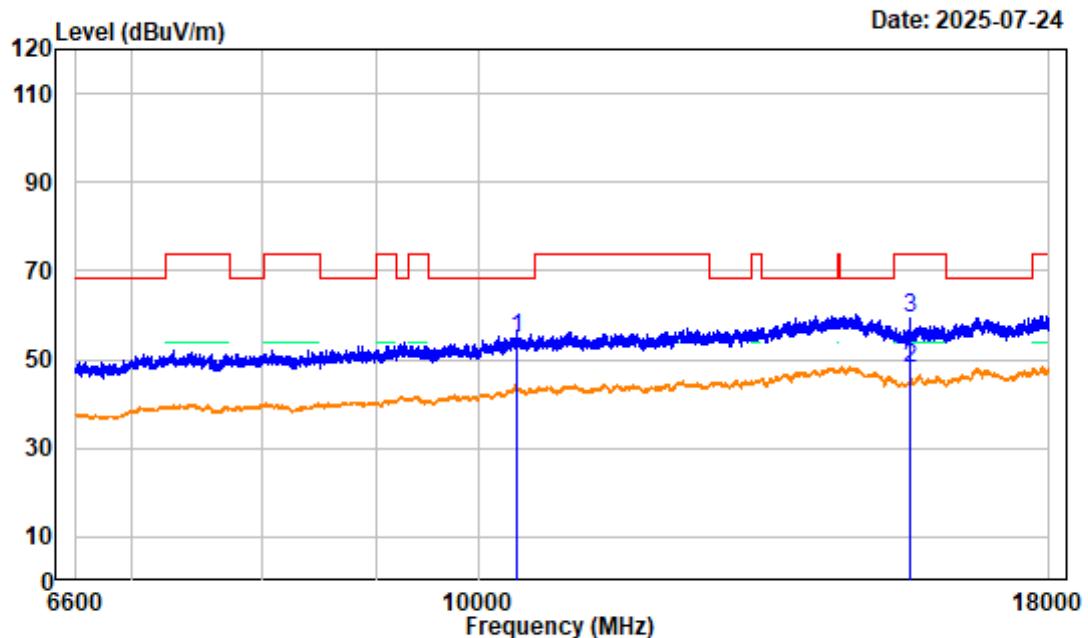
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11A Middle Channel 5200MHz 1GHz-6.6GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	6489.400	-3.77	57.36	53.59	68.20	-14.61	Peak

## 802.11A Middle Channel 6.6GHz-18GHz\_HORIZONTAL



Site : chamber

Condition : 3m HORIZONTAL

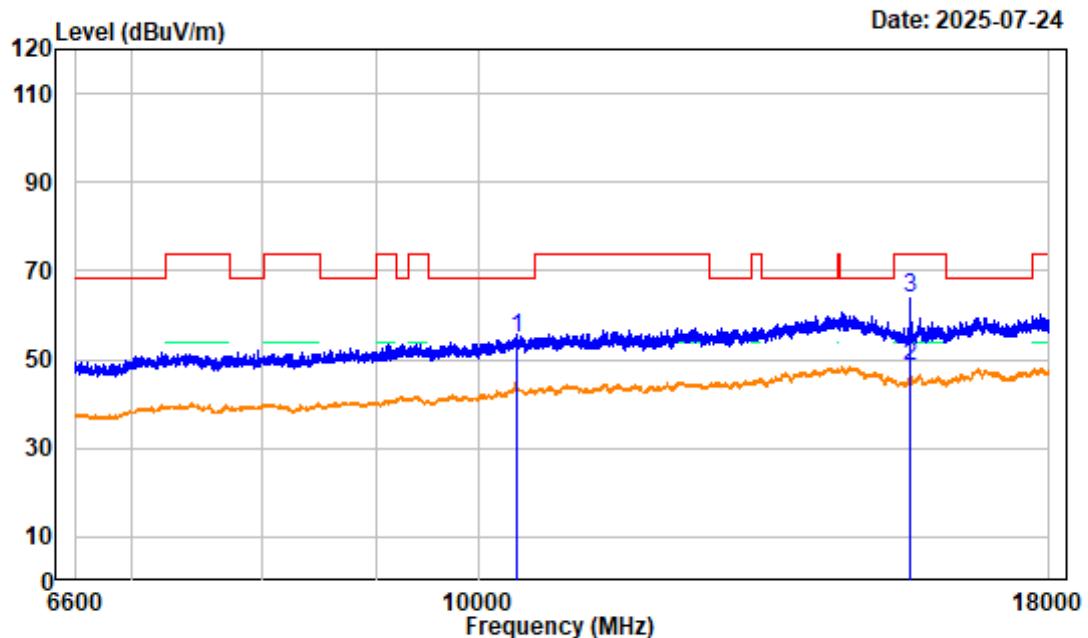
Project No.: 2504U66843E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11A Middle Channel 5200MHz 6.6GHz-18GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	Line	
1	10400.470	4.18	50.46	54.64	68.20	-13.56	Peak
2	15608.850	4.69	43.15	47.84	54.00	-6.16	Average
3	15608.850	4.69	54.62	59.31	74.00	-14.69	Peak

**802.11A Middle Channel 6.6GHz-18GHz\_VERTICAL**

Site : chamber

Condition : 3m VERTICAL

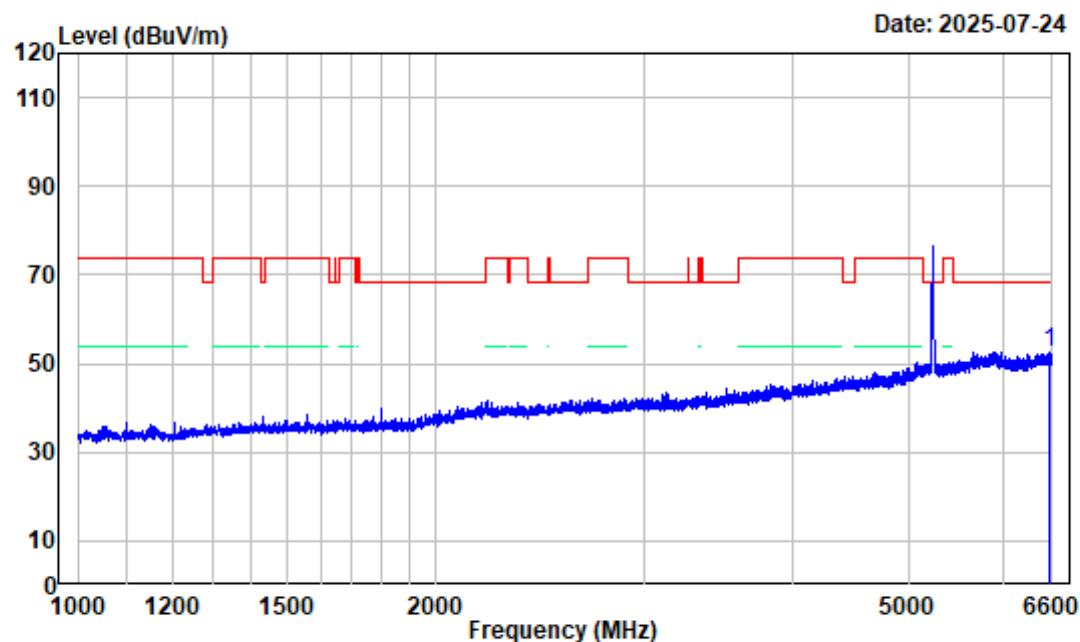
Project No.: 2504U66843E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11A Middle Channel 5200MHz 6.6GHz-18GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	Line	dB
1	10400.470	4.18	50.81	54.99	68.20	-13.21	Peak
2	15608.850	4.69	43.93	48.62	54.00	-5.38	Average
3	15608.850	4.69	59.06	63.75	74.00	-10.25	Peak

**802.11A High Channel 1GHz-6.6GHz\_HORIZONTAL**

Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504U66843E-RF

Test Mode : Transmitting

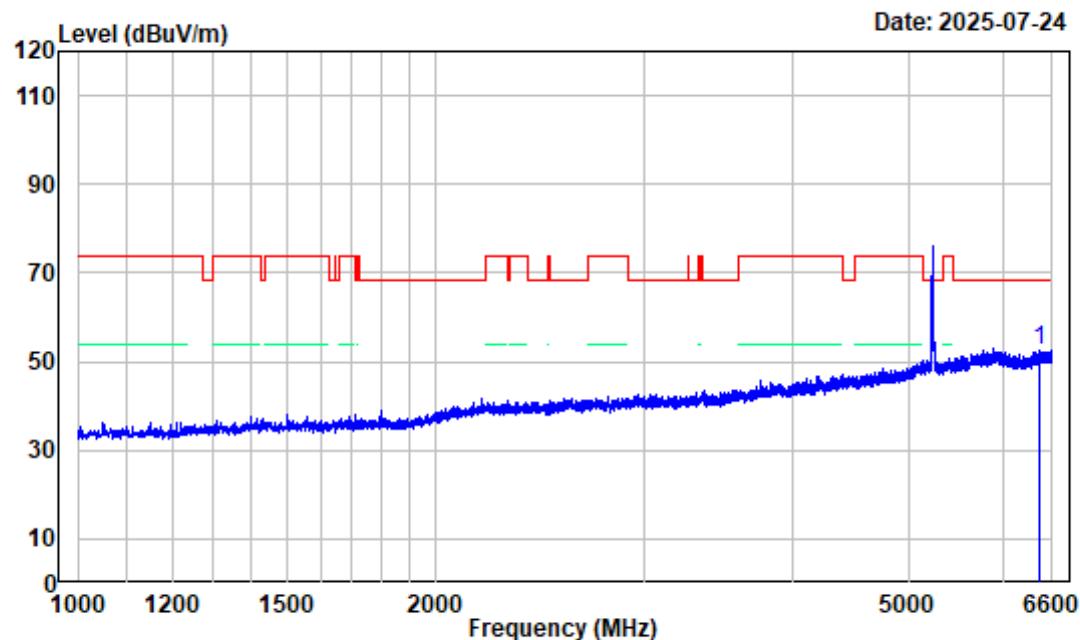
Tester:Kevin Lv

Note : 802.11A High Channel 5240MHz 1GHz-6.6GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	6577.600	-3.55	56.14	52.59	68.20	-15.61	Peak

## 802.11A High Channel 1GHz-6.6GHz\_VERTICAL



Site : chamber

Condition : 3m VERTICAL

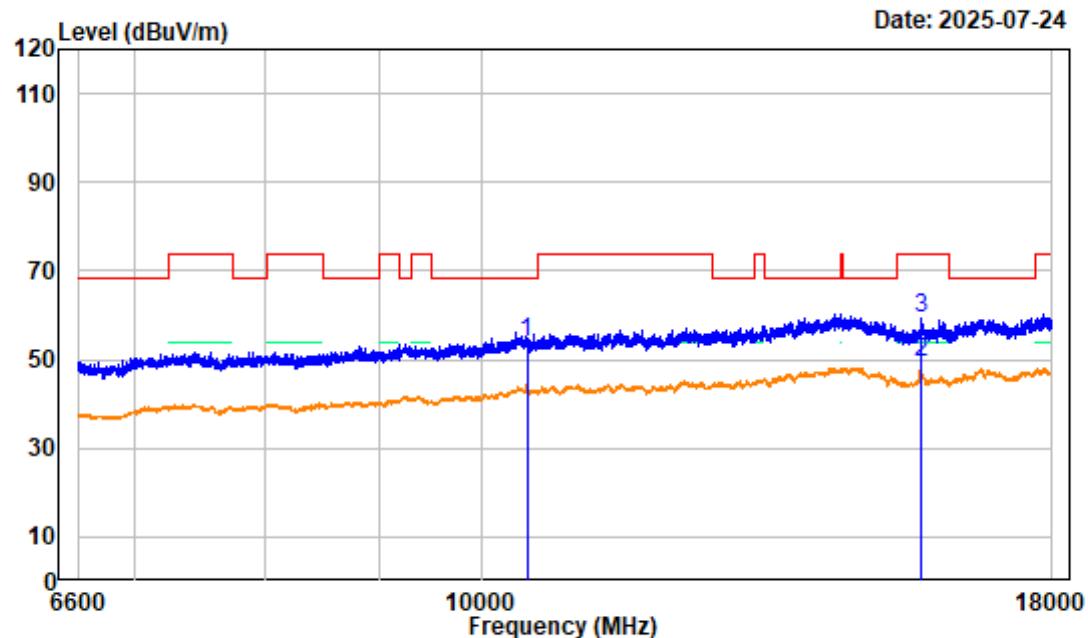
Project No.: 2504U66843E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11A High Channel 5240MHz 1GHz-6.6GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	6444.600	-3.48	56.07	52.59	68.20	-15.61	Peak

**802.11A High Channel 6.6GHz-18GHz\_HORIZONTAL**

Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504U66843E-RF

Test Mode : Transmitting

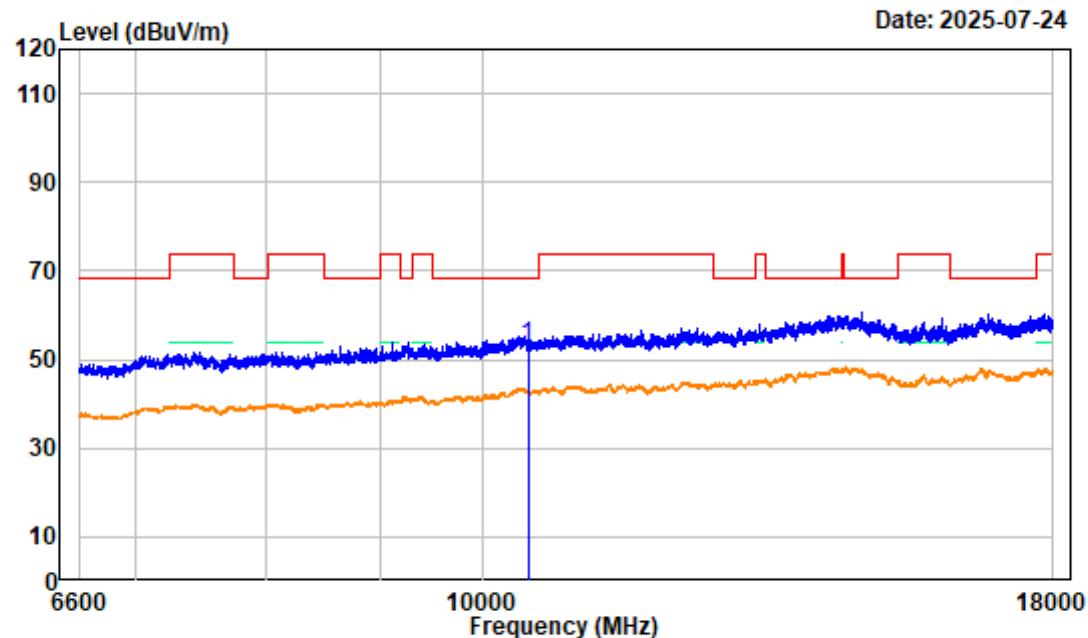
Tester: Kevin Lv

Note : 802.11A High Channel 5240MHz 6.6GHz-18GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	Line	
1	10480.280	4.00	50.04	54.04	68.20	-14.16	Peak
2	15715.720	4.79	44.72	49.51	54.00	-4.49	Average
3	15715.720	4.79	54.67	59.46	74.00	-14.54	Peak

## 802.11A High Channel 6.6GHz-18GHz\_VERTICAL



Site : chamber

Condition : 3m VERTICAL

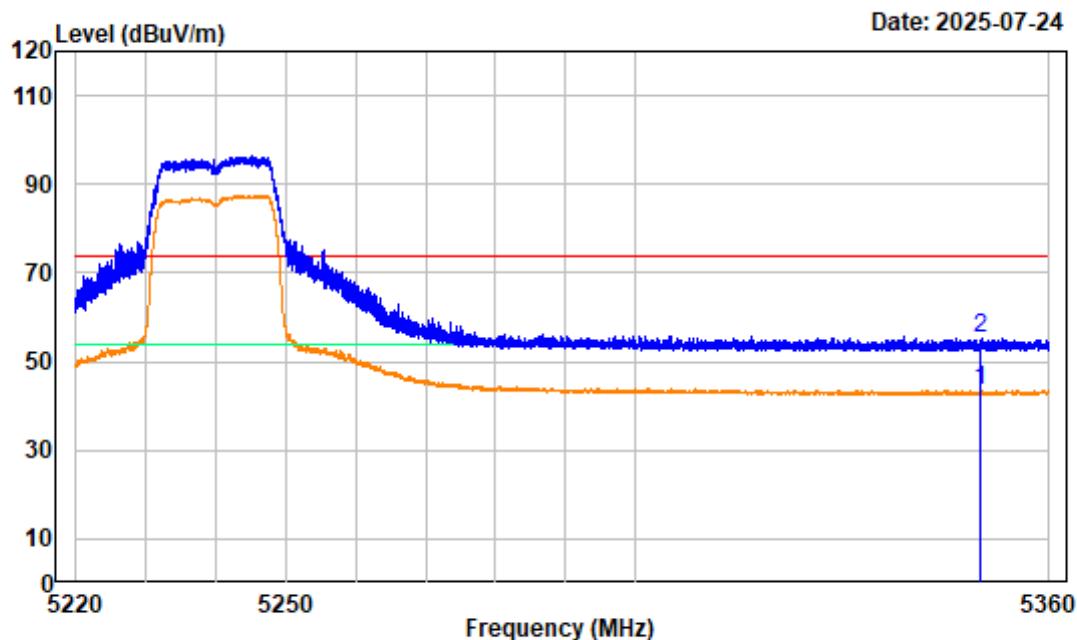
Project No.: 2504U66843E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11A High Channel 5240MHz 6.6GHz-18GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit	Over	Remark
		Level	Level			
MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1 10480.280	4.00	49.18	53.18	68.20	-15.02	Peak

**802.11A High Channel Bandedge\_HORIZONTAL**

Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504U66843E-RF

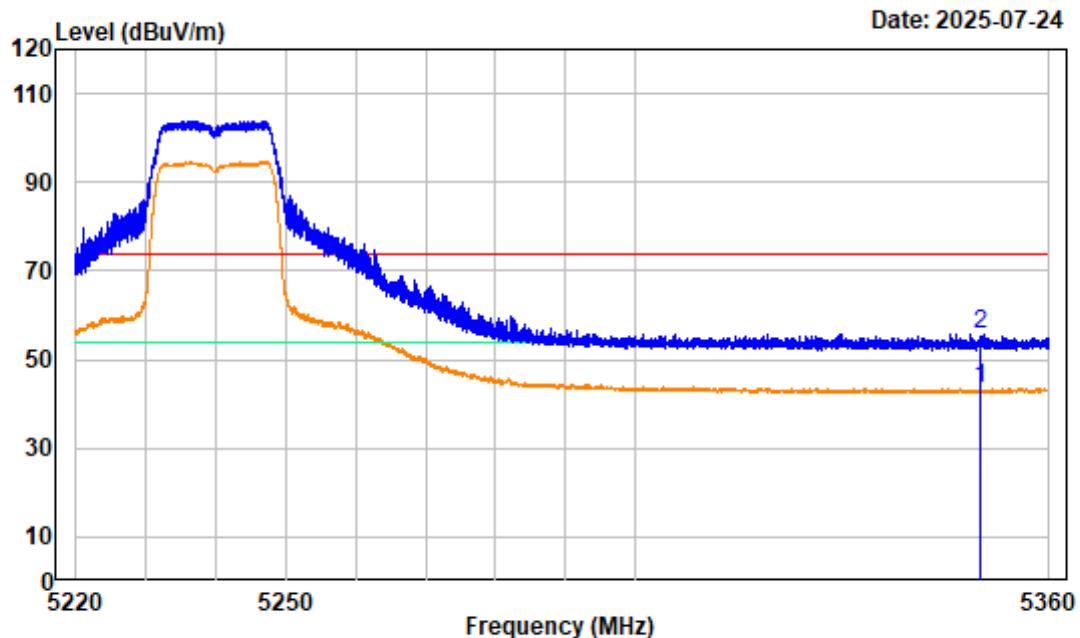
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11A High Channel 5240MHz Bandedge

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	dBuV/m	
1	5350.000	-5.69	49.33	43.64	54.00	-10.36	average
2	5350.000	-5.69	60.79	55.10	74.00	-18.90	peak

## 802.11A High Channel Bandedge\_VERTICAL



Site : chamber

Condition : 3m VERTICAL

Project No.: 2504U66843E-RF

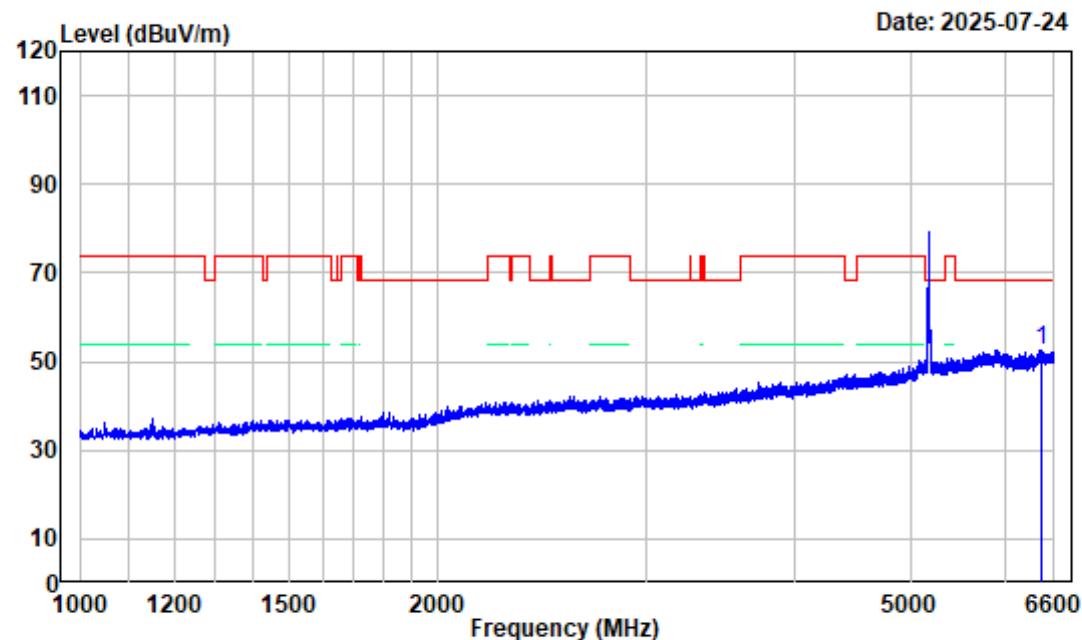
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11A High Channel 5240MHz Bandedge

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	5350.000	-5.69	49.32	43.63	54.00	-10.37	Average
2	5350.000	-5.69	61.24	55.55	74.00	-18.45	peak

## 802.11AC20 Low Channel 1GHz-6.6GHz\_HORIZONTAL



Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504U66843E-RF

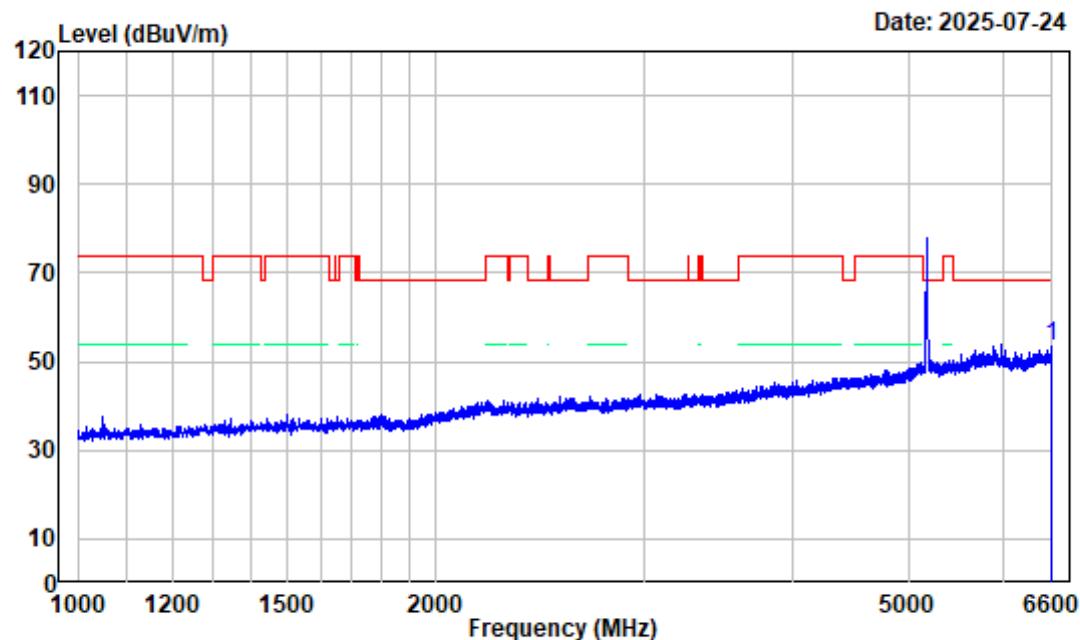
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC20 Low Channel 5180MHz 1GHz-6.6GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	6443.900	-3.48	56.03	52.55	68.20	-15.65	Peak

## 802.11AC20 Low Channel 1GHz-6.6GHz\_VERTICAL



Site : chamber

Condition : 3m VERTICAL

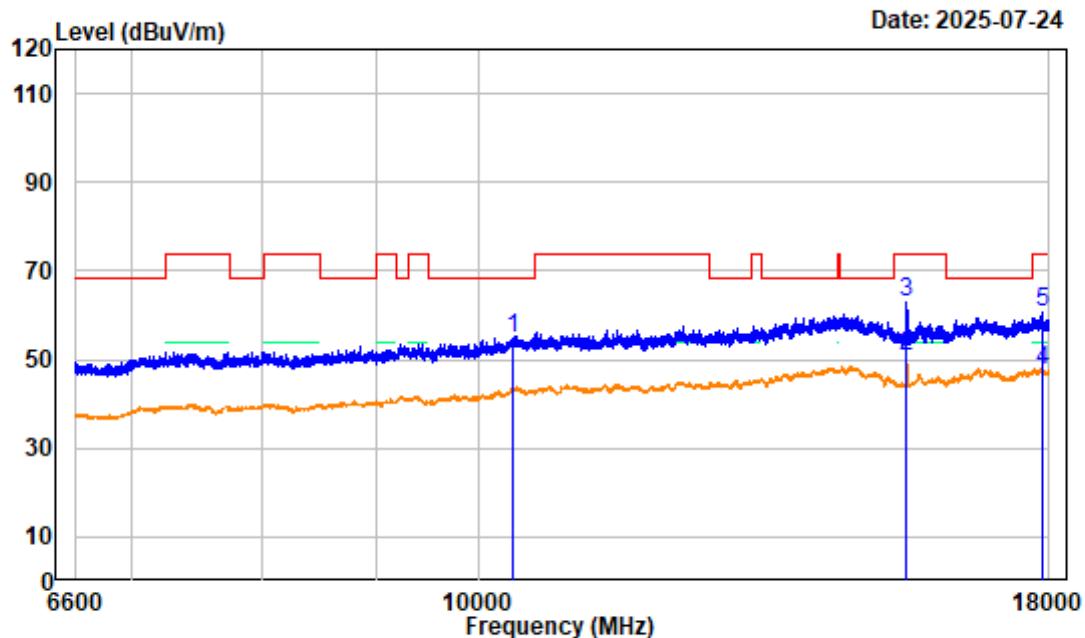
Project No.: 2504U66843E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC20 Low Channel 5180MHz 1GHz-6.6GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	6593.000	-3.50	56.99	53.49	68.20	-14.71	Peak

**802.11AC20 Low Channel 6.6GHz-18GHz\_HORIZONTAL**

Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504U66843E-RF

Test Mode : Transmitting

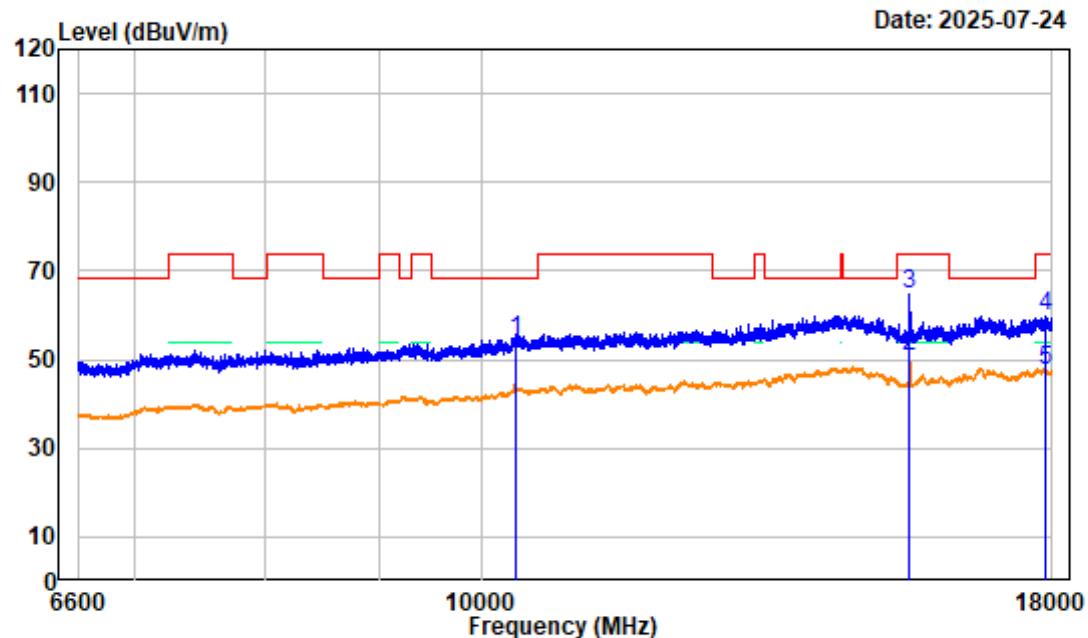
Tester:Kevin Lv

Note : 802.11AC20 Low Channel 5180MHz 6.6GHz-18GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	Line	
1	10360.580	3.99	50.82	54.81	68.20	-13.39	Peak
2	15544.720	4.86	45.71	50.57	54.00	-3.43	Average
3	15544.720	4.86	57.89	62.75	74.00	-11.25	Peak
4	17881.720	8.28	39.45	47.73	54.00	-6.27	Average
5	17881.720	8.28	52.43	60.71	74.00	-13.29	Peak

## 802.11AC20 Low Channel 6.6GHz-18GHz\_VERTICAL



Site : chamber

Condition : 3m VERTICAL

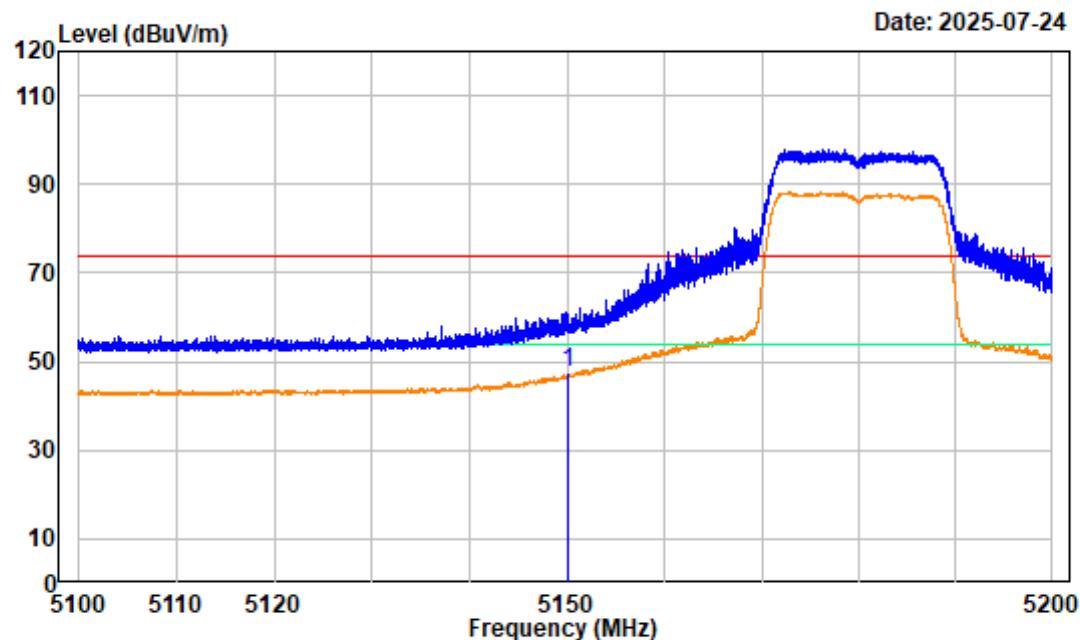
Project No.: 2504U66843E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC20 Low Channel 5180MHz 6.6GHz-18GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

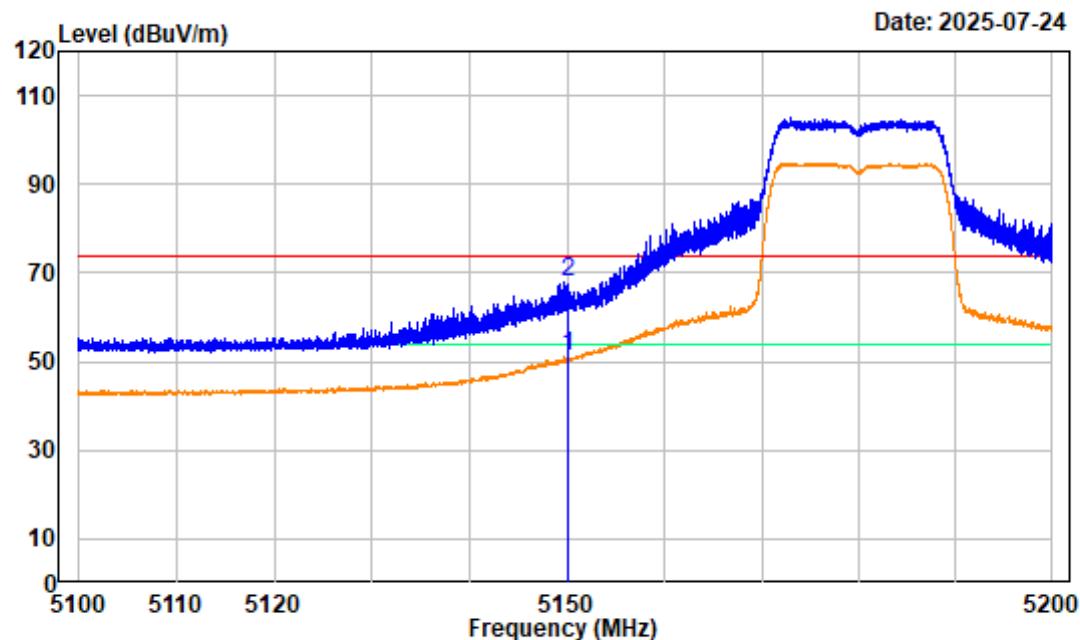
Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	Line	
1	10360.580	3.99	50.52	54.51	68.20	-13.69	Peak
2	15537.600	4.84	45.93	50.77	54.00	-3.23	Average
3	15537.600	4.84	59.73	64.57	74.00	-9.43	Peak
4	17893.130	8.27	51.46	59.73	74.00	-14.27	Peak
5	17893.130	8.27	39.49	47.76	54.00	-6.24	Average

**802.11AC20 Low Channel Bandedge\_HORIZONTAL**

Site : chamber  
Condition : 3m HORIZONTAL  
Project No.: 2504U66843E-RF  
Test Mode : Transmitting Tester:Kevin Lv  
Note : 802.11AC20 Low Channel 5180MHz Bandedge  
SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB
1	5150.000	-6.04	53.70	47.66	54.00	-6.34	Average

## 802.11AC20 Low Channel Bandedge\_VERTICAL



Site : chamber

Condition : 3m VERTICAL

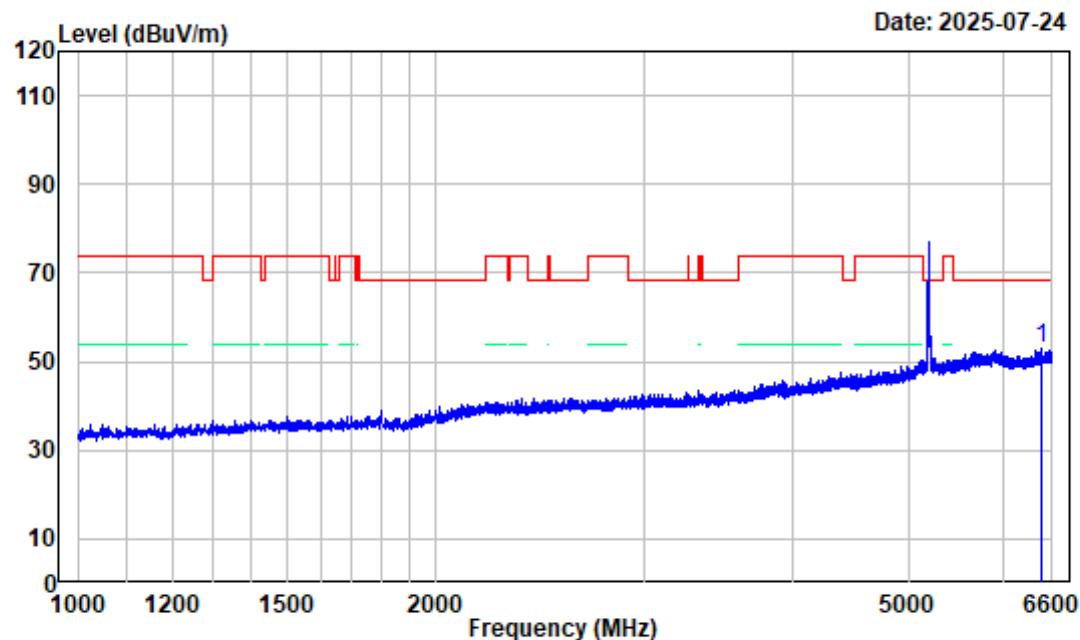
Project No.: 2504U66843E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC20 Low Channel 5180MHz Bandedge

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	dBuV/m	
1	5150.000	-6.04	56.99	50.95	54.00	-3.05	Average
2	5150.000	-6.04	74.16	68.12	74.00	-5.88	peak

**802.11AC20 Middle Channel 1GHz-6.6GHz\_HORIZONTAL**

Site : chamber

Condition : 3m HORIZONTAL

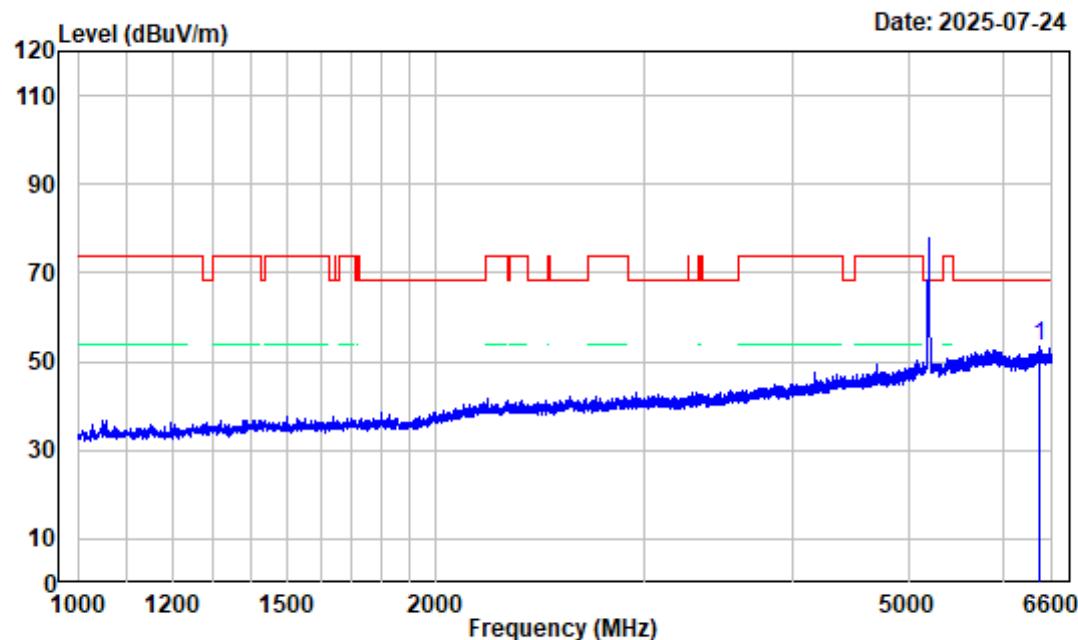
Project No.: 2504U66843E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC20 Middle Channel 5200MHz 1GHz-6.6GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dB <sub>uV</sub>	dB <sub>uV/m</sub>		
1	6461.400	-3.55	56.57	53.02	68.20	-15.18	Peak

**802.11AC20 Middle Channel 1GHz-6.6GHz\_VERTICAL**

Site : chamber

Condition : 3m VERTICAL

Project No.: 2504U66843E-RF

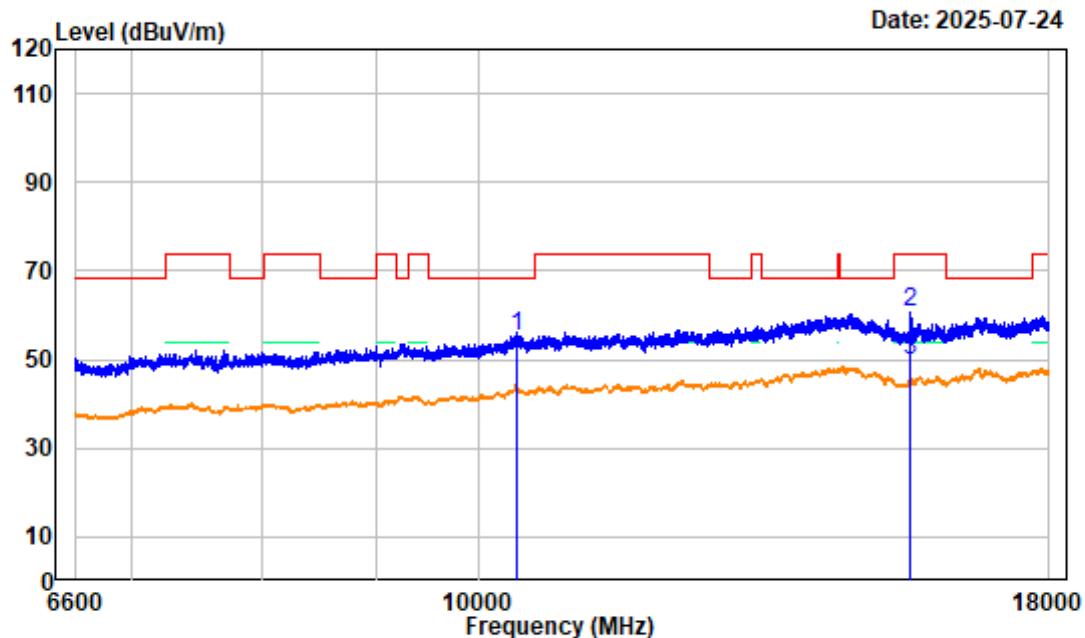
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC20 Middle Channel 5200MHz 1GHz-6.6GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	6450.900	-3.45	56.99	53.54	68.20	-14.66	Peak

## 802.11AC20 Middle Channel 6.6GHz-18GHz\_HORIZONTAL



Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504U66843E-RF

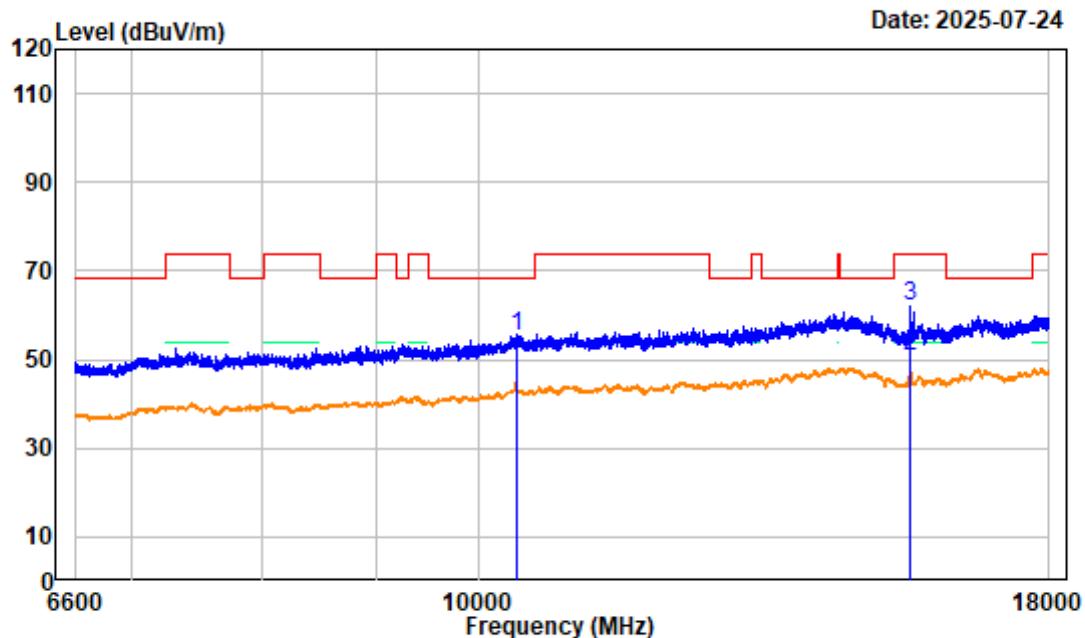
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC20 Middle Channel 5200MHz 6.6GHz-18GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	Line	dB
1	10400.470	4.18	51.19	55.37	68.20	-12.83	Peak
2	15596.030	4.71	56.10	60.81	74.00	-13.19	Peak
3	15596.030	4.71	45.10	49.81	54.00	-4.19	Average

## 802.11AC20 Middle Channel 6.6GHz-18GHz\_VERTICAL



Site : chamber

Condition : 3m VERTICAL

Project No.: 2504U66843E-RF

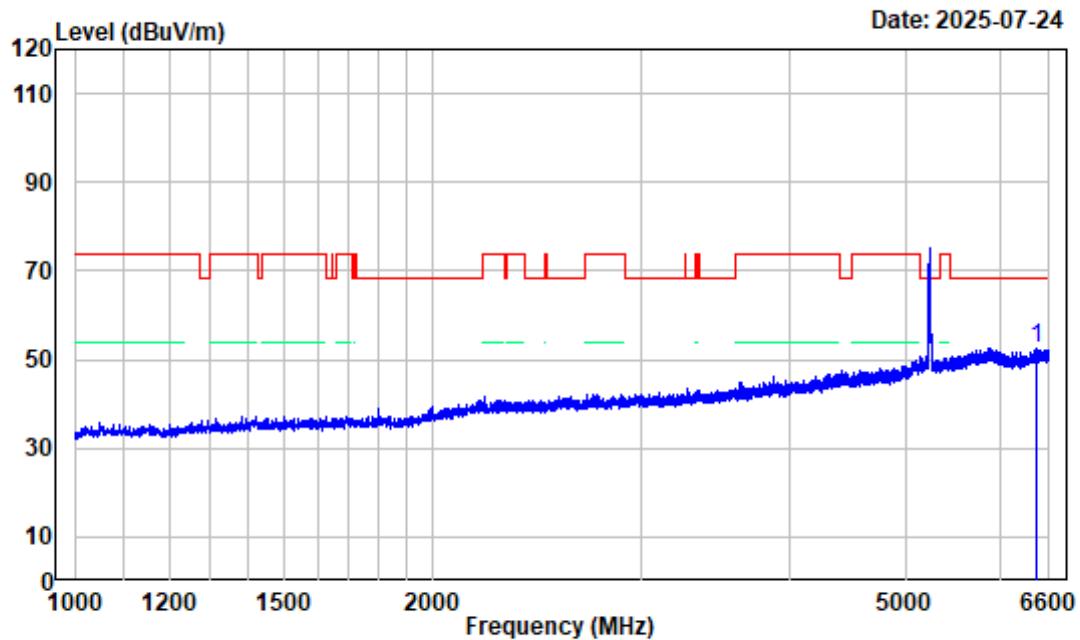
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC20 Middle Channel 5200MHz 6.6GHz-18GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	Line	dB
1	10400.470	4.18	50.84	55.02	68.20	-13.18	Peak
2	15603.150	4.68	46.00	50.68	54.00	-3.32	Average
3	15603.150	4.68	57.38	62.06	74.00	-11.94	Peak

## 802.11AC20 High Channel 1GHz-6.6GHz\_HORIZONTAL



Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504U66843E-RF

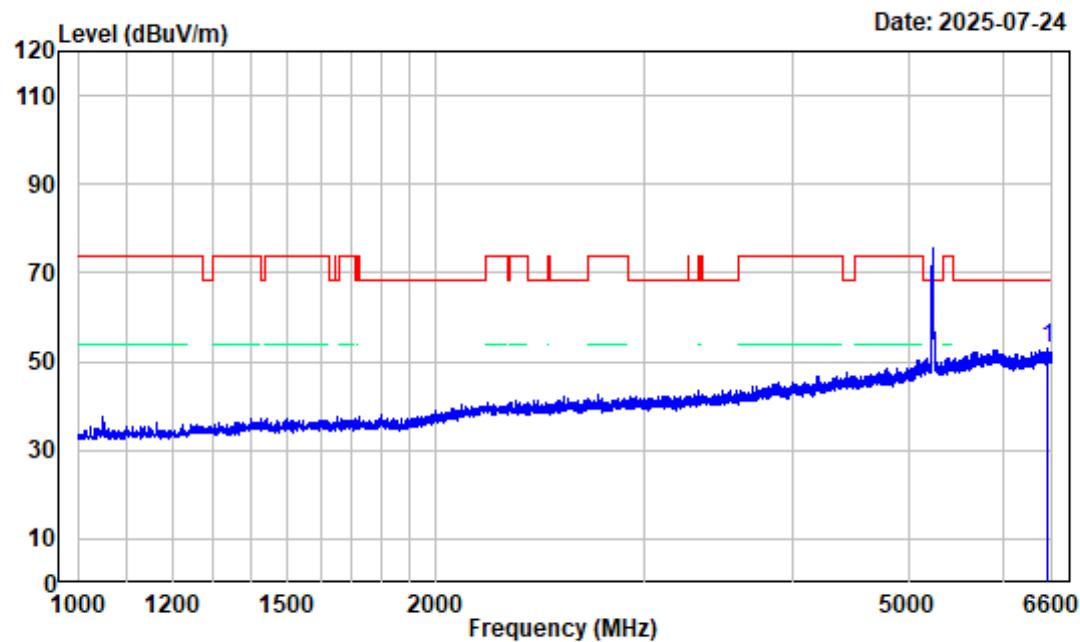
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC20 High Channel 5240MHz 1GHz-6.6GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	6450.200	-3.45	55.97	52.52	68.20	-15.68	Peak

## 802.11AC20 High Channel 1GHz-6.6GHz\_VERTICAL



Site : chamber

Condition : 3m VERTICAL

Project No.: 2504U66843E-RF

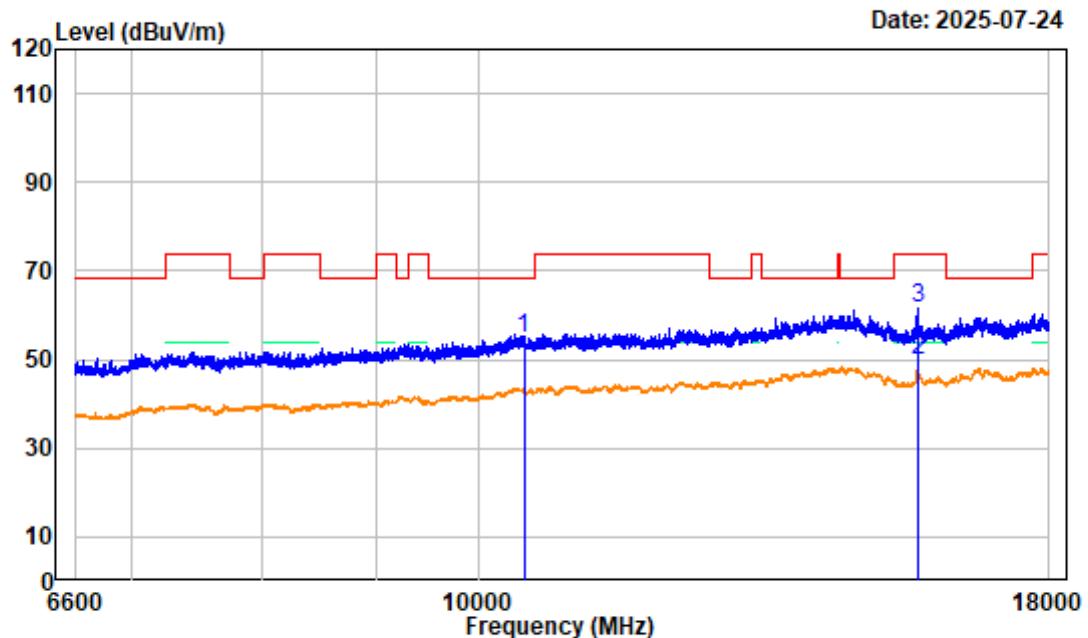
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC20 High Channel 5240MHz 1GHz-6.6GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB
1	6546.100	-3.65	56.75	53.10	68.20	-15.10	Peak

## 802.11AC20 High Channel 6.6GHz-18GHz\_HORIZONTAL



Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504U66843E-RF

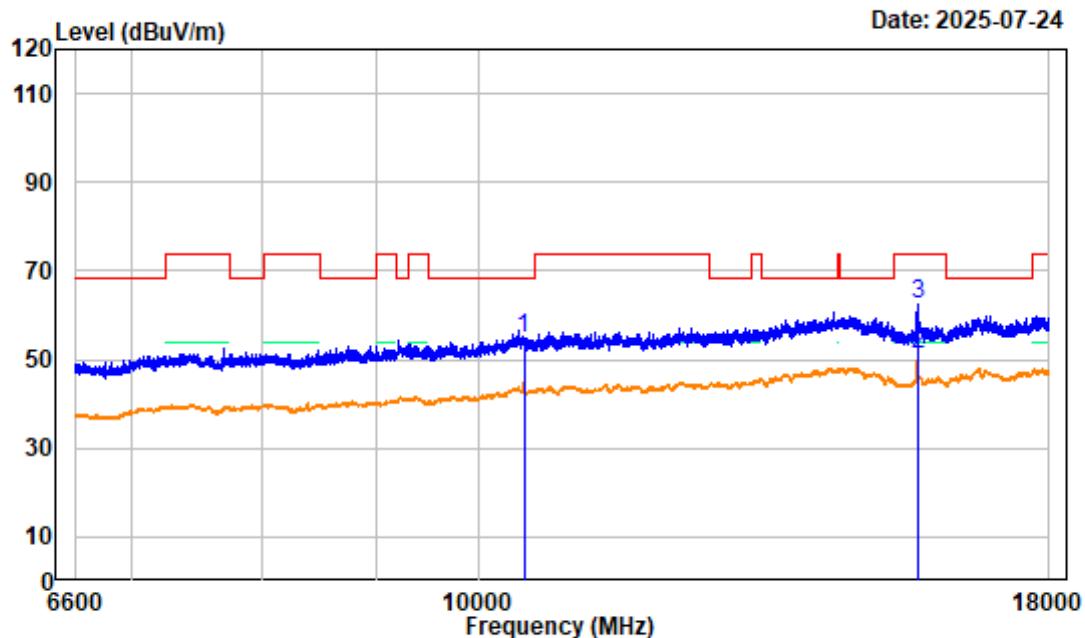
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC20 High Channel 5240MHz 6.6GHz-18GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	Line	dB
1	10480.280	4.00	50.82	54.82	68.20	-13.38	Peak
2	15725.700	4.92	44.71	49.63	54.00	-4.37	Average
3	15725.700	4.92	56.78	61.70	74.00	-12.30	Peak

## 802.11AC20 High Channel 6.6GHz-18GHz\_VERTICAL



Site : chamber

Condition : 3m VERTICAL

Project No.: 2504U66843E-RF

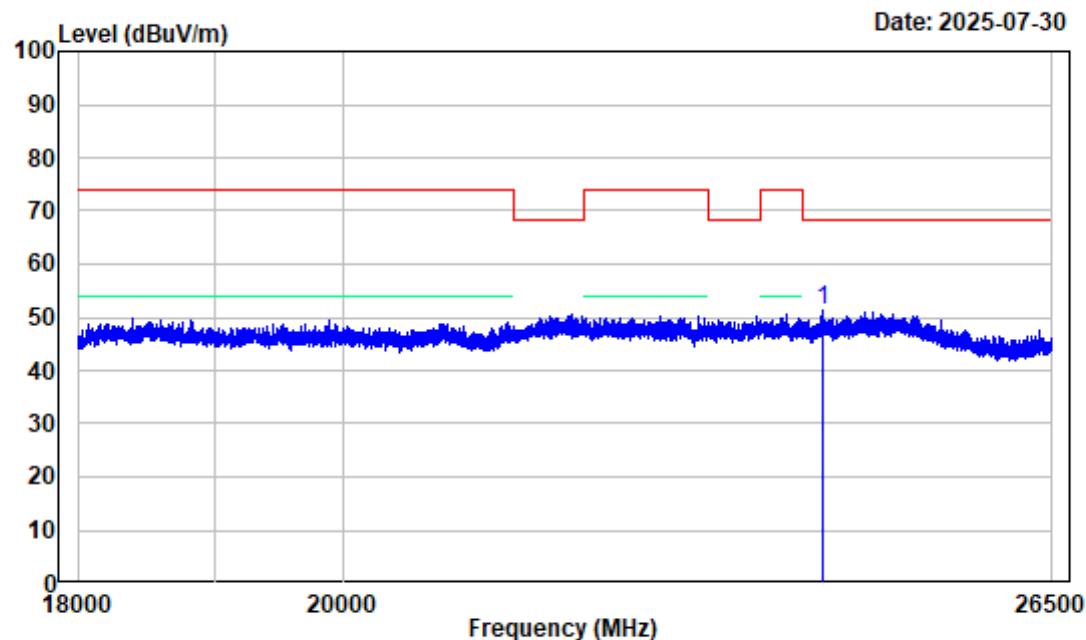
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC20 High Channel 5240MHz 6.6GHz-18GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	Line	dB
1	10480.280	4.00	50.73	54.73	68.20	-13.47	Peak
2	15721.420	4.88	46.09	50.97	54.00	-3.03	Average
3	15721.420	4.88	57.82	62.70	74.00	-11.30	Peak

## 802.11AC20 High Channel 18GHz-25GHz\_HORIZONTAL



Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504U66843E-RF

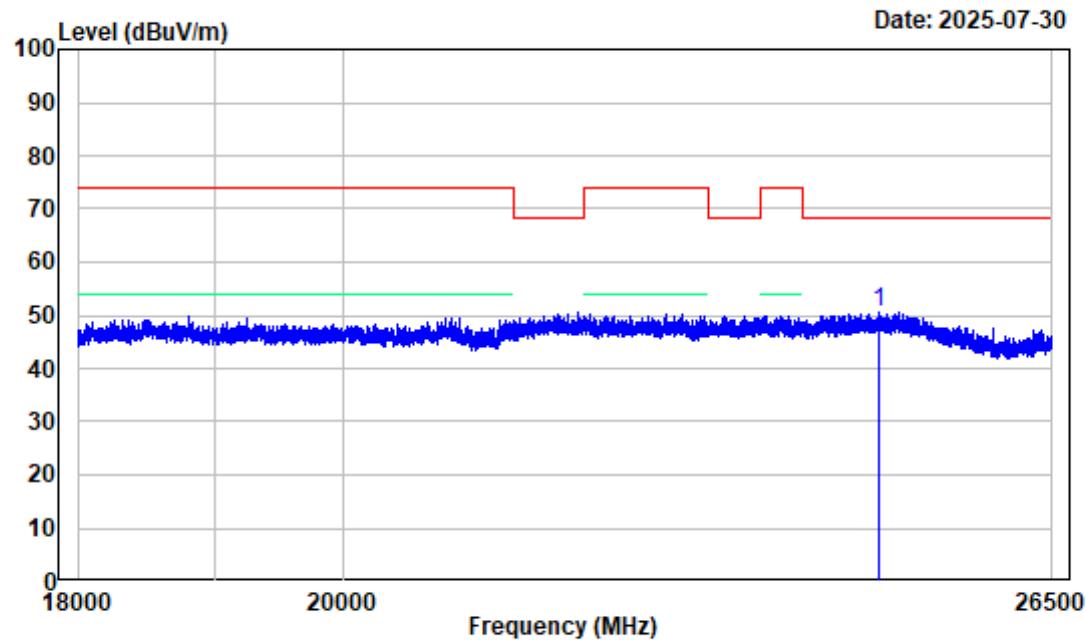
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC20 High Channel 5240MHz 18GHz-25GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB
1	24197.560	1.98	49.45	51.43	68.20	-16.77	Peak

## 802.11AC20 High Channel 18GHz-25GHz\_VERTICAL



Site : chamber

Condition : 3m VERTICAL

Project No.: 2504U66843E-RF

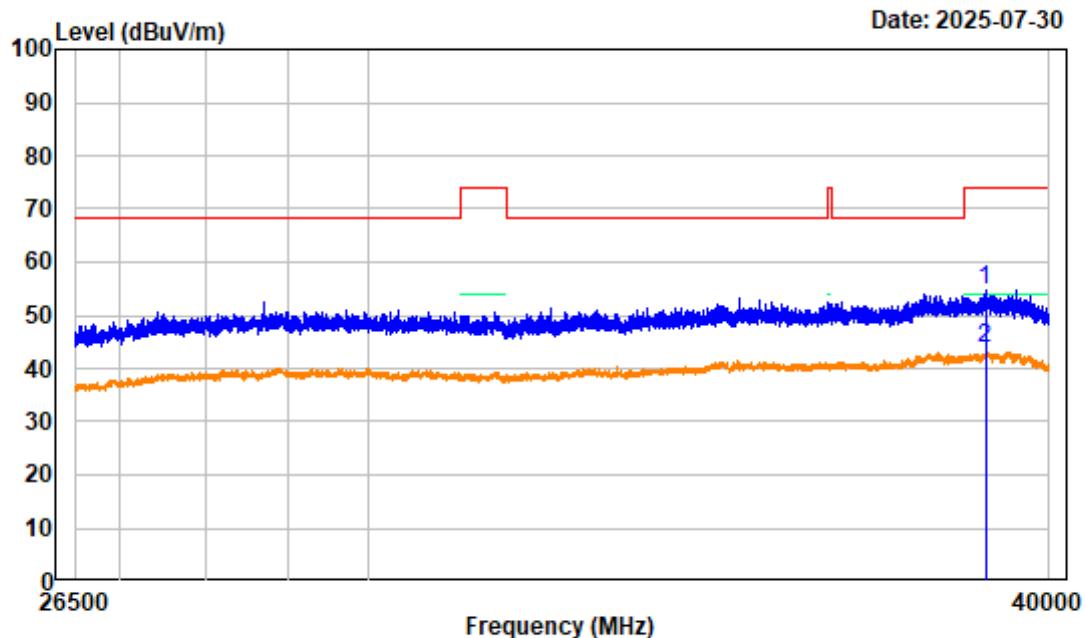
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC20 High Channel 5240MHz 18GHz-25GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	24733.060	2.72	48.02	50.74	68.20	-17.46	Peak

## 802.11AC20 High Channel 26.5GHz-40GHz\_HORIZONTAL



Site : chamber

Condition : 3m HORIZONTAL

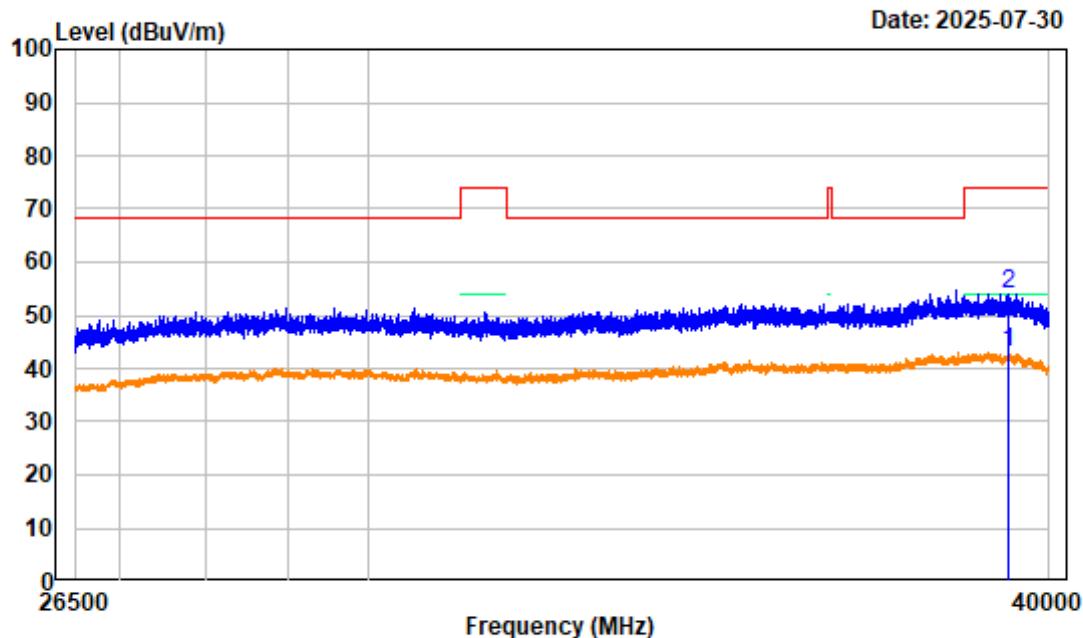
Project No.: 2504U66843E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC20 High Channel 5240MHz 26.5GHz-40GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:3kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	38936.880	3.65	51.07	54.72	74.00	-19.28	Peak
2	38936.880	3.65	40.12	43.77	54.00	-10.23	Average

**802.11AC20 High Channel 26.5GHz-40GHz\_VERTICAL**

Site : chamber

Condition : 3m VERTICAL

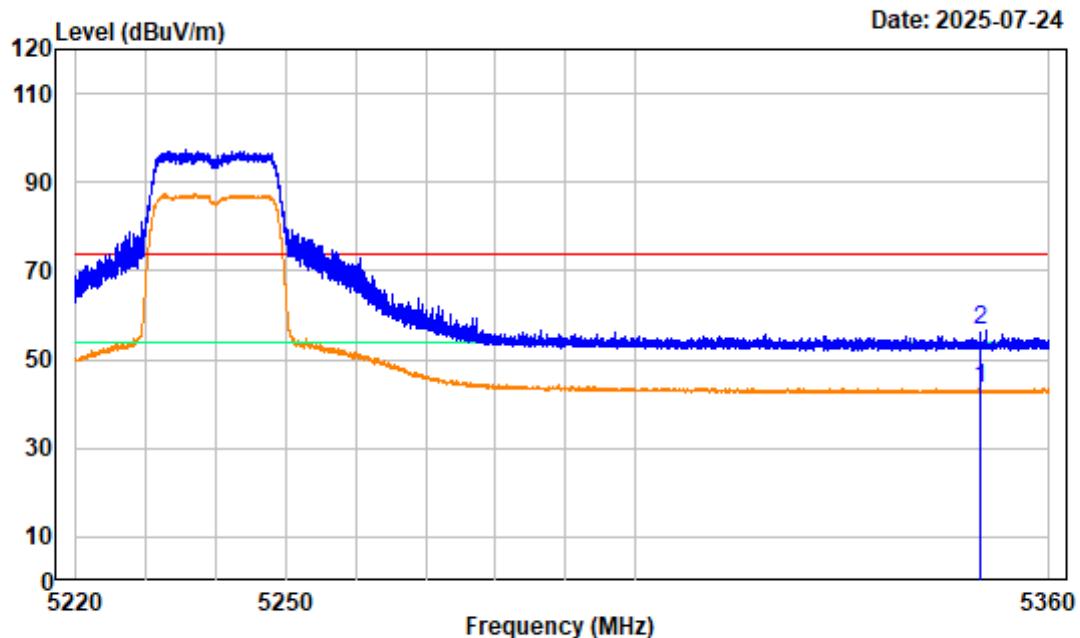
Project No.: 2504U66843E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC20 High Channel 5240MHz 26.5GHz-40GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:3kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	39331.750	2.74	40.31	43.05	54.00	-10.95	Average
2	39331.750	2.74	51.29	54.03	74.00	-19.97	Peak

**802.11AC20 High Channel Bandedge\_HORIZONTAL**

Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504U66843E-**RF**

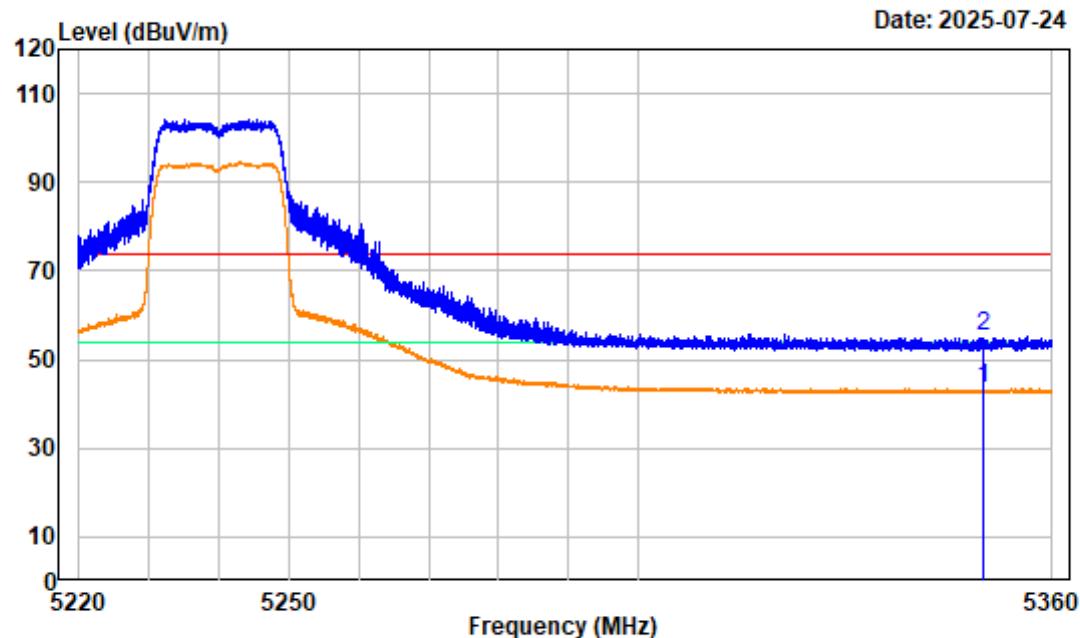
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC20 High Channel 5240MHz Bandedge

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB
1	5350.000	-5.69	49.11	43.42	54.00	-10.58	average
2	5350.000	-5.69	62.08	56.39	74.00	-17.61	peak

## 802.11AC20 High Channel Bandedge\_VERTICAL



Site : chamber

Condition : 3m VERTICAL

Project No.: 2504U66843E-RF

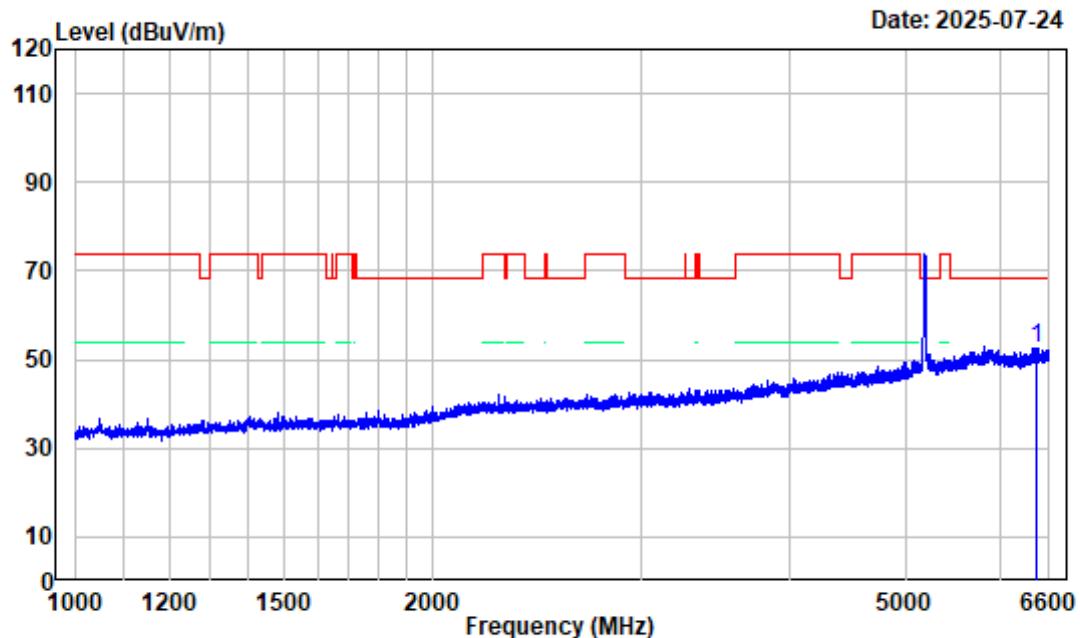
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC20 High Channel 5240MHz Bandedge

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	dBuV/m	
1	5350.000	-5.69	49.09	43.40	54.00	-10.60	Average
2	5350.000	-5.69	60.91	55.22	74.00	-18.78	peak

## 802.11AC40 Low Channel 1GHz-6.6GHz\_HORIZONTAL



Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504U66843E-RF

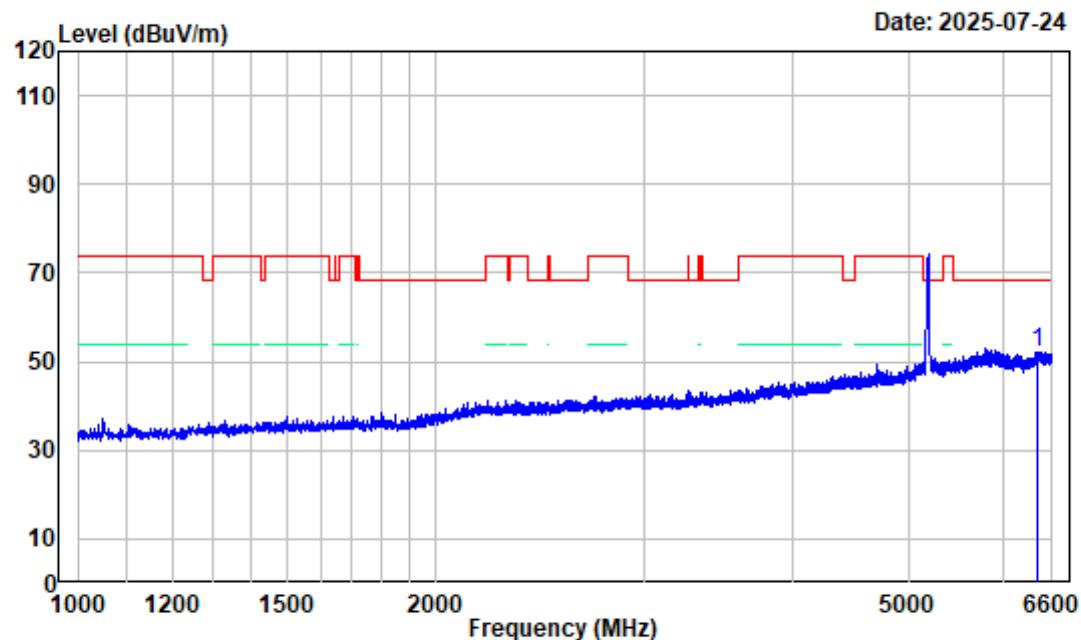
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC40 Low Channel 5190MHz 1GHz-6.6GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	6435.500	-3.51	56.26	52.75	68.20	-15.45	Peak

## 802.11AC40 Low Channel 1GHz-6.6GHz\_VERTICAL



Site : chamber

Condition : 3m VERTICAL

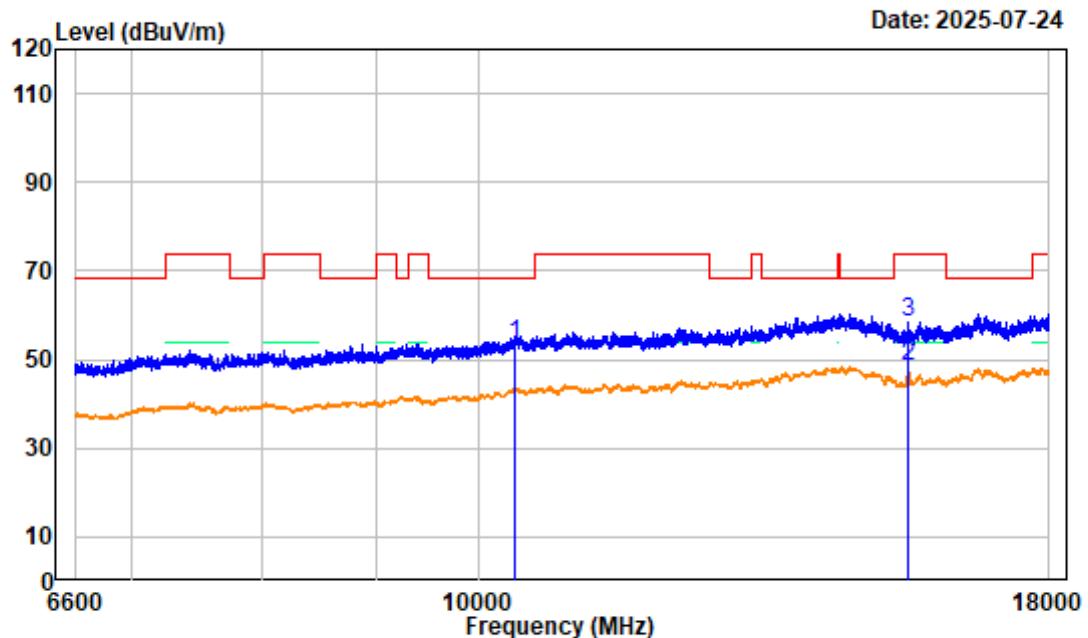
Project No.: 2504U66843E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC40 Low Channel 5190MHz 1GHz-6.6GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB
1	6418.000	-3.59	55.82	52.23	68.20	-15.97	Peak

**802.11AC40 Low Channel 6.6GHz-18GHz\_HORIZONTAL**

Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504U66843E-RF

Test Mode : Transmitting

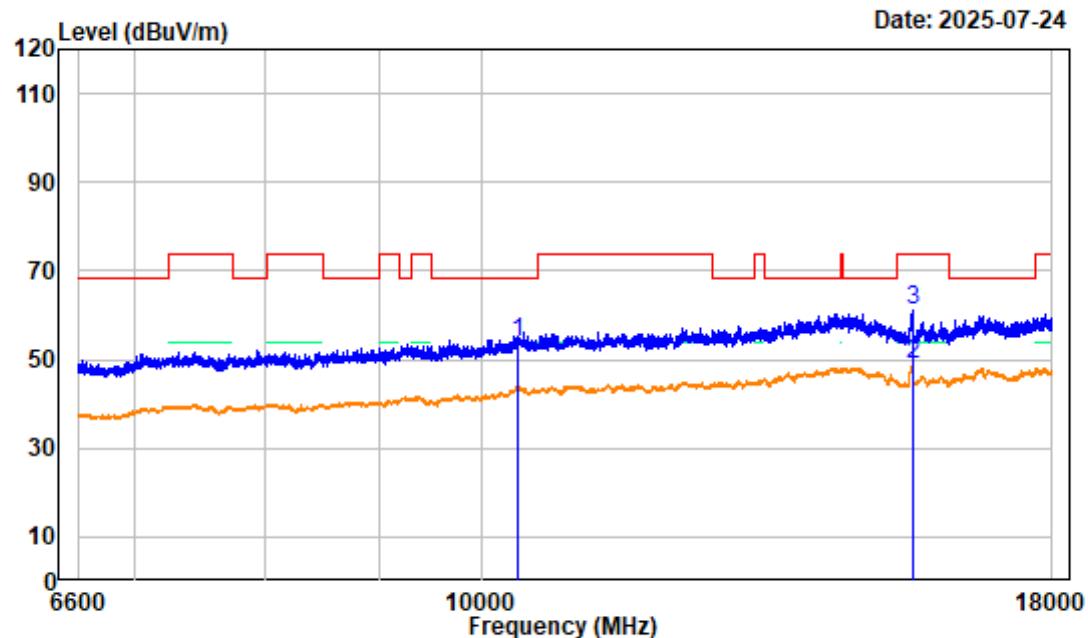
Tester:Kevin Lv

Note : 802.11AC40 Low Channel 5190MHz 6.6GHz-18GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	Line	
1	10380.530	4.09	49.14	53.23	68.20	-14.97	Peak
2	15558.970	4.84	43.81	48.65	54.00	-5.35	Average
3	15558.970	4.84	53.75	58.59	74.00	-15.41	Peak

## 802.11AC40 Low Channel 6.6GHz-18GHz\_VERTICAL



Site : chamber

Condition : 3m VERTICAL

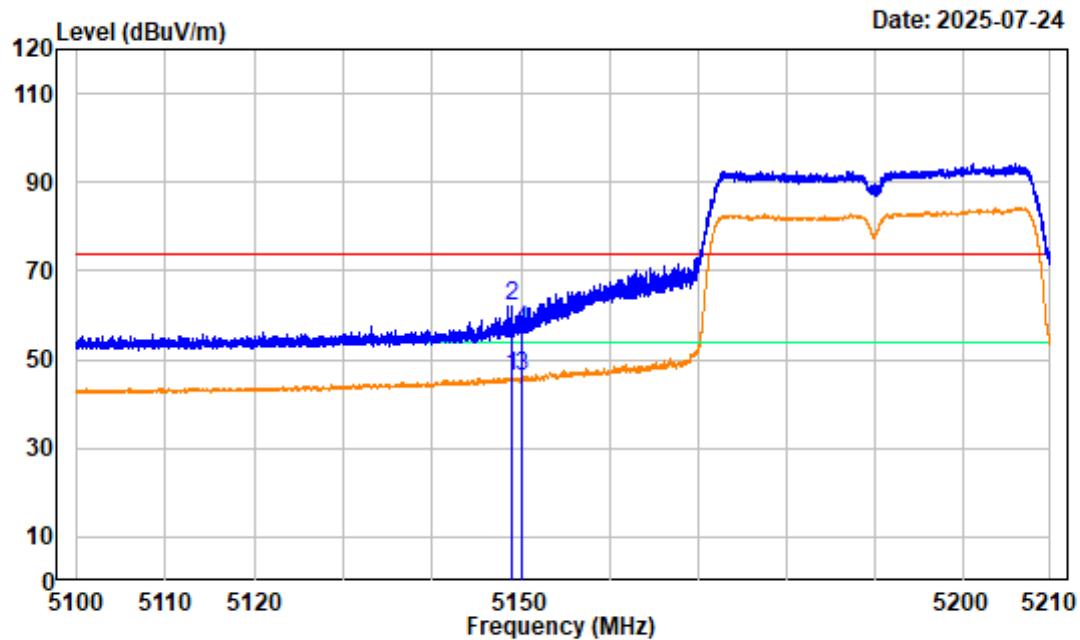
Project No.: 2504U66843E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC40 Low Channel 5190MHz 6.6GHz-18GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	Line	dB
1	10380.530	4.09	49.66	53.75	68.20	-14.45	Peak
2	15591.750	4.72	44.12	48.84	54.00	-5.16	Average
3	15591.750	4.72	56.19	60.91	74.00	-13.09	Peak

**802.11AC40 Low Channel Bandedge\_HORIZONTAL**

Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504U66843E-RF

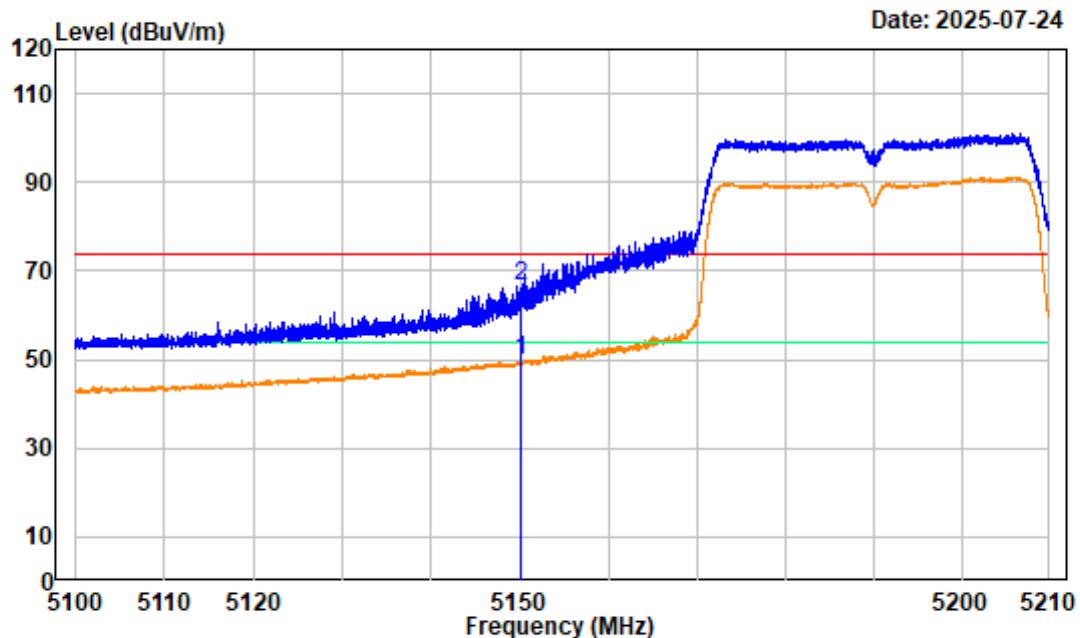
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC40 Low Channel 5190MHz Bandedge

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

	Freq	Factor	Read Level	Limit Level	Over Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5148.868	-6.04	52.35	46.31	54.00	-7.69	Average
2	5148.868	-6.04	68.21	62.17	74.00	-11.83	Peak
3	5150.000	-6.04	52.32	46.28	54.00	-7.72	Average
4	5150.000	-6.04	62.71	56.67	74.00	-17.33	Peak

## 802.11AC40 Low Channel Bandedge\_VERTICAL



Site : chamber

Condition : 3m VERTICAL

Project No.: 2504U66843E-RF

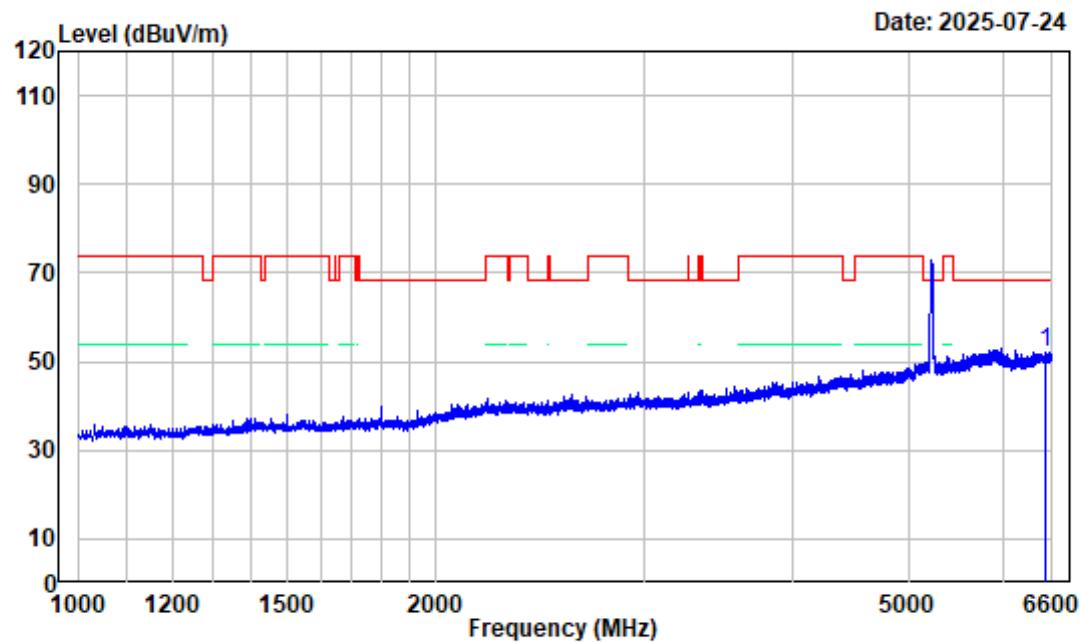
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC40 Low Channel 5190MHz Bandedge

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	5150.000	-6.04	55.89	49.85	54.00	-4.15	Average
2	5150.000	-6.04	72.43	66.39	74.00	-7.61	peak

## 802.11AC40 High Channel 1GHz-6.6GHz\_HORIZONTAL



Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504U66843E-RF

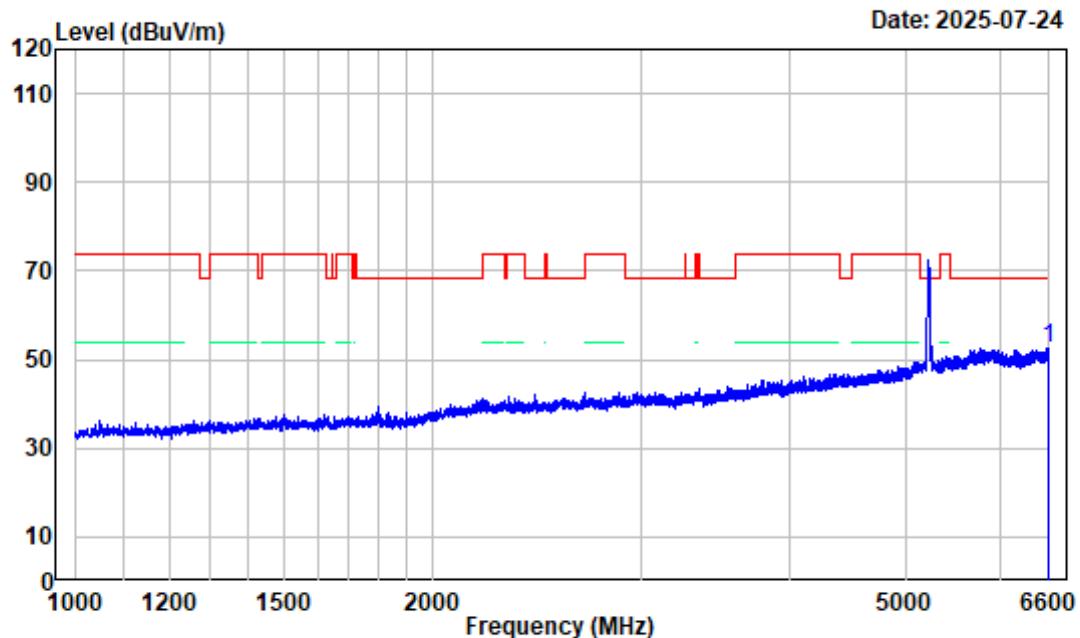
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC40 High Channel 5230MHz 1GHz-6.6GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	6511.800	-3.81	56.07	52.26	68.20	-15.94	Peak

## 802.11AC40 High Channel 1GHz-6.6GHz\_VERTICAL



Site : chamber

Condition : 3m VERTICAL

Project No.: 2504U66843E-RF

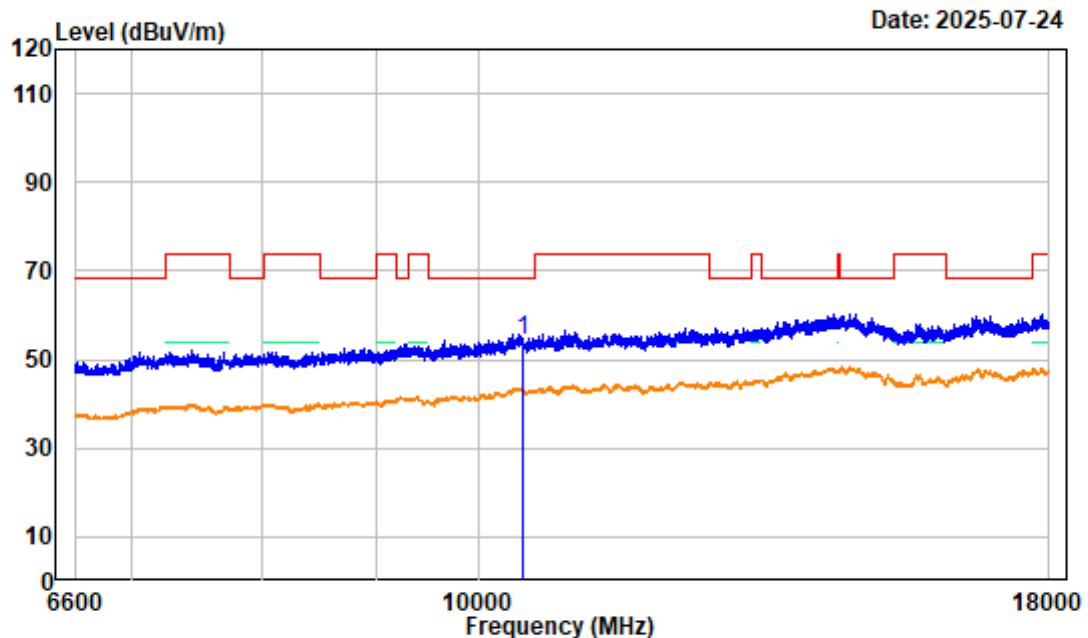
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC40 High Channel 5230MHz 1GHz-6.6GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		Level	Level	Line	Line		
MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB		
1 6581.800	-3.54	56.02	52.48	68.20	-15.72	Peak	

## 802.11AC40 High Channel 6.6GHz-18GHz\_HORIZONTAL



Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504U66843E-RF

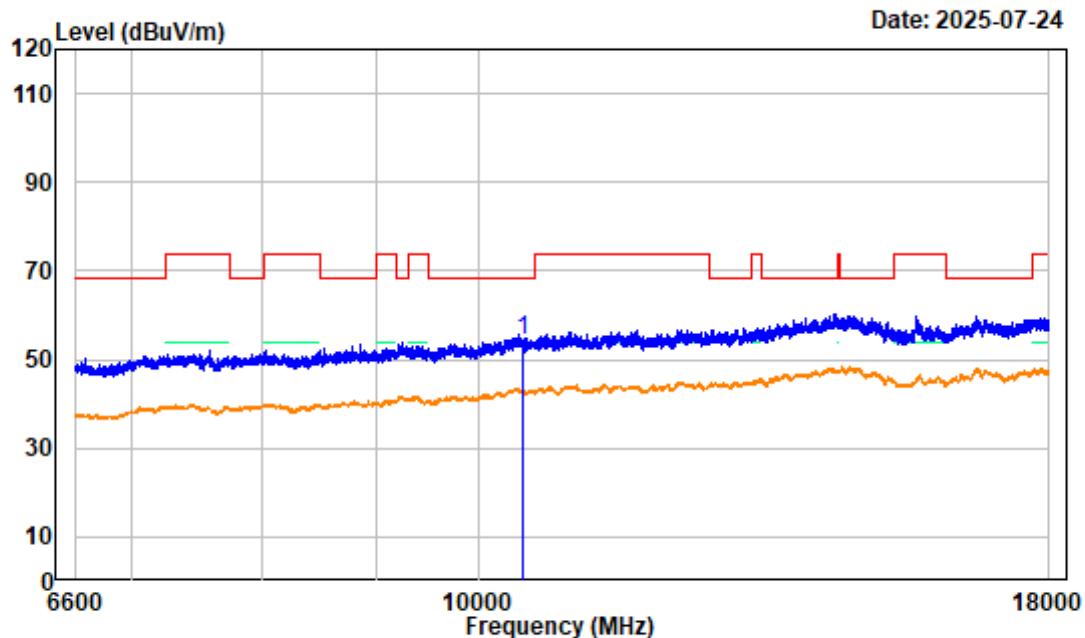
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC40 High Channel 5230MHz 6.6GHz-18GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	10460.330	4.19	49.99	54.18	68.20	-14.02	Peak

## 802.11AC40 High Channel 6.6GHz-18GHz\_VERTICAL



Site : chamber

Condition : 3m VERTICAL

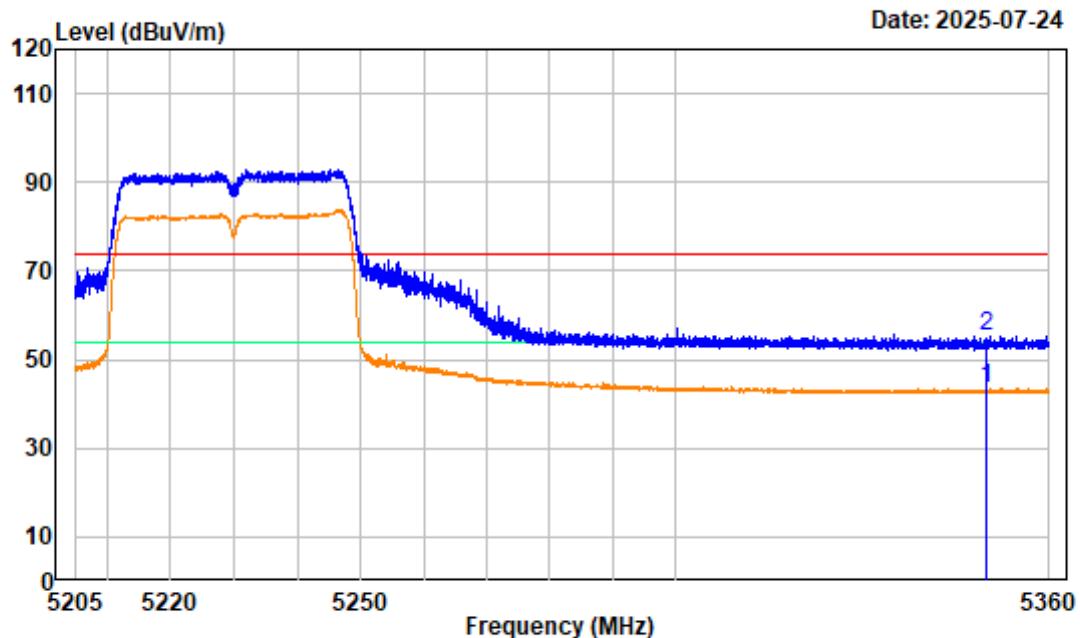
Project No.: 2504U66843E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC40 High Channel 5230MHz 6.6GHz-18GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	10460.330	4.19	50.10	54.29	68.20	-13.91	Peak

**802.11AC40 High Channel Bandedge\_HORIZONTAL**

Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504U66843E-**RF**

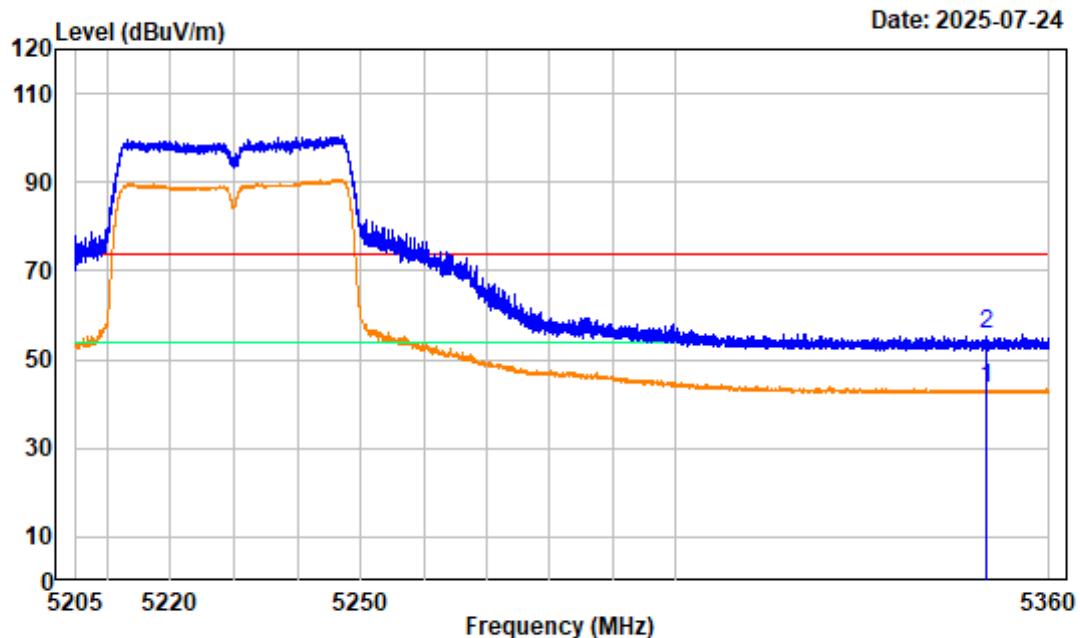
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC40 High Channel 5230MHz Bandedge

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	dBuV/m	
1	5350.000	-5.69	49.22	43.53	54.00	-10.47	Average
2	5350.000	-5.69	61.09	55.40	74.00	-18.60	peak

## 802.11AC40 High Channel Bandedge\_VERTICAL



Site : chamber

Condition : 3m VERTICAL

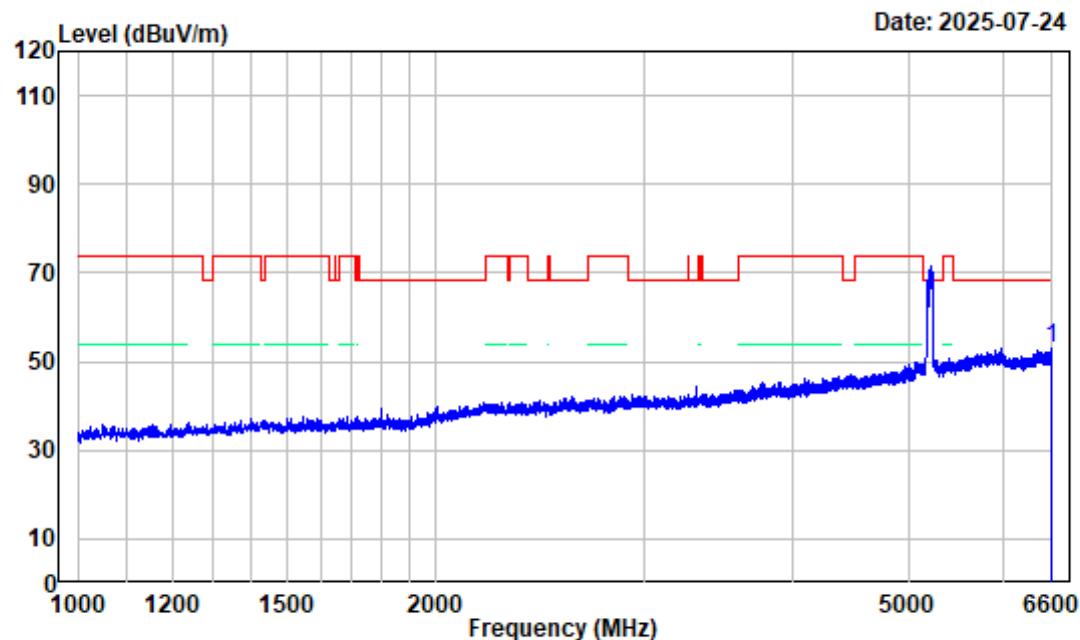
Project No.: 2504U66843E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC40 High Channel 5230MHz Bandedge

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	dBuV/m	
1	5350.000	-5.69	49.34	43.65	54.00	-10.35	average
2	5350.000	-5.69	61.29	55.60	74.00	-18.40	peak

**802.11AC80 Channel 1GHz-6.6GHz\_HORIZONTAL**

Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504U66843E-RF

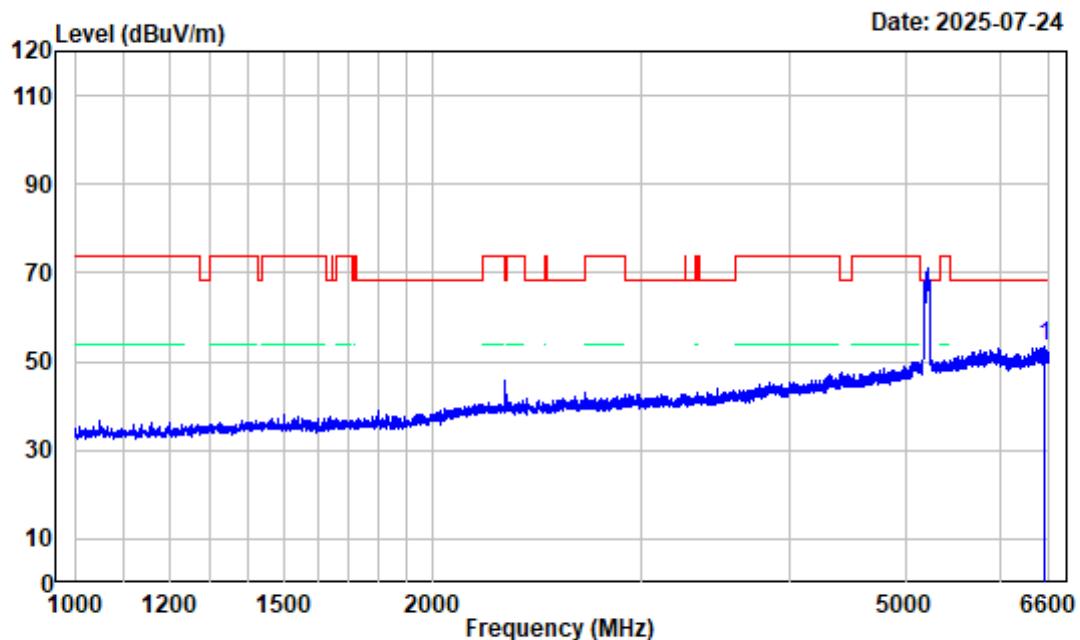
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC80 Channel 5210MHz 1GHz-6.6GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	6593.700	-3.50	56.28	52.78	68.20	-15.42	Peak

## 802.11AC80 Channel 1GHz-6.6GHz\_VERTICAL



Site : chamber

Condition : 3m VERTICAL

Project No.: 2504U66843E-RF

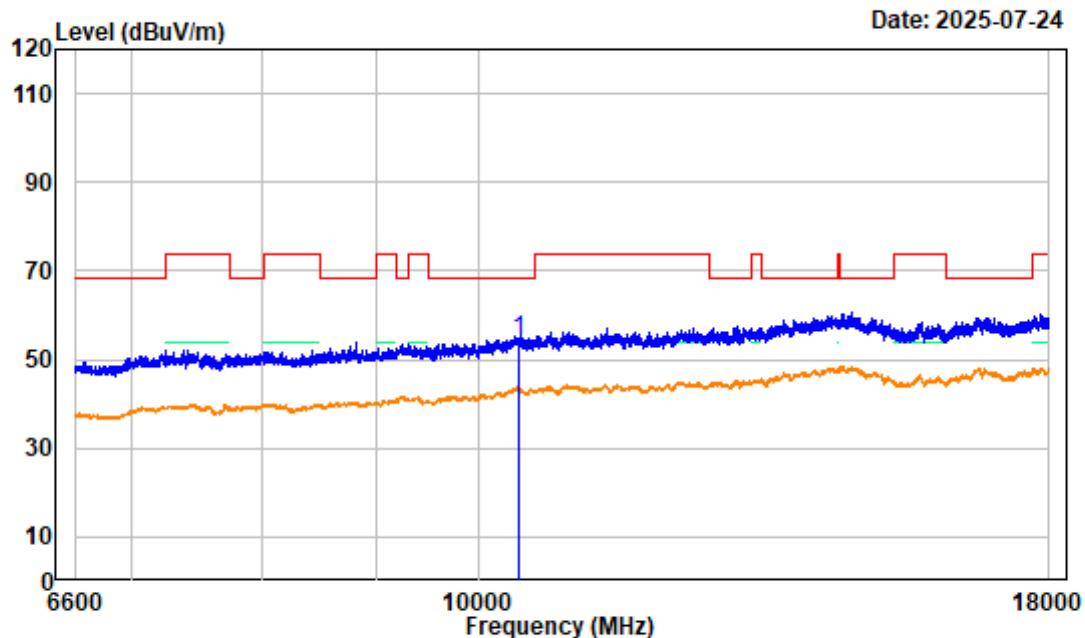
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC80 Channel 5210MHz 1GHz-6.6GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	6538.400	-3.68	57.00	53.32	68.20	-14.88	Peak

## 802.11AC80 Channel 6.6GHz-18GHz\_HORIZONTAL



Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504U66843E-RF

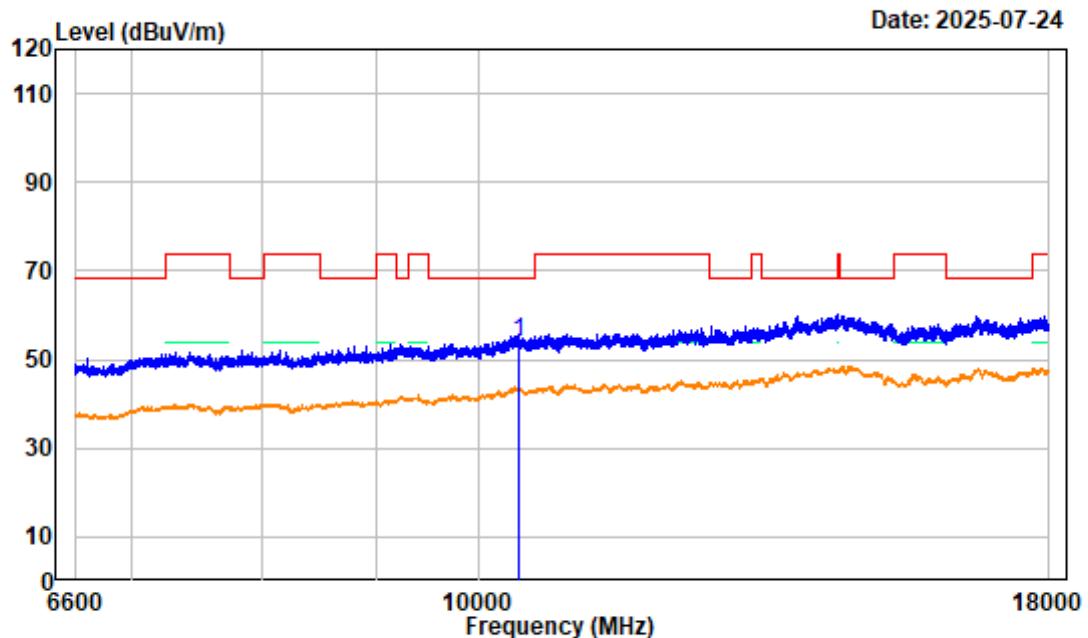
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC80 Channel 5210MHz 6.6GHz-18GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	10420.420	4.22	50.06	54.28	68.20	-13.92	Peak

## 802.11AC80 Channel 6.6GHz-18GHz\_VERTICAL



Site : chamber

Condition : 3m VERTICAL

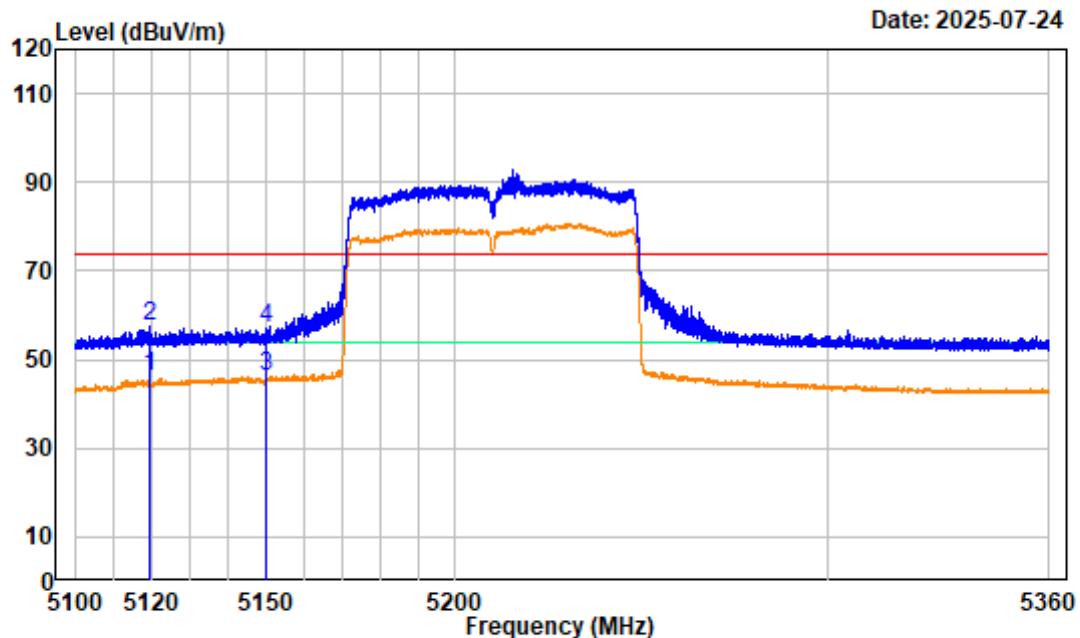
Project No.: 2504U66843E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC80 Channel 5210MHz 6.6GHz-18GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	10420.420	4.22	49.86	54.08	68.20	-14.12	Peak

**802.11AC80 Channel Bandedge\_HORIZONTAL**

Site : chamber

Condition : 3m HORIZONTAL

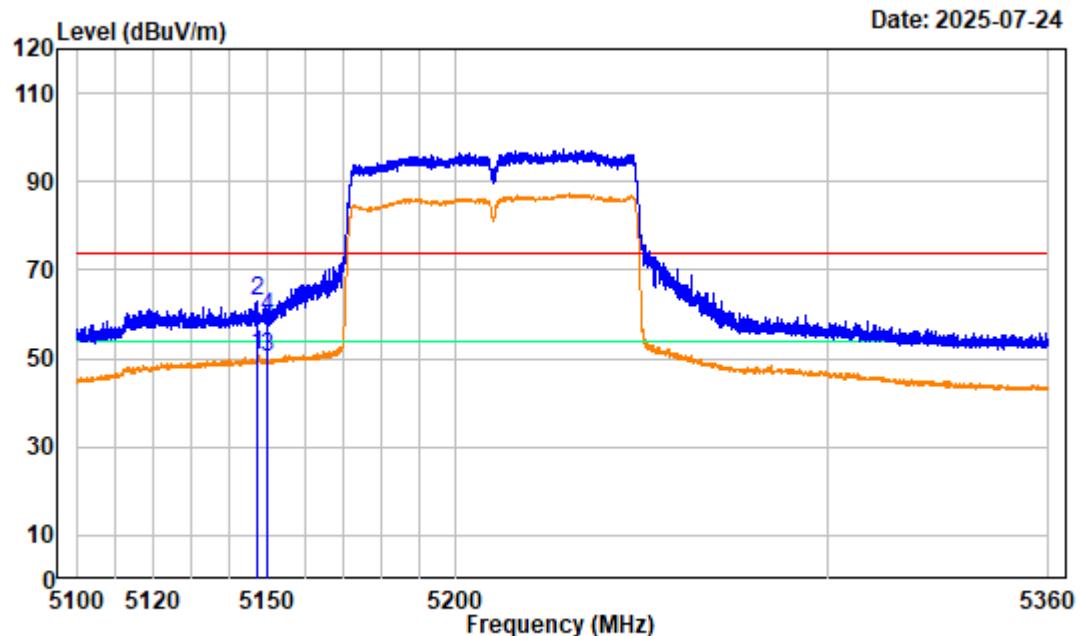
Project No.: 2504U66843E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC80 Channel 5210MHz Bandedge

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	Line	
1	5119.272	-6.00	52.29	46.29	54.00	-7.71	Average
2	5119.272	-6.00	63.66	57.66	74.00	-16.34	Peak
3	5150.000	-6.04	52.39	46.35	54.00	-7.65	Average
4	5150.000	-6.04	63.22	57.18	74.00	-16.82	peak

**802.11AC80 Channel Bandedge\_VERTICAL**

Site : chamber

Condition : 3m VERTICAL

Project No.: 2504U66843E-RF

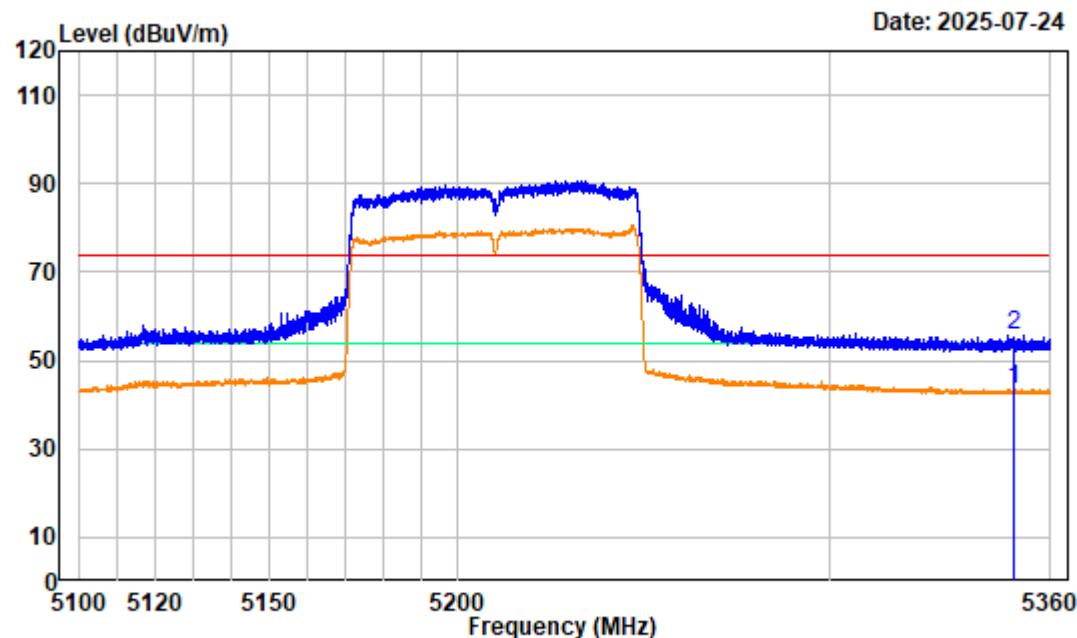
Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC80 Channel 5210MHz Bandedge

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

	Freq	Factor	Read Level	Limit Level	Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5147.450	-6.03	56.90	50.87	54.00	-3.13	Average
2	5147.450	-6.03	68.87	62.84	74.00	-11.16	Peak
3	5150.000	-6.04	56.49	50.45	54.00	-3.55	Average
4	5150.000	-6.04	65.56	59.52	74.00	-14.48	Peak

## 802.11AC80 Channel Bandedge\_HORIZONTAL



Site : chamber

Condition : 3m HORIZONTAL

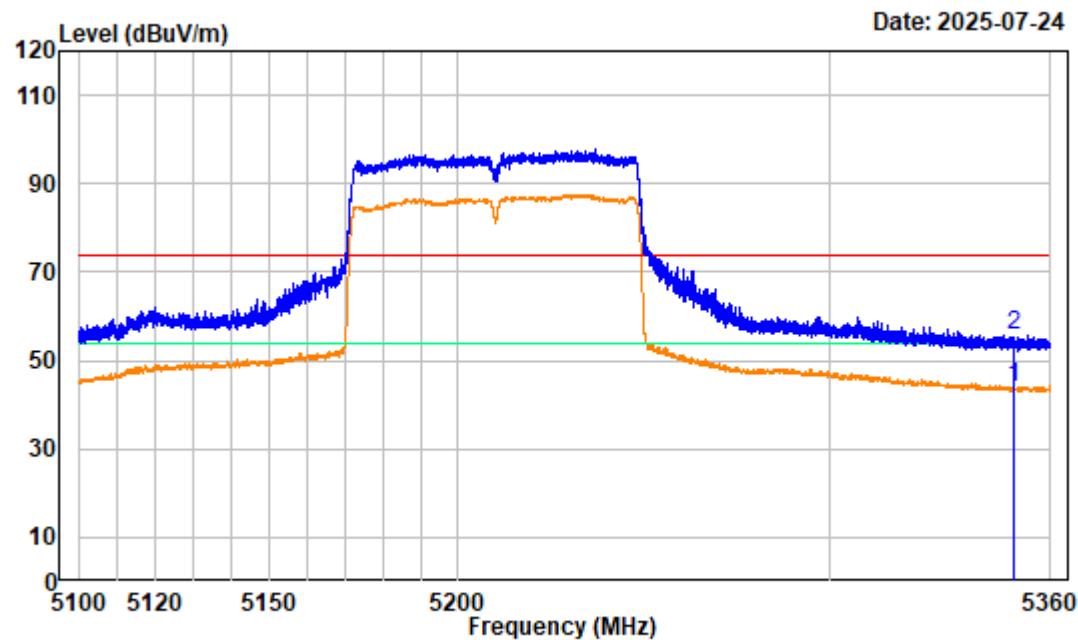
Project No.: 2504U66843E-RF

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC80 Channel 5210MHz Bandedge

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	Line	Limit
1	5350.000	-5.69	49.19	43.50	54.00	-10.50	Average
2	5350.000	-5.69	61.58	55.89	74.00	-18.11	peak

**802.11AC80 Channel Bandedge\_VERTICAL**

Site : chamber

Condition : 3m VERTICAL

Project No.: 2504U66843E-**RF**

Test Mode : Transmitting Tester:Kevin Lv

Note : 802.11AC80 Channel 5210MHz Bandedge

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	Line	
1	5350.000	-5.69	49.78	44.09	54.00	-9.91	Average
2	5350.000	-5.69	61.23	55.54	74.00	-18.46	peak

## FCC §15.407(a)(e)-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.

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

### 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. Minimum Emission Bandwidth for the band 5.725-5.85 GHz

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.725-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW)  $\geq 3 \times$  RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

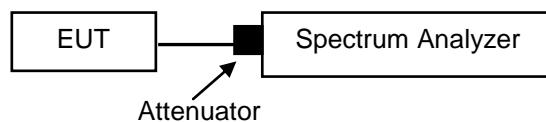
#### 3. 99% Occupied Bandwidth

The 99% 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. Measurement of the 99% occupied bandwidth is *required* only as a condition for using the optional bandedge measurement techniques described in II.G.3.d). Measurements of 99% occupied bandwidth may also optionally be used in lieu of the EBW to define the minimum frequency range over which the spectrum is integrated when measuring maximum conducted output power as described in II.E. However, the EBW must be measured to determine bandwidth dependent limits on maximum conducted output power in accordance with Section 15.407(a).

The following procedure shall be used for measuring (99%) power bandwidth:

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1% to 5% of the OBW
4. Set VBW  $\geq 3 \times$  RBW
5. 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.
6. Use the 99% power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99% power bandwidth function, the trace data points are recovered and directly summed in power units. 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% occupied bandwidth is the difference between these two frequencies.

Note: For devices that use channel aggregation refer to III.A and III.C for determining 99% bandwidth.



## Test Data

**Test Result:** Compliance. Please refer to the Appendix.

## FCC §15.407(a) (1) (3)-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.

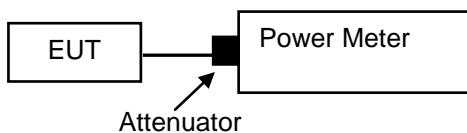
For an outdoor access point operating in the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

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 KDB789033 D02 section II.E.3.a).

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.



### Test Data

**Test Result:** Compliance. Please refer to the Appendix.

## FCC §15.407(a) (1) (3)-POWER SPECTRAL DENSITY

### 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 an outdoor 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. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

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 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 $\geq 98\%$

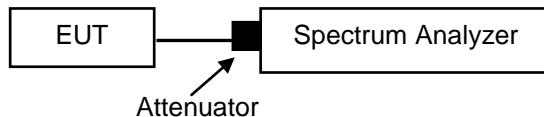
KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-1 should be applied.

### Duty cycle $< 98\%$ , duty cycle variations are less than $\pm 2\%$

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

### Duty cycle $< 98\%$ , duty cycle variations exceed $\pm 2\%$

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



## Test Data

**Test Result:** Compliance. Please refer to the Appendix.

## APPENDIX

### Test Information:

Sample No.:	372M-1	Test Date:	2025/07/22-2025/08/04
Test Site:	RF	Test Mode:	Transmitting
Tester:	Cayde Hou	Test Result:	Pass

### Environmental Conditions:

Temperature: (°C)	25.2~26.4	Relative Humidity: (%)	47~56	ATM Pressure: (kPa)	99.3~100.1
-------------------	-----------	------------------------	-------	---------------------	------------

## Emission Bandwidth

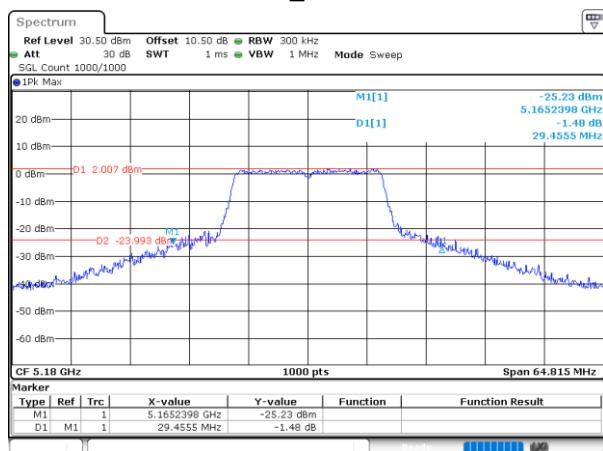
### 26dB Emission Bandwidth

5150-5250MHz

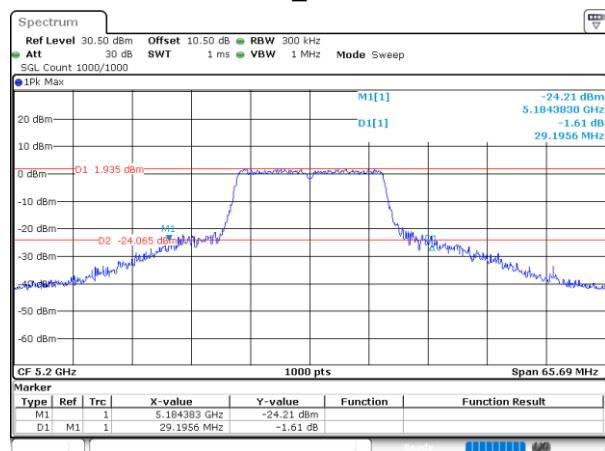
Mode	Test Frequency (MHz)	Result (MHz)
802.11a	5180	29.455
	5200	29.196
	5240	29.722
802.11ac20	5180	29.741
	5200	28.131
	5240	32.906
802.11ac40	5190	57.484
	5230	61.590
802.11ac80	5210	84.885

## 5150-5250MHz

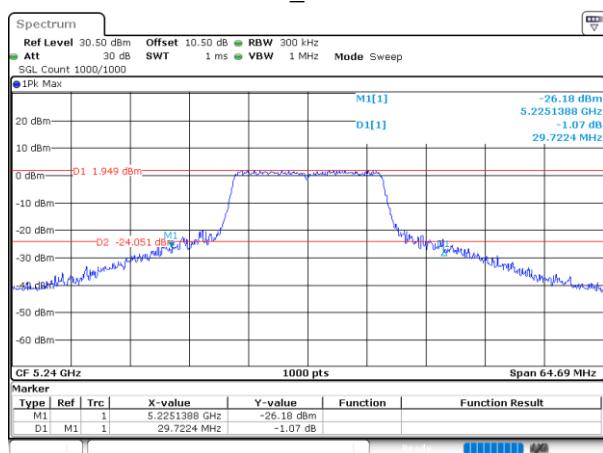
## 802.11a\_5180MHz



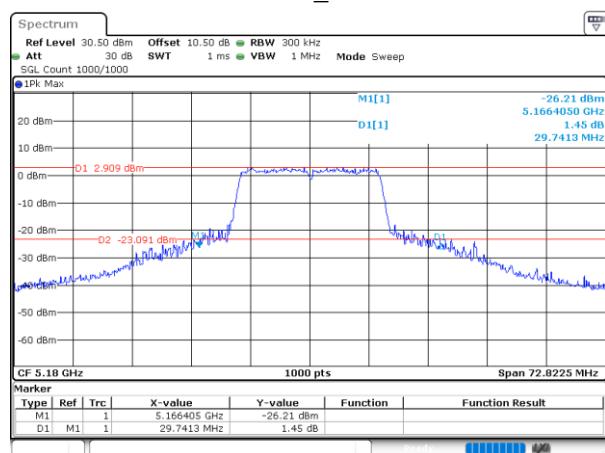
## 802.11a\_5200MHz



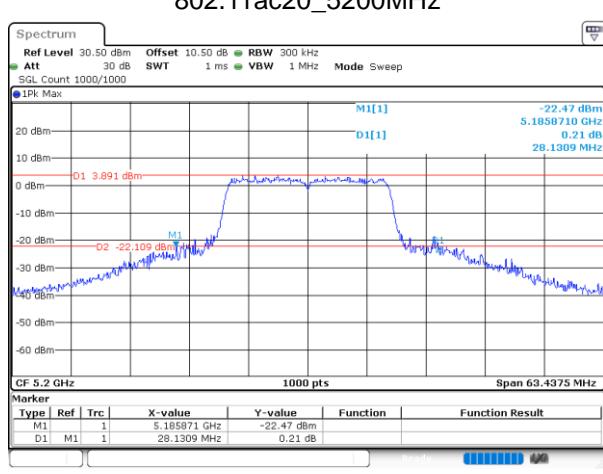
## 802.11a\_5240MHz



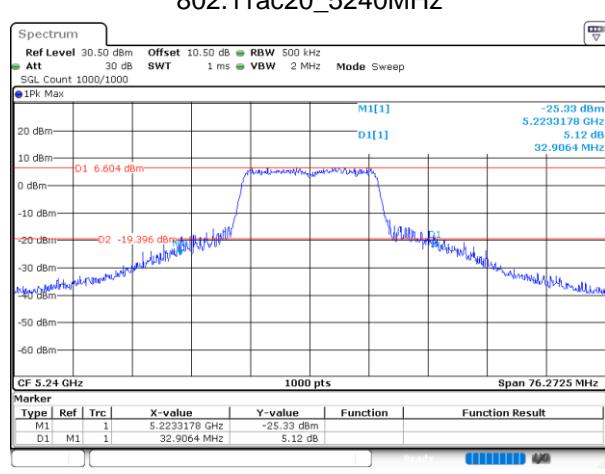
## 802.11ac20\_5180MHz



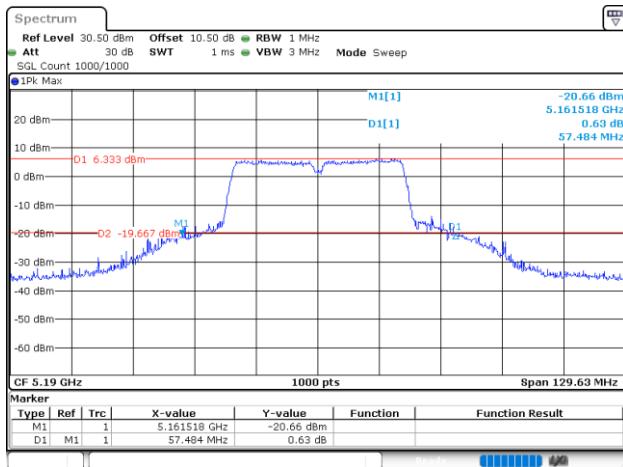
## 802.11ac20\_5200MHz



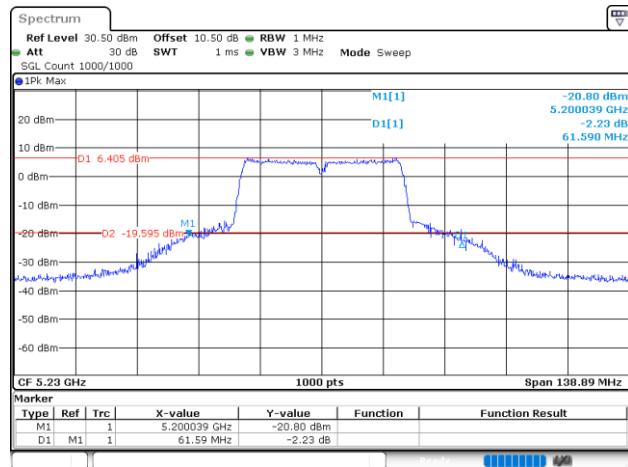
## 802.11ac20\_5240MHz



## 802.11ac40\_5190MHz



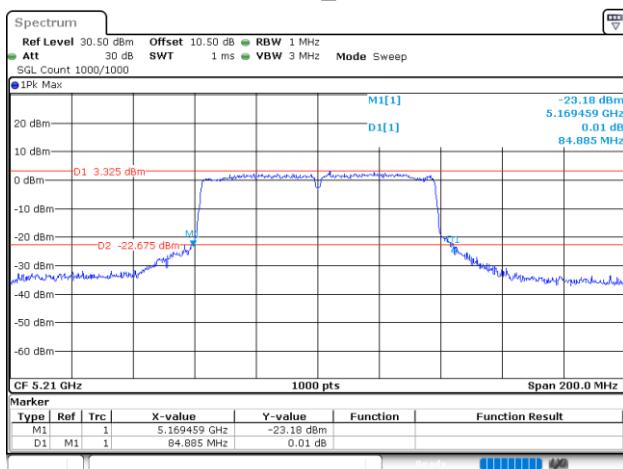
## 802.11ac40\_5230MHz



ProjectNo.:2504U66843E-RF Tester:Cayde Hou  
Date: 30.JUL.2025 15:49:36

ProjectNo.:2504U66843E-RF Tester:Cayde Hou  
Date: 30.JUL.2025 15:51:00

## 802.11ac80\_5210MHz



ProjectNo.:2504U66843E-RF Tester:Cayde Hou  
Date: 30.JUL.2025 15:52:20

**99% Occupied Bandwidth****5150-5250MHz**

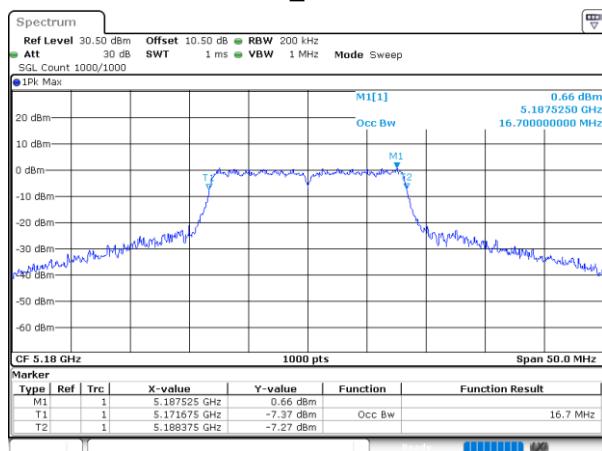
Mode	Test Frequency (MHz)	99% OBW (MHz)
802.11a	5180	16.700
	5200	16.750
	5240	16.700
802.11ac20	5180	17.700
	5200	17.700
	5240	17.700
802.11ac40	5190	36.500
	5230	36.500
802.11ac80	5210	75.600

**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

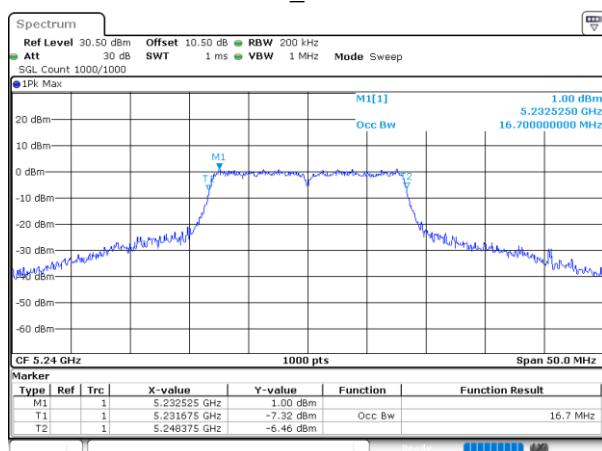
## 802.11a\_5180MHz



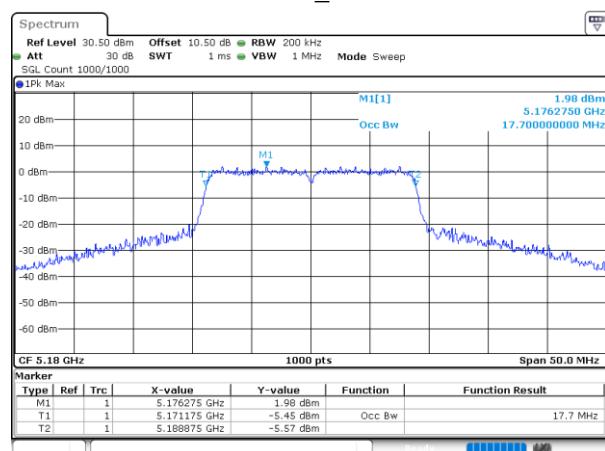
## 802.11a\_5200MHz



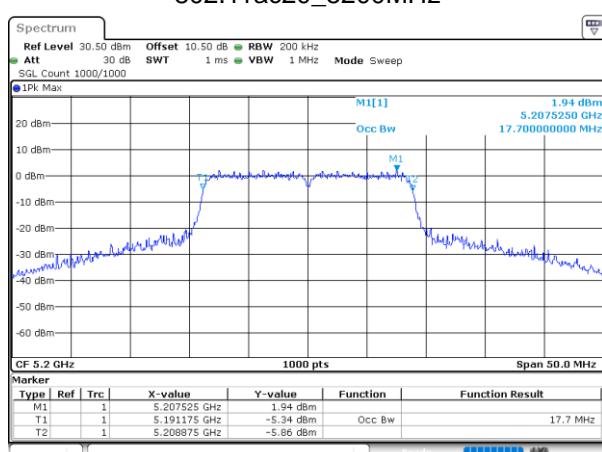
## 802.11a\_5240MHz



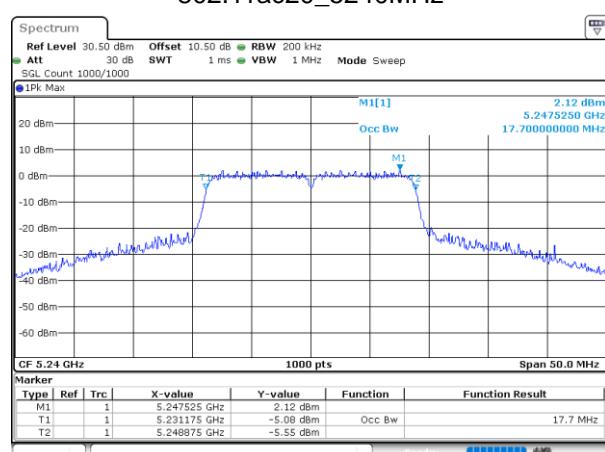
## 802.11ac20\_5180MHz



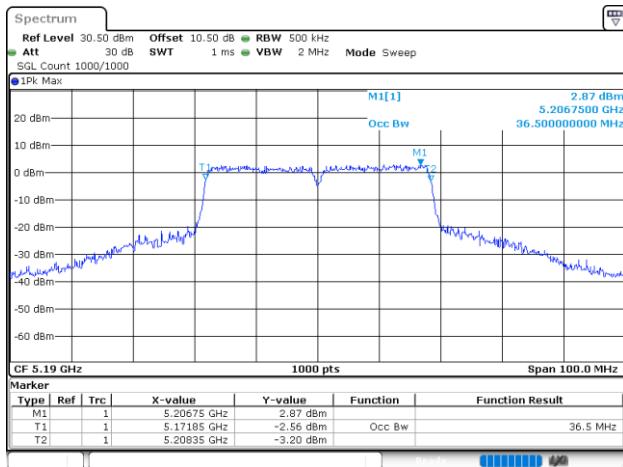
## 802.11ac20\_5200MHz



## 802.11ac20\_5240MHz



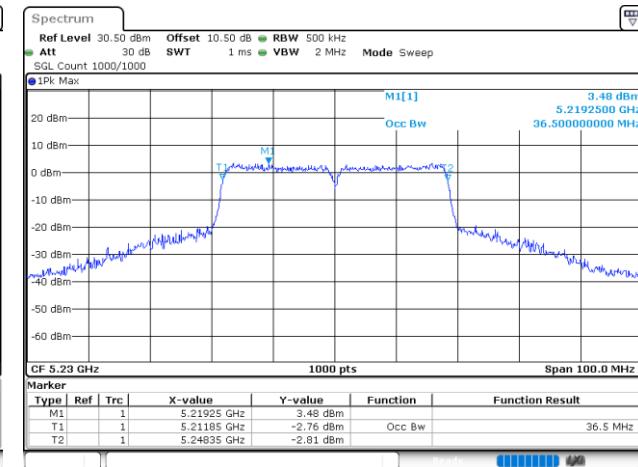
## 802.11ac40\_5190MHz



ProjectNo.:2504U66843E-RF Tester:Cayde Hou

Date: 30.JUL.2025 15:49:27

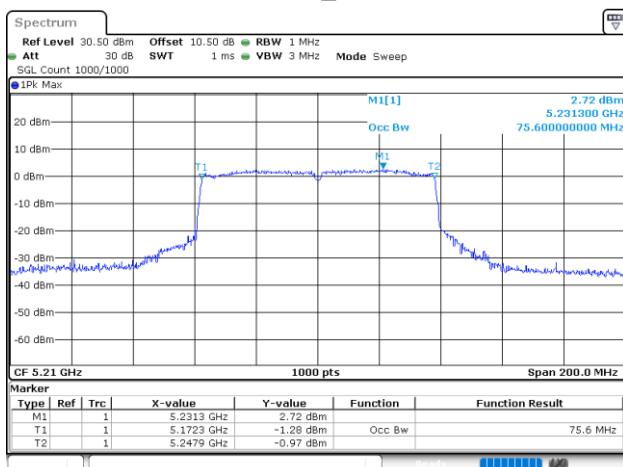
## 802.11ac40\_5230MHz



ProjectNo.:2504U66843E-RF Tester:Cayde Hou

Date: 30.JUL.2025 15:50:50

## 802.11ac80\_5210MHz



ProjectNo.:2504U66843E-RF Tester:Cayde Hou

Date: 30.JUL.2025 15:52:12

## Maximum Conducted Output Power

### 5150-5250MHz

Mode	Test Frequency (MHz)	Average Output Power(dBm)	Limit (dBm)	Verdict
802.11a	5180	10.97	24	Pass
	5200	10.96	24	Pass
	5240	11.13	24	Pass
802.11ac20	5180	12.12	24	Pass
	5200	12.28	24	Pass
	5240	12.31	24	Pass
802.11ac40	5190	11.73	24	Pass
	5230	11.91	24	Pass
802.11ac80	5210	11.29	24	Pass

Note: The device serves as both the Master and the Client and use more strict limits.

## Power Spectral Density

### 5150-5250MHz

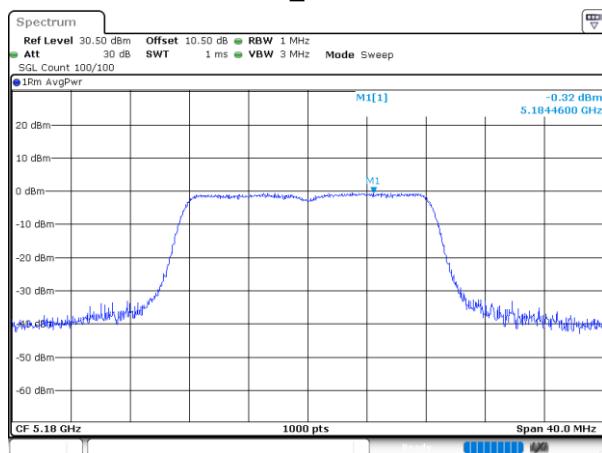
Mode	Test Frequency (MHz)	Reading (dBm/MHz)	Duty Cycle Factor(dB)	Result (dBm/MHz)	Limit (dBm/MHz)	Verdict
802.11a	5180	-0.32	0.51	0.19	11	Pass
	5200	-0.51	0.51	0.00	11	Pass
	5240	-0.14	0.51	0.37	11	Pass
802.11ac20	5180	0.44	0.61	1.05	11	Pass
	5200	0.39	0.61	1.00	11	Pass
	5240	0.60	0.61	1.21	11	Pass
802.11ac40	5190	-3.35	1.13	-2.22	11	Pass
	5230	-3.37	1.13	-2.24	11	Pass
802.11ac80	5210	-7.72	1.94	-5.78	11	Pass

**Result = Reading + Duty Cycle Factor**

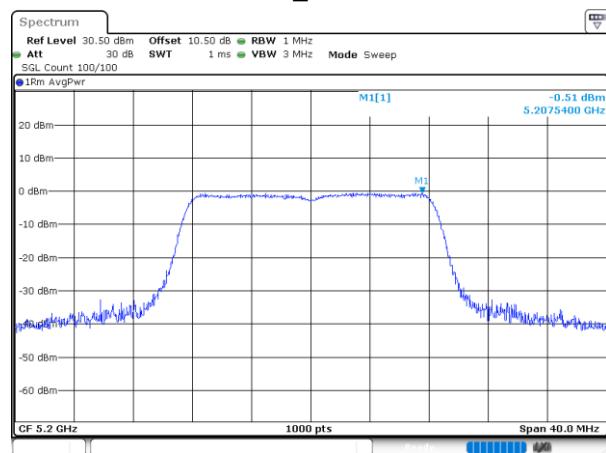
Note: The device serves as both the Master and the Client and use more strict limits.

## 5150-5250MHz

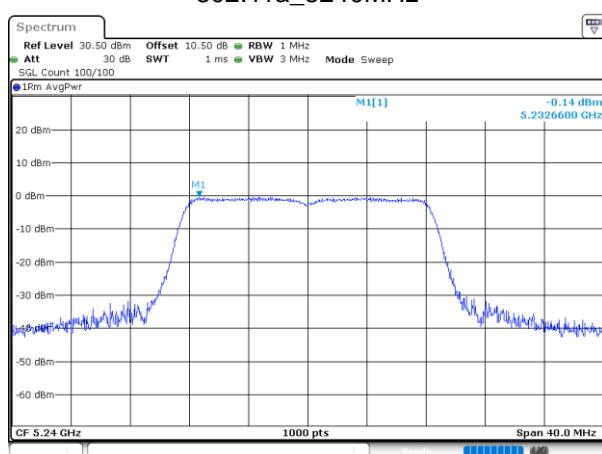
802.11a\_5180MHz



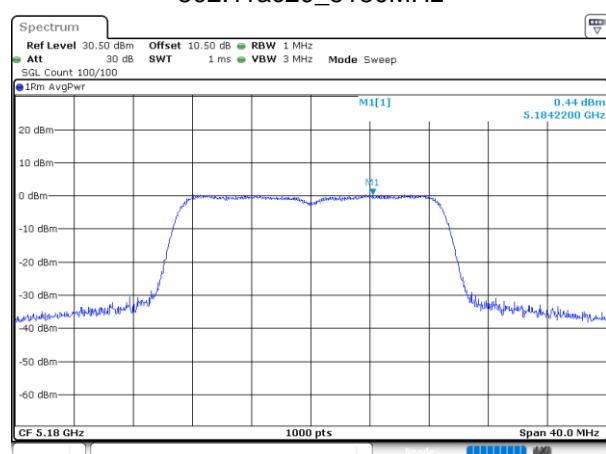
802.11a\_5200MHz



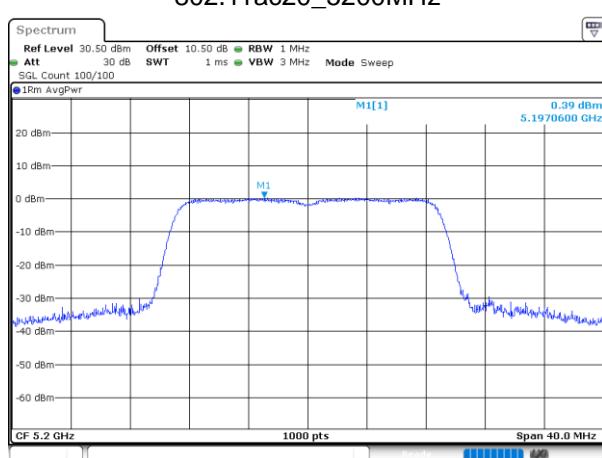
802.11a\_5240MHz



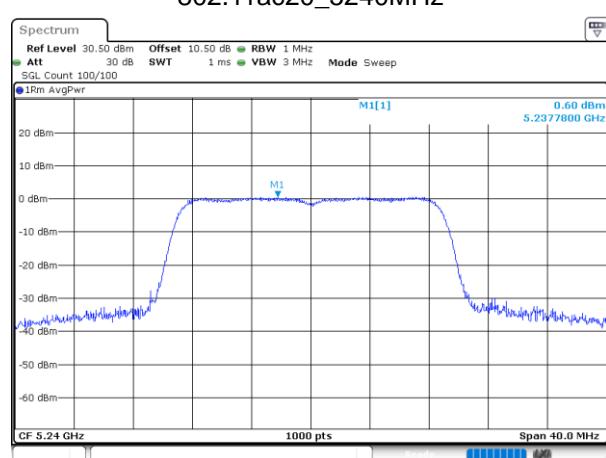
802.11ac20\_5180MHz



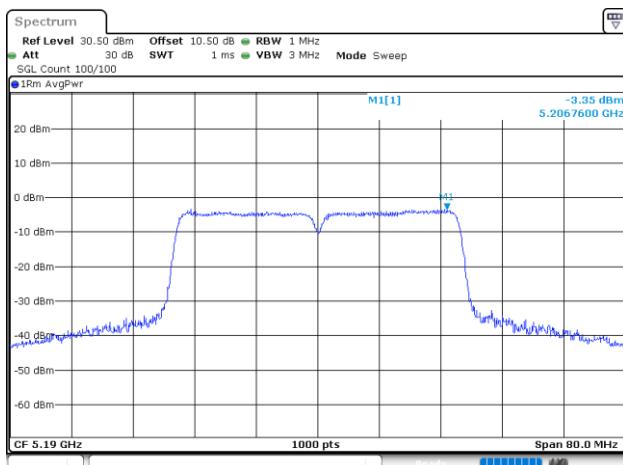
802.11ac20\_5200MHz



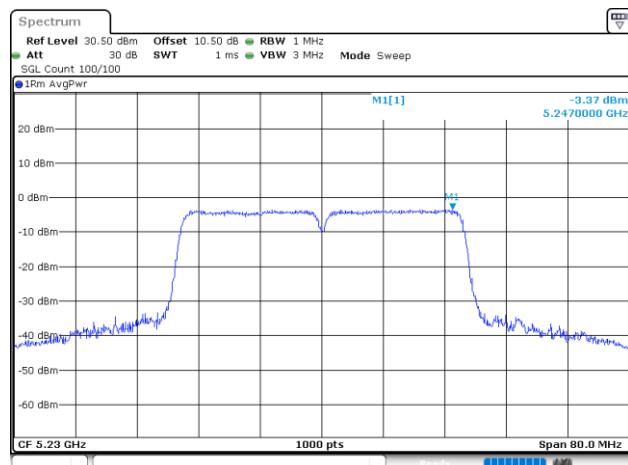
802.11ac20\_5240MHz



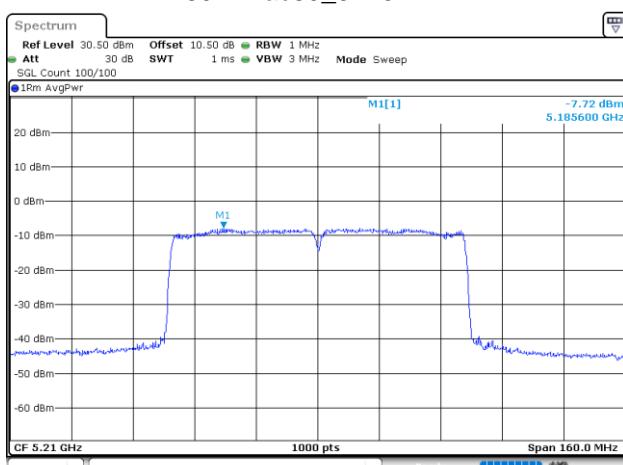
## 802.11ac40\_5190MHz



## 802.11ac40\_5230MHz



## 802.11ac80\_5210MHz



ProjectNo.:2504U66843E-RF Tester:Cayde Hou  
Date: 30.JUL.2025 15:49:44

ProjectNo.:2504U66843E-RF Tester:Cayde Hou  
Date: 30.JUL.2025 15:51:10

## Duty Cycle

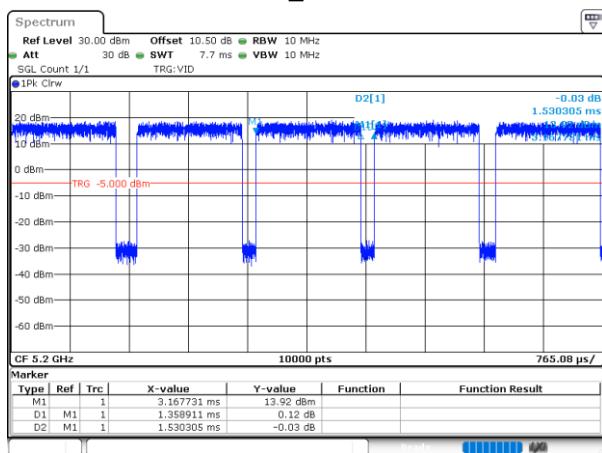
### 5150-5250MHz

Mode	Test Frequency (MHz)	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty Cycle Factor(dB)	1/Ton (Hz)	VBW Setting (kHz)
802.11a	5200	1.359	1.530	88.82	0.51	736	1
802.11ac20	5200	1.151	1.324	86.93	0.61	869	1
802.11ac40	5190	0.579	0.751	77.10	1.13	1727	2
802.11ac80	5210	0.288	0.450	64.00	1.94	3472	5

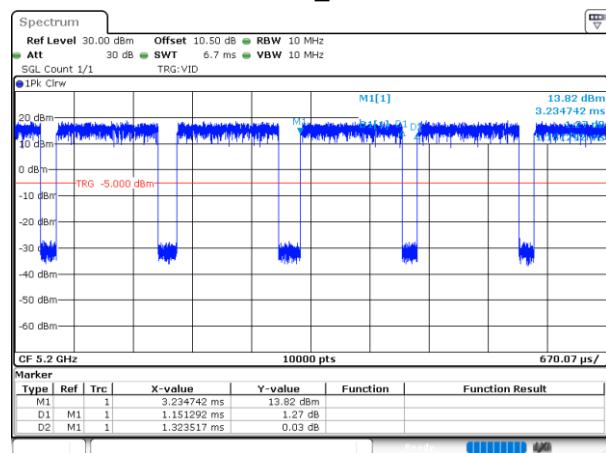
Duty Cycle = Ton/(Ton+Toff)\*100%

## 5150-5250MHz

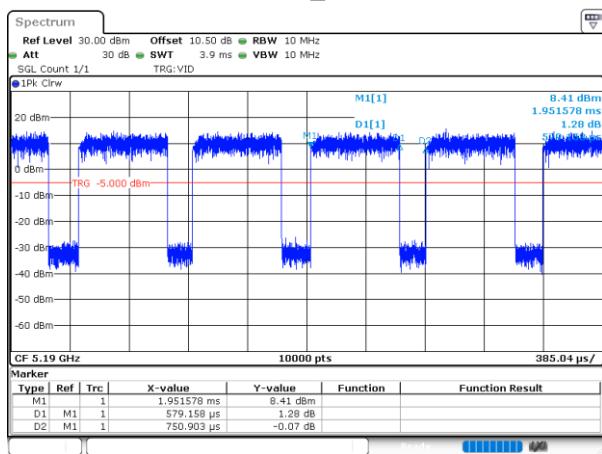
## 802.11a\_5200MHz



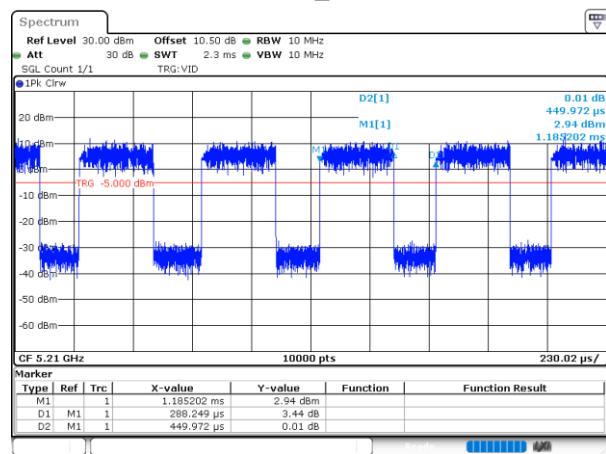
## 802.11ac20\_5200MHz



## 802.11ac40\_5190MHz



## 802.11ac80\_5210MHz



## **EXHIBIT A-EUT PHOTOGRAPHS**

Please refer to the Attachment No.1 2504U66843E-RF EUT External Photos and Attachment No.2 2504U66843E-RF EUT Internal Photos

## **EXHIBIT B-TEST SETUP PHOTOGRAPHS**

Please refer to the Attachment No.3 2504U66843E-RFA Test Photos.

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