



RF TEST REPORT

Applicant Nokia Shanghai Bell Co., Ltd.
FCC ID 2ADZRBEOACONG6
Product Wifi router
Brand Nokia
Model Nokia WiFi Beacon G6
Report No. R2203A0277-R3V1
Issue Date June 1, 2022

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 15E (2020)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Prepared by: Peng Tao

Approved by: Kai Xu

TA Technology (Shanghai) Co., Ltd.

No.145, Jintang Rd, Tangzhen Industry Park, Pudong Shanghai, China

TEL: +86-021-50791141/2/3

FAX: +86-021-50791141/2/3-8000

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Version	Revision description	Issue Date
Rev.0	Initial issue of report.	May 25, 2022
Rev.1	Update information in Page 6.	June 1, 2022
Note: This revised report (Report No. R2203A0277-R3V1) supersedes and replaces the previously issued report (Report No. R2203A0277-R3). Please discard or destroy the previously issued report and dispose of it accordingly.		

Summary of measurement results

Number	Test Case	Clause in FCC rules	Verdict
1	Average output power	15.407(a)	PASS
2	Occupied bandwidth	15.407(e)	PASS
3	Frequency stability	15.407(g)	PASS
4	Power spectral density	15.407(a)	PASS
5	Unwanted Emissions	15.407(b)	PASS
6	Conducted Emissions	15.207	PASS
Date of Testing: September 25, 2021 ~ December 8, 2021			
Date of Sample Received: September 6, 2021			
Note: PASS: The EUT complies with the essential requirements in the standard. FAIL: The EUT does not comply with the essential requirements in the standard. All indications of Pass/Fail in this report are opinions expressed by TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.			

Nokia WiFi Beacon G6 (Report No.: R2203A0277-R3V1) is a variant model of XS-2426G-B (Report No.: R2109A0800-R3V1). Test values duplicated from Original for variant. There is only tested Unwanted Emissions (802.11a/ac VHT20/ax HE20: CH36/ 802.11ac VHT40/ax HE40: CH38/ 802.11ac VHT80/ax HE80: CH42/ 802.11ac VHT160/ax HE160: CH50) for variant in this report, and did not worsen, so they were not recorded in the report. The detailed product change description please refers to the Difference Declaration Letter.

1. Test Laboratory

1.1. Notes of the test report

This report shall not be reproduced in full or partial, without the written approval of **TA technology (shanghai) co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

1.2. Test facility

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

A2LA (Certificate Number: 3857.01)

TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

1.3. Testing Location

Company: TA Technology (Shanghai) Co., Ltd.
Address: No.145, Jintang Rd, Tangzhen Industry Park, Pudong
City: Shanghai
Post code: 201201
Country: P. R. China
Contact: Xu Kai
Telephone: +86-021-50791141/2/3
Fax: +86-021-50791141/2/3-8000
Website: <http://www.ta-shanghai.com>
E-mail: xukai@ta-shanghai.com

2. General Description of Equipment under Test

2.1. Applicant and Manufacturer Information

Applicant	Nokia Shanghai Bell Co., Ltd.
Applicant address	No.388, Ningqiao Rd, Pilot Free Trade Zone, Shanghai, 201206 P.R. China
Manufacturer	Nokia of America Corporation.
Manufacturer address	2301 Sugar Bush Road, Raleigh, North Carolina, 27612, United States of America
Factory	CIG Shanghai Co., Ltd. Shanghai Branch.
Factory address	F/2, 3 Building 1, No. 505 Jiangyue Road, MINHANG DISTRICT Shanghai, CHINA

2.2. General information

EUT Description		
Model	Nokia WiFi Beacon G6	
Lab internal SN:	R2109A0800/S01	
Hardware Version	3FE49949	
Software Version	3FE49996	
Power Supply	AC adapter	
Antenna Type	Internal Antenna	
Directional Gain	Without Beamforming Mode for Power	3.4 dBi
	Without Beamforming Mode for PSD	4.7 dBi
	With Beamforming Mode	4.7 dBi
Operating Frequency Range(s)	U-NII-1: 5150MHz-5250MHz U-NII-2A: 5250MHz -5350MHz U-NII-2C: 5470MHz-5725MHz U-NII-3: 5725MHz -5850MHz	
Modulation Type	802.11a/n (HT20/HT40) : OFDM 802.11ac (VHT20/VHT40/VHT80/VHT160): OFDM 802.11ax (HE20/ HE40/ HE80/HE160): OFDMA	
Max. Conducted Power	29.97dBm	
Testing temperature range:	-20 ° C to 50° C	
Operating temperature range:	-5 ° C to 45° C	
Operating voltage range:	10 V to 14V	
State DC voltage:	12V	
EUT Accessory		
Adapter 1	Manufacturer: Dongguan Shilong Fuhua Electronic Co., Ltd. Model: UES24WU-120200SPA	
Adapter 2	Manufacturer: Shenzhen RuiDe Electronic Industrial Co., Ltd. Model: RD1202000-C55-154MG	
Internal Antenna 1	Manufacturer: HL	



Internal Antenna 2

Manufacturer: DZZ

Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant.

2. This device support automatically discontinue transmission, while the device is not transmitting any information, the device can automatically discontinue transmission and become standby mode for power saving. The device can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

3. There are more than one Adapter, each one should be applied throughout the compliance test respectively, however, only the worst case (Adapter 2) will be recorded in this report.

Information of Configuration:

No.	Name	Model/Code No.	Edition	Serial No. or Quantity
1	EMA-Beacon G6	3FE49949XXXX	PEM2	PEM 1

ONT Mnemonic	Kit Code	EMA Code	Part Description
Beacon G6	3FE49882XXXX	3FE49949XXXX	Beacon G6,US Plug,2.5G WAN, 2x1GE+1x2.5GE LAN,4x4 + 4x4 11ax

Auxiliary equipment details

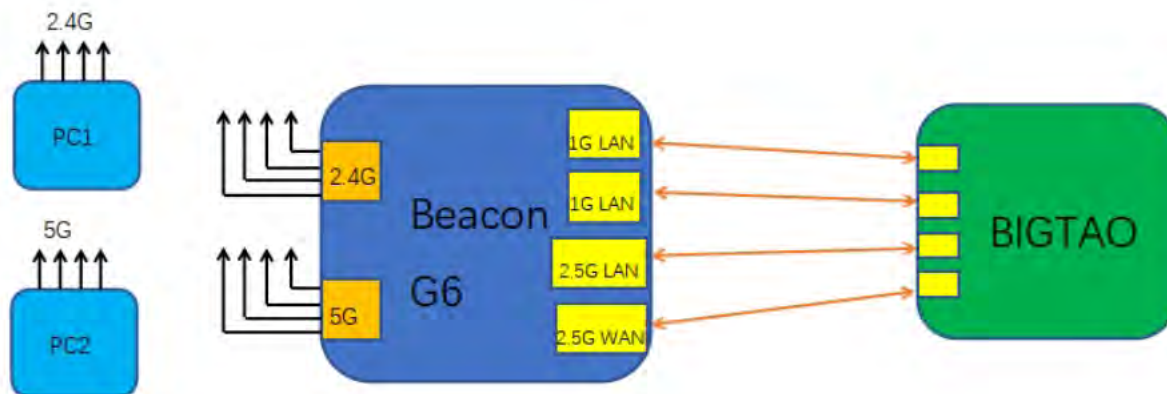
No.	Name	Brand name	Model	ASB code	Valid Until
1	BIGTAO	Xinertel	N.A	-	No Cal. Required
2	PC	HP	N.A	-	No Cal. Required
3	PC	Thinkpad	N.A	-	No Cal. Required

Information of Ports

No.	Port name	Number	Shielded or unshielded	Cable type (optic, twisted pair, etc.)	Max. Cable length
1	AC port	1	Unshielded	/	/
2	GE	2	Unshielded	/	/
3	2.5GE	2	Unshielded	/	/

Description: The Beacon G6 is a HGU which has 2 GE LAN ports, 1 2.5GE LAN port, 1 2.5GE WAN port. It supports 2.4G&5G wi-fi.

The basic functional test in normal room conditions as below. Beacon G6 runs 4 traffics on 2 2.5G ports and 2 1GE ports with BIGTAO, the traffics are about 90% of line speed. PC1 and PC2 run traffic over 2.4G WIFI and 5G WIFI, the traffics are higher than 200Mbps.



3. Applied Standards

According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

Test standards:

FCC CFR47 Part 15E (2020) Unlicensed National Information Infrastructure Devices

ANSI C63.10 (2013)

Reference standard:

KDB 789033 D02 General UNII Test Procedures New Rules v02r01

KDB 662911 D01 Multiple Transmitter Output v02r01

4. Test Configuration

Test Mode

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

The radiated emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in stand-up position (Z axis) and the worst case was recorded.

In order to find the worst case condition, Pre-tests are needed at the presence of different data rate. Preliminary tests have been done on all the configuration for confirming worst case. Data rate below means worst-case rate of each test item.

Worst-case data rates are shown as following table.

Mode	Data Rate			
	CDD/MIMO Antenna 1	CDD/MIMO Antenna 2	CDD/MIMO Antenna 3	CDD/MIMO Antenna 4
802.11a	6 Mbps	6 Mbps	6 Mbps	6 Mbps
802.11n HT20	MCS24	MCS24	MCS24	MCS24
802.11n HT40	MCS24	MCS24	MCS24	MCS24
802.11ac VHT20	MCS0	MCS0	MCS0	MCS0
802.11ac VHT40	MCS0	MCS0	MCS0	MCS0
802.11ac VHT80	MCS0	MCS0	MCS0	MCS0
802.11ac VHT160	MCS0	MCS0	MCS0	MCS0
802.11ax HE20	MCS0	MCS0	MCS0	MCS0
802.11ax HE40	MCS0	MCS0	MCS0	MCS0
802.11ax HE80	MCS0	MCS0	MCS0	MCS0
802.11ax HE160	MCS0	MCS0	MCS0	MCS0

The worst case Antenna mode for each of the following tests for Wi-Fi:

Test Cases	CDD/MIMO Antenna 1	CDD/MIMO Antenna 2	CDD/MIMO Antenna 3	CDD/MIMO Antenna 4
Average conducted output power	O	O	O	O
Occupied bandwidth	--	--	O	--
Frequency stability	--	--	O	--
Power Spectral Density	O	O	O	O
Unwanted Emissions	--	--	O	--
Conducted Emissions	--	--	O	--
Note: "O": test all bands				

According to RF Output power results in chapter 5.2, CDD/MIMO Antenna 3 was selected as the worst antenna.

**Wireless Technology and Frequency Range**

Wireless Technology		Bandwidth	Channel	Frequency
Wi-Fi	U-NII-1	20 MHz	36	5180MHz
			40	5200MHz
			44	5220MHz
			48	5240MHz
		40 MHz	38	5190MHz
			46	5230MHz
		80 MHz	42	5210MHz
	U-NII-2A	20 MHz	52	5260MHz
			56	5280MHz
			60	5300MHz
			64	5320MHz
		40 MHz	54	5270MHz
			62	5310MHz
		80 MHz	58	5290MHz
	U-NII-2C	20 MHz	100	5500MHz
			104	5520MHz
			108	5540MHz
			112	5560MHz
			116	5580MHz
			120	5600MHz
			124	5620MHz
			128	5640MHz
			132	5660MHz
			136	5680MHz
			140	5700MHz
		40 MHz	102	5510MHz
			110	5550MHz
			118	5590MHz
			126	5630MHz
			134	5670MHz
			142	5710MHz
		80 MHz	106	5530MHz
			122	5610MHz
			138	5690MHz
	U-NII-3	20 MHz	149	5745MHz
			153	5765MHz
			157	5785MHz
			161	5805MHz



			165	5825MHz
		40 MHz	151	5755MHz
			159	5795MHz
		80 MHz	155	5775MHz
Does this device support TPC Function? ☒ Yes ☐ No				
Does this device support TDWR Band? ☒ Yes ☐ No				

5. Test Case Results

5.1. Occupied Bandwidth

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

The EUT was connected to the spectrum analyzer through an external attenuator (20dB) and a known loss cable.

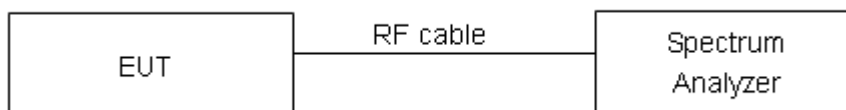
For U-NII-1/U-NII-2A/U-NII-2C, set RBW $\approx$ 1% OCB kHz, VBW $\geq 3 \times$ RBW, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 26 dB relative to the maximum level measured in the fundamental emission.

For U-NII-3, Set RBW = 100 kHz, VBW $\geq 3 \times$ RBW, 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.

Note: The automatic bandwidth measurement capability of a spectrum analyzer or EMI receiver may be employed if it implements the functionality described above.

Use the 99 % power bandwidth function of the instrument

Test Setup



Limits

Rule FCC Part §15.407(e)

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

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 936$ Hz.

Test Results:
U-NII-1

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5180	16.512	19.767	PASS
	5200	16.531	20.041	PASS
	5240	16.529	20.019	PASS
802.11n HT20	5180	17.720	20.825	PASS
	5200	17.726	20.962	PASS
	5240	17.713	20.956	PASS
802.11n HT40	5190	37.642	39.799	PASS
	5230	37.610	39.992	PASS
802.11ac VHT20	5180	17.721	20.868	PASS
	5200	17.725	20.407	PASS
	5240	17.724	20.870	PASS
802.11ac VHT40	5190	35.966	39.224	PASS
	5230	35.923	39.384	PASS
802.11ac VHT80	5210	75.343	81.087	PASS
802.11ax HE20	5180	19.029	21.402	PASS
	5200	19.038	22.043	PASS
	5240	19.041	21.810	PASS
802.11ax HE40	5190	37.599	40.241	PASS
	5230	37.624	40.167	PASS
802.11ax HE80	5210	77.077	81.269	PASS

U-NII-2A

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5260	16.497	19.858	PASS
	5300	16.504	19.995	PASS
	5320	16.503	19.689	PASS
802.11n HT20	5260	17.714	20.948	PASS
	5300	17.732	21.304	PASS
	5320	17.727	21.355	PASS
802.11n HT40	5270	35.917	39.440	PASS
	5310	35.952	39.146	PASS
802.11ac VHT20	5260	17.734	20.864	PASS
	5300	17.730	20.942	PASS
	5320	17.730	20.781	PASS



802.11ac VHT40	5270	35.925	39.498	PASS
	5310	35.939	39.431	PASS
802.11ac VHT80	5290	75.363	80.615	PASS
802.11ac VHT160	5250	153.401	164.310	PASS
802.11ax HE20	5260	19.028	21.649	PASS
	5300	19.051	20.955	PASS
	5320	19.039	20.971	PASS
802.11ax HE40	5270	37.591	40.010	PASS
	5310	37.579	39.776	PASS
802.11ax HE80	5290	77.096	81.080	PASS
802.11ax HE160	5250	154.992	162.803	PASS

U-NII-2C

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5500	16.512	19.902	PASS
	5580	16.515	19.991	PASS
	5700	16.519	19.651	PASS
	5720	16.503	20.043	PASS
802.11n HT20	5500	17.729	20.647	PASS
	5580	17.725	21.289	PASS
	5700	17.706	20.692	PASS
	5720	17.735	21.404	PASS
802.11n HT40	5510	35.957	39.200	PASS
	5550	35.943	39.366	PASS
	5670	35.926	38.886	PASS
	5710	35.948	39.182	PASS
802.11ac VHT20	5500	17.729	20.834	PASS
	5580	17.752	20.559	PASS
	5700	17.731	20.914	PASS
	5720	17.709	20.928	PASS
802.11ac VHT40	5510	35.949	39.286	PASS
	5550	35.911	39.428	PASS
	5670	35.914	39.020	PASS
	5710	35.968	39.378	PASS
802.11ac VHT80	5530	75.324	81.424	PASS
	5690	75.387	81.438	PASS
802.11ac VHT160	5570	152.998	163.398	PASS
802.11ax HE20	5500	19.052	21.554	PASS



	5580	19.055	21.203	PASS
	5700	19.011	21.594	PASS
	5720	19.020	21.452	PASS
802.11ax HE40	5510	37.654	40.427	PASS
	5550	37.634	39.894	PASS
	5670	37.568	40.340	PASS
	5710	37.602	39.911	PASS
802.11ax HE80	5530	77.043	81.546	PASS
	5690	77.157	81.025	PASS
802.11ax HE160	5570	154.477	162.926	PASS

U-NII-3

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 6 dB bandwidth (MHz)	Limit (kHz)	Conclusion
802.11a	5745	16.510	16.346	500	PASS
	5785	16.508	16.340	500	PASS
	5825	16.515	16.461	500	PASS
802.11n HT20	5745	16.509	16.341	500	PASS
	5785	16.504	16.330	500	PASS
	5825	16.493	16.355	500	PASS
802.11n HT40	5755	35.955	36.019	500	PASS
	5795	35.931	35.416	500	PASS
802.11ac VHT20	5745	16.512	16.346	500	PASS
	5785	16.533	16.340	500	PASS
	5825	16.475	16.349	500	PASS
802.11ac VHT40	5755	35.947	36.332	500	PASS
	5795	35.958	36.325	500	PASS
802.11ac VHT80	5775	75.325	73.767	500	PASS
802.11ax HE20	5745	16.507	16.345	500	PASS
	5785	16.530	16.361	500	PASS
	5825	16.536	16.351	500	PASS
802.11ax HE40	5755	37.630	37.634	500	PASS
	5795	37.655	37.234	500	PASS
802.11ax HE80	5775	77.002	77.418	500	PASS

U-NII-1, 802.11a
Carrier frequency (MHz): 5180



U-NII-1, 802.11n HT20
Carrier frequency (MHz): 5180



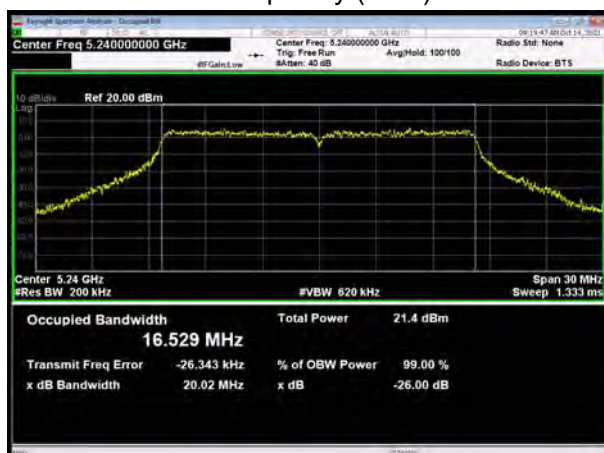
U-NII-1, 802.11a
Carrier frequency (MHz): 5200



U-NII-1, 802.11n HT20
Carrier frequency (MHz): 5200



U-NII-1, 802.11a
Carrier frequency (MHz): 5240



U-NII-1, 802.11n HT20
Carrier frequency (MHz): 5240



U-NII-1, 802.11n HT40
Carrier frequency (MHz): 5190



U-NII-1, 802.11ac VHT20
Carrier frequency (MHz): 5180



U-NII-1, 802.11n HT40
Carrier frequency (MHz): 5230



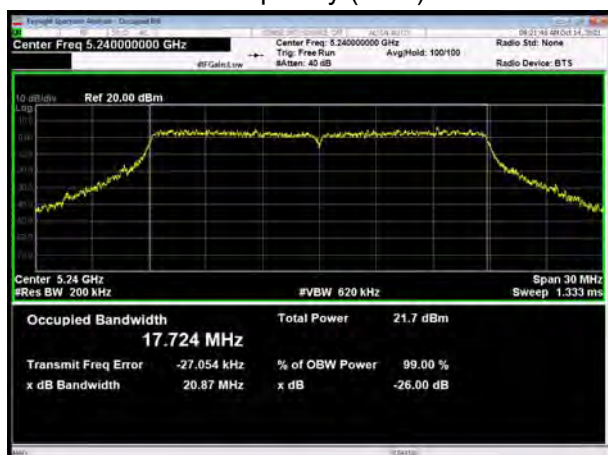
U-NII-1, 802.11ac VHT20
Carrier frequency (MHz): 5200



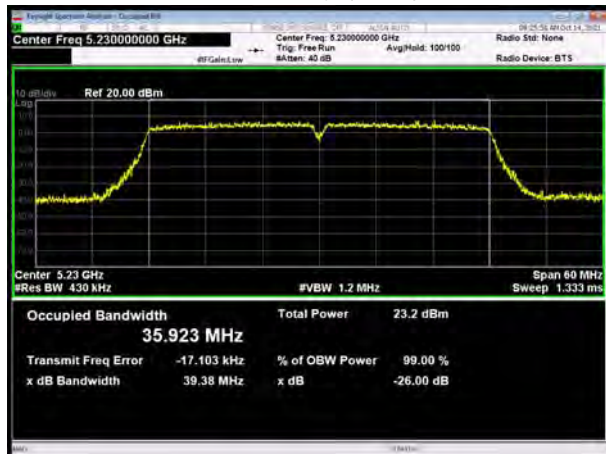
U-NII-1, 802.11ac VHT40
Carrier frequency (MHz): 5190



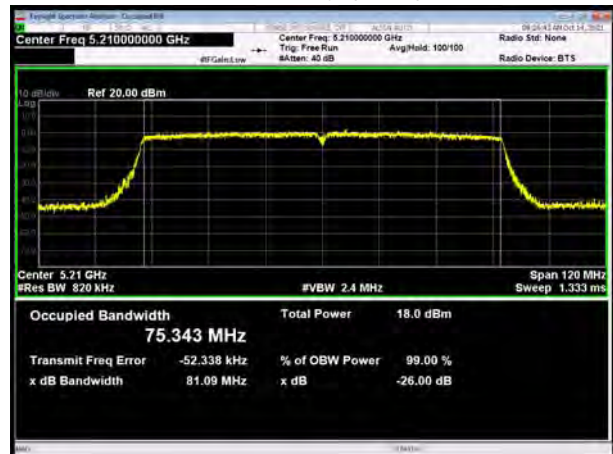
U-NII-1, 802.11ac VHT20
Carrier frequency (MHz): 5240



U-NII-1, 802.11ac VHT40
Carrier frequency (MHz): 5230



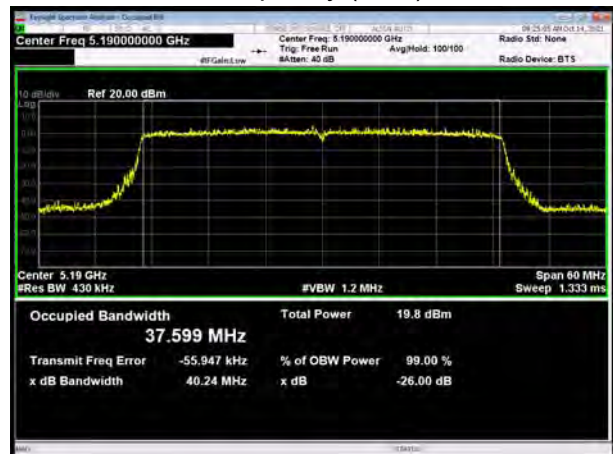
U-NII-1, 802.11ac VHT80
Carrier frequency (MHz): 5210



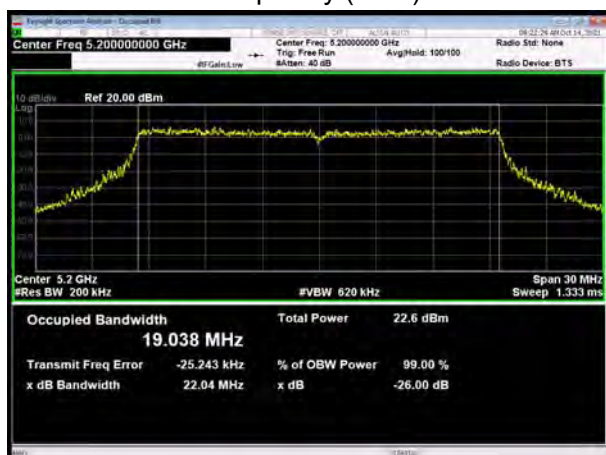
U-NII-1, 802.11ax HE20
Carrier frequency (MHz): 5180



U-NII-1, 802.11ax HE40
Carrier frequency (MHz): 5190



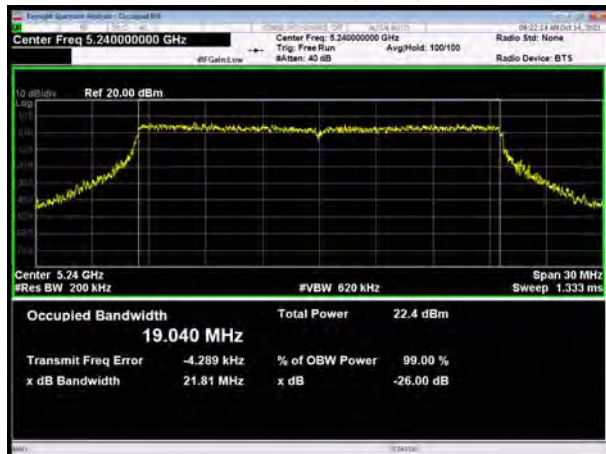
U-NII-1, 802.11ax HE20
Carrier frequency (MHz): 5200



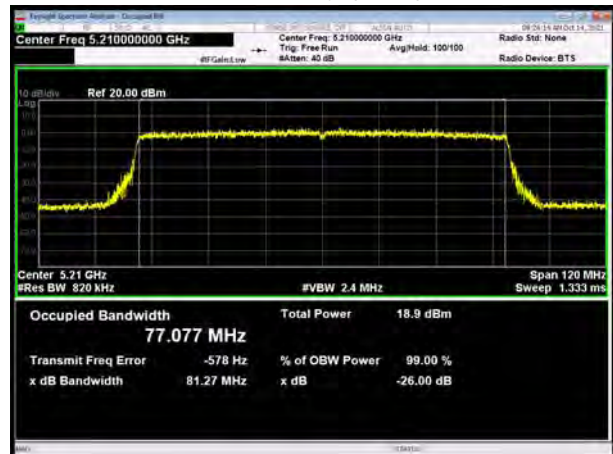
U-NII-1, 802.11ax HE40
Carrier frequency (MHz): 5230



U-NII-1, 802.11ax HE20
Carrier frequency (MHz):5240



U-NII-1, 802.11ax HE80
Carrier frequency (MHz): 5210



U-NII-2A, 802.11a
Carrier frequency (MHz): 5260



U-NII-2A, 802.11n HT20
Carrier frequency (MHz): 5260



U-NII-2A, 802.11a
Carrier frequency (MHz): 5300



U-NII-2A, 802.11n HT20
Carrier frequency (MHz): 5300



U-NII-2A, 802.11a
Carrier frequency (MHz):5320



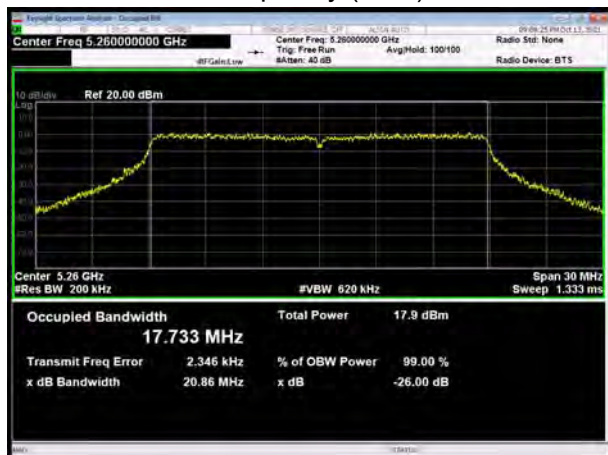
U-NII-2A, 802.11n HT20
Carrier frequency (MHz):5320



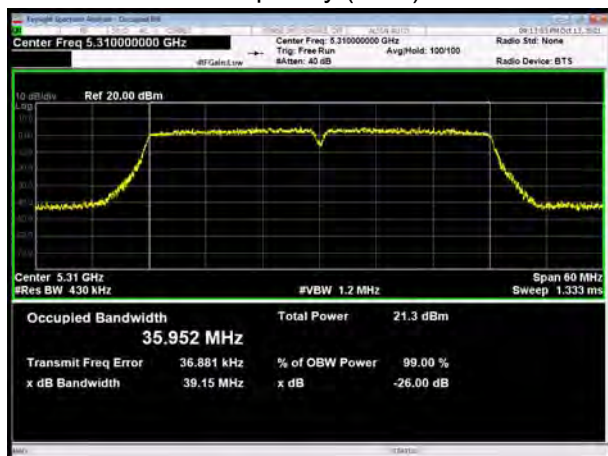
U-NII-2A, 802.11n HT40
Carrier frequency (MHz): 5270



U-NII-2A, 802.11ac VHT20
Carrier frequency (MHz):5260



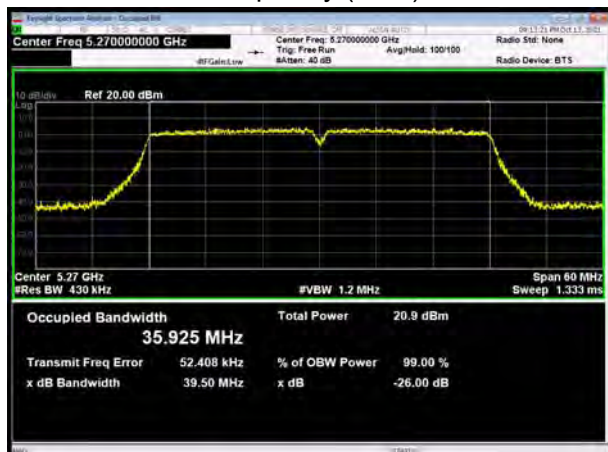
U-NII-2A, 802.11n HT40
Carrier frequency (MHz): 5310



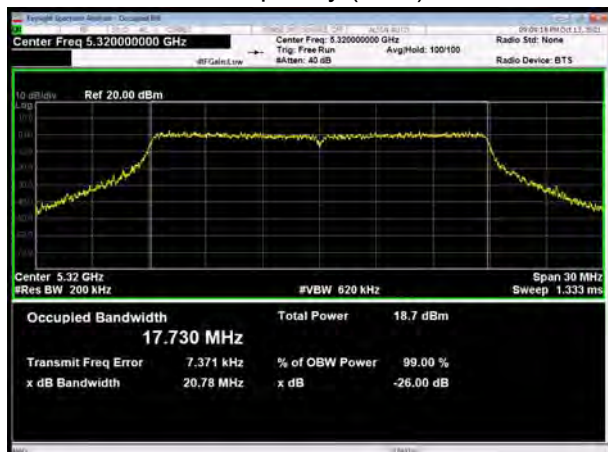
U-NII-2A, 802.11ac VHT20
Carrier frequency (MHz): 5300



U-NII-2A, 802.11ac VHT40
Carrier frequency (MHz): 5270



U-NII-2A, 802.11ac VHT20
Carrier frequency (MHz): 5320



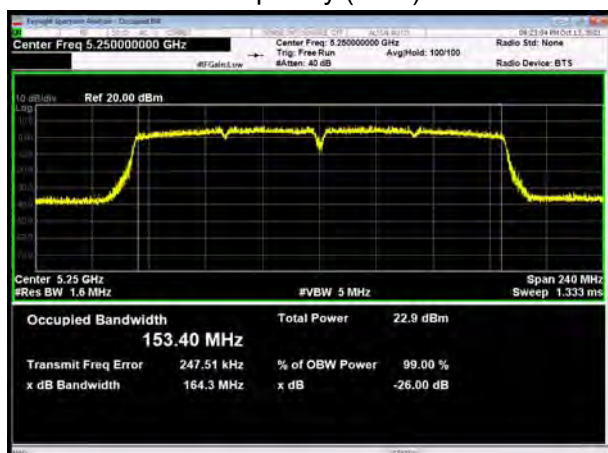
U-NII-2A, 802.11ac VHT40
Carrier frequency (MHz): 5310



U-NII-2A, 802.11ac VHT80
Carrier frequency (MHz): 5290



U-NII-2A, 802.11ac VHT160
Carrier frequency (MHz): 5250



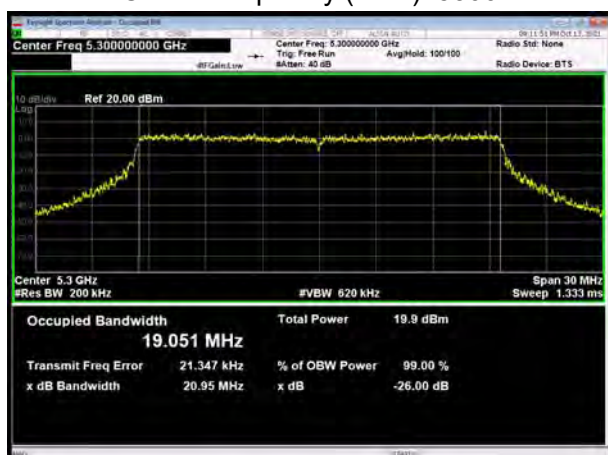
U-NII-2A, 802.11ax HE20
Carrier frequency (MHz):5260



U-NII-2A, 802.11ax HE40
Carrier frequency (MHz): 5270



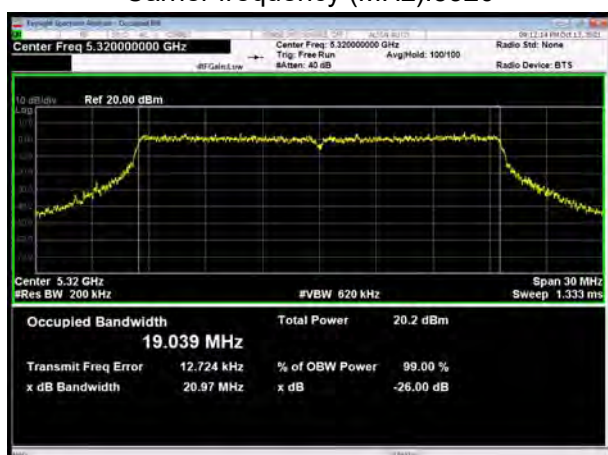
U-NII-2A, 802.11ax HE20
Carrier frequency (MHz): 5300



U-NII-2A, 802.11ax HE40
Carrier frequency (MHz): 5310



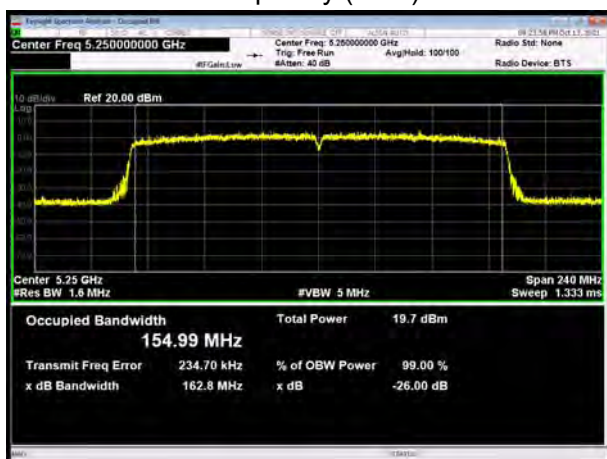
U-NII-2A, 802.11ax HE20
Carrier frequency (MHz):5320



U-NII-2A, 802.11ax HE80
Carrier frequency (MHz): 5290



U-NII-2A, 802.11ax HE160
Carrier frequency (MHz): 5250



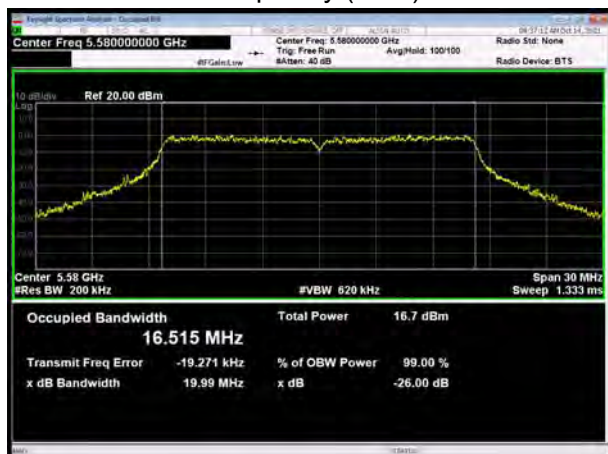
U-NII-2C, 802.11a
Carrier frequency (MHz): 5500



U-NII-2C, 802.11n HT20
Carrier frequency (MHz): 5500



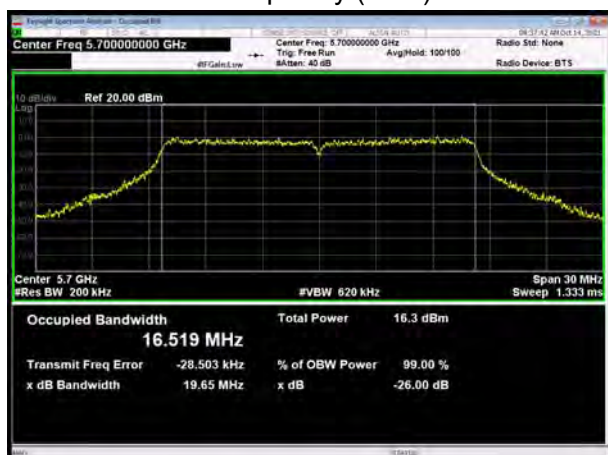
U-NII-2C, 802.11a
Carrier frequency (MHz): 5580



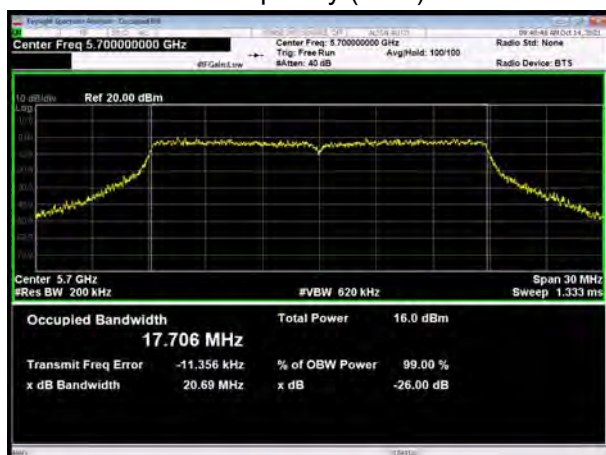
U-NII-2C, 802.11n HT20
Carrier frequency (MHz): 5580



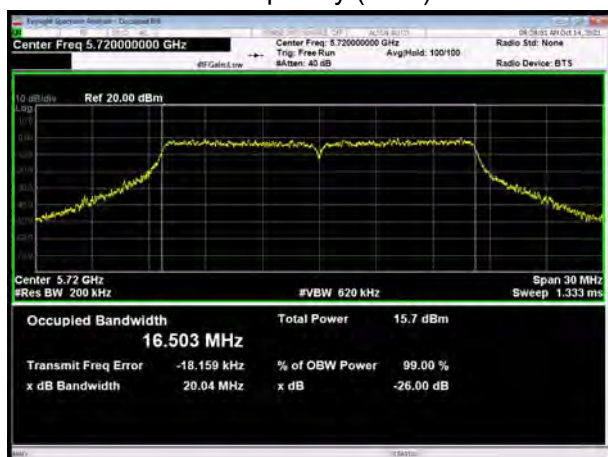
U-NII-2C, 802.11a
Carrier frequency (MHz): 5700



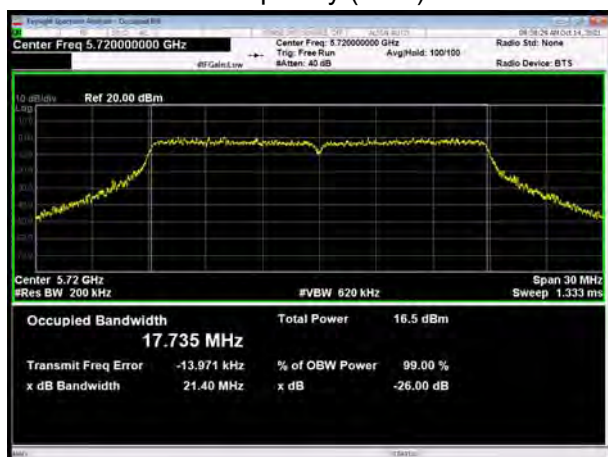
U-NII-2C, 802.11n HT20
Carrier frequency (MHz): 5700



U-NII-2C, 802.11a
Carrier frequency (MHz):5720



U-NII-2C, 802.11n HT20
Carrier frequency (MHz):5720



U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5510



U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5500



U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5550



U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5580



U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5670



U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5700



U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5710



U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5720



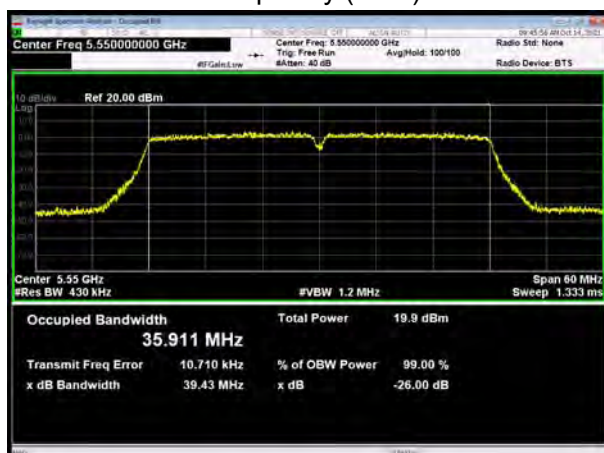
U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5510



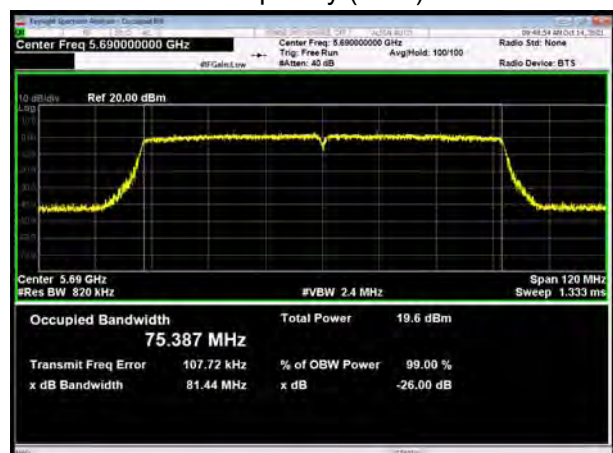
U-NII-2C, 802.11ac VHT80
Carrier frequency (MHz): 5530



U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5550



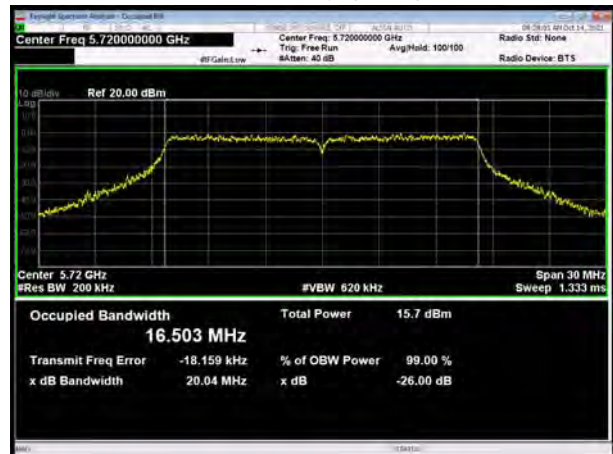
U-NII-2C, 802.11ac VHT80
Carrier frequency (MHz): 5690



U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5670



U-NII-2C, 802.11ac VHT160
Carrier frequency (MHz): 5570



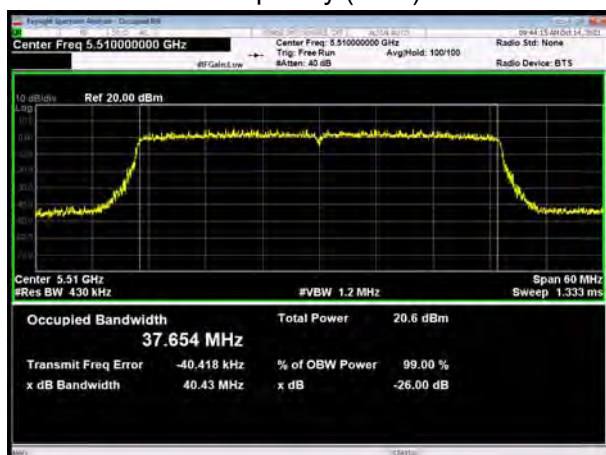
U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5710



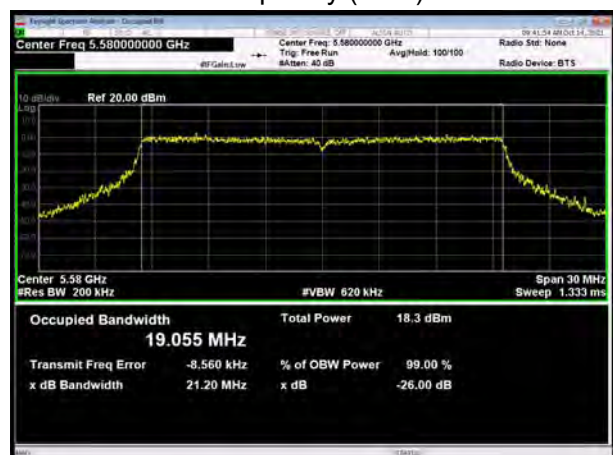
U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5500



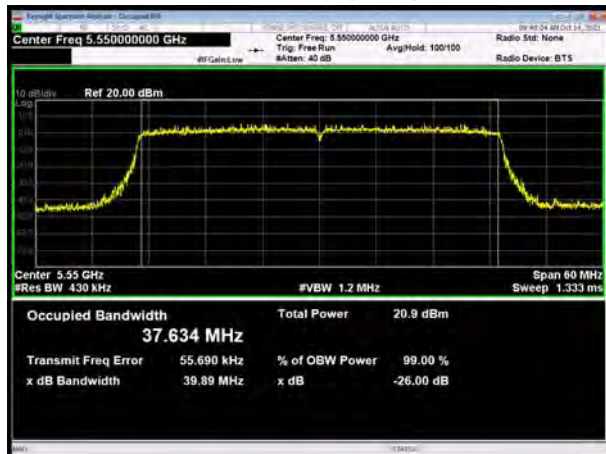
U-NII-2C, 802.11ax HE40
Carrier frequency (MHz): 5510



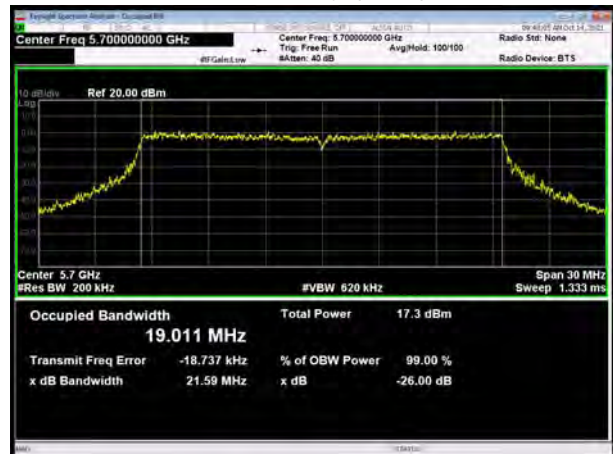
U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5580



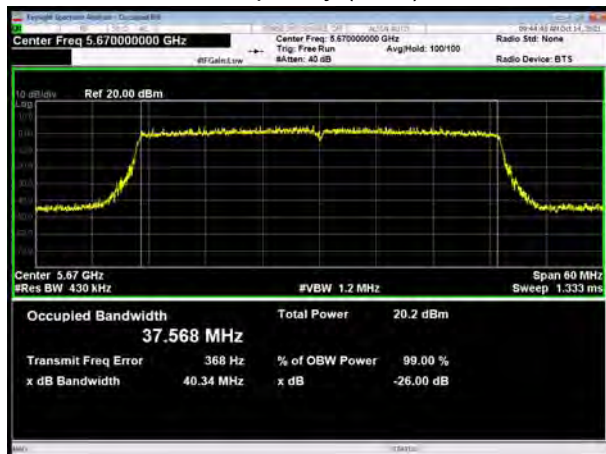
U-NII-2C, 802.11ax HE40
Carrier frequency (MHz): 5550



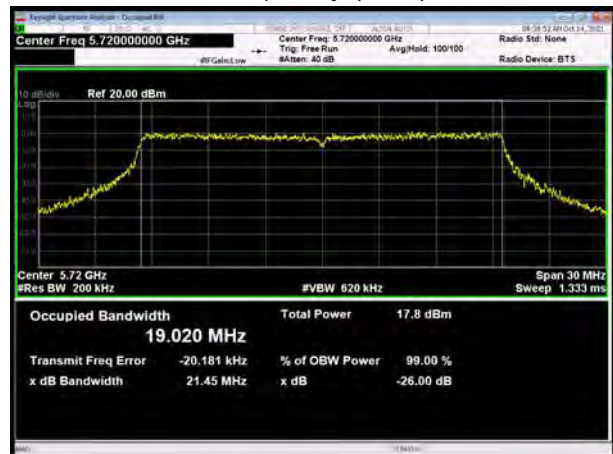
U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5700



U-NII-2C, 802.11ax HE40
Carrier frequency (MHz): 5670



U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5720



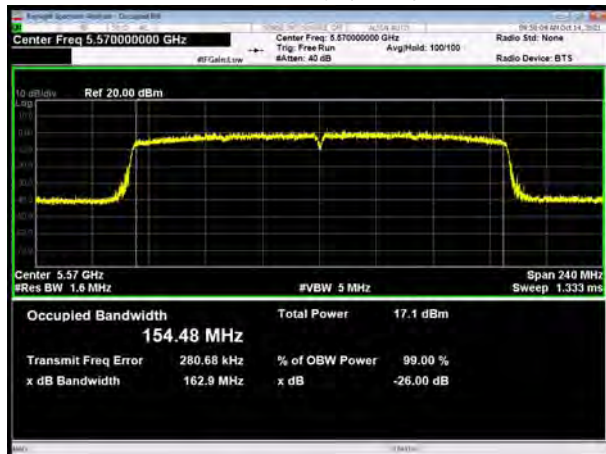
U-NII-2C, 802.11ax HE40
Carrier frequency (MHz): 5710



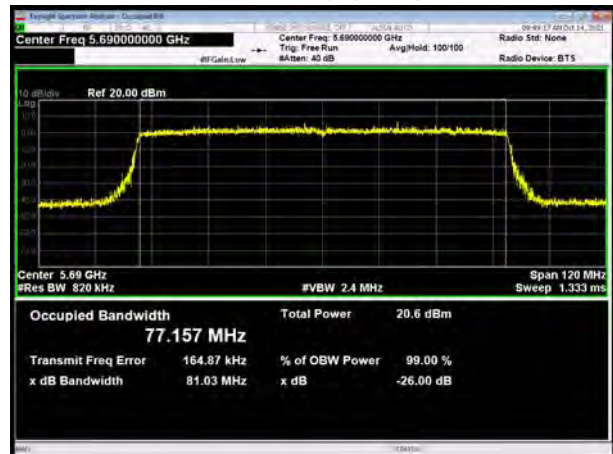
U-NII-2C, 802.11ax HE80
Carrier frequency (MHz): 5530



U-NII-2C, 802.11ax HE160
Carrier frequency (MHz): 5570



U-NII-2C, 802.11ax HE80
Carrier frequency (MHz): 5690



99% bandwidth

U-NII-3, 802.11a
Carrier frequency (MHz): 5745



U-NII-3, 802.11n HT20
Carrier frequency (MHz): 5745



U-NII-3, 802.11a
Carrier frequency (MHz): 5785



U-NII-3, 802.11n HT20
Carrier frequency (MHz): 5785



U-NII-3, 802.11a
Carrier frequency (MHz): 5825



U-NII-3, 802.11n HT20
Carrier frequency (MHz): 5825



U-NII-3, 802.11n HT40
Carrier frequency (MHz): 5755



U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5745



U-NII-3, 802.11n HT40
Carrier frequency (MHz): 5795



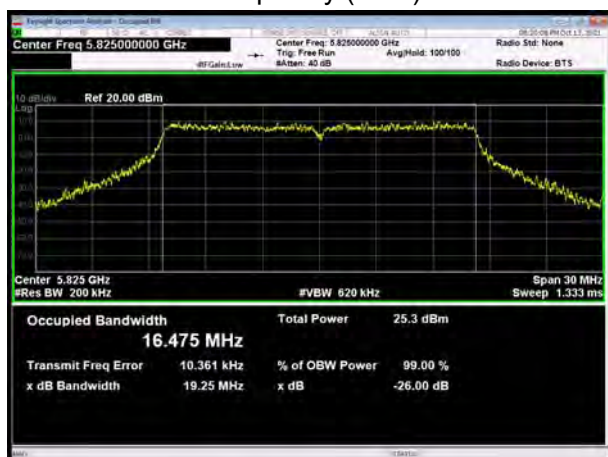
U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5785



U-NII-3, 802.11ac VHT40
Carrier frequency (MHz): 5755



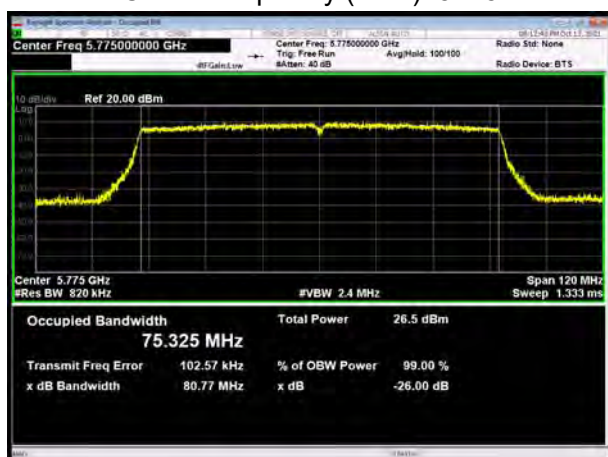
U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5825



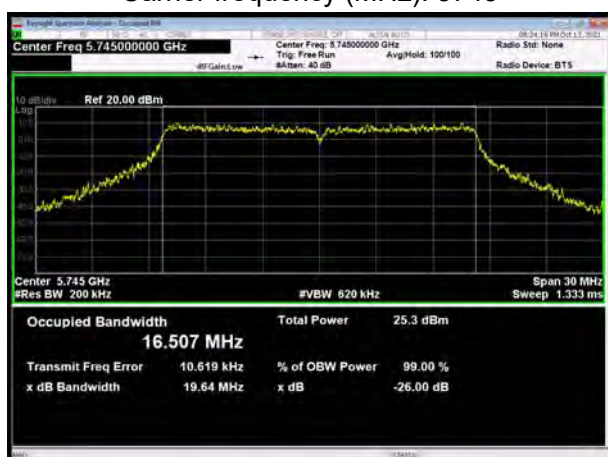
U-NII-3, 802.11ac VHT40
Carrier frequency (MHz): 5795



U-NII-3, 802.11ac VHT80
Carrier frequency (MHz): 5775



U-NII-3, 802.11ax HE20
Carrier frequency (MHz): 5745



U-NII-3, 802.11ax HE40
Carrier frequency (MHz): 5755



U-NII-3, 802.11ax HE20
Carrier frequency (MHz): 5785



U-NII-3, 802.11ax HE40
Carrier frequency (MHz): 5795



U-NII-3, 802.11ax HE20
Carrier frequency (MHz): 5825



U-NII-3, 802.11ax HE80
Carrier frequency (MHz): 5775



Minimum 6 dB bandwidth

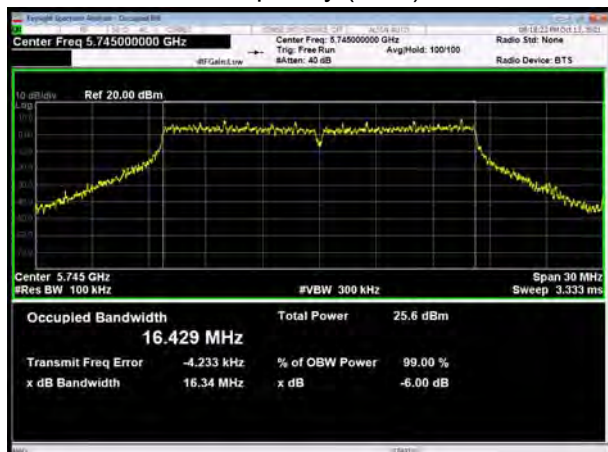
U-NII-3, 802.11a

Carrier frequency (MHz): 5745



U-NII-3, 802.11n HT20

Carrier frequency (MHz): 5745



U-NII-3, 802.11a

Carrier frequency (MHz): 5785



U-NII-3, 802.11n HT20

Carrier frequency (MHz): 5785



U-NII-3, 802.11a

Carrier frequency (MHz): 5825



U-NII-3, 802.11n HT20

Carrier frequency (MHz): 5825



U-NII-3, 802.11n HT40
Carrier frequency (MHz): 5755



U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5745



U-NII-3, 802.11n HT40
Carrier frequency (MHz): 5795



U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5785



U-NII-3, 802.11ac VHT40
Carrier frequency (MHz): 5755



U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5825



U-NII-3, 802.11ac VHT40
Carrier frequency (MHz): 5795



U-NII-3, 802.11ac VHT80
Carrier frequency (MHz): 5775



U-NII-3, 802.11ax HE20
Carrier frequency (MHz): 5745



U-NII-3, 802.11ax HE40
Carrier frequency (MHz): 5755



U-NII-3, 802.11ax HE20
Carrier frequency (MHz): 5785



U-NII-3, 802.11ax HE40
Carrier frequency (MHz): 5795



U-NII-3, 802.11ax HE20
Carrier frequency (MHz): 5825



U-NII-3, 802.11ax HE80
Carrier frequency (MHz): 5775



5.2. Average Power Output

Ambient condition

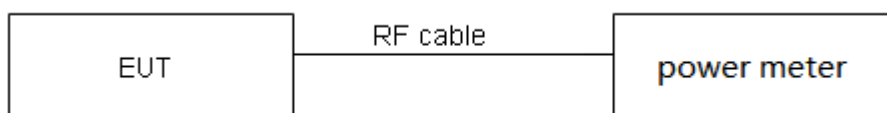
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Methods of Measurement

During the process of the testing, The EUT was connected to the average power meter through an external attenuator and a known loss cable. The EUT is max power transmission with proper modulation. We use Maximum average Conducted Output Power Level Method in KDB789033 for this test

The conducted Power is measured at each antenna port. The measured results at the various antenna ports are then summed mathematically.

Test Setup



Limits

Rule FCC Part 15.407(a)(1)(2)(3)

(1) For the band 5.15-5.25 GHz.

(i) 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).

(ii) 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.

(iii) For fixed point-to-point access points 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. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral

density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. 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.

(iv) 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.

(2) 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 $11 \text{ dBm} + 10 \log B$, 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.

(3) 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.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 0.44 \text{ dB}$.

Test Results

Mode	T _{on} (ms)	T _(on+off) (ms)	Duty cycle	Duty cycle correction Factor(dB)
802.11a	1.98	2.24	0.88	0.54
802.11n HT20	5.43	6.33	0.86	0.66
802.11n HT40	5.43	6.33	0.86	0.66
802.11ac VHT20	5.40	6.33	0.85	0.69
802.11ac VHT40	5.43	6.36	0.85	0.68
802.11ac VHT80	5.40	6.33	0.85	0.69
802.11ac VHT160	5.43	5.94	0.92	0.39
802.11ax HE20	5.43	6.36	0.85	0.68
802.11ax HE40	5.43	6.41	0.85	0.72
802.11ax HE80	5.43	6.47	0.84	0.76
802.11ax HE160	5.46	5.82	0.94	0.28
Note: when Duty cycle ≥ 0.98 , Duty cycle correction Factor not required.				

Network Standards		Channel/Frequency (MHz)	B=26 dB bandwidth (MHz)	Limit 11 dBm + 10 log B (dBm)	Final Limit(dBm)
U-NII-2A	802.11a	52/5260	19.86	23.98<24	23.98
		60/5300	20.00	24.01>24	24.00
		64/5320	19.69	23.94<24	23.94
	802.11n HT20	52/5260	20.95	24.21>24	24.00
		60/5300	21.30	24.28>24	24.00
		64/5320	21.35	24.29>24	24.00
	802.11n HT40	54/5270	39.44	26.96>24	24.00
		62/5310	39.15	26.93>24	24.00
	802.11ac VHT20	52/5260	21.65	24.35>24	24.00
		60/5300	20.95	24.21>24	24.00
		64/5320	20.97	24.22>24	24.00
	802.11ac VHT40	54/5270	40.01	27.02>24	24.00
		62/5310	39.78	27.00>24	24.00
	802.11ac VHT80	58/5290	80.62	30.06>24	24.00
	802.11ac VHT160	50/5250	164.31	33.16>24	24.00
	802.11ax HE20	52/5260	21.65	24.35 >24	24.00
		60/5300	20.95	24.21>24	24.00
		64/5320	20.97	24.22>24	24.00
	802.11ax HE40	54/5270	40.01	27.02>24	24.00



		62/5310	81.08	30.09>24	24.00
	802.11ax HE80	58/5290	81.08	30.09>24	24.00
	802.11ax HE160	50/5250	162.80	33.12>24	24.00
U-NII-2C	802.11a	100/5500	19.90	23.99<24	23.99
		116/5580	19.99	24.01>24	24.00
		140/5700	19.65	23.93<24	23.93
		144/5720	20.04	24.02>24	24.00
	802.11n HT20	100/5500	20.65	24.15>24	24.00
		116/5580	21.29	24.28>24	24.00
		140/5700	20.69	24.16>24	24.00
		144/5720	21.40	24.31>24	24.00
	802.11n HT40	102/5510	39.20	26.93>24	24.00
		110/5550	39.37	26.95>24	24.00
		134/5670	38.89	26.90>24	24.00
		142/5710	39.18	26.93>24	24.00
	802.11ac VHT20	100/5500	20.83	24.19>24	24.00
		116/5580	20.56	24.13>24	24.00
		140/5700	20.91	24.20>24	24.00
		144/5720	20.93	24.21>24	24.00
	802.11ac VHT40	102/5510	39.29	26.94>24	24.00
		110/5550	39.43	26.96>24	24.00
		134/5670	39.02	26.91>24	24.00
		142/5710	39.38	26.95>24	24.00
	802.11ac VHT80	106/5530	81.42	30.11>24	24.00
		138/5690	81.44	30.11>24	24.00
	802.11ac VHT160	114/5570	163.40	33.13>24	24.00
	802.11ax HE20	100/5500	21.55	24.34>24	24.00
		116/5580	21.20	24.26>24	24.00
		140/5700	21.59	24.34>24	24.00
		144/5720	21.45	24.31>24	24.00
	802.11ax HE40	102/5510	40.43	27.07>24	24.00
		110/5550	39.89	27.01>24	24.00
		134/5670	40.34	27.06>24	24.00
		142/5710	39.91	27.01>24	24.00
	802.11ax HE80	106/5530	81.55	30.11>24	24.00
		138/5690	81.03	30.09>24	24.00
	802.11ax HE160	114/5570	162.93	33.12>24	24.00

Note: 250mW=24dBm

Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor

Internal Antenna 1: HL
MIMO without Beamforming
U-NII-1

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	36/5180	20.61	21.15	20.34	20.88	20.19	20.74	20.36	20.91	26.94	30.00	PASS
	40/5200	20.49	21.03	20.48	21.02	20.12	20.67	20.42	20.97	26.94	30.00	PASS
	48/5240	20.18	20.72	20.67	21.22	20.07	20.61	20.57	21.11	26.94	30.00	PASS
802.11n HT20	36/5180	20.52	21.18	20.48	21.14	20.08	20.74	20.40	21.06	27.05	30.00	PASS
	40/5200	20.31	20.97	20.32	20.98	19.94	20.61	20.18	20.84	26.88	30.00	PASS
	48/5240	20.00	20.66	20.72	21.38	20.10	20.76	20.46	21.12	27.01	30.00	PASS
802.11n HT40	38/5190	16.89	17.98	16.84	18.05	16.42	17.47	16.28	16.97	23.66	30.00	PASS
	46/5230	22.14	21.81	22.39	22.03	22.18	21.33	22.25	20.99	27.58	30.00	PASS
802.11ac VHT20	36/5180	20.36	21.04	20.27	20.95	20.11	20.80	20.28	20.96	26.96	30.00	PASS
	40/5200	20.43	21.12	20.37	21.05	20.23	20.92	20.17	20.86	27.01	30.00	PASS
	48/5240	20.07	20.76	20.41	21.10	20.11	20.79	20.20	20.88	26.90	30.00	PASS
802.11ac VHT40	38/5190	17.05	17.94	16.68	18.22	16.30	17.46	16.80	17.20	23.75	30.00	PASS
	46/5230	21.61	21.85	21.96	21.89	21.68	21.32	21.39	20.97	27.55	30.00	PASS
802.11ac VHT80	42/5210	15.65	16.67	15.52	16.70	15.52	16.13	15.42	15.91	22.38	30.00	PASS
802.11ax HE20	36/5180	20.61	21.29	20.36	21.04	20.15	20.83	20.22	20.90	27.04	30.00	PASS
	40/5200	20.36	21.04	20.43	21.11	20.32	21.00	20.19	20.87	27.03	30.00	PASS
	48/5240	20.15	20.84	20.68	21.37	20.37	21.05	20.27	20.95	27.08	30.00	PASS
802.11ax HE40	38/5190	16.14	15.81	15.72	17.48	15.87	15.00	15.63	16.14	22.22	30.00	PASS
	46/5230	22.18	21.84	22.54	21.97	21.98	21.00	22.34	21.08	27.52	30.00	PASS
802.11ax HE80	42/5210	15.72	16.63	15.93	17.19	15.94	15.00	15.70	16.28	22.37	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power = $10\log(10^{(\text{Power antenna1 in dBm}/10)} + 10^{(\text{Power antenna2 in dBm}/10)} + 10^{(\text{Power antenna3 in dBm}/10)} + 10^{(\text{Power antenna4 in dBm}/10)})$.

2. The manufacturer declared that the directional gain = 3.40Bi<6dBi. So the power limit is 30dBm.



U-NII-2A

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	52/5260	13.61	14.15	14.82	15.36	13.68	14.22	13.83	14.37	20.58	23.98	PASS
	60/5300	13.24	13.78	14.25	14.79	13.34	13.88	13.11	13.65	20.07	24.00	PASS
	64/5320	12.89	13.43	13.88	14.42	12.82	13.36	13.09	13.63	19.76	23.94	PASS
802.11n HT20	52/5260	13.03	13.69	13.87	13.99	13.21	13.87	14.03	14.69	20.10	24.00	PASS
	60/5300	13.60	14.26	14.72	15.38	13.75	14.41	13.67	14.33	20.64	24.00	PASS
	64/5320	14.02	14.68	14.85	15.52	13.90	14.56	13.86	14.52	20.86	24.00	PASS
802.11n HT40	54/5270	17.12	17.78	17.74	18.41	16.93	17.59	16.85	17.52	23.86	24.00	PASS
	62/5310	16.76	17.42	17.59	18.26	16.73	17.40	16.63	17.29	23.63	24.00	PASS
802.11ac VHT20	52/5260	13.22	13.91	14.27	14.96	13.33	14.02	13.69	14.37	20.35	24.00	PASS
	60/5300	13.79	14.47	14.69	15.37	13.72	14.41	13.41	14.09	20.63	24.00	PASS
	64/5320	13.96	14.64	14.79	15.47	13.84	14.53	13.69	14.37	20.80	24.00	PASS
802.11ac VHT40	54/5270	17.11	17.79	17.84	18.52	16.96	17.64	16.80	17.48	23.90	24.00	PASS
	62/5310	15.73	16.41	17.09	17.77	15.98	16.66	17.16	17.84	23.24	24.00	PASS
802.11ac VHT80	58/5290	13.99	14.68	14.29	14.98	13.82	16.00	13.55	14.23	21.04	24.00	PASS
802.11ac VHT160	50/5250	12.12	12.51	12.81	13.19	11.59	11.98	11.66	12.05	18.48	24.00	PASS
802.11ax HE20	52/5260	12.14	12.82	13.56	14.25	12.14	12.82	13.17	13.85	19.50	24.00	PASS
	60/5300	14.19	14.88	15.20	15.88	14.52	15.20	13.94	14.62	21.19	24.00	PASS
	64/5320	14.46	15.14	15.35	16.03	14.56	15.25	14.01	14.70	21.33	24.00	PASS
802.11ax HE40	54/5270	17.32	18.04	17.14	17.86	17.04	17.76	17.03	17.75	23.88	24.00	PASS
	62/5310	16.71	17.43	17.49	18.21	16.51	17.23	16.28	17.00	23.51	24.00	PASS
802.11ax HE80	58/5290	14.03	14.79	14.25	15.01	13.99	14.75	13.89	14.65	20.82	24.00	PASS
802.11ax HE160	50/5250	12.09	12.37	13.01	13.29	12.18	12.46	13.15	13.43	18.93	24.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power = $10\log(10^{(\text{Power antenna1 in dBm}/10)} + 10^{(\text{Power antenna2 in dBm}/10)} + 10^{(\text{Power antenna3 in dBm}/10)} + 10^{(\text{Power antenna4 in dBm}/10)})$.



U-NII-2C

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	100/5500	15.01	15.55	14.78	15.32	13.98	14.53	13.83	14.38	20.99	23.99	PASS
	116/5580	14.44	14.99	14.77	15.31	13.63	14.17	13.84	14.38	20.76	24.00	PASS
	140/5700	13.73	14.27	14.12	14.66	14.82	15.36	14.99	15.53	21.01	23.93	PASS
	144/5720	13.32	13.86	13.72	14.26	14.85	15.39	14.82	15.36	20.79	24.00	PASS
802.11n HT20	100/5500	14.38	15.05	14.33	14.99	13.34	14.00	13.42	14.09	20.58	24.00	PASS
	116/5580	14.53	15.19	14.61	15.27	13.61	14.28	13.92	14.58	20.87	24.00	PASS
	140/5700	13.39	14.05	15.21	15.87	13.27	13.93	15.34	16.00	21.09	24.00	PASS
	144/5720	13.86	14.53	14.12	14.79	15.18	15.84	15.15	15.82	21.30	24.00	PASS
802.11n HT40	102/5510	16.61	17.27	16.73	17.40	16.23	16.90	15.93	16.60	23.07	24.00	PASS
	110/5550	16.97	17.63	17.07	17.73	15.80	16.47	16.07	16.73	23.19	24.00	PASS
	134/5670	16.48	17.14	16.45	17.11	16.89	17.55	17.00	17.66	23.39	24.00	PASS
	142/5710	16.14	16.80	16.36	17.02	17.34	18.00	17.52	18.18	23.56	24.00	PASS
802.11ac VHT20	100/5500	14.33	15.02	14.42	15.10	13.31	14.00	13.39	14.07	20.60	24.00	PASS
	116/5580	14.29	14.97	14.77	15.45	13.33	14.01	13.87	14.56	20.80	24.00	PASS
	140/5700	13.12	13.81	15.06	15.75	13.57	14.26	15.00	15.69	20.98	24.00	PASS
	144/5720	13.99	14.68	14.05	14.74	15.01	15.69	15.42	16.11	21.37	24.00	PASS
802.11ac VHT40	102/5510	16.68	17.36	16.84	17.52	16.38	17.07	16.02	16.71	23.19	24.00	PASS
	110/5550	17.17	17.85	17.24	17.92	16.12	16.80	16.07	16.75	23.39	24.00	PASS
	134/5670	16.50	17.18	16.36	17.05	17.00	17.68	16.93	17.61	23.41	24.00	PASS
	142/5710	16.28	16.96	16.40	17.08	17.39	18.07	17.58	18.26	23.65	24.00	PASS
802.11ac VHT80	106/5530	16.58	17.26	16.82	17.51	15.64	16.32	15.66	16.35	22.91	24.00	PASS
	138/5690	16.19	16.87	16.37	17.06	16.93	17.61	17.09	17.78	23.37	24.00	PASS
802.11ac VHT160	114/5570	12.72	13.10	12.74	13.13	11.34	11.72	11.61	11.99	18.55	24.00	PASS
802.11ax HE20	100/5500	15.04	15.73	14.78	15.47	14.18	14.86	13.75	14.43	21.17	24.00	PASS
	116/5580	15.13	15.81	15.24	15.92	14.15	14.84	14.30	14.99	21.44	24.00	PASS
	140/5700	13.83	14.51	14.10	14.78	14.99	15.67	15.15	15.83	21.26	24.00	PASS
	144/5720	13.26	13.94	13.78	14.46	15.01	15.69	14.84	15.52	20.98	24.00	PASS
802.11ax HE40	102/5510	16.92	17.64	16.95	17.67	16.29	17.01	16.11	16.83	23.32	24.00	PASS
	110/5550	17.15	17.87	17.36	18.08	16.34	17.06	16.02	16.74	23.50	24.00	PASS
	134/5670	16.53	17.25	16.74	17.46	17.33	18.05	17.17	17.89	23.69	24.00	PASS



	142/5710	16.24	16.96	16.57	17.29	17.70	18.42	17.73	18.45	23.85	24.00	PASS
802.11ax HE80	106/5530	16.98	17.73	17.36	18.12	16.01	16.77	15.97	16.73	23.40	24.00	PASS
	138/5690	16.54	17.30	16.65	17.41	17.25	18.01	17.45	18.21	23.77	24.00	PASS
802.11ax HE160	114/5570	12.94	13.22	13.04	13.32	11.99	12.27	12.01	12.29	18.82	24.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power = $10\log(10^{(\text{Power antenna1 in dBm}/10)} + 10^{(\text{Power antenna2 in dBm}/10)} + 10^{(\text{Power antenna3 in dBm}/10)} + 10^{(\text{Power antenna4 in dBm}/10)})$.

U-NII-3

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	149/5745	22.45	22.99	22.13	22.67	23.71	24.26	23.54	24.08	29.57	30.00	PASS
	157/5785	22.64	23.18	22.48	23.03	24.18	24.73	23.70	24.25	29.88	30.00	PASS
	165/5825	22.09	22.63	22.75	23.29	24.11	24.65	23.68	24.22	29.79	30.00	PASS
802.11n HT20	149/5745	21.99	22.65	21.58	22.24	23.28	23.94	22.80	23.46	29.15	30.00	PASS
	157/5785	22.10	22.76	21.70	22.36	23.81	24.47	23.11	23.77	29.44	30.00	PASS
	165/5825	21.38	22.04	22.10	22.76	23.58	24.24	22.85	23.51	29.24	30.00	PASS
802.11n HT40	151/5755	22.23	22.89	22.44	23.11	23.67	24.33	23.22	23.89	29.61	30.00	PASS
	159/5795	21.96	22.62	22.08	22.74	23.94	24.60	23.08	23.74	29.52	30.00	PASS
802.11ac VHT20	149/5745	22.57	23.26	21.93	22.62	23.18	23.87	22.75	23.44	29.34	30.00	PASS
	157/5785	22.20	22.89	21.77	22.46	23.74	24.43	23.13	23.81	29.48	30.00	PASS
	165/5825	21.52	22.21	22.12	22.81	23.64	24.33	23.00	23.69	29.35	30.00	PASS
802.11ac VHT40	151/5755	22.23	22.91	21.86	22.54	23.72	24.40	23.46	24.14	29.59	30.00	PASS
	159/5795	22.11	22.79	22.19	22.87	24.41	25.09	23.23	23.92	29.79	30.00	PASS
802.11ac VHT80	155/5775	21.67	22.36	22.09	22.78	20.97	21.66	21.03	21.72	28.17	30.00	PASS
802.11ax HE20	149/5745	22.64	23.32	22.02	22.70	23.85	24.53	23.26	23.94	29.70	30.00	PASS
	157/5785	22.55	23.23	22.43	23.11	24.31	24.99	23.44	24.12	29.95	30.00	PASS
	165/5825	22.01	22.69	22.75	23.43	24.21	24.89	23.51	24.19	29.90	30.00	PASS
802.11ax HE40	151/5755	22.24	22.96	22.38	23.10	23.83	24.55	23.34	24.06	29.74	30.00	PASS
	159/5795	22.18	22.90	22.57	23.29	24.34	25.06	23.50	24.22	29.97	30.00	PASS
802.11ax HE80	155/5775	20.73	21.49	21.63	22.39	20.71	21.47	21.86	22.62	28.04	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power = $10\log(10^{(\text{Power antenna1 in dBm}/10)} + 10^{(\text{Power antenna2 in dBm}/10)} + 10^{(\text{Power antenna3 in dBm}/10)} + 10^{(\text{Power antenna4 in dBm}/10)})$.

2. The manufacturer declared that the directional gain = 3.40dBi<6dBi. So the power limit is 30dBm.

MIMO with Beamforming
U-NII-1

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	36/5180	20.53	21.07	19.97	20.52	20.01	20.55	20.16	20.71	26.74	30.00	PASS
	40/5200	20.25	20.79	19.96	20.50	19.83	20.37	20.25	20.79	26.64	30.00	PASS
	48/5240	20.06	20.60	20.36	20.91	19.91	20.46	20.30	20.84	26.73	30.00	PASS
802.11n HT20	36/5180	19.65	20.31	19.54	20.20	19.49	20.15	19.47	20.13	26.22	30.00	PASS
	40/5200	20.06	20.72	20.01	20.67	19.87	20.53	20.02	20.68	26.67	30.00	PASS
	48/5240	20.81	21.47	20.74	21.40	20.55	21.21	20.61	21.27	27.36	30.00	PASS
802.11n HT40	38/5190	17.16	17.98	17.42	18.05	16.75	17.47	16.72	16.97	23.66	30.00	PASS
	46/5230	21.47	21.81	21.58	22.03	21.26	21.33	21.56	20.99	27.58	30.00	PASS
802.11ac VHT20	36/5180	19.49	20.18	19.38	20.07	19.42	20.11	19.61	20.30	26.18	30.00	PASS
	40/5200	20.15	20.84	20.18	20.87	20.21	20.90	20.27	20.96	26.91	30.00	PASS
	48/5240	20.67	21.36	20.60	21.29	20.53	21.22	20.55	21.24	27.29	30.00	PASS
802.11ac VHT40	38/5190	17.09	17.94	17.36	18.22	16.54	17.46	16.51	17.20	23.75	30.00	PASS
	46/5230	21.29	21.85	21.54	21.89	21.29	21.32	21.55	20.97	27.55	30.00	PASS
802.11ac VHT80	42/5210	15.95	16.67	16.38	16.70	15.49	16.13	15.25	15.91	22.38	30.00	PASS
802.11ax HE20	36/5180	20.51	21.19	20.02	20.70	19.98	20.66	20.19	20.88	26.88	30.00	PASS
	40/5200	20.04	20.72	20.14	20.82	19.95	20.63	20.15	20.83	26.77	30.00	PASS
	48/5240	19.95	20.63	20.28	20.96	19.87	20.56	20.08	20.76	26.75	30.00	PASS
802.11ax HE40	38/5190	16.34	15.81	16.77	17.48	15.81	15.00	15.27	16.14	22.22	30.00	PASS
	46/5230	22.16	21.84	22.38	21.97	21.99	21.00	22.05	21.08	27.52	30.00	PASS
802.11ax HE80	42/5210	16.12	16.63	16.37	17.19	16.02	15.00	15.73	16.28	22.37	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power = $10\log(10^{(\text{Power antenna1 in dBm}/10)} + 10^{(\text{Power antenna2 in dBm}/10)} + 10^{(\text{Power antenna3 in dBm}/10)} + 10^{(\text{Power antenna4 in dBm}/10)})$.

2. The manufacturer declared that the directional gain = 4.70dBi<6dBi. So the power limit is 30dBm.

U-NII-2A

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	52/5260	14.52	15.06	14.57	15.11	12.64	13.18	12.59	13.13	20.25	24.00	PASS
	60/5300	14.63	15.17	14.61	15.15	12.59	13.13	12.51	13.05	20.27	24.00	PASS
	64/5320	12.92	12.00	13.06	13.60	12.96	13.50	13.11	13.65	19.26	24.00	PASS
802.11n HT20	52/5260	13.01	13.00	13.77	14.43	13.27	13.93	14.13	14.79	20.11	24.00	PASS
	60/5300	13.60	14.26	14.37	15.03	13.61	14.27	13.26	13.92	20.41	24.00	PASS
	64/5320	13.73	14.39	14.51	15.18	13.59	14.25	13.34	14.00	20.50	24.00	PASS
802.11n HT40	54/5270	17.76	18.42	17.72	18.38	15.81	16.47	15.70	16.36	23.54	24.00	PASS
	62/5310	15.92	16.58	17.26	17.92	16.07	16.73	15.75	16.41	22.97	24.00	PASS
802.11ac VHT20	52/5260	13.26	13.95	14.59	15.27	13.32	14.01	13.35	14.04	20.37	24.00	PASS
	60/5300	14.65	15.34	14.72	15.41	12.75	13.44	12.69	13.38	20.52	24.00	PASS
	64/5320	14.81	15.50	14.84	15.53	12.93	13.62	12.92	13.61	20.68	24.00	PASS
802.11ac VHT40	54/5270	17.77	18.45	17.85	18.53	15.82	16.50	15.74	16.42	23.62	24.00	PASS
	62/5310	15.81	16.49	17.26	17.94	16.52	17.20	16.10	16.79	23.16	24.00	PASS
802.11ac VHT80	58/5290	13.86	14.55	14.11	14.80	13.81	16.00	13.97	14.66	21.06	24.00	PASS
802.11ac VHT160	50/5250	12.12	12.51	12.42	12.81	11.97	12.36	11.47	11.86	18.41	24.00	PASS
802.11ax HE20	52/5260	12.15	12.83	13.46	14.14	12.16	12.84	12.96	13.64	19.42	24.00	PASS
	60/5300	14.61	15.29	14.63	15.31	12.84	13.52	12.61	13.29	20.48	24.00	PASS
	64/5320	14.77	15.45	14.75	15.43	12.85	13.53	12.84	13.52	20.61	24.00	PASS
802.11ax HE40	54/5270	17.73	18.45	17.76	18.48	15.89	16.61	15.68	16.40	23.62	24.00	PASS
	62/5310	16.22	16.94	16.90	17.62	16.23	16.95	15.82	16.54	23.05	24.00	PASS
802.11ax HE80	58/5290	14.08	14.84	14.05	14.81	13.89	14.65	14.11	14.87	20.81	24.00	PASS
802.11ax HE160	50/5250	12.34	12.62	12.46	12.74	12.27	12.55	12.68	12.96	18.74	24.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power = $10\log(10^{(\text{Power antenna1 in dBm}/10)} + 10^{(\text{Power antenna2 in dBm}/10)} + 10^{(\text{Power antenna3 in dBm}/10)} + 10^{(\text{Power antenna4 in dBm}/10)})$.



U-NII-2C

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	100/5500	14.13	14.67	14.46	15.00	13.27	13.81	13.72	14.26	20.48	24.00	PASS
	116/5580	14.11	14.65	14.63	15.17	13.33	13.87	13.61	14.15	20.51	24.00	PASS
	140/5700	14.57	15.11	14.39	14.93	16.02	16.56	15.45	15.99	21.72	24.00	PASS
	144/5720	13.20	13.74	13.64	14.18	14.72	15.26	14.68	15.23	20.67	24.00	PASS
802.11n HT20	100/5500	14.03	14.69	14.13	14.79	13.22	13.88	13.52	14.18	20.42	24.00	PASS
	116/5580	14.05	14.71	14.48	15.14	13.39	14.05	13.72	14.38	20.61	24.00	PASS
	140/5700	13.15	13.81	15.01	15.67	13.81	14.47	14.43	15.09	20.84	24.00	PASS
	144/5720	14.09	14.75	13.39	14.05	14.75	15.41	13.49	14.15	20.65	24.00	PASS
802.11n HT40	102/5510	15.51	16.17	14.28	14.94	13.68	14.34	13.66	14.32	21.03	24.00	PASS
	110/5550	15.71	16.37	14.10	14.76	14.76	15.42	14.21	14.87	21.43	24.00	PASS
	134/5670	15.47	16.13	13.33	13.99	14.38	15.04	14.04	14.70	21.06	24.00	PASS
	142/5710	16.32	16.98	14.59	15.25	14.54	15.20	13.85	14.51	21.61	24.00	PASS
802.11ac VHT20	100/5500	14.08	14.77	14.13	14.82	14.05	14.74	13.08	13.77	20.56	24.00	PASS
	116/5580	14.11	14.80	14.51	15.19	13.39	14.07	13.66	14.34	20.64	24.00	PASS
	140/5700	13.20	13.88	14.04	14.72	14.73	15.41	14.66	15.34	20.90	24.00	PASS
	144/5720	14.09	14.78	13.77	14.46	14.45	15.14	13.82	14.51	20.75	24.00	PASS
802.11ac VHT40	102/5510	15.46	16.14	14.26	14.94	13.58	14.26	13.59	14.27	21.00	24.00	PASS
	110/5550	15.87	16.55	14.18	14.86	14.38	15.06	14.61	15.29	21.52	24.00	PASS
	134/5670	15.45	16.13	13.98	14.66	14.41	15.09	14.14	14.82	21.24	24.00	PASS
	142/5710	16.19	16.87	13.97	14.65	14.71	15.39	13.84	14.52	21.49	24.00	PASS
802.11ac VHT80	106/5530	16.15	16.83	16.41	17.10	15.37	16.05	14.95	15.64	22.46	24.00	PASS
	138/5690	15.69	16.38	15.92	16.61	16.47	17.16	16.42	17.11	22.85	24.00	PASS
802.11ac VHT160	114/5570	12.52	12.91	12.71	13.10	11.12	11.51	11.24	11.63	18.36	24.00	PASS
802.11ax HE20	100/5500	14.04	14.72	14.07	14.75	14.01	14.69	13.14	13.82	20.53	24.00	PASS
	116/5580	14.69	15.37	15.04	15.72	13.99	14.67	13.94	14.62	21.14	24.00	PASS
	140/5700	14.13	14.81	13.92	14.60	14.44	15.12	13.82	14.50	20.79	24.00	PASS
	144/5720	13.13	13.81	13.53	14.21	14.85	15.53	14.40	15.08	20.73	24.00	PASS
802.11ax HE40	102/5510	15.37	16.09	14.20	14.92	13.54	14.26	13.65	14.37	20.99	24.00	PASS
	110/5550	15.78	16.50	14.12	14.84	14.34	15.06	14.67	15.39	21.52	24.00	PASS
	134/5670	15.36	16.08	13.92	14.64	14.37	15.09	14.28	15.00	21.26	24.00	PASS



	142/5710	16.14	16.86	13.91	14.63	14.67	15.39	13.90	14.62	21.50	24.00	PASS
802.11ax HE80	106/5530	16.33	17.09	16.82	17.58	15.63	16.39	15.44	16.20	22.87	24.00	PASS
	138/5690	16.02	16.78	16.20	16.96	16.81	17.56	16.31	17.07	23.12	24.00	PASS
802.11ax HE160	114/5570	13.73	14.01	13.98	14.26	12.54	12.82	12.69	12.97	19.58	24.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power = $10 \log(10^{(\text{Power antenna1 in dBm}/10)} + 10^{(\text{Power antenna2 in dBm}/10)} + 10^{(\text{Power antenna3 in dBm}/10)} + 10^{(\text{Power antenna4 in dBm}/10)})$.

U-NII-3

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	149/5745	22.54	23.09	22.17	22.72	23.72	24.26	23.38	23.92	29.56	30.00	PASS
	157/5785	22.58	23.13	22.42	22.96	24.29	24.83	23.70	24.24	29.88	30.00	PASS
	165/5825	22.04	22.58	22.53	23.08	24.07	24.61	23.58	24.13	29.69	30.00	PASS
802.11n HT20	149/5745	21.76	22.42	21.29	21.95	22.94	23.60	22.95	23.61	28.98	30.00	PASS
	157/5785	21.67	22.33	21.66	22.33	23.69	24.36	23.19	23.85	29.33	30.00	PASS
	165/5825	21.55	22.22	22.20	22.86	23.55	24.21	22.95	23.61	29.31	30.00	PASS
802.11n HT40	151/5755	22.14	22.81	22.30	22.96	23.70	24.37	22.97	23.63	29.51	30.00	PASS
	159/5795	22.08	22.74	22.19	22.85	23.92	24.58	23.17	23.84	29.59	30.00	PASS
802.11ac VHT20	149/5745	21.94	22.62	21.57	22.26	22.99	23.67	22.79	23.48	29.07	30.00	PASS
	157/5785	22.20	22.89	21.77	22.46	23.73	24.42	23.13	23.81	29.48	30.00	PASS
	165/5825	21.29	21.98	22.14	22.82	23.44	24.12	22.77	23.46	29.19	30.00	PASS
802.11ac VHT40	151/5755	21.94	22.62	22.12	22.80	23.89	24.57	23.38	24.06	29.61	30.00	PASS
	159/5795	21.99	22.68	22.16	22.85	24.14	24.82	23.20	23.89	29.66	30.00	PASS
802.11ac VHT80	155/5775	20.78	21.47	21.12	21.81	22.74	23.43	22.71	23.40	28.64	30.00	PASS
802.11ax HE20	149/5745	22.30	22.99	22.14	22.83	23.69	24.37	23.34	24.02	29.62	30.00	PASS
	157/5785	22.43	23.11	22.16	22.84	24.02	24.70	23.37	24.05	29.76	30.00	PASS
	165/5825	21.85	22.53	22.46	23.14	23.84	24.52	23.29	23.97	29.63	30.00	PASS
802.11ax HE40	151/5755	22.52	23.24	22.59	23.31	24.08	24.80	23.34	24.06	29.92	30.00	PASS
	159/5795	21.87	22.59	22.23	22.95	24.24	24.96	23.42	24.14	29.78	30.00	PASS
802.11ax HE80	155/5775	20.18	20.94	20.34	21.10	21.62	22.38	21.59	22.35	27.76	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),
The Total Power = $10^{\text{(Power antenna1 in dBm/10)}} + 10^{\text{(Power antenna2 in dBm/10)}} + 10^{\text{(Power antenna3 in dBm/10)}} + 10^{\text{(Power antenna4 in dBm/10)}}$.
2. The manufacturer declared that the directional gain = 4.70dBi < 6dBi. So the power limit is 30dBm.

Internal Antenna 2: DZZ

Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor

MIMO without Beamforming
U-NII-1

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	36/5180	20.61	21.15	20.34	20.88	20.19	20.74	20.36	20.91	26.94	30.00	PASS
	40/5200	20.49	21.03	20.48	21.02	20.12	20.67	20.42	20.97	26.94	30.00	PASS
	48/5240	20.18	20.72	20.67	21.22	20.07	20.61	20.57	21.11	26.94	30.00	PASS
802.11n HT20	36/5180	20.52	21.18	20.48	21.14	20.08	20.74	20.40	21.06	27.05	30.00	PASS
	40/5200	20.31	20.97	20.32	20.98	19.94	20.61	20.18	20.84	26.88	30.00	PASS
	48/5240	20.00	20.66	20.72	21.38	20.10	20.76	20.46	21.12	27.01	30.00	PASS
802.11n HT40	38/5190	16.89	17.98	16.84	18.05	16.42	17.47	16.28	16.97	23.66	30.00	PASS
	46/5230	22.14	21.81	22.39	22.03	22.18	21.33	22.25	20.99	27.58	30.00	PASS
802.11ac VHT20	36/5180	20.36	21.04	20.27	20.95	20.11	20.80	20.28	20.96	26.96	30.00	PASS
	40/5200	20.43	21.12	20.37	21.05	20.23	20.92	20.17	20.86	27.01	30.00	PASS
	48/5240	20.07	20.76	20.41	21.10	20.11	20.79	20.20	20.88	26.90	30.00	PASS
802.11ac VHT40	38/5190	17.05	17.94	16.68	18.22	16.30	17.46	16.80	17.20	23.75	30.00	PASS
	46/5230	21.61	21.85	21.96	21.89	21.68	21.32	21.39	20.97	27.55	30.00	PASS
802.11ac VHT80	42/5210	15.65	16.67	15.52	16.70	15.52	16.13	15.42	15.91	22.38	30.00	PASS
802.11ax HE20	36/5180	20.61	21.29	20.36	21.04	20.15	20.83	20.22	20.90	27.04	30.00	PASS
	40/5200	20.36	21.04	20.43	21.11	20.32	21.00	20.19	20.87	27.03	30.00	PASS
	48/5240	20.15	20.84	20.68	21.37	20.37	21.05	20.27	20.95	27.08	30.00	PASS
802.11ax HE40	38/5190	16.14	15.81	15.72	17.48	15.87	15.00	15.63	16.14	22.22	30.00	PASS
	46/5230	22.18	21.84	22.54	21.97	21.98	21.00	22.34	21.08	27.52	30.00	PASS
802.11ax HE80	42/5210	15.72	16.63	15.93	17.19	15.94	15.00	15.70	16.28	22.37	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power = $10\log(10^{(\text{Power antenna1 in dBm}/10)} + 10^{(\text{Power antenna2 in dBm}/10)} + 10^{(\text{Power antenna3 in dBm}/10)} + 10^{(\text{Power antenna4 in dBm}/10)})$.

2. The manufacturer declared that the directional gain = 3.40dBi<6dBi. So the power limit is 30dBm.



U-NII-2A

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	52/5260	13.61	14.15	14.82	15.36	13.68	14.22	13.83	14.37	20.58	23.98	PASS
	60/5300	14.24	14.79	15.25	15.80	14.24	14.79	14.09	14.63	21.05	24.00	PASS
	64/5320	14.67	15.21	15.42	15.96	14.34	14.88	14.22	14.76	21.25	23.94	PASS
802.11n HT20	52/5260	13.65	14.31	14.66	15.32	13.75	14.41	13.89	14.55	20.69	24.00	PASS
	60/5300	13.60	14.26	14.72	15.38	13.75	14.41	13.67	14.33	20.64	24.00	PASS
	64/5320	14.02	14.68	14.85	15.52	13.90	14.56	13.86	14.52	20.86	24.00	PASS
802.11n HT40	54/5270	17.12	17.78	17.74	18.41	16.93	17.59	16.85	17.52	23.86	24.00	PASS
	62/5310	16.76	17.42	17.59	18.26	16.73	17.40	16.63	17.29	23.63	24.00	PASS
802.11ac VHT20	52/5260	13.72	14.40	14.82	15.51	13.78	14.46	13.69	14.37	20.73	24.00	PASS
	60/5300	13.79	14.47	14.69	15.37	13.72	14.41	13.41	14.09	20.63	24.00	PASS
	64/5320	13.96	14.64	14.79	15.47	13.84	14.53	13.69	14.37	20.80	24.00	PASS
802.11ac VHT40	54/5270	17.11	17.79	17.84	18.52	16.96	17.64	16.80	17.48	23.90	24.00	PASS
	62/5310	16.26	16.95	17.09	17.77	16.32	17.00	16.10	16.78	23.16	24.00	PASS
802.11ac VHT80	58/5290	16.56	17.25	17.36	18.05	16.57	17.26	16.50	17.19	23.47	24.00	PASS
802.11ac VHT160	50/5250	12.12	12.51	12.81	13.19	11.59	11.98	11.66	12.05	18.48	24.00	PASS
802.11ax HE20	52/5260	13.53	14.21	14.89	15.57	13.79	14.47	13.71	14.40	20.72	24.00	PASS
	60/5300	14.19	14.88	15.20	15.88	14.52	15.20	13.94	14.62	21.19	24.00	PASS
	64/5320	14.46	15.14	15.35	16.03	14.56	15.25	14.01	14.70	21.33	24.00	PASS
802.11ax HE40	54/5270	17.32	18.04	17.14	17.86	17.04	17.76	17.03	17.75	23.88	24.00	PASS
	62/5310	16.71	17.43	17.49	18.21	16.51	17.23	16.28	17.00	23.51	24.00	PASS
802.11ax HE80	58/5290	16.25	17.01	16.89	17.65	16.07	16.83	16.28	17.04	23.16	24.00	PASS
802.11ax HE160	50/5250	12.11	12.39	12.78	13.06	11.07	11.35	11.87	12.15	18.30	24.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),
The Total Power = $10\log(10^{(\text{Power antenna1 in dBm}/10)} + 10^{(\text{Power antenna2 in dBm}/10)} + 10^{(\text{Power antenna3 in dBm}/10)} + 10^{(\text{Power antenna4 in dBm}/10)})$.

U-NII-2C

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	100/5500	15.01	15.55	14.78	15.32	13.98	14.53	13.83	14.38	20.99	23.99	PASS
	116/5580	14.44	14.99	14.77	15.31	13.63	14.17	13.84	14.38	20.76	24.00	PASS
	140/5700	13.73	14.27	14.12	14.66	14.82	15.36	14.99	15.53	21.01	23.93	PASS
	144/5720	13.32	13.86	13.72	14.26	14.85	15.39	14.82	15.36	20.79	24.00	PASS
802.11n HT20	100/5500	14.38	15.05	14.33	14.99	13.34	14.00	13.42	14.09	20.58	24.00	PASS
	116/5580	14.53	15.19	14.61	15.27	13.61	14.28	13.92	14.58	20.87	24.00	PASS
	140/5700	13.81	14.47	14.09	14.75	14.86	15.53	15.03	15.69	21.16	24.00	PASS
	144/5720	13.86	14.53	14.12	14.79	15.18	15.84	15.15	15.82	21.30	24.00	PASS
802.11n HT40	102/5510	16.61	17.27	16.73	17.40	16.23	16.90	15.93	16.60	23.07	24.00	PASS
	110/5550	16.97	17.63	17.07	17.73	15.80	16.47	16.07	16.73	23.19	24.00	PASS
	134/5670	16.48	17.14	16.45	17.11	16.89	17.55	17.00	17.66	23.39	24.00	PASS
	142/5710	16.14	16.80	16.36	17.02	17.34	18.00	17.52	18.18	23.56	24.00	PASS
802.11ac VHT20	100/5500	14.33	15.02	14.42	15.10	13.31	14.00	13.39	14.07	20.60	24.00	PASS
	116/5580	14.29	14.97	14.77	15.45	13.33	14.01	13.87	14.56	20.80	24.00	PASS
	140/5700	13.62	14.30	14.06	14.75	14.57	15.25	15.00	15.69	21.05	24.00	PASS
	144/5720	13.99	14.68	14.05	14.74	15.01	15.69	15.42	16.11	21.37	24.00	PASS
802.11ac VHT40	102/5510	16.68	17.36	16.84	17.52	16.38	17.07	16.02	16.71	23.19	24.00	PASS
	110/5550	17.17	17.85	17.24	17.92	16.12	16.80	16.07	16.75	23.39	24.00	PASS
	134/5670	16.50	17.18	16.36	17.05	17.00	17.68	16.93	17.61	23.41	24.00	PASS
	142/5710	16.28	16.96	16.40	17.08	17.39	18.07	17.58	18.26	23.65	24.00	PASS
802.11ac VHT80	106/5530	16.58	17.26	16.82	17.51	15.64	16.32	15.66	16.35	22.91	24.00	PASS
	138/5690	16.19	16.87	16.37	17.06	16.93	17.61	17.09	17.78	23.37	24.00	PASS
802.11ac VHT160	114/5570	12.72	13.10	12.74	13.13	11.34	11.72	11.61	11.99	18.55	24.00	PASS
802.11ax HE20	100/5500	15.04	15.73	14.78	15.47	14.18	14.86	13.75	14.43	21.17	24.00	PASS
	116/5580	15.13	15.81	15.24	15.92	14.15	14.84	14.30	14.99	21.44	24.00	PASS
	140/5700	13.83	14.51	14.10	14.78	14.99	15.67	15.15	15.83	21.26	24.00	PASS
	144/5720	13.26	13.94	13.78	14.46	15.01	15.69	14.84	15.52	20.98	24.00	PASS
802.11ax HE40	102/5510	16.92	17.64	16.95	17.67	16.29	17.01	16.11	16.83	23.32	24.00	PASS
	110/5550	17.15	17.87	17.36	18.08	16.34	17.06	16.02	16.74	23.50	24.00	PASS
	134/5670	16.53	17.25	16.74	17.46	17.33	18.05	17.17	17.89	23.69	24.00	PASS



	142/5710	16.24	16.96	16.57	17.29	17.70	18.42	17.73	18.45	23.85	24.00	PASS
802.11ax HE80	106/5530	16.98	17.73	17.36	18.12	16.01	16.77	15.97	16.73	23.40	24.00	PASS
	138/5690	16.54	17.30	16.65	17.41	17.25	18.01	17.45	18.21	23.77	24.00	PASS
802.11ax HE160	114/5570	12.94	13.22	13.04	13.32	11.99	12.27	12.01	12.29	18.82	24.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power = $10\log(10^{(\text{Power antenna1 in dBm}/10)} + 10^{(\text{Power antenna2 in dBm}/10)} + 10^{(\text{Power antenna3 in dBm}/10)} + 10^{(\text{Power antenna4 in dBm}/10)})$.

U-NII-3

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	149/5745	22.45	22.99	22.13	22.67	23.71	24.26	23.54	24.08	29.57	30.00	PASS
	157/5785	22.64	23.18	22.48	23.03	24.18	24.73	23.70	24.25	29.88	30.00	PASS
	165/5825	22.09	22.63	22.75	23.29	24.11	24.65	23.68	24.22	29.79	30.00	PASS
802.11n HT20	149/5745	21.99	22.65	21.58	22.24	23.28	23.94	22.80	23.46	29.15	30.00	PASS
	157/5785	22.10	22.76	21.70	22.36	23.81	24.47	23.11	23.77	29.44	30.00	PASS
	165/5825	21.38	22.04	22.10	22.76	23.58	24.24	22.85	23.51	29.24	30.00	PASS
802.11n HT40	151/5755	22.23	22.89	22.44	23.11	23.67	24.33	23.22	23.89	29.61	30.00	PASS
	159/5795	21.96	22.62	22.08	22.74	23.94	24.60	23.08	23.74	29.52	30.00	PASS
802.11ac VHT20	149/5745	22.57	23.26	21.93	22.62	23.18	23.87	22.75	23.44	29.34	30.00	PASS
	157/5785	22.20	22.89	21.77	22.46	23.74	24.43	23.13	23.81	29.48	30.00	PASS
	165/5825	21.52	22.21	22.12	22.81	23.64	24.33	23.00	23.69	29.35	30.00	PASS
802.11ac VHT40	151/5755	22.23	22.91	21.86	22.54	23.72	24.40	23.46	24.14	29.59	30.00	PASS
	159/5795	22.11	22.79	22.19	22.87	24.41	25.09	23.23	23.92	29.79	30.00	PASS
802.11ac VHT80	155/5775	21.41	22.10	21.54	22.23	21.45	22.14	21.78	22.47	28.25	30.00	PASS
802.11ax HE20	149/5745	22.64	23.32	22.02	22.70	23.85	24.53	23.26	23.94	29.70	30.00	PASS
	157/5785	22.55	23.23	22.43	23.11	24.31	24.99	23.44	24.12	29.95	30.00	PASS
	165/5825	22.01	22.69	22.75	23.43	24.21	24.89	23.51	24.19	29.90	30.00	PASS
802.11ax HE40	151/5755	22.24	22.96	22.38	23.10	23.83	24.55	23.34	24.06	29.74	30.00	PASS
	159/5795	22.18	22.90	22.57	23.29	24.34	25.06	23.50	24.22	29.97	30.00	PASS
802.11ax HE80	155/5775	20.73	21.49	21.63	22.39	20.71	21.47	21.86	22.62	28.04	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),
The Total Power = $10\log(10^{(\text{Power antenna1 in dBm}/10)} + 10^{(\text{Power antenna2 in dBm}/10)} + 10^{(\text{Power antenna3 in dBm}/10)} + 10^{(\text{Power antenna4 in dBm}/10)})$.

2. The manufacturer declared that the directional gain = 3.40dBi<6dBi. So the power limit is 30dBm.

MIMO with Beamforming
U-NII-1

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	36/5180	20.53	21.07	19.97	20.52	20.01	20.55	20.16	20.71	26.74	30.00	PASS
	40/5200	20.25	20.79	19.96	20.50	19.83	20.37	20.25	20.79	26.64	30.00	PASS
	48/5240	20.06	20.60	20.36	20.91	19.91	20.46	20.30	20.84	26.73	30.00	PASS
802.11n HT20	36/5180	19.65	20.31	19.54	20.20	19.49	20.15	19.47	20.13	26.22	30.00	PASS
	40/5200	20.06	20.72	20.01	20.67	19.87	20.53	20.02	20.68	26.67	30.00	PASS
	48/5240	20.81	21.47	20.74	21.40	20.55	21.21	20.61	21.27	27.36	30.00	PASS
802.11n HT40	38/5190	17.16	17.98	17.42	18.05	16.75	17.47	16.72	16.97	23.66	30.00	PASS
	46/5230	21.47	21.81	21.58	22.03	21.26	21.33	21.56	20.99	27.58	30.00	PASS
802.11ac VHT20	36/5180	19.49	20.18	19.38	20.07	19.42	20.11	19.61	20.30	26.18	30.00	PASS
	40/5200	20.15	20.84	20.18	20.87	20.21	20.90	20.27	20.96	26.91	30.00	PASS
	48/5240	20.67	21.36	20.60	21.29	20.53	21.22	20.55	21.24	27.29	30.00	PASS
802.11ac VHT40	38/5190	17.09	17.94	17.36	18.22	16.54	17.46	16.51	17.20	23.75	30.00	PASS
	46/5230	21.29	21.85	21.54	21.89	21.29	21.32	21.55	20.97	27.55	30.00	PASS
802.11ac VHT80	42/5210	15.95	16.67	16.38	16.70	15.49	16.13	15.25	15.91	22.38	30.00	PASS
802.11ax HE20	36/5180	20.51	21.19	20.02	20.70	19.98	20.66	20.19	20.88	26.88	30.00	PASS
	40/5200	20.04	20.72	20.14	20.82	19.95	20.63	20.15	20.83	26.77	30.00	PASS
	48/5240	19.95	20.63	20.28	20.96	19.87	20.56	20.08	20.76	26.75	30.00	PASS
802.11ax HE40	38/5190	16.34	15.81	16.77	17.48	15.81	15.00	15.27	16.14	22.22	30.00	PASS
	46/5230	22.16	21.84	22.38	21.97	21.99	21.00	22.05	21.08	27.52	30.00	PASS
802.11ax HE80	42/5210	16.12	16.63	16.37	17.19	16.02	15.00	15.73	16.28	22.37	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),
The Total Power = $10\log(10^{(\text{Power antenna1 in dBm}/10)} + 10^{(\text{Power antenna2 in dBm}/10)} + 10^{(\text{Power antenna3 in dBm}/10)} + 10^{(\text{Power antenna4 in dBm}/10)})$.
2. The manufacturer declared that the directional gain = 4.70dBi<6dBi. So the power limit is 30dBm.

U-NII-2A

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	52/5260	14.52	15.06	14.57	15.11	12.64	13.18	12.59	13.13	20.25	23.98	PASS
	60/5300	14.63	15.17	14.61	15.15	12.59	13.13	12.51	13.05	20.27	24.00	PASS
	64/5320	13.81	14.36	14.39	14.94	13.52	14.06	13.36	13.90	20.35	23.94	PASS
802.11n HT20	52/5260	13.71	14.37	14.48	15.14	13.19	13.85	13.59	14.25	20.45	24.00	PASS
	60/5300	13.60	14.26	14.37	15.03	13.61	14.27	13.26	13.92	20.41	24.00	PASS
	64/5320	13.73	14.39	14.51	15.18	13.59	14.25	13.34	14.00	20.50	24.00	PASS
802.11n HT40	54/5270	17.76	18.42	17.72	18.38	15.81	16.47	15.70	16.36	23.54	24.00	PASS
	62/5310	15.92	16.58	17.26	17.92	16.07	16.73	15.75	16.41	22.97	24.00	PASS
802.11ac VHT20	52/5260	13.61	14.29	14.59	15.27	13.32	14.01	13.35	14.04	20.45	24.00	PASS
	60/5300	14.65	15.34	14.72	15.41	12.75	13.44	12.69	13.38	20.52	24.00	PASS
	64/5320	14.81	15.50	14.84	15.53	12.93	13.62	12.92	13.61	20.68	24.00	PASS
802.11ac VHT40	54/5270	17.77	18.45	17.85	18.53	15.82	16.50	15.74	16.42	23.62	24.00	PASS
	62/5310	16.69	17.37	17.26	17.94	16.52	17.20	16.10	16.79	23.36	24.00	PASS
802.11ac VHT80	58/5290	16.52	17.21	17.11	17.80	16.23	16.92	15.91	16.60	23.17	24.00	PASS
802.11ac VHT160	50/5250	12.12	12.51	12.42	12.81	11.97	12.36	11.47	11.86	18.41	24.00	PASS
802.11ax HE20	52/5260	13.97	14.65	14.97	15.65	13.87	14.55	13.80	14.49	20.88	24.00	PASS
	60/5300	14.61	15.29	14.63	15.31	12.84	13.52	12.61	13.29	20.48	24.00	PASS
	64/5320	14.77	15.45	14.75	15.43	12.85	13.53	12.84	13.52	20.61	24.00	PASS
802.11ax HE40	54/5270	17.73	18.45	17.76	18.48	15.89	16.61	15.68	16.40	23.62	24.00	PASS
	62/5310	16.22	16.94	16.90	17.62	16.23	16.95	15.82	16.54	23.05	24.00	PASS
802.11ax HE80	58/5290	16.18	16.94	16.37	17.13	16.76	17.52	15.87	16.63	23.09	24.00	PASS
802.11ax HE160	50/5250	12.09	12.37	12.12	12.40	11.87	12.15	11.68	11.96	18.24	24.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power = $10\log(10^{(\text{Power antenna1 in dBm}/10)} + 10^{(\text{Power antenna2 in dBm}/10)} + 10^{(\text{Power antenna3 in dBm}/10)} + 10^{(\text{Power antenna4 in dBm}/10)})$.

U-NII-2C

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	100/5500	14.13	14.67	14.46	15.00	13.27	13.81	13.72	14.26	20.48	23.99	PASS
	116/5580	14.11	14.65	14.63	15.17	13.33	13.87	13.61	14.15	20.51	24.00	PASS
	140/5700	14.57	15.11	14.39	14.93	16.02	16.56	15.45	15.99	21.72	23.93	PASS
	144/5720	13.20	13.74	13.64	14.18	14.72	15.26	14.68	15.23	20.67	24.00	PASS
802.11n HT20	100/5500	14.03	14.69	14.13	14.79	13.22	13.88	13.52	14.18	20.42	24.00	PASS
	116/5580	14.05	14.71	14.48	15.14	13.39	14.05	13.72	14.38	20.61	24.00	PASS
	140/5700	13.72	14.38	14.10	14.76	14.77	15.43	14.93	15.59	21.09	24.00	PASS
	144/5720	14.09	14.75	13.39	14.05	14.75	15.41	13.49	14.15	20.65	24.00	PASS
802.11n HT40	102/5510	15.51	16.17	14.28	14.94	13.68	14.34	13.66	14.32	21.03	24.00	PASS
	110/5550	15.71	16.37	14.10	14.76	14.76	15.42	14.21	14.87	21.43	24.00	PASS
	134/5670	15.47	16.13	13.33	13.99	14.38	15.04	14.04	14.70	21.06	24.00	PASS
	142/5710	16.32	16.98	14.59	15.25	14.54	15.20	13.85	14.51	21.61	24.00	PASS
802.11ac VHT20	100/5500	14.08	14.77	14.13	14.82	14.05	14.74	13.08	13.77	20.56	24.00	PASS
	116/5580	14.11	14.80	14.51	15.19	13.39	14.07	13.66	14.34	20.64	24.00	PASS
	140/5700	13.20	13.88	14.04	14.72	14.73	15.41	14.66	15.34	20.90	24.00	PASS
	144/5720	14.09	14.78	13.77	14.46	14.45	15.14	13.82	14.51	20.75	24.00	PASS
802.11ac VHT40	102/5510	15.46	16.14	14.26	14.94	13.58	14.26	13.59	14.27	21.00	24.00	PASS
	110/5550	15.87	16.55	14.18	14.86	14.38	15.06	14.61	15.29	21.52	24.00	PASS
	134/5670	15.45	16.13	13.98	14.66	14.41	15.09	14.14	14.82	21.24	24.00	PASS
	142/5710	16.19	16.87	13.97	14.65	14.71	15.39	13.84	14.52	21.49	24.00	PASS
802.11ac VHT80	106/5530	16.15	16.83	16.41	17.10	15.37	16.05	14.95	15.64	22.46	24.00	PASS
	138/5690	15.69	16.38	15.92	16.61	16.47	17.16	16.42	17.11	22.85	24.00	PASS
802.11ac VHT160	114/5570	12.52	12.91	12.71	13.10	11.12	11.51	11.24	11.63	18.36	24.00	PASS
802.11ax HE20	100/5500	14.04	14.72	14.07	14.75	14.01	14.69	13.14	13.82	20.53	24.00	PASS
	116/5580	14.69	15.37	15.04	15.72	13.99	14.67	13.94	14.62	21.14	24.00	PASS
	140/5700	14.13	14.81	13.92	14.60	14.44	15.12	13.82	14.50	20.79	24.00	PASS
	144/5720	13.13	13.81	13.53	14.21	14.85	15.53	14.40	15.08	20.73	24.00	PASS
802.11ax HE40	102/5510	15.37	16.09	14.20	14.92	13.54	14.26	13.65	14.37	20.99	24.00	PASS
	110/5550	15.78	16.50	14.12	14.84	14.34	15.06	14.67	15.39	21.52	24.00	PASS
	134/5670	15.36	16.08	13.92	14.64	14.37	15.09	14.28	15.00	21.26	24.00	PASS



	142/5710	16.14	16.86	13.91	14.63	14.67	15.39	13.90	14.62	21.50	24.00	PASS
802.11ax HE80	106/5530	16.33	17.09	16.82	17.58	15.63	16.39	15.44	16.20	22.87	24.00	PASS
	138/5690	16.02	16.78	16.20	16.96	16.81	17.56	16.31	17.07	23.12	24.00	PASS
802.11ax HE160	114/5570	13.73	14.01	13.98	14.26	12.54	12.82	12.69	12.97	19.58	24.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power = $10\log(10^{(\text{Power antenna1 in dBm}/10)} + 10^{(\text{Power antenna2 in dBm}/10)} + 10^{(\text{Power antenna3 in dBm}/10)} + 10^{(\text{Power antenna4 in dBm}/10)})$.

U-NII-3

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	149/5745	22.54	23.09	22.17	22.72	23.72	24.26	23.38	23.92	29.56	30.00	PASS
	157/5785	22.58	23.13	22.42	22.96	24.29	24.83	23.70	24.24	29.88	30.00	PASS
	165/5825	22.04	22.58	22.53	23.08	24.07	24.61	23.58	24.13	29.69	30.00	PASS
802.11n HT20	149/5745	21.76	22.42	21.29	21.95	22.94	23.60	22.95	23.61	28.98	30.00	PASS
	157/5785	21.67	22.33	21.66	22.33	23.69	24.36	23.19	23.85	29.33	30.00	PASS
	165/5825	21.55	22.22	22.20	22.86	23.55	24.21	22.95	23.61	29.31	30.00	PASS
802.11n HT40	151/5755	22.14	22.81	22.30	22.96	23.70	24.37	22.97	23.63	29.51	30.00	PASS
	159/5795	22.08	22.74	22.19	22.85	23.92	24.58	23.17	23.84	29.59	30.00	PASS
802.11ac VHT20	149/5745	21.94	22.62	21.57	22.26	22.99	23.67	22.79	23.48	29.07	30.00	PASS
	157/5785	22.20	22.89	21.77	22.46	23.73	24.42	23.13	23.81	29.48	30.00	PASS
	165/5825	21.29	21.98	22.14	22.82	23.44	24.12	22.77	23.46	29.19	30.00	PASS
802.11ac VHT40	151/5755	21.94	22.62	22.12	22.80	23.89	24.57	23.38	24.06	29.61	30.00	PASS
	159/5795	21.99	22.68	22.16	22.85	24.14	24.82	23.20	23.89	29.66	30.00	PASS
802.11ac VHT80	155/5775	20.96	21.65	21.06	21.75	22.34	23.03	21.87	22.56	28.30	30.00	PASS
802.11ax HE20	149/5745	22.30	22.99	22.14	22.83	23.69	24.37	23.34	24.02	29.62	30.00	PASS
	157/5785	22.43	23.11	22.16	22.84	24.02	24.70	23.37	24.05	29.76	30.00	PASS
	165/5825	21.85	22.53	22.46	23.14	23.84	24.52	23.29	23.97	29.63	30.00	PASS
802.11ax HE40	151/5755	22.52	23.24	22.59	23.31	24.08	24.80	23.34	24.06	29.92	30.00	PASS
	159/5795	21.87	22.59	22.23	22.95	24.24	24.96	23.42	24.14	29.78	30.00	PASS
802.11ax HE80	155/5775	20.18	20.94	20.34	21.10	21.62	22.38	21.59	22.35	27.76	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power = $10\log(10^{(\text{Power antenna1 in dBm}/10)} + 10^{(\text{Power antenna2 in dBm}/10)} + 10^{(\text{Power antenna3 in dBm}/10)} + 10^{(\text{Power antenna4 in dBm}/10)})$.

2. The manufacturer declared that the directional gain =4.70dBi<6dBi. So the power limit is 30dBm.

5.3. Frequency Stability

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

1. Frequency stability with respect to ambient temperature

- a) Supply the EUT with a nominal ac voltage or install a new or fully charged battery in the EUT. If possible, a dummy load shall be connected to the EUT because an antenna near the metallic walls of an environmental test chamber could affect the output frequency of the EUT. If the EUT is equipped with a permanently attached, adjustable-length antenna, then the EUT shall be placed in the center of the chamber with the antenna adjusted to the shortest length possible. Turn ON the EUT and tune it to one of the number of frequencies shown in 5.6.
- b) Couple the unlicensed wireless device output to the measuring instrument by connecting an antenna to the measuring instrument with a suitable length of coaxial cable and placing the measuring antenna near the EUT (e.g., 15 cm away), or by connecting a dummy load to the measuring instrument, through an attenuator if necessary.
- c) Adjust the location of the measurement antenna and the controls on the measurement instrument to obtain a suitable signal level (i.e., a level that will not overload the measurement instrument but is strong enough to allow measurement of the operating or fundamental frequency of the EUT).
- d) Turn the EUT OFF and place it inside the environmental temperature chamber. For devices that have oscillator heaters, energize only the heater circuit.
- e) Set the temperature control on the chamber to the highest specified in the regulatory requirements for the type of device and allow the oscillator heater and the chamber temperature to stabilize.
- f) While maintaining a constant temperature inside the environmental chamber, turn the EUT ON and record the operating frequency at startup, and at 2 minutes, 5 minutes, and 10 minutes after the EUT is energized. Four measurements in total are made.
- g) Measure the frequency at each of frequencies specified in 5.6.
- h) Switch OFF the EUT but do not switch OFF the oscillator heater.
- i) Lower the chamber temperature by not more than 10°C, and allow the temperature inside the chamber to stabilize.
- j) Repeat step f) through step i) down to the lowest specified temperature.

2. Frequency stability when varying supply voltage

Unless otherwise specified, these tests shall be made at ambient room temperature (+15°C to +25 °C). An antenna shall be connected to the antenna output terminals of the EUT if possible. If the EUT is equipped with or uses an adjustable-length antenna, then it shall be fully extended.

- a) Supply the EUT with nominal voltage or install a new or fully charged battery in the EUT. Turn ON the EUT and couple its output to a frequency counter or other frequency-measuring instrument.

- b) Tune the EUT to one of the number of frequencies required in 5.6. Adjust the location of the measurement antenna and the controls on the measurement instrument to obtain a suitable signal level (i.e., a level that will not overload the measurement instrument but is strong enough to allow measurement of the operating or fundamental frequency of the EUT).
- c) Measure the frequency at each of the frequencies specified in 5.6.
- d) Repeat the above procedure at 85% and 115% of the nominal supply voltage.

Limit

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 936\text{Hz}$

**Test Results****Internal Antenna 1: HL**

Voltage (V)	Temperature (°C)	U-NII-1 Test Results			
		5200MHz			
		1min	2min	5min	10min
25	-20	5199.998181	5199.997340	5199.991260	5199.987411
25	-10	5199.996690	5199.994538	5199.986112	5199.983276
25	0	5199.986696	5199.993064	5199.985503	5199.982670
25	10	5199.980015	5199.992631	5199.983773	5199.980874
25	20	5199.972466	5199.991789	5199.979725	5199.976933
25	30	5199.964038	5199.983549	5199.970111	5199.971410
25	40	5199.963791	5199.977393	5199.966199	5199.965555
25	50	5199.954195	5199.967776	5199.963978	5199.961616
-5	20	5199.952640	5199.960223	5199.960599	5199.955408
45	20	5199.950820	5199.953288	5199.959824	5199.947700
MHz		-0.049180048	-0.046712426	-0.040175512	-0.052299799
PPM		-9.457701629	-8.983158821	-7.726060033	-10.05765366

Voltage (V)	Temperature (°C)	U-NII-2A Test Results			
		5300MHz			
		1min	2min	5min	10min
25	-20	5299.992122	5299.991881	5299.986160	5299.979543
25	-10	5299.983684	5299.990415	5299.978659	5299.970854
25	0	5299.978713	5299.982706	5299.970626	5299.967923
25	10	5299.974507	5299.975980	5299.964826	5299.966885
25	20	5299.971503	5299.971708	5299.955928	5299.960489
25	30	5299.961512	5299.963242	5299.955366	5299.954413
25	40	5299.955996	5299.956723	5299.953250	5299.945878
25	50	5299.950207	5299.952467	5299.947416	5299.945225
-5	20	5299.943170	5299.943074	5299.947064	5299.941881
45	20	5299.935530	5299.939631	5299.939691	5299.933442
MHz		-0.064470323	-0.0603691	-0.060308914	-0.066558257
PPM		-12.16421186	-11.39039632	-11.37904034	-12.55816165



Voltage (V)	Temperature (°C)	U-NII-2C Test Results			
		5580MHz			
		1min	2min	5min	10min
25	-20	5580.005672	5579.998566	5579.992495	5579.984045
25	-10	5579.999860	5579.996328	5579.990825	5579.979435
25	0	5579.997731	5579.993806	5579.987848	5579.971682
25	10	5579.997024	5579.986826	5579.978653	5579.970764
25	20	5579.989425	5579.986205	5579.977114	5579.961360
25	30	5579.981887	5579.983380	5579.968198	5579.957938
25	40	5579.976373	5579.976413	5579.962709	5579.957891
25	50	5579.973651	5579.969651	5579.952860	5579.952570
-5	20	5579.965769	5579.967136	5579.952840	5579.946045
45	20	5579.955980	5579.964964	5579.943546	5579.945167
MHz		-0.044019662	-0.035036085	-0.056454311	-0.054832851
PPM		-7.888828334	-6.278868366	-10.11725996	-9.826675836

Voltage (V)	Temperature (°C)	U-NII-3 Test Results			
		5785MHz			
		1min	2min	5min	10min
25	-20	5785.008954	5784.999130	5784.993036	5784.985932
25	-10	5784.999387	5784.998563	5784.985546	5784.978761
25	0	5784.996687	5784.995293	5784.981534	5784.971122
25	10	5784.996214	5784.988230	5784.974906	5784.963429
25	20	5784.989410	5784.984935	5784.969326	5784.953435
25	30	5784.980923	5784.981737	5784.968808	5784.944219
25	40	5784.979409	5784.976539	5784.962193	5784.941428
25	50	5784.978913	5784.973777	5784.957432	5784.940203
-5	20	5784.970247	5784.967563	5784.956678	5784.939297
45	20	5784.960507	5784.961282	5784.954709	5784.930507
MHz		-0.039492693	-0.038717673	-0.045290762	-0.069492802
PPM		-6.826740388	-6.69276973	-7.828999525	-12.01258462

Internal Antenna 2: DZZ

Voltage (V)	Temperature (°C)	U-NII-1 Test Results			
		5200MHz			
		1min	2min	5min	10min
25	-20	5199.997789	5199.990563	5199.990009	5199.985233
25	-10	5199.999541	5199.983351	5199.983173	5199.977043
25	0	5199.999182	5199.981736	5199.976570	5199.969042
25	10	5199.997292	5199.973870	5199.974021	5199.966690
25	20	5199.988179	5199.972613	5199.971033	5199.966608
25	30	5199.985661	5199.968791	5199.969308	5199.965820
25	40	5199.980660	5199.959803	5199.962362	5199.957800
25	50	5199.980075	5199.957157	5199.959665	5199.950357
-5	20	5199.975066	5199.952238	5199.954778	5199.940403
45	20	5199.969950	5199.951104	5199.947307	5199.931412
MHz		-0.030050237	-0.048896473	-0.052693176	-0.068587752
PPM		-5.778891658	-9.403167968	-10.13330303	-13.18995226

Voltage (V)	Temperature (°C)	U-NII-2A Test Results			
		5300MHz			
		1min	2min	5min	10min
25	-20	5299.999053	5299.992918	5299.992005	5299.990461
25	-10	5299.994384	5299.990727	5299.990437	5299.982251
25	0	5299.991947	5299.989832	5299.988585	5299.979537
25	10	5299.989185	5299.986929	5299.988403	5299.972560
25	20	5299.987014	5299.985628	5299.978724	5299.966985
25	30	5299.980797	5299.983758	5299.973566	5299.958435
25	40	5299.978645	5299.979714	5299.967740	5299.957257
25	50	5299.970385	5299.975408	5299.962263	5299.952018
-5	20	5299.962713	5299.969464	5299.954642	5299.945048
45	20	5299.953707	5299.965847	5299.951916	5299.935246
MHz		-0.046293247	-0.034152899	-0.048083607	-0.064754145
PPM		-8.734574957	-6.443943155	-9.072378759	-12.21776315

Voltage (V)	Temperature (°C)	U-NII-2C Test Results			
		5580MHz			
		1min	2min	5min	10min
25	-20	5580.00903	5580.005595	5580.003405	5579.998275
25	-10	5580.006141	5579.998017	5579.997122	5579.994306
25	0	5580.004855	5579.993878	5579.989173	5579.987728
25	10	5579.996444	5579.990939	5579.983213	5579.979241
25	20	5579.989027	5579.985717	5579.978628	5579.971982
25	30	5579.986051	5579.984685	5579.976968	5579.967627
25	40	5579.978852	5579.979798	5579.967414	5579.959427
25	50	5579.977322	5579.977536	5579.96473	5579.958147
-5	20	5579.969777	5579.972287	5579.960018	5579.950879
45	20	5579.966817	5579.967359	5579.952569	5579.947167
MHz		-0.033183365	-0.032641437	-0.04743133	-0.052832811
PPM		-5.946839625	-5.849719863	-8.500238319	-9.46824574

Voltage (V)	Temperature (°C)	U-NII-3 Test Results			
		5785MHz			
		1min	2min	5min	10min
25	-20	5784.997329	5784.992274	5784.984654	5784.983342
25	-10	5784.987959	5784.990369	5784.976575	5784.977459
25	0	5784.982006	5784.984261	5784.971698	5784.970250
25	10	5784.980414	5784.979986	5784.968611	5784.961352
25	20	5784.975761	5784.970981	5784.964835	5784.953295
25	30	5784.966383	5784.967964	5784.957215	5784.948896
25	40	5784.957457	5784.960756	5784.951587	5784.945029
25	50	5784.953741	5784.951334	5784.943507	5784.938957
-5	20	5784.953489	5784.946621	5784.936236	5784.934313
45	20	5784.952485	5784.942302	5784.935380	5784.925012
MHz		-0.047515208	-0.057698157	-0.064620369	-0.074988225
PPM		-8.213519083	-9.973752319	-11.17033171	-12.96252804

5.4. Power Spectral Density

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

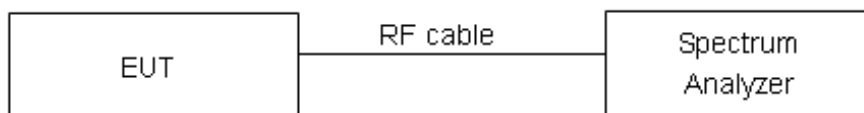
Method of Measurement

The EUT was connected to the spectrum analyzer through an external attenuator (20dB) and a known loss cable.

Set RBW = 1MHz, VBW =3MHz for the band 5.150-5.250GHz, 5.250-5.350GHz, 5.470-5.725GHz.
Set RBW = 470kHz, VBW =1.5MHz for the band 5.725-5.850GHz

The conducted PSD is measured at each antenna port. The measured results at the various antenna ports are then summed mathematically.

Test setup



Limits

Rule FCC Part 15.407(a)(1)/ Part 15.407(a)(2) / Part 15.407(a)(3)

For an indoor access point operating in the band 5.15-5.25 GHz, 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 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 power spectral density shall not exceed 30 dBm in any 500kHz 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.

Frequency Bands/MHz	Limits
5150-5250	17/11dBm/MHz
5.25-5.35 GHz and 5.47-5.725 GHz	11dBm/MHz
5725-5850	30dBm/500kHz

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 0.75\text{dB}$.

Test Results:

Note: Power Spectral Density = Read Value + Duty cycle correction factor

Internal Antenna 1: HL
MIMO without Beamforming
U-NII-1

Mode	Channel/ Frequency (MHz)	Power Spectral Density									Limit (dBm/ MHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4		Total Power (dBm /MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11a	36/5180	10.24	10.78	10.30	10.84	10.23	10.77	10.28	10.82	16.82	17.00	PASS
	40/5200	9.97	10.52	10.17	10.71	9.88	10.43	10.29	10.83	16.65	17.00	PASS
	48/5240	9.91	10.45	10.52	11.06	9.84	10.38	10.52	11.06	16.77	17.00	PASS
802.11n HT20	36/5180	10.22	10.88	9.93	10.59	10.04	10.70	10.04	10.70	16.74	17.00	PASS
	40/5200	9.77	10.43	10.29	10.95	10.04	10.70	9.98	10.64	16.71	17.00	PASS
	48/5240	9.40	10.06	10.36	11.03	9.46	10.12	10.02	10.68	16.51	17.00	PASS
802.11n HT40	38/5190	4.13	4.79	3.30	3.96	3.26	3.92	3.42	4.08	10.22	17.00	PASS
	46/5230	8.80	9.46	8.88	9.54	9.01	9.67	8.61	9.27	15.51	17.00	PASS
802.11ac VHT20	36/5180	10.01	10.69	10.15	10.83	9.64	10.33	9.84	10.53	16.62	17.00	PASS
	40/5200	10.08	10.77	10.05	10.74	9.62	10.31	9.97	10.66	16.64	17.00	PASS
	48/5240	9.76	10.45	10.52	11.20	9.33	10.01	9.97	10.66	16.62	17.00	PASS
802.11ac VHT40	38/5190	3.66	4.34	3.25	3.93	3.05	3.74	3.37	4.05	10.04	17.00	PASS
	46/5230	8.10	8.78	8.25	8.93	8.31	8.99	8.32	9.01	14.95	17.00	PASS
802.11ac VHT80	42/5210	-1.25	-0.56	-0.97	-0.28	-1.26	-0.57	-1.11	-0.42	5.56	17.00	PASS
802.11ax HE20	36/5180	10.06	10.74	10.58	11.26	10.18	10.87	10.08	10.77	16.93	17.00	PASS
	44/5200	10.00	10.69	9.86	10.54	9.55	10.24	9.76	10.45	16.50	17.00	PASS
	48/5240	9.65	10.33	10.52	11.21	9.47	10.15	9.63	10.31	16.54	17.00	PASS
802.11ax HE40	38/5190	2.41	3.13	1.99	2.71	2.74	3.46	2.54	3.26	9.17	17.00	PASS
	46/5230	8.79	9.51	9.20	9.92	8.96	9.68	8.84	9.56	15.69	17.00	PASS
802.11ax HE80	42/5210	-0.88	-0.12	-0.54	0.22	-0.60	0.16	-0.98	-0.22	6.03	17.00	PASS

Note: 1. Power Spectral Density = Read Value + Duty cycle correction factor

2. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a), the power spectral density = $10 \log(10^{(\text{PSD antenna1 in dBm/10})} + 10^{(\text{PSD antenna2 in dBm/10})} + 10^{(\text{PSD antenna3 in dBm/10})} + 10^{(\text{PSD antenna4 in dBm/10})})$

3. The manufacturer declared that the directional gain = 4.70dBi < 6dBi. So the PSD limit is 17dBm.

U-NII-2A

Mode	Channel/ Frequency (MHz)	Power Spectral Density									Limit (dBm/ MHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4		Total Power (dBm /MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11a	52/5260	3.40	3.95	4.45	4.99	3.26	3.80	3.72	4.27	10.30	11.00	PASS
	60/5300	4.49	5.03	4.80	5.34	4.13	4.67	3.95	4.49	10.92	11.00	PASS
	64/5320	2.47	3.01	1.48	2.02	2.00	2.54	1.55	2.09	8.46	11.00	PASS
802.11n HT20	52/5260	2.00	2.66	1.42	2.08	1.50	2.16	1.58	2.24	8.31	11.00	PASS
	60/5300	3.37	4.03	4.63	5.29	3.62	4.29	3.03	3.69	10.39	11.00	PASS
	64/5320	3.48	4.14	4.47	5.13	3.36	4.03	3.28	3.94	10.36	11.00	PASS
802.11n HT40	54/5270	3.58	4.25	4.58	5.24	3.09	3.75	3.13	3.80	10.32	11.00	PASS
	62/5310	3.60	4.27	3.97	4.64	3.45	4.12	3.16	3.82	10.24	11.00	PASS
802.11ac VHT20	52/5260	3.38	4.07	4.37	5.05	2.81	3.50	3.85	4.53	10.35	11.00	PASS
	60/5300	3.12	3.81	4.59	5.27	3.47	4.16	3.83	4.51	10.49	11.00	PASS
	64/5320	3.51	4.19	4.64	5.33	3.33	4.01	3.34	4.02	10.44	11.00	PASS
802.11ac VHT40	54/5270	3.73	4.41	4.98	5.67	3.48	4.16	3.14	3.82	10.59	11.00	PASS
	62/5310	3.05	3.73	4.02	4.70	3.06	3.74	2.71	3.39	9.94	11.00	PASS
802.11ac VHT80	58/5290	-2.84	-2.15	-2.82	-2.13	-2.72	-2.03	-2.82	-2.13	3.91	11.00	PASS
802.11ac VHT160	50/5250	-7.56	-7.18	-6.90	-6.51	-7.62	-7.24	-7.55	-7.17	-0.99	11.00	PASS
802.11ax HE20	52/5260	1.69	2.37	2.77	3.45	1.90	2.58	2.53	3.21	8.95	11.00	PASS
	60/5300	3.97	4.65	4.76	5.45	3.85	4.53	3.55	4.23	10.76	11.00	PASS
	64/5320	4.01	4.69	5.15	5.83	3.92	4.61	3.77	4.45	10.95	11.00	PASS
802.11ax HE40	54/5270	3.93	4.65	4.68	5.40	3.79	4.51	3.37	4.09	10.71	11.00	PASS
	62/5310	2.88	3.60	3.65	4.37	2.85	3.57	3.05	3.77	9.86	11.00	PASS
802.11ax HE80	58/5290	-3.30	-2.54	-3.08	-2.32	-3.65	-2.89	-3.64	-2.88	3.37	11.00	PASS
802.11ax HE160	50/5250	-6.14	-5.86	-5.50	-5.22	-6.28	-6.00	-6.05	-5.77	0.32	11.00	PASS

Note: 1.For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density= $10\log(10^{(\text{PSD antenna1 in dBm}/10)}+10^{(\text{PSD antenna2 in dBm}/10)}+10^{(\text{PSD antenna3 in dBm}/10)}+10^{(\text{PSD antenna4 in dBm}/10)})$

2. The manufacturer declared that the directional gain = 4.70dBi<6dBi. So the PSD limit is 11dBm.

U-NII-2C

Mode	Channel/ Frequency (MHz)	Power Spectral Density									Limit (dBm/ MHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4		Total Power (dBm /MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11a	100/5500	4.64	5.18	4.36	4.90	4.00	4.54	3.77	4.31	10.77	11.00	PASS
	116/5580	4.23	4.77	4.43	4.97	3.51	4.05	3.48	4.02	10.49	11.00	PASS
	140/5700	4.01	4.55	4.05	4.59	4.41	4.95	4.62	5.16	10.84	11.00	PASS
	144/5720	3.36	3.91	3.60	4.15	4.77	5.31	4.65	5.20	10.70	11.00	PASS
802.11n HT20	100/5500	4.46	5.12	3.74	4.40	2.77	3.43	2.56	3.23	10.13	11.00	PASS
	116/5580	3.92	4.59	4.00	4.67	3.03	3.69	3.30	3.97	10.27	11.00	PASS
	140/5700	2.10	2.76	3.19	3.85	2.42	3.08	3.66	4.32	9.57	11.00	PASS
	144/5720	3.25	3.91	3.69	4.35	4.89	5.55	4.84	5.50	10.91	11.00	PASS
802.11n HT40	102/5510	3.25	3.91	3.19	3.85	2.49	3.15	2.70	3.36	9.60	11.00	PASS
	110/5550	3.72	4.38	3.59	4.25	2.58	3.24	2.52	3.18	9.82	11.00	PASS
	134/5670	2.96	3.62	2.98	3.65	3.21	3.88	3.28	3.94	9.79	11.00	PASS
	142/5710	2.35	3.02	3.17	3.83	3.74	4.40	4.13	4.79	10.08	11.00	PASS
802.11ac VHT20	100/5500	3.83	4.51	3.74	4.42	2.82	3.50	3.01	3.70	10.08	11.00	PASS
	116/5580	3.90	4.59	4.34	5.03	3.14	3.83	3.38	4.07	10.42	11.00	PASS
	140/5700	3.12	3.81	4.18	4.86	4.43	5.12	4.43	5.12	10.78	11.00	PASS
	144/5720	3.23	3.92	3.58	4.27	4.44	5.13	4.71	5.39	10.74	11.00	PASS
802.11ac VHT40	102/5510	3.37	4.06	3.37	4.05	2.64	3.32	2.65	3.33	9.73	11.00	PASS
	110/5550	3.57	4.25	3.58	4.26	2.66	3.34	2.43	3.11	9.79	11.00	PASS
	134/5670	2.70	3.38	3.14	3.82	3.47	4.15	3.49	4.17	9.91	11.00	PASS
	142/5710	2.69	3.38	2.89	3.57	4.04	4.72	4.38	5.06	10.26	11.00	PASS
802.11ac VHT80	106/5530	0.06	0.74	0.01	0.69	-0.48	0.20	-1.17	-0.49	6.34	11.00	PASS
	138/5690	-0.63	0.05	-0.62	0.07	0.06	0.75	0.53	1.22	6.57	11.00	PASS
802.11ac VHT160	114/5570	-6.59	-6.21	-6.54	-6.15	-7.75	-7.36	-7.80	-7.41	-0.72	11.00	PASS
802.11ax HE20	100/5500	4.61	5.29	4.63	5.31	3.68	4.36	3.05	3.73	10.74	11.00	PASS
	116/5580	4.56	5.25	4.56	5.24	3.99	4.67	3.72	4.41	10.93	11.00	PASS
	140/5700	3.39	4.07	3.44	4.12	4.71	5.39	4.37	5.05	10.72	11.00	PASS
	144/5720	2.67	3.36	2.91	3.60	4.35	5.03	4.12	4.80	10.28	11.00	PASS
802.11ax HE40	102/5510	3.35	4.07	3.14	3.86	2.76	3.48	2.54	3.26	9.70	11.00	PASS
	110/5550	3.96	4.68	3.71	4.43	2.82	3.54	3.08	3.80	10.16	11.00	PASS
	134/5670	3.26	3.98	3.14	3.86	3.78	4.50	3.51	4.23	10.17	11.00	PASS
	142/5710	2.85	3.57	2.73	3.45	4.07	4.79	4.21	4.93	10.26	11.00	PASS
802.11ax	106/5530	0.30	1.06	0.60	1.36	-0.49	0.27	-0.54	0.22	6.77	11.00	PASS



HE80	138/5690	-0.02	0.74	-0.06	0.70	0.72	1.48	0.74	1.50	7.14	11.00	PASS
802.11ax HE160	114/5570	-5.93	-5.64	-6.49	-6.21	-7.29	-7.01	-7.67	-7.39	-0.49	11.00	PASS

Note: 1.For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density= $10\log(10^{(\text{PSD antenna1 in dBm}/10)} + 10^{(\text{PSD antenna2 in dBm}/10)} + 10^{(\text{PSD antenna3 in dBm}/10)} + 10^{(\text{PSD antenna4 in dBm}/10)})$

2. The manufacturer declared that the directional gain = 4.70dBi<6dBi. So the PSD limit is 11dBm.



U-NII-3

Mode	Channel/ Frequency (MHz)	Power Spectral Density									Limit (dBm/ 500kHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4		Total Power (dBm/ 500kHz)		
		Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)			
802.11a	149/5745	6.98	7.79	6.46	7.27	8.24	9.05	8.18	8.99	14.37	30.00	PASS
	157/5785	7.49	8.30	6.81	7.62	8.08	8.89	8.80	9.61	14.69	30.00	PASS
	165/5825	6.37	7.18	6.41	7.22	7.45	8.26	8.89	9.70	14.24	30.00	PASS
802.11n HT20	149/5745	6.52	7.45	5.62	6.55	7.47	8.40	7.90	8.83	13.92	30.00	PASS
	157/5785	6.33	7.26	5.79	6.72	7.14	8.07	8.16	9.09	13.90	30.00	PASS
	165/5825	5.93	6.86	5.65	6.58	6.82	7.75	8.31	9.24	13.76	30.00	PASS
802.11n HT40	151/5755	5.10	6.03	5.41	6.34	7.07	8.01	6.41	7.35	13.02	30.00	PASS
	159/5795	4.93	5.86	5.22	6.16	7.21	8.14	6.32	7.25	12.97	30.00	PASS
802.11ac VHT20	149/5745	8.53	9.49	7.62	8.58	9.54	10.49	9.03	9.98	15.71	30.00	PASS
	157/5785	8.51	9.47	8.19	9.15	9.88	10.83	9.13	10.09	15.95	30.00	PASS
	165/5825	7.79	8.75	8.17	9.12	10.34	11.30	9.77	10.73	16.12	30.00	PASS
802.11ac VHT40	151/5755	5.25	6.20	5.05	6.00	6.89	7.85	6.62	7.57	13.00	30.00	PASS
	159/5795	4.97	5.93	5.39	6.34	7.00	7.95	6.33	7.28	12.97	30.00	PASS
802.11ac VHT80	155/5775	-0.14	0.82	-0.50	0.46	1.21	2.17	1.85	2.81	7.69	30.00	PASS
802.11ax HE20	149/5745	7.16	8.11	5.89	6.84	7.65	8.60	8.26	9.21	14.30	30.00	PASS
	157/5785	6.78	7.73	5.78	6.73	7.64	8.59	8.52	9.47	14.27	30.00	PASS
	165/5825	5.86	6.81	5.95	6.90	7.50	8.45	8.95	9.90	14.23	30.00	PASS
802.11ax HE40	151/5755	5.66	6.65	5.45	6.44	6.86	7.85	6.78	7.77	13.24	30.00	PASS
	159/5795	5.21	6.20	5.39	6.38	7.36	8.35	6.28	7.27	13.16	30.00	PASS
802.11ax HE80	155/5775	3.86	4.88	4.10	5.13	6.24	7.27	5.58	6.61	12.11	30.00	PASS

Note: 1. PSD=Read Value+Duty cycle+10*LOG(500/470) correction factor

2. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a), the power spectral density= $10\log(10^{(\text{PSD antenna1 in dBm}/10)} + 10^{(\text{PSD antenna2 in dBm}/10)} + 10^{(\text{PSD antenna3 in dBm}/10)} + 10^{(\text{PSD antenna4 in dBm}/10)})$.

3. The manufacturer declared that the directional gain = 4.70dBi<6dBi. So the PSD limit is 30dBm.



MIMO with Beamforming

U-NII-1

Mode	Channel/ Frequency (MHz)	Power Spectral Density									Limit (dBm/ MHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4		Total Power (dBm /MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11a	36/5180	10.43	10.98	10.06	10.60	9.90	10.44	9.79	10.34	16.62	17.00	PASS
	40/5200	9.98	10.53	9.75	10.29	9.53	10.07	10.00	10.54	16.38	17.00	PASS
	48/5240	9.67	10.22	10.18	10.72	9.65	10.19	10.25	10.79	16.51	17.00	PASS
802.11n HT20	36/5180	10.31	10.97	9.49	10.16	9.51	10.18	9.99	10.65	16.52	17.00	PASS
	40/5200	9.71	10.37	9.92	10.58	9.39	10.06	9.72	10.38	16.37	17.00	PASS
	48/5240	9.24	9.90	9.94	10.60	9.46	10.12	9.75	10.42	16.29	17.00	PASS
802.11n HT40	38/5190	3.33	3.99	2.69	3.35	3.21	3.88	3.09	3.75	9.77	17.00	PASS
	46/5230	7.86	8.52	8.10	8.76	7.92	8.59	8.29	8.95	14.73	17.00	PASS
802.11ac VHT20	36/5180	9.95	10.64	9.53	10.21	9.52	10.21	9.96	10.65	16.45	17.00	PASS
	40/5200	9.64	10.33	9.59	10.28	9.54	10.22	9.78	10.47	16.35	17.00	PASS
	48/5240	9.64	10.33	10.38	11.06	9.17	9.86	9.68	10.37	16.45	17.00	PASS
802.11ac VHT40	38/5190	3.12	3.80	2.81	3.49	3.25	3.94	3.06	3.75	9.77	17.00	PASS
	46/5230	8.18	8.87	8.09	8.77	7.98	8.66	7.79	8.48	14.72	17.00	PASS
802.11ac VHT80	42/5210	-1.28	-0.59	-1.21	-0.52	-1.34	-0.65	-1.52	-0.84	5.37	17.00	PASS
802.11ax HE20	36/5180	9.53	10.21	9.39	10.07	9.57	10.25	9.63	10.31	16.23	17.00	PASS
	44/5200	9.56	10.24	9.66	10.34	9.27	9.95	9.76	10.44	16.27	17.00	PASS
	48/5240	9.12	9.80	9.76	10.44	9.66	10.34	9.51	10.19	16.22	17.00	PASS
802.11ax HE40	38/5190	3.35	4.07	2.77	3.49	2.98	3.70	3.06	3.78	9.79	17.00	PASS
	46/5230	8.82	9.54	8.94	9.66	8.59	9.31	8.89	9.61	15.55	17.00	PASS
802.11ax HE80	42/5210	-0.73	0.02	-0.84	-0.08	-1.45	-0.69	-0.53	0.23	5.90	17.00	PASS

Note: 1. Power Spectral Density = Read Value + Duty cycle correction factor

2. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a), the power spectral density = $10\log(10^{(\text{PSD antenna1 in dBm/10})} + 10^{(\text{PSD antenna2 in dBm/10})} + 10^{(\text{PSD antenna3 in dBm/10})} + 10^{(\text{PSD antenna4 in dBm/10})})$

3. The manufacturer declared that the directional gain = 4.70dBi < 6dBi. So the PSD limit is 17dBm.

U-NII-2A

Mode	Channel/ Frequency (MHz)	Power Spectral Density									Limit (dBm/ MHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4		Total Power (dBm /MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11a	52/5260	3.23	3.77	4.21	4.76	3.12	3.66	3.52	4.06	10.11	11.00	PASS
	60/5300	2.98	3.52	3.55	4.09	3.02	3.56	2.67	3.21	9.63	11.00	PASS
	64/5320	2.81	3.35	1.96	2.50	2.13	2.67	1.85	2.39	8.77	11.00	PASS
802.11n HT20	52/5260	2.10	2.76	1.09	1.75	1.94	2.60	2.16	2.82	8.53	11.00	PASS
	60/5300	3.20	3.86	4.21	4.88	2.97	3.64	2.90	3.56	10.04	11.00	PASS
	64/5320	3.36	4.03	4.29	4.95	3.39	4.05	3.27	3.93	10.28	11.00	PASS
802.11n HT40	54/5270	3.15	3.81	3.89	4.55	3.05	3.71	2.77	3.43	9.92	11.00	PASS
	62/5310	2.87	3.54	3.29	3.95	2.46	3.12	2.29	2.95	9.43	11.00	PASS
802.11ac VHT20	52/5260	3.04	3.73	4.46	5.15	3.14	3.82	3.15	3.83	10.19	11.00	PASS
	60/5300	3.28	3.97	3.93	4.62	3.33	4.01	2.97	3.65	10.10	11.00	PASS
	64/5320	3.40	4.09	4.34	5.02	2.99	3.67	3.12	3.80	10.20	11.00	PASS
802.11ac VHT40	54/5270	3.36	4.05	3.86	4.54	3.14	3.82	2.74	3.42	10.00	11.00	PASS
	62/5310	3.25	3.93	3.71	4.40	3.13	3.82	2.68	3.36	9.91	11.00	PASS
802.11ac VHT80	58/5290	-2.39	-1.70	-2.97	-2.28	-2.72	-2.03	-2.59	-1.90	4.04	11.00	PASS
802.11ac VHT160	50/5250	-7.60	-7.22	-6.97	-6.59	-8.19	-7.80	-8.04	-7.66	-1.27	11.00	PASS
802.11ax HE20	52/5260	2.57	3.25	1.52	2.20	1.64	2.32	2.66	3.34	8.83	11.00	PASS
	60/5300	3.21	3.89	4.56	5.24	3.66	4.35	3.41	4.09	10.44	11.00	PASS
	64/5320	3.93	4.61	4.66	5.34	4.01	4.69	3.16	3.84	10.67	11.00	PASS
802.11ax HE40	54/5270	3.29	4.01	4.32	5.04	3.02	3.74	3.22	3.94	10.23	11.00	PASS
	62/5310	2.73	3.45	3.43	4.15	2.76	3.48	2.34	3.06	9.57	11.00	PASS
802.11ax HE80	58/5290	-2.94	-2.18	-3.48	-2.72	-3.78	-3.02	-3.07	-2.31	3.47	11.00	PASS
802.11ax HE160	50/5250	-7.28	-7.00	-6.57	-6.29	-7.54	-7.26	-7.98	-7.70	-1.01	11.00	PASS

Note: 1.For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density= $10\log(10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})}+10^{(\text{PSD antenna3 in dBm/10})}+10^{(\text{PSD antenna4 in dBm/10})})$

2. The manufacturer declared that the directional gain =4.70dBi<6dBi. So the PSD limit is 11dBm.

U-NII-2C

Mode	Channel/ Frequency (MHz)	Power Spectral Density									Limit (dBm/ MHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4		Total Power (dBm /MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11a	100/5500	4.45	4.99	4.39	4.93	3.52	4.06	3.37	3.92	10.52	11.00	PASS
	116/5580	4.05	4.60	4.39	4.93	2.98	3.52	3.28	3.83	10.28	11.00	PASS
	140/5700	3.71	4.25	3.91	4.45	4.82	5.37	4.49	5.03	10.82	11.00	PASS
	144/5720	2.98	3.53	3.36	3.90	4.56	5.11	4.60	5.14	10.50	11.00	PASS
802.11n HT20	100/5500	3.46	4.12	3.68	4.34	2.85	3.51	2.47	3.13	9.82	11.00	PASS
	116/5580	3.96	4.63	4.36	5.02	2.89	3.55	3.01	3.67	10.28	11.00	PASS
	140/5700	2.07	2.73	1.85	2.51	2.68	3.34	3.02	3.68	9.11	11.00	PASS
	144/5720	3.23	3.89	3.53	4.19	4.57	5.24	4.69	5.35	10.74	11.00	PASS
802.11n HT40	102/5510	2.54	3.21	3.18	3.84	2.32	2.98	1.93	2.60	9.20	11.00	PASS
	110/5550	3.27	3.93	3.21	3.87	2.24	2.90	2.19	2.86	9.44	11.00	PASS
	134/5670	2.71	3.37	2.66	3.33	3.30	3.97	3.40	4.07	9.72	11.00	PASS
	142/5710	2.54	3.20	2.62	3.29	4.03	4.69	3.47	4.14	9.89	11.00	PASS
802.11ac VHT20	100/5500	3.59	4.27	3.66	4.35	2.84	3.53	2.51	3.20	9.89	11.00	PASS
	116/5580	3.48	4.16	4.21	4.89	2.76	3.45	2.83	3.52	10.07	11.00	PASS
	140/5700	3.07	3.76	3.99	4.68	4.27	4.96	4.45	5.14	10.68	11.00	PASS
	144/5720	3.34	4.03	4.02	4.70	4.47	5.15	4.39	5.08	10.78	11.00	PASS
802.11ac VHT40	102/5510	2.64	3.32	3.30	3.98	2.26	2.94	2.06	2.74	9.29	11.00	PASS
	110/5550	3.05	3.73	3.41	4.09	2.27	2.95	1.84	2.52	9.39	11.00	PASS
	134/5670	2.45	3.13	2.72	3.40	2.93	3.61	2.70	3.38	9.40	11.00	PASS
	142/5710	2.38	3.06	2.70	3.38	3.33	4.01	3.63	4.32	9.74	11.00	PASS
802.11ac VHT80	106/5530	-0.71	-0.02	-0.17	0.52	-1.15	-0.46	-1.54	-0.85	5.85	11.00	PASS
	138/5690	-0.87	-0.18	-1.04	-0.35	-0.10	0.58	-0.34	0.34	6.14	11.00	PASS
802.11ac VHT160	114/5570	-7.36	-6.98	-7.02	-6.64	-8.68	-8.29	-8.29	-7.90	-1.38	11.00	PASS
802.11ax HE20	100/5500	4.01	4.69	3.68	4.36	3.61	4.29	2.78	3.47	10.25	11.00	PASS
	116/5580	3.97	4.65	4.38	5.06	3.19	3.87	3.09	3.78	10.39	11.00	PASS
	140/5700	3.10	3.78	3.59	4.27	4.37	5.05	4.32	5.01	10.58	11.00	PASS
	144/5720	2.75	3.43	3.16	3.84	4.23	4.91	3.82	4.50	10.23	11.00	PASS
802.11ax HE40	102/5510	3.08	3.80	2.83	3.55	2.10	2.82	2.14	2.86	9.30	11.00	PASS
	110/5550	3.06	3.78	3.40	4.12	2.33	3.05	1.61	2.33	9.40	11.00	PASS
	134/5670	2.27	2.99	2.46	3.18	3.29	4.01	2.77	3.49	9.46	11.00	PASS
	142/5710	2.57	3.29	2.69	3.41	3.66	4.38	3.43	4.15	9.85	11.00	PASS
802.11ax	106/5530	0.05	0.81	-0.03	0.73	-1.50	-0.74	-1.31	-0.55	6.14	11.00	PASS



HE80	138/5690	-0.59	0.17	-0.33	0.43	0.05	0.81	0.53	1.29	6.72	11.00	PASS
802.11ax HE160	114/5570	-5.61	-5.33	-5.65	-5.36	-6.62	-6.33	-6.82	-6.53	0.16	11.00	PASS

Note: 1.For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density= $10\log(10^{(\text{PSD antenna1 in dBm}/10)} + 10^{(\text{PSD antenna2 in dBm}/10)} + 10^{(\text{PSD antenna3 in dBm}/10)} + 10^{(\text{PSD antenna4 in dBm}/10)})$

2. The manufacturer declared that the directional gain = 4.70dBi<6dBi. So the PSD limit is 11dBm.



U-NII-3

Mode	Channel/ Frequency (MHz)	Power Spectral Density									Limit (dBm/ 500kHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4		Total Power (dBm/ 500kHz)		
		Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)			
802.11a	149/5745	7.00	7.81	6.32	7.13	8.27	9.08	8.41	9.22	14.42	30.00	PASS
	157/5785	7.35	8.16	6.32	7.13	8.29	9.10	8.68	9.49	14.59	30.00	PASS
	165/5825	6.83	7.64	6.57	7.38	7.62	8.43	8.58	9.39	14.31	30.00	PASS
802.11n HT20	149/5745	6.40	7.33	5.46	6.39	7.33	8.26	7.41	8.34	13.67	30.00	PASS
	157/5785	6.07	7.00	5.47	6.40	7.43	8.36	7.99	8.92	13.81	30.00	PASS
	165/5825	6.52	7.45	6.25	7.18	7.07	8.00	8.79	9.72	14.23	30.00	PASS
802.11n HT40	151/5755	4.00	4.93	4.33	5.26	5.74	6.67	5.84	6.77	12.01	30.00	PASS
	159/5795	4.18	5.12	4.27	5.20	6.02	6.96	6.11	7.05	12.20	30.00	PASS
802.11ac VHT20	149/5745	6.33	7.28	6.76	7.72	7.951	8.91	8.25	9.21	14.37	30.00	PASS
	157/5785	6.30	7.25	7.01	7.97	8.737	9.69	9.04	9.99	14.90	30.00	PASS
	165/5825	6.46	7.42	6.84	7.79	8.86	9.82	8.68	9.64	14.82	30.00	PASS
802.11ac VHT40	151/5755	3.69	4.64	4.63	5.58	5.90	6.86	5.82	6.77	12.08	30.00	PASS
	159/5795	4.05	5.00	4.34	5.29	5.83	6.78	5.60	6.55	11.99	30.00	PASS
802.11ac VHT80	155/5775	0.29	1.25	-0.16	0.80	1.39	2.35	2.10	3.06	7.97	30.00	PASS
802.11ax HE20	149/5745	6.98	7.93	6.17	7.12	7.88	8.83	7.90	8.85	14.26	30.00	PASS
	157/5785	7.05	8.00	5.80	6.75	7.78	8.73	9.02	9.97	14.54	30.00	PASS
	165/5825	6.53	7.48	6.39	7.34	7.16	8.11	8.86	9.81	14.33	30.00	PASS
802.11ax HE40	151/5755	4.26	5.25	4.56	5.55	6.14	7.13	6.08	7.07	12.35	30.00	PASS
	159/5795	4.04	5.03	4.34	5.33	6.08	7.07	6.16	7.15	12.27	30.00	PASS
802.11ax HE80	155/5775	0.28	1.31	0.48	1.51	2.31	3.34	2.11	3.14	8.44	30.00	PASS

Note: 1. PSD=Read Value+Duty cycle+10*LOG(500/470) correction factor

2. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a), the power spectral density= $10\log(10^{(\text{PSD antenna1 in dBm}/10)} + 10^{(\text{PSD antenna2 in dBm}/10)} + 10^{(\text{PSD antenna3 in dBm}/10)} + 10^{(\text{PSD antenna4 in dBm}/10)})$.

3. The manufacturer declared that the directional gain = 4.70dBi<6dBi. So the PSD limit is 30dBm.

Internal Antenna 2: DZZ
MIMO without Beamforming
U-NII-1

Mode	Channel/ Frequency (MHz)	Power Spectral Density									Limit (dBm/ MHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4		Total Power (dBm /MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11a	36/5180	10.24	10.78	10.30	10.84	10.23	10.77	10.28	10.82	16.82	17.00	PASS
	40/5200	9.97	10.52	10.17	10.71	9.88	10.43	10.29	10.83	16.65	17.00	PASS
	48/5240	9.91	10.45	10.52	11.06	9.84	10.38	10.52	11.06	16.77	17.00	PASS
802.11n HT20	36/5180	10.22	10.88	9.93	10.59	10.04	10.70	10.04	10.70	16.74	17.00	PASS
	40/5200	9.77	10.43	10.29	10.95	10.04	10.70	9.98	10.64	16.71	17.00	PASS
	48/5240	9.40	10.06	10.36	11.03	9.46	10.12	10.02	10.68	16.51	17.00	PASS
802.11n HT40	38/5190	4.13	4.79	3.30	3.96	3.26	3.92	3.42	4.08	10.22	17.00	PASS
	46/5230	8.80	9.46	8.88	9.54	9.01	9.67	8.61	9.27	15.51	17.00	PASS
802.11ac VHT20	36/5180	10.01	10.69	10.15	10.83	9.64	10.33	9.84	10.53	16.62	17.00	PASS
	40/5200	10.08	10.77	10.05	10.74	9.62	10.31	9.97	10.66	16.64	17.00	PASS
	48/5240	9.76	10.45	10.52	11.20	9.33	10.01	9.97	10.66	16.62	17.00	PASS
802.11ac VHT40	38/5190	3.66	4.34	3.25	3.93	3.05	3.74	3.37	4.05	10.04	17.00	PASS
	46/5230	8.10	8.78	8.25	8.93	8.31	8.99	8.32	9.01	14.95	17.00	PASS
802.11ac VHT80	42/5210	-1.25	-0.56	-0.97	-0.28	-1.26	-0.57	-1.11	-0.42	5.56	17.00	PASS
802.11ax HE20	36/5180	10.06	10.74	10.58	11.26	10.18	10.87	10.08	10.77	16.93	17.00	PASS
	44/5200	10.00	10.69	9.86	10.54	9.55	10.24	9.76	10.45	16.50	17.00	PASS
	48/5240	9.65	10.33	10.52	11.21	9.47	10.15	9.63	10.31	16.54	17.00	PASS
802.11ax HE40	38/5190	2.41	3.13	1.99	2.71	2.74	3.46	2.54	3.26	9.17	17.00	PASS
	46/5230	8.79	9.51	9.20	9.92	8.96	9.68	8.84	9.56	15.69	17.00	PASS
802.11ax HE80	42/5210	-0.88	-0.12	-0.54	0.22	-0.60	0.16	-0.98	-0.22	6.03	17.00	PASS

Note: 1. Power Spectral Density = Read Value + Duty cycle correction factor

2. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a), the power spectral density = $10\log(10^{(\text{PSD antenna1 in dBm/10})} + 10^{(\text{PSD antenna2 in dBm/10})} + 10^{(\text{PSD antenna3 in dBm/10})} + 10^{(\text{PSD antenna4 in dBm/10})})$

3. The manufacturer declared that the directional gain = 4.70dBi < 6dBi. So the PSD limit is 17dBm.

U-NII-2A

Mode	Channel/ Frequency (MHz)	Power Spectral Density									Limit (dBm/ MHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4		Total Power (dBm /MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11a	52/5260	3.40	3.95	4.45	4.99	3.26	3.80	3.72	4.27	10.30	11.00	PASS
	60/5300	4.49	5.03	4.80	5.34	4.13	4.67	3.95	4.49	10.92	11.00	PASS
	64/5320	3.84	4.38	4.22	4.76	3.70	4.25	3.62	4.16	10.41	11.00	PASS
802.11n HT20	52/5260	3.09	3.76	4.71	5.37	3.36	4.03	3.60	4.27	10.42	11.00	PASS
	60/5300	3.37	4.03	4.63	5.29	3.62	4.29	3.03	3.69	10.39	11.00	PASS
	64/5320	3.48	4.14	4.47	5.13	3.36	4.03	3.28	3.94	10.36	11.00	PASS
802.11n HT40	54/5270	3.58	4.25	4.58	5.24	3.09	3.75	3.13	3.80	10.32	11.00	PASS
	62/5310	3.60	4.27	3.97	4.64	3.45	4.12	3.16	3.82	10.24	11.00	PASS
802.11ac VHT20	52/5260	3.38	4.07	4.37	5.05	2.81	3.50	3.85	4.53	10.35	11.00	PASS
	60/5300	3.12	3.81	4.59	5.27	3.47	4.16	3.83	4.51	10.49	11.00	PASS
	64/5320	3.51	4.19	4.64	5.33	3.33	4.01	3.34	4.02	10.44	11.00	PASS
802.11ac VHT40	54/5270	3.73	4.41	4.98	5.67	3.48	4.16	3.14	3.82	10.59	11.00	PASS
	62/5310	3.05	3.73	4.02	4.70	3.06	3.74	2.71	3.39	9.94	11.00	PASS
802.11ac VHT80	58/5290	0.51	1.19	1.29	1.98	0.18	0.86	-0.06	0.63	7.22	11.00	PASS
802.11ac VHT160	50/5250	-7.56	-7.18	-6.90	-6.51	-7.62	-7.24	-7.55	-7.17	-0.99	11.00	PASS
802.11ax HE20	52/5260	3.78	4.46	5.12	5.80	3.77	4.45	3.96	4.64	10.90	11.00	PASS
	60/5300	3.97	4.65	4.76	5.45	3.85	4.53	3.55	4.23	10.76	11.00	PASS
	64/5320	4.01	4.69	5.15	5.83	3.92	4.61	3.77	4.45	10.95	11.00	PASS
802.11ax HE40	54/5270	3.93	4.65	4.68	5.40	3.79	4.51	3.37	4.09	10.71	11.00	PASS
	62/5310	2.88	3.60	3.65	4.37	2.85	3.57	3.05	3.77	9.86	11.00	PASS
802.11ax HE80	58/5290	1.03	1.79	1.11	1.87	0.59	1.35	-0.93	-0.17	7.30	11.00	PASS
802.11ax HE160	50/5250	-7.06	-6.78	-6.48	-6.20	-8.40	-8.12	-6.89	-6.61	-0.85	11.00	PASS

Note: 1.For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density= $10\log(10^{(\text{PSD antenna1 in dBm}/10)}+10^{(\text{PSD antenna2 in dBm}/10)}+10^{(\text{PSD antenna3 in dBm}/10)}+10^{(\text{PSD antenna4 in dBm}/10)})$

2. The manufacturer declared that the directional gain = 4.70dBi<6dBi. So the PSD limit is 11dBm.

U-NII-2C

Mode	Channel/ Frequency (MHz)	Power Spectral Density									Limit (dBm/ MHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4		Total Power (dBm /MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11a	100/5500	4.64	5.18	4.36	4.90	4.00	4.54	3.77	4.31	10.77	11.00	PASS
	116/5580	4.23	4.77	4.43	4.97	3.51	4.05	3.48	4.02	10.49	11.00	PASS
	140/5700	4.01	4.55	4.05	4.59	4.41	4.95	4.62	5.16	10.84	11.00	PASS
	144/5720	3.36	3.91	3.60	4.15	4.77	5.31	4.65	5.20	10.70	11.00	PASS
802.11n HT20	100/5500	4.46	5.12	3.74	4.40	2.77	3.43	2.56	3.23	10.13	11.00	PASS
	116/5580	3.92	4.59	4.00	4.67	3.03	3.69	3.30	3.97	10.27	11.00	PASS
	140/5700	2.10	2.76	3.19	3.85	2.42	3.08	3.66	4.32	9.57	11.00	PASS
	144/5720	3.25	3.91	3.69	4.35	4.89	5.55	4.84	5.50	10.91	11.00	PASS
802.11n HT40	102/5510	3.25	3.91	3.19	3.85	2.49	3.15	2.70	3.36	9.60	11.00	PASS
	110/5550	3.72	4.38	3.59	4.25	2.58	3.24	2.52	3.18	9.82	11.00	PASS
	134/5670	2.96	3.62	2.98	3.65	3.21	3.88	3.28	3.94	9.79	11.00	PASS
	142/5710	2.35	3.02	3.17	3.83	3.74	4.40	4.13	4.79	10.08	11.00	PASS
802.11ac VHT20	100/5500	3.83	4.51	3.74	4.42	2.82	3.50	3.01	3.70	10.08	11.00	PASS
	116/5580	3.90	4.59	4.34	5.03	3.14	3.83	3.38	4.07	10.42	11.00	PASS
	140/5700	3.12	3.81	4.18	4.86	4.43	5.12	4.43	5.12	10.78	11.00	PASS
	144/5720	3.23	3.92	3.58	4.27	4.44	5.13	4.71	5.39	10.74	11.00	PASS
802.11ac VHT40	102/5510	3.37	4.06	3.37	4.05	2.64	3.32	2.65	3.33	9.73	11.00	PASS
	110/5550	3.57	4.25	3.58	4.26	2.66	3.34	2.43	3.11	9.79	11.00	PASS
	134/5670	2.70	3.38	3.14	3.82	3.47	4.15	3.49	4.17	9.91	11.00	PASS
	142/5710	2.69	3.38	2.89	3.57	4.04	4.72	4.38	5.06	10.26	11.00	PASS
802.11ac VHT80	106/5530	0.06	0.74	0.01	0.69	-0.48	0.20	-1.17	-0.49	6.34	11.00	PASS
	138/5690	-0.63	0.05	-0.62	0.07	0.06	0.75	0.53	1.22	6.57	11.00	PASS
802.11ac VHT160	114/5570	-6.59	-6.21	-6.54	-6.15	-7.75	-7.36	-7.80	-7.41	-0.72	11.00	PASS
802.11ax HE20	100/5500	4.61	5.29	4.63	5.31	3.68	4.36	3.05	3.73	10.74	11.00	PASS
	116/5580	4.56	5.25	4.56	5.24	3.99	4.67	3.72	4.41	10.93	11.00	PASS
	140/5700	3.39	4.07	3.44	4.12	4.71	5.39	4.37	5.05	10.72	11.00	PASS
	144/5720	2.67	3.36	2.91	3.60	4.35	5.03	4.12	4.80	10.28	11.00	PASS
802.11ax HE40	102/5510	3.35	4.07	3.14	3.86	2.76	3.48	2.54	3.26	9.70	11.00	PASS
	110/5550	3.96	4.68	3.71	4.43	2.82	3.54	3.08	3.80	10.16	11.00	PASS
	134/5670	3.26	3.98	3.14	3.86	3.78	4.50	3.51	4.23	10.17	11.00	PASS
	142/5710	2.85	3.57	2.73	3.45	4.07	4.79	4.21	4.93	10.26	11.00	PASS
802.11ax	106/5530	0.30	1.06	0.60	1.36	-0.49	0.27	-0.54	0.22	6.77	11.00	PASS



HE80	138/5690	-0.02	0.74	-0.06	0.70	0.72	1.48	0.74	1.50	7.14	11.00	PASS
802.11ax HE160	114/5570	-5.93	-5.64	-6.49	-6.21	-7.29	-7.01	-7.67	-7.39	-0.49	11.00	PASS

Note: 1. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a), the power spectral density = $10\log(10^{(\text{PSD antenna1 in dBm}/10)} + 10^{(\text{PSD antenna2 in dBm}/10)} + 10^{(\text{PSD antenna3 in dBm}/10)} + 10^{(\text{PSD antenna4 in dBm}/10)})$

2. The manufacturer declared that the directional gain = 4.70dBi < 6dBi. So the PSD limit is 11dBm.



U-NII-3

Mode	Channel/ Frequency (MHz)	Power Spectral Density									Limit (dBm/ 500kHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4		Total Power (dBm/ 500kHz)		
		Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)			
802.11a	149/5745	6.90	7.71	6.38	7.20	8.37	9.19	7.96	8.77	14.31	30.00	PASS
	157/5785	9.63	10.45	8.95	9.77	10.76	11.58	10.20	11.02	16.77	30.00	PASS
	165/5825	8.55	9.36	9.28	10.09	10.60	11.41	10.51	11.32	16.65	30.00	PASS
802.11n HT20	149/5745	8.19	9.12	7.78	8.72	9.46	10.39	9.10	10.04	15.64	30.00	PASS
	157/5785	8.40	9.33	7.99	8.92	10.04	10.98	9.45	10.38	16.00	30.00	PASS
	165/5825	7.81	8.74	8.11	9.04	9.66	10.59	9.19	10.12	15.71	30.00	PASS
802.11n HT40	151/5755	5.10	6.03	5.41	6.34	7.07	8.01	6.41	7.35	13.02	30.00	PASS
	159/5795	4.93	5.86	5.22	6.16	7.21	8.14	6.32	7.25	12.97	30.00	PASS
802.11ac VHT20	149/5745	8.53	9.49	7.62	8.58	9.54	10.49	9.03	9.98	15.71	30.00	PASS
	157/5785	8.51	9.47	8.19	9.15	9.88	10.83	9.13	10.09	15.95	30.00	PASS
	165/5825	7.79	8.75	8.17	9.12	10.34	11.30	9.77	10.73	16.12	30.00	PASS
802.11ac VHT40	151/5755	5.25	6.20	5.05	6.00	6.89	7.85	6.62	7.57	13.00	30.00	PASS
	159/5795	4.97	5.93	5.39	6.34	7.00	7.95	6.33	7.28	12.97	30.00	PASS
802.11ac VHT80	155/5775	2.10	3.05	2.18	3.14	3.66	4.62	2.94	3.89	9.74	30.00	PASS
802.11ax HE20	149/5745	8.70	9.65	8.03	8.98	9.95	10.90	9.46	10.42	16.07	30.00	PASS
	157/5785	8.41	9.36	8.27	9.22	10.13	11.08	9.69	10.65	16.17	30.00	PASS
	165/5825	8.34	9.29	8.37	9.33	10.32	11.27	9.86	10.81	16.28	30.00	PASS
802.11ax HE40	151/5755	5.66	6.65	5.45	6.44	6.86	7.85	6.78	7.77	13.24	30.00	PASS
	159/5795	5.21	6.20	5.39	6.38	7.36	8.35	6.28	7.27	13.16	30.00	PASS
802.11ax HE80	155/5775	3.45	4.48	3.74	4.77	4.00	5.03	5.91	6.94	11.44	30.00	PASS

Note: 1. PSD=Read Value+Duty cycle+10*LOG(500/470) correction factor

2. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a), the power spectral density= $10\log(10^{(\text{PSD antenna1 in dBm}/10)} + 10^{(\text{PSD antenna2 in dBm}/10)} + 10^{(\text{PSD antenna3 in dBm}/10)} + 10^{(\text{PSD antenna4 in dBm}/10)})$.

3. The manufacturer declared that the directional gain = 4.70dBi<6dBi. So the PSD limit is 30dBm.

MIMO with Beamforming
U-NII-1

Mode	Channel/ Frequency (MHz)	Power Spectral Density									Limit (dBm/ MHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4		Total Power (dBm /MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11a	36/5180	10.43	10.98	10.06	10.60	9.90	10.44	9.79	10.34	16.62	17.00	PASS
	40/5200	9.98	10.53	9.75	10.29	9.53	10.07	10.00	10.54	16.38	17.00	PASS
	48/5240	9.67	10.22	10.18	10.72	9.65	10.19	10.25	10.79	16.51	17.00	PASS
802.11n HT20	36/5180	10.31	10.97	9.49	10.16	9.51	10.18	9.99	10.65	16.52	17.00	PASS
	40/5200	9.71	10.37	9.92	10.58	9.39	10.06	9.72	10.38	16.37	17.00	PASS
	48/5240	9.24	9.90	9.94	10.60	9.46	10.12	9.75	10.42	16.29	17.00	PASS
802.11n HT40	38/5190	3.33	3.99	2.69	3.35	3.21	3.88	3.09	3.75	9.77	17.00	PASS
	46/5230	7.86	8.52	8.10	8.76	7.92	8.59	8.29	8.95	14.73	17.00	PASS
802.11ac VHT20	36/5180	9.95	10.64	9.53	10.21	9.52	10.21	9.96	10.65	16.45	17.00	PASS
	40/5200	9.64	10.33	9.59	10.28	9.54	10.22	9.78	10.47	16.35	17.00	PASS
	48/5240	9.64	10.33	10.38	11.06	9.17	9.86	9.68	10.37	16.45	17.00	PASS
802.11ac VHT40	38/5190	3.12	3.80	2.81	3.49	3.25	3.94	3.06	3.75	9.77	17.00	PASS
	46/5230	8.18	8.87	8.09	8.77	7.98	8.66	7.79	8.48	14.72	17.00	PASS
802.11ac VHT80	42/5210	-1.28	-0.59	-1.21	-0.52	-1.34	-0.65	-1.52	-0.84	5.37	17.00	PASS
802.11ax HE20	36/5180	9.53	10.21	9.39	10.07	9.57	10.25	9.63	10.31	16.23	17.00	PASS
	44/5200	9.56	10.24	9.66	10.34	9.27	9.95	9.76	10.44	16.27	17.00	PASS
	48/5240	9.12	9.80	9.76	10.44	9.66	10.34	9.51	10.19	16.22	17.00	PASS
802.11ax HE40	38/5190	3.35	4.07	2.77	3.49	2.98	3.70	3.06	3.78	9.79	17.00	PASS
	46/5230	8.82	9.54	8.94	9.66	8.59	9.31	8.89	9.61	15.55	17.00	PASS
802.11ax HE80	42/5210	-0.73	0.02	-0.84	-0.08	-1.45	-0.69	-0.53	0.23	5.90	17.00	PASS

Note: 1. Power Spectral Density = Read Value + Duty cycle correction factor

2. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a), the power spectral density = $10 \log(10^{(\text{PSD antenna1 in dBm/10})} + 10^{(\text{PSD antenna2 in dBm/10})} + 10^{(\text{PSD antenna3 in dBm/10})} + 10^{(\text{PSD antenna4 in dBm/10})})$

3. The manufacturer declared that the directional gain = 4.70dBi < 6dBi. So the PSD limit is 17dBm.



U-NII-2A

Mode	Channel/ Frequency (MHz)	Power Spectral Density									Limit (dBm/ MHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4		Total Power (dBm /MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11a	52/5260	3.23	3.77	4.21	4.76	3.12	3.66	3.52	4.06	10.11	11.00	PASS
	60/5300	2.98	3.52	3.55	4.09	3.02	3.56	2.67	3.21	9.63	11.00	PASS
	64/5320	3.37	3.91	4.22	4.76	3.63	4.18	3.06	3.60	10.16	11.00	PASS
802.11n HT20	52/5260	2.87	3.53	4.55	5.21	2.98	3.64	3.08	3.75	10.11	11.00	PASS
	60/5300	3.20	3.86	4.21	4.88	2.97	3.64	2.90	3.56	10.04	11.00	PASS
	64/5320	3.36	4.03	4.29	4.95	3.39	4.05	3.27	3.93	10.28	11.00	PASS
802.11n HT40	54/5270	3.15	3.81	3.89	4.55	3.05	3.71	2.77	3.43	9.92	11.00	PASS
	62/5310	2.87	3.54	3.29	3.95	2.46	3.12	2.29	2.95	9.43	11.00	PASS
802.11ac VHT20	52/5260	3.04	3.73	4.46	5.15	3.14	3.82	3.15	3.83	10.19	11.00	PASS
	60/5300	3.28	3.97	3.93	4.62	3.33	4.01	2.97	3.65	10.10	11.00	PASS
	64/5320	3.40	4.09	4.34	5.02	2.99	3.67	3.12	3.80	10.20	11.00	PASS
802.11ac VHT40	54/5270	3.36	4.05	3.86	4.54	3.14	3.82	2.74	3.42	10.00	11.00	PASS
	62/5310	3.25	3.93	3.71	4.40	3.13	3.82	2.68	3.36	9.91	11.00	PASS
802.11ac VHT80	58/5290	-0.74	-0.06	-0.36	0.32	-0.78	-0.10	-1.98	-1.30	5.78	11.00	PASS
802.11ac VHT160	50/5250	-7.60	-7.22	-6.97	-6.59	-8.19	-7.80	-8.04	-7.66	-1.27	11.00	PASS
802.11ax HE20	52/5260	3.46	4.14	4.97	5.65	3.74	4.42	3.34	4.02	10.63	11.00	PASS
	60/5300	3.21	3.89	4.56	5.24	3.66	4.35	3.41	4.09	10.44	11.00	PASS
	64/5320	3.93	4.61	4.66	5.34	4.01	4.69	3.16	3.84	10.67	11.00	PASS
802.11ax HE40	54/5270	3.29	4.01	4.32	5.04	3.02	3.74	3.22	3.94	10.23	11.00	PASS
	62/5310	2.73	3.45	3.43	4.15	2.76	3.48	2.34	3.06	9.57	11.00	PASS
802.11ax HE80	58/5290	-0.86	-0.10	0.11	0.87	-1.01	-0.25	-1.82	-1.06	5.94	11.00	PASS
802.11ax HE160	50/5250	-7.28	-7.00	-6.57	-6.29	-7.54	-7.26	-7.98	-7.70	-1.01	11.00	PASS

Note: 1.For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density= $10\log(10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})}+10^{(\text{PSD antenna3 in dBm/10})}+10^{(\text{PSD antenna4 in dBm/10})})$

2. The manufacturer declared that the directional gain =4.70dBi<6dBi. So the PSD limit is 11dBm.

U-NII-2C

Mode	Channel/ Frequency (MHz)	Power Spectral Density									Limit (dBm/ MHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4		Total Power (dBm /MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11a	100/5500	4.45	4.99	4.39	4.93	3.52	4.06	3.37	3.92	10.52	11.00	PASS
	116/5580	4.05	4.60	4.39	4.93	2.98	3.52	3.28	3.83	10.28	11.00	PASS
	140/5700	3.71	4.25	3.91	4.45	4.82	5.37	4.49	5.03	10.82	11.00	PASS
	144/5720	2.98	3.53	3.36	3.90	4.56	5.11	4.60	5.14	10.50	11.00	PASS
802.11n HT20	100/5500	3.46	4.12	3.68	4.34	2.85	3.51	2.47	3.13	9.82	11.00	PASS
	116/5580	3.96	4.63	4.36	5.02	2.89	3.55	3.01	3.67	10.28	11.00	PASS
	140/5700	3.01	3.67	3.75	4.42	4.30	4.96	4.57	5.23	10.63	11.00	PASS
	144/5720	3.23	3.89	3.53	4.19	4.57	5.24	4.69	5.35	10.74	11.00	PASS
802.11n HT40	102/5510	2.54	3.21	3.18	3.84	2.32	2.98	1.93	2.60	9.20	11.00	PASS
	110/5550	3.27	3.93	3.21	3.87	2.24	2.90	2.19	2.86	9.44	11.00	PASS
	134/5670	2.71	3.37	2.66	3.33	3.30	3.97	3.40	4.07	9.72	11.00	PASS
	142/5710	2.54	3.20	2.62	3.29	4.03	4.69	3.47	4.14	9.89	11.00	PASS
802.11ac VHT20	100/5500	3.59	4.27	3.66	4.35	2.84	3.53	2.51	3.20	9.89	11.00	PASS
	116/5580	3.48	4.16	4.21	4.89	2.76	3.45	2.83	3.52	10.07	11.00	PASS
	140/5700	3.07	3.76	3.99	4.68	4.27	4.96	4.45	5.14	10.68	11.00	PASS
	144/5720	3.34	4.03	4.02	4.70	4.47	5.15	4.39	5.08	10.78	11.00	PASS
802.11ac VHT40	102/5510	2.64	3.32	3.30	3.98	2.26	2.94	2.06	2.74	9.29	11.00	PASS
	110/5550	3.05	3.73	3.41	4.09	2.27	2.95	1.84	2.52	9.39	11.00	PASS
	134/5670	2.45	3.13	2.72	3.40	2.93	3.61	2.70	3.38	9.40	11.00	PASS
	142/5710	2.38	3.06	2.70	3.38	3.33	4.01	3.63	4.32	9.74	11.00	PASS
802.11ac VHT80	106/5530	-0.71	-0.02	-0.17	0.52	-1.15	-0.46	-1.54	-0.85	5.85	11.00	PASS
	138/5690	-0.87	-0.18	-1.04	-0.35	-0.10	0.58	-0.34	0.34	6.14	11.00	PASS
802.11ac VHT160	114/5570	-7.36	-6.98	-7.02	-6.64	-8.68	-8.29	-8.29	-7.90	-1.38	11.00	PASS
802.11ax HE20	100/5500	4.01	4.69	3.68	4.36	3.61	4.29	2.78	3.47	10.25	11.00	PASS
	116/5580	3.97	4.65	4.38	5.06	3.19	3.87	3.09	3.78	10.39	11.00	PASS
	140/5700	3.10	3.78	3.59	4.27	4.37	5.05	4.32	5.01	10.58	11.00	PASS
	144/5720	2.75	3.43	3.16	3.84	4.23	4.91	3.82	4.50	10.23	11.00	PASS
802.11ax HE40	102/5510	3.08	3.80	2.83	3.55	2.10	2.82	2.14	2.86	9.30	11.00	PASS
	110/5550	3.06	3.78	3.40	4.12	2.33	3.05	1.61	2.33	9.40	11.00	PASS
	134/5670	2.27	2.99	2.46	3.18	3.29	4.01	2.77	3.49	9.46	11.00	PASS
	142/5710	2.57	3.29	2.69	3.41	3.66	4.38	3.43	4.15	9.85	11.00	PASS
802.11ax	106/5530	0.05	0.81	-0.03	0.73	-1.50	-0.74	-1.31	-0.55	6.14	11.00	PASS



HE80	138/5690	-0.59	0.17	-0.33	0.43	0.05	0.81	0.53	1.29	6.72	11.00	PASS
802.11ax HE160	114/5570	-5.61	-5.33	-5.65	-5.36	-6.62	-6.33	-6.82	-6.53	0.16	11.00	PASS

Note: 1.For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density= $10\log(10^{(\text{PSD antenna1 in dBm}/10)} + 10^{(\text{PSD antenna2 in dBm}/10)} + 10^{(\text{PSD antenna3 in dBm}/10)} + 10^{(\text{PSD antenna4 in dBm}/10)})$

2. The manufacturer declared that the directional gain = 4.70dBi<6dBi. So the PSD limit is 11dBm.



U-NII-3

Mode	Channel/ Frequency (MHz)	Power Spectral Density									Limit (dBm/ 500kHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4		Total Power (dBm/ 500kHz)		
		Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)			
802.11a	149/5745	8.74	9.55	8.74	9.56	10.13	10.94	9.68	10.49	16.20	30.00	PASS
	157/5785	9.12	9.94	9.06	9.88	10.75	11.56	10.24	11.05	16.69	30.00	PASS
	165/5825	8.19	9.00	9.34	10.15	10.33	11.15	9.97	10.78	16.37	30.00	PASS
802.11n HT20	149/5745	8.15	9.08	7.62	8.55	8.93	9.86	8.94	9.87	15.40	30.00	PASS
	157/5785	8.41	9.34	8.37	9.31	9.86	10.79	9.46	10.39	16.03	30.00	PASS
	165/5825	7.53	8.46	8.30	9.23	10.02	10.95	9.37	10.31	15.86	30.00	PASS
802.11n HT40	151/5755	5.15	6.09	5.39	6.32	6.65	7.58	6.59	7.52	12.95	30.00	PASS
	159/5795	5.06	5.99	5.25	6.18	7.39	8.32	6.05	6.98	12.99	30.00	PASS
802.11ac VHT20	149/5745	8.49	9.44	7.73	8.68	9.03	9.98	9.41	10.36	15.68	30.00	PASS
	157/5785	8.70	9.65	7.97	8.92	9.61	10.56	9.33	10.29	15.92	30.00	PASS
	165/5825	7.53	8.48	8.21	9.16	10.09	11.05	9.16	10.11	15.83	30.00	PASS
802.11ac VHT40	151/5755	5.54	6.49	5.03	5.98	6.99	7.94	6.49	7.44	13.05	30.00	PASS
	159/5795	4.90	5.85	5.50	6.46	7.81	8.76	6.24	7.19	13.23	30.00	PASS
802.11ac VHT80	155/5775	2.05	3.00	2.02	2.97	3.64	4.60	3.03	3.98	9.72	30.00	PASS
802.11ax HE20	149/5745	8.41	9.36	8.26	9.21	10.03	10.98	9.41	10.37	16.06	30.00	PASS
	157/5785	8.73	9.69	8.38	9.34	10.29	11.24	9.83	10.78	16.35	30.00	PASS
	165/5825	7.93	8.88	8.33	9.29	10.19	11.14	9.75	10.70	16.12	30.00	PASS
802.11ax HE40	151/5755	5.24	6.23	5.51	6.50	7.11	8.10	6.32	7.31	13.12	30.00	PASS
	159/5795	5.52	6.51	5.27	6.26	7.30	8.29	6.68	7.67	13.28	30.00	PASS
802.11ax HE80	155/5775	0.28	1.31	0.48	1.51	2.31	3.34	2.11	3.14	8.44	30.00	PASS

Note: 1. PSD=Read Value+Duty cycle+10*LOG(500/470) correction factor

2. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a), the power spectral density= $10\log(10^{(\text{PSD antenna1 in dBm}/10)} + 10^{(\text{PSD antenna2 in dBm}/10)} + 10^{(\text{PSD antenna3 in dBm}/10)} + 10^{(\text{PSD antenna4 in dBm}/10)})$.

3. The manufacturer declared that the directional gain = 4.70dBi<6dBi. So the PSD limit is 30dBm.

Internal Antenna 1: HL
MIMO without Beamforming
Antenna 1

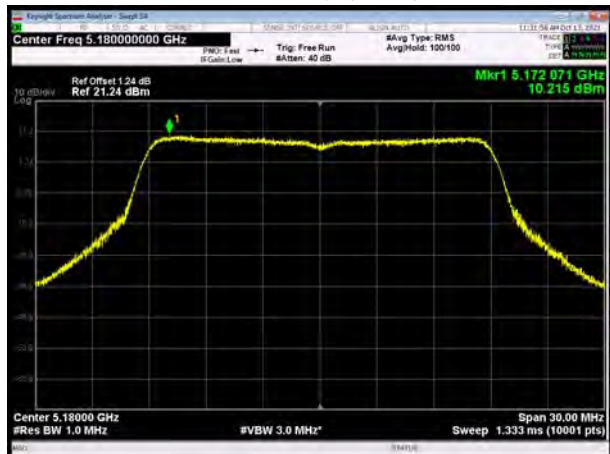
U-NII-1, 802.11a

Carrier frequency (MHz): 5180



U-NII-1, 802.11n HT20

Carrier frequency (MHz): 5180



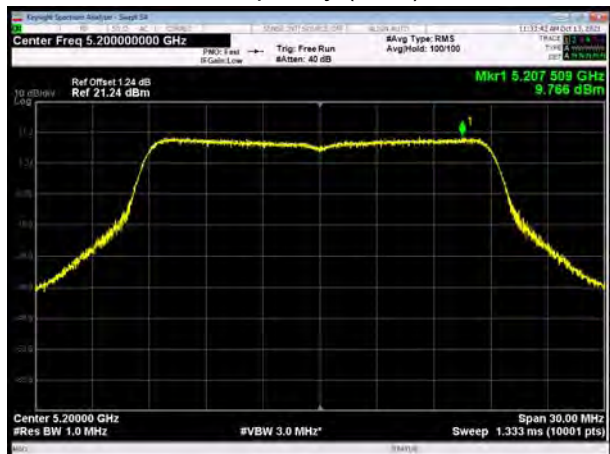
U-NII-1, 802.11a

Carrier frequency (MHz): 5200



U-NII-1, 802.11n HT20

Carrier frequency (MHz): 5200



U-NII-1, 802.11a

Carrier frequency (MHz):5240

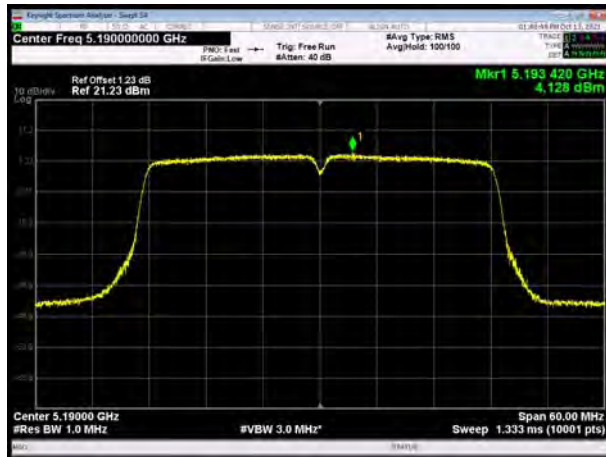


U-NII-1, 802.11n HT20

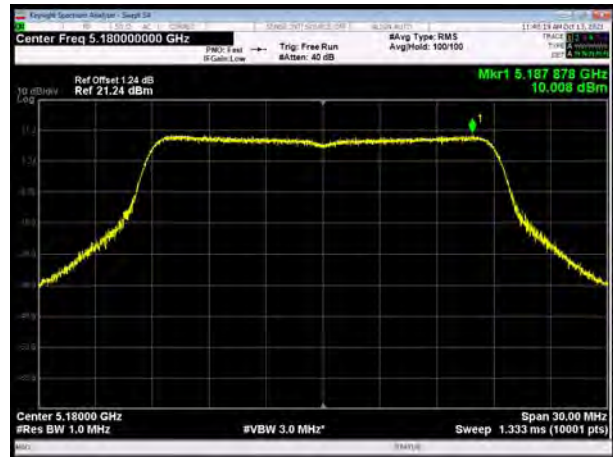
Carrier frequency (MHz):5240



U-NII-1, 802.11n HT40
Carrier frequency (MHz): 5190



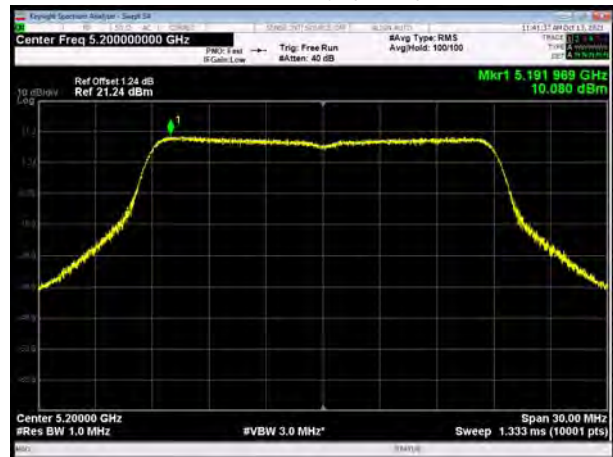
U-NII-1, 802.11ac VHT20
Carrier frequency (MHz): 5180



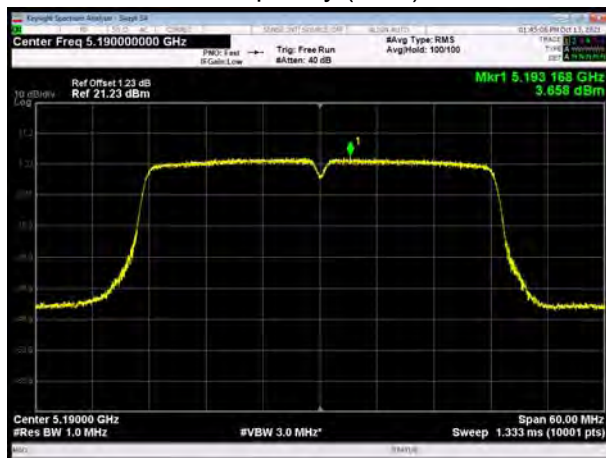
U-NII-1, 802.11n HT40
Carrier frequency (MHz): 5230



U-NII-1, 802.11ac VHT20
Carrier frequency (MHz): 5200



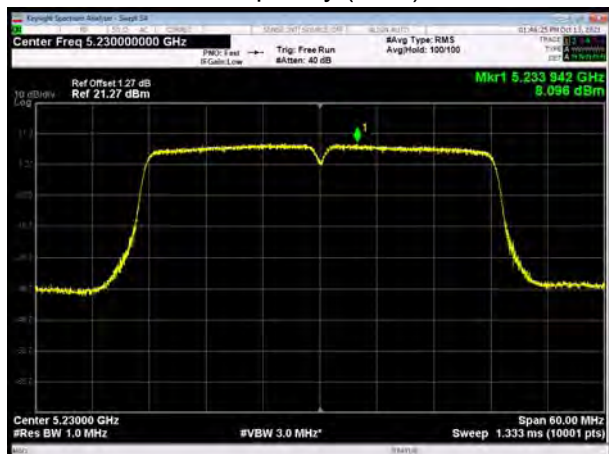
U-NII-1, 802.11ac VHT40
Carrier frequency (MHz): 5190



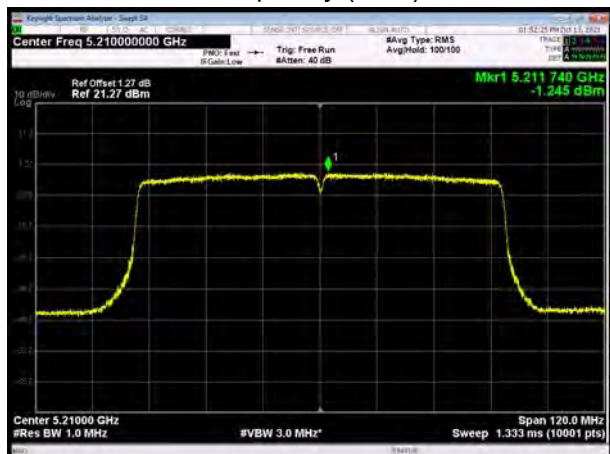
U-NII-1, 802.11ac VHT20
Carrier frequency (MHz): 5240



U-NII-1, 802.11ac VHT40
Carrier frequency (MHz): 5230



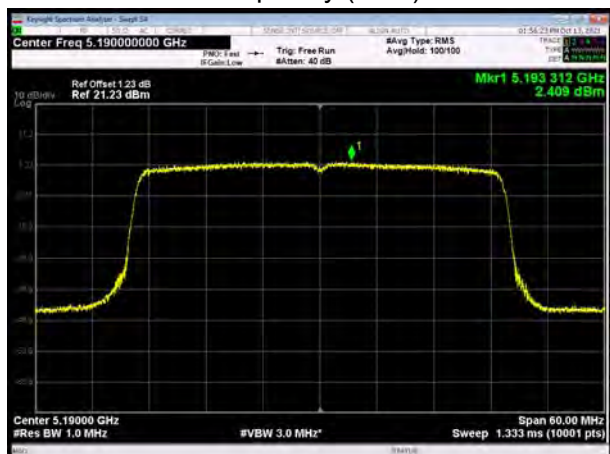
U-NII-1, 802.11ac VHT80
Carrier frequency (MHz): 5210



U-NII-1, 802.11ax HE20
Carrier frequency (MHz): 5180



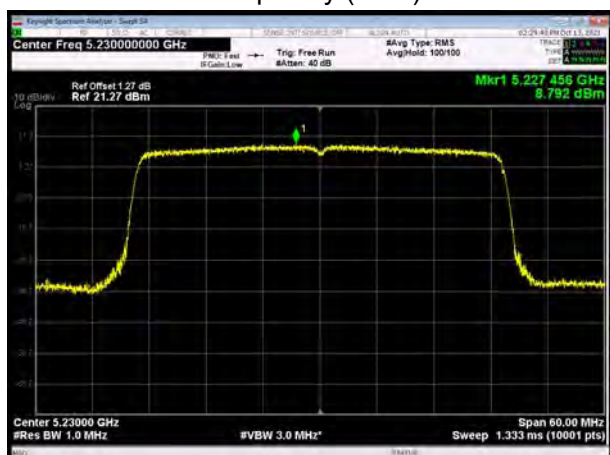
U-NII-1, 802.11ax HE40
Carrier frequency (MHz): 5190



U-NII-1, 802.11ax HE20
Carrier frequency (MHz): 5200



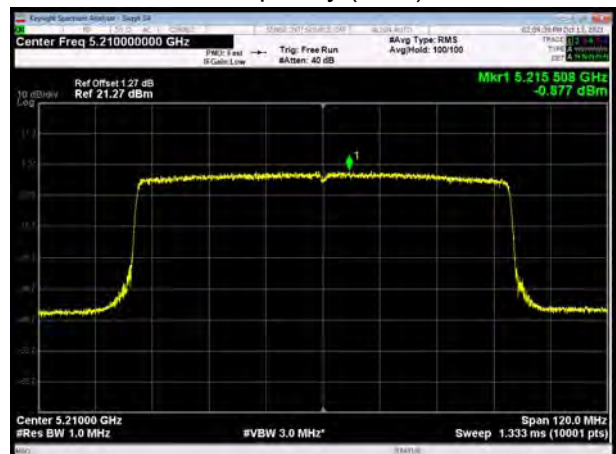
U-NII-1, 802.11ax HE40
Carrier frequency (MHz): 5230



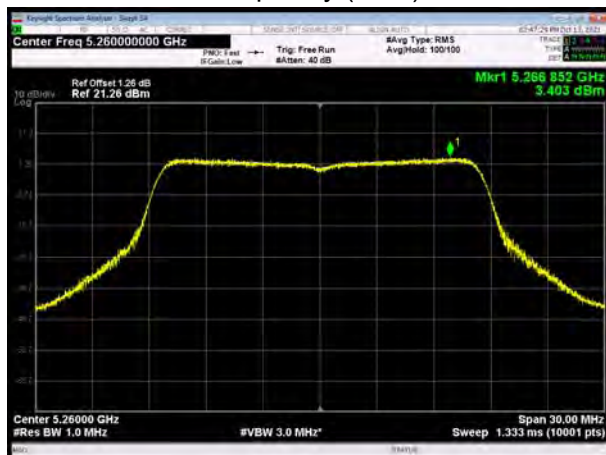
U-NII-1, 802.11ax HE20
Carrier frequency (MHz):5240



U-NII-1, 802.11ax HE80
Carrier frequency (MHz): 5210



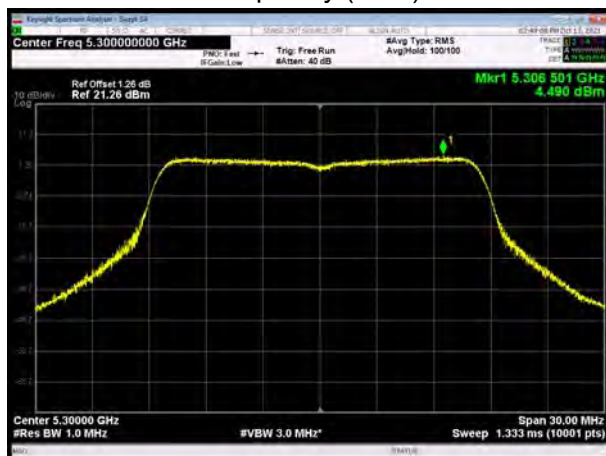
U-NII-2A, 802.11a
Carrier frequency (MHz): 5260



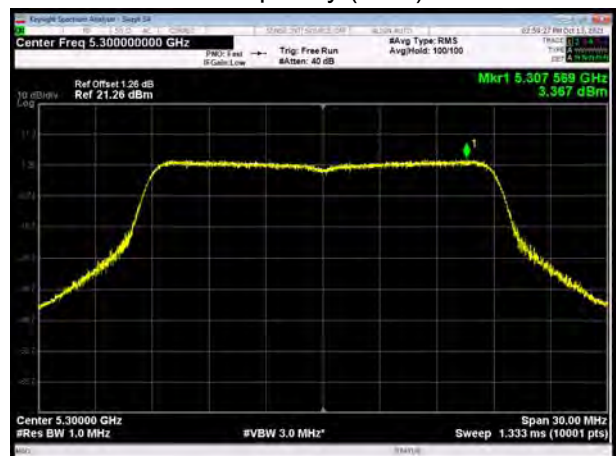
U-NII-2A, 802.11n HT20
Carrier frequency (MHz): 5260



U-NII-2A, 802.11a
Carrier frequency (MHz): 5300



U-NII-2A, 802.11n HT20
Carrier frequency (MHz): 5300



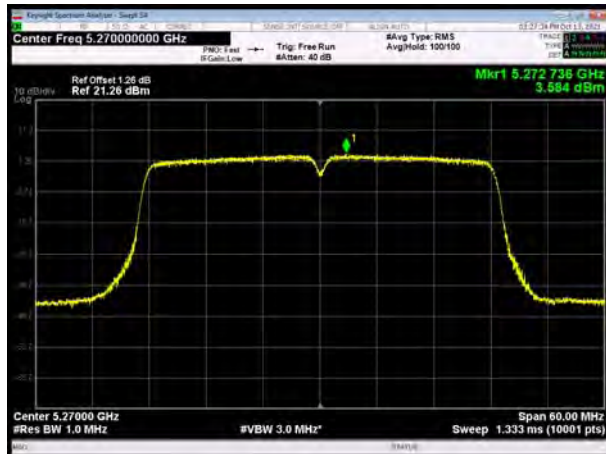
U-NII-2A, 802.11a
Carrier frequency (MHz):5320



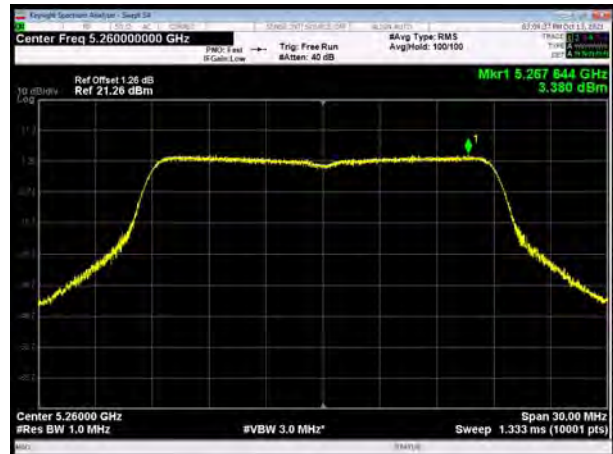
U-NII-2A, 802.11n HT20
Carrier frequency (MHz):5320



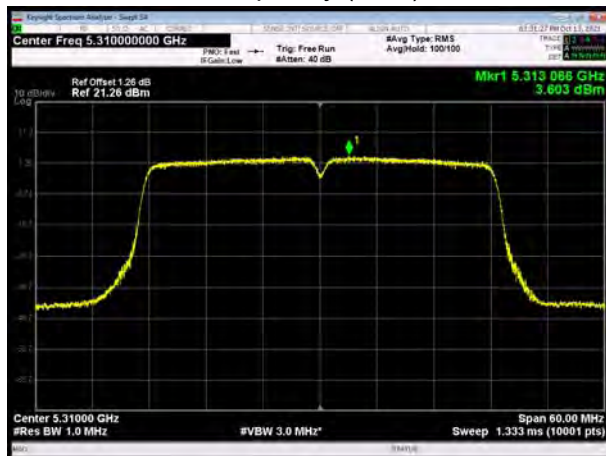
U-NII-2A, 802.11n HT40
Carrier frequency (MHz): 5270



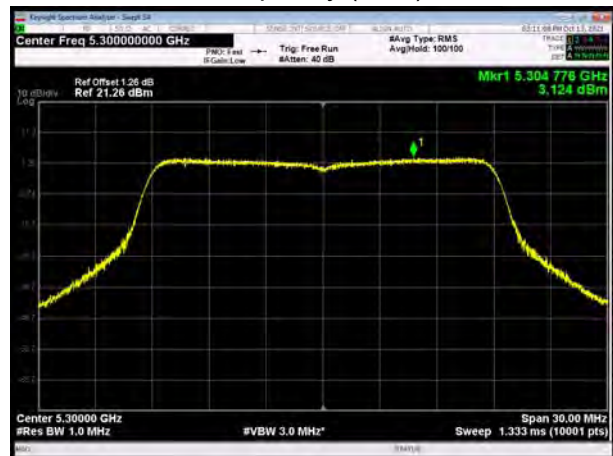
U-NII-2A, 802.11ac VHT20
Carrier frequency (MHz):5260



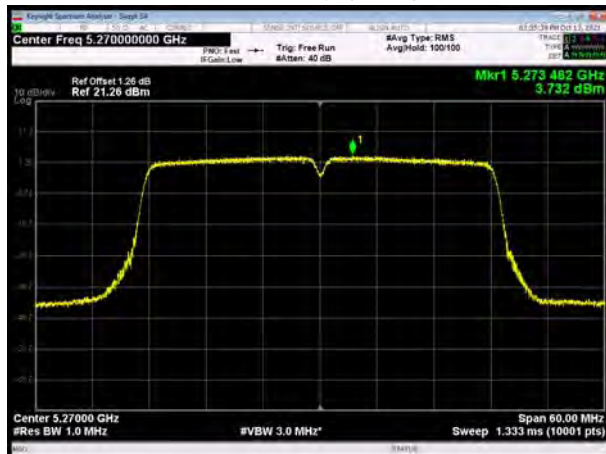
U-NII-2A, 802.11n HT40
Carrier frequency (MHz): 5310



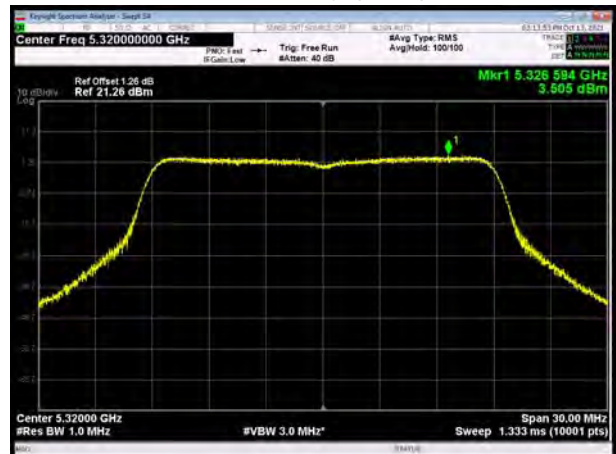
U-NII-2A, 802.11ac VHT20
Carrier frequency (MHz): 5300



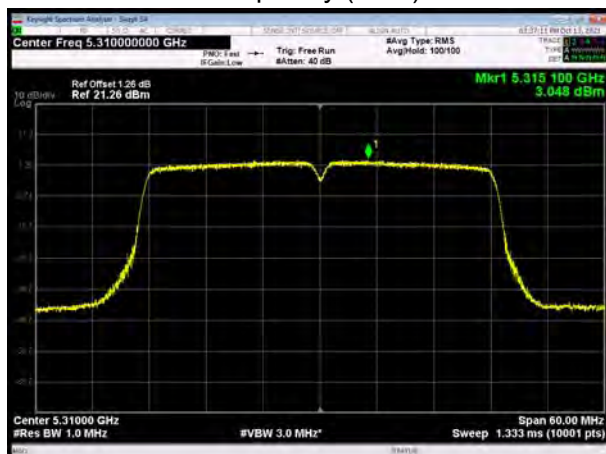
U-NII-2A, 802.11ac VHT40
Carrier frequency (MHz): 5270



U-NII-2A, 802.11ac VHT20
Carrier frequency (MHz): 5320



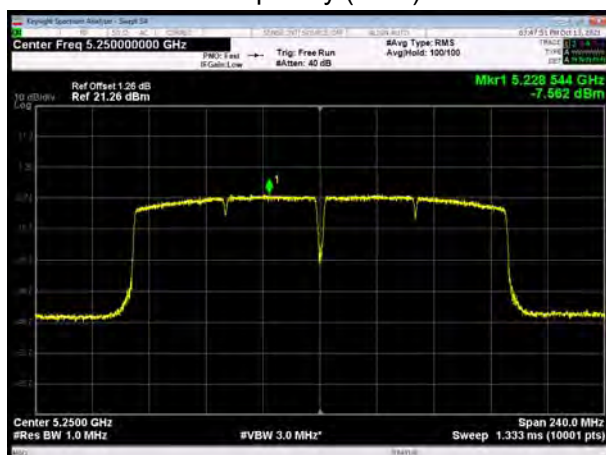
U-NII-2A, 802.11ac VHT40
Carrier frequency (MHz): 5310



U-NII-2A, 802.11ac VHT80
Carrier frequency (MHz): 5290



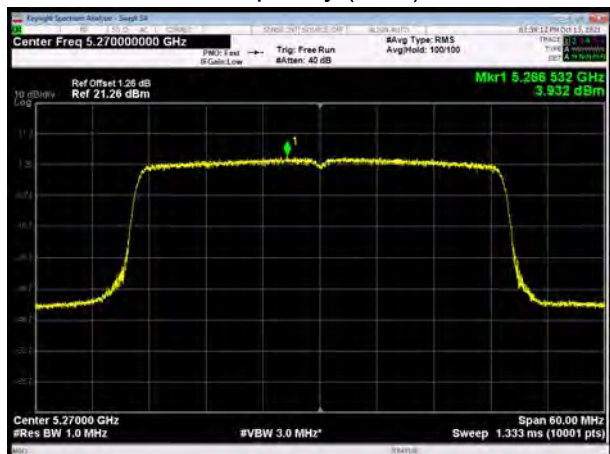
U-NII-2A, 802.11ac VHT160
Carrier frequency (MHz): 5250



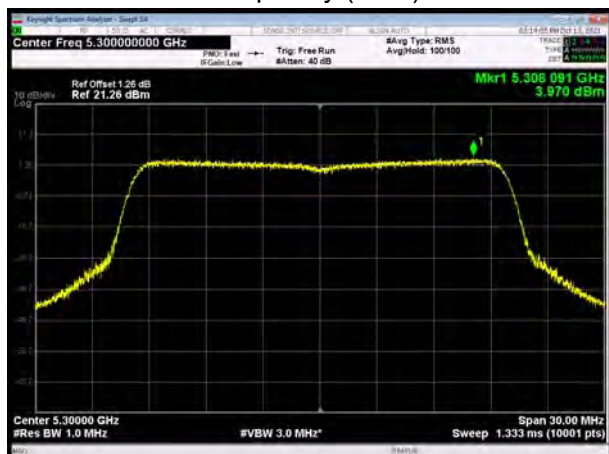
U-NII-2A, 802.11ax HE20
Carrier frequency (MHz):5260



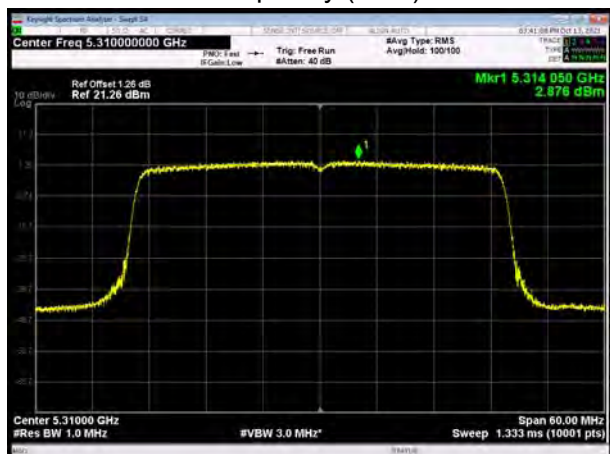
U-NII-2A, 802.11ax HE40
Carrier frequency (MHz): 5270



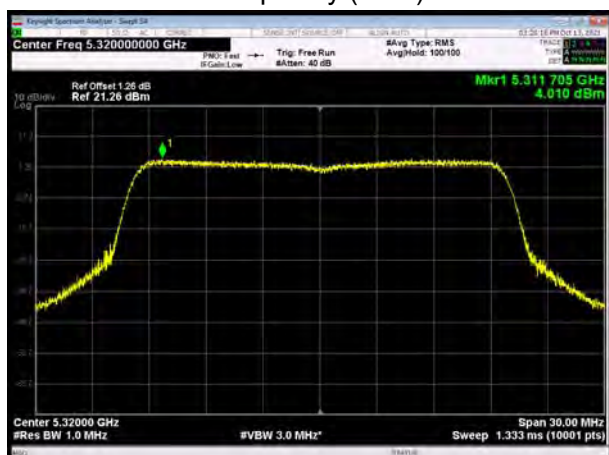
U-NII-2A, 802.11ax HE20
Carrier frequency (MHz): 5300



U-NII-2A, 802.11ax HE40
Carrier frequency (MHz): 5310



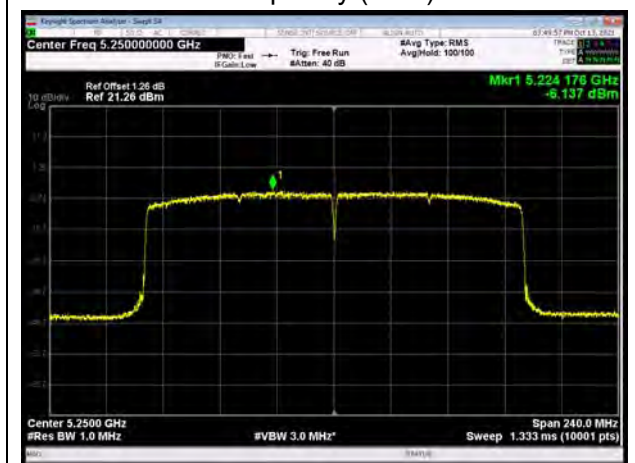
U-NII-2A, 802.11ax HE20
Carrier frequency (MHz):5320



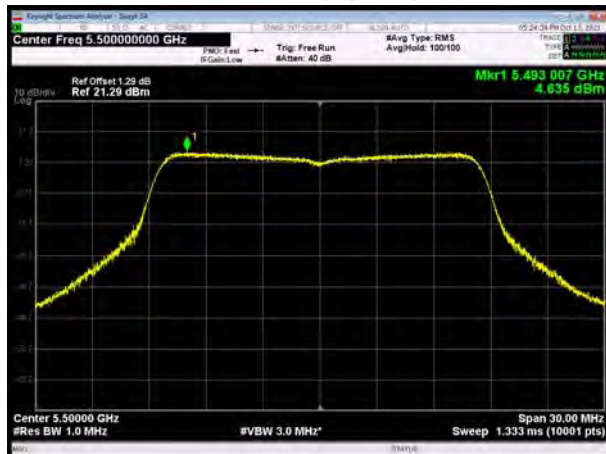
U-NII-2A, 802.11ax HE80
Carrier frequency (MHz): 5290



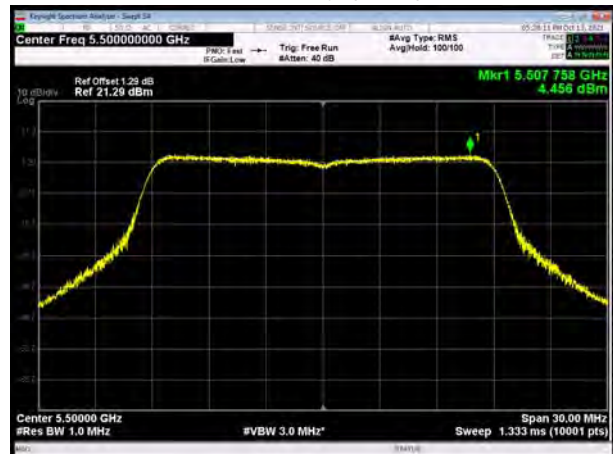
U-NII-2A, 802.11ax HE160
Carrier frequency (MHz): 5250



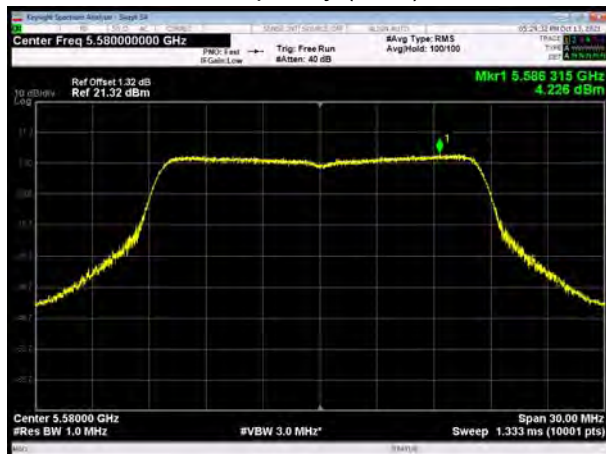
U-NII-2C, 802.11a
Carrier frequency (MHz): 5500



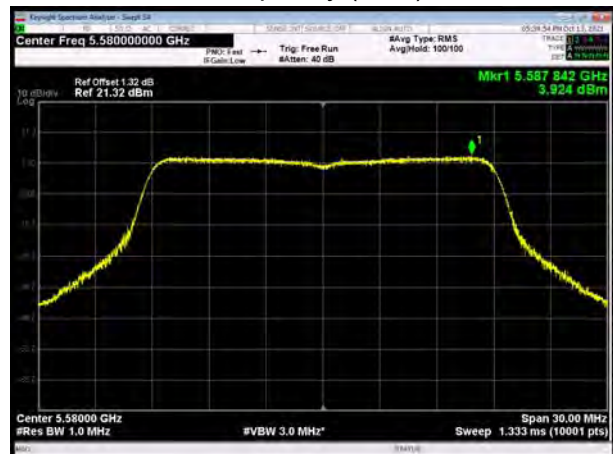
U-NII-2C, 802.11n HT20
Carrier frequency (MHz): 5500



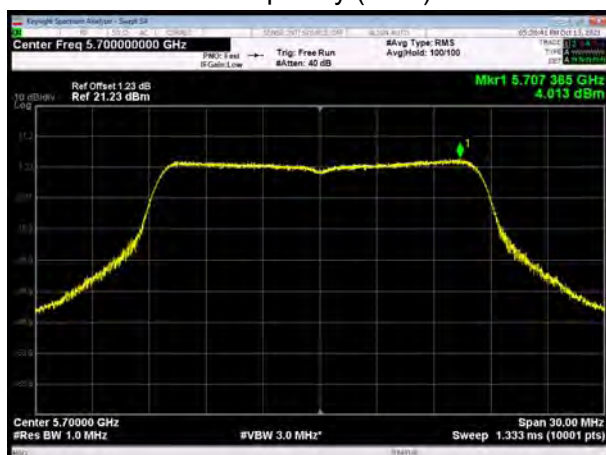
U-NII-2C, 802.11a
Carrier frequency (MHz): 5580



U-NII-2C, 802.11n HT20
Carrier frequency (MHz): 5580



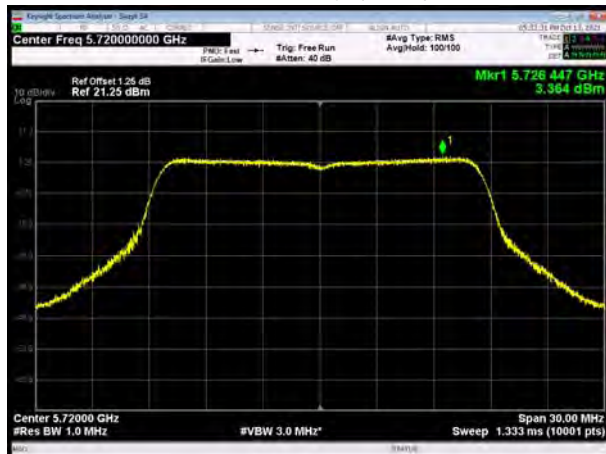
U-NII-2C, 802.11a
Carrier frequency (MHz): 5700



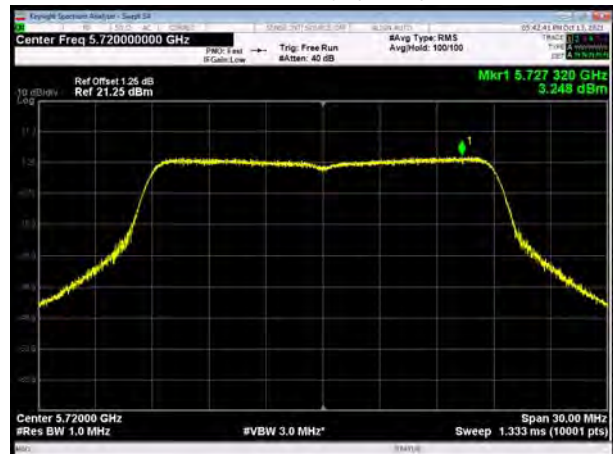
U-NII-2C, 802.11n HT20
Carrier frequency (MHz): 5700



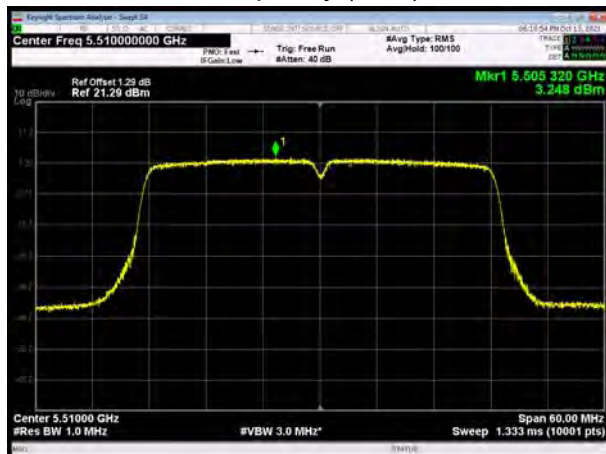
U-NII-2C, 802.11a
Carrier frequency (MHz):5720



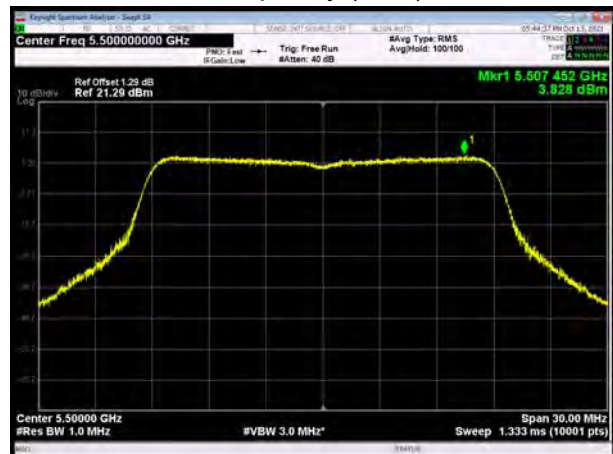
U-NII-2C, 802.11n HT20
Carrier frequency (MHz):5720



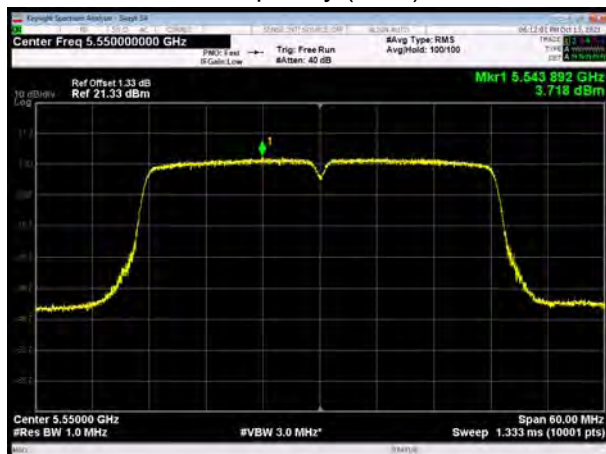
U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5510



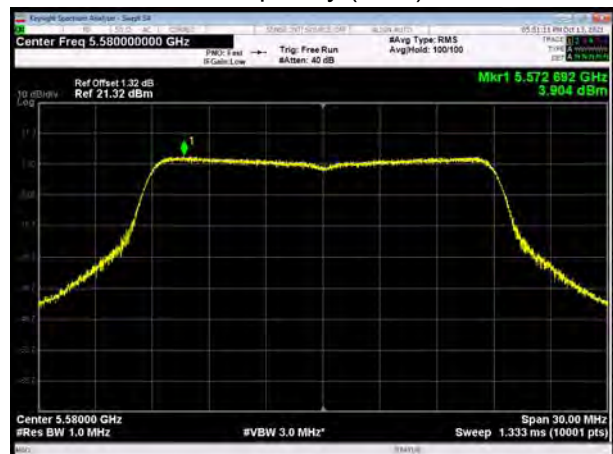
U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5500



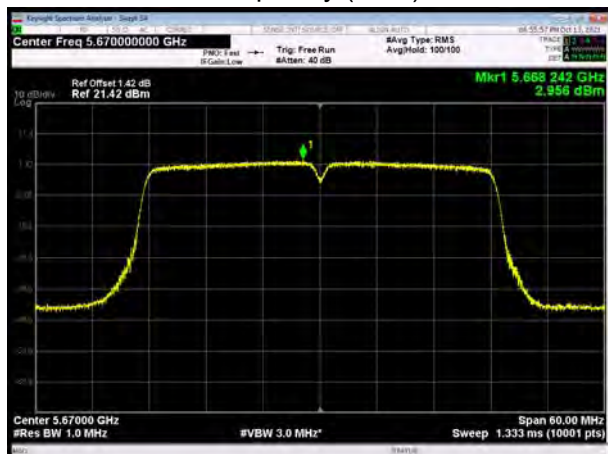
U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5550



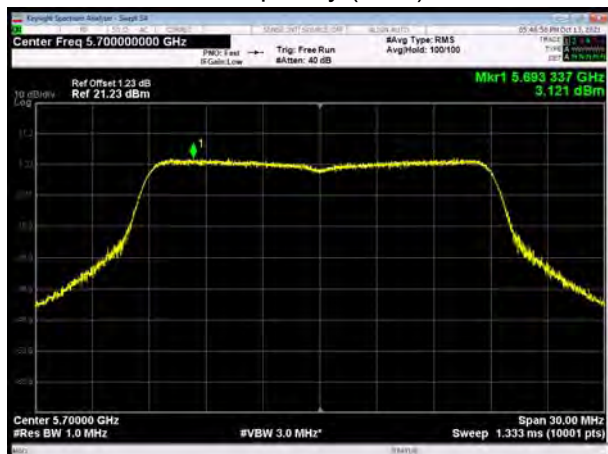
U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5580



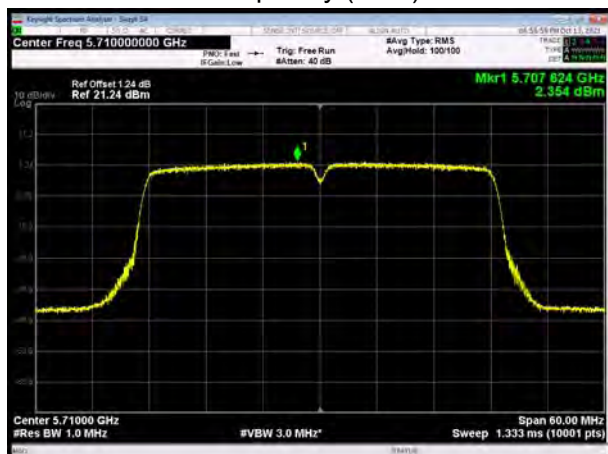
U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5670



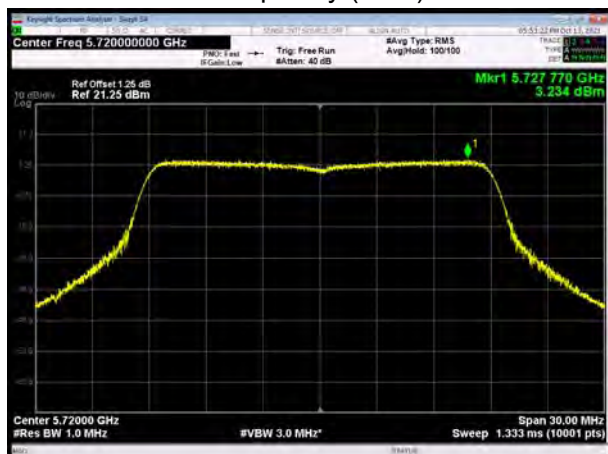
U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5700



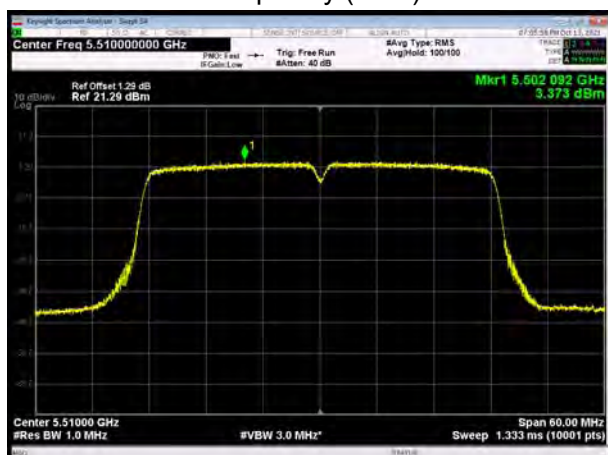
U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5710



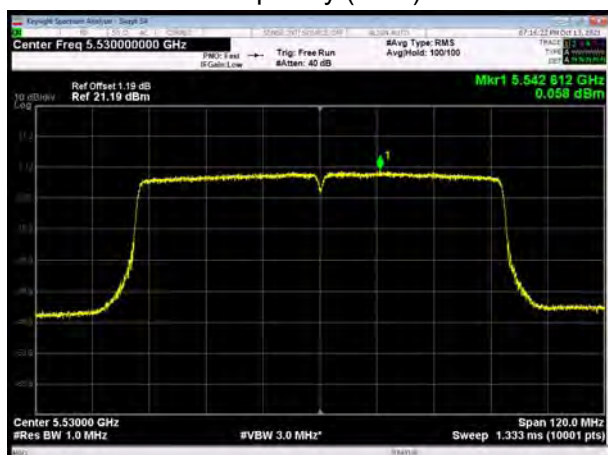
U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5720



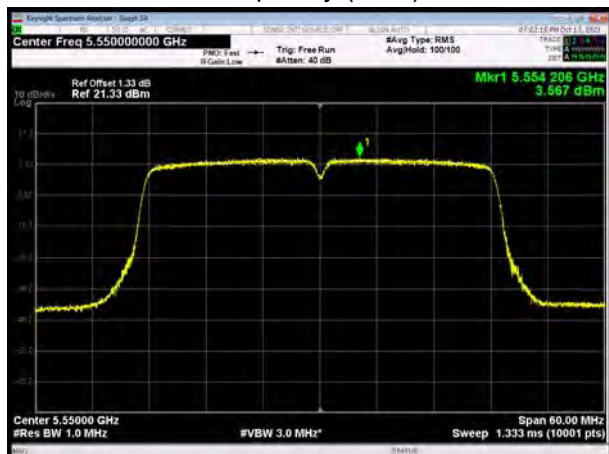
U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5510



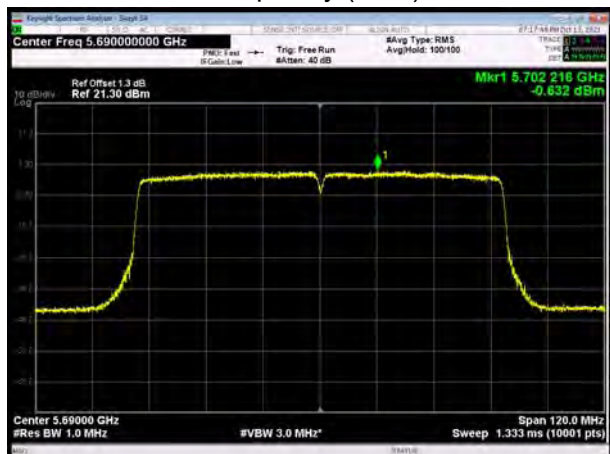
U-NII-2C, 802.11ac VHT80
Carrier frequency (MHz): 5530



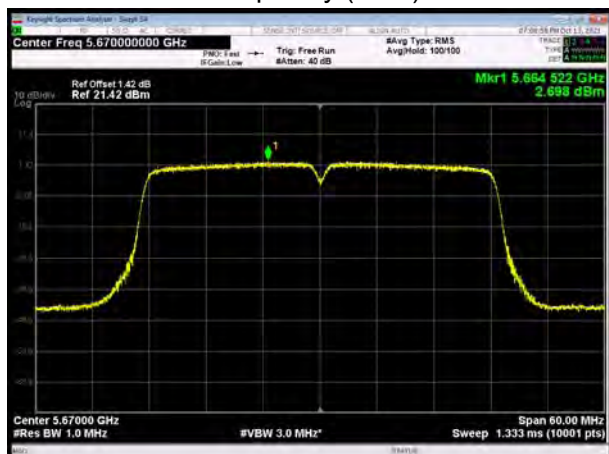
U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5550



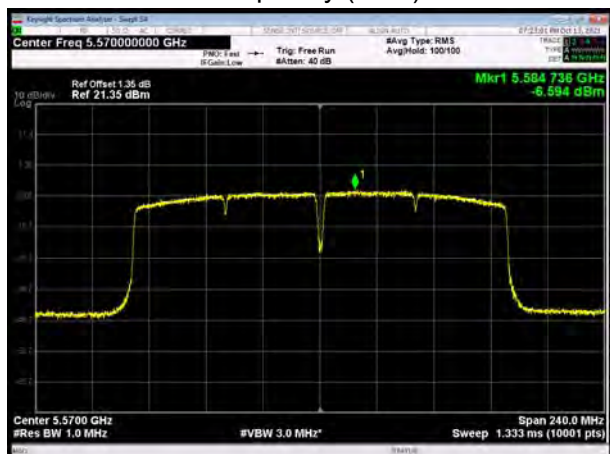
U-NII-2C, 802.11ac VHT80
Carrier frequency (MHz): 5690



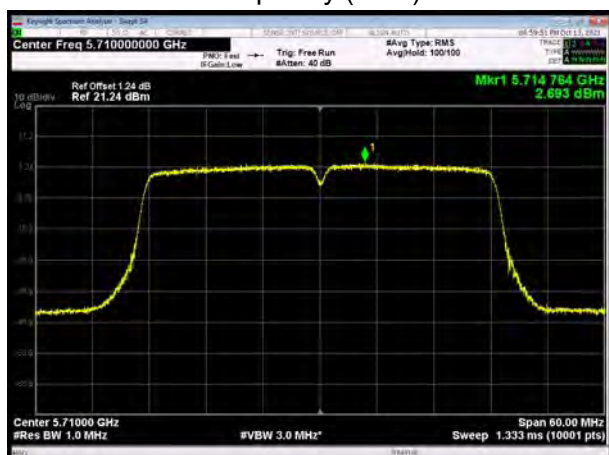
U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5670



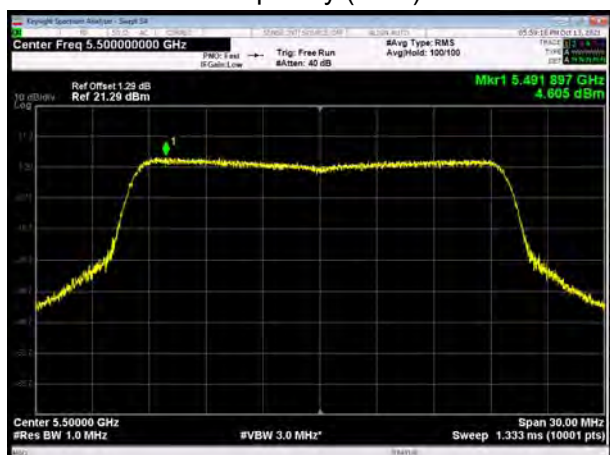
U-NII-2C, 802.11ac VHT160
Carrier frequency (MHz): 5570



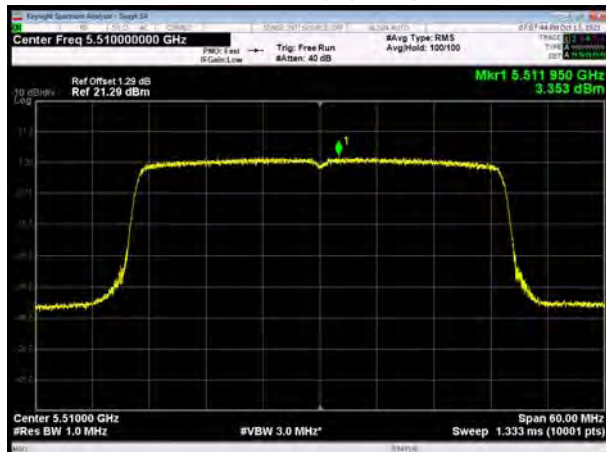
U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5710



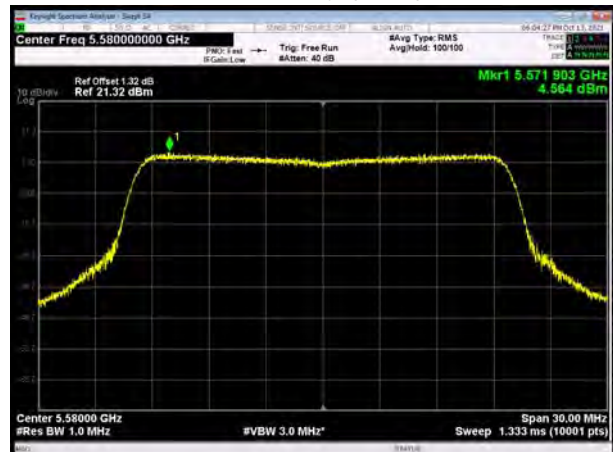
U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5500



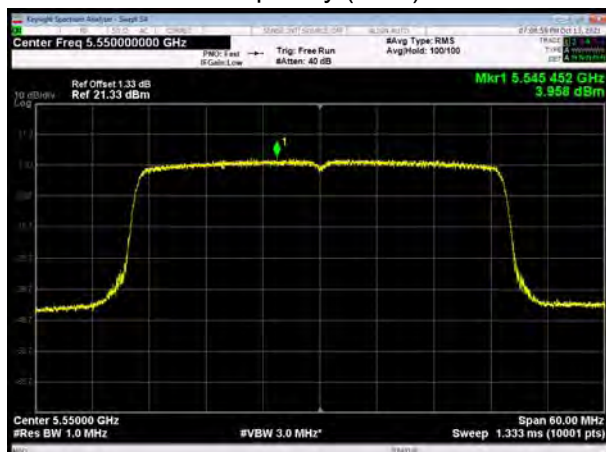
U-NII-2C, 802.11ax HE40
Carrier frequency (MHz): 5510



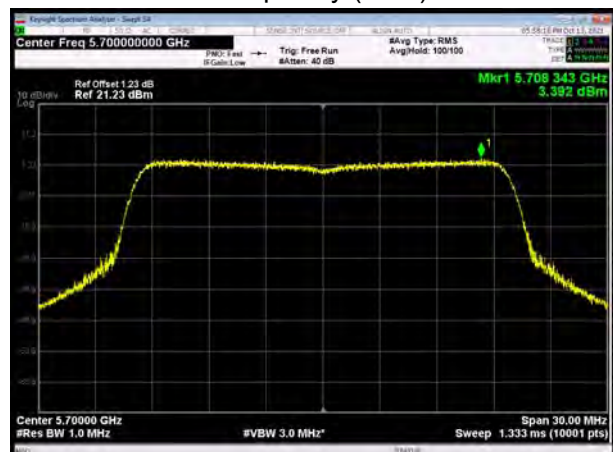
U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5580



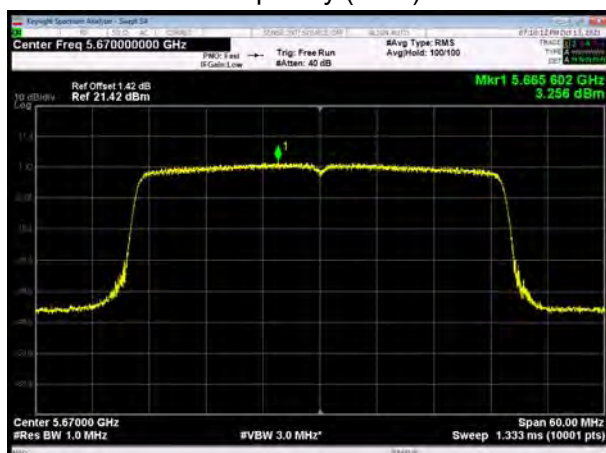
U-NII-2C, 802.11ax HE40
Carrier frequency (MHz): 5550



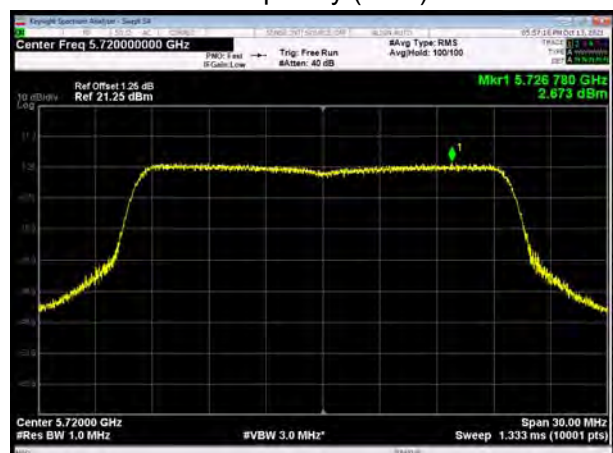
U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5700



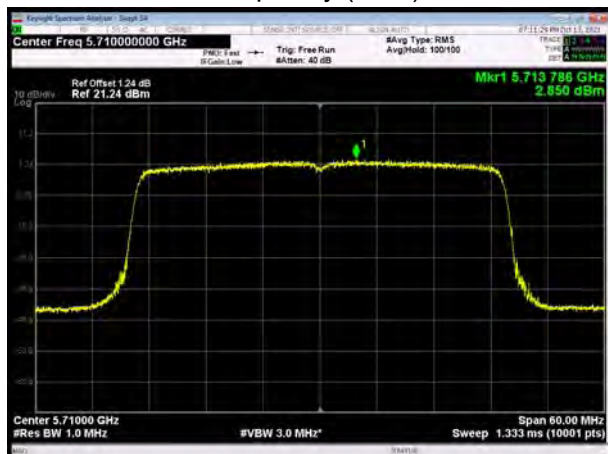
U-NII-2C, 802.11ax HE40
Carrier frequency (MHz): 5670



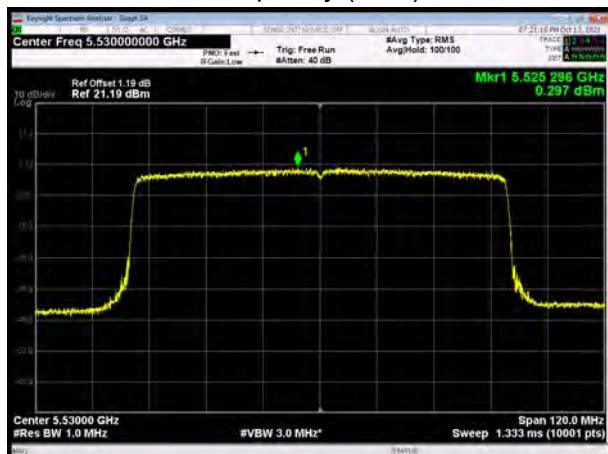
U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5720



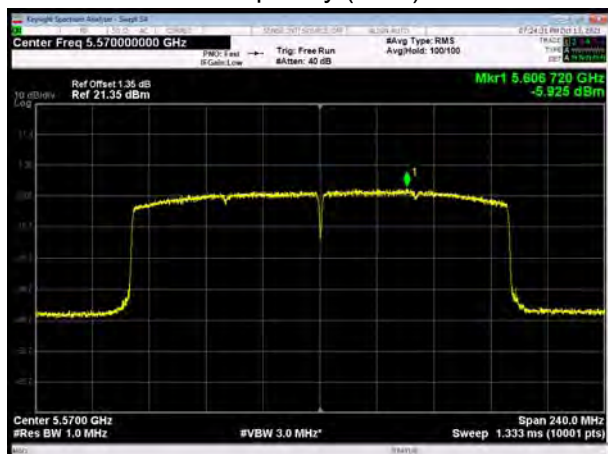
U-NII-2C, 802.11ax HE40
Carrier frequency (MHz): 5710



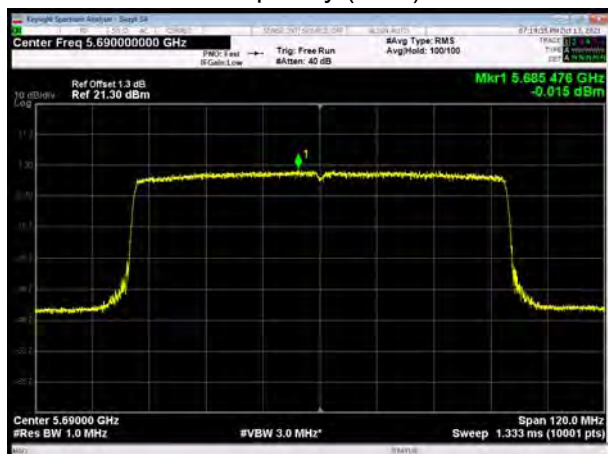
U-NII-2C, 802.11ax HE80
Carrier frequency (MHz): 5530



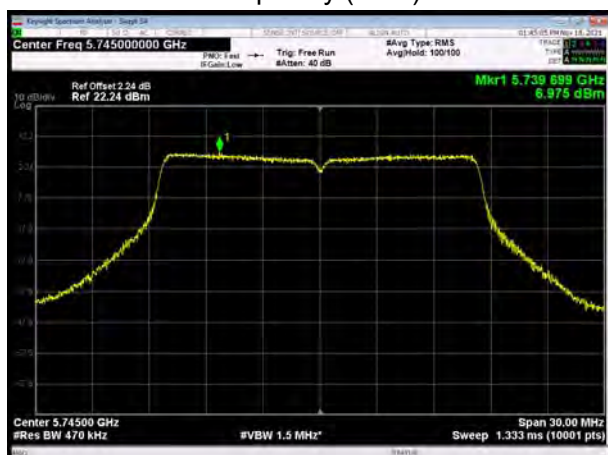
U-NII-2C, 802.11ax HE160
Carrier frequency (MHz): 5570



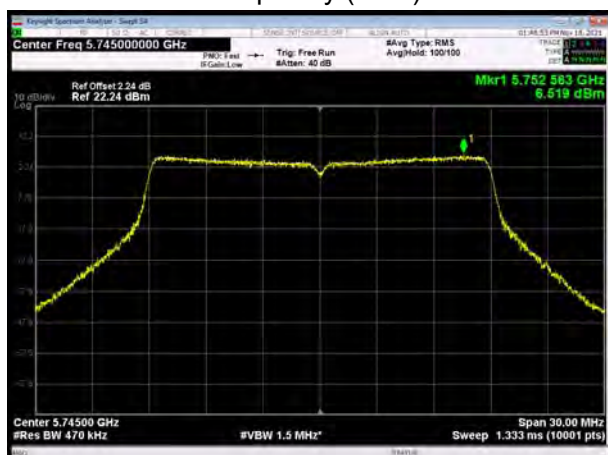
U-NII-2C, 802.11ax HE80
Carrier frequency (MHz): 5690



U-NII-3, 802.11a
Carrier frequency (MHz): 5745



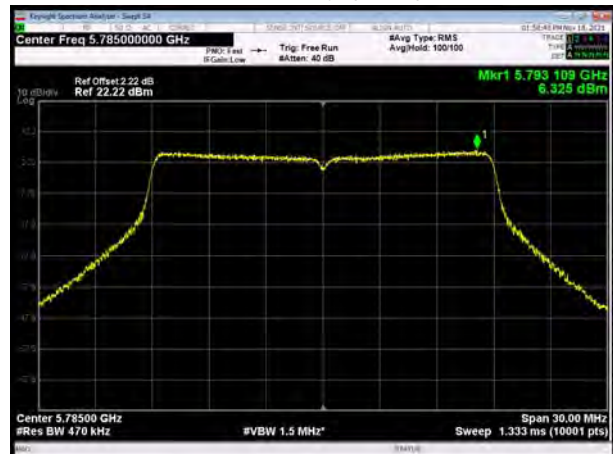
U-NII-3, 802.11n HT20
Carrier frequency (MHz): 5745



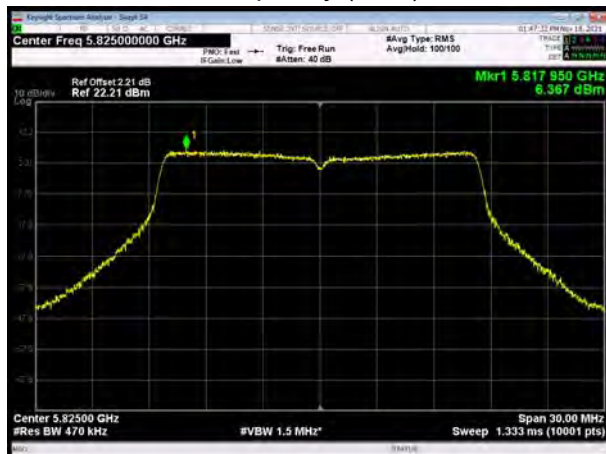
U-NII-3, 802.11a
Carrier frequency (MHz): 5785



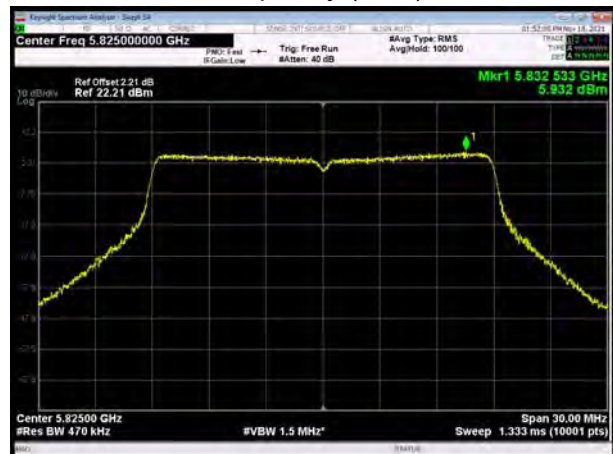
U-NII-3, 802.11n HT20
Carrier frequency (MHz): 5785



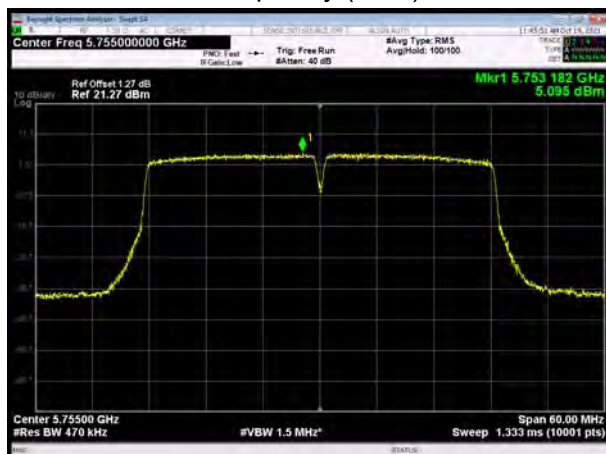
U-NII-3, 802.11a
Carrier frequency (MHz): 5825



U-NII-3, 802.11n HT20
Carrier frequency (MHz): 5825



U-NII-3, 802.11n HT40
Carrier frequency (MHz): 5755



U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5745



U-NII-3, 802.11n HT40
Carrier frequency (MHz): 5795



U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5785



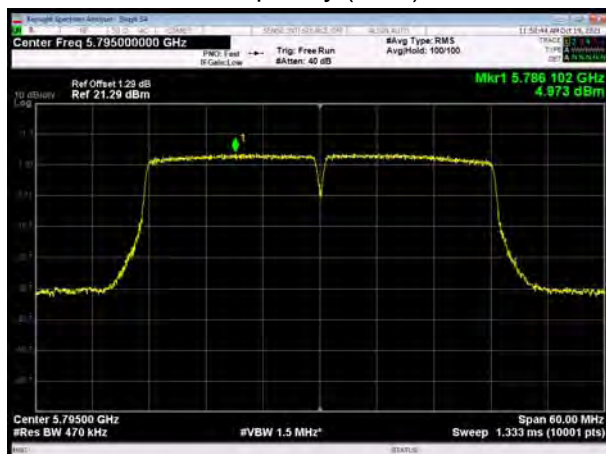
U-NII-3, 802.11ac VHT40
Carrier frequency (MHz): 5755



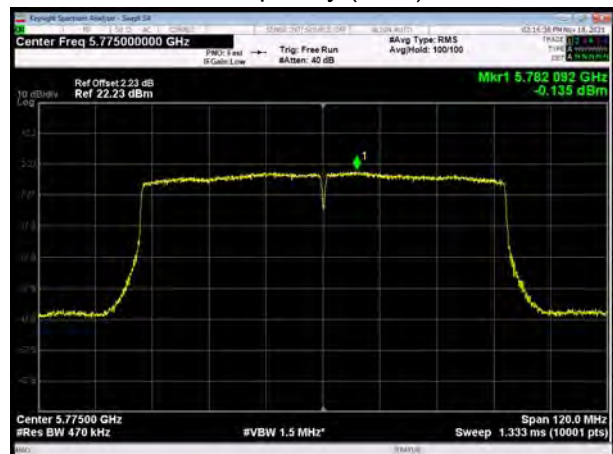
U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5825



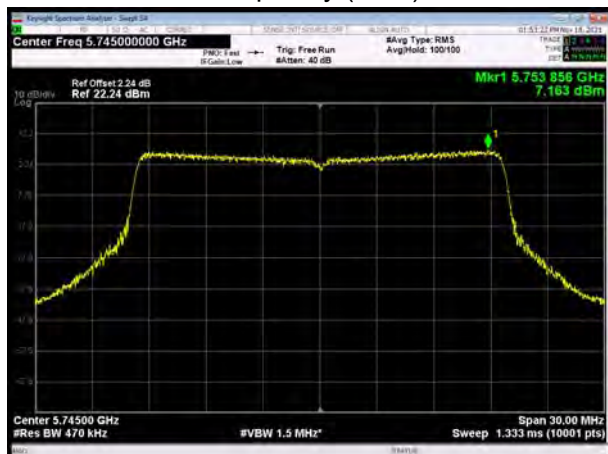
U-NII-3, 802.11ac VHT40
Carrier frequency (MHz): 5795



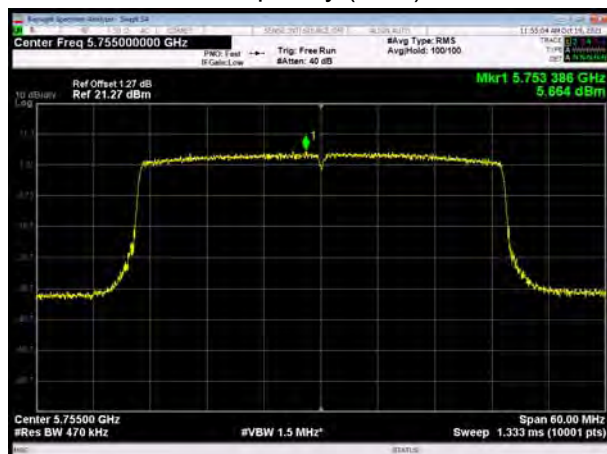
U-NII-3, 802.11ac VHT80
Carrier frequency (MHz): 5775



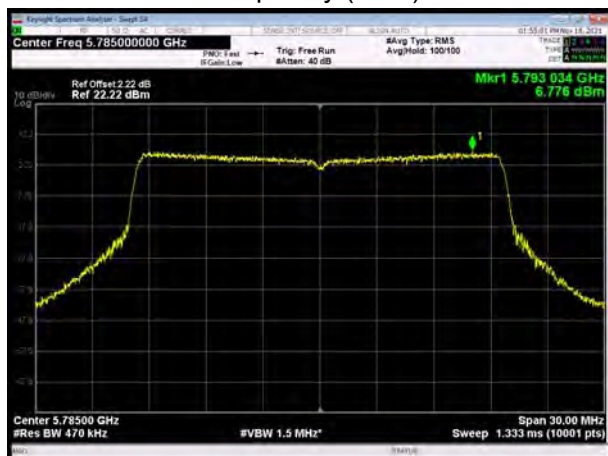
U-NII-3, 802.11ax HE20
Carrier frequency (MHz): 5745



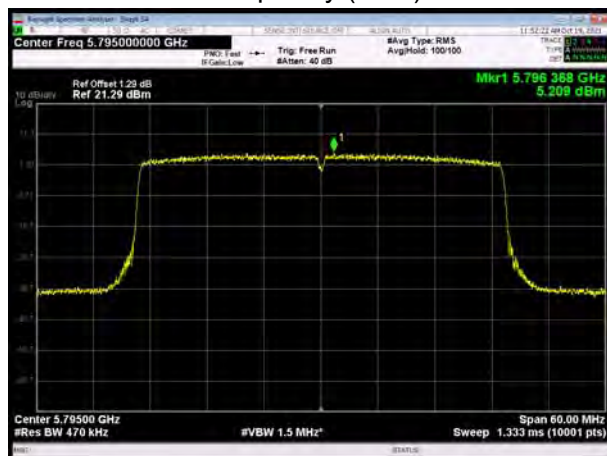
U-NII-3, 802.11ax HE40
Carrier frequency (MHz): 5755



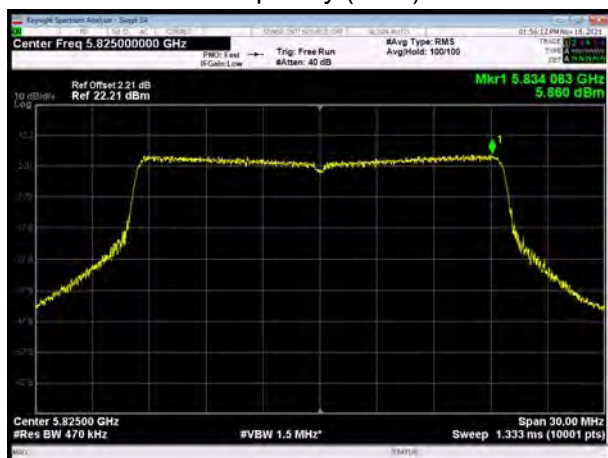
U-NII-3, 802.11ax HE20
Carrier frequency (MHz): 5785



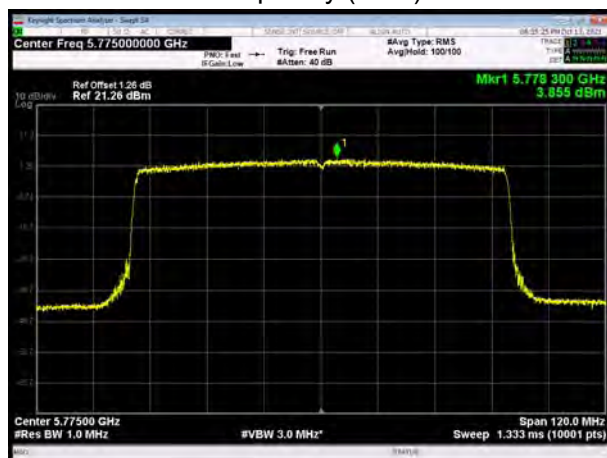
U-NII-3, 802.11ax HE40
Carrier frequency (MHz): 5795



U-NII-3, 802.11ax HE20
Carrier frequency (MHz): 5825



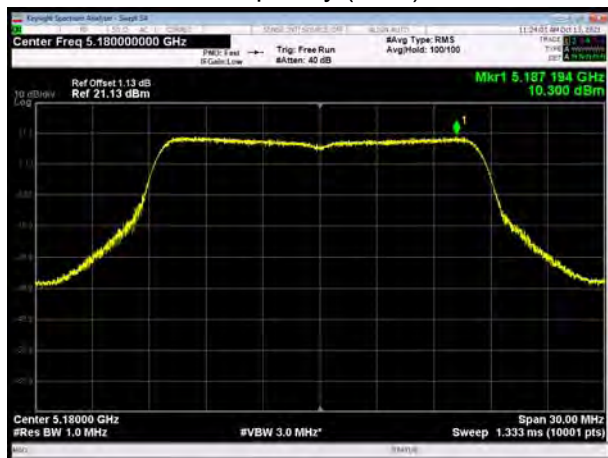
U-NII-3, 802.11ax HE80
Carrier frequency (MHz): 5775



Antenna 2

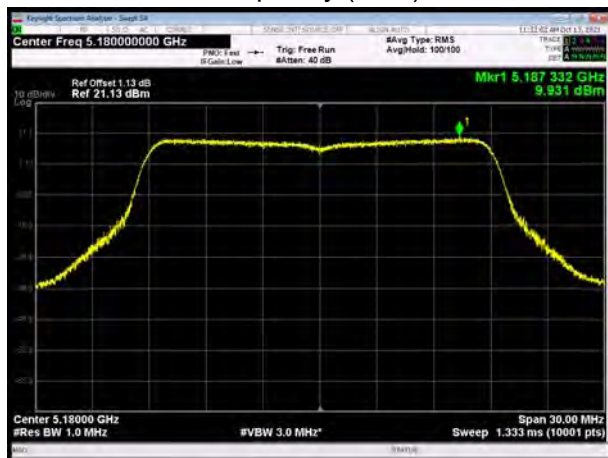
U-NII-1, 802.11a

Carrier frequency (MHz): 5180



U-NII-1, 802.11n HT20

Carrier frequency (MHz): 5180



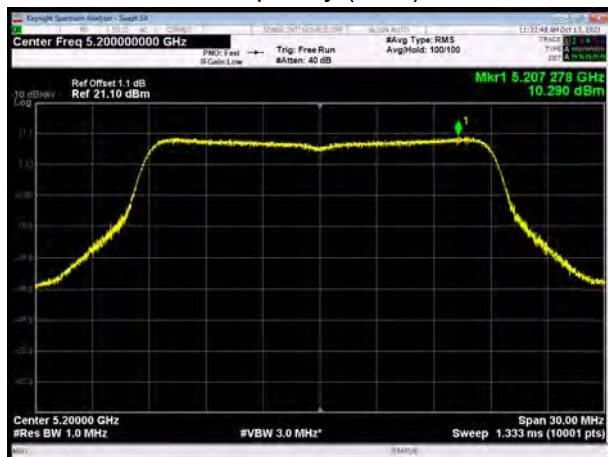
U-NII-1, 802.11a

Carrier frequency (MHz): 5200



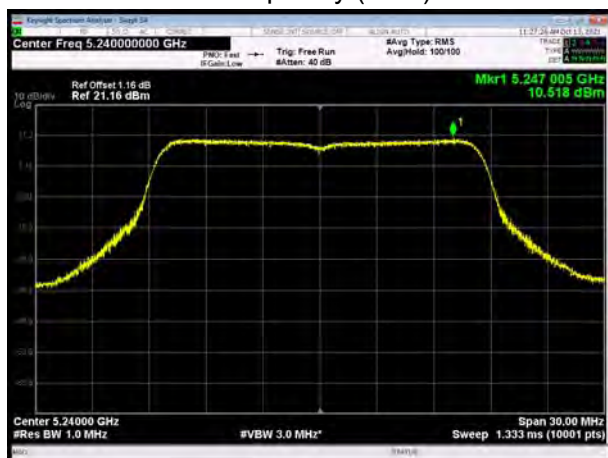
U-NII-1, 802.11n HT20

Carrier frequency (MHz): 5200



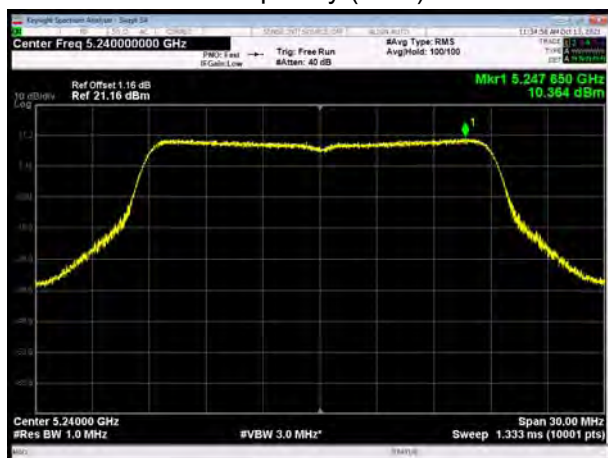
U-NII-1, 802.11a

Carrier frequency (MHz): 5240

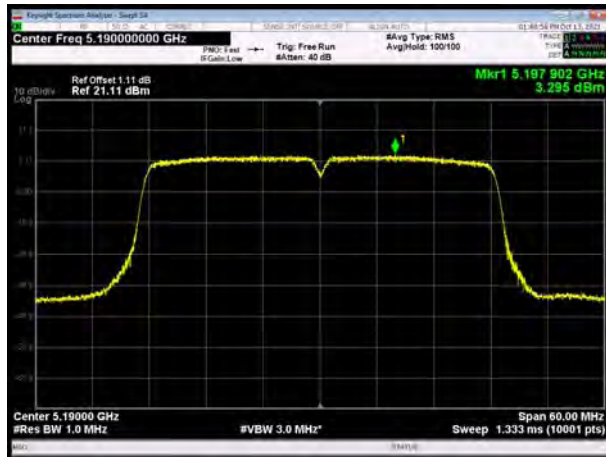


U-NII-1, 802.11n HT20

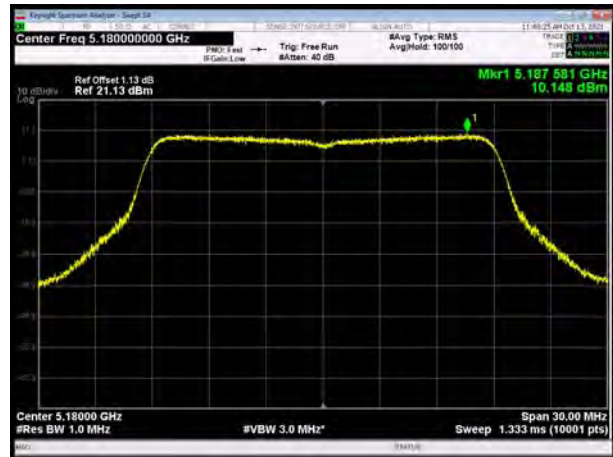
Carrier frequency (MHz): 5240



U-NII-1, 802.11n HT40
Carrier frequency (MHz): 5190



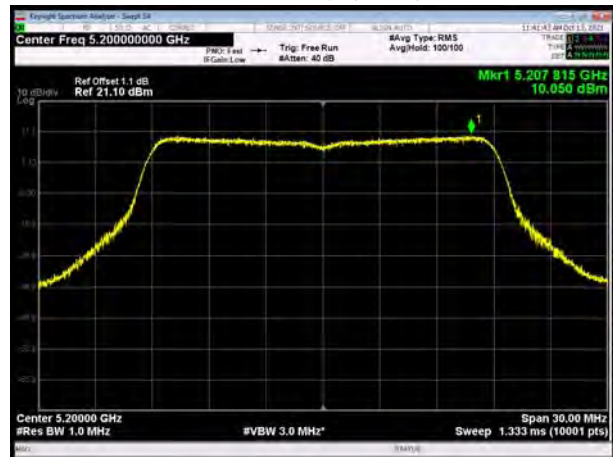
U-NII-1, 802.11ac VHT20
Carrier frequency (MHz): 5180



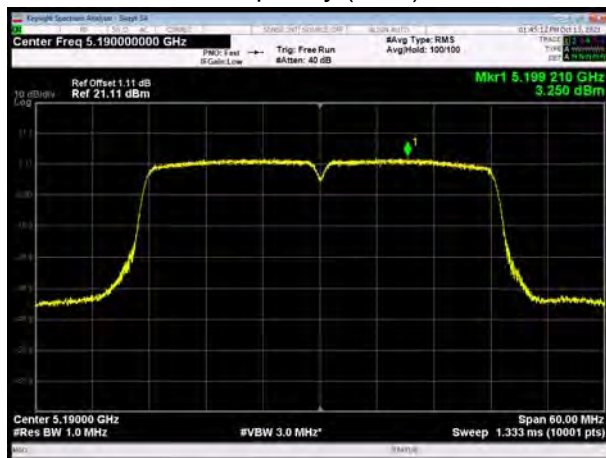
U-NII-1, 802.11n HT40
Carrier frequency (MHz): 5230



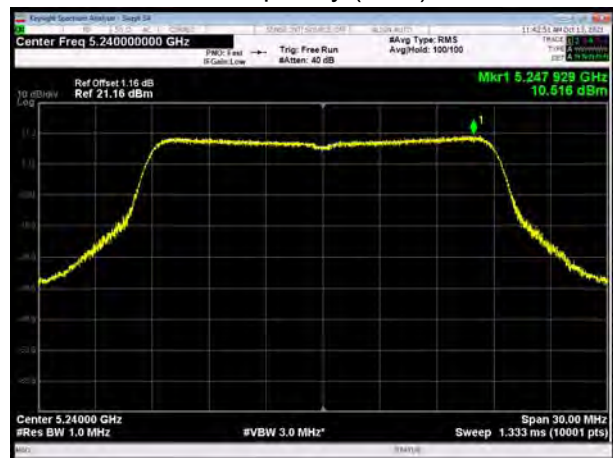
U-NII-1, 802.11ac VHT20
Carrier frequency (MHz): 5200



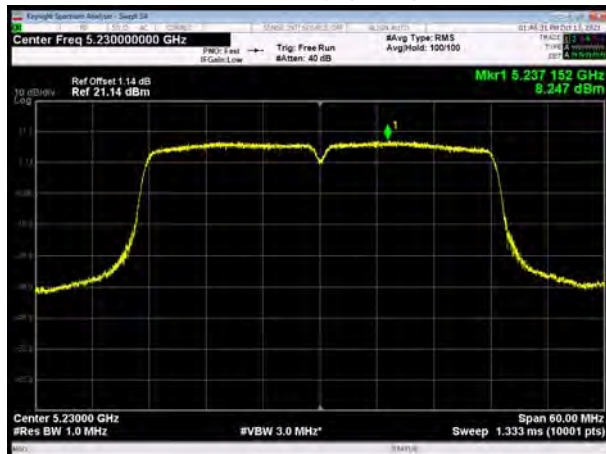
U-NII-1, 802.11ac VHT40
Carrier frequency (MHz): 5190



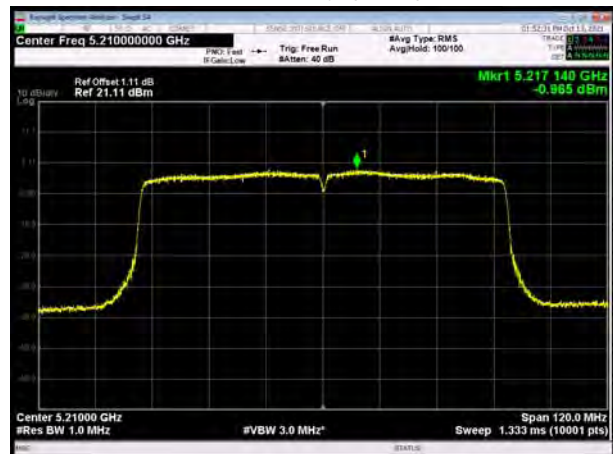
U-NII-1, 802.11ac VHT20
Carrier frequency (MHz): 5240



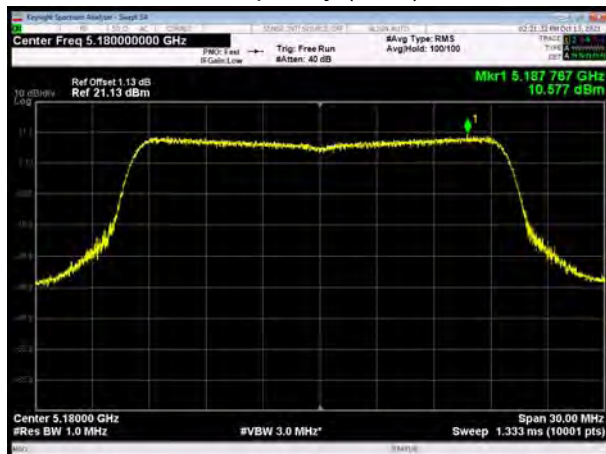
U-NII-1, 802.11ac VHT40
Carrier frequency (MHz): 5230



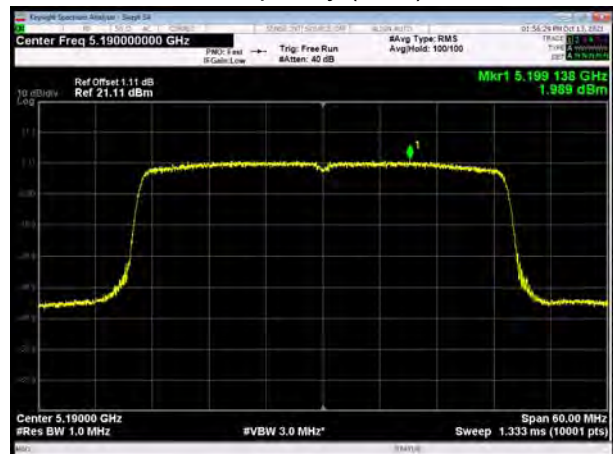
U-NII-1, 802.11ac VHT80
Carrier frequency (MHz): 5210



U-NII-1, 802.11ax HE20
Carrier frequency (MHz): 5180



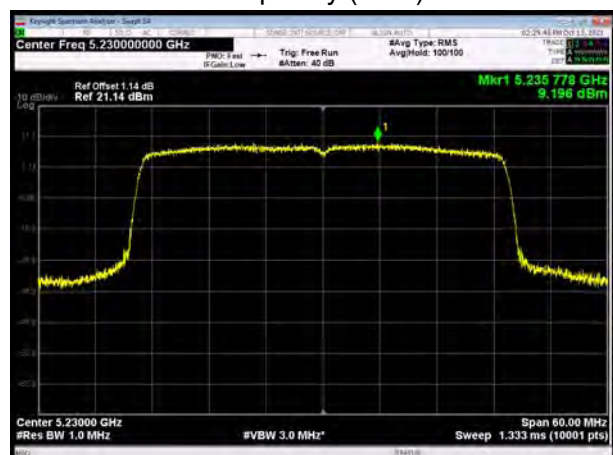
U-NII-1, 802.11ax HE40
Carrier frequency (MHz): 5190



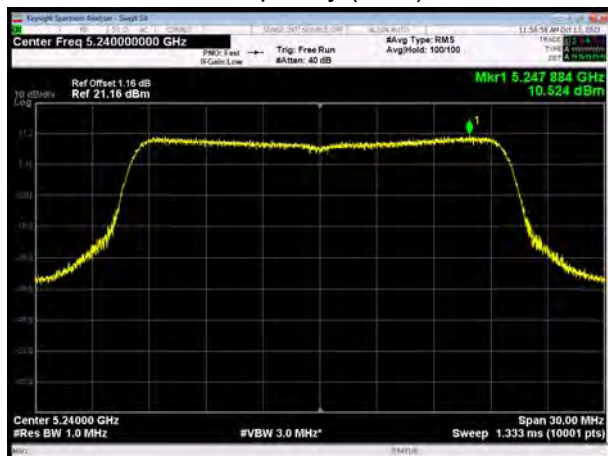
U-NII-1, 802.11ax HE20
Carrier frequency (MHz): 5200



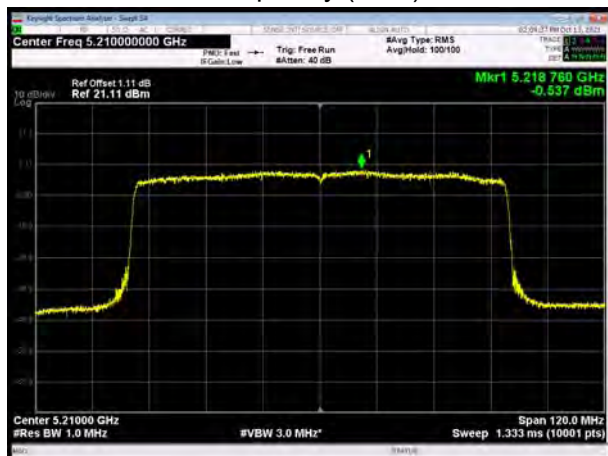
U-NII-1, 802.11ax HE40
Carrier frequency (MHz): 5230



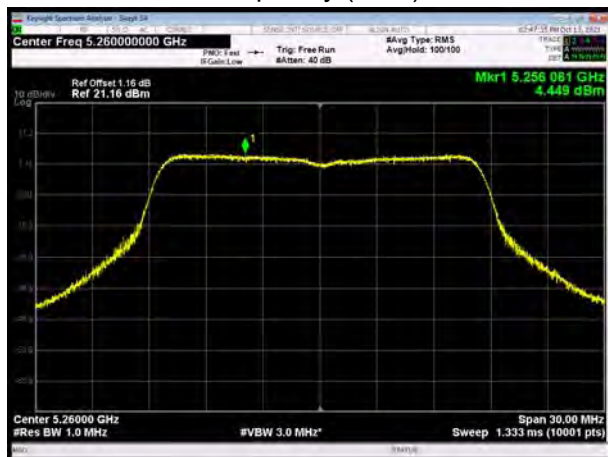
U-NII-1, 802.11ax HE20
Carrier frequency (MHz):5240



U-NII-1, 802.11ax HE80
Carrier frequency (MHz): 5210



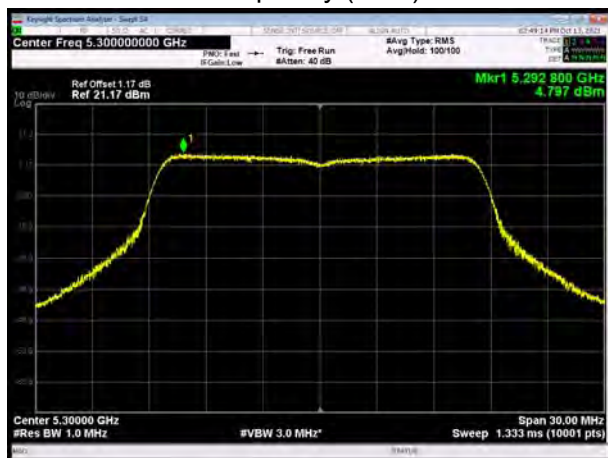
U-NII-2A, 802.11a
Carrier frequency (MHz): 5260



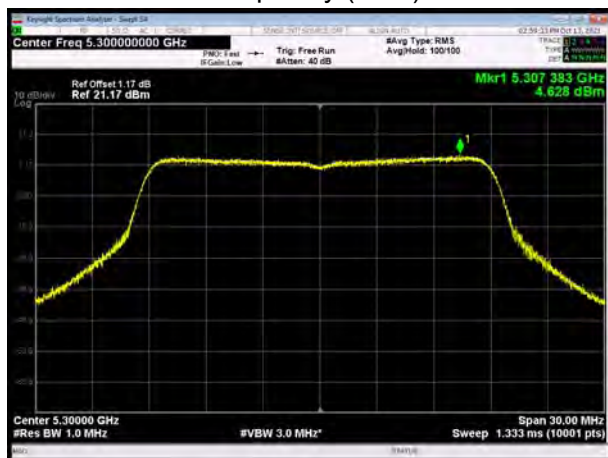
U-NII-2A, 802.11n HT20
Carrier frequency (MHz): 5260



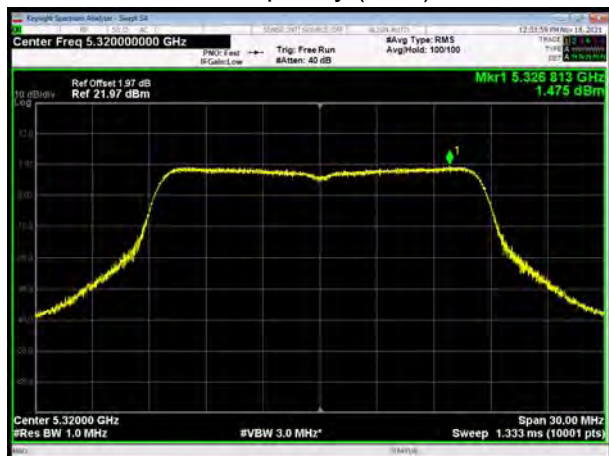
U-NII-2A, 802.11a
Carrier frequency (MHz): 5300



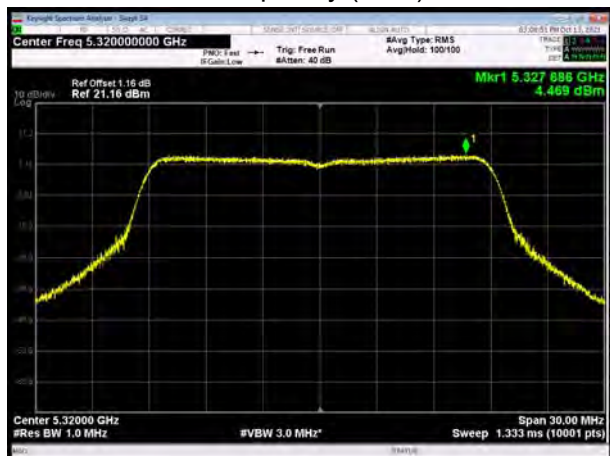
U-NII-2A, 802.11n HT20
Carrier frequency (MHz): 5300



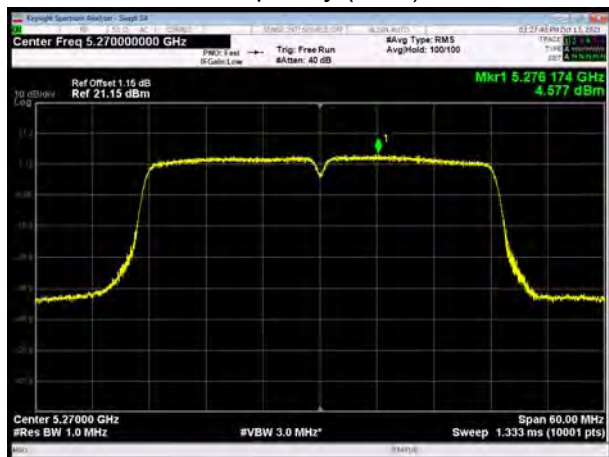
U-NII-2A, 802.11a
Carrier frequency (MHz):5320



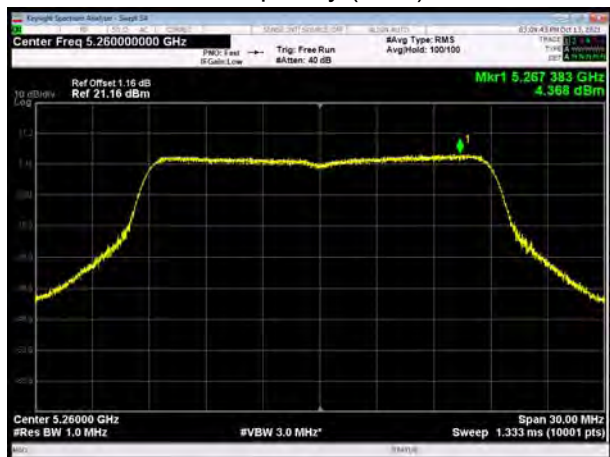
U-NII-2A, 802.11n HT20
Carrier frequency (MHz):5320



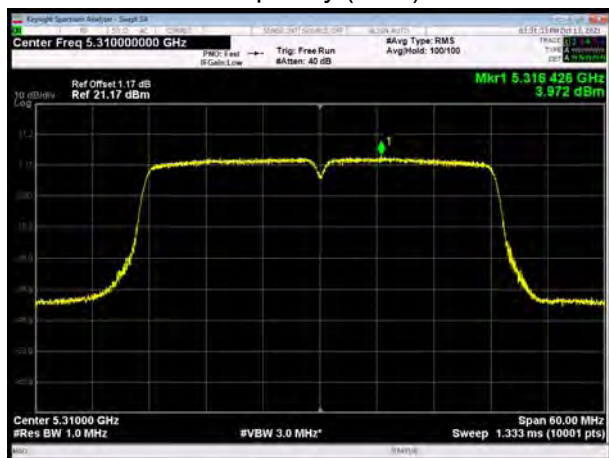
U-NII-2A, 802.11n HT40
Carrier frequency (MHz): 5270



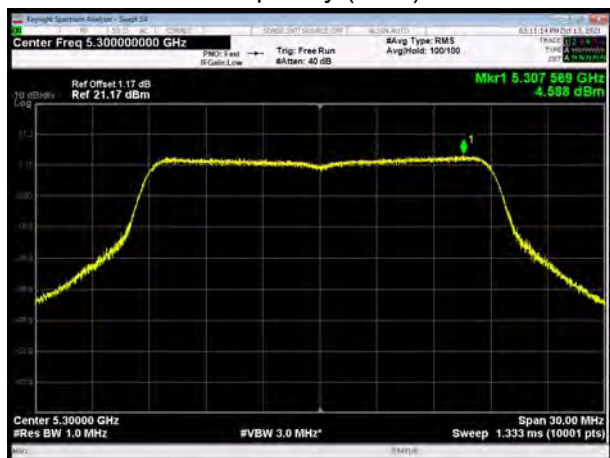
U-NII-2A, 802.11ac VHT20
Carrier frequency (MHz):5260



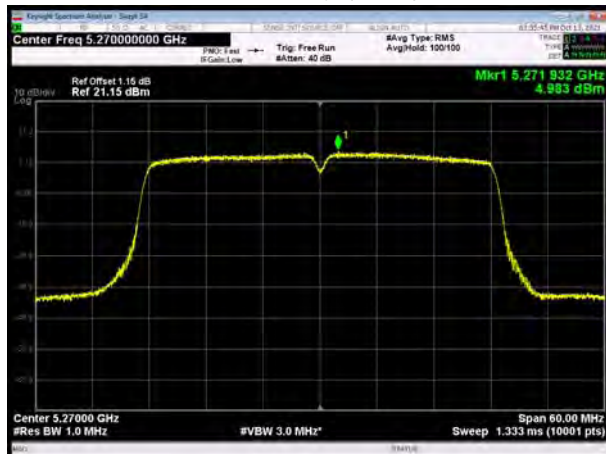
U-NII-2A, 802.11n HT40
Carrier frequency (MHz): 5310



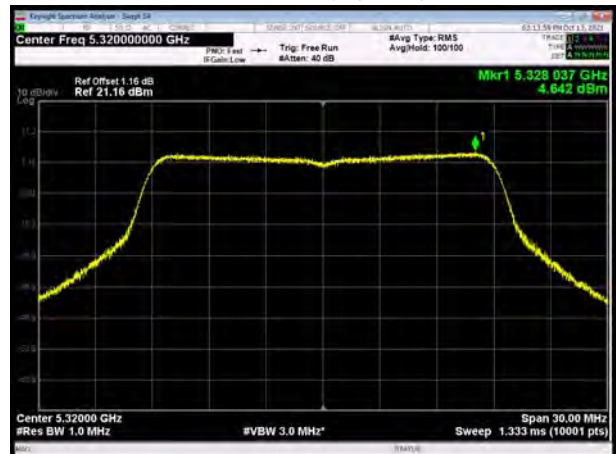
U-NII-2A, 802.11ac VHT20
Carrier frequency (MHz): 5300



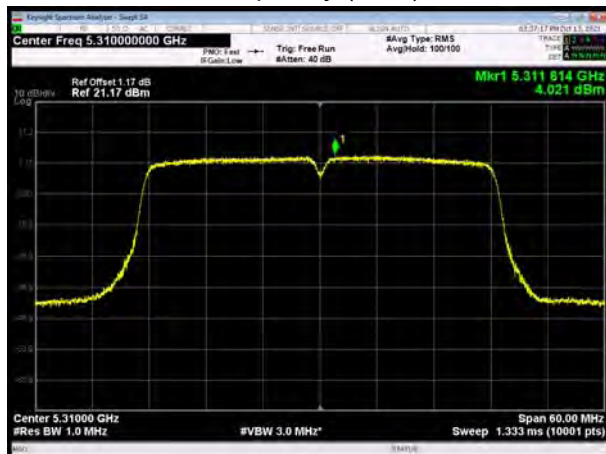
U-NII-2A, 802.11ac VHT40
Carrier frequency (MHz): 5270



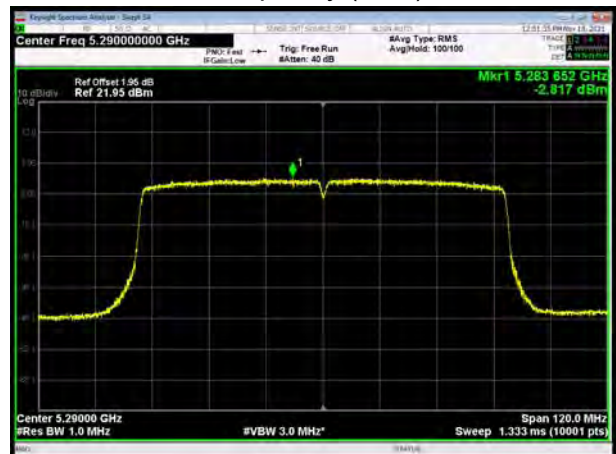
U-NII-2A, 802.11ac VHT20
Carrier frequency (MHz): 5320



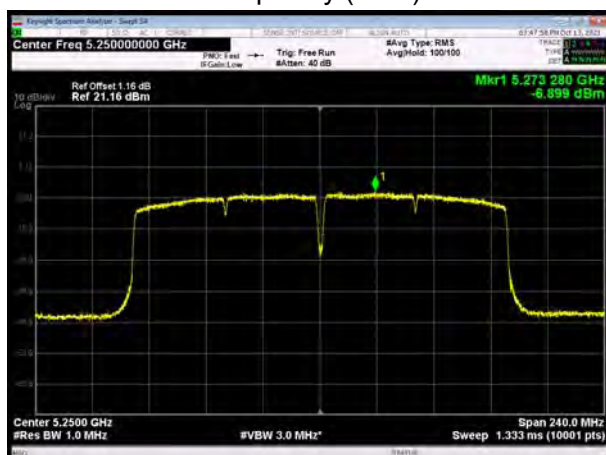
U-NII-2A, 802.11ac VHT40
Carrier frequency (MHz): 5310



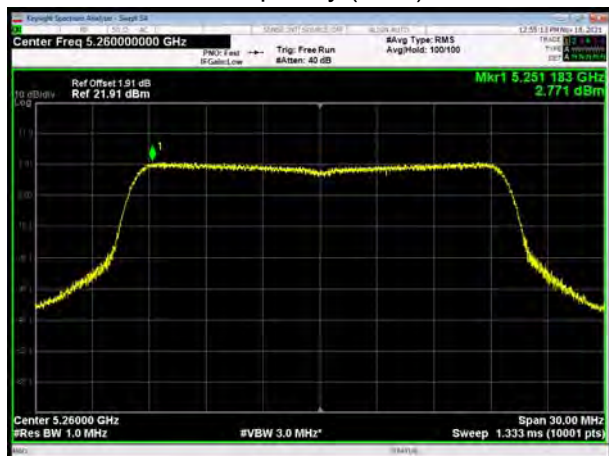
U-NII-2A, 802.11ac VHT80
Carrier frequency (MHz): 5290



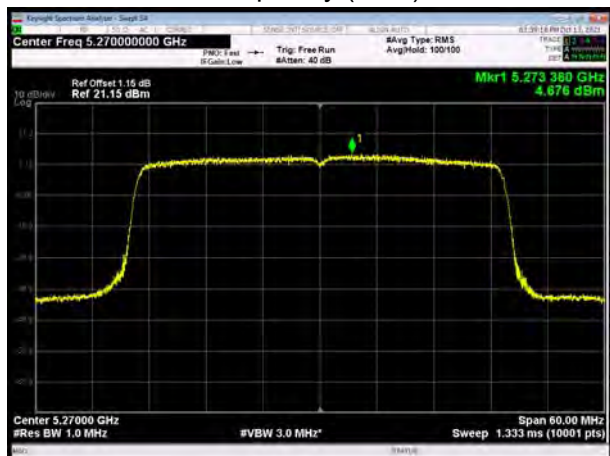
U-NII-2A, 802.11ac VHT160
Carrier frequency (MHz): 5250



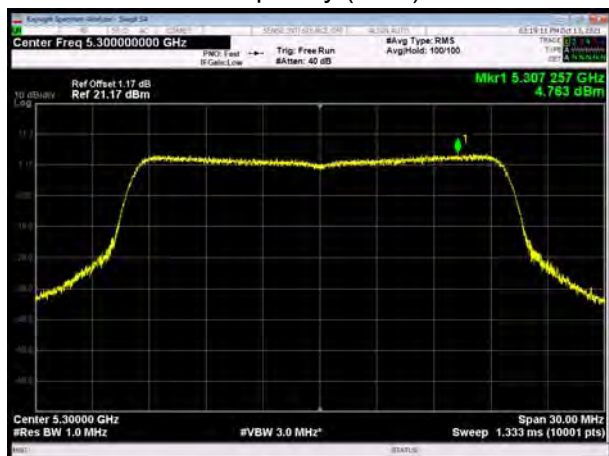
U-NII-2A, 802.11ax HE20
Carrier frequency (MHz):5260



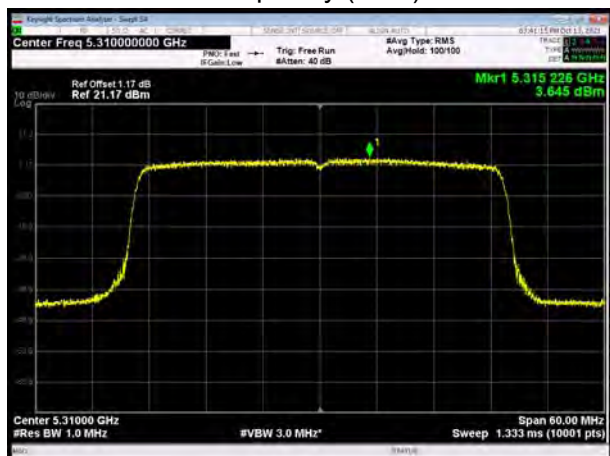
U-NII-2A, 802.11ax HE40
Carrier frequency (MHz): 5270



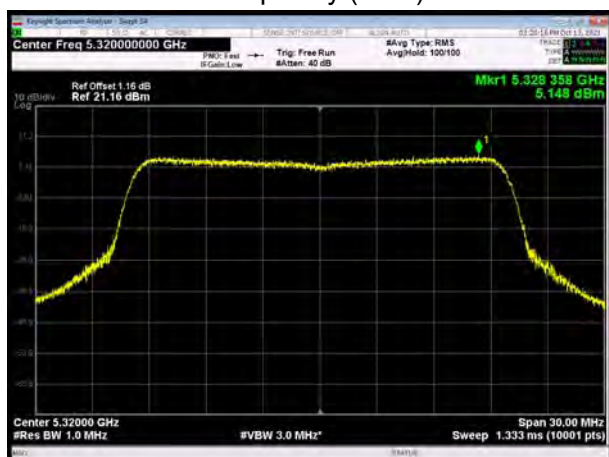
U-NII-2A, 802.11ax HE20
Carrier frequency (MHz): 5300



U-NII-2A, 802.11ax HE40
Carrier frequency (MHz): 5310



U-NII-2A, 802.11ax HE20
Carrier frequency (MHz):5320



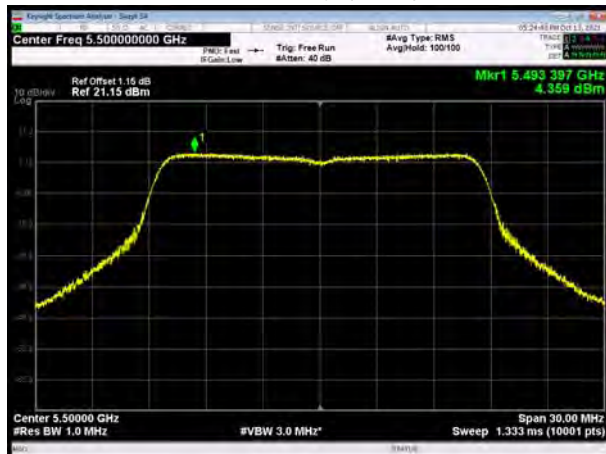
U-NII-2A, 802.11ax HE80
Carrier frequency (MHz): 5290



U-NII-2A, 802.11ax HE160
Carrier frequency (MHz): 5250



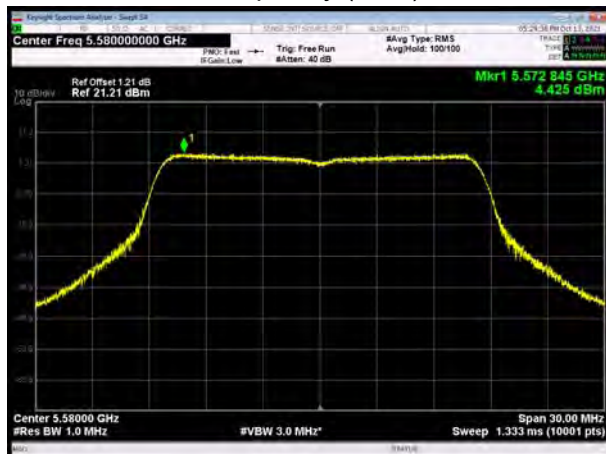
U-NII-2C, 802.11a
Carrier frequency (MHz): 5500



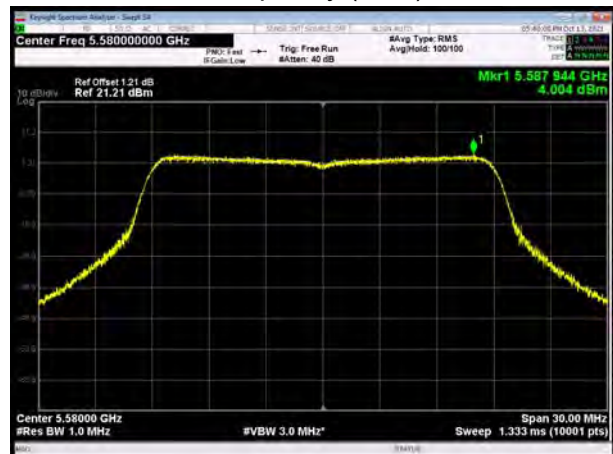
U-NII-2C, 802.11n HT20
Carrier frequency (MHz): 5500



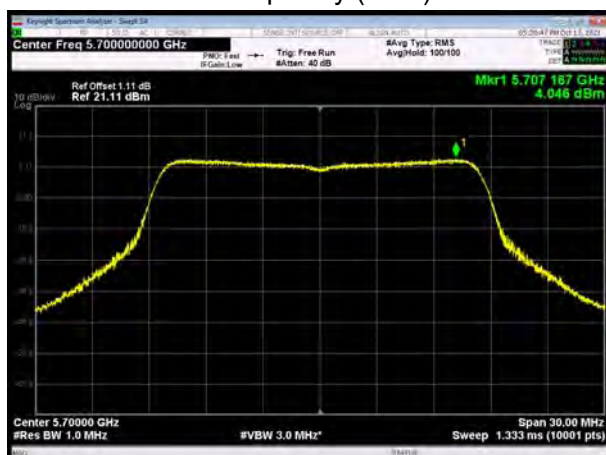
U-NII-2C, 802.11a
Carrier frequency (MHz): 5580



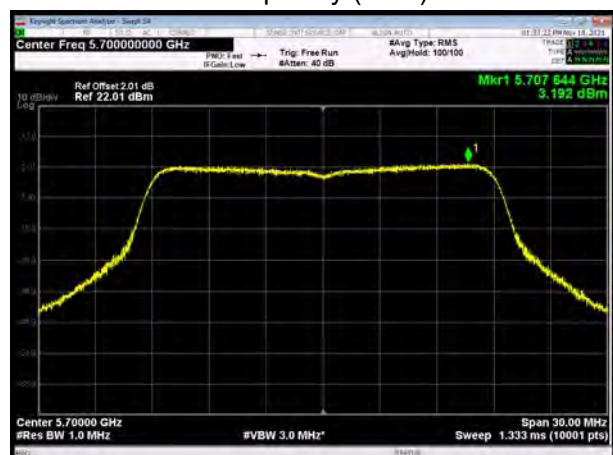
U-NII-2C, 802.11n HT20
Carrier frequency (MHz): 5580



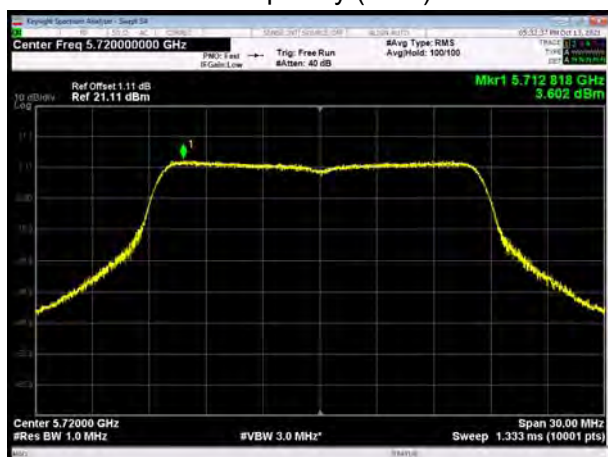
U-NII-2C, 802.11a
Carrier frequency (MHz):5700



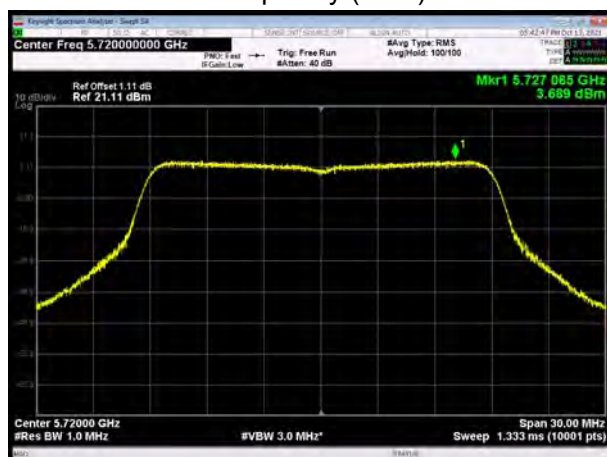
U-NII-2C, 802.11n HT20
Carrier frequency (MHz):5700



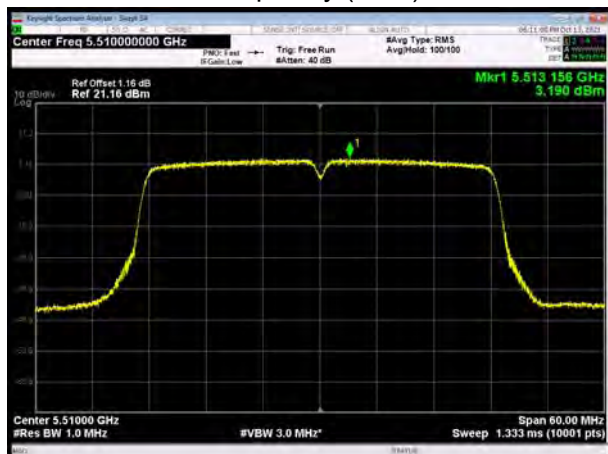
U-NII-2C, 802.11a
Carrier frequency (MHz):5720



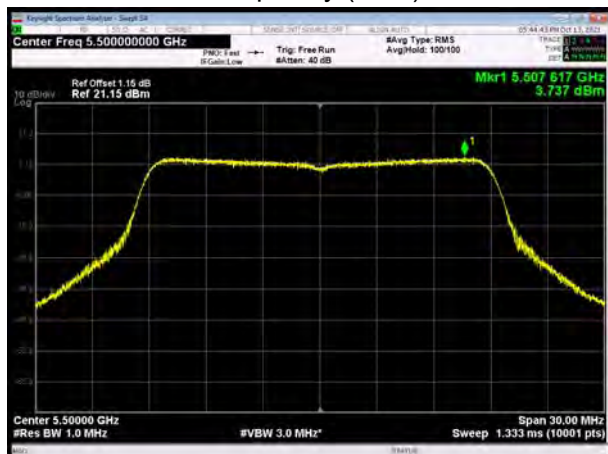
U-NII-2C, 802.11n HT20
Carrier frequency (MHz):5720



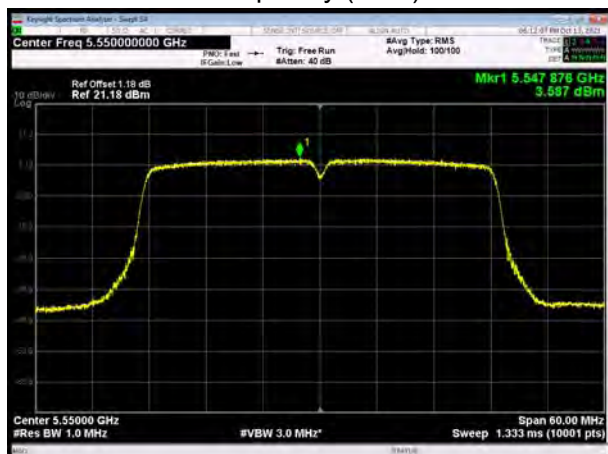
U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5510



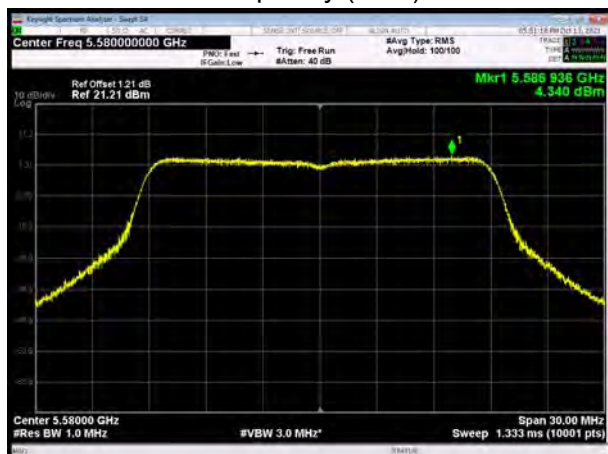
U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5500



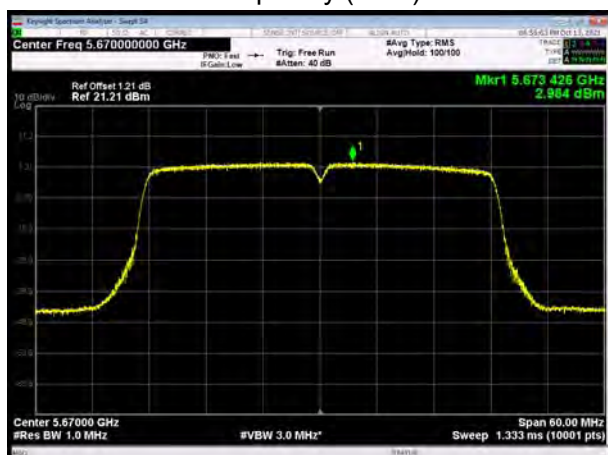
U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5550



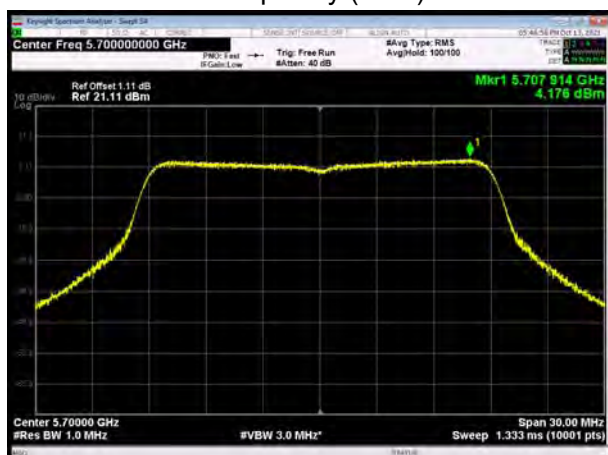
U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5580



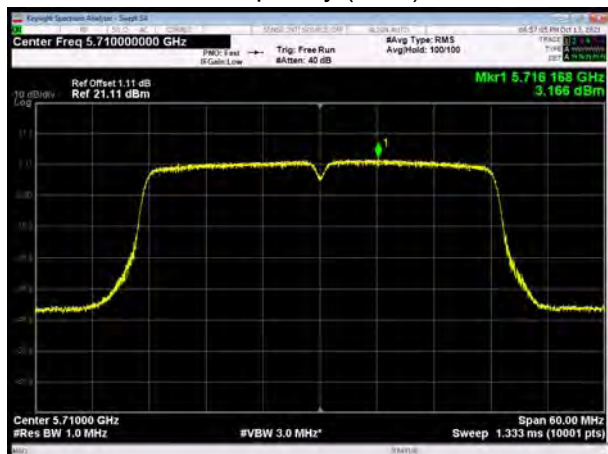
U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5670



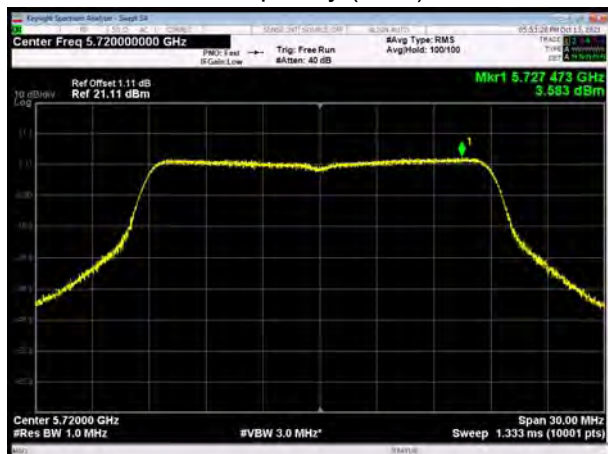
U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5700



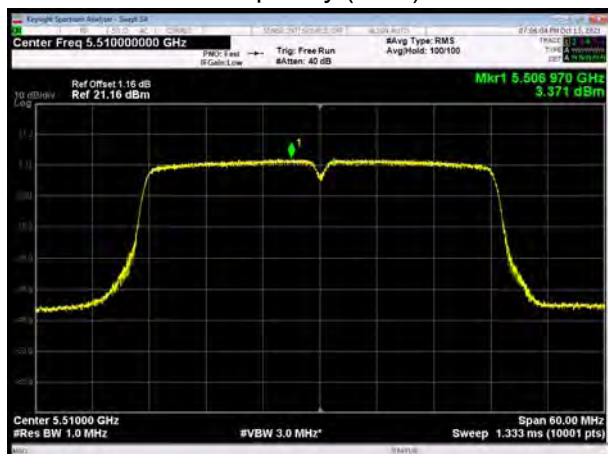
U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5710



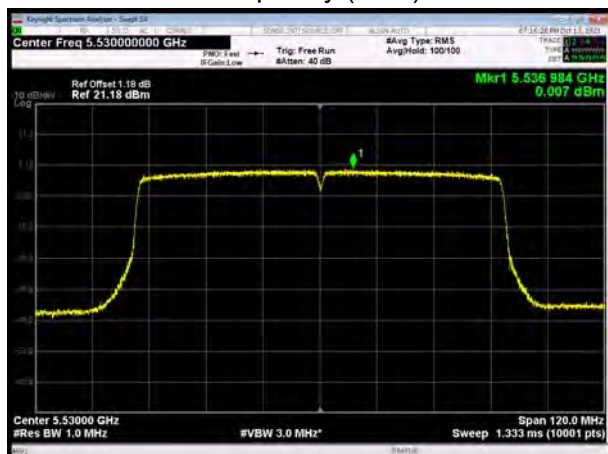
U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5720



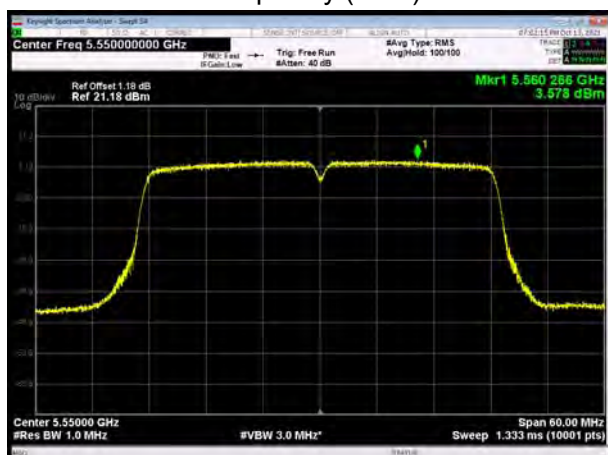
U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5510



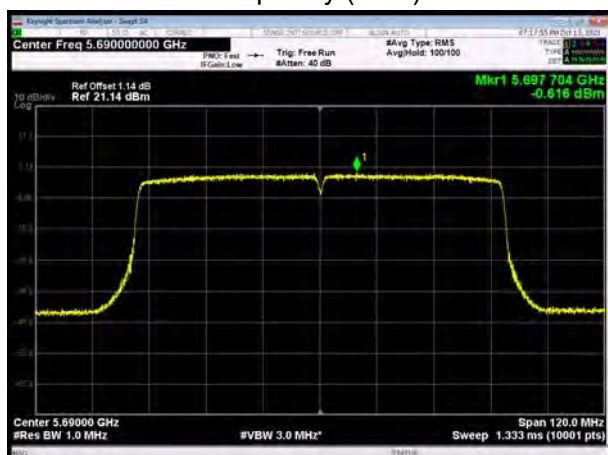
U-NII-2C, 802.11ac VHT80
Carrier frequency (MHz): 5530



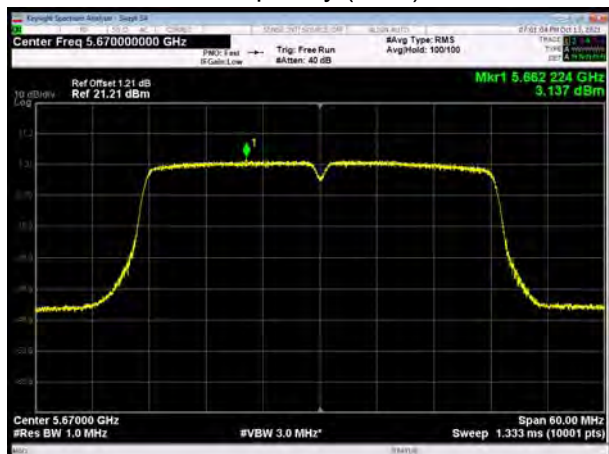
U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5550



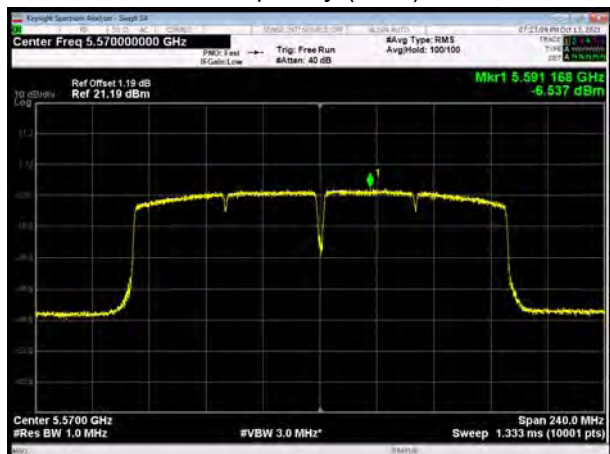
U-NII-2C, 802.11ac VHT80
Carrier frequency (MHz): 5690



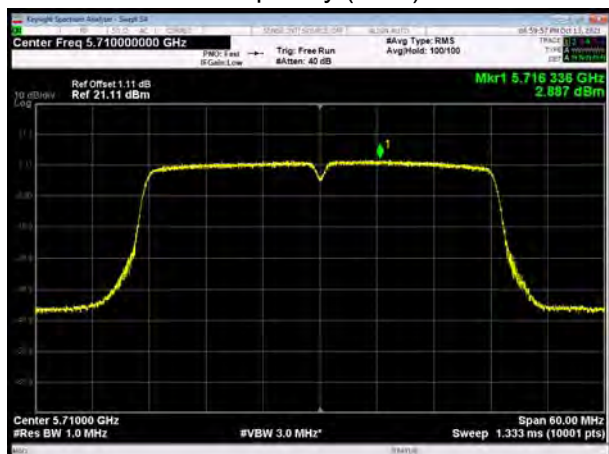
U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5670



U-NII-2C, 802.11ac VHT160
Carrier frequency (MHz): 5570



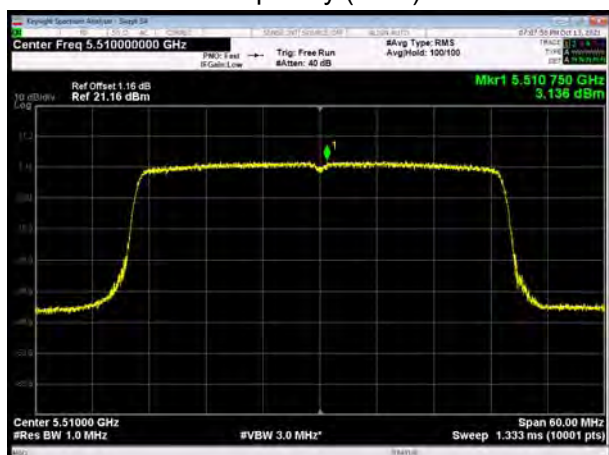
U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5710



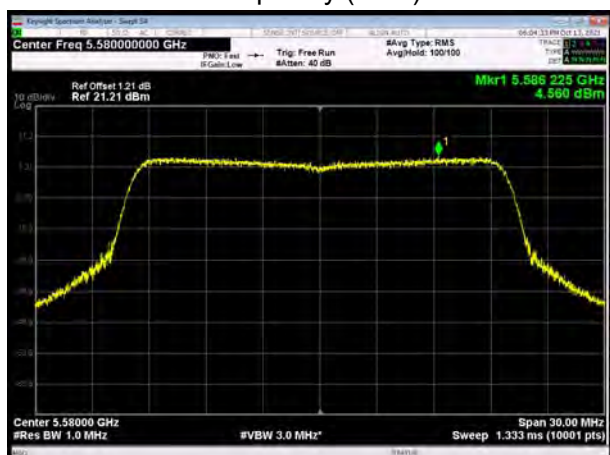
U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5500



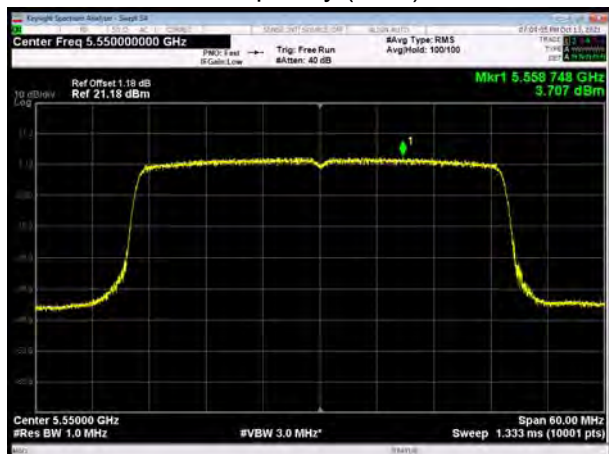
U-NII-2C, 802.11ax HE40
Carrier frequency (MHz): 5510



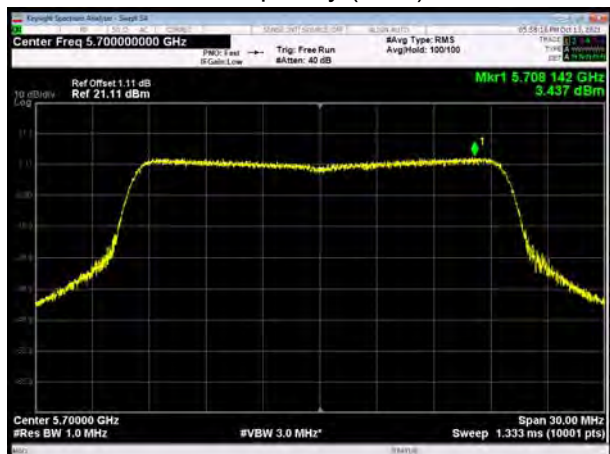
U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5580



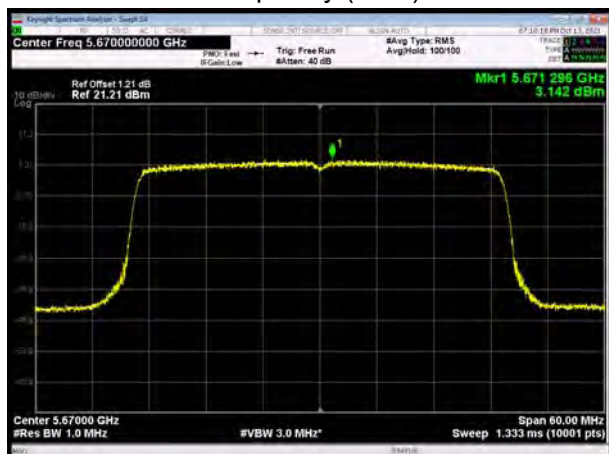
U-NII-2C, 802.11ax HE40
Carrier frequency (MHz): 5550



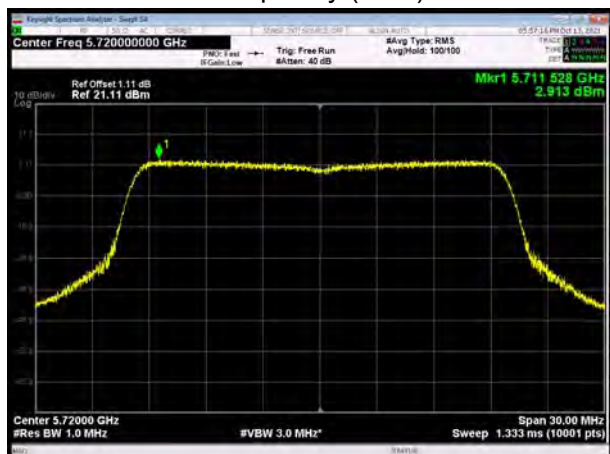
U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5700



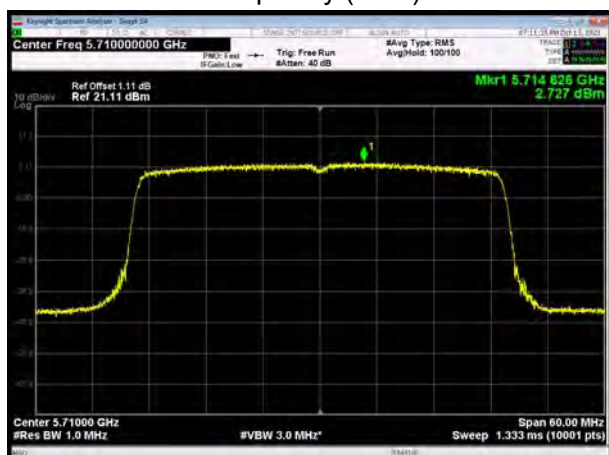
U-NII-2C, 802.11ax HE40
Carrier frequency (MHz): 5670



U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5720



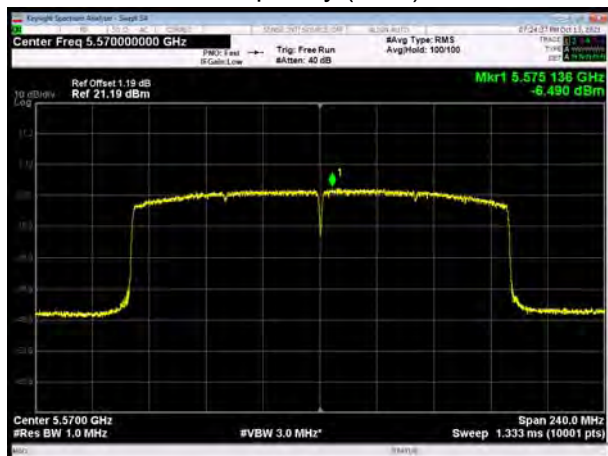
U-NII-2C, 802.11ax HE40
Carrier frequency (MHz): 5710



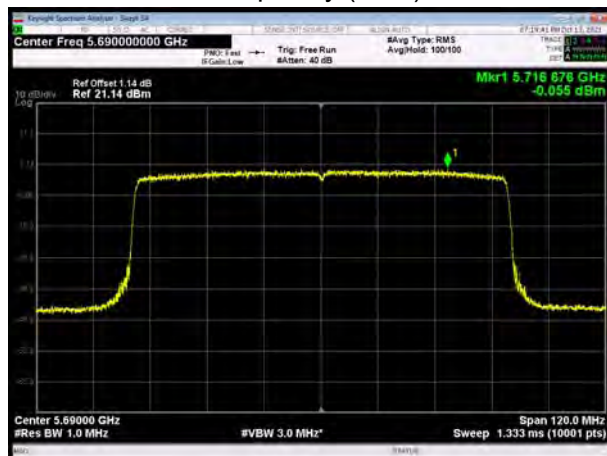
U-NII-2C, 802.11ax HE80
Carrier frequency (MHz): 5530



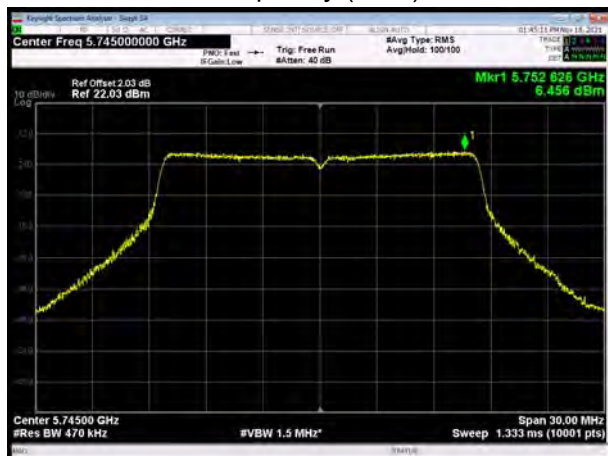
U-NII-2C, 802.11ax HE160
Carrier frequency (MHz): 5570



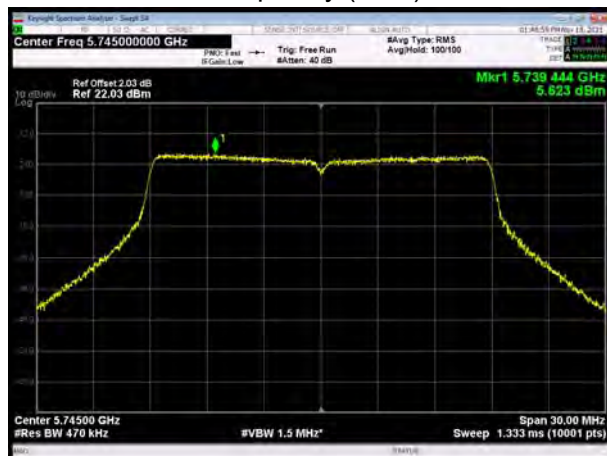
U-NII-2C, 802.11ax HE80
Carrier frequency (MHz): 5690



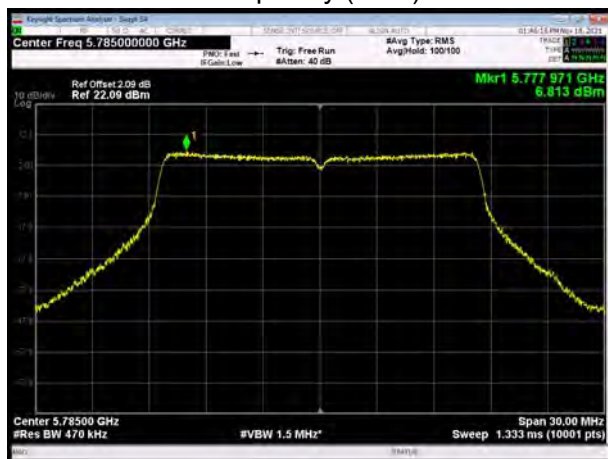
U-NII-3, 802.11a
Carrier frequency (MHz): 5745



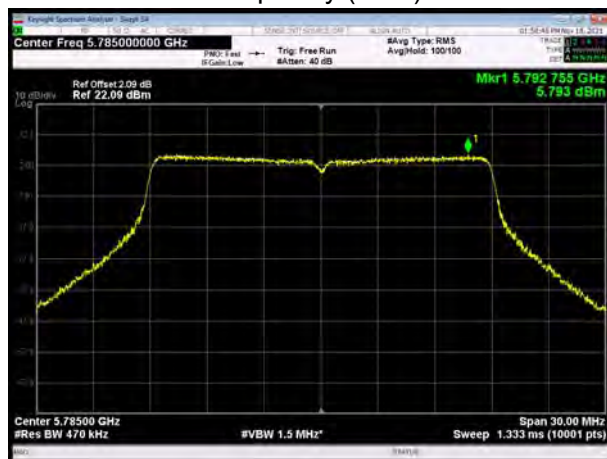
U-NII-3, 802.11n HT20
Carrier frequency (MHz): 5745



U-NII-3, 802.11a
Carrier frequency (MHz): 5785



U-NII-3, 802.11n HT20
Carrier frequency (MHz): 5785



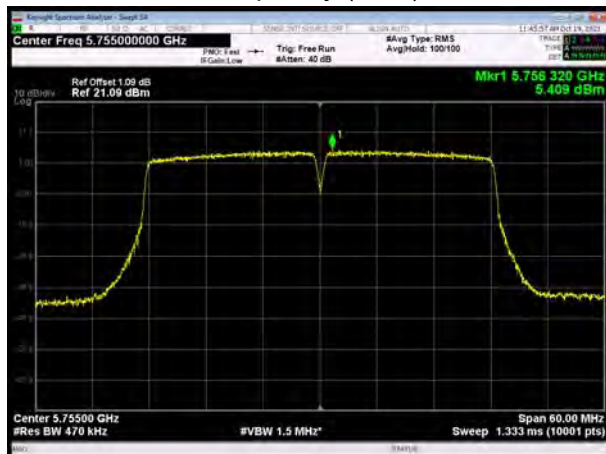
U-NII-3, 802.11a
Carrier frequency (MHz): 5825



U-NII-3, 802.11n HT20
Carrier frequency (MHz): 5825



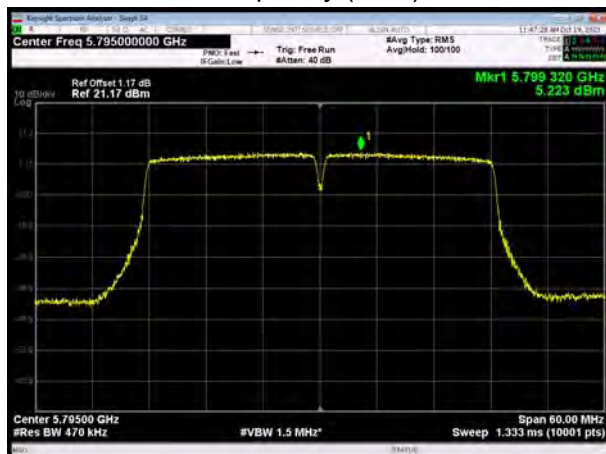
U-NII-3, 802.11n HT40
Carrier frequency (MHz): 5755



U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5745



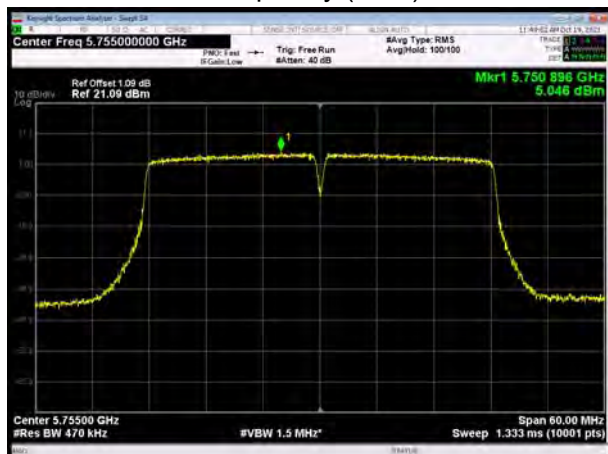
U-NII-3, 802.11n HT40
Carrier frequency (MHz): 5795



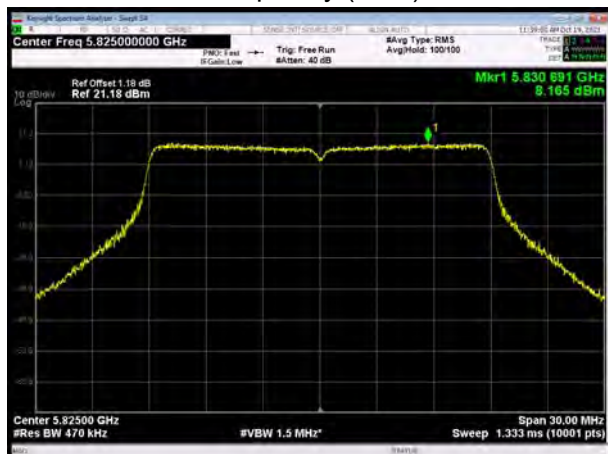
U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5785



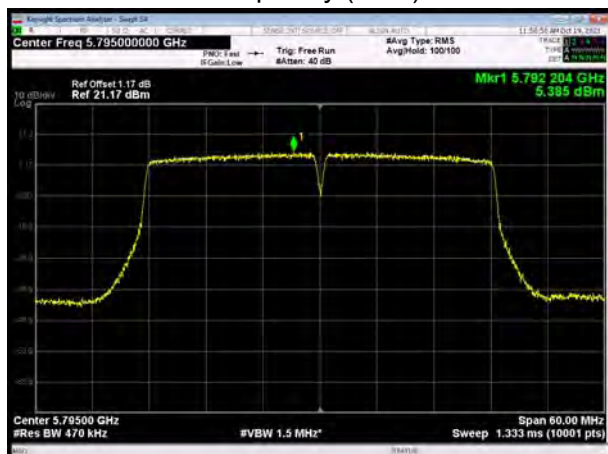
U-NII-3, 802.11ac VHT40
Carrier frequency (MHz): 5755



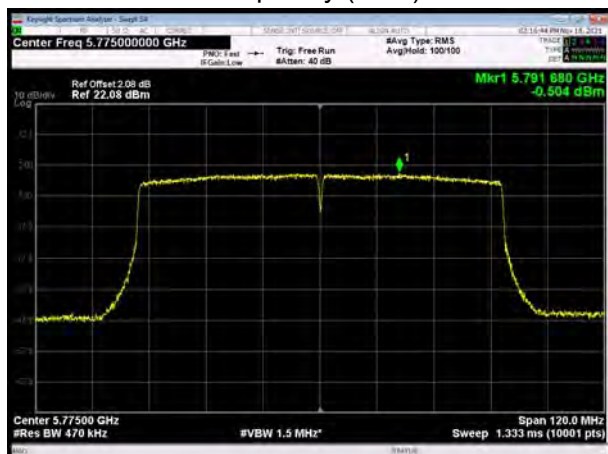
U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5825



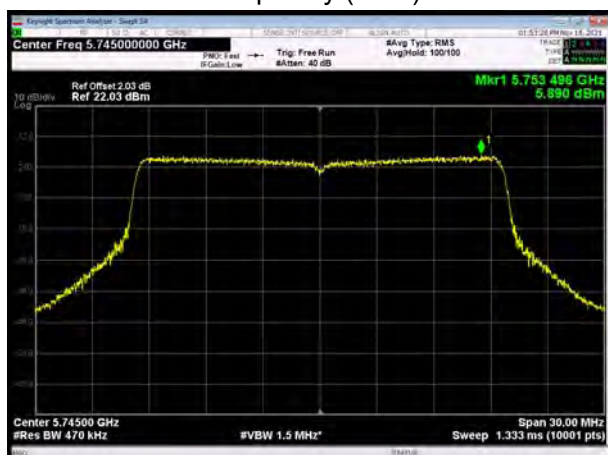
U-NII-3, 802.11ac VHT40
Carrier frequency (MHz): 5795



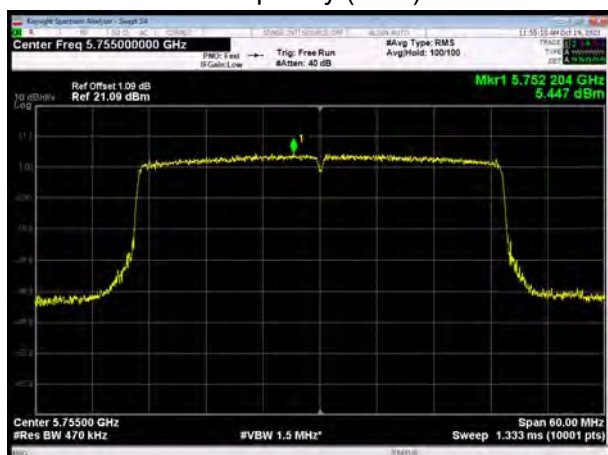
U-NII-3, 802.11ac VHT80
Carrier frequency (MHz): 5775



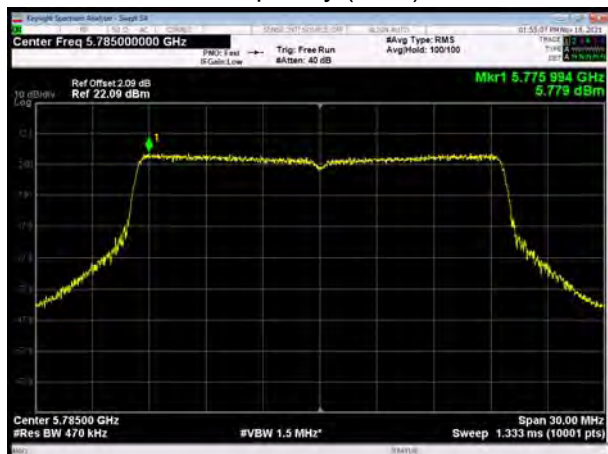
U-NII-3, 802.11ax HE20
Carrier frequency (MHz): 5745



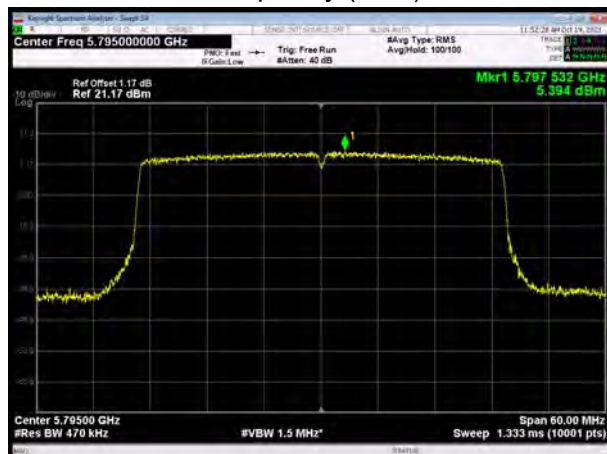
U-NII-3, 802.11ax HE40
Carrier frequency (MHz): 5755



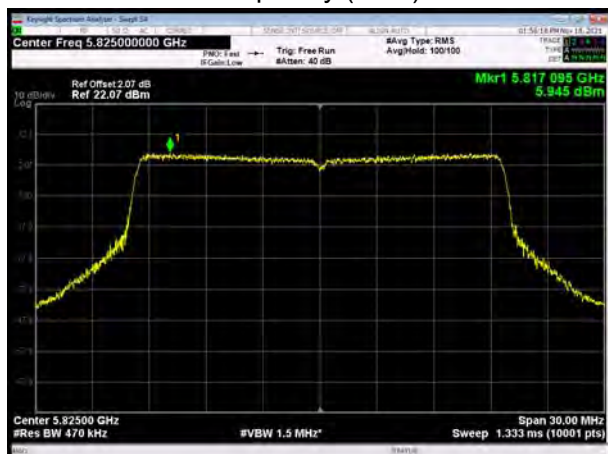
U-NII-3, 802.11ax HE20
Carrier frequency (MHz): 5785



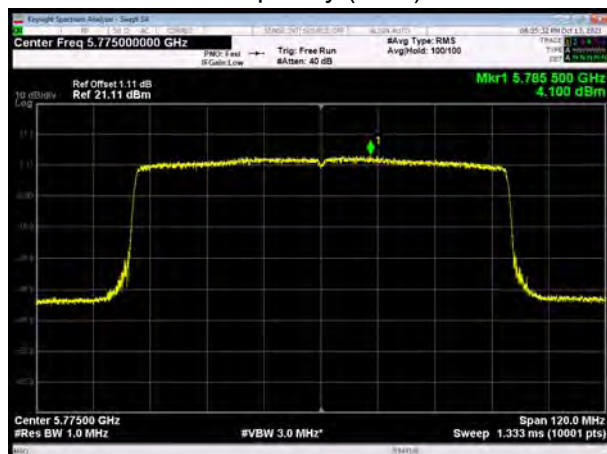
U-NII-3, 802.11ax HE40
Carrier frequency (MHz): 5795



U-NII-3, 802.11ax HE20
Carrier frequency (MHz): 5825



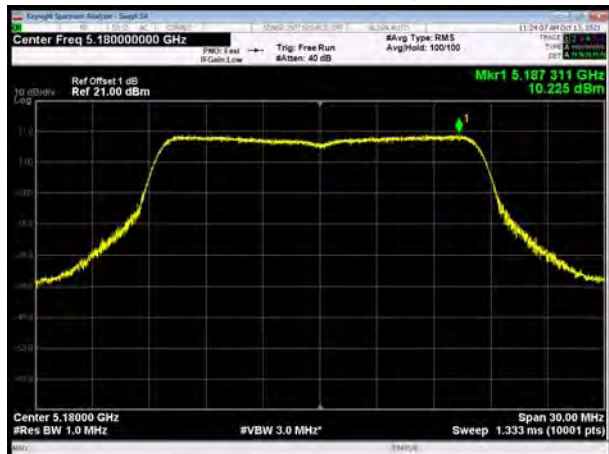
U-NII-3, 802.11ax HE80
Carrier frequency (MHz): 5775



Antenna 3

U-NII-1, 802.11a

Carrier frequency (MHz): 5180



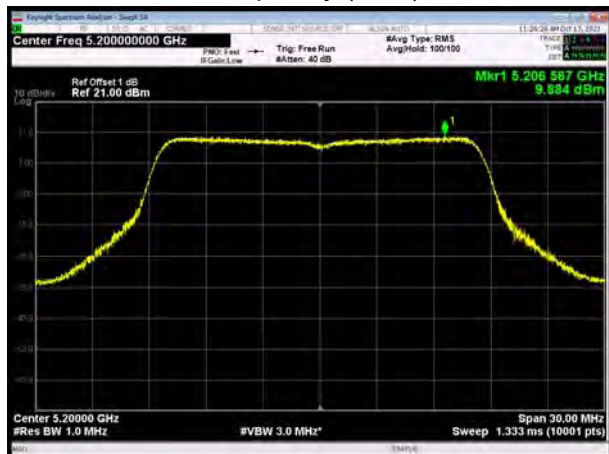
U-NII-1, 802.11n HT20

Carrier frequency (MHz): 5180



U-NII-1, 802.11a

Carrier frequency (MHz): 5200



U-NII-1, 802.11n HT20

Carrier frequency (MHz): 5200



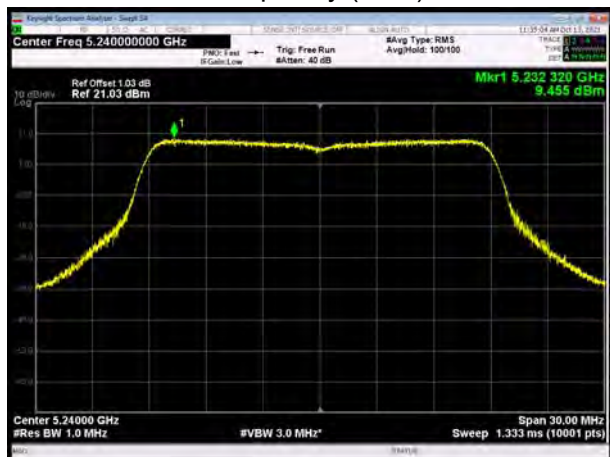
U-NII-1, 802.11a

Carrier frequency (MHz): 5240

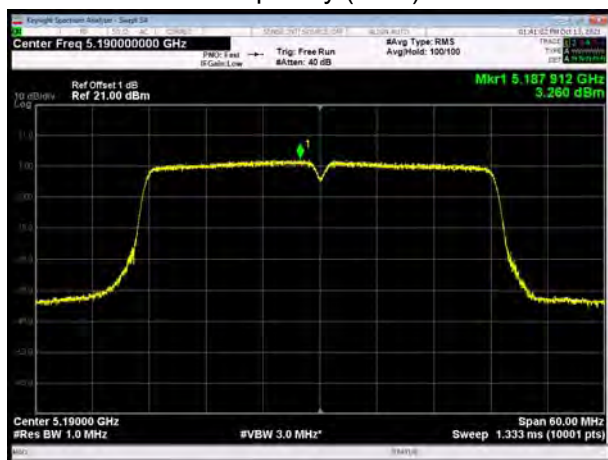


U-NII-1, 802.11n HT20

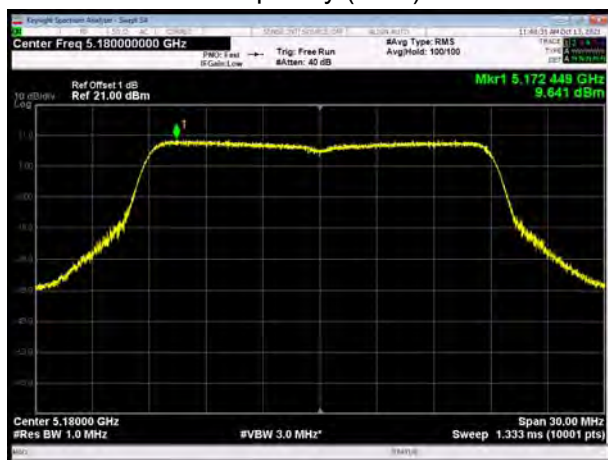
Carrier frequency (MHz): 5240



U-NII-1, 802.11n HT40
Carrier frequency (MHz): 5190



U-NII-1, 802.11ac VHT20
Carrier frequency (MHz): 5180



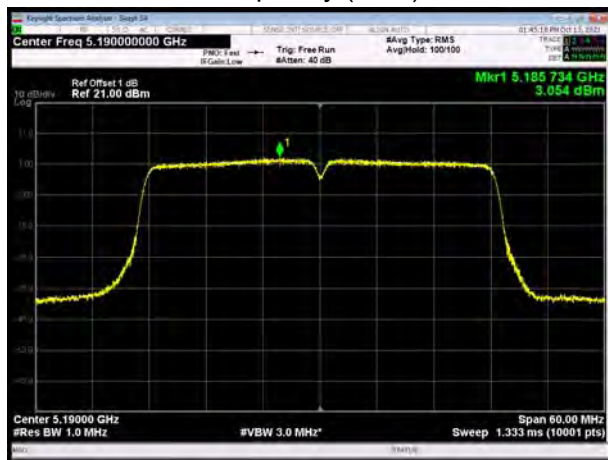
U-NII-1, 802.11n HT40
Carrier frequency (MHz): 5230



U-NII-1, 802.11ac VHT20
Carrier frequency (MHz): 5200



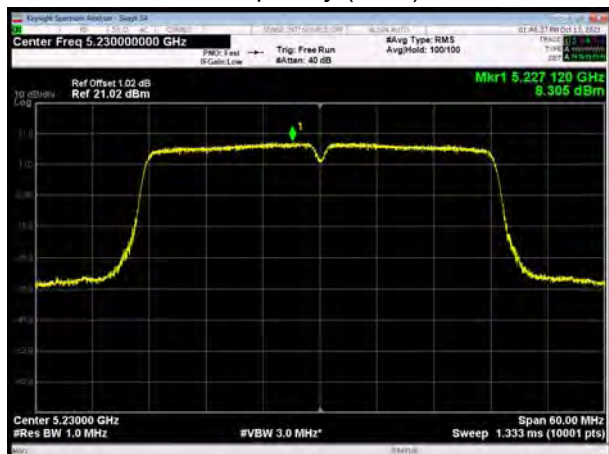
U-NII-1, 802.11ac VHT40
Carrier frequency (MHz): 5190



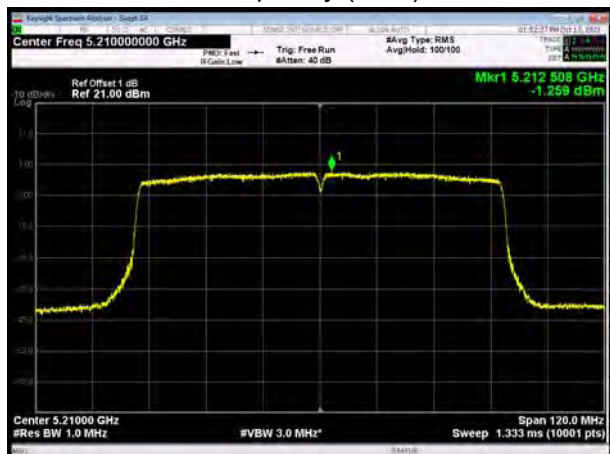
U-NII-1, 802.11ac VHT20
Carrier frequency (MHz): 5240



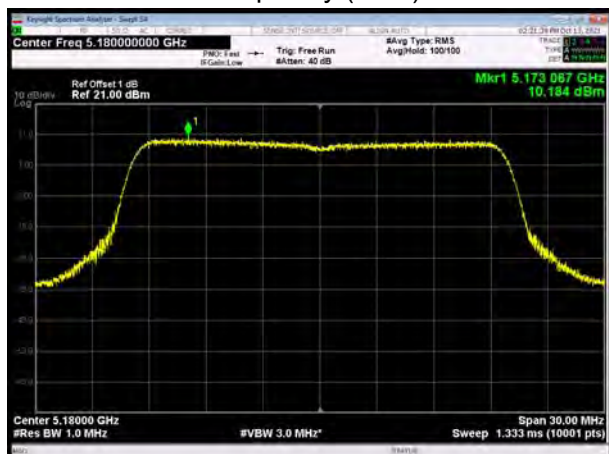
U-NII-1, 802.11ac VHT40
Carrier frequency (MHz): 5230



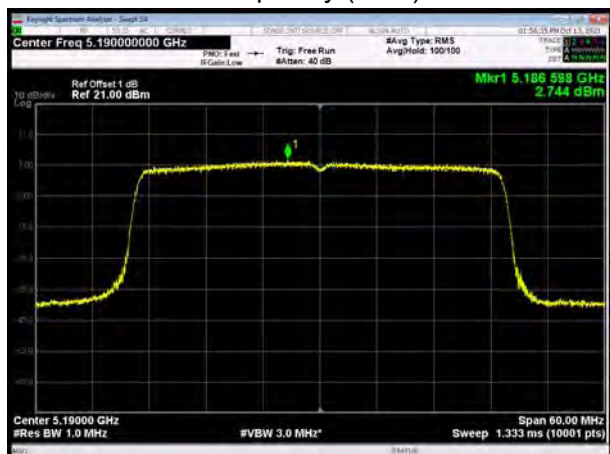
U-NII-1, 802.11ac VHT80
Carrier frequency (MHz): 5210



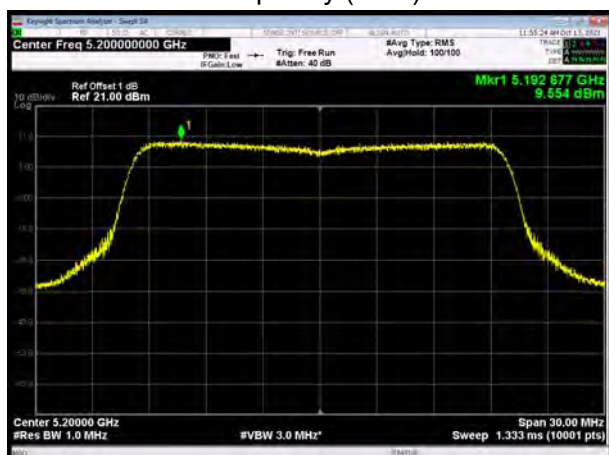
U-NII-1, 802.11ax HE20
Carrier frequency (MHz): 5180



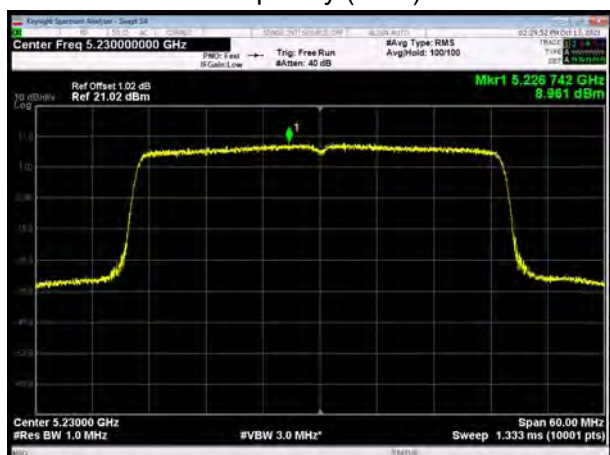
U-NII-1, 802.11ax HE40
Carrier frequency (MHz): 5190



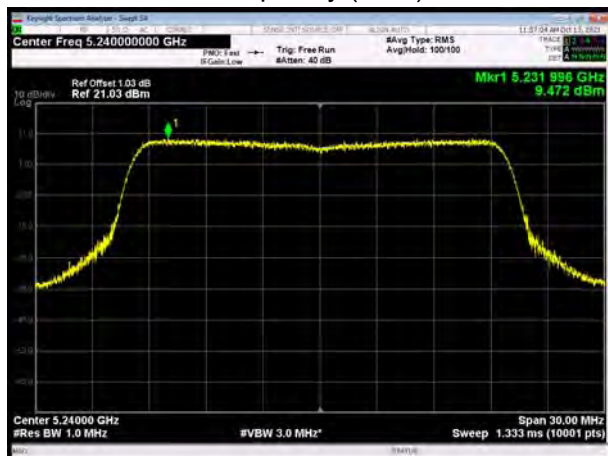
U-NII-1, 802.11ax HE20
Carrier frequency (MHz): 5200



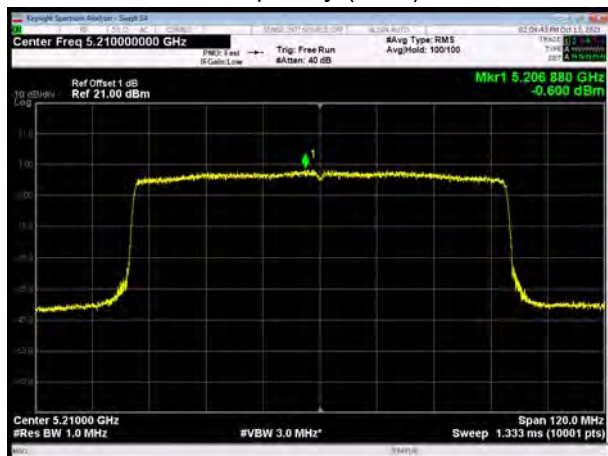
U-NII-1, 802.11ax HE40
Carrier frequency (MHz): 5230



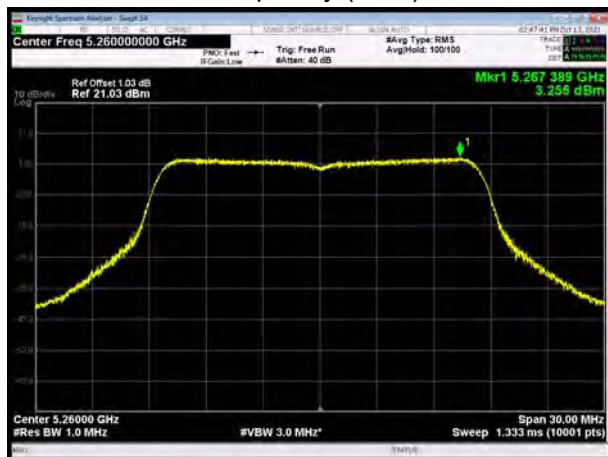
U-NII-1, 802.11ax HE20
Carrier frequency (MHz):5240



U-NII-1, 802.11ax HE80
Carrier frequency (MHz): 5210



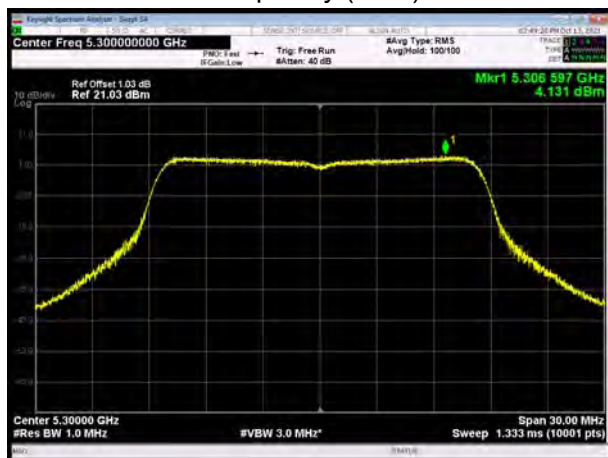
U-NII-2A, 802.11a
Carrier frequency (MHz): 5260



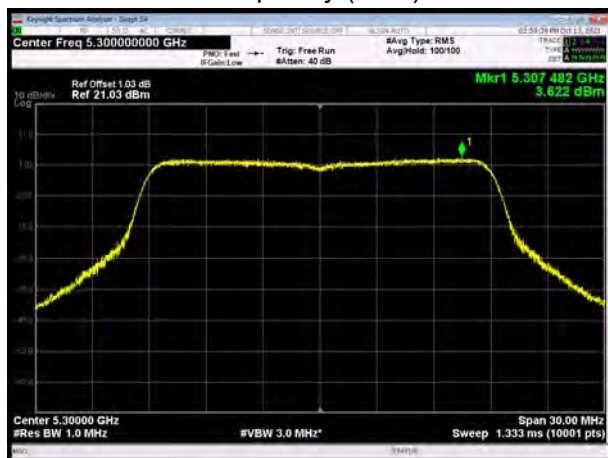
U-NII-2A, 802.11n HT20
Carrier frequency (MHz): 5260



U-NII-2A, 802.11a
Carrier frequency (MHz): 5300



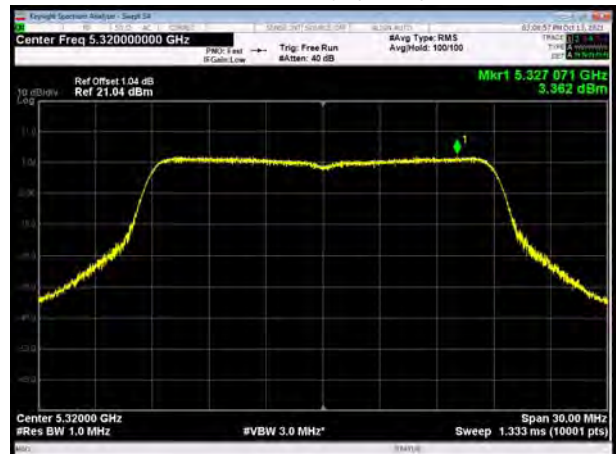
U-NII-2A, 802.11n HT20
Carrier frequency (MHz): 5300



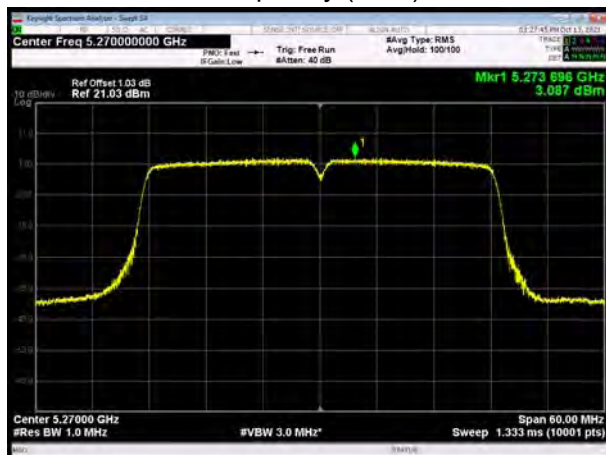
U-NII-2A, 802.11a
Carrier frequency (MHz):5320



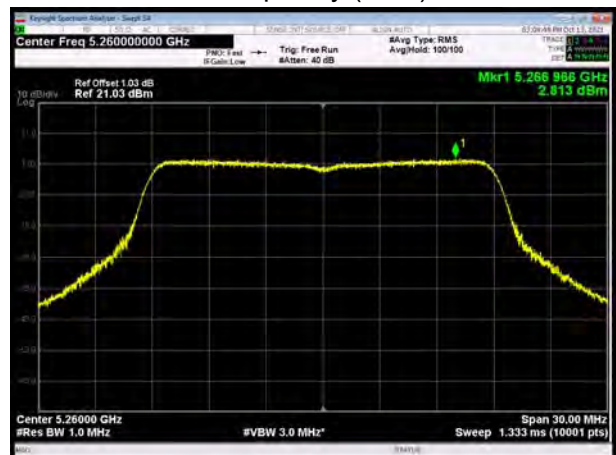
U-NII-2A, 802.11n HT20
Carrier frequency (MHz):5320



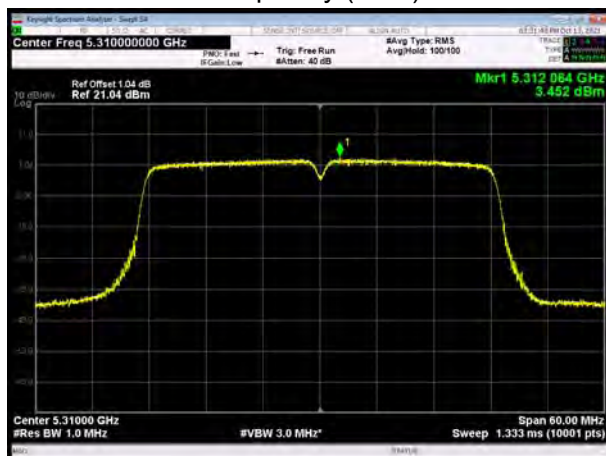
U-NII-2A, 802.11n HT40
Carrier frequency (MHz): 5270



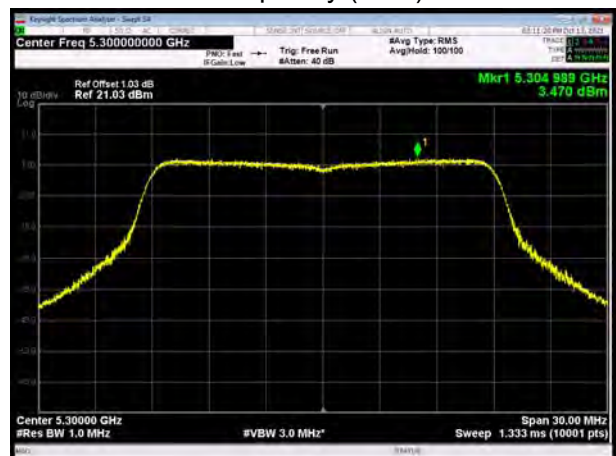
U-NII-2A, 802.11ac VHT20
Carrier frequency (MHz):5260



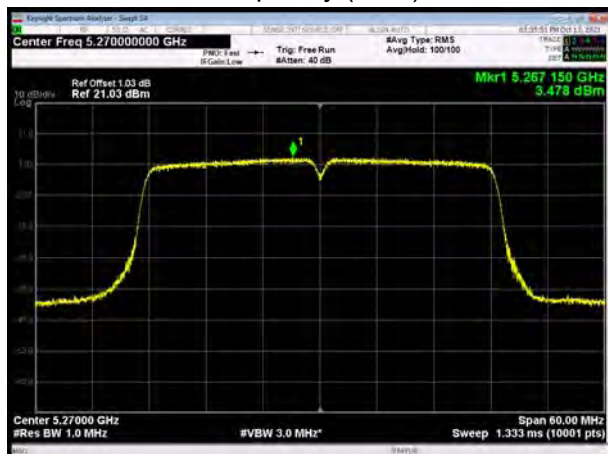
U-NII-2A, 802.11n HT40
Carrier frequency (MHz): 5310



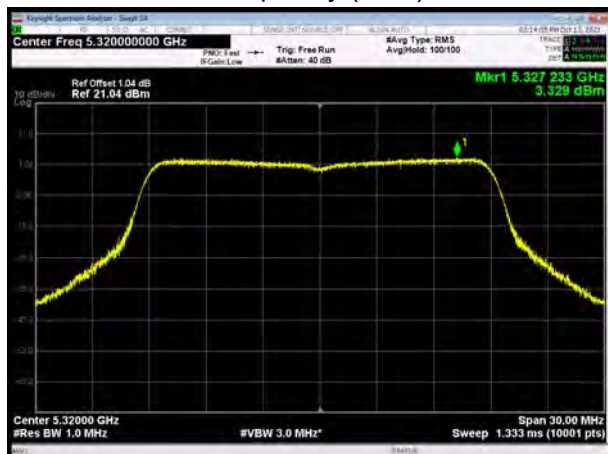
U-NII-2A, 802.11ac VHT20
Carrier frequency (MHz): 5300



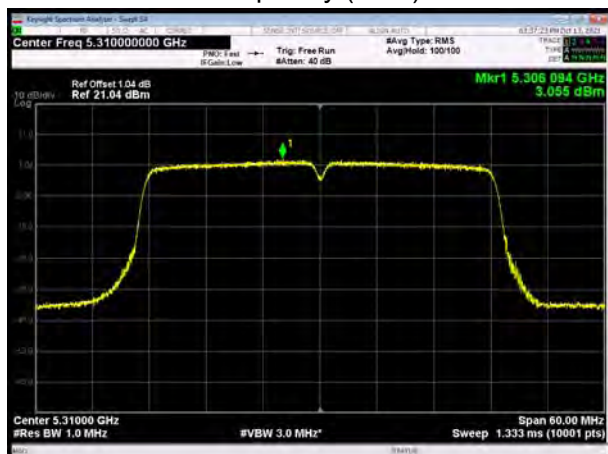
U-NII-2A, 802.11ac VHT40
Carrier frequency (MHz): 5270



U-NII-2A, 802.11ac VHT20
Carrier frequency (MHz): 5320



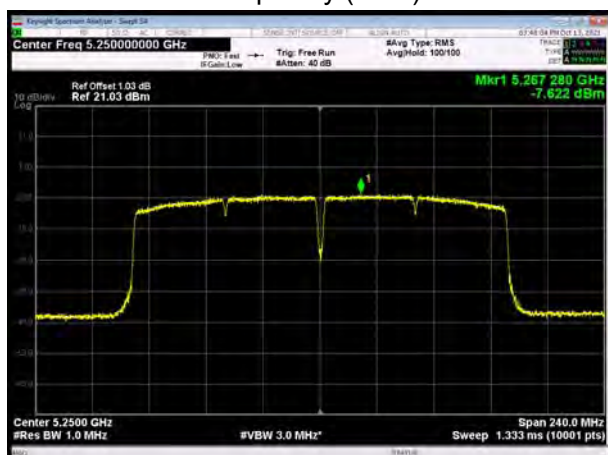
U-NII-2A, 802.11ac VHT40
Carrier frequency (MHz): 5310



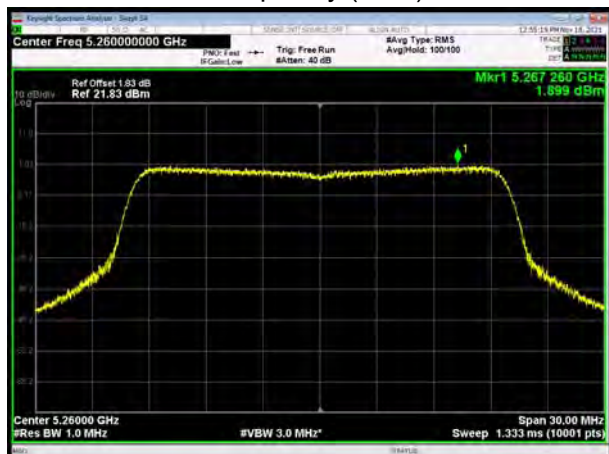
U-NII-2A, 802.11ac VHT80
Carrier frequency (MHz): 5290



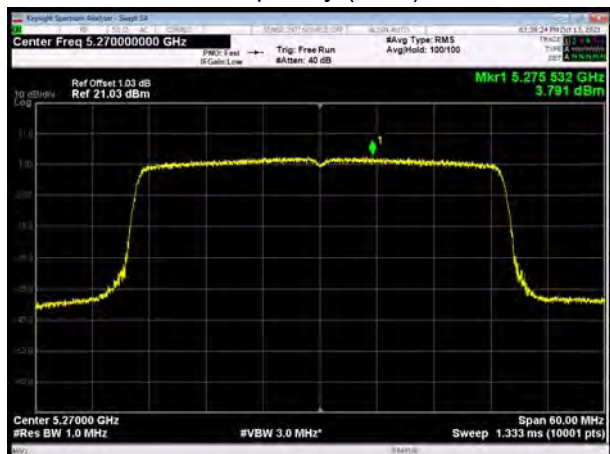
U-NII-2A, 802.11ac VHT160
Carrier frequency (MHz): 5250



U-NII-2A, 802.11ax HE20
Carrier frequency (MHz):5260



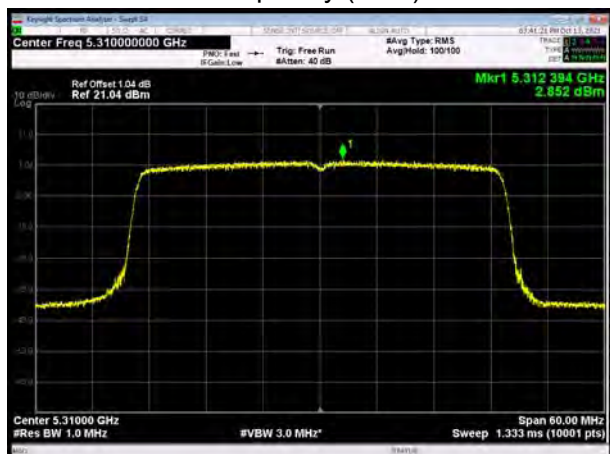
U-NII-2A, 802.11ax HE40
Carrier frequency (MHz): 5270



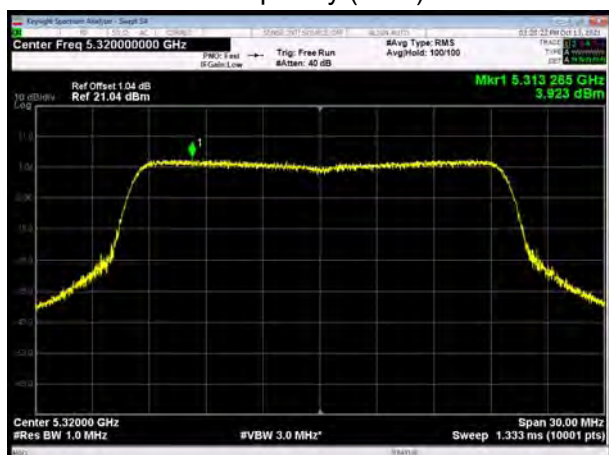
U-NII-2A, 802.11ax HE20
Carrier frequency (MHz): 5300



U-NII-2A, 802.11ax HE40
Carrier frequency (MHz): 5310



U-NII-2A, 802.11ax HE20
Carrier frequency (MHz):5320



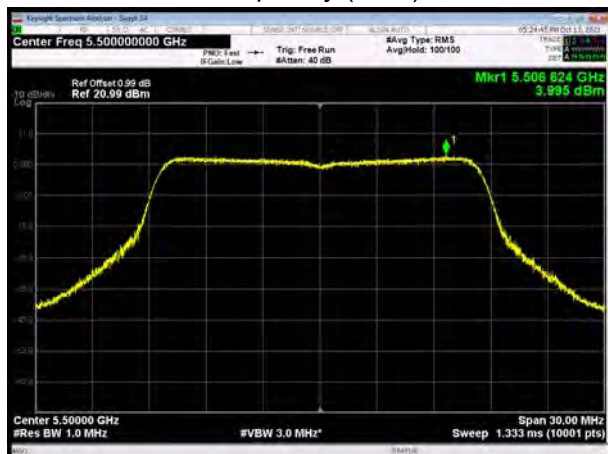
U-NII-2A, 802.11ax HE80
Carrier frequency (MHz): 5290



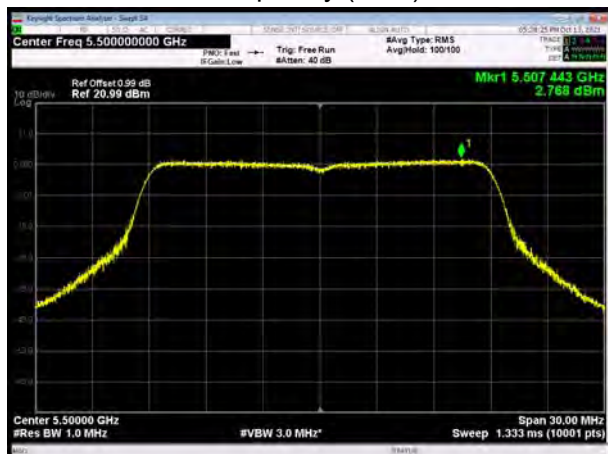
U-NII-2A, 802.11ax HE160
Carrier frequency (MHz): 5250



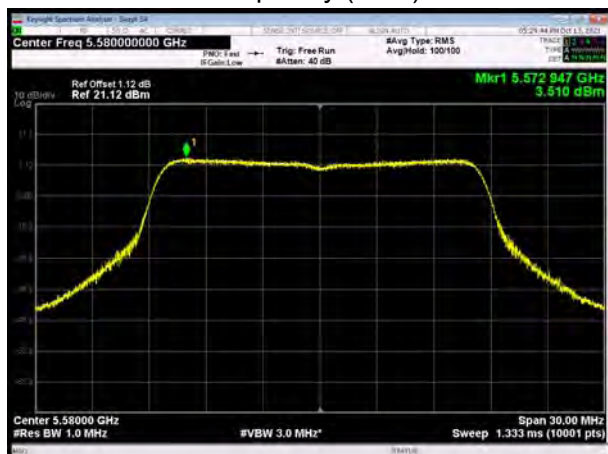
U-NII-2C, 802.11a
Carrier frequency (MHz): 5500



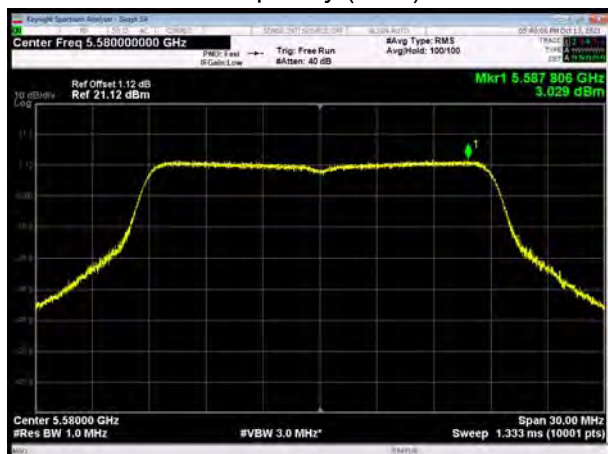
U-NII-2C, 802.11n HT20
Carrier frequency (MHz): 5500



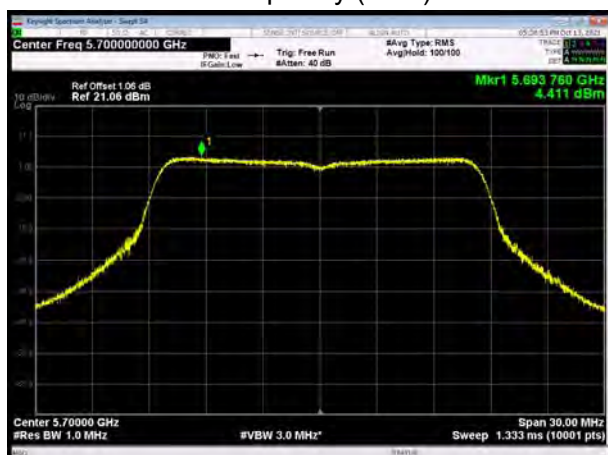
U-NII-2C, 802.11a
Carrier frequency (MHz): 5580



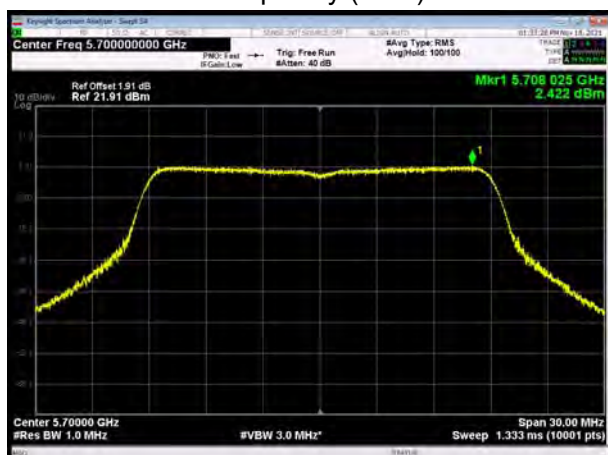
U-NII-2C, 802.11n HT20
Carrier frequency (MHz): 5580



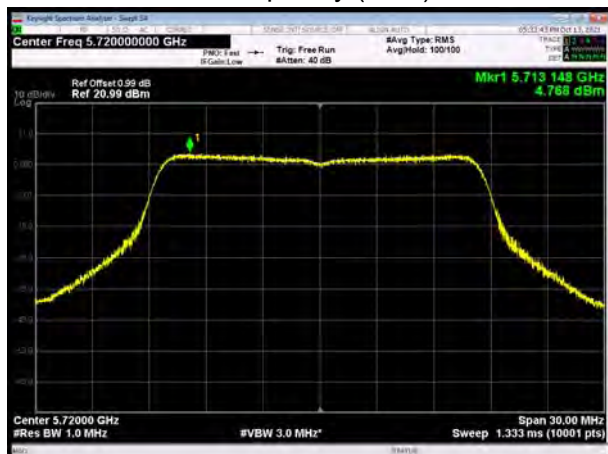
U-NII-2C, 802.11a
Carrier frequency (MHz): 5700



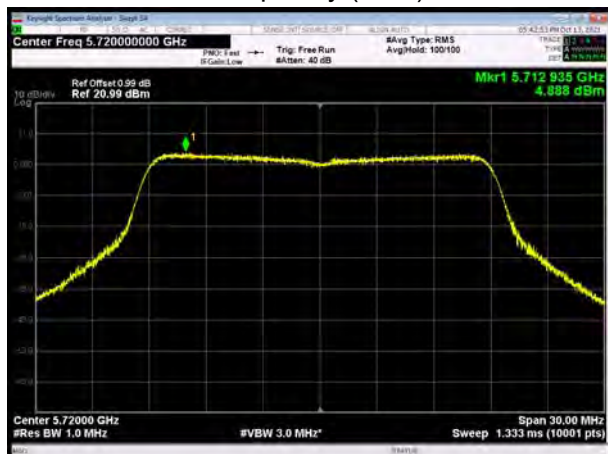
U-NII-2C, 802.11n HT20
Carrier frequency (MHz): 5700



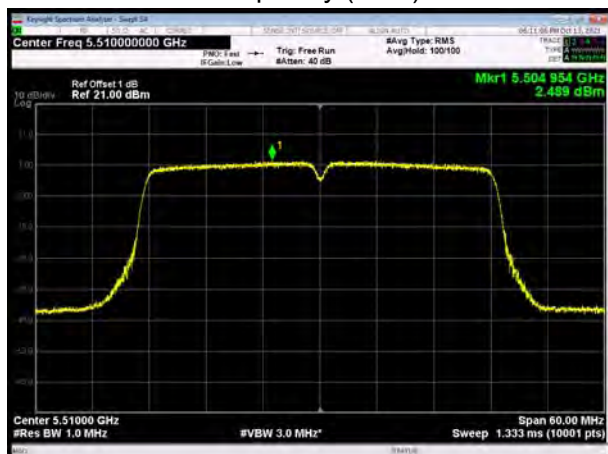
U-NII-2C, 802.11a
Carrier frequency (MHz):5720



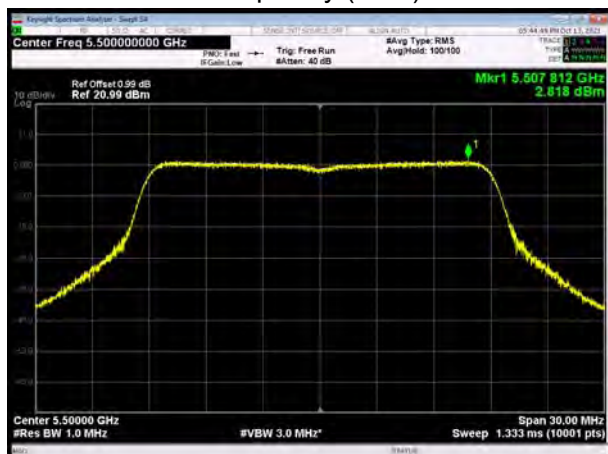
U-NII-2C, 802.11n HT20
Carrier frequency (MHz):5720



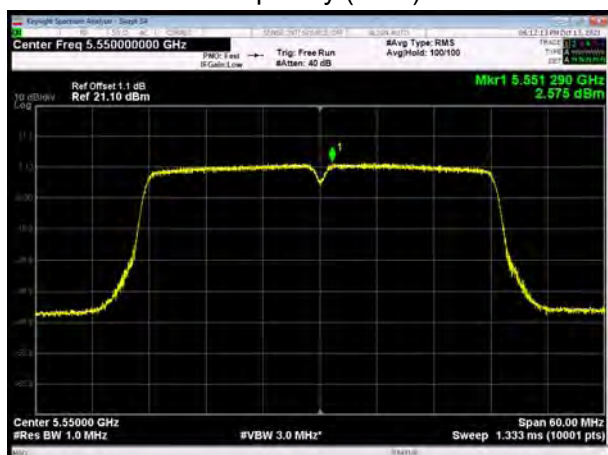
U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5510



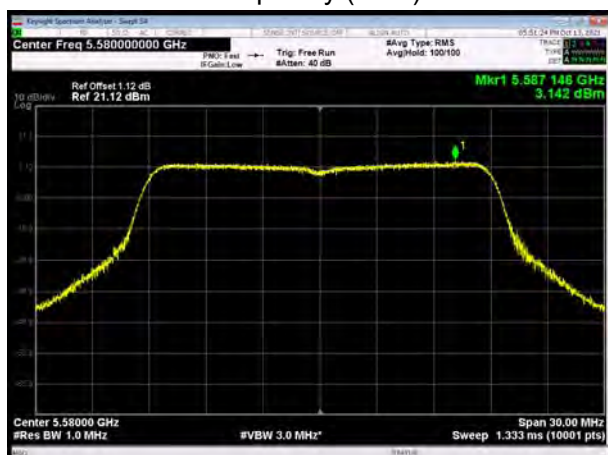
U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5500



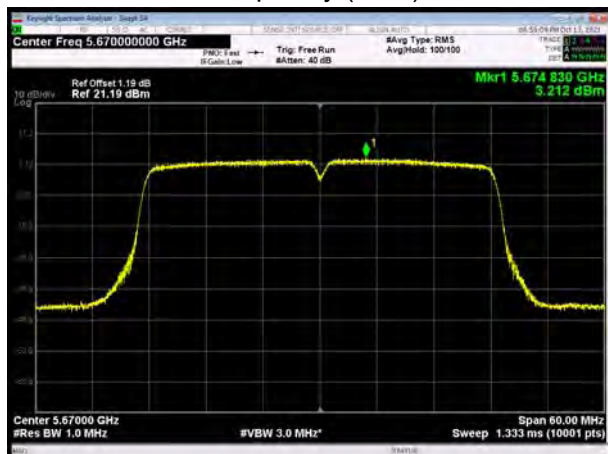
U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5550



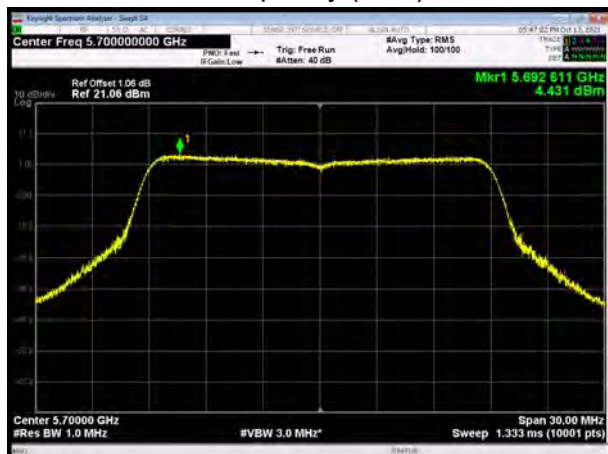
U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5580



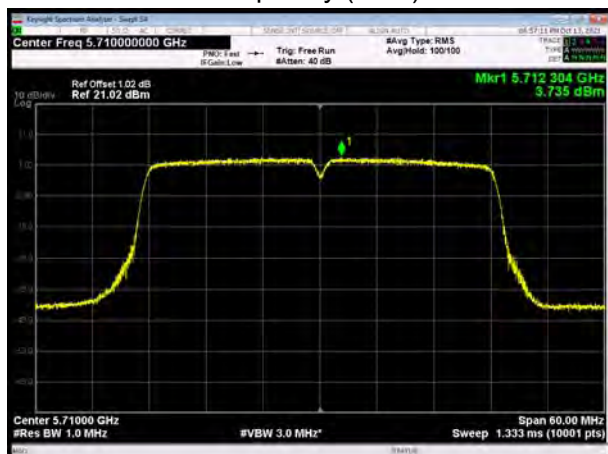
U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5670



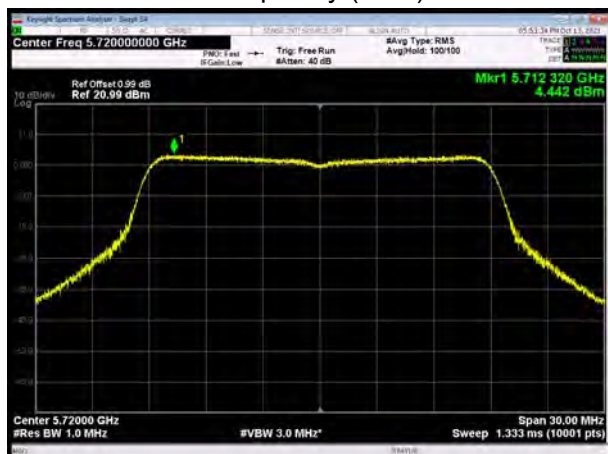
U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5700



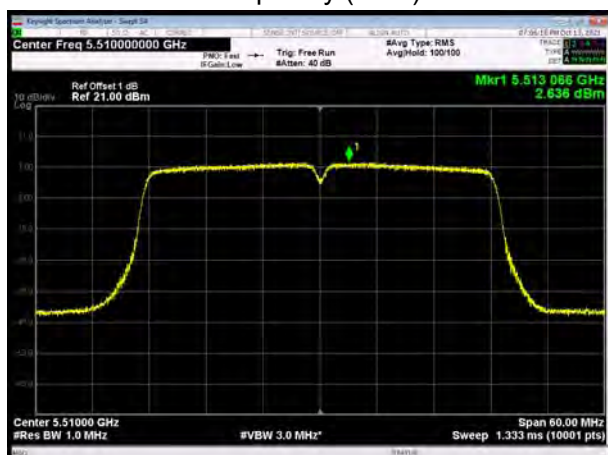
U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5710



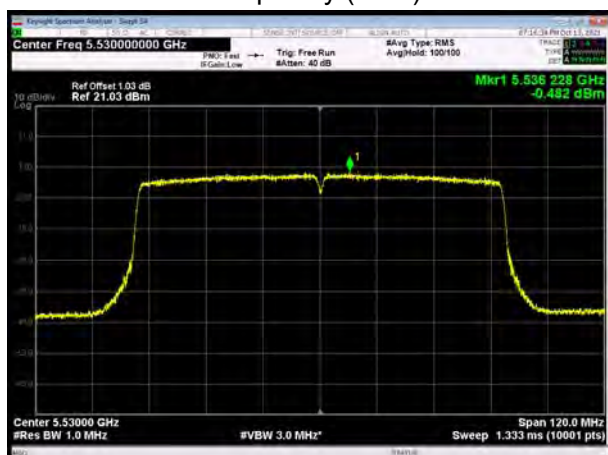
U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5720



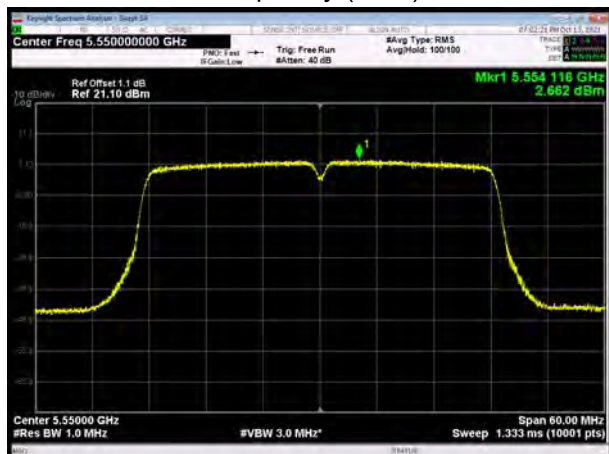
U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5510



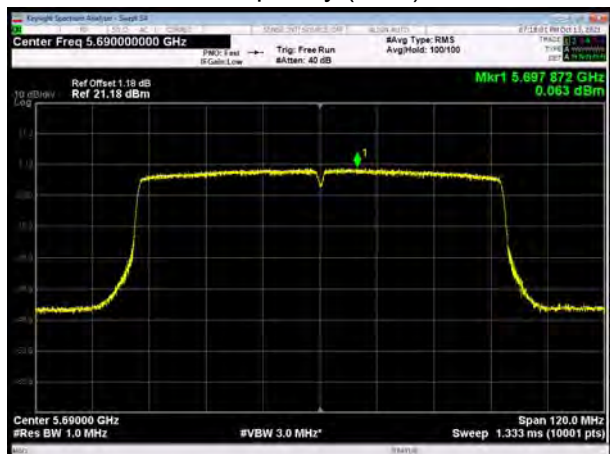
U-NII-2C, 802.11ac VHT80
Carrier frequency (MHz): 5530



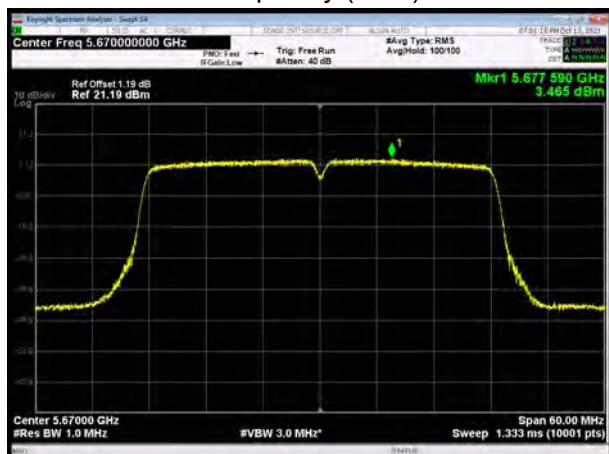
U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5550



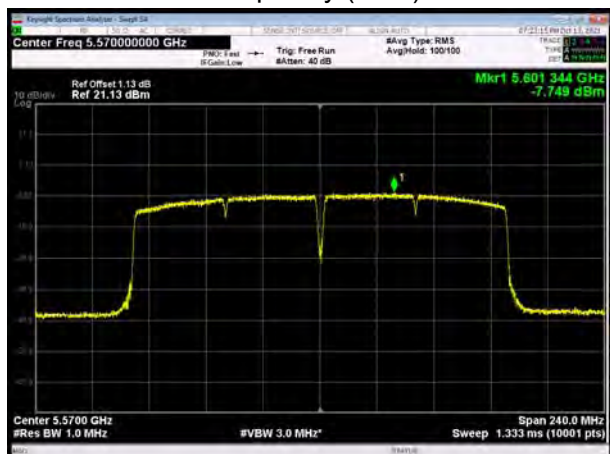
U-NII-2C, 802.11ac VHT80
Carrier frequency (MHz): 5690



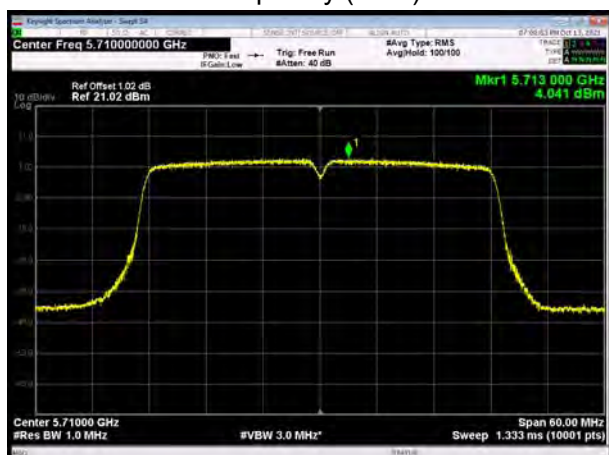
U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5670



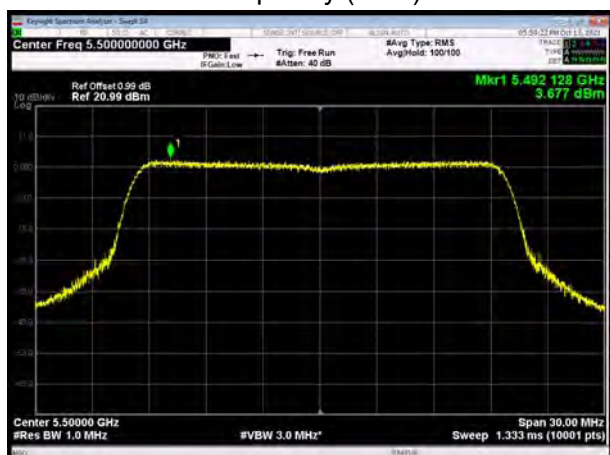
U-NII-2C, 802.11ac VHT160
Carrier frequency (MHz): 5570



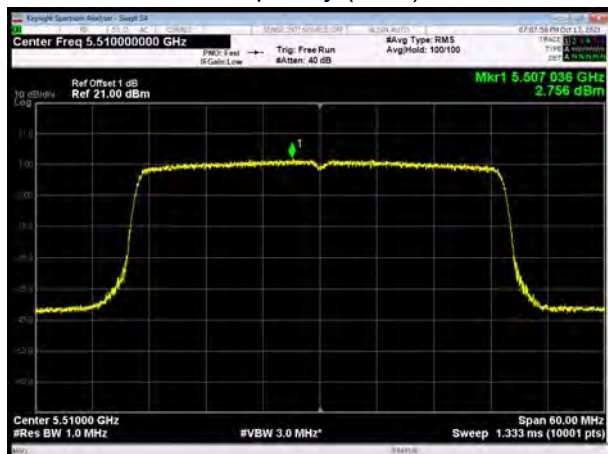
U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5710



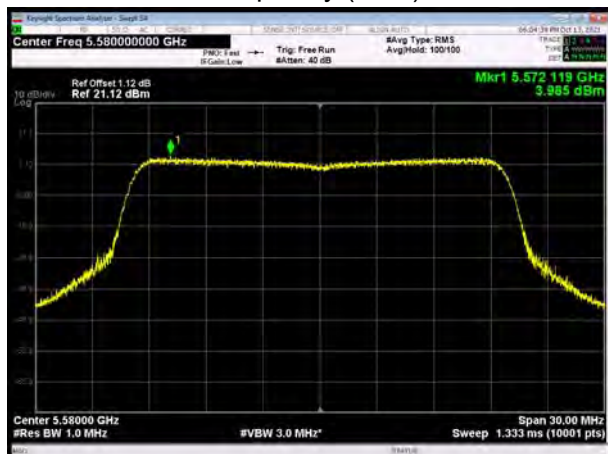
U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5500



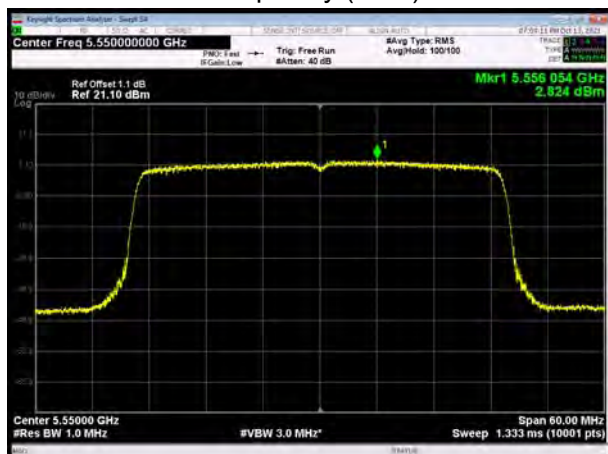
U-NII-2C, 802.11ax HE40
Carrier frequency (MHz): 5510



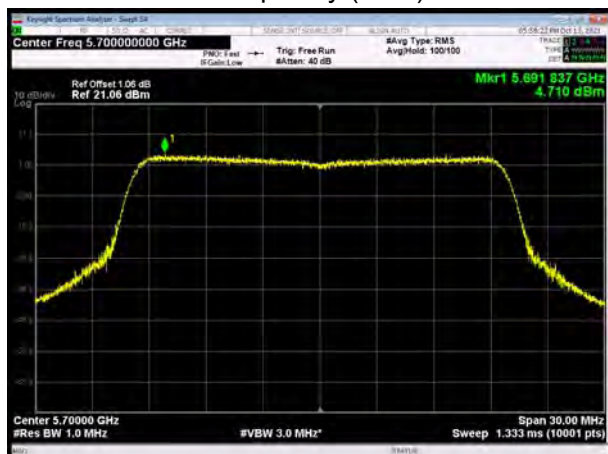
U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5580



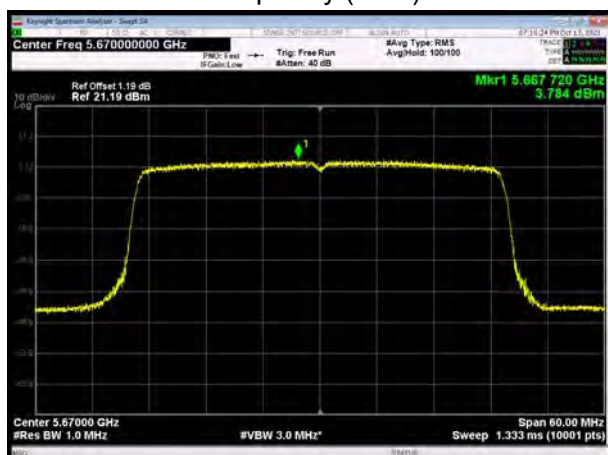
U-NII-2C, 802.11ax HE40
Carrier frequency (MHz): 5550



U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5700



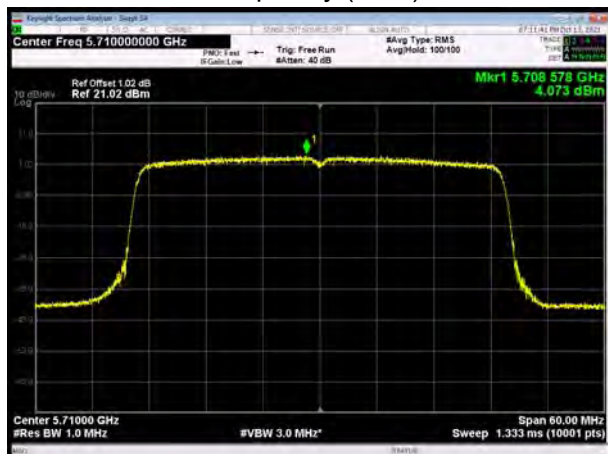
U-NII-2C, 802.11ax HE40
Carrier frequency (MHz): 5670



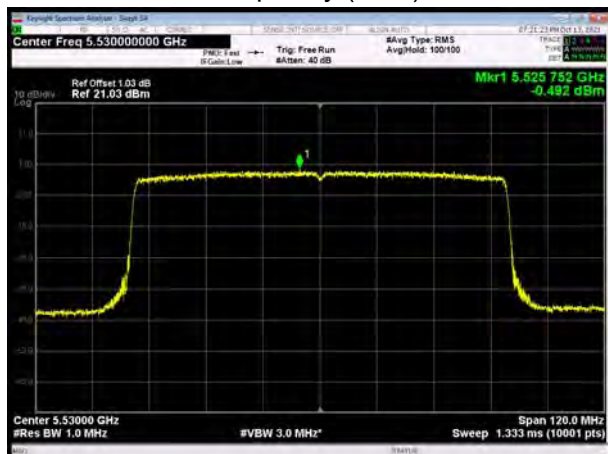
U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5720



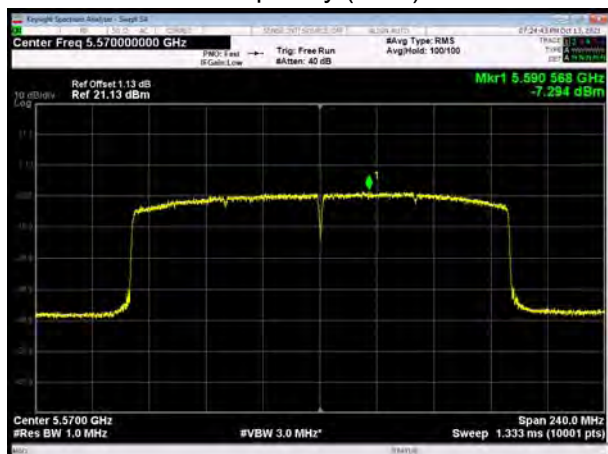
U-NII-2C, 802.11ax HE40
Carrier frequency (MHz): 5710



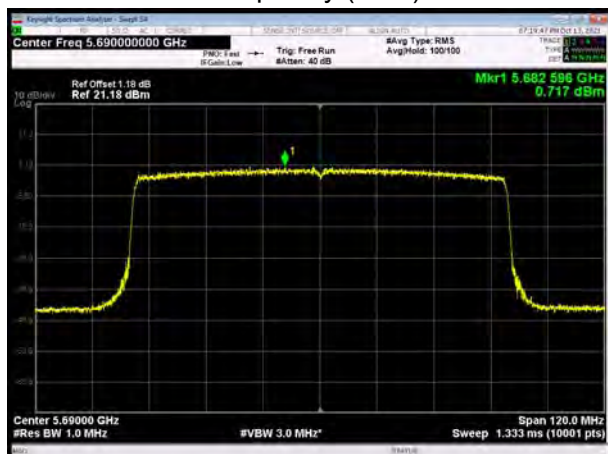
U-NII-2C, 802.11ax HE80
Carrier frequency (MHz): 5530



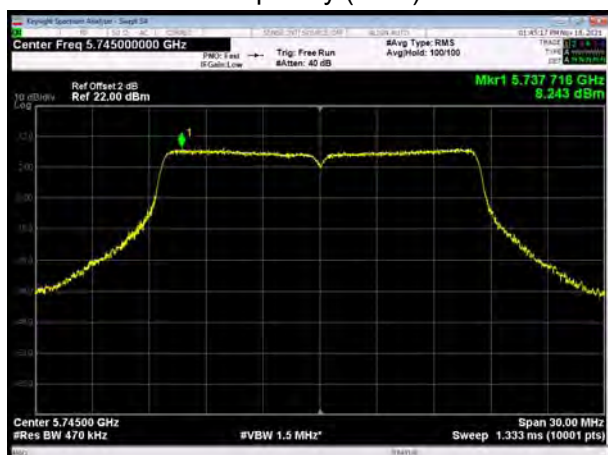
U-NII-2C, 802.11ax HE160
Carrier frequency (MHz): 5570



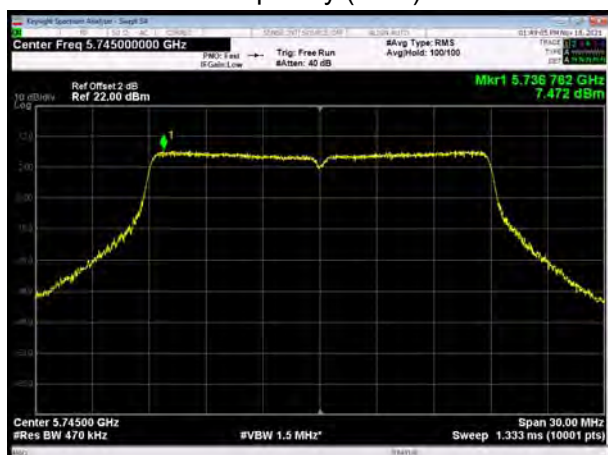
U-NII-2C, 802.11ax HE80
Carrier frequency (MHz): 5690



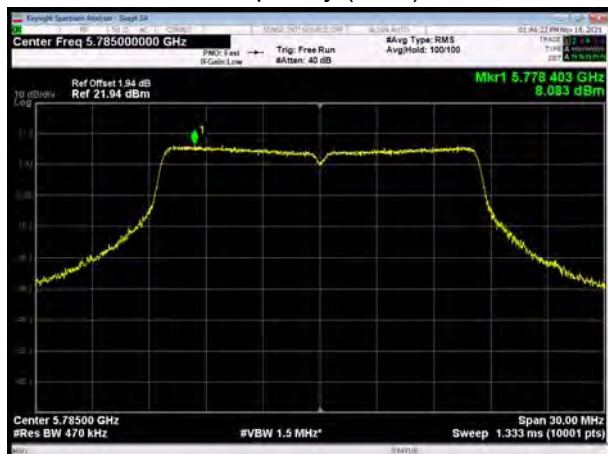
U-NII-3, 802.11a
Carrier frequency (MHz): 5745



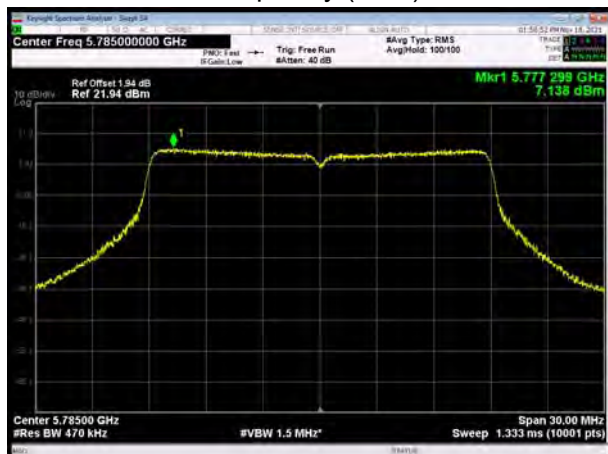
U-NII-3, 802.11n HT20
Carrier frequency (MHz): 5745



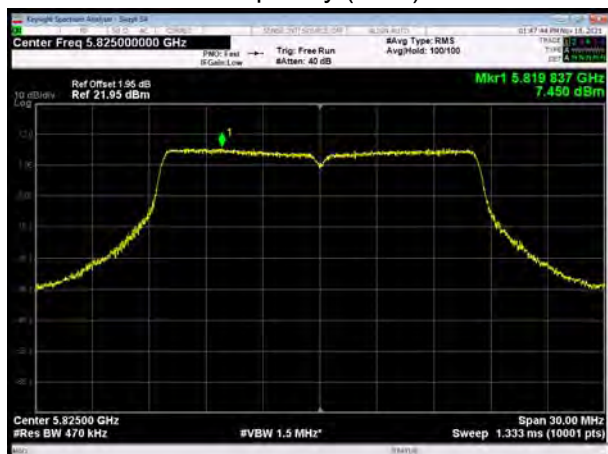
U-NII-3, 802.11a
Carrier frequency (MHz): 5785



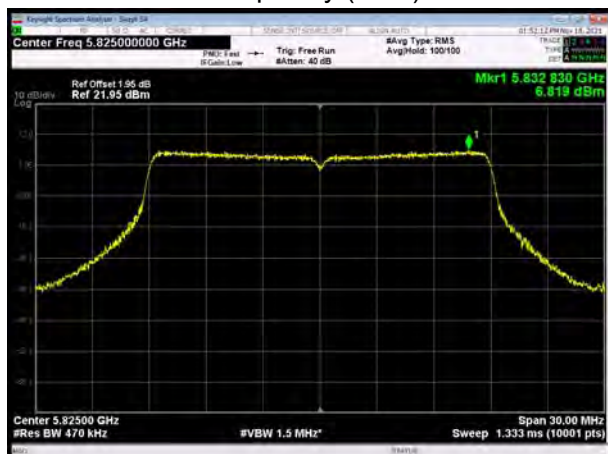
U-NII-3, 802.11n HT20
Carrier frequency (MHz): 5785



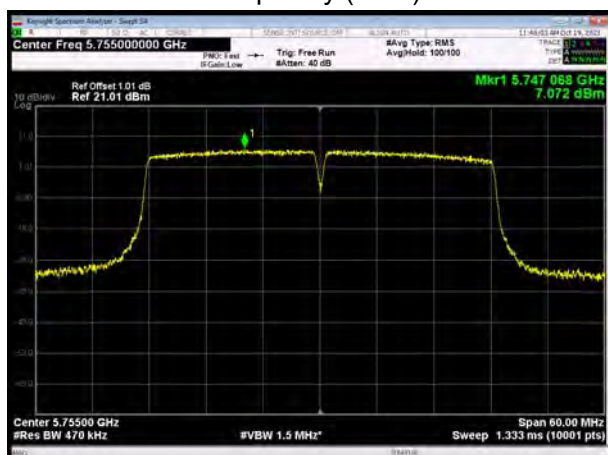
U-NII-3, 802.11a
Carrier frequency (MHz): 5825



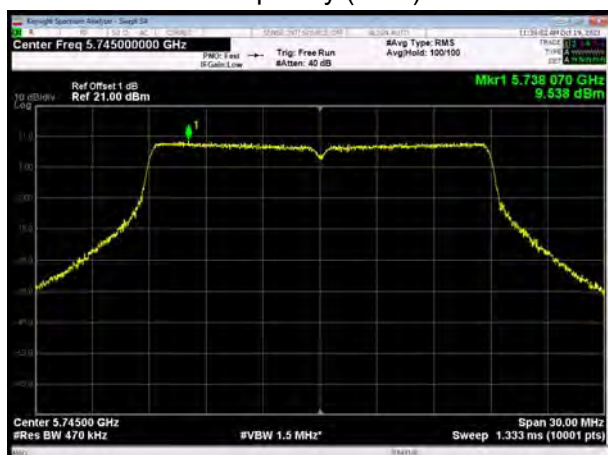
U-NII-3, 802.11n HT20
Carrier frequency (MHz): 5825



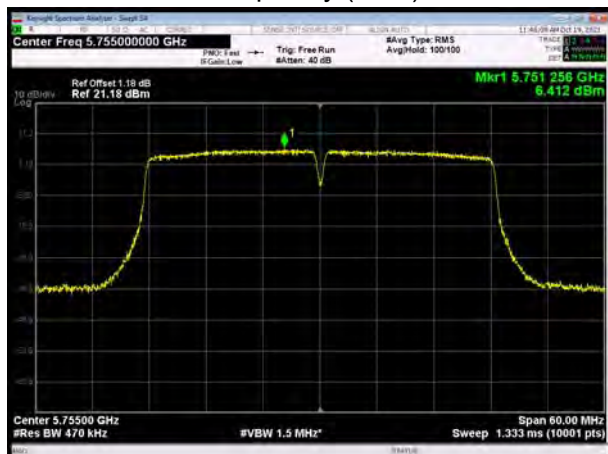
U-NII-3, 802.11n HT40
Carrier frequency (MHz): 5755



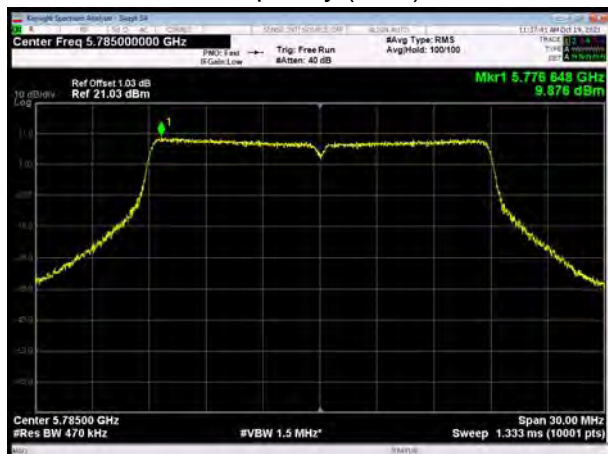
U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5745



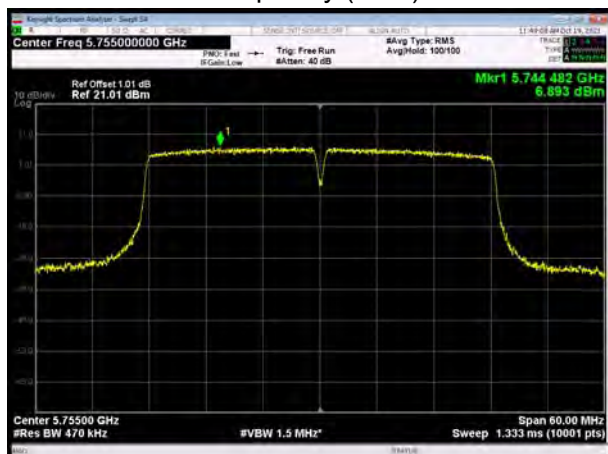
U-NII-3, 802.11n HT40
Carrier frequency (MHz): 5795



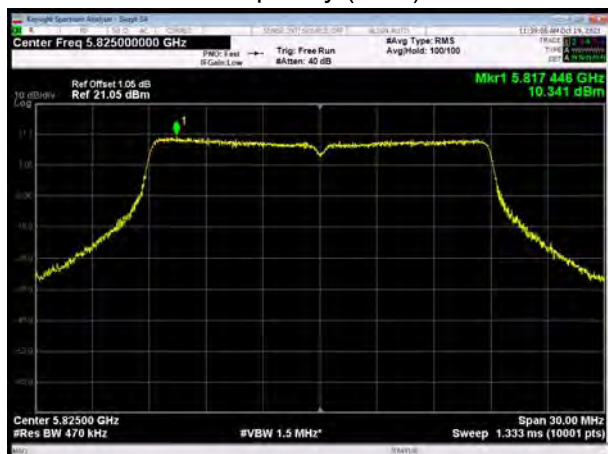
U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5785



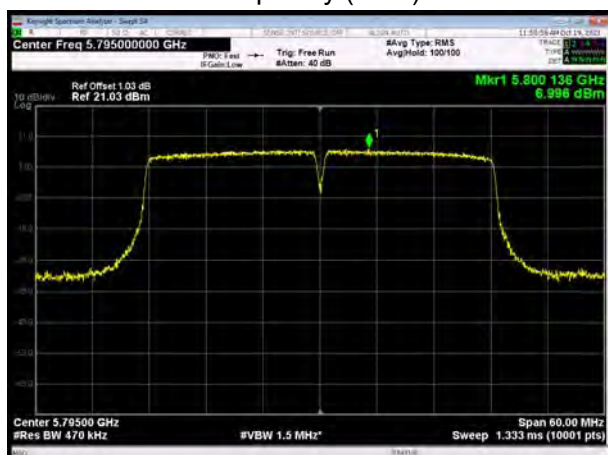
U-NII-3, 802.11ac VHT40
Carrier frequency (MHz): 5755



U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5825



U-NII-3, 802.11ac VHT40
Carrier frequency (MHz): 5795



U-NII-3, 802.11ac VHT80
Carrier frequency (MHz): 5775

