RF TEST REPORT

Applicant	Nokia Shanghai Bell Co., Ltd.
FCC ID	2ADZRG2426GA
Product	7368 ISAM ONT
Model	G-2426G-A
Report No.	R2007B0119-R2V2
Issue Date	September 27, 2020

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 15E (2019)**. 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.

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Version	Revision description	Issue Date
Rev.0	/	September 11, 2020
Rev.1	Update information table in Page6~ 7	September 23, 2020
Rev.2	Update information in Page1	September 27, 2020
Note This revised report (Report No.: R2007B0119-R2V2) supersedes and replaces the previously issued report (Report No.: R2007B0119-R2V1). 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 conducted 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: August 20, 2020~ August 31, 2020			
Note: 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.			

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, China
Manufacturer	T&W
Manufacturer address	89# Jiang Nan Road, Loudong Street,Taicang , Shanghai, China

2.2. General information

EUT Description					
Model	G-2426G-A				
SN	1#				
Hardware Version	3FE49241AAAA				
Software Version	3FE49226HJHK49				
Power Supply	AC adapter				
Antenna Type	Internal Antenna				
Directional Gain	Without Beamforming Mode for Power	Frequency (MHz)	5150	5550	5850
		Gain (dBi)	2.6	2.8	2.8
	Without Beamforming Mode for PSD	Frequency (MHz)	5150	5550	5850
		Gain (dBi)	5.6	5.8	5.8
	Beamforming Mode	Frequency (MHz)	5150	5550	5850
		Gain (dBi)	2.9	3	3
Test Mode(s)	U-NII-1(5150MHz-5250MHz) U-NII-2A(5250MHz-5350MHz) U-NII-2C(5470MHz-5600MHz ,5650MHz-5725MHz) U-NII-3(5725MHz-5850MHz)				
Modulation Type	802.11a/n (HT20/HT40) : OFDM 802.11ac (VHT20/VHT40/VHT80): OFDM 802.11ax (HE20/HE40/HE80):OFDMA, OFDM				
Max. Conducted Power	29.34 dBm				
Operating Frequency Range(s)	U-NII-1: 5150MHz-5250MHz U-NII-2A:5250MHz -5350MHz U-NII-2C: 5470MHz-5600MHz ,5650MHz-5725MHz U-NII-3: 5725MHz -5850MHz				

Operating temperature range:	-5 ° C to 45° C
Operating voltage range:	10V to 14V
State DC voltage:	12V
EUT Accessory	
Adapter 1	Manufacturer: Dongguan Shilong Fuhua Electronic Co., Ltd. Model: UES24WU-120200SPA
Adapter 2	Manufacturer: RUIDE(SHENZHEN) ELECTRONIC INDUSTRIAL CO., LTD. Model: RD1202000-C55-154MG
Note:1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant. 2. There is more than one Adapter, each one should be applied throughout the compliance test respectively, and however, only the worst case (Adapter 1) will be recorded in this report.	

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 (2019) 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.

Band	Data Rate
	MIMO
802.11a	6 Mbps
802.11n HT20	MCS8
802.11n HT40	MCS8
802.11ac VHT20	MCS8
802.11ac VHT40	MCS8
802.11ac VHT80	MCS8
802.11ax HE20	MCS8
802.11ax HE40	MCS8
802.11ax HE80	MCS8

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

Test Cases	MIMO
Average conducted output power	802.11n HT20/40 802.11ac VHT20/40/80 802.11ax HE20/40/80
Occupied bandwidth	802.11n HT20/40 802.11ac VHT20/40/80 802.11ax HE20/40/80
Frequency stability	802.11n HT20/40 802.11ac VHT20/40/80 802.11ax HE20/40/80
Power Spectral Density	802.11n HT20/40 802.11ac VHT20/40/80 802.11ax HE20/40/80
Unwanted Emissions	802.11n HT20/40 802.11ac VHT20/40/80

	802.11ax HE20/40/80
Conducted Emissions	802.11n HT20/40 802.11ac VHT20/40/80 802.11ax HE20/40/80
Note：“O”: test all bands	

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
			132	5660MHz
			136	5680MHz
			140	5700MHz
		40 MHz	102	5510MHz
			110	5550MHz
			134	5670MHz
			142	5710MHz
		80 MHz	106	5530MHz
			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.

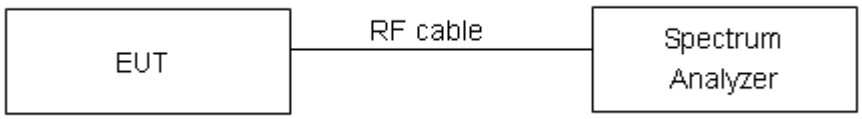
For U-NII-1/U-NII-2A/U-NII-2C, set RBW ≈1% OCB kHz, VBW ≥ 3 × RBW, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 26 dB relative to the maximum level measured in the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

For U-NII-3, Set RBW = 100 kHz, VBW ≥ 3 × 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

Network Standards	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5180	16.395	21.88	PASS
	5200	16.376	19.89	PASS
	5240	16.392	19.95	PASS
802.11n-HT20	5180	17.479	19.57	PASS
	5200	17.440	20.02	PASS
	5240	17.450	19.67	PASS
802.11n-HT40	5190	35.737	41.52	PASS
	5230	36.271	45.39	PASS
802.11ac-VHT20	5180	17.456	19.91	PASS
	5200	17.439	21.04	PASS
	5240	17.481	22.32	PASS
802.11ac-VHT40	5190	36.292	50.20	PASS
	5230	36.377	52.47	PASS
802.11ac-VHT80	5210	74.778	79.30	PASS
802.11ax-HE20	5180	18.845	21.56	PASS
	5200	18.847	21.56	PASS
	5240	18.844	23.59	PASS
802.11ax-HE40	5190	37.552	39.23	PASS
	5230	37.816	57.39	PASS
802.11ax-HE 80	5210	76.603	79.77	PASS

U-NII-2A

Network Standards	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5260	16.279	19.19	PASS
	5300	16.271	18.98	PASS
	5320	16.274	19.27	PASS
802.11n-HT20	5260	17.464	19.74	PASS
	5300	17.492	19.49	PASS
	5320	17.476	19.90	PASS
802.11n-HT40	5270	35.763	39.19	PASS
	5310	35.851	39.31	PASS
802.11ac-VHT20	5260	17.481	19.88	PASS
	5300	17.496	19.72	PASS
	5320	17.467	19.71	PASS
802.11ac-VHT40	5270	35.717	39.19	PASS
	5310	35.769	39.07	PASS
802.11ac-VHT80	5290	74.965	79.09	PASS
802.11ax-HE20	5260	18.831	21.05	PASS
	5300	18.863	21.08	PASS
	5320	18.809	21.32	PASS
802.11ax-HE40	5270	37.432	39.36	PASS
	5310	37.455	39.29	PASS
802.11ax-HE 80	5290	76.513	80.08	PASS

U-NII-2C

Network Standards	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5500	16.285	18.85	PASS
	5580	16.273	18.99	PASS
	5700	16.283	18.92	PASS
	5720	16.299	19.01	PASS
802.11n-HT20	5500	17.493	19.56	PASS
	5580	17.449	19.68	PASS
	5700	17.441	19.73	PASS
	5720	17.455	19.92	PASS
802.11n-HT40	5510	35.927	39.80	PASS
	5550	35.882	39.93	PASS
	5670	35.899	39.68	PASS
	5710	35.808	39.62	PASS
802.11ac-VHT20	5500	17.465	19.97	PASS
	5580	17.449	19.75	PASS
	5700	17.460	19.75	PASS
	5720	17.462	19.68	PASS
802.11ac-VHT40	5510	35.895	40.01	PASS
	5550	35.842	39.95	PASS
	5670	35.867	40.26	PASS
	5710	35.829	40.06	PASS
802.11ac-VHT80	5530	75.007	78.97	PASS
	5690	74.972	79.20	PASS
802.11ax-HE20	5500	18.835	20.85	PASS
	5580	18.806	20.96	PASS
	5700	18.836	20.45	PASS
	5720	18.832	21.02	PASS
802.11ax-HE40	5510	37.530	39.25	PASS
	5550	37.434	39.40	PASS
	5670	37.576	39.32	PASS
	5710	37.451	39.32	PASS
802.11ax-HE80	5530	76.639	79.82	PASS
	5690	76.636	80.06	PASS

U-NII-3

Network Standards	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 6 dB bandwidth (MHz)	Limit (kHz)	Conclusion
802.11a	5745	16.630	13.16	500	PASS
	5785	16.525	13.85	500	PASS
	5825	16.528	12.21	500	PASS
802.11-HT20	5745	17.635	16.15	500	PASS
	5785	17.575	15.94	500	PASS
	5825	17.599	12.63	500	PASS
802.11-HT40	5755	36.278	30.04	500	PASS
	5795	36.160	32.49	500	PASS
802.11ac-VHT20	5745	17.641	13.13	500	PASS
	5785	17.602	14.97	500	PASS
	5825	17.634	16.27	500	PASS
802.11ac-VHT40	5755	36.361	33.82	500	PASS
	5795	36.226	32.55	500	PASS
802.11ac-VHT80	5775	75.784	72.52	500	PASS
802.11ax-HE20	5745	18.917	15.51	500	PASS
	5785	18.903	15.03	500	PASS
	5825	18.912	16.21	500	PASS
802.11ax-HE40	5755	37.822	35.06	500	PASS
	5795	37.770	35.68	500	PASS
802.11ax-HE80	5775	77.421	70.05	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

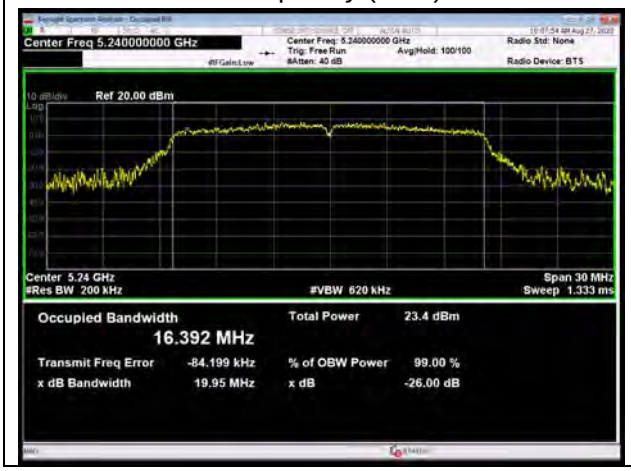
Carrier frequency (MHz): 5200

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

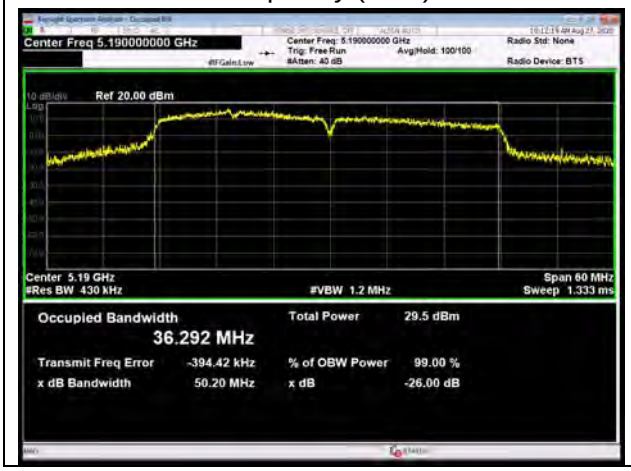
Carrier frequency (MHz): 5230

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

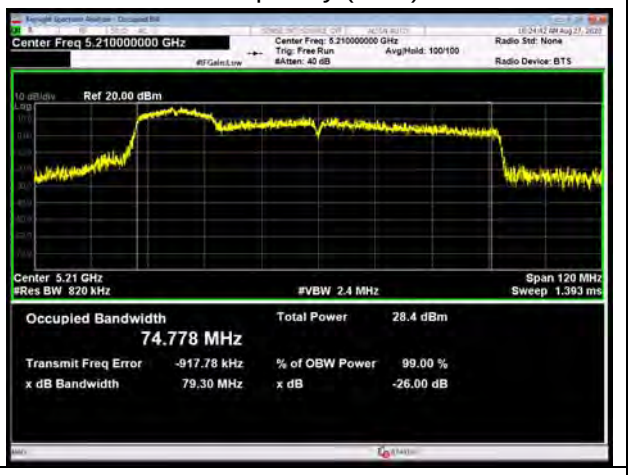
Carrier frequency (MHz):5240

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

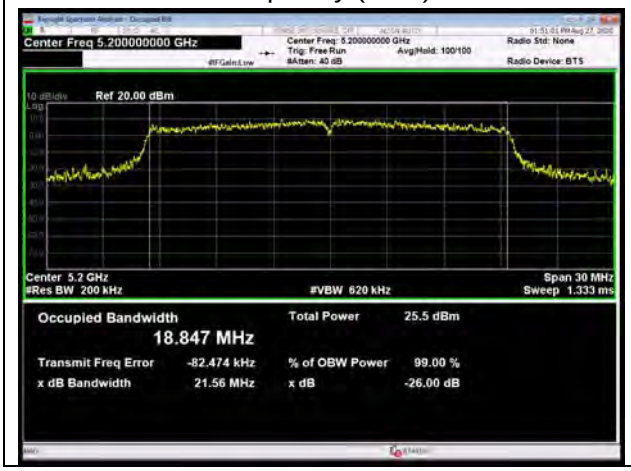
Carrier frequency (MHz): 5180

U-NII-1, 802.11ax HE40

Carrier frequency (MHz): 5190

U-NII-1, 802.11ax HE20

Carrier frequency (MHz): 5200



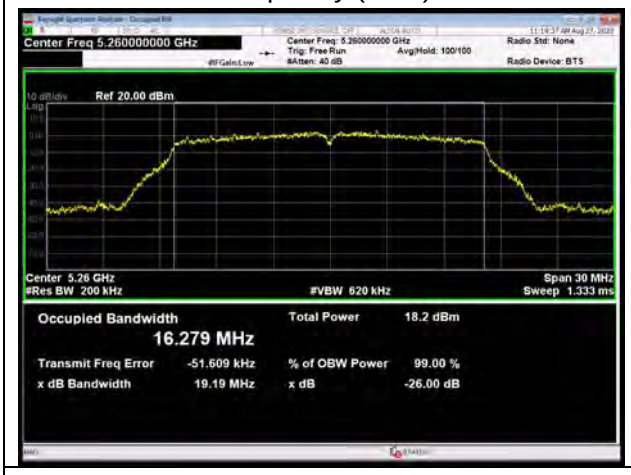
U-NII-1, 802.11ax HE40

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

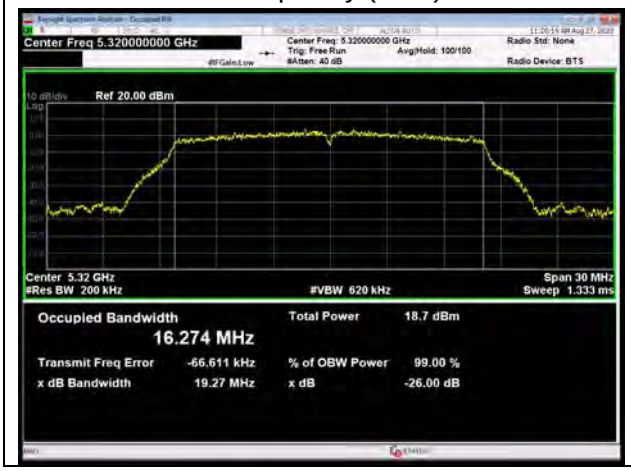
Carrier frequency (MHz): 5300

U-NII-2A, 802.11n HT20

Carrier frequency (MHz): 5300

U-NII-2A, 802.11a

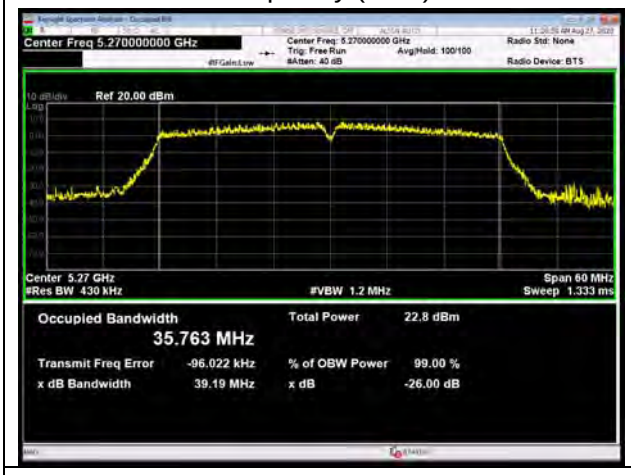
Carrier frequency (MHz):5320



U-NII-2A, 802.11n HT20

Carrier frequency (MHz):5320

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

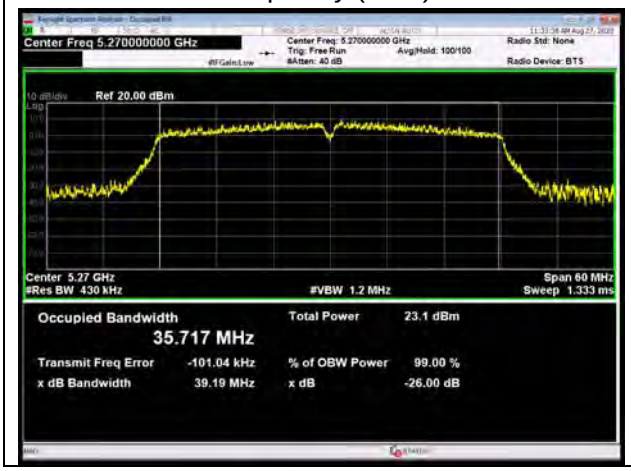


U-NII-2A, 802.11ac VHT20
Carrier frequency (MHz):5260

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, 802.11ax 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-2C, 802.11a

Carrier frequency (MHz): 5500

U-NII-2C, 802.11n HT20

Carrier frequency (MHz): 5500

U-NII-2C, 802.11a

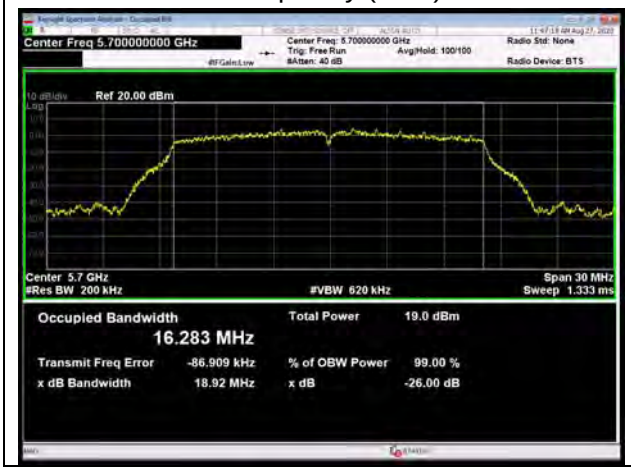
Carrier frequency (MHz): 5580

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

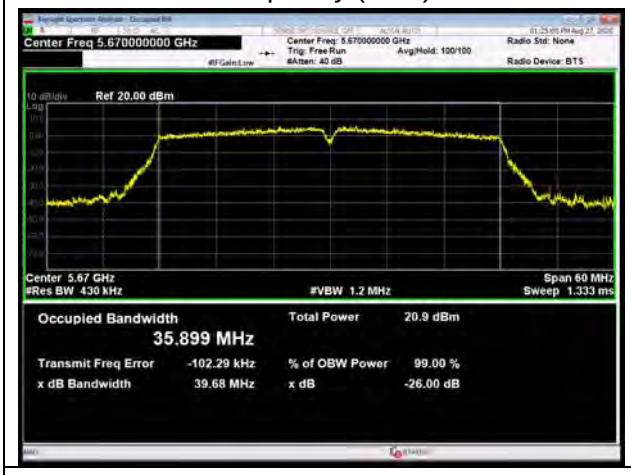
Carrier frequency (MHz): 5550

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

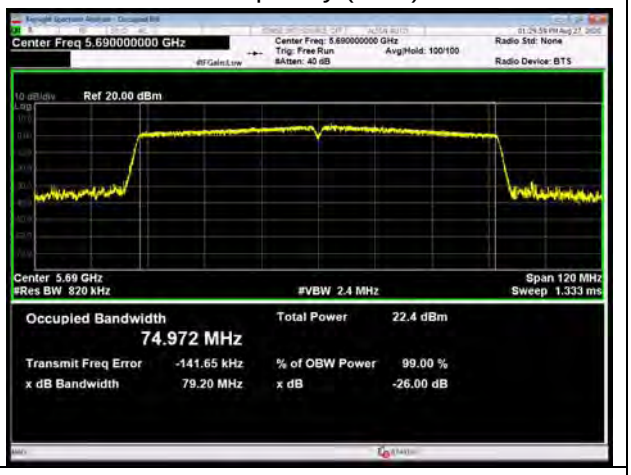
Carrier frequency (MHz): 5510

U-NII-2C, 802.11ac VHT80

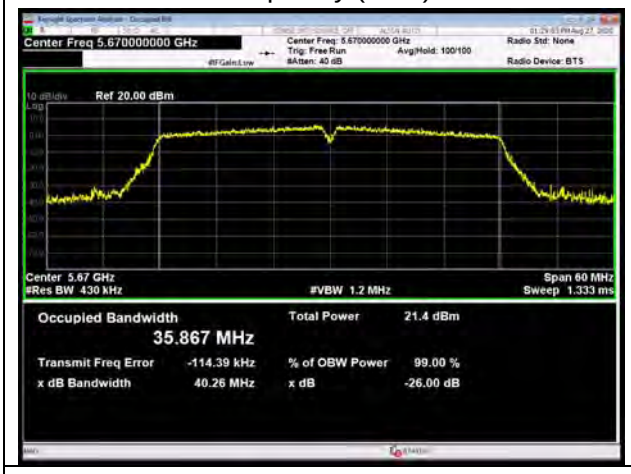
Carrier frequency (MHz): 5530

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

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

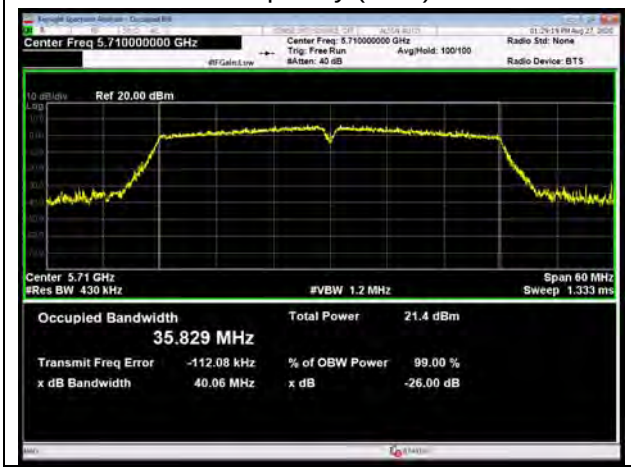


U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5670



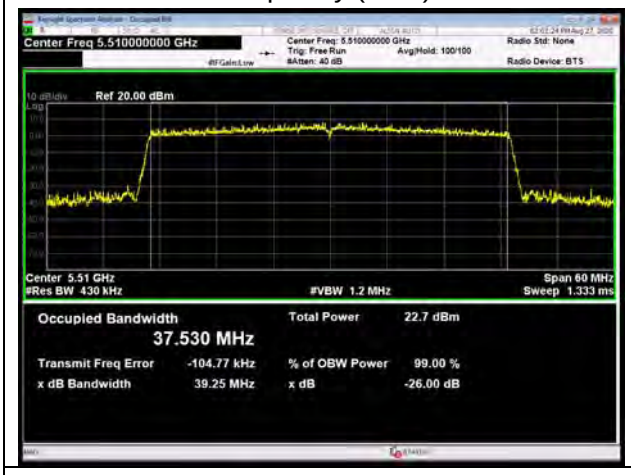
U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5500

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



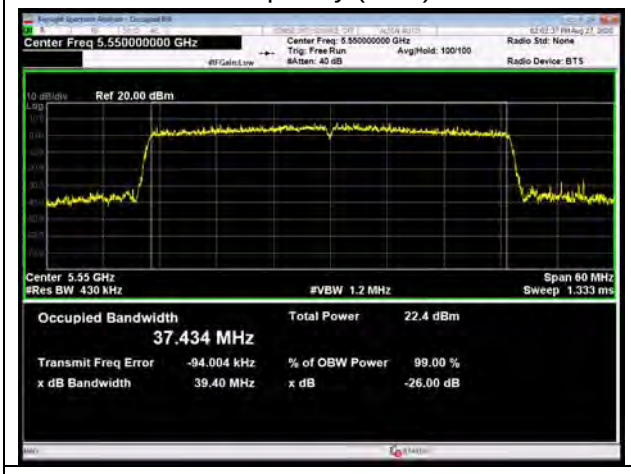
U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5580

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



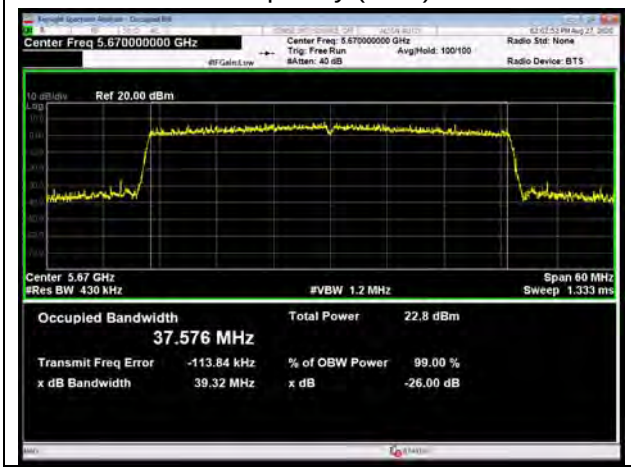
U-NII-2C, 802.11ax HE20
Carrier frequency (MHz):5700

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

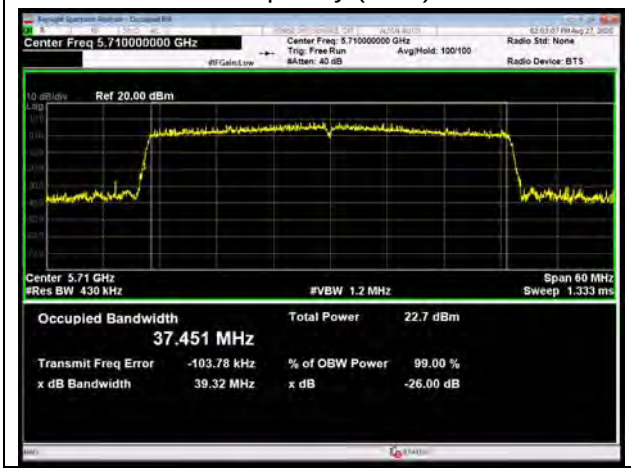


U-NII-2C, 802.11ax HE20
Carrier frequency (MHz):5720

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



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

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

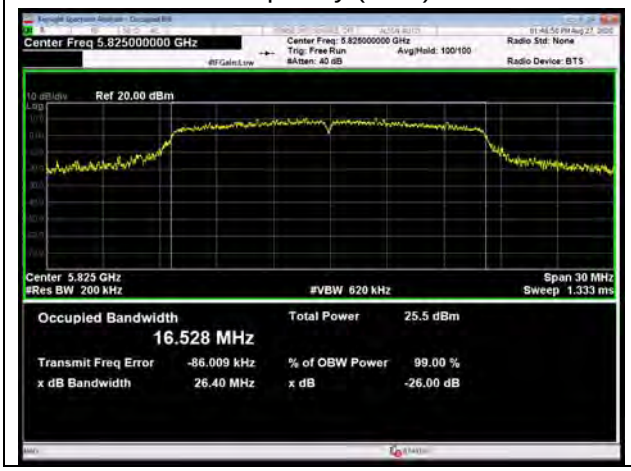
Carrier frequency (MHz): 5785

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

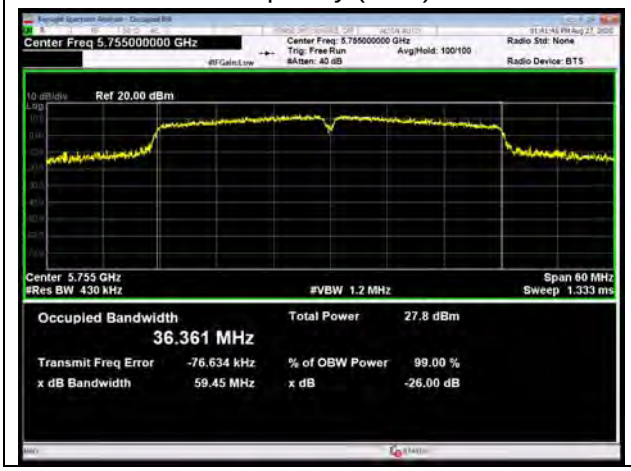
Carrier frequency (MHz): 5795

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

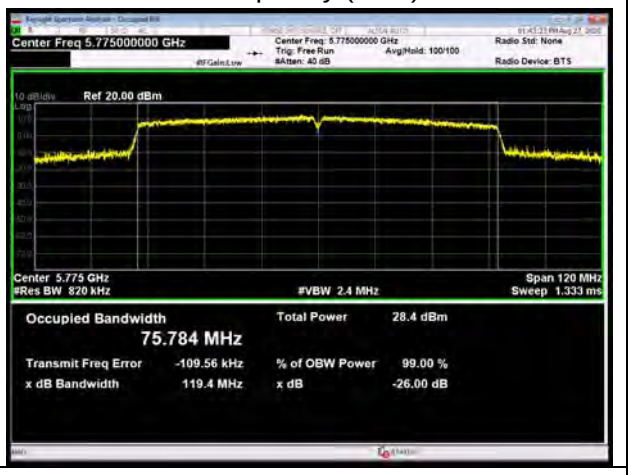
Carrier frequency (MHz): 5825

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

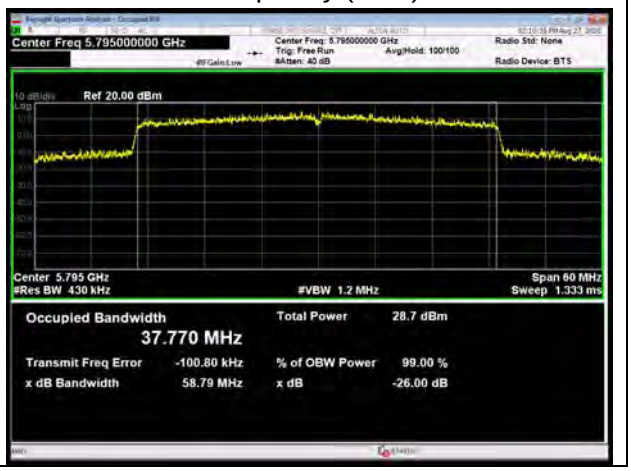
Carrier frequency (MHz): 5755

U-NII-3, 802.11ax HE20

Carrier frequency (MHz): 5785

U-NII-3, 802.11ax HE40

Carrier frequency (MHz): 5795

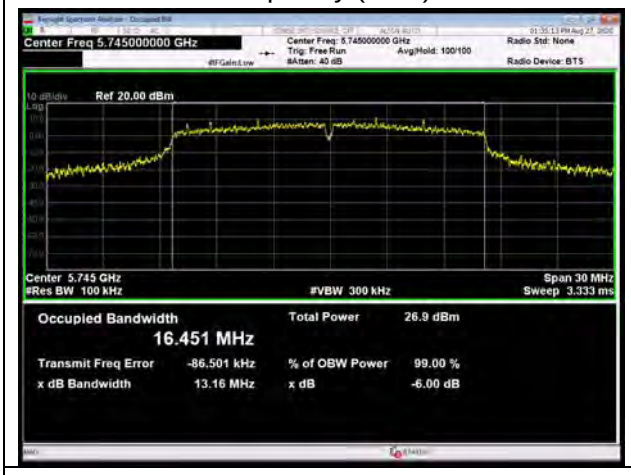


U-NII-3, 802.11ax HE20 Carrier frequency (MHz): 5825	U-NII-3, 802.11ax HE80 Carrier frequency (MHz): 5775
	

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

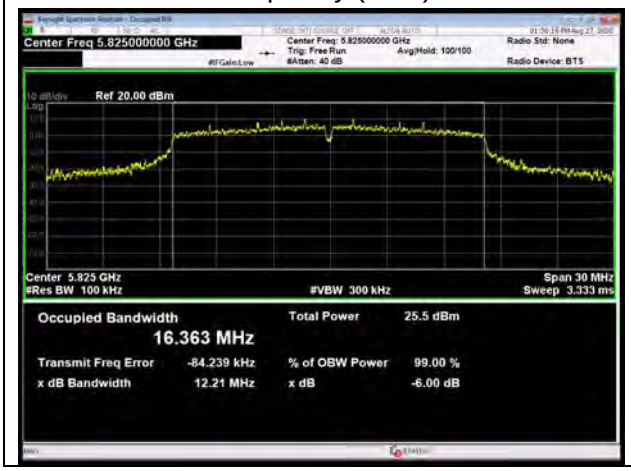
Carrier frequency (MHz): 5785

U-NII-3, 802.11n HT20

Carrier frequency (MHz): 5785

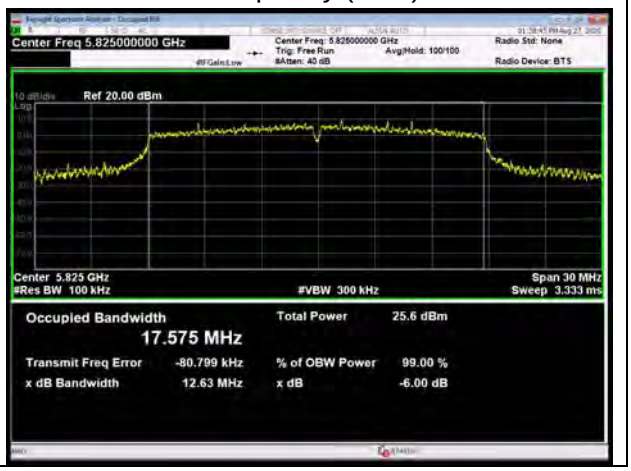
U-NII-3, 802.11a

Carrier frequency (MHz): 5825



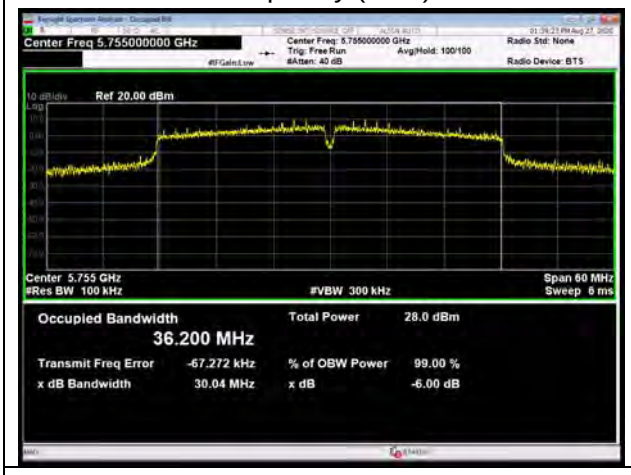
U-NII-3, 802.11n HT20

Carrier frequency (MHz): 5825



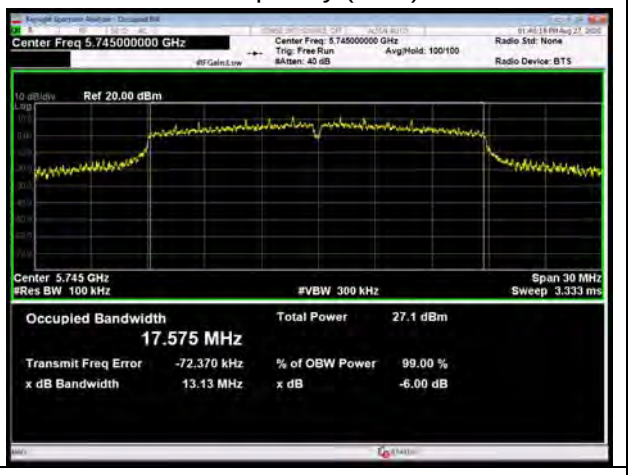
U-NII-3, 802.11n HT40

Carrier frequency (MHz): 5755



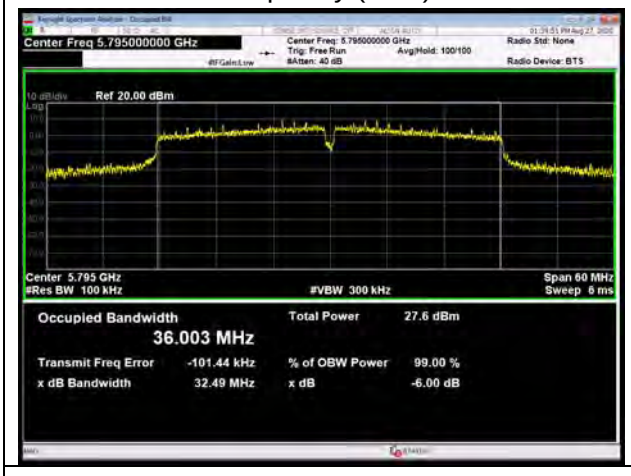
U-NII-3, 802.11ac VHT20

Carrier frequency (MHz): 5745



U-NII-3, 802.11n HT40

Carrier frequency (MHz): 5795

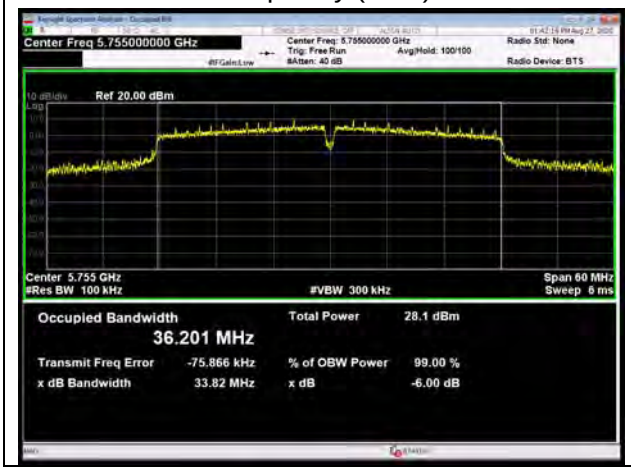


U-NII-3, 802.11ac VHT20

Carrier frequency (MHz): 5785

U-NII-3, 802.11ac VHT40

Carrier frequency (MHz): 5755

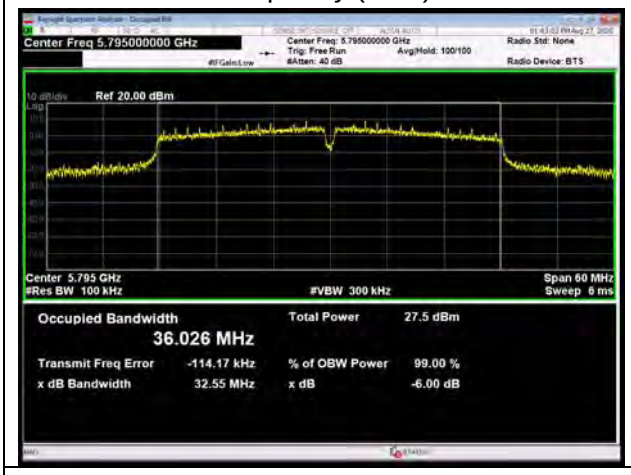


U-NII-3, 802.11ac VHT20

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

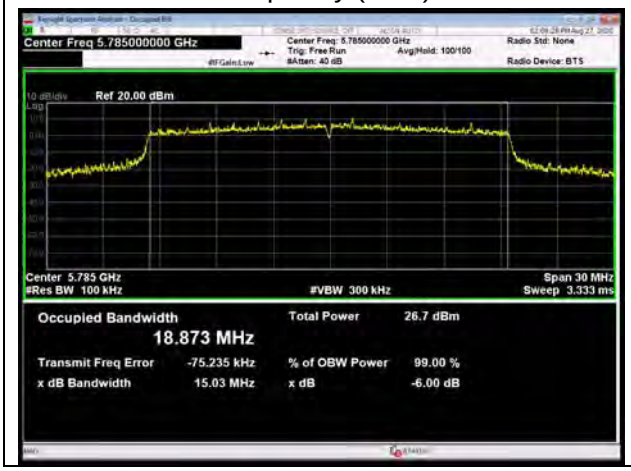
Carrier frequency (MHz): 5745

U-NII-3, 802.11ax HE40

Carrier frequency (MHz): 5755

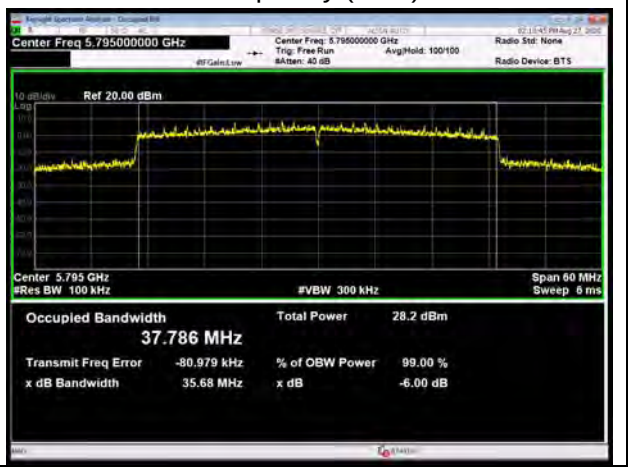
U-NII-3, 802.11ax HE20

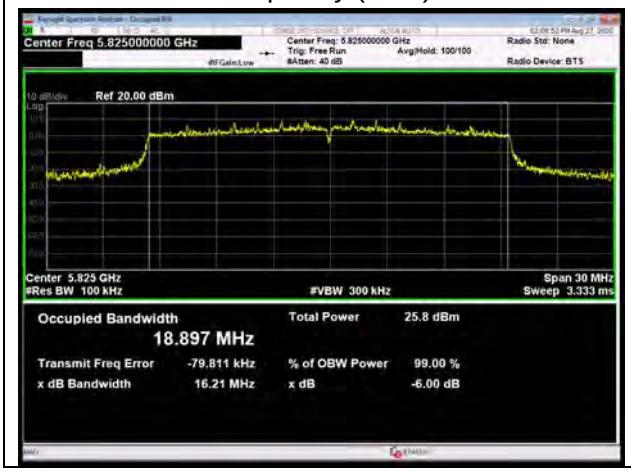
Carrier frequency (MHz): 5785



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 –Conducted

Ambient condition

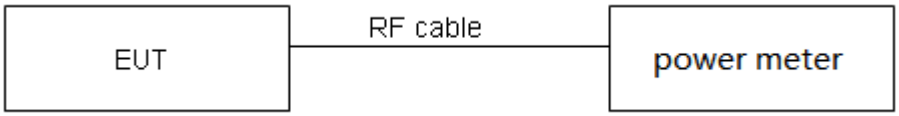
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

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 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 dB.

Test Results

Band	T_{on} (ms)	$T_{(on+off)}$ (ms)	Duty cycle	Duty cycle correction Factor(dB)
802.11a	1.40	1.46	0.96	0.17
802.11n HT20	1.30	1.35	0.96	0.18
802.11n HT40	0.63	0.70	0.91	0.42
802.11ac VHT20	1.31	1.37	0.96	0.18
802.11ac VHT40	0.66	0.71	0.92	0.36
802.11ac VHT80	0.33	0.38	0.85	0.68
802.11ax HE20	1.02	1.07	0.95	0.23
802.11ax HE40	0.54	0.60	0.91	0.43
802.11ax HE80	0.29	0.35	0.82	0.87
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	19.19	23.83<24	23.83
		60/5300	18.98	23.78<24	23.78
		64/5320	19.27	23.85<24	23.85
	802.11n HT20	52/5260	19.74	23.95<24	23.95
		60/5300	19.49	23.90<24	23.90
		64/5320	19.90	23.99<24	23.99
	802.11n HT40	54/5270	39.19	26.93>24	24.00
		62/5310	39.31	26.95>24	24.00
	802.11ac VHT20	52/5260	19.88	23.98<24	23.98
		60/5300	19.72	23.95<24	23.95
		64/5320	19.71	23.95<24	23.95
	802.11ac VHT40	54/5270	39.19	26.93>24	24.00
		62/5310	39.07	26.92>24	24.00
	802.11ac VHT80	58/5290	79.09	29.98>24	24.00
	802.11ax HE20	52/5260	21.05	24.23>24	24.00
		60/5300	21.08	24.24>24	24.00
		64/5320	21.32	24.29>24	24.00
	802.11ax HE40	54/5270	39.36	26.95>24	24.00
		62/5310	39.29	26.94>24	24.00
	802.11ax HE80	58/5290	80.08	30.04>24	24.00
U-NII-2C	802.11a	100/5500	18.85	23.75<24	23.75

		116/5580	18.99	23.79<24	23.79
		140/5700	18.92	23.77<24	23.77
		144/5720	19.01	23.79<24	23.79
	802.11n HT20	100/5500	19.56	23.91<24	23.91
		116/5580	19.68	23.94<24	23.94
		140/5700	19.73	23.95<24	23.95
		140/5700	19.92	23.99<24	23.99
	802.11n HT40	102/5510	39.80	27.00>24	24.00
		110/5550	39.93	27.01>24	24.00
		134/5670	39.68	26.99>24	24.00
		142/5710	39.62	26.98>24	24.00
	802.11ac VHT20	100/5500	19.97	24.00>24	24.00
		116/5580	19.75	23.96<24	23.96
		140/5700	19.75	23.96<24	23.96
		144/5720	19.68	23.94<24	23.94
	802.11ac VHT40	100/5500	40.01	27.02>24	24.00
		110/5550	39.95	27.02>24	24.00
		134/5670	40.26	27.05>24	24.00
		142/5710	40.06	27.03>24	24.00
	802.11ac VHT80	106/5530	78.97	29.97>24	24.00
		138/5690	79.20	29.99>24	24.00
	802.11ax HE20	100/5500	20.85	24.19>24	24.00
		116/5580	20.96	24.21>24	24.00
		140/5700	20.45	24.11>24	24.00
		144/5720	21.02	24.23>24	24.00
	802.11ax HE40	100/5500	39.25	26.94>24	24.00
		110/5550	39.40	26.95>24	24.00
		134/5670	39.32	26.95>24	24.00
		142/5710	39.32	26.95>24	24.00
	802.11ax HE80	106/5530	79.82	30.02>24	24.00
		138/5690	80.06	30.03>24	24.00
Note: 250mW=24dBm					

MIMO(Without beamforming)

U-NII-1

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		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)			
802.11a	36/5180	23.24	23.41	23.14	23.31	26.37	30.00	PASS
	40/5200	23.14	23.31	22.95	23.12	26.23	30.00	PASS
	48/5240	22.94	23.11	22.81	22.98	26.06	30.00	PASS
802.11n HT20	36/5180	23.44	23.62	23.21	23.39	26.52	30.00	PASS
	40/5200	23.24	23.42	23.19	23.37	26.41	30.00	PASS
	48/5240	23.18	23.36	23.85	24.03	26.72	30.00	PASS
802.11n HT40	38/5190	22.01	22.43	21.67	22.09	25.27	30.00	PASS
	46/5230	25.74	26.16	25.49	25.91	29.05	30.00	PASS
802.11ac VHT20	36/5180	23.58	23.76	23.47	23.65	26.72	30.00	PASS
	40/5200	23.23	23.41	23.11	23.29	26.36	30.00	PASS
	48/5240	23.14	23.32	23.93	24.11	26.74	30.00	PASS
802.11ac VHT40	38/5190	25.46	25.82	25.29	25.65	28.74	30.00	PASS
	46/5230	25.41	25.77	25.16	25.52	28.65	30.00	PASS
802.11ac VHT80	42/5210	22.84	23.52	22.03	22.71	26.15	30.00	PASS
802.11ax HE20	36/5180	23.32	23.55	23.01	23.24	26.41	30.00	PASS
	40/5200	23.28	23.51	23.15	23.38	26.46	30.00	PASS
	48/5240	23.15	23.38	23.89	24.12	26.78	30.00	PASS
802.11ax HE40	38/5190	21.86	22.29	21.57	22.00	25.15	30.00	PASS
	46/5230	25.65	26.08	25.37	25.80	28.95	30.00	PASS
802.11ax HE 80	42/5210	21.12	21.99	20.67	21.54	24.78	30.00	PASS

Note:

1. Average Power with duty factor = Average Power Measured +Duty cycle correction factor

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

3. Directional gain <6dBi. So the power limt is 30dBm.

U-NII-2A

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		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)			
802.11a	52/5260	17.37	17.54	17.21	17.38	20.47	23.83	PASS
	60/5300	17.33	17.50	17.15	17.32	20.42	23.78	PASS
	64/5320	17.27	17.44	17.03	17.20	20.33	23.85	PASS
802.11n HT20	52/5260	17.39	17.57	17.12	17.30	20.45	23.95	PASS
	60/5300	17.43	17.61	17.24	17.42	20.53	23.90	PASS
	64/5320	17.28	17.46	17.01	17.19	20.34	23.99	PASS
802.11n HT40	54/5270	19.94	20.36	19.55	19.97	23.18	24.00	PASS
	62/5310	19.87	20.29	19.61	20.03	23.17	24.00	PASS
802.11ac VHT20	52/5260	17.42	17.60	17.25	17.43	20.53	23.98	PASS
	60/5300	17.35	17.53	17.18	17.36	20.46	23.95	PASS
	64/5320	17.47	17.65	17.23	17.41	20.54	23.95	PASS
802.11ac VHT40	54/5270	19.88	20.24	19.61	19.97	23.11	24.00	PASS
	62/5310	19.83	20.19	19.73	20.09	23.15	24.00	PASS
802.11ac VHT80	58/5290	19.67	20.35	19.36	20.04	23.21	24.00	PASS
802.11ax HE20	52/5260	17.66	17.89	17.27	17.50	20.71	24.00	PASS
	60/5300	17.85	18.08	17.44	17.67	20.89	24.00	PASS
	64/5320	17.53	17.76	17.29	17.52	20.65	24.00	PASS
802.11ax HE40	54/5270	19.98	20.41	19.45	19.88	23.16	24.00	PASS
	62/5310	19.86	20.29	19.46	19.89	23.10	24.00	PASS
802.11ax HE 80	58/5290	19.76	20.63	19.42	20.29	23.48	24.00	PASS

Note:

1. Average Power with duty factor = Average Power Measured +Duty cycle correction factor

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

3. Directional gain <6dBi. So the power limt is 24dBm.

U-NII-2C

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		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)			
802.11a	100/5500	17.46	17.63	17.24	17.41	20.53	23.75	PASS
	116/5580	17.63	17.80	17.54	17.71	20.77	23.79	PASS
	140/5700	17.68	17.85	17.44	17.61	20.74	23.77	PASS
	144/5720	17.54	17.71	17.27	17.44	20.59	23.79	PASS
802.11n HT20	100/5500	17.53	17.71	17.06	17.24	20.50	23.91	PASS
	116/5580	17.48	17.66	17.15	17.33	20.51	23.94	PASS
	140/5700	17.58	17.76	17.13	17.31	20.55	23.95	PASS
	144/5720	17.41	17.59	17.03	17.21	20.42	23.99	PASS
802.11n HT40	102/5510	20.34	20.76	19.93	20.35	23.57	24.00	PASS
	110/5550	20.11	20.53	19.73	20.15	23.35	24.00	PASS
	134/5670	20.45	20.87	19.68	20.10	23.51	24.00	PASS
	142/5710	20.15	20.57	19.62	20.04	23.32	24.00	PASS
802.11ac VHT20	100/5500	17.42	17.60	17.08	17.26	20.45	24.00	PASS
	116/5580	17.53	17.71	17.26	17.44	20.59	23.96	PASS
	140/5700	17.49	17.67	17.18	17.36	20.53	23.96	PASS
	144/5720	17.25	17.43	17.02	17.20	20.33	23.94	PASS
802.11ac VHT40	102/5510	20.23	20.59	19.84	20.20	23.41	24.00	PASS
	110/5550	19.95	20.31	19.67	20.03	23.18	24.00	PASS
	134/5670	20.28	20.64	19.75	20.11	23.39	24.00	PASS
	142/5710	20.03	20.39	19.69	20.05	23.23	24.00	PASS
802.11ac VHT80	106/5530	19.86	20.54	19.63	20.31	23.44	24.00	PASS
	138/5690	20.26	20.94	19.94	20.62	23.80	24.00	PASS
802.11ax HE20	100/5500	17.56	17.79	17.35	17.58	20.70	24.00	PASS
	116/5580	17.46	17.69	17.29	17.52	20.62	24.00	PASS
	140/5700	17.49	17.72	17.16	17.39	20.57	24.00	PASS
	144/5720	17.37	17.60	17.13	17.36	20.49	24.00	PASS
802.11ax HE40	102/5510	20.39	20.82	20.12	20.55	23.69	24.00	PASS
	110/5550	20.12	20.55	19.88	20.31	23.44	24.00	PASS
	134/5670	20.09	20.52	19.67	20.10	23.32	24.00	PASS
	142/5710	20.11	20.54	19.92	20.35	23.45	24.00	PASS
802.11ax HE 80	106/5530	19.57	20.44	19.39	20.26	23.36	24.00	PASS
	138/5690	19.89	20.76	19.54	20.41	23.60	24.00	PASS

Note:

1. Average Power with duty factor = Average Power Measured +Duty cycle correction factor

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

3. Directional gain <6dBi. So the power limt is 24dBm.

U-NII-3

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		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)			
802.11a	149/5745	24.86	25.03	24.54	24.71	27.88	30.00	PASS
	157/5785	24.79	24.96	24.46	24.63	27.81	30.00	PASS
	165/5825	24.76	24.93	24.64	24.81	27.88	30.00	PASS
802.11n HT20	149/5745	24.65	24.83	24.53	24.71	27.78	30.00	PASS
	157/5785	24.35	24.53	24.28	24.46	27.51	30.00	PASS
	165/5825	24.21	24.39	24.03	24.21	27.31	30.00	PASS
802.11n HT40	151/5755	25.77	26.19	25.56	25.98	29.10	30.00	PASS
	159/5795	25.71	26.13	25.52	25.94	29.05	30.00	PASS
802.11ac VHT20	149/5745	24.73	24.91	24.53	24.71	27.82	30.00	PASS
	157/5785	24.35	24.53	24.19	24.37	27.46	30.00	PASS
	165/5825	24.18	24.36	23.93	24.11	27.25	30.00	PASS
802.11ac VHT40	151/5755	25.79	26.15	25.57	25.93	29.05	30.00	PASS
	159/5795	25.75	26.11	25.63	25.99	29.06	30.00	PASS
802.11ac VHT80	155/5775	25.53	26.21	25.39	26.07	29.16	30.00	PASS
802.11ax HE20	149/5745	25.02	25.25	24.84	25.07	28.17	30.00	PASS
	157/5785	24.48	24.71	24.27	24.50	27.62	30.00	PASS
	165/5825	24.22	24.45	24.01	24.24	27.36	30.00	PASS
802.11ax HE40	151/5755	26.02	26.45	25.79	26.22	29.34	30.00	PASS
	159/5795	25.72	26.15	25.49	25.92	29.04	30.00	PASS
802.11ax HE 80	155/5775	25.41	26.28	25.25	26.12	29.21	30.00	PASS

Note:

1. Average Power with duty factor = Average Power Measured +Duty cycle correction factor

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

3. Directional gain <6dBi. So the power limt is 30dBm.

MIMO(With beamforming)

U-NII-1

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		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)			
802.11n HT20	36/5180	23.42	23.60	23.18	23.36	26.50	30.00	PASS
	40/5200	23.21	23.39	23.15	23.33	26.37	30.00	PASS
	48/5240	23.17	23.35	23.83	24.01	26.71	30.00	PASS
802.11n HT40	38/5190	22.00	22.42	21.52	21.94	25.20	30.00	PASS
	46/5230	25.73	26.15	25.47	25.89	29.03	30.00	PASS
802.11ac VHT20	36/5180	23.52	23.70	23.44	23.62	26.67	30.00	PASS
	40/5200	23.22	23.40	23.10	23.28	26.35	30.00	PASS
	48/5240	23.11	23.29	23.91	24.09	26.72	30.00	PASS
802.11ac VHT40	38/5190	25.45	25.81	25.25	25.61	28.72	30.00	PASS
	46/5230	25.40	25.76	25.14	25.50	28.64	30.00	PASS
802.11ac VHT80	42/5210	22.66	23.34	21.93	22.61	26.01	30.00	PASS
802.11ax HE20	36/5180	23.25	23.48	22.89	23.12	26.32	30.00	PASS
	40/5200	23.22	23.45	23.02	23.25	26.36	30.00	PASS
	48/5240	23.08	23.31	23.79	24.02	26.69	30.00	PASS
802.11ax HE40	38/5190	25.64	26.07	25.51	25.94	29.01	30.00	PASS
	46/5230	25.54	25.97	25.32	25.75	28.87	30.00	PASS
802.11ax HE 80	42/5210	24.47	25.34	24.18	25.05	28.21	30.00	PASS

Note:

1. Average Power with duty factor = Average Power Measured +Duty cycle correction factor

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

3. Directional gain <6dBi. So the power limt is 30dBm.

U-NII-2A

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		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)			
802.11n HT20	52/5260	17.38	17.56	17.11	17.29	20.44	23.95	PASS
	60/5300	17.41	17.59	17.22	17.40	20.51	23.90	PASS
	64/5320	17.26	17.44	17.00	17.18	20.33	23.99	PASS
802.11n HT40	54/5270	19.87	20.29	19.52	19.94	23.13	24.00	PASS
	62/5310	19.84	20.26	19.58	20.00	23.14	24.00	PASS
802.11ac VHT20	52/5260	17.38	17.56	17.22	17.40	20.49	23.98	PASS
	60/5300	17.34	17.52	17.16	17.34	20.44	23.95	PASS
	64/5320	17.43	17.61	17.21	17.39	20.51	23.95	PASS
802.11ac VHT40	54/5270	19.86	20.22	19.57	19.93	23.08	24.00	PASS
	62/5310	19.81	20.17	19.71	20.07	23.13	24.00	PASS
802.11ac VHT80	58/5290	19.63	20.31	19.35	20.03	23.19	24.00	PASS
802.11ax HE20	52/5260	17.63	17.86	17.25	17.48	20.69	24.00	PASS
	60/5300	17.81	18.04	17.42	17.65	20.86	24.00	PASS
	64/5320	17.46	17.69	17.25	17.48	20.60	24.00	PASS
802.11ax HE40	54/5270	19.93	20.36	19.41	19.84	23.11	24.00	PASS
	62/5310	19.84	20.27	19.43	19.86	23.08	24.00	PASS
802.11ax HE 80	58/5290	19.72	20.59	19.40	20.27	23.44	24.00	PASS

Note:

1. Average Power with duty factor = Average Power Measured +Duty cycle correction factor

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

3. Directional gain <6dBi. So the power limt is 24dBm.

U-NII-2C

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		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)			
802.11n HT20	100/5500	17.51	17.69	17.04	17.22	20.48	23.91	PASS
	116/5580	17.46	17.64	17.12	17.30	20.49	23.94	PASS
	140/5700	17.55	17.73	17.11	17.29	20.53	23.95	PASS
	144/5720	17.41	17.59	17.02	17.20	20.41	23.99	PASS
802.11n HT40	102/5510	20.32	20.74	19.91	20.33	23.55	24.00	PASS
	110/5550	20.08	20.50	19.71	20.13	23.33	24.00	PASS
	134/5670	20.44	20.86	19.65	20.07	23.49	24.00	PASS
	142/5710	20.11	20.53	19.61	20.03	23.30	24.00	PASS
802.11ac VHT20	100/5500	17.37	17.55	17.03	17.21	20.40	24.00	PASS
	116/5580	17.51	17.69	17.24	17.42	20.57	23.96	PASS
	140/5700	17.47	17.65	17.17	17.35	20.51	23.96	PASS
	144/5720	17.22	17.40	17.01	17.19	20.31	23.94	PASS
802.11ac VHT40	102/5510	20.21	20.57	19.78	20.14	23.37	24.00	PASS
	110/5550	19.94	20.30	19.65	20.01	23.16	24.00	PASS
	134/5670	20.23	20.59	19.72	20.08	23.35	24.00	PASS
	142/5710	20.02	20.38	19.66	20.02	23.21	24.00	PASS
802.11ac VHT80	106/5530	19.85	20.53	19.62	20.30	23.43	24.00	PASS
	138/5690	20.24	20.92	19.93	20.61	23.78	24.00	PASS
802.11ax HE20	100/5500	17.46	17.69	17.33	17.56	20.64	24.00	PASS
	116/5580	17.42	17.65	17.21	17.44	20.56	24.00	PASS
	140/5700	17.44	17.67	17.16	17.39	20.55	24.00	PASS
	144/5720	17.31	17.54	17.13	17.36	20.46	24.00	PASS
802.11ax HE40	102/5510	20.38	20.81	20.06	20.49	23.66	24.00	PASS
	110/5550	20.08	20.51	19.84	20.27	23.40	24.00	PASS
	134/5670	20.04	20.47	19.63	20.06	23.28	24.00	PASS
	142/5710	20.10	20.53	19.85	20.28	23.41	24.00	PASS
802.11ax HE 80	106/5530	19.46	20.33	19.33	20.20	23.28	24.00	PASS
	138/5690	19.85	20.72	19.47	20.34	23.55	24.00	PASS

Note:

1. Average Power with duty factor = Average Power Measured +Duty cycle correction factor

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

3. Directional gain <6dBi. So the power limt is 24dBm.

U-NII-3

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		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)			
802.11n HT20	149/5745	24.64	24.82	24.51	24.69	27.77	30.00	PASS
	157/5785	24.33	24.51	24.26	24.44	27.49	30.00	PASS
	165/5825	24.20	24.38	24.01	24.19	27.30	30.00	PASS
802.11n HT40	151/5755	25.69	26.11	25.48	25.90	29.02	30.00	PASS
	159/5795	25.68	26.10	25.47	25.89	29.01	30.00	PASS
802.11ac VHT20	149/5745	24.66	24.84	24.44	24.62	27.74	30.00	PASS
	157/5785	24.31	24.49	24.12	24.30	27.41	30.00	PASS
	165/5825	24.17	24.35	23.88	24.06	27.22	30.00	PASS
802.11ac VHT40	151/5755	25.76	26.12	25.54	25.90	29.02	30.00	PASS
	159/5795	25.72	26.08	25.61	25.97	29.03	30.00	PASS
802.11ac VHT80	155/5775	25.51	26.19	25.36	26.04	29.13	30.00	PASS
802.11ax HE20	149/5745	25.01	25.24	24.77	25.00	28.13	30.00	PASS
	157/5785	24.37	24.60	24.24	24.47	27.55	30.00	PASS
	165/5825	24.18	24.41	24.00	24.23	27.33	30.00	PASS
802.11ax HE40	151/5755	26.01	26.44	25.76	26.19	29.32	30.00	PASS
	159/5795	25.68	26.11	25.46	25.89	29.01	30.00	PASS
802.11ax HE 80	155/5775	25.36	26.23	25.24	26.11	29.18	30.00	PASS

Note:

1. Average Power with duty factor = Average Power Measured +Duty cycle correction factor

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

3. Directional gain <6dBi. So the power limt 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 that 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= 936Hz

Test Results

Voltage (V)	Temperature (°C)	U-NII-1 Test Results			
		5200MHz			
		1min	2min	5min	10min
12	-5	5200.007116	5200.002542	5199.997142	5199.992239
12	0	5200.001392	5199.998173	5199.994079	5199.985932
12	5	5199.998575	5199.998165	5199.989477	5199.982709
12	10	5199.994361	5199.992852	5199.980667	5199.981613
12	20	5199.989841	5199.988440	5199.972060	5199.977752
12	30	5199.983319	5199.979030	5199.965310	5199.968985
12	40	5199.978576	5199.975164	5199.957385	5199.964220
12	45	5199.975369	5199.965311	5199.950984	5199.956000
10	20	5199.972500	5199.955775	5199.945434	5199.955775
14	20	5199.962580	5199.946236	5199.943714	5199.954758
MHz		-0.037420	-0.053764	-0.056286	-0.045242
PPM		-7.196202	-10.339191	-10.824242	-8.700455

Voltage (V)	Temperature (°C)	U-NII-2A Test Results			
		5300MHz			
		1min	2min	5min	10min
12	-5	5300.002387	5299.992436	5299.989611	5299.987563
12	0	5299.995890	5299.988689	5299.985985	5299.983023
12	5	5299.988843	5299.984691	5299.976391	5299.973927
12	10	5299.979552	5299.984563	5299.970619	5299.971889
12	20	5299.977490	5299.976690	5299.962792	5299.964624
12	30	5299.968783	5299.976551	5299.960040	5299.958594
12	40	5299.960981	5299.971743	5299.959558	5299.949102
12	45	5299.953071	5299.971245	5299.950912	5299.941814
10	20	5299.950872	5299.961630	5299.942989	5299.941214
14	20	5299.949782	5299.957835	5299.933286	5299.934795
MHz		-0.050218	-0.042165	-0.066714	-0.065205
PPM		-9.475103	-7.955699	-12.587609	-12.302894

Voltage (V)	Temperature (°C)	U-NII-2C Test Results			
		5580MHz			
		1min	2min	5min	10min
12	-5	5580.004329	5579.996662	5579.996563	5579.992011
12	0	5579.996453	5579.994036	5579.989172	5579.988639
12	5	5579.987920	5579.992696	5579.984147	5579.979925
12	10	5579.983988	5579.992132	5579.979200	5579.976830
12	20	5579.976162	5579.984958	5579.972051	5579.973147
12	30	5579.968538	5579.976244	5579.969931	5579.966266
12	40	5579.963094	5579.970428	5579.967650	5579.959980
12	45	5579.962802	5579.964515	5579.958548	5579.957189
10	20	5579.961841	5579.962240	5579.957641	5579.952599
14	20	5579.952073	5579.960245	5579.956633	5579.943999
MHz		-0.047927	-0.039755	-0.043367	-0.056001
PPM		-8.589088	-7.124603	-7.771795	-10.036059

Voltage (V)	Temperature (°C)	U-NII-3 Test Results			
		5785MHz			
		1min	2min	5min	10min
12	-5	5784.999370	5784.992664	5784.990602	5784.985342
12	0	5784.993487	5784.985703	5784.983372	5784.977463
12	5	5784.985911	5784.980463	5784.975819	5784.976185
12	10	5784.980850	5784.971743	5784.970029	5784.972025
12	20	5784.980617	5784.963485	5784.964141	5784.969957
12	30	5784.978882	5784.960132	5784.958980	5784.964783
12	40	5784.975372	5784.959523	5784.955825	5784.964117
12	45	5784.968067	5784.959467	5784.954487	5784.956723
10	20	5784.961244	5784.953843	5784.947845	5784.953870
14	20	5784.954976	5784.949478	5784.947013	5784.953278
MHz		-0.045024	-0.050522	-0.052987	-0.046722
PPM		-7.782907	-8.733283	-9.159402	-8.076461

5.4. Power Spectral Density

Ambient condition

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

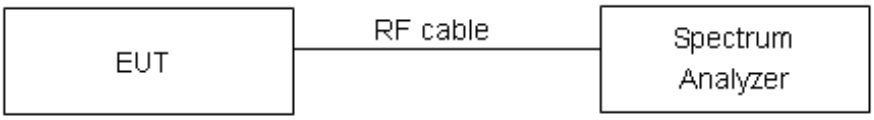
Method of Measurement

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 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 transmittingantennas 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	17dBm/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= 0.75dB.

Test Results:

MIMO without Beamforming

U-NII-1

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm /MHz)		
		Read Value (dBm/MHz)	PSD (dBm /MHz)	Read Value (dBm/MHz)	PSD (dBm /MHz)			
802.11a	36/5180	13.64	13.81	13.38	13.55	16.69	17.00	PASS
	40/5200	13.53	13.70	13.59	13.76	16.74	17.00	PASS
	48/5240	13.35	13.52	13.35	13.52	16.53	17.00	PASS
802.11n HT20	36/5180	13.89	14.08	13.38	13.56	16.84	17.00	PASS
	40/5200	13.65	13.83	13.27	13.45	16.66	17.00	PASS
	48/5240	13.34	13.53	13.30	13.49	16.52	17.00	PASS
802.11n HT40	38/5190	9.17	9.59	8.91	9.33	12.47	17.00	PASS
	46/5230	11.80	12.21	11.72	12.13	15.18	17.00	PASS
802.11ac VHT20	36/5180	13.67	13.85	13.28	13.46	16.67	17.00	PASS
	40/5200	13.22	13.40	13.39	13.58	16.50	17.00	PASS
	48/5240	13.17	13.35	13.22	13.40	16.38	17.00	PASS
802.11ac VHT40	38/5190	12.42	12.77	12.22	12.57	15.68	17.00	PASS
	46/5230	12.46	12.81	12.05	12.40	15.62	17.00	PASS
802.11ac VHT80	42/5210	6.05	6.74	5.84	6.53	9.64	17.00	PASS
802.11ax HE20	36/5180	13.54	13.77	12.91	13.14	16.48	17.00	PASS
	40/5200	13.59	13.82	13.32	13.55	16.70	17.00	PASS
	48/5240	12.80	13.03	12.96	13.19	16.12	17.00	PASS
802.11ax HE40	38/5190	8.58	9.00	8.67	9.09	12.06	17.00	PASS
	46/5230	12.00	12.42	11.28	11.70	15.09	17.00	PASS
802.11ax HE80	42/5210	4.78	5.65	3.12	3.99	7.91	17.00	PASS

Note:

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

2. The power spectral density=10log($10^{(\text{PSD antenna1 in dBm/10})}$+$10^{(\text{PSD antenna2 in dBm/10})}$)

3. Directional gain <6dBi. So the power limt is 17dBm.

U-NII-2A

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm /MHz)		
		Read Value (dBm/MHz)	PSD (dBm /MHz)	Read Value (dBm/MHz)	PSD (dBm /MHz)			
802.11a	52/5260	7.33	7.50	7.40	7.57	10.55	11.00	PASS
	60/5300	7.18	7.35	7.21	7.38	10.37	11.00	PASS
	64/5320	7.42	7.59	7.28	7.45	10.53	11.00	PASS
802.11n HT20	52/5260	7.44	7.62	7.02	7.21	10.43	11.00	PASS
	60/5300	7.24	7.43	7.25	7.43	10.44	11.00	PASS
	64/5320	7.45	7.63	7.74	7.92	10.79	11.00	PASS
802.11n HT40	54/5270	7.57	7.99	7.38	7.80	10.91	11.00	PASS
	62/5310	7.31	7.73	7.01	7.43	10.59	11.00	PASS
802.11ac VHT20	52/5260	7.81	7.99	7.31	7.49	10.76	11.00	PASS
	60/5300	7.58	7.76	7.20	7.38	10.59	11.00	PASS
	64/5320	7.62	7.80	7.36	7.54	10.68	11.00	PASS
802.11ac VHT40	54/5270	7.34	7.70	6.76	7.11	10.43	11.00	PASS
	62/5310	7.21	7.57	6.71	7.06	10.33	11.00	PASS
802.11ac VHT80	58/5290	3.57	4.26	3.04	3.72	7.01	11.00	PASS
802.11ax HE20	52/5260	7.65	7.88	7.45	7.69	10.80	11.00	PASS
	60/5300	7.57	7.80	7.36	7.59	10.71	11.00	PASS
	64/5320	7.52	7.76	7.41	7.64	10.71	11.00	PASS
802.11ax HE40	54/5270	5.91	6.34	5.88	6.31	9.33	11.00	PASS
	62/5310	5.69	6.11	5.46	5.89	9.01	11.00	PASS
802.11ax HE80	58/5290	3.82	4.69	4.78	5.65	8.21	11.00	PASS

Note:

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

2. The power spectral density=$10\log(10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})})$

3. Directional gain <6dBi. So the power limt is 11dBm.

U-NII-2C

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm /MHz)		
		Read Value (dBm/MHz)	PSD (dBm /MHz)	Read Value (dBm/MHz)	PSD (dBm /MHz)			
802.11a	100/5500	7.58	7.75	7.53	7.70	10.73	11.00	PASS
	116/5580	7.45	7.62	7.53	7.70	10.67	11.00	PASS
	140/5700	7.56	7.73	7.73	7.90	10.82	11.00	PASS
	144/5720	7.89	8.06	7.72	7.89	10.99	11.00	PASS
802.11n HT20	100/5500	7.69	7.87	7.45	7.63	10.76	11.00	PASS
	116/5580	7.69	7.88	7.33	7.51	10.71	11.00	PASS
	140/5700	7.59	7.78	7.03	7.21	10.51	11.00	PASS
	144/5720	7.36	7.54	7.10	7.28	10.42	11.00	PASS
802.11n HT40	102/5510	7.15	7.57	7.24	7.65	10.62	11.00	PASS
	110/5550	7.43	7.85	7.25	7.66	10.77	11.00	PASS
	134/5670	7.20	7.62	7.07	7.48	10.56	11.00	PASS
	142/5710	7.53	7.94	7.13	7.55	10.76	11.00	PASS
802.11ac VHT20	100/5500	7.81	7.99	7.51	7.70	10.86	11.00	PASS
	116/5580	7.61	7.79	7.40	7.58	10.70	11.00	PASS
	140/5700	7.73	7.91	7.45	7.63	10.78	11.00	PASS
	144/5720	7.65	7.83	7.50	7.69	10.77	11.00	PASS
802.11ac VHT40	102/5510	7.70	8.05	7.29	7.65	10.86	11.00	PASS
	110/5550	7.00	7.35	7.40	7.76	10.57	11.00	PASS
	134/5670	7.32	7.67	7.26	7.61	10.65	11.00	PASS
	142/5710	7.57	7.93	7.31	7.67	10.81	11.00	PASS
802.11ac VHT80	106/5530	5.08	5.76	4.28	4.97	8.39	11.00	PASS
	138/5690	4.76	5.45	4.23	4.91	8.20	11.00	PASS
802.11ax HE20	100/5500	7.31	7.54	7.16	7.39	10.48	11.00	PASS
	116/5580	7.44	7.67	7.10	7.34	10.52	11.00	PASS
	140/5700	7.43	7.66	7.25	7.49	10.58	11.00	PASS
	144/5720	7.48	7.72	7.35	7.58	10.66	11.00	PASS
802.11ax HE40	102/5510	7.12	7.55	7.01	7.43	10.50	11.00	PASS
	110/5550	7.09	7.52	7.05	7.47	10.50	11.00	PASS
	134/5670	6.81	7.24	7.05	7.48	10.37	11.00	PASS
	142/5710	7.51	7.94	7.08	7.50	10.73	11.00	PASS
802.11ax HE80	106/5530	3.51	4.38	3.60	4.47	7.43	11.00	PASS
	138/5690	3.60	4.47	3.84	4.71	7.60	11.00	PASS

Note:

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

2. The power spectral density=10log($10^{(PSD\ antenna1\ in\ dBm/10)}$+$10^{(PSD\ antenna2\ in\ dBm/10)}$)

3. Directional gain <6dBi. So the power limt is 11dBm.

U-NII-3

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm/ 500kHz)	Conclusion
		Antenna 1		Limit (dBm/ 500kHz)		Total Power (dBm/ 500kHz)		
		Read Value (dBm/ 470kHz)	Power Spectral Density (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	Power Spectral Density (dBm/ 500kHz)			
802.11a	149/5745	11.20	11.64	11.16	11.60	14.63	30.00	PASS
	157/5785	11.83	12.27	11.55	11.99	15.14	30.00	PASS
	165/5825	11.67	12.11	11.56	12.00	15.07	30.00	PASS
802.11n HT20	149/5745	11.11	11.56	10.15	10.60	14.12	30.00	PASS
	157/5785	11.81	12.26	11.52	11.98	15.13	30.00	PASS
	165/5825	11.53	11.98	11.40	11.86	14.93	30.00	PASS
802.11n HT40	151/5755	9.31	10.00	8.93	9.62	12.82	30.00	PASS
	159/5795	9.20	9.88	9.10	9.79	12.85	30.00	PASS
802.11ac VHT20	149/5745	11.17	11.62	11.01	11.46	14.55	30.00	PASS
	157/5785	11.59	12.04	11.53	11.98	15.02	30.00	PASS
	165/5825	11.61	12.06	11.55	12.00	15.04	30.00	PASS
802.11ac VHT40	151/5755	9.58	10.20	9.23	9.85	13.04	30.00	PASS
	159/5795	9.56	10.19	9.60	10.22	13.21	30.00	PASS
802.11ac VHT80	155/5775	6.31	7.27	5.99	6.95	10.12	30.00	PASS
802.11ax HE20	149/5745	11.06	11.56	11.06	11.56	14.57	30.00	PASS
	157/5785	11.23	11.73	10.81	11.31	14.54	30.00	PASS
	165/5825	10.88	11.39	11.06	11.57	14.49	30.00	PASS
802.11ax HE40	151/5755	8.85	9.54	9.18	9.87	12.72	30.00	PASS
	159/5795	9.62	10.31	8.80	9.49	12.93	30.00	PASS
802.11ax HE80	155/5775	7.18	8.32	6.99	8.13	11.24	30.00	PASS

Note:

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

2. The power spectral density=10log($10^{(PSD\ antenna1\ in\ dBm/10)}$+$10^{(PSD\ antenna2\ in\ dBm/10)}$)

3. Directional gain <6dBi. So the power limt is 30dBm.

MIMO with Beamforming

U-NII-1

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm /MHz)		
		Read Value (dBm/MHz)	PSD (dBm /MHz)	Read Value (dBm/MHz)	PSD (dBm /MHz)			
802.11n HT20	36/5180	13.62	13.80	13.64	13.83	16.82	17.00	PASS
	40/5200	13.74	13.93	13.31	13.50	16.73	17.00	PASS
	48/5240	13.45	13.63	12.34	12.52	16.12	17.00	PASS
802.11n HT40	38/5190	8.96	9.38	8.78	9.20	12.30	17.00	PASS
	46/5230	11.78	12.20	11.57	11.99	15.11	17.00	PASS
802.11ac VHT20	36/5180	13.67	13.85	13.48	13.66	16.77	17.00	PASS
	40/5200	13.30	13.48	13.42	13.60	16.55	17.00	PASS
	48/5240	13.22	13.40	13.14	13.32	16.37	17.00	PASS
802.11ac VHT40	38/5190	12.29	12.65	12.17	12.52	15.60	17.00	PASS
	46/5230	12.13	12.49	11.80	12.16	15.34	17.00	PASS
802.11ac VHT80	42/5210	5.959	6.64	5.95	6.64	9.65	17.00	PASS
802.11ax HE20	36/5180	13.25	13.48	13.37	13.61	16.56	17.00	PASS
	40/5200	13.41	13.64	12.94	13.17	16.42	17.00	PASS
	48/5240	13.46	13.69	13.01	13.24	16.48	17.00	PASS
802.11ax HE40	38/5190	9.14	9.56	8.88	9.31	12.45	17.00	PASS
	46/5230	12.04	12.46	12.00	12.42	15.45	17.00	PASS
802.11ax HE80	42/5210	5.53	6.40	4.33	5.20	8.86	17.00	PASS

Note:

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

2. The power spectral density=10log($10^{(\text{PSD antenna1 in dBm/10})}$+$10^{(\text{PSD antenna2 in dBm/10})}$)

3. Directional gain <6dBi. So the power limt is 17dBm.

U-NII-2A

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm /MHz)		
		Read Value (dBm/MHz)	PSD (dBm /MHz)	Read Value (dBm/MHz)	PSD (dBm /MHz)			
802.11n HT20	52/5260	7.26	7.44	6.98	7.16	10.32	11.00	PASS
	60/5300	7.35	7.54	7.31	7.50	10.53	11.00	PASS
	64/5320	7.44	7.63	7.03	7.21	10.43	11.00	PASS
802.11n HT40	54/5270	7.44	7.85	6.94	7.36	10.63	11.00	PASS
	62/5310	6.71	7.13	7.09	7.51	10.33	11.00	PASS
802.11ac VHT20	52/5260	7.30	7.48	7.12	7.30	10.40	11.00	PASS
	60/5300	7.40	7.58	7.30	7.48	10.54	11.00	PASS
	64/5320	7.38	7.56	7.27	7.45	10.52	11.00	PASS
802.11ac VHT40	54/5270	6.28	6.63	6.51	6.87	9.76	11.00	PASS
	62/5310	7.46	7.82	7.24	7.60	10.72	11.00	PASS
802.11ac VHT80	58/5290	3.36	4.04	3.51	4.19	7.13	11.00	PASS
802.11ax HE20	52/5260	7.47	7.70	7.33	7.57	10.64	11.00	PASS
	60/5300	7.30	7.54	7.01	7.24	10.40	11.00	PASS
	64/5320	7.63	7.86	7.37	7.61	10.75	11.00	PASS
802.11ax HE40	54/5270	5.90	6.33	5.84	6.26	9.31	11.00	PASS
	62/5310	5.51	5.94	5.76	6.19	9.07	11.00	PASS
802.11ax HE80	58/5290	4.70	5.57	4.54	5.41	8.50	11.00	PASS

Note:

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

2. The power spectral density=$10\log(10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})})$

3. Directional gain <6dBi. So the power limt is 11dBm.

U-NII-2C

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm /MHz)		
		Read Value (dBm/MHz)	PSD (dBm /MHz)	Read Value (dBm/MHz)	PSD (dBm /MHz)			
802.11n HT20	100/5500	7.53	7.72	7.34	7.53	10.63	11.00	PASS
	116/5580	7.58	7.76	7.27	7.45	10.62	11.00	PASS
	140/5700	7.50	7.68	7.41	7.59	10.65	11.00	PASS
	144/5720	7.29	7.47	7.15	7.34	10.42	11.00	PASS
802.11n HT40	102/5510	7.32	7.74	7.35	7.77	10.76	11.00	PASS
	110/5550	7.77	8.19	7.34	7.75	10.99	11.00	PASS
	134/5670	7.03	7.45	7.13	7.55	10.51	11.00	PASS
	142/5710	7.89	8.31	7.07	7.49	10.93	11.00	PASS
802.11ac VHT20	100/5500	7.68	7.86	7.43	7.61	10.75	11.00	PASS
	116/5580	7.71	7.89	7.18	7.36	10.64	11.00	PASS
	140/5700	7.78	7.96	7.45	7.64	10.81	11.00	PASS
	144/5720	7.54	7.73	7.02	7.20	10.48	11.00	PASS
802.11ac VHT40	102/5510	7.55	7.90	7.46	7.81	10.87	11.00	PASS
	110/5550	6.97	7.33	7.15	7.51	10.43	11.00	PASS
	134/5670	7.20	7.56	7.17	7.52	10.55	11.00	PASS
	142/5710	7.71	8.06	7.04	7.39	10.75	11.00	PASS
802.11ac VHT80	106/5530	5.24	5.92	4.50	5.18	8.58	11.00	PASS
	138/5690	5.24	5.92	4.39	5.08	8.53	11.00	PASS
802.11ax HE20	100/5500	7.39	7.63	7.31	7.55	10.60	11.00	PASS
	116/5580	7.52	7.76	7.31	7.55	10.66	11.00	PASS
	140/5700	7.63	7.86	7.18	7.42	10.66	11.00	PASS
	144/5720	7.81	8.04	7.36	7.59	10.83	11.00	PASS
802.11ax HE40	102/5510	6.95	7.37	7.07	7.50	10.44	11.00	PASS
	110/5550	7.21	7.64	6.95	7.37	10.52	11.00	PASS
	134/5670	6.99	7.42	6.74	7.16	10.30	11.00	PASS
	142/5710	7.33	7.76	6.89	7.31	10.55	11.00	PASS
802.11ax HE80	106/5530	3.61	4.48	3.75	4.62	7.56	11.00	PASS
	138/5690	3.10	3.97	3.28	4.16	7.08	11.00	PASS

Note:

1. Power Spectral Density =Read Value+Duty cycle correction factor
2. The power spectral density=10log($10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})}$)
3. Directional gain <6dBi. So the power limt is 11dBm.

U-NII-3

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm/ 500kHz)	Conclusion
		Antenna 1		Limit (dBm/ 500kHz)		Total Power (dBm/ 500kHz)		
		Read Value (dBm/ 470kHz)	Power Spectral Density (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	Power Spectral Density (dBm/ 500kHz)			
802.11n HT20	149/5745	11.41	11.86	10.32	10.77	14.36	30.00	PASS
	157/5785	11.70	12.16	11.31	11.77	14.98	30.00	PASS
	165/5825	11.56	12.02	11.40	11.86	14.95	30.00	PASS
802.11n HT40	151/5755	8.63	9.32	8.29	8.98	12.16	30.00	PASS
	159/5795	9.39	10.08	8.77	9.46	12.79	30.00	PASS
802.11ac VHT20	149/5745	11.29	11.74	11.20	11.66	14.71	30.00	PASS
	157/5785	11.73	12.18	11.43	11.88	15.04	30.00	PASS
	165/5825	11.62	12.07	11.32	11.77	14.93	30.00	PASS
802.11ac VHT40	151/5755	9.42	10.04	8.99	9.62	12.84	30.00	PASS
	159/5795	9.74	10.37	9.42	10.04	13.22	30.00	PASS
802.11ac VHT80	155/5775	5.83	6.79	5.65	6.60	9.71	30.00	PASS
802.11ax HE20	149/5745	10.74	11.24	10.30	10.80	14.04	30.00	PASS
	157/5785	11.27	11.77	10.78	11.28	14.54	30.00	PASS
	165/5825	11.02	11.52	10.70	11.21	14.38	30.00	PASS
802.11ax HE40	151/5755	9.18	9.88	9.18	9.87	12.89	30.00	PASS
	159/5795	9.50	10.19	9.19	9.89	13.05	30.00	PASS
802.11ax HE80	155/5775	6.51	7.65	7.55	8.69	11.21	30.00	PASS

Note:

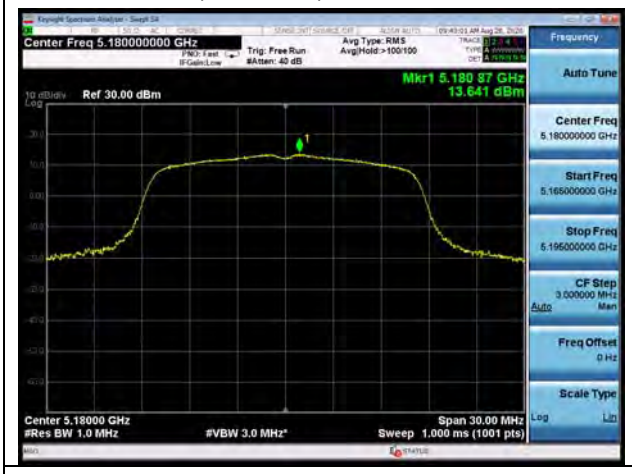
1.Note:PSD=Read Value+Duty cycle+10*LOG(500/470) correction factor,

2. The power spectral density=10log($10^{(\text{PSD antenna1 in dBm/10})}$+$10^{(\text{PSD antenna2 in dBm/10})}$)

3. Directional gain <6dBi. So the power limt is 30dBm.

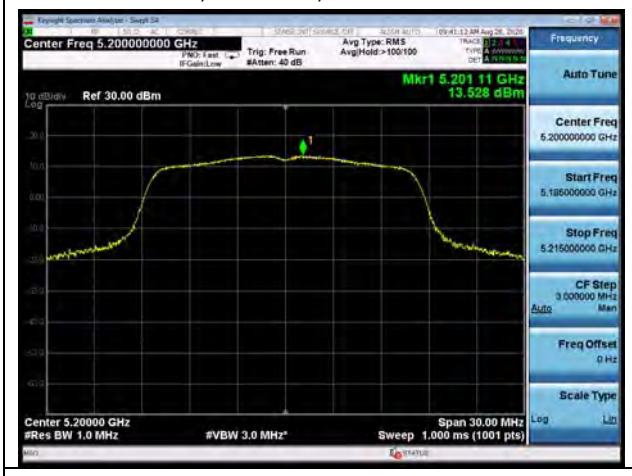
MIMO Antenna 1 without beamforming

U-NII-1, 802.11a, Channel No.: 36



U-NII-1, 802.11n HT20, Channel No.: 36

U-NII-1, 802.11a, Channel No.: 40

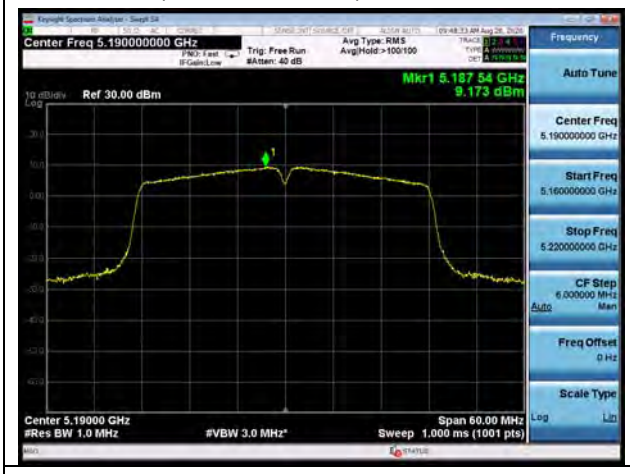


U-NII-1, 802.11n HT20, Channel No.: 40

U-NII-1, 802.11a, Channel No.: 48

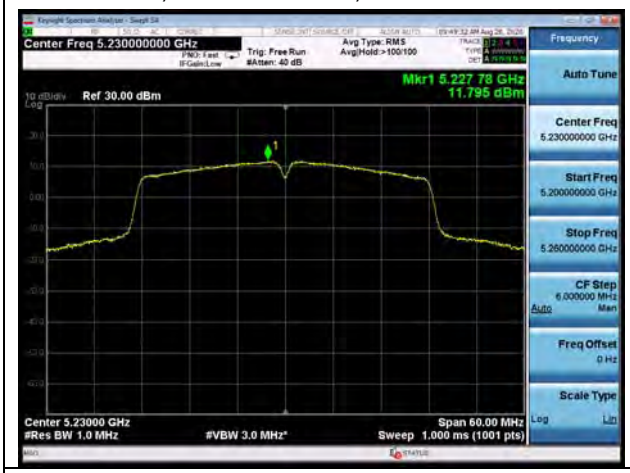
U-NII-1, 802.11n HT20, Channel No.: 48

U-NII-1, 802.11n HT40, Channel No.: 38



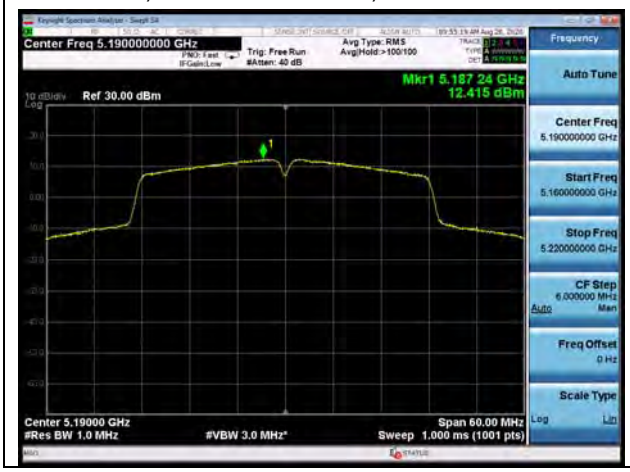
U-NII-1, 802.11ac VHT20, Channel No.: 36

U-NII-1, 802.11n HT40, Channel No.: 46



U-NII-1, 802.11ac VHT20, Channel No.: 40

U-NII-1, 802.11ac VHT40, Channel No.: 38

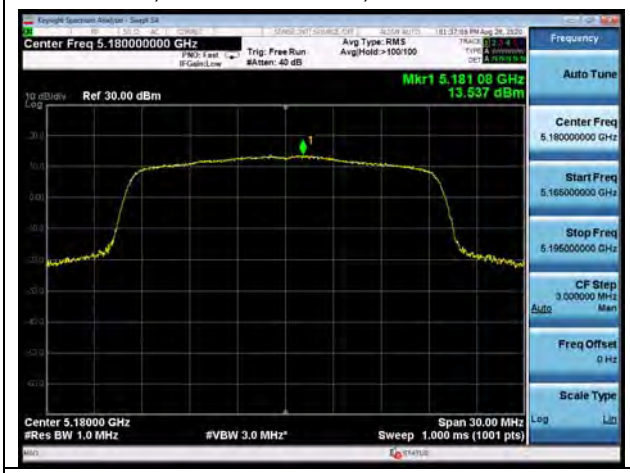


U-NII-1, 802.11ac VHT20, Channel No.: 48

U-NII-1, 802.11ac VHT40, Channel No.: 46

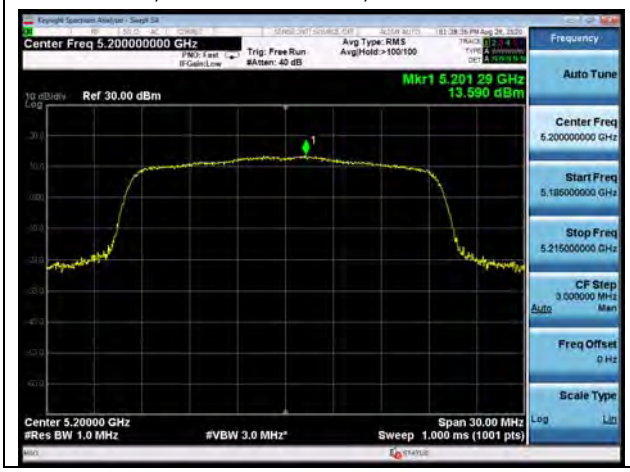
U-NII-1, 802.11ac VHT80, Channel No.: 42

U-NII-1, 802.11ax HE20, Channel No.: 36



U-NII-1, 802.11ax HE40, Channel No.: 38

U-NII-1, 802.11ax HE20, Channel No.: 40



U-NII-1, 802.11ax HE40, Channel No.: 46

U-NII-1, 802.11ax HE20, Channel No.: 48	U-NII-1, 802.11ax HE80, Channel No.: 42
	

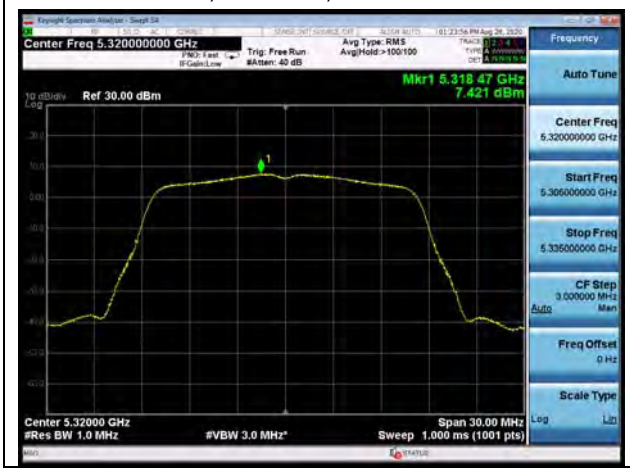
U-NII-2A, 802.11a, Channel No.: 52

U-NII-2A, 802.11n HT20, Channel No.: 52

U-NII-2A, 802.11a, Channel No.: 60

U-NII-2A, 802.11n HT20, Channel No.: 60

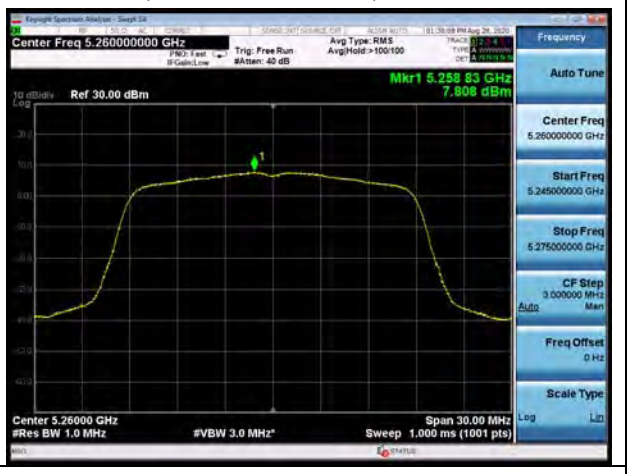
U-NII-2A, 802.11a, Channel No.: 64



U-NII-2A, 802.11n HT20, Channel No.: 64

U-NII-2A, 802.11n HT40, Channel No.: 54

U-NII-2A, 802.11ac VHT20, Channel No.:52



U-NII-2A, 802.11n HT40, Channel No.: 62

U-NII-2A, 802.11ac VHT20, Channel No.: 60

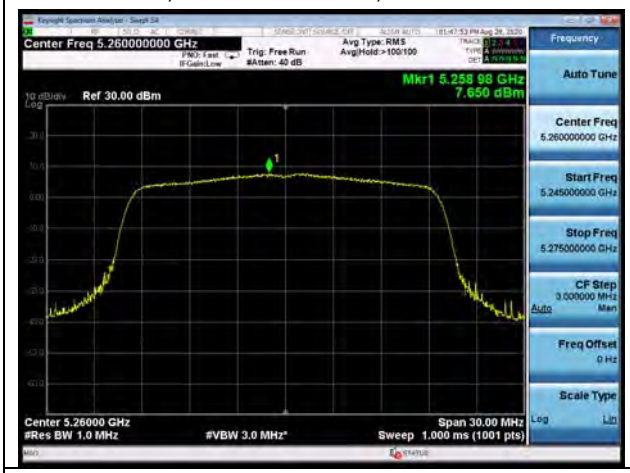
U-NII-2A, 802.11ac VHT40, Channel No.: 54

U-NII-2A, 802.11ac VHT20, Channel No.: 64

U-NII-2A, 802.11ac VHT40, Channel No.: 62

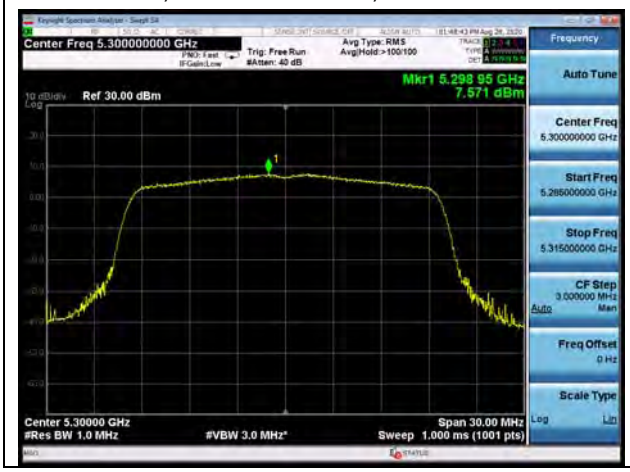
U-NII-2A, 802.11ac VHT80, Channel No.: 58

U-NII-2A, 802.11ax HE20, Channel No.:52

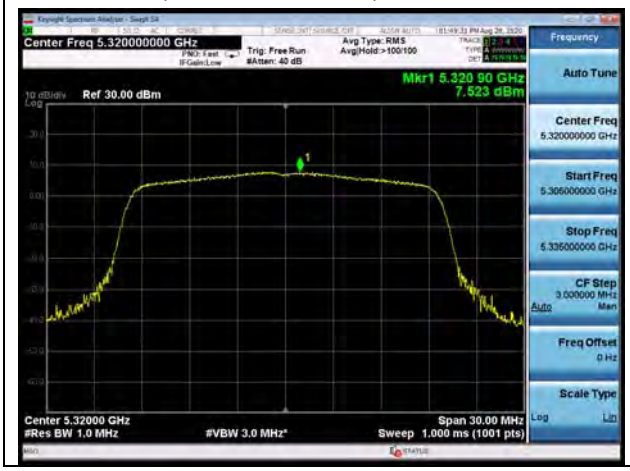


U-NII-2A, 802.11ax HE40, Channel No.: 54

U-NII-2A, 802.11ax HE20, Channel No.: 60

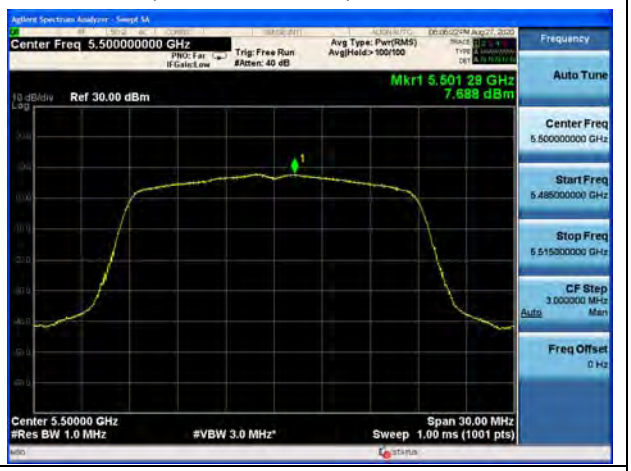


U-NII-2A, 802.11ax HE40, Channel No.: 62

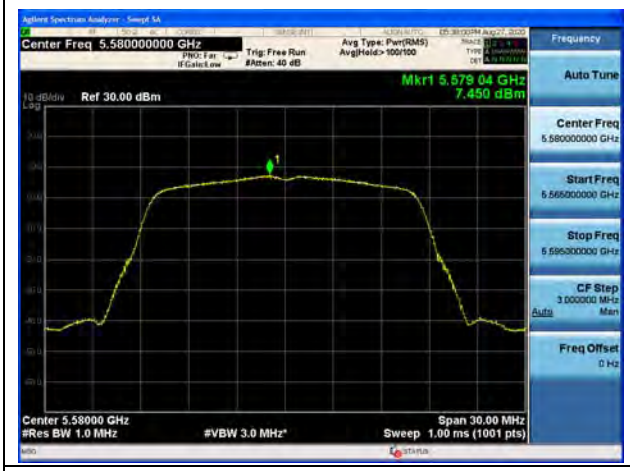
U-NII-2A, 802.11ax HE20, Channel No.: 64	U-NII-2A, 802.11ax HE80, Channel No.: 58
	

U-NII-2C, 802.11a, Channel No.: 100

U-NII-2C, 802.11n HT20, Channel No.: 100

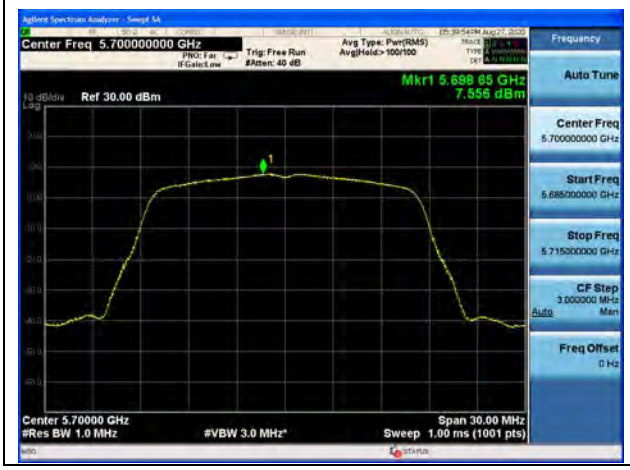


U-NII-2C, 802.11a, Channel No.: 116



U-NII-2C, 802.11n HT20, Channel No.: 116

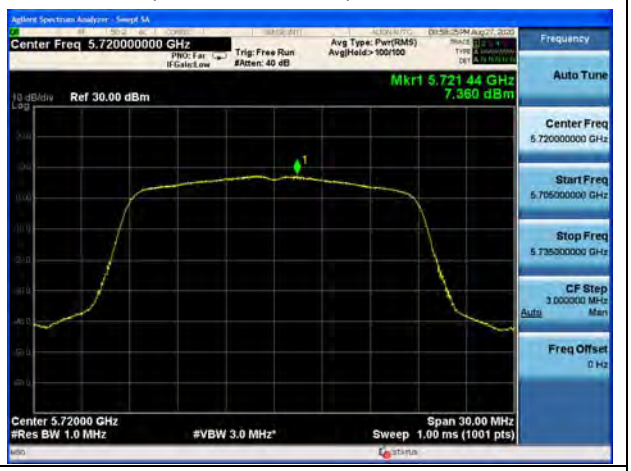
U-NII-2C, 802.11a, Channel No.: 140



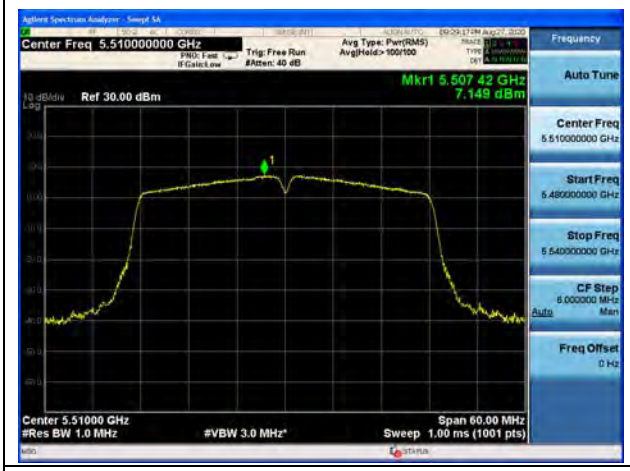
U-NII-2C, 802.11n HT20, Channel No.: 140

U-NII-2C, 802.11a, Channel No.: 144

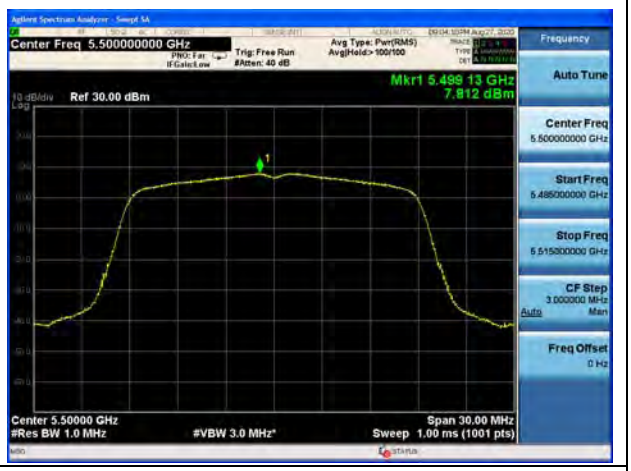
U-NII-2C, 802.11n HT20, Channel No.: 144



U-NII-2C, 802.11n HT40, Channel No.: 102



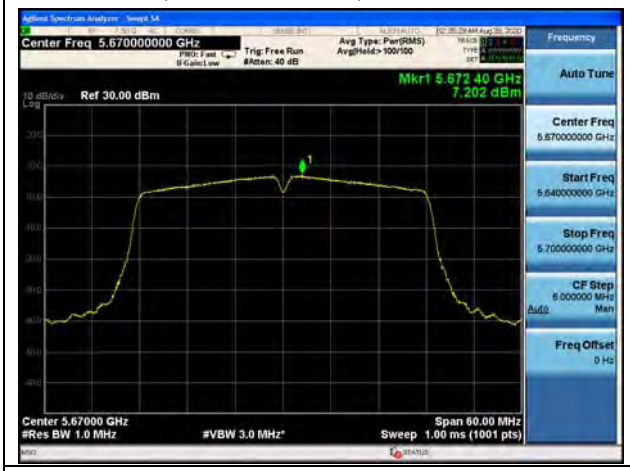
U-NII-2C, 802.11ac VHT20, Channel No.: 100



U-NII-2C, 802.11n HT40, Channel No.: 110

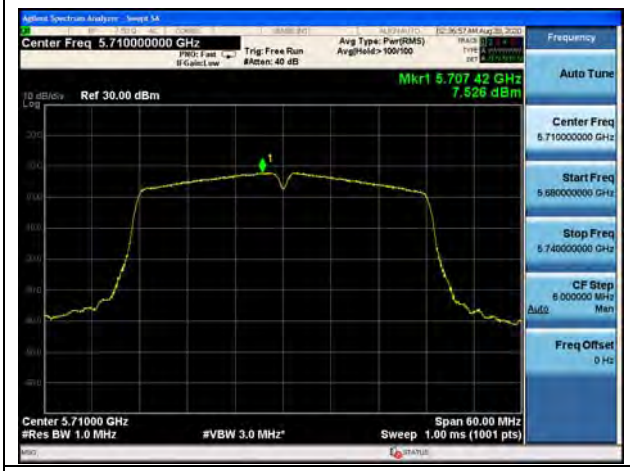
U-NII-2C, 802.11ac VHT20, Channel No.: 116

U-NII-2C, 802.11n HT40, Channel No.: 134

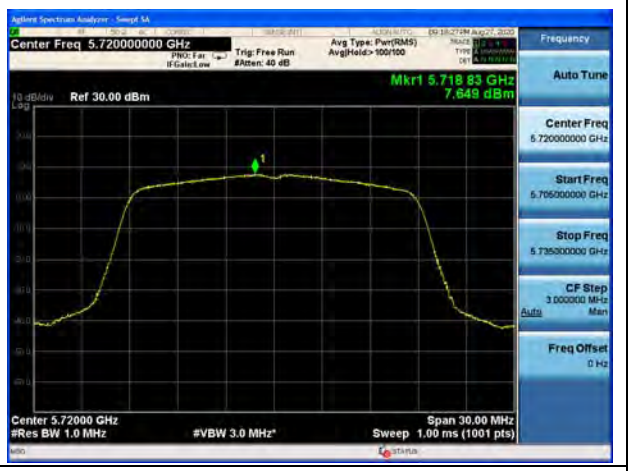


U-NII-2C, 802.11ac VHT20, Channel No.: 140

U-NII-2C, 802.11n HT40, Channel No.: 142



U-NII-2C, 802.11ac VHT20, Channel No.: 144



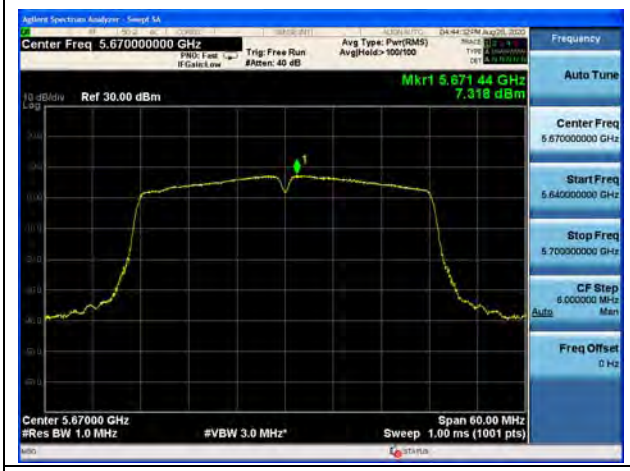
U-NII-2C, 802.11ac VHT40, Channel No.: 102

U-NII-2C, 802.11ac VHT80, Channel No.: 106

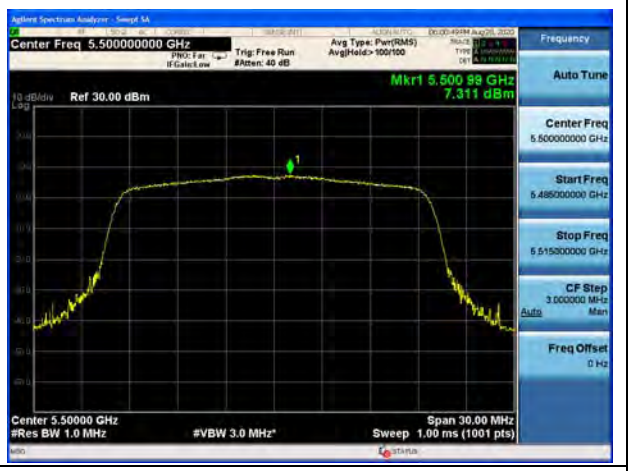
U-NII-2C, 802.11ac VHT40, Channel No.: 110

U-NII-2C, 802.11ac VHT80, Channel No.: 138

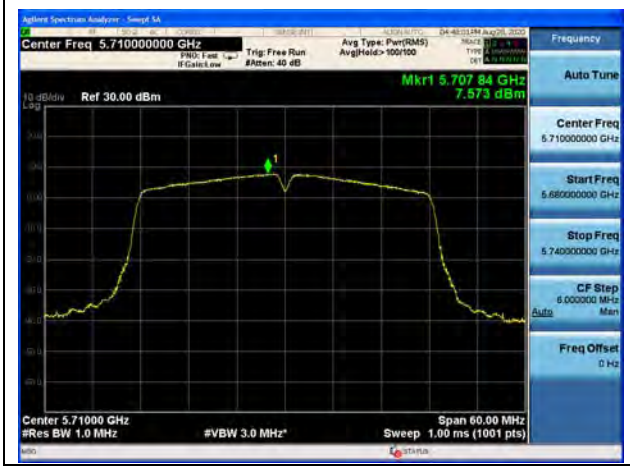
U-NII-2C, 802.11ac VHT40, Channel No.: 134



U-NII-2C, 802.11ax HE20, Channel No.: 100

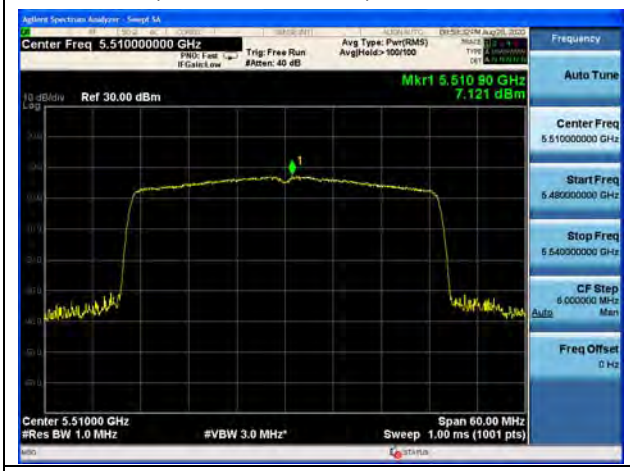


U-NII-2C, 802.11ac VHT40, Channel No.: 142



U-NII-2C, 802.11ax HE20, Channel No.: 116

U-NII-2C, 802.11ax HE40, Channel No.: 102

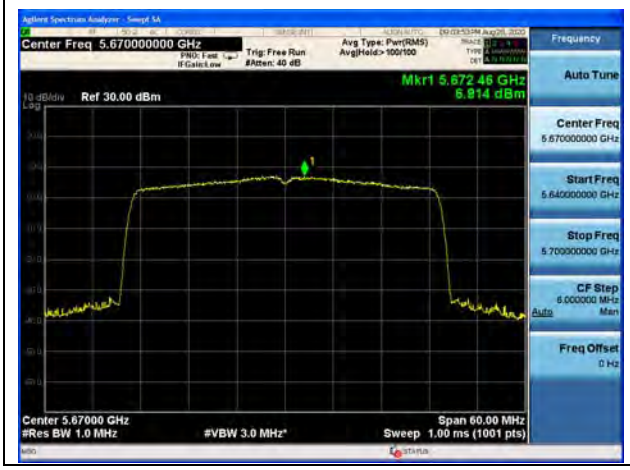


U-NII-2C, 802.11ax HE20, Channel No.: 140

U-NII-2C, 802.11ax HE40, Channel No.: 110

U-NII-2C, 802.11ax HE20, Channel No.: 144

U-NII-2C, 802.11ax HE40, Channel No.: 134

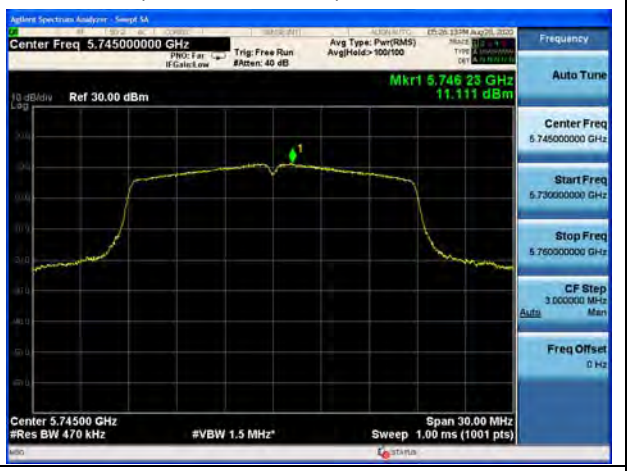


U-NII-2C, 802.11ax HE80, Channel No.: 106

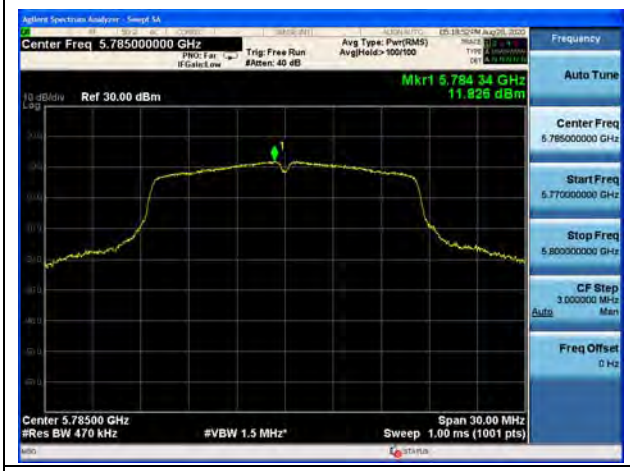
U-NII-2C, 802.11ax HE40, Channel No.: 142	U-NII-2C, 802.11ax HE80, Channel No.: 138
	

U-NII-3, 802.11a, Channel No.: 149

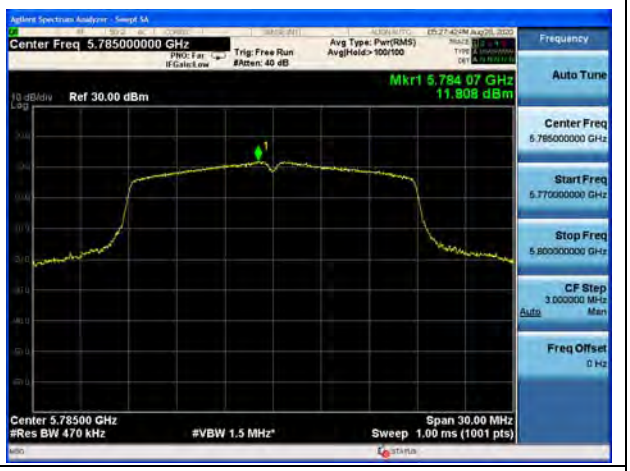
U-NII-3, 802.11n HT20, Channel No.: 149



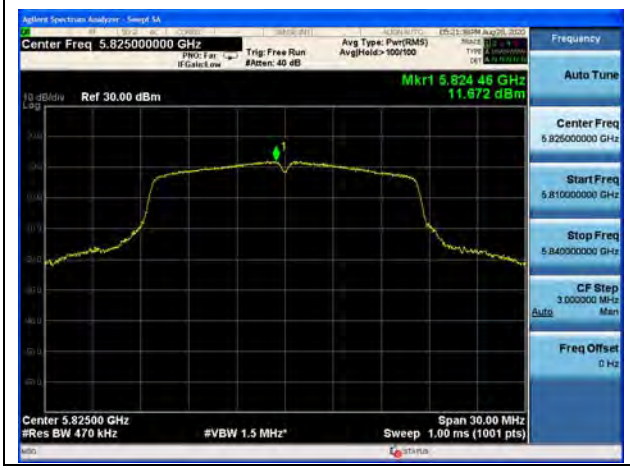
U-NII-3, 802.11a, Channel No.: 157



U-NII-3, 802.11n HT20, Channel No.: 157



U-NII-3, 802.11a, Channel No.: 165



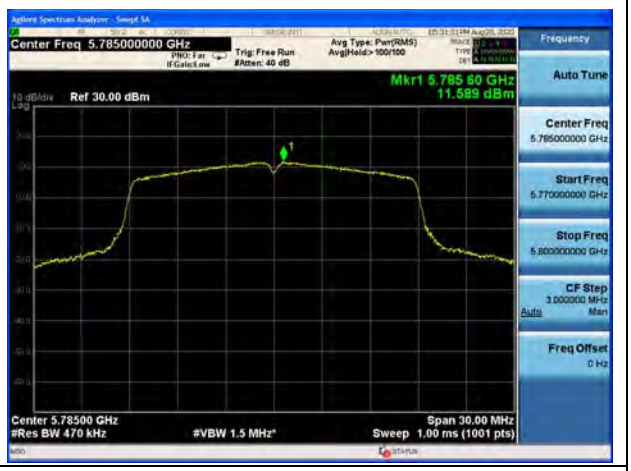
U-NII-3, 802.11n HT20, Channel No.: 165

U-NII-3, 802.11n HT40, Channel No.: 151

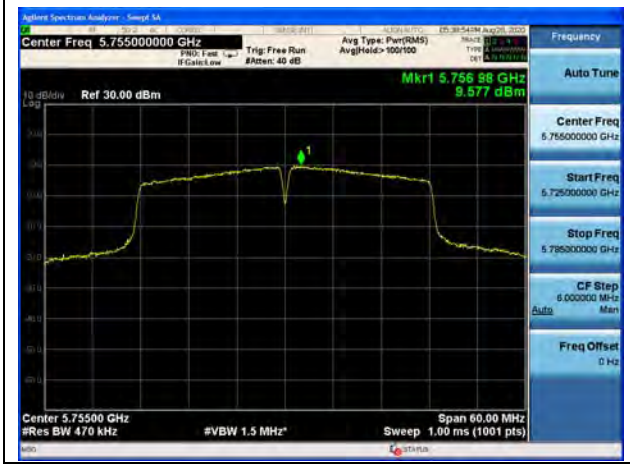
U-NII-3, 802.11ac VHT20, Channel No.: 149

U-NII-3, 802.11n HT40, Channel No.: 159

U-NII-3, 802.11ac VHT20, Channel No.: 157



U-NII-3, 802.11ac VHT40, Channel No.: 151

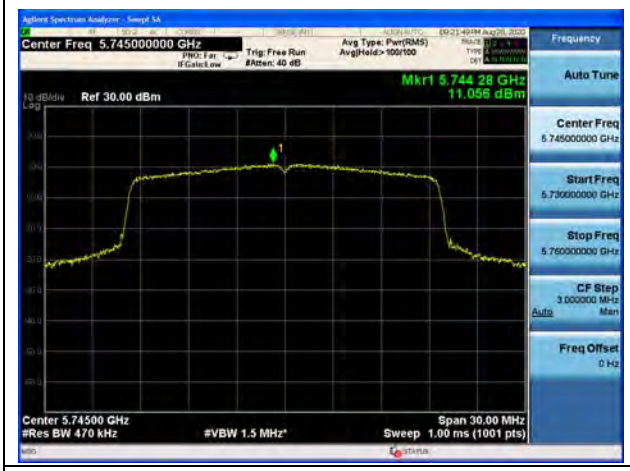


U-NII-3, 802.11ac VHT20, Channel No.: 165

U-NII-3, 802.11ac VHT40, Channel No.: 159

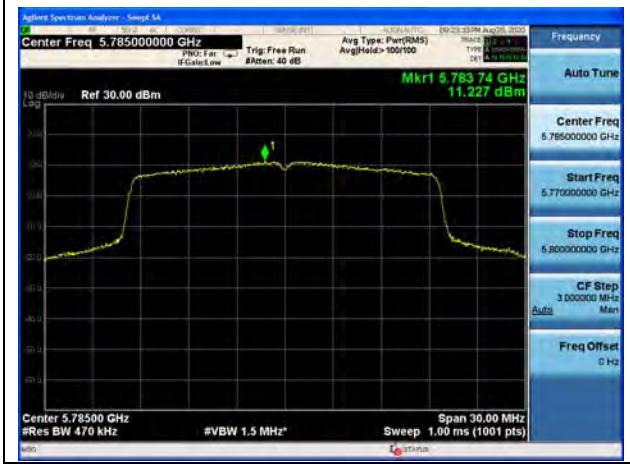
U-NII-3, 802.11ac VHT80, Channel No.: 155

U-NII-3, 802.11ax HE20, Channel No.: 149



U-NII-3, 802.11ax HE40, Channel No.: 151

U-NII-3, 802.11ax HE20, Channel No.: 157

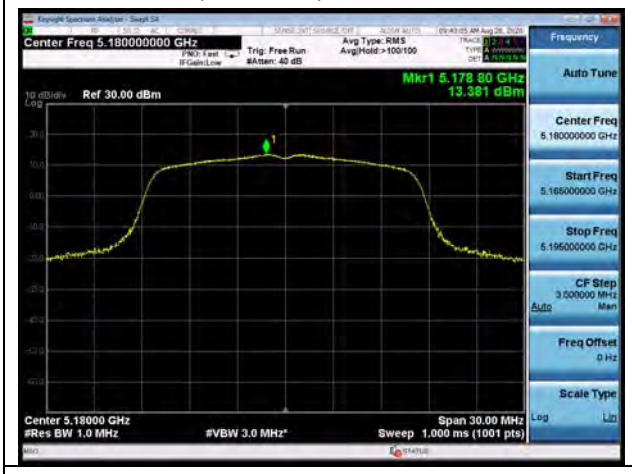


U-NII-3, 802.11ax HE40, Channel No.: 159

U-NII-3, 802.11ax HE20, Channel No.: 165	U-NII-3, 802.11ax HE80, Channel No.: 155
	

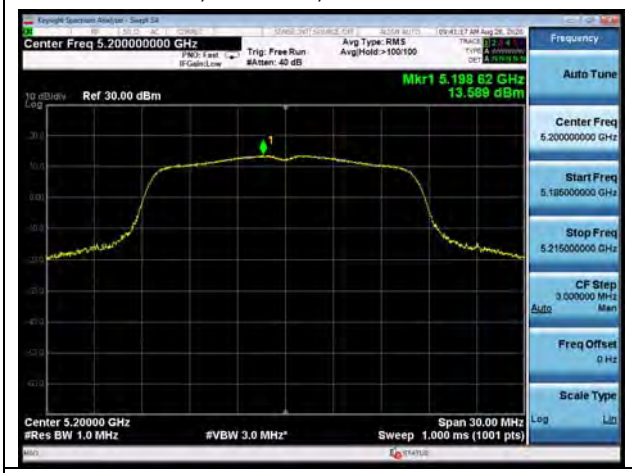
MIMO Antenna 2 without beamforming

U-NII-1, 802.11a, Channel No.: 36



U-NII-1, 802.11n HT20, Channel No.: 36

U-NII-1, 802.11a, Channel No.: 40

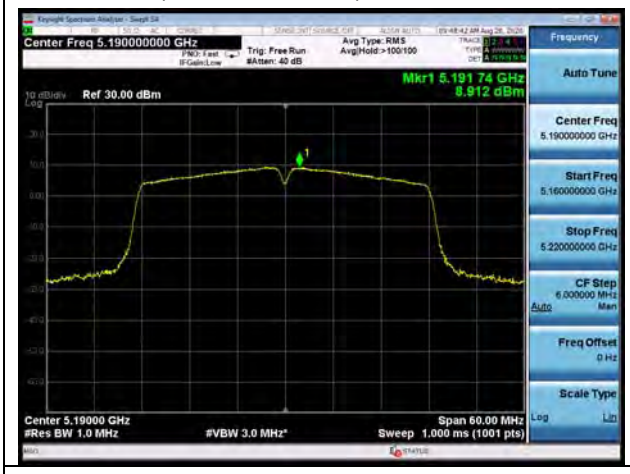


U-NII-1, 802.11n HT20, Channel No.: 40

U-NII-1, 802.11a, Channel No.: 48

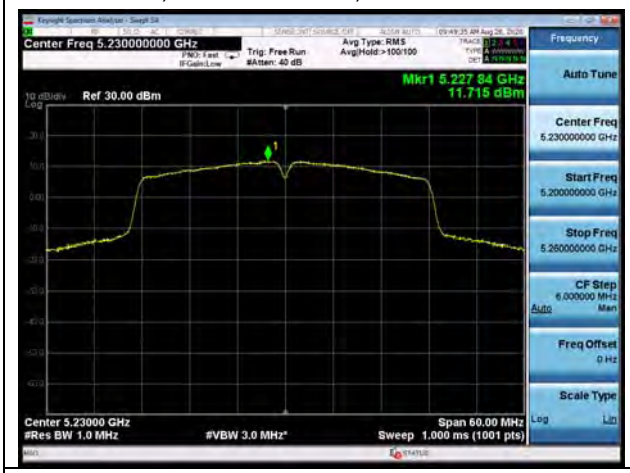
U-NII-1, 802.11n HT20, Channel No.: 48

U-NII-1, 802.11n HT40, Channel No.: 38



U-NII-1, 802.11ac VHT20, Channel No.: 36

U-NII-1, 802.11n HT40, Channel No.: 46



U-NII-1, 802.11ac VHT20, Channel No.: 40

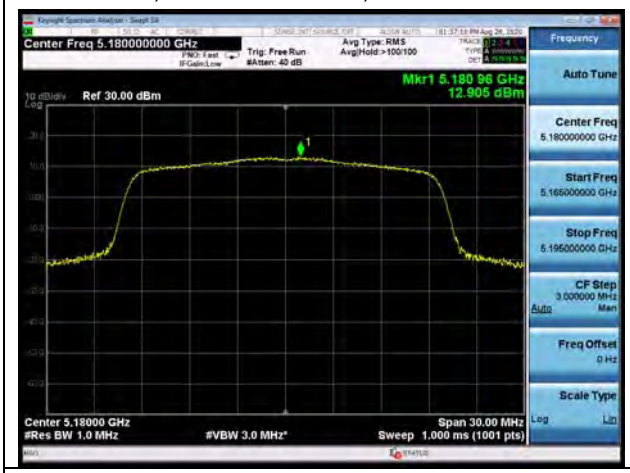
U-NII-1, 802.11ac VHT40, Channel No.: 38

U-NII-1, 802.11ac VHT20, Channel No.: 48

U-NII-1, 802.11ac VHT40, Channel No.: 46

U-NII-1, 802.11ac VHT80, Channel No.: 42

U-NII-1, 802.11ax HE20, Channel No.: 36



U-NII-1, 802.11ax HE40, Channel No.: 38

U-NII-1, 802.11ax HE20, Channel No.: 40

U-NII-1, 802.11ax HE40, Channel No.: 46

U-NII-1, 802.11ax HE20, Channel No.: 48	U-NII-1, 802.11ax HE80, Channel No.: 42
	

U-NII-2A, 802.11a, Channel No.: 52

U-NII-2A, 802.11n HT20, Channel No.: 52

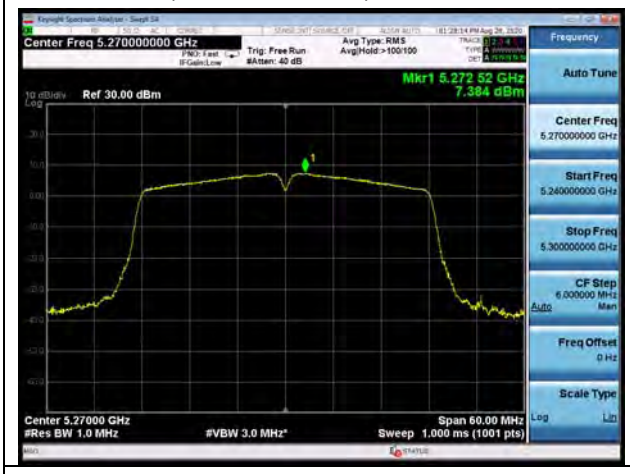
U-NII-2A, 802.11a, Channel No.: 60

U-NII-2A, 802.11n HT20, Channel No.: 60

U-NII-2A, 802.11a, Channel No.: 64

U-NII-2A, 802.11n HT20, Channel No.: 64

U-NII-2A, 802.11n HT40, Channel No.: 54

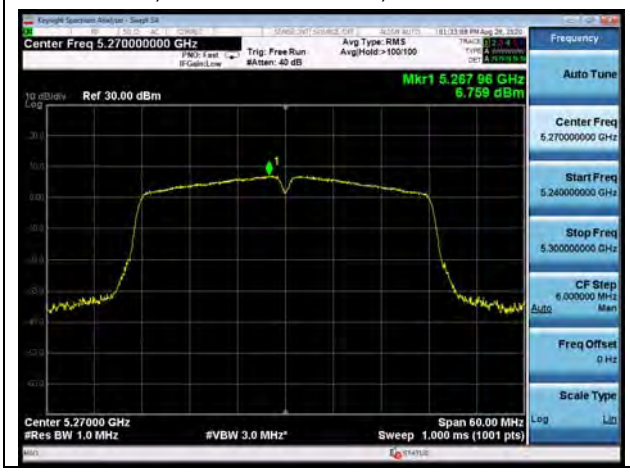


U-NII-2A, 802.11ac VHT20, Channel No.:52

U-NII-2A, 802.11n HT40, Channel No.: 62

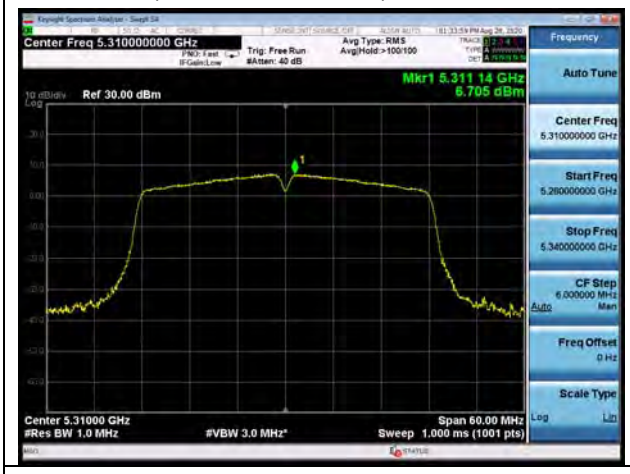
U-NII-2A, 802.11ac VHT20, Channel No.: 60

U-NII-2A, 802.11ac VHT40, Channel No.: 54



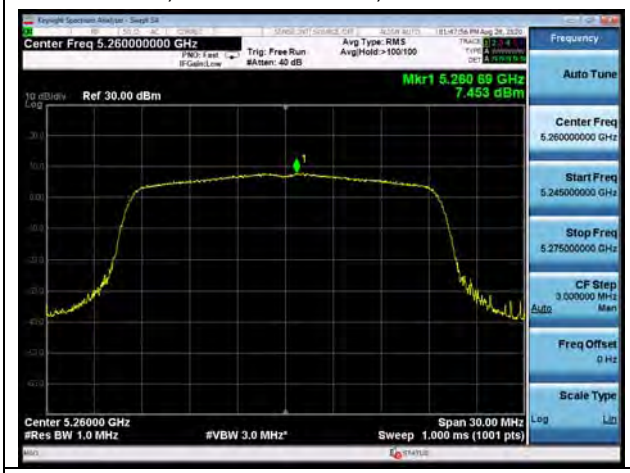
U-NII-2A, 802.11ac VHT20, Channel No.: 64

U-NII-2A, 802.11ac VHT40, Channel No.: 62



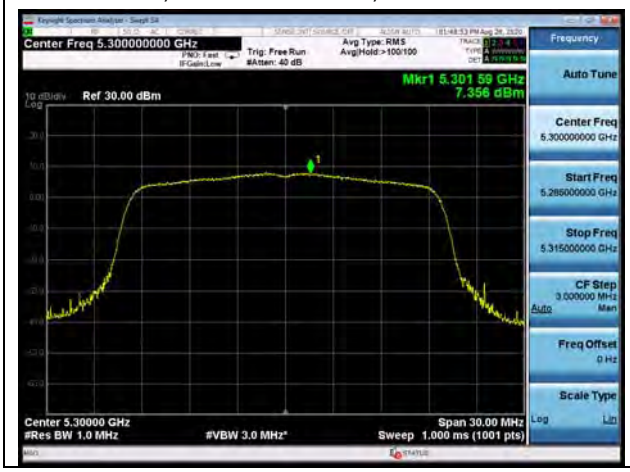
U-NII-2A, 802.11ac VHT80, Channel No.: 58

U-NII-2A, 802.11ax HE20, Channel No.:52

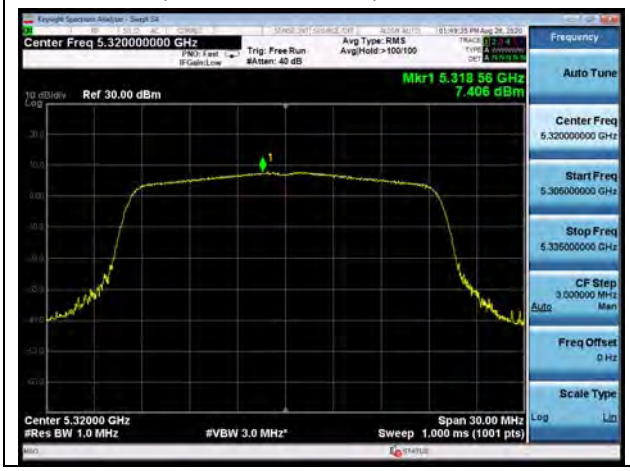


U-NII-2A, 802.11ax HE40, Channel No.: 54

U-NII-2A, 802.11ax HE20, Channel No.: 60



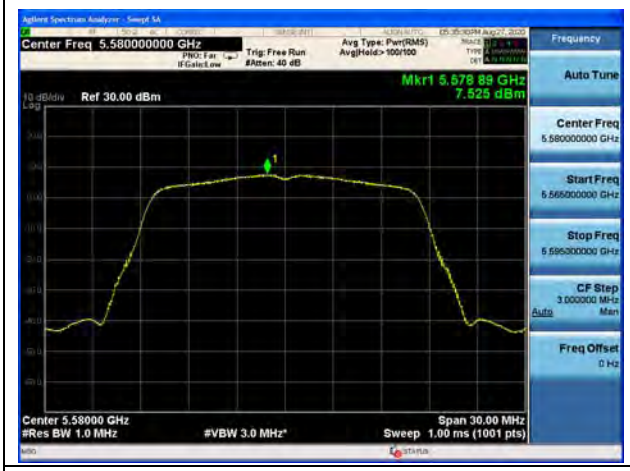
U-NII-2A, 802.11ax HE40, Channel No.: 62

U-NII-2A, 802.11ax HE20, Channel No.: 64	U-NII-2A, 802.11ax HE80, Channel No.: 58
	

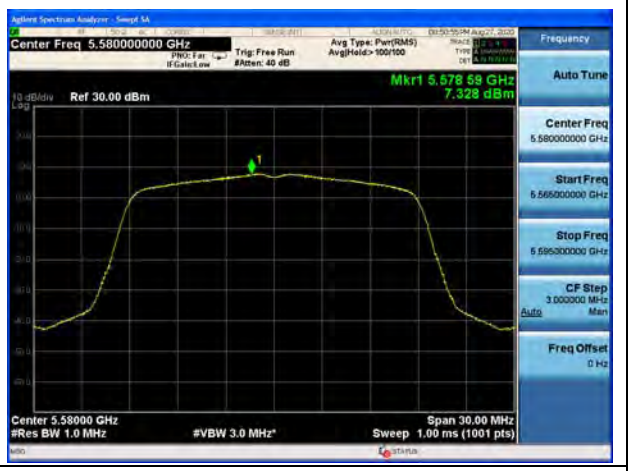
U-NII-2C, 802.11a, Channel No.: 100

U-NII-2C, 802.11n HT20, Channel No.: 100

U-NII-2C, 802.11a, Channel No.: 116



U-NII-2C, 802.11n HT20, Channel No.: 116



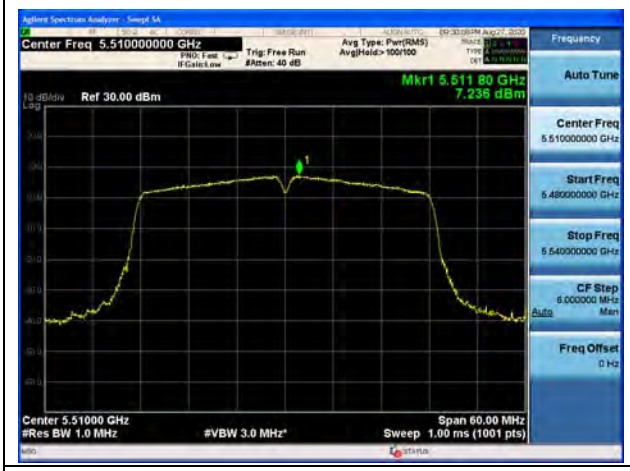
U-NII-2C, 802.11a, Channel No.: 140

U-NII-2C, 802.11n HT20, Channel No.: 140

U-NII-2C, 802.11a, Channel No.: 144

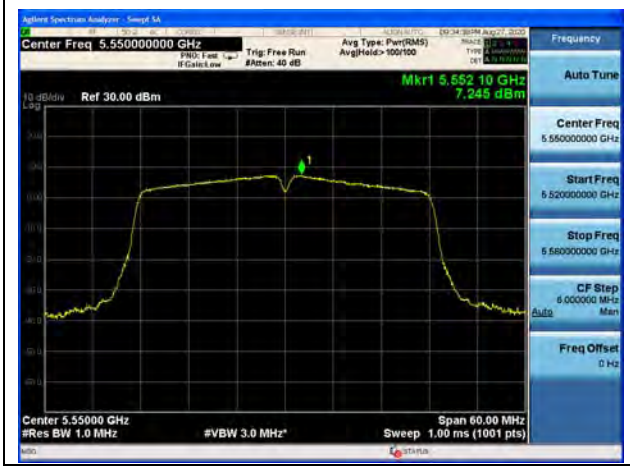
U-NII-2C, 802.11n HT20, Channel No.: 144

U-NII-2C, 802.11n HT40, Channel No.: 102



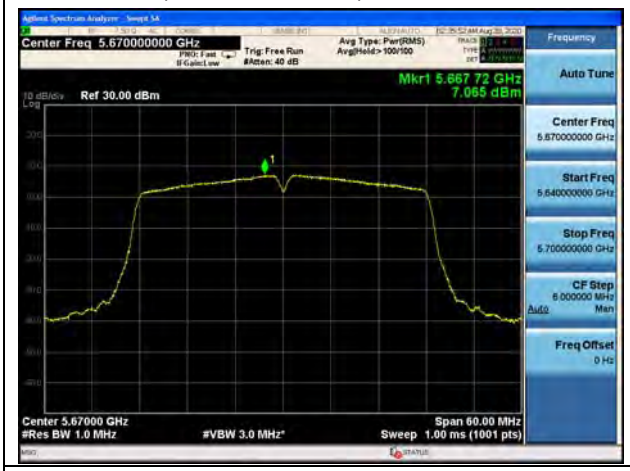
U-NII-2C, 802.11ac VHT20, Channel No.: 100

U-NII-2C, 802.11n HT40, Channel No.: 110



U-NII-2C, 802.11ac VHT20, Channel No.: 116

U-NII-2C, 802.11n HT40, Channel No.: 134

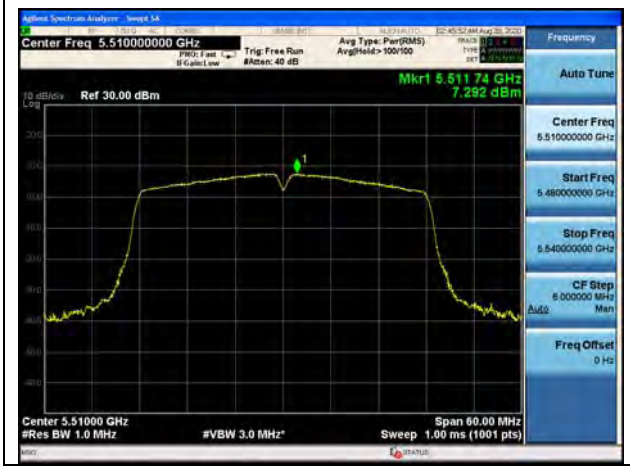


U-NII-2C, 802.11ac VHT20, Channel No.: 140

U-NII-2C, 802.11n HT40, Channel No.: 142

U-NII-2C, 802.11ac VHT20, Channel No.: 144

U-NII-2C, 802.11ac VHT40, Channel No.: 102

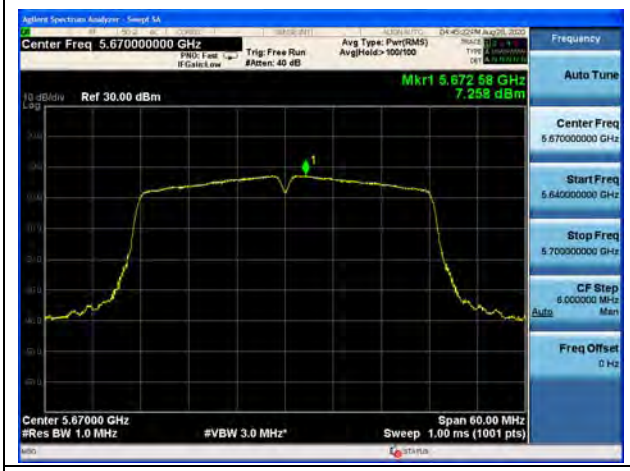


U-NII-2C, 802.11ac VHT80, Channel No.: 106

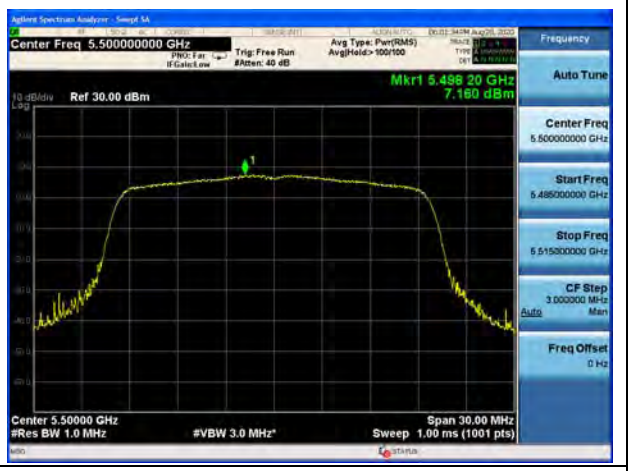
U-NII-2C, 802.11ac VHT40, Channel No.: 110

U-NII-2C, 802.11ac VHT80, Channel No.: 138

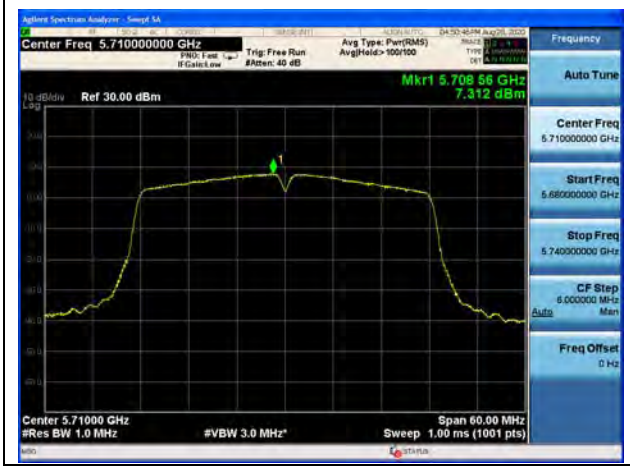
U-NII-2C, 802.11ac VHT40, Channel No.: 134



U-NII-2C, 802.11ax HE20, Channel No.: 100

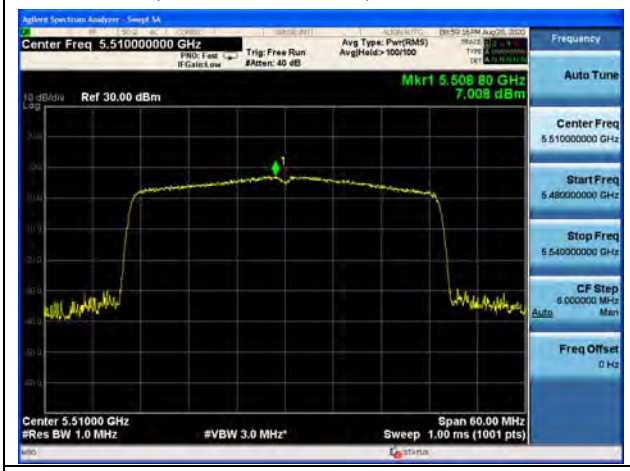


U-NII-2C, 802.11ac VHT40, Channel No.: 142

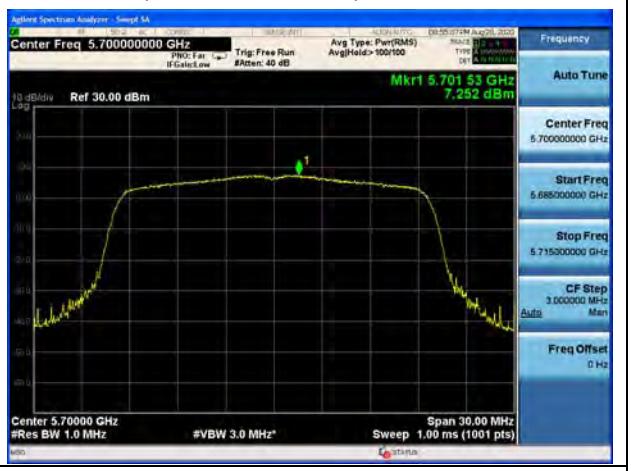


U-NII-2C, 802.11ax HE20, Channel No.: 116

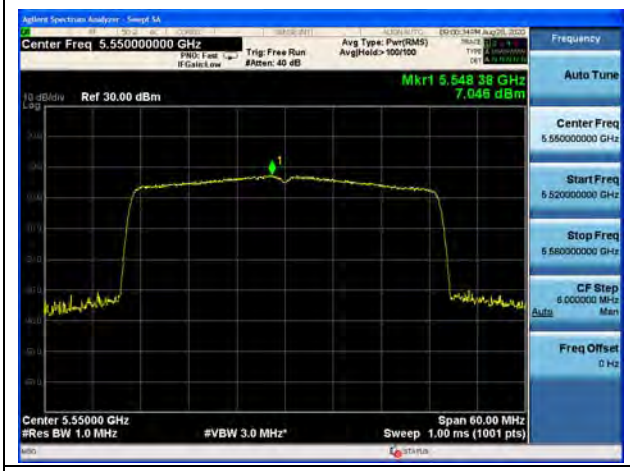
U-NII-2C, 802.11ax HE40, Channel No.: 102



U-NII-2C, 802.11ax HE20, Channel No.: 140

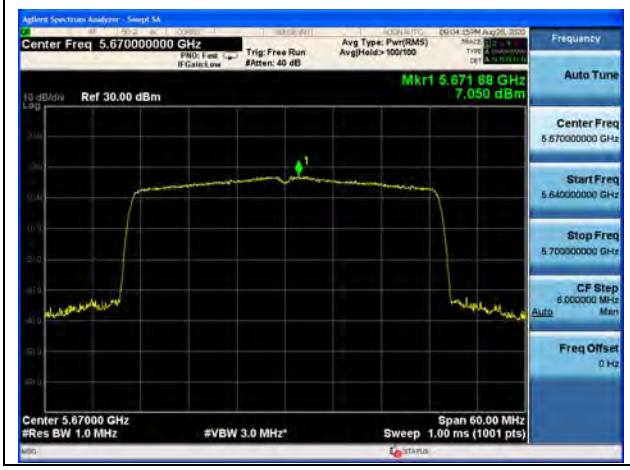


U-NII-2C, 802.11ax HE40, Channel No.: 110



U-NII-2C, 802.11ax HE20, Channel No.: 144

U-NII-2C, 802.11ax HE40, Channel No.: 134



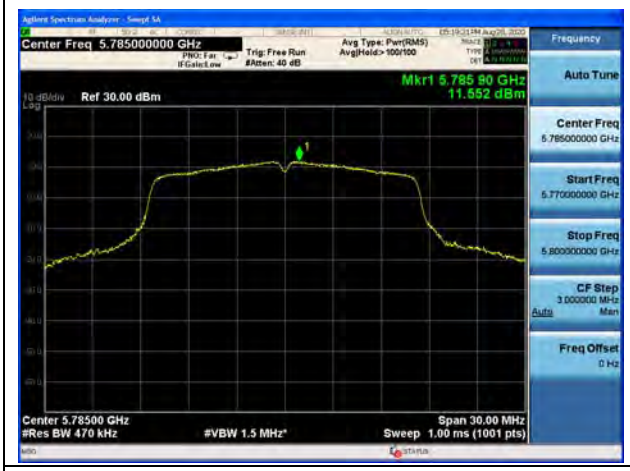
U-NII-2C, 802.11ax HE80, Channel No.: 106

U-NII-2C, 802.11ax HE40, Channel No.: 142	U-NII-2C, 802.11ax HE80, Channel No.: 138
	

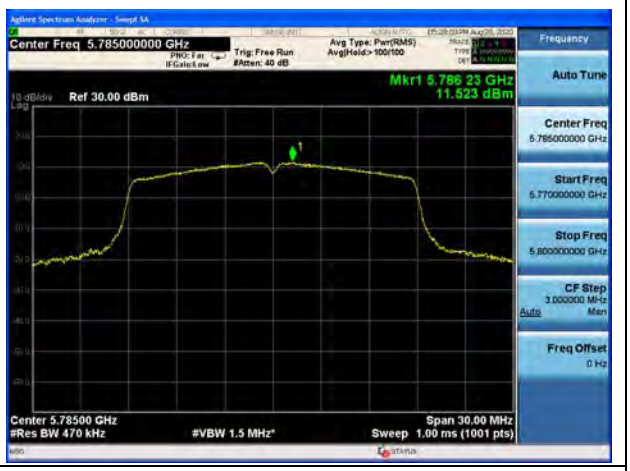
U-NII-3, 802.11a, Channel No.: 149

U-NII-3, 802.11n HT20, Channel No.: 149

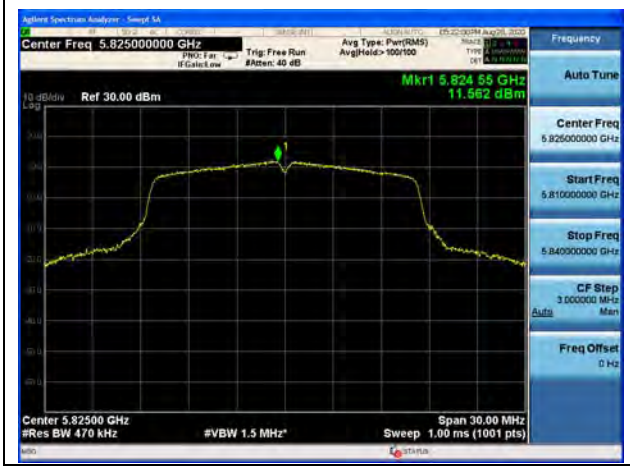
U-NII-3, 802.11a, Channel No.: 157



U-NII-3, 802.11n HT20, Channel No.: 157



U-NII-3, 802.11a, Channel No.: 165



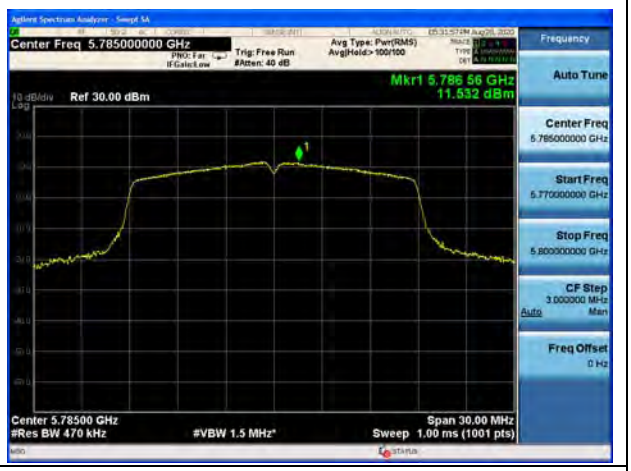
U-NII-3, 802.11n HT20, Channel No.: 165

U-NII-3, 802.11n HT40, Channel No.: 151

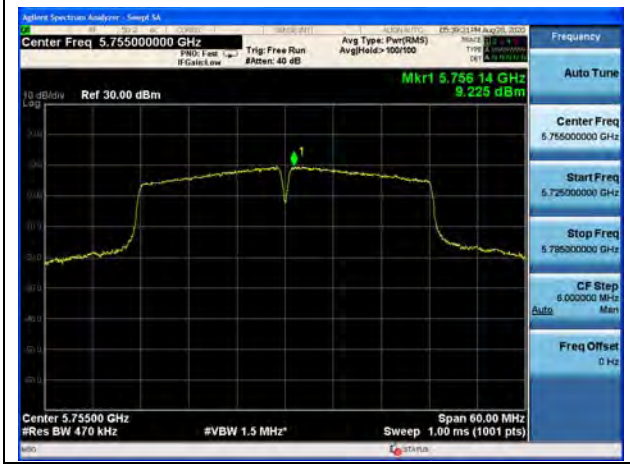
U-NII-3, 802.11ac VHT20, Channel No.: 149

U-NII-3, 802.11n HT40, Channel No.: 159

U-NII-3, 802.11ac VHT20, Channel No.: 157

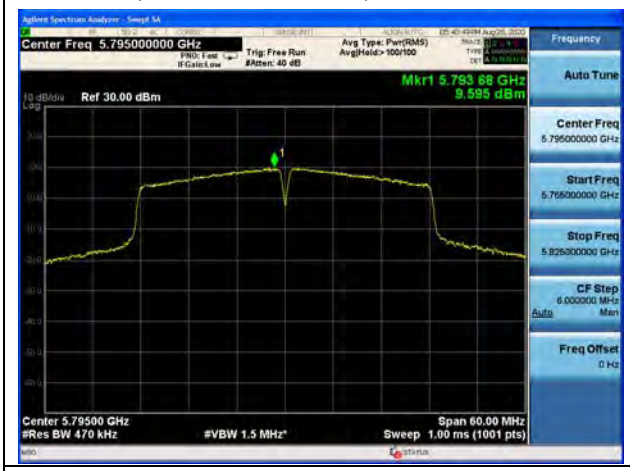


U-NII-3, 802.11ac VHT40, Channel No.: 151



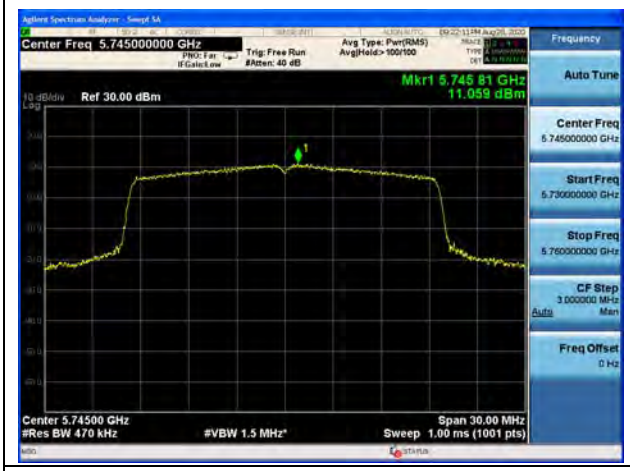
U-NII-3, 802.11ac VHT20, Channel No.: 165

U-NII-3, 802.11ac VHT40, Channel No.: 159



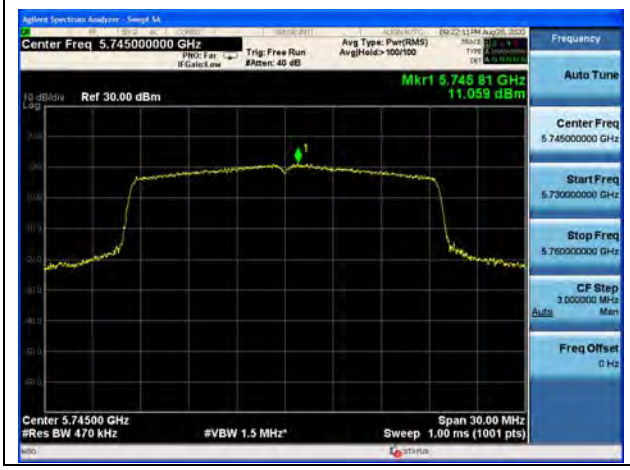
U-NII-3, 802.11ac VHT80, Channel No.: 155

U-NII-3, 802.11ax HE20, Channel No.: 149

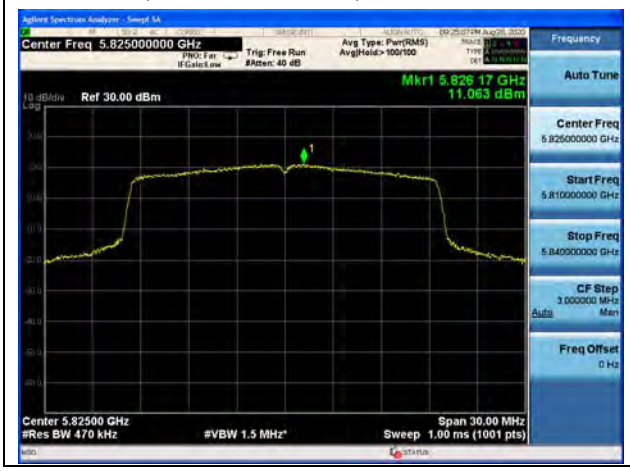


U-NII-3, 802.11ax HE40, Channel No.: 151

U-NII-3, 802.11ax HE20, Channel No.: 157



U-NII-3, 802.11ax HE40, Channel No.: 159

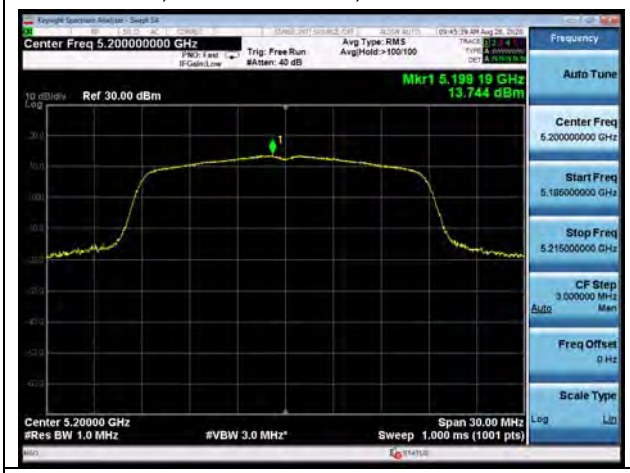
U-NII-3, 802.11ax HE20, Channel No.: 165	U-NII-3, 802.11ax HE80, Channel No.: 155
	

MIMO Antenna 1 with beamforming

U-NII-1, 802.11n HT20, Channel No.: 36

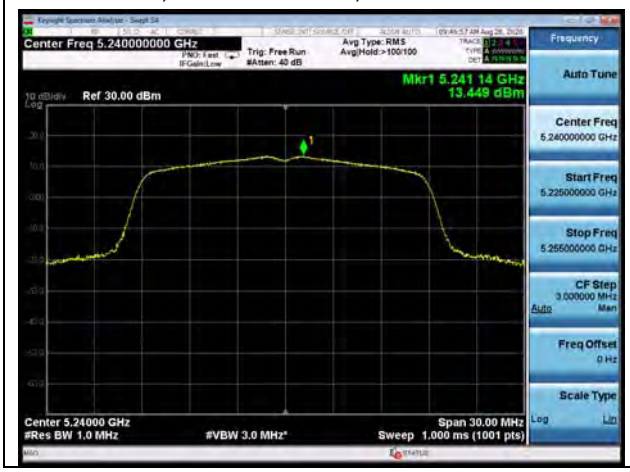
U-NII-1, 802.11n HT40, Channel No.: 38

U-NII-1, 802.11n HT20, Channel No.: 40



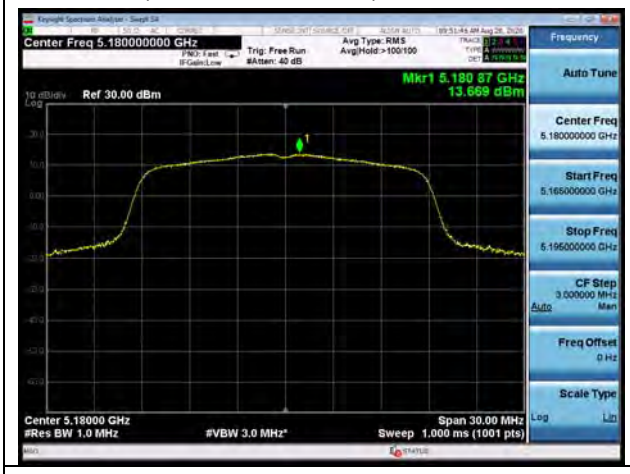
U-NII-1, 802.11n HT40, Channel No.: 46

U-NII-1, 802.11n HT20, Channel No.: 48



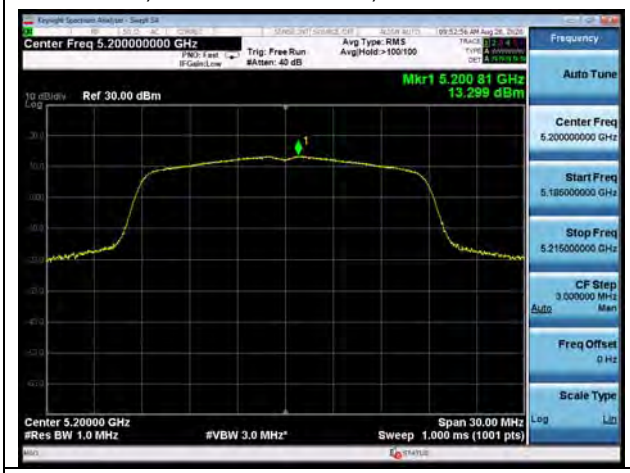
U-NII-1, 802.11ac VHT40, Channel No.: 38

U-NII-1, 802.11ac VHT20, Channel No.: 36



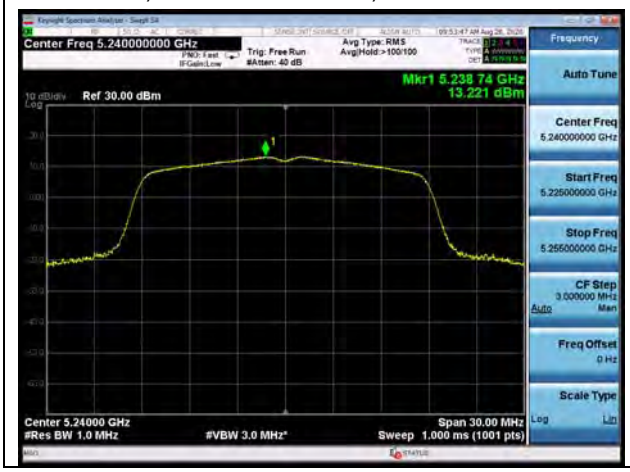
U-NII-1, 802.11ac VHT40, Channel No.: 46

U-NII-1, 802.11ac VHT20, Channel No.: 40



U-NII-1, 802.11ac VHT80, Channel No.: 42

U-NII-1, 802.11ac VHT20, Channel No.: 48



U-NII-1, 802.11ax HE20, Channel No.: 36

U-NII-1, 802.11ax HE40, Channel No.: 38

U-NII-1, 802.11ax HE20, Channel No.: 40

U-NII-1, 802.11ax HE40, Channel No.: 46

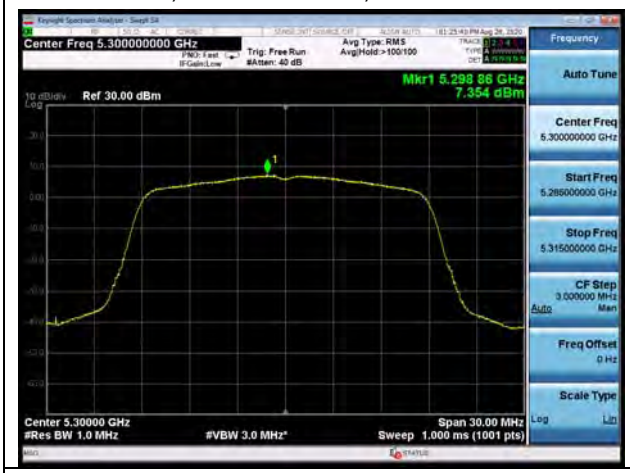
U-NII-1, 802.11ax HE20, Channel No.: 48

U-NII-1, 802.11ax HE80, Channel No.: 42

U-NII-2A, 802.11n HT20, Channel No.: 52

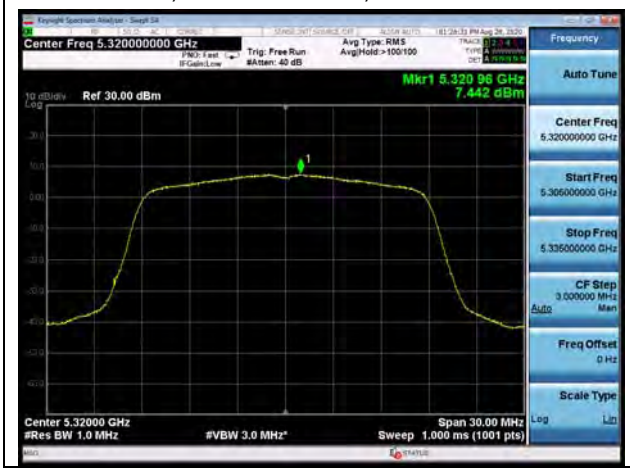
U-NII-2A, 802.11n HT40, Channel No.: 54

U-NII-2A, 802.11n HT20, Channel No.: 60



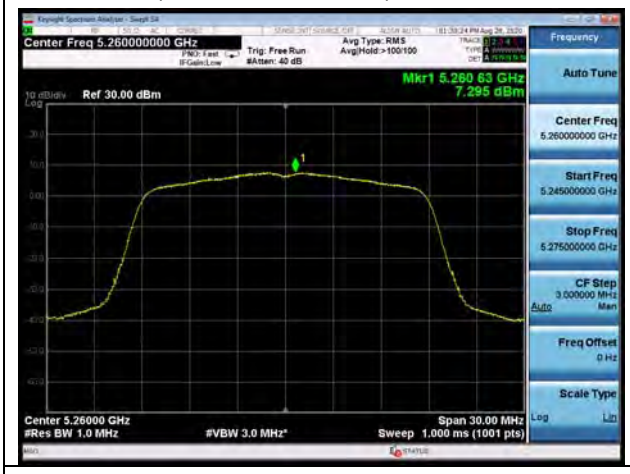
U-NII-2A, 802.11n HT40, Channel No.: 62

U-NII-2A, 802.11n HT20, Channel No.: 64

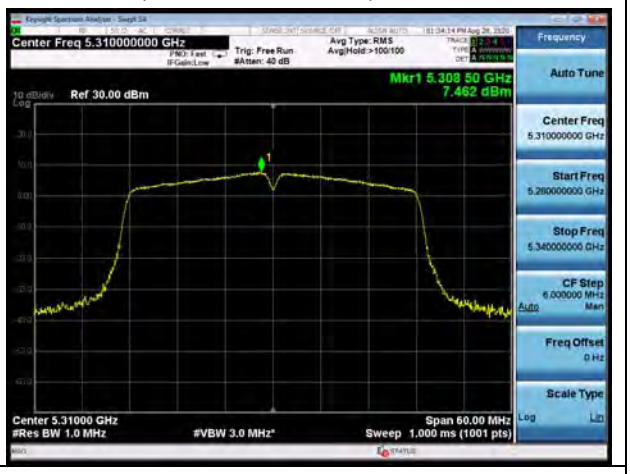


U-NII-2A, 802.11ac VHT40, Channel No.: 54

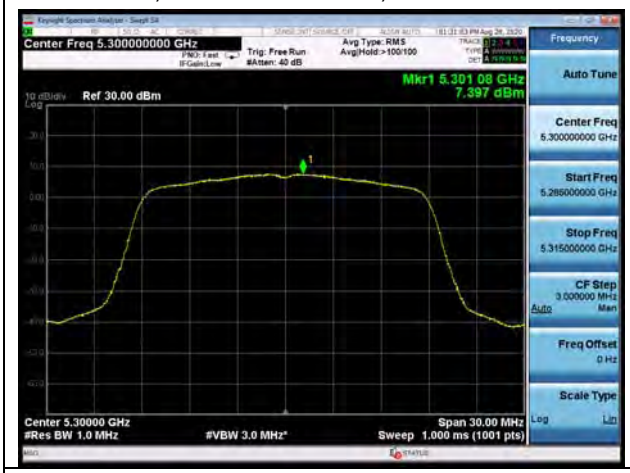
U-NII-2A, 802.11ac VHT20, Channel No.:52



U-NII-2A, 802.11ac VHT40, Channel No.: 62

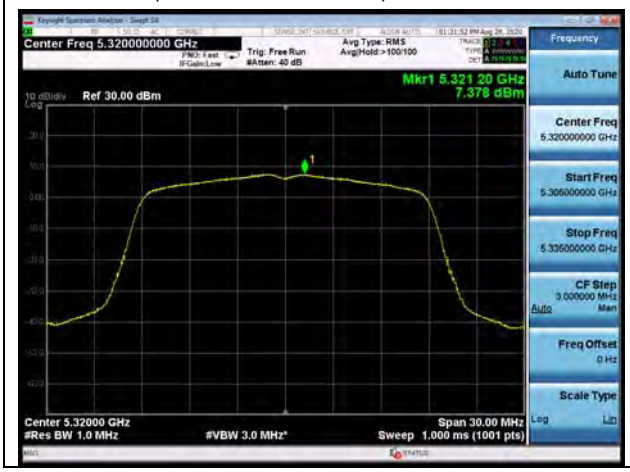


U-NII-2A, 802.11ac VHT20, Channel No.: 60



U-NII-2A, 802.11ac VHT80, Channel No.: 58

U-NII-2A, 802.11ac VHT20, Channel No.: 64

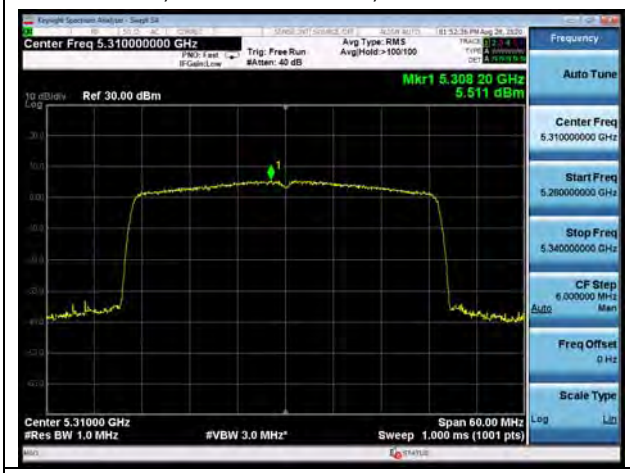


U-NII-2A, 802.11ax HE20, Channel No.:52

U-NII-2A, 802.11ax HE40, Channel No.: 54

U-NII-2A, 802.11ax HE20, Channel No.: 60

U-NII-2A, 802.11ax HE40, Channel No.: 62



U-NII-2A, 802.11ax HE20, Channel No.: 64

U-NII-2A, 802.11ax HE80, Channel No.: 58

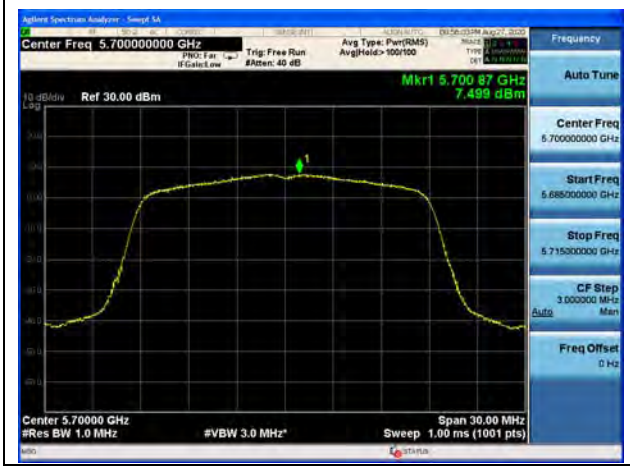
U-NII-2C, 802.11n HT20, Channel No.: 100

U-NII-2C, 802.11n HT40, Channel No.: 102

U-NII-2C, 802.11n HT20, Channel No.: 116

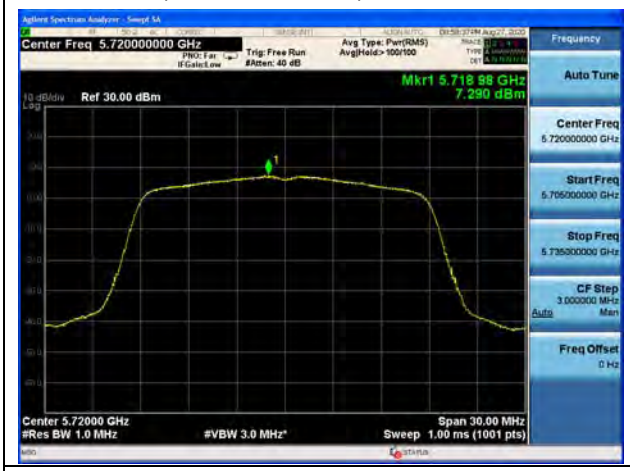
U-NII-2C, 802.11n HT40, Channel No.: 110

U-NII-2C, 802.11n HT20, Channel No.: 140



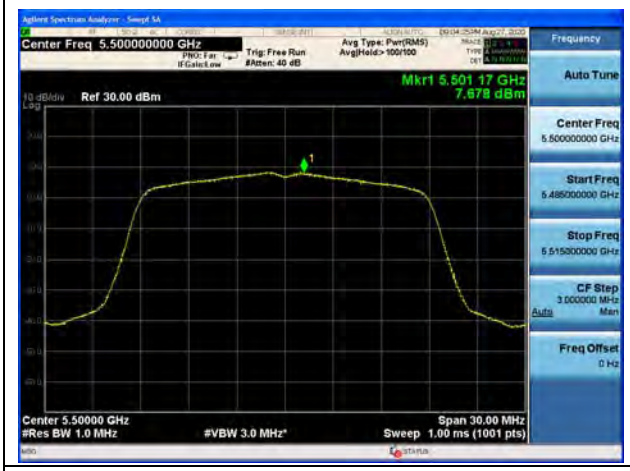
U-NII-2C, 802.11n HT40, Channel No.: 134

U-NII-2C, 802.11n HT20, Channel No.: 144



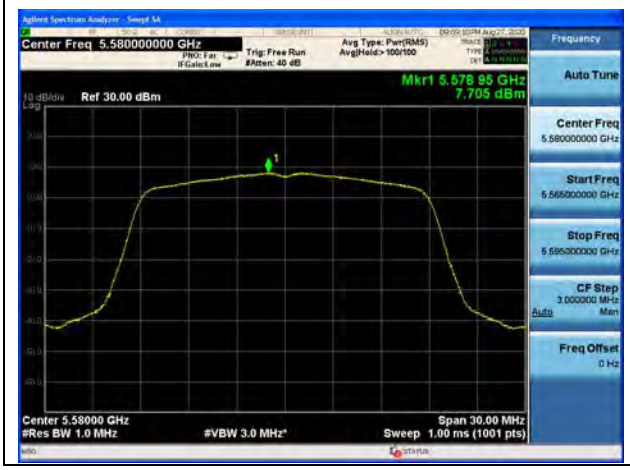
U-NII-2C, 802.11n HT40, Channel No.: 142

U-NII-2C, 802.11ac VHT20, Channel No.: 100



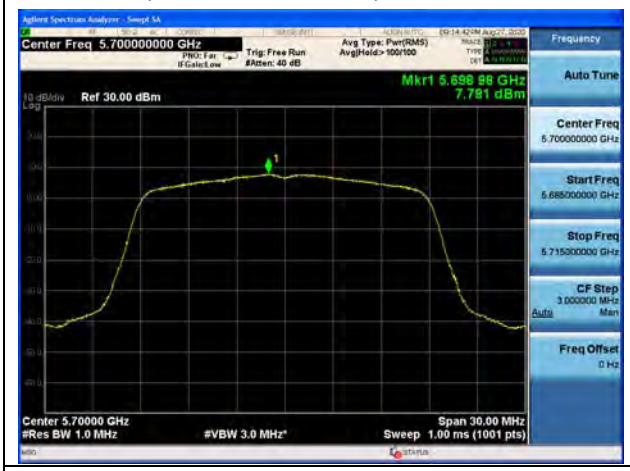
U-NII-2C, 802.11ac VHT40, Channel No.: 102

U-NII-2C, 802.11ac VHT20, Channel No.: 116

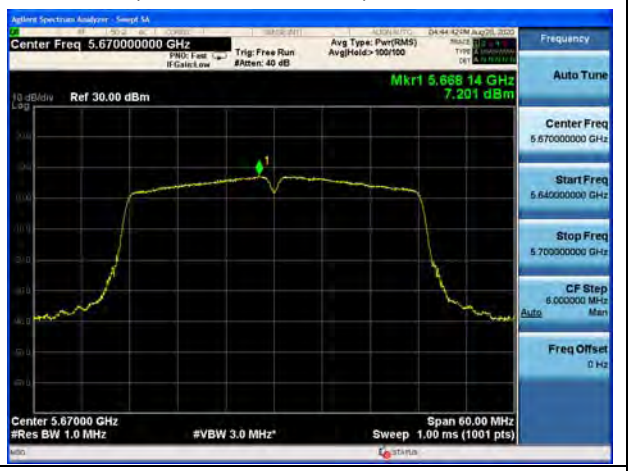


U-NII-2C, 802.11ac VHT40, Channel No.: 110

U-NII-2C, 802.11ac VHT20, Channel No.: 140

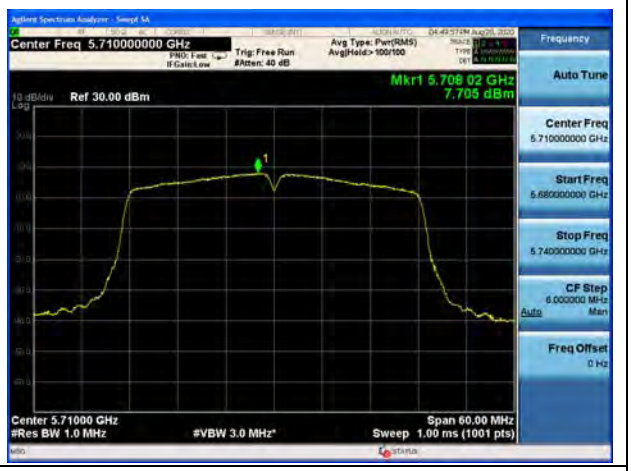


U-NII-2C, 802.11ac VHT40, Channel No.: 134



U-NII-2C, 802.11ac VHT20, Channel No.: 144

U-NII-2C, 802.11ac VHT40, Channel No.: 142



U-NII-2C, 802.11ac VHT80, Channel No.: 106

U-NII-2C, 802.11ax HE20, Channel No.: 100