RF TEST REPORT

Applicant	ZTE Corporation
FCC ID	SRQ-ZTEA2322G
Product	5G Digital Mobile Phone
Model	ZTE A2322G
Report No.	R2105A0447-R8
Issue Date	August 11, 2021

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

Prepared by: Peng Tao | *Approved by: Kai Xu*

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Summary of measurement results

Number	Test Case	Clause in FCC rules	Verdict
1	Average output power	15.407(a)	PASS
2	Occupied bandwidth	15.407(e)	PASS
3	Frequency stability	15.407(g)	PASS
4	Power spectral density	15.407(a)	PASS
5	Unwanted Emissions	15.407(b)	PASS
6	Conducted Emissions	15.207	PASS

Date of Testing: June 1, 2021 ~ August 2, 2021
Date of Sample Received: May 25, 2021

Note: PASS: The EUT complies with the essential requirements in the standard.
FAIL: The EUT does not comply with the essential requirements in the standard.
All indications of Pass/Fail in this report are opinions expressed by TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.

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1. Test Laboratory

1.1. Notes of the test report

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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
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Website:	http://www.ta-shanghai.com
E-mail:	xukai@ta-shanghai.com

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2. General Description of Equipment under Test

2.1. Applicant and Manufacturer Information

Applicant	ZTE Corporation
Applicant address	ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China
Manufacturer	ZTE Corporation
Manufacturer address	ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

2.2. General information

EUT Description	
Model	ZTE A2322G
IMEI	IMEI 1: 867210050001095 IMEI 2:867210050002697
Hardware Version	ZTE A2322GHW1.0
Software Version 1	GEN_NA_A2322G_V1.0
Software Version 2	TEL_MX_ZTE_A2322G_V1.0
Power Supply	Battery / AC adapter
Antenna Type	Internal Antenna
Antenna Gain	Antenna 1: -0.3dBi Antenna 2: -0.8dBi
Directional Gain	Beamforming Mode for Power: -0.31dBi Beamforming Mode for PSD: 2.70dBi
Test Band	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
Max. Conducted Power	20.67dBm
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)
Extreme temperature range:	-30 ° C to 50° C
Operating temperature range:	-10 ° C to 45° C
Operating voltage range:	3.6V to 4.2V

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State DC voltage:	3.87V
EUT Accessory	
Adapter	Manufacturer: Shenzhen KunXing Industrial Co Ltd Model: STC-A59152050AC-Z
Battery	Manufacturer: Ningde Amperex Technology Limited Model: Li3941T44PGh836548
Earphone 1	Manufacturer: Shen zhen FDC Electronic Co.,Ltd. Model: DEM-9B
Earphone 2	Manufacturer: JUWEI ELECTRONICS CO.,LTD Model: JWEP1092-Z01
USB Cable 1	Manufacturer: King Power Electronics Co.,Ltd Model: TC20-TC20-W-100-M-6A-HSF
USB Cable 2	Manufacturer: Luxshare-ICT Co., Ltd Model: TC20-TC20-W-100-M-6A-HSF
Type-C to 3.5 mm Headphone Jack Adapter	Manufacture: HUIZHOU JUWEI ELECTRONICS CO. ,LTD Model: JWUB1389-Z01

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 Earphone /USB cable, each one should be applied throughout the compliance test respectively, and however, only the worst case (USB cable 1and Earphone 2) will be recorded in this report.

3. The two different software versions are for different market requirement.

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3. Applied Standards

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

Test standards:

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

ANSI C63.10 (2013)

Reference standard:

KDB 789033 D02 General UNII Test Procedures New Rules v02r01

KDB 662911 D01 Multiple Transmitter Output v02r01

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4. Test Configuration

Test Mode

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

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

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

Worst-case data rates are shown as following table.

Mode	Data Rate		
	Antenna 1	Antenna 2	MIMO
802.11a	6 Mbps	6 Mbps	/
802.11n HT20	MCS0	MCS0	MCS8
802.11n HT40	MCS0	MCS0	MCS8
802.11ac VHT20	MCS0	MCS0	MCS0
802.11ac VHT40	MCS0	MCS0	MCS0
802.11ac VHT80	MCS0	MCS0	MCS0
802.11ax-HE20	MCS0	MCS0	MCS0
802.11ax-HE40	MCS0	MCS0	MCS0
802.11ax-HE80	MCS0	MCS0	MCS0

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

TB Mode

Test Cases	SISO Antenna 1	SISO Antenna 2	MIMO
Average conducted output power	O	O	**RU Mode** **802.11n HT20** **802.11n HT40** **802.11ac VHT20** **802.11ac VHT40** **802.11ac VHT80** **802.11ax-HE20** **802.11ax-HE40** **802.11ax-HE80** **TB Mode MU 802.11ax HE20** (26-Tones:RU Index 0/4/8, 52-Tones:RU Index 37/38/40, 106-Tones:RU Index 53/54) **TB Mode SU 802.11ax HE20** (242-Tones:RU Index 61) **TB Mode SU 802.11ax HE40** (484-Tones:RU Index 65) **TB Mode SU 802.11ax HE80** (996-Tones:RU Index 67)
Occupied bandwidth	O	--	--
Frequency stability	**802.11a**	--	--
Power Spectral Density	O	O	**RU Mode** **802.11n HT20** **802.11n HT40** **802.11ac VHT20** **802.11ac VHT40** **802.11ac VHT80** **802.11ax-HE20** **802.11ax-HE40** **802.11ax-HE80** **TB Mode MU 802.11ax HE20** (26-Tones:RU Index 0/4/8, 52-Tones:RU Index 37/38/40, 106-Tones:RU Index 53/54) **TB Mode SU 802.11ax HE20** (242-Tones:RU Index 61) **TB Mode SU 802.11ax HE40** (484-Tones:RU Index 65) **TB Mode SU 802.11ax HE80** (996-Tones:RU Index 67)
Unwanted	**802.11a**	-	**802.11n HT20**

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Emissions			**802.11n HT40** **802.11ac VHT20** **802.11ac VHT40** **802.11ac VHT80** **802.11ax HE20** **802.11ax HE40** **802.11ax HE80**
Conducted Emissions	O	-	-
Note：“O”: test all bands			

According to RF Output power results in chapter 5.1, MIMO was selected as the worst antenna for 802.11n HT20/40, 802.11ac VHT20/40/80,802.11ax HE20/40/80. SISO Antenna 1 was selected as the worst SISO antenna.

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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
		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				

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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.

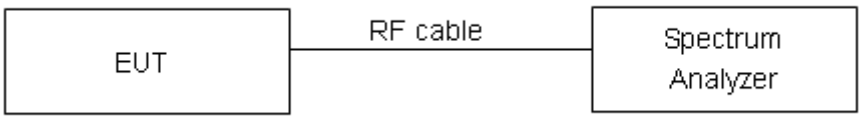
For U-NII-1/U-NII-2A/U-NII-2C, set RBW ≈1% OCB kHz, VBW ≥ 3 × RBW, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 26 dB relative to the maximum level measured in the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

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Test Results:

RU Mode

U-NII-1

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5180	16.321	18.55	PASS
	5200	16.315	18.47	PASS
	5240	16.318	18.33	PASS
802.11n HT20	5180	17.540	19.62	PASS
	5200	17.559	22.67	PASS
	5240	17.557	20.75	PASS
802.11n HT40	5190	36.041	39.45	PASS
	5230	36.041	39.57	PASS
802.11ac VHT20	5180	17.550	20.71	PASS
	5200	17.575	22.19	PASS
	5240	17.563	20.46	PASS
802.11ac VHT40	5190	36.065	40.78	PASS
	5230	36.056	40.91	PASS
802.11ac VHT80	5210	75.346	80.39	PASS
802.11ax-HE20	5180	18.887	20.70	PASS
	5200	18.872	20.60	PASS
	5240	18.875	20.66	PASS
802.11ax-HE40	5190	37.694	39.95	PASS
	5230	37.638	39.67	PASS
802.11ax-HE 80	5210	77.009	81.00	PASS

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U-NII-2A

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5260	16.322	18.51	PASS
	5300	16.327	18.86	PASS
	5320	16.337	18.45	PASS
802.11n HT20	5260	17.521	19.75	PASS
	5300	17.521	19.79	PASS
	5320	17.528	19.89	PASS
802.11n HT40	5270	35.938	39.19	PASS
	5310	35.958	39.38	PASS
802.11ac VHT20	5260	17.527	19.93	PASS
	5300	17.519	19.76	PASS
	5320	17.527	19.79	PASS
802.11ac VHT40	5270	35.958	39.19	PASS
	5310	35.955	38.90	PASS
802.11ac VHT80	5290	75.359	81.59	PASS
802.11ax-HE20	5260	18.881	20.14	PASS
	5300	18.873	20.41	PASS
	5320	18.854	20.35	PASS
802.11ax-HE40	5270	37.630	40.01	PASS
	5310	37.671	39.69	PASS
802.11ax-HE 80	5290	77.086	81.21	PASS

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U-NII-2C

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5500	16.314	18.53	PASS
	5580	16.311	18.97	PASS
	5700	16.331	18.46	PASS
	5720	16.318	18.47	PASS
802.11n HT20	5500	17.524	19.72	PASS
	5580	17.516	19.54	PASS
	5700	17.517	19.54	PASS
	5720	17.525	19.59	PASS
802.11n HT40	5510	35.960	39.35	PASS
	5550	35.984	39.17	PASS
	5670	35.980	39.16	PASS
	5710	35.962	39.37	PASS
802.11ac VHT20	5500	17.514	19.85	PASS
	5580	17.523	19.50	PASS
	5700	17.523	19.53	PASS
	5720	17.519	19.64	PASS
802.11ac VHT40	5510	35.967	39.20	PASS
	5550	35.952	39.38	PASS
	5670	36.017	39.43	PASS
	5710	35.934	38.95	PASS
802.11ac VHT80	5530	75.466	81.19	PASS
	5690	75.469	81.81	PASS
802.11ax-HE20	5500	18.855	20.67	PASS
	5580	18.893	20.52	PASS
	5700	18.893	20.34	PASS
	5720	18.839	20.35	PASS
802.11ax-HE40	5510	37.711	40.05	PASS
	5550	37.656	39.77	PASS
	5670	37.645	39.82	PASS
	5710	37.594	39.85	PASS
802.11ax-HE 80	5530	77.154	80.93	PASS
	5690	77.241	81.23	PASS

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U-NII-3

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 6 dB bandwidth (MHz)	Limit (kHz)	Conclusion
802.11a	5745	16.320	16.27	500	PASS
	5785	16.328	16.29	500	PASS
	5825	16.324	16.07	500	PASS
802.11n HT20	5745	17.522	17.30	500	PASS
	5785	17.518	16.68	500	PASS
	5825	17.511	16.92	500	PASS
802.11n HT40	5755	36.001	35.17	500	PASS
	5795	35.976	34.63	500	PASS
802.11ac VHT20	5745	17.527	17.30	500	PASS
	5785	17.509	17.51	500	PASS
	5825	17.522	17.13	500	PASS
802.11ac VHT40	5755	36.037	35.93	500	PASS
	5795	35.962	34.45	500	PASS
802.11ac VHT80	5775	75.456	74.66	500	PASS
802.11ax-HE20	5745	18.884	18.36	500	PASS
	5785	18.865	18.70	500	PASS
	5825	18.864	18.43	500	PASS
802.11ax-HE40	5755	37.639	37.99	500	PASS
	5795	37.616	36.04	500	PASS
802.11ax-HE 80	5775	77.207	77.32	500	PASS

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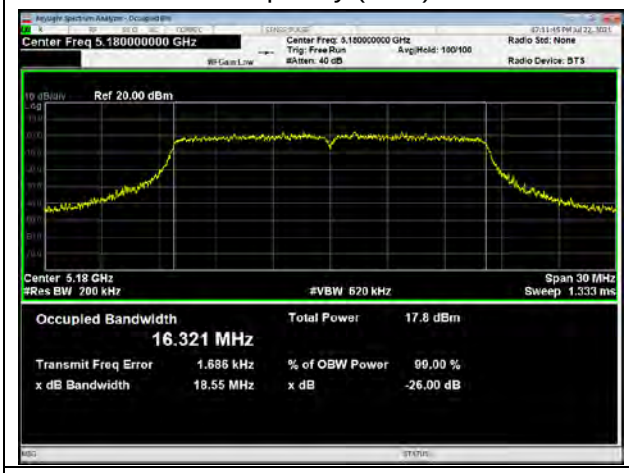
U-NII-1, 802.11a

Carrier frequency (MHz): 5180

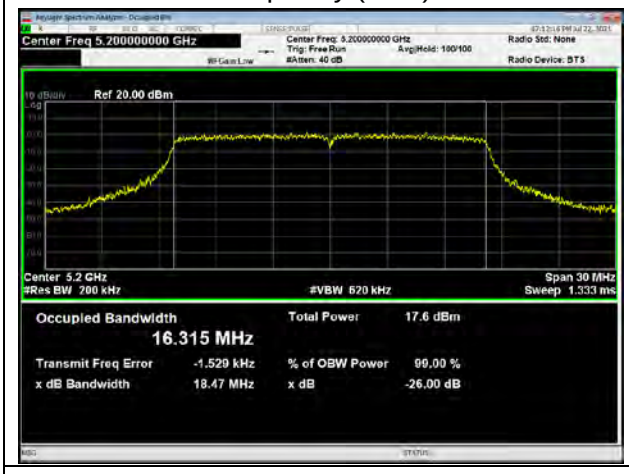


U-NII-1, 802.11n HT20

Carrier frequency (MHz): 5180

U-NII-1, 802.11a

Carrier frequency (MHz): 5200

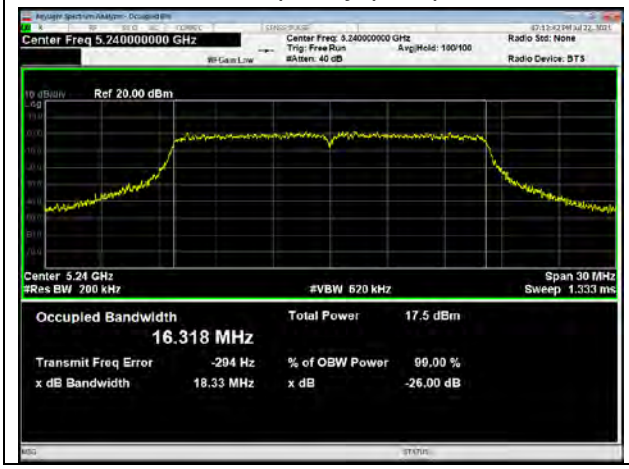


U-NII-1, 802.11n HT20

Carrier frequency (MHz): 5200

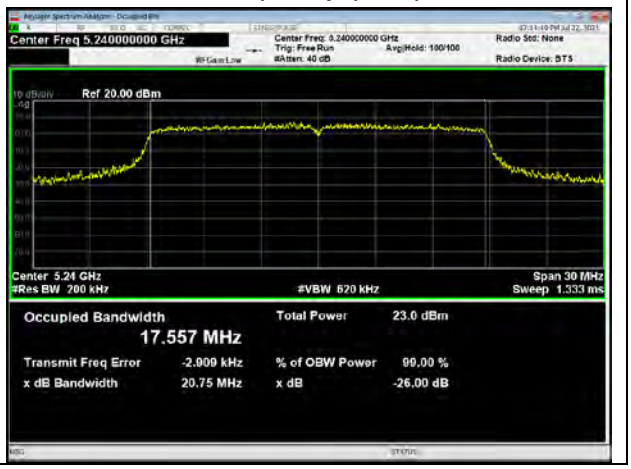
U-NII-1, 802.11a

Carrier frequency (MHz):5240



U-NII-1, 802.11n HT20

Carrier frequency (MHz):5240



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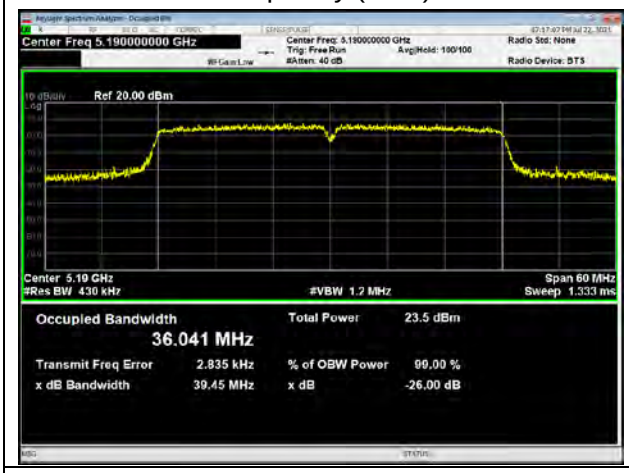
U-NII-1, 802.11n HT40

Carrier frequency (MHz): 5190

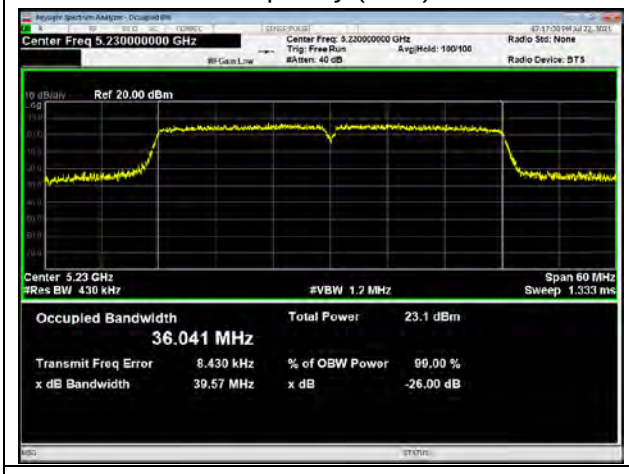


U-NII-1, 802.11ac VHT20

Carrier frequency (MHz): 5180

U-NII-1, 802.11n HT40

Carrier frequency (MHz): 5230

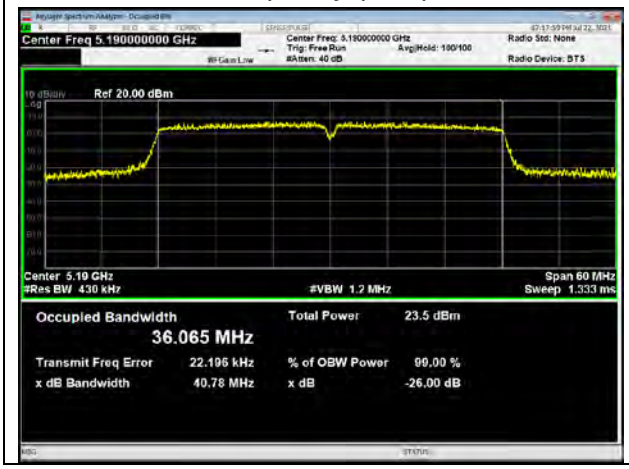


U-NII-1, 802.11ac VHT20

Carrier frequency (MHz): 5200

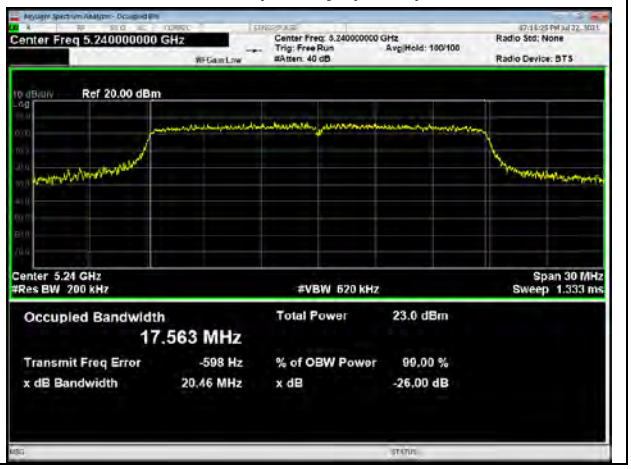
U-NII-1, 802.11ac VHT40

Carrier frequency (MHz): 5190



U-NII-1, 802.11ac VHT20

Carrier frequency (MHz):5240



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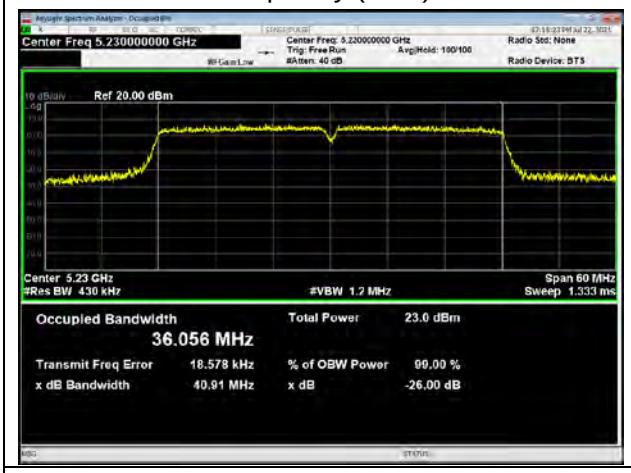
U-NII-1, 802.11ac VHT40

Carrier frequency (MHz): 5230



U-NII-1, 802.11ac VHT80

Carrier frequency (MHz): 5210

U-NII-1, 802.11ax HE20

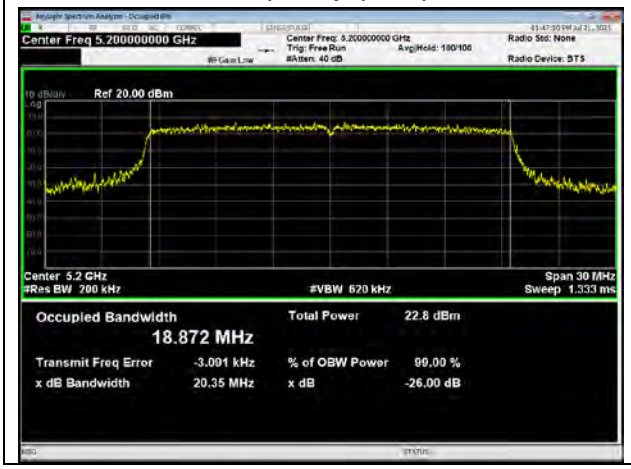
Carrier frequency (MHz): 5180

U-NII-1, 802.11ax HE40

Carrier frequency (MHz): 5190

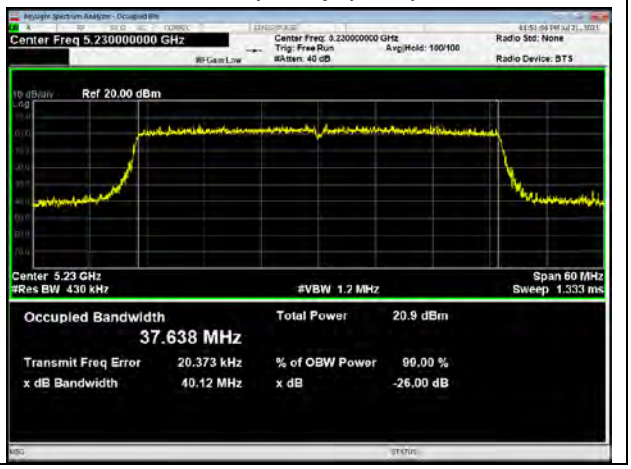
U-NII-1, 802.11ax HE20

Carrier frequency (MHz): 5200



U-NII-1, 802.11ax HE40

Carrier frequency (MHz): 5230



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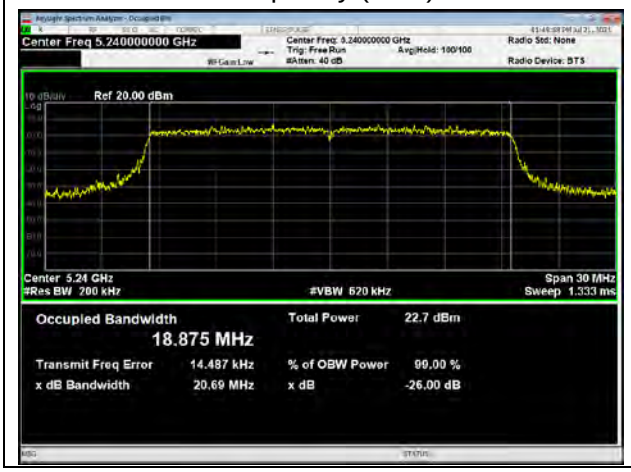
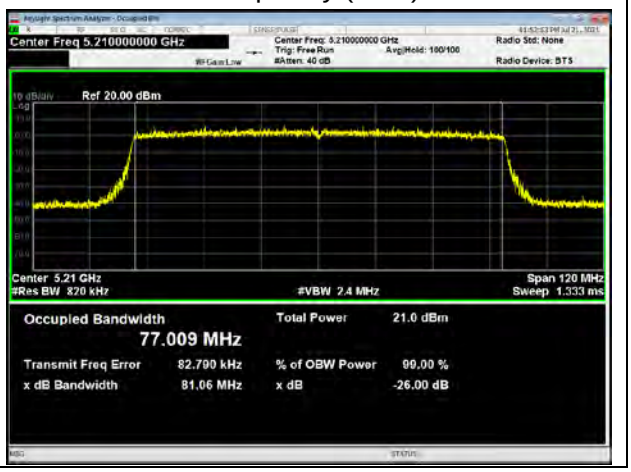
U-NII-1, 802.11ax HE20 Carrier frequency (MHz):5240	U-NII-1, 802.11ax HE80 Carrier frequency (MHz): 5210
	

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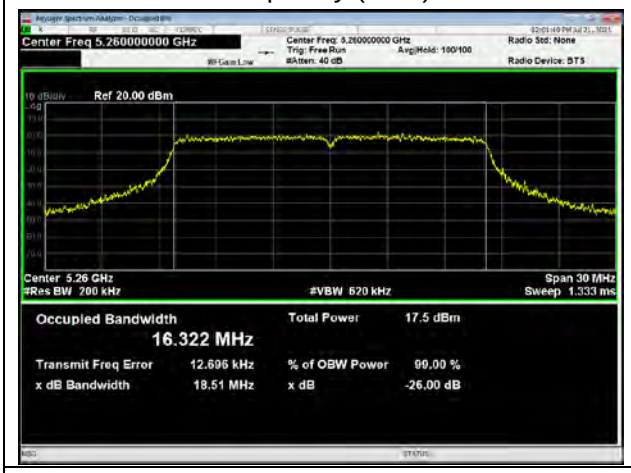
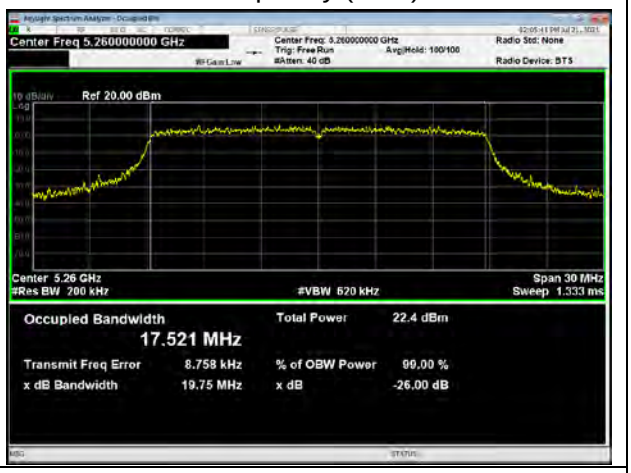
U-NII-2A, 802.11a

Carrier frequency (MHz): 5260



U-NII-2A, 802.11n HT20

Carrier frequency (MHz): 5260



U-NII-2A, 802.11a

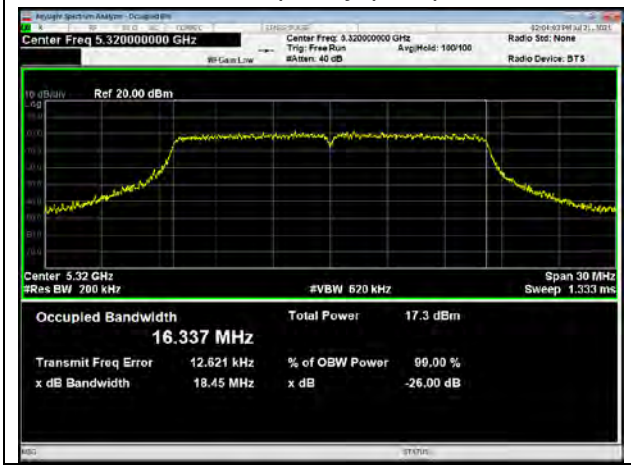
Carrier frequency (MHz): 5300

U-NII-2A, 802.11n HT20

Carrier frequency (MHz): 5300

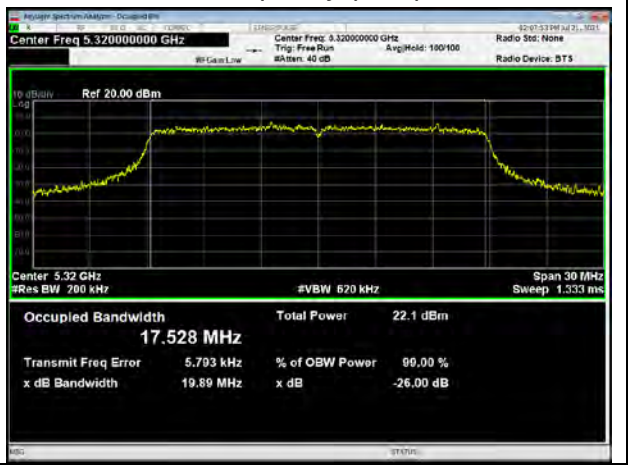
U-NII-2A, 802.11a

Carrier frequency (MHz):5320



U-NII-2A, 802.11n HT20

Carrier frequency (MHz):5320



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U-NII-2A, 802.11n HT40

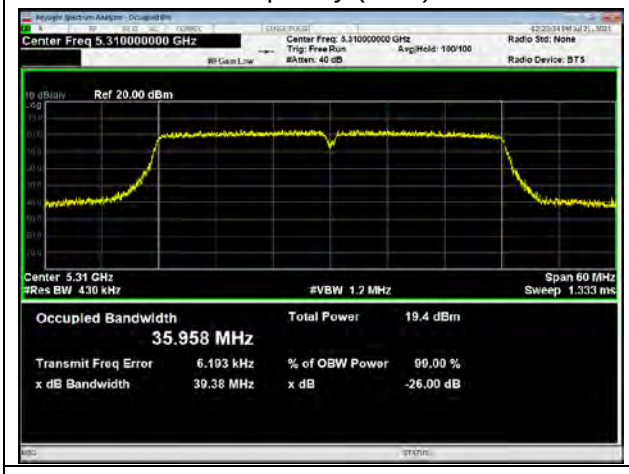
Carrier frequency (MHz): 5270

U-NII-2A, 802.11ac VHT20

Carrier frequency (MHz):5260

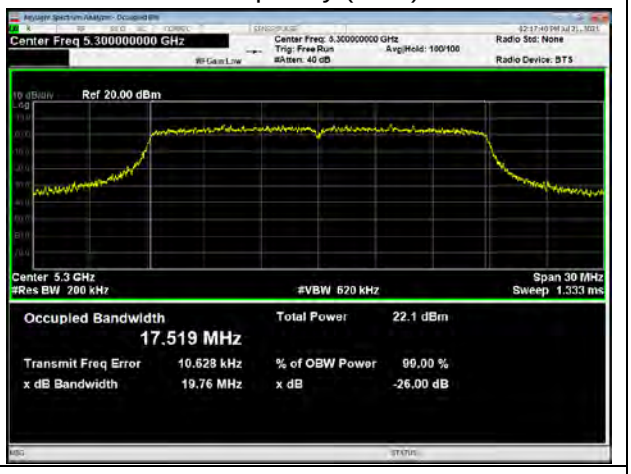
U-NII-2A, 802.11n HT40

Carrier frequency (MHz): 5310



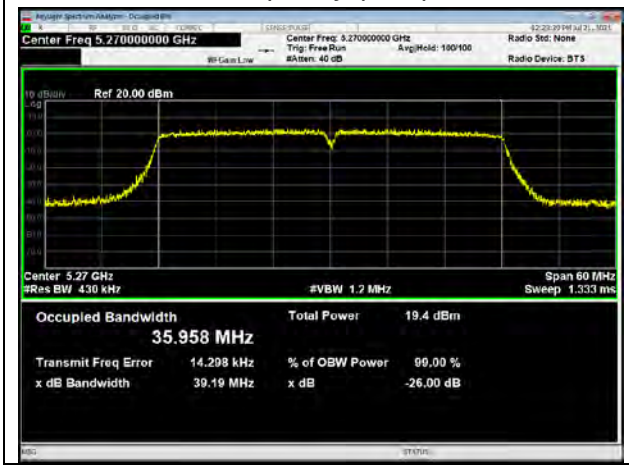
U-NII-2A, 802.11ac VHT20

Carrier frequency (MHz): 5300



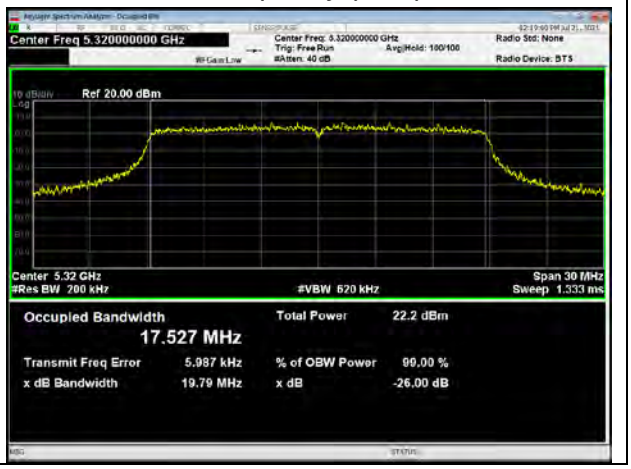
U-NII-2A, 802.11ac VHT40

Carrier frequency (MHz): 5270



U-NII-2A, 802.11ac VHT20

Carrier frequency (MHz):5320



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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

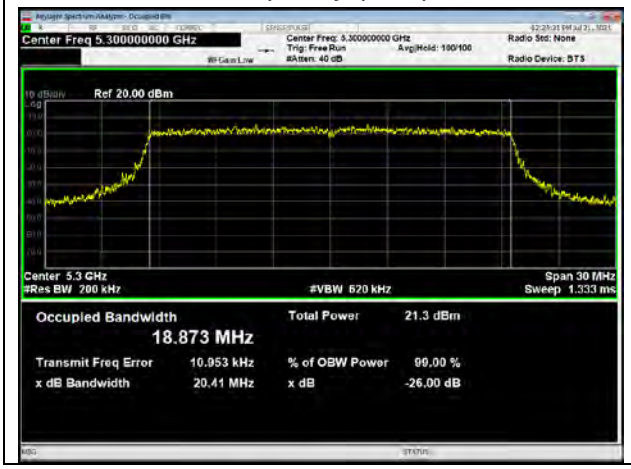
Carrier frequency (MHz):5260

U-NII-2A, 802.11ax HE40

Carrier frequency (MHz): 5270

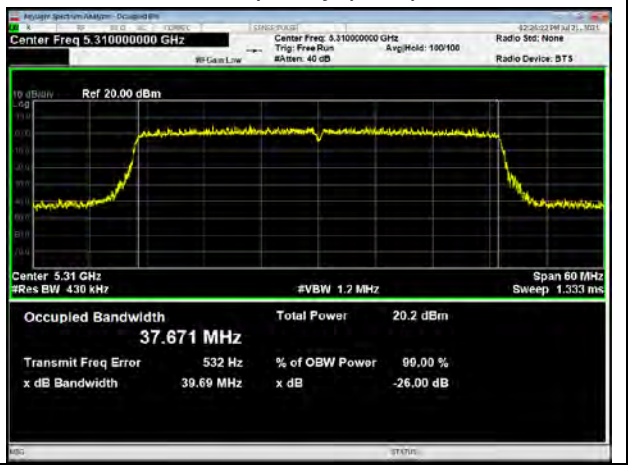
U-NII-2A, 802.11ax HE20

Carrier frequency (MHz): 5300



U-NII-2A, 802.11ax HE40

Carrier frequency (MHz): 5310



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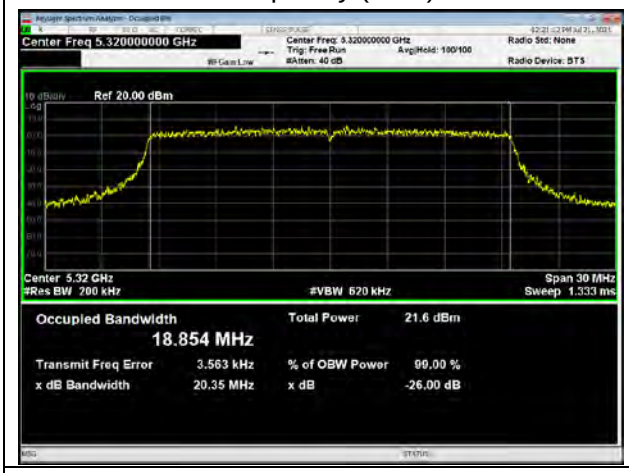
U-NII-2A, 802.11ax HE20

Carrier frequency (MHz):5320

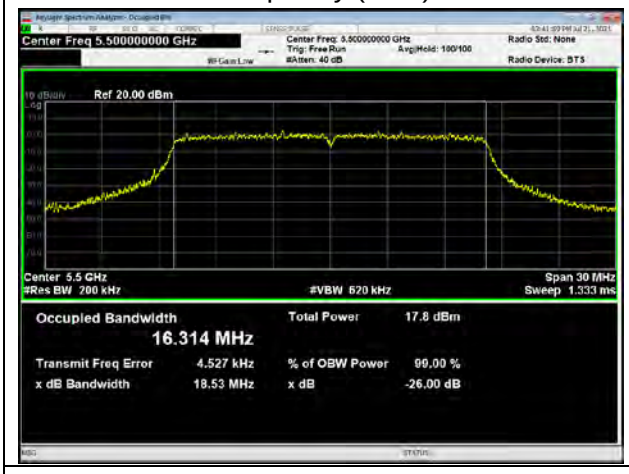


U-NII-2A, 802.11ax HE80

Carrier frequency (MHz): 5290

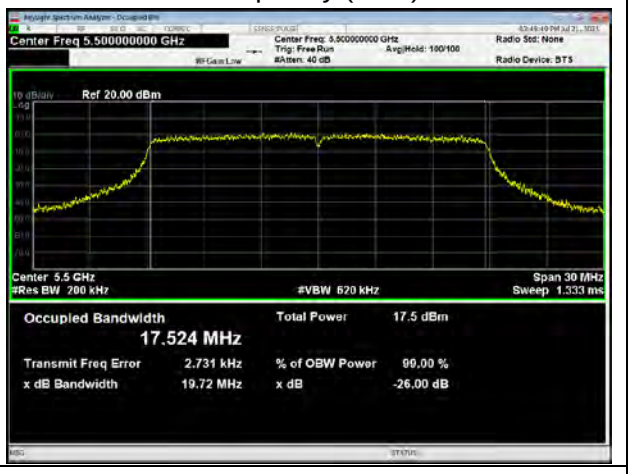
U-NII-2C, 802.11a

Carrier frequency (MHz): 5500



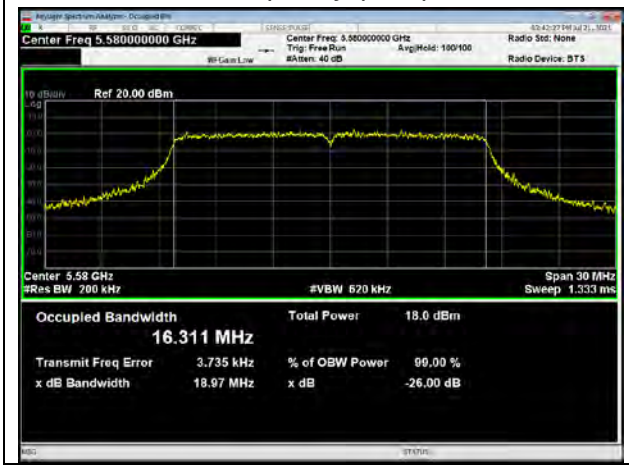
U-NII-2C, 802.11n HT20

Carrier frequency (MHz): 5500



U-NII-2C, 802.11a

Carrier frequency (MHz): 5580



U-NII-2C, 802.11n HT20

Carrier frequency (MHz): 5580

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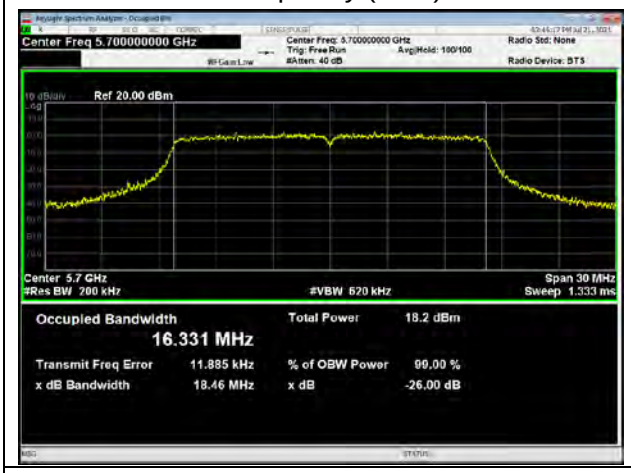
U-NII-2C, 802.11a

Carrier frequency (MHz):5700

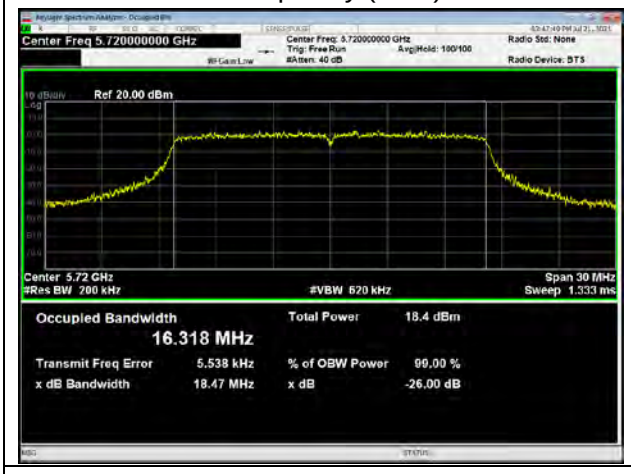


U-NII-2C, 802.11n HT20

Carrier frequency (MHz):5700

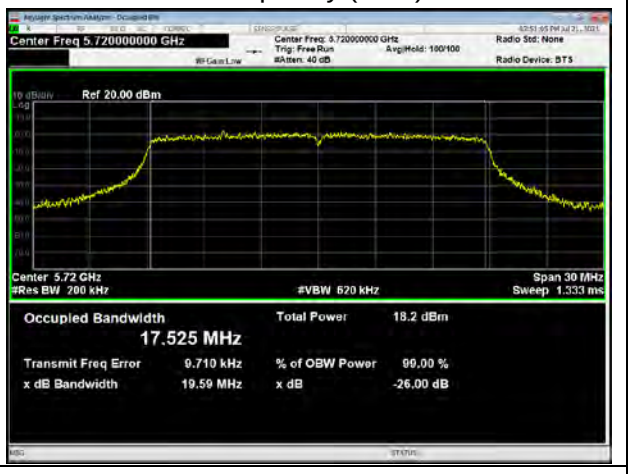
U-NII-2C, 802.11a

Carrier frequency (MHz):5720



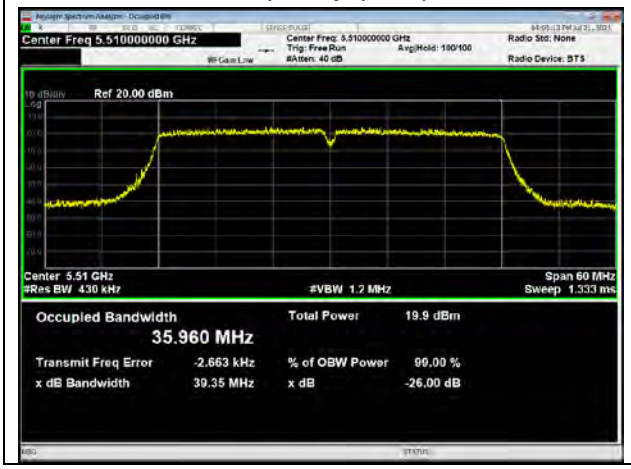
U-NII-2C, 802.11n HT20

Carrier frequency (MHz):5720



U-NII-2C, 802.11n HT40

Carrier frequency (MHz): 5510



U-NII-2C, 802.11ac VHT20

Carrier frequency (MHz): 5500

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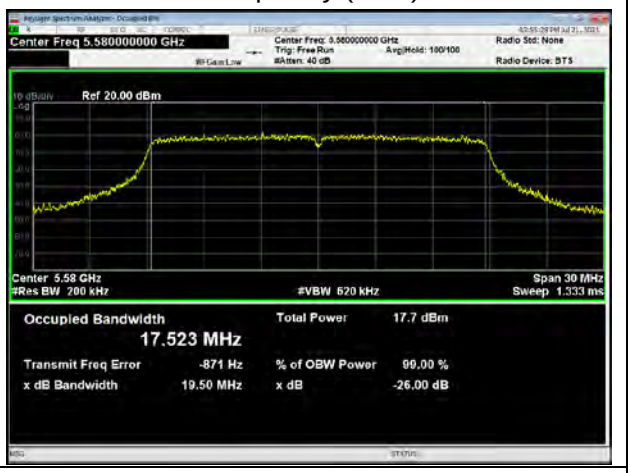
U-NII-2C, 802.11n HT40

Carrier frequency (MHz): 5550

U-NII-2C, 802.11ac VHT20

Carrier frequency (MHz): 5580

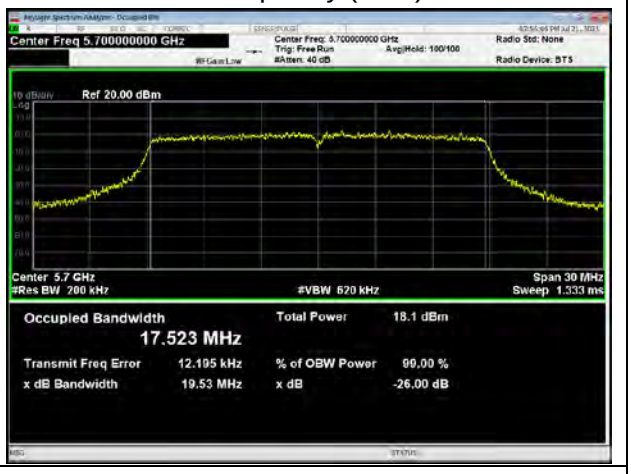


U-NII-2C, 802.11n HT40

Carrier frequency (MHz): 5670

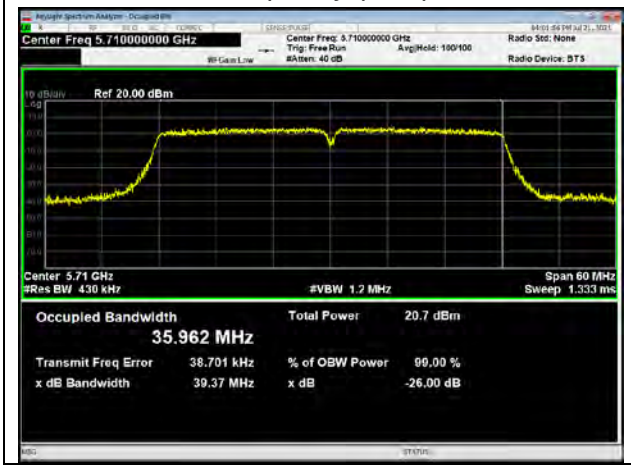
U-NII-2C, 802.11ac VHT20

Carrier frequency (MHz):5700



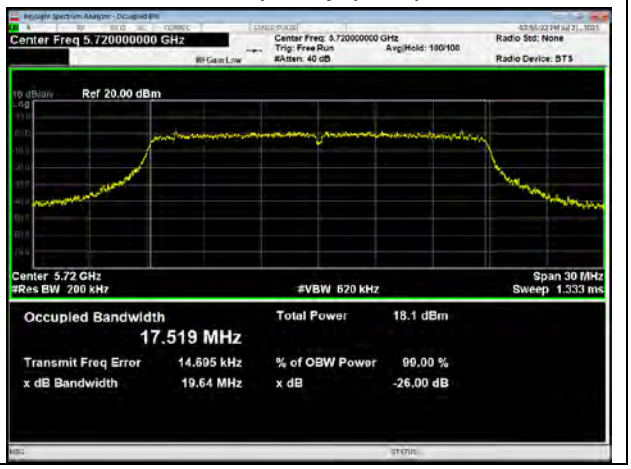
U-NII-2C, 802.11n HT40

Carrier frequency (MHz): 5710



U-NII-2C, 802.11ac VHT20

Carrier frequency (MHz):5720



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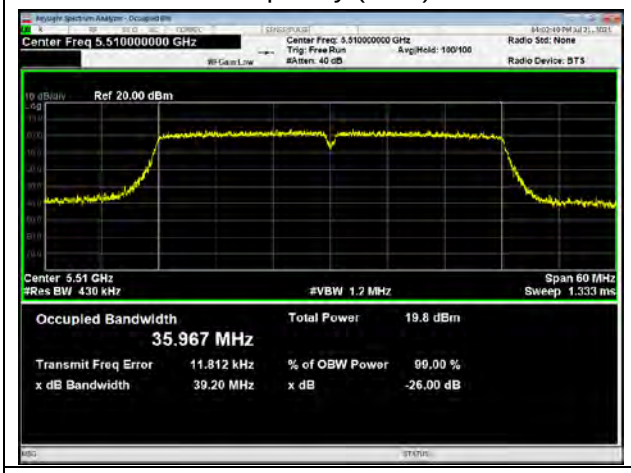
U-NII-2C, 802.11ac VHT40

Carrier frequency (MHz): 5510



U-NII-2C, 802.11ac VHT80

Carrier frequency (MHz): 5530

U-NII-2C, 802.11ac VHT40

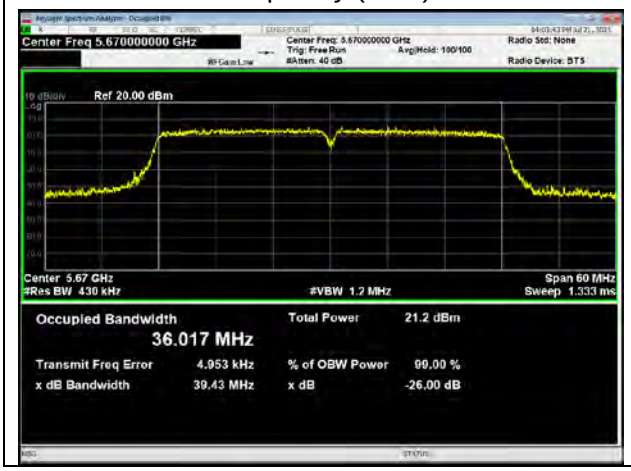
Carrier frequency (MHz): 5550

U-NII-2C, 802.11ac VHT80

Carrier frequency (MHz): 5690

U-NII-2C, 802.11ac VHT40

Carrier frequency (MHz): 5670



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U-NII-2C, 802.11ac VHT40

Carrier frequency (MHz): 5710

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U-NII-2C, 802.11ax HE20

Carrier frequency (MHz): 5500

U-NII-2C, 802.11ax HE40

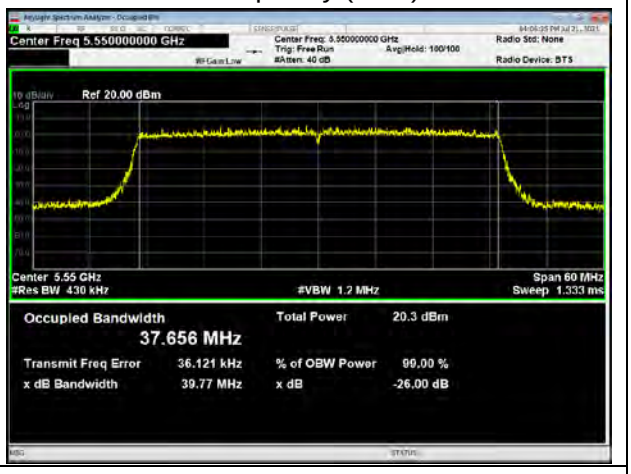
Carrier frequency (MHz): 5510

U-NII-2C, 802.11ax HE20

Carrier frequency (MHz): 5580

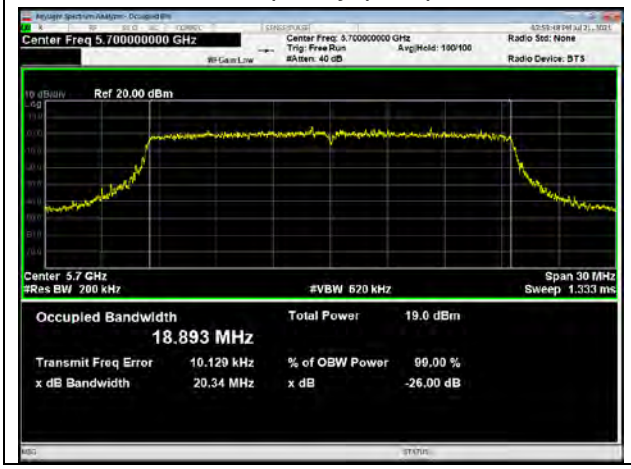
U-NII-2C, 802.11ax HE40

Carrier frequency (MHz): 5550



U-NII-2C, 802.11ax HE20

Carrier frequency (MHz):5700



U-NII-2C, 802.11ax HE40

Carrier frequency (MHz): 5670

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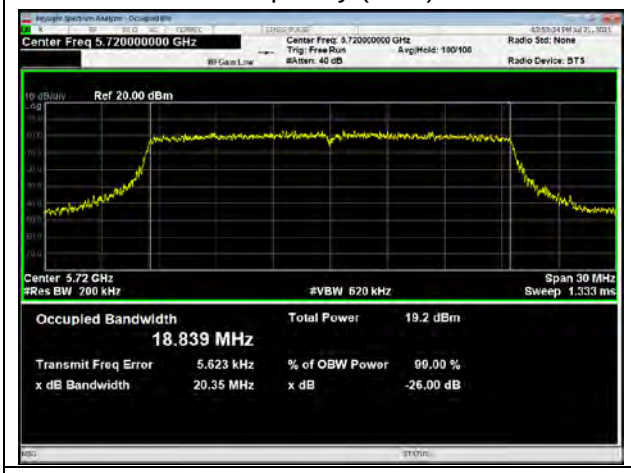
U-NII-2C, 802.11ax HE20

Carrier frequency (MHz):5720

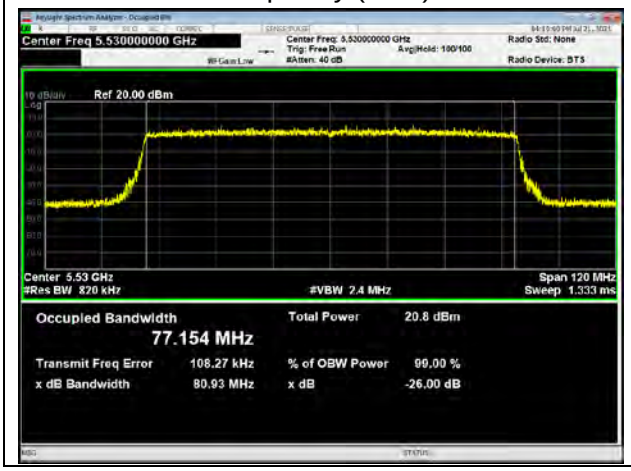


U-NII-2C, 802.11ax HE40

Carrier frequency (MHz): 5710

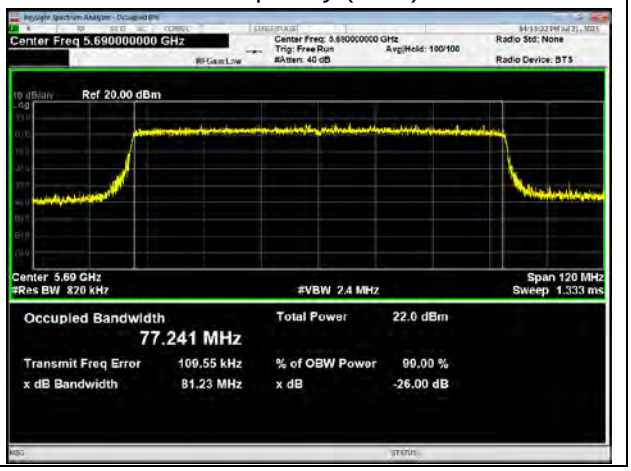
U-NII-2C, 802.11ax HE80

Carrier frequency (MHz): 5530



U-NII-2C, 802.11ax HE80

Carrier frequency (MHz): 5690



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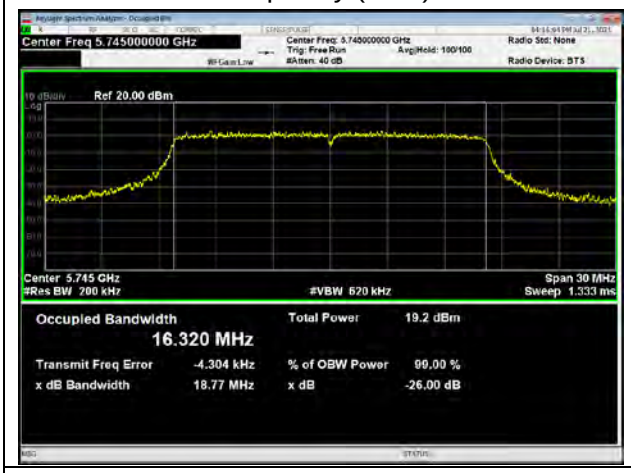
99% bandwidth

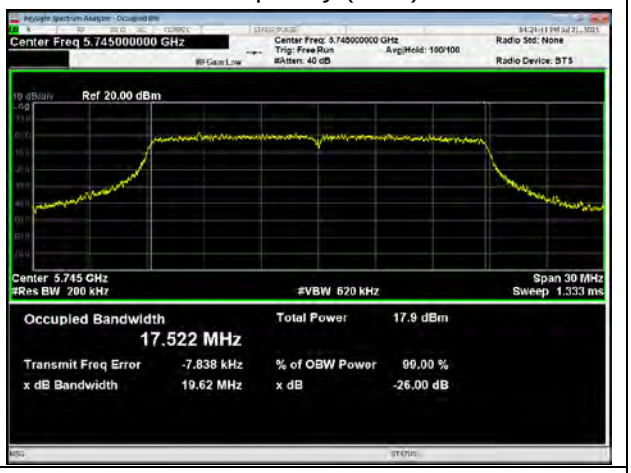
U-NII-3, 802.11a

Carrier frequency (MHz): 5745



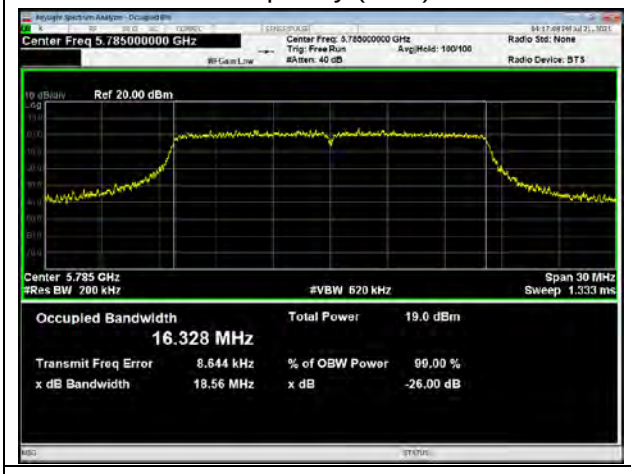
U-NII-3, 802.11n HT20

Carrier frequency (MHz): 5745



U-NII-3, 802.11a

Carrier frequency (MHz): 5785

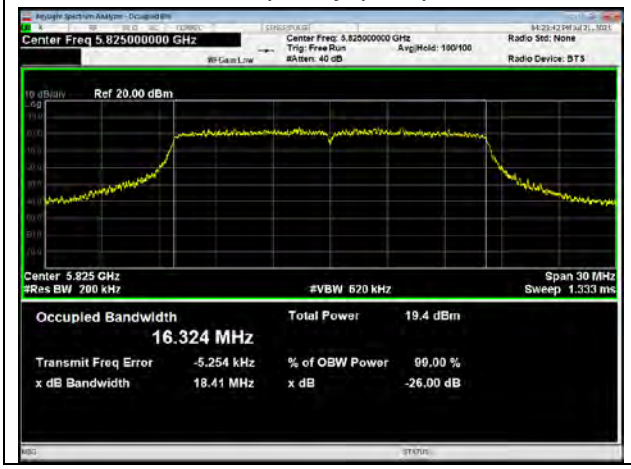


U-NII-3, 802.11n HT20

Carrier frequency (MHz): 5785

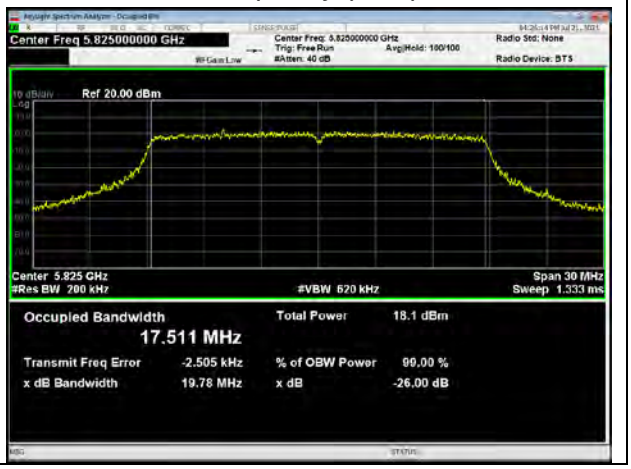
U-NII-3, 802.11a

Carrier frequency (MHz): 5825



U-NII-3, 802.11n HT20

Carrier frequency (MHz): 5825



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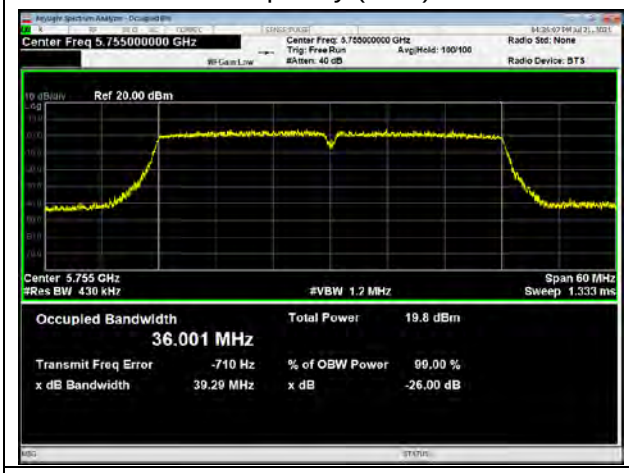
U-NII-3, 802.11n HT40

Carrier frequency (MHz): 5755

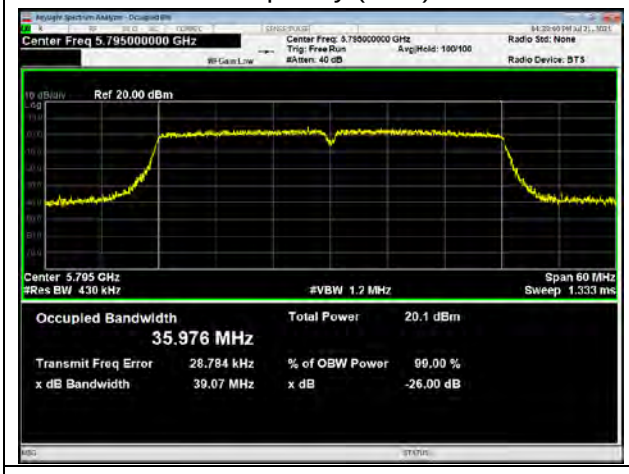


U-NII-3, 802.11ac VHT20

Carrier frequency (MHz): 5745

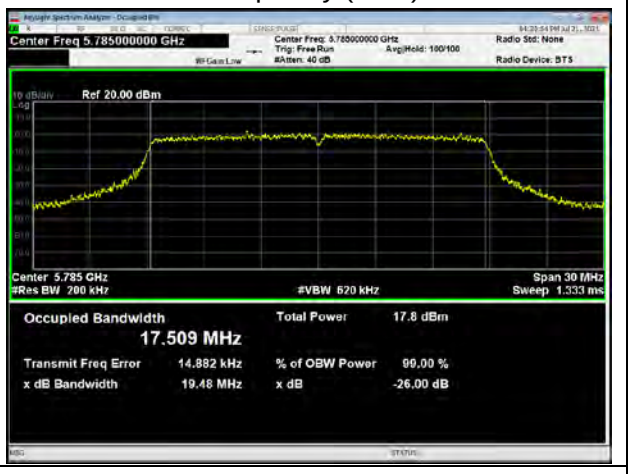
U-NII-3, 802.11n HT40

Carrier frequency (MHz): 5795



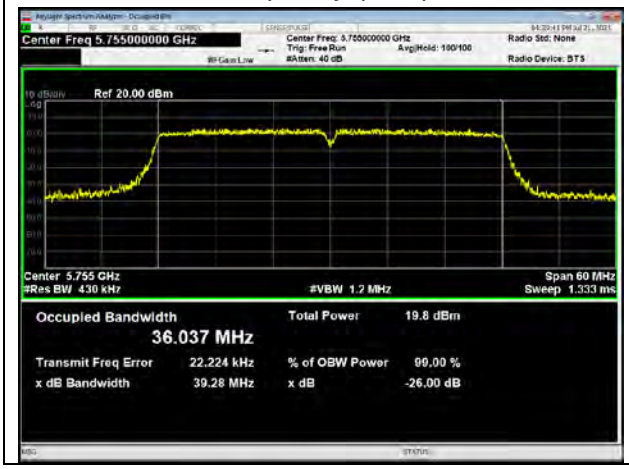
U-NII-3, 802.11ac VHT20

Carrier frequency (MHz): 5785



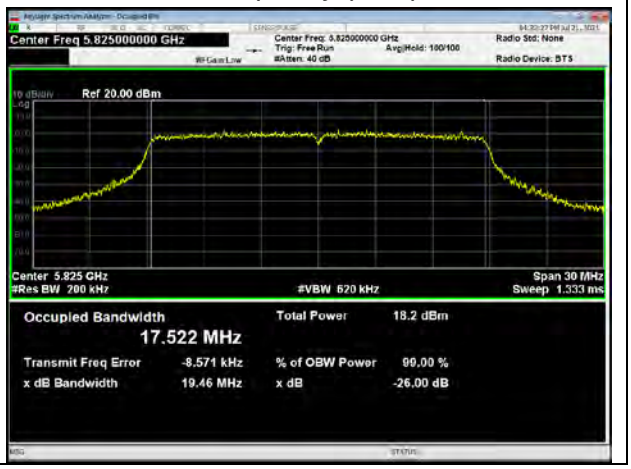
U-NII-3, 802.11ac VHT40

Carrier frequency (MHz): 5755



U-NII-3, 802.11ac VHT20

Carrier frequency (MHz): 5825



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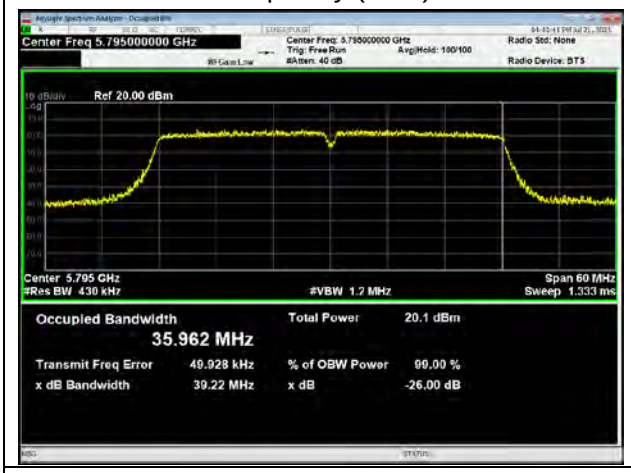
U-NII-3, 802.11ac VHT40

Carrier frequency (MHz): 5795



U-NII-3, 802.11ac VHT80

Carrier frequency (MHz): 5775

U-NII-3, 802.11ax HE20

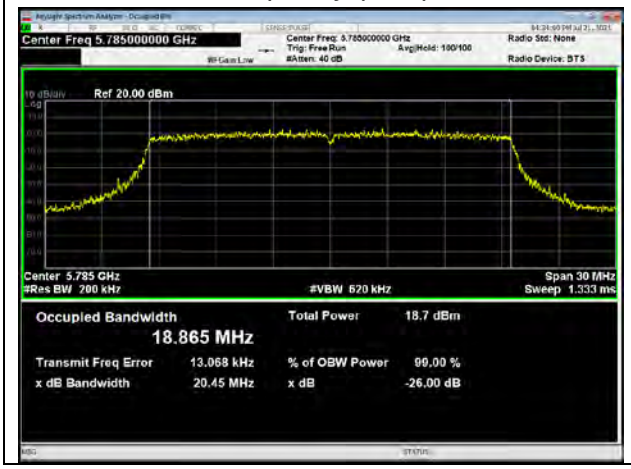
Carrier frequency (MHz): 5745

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

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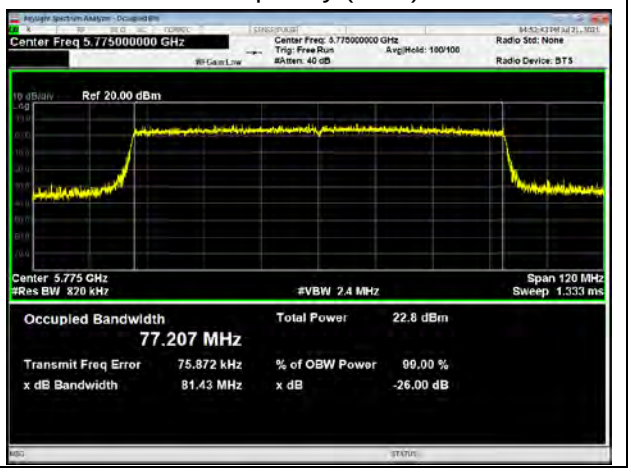
U-NII-3, 802.11ax HE20 Carrier frequency (MHz): 5825	U-NII-3, 802.11ax HE80 Carrier frequency (MHz): 5775
	

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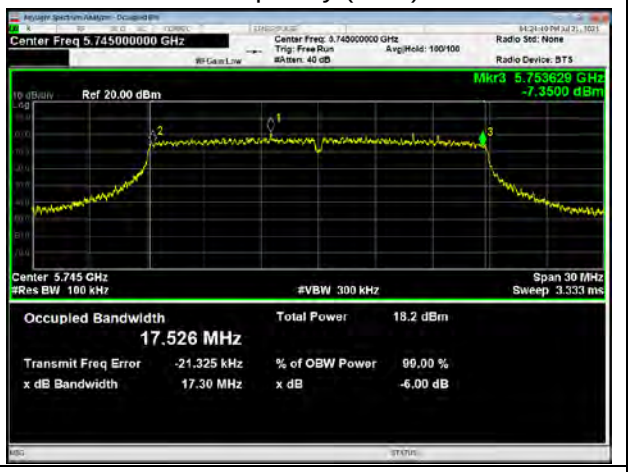
Minimum 6 dB bandwidth

U-NII-3, 802.11a

Carrier frequency (MHz): 5745

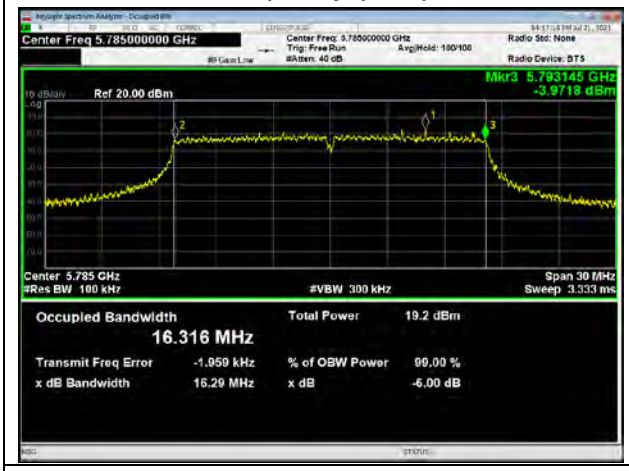
U-NII-3, 802.11n HT20

Carrier frequency (MHz): 5745



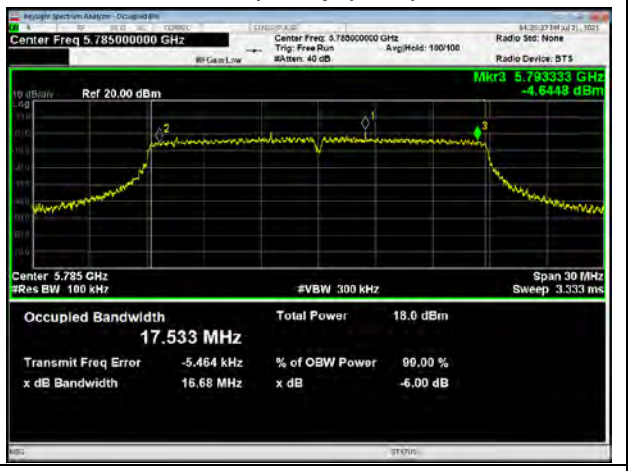
U-NII-3, 802.11a

Carrier frequency (MHz): 5785



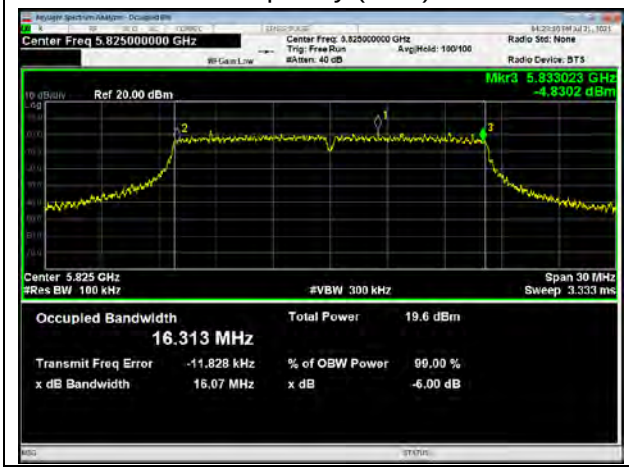
U-NII-3, 802.11n HT20

Carrier frequency (MHz): 5785



U-NII-3, 802.11a

Carrier frequency (MHz): 5825



U-NII-3, 802.11n HT20

Carrier frequency (MHz): 5825

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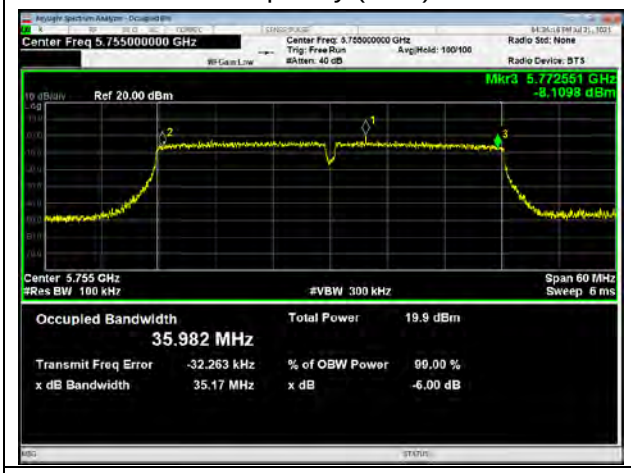
U-NII-3, 802.11n HT40

Carrier frequency (MHz): 5755



U-NII-3, 802.11ac VHT20

Carrier frequency (MHz): 5745

U-NII-3, 802.11n HT40

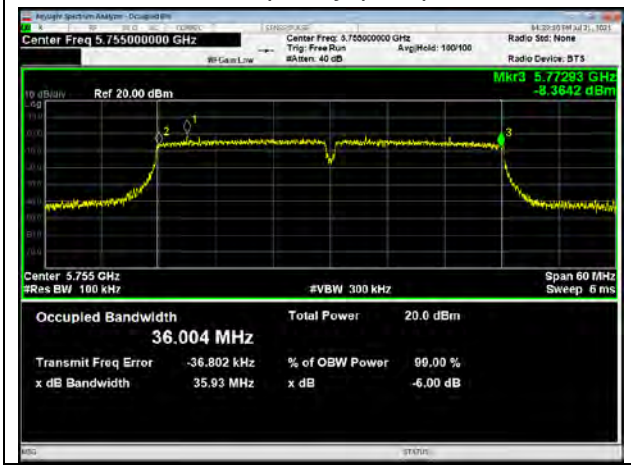
Carrier frequency (MHz): 5795

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

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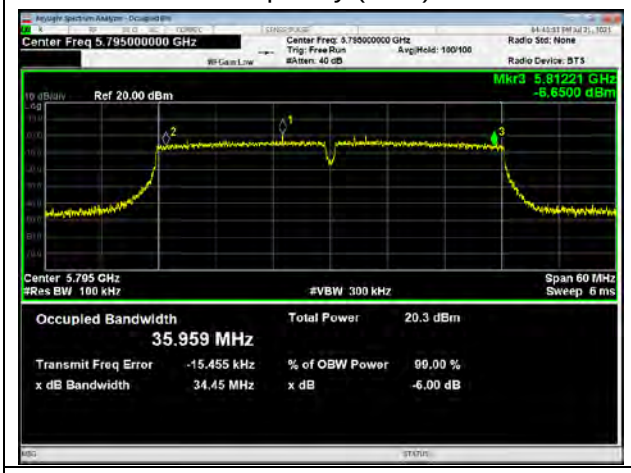
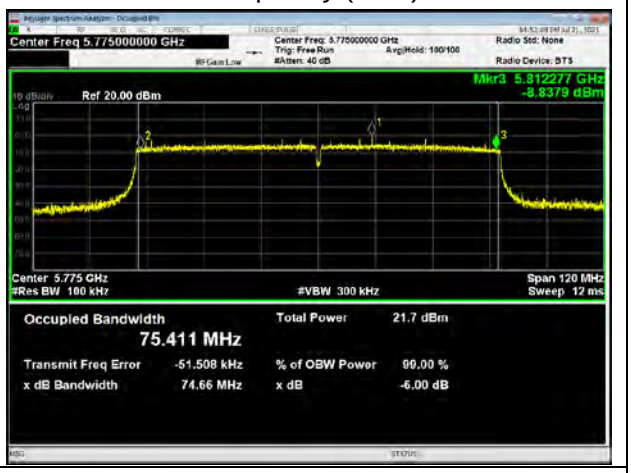
U-NII-3, 802.11ac VHT40

Carrier frequency (MHz): 5795



U-NII-3, 802.11ac VHT80

Carrier frequency (MHz): 5775



U-NII-3, 802.11ax HE20

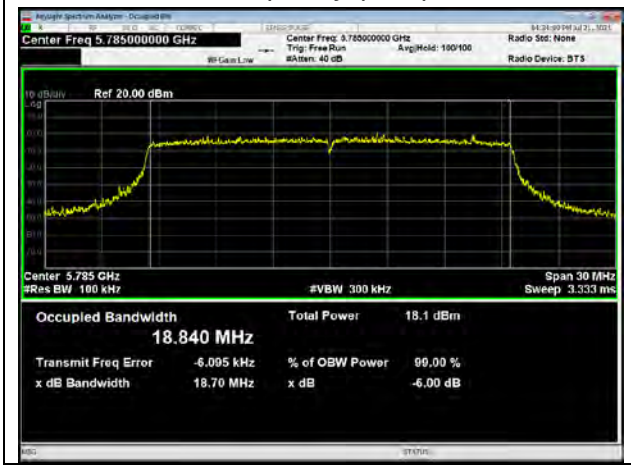
Carrier frequency (MHz): 5745

U-NII-3, 802.11ax HE40

Carrier frequency (MHz): 5755

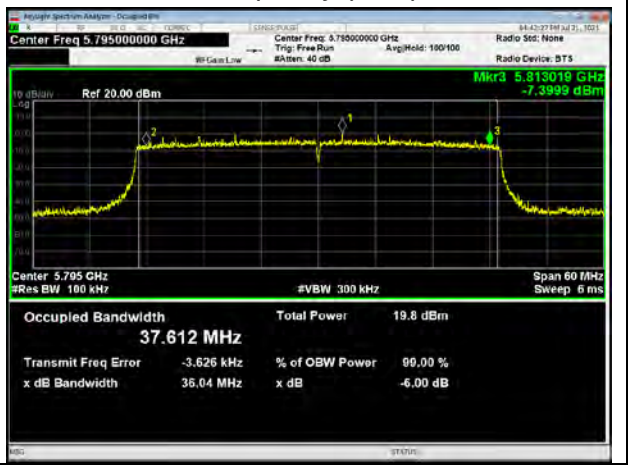
U-NII-3, 802.11ax HE20

Carrier frequency (MHz): 5785



U-NII-3, 802.11ax HE40

Carrier frequency (MHz): 5795



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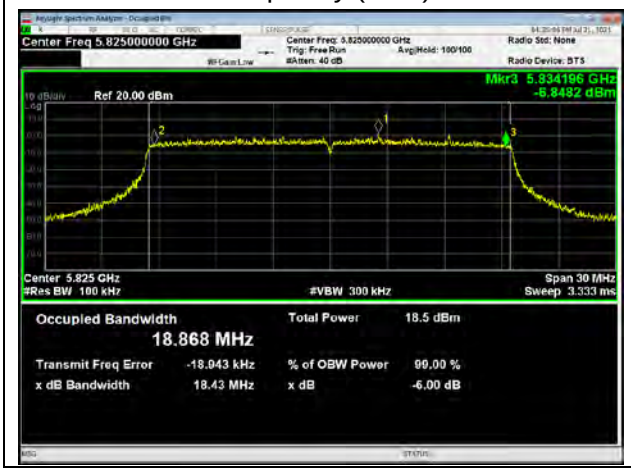
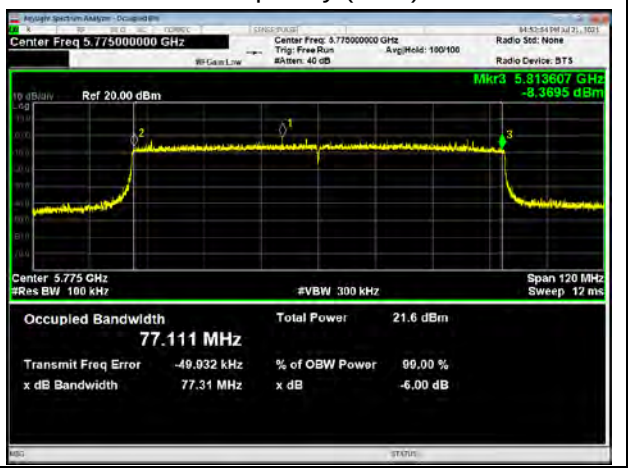
U-NII-3, 802.11ax HE20 Carrier frequency (MHz): 5825	U-NII-3, 802.11ax HE80 Carrier frequency (MHz): 5775
	

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TB Mode

U-NII-1

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11ax HE20 106Tone	5180	18.044	20.02	PASS
	5200	17.502	20.72	PASS
	5240	17.193	19.87	PASS
802.11ax HE20 242Tone	5180	19.034	28.65	PASS
	5200	19.037	29.90	PASS
	5240	19.015	29.42	PASS
802.11ax HE20 26Tone	5180	17.822	19.03	PASS
	5200	17.038	18.26	PASS
	5240	15.158	19.53	PASS
802.11ax HE20 52Tone	5180	18.027	19.89	PASS
	5200	14.981	18.34	PASS
	5240	17.768	19.00	PASS
802.11ax HE40 484Tone	5190	37.896	53.31	PASS
	5230	37.949	42.76	PASS
802.11ax HE80 996 Tone	5210	77.629	106.68	PASS

U-NII-2A

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11ax HE20 106Tone	5260	18.016	19.47	PASS
	5300	17.877	20.06	PASS
	5320	17.877	19.24	PASS
802.11ax HE20 242Tone	5260	19.025	27.29	PASS
	5300	19.006	28.78	PASS
	5320	19.019	26.98	PASS
802.11ax HE20 26Tone	5260	17.911	19.09	PASS
	5300	16.259	16.96	PASS
	5320	18.223	19.45	PASS
802.11ax HE20 52Tone	5260	16.227	17.35	PASS
	5300	12.691	19.09	PASS
	5320	17.868	19.08	PASS
802.11ax HE40 484Tone	5270	37.885	55.96	PASS
	5310	37.924	48.28	PASS
802.11ax HE80 996 Tone	5290	77.623	97.81	PASS

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U-NII-2C

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11ax HE20 106Tone	5500	17.284	19.98	PASS
	5580	16.050	17.54	PASS
	5700	18.015	19.74	PASS
	5720	16.243	20.38	PASS
802.11ax HE20 242Tone	5500	18.978	23.84	PASS
	5580	18.964	25.95	PASS
	5700	18.992	28.76	PASS
	5720	19.003	25.17	PASS
802.11ax HE20 26Tone	5500	16.851	19.22	PASS
	5580	15.715	17.71	PASS
	5700	18.308	19.28	PASS
	5720	9.241	11.38	PASS
802.11ax HE20 52Tone	5500	17.219	20.03	PASS
	5580	16.321	18.17	PASS
	5700	18.262	19.47	PASS
	5720	17.594	18.76	PASS
802.11ax HE40 484Tone	5510	37.954	43.59	PASS
	5550	37.938	43.66	PASS
	5670	37.950	52.34	PASS
	5710	37.958	58.16	PASS
802.11ax HE80 996 Tone	5530	77.568	84.30	PASS
	5590	77.514	86.54	PASS

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U-NII-3

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	-6 dB Bandwidth (MHz)	Conclusion
802.11ax HE20 106Tone	5745	17.835	12.12	PASS
	5785	17.608	14.58	PASS
	5825	16.794	13.34	PASS
802.11ax HE20 242Tone	5745	18.970	18.96	PASS
	5785	18.966	18.98	PASS
	5825	19.013	18.94	PASS
802.11ax HE20 26Tone	5745	17.996	2.05	PASS
	5785	15.719	2.61	PASS
	5825	16.114	2.08	PASS
802.11ax HE20 52Tone	5745	17.833	14.49	PASS
	5785	16.119	4.03	PASS
	5825	16.980	14.51	PASS
802.11ax HE40 484Tone	5755	37.946	38.03	PASS
	5795	37.903	37.77	PASS
802.11ax HE80 996 Tone	5775	77.500	77.92	PASS

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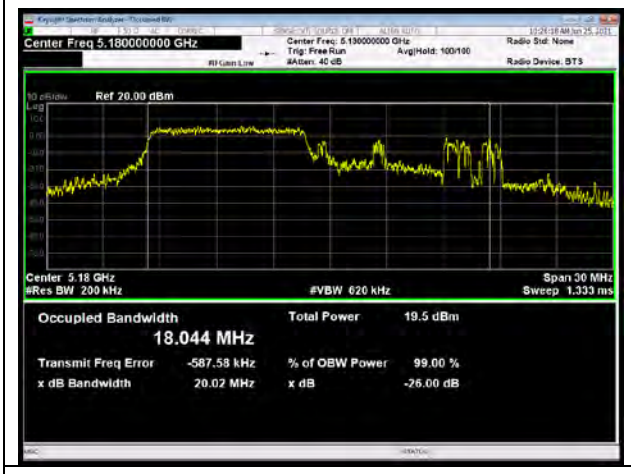
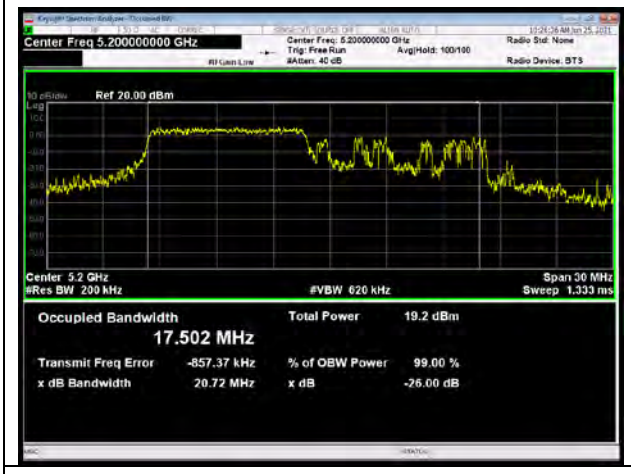
UNII-1

802.11ax HE20 106Tone:5180

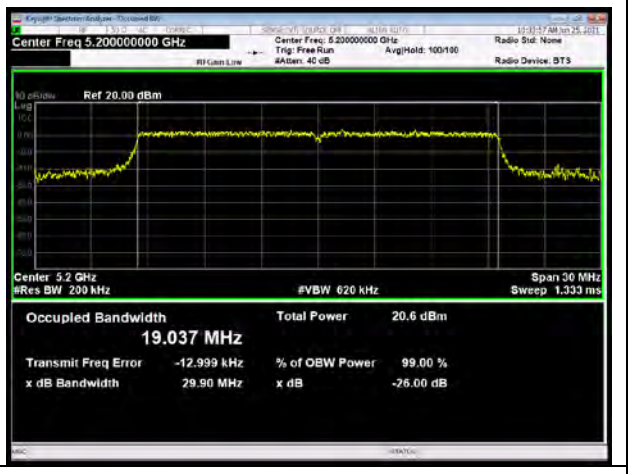


802.11ax HE20 242Tone: 5180

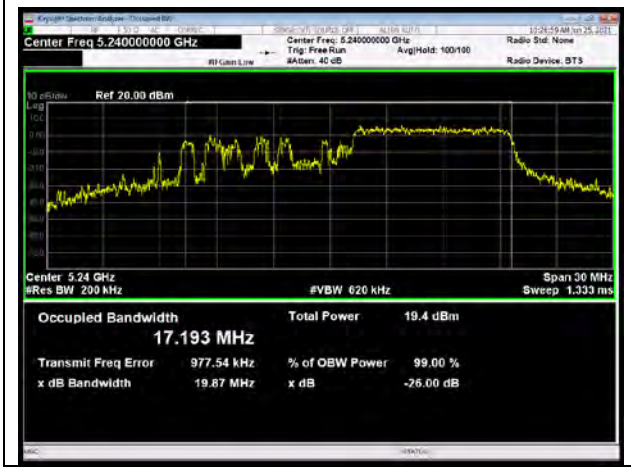
802.11ax HE20 106Tone:5200



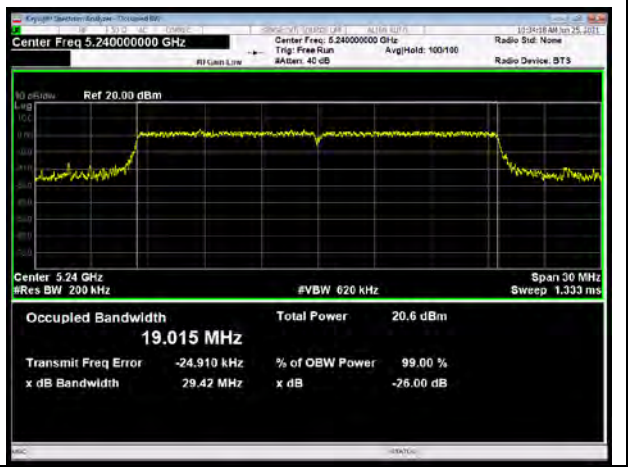
802.11ax HE20 242Tone: 5200



802.11ax HE20 106Tone: 5240



802.11ax HE20 242Tone: 5240



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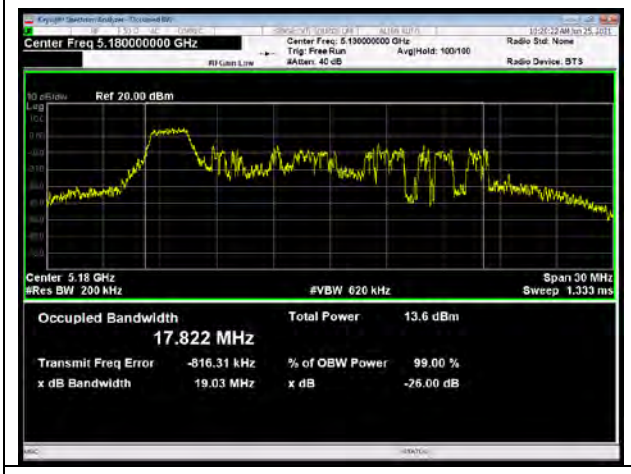
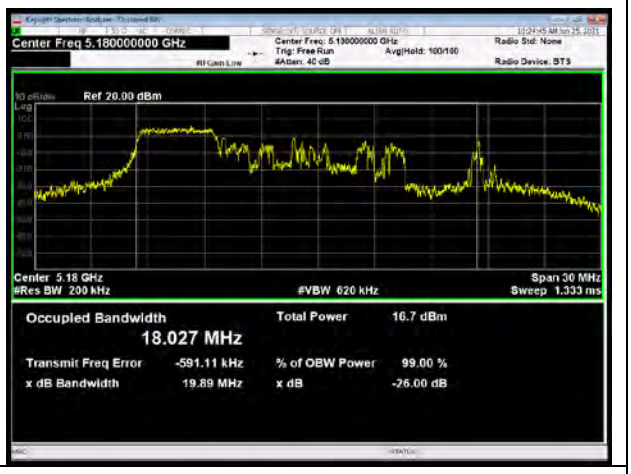
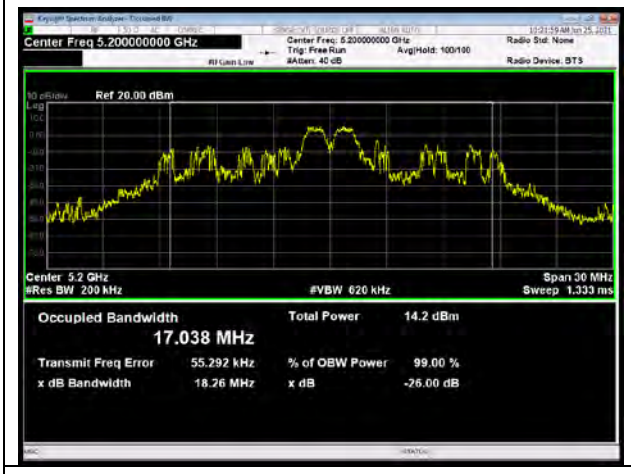
802.11ax HE20 26Tone:5180



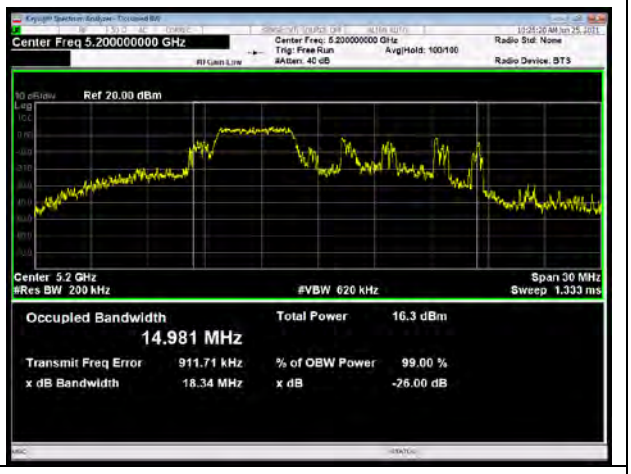
802.11ax HE20 52Tone: 5180



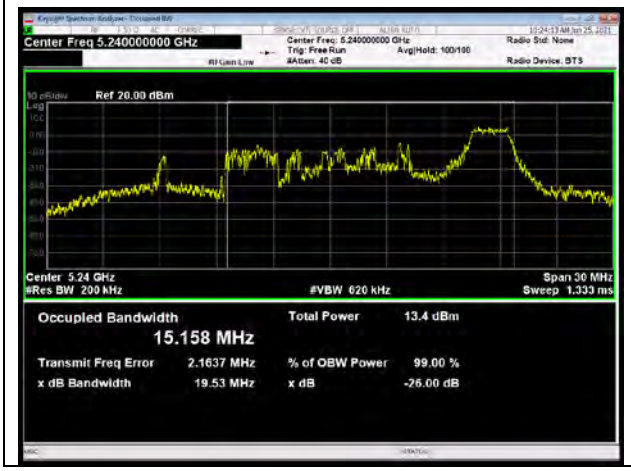
802.11ax HE20 26Tone:5200



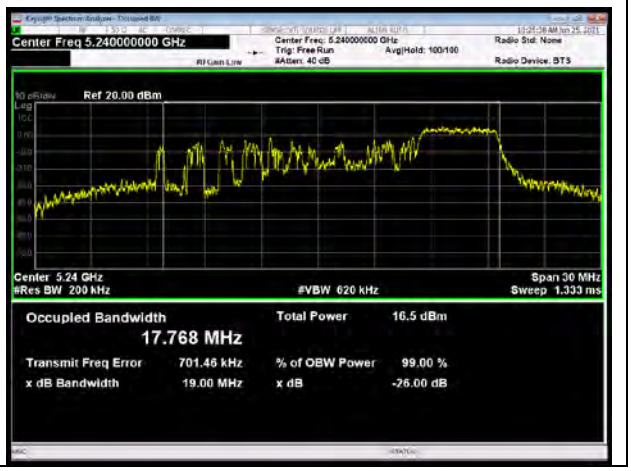
802.11ax HE20 52Tone: 5200



802.11ax HE20 26Tone: 5240



802.11ax HE20 52Tone: 5420



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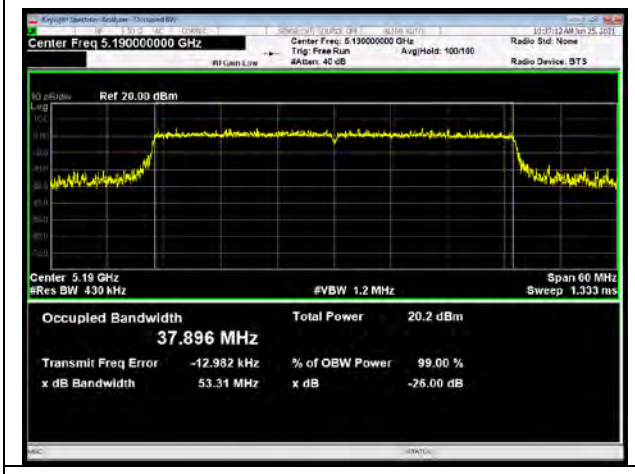
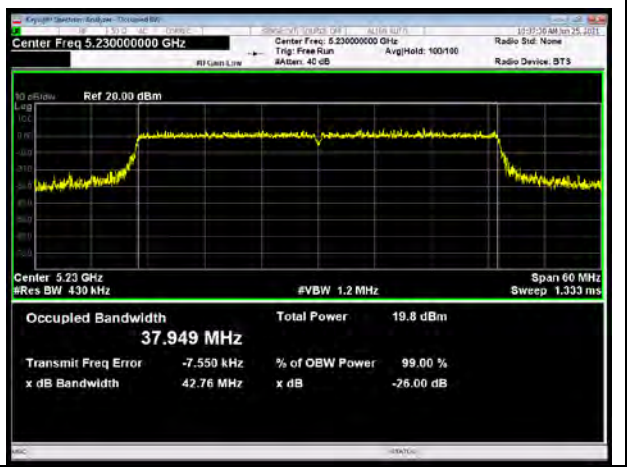
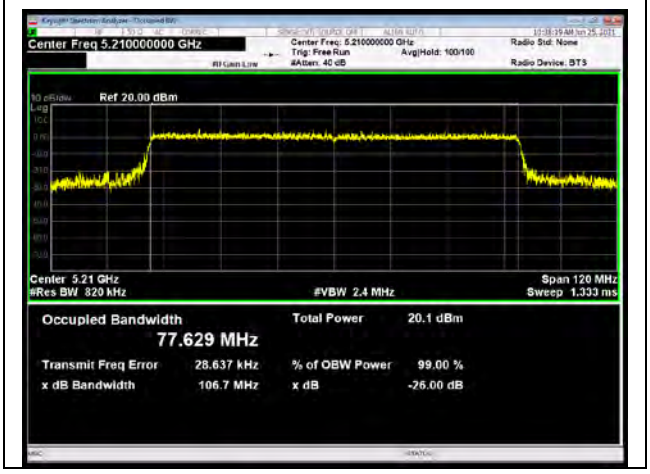
802.11ax HE40 484Tone: 5190



802.11ax HE40 484Tone: 5230



802.11ax HE80 996 Tone: 5210



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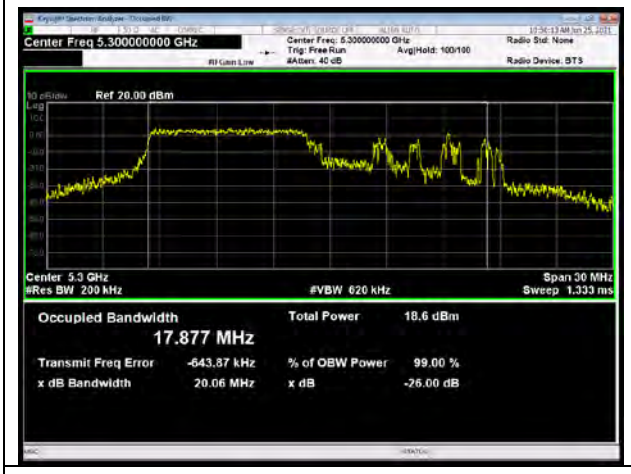
UNII-2A

802.11ax HE20 106Tone:5260

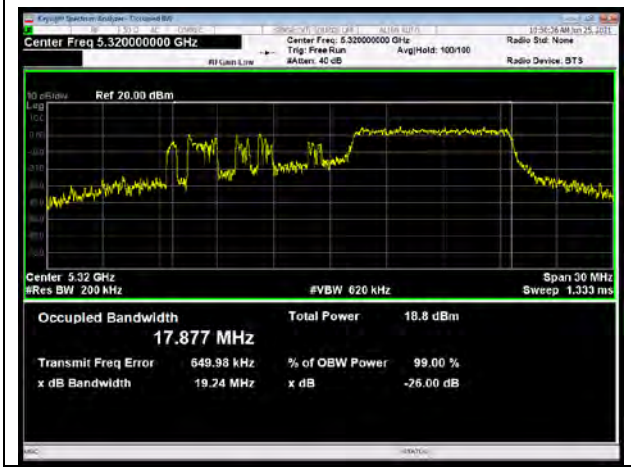
802.11ax HE20 242Tone: 5260

802.11ax HE20 106Tone:5300



802.11ax HE20 242Tone: 5300

802.11ax HE20 106Tone: 5320



802.11ax HE20 242Tone: 5320

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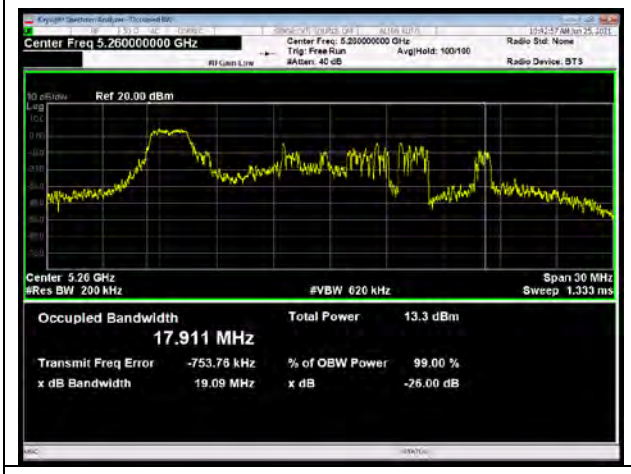
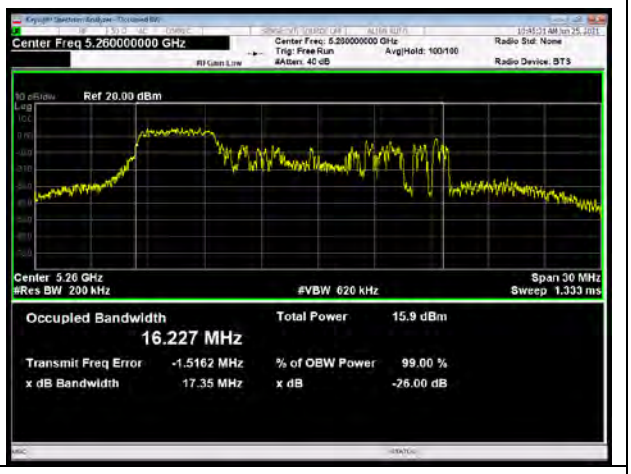
802.11ax HE20 26Tone:5260

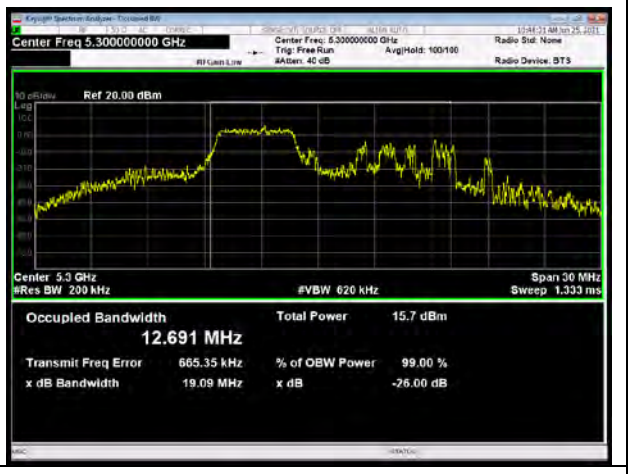


802.11ax HE20 52Tone: 5260

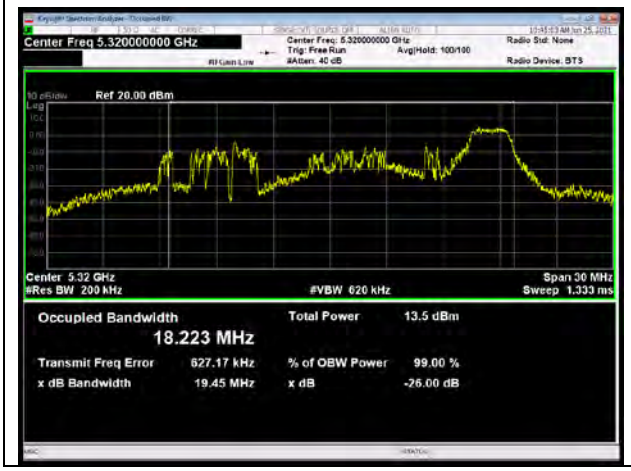


802.11ax HE20 26Tone:5300

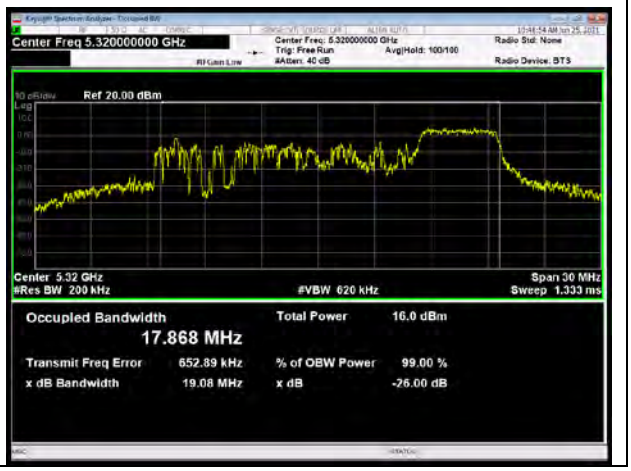
802.11ax HE20 52Tone: 5300



802.11ax HE20 26Tone: 5320



802.11ax HE20 52Tone: 5320



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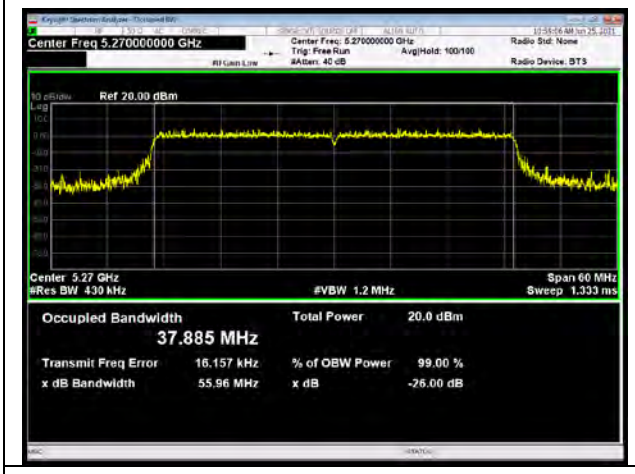
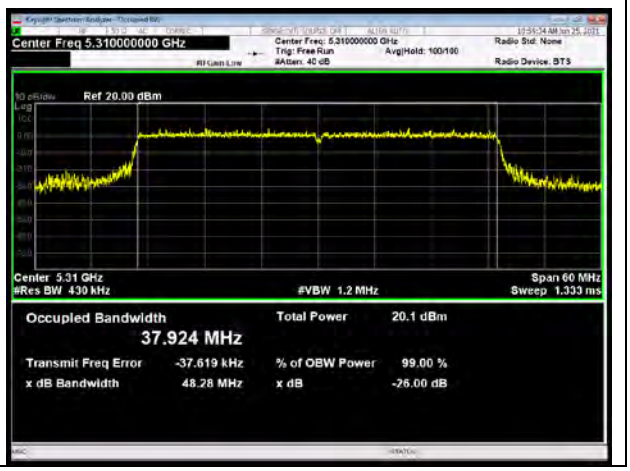
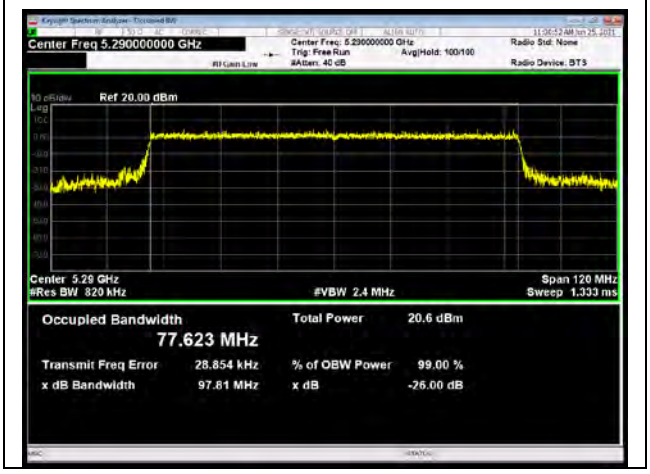
802.11ax HE40 484Tone: 5270



802.11ax HE40 484Tone: 5310



802.11ax HE80 996 Tone: 5290



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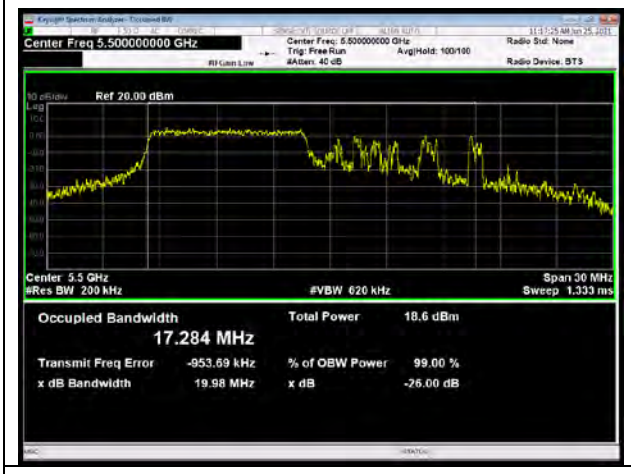
UNII-2C

802.11ax HE20 106Tone:5500



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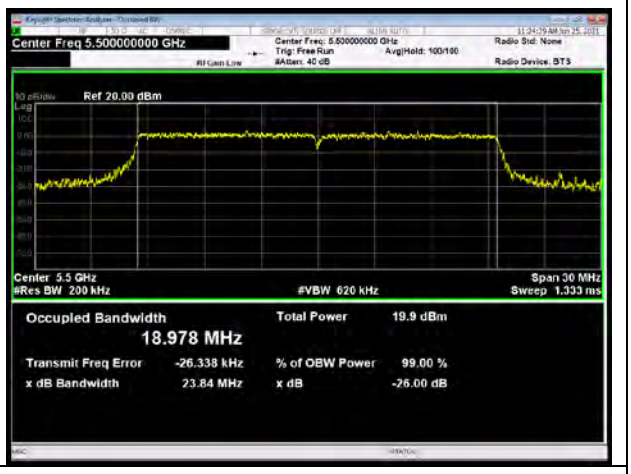

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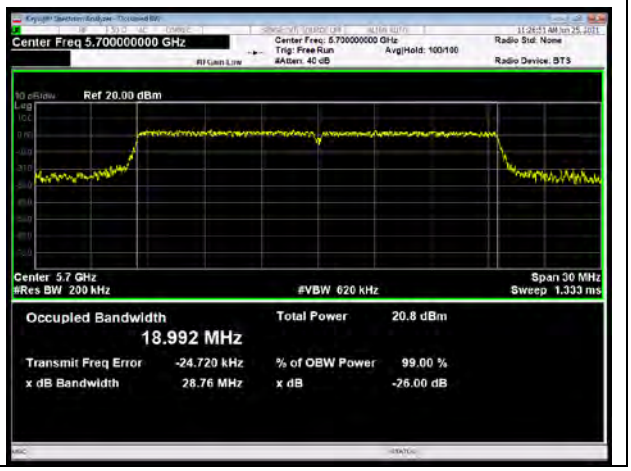
802.11ax HE20 242Tone: 5580

802.11ax HE20 106Tone: 5700

802.11ax HE20 242Tone: 5700



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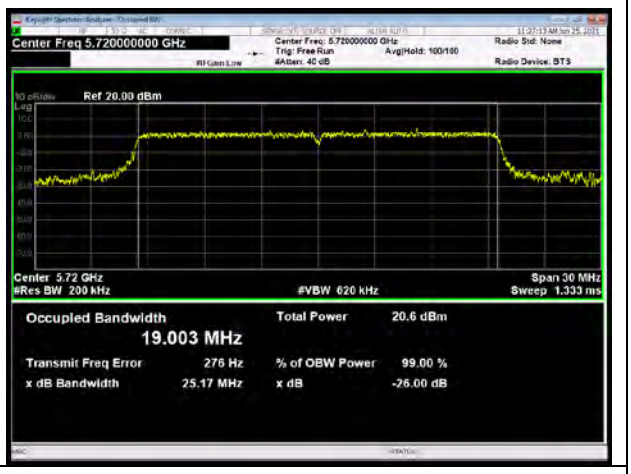
802.11ax HE20 242Tone: 5720



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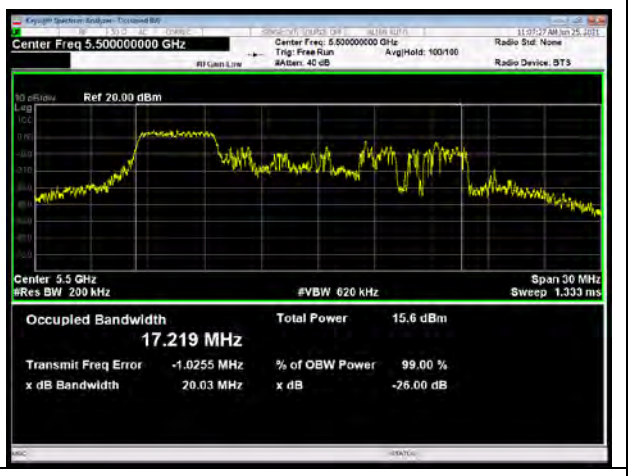
802.11ax HE20 52Tone: 5500



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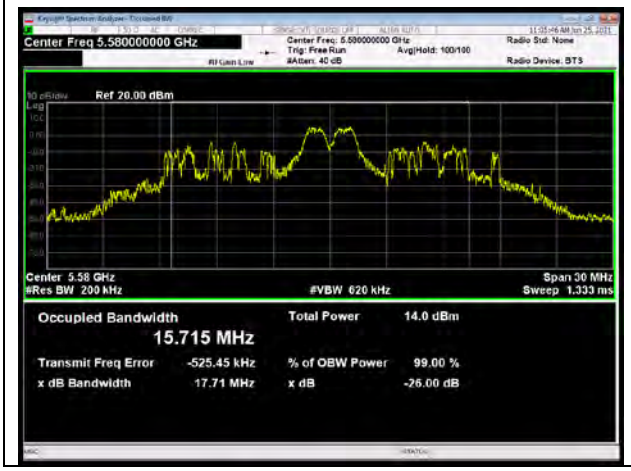

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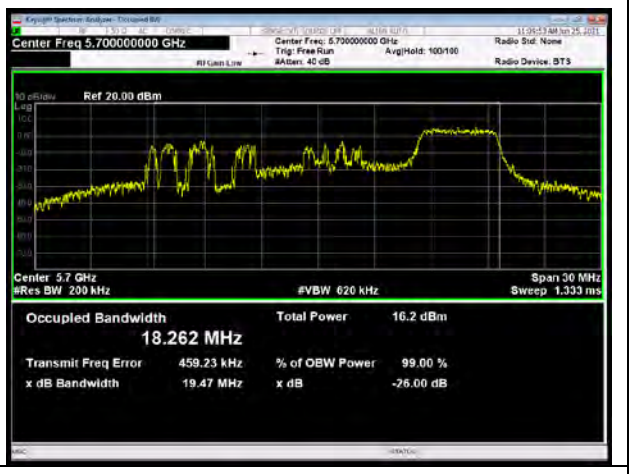

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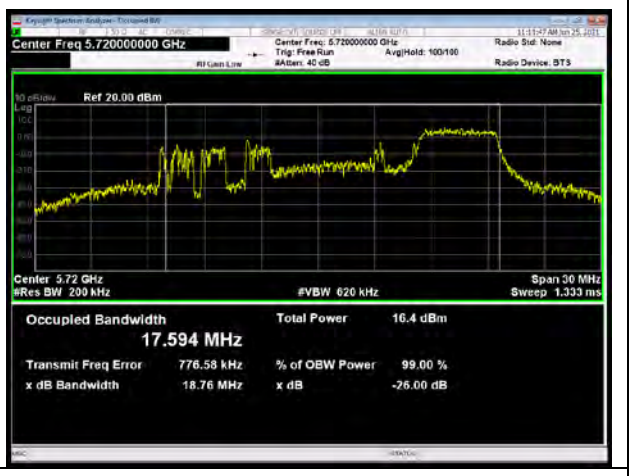
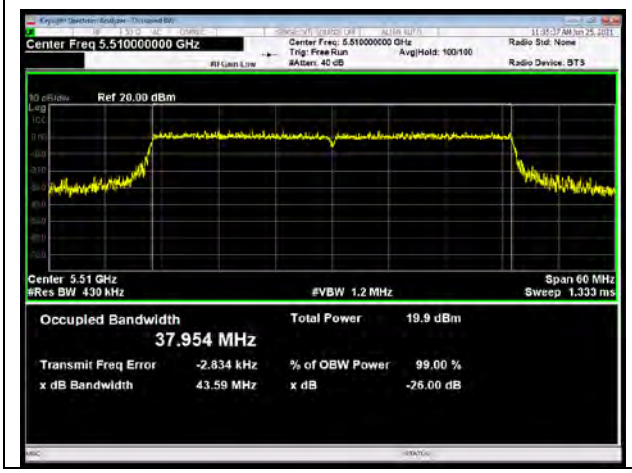
802.11ax HE20 52Tone: 5720



802.11ax HE40 484Tone: 5510



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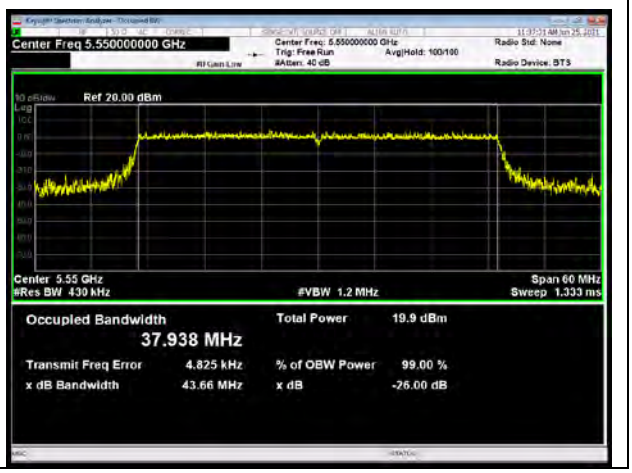

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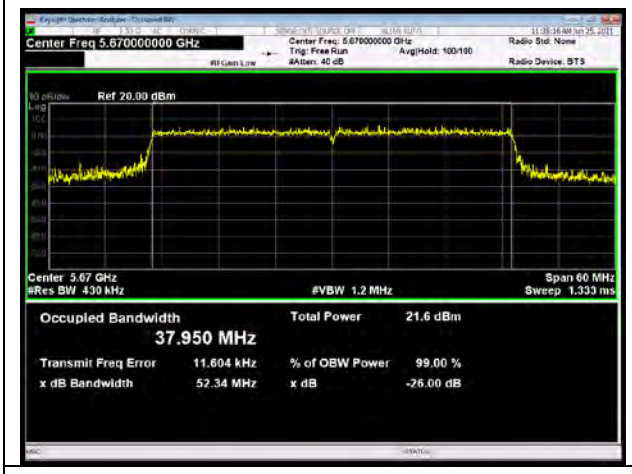
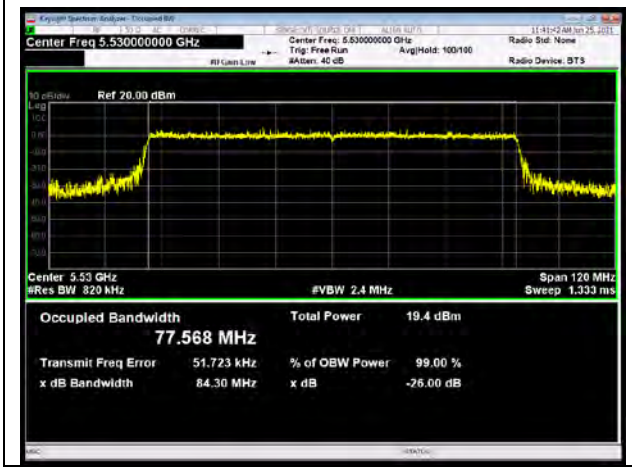
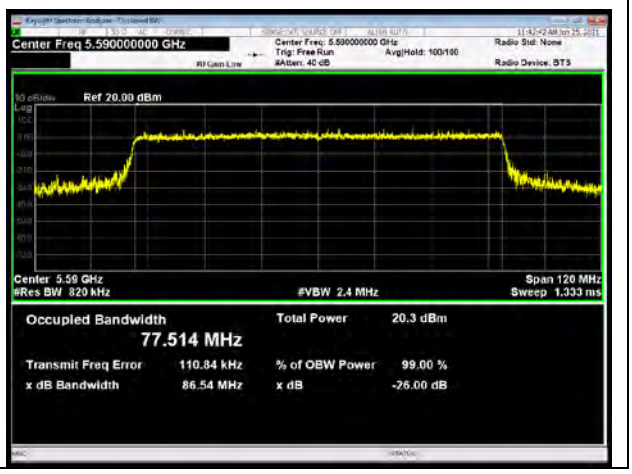


802.11ax HE40 484Tone: 5710

802.11ax HE80 996 Tone: 5530



802.11ax HE80 996 Tone: 5590



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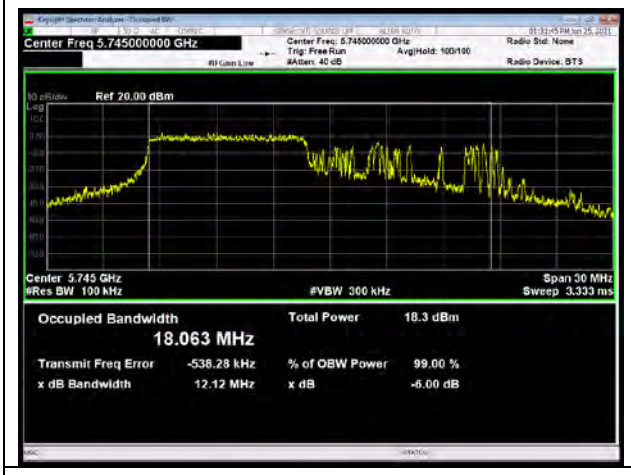
UNII-3

Minimum 6 dB bandwidth

802.11ax HE20 106Tone:5745



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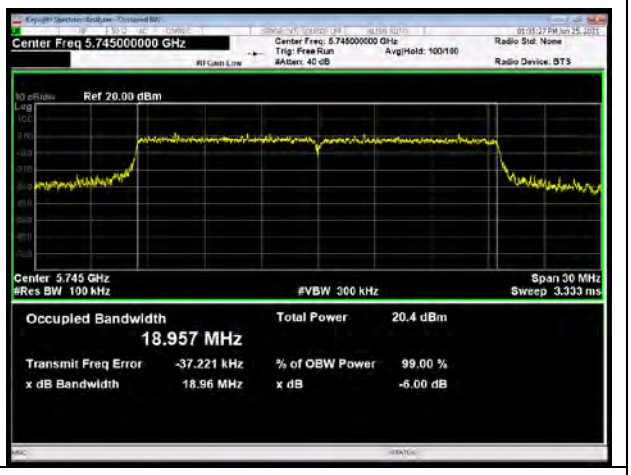

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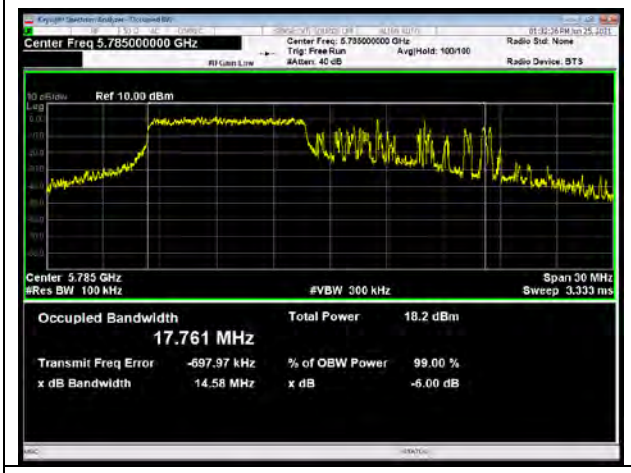
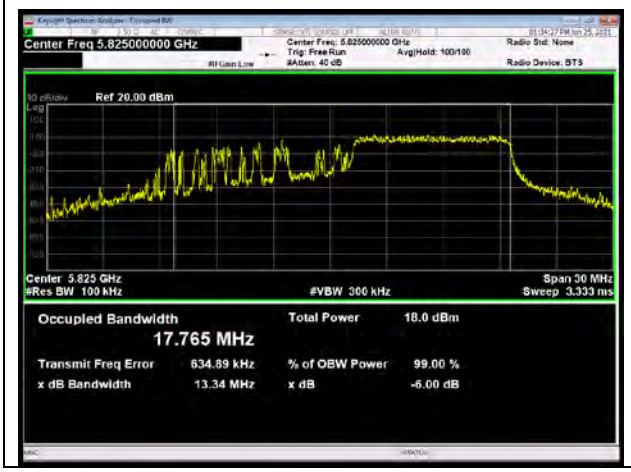


802.11ax HE20 242Tone: 5785

802.11ax HE20 106Tone: 5825



802.11ax HE20 242Tone: 5825

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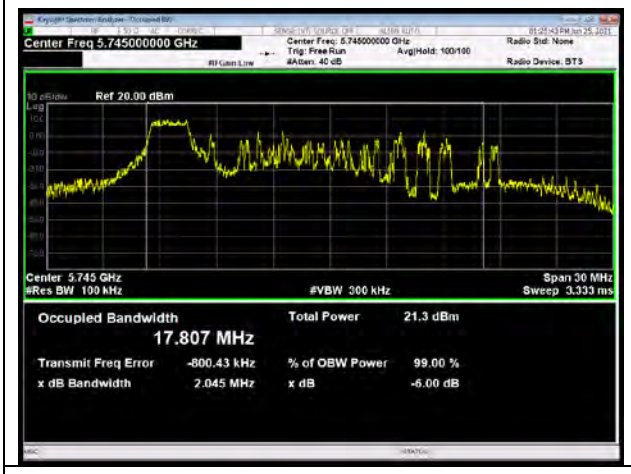

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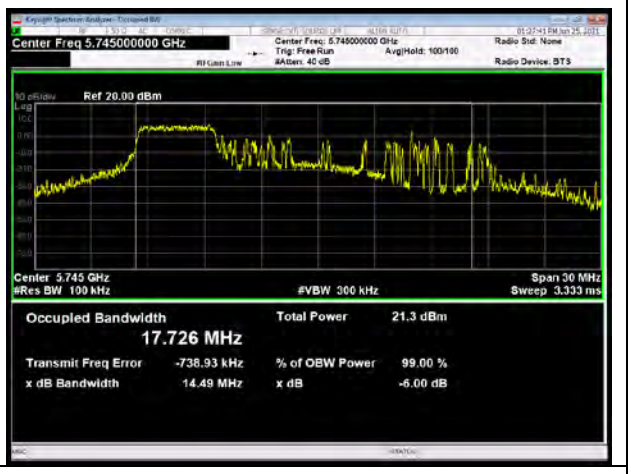

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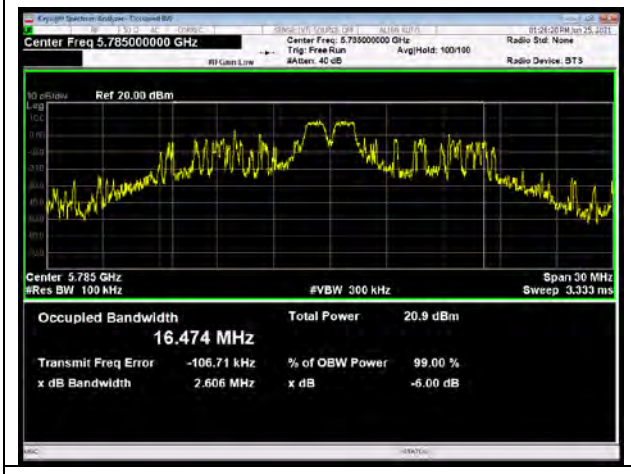

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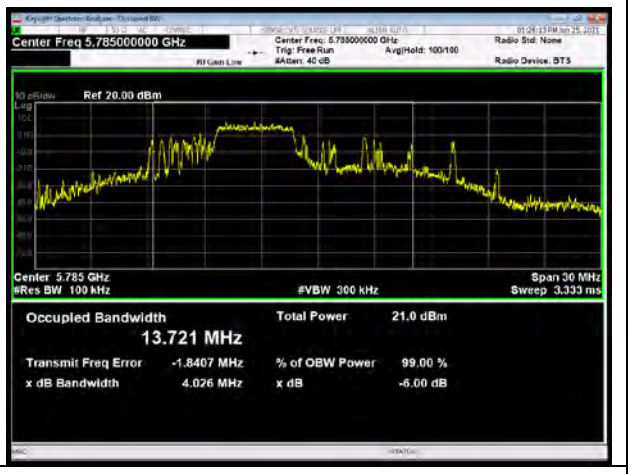

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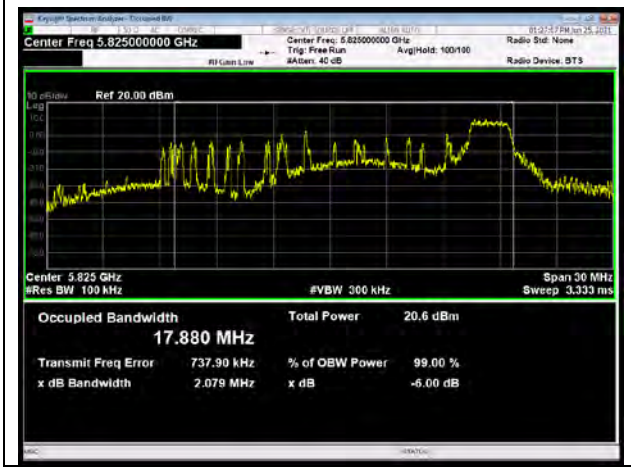

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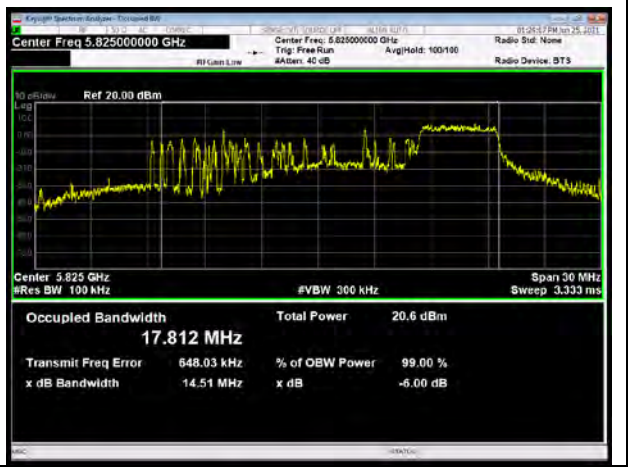

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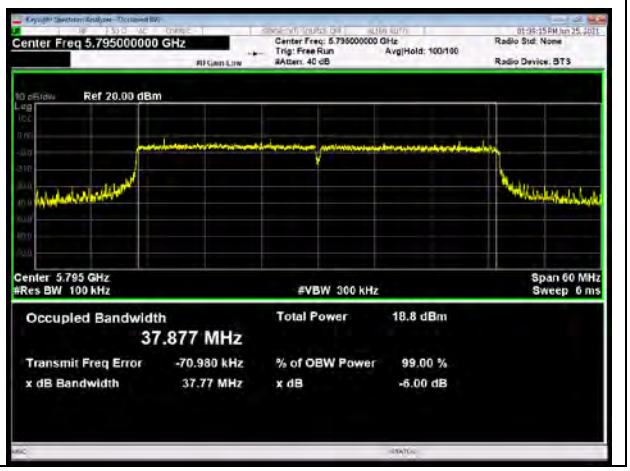
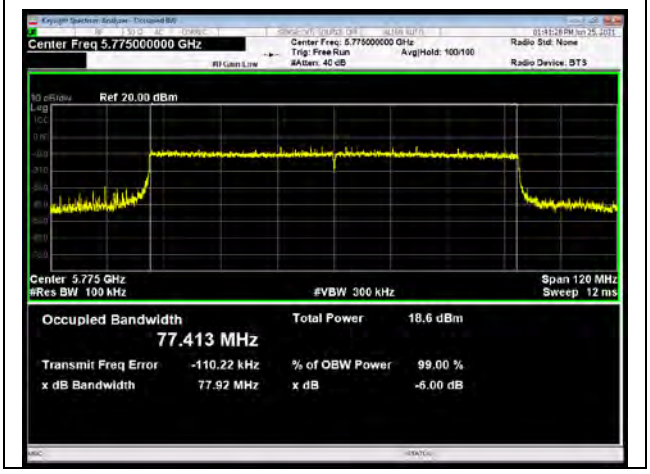
802.11ax HE40 484Tone: 5755

802.11ax HE40 484Tone: 5795



802.11ax HE80 996 Tone: 5775



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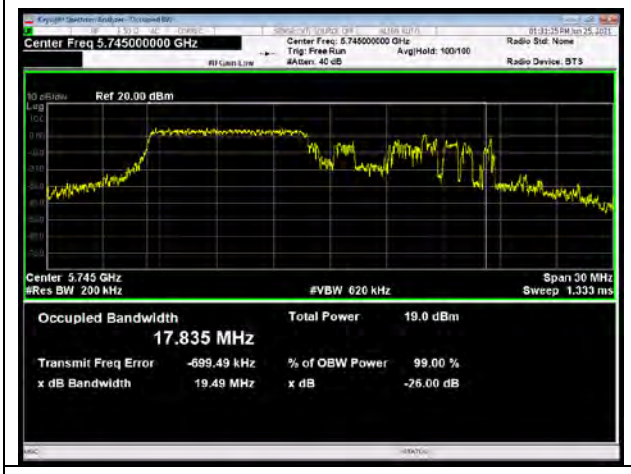
99% bandwidth

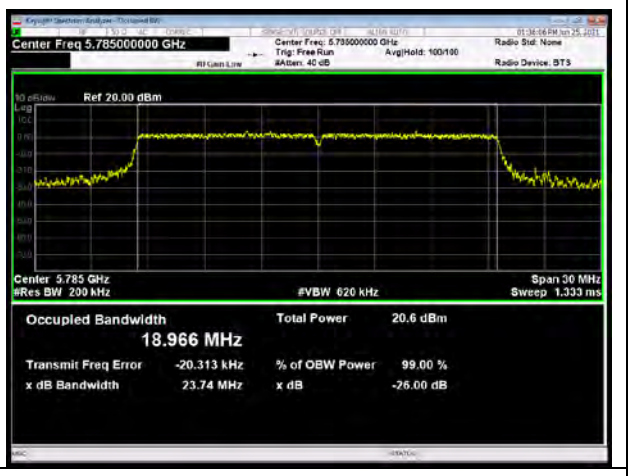
802.11ax HE20 106Tone:5745



802.11ax HE20 242Tone: 5745

802.11ax HE20 106Tone:5785

802.11ax HE20 242Tone: 5785



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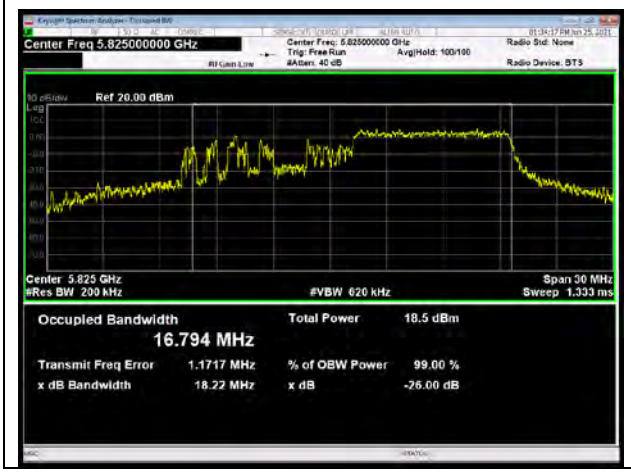

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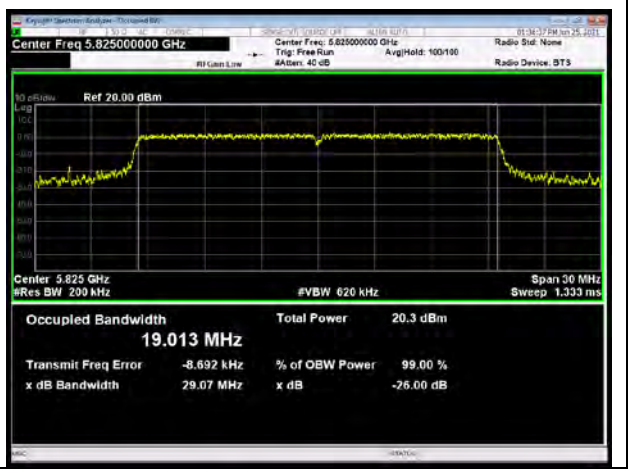

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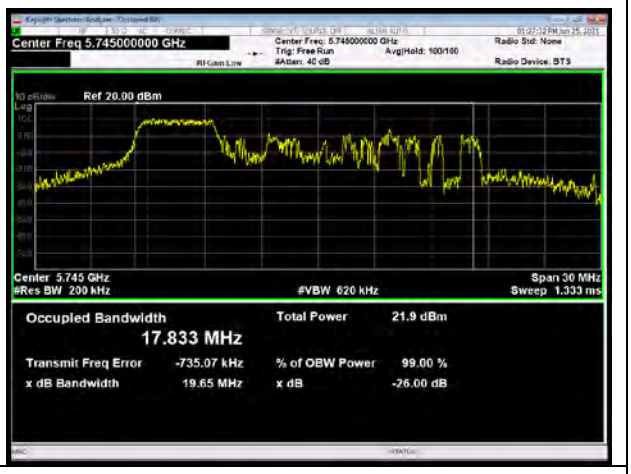

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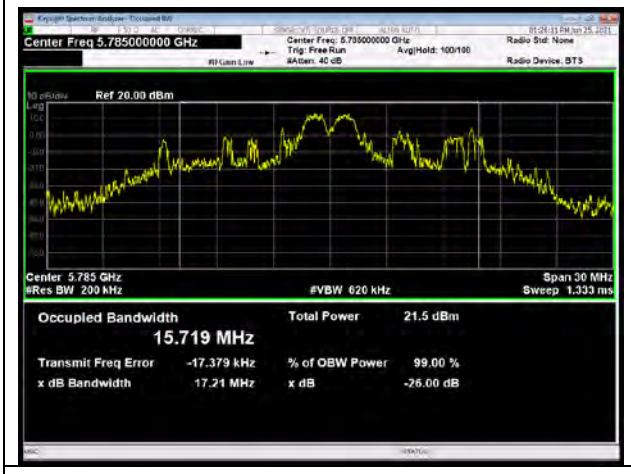

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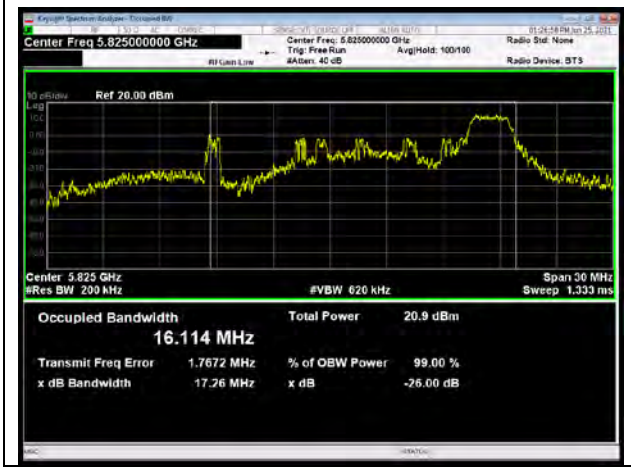

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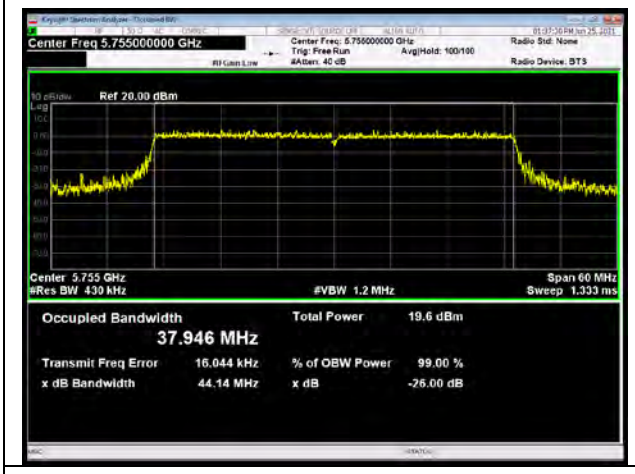
802.11ax HE40 484Tone: 5755



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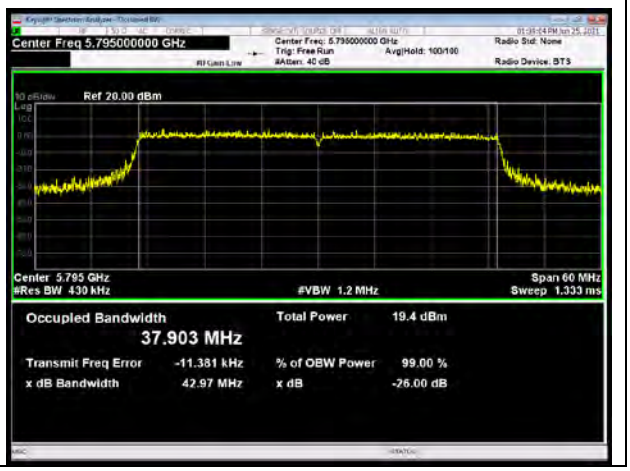

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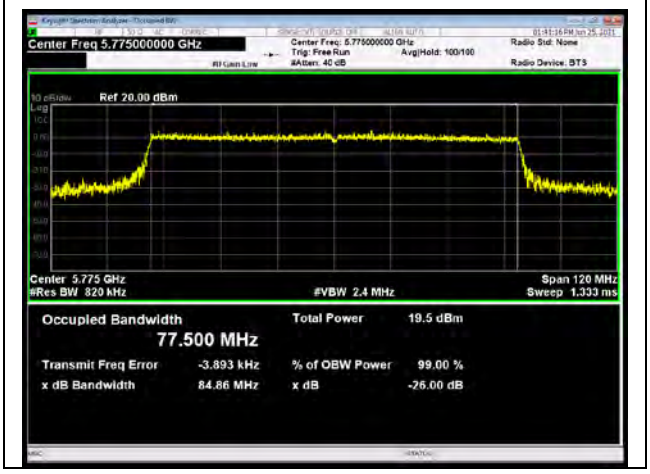

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5.2. Average Power Output

Ambient condition

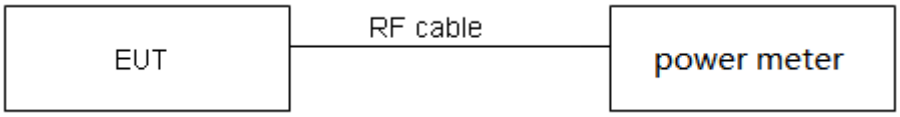
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Methods of Measurement

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

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

Test Setup



Limits

Rule FCC Part 15.407(a)(1)(2)(3)
(1) For the band 5.15-5.25 GHz.
(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).
(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23

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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.

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Test Results

Mode	T_{on} (ms)	$T_{(on+off)}$ (ms)	Duty cycle	Duty cycle correction Factor(dB)
802.11a	1.00	1.00	1.00	NA
802.11n HT20	1.00	1.00	1.00	NA
802.11n HT40	1.00	1.00	1.00	NA
802.11ac VHT20	1.00	1.00	1.00	NA
802.11ac VHT40	1.00	1.00	1.00	NA
802.11ac VHT80	1.00	1.00	1.00	NA
802.11ax HE20	1.00	1.00	1.00	NA
802.11ax HE40	1.00	1.00	1.00	NA
802.11ax HE80	1.00	1.00	1.00	NA
Note: when Duty cycle⩾0.98, Duty cycle correction Factor not required.				

Power Index											
Channel	802.11a	802.11n HT20	802.11ac VHT20	802.11ax HE20	Channel	802.11n HT40	802.11ac VHT40	802.11ax HE40	Channel	802.11ac VHT80	802.11ax HE80
CH36	20.5	19.5	19.5	19	CH38	19	19	18	CH42	18.2	17
CH40	20.5	19.5	19.5	19	CH46	19	19	18	/	/	/
CH48	20.5	19.5	19.5	19	/	/	/		/	/	/
CH52	20.5	19.5	19.5	19	CH54	19	19	18	CH58	18	17
CH60	20.5	19.5	19.5	19	CH62	19	19	18	/	/	/
CH64	20.5	19.5	19.5	19	/	/	/		/	/	/
CH100	21	20	20	19.5	CH102	19	19	18.5	CH106	19	18
CH116	21	20	20	19.5	CH118	19	19	18.5	CH122	/	/
CH140	21	20	20	19.5	CH134	19	19	18.5	CH138	19	18
CH144	21	20	20	19.5	CH142	19	19	18.5	/	/	/
CH149	21	20	20	19	CH151	19	19	18.5	CH155	19	18
CH157	21	20	20	19	CH159	19	19	18.5	/	/	/
CH165	21	20	20	19	/	/	/		/	/	/

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Test Mode		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	25.34	25.04>24	24.00
		60/5300	20.13	24.04>24	24.00
		64/5320	20.27	24.07>24	24.00
	802.11n HT20	52/5260	19.76	23.96<24	23.96
		60/5300	20.16	24.04>24	24.00
		64/5320	19.70	23.94<24	23.94
	802.11n HT40	54/5270	39.02	26.91>24	24.00
		62/5310	39.28	26.94>24	24.00
	802.11ac VHT20	52/5260	19.61	23.92<24	23.92
		60/5300	19.93	24.00>24	24.00
		64/5320	19.86	23.98<24	23.98
	802.11ac VHT40	54/5270	39.57	26.97>24	24.00
		62/5310	39.65	26.98>24	24.00
	802.11ac VHT80	58/5290	80.97	30.08>24	24.00
	802.11ax HE20	52/5260	20.37	24.09>24	24.00
		60/5300	21.03	24.23>24	24.00
		64/5320	20.72	24.16>24	24.00
	802.11ax HE40	54/5270	39.64	26.98>24	24.00
		62/5310	40.44	27.07>24	24.00
	802.11ax HE80	58/5290	81.46	30.11>24	24.00
U-NII-2C	802.11a	100/5500	18.39	23.65<24	23.65
		116/5580	18.52	23.68<24	23.68
		140/5700	18.66	23.71<24	23.71
		144/5720	18.59	23.69<24	23.69
	802.11n HT20	100/5500	19.95	24.00>24	24.00
		116/5580	19.94	24.00>24	24.00
		140/5700	20.07	24.03>24	24.00
		144/5720	19.83	23.97<24	23.97
	802.11n HT40	102/5510	39.36	26.95>24	24.00
		110/5550	39.38	26.95>24	24.00
		134/5670	39.17	26.93>24	24.00
		142/5710	39.23	26.94>24	24.00
	802.11ac VHT20	100/5500	20.11	24.03>24	24.00
		116/5580	19.76	23.96<24	23.96
		140/5700	20.67	24.15>24	24.00
		144/5720	20.24	24.06>24	24.00

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	802.11ac VHT40	102/5510	39.45	26.96>24	24.00
		110/5550	39.21	26.93>24	24.00
		134/5670	39.72	26.99>24	24.00
		142/5710	39.26	26.94>24	24.00
	802.11ac VHT80	106/5530	82.54	30.17>24	24.00
		138/5690	81.47	30.11>24	24.00
	802.11ax HE20	100/5500	20.47	24.11>24	24.00
		116/5580	20.35	24.09>24	24.00
		140/5700	20.89	24.20>24	24.00
		144/5720	20.75	24.17>24	24.00
	802.11ax HE40	102/5510	40.14	27.04>24	24.00
		110/5550	39.94	27.01>24	24.00
		134/5670	39.87	27.01>24	24.00
		142/5710	40.00	27.02>24	24.00
	802.11ax HE80	106/5530	81.12	30.09>24	24.00
		138/5690	81.76	30.13>24	24.00
Note: 250mW=24dBm					

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RU Mode

SISO Antenna 1

U-NII-1

Test Mode	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11a	36/5180	12.54	12.54	24.00	PASS
	40/5200	12.31	12.31	24.00	PASS
	48/5240	12.16	12.16	24.00	PASS
802.11n HT20	36/5180	18.15	18.15	24.00	PASS
	40/5200	18.03	18.03	24.00	PASS
	48/5240	17.87	17.87	24.00	PASS
802.11n HT40	38/5190	18.17	18.17	24.00	PASS
	46/5230	17.81	17.81	24.00	PASS
802.11ac VHT20	36/5180	18.13	18.13	24.00	PASS
	40/5200	17.94	17.94	24.00	PASS
	48/5240	17.82	17.82	24.00	PASS
802.11ac VHT40	38/5190	18.16	18.16	24.00	PASS
	46/5230	17.74	17.74	24.00	PASS
802.11ac VHT80	42/5210	14.35	14.35	24.00	PASS
802.11ax HE20	36/5180	16.92	16.92	24.00	PASS
	40/5200	16.78	16.78	24.00	PASS
	48/5240	16.61	16.61	24.00	PASS
802.11ax HE40	38/5190	15.09	15.09	24.00	PASS
	46/5230	14.73	14.73	24.00	PASS
802.11ax HE80	42/5210	14.38	14.38	24.00	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor					

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U-NII-2A

Test Mode	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11a	52/5260	12.21	12.21	24.00	PASS
	60/5300	11.87	11.87	24.00	PASS
	64/5320	11.96	11.96	24.00	PASS
802.11n HT20	52/5260	16.93	16.93	23.96	PASS
	60/5300	16.62	16.62	24.00	PASS
	64/5320	16.74	16.74	23.94	PASS
802.11n HT40	54/5270	13.95	13.95	24.00	PASS
	62/5310	13.93	13.93	24.00	PASS
802.11ac VHT20	52/5260	16.88	16.88	23.92	PASS
	60/5300	16.59	16.59	24.00	PASS
	64/5320	16.64	16.64	23.98	PASS
802.11ac VHT40	54/5270	13.89	13.89	24.00	PASS
	62/5310	13.91	13.91	24.00	PASS
802.11ac VHT80	58/5290	13.23	13.23	24.00	PASS
802.11ax HE20	52/5260	15.57	15.57	24.00	PASS
	60/5300	15.22	15.22	24.00	PASS
	64/5320	15.37	15.37	24.00	PASS
802.11ax HE40	54/5270	13.82	13.82	24.00	PASS
	62/5310	13.86	13.86	24.00	PASS
802.11ax HE80	58/5290	13.23	13.23	24.00	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor					

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U-NII-2C

Test Mode	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11a	100/5500	12.54	12.54	23.65	PASS
	116/5580	12.76	12.76	23.68	PASS
	140/5700	13.06	13.06	23.71	PASS
	144/5720	13.13	13.13	23.69	PASS
802.11n HT20	100/5500	12.29	12.29	24.00	PASS
	116/5580	12.52	12.52	24.00	PASS
	140/5700	12.81	12.81	24.00	PASS
	144/5720	12.88	12.88	23.97	PASS
802.11n HT40	102/5510	14.54	14.54	24.00	PASS
	110/5550	14.56	14.56	24.00	PASS
	134/5670	15.66	15.66	24.00	PASS
	142/5710	15.34	15.34	24.00	PASS
802.11ac VHT20	100/5500	12.31	12.31	24.00	PASS
	116/5580	12.48	12.48	23.96	PASS
	140/5700	12.82	12.82	24.00	PASS
	144/5720	12.86	12.86	24.00	PASS
802.11ac VHT40	102/5510	14.46	14.46	24.00	PASS
	110/5550	14.58	14.58	24.00	PASS
	134/5670	15.64	15.64	24.00	PASS
	142/5710	15.28	15.28	24.00	PASS
802.11ac VHT80	106/5530	16.09	16.09	24.00	PASS
	138/5690	17.28	17.28	24.00	PASS
802.11ax HE20	100/5500	12.37	12.37	24.00	PASS
	116/5580	12.64	12.64	24.00	PASS
	140/5700	12.71	12.71	24.00	PASS
	144/5720	12.83	12.83	24.00	PASS
802.11ax HE40	102/5510	13.74	13.74	24.00	PASS
	110/5550	13.93	13.93	24.00	PASS
	134/5670	14.92	14.92	24.00	PASS
	142/5710	14.51	14.51	24.00	PASS
802.11ax HE80	106/5530	14.07	14.07	24.00	PASS
	138/5690	15.12	15.12	24.00	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor					

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U-NII-3

Test Mode	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11a	149/5745	13.82	13.82	30.00	PASS
	157/5785	13.78	13.78	30.00	PASS
	165/5825	14.03	14.03	30.00	PASS
802.11n HT20	149/5745	12.58	12.58	30.00	PASS
	157/5785	12.46	12.46	30.00	PASS
	165/5825	12.72	12.72	30.00	PASS
802.11n HT40	151/5755	14.32	14.32	30.00	PASS
	159/5795	14.75	14.75	30.00	PASS
802.11ac VHT20	149/5745	12.47	12.47	30.00	PASS
	157/5785	12.43	12.43	30.00	PASS
	165/5825	12.72	12.72	30.00	PASS
802.11ac VHT40	151/5755	14.28	14.28	30.00	PASS
	159/5795	14.74	14.74	30.00	PASS
802.11ac VHT80	155/5775	16.02	16.02	30.00	PASS
802.11ax HE20	149/5745	12.47	12.47	30.00	PASS
	157/5785	12.49	12.49	30.00	PASS
	165/5825	12.74	12.74	30.00	PASS
802.11ax HE40	151/5755	13.53	13.53	30.00	PASS
	159/5795	14.01	14.01	30.00	PASS
802.11ax HE80	155/5775	15.89	15.89	30.00	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor					

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SISO Antenna 2

U-NII-1

Test Mode	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11a	36/5180	11.52	11.52	24.00	PASS
	40/5200	11.44	11.44	24.00	PASS
	48/5240	11.28	11.28	24.00	PASS
802.11n HT20	36/5180	17.19	17.19	23.96	PASS
	40/5200	17.09	17.09	24.00	PASS
	48/5240	16.92	16.92	23.94	PASS
802.11n HT40	38/5190	17.05	17.05	24.00	PASS
	46/5230	16.94	16.94	24.00	PASS
802.11ac VHT20	36/5180	17.23	17.23	23.92	PASS
	40/5200	17.20	17.20	24.00	PASS
	48/5240	17.05	17.05	23.98	PASS
802.11ac VHT40	38/5190	17.13	17.13	24.00	PASS
	46/5230	16.97	16.97	24.00	PASS
802.11ac VHT80	42/5210	13.52	13.52	24.00	PASS
802.11ax HE20	36/5180	15.94	15.94	24.00	PASS
	40/5200	15.85	15.85	24.00	PASS
	48/5240	15.74	15.74	24.00	PASS
802.11ax HE40	38/5190	14.04	14.04	24.00	PASS
	46/5230	13.87	13.87	24.00	PASS
802.11ax HE80	42/5210	13.52	13.52	24.00	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor					

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U-NII-2A

Test Mode	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11a	52/5260	11.31	11.31	24.00	PASS
	60/5300	11.08	11.08	24.00	PASS
	64/5320	11.16	11.16	24.00	PASS
802.11n HT20	52/5260	16.02	16.02	24.00	PASS
	60/5300	15.91	15.91	24.00	PASS
	64/5320	15.82	15.82	24.00	PASS
802.11n HT40	54/5270	13.16	13.16	24.00	PASS
	62/5310	13.14	13.14	24.00	PASS
802.11ac VHT20	52/5260	16.03	16.03	24.00	PASS
	60/5300	15.94	15.94	24.00	PASS
	64/5320	16.01	16.01	24.00	PASS
802.11ac VHT40	54/5270	13.08	13.08	24.00	PASS
	62/5310	13.12	13.12	24.00	PASS
802.11ac VHT80	58/5290	12.43	12.43	24.00	PASS
802.11ax HE20	52/5260	14.73	14.73	24.00	PASS
	60/5300	14.54	14.54	24.00	PASS
	64/5320	14.64	14.64	24.00	PASS
802.11ax HE40	54/5270	13.02	13.02	24.00	PASS
	62/5310	13.08	13.08	24.00	PASS
802.11ax HE80	58/5290	12.43	12.43	24.00	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor					

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U-NII-2C

Test Mode	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11a	100/5500	11.54	11.54	23.65	PASS
	116/5580	11.43	11.43	23.68	PASS
	140/5700	11.23	11.23	23.71	PASS
	144/5720	11.42	11.42	23.69	PASS
802.11n HT20	100/5500	11.26	11.26	24.00	PASS
	116/5580	11.25	11.25	24.00	PASS
	140/5700	11.08	11.08	24.00	PASS
	144/5720	11.24	11.24	23.97	PASS
802.11n HT40	102/5510	13.83	13.83	24.00	PASS
	110/5550	13.59	13.59	24.00	PASS
	134/5670	13.63	13.63	24.00	PASS
	142/5710	13.63	13.63	24.00	PASS
802.11ac VHT20	100/5500	11.36	11.36	24.00	PASS
	116/5580	11.32	11.32	23.96	PASS
	140/5700	11.13	11.13	24.00	PASS
	144/5720	11.33	11.33	24.00	PASS
802.11ac VHT40	102/5510	13.79	13.79	24.00	PASS
	110/5550	13.62	13.62	24.00	PASS
	134/5670	13.60	13.60	24.00	PASS
	142/5710	13.66	13.66	24.00	PASS
802.11ac VHT80	106/5530	15.32	15.32	24.00	PASS
	138/5690	15.41	15.41	24.00	PASS
802.11ax HE20	100/5500	11.47	11.47	24.00	PASS
	116/5580	11.41	11.41	24.00	PASS
	140/5700	11.24	11.24	24.00	PASS
	144/5720	11.43	11.43	24.00	PASS
802.11ax HE40	102/5510	13.24	13.24	24.00	PASS
	110/5550	12.95	12.95	24.00	PASS
	134/5670	13.06	13.06	24.00	PASS
	142/5710	13.10	13.10	24.00	PASS
802.11ax HE80	106/5530	13.39	13.39	24.00	PASS
	138/5690	13.51	13.51	24.00	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor					

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U-NII-3

Test Mode	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11a	149/5745	13.03	13.03	30.00	PASS
	157/5785	12.74	12.74	30.00	PASS
	165/5825	12.89	12.89	30.00	PASS
802.11n HT20	149/5745	11.70	11.70	30.00	PASS
	157/5785	11.52	11.52	30.00	PASS
	165/5825	11.81	11.81	30.00	PASS
802.11n HT40	151/5755	13.52	13.52	30.00	PASS
	159/5795	13.74	13.74	30.00	PASS
802.11ac VHT20	149/5745	11.85	11.85	30.00	PASS
	157/5785	11.61	11.61	30.00	PASS
	165/5825	11.81	11.81	30.00	PASS
802.11ac VHT40	151/5755	13.48	13.48	30.00	PASS
	159/5795	13.74	13.74	30.00	PASS
802.11ac VHT80	155/5775	15.18	15.18	30.00	PASS
802.11ax HE20	149/5745	11.88	11.88	30.00	PASS
	157/5785	11.72	11.72	30.00	PASS
	165/5825	11.91	11.91	30.00	PASS
802.11ax HE40	151/5755	12.92	12.92	30.00	PASS
	159/5795	13.13	13.13	30.00	PASS
802.11ax HE80	155/5775	15.26	15.26	30.00	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor					

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MIMO

U-NII-1

Mode	Channel/ Frequency (MHz)	Antenna 1		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	18.04	18.04	17.11	17.11	20.61	24.00	PASS
	40/5200	17.93	17.93	17.03	17.03	20.51	24.00	PASS
	48/5240	17.78	17.78	16.80	16.80	20.33	24.00	PASS
802.11n HT40	36/5180	18.05	18.05	16.99	16.99	20.56	24.00	PASS
	40/5200	17.66	17.66	16.88	16.88	20.30	24.00	PASS
802.11ac VHT20	48/5240	18.09	18.09	17.19	17.19	20.67	24.00	PASS
	38/5190	17.81	17.81	17.11	17.11	20.48	24.00	PASS
	46/5230	17.70	17.70	16.98	16.98	20.37	24.00	PASS
802.11ac VHT40	36/5180	18.04	18.04	17.03	17.03	20.57	24.00	PASS
	40/5200	17.63	17.63	16.85	16.85	20.27	24.00	PASS
802.11ac VHT80	48/5240	14.23	14.23	13.43	13.43	16.86	24.00	PASS
802.11ax HE20	38/5190	16.85	16.85	15.84	15.84	19.38	24.00	PASS
	46/5230	16.72	16.72	15.75	15.75	19.27	24.00	PASS
	42/5210	16.51	16.51	15.61	15.61	19.09	24.00	PASS
802.11ax HE40	36/5180	15.02	15.02	13.96	13.96	17.53	24.00	PASS
	40/5200	14.64	14.64	13.78	13.78	17.24	24.00	PASS
802.11ax HE80	48/5240	14.33	14.33	13.44	13.44	16.92	24.00	PASS

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

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

2. The manufacturer declared the transmitter output signals is CDD mode And N_{ss}=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};

Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.

So directional gain = G_{ANT} + Array Gain =-0.31+0=-0.31dBi<6dBi. So the power limt is 24dBm.

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U-NII-2A

Mode	Channel/ Frequency (MHz)	Antenna 1		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	16.86	16.86	15.92	15.92	19.43	23.96	PASS
	60/5300	16.52	16.52	15.85	15.85	19.21	24.00	PASS
	64/5320	16.67	16.67	15.74	15.74	19.24	23.94	PASS
802.11n HT40	54/5270	13.89	13.89	13.05	13.05	16.50	24.00	PASS
	62/5310	13.83	13.83	13.06	13.06	16.47	24.00	PASS
802.11ac VHT20	52/5260	16.81	16.81	15.94	15.94	19.41	23.92	PASS
	60/5300	16.52	16.52	15.86	15.86	19.21	24.00	PASS
	64/5320	16.57	16.57	15.93	15.93	19.27	23.98	PASS
802.11ac VHT40	54/5270	13.86	13.86	13.02	13.02	16.47	24.00	PASS
	62/5310	13.83	13.83	13.04	13.04	16.46	24.00	PASS
802.11ac VHT80	58/5290	13.16	13.16	12.33	12.33	15.78	24.00	PASS
802.11ax HE20	52/5260	15.48	15.48	14.66	14.66	18.10	24.00	PASS
	60/5300	15.14	15.14	14.47	14.47	17.83	24.00	PASS
	64/5320	15.31	15.31	14.55	14.55	17.96	24.00	PASS
802.11ax HE40	54/5270	13.76	13.76	12.92	12.92	16.37	24.00	PASS
	62/5310	13.72	13.72	13.01	13.01	16.39	24.00	PASS
802.11ax HE80	58/5290	13.14	13.14	12.36	12.36	15.78	24.00	PASS

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

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U-NII-2C

Mode	Channel/ Frequency (MHz)	Antenna 1		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	12.22	12.22	11.24	11.24	14.77	24.00	PASS
	116/5580	12.43	12.43	11.22	11.22	14.88	24.00	PASS
	140/5700	12.74	12.74	11.05	11.05	14.99	24.00	PASS
	144/5720	12.81	12.81	11.19	11.19	15.09	23.97	PASS
802.11n HT40	102/5510	14.47	14.47	13.76	13.76	17.14	24.00	PASS
	110/5550	14.48	14.48	13.54	13.54	17.05	24.00	PASS
	134/5670	15.59	15.59	13.58	13.58	17.71	24.00	PASS
	142/5710	15.27	15.27	13.55	13.55	17.50	24.00	PASS
802.11ac VHT20	100/5500	12.22	12.22	11.31	11.31	14.80	24.00	PASS
	116/5580	12.41	12.41	11.27	11.27	14.89	23.96	PASS
	140/5700	12.75	12.75	11.06	11.06	15.00	24.00	PASS
	144/5720	12.78	12.78	11.28	11.28	15.10	24.00	PASS
802.11ac VHT40	102/5510	14.36	14.36	13.74	13.74	17.07	24.00	PASS
	110/5550	14.51	14.51	13.55	13.55	17.07	24.00	PASS
	134/5670	15.57	15.57	13.54	13.54	17.68	24.00	PASS
	142/5710	15.23	15.23	13.61	13.61	17.51	24.00	PASS
802.11ac VHT80	106/5530	16.02	16.02	15.23	15.23	18.65	24.00	PASS
	138/5690	17.27	17.27	15.36	15.36	19.43	24.00	PASS
802.11ax HE20	100/5500	12.28	12.28	11.38	11.38	14.86	24.00	PASS
	116/5580	12.54	12.54	11.34	11.34	14.99	24.00	PASS
	140/5700	12.62	12.62	11.16	11.16	14.96	24.00	PASS
	144/5720	12.72	12.72	11.32	11.32	15.09	24.00	PASS
802.11ax HE40	102/5510	13.64	13.64	13.16	13.16	16.42	24.00	PASS
	110/5550	13.85	13.85	12.87	12.87	16.40	24.00	PASS
	134/5670	14.88	14.88	12.92	12.92	17.02	24.00	PASS
	142/5710	14.42	14.42	13.02	13.02	16.79	24.00	PASS
802.11ax HE80	106/5530	13.94	13.94	13.34	13.34	16.66	24.00	PASS
	138/5690	15.01	15.01	13.41	13.41	17.29	24.00	PASS

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

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U-NII-3

Mode	Channel/ Frequency (MHz)	Antenna 1		Antenna 2		Total Power (dBm/ 500kHz)	Limit (dBm/ 500kHz)	Conclusion
		Average Power Measured (dBm/ 470kHz)	Average Power with duty factor (dBm/ 500kHz)	Average Power Measured (dBm/ 470kHz)	Average Power with duty factor (dBm/ 500kHz)			
802.11n HT20	149/5745	12.49	12.49	11.56	11.56	15.06	30.00	PASS
	157/5785	12.37	12.37	11.32	11.32	14.89	30.00	PASS
	165/5825	12.63	12.63	11.67	11.67	15.19	30.00	PASS
802.11n HT40	149/5745	14.23	14.23	13.36	13.36	16.83	30.00	PASS
	157/5785	14.66	14.66	13.60	13.60	17.17	30.00	PASS
802.11ac VHT20	165/5825	12.38	12.38	11.73	11.73	15.08	30.00	PASS
	151/5755	12.34	12.34	11.47	11.47	14.94	30.00	PASS
	159/5795	12.63	12.63	11.64	11.64	15.17	30.00	PASS
802.11ac VHT40	149/5745	14.19	14.19	13.34	13.34	16.80	30.00	PASS
	157/5785	14.65	14.65	13.69	13.69	17.21	30.00	PASS
802.11ac VHT80	165/5825	15.93	15.93	15.01	15.01	18.50	30.00	PASS
802.11ax HE20	151/5755	12.44	12.44	11.82	11.82	15.15	30.00	PASS
	159/5795	12.41	12.41	11.61	11.61	15.04	30.00	PASS
	155/5775	12.67	12.67	11.88	11.88	15.30	30.00	PASS
802.11ax HE40	149/5745	13.49	13.49	12.83	12.83	16.18	30.00	PASS
	157/5785	13.94	13.94	13.05	13.05	16.53	30.00	PASS
802.11ax HE80	165/5825	15.89	15.89	15.18	15.18	18.56	30.00	PASS

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

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TB Mode

Test Mode		RU Size	Channel/Frequency (MHz)	B=26 dB bandwidth (MHz)	Limit 11 dBm + 10 log B (dBm)	Final Limit(dBm)
U-NII-2A	MU 802.11ax HE20	26Tone	52/5260	19.09	23.81<24	23.81
			60/5300	16.96	23.29<24	23.29
			64/5320	19.45	23.89<24	23.89
		52Tone	52/5260	17.35	23.39<24	23.39
			60/5300	19.09	23.81<24	23.81
			64/5320	19.08	23.81<24	23.81
		106 Tone	52/5260	19.47	23.89<24	23.89
			60/5300	20.06	24.02>24	24.00
	SU 802.11ax HE20	242 Tone	52/5260	19.24	23.84<24	23.84
			60/5300	27.29	25.36>24	24.00
			64/5320	28.78	25.59>24	24.00
	SU 802.11ax HE40	484 Tone	54/5270	26.98	25.31>24	24.00
			62/5310	55.96	28.48>24	24.00
	SU 802.11ax HE80	996 Tone	58/5290	48.26	27.84>24	24.00
U-NII-2C	MU 802.11ax HE20	26Tone	52/5260	19.22	23.84<24	23.84
			60/5300	17.71	23.48<24	23.48
			64/5320	19.28	23.85<24	23.85
		52Tone	52/5260	11.38	21.56<24	21.56
			60/5300	20.03	24.02>24	24.00
			64/5320	18.17	23.59<24	23.59
		106 Tone	52/5260	19.47	23.89<24	23.89
			60/5300	18.76	23.73<24	23.73
	SU 802.11ax HE20	242 Tone	52/5260	19.98	24.01>24	24.00
			60/5300	17.54	23.44<24	23.44
			64/5320	19.74	23.95<24	23.95
	SU 802.11ax HE40	484 Tone	54/5270	20.38	24.09>24	24.00
			62/5310	23.84	24.77>24	24.00
	SU 802.11ax HE80	996 Tone	58/5290	25.95	25.14>24	24.00

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SISO Antenna 1

U-NII-1

Mode	RU Size	Index	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
MU 802.11ax HE20	26Tone	0	36/5180	10.91	10.91	24.00	PASS
		4	40/5200	11.85	11.85	24.00	PASS
		8	48/5240	10.80	10.80	24.00	PASS
	52Tone	37	36/5180	14.07	14.07	24.00	PASS
		38	40/5200	14.12	14.12	24.00	PASS
		40	48/5240	13.36	13.36	24.00	PASS
	106 Tone	53	36/5180	17.17	17.17	24.00	PASS
		53	40/5200	17.03	17.03	24.00	PASS
		54	48/5240	16.38	16.38	24.00	PASS
SU 802.11ax HE20	242 Tone	61	36/5180	17.07	17.07	24.00	PASS
		61	40/5200	16.87	16.87	24.00	PASS
		61	48/5240	16.71	16.71	24.00	PASS
SU 802.11ax HE40	484 Tone	65	38/5190	15.33	15.33	24.00	PASS
		65	46/5230	14.92	14.92	24.00	PASS
SU 802.11ax HE80	996 Tone	67	42/5210	14.11	14.11	24.00	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor							

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U-NII-2A

Mode	RU Size	Index	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
MU 802.11ax HE20	26Tone	0	52/5260	10.81	10.81	23.81	PASS
		4	60/5300	11.79	11.79	23.29	PASS
		8	64/5320	10.96	10.96	23.89	PASS
	52Tone	37	52/5260	13.38	13.38	23.39	PASS
		38	60/5300	13.42	13.42	23.81	PASS
		40	64/5320	13.51	13.51	23.81	PASS
	106 Tone	53	52/5260	16.36	16.36	23.89	PASS
		53	60/5300	16.32	16.32	24.00	PASS
		54	64/5320	16.43	16.43	23.84	PASS
SU 802.11ax HE20	242 Tone	61	52/5260	15.68	15.68	24.00	PASS
		61	60/5300	15.40	15.40	24.00	PASS
		61	64/5320	15.52	15.52	24.00	PASS
SU 802.11ax HE40	484 Tone	65	54/5270	14.10	14.10	24.00	PASS
		65	62/5310	14.02	14.02	24.00	PASS
SU 802.11ax HE80	996 Tone	67	58/5290	13.26	13.26	24.00	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor							

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U-NII-2C

Mode	RU Size	Index	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
MU 802.11ax HE20	26Tone	0	100/5500	10.62	10.62	23.84	PASS
		4	116/5580	11.61	11.61	23.48	PASS
		8	140/5700	10.90	10.90	23.85	PASS
		8	144/5720	10.63	10.63	21.56	PASS
	52Tone	37	100/5500	13.09	13.09	24.00	PASS
		38	116/5580	13.78	13.78	23.59	PASS
		40	140/5700	13.92	13.92	23.89	PASS
		40	144/5720	13.85	13.85	23.73	PASS
	106 Tone	53	100/5500	12.85	12.85	24.00	PASS
		53	116/5580	13.17	13.17	23.44	PASS
		54	140/5700	13.32	13.32	23.95	PASS
		54	144/5720	13.48	13.48	24.00	PASS
SU 802.11ax HE20	242 Tone	61	100/5500	13.03	13.03	24.00	PASS
		61	116/5580	13.29	13.29	24.00	PASS
		61	140/5700	13.53	13.53	24.00	PASS
		61	144/5720	13.61	13.61	24.00	PASS
SU 802.11ax HE40	484 Tone	65	102/5510	14.08	14.08	24.00	PASS
		65	110/5550	14.03	14.03	24.00	PASS
		65	134/5670	15.23	15.23	24.00	PASS
		65	142/5710	14.68	14.68	24.00	PASS
SU 802.11ax HE80	996 Tone	67	106/5530	13.79	13.79	24.00	PASS
		67	138/5690	14.88	14.88	24.00	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor							

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U-NII-3

Mode	RU Size	Index	Channel/ Frequency (MHz)	Average Power Measured (dBm/ 470kHz)	Average Power with duty factor (dBm/ 500kHz)	Limit (dBm/ 500kHz)	Conclusion
MU 802.11ax HE20	26Tone	0	149/5745	12.72	12.72	30	PASS
		4	157/5785	12.30	12.30	30	PASS
		8	165/5825	12.37	12.37	30	PASS
	52Tone	37	149/5745	12.75	12.75	30	PASS
		38	157/5785	12.37	12.37	30	PASS
		40	165/5825	12.53	12.53	30	PASS
	106 Tone	53	149/5745	12.80	12.80	30	PASS
		53	157/5785	12.34	12.34	30	PASS
		54	165/5825	12.67	12.67	30	PASS
SU 802.11ax HE20	242 Tone	61	149/5745	12.74	12.74	30	PASS
		61	157/5785	12.62	12.62	30	PASS
		61	165/5825	13.04	13.04	30	PASS
SU 802.11ax HE40	484 Tone	65	151/5755	13.79	13.79	30	PASS
		65	159/5795	14.18	14.18	30	PASS
SU 802.11ax HE80	996 Tone	67	155/5775	15.63	15.63	30	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor							

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SISO Antenna 2

U-NII-1

Mode	RU Size	Index	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
MU 802.11ax HE20	26Tone	0	36/5180	10.28	10.28	24	PASS
		4	40/5200	11.23	11.23	24	PASS
		8	48/5240	10.17	10.17	24	PASS
	52Tone	37	36/5180	13.28	13.28	24	PASS
		38	40/5200	13.20	13.20	24	PASS
		40	48/5240	12.67	12.67	24	PASS
	106 Tone	53	36/5180	16.33	16.33	24	PASS
		53	40/5200	16.25	16.25	24	PASS
		54	48/5240	15.62	15.62	24	PASS
SU 802.11ax HE20	242 Tone	61	36/5180	16.93	16.93	24	PASS
		61	40/5200	16.77	16.77	24	PASS
		61	48/5240	16.73	16.73	24	PASS
SU 802.11ax HE40	484 Tone	65	38/5190	14.15	14.15	24	PASS
		65	46/5230	14.05	14.05	24	PASS
SU 802.11ax HE80	996 Tone	67	42/5210	13.36	13.36	24	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor							

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U-NII-2A

Mode	RU Size	Index	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
MU 802.11ax HE20	26Tone	0	52/5260	10.17	10.17	23.81	PASS
		4	60/5300	11.26	11.26	23.29	PASS
		8	64/5320	10.58	10.58	23.89	PASS
	52Tone	37	52/5260	12.71	12.71	23.39	PASS
		38	60/5300	12.81	12.81	23.81	PASS
		40	64/5320	13.02	13.02	23.81	PASS
	106 Tone	53	52/5260	15.65	15.65	23.89	PASS
		53	60/5300	15.83	15.83	24.00	PASS
		54	64/5320	15.91	15.91	23.84	PASS
SU 802.11ax HE20	242 Tone	61	52/5260	15.63	15.63	24.00	PASS
		61	60/5300	15.38	15.38	24.00	PASS
		61	64/5320	15.50	15.50	24.00	PASS
SU 802.11ax HE40	484 Tone	65	54/5270	13.24	13.24	24.00	PASS
		65	62/5310	13.25	13.25	24.00	PASS
SU 802.11ax HE80	996 Tone	67	58/5290	12.18	12.18	24.00	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor							

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U-NII-2C

Mode	RU Size	Index	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
MU 802.11ax HE20	26Tone	0	100/5500	10.05	10.05	23.84	PASS
		4	116/5580	10.72	10.72	23.48	PASS
		8	140/5700	9.61	9.61	23.85	PASS
		8	144/5720	9.66	9.66	21.56	PASS
	52Tone	37	100/5500	12.56	12.56	24.00	PASS
		38	116/5580	12.84	12.84	23.59	PASS
		40	140/5700	12.63	12.63	23.89	PASS
		40	144/5720	12.67	12.67	23.73	PASS
	106 Tone	53	100/5500	12.86	12.86	24.00	PASS
		53	116/5580	13.12	13.12	23.44	PASS
		54	140/5700	13.26	13.26	23.95	PASS
		54	144/5720	13.46	13.46	24.00	PASS
SU 802.11ax HE20	242 Tone	61	100/5500	13.04	13.04	24.00	PASS
		61	116/5580	13.31	13.31	24.00	PASS
		61	140/5700	13.52	13.52	24.00	PASS
		61	144/5720	13.59	13.59	24.00	PASS
SU 802.11ax HE40	484 Tone	65	102/5510	13.40	13.40	24.00	PASS
		65	110/5550	13.14	13.14	24.00	PASS
		65	134/5670	13.27	13.27	24.00	PASS
		65	142/5710	13.24	13.24	24.00	PASS
SU 802.11ax HE80	996 Tone	67	106/5530	13.16	13.16	24.00	PASS
		67	138/5690	13.27	13.27	24.00	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor							

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U-NII-3

Mode	RU Size	Index	Channel/ Frequency (MHz)	Average Power Measured (dBm/ 470kHz)	Average Power with duty factor (dBm/ 500kHz)	Limit (dBm/ 500kHz)	Conclusion
MU 802.11ax HE20	26Tone	0	149/5745	11.94	11.94	30.00	PASS
		4	157/5785	11.47	11.47	30.00	PASS
		8	165/5825	11.71	11.71	30.00	PASS
	52Tone	37	149/5745	11.97	11.97	30.00	PASS
		38	157/5785	11.72	11.72	30.00	PASS
		40	165/5825	11.81	11.81	30.00	PASS
	106 Tone	53	149/5745	11.97	11.97	30.00	PASS
		53	157/5785	11.70	11.70	30.00	PASS
		54	165/5825	11.89	11.89	30.00	PASS
SU 802.11ax HE20	242 Tone	61	149/5745	12.09	12.09	30.00	PASS
		61	157/5785	11.93	11.93	30.00	PASS
		61	165/5825	12.15	12.15	30.00	PASS
SU 802.11ax HE40	484 Tone	65	151/5755	13.19	13.19	30.00	PASS
		65	159/5795	13.26	13.26	30.00	PASS
SU 802.11ax HE80	996 Tone	67	155/5775	15.03	15.03	30.00	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor							

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MIMO

U-NII-1

Mode	RU Size	Index	Channel/ Frequency (MHz)	Antenna 1		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)			
MU 802.11ax HE20	26Tone	0	36/5180	10.33	10.33	10.52	10.52	13.44	24.00	PASS
		4	40/5200	11.47	11.47	11.48	11.48	14.49	24.00	PASS
		8	48/5240	10.76	10.76	10.39	10.39	13.59	24.00	PASS
	52Tone	37	36/5180	13.42	13.42	13.65	13.65	16.55	24.00	PASS
		38	40/5200	13.55	13.55	13.62	13.62	16.60	24.00	PASS
		40	48/5240	13.37	13.37	12.94	12.94	16.17	24.00	PASS
	106 Tone	53	36/5180	16.39	16.39	16.68	16.68	19.55	24.00	PASS
		53	40/5200	16.48	16.48	16.46	16.46	19.48	24.00	PASS
		54	48/5240	16.25	16.25	16.43	16.43	19.35	24.00	PASS
SU 802.11ax HE20	242 Tone	61	36/5180	16.98	16.98	16.35	16.35	19.69	24.00	PASS
		61	40/5200	16.73	16.73	16.27	16.27	19.52	24.00	PASS
		61	48/5240	16.62	16.62	16.21	16.21	19.43	24.00	PASS
SU 802.11ax HE40	484 Tone	65	38/5190	15.24	15.24	13.67	13.67	17.54	24.00	PASS
		65	46/5230	14.84	14.84	13.52	13.52	17.24	24.00	PASS
SU 802.11ax HE80	996 Tone	67	42/5210	14.01	14.01	13.04	13.04	16.56	24.00	PASS

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

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

2. The manufacturer declared the transmitter output signals is CDD mode And N_{SS}=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};

Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.

3.If antenna gains are not equal, the user may use either of the following methods to calculate directional gain, provided that each transmit antenna is driven by only one spatial stream: Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain.

So directional gain = G_{ANT} + Array Gain =-0.31+0=-0.31dBi<6dBi. So the power limt is 24dBm.

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U-NII-2A

Mode	RU Size	Index	Channel/ Frequency (MHz)	Antenna 1		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)			
MU 802.11ax HE20	26Tone	0	52/5260	10.65	10.65	10.30	10.30	13.49	23.81	PASS
		4	60/5300	11.80	11.80	11.32	11.32	14.58	23.29	PASS
		8	64/5320	11.06	11.06	10.45	10.45	13.78	23.89	PASS
	52Tone	37	52/5260	13.62	13.62	13.07	13.07	16.36	23.39	PASS
		38	60/5300	13.67	13.67	13.12	13.12	16.41	23.81	PASS
		40	64/5320	13.58	13.58	13.06	13.06	16.34	23.81	PASS
	106 Tone	53	52/5260	16.23	16.23	16.08	16.08	19.17	23.89	PASS
		53	60/5300	16.43	16.43	15.97	15.97	19.22	24.00	PASS
		54	64/5320	16.50	16.50	16.03	16.03	19.28	23.84	PASS
SU 802.11ax HE20	242 Tone	61	52/5260	15.61	15.61	15.52	15.52	18.58	24.00	PASS
		61	60/5300	15.32	15.32	15.34	15.34	18.34	24.00	PASS
		61	64/5320	15.46	15.46	15.43	15.43	18.46	24.00	PASS
SU 802.11ax HE40	484 Tone	65	54/5270	14.02	14.02	13.16	13.16	16.62	24.00	PASS
		65	62/5310	13.95	13.95	13.12	13.12	16.57	24.00	PASS
SU 802.11ax HE80	996 Tone	67	58/5290	13.12	13.12	12.06	12.06	15.63	24.00	PASS

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

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U-NII-2A

Mode	RU Size	Index	Channel/ Frequency (MHz)	Antenna 1		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)			
MU 802.11ax HE20	26Tone	0	100/5500	10.76	10.76	10.11	10.11	13.46	23.84	PASS
		4	116/5580	11.62	11.62	10.48	10.48	14.10	23.48	PASS
		8	140/5700	10.68	10.68	9.75	9.75	13.25	23.85	PASS
		8	144/5720	10.49	10.49	9.87	9.87	13.20	21.56	PASS
	52Tone	37	100/5500	13.24	13.24	12.56	12.56	15.92	24.00	PASS
		38	116/5580	13.62	13.62	12.84	12.84	16.26	23.59	PASS
		40	140/5700	12.96	12.96	12.69	12.69	15.84	23.89	PASS
		40	144/5720	13.08	13.08	12.84	12.84	15.97	23.73	PASS
	106 Tone	53	100/5500	12.78	12.78	12.78	12.78	15.79	24.00	PASS
		53	116/5580	13.10	13.10	13.04	13.04	16.08	23.44	PASS
		54	140/5700	13.25	13.25	13.18	13.18	16.23	23.95	PASS
		54	144/5720	13.41	13.41	13.38	13.38	16.41	24.00	PASS
SU 802.11ax HE20	242 Tone	61	100/5500	12.96	12.96	12.96	12.96	15.97	24.00	PASS
		61	116/5580	13.22	13.22	13.23	13.23	16.24	24.00	PASS
		61	140/5700	13.46	13.46	13.28	13.28	16.38	24.00	PASS
		61	144/5720	13.54	13.54	13.51	13.51	16.54	24.00	PASS
SU 802.11ax HE40	484 Tone	65	102/5510	14.01	14.01	13.32	13.32	16.69	24.00	PASS
		65	110/5550	13.96	13.96	13.06	13.06	16.54	24.00	PASS
		65	134/5670	15.16	15.16	13.19	13.19	17.30	24.00	PASS
		65	142/5710	14.61	14.61	13.14	13.14	16.95	24.00	PASS
SU 802.11ax HE80	996 Tone	67	106/5530	13.72	13.72	13.08	13.08	16.42	24.00	PASS
		67	138/5690	14.81	14.81	13.17	13.17	17.08	24.00	PASS

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

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U-NII-3

Mode	RU Size	Index	Carrier frequency (MHz)	Antenna 1		Antenna 2		Total Power (dBm/ 500kHz)	Limit (dBm/ 500kHz)	Conclusion
				Average Power Measured (dBm/ 470kHz)	Average Power with duty factor (dBm/ 500kHz)	Average Power Measured (dBm/ 470kHz)	Average Power with duty factor (dBm/ 500kHz)			
MU 802.11ax HE20	26Tone	0	149/5745	12.66	12.66	11.86	11.86	15.29	30.00	PASS
		4	157/5785	12.23	12.23	11.39	11.39	14.84	30.00	PASS
		8	165/5825	12.28	12.28	11.63	11.63	14.98	30.00	PASS
	52Tone	37	149/5745	12.69	12.69	11.89	11.89	15.32	30.00	PASS
		38	157/5785	12.31	12.31	11.62	11.62	14.99	30.00	PASS
		40	165/5825	12.47	12.47	11.73	11.73	15.13	30.00	PASS
	106 Tone	53	149/5745	12.71	12.71	11.89	11.89	15.33	30.00	PASS
		53	157/5785	12.28	12.28	11.62	11.62	14.97	30.00	PASS
		54	165/5825	12.61	12.61	11.84	11.84	15.25	30.00	PASS
SU 802.11ax HE20	242 Tone	61	149/5745	12.64	12.64	12.01	12.01	15.35	30.00	PASS
		61	157/5785	12.56	12.56	11.85	11.85	15.23	30.00	PASS
		61	165/5825	12.98	12.98	12.07	12.07	15.56	30.00	PASS
SU 802.11ax HE40	484 Tone	65	151/5755	13.68	13.68	13.11	13.11	16.41	30.00	PASS
		65	159/5795	14.12	14.12	13.18	13.18	16.69	30.00	PASS
SU 802.11ax HE80	996 Tone	67	155/5775	15.55	15.55	14.83	14.83	18.22	30.00	PASS

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

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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.

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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

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Test Results

Voltage (V)	Temperature (°C)	U-NII-1 Test Results			
		5200MHz			
		1min	2min	5min	10min
3.9	-20	5199.992948	5199.984197	5199.974291	5199.965798
3.9	-10	5199.984315	5199.975948	5199.971377	5199.963530
3.9	0	5199.976889	5199.975561	5199.967402	5199.957062
3.9	10	5199.967154	5199.973282	5199.960320	5199.947896
3.9	20	5199.958160	5199.965544	5199.955908	5199.941341
3.9	30	5199.955811	5199.962791	5199.947467	5199.934632
3.9	40	5199.950113	5199.953827	5199.940555	5199.927124
3.9	55	5199.941883	5199.951703	5199.940191	5199.918127
3.6	20	5199.937505	5199.943716	5199.938118	5199.911511
4.2	20	5199.931790	5199.942908	5199.934506	5199.907056
MHz		-0.068210	-0.057092	-0.065494	-0.092944
PPM		-13.117254	-10.979141	-12.594909	-17.873893

Voltage (V)	Temperature (°C)	U-NII-2A Test Results			
		5300MHz			
		1min	2min	5min	10min
3.9	-20	5300.000519	5299.992501	5299.989532	5299.982253
3.9	-10	5299.992116	5299.987281	5299.988432	5299.972722
3.9	0	5299.984147	5299.977364	5299.982807	5299.964460
3.9	10	5299.975011	5299.969481	5299.976220	5299.956053
3.9	20	5299.969815	5299.959670	5299.972332	5299.948722
3.9	30	5299.965399	5299.956258	5299.962651	5299.939229
3.9	40	5299.962753	5299.947414	5299.954010	5299.929337
3.9	55	5299.957919	5299.946567	5299.946507	5299.927770
3.6	20	5299.952317	5299.936967	5299.937899	5299.926450
4.2	20	5299.942931	5299.930908	5299.928047	5299.918096
MHz		-0.057069	-0.069092	-0.071953	-0.081904
PPM		-10.767821	-13.036202	-13.575988	-15.453627

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Voltage (V)	Temperature (°C)	U-NII-2C Test Results			
		5580MHz			
		1min	2min	5min	10min
3.9	-20	5579.999093	5579.998130	5579.997171	5579.989350
3.9	-10	5579.992151	5579.989479	5579.994548	5579.980787
3.9	0	5579.983489	5579.984149	5579.993083	5579.977561
3.9	10	5579.980903	5579.978231	5579.990378	5579.972937
3.9	20	5579.975914	5579.972039	5579.987708	5579.966240
3.9	30	5579.973150	5579.964734	5579.980978	5579.962960
3.9	40	5579.967928	5579.955948	5579.978245	5579.955902
3.9	55	5579.959831	5579.950296	5579.976606	5579.947070
3.6	20	5579.954337	5579.941207	5579.973505	5579.941852
4.2	20	5579.944615	5579.935960	5579.966963	5579.934205
MHz		-0.055385	-0.064040	-0.033037	-0.065795
PPM		-9.925665	-11.476704	-5.920583	-11.791247

Voltage (V)	Temperature (°C)	U-NII-3 Test Results			
		5785MHz			
		1min	2min	5min	10min
3.9	-20	5785.002361	5785.000798	5784.998077	5784.992942
3.9	-10	5784.994047	5784.999079	5784.997112	5784.983019
3.9	0	5784.986717	5784.995906	5784.991085	5784.980514
3.9	10	5784.981094	5784.988254	5784.988897	5784.974040
3.9	20	5784.971186	5784.982581	5784.982614	5784.969897
3.9	30	5784.965644	5784.981439	5784.981553	5784.966990
3.9	40	5784.962980	5784.981316	5784.979708	5784.958251
3.9	55	5784.958420	5784.980184	5784.970545	5784.957303
3.6	20	5784.956276	5784.974536	5784.967097	5784.952057
4.2	20	5784.951663	5784.968610	5784.961663	5784.948513
MHz		-0.048337	-0.031390	-0.038337	-0.051487
PPM		-8.355556	-5.426166	-6.626934	-8.900050

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5.4. Power Spectral Density

Ambient condition

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

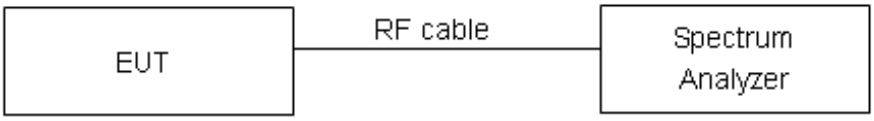
Method of Measurement

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

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

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

Test setup



Limits

Rule FCC Part 15.407(a)(1)/ Part 15.407(a)(2) / Part 15.407(a)(3)
For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500kHz band. If 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

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amount in dB that the directional gain of the antenna exceeds 6 dBi.

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

Measurement Uncertainty

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

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Test Results:

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

RU Mode

SISO Antenna 1

U-NII-1

Mode	Channel Number	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	36/5180	1.812	1.81	11	PASS
	40/5200	1.585	1.59	11	PASS
	48/5240	1.527	1.53	11	PASS
802.11n HT20	36/5180	7.055	7.06	11	PASS
	40/5200	6.915	6.92	11	PASS
	48/5240	6.798	6.80	11	PASS
802.11n HT40	38/5190	4.157	4.16	11	PASS
	46/5230	3.769	3.77	11	PASS
802.11ac VHT20	36/5180	7.139	7.14	11	PASS
	40/5200	7.015	7.02	11	PASS
	48/5240	6.875	6.88	11	PASS
802.11ac VHT40	38/5190	4.190	4.19	11	PASS
	46/5230	3.983	3.98	11	PASS
802.11ac VHT80	42/5210	-2.831	-2.83	11	PASS
802.11ax HE20	36/5180	5.925	5.93	11	PASS
	40/5200	5.646	5.65	11	PASS
	48/5240	5.736	5.74	11	PASS
802.11ax HE40	38/5190	0.857	0.86	11	PASS
	46/5230	0.591	0.59	11	PASS
802.11ax HE80	42/5210	-2.808	-2.81	11	PASS

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U-NII-2A

Mode	Channel Number	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	52/5260	1.621	1.62	11	PASS
	60/5300	1.273	1.27	11	PASS
	64/5320	1.414	1.41	11	PASS
802.11n HT20	52/5260	6.132	6.13	11	PASS
	60/5300	5.852	5.85	11	PASS
	64/5320	5.991	5.99	11	PASS
802.11n HT40	54/5270	0.139	0.14	11	PASS
	62/5310	0.060	0.06	11	PASS
802.11ac VHT20	52/5260	6.077	6.08	11	PASS
	60/5300	5.614	5.61	11	PASS
	64/5320	5.803	5.80	11	PASS
802.11ac VHT40	54/5270	-0.060	-0.06	11	PASS
	62/5310	0.125	0.13	11	PASS
802.11ac VHT80	58/5290	-3.895	-3.90	11	PASS
802.11ax HE20	52/5260	4.701	4.70	11	PASS
	60/5300	4.324	4.32	11	PASS
	64/5320	4.286	4.29	11	PASS
802.11ax HE40	54/5270	-0.060	-0.06	11	PASS
	62/5310	-0.252	-0.25	11	PASS
802.11ax HE80	58/5290	-4.036	-4.04	11	PASS

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U-NII-2C

Mode	Channel Number	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	100/5500	1.950	1.95	11	PASS
	116/5580	2.009	2.01	11	PASS
	140/5700	2.698	2.70	11	PASS
	144/5720	2.565	2.57	11	PASS
802.11n HT20	100/5500	1.333	1.33	11	PASS
	116/5580	1.505	1.51	11	PASS
	140/5700	1.927	1.93	11	PASS
	144/5720	1.890	1.89	11	PASS
802.11n HT40	102/5510	0.393	0.39	11	PASS
	110/5550	0.684	0.68	11	PASS
	134/5670	1.874	1.87	11	PASS
	142/5710	1.281	1.28	11	PASS
802.11ac VHT20	100/5500	1.441	1.44	11	PASS
	116/5580	1.489	1.49	11	PASS
	140/5700	1.945	1.95	11	PASS
	144/5720	2.162	2.16	11	PASS
802.11ac VHT40	102/5510	0.642	0.64	11	PASS
	110/5550	0.512	0.51	11	PASS
	134/5670	1.824	1.82	11	PASS
	142/5710	1.320	1.32	11	PASS
802.11ac VHT80	106/5530	-1.175	-1.18	11	PASS
	138/5690	-0.086	-0.09	11	PASS
802.11ax HE20	100/5500	1.273	1.27	11	PASS
	116/5580	1.379	1.38	11	PASS
	140/5700	1.956	1.96	11	PASS
	144/5720	2.279	2.28	11	PASS
802.11ax HE40	102/5510	-0.151	-0.15	11	PASS
	110/5550	0.224	0.22	11	PASS
	134/5670	1.243	1.24	11	PASS
	142/5710	1.128	1.13	11	PASS
802.11ax HE80	106/5530	-2.678	-2.68	11	PASS
	138/5690	-2.150	-2.15	11	PASS

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Mode	Channel Number	Read Value (dBm/470kHz)	Power Spectral Density (dBm/500kHz)	Limit (dBm/500kHz)	Conclusion
802.11a	149/5745	0.013	0.28	30	PASS
	157/5785	-0.264	0.01	30	PASS
	165/5825	0.159	0.43	30	PASS
802.11n HT20	149/5745	-1.631	-1.36	30	PASS
	157/5785	-1.606	-1.34	30	PASS
	165/5825	-1.360	-1.09	30	PASS
802.11n HT40	151/5755	-2.817	-2.55	30	PASS
	159/5795	-2.535	-2.27	30	PASS
802.11ac VHT20	149/5745	-1.481	-1.21	30	PASS
	157/5785	-1.872	-1.60	30	PASS
	165/5825	-1.530	-1.26	30	PASS
802.11ac VHT40	151/5755	-2.837	-2.57	30	PASS
	159/5795	-2.427	-2.16	30	PASS
802.11ac VHT80	155/5775	-4.670	-4.40	30	PASS
802.11ax HE20	149/5745	-1.517	-1.25	30	PASS
	157/5785	-1.817	-1.55	30	PASS
	165/5825	-1.185	-0.92	30	PASS
802.11ax HE40	151/5755	-3.635	-3.37	30	PASS
	159/5795	-3.240	-2.97	30	PASS
802.11ax HE80	155/5775	-4.510	-4.24	30	PASS
Note:PSD=Read Value+Duty cycle+10*LOG(500/470) correction factor					

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SISO Antenna 2

U-NII-1

Mode	Channel Number	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	36/5180	1.031	1.03	11	PASS
	40/5200	0.626	0.63	11	PASS
	48/5240	0.696	0.70	11	PASS
802.11n HT20	36/5180	6.259	6.26	11	PASS
	40/5200	6.203	6.20	11	PASS
	48/5240	6.093	6.09	11	PASS
802.11n HT40	38/5190	3.252	3.25	11	PASS
	46/5230	2.957	2.96	11	PASS
802.11ac VHT20	36/5180	6.516	6.52	11	PASS
	40/5200	6.272	6.27	11	PASS
	48/5240	6.164	6.16	11	PASS
802.11ac VHT40	38/5190	3.117	3.12	11	PASS
	46/5230	3.227	3.23	11	PASS
802.11ac VHT80	42/5210	-3.720	-3.72	11	PASS
802.11ax HE20	36/5180	5.105	5.11	11	PASS
	40/5200	4.858	4.86	11	PASS
	48/5240	4.850	4.85	11	PASS
802.11ax HE40	38/5190	0.052	0.05	11	PASS
	46/5230	-0.234	-0.23	11	PASS
802.11ax HE80	42/5210	-3.504	-3.50	11	PASS

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U-NII-2A

Mode	Channel Number	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	52/5260	0.713	0.71	11	PASS
	60/5300	0.497	0.50	11	PASS
	64/5320	0.556	0.56	11	PASS
802.11n HT20	52/5260	5.284	5.28	11	PASS
	60/5300	5.034	5.03	11	PASS
	64/5320	4.933	4.93	11	PASS
802.11n HT40	54/5270	-0.917	-0.92	11	PASS
	62/5310	-0.998	-1.00	11	PASS
802.11ac VHT20	52/5260	5.193	5.19	11	PASS
	60/5300	4.986	4.99	11	PASS
	64/5320	5.118	5.12	11	PASS
802.11ac VHT40	54/5270	-0.883	-0.88	11	PASS
	62/5310	-1.044	-1.04	11	PASS
802.11ac VHT80	58/5290	-4.800	-4.80	11	PASS
802.11ax HE20	52/5260	3.624	3.62	11	PASS
	60/5300	3.619	3.62	11	PASS
	64/5320	3.588	3.59	11	PASS
802.11ax HE40	54/5270	-1.029	-1.03	11	PASS
	62/5310	-1.169	-1.17	11	PASS
802.11ax HE80	58/5290	-4.860	-4.86	11	PASS

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U-NII-2C

Mode	Channel Number	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	100/5500	0.886	0.89	11	PASS
	116/5580	0.829	0.83	11	PASS
	140/5700	0.615	0.62	11	PASS
	144/5720	0.923	0.92	11	PASS
802.11n HT20	100/5500	0.785	0.79	11	PASS
	116/5580	0.239	0.24	11	PASS
	140/5700	0.153	0.15	11	PASS
	144/5720	0.354	0.35	11	PASS
802.11n HT40	102/5510	-0.021	-0.02	11	PASS
	110/5550	-0.386	-0.39	11	PASS
	134/5670	-0.112	-0.11	11	PASS
	142/5710	-0.160	-0.16	11	PASS
802.11ac VHT20	100/5500	0.616	0.62	11	PASS
	116/5580	0.375	0.38	11	PASS
	140/5700	0.202	0.20	11	PASS
	144/5720	0.567	0.57	11	PASS
802.11ac VHT40	102/5510	-0.110	-0.11	11	PASS
	110/5550	-0.381	-0.38	11	PASS
	134/5670	-0.154	-0.15	11	PASS
	142/5710	-0.269	-0.27	11	PASS
802.11ac VHT80	106/5530	-2.141	-2.14	11	PASS
	138/5690	-1.895	-1.90	11	PASS
802.11ax HE20	100/5500	0.259	0.26	11	PASS
	116/5580	0.324	0.32	11	PASS
	140/5700	0.103	0.10	11	PASS
	144/5720	0.250	0.25	11	PASS
802.11ax HE40	102/5510	-0.769	-0.77	11	PASS
	110/5550	-1.078	-1.08	11	PASS
	134/5670	-0.970	-0.97	11	PASS
	142/5710	-0.741	-0.74	11	PASS
802.11ax HE80	106/5530	-4.121	-4.12	11	PASS
	138/5690	-3.935	-3.94	11	PASS

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U-NII-3

Mode	Channel Number	Read Value (dBm/470kHz)	Power Spectral Density (dBm/500kHz)	Limit (dBm/500kHz)	Conclusion
802.11a	149/5745	-1.038	-0.77	30	PASS
	157/5785	-1.294	-1.02	30	PASS
	165/5825	-1.208	-0.94	30	PASS
802.11n HT20	149/5745	-2.284	-2.01	30	PASS
	157/5785	-2.337	-2.07	30	PASS
	165/5825	-2.675	-2.41	30	PASS
802.11n HT40	151/5755	-3.978	-3.71	30	PASS
	159/5795	-3.308	-3.04	30	PASS
802.11ac VHT20	149/5745	-2.531	-2.26	30	PASS
	157/5785	-2.500	-2.23	30	PASS
	165/5825	-2.579	-2.31	30	PASS
802.11ac VHT40	151/5755	-3.901	-3.63	30	PASS
	159/5795	-3.410	-3.14	30	PASS
802.11ac VHT80	155/5775	-5.372	-5.10	30	PASS
802.11ax HE20	149/5745	-2.537	-2.27	30	PASS
	157/5785	-2.654	-2.38	30	PASS
	165/5825	-2.506	-2.24	30	PASS
802.11ax HE40	151/5755	-4.447	-4.18	30	PASS
	159/5795	-4.216	-3.95	30	PASS
802.11ax HE80	155/5775	-5.463	-5.19	30	PASS
Note:PSD=Read Value+Duty cycle+10*LOG(500/470) correction factor					

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MIMO

U-NII-1

Mode	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm /MHz)		
		Read Value (dBm)	Power Spectral Density (dBm)	Read Value (dBm)	Power Spectral Density (dBm)			
802.11n HT20	36/5180	7.61	7.61	6.74	6.74	10.21	11.00	PASS
	40/5200	7.77	7.77	6.08	6.08	10.02	11.00	PASS
	48/5240	7.64	7.64	6.60	6.60	10.16	11.00	PASS
802.11n HT40	38/5190	4.81	4.81	3.24	3.24	7.11	11.00	PASS
	46/5230	4.35	4.35	3.13	3.13	6.80	11.00	PASS
802.11ac VHT20	36/5180	7.69	7.69	6.53	6.53	10.16	11.00	PASS
	40/5200	7.31	7.31	6.44	6.44	9.91	11.00	PASS
	48/5240	7.48	7.48	6.08	6.08	9.84	11.00	PASS
802.11ac VHT40	38/5190	4.52	4.52	3.17	3.17	6.91	11.00	PASS
	46/5230	4.30	4.30	2.96	2.96	6.69	11.00	PASS
802.11ac VHT80	42/5210	-2.13	-2.13	-3.53	-3.53	0.23	11.00	PASS
802.11ax HE20	36/5180	6.31	6.31	5.14	5.14	8.77	11.00	PASS
	40/5200	6.19	6.19	4.90	4.90	8.60	11.00	PASS
	48/5240	5.93	5.93	4.66	4.66	8.35	11.00	PASS
802.11ax HE40	38/5190	1.56	1.56	0.24	0.24	3.96	11.00	PASS
	46/5230	1.25	1.25	-0.29	-0.29	3.56	11.00	PASS
802.11ax HE80	42/5210	-2.12	-2.12	-3.48	-3.48	0.26	11.00	PASS

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

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

3.If antenna gains are not equal, the user may use either of the following methods to calculate directional gain, provided that each transmit antenna is driven by only one spatial stream: Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain. And Nss=1, Array Gain=10log(Nant/Nss)dB, so directional gain = G_{ANT} + Array Gain= -0.31dBi+10log(2/1)=2.7dBi <6dBi. So the PSD limt is 11dBm.

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U-NII-2A

Mode	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm /MHz)		
		Read Value (dBm)	Power Spectral Density (dBm)	Read Value (dBm)	Power Spectral Density (dBm)			
802.11n HT20	52/5260	5.98	5.98	5.26	5.26	8.64	11.00	PASS
	60/5300	5.87	5.87	4.83	4.83	8.39	11.00	PASS
	64/5320	6.14	6.14	4.89	4.89	8.57	11.00	PASS
802.11n HT40	54/5270	0.65	0.65	-0.78	-0.78	3.00	11.00	PASS
	62/5310	0.37	0.37	-1.19	-1.19	2.67	11.00	PASS
802.11ac VHT20	52/5260	5.81	5.81	4.97	4.97	8.42	11.00	PASS
	60/5300	5.71	5.71	5.01	5.01	8.38	11.00	PASS
	64/5320	5.69	5.69	4.88	4.88	8.32	11.00	PASS
802.11ac VHT40	54/5270	0.25	0.25	-0.88	-0.88	2.73	11.00	PASS
	62/5310	0.11	0.11	-1.25	-1.25	2.49	11.00	PASS
802.11ac VHT80	58/5290	-3.87	-3.87	-4.86	-4.86	-1.33	11.00	PASS
802.11ax HE20	52/5260	5.48	5.48	3.84	3.84	7.75	11.00	PASS
	60/5300	5.11	5.11	3.55	3.55	7.41	11.00	PASS
	64/5320	5.37	5.37	3.40	3.40	7.51	11.00	PASS
802.11ax HE40	54/5270	-0.21	-0.21	-0.96	-0.96	2.44	11.00	PASS
	62/5310	-0.07	-0.07	-1.23	-1.23	2.40	11.00	PASS
802.11ax HE80	58/5290	-3.99	-3.99	-4.77	-4.77	-1.35	11.00	PASS

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

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

3.If antenna gains are not equal, the user may use either of the following methods to calculate directional gain, provided that each transmit antenna is driven by only one spatial stream: Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain. And Nss=1, Array Gain=10log(Nant/Nss)dB, so directional gain = G_{ANT} + Array Gain= -0.31dBi+10log(2/1)=2.7dBi <6dBi. So the PSD limt is 11dBm.

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U-NII-2C

Mode	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm /MHz)		
		Read Value (dBm)	Power Spectral Density (dBm)	Read Value (dBm)	Power Spectral Density (dBm)			
802.11n HT20	100/5500	0.98	0.98	0.44	0.44	3.73	11.00	PASS
	116/5580	1.25	1.25	0.53	0.53	3.92	11.00	PASS
	140/5700	1.58	1.58	0.19	0.19	3.95	11.00	PASS
	144/5720	1.92	1.92	0.58	0.58	4.31	11.00	PASS
802.11n HT40	102/5510	0.15	0.15	-0.55	-0.55	2.83	11.00	PASS
	110/5550	0.41	0.41	-0.42	-0.42	3.03	11.00	PASS
	134/5670	1.47	1.47	-0.60	-0.60	3.57	11.00	PASS
	142/5710	1.28	1.28	-0.64	-0.64	3.44	11.00	PASS
802.11ac VHT20	100/5500	1.24	1.24	0.13	0.13	3.73	11.00	PASS
	116/5580	1.40	1.40	0.32	0.32	3.90	11.00	PASS
	140/5700	1.46	1.46	0.29	0.29	3.93	11.00	PASS
	144/5720	1.88	1.88	0.44	0.44	4.23	11.00	PASS
802.11ac VHT40	102/5510	0.30	0.30	-0.23	-0.23	3.05	11.00	PASS
	110/5550	0.34	0.34	-0.38	-0.38	3.00	11.00	PASS
	134/5670	1.30	1.30	-0.63	-0.63	3.45	11.00	PASS
	142/5710	1.31	1.31	-0.42	-0.42	3.54	11.00	PASS
802.11ac VHT80	106/5530	-1.58	-1.58	-2.33	-2.33	1.07	11.00	PASS
	138/5690	-0.42	-0.42	-2.21	-2.21	1.78	11.00	PASS
802.11ax HE20	100/5500	1.06	1.06	0.20	0.20	3.66	11.00	PASS
	116/5580	1.18	1.18	0.22	0.22	3.74	11.00	PASS
	140/5700	1.29	1.29	0.07	0.07	3.73	11.00	PASS
	144/5720	1.77	1.77	0.48	0.48	4.18	11.00	PASS
802.11ax HE40	102/5510	-0.55	-0.55	-0.93	-0.93	2.28	11.00	PASS
	110/5550	-0.47	-0.47	-1.43	-1.43	2.09	11.00	PASS
	134/5670	0.52	0.52	-1.27	-1.27	2.73	11.00	PASS
	142/5710	0.47	0.47	-1.32	-1.32	2.68	11.00	PASS
802.11ax HE80	106/5530	-3.84	-3.84	-4.09	-4.09	-0.95	11.00	PASS
	138/5690	-2.20	-2.20	-3.91	-3.91	0.04	11.00	PASS

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

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

3.If antenna gains are not equal, the user may use either of the following methods to calculate directional gain, provided that each transmit antenna is driven by only one spatial stream: Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain. And Nss=1, Array Gain=10log(Nant/Nss)dB, so directional gain = G_{ANT} + Array Gain= -0.31dBi+10log(2/1)=2.7dBi <6dBi. So the PSD limt is 11dBm.

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U-NII-3

Mode	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm/ 500kHz)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm /MHz)		
		Read Value (dBm/ 470kHz)	Power Spectral Density (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	Power Spectral Density (dBm/ 500kHz)			
802.11n HT20	149/5745	-2.00	-1.73	-2.65	-2.38	0.97	30.00	PASS
	157/5785	-2.02	-1.75	-2.57	-2.30	1.00	30.00	PASS
	165/5825	-1.43	-1.16	-2.53	-2.26	1.34	30.00	PASS
802.11n HT40	151/5755	-3.15	-2.88	-4.11	-3.84	-0.32	30.00	PASS
	159/5795	-2.30	-2.03	-3.50	-3.23	0.42	30.00	PASS
802.11ac VHT20	149/5745	-1.74	-1.47	-2.33	-2.06	1.26	30.00	PASS
	157/5785	-1.86	-1.59	-2.55	-2.28	1.09	30.00	PASS
	165/5825	-1.57	-1.30	-2.20	-1.93	1.41	30.00	PASS
802.11ac VHT40	151/5755	-2.97	-2.70	-4.05	-3.78	-0.19	30.00	PASS
	159/5795	-2.47	-2.20	-3.73	-3.46	0.22	30.00	PASS
802.11ac VHT80	155/5775	-4.79	-4.52	-5.60	-5.33	-1.89	30.00	PASS
802.11ax HE20	149/5745	-1.91	-1.64	-2.50	-2.23	1.09	30.00	PASS
	157/5785	-1.88	-1.61	-2.68	-2.41	1.02	30.00	PASS
	165/5825	-1.81	-1.54	-2.32	-2.05	1.22	30.00	PASS
802.11ax HE40	151/5755	-3.71	-3.44	-4.72	-4.45	-0.90	30.00	PASS
	159/5795	-3.01	-2.74	-4.33	-4.06	-0.34	30.00	PASS
802.11ax HE80	155/5775	-4.65	-4.38	-5.11	-4.84	-1.60	30.00	PASS

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

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

3.If antenna gains are not equal, the user may use either of the following methods to calculate directional gain, provided that each transmit antenna is driven by only one spatial stream: Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain. And Nss=1, Array Gain=10log(Nant/Nss)dB, so directional gain = G_{ANT} + Array Gain= -0.31dBi+10log(2/1)=2.7dBi <6dBi. So the PSD limt is 11dBm.

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TB mode

SISO Antenna 1

U-NII-1

Mode	RU Size	Index	Channel/ Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm)	Conclusion
MU 802.11ax HE20	26Tone	0	36/5180	7.379	7.38	11	PASS
		4	40/5200	7.110	7.11	11	PASS
		8	48/5240	7.411	7.41	11	PASS
	52Tone	37	36/5180	7.627	7.63	11	PASS
		38	40/5200	7.662	7.66	11	PASS
		40	48/5240	7.711	7.71	11	PASS
	106 Tone	53	36/5180	7.794	7.79	11	PASS
		53	40/5200	7.816	7.82	11	PASS
		54	48/5240	6.981	6.98	11	PASS
SU 802.11ax HE20	242 Tone	61	36/5180	5.519	5.52	11	PASS
		61	40/5200	5.441	5.44	11	PASS
		61	48/5240	5.277	5.28	11	PASS
SU 802.11ax HE40	484 Tone	65	38/5190	0.799	0.80	11	PASS
		65	46/5230	0.427	0.43	11	PASS
SU 802.11ax HE80	996 Tone	67	42/5210	-0.314	-0.31	11	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor							

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U-NII-2A

Mode	RU Size	Index	Channel/ Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm)	Conclusion
MU 802.11ax HE20	26Tone	0	52/5260	7.116	7.12	11	PASS
		4	60/5300	6.656	6.66	11	PASS
		8	64/5320	6.806	6.81	11	PASS
	52Tone	37	52/5260	7.257	7.26	11	PASS
		38	60/5300	6.486	6.49	11	PASS
		40	64/5320	6.718	6.72	11	PASS
	106 Tone	53	52/5260	7.064	7.06	11	PASS
		53	60/5300	6.822	6.82	11	PASS
		54	64/5320	6.706	6.71	11	PASS
SU 802.11ax HE20	242 Tone	61	52/5260	4.229	4.23	11	PASS
		61	60/5300	3.683	3.68	11	PASS
		61	64/5320	3.888	3.89	11	PASS
SU 802.11ax HE40	484 Tone	65	54/5270	-0.498	-0.50	11	PASS
		65	62/5310	-0.613	-0.61	11	PASS
SU 802.11ax HE80	996 Tone	67	58/5290	-4.648	-4.65	11	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor							

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U-NII-2C

Mode	RU Size	Index	Channel/ Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm)	Conclusion
MU 802.11ax HE20	26Tone	0	100/5500	7.306	7.31	11	PASS
		4	116/5580	6.749	6.75	11	PASS
		8	140/5700	6.832	6.83	11	PASS
		8	144/5720	6.707	6.71	11	PASS
	52Tone	37	100/5500	7.635	7.64	11	PASS
		38	116/5580	8.029	8.03	11	PASS
		40	140/5700	8.009	8.01	11	PASS
		40	144/5720	7.889	7.89	11	PASS
	106 Tone	53	100/5500	5.923	5.92	11	PASS
		53	116/5580	6.223	6.22	11	PASS
		54	140/5700	6.276	6.28	11	PASS
		54	144/5720	6.109	6.11	11	PASS
SU 802.11ax HE20	242 Tone	61	100/5500	2.702	2.70	11	PASS
		61	116/5580	2.818	2.82	11	PASS
		61	140/5700	3.227	3.23	11	PASS
		61	144/5720	2.991	2.99	11	PASS
SU 802.11ax HE40	484 Tone	65	102/5510	0.469	0.47	11	PASS
		65	110/5550	0.528	0.53	11	PASS
		65	134/5670	1.867	1.87	11	PASS
		65	142/5710	1.100	1.10	11	PASS
SU 802.11ax HE80	996 Tone	67	106/5530	-2.714	-2.71	11	PASS
		67	138/5690	-2.104	-2.10	11	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor							

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U-NII-3

Mode	RU Size	Index	Channel/ Frequency (MHz)	Read Value (dBm/470kHz)	Power Spectral Density (dBm/500kHz)	Limit (dBm/500kHz)	Conclusion
MU 802.11ax HE20	26Tone	0	149/5745	8.189	8.46	30	PASS
		4	157/5785	7.264	7.53	30	PASS
		8	165/5825	7.956	8.23	30	PASS
	52Tone	37	149/5745	4.952	5.22	30	PASS
		38	157/5785	4.729	5.00	30	PASS
		40	165/5825	4.667	4.94	30	PASS
	106 Tone	53	149/5745	2.100	2.37	30	PASS
		53	157/5785	1.747	2.02	30	PASS
		54	165/5825	2.076	2.35	30	PASS
SU 802.11ax HE20	242 Tone	61	149/5745	-1.336	-1.07	30	PASS
		61	157/5785	-1.222	-0.95	30	PASS
		61	165/5825	-1.079	-0.81	30	PASS
SU 802.11ax HE40	484 Tone	65	151/5755	-3.076	-2.81	30	PASS
		65	159/5795	-2.690	-2.42	30	PASS
SU 802.11ax HE80	996 Tone	67	155/5775	-4.455	-4.19	30	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor							

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SISO Antenna 2

U-NII-1

Mode	RU Size	Index	Channel/ Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm)	Conclusion
MU 802.11ax HE20	26Tone	0	36/5180	7.158	7.16	11	PASS
		4	40/5200	6.942	6.94	11	PASS
		8	48/5240	7.170	7.17	11	PASS
	52Tone	37	36/5180	7.419	7.42	11	PASS
		38	40/5200	7.672	7.67	11	PASS
		40	48/5240	7.024	7.02	11	PASS
	106 Tone	53	36/5180	7.736	7.74	11	PASS
		53	40/5200	7.595	7.60	11	PASS
		54	48/5240	7.705	7.71	11	PASS
SU 802.11ax HE20	242 Tone	61	36/5180	5.366	5.37	11	PASS
		61	40/5200	5.267	5.27	11	PASS
		61	48/5240	5.208	5.21	11	PASS
SU 802.11ax HE40	484 Tone	65	38/5190	0.663	0.66	11	PASS
		65	46/5230	0.404	0.40	11	PASS
SU 802.11ax HE80	996 Tone	67	42/5210	-3.284	-3.28	11	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor							

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U-NII-2A

Mode	RU Size	Index	Channel/ Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm)	Conclusion
MU 802.11ax HE20	26Tone	0	52/5260	6.832	6.83	11	PASS
		4	60/5300	5.871	5.87	11	PASS
		8	64/5320	6.871	6.87	11	PASS
	52Tone	37	52/5260	7.333	7.33	11	PASS
		38	60/5300	6.816	6.82	11	PASS
		40	64/5320	6.689	6.69	11	PASS
	106 Tone	53	52/5260	6.939	6.94	11	PASS
		53	60/5300	6.578	6.58	11	PASS
		54	64/5320	6.698	6.70	11	PASS
SU 802.11ax HE20	242 Tone	61	52/5260	4.329	4.33	11	PASS
		61	60/5300	4.234	4.23	11	PASS
		61	64/5320	4.238	4.24	11	PASS
SU 802.11ax HE40	484 Tone	65	54/5270	-0.031	-0.03	11	PASS
		65	62/5310	-0.388	-0.39	11	PASS
SU 802.11ax HE80	996 Tone	67	58/5290	-4.723	-4.72	11	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor							

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U-NII-2C

Mode	RU Size	Index	Channel/ Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm)	Conclusion
MU 802.11ax HE20	26Tone	0	100/5500	6.899	6.90	11	PASS
		4	116/5580	6.810	6.81	11	PASS
		8	140/5700	6.398	6.40	11	PASS
		8	144/5720	6.246	6.25	11	PASS
	52Tone	37	100/5500	6.978	6.98	11	PASS
		38	116/5580	7.080	7.08	11	PASS
		40	140/5700	6.443	6.44	11	PASS
		40	144/5720	6.655	6.66	11	PASS
	106 Tone	53	100/5500	4.968	4.97	11	PASS
		53	116/5580	4.783	4.78	11	PASS
		54	140/5700	4.670	4.67	11	PASS
		54	144/5720	4.653	4.65	11	PASS
SU 802.11ax HE20	242 Tone	61	100/5500	1.670	1.67	11	PASS
		61	116/5580	1.471	1.47	11	PASS
		61	140/5700	1.185	1.19	11	PASS
		61	144/5720	1.505	1.51	11	PASS
SU 802.11ax HE40	484 Tone	65	102/5510	0.084	0.08	11	PASS
		65	110/5550	-0.302	-0.30	11	PASS
		65	134/5670	-0.149	-0.15	11	PASS
		65	142/5710	-0.238	-0.24	11	PASS
SU 802.11ax HE80	996 Tone	67	106/5530	-3.389	-3.39	11	PASS
		67	138/5690	-3.486	-3.49	11	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor							

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U-NII-3

Mode	RU Size	Index	Channel/ Frequency (MHz)	Read Value (dBm/470kHz)	Power Spectral Density (dBm/500kHz)	Limit (dBm/ 500kHz)	Conclusion
MU 802.11ax HE20	26Tone	0	149/5745	7.090	7.36	30	PASS
		4	157/5785	6.523	6.79	30	PASS
		8	165/5825	6.752	7.02	30	PASS
	52Tone	37	149/5745	4.290	4.56	30	PASS
		38	157/5785	4.118	4.39	30	PASS
		40	165/5825	4.244	4.51	30	PASS
	106 Tone	53	149/5745	1.347	1.62	30	PASS
		53	157/5785	1.150	1.42	30	PASS
		54	165/5825	1.259	1.53	30	PASS
SU 802.11ax HE20	242 Tone	61	149/5745	-1.825	-1.56	30	PASS
		61	157/5785	-2.001	-1.73	30	PASS
		61	165/5825	-1.850	-1.58	30	PASS
SU 802.11ax HE40	484 Tone	65	151/5755	-3.867	-3.60	30	PASS
		65	159/5795	-3.621	-3.35	30	PASS
SU 802.11ax HE80	996 Tone	67	155/5775	-5.106	-4.84	30	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor							

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MIMO

U-NII-1

Mode	RU Size	Index	Channel/ Frequency (MHz)	Antenna 1		Antenna 2		Total Power (dBm)	Limit (dBm)	Conclusion
				Read Value (dBm/MHz)	PSD (dBm /MHz)	Read Value (dBm/MHz)	PSD (dBm /MHz)			
MU 802.11ax HE20	26Tone	0	36/5180	6.71	6.71	6.81	6.81	9.77	11.00	PASS
		4	40/5200	6.68	6.68	6.63	6.63	9.66	11.00	PASS
		8	48/5240	7.24	7.24	6.22	6.22	9.77	11.00	PASS
	52Tone	37	36/5180	7.46	7.46	7.03	7.03	10.26	11.00	PASS
		38	40/5200	7.43	7.43	7.23	7.23	10.34	11.00	PASS
		40	48/5240	7.48	7.48	7.41	7.41	10.45	11.00	PASS
	106 Tone	53	36/5180	7.09	7.09	6.98	6.98	10.05	11.00	PASS
		53	40/5200	7.29	7.29	7.10	7.10	10.20	11.00	PASS
		54	48/5240	7.72	7.72	6.79	6.79	10.29	11.00	PASS
SU 802.11ax HE20	242 Tone	61	36/5180	5.26	5.26	5.68	5.68	8.49	11.00	PASS
		61	40/5200	5.03	5.03	5.92	5.92	8.51	11.00	PASS
		61	48/5240	5.26	5.26	5.45	5.45	8.37	11.00	PASS
SU 802.11ax HE40	484 Tone	65	38/5190	1.07	1.07	1.07	1.07	4.08	11.00	PASS
		65	46/5230	0.51	0.51	0.77	0.77	3.65	11.00	PASS
SU 802.11ax HE80	996 Tone	67	42/5210	-3.56	-3.56	-3.22	-3.22	-0.38	11.00	PASS

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

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

3.If antenna gains are not equal, the user may use either of the following methods to calculate directional gain, provided that each transmit antenna is driven by only one spatial stream: Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain. And Nss=1, Array Gain=10log(Nant/Nss)dB, so directional gain = G_{ANT} + Array Gain= -0.31dBi+10log(2/1)=2.7dBi <6dBi. So the PSD limt is 11dBm.

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U-NII-2A

Mode	RU Size	Index	Channel/ Frequency (MHz)	Antenna 1		Antenna 2		Total Power (dBm)	Limit (dBm)	Conclusion
				Read Value (dBm/MHz)	PSD (dBm /MHz)	Read Value (dBm/MHz)	PSD (dBm /MHz)			
MU 802.11ax HE20	26Tone	0	52/5260	6.84	6.84	7.32	7.32	10.10	11.00	PASS
		4	60/5300	6.63	6.63	6.09	6.09	9.38	11.00	PASS
		8	64/5320	6.99	6.99	7.17	7.17	10.09	11.00	PASS
	52Tone	37	52/5260	6.54	6.54	6.52	6.52	9.54	11.00	PASS
		38	60/5300	6.87	6.87	6.48	6.48	9.69	11.00	PASS
		40	64/5320	6.75	6.75	6.45	6.45	9.61	11.00	PASS
	106 Tone	53	52/5260	6.82	6.82	6.60	6.60	9.72	11.00	PASS
		53	60/5300	6.59	6.59	6.53	6.53	9.57	11.00	PASS
		54	64/5320	6.80	6.80	6.36	6.36	9.60	11.00	PASS
SU 802.11ax HE20	242 Tone	61	52/5260	4.26	4.26	4.53	4.53	7.41	11.00	PASS
		61	60/5300	3.81	3.81	4.24	4.24	7.04	11.00	PASS
		61	64/5320	3.96	3.96	4.17	4.17	7.08	11.00	PASS
SU 802.11ax HE40	484 Tone	65	54/5270	-0.18	-0.18	-0.41	-0.41	2.72	11.00	PASS
		65	62/5310	-0.18	-0.18	-0.52	-0.52	2.67	11.00	PASS
SU 802.11ax HE80	996 Tone	67	58/5290	-4.65	-4.65	-4.93	-4.93	-1.78	11.00	PASS

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

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

3.If antenna gains are not equal, the user may use either of the following methods to calculate directional gain, provided that each transmit antenna is driven by only one spatial stream: Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain. And Nss=1, Array Gain=10log(Nant/Nss)dB, so directional gain = G_{ANT} + Array Gain= -0.31dBi+10log(2/1)=2.7dBi <6dBi. So the PSD limt is 11dBm.

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U-NII-2C

Mode	RU Size	Index	Channel/ Frequency (MHz)	Antenna 1		Antenna 2		Total Power (dBm)	Limit (dBm)	Conclusion
				Read Value (dBm/MHz)	PSD (dBm /MHz)	Read Value (dBm/MHz)	PSD (dBm /MHz)			
MU 802.11ax HE20	26Tone	0	100/5500	7.81	7.81	7.24	7.24	10.55	11.00	PASS
		4	116/5580	7.33	7.33	6.88	6.88	10.12	11.00	PASS
		8	140/5700	7.54	7.54	6.56	6.56	10.09	11.00	PASS
		8	144/5720	6.98	6.98	6.68	6.68	9.84	11.00	PASS
	52Tone	37	100/5500	7.76	7.76	6.81	6.81	10.32	11.00	PASS
		38	116/5580	7.77	7.77	7.14	7.14	10.48	11.00	PASS
		40	140/5700	8.04	8.04	6.62	6.62	10.40	11.00	PASS
		40	144/5720	8.14	8.14	6.52	6.52	10.41	11.00	PASS
	106 Tone	53	100/5500	5.47	5.47	4.86	4.86	8.18	11.00	PASS
		53	116/5580	5.55	5.55	4.96	4.96	8.28	11.00	PASS
		54	140/5700	6.13	6.13	4.59	4.59	8.43	11.00	PASS
		54	144/5720	6.11	6.11	4.65	4.65	8.45	11.00	PASS
SU 802.11ax HE20	242 Tone	61	100/5500	2.54	2.54	1.60	1.60	5.10	11.00	PASS
		61	116/5580	2.81	2.81	1.50	1.50	5.21	11.00	PASS
		61	140/5700	2.61	2.61	1.80	1.80	5.23	11.00	PASS
		61	144/5720	2.76	2.76	1.56	1.56	5.21	11.00	PASS
SU 802.11ax HE40	484 Tone	65	102/5510	0.67	0.67	-0.08	-0.08	3.32	11.00	PASS
		65	110/5550	0.78	0.78	-0.51	-0.51	3.20	11.00	PASS
		65	134/5670	1.48	1.48	-0.62	-0.62	3.56	11.00	PASS
		65	142/5710	0.98	0.98	-0.32	-0.32	3.39	11.00	PASS
SU 802.11ax HE80	996 Tone	67	106/5530	-2.67	-2.67	-3.61	-3.61	-0.11	11.00	PASS
		67	138/5690	-1.84	-1.84	-3.46	-3.46	0.44	11.00	PASS

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

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

3.If antenna gains are not equal, the user may use either of the following methods to calculate directional gain, provided that each transmit antenna is driven by only one spatial stream: Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain. And Nss=1, Array Gain=10log(Nant/Nss)dB, so directional gain = G_{ANT} + Array Gain= -0.31dBi+10log(2/1)=2.7dBi <6dBi. So the PSD limt is 11dBm.

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U-NII-3

Mode	RU Size	Index	Carrier frequency (MHz)	Antenna 1		Antenna 2		Total Power (dBm/ 500kHz)	Limit (dBm/ 500kHz)	Conclusion
				Read Value (dBm/ 500kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 500kHz)	PSD (dBm/ 500kHz)			
MU 802.11ax HE20	26Tone	0	149/5745	7.67	7.94	7.36	7.63	10.80	30.00	PASS
		4	157/5785	7.63	7.90	6.95	7.22	10.58	30.00	PASS
		8	165/5825	7.79	8.06	7.42	7.69	10.89	30.00	PASS
	52Tone	37	149/5745	5.24	5.51	4.65	4.92	8.23	30.00	PASS
		38	157/5785	4.77	5.04	4.29	4.56	7.82	30.00	PASS
		40	165/5825	5.36	5.63	4.61	4.88	8.28	30.00	PASS
	106 Tone	53	149/5745	2.14	2.41	1.90	2.17	5.30	30.00	PASS
		53	157/5785	1.83	2.10	1.46	1.73	4.93	30.00	PASS
		54	165/5825	2.63	2.90	1.50	1.77	5.38	30.00	PASS
SU 802.11ax HE20	242 Tone	61	149/5745	-1.00	-0.73	-1.83	-1.56	1.89	30.00	PASS
		61	157/5785	-0.99	-0.72	-1.79	-1.52	1.91	30.00	PASS
		61	165/5825	-0.73	-0.46	-1.51	-1.24	2.18	30.00	PASS
SU 802.11ax HE40	484 Tone	65	151/5755	-4.34	-4.07	-3.72	-3.45	-0.74	30.00	PASS
		65	159/5795	-2.45	-2.18	-3.53	-3.26	0.32	30.00	PASS
SU 802.11ax HE80	996 Tone	67	155/5775	-4.32	-4.05	-5.19	-4.92	0.00	30.00	PASS

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

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

3.If antenna gains are not equal, the user may use either of the following methods to calculate directional gain, provided that each transmit antenna is driven by only one spatial stream: Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain. And Nss=1, Array Gain=10log(Nant/Nss)dB, so directional gain = G_{ANT} + Array Gain= -0.31dBi+10log(2/1)=2.7dBi <6dBi. So the PSD limt is 30dBm.

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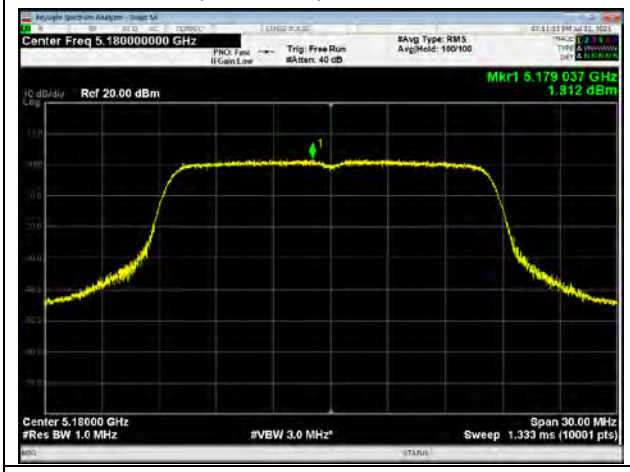
RU Mode

SISO Antenna 1

U-NII-1

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



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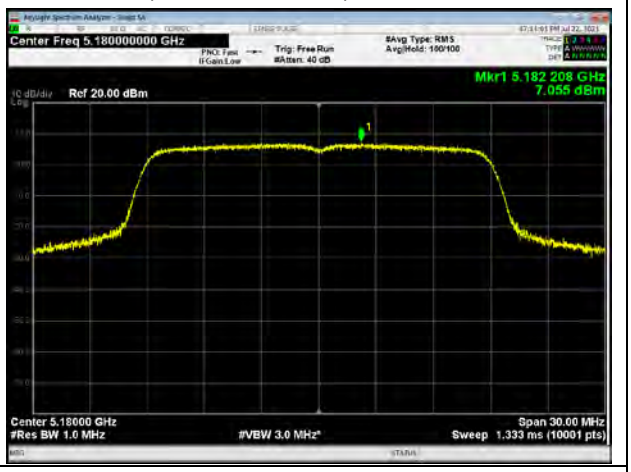
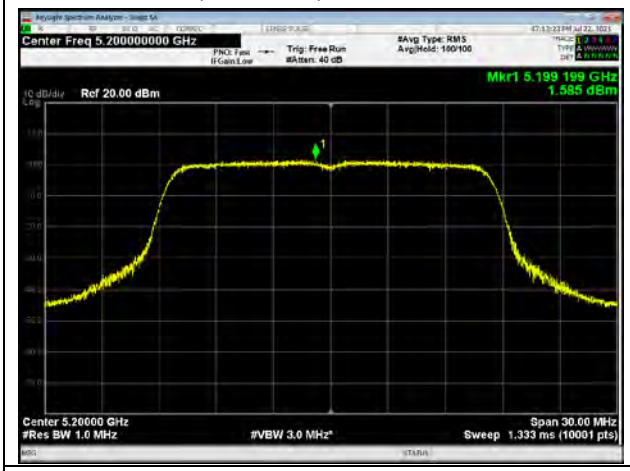


U-NII-1, 802.11a, Channel No.: 40



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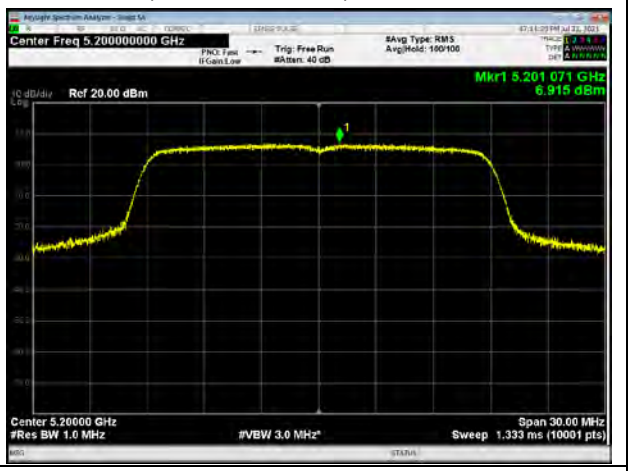

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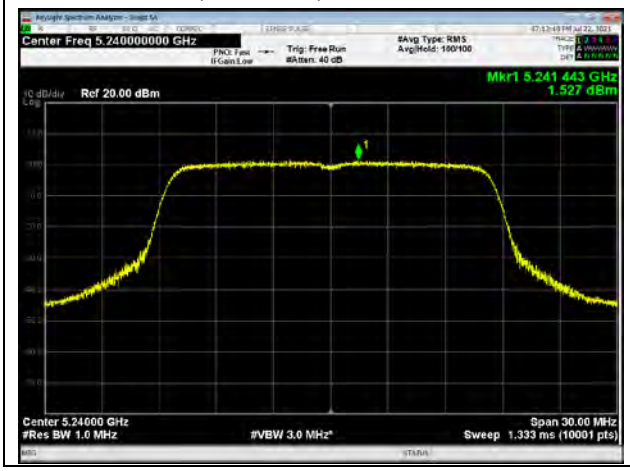

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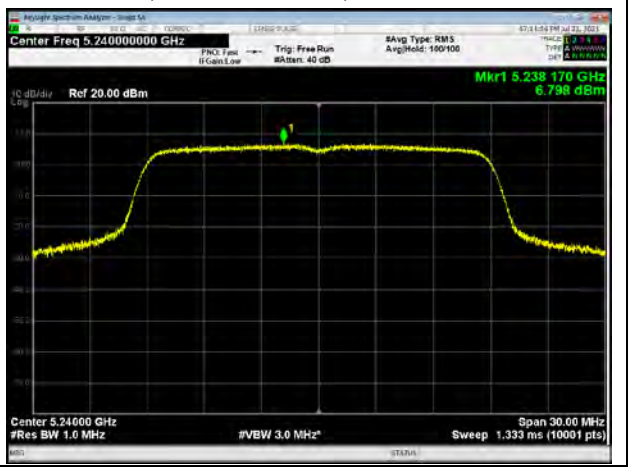

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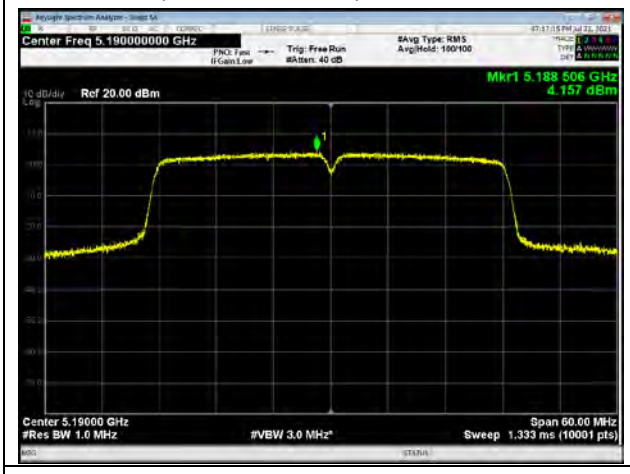
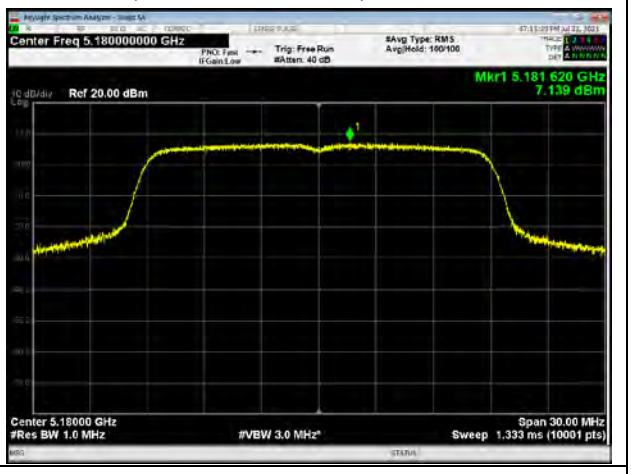
U-NII-1, 802.11n HT40, Channel No.: 38



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



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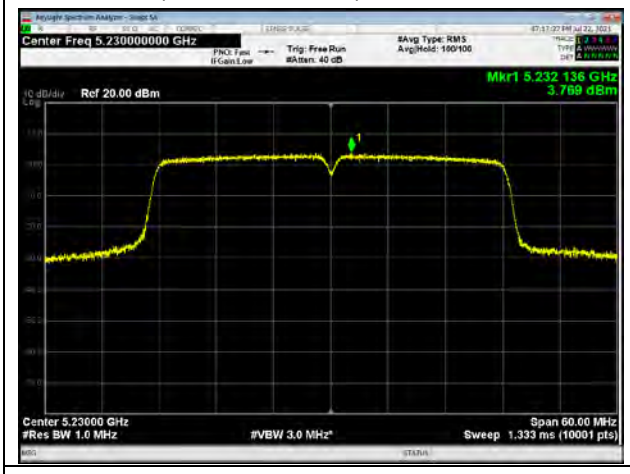

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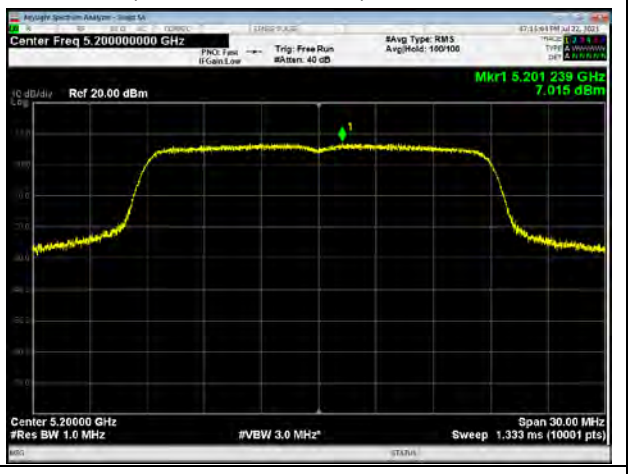

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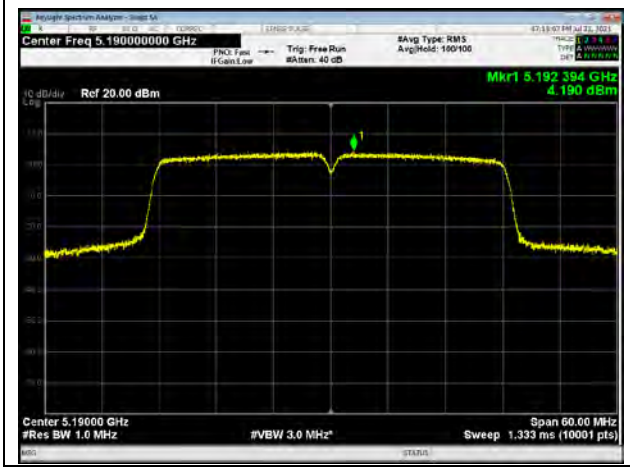

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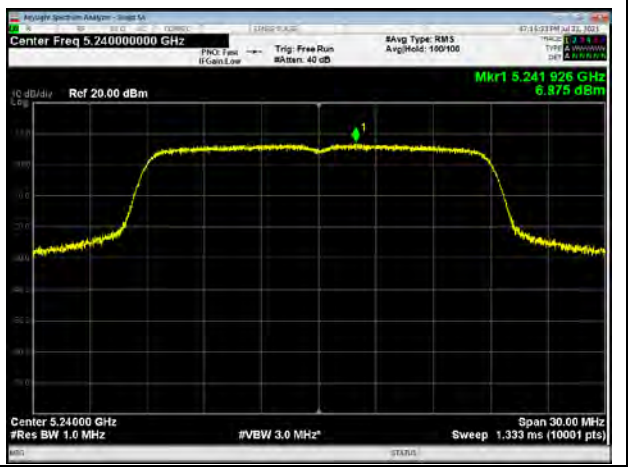

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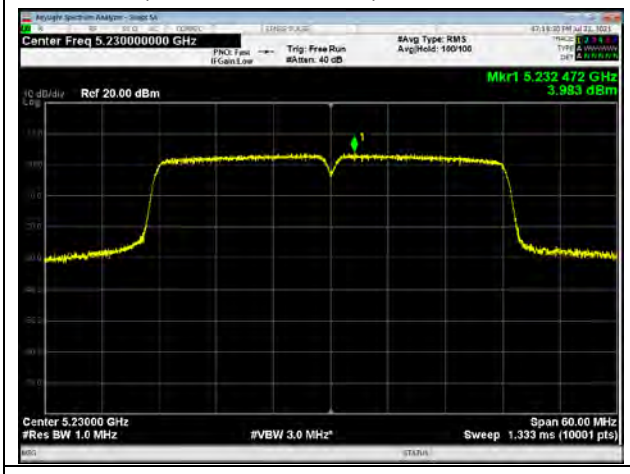
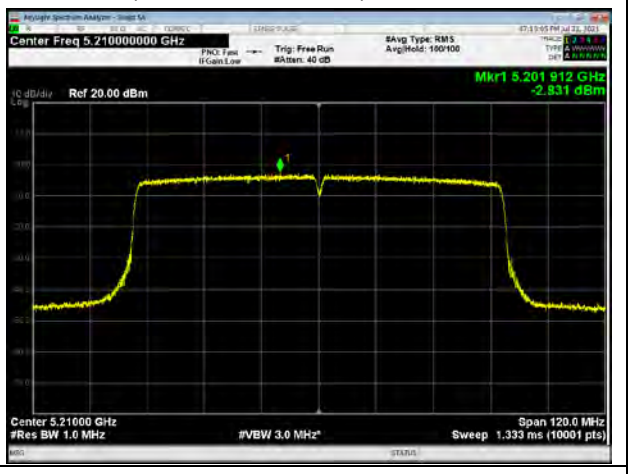
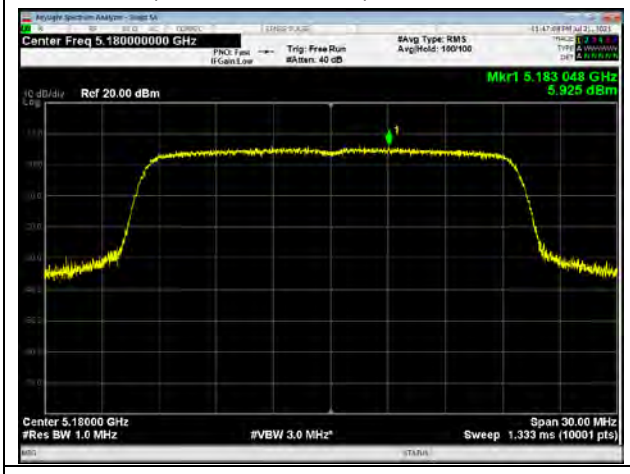
U-NII-1, 802.11ac VHT40, Channel No.: 46



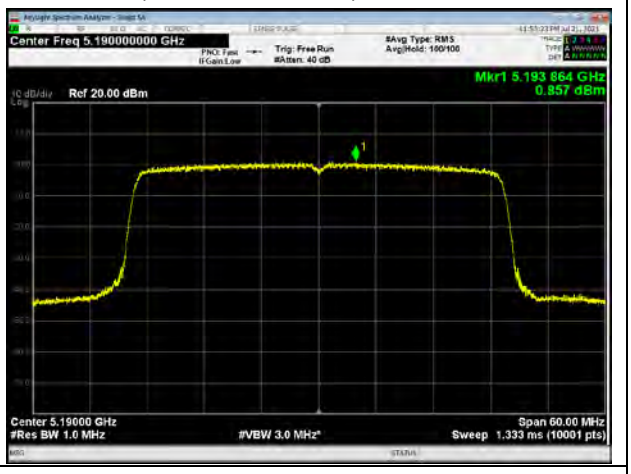
U-NII-1, 802.11ac VHT80, Channel No.: 42



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



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



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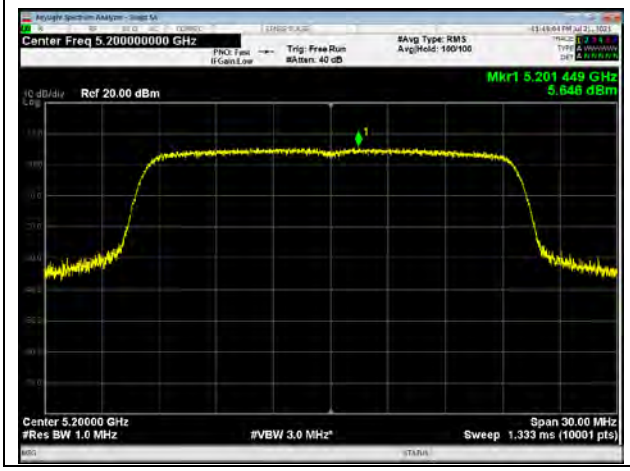

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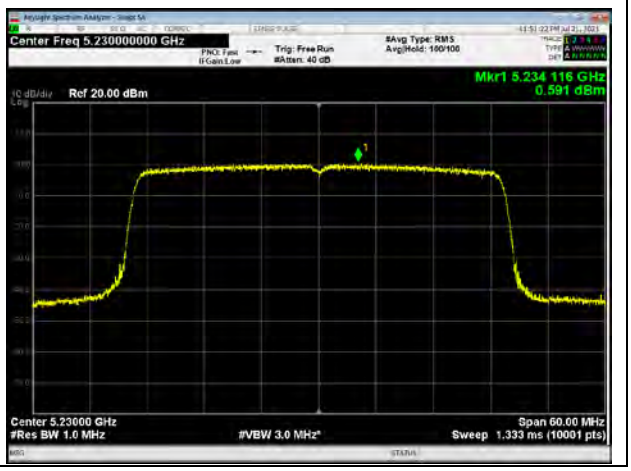

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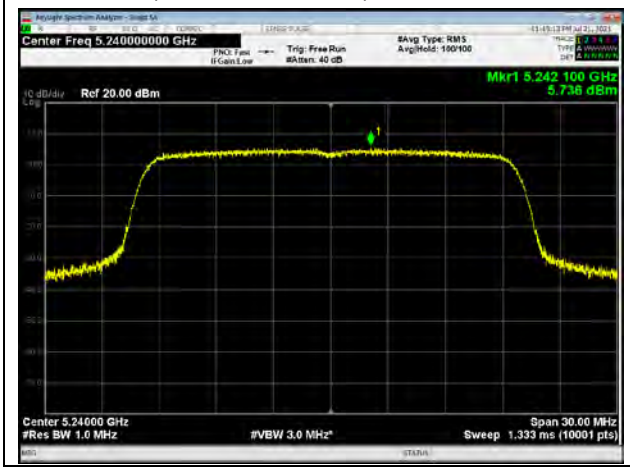	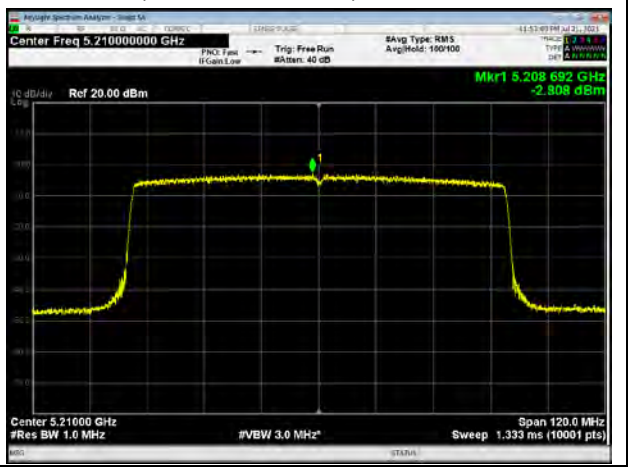

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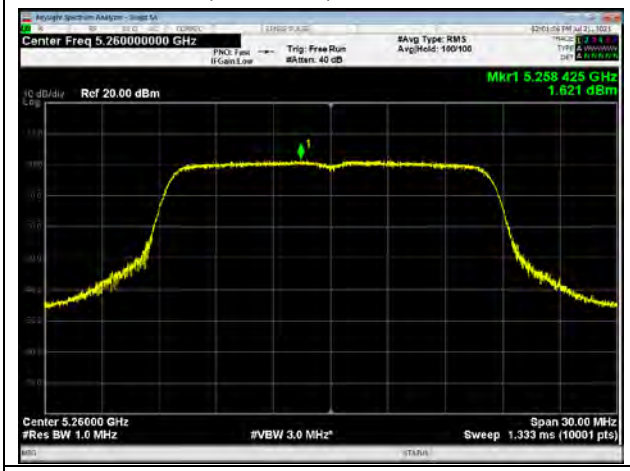
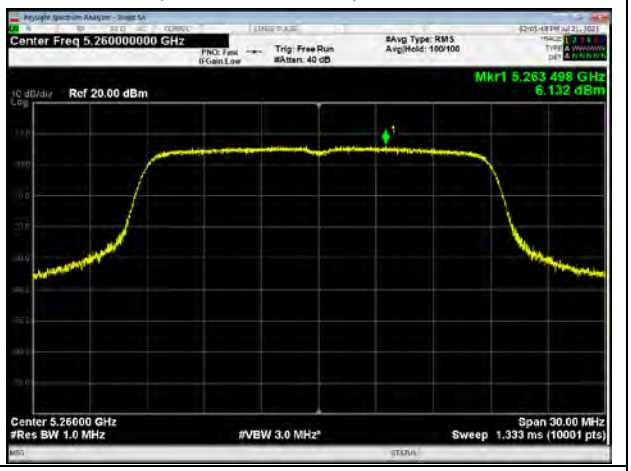
U-NII-2A

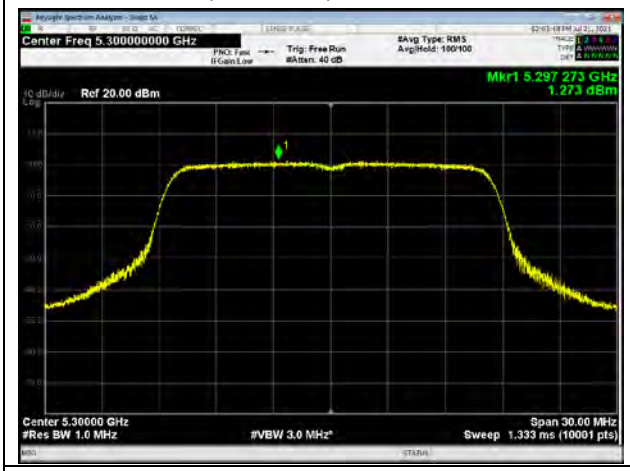
U-NII-2A, 802.11a, Channel No.: 52



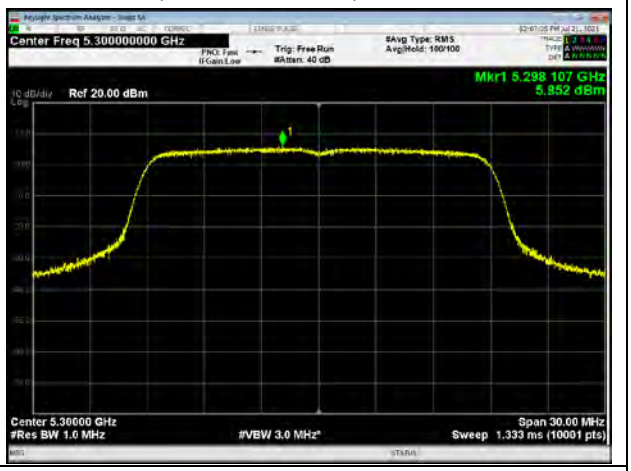
U-NII-2A, 802.11n HT20, Channel No.: 52



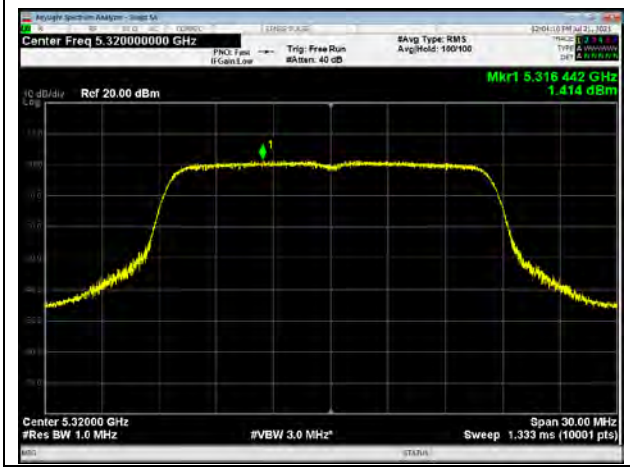
U-NII-2A, 802.11a, Channel No.: 60



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



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



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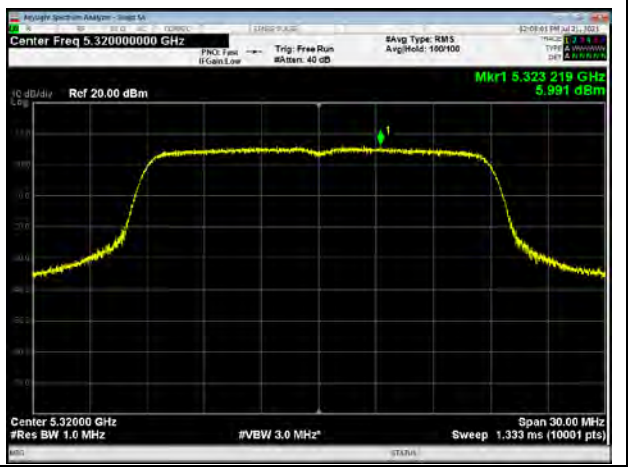

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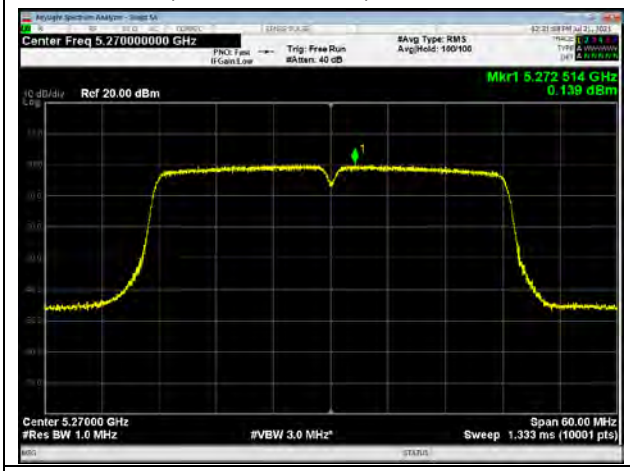
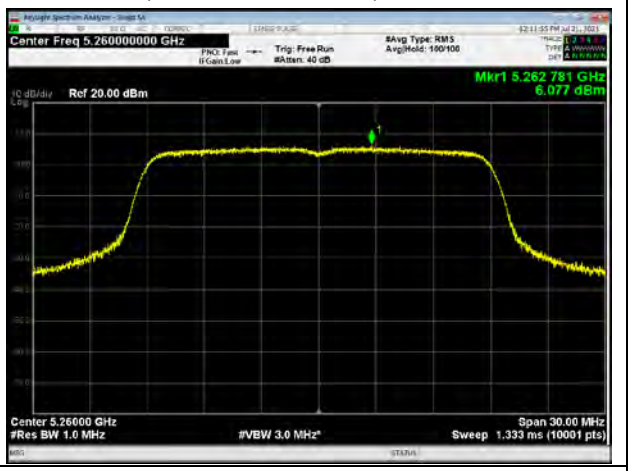
U-NII-2A, 802.11n HT40, Channel No.: 54



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



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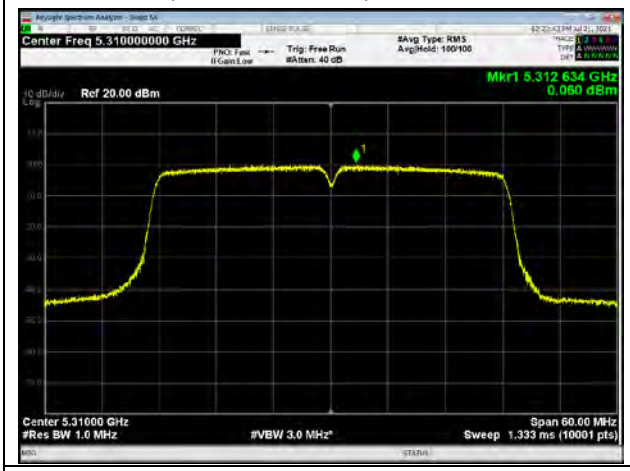

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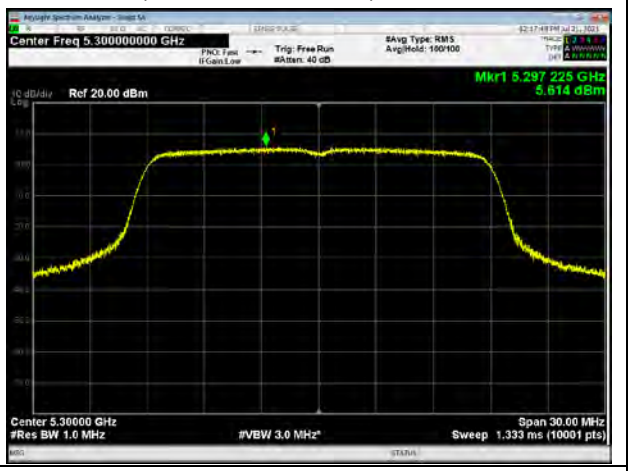

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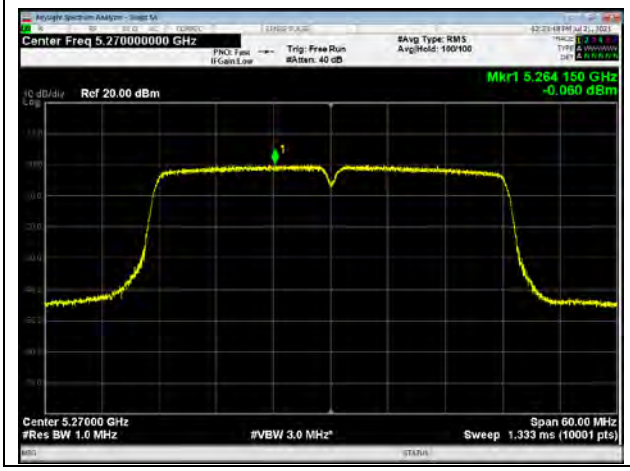

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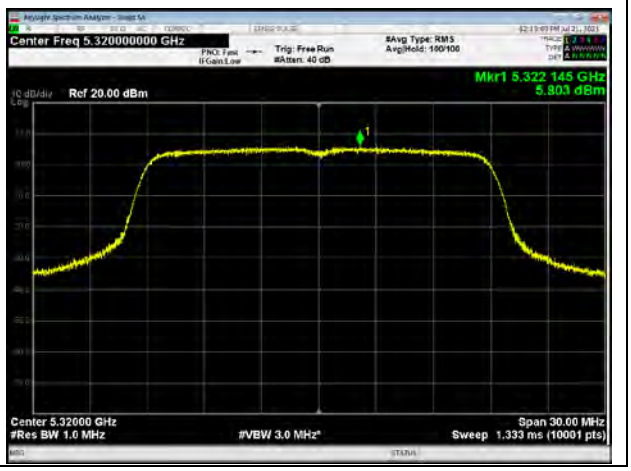

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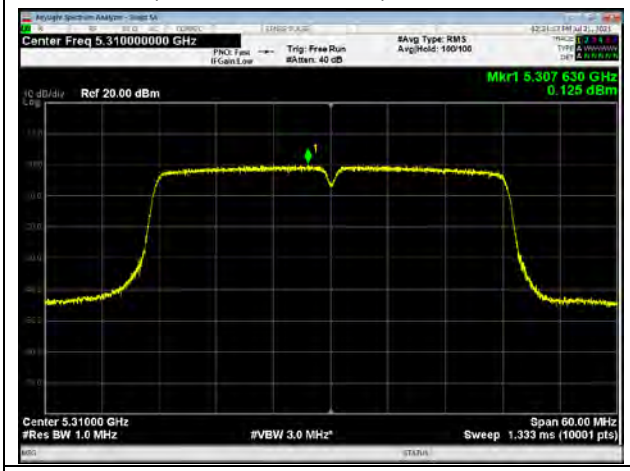
U-NII-2A, 802.11ac VHT40, Channel No.: 62



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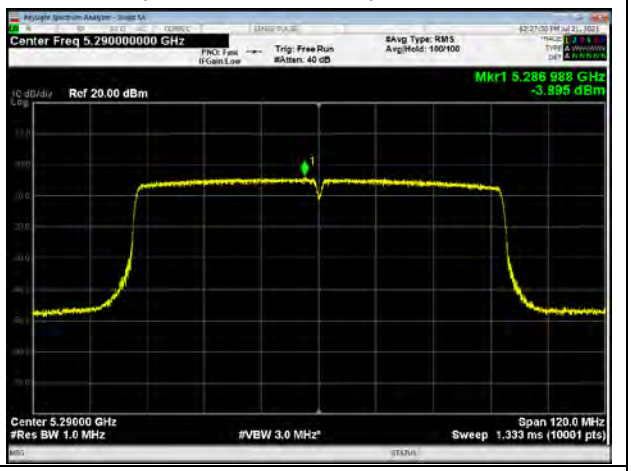

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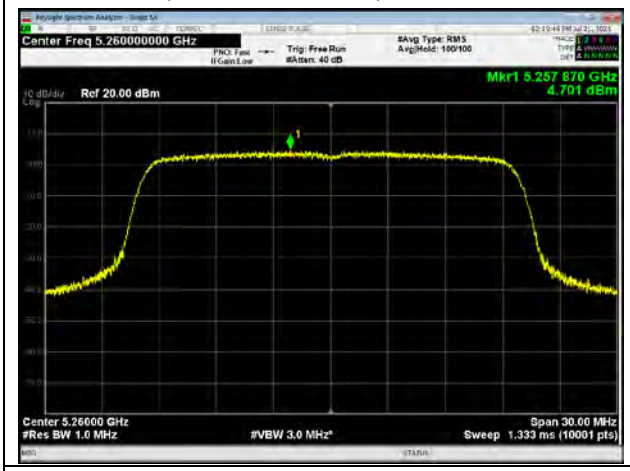

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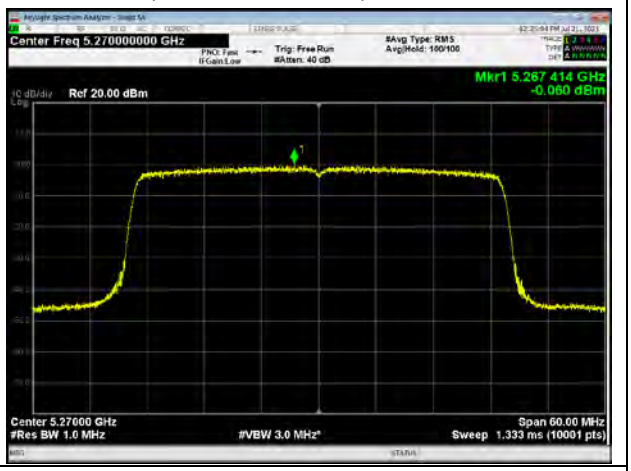

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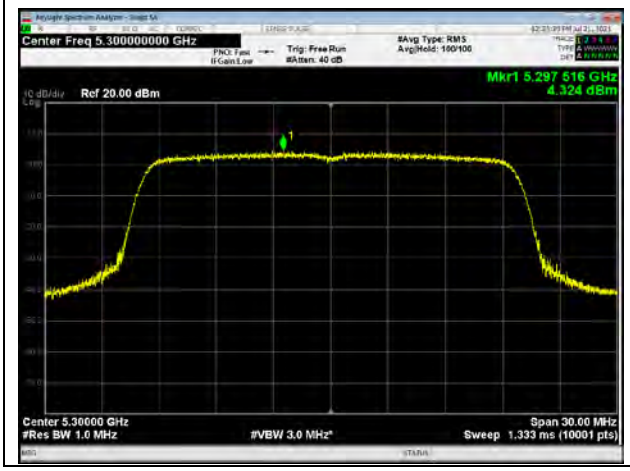

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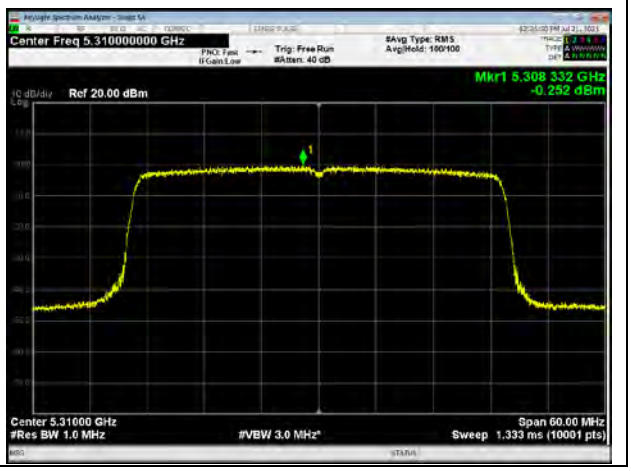

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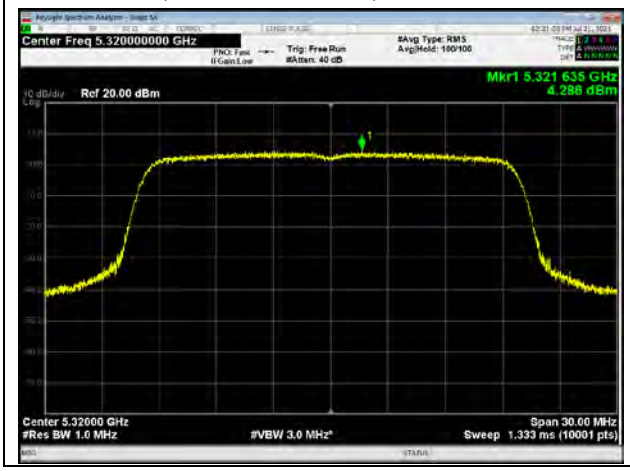
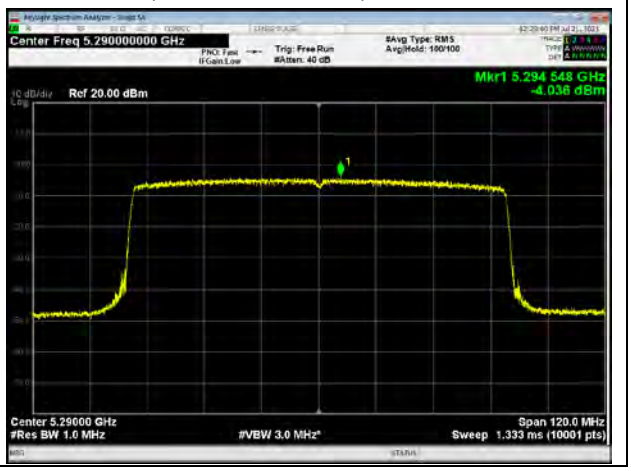
U-NII-2A, 802.11ax HE20, Channel No.: 64



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



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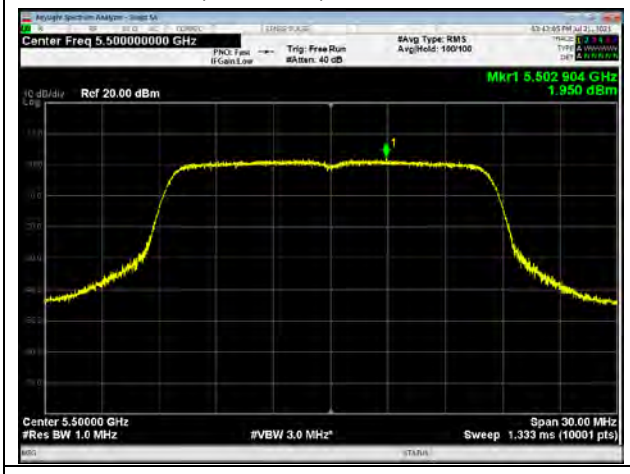
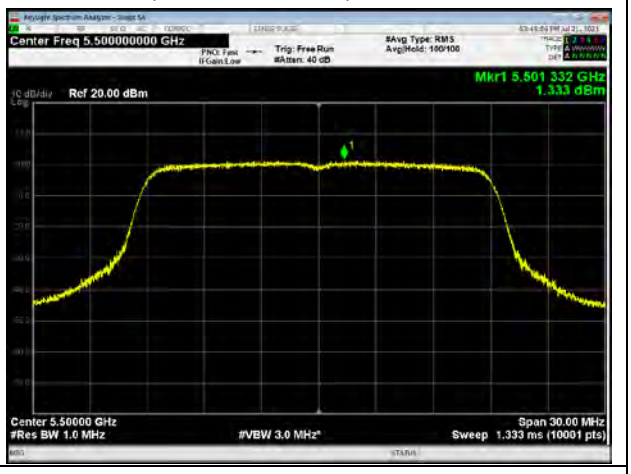
U-NII-2C

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



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



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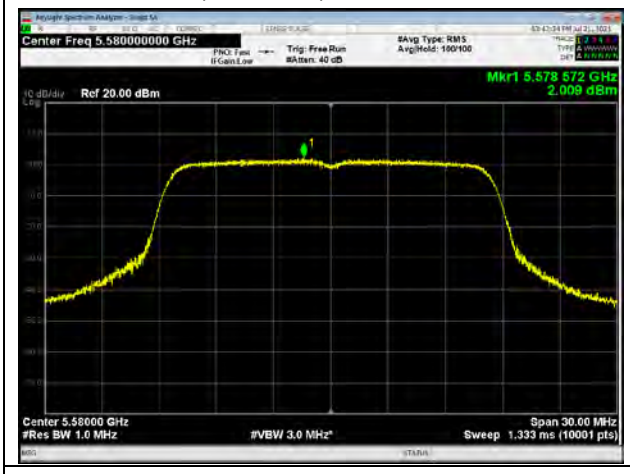
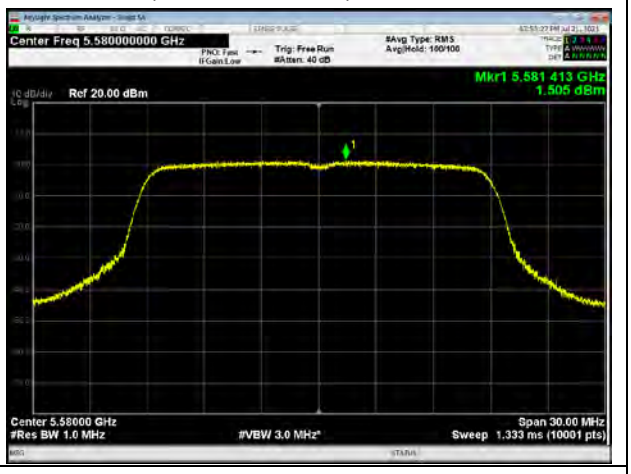
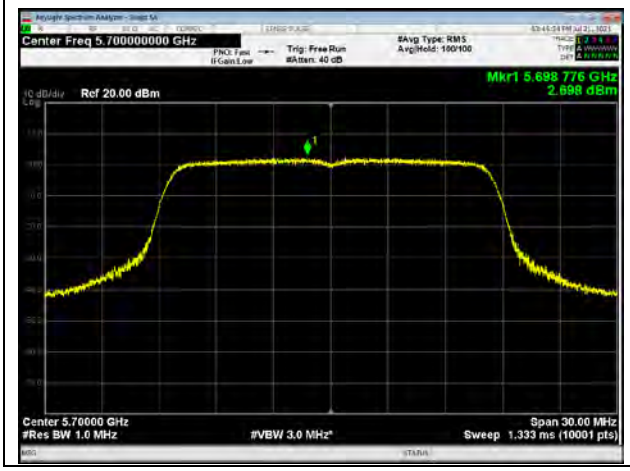


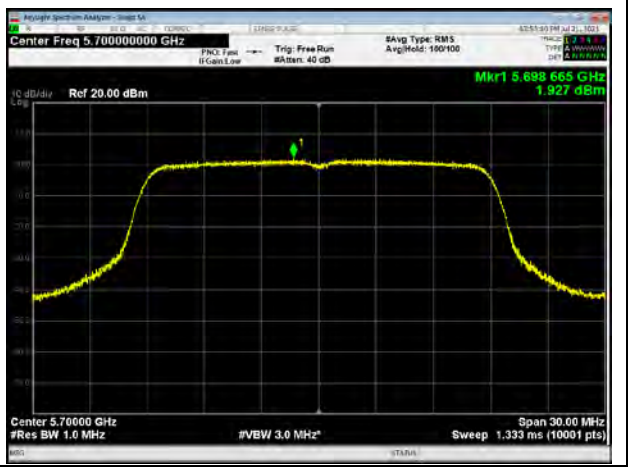
U-NII-2C, 802.11n HT20, Channel No.: 116



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



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



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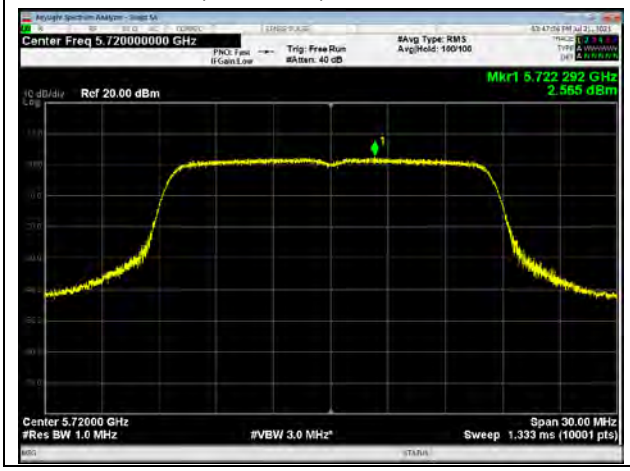	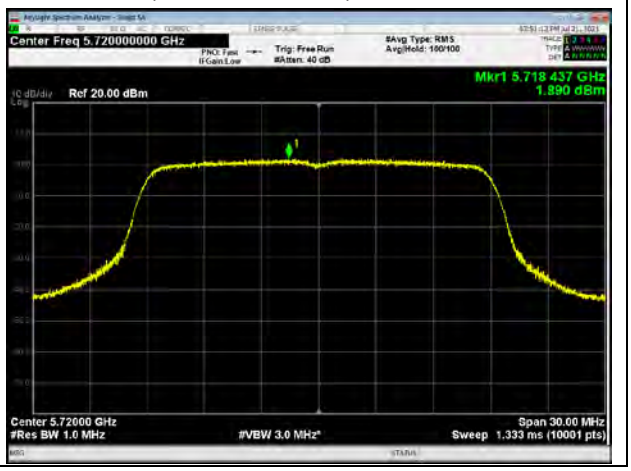

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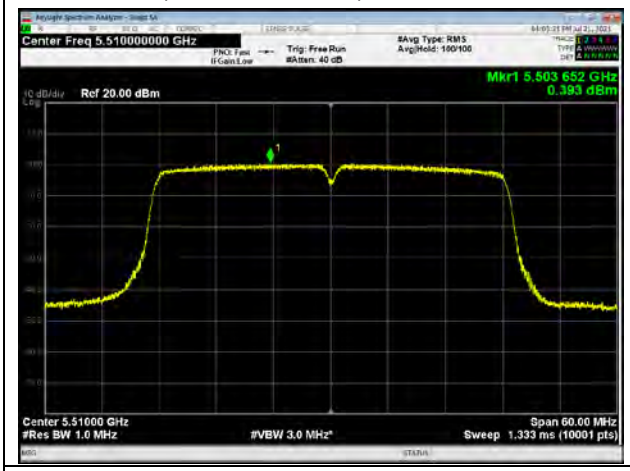
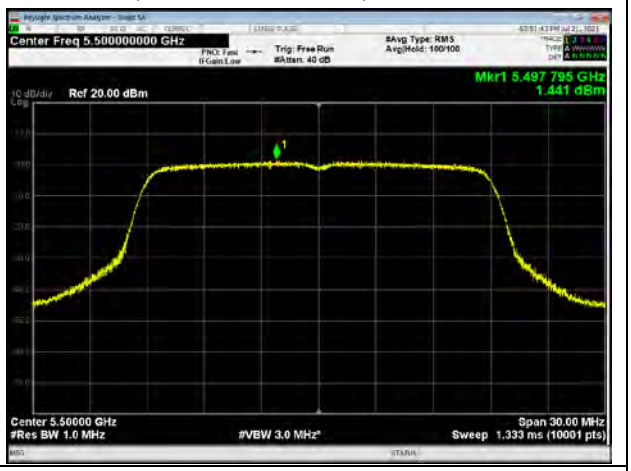
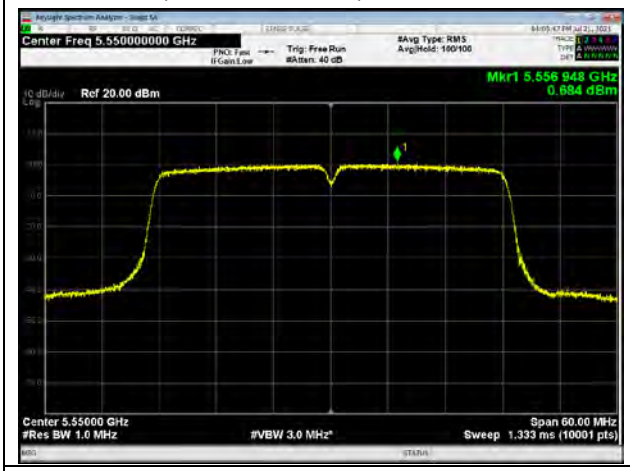
U-NII-2C, 802.11n HT40, Channel No.: 102



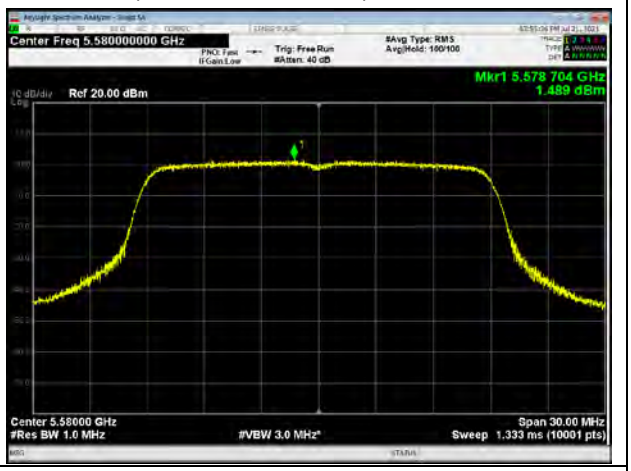
U-NII-2C, 802.11ac VHT20, Channel No.: 100



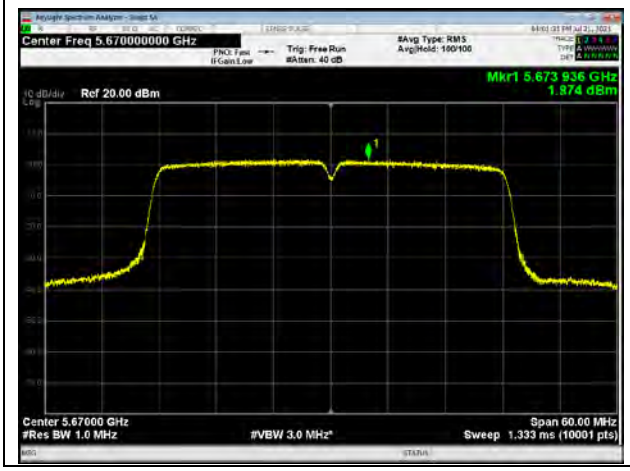
U-NII-2C, 802.11n HT40, Channel No.: 110



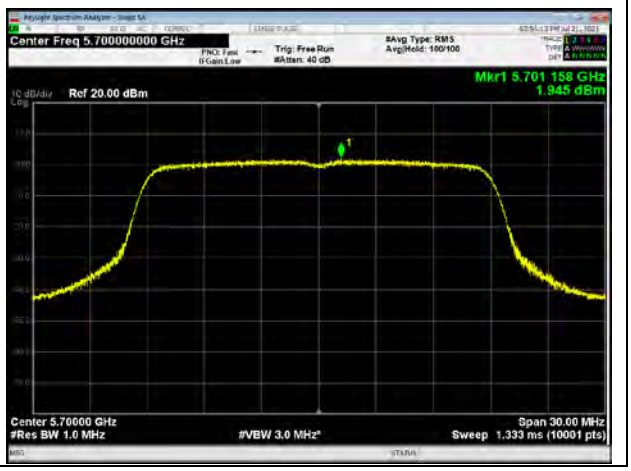
U-NII-2C, 802.11ac VHT20, Channel No.: 116



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



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



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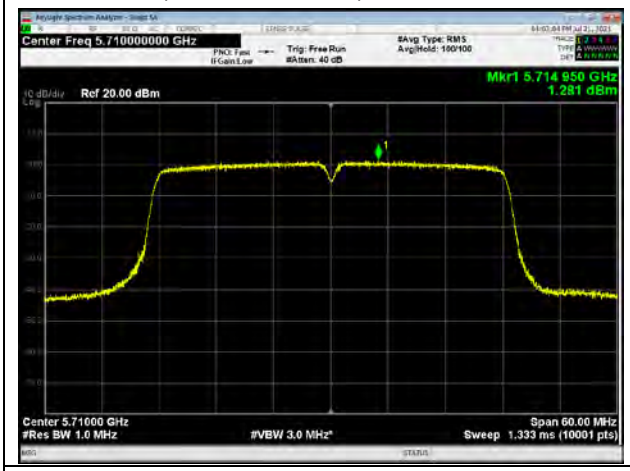
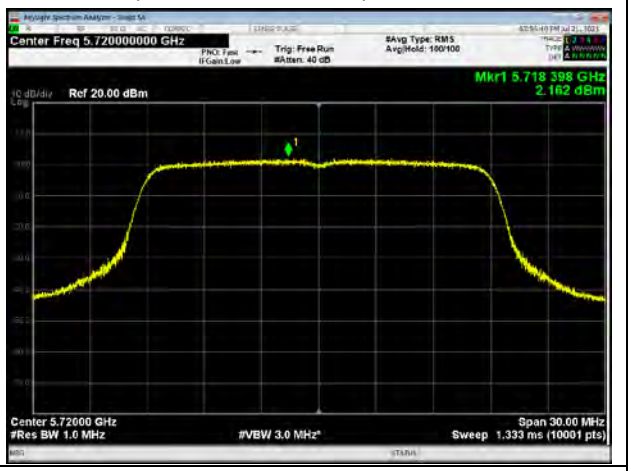
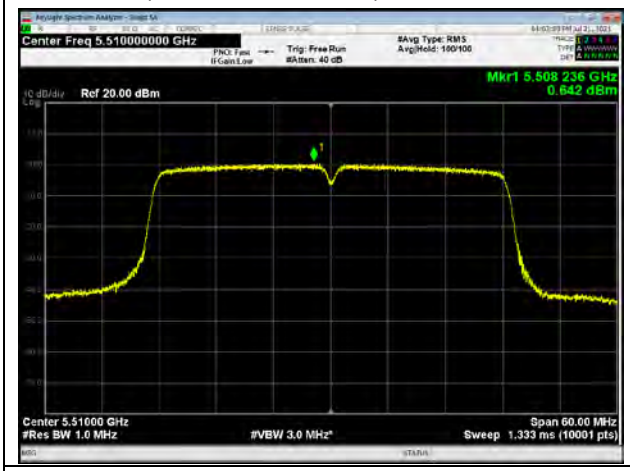
U-NII-2C, 802.11n HT40, Channel No.: 142



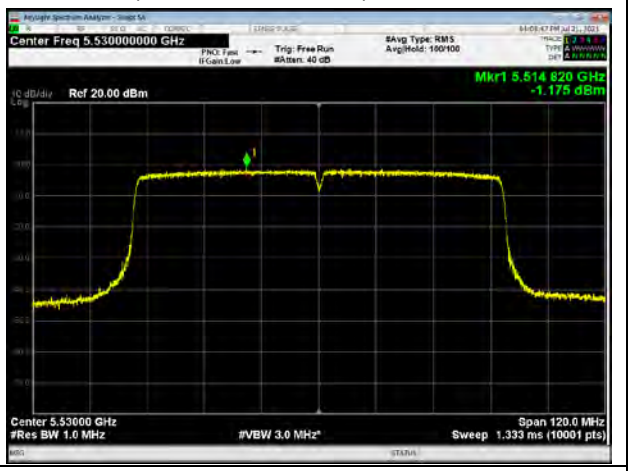
U-NII-2C, 802.11ac VHT20, Channel No.: 144



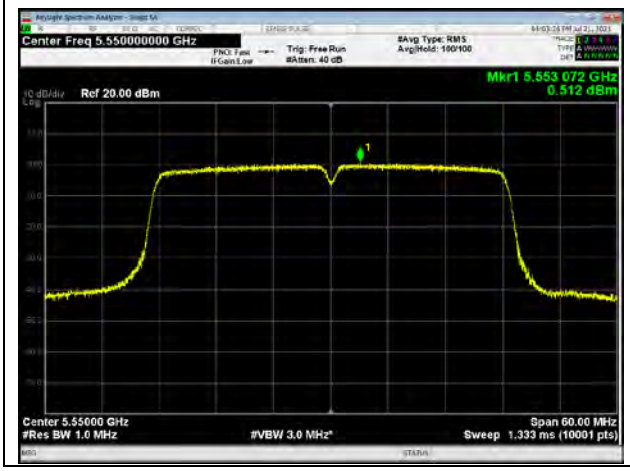
U-NII-2C, 802.11ac VHT40, Channel No.: 102



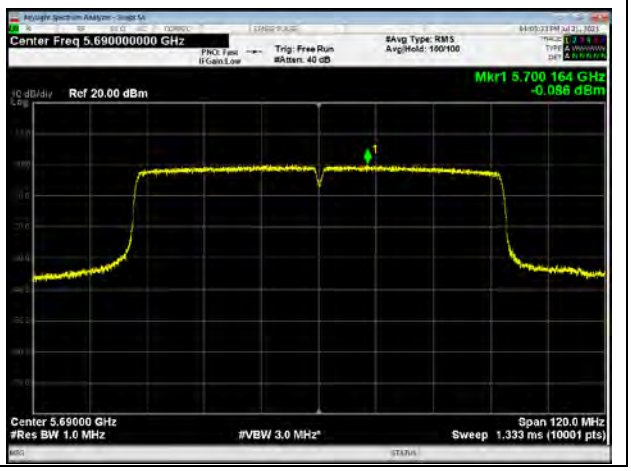
U-NII-2C, 802.11ac VHT80, Channel No.: 106



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



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



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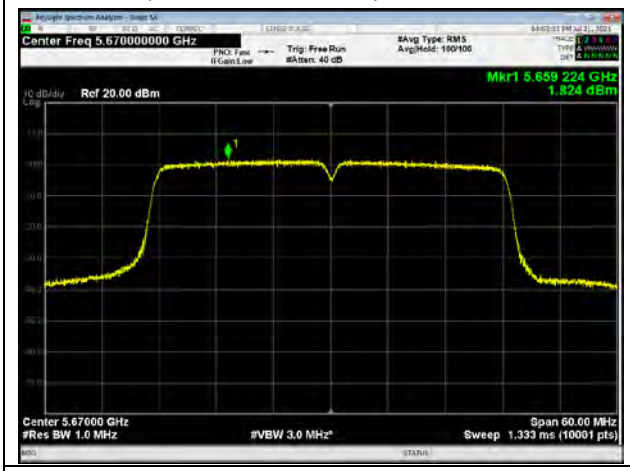
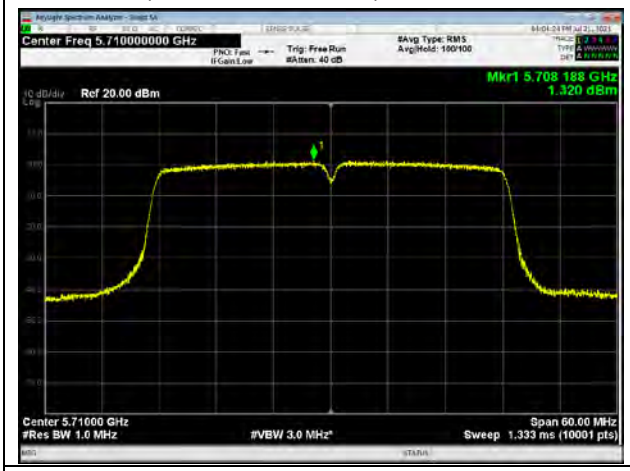
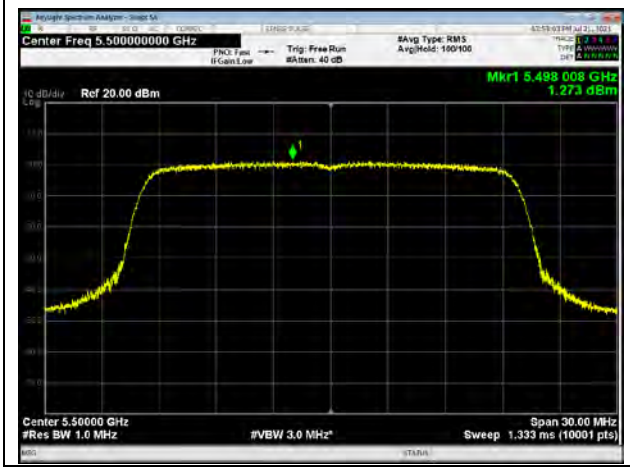
U-NII-2C, 802.11ac VHT40, Channel No.: 134



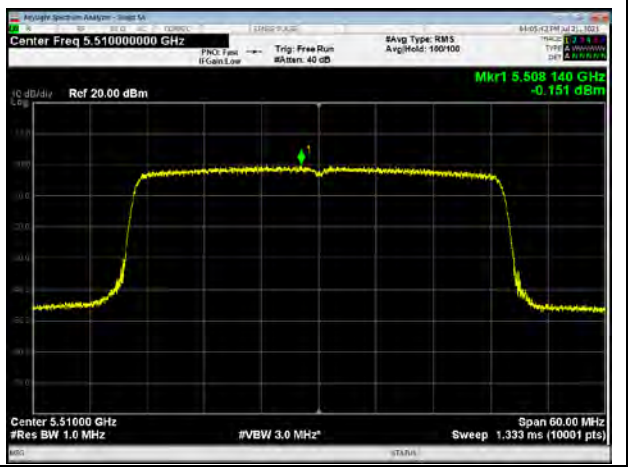
U-NII-2C, 802.11ac VHT40, Channel No.: 142



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



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



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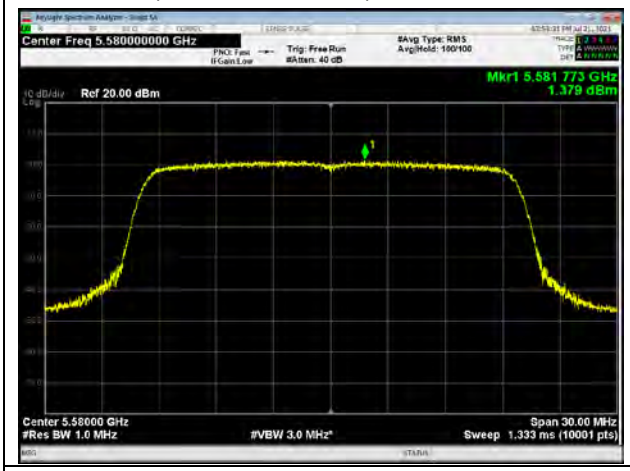
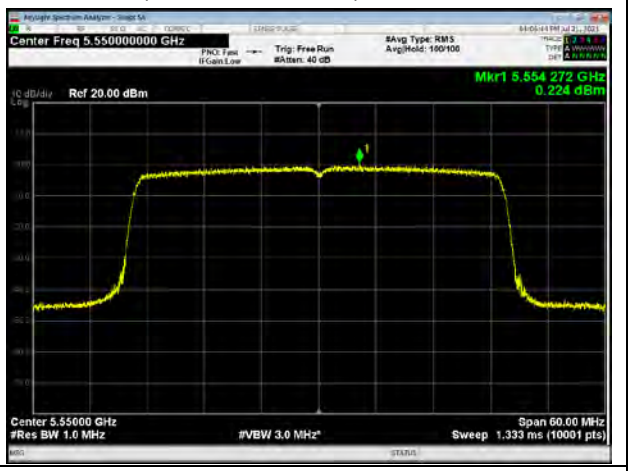
U-NII-2C, 802.11ax HE20, Channel No.: 116



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



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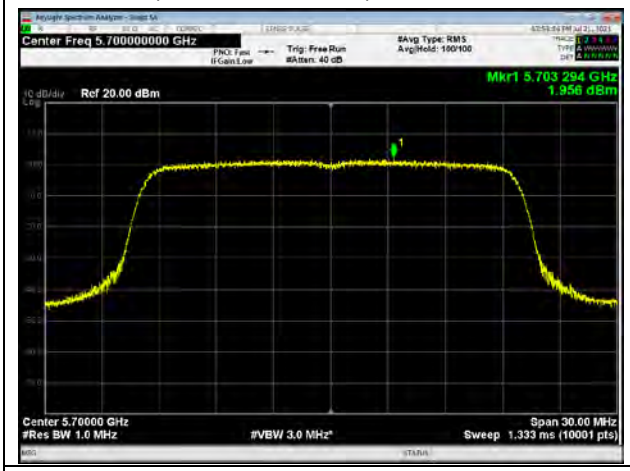
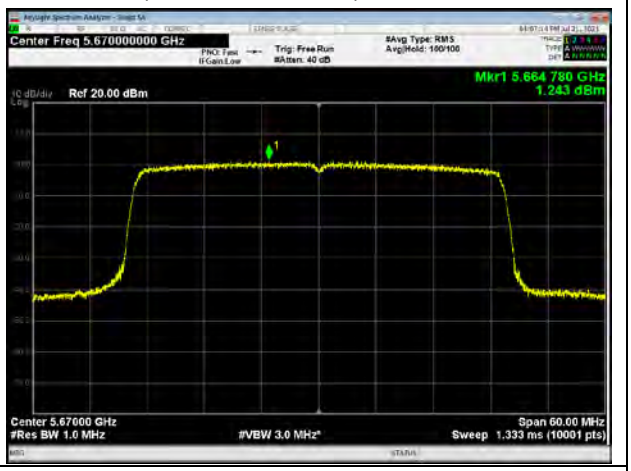
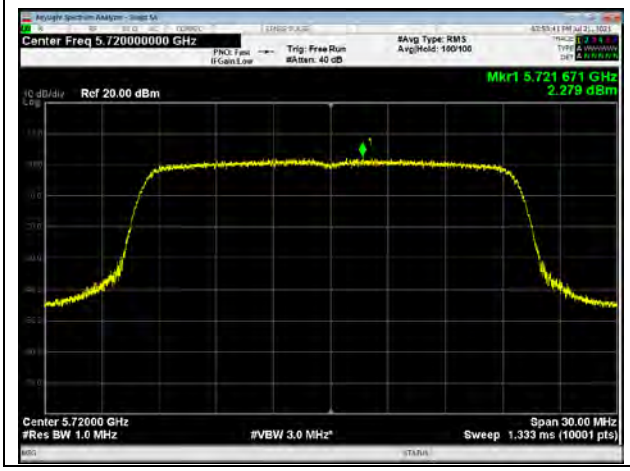


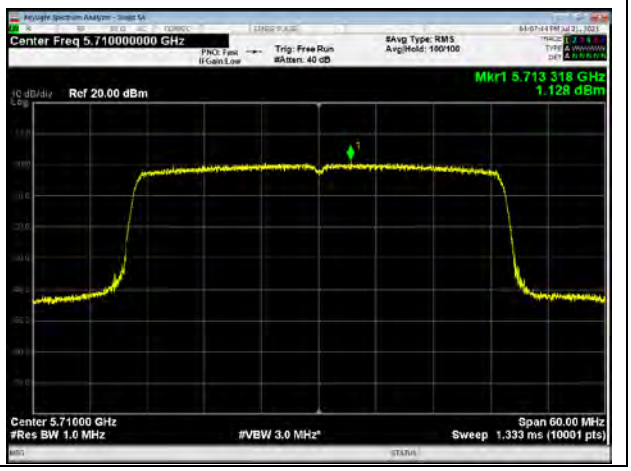
U-NII-2C, 802.11ax HE40, Channel No.: 134



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



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



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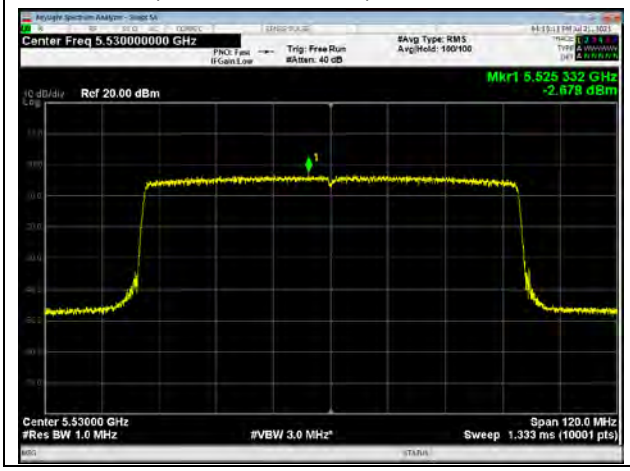
U-NII-2C, 802.11ax HE80, Channel No.: 106



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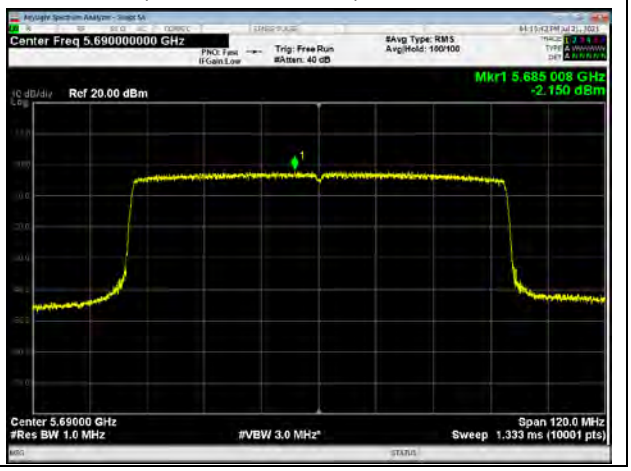

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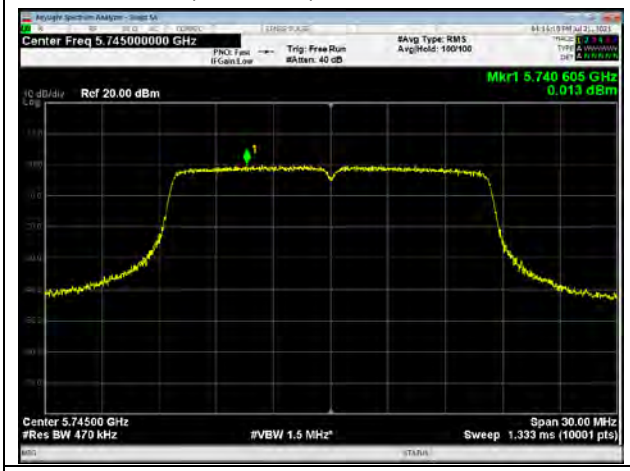
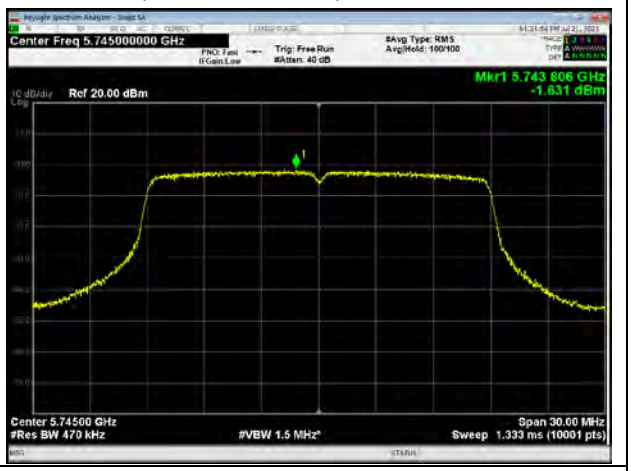
U-NII-3

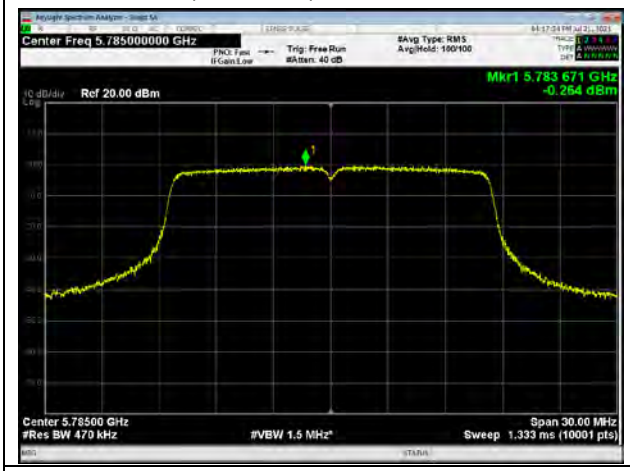
U-NII-3, 802.11a, Channel No.: 149



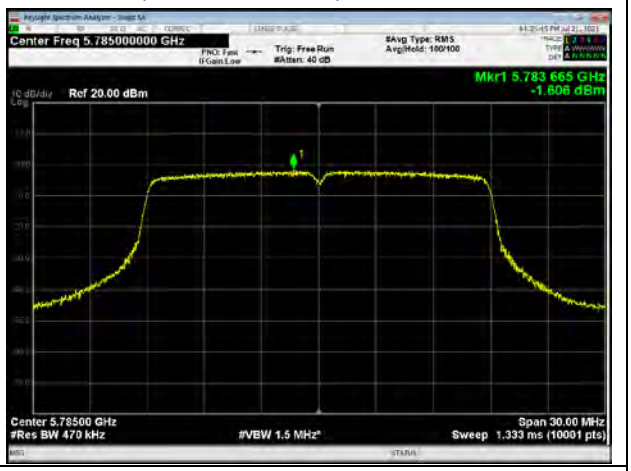
U-NII-3, 802.11n HT20, Channel No.: 149



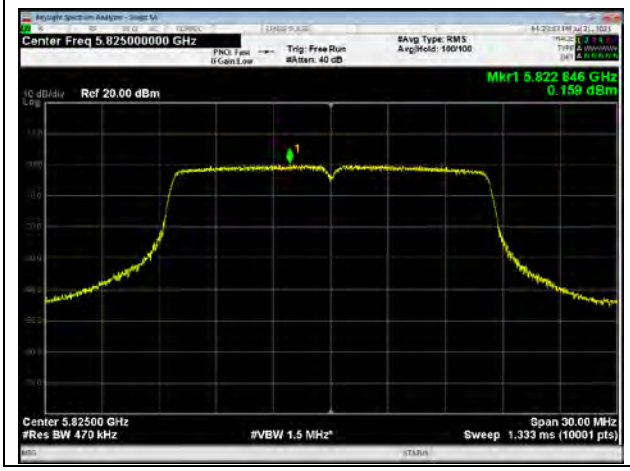
U-NII-3, 802.11a, Channel No.: 157



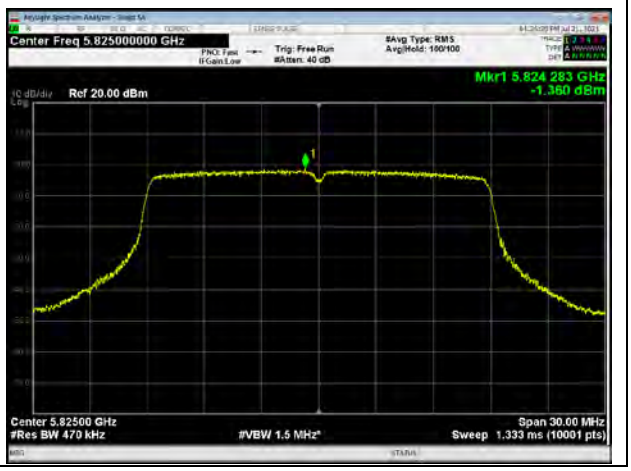
U-NII-3, 802.11n HT20, Channel No.: 157



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



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



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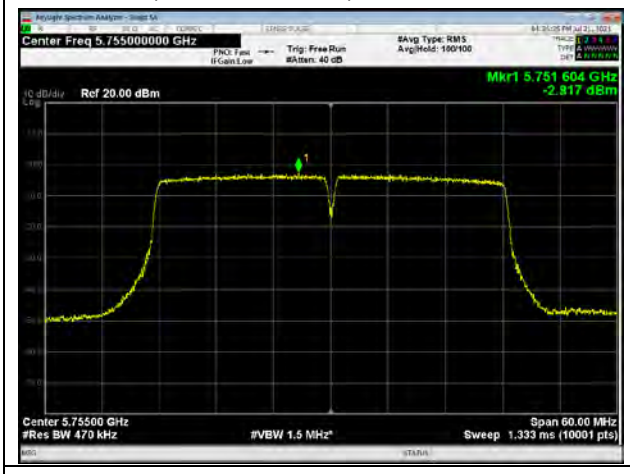
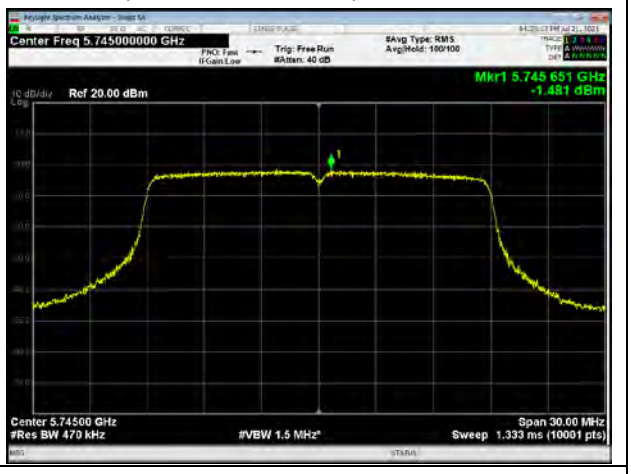
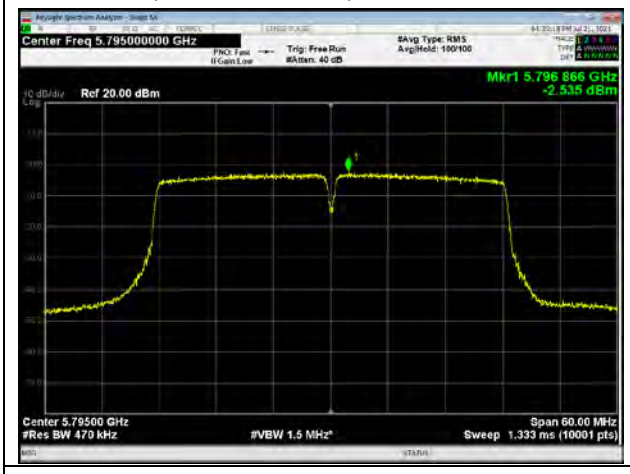
U-NII-3, 802.11n HT40, Channel No.: 151



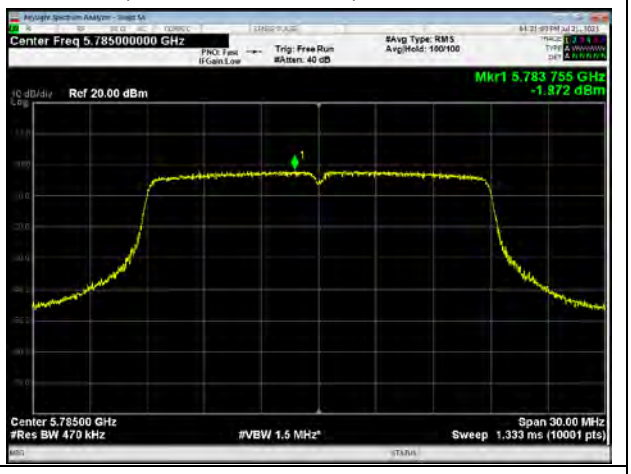
U-NII-3, 802.11ac VHT20, Channel No.: 149



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



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



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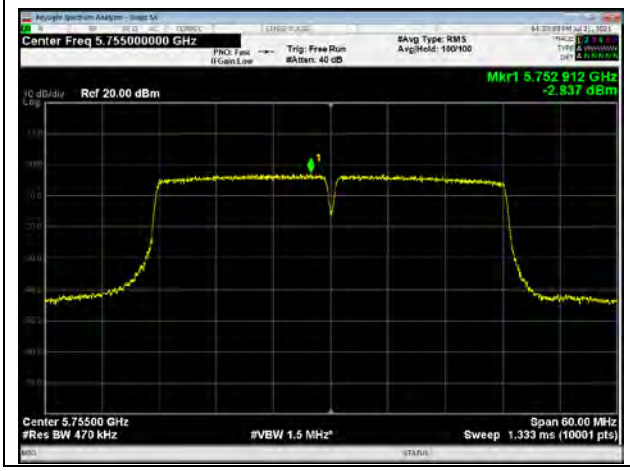
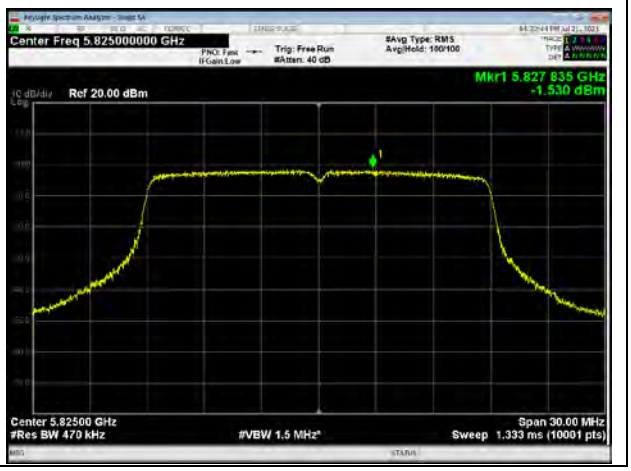


U-NII-3, 802.11ac VHT20, Channel No.: 165



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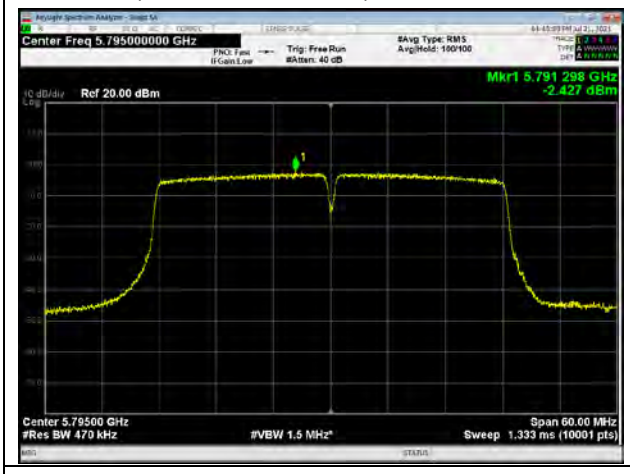
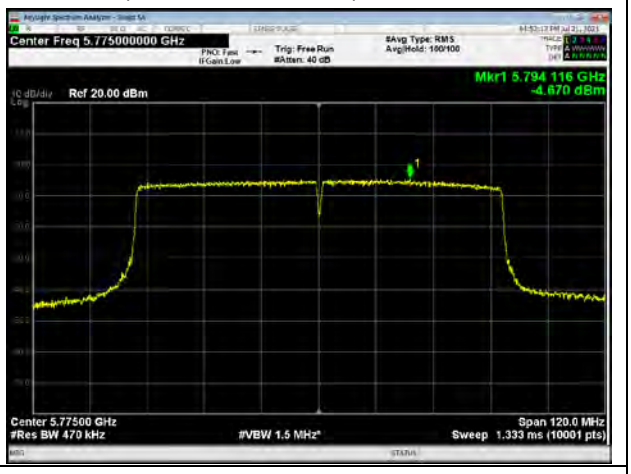
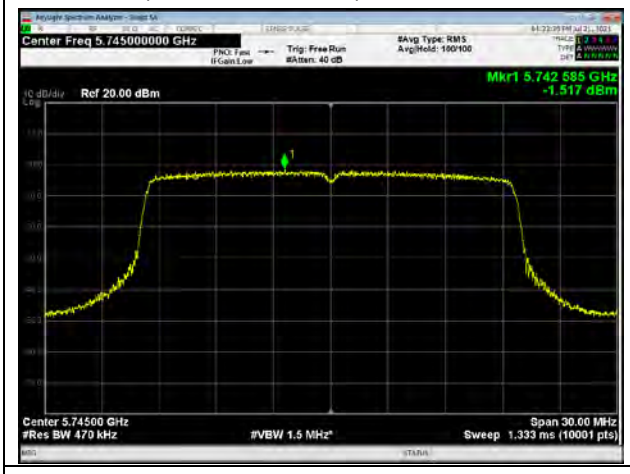
U-NII-3, 802.11ac VHT40, Channel No.: 159



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



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



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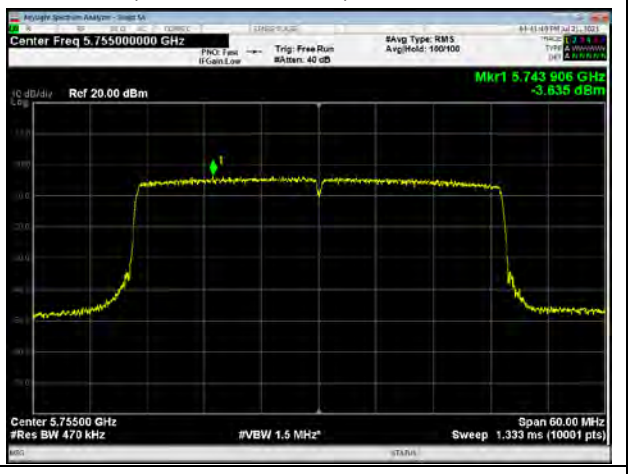

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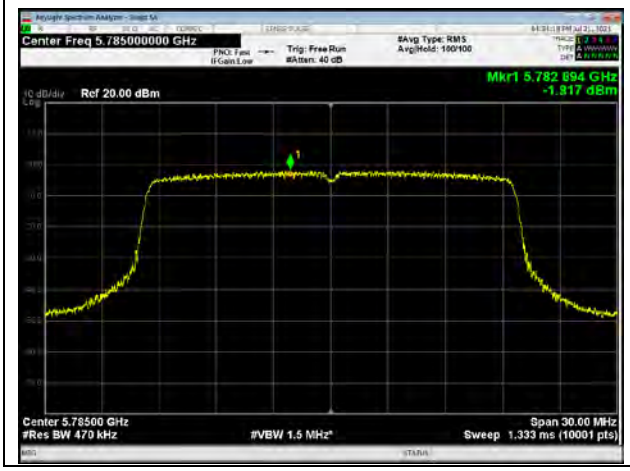

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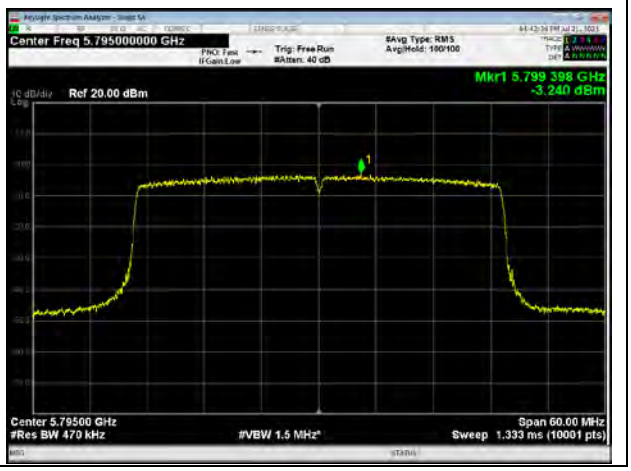

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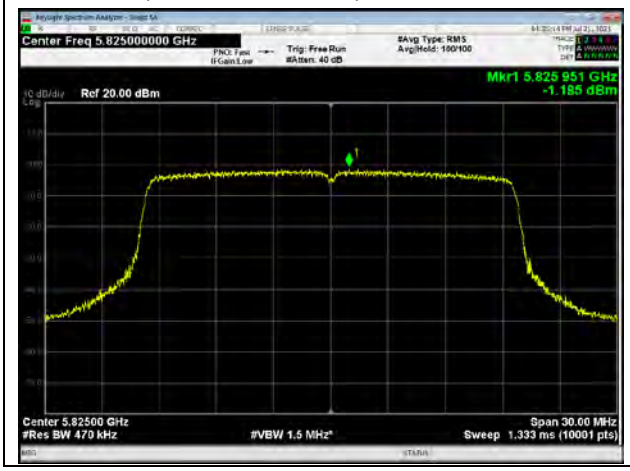
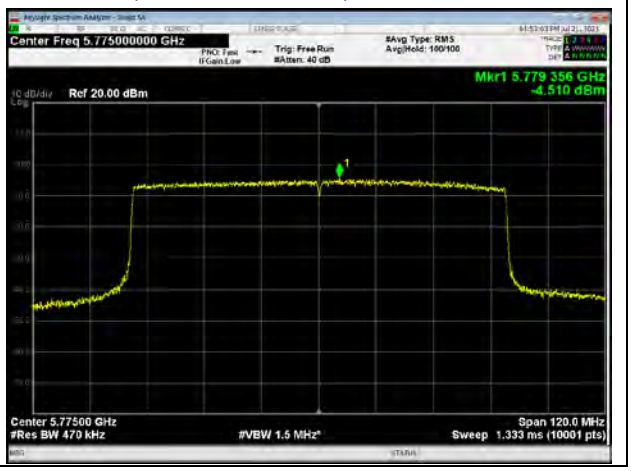
U-NII-3, 802.11ax HE20, Channel No.: 165



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



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