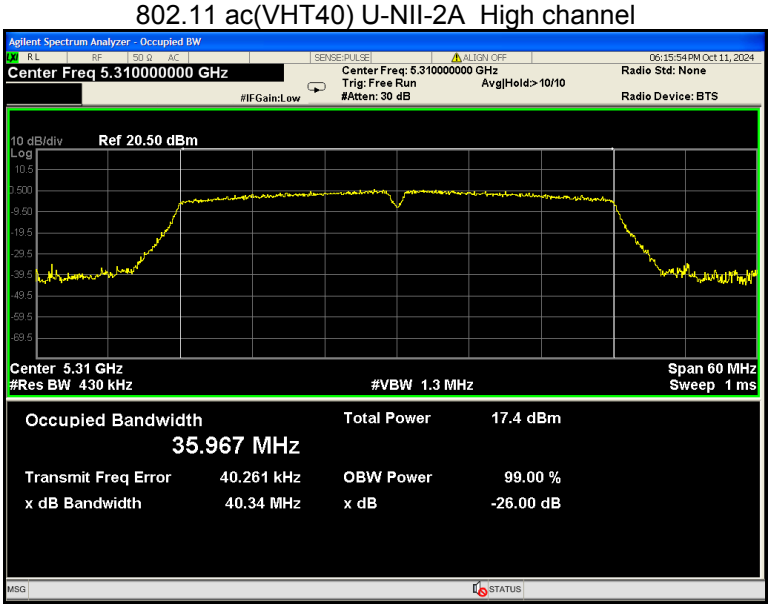
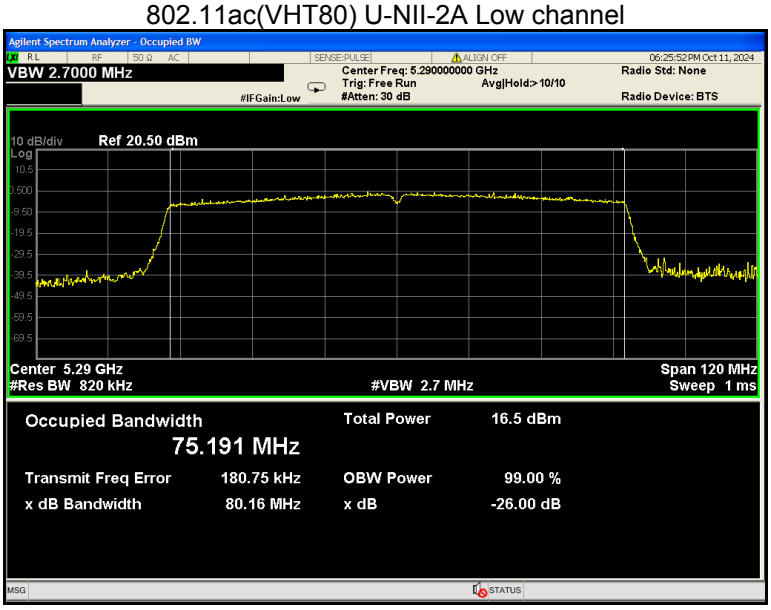
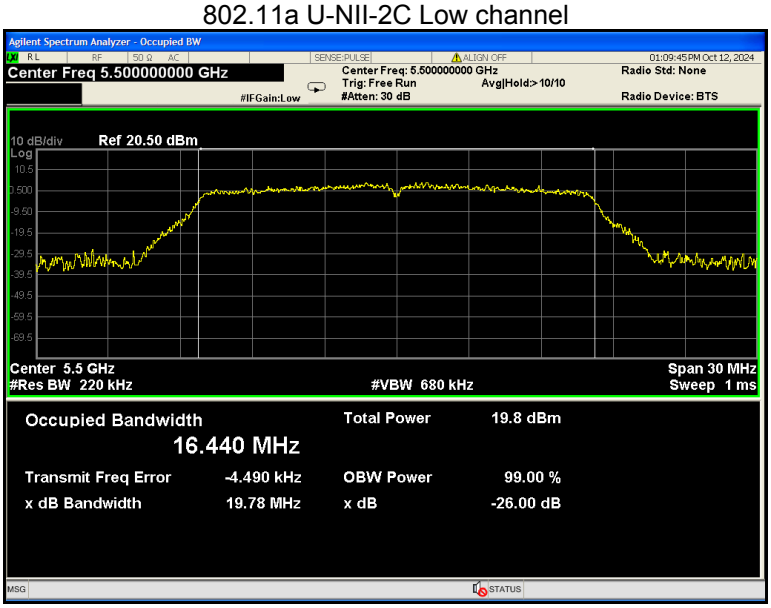
802.11 ac(VHT40) U-NII-2A High channel



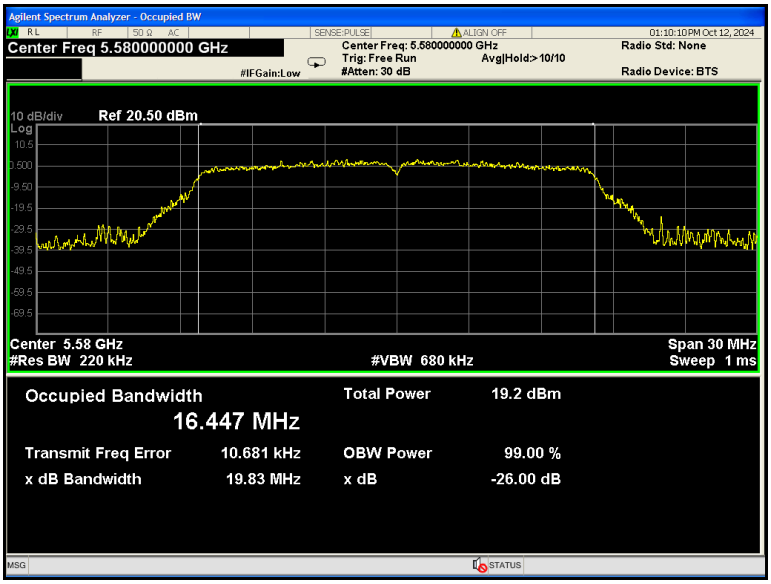
802.11ac(VHT80) U-NII-2A Low channel



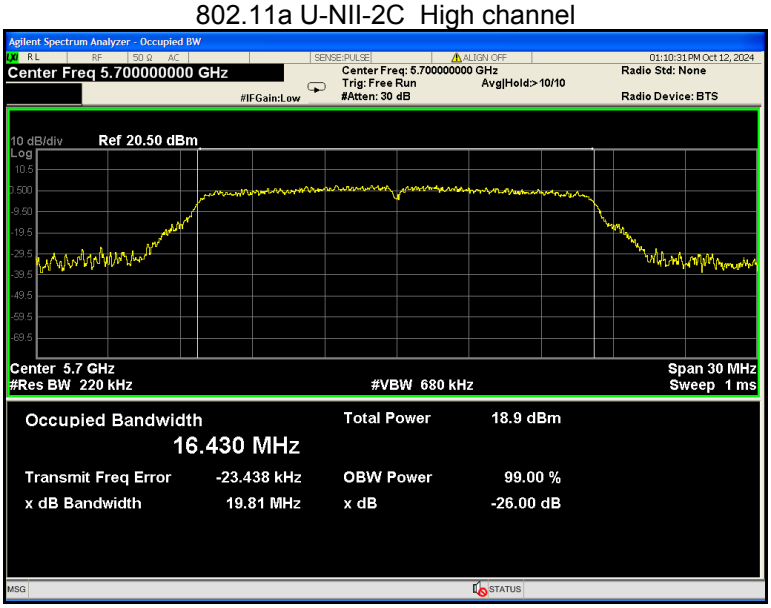
802.11a U-NII-2C Low channel



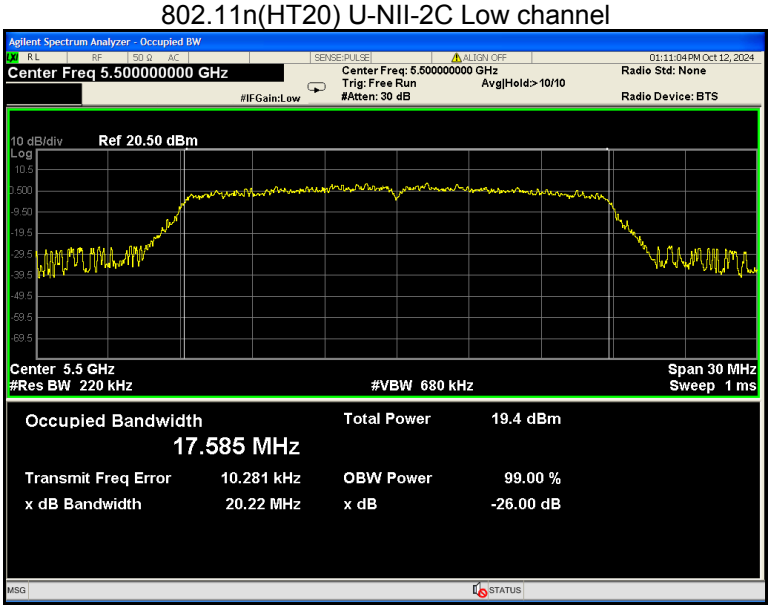
802.11a U-NII-2C Middle channel



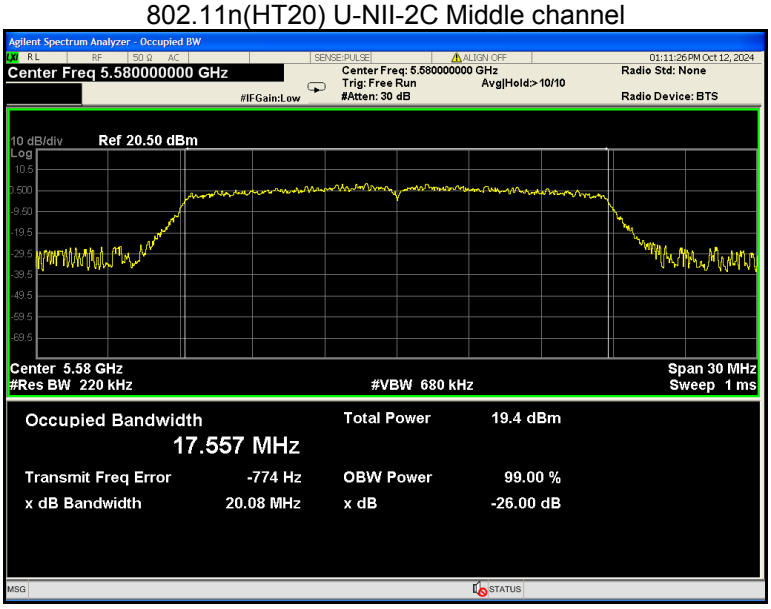
802.11a U-NII-2C High channel



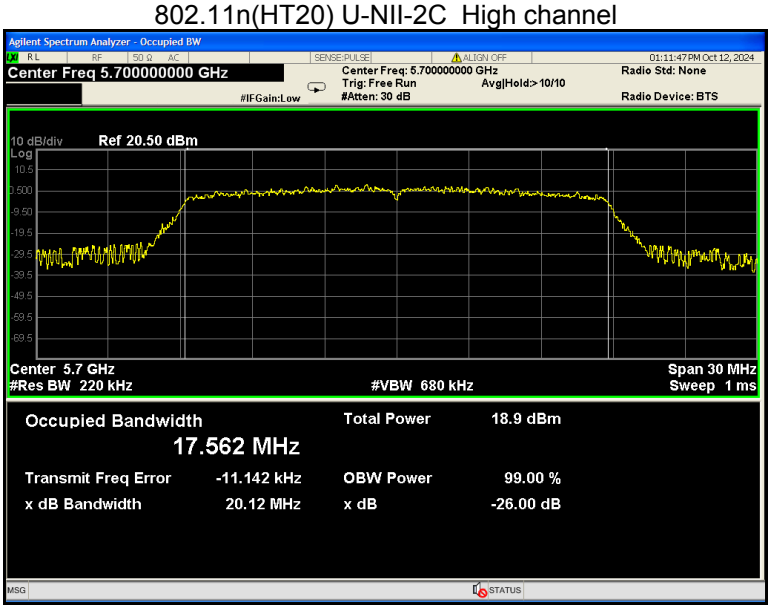
802.11n(HT20) U-NII-2C Low channel



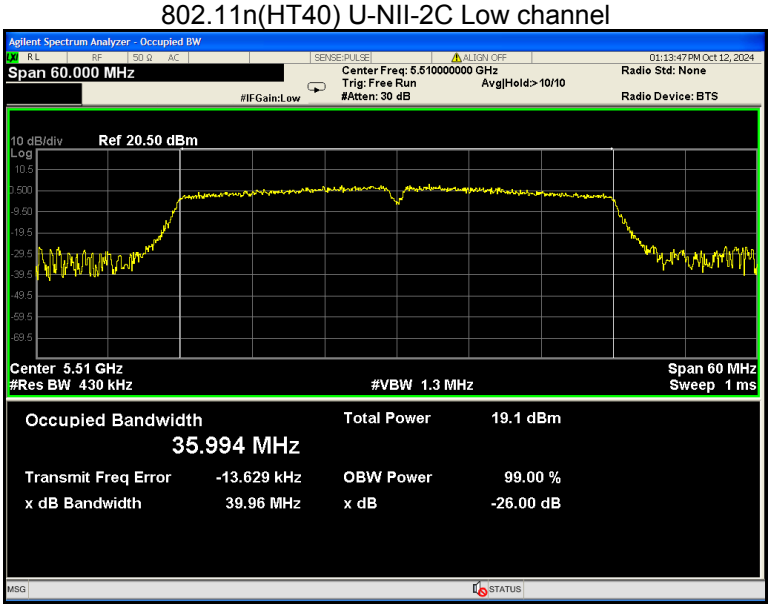
802.11n(HT20) U-NII-2C Middle channel



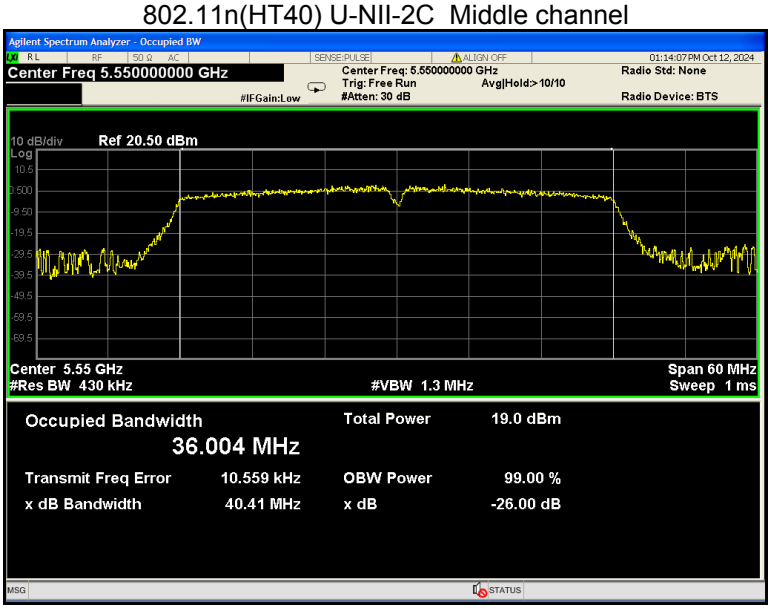
802.11n(HT20) U-NII-2C High channel



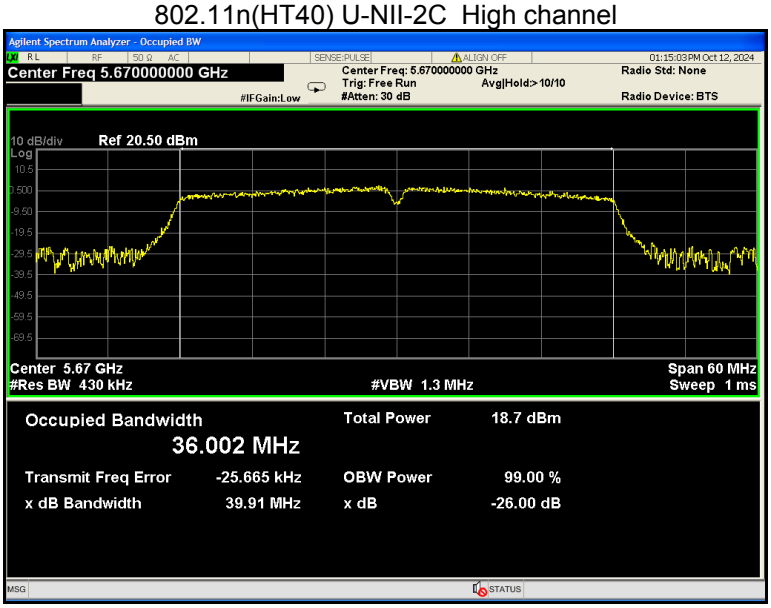
802.11n(HT40) U-NII-2C Low channel



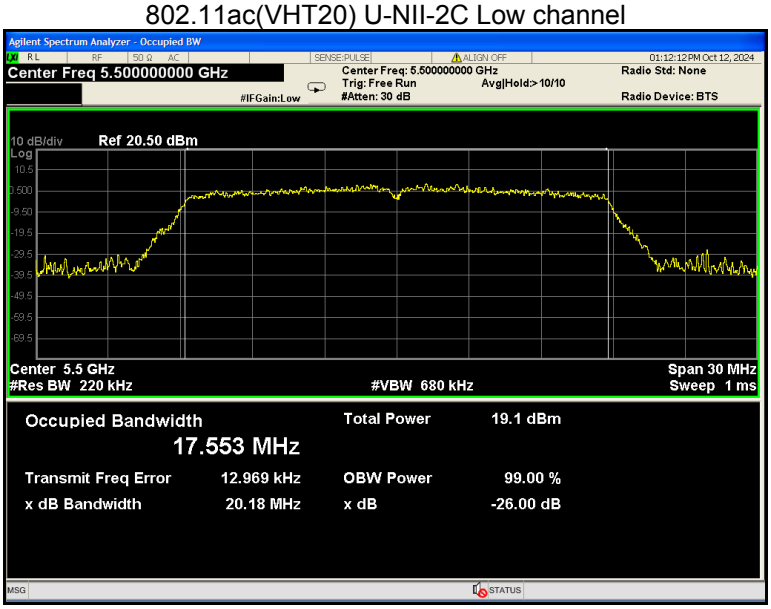
802.11n(HT40) U-NII-2C Middle channel



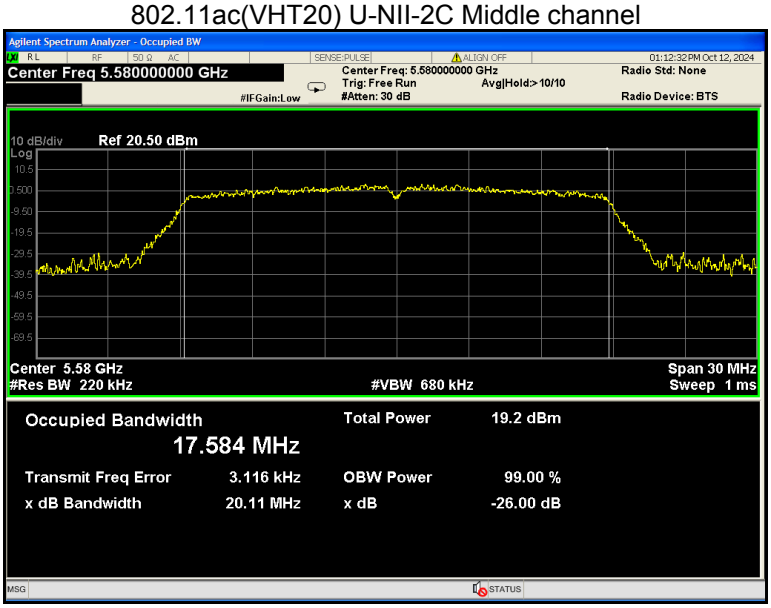
802.11n(HT40) U-NII-2C High channel



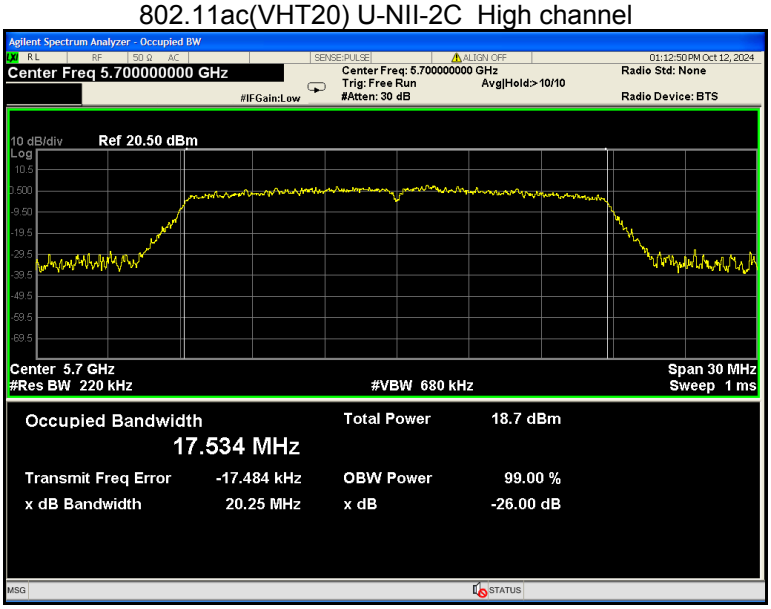
802.11ac(VHT20) U-NII-2C Low channel



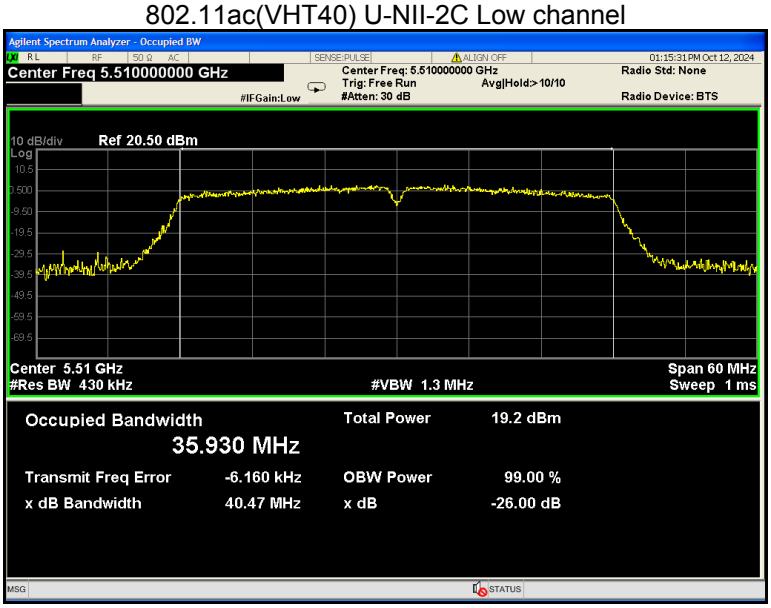
802.11ac(VHT20) U-NII-2C Middle channel



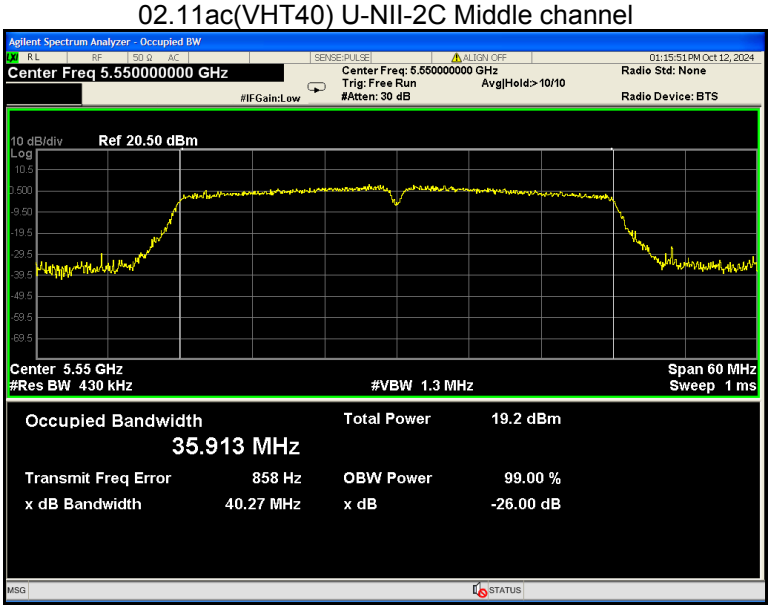
802.11ac(VHT20) U-NII-2C High channel



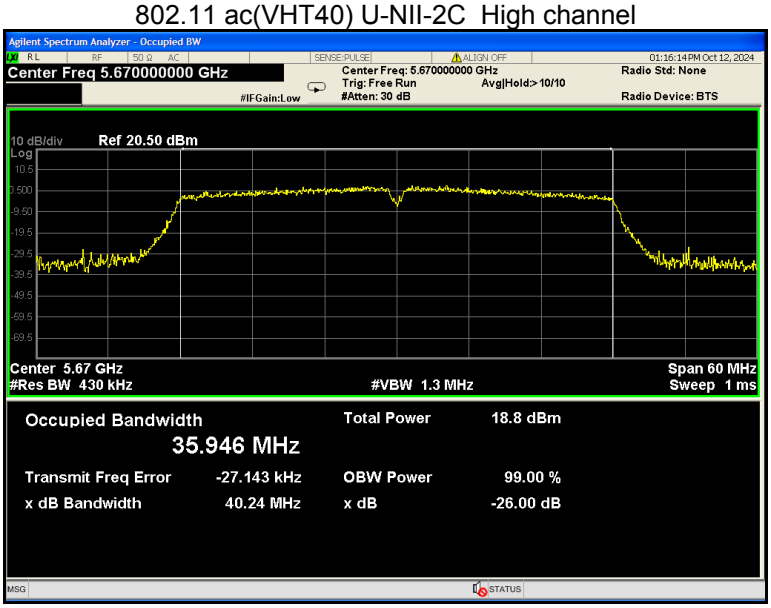
802.11ac(VHT40) U-NII-2C Low channel



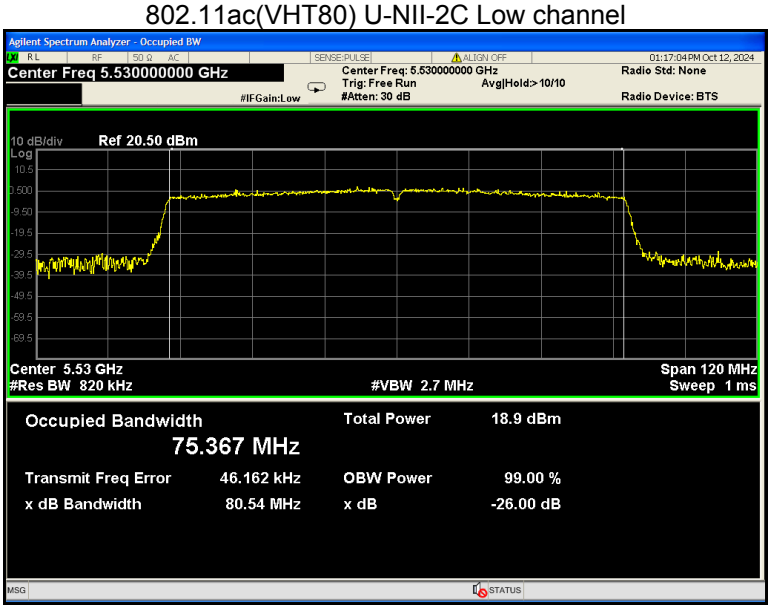
02.11ac(VHT40) U-NII-2C Middle channel



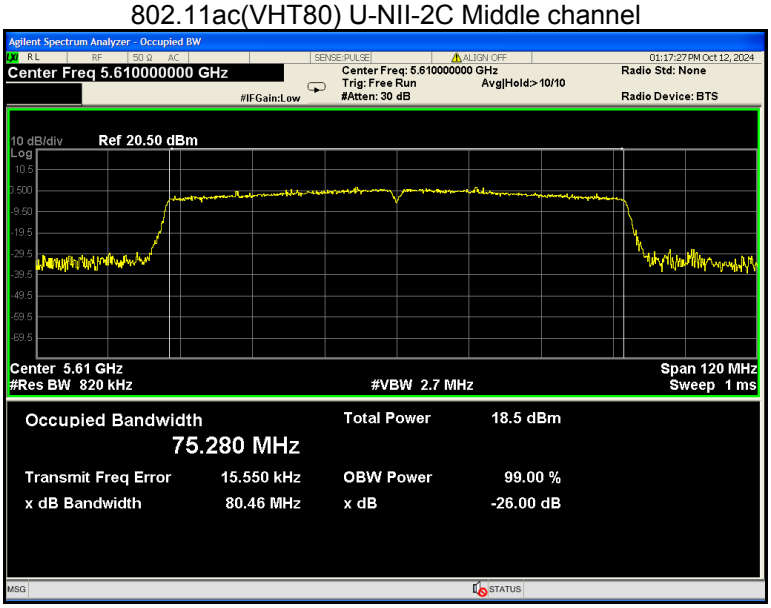
802.11 ac(VHT40) U-NII-2C High channel



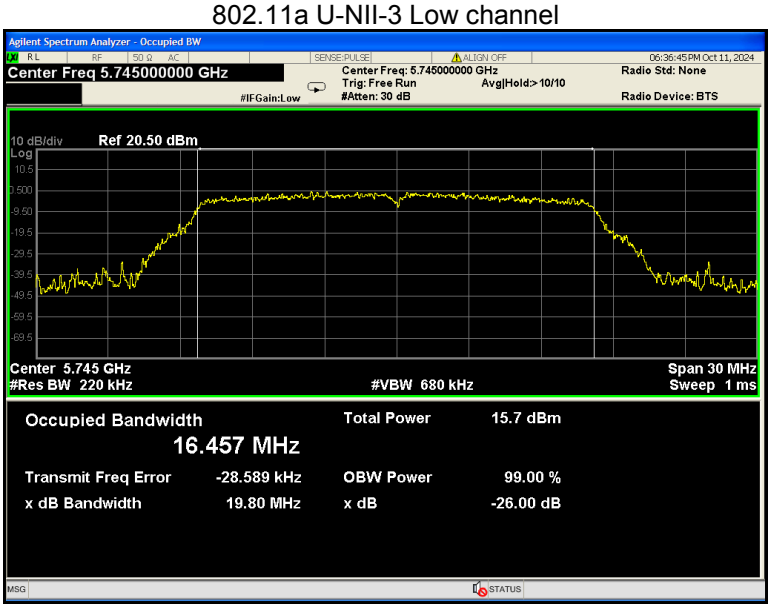
802.11ac(VHT80) U-NII-2C Low channel



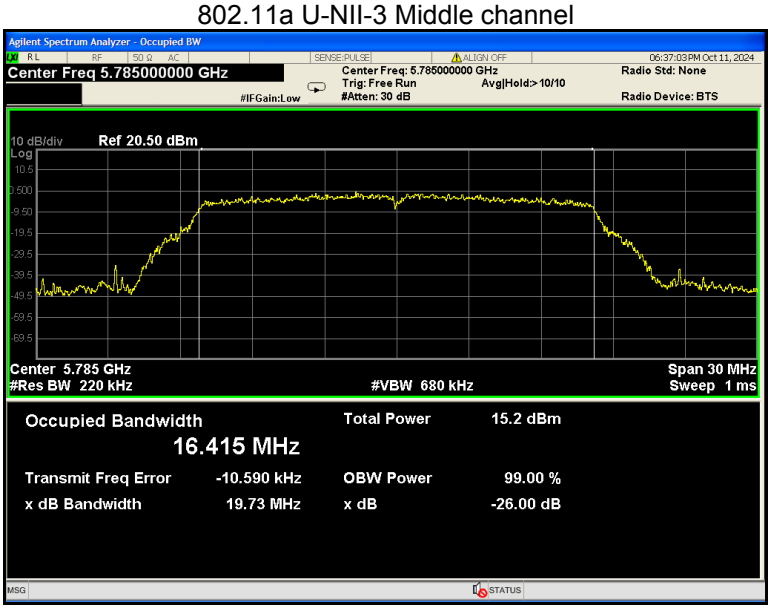
802.11ac(VHT80) U-NII-2C Middle channel



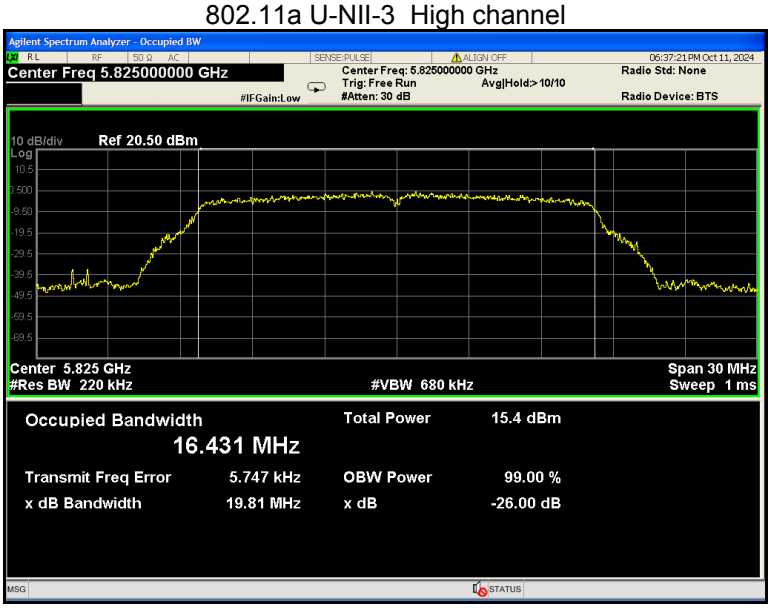
802.11a U-NII-3 Low channel



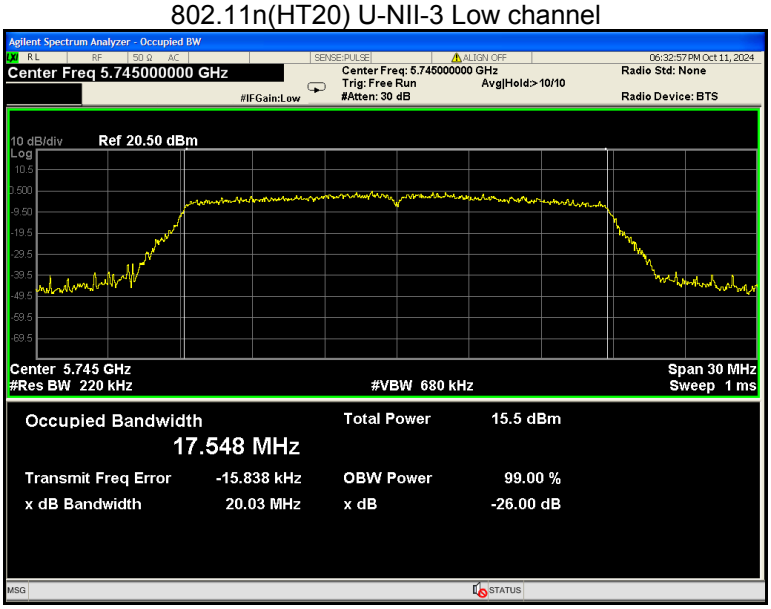
802.11a U-NII-3 Middle channel



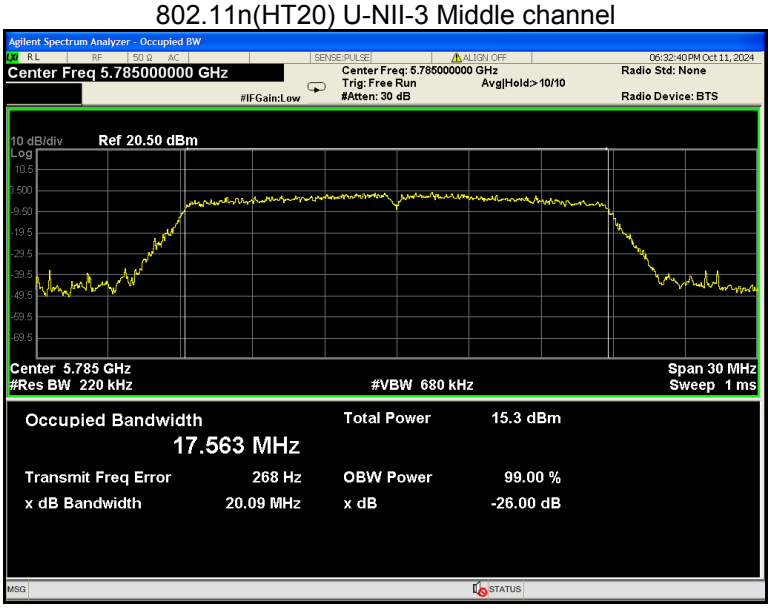
802.11a U-NII-3 High channel



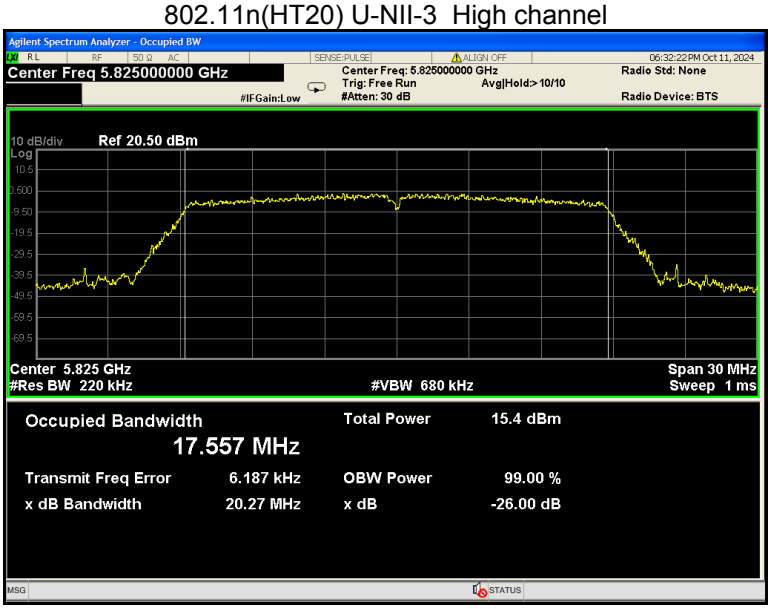
802.11n(HT20) U-NII-3 Low channel



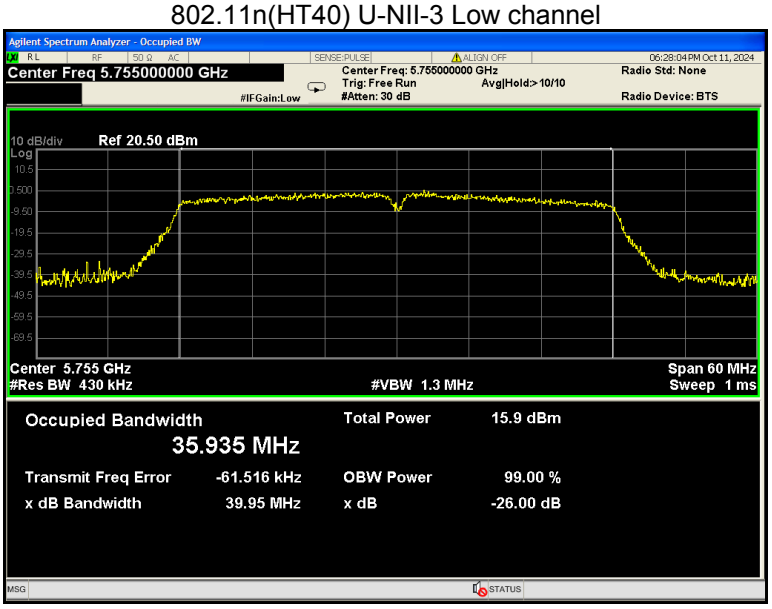
802.11n(HT20) U-NII-3 Middle channel



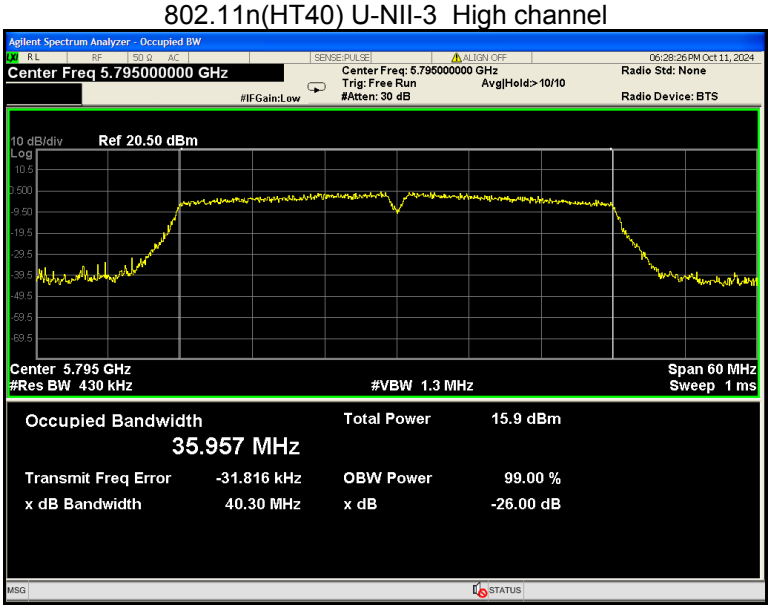
802.11n(HT20) U-NII-3 High channel



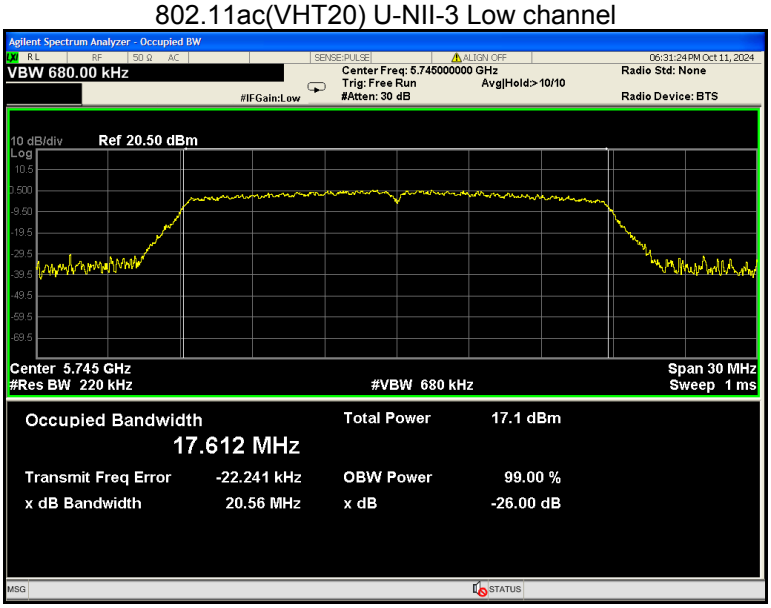
802.11n(HT40) U-NII-3 Low channel



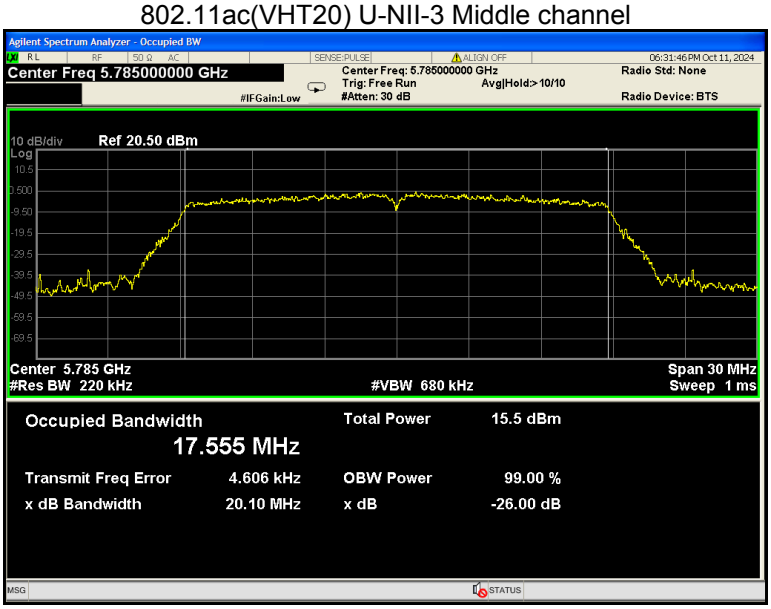
802.11n(HT40) U-NII-3 High channel



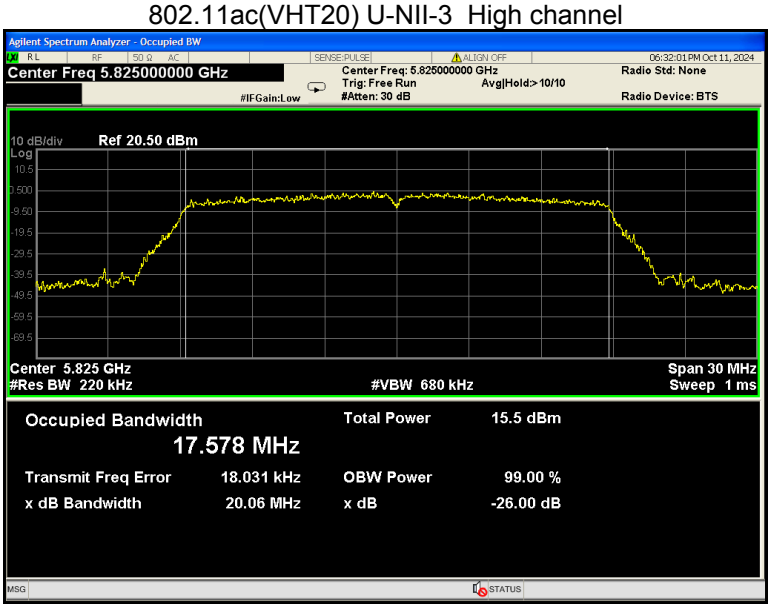
802.11ac(VHT20) U-NII-3 Low channel



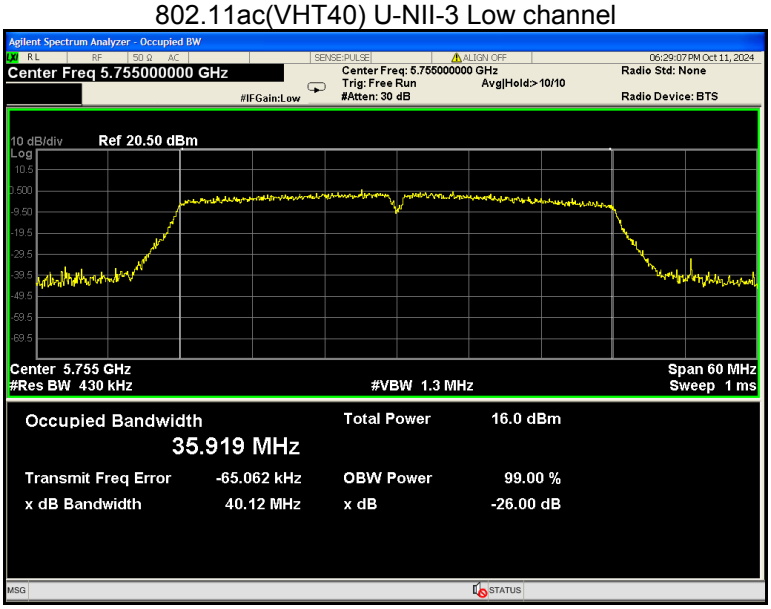
802.11ac(VHT20) U-NII-3 Middle channel



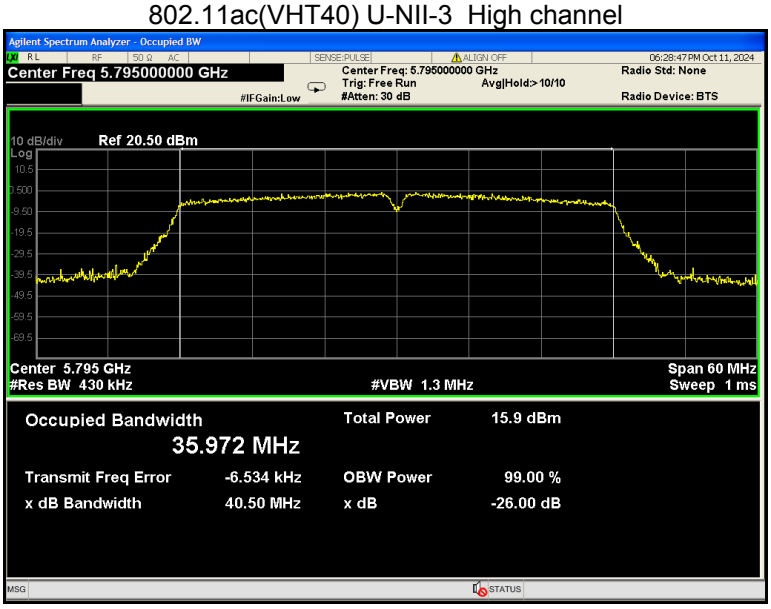
802.11ac(VHT20) U-NII-3 High channel



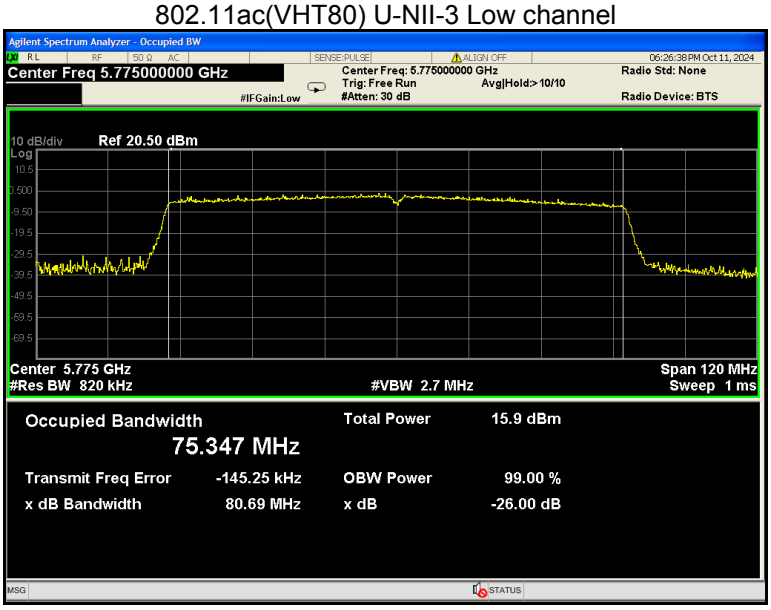
802.11ac(VHT40) U-NII-3 Low channel



802.11ac(VHT40) U-NII-3 High channel



802.11ac(VHT80) U-NII-3 Low channel



13 Conducted Output Power

Test Requirement:	FCC 47CFR Part 15 Section 15.407(a)
Test Method:	KDB662911 D01 Multiple Transmitter Output v02r01 KDB789033 D02 General U-NII Test Procedures New Rules v02r01 Section E
Test Limit:	**For the band 5.15-5.25 GHz** 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. 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. 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. 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. **For the 5.25-5.35 GHz and 5.47-5.725 GHz bands** 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. **For the band 5.725-5.850 GHz** For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.
Test Result:	PASS
Remark:	Conducted output power= measurement power+10log(1/x) X is duty cycle=1, so 10log(1/1)=0 Conducted output power= measurement power

13.1 Test Procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
2. Set the spectrum analyzer: RBW = 1 MHz. VBW = 3 MHz. Sweep = auto; Detector Function = Peak, Set the span to fully encompass the DTS bandwidth.
3. Keep the EUT in transmitting at lowest, medium and highest channel individually. Record the max value.

13.2 Test Result

Band	Operation mode	Channel	Measurements (dBm)	Duty Cycle Factor (dB)	Conducted Output Power (dBm)
U-NII-1	802.11a	Low	15.33	0.17	15.50
		Middle	15.16		15.33
		High	15.26		15.43
	802.11n(HT20)	Low	15.31	0.20	15.51
		Middle	15.17		15.37
		High	15.10		15.30
	802.11n(HT40)	Low	15.23	0.30	15.53
		Middle	/		/
		High	15.08		15.38
	802.11ac(VHT20)	Low	15.27	0.20	15.47
		Middle	15.15		15.35
		High	15.11		15.31
	802.11ac(VHT40)	Low	15.35	0.30	15.65
		Middle	/		/
		High	15.22		15.52
	802.11ac(VHT80)	Low	15.43	0.58	**16.01**
		Middle	/		/
		High	/		/

Band	Operation mode	Channel	Measurements (dBm)	Duty Cycle Factor (dB)	Conducted Output Power (dBm)
U-NII-2A	802.11a	Low	14.82	0.16	14.98
		Middle	14.77		14.93
		High	15.36		15.52
	802.11n(HT20)	Low	15.02	0.18	15.20
		Middle	15.23		15.41
		High	15.67		15.85
	802.11n(HT40)	Low	15.34	0.31	15.65
		Middle	/		/
		High	15.57		15.88
	802.11ac(VHT20)	Low	14.56	0.18	14.74
		Middle	14.77		14.95
		High	15.22		15.40
	802.11ac(VHT40)	Low	15.36	0.31	15.67
		Middle	/		/
		High	15.77		16.08
	802.11ac(VHT80)	Low	15.64	0.58	**16.22**
		Middle	/		/
		High	/		/

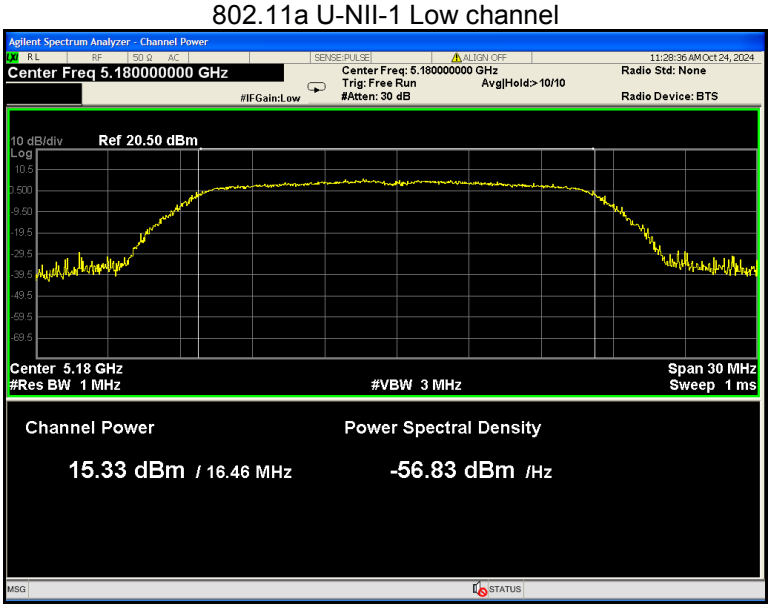
Band	Operation mode	Channel	Measurements (dBm)	Duty Cycle Factor (dB)	Conducted Output Power (dBm)
U-NII-2C	802.11a	Low	16.86	0.17	17.03
		Middle	16.28		16.45
		High	16.04		16.21
	802.11n(HT20)	Low	16.68	0.18	16.86
		Middle	16.36		16.54
		High	16.05		16.23
	802.11n(HT40)	Low	16.39	0.31	16.70
		Middle	16.52		16.83
		High	15.86		16.17
	802.11ac(VHT20)	Low	16.55	0.18	16.73
		Middle	16.20		16.38
		High	15.83		16.01
	802.11ac(VHT40)	Low	16.42	0.31	16.73
		Middle	16.32		16.63
		High	16.01		16.32
	802.11ac(VHT80)	Low	16.62	0.58	**17.20**
		Middle	16.47		17.05
		High	/		/

Band	Operation mode	Channel	Measurements (dBm)	Duty Cycle Factor (dB)	Conducted Output Power (dBm)
U-NII-3	802.11a	Low	15.32	0.20	15.52
		Middle	14.97		15.17
		High	14.88		15.08
	802.11n(HT20)	Low	15.27	0.17	15.44
		Middle	14.81		14.98
		High	15.11		15.28
	802.11n(HT40)	Low	14.93	0.30	15.23
		Middle	/		/
		High	14.33		14.63
	802.11ac(VHT20)	Low	15.16	0.17	15.33
		Middle	14.88		15.05
		High	14.99		15.16
	802.11ac(VHT40)	Low	15.18	0.32	15.50
		Middle	/		/
		High	14.75		15.07
	802.11ac(VHT80)	Low	15.03	0.59	**15.62**
		Middle	/		/
		High	/		/

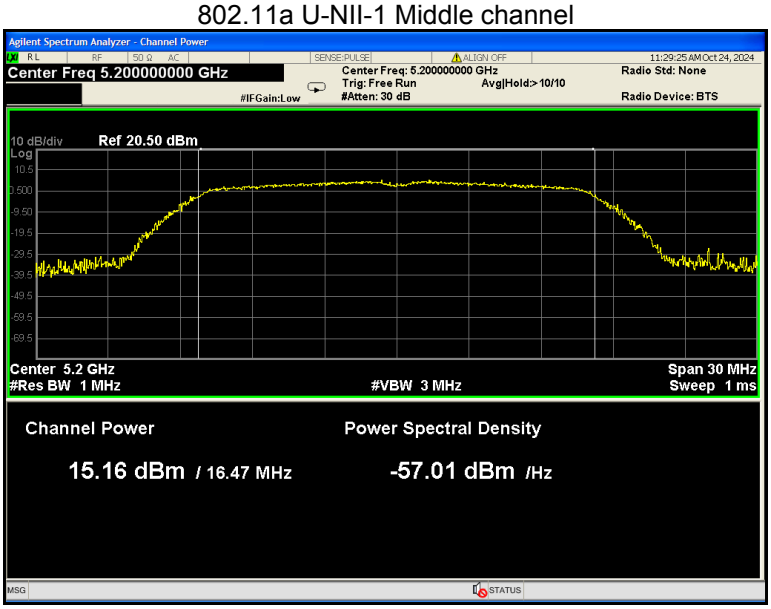
* All transmit signals are completely uncorrelated with each other, Directional gain = G_{ANT} which is less than 6dBi. So the limit does not be reduced.

Test result plots shown as follows:

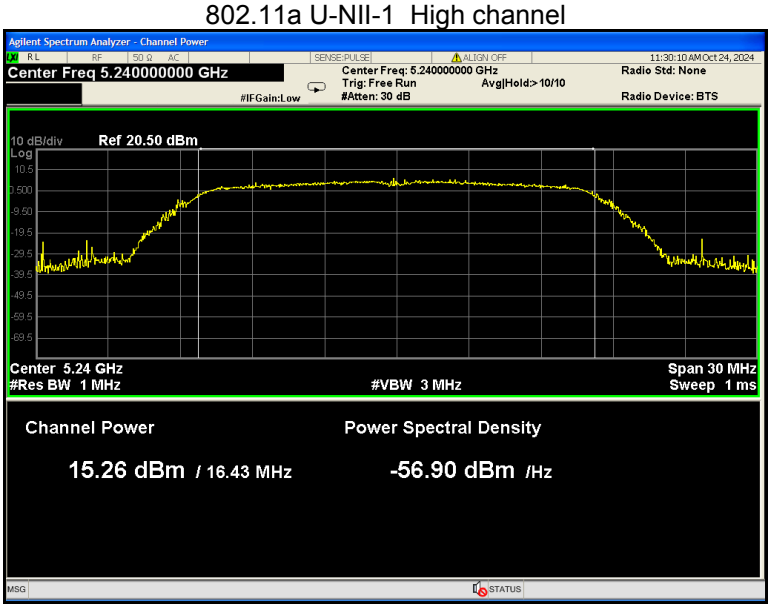
802.11a U-NII-1 Low channel



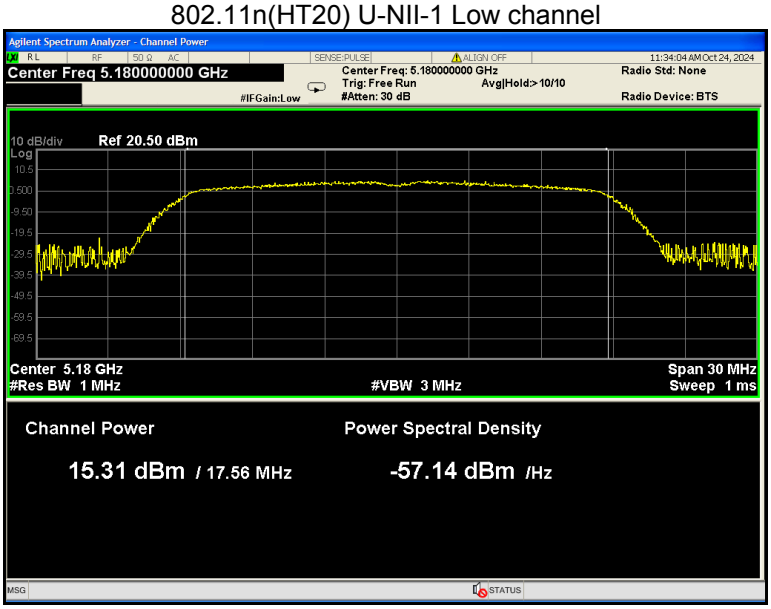
802.11a U-NII-1 Middle channel



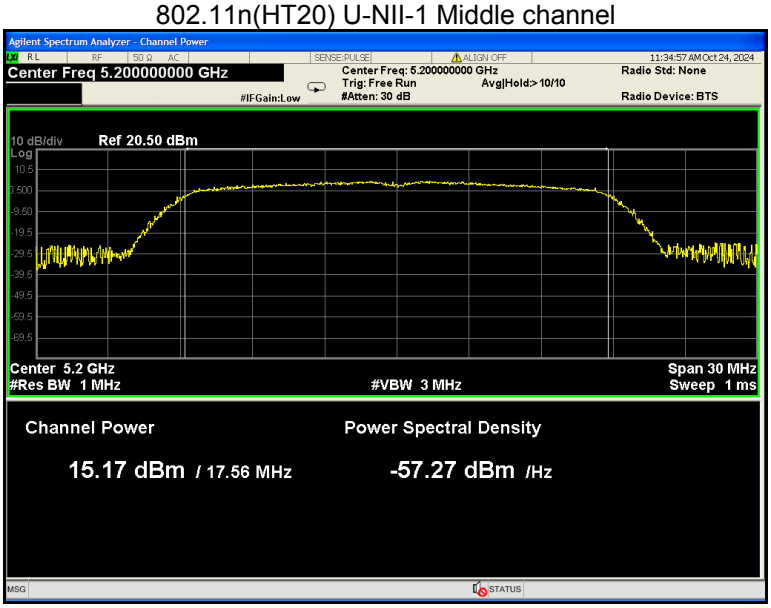
802.11a U-NII-1 High channel



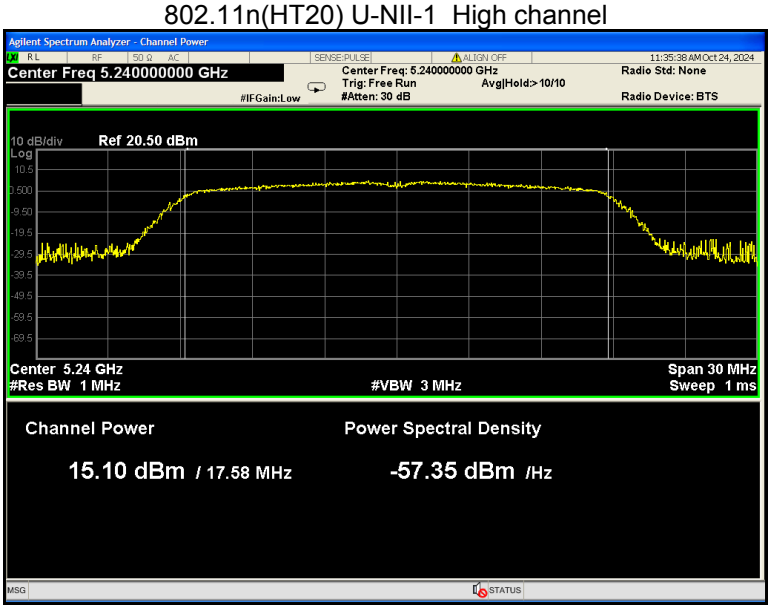
802.11n(HT20) U-NII-1 Low channel



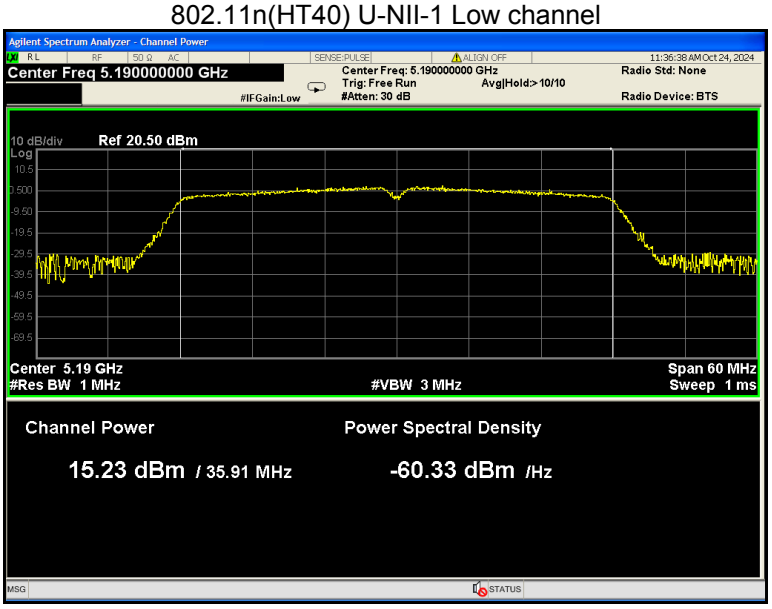
802.11n(HT20) U-NII-1 Middle channel



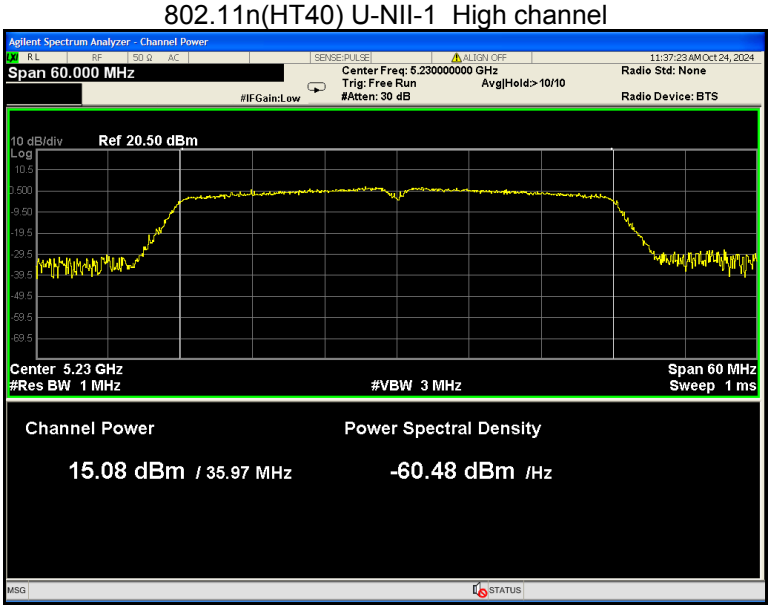
802.11n(HT20) U-NII-1 High channel



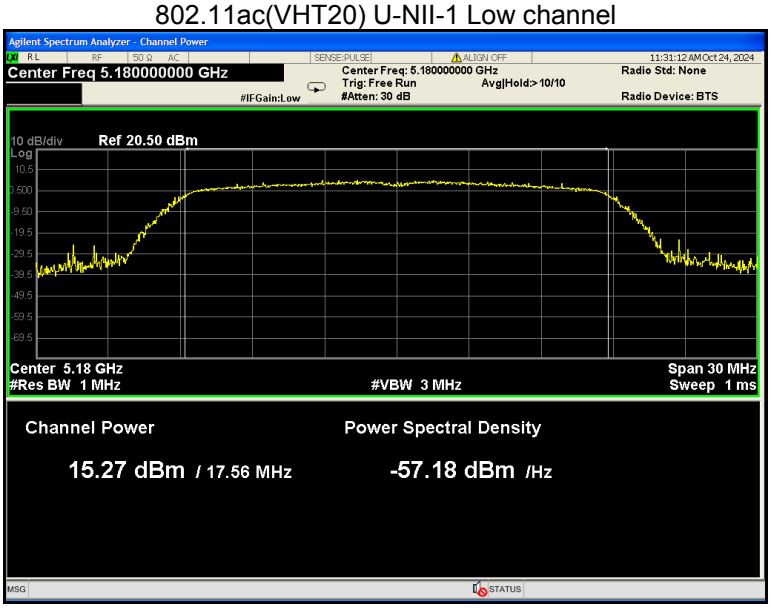
802.11n(HT40) U-NII-1 Low channel



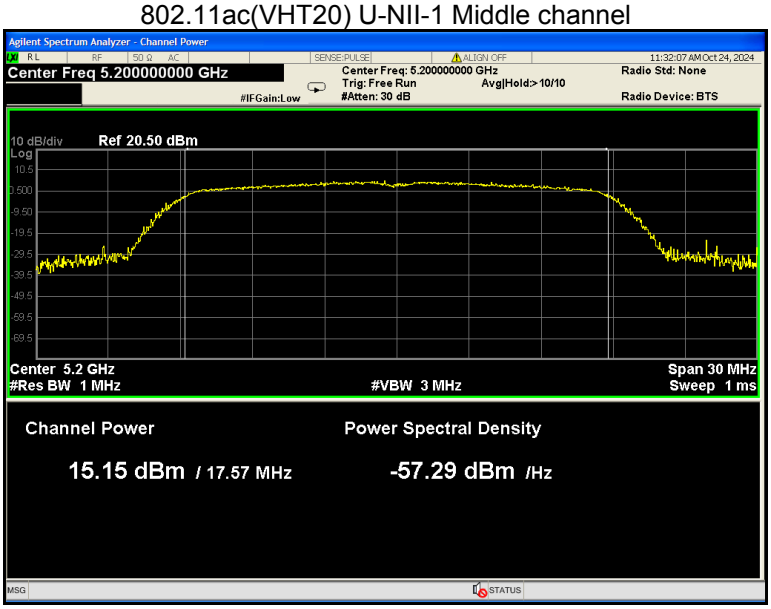
802.11n(HT40) U-NII-1 High channel



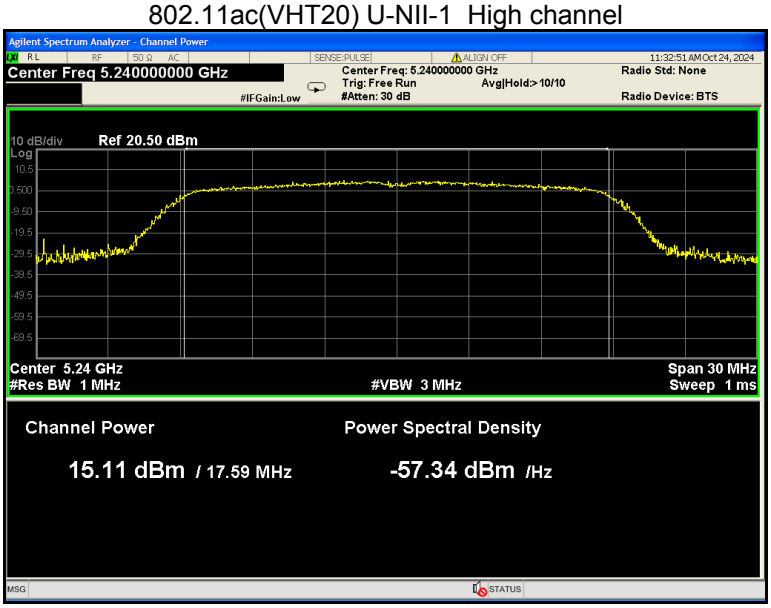
802.11ac(VHT20) U-NII-1 Low channel



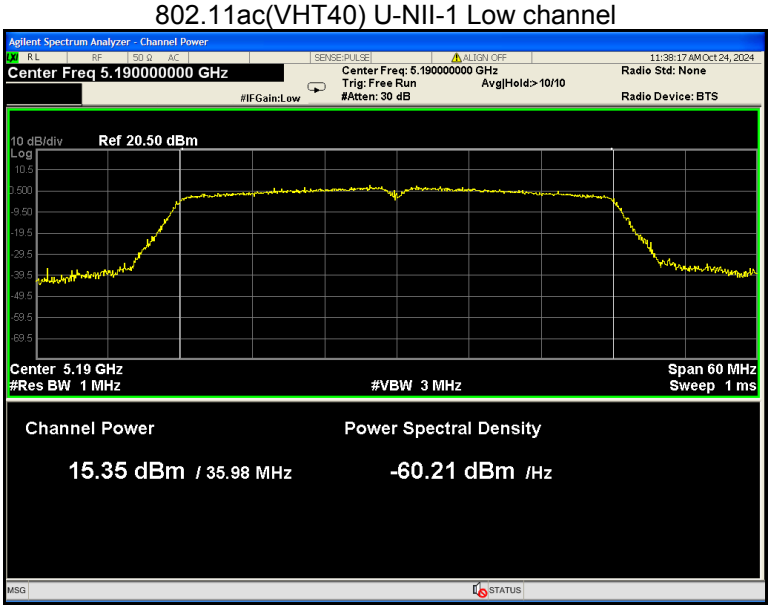
802.11ac(VHT20) U-NII-1 Middle channel



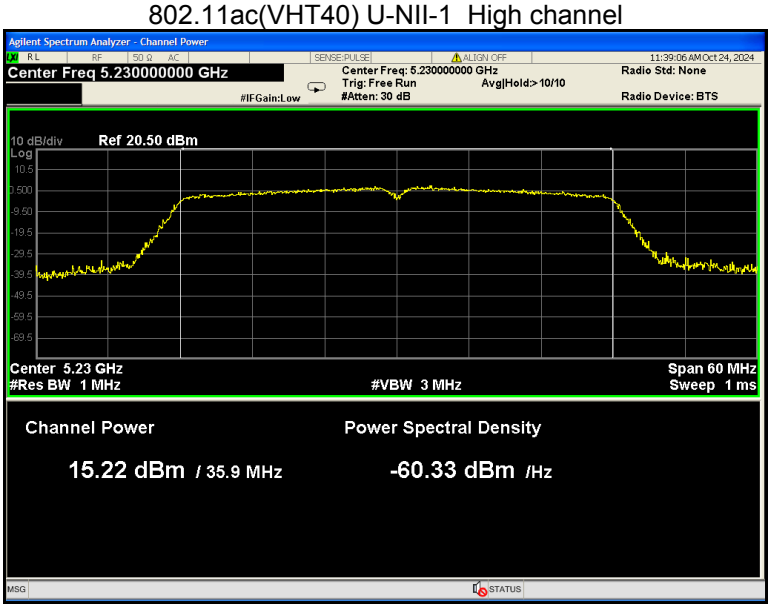
802.11ac(VHT20) U-NII-1 High channel



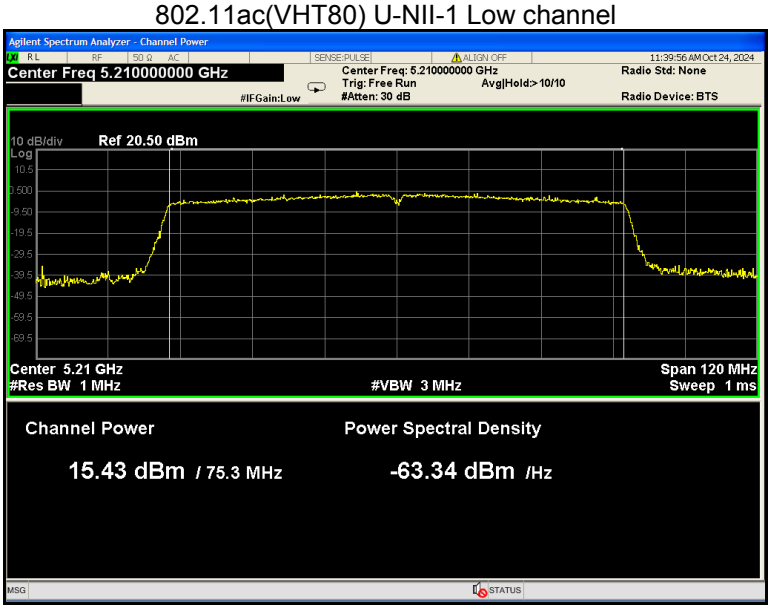
802.11ac(VHT40) U-NII-1 Low channel



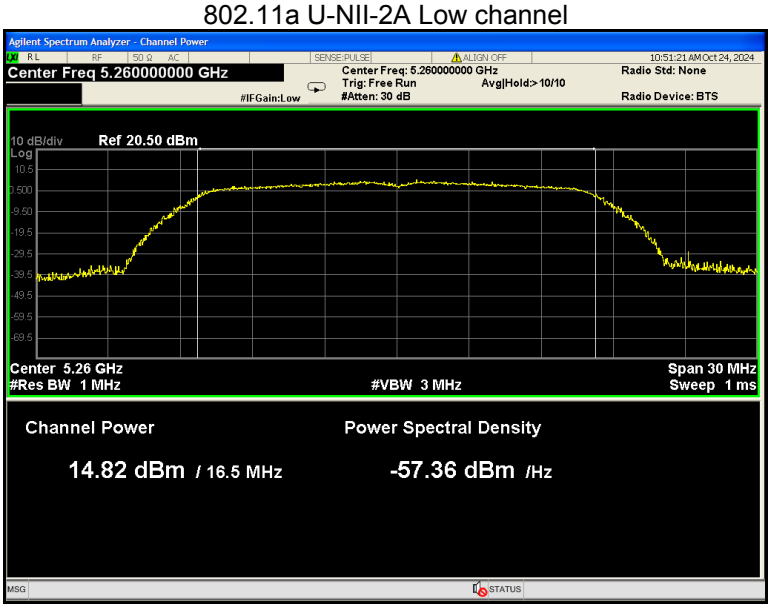
802.11ac(VHT40) U-NII-1 High channel



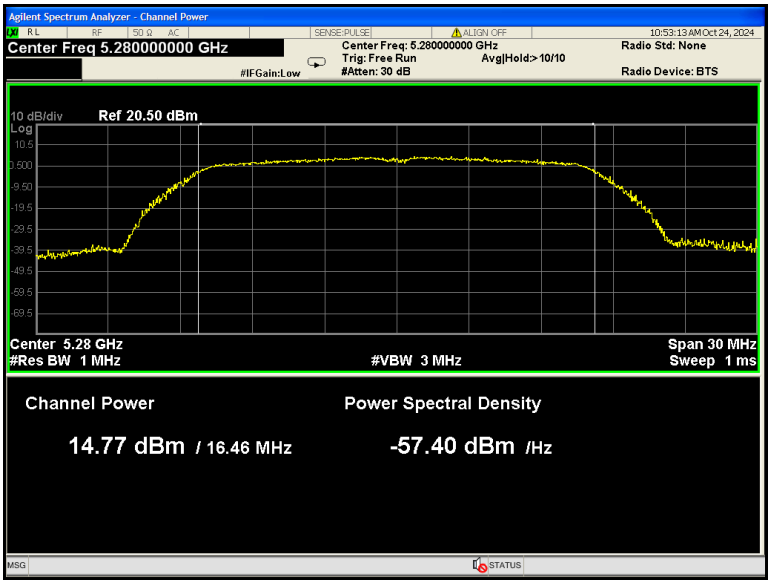
802.11ac(VHT80) U-NII-1 Low channel



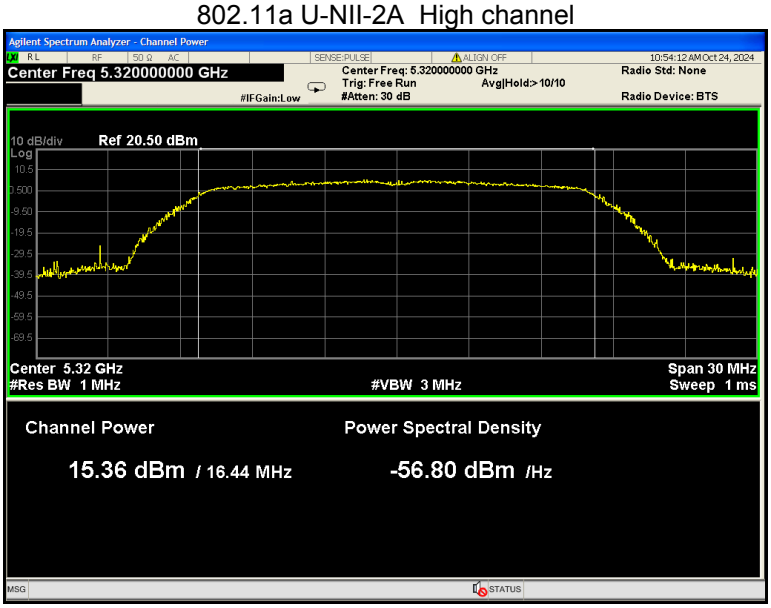
802.11a U-NII-2A Low channel



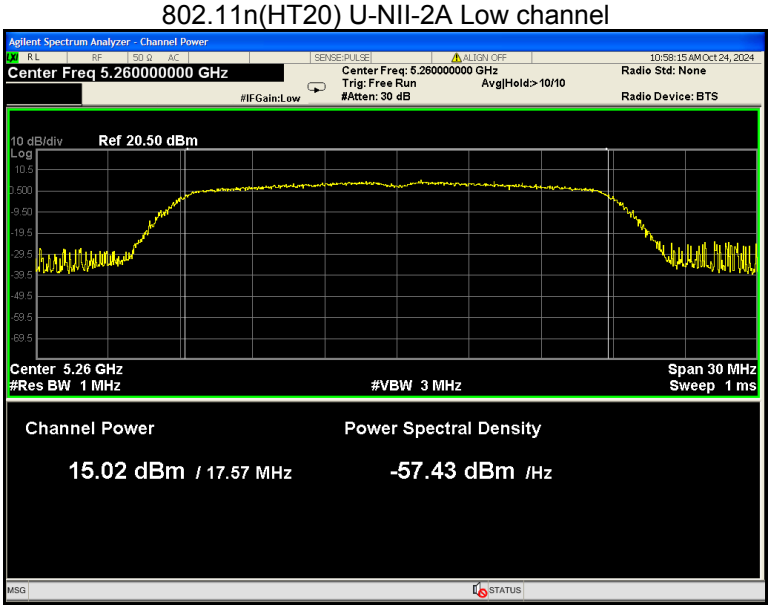
802.11a U-NII-2A Middle channel



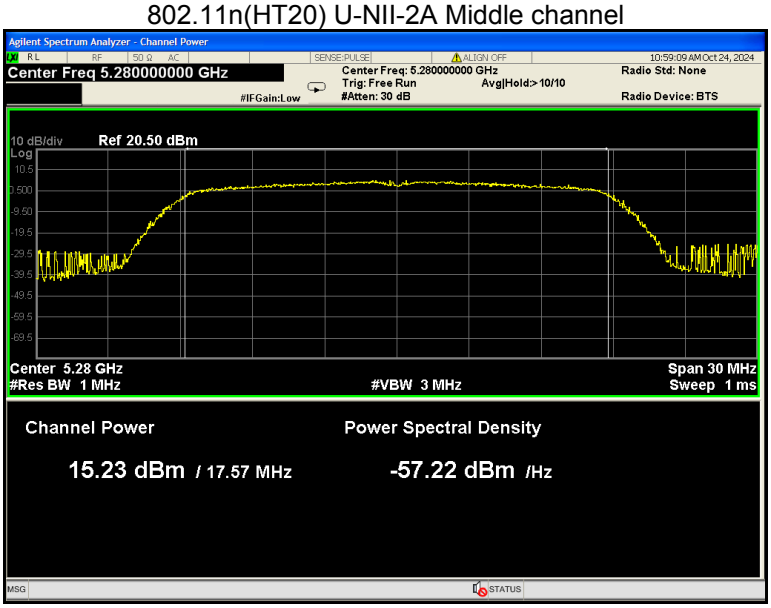
802.11a U-NII-2A High channel



802.11n(HT20) U-NII-2A Low channel



802.11n(HT20) U-NII-2A Middle channel



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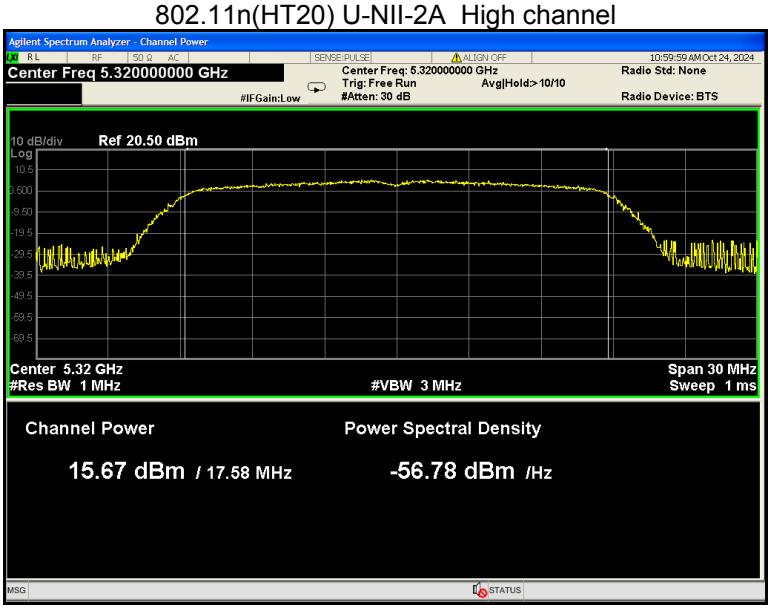
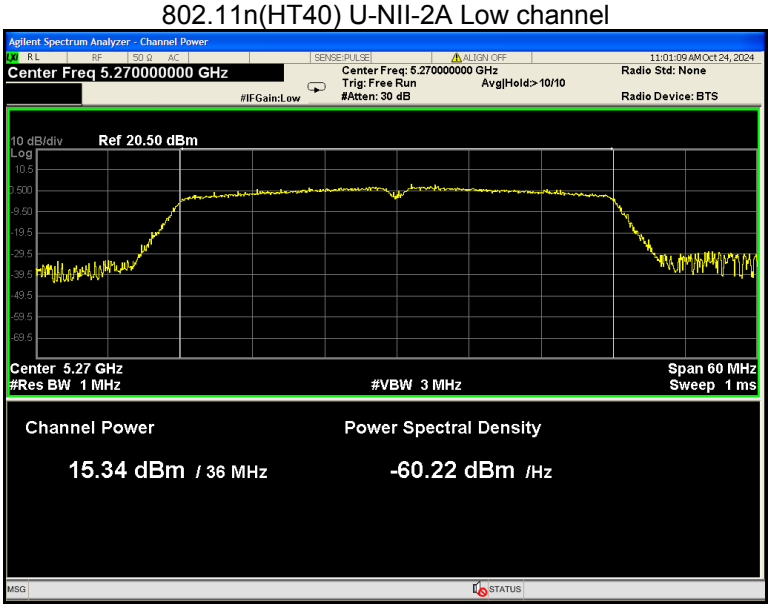
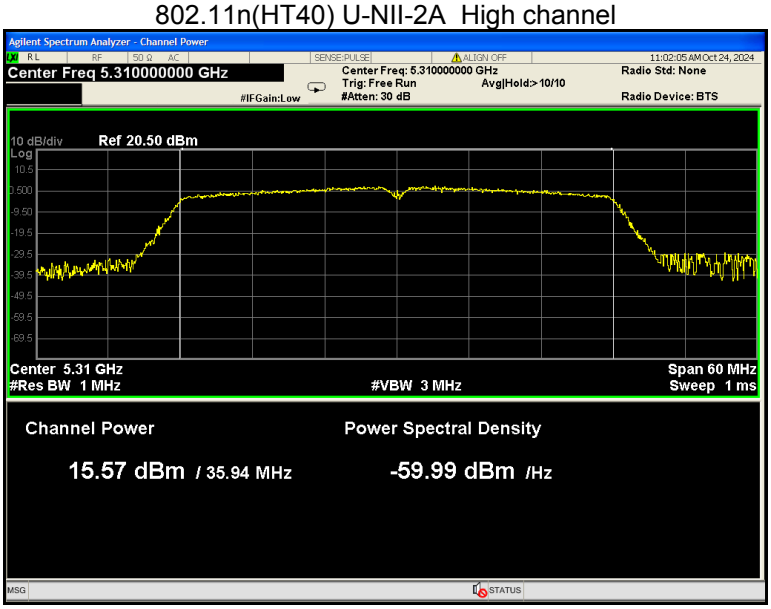


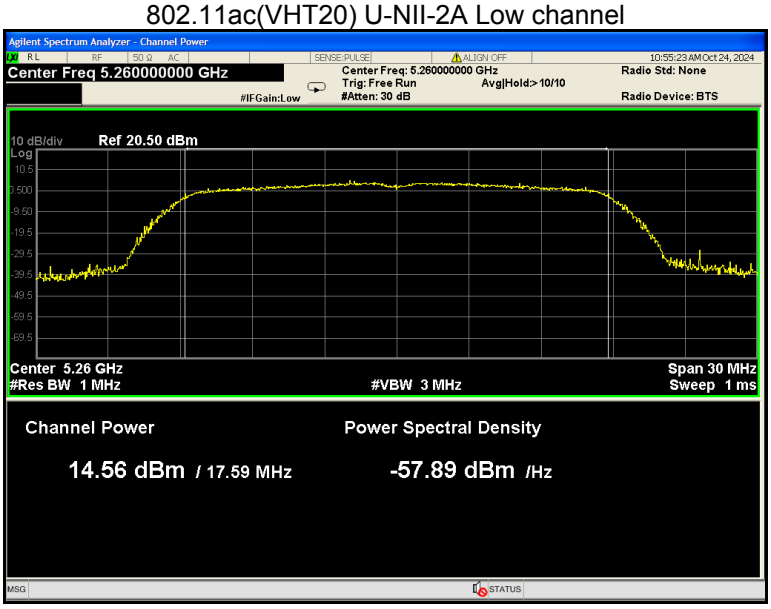
802.11n(HT40) U-NII-2A Low channel



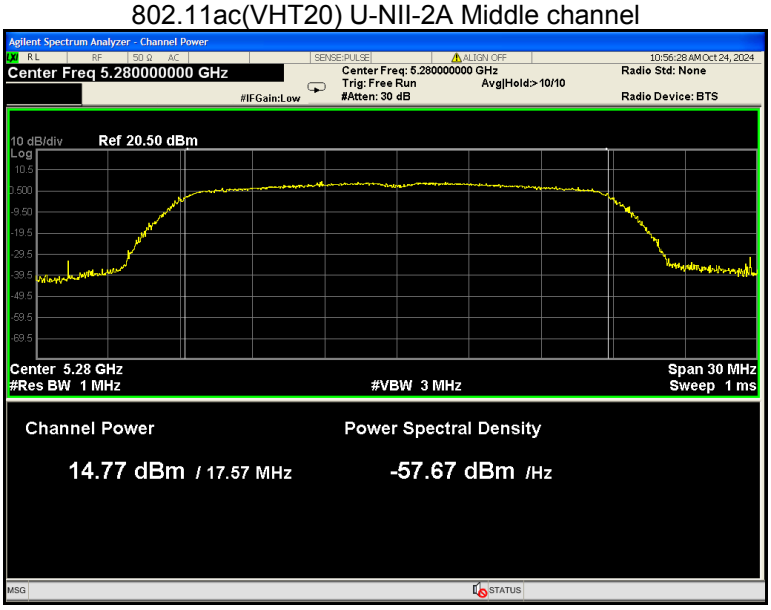
802.11n(HT40) U-NII-2A High channel



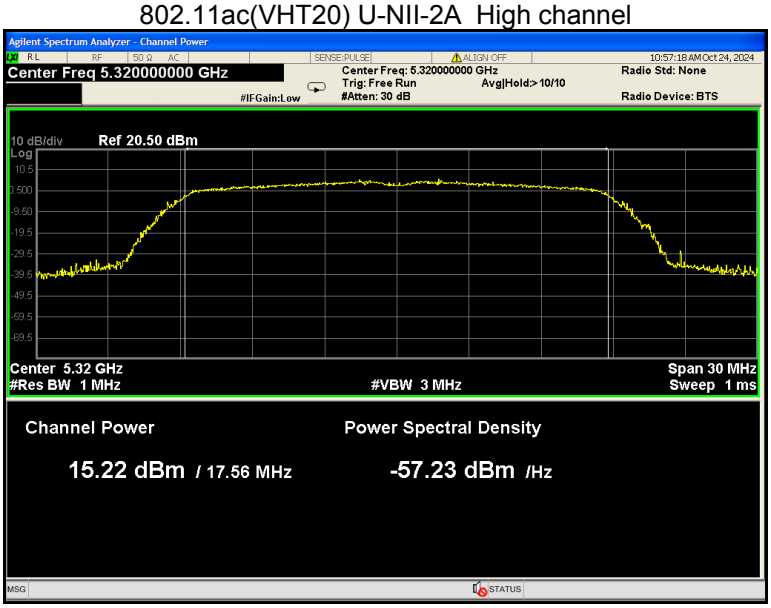
802.11ac(VHT20) U-NII-2A Low channel



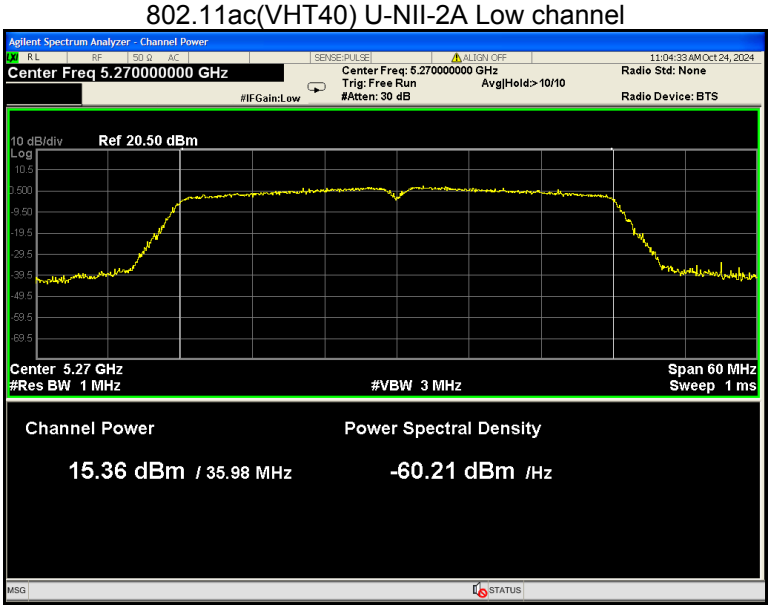
802.11ac(VHT20) U-NII-2A Middle channel



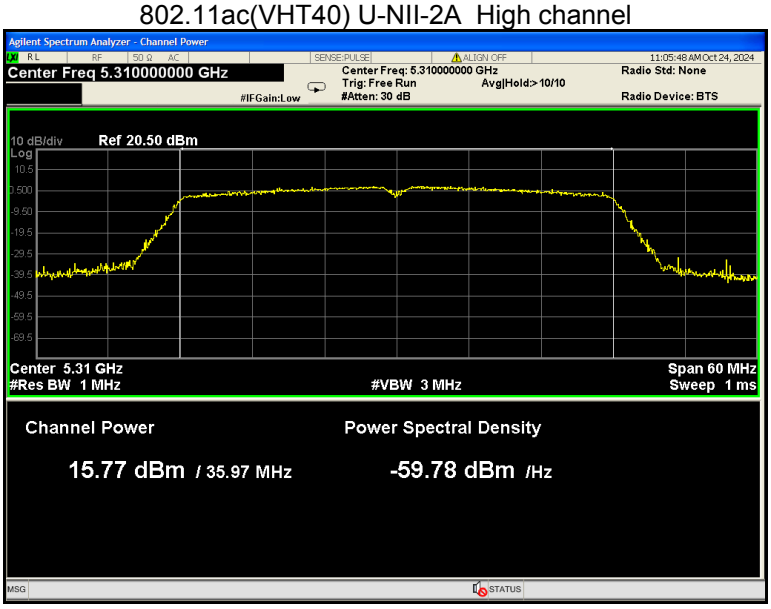
802.11ac(VHT20) U-NII-2A High channel



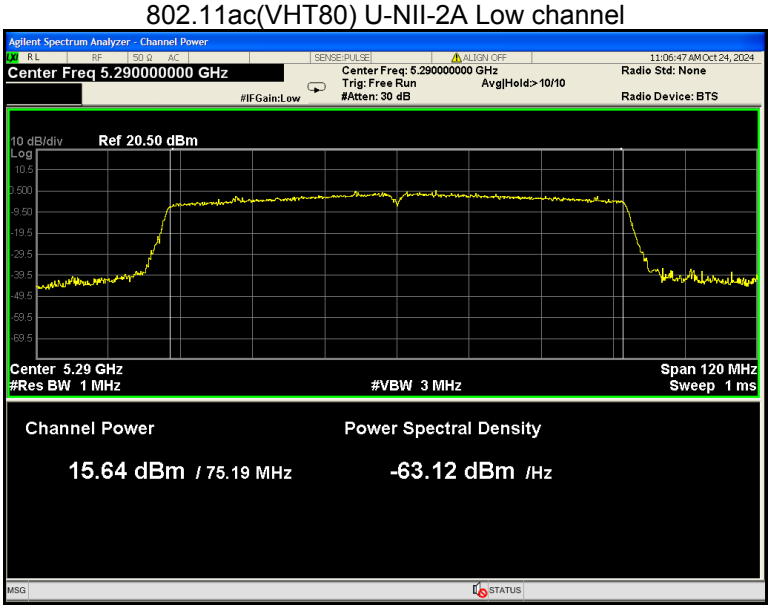
802.11ac(VHT40) U-NII-2A Low channel



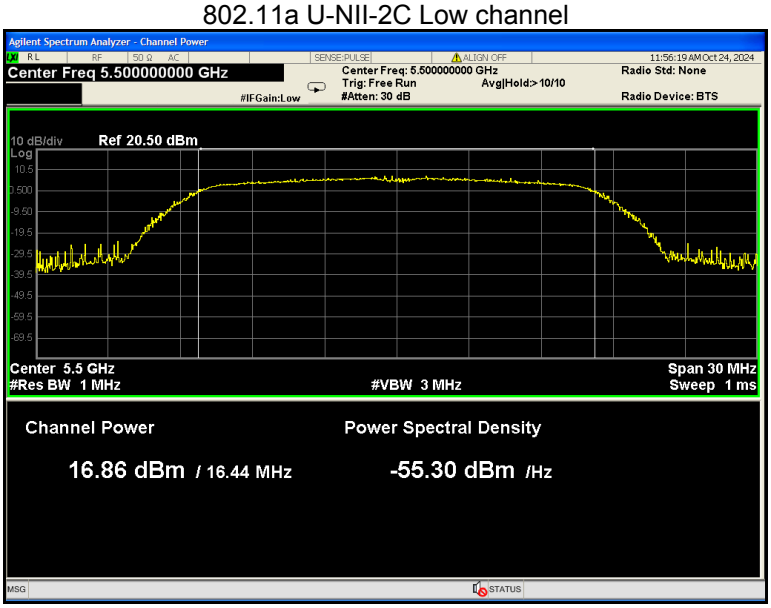
802.11ac(VHT40) U-NII-2A High channel



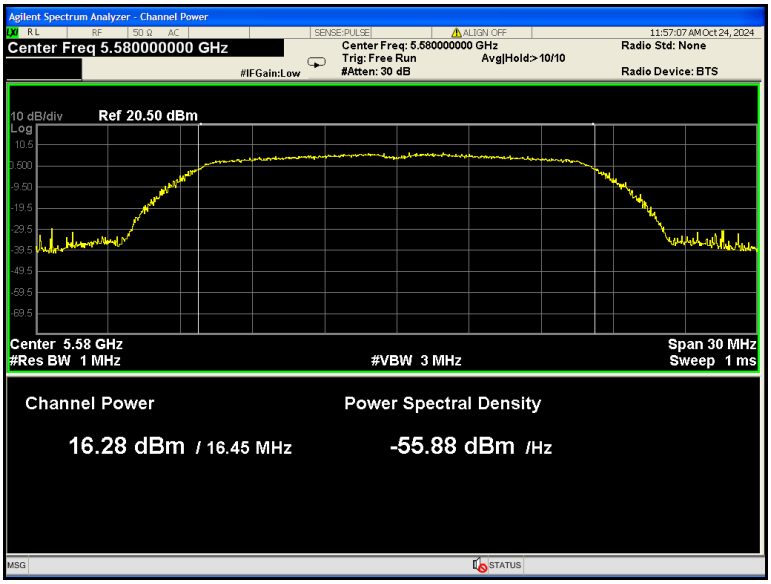
802.11ac(VHT80) U-NII-2A Low channel



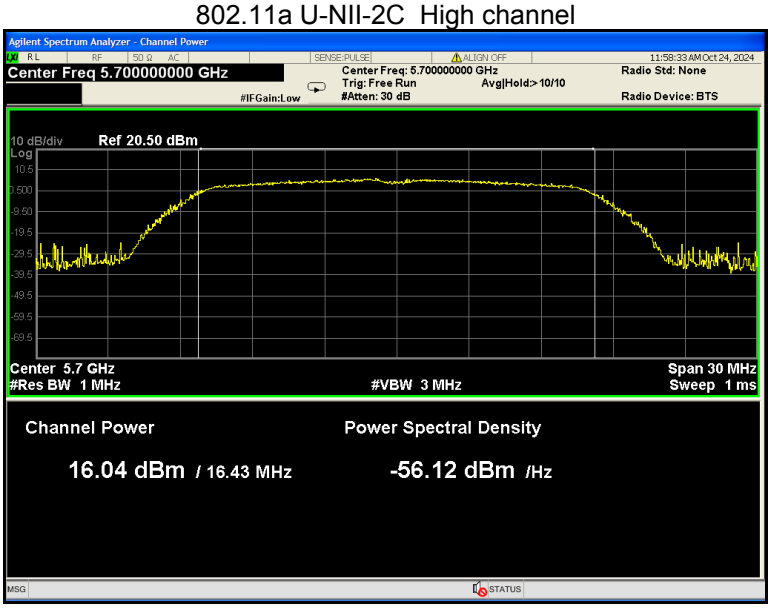
802.11a U-NII-2C Low channel



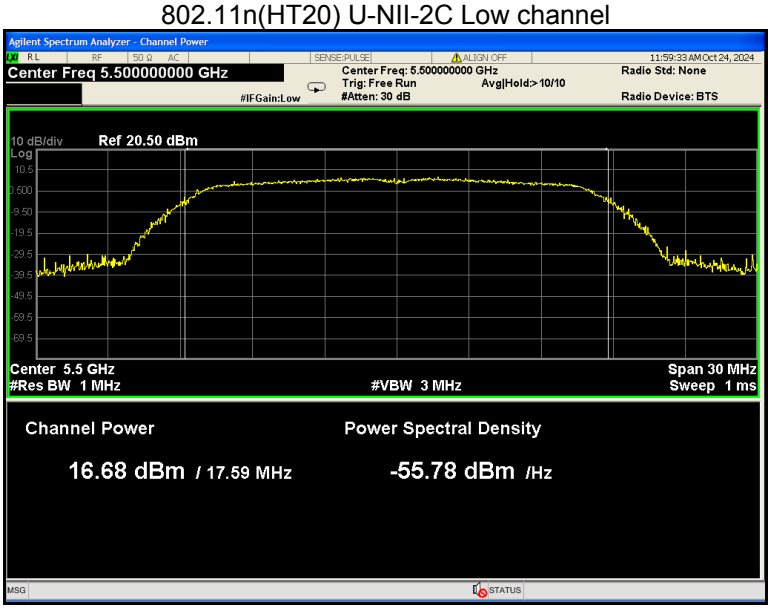
802.11a U-NII-2C Middle channel



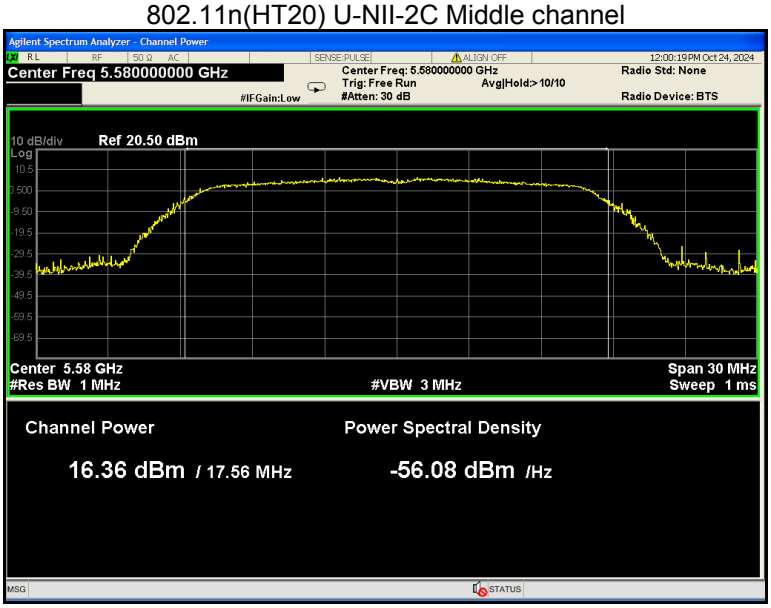
802.11a U-NII-2C High channel



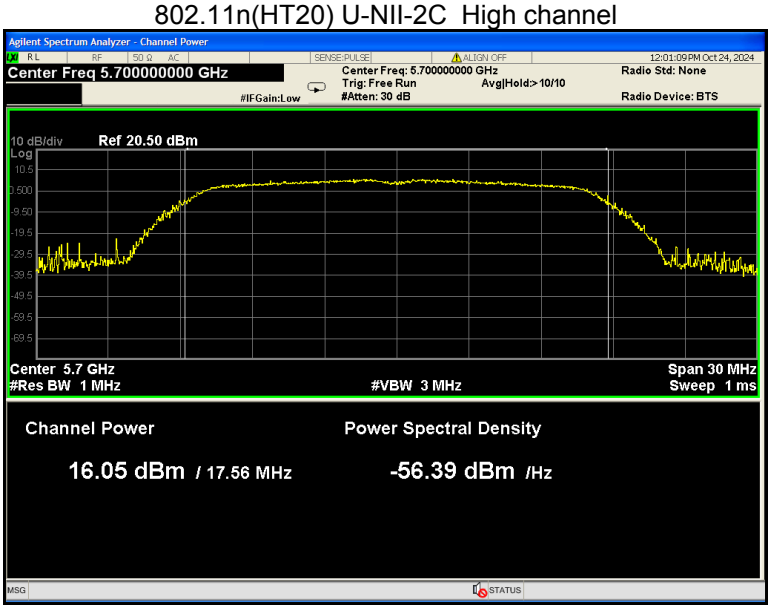
802.11n(HT20) U-NII-2C Low channel



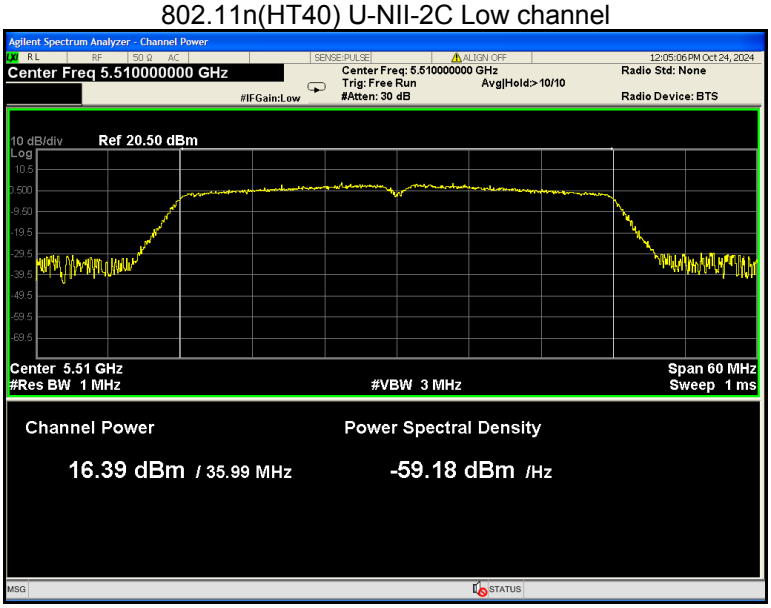
802.11n(HT20) U-NII-2C Middle channel



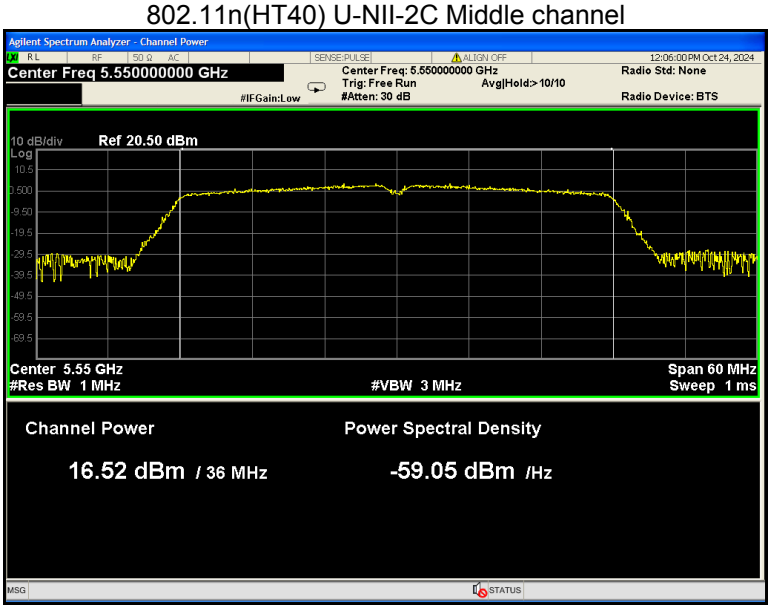
802.11n(HT20) U-NII-2C High channel



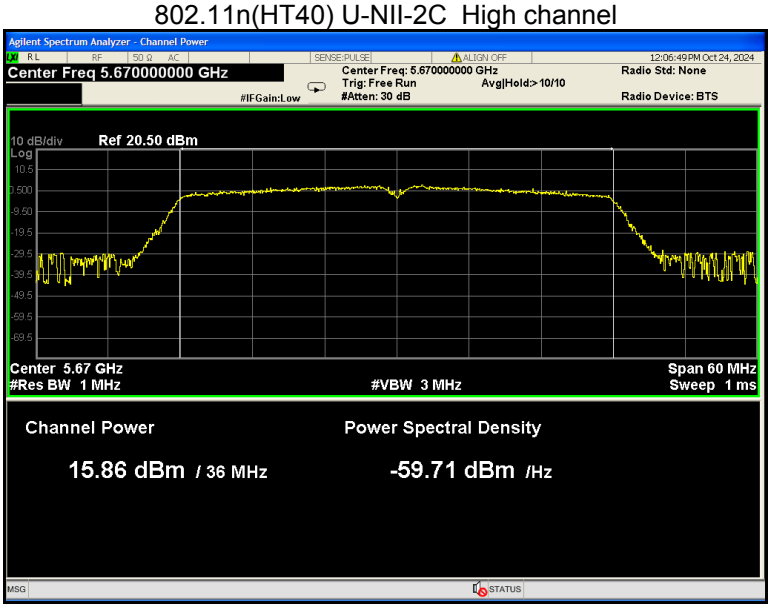
802.11n(HT40) U-NII-2C Low channel



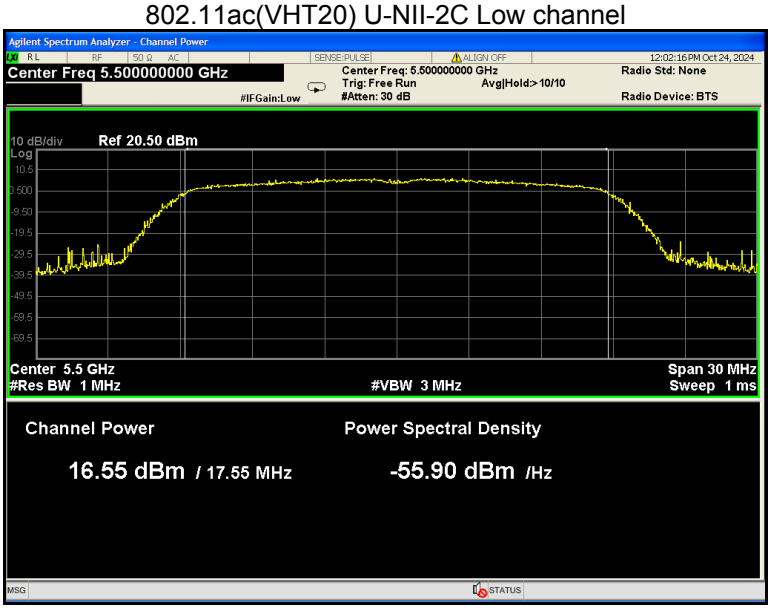
802.11n(HT40) U-NII-2C Middle channel



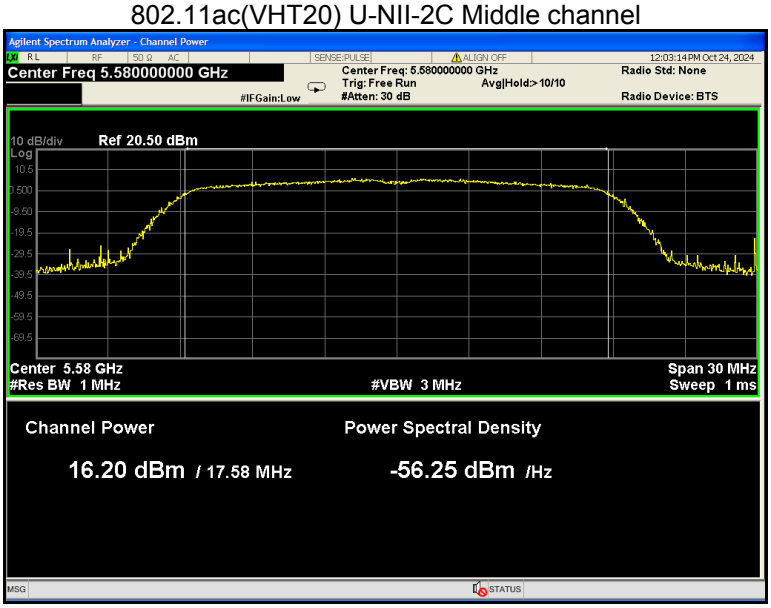
802.11n(HT40) U-NII-2C High channel



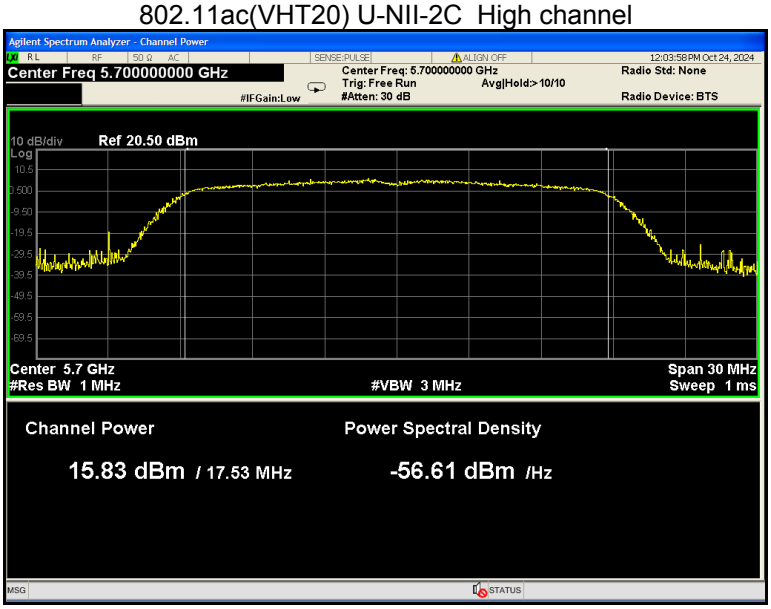
802.11ac(VHT20) U-NII-2C Low channel



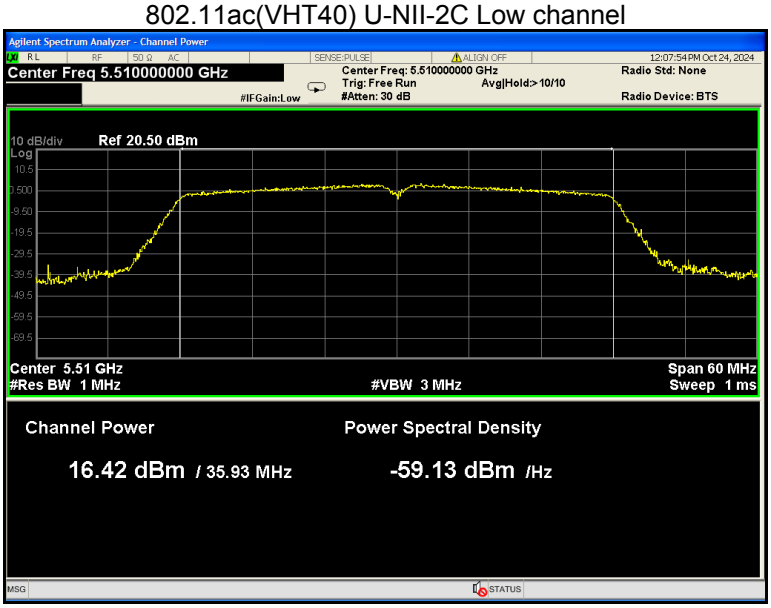
802.11ac(VHT20) U-NII-2C Middle channel



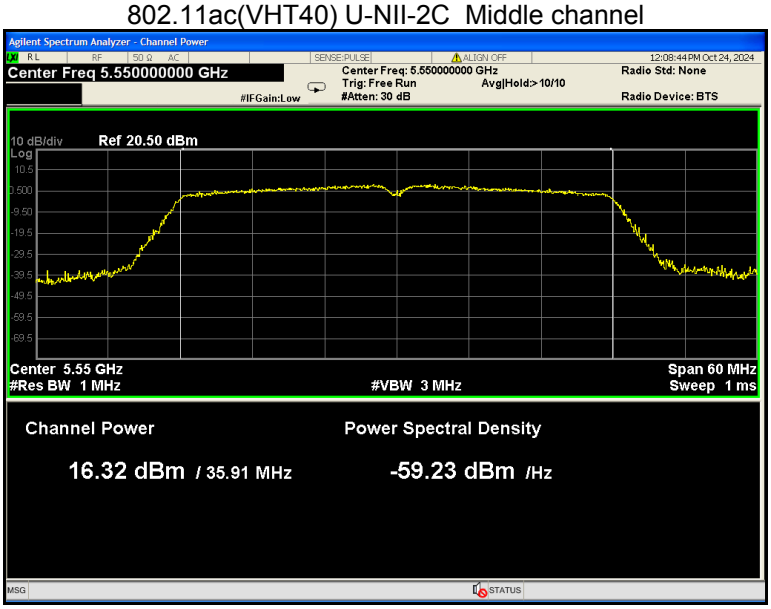
802.11ac(VHT20) U-NII-2C High channel



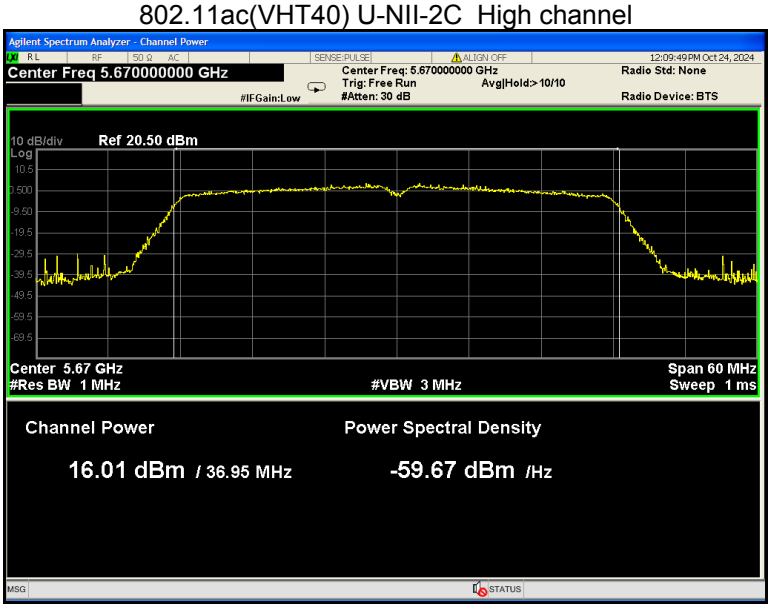
802.11ac(VHT40) U-NII-2C Low channel



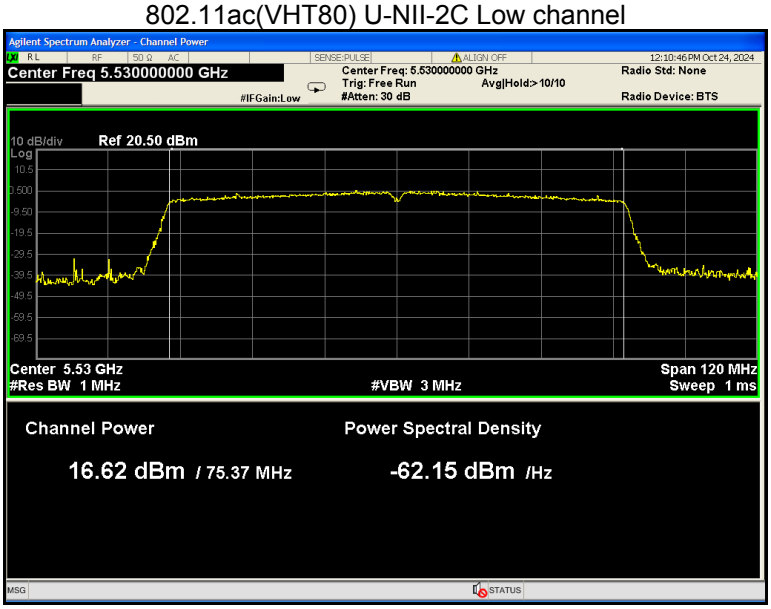
802.11ac(VHT40) U-NII-2C Middle channel



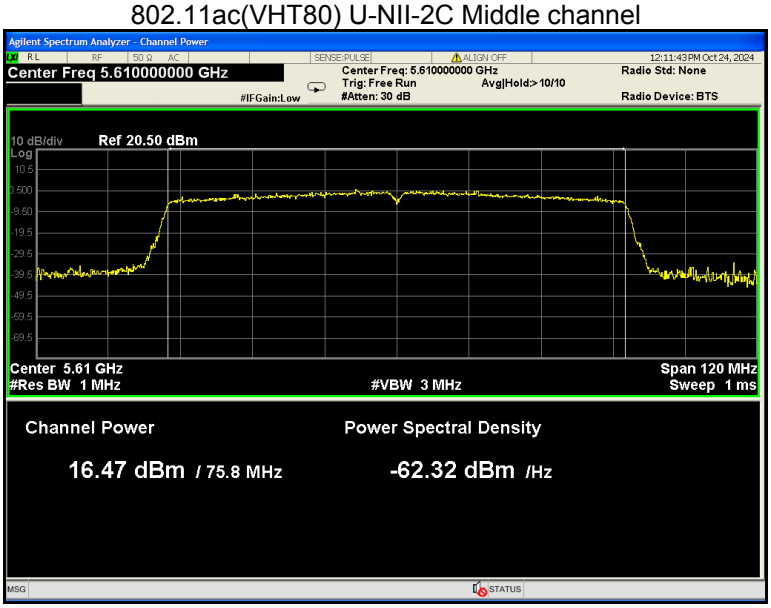
802.11ac(VHT40) U-NII-2C High channel



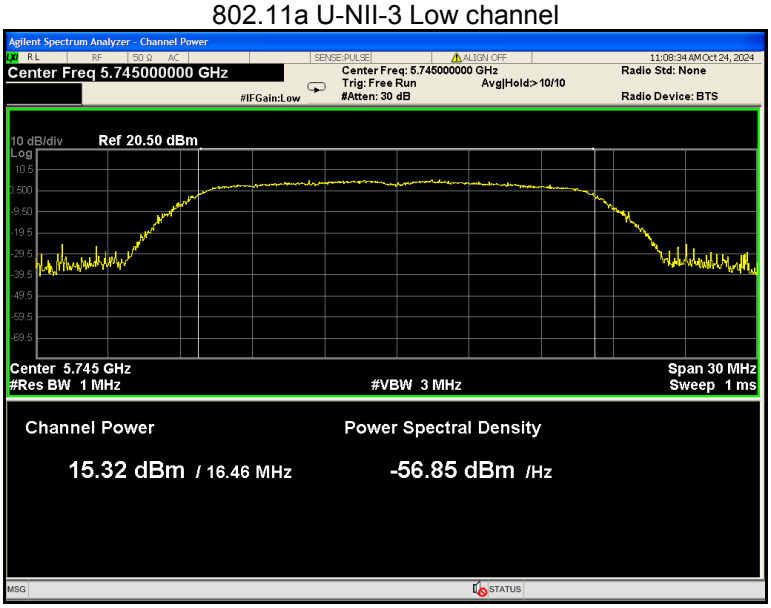
802.11ac(VHT80) U-NII-2C Low channel



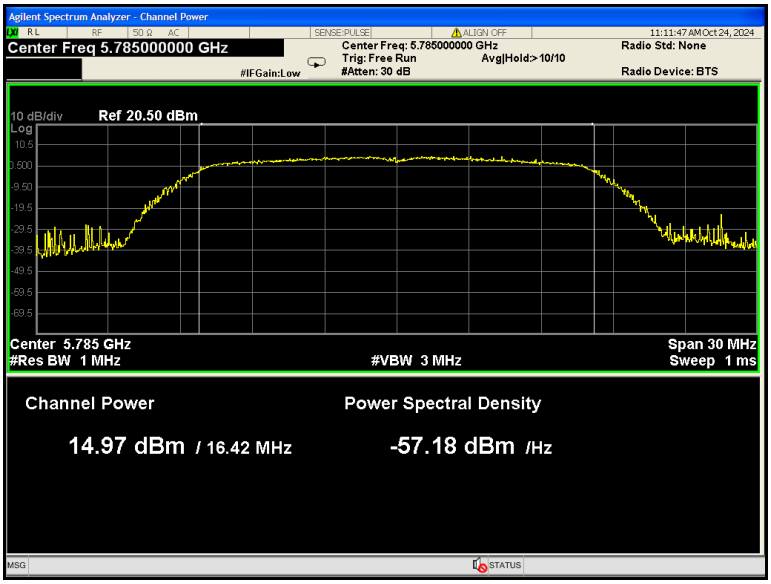
802.11ac(VHT80) U-NII-2C Middle channel



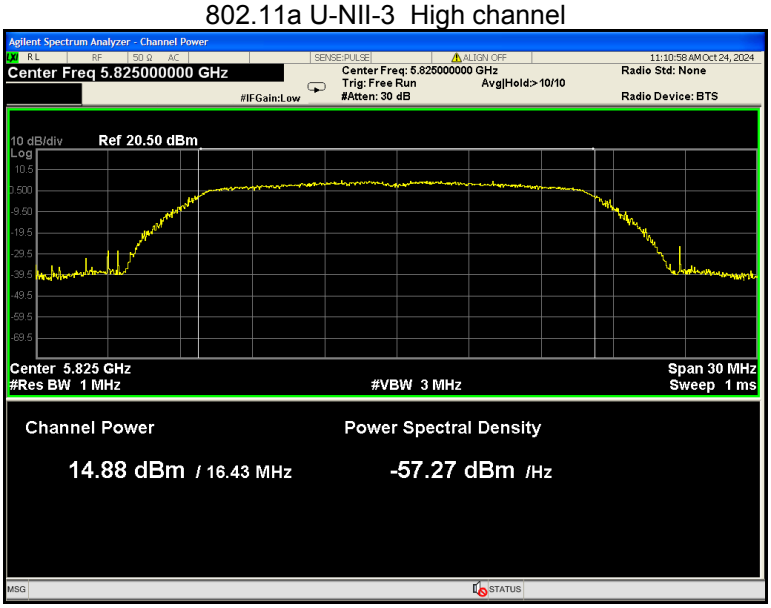
802.11a U-NII-3 Low channel



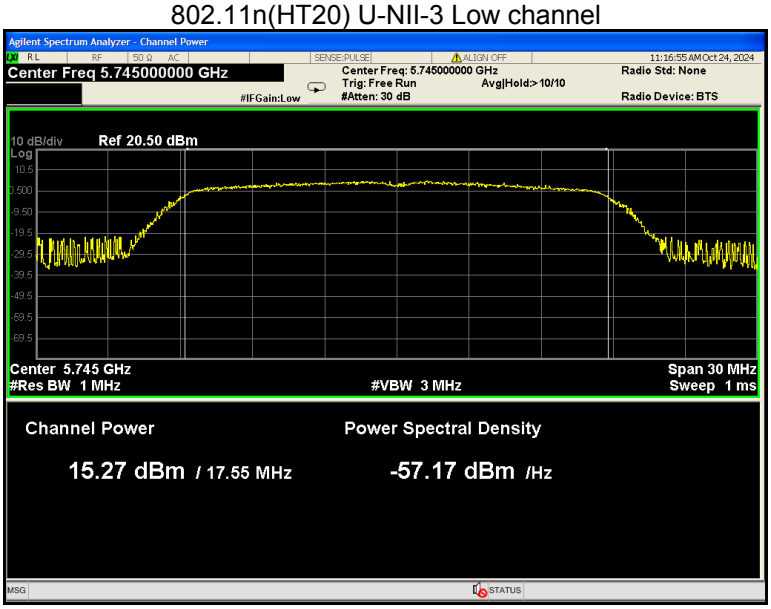
802.11a U-NII-3 Middle channel



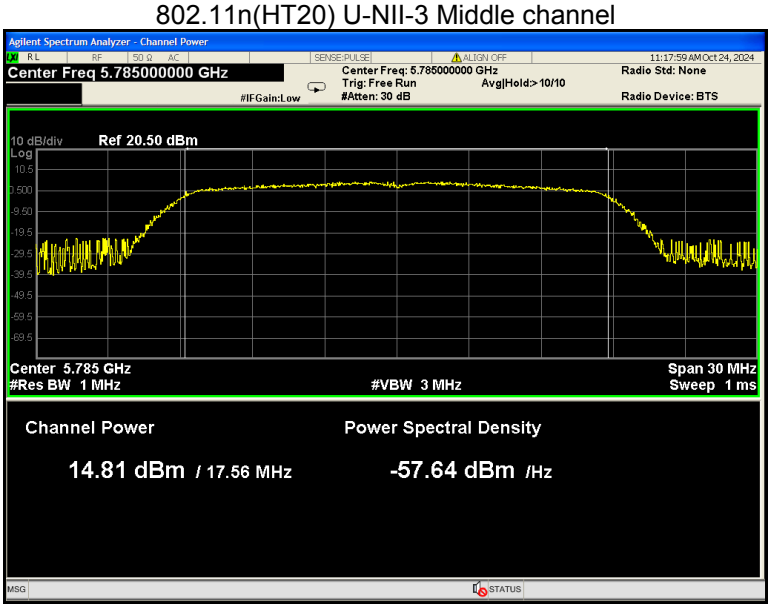
802.11a U-NII-3 High channel



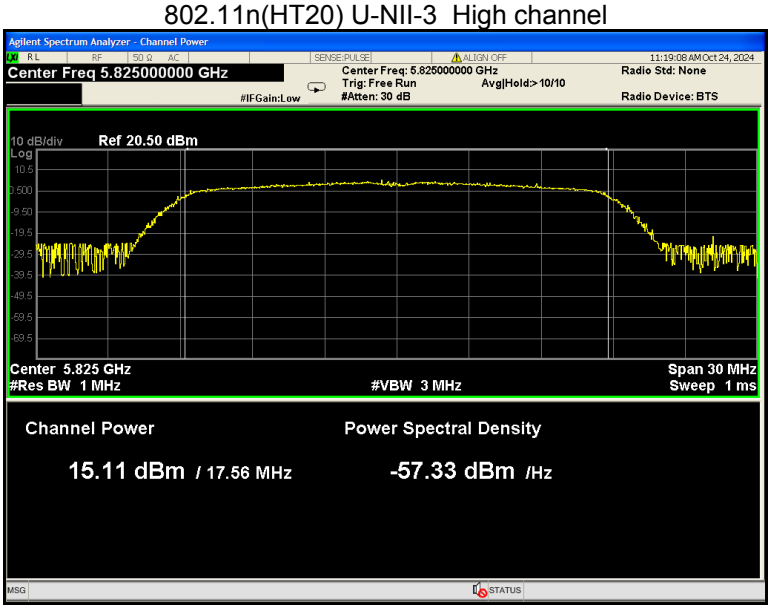
802.11n(HT20) U-NII-3 Low channel



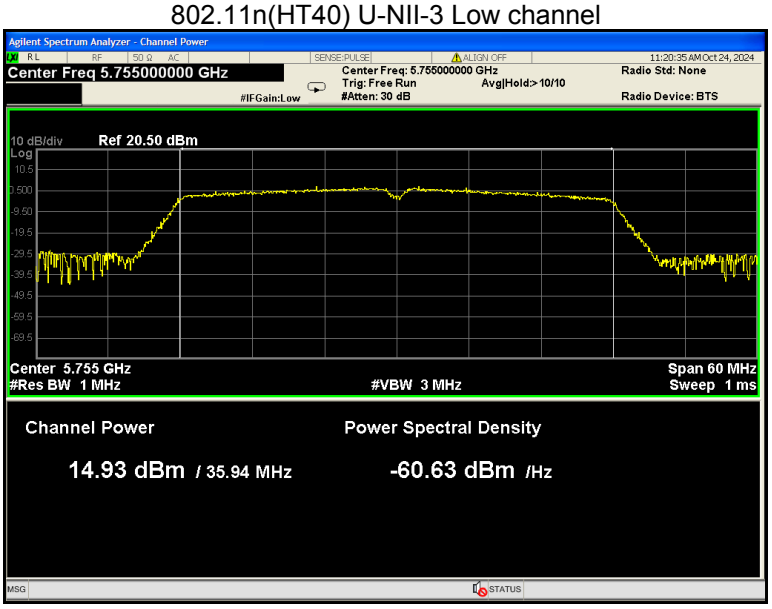
802.11n(HT20) U-NII-3 Middle channel



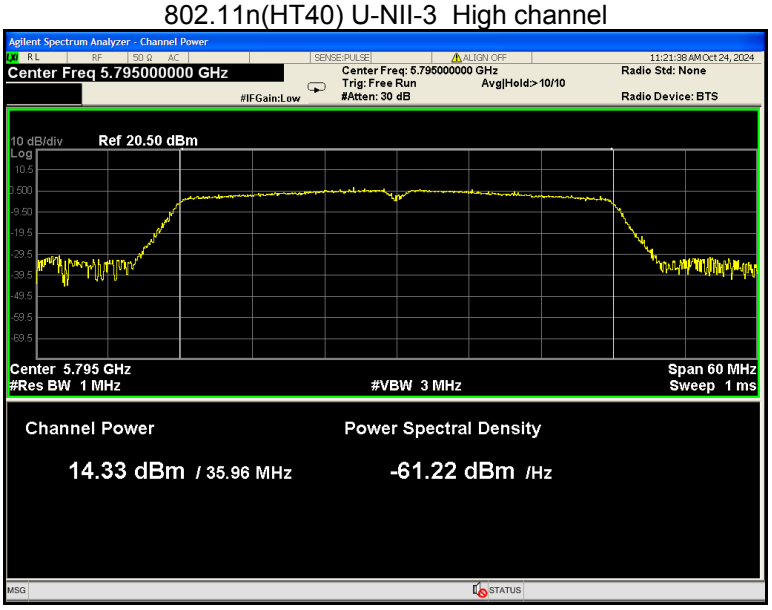
802.11n(HT20) U-NII-3 High channel



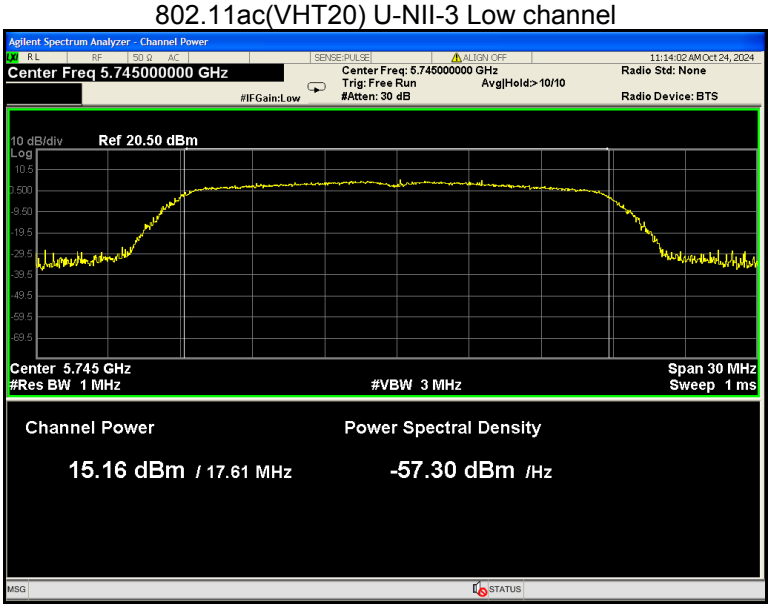
802.11n(HT40) U-NII-3 Low channel



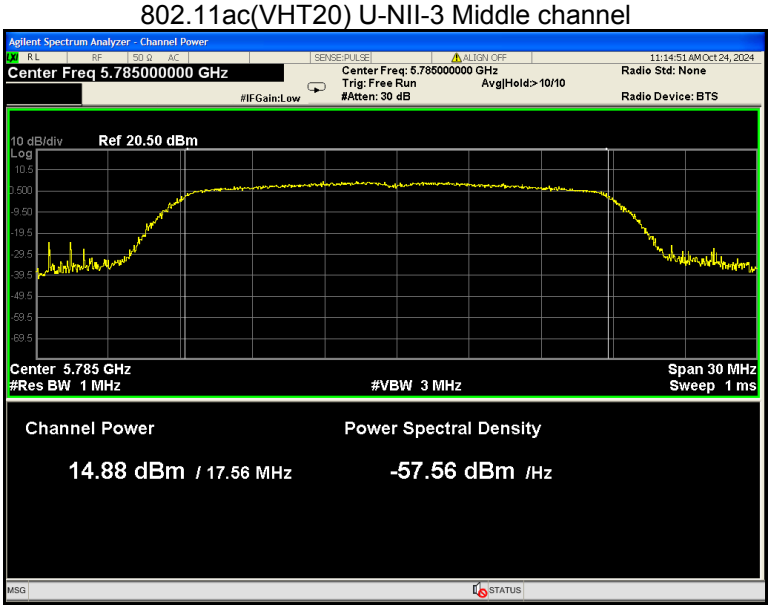
802.11n(HT40) U-NII-3 High channel



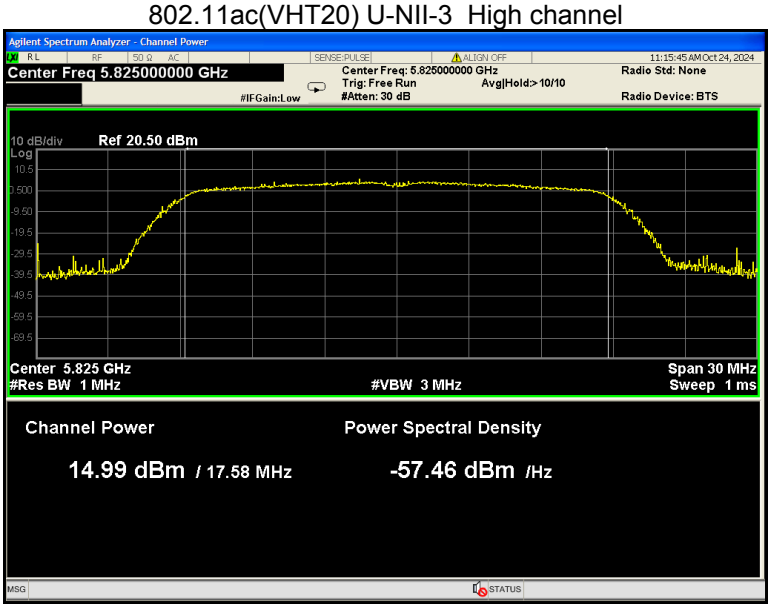
802.11ac(VHT20) U-NII-3 Low channel



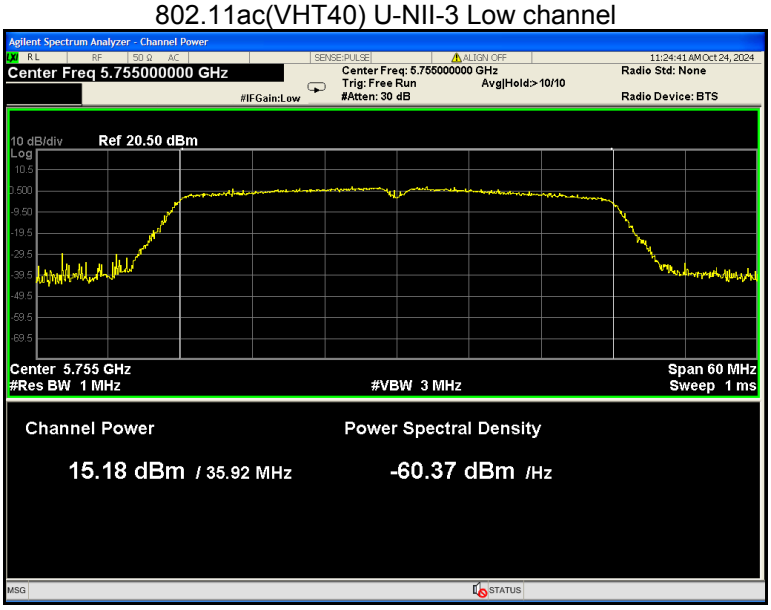
802.11ac(VHT20) U-NII-3 Middle channel



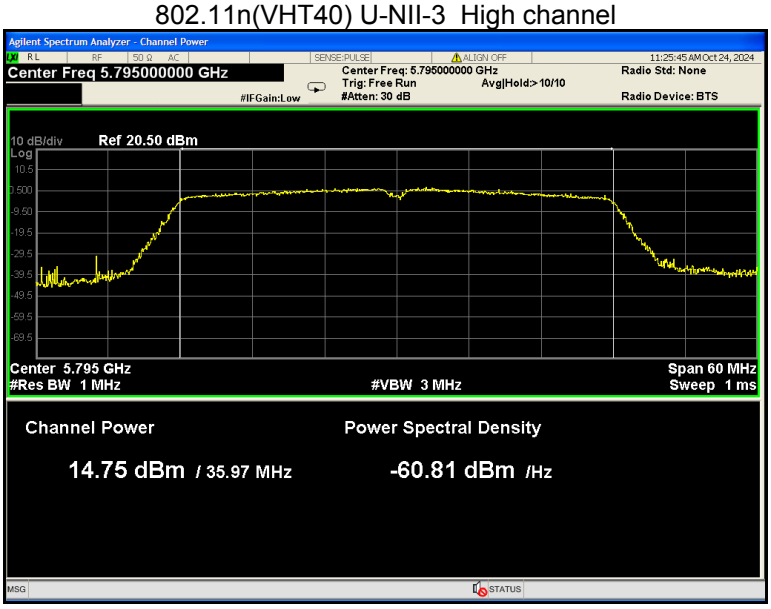
802.11ac(VHT20) U-NII-3 High channel



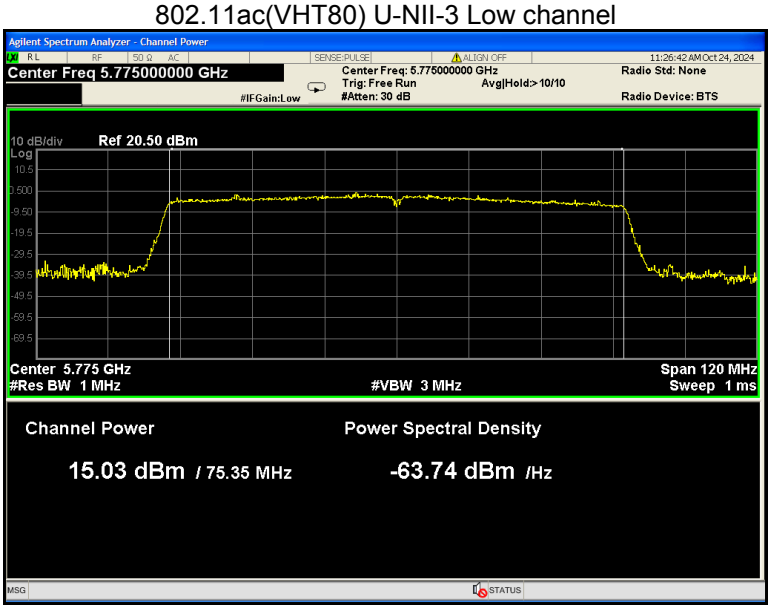
802.11ac(VHT40) U-NII-3 Low channel



802.11n(VHT40) U-NII-3 High channel



802.11ac(VHT80) U-NII-3 Low channel



14 Power Spectral density

Test Requirement:	FCC 47CFR Part 15 Section 15.407(a)
Test Method:	KDB 789033 D02 General U-NII Test Procedures New Rules v02r01
Test Limit:	**For the band 5.15-5.25 GHz** For an outdoor 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. 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. For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. For client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. **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. **For the band 5.725-5.850 GHz** The maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.
Test Result:	PASS

14.1 Test Procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.

2. Set the spectrum analyzer:

U-NII-1

RBW = 1MHz, VBW ≥3* RBW Sweep = auto; Detector Function = Peak. Trace = Max hold.

U-NII-3

RBW = 510KHz, VBW ≥3* RBW Sweep = auto; Detector Function = Peak. Trace = Max hold.

3. Allow the trace to stabilize. Use the marker-delta function to determine the separation between the peaks of the adjacent channels. The limit is specified in one of the subparagraphs of this Section Submit this plot.

14.2 Test Result

Band	Operation mode	Channel	Measurements (dBm/MHz)	Duty Cycle Factor (dB)	Power Spectral Density (dBm/MHz)
U-NII-1	802.11a	Low	6.456	0.17	6.626
		Middle	6.283		6.453
		High	6.925		7.095
	802.11n(HT20)	Low	6.886	0.20	7.086
		Middle	6.894		7.094
		High	6.786		6.986
	802.11n(HT40)	Low	3.318	0.30	3.618
		Middle	/		/
		High	3.913		4.213
	802.11ac(VHT20)	Low	6.025	0.20	6.225
		Middle	6.515		6.715
		High	6.863		7.063
	802.11ac(VHT40)	Low	3.643	0.30	3.943
		Middle	/		/
		High	3.955		4.255
	802.11ac(VHT80)	Low	0.941	0.58	1.521
		Middle	/		/
		High	/		/

Band	Operation mode	Channel	Measurements (dBm/MHz)	Duty Cycle Factor (dB)	Power Spectral Density (dBm/MHz)
U-NII-2A	802.11a	Low	6.977	0.16	7.137
		Middle	6.836		6.996
		High	6.993		7.153
	802.11n(HT20)	Low	6.588	0.18	6.768
		Middle	6.441		6.621
		High	6.483		6.663
	802.11n(HT40)	Low	3.395	0.31	3.705
		Middle	/		/
		High	3.802		4.112
	802.11ac(VHT20)	Low	6.719	0.18	6.899
		Middle	6.264		6.444
		High	6.181		6.361
	802.11ac(VHT40)	Low	3.332	0.31	3.642
		Middle	/		/
		High	3.477		3.787
	802.11ac(VHT80)	Low	1.218	0.58	1.798
		Middle	/		/
		High	/		/

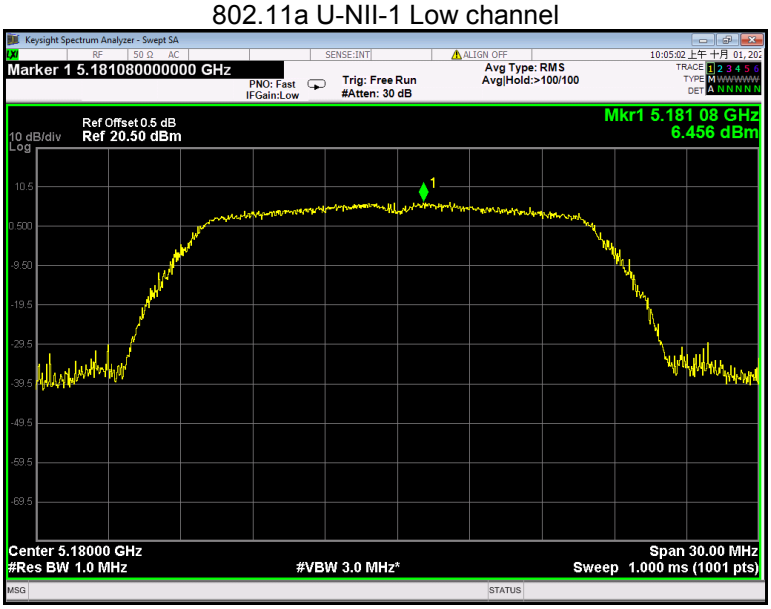
Band	Operation mode	Channel	Measurements (dBm/MHz)	Duty Cycle Factor (dB)	Power Spectral Density (dBm/MHz)
U-NII-2C	802.11a	Low	6.667	0.17	6.837
		Middle	6.946		7.116
		High	6.543		6.713
	802.11n(HT20)	Low	6.145	0.18	6.325
		Middle	6.411		6.591
		High	6.989		7.169
	802.11n(HT40)	Low	3.493	0.31	3.803
		Middle	3.331		3.641
		High	3.218		3.528
	802.11ac(VHT20)	Low	6.472	0.18	6.652
		Middle	6.784		6.964
		High	6.547		6.727
	802.11ac(VHT40)	Low	3.004	0.31	3.314
		Middle	3.126		3.436
		High	3.623		3.933
	802.11ac(VHT80)	Low	0.468	0.58	1.048
		Middle	0.497		1.077
		High	/		/

Band	Operation mode	Channel	Measurements (dBm/MHz)	Duty Cycle Factor (dB)	Power Spectral Density (dBm/MHz)
U-NII-3	802.11a	Low	4.808	0.20	5.008
		Middle	4.878		5.078
		High	4.650		4.850
	802.11n(HT20)	Low	4.091	0.17	4.261
		Middle	4.501		4.671
		High	4.384		4.554
	802.11n(HT40)	Low	1.791	0.30	2.091
		Middle	/		/
		High	1.796		2.096
	802.11ac(VHT20)	Low	4.314	0.17	4.484
		Middle	4.490		4.660
		High	4.579		4.749
	802.11ac(VHT40)	Low	1.626	0.32	1.946
		Middle	/		/
		High	1.516		1.836
	802.11ac(VHT80)	Low	-1.630	0.59	-1.040
		Middle	/		/
		High	/		/

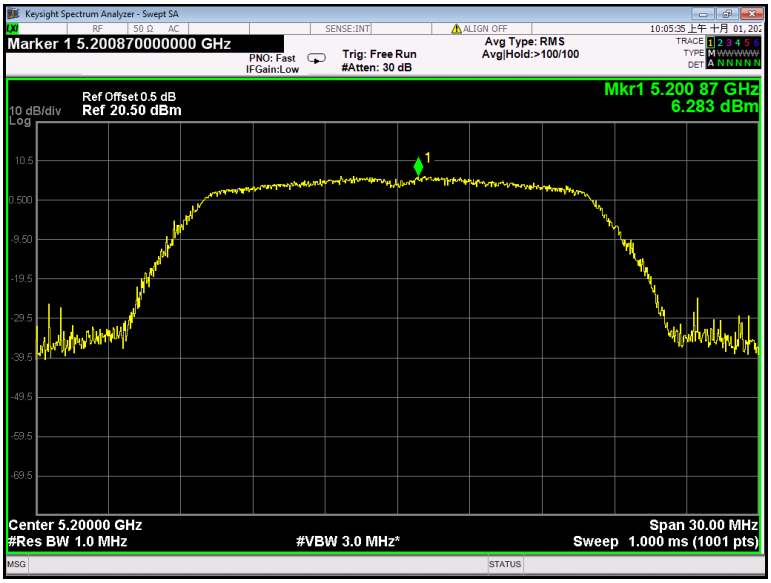
* All transmit signals are completely uncorrelated with each other, Directional gain = G_{ANT} which is less than 6dBi. So the limit does not be reduced.

Test result plots shown as follows:

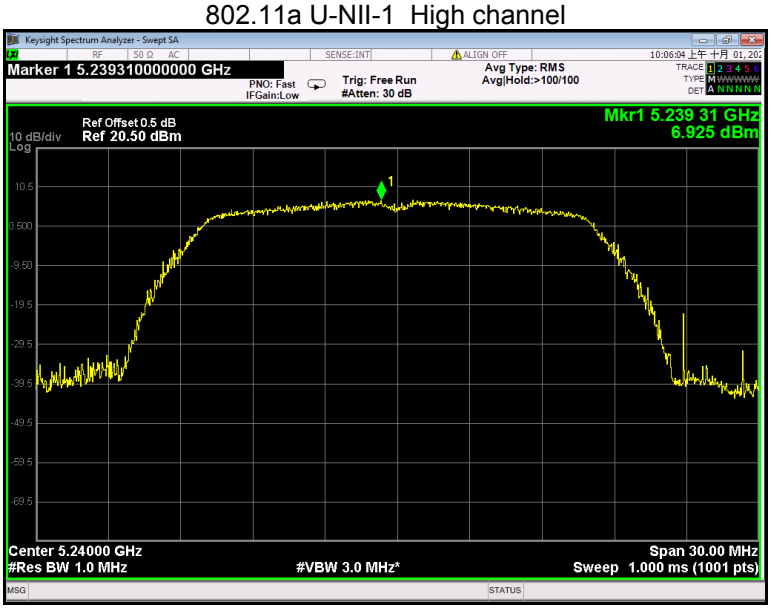
802.11a U-NII-1 Low channel



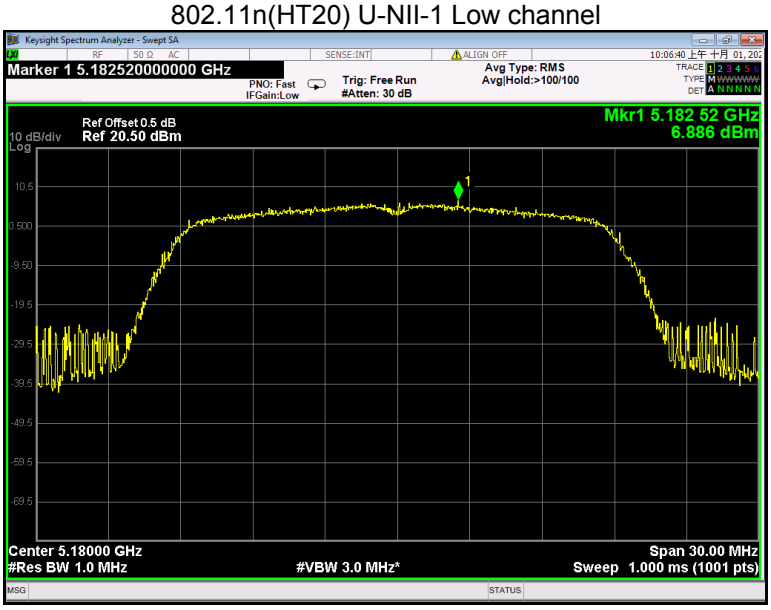
802.11a U-NII-1 Middle channel



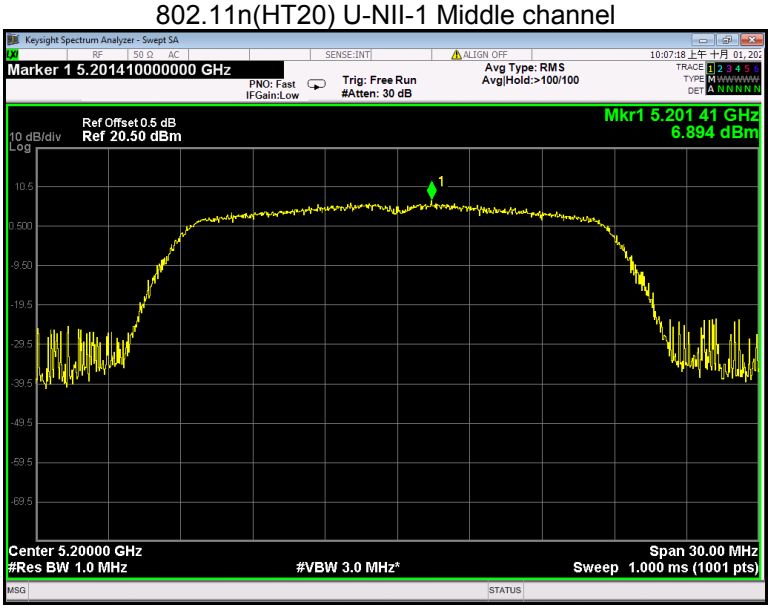
802.11a U-NII-1 High channel



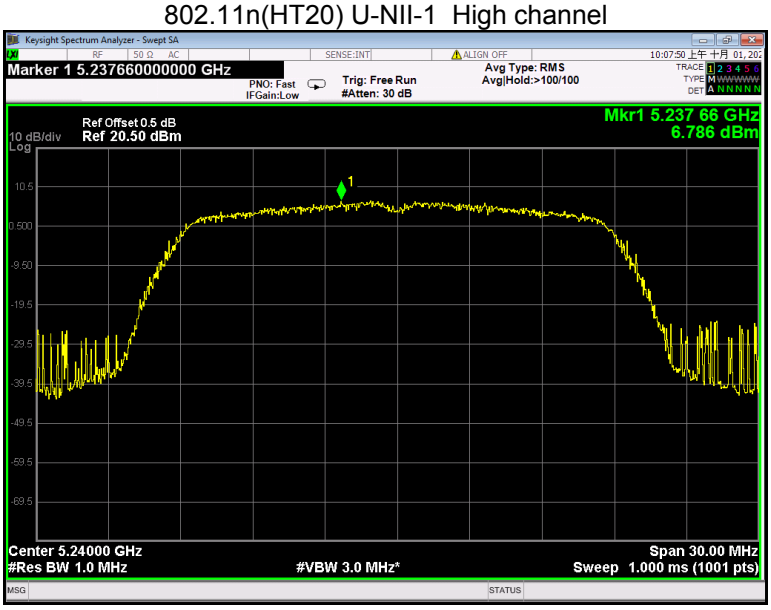
802.11n(HT20) U-NII-1 Low channel



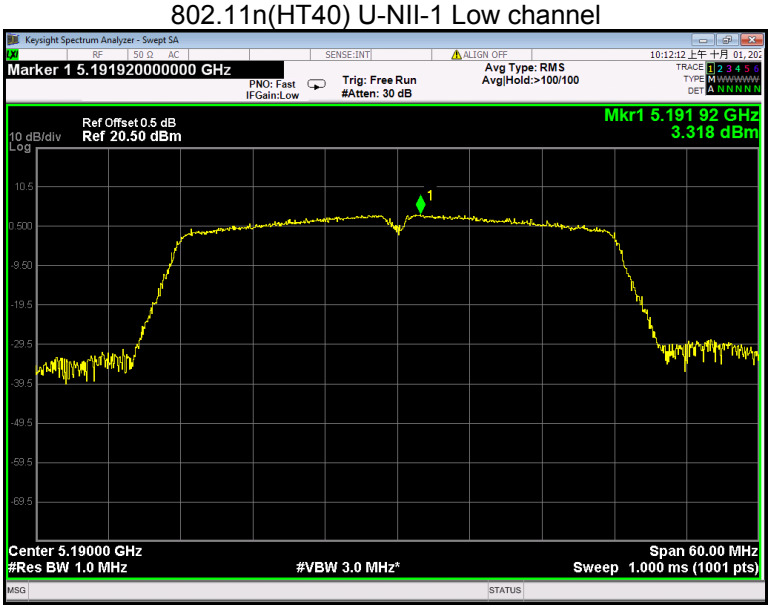
802.11n(HT20) U-NII-1 Middle channel



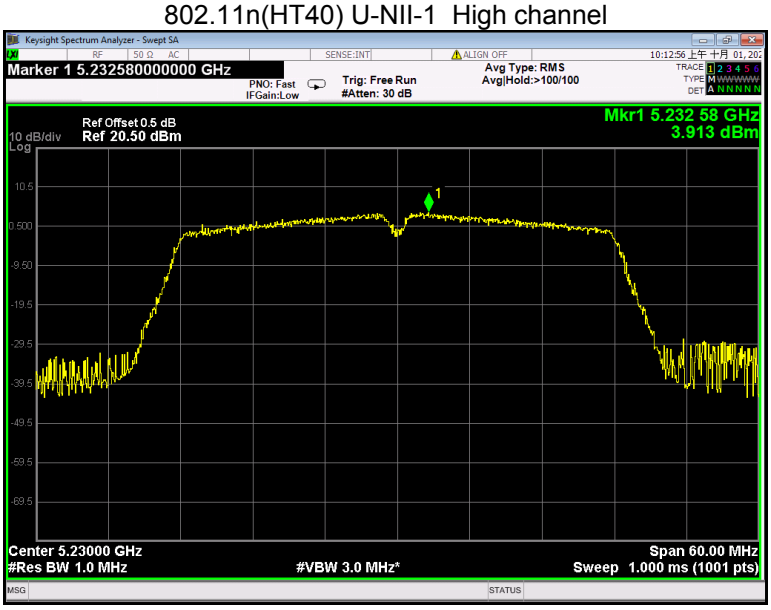
802.11n(HT20) U-NII-1 High channel



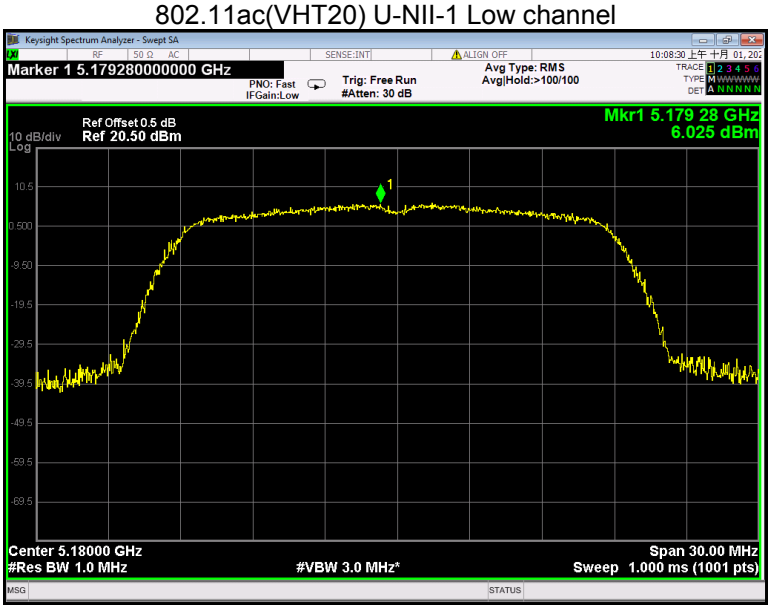
802.11n(HT40) U-NII-1 Low channel



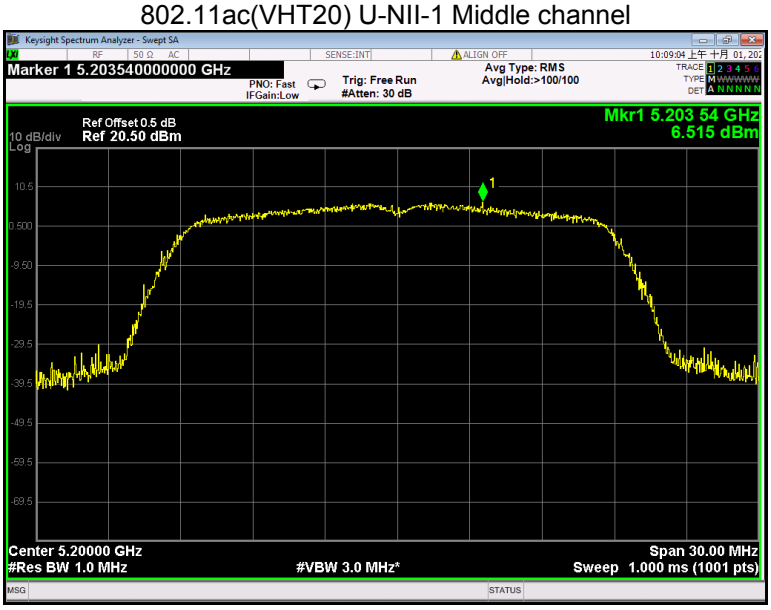
802.11n(HT40) U-NII-1 High channel



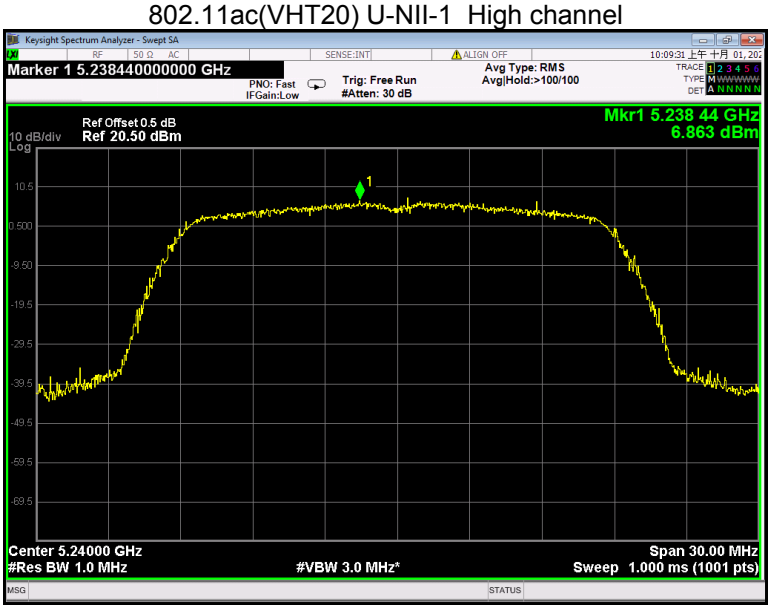
802.11ac(VHT20) U-NII-1 Low channel



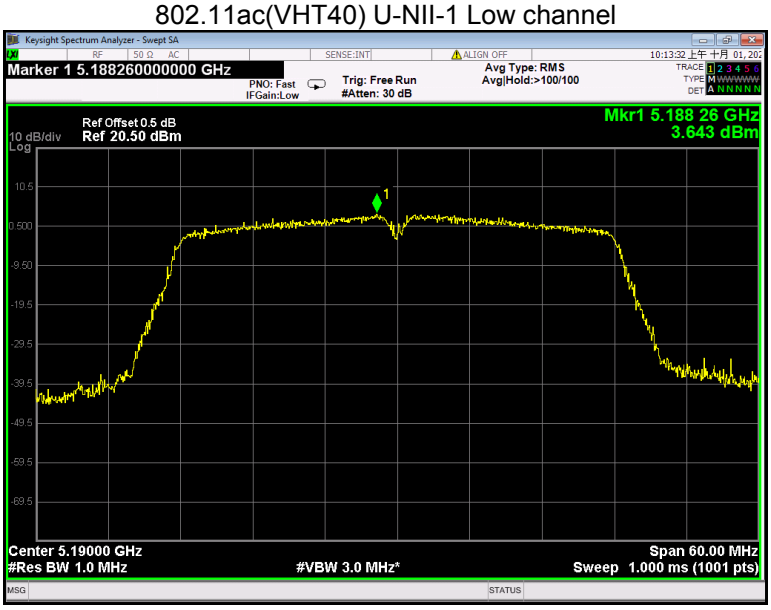
802.11ac(VHT20) U-NII-1 Middle channel



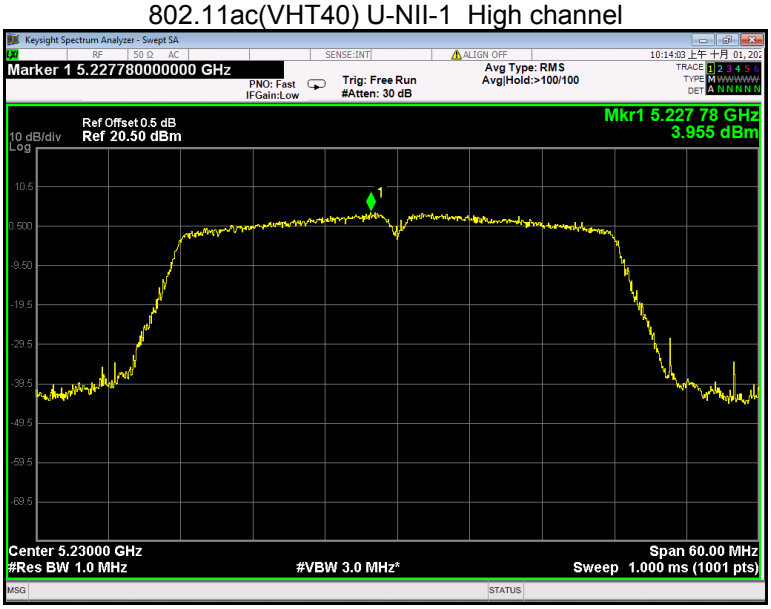
802.11ac(VHT20) U-NII-1 High channel



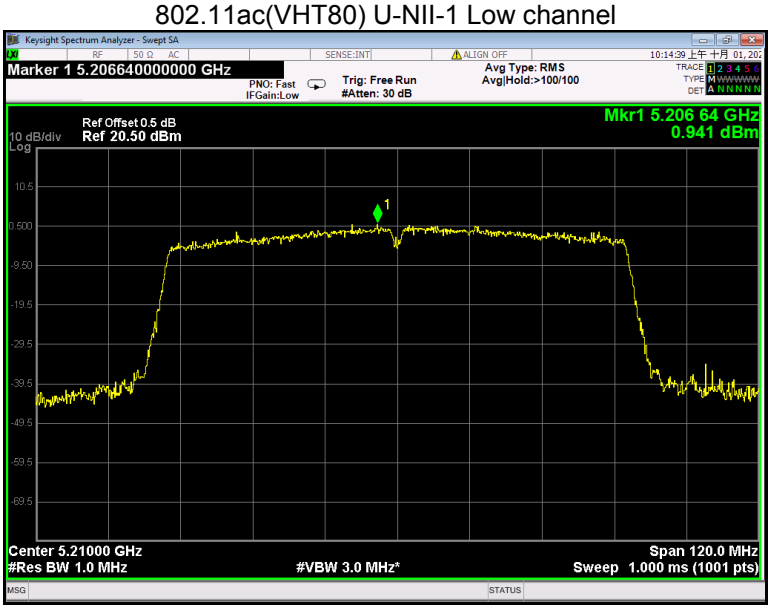
802.11ac(VHT40) U-NII-1 Low channel



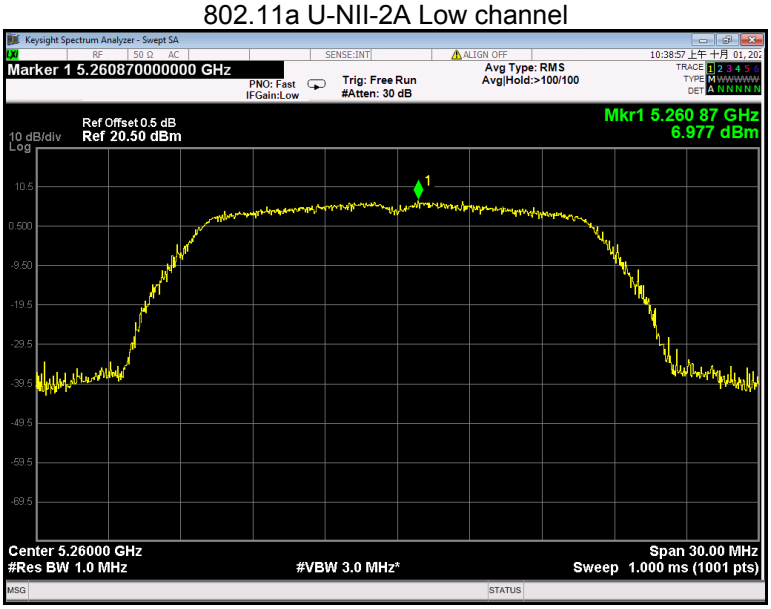
802.11ac(VHT40) U-NII-1 High channel



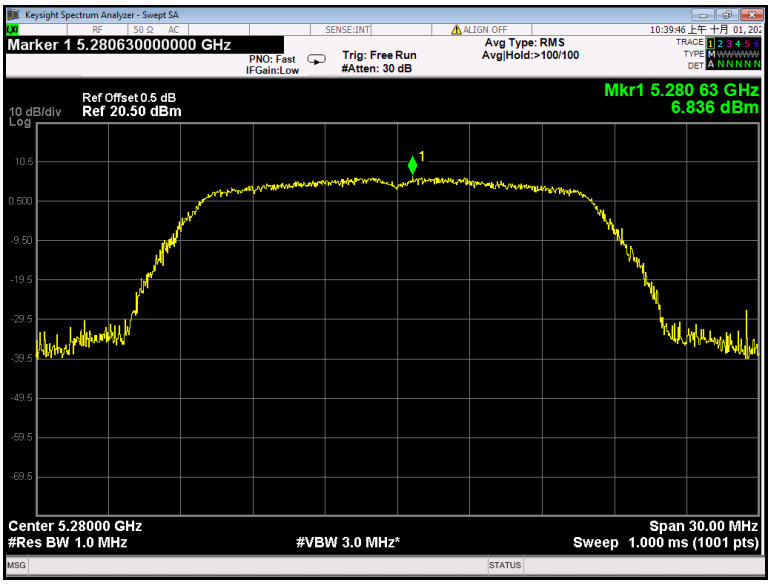
802.11ac(VHT80) U-NII-1 Low channel



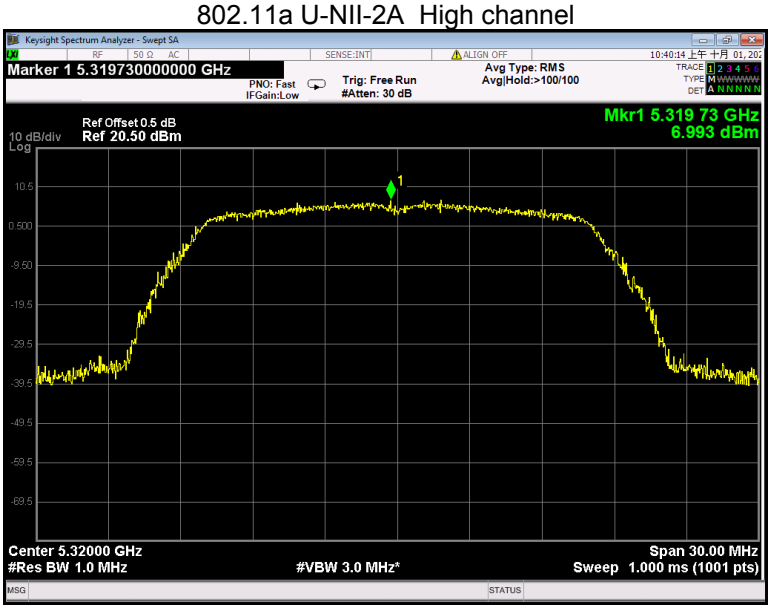
802.11a U-NII-2A Low channel



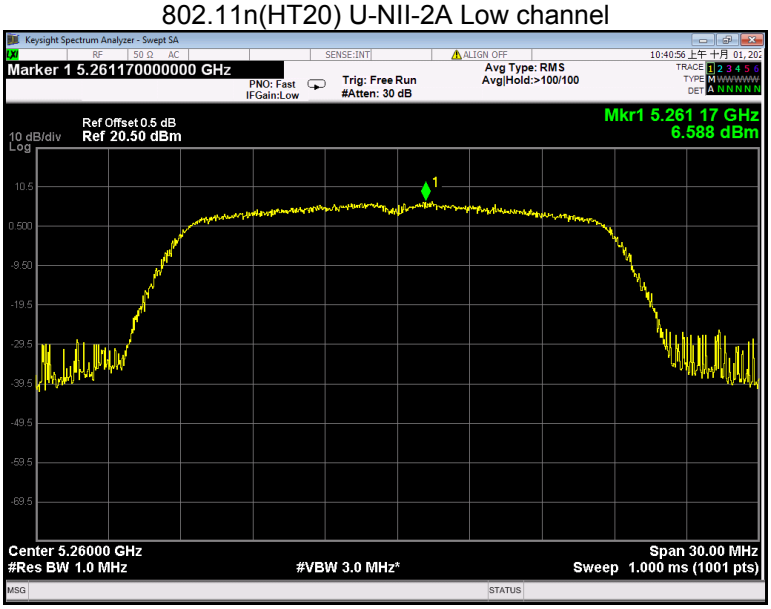
802.11a U-NII-2A Middle channel



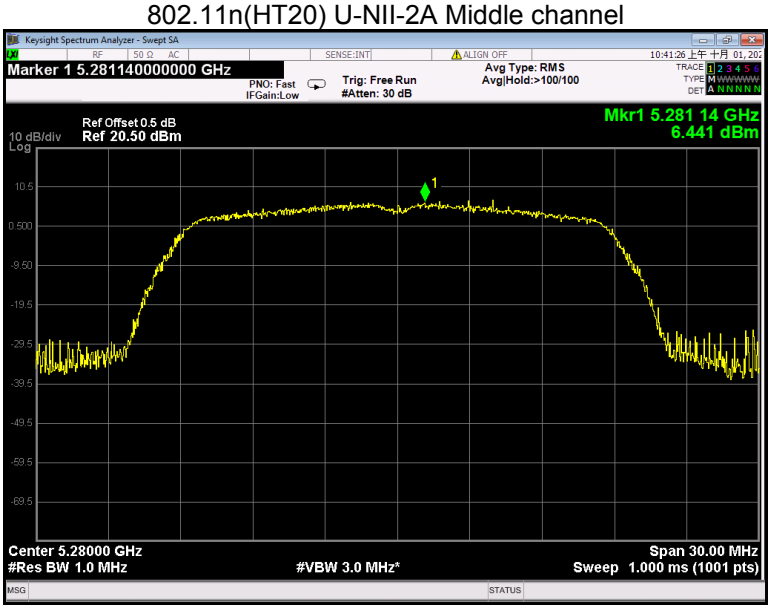
802.11a U-NII-2A High channel



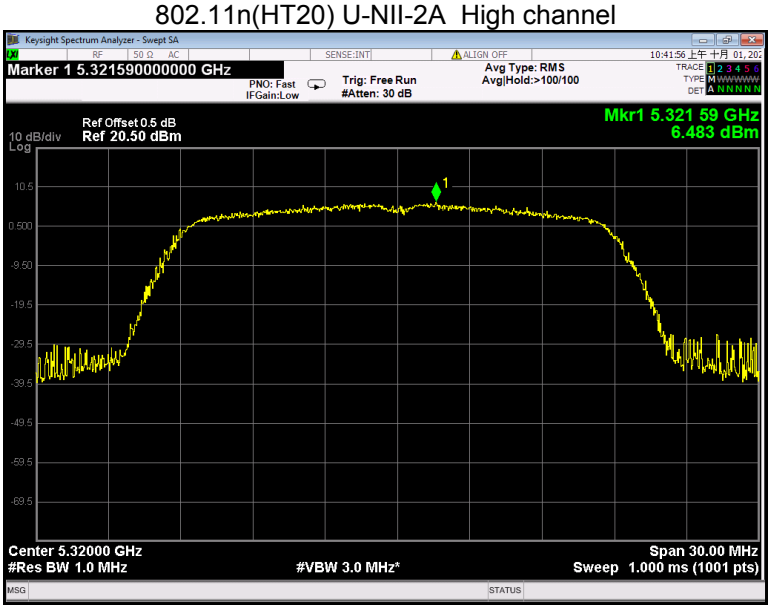
802.11n(HT20) U-NII-2A Low channel



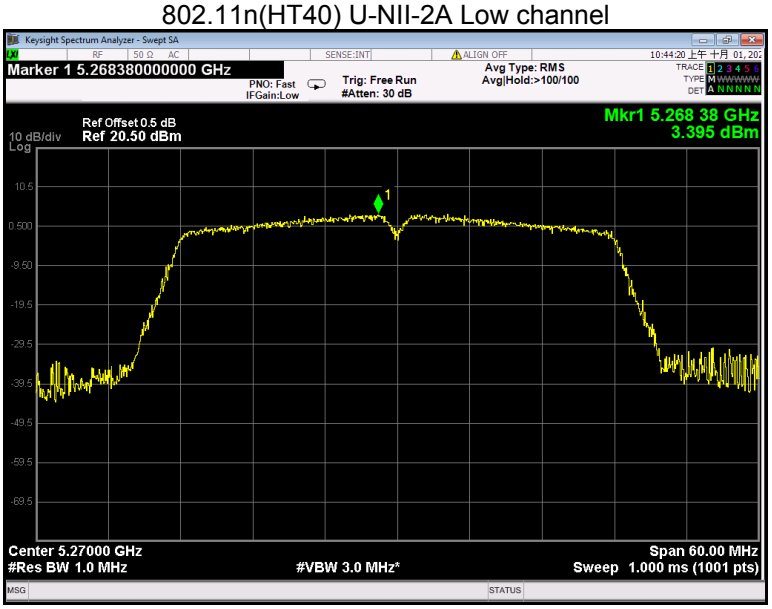
802.11n(HT20) U-NII-2A Middle channel



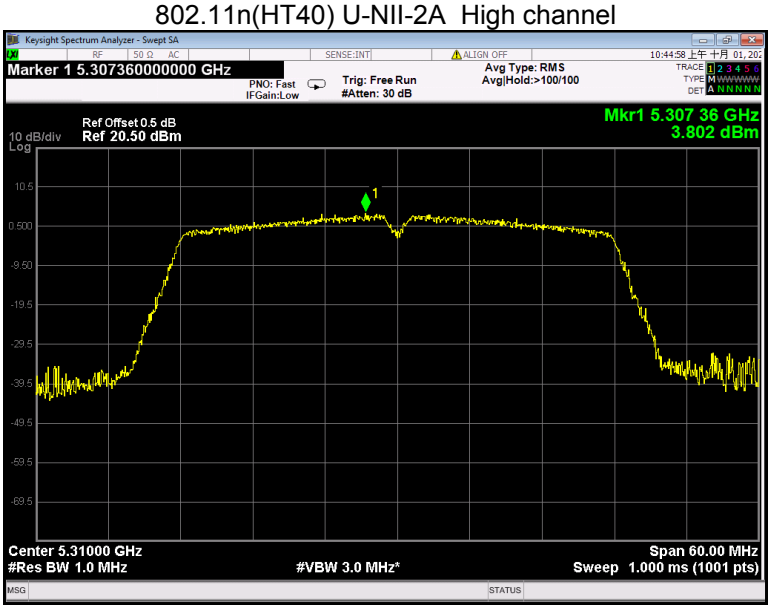
802.11n(HT20) U-NII-2A High channel



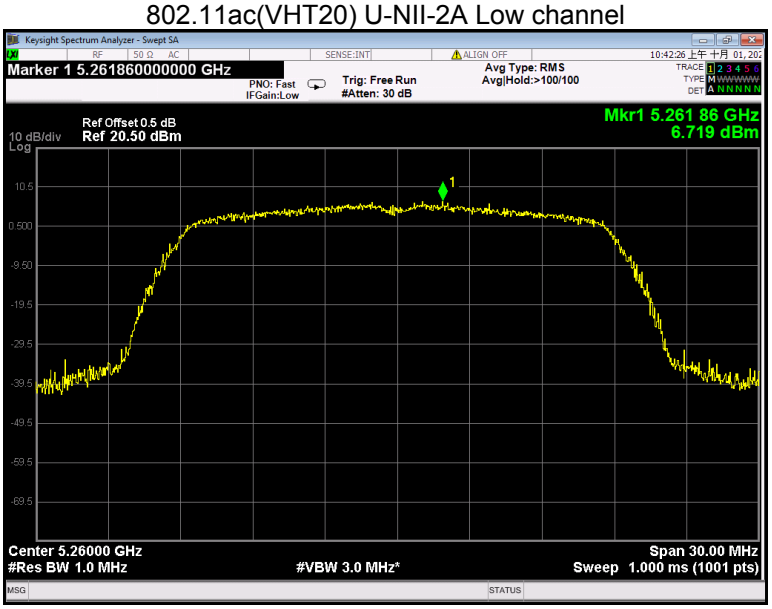
802.11n(HT40) U-NII-2A Low channel



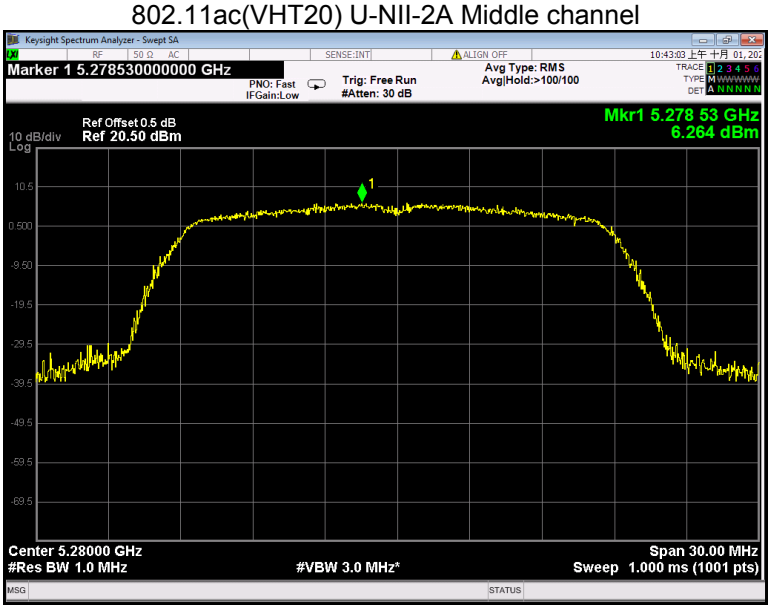
802.11n(HT40) U-NII-2A High channel



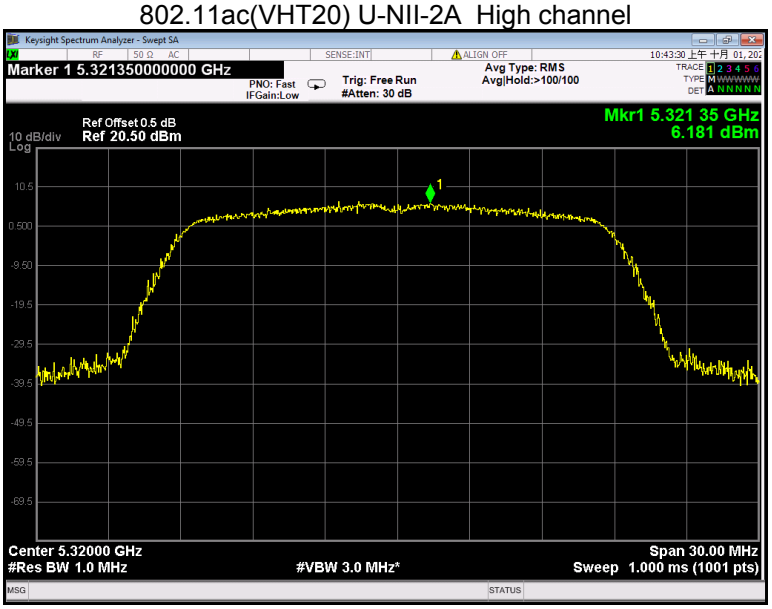
802.11ac(VHT20) U-NII-2A Low channel



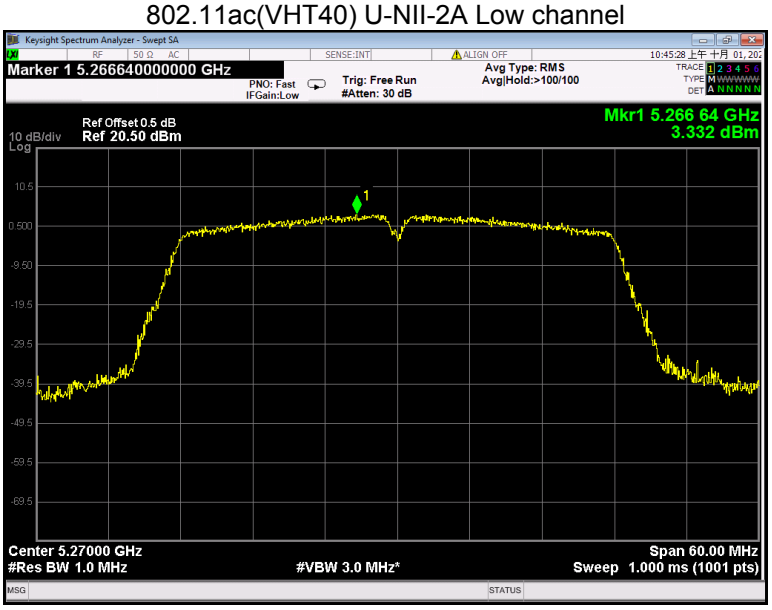
802.11ac(VHT20) U-NII-2A Middle channel



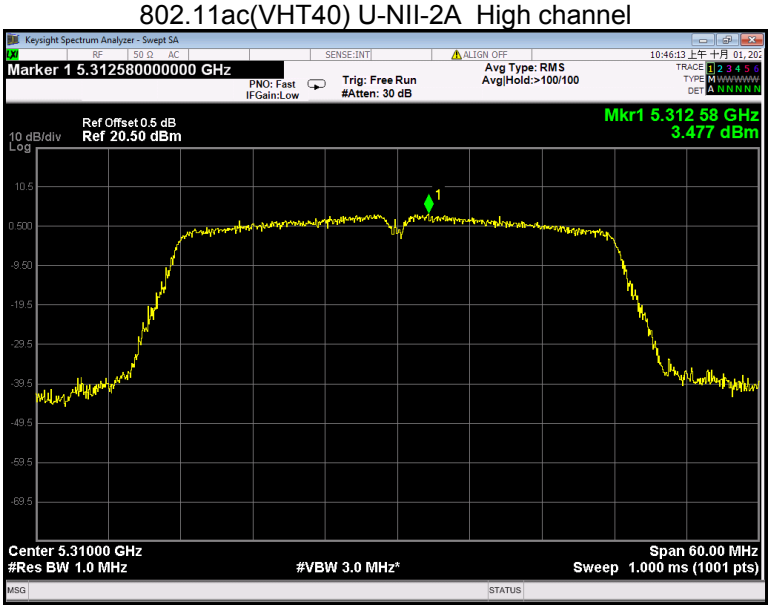
802.11ac(VHT20) U-NII-2A High channel



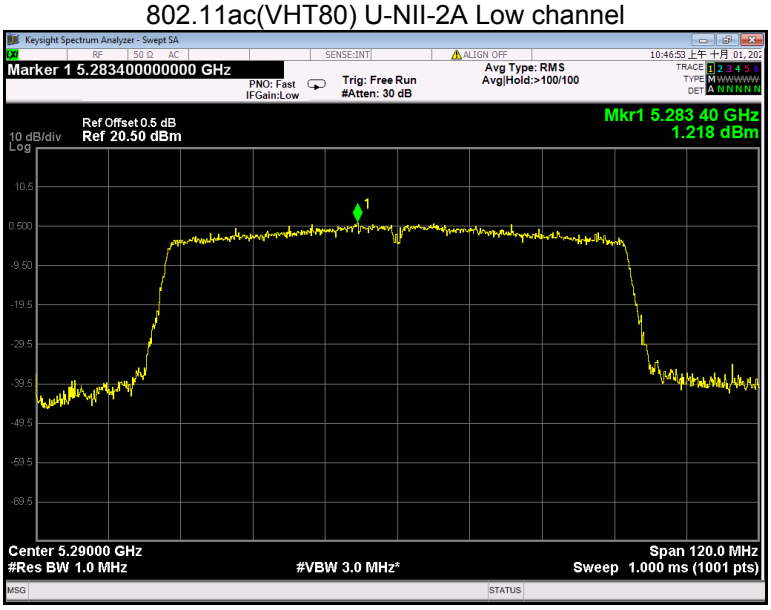
802.11ac(VHT40) U-NII-2A Low channel



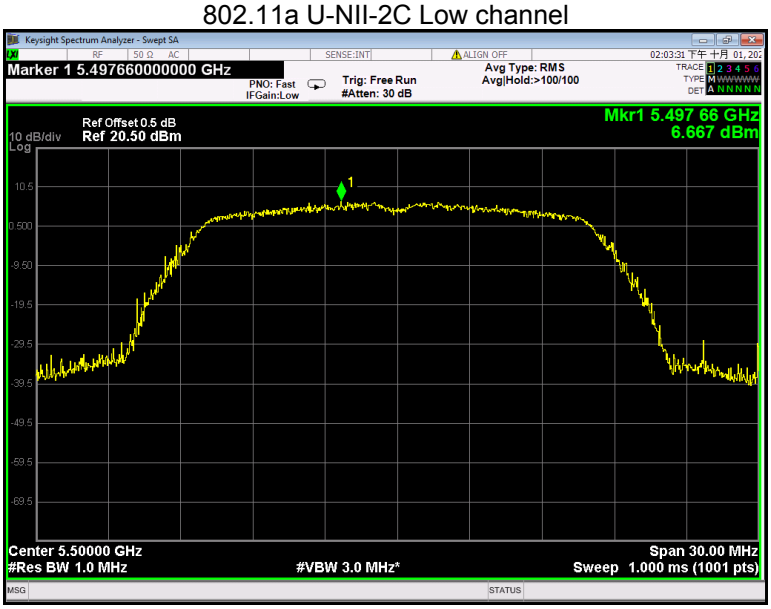
802.11ac(VHT40) U-NII-2A High channel



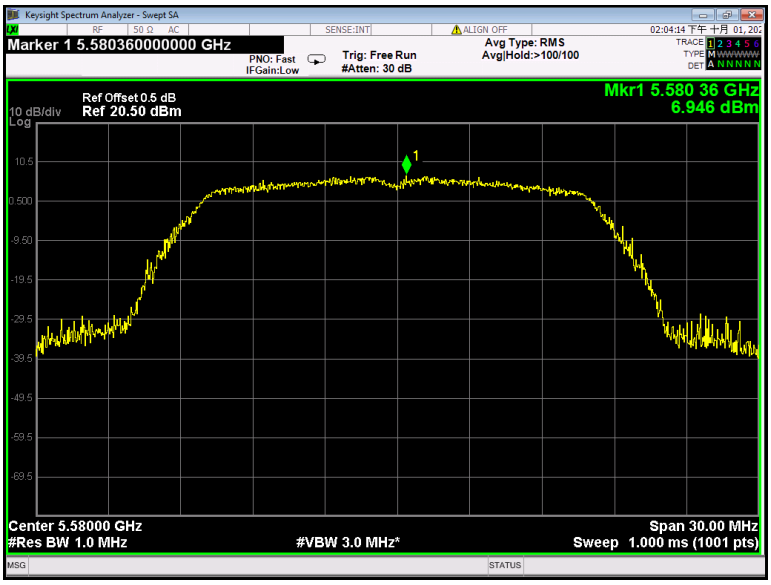
802.11ac(VHT80) U-NII-2A Low channel



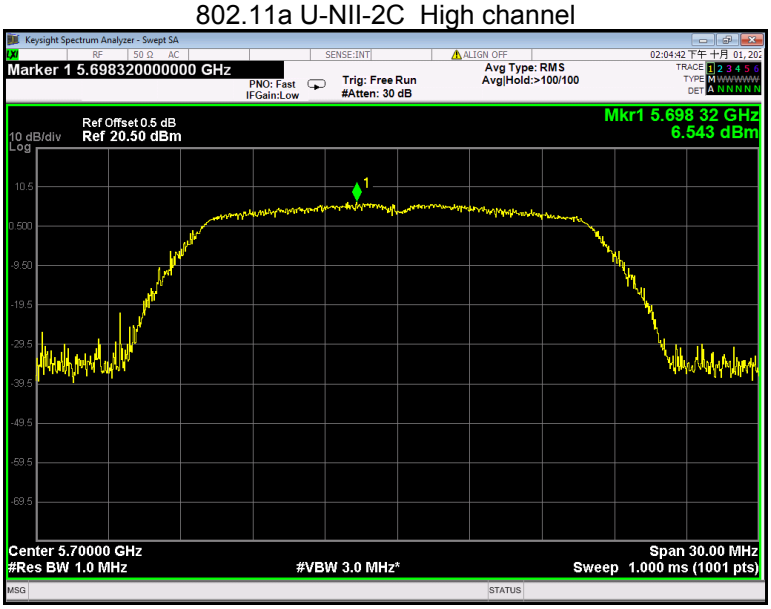
802.11a U-NII-2C Low channel



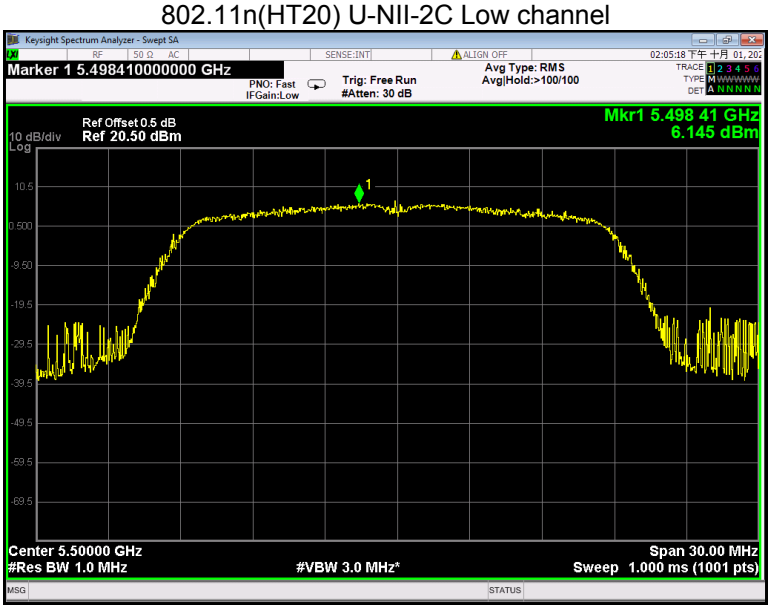
802.11a U-NII-2C Middle channel



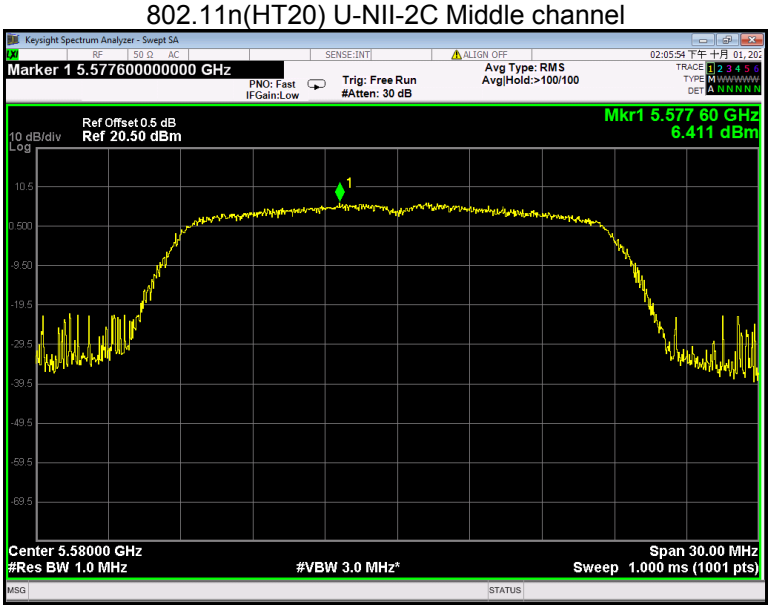
802.11a U-NII-2C High channel



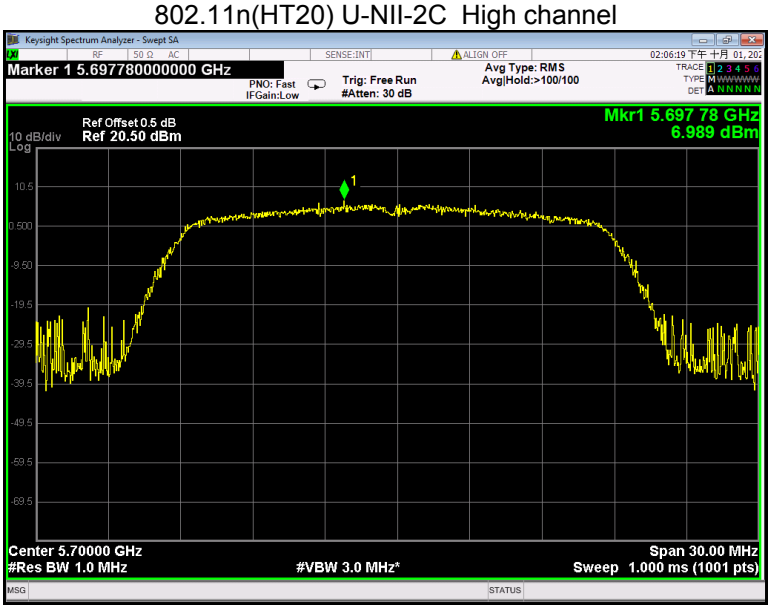
802.11n(HT20) U-NII-2C Low channel



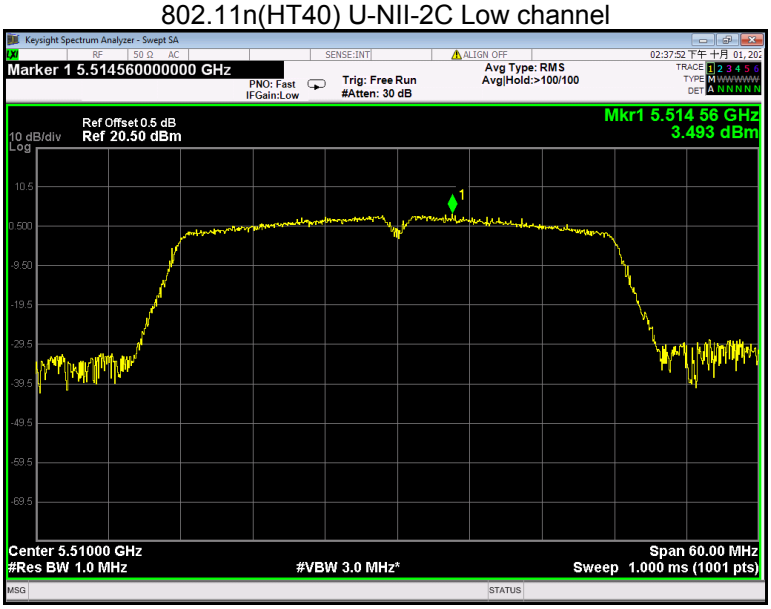
802.11n(HT20) U-NII-2C Middle channel



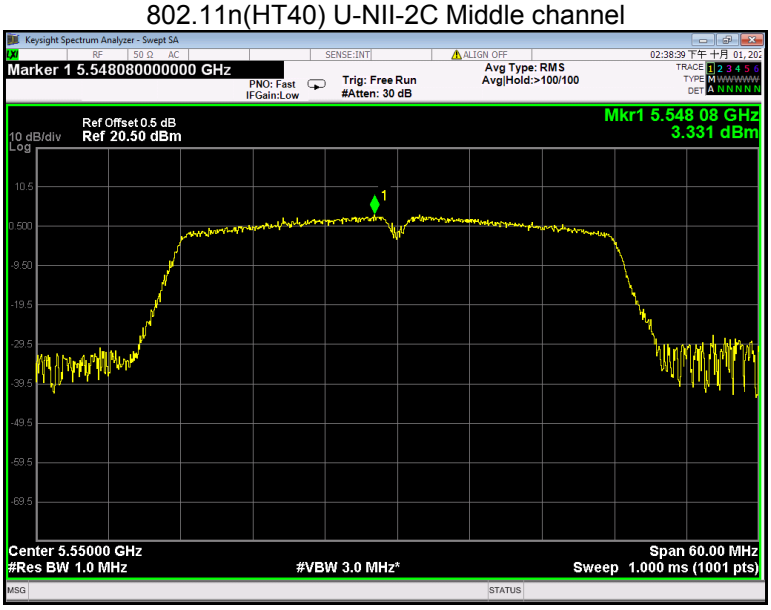
802.11n(HT20) U-NII-2C High channel



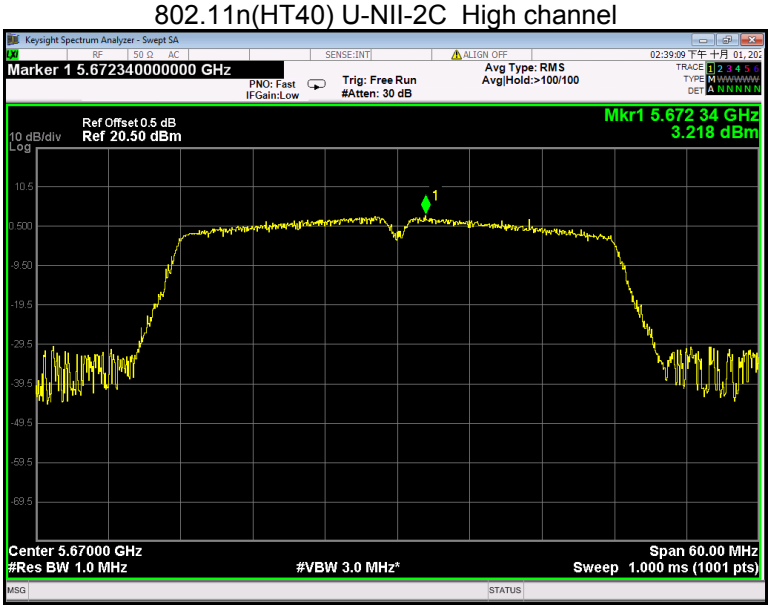
802.11n(HT40) U-NII-2C Low channel



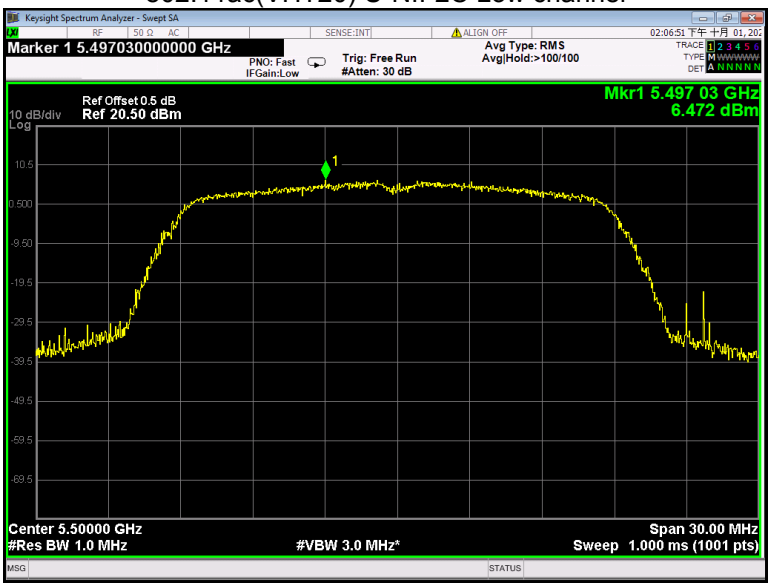
802.11n(HT40) U-NII-2C Middle channel



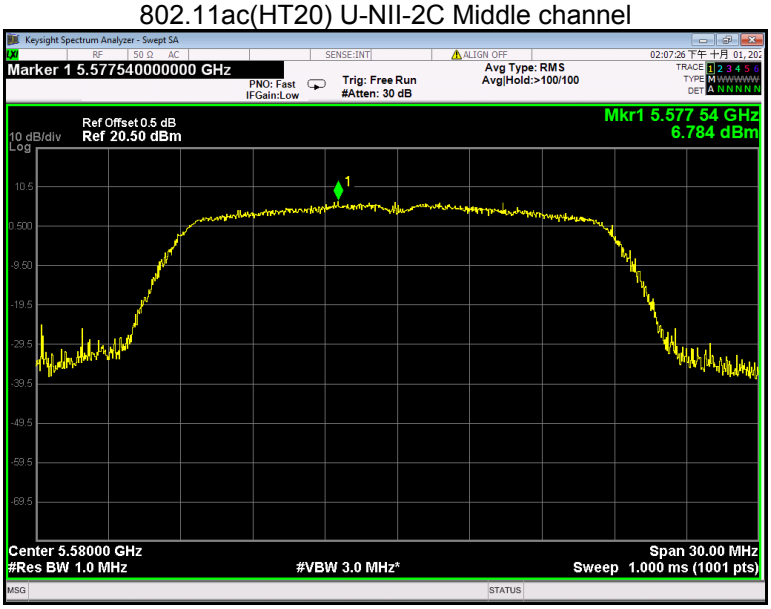
802.11n(HT40) U-NII-2C High channel



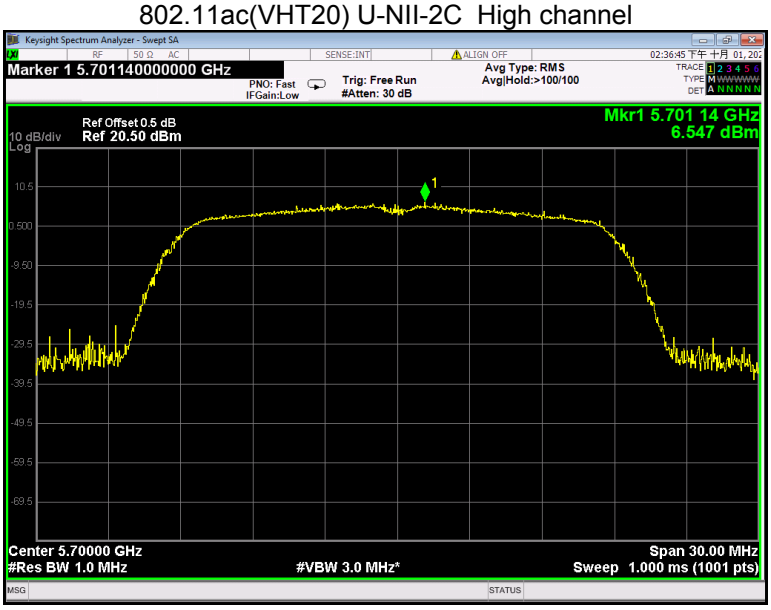
802.11ac(VHT20) U-NII-2C Low channel



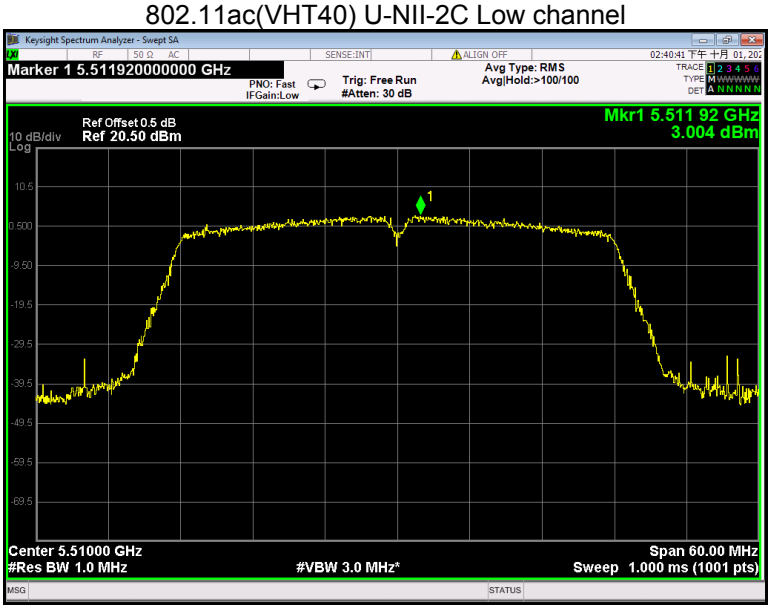
802.11ac(HT20) U-NII-2C Middle channel



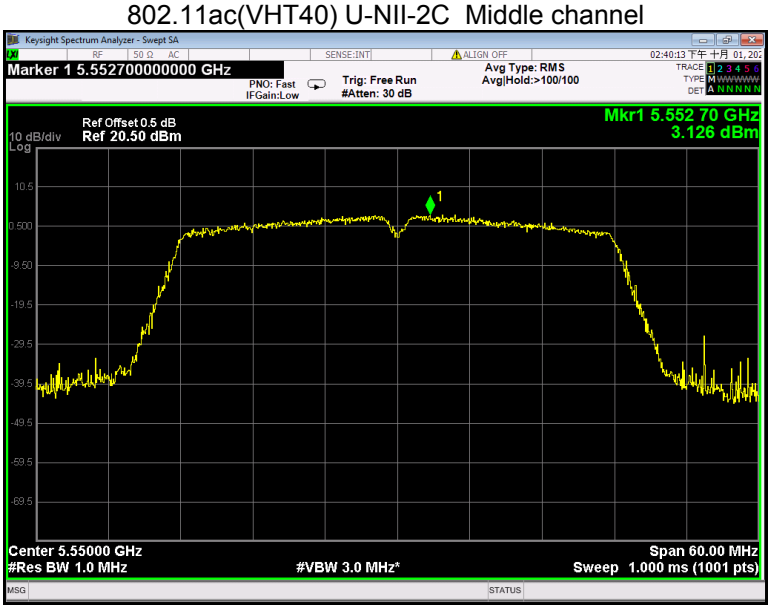
802.11ac(VHT20) U-NII-2C High channel



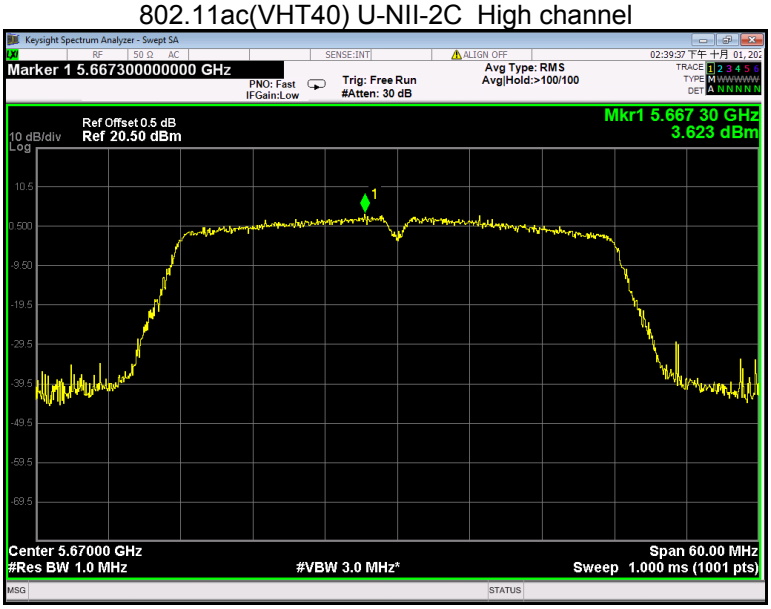
802.11ac(VHT40) U-NII-2C Low channel



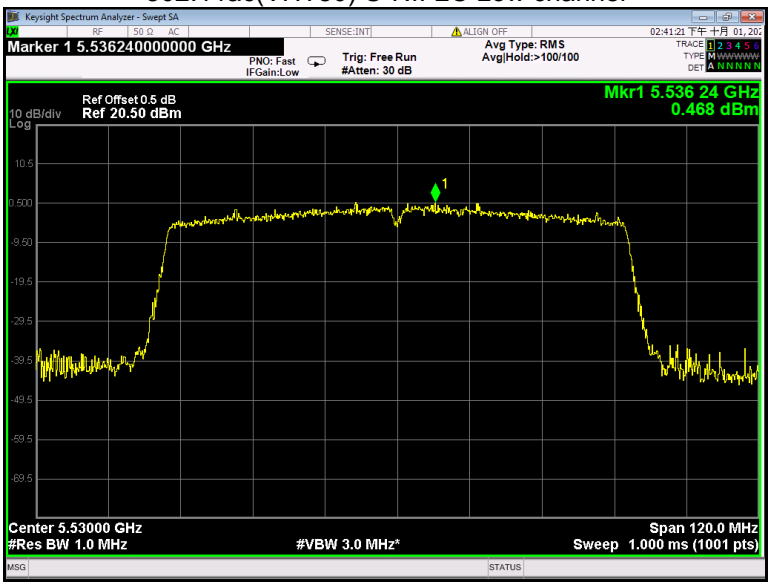
802.11ac(VHT40) U-NII-2C Middle channel



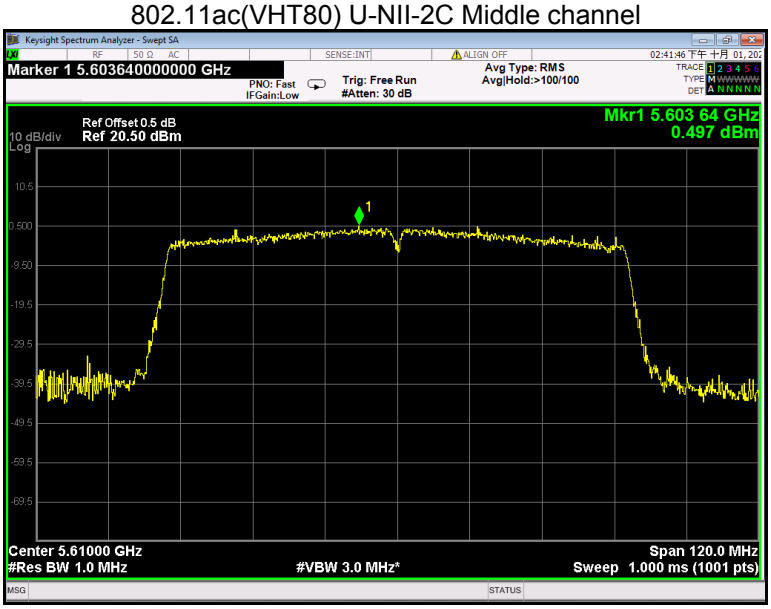
802.11ac(VHT40) U-NII-2C High channel



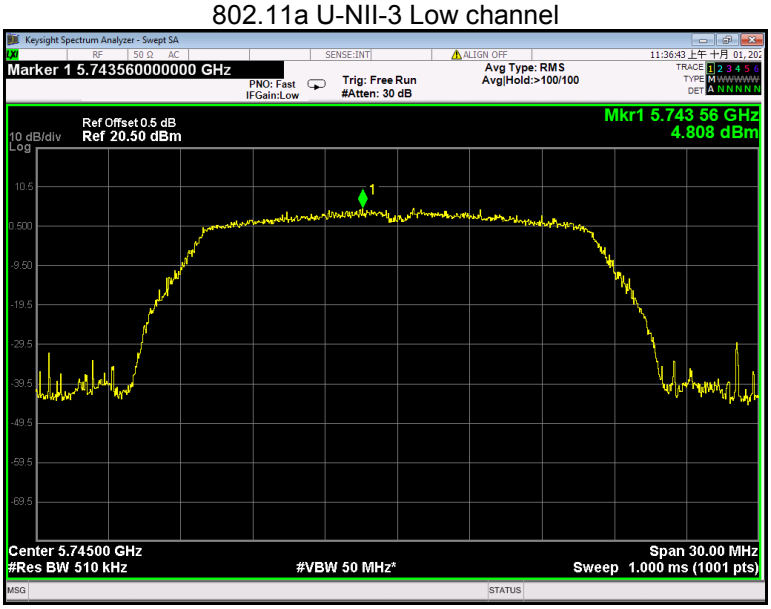
802.11ac(VHT80) U-NII-2C Low channel



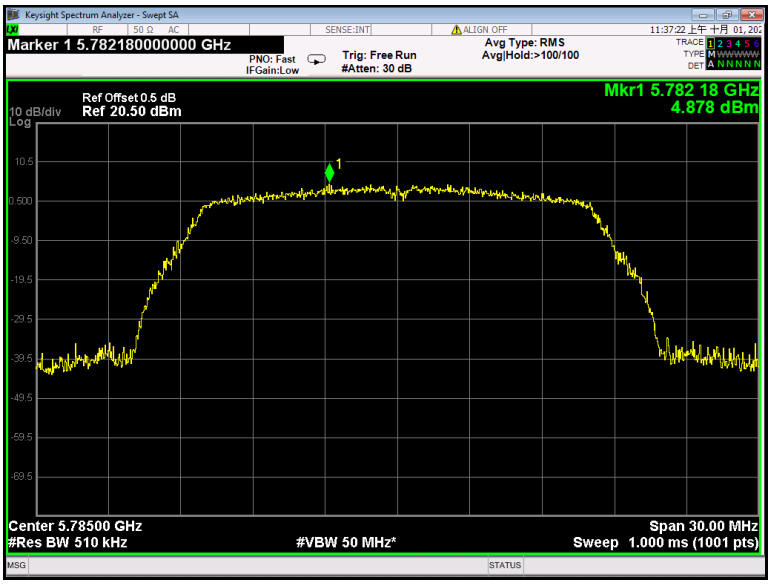
802.11ac(VHT80) U-NII-2C Middle channel



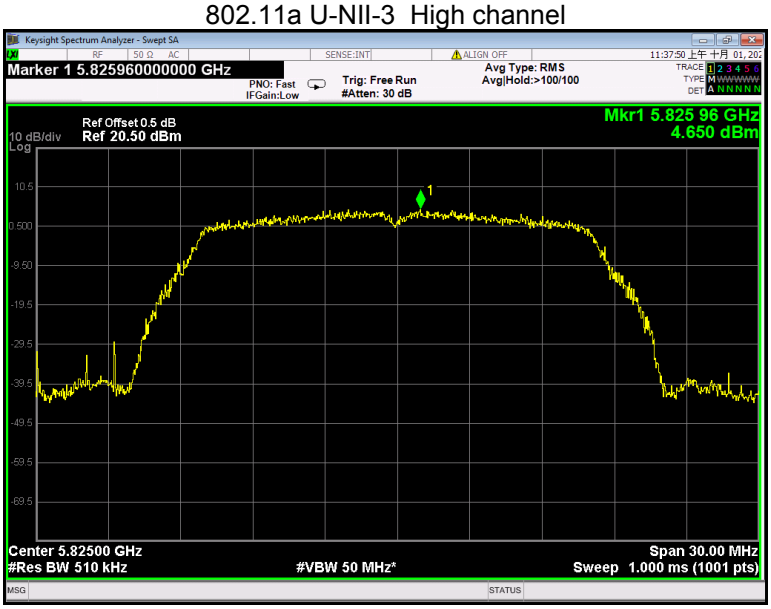
802.11a U-NII-3 Low channel



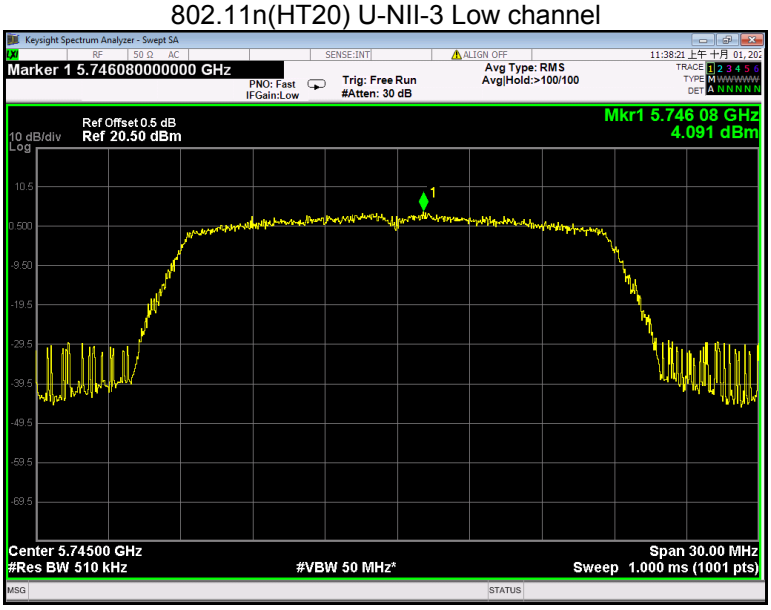
802.11a U-NII-3 Middle channel



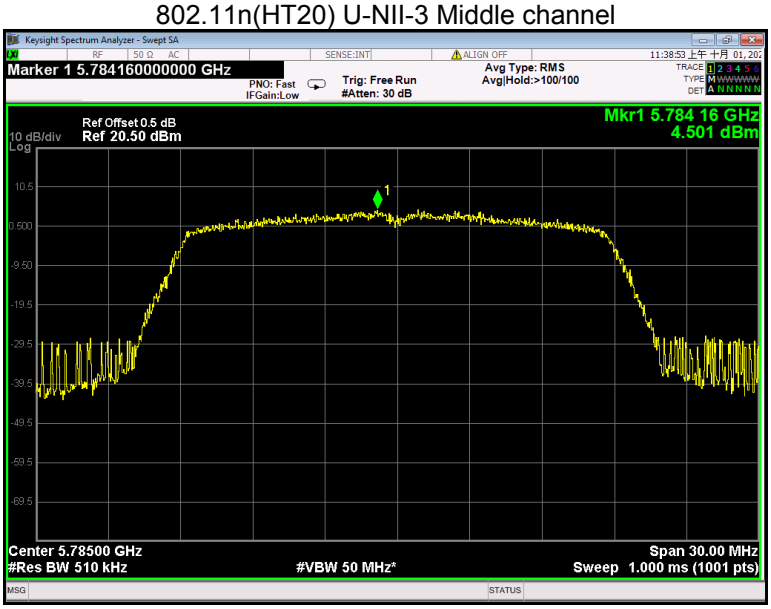
802.11a U-NII-3 High channel



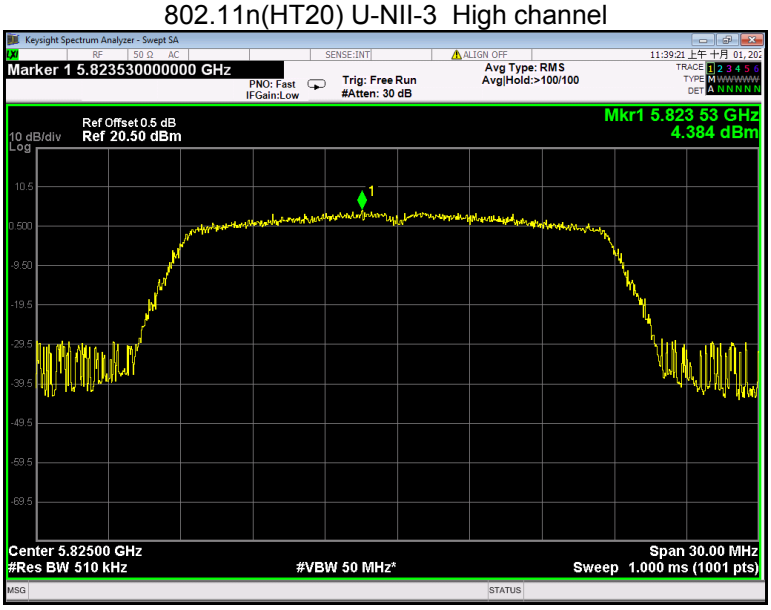
802.11n(HT20) U-NII-3 Low channel



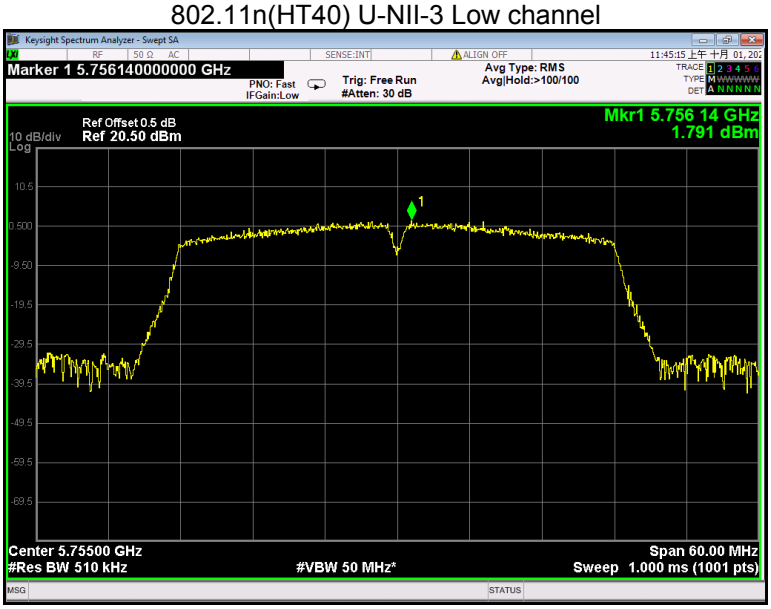
802.11n(HT20) U-NII-3 Middle channel



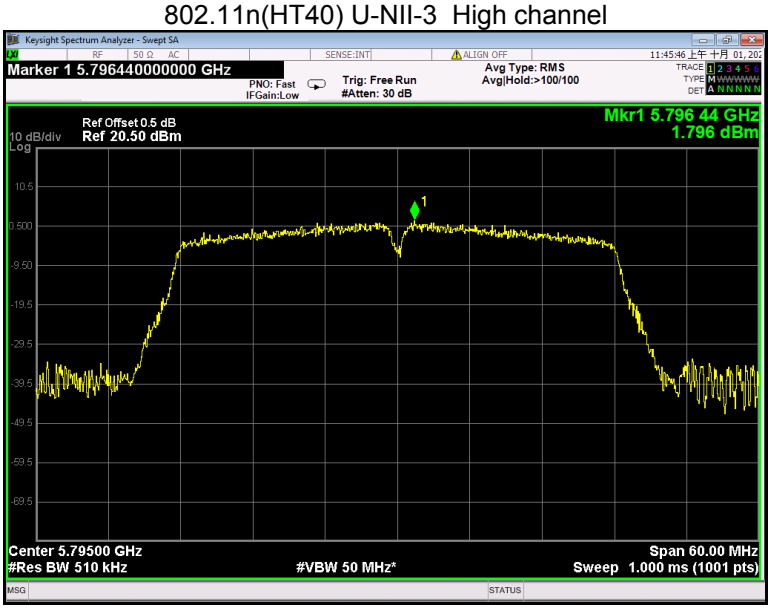
802.11n(HT20) U-NII-3 High channel



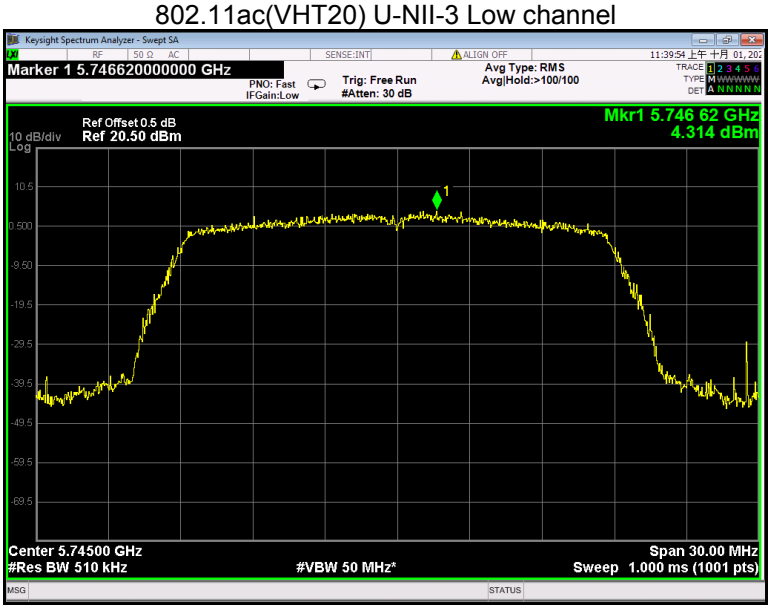
802.11n(HT40) U-NII-3 Low channel



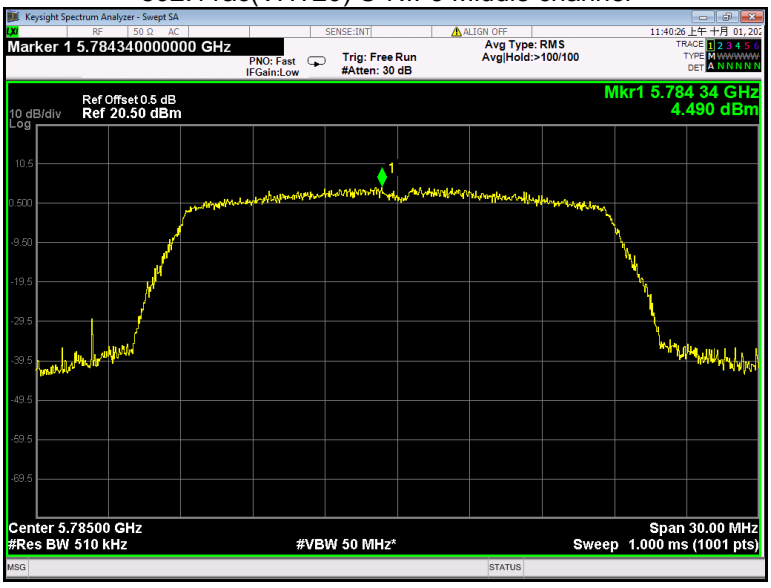
802.11n(HT40) U-NII-3 High channel



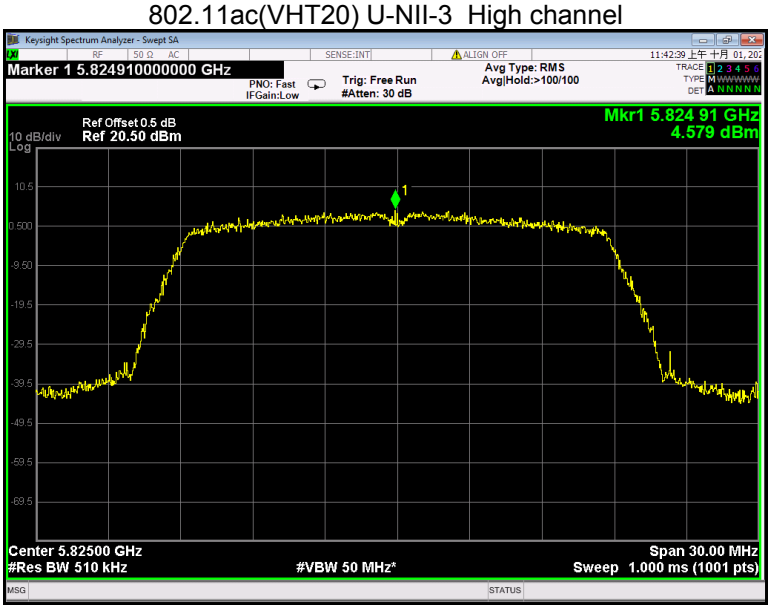
802.11ac(VHT20) U-NII-3 Low channel



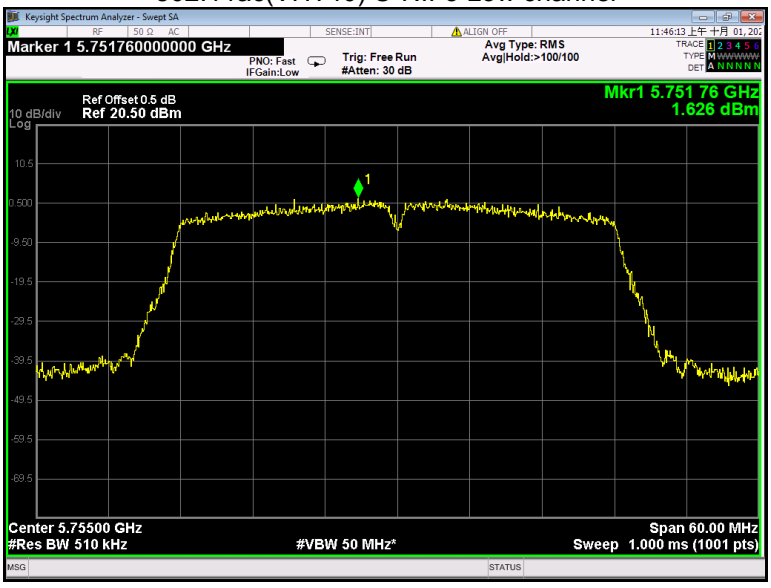
802.11ac(VHT20) U-NII-3 Middle channel



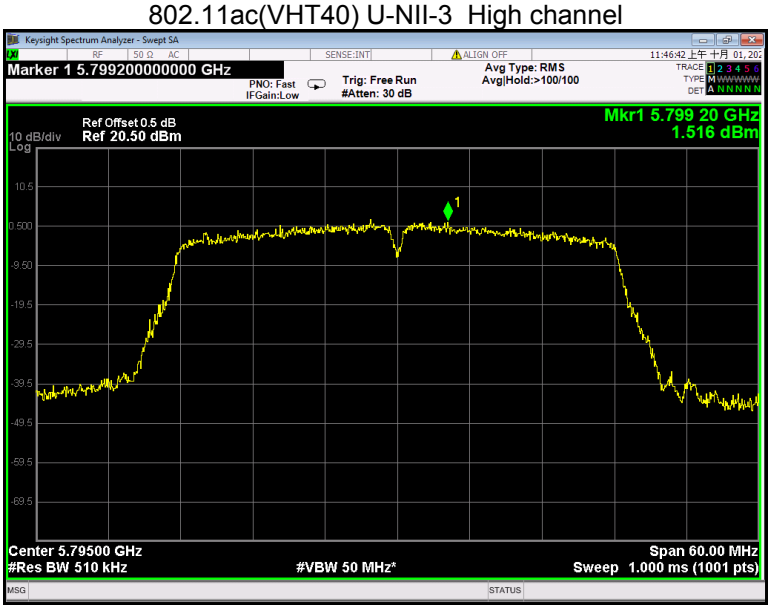
802.11ac(VHT20) U-NII-3 High channel



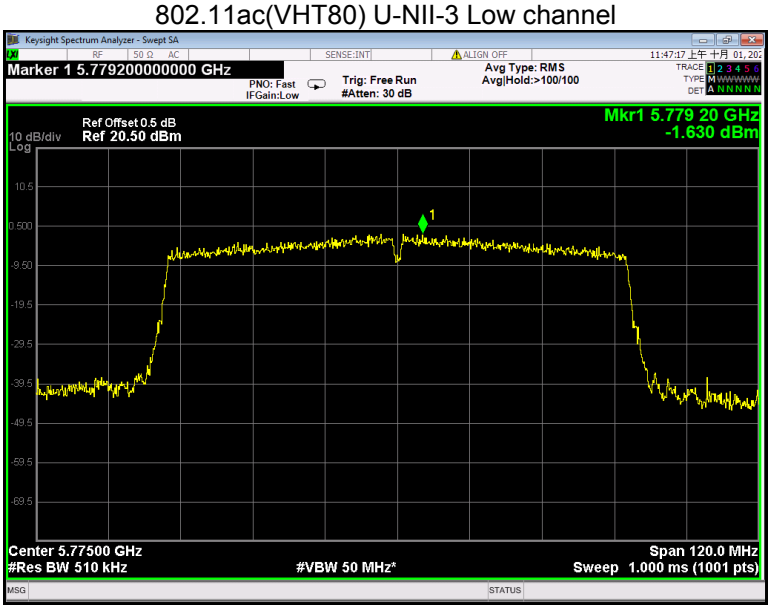
802.11ac(VHT40) U-NII-3 Low channel



802.11ac(VHT40) U-NII-3 High channel



802.11ac(VHT80) U-NII-3 Low channel



15 Frequency Stability

Test Requirement:	FCC 47CFR Part 15 Section 15.407(g)
Test Method:	ANSI C63.10:2013
Test 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 or 20ppm.
Test Result:	PASS

15.1 Test Procedure

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
   EUT have transmitted absence of unmodulation signal and fixed channelise. Set the spectrum analyzer span to view the entire absence of modulation emissions bandwidth. Set RBW = 10 kHz, VBW = 10 kHz with peak detector and maxhold settings. fc is declaring of channel frequency. Then the frequency error formula is (fc-f)/fc × 106 ppm and the limit is less than ±20ppm The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.

2. Extreme temperature rule is -30°C~ 50°C.

15.2 Test Result

U-NII-1 Test Frequency:5180MHz				
Temperature (℃)	Power Supply (VAC)	Frequency Error (MHz)	Frequency Error (ppm)	Limit (ppm)
50	3.87	-0.0019	-0.36	20
45		-0.0005	-0.09	20
30		-0.0008	-0.15	20
20		0.0000	0.00	20
10		-0.0020	-0.38	20
0		-0.0031	-0.60	20
-10		0.0071	1.37	20
-15		0.0093	1.79	20
-30		0.0012	0.24	20
20	3.48	0.0057	1.10	20
20	4.26	0.0084	1.62	20

U-NII-2A Test Frequency:5260MHz				
Temperature (℃)	Power Supply (VAC)	Frequency Error (MHz)	Frequency Error (ppm)	Limit (ppm)
50	3.87	0.0096	1.82	20
45		0.0049	0.92	20
30		-0.0011	-0.22	20
20		-0.0041	-0.78	20
10		0.0039	0.75	20
0		0.0051	0.97	20
-10		-0.0072	-1.37	20
-15		-0.0015	-0.28	20
-30		0.0051	0.97	20
20	3.48	-0.0018	-0.34	20
20	4.26	0.0031	0.59	20

U-NII-2C Test Frequency:5500MHz				
Temperature (℃)	Power Supply (VAC)	Frequency Error (MHz)	Frequency Error (ppm)	Limit (ppm)
50	3.87	-0.0074	-1.35	20
45		-0.0010	-0.17	20
30		0.0000	0.00	20
20		0.0094	1.71	20
10		-0.0042	-0.76	20
0		-0.0019	-0.34	20
-10		0.0047	0.85	20
-15		-0.0030	-0.55	20
-30		0.0001	0.02	20
20	3.48	0.0045	0.82	20
20	4.26	-0.0030	-0.54	20

U-NII-3 Test Frequency:5785MHz				
Temperature (℃)	Power Supply (VAC)	Frequency Error (MHz)	Frequency Error (ppm)	Limit (ppm)
50	3.87	0.0027	0.47	20
45		-0.0021	-0.36	20
30		0.0048	0.83	20
20		-0.0008	-0.14	20
10		0.0015	0.25	20
0		-0.0081	-1.40	20
-10		-0.0018	-0.32	20
-15		0.0041	0.72	20
-30		-0.0072	-1.24	20
20	3.48	0.0067	1.15	20
20	4.26	0.0000	-0.01	20

16 Antenna Requirement

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

This device uses of an Internal antenna that uses a specified coupling to the intentional radiator. Antenna connectors complied with the requirement.

17 RF Exposure

Remark: refer to SAR test report: WTX24X10233249W.

18 Photographs of test setup and EUT.

Note: Please refer to appendix: Appendix-Black C Plus-Photos.

======End of Report======