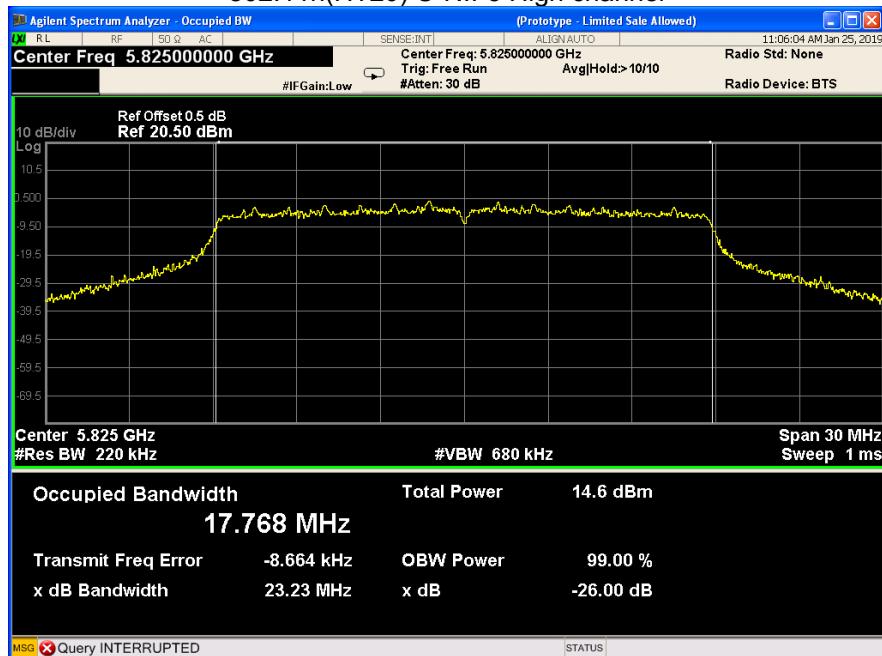
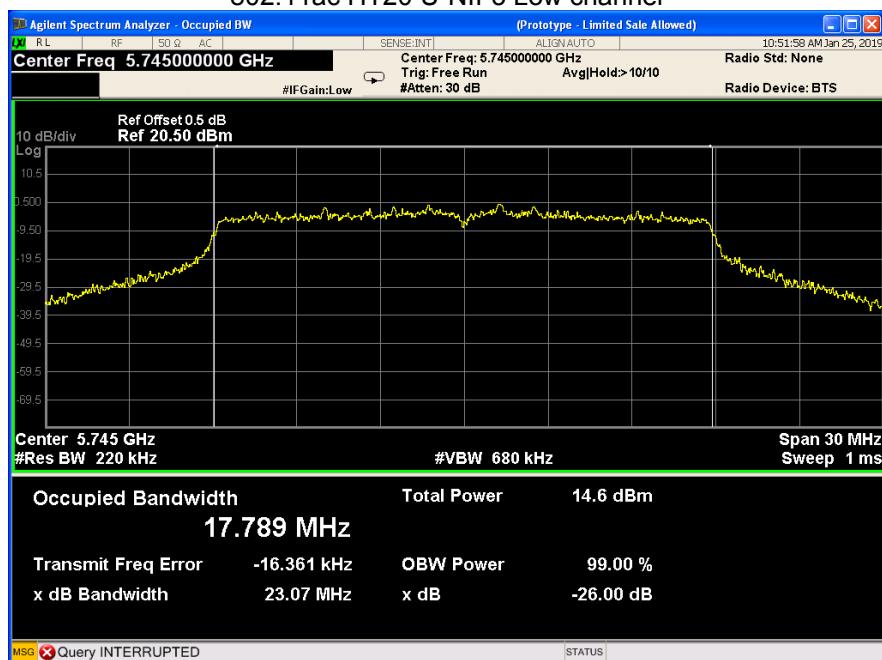


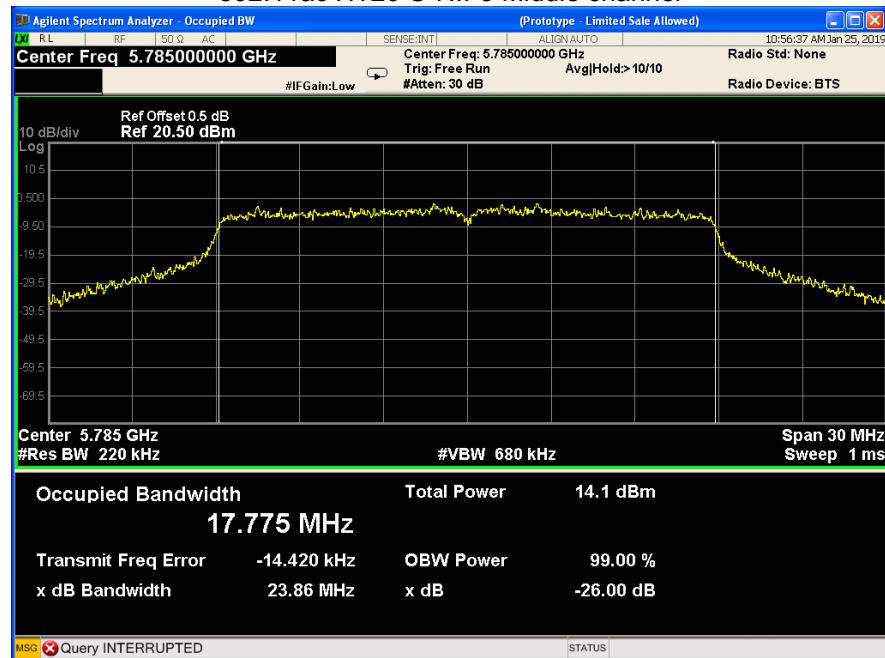
802.11n(HT20) U-NII-3 High channel



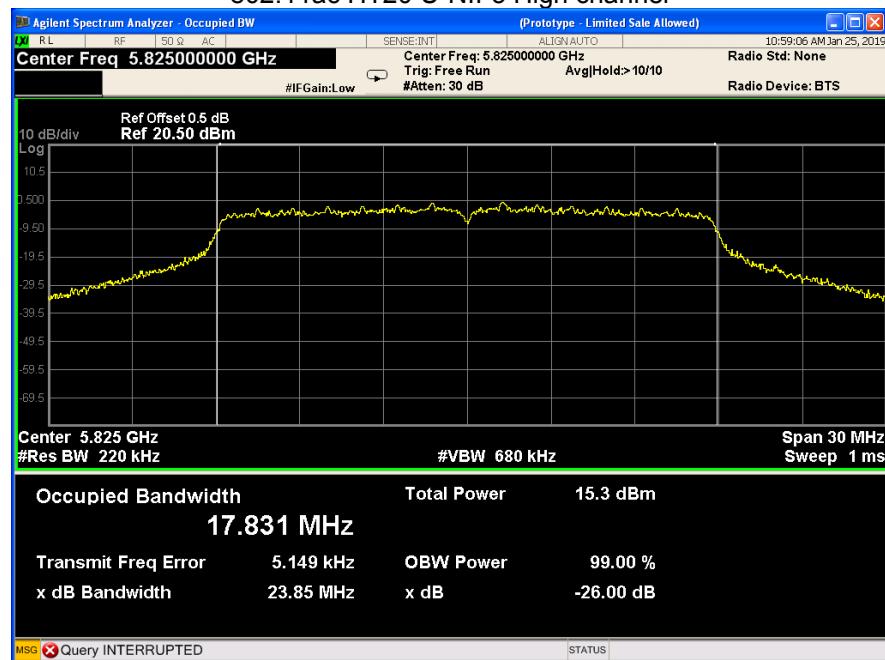
802.11ac HT20 U-NII-3 Low channel



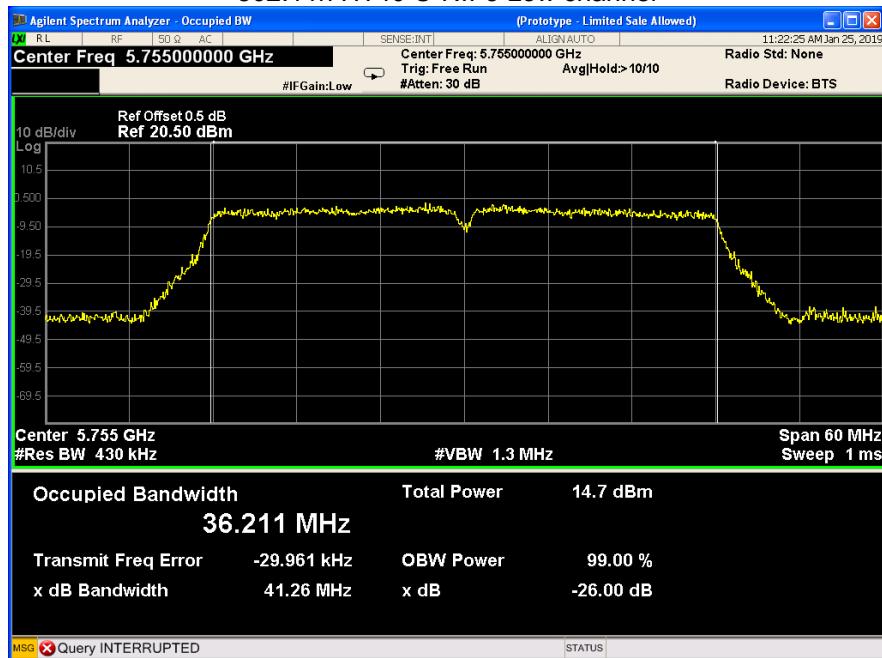
802.11ac HT20 U-NII-3 Middle channel



802.11ac HT20 U-NII-3 High channel

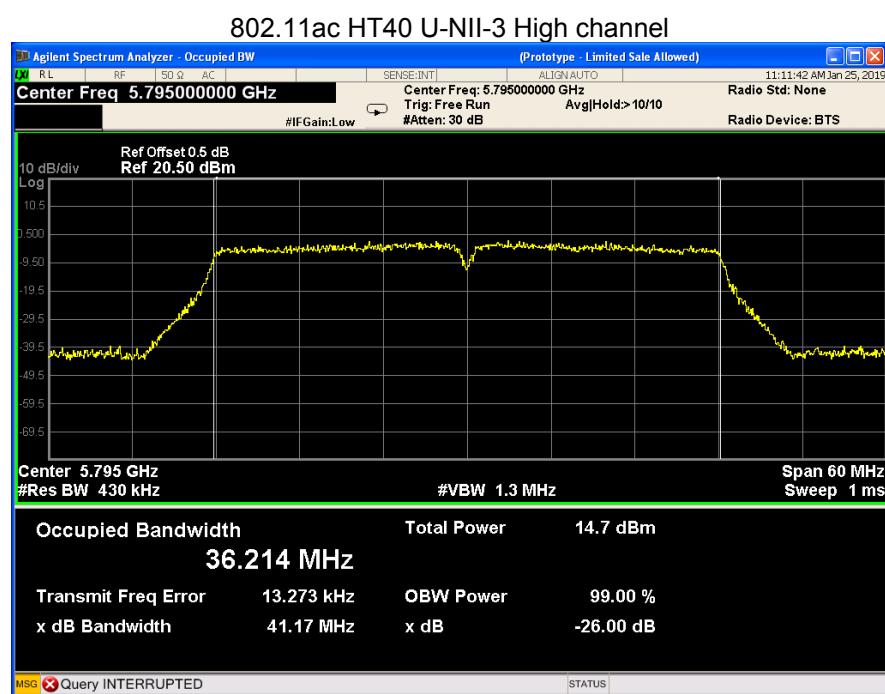
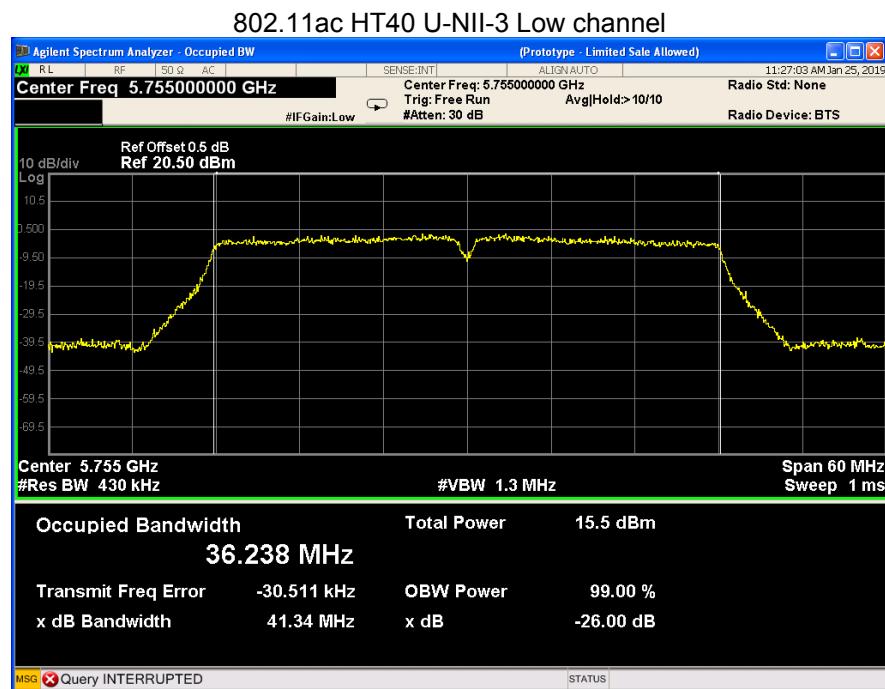


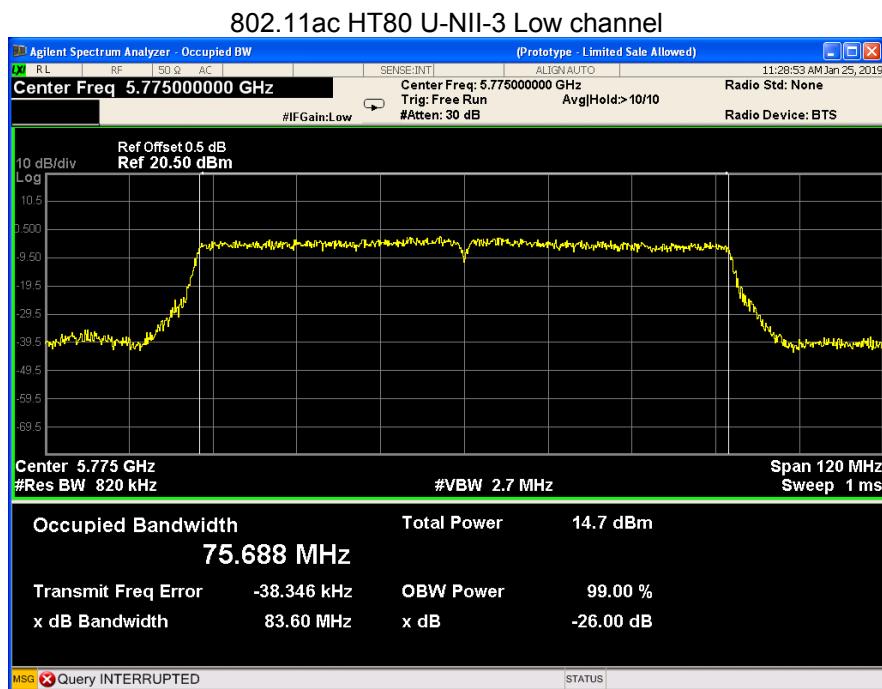
802.11n HT40 U-NII-3 Low channel



802.11n HT40 U-NII-3 High channel







13 Conducted Output Power

Test Requirement:	FCC CFR47 Part 15 Section 15.407
Test Method:	KDB 789033 D02 General U-NII Test Procedures New Rules v02r01
Test Limit:	24dBm for 5150-5250MHz, 5250-5350MHz and 5470-5725MHz; 30 dBm for 5725-5850MHz
Test Result:	PASS Conducted output power= measurement power+10log(1/x) X is duty cycle=1, so 10log(1/1)=0
Remark:	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	Conducted Output Power (dBm)		
		Low channel	Middle channel	High channel
U-NII-1	802.11a	13.91	13.55	13.79
	802.11n(HT20)	13.21	13.81	13.75
	802.11ac(HT20)	13.53	13.65	13.62
	802.11ac(HT40)	14.40	/	14.57
	802.11n(HT40)	14.25	/	14.25
	802.11ac(HT80)	14.37	/	/

Band	Operation mode	Conducted Output Power (dBm)		
		Low channel	Middle channel	High channel
U-NII-2A	802.11a	15.33	14.16	13.73
	802.11n(HT20)	14.29	14.04	14.16
	802.11ac(HT20)	14.45	14.50	13.92
	802.11ac(HT40)	15.39	/	14.16
	802.11n(HT40)	14.31	/	14.26
	802.11ac(HT80)	14.18	/	/

Band	Operation mode	Conducted Output Power (dBm)		
		Low channel	Middle channel	High channel
U-NII-2C	802.11a	15.12	14.04	14.50
	802.11n(HT20)	13.62	15.56	14.12
	802.11ac(HT20)	13.59	13.97	14.15
	802.11ac(HT40)	14.20	15.19	14.51
	802.11n(HT40)	14.30	14.35	14.30
	802.11ac(HT80)	14.17	/	13.62

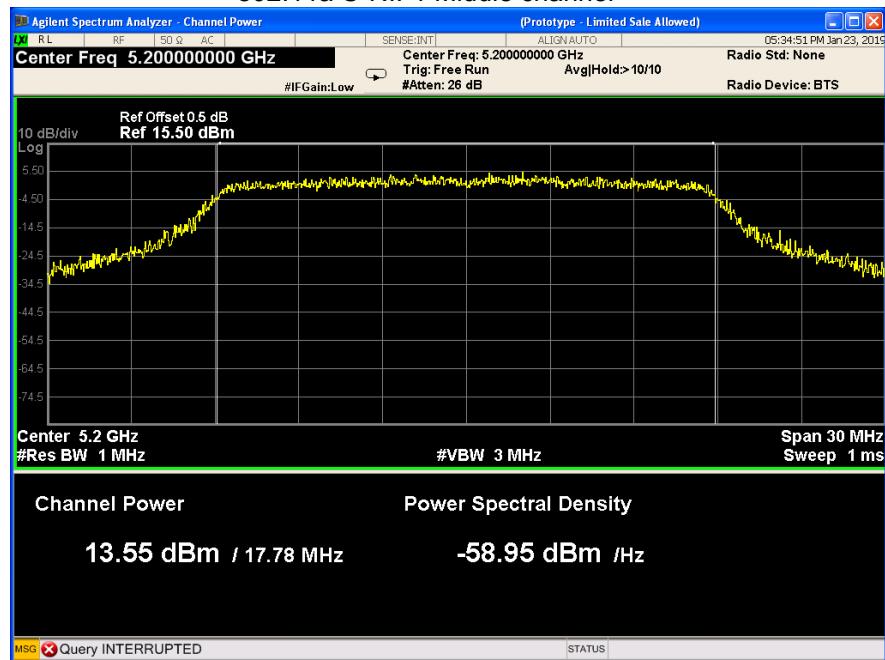
Band	Operation mode	Conducted Output Power (dBm)		
		Low channel	Middle channel	High channel
U-NII-3	802.11a	14.88	13.76	13.72
	802.11n(HT20)	14.19	13.93	13.95
	802.11ac(HT20)	14.35	14.15	14.33
	802.11ac(HT40)	15.44	/	14.64
	802.11n(HT40)	14.72	/	14.37
	802.11ac(HT80)	14.36	/	/

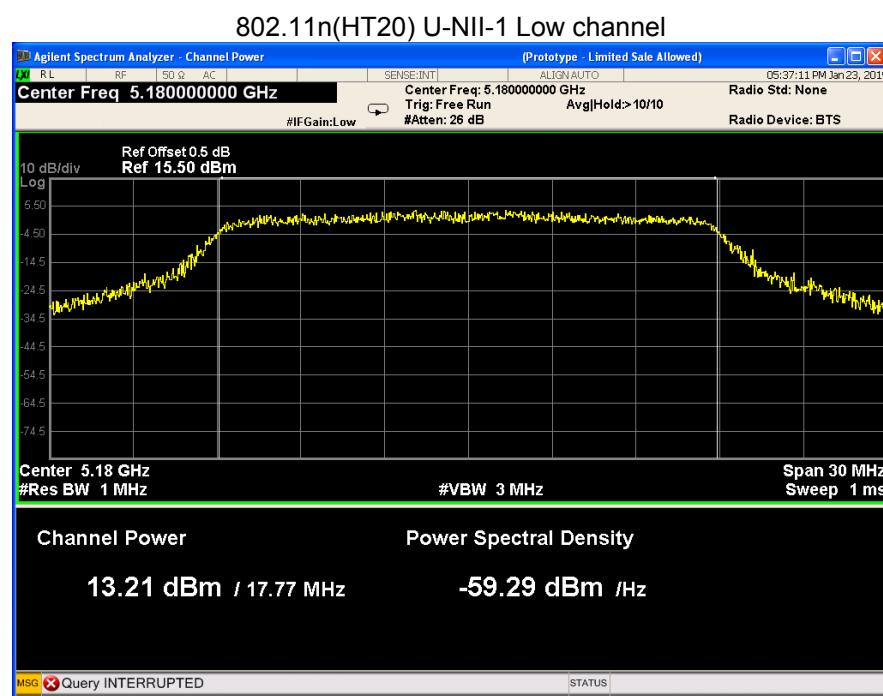
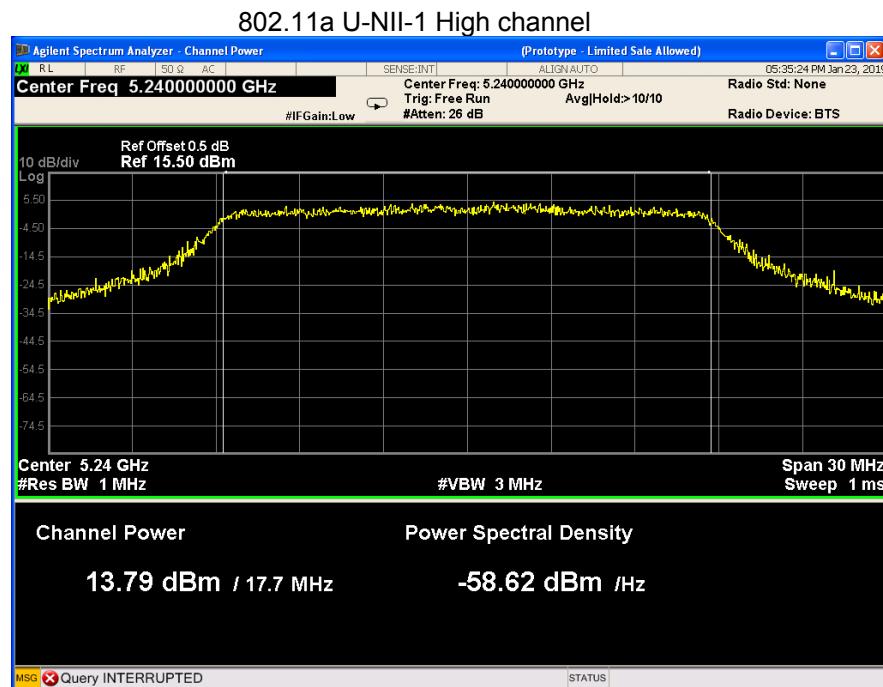
Test result plots shown as follows:

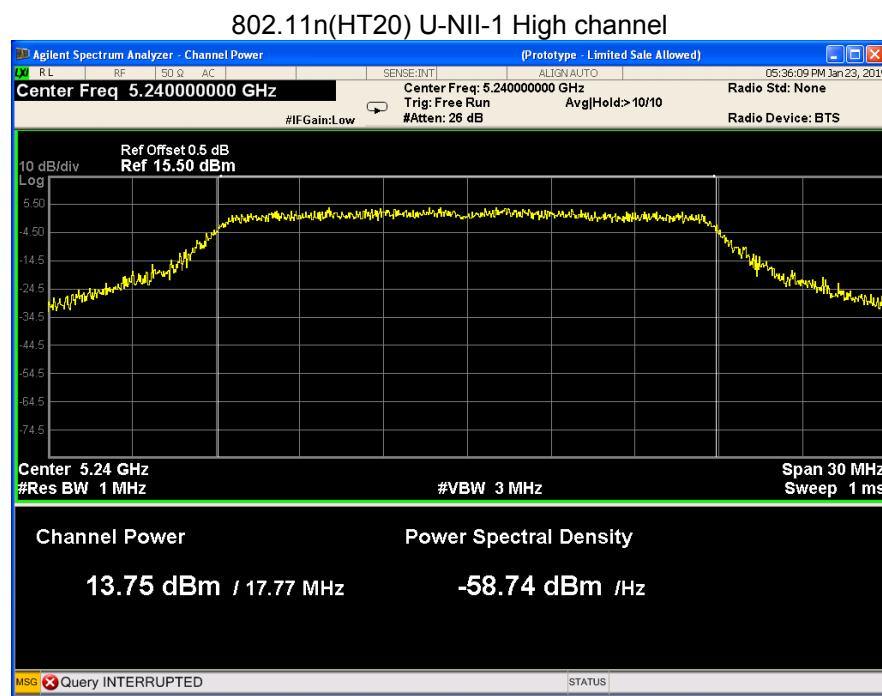
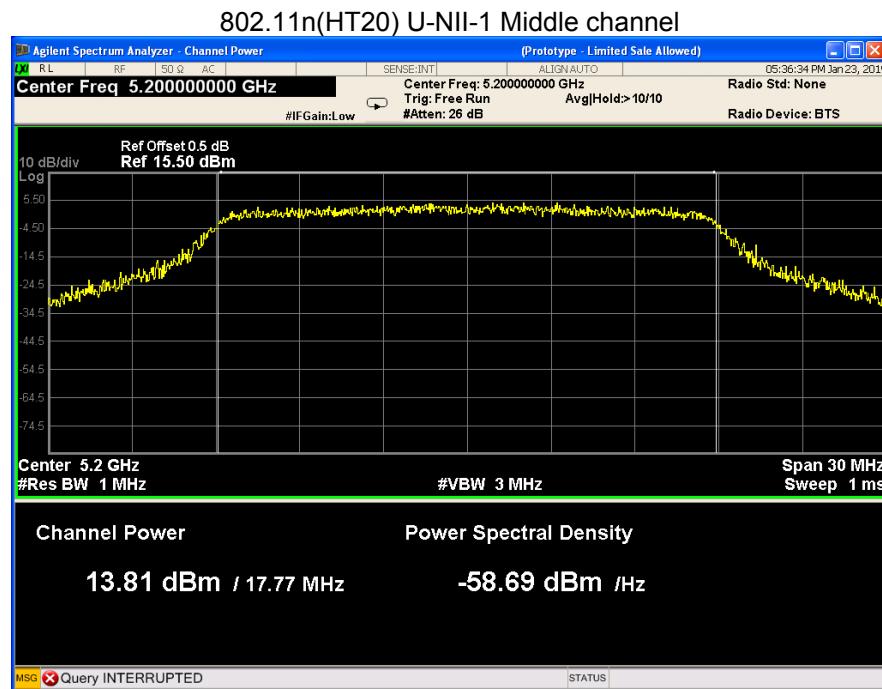
802.11a U-NII-1 Low channel

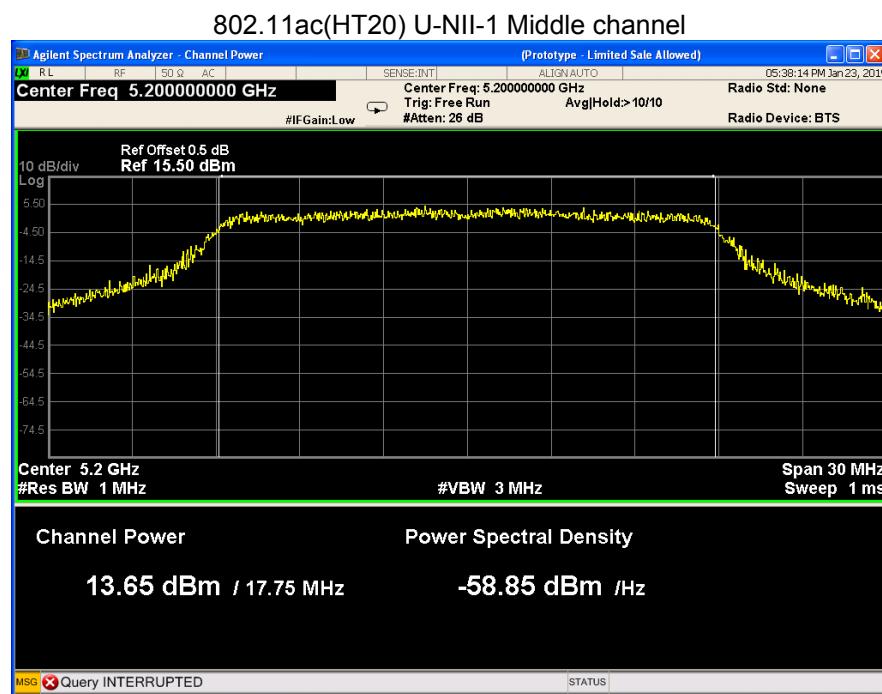
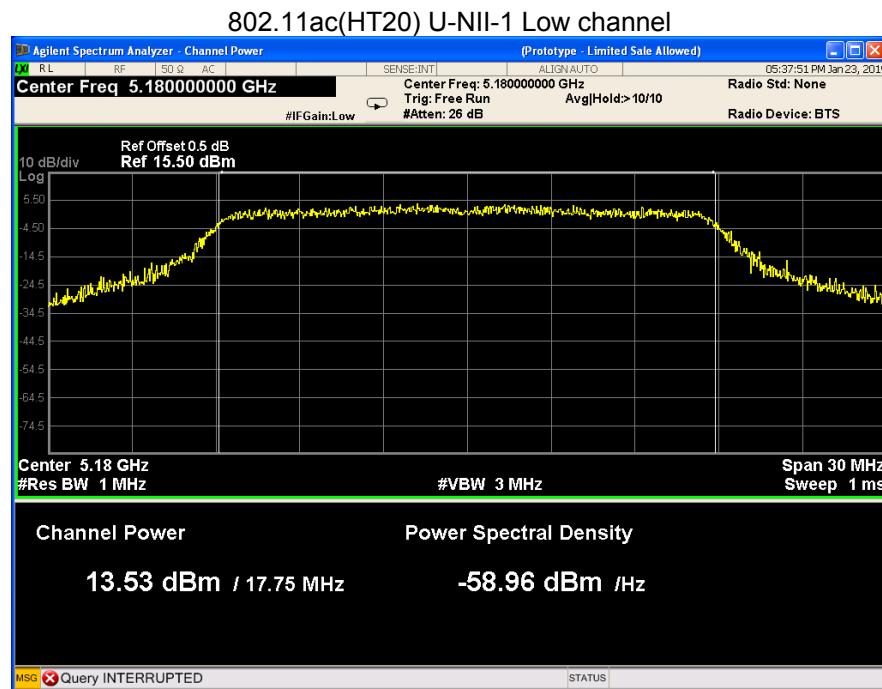


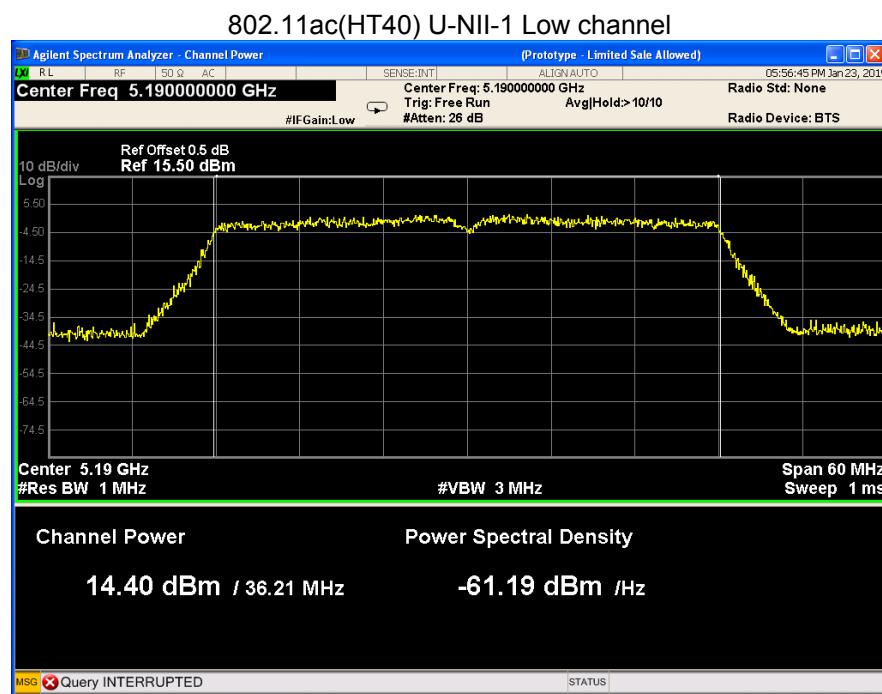
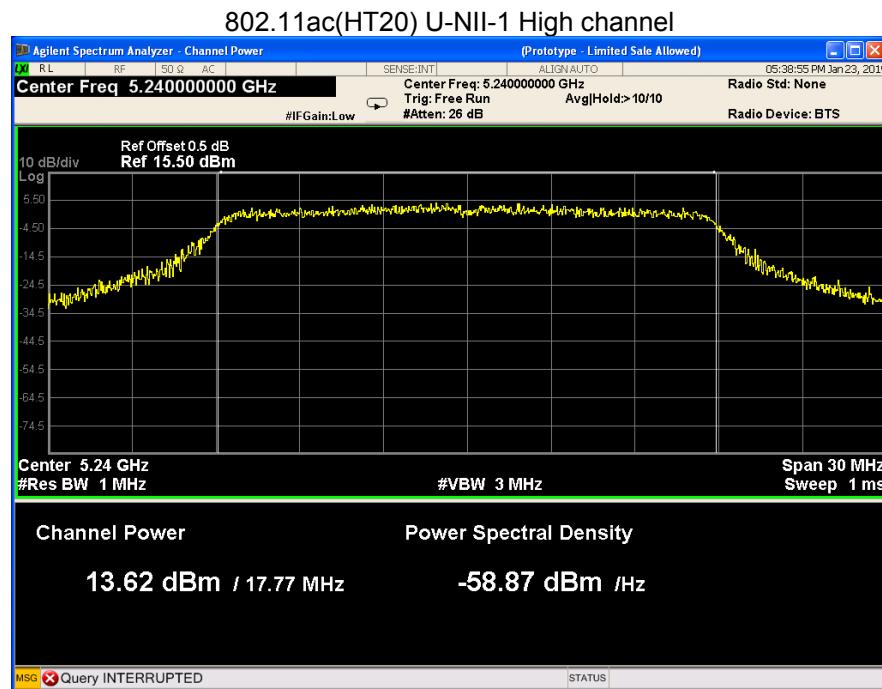
802.11a U-NII-1 Middle channel

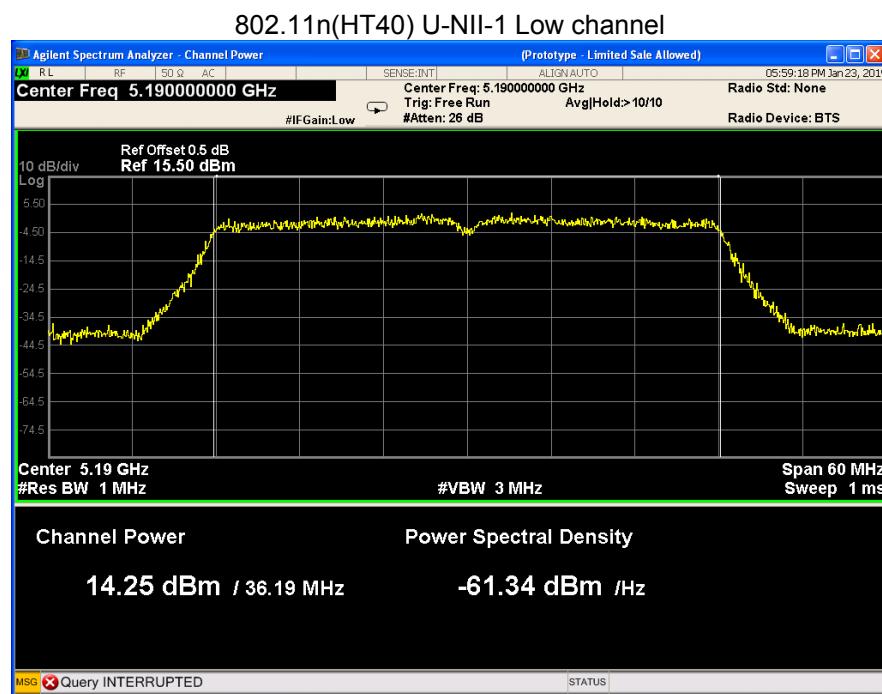
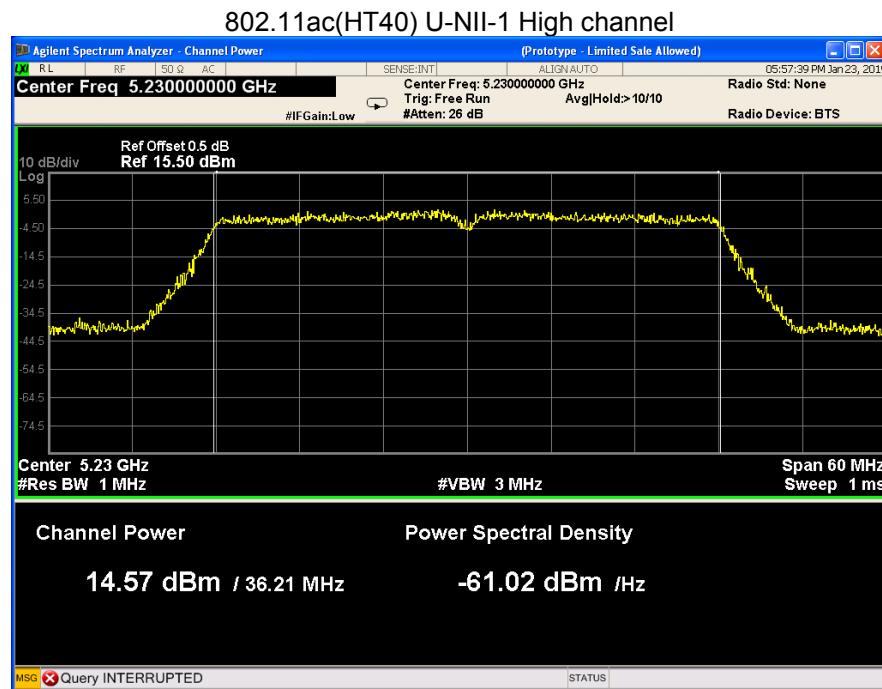


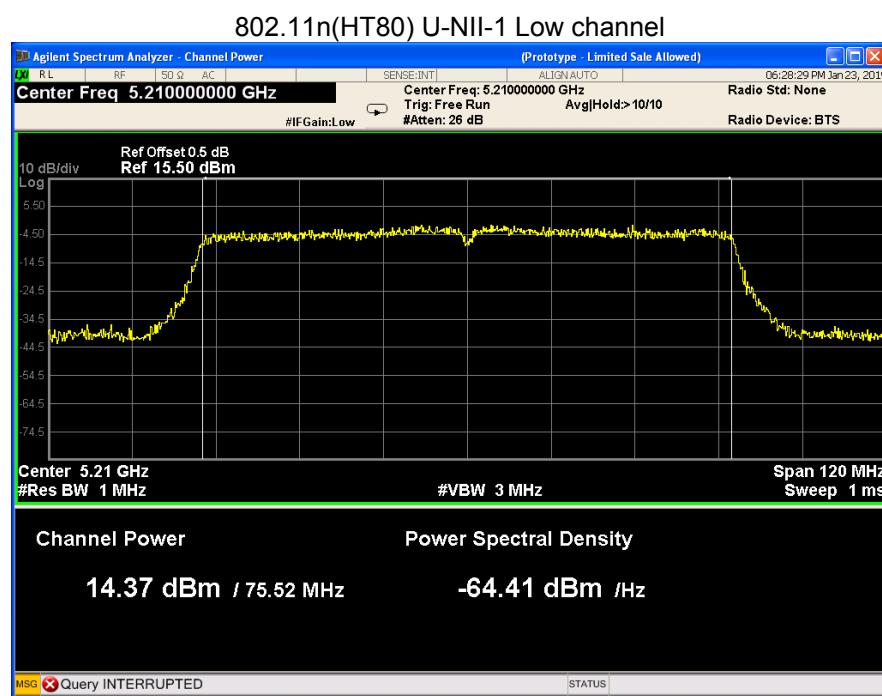
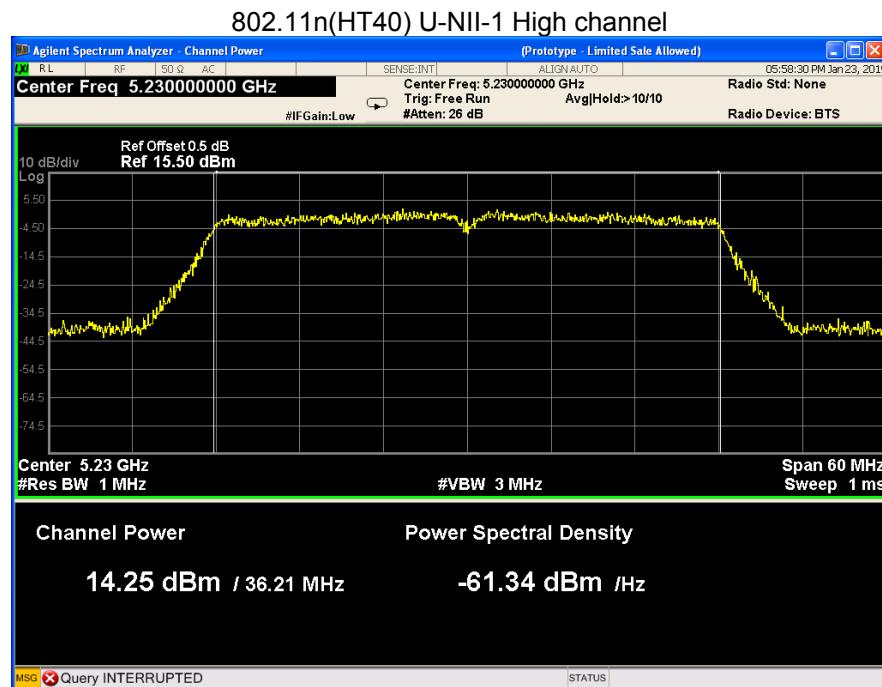




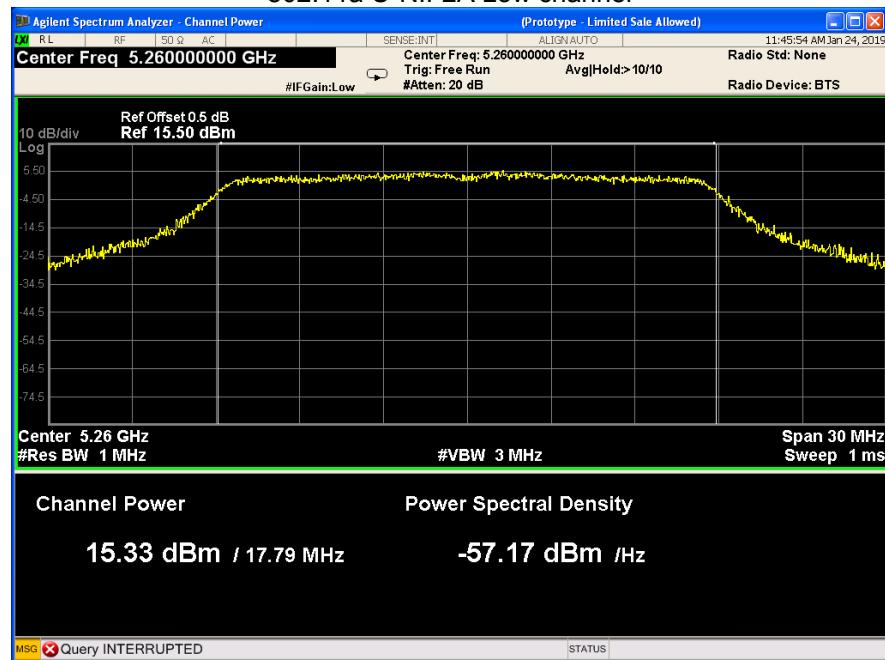








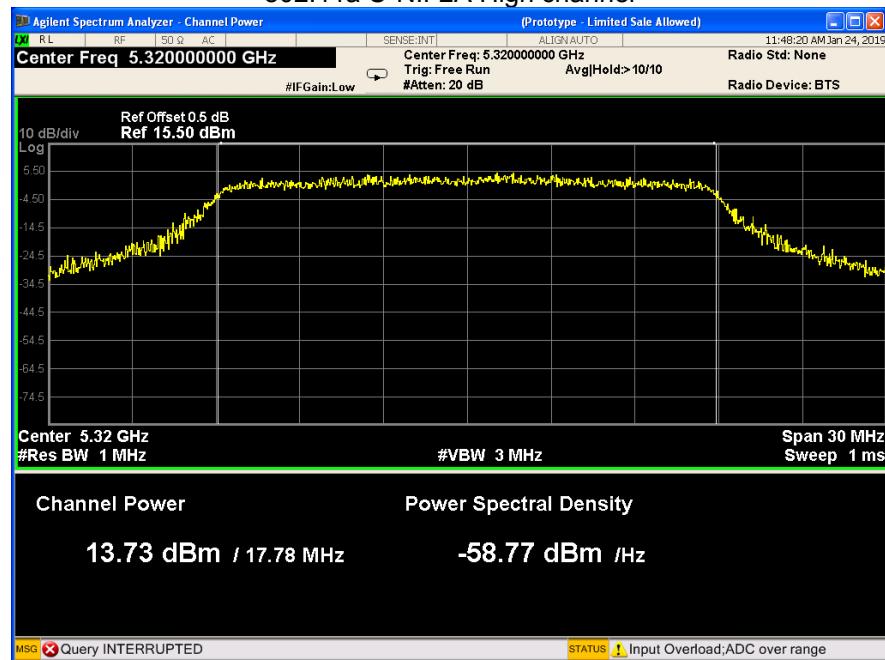
802.11a U-NII-2A Low channel



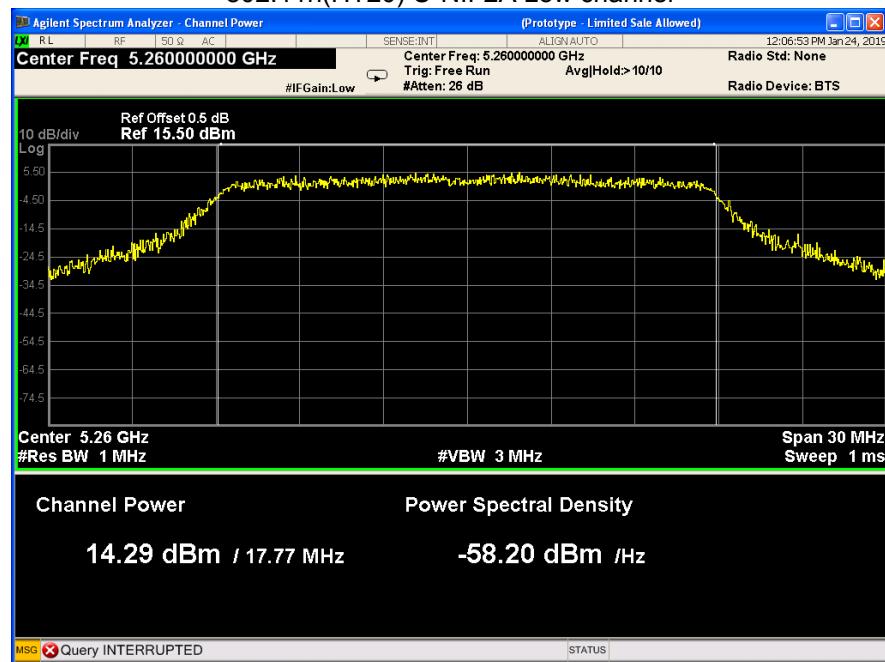
802.11a U-NII-2A Middle channel

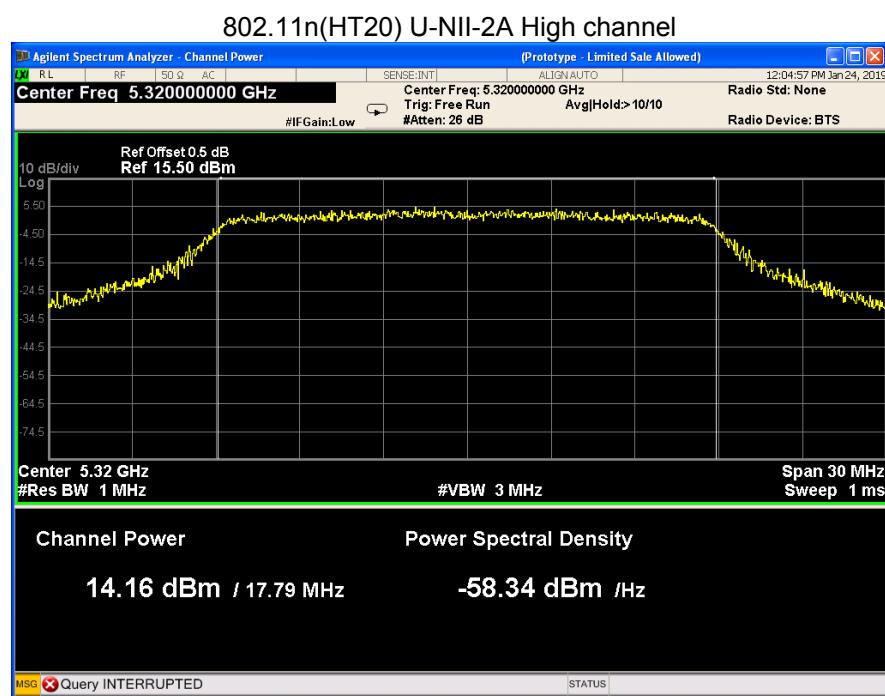
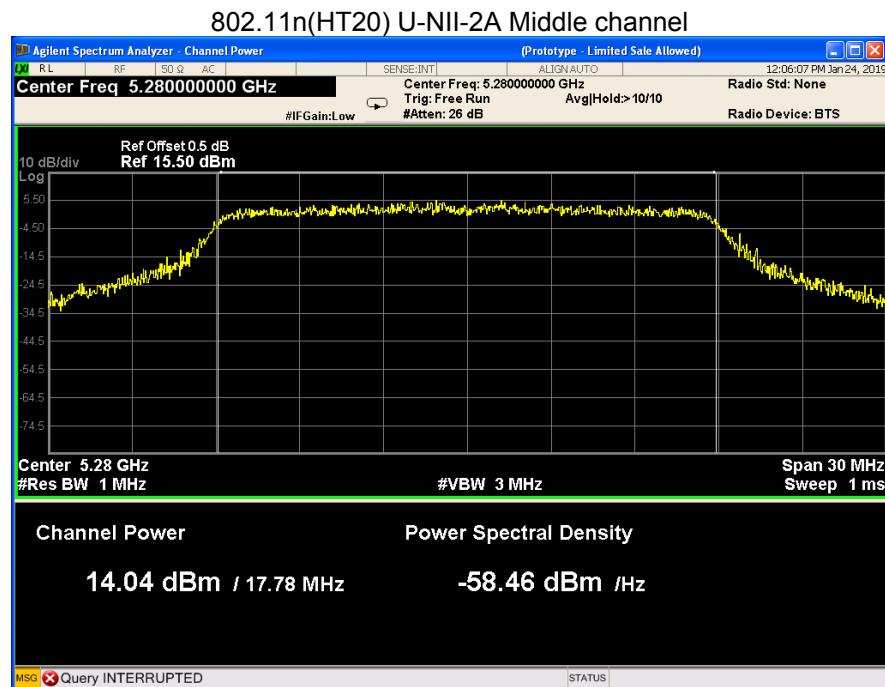


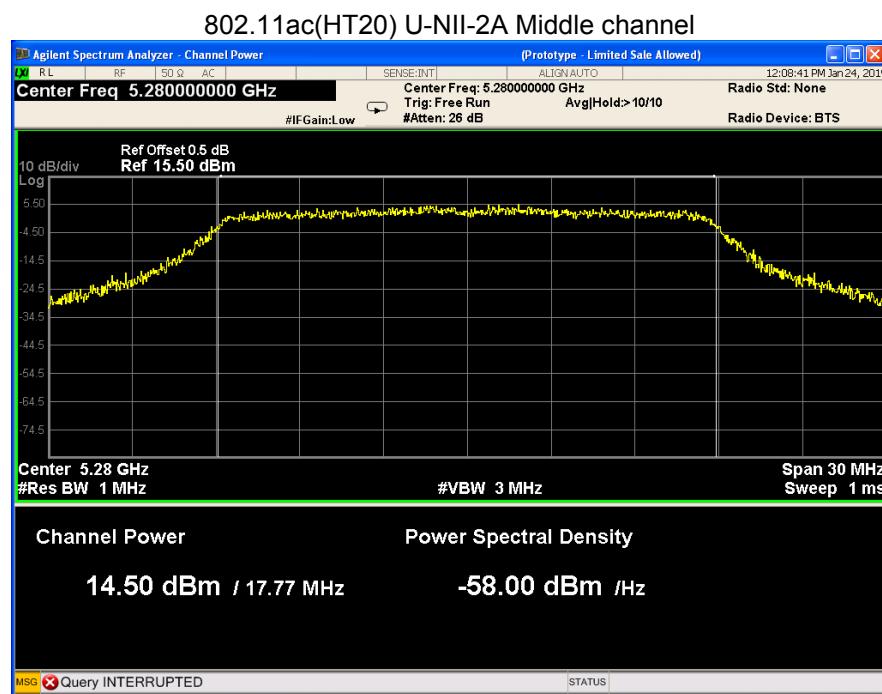
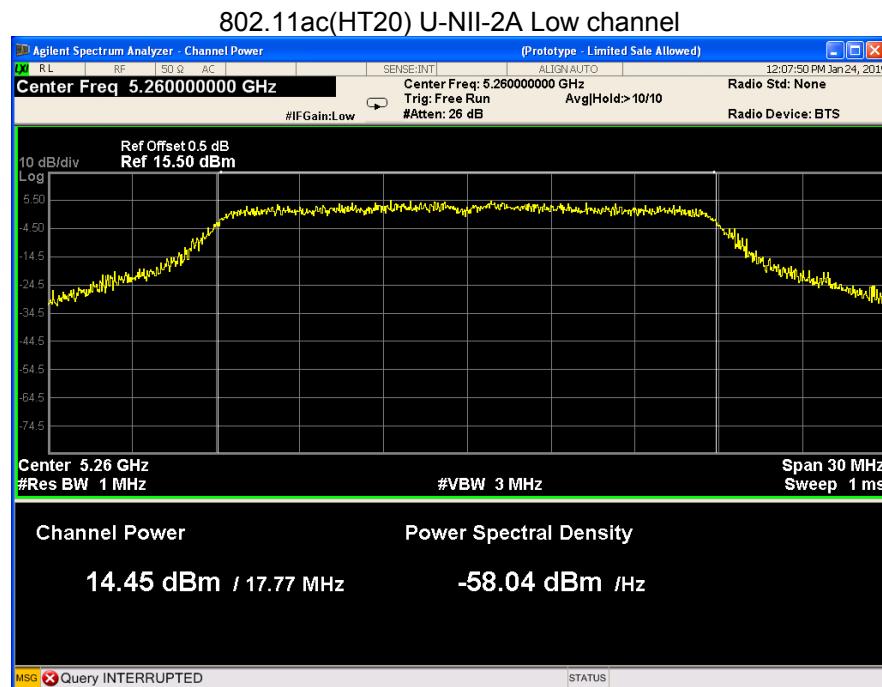
802.11a U-NII-2A High channel

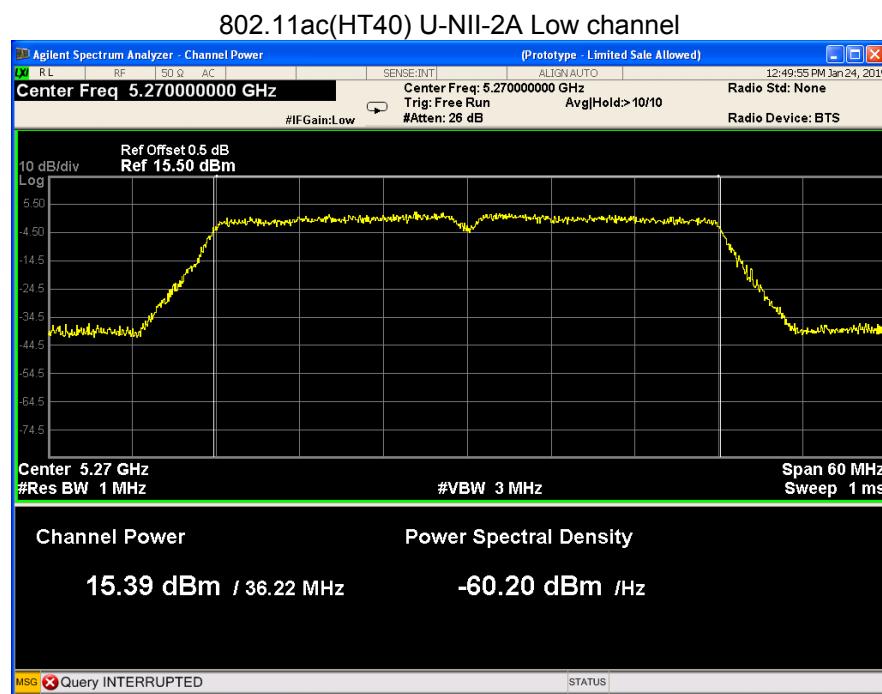
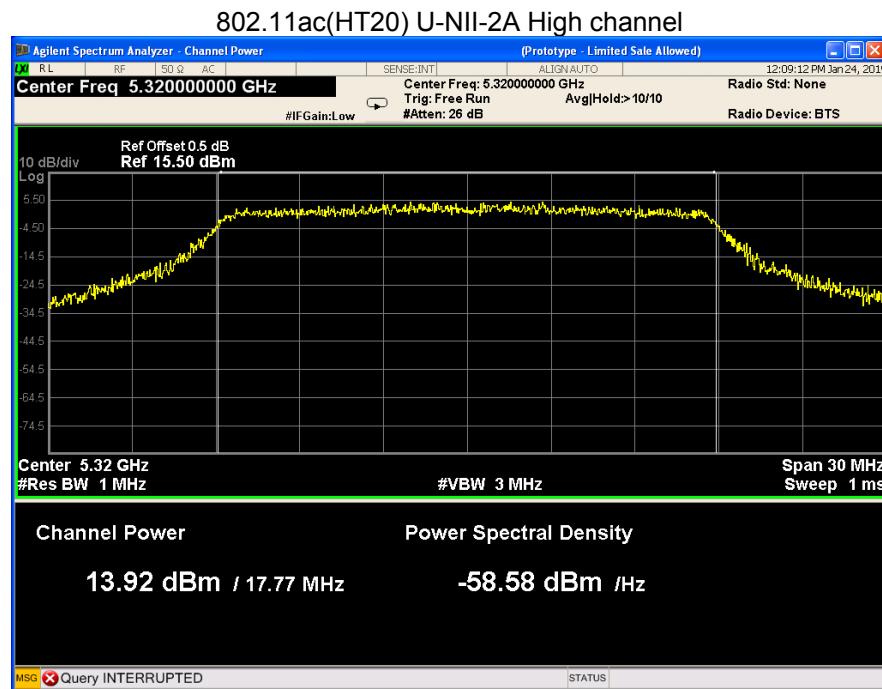


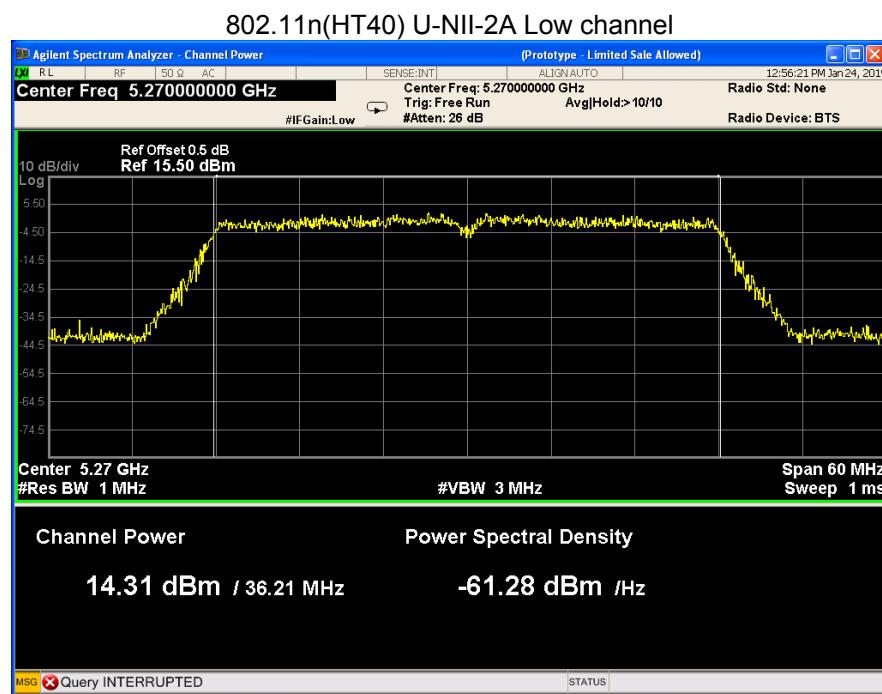
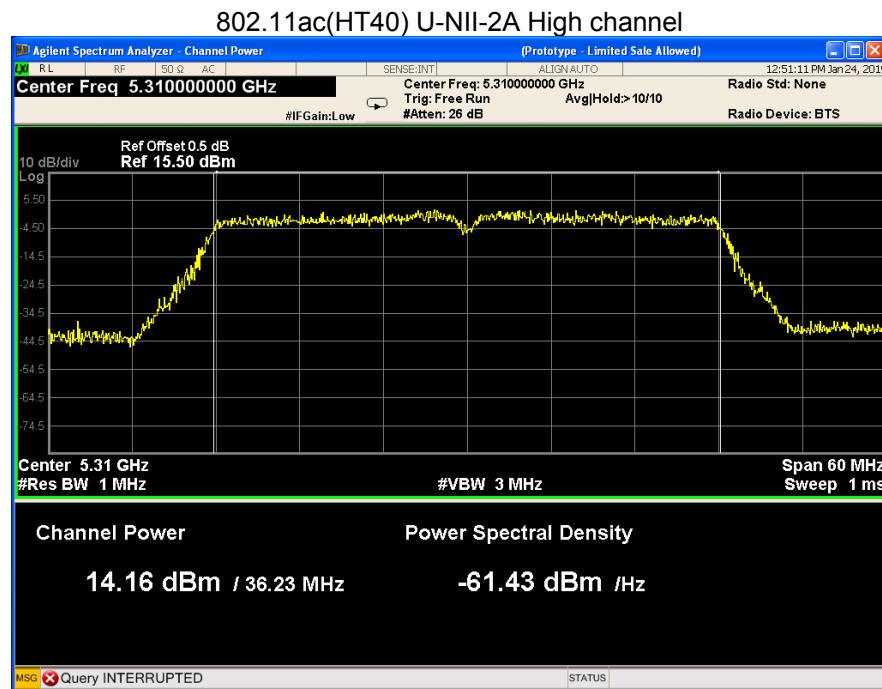
802.11n(HT20) U-NII-2A Low channel

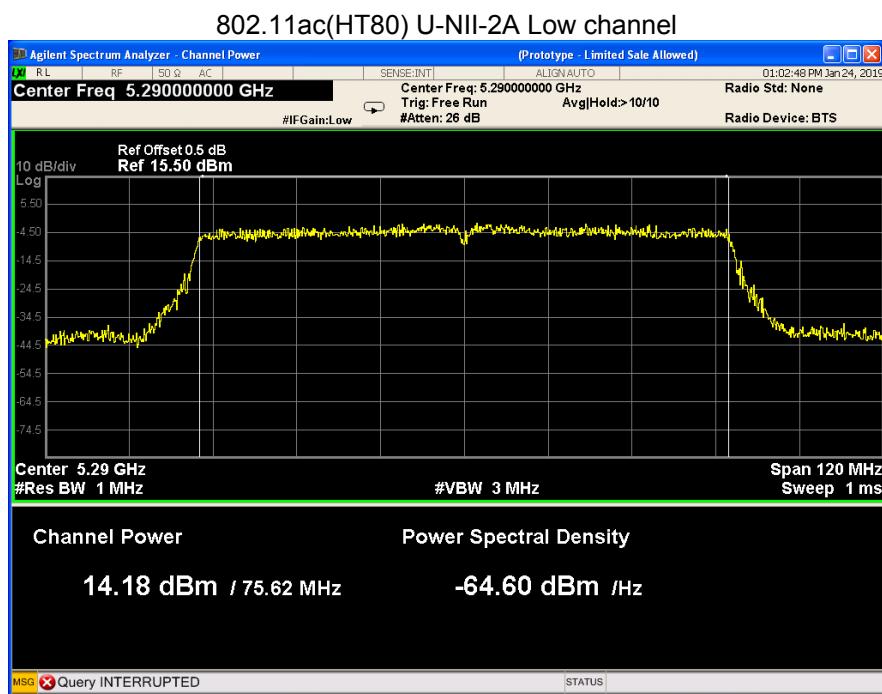
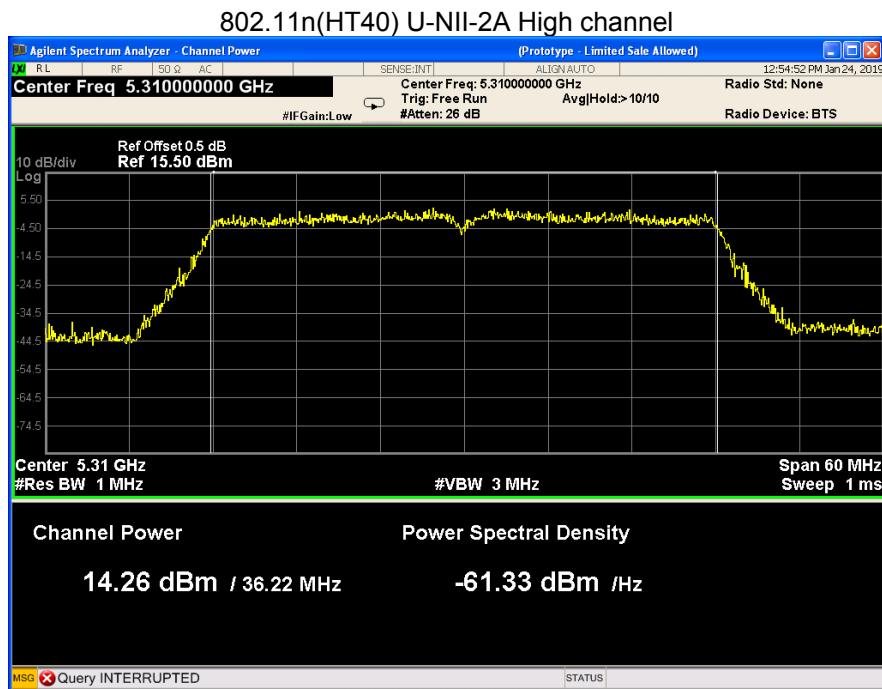








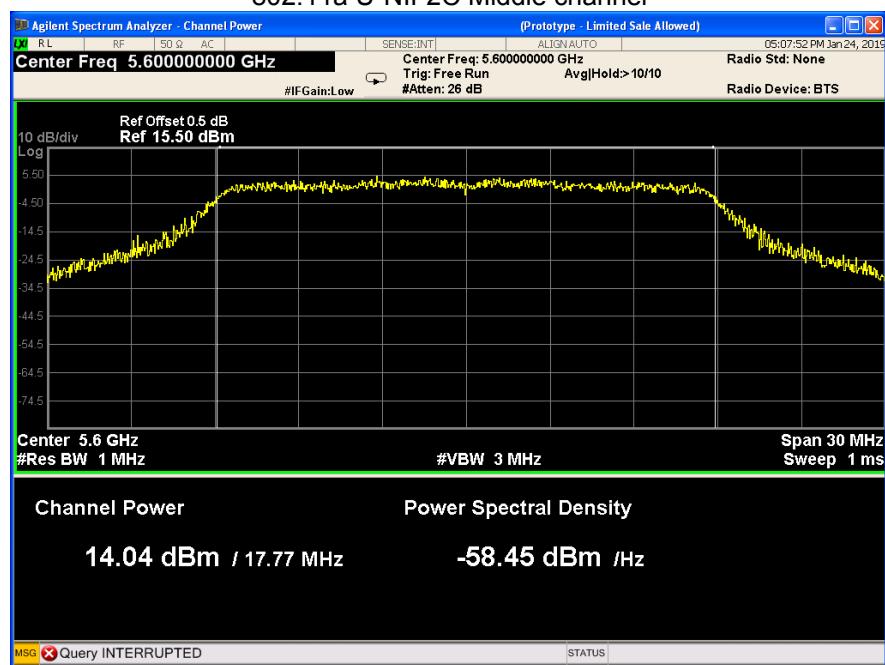




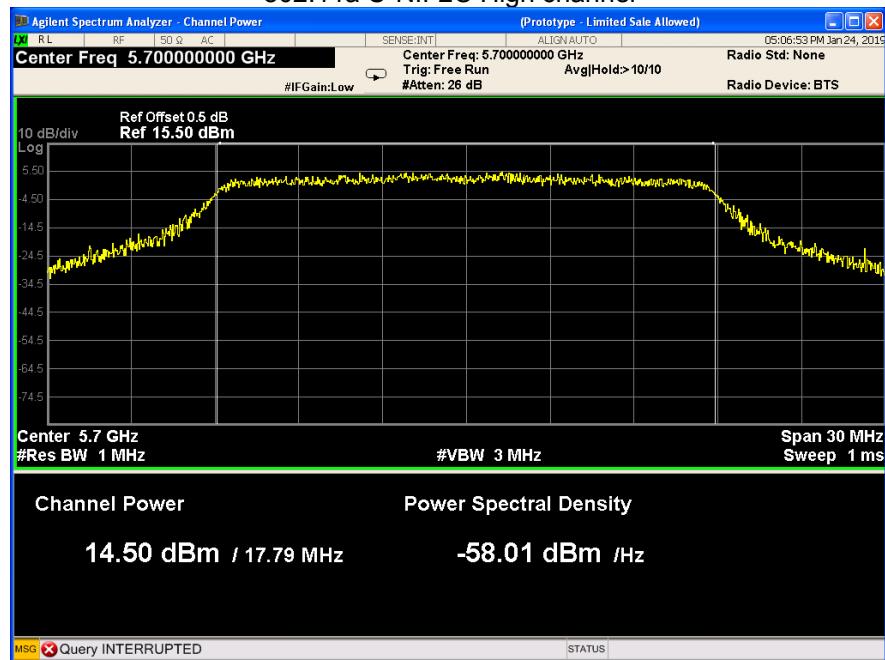
802.11a U-NII-2C Low channel



802.11a U-NII-2C Middle channel

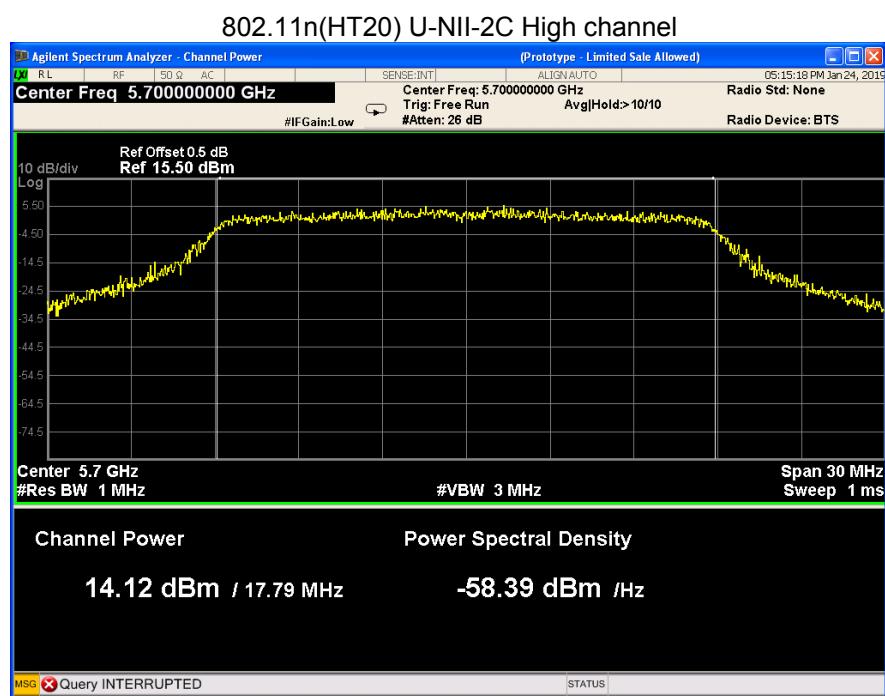
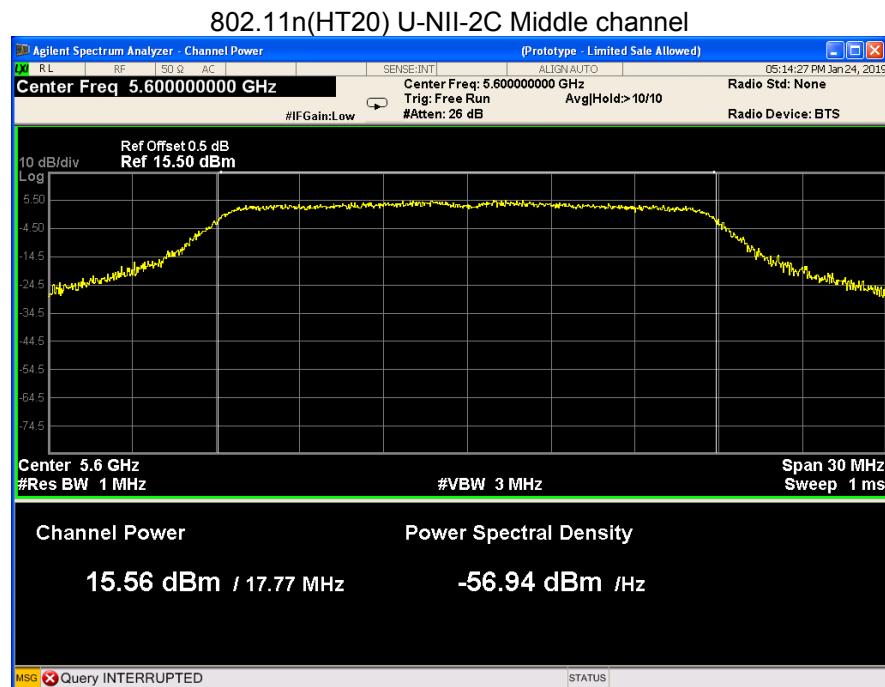


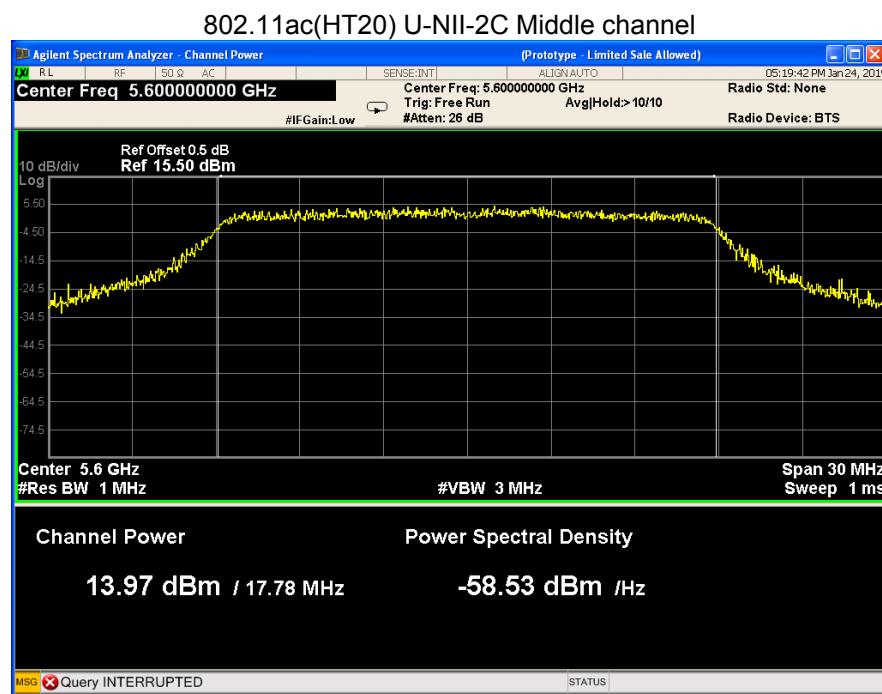
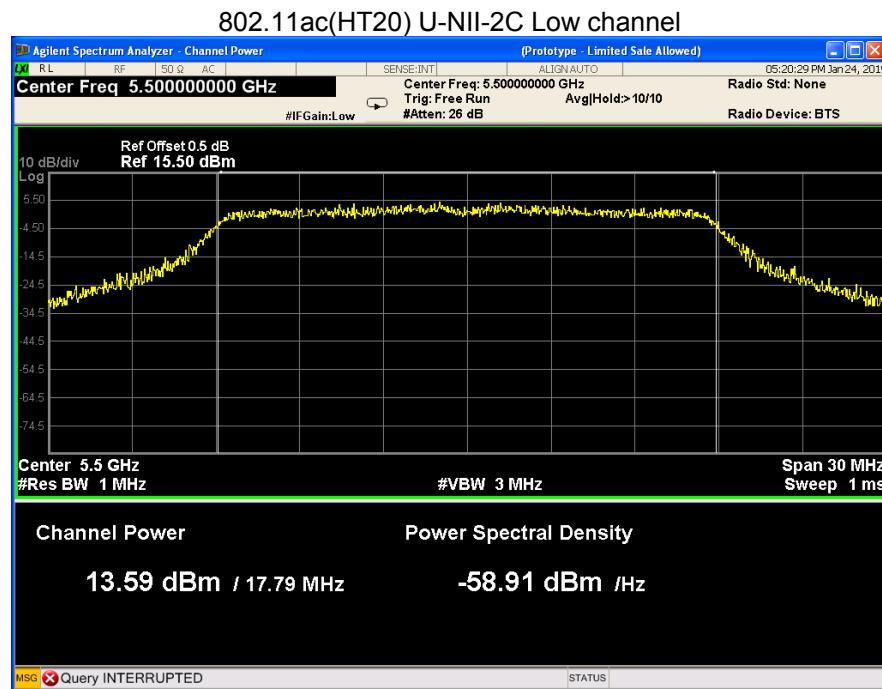
802.11a U-NII-2C High channel



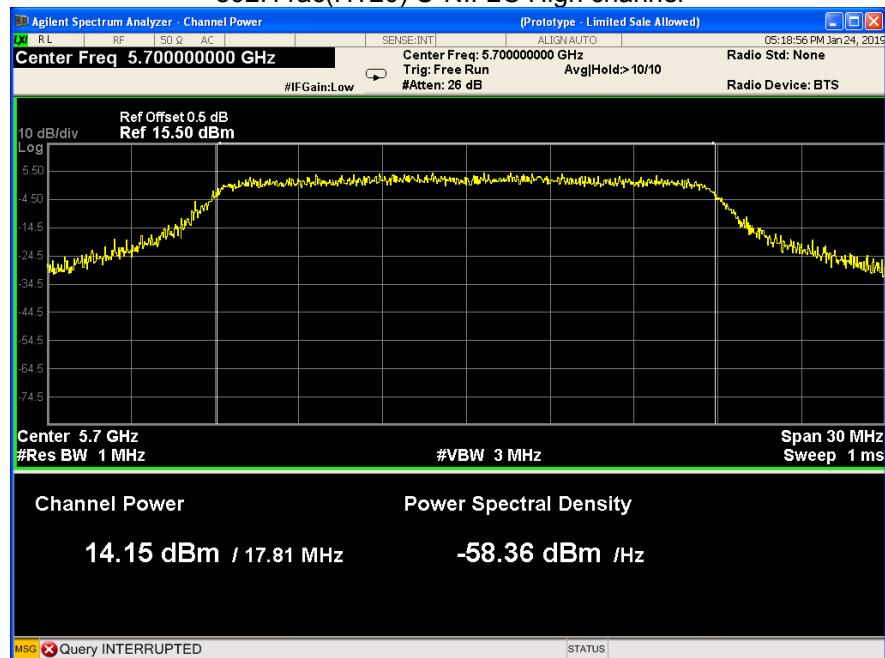
802.11n(HT20) U-NII-2C Low channel



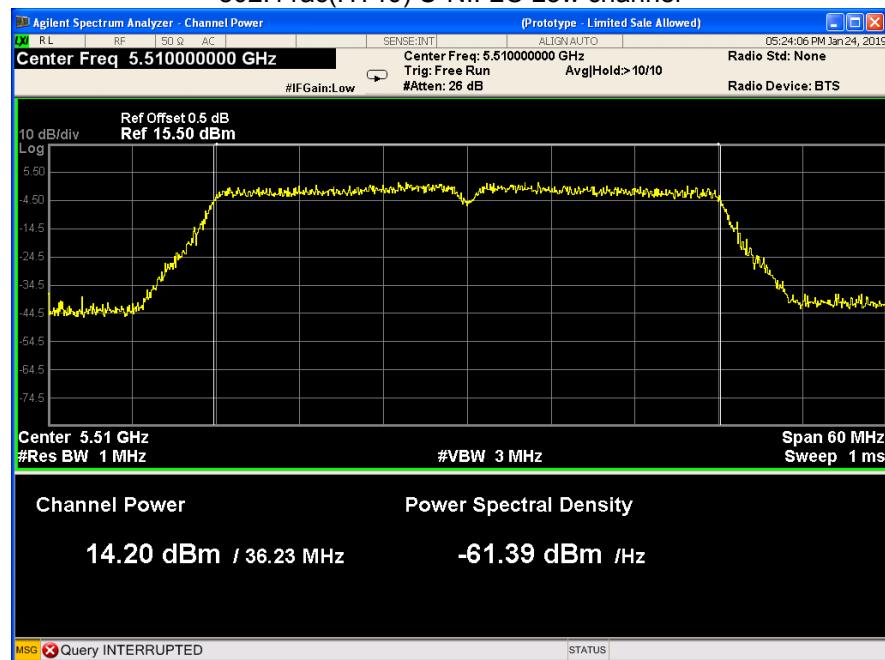




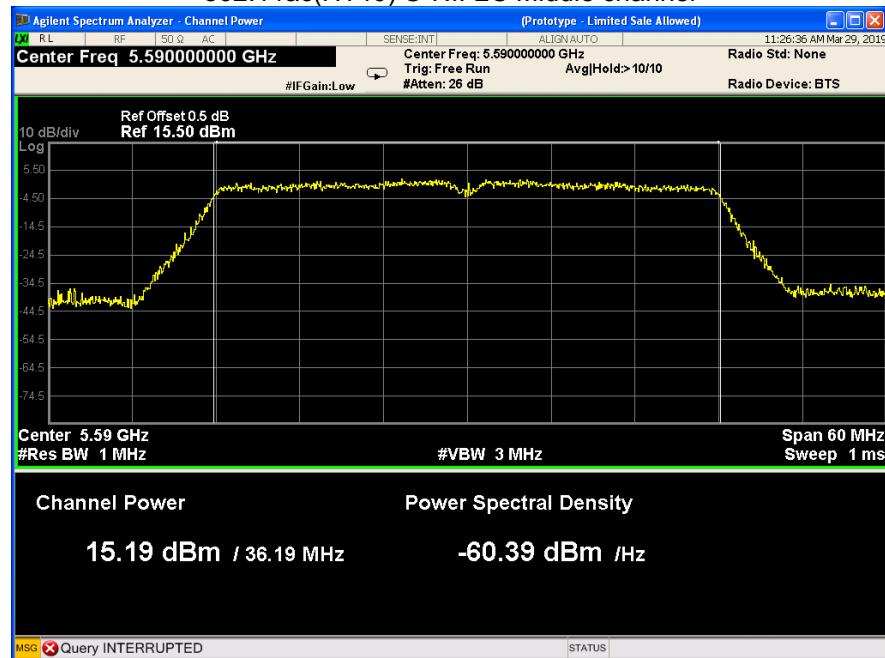
802.11ac(HT20) U-NII-2C High channel



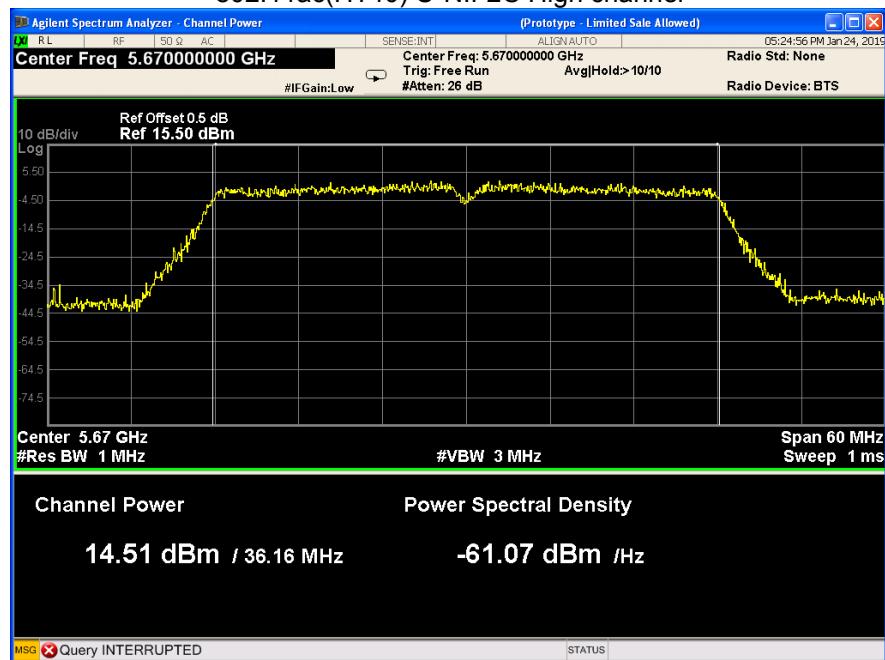
802.11ac(HT40) U-NII-2C Low channel

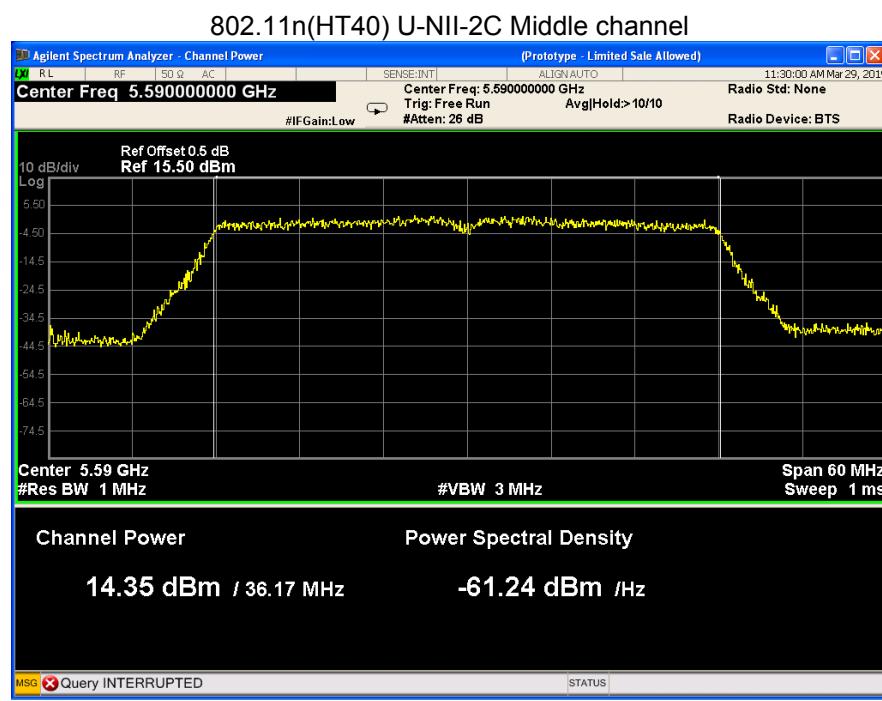
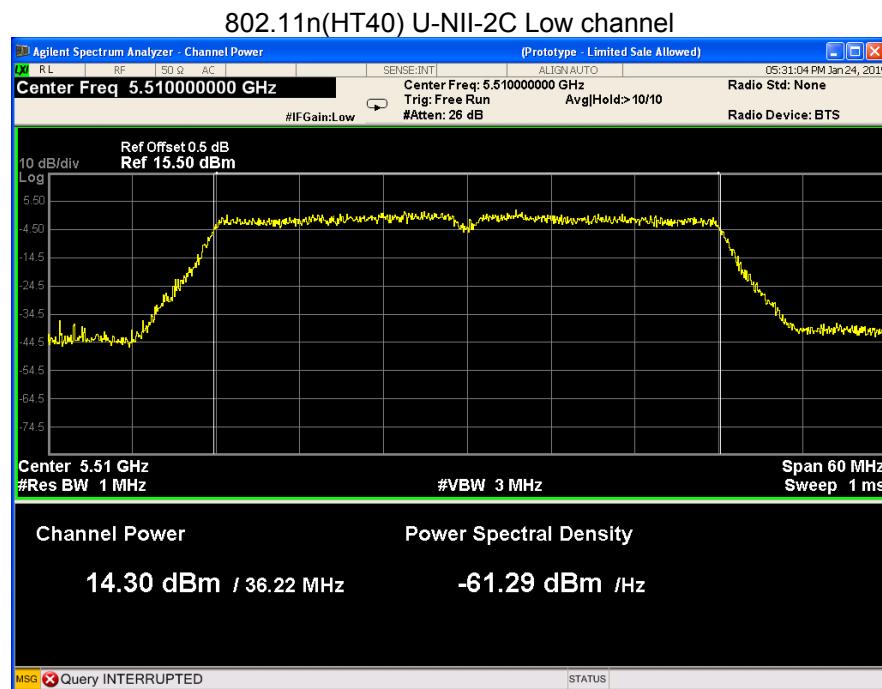


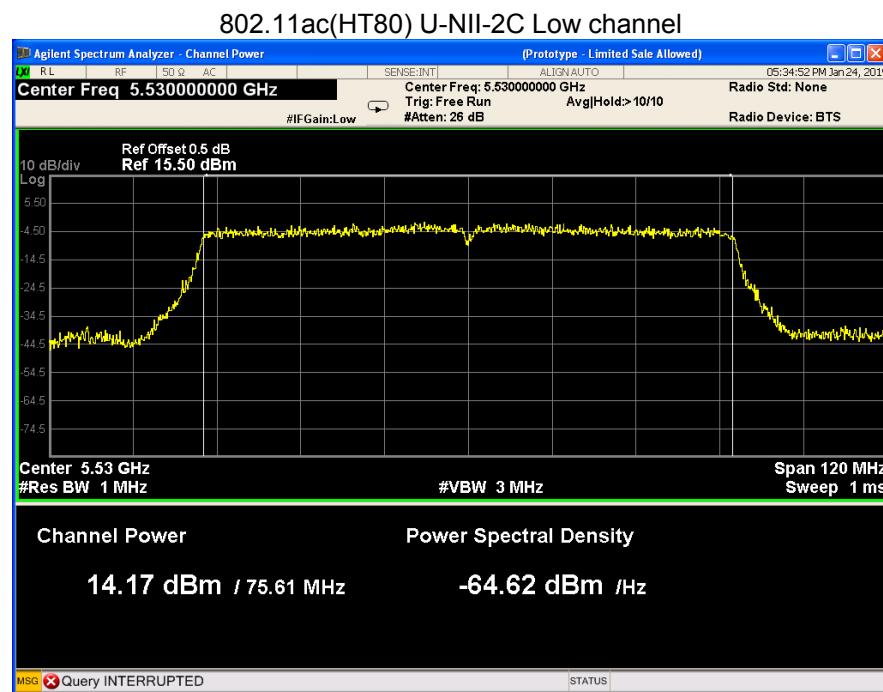
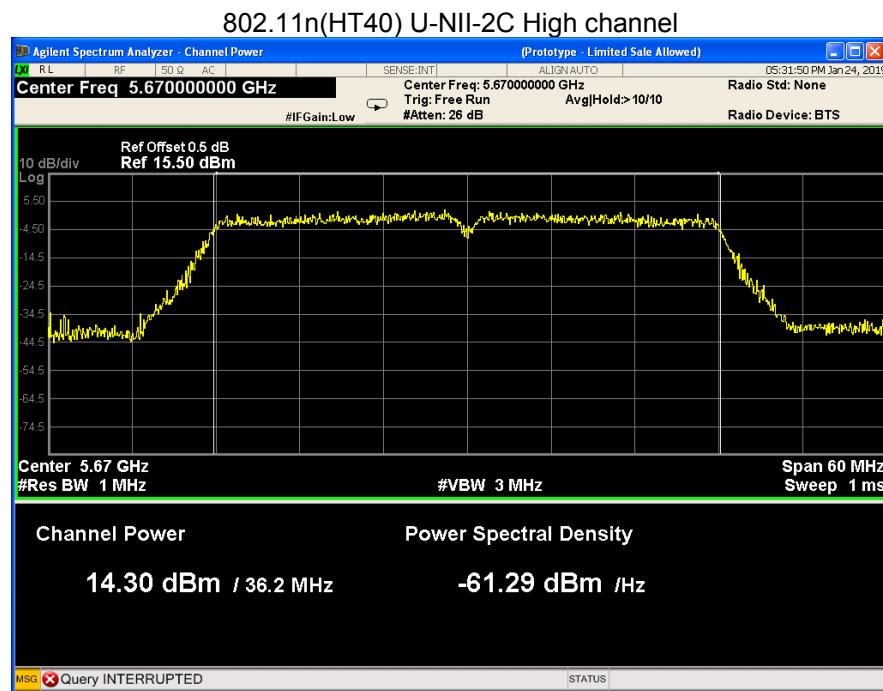
802.11ac(HT40) U-NII-2C Middle channel



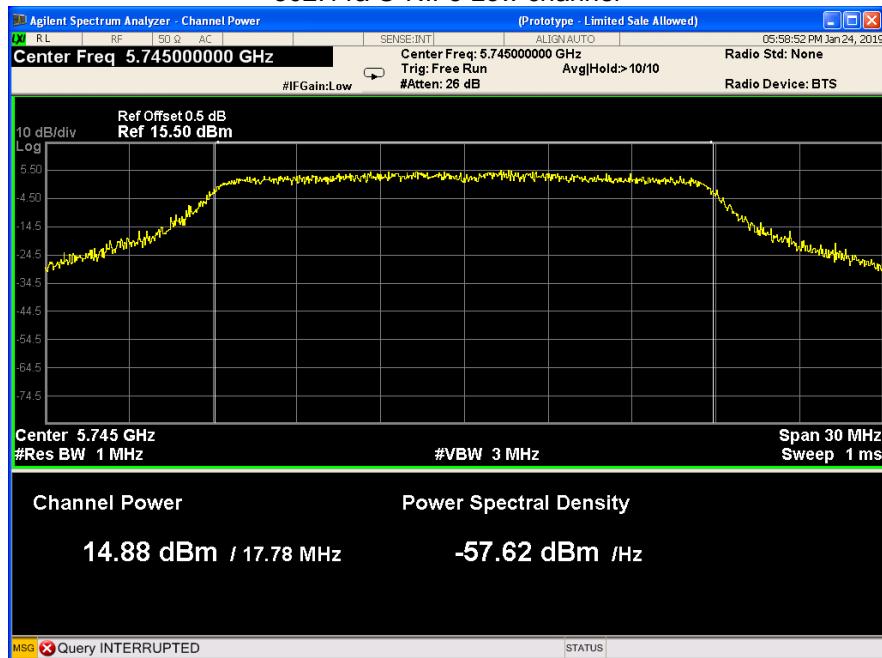
802.11ac(HT40) U-NII-2C High channel



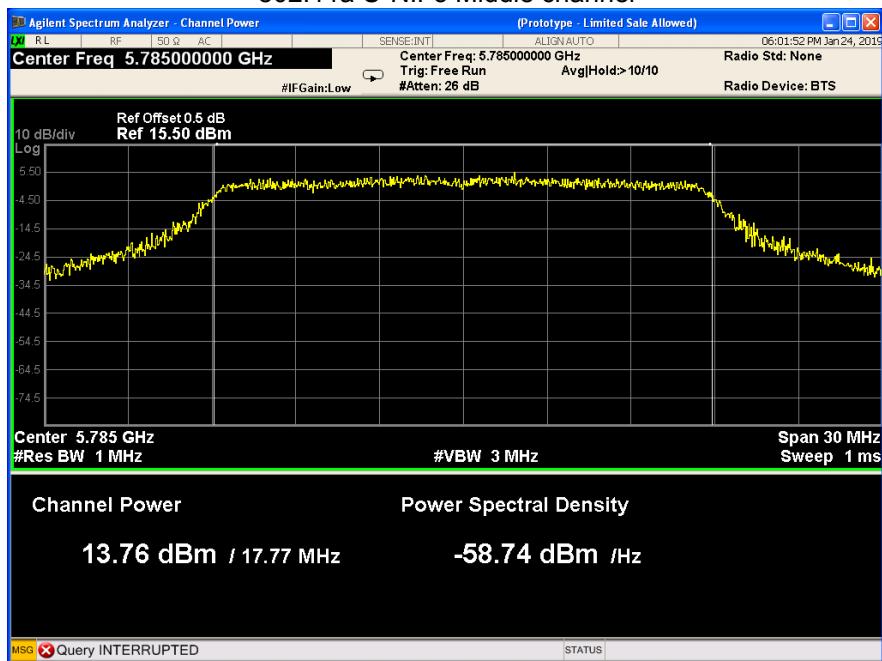




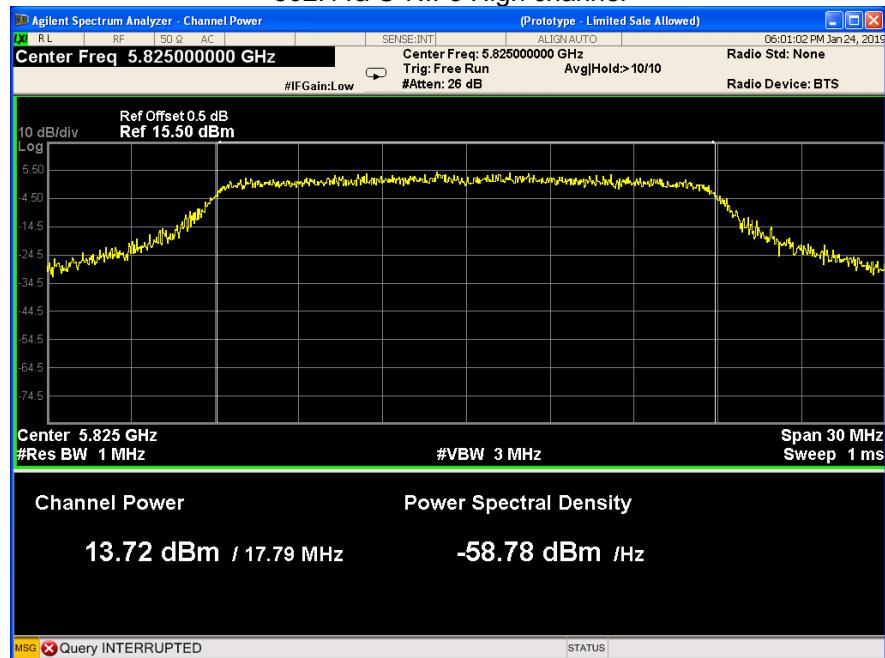
802.11a U-NII-3 Low channel



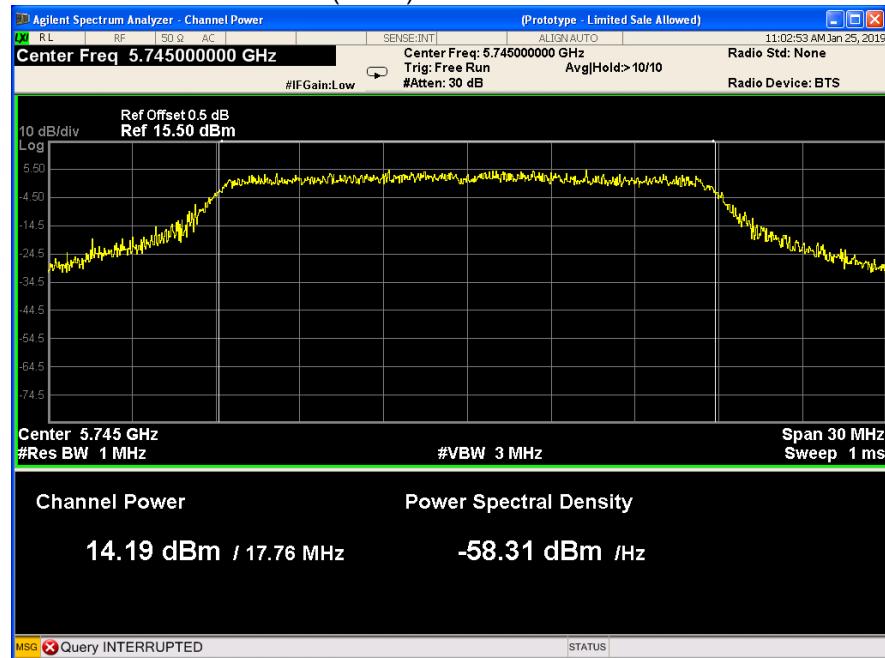
802.11a U-NII-3 Middle channel

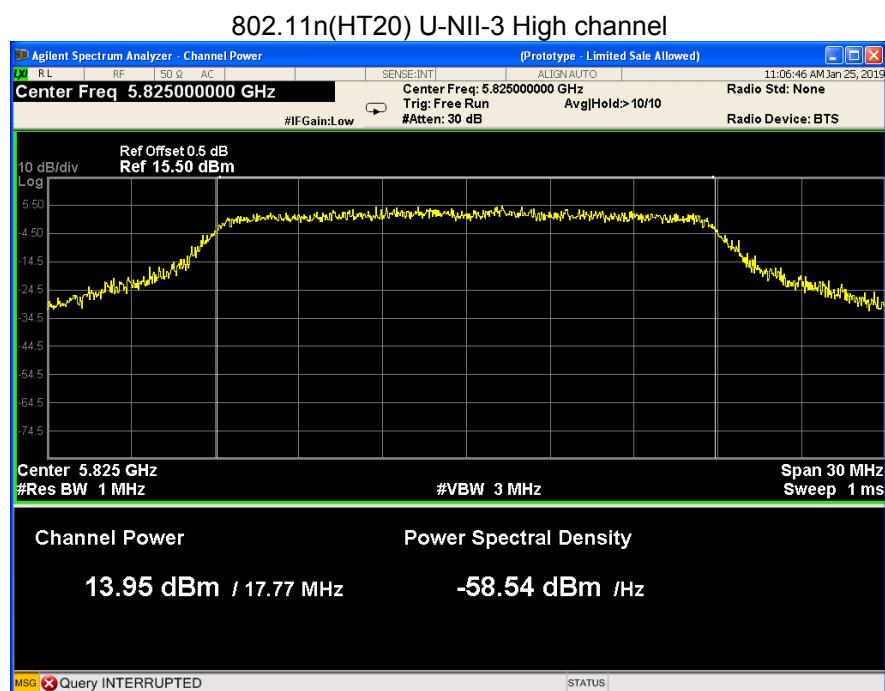
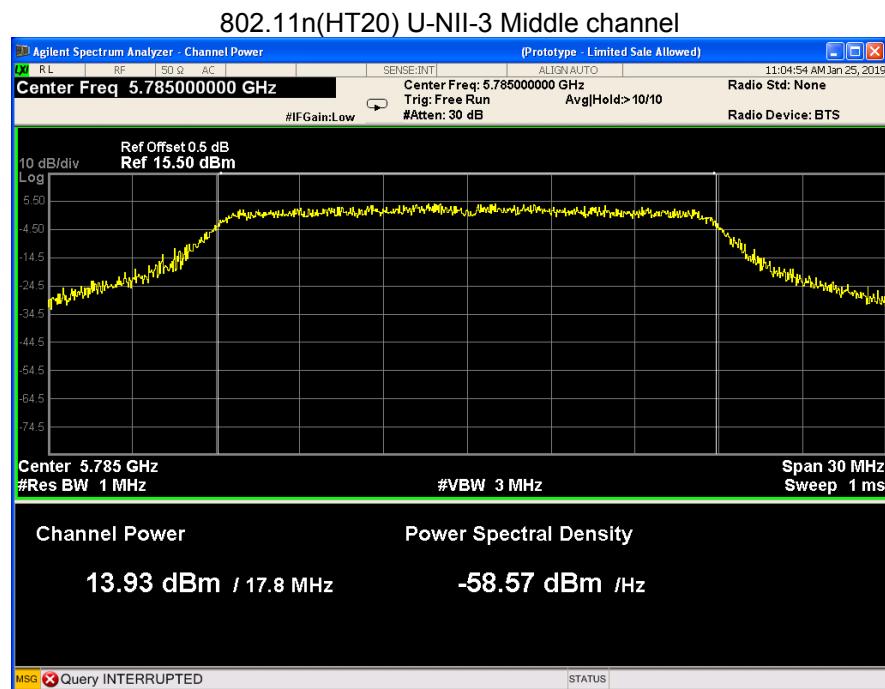


802.11a U-NII-3 High channel

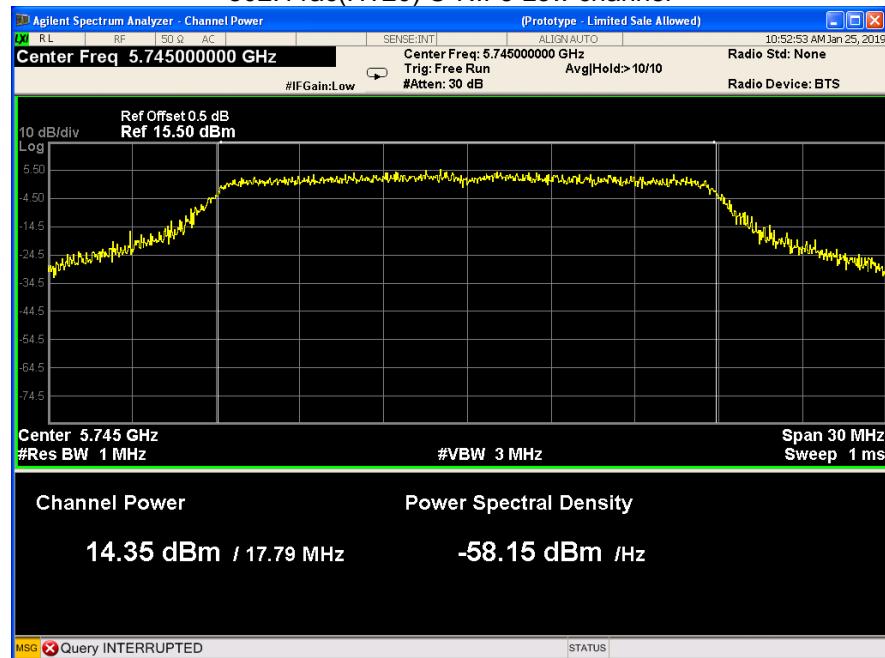


802.11n(HT20) U-NII-3 Low channel

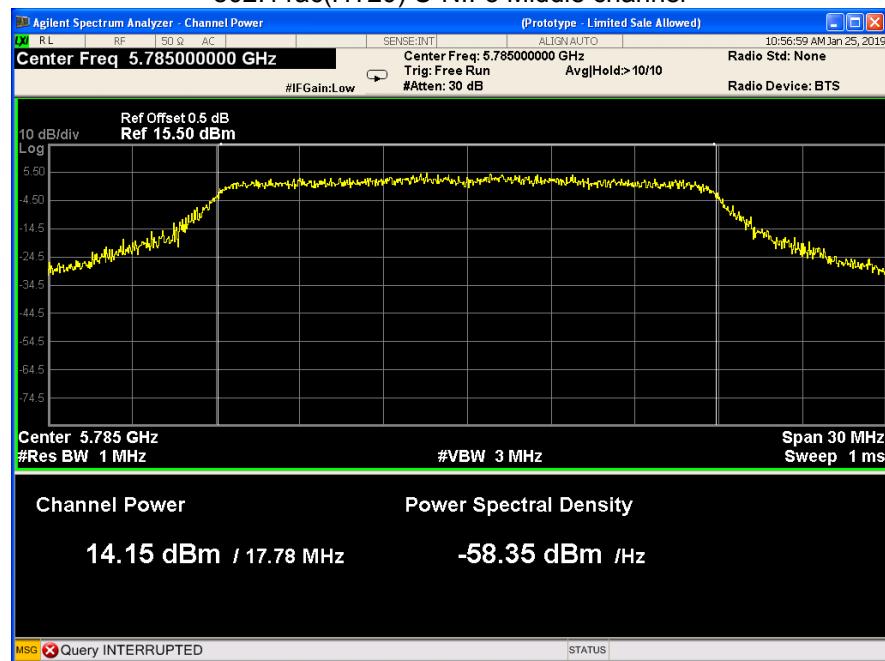


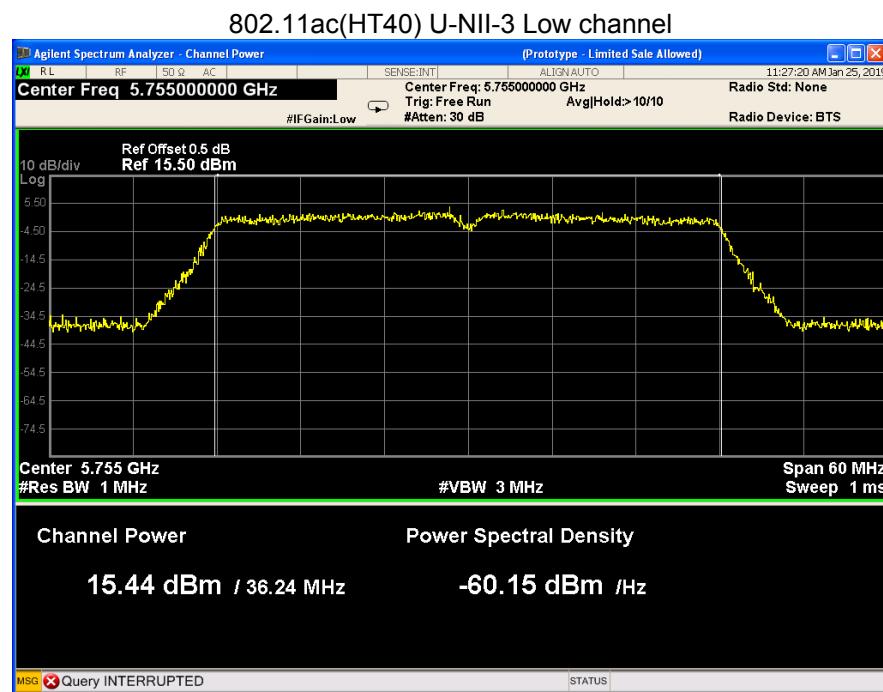
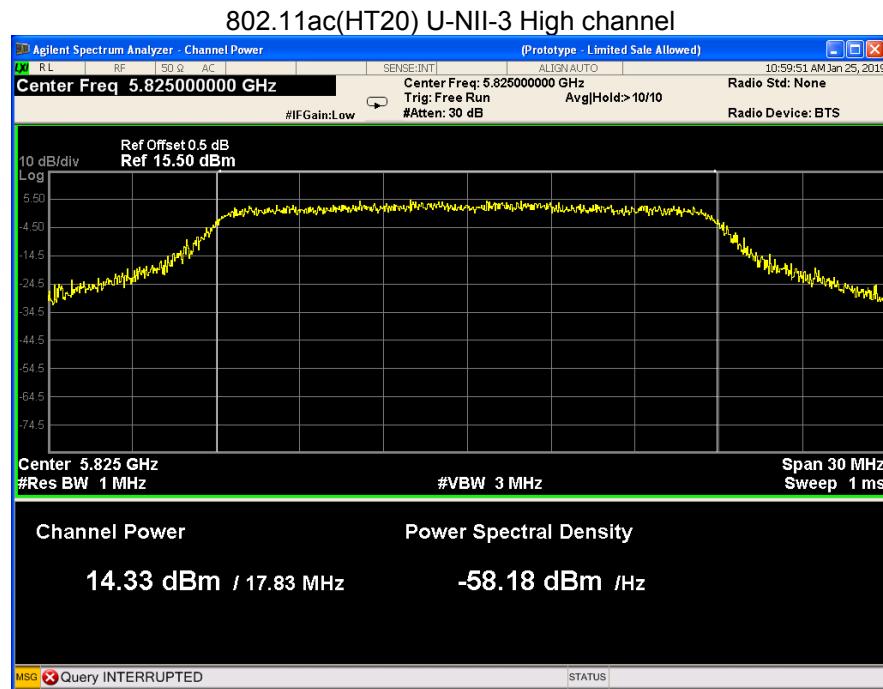


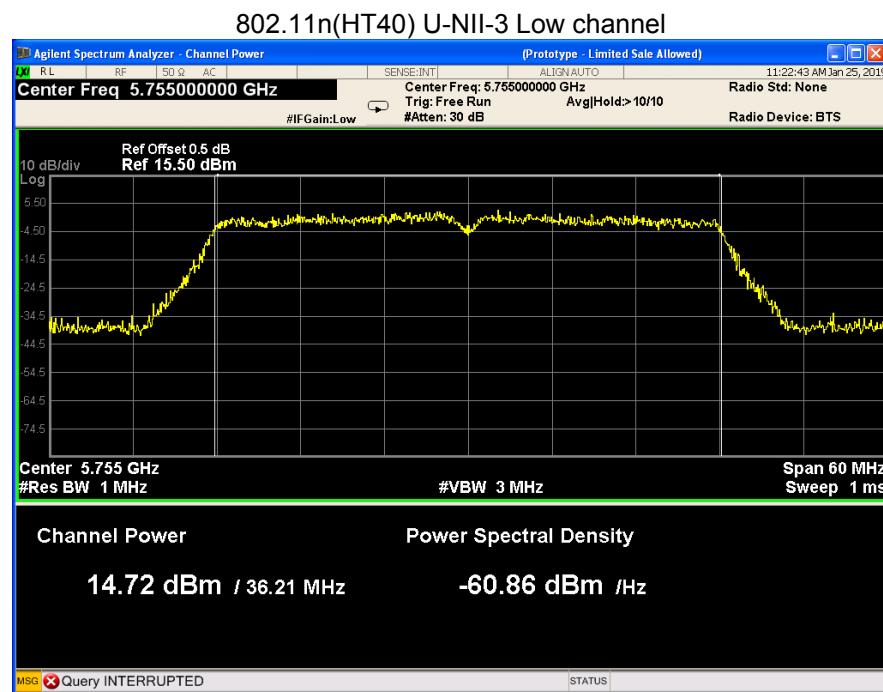
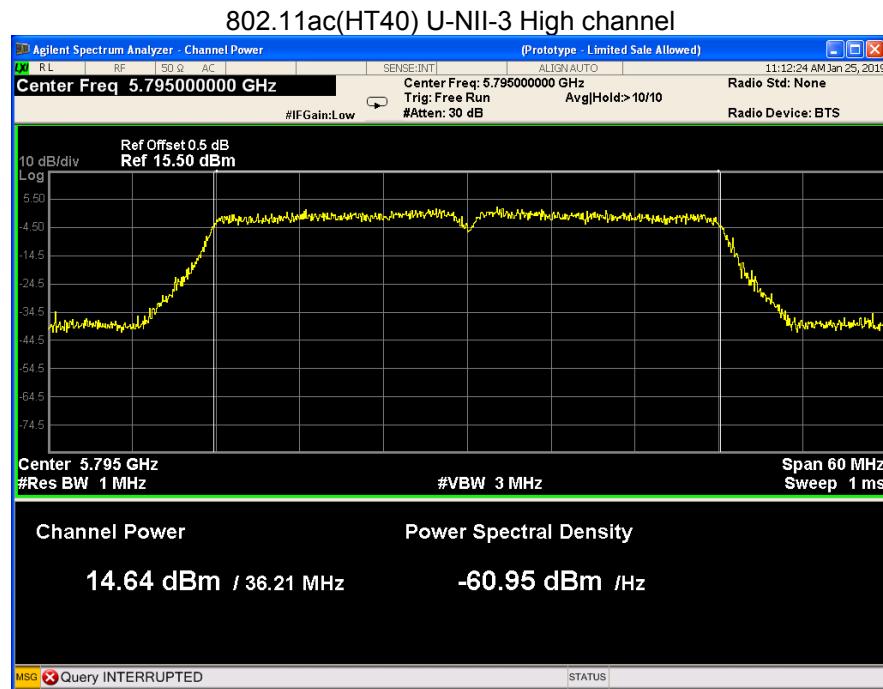
802.11ac(HT20) U-NII-3 Low channel

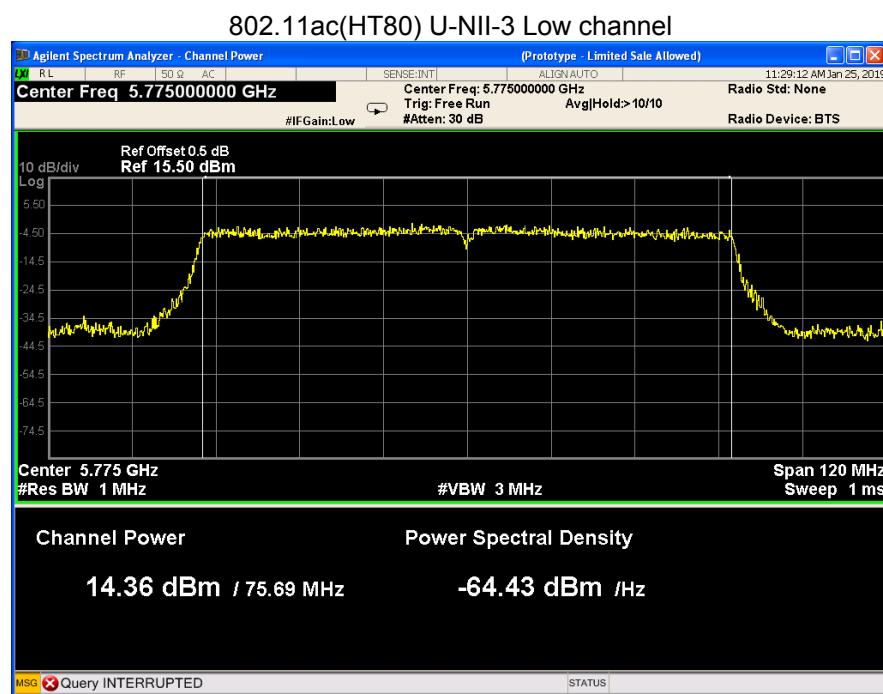
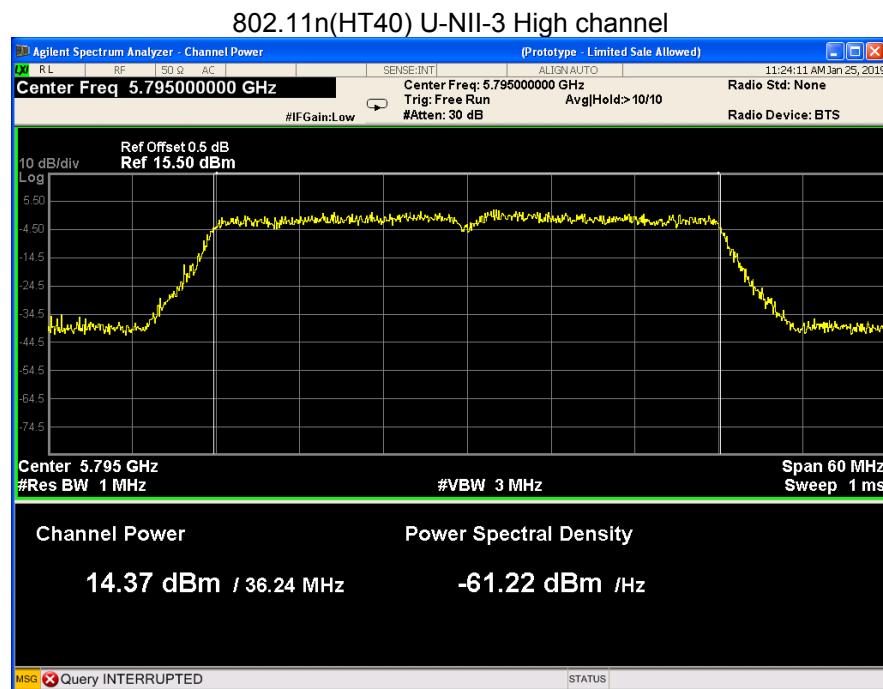


802.11ac(HT20) U-NII-3 Middle channel









14 Power Spectral density

Test Requirement:	FCC CFR47 Part 15 Section 15.407
Test Method:	KDB 789033 D02 General U-NII Test Procedures New Rules v02r01
Test Limit:	$\leq 11\text{dBm/MHz}$ for Operation in the U-NII-1(5150MHz-5250MHz, 5250-5350MHz and 5470-5725MHz) of device; $\leq 30\text{dBm/500kHz}$ for Operation in the U-NII-1(5725MHz-5850MHz) of device
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: RBW = 510kHz/1MHz. 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	Power Spectral Density (dBm/MHz)		
		Low channel	Middle	High
U-NII-1	802.11a	5.429	5.707	5.580
	802.11n(HT20)	5.561	5.856	5.305
	802.11ac(HT20)	5.497	5.759	5.609
	802.11ac(HT40)	3.105	/	3.070
	802.11n(HT40)	3.151	/	3.094
	802.11ac(HT80)	-0.056	/	/
	Limit	$\leq 11\text{dBm/MHz}$		

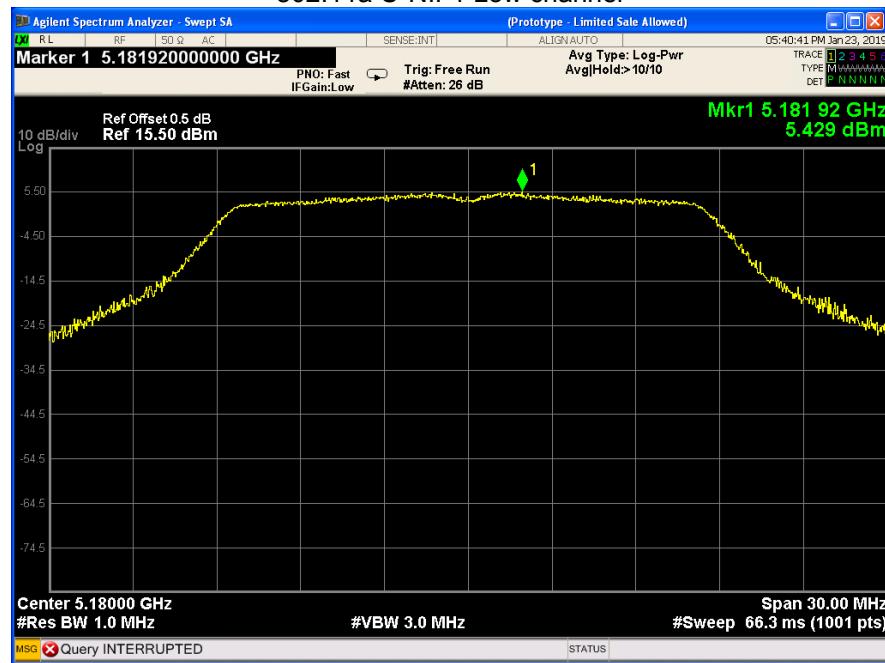
Band	Operation mode	Power Spectral Density (dBm/MHz)		
		Low channel	Middle	High
U-NII-2A	802.11a	5.493	5.594	5.517
	802.11n(HT20)	5.801	5.313	5.338
	802.11ac(HT20)	5.462	5.486	5.397
	802.11ac(HT40)	2.516	/	3.012
	802.11n(HT40)	3.122	/	3.046
	802.11ac(HT80)	-0.012	/	/
	Limit	$\leq 11\text{dBm/MHz}$		

Band	Operation mode	Power Spectral Density (dBm/MHz)		
		Low channel	Middle	High
U-NII-2C	802.11a	5.370	5.412	5.996
	802.11n(HT20)	5.427	5.346	5.748
	802.11ac(HT20)	4.908	5.429	6.257
	802.11ac(HT40)	2.661	2.667	2.791
	802.11n(HT40)	2.113	2.528	3.012
	802.11ac(HT80)	-0.436	/	-0.688
	Limit	≤ 11 dBm/MHz		

Band	Operation mode	Power Spectral Density (dBm/MHz)		
		Low channel	Middle	High
U-NII-3	802.11a	5.931	5.599	5.082
	802.11n(HT20)	6.055	5.672	5.242
	802.11ac(HT20)	5.840	5.704	5.552
	802.11ac(HT40)	2.955	/	2.878
	802.11n(HT40)	2.835	/	2.773
	802.11ac(HT80)	-0.381	/	/
	Limit	≤ 30 dBm/500kHz		

Test result plots shown as follows:

802.11a U-NII-1 Low channel



802.11a U-NII-1 Middle channel

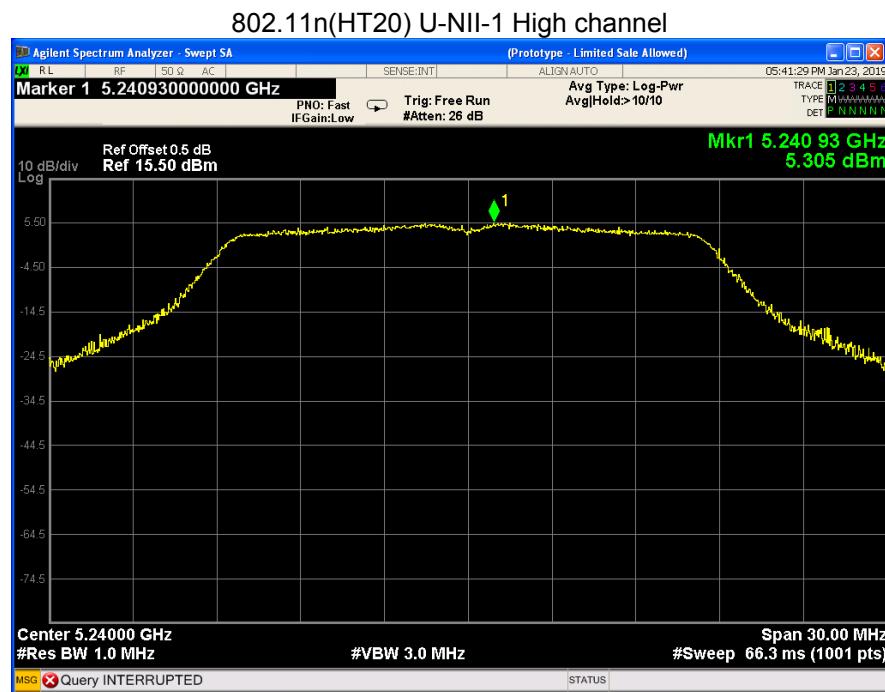
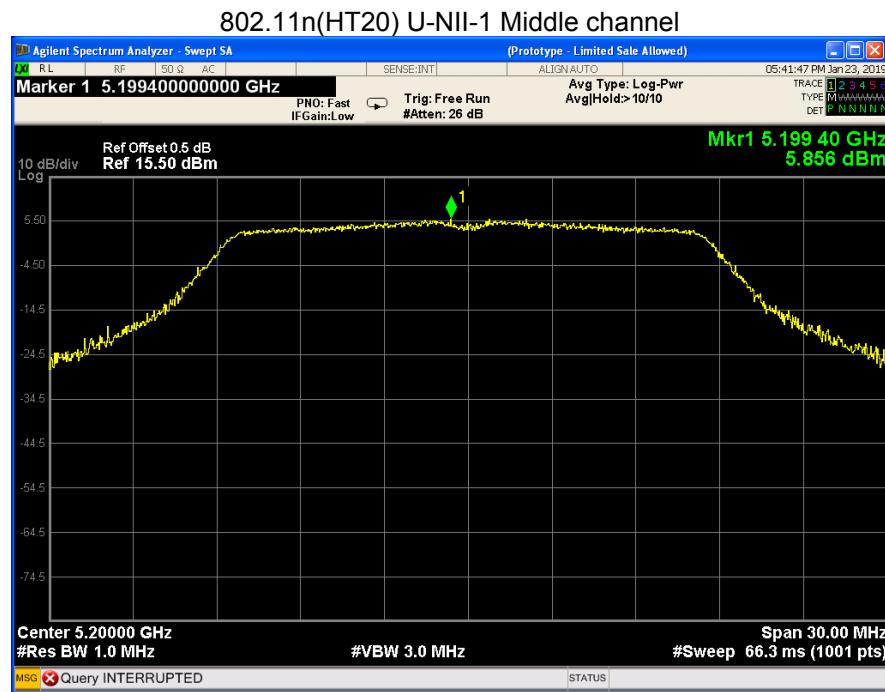


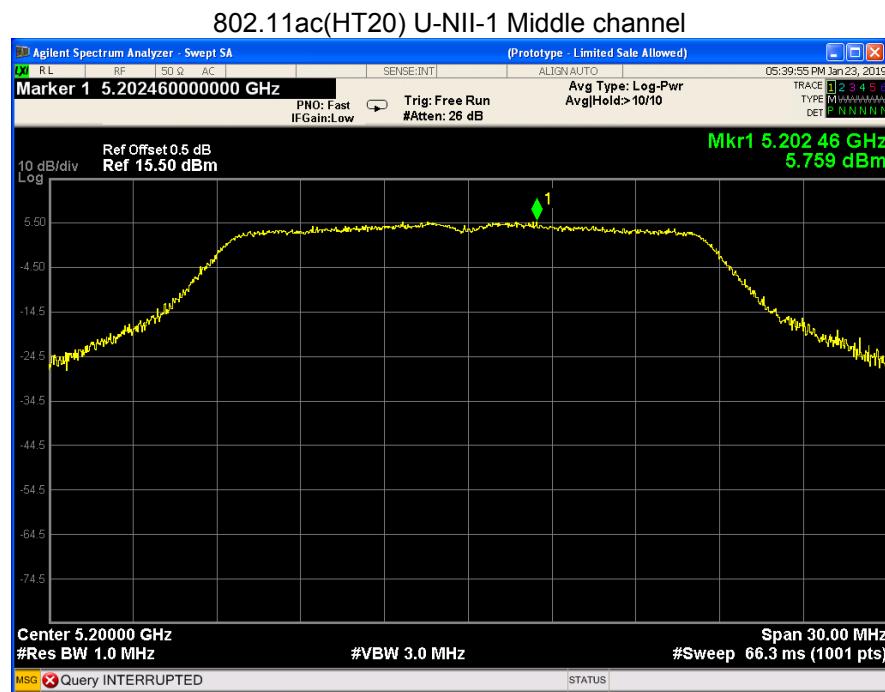
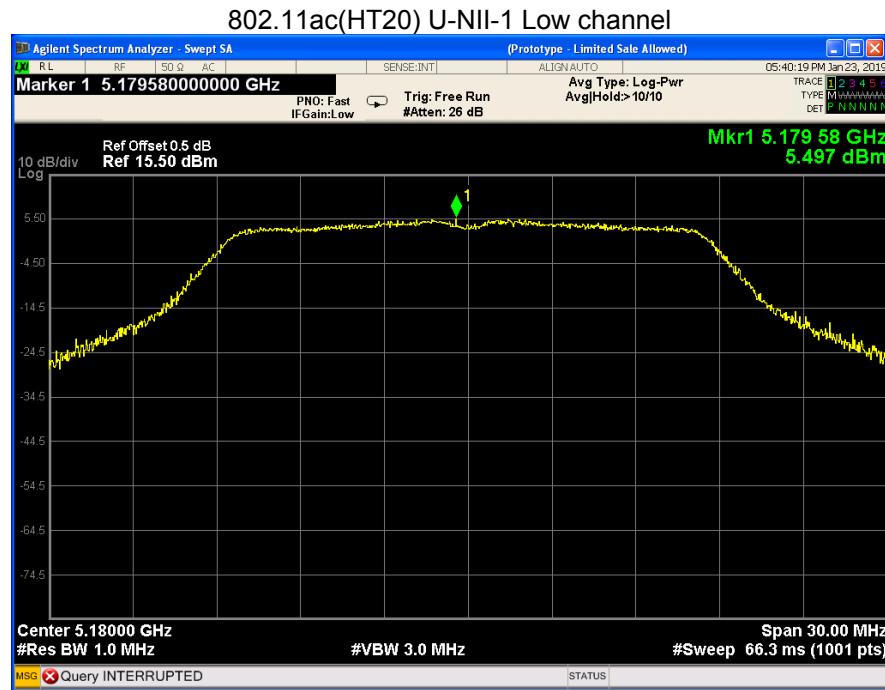
802.11a U-NII-1 High channel

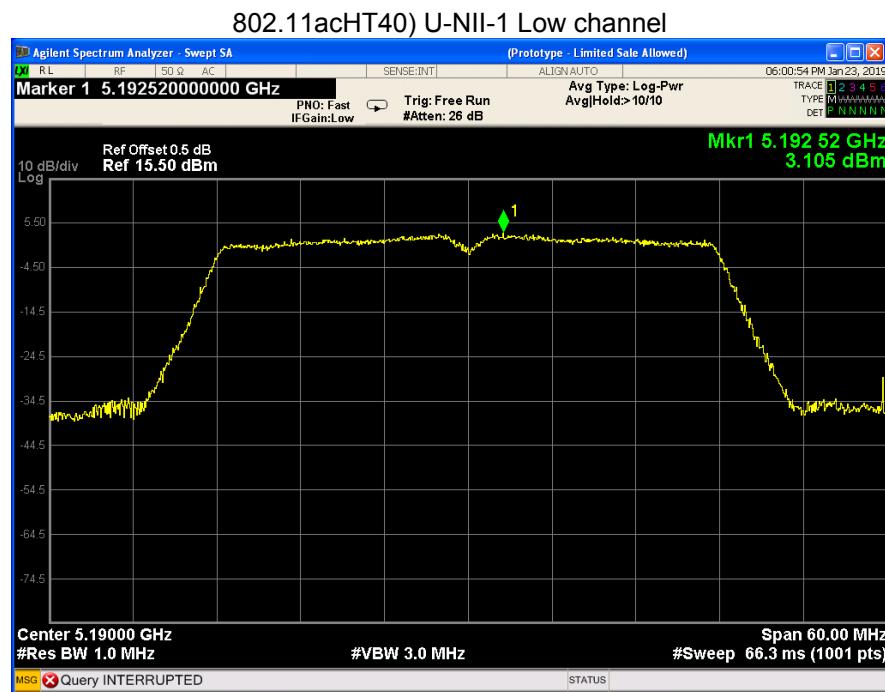
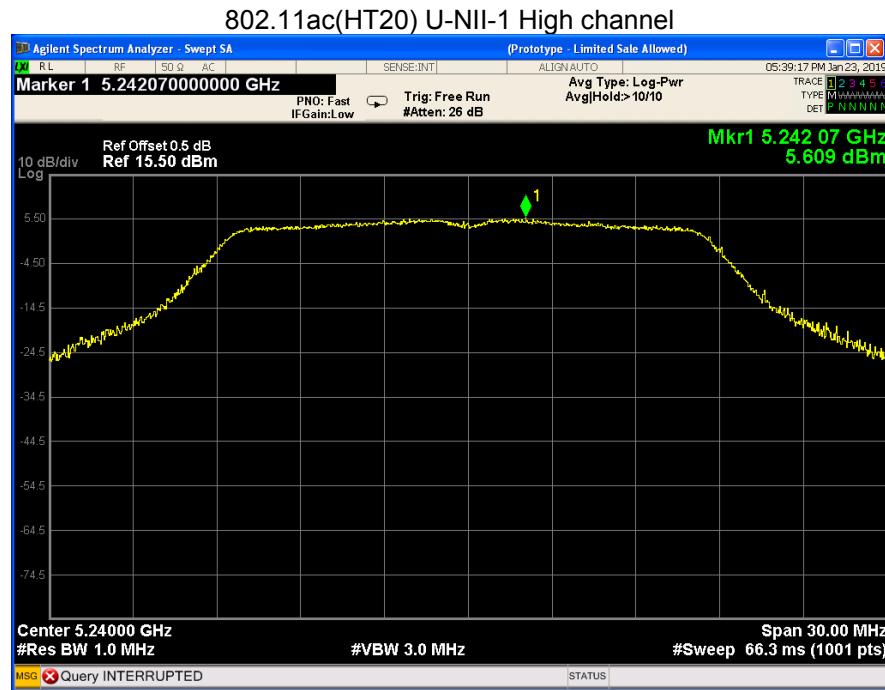


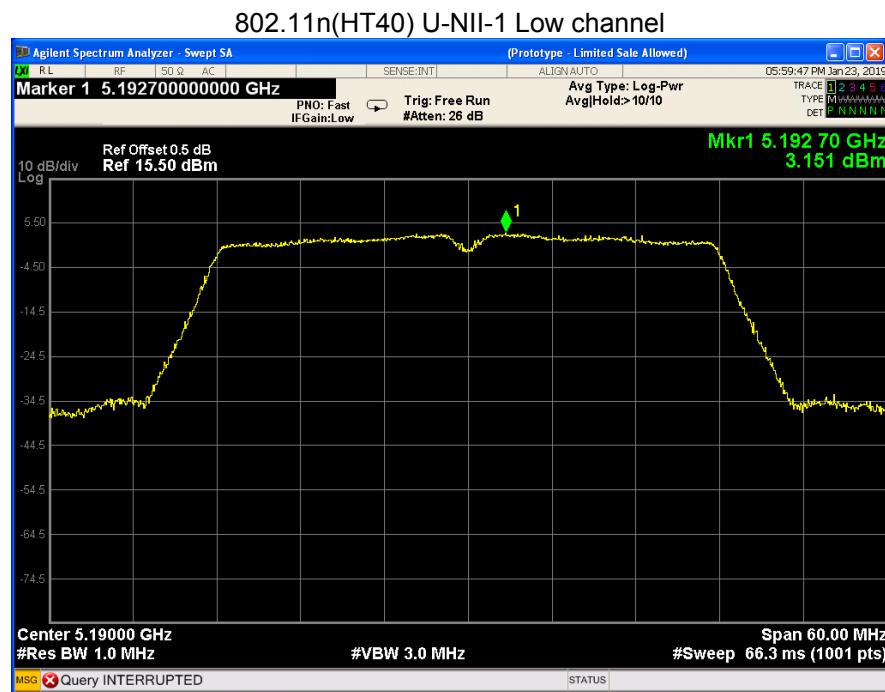
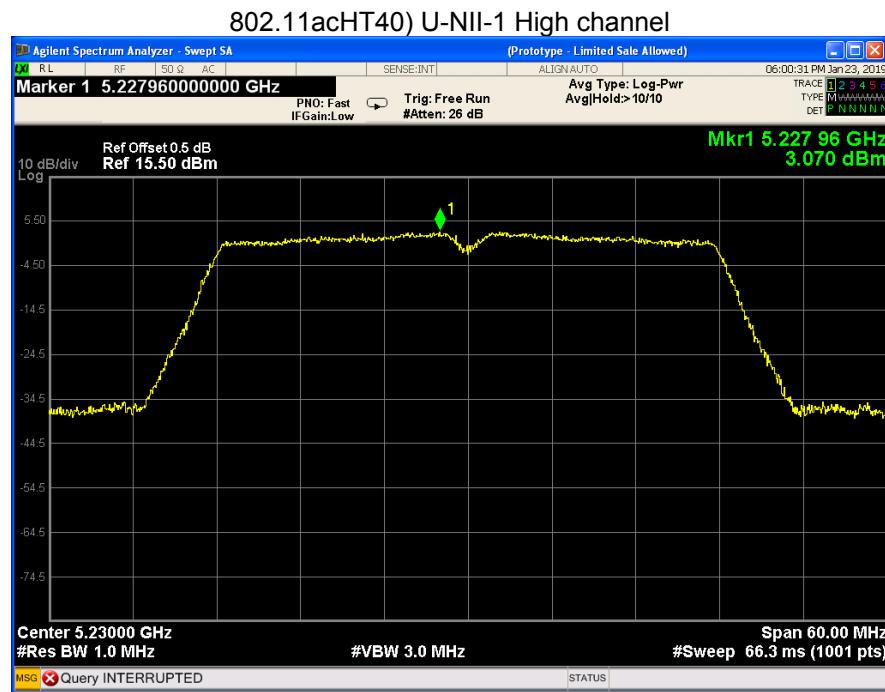
802.11n(HT20) U-NII-1 Low channel

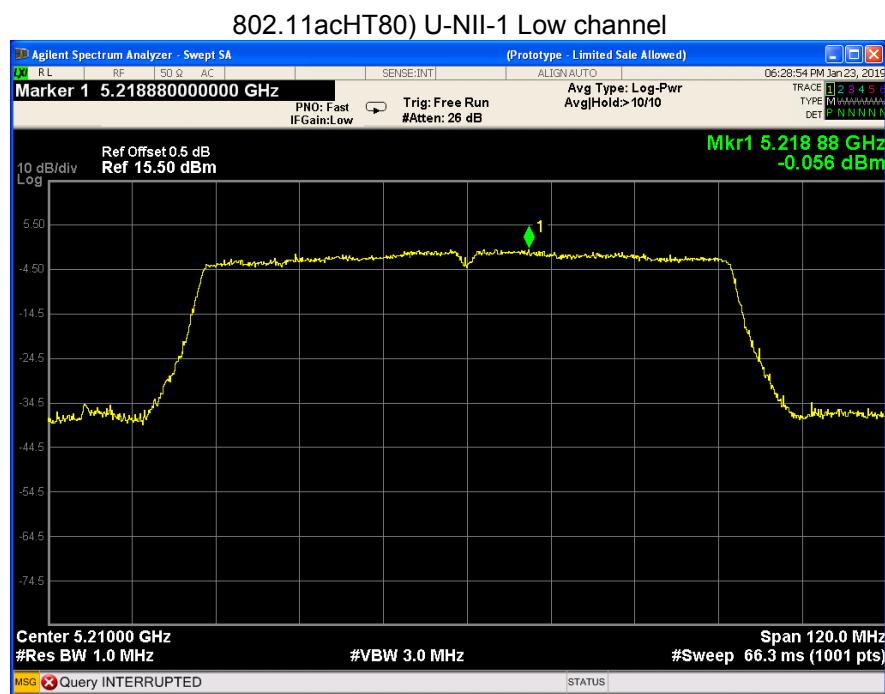
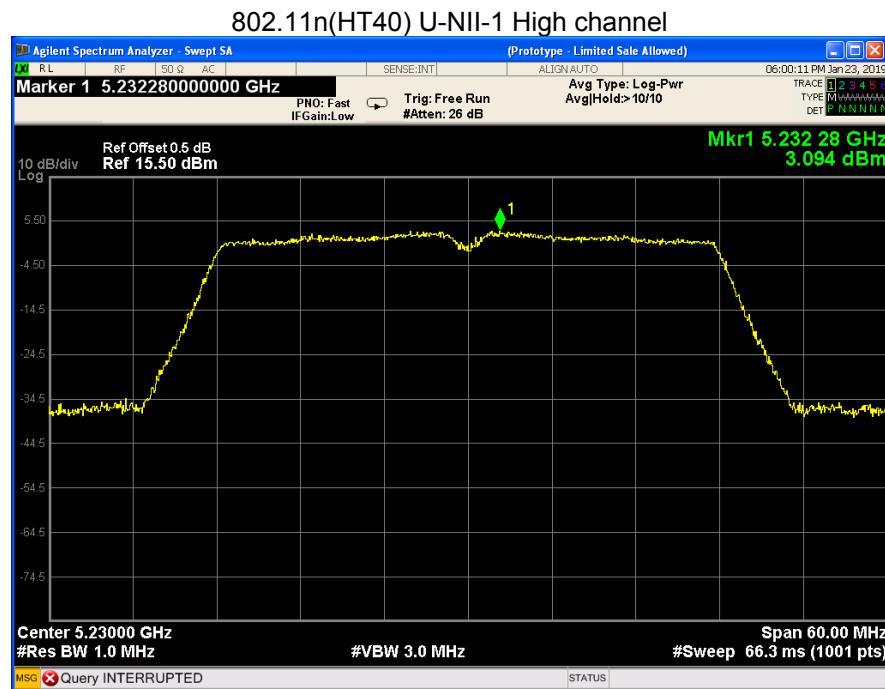


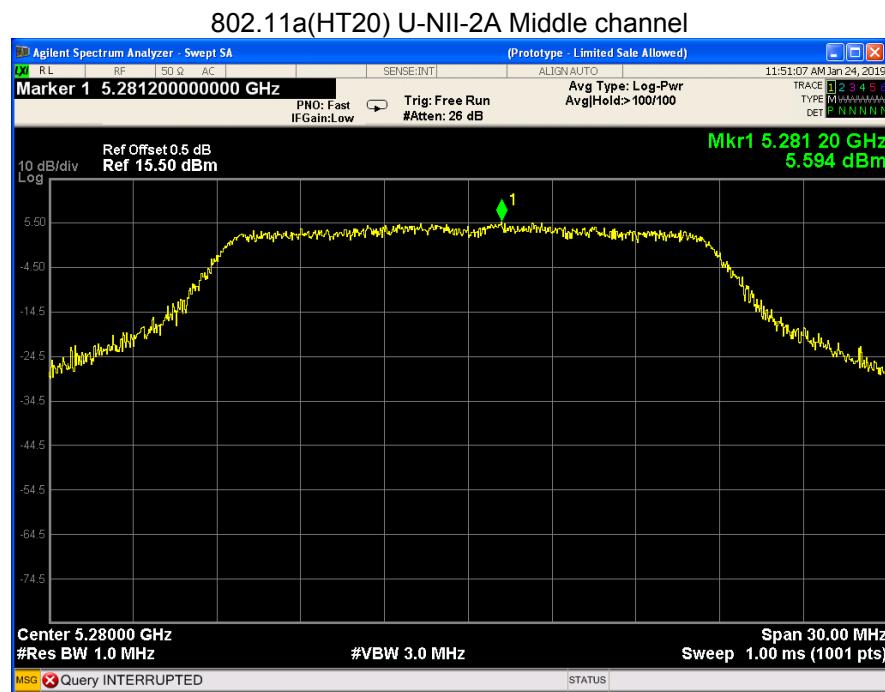
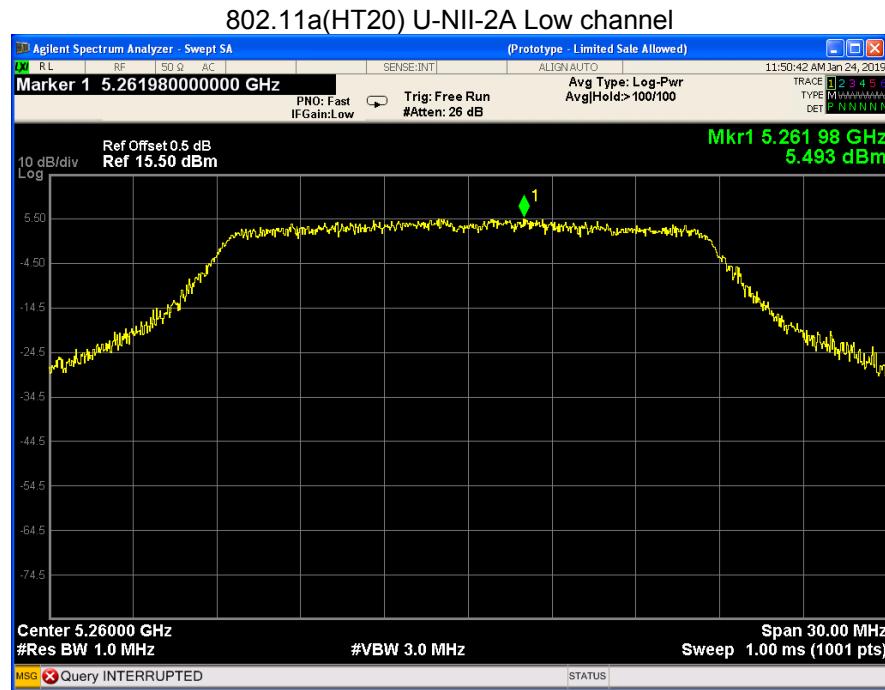


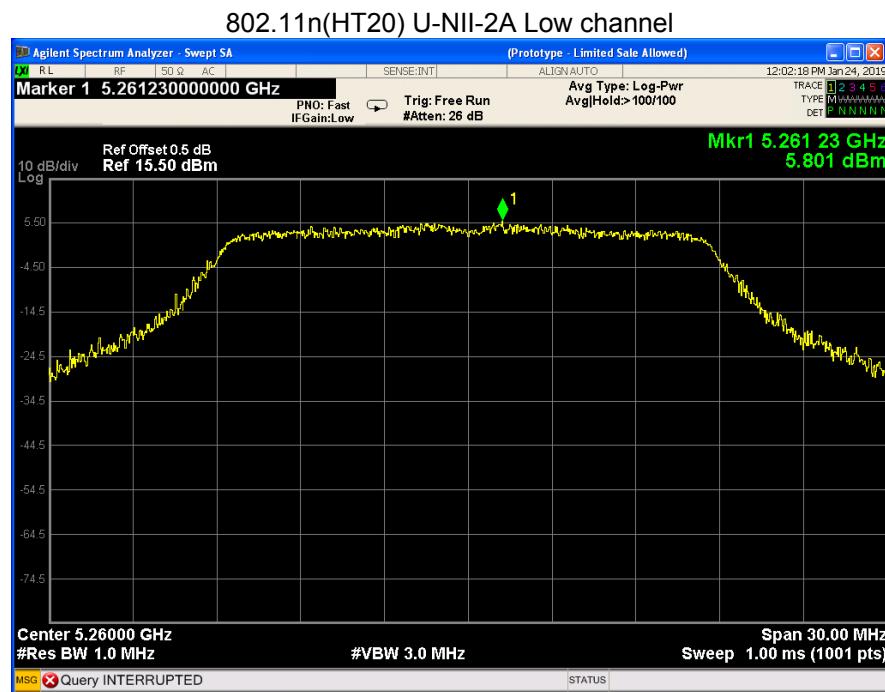
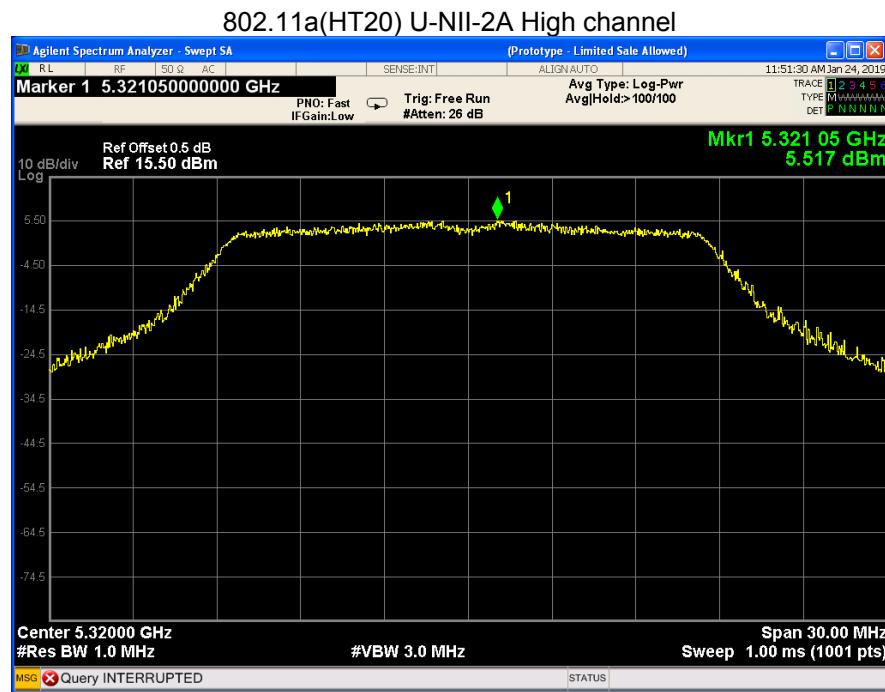




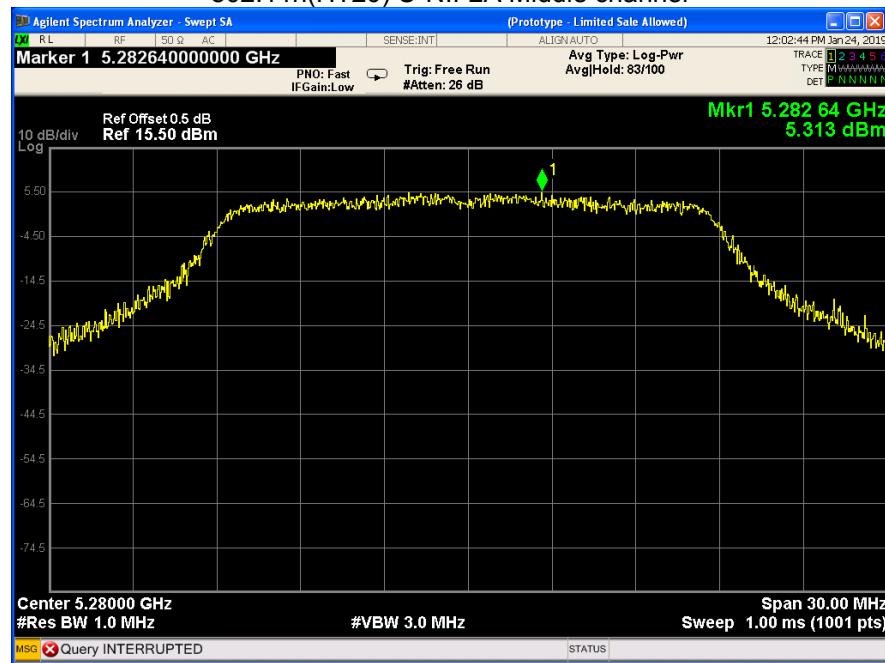




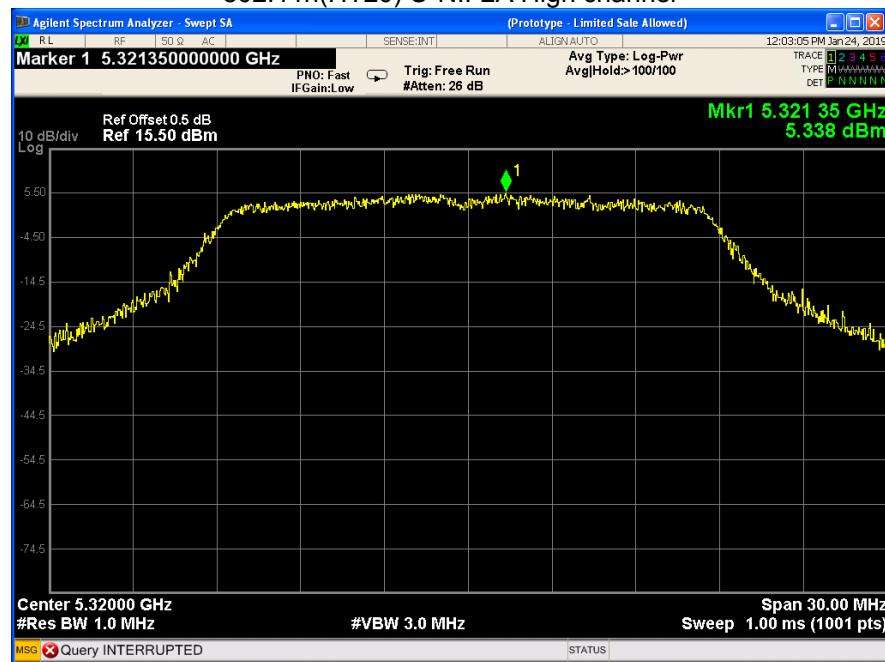


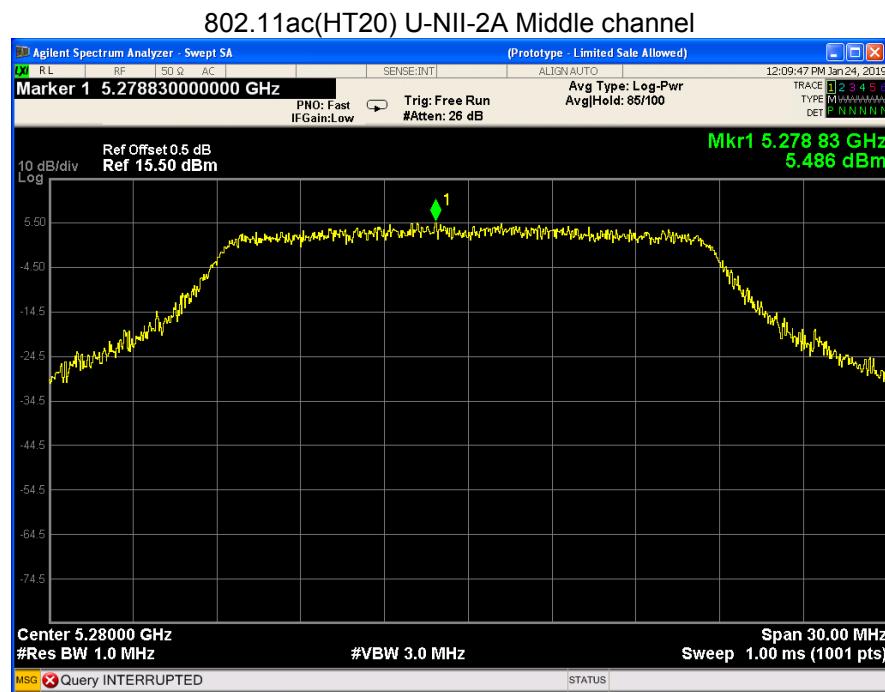
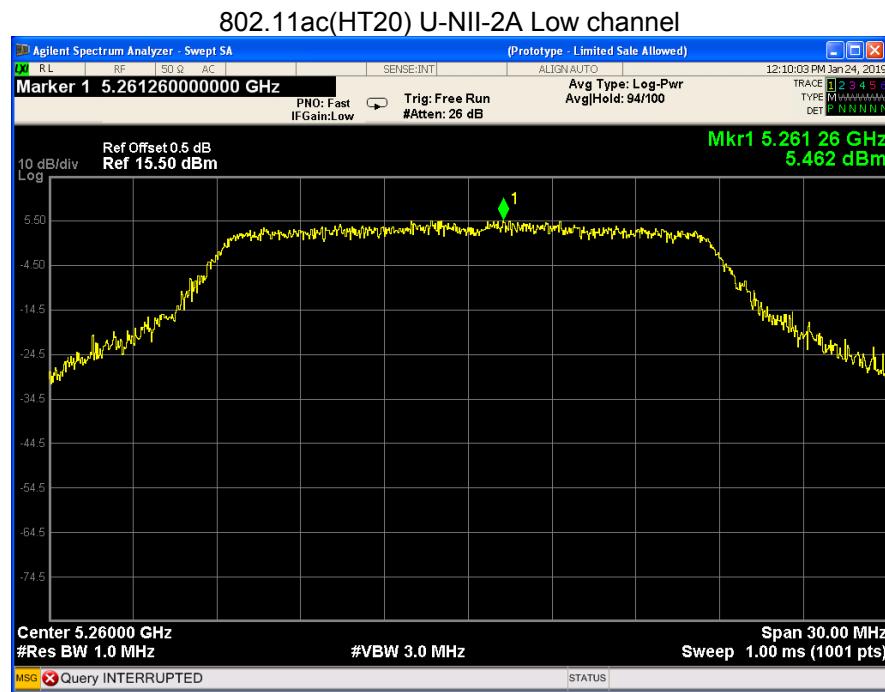


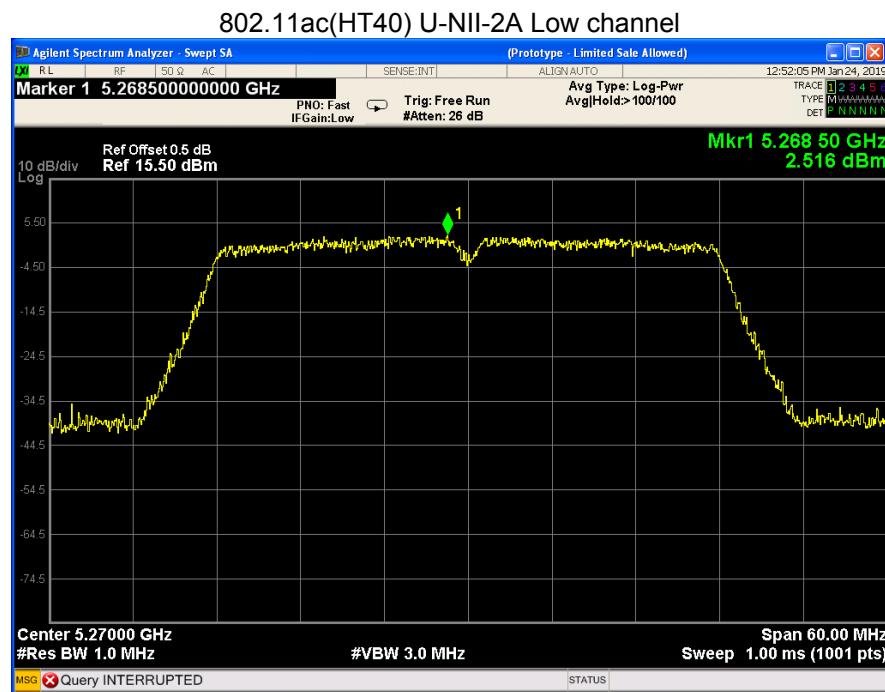
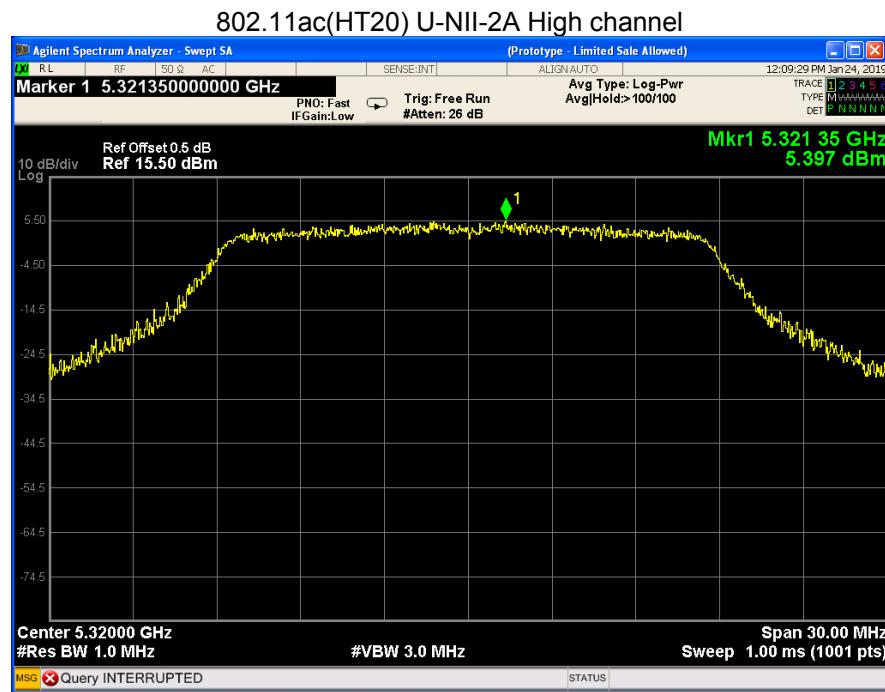
802.11n(HT20) U-NII-2A Middle channel

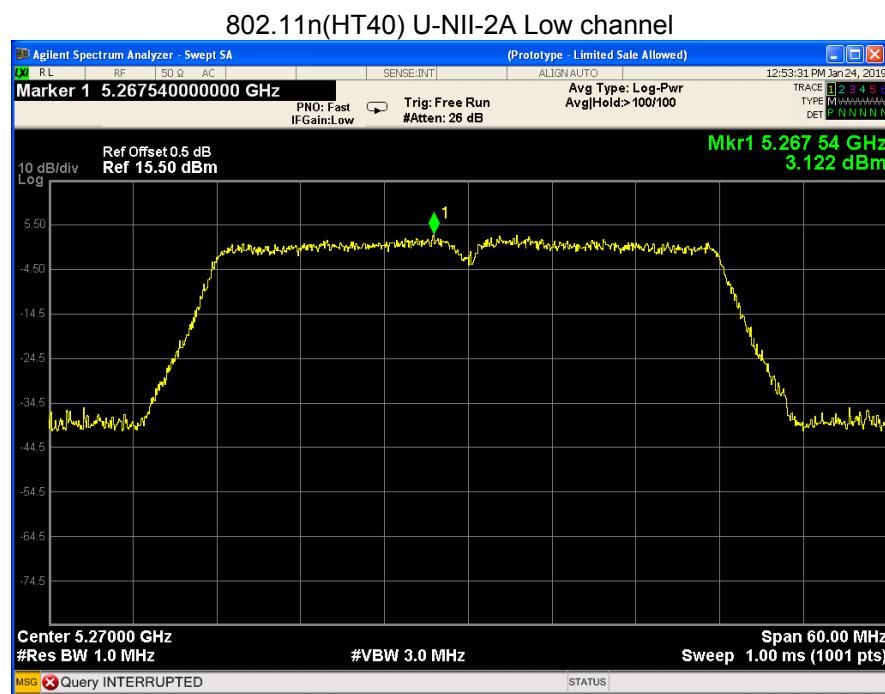
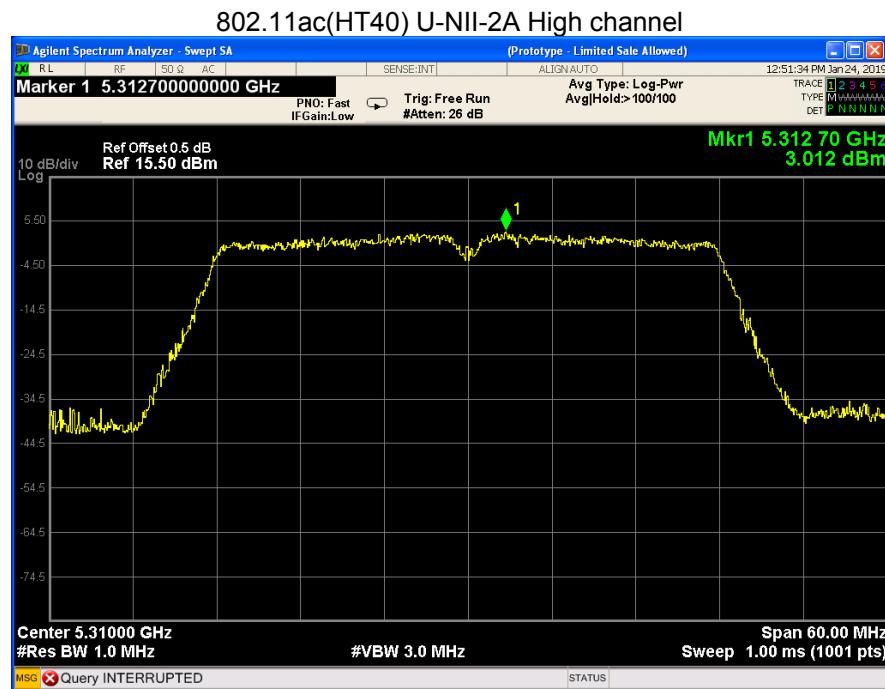


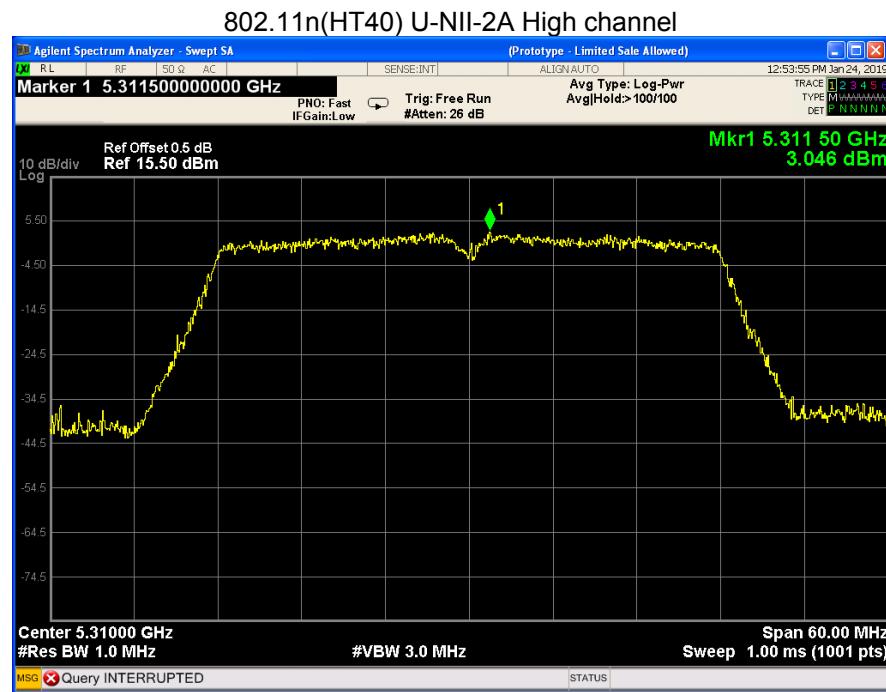
802.11n(HT20) U-NII-2A High channel











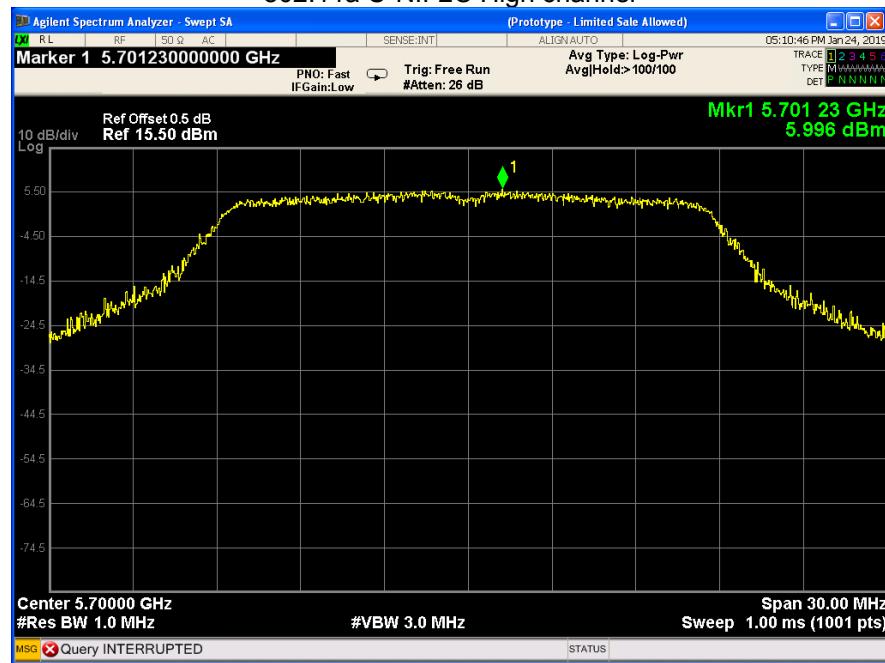
802.11a U-NII-2C Low channel



802.11a U-NII-2C Middle channel



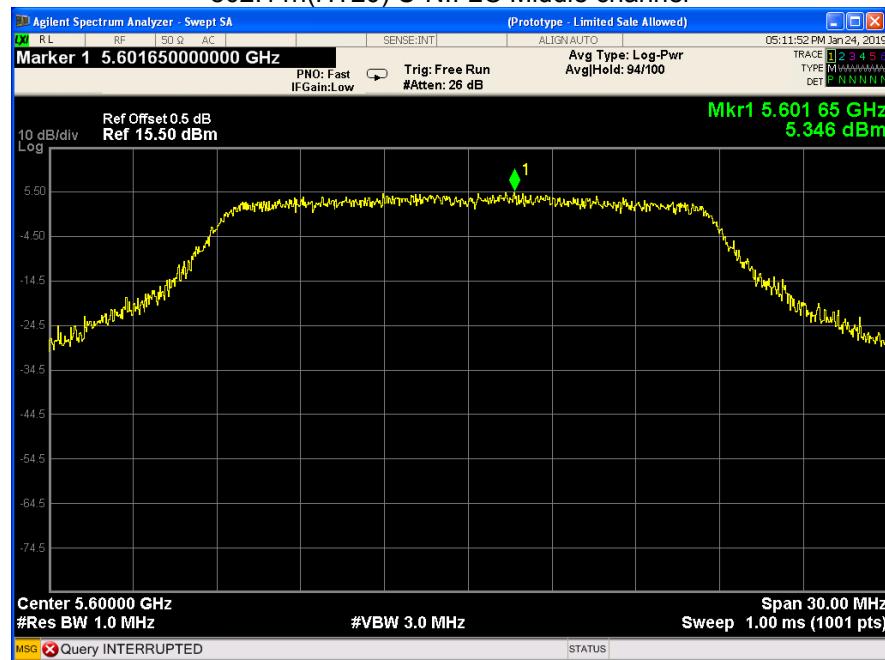
802.11a U-NII-2C High channel



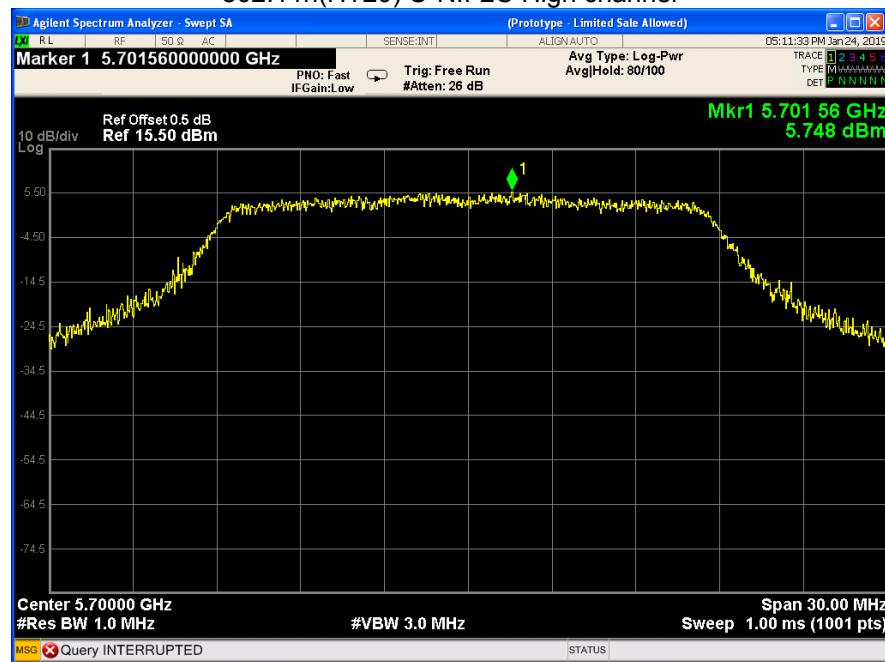
802.11n(HT20) U-NII-2C Low channel

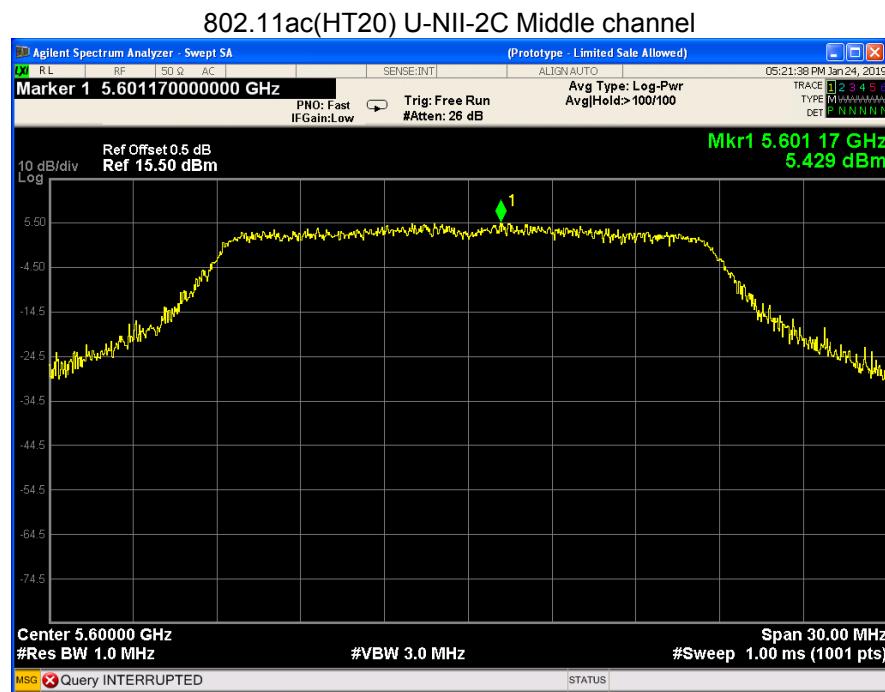
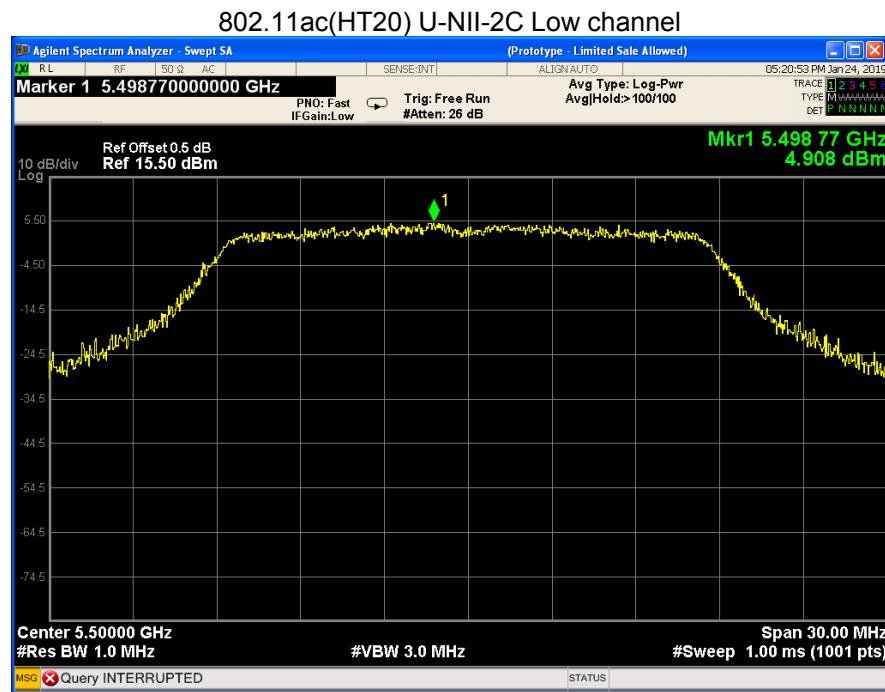


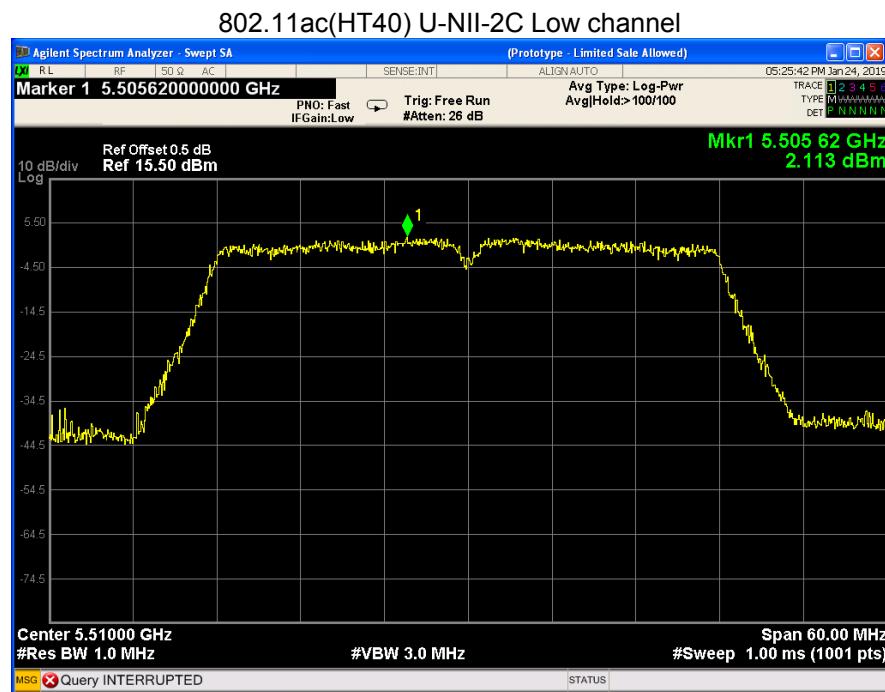
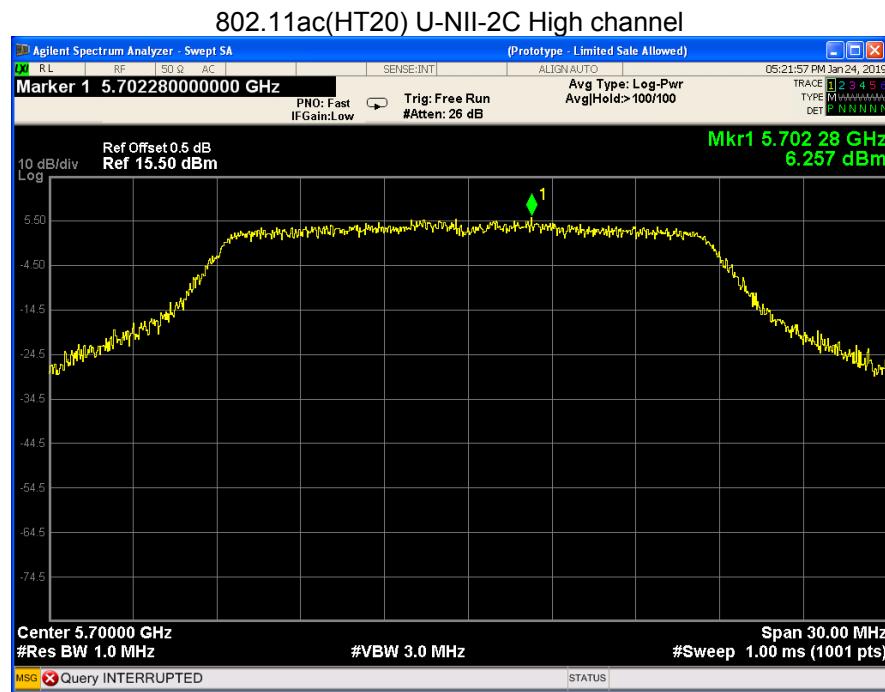
802.11n(HT20) U-NII-2C Middle channel



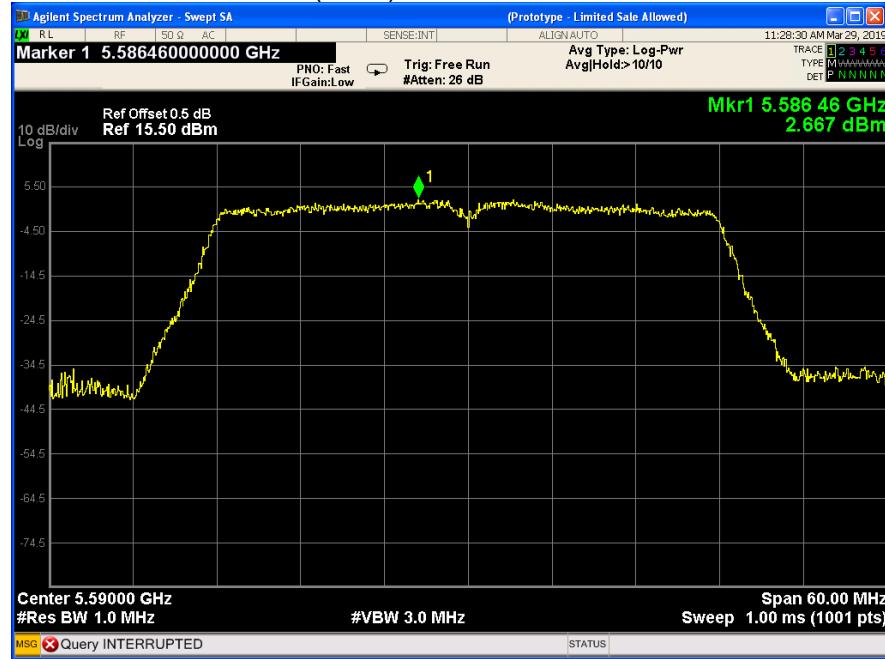
802.11n(HT20) U-NII-2C High channel



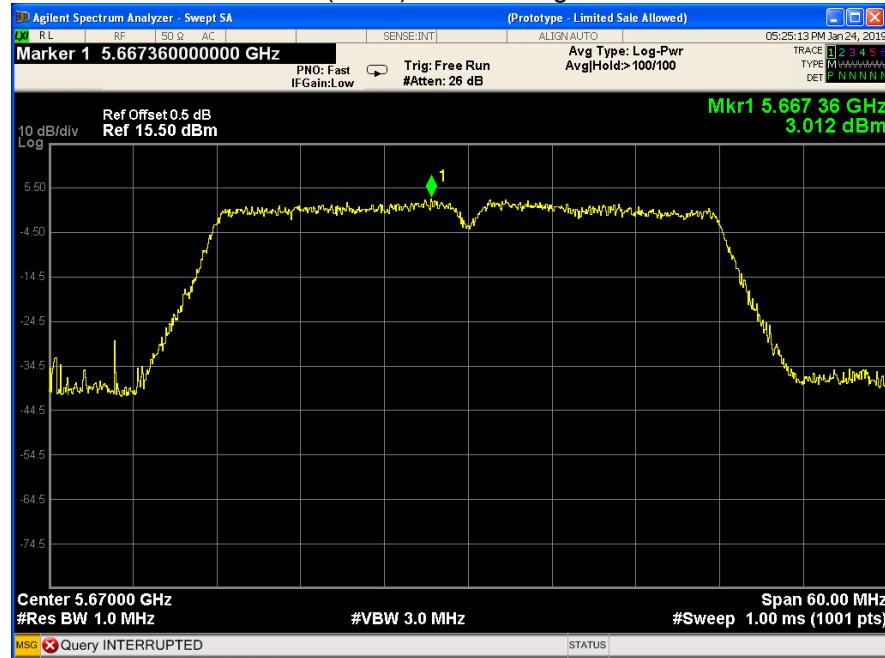


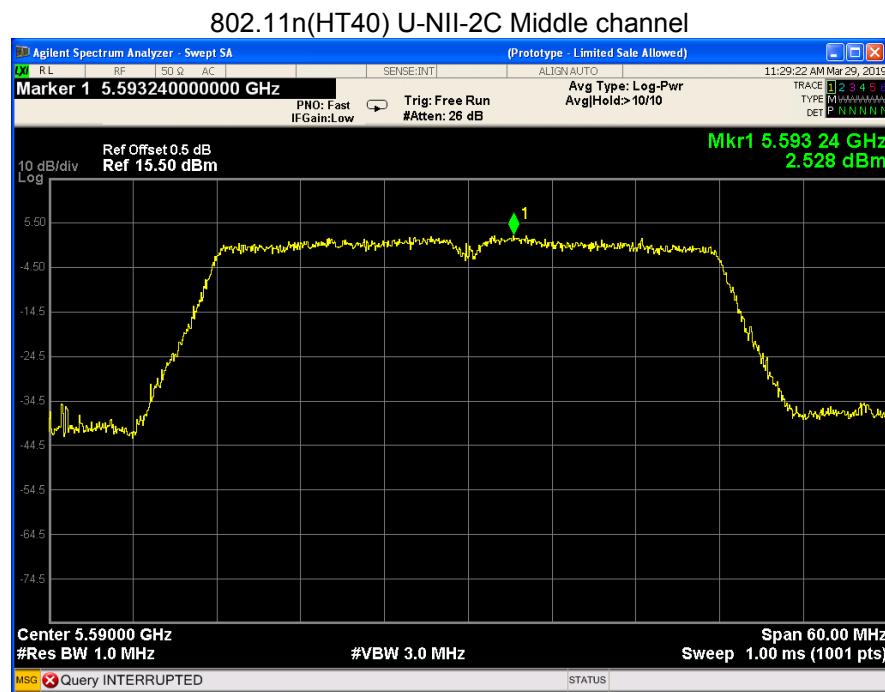
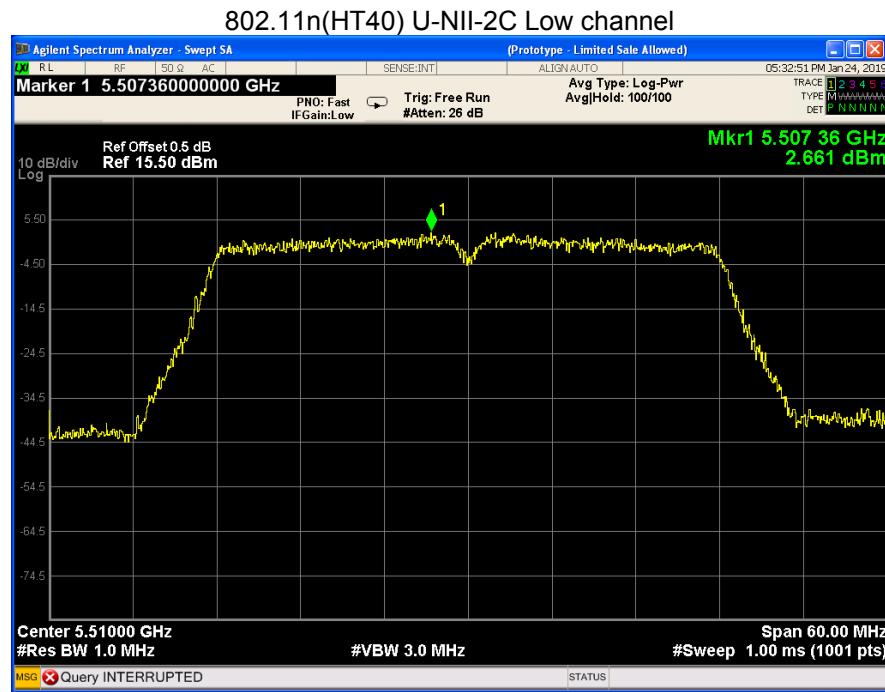


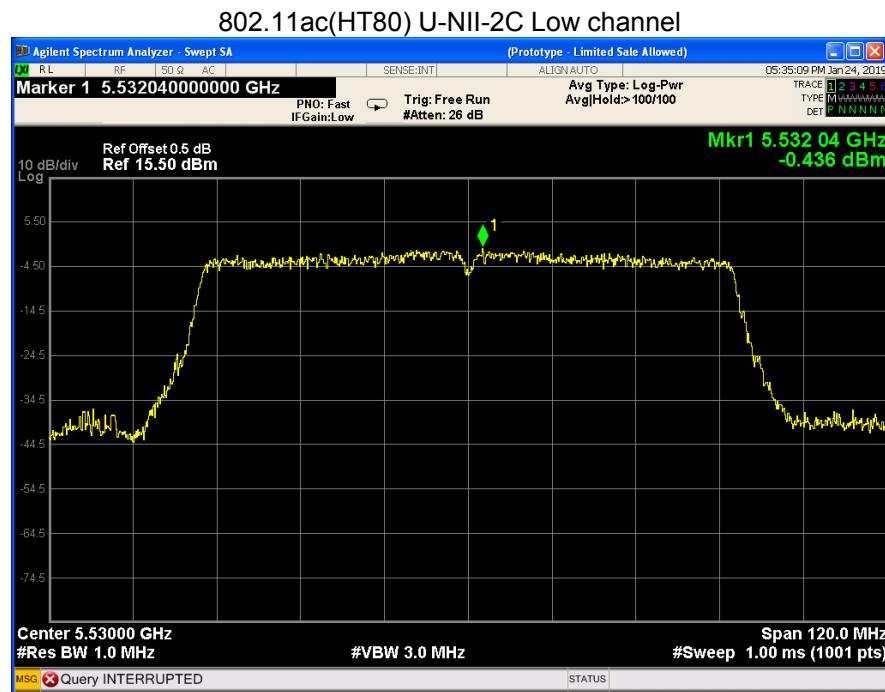
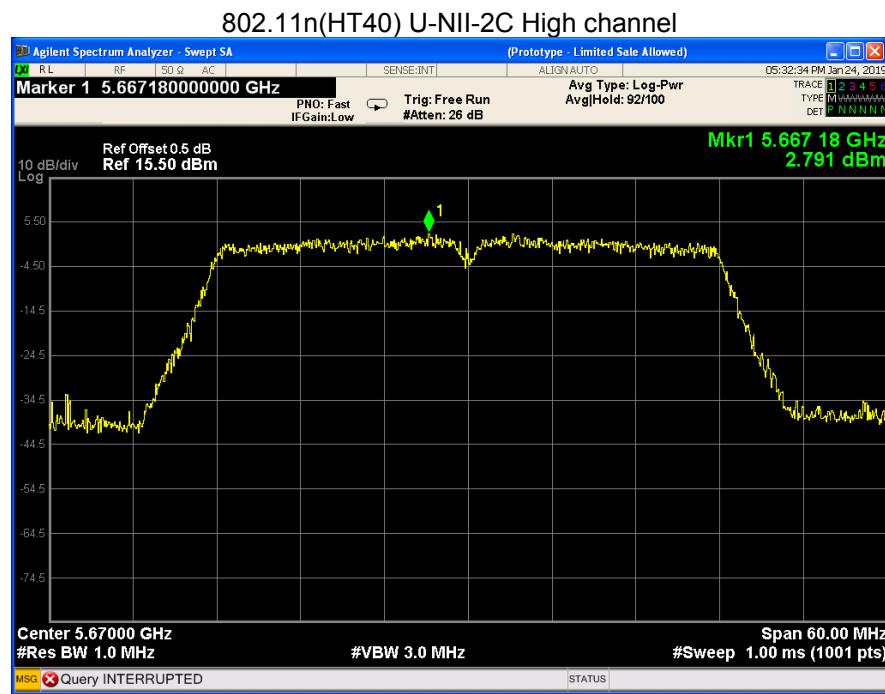
802.11ac(HT40) U-NII-2C Middle channel

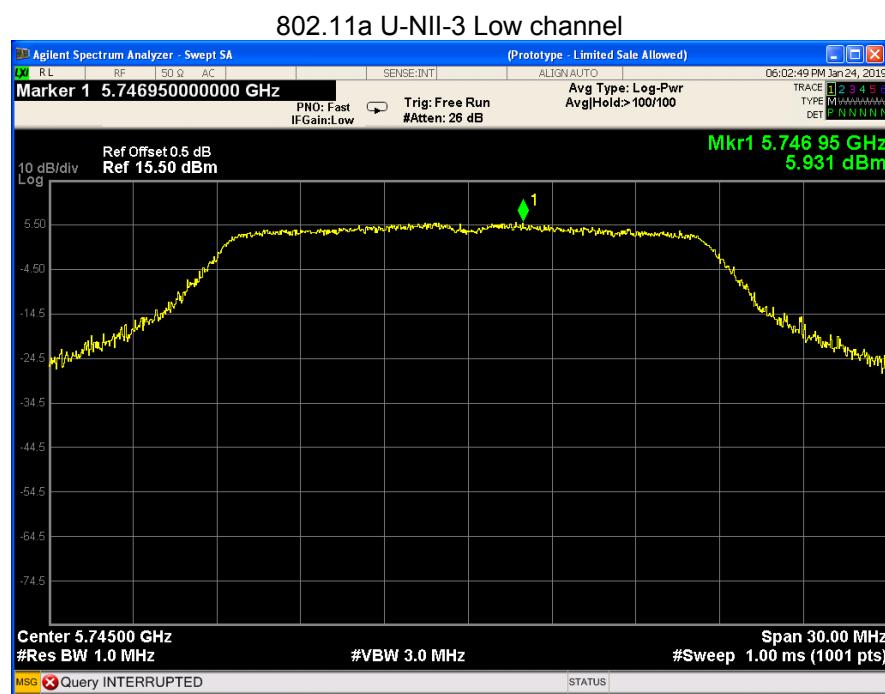
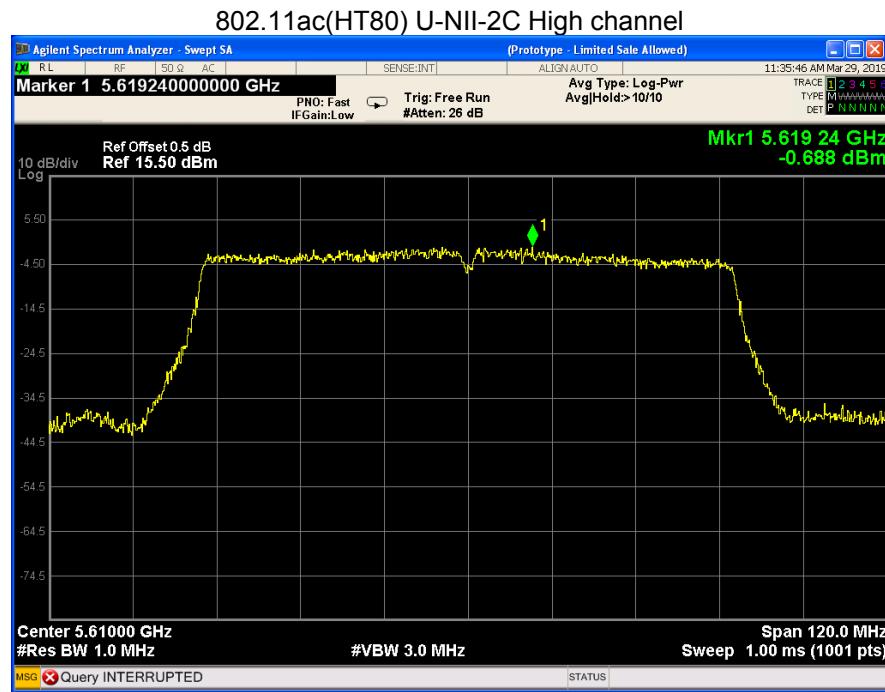


802.11ac(HT40) U-NII-2C High channel









802.11a U-NII-3 Middle channel



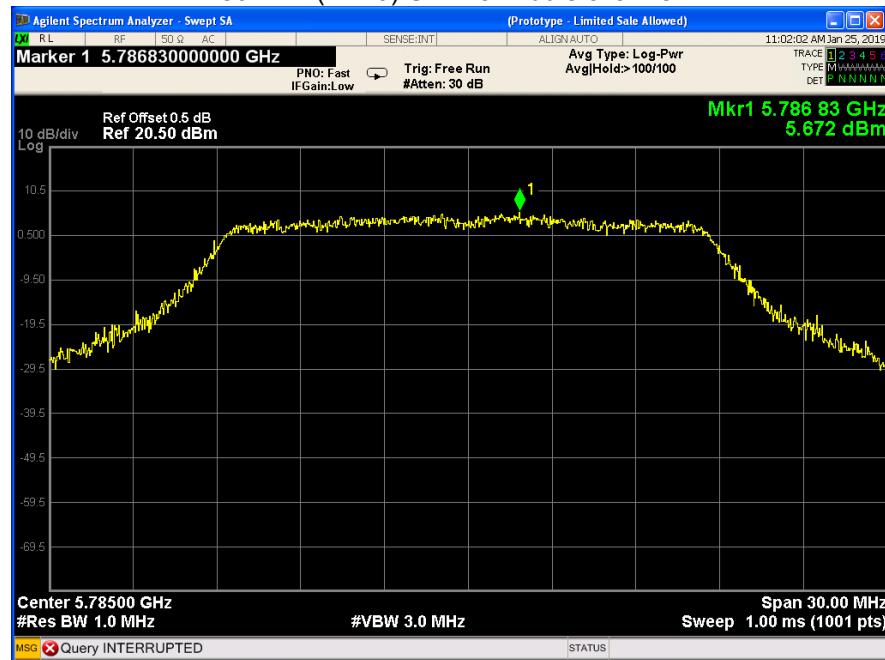
802.11a U-NII-3 High channel

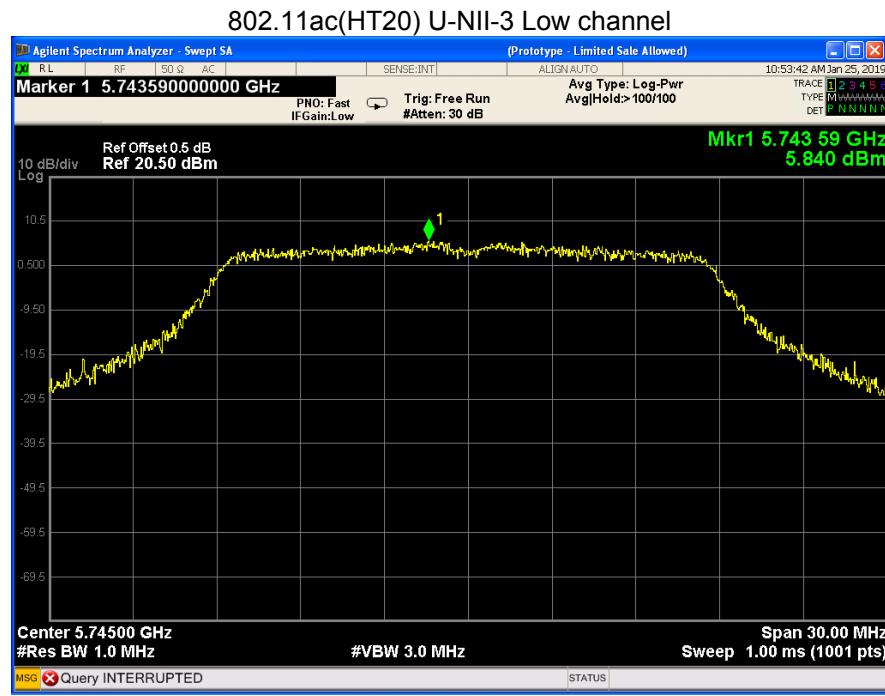
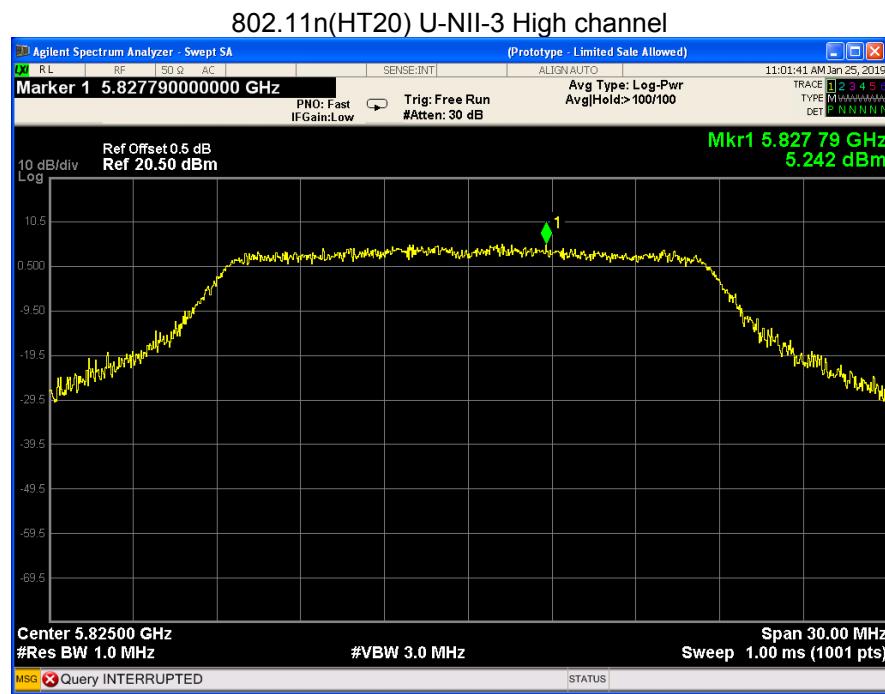


802.11n(HT20) U-NII-3 Low channel



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





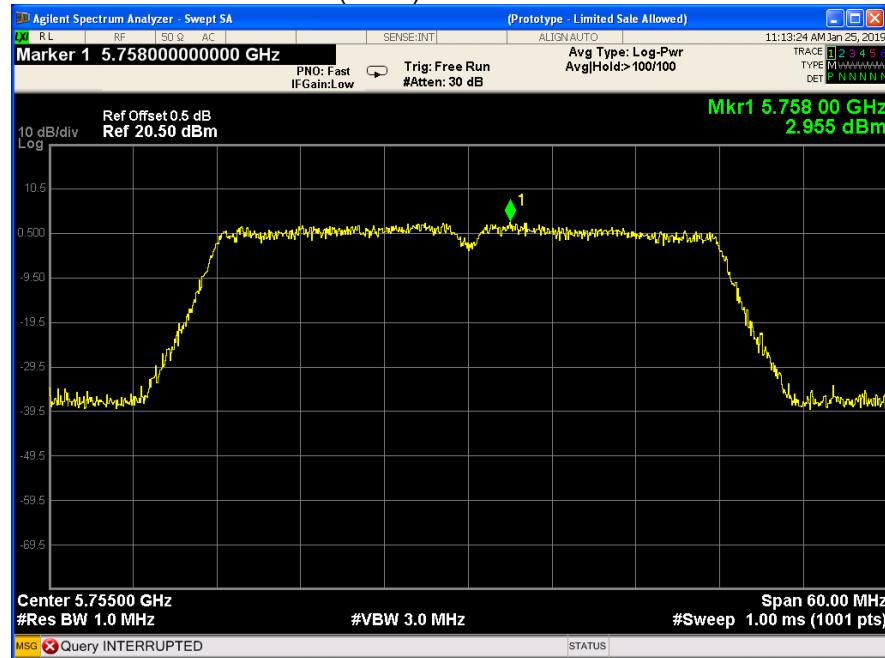
802.11ac(HT20) U-NII-3 Middle channel



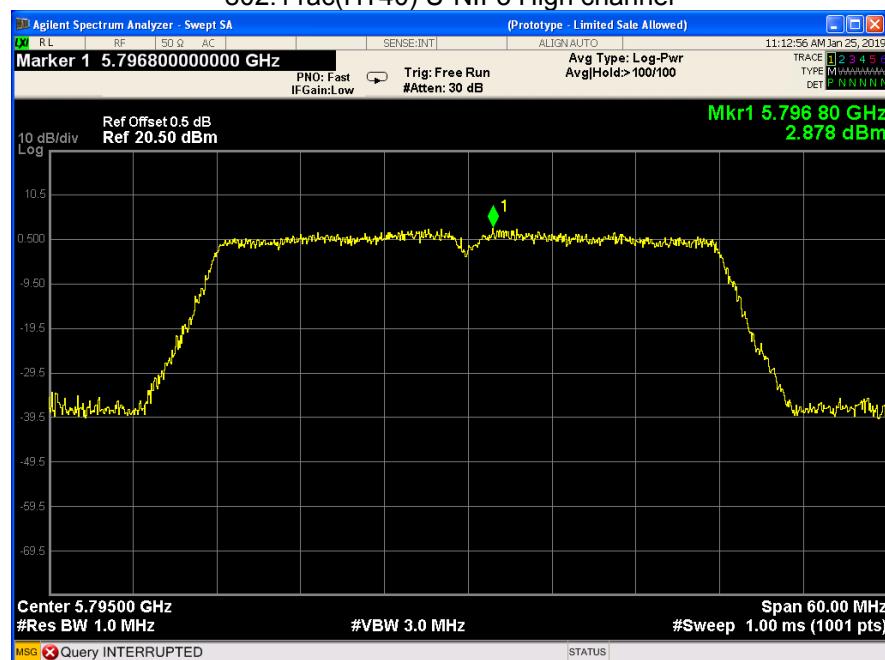
802.11ac(HT20) U-NII-3 High channel

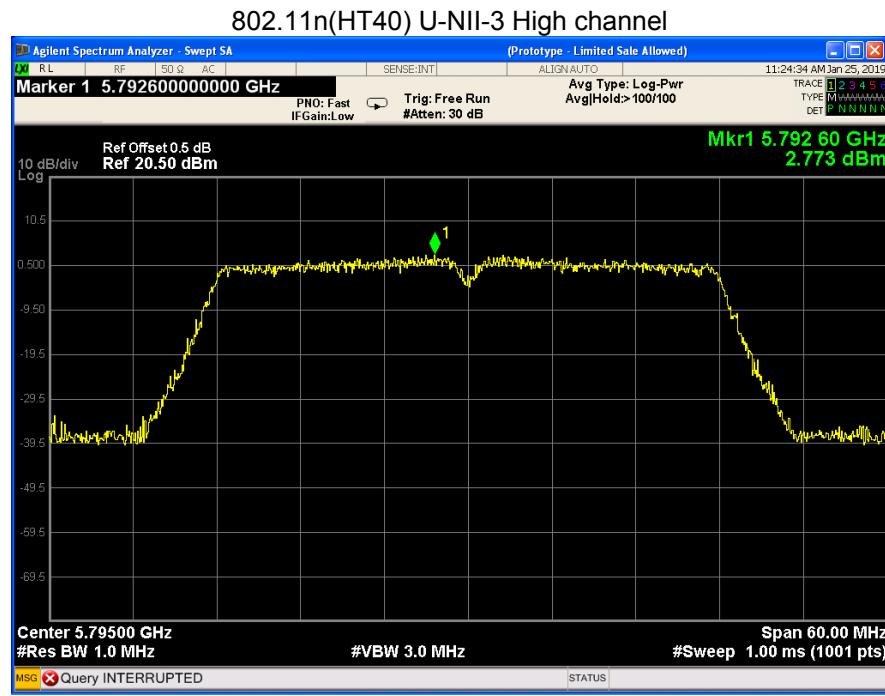
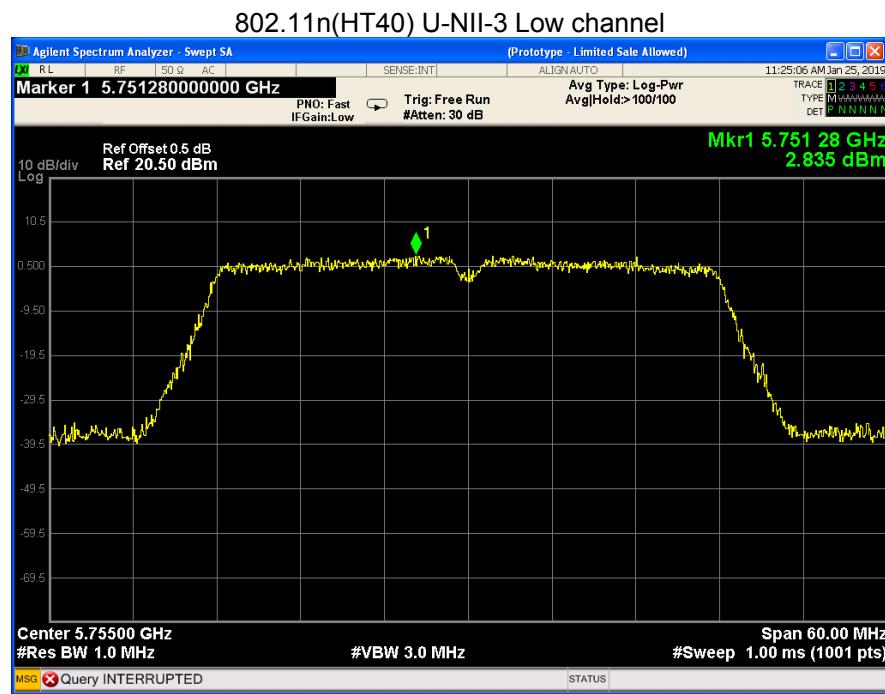


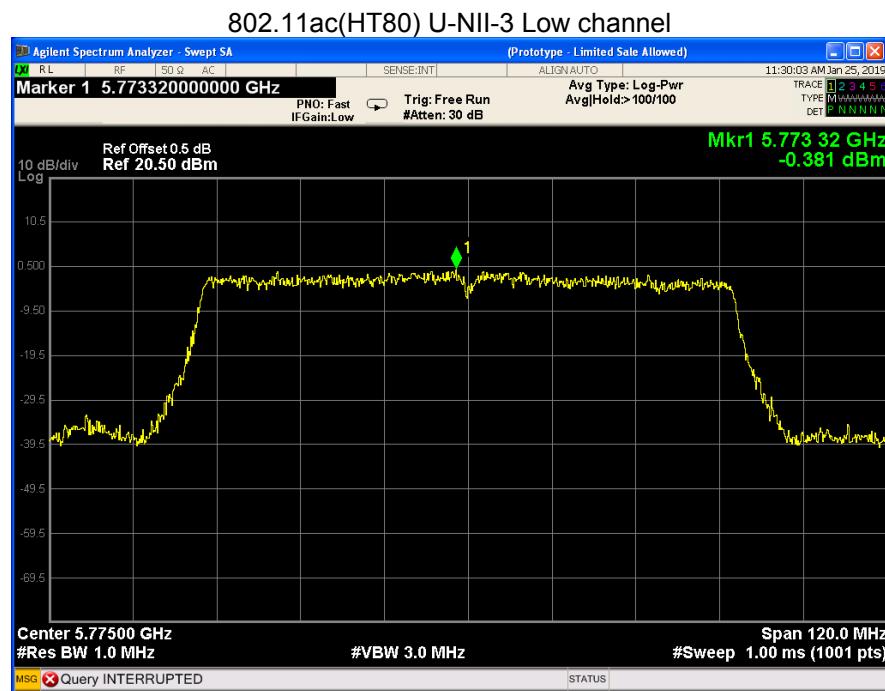
802.11ac(HT40) U-NII-3 Low channel



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







15 Antenna Requirement

According to the FCC Part 15 Paragraph 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. This product has an internal integrated antenna fulfill the requirement of this section.

16 RF Exposure

Remark: refer to SAR test report: WTS18S12133823-1W.

17 Photographs of test setup and EUT.

Note: Please refer to appendix: WTS18S12133823W_Photo.

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