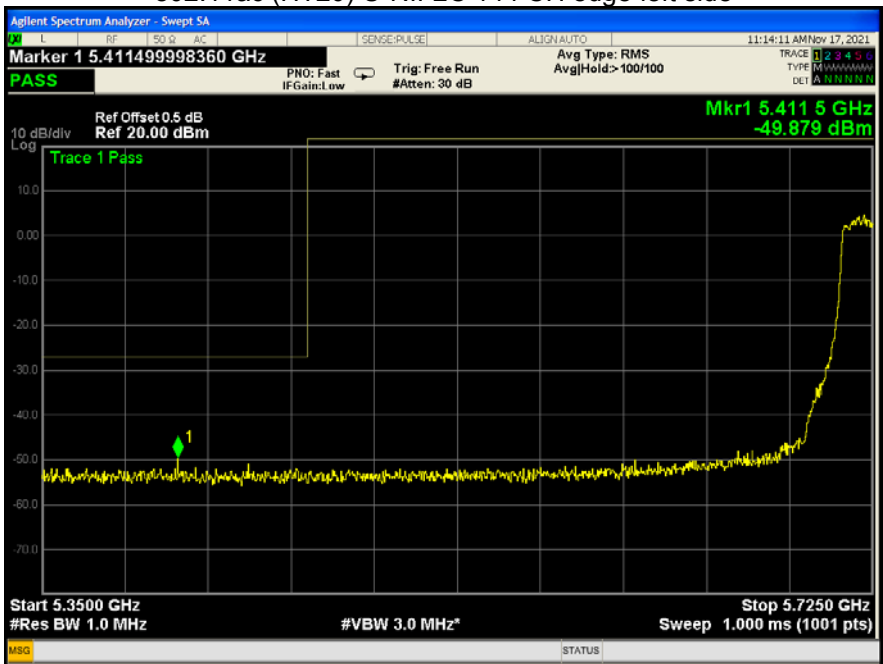
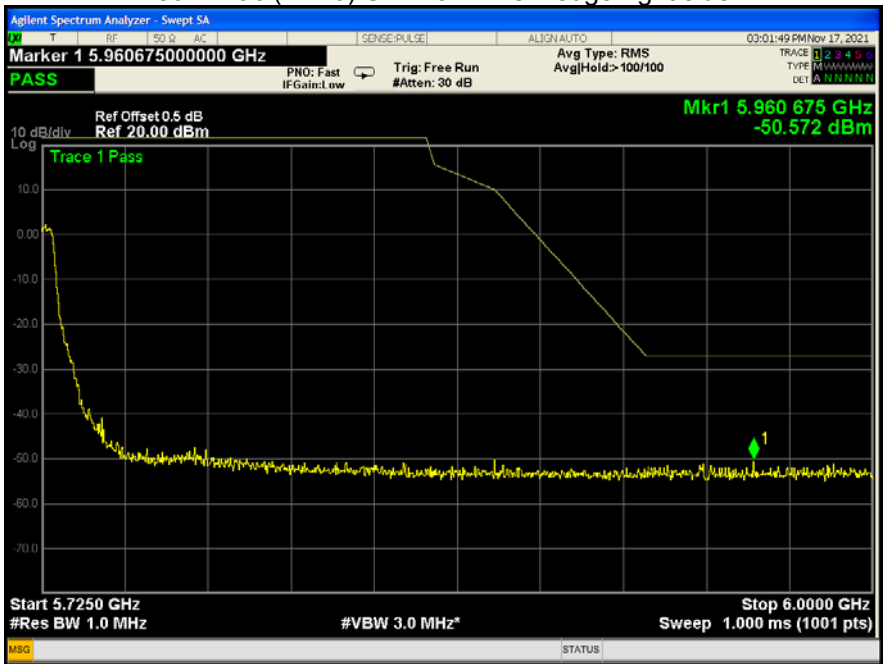


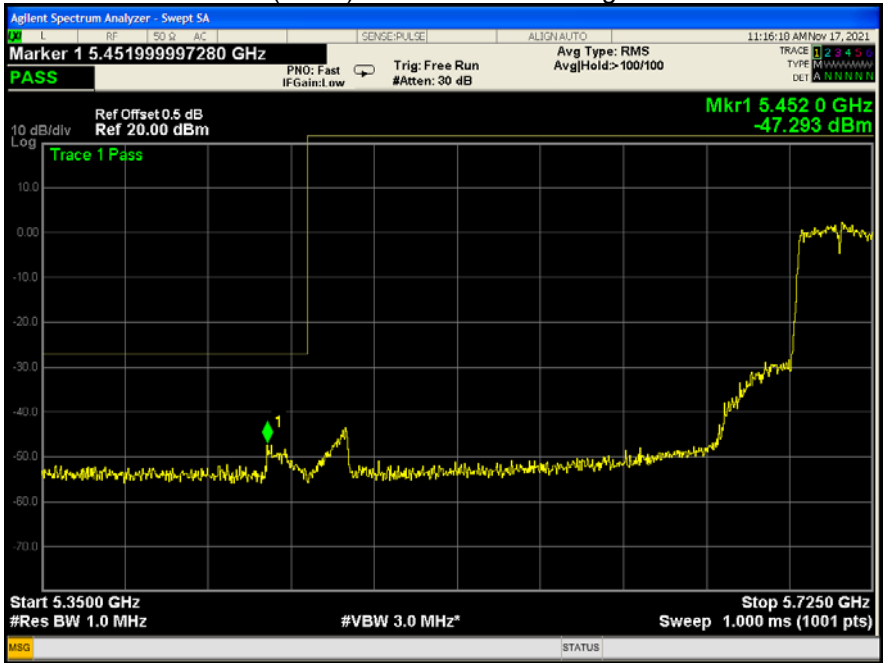
802.11ac (HT20) U-NII-2C 144 CH edge-left side



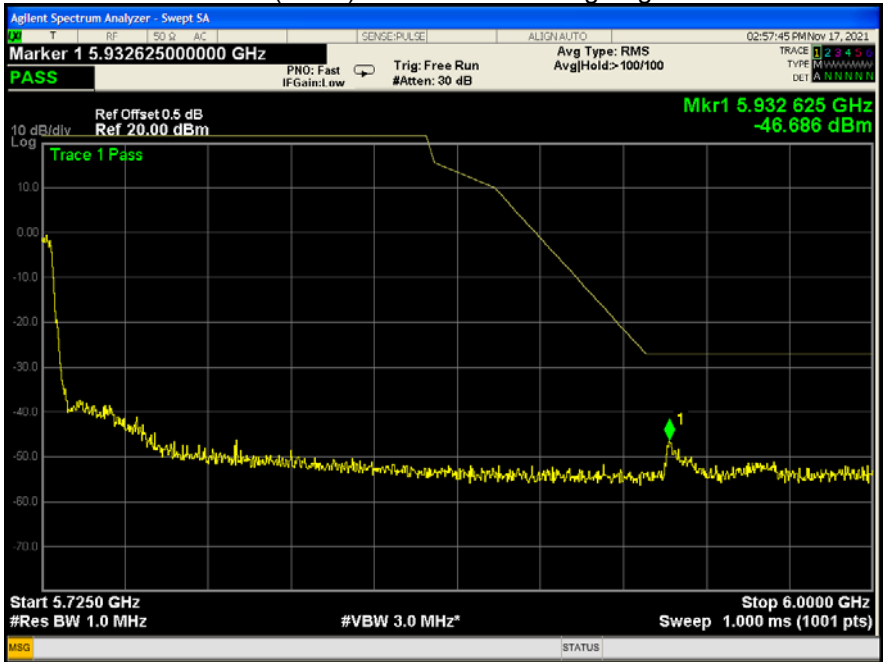
802.11ac (HT20) U-NII-3 144 CH edge-right side



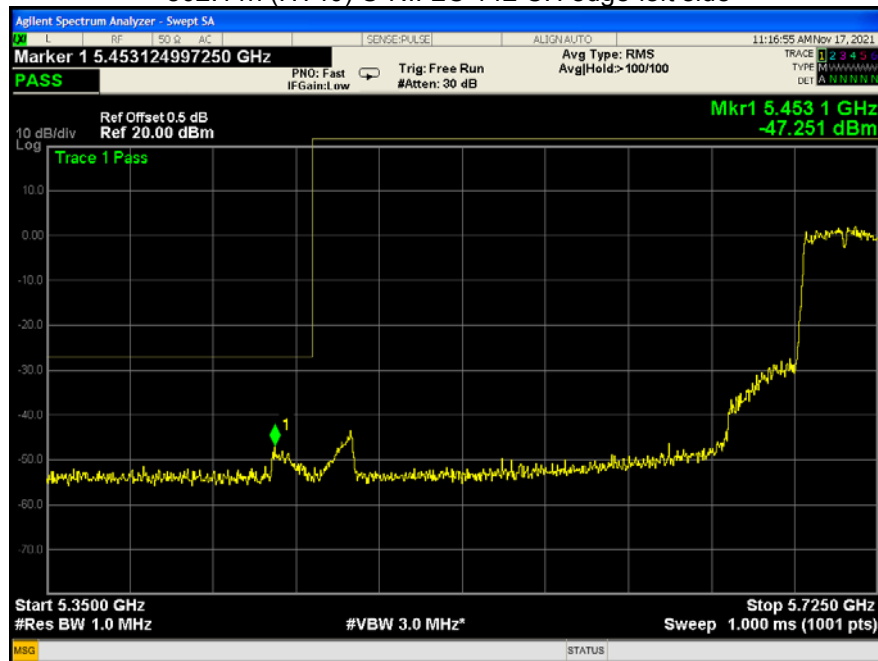
802.11ac (HT40) U-NII-2C 142 CH edge-left side



802.11ac (HT40) U-NII-3 142 CH edge-right side



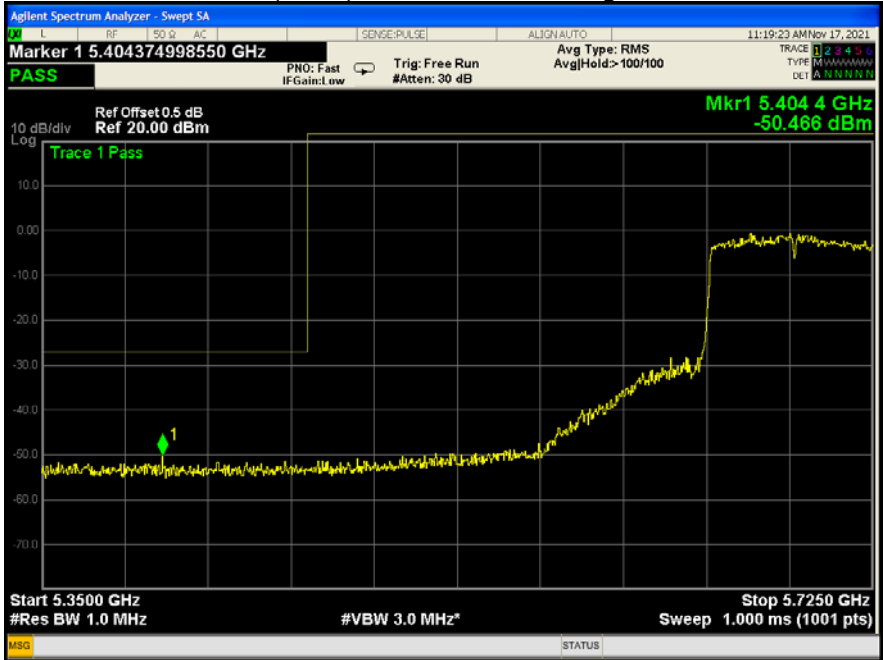
802.11n (HT40) U-NII-2C 142 CH edge-left side



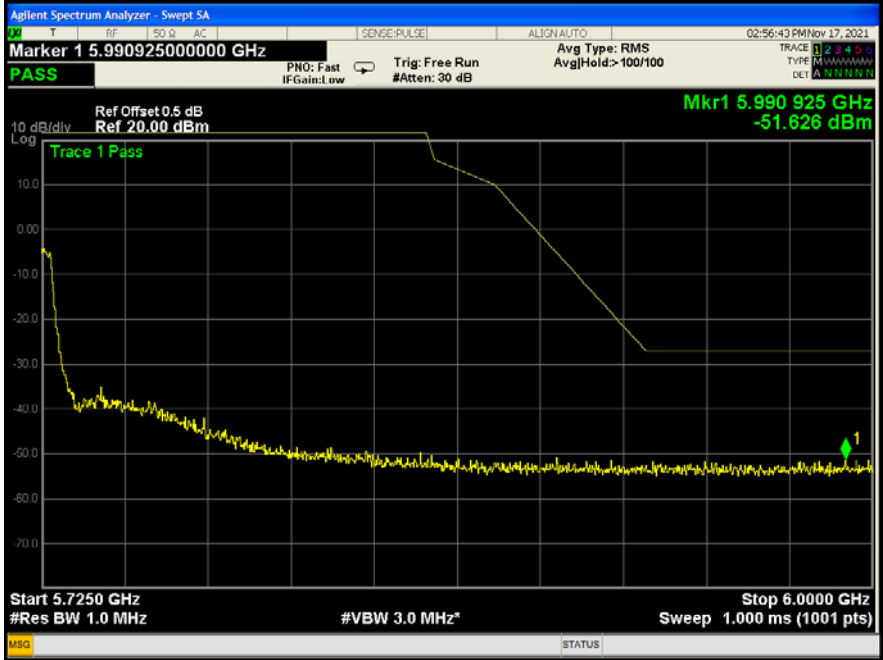
802.11n (HT40) U-NII-3 142 CH edge-right side



802.11ac (HT80) U-NII-2C 138 CH edge-left side

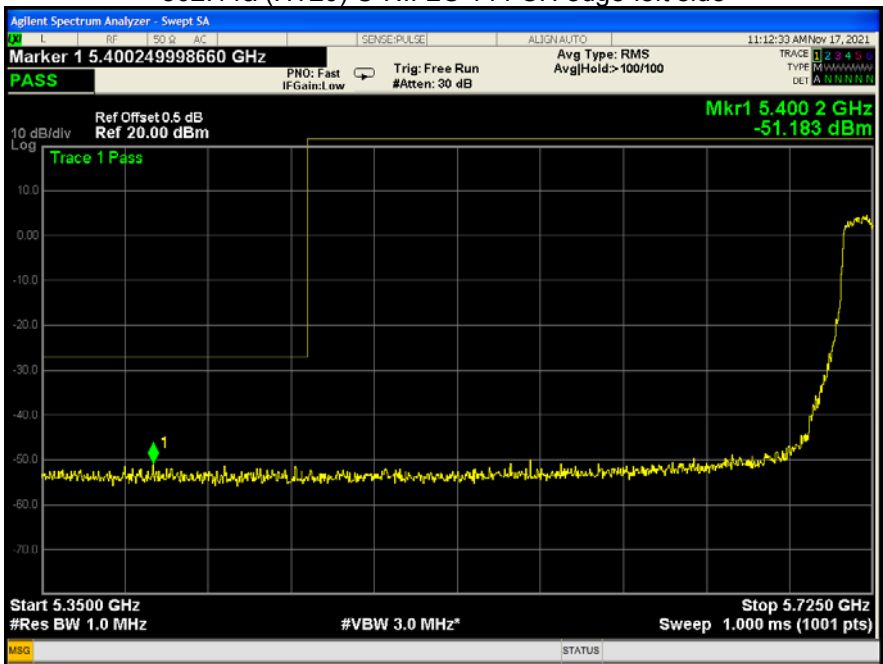


802.11ac (HT80) U-NII-3 138 CH edge-right side

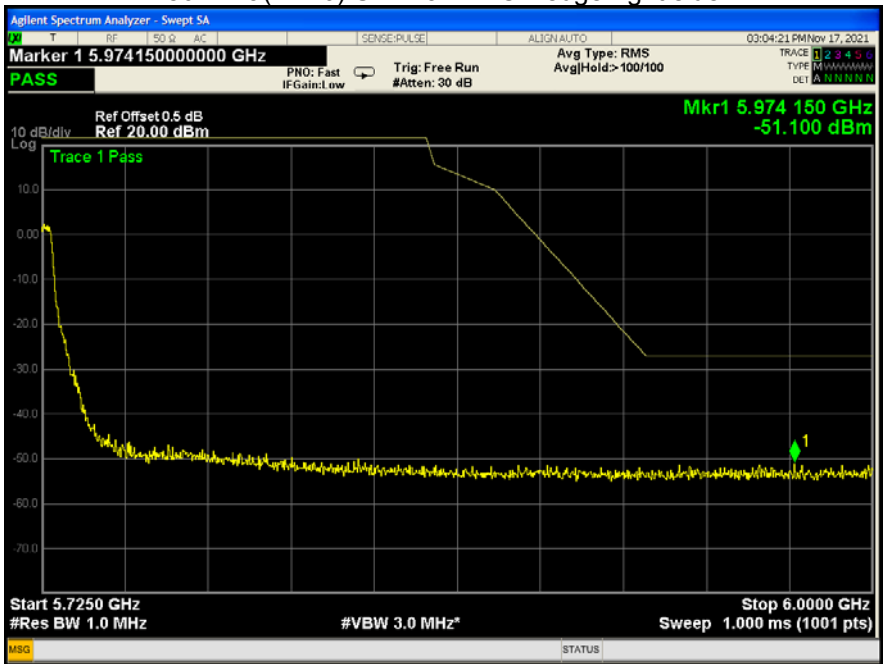


Ant 1

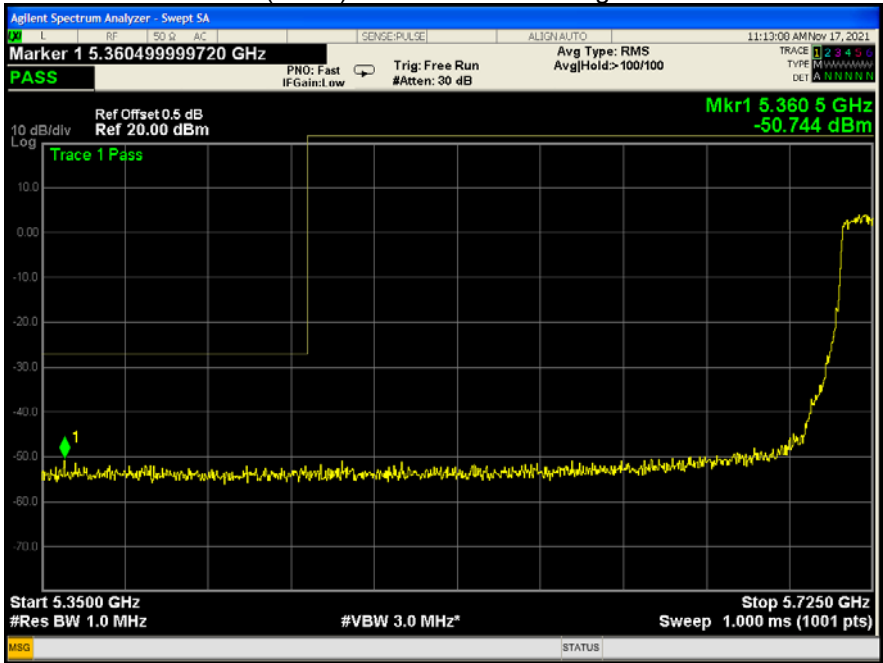
802.11a (HT20) U-NII-2C 144 CH edge-left side



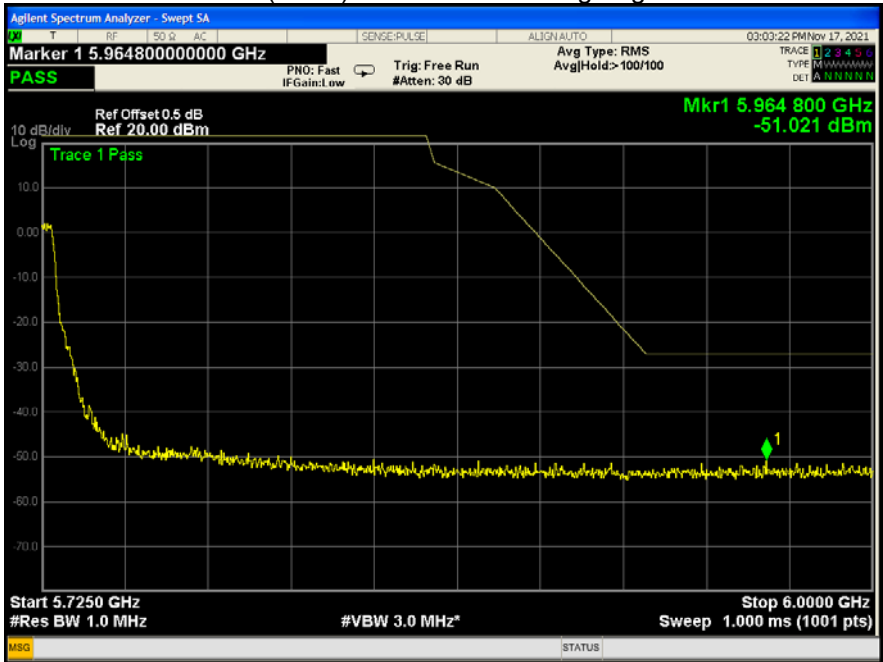
802.11a(HT20) U-NII-3 144 CH edge-right side



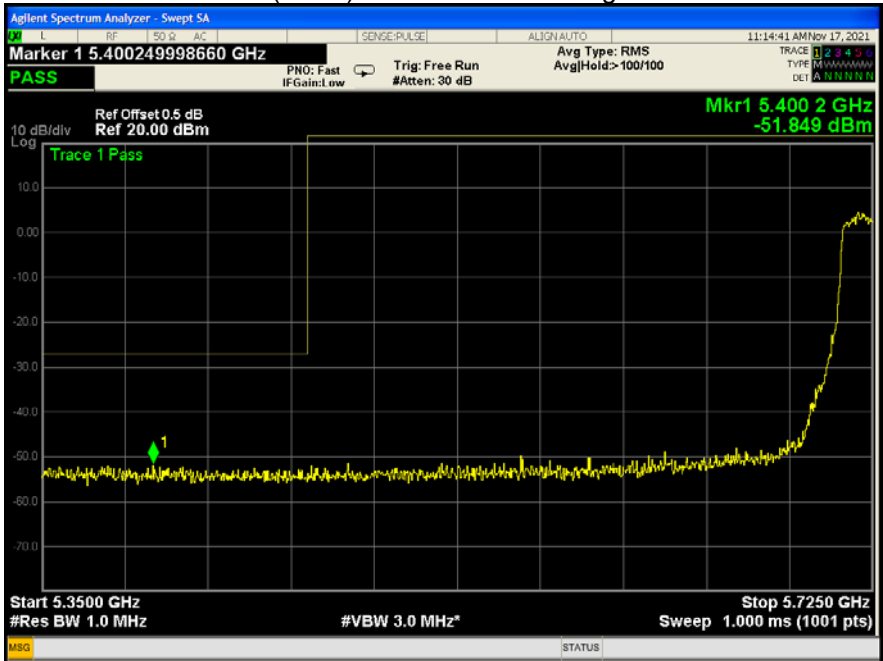
802.11n (HT20) U-NII-2C 144 CH edge-left side



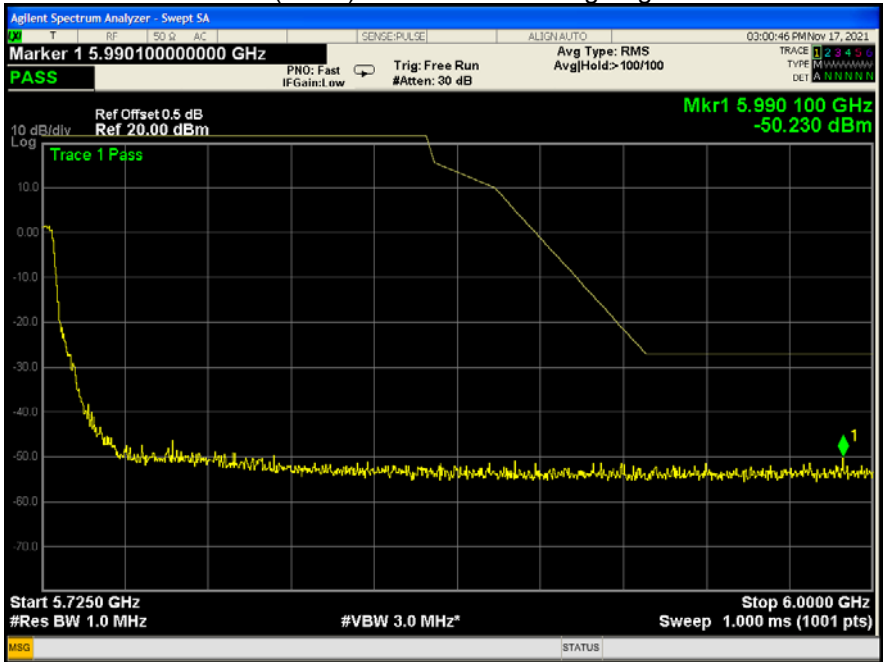
802.11n (HT20) U-NII-3 144 CH edge-right side



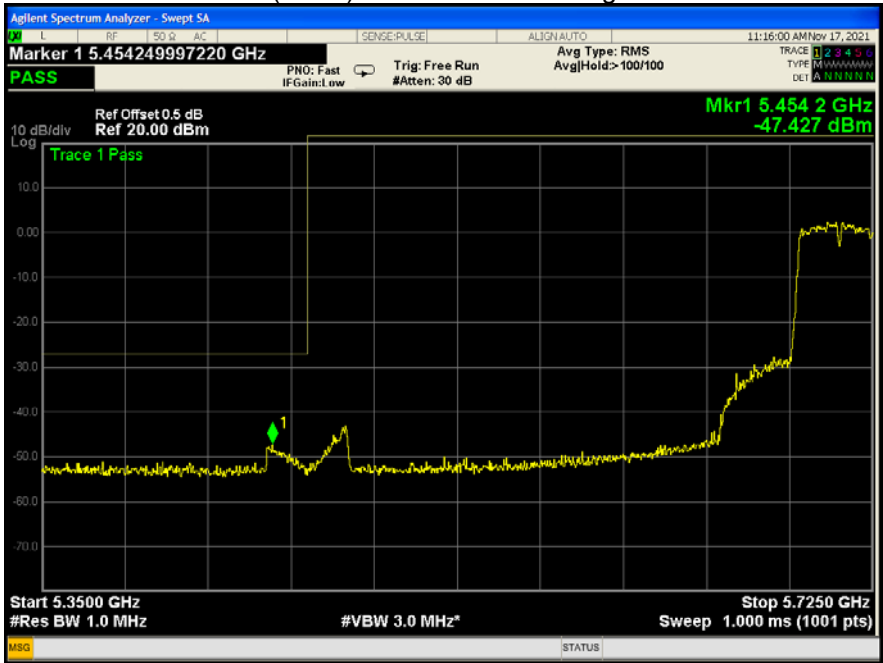
802.11ac (HT20) U-NII-2C 144 CH edge-left side



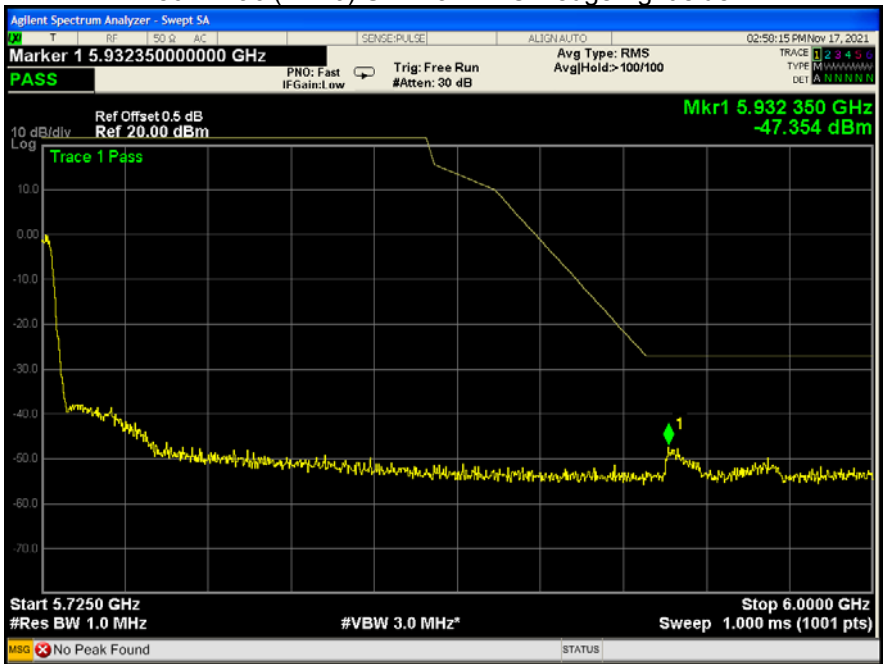
802.11ac (HT20) U-NII-3 144 CH edge-right side



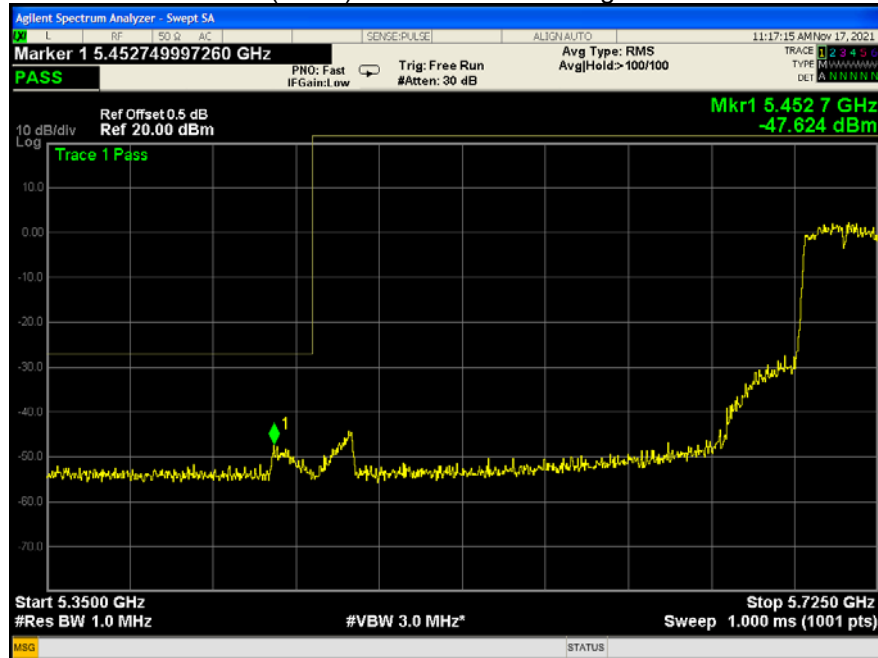
802.11ac (HT40) U-NII-2C 142 CH edge-left side



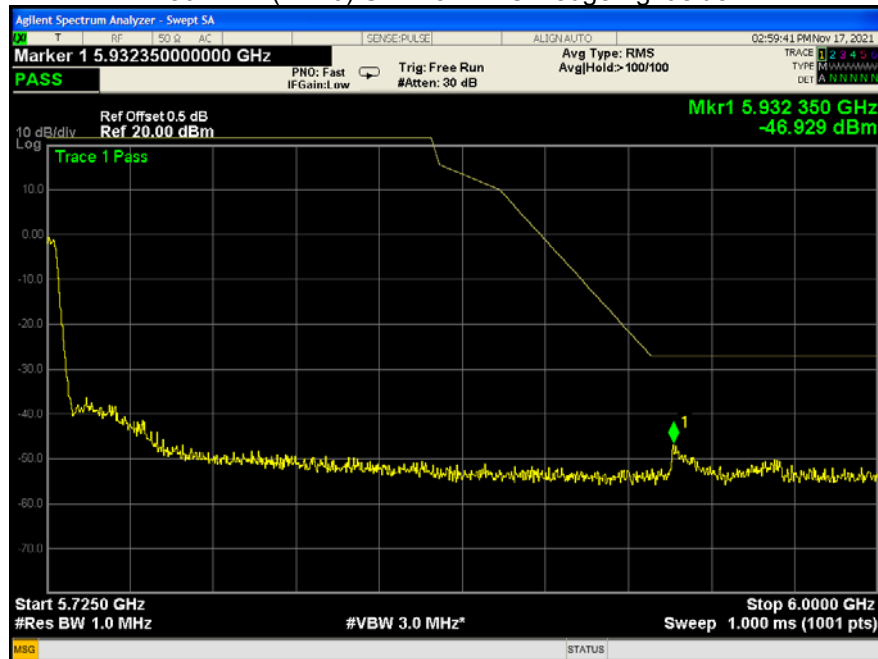
802.11ac (HT40) U-NII-3 142 CH edge-right side



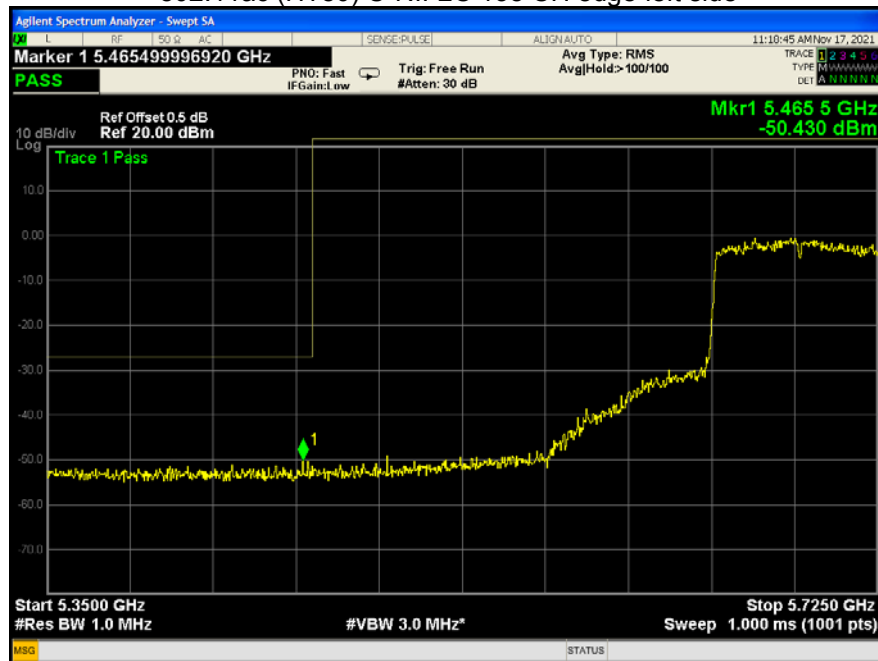
802.11n (HT40) U-NII-2C 142 CH edge-left side



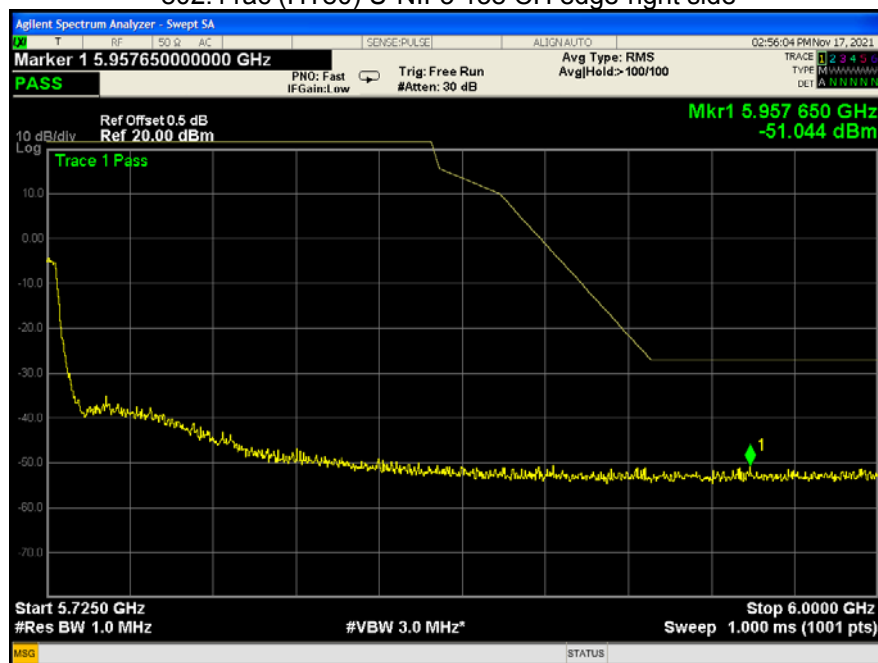
802.11n (HT40) U-NII-3 142 CH edge-right side



802.11ac (HT80) U-NII-2C 138 CH edge-left side



802.11ac (HT80) U-NII-3 138 CH edge-right side



11 6 dB Bandwidth

Test Requirement:	FCC CFR47 Part 15 Section 15.407(e) KDB662911 D01 Multiple Transmitter Output v02r01
Test Method:	KDB789033 D02 General U-NII Test Procedures New Rules v02r01 Section C
Test Limit:	≥ 500 kHz
Test Result:	PASS

11.1 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 = 100kHz, VBW = 300kHz

11.2 Test Result:

Table 1:Antenna 0

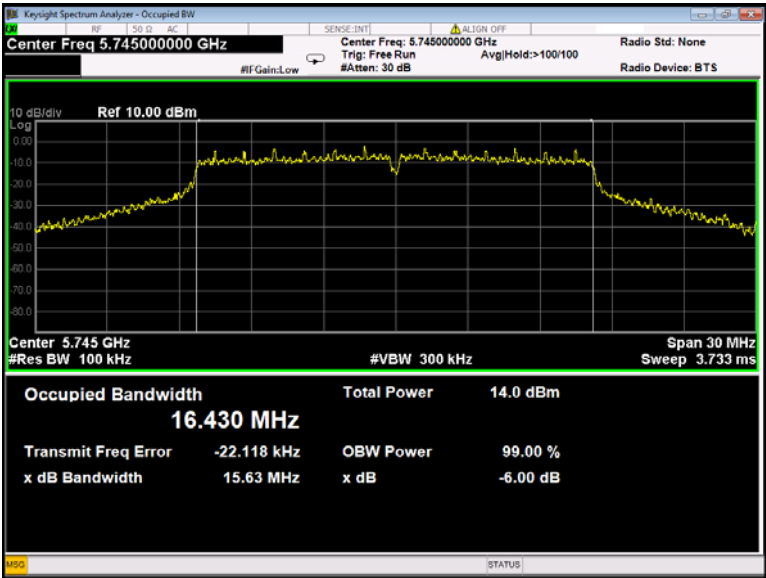
Band	Operation mode	6 dB Bandwidth (MHz)		
		Low	Middle	High
U-NII-3	802.11a	15.63	15.35	15.10
	802.11n(HT20)	16.80	15.95	16.51
	802.11n(HT40)	35.16	/	35.16
	802.11ac(HT20)	16.80	15.53	16.51
	802.11ac(HT40)	35.13	/	35.74
	802.11ac(HT80)	/	75.12	/

Table 2:Antenna 1

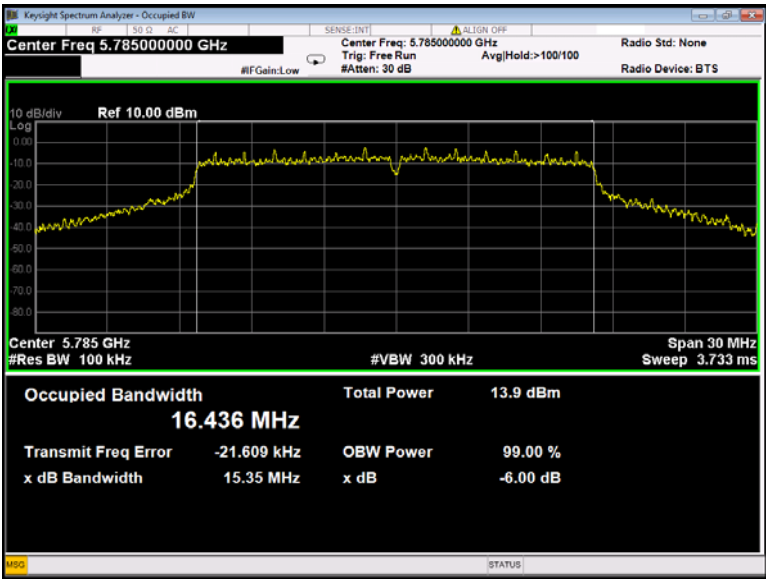
Band	Operation mode	6 dB Bandwidth (MHz)		
		Low	Middle	High
U-NII-3	802.11a	15.54	15.54	16.02
	802.11n(HT20)	16.24	14.61	15.68
	802.11n(HT40)	35.17	/	35.16
	802.11ac(HT20)	16.79	15.94	16.52
	802.11ac(HT40)	35.15	/	35.33
	802.11ac(HT80)	/	75.15	/

Test result plots shown as follows: Antenna 0

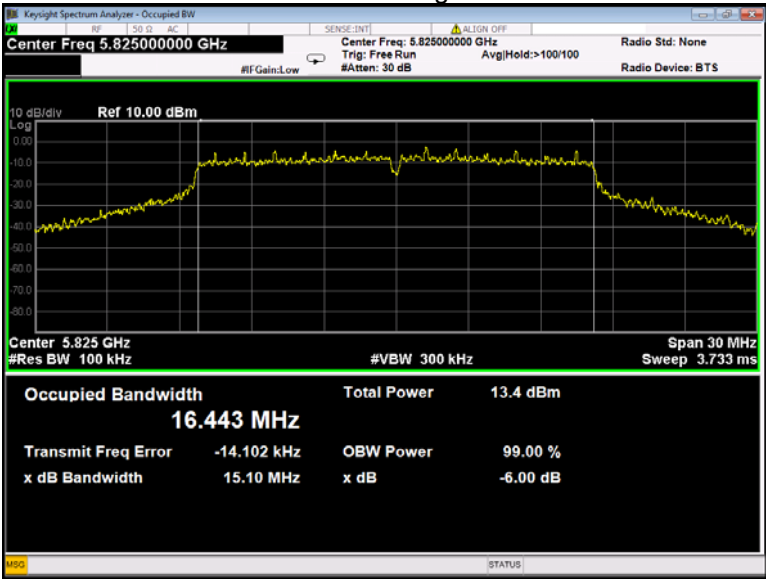
802.11a U-NII-3 Low channel



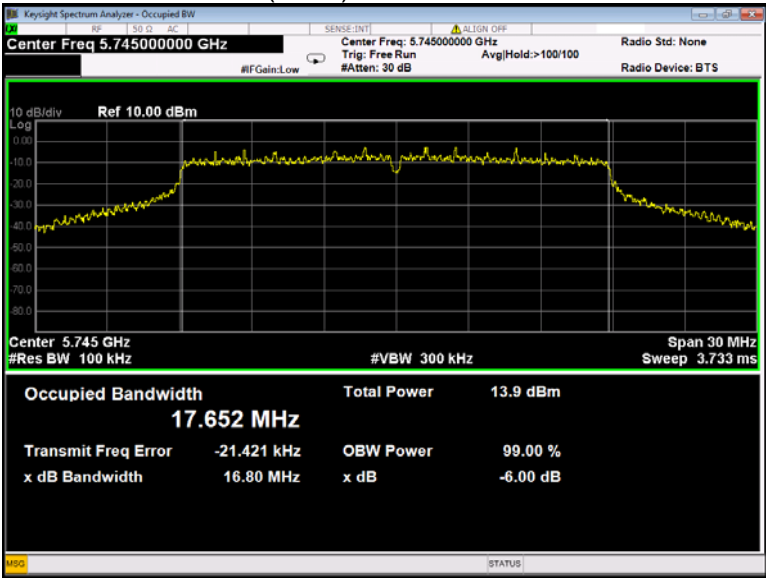
802.11a U-NII-3 Middle channel



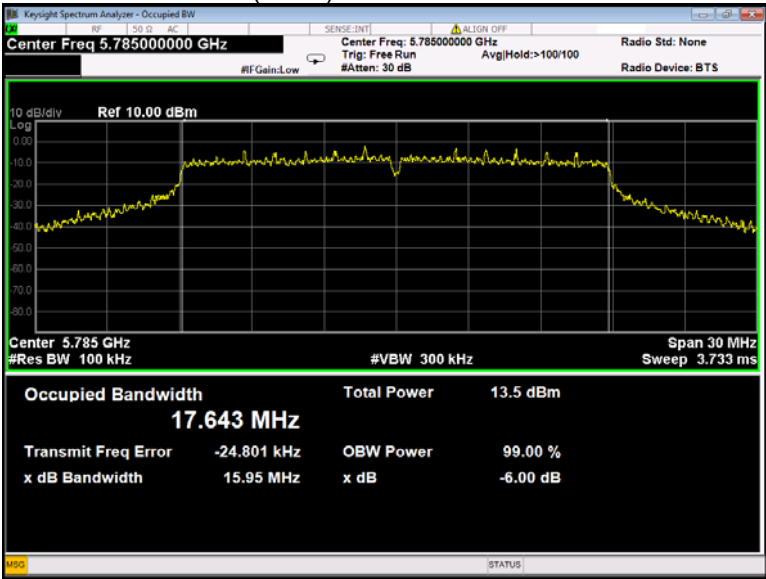
802.11a U-NII-3 High channel



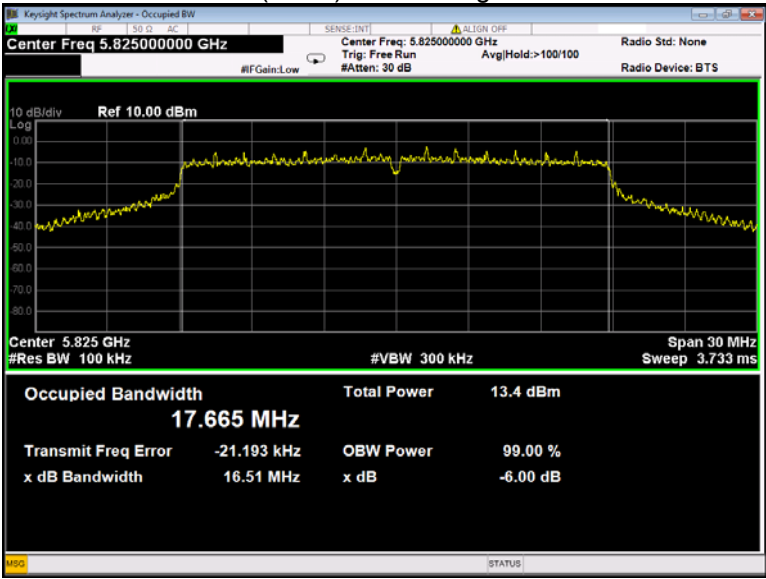
802.11n(HT20) U-NII-3 Low channel



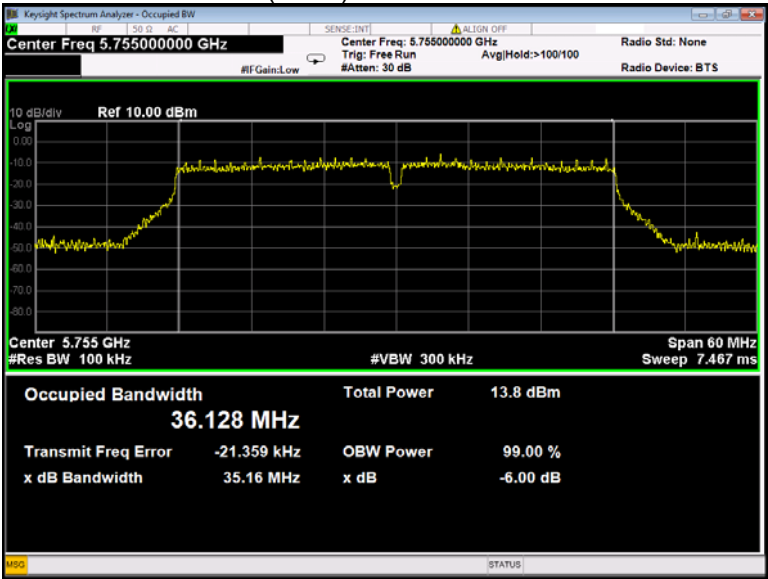
802.11n(HT20) U-NII-3 Middle channel



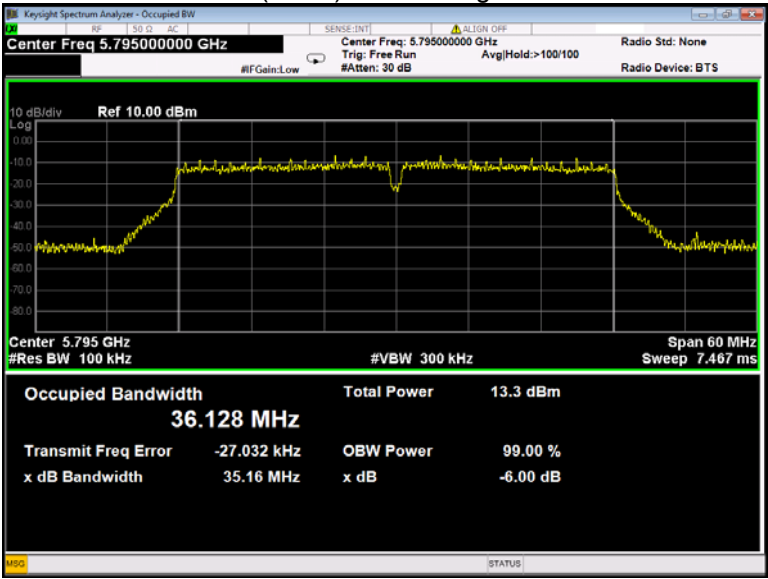
802.11n(HT20) U-NII-3 High channel



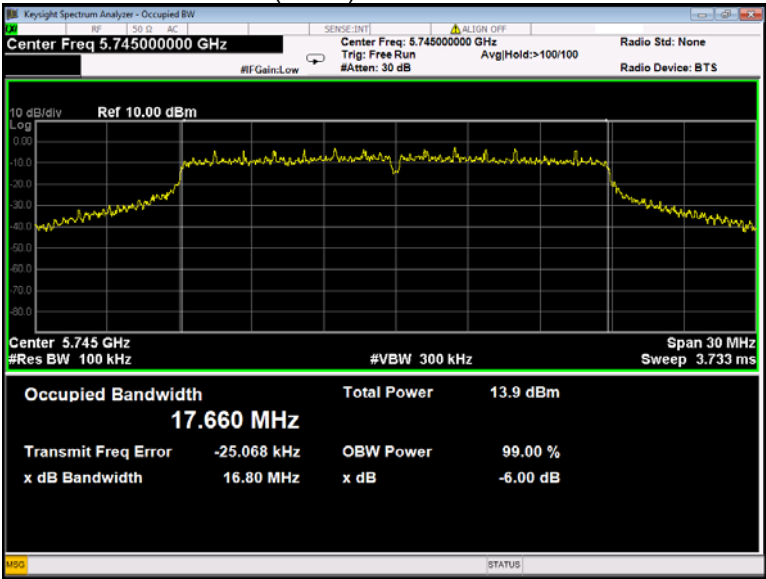
802.11n(HT40) U-NII-3 Low channel



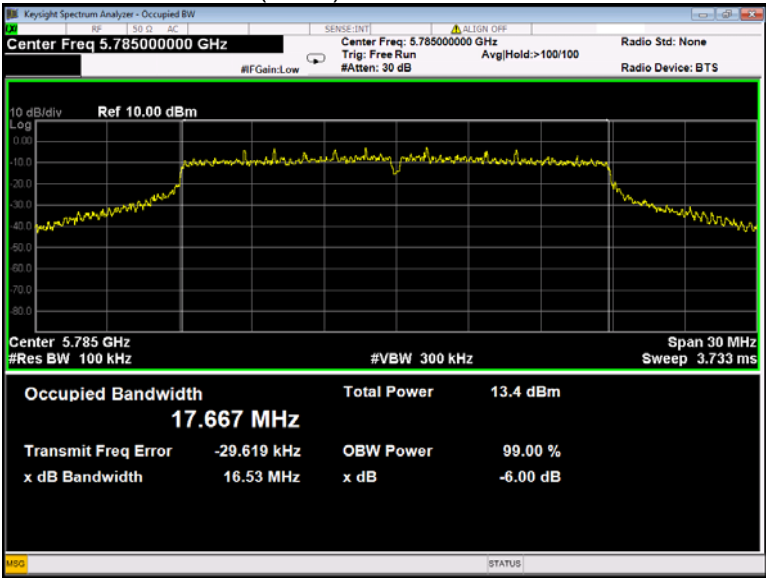
802.11n(HT40) U-NII-3 High channel



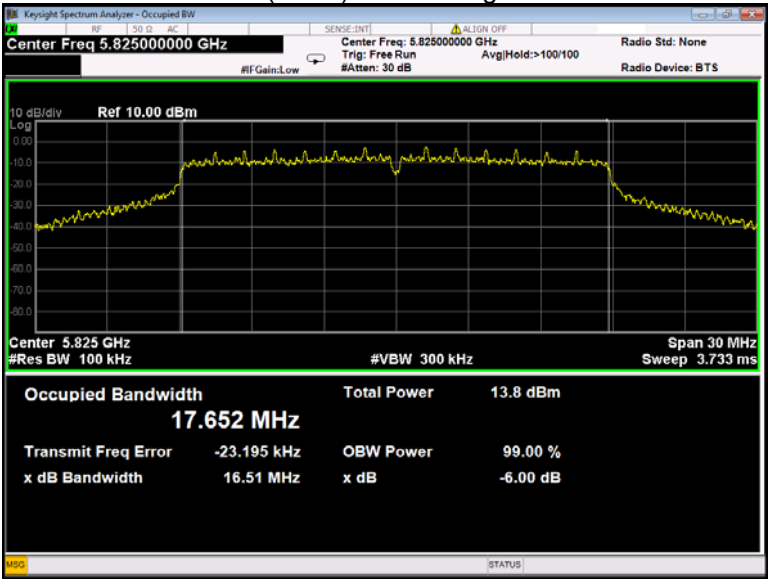
802.11ac(HT20) U-NII-3 Low channel



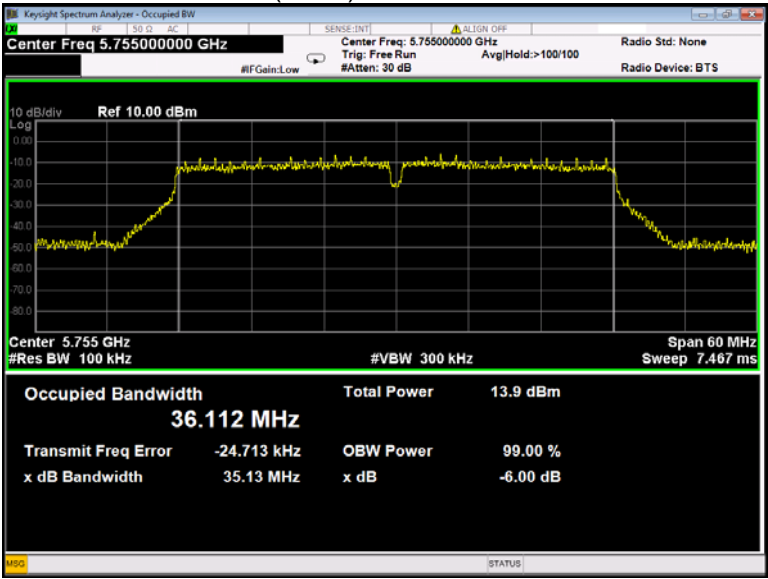
802.11ac(HT20) U-NII-3 Middle channel



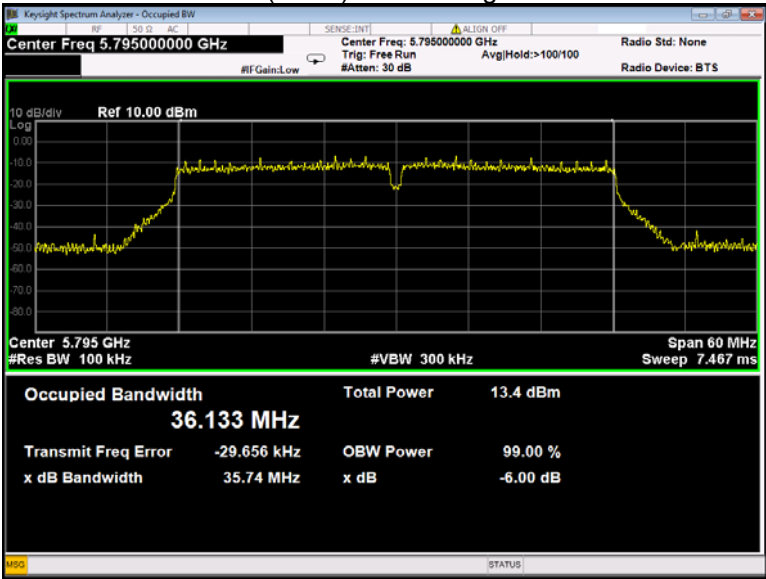
802.11ac(HT20) U-NII-3 High channel



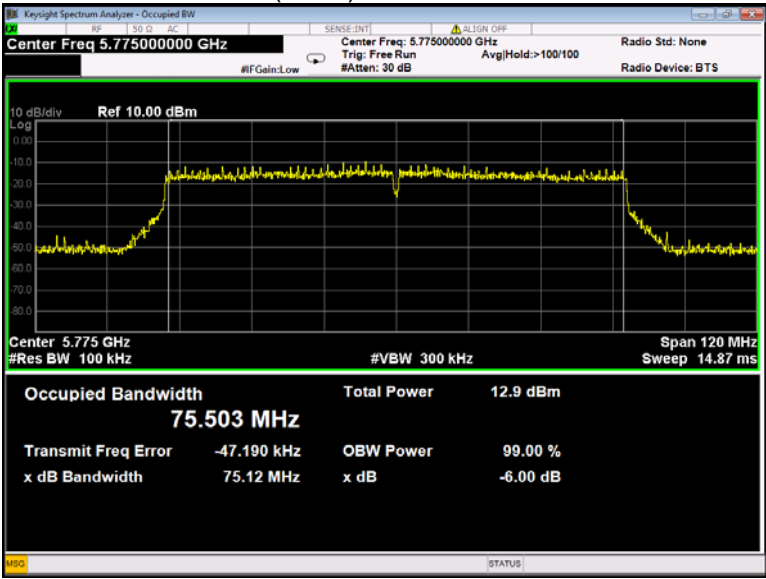
802.11ac(HT40) U-NII-3 Low channel



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

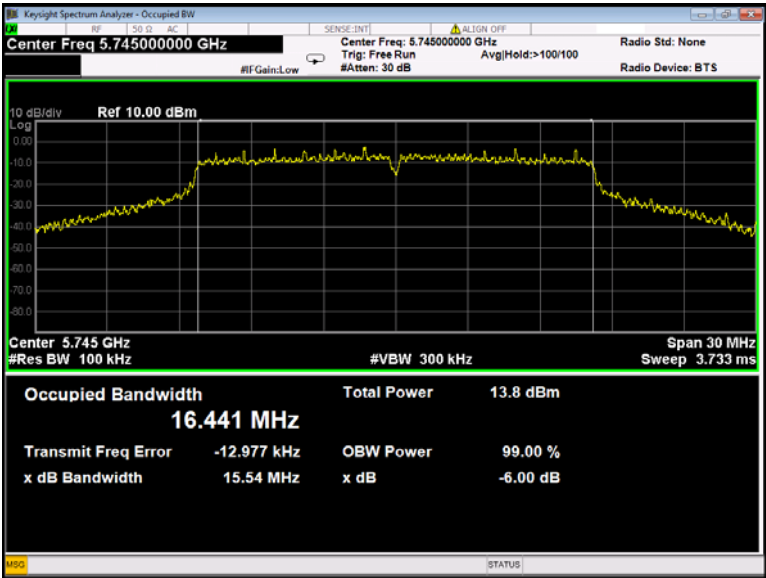


802.11ac(HT80) U-NII-3 Low channel

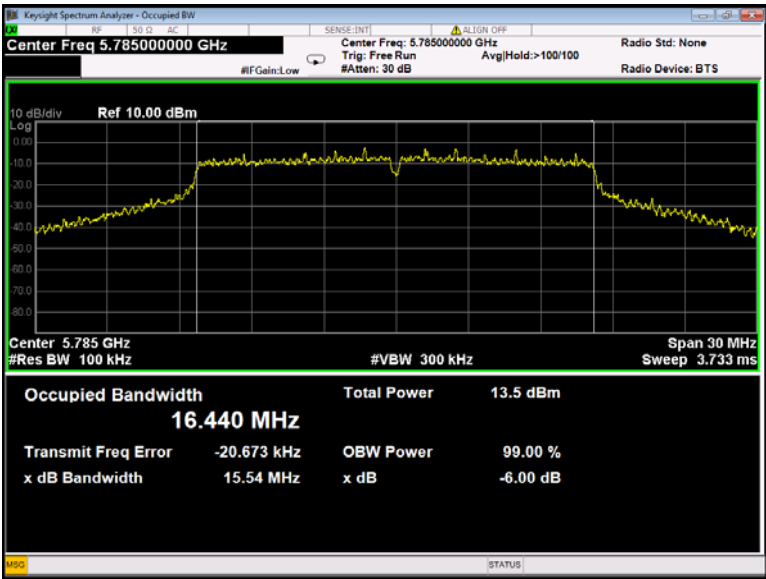


Antenna 1

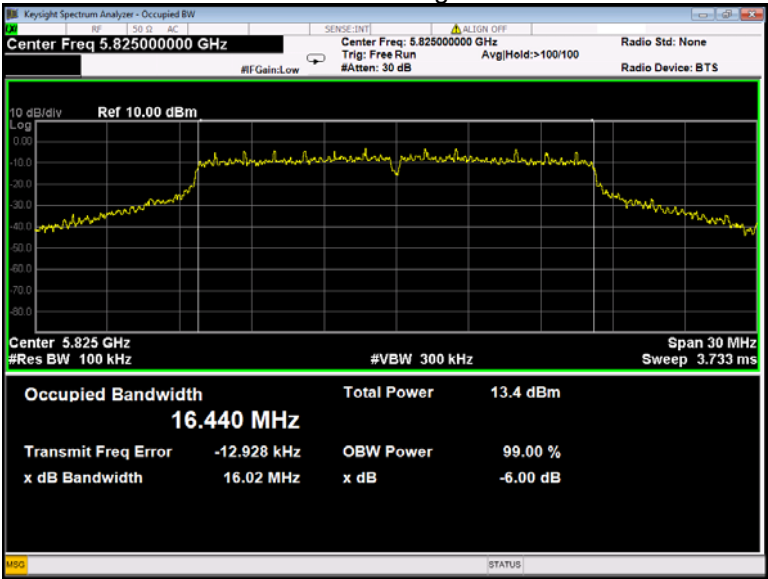
802.11a U-NII-3 Low channel



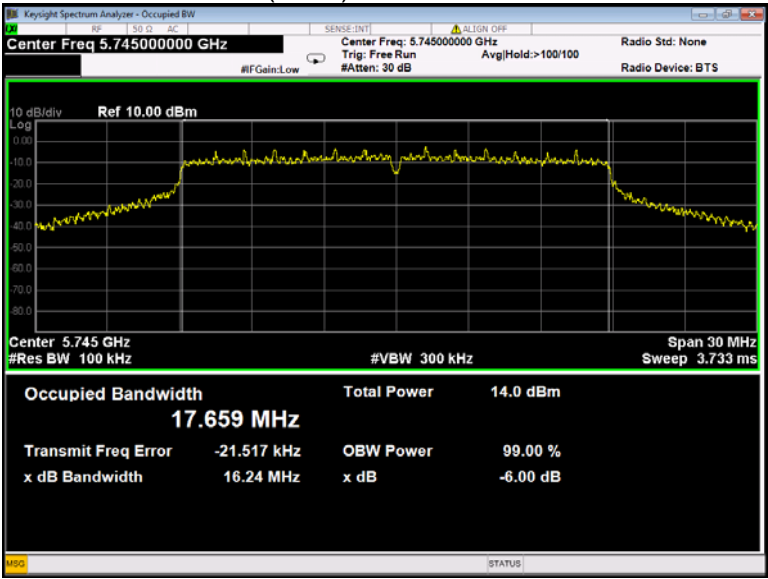
802.11a U-NII-3 Middle channel



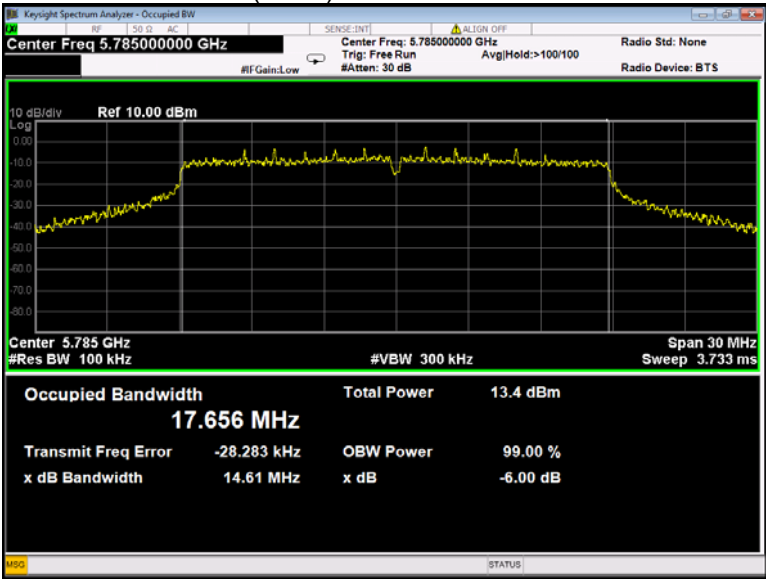
802.11a U-NII-3 High channel



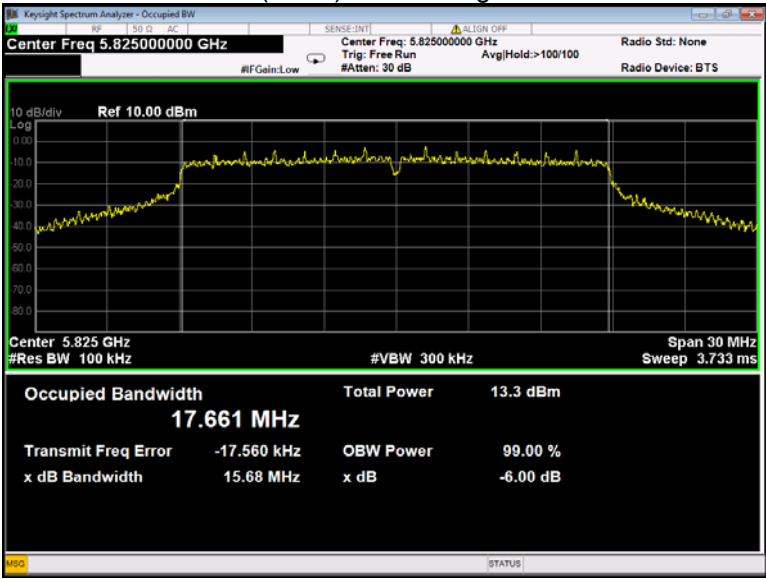
802.11n(HT20) U-NII-3 Low channel



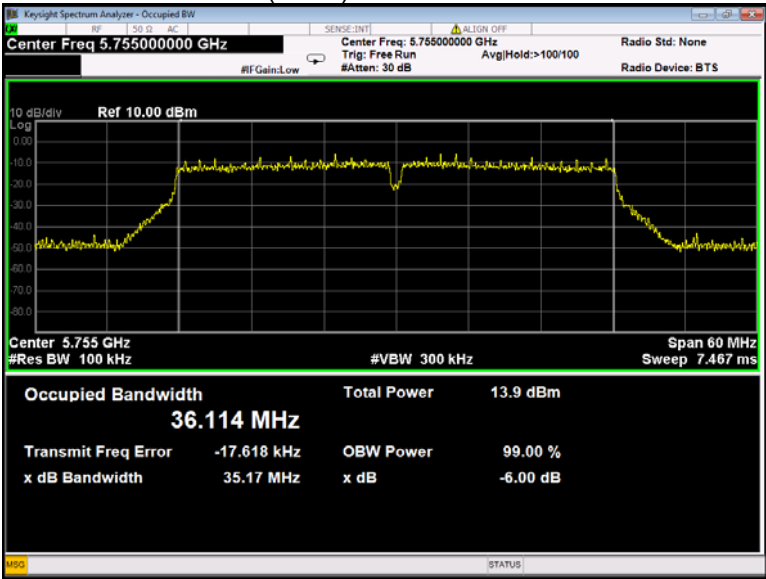
802.11n(HT20) U-NII-3 Middle channel



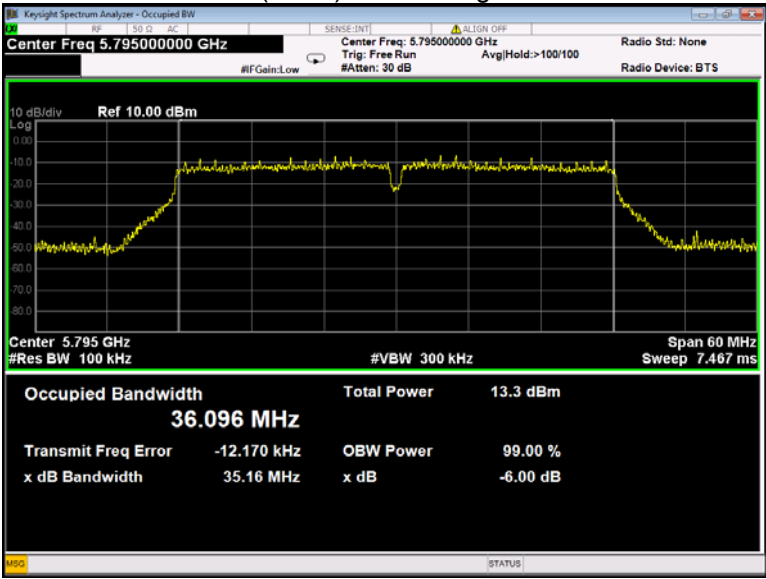
802.11n(HT20) U-NII-3 High channel



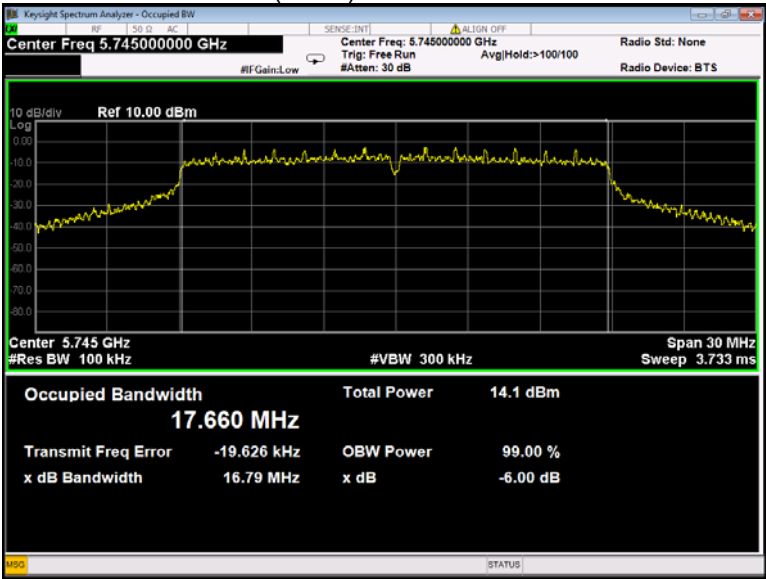
802.11n(HT40) U-NII-3 Low channel



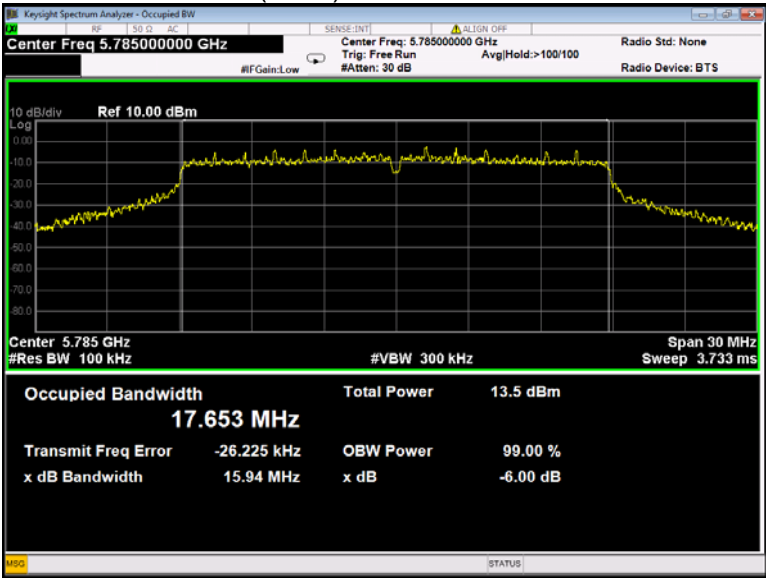
802.11n(HT40) U-NII-3 High channel



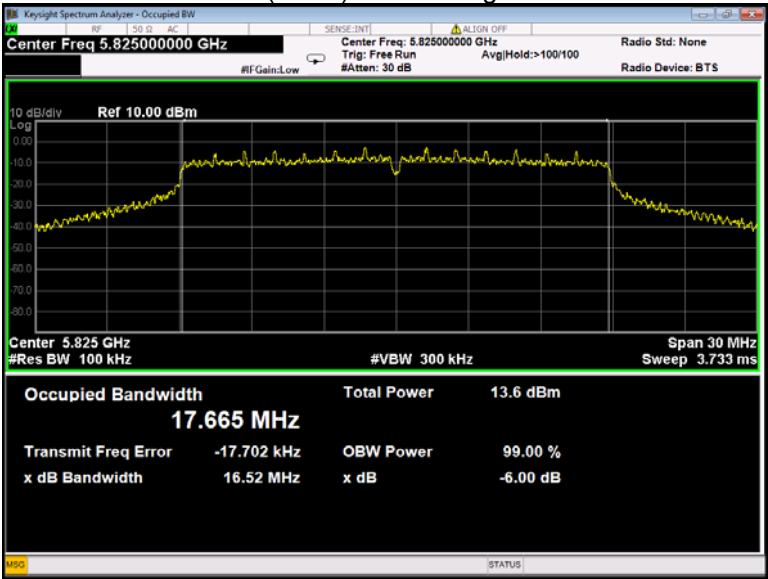
802.11ac(HT20) U-NII-3 Low channel



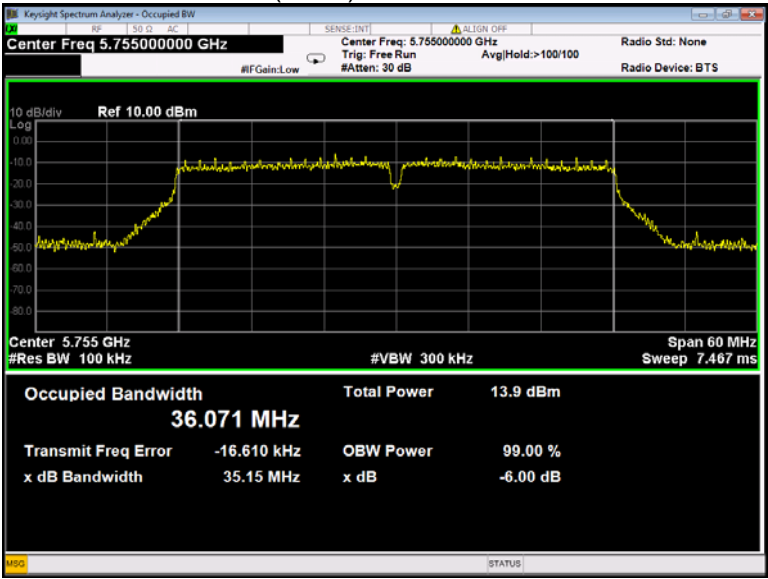
802.11ac(HT20) U-NII-3 Middle channel



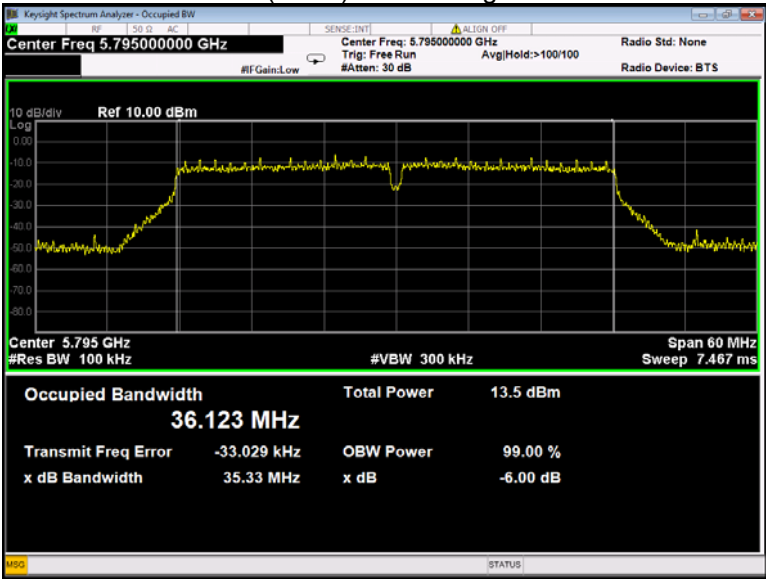
802.11ac(HT20) U-NII-3 High channel



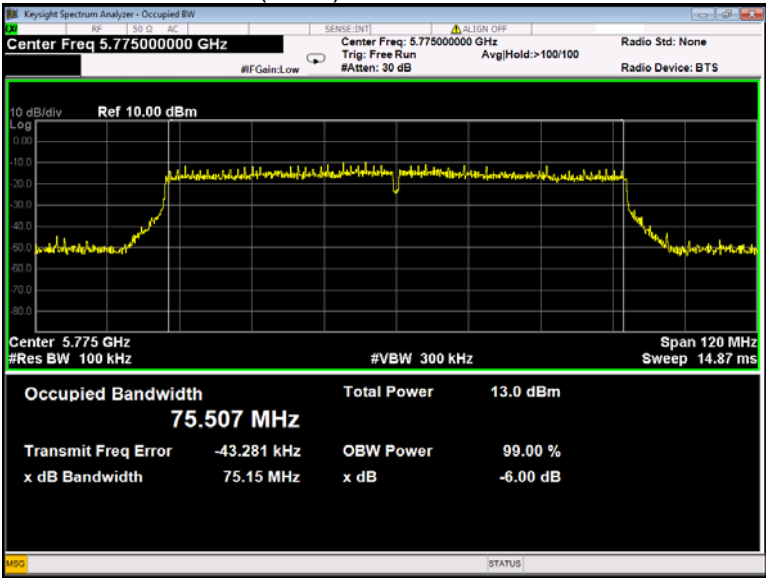
802.11ac(HT40) U-NII-3 Low channel



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



802.11ac(HT80) U-NII-3 Middle channel



12 26 dB Bandwidth and 99% Occupied Bandwidth

Test Requirement:	47 CFR Part 15C Section 15.407 (a) KDB662911 D01 Multiple Transmitter Output v02r01
Test Method:	KDB789033 D02 General U-NII Test Procedures New Rules v02r01 Section D
Test Limit:	No restriction limits
Test Result:	PASS

12.1 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% to 5% of the OBW, VBW = 3x RBW

12.2 Test Result:

Band	Operation mode	26 dB Bandwidth (MHz)			99% Bandwidth (MHz)		
		Low	Middle	High	Low	Middle	High
U-NII-1 (ANT0)	802.11a	21.29	20.97	21.30	16.458	16.450	16.457
	802.11n(HT20)	23.31	21.41	21.66	17.678	17.674	17.658
	802.11ac(HT20)	22.00	22.11	21.88	17.678	17.672	17.675
	802.11n(HT40)	40.12	/	40.20	36.189	/	36.194
	802.11ac(HT40)	40.00	/	39.86	36.182	/	36.176
	802.11ac(HT80)	/	81.90	/	/	75.623	/

Band	Operation mode	26 dB Bandwidth (MHz)			99% Bandwidth (MHz)		
		Low	Middle	High	Low	Middle	High
U-NII-2A (ANT0)	802.11a	21.32	21.31	21.13	16.458	16.456	16.447
	802.11n(HT20)	22.01	21.60	21.65	17.672	17.685	17.671
	802.11ac(HT20)	21.74	21.95	22.08	17.675	17.668	17.672
	802.11n(HT40)	39.99	/	40.14	36.174	/	36.173
	802.11ac(HT40)	40.05	/	39.94	36.171	/	36.163
	802.11ac(HT80)	/	80.70	/	/	75.555	/

Band	Operation mode	26 dB Bandwidth (MHz)			99% Bandwidth (MHz)		
		Low	Middle	High	Low	Middle	High
U-NII-2C (ANT0)	802.11a	22.11	23.09	21.43	16.522	16.518	16.533
	802.11n(HT20)	22.36	22.13	22.96	17.764	17.741	17.746
	802.11ac(HT20)	22.87	22.63	21.80	17.747	17.755	17.736
	802.11n(HT40)	40.84	41.12	40.92	36.193	36.129	36.151
	802.11ac(HT40)	40.97	40.54	40.85	36.138	36.150	36.168
	802.11ac(HT80)	81.79	82.24	/	75.598	75.520	/

Band	Operation mode	26 dB Bandwidth (MHz)			99% Bandwidth (MHz)		
		Low	Middle	High	Low	Middle	High
U-NII-3 (ANT0)	802.11a	15.96	16.06	16.06	16.507	16.548	16.522
	802.11n(HT20)	17.15	17.15	17.25	17.744	17.764	17.749
	802.11ac(HT20)	17.17	17.19	17.15	17.755	17.755	17.721
	802.11n(HT40)	36.13	/	36.28	36.169	/	36.163
	802.11ac(HT40)	36.06	/	36.28	36.128	/	36.157
	802.11ac(HT80)	/	76.16	/	/	75.653	/

Band	Operation mode	26 dB Bandwidth (MHz)			99% Bandwidth (MHz)		
		Low	Middle	High	Low	Middle	High
U-NII-1 (ANT1)	802.11a	21.34	21.37	21.18	16.455	16.454	16.457
	802.11n(HT20)	21.67	21.76	21.76	17.678	17.669	17.665
	802.11ac(HT20)	21.96	21.75	21.51	17.669	17.679	17.682
	802.11n(HT40)	40.22	/	39.98	36.170	/	36.184
	802.11ac(HT40)	40.23	/	39.96	36.191	/	36.184
	802.11ac(HT80)	/	81.94	/	/	75.632	/

Band	Operation mode	26 dB Bandwidth (MHz)			99% Bandwidth (MHz)		
		Low	Middle	High	Low	Middle	High
U-NII-2A (ANT1)	802.11a	21.28	21.21	21.38	16.451	16.463	16.449
	802.11n(HT20)	21.78	21.80	22.10	17.674	17.676	17.674
	802.11ac(HT20)	22.14	21.90	21.94	17.679	17.678	17.680
	802.11n(HT40)	40.07	/	40.19	36.184	/	36.178
	802.11ac(HT40)	40.03	/	39.99	36.205	/	36.163
	802.11ac(HT80)	/	81.03	/	/	75.599	/

Band	Operation mode	26 dB Bandwidth (MHz)			99% Bandwidth (MHz)		
		Low	Middle	High	Low	Middle	High
U-NII-2C (ANT1)	802.11a	22.02	22.93	21.38	16.558	16.537	16.545
	802.11n(HT20)	23.23	24.29	22.82	17.738	17.753	17.727
	802.11ac(HT20)	23.06	22.84	22.04	17.748	17.734	17.778
	802.11n(HT40)	40.52	40.62	40.60	36.157	36.138	36.184
	802.11ac(HT40)	40.98	40.66	41.47	36.121	36.173	36.170
	802.11ac(HT80)	82.30	82.31	/	75.580	75.550	/

Band	Operation mode	26 dB Bandwidth (MHz)			99% Bandwidth (MHz)		
		Low	Middle	High	Low	Middle	High
U-NII-3 (ANT1)	802.11a	16.09	16.12	15.98	16.531	16.527	16.564
	802.11n(HT20)	17.12	17.31	17.04	17.765	17.753	17.733
	802.11ac(HT20)	16.95	16.97	17.41	17.732	17.728	17.744
	802.11n(HT40)	36.31	/	36.22	36.167	/	36.178
	802.11ac(HT40)	36.25	/	36.31	36.162	/	36.182
	802.11ac(HT80)	/	76.09	/	/	75.615	/

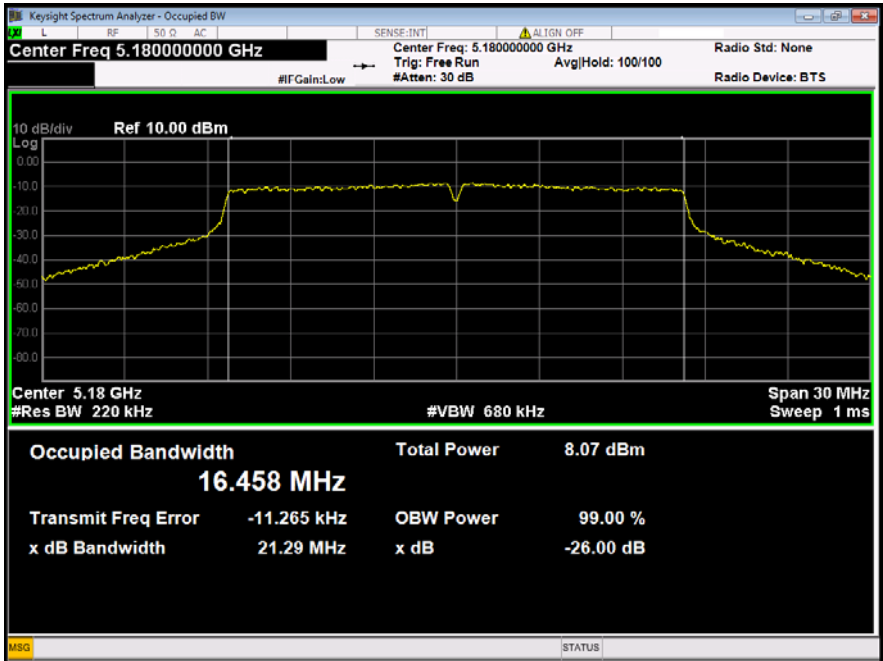
Band	Operation mode	26 dB Bandwidth (MHz)			99% Bandwidth (MHz)		
		Low	Middle	High	Low	Middle	High
U-NII-1	802.11ac(HT80+HT80)	162.7	/	/	154.43	/	/
U-NII-2C	802.11ac(HT80+HT80)	162.6	/	/	154.35	/	/

overlapping channels	Operation mode	26 dB Bandwidth (MHz)			99% Bandwidth (MHz)		
		Low	Middle	High	Low	Middle	High
(ANT0) 144, 142, 138	802.11a	/	/	22.04	/	/	16.510
	802.11n(HT20)	/	/	22.55	/	/	17.764
	802.11ac(HT20)	/	/	22.29	/	/	17.743
	802.11n(HT40)	/	/	41.24	/	/	36.191
	802.11ac(HT40)	/	/	41.16	/	/	36.166
	802.11ac(HT80)	/	/	81.67	/	/	75.559

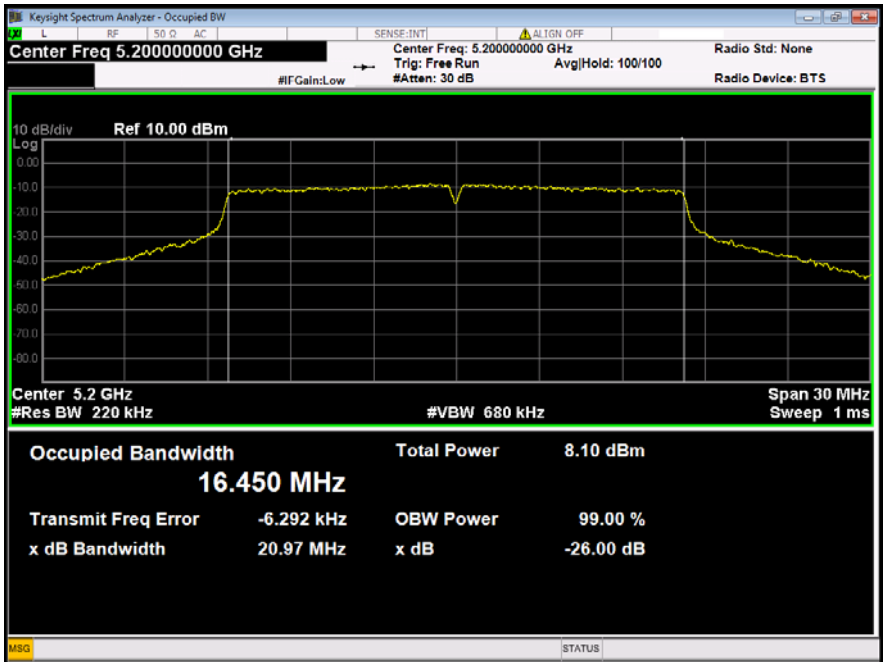
overlapping channels	Operation mode	26 dB Bandwidth (MHz)			99% Bandwidth (MHz)		
		Low	Middle	High	Low	Middle	High
(ANT1) 144, 142, 138	802.11a	/	/	22.57	/	/	16.538
	802.11n(HT20)	/	/	22.41	/	/	17.752
	802.11ac(HT20)	/	/	22.53	/	/	17.734
	802.11n(HT40)	/	/	40.98	/	/	36.180
	802.11ac(HT40)	/	/	41.08	/	/	36.147
	802.11ac(HT80)	/	/	82.48	/	/	75.546

Test result plots shown as follows: Antenna 0

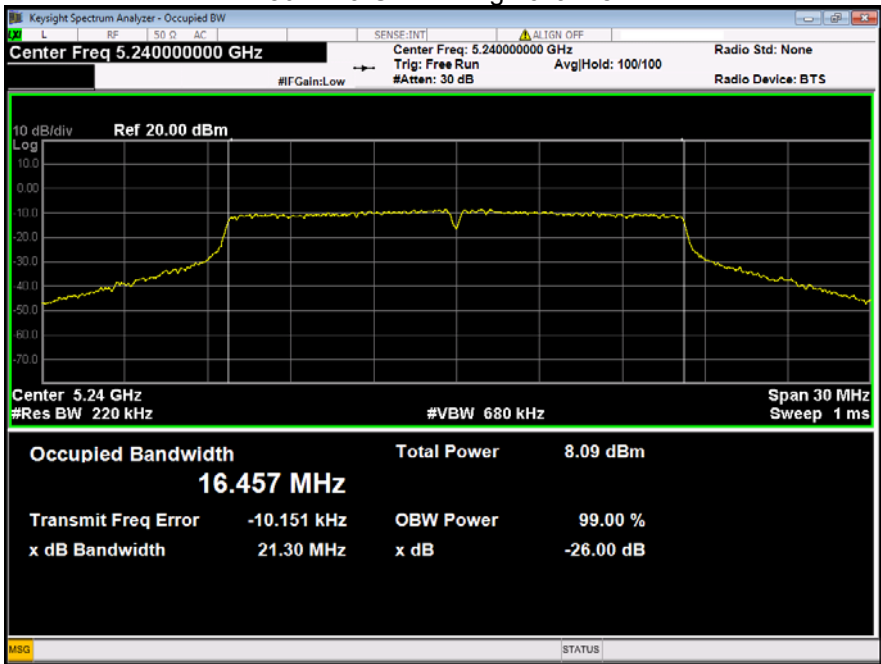
802.11a U-NII-1 Low channel



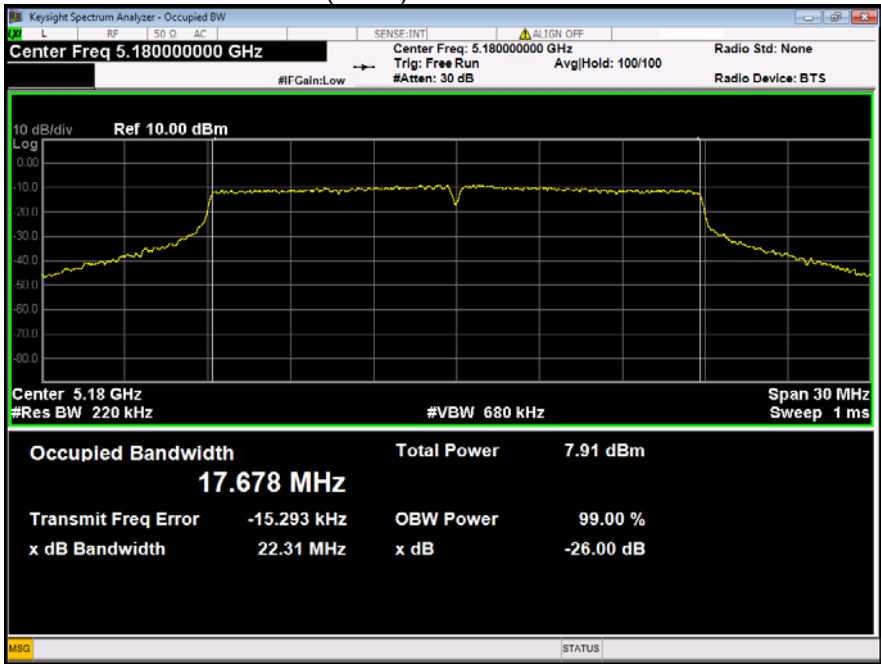
802.11a U-NII-1 Middle channel



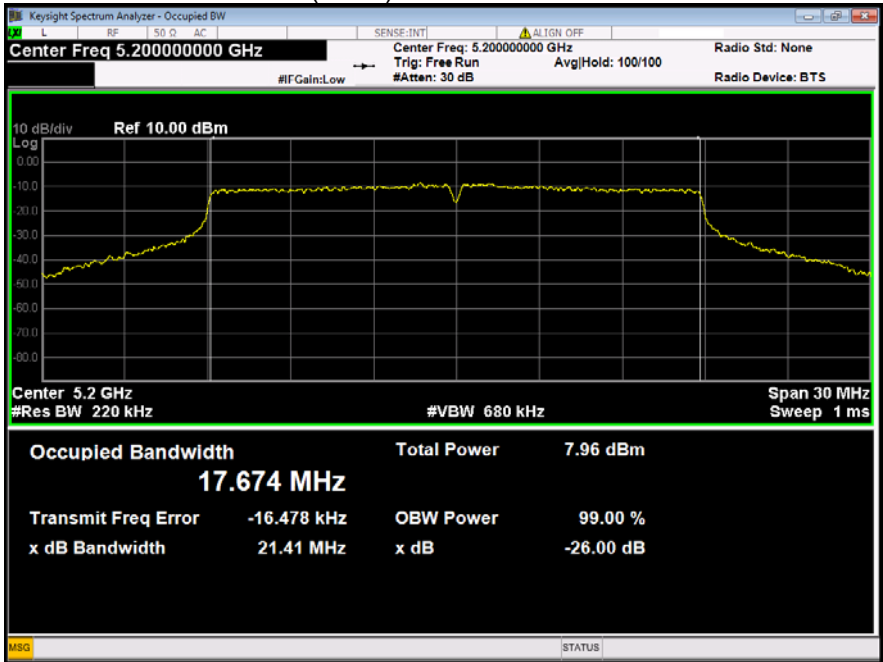
802.11a U-NII-1 High channel



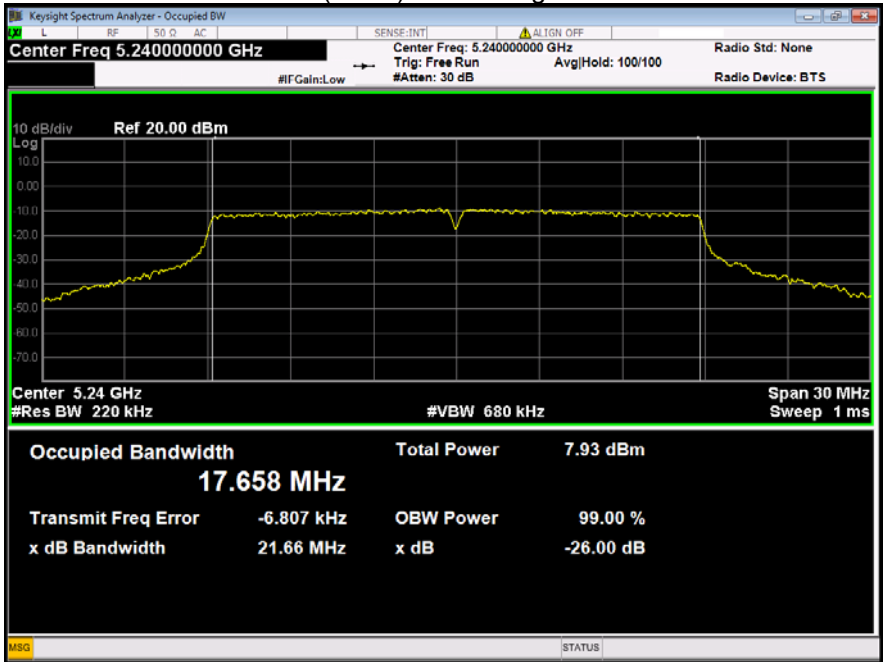
802.11n(HT20) U-NII-1 Low channel



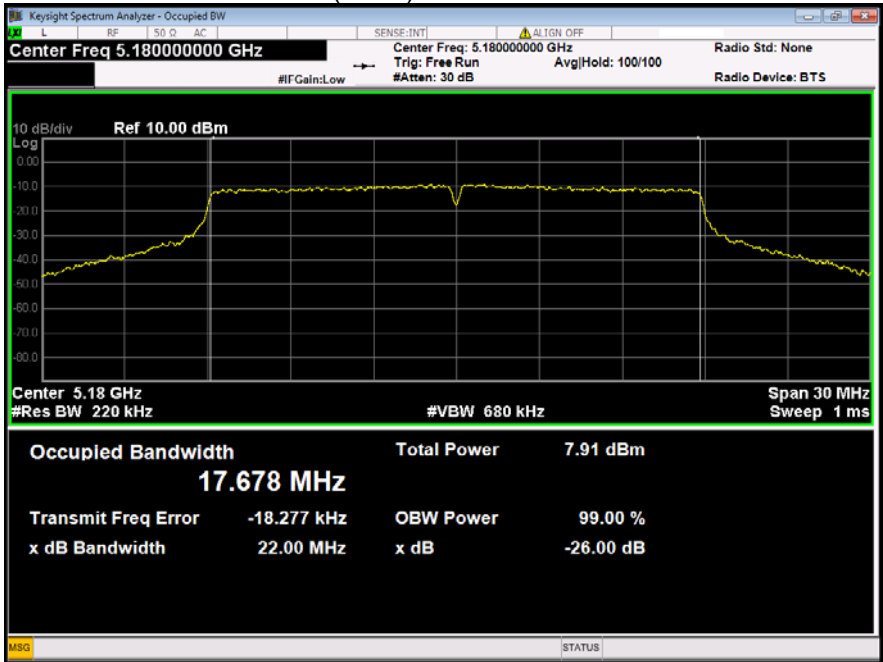
802.11n(HT20) U-NII-1 Middle channel



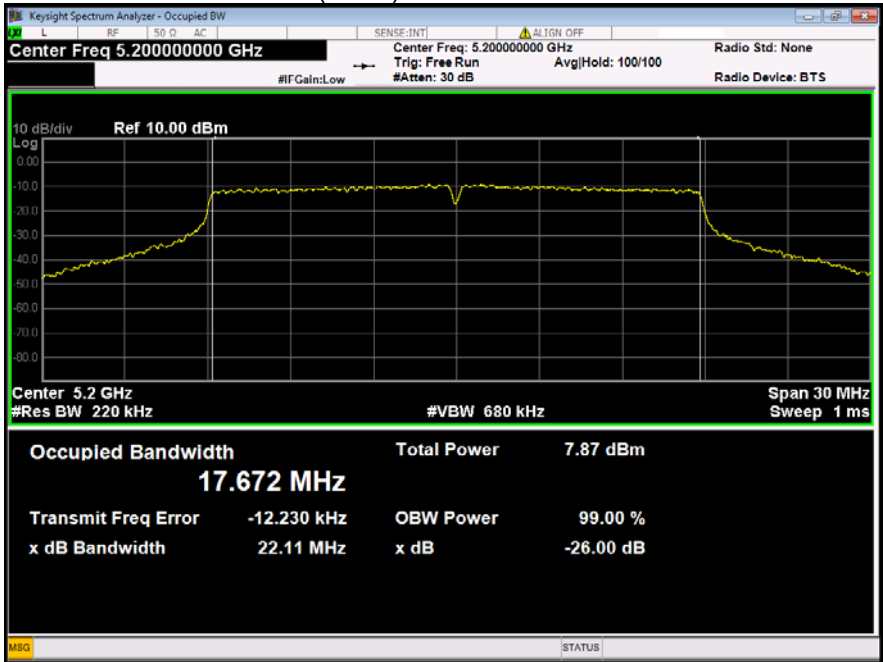
802.11n(HT20) U-NII-1 High channel



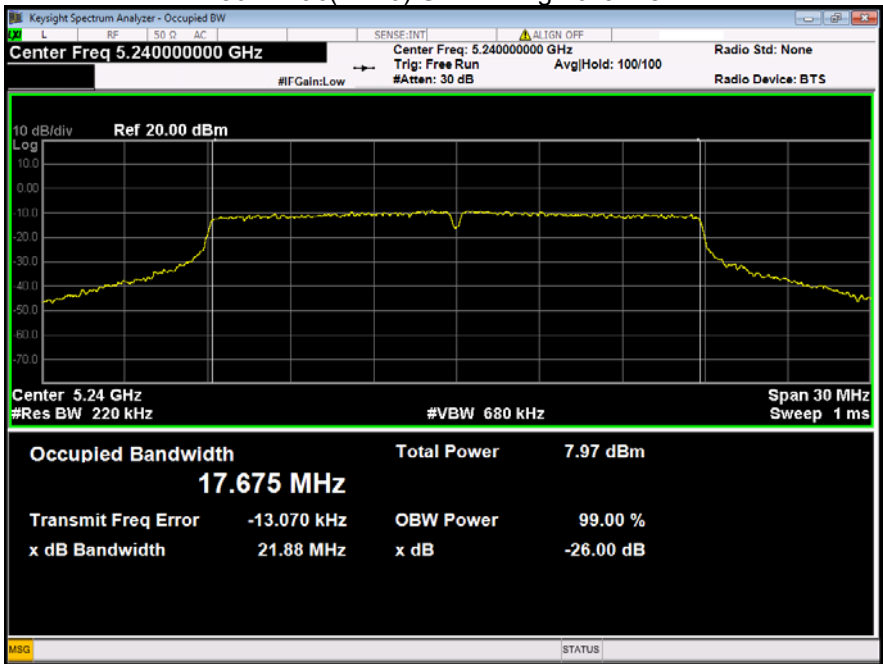
802.11ac(HT20) U-NII-1 Low channel



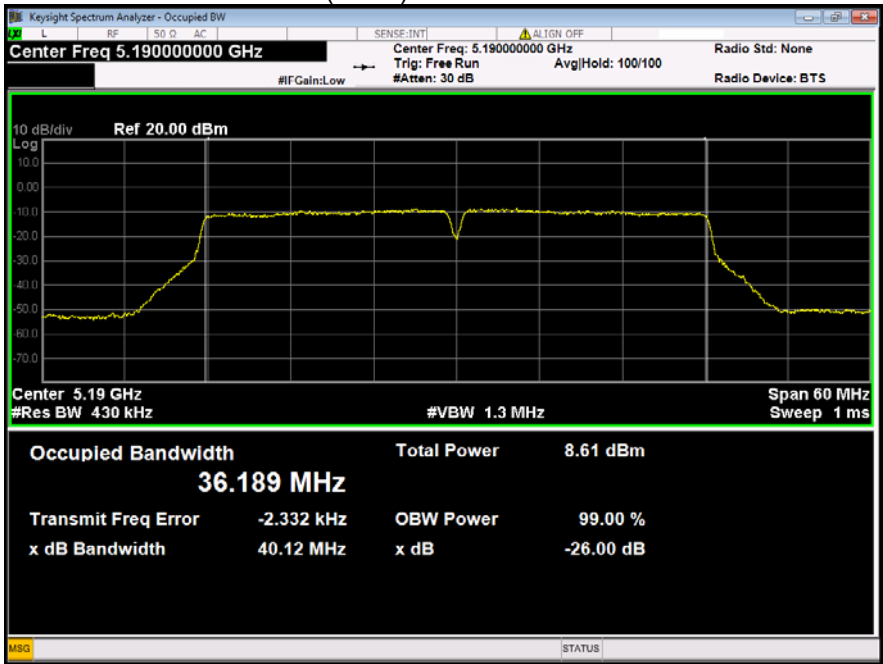
802.11ac(HT20) U-NII-1 Middle channel



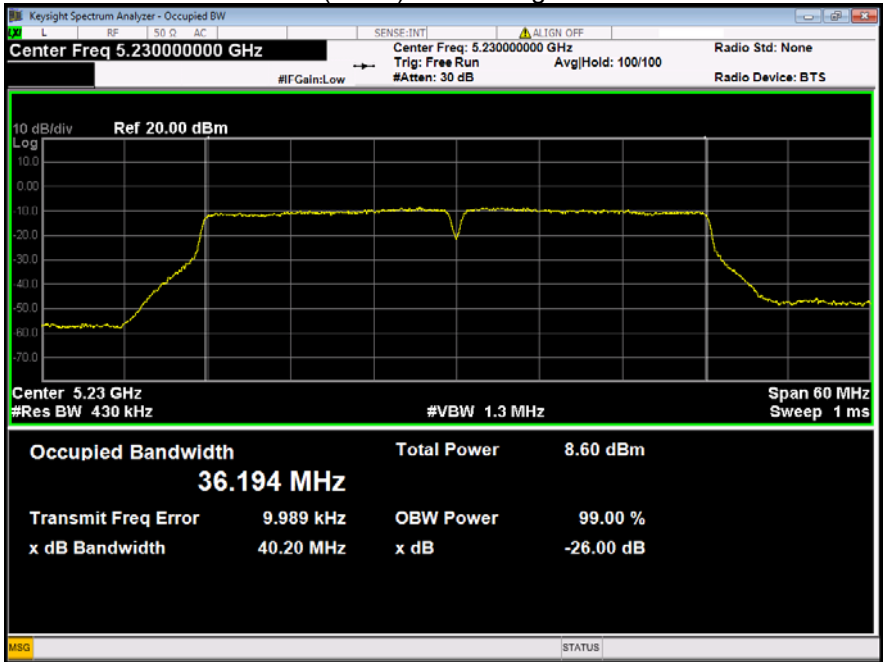
802.11ac(HT20) U-NII-1 High channel



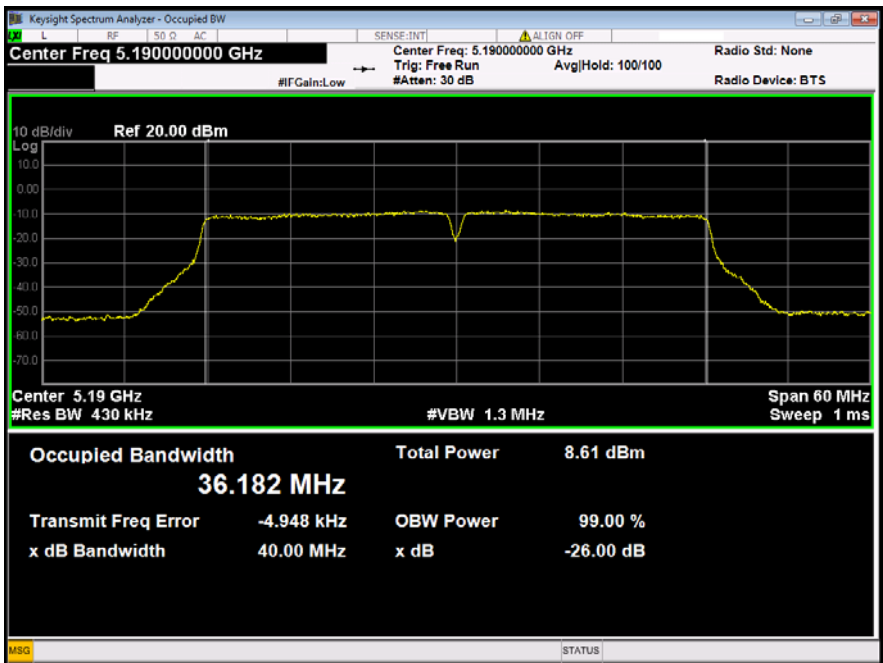
802.11n(HT40) U-NII-1 Low channel



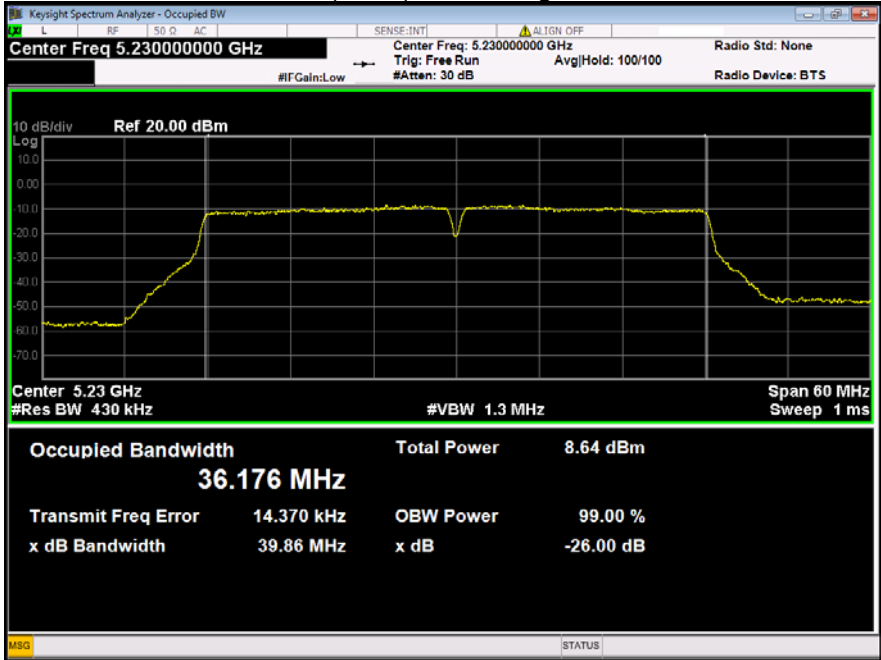
802.11n(HT40) U-NII-1 High channel



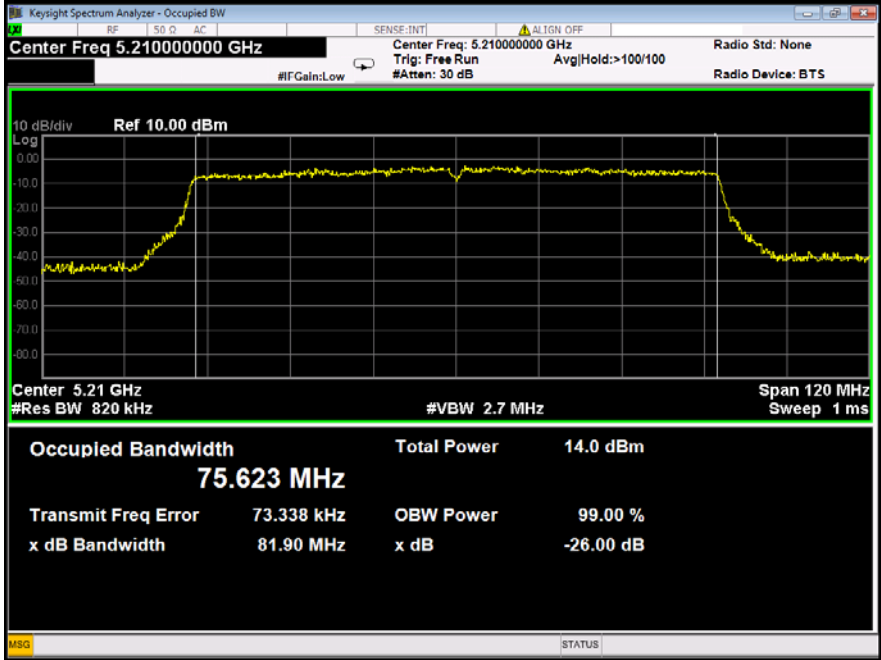
802.11ac(HT40) U-NII-1 Low channel



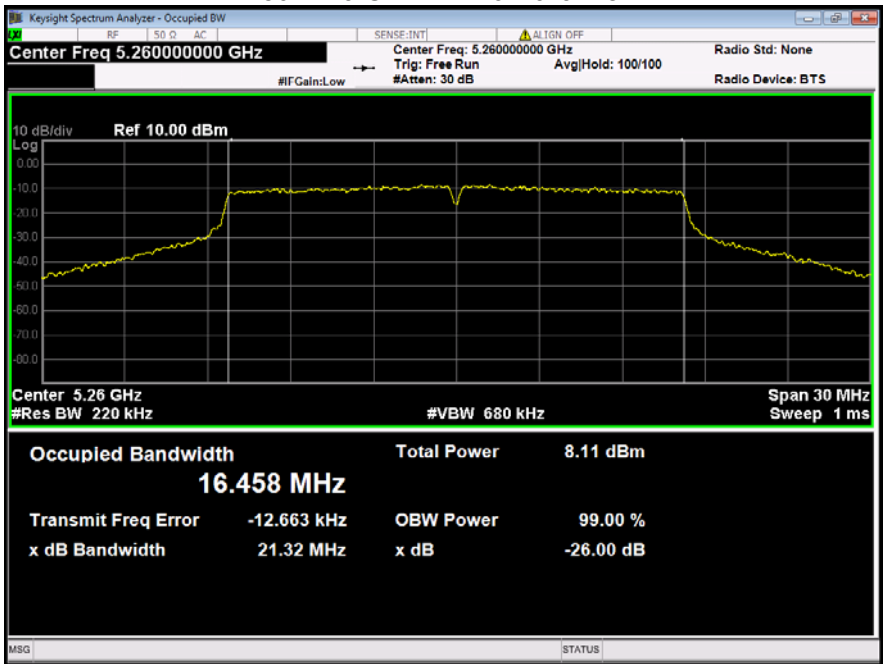
802.11ac(HT40) U-NII-1 High channel



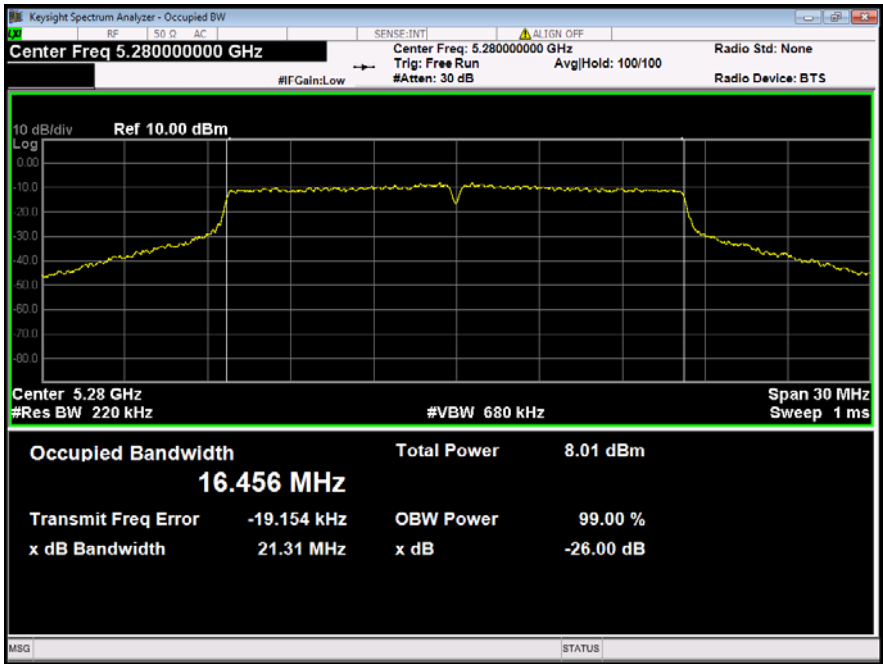
802.11ac(HT80) U-NII-1 Middle channel



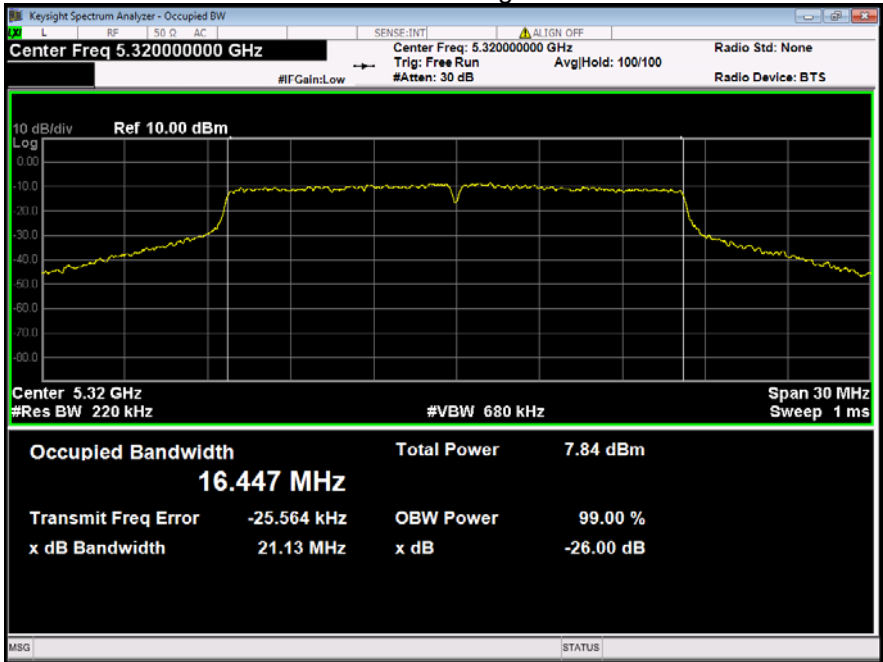
802.11a U-NII-2A Low channel



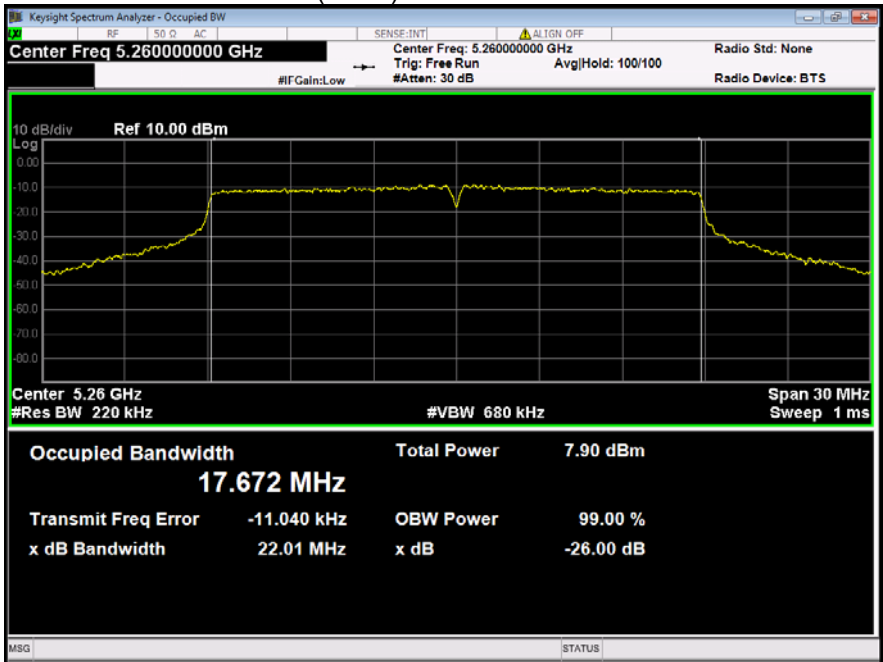
802.11a U-NII-2A Middle channel



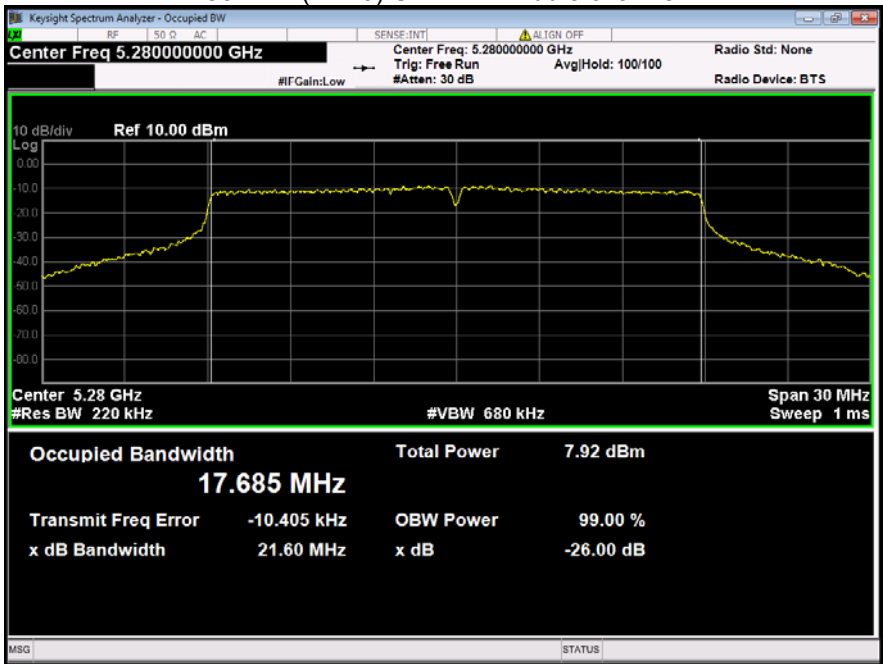
802.11a U-NII-2A High channel



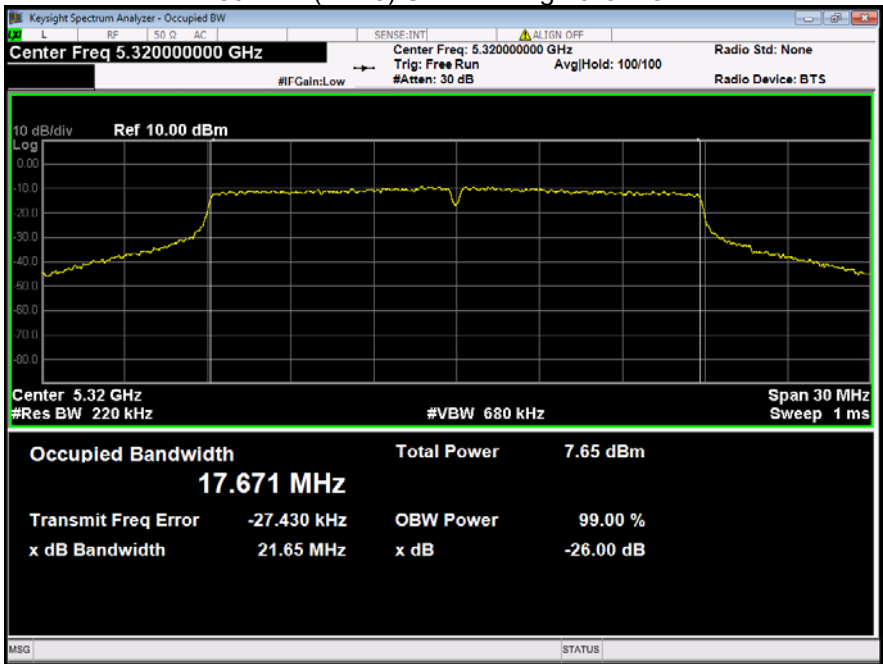
802.11n(HT20) U-NII-2A Low channel



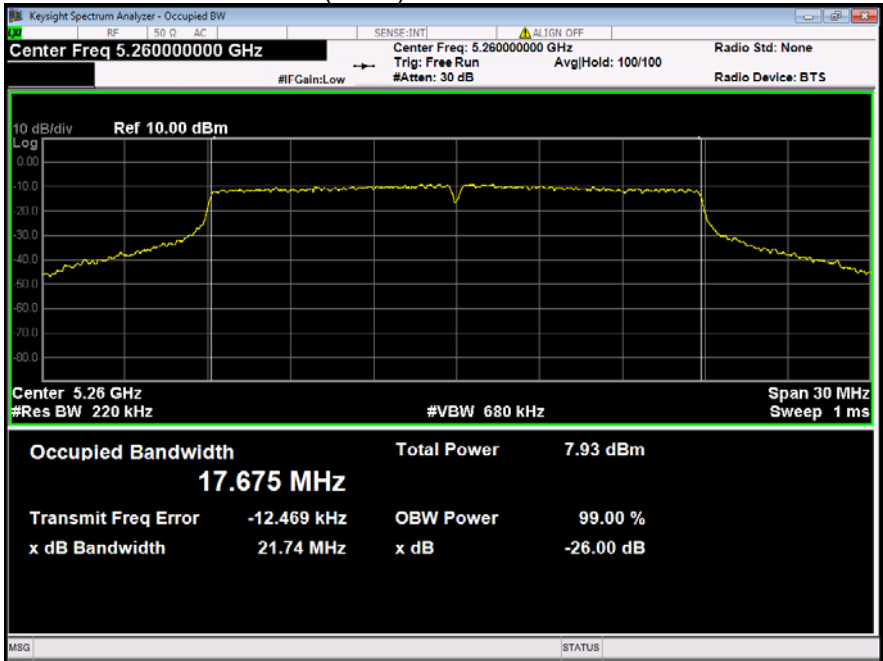
802.11n(HT20) U-NII-2A Middle channel



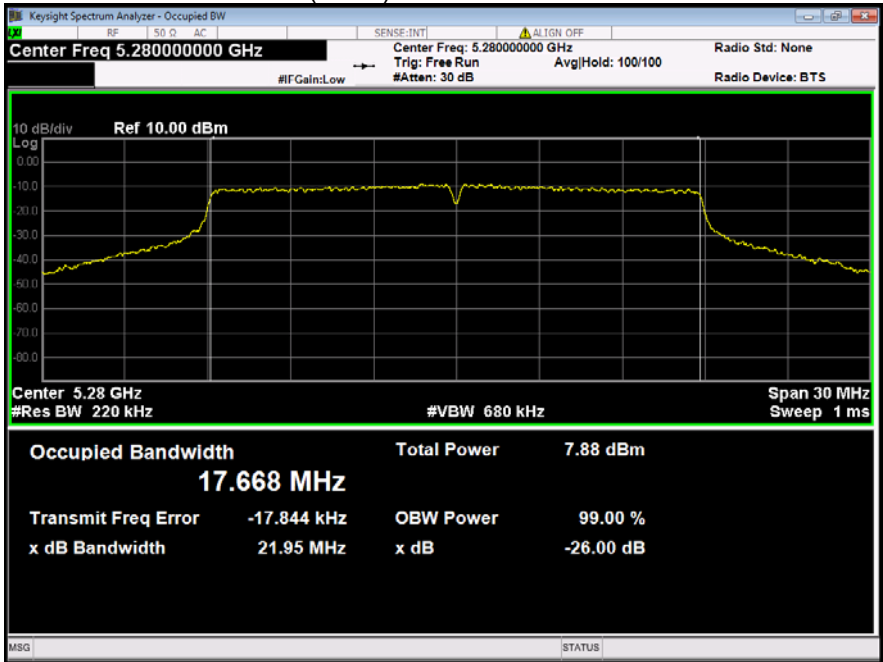
802.11n(HT20) U-NII-2A High channel



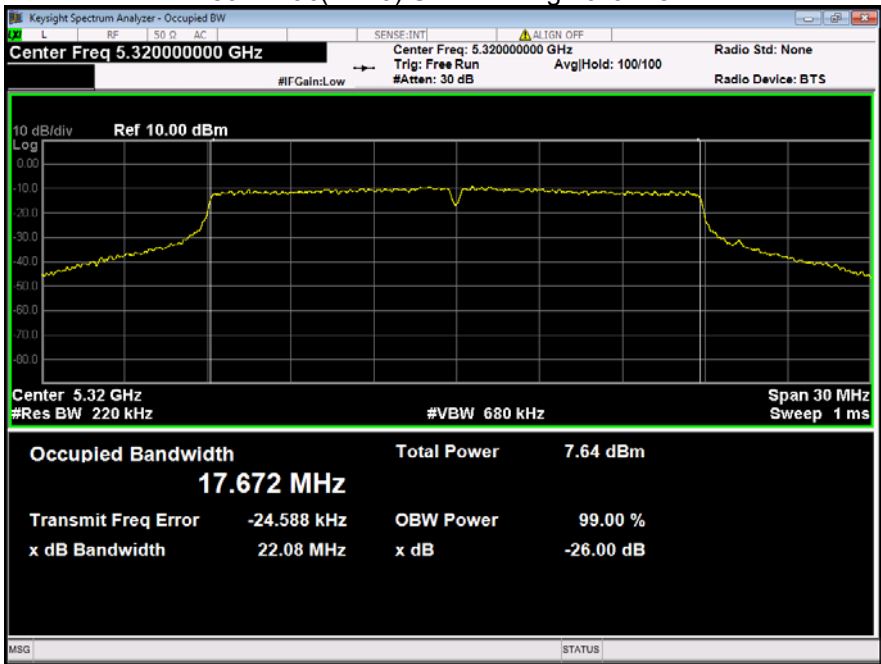
802.11ac(HT20) U-NII-2A Low channel



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



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



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

