

7.3. 6dB Bandwidth Measurement

7.3.1. Test Limit

The minimum 6dB bandwidth shall be at least 500 kHz.

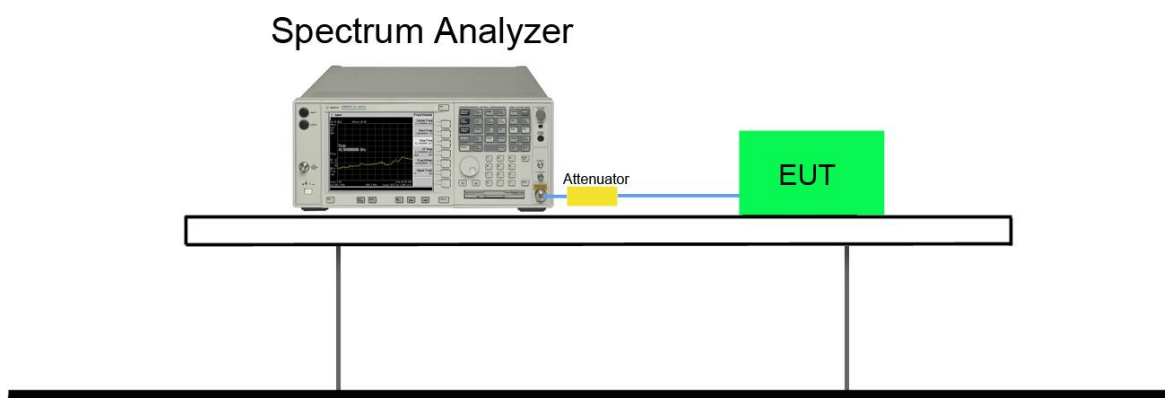
7.3.2. Test Procedure used

KDB 789033 D02v01 - Section C.2

7.3.3. Test Setting

1. Set center frequency to the nominal EUT channel center frequency.
2. RBW = 100 kHz.
3. VBW $\geq 3 \times$ RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize.
8. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

7.3.4. Test Setup

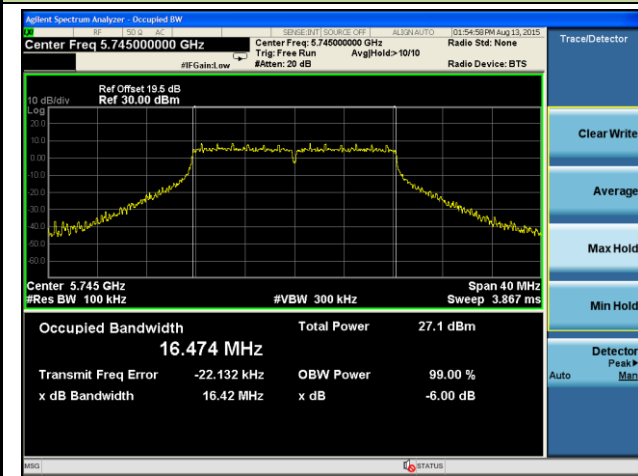


7.3.5. Test Result

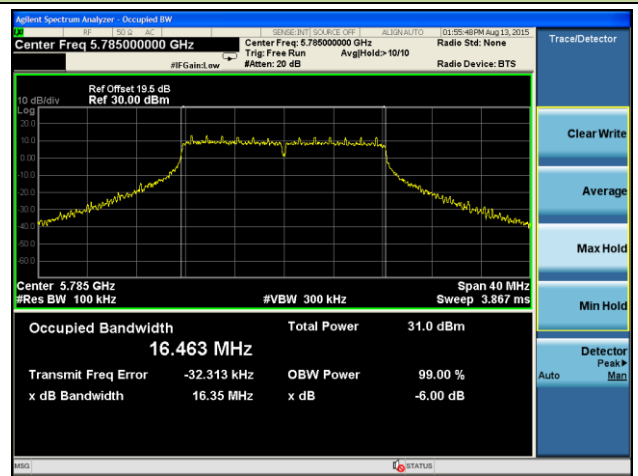
Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
Ant 1						
802.11a	6	149	5745	16.42	≥ 0.5	Pass
802.11a	6	157	5785	16.35	≥ 0.5	Pass
802.11a	6	165	5825	16.35	≥ 0.5	Pass
802.11n-HT20	6.5	149	5745	17.63	≥ 0.5	Pass
802.11n-HT20	6.5	157	5785	17.25	≥ 0.5	Pass
802.11n-HT20	6.5	165	5825	17.34	≥ 0.5	Pass
802.11n-HT40	13.5	151	5755	36.33	≥ 0.5	Pass
802.11n-HT40	13.5	159	5795	35.74	≥ 0.5	Pass
802.11ac-VHT20	6.5	149	5745	17.63	≥ 0.5	Pass
802.11ac-VHT20	6.5	157	5785	17.37	≥ 0.5	Pass
802.11ac-VHT20	6.5	165	5825	17.38	≥ 0.5	Pass
802.11ac-VHT40	13.5	151	5755	36.07	≥ 0.5	Pass
802.11ac-VHT40	13.5	159	5795	35.78	≥ 0.5	Pass
802.11ac-VHT80	29.3	155	5775	70.84	≥ 0.5	Pass
Ant 2						
802.11a	6	149	5745	16.36	≥ 0.5	Pass
802.11a	6	157	5785	16.36	≥ 0.5	Pass
802.11a	6	165	5825	16.39	≥ 0.5	Pass
802.11n-HT20	6.5	149	5745	17.35	≥ 0.5	Pass
802.11n-HT20	6.5	157	5785	17.30	≥ 0.5	Pass
802.11n-HT20	6.5	165	5825	17.57	≥ 0.5	Pass
802.11n-HT40	13.5	151	5755	35.98	≥ 0.5	Pass
802.11n-HT40	13.5	159	5795	35.76	≥ 0.5	Pass
802.11ac-VHT20	6.5	149	5745	17.54	≥ 0.5	Pass
802.11ac-VHT20	6.5	157	5785	17.58	≥ 0.5	Pass
802.11ac-VHT20	6.5	165	5825	17.58	≥ 0.5	Pass
802.11ac-VHT40	13.5	151	5755	35.77	≥ 0.5	Pass
802.11ac-VHT40	13.5	159	5795	35.58	≥ 0.5	Pass
802.11ac-VHT80	29.3	155	5775	72.36	≥ 0.5	Pass

802.11a 6dB Bandwidth - Ant 1

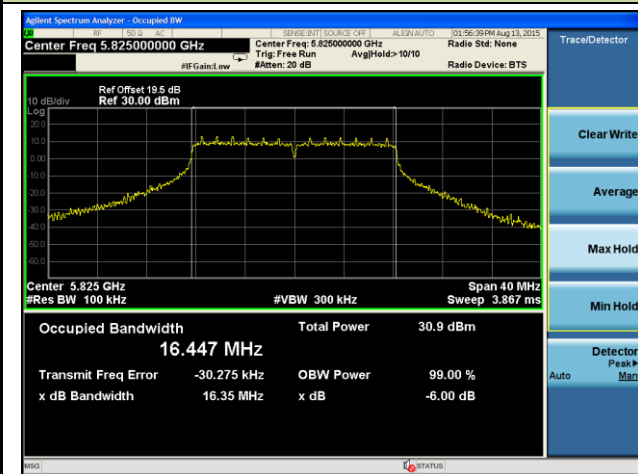
Channel 149 (5745MHz)



Channel 157 (5785MHz)

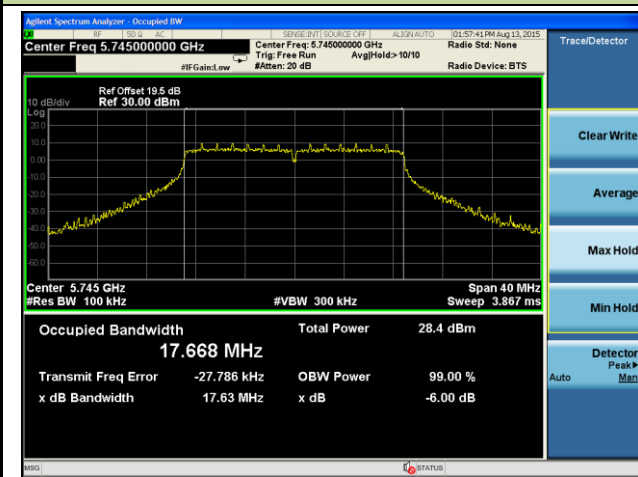


Channel 165 (5825MHz)

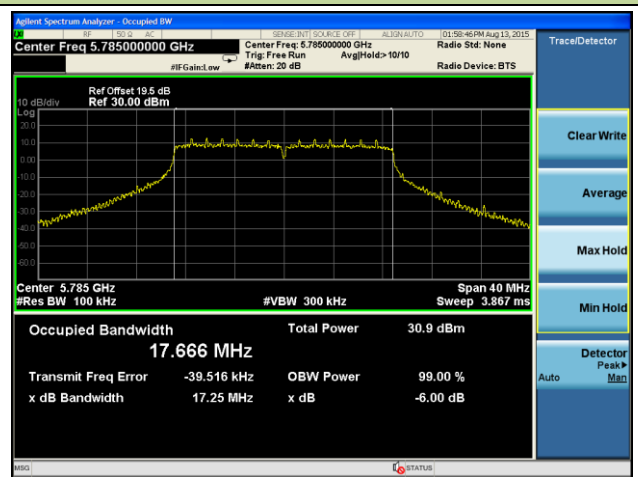


802.11n-HT20 6dB Bandwidth - Ant 1

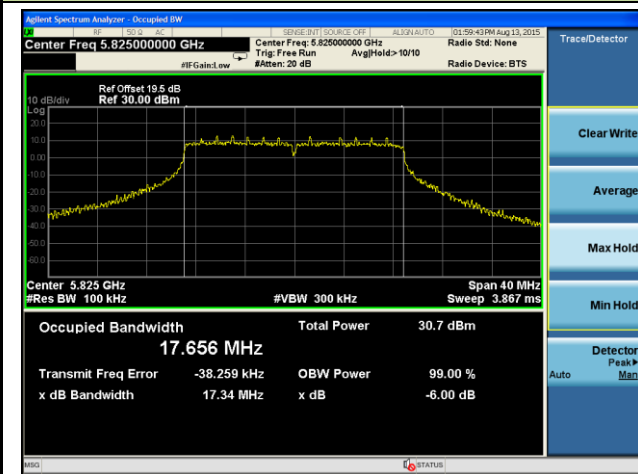
Channel 149 (5745MHz)



Channel 157 (5785MHz)

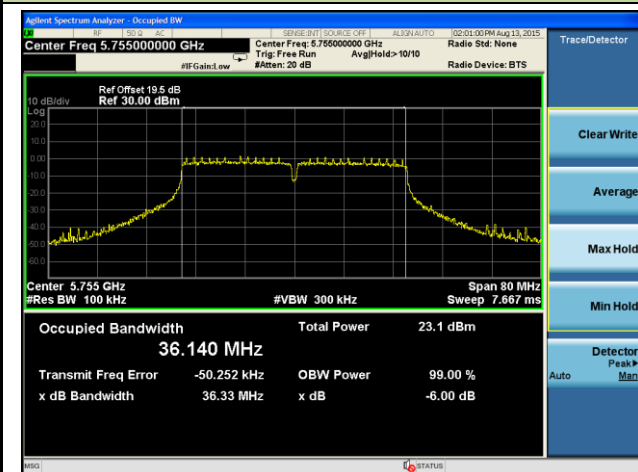


Channel 165 (5825MHz)

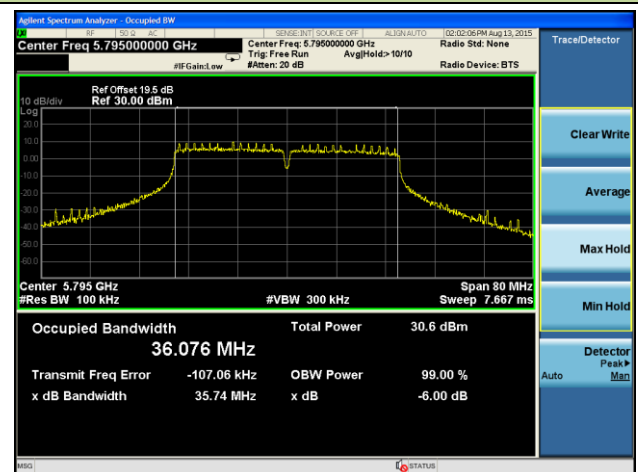


802.11n-HT40 6dB Bandwidth - Ant 1

Channel 151 (5755MHz)

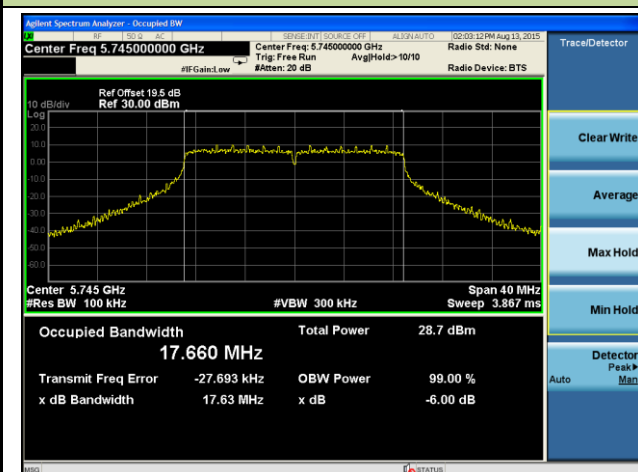


Channel 159 (5795MHz)

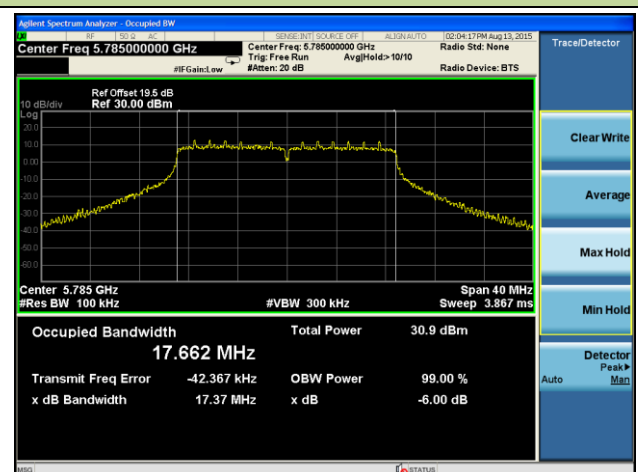


802.11ac-VHT20 6dB Bandwidth - Ant 1

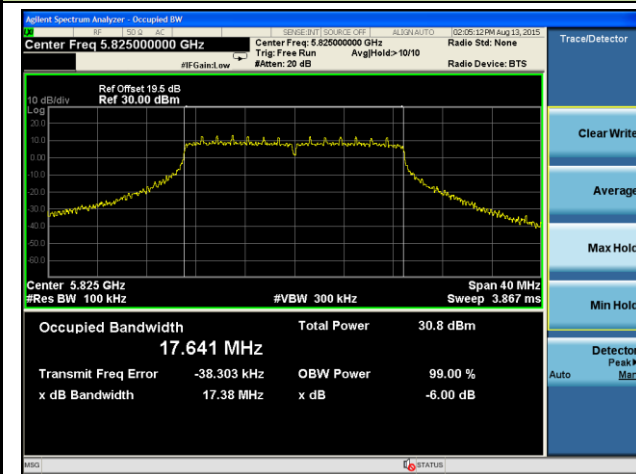
Channel 149 (5745MHz)



Channel 157 (5785MHz)

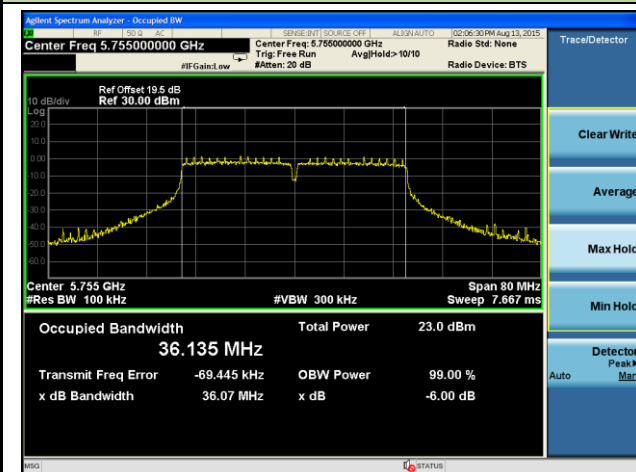


Channel 165 (5825MHz)

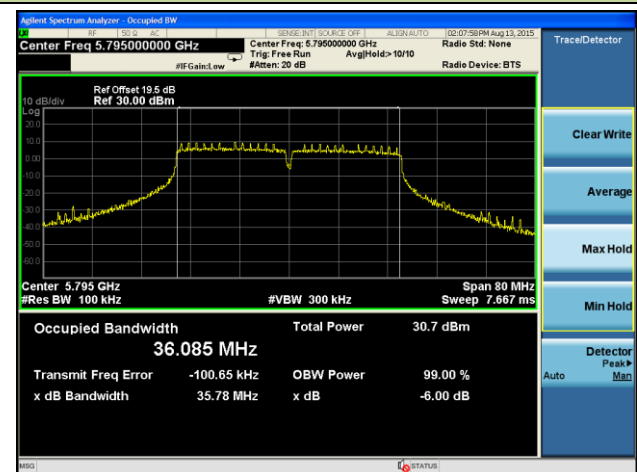


802.11ac-VHT40 6dB Bandwidth - Ant 1

Channel 151 (5755MHz)

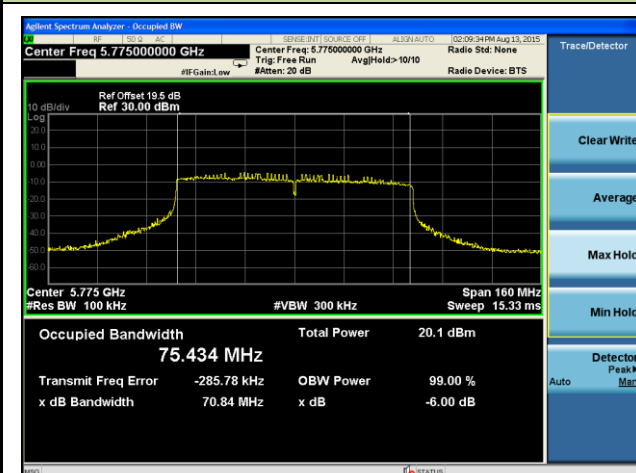


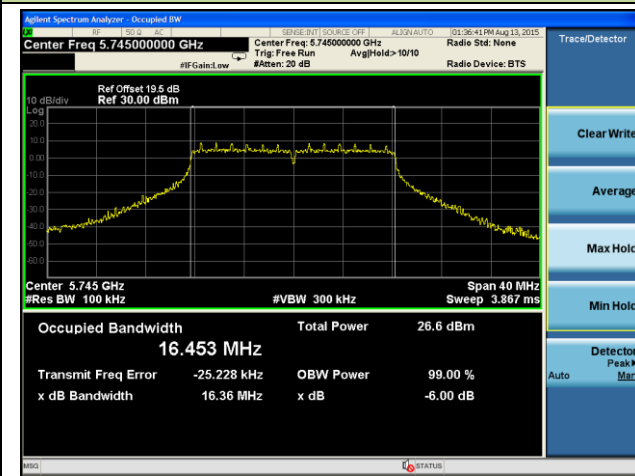
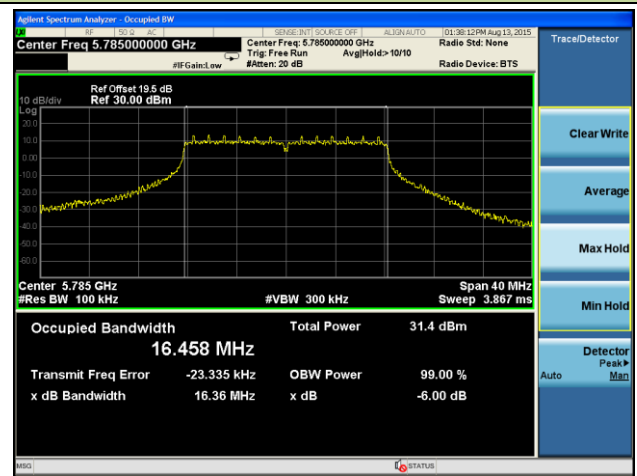
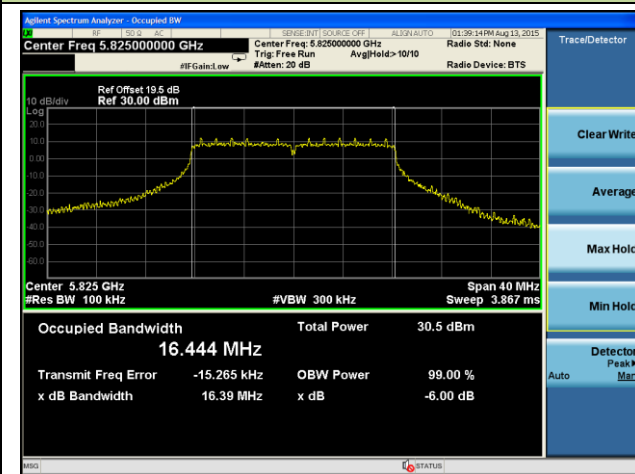
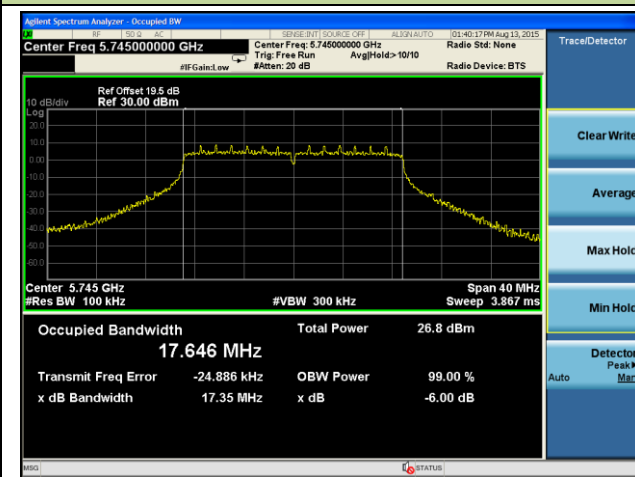
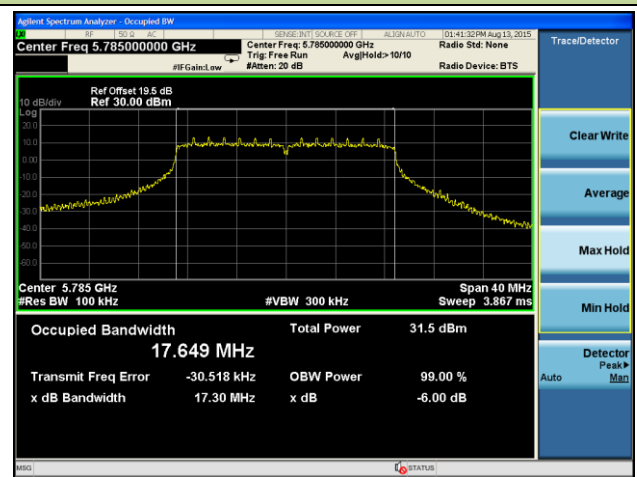
Channel 159 (5795MHz)



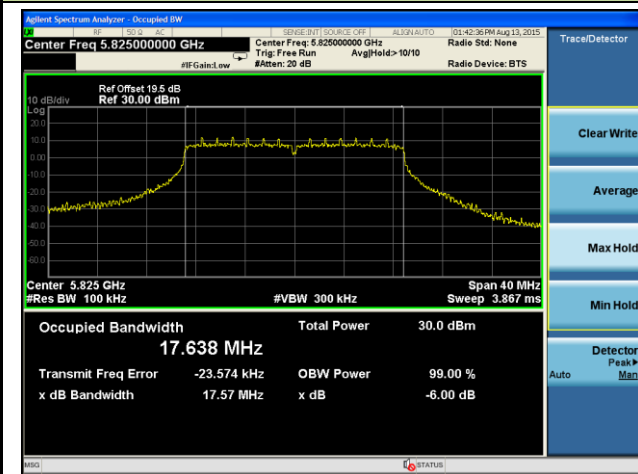
802.11ac-VHT80 6dB Bandwidth - Ant 1

Channel 155 (5775MHz)



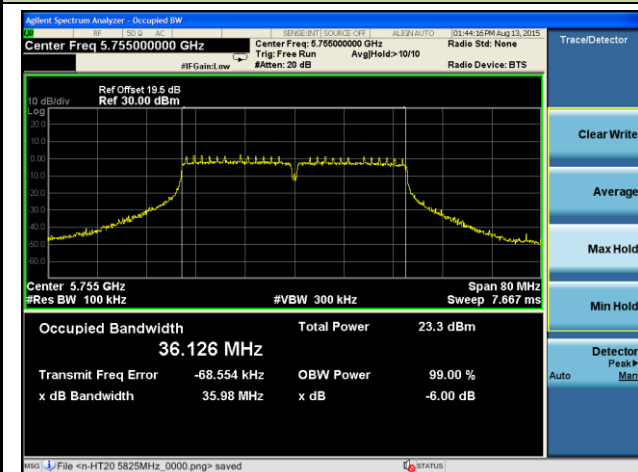
802.11a 6dB Bandwidth - Ant 2
Channel 149 (5745MHz)

Channel 157 (5785MHz)

Channel 165 (5825MHz)

802.11n-HT20 6dB Bandwidth - Ant 2
Channel 149 (5745MHz)

Channel 157 (5785MHz)


Channel 165 (5825MHz)

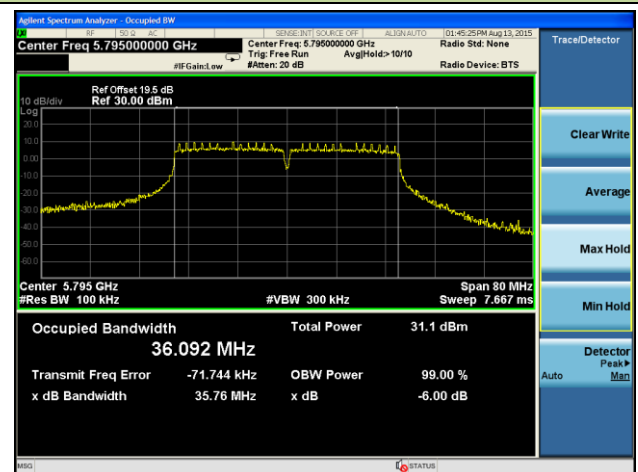


802.11n-HT40 6dB Bandwidth - Ant 2

Channel 151 (5755MHz)

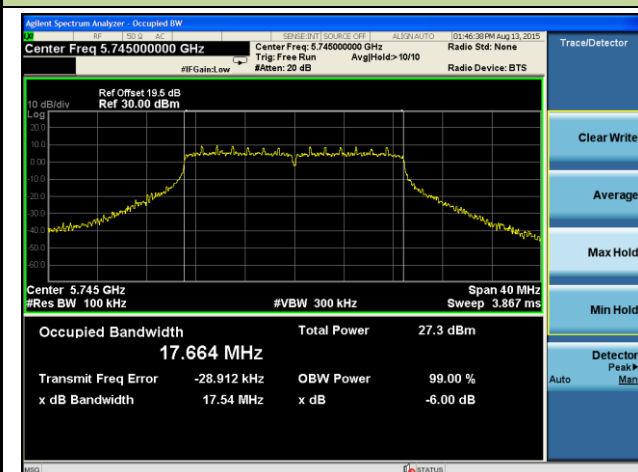


Channel 159 (5795MHz)

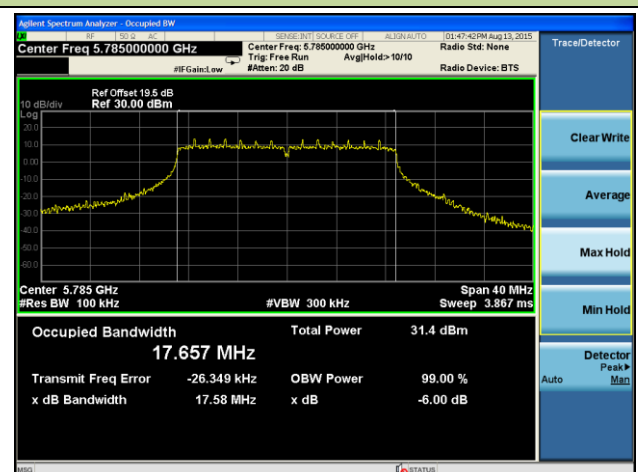


802.11ac-VHT20 6dB Bandwidth - Ant 2

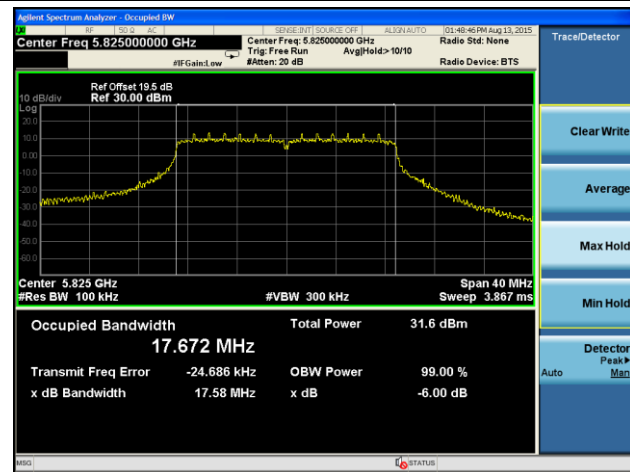
Channel 149 (5745MHz)



Channel 157 (5785MHz)

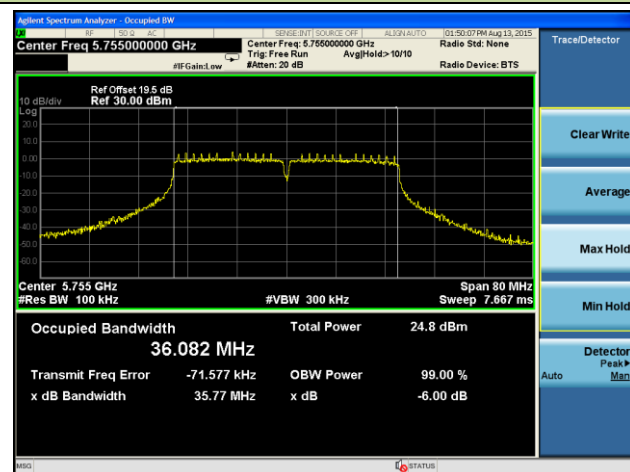


Channel 165 (5825MHz)

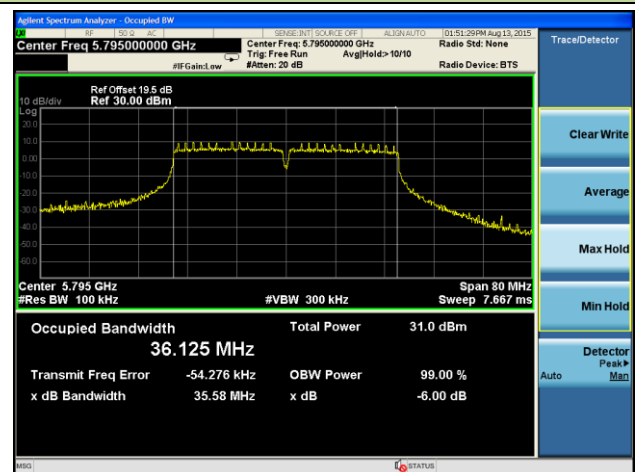


802.11ac-VHT40 6dB Bandwidth - Ant 2

Channel 151 (5755MHz)

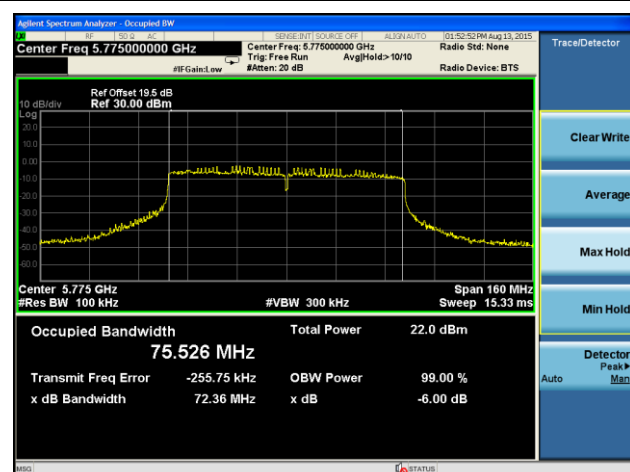


Channel 159 (5795MHz)



802.11ac-VHT80 6dB Bandwidth - Ant 2

Channel 155 (5775MHz)



7.4. Output Power Measurement

7.4.1. Test Limit

For an outdoor and fixed point-to-point 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 (30dBm).

For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm).

Fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power.

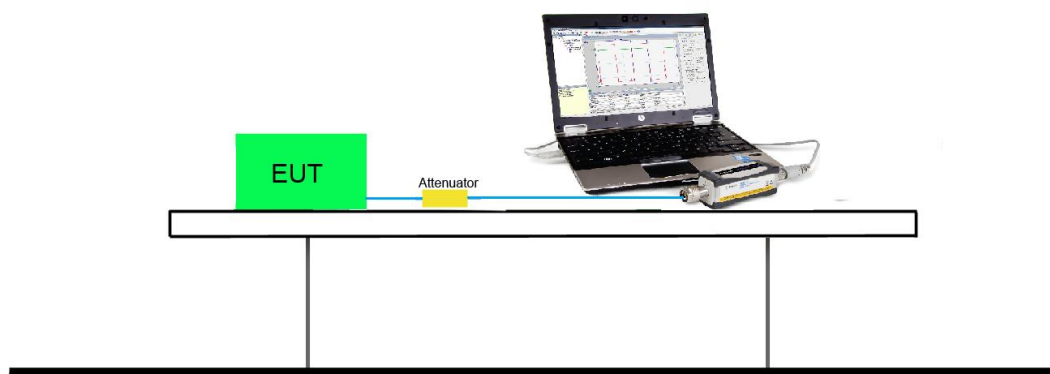
7.4.2. Test Procedure Used

KDB 789033 D02v01 - Section E) 3) b) Method PM-G

7.4.3. Test Setting

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

7.4.4. Test Setup



7.4.5. Test Result
Output power at various data rates for Ant 1

Test Mode	Bandwidth (MHz)	Channel	Frequency (MHz)	Data Rate (Mbps)	Average Power (dBm)
802.11a	20	36	5180	6	21.58
				24	21.02
				54	20.67
802.11n	20	36	5180	6.5	21.70
				7.2	21.19
				39.0	20.66
				43.3	20.24
				65.0	19.58
				72.2	19.12
802.11n	40	38	5190	13.5	17.51
				15.0	17.12
				81.0	16.73
				90.0	16.22
				135.0	15.78
				150.0	15.23
802.11ac	20	36	5180	6.5	22.09
				7.2	21.67
				39.0	21.02
				43.3	20.47
				78.0	20.01
				86.7	19.67
802.11ac	40	38	5190	13.5	17.55
				15.0	17.12
				81.0	16.65
				90.0	16.04
				180.0	15.69
				200.0	15.27

802.11ac	80	42	5210	29.3	14.80
				32.5	14.25
				175.5	13.84
				195.0	13.53
				390.0	13.17
				433.3	12.85

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Total Average Power (dBm)	Limit (dBm)	Result
Ant 1								
11a	6	36	5180	21.58	--	21.58	≤ 30	Pass
11a	6	44	5220	24.91	--	24.91	≤ 30	Pass
11a	6	48	5240	25.19	--	25.19	≤ 30	Pass
11a	6	149	5745	20.85	--	20.85	≤ 30	Pass
11a	6	157	5785	24.44	--	24.44	≤ 30	Pass
11a	6	165	5825	24.28	--	24.28	≤ 30	Pass
11n-HT20	6.5	36	5180	21.70	--	21.70	≤ 30	Pass
11n-HT20	6.5	44	5220	25.01	--	25.01	≤ 30	Pass
11n-HT20	6.5	48	5240	25.12	--	25.12	≤ 30	Pass
11n-HT20	6.5	149	5745	21.87	--	21.87	≤ 30	Pass
11n-HT20	6.5	157	5785	24.30	--	24.30	≤ 30	Pass
11n-HT20	6.5	165	5825	24.05	--	24.05	≤ 30	Pass
11n-HT40	13.5	38	5190	17.51	--	17.51	≤ 30	Pass
11n-HT40	13.5	46	5230	22.79	--	22.79	≤ 30	Pass
11n-HT40	13.5	151	5755	15.75	--	15.75	≤ 30	Pass
11n-HT40	13.5	159	5795	22.89	--	22.89	≤ 30	Pass
11ac-VHT20	6.5	36	5180	22.09	--	22.09	≤ 30	Pass
11ac-VHT20	6.5	44	5220	24.84	--	24.84	≤ 30	Pass
11ac-VHT20	6.5	48	5240	25.01	--	25.01	≤ 30	Pass
11ac-VHT20	6.5	149	5745	22.49	--	22.49	≤ 30	Pass
11ac-VHT20	6.5	157	5785	24.30	--	24.30	≤ 30	Pass
11ac-VHT20	6.5	165	5825	24.18	--	24.18	≤ 30	Pass
11ac-VHT40	13.5	38	5190	17.55	--	17.55	≤ 30	Pass
11ac-VHT40	13.5	46	5230	22.83	--	22.83	≤ 30	Pass
11ac-VHT40	13.5	151	5755	15.99	--	15.99	≤ 30	Pass
11ac-VHT40	13.5	159	5795	23.41	--	23.41	≤ 30	Pass
11ac-VHT80	29.3	42	5210	14.80	--	14.80	≤ 30	Pass
11ac-VHT80	29.3	155	5775	12.14	--	12.14	≤ 30	Pass

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Total Average Power (dBm)	Limit (dBm)	Result
Ant 2								
11a	6	36	5180	--	21.13	21.13	≤ 30	Pass
11a	6	44	5220	--	24.77	24.77	≤ 30	Pass
11a	6	48	5240	--	24.33	24.33	≤ 30	Pass
11a	6	149	5745	--	20.31	20.31	≤ 30	Pass
11a	6	157	5785	--	24.74	24.74	≤ 30	Pass
11a	6	165	5825	--	23.84	23.84	≤ 30	Pass
11n-HT20	6.5	36	5180	--	20.64	20.64	≤ 30	Pass
11n-HT20	6.5	44	5220	--	24.78	24.78	≤ 30	Pass
11n-HT20	6.5	48	5240	--	24.16	24.16	≤ 30	Pass
11n-HT20	6.5	149	5745	--	20.22	20.22	≤ 30	Pass
11n-HT20	6.5	157	5785	--	24.71	24.71	≤ 30	Pass
11n-HT20	6.5	165	5825	--	23.26	23.26	≤ 30	Pass
11n-HT40	13.5	38	5190	--	16.74	16.74	≤ 30	Pass
11n-HT40	13.5	46	5230	--	22.78	22.78	≤ 30	Pass
11n-HT40	13.5	151	5755	--	15.95	15.95	≤ 30	Pass
11n-HT40	13.5	159	5795	--	23.65	23.65	≤ 30	Pass
11ac-VHT20	6.5	36	5180	--	20.66	20.66	≤ 30	Pass
11ac-VHT20	6.5	44	5220	--	24.78	24.78	≤ 30	Pass
11ac-VHT20	6.5	48	5240	--	24.23	24.23	≤ 30	Pass
11ac-VHT20	6.5	149	5745	--	20.24	20.24	≤ 30	Pass
11ac-VHT20	6.5	157	5785	--	24.73	24.73	≤ 30	Pass
11ac-VHT20	6.5	165	5825	--	23.28	23.28	≤ 30	Pass
11ac-VHT40	13.5	38	5190	--	19.28	19.28	≤ 30	Pass
11ac-VHT40	13.5	46	5230	--	22.70	22.70	≤ 30	Pass
11ac-VHT40	13.5	151	5755	--	16.43	16.43	≤ 30	Pass
11ac-VHT40	13.5	159	5795	--	23.61	23.61	≤ 30	Pass
11ac-VHT80	29.3	42	5210	--	17.28	17.28	≤ 30	Pass
11ac-VHT80	29.3	155	5775	--	13.73	13.73	≤ 30	Pass

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Total Average Power (dBm)	Limit (dBm)	Result
Ant 1 + 2								
11a	6	36	5180	19.99	20.58	23.31	≤ 30	Pass
11a	6	44	5220	24.30	24.54	27.43	≤ 30	Pass
11a	6	48	5240	24.20	24.07	27.15	≤ 30	Pass
11a	6	149	5745	20.72	20.50	23.62	≤ 30	Pass
11a	6	157	5785	24.21	24.64	27.44	≤ 30	Pass
11a	6	165	5825	24.07	24.77	27.44	≤ 30	Pass
11n-HT20	13	36	5180	20.78	21.51	24.17	≤ 30	Pass
11n-HT20	13	44	5220	24.66	24.44	27.56	≤ 30	Pass
11n-HT20	13	48	5240	24.91	23.88	27.44	≤ 30	Pass
11n-HT20	13	149	5745	21.28	21.25	24.28	≤ 30	Pass
11n-HT20	13	157	5785	24.09	24.54	27.33	≤ 30	Pass
11n-HT20	13	165	5825	23.39	24.61	27.05	≤ 30	Pass
11n-HT40	27	38	5190	21.14	21.88	24.54	≤ 30	Pass
11n-HT40	27	46	5230	22.57	22.23	25.41	≤ 30	Pass
11n-HT40	27	151	5755	15.57	15.64	18.62	≤ 30	Pass
11n-HT40	27	159	5795	23.02	23.43	26.24	≤ 30	Pass
11ac-VHT20	13	36	5180	20.52	21.55	24.08	≤ 30	Pass
11ac-VHT20	13	44	5220	24.37	24.74	27.57	≤ 30	Pass
11ac-VHT20	13	48	5240	24.87	23.95	27.44	≤ 30	Pass
11ac-VHT20	13	149	5745	21.07	20.91	24.00	≤ 30	Pass
11ac-VHT20	13	157	5785	24.17	24.58	27.39	≤ 30	Pass
11ac-VHT20	13	165	5825	24.13	24.70	27.43	≤ 30	Pass
11ac-VHT40	27	38	5190	17.20	17.83	20.54	≤ 30	Pass
11ac-VHT40	27	46	5230	22.42	22.25	25.35	≤ 30	Pass
11ac-VHT40	27	151	5755	16.08	16.21	19.16	≤ 30	Pass
11ac-VHT40	27	159	5795	23.13	23.41	26.28	≤ 30	Pass
11ac-VHT80	58.6	42	5210	14.83	15.23	18.04	≤ 30	Pass
11ac-VHT80	58.6	155	5775	11.70	11.90	14.81	≤ 30	Pass

Note: The Total Average Power (dBm) = $10 \cdot \log\{10^{(\text{Ant 1 Average Power}/10)} + 10^{(\text{Ant 2 Average Power}/10)}\}$ (dBm).

7.5. Transmit Power Control

7.5.1. Test Limit

The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm.

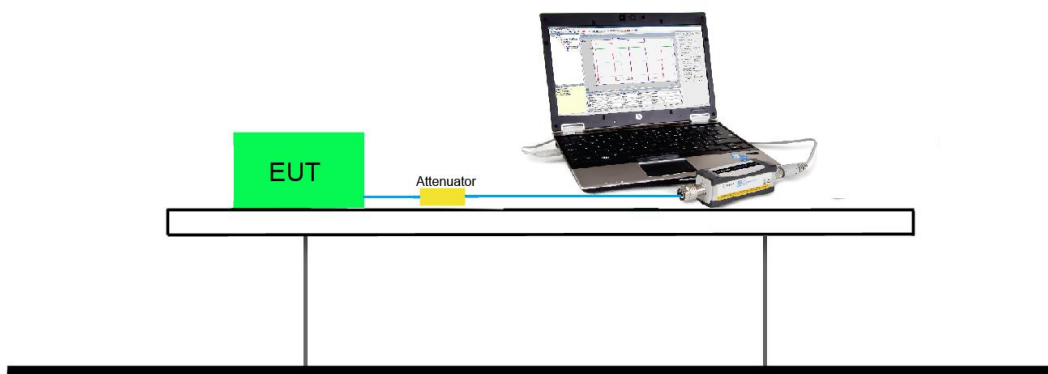
7.5.2. Test Procedure Used

KDB 789033 D02v01 - Section E) 3) b) Method PM-G

7.5.3. Test Setting

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

7.5.4. Test Setup



7.5.5. Test Result

U-NII devices operating in the 5.25-5.35 GHz band and the 5.47-5.725 GHz band shall employ a TPC mechanism. No applicable for this device.

7.6. Power Spectral Density Measurement

7.6.1. Test Limit

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 fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi.

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

If transmitting antennas of directional gain greater than 6dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

7.6.2. Test Procedure Used

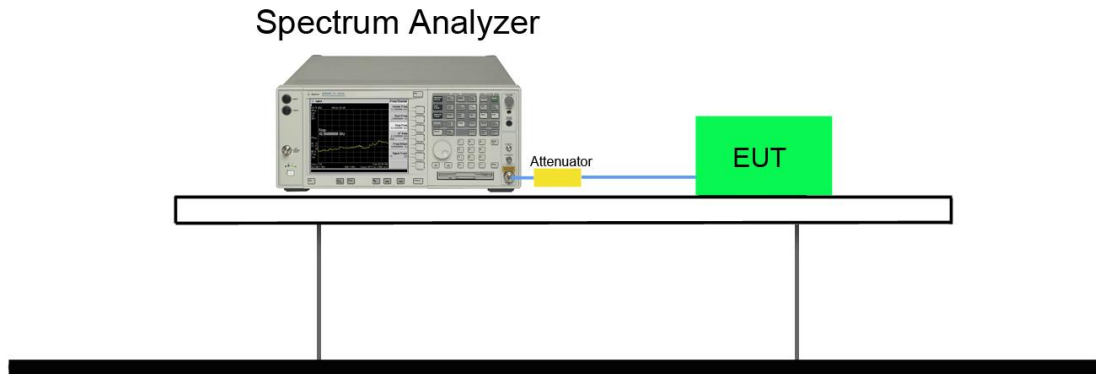
KDB 789033 D02v01 - Section F

7.6.3. Test Setting

1. Analyzer was set to the center frequency of the UNII channel under investigation
2. Span was set to encompass the entire 26dB EBW of the signal.
3. RBW = 1MHz, if measurement bandwidth of Maximum PSD is specified in 500 kHz,
RBW = 100 kHz
4. VBW = 3MHz
5. Number of sweep points $\geq 2 \times (\text{span} / \text{RBW})$
6. Detector = power averaging (RMS)
7. Sweep time = auto
8. Trigger = free run
9. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
10. Add $10 \cdot \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission). For example, add $10 \cdot \log(1/0.25) = 6$ dB if the duty cycle is 25 percent.
11. When the measurement bandwidth of Maximum PSD is specified in 500 kHz, add a constant

factor $10 \cdot \log(500\text{kHz}/100\text{kHz}) = 7 \text{ dB}$ to the measured result

7.6.4. Test Setup



7.6.5. Test Result

Test Mode	N _{Tx}	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 1 PSD (dBm/MHz)	Ant 2 PSD (dBm/MHz)	Duty Cycle (%)	Total PSD (dBm/MHz)	Limit (dBm /MHz)	Result
Ant 1										
11a	1	6	36	5180	10.02	--	95.5	10.22	≤ 17.00	Pass
11a	1	6	44	5220	13.29	--	95.5	13.49	≤ 17.00	Pass
11a	1	6	48	5240	13.63	--	95.5	13.83	≤ 17.00	Pass
11n-HT20	1	6.5	36	5180	9.66	--	95.4	9.86	≤ 17.00	Pass
11n-HT20	1	6.5	44	5220	13.00	--	95.4	13.21	≤ 17.00	Pass
11n-HT20	1	6.5	48	5240	13.38	--	95.4	13.58	≤ 17.00	Pass
11n-HT40	1	13.5	38	5190	2.69	--	91.7	3.07	≤ 17.00	Pass
11n-HT40	1	13.5	46	5230	8.17	--	91.7	8.55	≤ 17.00	Pass
11ac-VHT20	1	6.5	36	5180	10.37	--	95.2	10.58	≤ 17.00	Pass
11ac-VHT20	1	6.5	44	5220	13.35	--	95.2	13.56	≤ 17.00	Pass
11ac-VHT20	1	6.5	48	5240	13.31	--	95.2	13.52	≤ 17.00	Pass
11ac-VHT40	1	13.5	38	5190	2.92	--	90.2	3.37	≤ 17.00	Pass
11ac-VHT40	1	13.5	46	5230	8.46	--	90.2	8.90	≤ 17.00	Pass
11ac-VHT80	1	29.3	42	5210	-2.69	--	84.0	-1.93	≤ 17.00	Pass
Ant 2										
11a	1	6	36	5180	--	9.58	95.5	9.78	≤ 17.00	Pass
11a	1	6	44	5220	--	13.38	95.5	13.58	≤ 17.00	Pass
11a	1	6	48	5240	--	12.92	95.5	13.11	≤ 17.00	Pass
11n-HT20	1	6.5	36	5180	--	8.84	95.4	9.04	≤ 17.00	Pass
11n-HT20	1	6.5	44	5220	--	12.99	95.4	13.19	≤ 17.00	Pass
11n-HT20	1	6.5	48	5240	--	12.45	95.4	12.66	≤ 17.00	Pass
11n-HT40	1	13.5	38	5190	--	2.19	91.7	2.57	≤ 17.00	Pass
11n-HT40	1	13.5	46	5230	--	8.18	91.7	8.56	≤ 17.00	Pass
11ac-VHT20	1	6.5	36	5180	--	9.08	95.2	9.29	≤ 17.00	Pass
11ac-VHT20	1	6.5	44	5220	--	12.89	95.2	13.10	≤ 17.00	Pass
11ac-VHT20	1	6.5	48	5240	--	12.38	95.2	12.60	≤ 17.00	Pass
11ac-VHT40	1	13.5	38	5190	--	4.65	90.2	5.10	≤ 17.00	Pass
11ac-VHT40	1	13.5	46	5230	--	8.13	90.2	8.58	≤ 17.00	Pass
11ac-VHT80	1	29.3	42	5210	--	0.11	84.0	0.86	≤ 17.00	Pass

Test Mode	N _{Tx}	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 1 PSD (dBm/MHz)	Ant 2 PSD (dBm/MHz)	Duty Cycle (%)	Total PSD (dBm/MHz)	Limit (dBm /MHz)	Result
Ant 1 + 2										
11a	2	6	36	5180	13.15	13.95	95.5	16.78	≤ 17.00	Pass
11a	2	6	44	5220	13.61	13.71	95.5	16.87	≤ 17.00	Pass
11a	2	6	48	5240	13.89	13.07	95.5	16.71	≤ 17.00	Pass
11n-HT20	2	13	36	5180	9.18	9.99	95.4	12.82	≤ 17.00	Pass
11n-HT20	2	13	44	5220	12.75	13.34	95.4	16.27	≤ 17.00	Pass
11n-HT20	2	13	48	5240	12.80	12.46	95.4	15.85	≤ 17.00	Pass
11n-HT40	2	27	38	5190	2.19	2.78	91.7	5.88	≤ 17.00	Pass
11n-HT40	2	27	46	5230	8.08	8.12	91.7	11.49	≤ 17.00	Pass
11ac-VHT20	2	13	36	5180	8.92	9.34	95.2	12.36	≤ 17.00	Pass
11ac-VHT20	2	13	44	5220	13.00	12.23	95.2	15.86	≤ 17.00	Pass
11ac-VHT20	2	13	48	5240	13.11	12.54	95.2	16.06	≤ 17.00	Pass
11ac-VHT40	2	27	38	5190	2.82	3.10	90.2	6.42	≤ 17.00	Pass
11ac-VHT40	2	27	46	5230	7.90	7.89	90.2	11.35	≤ 17.00	Pass
11ac-VHT80	2	58.6	42	5210	-2.31	-1.73	84.0	1.76	≤ 17.00	Pass

Note: When EUT duty cycle < 98%, the total PSD = $10 \cdot \log\{10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)}\} + 10 \cdot \log(1/\text{duty cycle})$

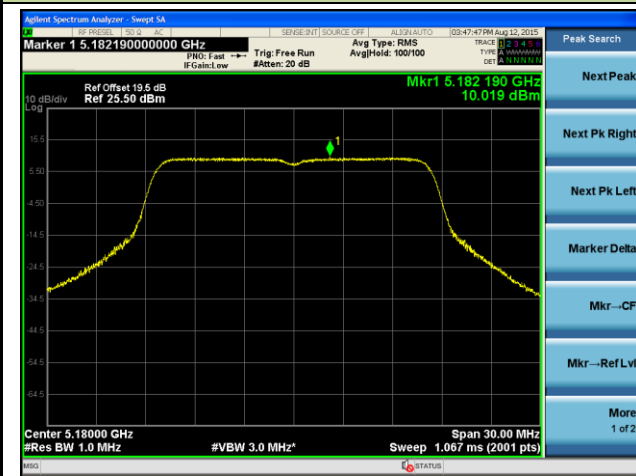
Test Mode	N _{Tx}	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 1 PSD (dBm/100kHz)	Ant 2 PSD (dBm/100kHz)	Duty Cycle (%)	Constant Factor	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Result
Ant 1											
11a	1	6	149	5745	0.17	--	95.5	7	7.37	≤24.00	Pass
11a	1	6	157	5785	3.74	--	95.5	7	10.94	≤24.00	Pass
11a	1	6	165	5825	4.39	--	95.5	7	11.59	≤24.00	Pass
11n-HT20	1	6.5	149	5745	1.19	--	95.4	7	8.39	≤24.00	Pass
11n-HT20	1	6.5	157	5785	3.53	--	95.4	7	10.73	≤24.00	Pass
11n-HT20	1	6.5	165	5825	3.33	--	95.4	7	10.53	≤24.00	Pass
11n-HT40	1	13.5	151	5755	-7.27	--	91.7	7	0.11	≤24.00	Pass
11n-HT40	1	13.5	159	5795	0.21	--	91.7	7	7.59	≤24.00	Pass
11ac-VHT20	1	6.5	149	5745	1.53	--	95.2	7	8.74	≤24.00	Pass
11ac-VHT20	1	6.5	157	5785	3.60	--	95.2	7	10.81	≤24.00	Pass
11ac-VHT20	1	6.5	165	5825	3.62	--	95.2	7	10.83	≤24.00	Pass
11ac-VHT40	1	13.5	151	5755	-7.59	--	90.2	7	-0.14	≤24.00	Pass
11ac-VHT40	1	13.5	159	5795	-0.01	--	90.2	7	7.44	≤24.00	Pass
11ac-VHT80	1	29.3	155	5775	-13.90	--	84.0	7	-6.14	≤24.00	Pass
Ant 2											
11a	1	6	149	5745	--	-0.21	95.5	7	6.99	≤24.00	Pass
11a	1	6	157	5785	--	3.63	95.5	7	10.83	≤24.00	Pass
11a	1	6	165	5825	--	2.96	95.5	7	10.16	≤24.00	Pass
11n-HT20	1	6.5	149	5745	--	-1.01	95.4	7	6.19	≤24.00	Pass
11n-HT20	1	6.5	157	5785	--	3.72	95.4	7	10.92	≤24.00	Pass
11n-HT20	1	6.5	165	5825	--	2.90	95.4	7	10.10	≤24.00	Pass
11n-HT40	1	13.5	151	5755	--	-7.58	91.7	7	-0.20	≤24.00	Pass
11n-HT40	1	13.5	159	5795	--	0.15	91.7	7	7.53	≤24.00	Pass
11ac-VHT20	1	6.5	149	5745	--	0.00	95.2	7	7.21	≤24.00	Pass
11ac-VHT20	1	6.5	157	5785	--	3.71	95.2	7	10.92	≤24.00	Pass
11ac-VHT20	1	6.5	165	5825	--	3.75	95.2	7	10.96	≤24.00	Pass
11ac-VHT40	1	13.5	151	5755	--	-5.89	90.2	7	1.56	≤24.00	Pass
11ac-VHT40	1	13.5	159	5795	--	-0.29	90.2	7	7.16	≤24.00	Pass
11ac-VHT80	1	29.3	155	5775	--	-12.40	84.0	7	-4.64	≤24.00	Pass

Test Mode	N _{Tx}	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 1 PSD (dBm/100kHz)	Ant 2 PSD (dBm/100kHz)	Duty Cycle (%)	Constant Factor	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Result
Ant 1 + 2											
11a	2	6	149	5745	-0.41	-0.18	95.5	7	9.92	≤24.00	Pass
11a	2	6	157	5785	2.87	3.43	95.5	7	13.37	≤24.00	Pass
11a	2	6	165	5825	3.35	3.93	95.5	7	13.86	≤24.00	Pass
11n-HT20	2	13	149	5745	0.33	0.35	95.4	7	10.55	≤24.00	Pass
11n-HT20	2	13	157	5785	2.53	3.84	95.4	7	13.45	≤24.00	Pass
11n-HT20	2	13	165	5825	2.84	3.58	95.4	7	13.44	≤24.00	Pass
11n-HT40	2	27	151	5755	-8.17	-7.60	91.7	7	2.51	≤24.00	Pass
11n-HT40	2	27	159	5795	-0.02	1.12	91.7	7	10.97	≤24.00	Pass
11ac-VHT20	2	13	149	5745	0.42	0.21	95.2	7	10.54	≤24.00	Pass
11ac-VHT20	2	13	157	5785	3.35	3.74	95.2	7	13.77	≤24.00	Pass
11ac-VHT20	2	13	165	5825	3.29	3.82	95.2	7	13.79	≤24.00	Pass
11ac-VHT40	2	27	151	5755	-7.48	-7.00	90.2	7	3.22	≤24.00	Pass
11ac-VHT40	2	27	159	5795	-0.29	1.04	90.2	7	10.88	≤24.00	Pass
11ac-VHT80	2	58.6	155	5775	-13.69	-13.40	84.0	7	-2.78	≤24.00	Pass

Note: When EUT duty cycle < 98%, the total PSD = $10 \cdot \log\{10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)}\} + 10 \cdot \log(1/\text{duty cycle}) + \text{Constant Factor}$.

802.11a Power Spectral Density - Ant 1

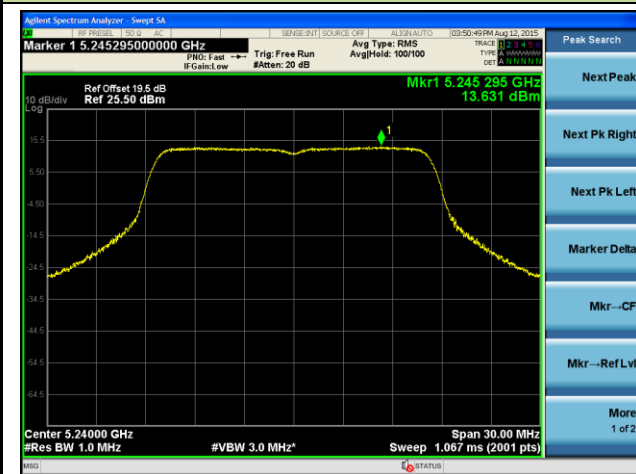
Channel 36 (5180MHz)



Channel 44 (5220MHz)



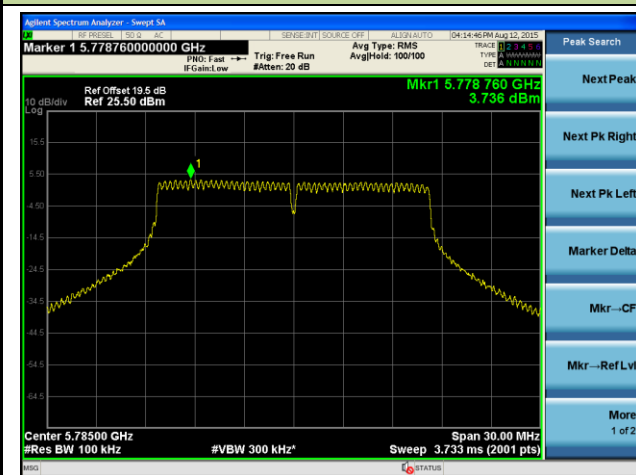
Channel 48 (5240MHz)



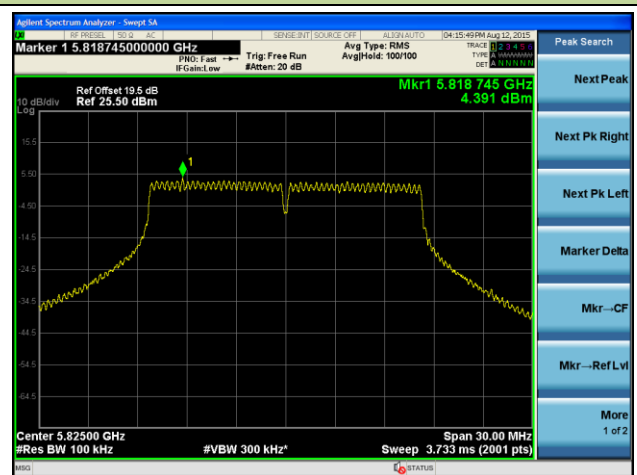
Channel 149 (5745MHz)



Channel 157 (5785MHz)

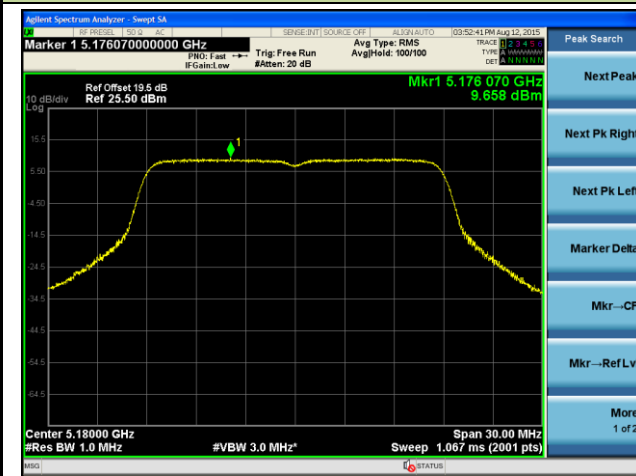


Channel 165 (5825MHz)

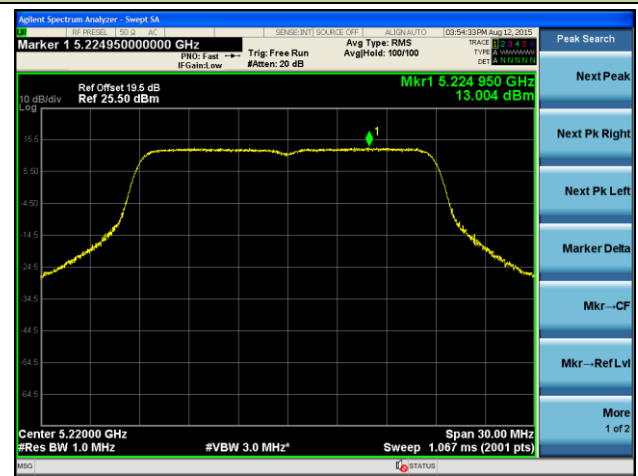


802.11n-HT20 Power Spectral Density - Ant 1

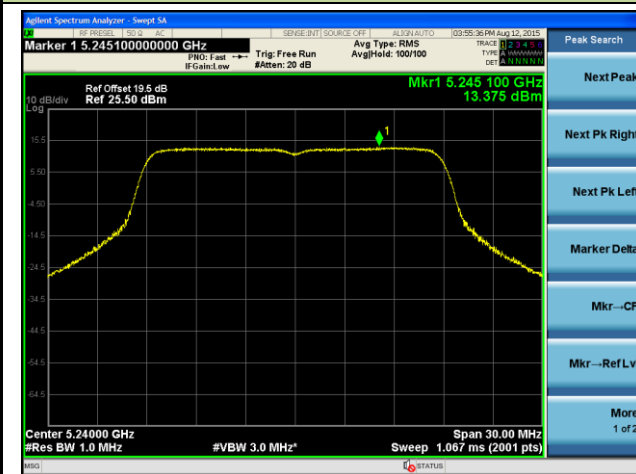
Channel 36 (5180MHz)



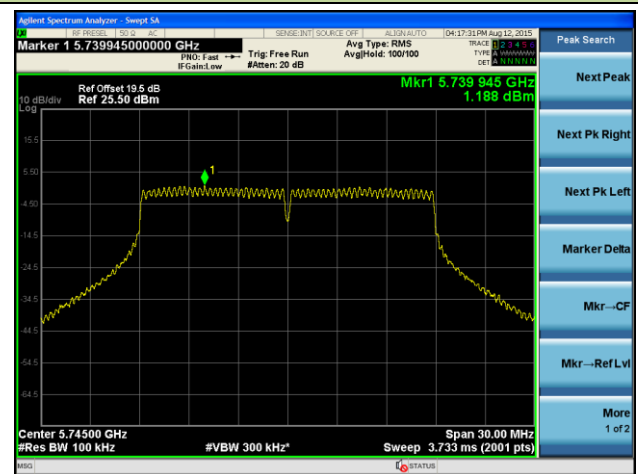
Channel 44 (5220MHz)



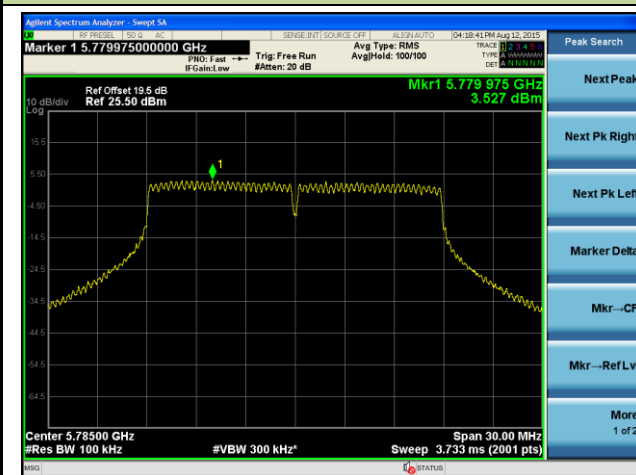
Channel 48 (5240MHz)



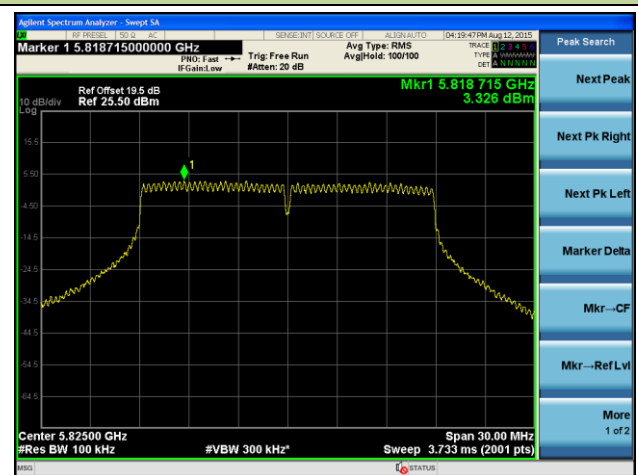
Channel 149 (5745MHz)



Channel 157 (5785MHz)

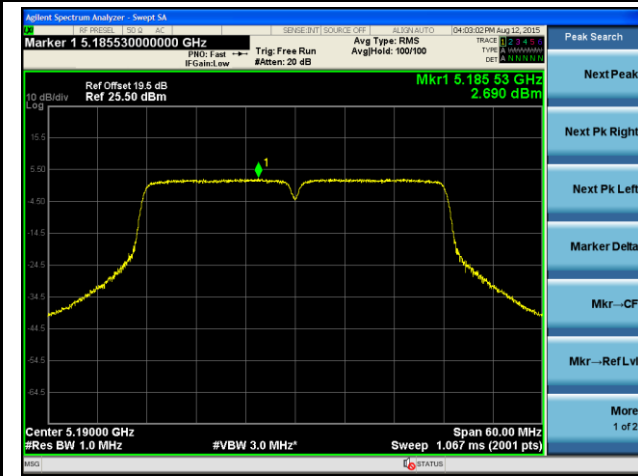


Channel 165 (5825MHz)

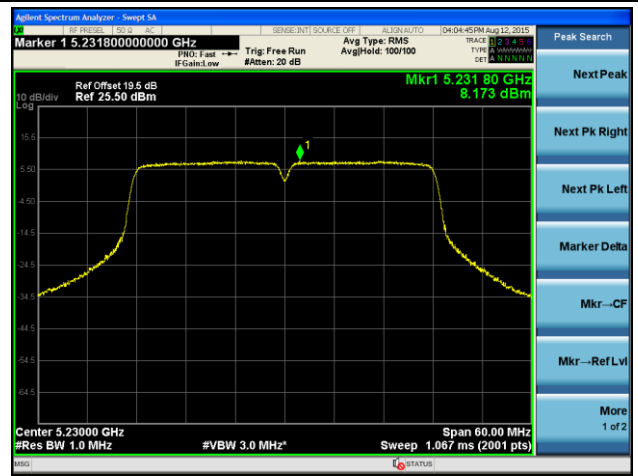


802.11n-HT40 Power Spectral Density - Ant 1

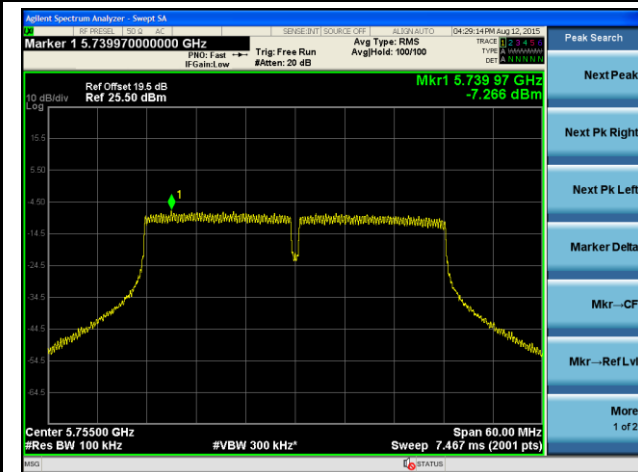
Channel 38 (5190MHz)



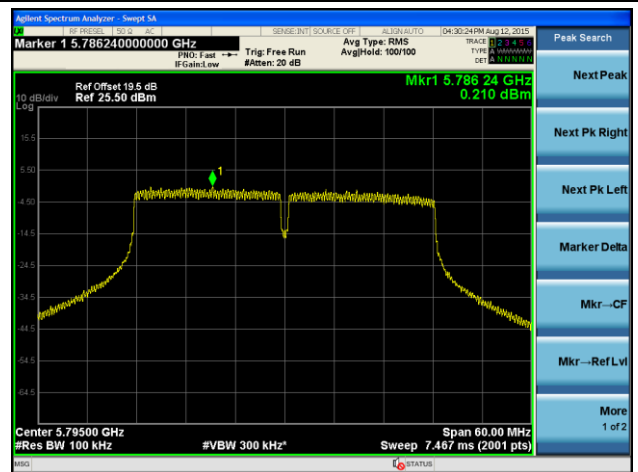
Channel 46 (5230MHz)



Channel 151 (5755MHz)

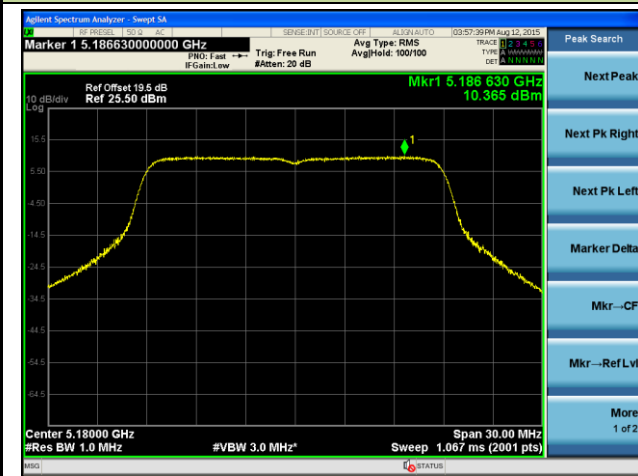


Channel 159 (5795MHz)

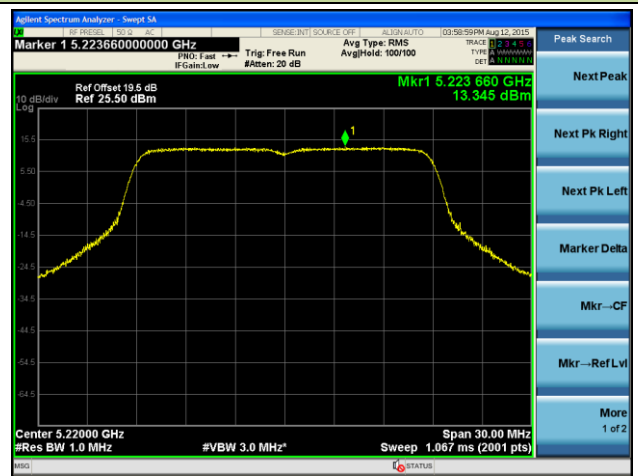


802.11ac-VHT20 Power Spectral Density - Ant 1

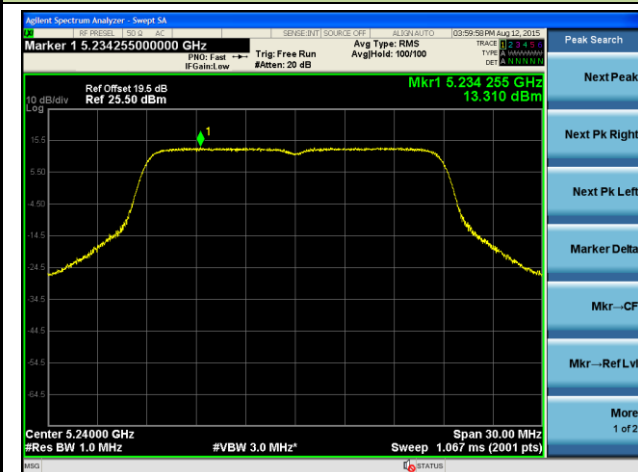
Channel 36 (5180MHz)



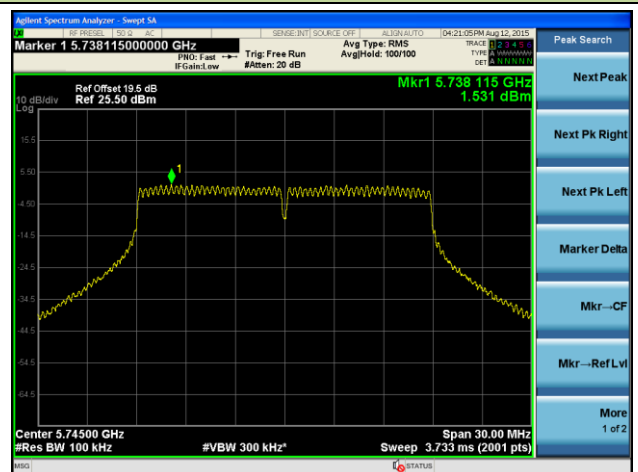
Channel 44 (5220MHz)



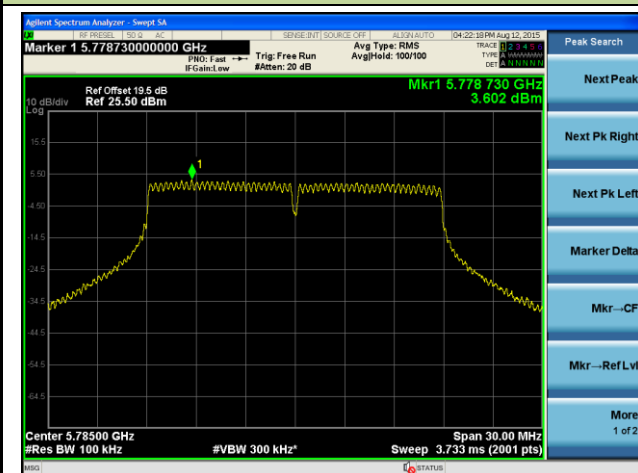
Channel 48 (5240MHz)



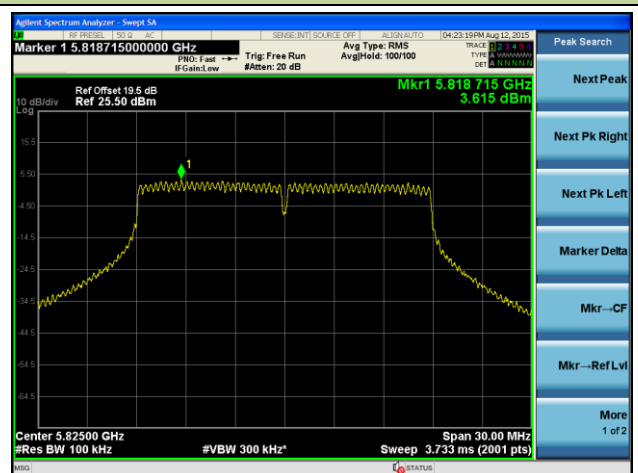
Channel 149 (5745MHz)



Channel 157 (5785MHz)

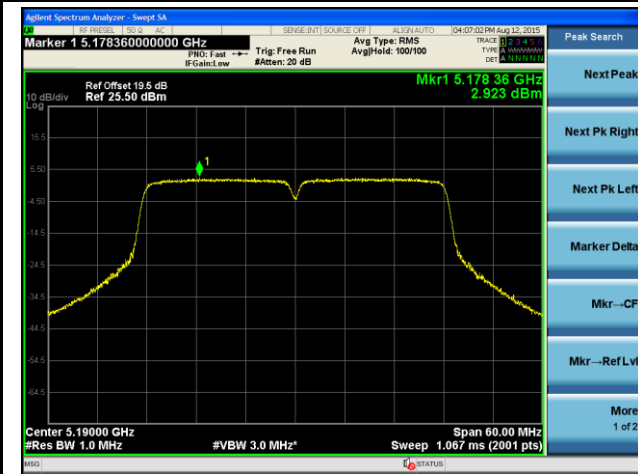


Channel 165 (5825MHz)

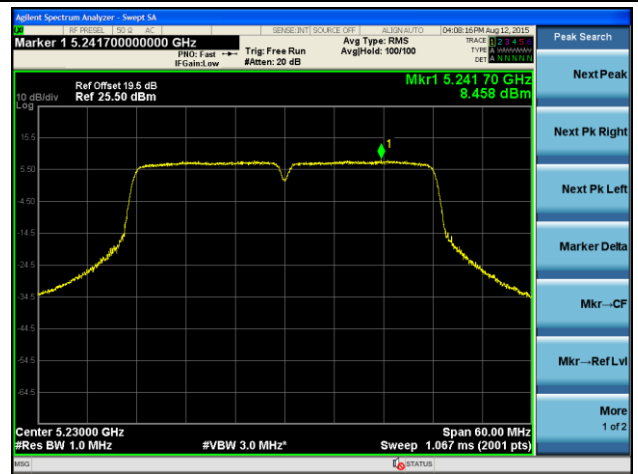


802.11ac-VHT40 Power Spectral Density - Ant 1

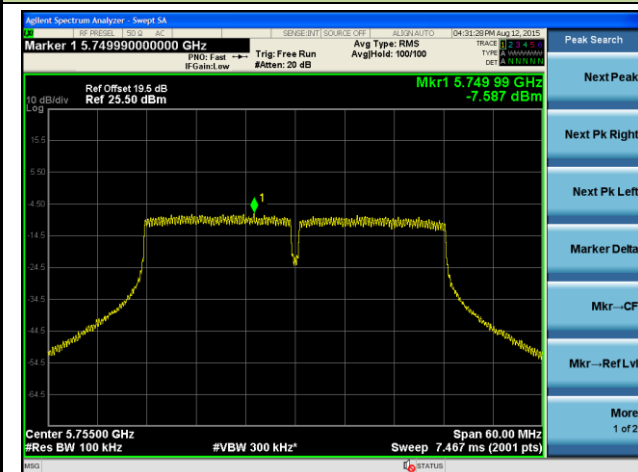
Channel 38 (5190MHz)



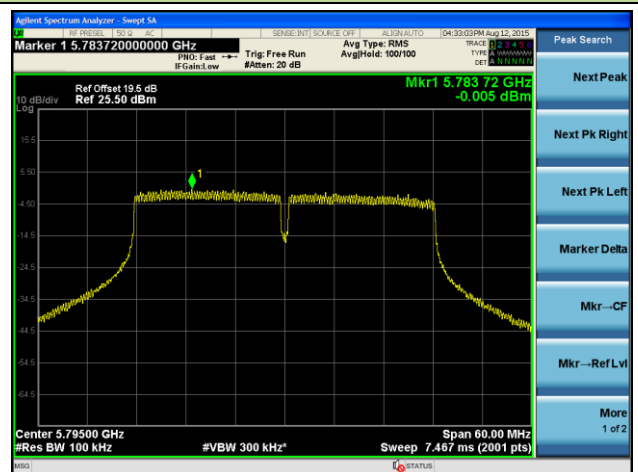
Channel 46 (5230MHz)



Channel 151 (5755MHz)

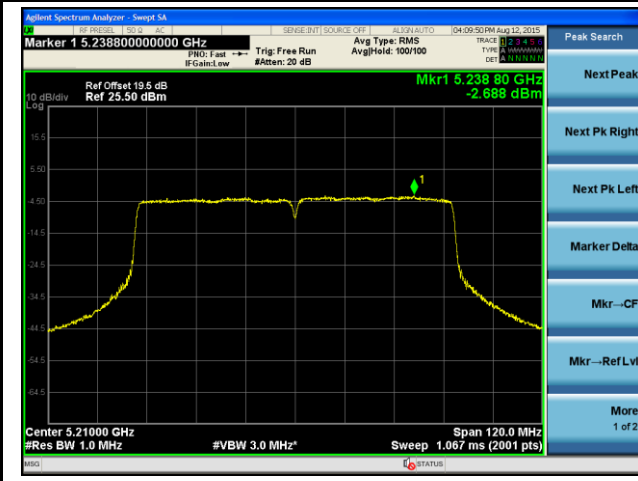


Channel 159 (5795MHz)

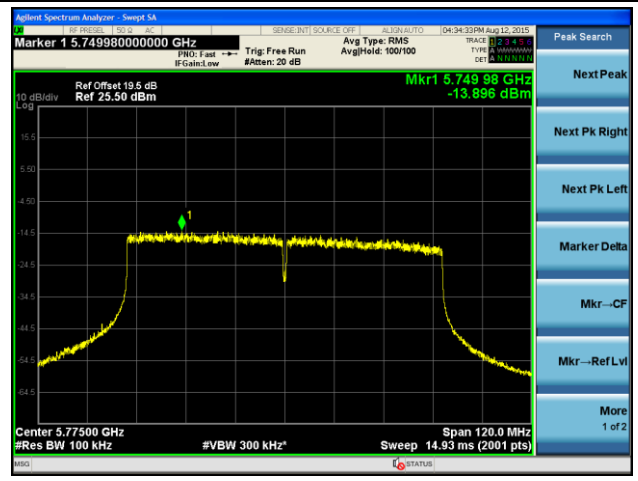


802.11ac-VHT80 Power Spectral Density - Ant 1

Channel 42 (5210MHz)

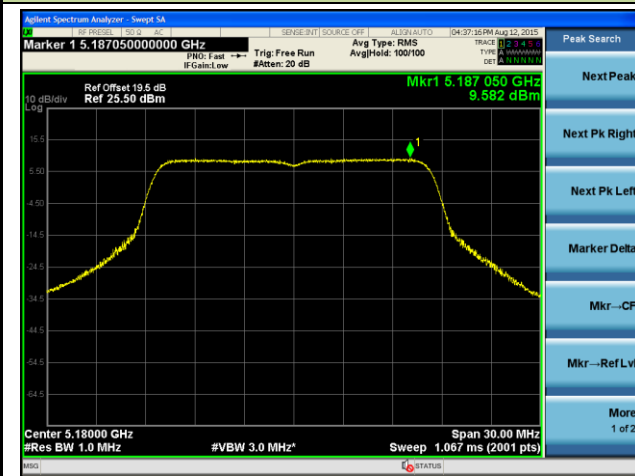


Channel 155 (5775MHz)

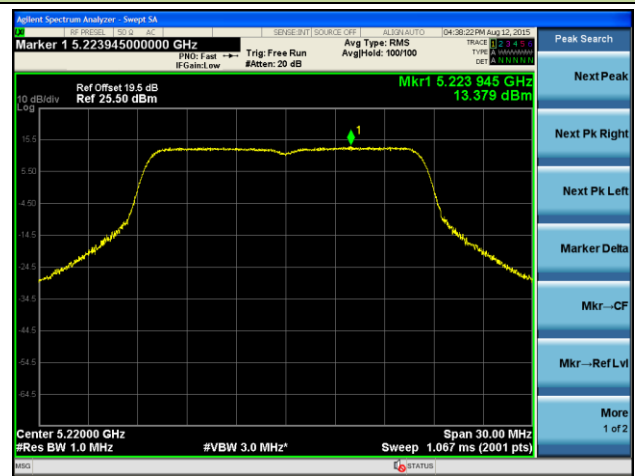


802.11a Power Spectral Density - Ant 2

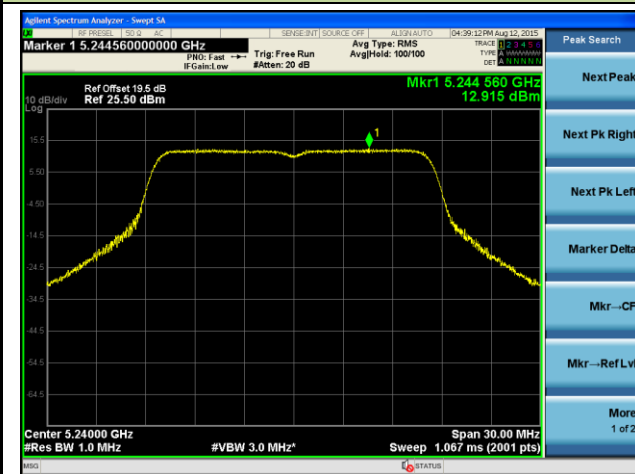
Channel 36 (5180MHz)



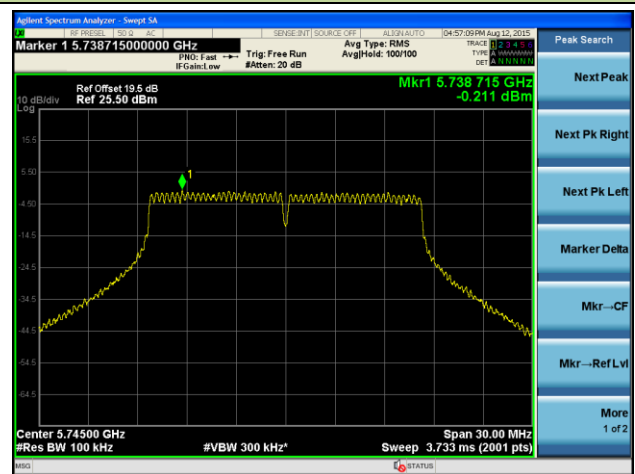
Channel 44 (5220MHz)



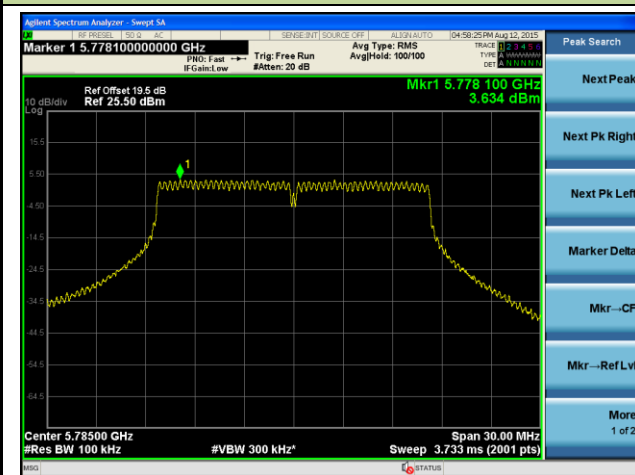
Channel 48 (5240MHz)



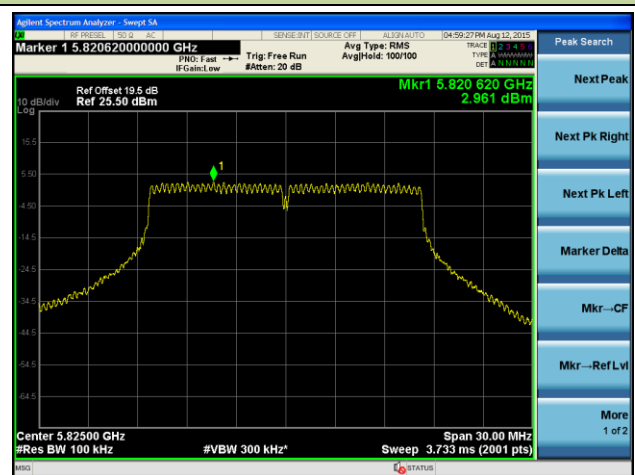
Channel 149 (5745MHz)



Channel 157 (5785MHz)

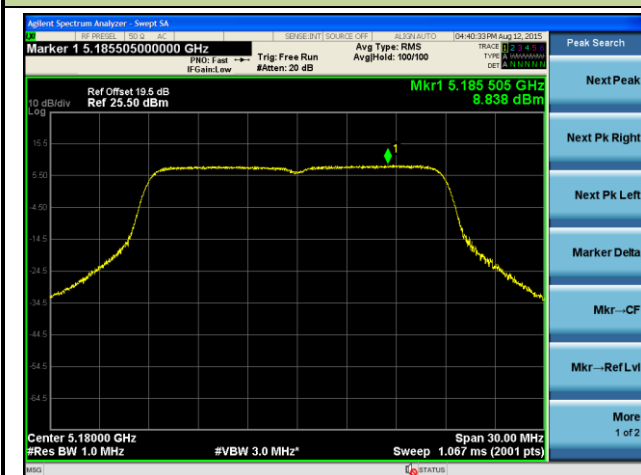


Channel 165 (5825MHz)

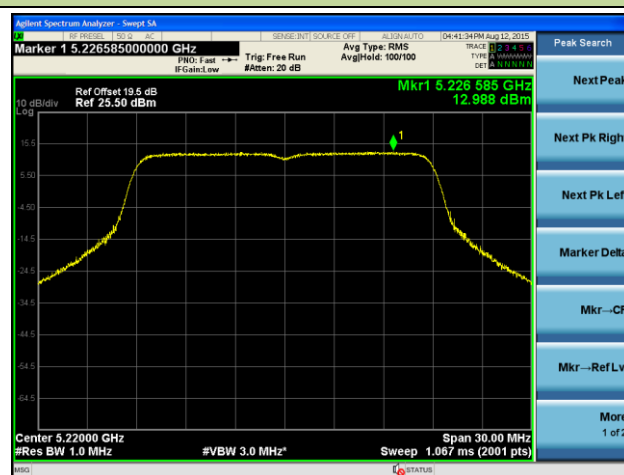


802.11n-HT20 Power Spectral Density - Ant 2

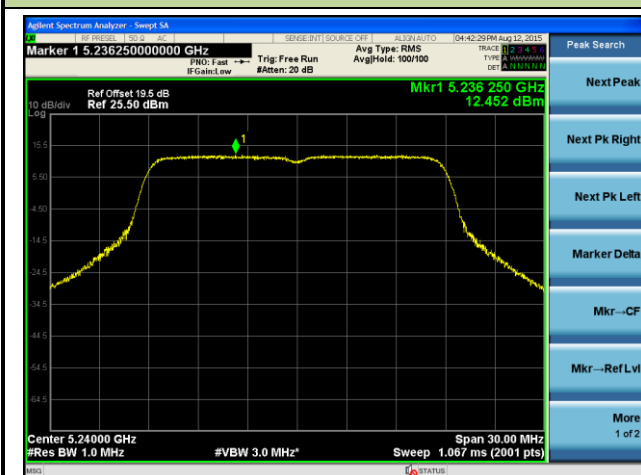
Channel 36 (5180MHz)



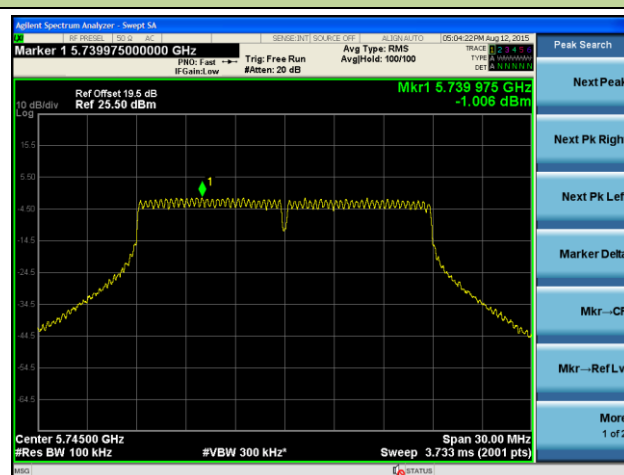
Channel 44 (5220MHz)



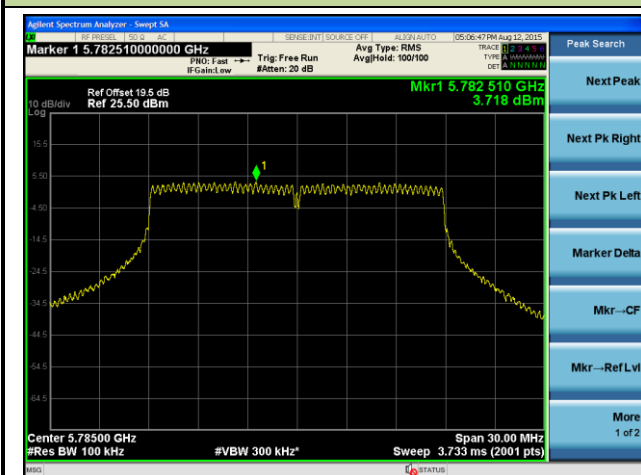
Channel 48 (5240MHz)



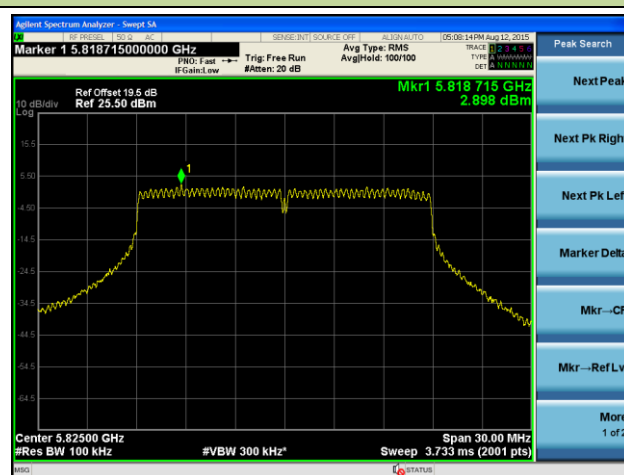
Channel 149 (5745MHz)



Channel 157 (5785MHz)

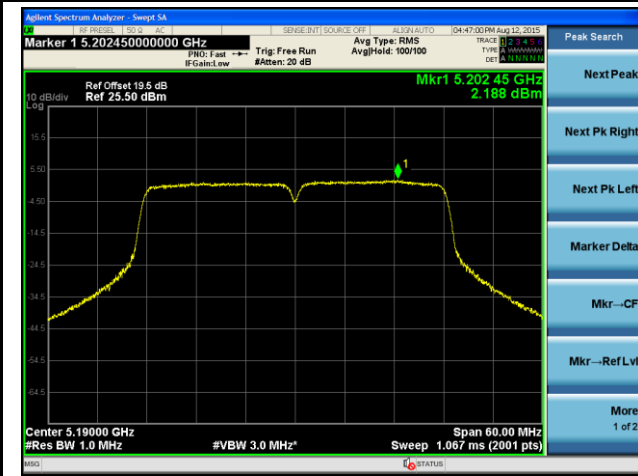


Channel 165 (5825MHz)

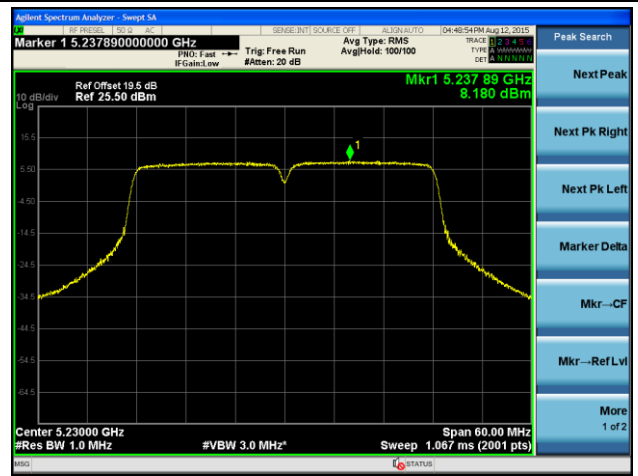


802.11n-HT40 Power Spectral Density - Ant 2

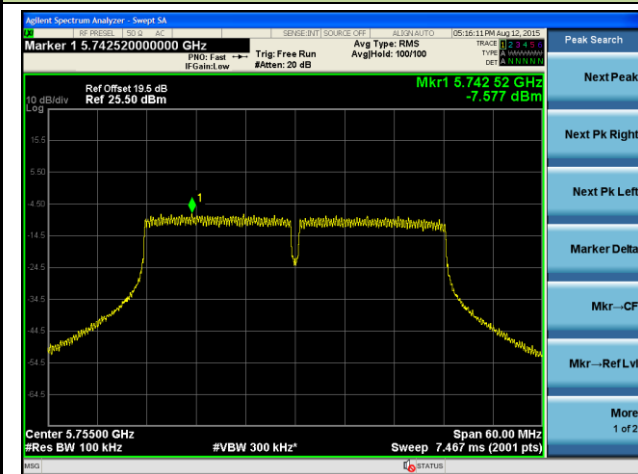
Channel 38 (5190MHz)



Channel 46 (5230MHz)



Channel 151 (5755MHz)



Channel 159 (5795MHz)

