



7.3. 6dB Bandwidth Measurement

7.3.1. Test Limit

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

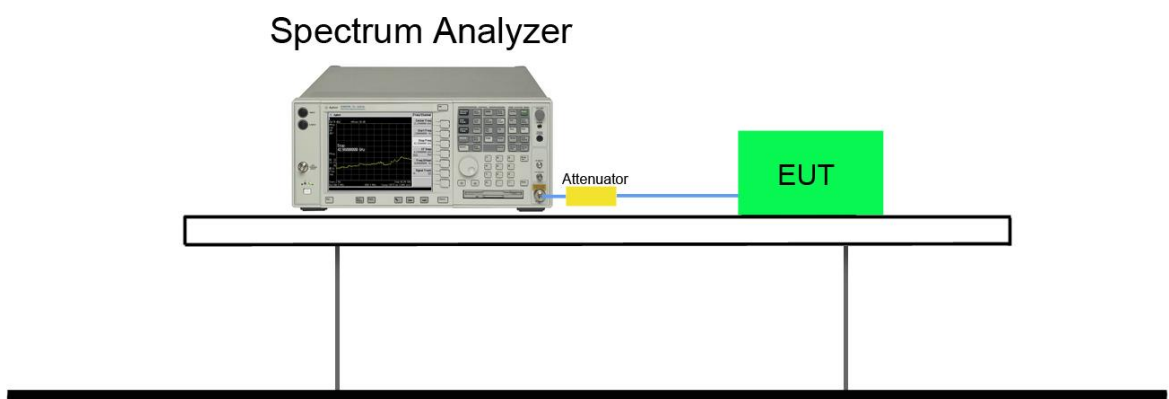
7.3.2. Test Procedure used

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

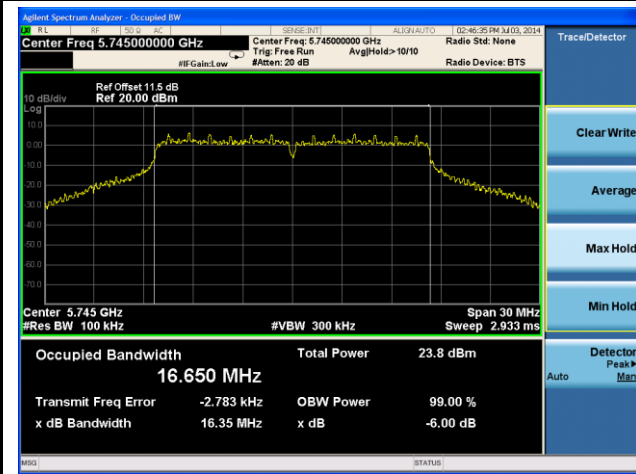


7.3.5. Test Result

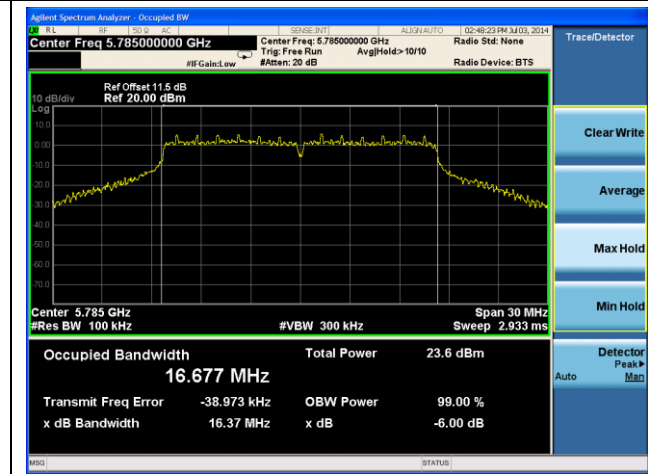
Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
Ant 0 / Ant 0 + 1						
802.11a	6	149	5745	16.35	≥0.5	Pass
802.11a	6	157	5785	16.37	≥0.5	Pass
802.11a	6	165	5825	16.34	≥0.5	Pass
802.11n-HT20	13	149	5745	17.33	≥0.5	Pass
802.11n-HT20	13	157	5785	17.30	≥0.5	Pass
802.11n-HT20	13	165	5825	17.58	≥0.5	Pass
802.11n-HT40	27	151	5755	35.75	≥0.5	Pass
802.11n-HT40	27	159	5795	35.79	≥0.5	Pass
802.11ac-VHT20	13	149	5745	17.53	≥0.5	Pass
802.11ac-VHT20	13	157	5785	17.59	≥0.5	Pass
802.11ac-VHT20	13	165	5825	17.55	≥0.5	Pass
802.11ac-VHT40	27	151	5755	35.78	≥0.5	Pass
802.11ac-VHT40	27	159	5795	35.79	≥0.5	Pass
802.11ac-VHT80	58.6	155	5775	71.48	≥0.5	Pass
Ant 1 / Ant 0 + 1						
802.11a	6	149	5745	16.39	≥0.5	Pass
802.11a	6	157	5785	16.40	≥0.5	Pass
802.11a	6	165	5825	16.39	≥0.5	Pass
802.11n-HT20	13	149	5745	17.62	≥0.5	Pass
802.11n-HT20	13	157	5785	17.62	≥0.5	Pass
802.11n-HT20	13	165	5825	17.63	≥0.5	Pass
802.11n-HT40	27	151	5755	36.39	≥0.5	Pass
802.11n-HT40	27	159	5795	36.39	≥0.5	Pass
802.11ac-VHT20	13	149	5745	17.63	≥0.5	Pass
802.11ac-VHT20	13	157	5785	17.62	≥0.5	Pass
802.11ac-VHT20	13	165	5825	17.64	≥0.5	Pass
802.11ac-VHT40	27	151	5755	36.39	≥0.5	Pass
802.11ac-VHT40	27	159	5795	36.40	≥0.5	Pass
802.11ac-VHT80	58.6	155	5775	75.84	≥0.5	Pass

802.11a 6dB Bandwidth - Ant 0 / Ant 0 + 1

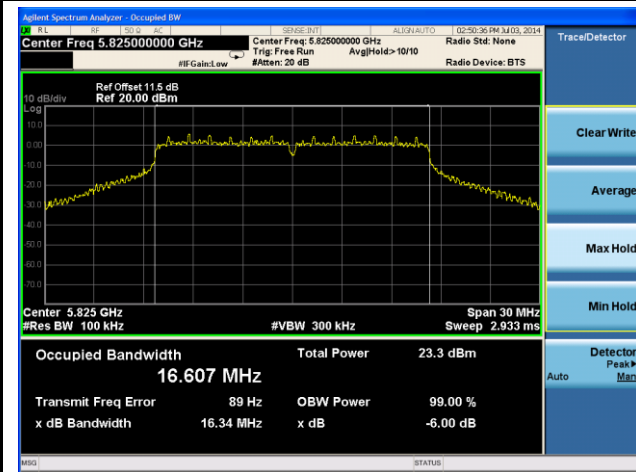
Channel 149 (5745MHz)



Channel 157 (5785MHz)

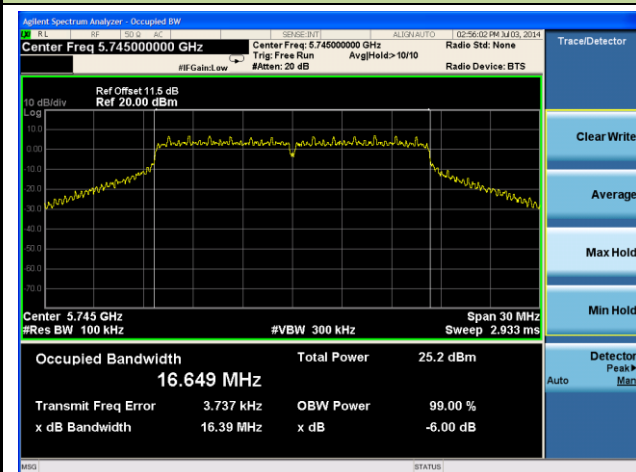


Channel 165 (5825MHz)

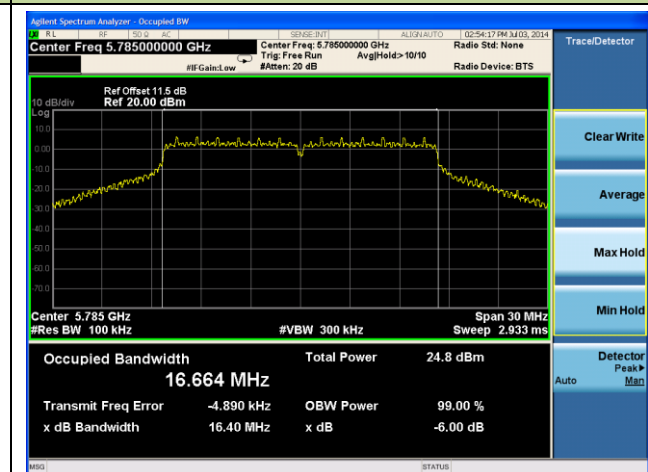


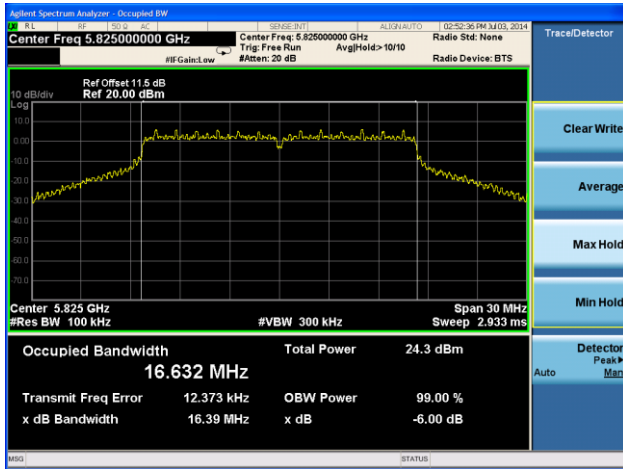
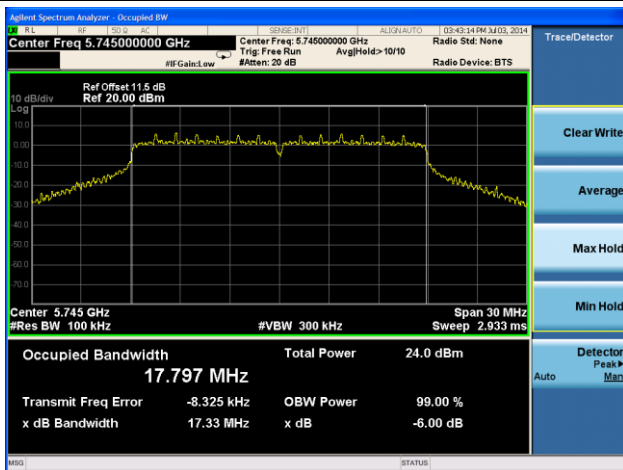
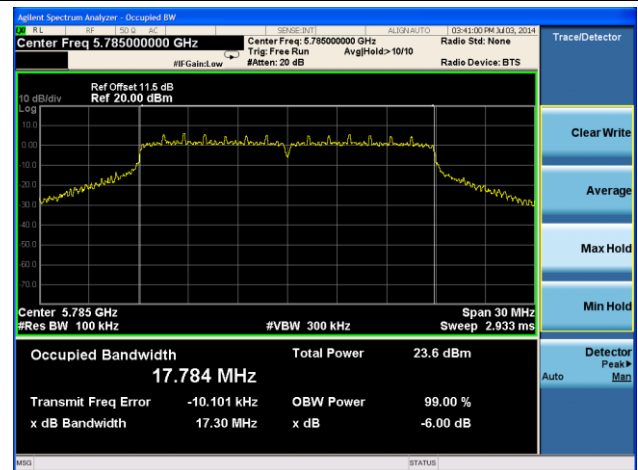
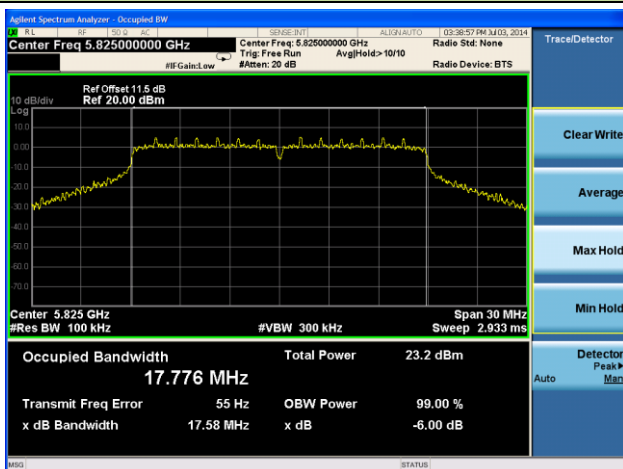
802.11a 6dB Bandwidth - Ant 1 / Ant 0 + 1

Channel 149 (5745MHz)



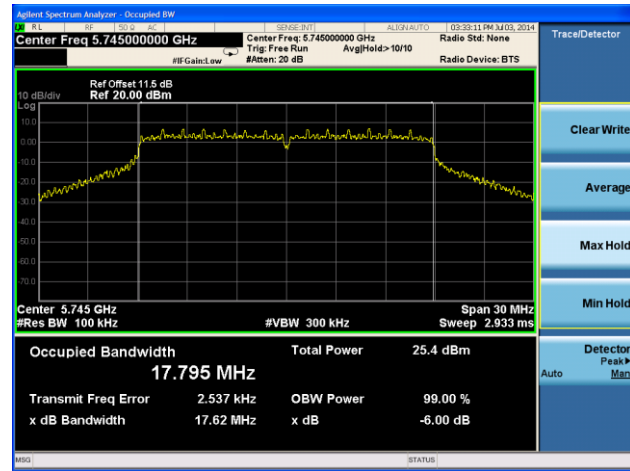
Channel 157 (5785MHz)



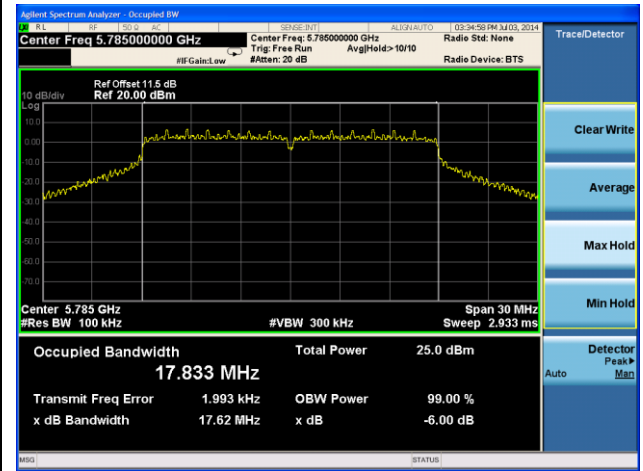
Channel 165 (5825MHz)

802.11n-HT20 6dB Bandwidth - Ant 0 / Ant 0 + 1
Channel 149 (5745MHz)

Channel 157 (5785MHz)

Channel 165 (5825MHz)


802.11n-HT20 6dB Bandwidth - Ant 1 / Ant 0 + 1

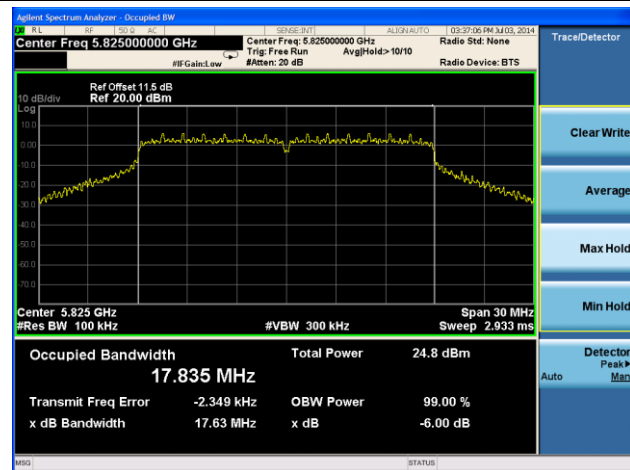
Channel 149 (5745MHz)



Channel 157 (5785MHz)

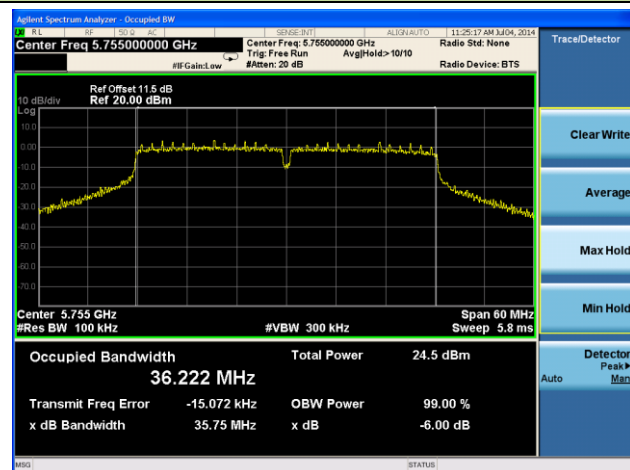


Channel 165 (5825MHz)

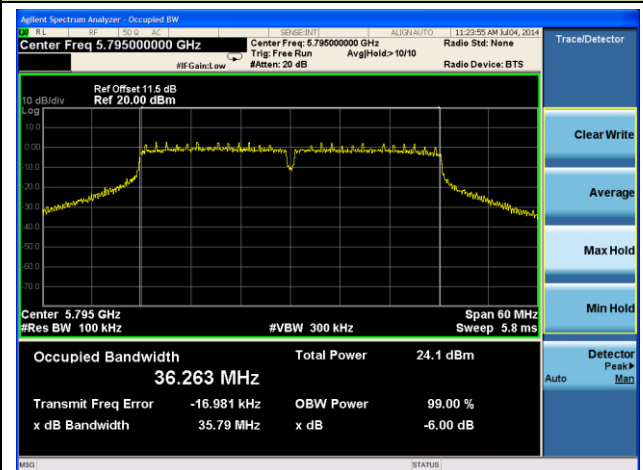


802.11n-HT40 6dB Bandwidth - Ant 0 / Ant 0 + 1

Channel 151 (5755MHz)

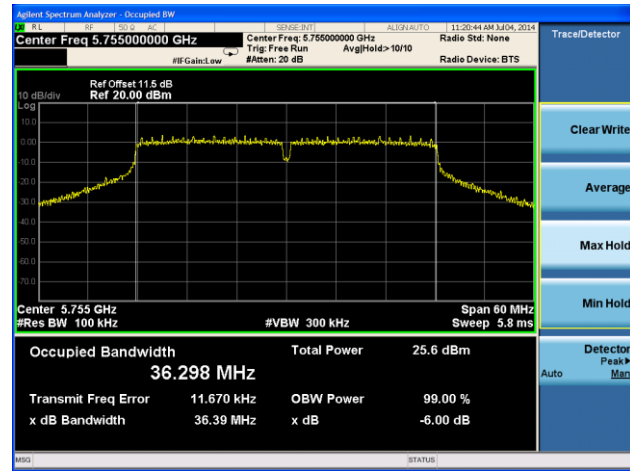


Channel 159 (5795MHz)

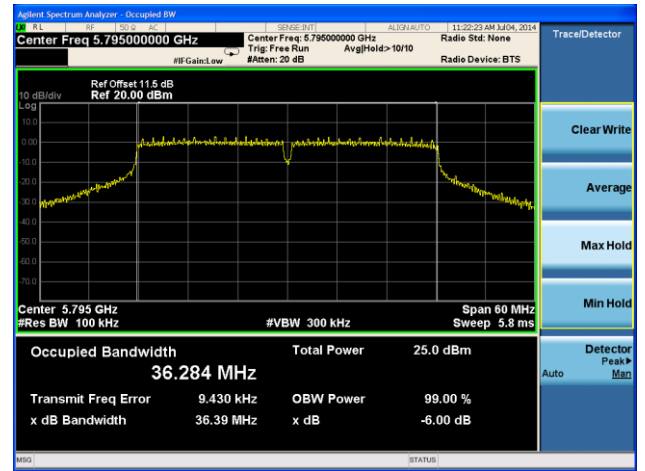


802.11n-HT40 6dB Bandwidth - Ant 1 / Ant 0 + 1

Channel 151 (5755MHz)

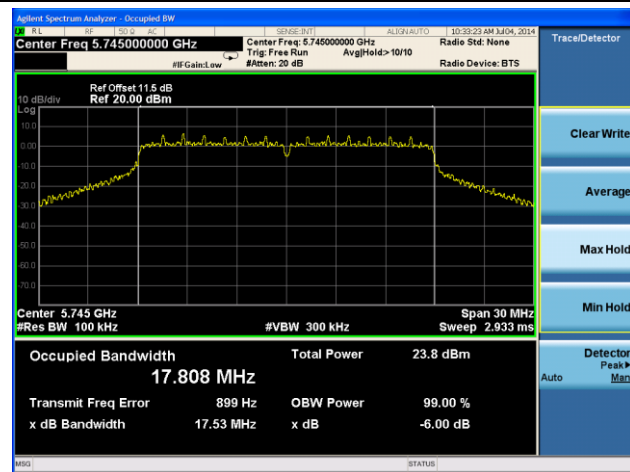


Channel 159 (5795MHz)

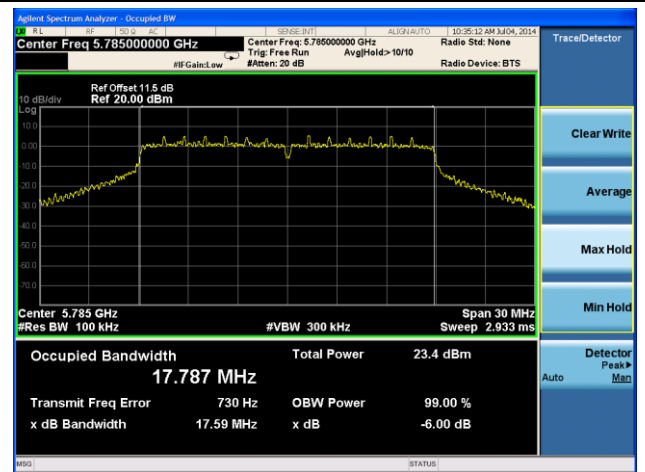


802.11ac-VHT20 6dB Bandwidth - Ant 0 / Ant 0 + 1

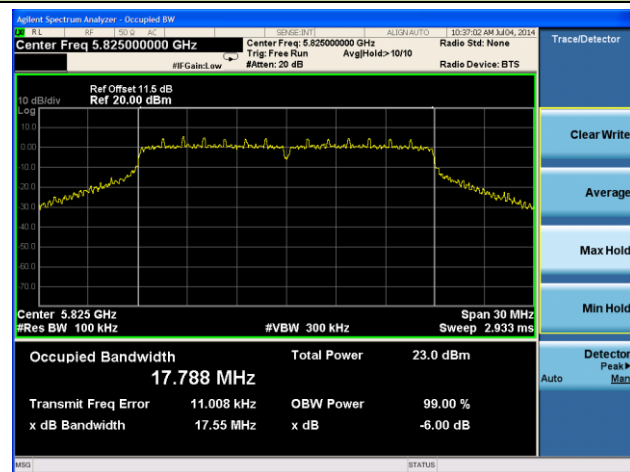
Channel 149 (5745MHz)



Channel 157 (5785MHz)

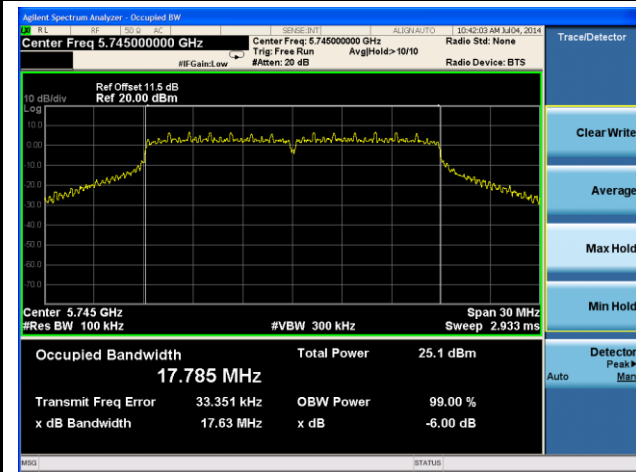


Channel 165 (5825MHz)

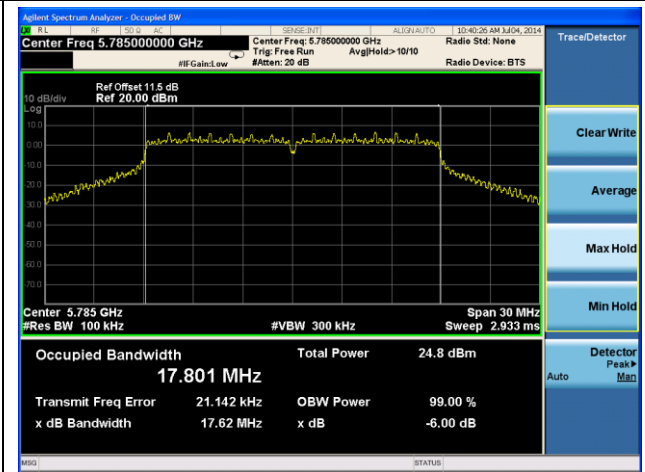


802.11ac-VHT20 6dB Bandwidth - Ant 1 / Ant 0 + 1

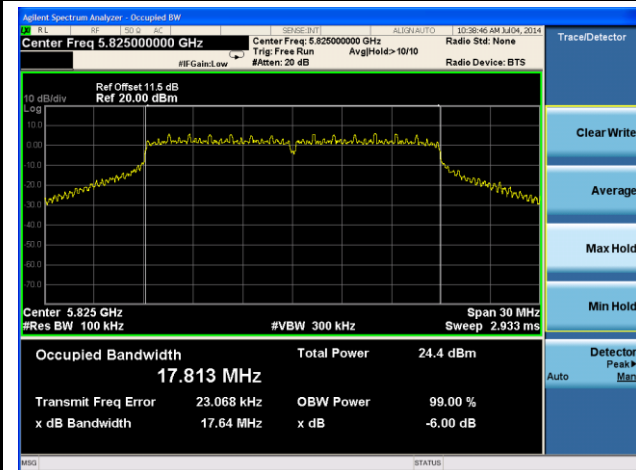
Channel 149 (5745MHz)



Channel 157 (5785MHz)

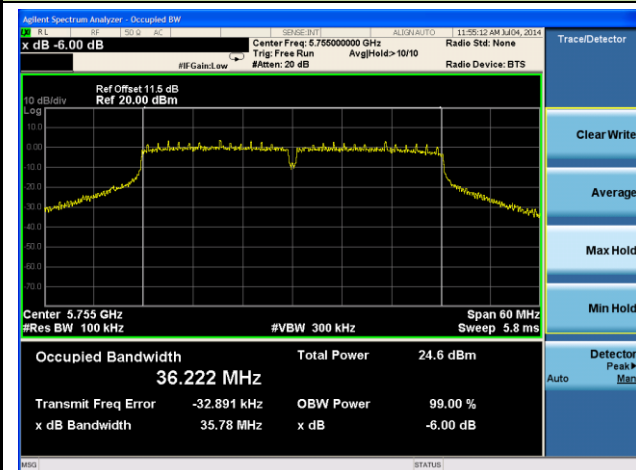


Channel 165 (5825MHz)

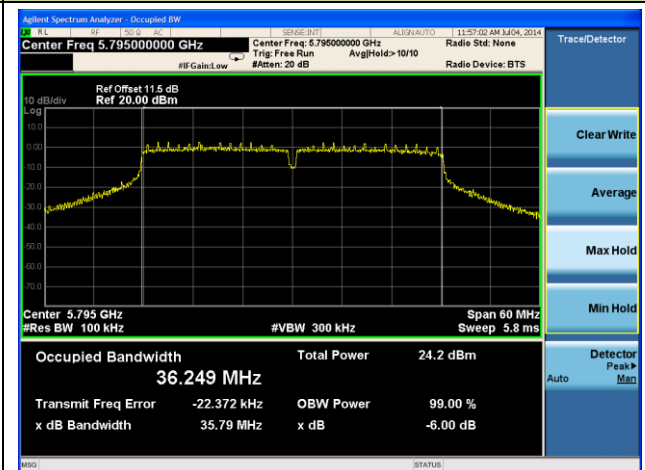


802.11ac-VHT40 6dB Bandwidth - Ant 0 / Ant 0 + 1

Channel 151 (5755MHz)

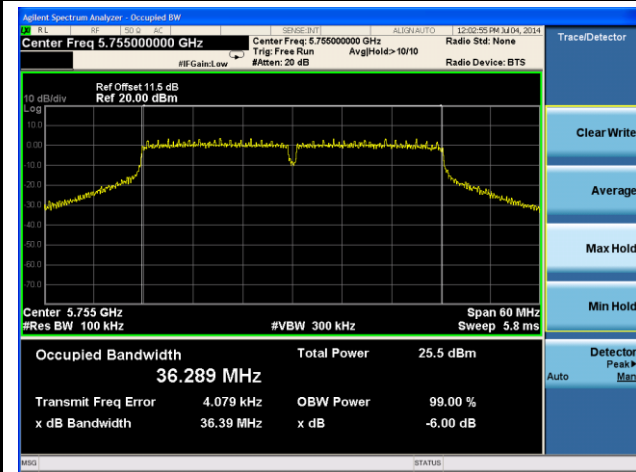


Channel 159 (5795MHz)

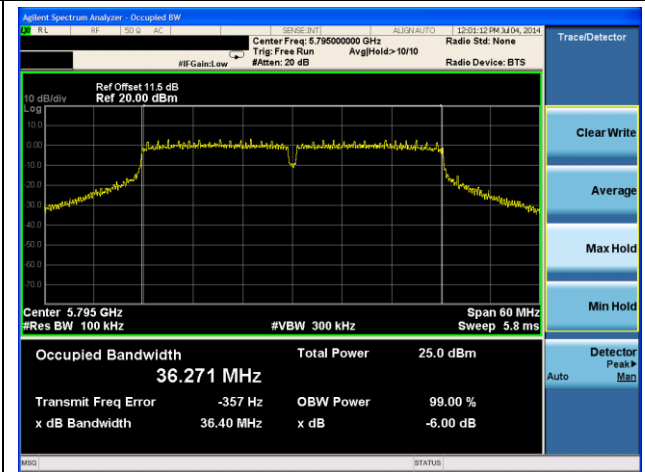


802.11ac-VHT40 6dB Bandwidth - Ant 1 / Ant 0 + 1

Channel 151 (5755MHz)

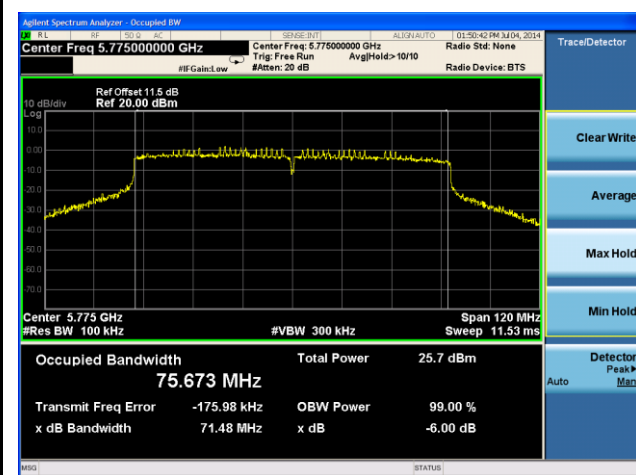


Channel 159 (5795MHz)

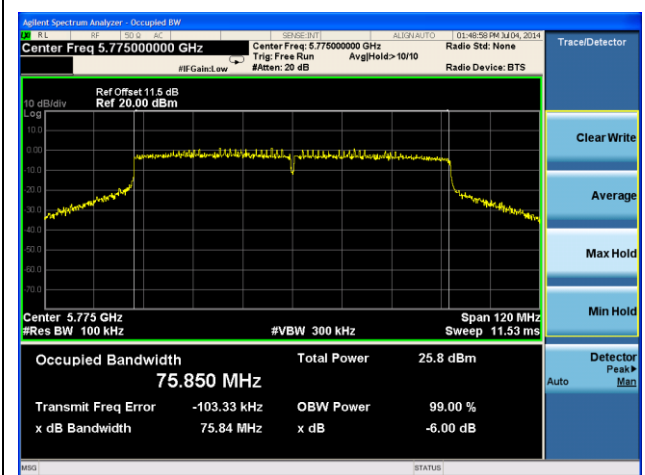


802.11ac-VHT80 6dB Bandwidth - Ant 0 + 1

Channel 155 (5775MHz) – Ant 0



Channel 155 (5775MHz) – Ant 1



7.4. Output Power Measurement

7.4.1. Test Limit

For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm).

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW (23.98dBm) or $11 \text{ dBm} + 10 \log_{10}(26 \text{ dB BW}) = 11 \text{ dBm} + 10 \log_{10}(24.14) = 24.83 \text{ dBm}$.

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).

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

5.15-5.25GHz: Limit (dBm) = 30dBm – (8.94dBi - 6dBi) = 27.06dBm

5.25-5.35GHz: Limit (dBm) = 23.98dBm – (8.94dBi - 6dBi) = 21.04dBm

5.47-5.725GHz: Limit (dBm) = 23.98dBm – (8.68dBi - 6dBi) = 21.30dBm

5.725-5.85GHz: Limit (dBm) = 30dBm – (8.42dBi - 6dBi) = 27.58dBm

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

Power output test was verified over all data rates of each mode shown as below, and then choose the maximum power output (yellow marker) for final test of each channel.

N _{Tx}	a	MCS Index for 802.11n	Data Rate (Mbps)			
			20MHz Bandwidth		40MHz Bandwidth	
			800ns GI	400ns GI	800ns GI	400ns GI
2	6	8	13.0	14.4	27.0	30.0
2	9	9	26.0	28.9	54.0	60.0
2	12	10	39.0	43.3	81.0	90.0
2	18	11	52.0	57.8	108.0	120.0
2	24	12	78.0	86.7	162.0	180.0
2	36	13	104.0	115.6	216.0	240.0
2	48	14	117.0	130.0	243.0	270.0
2	54	15	130.0	144.0	270.0	300.0

N _{Tx}	MCS Index for 802.11ac	Data Rate (Mbps)					
		20MHz Bandwidth		40MHz Bandwidth		80MHz Bandwidth	
		800ns GI	400ns GI	800ns GI	400ns GI	800ns GI	400ns GI
2	10	13.0	14.4	27.0	30.0	58.6	65.0
2	11	26.0	28.8	54.0	60.0	117.0	130.0
2	12	39.0	43.4	81.0	90.0	175.6	195.0
2	13	52.0	57.8	108.0	120.0	234.0	260.0
2	14	78.0	86.6	162.0	180.0	351.0	390.0
2	15	104.0	115.6	216.0	240.0	468.0	520.0
2	16	117.0	130.0	243.0	270.0	526.6	585.0
2	17	130.0	144.4	270.0	300.0	585.0	650.0
2	18	156.0	173.4	324.0	360.0	702.0	780.0
2	19	--	--	360.0	400.0	780.0	866.6

Note: Power output test was verified over all data rates of each mode shown as above, and then choose the maximum power output (yellow marker) for final test of each channel.

Output power at various data rates for Ant 0 /Ant 0 + 1:

Test Mode	Bandwidth	Channel	Frequency (MHz)	Data Rate (Mbps)	RMS Power (dBm)
802.11a	20	60	5300	6	17.33
				24	17.01
				54	16.38
802.11n	20	60	5300	13	17.21
				78	16.28
				130	15.75
802.11n	40	62	5310	27	17.19
				162	16.27
				270	15.66
802.11ac	20	60	5300	13	16.68
				78	15.63
				156	15.29
802.11ac	40	62	5310	27	16.82
				162	15.72
				360	15.11
802.11ac	80	58	5290	58.6	9.05
				351	7.57
				780	7.52

Test Mode	N _{Tx}	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Limit (dBm)	Result
11a	2	6	36	5180	17.97	17.36	20.69	27.06	Pass
11a	2	6	44	5220	17.21	17.65	20.45	27.06	Pass
11a	2	6	48	5240	17.70	17.50	20.61	27.06	Pass
11a	2	6	52	5260	17.32	17.12	20.23	21.04	Pass
11a	2	6	60	5300	17.33	17.03	20.19	21.04	Pass
11a	2	6	64	5320	17.32	17.01	20.18	21.04	Pass
11a	2	6	100	5500	16.03	16.50	19.28	21.30	Pass
11a	2	6	120	5600	16.23	15.65	18.96	21.30	Pass
11a	2	6	140	5700	15.78	16.26	19.04	21.30	Pass
11a	2	6	149	5745	15.57	17.06	19.39	27.58	Pass
11a	2	6	157	5785	17.63	17.81	20.73	27.58	Pass
11a	2	6	165	5825	16.34	17.52	19.98	27.58	Pass
11n-HT20	2	13	36	5180	17.68	17.40	20.55	27.06	Pass
11n-HT20	2	13	44	5220	17.45	17.21	20.34	27.06	Pass
11n-HT20	2	13	48	5240	17.46	17.41	20.45	27.06	Pass
11n-HT20	2	13	52	5260	17.13	16.96	20.06	21.04	Pass
11n-HT20	2	13	60	5300	17.21	16.85	20.04	21.04	Pass
11n-HT20	2	13	64	5320	17.56	17.14	20.37	21.04	Pass
11n-HT20	2	13	100	5500	17.14	17.04	20.10	21.30	Pass
11n-HT20	2	13	120	5600	17.03	16.83	19.94	21.30	Pass
11n-HT20	2	13	140	5700	15.52	16.11	18.84	21.30	Pass
11n-HT20	2	13	149	5745	14.16	15.23	17.74	27.58	Pass
11n-HT20	2	13	157	5785	16.71	17.63	20.20	27.58	Pass
11n-HT20	2	13	165	5825	16.60	17.35	20.00	27.58	Pass
11n-HT40	2	27	38	5190	14.87	14.73	17.81	27.06	Pass
11n-HT40	2	27	46	5230	17.21	17.17	20.20	27.06	Pass
11n-HT40	2	27	54	5270	16.80	16.78	19.80	21.04	Pass
11n-HT40	2	27	62	5310	16.68	16.96	19.83	21.04	Pass
11n-HT40	2	27	102	5510	16.73	17.07	19.91	21.30	Pass
11n-HT40	2	27	118	5590	16.74	16.84	19.80	21.30	Pass
11n-HT40	2	27	134	5670	16.40	16.72	19.57	21.30	Pass
11n-HT40	2	27	151	5755	16.43	17.34	19.92	27.58	Pass
11n-HT40	2	27	159	5795	17.23	17.45	20.35	27.58	Pass



11ac-VHT20	2	13	36	5180	17.28	16.70	20.01	27.06	Pass
11ac-VHT20	2	13	44	5220	17.34	16.98	20.17	27.06	Pass
11ac-VHT20	2	13	48	5240	17.40	17.13	20.28	27.06	Pass
11ac-VHT20	2	13	52	5260	17.13	16.88	20.02	21.04	Pass
11ac-VHT20	2	13	60	5300	17.19	16.71	19.97	21.04	Pass
11ac-VHT20	2	13	64	5320	16.82	16.80	19.82	21.04	Pass
11ac-VHT20	2	13	100	5500	16.45	16.45	19.46	21.30	Pass
11ac-VHT20	2	13	120	5600	16.83	17.08	19.97	21.30	Pass
11ac-VHT20	2	13	140	5700	16.03	16.61	19.34	21.30	Pass
11ac-VHT20	2	13	144	5720	15.78	16.45	19.14	21.30	Pass
11ac-VHT20	2	13	149	5745	14.84	16.22	18.59	27.58	Pass
11ac-VHT20	2	13	157	5785	16.80	17.63	20.25	27.58	Pass
11ac-VHT20	2	13	165	5825	15.06	16.27	18.72	27.58	Pass
11ac-VHT40	2	27	38	5190	14.99	14.71	17.86	27.06	Pass
11ac-VHT40	2	27	46	5230	17.11	17.22	20.18	27.06	Pass
11ac-VHT40	2	27	54	5270	17.33	17.17	20.26	21.04	Pass
11ac-VHT40	2	27	62	5310	16.82	16.68	19.76	21.04	Pass
11ac-VHT40	2	27	102	5510	16.79	16.78	19.80	21.30	Pass
11ac-VHT40	2	27	118	5590	16.78	16.89	19.85	21.30	Pass
11ac-VHT40	2	27	134	5670	16.80	17.21	20.02	21.30	Pass
11ac-VHT40	2	27	142	5710	16.54	17.34	19.97	21.30	Pass
11ac-VHT40	2	27	151	5755	16.97	17.81	20.42	27.58	Pass
11ac-VHT40	2	27	159	5795	17.25	17.50	20.39	27.58	Pass
11ac-VHT80	2	58.6	42	5210	9.14	9.05	12.11	27.06	Pass
11ac-VHT80	2	58.6	58	5290	9.05	8.85	11.96	21.04	Pass
11ac-VHT80	2	58.6	106	5530	13.72	13.88	16.81	21.30	Pass
11ac-VHT80	2	58.6	122	5610	16.92	17.02	19.98	21.30	Pass
11ac-VHT80	2	58.6	138	5690	16.50	16.80	19.66	21.30	Pass
11ac-VHT80	2	58.6	155	5775	9.54	10.18	12.88	27.58	Pass

Note: The Total Average Power (dBm) = $10 \cdot \log\{10^{(\text{Ant 0 Average Power}/10)} + 10^{(\text{Ant 1 Average Power}/10)}\}$.

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.

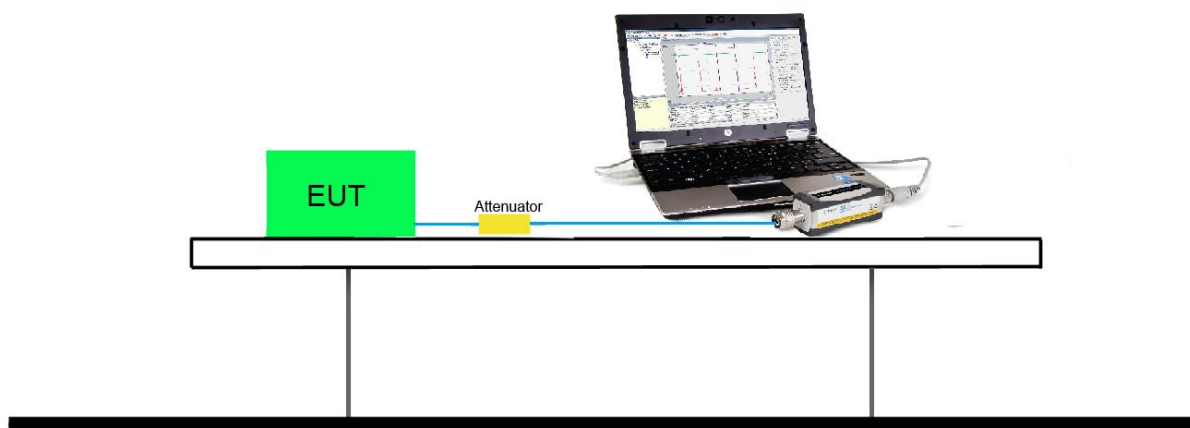
7.5.2. Test Procedure Used

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

Test Mode	N _{Tx}	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 TPC Power (dBm)	Ant 1 TPC Power (dBm)	Total TPC Power (dBm)	Limit (dBm)	Result
11a	2	6	36	5180	11.36	11.27	14.33	24	Pass
11a	2	6	44	5220	11.09	11.14	14.13	24	Pass
11a	2	6	48	5240	11.07	11.52	14.31	24	Pass
11a	2	6	52	5260	10.56	11.02	13.81	24	Pass
11a	2	6	60	5300	10.63	10.98	13.82	24	Pass
11a	2	6	64	5320	10.80	10.97	13.90	24	Pass
11a	2	6	100	5500	9.57	10.69	13.18	24	Pass
11a	2	6	120	5600	9.82	9.60	12.72	24	Pass
11a	2	6	140	5700	9.51	9.56	12.55	24	Pass
11a	2	6	149	5745	9.23	9.28	12.27	24	Pass
11a	2	6	157	5785	11.09	11.58	14.35	24	Pass
11a	2	6	165	5825	9.93	10.51	13.24	24	Pass
11n-HT20	2	13	36	5180	11.14	10.97	14.07	24	Pass
11n-HT20	2	13	44	5220	10.80	11.02	13.92	24	Pass
11n-HT20	2	13	48	5240	10.89	11.40	14.16	24	Pass
11n-HT20	2	13	52	5260	10.46	10.84	13.66	24	Pass
11n-HT20	2	13	60	5300	10.36	10.80	13.60	24	Pass
11n-HT20	2	13	64	5320	10.97	11.18	14.09	24	Pass
11n-HT20	2	13	100	5500	10.66	11.31	14.01	24	Pass
11n-HT20	2	13	120	5600	10.40	10.10	13.26	24	Pass
11n-HT20	2	13	140	5700	9.19	9.26	12.24	24	Pass
11n-HT20	2	13	149	5745	7.41	7.63	10.53	24	Pass
11n-HT20	2	13	157	5785	10.80	11.25	14.04	24	Pass
11n-HT20	2	13	165	5825	10.72	11.24	14.00	24	Pass
11n-HT40	2	27	38	5190	8.62	8.56	11.60	24	Pass
11n-HT40	2	27	46	5230	10.98	11.01	14.01	24	Pass
11n-HT40	2	27	54	5270	10.61	10.77	13.70	24	Pass
11n-HT40	2	27	62	5310	10.78	10.82	13.81	24	Pass
11n-HT40	2	27	102	5510	10.70	10.63	13.68	24	Pass
11n-HT40	2	27	118	5590	10.35	10.61	13.49	24	Pass
11n-HT40	2	27	134	5670	9.78	10.42	13.12	24	Pass
11n-HT40	2	27	151	5755	9.56	11.48	13.64	24	Pass



11n-HT40	2	27	159	5795	10.69	11.22	13.97	24	Pass
11ac-VHT20	2	13	36	5180	10.22	10.02	13.13	24	Pass
11ac-VHT20	2	13	44	5220	10.68	10.70	13.70	24	Pass
11ac-VHT20	2	13	48	5240	10.74	10.83	13.80	24	Pass
11ac-VHT20	2	13	52	5260	10.28	10.42	13.36	24	Pass
11ac-VHT20	2	13	60	5300	10.79	11.10	13.96	24	Pass
11ac-VHT20	2	13	64	5320	10.17	10.30	13.25	24	Pass
11ac-VHT20	2	13	100	5500	9.79	10.29	13.06	24	Pass
11ac-VHT20	2	13	120	5600	10.44	10.25	13.36	24	Pass
11ac-VHT20	2	13	140	5700	9.48	9.52	12.51	24	Pass
11ac-VHT20	2	13	144	5720	10.12	10.12	13.13	24	Pass
11ac-VHT20	2	13	149	5745	8.79	9.01	11.91	24	Pass
11ac-VHT20	2	13	157	5785	10.57	11.06	13.83	24	Pass
11ac-VHT20	2	13	165	5825	8.96	9.86	12.44	24	Pass
11ac-VHT40	2	27	38	5190	8.69	8.56	11.64	24	Pass
11ac-VHT40	2	27	46	5230	10.98	11.30	14.15	24	Pass
11ac-VHT40	2	27	54	5270	10.76	11.48	14.15	24	Pass
11ac-VHT40	2	27	62	5310	10.46	10.44	13.46	24	Pass
11ac-VHT40	2	27	102	5510	10.30	10.57	13.45	24	Pass
11ac-VHT40	2	27	118	5590	10.44	9.83	13.16	24	Pass
11ac-VHT40	2	27	134	5670	10.36	9.89	13.14	24	Pass
11ac-VHT40	2	27	142	5710	10.41	11.24	13.86	24	Pass
11ac-VHT40	2	27	151	5755	10.31	10.71	13.52	24	Pass
11ac-VHT40	2	27	159	5795	10.72	10.98	13.86	24	Pass
11ac-VHT80	2	58.6	42	5210	3.08	3.11	6.11	24	Pass
11ac-VHT80	2	58.6	58	5290	2.62	2.88	5.76	24	Pass
11ac-VHT80	2	58.6	106	5530	7.49	7.33	10.42	24	Pass
11ac-VHT80	2	58.6	122	5610	10.51	10.25	13.39	24	Pass
11ac-VHT80	2	58.6	138	5690	10.40	10.20	13.31	24	Pass
11ac-VHT80	2	58.6	155	5775	2.89	3.32	6.12	24	Pass

Note: Total TPC Power (dBm) = $10 \cdot \log\{10^{(\text{Ant 0 TPC Power}/10)} + 10^{(\text{Ant 1 TPC Power}/10)}\}$.

7.6. Power Spectral Density Measurement

7.6.1. Test Limit

For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

For the band 5.725-5.85 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.

5.15-5.25 GHz: Limit (dBm/MHz) = 17dBm/MHz – (8.94dBi - 6dBi) = 14.06dBm/MHz

5.25-5.35 GHz Limit (dBm/MHz) = 11dBm/MHz – (8.94dBi - 6dBi) = 8.06dBm/MHz

5.47-5.725 GHz Limit (dBm/MHz) = 11dBm/MHz – (8.68dBi - 6dBi) = 8.32dBm/MHz

5.725-5.85 GHz Limit (dBm/500kHz) = 30dBm/500kHz – (8.42dBi - 6dBi) = 27.58dBm/MHz

7.6.2. Test Procedure Used

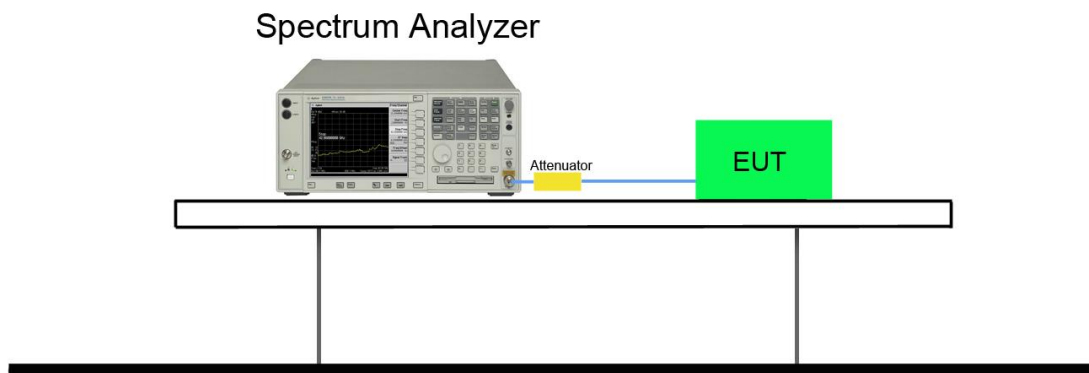
KDB 789033 D02v01 - Section F

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 $10 \cdot \log(500\text{kHz}/100\text{kHz}) = 7$ 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 0 PSD (dBm)	Ant 1 PSD (dBm)	Duty Cycle (%)	Total PSD (dBm)	Limit (dBm /MHz)	Result
11a	2	6	36	5180	5.228	5.282	96.7	8.411	14.06	Pass
11a	2	6	44	5220	5.157	4.935	96.7	8.203	14.06	Pass
11a	2	6	48	5240	5.373	5.023	96.7	8.358	14.06	Pass
11a	2	6	52	5260	4.838	4.825	96.7	7.988	8.06	Pass
11a	2	6	60	5300	4.836	4.687	96.7	7.918	8.06	Pass
11a	2	6	64	5320	4.663	4.716	96.7	7.846	8.06	Pass
11a	2	6	100	5500	4.815	4.499	96.7	7.816	8.32	Pass
11a	2	6	120	5600	4.719	4.495	96.7	7.764	8.32	Pass
11a	2	6	140	5700	4.060	4.457	96.7	7.419	8.32	Pass
11n-HT20	2	13	36	5180	4.379	4.845	93.8	7.907	14.06	Pass
11n-HT20	2	13	44	5220	4.327	4.278	93.8	7.591	14.06	Pass
11n-HT20	2	13	48	5240	4.421	4.482	93.8	7.740	14.06	Pass
11n-HT20	2	13	52	5260	4.463	4.172	93.8	7.608	8.06	Pass
11n-HT20	2	13	60	5300	4.138	4.140	93.8	7.427	8.06	Pass
11n-HT20	2	13	64	5320	4.561	4.583	93.8	7.860	8.06	Pass
11n-HT20	2	13	100	5500	4.605	4.452	93.8	7.817	8.32	Pass
11n-HT20	2	13	120	5600	4.492	4.089	93.8	7.583	8.32	Pass
11n-HT20	2	13	140	5700	3.589	4.313	93.8	7.254	8.32	Pass
11n-HT40	2	27	38	5190	-0.946	-0.571	89.7	2.728	14.06	Pass
11n-HT40	2	27	46	5230	1.358	1.993	89.7	5.169	14.06	Pass
11n-HT40	2	27	54	5270	0.800	1.131	89.7	4.451	8.06	Pass
11n-HT40	2	27	62	5310	0.958	1.700	89.7	4.827	8.06	Pass
11n-HT40	2	27	102	5510	1.308	2.061	89.7	5.183	8.32	Pass
11n-HT40	2	27	118	5590	1.374	1.918	89.7	5.137	8.32	Pass
11n-HT40	2	27	134	5670	0.755	1.678	89.7	4.723	8.32	Pass
11ac-VHT20	2	13	36	5180	4.645	4.433	94.2	7.810	14.06	Pass
11ac-VHT20	2	13	44	5220	4.531	4.783	94.2	7.929	14.06	Pass
11ac-VHT20	2	13	48	5240	4.944	4.803	94.2	8.144	14.06	Pass
11ac-VHT20	2	13	52	5260	4.696	4.730	94.2	7.983	8.06	Pass
11ac-VHT20	2	13	60	5300	4.379	4.649	94.2	7.786	8.06	Pass
11ac-VHT20	2	13	64	5320	4.312	4.254	94.2	7.553	8.06	Pass
11ac-VHT20	2	13	100	5500	4.539	4.159	94.2	7.623	8.32	Pass

11ac-VHT20	2	13	120	5600	4.743	4.499	94.2	7.893	8.32	Pass
11ac-VHT20	2	13	140	5700	4.026	4.829	94.2	7.716	8.32	Pass
11ac-VHT20	2	13	144	5720	3.720	4.907	94.2	7.624	8.32	Pass
11ac-VHT40	2	27	38	5190	-0.905	-0.462	89.4	2.819	14.06	Pass
11ac-VHT40	2	27	46	5230	1.385	2.146	89.4	5.279	14.06	Pass
11ac-VHT40	2	27	54	5270	1.510	2.331	89.4	5.437	8.06	Pass
11ac-VHT40	2	27	62	5310	1.535	2.046	89.4	5.295	8.06	Pass
11ac-VHT40	2	27	102	5510	1.440	2.129	89.4	5.295	8.32	Pass
11ac-VHT40	2	27	118	5590	1.714	2.146	89.4	5.432	8.32	Pass
11ac-VHT40	2	27	134	5670	1.166	2.253	89.4	5.240	8.32	Pass
11ac-VHT40	2	27	142	5710	1.193	2.170	89.4	5.206	8.32	Pass
11ac-VHT80	2	58.6	42	5210	-9.172	-8.708	81.5	-5.035	14.06	Pass
11ac-VHT80	2	58.6	58	5290	-9.387	-8.913	81.5	-5.245	8.06	Pass
11ac-VHT80	2	58.6	106	5530	-4.280	-3.672	81.5	-0.067	8.32	Pass
11ac-VHT80	2	58.6	122	5610	-0.365	-0.125	81.5	3.655	8.32	Pass
11ac-VHT80	2	58.6	138	5690	-0.812	-0.595	81.5	3.197	8.32	Pass

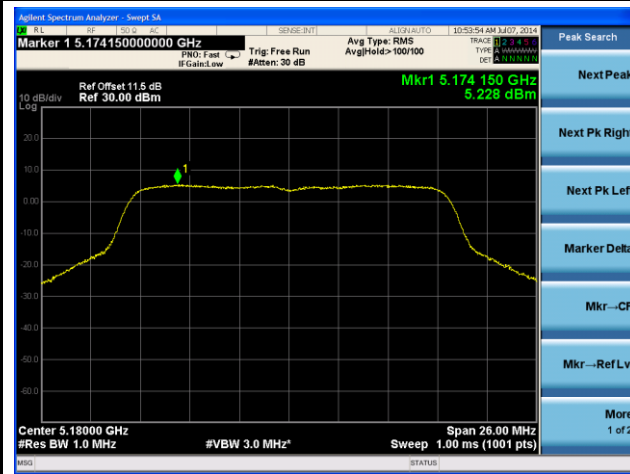
Note: When EUT duty cycle < 98%, the total PSD = $10 \cdot \log\{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)}\} + 10 \cdot \log(1/\text{duty cycle})$

Test Mode	N _{Tx}	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 PSD (dBm)	Ant 1 PSD (dBm)	Duty Cycle (%)	Constant Factor	Total PSD (dBm)	Limit (dBm/500kHz)	Result
11a	2	6	149	5745	-5.490	-4.804	96.7	7	5.012	27.58	Pass
11a	2	6	157	5785	-4.973	-3.605	96.7	7	5.910	27.58	Pass
11a	2	6	165	5825	-4.439	-3.618	96.7	7	6.137	27.58	Pass
11n-HT20	2	13	149	5745	-7.753	-5.756	93.8	7	3.637	27.58	Pass
11n-HT20	2	13	157	5785	-5.296	-3.871	93.8	7	5.753	27.58	Pass
11n-HT20	2	13	165	5825	-4.703	-4.884	93.8	7	5.485	27.58	Pass
11n-HT40	2	27	151	5755	-7.623	-6.820	89.7	7	3.269	27.58	Pass
11n-HT40	2	27	159	5795	-7.262	-6.686	89.7	7	3.508	27.58	Pass
11ac-VHT20	2	13	149	5745	-6.242	-5.168	94.2	7	4.588	27.58	Pass
11ac-VHT20	2	13	157	5785	-4.676	-3.625	94.2	7	6.141	27.58	Pass
11ac-VHT20	2	13	165	5825	-6.446	-5.159	94.2	7	4.504	27.58	Pass
11ac-VHT40	2	27	151	5755	-7.519	-6.399	89.4	7	3.564	27.58	Pass
11ac-VHT40	2	27	159	5795	-7.561	-6.421	89.4	7	3.533	27.58	Pass
11ac-VHT80	2	58.6	155	5775	-17.088	-17.059	81.5	7	-6.185	27.58	Pass

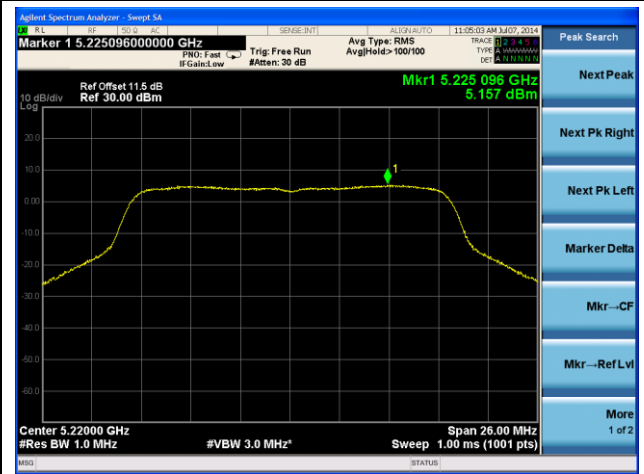
Note: When EUT duty cycle < 98%, the total PSD = $10 \cdot \log\{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)}\} + 10 \cdot \log(1/\text{duty cycle}) + \text{Constant Factor}$.

802.11a Power Spectral Density - Ant 0 / Ant 0 + 1

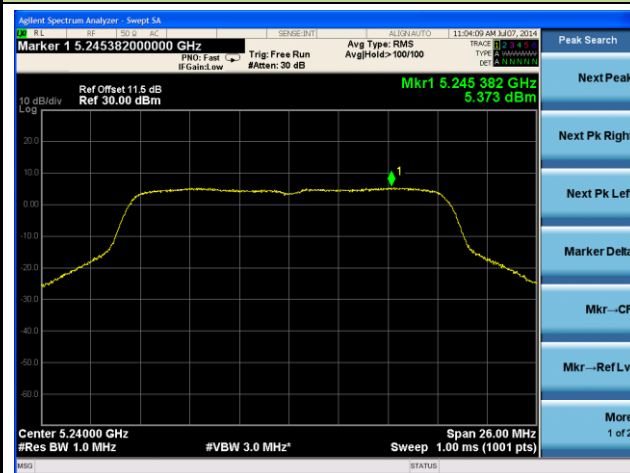
Channel 36 (5180MHz)



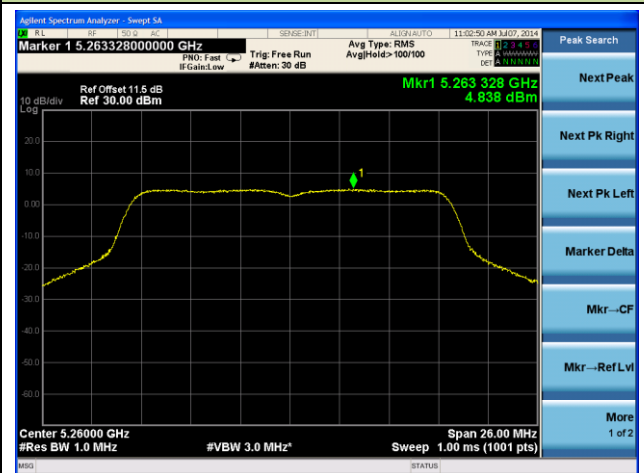
Channel 44 (5220MHz)



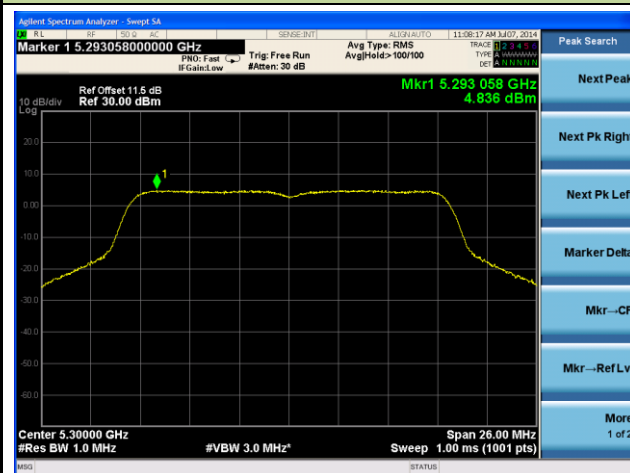
Channel 48 (5240MHz)



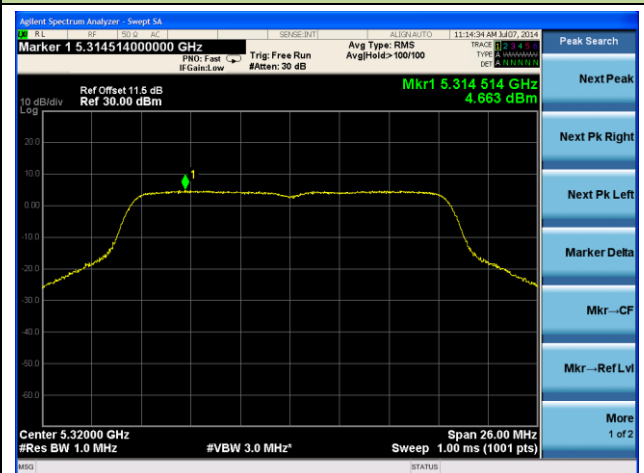
Channel 52 (5260MHz)

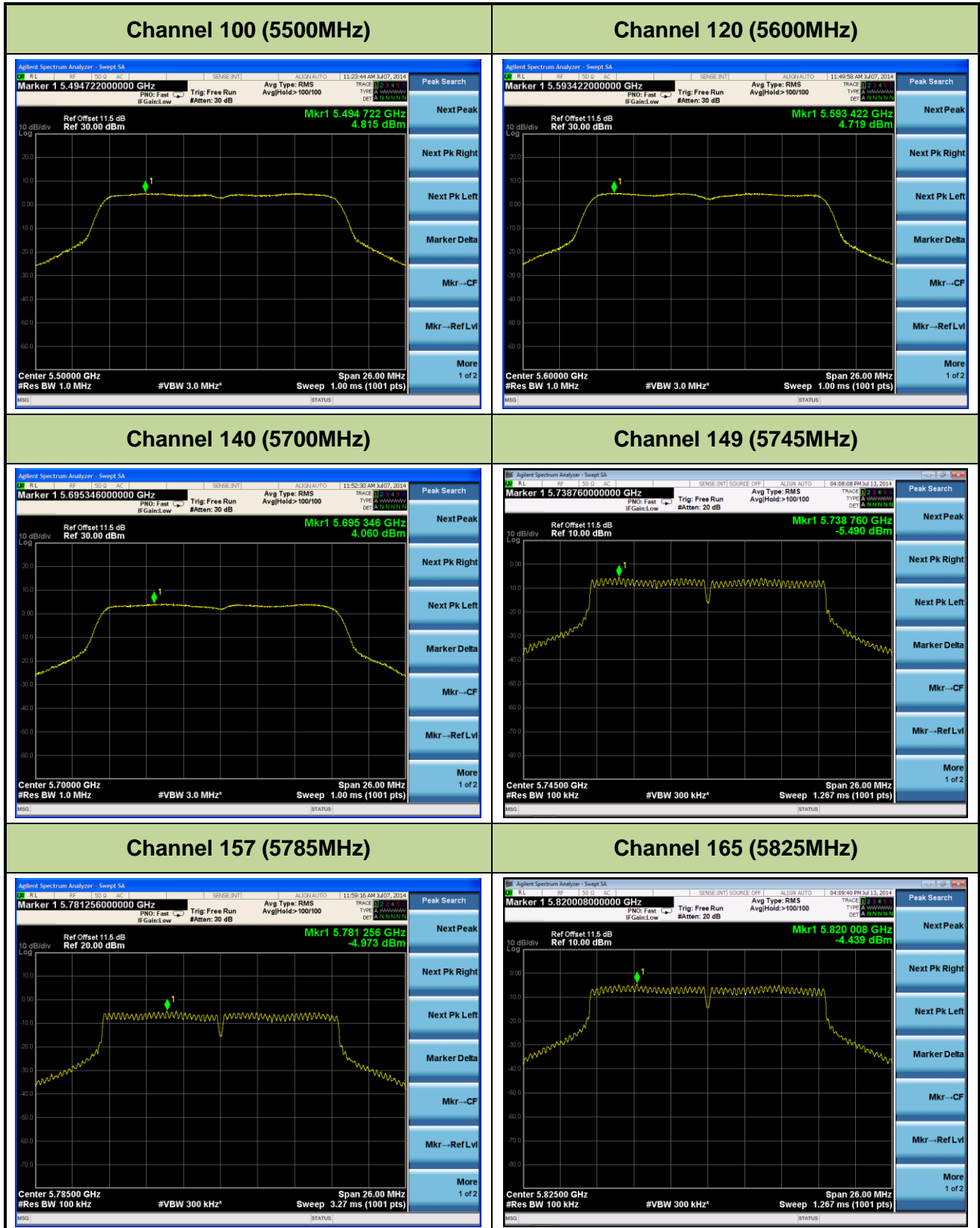


Channel 60 (5300MHz)



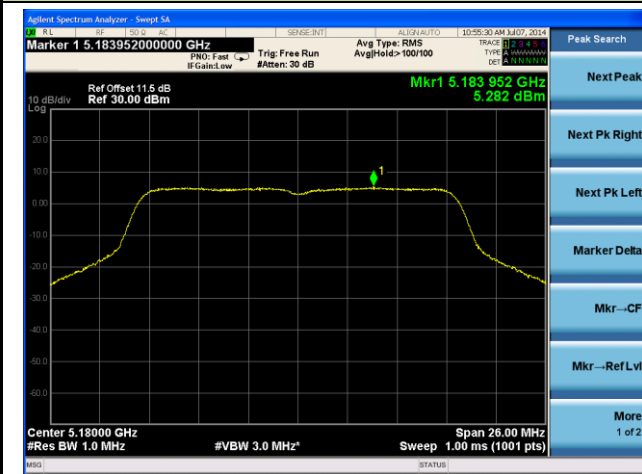
Channel 64 (5320MHz)



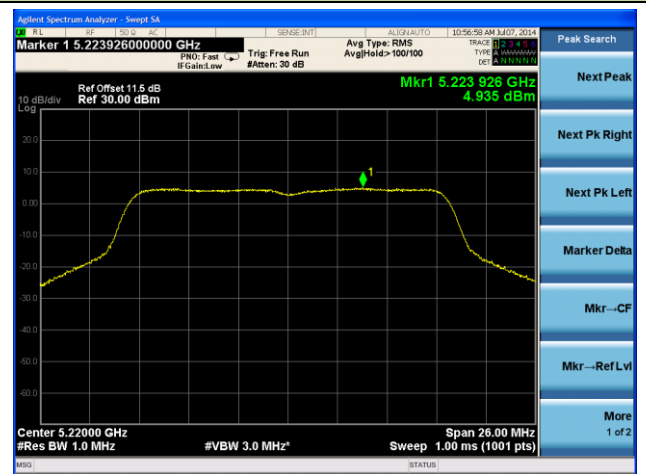


802.11a Power Spectral Density - Ant 1 / Ant 0 + 1

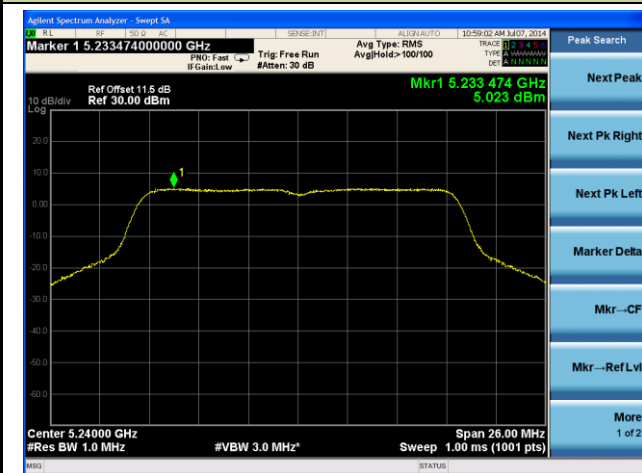
Channel 36 (5180MHz)



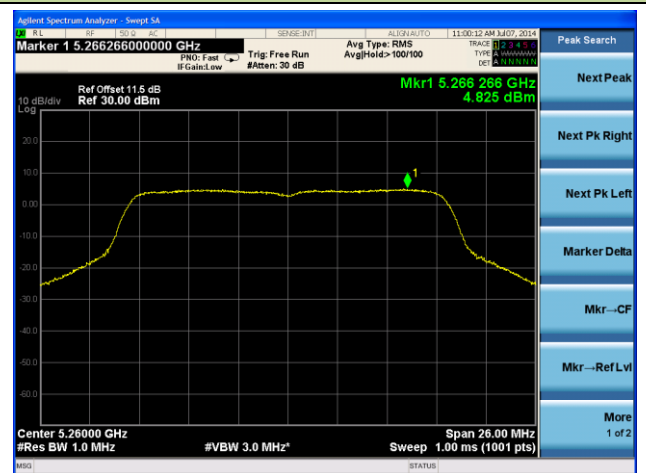
Channel 44 (5220MHz)



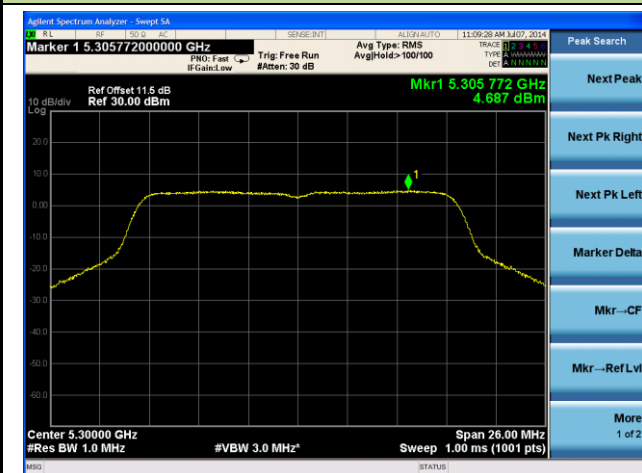
Channel 48 (5240MHz)



Channel 52 (5260MHz)



Channel 60 (5300MHz)



Channel 64 (5320MHz)

