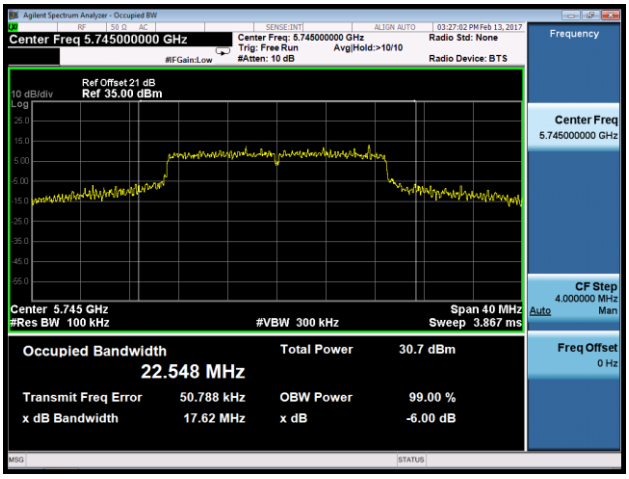
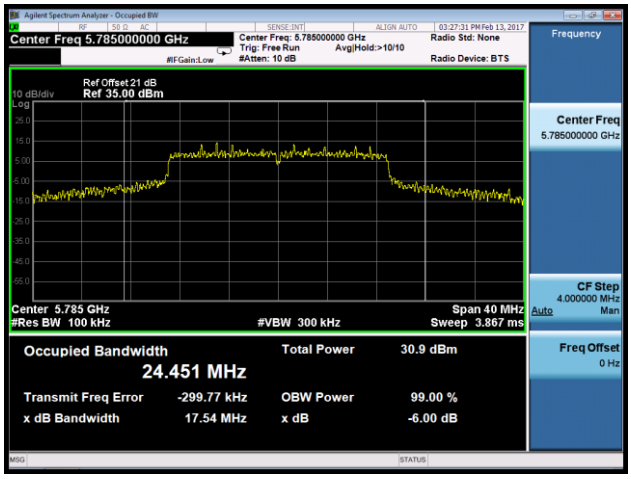
802.11ac-VHT20 6dB Bandwidth - Ant 0 / Ant 0 + 1

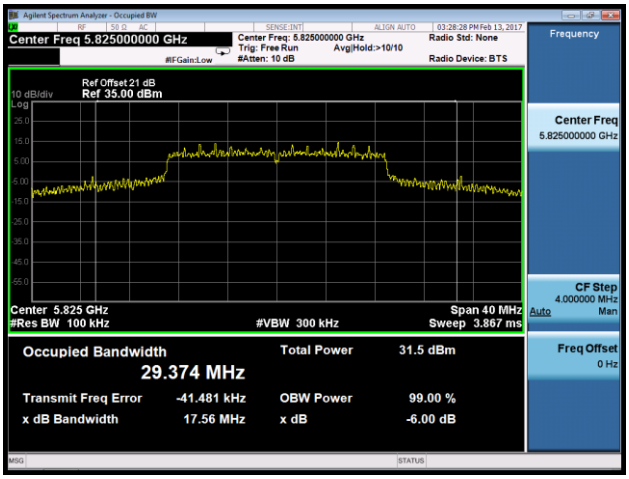
Channel 149 (5745MHz)



Channel 157 (5785MHz)

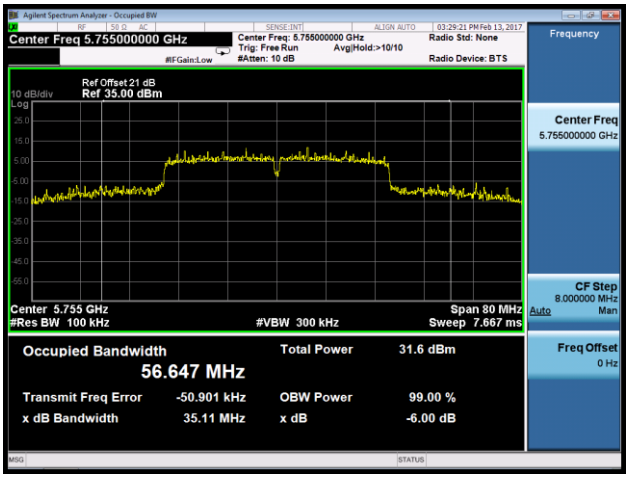


Channel 165 (5825MHz)

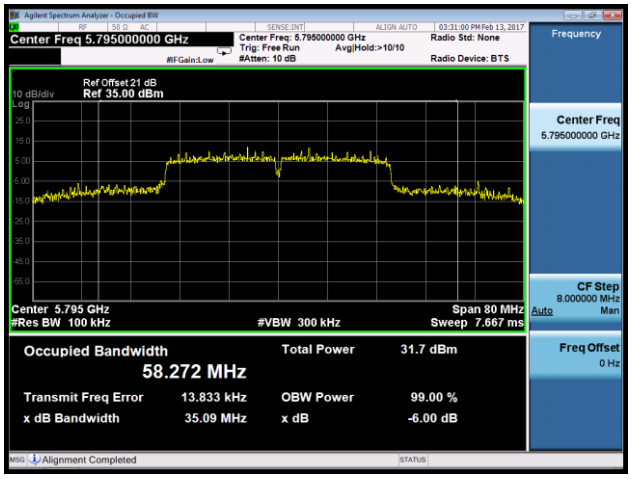


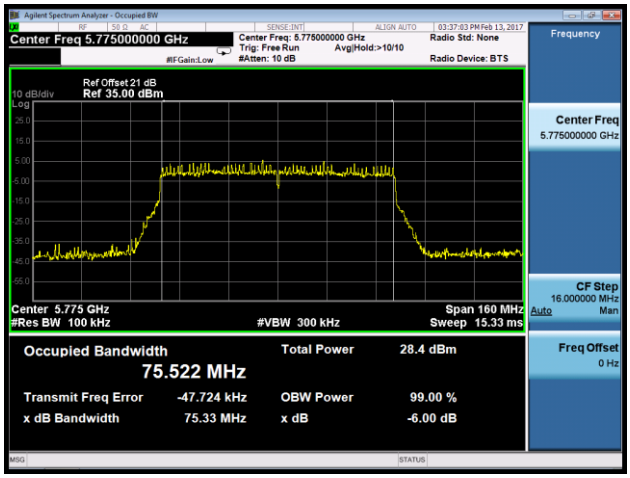
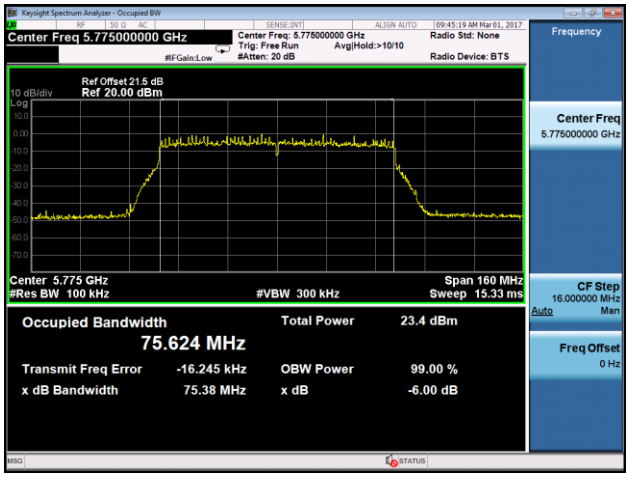
802.11ac-VHT40 6dB Bandwidth - Ant 0 / Ant 0 + 1

Channel 151 (5755MHz)



Channel 159 (5795MHz)

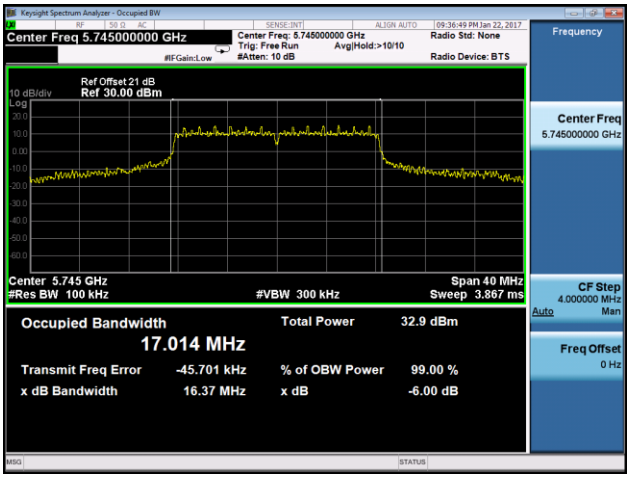
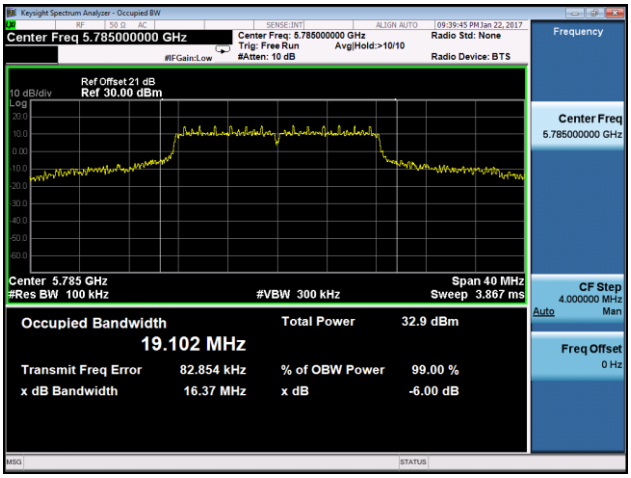
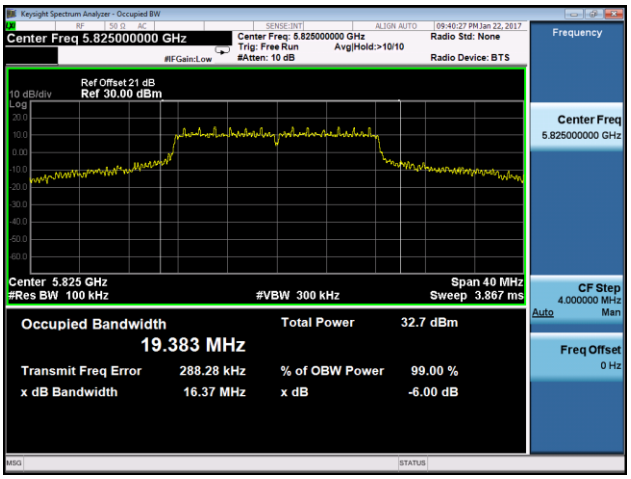


802.11ac-VHT80 6dB Bandwidth - Ant 0 / Ant 0 + 1	
Channel 155 (5775MHz)	
	
802.11ac-VHT80+80 6dB Bandwidth - Ant 1 / Ant 0 + 1	
Channel 42+155 - Ant 2 (5755MHz)	
	

Radio C 6dB Bandwidth Test Result

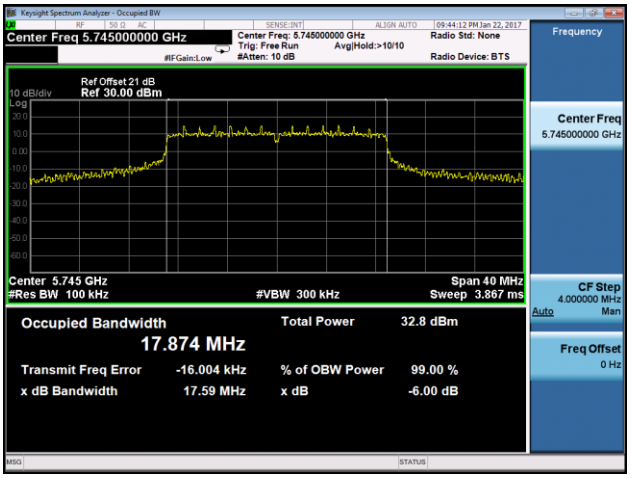
Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
Ant 0 / Ant 0 + 1						
802.11a	6	149	5745	16.37	≥ 0.5	Pass
802.11a	6	157	5785	16.37	≥ 0.5	Pass
802.11a	6	165	5825	16.37	≥ 0.5	Pass
802.11n-HT20	13	149	5745	17.59	≥ 0.5	Pass
802.11n-HT20	13	157	5785	17.61	≥ 0.5	Pass
802.11n-HT20	13	165	5825	17.59	≥ 0.5	Pass
802.11n-HT40	27	151	5755	35.17	≥ 0.5	Pass
802.11n-HT40	27	159	5795	35.03	≥ 0.5	Pass
802.11ac-VHT20	13	149	5745	17.59	≥ 0.5	Pass
802.11ac-VHT20	13	157	5785	17.59	≥ 0.5	Pass
802.11ac-VHT20	13	165	5825	17.58	≥ 0.5	Pass
802.11ac-VHT40	27	151	5755	35.17	≥ 0.5	Pass
802.11ac-VHT40	27	159	5795	35.16	≥ 0.5	Pass
802.11ac-VHT80	58.6	155	5775	75.42	≥ 0.5	Pass

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
Ant 1 / Ant 0 + 1						
802.11ac-VHT80+80	29.3	155	5775	75.22	≥ 0.5	Pass

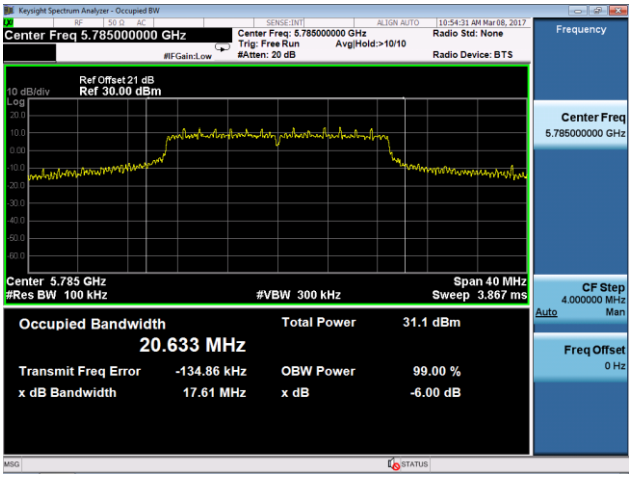
802.11a 6dB Bandwidth - Ant 0 / Ant 0 + 1	
Channel 149 (5745MHz)	**Channel 157 (5785MHz)**
	
Channel 165 (5825MHz)	
	

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

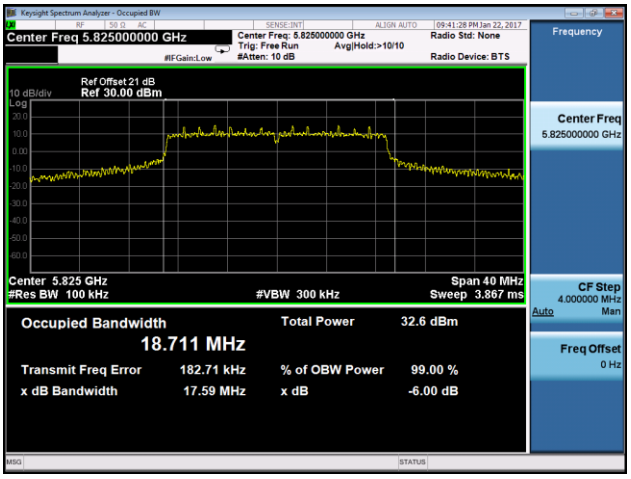
Channel 149 (5745MHz)



Channel 157 (5785MHz)

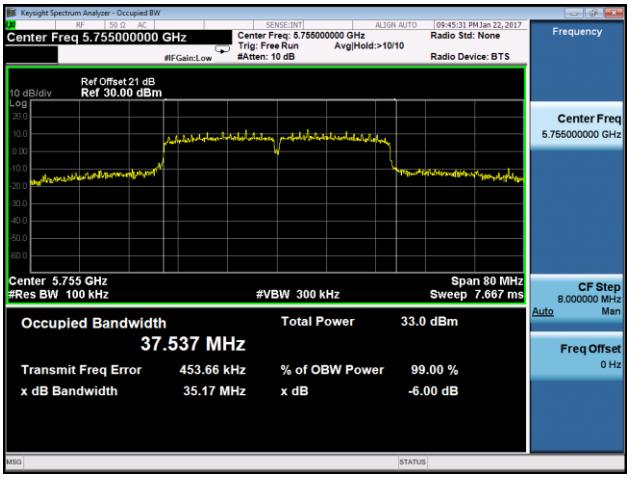


Channel 165 (5825MHz)

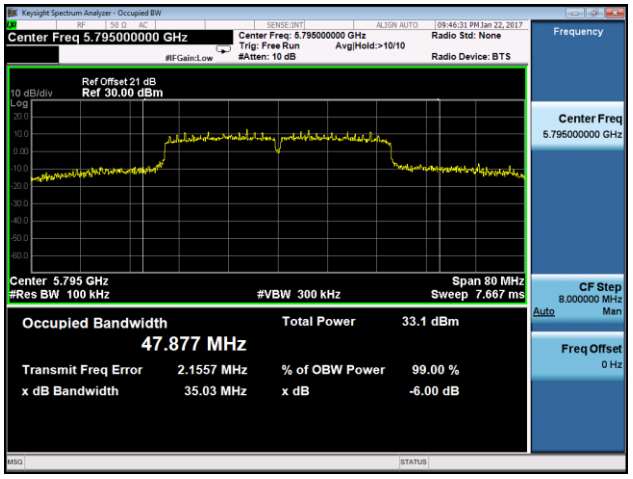


802.11n-HT40 6dB Bandwidth - Ant 0 / Ant 0 + 1

Channel 151 (5755MHz)

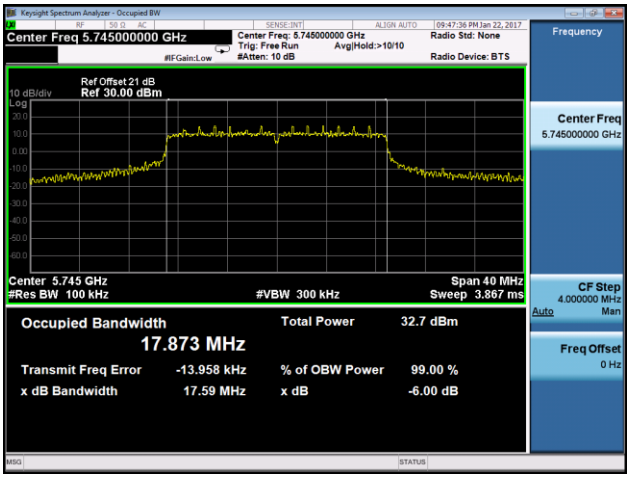


Channel 159 (5795MHz)

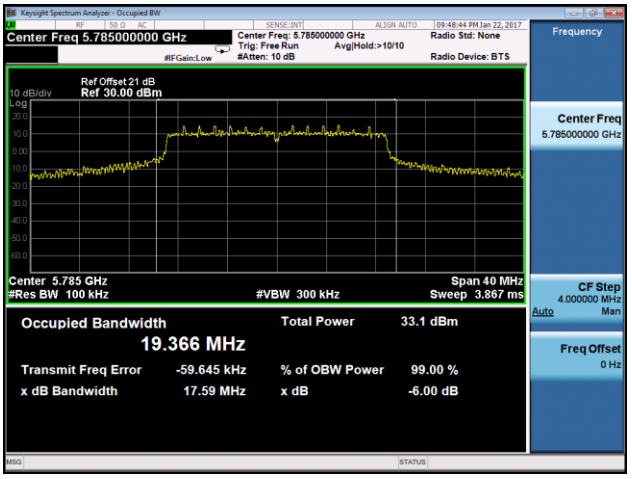


802.11ac-VHT20 6dB Bandwidth - Ant 0 / Ant 0 + 1

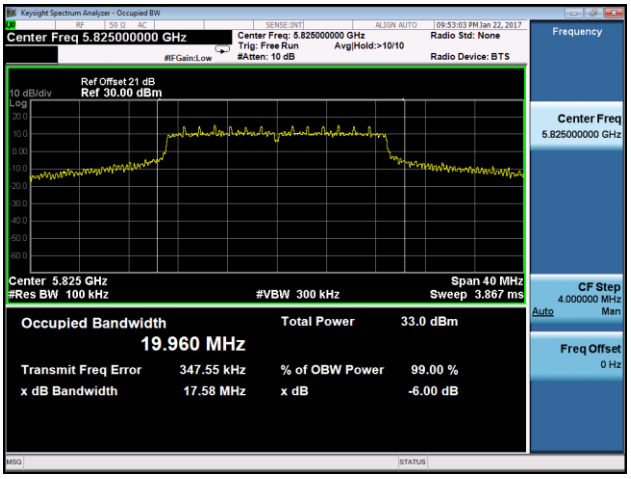
Channel 149 (5745MHz)



Channel 157 (5785MHz)

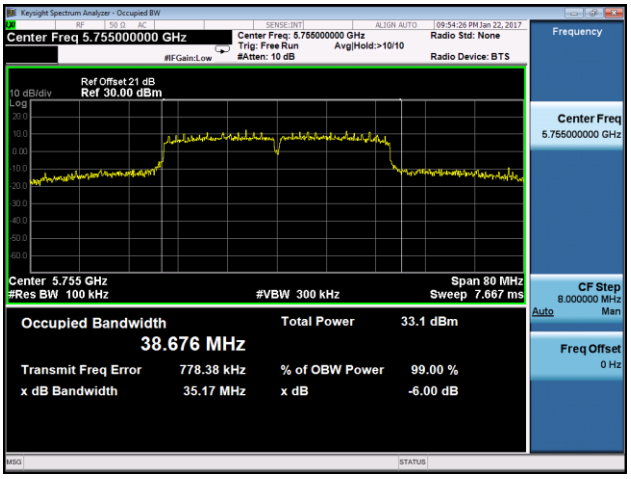


Channel 165 (5825MHz)

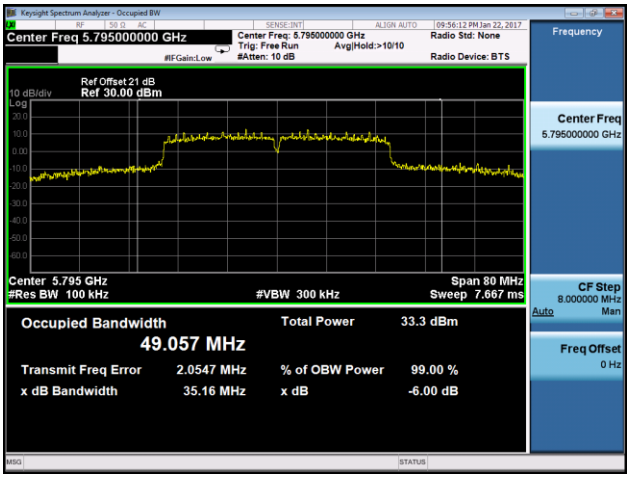


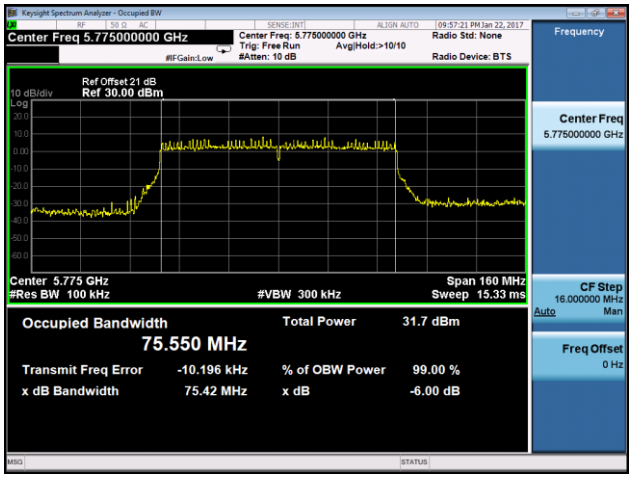
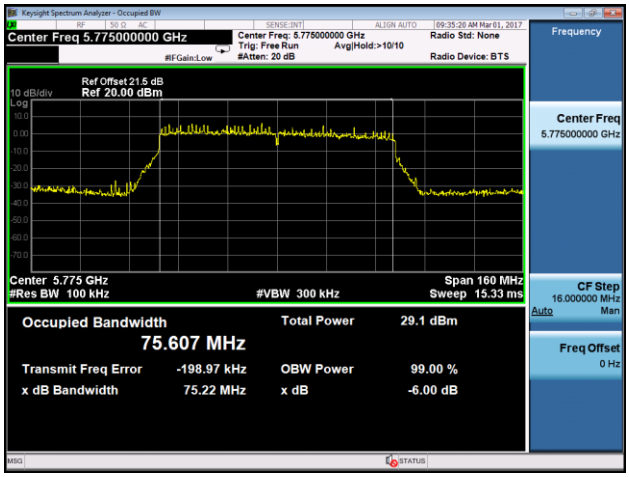
802.11ac-VHT40 6dB Bandwidth - Ant 0 / Ant 0 + 1

Channel 151 (5755MHz)



Channel 159 (5795MHz)



802.11ac-VHT80 6dB Bandwidth - Ant 0 / Ant 0 + 1	
Channel 155 (5775MHz)	
	
802.11ac-VHT80+80 6dB Bandwidth - Ant 1 / Ant 0 + 1	
Channel 42+155 - Ant 2 (5755MHz)	
	

7.4. Output Power Measurement

7.4.1.Test Limit

For fixed point-to-point access points in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. For fixed point-to-point 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). 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. For 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.

Radio Type	Mode	Frequecy Range (MHz)	Limit of Output Power
Radio A	802.11a	5150 ~ 5250 MHz	30.00 dBm
		5725 ~ 5850 MHz	30.00 dBm
	802.11n/ac	5150 ~ 5250 MHz	27.79 dBm
		5725 ~ 5850 MHz	30.00 dBm
Radio B	802.11a	5150 ~ 5250 MHz	30.00 dBm
		5725 ~ 5850 MHz	30.00 dBm
	802.11n/ac	5150 ~ 5250 MHz	29.99 dBm
		5725 ~ 5850 MHz	30.00 dBm
Radio C	802.11a	5150 ~ 5250 MHz	29.00 dBm
		5725 ~ 5850 MHz	29.00 dBm
	802.11n/ac	5150 ~ 5250 MHz	25.99 dBm
		5725 ~ 5850 MHz	25.99 dBm

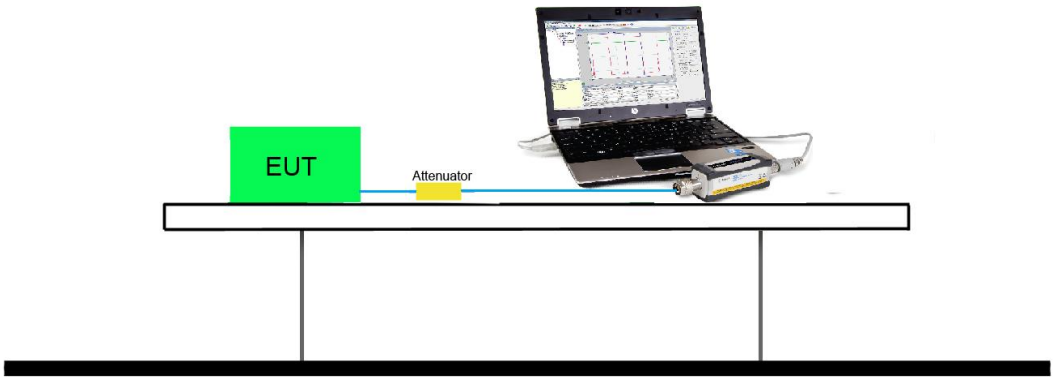
7.4.2.Test Procedure Used

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

7.4.3.Test Setting

Average power measurements were perform 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}	802.11a	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	0	13.0	14.4	27.0	30.0	58.6	65.0
2	1	26.0	28.8	54.0	60.0	117.0	130.0
2	2	39.0	43.4	81.0	90.0	175.6	195.0
2	3	52.0	57.8	108.0	120.0	234.0	260.0
2	4	78.0	86.6	162.0	180.0	351.0	390.0
2	5	104.0	115.6	216.0	240.0	468.0	520.0
2	6	117.0	130.0	243.0	270.0	526.6	585.0
2	7	130.0	144.4	270.0	300.0	585.0	650.0
2	8	156.0	173.4	324.0	360.0	702.0	780.0
2	9	--	--	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 Radio A - Ant 0 / Ant 0 + 1:

Test Mode	Bandwidth (MHz)	Channel	Frequency (MHz)	Data Rate (Mbps)	Average Power (dBm)
802.11a	20	36	5180	6	12.50
				24	12.35
				54	12.04
802.11n	20	36	5180	13.0	11.82
				52.0	11.59
				130.0	11.43
802.11n	40	38	5190	27.0	9.32
				108.0	9.02
				270.0	8.89
802.11ac	20	36	5180	13.0	11.80
				78.0	11.68
				156.0	11.47
802.11ac	40	38	5190	27.0	9.11
				216.0	9.03
				360.0	8.94
802.11ac	80	42	5210	58.6	8.93
				468.0	8.84
				780.0	8.61

Radio A Output Power Test Result

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
802.11a	6	36	5180	12.50	13.46	16.02	≤ 30.00	Pass
802.11a	6	44	5220	24.52	24.65	27.60	≤ 30.00	Pass
802.11a	6	48	5240	23.74	23.89	26.83	≤ 30.00	Pass
802.11a	6	149	5745	23.15	23.65	26.42	≤ 30.00	Pass
802.11a	6	157	5785	23.32	24.43	26.92	≤ 30.00	Pass
802.11a	6	165	5825	23.37	24.49	26.98	≤ 30.00	Pass
802.11n-HT20	13	36	5180	11.82	12.74	15.31	≤ 27.79	Pass
802.11n-HT20	13	44	5220	24.42	24.50	27.47	≤ 27.79	Pass
802.11n-HT20	13	48	5240	23.58	23.84	26.72	≤ 27.79	Pass
802.11n-HT20	13	149	5745	22.85	23.56	26.23	≤ 30.00	Pass
802.11n-HT20	13	157	5785	23.14	24.41	26.83	≤ 30.00	Pass
802.11n-HT20	13	165	5825	23.32	24.30	26.85	≤ 30.00	Pass
802.11n-HT40	27	38	5190	9.32	9.45	12.40	≤ 27.79	Pass
802.11n-HT40	27	46	5230	24.27	24.29	27.29	≤ 27.79	Pass
802.11n-HT40	27	151	5755	20.11	21.19	23.69	≤ 30.00	Pass
802.11n-HT40	27	159	5795	20.08	21.17	23.67	≤ 30.00	Pass
802.11ac-VHT20	13	36	5180	11.80	12.80	15.34	≤ 27.79	Pass
802.11ac-VHT20	13	44	5220	24.57	24.35	27.47	≤ 27.79	Pass
802.11ac-VHT20	13	48	5240	23.57	23.84	26.72	≤ 27.79	Pass
802.11ac-VHT20	13	149	5745	22.84	23.58	26.24	≤ 30.00	Pass
802.11ac-VHT20	13	157	5785	23.14	24.39	26.82	≤ 30.00	Pass
802.11ac-VHT20	13	165	5825	23.24	23.14	26.20	≤ 30.00	Pass
802.11ac-VHT40	27	38	5190	9.11	9.76	12.46	≤ 27.79	Pass
802.11ac-VHT40	27	46	5230	24.21	24.33	27.28	≤ 27.79	Pass
802.11ac-VHT40	27	151	5755	19.94	21.17	23.61	≤ 30.00	Pass
802.11ac-VHT40	27	159	5795	22.13	22.95	25.57	≤ 30.00	Pass
802.11ac-VHT80	58.6	42	5210	8.93	9.31	12.13	≤ 27.79	Pass
802.11ac-VHT80	58.6	155	5775	14.89	15.90	18.43	≤ 30.00	Pass

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

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
11ac-VHT	29.3	42	5210	10.46	--	10.46	≤ 30.00	Pass
80+80	29.3	155	5775	--	8.65	8.65	≤ 30.00	Pass

Radio B Output Power Test Result

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
802.11a	6	36	5180	15.46	16.08	18.79	≤ 30.00	Pass
802.11a	6	44	5220	24.81	25.56	28.21	≤ 30.00	Pass
802.11a	6	48	5240	25.01	25.52	28.28	≤ 30.00	Pass
802.11a	6	149	5745	24.45	23.95	27.22	≤ 30.00	Pass
802.11a	6	157	5785	24.22	24.11	27.18	≤ 30.00	Pass
802.11a	6	165	5825	24.29	23.91	27.11	≤ 30.00	Pass
802.11n-HT20	13	36	5180	17.18	17.61	20.41	≤ 29.99	Pass
802.11n-HT20	13	44	5220	22.86	23.57	26.24	≤ 29.99	Pass
802.11n-HT20	13	48	5240	22.97	23.01	26.00	≤ 29.99	Pass
802.11n-HT20	13	149	5745	24.35	23.93	27.16	≤ 30.00	Pass
802.11n-HT20	13	157	5785	23.97	24.04	27.02	≤ 30.00	Pass
802.11n-HT20	13	165	5825	25.24	24.11	27.72	≤ 30.00	Pass
802.11n-HT40	27	38	5190	12.64	13.76	16.25	≤ 29.99	Pass
802.11n-HT40	27	46	5230	24.52	25.34	27.96	≤ 29.99	Pass
802.11n-HT40	27	151	5755	24.18	23.86	27.03	≤ 30.00	Pass
802.11n-HT40	27	159	5795	24.41	24.22	27.33	≤ 30.00	Pass
802.11ac-VHT20	13	36	5180	14.23	15.26	17.79	≤ 29.99	Pass
802.11ac-VHT20	13	44	5220	24.75	25.67	28.24	≤ 29.99	Pass
802.11ac-VHT20	13	48	5240	24.92	25.36	28.16	≤ 29.99	Pass
802.11ac-VHT20	13	149	5745	24.32	23.95	27.15	≤ 30.00	Pass
802.11ac-VHT20	13	157	5785	24.16	24.06	27.12	≤ 30.00	Pass
802.11ac-VHT20	13	165	5825	24.06	24.13	27.11	≤ 30.00	Pass
802.11ac-VHT40	27	38	5190	12.67	13.51	16.12	≤ 29.99	Pass
802.11ac-VHT40	27	46	5230	24.97	25.55	28.28	≤ 29.99	Pass
802.11ac-VHT40	27	151	5755	24.75	24.16	27.48	≤ 30.00	Pass
802.11ac-VHT40	27	159	5795	24.37	24.18	27.29	≤ 30.00	Pass
802.11ac-VHT80	58.6	42	5210	13.41	14.55	17.03	≤ 29.99	Pass
802.11ac-VHT80	58.6	155	5775	20.31	20.14	23.24	≤ 30.00	Pass

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

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
11ac-VHT	29.3	42	5210	15.32	--	15.32	≤ 30.00	Pass
80+80	29.3	155	5775	--	13.98	13.98	≤ 30.00	Pass

Radio C Output Power Test Result

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
802.11a	6	36	5180	10.52	10.47	13.51	≤ 29.00	20.51	≤ 21.00	Pass
802.11a	6	44	5220	10.55	10.71	13.64	≤ 29.00	20.64	≤ 21.00	Pass
802.11a	6	48	5240	10.88	10.72	13.81	≤ 29.00	20.81	≤ 21.00	Pass
802.11a	6	149	5745	22.41	22.19	25.31	≤ 29.00	--	--	Pass
802.11a	6	157	5785	21.61	22.03	24.84	≤ 29.00	--	--	Pass
802.11a	6	165	5825	20.82	21.49	24.18	≤ 29.00	--	--	Pass
802.11n-HT20	13	36	5180	10.75	10.61	13.69	≤ 25.99	20.69	≤ 21.00	Pass
802.11n-HT20	13	44	5220	10.84	10.71	13.79	≤ 25.99	20.79	≤ 21.00	Pass
802.11n-HT20	13	48	5240	10.85	10.87	13.87	≤ 25.99	20.87	≤ 21.00	Pass
802.11n-HT20	13	149	5745	22.26	22.07	25.18	≤ 25.99	--	--	Pass
802.11n-HT20	13	157	5785	21.58	21.95	24.78	≤ 25.99	--	--	Pass
802.11n-HT20	13	165	5825	20.78	21.43	24.13	≤ 25.99	--	--	Pass
802.11n-HT40	27	38	5190	10.88	10.61	13.76	≤ 25.99	20.76	≤ 21.00	Pass
802.11n-HT40	27	46	5230	10.89	10.95	13.93	≤ 25.99	20.93	≤ 21.00	Pass
802.11n-HT40	27	151	5755	22.13	22.01	25.08	≤ 25.99	--	--	Pass
802.11n-HT40	27	159	5795	21.28	21.86	24.59	≤ 25.99	--	--	Pass
802.11ac-VHT20	13	36	5180	10.77	10.41	13.60	≤ 25.99	20.60	≤ 21.00	Pass
802.11ac-VHT20	13	44	5220	10.78	10.82	13.81	≤ 25.99	20.81	≤ 21.00	Pass
802.11ac-VHT20	13	48	5240	10.86	10.92	13.90	≤ 25.99	20.90	≤ 21.00	Pass
802.11ac-VHT20	13	149	5745	22.25	22.02	25.15	≤ 25.99	--	--	Pass
802.11ac-VHT20	13	157	5785	21.58	21.93	24.77	≤ 25.99	--	--	Pass
802.11ac-VHT20	13	165	5825	20.73	21.39	24.08	≤ 25.99	--	--	Pass
802.11ac-VHT40	27	38	5190	10.82	10.82	13.83	≤ 25.99	20.83	≤ 21.00	Pass
802.11ac-VHT40	27	46	5230	10.87	10.75	13.82	≤ 25.99	20.82	≤ 21.00	Pass
802.11ac-VHT40	27	151	5755	22.12	22.06	25.10	≤ 25.99	--	--	Pass
802.11ac-VHT40	27	159	5795	21.23	21.91	24.59	≤ 25.99	--	--	Pass
802.11ac-VHT80	58.6	42	5210	10.54	10.53	13.55	≤ 25.99	20.55	≤ 21.00	Pass
802.11ac-VHT80	58.6	155	5775	19.49	19.55	22.53	≤ 25.99	--	--	Pass

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

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Max EIRP of 30° Elevation Angle (dBm)	EIRP Limit of 30° Elevation Angle (dBm)	Result
11ac-VHT	29.3	42	5210	13.53	--	13.53	≤ 29.00	20.53	21.00	Pass
80+80	29.3	155	5775	--	13.32	13.32	≤ 29.00	--	--	Pass

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.

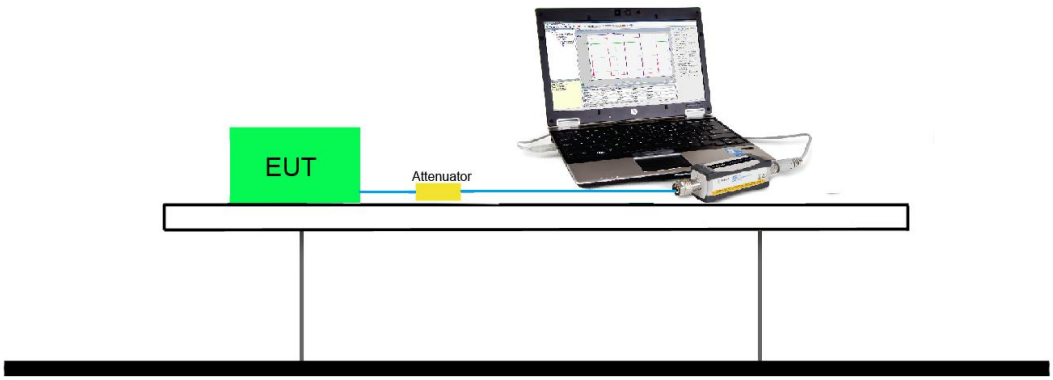
7.5.2.Test Procedure Used

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

7.5.3.Test Setting

Average power measurements were perform 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

TPC is not required for 5150 ~ 5250MHz & 5725 ~ 5850MHz.

7.6. Power Spectral Density Measurement

7.6.1.Test Limit

For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band provided the maximum antenna gain does not exceed 6 dBi. 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 maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi. For 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.

Radio Type	Mode	Frequecy Range	Limit of Power Spectral Density
Radio A	802.11a/n/ac	5150 ~ 5250 MHz	14.79 dBm/MHz
		5725 ~ 5850 MHz	30.00 dBm/500kHz
Radio B	802.11a/n/ac	5150 ~ 5250 MHz	16.99 dBm/MHz
		5725 ~ 5850 MHz	30.00 dBm/500kHz
Radio C	802.11a/n/ac	5150 ~ 5250 MHz	12.99 dBm/MHz
		5725 ~ 5850 MHz	25.99 dBm/500kHz

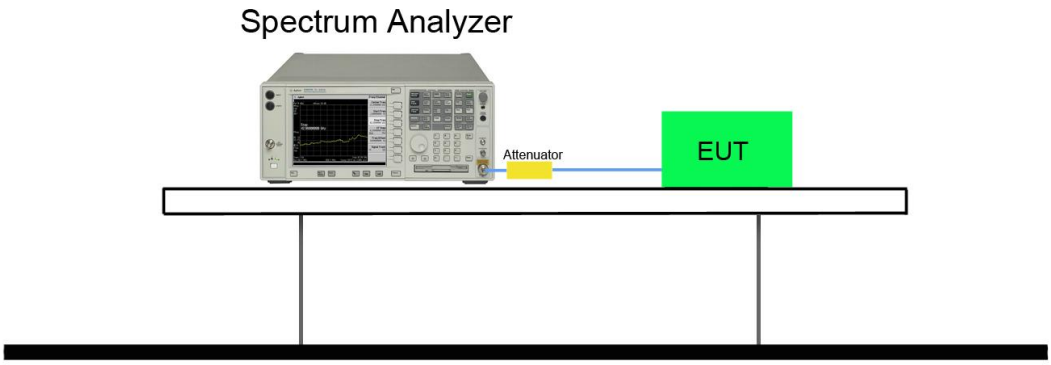
7.6.2.Test Procedure Used

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,
4. RBW = 100 kHz
5. VBW = 3MHz
6. Number of sweep points ≥ 2 × (span / RBW)
7. Detector = power averaging (Average)
8. Sweep time = auto
9. Trigger = free run
10. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
11. Add 10*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*log(1/0.25) = 6 dB if the duty cycle is 25 percent.
12. When the measurement bandwidth of Maximum PSD is specified in 500 kHz, add a constant factor 10*log(500kHz/100kHz) = 7 dB to the measured result

7.6.4.Test Setup



7.6.5.Test Result

Radio A Power Spectral Density Test Result

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 PSD (dBm/ MHz)	Ant 1 PSD (dBm/ MHz)	Duty Cycle (%)	Total PSD (dBm/ MHz)	PSD Limit (dBm/MHz)	Result
11a	6	36	5180	-0.53	-0.61	96.22	2.61	≤ 14.79	Pass
11a	6	44	5220	10.78	11.00	96.22	14.07	≤ 14.79	Pass
11a	6	48	5240	8.70	9.59	96.22	12.35	≤ 14.79	Pass
11n-HT20	26	36	5180	-3.73	-2.46	97.04	0.09	≤ 14.79	Pass
11n-HT20	26	44	5220	9.21	9.79	97.04	12.65	≤ 14.79	Pass
11n-HT20	26	48	5240	8.95	9.19	97.04	12.21	≤ 14.79	Pass
11n-HT40	54	38	5190	-9.63	-8.42	95.47	-5.77	≤ 14.79	Pass
11n-HT40	54	46	5230	6.20	6.91	95.47	9.78	≤ 14.79	Pass
11ac-VHT20	26	36	5180	-4.24	-2.26	98.23	-0.13	≤ 14.79	Pass
11ac-VHT20	26	44	5220	8.68	9.90	98.23	12.34	≤ 14.79	Pass
11ac-VHT20	26	48	5240	7.87	9.14	98.23	11.56	≤ 14.79	Pass
11ac-VHT40	54	38	5190	-9.65	-8.13	95.60	-5.62	≤ 14.79	Pass
11ac-VHT40	54	46	5230	5.75	7.16	95.60	9.72	≤ 14.79	Pass
11ac-VHT80	117.2	42	5210	-12.32	-11.48	92.62	-8.54	≤ 14.79	Pass

Note 1: When EUT duty cycle ≥ 98%, the Total PSD (dBm/MHz) = $10*\log\{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)}\}$.

Note 2: When EUT duty cycle < 98%, the Total PSD (dBm/MHz) = $10*\log\{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)}\}$ + 10*log(1/Duty Cycle).

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 PSD (dBm/ MHz)	Ant 1 PSD (dBm/ MHz)	Duty Cycle (%)	Total PSD (dBm/ MHz)	PSD Limit (dBm/MHz)	Result
11ac-VHT 80+80	29.3	42	5210	-8.12	--	92.62	-7.79	≤ 17.00	Pass

Note: When EUT duty cycle < 98%, the Total PSD (dBm/MHz) = Ant 0 PSD + 10*log(1/Duty Cycle).

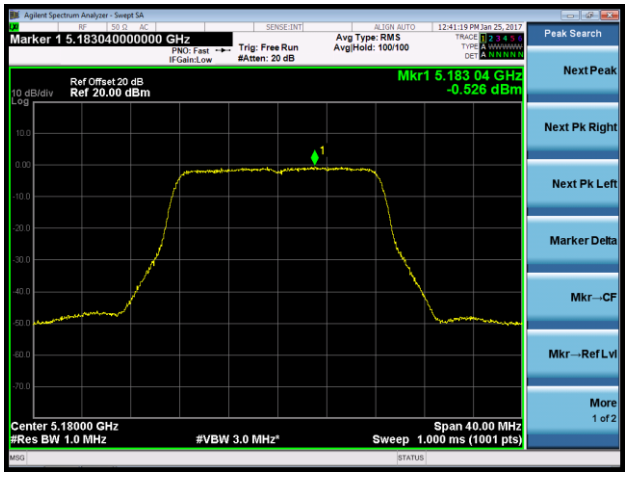
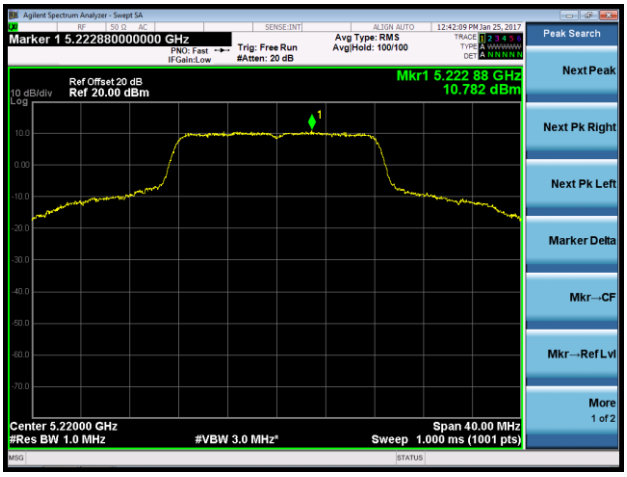
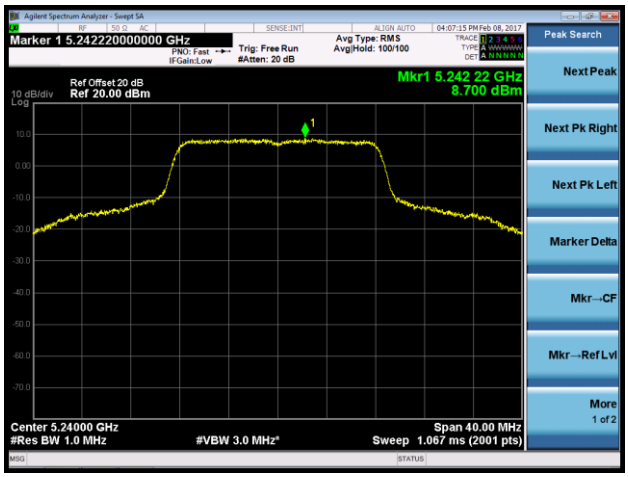
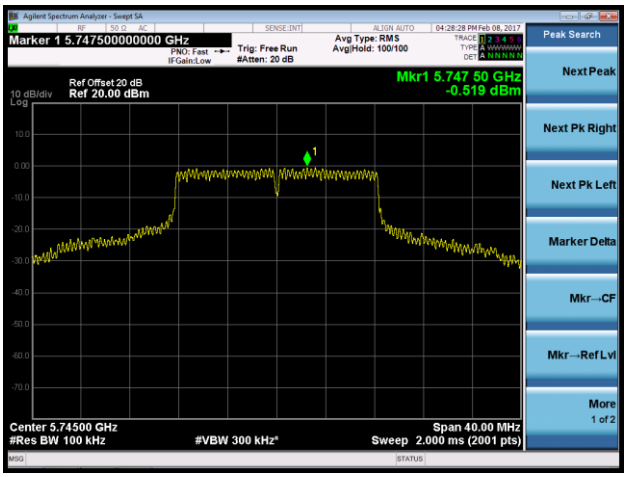
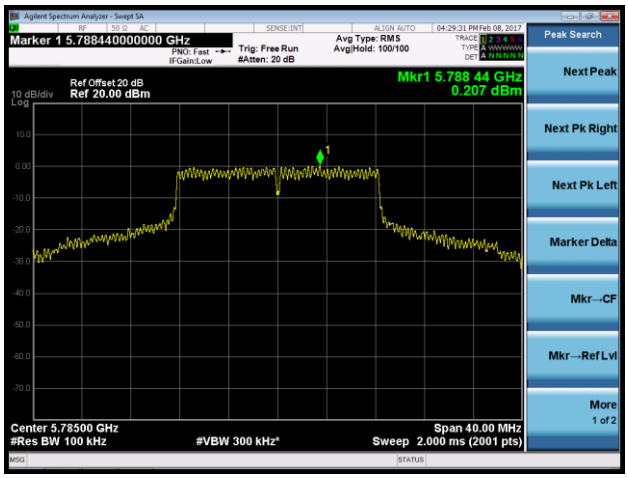
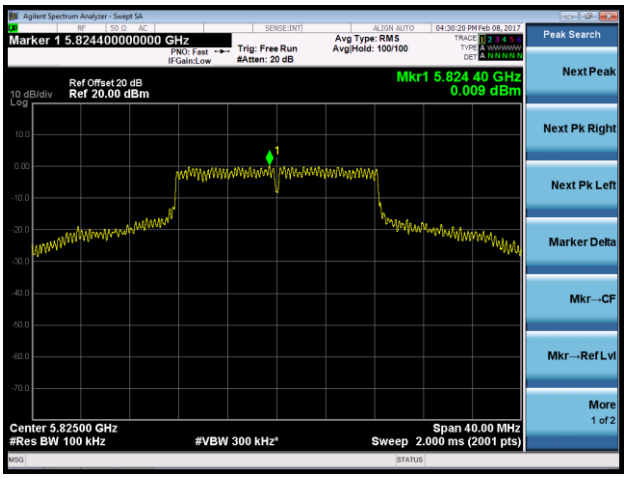
Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 PSD (dBm/ MHz)	Ant 1 PSD (dBm/ MHz)	Duty Cycle (%)	Constant Factor	Total PSD (dBm/ 500kHz)	Limit (dBm/ 500kHz)	Result
11a	6	149	5745	-0.52	2.33	96.22	7.00	11.31	≤ 30.00	Pass
11a	6	157	5785	0.21	2.87	96.22	7.00	11.92	≤ 30.00	Pass
11a	6	165	5825	0.01	2.46	96.22	7.00	11.58	≤ 30.00	Pass
11n-HT20	26	149	5745	-0.61	2.00	97.04	7.00	11.03	≤ 30.00	Pass
11n-HT20	26	157	5785	-0.43	2.68	97.04	7.00	11.54	≤ 30.00	Pass
11n-HT20	26	165	5825	-0.07	2.16	97.04	7.00	11.33	≤ 30.00	Pass
11n-HT40	54	151	5755	-6.16	-3.19	95.47	7.00	5.79	≤ 30.00	Pass
11n-HT40	54	159	5795	-4.15	-1.48	95.47	7.00	7.60	≤ 30.00	Pass
11ac-VHT20	26	149	5745	-0.60	2.55	98.23	7.00	11.26	≤ 30.00	Pass
11ac-VHT20	26	157	5785	0.11	2.55	98.23	7.00	11.51	≤ 30.00	Pass
11ac-VHT20	26	165	5825	-0.17	2.02	98.23	7.00	11.07	≤ 30.00	Pass
11ac-VHT40	54	151	5755	-5.83	-3.14	95.60	7.00	5.93	≤ 30.00	Pass
11ac-VHT40	54	159	5795	-3.68	-1.51	95.60	7.00	7.74	≤ 30.00	Pass
11ac-VHT80	117.2	155	5775	-14.73	-11.93	92.62	7.00	-2.76	≤ 30.00	Pass

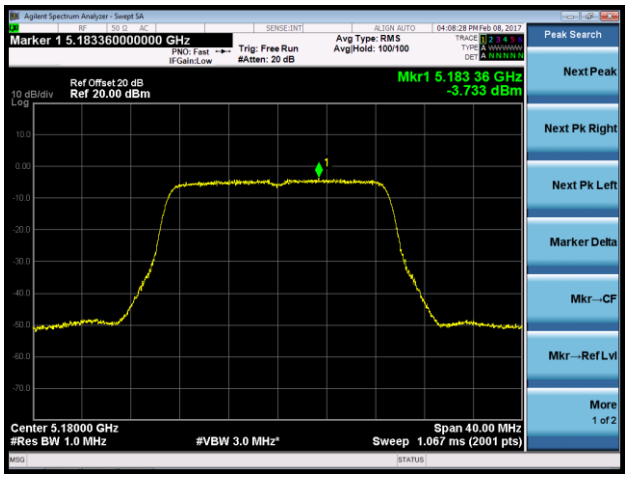
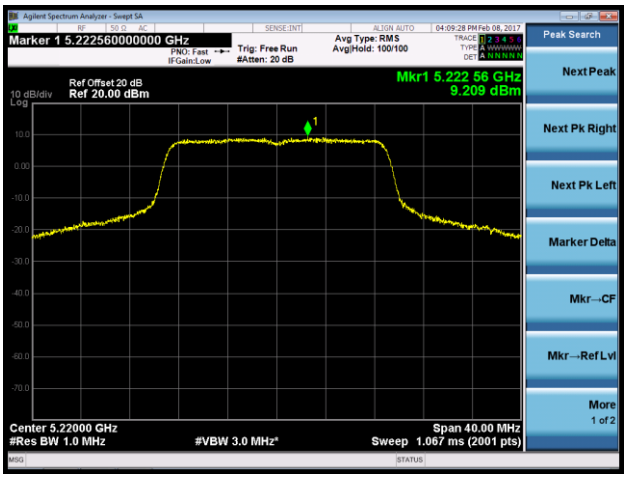
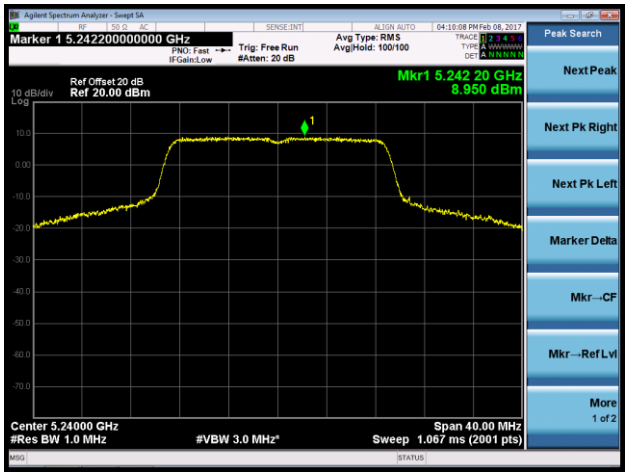
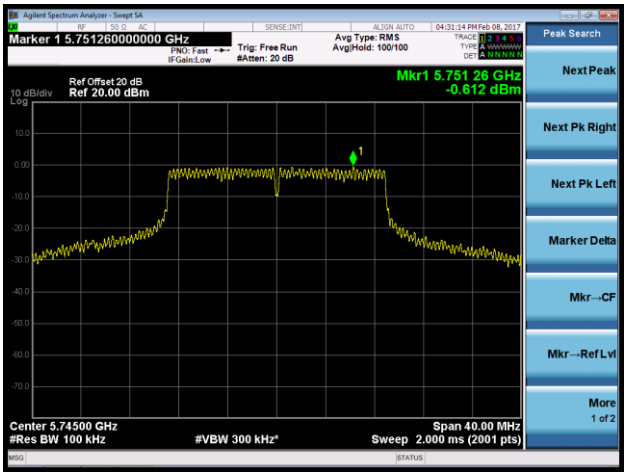
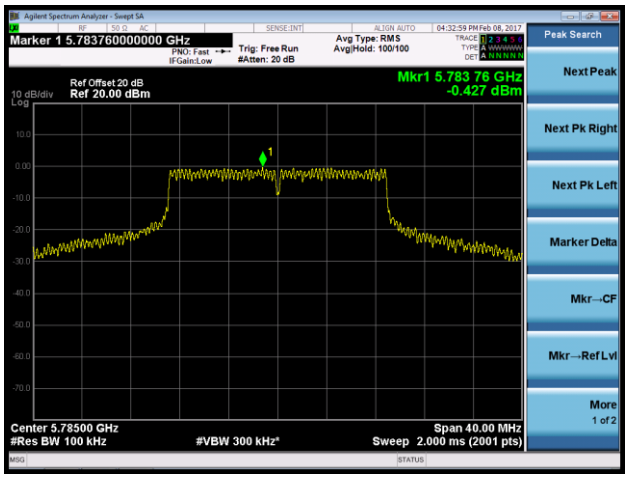
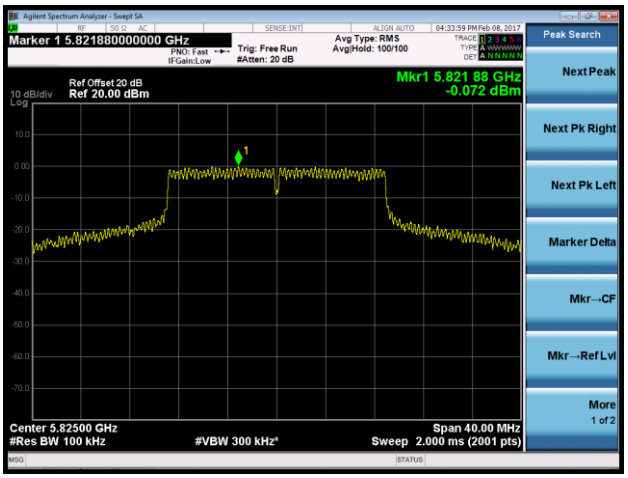
Note 1: When EUT duty cycle ≥ 98%, the Total PSD (dBm/MHz) = $10*\log\{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)}\}$ + Constant Factor.

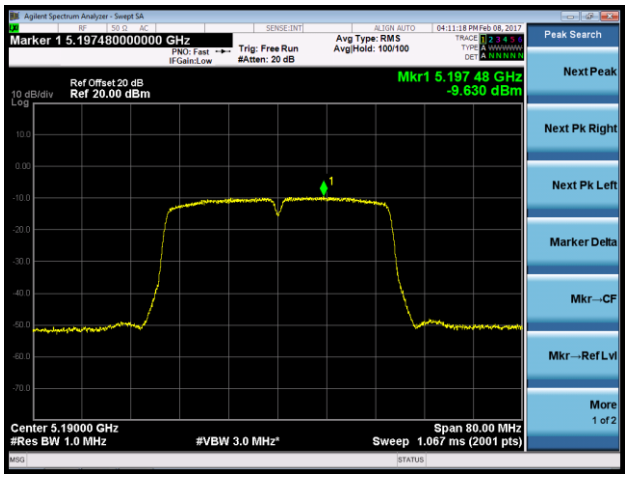
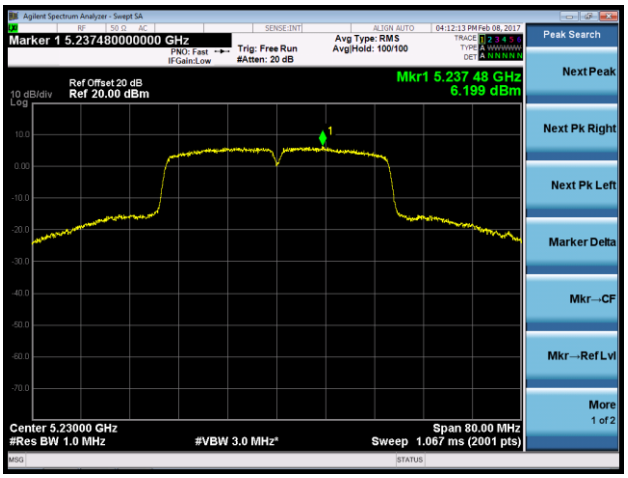
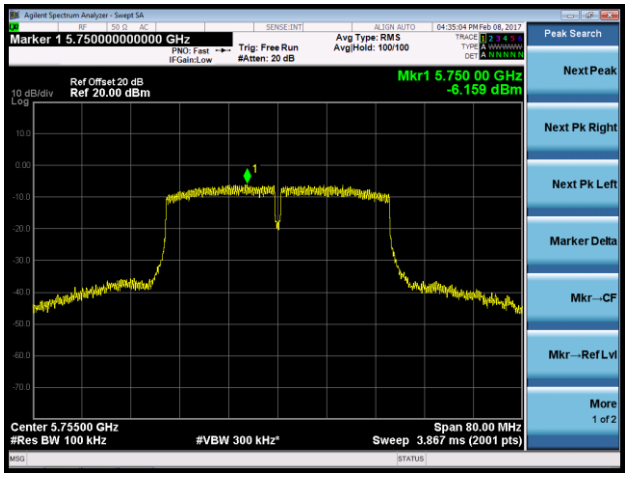
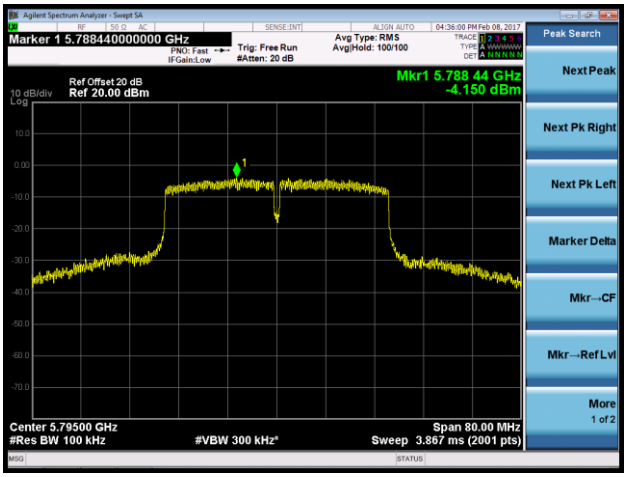
Note 2: When EUT duty cycle < 98%, the Total PSD (dBm/MHz) = $10*\log\{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)}\}$ + 10*log(1/Duty Cycle) + Constant Factor.

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 PSD (dBm/ MHz)	Ant 1 PSD (dBm/ MHz)	Duty Cycle (%)	Constant Factor	Total PSD (dBm/ MHz)	PSD Limit (dBm/MHz)	Result
11ac-VHT 80+80	29.3	42	5210	--	-16.35	92.62	7.00	-9.02	≤ 17.00	Pass

Note: When EUT duty cycle < 98%, the Total PSD (dBm/MHz) = Ant 0 PSD + 10*log(1/Duty Cycle) + Constant Factor.

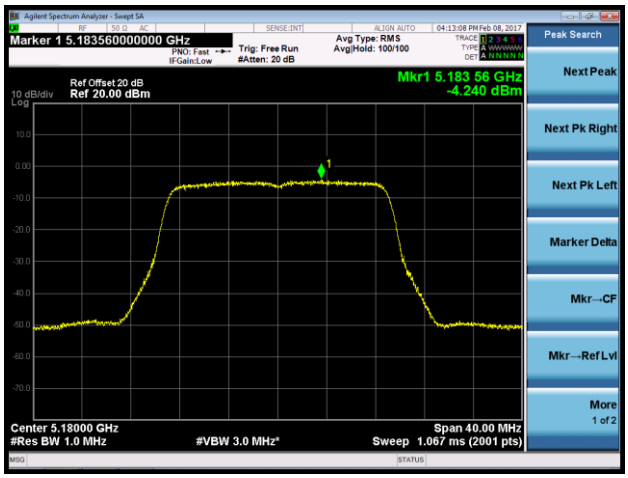
802.11a Power Spectral Density - Ant 0 / Ant 0 + 1	
Channel 36 (5180MHz)	**Channel 44 (5220MHz)**
	
Channel 48 (5240MHz)	**Channel 149 (5745MHz)**
	
Channel 157 (5785MHz)	**Channel 165 (5825MHz)**
	

802.11n-HT20 Power Spectral Density - Ant 0 / Ant 0 + 1	
Channel 36 (5180MHz)	**Channel 44 (5220MHz)**
	
Channel 48 (5240MHz)	**Channel 149 (5745MHz)**
	
Channel 157 (5785MHz)	**Channel 165 (5825MHz)**
	

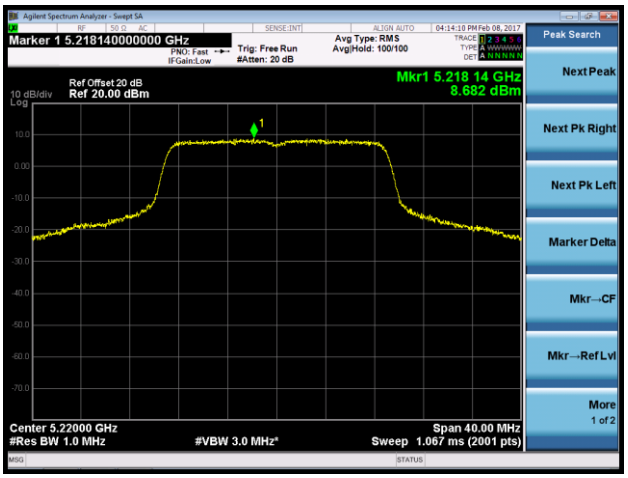
802.11n-HT40 Power Spectral Density - Ant 0 / Ant 0 + 1	
Channel 38 (5190MHz)	**Channel 46 (5230MHz)**
	
Channel 151 (5755MHz)	**Channel 159 (5795MHz)**
	

802.11ac-VHT20 Power Spectral Density - Ant 0 / Ant 0 + 1

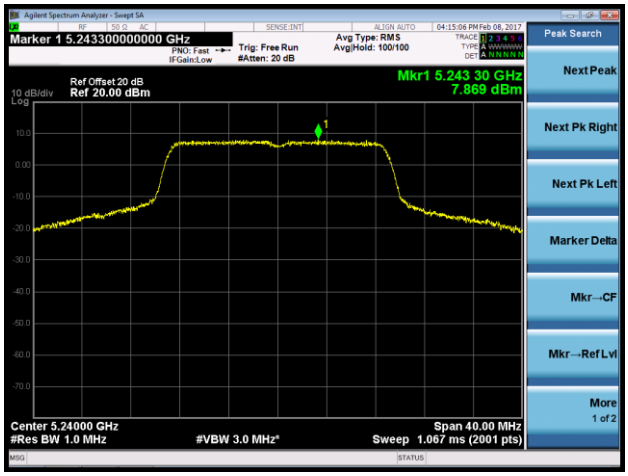
Channel 36 (5180MHz)



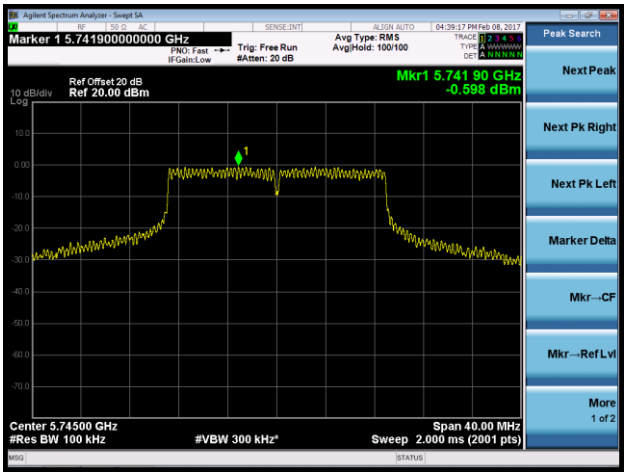
Channel 44 (5220MHz)



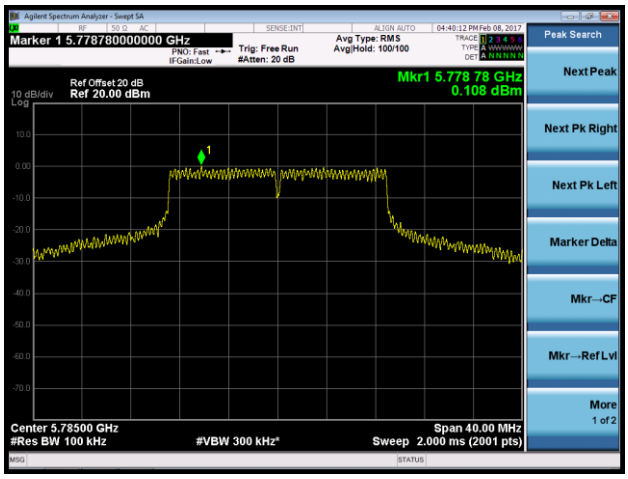
Channel 48 (5240MHz)



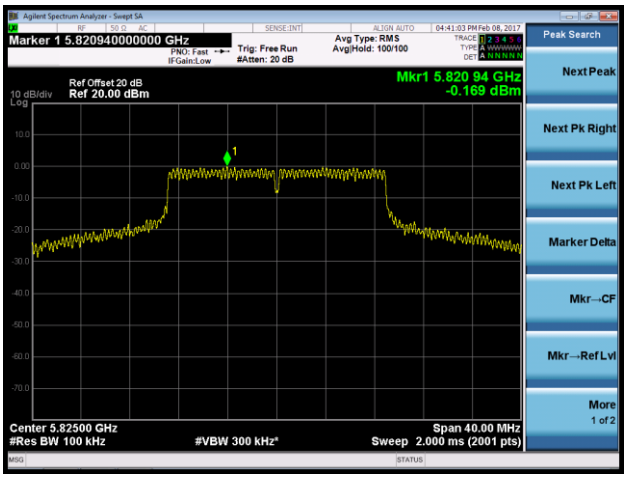
Channel 149 (5745MHz)

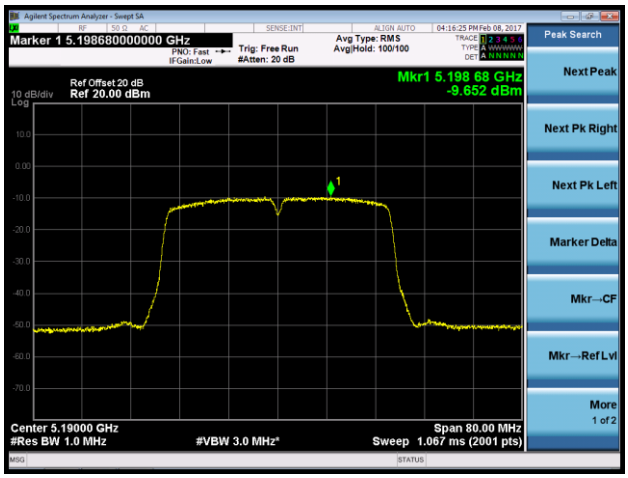
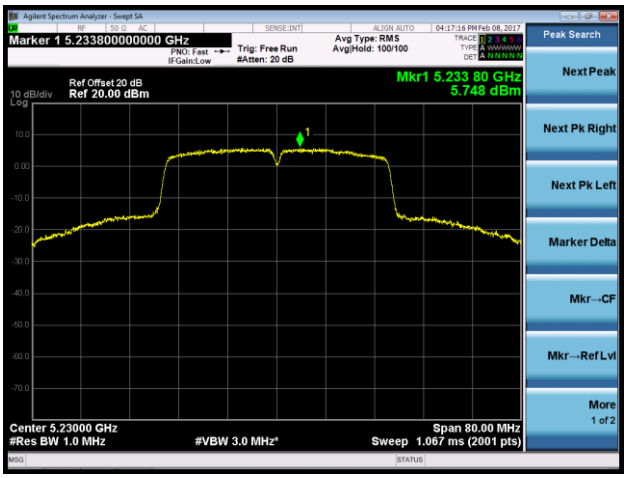
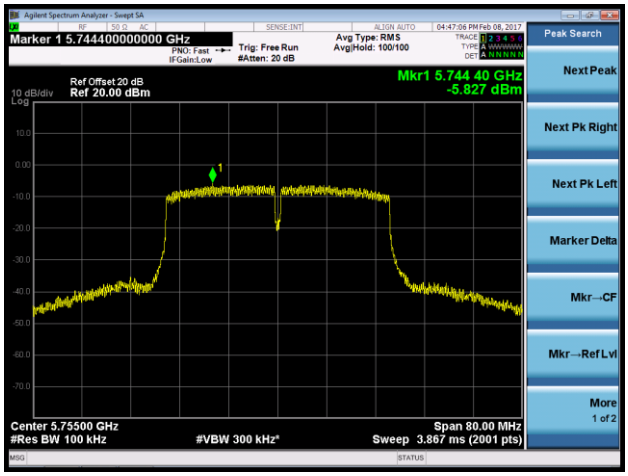
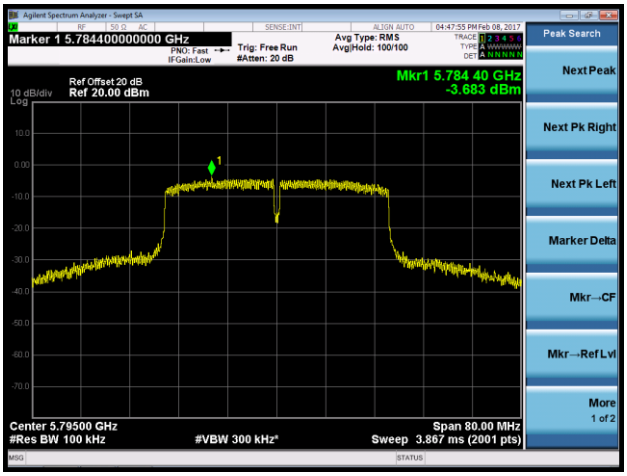


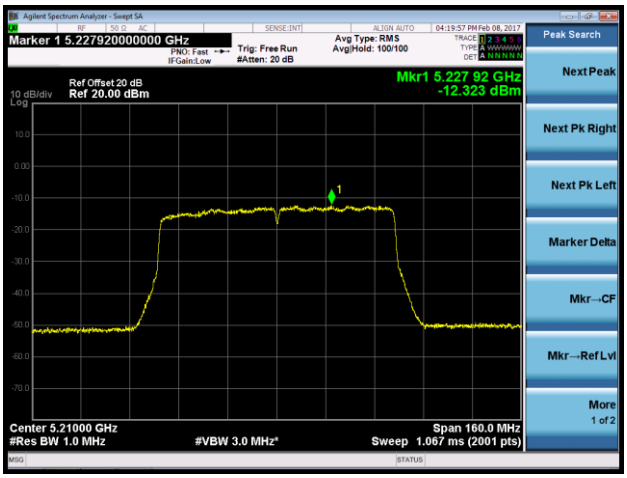
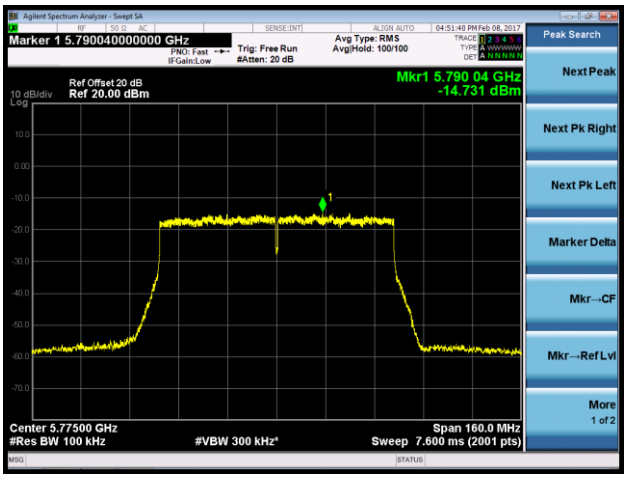
Channel 157 (5785MHz)

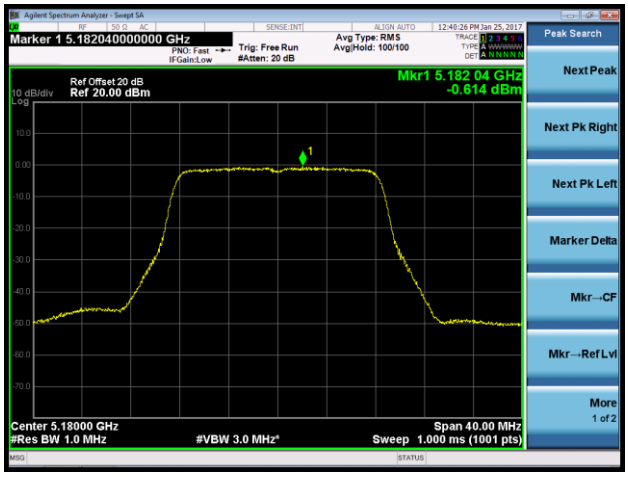
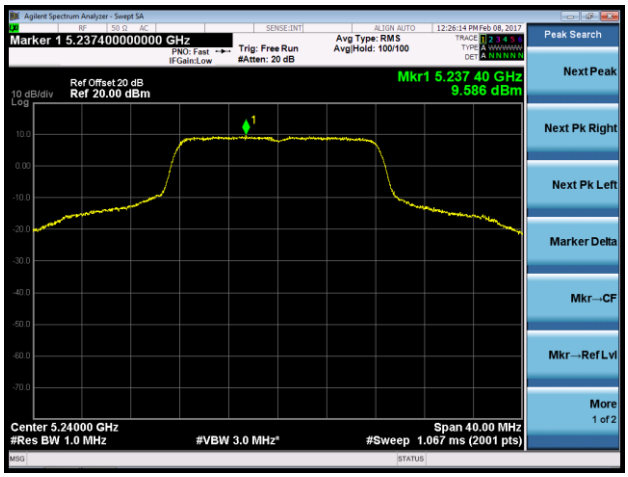
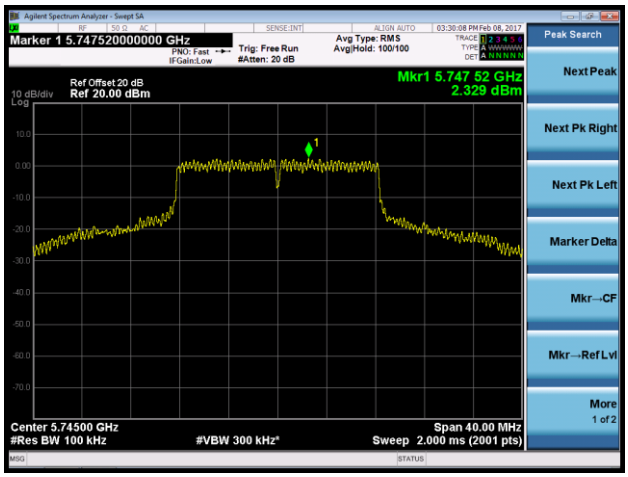
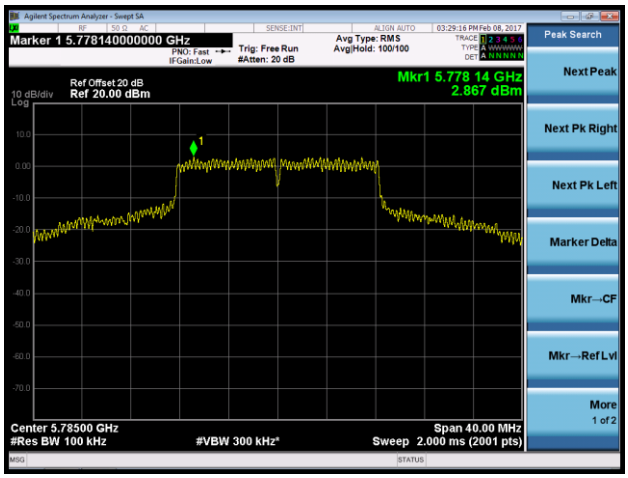
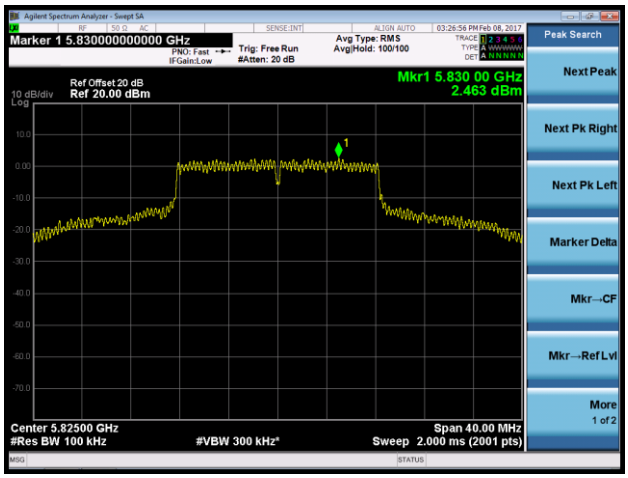


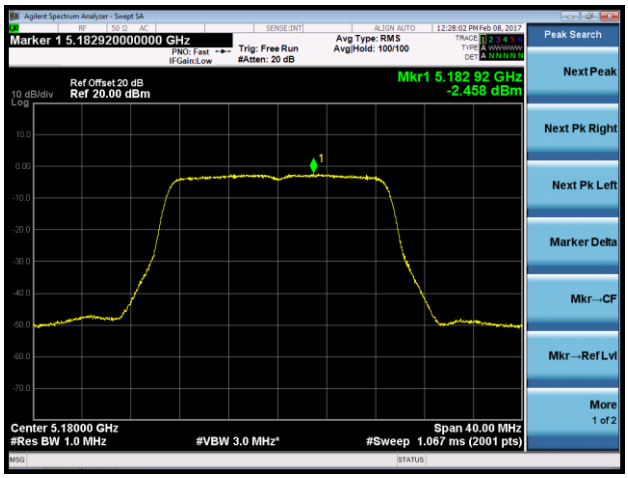
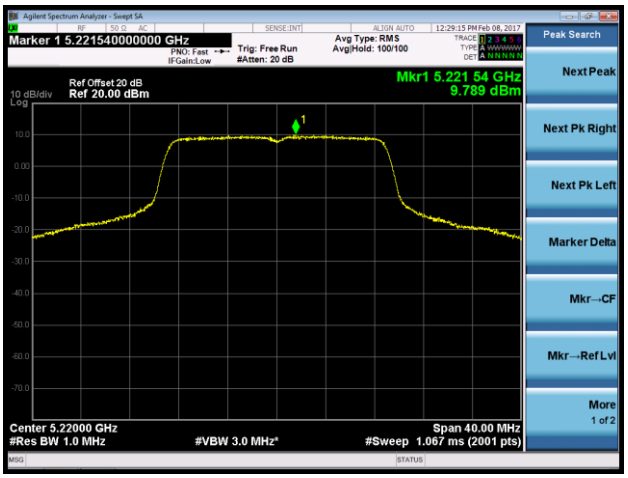
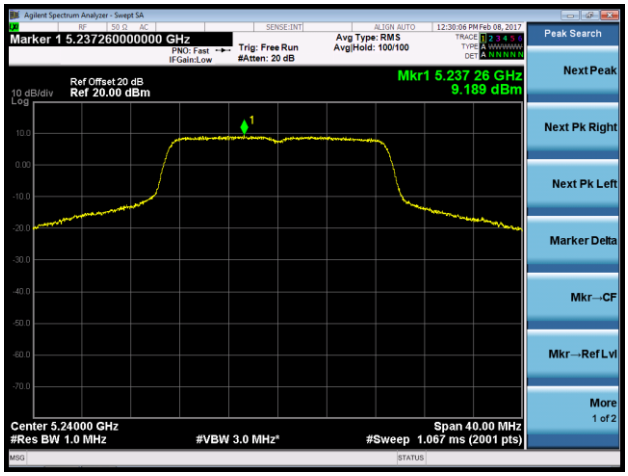
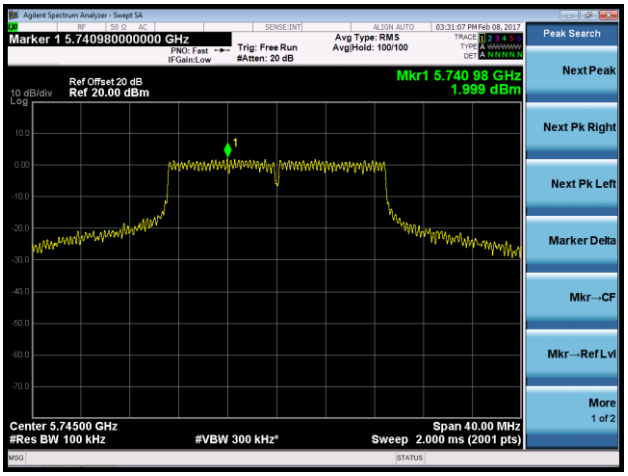
Channel 165 (5825MHz)



802.11ac-VHT40 Power Spectral Density - Ant 0 / Ant 0 + 1	
Channel 38 (5190MHz)	**Channel 46 (5230MHz)**
	
Channel 151 (5755MHz)	**Channel 159 (5795MHz)**
	

802.11ac-VHT80 Power Spectral Density - Ant 0 / Ant 0 + 1	
Channel 42 (5210MHz)	**Channel 155 (5775MHz)**
	

802.11a Power Spectral Density - Ant 1 / Ant 0 + 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 / Ant 0 + 1	
Channel 36 (5180MHz)	**Channel 44 (5220MHz)**
	
Channel 48 (5240MHz)	**Channel 149 (5745MHz)**
	
Channel 157 (5785MHz)	**Channel 165 (5825MHz)**