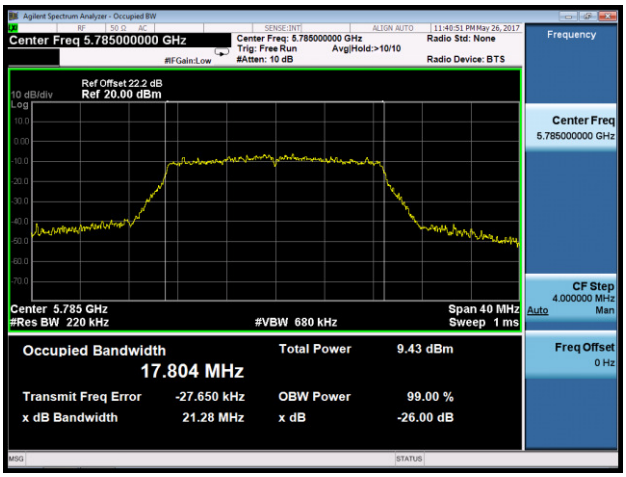
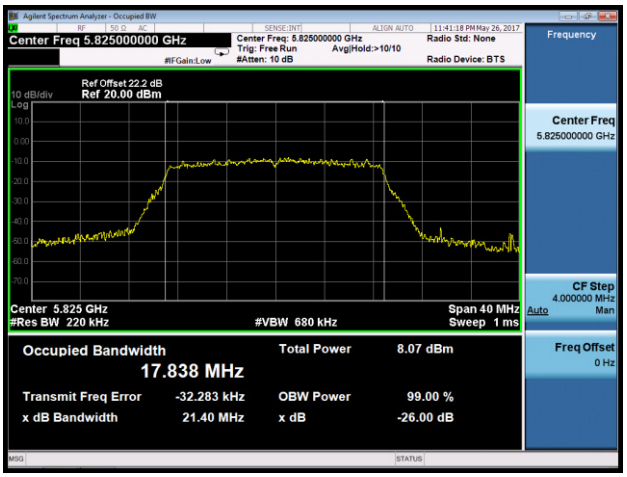
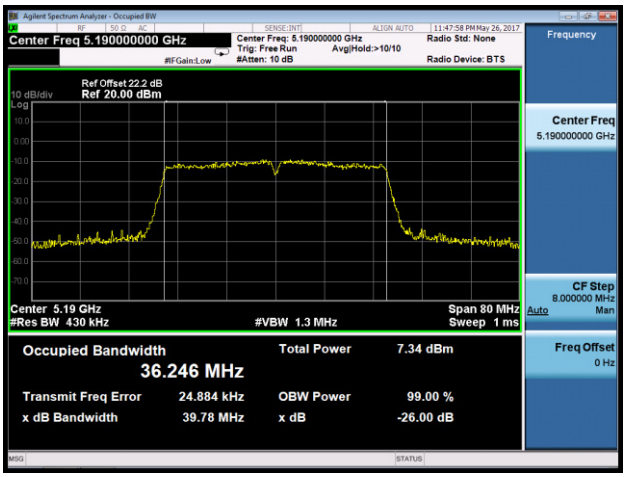
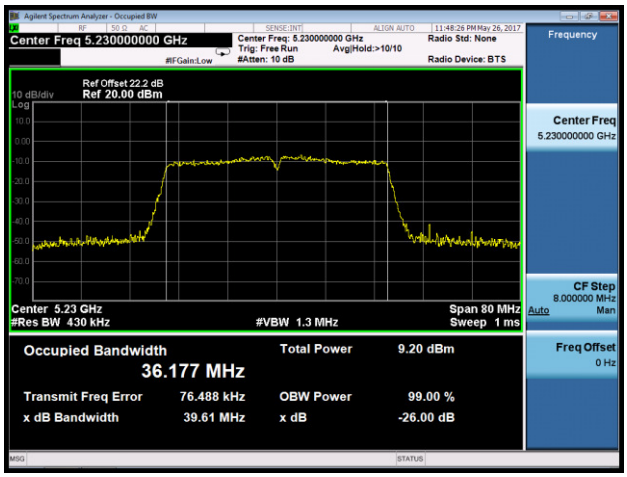
802.11ac-VHT20 26dB Bandwidth & 99% Bandwidth	
Channel 157 (5785MHz)	**Channel 165 (5825MHz)**
	

802.11ac-VHT40 26dB Bandwidth & 99% Bandwidth

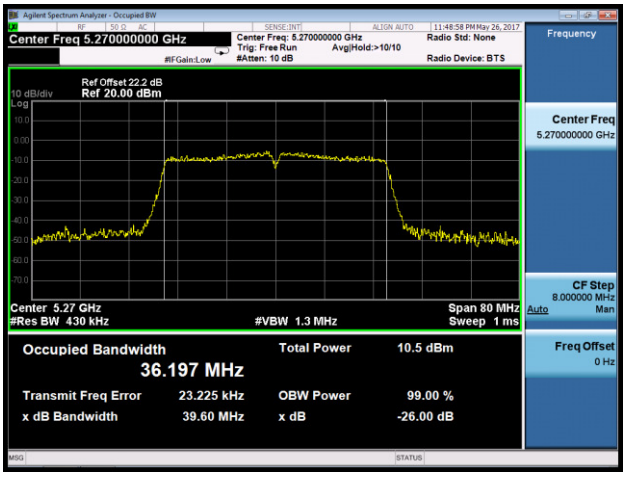
Channel 38 (5190MHz)



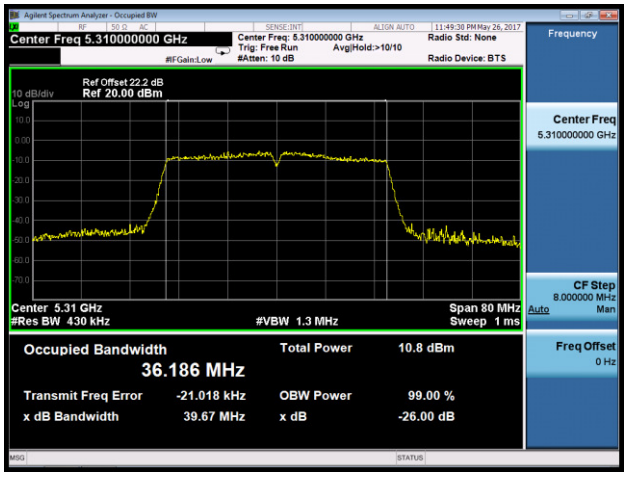
Channel 46 (5230MHz)



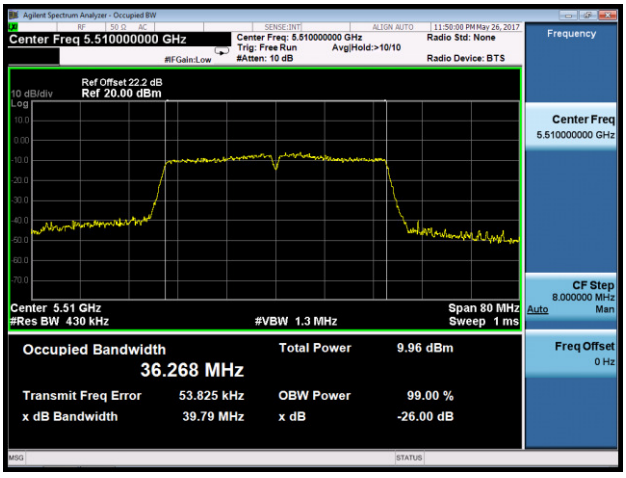
Channel 54 (5270MHz)



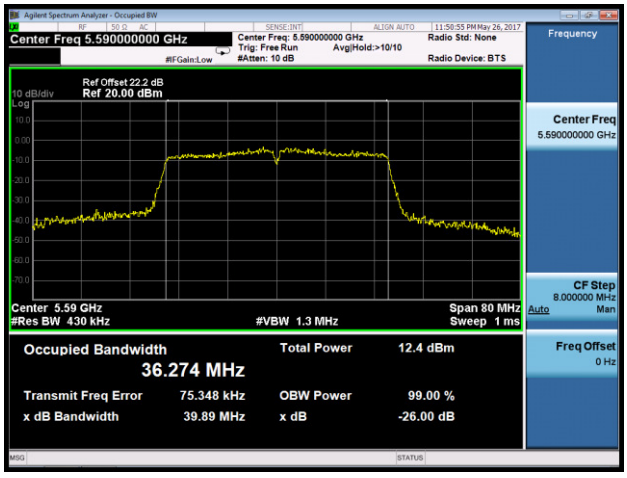
Channel 62 (5310MHz)

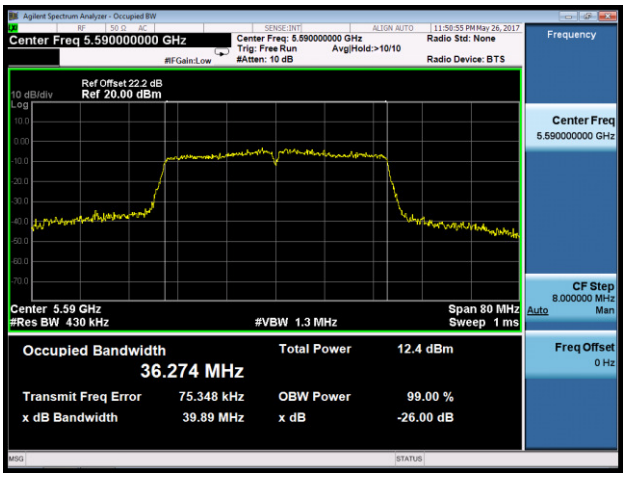
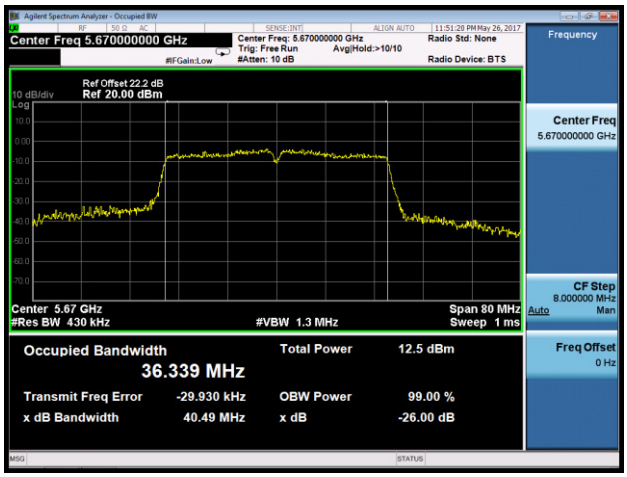
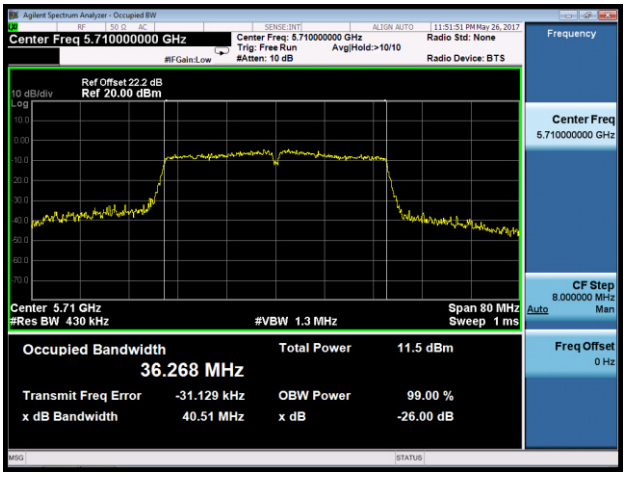
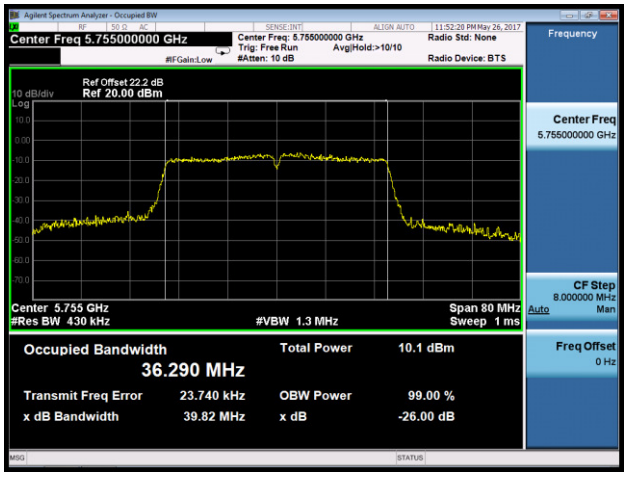
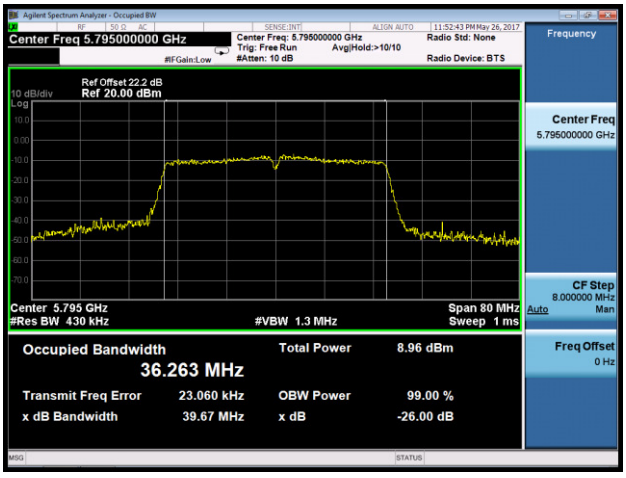


Channel 102 (5510MHz)



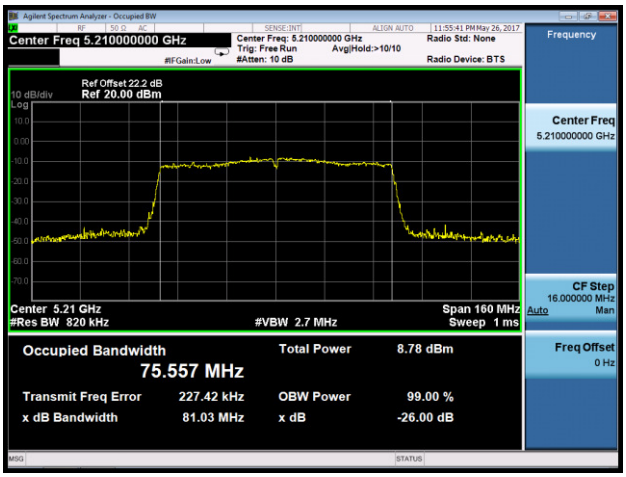
Channel 110 (5550MHz)



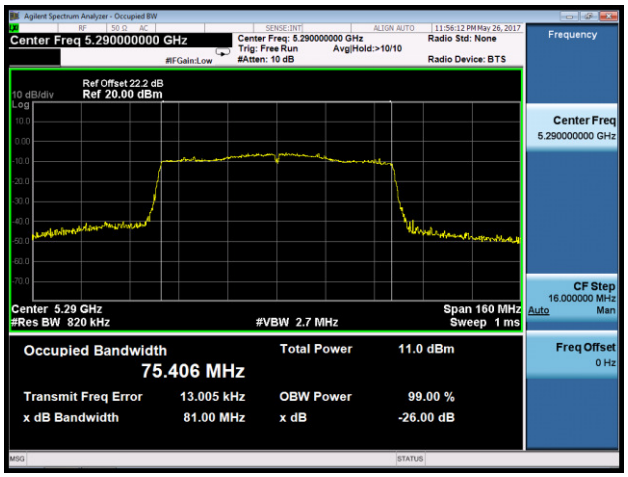
802.11ac-VHT40 26dB Bandwidth & 99% Bandwidth	
Channel 118 (5590MHz)	**Channel 134 (5670MHz)**
	
Channel 142 (5710MHz)	**Channel 151 (5755MHz)**
	
Channel 159 (5795MHz)	
	

802.11ac-VHT80 26dB Bandwidth & 99% Bandwidth

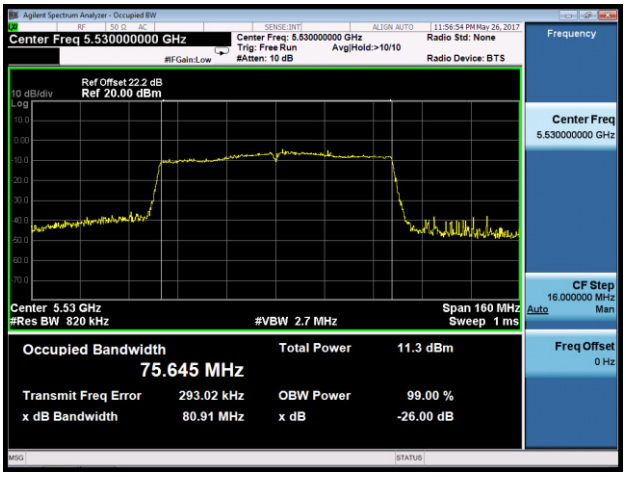
Channel 42 (5210MHz)



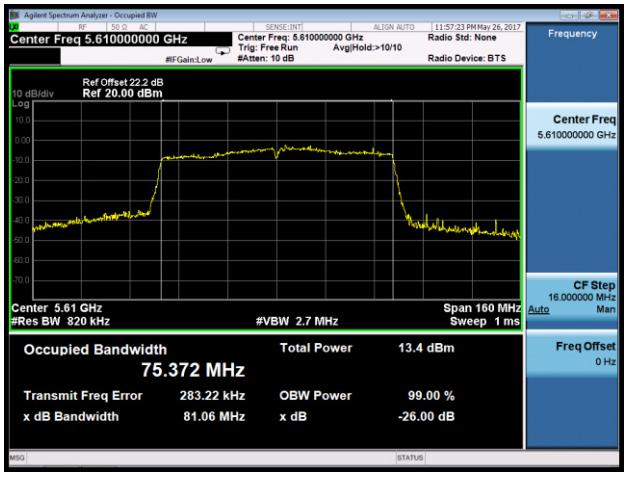
Channel 58 (5290MHz)



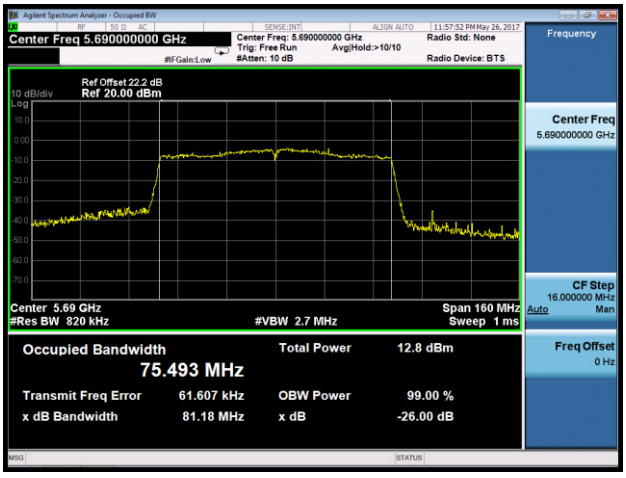
Channel 106 (5530MHz)



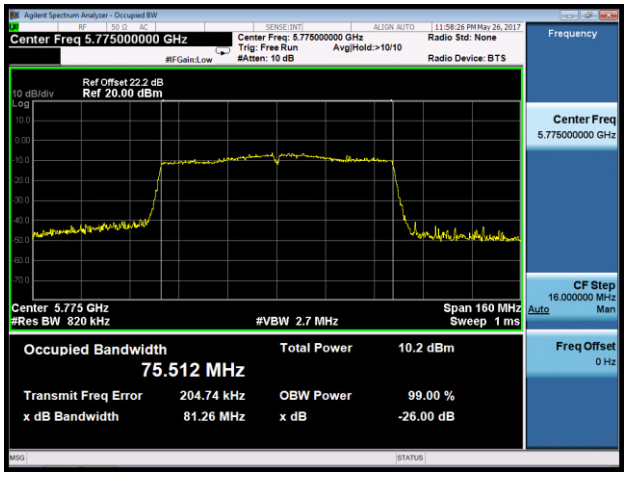
Channel 122 (5610MHz)



Channel 138 (5690MHz)



Channel 155 (5775MHz)



7.3. 6dB Bandwidth Measurement

7.3.1.Test Limit

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

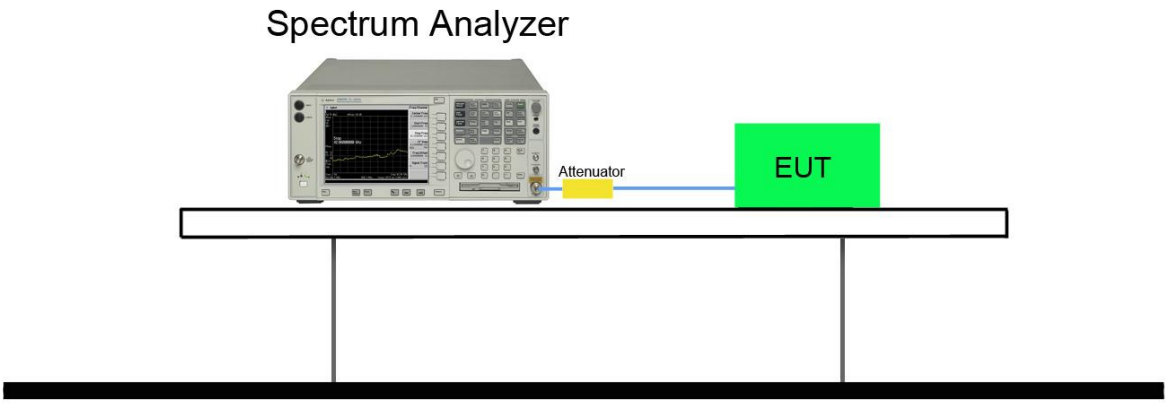
7.3.2.Test Procedure used

KDB 789033 D02v01r04 – 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 ≧ 3 × 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.

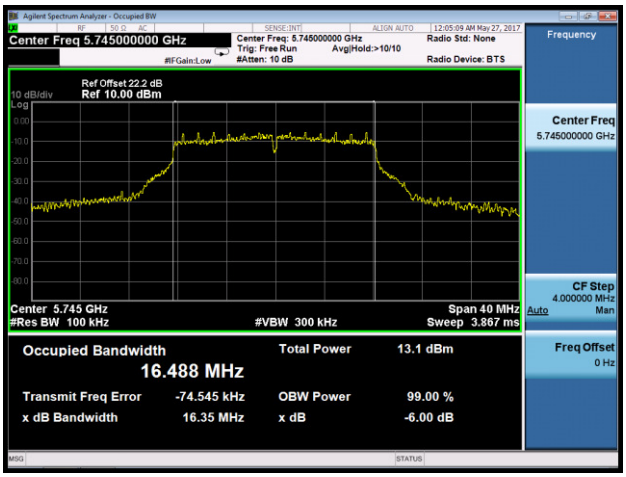
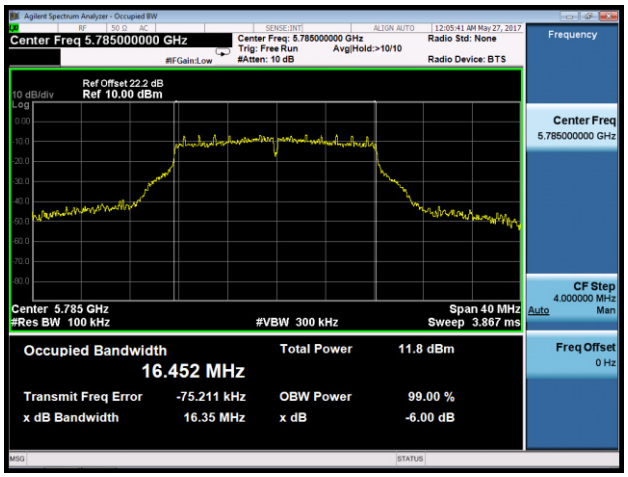
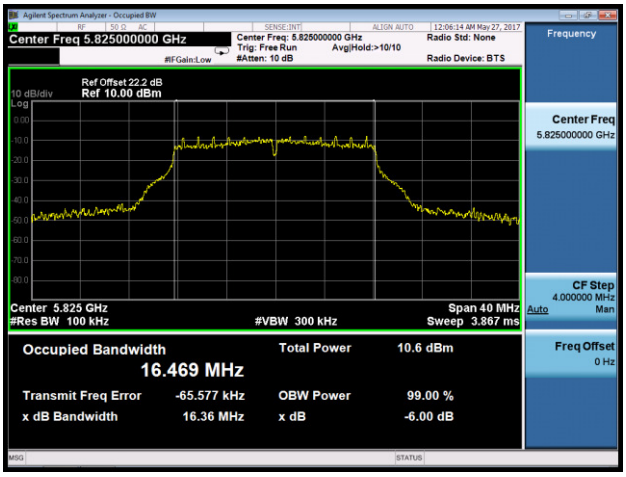
7.3.4.Test Setup

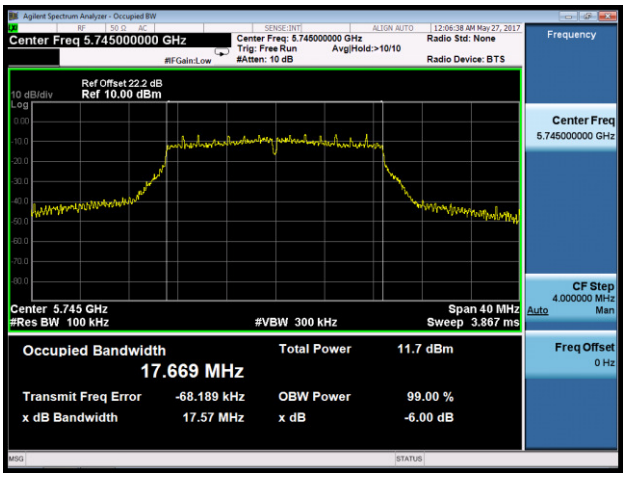
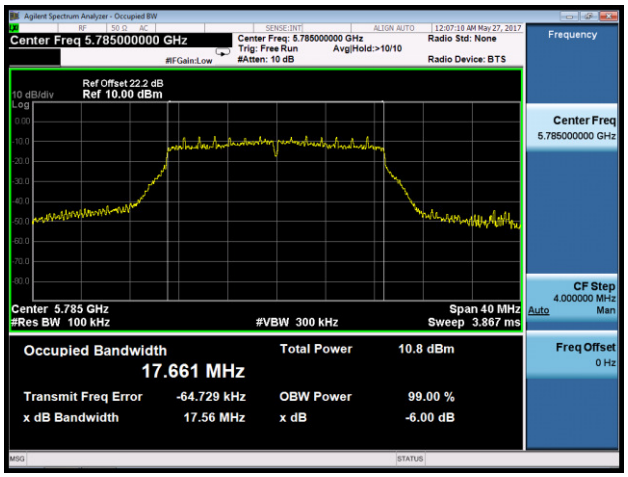
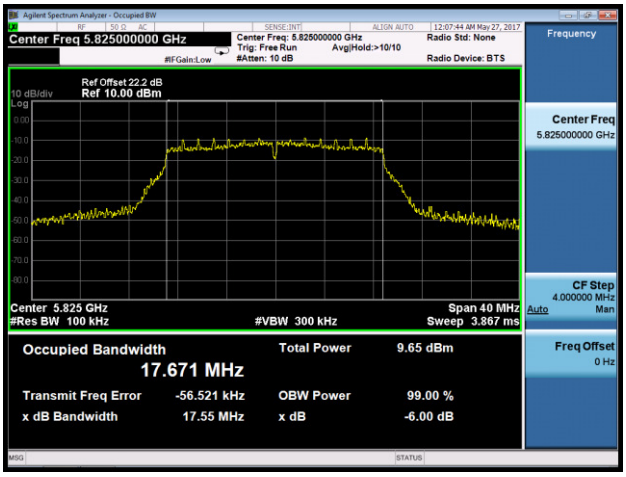
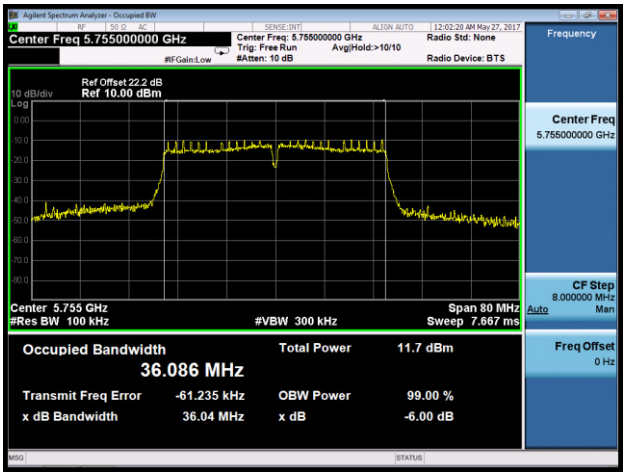
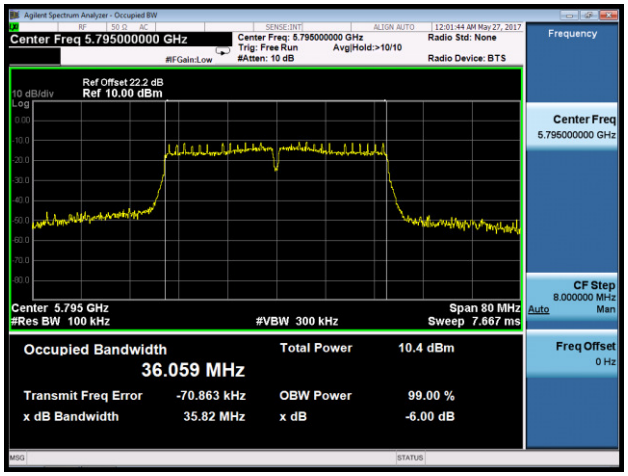


7.3.5.Test Result

Product	HD IP Conference Phone	Temperature	23°C
Test Engineer	Lewis Huang	Relative Humidity	52%
Test Site	TR3	Test Date	2017/05/27

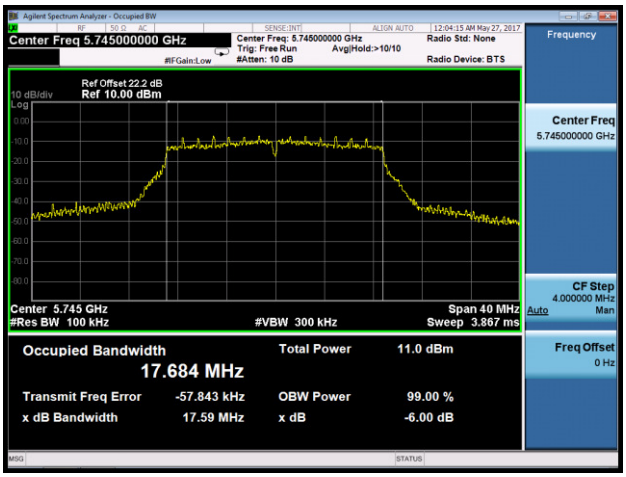
Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
802.11a	6	149	5745	16.35	≥ 0.5	Pass
802.11a	6	157	5785	16.35	≥ 0.5	Pass
802.11a	6	165	5825	16.36	≥ 0.5	Pass
802.11n-HT20	6.5	149	5745	17.57	≥ 0.5	Pass
802.11n-HT20	6.5	157	5785	17.56	≥ 0.5	Pass
802.11n-HT20	6.4	165	5825	17.55	≥ 0.5	Pass
802.11n-HT40	13.5	151	5755	36.04	≥ 0.5	Pass
802.11n-HT40	13.5	159	5795	35.82	≥ 0.5	Pass
802.11ac-VHT20	6.5	149	5745	17.59	≥ 0.5	Pass
802.11ac-VHT20	6.5	157	5785	17.57	≥ 0.5	Pass
802.11ac-VHT20	6.4	165	5825	17.52	≥ 0.5	Pass
802.11ac-VHT40	13.5	151	5755	35.77	≥ 0.5	Pass
802.11ac-VHT40	13.5	159	5795	35.57	≥ 0.5	Pass
802.11ac-VHT80	29.3	155	5775	75.67	≥ 0.5	Pass

802.11a 6dB Bandwidth	
Channel 149 (5745MHz)	**Channel 157 (5785MHz)**
	
Channel 165 (5825MHz)	
	

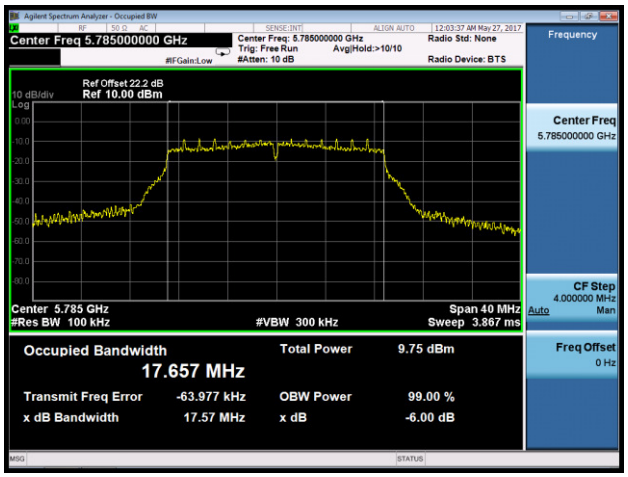
802.11n-HT20 6dB Bandwidth	
Channel 149 (5745MHz)	**Channel 157 (5785MHz)**
	
Channel 165 (5825MHz)	
	
802.11n-HT40 6dB Bandwidth	
Channel 151 (5755MHz)	**Channel 159 (5795MHz)**
	

802.11ac-VHT20 6dB Bandwidth

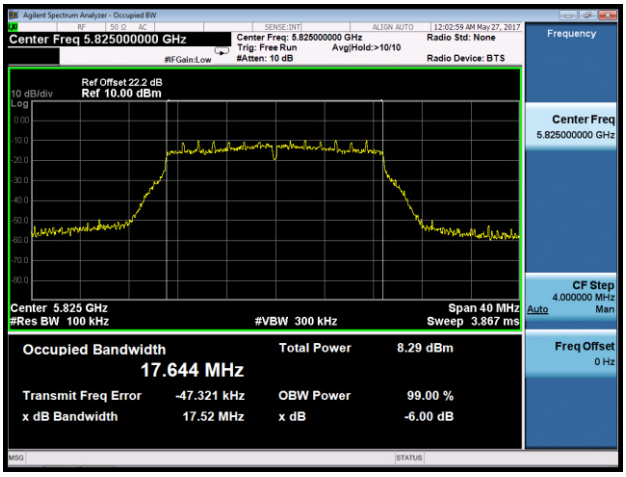
Channel 149 (5745MHz)



Channel 157 (5785MHz)

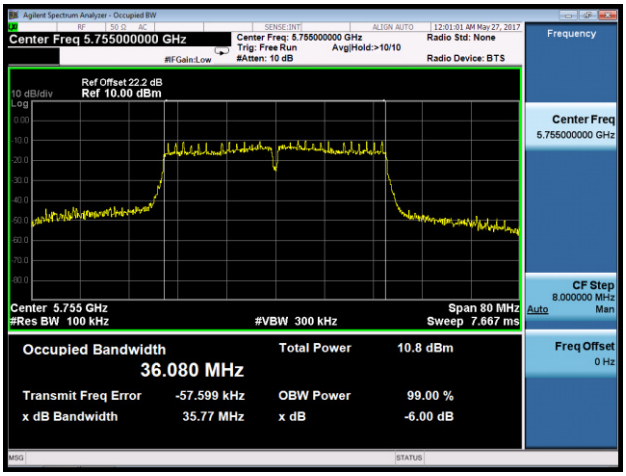


Channel 165 (5825MHz)

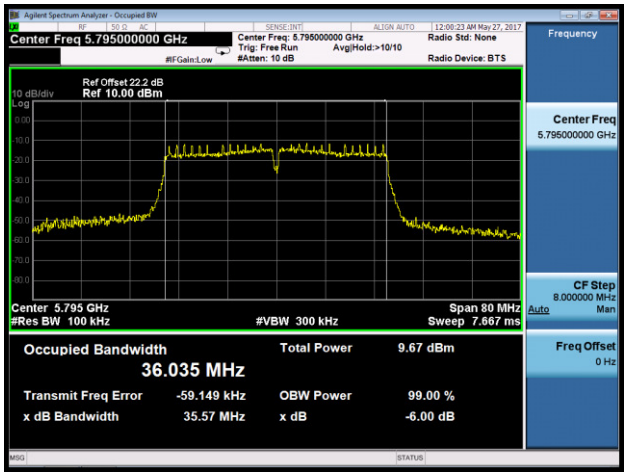


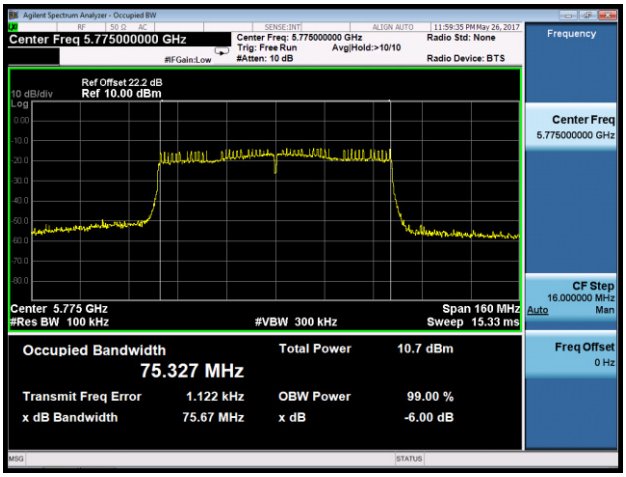
802.11ac-VHT40 6dB Bandwidth

Channel 151 (5755MHz)



Channel 159 (5795MHz)



802.11ac-VHT80 6dB Bandwidth	
Channel 155 (5775MHz)	
	

7.4. Operation Frequency Range of 26dBc Bandwidth Measurement

7.4.1. Test Limit

For transmitters operating in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27dBm/MHz e.i.r.p. However, any unwanted emissions that fall into the band 5250-5350 MHz must be 26 dBc, when measured using a resolution bandwidth between 1 and 5% of the occupied bandwidth, above 5.25 GHz.

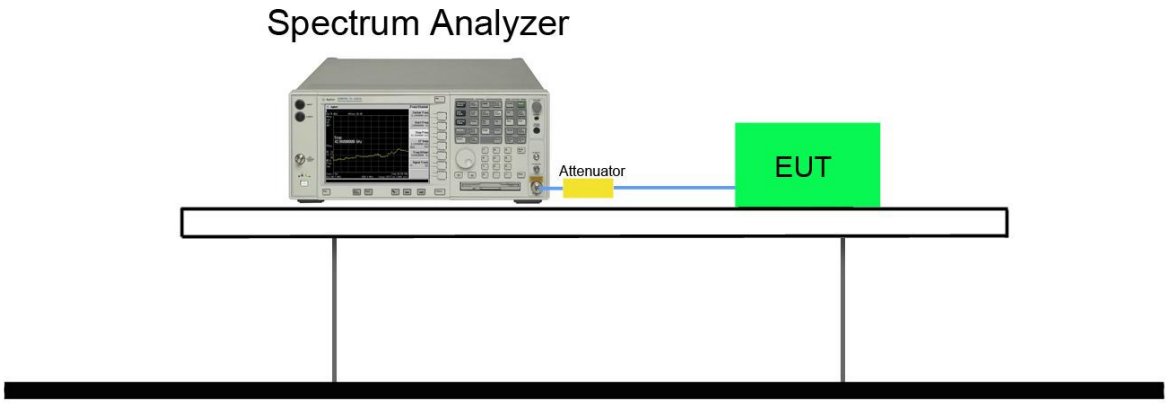
7.4.2. Test Procedure used

N/A

7.4.3. Test Setting

1. Set center frequency to the nominal EUT channel center frequency.
2. Span = 1.5 times to 5.0 times the OBW.
3. RBW = 1 % to 5 % of the OBW.
4. VBW ≥ 3 × RBW.
5. Detector = Peak.
6. Trace mode = max hold.
7. Allow the trace to stabilize and set the spectrum analyzer marker to the highest level of the displayed trace (this is the reference value).
8. Determine the “−26 dB down amplitude” using [(reference value) − 26].
9. Using the marker function of the instrument to show 5250MHz frequency level.

7.4.4. Test Setup

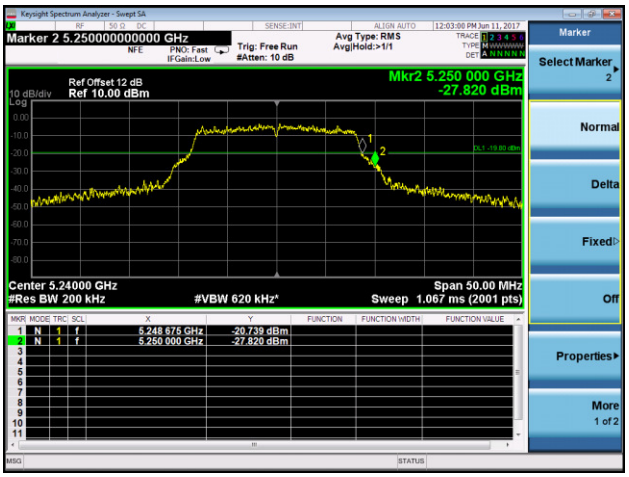


7.4.5. Test Result

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	Result
802.11a	6	48	5240	Pass
802.11n-HT20	6.5	48	5240	Pass
802.11n-HT40	13.5	46	5230	Pass
802.11ac-VHT20	6.5	48	5240	Pass
802.11ac-VHT40	13.5	46	5230	Pass
802.11ac-VHT80	29.3	42	5210	Pass

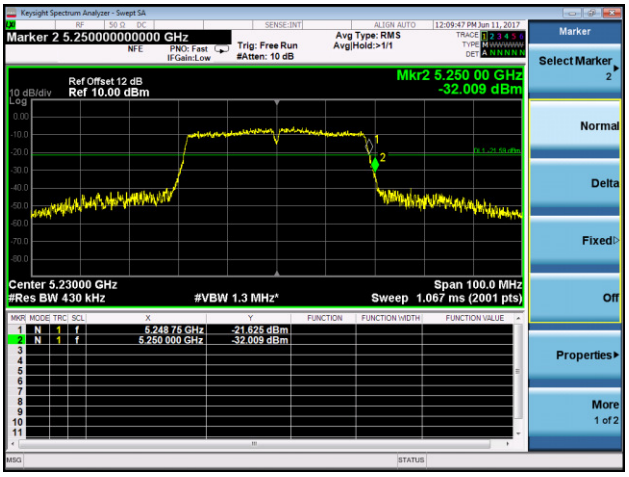
Operation Frequency Range of 26dBc Bandwidth

802.11a - Channel 48 (5240MHz)

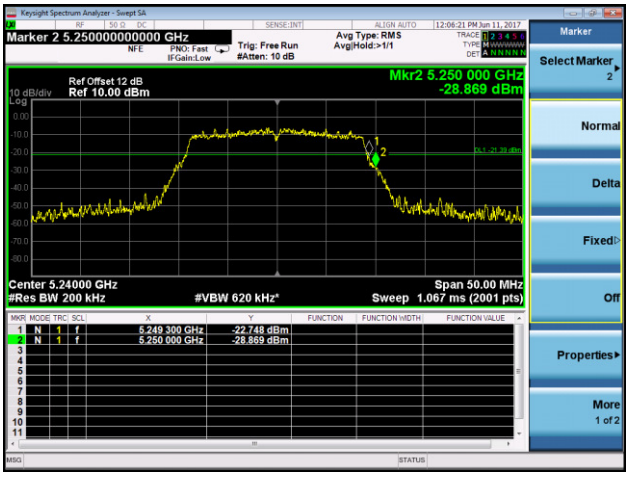


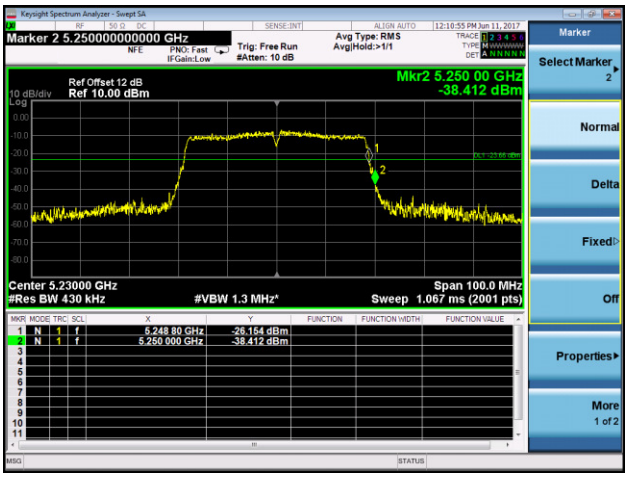
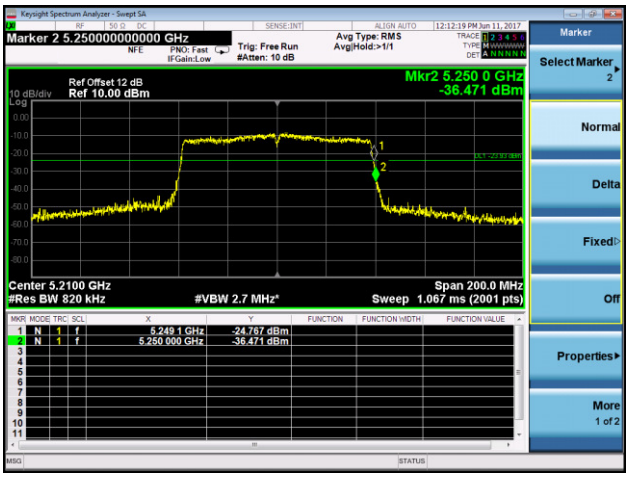
802.11n-HT20 - Channel 48 (5240MHz)

802.11n-HT40 - Channel 46 (5230MHz)



802.11ac-VHT20 - Channel 48 (5240MHz)



802.11ac-VHT40 - Channel 46 (5230MHz)	802.11ac-VHT80 - Channel 42 (5210MHz)
	

7.5. Output Power Measurement

7.5.1.Test Limit

For FCC

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 provided the maximum antenna gain does not exceed 6 dBi.

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 11dBm +10 log (26dB BW).

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 IC

For the band 5.15-5.25 GHz, the maximum e.i.r.p. shall not exceed 200 mW (23.01dBm) or 10 + 10 $\log_{10}$ B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power shall not exceed 250 mW (23.98dBm) or 11 + 10 $\log_{10}$ B, dBm, whichever power is less. The maximum e.i.r.p. shall not exceed 1.0 W (30dBm) or 17 + 10 $\log_{10}$ B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

For the 5.725-5.85 GHz band, the maximum conducted output power shall not exceed 1 W.

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.

7.5.2.Test Procedure Used

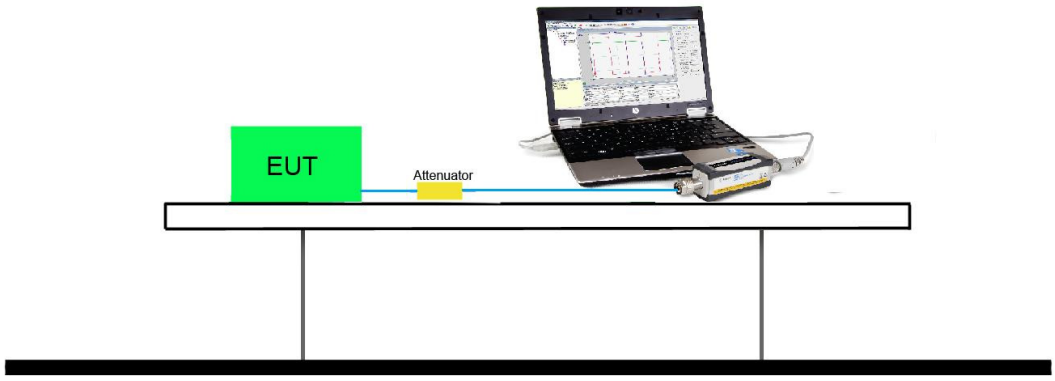
KDB 789033 D02v01r04 - Section E) 3) b) Method PM-G

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

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
1	6	0	6.5	7.2	13.5	15.0
1	9	1	13.0	14.4	27.0	30.0
1	12	2	19.5	21.7	40.5	45.0
1	18	3	26.0	28.9	54.0	60.0
1	24	4	39.0	43.3	81.0	90.0
1	36	5	52.0	57.8	108.0	120.0
1	48	6	58.5	65.0	121.5	135.0
1	54	7	65.0	72.2	135.0	150.0

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
1	0	6.5	7.2	13.5	15.0	29.3	32.5
1	1	13.0	14.4	27.0	30.0	58.5	65.0
1	2	19.5	21.7	40.5	45.0	87.8	97.5
1	3	26.0	28.9	54.0	60.0	117.0	130.0
1	4	39.0	43.3	81.0	90.0	175.5	195.0
1	5	52.0	57.8	108.0	120.0	234.0	260.0
1	6	58.5	65.0	121.5	135.0	263.3	292.5
1	7	65.0	72.2	135.0	150.0	292.5	325.0
1	8	78.0	86.7	162.0	180.0	351.0	390.0
1	9	--	--	180.0	200.0	390.0	433.3

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 port:

Test Mode	Bandwidth	Channel	Frequency (MHz)	Data Rate (Mbps)	Average Power (dBm)
802.11a	20	36	5180	6	3.69
				24	3.54
				54	3.22
802.11n	20	36	5180	6.5	2.12
				26.0	1.87
				65.0	1.56
802.11n	40	38	5190	13.5	2.18
				54.0	1.79
				135.0	1.43
802.11ac	20	36	5180	6.5	2.23
				39.0	1.89
				78.0	1.56
802.11ac	40	38	5190	13.5	0.89
				108.0	0.54
				180.0	0.23
802.11ac	80	42	5210	29.3	2.07
				234.0	1.65
				390.0	1.36

Product	HD IP Conference Phone	Temperature	22°C
Test Engineer	Lewis Huang	Relative Humidity	54%
Test Site	TR3	Test Date	2017/05/27

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Limit (dBm)	Max EIRP (dBm)	EIRP Limit (dBm)	Result
11a	6	36	5180	3.69	≤ 30.00	5.88	≤ 22.25	Pass
11a	6	44	5220	5.28	≤ 30.00	7.47	≤ 22.25	Pass
11a	6	48	5240	6.20	≤ 30.00	8.39	≤ 22.25	Pass
11a	6	52	5260	6.76	≤ 23.00	8.95	≤ 29.15	Pass
11a	6	60	5300	7.21	≤ 23.00	9.40	≤ 29.15	Pass
11a	6	64	5320	6.77	≤ 23.00	8.96	≤ 29.15	Pass
11a	6	100	5500	5.89	≤ 23.00	8.08	≤ 29.15	Pass
11a	6	116	5580	8.60	≤ 23.00	10.79	≤ 29.15	Pass
11a	6	120	5600	9.23	≤ 23.00	11.42	≤ 29.15	Pass
11a	6	140	5700	8.85	≤ 23.00	11.04	≤ 29.15	Pass
11a	6	149	5745	7.02	≤ 30.00	--	--	Pass
11a	6	157	5785	6.00	≤ 30.00	--	--	Pass
11a	6	165	5825	4.84	≤ 30.00	--	--	Pass
11n-HT20	6.5	36	5180	2.12	≤ 30.00	4.31	≤ 22.53	Pass
11n-HT20	6.5	44	5220	3.67	≤ 30.00	5.86	≤ 22.53	Pass
11n-HT20	6.5	48	5240	4.61	≤ 30.00	6.80	≤ 22.53	Pass
11n-HT20	6.5	52	5260	4.96	≤ 23.00	7.15	≤ 29.53	Pass
11n-HT20	6.5	60	5300	5.58	≤ 23.00	7.77	≤ 29.53	Pass
11n-HT20	6.5	64	5320	5.23	≤ 23.00	7.42	≤ 29.53	Pass
11n-HT20	6.5	100	5500	4.33	≤ 23.00	6.52	≤ 29.53	Pass
11n-HT20	6.5	116	5580	7.05	≤ 23.00	9.24	≤ 29.53	Pass
11n-HT20	6.5	120	5600	7.62	≤ 23.00	9.81	≤ 29.53	Pass
11n-HT20	6.5	140	5700	7.20	≤ 23.00	9.39	≤ 29.53	Pass
11n-HT20	6.5	149	5745	5.42	≤ 30.00	--	--	Pass
11n-HT20	6.5	157	5785	4.35	≤ 30.00	--	--	Pass
11n-HT20	6.5	165	5825	3.31	≤ 30.00	--	--	Pass

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Limit (dBm)	Max EIRP (dBm)	EIRP Limit (dBm)	Result
11n-HT40	13.5	38	5190	2.18	≤ 30.00	4.37	≤ 23.01	Pass
11n-HT40	13.5	46	5230	4.41	≤ 30.00	6.60	≤ 23.01	Pass
11n-HT40	13.5	54	5270	4.77	≤ 30.00	6.96	≤ 30.00	Pass
11n-HT40	13.5	62	5310	5.03	≤ 23.00	7.22	≤ 30.00	Pass
11n-HT40	13.5	102	5510	4.30	≤ 23.00	6.49	≤ 30.00	Pass
11n-HT40	13.5	110	5550	5.52	≤ 23.00	7.71	≤ 30.00	Pass
11n-HT40	13.5	118	5590	7.46	≤ 23.00	9.65	≤ 30.00	Pass
11n-HT40	13.5	134	5670	7.79	≤ 23.00	9.98	≤ 30.00	Pass
11n-HT40	13.5	151	5755	4.97	≤ 30.00	--	--	Pass
11n-HT40	13.5	159	5795	4.02	≤ 30.00	--	--	Pass
11ac-VHT20	6.5	36	5180	2.23	≤ 30.00	4.42	≤ 22.54	Pass
11ac-VHT20	6.5	44	5220	2.45	≤ 30.00	4.64	≤ 22.54	Pass
11ac-VHT20	6.5	48	5240	3.23	≤ 30.00	5.42	≤ 22.54	Pass
11ac-VHT20	6.5	52	5260	4.16	≤ 23.00	6.35	≤ 29.54	Pass
11ac-VHT20	6.5	60	5300	4.56	≤ 23.00	6.75	≤ 29.54	Pass
11ac-VHT20	6.5	64	5320	4.34	≤ 23.00	6.53	≤ 29.54	Pass
11ac-VHT20	6.5	100	5500	3.53	≤ 23.00	5.72	≤ 29.54	Pass
11ac-VHT20	6.5	116	5580	6.10	≤ 23.00	8.29	≤ 29.54	Pass
11ac-VHT20	6.5	120	5600	6.52	≤ 23.00	8.71	≤ 29.54	Pass
11ac-VHT20	6.5	140	5700	5.90	≤ 23.00	8.09	≤ 29.54	Pass
11ac-VHT20	6.5	144	5720	5.12	≤ 23.00	7.31	≤ 29.54	Pass
11ac-VHT20	6.5	149	5745	4.30	≤ 30.00	--	--	Pass
11ac-VHT20	6.5	157	5785	3.41	≤ 30.00	--	--	Pass
11ac-VHT20	6.5	165	5825	2.55	≤ 30.00	--	--	Pass

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Limit (dBm)	Max EIRP (dBm)	EIRP Limit (dBm)	Result
11ac-VHT40	13.5	38	5190	0.89	≤ 30.00	3.08	≤ 23.01	Pass
11ac-VHT40	13.5	46	5230	2.34	≤ 30.00	4.53	≤ 23.01	Pass
11ac-VHT40	13.5	54	5270	3.63	≤ 30.00	5.82	≤ 30.00	Pass
11ac-VHT40	13.5	62	5310	3.15	≤ 23.00	5.34	≤ 30.00	Pass
11ac-VHT40	13.5	102	5510	5.07	≤ 23.00	7.26	≤ 30.00	Pass
11ac-VHT40	13.5	110	5550	6.21	≤ 23.00	8.40	≤ 30.00	Pass
11ac-VHT40	13.5	118	5590	6.35	≤ 23.00	8.54	≤ 30.00	Pass
11ac-VHT40	13.5	134	5670	6.31	≤ 23.00	8.50	≤ 30.00	Pass
11ac-VHT40	13.5	142	5710	5.25	≤ 23.00	7.44	≤ 30.00	Pass
11ac-VHT40	13.5	151	5755	3.77	≤ 30.00	--	--	Pass
11ac-VHT40	13.5	159	5795	2.55	≤ 30.00	--	--	Pass
11ac-VHT80	29.3	42	5210	2.07	≤ 30.00	4.26	≤ 23.01	Pass
11ac-VHT80	29.3	58	5290	3.13	≤ 23.00	5.32	≤ 30.00	Pass
11ac-VHT80	29.3	106	5530	4.05	≤ 23.00	6.24	≤ 30.00	Pass
11ac-VHT80	29.3	122	5610	6.35	≤ 23.00	8.54	≤ 30.00	Pass
11ac-VHT80	29.3	138	5690	5.86	≤ 23.00	8.05	≤ 30.00	Pass
11ac-VHT80	29.3	155	5775	2.41	≤ 30.00	--	--	Pass

Note 1: Max EIRP Power (dBm) = Total Average Power (dBm) + Antenna Gain.

EIRP Limit Calculation as below:

For 5150-5250MHz

802.11a: 10 + 10 $\log_{10}$ (16.79MHz) = 22.25dBm < 23.01dBm;

802.11n-HT20: 10 + 10 $\log_{10}$ (17.91MHz) = 22.53dBm < 23.01dBm;

802.11ac-VHT20: 10 + 10 $\log_{10}$ (17.94MHz) = 22.54dBm < 23.01dBm;

802.11n-HT40/ac-VHT40/ac-VHT80: 10 + 10 $\log_{10}$ B > 23.01dBm;

For 5250-5350MHz, 5470-5725MHz

802.11a: 17 + 10 $\log_{10}$ (16.79MHz) = 29.25dBm < 30dBm;

802.11n-HT20: 17 + 10 $\log_{10}$ (17.91MHz) = 29.53dBm < 30dBm;

802.11ac-VHT20: 17 + 10 $\log_{10}$ (17.94MHz) = 29.54dBm < 30dBm;

802.11n-HT40/ac-VHT40/ac-VHT80: 10 + 10 $\log_{10}$ B > 30dBm;

Note 2: Max Conducted Output Power Limit Calculation as below:

For 5250-5350MHz, 5470-5725MHz

802.11a: 11 + 10 $\log_{10}$ (16.79MHz) = 23.25dBm < 23.98dBm;

802.11n-HT20: 11 + 10 $\log_{10}$ (17.91MHz) = 23.53dBm < 23.98dBm;

802.11ac-VHT20: 11 + 10 $\log_{10}$ (17.94MHz) = 23.54dBm < 23.98dBm;

802.11n-HT40/ac-VHT40/ac-VHT80: 11 + 10 $\log_{10}$ B > 23.98dBm;

7.6. Power Spectral Density Measurement

7.6.1.Test Limit

For FCC

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.

For IC

For the band 5.15-5.25 GHz, the e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

For the band 5.25-5.35 GHz and 5.47-5725 GHz, the power spectral density shall not exceed 11 dBm in any 1.0 MHz 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.

7.6.2.Test Procedure Used

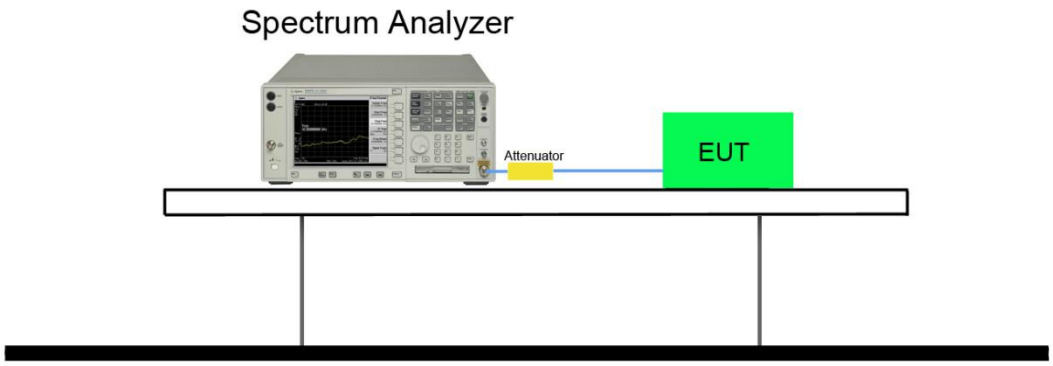
KDB 789033 D02v01r04 - Section F

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

Product	HD IP Conference Phone	Temperature	22°C
Test Engineer	Bruce Wang	Relative Humidity	54%
Test Site	TR3	Test Date	2017/05/27

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	PSD (dBm/ MHz)	Duty Cycle (%)	Final PSD (dBm/ MHz)	PSD Limit (dBm/ MHz)	EIRP PSD (dBm/ MHz)	EIRP PSD Limit (dBm/ MHz)	Result
11a	6	36	5180	-7.66	93.05	-7.35	≤ 17.00	-5.16	≤ 10.00	Pass
11a	6	44	5220	-5.17	93.05	-4.86	≤ 17.00	-2.67	≤ 10.00	Pass
11a	6	48	5240	-4.47	93.05	-4.16	≤ 17.00	-1.97	≤ 10.00	Pass
11a	6	52	5260	-4.27	93.05	-3.96	≤ 11.00	--	--	Pass
11a	6	60	5300	-3.38	93.05	-3.07	≤ 11.00	--	--	Pass
11a	6	64	5320	-3.82	93.05	-3.51	≤ 11.00	--	--	Pass
11a	6	100	5500	-4.91	93.05	-4.60	≤ 11.00	--	--	Pass
11a	6	116	5580	-1.99	93.05	-1.68	≤ 11.00	--	--	Pass
11a	6	120	5600	-1.40	93.05	-1.09	≤ 11.00	--	--	Pass
11a	6	140	5700	-1.78	93.05	-1.47	≤ 11.00	--	--	Pass
11n-HT20	6.5	36	5180	-8.57	92.76	-8.24	≤ 17.00	-6.05	≤ 10.00	Pass
11n-HT20	6.5	44	5220	-6.84	92.76	-6.51	≤ 17.00	-4.32	≤ 10.00	Pass
11n-HT20	6.5	48	5240	-6.22	92.76	-5.89	≤ 17.00	-3.70	≤ 10.00	Pass
11n-HT20	6.5	52	5260	-6.05	92.76	-5.72	≤ 11.00	--	--	Pass
11n-HT20	6.5	60	5300	-4.76	92.76	-4.43	≤ 11.00	--	--	Pass
11n-HT20	6.5	64	5320	-5.51	92.76	-5.18	≤ 11.00	--	--	Pass
11n-HT20	6.5	100	5500	-6.19	92.76	-5.86	≤ 11.00	--	--	Pass
11n-HT20	6.5	116	5580	-3.52	92.76	-3.19	≤ 11.00	--	--	Pass
11n-HT20	6.5	120	5600	-3.21	92.76	-2.88	≤ 11.00	--	--	Pass
11n-HT20	6.5	140	5700	-3.29	92.76	-2.96	≤ 11.00	--	--	Pass

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	PSD (dBm/ MHz)	Duty Cycle (%)	Final PSD (dBm/ MHz)	PSD Limit (dBm/ MHz)	EIRP PSD (dBm/ MHz)	EIRP PSD Limit (dBm/ MHz)	Result
11n-HT40	13.5	38	5190	-12.47	90.27	-12.03	≤ 17.00	-9.84	≤ 10.00	Pass
11n-HT40	13.5	46	5230	-9.96	90.27	-9.52	≤ 17.00	-7.33	≤ 10.00	Pass
11n-HT40	13.5	54	5270	-8.50	90.27	-8.06	≤ 11.00	--	--	Pass
11n-HT40	13.5	62	5310	-8.91	90.27	-8.47	≤ 11.00	--	--	Pass
11n-HT40	13.5	102	5510	-9.68	90.27	-9.24	≤ 11.00	--	--	Pass
11n-HT40	13.5	110	5550	-7.45	90.27	-7.01	≤ 11.00	--	--	Pass
11n-HT40	13.5	118	5590	-6.48	90.27	-6.04	≤ 11.00	--	--	Pass
11n-HT40	13.5	134	5670	-6.67	90.27	-6.23	≤ 11.00	--	--	Pass
11ac-VHT20	6.5	36	5180	-10.48	92.80	-10.16	≤ 17.00	-7.97	≤ 10.00	Pass
11ac-VHT20	6.5	44	5220	-7.51	92.80	-7.19	≤ 17.00	-5.00	≤ 10.00	Pass
11ac-VHT20	6.5	48	5240	-7.00	92.80	-6.68	≤ 17.00	-4.49	≤ 10.00	Pass
11ac-VHT20	6.5	52	5260	-6.78	92.80	-6.46	≤ 11.00	--	--	Pass
11ac-VHT20	6.5	60	5300	-6.04	92.80	-5.72	≤ 11.00	--	--	Pass
11ac-VHT20	6.5	64	5320	-6.44	92.80	-6.12	≤ 11.00	--	--	Pass
11ac-VHT20	6.5	100	5500	-7.36	92.80	-7.04	≤ 11.00	--	--	Pass
11ac-VHT20	6.5	116	5580	-4.57	92.80	-4.25	≤ 11.00	--	--	Pass
11ac-VHT20	6.5	120	5600	-3.71	92.80	-3.39	≤ 11.00	--	--	Pass
11ac-VHT20	6.5	140	5700	-4.87	92.80	-4.55	≤ 11.00	--	--	Pass
11ac-VHT20	6.5	144	5720	-5.67	92.80	-5.35	≤ 11.00	--	--	Pass
11ac-VHT40	13.5	38	5190	-13.41	86.83	-12.80	≤ 17.00	-10.61	≤ 10.00	Pass
11ac-VHT40	13.5	46	5230	-10.97	86.83	-10.36	≤ 17.00	-8.17	≤ 10.00	Pass
11ac-VHT40	13.5	54	5270	-10.12	86.83	-9.51	≤ 11.00	--	--	Pass
11ac-VHT40	13.5	62	5310	-9.64	86.83	-9.03	≤ 11.00	--	--	Pass
11ac-VHT40	13.5	102	5510	-10.46	86.83	-9.85	≤ 11.00	--	--	Pass
11ac-VHT40	13.5	110	5550	-8.58	86.83	-7.97	≤ 11.00	--	--	Pass
11ac-VHT40	13.5	118	5590	-7.71	86.83	-7.10	≤ 11.00	--	--	Pass
11ac-VHT40	13.5	134	5670	-7.43	86.83	-6.82	≤ 11.00	--	--	Pass
11ac-VHT40	13.5	142	5710	-8.60	86.83	-7.99	≤ 11.00	--	--	Pass

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	PSD (dBm/ MHz)	Duty Cycle (%)	Final PSD (dBm/ MHz)	PSD Limit (dBm/ MHz)	EIRP PSD (dBm/ MHz)	EIRP PSD Limit (dBm/ MHz)	Result
11ac-VHT80	29.3	42	5210	-15.52	76.52	-14.36	≤ 17.00	-12.17	≤ 10.00	Pass
11ac-VHT80	29.3	58	5290	-13.03	76.52	-11.87	≤ 11.00	--	--	Pass
11ac-VHT80	29.3	106	5530	-12.75	76.52	-11.59	≤ 11.00	--	--	Pass
11ac-VHT80	29.3	122	5610	-10.61	76.52	-9.45	≤ 11.00	--	--	Pass
11ac-VHT80	29.3	138	5690	-11.15	76.52	-9.99	≤ 11.00	--	--	Pass

Note 1: When EUT duty cycle ≥ 98%, the Final PSD (dBm/MHz) = PSD (dBm/MHz).

Note 2: When EUT duty cycle < 98%, the Final PSD (dBm/MHz) = PSD (dBm/MHz) + 10*log(1/Duty Cycle).

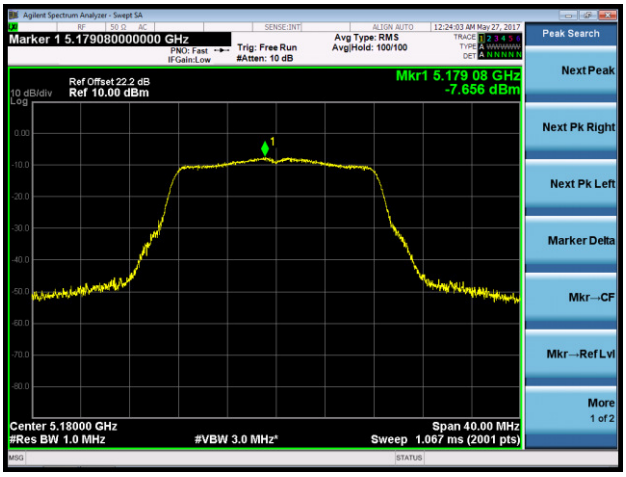
Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	PSD (dBm/ 100KHz)	Duty Cycle (%)	Constant Factor	Final PSD (dBm/ MHz)	PSD Limit (dBm/ MHz)	Result
11a	6	149	5745	-12.75	93.05	6.99	-5.45	≤ 30.00	Pass
11a	6	157	5785	-13.44	93.05	6.99	-6.14	≤ 30.00	Pass
11a	6	165	5825	-14.74	93.05	6.99	-7.44	≤ 30.00	Pass
11n-HT20	6.5	149	5745	-14.53	92.76	6.99	-7.21	≤ 30.00	Pass
11n-HT20	6.5	157	5785	-15.13	92.76	6.99	-7.81	≤ 30.00	Pass
11n-HT20	6.5	165	5825	-16.50	92.76	6.99	-9.18	≤ 30.00	Pass
11n-HT40	13.5	151	5755	-18.17	90.27	6.99	-10.74	≤ 30.00	Pass
11n-HT40	13.5	159	5795	-19.06	90.27	6.99	-11.63	≤ 30.00	Pass
11ac-VHT20	6.5	149	5745	-15.29	92.80	6.99	-7.98	≤ 30.00	Pass
11ac-VHT20	6.5	157	5785	-16.99	92.80	6.99	-9.68	≤ 30.00	Pass
11ac-VHT20	6.5	165	5825	-18.01	92.80	6.99	-10.70	≤ 30.00	Pass
11ac-VHT40	13.5	151	5755	-19.03	86.83	6.99	-11.43	≤ 30.00	Pass
11ac-VHT40	13.5	159	5795	-20.34	86.83	6.99	-12.74	≤ 30.00	Pass
11ac-VHT80	29.3	155	5775	-23.06	76.52	6.99	-14.91	≤ 30.00	Pass

Note 1: When EUT duty cycle ≥ 98%, the Final PSD (dBm/MHz) = PSD (dBm/100kHz) + Constant Factor.

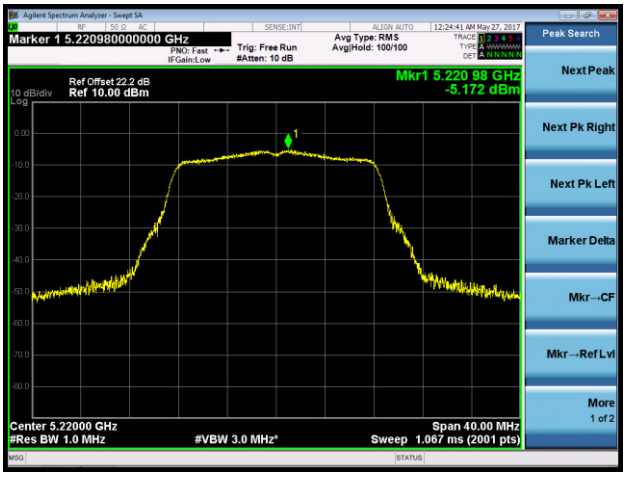
Note 2: When EUT duty cycle < 98%, the Final PSD (dBm/MHz) = PSD (dBm/100k Hz) + 10*log(1/Duty Cycle) + Constant Factor.

802.11a Power Spectral Density

Channel 36 (5180MHz)



Channel 44 (5220MHz)

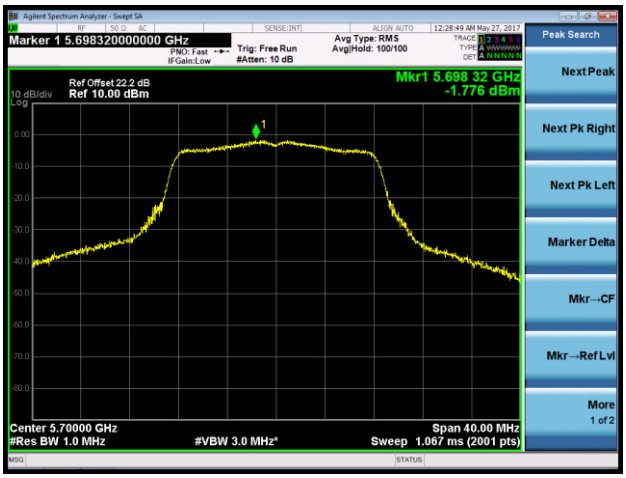
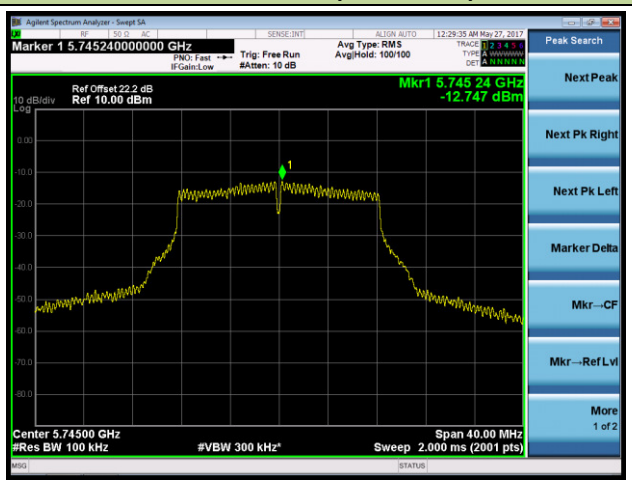
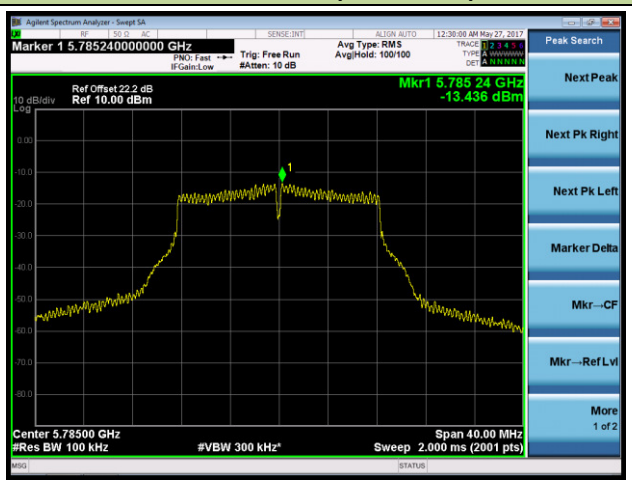


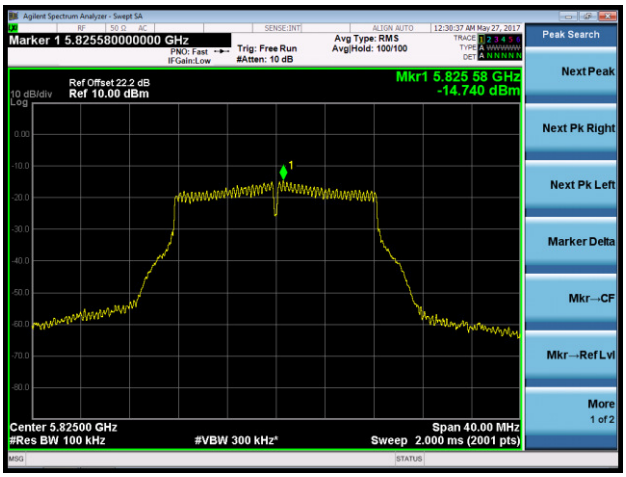
Channel 48 (5240MHz)

Channel 52 (5260MHz)

Channel 60 (5300MHz)

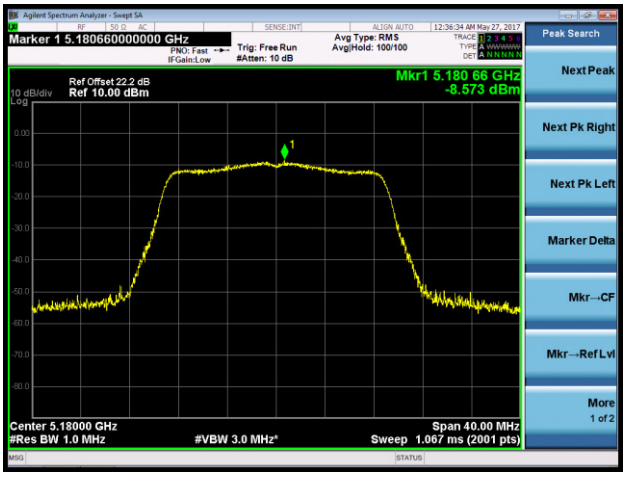
Channel 64 (5320MHz)

Channel 100 (5500MHz)	Channel 116 (5580MHz)
	
Channel 120 (5600MHz)	**Channel 140 (5700MHz)**
	
Channel 149 (5745MHz)	**Channel 157 (5785MHz)**
	

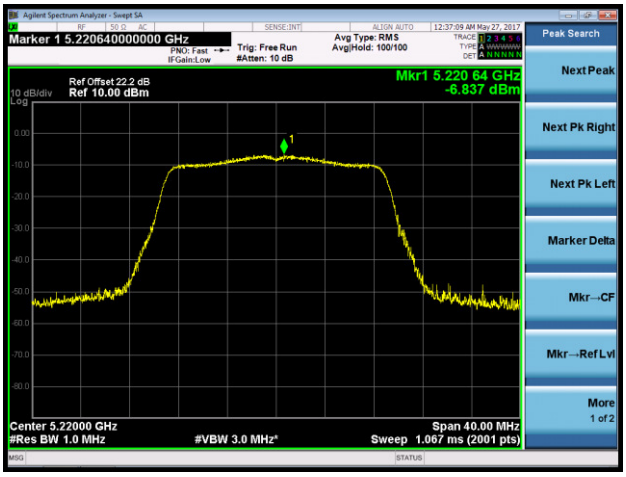
Channel 165 (5825MHz)	
	

802.11n-HT20 Power Spectral Density

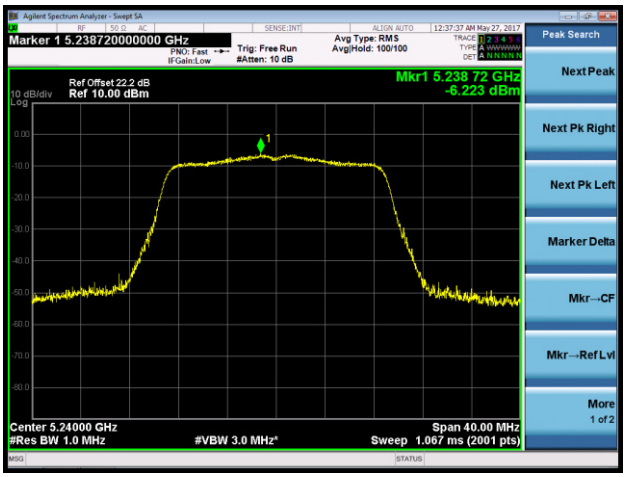
Channel 36 (5180MHz)



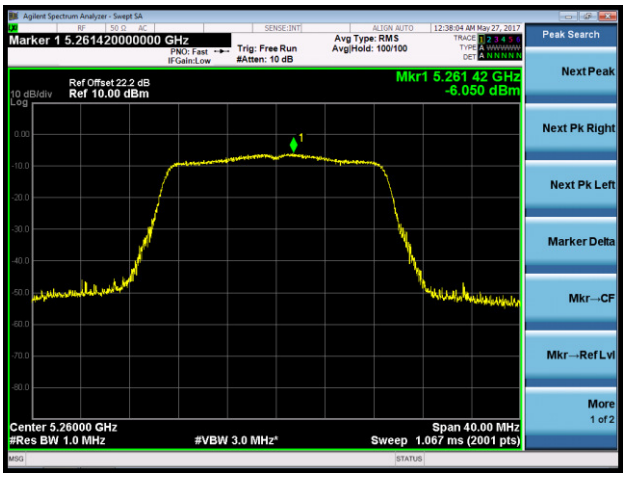
Channel 44 (5220MHz)



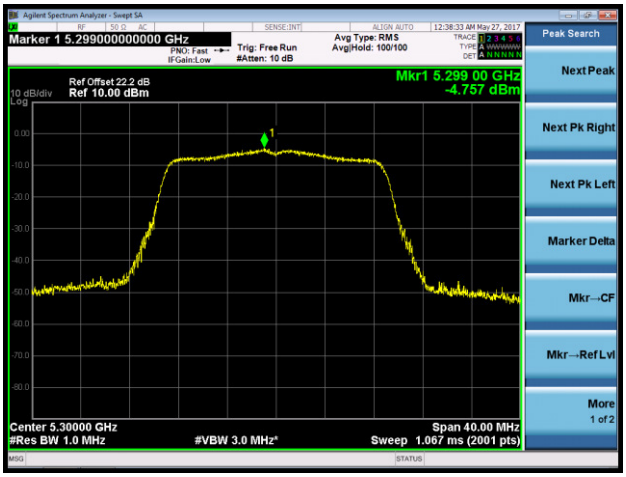
Channel 48 (5240MHz)



Channel 52 (5260MHz)



Channel 60 (5300MHz)



Channel 64 (5320MHz)