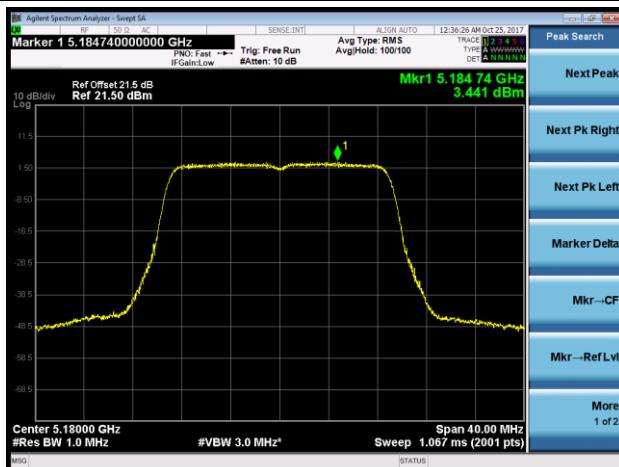
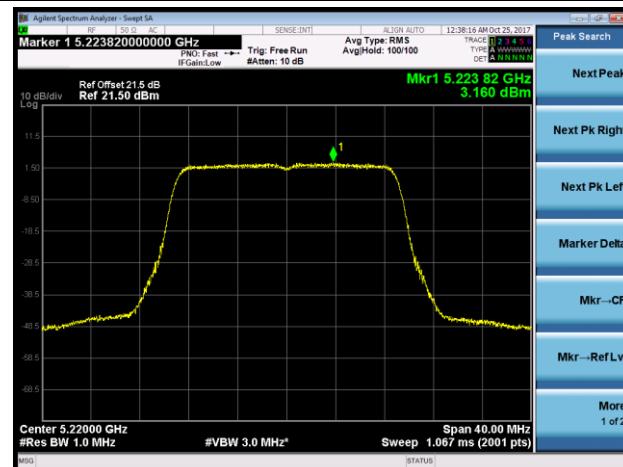


802.11ac-VHT20 Power Spectral Density - Ant 1 / Ant 1 + 2 (CDD Mode)

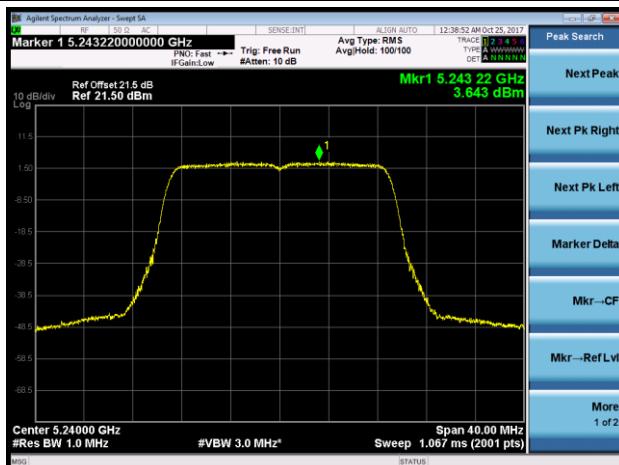
Channel 36 (5180MHz)



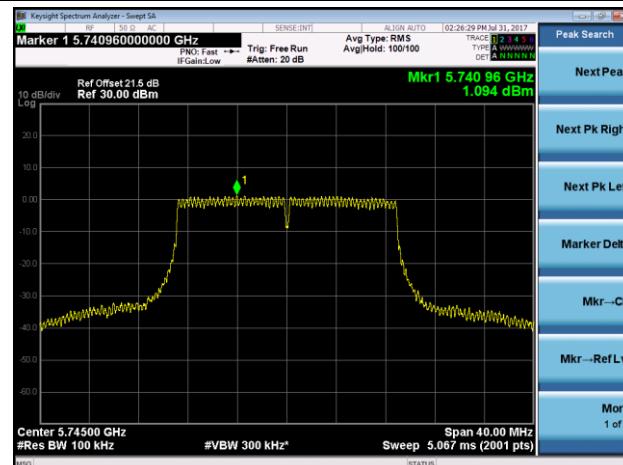
Channel 44 (5220MHz)



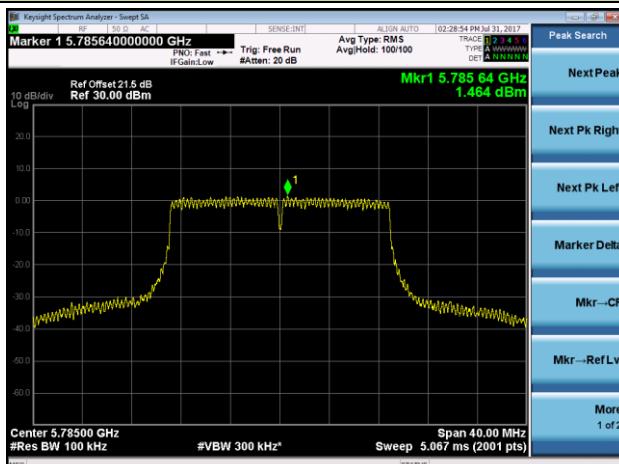
Channel 48 (5240MHz)



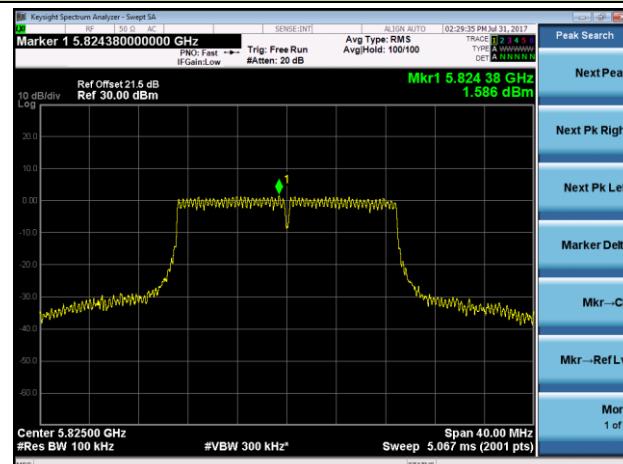
Channel 149 (5745MHz)

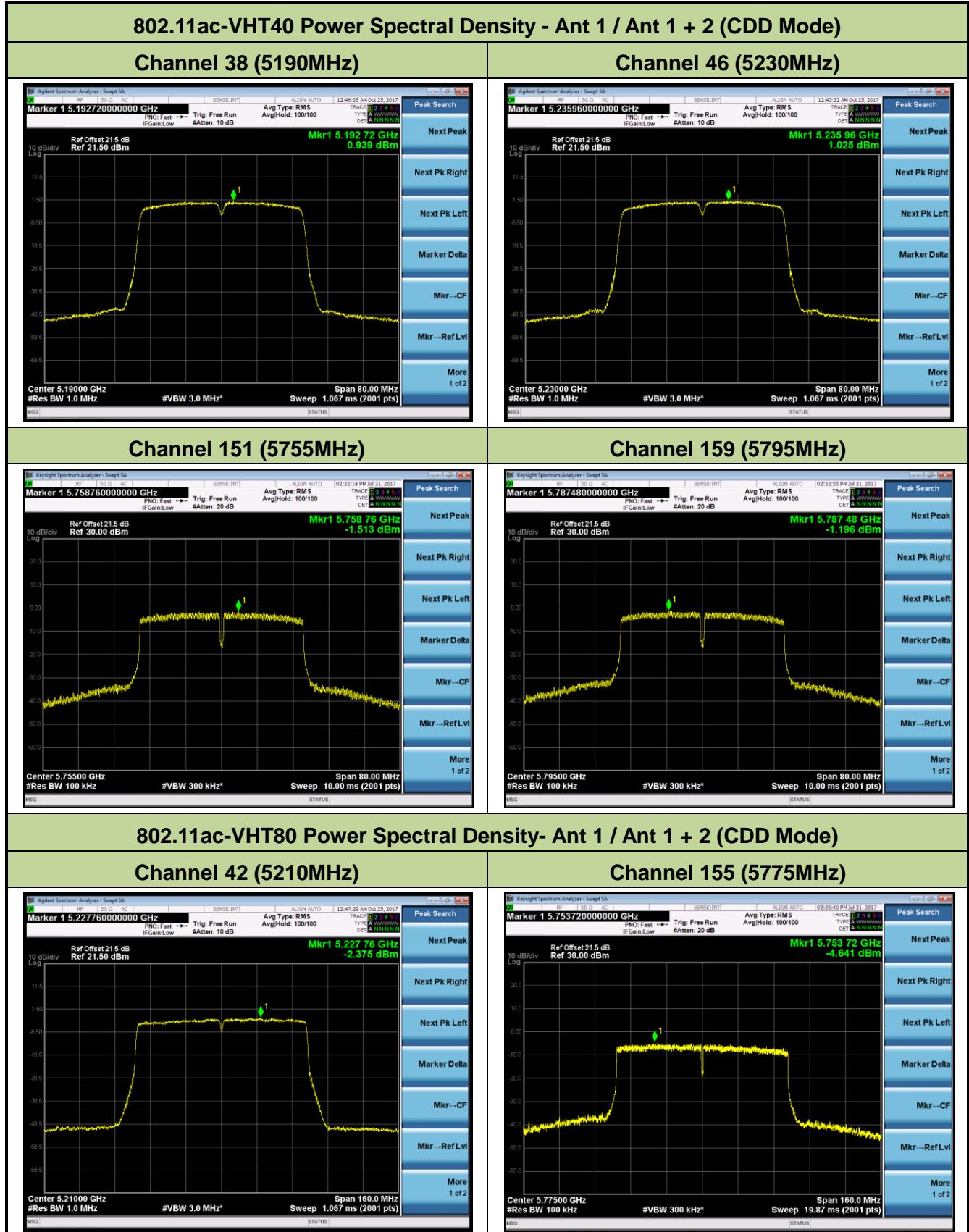


Channel 157 (5785MHz)



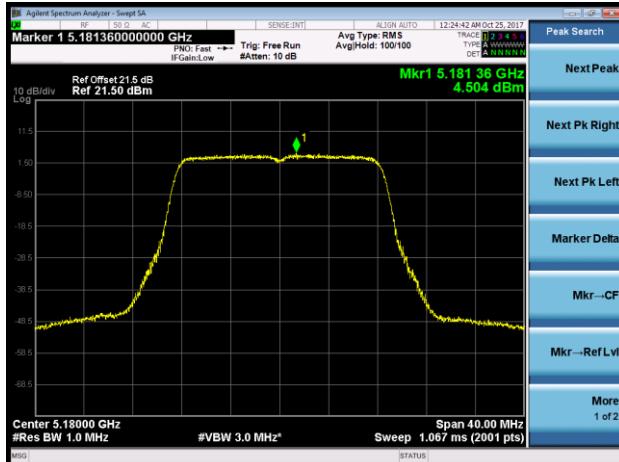
Channel 165 (5825MHz)



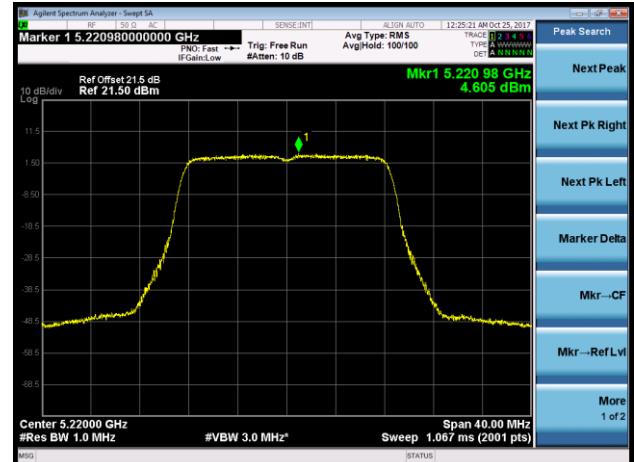


802.11a Power Spectral Density - Ant 2 / Ant 1 + 2 (CDD Mode)

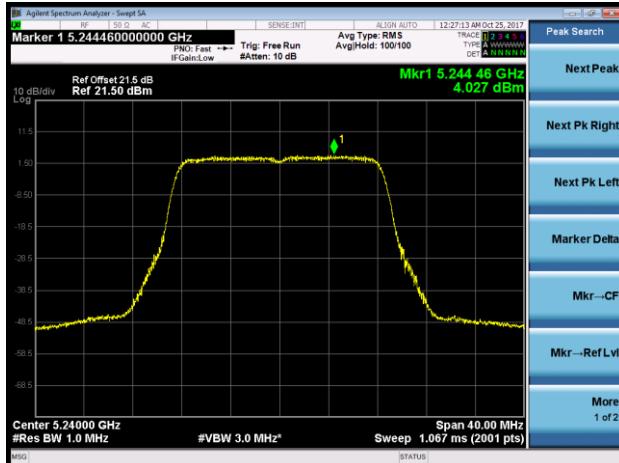
Channel 36 (5180MHz)



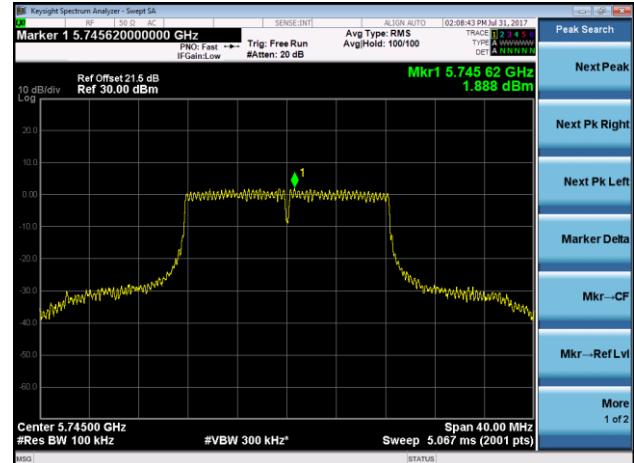
Channel 44 (5220MHz)



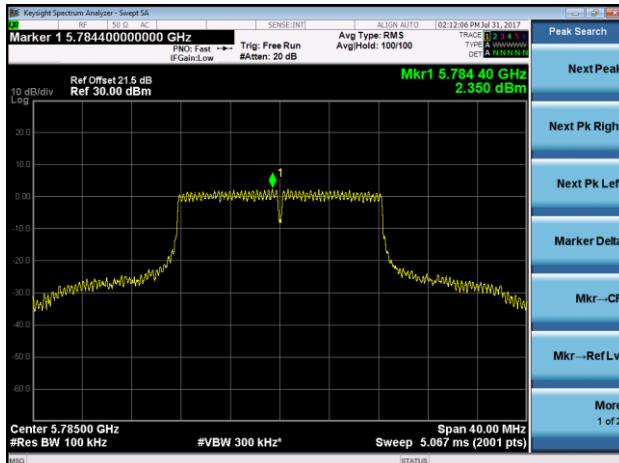
Channel 48 (5240MHz)



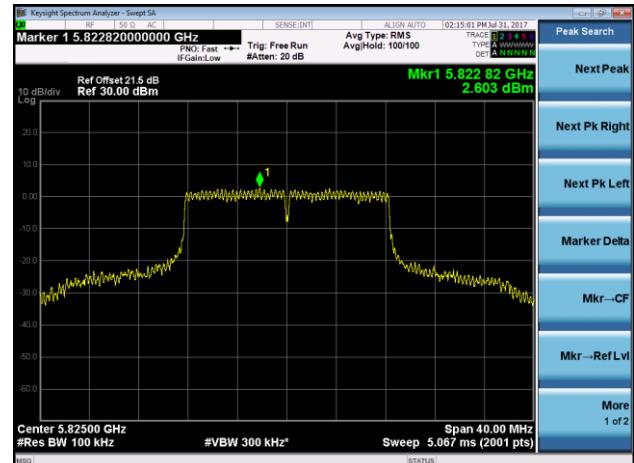
Channel 149 (5745MHz)



Channel 157 (5785MHz)

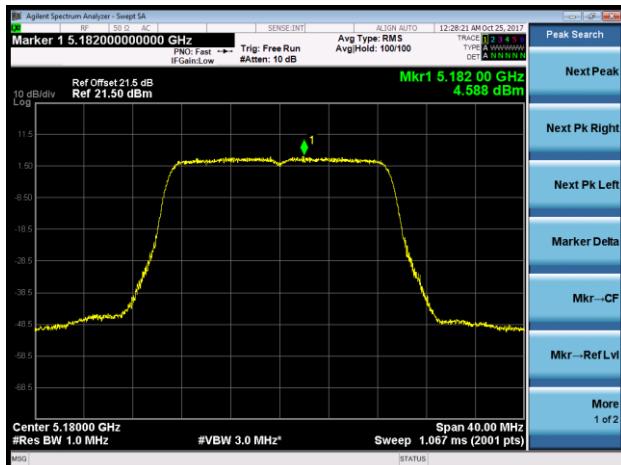


Channel 165 (5825MHz)

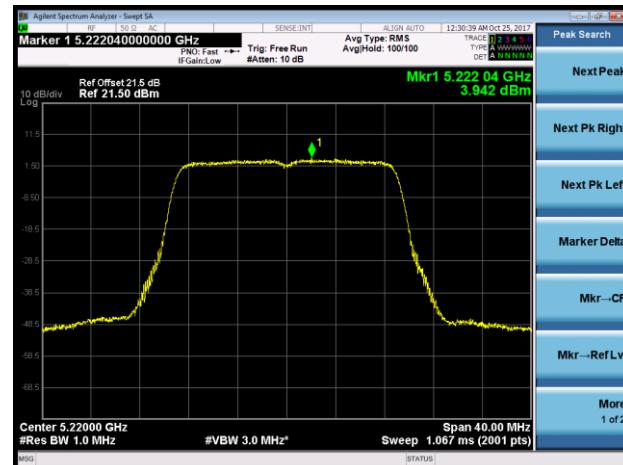


802.11n-HT20 Power Spectral Density- Ant 2 / Ant 1 + 2 (CDD Mode)

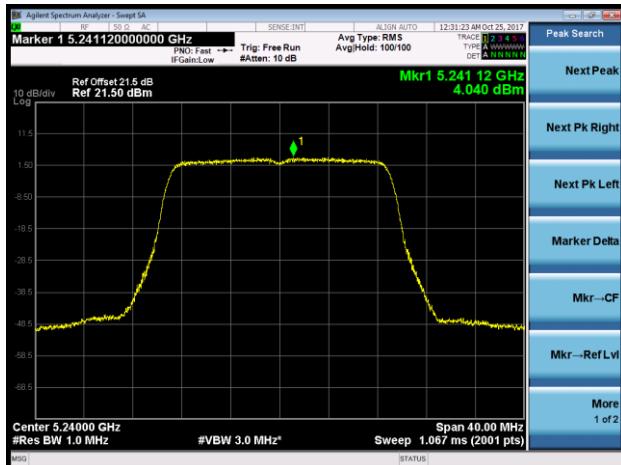
Channel 36 (5180MHz)



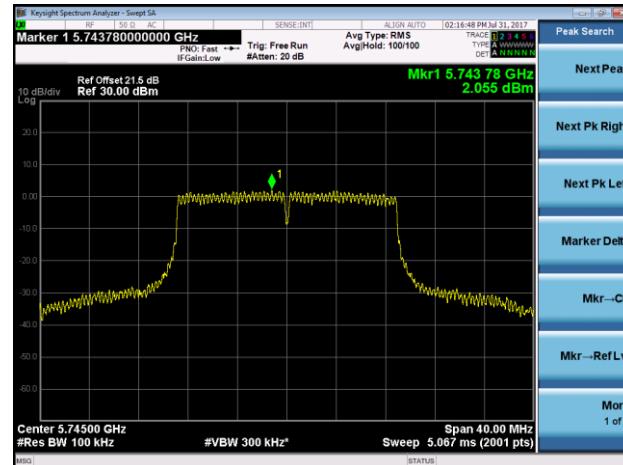
Channel 44 (5220MHz)



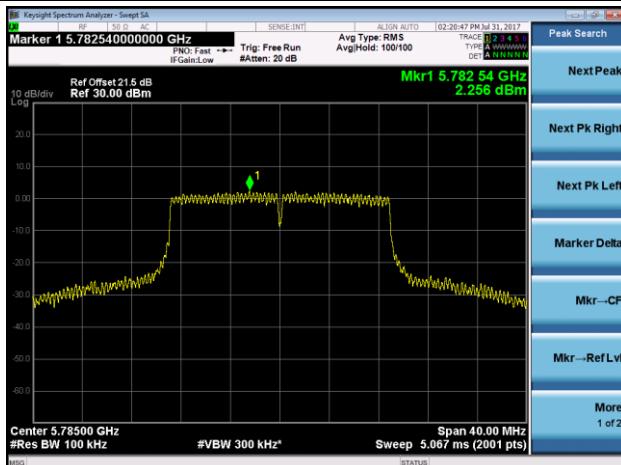
Channel 48 (5240MHz)



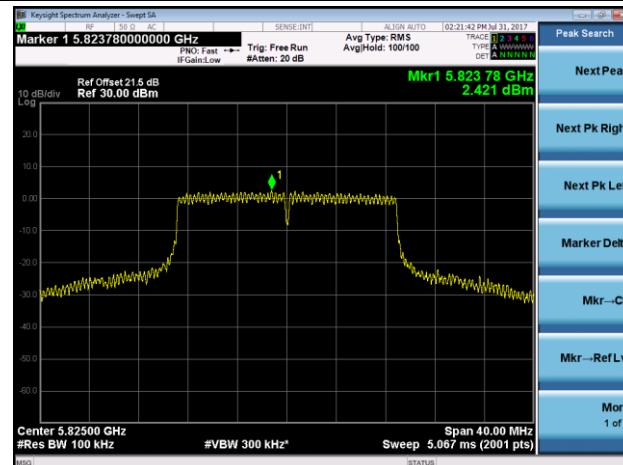
Channel 149 (5745MHz)



Channel 157 (5785MHz)

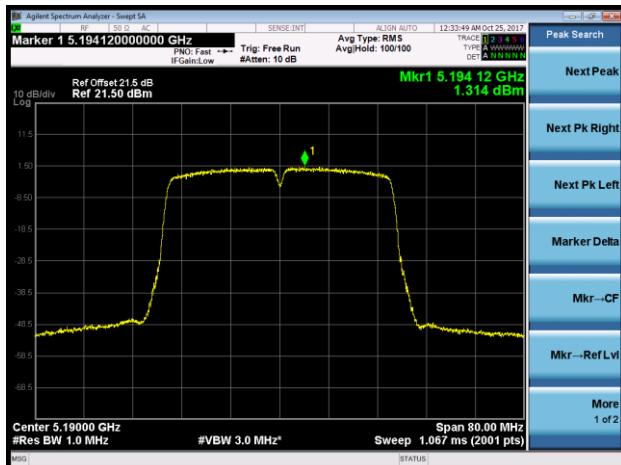


Channel 165 (5825MHz)

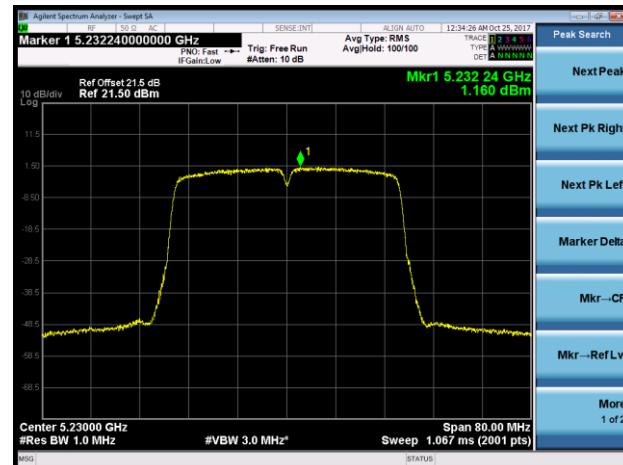


802.11n-HT40 Power Spectral Density- Ant 2 / Ant 1 + 2 (CDD Mode)

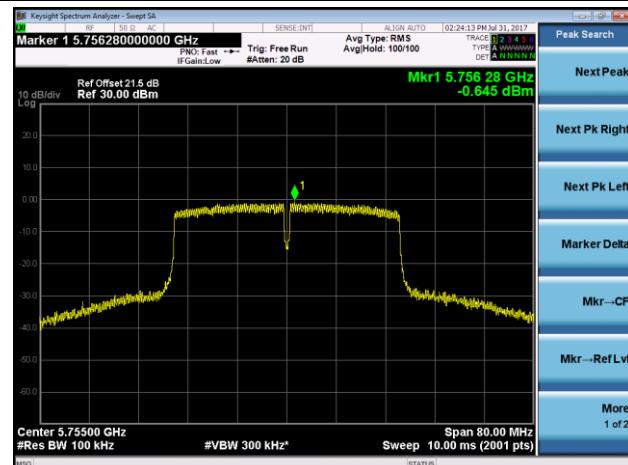
Channel 38 (5190MHz)



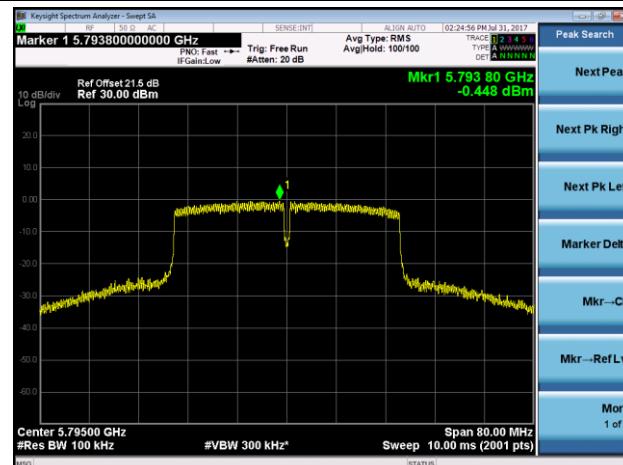
Channel 46 (5230MHz)

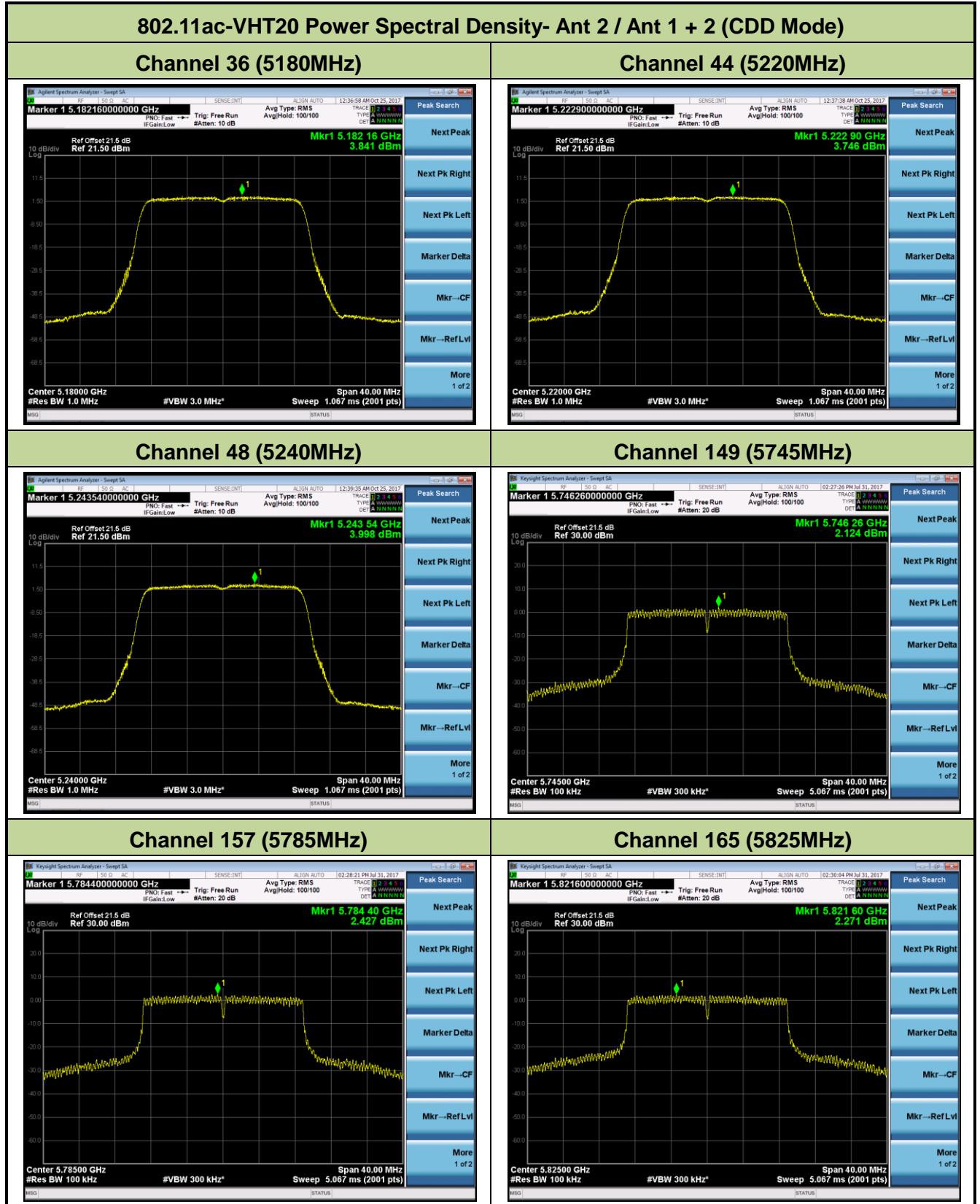


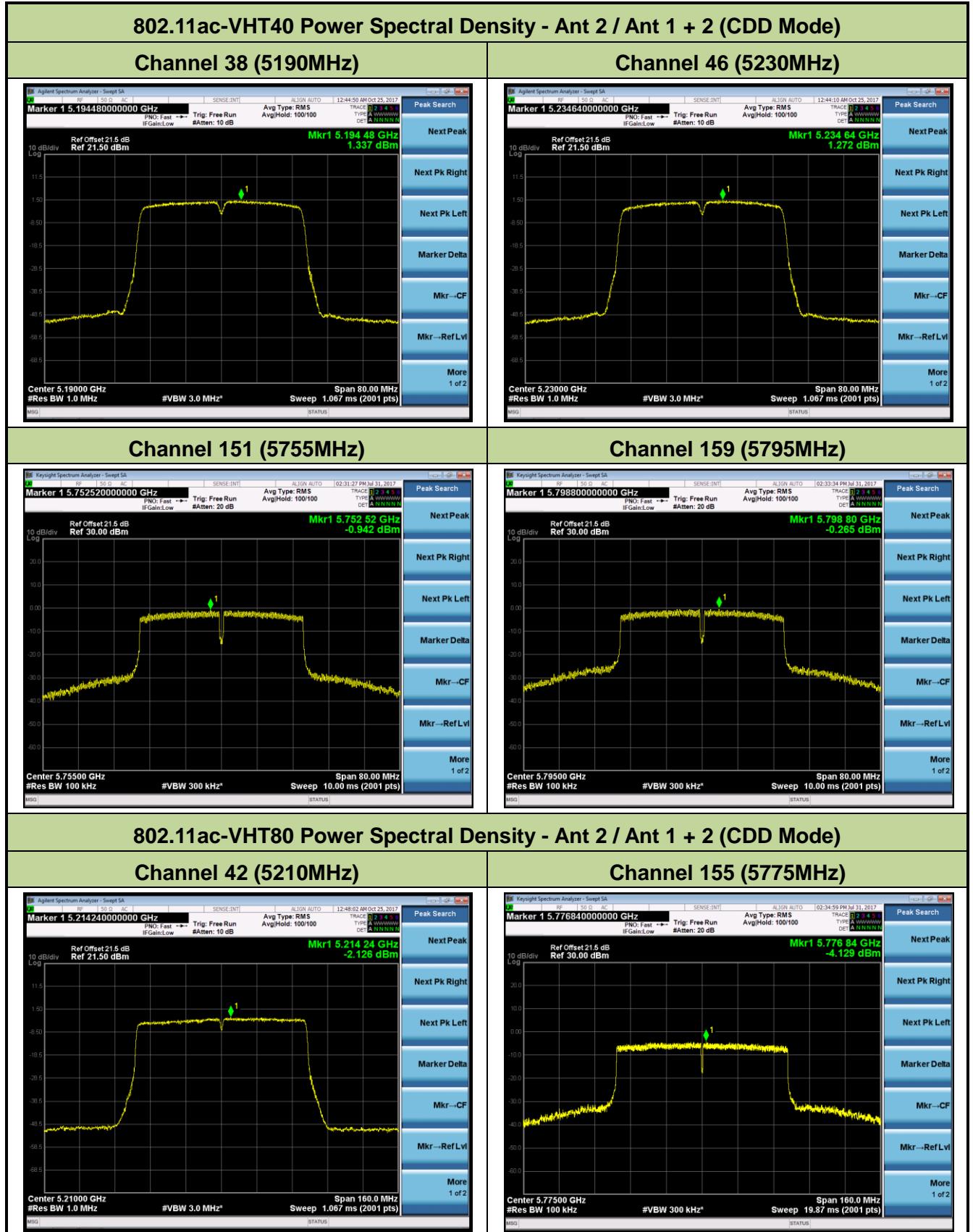
Channel 151 (5755MHz)



Channel 159 (5795MHz)

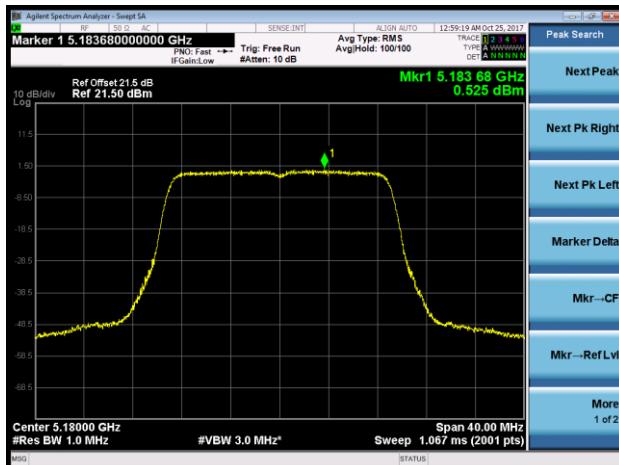




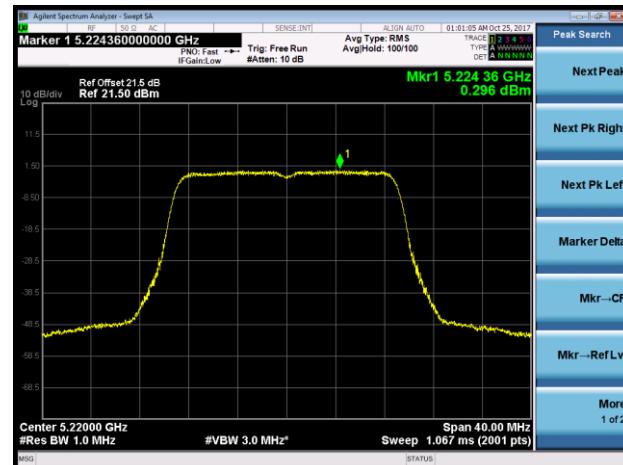


802.11n-HT20 Power Spectral Density - Ant 1 / Ant 1 + 2 (Beam-Forming Mode)

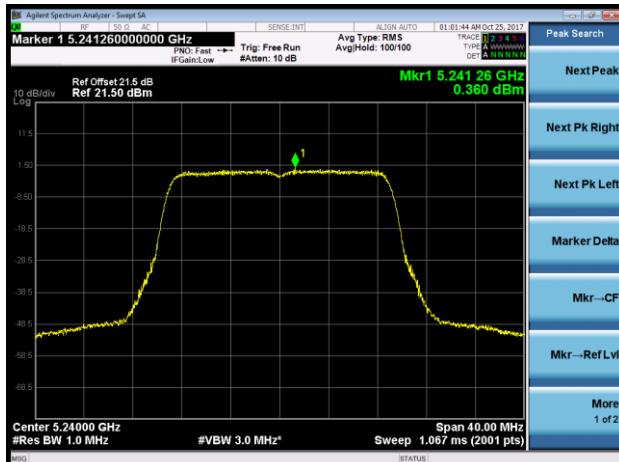
Channel 36 (5180MHz)



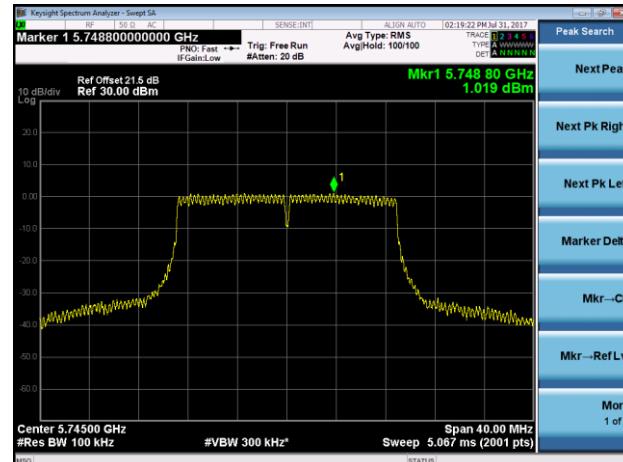
Channel 44 (5220MHz)



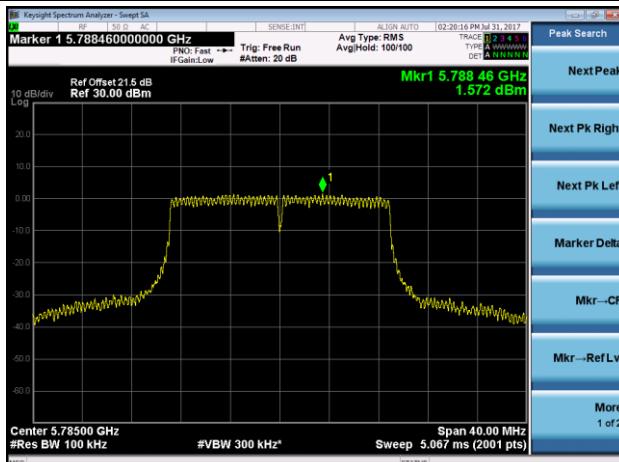
Channel 48 (5240MHz)



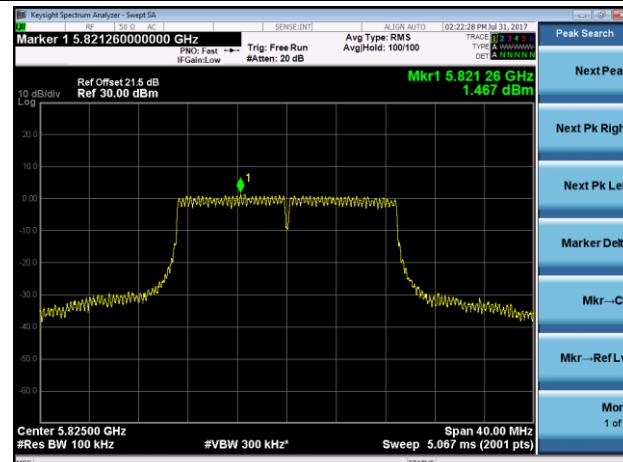
Channel 149 (5745MHz)



Channel 157 (5785MHz)

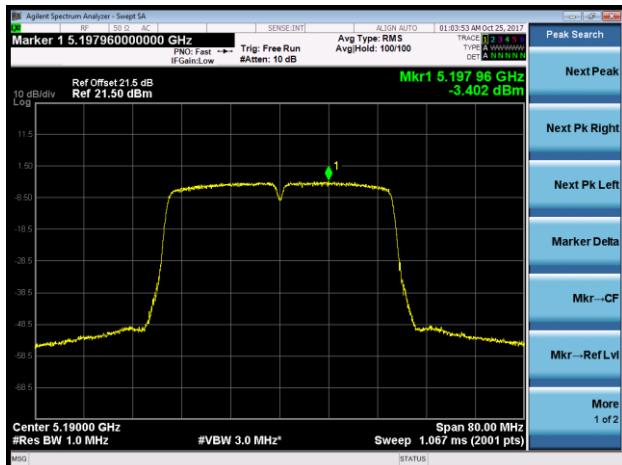


Channel 165 (5825MHz)

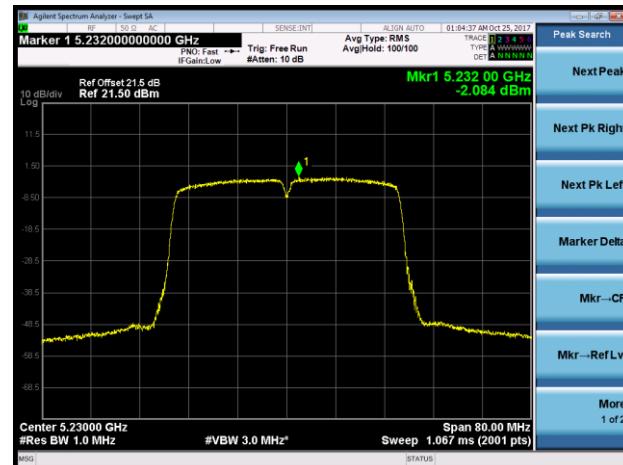


802.11n-HT40 Power Spectral Density - Ant 1 / Ant 1 + 2 (Beam-Forming Mode)

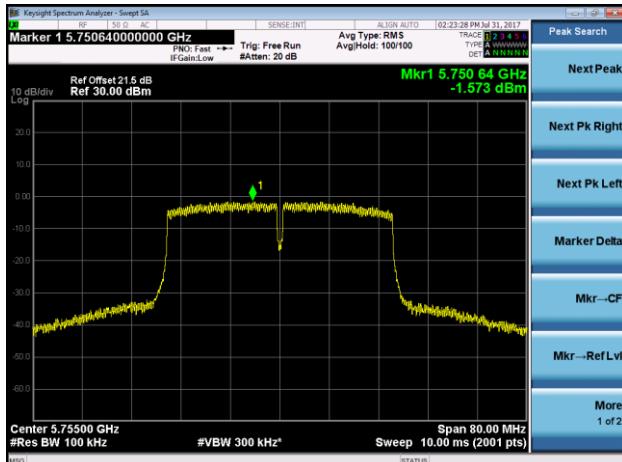
Channel 38 (5190MHz)



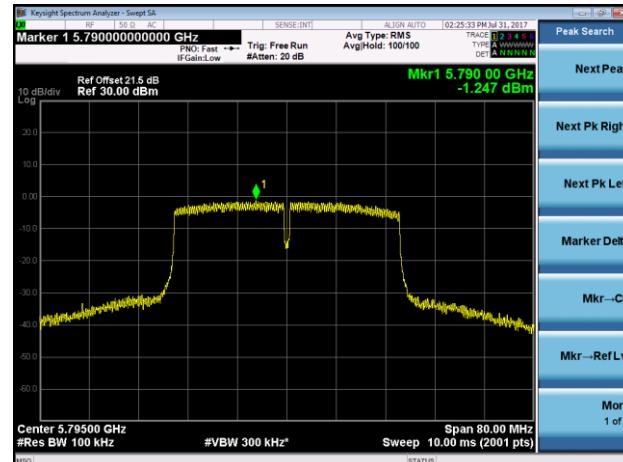
Channel 46 (5230MHz)



Channel 151 (5755MHz)

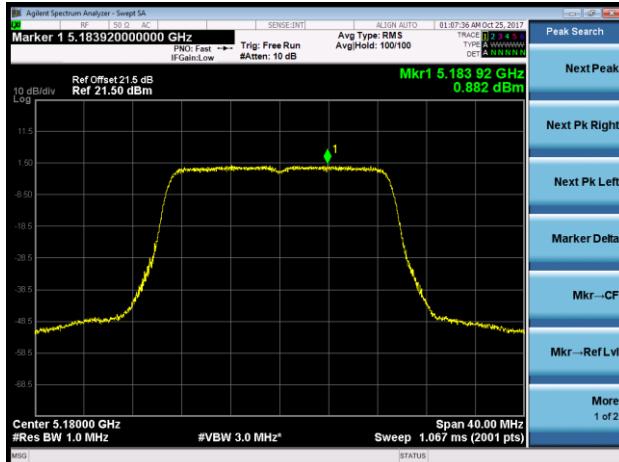


Channel 159 (5795MHz)

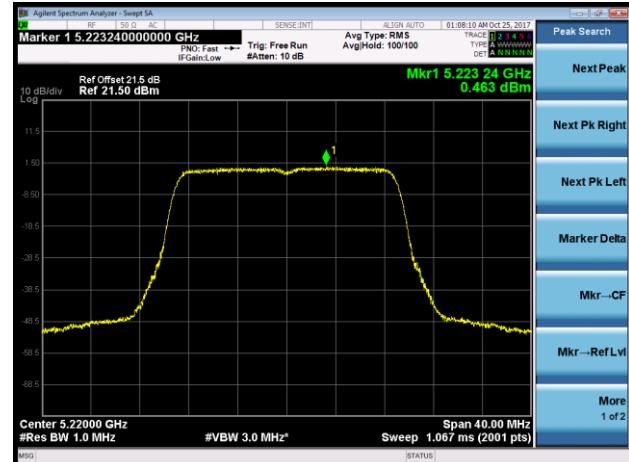


802.11ac-VHT20 Power Spectral Density- Ant 1 / Ant 1 + 2 (Beam-Forming Mode)

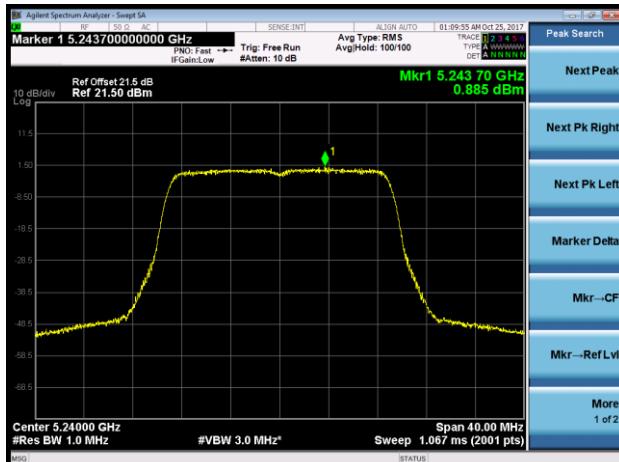
Channel 36 (5180MHz)



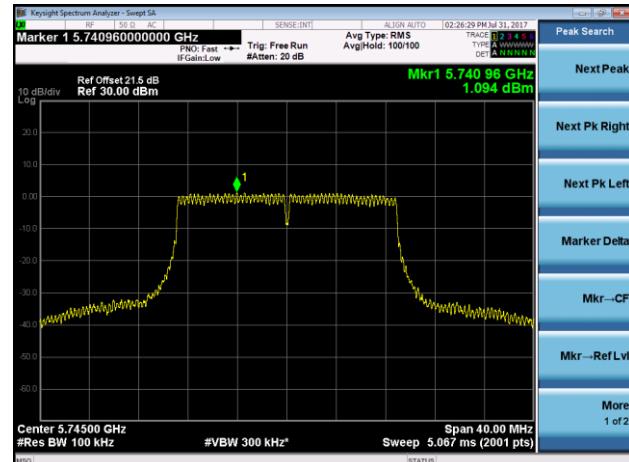
Channel 44 (5220MHz)



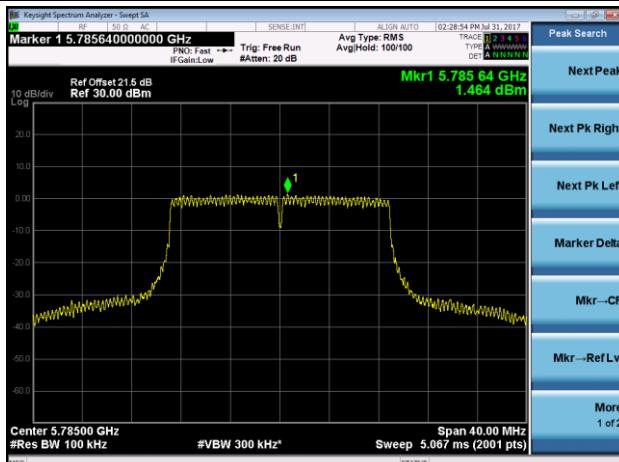
Channel 48 (5240MHz)



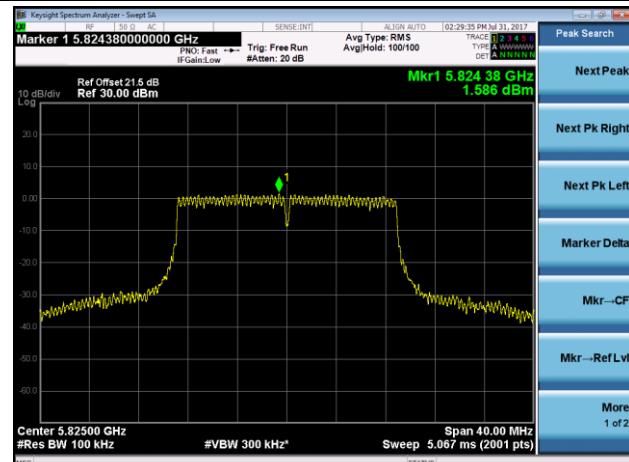
Channel 149 (5745MHz)



Channel 157 (5785MHz)

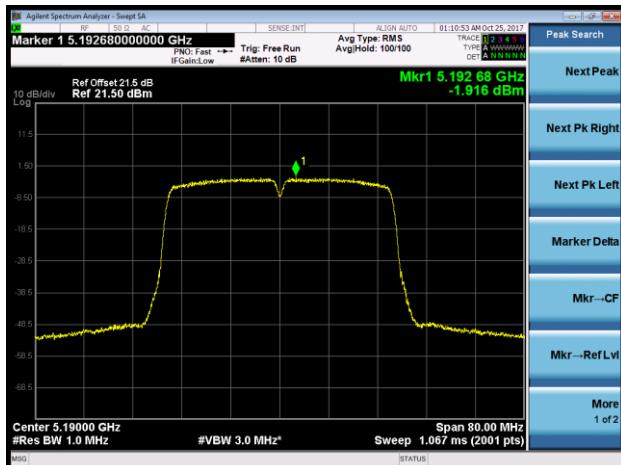


Channel 165 (5825MHz)

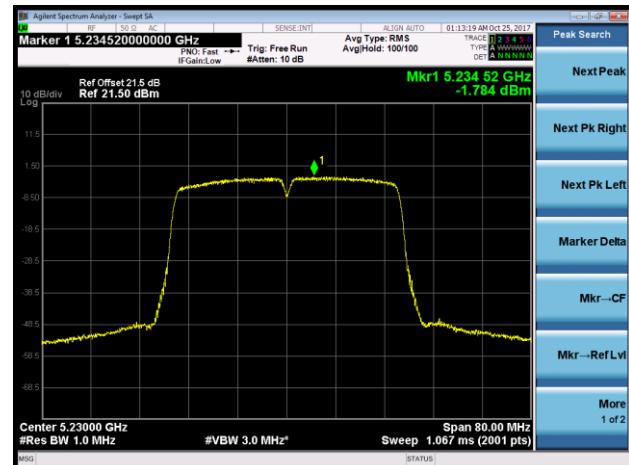


802.11ac-VHT40 Power Spectral Density - Ant 1 / Ant 1 + 2 (Beam-Forming Mode)

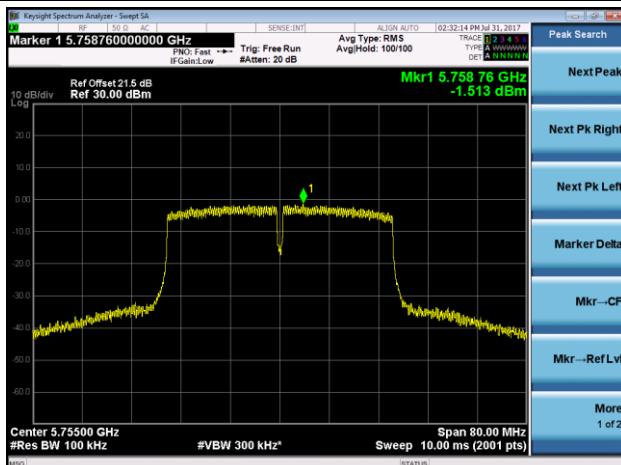
Channel 38 (5190MHz)



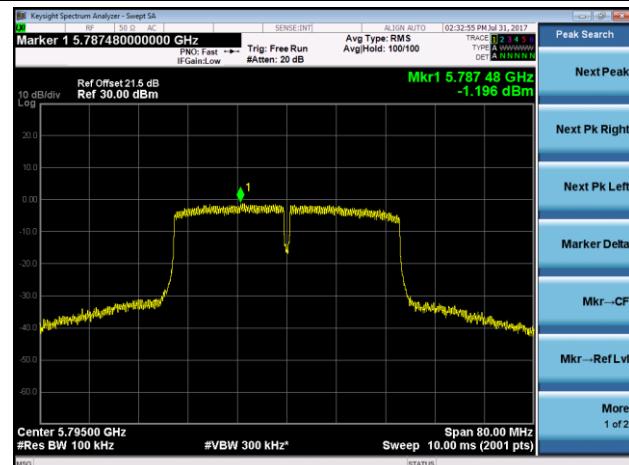
Channel 46 (5230MHz)



Channel 151 (5755MHz)



Channel 159 (5795MHz)

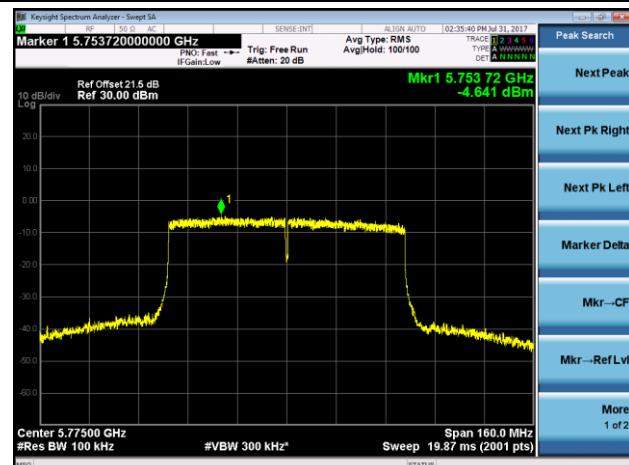


802.11ac-VHT80 Power Spectral Density - Ant 1 / Ant 1 + 2 (Beam-Forming Mode)

Channel 42 (5210MHz)



Channel 155 (5775MHz)

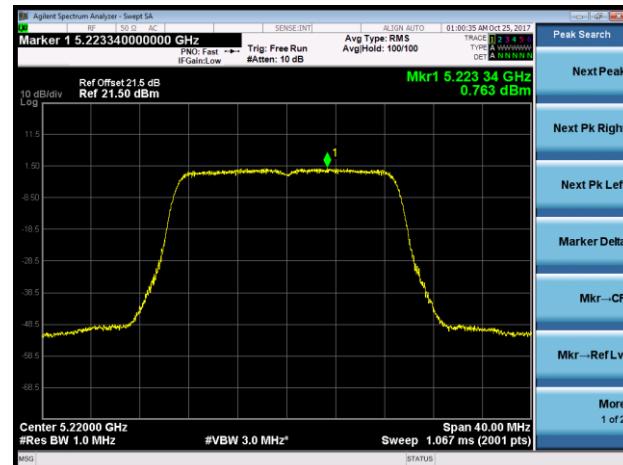


802.11n-HT20 Power Spectral Density - Ant 2 / Ant 1 + 2 (Beam-Forming Mode)

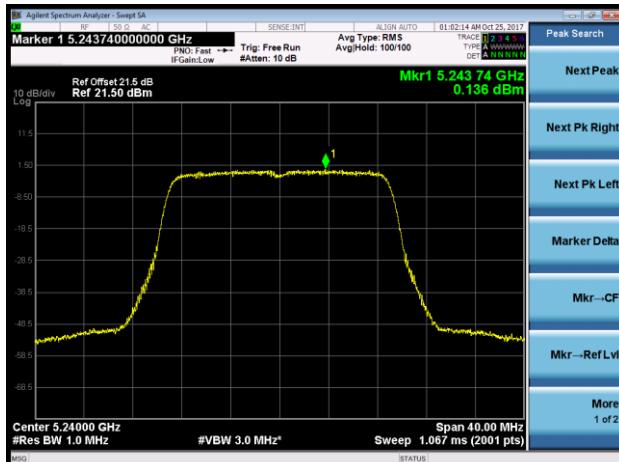
Channel 36 (5180MHz)



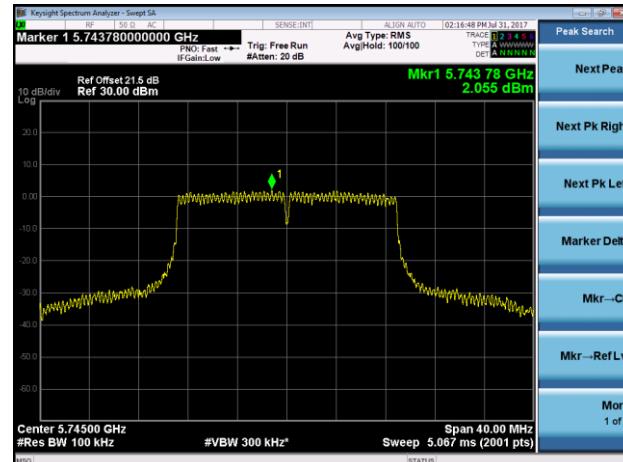
Channel 44 (5220MHz)



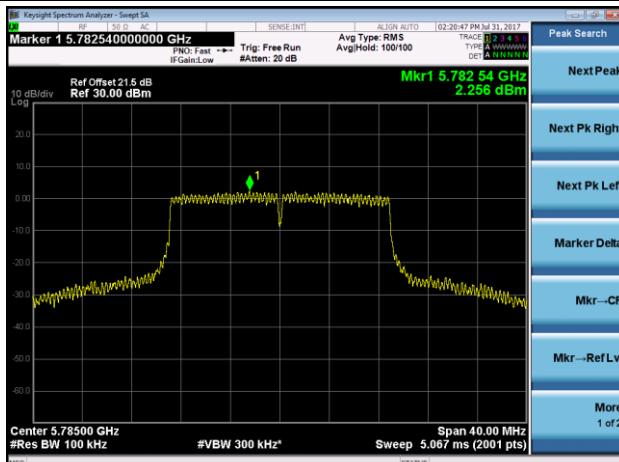
Channel 48 (5240MHz)



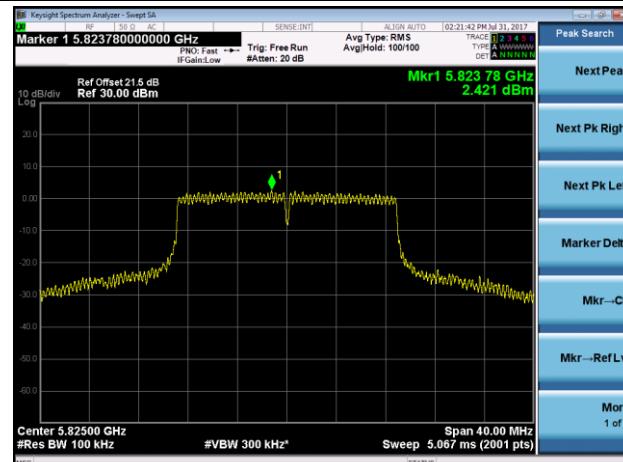
Channel 149 (5745MHz)



Channel 157 (5785MHz)

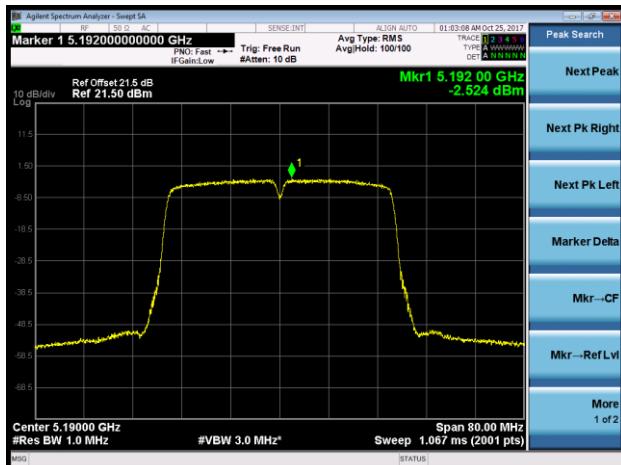


Channel 165 (5825MHz)

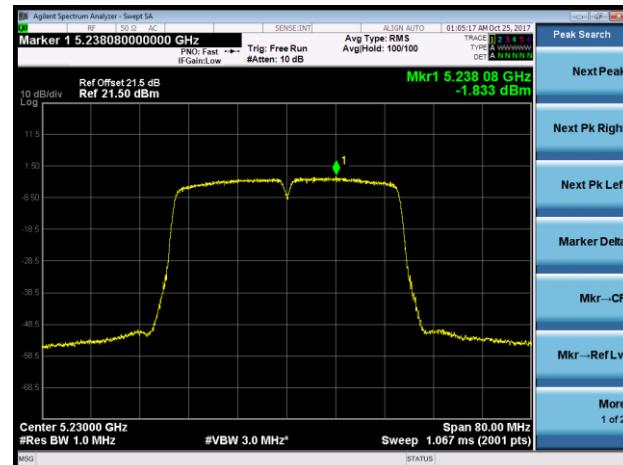


802.11n-HT40 Power Spectral Density - Ant 2 / Ant 1 + 2 (Beam-Forming Mode)

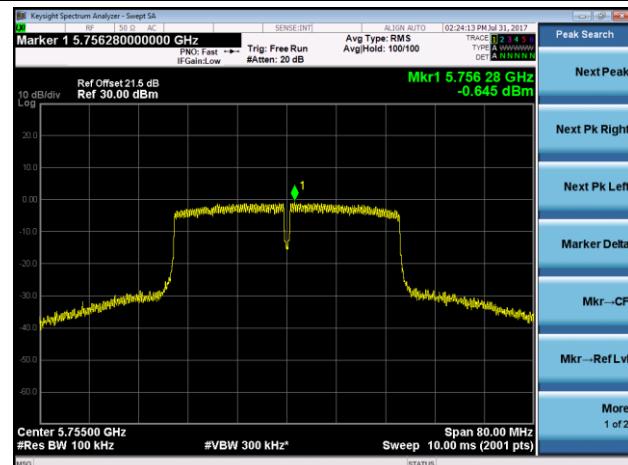
Channel 38 (5190MHz)



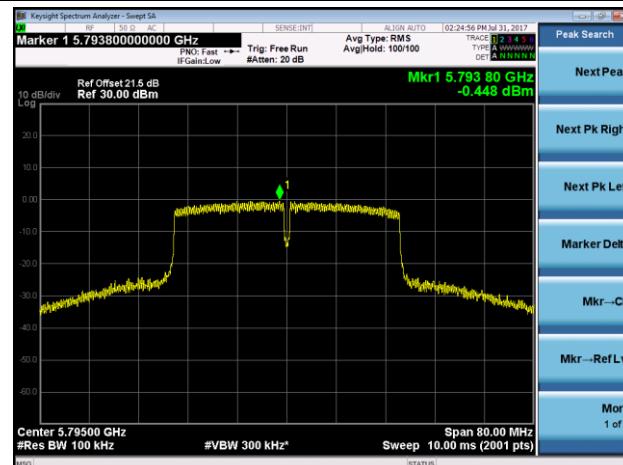
Channel 46 (5230MHz)



Channel 151 (5755MHz)

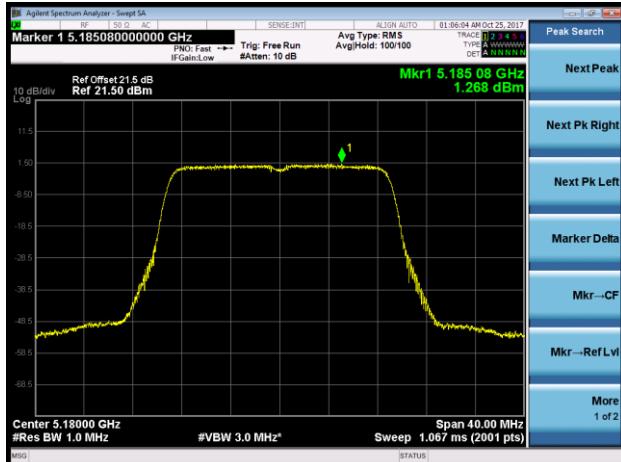


Channel 159 (5795MHz)

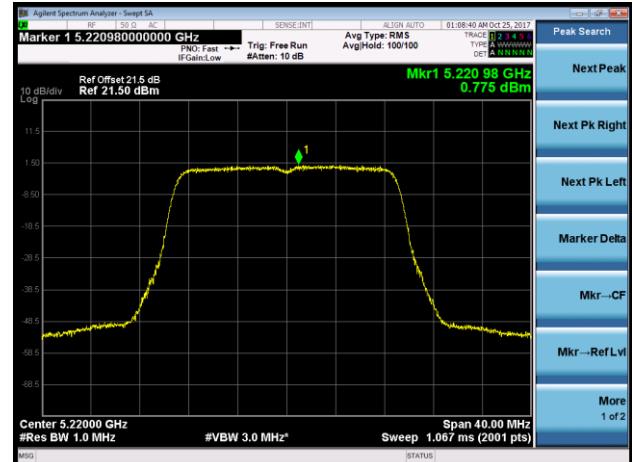


802.11ac-VHT20 Power Spectral Density - Ant 2 / Ant 1 + 2 (Beam-Forming Mode)

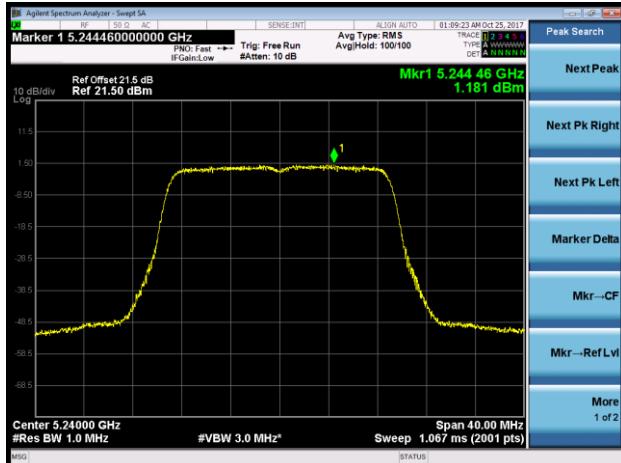
Channel 36 (5180MHz)



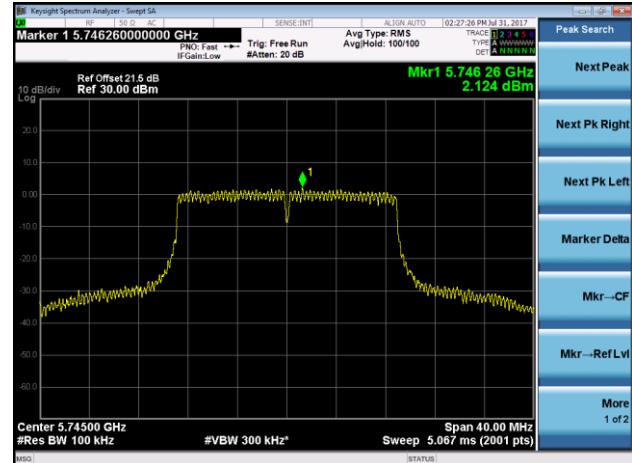
Channel 44 (5220MHz)



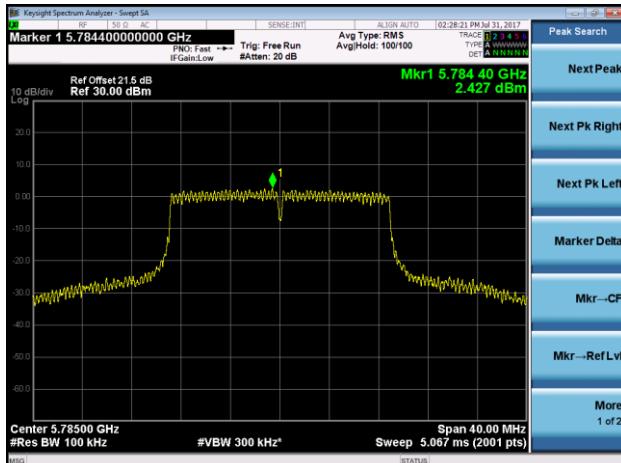
Channel 48 (5240MHz)



Channel 149 (5745MHz)



Channel 157 (5785MHz)

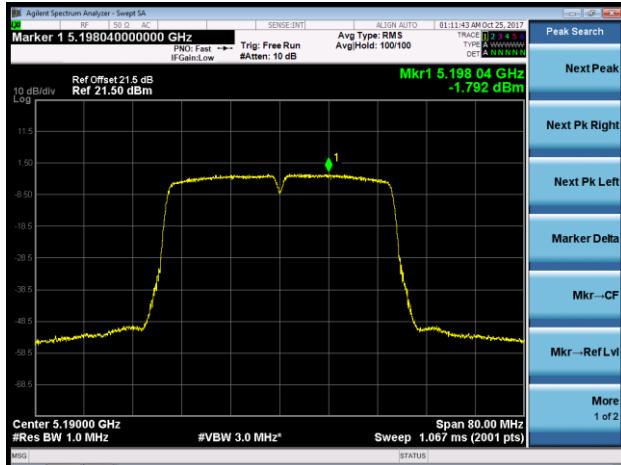


Channel 165 (5825MHz)

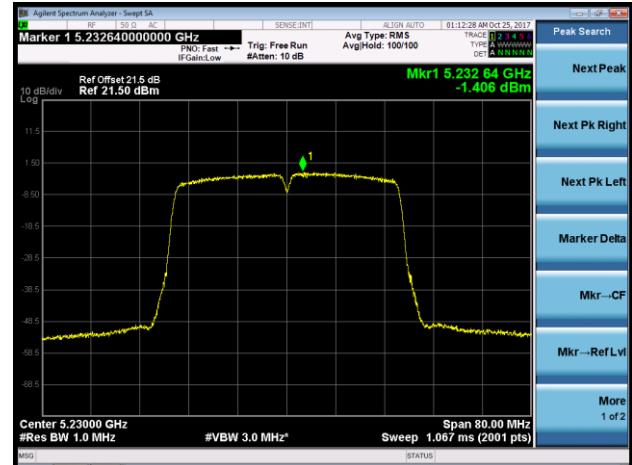


802.11ac-VHT40 Power Spectral Density - Ant 2 / Ant 1 + 2 (Beam-Forming Mode)

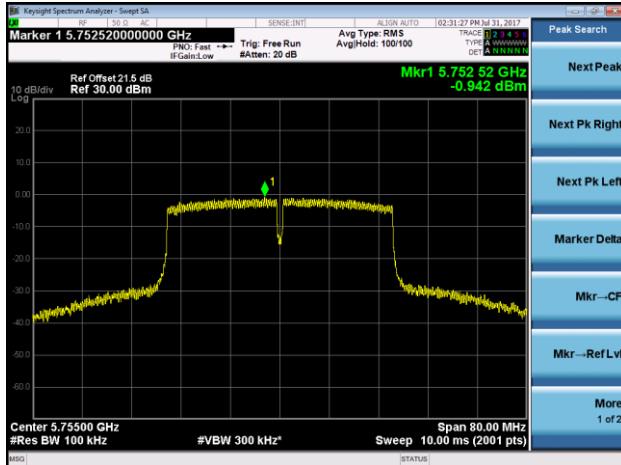
Channel 38 (5190MHz)



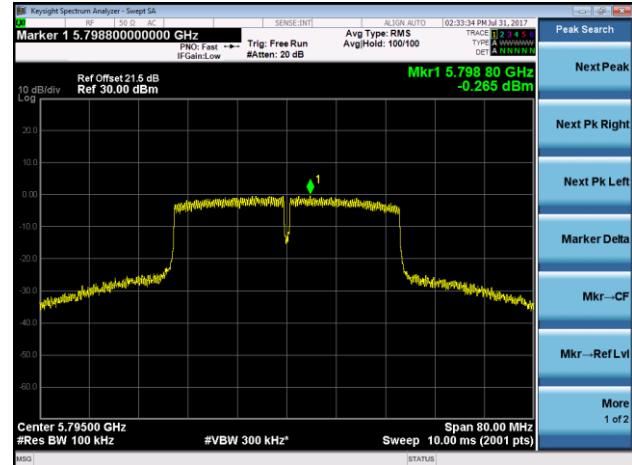
Channel 46 (5230MHz)



Channel 151 (5755MHz)

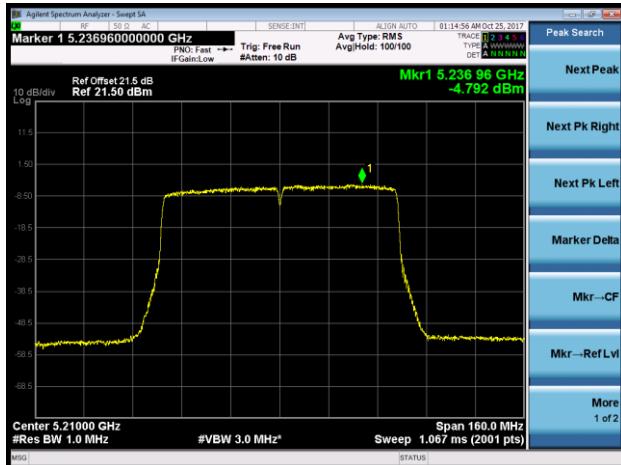


Channel 159 (5795MHz)

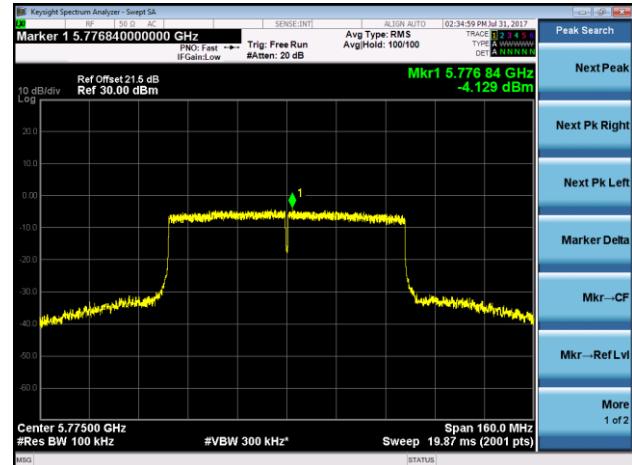


802.11ac-VHT80 Power Spectral Density - Ant 2 / Ant 1 + 2 (Beam-Forming Mode)

Channel 42 (5210MHz)



Channel 155 (5775MHz)



Product	AC220 Wi-Fi AP OD small omni antenna US			Temperature	24°C		
Test Engineer	Johnson Liao			Relative Humidity	59%		
Test Site	SR2			Test Date	2017/08/27		
Test Item	Power Spectral Density (UNII-Band 1)						

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	PSD (dBm/ MHz)	Duty Cycle (%)	Final PSD(dBm/ MHz)	PSD Limit (dBm/ MHz)	Result
Ant 1								
11a	6Mbps	36	5180	10.63	95.80	10.82	≤ 16.50	Pass
11a	6Mbps	44	5220	10.51	95.80	10.70	≤ 16.50	Pass
11a	6Mbps	48	5240	10.65	95.80	10.84	≤ 16.50	Pass
11n-HT20	MCS0	36	5180	10.56	98.07	10.56	≤ 16.50	Pass
11n-HT20	MCS0	44	5220	10.56	98.07	10.56	≤ 16.50	Pass
11n-HT20	MCS0	48	5240	10.56	98.07	10.56	≤ 16.50	Pass
11n-HT40	MCS0	38	5190	5.90	96.61	6.05	≤ 16.50	Pass
11n-HT40	MCS0	46	5230	8.04	96.61	8.19	≤ 16.50	Pass
11ac-VHT20	MCS0	36	5180	10.60	98.21	10.60	≤ 16.50	Pass
11ac-VHT20	MCS0	44	5220	10.54	98.21	10.54	≤ 16.50	Pass
11ac-VHT20	MCS0	48	5240	10.57	98.21	10.57	≤ 16.50	Pass
11ac-VHT40	MCS0	38	5190	6.04	96.43	6.20	≤ 16.50	Pass
11ac-VHT40	MCS0	46	5230	7.94	96.43	8.10	≤ 16.50	Pass
11ac-VHT80	MCS0	42	5210	1.67	91.40	2.06	≤ 16.50	Pass

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

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	PSD (dBm/ MHz)	Duty Cycle (%)	Final PSD(dBm/ MHz)	PSD Limit (dBm/ MHz)	Result
Ant 2								
11a	6Mbps	36	5180	11.10	95.80	11.29	≤ 16.50	Pass
11a	6Mbps	44	5220	11.19	95.80	11.38	≤ 16.50	Pass
11a	6Mbps	48	5240	11.26	95.80	11.45	≤ 16.50	Pass
11n-HT20	MCS0	36	5180	10.91	98.07	10.91	≤ 16.50	Pass
11n-HT20	MCS0	44	5220	10.91	98.07	10.91	≤ 16.50	Pass
11n-HT20	MCS0	48	5240	10.96	98.07	10.96	≤ 16.50	Pass
11n-HT40	MCS0	38	5190	7.09	96.61	7.24	≤ 16.50	Pass
11n-HT40	MCS0	46	5230	8.34	96.61	8.49	≤ 16.50	Pass
11ac-VHT20	MCS0	36	5180	10.94	98.21	10.94	≤ 16.50	Pass
11ac-VHT20	MCS0	44	5220	10.94	98.21	10.94	≤ 16.50	Pass
11ac-VHT20	MCS0	48	5240	11.01	98.21	11.01	≤ 16.50	Pass
11ac-VHT40	MCS0	38	5190	7.15	96.43	7.31	≤ 16.50	Pass
11ac-VHT40	MCS0	46	5230	8.46	96.43	8.62	≤ 16.50	Pass
11ac-VHT80	MCS0	42	5210	3.49	91.40	3.88	≤ 16.50	Pass

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

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 1 PSD (dBm/ MHz)	Ant 2 PSD (dBm/ MHz)	Duty Cycle (%)	Total PSD (dBm/ MHz)	PSD Limit (dBm/ MHz)	Result
Ant 1 + 2 (CDD Mode)									
11a	6Mbps	36	5180	7.69	8.34	95.80	11.22	≤ 13.49	Pass
11a	6Mbps	44	5220	7.48	7.99	95.80	10.94	≤ 13.49	Pass
11a	6Mbps	48	5240	7.30	7.69	95.80	10.70	≤ 13.49	Pass
11n-HT20	MCS0	36	5180	7.22	7.91	98.07	10.59	≤ 13.49	Pass
11n-HT20	MCS0	44	5220	7.18	7.92	98.07	10.58	≤ 13.49	Pass
11n-HT20	MCS0	48	5240	7.04	7.97	98.07	10.54	≤ 13.49	Pass
11n-HT40	MCS0	38	5190	4.65	4.85	96.61	7.91	≤ 13.49	Pass
11n-HT40	MCS0	46	5230	4.40	5.17	96.61	7.96	≤ 13.49	Pass
11ac-VHT20	MCS0	36	5180	7.30	7.16	98.21	10.24	≤ 13.49	Pass
11ac-VHT20	MCS0	44	5220	7.19	7.42	98.21	10.32	≤ 13.49	Pass
11ac-VHT20	MCS0	48	5240	7.45	7.95	98.21	10.72	≤ 13.49	Pass
11ac-VHT40	MCS0	38	5190	4.56	5.14	96.43	8.03	≤ 13.49	Pass
11ac-VHT40	MCS0	46	5230	4.57	5.04	96.43	7.98	≤ 13.49	Pass
11ac-VHT80	MCS0	42	5210	-0.15	0.31	91.40	3.49	≤ 13.49	Pass

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

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

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 1 PSD (dBm/ MHz)	Ant 2 PSD (dBm/ MHz)	Duty Cycle (%)	Total PSD (dBm/ MHz)	PSD Limit (dBm/ MHz)	Result
Ant 1 + 2 (Beam-Forming Mode)									
11n-HT20	MCS0	36	5180	3.56	4.42	98.07	7.02	≤ 13.49	Pass
11n-HT20	MCS0	44	5220	3.37	4.40	98.07	6.93	≤ 13.49	Pass
11n-HT20	MCS0	48	5240	3.70	4.75	98.07	7.27	≤ 13.49	Pass
11n-HT40	MCS0	38	5190	0.97	1.73	96.61	4.53	≤ 13.49	Pass
11n-HT40	MCS0	46	5230	0.98	1.94	96.61	4.65	≤ 13.49	Pass
11ac-VHT20	MCS0	36	5180	3.56	4.56	98.21	7.10	≤ 13.49	Pass
11ac-VHT20	MCS0	44	5220	3.52	4.49	98.21	7.04	≤ 13.49	Pass
11ac-VHT20	MCS0	48	5240	3.56	4.90	98.21	7.29	≤ 13.49	Pass
11ac-VHT40	MCS0	38	5190	0.87	1.93	96.43	4.60	≤ 13.49	Pass
11ac-VHT40	MCS0	46	5230	0.91	1.84	96.43	4.57	≤ 13.49	Pass
11ac-VHT80	MCS0	42	5210	-2.19	-1.39	91.40	1.63	≤ 13.49	Pass

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

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

Product US	AC220 Wi-Fi AP OD small omni antenna	Temperature	24°C
Test Engineer	Johnson Liao	Relative Humidity	59%
Test Site	SR2	Test Date	2017/08/27
Test Item	Power Spectral Density (UNII-Band 3)		

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	PSD (dBm/ 100KHz)	Duty Cycle (%)	Constant Factor	Final PSD (dBm/ MHz)	PSD Limit (dBm/ MHz)	Result
Ant 1									
11a	6Mbps	149	5745	1.23	95.80	6.99	8.41	≤ 29.50	Pass
11a	6Mbps	157	5785	1.17	95.80	6.99	8.35	≤ 29.50	Pass
11a	6Mbps	165	5825	0.90	95.80	6.99	8.08	≤ 29.50	Pass
11n-HT20	MCS0	149	5745	1.42	98.07	6.99	8.41	≤ 29.50	Pass
11n-HT20	MCS0	157	5785	1.25	98.07	6.99	8.24	≤ 29.50	Pass
11n-HT20	MCS0	165	5825	1.62	98.07	6.99	8.61	≤ 29.50	Pass
11n-HT40	MCS0	151	5755	-1.74	96.61	6.99	5.40	≤ 29.50	Pass
11n-HT40	MCS0	159	5795	-1.30	96.61	6.99	5.84	≤ 29.50	Pass
11ac-VHT20	MCS0	149	5745	1.26	98.21	6.99	8.25	≤ 29.50	Pass
11ac-VHT20	MCS0	157	5785	1.12	98.21	6.99	8.11	≤ 29.50	Pass
11ac-VHT20	MCS0	165	5825	0.71	98.21	6.99	7.70	≤ 29.50	Pass
11ac-VHT40	MCS0	151	5755	-1.78	96.43	6.99	5.37	≤ 29.50	Pass
11ac-VHT40	MCS0	159	5795	-1.57	96.43	6.99	5.58	≤ 29.50	Pass
11ac-VHT80	MCS0	155	5775	-5.04	91.40	6.99	2.34	≤ 29.50	Pass

Note 1: When EUT duty cycle $\geq 98\%$, 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) + $10 \cdot \log(1/\text{Duty Cycle})$ + Constant Factor.

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	PSD (dBm/ 100KHz)	Duty Cycle (%)	Constant Factor	Final PSD (dBm/ MHz)	PSD Limit (dBm/ MHz)	Result
Ant 2									
11a	6Mbps	149	5745	1.59	95.80	6.99	8.77	≤ 29.50	Pass
11a	6Mbps	157	5785	1.68	95.80	6.99	8.86	≤ 29.50	Pass
11a	6Mbps	165	5825	2.30	95.80	6.99	9.48	≤ 29.50	Pass
11n-HT20	MCS0	149	5745	1.10	98.07	6.99	8.09	≤ 29.50	Pass
11n-HT20	MCS0	157	5785	1.96	98.07	6.99	8.95	≤ 29.50	Pass
11n-HT20	MCS0	165	5825	1.75	98.07	6.99	8.74	≤ 29.50	Pass
11n-HT40	MCS0	151	5755	-1.23	96.61	6.99	5.91	≤ 29.50	Pass
11n-HT40	MCS0	159	5795	-0.44	96.61	6.99	6.70	≤ 29.50	Pass
11ac-VHT20	MCS0	149	5745	1.50	98.21	6.99	8.49	≤ 29.50	Pass
11ac-VHT20	MCS0	157	5785	1.56	98.21	6.99	8.55	≤ 29.50	Pass
11ac-VHT20	MCS0	165	5825	1.77	98.21	6.99	8.76	≤ 29.50	Pass
11ac-VHT40	MCS0	151	5755	-1.17	96.43	6.99	5.98	≤ 29.50	Pass
11ac-VHT40	MCS0	159	5795	-0.70	96.43	6.99	6.45	≤ 29.50	Pass
11ac-VHT80	MCS0	155	5775	-5.01	91.40	6.99	2.37	≤ 29.50	Pass

Note 1: When EUT duty cycle $\geq 98\%$, 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) + $10 \cdot \log(1/\text{Duty Cycle})$ + Constant Factor.

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 1 PSD (dBm/ 100kHz)	Ant 2 PSD (dBm/ 100kHz)	Duty Cycle (%)	Constant Factor	Total PSD(dBm/ 500kHz)	Limit (dBm/ 500kHz)	Result
Ant 1 + 2 (CDD Mode)										
11a	6	149	5745	1.20	1.77	95.80	6.99	11.68	≤ 26.49	Pass
11a	6	157	5785	1.34	2.09	95.80	6.99	11.92	≤ 26.49	Pass
11a	6	165	5825	1.38	2.27	95.80	6.99	12.03	≤ 26.49	Pass
11n-HT20	MCS0	149	5745	1.21	1.54	98.07	6.99	11.38	≤ 26.49	Pass
11n-HT20	MCS0	157	5785	1.57	1.75	98.07	6.99	11.66	≤ 26.49	Pass
11n-HT20	MCS0	165	5825	1.30	2.28	98.07	6.99	11.82	≤ 26.49	Pass
11n-HT40	MCS0	151	5755	-1.56	-1.13	96.61	6.99	8.81	≤ 26.49	Pass
11n-HT40	MCS0	159	5795	-1.26	-0.88	96.61	6.99	9.08	≤ 26.49	Pass
11ac-VHT20	MCS0	149	5745	1.13	1.94	98.21	6.99	11.55	≤ 26.49	Pass
11ac-VHT20	MCS0	157	5785	1.47	1.92	98.21	6.99	11.70	≤ 26.49	Pass
11ac-VHT20	MCS0	165	5825	1.42	2.02	98.21	6.99	11.73	≤ 26.49	Pass
11ac-VHT40	MCS0	151	5755	-1.47	-1.04	96.43	6.99	8.91	≤ 26.49	Pass
11ac-VHT40	MCS0	159	5795	-1.31	-0.47	96.43	6.99	9.29	≤ 26.49	Pass
11ac-VHT80	MCS0	155	5775	-5.64	-5.28	91.40	6.99	4.93	≤ 26.49	Pass

Note 1: When EUT duty cycle $\geq 98\%$, Total PSD (dBm/500kHz) = $10 \times \log\{10^{(Ant 1 PSD/10)} + 10^{(Ant 2 PSD/10)}\} +$
Constant Factor.

Note 2: When EUT duty cycle $< 98\%$, Total PSD (dBm/500kHz) = $10 \times \log\{10^{(Ant 1 PSD/10)} + 10^{(Ant 2 PSD/10)}\} +$
 $10 \times \log(1/\text{duty cycle}) + \text{Constant Factor}$.

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 1 PSD (dBm/ 100kHz)	Ant 2 PSD (dBm/ 100kHz)	Duty Cycle (%)	Constant Factor	Total PSD(dBm/ 500kHz)	Limit (dBm/ 500kHz)	Result
Ant 1 + 2 (Beam-Forming Mode)										
11n-HT20	MCS0	149	5745	1.21	1.54	98.07	6.99	11.38	≤ 26.49	Pass
11n-HT20	MCS0	157	5785	1.57	1.75	98.07	6.99	11.66	≤ 26.49	Pass
11n-HT20	MCS0	165	5825	1.30	2.28	98.07	6.99	11.82	≤ 26.49	Pass
11n-HT40	MCS0	151	5755	-1.56	-1.13	96.61	6.99	8.81	≤ 26.49	Pass
11n-HT40	MCS0	159	5795	-1.26	-0.88	96.61	6.99	9.08	≤ 26.49	Pass
11ac-VHT20	MCS0	149	5745	1.13	1.94	98.21	6.99	11.55	≤ 26.49	Pass
11ac-VHT20	MCS0	157	5785	1.47	1.92	98.21	6.99	11.70	≤ 26.49	Pass
11ac-VHT20	MCS0	165	5825	1.42	2.02	98.21	6.99	11.73	≤ 26.49	Pass
11ac-VHT40	MCS0	151	5755	-1.47	-1.04	96.43	6.99	8.91	≤ 26.49	Pass
11ac-VHT40	MCS0	159	5795	-1.31	-0.47	96.43	6.99	9.29	≤ 26.49	Pass
11ac-VHT80	MCS0	155	5775	-5.08	-4.25	91.40	6.99	5.75	≤ 26.49	Pass

Note 1: When EUT duty cycle $\geq 98\%$, Total PSD (dBm/500kHz) = $10 \times \log\{10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)}\} +$

Constant Factor.

Note 2: When EUT duty cycle $< 98\%$, Total PSD (dBm/500kHz) = $10 \times \log\{10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)}\} +$

$10 \times \log(1/\text{duty cycle}) + \text{Constant Factor.}$