

7.5.5. Test Result

CDD Mode (Note 4)

Test Mode	Data Rate/MCS	Channel No.	Freq. (MHz)	Ant 0 PSD (dBm/MHz)	Ant 1 PSD (dBm/MHz)	Ant 2 PSD (dBm/MHz)	Duty Cycle (%)	Total PSD (dBm/MHz)	PSD Limit (dBm/MHz)	Result
11a	6Mbps	36	5180	7.77	7.16	8.08	94.69	12.69	≤ 15.23	Pass
11a	6Mbps	44	5220	9.67	9.43	9.81	94.69	14.65	≤ 15.23	Pass
11a	6Mbps	48	5240	10.52	9.44	10.25	94.69	15.10	≤ 15.23	Pass
11n-HT20	MCS0	36	5180	1.51	0.51	1.13	94.55	6.08	≤ 15.23	Pass
11n-HT20	MCS0	44	5220	10.09	9.78	9.95	94.55	14.96	≤ 15.23	Pass
11n-HT20	MCS0	48	5240	9.38	10.38	10.37	94.55	15.08	≤ 15.23	Pass
11n-HT40	MCS0	38	5190	-1.05	-1.21	-0.43	90.03	4.34	≤ 15.23	Pass
11n-HT40	MCS0	46	5230	6.01	6.21	6.95	90.03	11.64	≤ 15.23	Pass
11ac-VHT20	MCS0	36	5180	3.27	2.49	2.97	98.21	7.69	≤ 15.23	Pass
11ac-VHT20	MCS0	44	5220	10.37	8.89	10.16	98.21	14.63	≤ 15.23	Pass
11ac-VHT20	MCS0	48	5240	9.53	9.11	11.11	98.21	14.78	≤ 15.23	Pass
11ac-VHT40	MCS0	38	5190	0.31	-0.03	0.82	96.64	5.30	≤ 15.23	Pass
11ac-VHT40	MCS0	46	5230	6.78	6.78	7.76	96.64	12.05	≤ 15.23	Pass
11ac-VHT80	MCS0	42	5210	-2.86	-2.36	-2.03	93.66	2.65	≤ 15.23	Pass

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

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

Note 3: PSD Limit = 17 (dBm/MHz) - [Directional Gain (dBi) - 6 (dBi)] = 15.23 (dBm/MHz).

Note 4: Due to the power setting of CDD mode is bigger than Beam-forming mode, so we selected the worse-case CDD mode for the power density testing.

Test Mode	Data Rate/MCS	Channel No.	Freq. (MHz)	Ant 0 PSD (dBm/MHz)	Ant 1 PSD (dBm/MHz)	Ant 2 PSD (dBm/MHz)	Duty Cycle (%)	Constant Factor	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Result
11a	6Mbps	149	5745	4.06	4.05	3.94	94.69	7.00	16.03	≤ 28.23	Pass
11a	6Mbps	157	5785	3.61	3.84	3.94	94.69	7.00	15.81	≤ 28.23	Pass
11a	6Mbps	165	5825	3.65	3.75	3.72	94.69	7.00	15.72	≤ 28.23	Pass
11n-HT20	MCS0	149	5745	3.82	3.75	3.91	94.55	7.00	15.84	≤ 28.23	Pass
11n-HT20	MCS0	157	5785	3.54	3.61	3.76	94.55	7.00	15.65	≤ 28.23	Pass
11n-HT20	MCS0	165	5825	3.23	3.46	3.98	94.55	7.00	15.58	≤ 28.23	Pass
11n-HT40	MCS0	151	5755	-0.42	-0.37	0.15	90.03	7.00	12.02	≤ 28.23	Pass
11n-HT40	MCS0	159	5795	-0.65	-0.20	0.53	90.03	7.00	12.15	≤ 28.23	Pass
11ac-VHT20	MCS0	149	5745	3.98	3.96	4.45	98.21	7.00	15.91	≤ 28.23	Pass
11ac-VHT20	MCS0	157	5785	3.83	3.99	4.02	98.21	7.00	15.72	≤ 28.23	Pass
11ac-VHT20	MCS0	165	5825	3.43	3.73	3.89	98.21	7.00	15.46	≤ 28.23	Pass
11ac-VHT40	MCS0	151	5755	-0.58	-0.17	0.07	96.64	7.00	11.70	≤ 28.23	Pass
11ac-VHT40	MCS0	159	5795	0.04	0.52	0.52	96.64	7.00	12.29	≤ 28.23	Pass
11ac-VHT80	MCS0	155	5775	-6.45	-5.95	-5.57	93.66	7.00	6.08	≤ 28.23	Pass

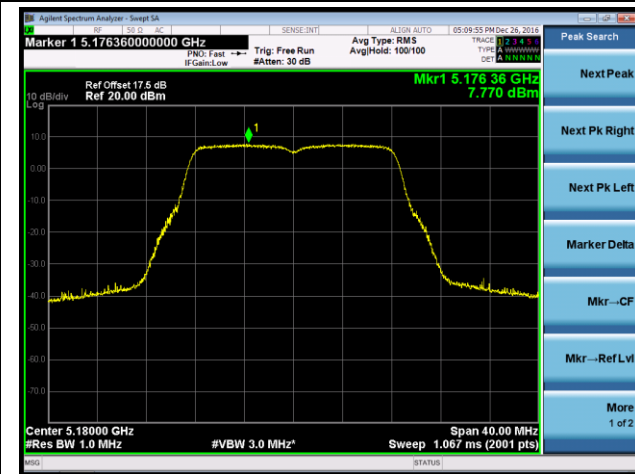
Note 1: When EUT duty cycle ≥ 98%, the Total PSD (dBm/MHz) = $10 \cdot \log\{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)}\} + \text{Constant Factor}$.

Note 2: When EUT duty cycle < 98%, the Total PSD (dBm/MHz) = $10 \cdot \log\{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)}\} + 10 \cdot \log(1/\text{Duty Cycle}) + \text{Constant Factor}$.

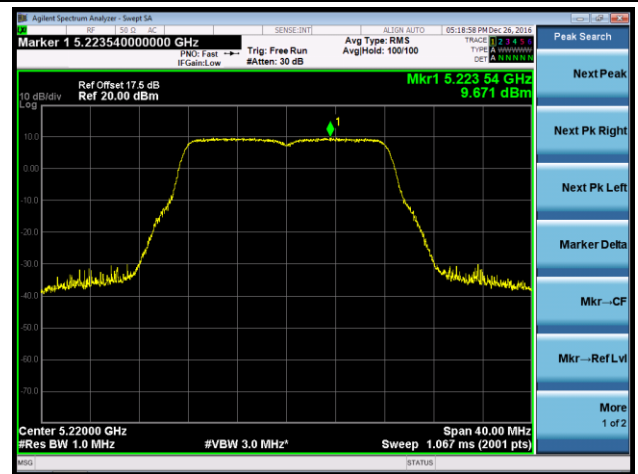
Note 3: PSD Limit = 30 (dBm/MHz) - [Directional Gain (dBi) - 6 (dBi)] = 28.23 (dBm/MHz).

802.11a Power Spectral Density - Ant 0 / Ant 0 +1 + 2

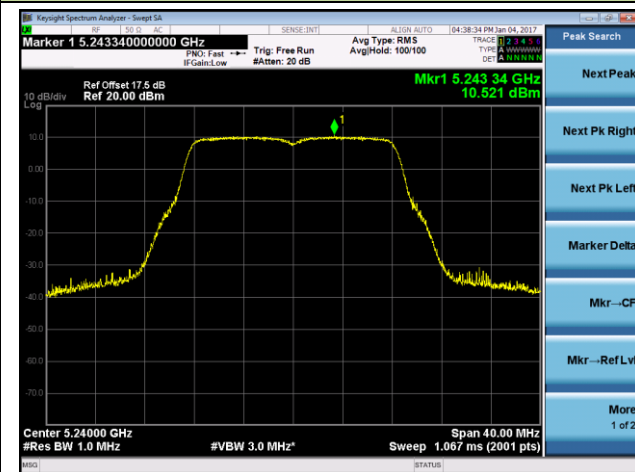
Channel 36 (5180MHz)



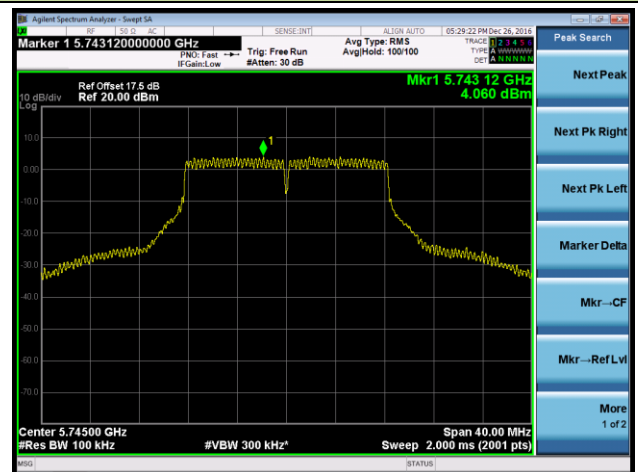
Channel 44 (5220MHz)



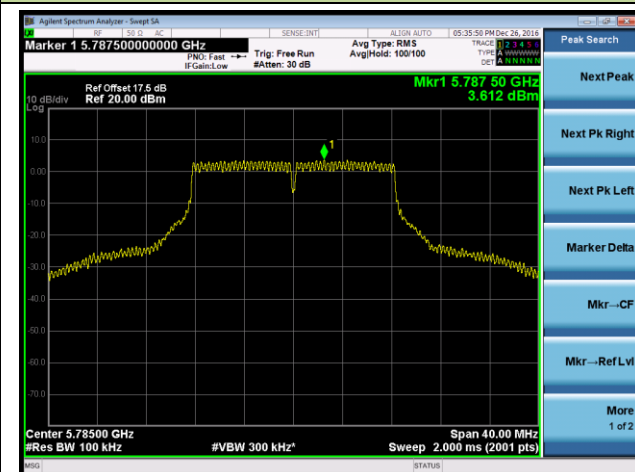
Channel 48 (5240MHz)



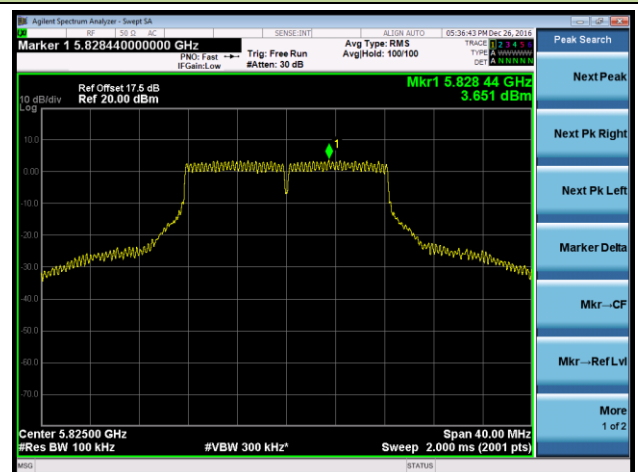
Channel 149 (5745MHz)



Channel 157 (5785MHz)

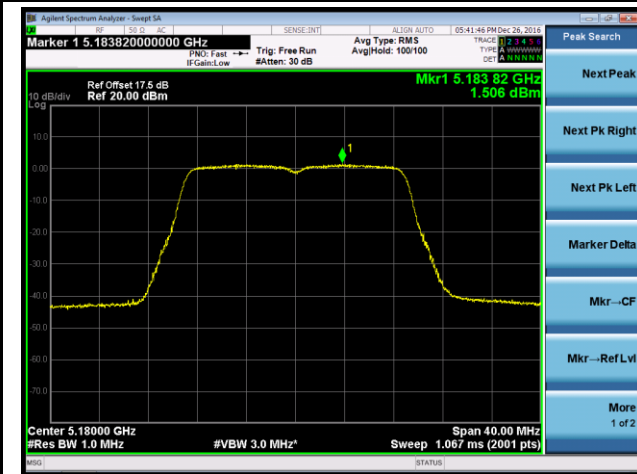


Channel 165 (5825MHz)

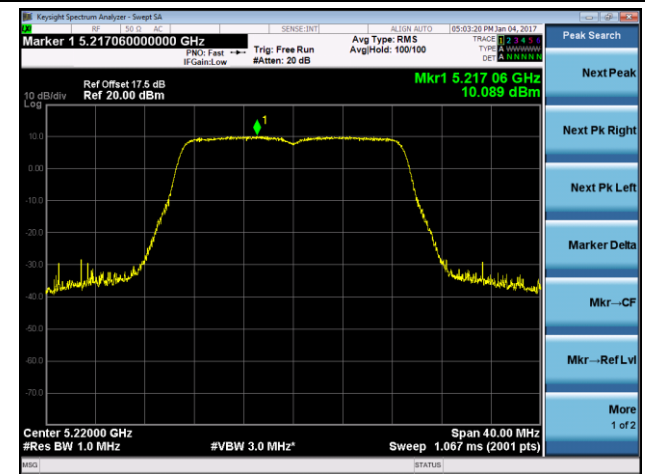


802.11n-HT20 Power Spectral Density - Ant 0 / Ant 0 +1 + 2

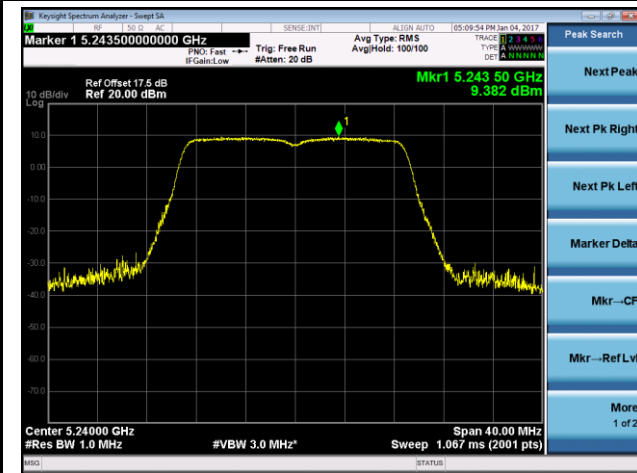
Channel 36 (5180MHz)



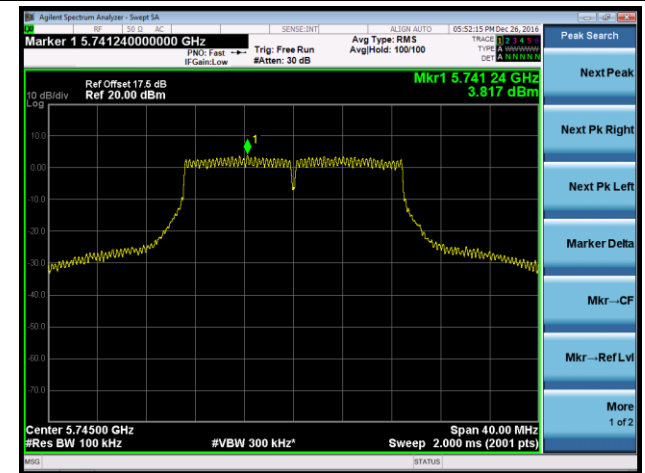
Channel 44 (5220MHz)



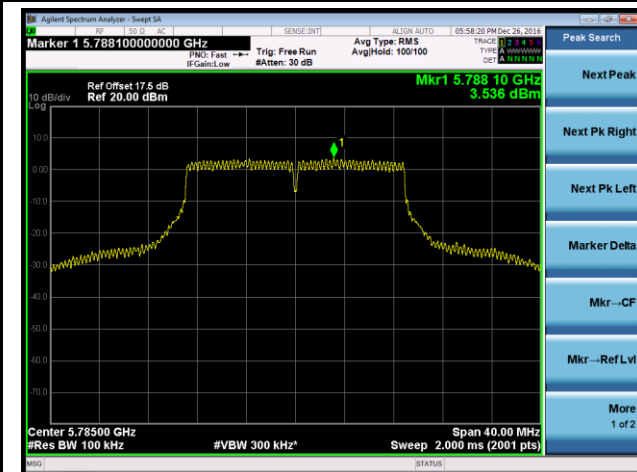
Channel 48 (5240MHz)



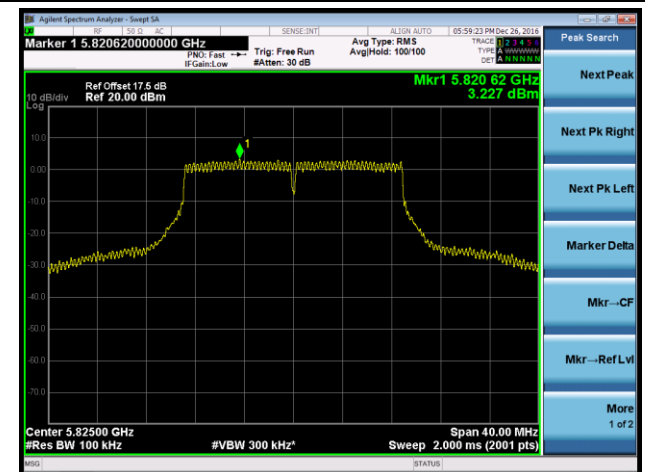
Channel 149 (5745MHz)



Channel 157 (5785MHz)

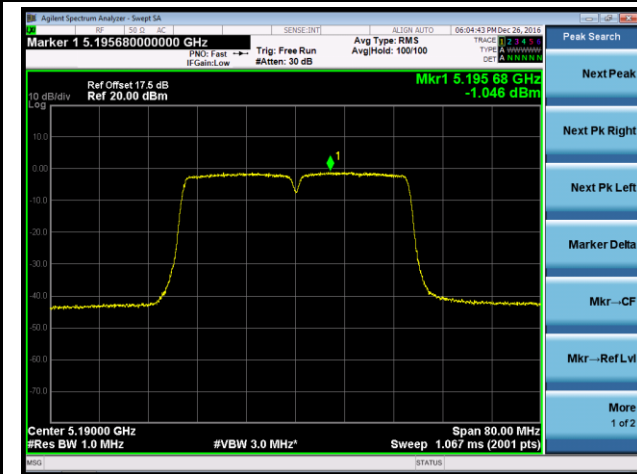


Channel 165 (5825MHz)

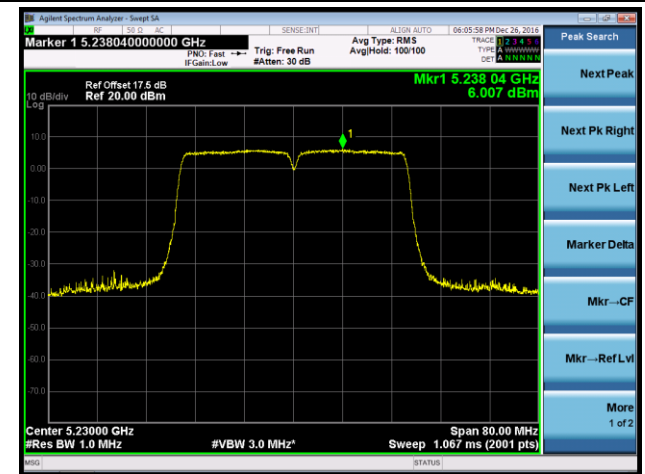


802.11n-HT40 Power Spectral Density - Ant 0 / Ant 0 +1 + 2

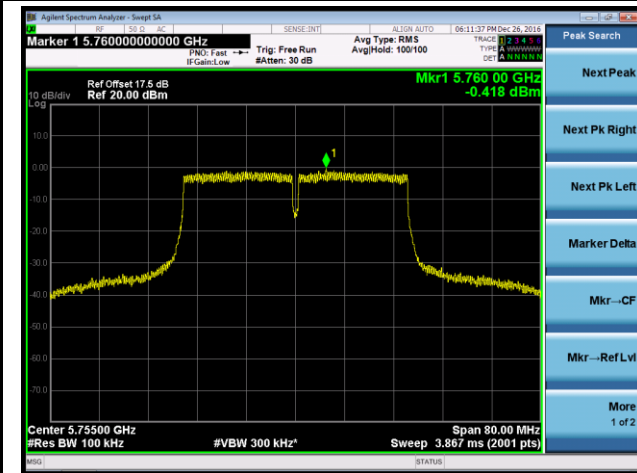
Channel 38 (5190MHz)



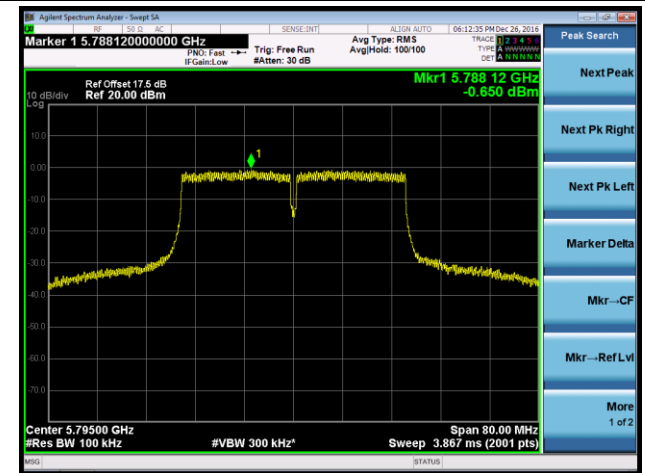
Channel 46 (5230MHz)



Channel 151 (5755MHz)

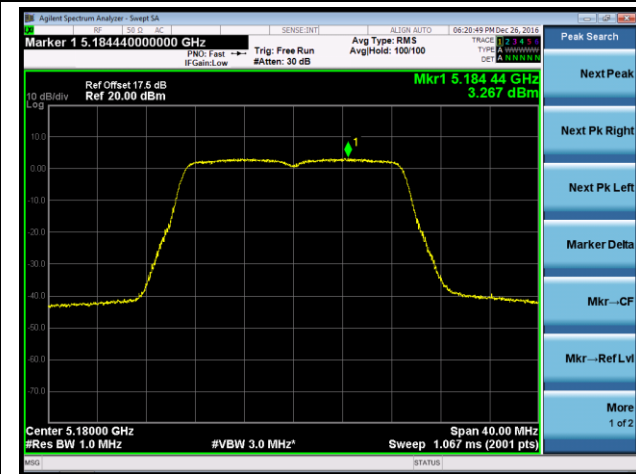


Channel 159 (5795MHz)

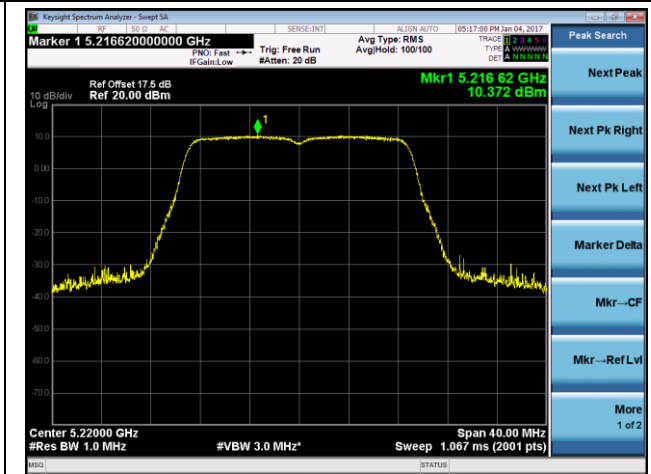


802.11ac-VHT20 Power Spectral Density - Ant 0 / Ant 0 +1 + 2

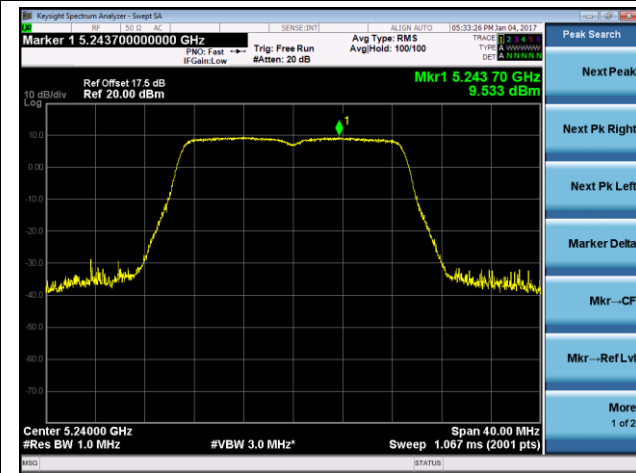
Channel 36 (5180MHz)



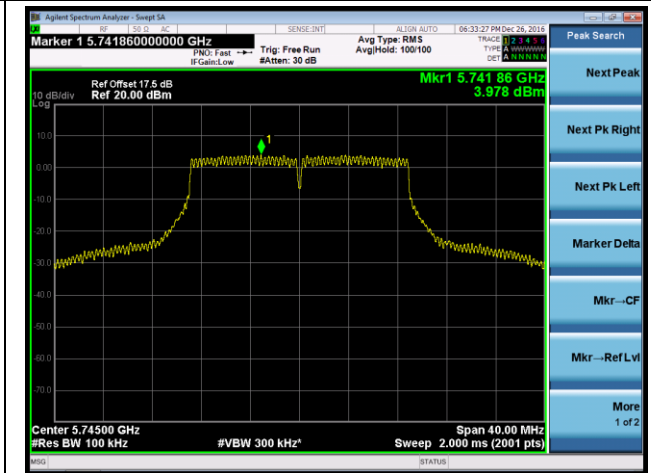
Channel 44 (5220MHz)



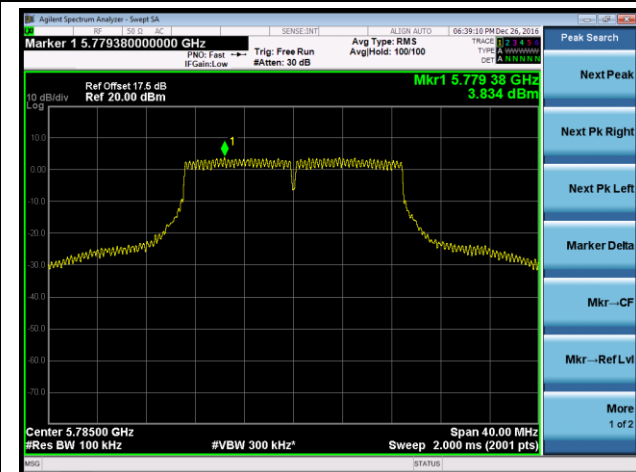
Channel 48 (5240MHz)



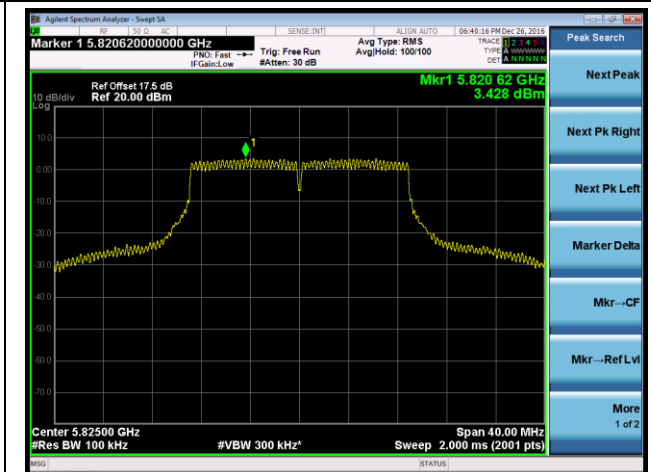
Channel 149 (5745MHz)



Channel 157 (5785MHz)

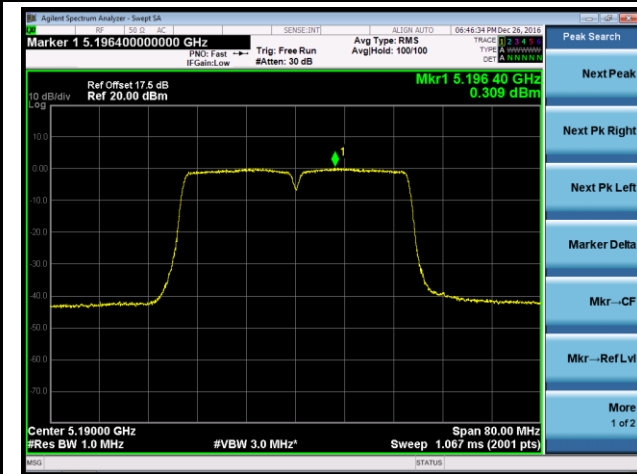


Channel 165 (5825MHz)

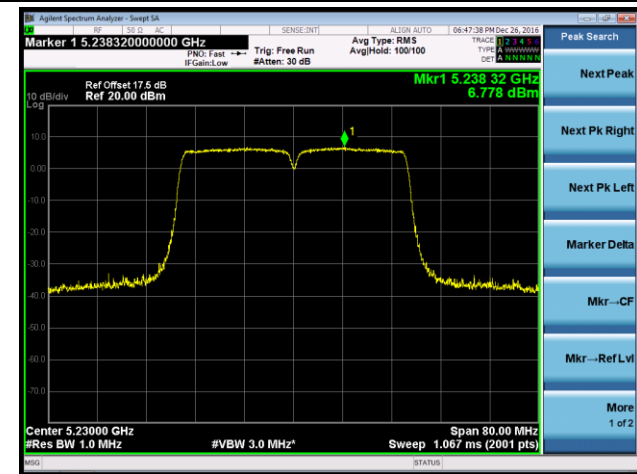


802.11ac-VHT40 Power Spectral Density - Ant 0 / Ant 0 +1 + 2

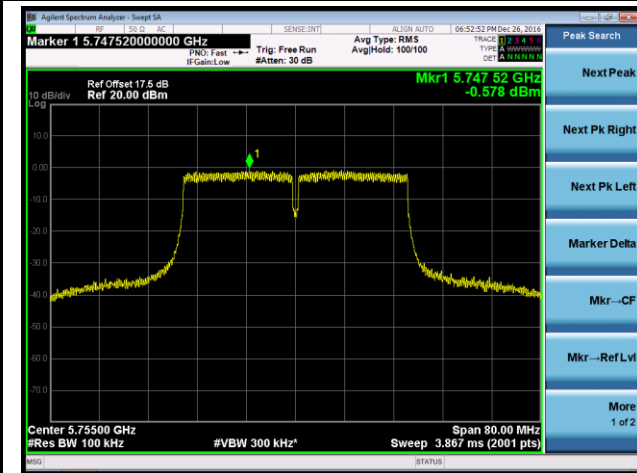
Channel 38 (5190MHz)



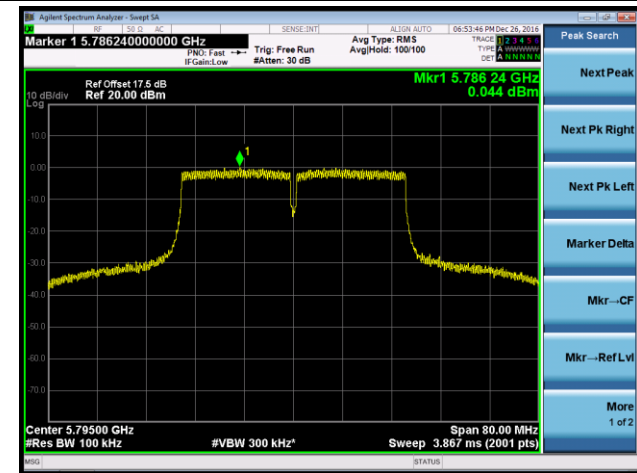
Channel 46 (5230MHz)



Channel 151 (5755MHz)



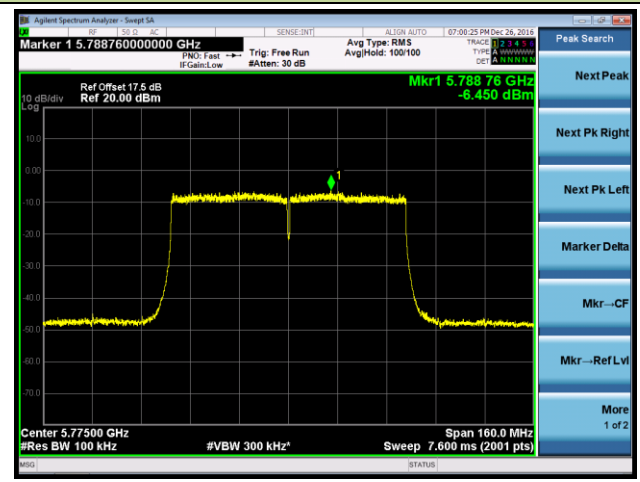
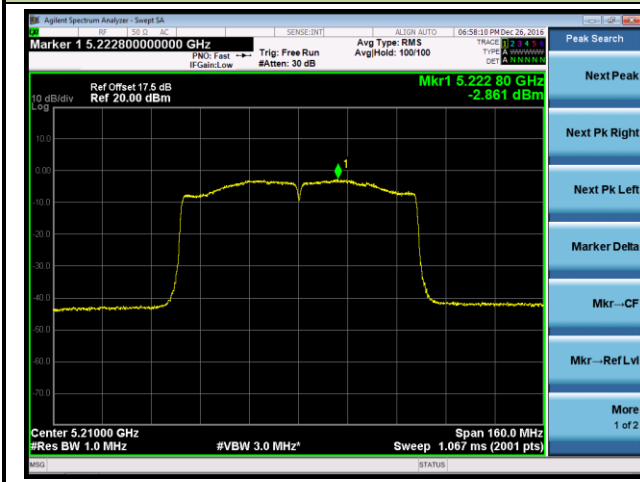
Channel 159 (5795MHz)



802.11ac-VHT80 Power Spectral Density - Ant 0 / Ant 0 +1 + 2

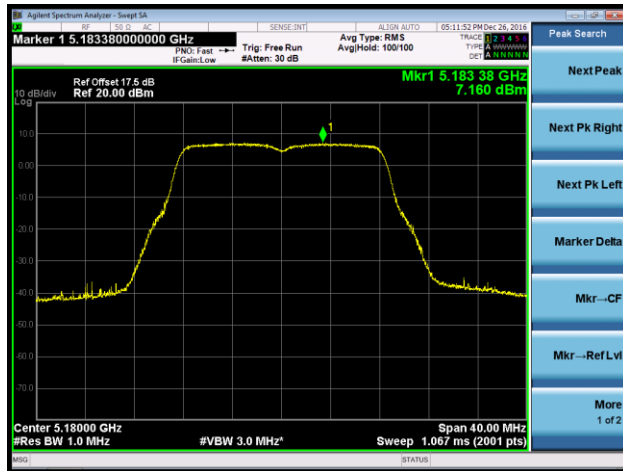
Channel 42 (5210MHz)

Channel 155 (5775MHz)

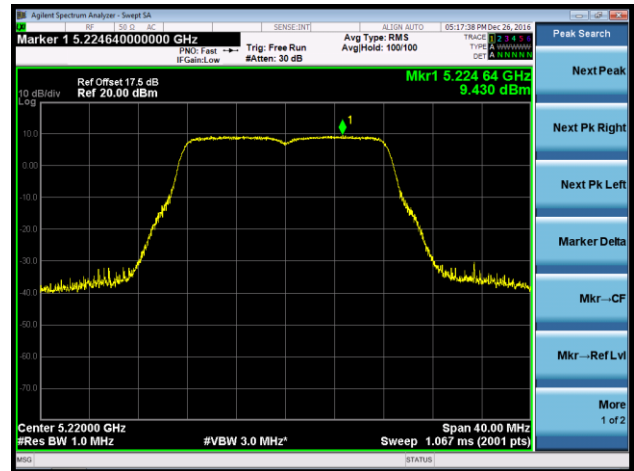


802.11a Power Spectral Density - Ant 1 / Ant 0 +1 + 2

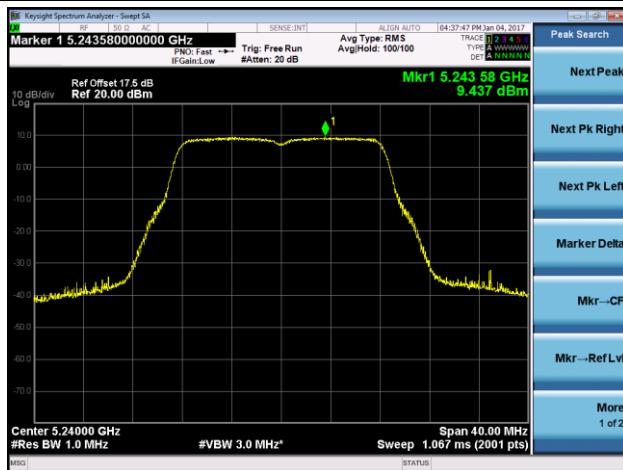
Channel 36 (5180MHz)



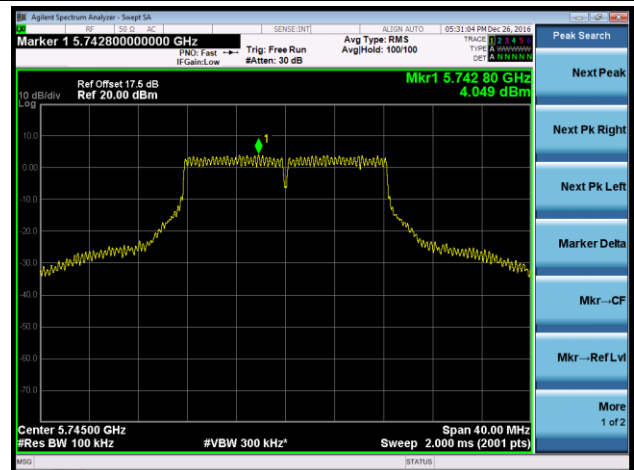
Channel 44 (5220MHz)



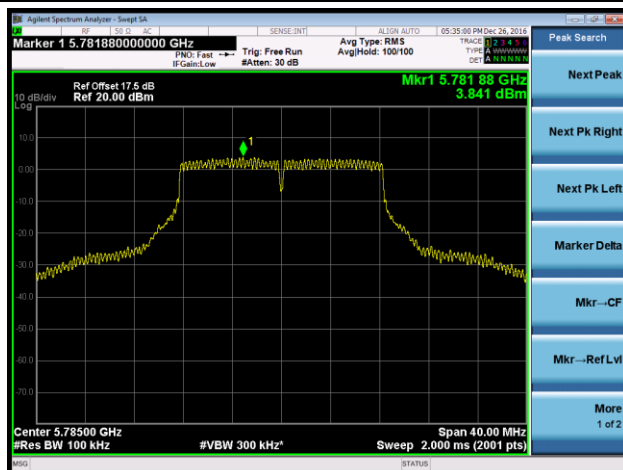
Channel 48 (5240MHz)



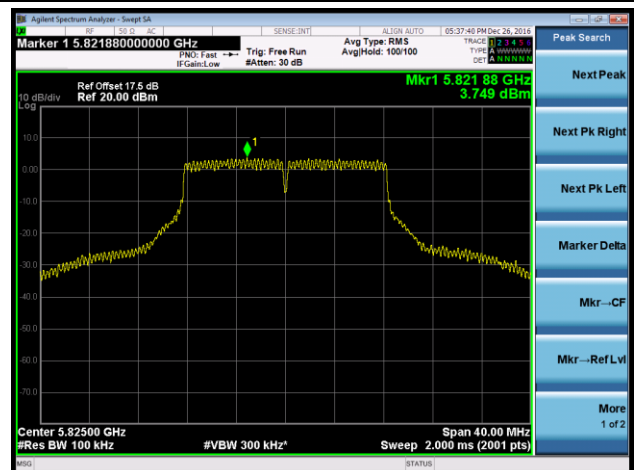
Channel 149 (5745MHz)



Channel 157 (5785MHz)

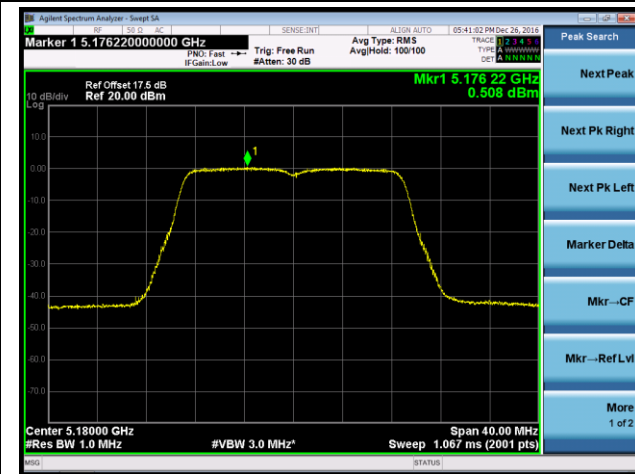


Channel 165 (5825MHz)

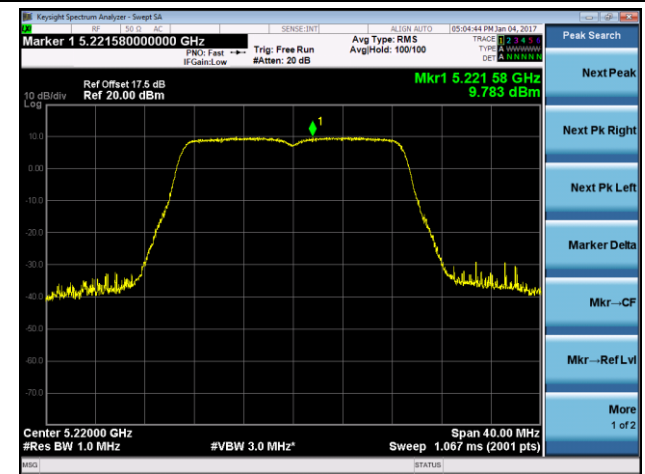


802.11n-HT20 Power Spectral Density - Ant 1 / Ant 0 +1 + 2

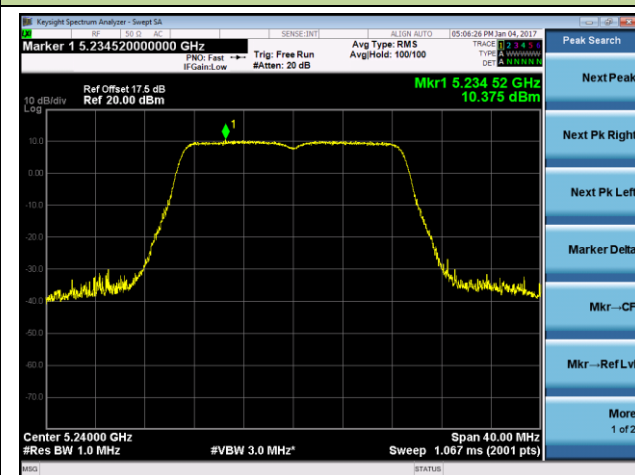
Channel 36 (5180MHz)



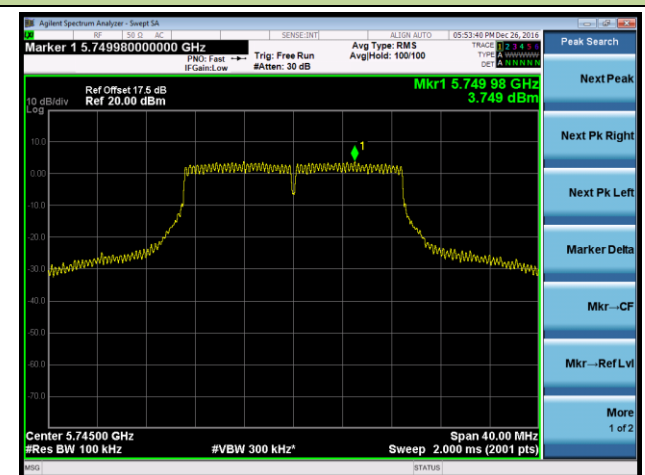
Channel 44 (5220MHz)



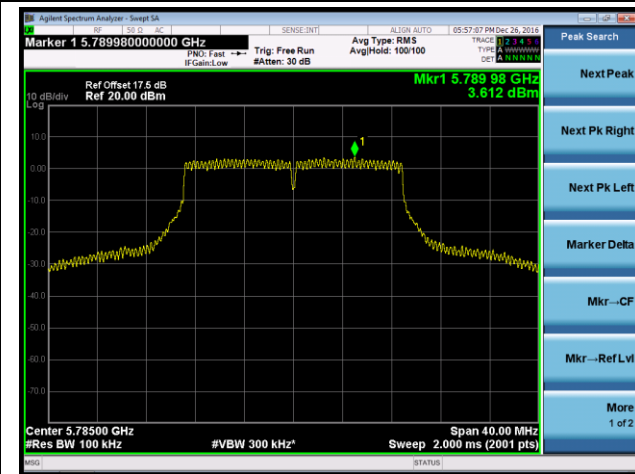
Channel 48 (5240MHz)



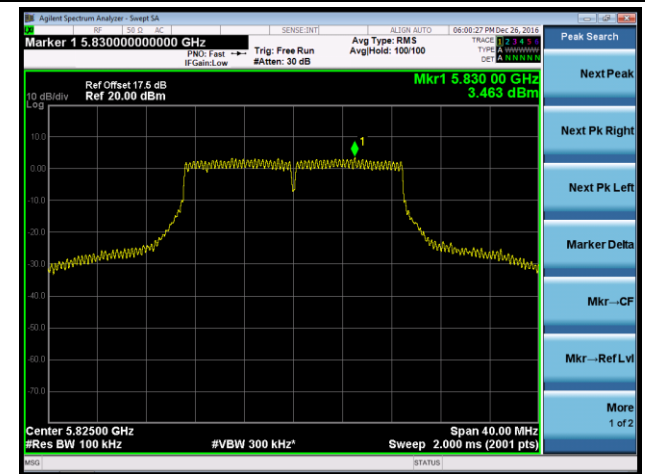
Channel 149 (5745MHz)



Channel 157 (5785MHz)

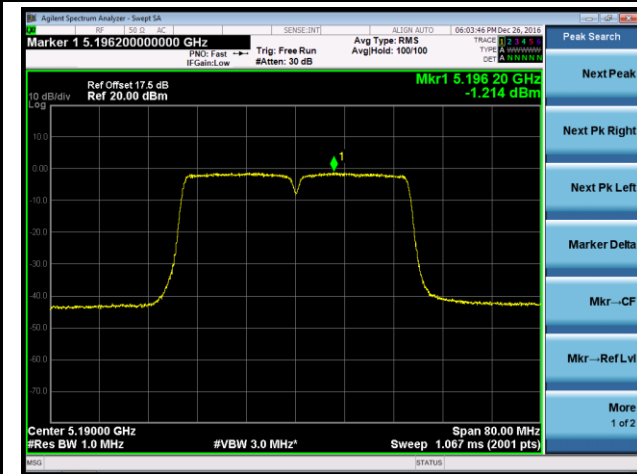


Channel 165 (5825MHz)

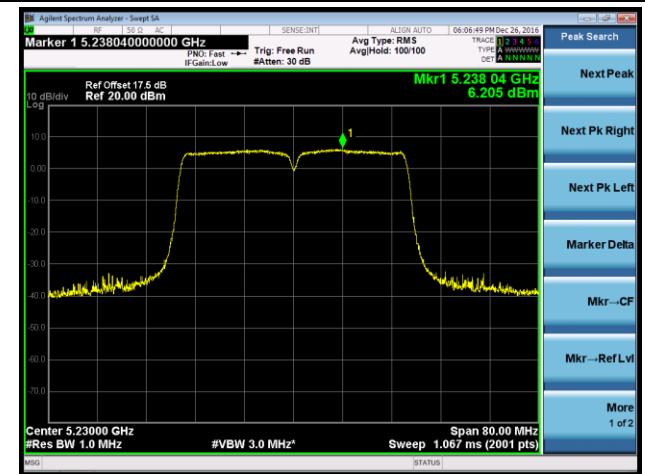


802.11n-HT40 Power Spectral Density - Ant 1 / Ant 0 +1 + 2

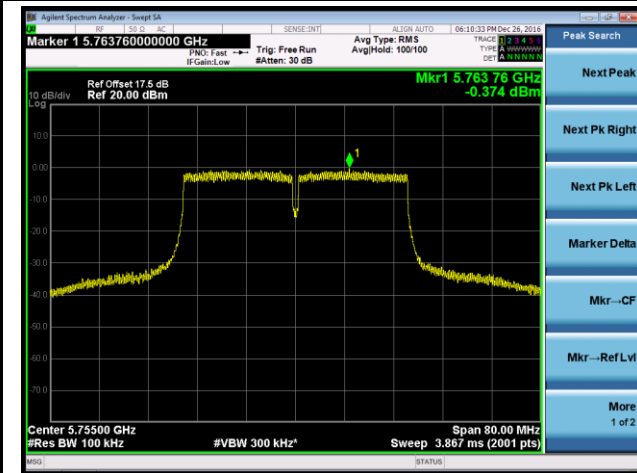
Channel 38 (5190MHz)



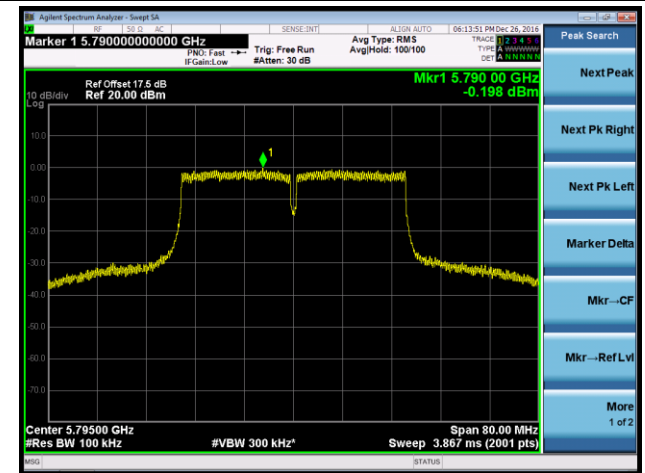
Channel 46 (5230MHz)



Channel 151 (5755MHz)

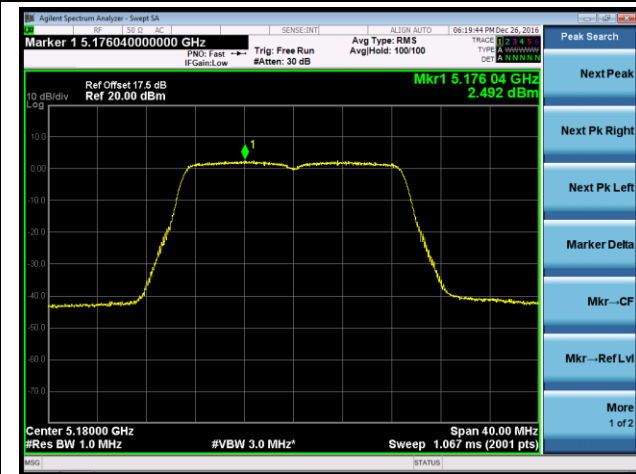


Channel 159 (5795MHz)

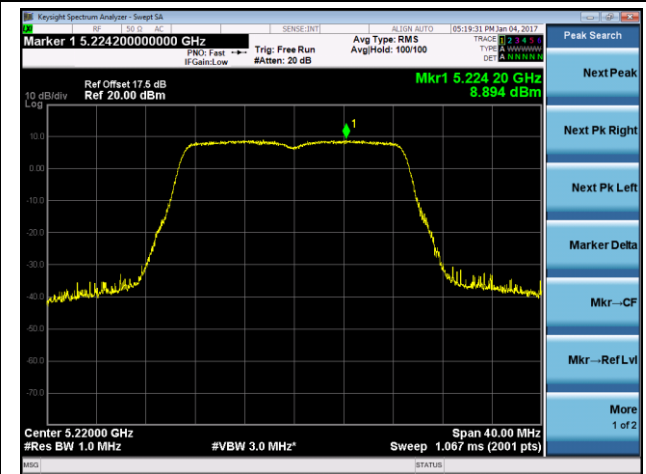


802.11ac-VHT20 Power Spectral Density - Ant 1 / Ant 0 +1 + 2

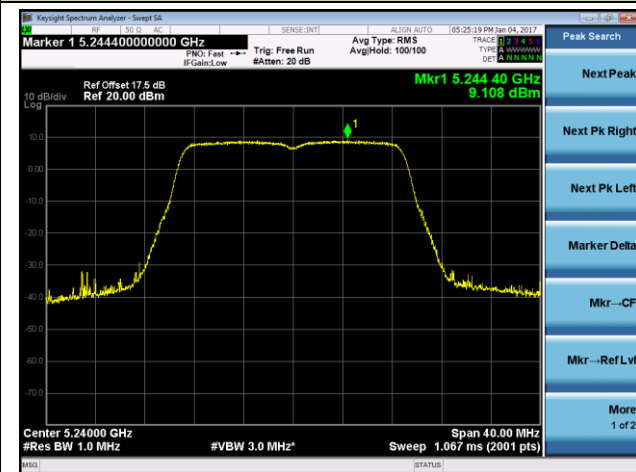
Channel 36 (5180MHz)



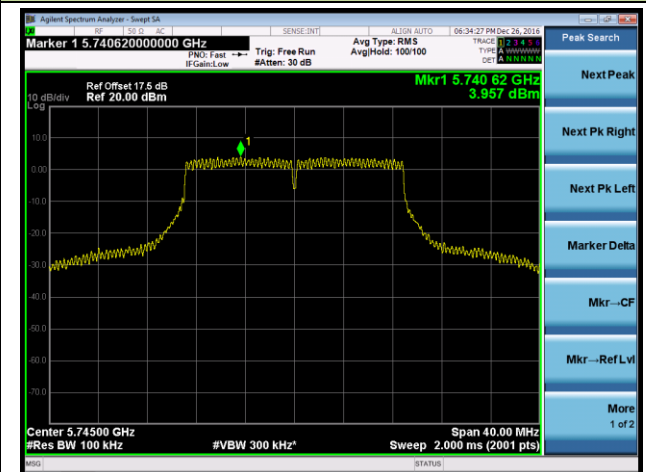
Channel 44 (5220MHz)



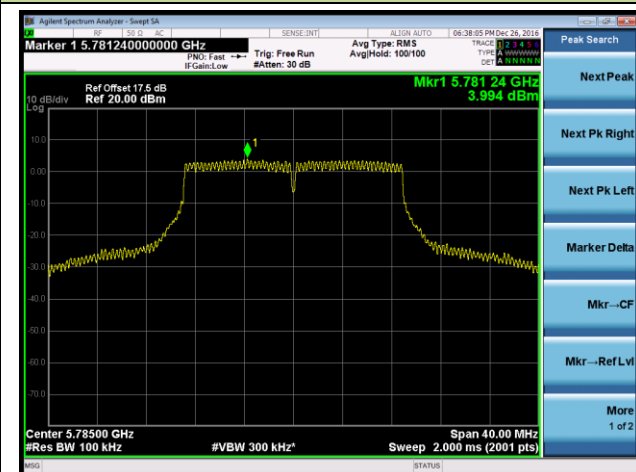
Channel 48 (5240MHz)



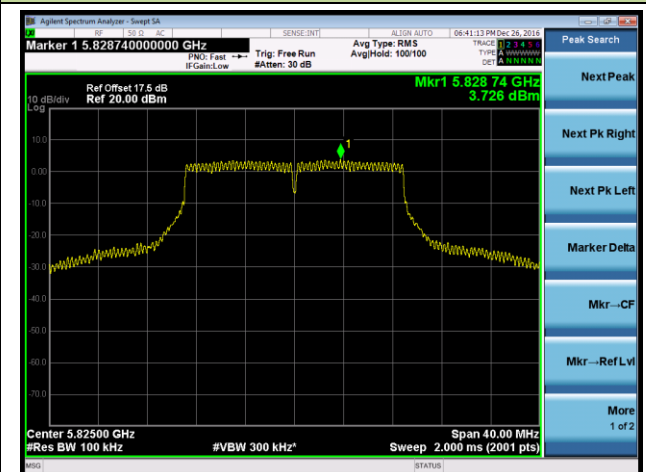
Channel 149 (5745MHz)



Channel 157 (5785MHz)

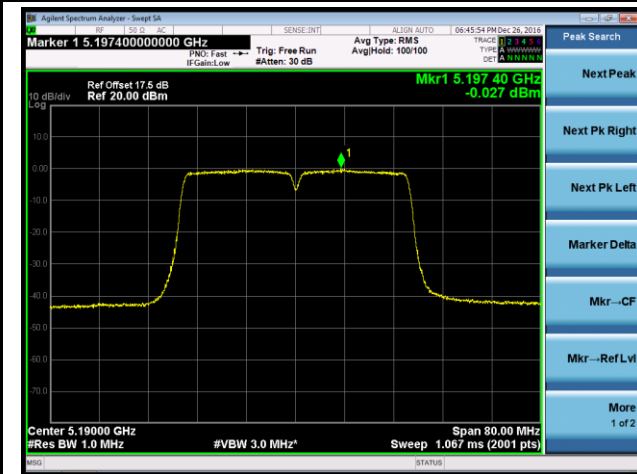


Channel 165 (5825MHz)

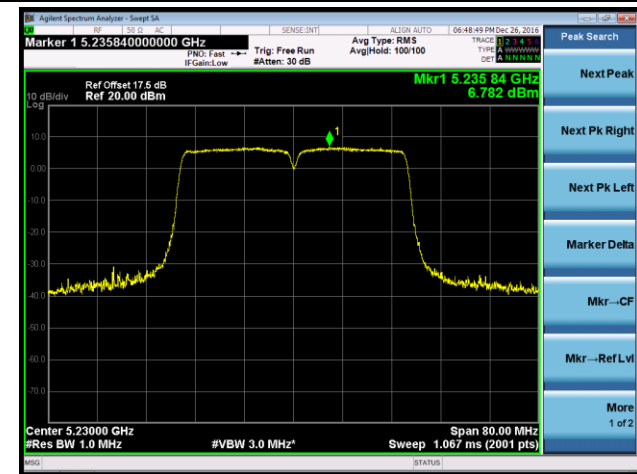


802.11ac-VHT40 Power Spectral Density - Ant 1 / Ant 0 +1 + 2

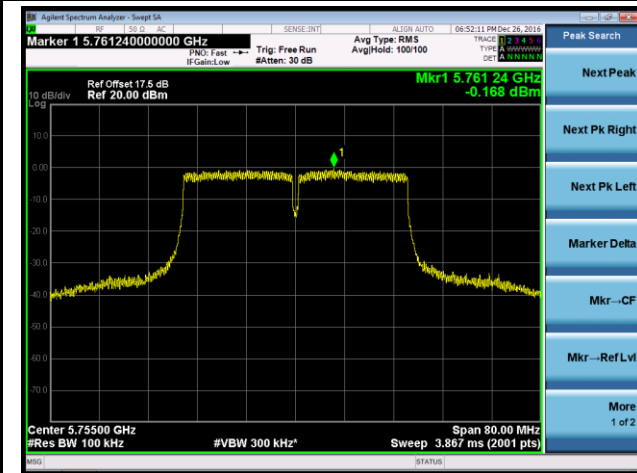
Channel 38 (5190MHz)



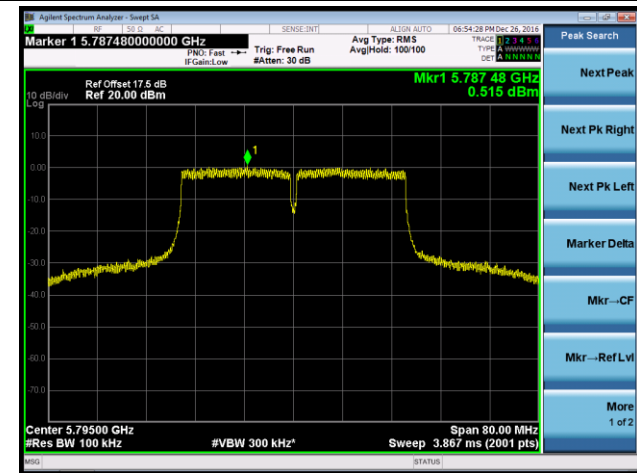
Channel 46 (5230MHz)



Channel 151 (5755MHz)



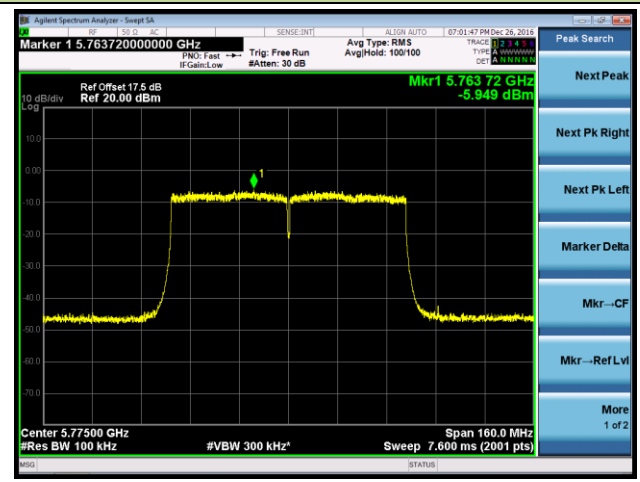
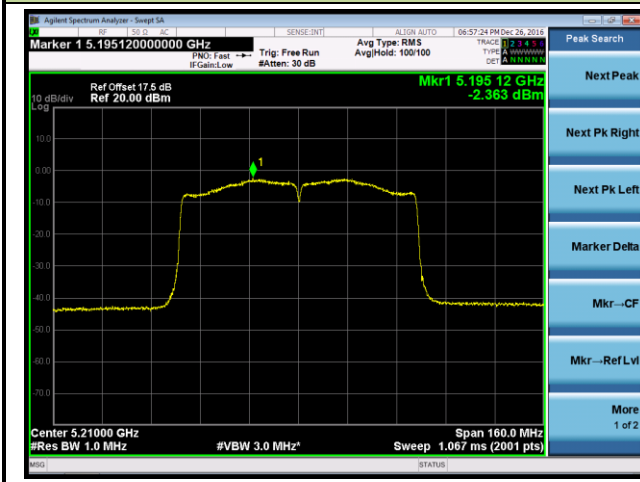
Channel 159 (5795MHz)



802.11ac-VHT80 Power Spectral Density - Ant 1 / Ant 0 +1 + 2

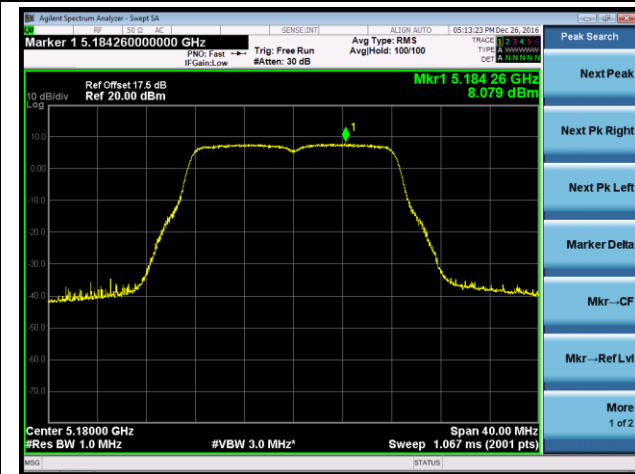
Channel 42 (5210MHz)

Channel 155 (5775MHz)



802.11a Power Spectral Density - Ant 2 / Ant 0 +1 + 2

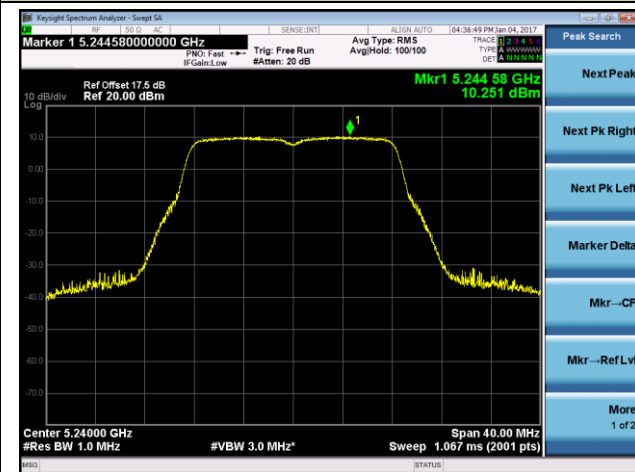
Channel 36 (5180MHz)



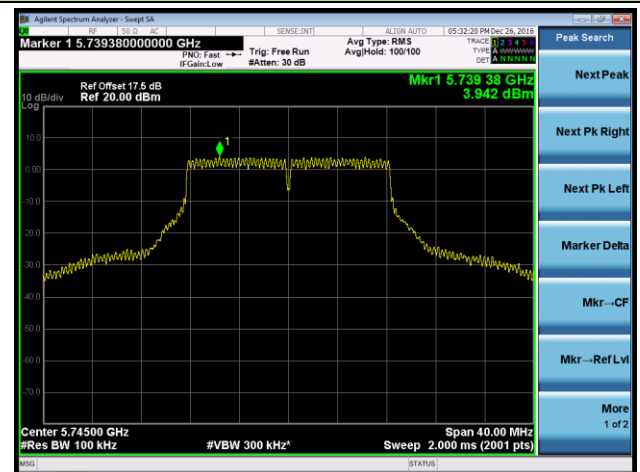
Channel 44 (5220MHz)



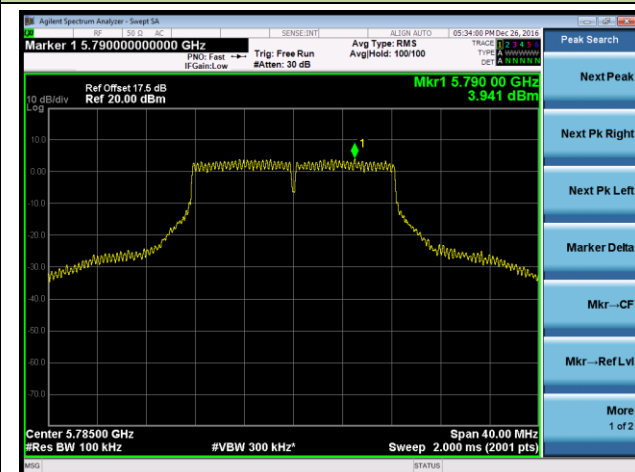
Channel 48 (5240MHz)



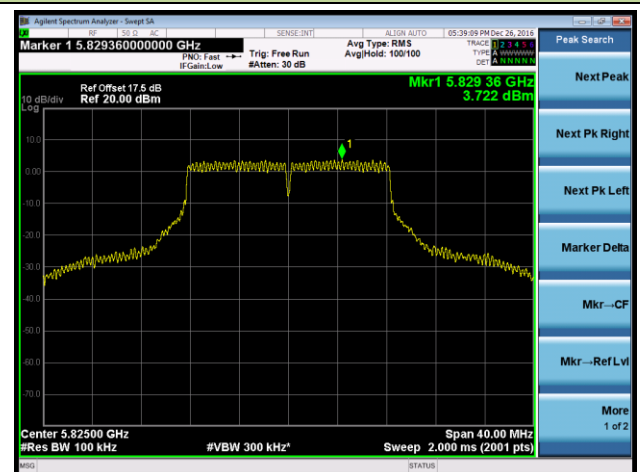
Channel 149 (5745MHz)



Channel 157 (5785MHz)

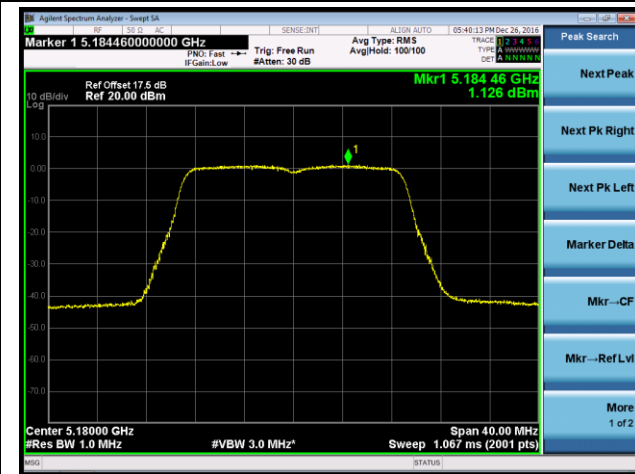


Channel 165 (5825MHz)

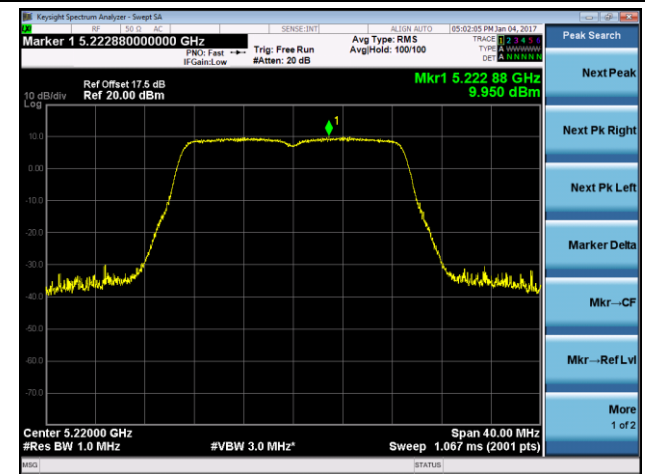


802.11n-HT20 Power Spectral Density - Ant 2 / Ant 0 +1 + 2

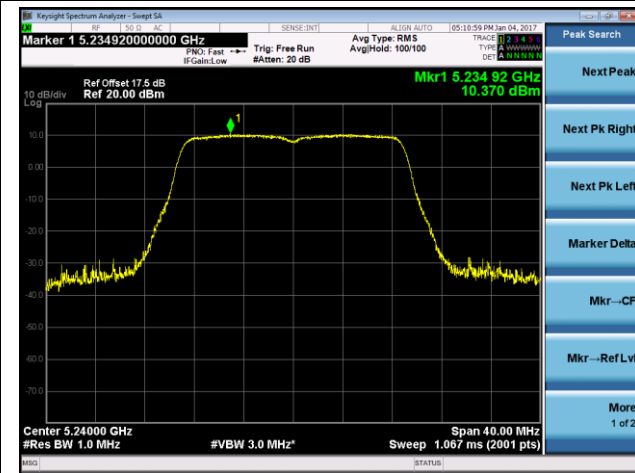
Channel 36 (5180MHz)



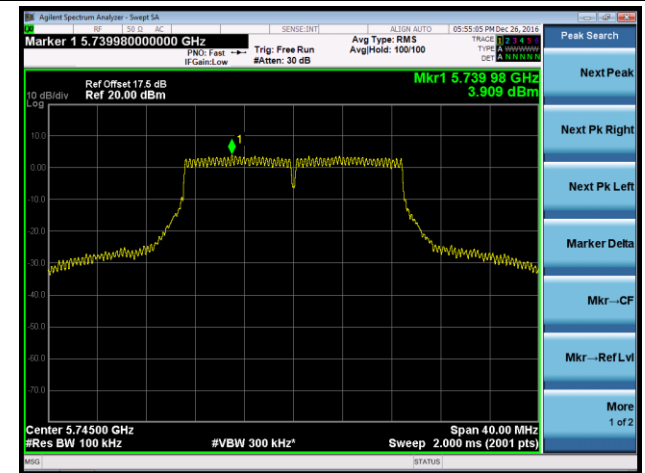
Channel 44 (5220MHz)



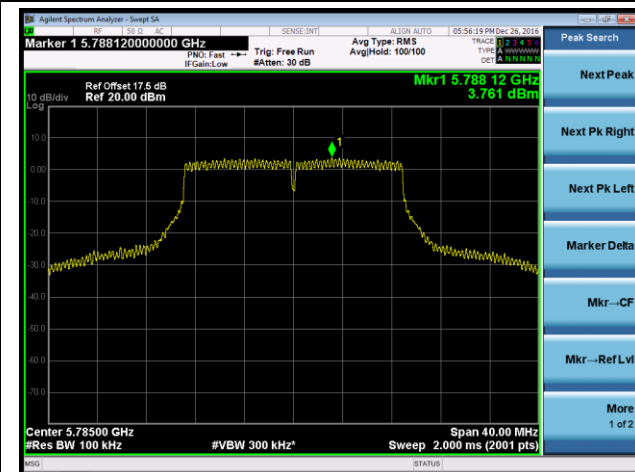
Channel 48 (5240MHz)



Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)

