

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	8.80	9.34	8.72	94.74	13.97	≤ 16.55	Pass
11a	6Mbps	44	5220	11.19	11.80	11.31	94.74	16.45	≤ 16.55	Pass
11a	6Mbps	48	5240	11.17	11.73	11.27	94.74	16.40	≤ 16.55	Pass
11n-HT20	MCS0	36	5180	7.73	8.35	8.07	94.55	13.07	≤ 16.55	Pass
11n-HT20	MCS0	44	5220	10.77	11.19	10.78	94.55	15.93	≤ 16.55	Pass
11n-HT20	MCS0	48	5240	10.95	11.61	10.85	94.55	16.16	≤ 16.55	Pass
11n-HT40	MCS0	38	5190	1.83	2.36	2.18	89.80	7.37	≤ 16.55	Pass
11n-HT40	MCS0	46	5230	7.66	8.30	7.96	89.80	13.22	≤ 16.55	Pass
11ac-VHT20	MCS0	36	5180	8.40	9.31	8.70	98.26	13.59	≤ 16.55	Pass
11ac-VHT20	MCS0	44	5220	10.87	11.77	11.41	98.26	16.14	≤ 16.55	Pass
11ac-VHT20	MCS0	48	5240	11.05	11.74	11.45	98.26	16.19	≤ 16.55	Pass
11ac-VHT40	MCS0	38	5190	0.87	1.28	1.21	96.90	6.03	≤ 16.55	Pass
11ac-VHT40	MCS0	46	5230	8.18	8.57	8.61	96.90	13.37	≤ 16.55	Pass
11ac-VHT80	MCS0	42	5210	-2.90	-2.08	-2.38	93.94	2.60	≤ 16.55	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)] = 16.55 (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	5.55	4.08	3.64	94.74	7.00	16.51	≤ 29.61	Pass
11a	6Mbps	157	5785	5.71	5.00	4.77	94.74	7.00	17.18	≤ 29.61	Pass
11a	6Mbps	165	5825	4.78	3.37	3.71	94.74	7.00	16.00	≤ 29.61	Pass
11n-HT20	MCS0	149	5745	5.15	3.69	3.35	94.55	7.00	16.15	≤ 29.61	Pass
11n-HT20	MCS0	157	5785	4.89	3.50	3.12	94.55	7.00	15.92	≤ 29.61	Pass
11n-HT20	MCS0	165	5825	4.53	3.45	3.47	94.55	7.00	15.86	≤ 29.61	Pass
11n-HT40	MCS0	151	5755	2.19	0.49	-0.03	89.80	7.00	13.23	≤ 29.61	Pass
11n-HT40	MCS0	159	5795	2.69	0.53	0.45	89.80	7.00	13.59	≤ 29.61	Pass
11ac-VHT20	MCS0	149	5745	5.56	3.60	3.69	98.26	7.00	16.15	≤ 29.61	Pass
11ac-VHT20	MCS0	157	5785	5.31	3.76	3.45	98.26	7.00	16.02	≤ 29.61	Pass
11ac-VHT20	MCS0	165	5825	5.07	3.51	3.41	98.26	7.00	15.84	≤ 29.61	Pass
11ac-VHT40	MCS0	151	5755	2.53	1.22	0.48	96.90	7.00	13.40	≤ 29.61	Pass
11ac-VHT40	MCS0	159	5795	2.56	0.95	1.06	96.90	7.00	13.50	≤ 29.61	Pass
11ac-VHT80	MCS0	155	5775	-1.81	-2.91	-3.61	93.94	7.00	9.33	≤ 29.61	Pass

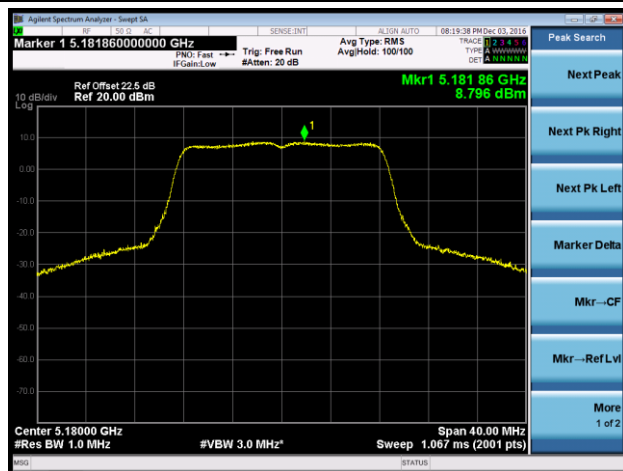
Note 1: When EUT duty cycle ≥ 98%, the Total PSD (dBm/MHz) = $10 \cdot \log\{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)}\} + \text{Constant Factor}$.

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

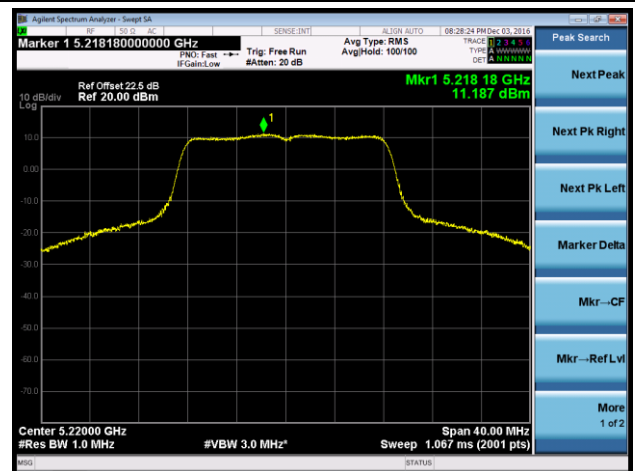
Note 3: PSD Limit = 30 (dBm/500kHz) – [Directional Gain (dBi) – 6 (dBi)] = 29.61 (dBm/500kHz).

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

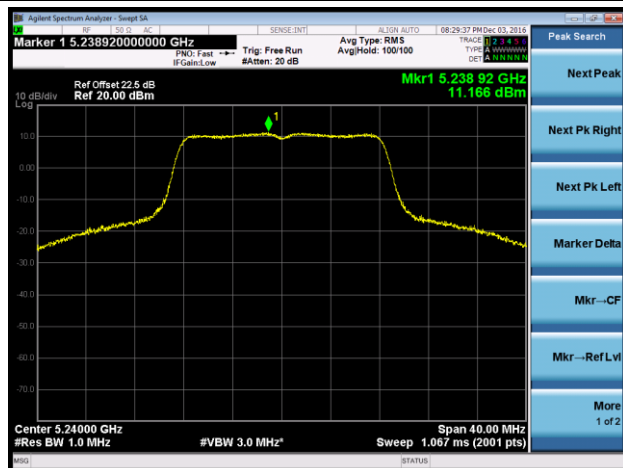
Channel 36 (5180MHz)



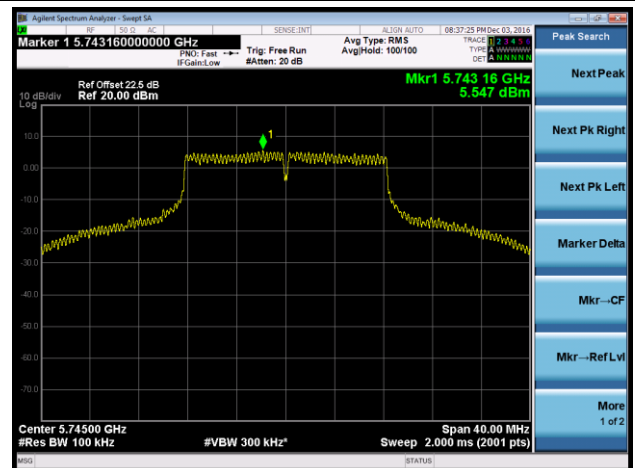
Channel 44 (5220MHz)



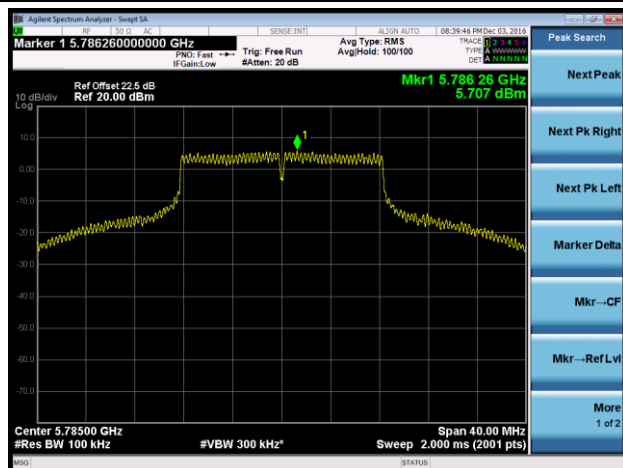
Channel 48 (5240MHz)



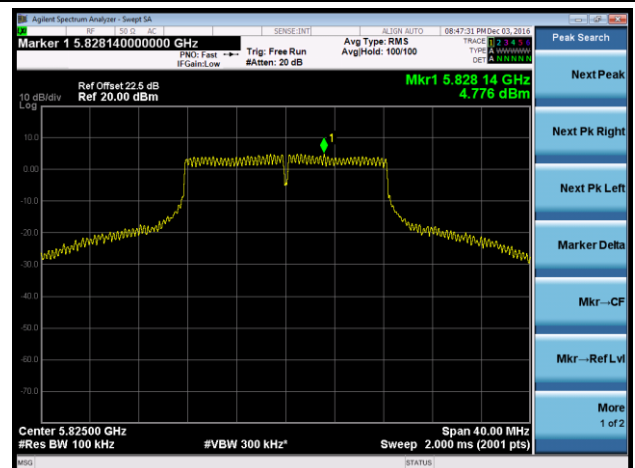
Channel 149 (5745MHz)



Channel 157 (5785MHz)

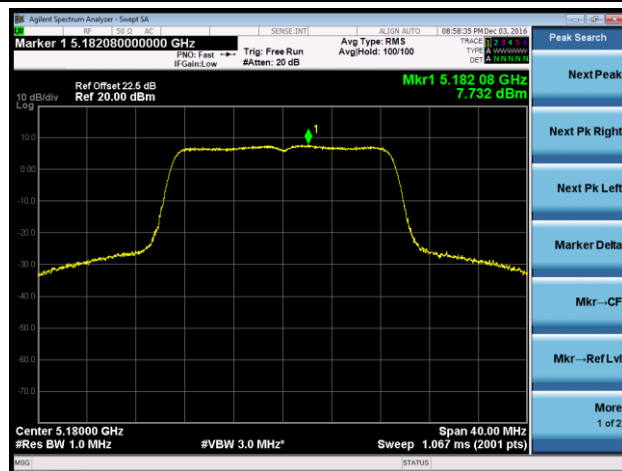


Channel 165 (5825MHz)

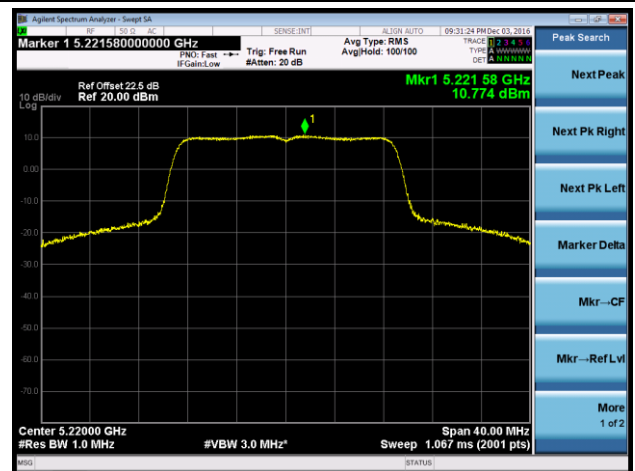


802.11n-HT20 Power Spectral Density - Ant 0 / Ant 0 +1 + 2

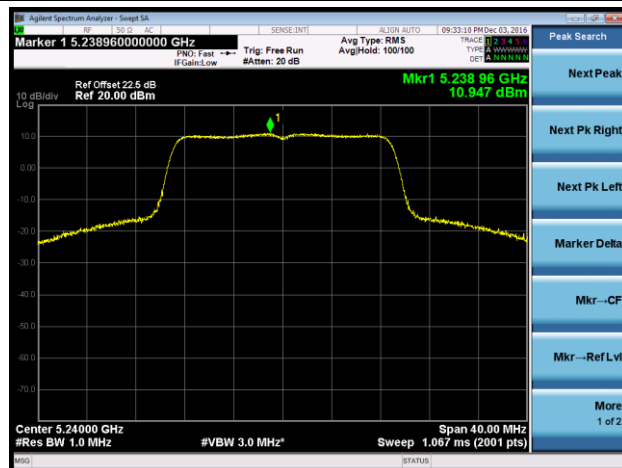
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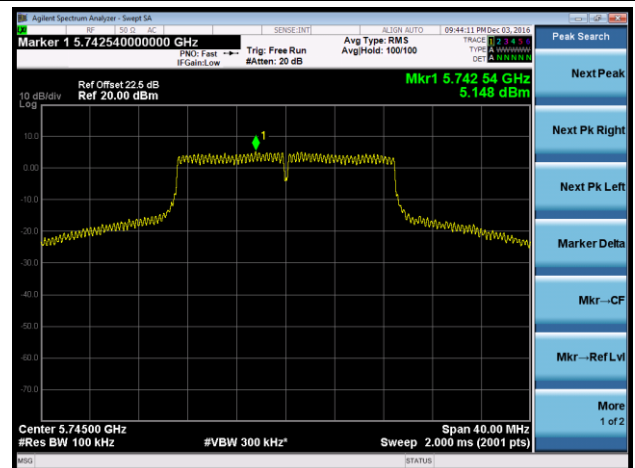
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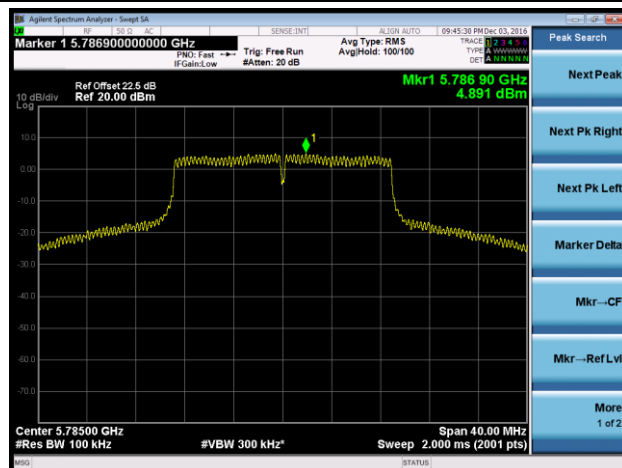
Channel 48 (5240MHz)



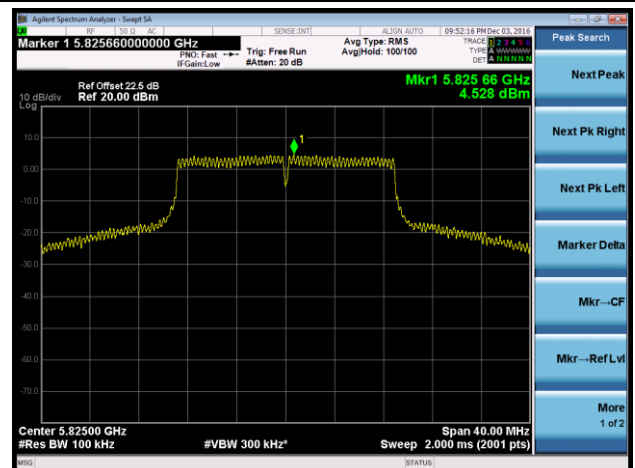
Channel 149 (5745MHz)



Channel 157 (5785MHz)

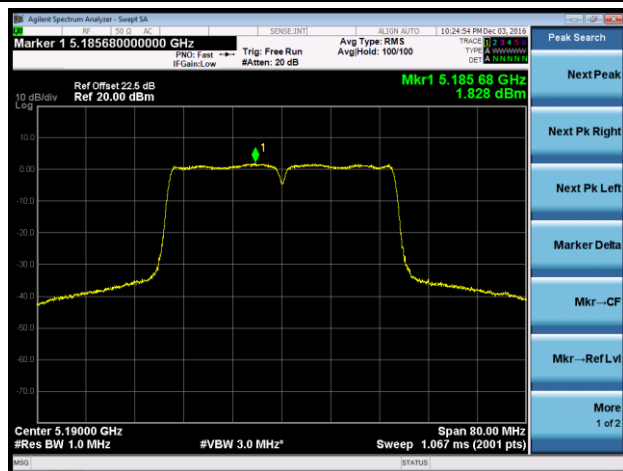


Channel 165 (5825MHz)

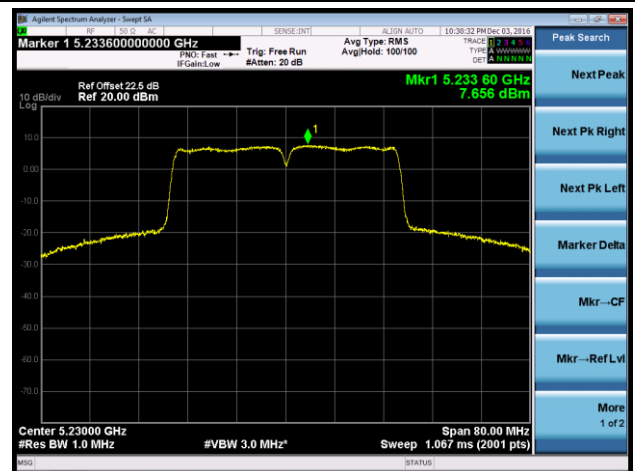


802.11n-HT40 Power Spectral Density - Ant 0 / Ant 0 +1 + 2

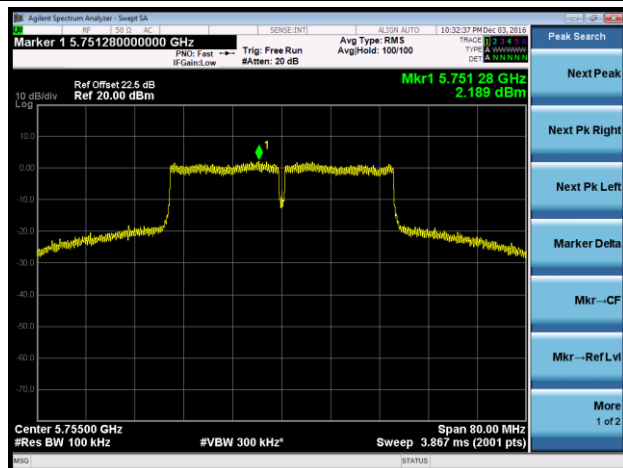
Channel 38 (5190MHz)



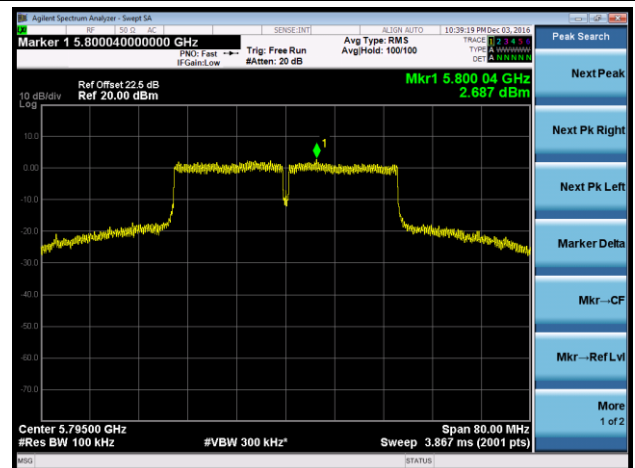
Channel 46 (5230MHz)



Channel 151 (5755MHz)

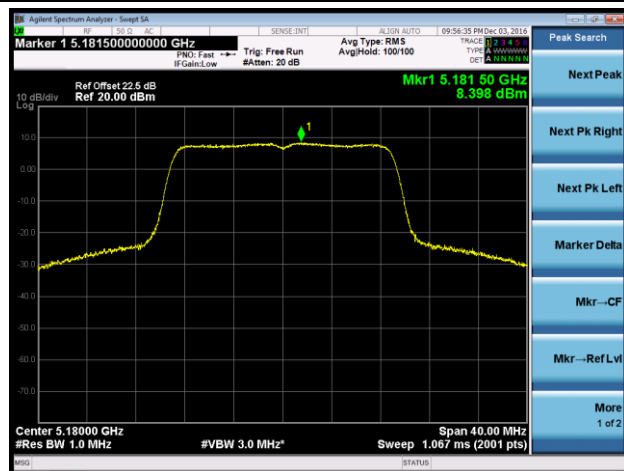


Channel 159 (5795MHz)

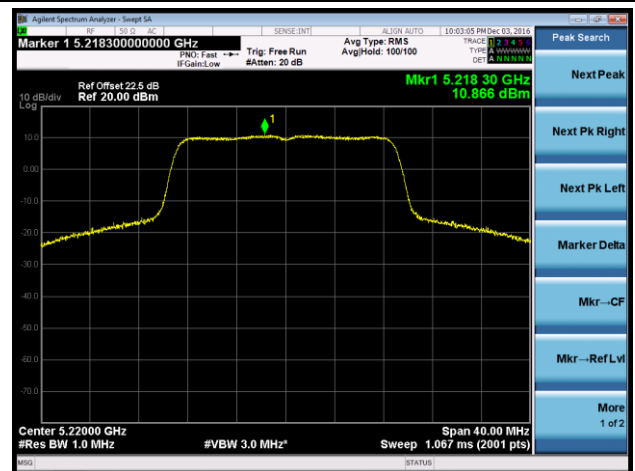


802.11ac-VHT20 Power Spectral Density - Ant 0 / Ant 0 +1 + 2

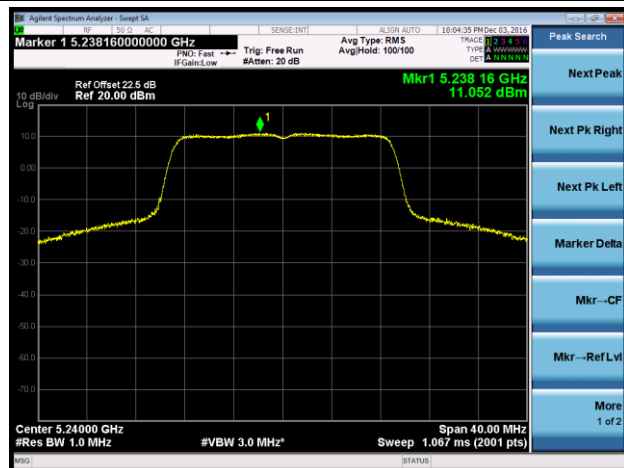
Channel 36 (5180MHz)



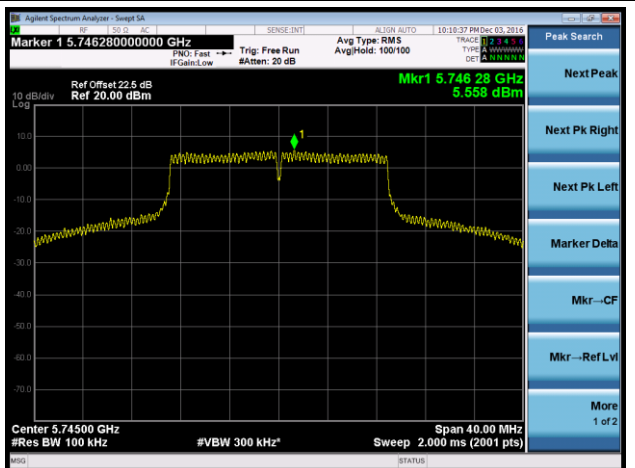
Channel 44 (5220MHz)



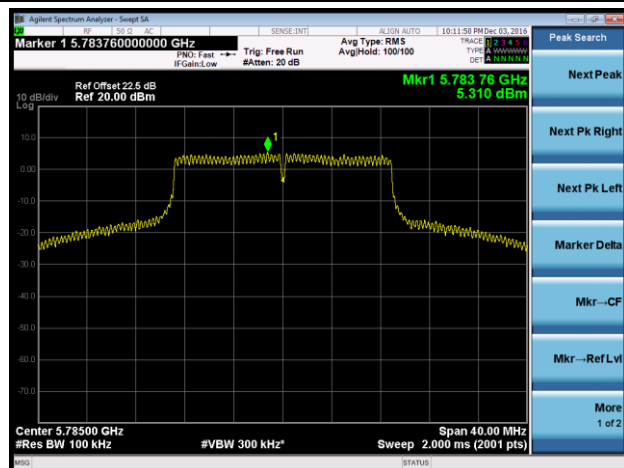
Channel 48 (5240MHz)



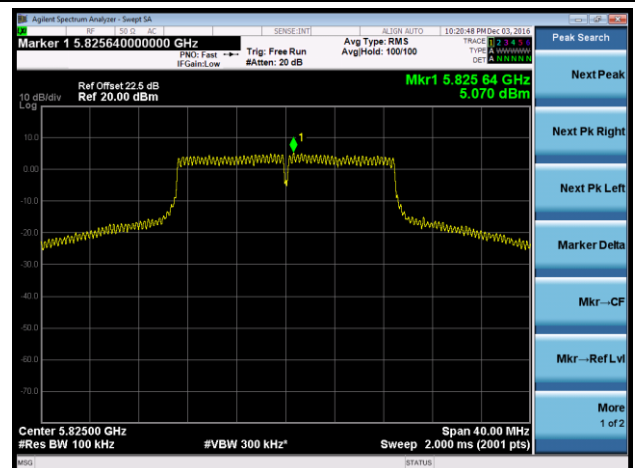
Channel 149 (5745MHz)



Channel 157 (5785MHz)

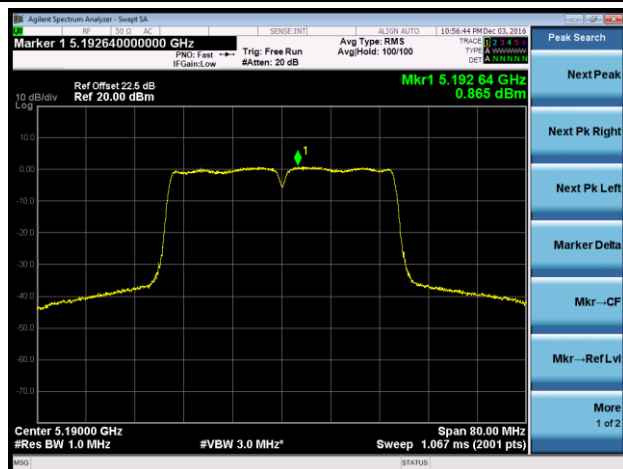


Channel 165 (5825MHz)

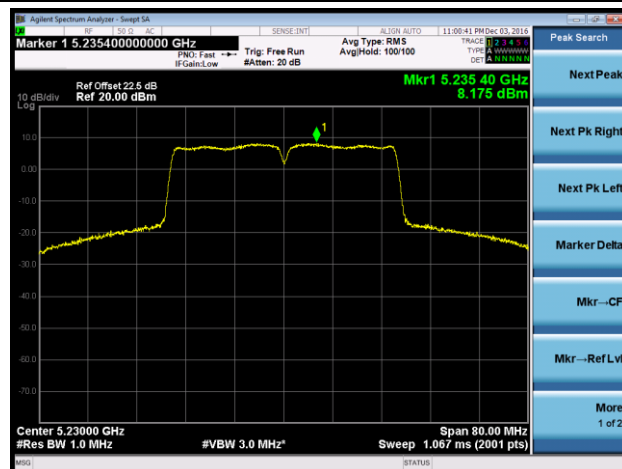


802.11ac-VHT40 Power Spectral Density - Ant 0 / Ant 0 +1 + 2

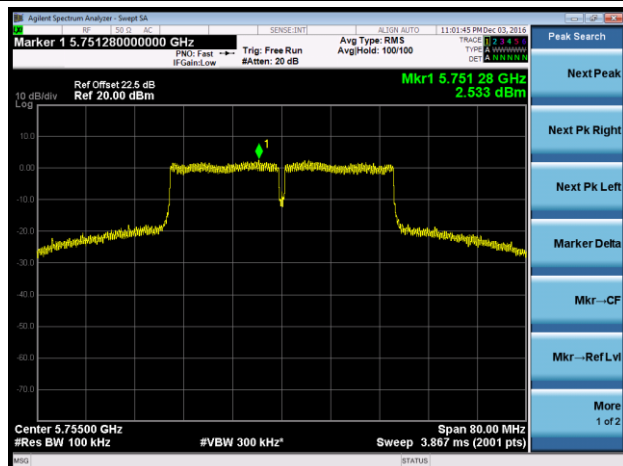
Channel 38 (5190MHz)



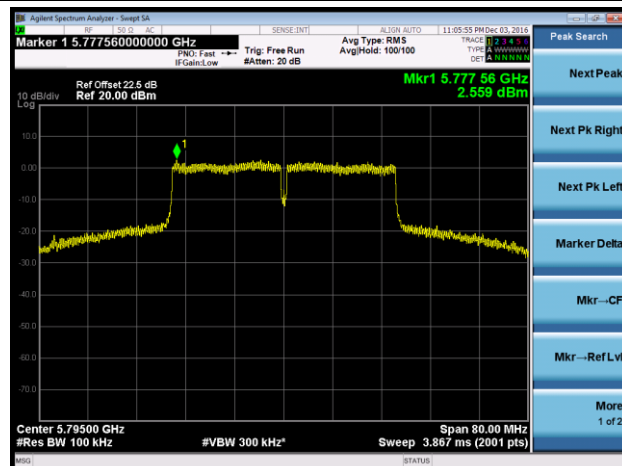
Channel 46 (5230MHz)



Channel 151 (5755MHz)

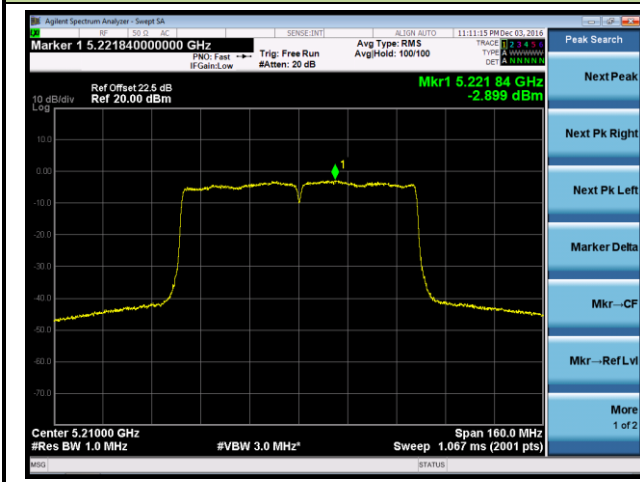


Channel 159 (5795MHz)

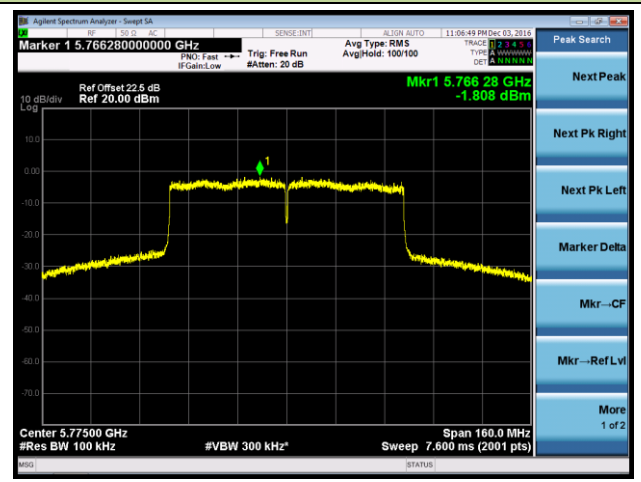


802.11ac-VHT80 Power Spectral Density - Ant 0 / Ant 0 +1 + 2

Channel 42 (5210MHz)

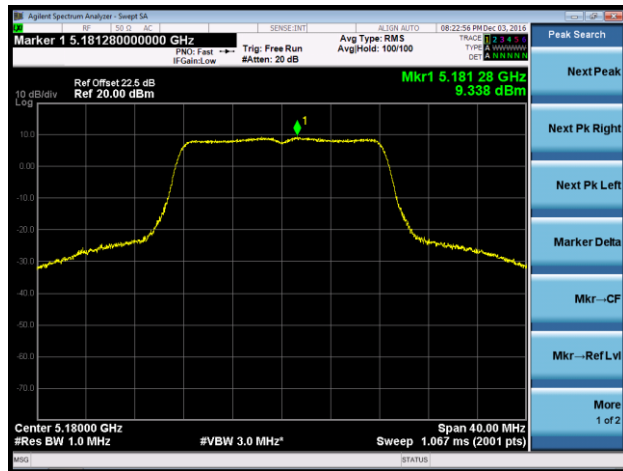


Channel 155 (5775MHz)

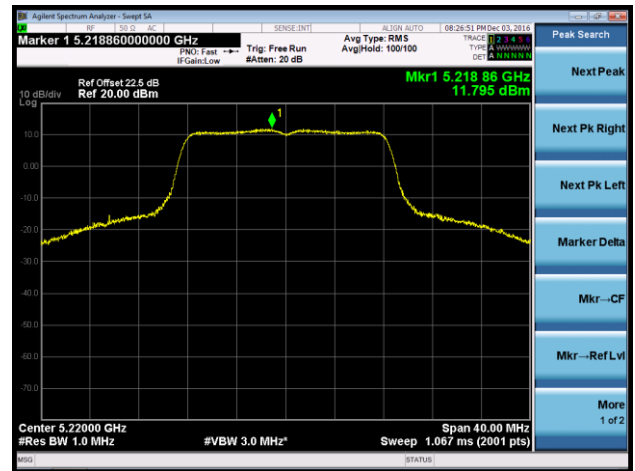


802.11a Power Spectral Density - Ant 1 / Ant 0 +1 + 2

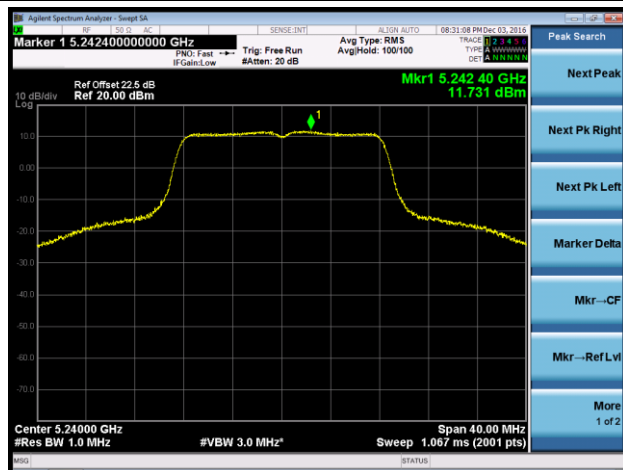
Channel 36 (5180MHz)



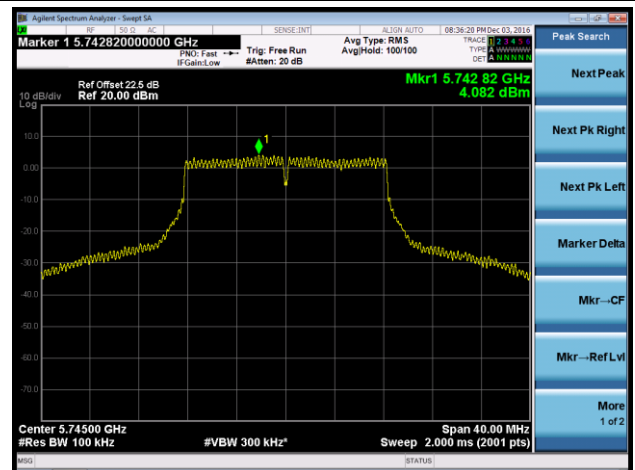
Channel 44 (5220MHz)



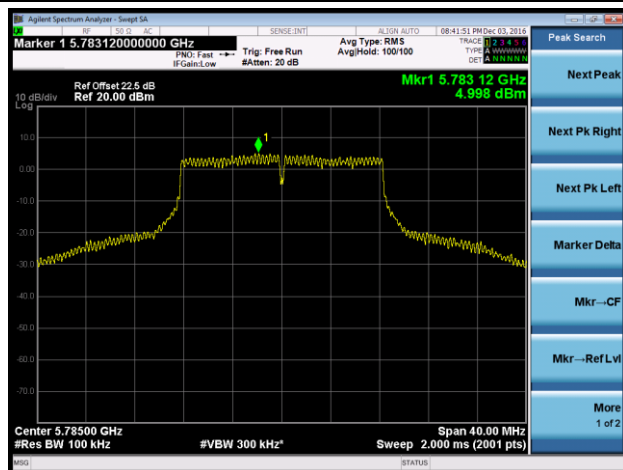
Channel 48 (5240MHz)



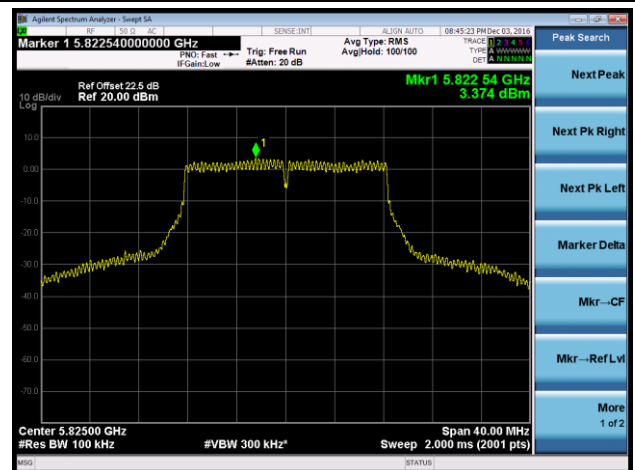
Channel 149 (5745MHz)



Channel 157 (5785MHz)

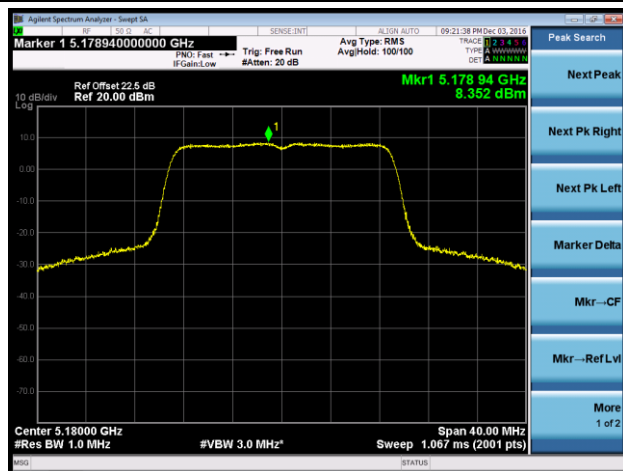


Channel 165 (5825MHz)

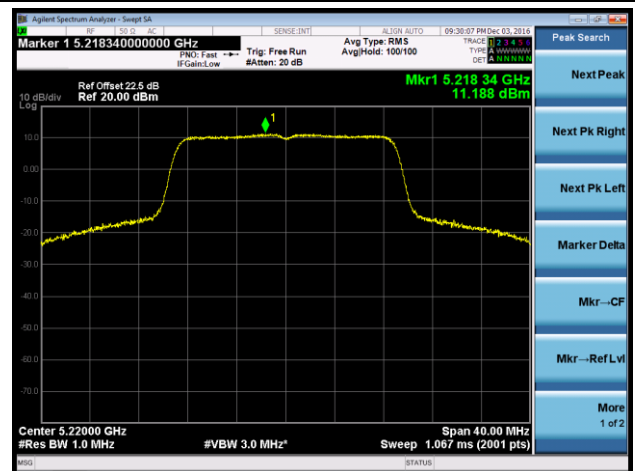


802.11n-HT20 Power Spectral Density - Ant 1 / Ant 0 +1 + 2

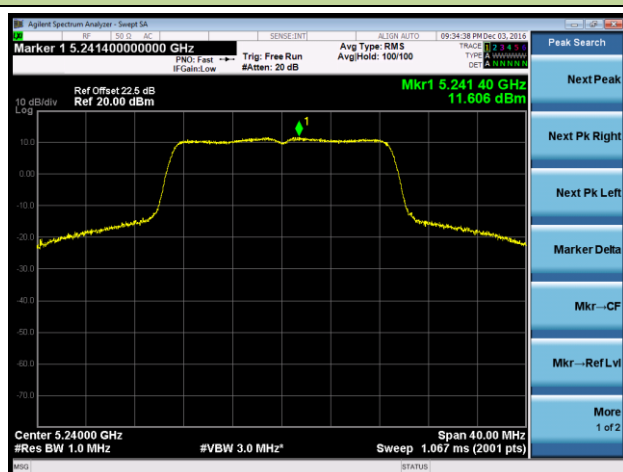
Channel 36 (5180MHz)



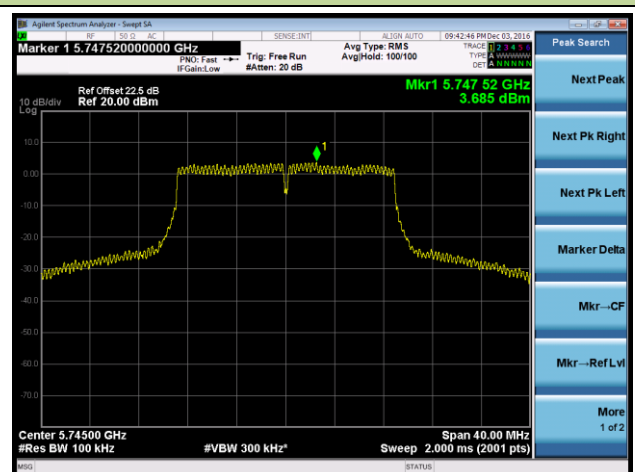
Channel 44 (5220MHz)



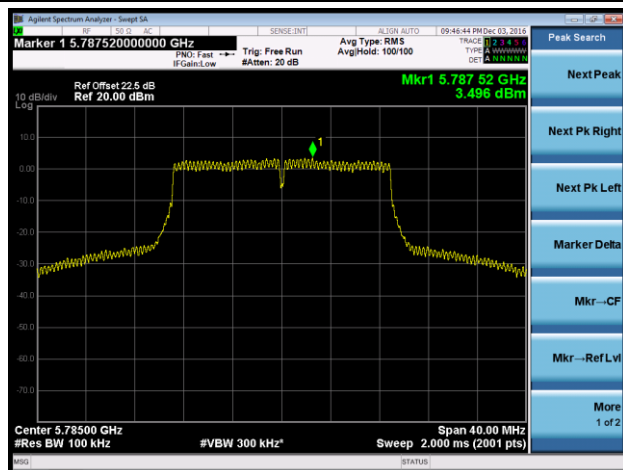
Channel 48 (5240MHz)



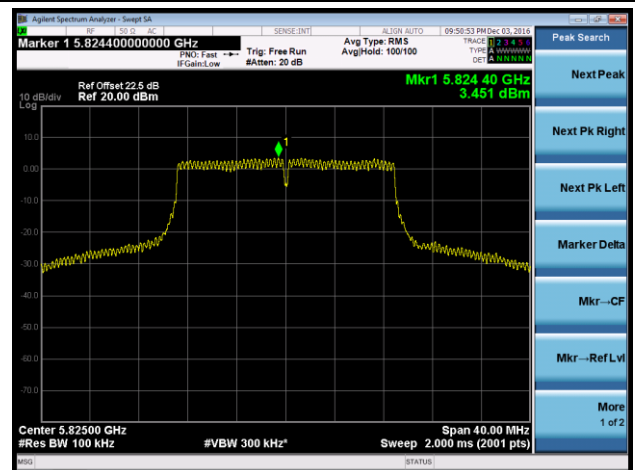
Channel 149 (5745MHz)



Channel 157 (5785MHz)

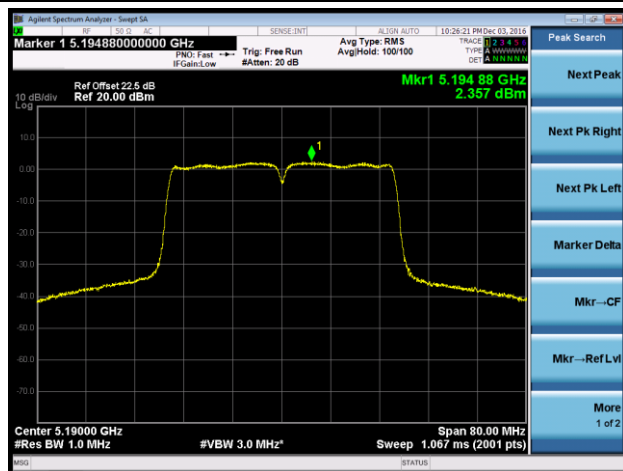


Channel 165 (5825MHz)

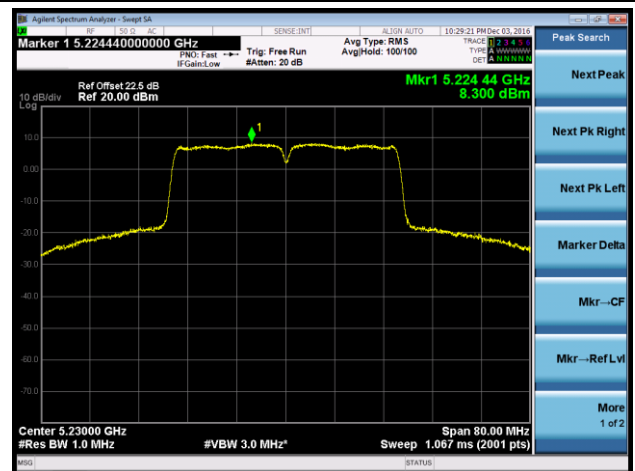


802.11n-HT40 Power Spectral Density - Ant 1 / Ant 0 +1 + 2

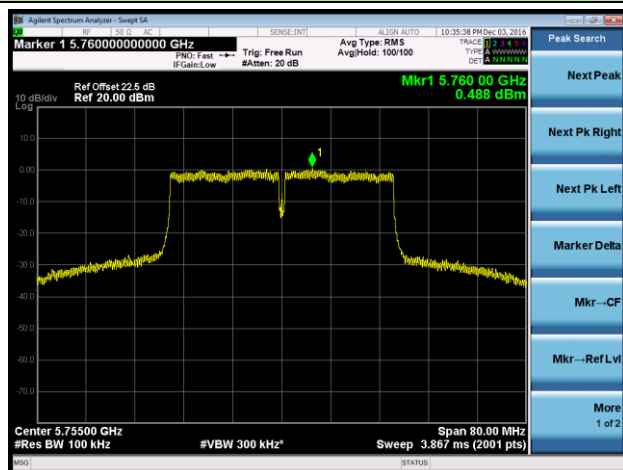
Channel 38 (5190MHz)



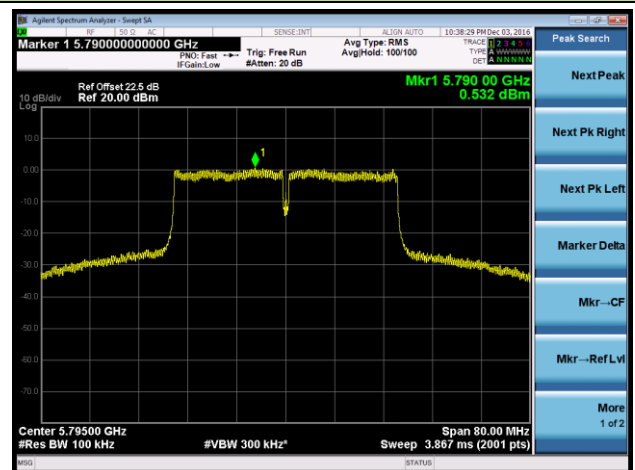
Channel 46 (5230MHz)



Channel 151 (5755MHz)

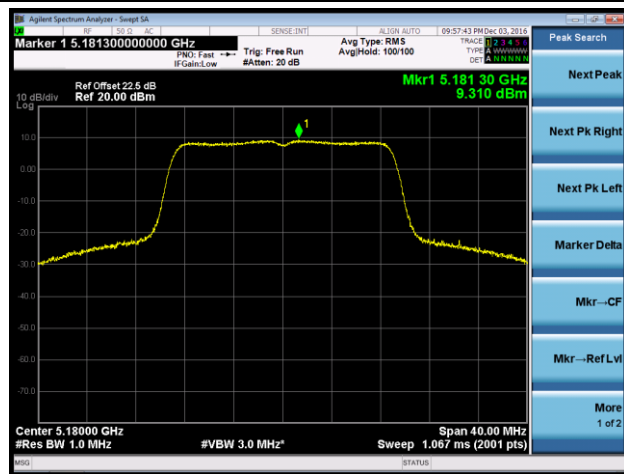


Channel 159 (5795MHz)

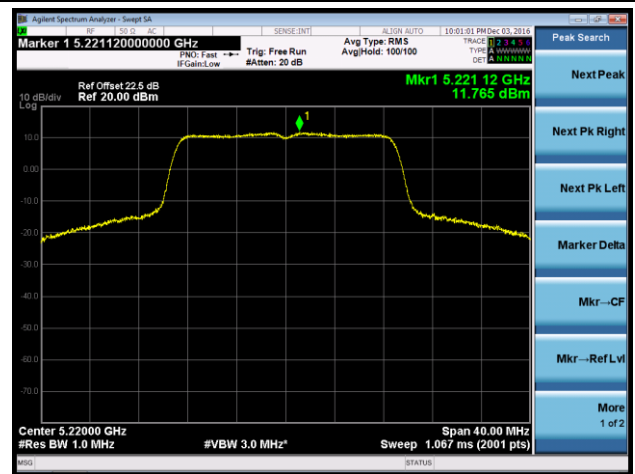


802.11ac-VHT20 Power Spectral Density - Ant 1 / Ant 0 +1 + 2

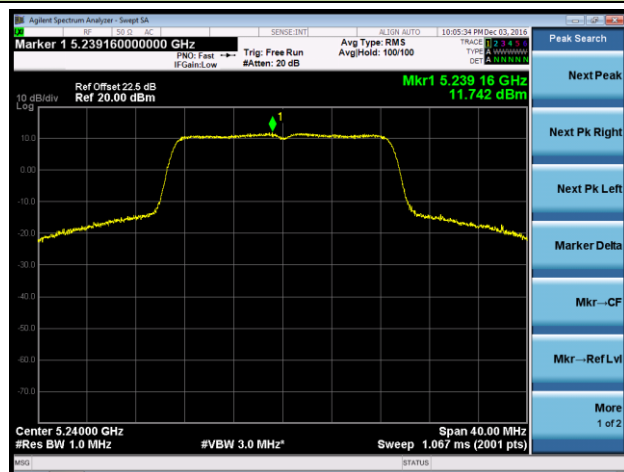
Channel 36 (5180MHz)



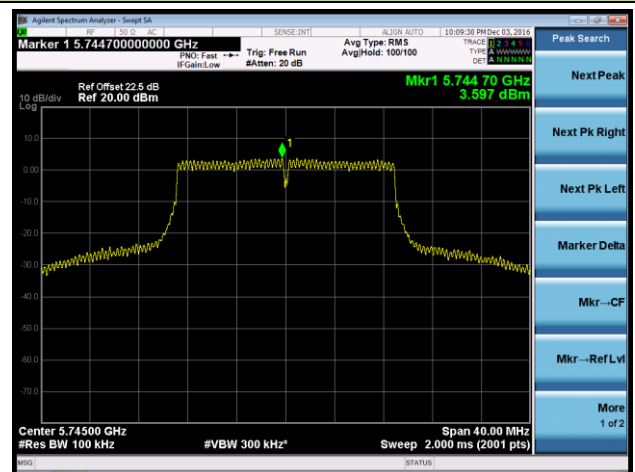
Channel 44 (5220MHz)



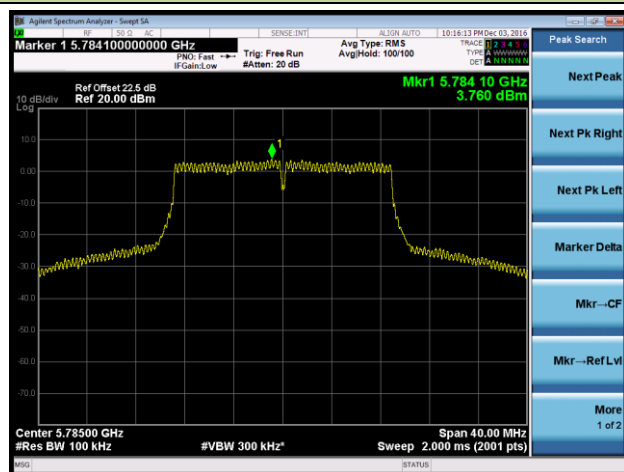
Channel 48 (5240MHz)



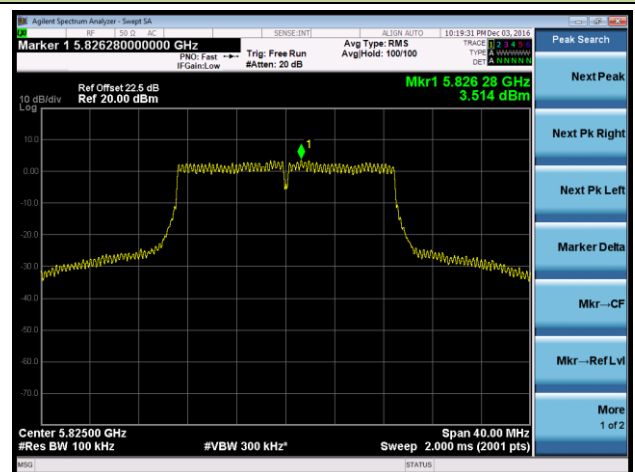
Channel 149 (5745MHz)



Channel 157 (5785MHz)

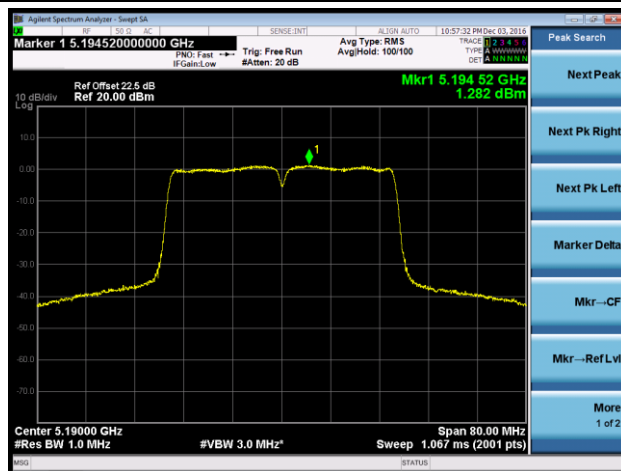


Channel 165 (5825MHz)

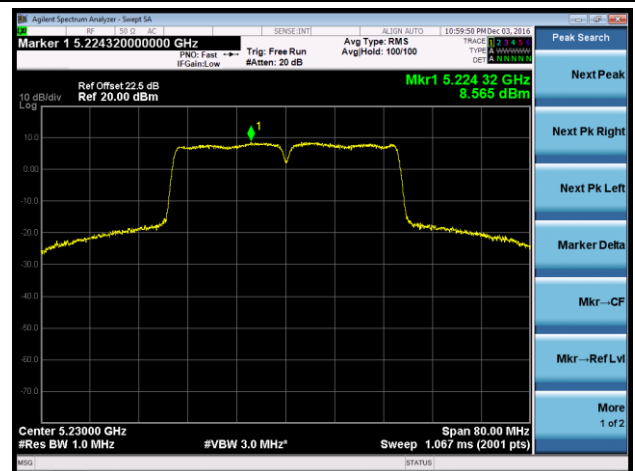


802.11ac-VHT40 Power Spectral Density - Ant 1 / Ant 0 +1 + 2

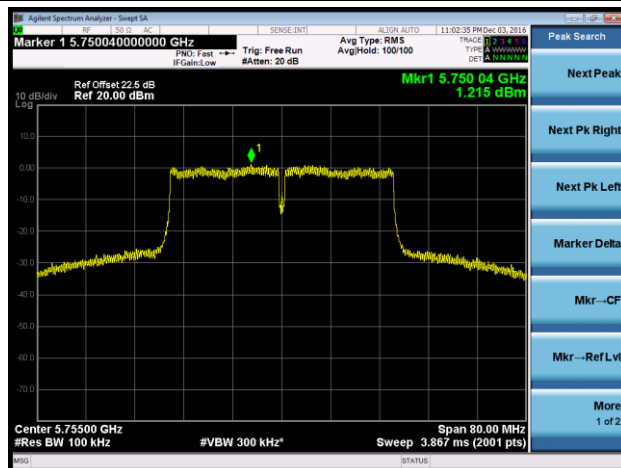
Channel 38 (5190MHz)



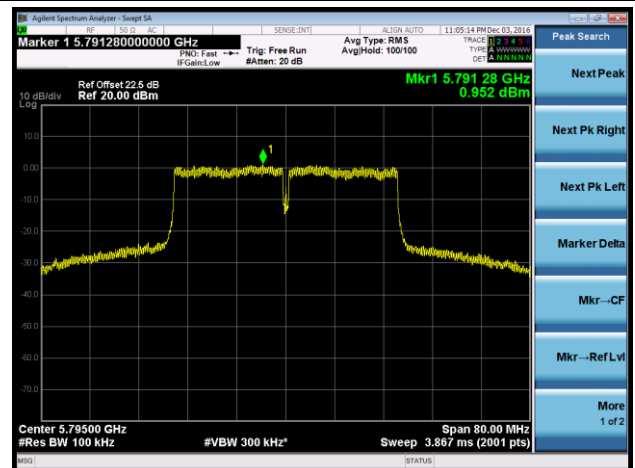
Channel 46 (5230MHz)



Channel 151 (5755MHz)

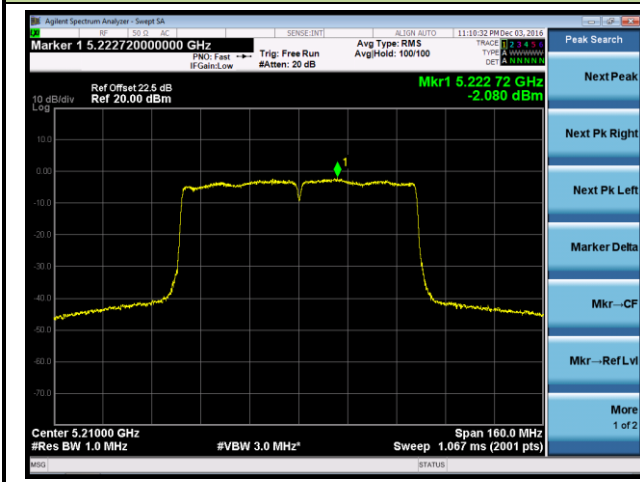


Channel 159 (5795MHz)

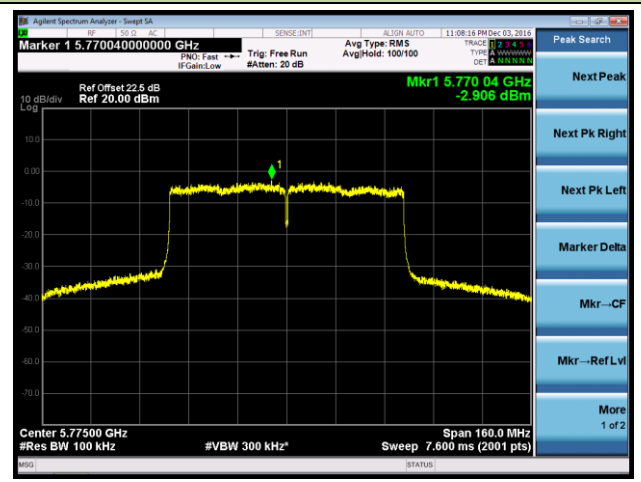


802.11ac-VHT80 Power Spectral Density - Ant 1 / Ant 0 +1 + 2

Channel 42 (5210MHz)

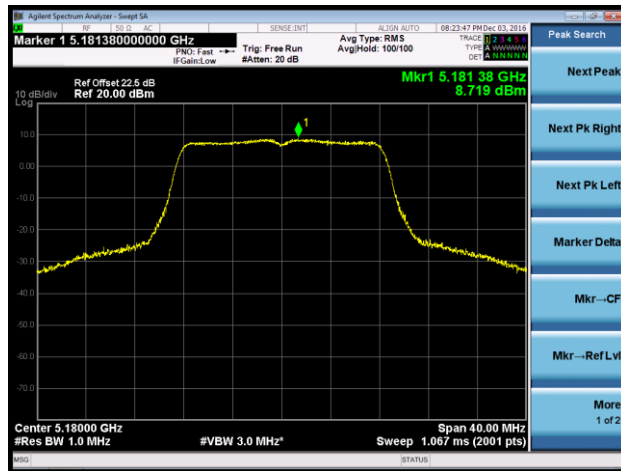


Channel 155 (5775MHz)

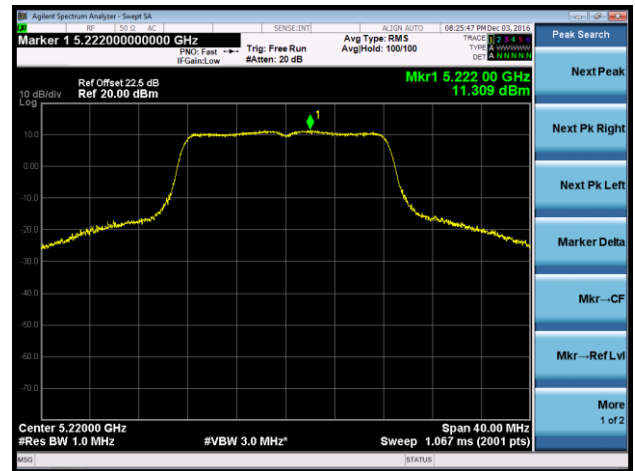


802.11a Power Spectral Density - Ant 2 / Ant 0 +1 + 2

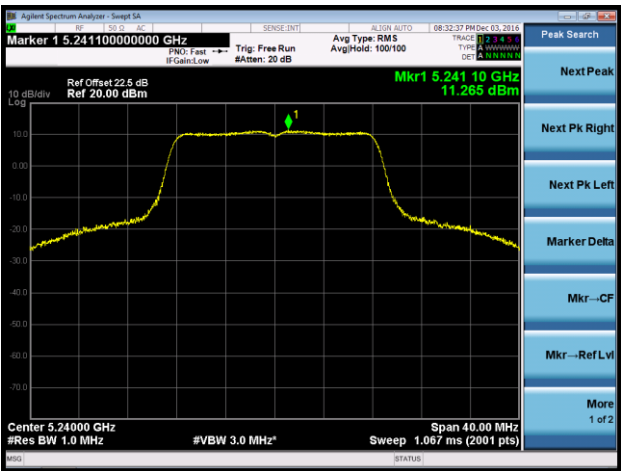
Channel 36 (5180MHz)



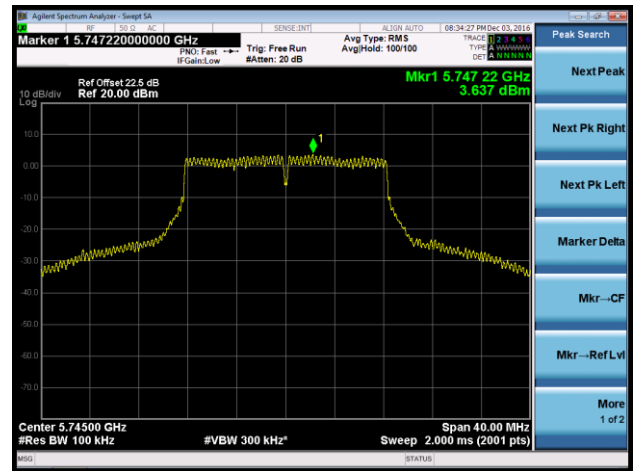
Channel 44 (5220MHz)



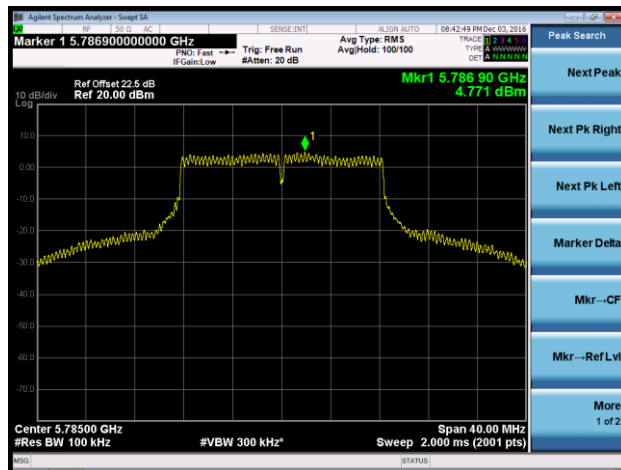
Channel 48 (5240MHz)



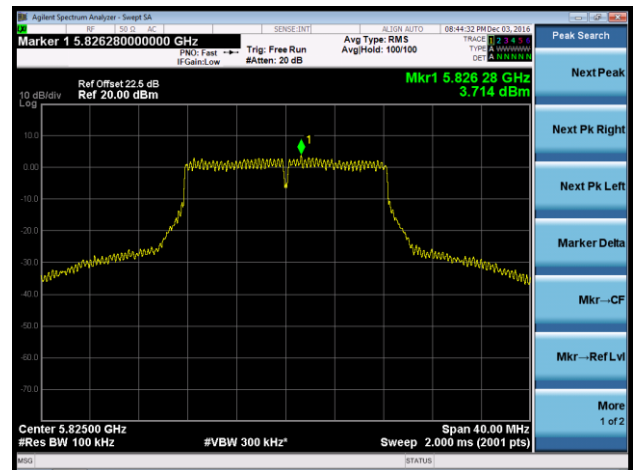
Channel 149 (5745MHz)



Channel 157 (5785MHz)

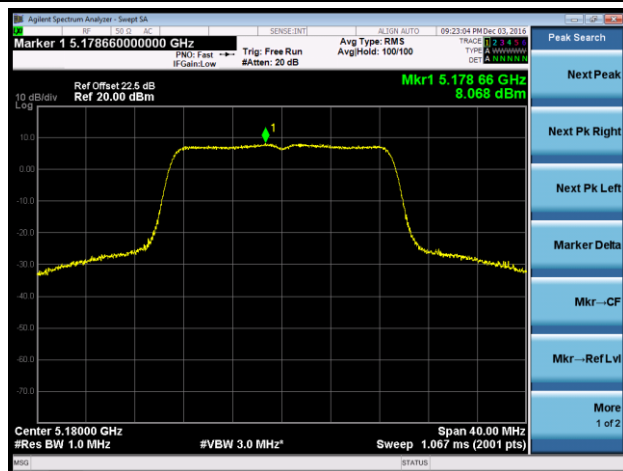


Channel 165 (5825MHz)

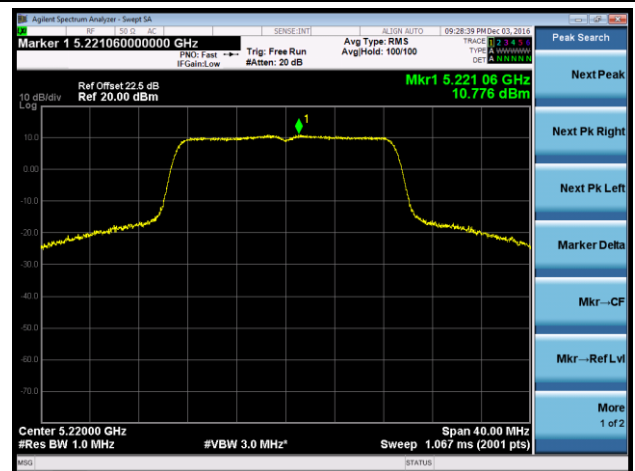


802.11n-HT20 Power Spectral Density - Ant 2 / Ant 0 +1 + 2

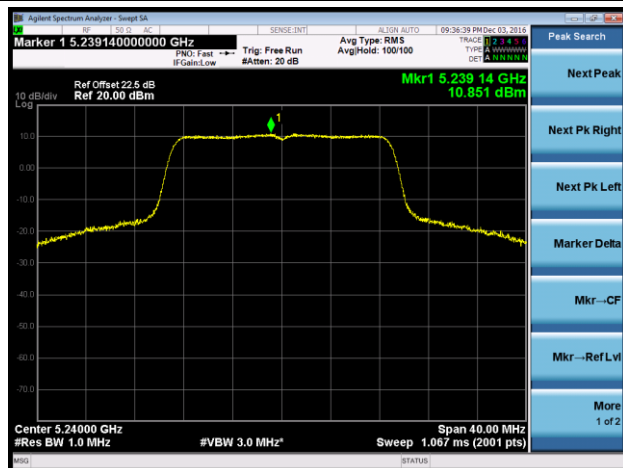
Channel 36 (5180MHz)



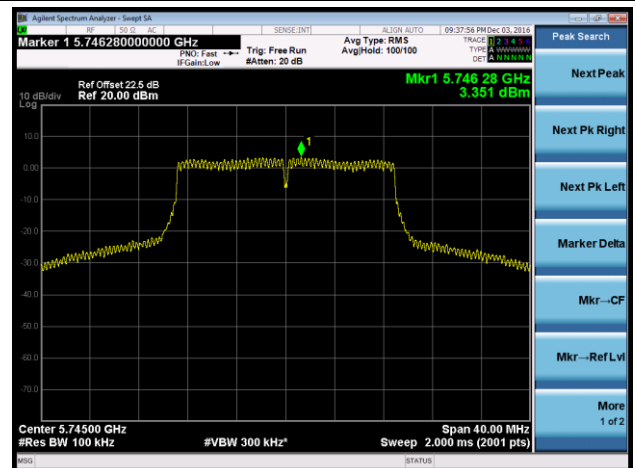
Channel 44 (5220MHz)



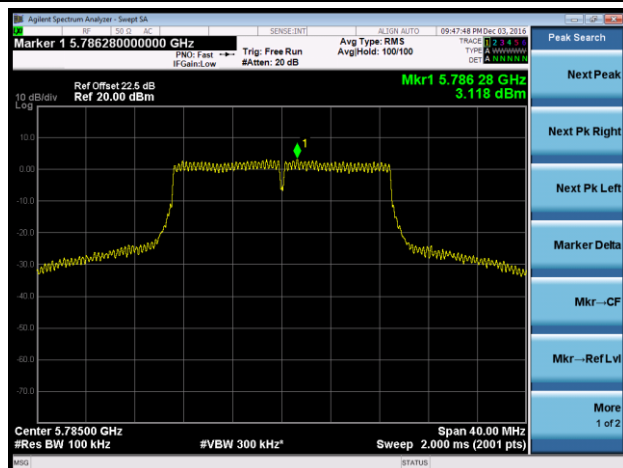
Channel 48 (5240MHz)



Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)

