

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Total Average Power (dBm)	Limit (dBm)	Result
Ant 0 + 1 + 2 + 3, Non-Beam Forming										
11a	6	149	5745	15.56	15.93	14.08	14.62	21.13	≤30	Pass
11a	6	157	5785	16.49	16.75	14.92	15.48	21.99	≤30	Pass
11a	6	165	5825	15.86	16.41	14.64	15.25	21.61	≤30	Pass
11n-HT20	6.5	149	5745	15.69	16.15	14.62	14.78	21.38	≤30	Pass
11n-HT20	6.5	157	5785	15.25	15.64	14.22	14.39	20.94	≤30	Pass
11n-HT20	6.5	165	5825	14.86	16.53	13.57	14.37	20.99	≤30	Pass
11ac-VHT20	6.5	149	5745	15.73	16.04	14.31	15.16	21.38	≤30	Pass
11ac-VHT20	6.5	157	5785	15.06	15.96	14.30	14.79	21.09	≤30	Pass
11ac-VHT20	6.5	165	5825	14.99	15.52	13.96	14.50	20.80	≤30	Pass
11n-HT40	13.5	151	5755	16.00	16.71	14.78	15.18	21.75	≤30	Pass
11n-HT40	13.5	159	5795	15.72	16.25	14.17	14.72	21.31	≤30	Pass
11ac-VHT40	13.5	151	5755	16.09	16.36	14.94	15.12	21.69	≤30	Pass
11ac-VHT40	13.5	159	5795	15.37	16.34	14.27	14.83	21.29	≤30	Pass
11ac-VHT80	29.3	155	5775	15.36	16.21	13.98	14.53	21.12	≤30	Pass
Ant 0 + 1 + 2 + 3, Beam Forming										
11n-HT20	6.5	149	5745	12.28	12.34	10.78	11.14	17.71	≤30	Pass
11n-HT20	6.5	157	5785	12.87	13.39	11.64	12.50	18.67	≤30	Pass
11n-HT20	6.5	165	5825	13.34	13.58	11.66	12.16	18.78	≤30	Pass
11ac-VHT20	6.5	149	5745	12.58	12.75	11.18	10.73	17.92	≤30	Pass
11ac-VHT20	6.5	157	5785	11.96	12.31	10.91	11.14	17.64	≤30	Pass
11ac-VHT20	6.5	165	5825	13.19	13.42	11.36	12.02	18.60	≤30	Pass
11n-HT40	13.5	151	5755	12.26	12.64	10.86	11.33	17.85	≤30	Pass
11n-HT40	13.5	159	5795	12.00	12.54	10.63	11.37	17.71	≤30	Pass
11ac-VHT40	13.5	151	5755	13.26	13.49	11.59	12.09	18.70	≤30	Pass
11ac-VHT40	13.5	159	5795	12.54	12.51	11.16	11.26	17.94	≤30	Pass
11ac-VHT80	29.3	155	5775	12.42	12.51	11.13	11.64	17.98	≤30	Pass

7.4. Power Spectral Density Measurement §15.247(e); RSS-210 [A8.2]

7.4.1. Test Limit

The maximum permissible power spectral density is 8dBm in any 3 kHz band.

Limit for Non-Beam Forming

Power Spectral Density 5745 ~ 5825MHz: $\text{Limit (dBm / 3kHz)} = 8\text{dBm} / 3\text{kHz}$

Limit for Beam Forming

Power Spectral Density 5745 ~ 5825MHz: $\text{Limit (dBm / 3kHz)} = 8\text{dBm} / 3\text{kHz} - (8.7\text{dBi} - 6\text{dBi}) = 5.3\text{dBm} / 3\text{kHz}$

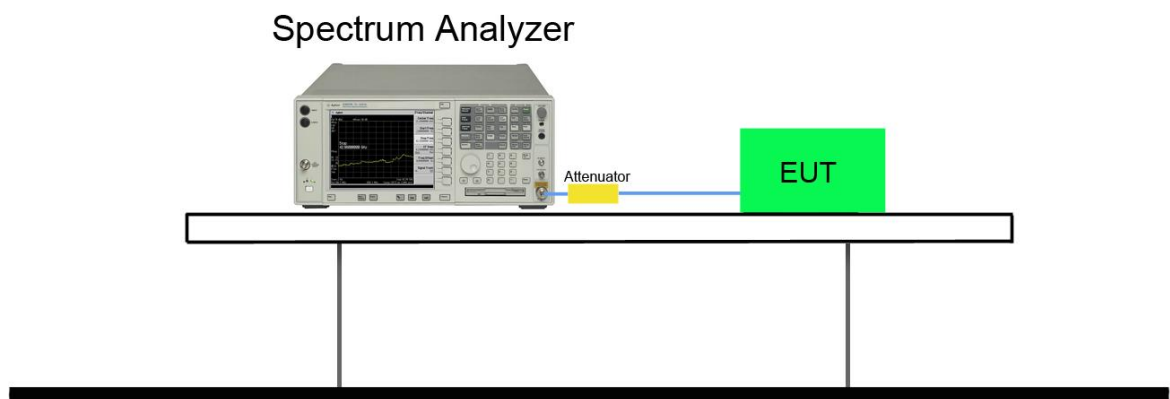
7.4.2. Test Procedure Used

KDB 558074 D01v03r01 - Section 10.2 Method PKPSD

7.4.3. Test Setting

1. Analyzer was set to the center frequency of the DTS channel under investigation
2. Span = 1.5 times the DTS channel bandwidth
3. RBW = 3kHz
4. VBW = 10kHz
5. Detector = peak
6. Sweep time = auto couple
7. Trace mode = max hold
8. Trace was allowed to stabilize

7.4.4. Test Setup



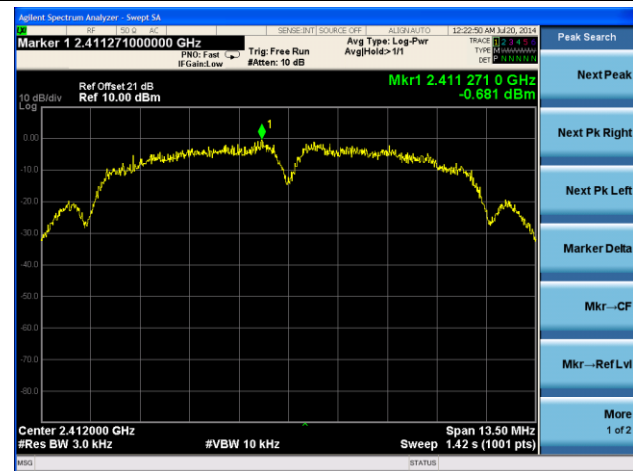
7.4.5. Test Result

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 PSD (dBm / 3kHz)	Ant 1 PSD (dBm / 3kHz)	Total PSD (dBm / 3kHz)	Limit (dBm / 3kHz)	Result
Ant 0								
11b	1	1	2412	-0.68	--	-0.68	≤8	Pass
11b	1	6	2437	-0.44	--	-0.44	≤8	Pass
11b	1	11	2462	-0.44	--	-0.44	≤8	Pass
11g	6	1	2412	-3.55	--	-3.55	≤8	Pass
11g	6	6	2437	-3.19	--	-3.19	≤8	Pass
11g	6	11	2462	-5.78	--	-5.78	≤8	Pass
11n-HT20	6.5	1	2412	-6.04	--	-6.04	≤8	Pass
11n-HT20	6.5	6	2437	-4.69	--	-4.69	≤8	Pass
11n-HT20	6.5	11	2462	-6.35	--	-6.35	≤8	Pass
11n-HT40	13.5	3	2422	-12.56	--	-12.56	≤8	Pass
11n-HT40	13.5	6	2437	-9.48	--	-9.48	≤8	Pass
11n-HT40	13.5	9	2452	-12.16	--	-12.16	≤8	Pass
Ant 1								
11n-HT20	6.5	1	2412	--	-6.44	-6.44	≤8	Pass
11n-HT20	6.5	6	2437	--	-6.65	-6.65	≤8	Pass
11n-HT20	6.5	11	2462	--	-8.59	-8.59	≤8	Pass
11n-HT40	13.5	3	2422	--	-12.80	-12.80	≤8	Pass
11n-HT40	13.5	6	2437	--	-10.49	-10.49	≤8	Pass
11n-HT40	13.5	9	2452	--	-13.95	-13.95	≤8	Pass
Ant 0 + 1								
11n-HT20	6.5	1	2412	-7.03	-7.69	-4.34	≤8	Pass
11n-HT20	6.5	6	2437	-5.45	-6.81	-3.07	≤8	Pass
11n-HT20	6.5	11	2462	-6.80	-8.63	-4.61	≤8	Pass
11n-HT40	13.5	3	2422	-13.22	-12.67	-9.93	≤8	Pass
11n-HT40	13.5	6	2437	-9.75	-8.34	-5.98	≤8	Pass
11n-HT40	13.5	9	2452	-12.38	-11.37	-8.84	≤8	Pass

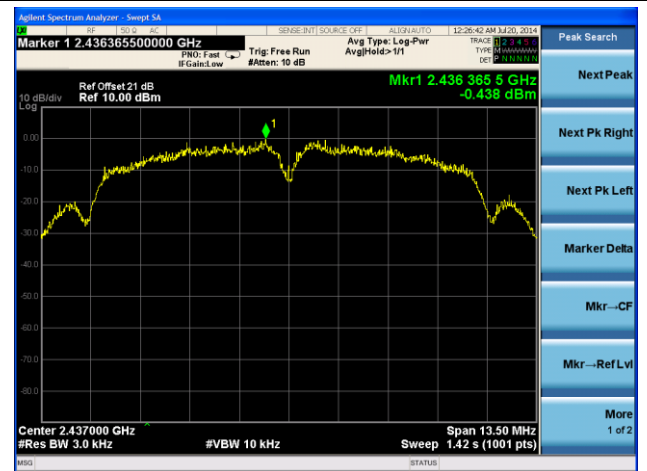
Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 PSD (dBm / 3kHz)	Ant 1 PSD (dBm / 3kHz)	Ant 2 PSD (dBm / 3kHz)	Ant 3 PSD (dBm / 3kHz)	Total PSD (dBm / 3kHz)	Limit (dBm / 3kHz)	Result
Ant 0 + 1 + 2 + 3, Non-Beam Forming										
11a	6	149	5745	-5.48	-9.60	-9.19	-11.55	-2.34	≤8	Pass
11a	6	157	5785	-5.79	-10.59	-12.36	-11.66	-3.21	≤8	Pass
11a	6	165	5825	-7.82	-10.63	-12.14	-12.16	-4.28	≤8	Pass
11n-HT20	6.5	149	5745	-5.35	-9.13	-10.34	-10.03	-2.18	≤8	Pass
11n-HT20	6.5	157	5785	-6.27	-9.42	-10.53	-10.07	-2.70	≤8	Pass
11n-HT20	6.5	165	5825	-6.83	-8.78	-11.30	-10.41	-2.97	≤8	Pass
11ac-VHT20	6.5	149	5745	-6.05	-9.17	-10.70	-9.80	-2.52	≤8	Pass
11ac-VHT20	6.5	157	5785	-5.31	-8.95	-10.73	-10.41	-2.24	≤8	Pass
11ac-VHT20	6.5	165	5825	-7.05	-10.03	-11.71	-10.88	-3.51	≤8	Pass
11n-HT40	13.5	151	5755	-5.71	-11.19	-13.50	-12.05	-3.45	≤8	Pass
11n-HT40	13.5	159	5795	-5.83	-11.67	-13.32	-12.37	-3.62	≤8	Pass
11ac-VHT40	13.5	151	5755	-4.16	-10.17	-9.44	-11.37	-1.76	≤8	Pass
11ac-VHT40	13.5	159	5795	-5.98	-10.80	-12.97	-11.28	-3.37	≤8	Pass
11ac-VHT80	29.3	155	5775	-6.10	-13.60	-14.15	-15.81	-4.51	≤8	Pass
Ant 0 + 1 + 2 + 3, Beam Forming										
11n-HT20	6.5	149	5745	-8.65	-14.68	-15.80	-15.91	-6.52	≤5.3	Pass
11n-HT20	6.5	157	5785	-11.46	-14.68	-15.95	-15.34	-7.96	≤5.3	Pass
11n-HT20	6.5	165	5825	-9.09	-13.25	-15.21	-14.87	-6.32	≤5.3	Pass
11ac-VHT20	6.5	149	5745	-10.98	-13.41	-15.98	-15.59	-7.49	≤5.3	Pass
11ac-VHT20	6.5	157	5785	-11.00	-14.67	-16.23	-16.78	-8.00	≤5.3	Pass
11ac-VHT20	6.5	165	5825	-11.14	-13.36	-15.24	-14.83	-7.31	≤5.3	Pass
11n-HT40	13.5	151	5755	-11.45	-14.18	-16.19	-18.34	-8.28	≤5.3	Pass
11n-HT40	13.5	159	5795	-11.01	-17.50	-17.24	-17.88	-8.79	≤5.3	Pass
11ac-VHT40	13.5	151	5755	-8.56	-12.79	-15.93	-17.12	-6.25	≤5.3	Pass
11ac-VHT40	13.5	159	5795	-8.68	-15.80	-18.15	-17.35	-7.09	≤5.3	Pass
11ac-VHT80	29.3	155	5775	-9.26	-16.04	-17.59	-21.60	-7.75	≤5.3	Pass

802.11b PSD - Ant 0

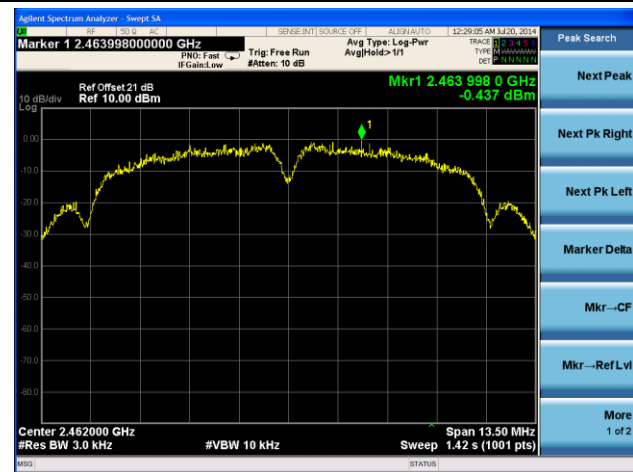
Channel 01 (2412MHz)



Channel 06 (2437MHz)

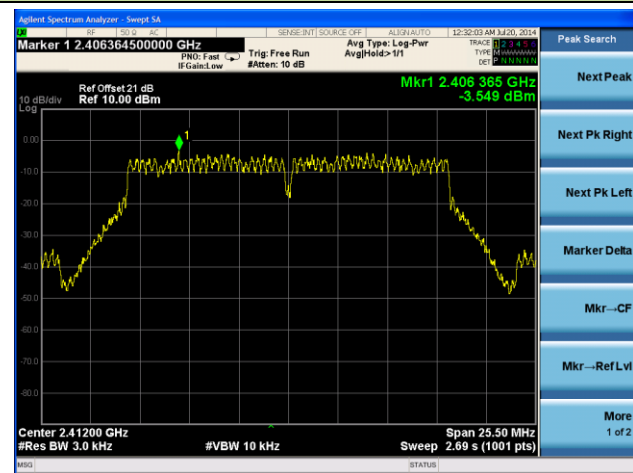


Channel 11 (2462MHz)

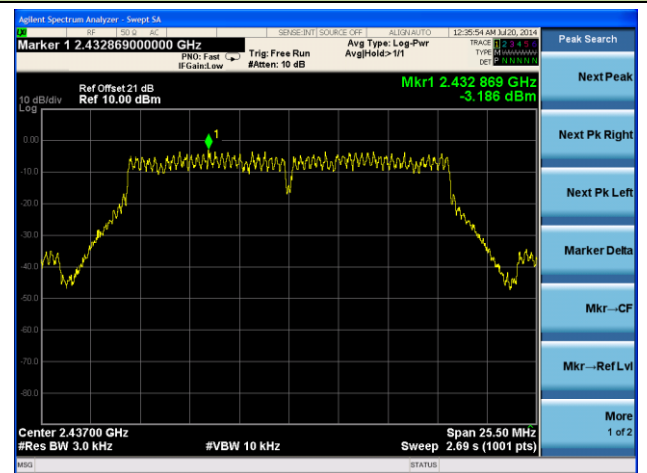


802.11g PSD - Ant 0

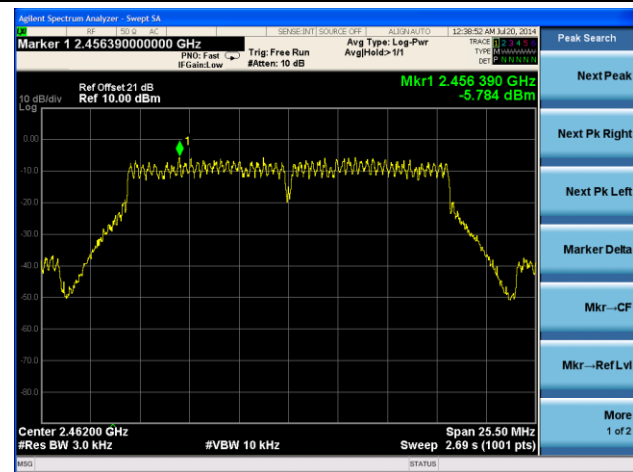
Channel 01 (2412MHz)



Channel 06 (2437MHz)

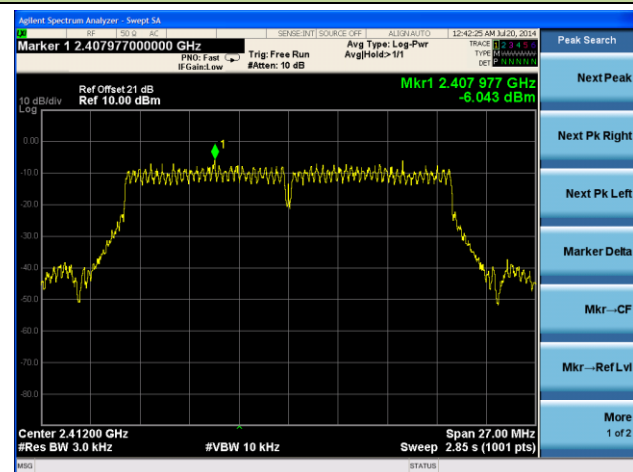


Channel 11 (2462MHz)

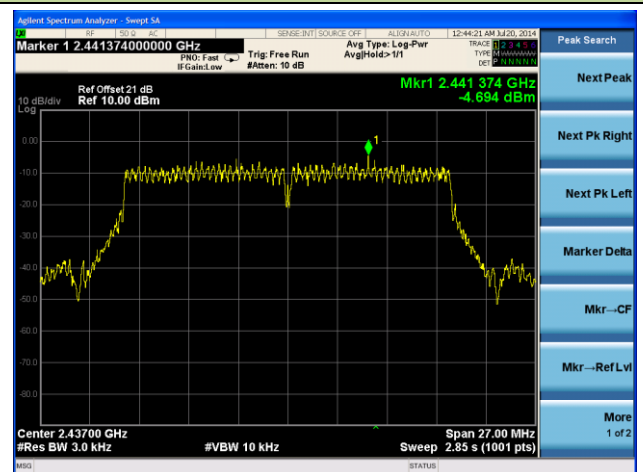


802.11n-HT20 PSD - Ant 0

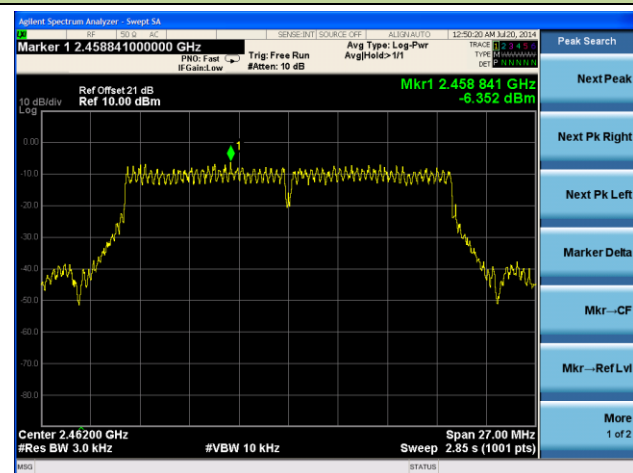
Channel 01 (2412MHz)



Channel 06 (2437MHz)

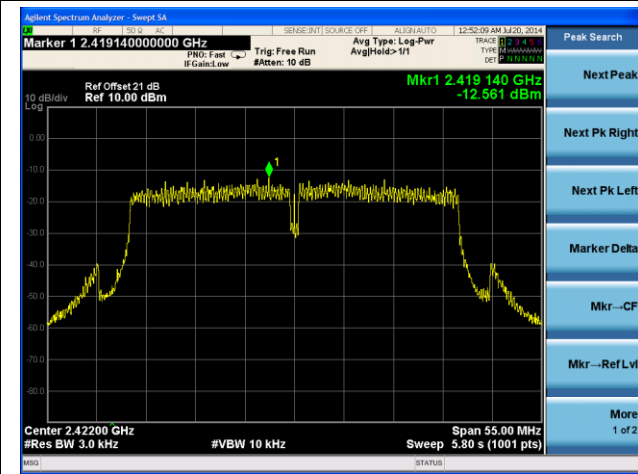


Channel 11 (2462MHz)

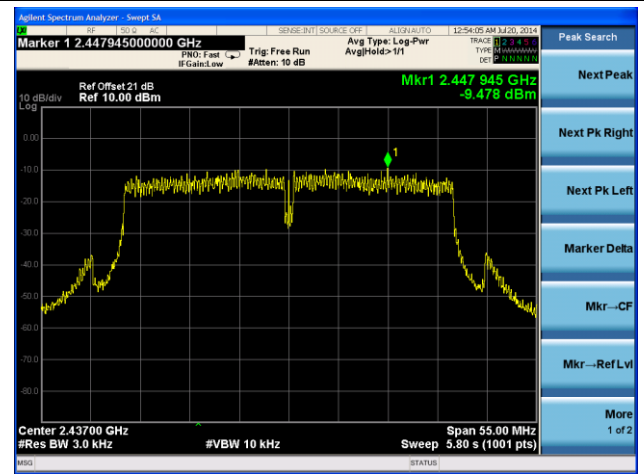


802.11n-HT40 PSD - Ant 0

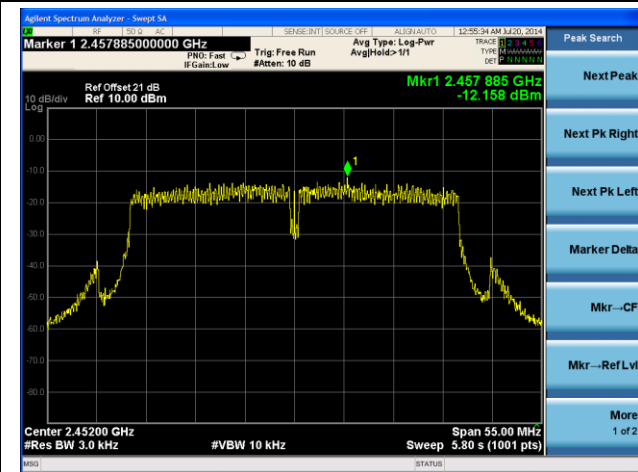
Channel 03 (2422MHz)



Channel 06 (2437MHz)

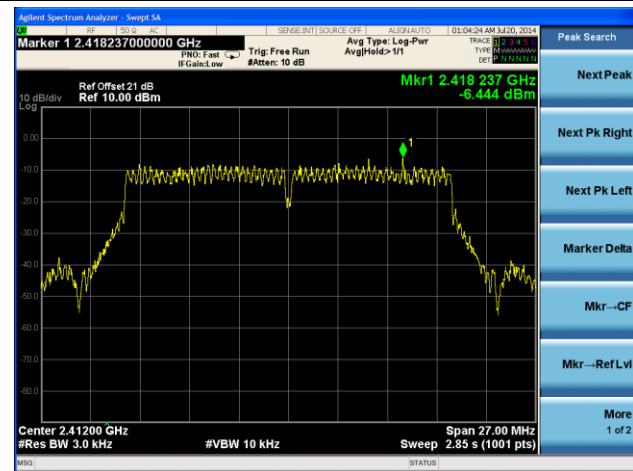


Channel 09 (2452MHz)

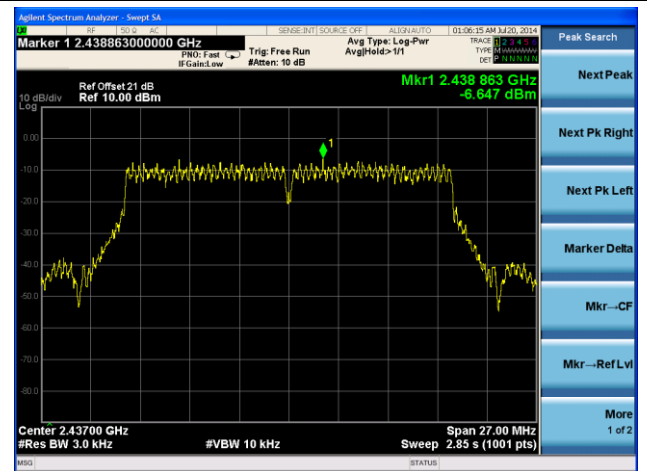


802.11n-HT20 PSD - Ant 1

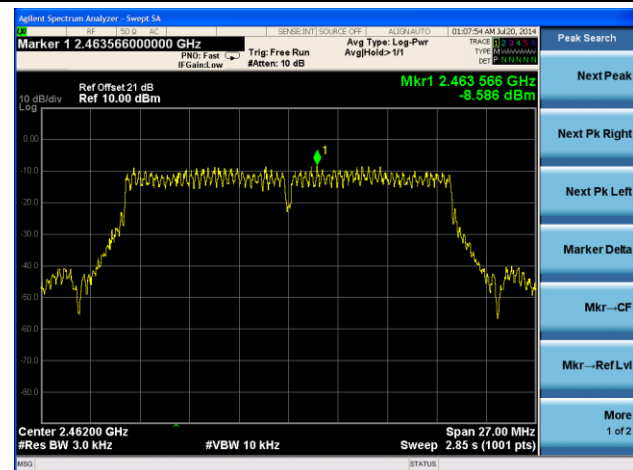
Channel 01 (2412MHz)



Channel 06 (2437MHz)

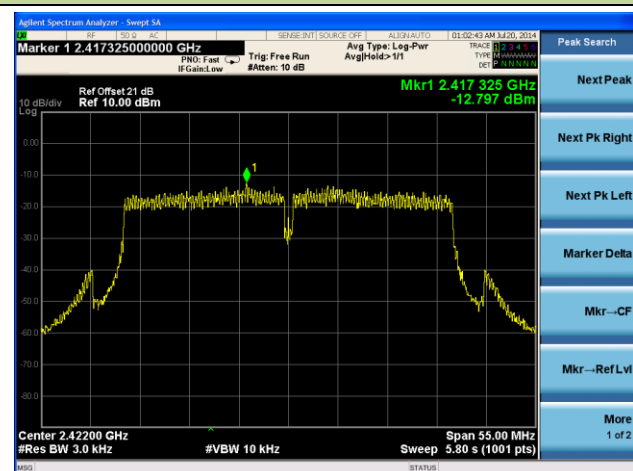


Channel 11 (2462MHz)

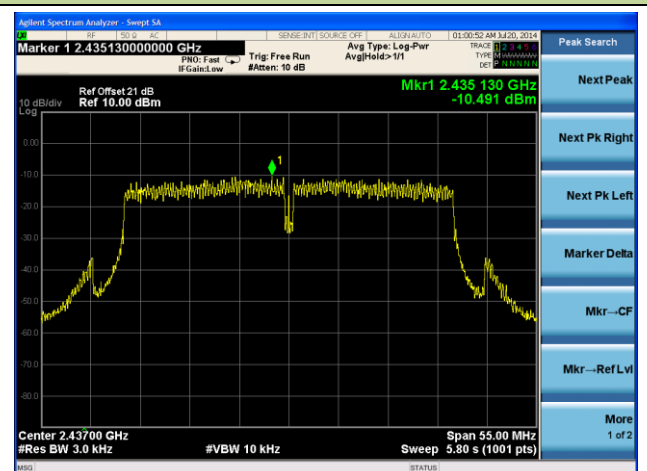


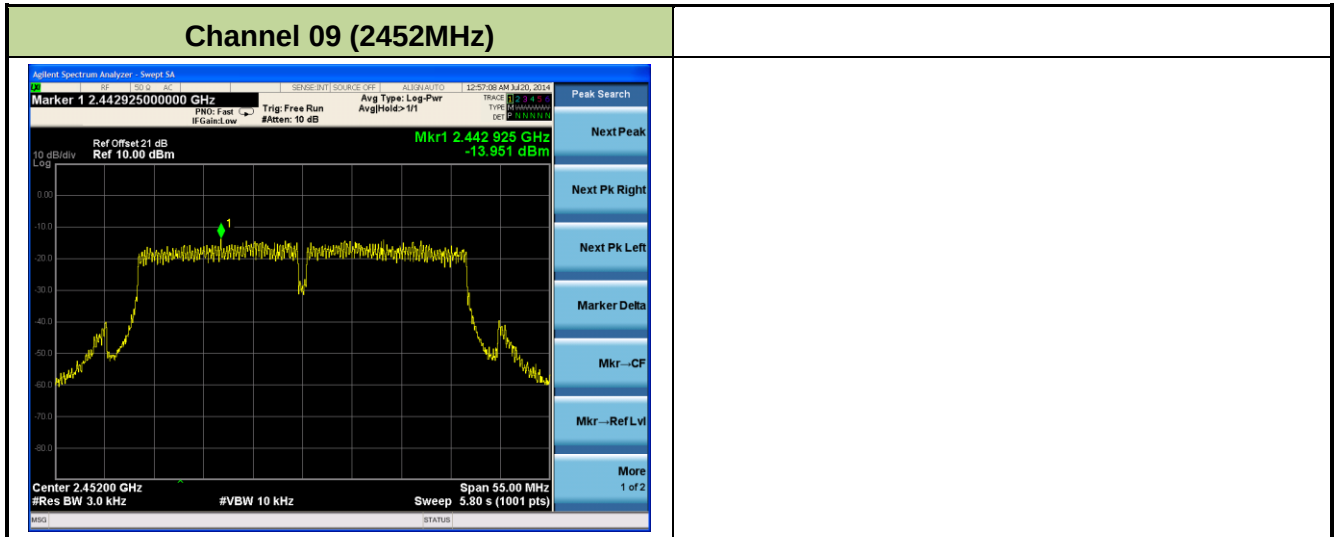
802.11n-HT40 PSD - Ant 1

Channel 03 (2422MHz)



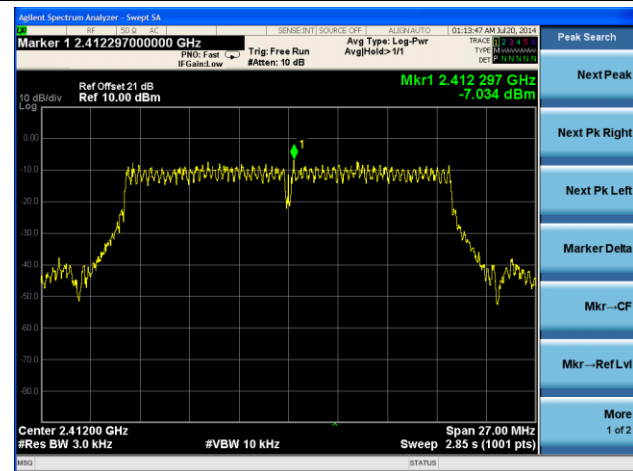
Channel 06 (2437MHz)



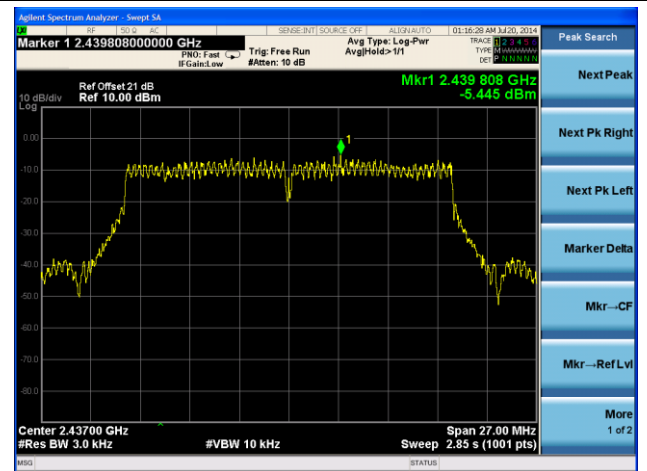


802.11n-HT20 PSD - Ant 0 / Ant 0 + 1

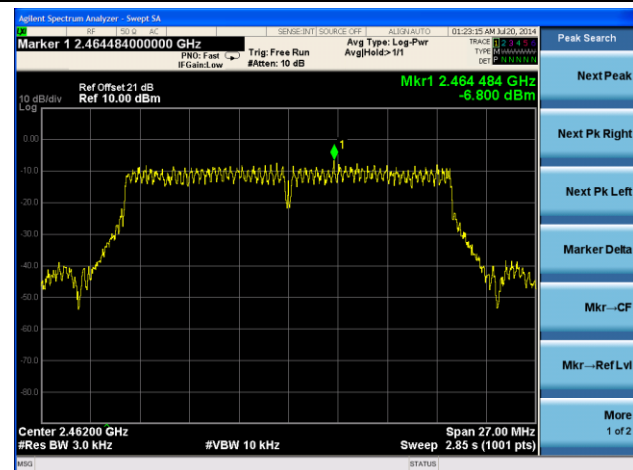
Channel 01 (2412MHz)



Channel 06 (2437MHz)

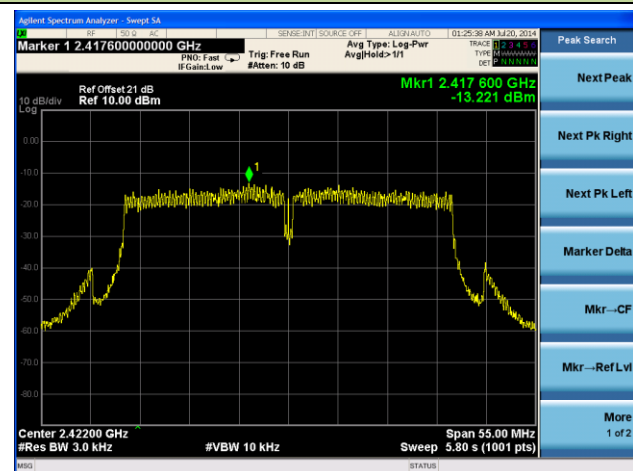


Channel 11 (2462MHz)

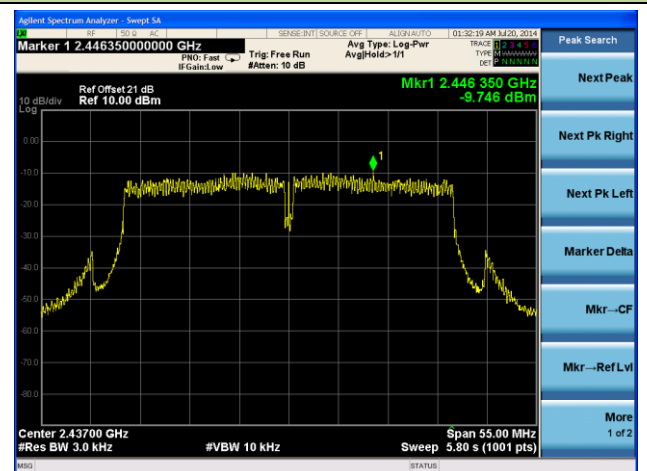


802.11n-HT40 PSD - Ant 0 / Ant 0 + 1

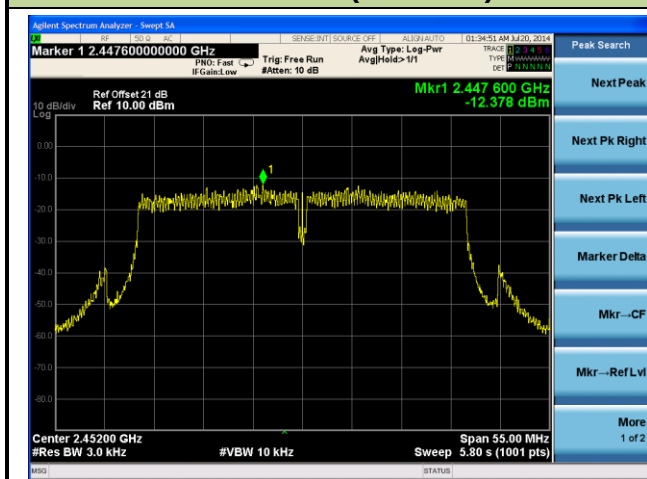
Channel 03 (2422MHz)



Channel 06 (2437MHz)

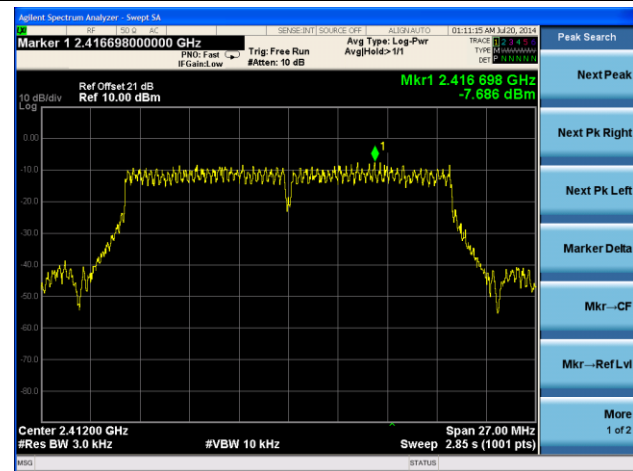


Channel 09 (2452MHz)

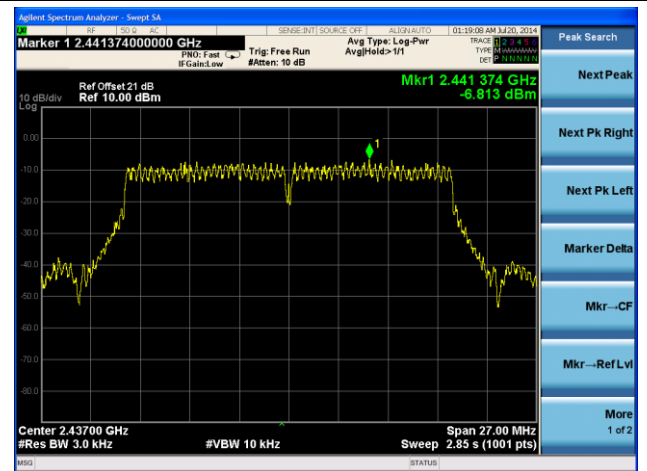


802.11n-HT20 PSD - Ant 1 / Ant 0 + 1

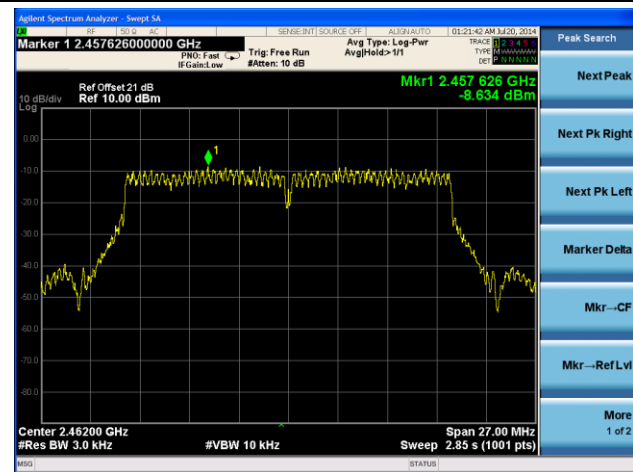
Channel 01 (2412MHz)



Channel 06 (2437MHz)

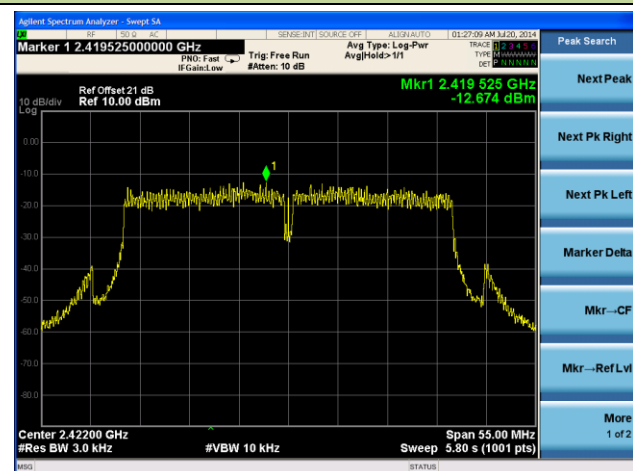


Channel 11 (2462MHz)

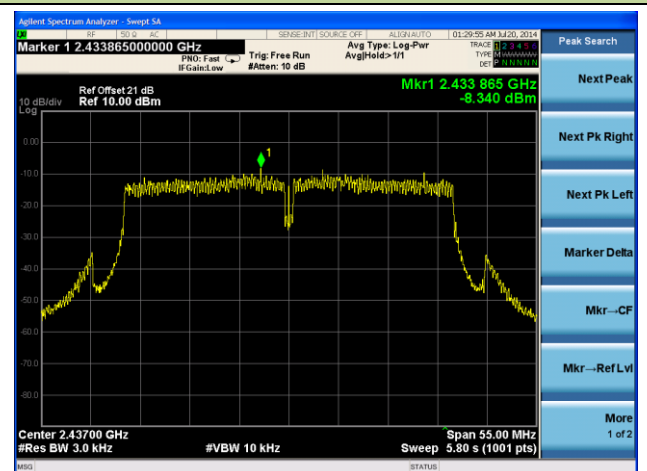


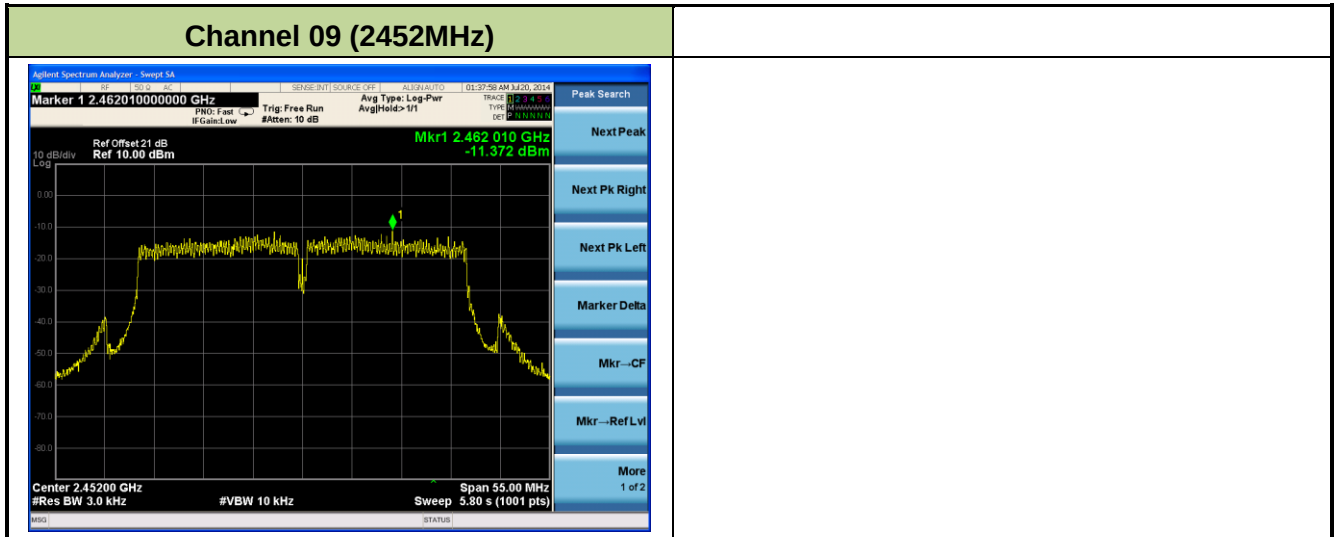
802.11n-HT40 PSD - Ant 1 / Ant 0 + 1

Channel 03 (2422MHz)



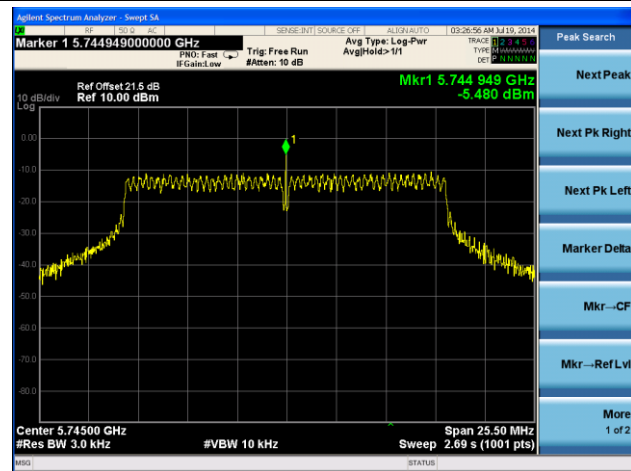
Channel 06 (2437MHz)



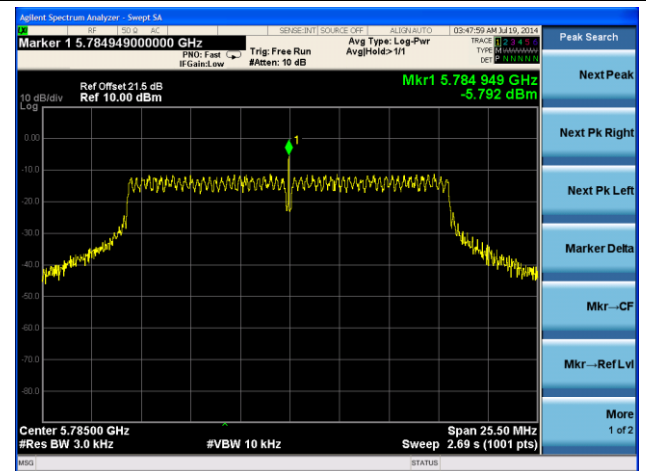


802.11a PSD - Ant 0 / Ant 0 + 1 + 2 + 3

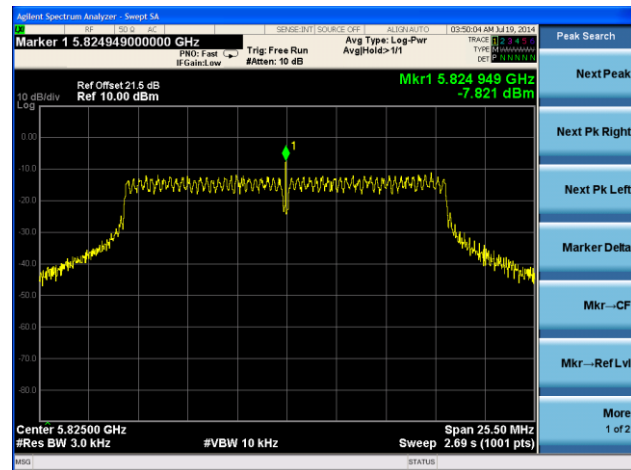
Channel 149 (5745MHz)



Channel 157 (5785MHz)

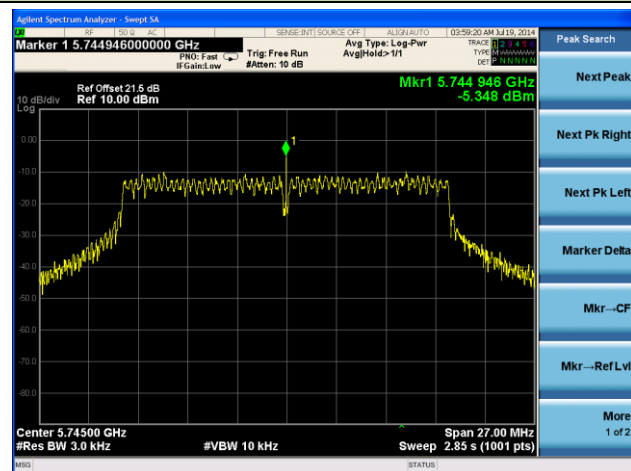


Channel 165 (5825MHz)

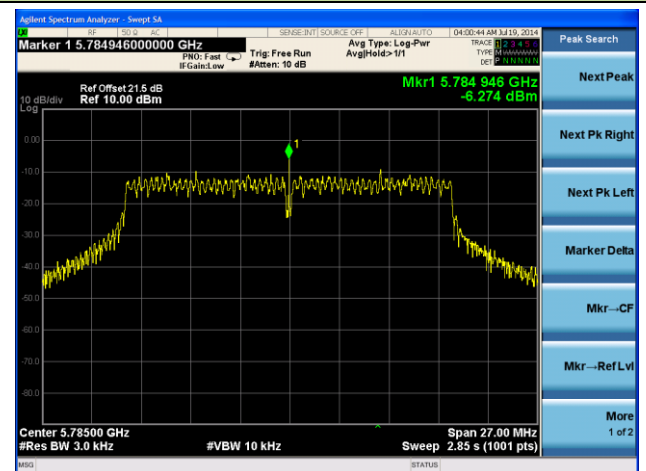


802.11n-HT20 PSD - Ant 0 / Ant 0 + 1 + 2 + 3

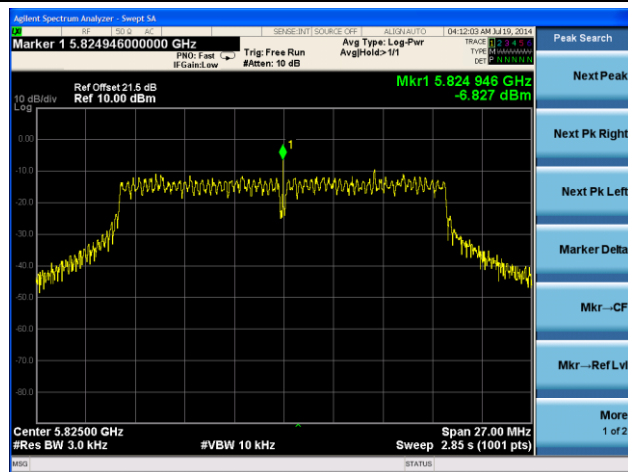
Channel 149 (5745MHz)



Channel 157 (5785MHz)

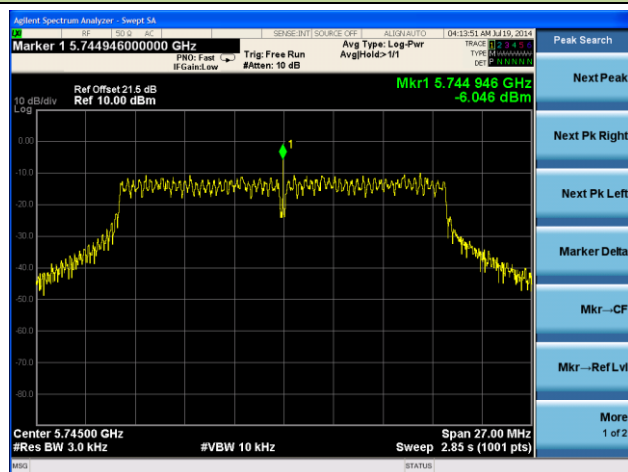


Channel 165 (5825MHz)

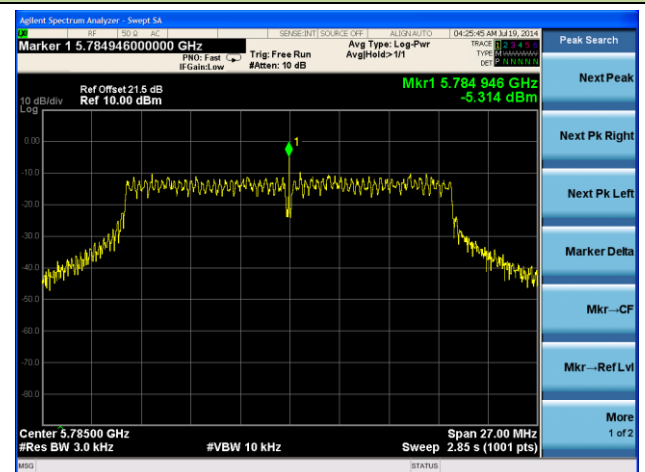


802.11ac-VHT20 PSD - Ant 0 / Ant 0 + 1 + 2 + 3

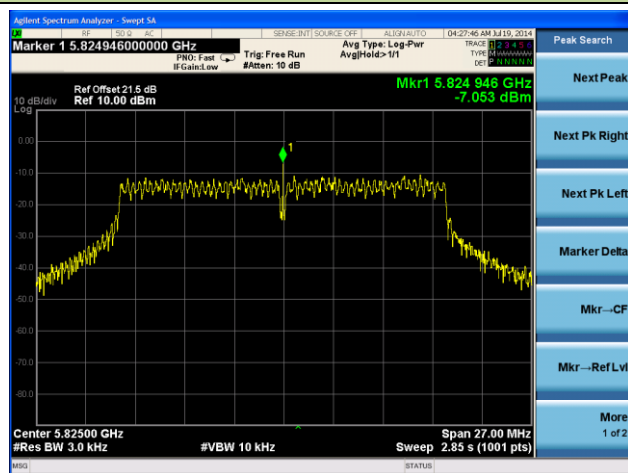
Channel 149 (5745MHz)



Channel 157 (5785MHz)

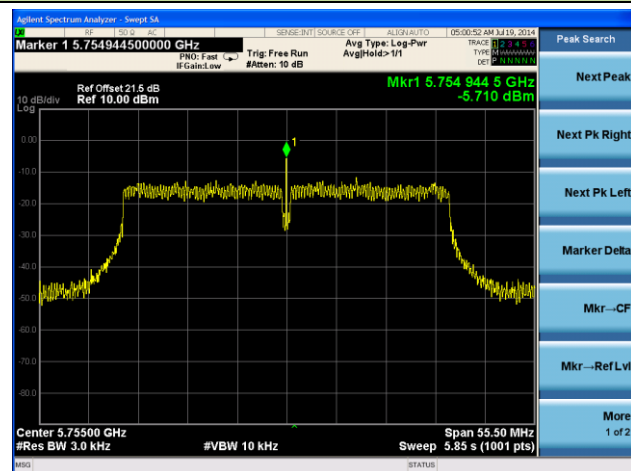


Channel 165 (5825MHz)

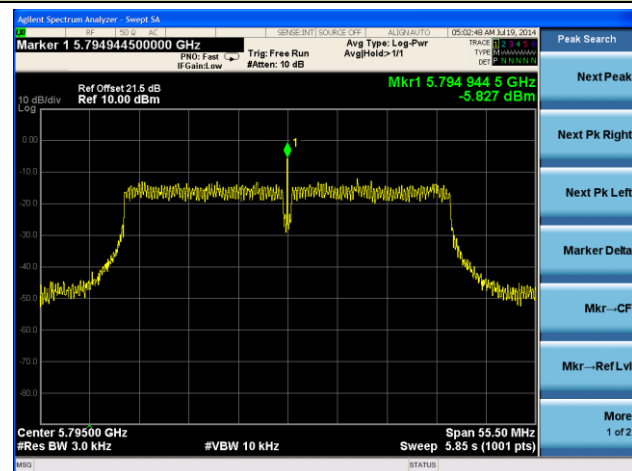


802.11n-HT40 PSD - Ant 0 / Ant 0 + 1 + 2 + 3

Channel 151 (5755MHz)

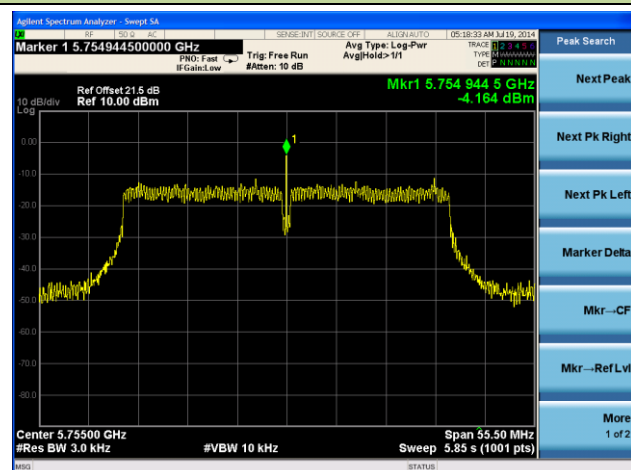


Channel 159 (5795MHz)

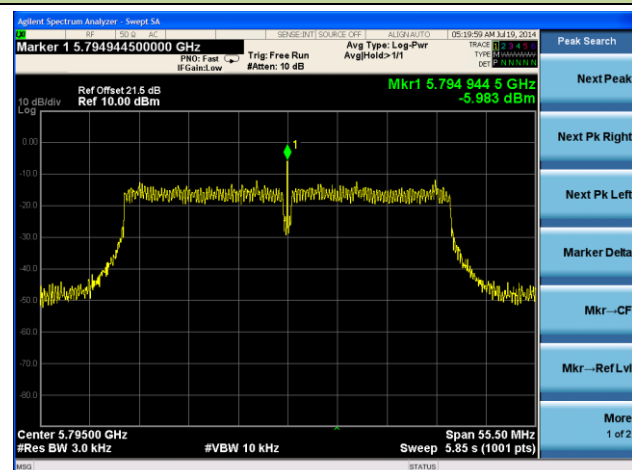


802.11ac-VHT40 PSD - Ant 0 / Ant 0 + 1 + 2 + 3

Channel 151 (5755MHz)



Channel 159 (5795MHz)



802.11ac-VHT80 PSD - Ant 0 / Ant 0 + 1 + 2 + 3

Channel 155 (5775MHz)

