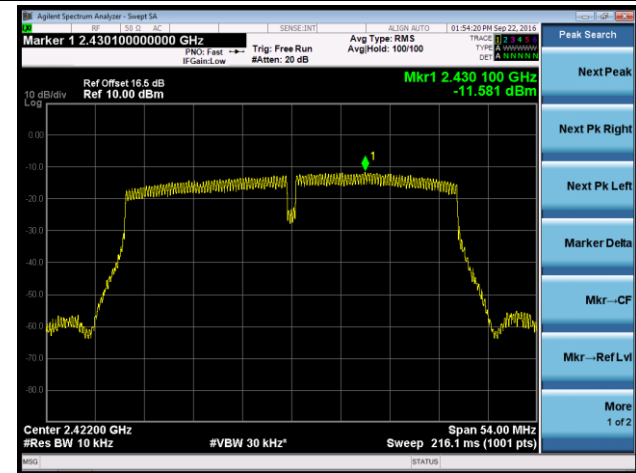
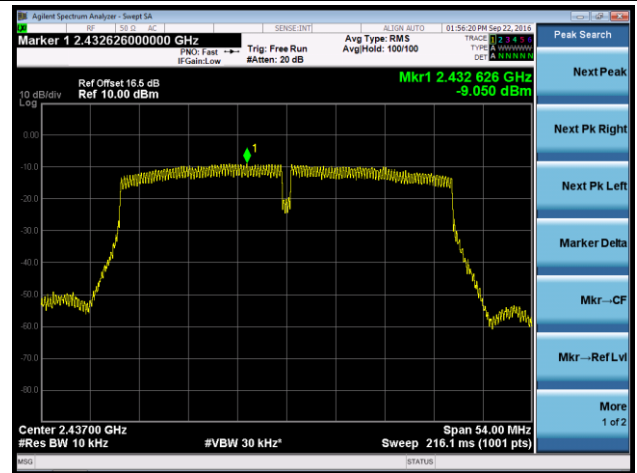


802.11n-HT40 AVGPSSD - Ant 3

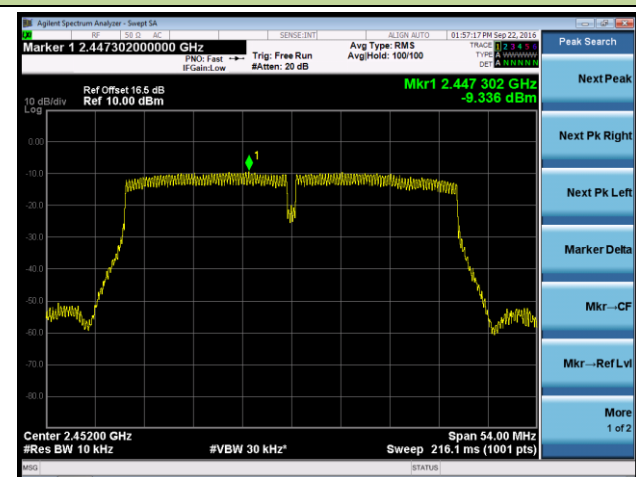
Channel 03 (2422MHz)



Channel 06 (2437MHz)

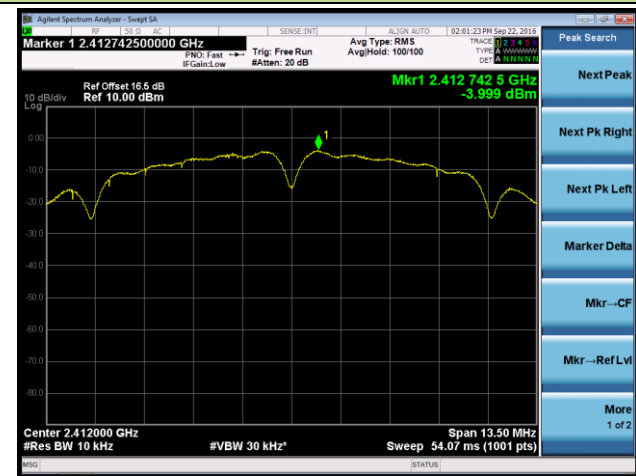


Channel 09 (2452MHz)

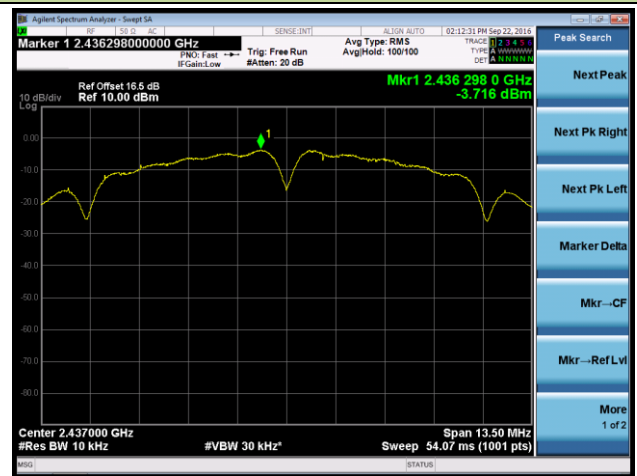


802.11b AVGPDS - Ant 0 / Ant 0 + 1 + 2 + 3

Channel 01 (2412MHz)



Channel 06 (2437MHz)

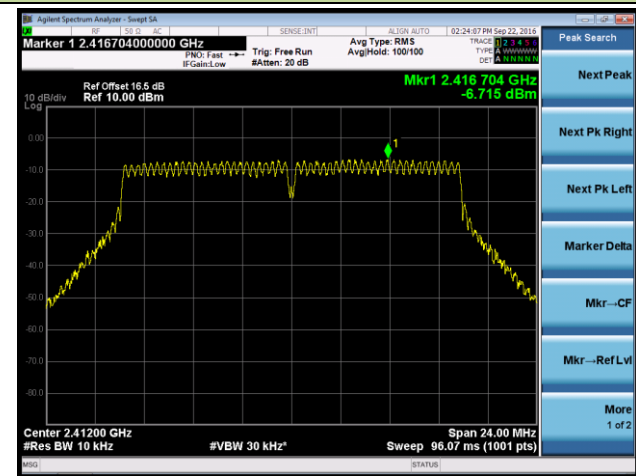


Channel 11 (2462MHz)

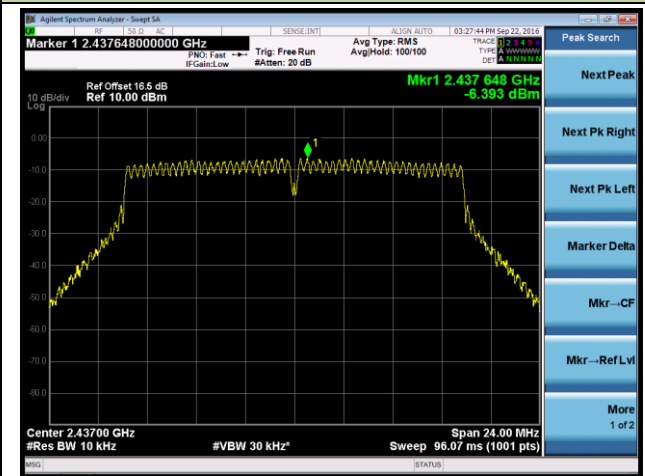


802.11g AVGPDS - Ant 0 / Ant 0 + 1 + 2 + 3

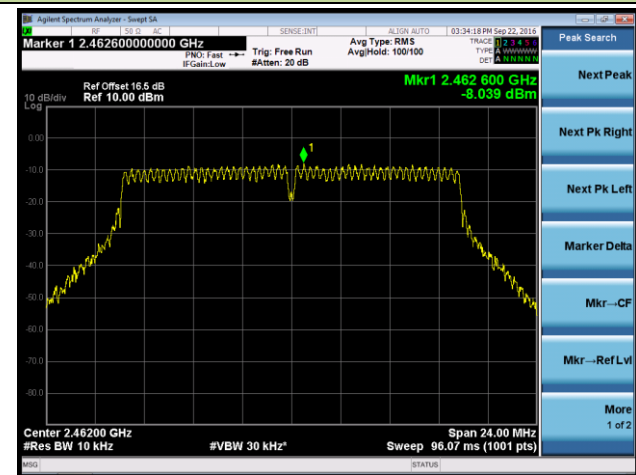
Channel 01 (2412MHz)



Channel 06 (2437MHz)

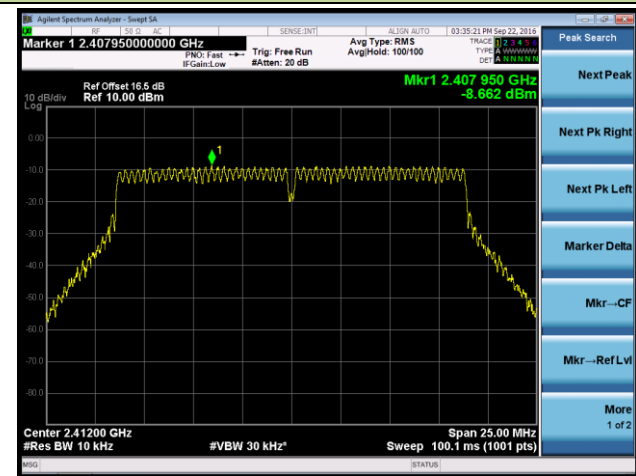


Channel 11 (2462MHz)

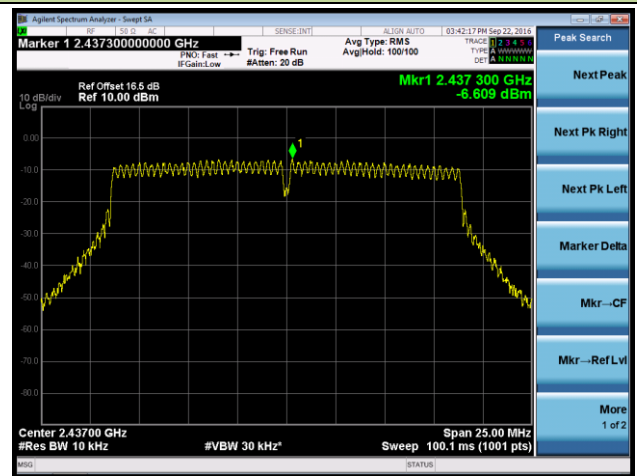


802.11n-HT20 AVGPSD - Ant 0 / Ant 0 + 1 + 2 + 3

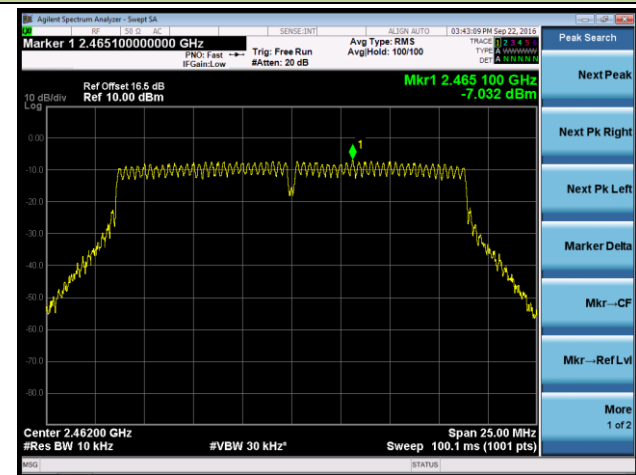
Channel 01 (2412MHz)



Channel 06 (2437MHz)

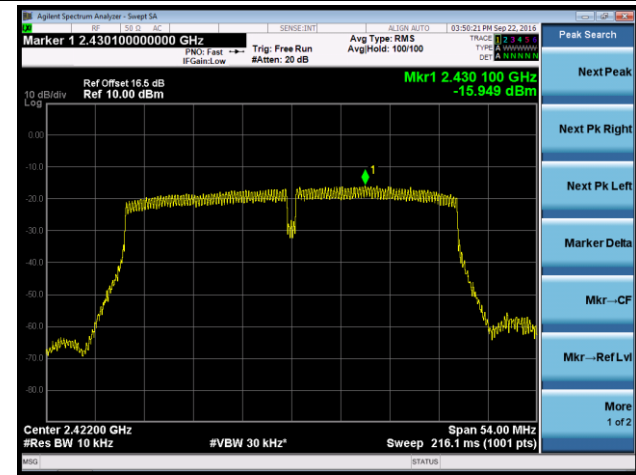


Channel 11 (2462MHz)

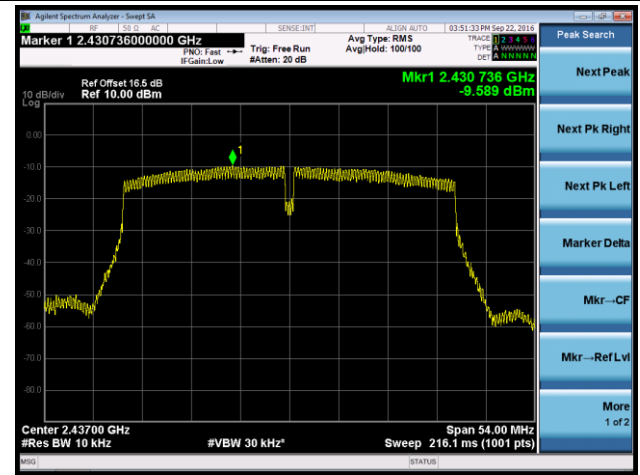


802.11n-HT40 AVGPDS - Ant 0 / Ant 0 + 1 + 2 + 3

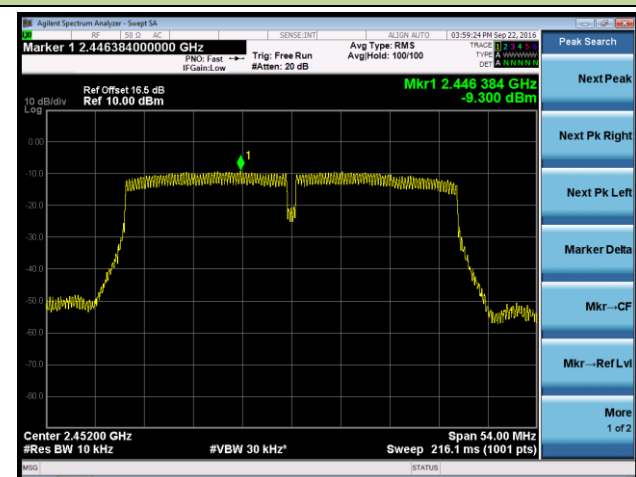
Channel 03 (2422MHz)



Channel 06 (2437MHz)



Channel 09 (2452MHz)



802.11b AVGPDS - Ant 1 / Ant 0 + 1 + 2 + 3

Channel 01 (2412MHz)



Channel 06 (2437MHz)

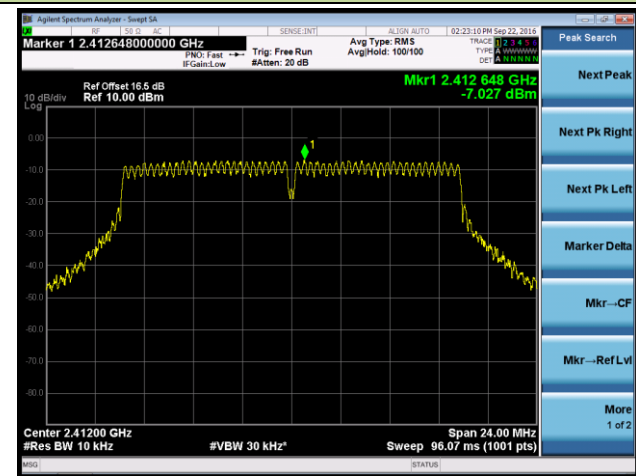


Channel 11 (2462MHz)

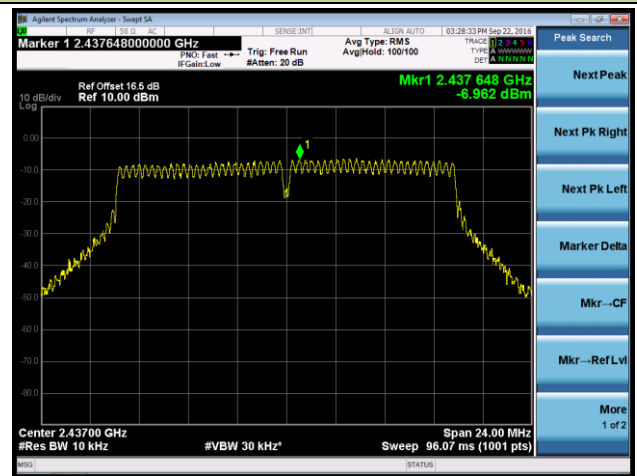


802.11g AVGPDS - Ant 1 / Ant 0 + 1 + 2 + 3

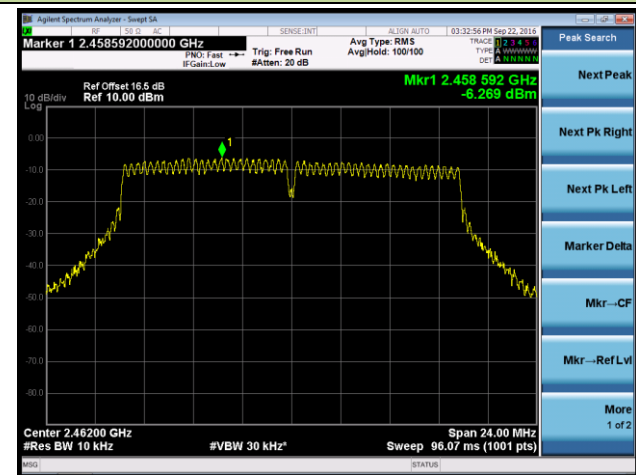
Channel 01 (2412MHz)



Channel 06 (2437MHz)

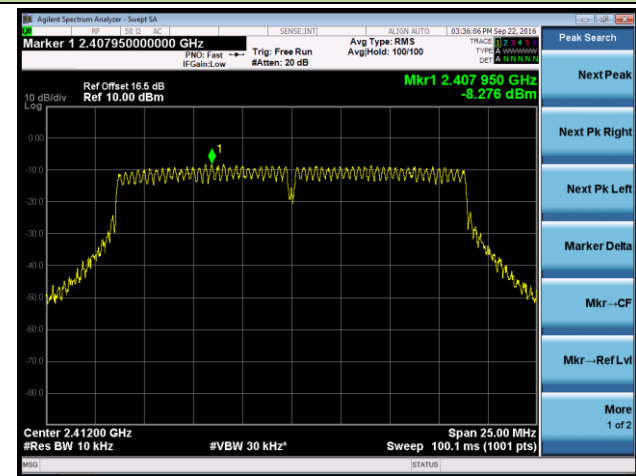


Channel 11 (2462MHz)

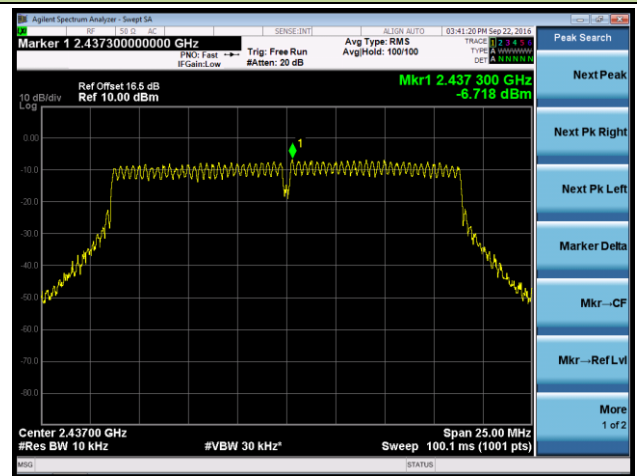


802.11n-HT20 AVGPDS - Ant 1 / Ant 0 + 1 + 2 + 3

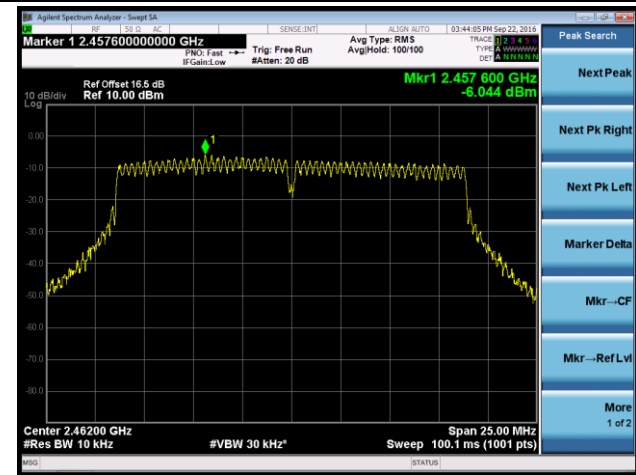
Channel 01 (2412MHz)



Channel 06 (2437MHz)

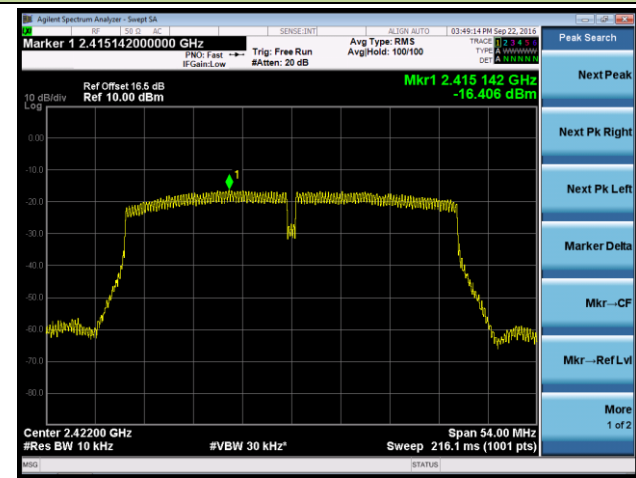


Channel 11 (2462MHz)

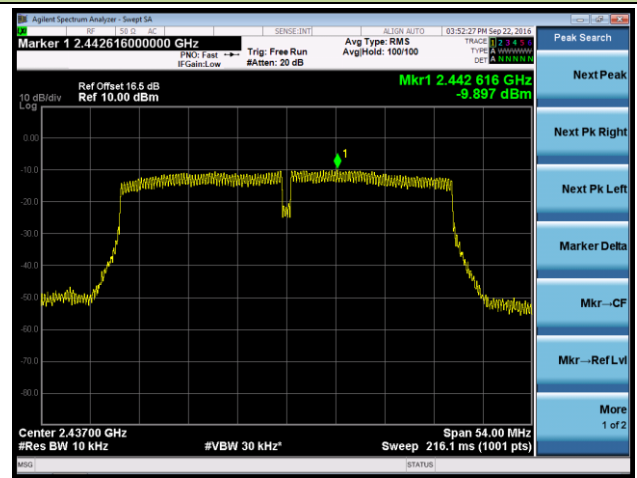


802.11n-HT40 AVGPDS - Ant 1 / Ant 0 + 1 + 2 + 3

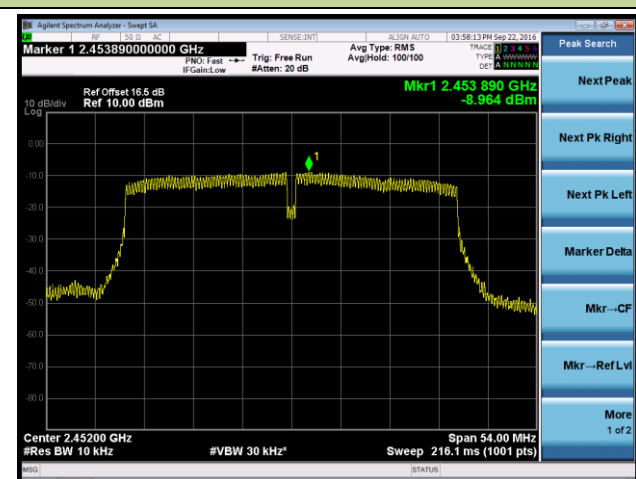
Channel 03 (2422MHz)



Channel 06 (2437MHz)

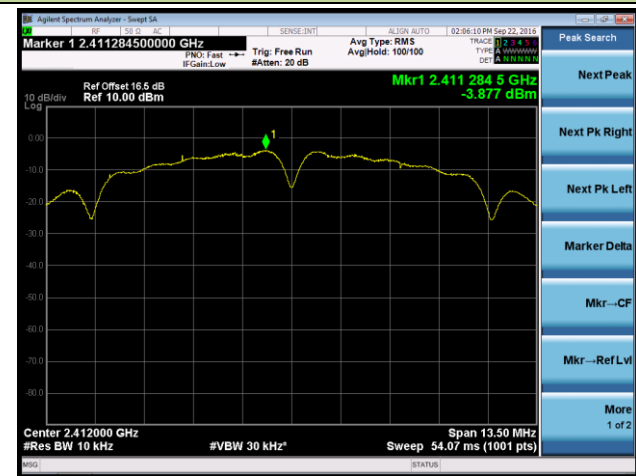


Channel 09 (2452MHz)



802.11b AVGPDS - Ant 2 / Ant 0 + 1 + 2 + 3

Channel 01 (2412MHz)



Channel 06 (2437MHz)

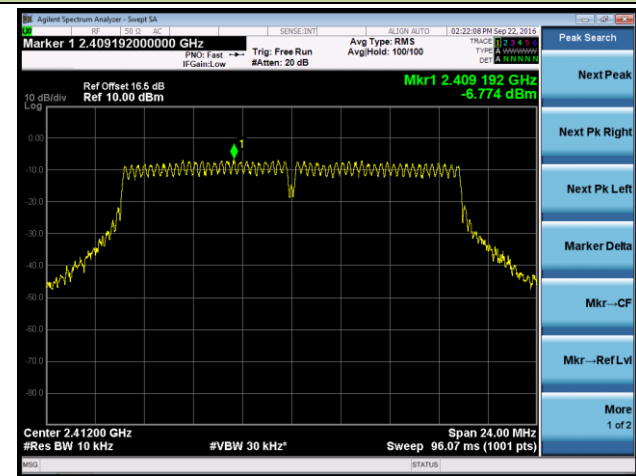


Channel 11 (2462MHz)

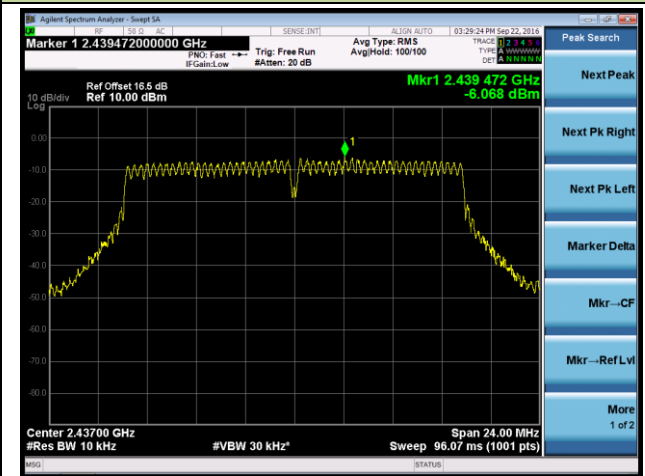


802.11g AVGPDS - Ant 2 / Ant 0 + 1 + 2 + 3

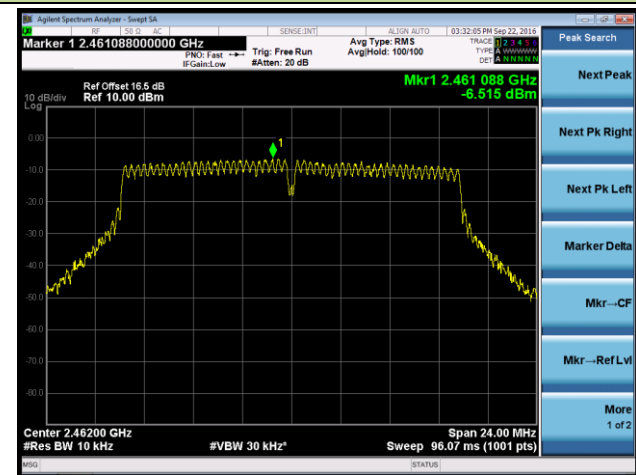
Channel 01 (2412MHz)



Channel 06 (2437MHz)

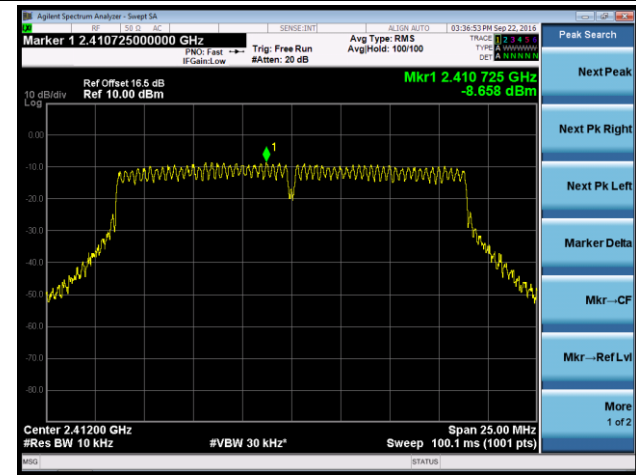


Channel 11 (2462MHz)

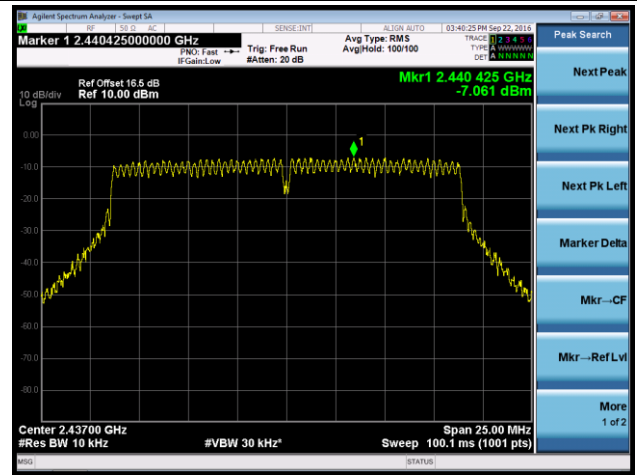


802.11n-HT20 AVGPDS - Ant 2 / Ant 0 + 1 + 2 + 3

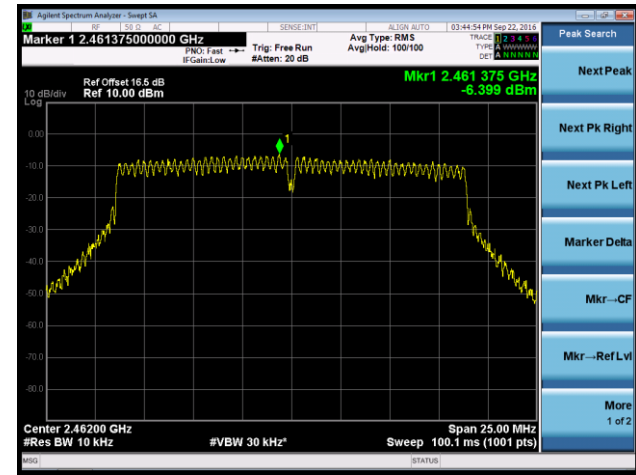
Channel 01 (2412MHz)



Channel 06 (2437MHz)

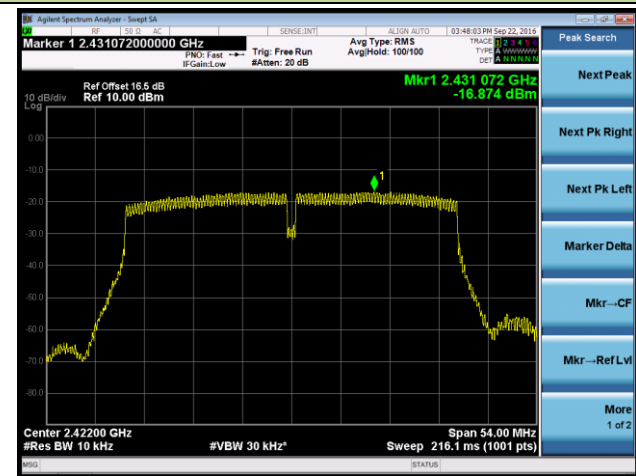


Channel 11 (2462MHz)

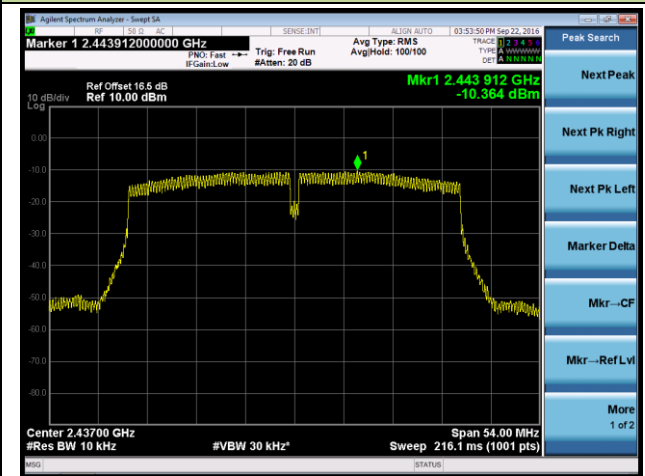


802.11n-HT40 AVGPDS - Ant 2 / Ant 0 + 1 + 2 + 3

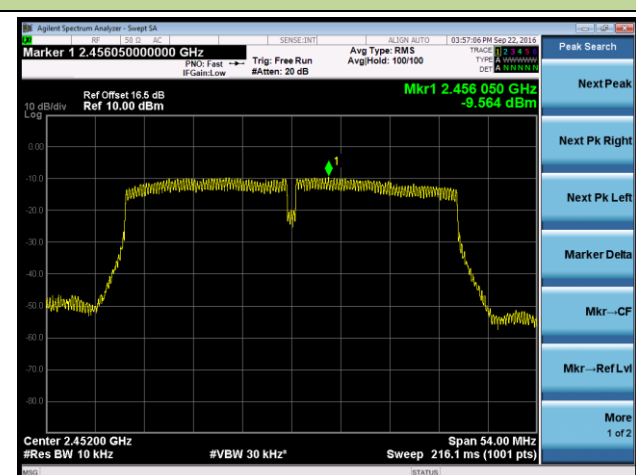
Channel 03 (2422MHz)



Channel 06 (2437MHz)

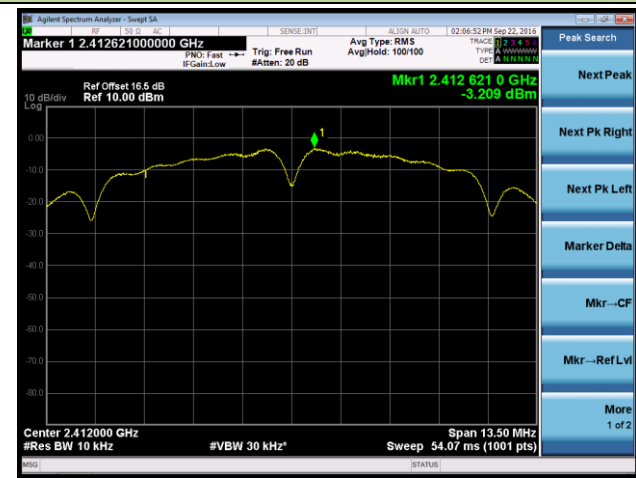


Channel 09 (2452MHz)



802.11b AVGPDS - Ant 3 / Ant 0 + 1 + 2 + 3

Channel 01 (2412MHz)



Channel 06 (2437MHz)

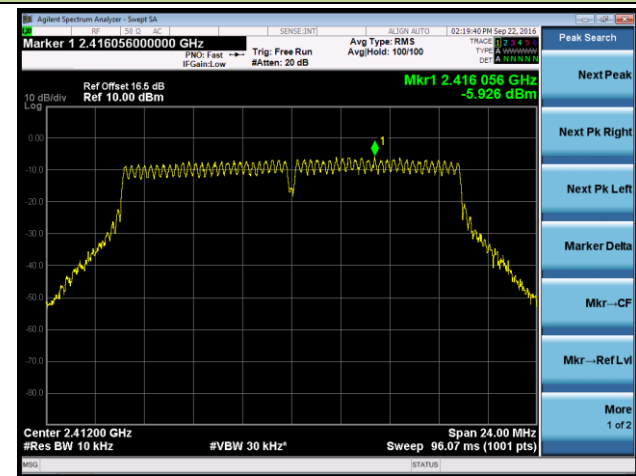


Channel 11 (2462MHz)

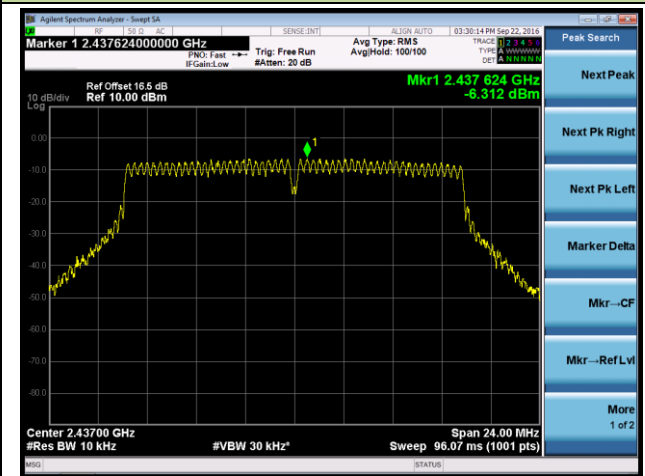


802.11g AVGPDS - Ant 3 / Ant 0 + 1 + 2 + 3

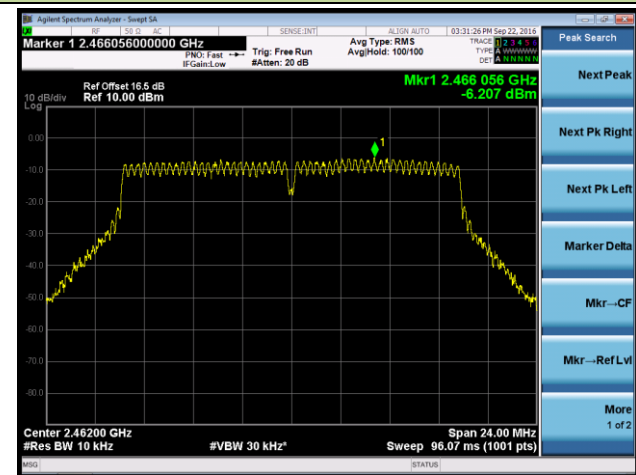
Channel 01 (2412MHz)



Channel 06 (2437MHz)

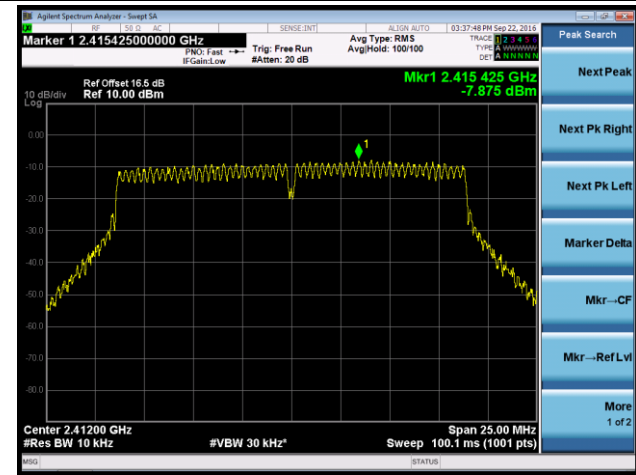


Channel 11 (2462MHz)

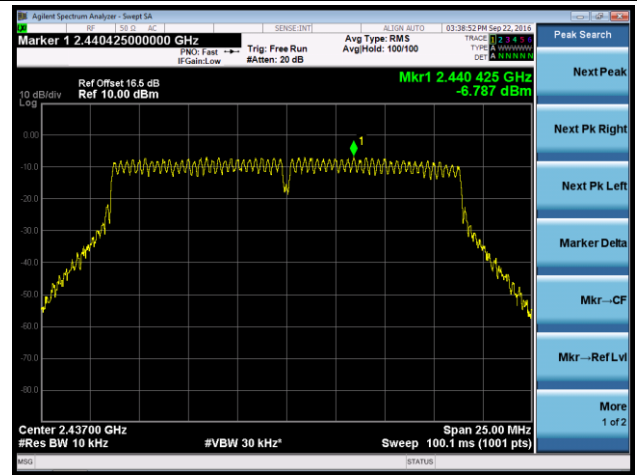


802.11n-HT20 AVGPDS - Ant 3 / Ant 0 + 1 + 2 + 3

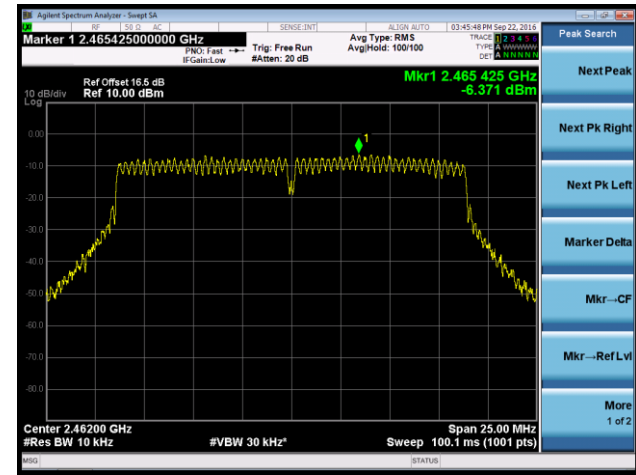
Channel 01 (2412MHz)



Channel 06 (2437MHz)

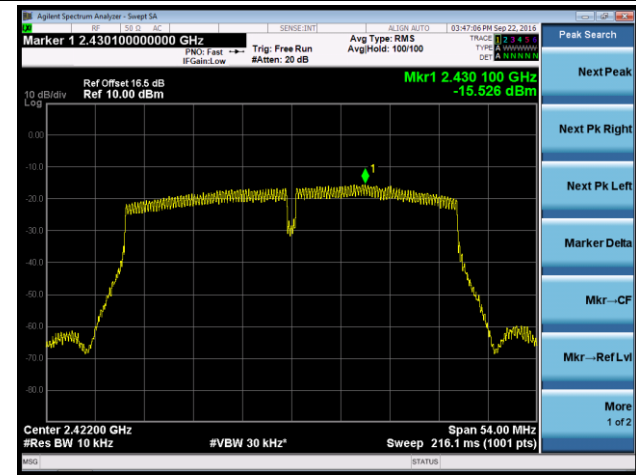


Channel 11 (2462MHz)

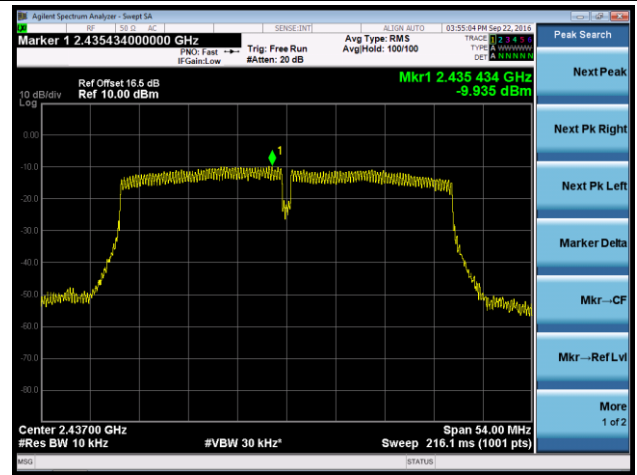


802.11n-HT40 AVGPDS - Ant 3 / Ant 0 + 1 + 2 + 3

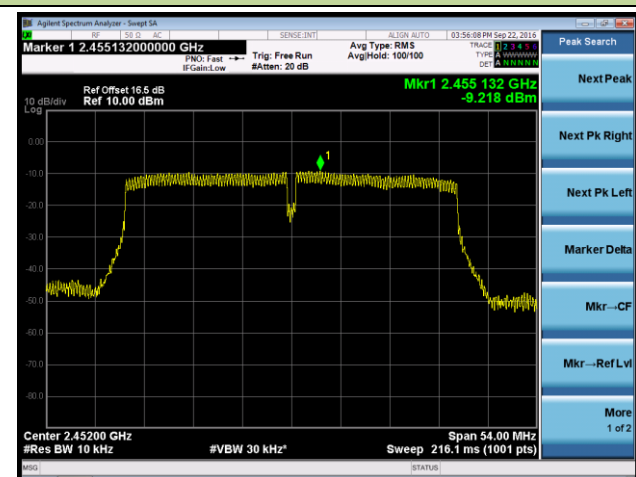
Channel 03 (2422MHz)



Channel 06 (2437MHz)



Channel 09 (2452MHz)





Product	US WI-FI AP 4X4 OD ext. antenna	Temperature	25°C
Test Engineer	Johnson Liao	Relative Humidity	50 ~ 58%
Test Site	SR2	Test Date	2016/12/13
Test Item	Power Spectral Density	Antenna Model No.	Galtronics Omni

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	AVGPSD (dBm / 10kHz)	Duty Cycle (%)	Constant Factor	Total AVGPSD (dBm / 3kHz)	Limit (dBm / 3kHz)	Result
Ant 0									
11b	1	1	2412	-4.80	99.20	-5.23	-10.03	≤ 8.0	Pass
11b	1	6	2437	-4.36	99.20	-5.23	-9.59	≤ 8.0	Pass
11b	1	11	2462	-4.44	99.20	-5.23	-9.67	≤ 8.0	Pass
11g	6	1	2412	-7.46	96.04	-5.23	-12.51	≤ 8.0	Pass
11g	6	6	2437	-6.96	96.04	-5.23	-12.01	≤ 8.0	Pass
11g	6	11	2462	-7.10	96.04	-5.23	-12.15	≤ 8.0	Pass
11n-HT20	6.5	1	2412	-7.29	98.16	-5.23	-12.52	≤ 8.0	Pass
11n-HT20	6.5	6	2437	-6.78	98.16	-5.23	-12.01	≤ 8.0	Pass
11n-HT20	6.5	11	2462	-7.35	98.16	-5.23	-12.58	≤ 8.0	Pass
11n-HT40	13.5	3	2422	-13.47	97.11	-5.23	-18.57	≤ 8.0	Pass
11n-HT40	13.5	6	2437	-10.17	97.11	-5.23	-15.27	≤ 8.0	Pass
11n-HT40	13.5	9	2452	-10.91	97.11	-5.23	-16.01	≤ 8.0	Pass
Ant 1									
11b	1	1	2412	-3.34	99.20	-5.23	-8.57	≤ 8.0	Pass
11b	1	6	2437	-3.89	99.20	-5.23	-9.12	≤ 8.0	Pass
11b	1	11	2462	-4.04	99.20	-5.23	-9.27	≤ 8.0	Pass
11g	6	1	2412	-6.24	96.04	-5.23	-11.29	≤ 8.0	Pass
11g	6	6	2437	-6.39	96.04	-5.23	-11.44	≤ 8.0	Pass
11g	6	11	2462	-6.16	96.04	-5.23	-11.21	≤ 8.0	Pass
11n-HT20	6.5	1	2412	-6.54	98.16	-5.23	-11.77	≤ 8.0	Pass
11n-HT20	6.5	6	2437	-6.40	98.16	-5.23	-11.63	≤ 8.0	Pass
11n-HT20	6.5	11	2462	-6.16	98.16	-5.23	-11.39	≤ 8.0	Pass
11n-HT40	13.5	3	2422	-10.74	97.11	-5.23	-15.84	≤ 8.0	Pass
11n-HT40	13.5	6	2437	-9.56	97.11	-5.23	-14.66	≤ 8.0	Pass
11n-HT40	13.5	9	2452	-9.28	97.11	-5.23	-14.38	≤ 8.0	Pass



Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	AVGPSD (dBm / 10kHz)	Duty Cycle (%)	Constant Factor	Total AVGPSD (dBm / 3kHz)	Limit (dBm / 3kHz)	Result
Ant 2									
11b	1	1	2412	-4.07	99.20	-5.23	-9.30	≤ 8.0	Pass
11b	1	6	2437	-3.79	99.20	-5.23	-9.02	≤ 8.0	Pass
11b	1	11	2462	-4.28	99.20	-5.23	-9.51	≤ 8.0	Pass
11g	6	1	2412	-7.16	96.04	-5.23	-12.21	≤ 8.0	Pass
11g	6	6	2437	-6.03	96.04	-5.23	-11.08	≤ 8.0	Pass
11g	6	11	2462	-6.38	96.04	-5.23	-11.43	≤ 8.0	Pass
11n-HT20	6.5	1	2412	-7.75	98.16	-5.23	-12.98	≤ 8.0	Pass
11n-HT20	6.5	6	2437	-5.98	98.16	-5.23	-11.21	≤ 8.0	Pass
11n-HT20	6.5	11	2462	-6.65	98.16	-5.23	-11.88	≤ 8.0	Pass
11n-HT40	13.5	3	2422	-12.51	97.11	-5.23	-17.61	≤ 8.0	Pass
11n-HT40	13.5	6	2437	-9.34	97.11	-5.23	-14.44	≤ 8.0	Pass
11n-HT40	13.5	9	2452	-9.59	97.11	-5.23	-14.69	≤ 8.0	Pass
Ant 3									
11b	1	1	2412	-3.57	99.20	-5.23	-8.80	≤ 8.0	Pass
11b	1	6	2437	-3.64	99.20	-5.23	-8.87	≤ 8.0	Pass
11b	1	11	2462	-3.88	99.20	-5.23	-9.11	≤ 8.0	Pass
11g	6	1	2412	-6.18	96.04	-5.23	-11.23	≤ 8.0	Pass
11g	6	6	2437	-5.98	96.04	-5.23	-11.03	≤ 8.0	Pass
11g	6	11	2462	-5.89	96.04	-5.23	-10.94	≤ 8.0	Pass
11n-HT20	6.5	1	2412	-6.25	98.16	-5.23	-11.48	≤ 8.0	Pass
11n-HT20	6.5	6	2437	-6.32	98.16	-5.23	-11.55	≤ 8.0	Pass
11n-HT20	6.5	11	2462	-5.78	98.16	-5.23	-11.01	≤ 8.0	Pass
11n-HT40	13.5	3	2422	-11.18	97.11	-5.23	-16.28	≤ 8.0	Pass
11n-HT40	13.5	6	2437	-8.80	97.11	-5.23	-13.90	≤ 8.0	Pass
11n-HT40	13.5	9	2452	-9.38	97.11	-5.23	-14.48	≤ 8.0	Pass

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Ant 0 AVGPSD (dBm / 10kHz)	Ant 1 AVGPSD (dBm / 10kHz)	Ant 2 AVGPSD (dBm / 10kHz)	Ant 3 AVGPSD (dBm / 10kHz)	Duty Cycle (%)	Constant Factor	Total AVGPSD (dBm / 3kHz)	Limit (dBm / 3kHz)	Result
Ant 0 + 1 + 2 + 3												
11b	1	1	2412	-6.68	-6.49	-6.55	-6.06	99.20	-5.23	-5.65	≤ 5.0	Pass
11b	1	6	2437	-6.18	-6.42	-6.21	-6.34	99.20	-5.23	-5.50	≤ 5.0	Pass
11b	1	11	2462	-6.59	-7.14	-6.66	-6.40	99.20	-5.23	-5.90	≤ 5.0	Pass
11g	6	1	2412	-6.76	-9.75	-9.67	-8.38	96.04	-5.23	-7.50	≤ 5.0	Pass
11g	6	6	2437	-8.39	-8.36	-8.66	-8.22	96.04	-5.23	-7.44	≤ 5.0	Pass
11g	6	11	2462	-8.67	-8.49	-8.84	-7.99	96.04	-5.23	-7.52	≤ 5.0	Pass
11n-HT20	26	1	2412	-11.69	-11.34	-11.02	-10.53	98.16	-5.23	-10.33	≤ 5.0	Pass
11n-HT20	26	6	2437	-8.58	-8.34	-8.49	-8.28	98.16	-5.23	-7.63	≤ 5.0	Pass
11n-HT20	26	11	2462	-9.00	-8.05	-8.37	-8.62	98.16	-5.23	-7.71	≤ 5.0	Pass
11n-HT40	54	3	2422	-16.60	-16.80	-16.63	-15.80	97.11	-5.23	-15.52	≤ 5.0	Pass
11n-HT40	54	6	2437	-11.67	-11.88	-11.44	-11.28	97.11	-5.23	-10.64	≤ 5.0	Pass
11n-HT40	54	9	2452	-14.84	-14.39	-14.56	-14.24	97.11	-5.23	-13.58	≤ 5.0	Pass

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

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

Galtronics Omni Antenna

802.11b AVGPSD - Ant 0

Channel 01 (2412MHz)



Channel 06 (2437MHz)

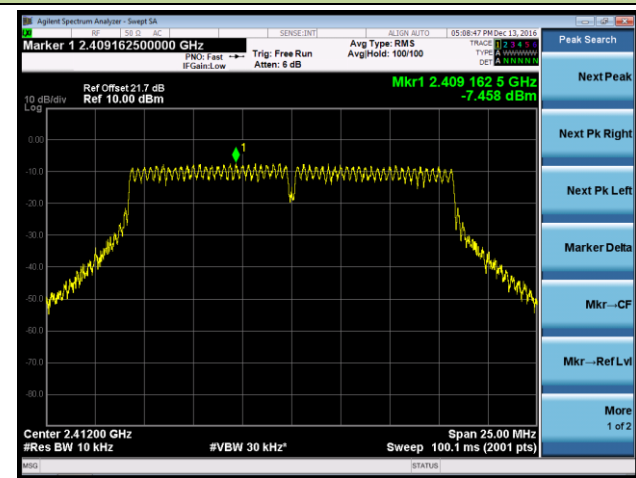


Channel 11 (2462MHz)

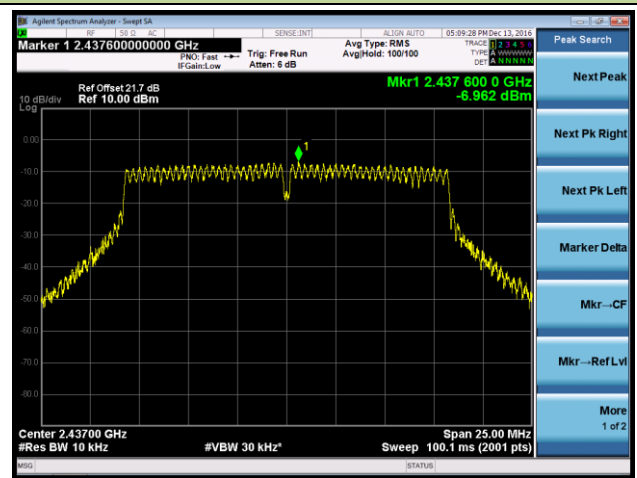


802.11g AVGPDS - Ant 0

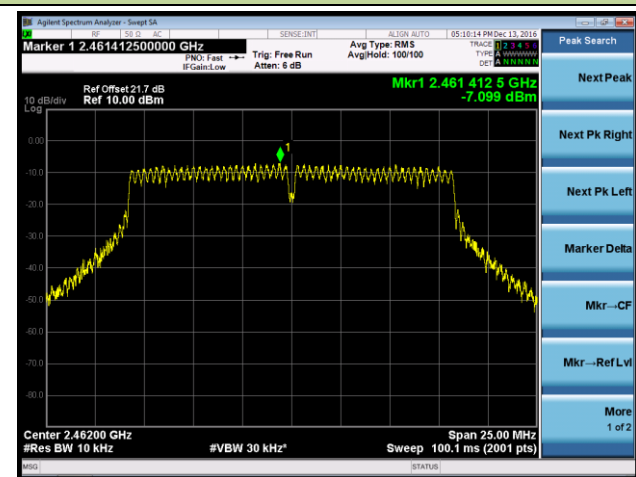
Channel 01 (2412MHz)



Channel 06 (2437MHz)

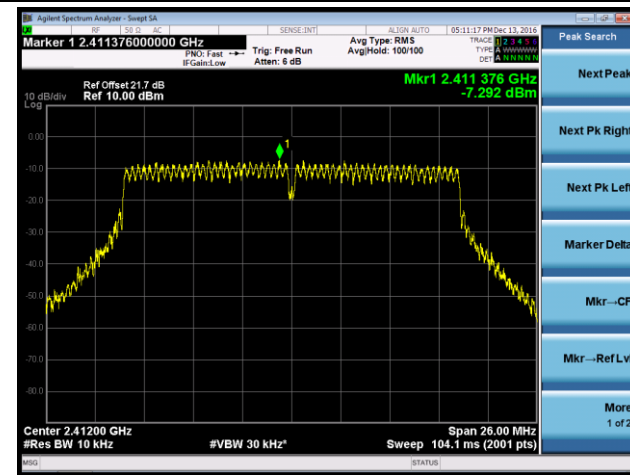


Channel 11 (2462MHz)

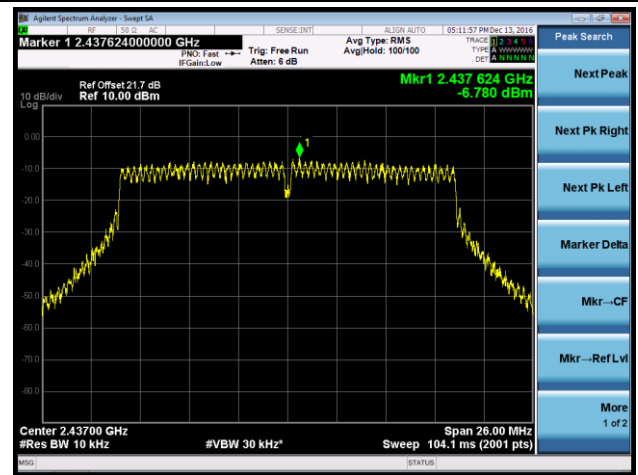


802.11n-HT20 AVGPDS - Ant 0

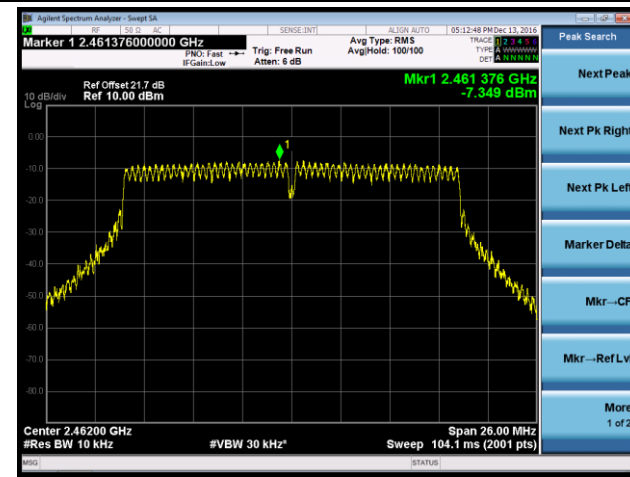
Channel 01 (2412MHz)



Channel 06 (2437MHz)

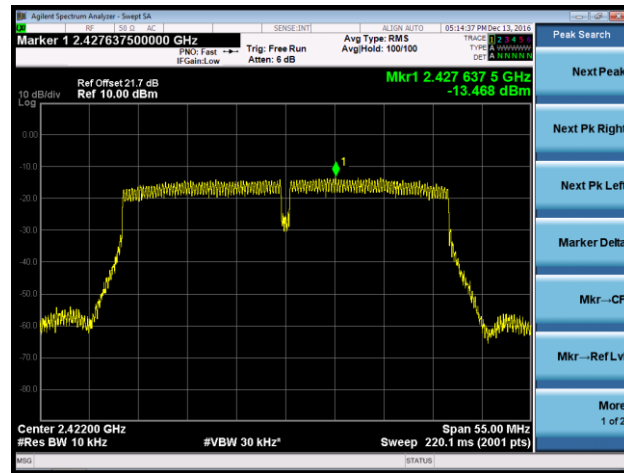


Channel 11 (2462MHz)

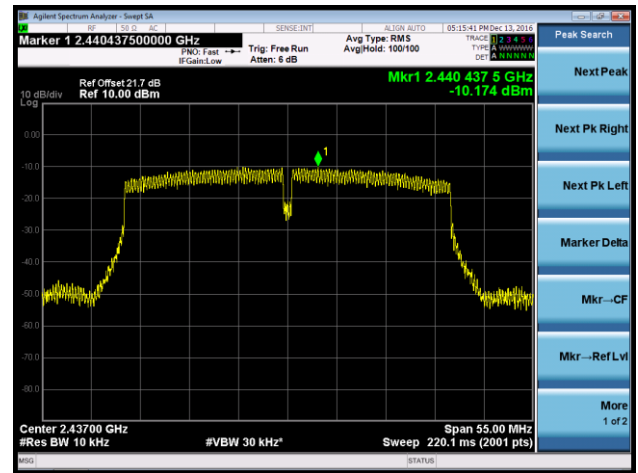


802.11n-HT40 AVGPDS - Ant 0

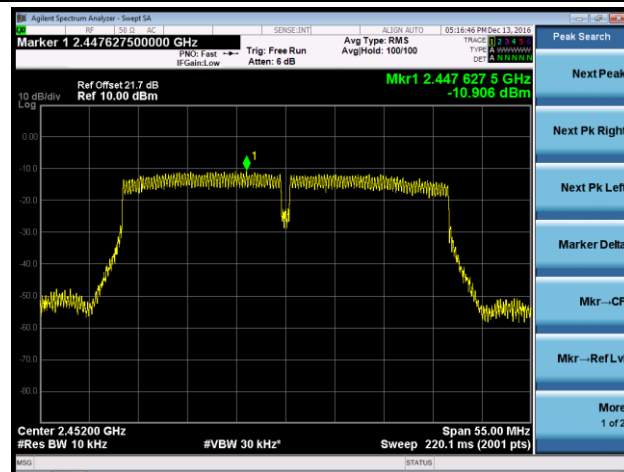
Channel 03 (2422MHz)



Channel 06 (2437MHz)

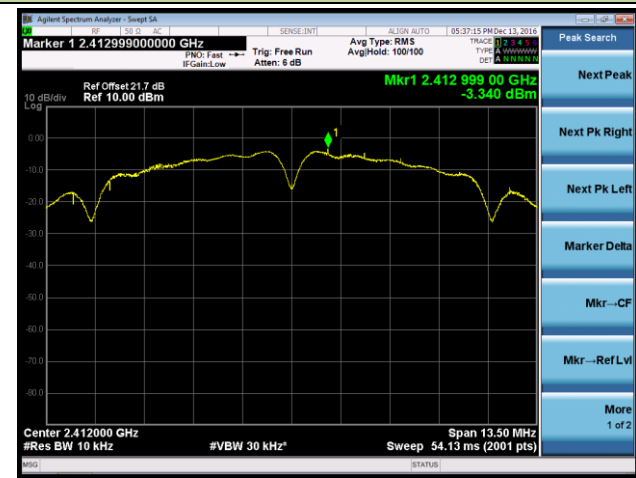


Channel 09 (2452MHz)



802.11b AVGPDS - Ant 1

Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)

