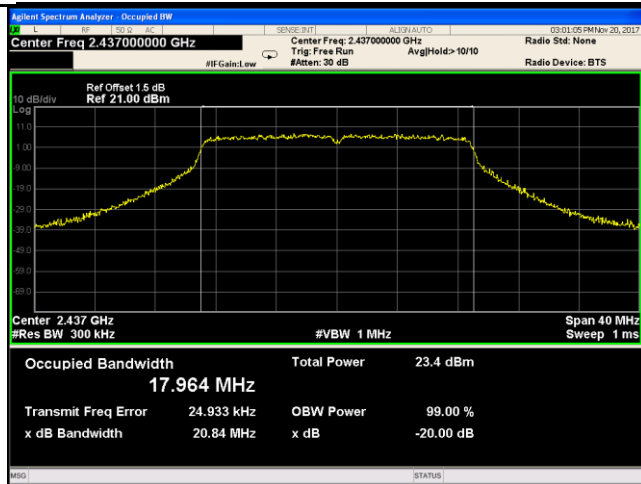
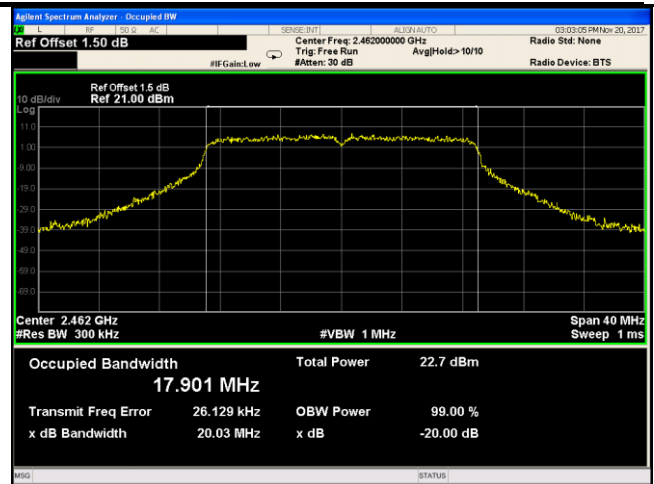
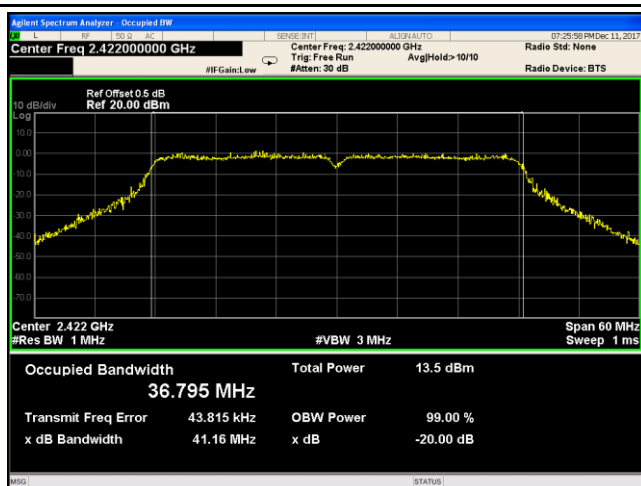




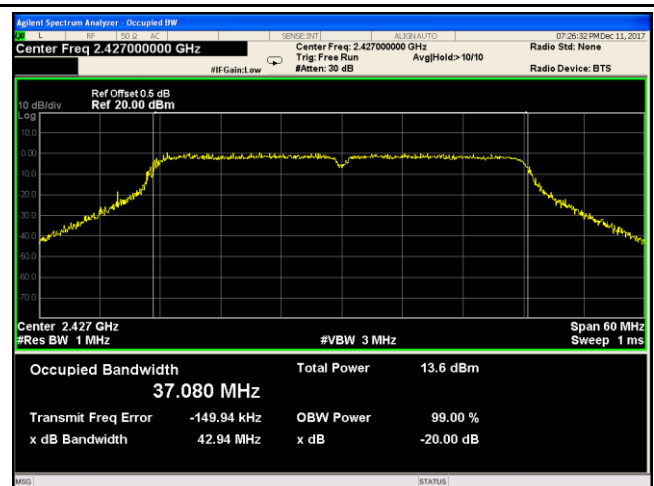
802.11n20 20dB Bandwidth - 6 CH 2437



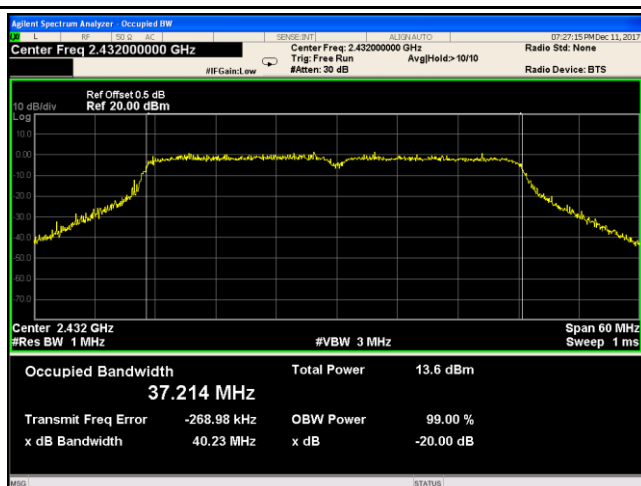
802.11n20 20dB Bandwidth - 11 CH 2462



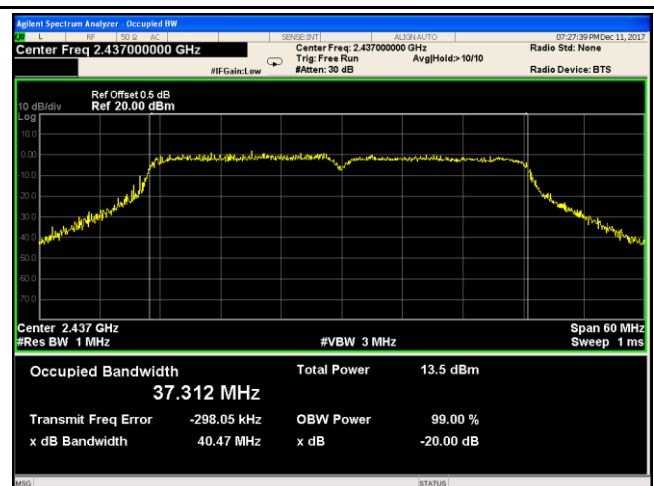
802.11n40 20dB Bandwidth - 3 CH 2422



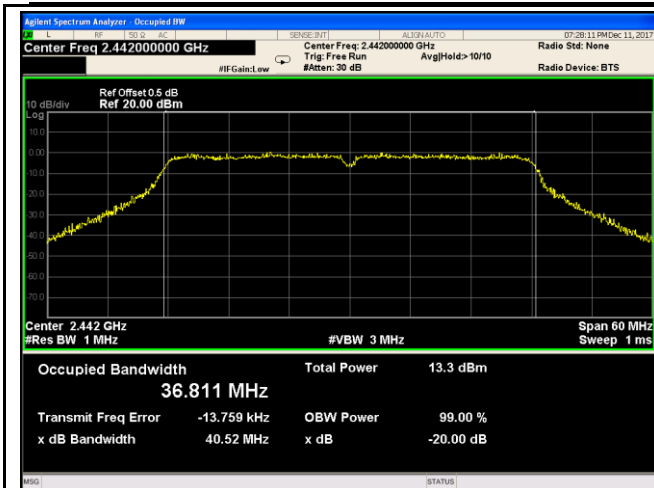
802.11n40 20dB Bandwidth - 4 CH 2427



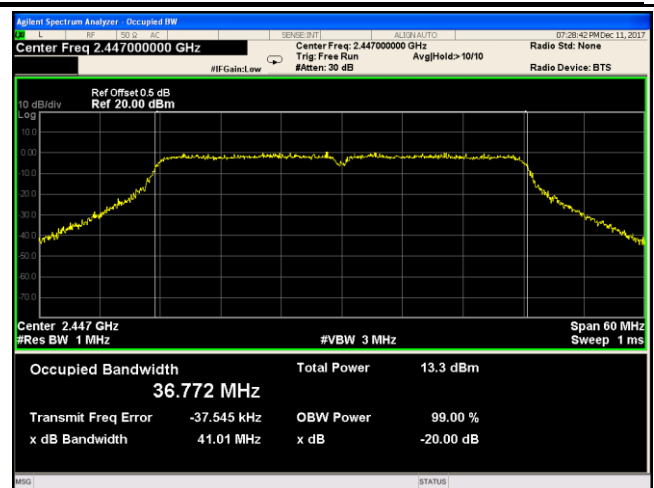
802.11n40 20dB Bandwidth -5 CH 2432



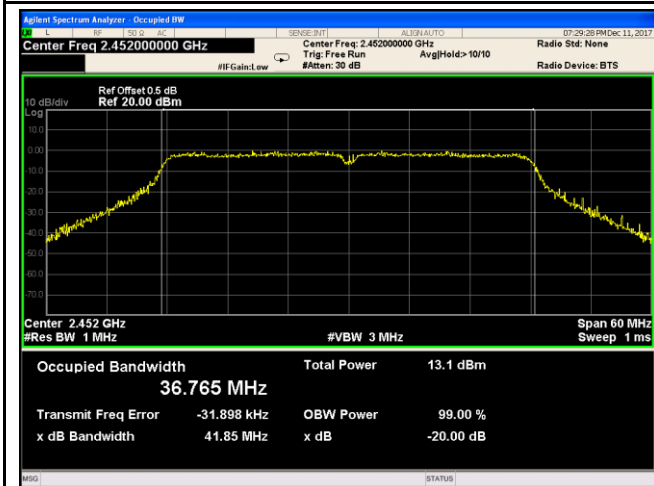
802.11n40 20dB Bandwidth - 6 CH 2437



802.11n40 20dB Bandwidth - 7 CH 2442

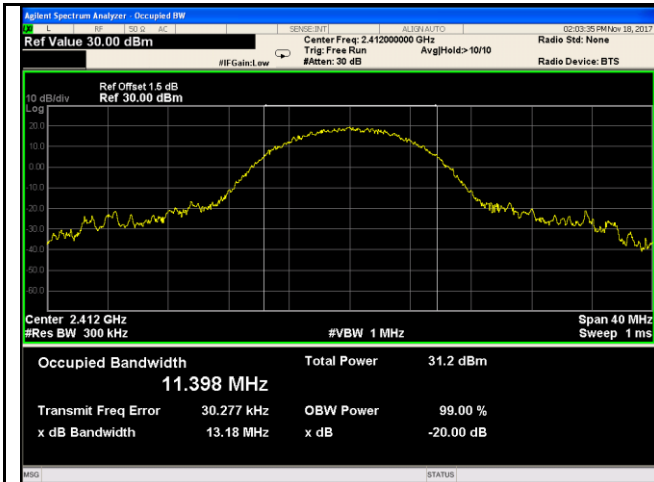


802.11n40 20dB Bandwidth - 8 CH 2447

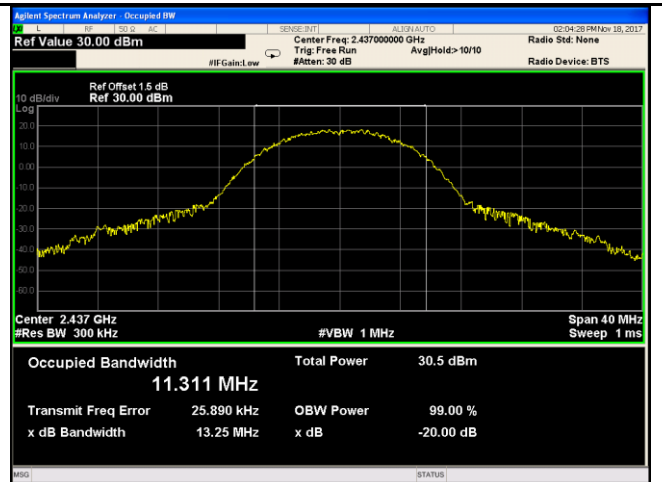


802.11n40 20dB Bandwidth - 9 CH 2452

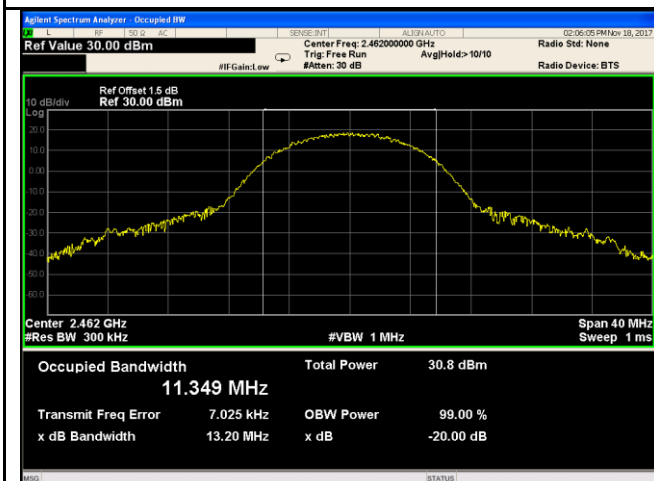
Antenna (Blue):



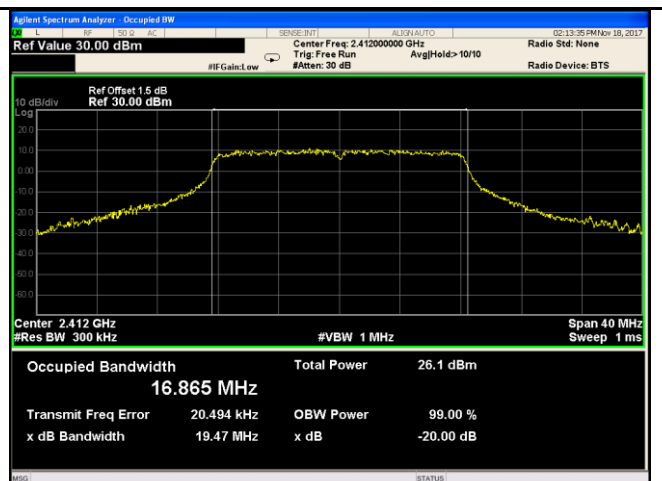
802.11b 20dB Bandwidth - Low CH 2412



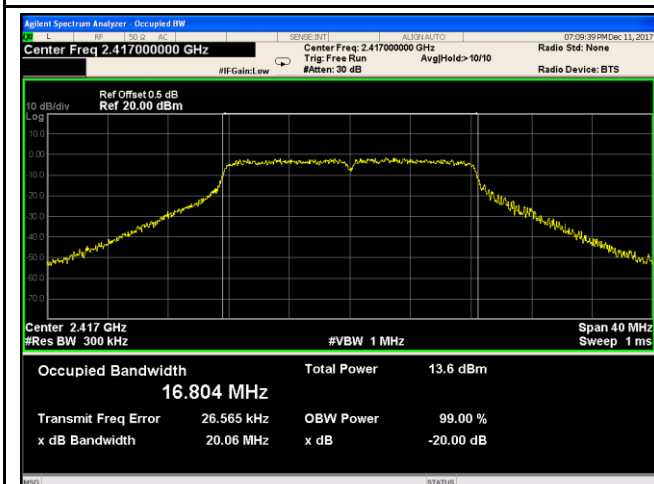
802.11b 20dB Bandwidth - Mid CH 2437



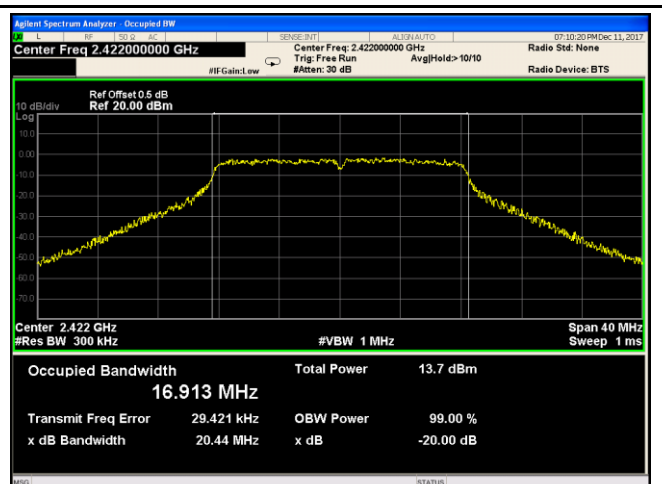
802.11b 20dB Bandwidth - High CH 2462



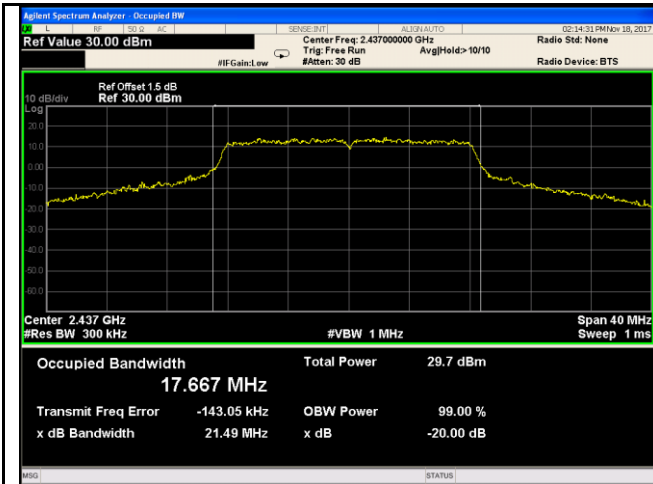
802.11g 20dB Bandwidth - 1 CH 2412



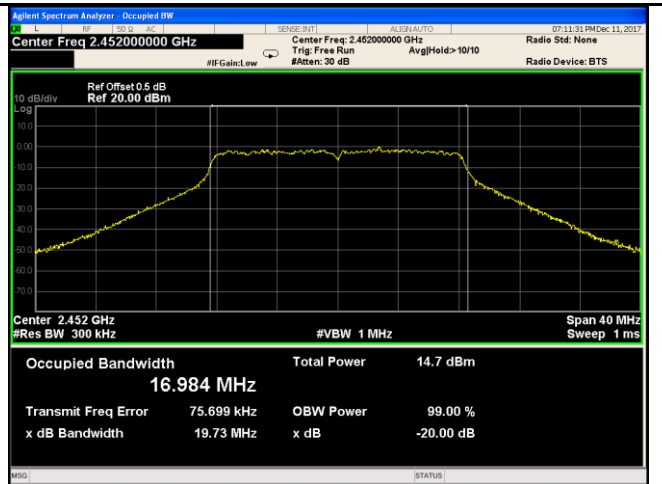
802.11g 20dB Bandwidth - 2 CH 2417



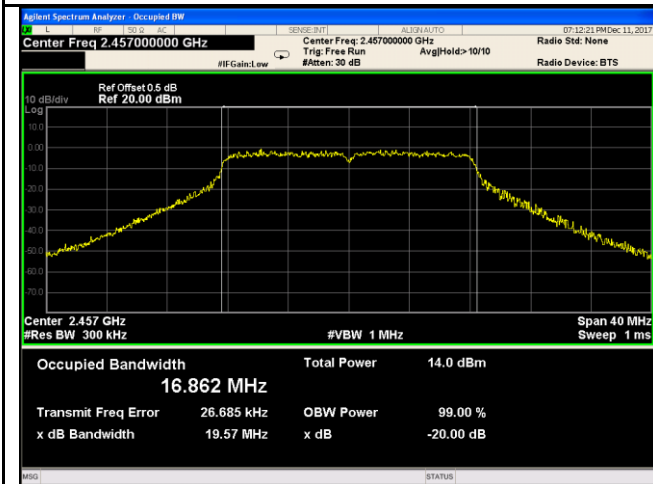
802.11g 20dB Bandwidth - 3 CH 2422



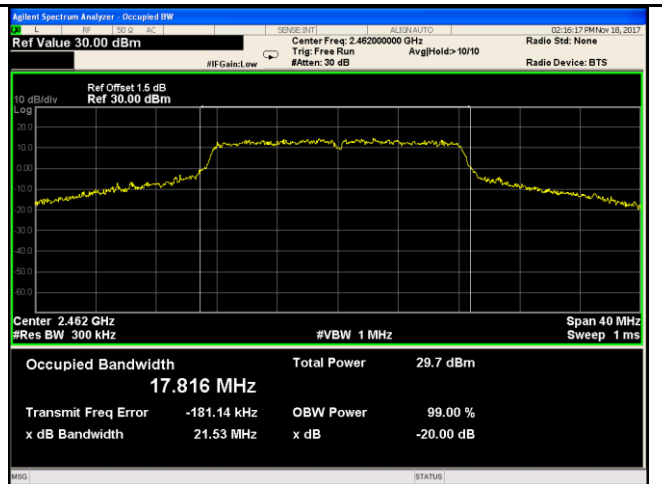
802.11g 20dB Bandwidth - 6 CH 2437



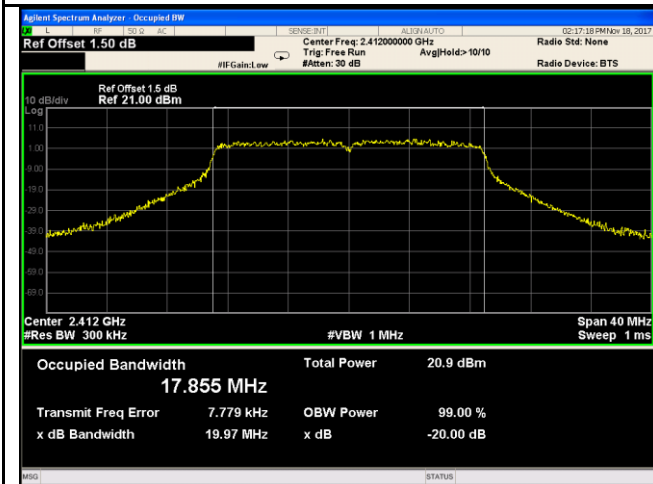
802.11g 20dB Bandwidth - 9 CH 2452



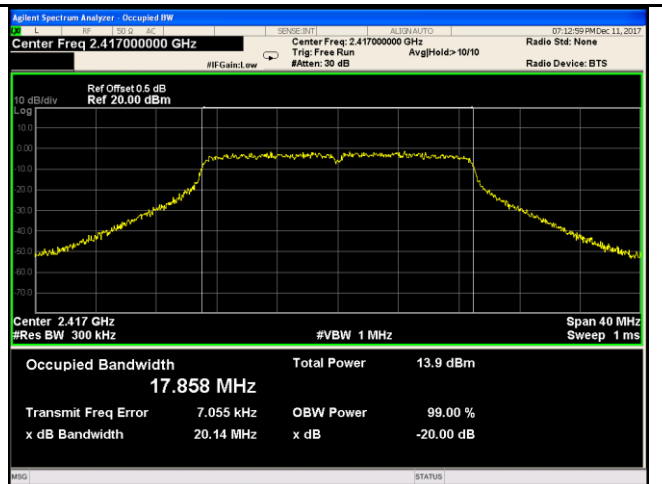
802.11g 20dB Bandwidth - 10 CH 2457



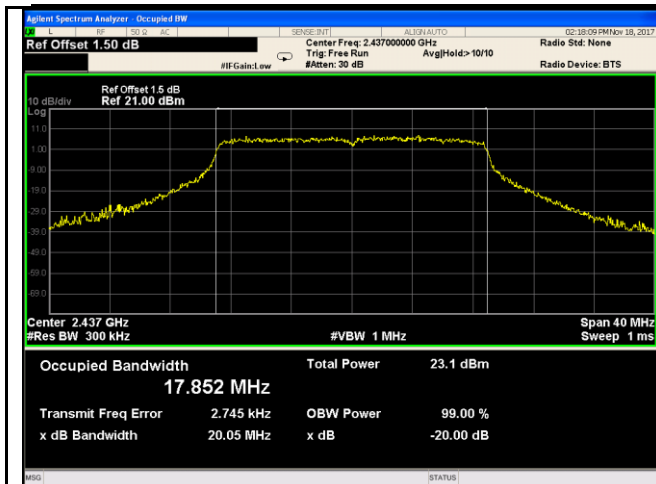
802.11g 20dB Bandwidth - 11 CH 2462



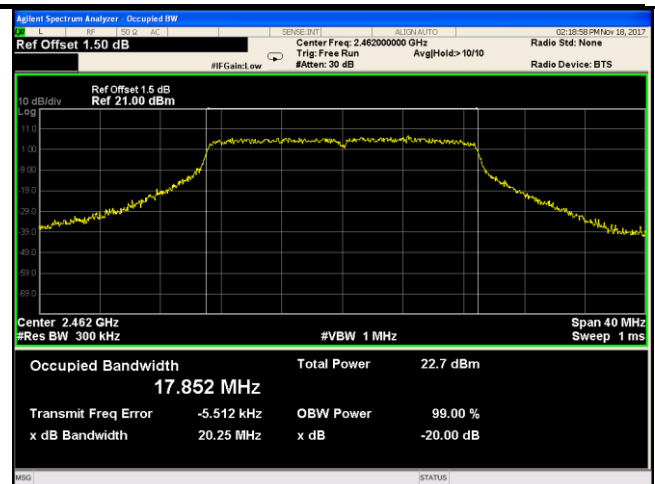
802.11n20 20dB Bandwidth - 1 CH 2412



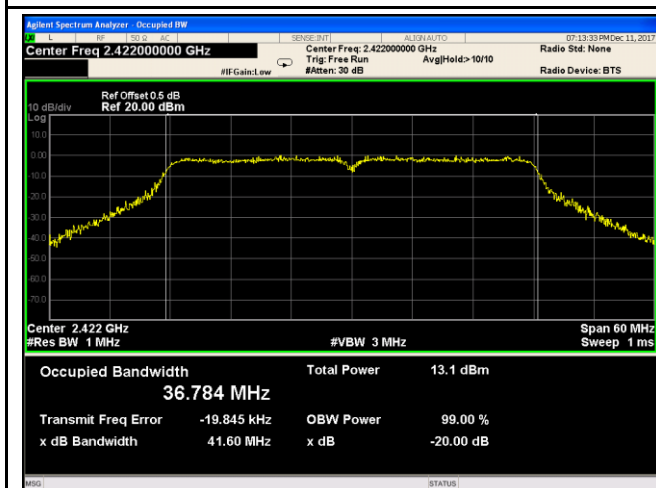
802.11n20 20dB Bandwidth - 2 CH 2417



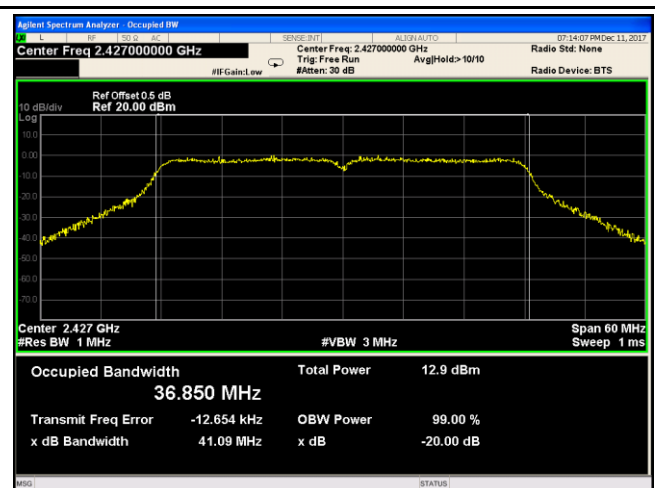
802.11n20 20dB Bandwidth - 6 CH 2437



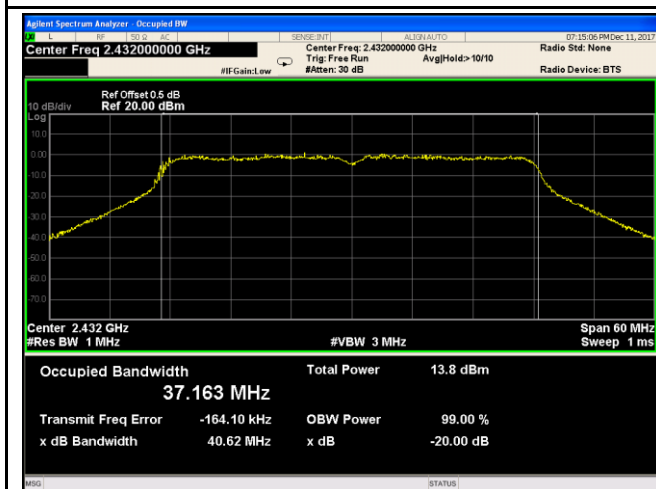
802.11n20 20dB Bandwidth - 11 CH 2462



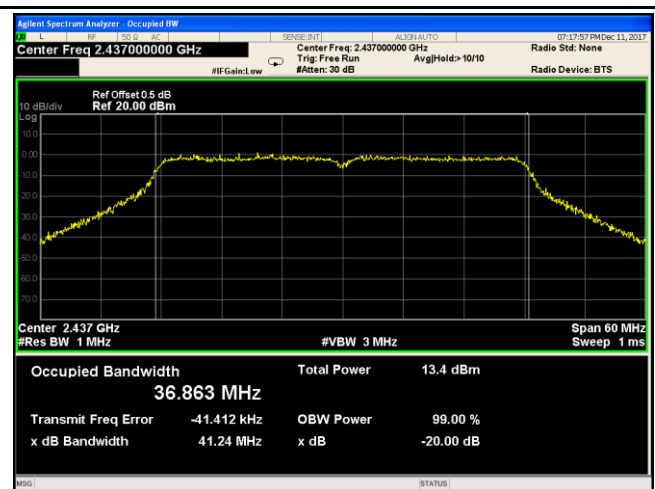
802.11n40 20dB Bandwidth - 3 CH 2422



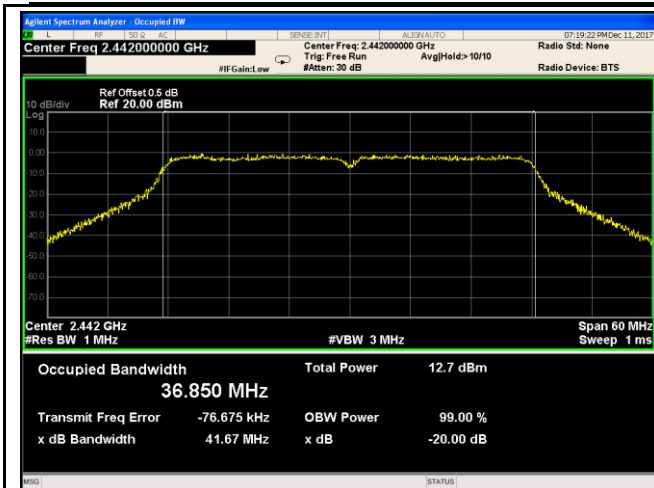
802.11n40 20dB Bandwidth - 4 CH 2427



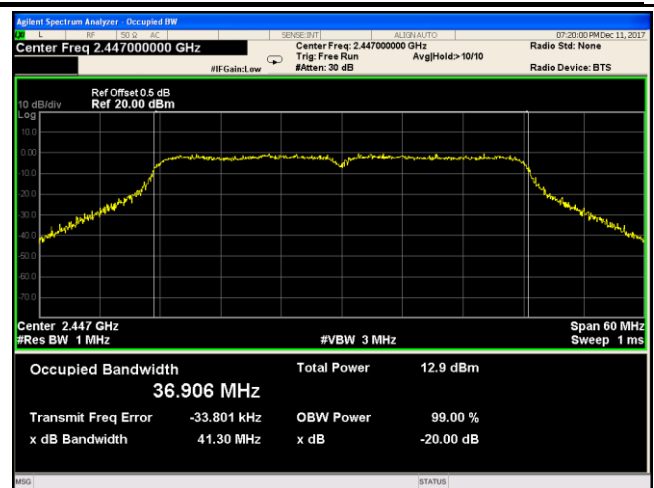
802.11n40 20dB Bandwidth -5 CH 2432



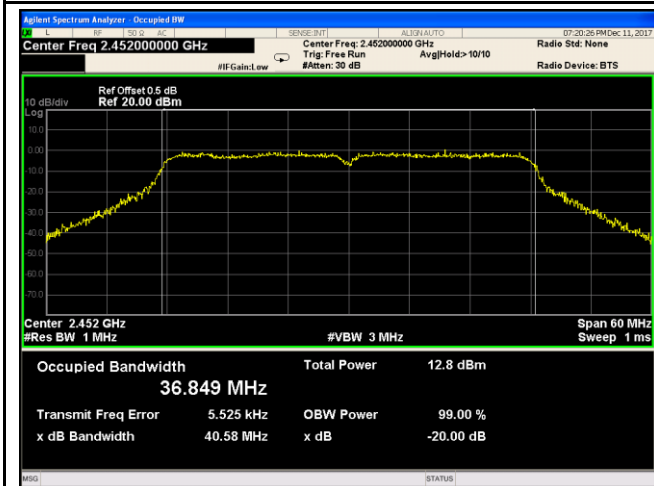
802.11n40 20dB Bandwidth - 6 CH 2437



802.11n40 20dB Bandwidth - 7 CH 2442

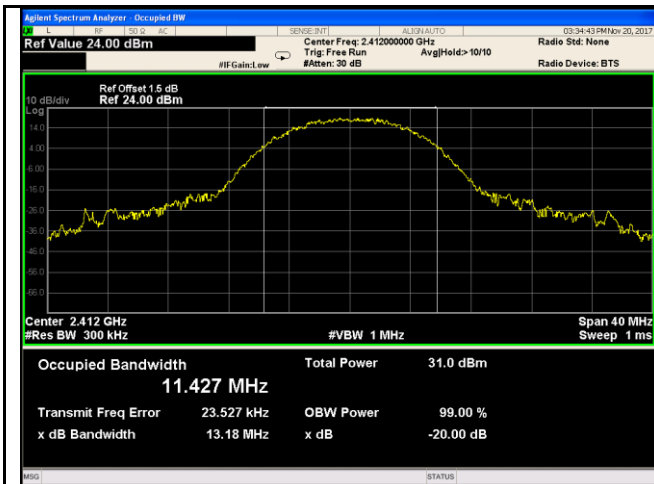


802.11n40 20dB Bandwidth - 8 CH 2447

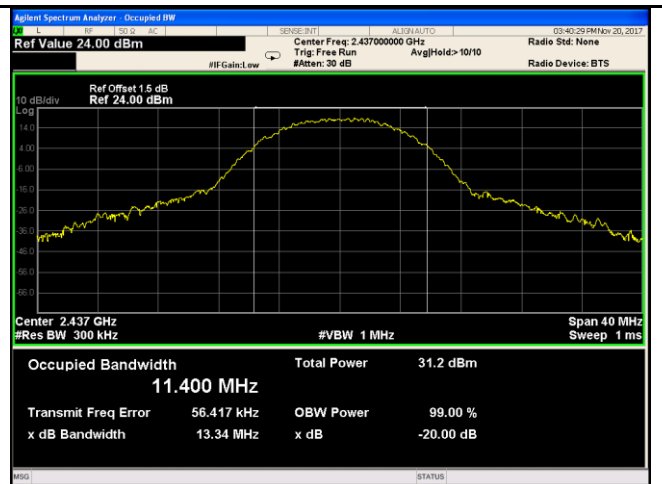


802.11n40 20dB Bandwidth - 9 CH 2452

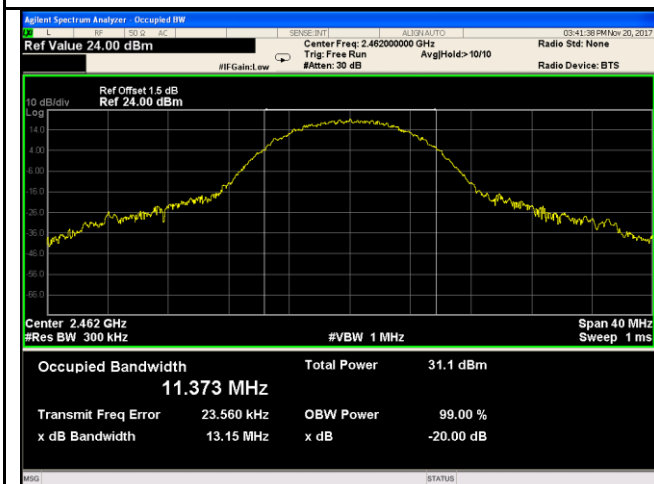
Antenna (Black):



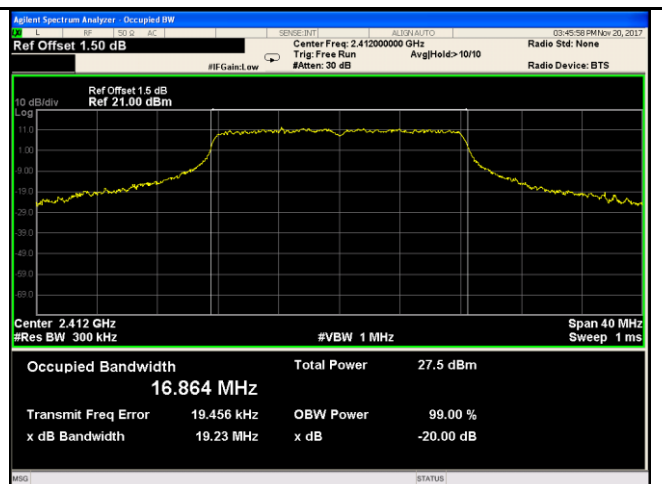
802.11b 20dB Bandwidth - Low CH 2412



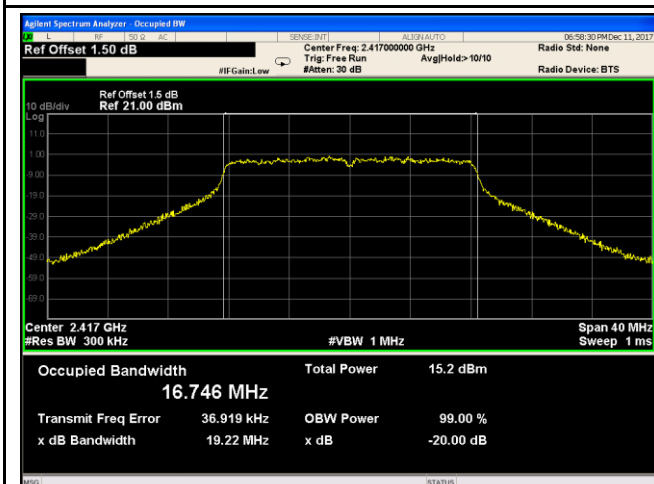
802.11b 20dB Bandwidth - Mid CH 2437



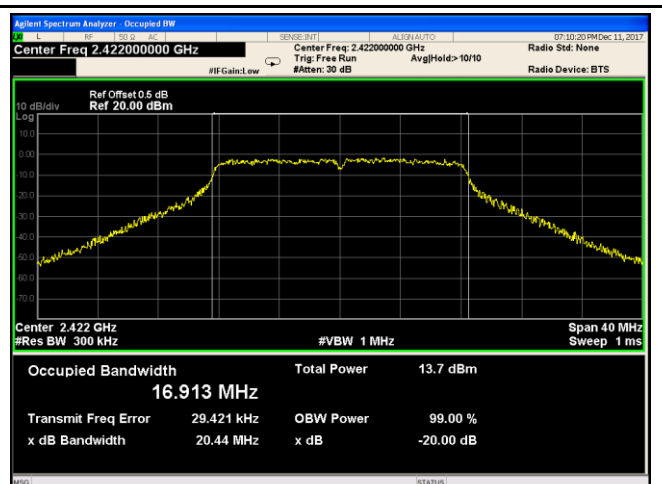
802.11b 20dB Bandwidth - High CH 2462



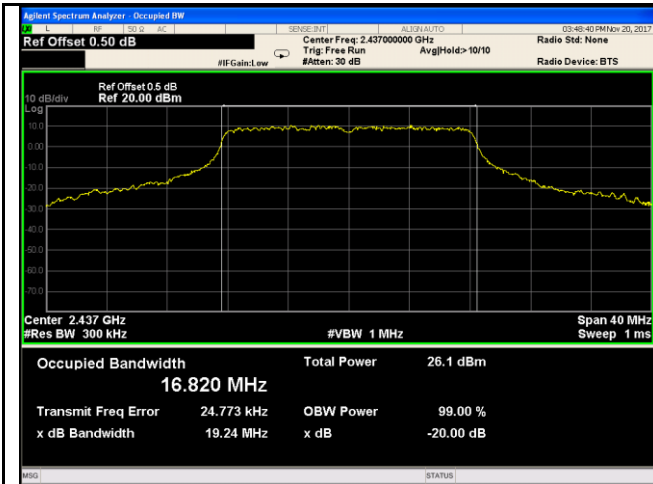
802.11g 20dB Bandwidth - 1 CH 2412



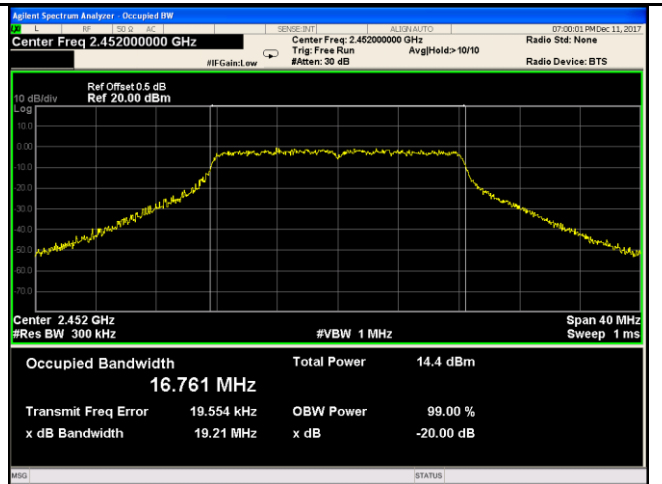
802.11g 20dB Bandwidth - 2 CH 2417



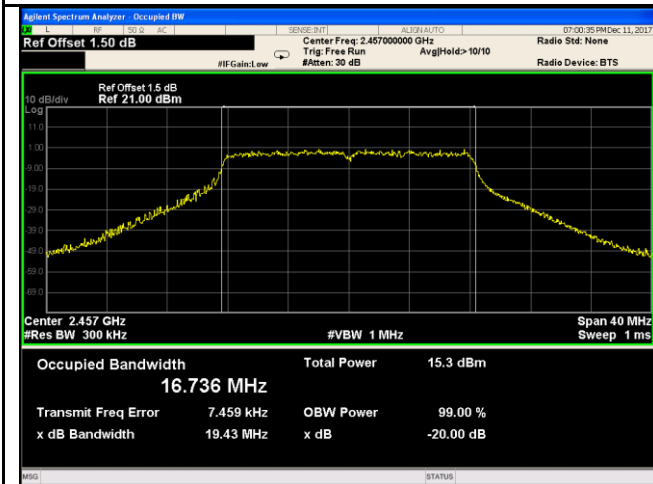
802.11g 20dB Bandwidth - 3 CH 2422



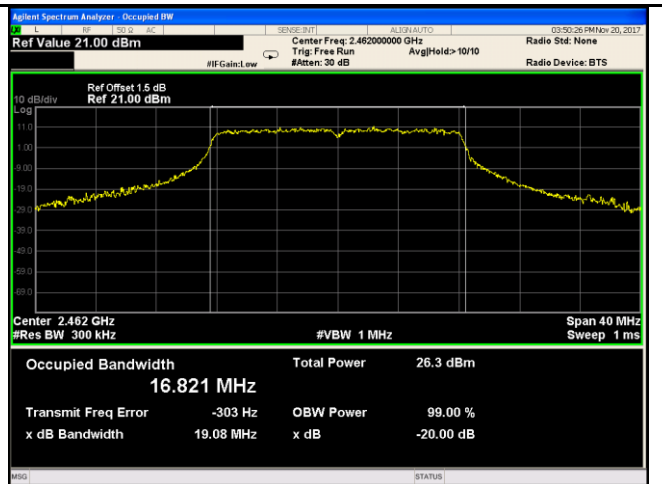
802.11g 20dB Bandwidth - 6 CH 2437



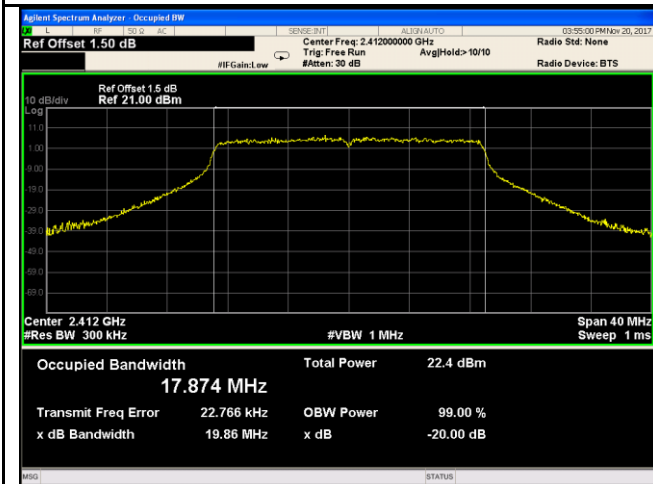
802.11g 20dB Bandwidth - 9 CH 2452



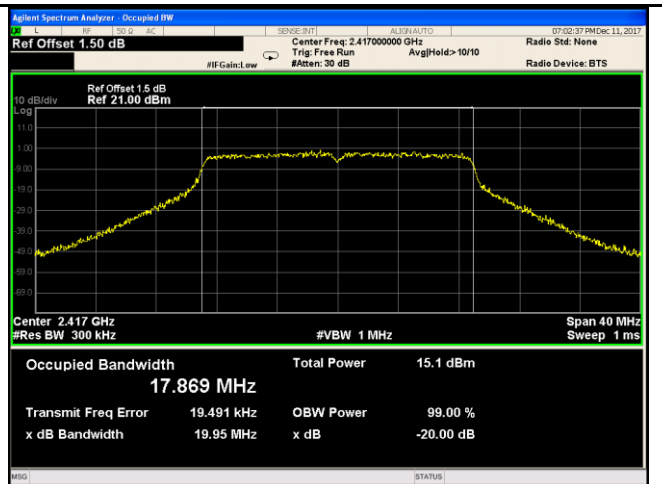
802.11g 20dB Bandwidth - 10 CH 2457



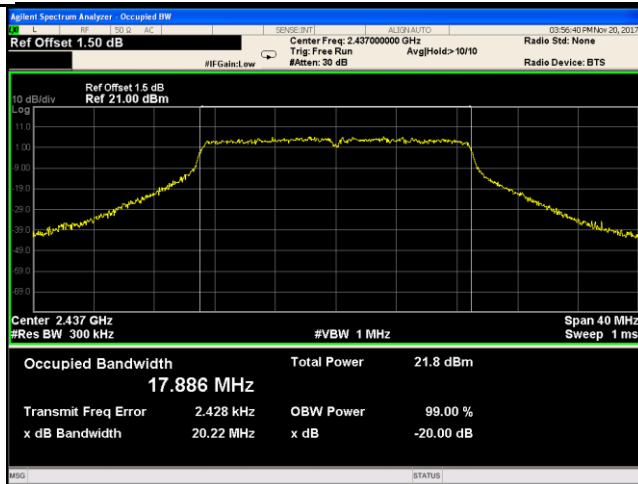
802.11g 20dB Bandwidth - 11 CH 2462



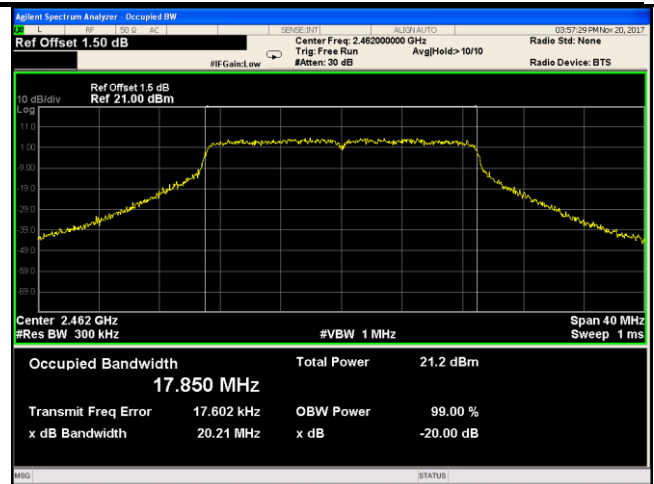
802.11n20 20dB Bandwidth - 1 CH 2412



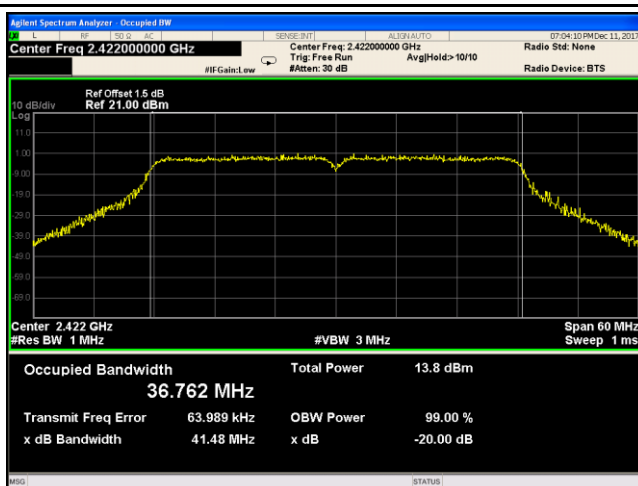
802.11n20 20dB Bandwidth - 2 CH 2417



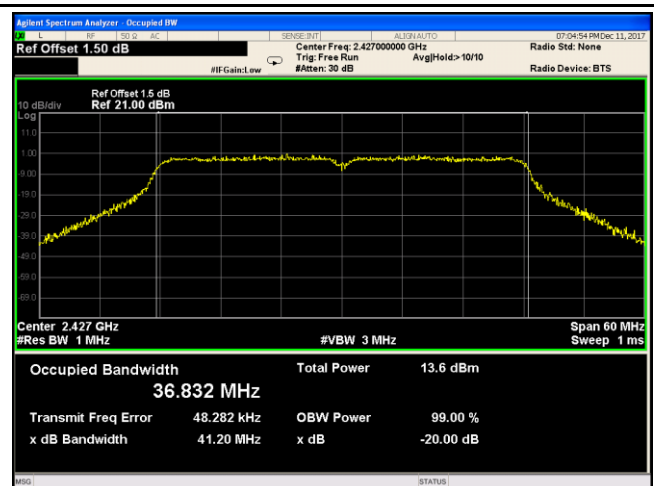
802.11n20 20dB Bandwidth - 6 CH 2437



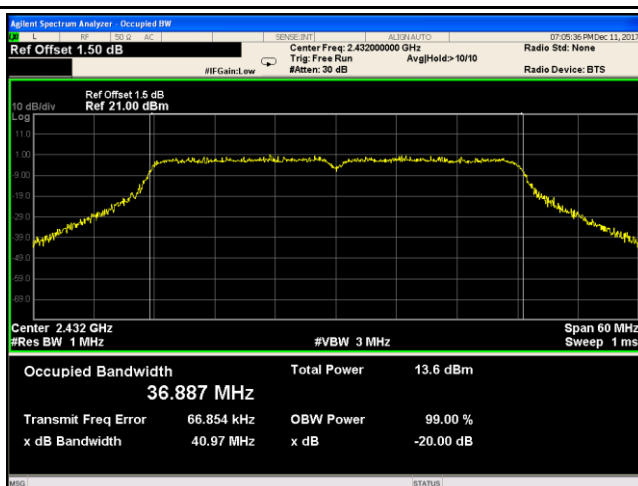
802.11n20 20dB Bandwidth - 11 CH 2462



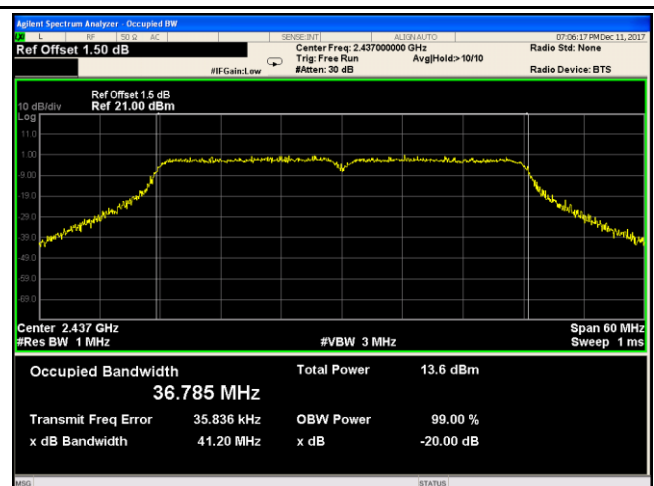
802.11n40 20dB Bandwidth - 3 CH 2422



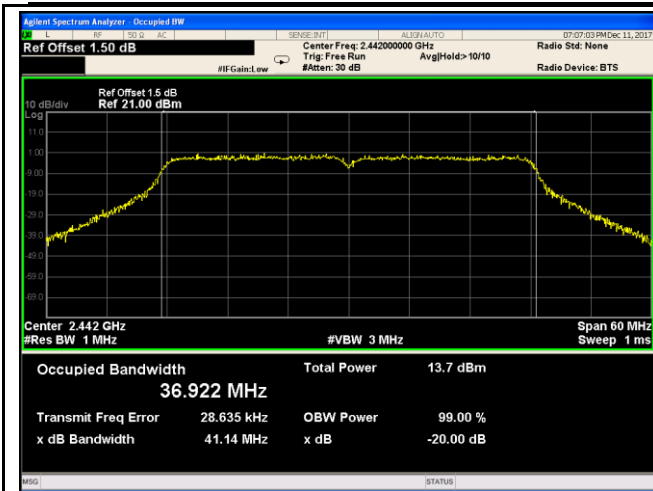
802.11n40 20dB Bandwidth - 4 CH 2427



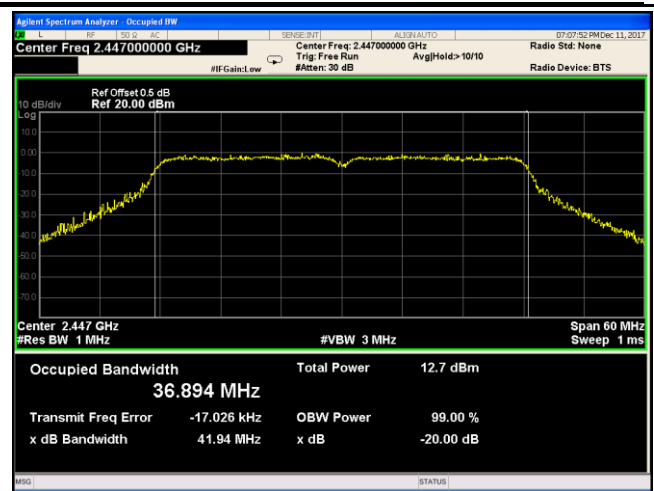
802.11n40 20dB Bandwidth -5 CH 2432



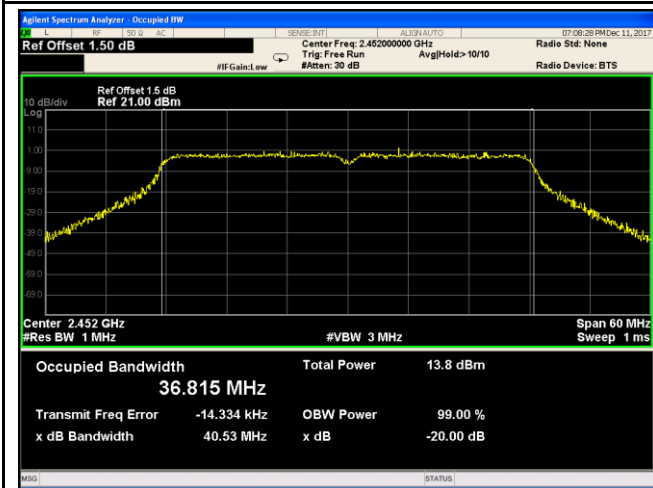
802.11n40 20dB Bandwidth - 6 CH 2437



802.11n40 20dB Bandwidth - 7 CH 2442



802.11n40 20dB Bandwidth - 8 CH 2447



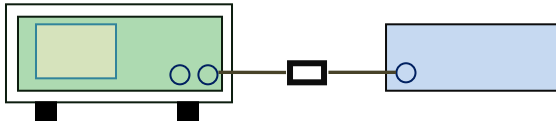
802.11n40 20dB Bandwidth - 9 CH 2452

6.3 Maximum Output Power

Temperature	24°C
Relative Humidity	57%
Atmospheric Pressure	1007mbar
Test date :	December 6, 2017
Tested By :	Aaron Liang

Requirement(s):

Spec	Item	Requirement	Applicable
§15.247(b) (2),RSS210 (A8.4)	a)	FHSS in 2400-2483.5MHz with ≥ 75 channels: ≤ 1 Watt	☐
	b)	FHSS in 5725-5850MHz: ≤ 1 Watt	☐
	c)	For all other FHSS in the 2400-2483.5MHz band: ≤ 0.125 Watt.	☐
	d)	FHSS in 902-928MHz with ≥ 50 channels: ≤ 1 Watt	☐
	e)	FHSS in 902-928MHz with ≥ 25 & <50 channels: ≤ 0.25 Watt	☐
	f)	DSSS in 902-928MHz, 2400-2483.5MHz, 5725-5850MHz: ≤ 1 Watt	☒

Test Setup	 Power meter EUT
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Test Procedure	558074 D01 DTS MEAS Guidance v04, 9.2.3.1 Method AVGPM. Maximum output power measurement procedure a) As an alternative to spectrum analyzer or EMI receiver measurements, measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the conditions listed below are satisfied. 1) The EUT is configured to transmit continuously, or to transmit with a constant duty factor. 2) At all times when the EUT is transmitting, it shall be transmitting at its maximum power control level. 3) The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five. b) If the transmitter does not transmit continuously, measure the duty cycle (x) of the transmitter output signal as described in Section 6.0. c) Measure the average power of the transmitter. This measurement is an average over
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	both the on and off periods of the transmitter. d) Adjust the measurement in dBm by adding $10\log(1/x)$, where x is the duty cycle to the measurement result.
Remark	
Result	☒ Pass ☐ Fail

Test Data ☒ Yes ☐ N/A

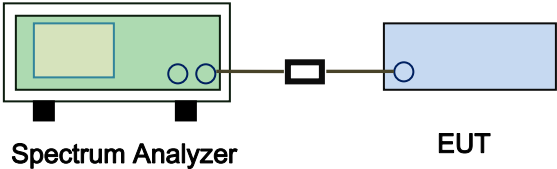
Test Plot ☐ Yes (See below) ☒ N/A

Output Power measurement result

Mode	Antenna Path	Channel	Antenna (White)	Antenna (Blue)	Antenna (Black)	The Highest (SISO) or Total (MIMO) Conducted Power (dBm)	Conducted Power Limit (dBm)	Verdit
			Conducted Powe (dBm)	Conducted Powe (dBm)	Conducted Powe (dBm)			
b	SISO	1	20.97	20.97	21.97	21.97	30	Pass
		6	21.57	20.97	21.97	21.97	30	Pass
		11	21.57	21.07	21.97	21.97	30	Pass
g	SISO	1	18.23	17.93	17.33	18.23	30	Pass
		2	20.03	20.53	21.23	21.23	30	Pass
		3	22.43	22.23	23.03	23.03	30	Pass
		6	22.33	22.23	23.03	23.03	30	Pass
		9	22.33	22.33	23.03	23.03	30	Pass
		10	22.33	22.13	21.63	22.33	30	Pass
		11	18.73	17.53	19.43	19.43	30	Pass
n(HT20)	MIMO (3TX White+ Blue+ Black)	1	13.7	13.2	15.3	18.93	30	Pass
		2	18.9	18.2	19.6	23.71	30	Pass
		6	18.3	18.2	19.4	23.44	30	Pass
		11	15.9	15.7	16.7	20.89	30	Pass
N(HT40)	MIMO (3TX White+ Blue+ Black)	3	13.2	12.9	14	18.16	30	Pass
		4	13.2	12.9	13.7	18.05	30	Pass
		5	16.2	16	16.3	20.94	30	Pass
		6	16.5	16.4	16.6	21.27	30	Pass
		7	16.3	16.4	16.5	21.17	30	Pass
		8	14.8	14.8	15.2	19.71	30	Pass
		9	14.7	14	14.6	19.22	30	Pass

6.4 Power Spectral Density

Temperature	25°C
Relative Humidity	54%
Atmospheric Pressure	1006mbar
Test date :	December 11, 2017
Tested By :	Winnie Zhang

Spec	Item	Requirement	Applicable
§15.247(e)	a)	The power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.	☒
Test Setup	 Spectrum Analyzer EUT		
Test Procedure	558074 D01 DTS MEAS Guidance v04, 10.2 power spectral density method power spectral density measurement procedure - a) Set analyzer center frequency to DTS channel center frequency. - b) Set the span to 1.5 times the DTS bandwidth. - c) Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$. - d) Set the VBW $\geq 3 \times \text{RBW}$. - e) Detector = peak. - f) Sweep time = auto couple. - g) Trace mode = max hold. - h) Allow trace to fully stabilize. - i) Use the peak marker function to determine the maximum amplitude level within the RBW. - j) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.		
Remark			
Result	☒ Pass ☐ Fail		

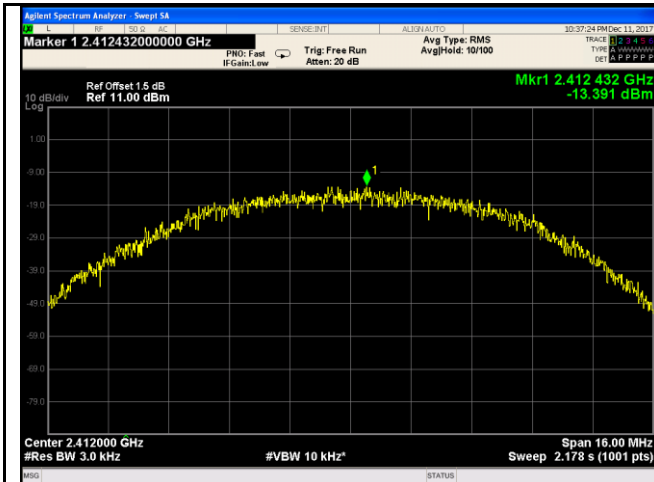
Test Data ☒ Yes ☐ N/A
Test Plot ☒ Yes (See below) ☐ N/A

Mode	Antenna Path	Channel	Antenna (White)	Antenna (Blue)	Antenna (Black)	The Highest (SISO) or Total (MIMO) PSD	PSD Limit (dBm)	Verdit
b	SISO	1	-13.391	-10.815	-9.771	-9.771	8	Pass
		6	-13.104	-7.790	-9.972	-7.790	8	Pass
		11	-12.774	-8.880	-10.081	-8.880	8	Pass
g	SISO	1	-20.140	-15.226	-17.803	-15.226	8	Pass
		2	-19.645	-11.771	-12.474	-11.771	8	Pass
		3	-15.958	-11.428	-10.450	-10.450	8	Pass
		6	-16.025	-10.058	-11.604	-10.058	8	Pass
		9	-15.869	-11.745	-11.184	-11.184	8	Pass
		10	-15.893	-11.565	-13.536	-11.565	8	Pass
		11	-17.927	-16.503	-16.050	-16.050	8	Pass
n(HT20)	MIMO (3TX White+ Blue+ Black)	1	-20.982	-19.252	-20.130	-15.290	5.73	Pass
		2	-15.354	-14.900	-12.700	-9.390	5.73	Pass
		6	-16.370	-14.970	-16.200	-11.030	5.73	Pass
		11	-16.725	-15.796	-16.226	-11.460	5.73	Pass
N(HT40)	MIMO (3TX White+ Blue+ Black)	3	-26.918	-23.276	-26.422	-20.450	5.73	Pass
		4	-25.934	-24.634	-23.865	-19.960	5.73	Pass
		5	-21.330	-20.688	-20.369	-16.010	5.73	Pass
		6	-20.860	-20.127	-20.119	-15.580	5.73	Pass
		7	-20.315	-20.476	-20.365	-15.610	5.73	Pass
		8	-20.336	-21.956	-21.706	-16.500	5.73	Pass
		9	-23.281	-22.652	-23.487	-18.350	5.73	Pass

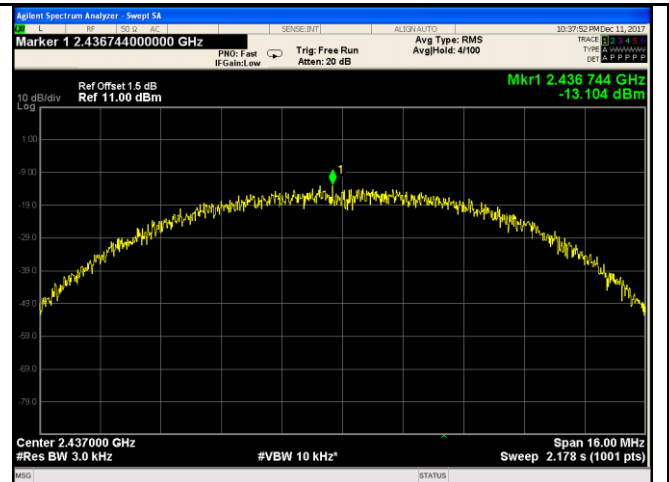
Test Plots

Power Spectral Density measurement result

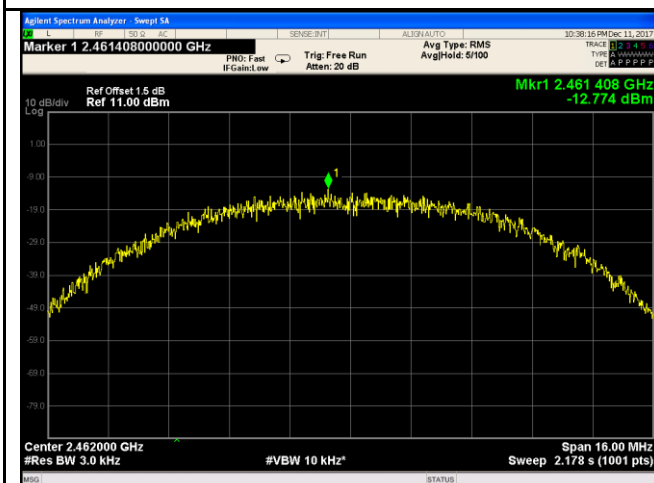
Antenna (White):



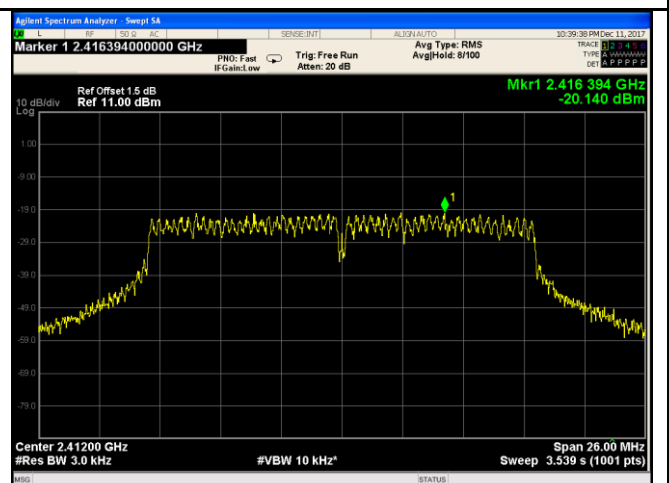
802.11b - Low CH 2412



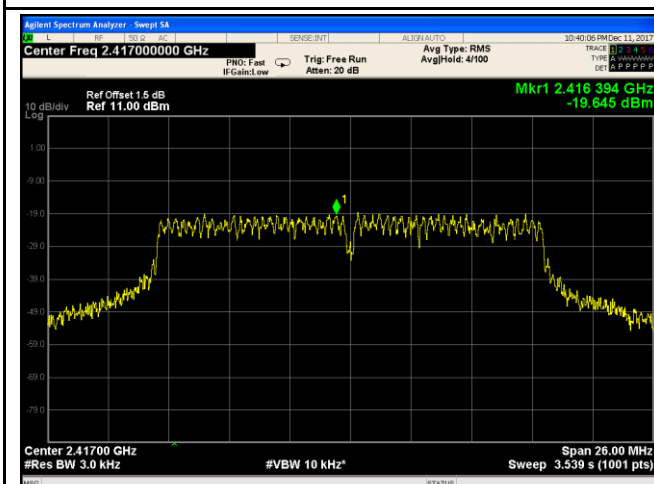
802.11b - Mid CH 2437



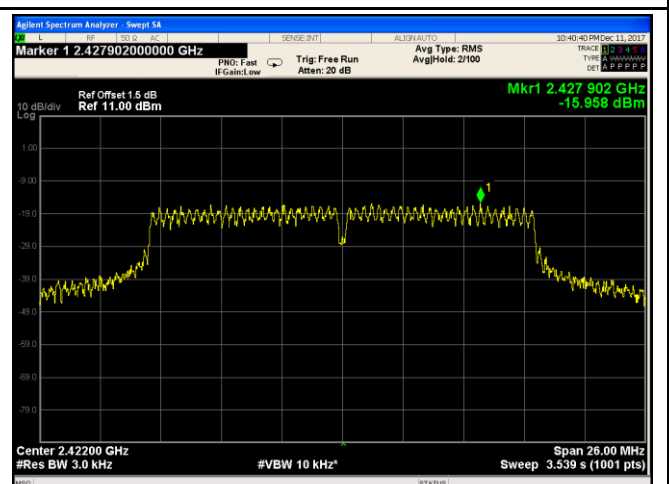
802.11b - High CH 2462



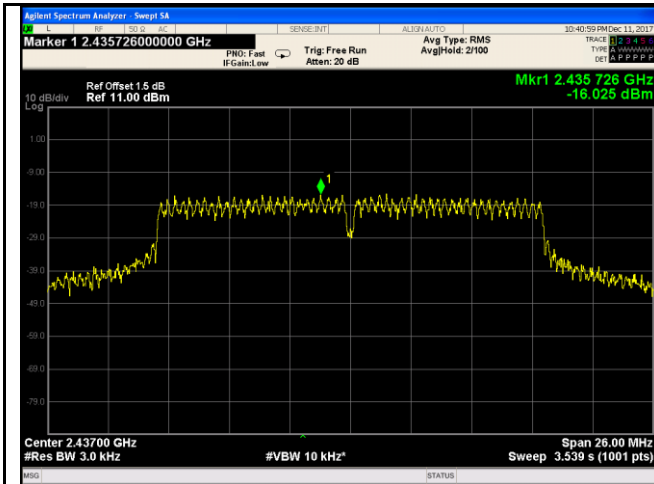
802.11g - 1 CH 2412



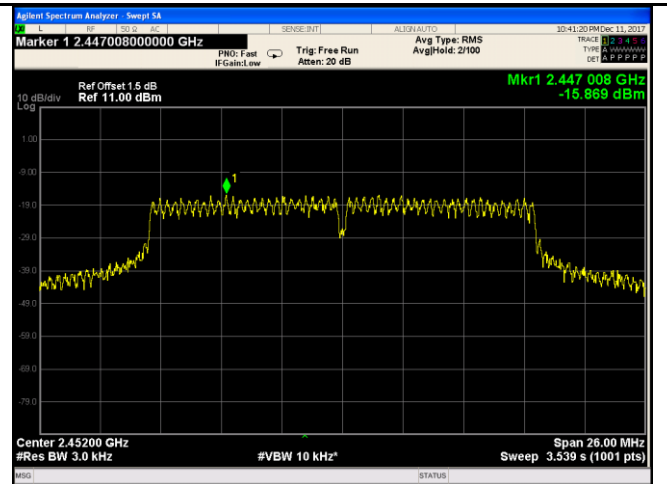
802.11g - 2 CH 2417



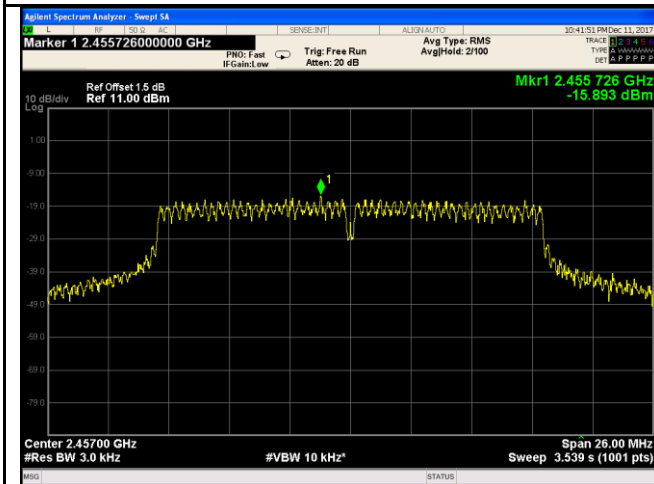
802.11g - 3 CH 2422



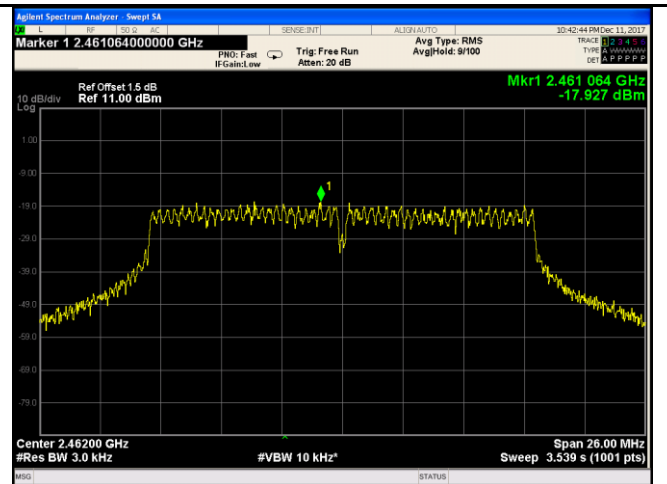
802.11g - 6 CH 2437



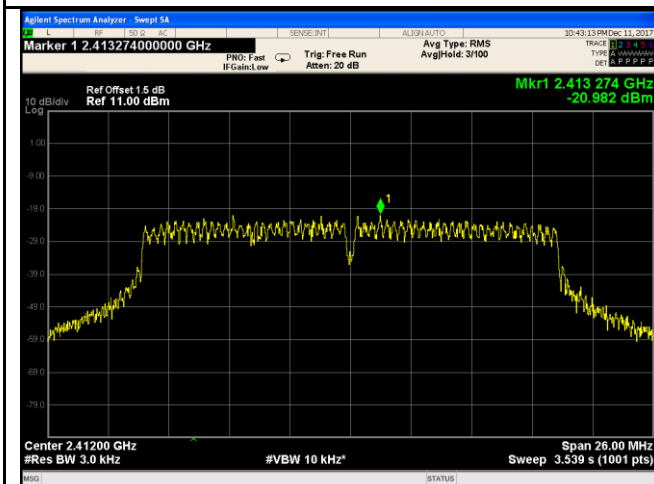
802.11g - 9 CH 2452



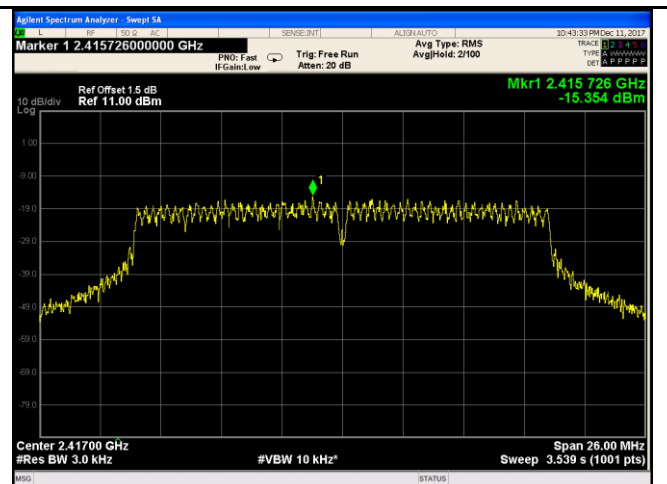
802.11g - 10 CH 2457



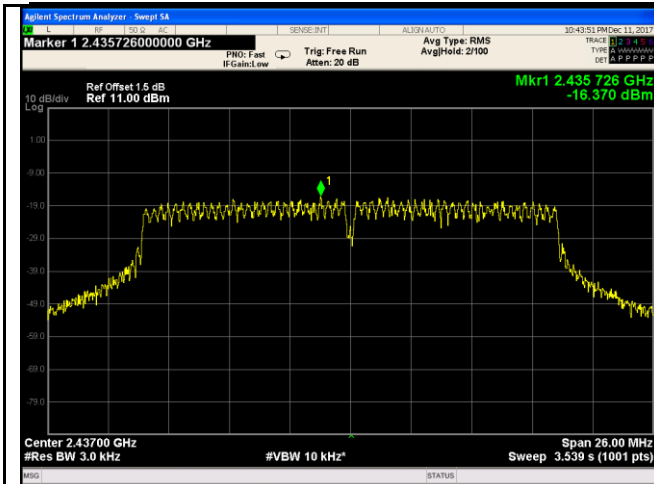
802.11g - 11 CH 2462



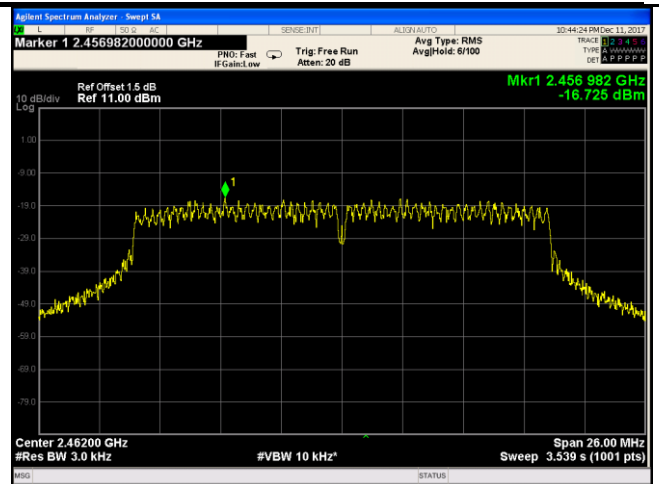
802.11n20 - 1 CH 2412



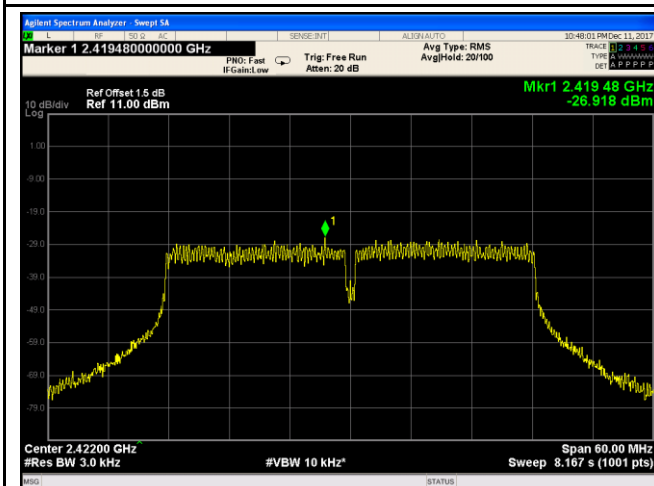
802.11n20 - 2 CH 2417



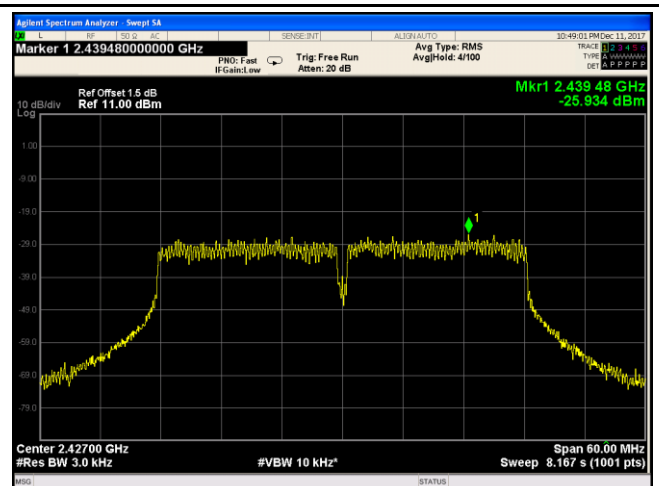
802.11n20 - 6 CH 2437



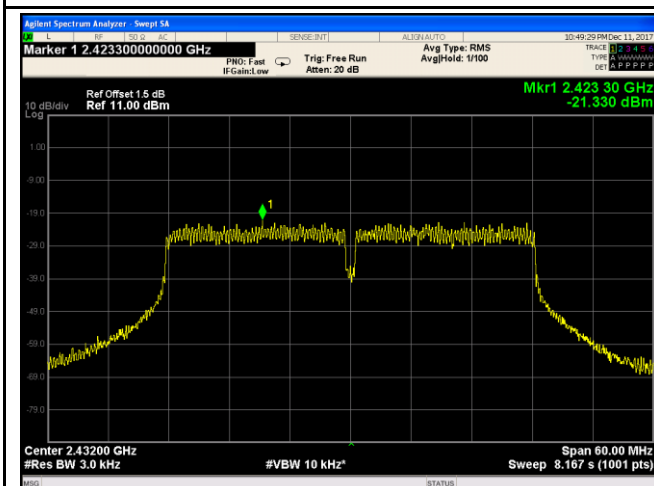
802.11n20 - 11 CH 2462



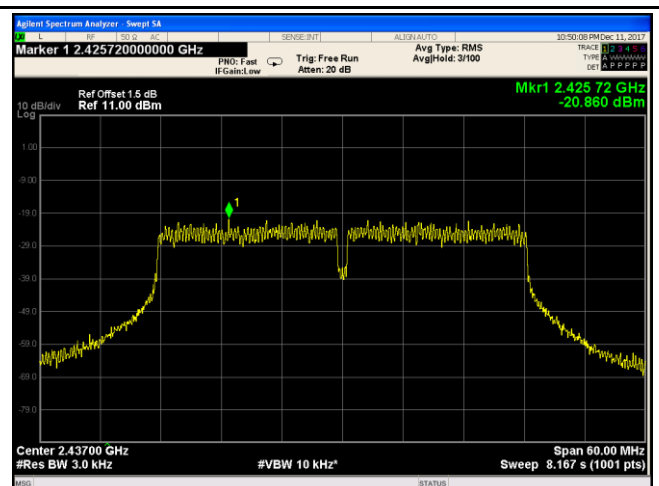
802.11n40 - 3 CH 2422



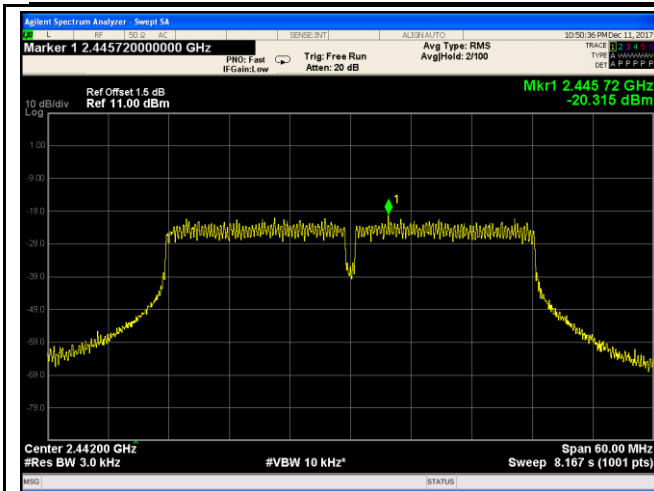
802.11n40 - 4 CH 2427



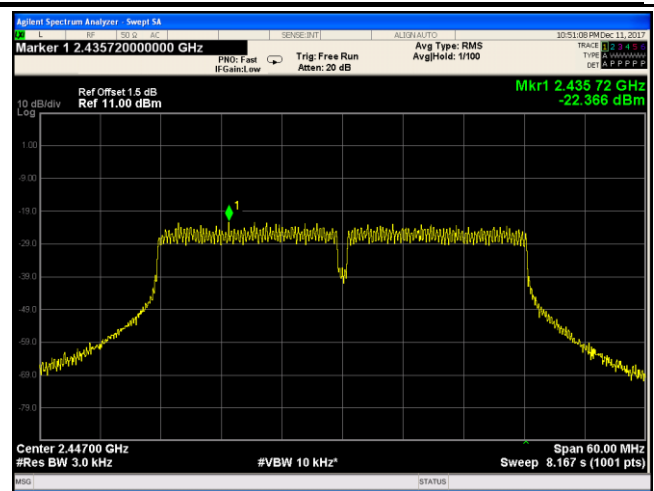
802.11n40 - 5 CH 2432



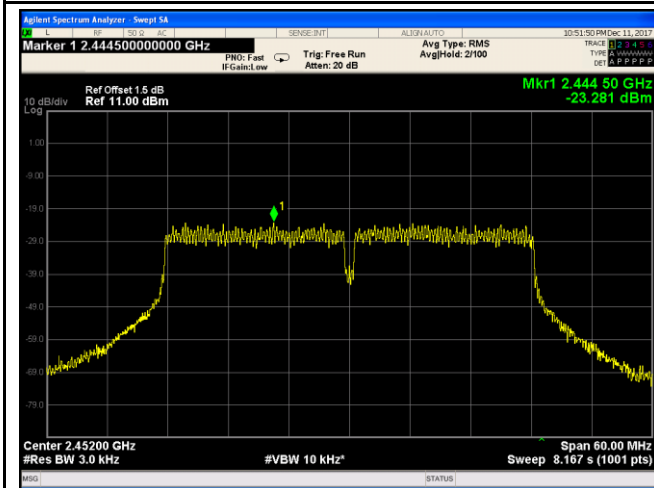
802.11n40 - 6 CH 2437



802.11n40 - 7 CH 2442

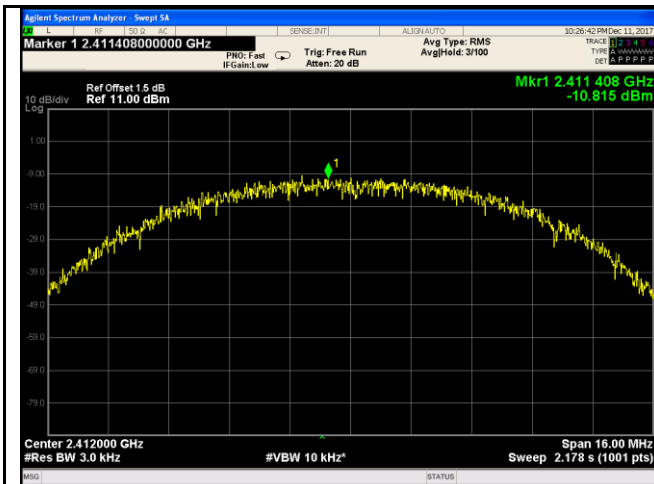


802.11n40 - 8 CH 2447

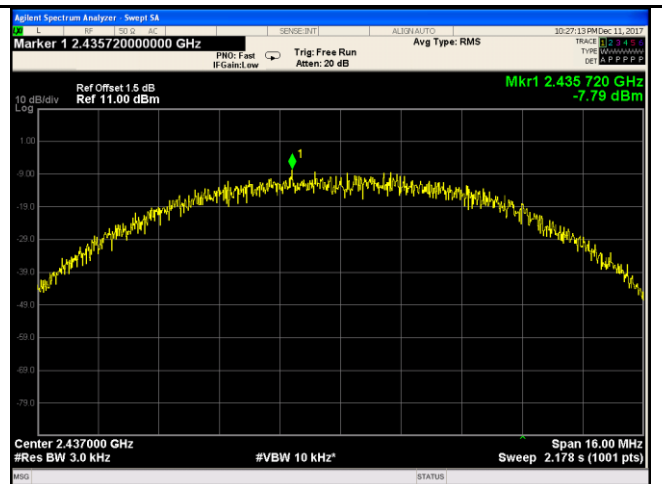


802.11n40 - 9 CH 2452

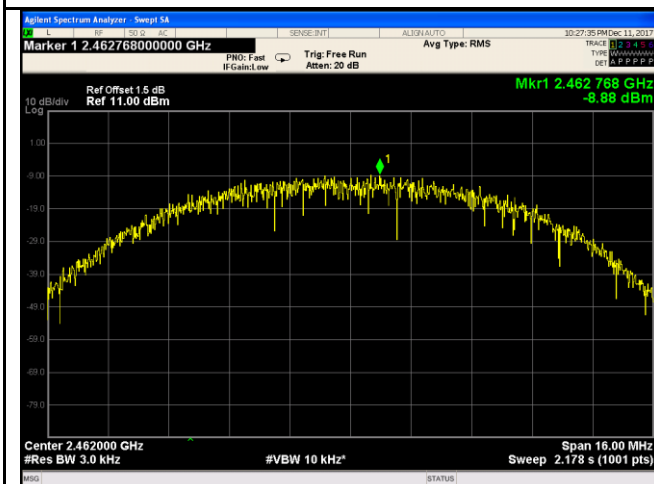
Antenna (Blue):



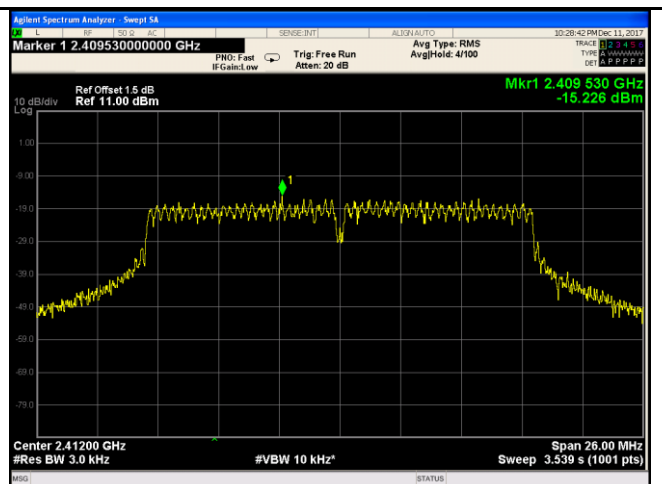
802.11b - Low CH 2412



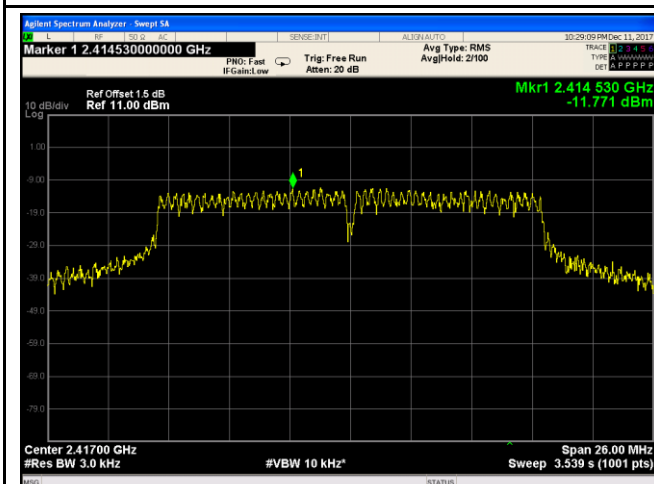
802.11b - Mid CH 2437



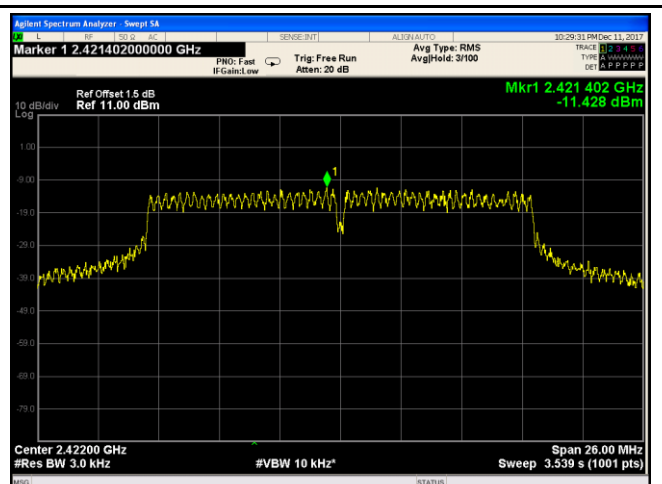
802.11b - High CH 2462



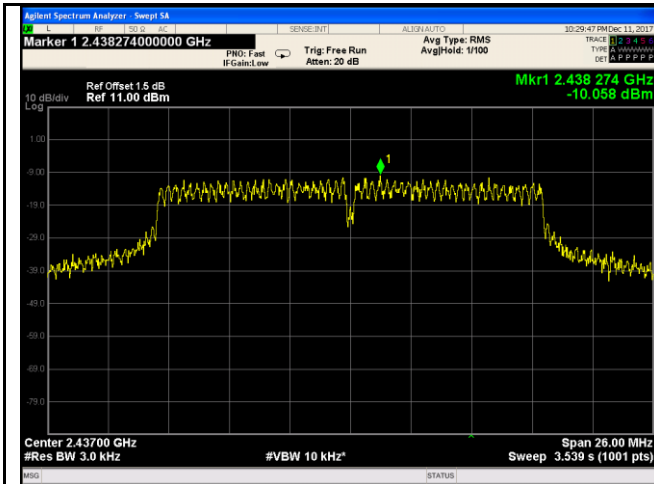
802.11g - 1 CH 2412



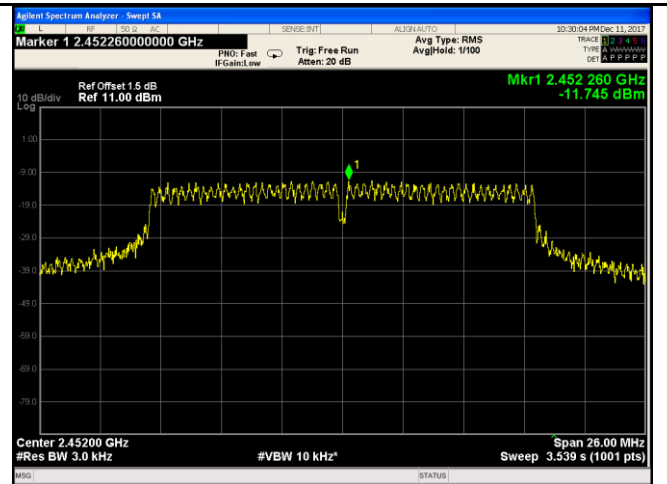
802.11g - 2 CH 2417



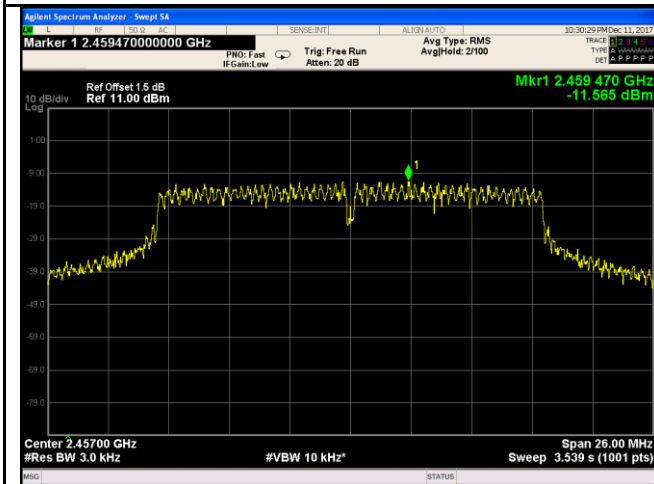
802.11g - 3 CH 2422



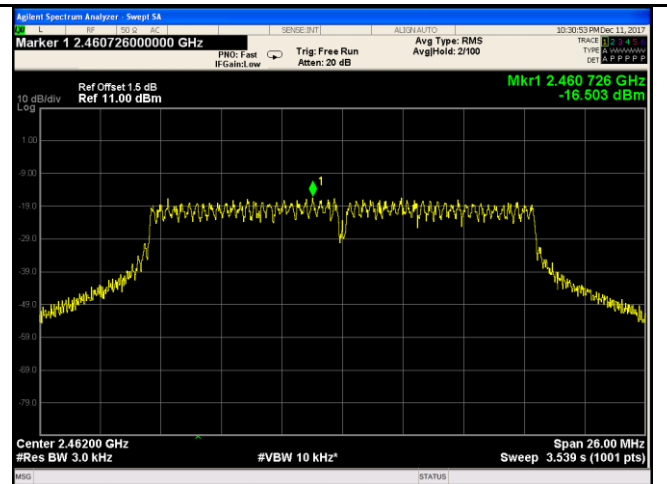
802.11g - 6 CH 2437



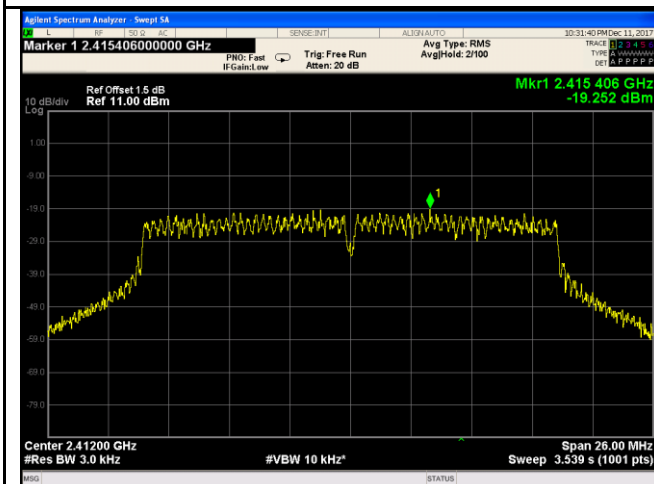
802.11g - 9 CH 2452



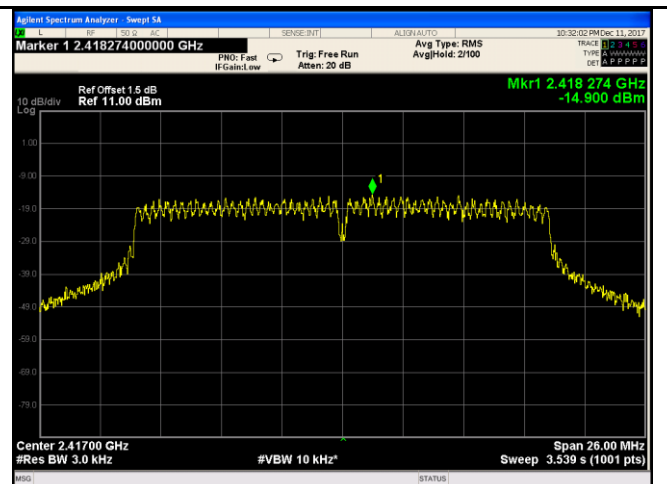
802.11g - 10 CH 2457



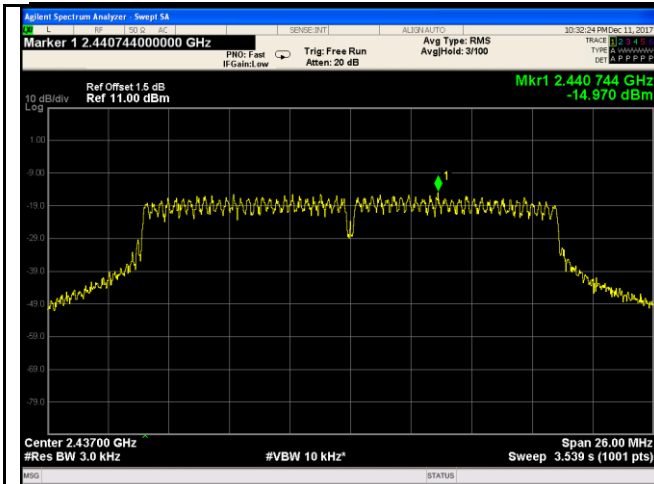
802.11g - 11 CH 2462



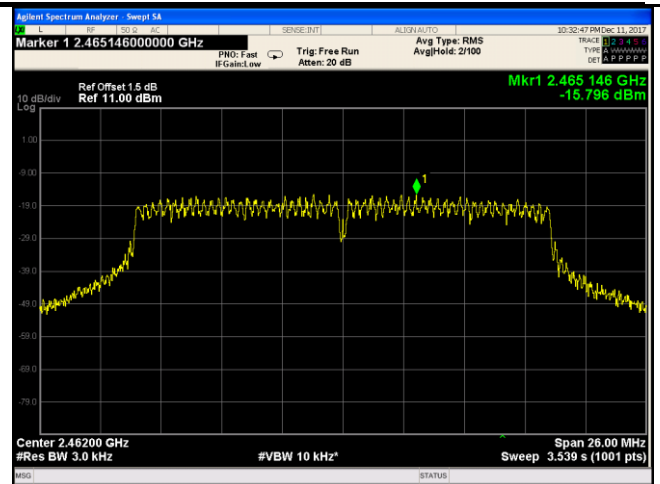
802.11n20 - 1 CH 2412



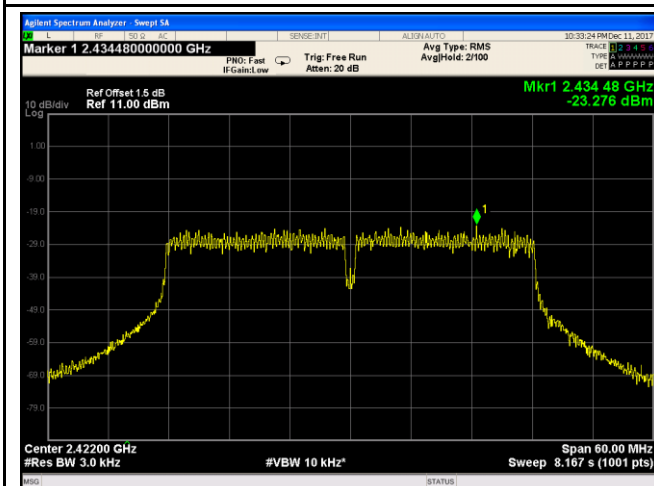
802.11n20 - 2 CH 2417



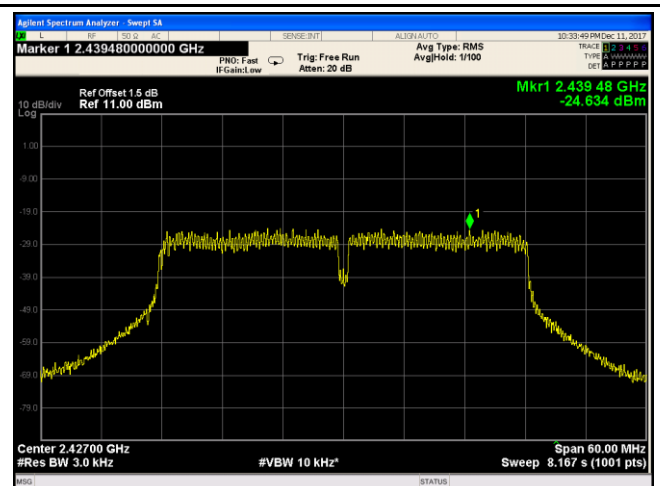
802.11n20 - 6 CH 2437



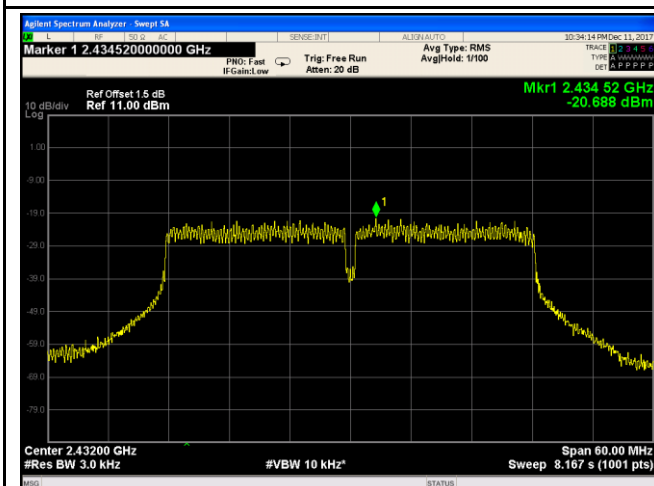
802.11n20 - 11 CH 2462



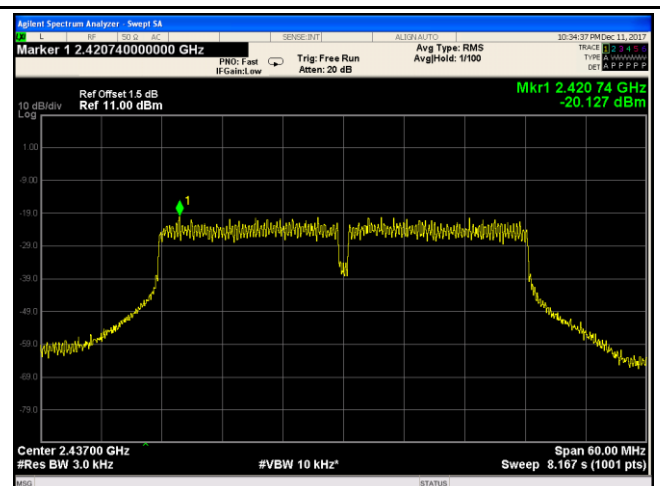
802.11n40 - 3 CH 2422



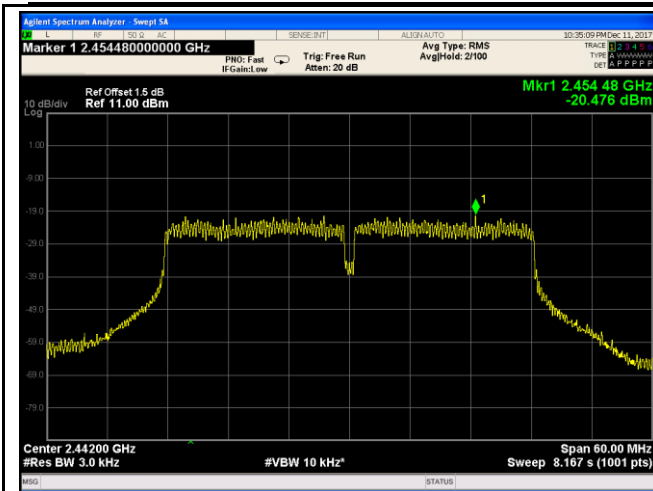
802.11n40 - 4 CH 2427



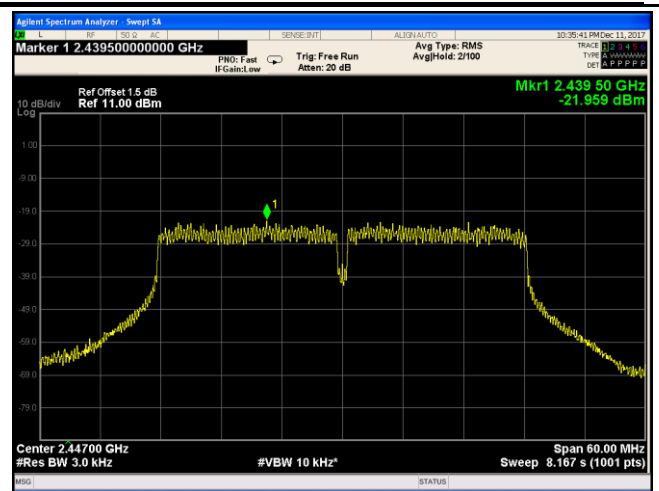
802.11n40 - 5 CH 2432



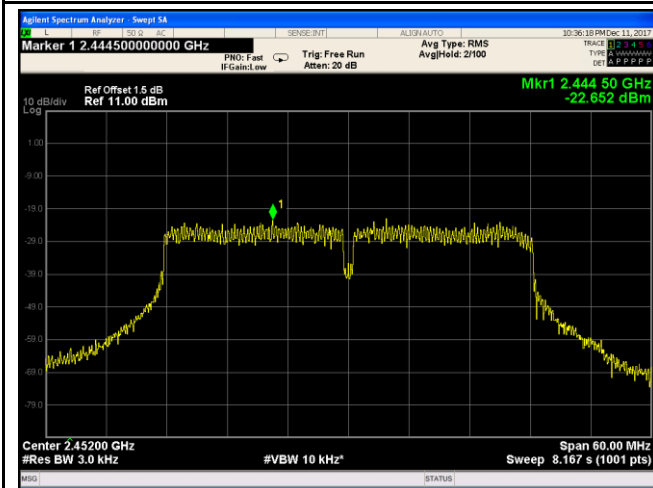
802.11n40 - 6 CH 2437



802.11n40 - 7 CH 2442

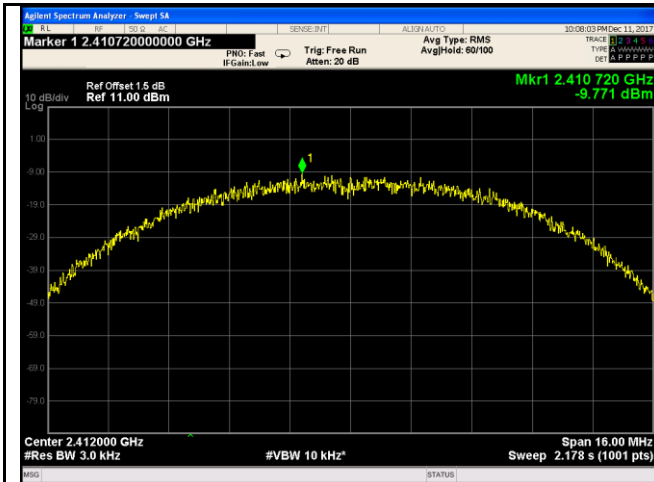


802.11n40 - 8 CH 2447

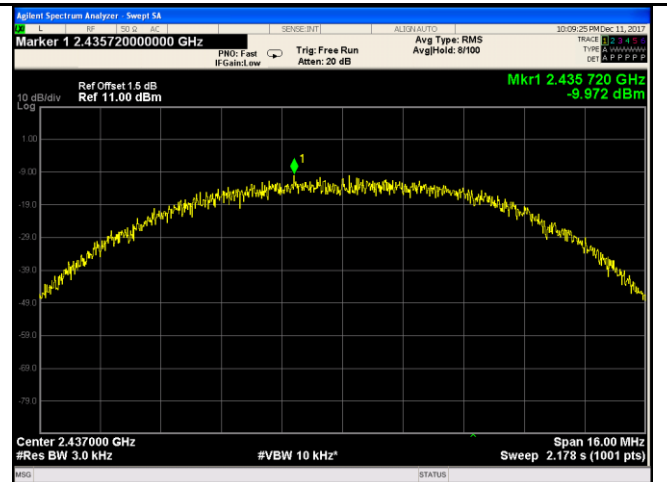


802.11n40 - 9 CH 2452

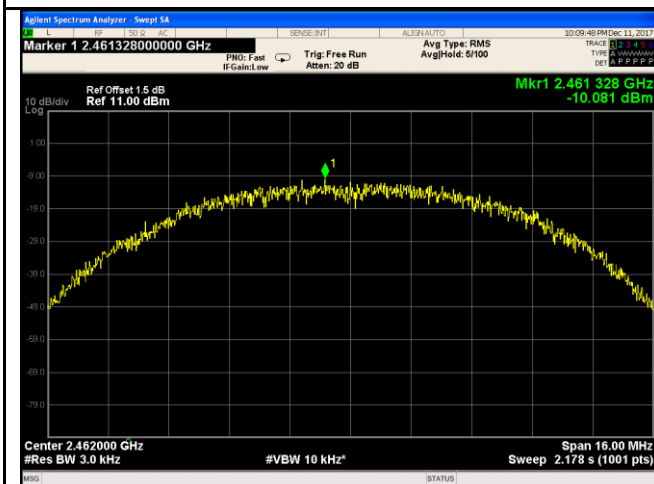
Antenna (Black):



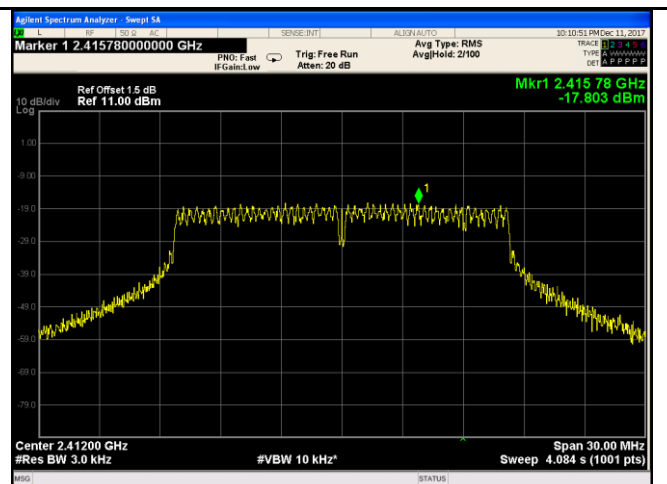
802.11b - Low CH 2412



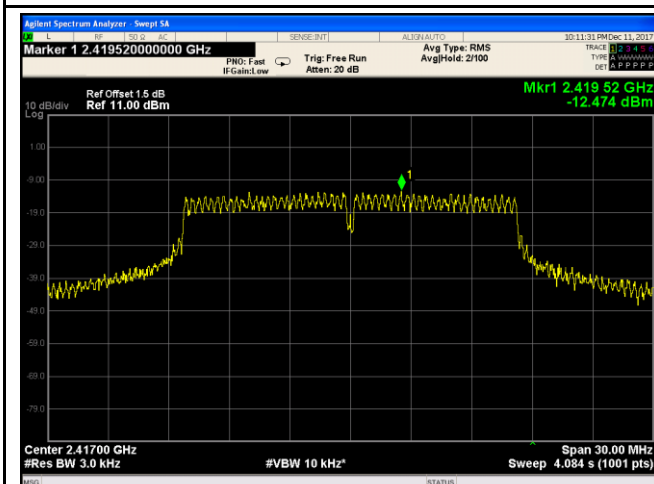
802.11b - Mid CH 2437



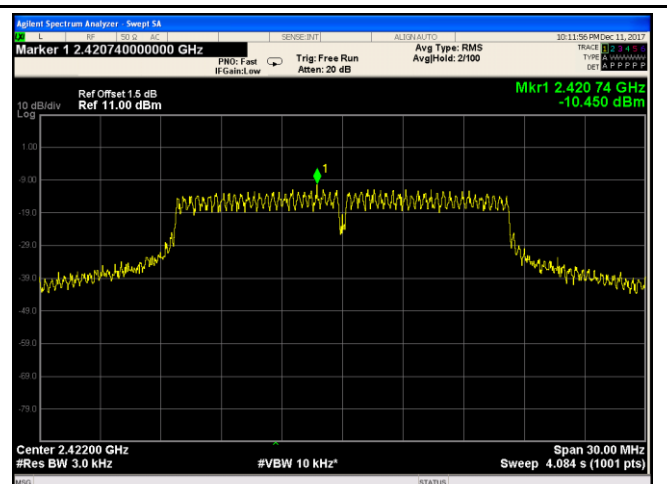
802.11b - High CH 2462



802.11g - 1 CH 2412



802.11g - 2 CH 2417



802.11g - 3 CH 2422