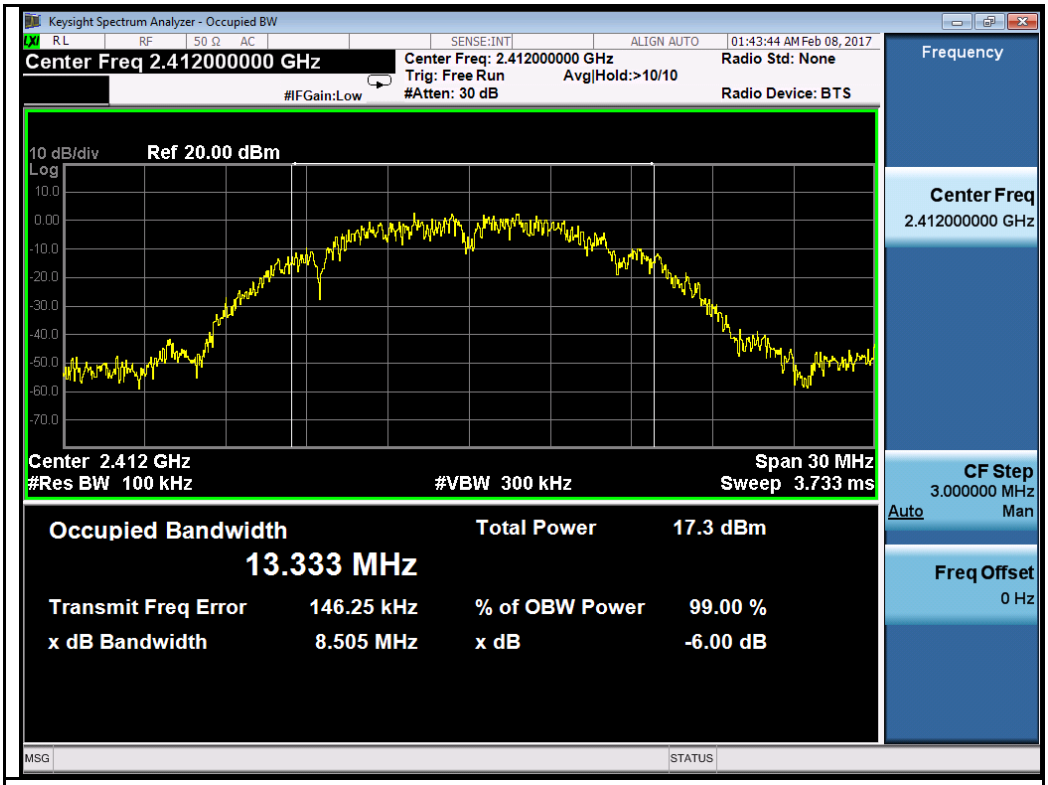
6dB Bandwidth measurement result for 2.4GHz

Type	Test mode	Freq (MHz)	CH	Result (MHz)	Limit (MHz)	Result
6dB BW	802.11b	2412	Low	8.51	≥0.5	Pass
		2437	Mid	9.01	≥0.5	Pass
		2462	High	7.11	≥0.5	Pass
	802.11g	2412	Low	16.54	≥0.5	Pass
		2437	Mid	16.32	≥0.5	Pass
		2462	High	16.47	≥0.5	Pass
	802.11n-20M	2412	Low	17.36	≥0.5	Pass
		2437	Mid	17.65	≥0.5	Pass
		2462	High	17.58	≥0.5	Pass
	802.11n-40M	2422	Low	34.06	≥0.5	Pass
		2437	Mid	35.12	≥0.5	Pass
		2452	High	35.85	≥0.5	Pass

99% OBW measurement result for 2.4GHz

Type	Test mode	Freq (MHz)	CH	Result (MHz)
99% OBW	802.11b	2412	Low	13.33
		2437	Mid	13.16
		2462	High	13.37
	802.11g	2412	Low	16.50
		2437	Mid	16.47
		2462	High	16.50
	802.11n-20M	2412	Low	17.68
		2437	Mid	17.68
		2462	High	17.68
	802.11n-40M	2422	Low	35.88
		2437	Mid	36.10
		2452	High	35.87

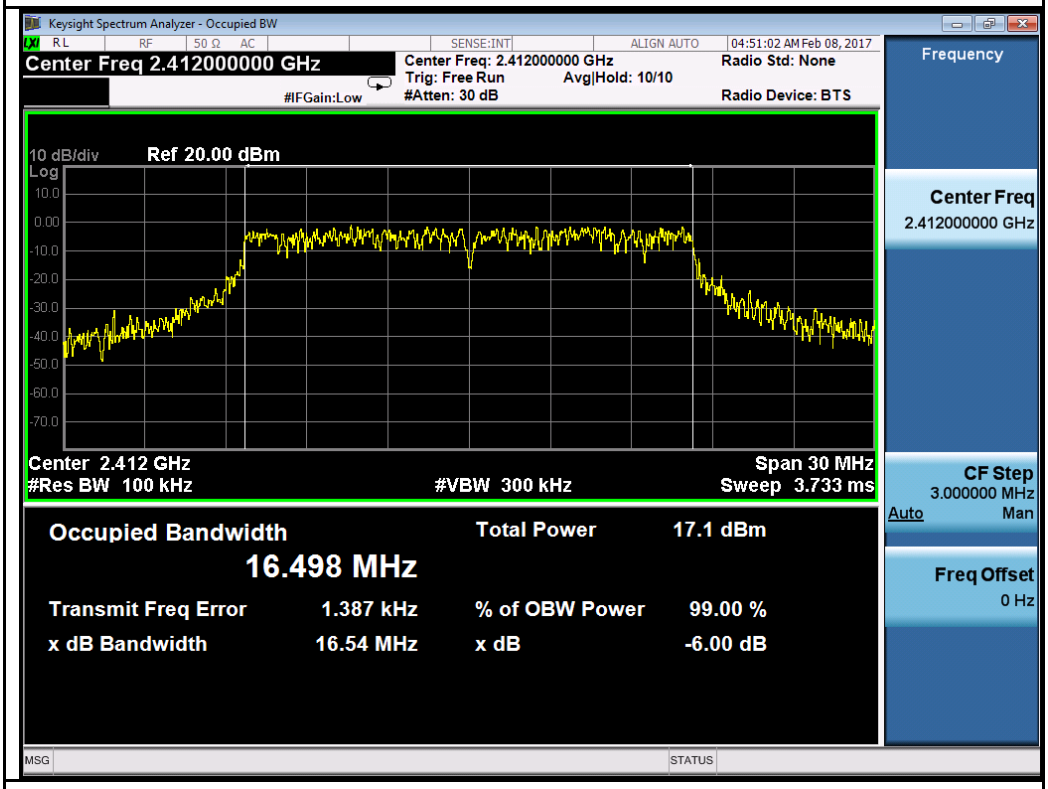
6dB & 99% Bandwidth Test Plots



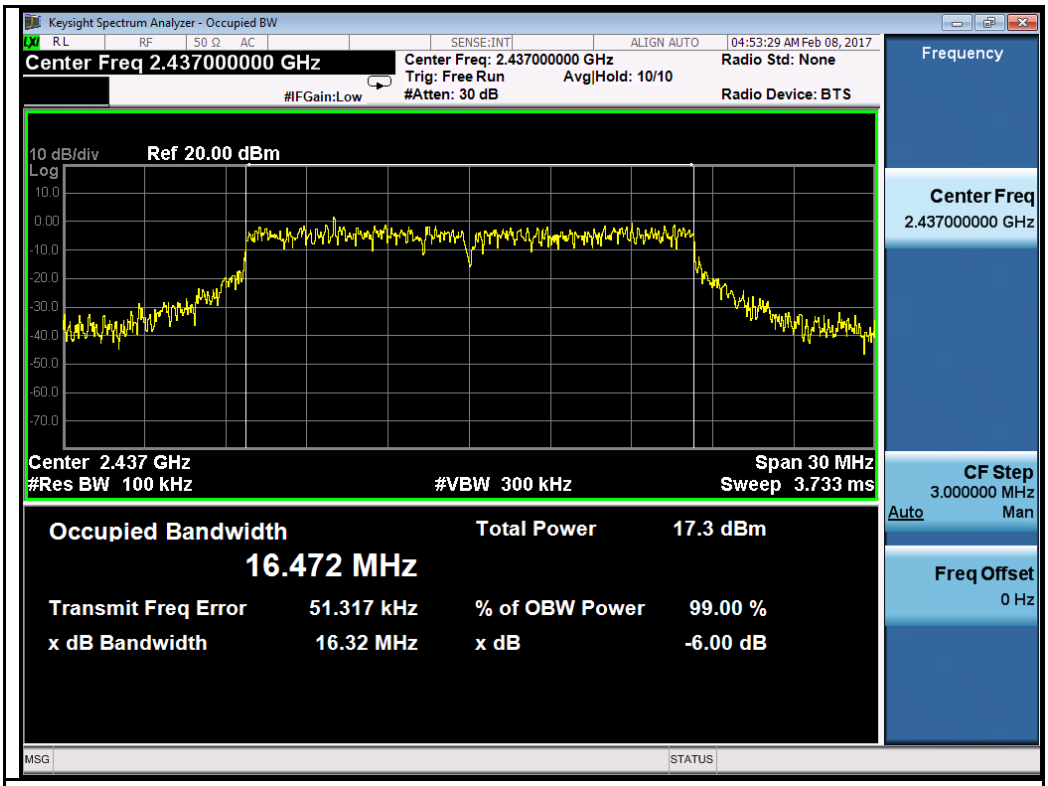
802.11b-2412MHz

802.11b-2437MHz

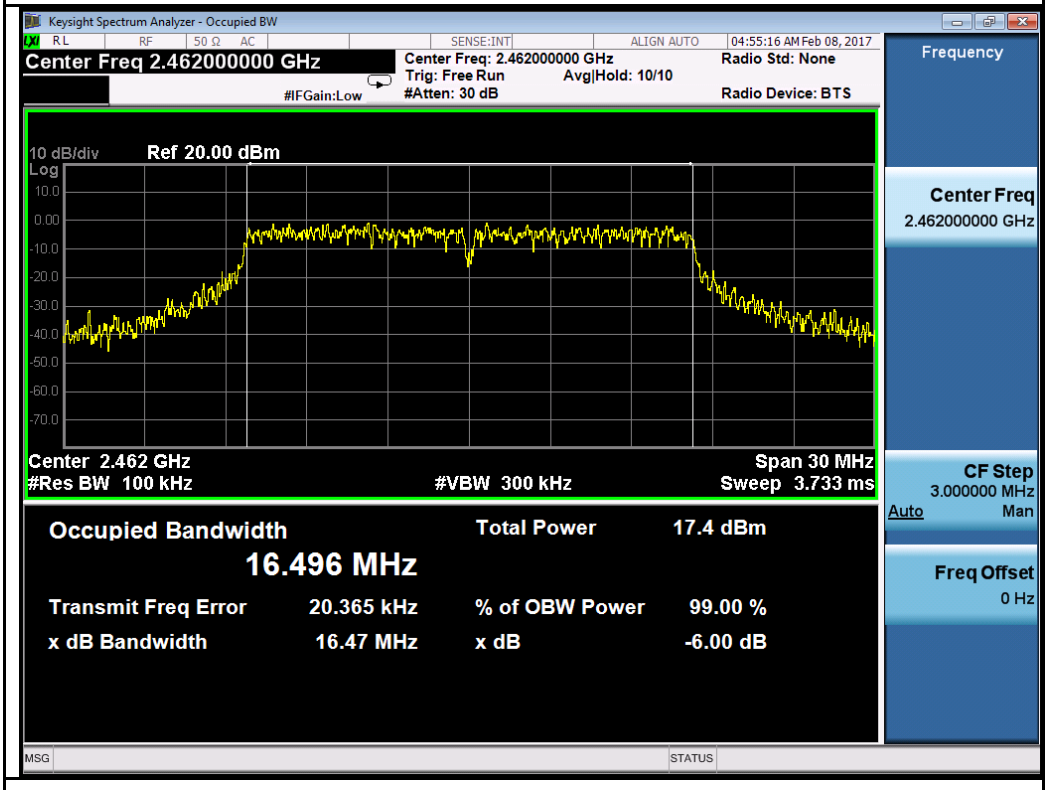
802.11b-2462MHz



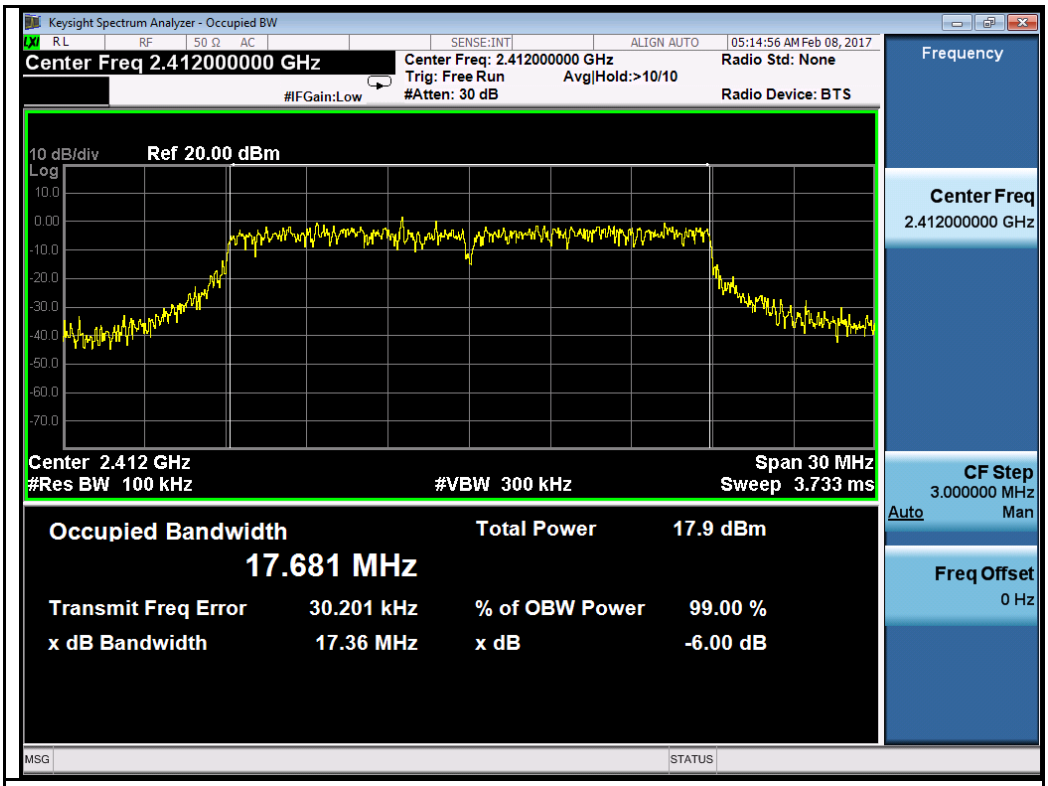
802.11g-2412MHz



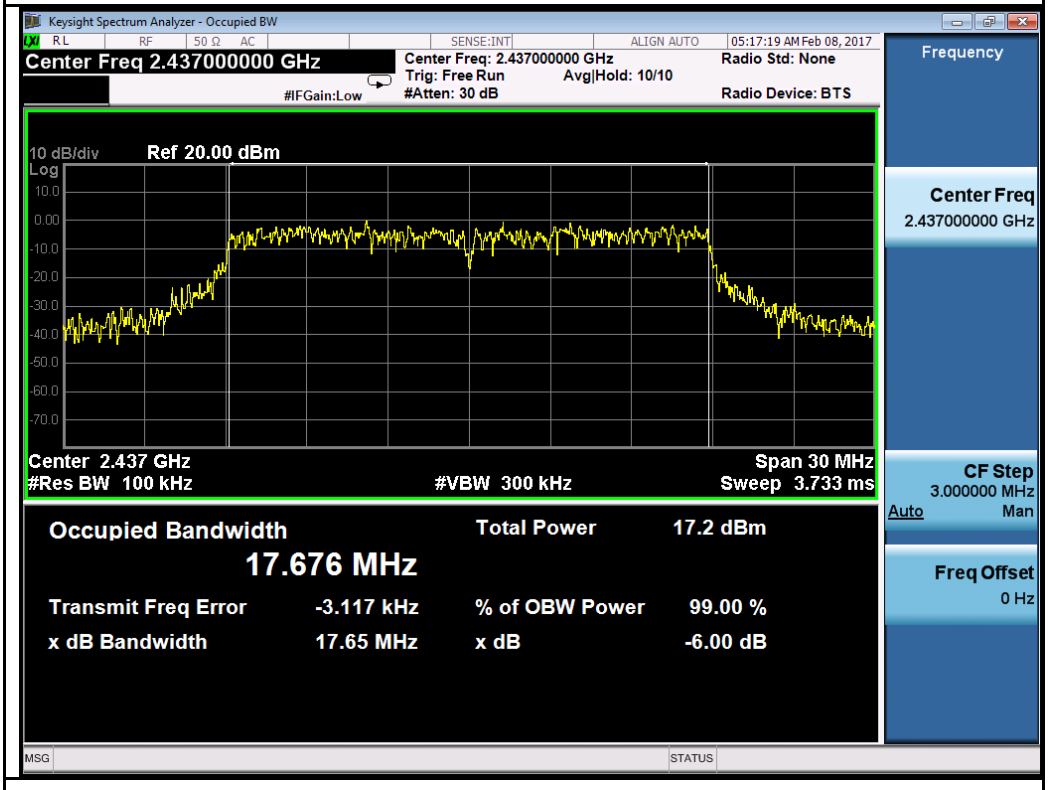
802.11g-2437MHz



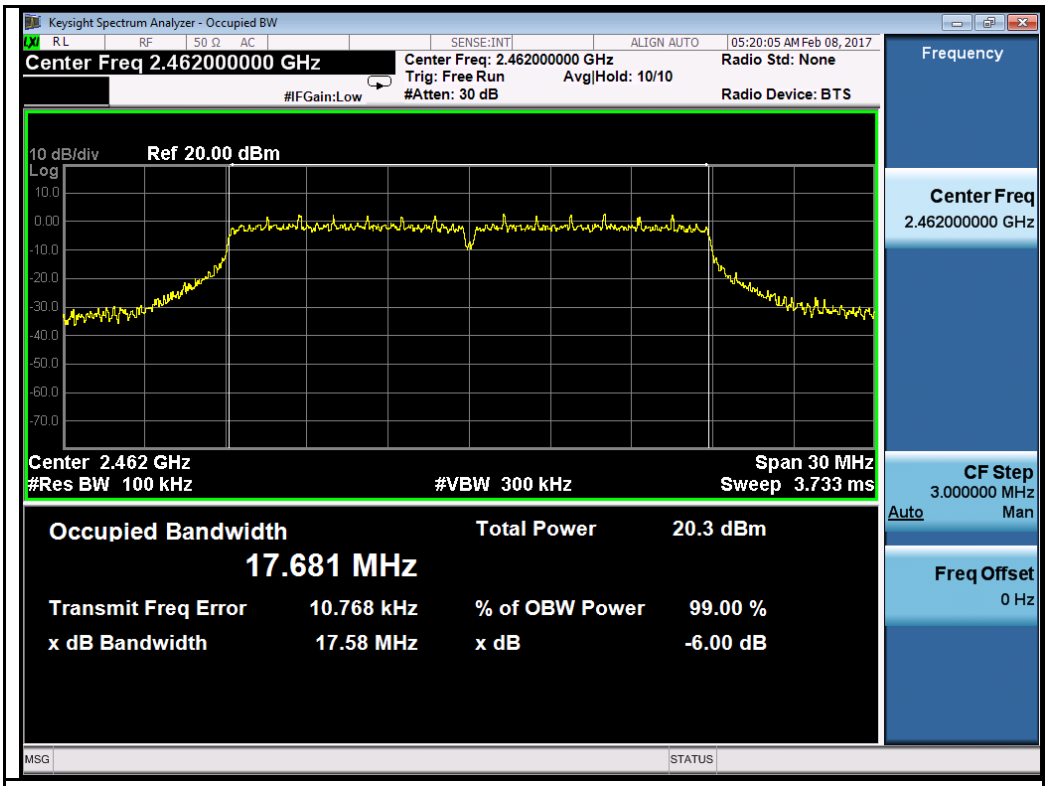
802.11g-2462MHz



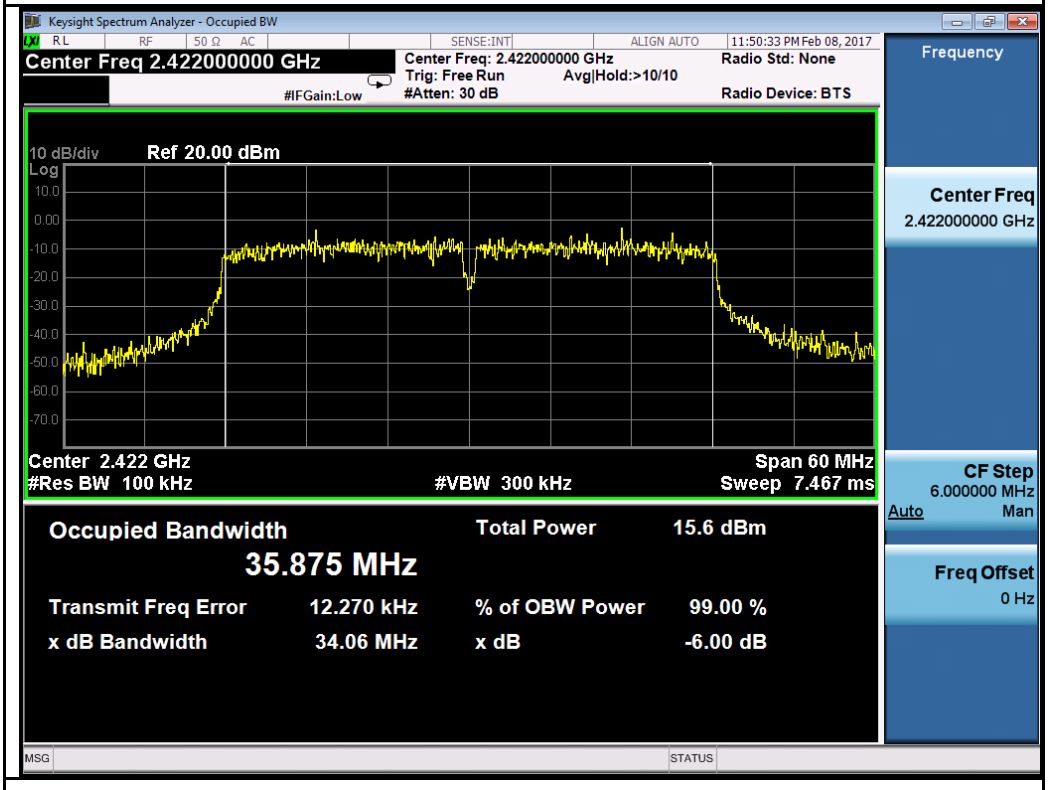
802.11n-HT20-2412MHz



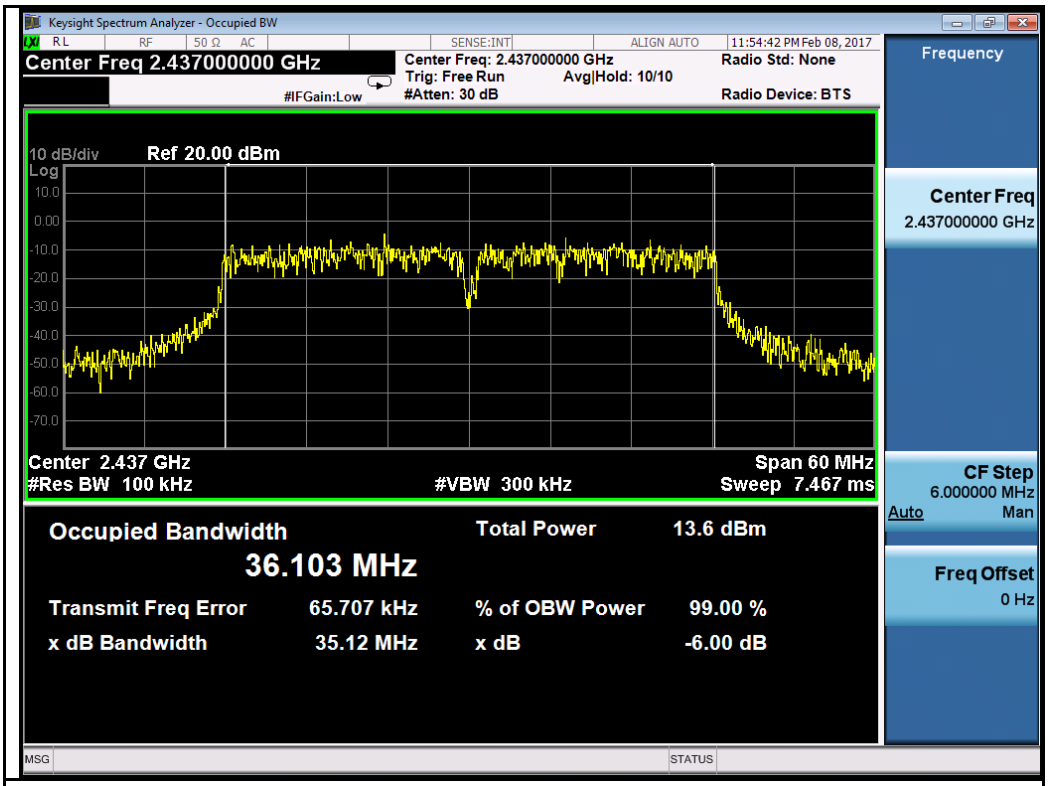
802.11n-HT20-2437MHz



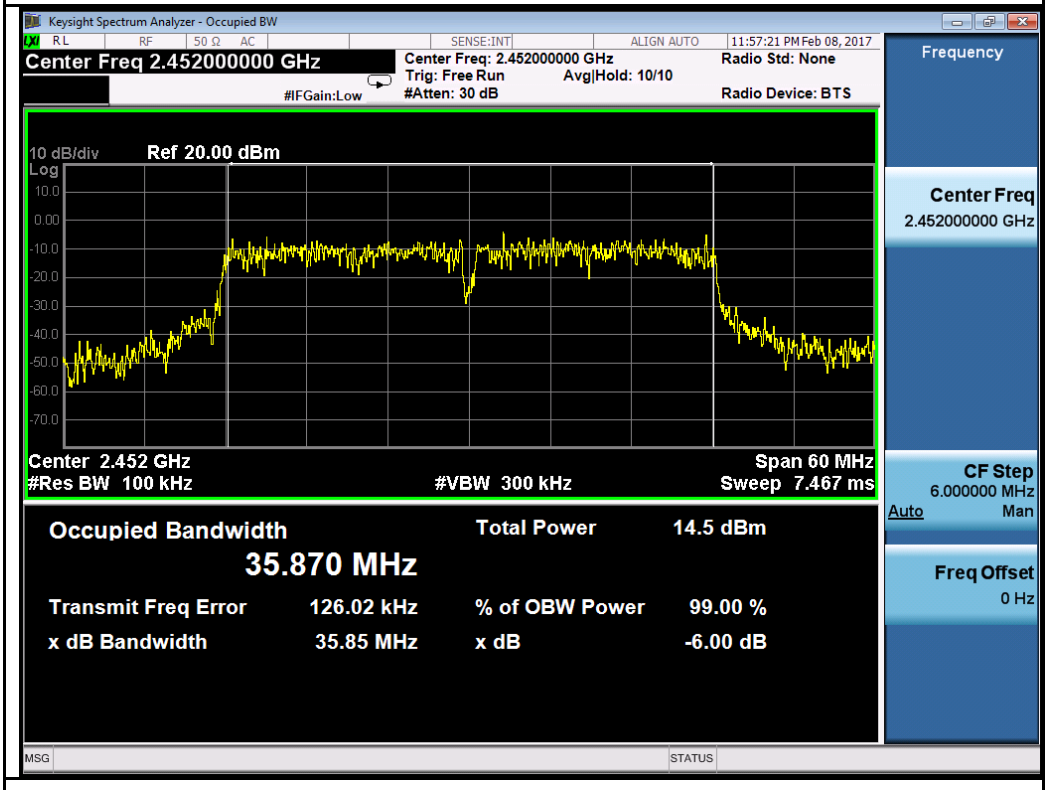
802.11n-HT20-2462MHz



802.11n-HT40-2412MHz



802.11n-HT40-2437MHz

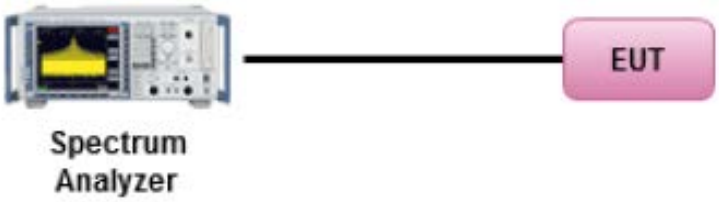


802.11n-HT40-2452MHz

10.3 Output Power

Requirement(s):

Spec	Item	Requirement	Applicable
§ 15.247 RSS247 (5.4.4)	f)	DSSS in 902-928MHz, 2400-2483.5MHz, 5725-5850MHz: ≤1 Watt	☒

Test Setup				
Test Procedure	558074 D01 DTS Meas Guidance v03r05, 9.2.2.2 Measurement using a Spectrum Analyzer (SA) (a) Set span to at least 1.5 times the OBW (b) Set RBW = 1-5% of the OBW, not to exceed 1 MHz. (c) Set VBW ≥ 3 x RBW. (d) Number of points in sweep ≥ 2 × span / RBW. (This gives bin-to-bin spacing ≤ RBW/2, so that narrowband signals are not lost between frequency bins.) (e) Sweep time = auto. (f) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode. (g) If transmit duty cycle < 98 %, use a sweep trigger with the level set to enable triggering only on full power pulses. The transmitter shall operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle ≥ 98 %, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run". (h) Trace average at least 100 traces in power averaging (i.e., RMS) mode (i) Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function, with band limits set equal to the OBW band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.			
Test Date	02/14/2017	Environmental condition	Temperature Relative Humidity Atmospheric Pressure	23ºC 44% 1021mbar
Remark	-			
Result	☒ Pass ☐ Fail			

Test Data ☒ Yes ☐ N/A

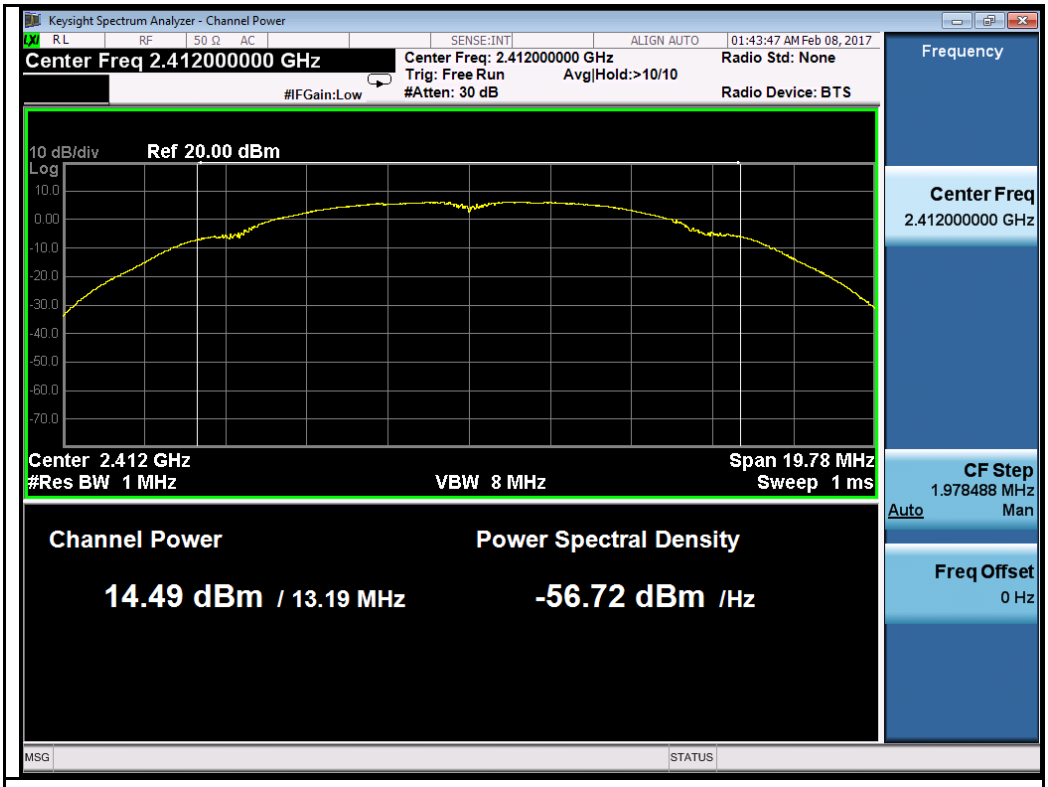
Test Plot ☐ Yes (See below) ☒ N/A

Test was done by Rachana Khanduri at RF test site.

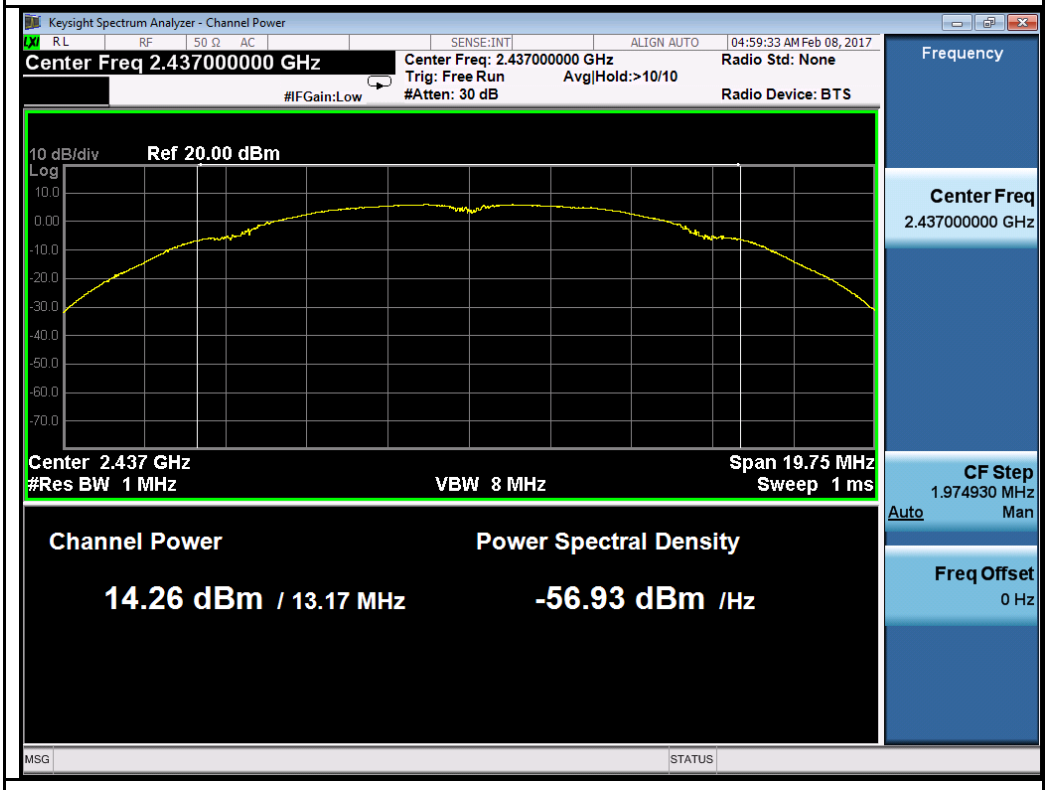
Output Power measurement result

Type	Test mode	Freq (MHz)	CH	Output Power (dBm)	Limit (dBm)	Result
Output Power	802.11b	2412	Low	14.49	30	Pass
		2437	Mid	14.26	30	Pass
		2462	High	14.54	30	Pass
	802.11g	2412	Low	14.10	30	Pass
		2437	Mid	13.82	30	Pass
		2462	High	14.16	30	Pass
	802.11n-20M	2412	Low	14.17	30	Pass
		2437	Mid	13.84	30	Pass
		2462	High	14.19	30	Pass
	802.11n-40M	2422	Low	10.98	30	Pass
		2437	Mid	11.60	30	Pass
		2452	High	10.33	30	Pass

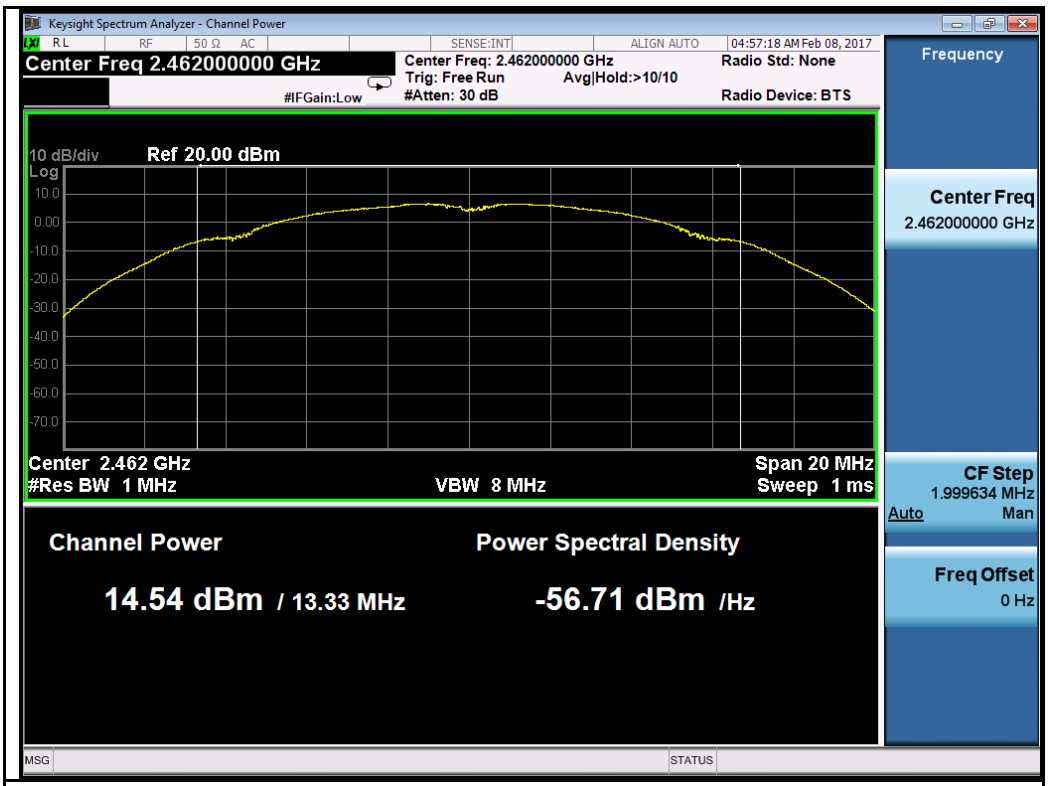
Test Plots:



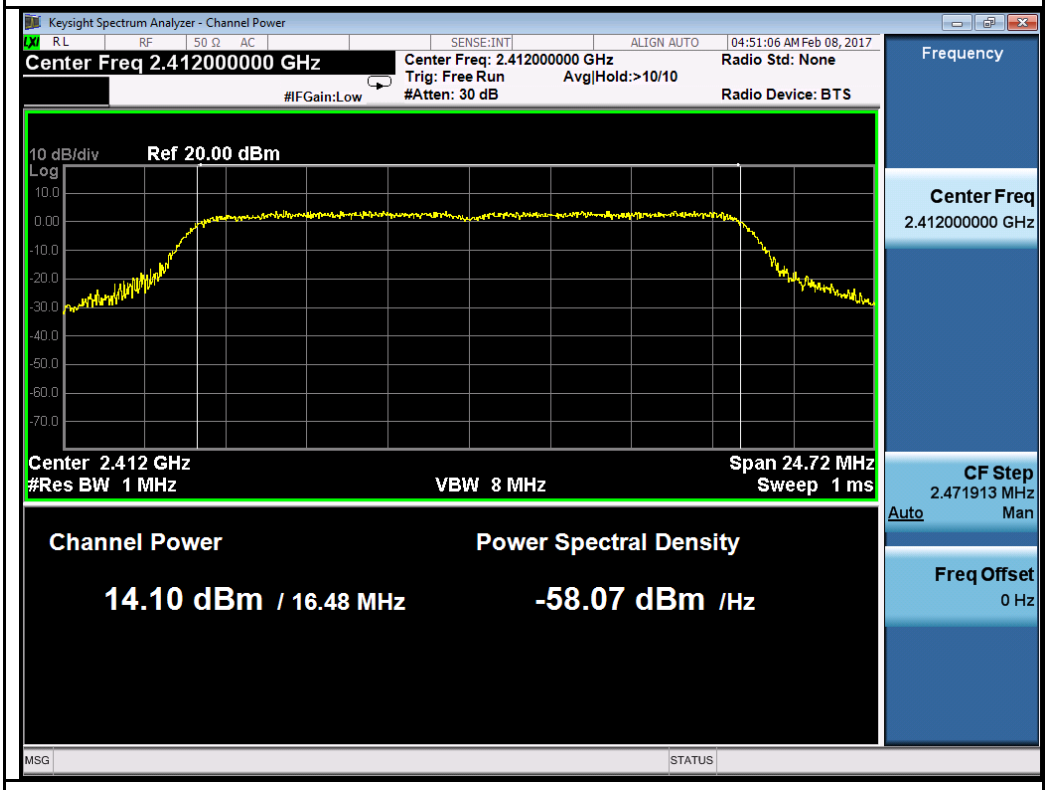
802.11b-2412MHz



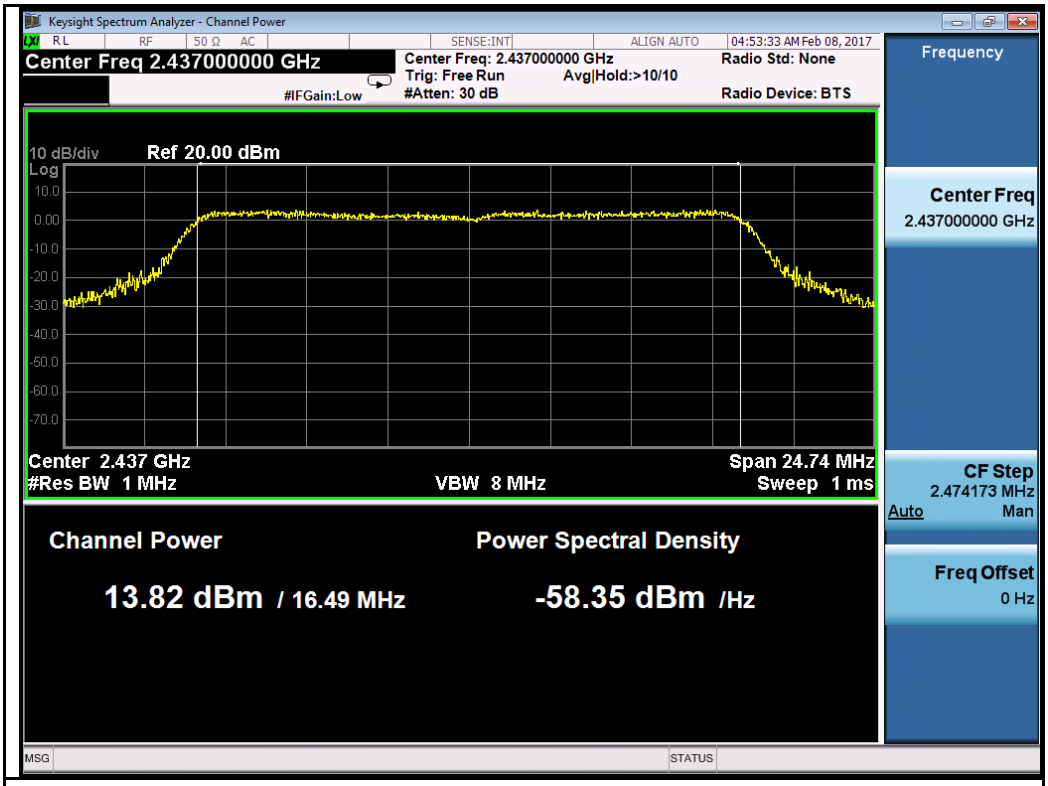
802.11b-2437MHz



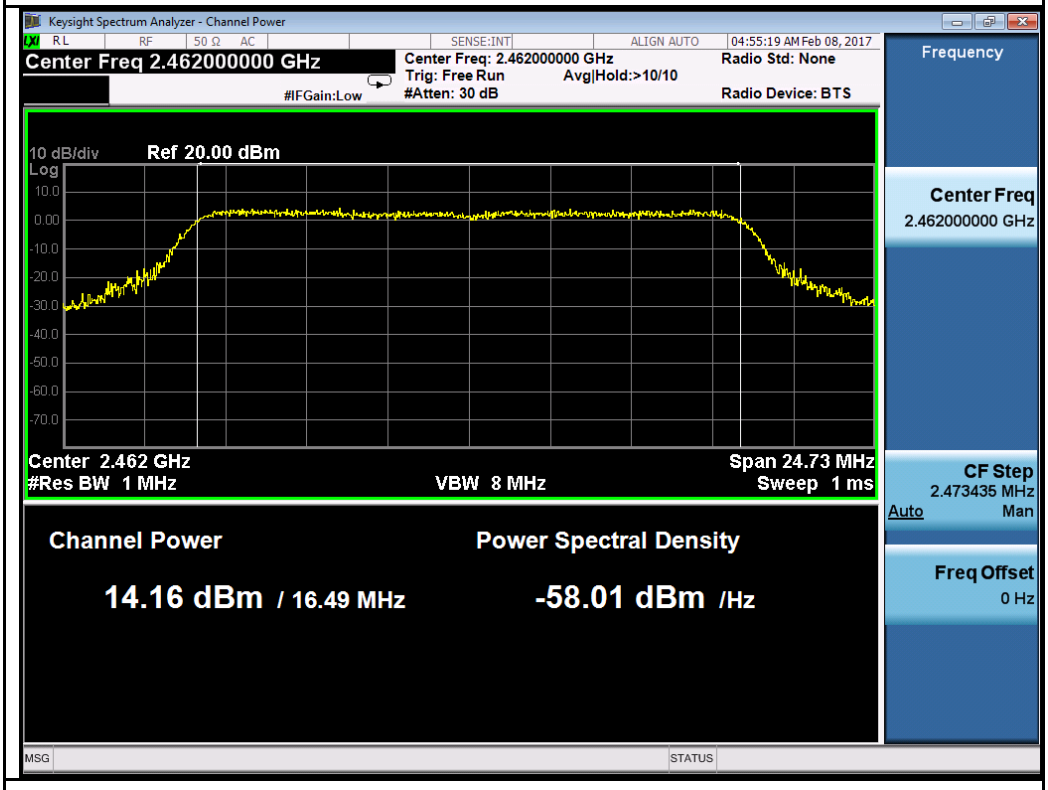
802.11b-2462MHz



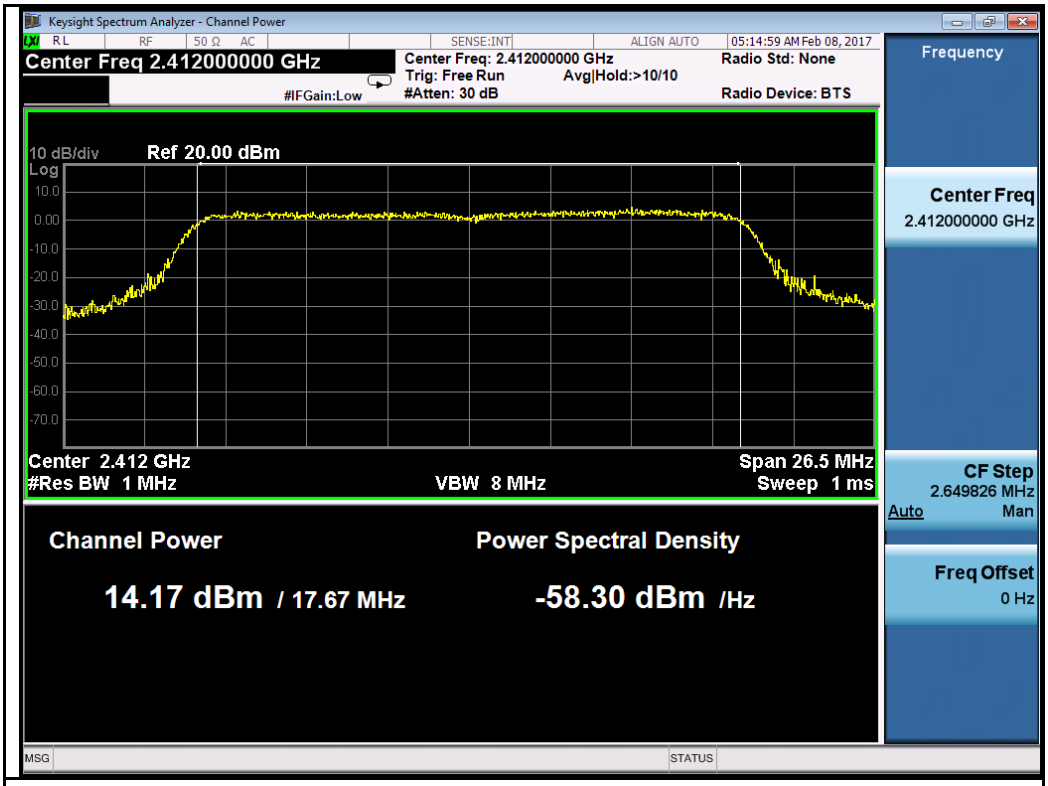
802.11g-2412MHz



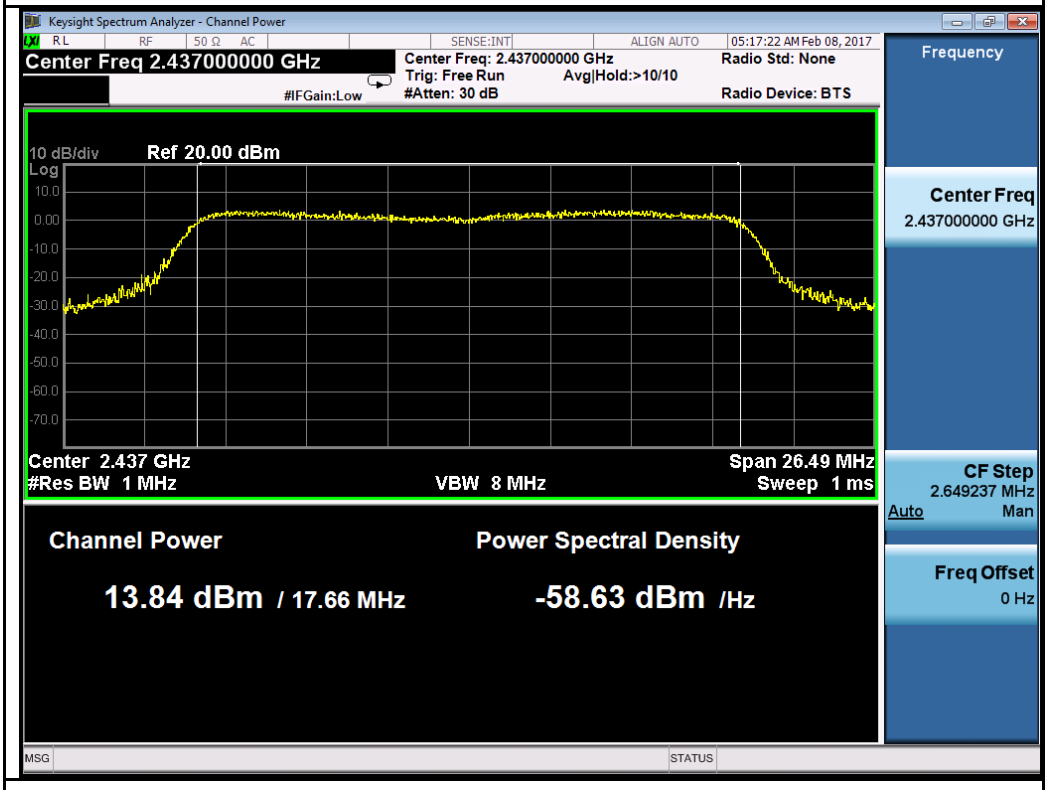
802.11g-2437MHz



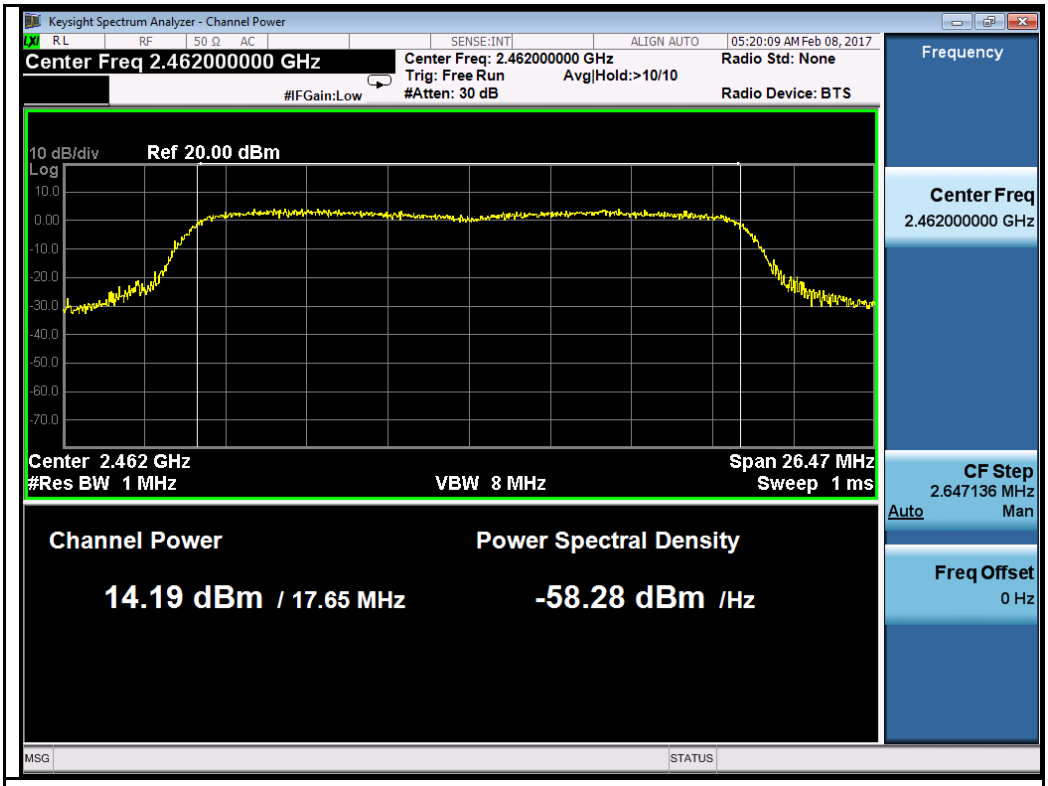
802.11g-2462MHz



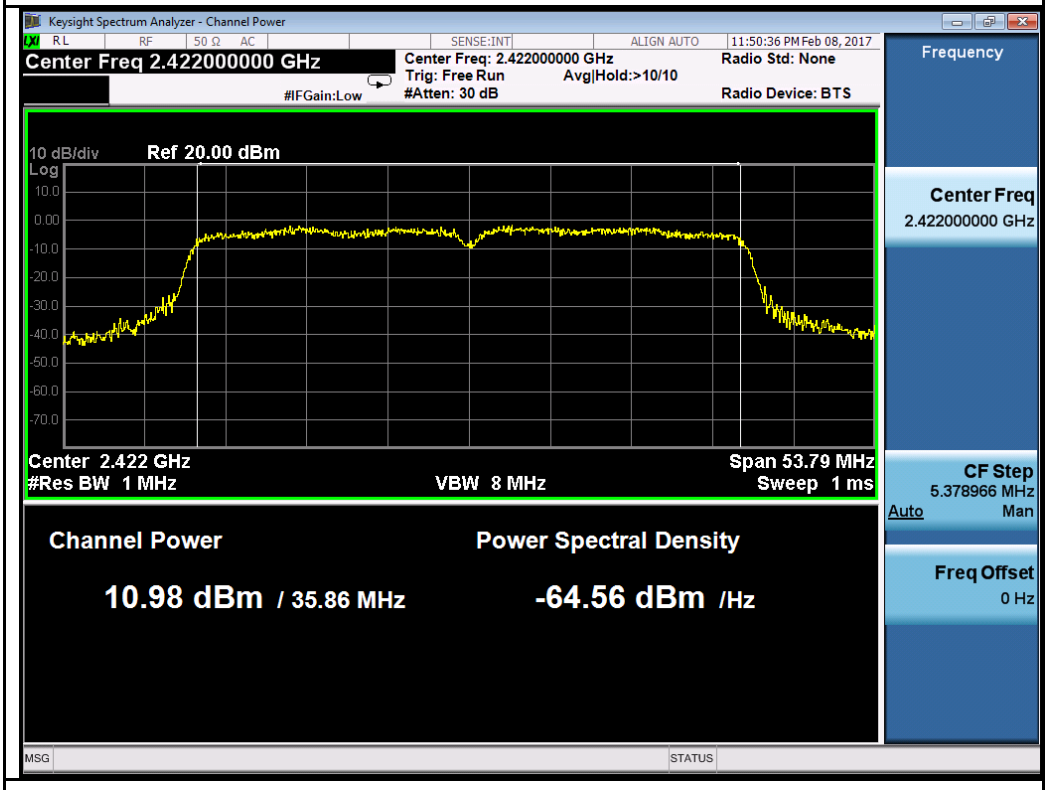
802.11n20-2412MHz



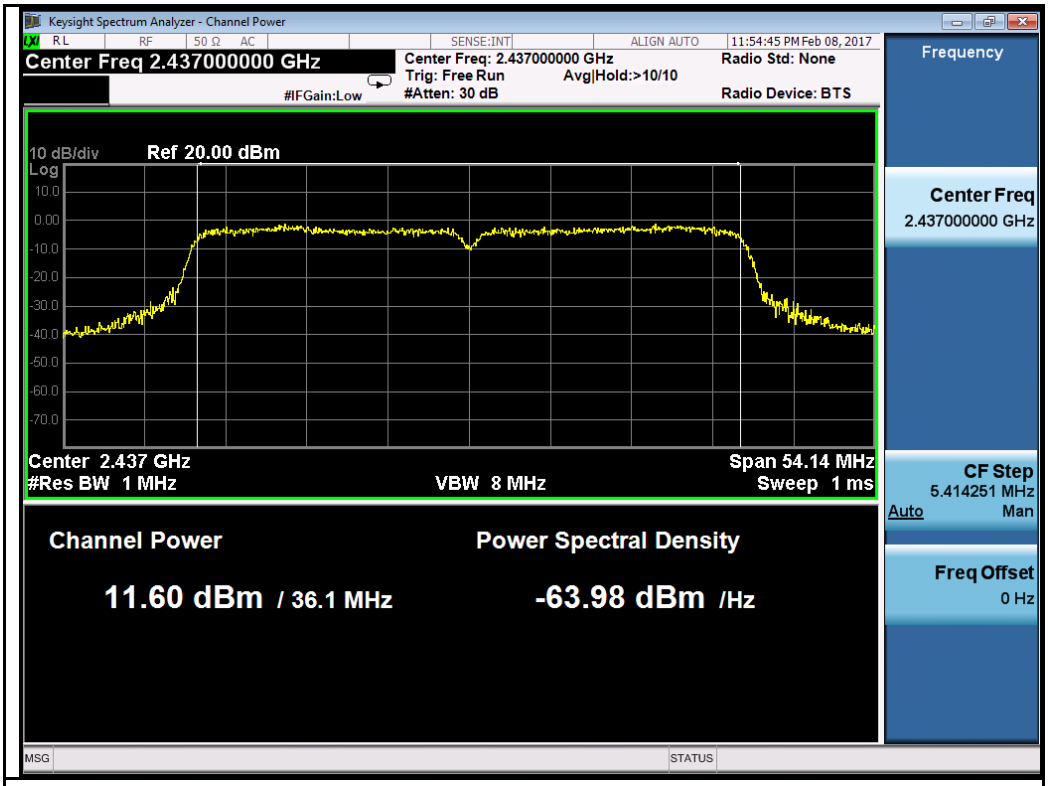
802.11n20-2437MHz



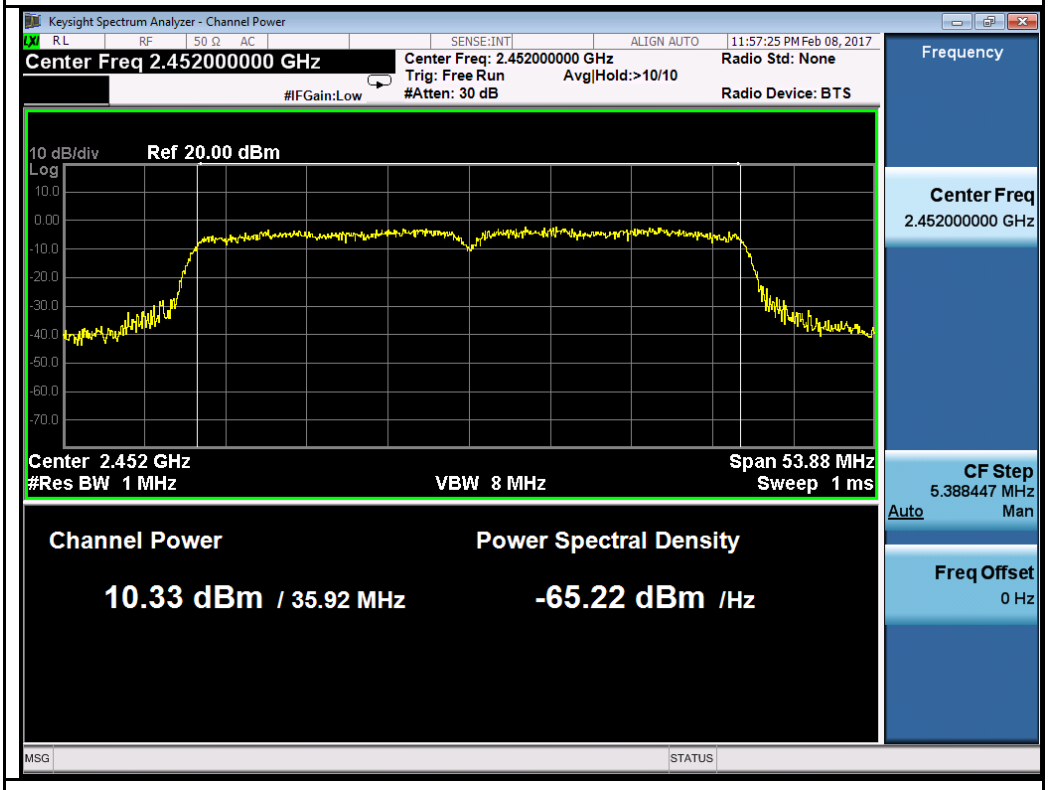
802.11n20-2462MHz



802.11n40- 2422MHz



802.11n40-2437MHz

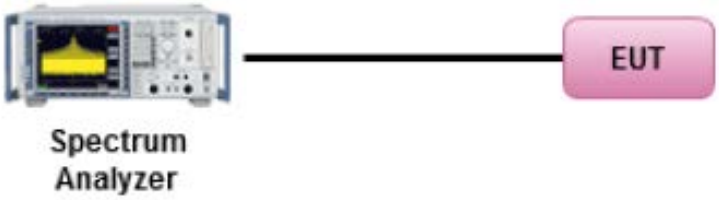


802.11n40-2452MHz

10.4 Band Edge

Requirement(s):

Spec	Item	Requirement	Applicable
§ 15.247 RSS247(5.5)	d)	For non-restricted band, In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB or 30dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, determined by the measurement method on output power to be used. Attenuation below the general limits specified in § 15.209 (a) is not required ☐ 20 dB down ☒ 30 dB down	☒

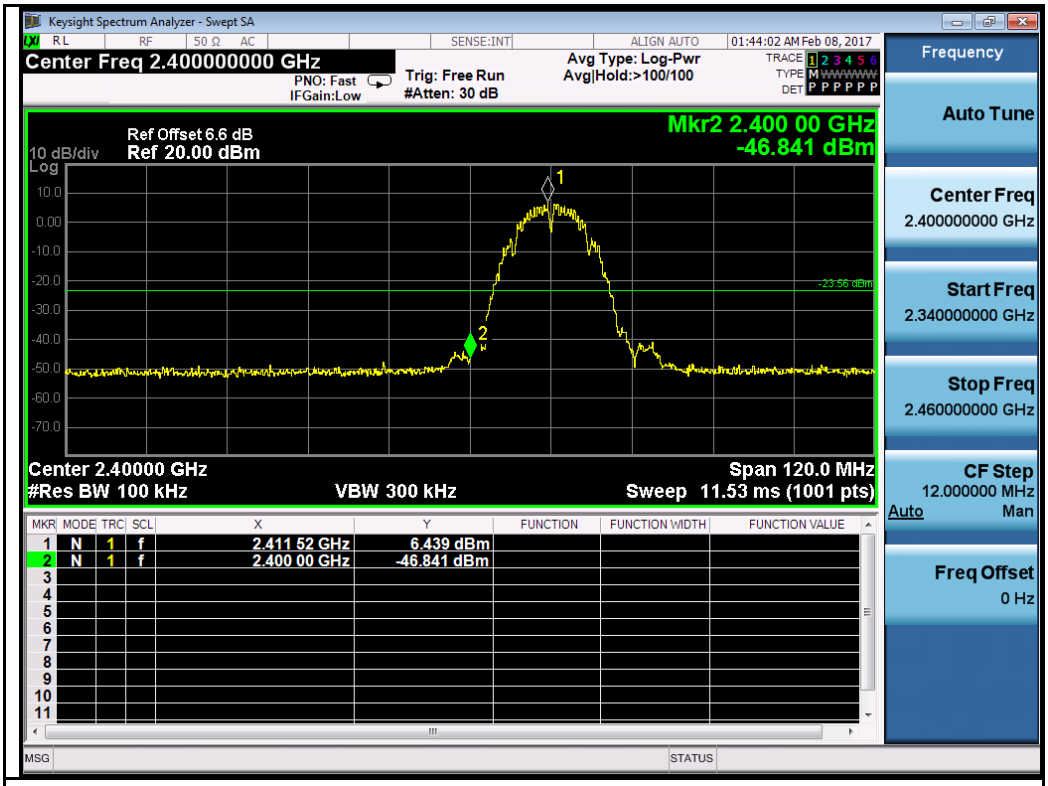
Test Setup				
Test Procedure	558074 D01 DTS Meas Guidance v03r05 Band Edge measurement procedure 1. Set the EUT to maximum power setting and enable the EUT transmit continuously. 2. Band edge emissions must be at least 30 dB down from the highest emission level within the authorized band as a measured. The attunation shall be be 30 dB instead of 20 dB when Peak conducted output power procedure is used. 3. Change modulation and channel bandwidth then repeat step 1 to 2. 4. Measured and record the results in the test report.			
Test Date	02/14/2017	Environmental condition	Temperature Relative Humidity Atmospheric Pressure	22ºC 46% 1020mbar
Remark	-			
Result	☒ Pass ☐ Fail			

Test Data ☐ Yes ☒ N/A

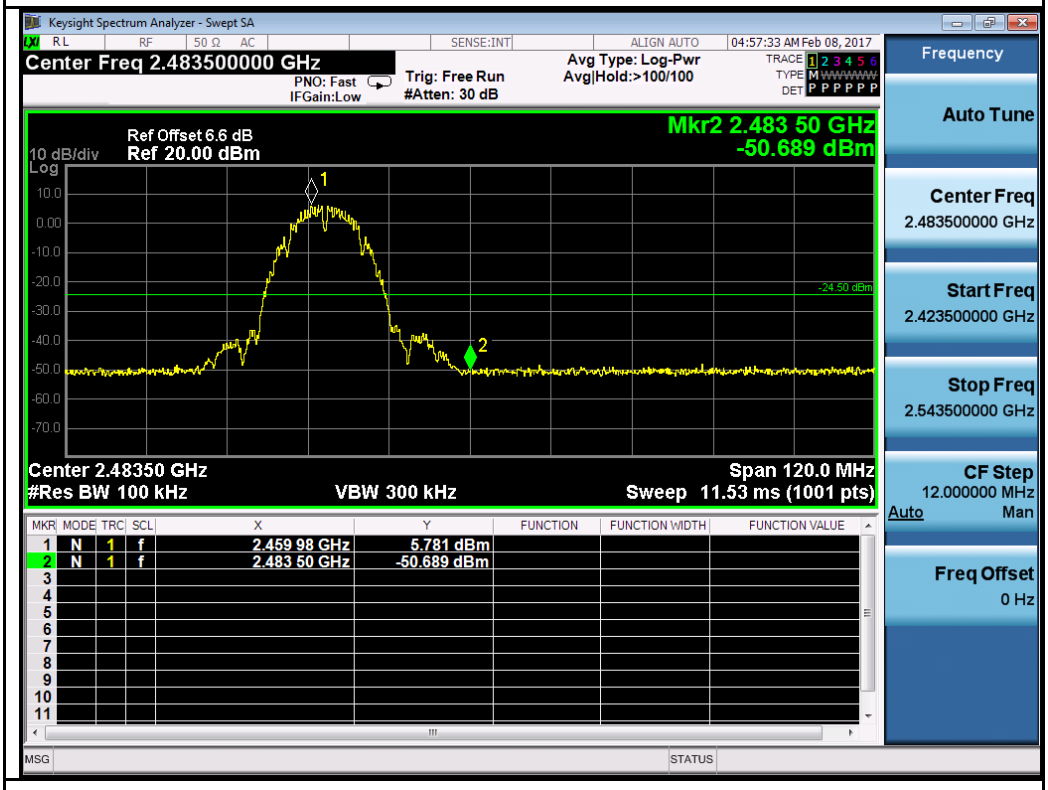
Test Plot ☒ Yes (See below) ☐ N/A

Test was done by Rachana Khanduri at RF test site.

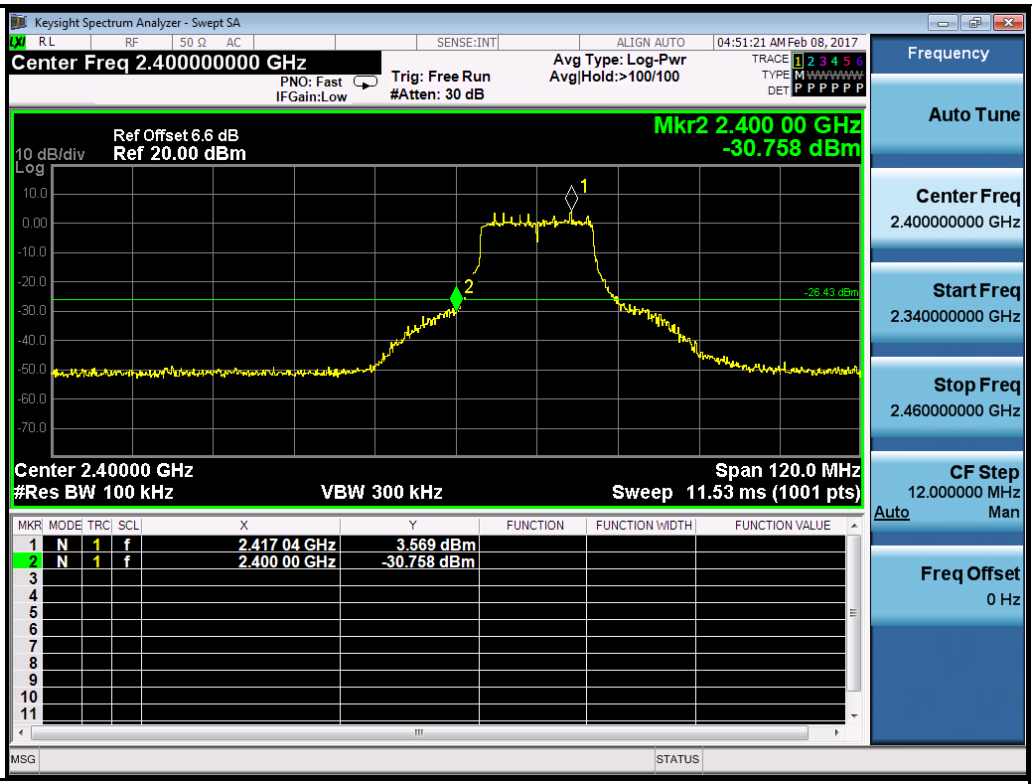
Test Plots



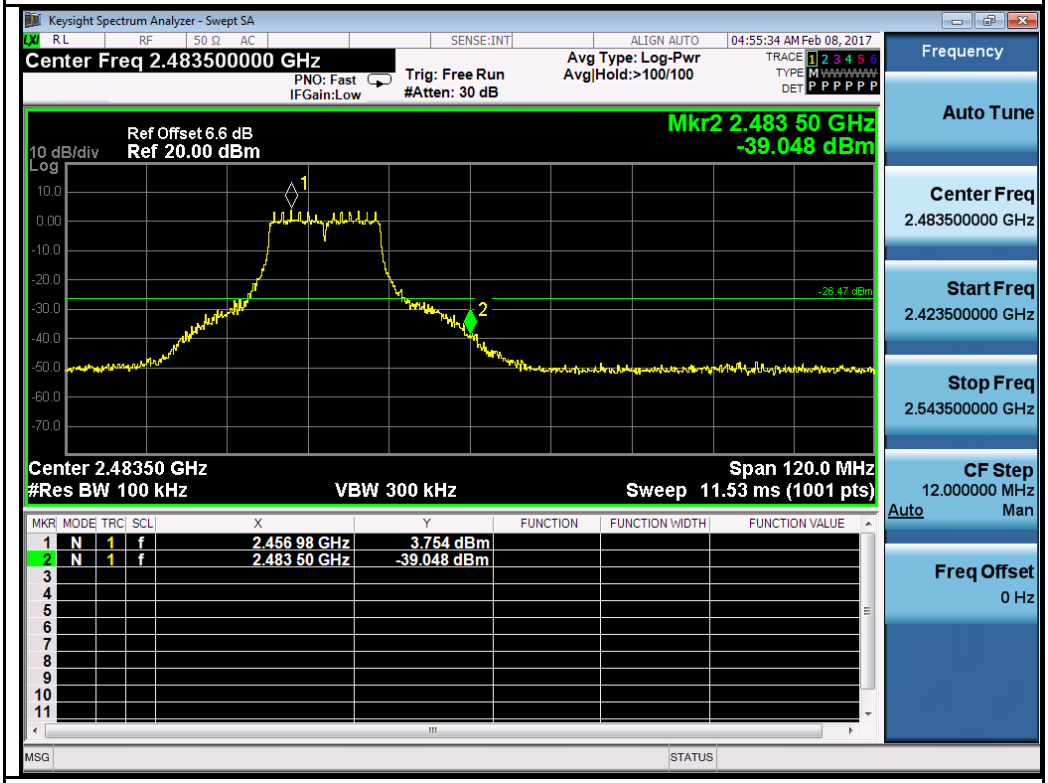
802.11b-2412MHz



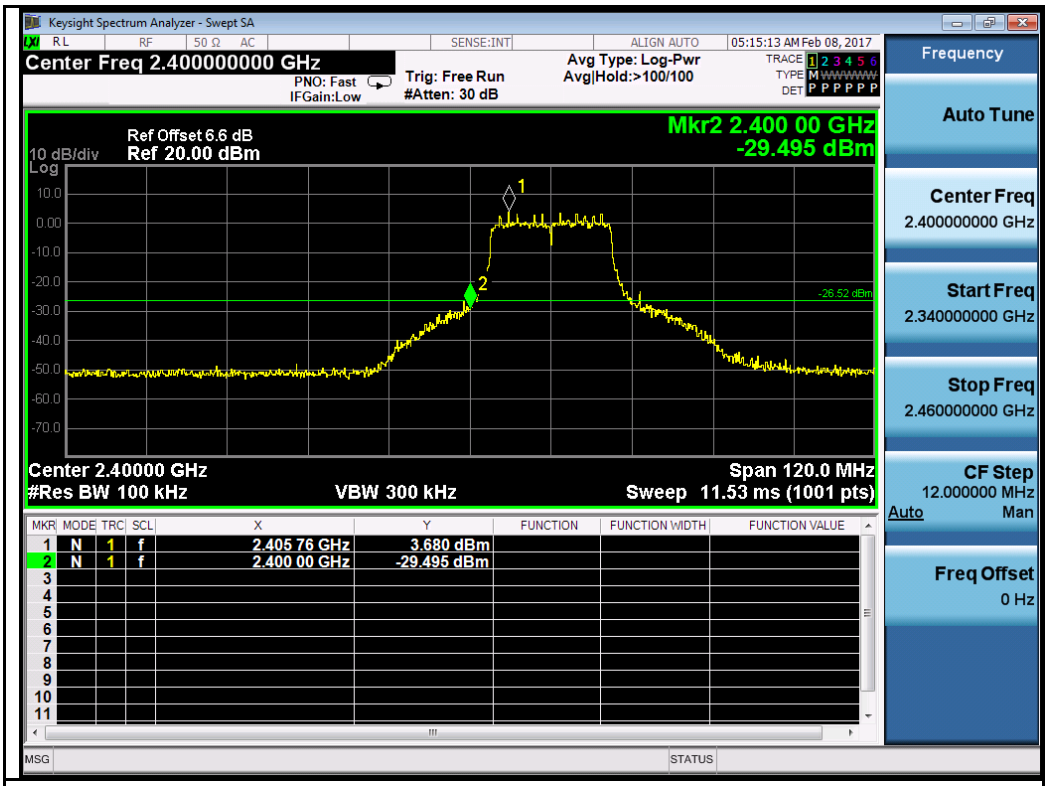
802.11b-2462MHz



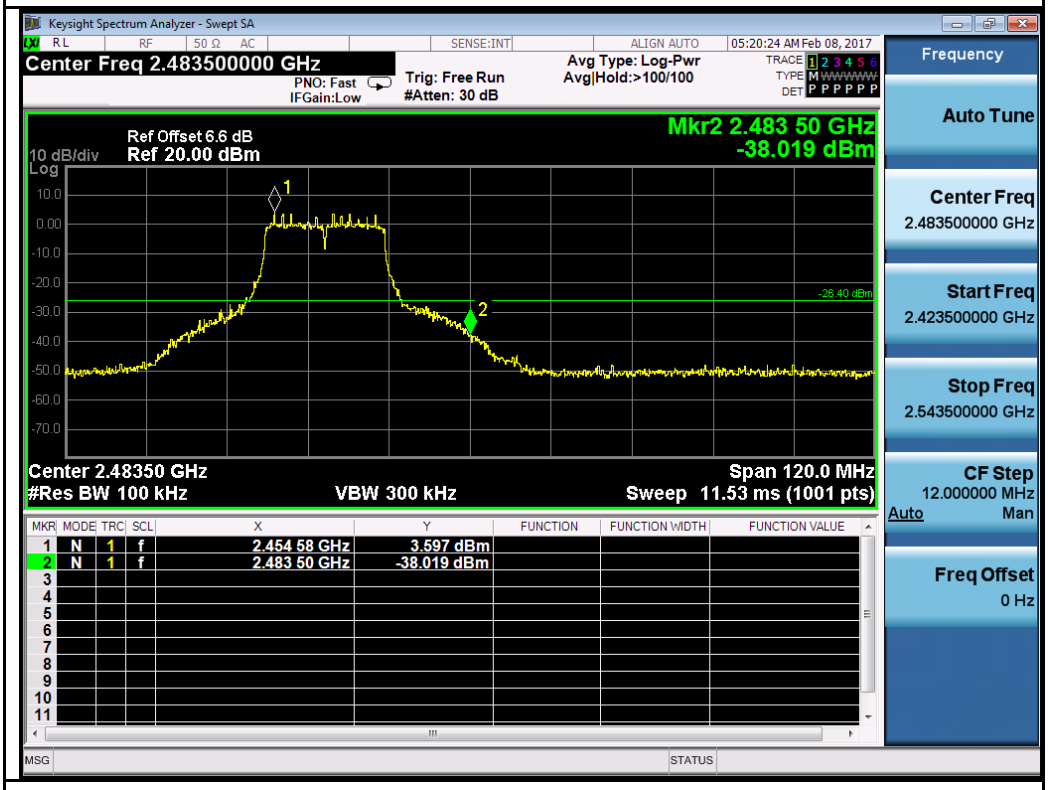
802.11g-2412MHz



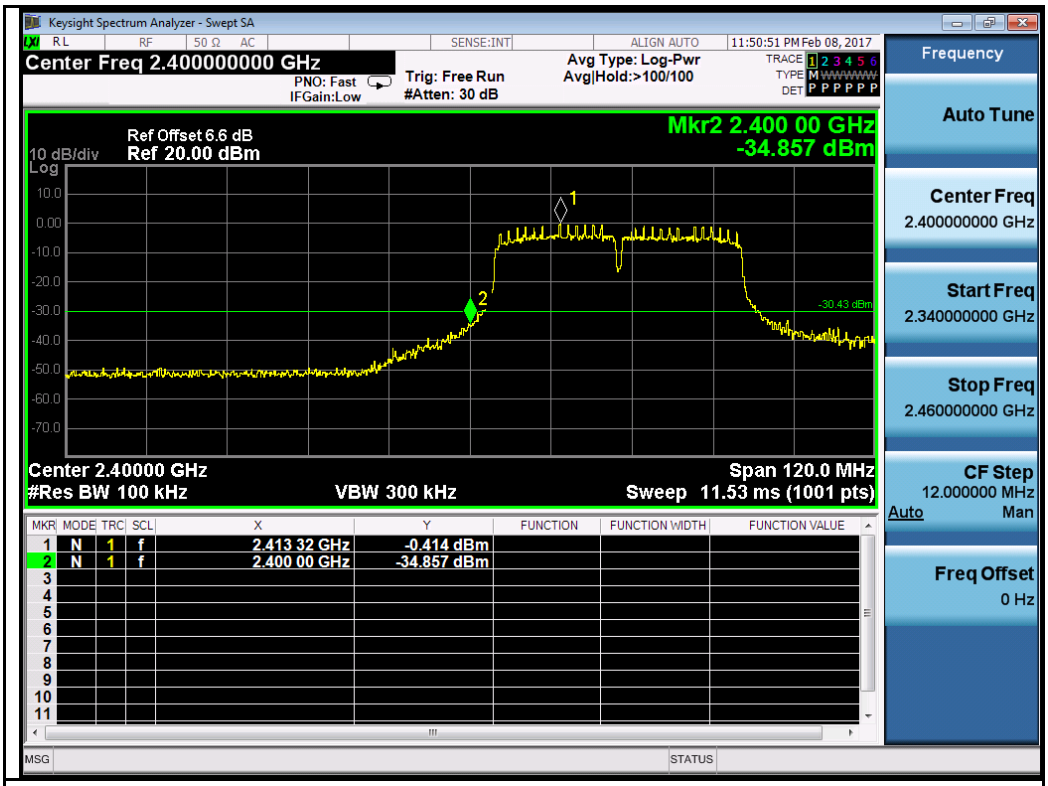
802.11g-2462MHz



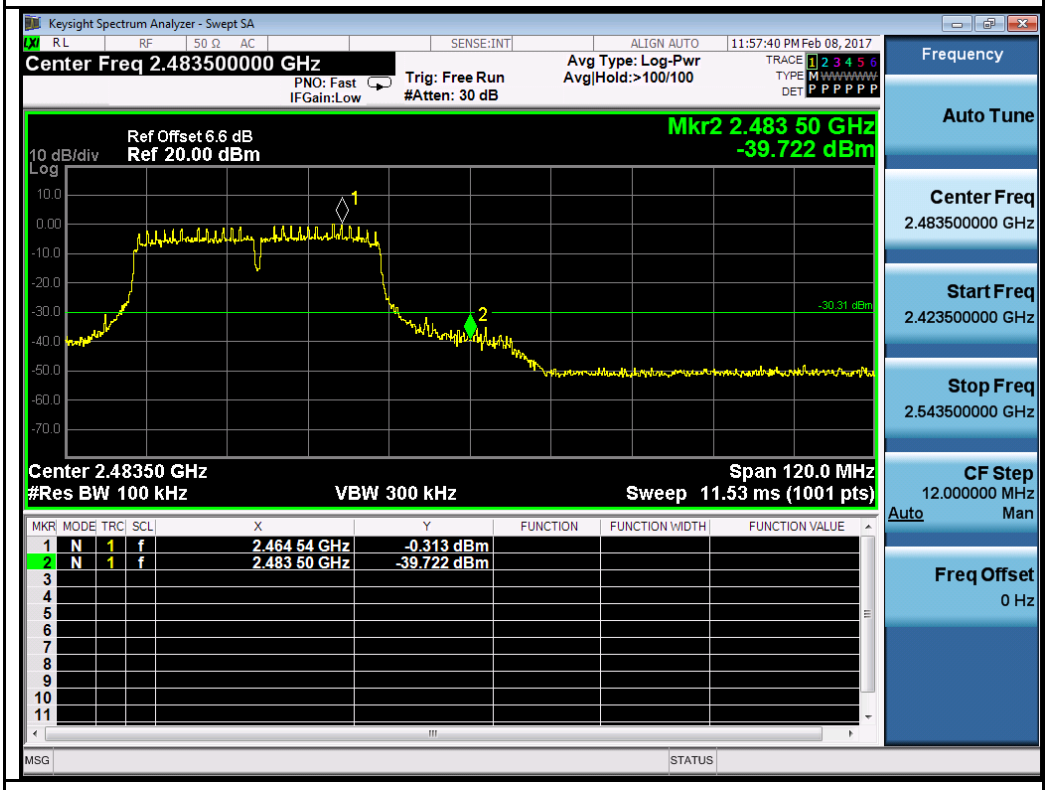
802.11n20-2412MHz



802.11n20-2462MHz



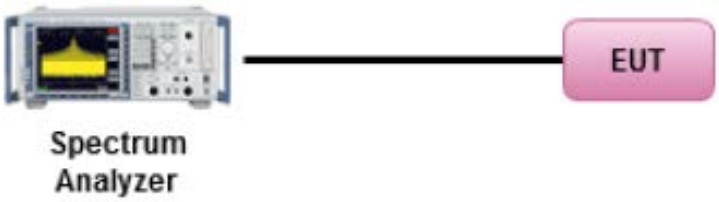
802.11n40-2422MHz



802.11n40-2452MHz

10.5 Peak Spectral Density

Requirement(s):

Spec	Item	Requirement	Applicable
§ 15.247(e) RSS247 (5.2.2)	e)	DSSS: ≤8dBm/3KHz	☒
	f)	DSSS in hybrid sys with FH turned off: ≤8dBm/3KHz	☐
Test Setup			
Test Procedure	558074 D01 DTS Meas Guidance v03r05, 10.2 Method PKPSD (peak PSD) Peak spectral density measurement procedure - Set analyzer center frequency to DTS channel center frequency. - Set the span to 1.5 times the DTS bandwidth. - Set the RBW to: 3 kHz ≤ RBW ≤ 100 kHz. - Set the VBW ≥ 3 x RBW. - Detector = Peak - Sweep time = auto couple. - Trace mode = Max Hold - Allow trace to fully stabilize. - Use the peak marker function to determine the maximum amplitude level within the RBW. - If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.		
Test Date	02/14/2017	Environmental condition	Temperature 22ºC Relative Humidity 46% Atmospheric Pressure 1020mbar
Remark	-		
Result	☒ Pass ☐ Fail		

Test Data ☒ Yes ☐ N/A

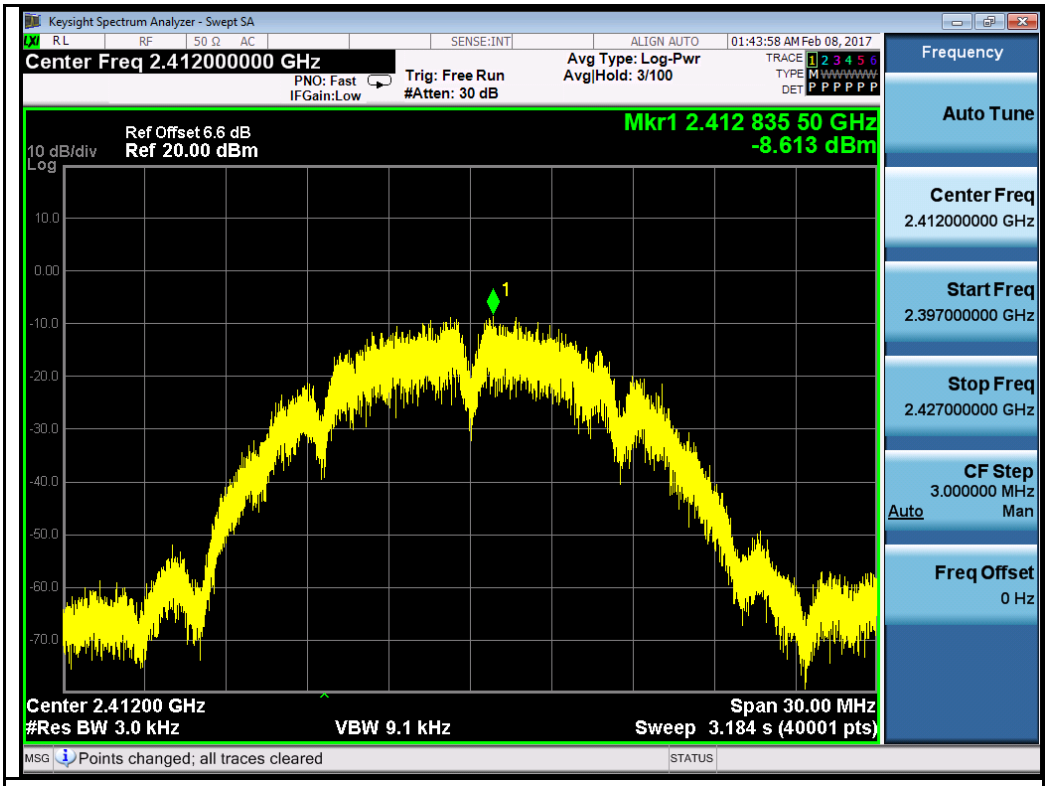
Test Plot ☒ Yes (See below) ☐ N/A

Test was done by Rachana Khanduri at RF test site.

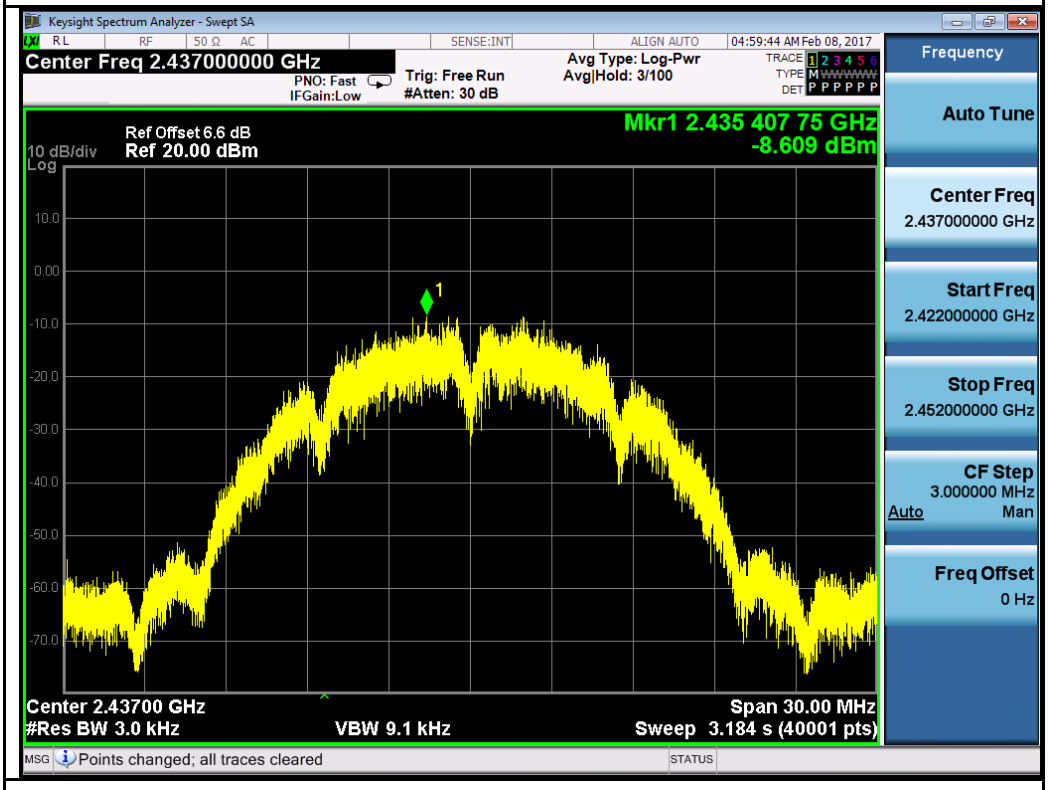
PSD measurement results

Type	Test mode	Freq (MHz)	CH	Conducted PSD (dBm/3KHz)	Limit (dBm/3KHz)	Result
PSD	802.11b	2412	Low	-8.61	≤8	Pass
		2437	Mid	-8.61	≤8	Pass
		2462	High	-8.31	≤8	Pass
	802.11g	2412	Low	-9.99	≤8	Pass
		2437	Mid	-10.76	≤8	Pass
		2462	High	-9.30	≤8	Pass
	802.11n-20M	2412	Low	-11.49	≤8	Pass
		2437	Mid	-11.68	≤8	Pass
		2462	High	-11.21	≤8	Pass
	802.11n-40M	2422	Low	-16.45	≤8	Pass
		2437	Mid	-15.6	≤8	Pass
		2452	High	-17.15	≤8	Pass

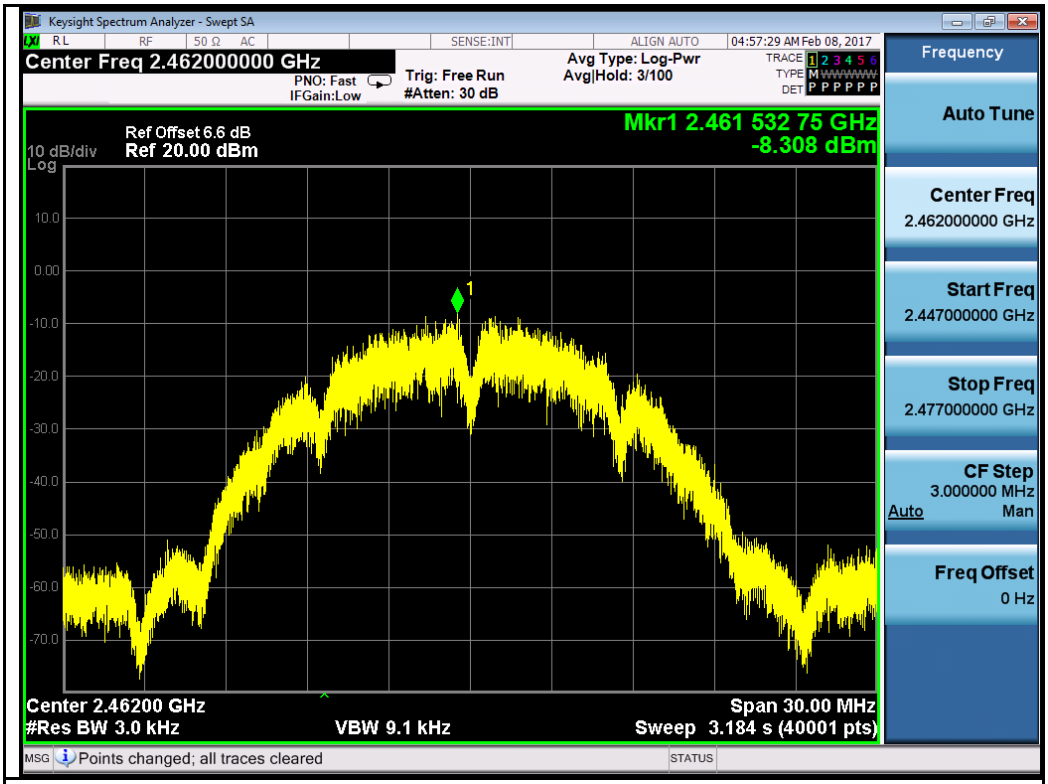
Test Plots



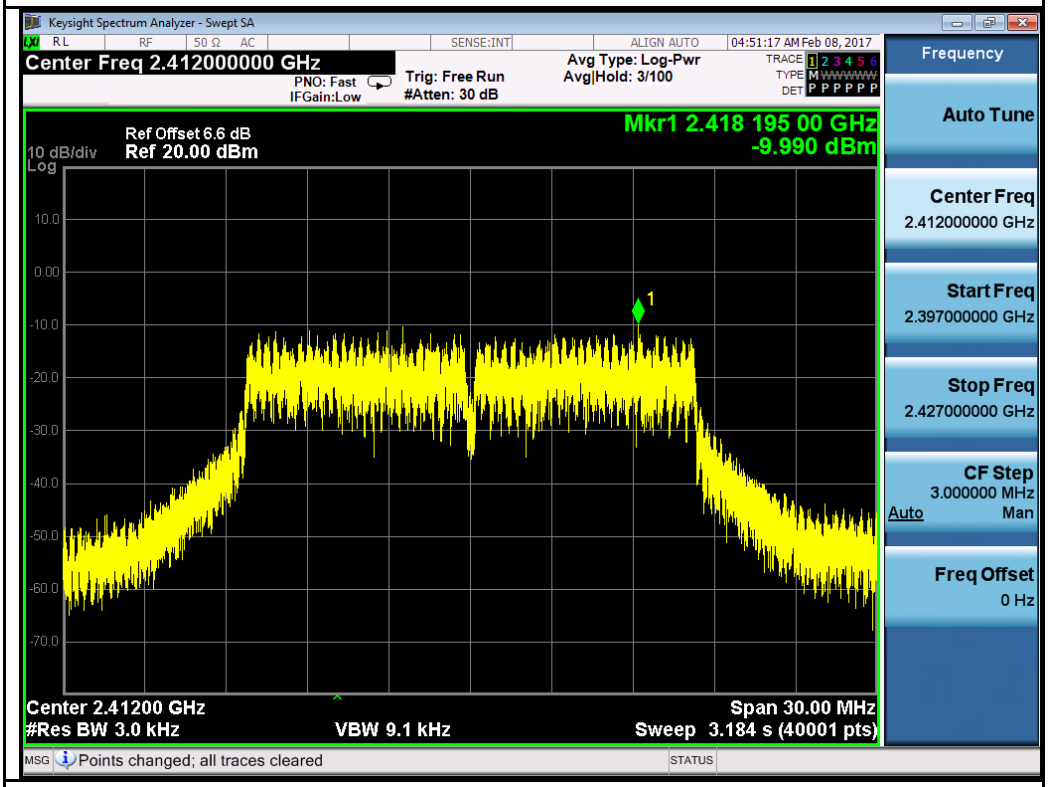
802.11b-2412MHz



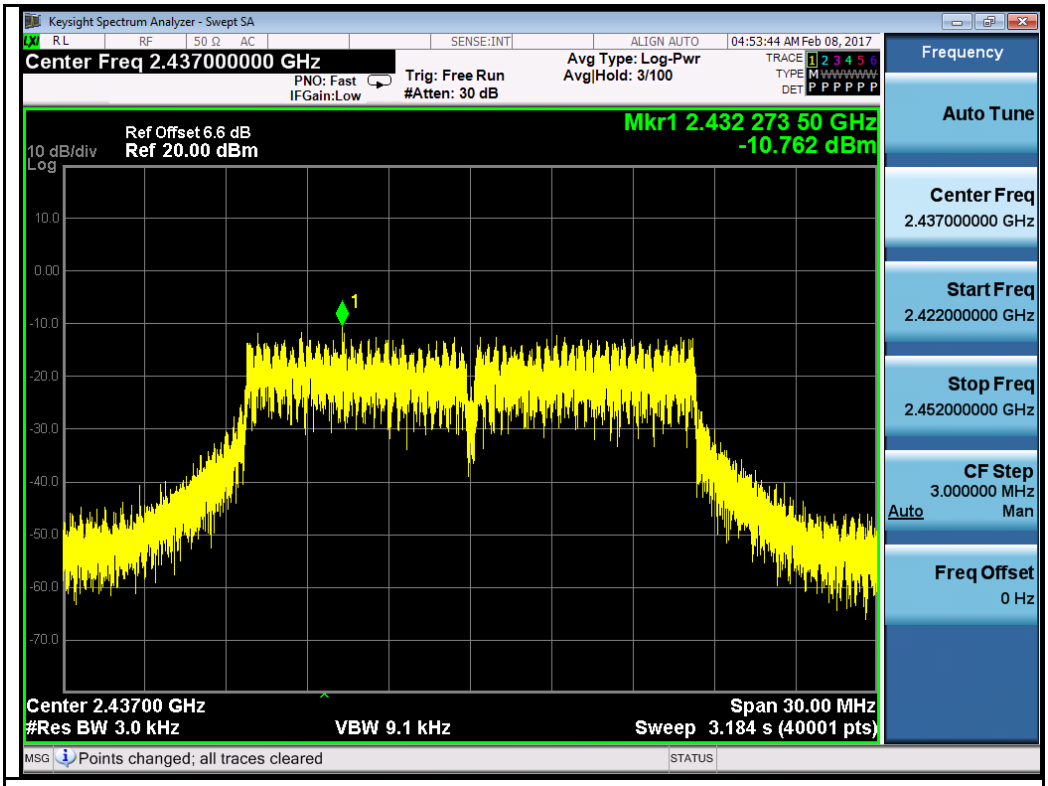
802.11b-2437MHz



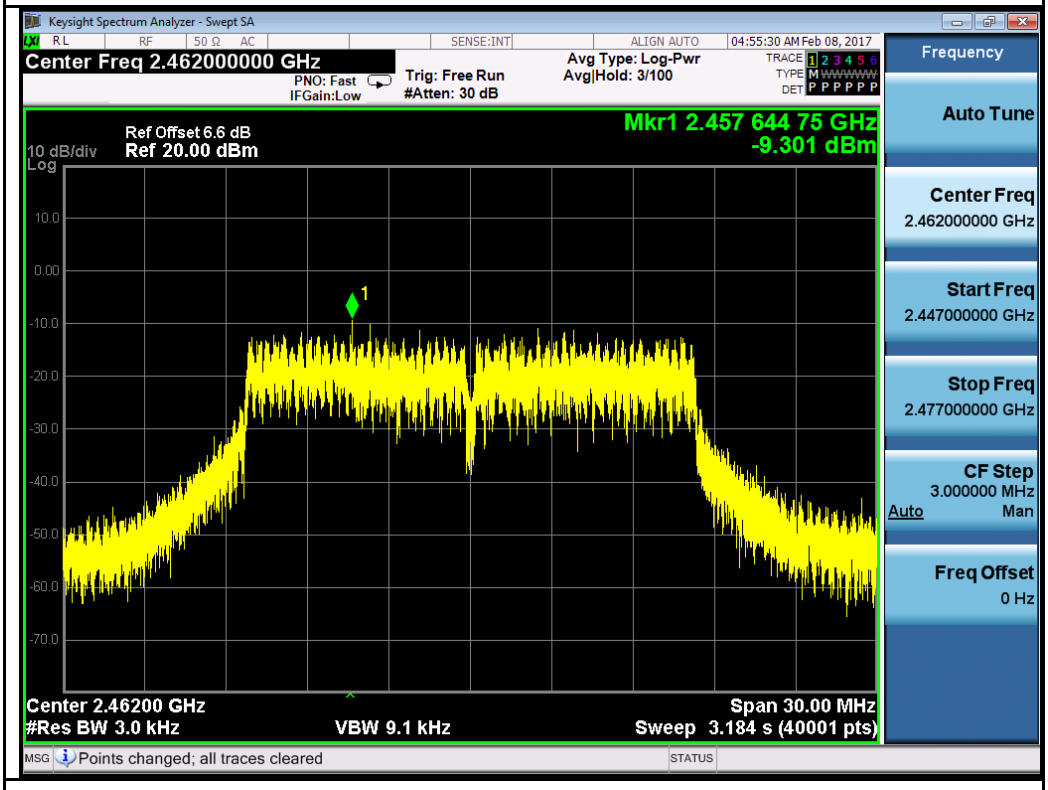
802.11b-2462MHz



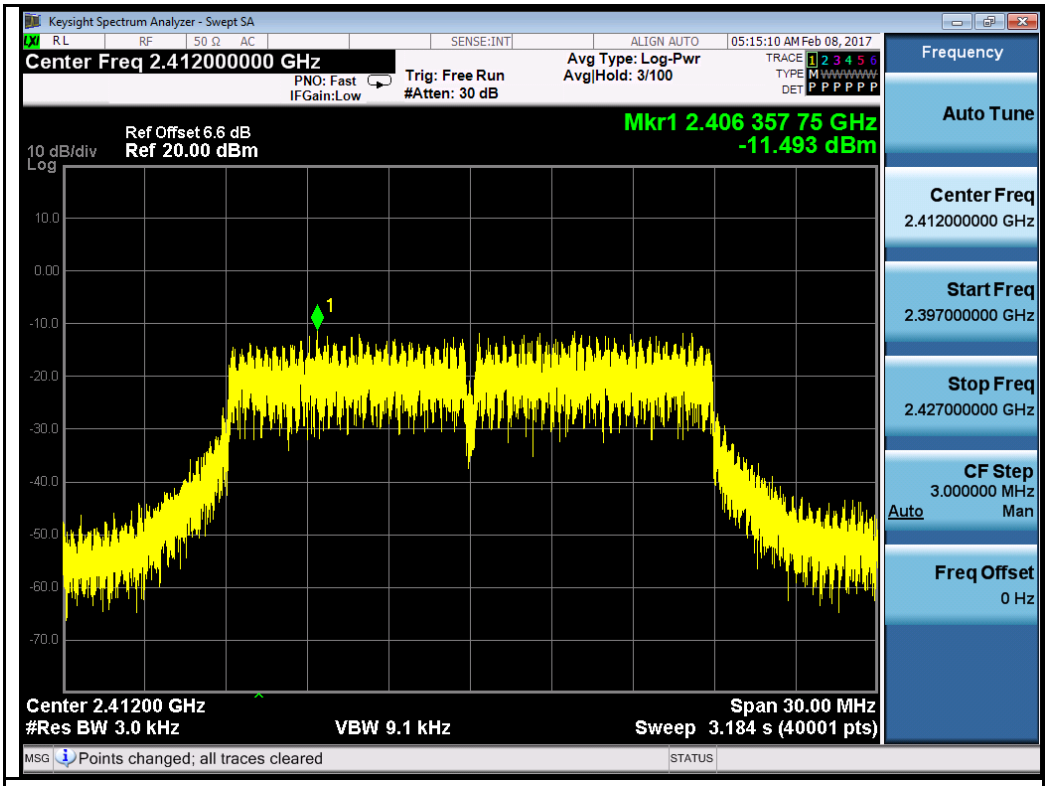
802.11g-2412MHz



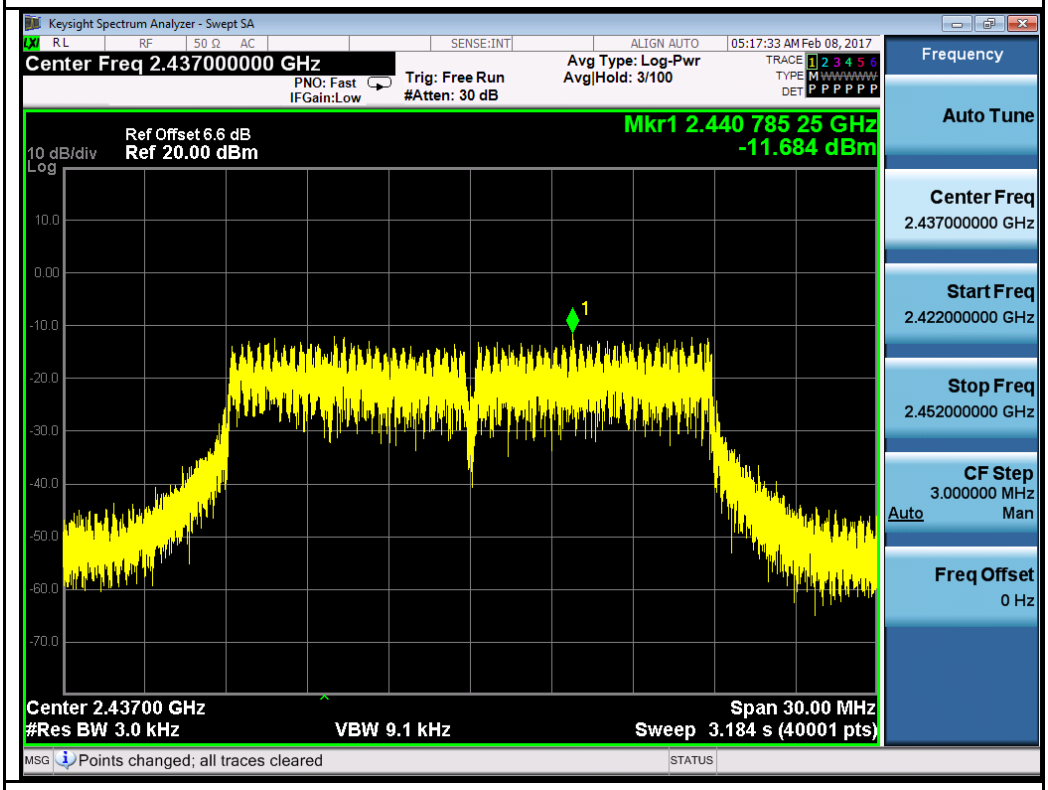
802.11g-2437MHz



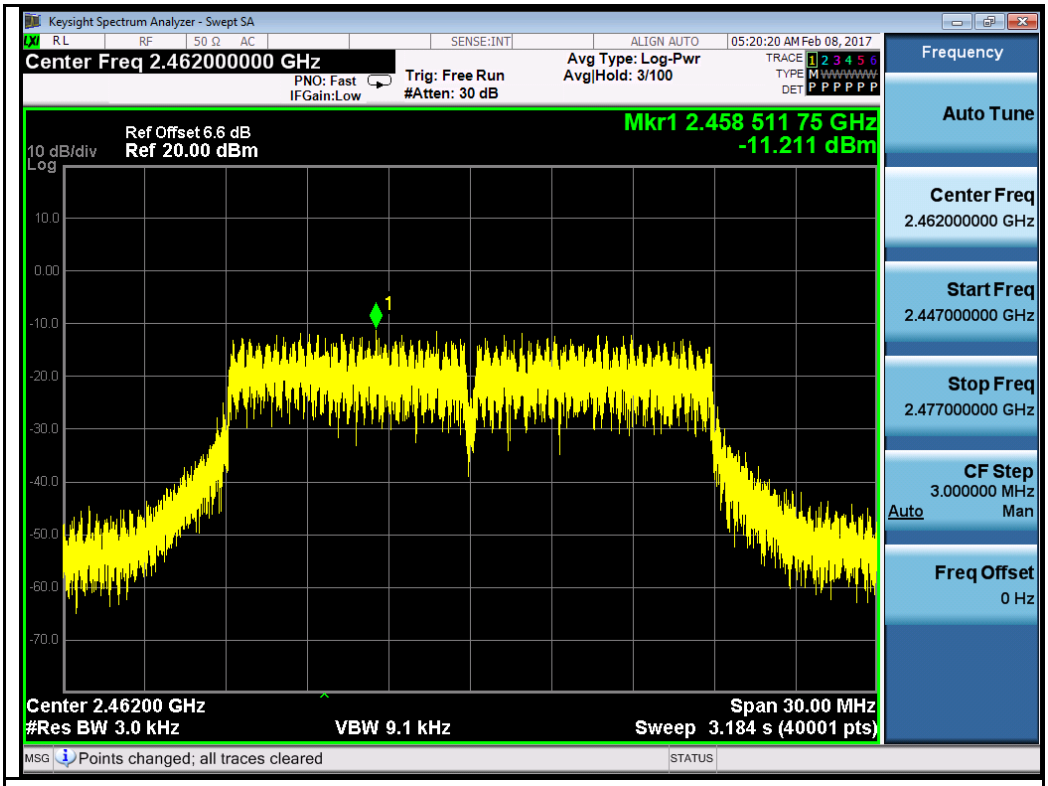
802.11g-2462MHz



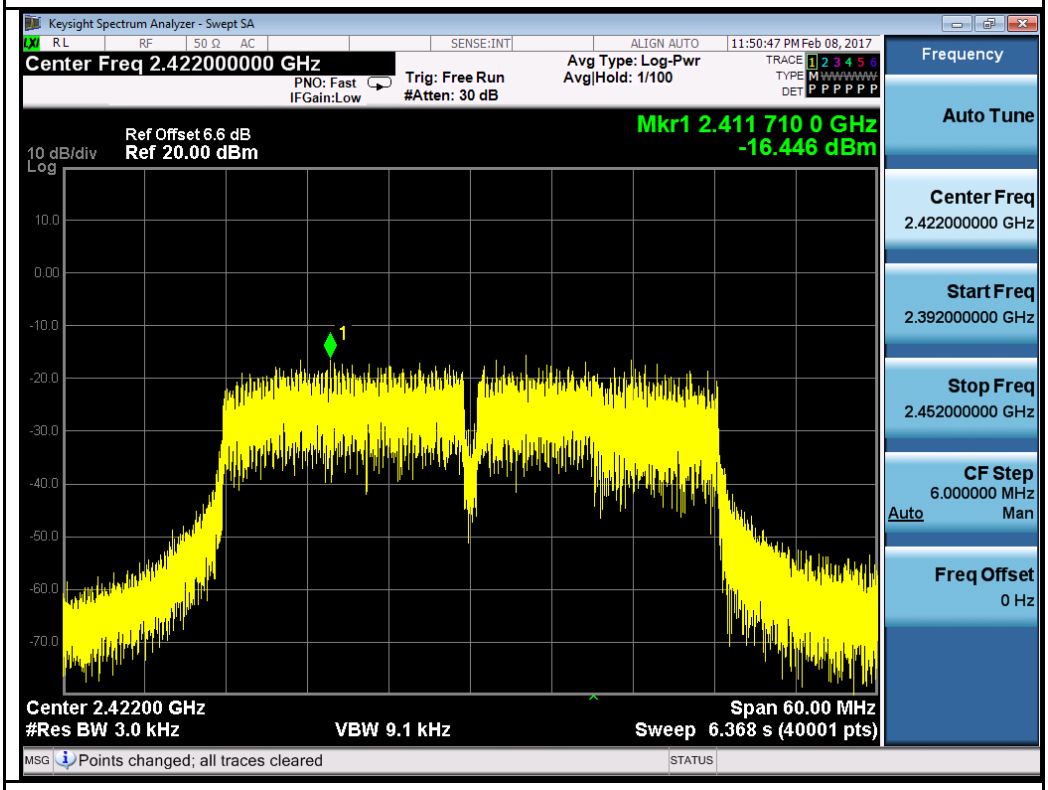
802.11n20-2412MHz



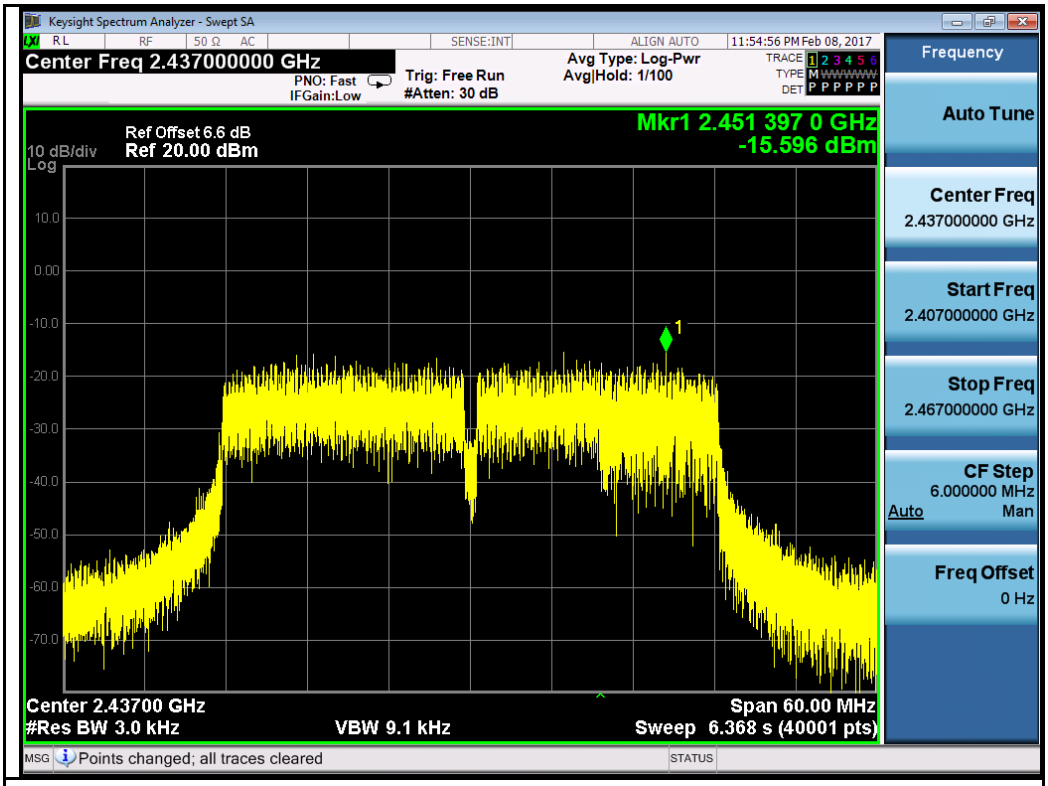
802.11n20-2437MHz



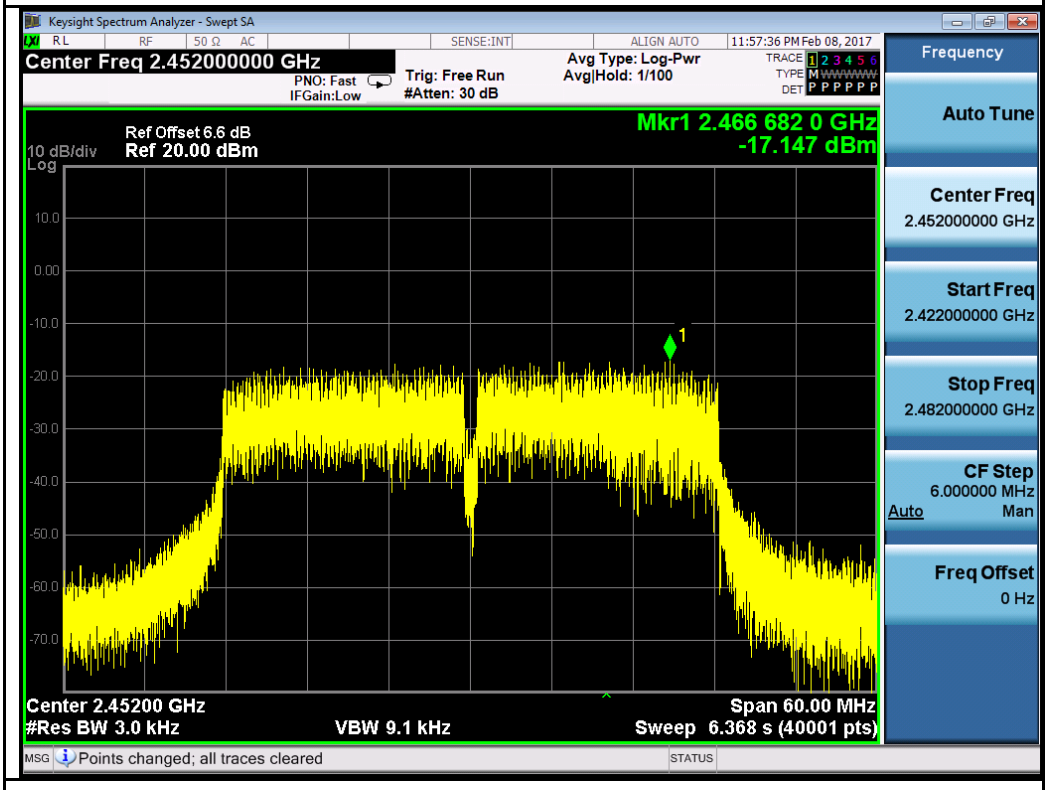
802.11n20-2462MHz



802.11n40-2422MHz



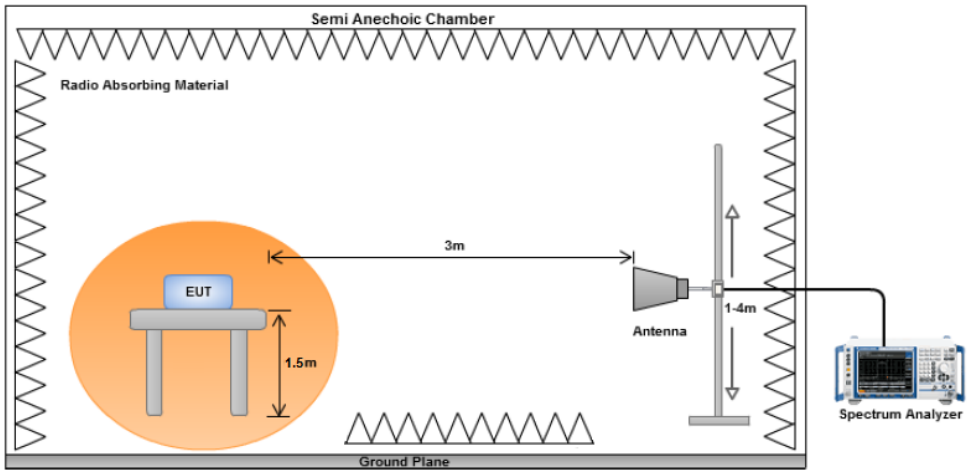
802.11n40-2437MHz



802.11n40-2452MHz

10.6 Radiated Spurious Emissions in restricted band

Requirement(s):

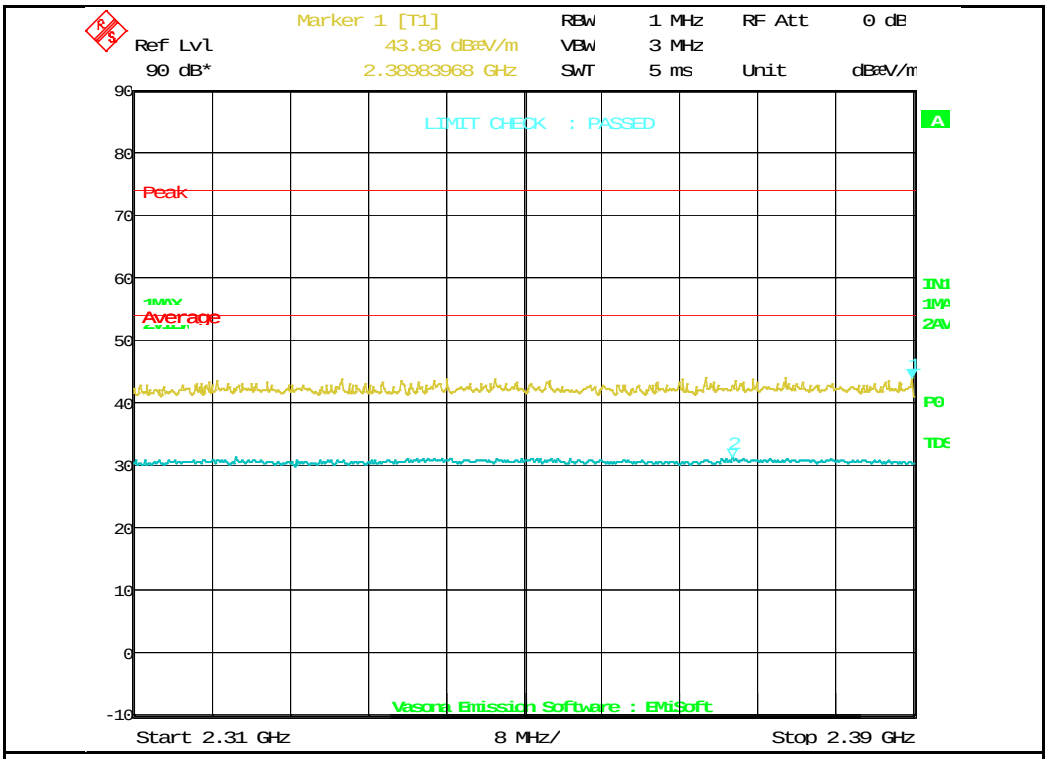
Spec	Item	Requirement	Applicable
47CFR§15.247(d), RSS247(A8.5)	a)	For non-restricted band, In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB or 30dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, determined by the measurement method on output power to be used. Attenuation below the general limits specified in § 15.209(a) is not required ☐ 20 dB down ☒ 30 dB down	☒
	b)	or restricted band, emission must also comply with the radiated emission limits specified in 15.209	☒
Test Setup			
Procedure		1. The EUT was switched on and allowed to warm up to its normal operating condition. 2. The test was carried out at the selected frequency points obtained from the EUT characterisation. Maximization of the emissions, was carried out by rotating the EUT, changing the antenna polarization, and adjusting the antenna height in the following manner: a. Vertical or horizontal polarisation (whichever gave the higher emission level over a full rotation of the EUT) was chosen. b. The EUT was then rotated to the direction that gave the maximum emission. c. Finally, the antenna height was adjusted to the height that gave the maximum emission. 3. An average measurement was then made for that frequency point. 4. Steps 2 and 3 were repeated for the next frequency point, until all selected frequency points were measured.	
Remark		The EUT was scanned up to 40GHz. Both horizontal and vertical polarities were investigated. The results show only the worst case. Radiated measurement was measured with antenna port terminated, there isn't outstanding emission found at the edge of restricted frequency, within x dB margin	
Result		☒ Pass ☐ Fail	

Test Data ☐ Yes (See below) ☒ N/A

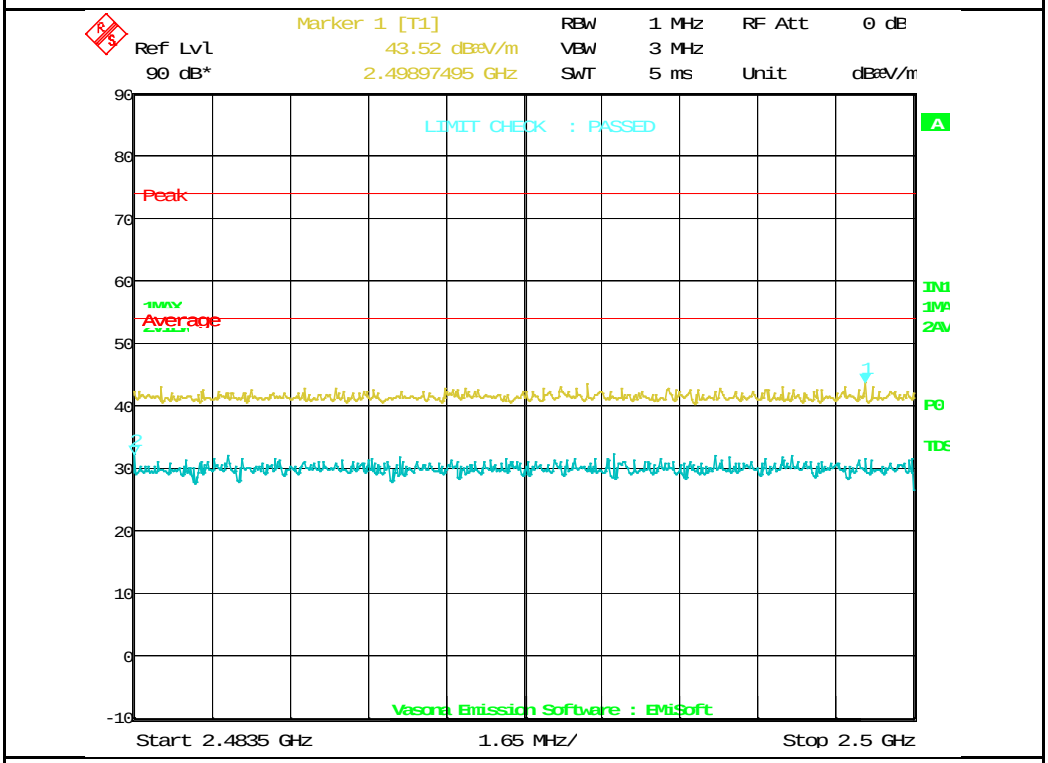
Test Plot ☒ Yes (See below) ☐ N/A

Test was done by Rachana Khanduri at 10m chamber.

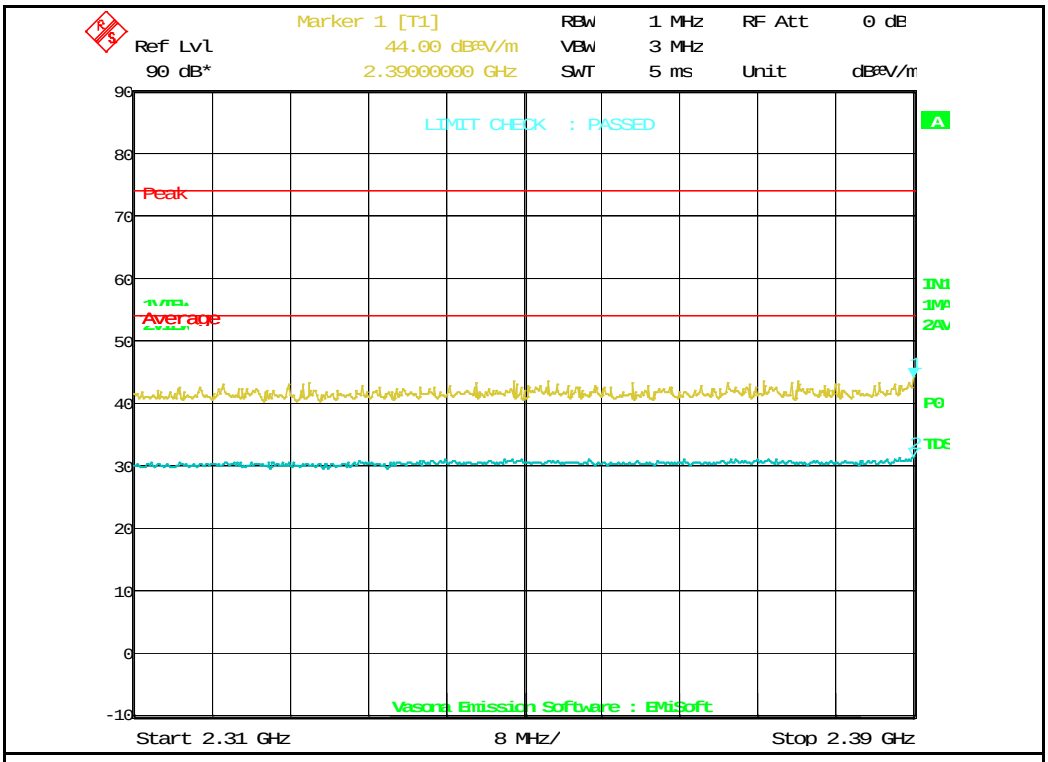
Restricted Band Measurement Plots:



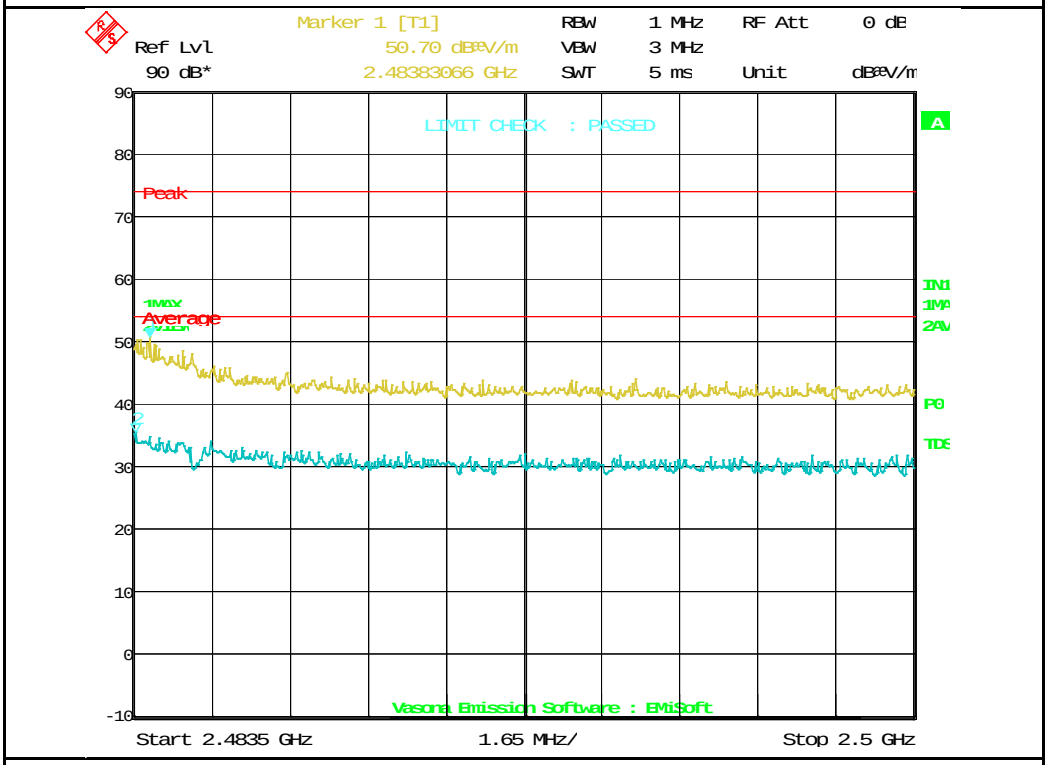
802.11b-2412MHz



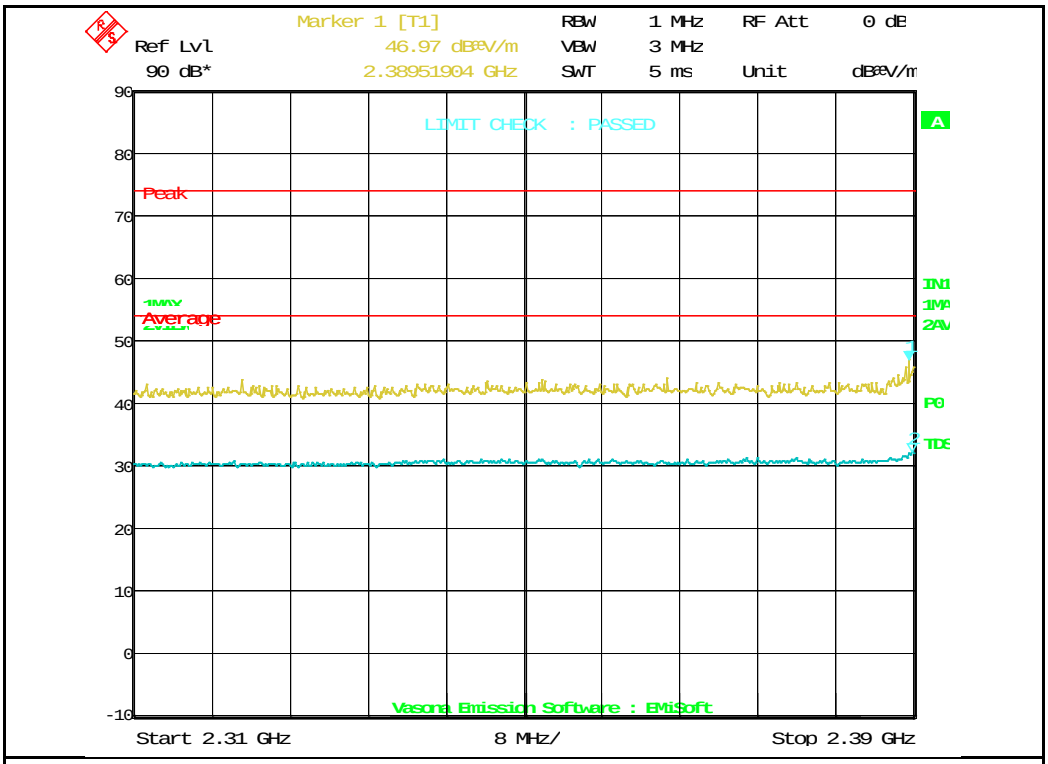
802.11b-2462MHz



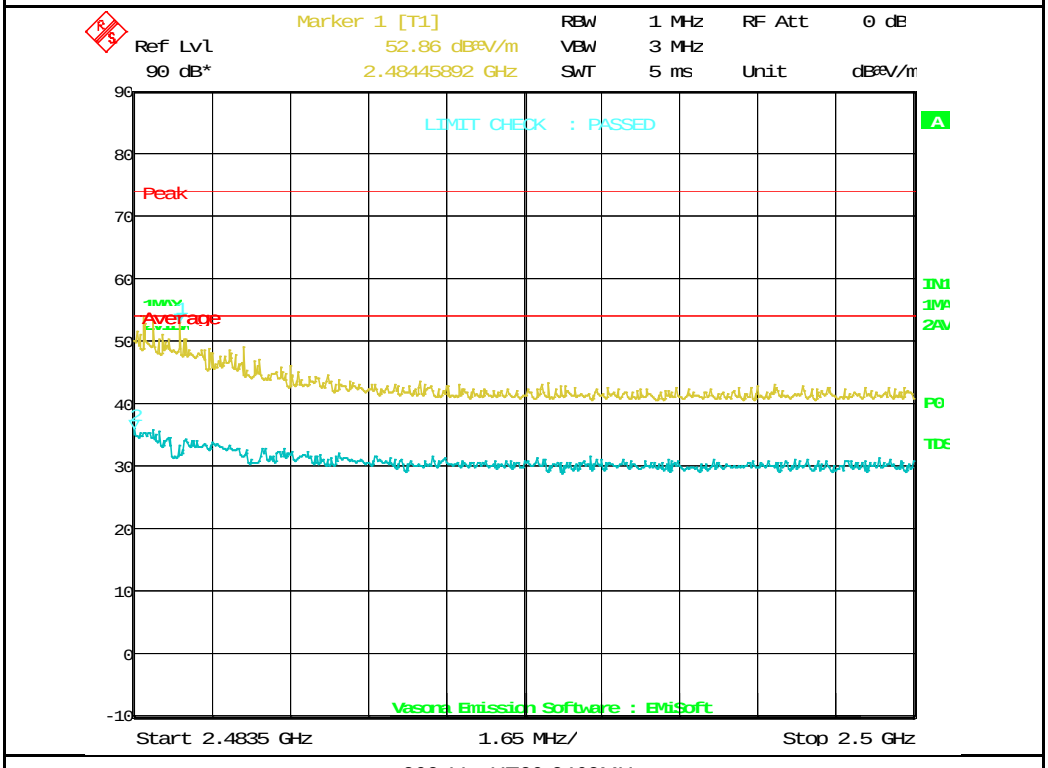
802.11g-2412MHz



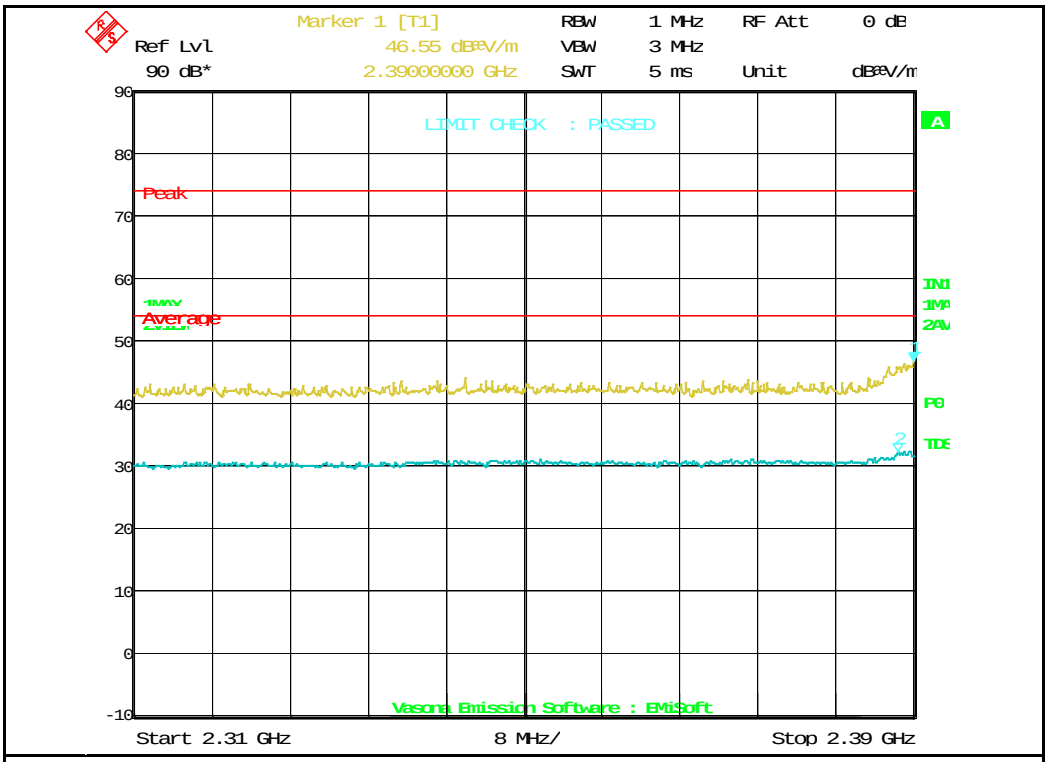
802.11g-2462MHz



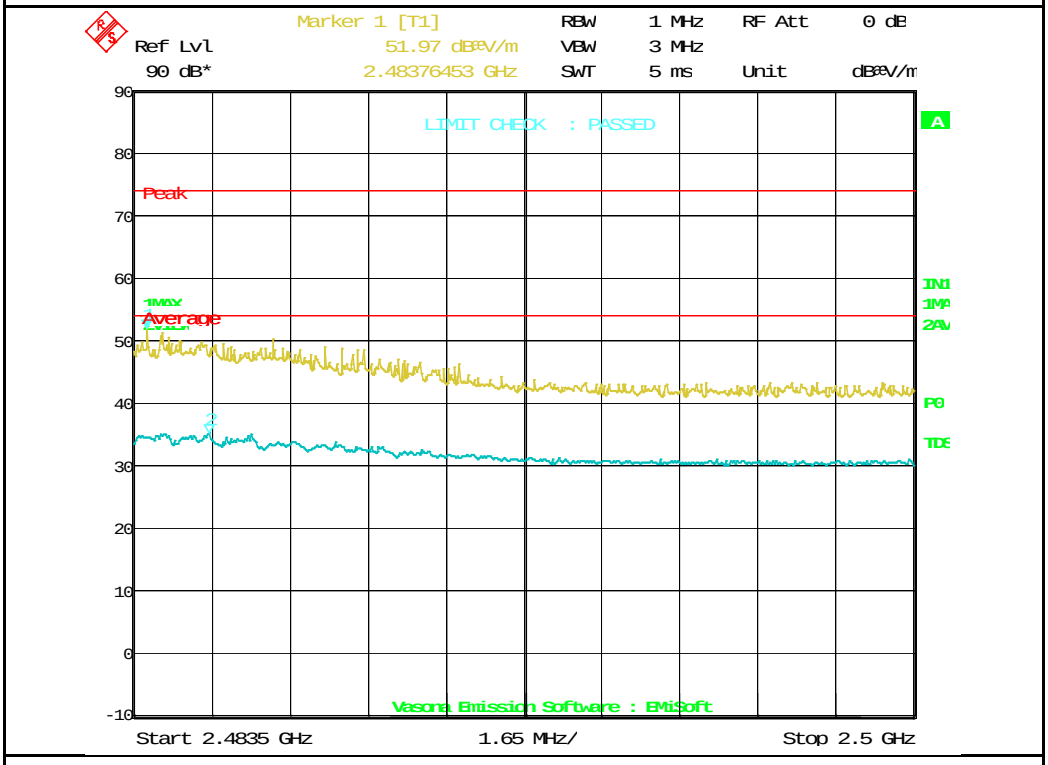
802.11n-HT20-2412MHz



802.11n-HT20-2462MHz



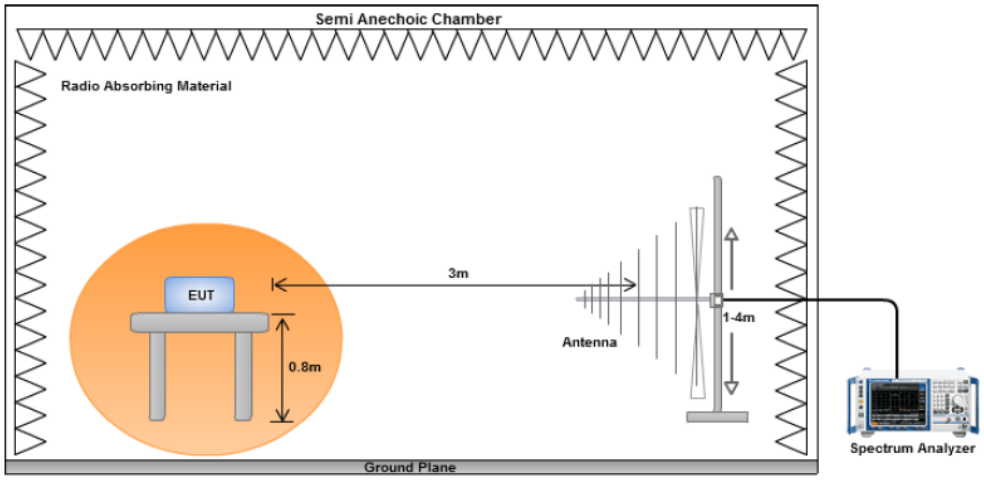
802.11n-HT40-2422MHz



802.11n-HT40-2452MHz

10.7 Radiated Spurious Emissions below 1GHz

Requirement(s):

Spec	Item	Requirement	Applicable
47CFR§15.247(d) RSS247 (5.5)	a)	Except higher limit as specified elsewhere in other section, the emissions from the low-power radio-frequency devices shall not exceed the field strength levels specified in the following table and the level of any unwanted emissions shall not exceed the level of the fundamental emission. The tighter limit applies at the band edges Frequency range (MHz) / Field Strength (uV/m): 30 – 88 / 100 88 – 216 / 150 216 960 / 200 Above 960 / 500	☒
Test Setup			
Procedure	1. The EUT was switched on and allowed to warm up to its normal operating condition. 2. The test was carried out at the selected frequency points obtained from the EUT characterisation. Maximization of the emissions, was carried out by rotating the EUT, changing the antenna polarization, and adjusting the antenna height in the following manner: a. Vertical or horizontal polarisation (whichever gave the higher emission level over a full rotation of the EUT) was chosen. b. The EUT was then rotated to the direction that gave the maximum emission. c. Finally, the antenna height was adjusted to the height that gave the maximum emission. 3. A Quasi-peak measurement was then made for that frequency point. 4. Steps 2 and 3 were repeated for the next frequency point, until all selected frequency points were measured.		
Remark	The EUT was scanned up to 1GHz. Both horizontal and vertical polarities were investigated. The results show only the worst case.		
Result	☒ Pass ☐ Fail		

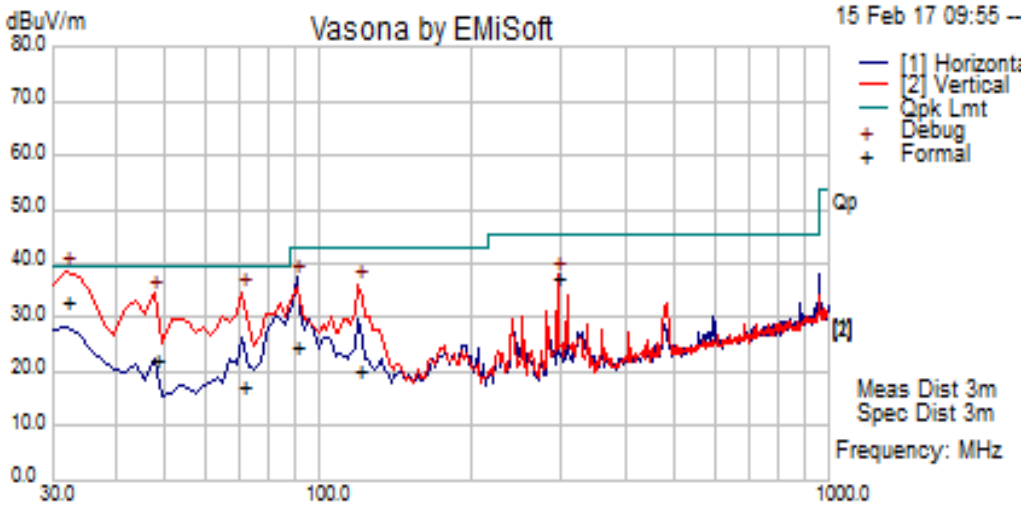
Test Data ☒ Yes (See below) ☐ N/A

Test Plot ☒ Yes (See below) ☐ N/A

Test was done by Rachana Khanduri at 10m chamber.

Radiated Emission Test Results (Below 1GHz)

Test specification	below 1GHz			
Environmental Conditions:	Temp (°C):	26.1	Result	Pass
	Humidity (%)	47.5		
	Atmospheric (mbar):	1020		
Mains Power:	120VAC, 60Hz			
Tested by:	Rachana Khanduri			
Test Date:	02/15/2017			
Remarks:	802.11n HT40-2437			

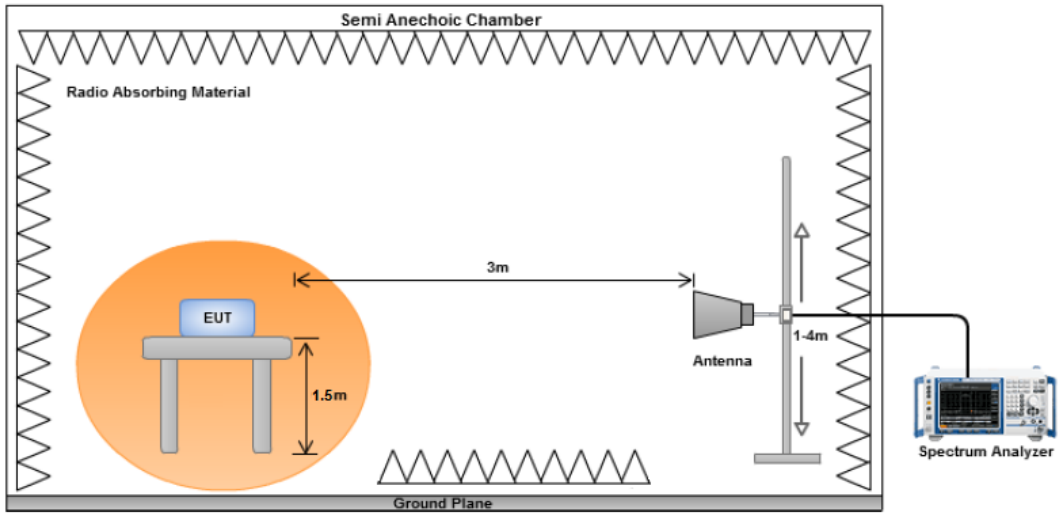


Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
31.93	47.34	1.03	-15.6	32.77	Quasi Max	V	126	261	39.50	-6.73	Pass
71.02	43.83	1.48	-28.15	17.15	Quasi Max	V	214	210	39.50	-22.35	Pass
47.72	47.34	1.29	-26.48	22.14	Quasi Max	V	103	299	39.50	-17.36	Pass
90.09	50.86	1.59	-27.96	24.48	Quasi Max	H	279	110	43.00	-18.52	Pass
119.51	40.92	1.8	-22.73	19.99	Quasi Max	V	264	336	43.00	-23.01	Pass
294.61	57.33	2.87	-22.95	37.25	Quasi Max	H	182	122	45.50	-8.25	Pass

Note: Both horizontal and vertical polarities were investigated. The results above show only the worst case.

10.8 Radiated Spurious Emissions between 1GHz – 25GHz

Requirement(s):

Spec	Item	Requirement	Applicable
47CFR§15.247(d), RSS247(A8.5)	a)	For non-restricted band, In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB or 30dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, determined by the measurement method on output power to be used. Attenuation below the general limits specified in § 15.209(a) is not required ☐ 20 dB down ☒ 30 dB down	☒
	b)	or restricted band, emission must also comply with the radiated emission limits specified in 15.209	☒
Test Setup			
Procedure	1. The EUT was switched on and allowed to warm up to its normal operating condition. 2. The test was carried out at the selected frequency points obtained from the EUT characterisation. Maximization of the emissions, was carried out by rotating the EUT, changing the antenna polarization, and adjusting the antenna height in the following manner: a. Vertical or horizontal polarisation (whichever gave the higher emission level over a full rotation of the EUT) was chosen. b. The EUT was then rotated to the direction that gave the maximum emission. c. Finally, the antenna height was adjusted to the height that gave the maximum emission. 3. An average measurement was then made for that frequency point. 4. Steps 2 and 3 were repeated for the next frequency point, until all selected frequency points were measured.		
Remark	The EUT was scanned up to 40GHz. Both horizontal and vertical polarities were investigated. The results show only the worst case. There isn't outstanding emission found at the edge of restricted frequency.		
Result	☒ Pass ☐ Fail		

Test Data ☒ Yes (See below) ☐ N/A

Test Plot ☐ Yes (See below) ☒ N/A

Test was done by Rachana Khanduri at 10m chamber.

Radiated Emission Test Results (Above 1GHz)

Above 1GHz-25GHz – 802.11b – 2412MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
1681.58	66.92	2.92	-14.15	55.69	Peak Max	H	111	119	74	-18.31	Pass
17114.58	38.38	8.98	5.85	53.21	Peak Max	H	354	105	74	-20.80	Pass
4825.33	41.99	4.68	-5.01	41.66	Peak Max	V	109	95	74	-32.34	Pass
1681.58	47.19	2.92	-14.15	35.96	Average Max	H	111	119	54	-18.04	Pass
17114.58	26.37	8.98	5.85	41.19	Average Max	H	354	105	54	-12.81	Pass
4825.33	28.90	4.68	-5.01	28.58	Average Max	H	363	131	54	-25.42	Pass

Above 1GHz-25GHz- 802.11b - 2437MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
1683.32	66.94	2.92	-14.13	55.73	Peak Max	H	177	122	74	-18.27	Pass
17039.30	38.24	8.97	5.41	52.62	Peak Max	H	104	61	74	-21.38	Pass
4881.18	40.76	4.62	-5.10	40.28	Peak Max	V	146	139	74	-33.73	Pass
1683.32	47.36	2.92	-14.13	36.15	Average Max	H	177	122	54	-17.85	Pass
17039.30	25.69	8.97	5.41	40.07	Average Max	H	104	61	54	-13.93	Pass
4881.18	29.12	4.62	-5.10	28.64	Average Max	V	146	139	54	-25.36	Pass

Above 1GHz-25GHz – 802.11b – 2462MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
1683.72	67.20	2.92	-14.13	56.00	Peak Max	H	199	342	74	-18.00	Pass
17160.52	38.21	8.98	5.45	52.64	Peak Max	V	275	14	74	-21.36	Pass
4949.87	40.44	4.54	-5.13	39.85	Peak Max	H	376	27	74	-34.15	Pass
1683.72	46.94	2.92	-14.13	35.73	Average Max	H	199	342	54	-18.27	Pass
17160.52	26.71	8.98	5.45	41.14	Average Max	H	207	259	54	-12.86	Pass
4949.87	28.58	4.54	-5.13	27.99	Average Max	H	376	27	54	-26.02	Pass

Above 1GHz-25GHz- 802.11g - 2412MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17910.20	38.12	9.13	8.56	55.81	Peak Max	H	391	90	74	-18.19	Pass
1683.48	68.62	2.92	-14.13	57.41	Peak Max	H	147	35	74	-16.59	Pass
4802.68	39.98	4.71	-4.97	39.72	Peak Max	H	99	281	74	-34.28	Pass
17910.20	26.49	9.13	8.56	44.18	Average Max	H	391	90	54	-9.82	Pass
1683.48	48.60	2.92	-14.13	37.39	Average Max	H	147	35	54	-16.61	Pass
4802.678	28.32	4.71	-4.97	28.07	Average Max	V	125	157	54	-25.93	Pass

Above 1GHz-25GHz – 802.11g – 2437MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
1683.83	69.05	2.92	-14.13	57.84	Peak Max	H	225	19	74	-16.16	Pass
17288.50	38.32	9.00	6.70	54.02	Peak Max	V	98	231	74	-19.98	Pass
4871.10	40.94	4.63	-5.09	40.48	Peak Max	V	171	63	74	-33.52	Pass
1683.83	48.89	2.92	-14.13	37.68	Average Max	H	225	19	54	-16.32	Pass
17288.50	26.86	9.00	6.70	42.56	Average Max	V	98	231	54	-11.44	Pass
4871.10	29.50	4.63	-5.09	29.04	Average Max	V	171	63	54	-24.96	Pass

Above 1GHz-25GHz- 802.11g - 2462MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17423.30	38.10	9.02	7.74	54.85	Peak Max	H	232	66	74	-19.15	Pass
1683.50	67.25	2.92	-14.13	56.04	Peak Max	H	129	83	74	-17.96	Pass
4916.78	41.62	4.58	-5.14	41.06	Peak Max	V	228	16	74	-32.94	Pass
17423.30	26.02	9.02	7.74	42.78	Average Max	V	262	348	54	-11.22	Pass
1683.50	47.35	2.92	-14.13	36.14	Average Max	H	129	83	54	-17.86	Pass
4916.78	29.30	4.58	-5.14	28.74	Average Max	H	110	159	54	-25.26	Pass

Above 1GHz-25GHz- 802.11n20 - 2412MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17886	39.04	9.12	8.47	56.64	Peak Max	V	361	199	74	-17.36	Pass
1683.8	67.79	2.92	-14.13	56.59	Peak Max	H	181	61	74	-17.41	Pass
4801.6	40.41	4.71	-4.97	40.15	Peak Max	V	197	115	74	-33.85	Pass
17886	26.43	9.12	8.47	44.02	Average Max	V	361	199	54	-9.98	Pass
1683.8	48.06	2.92	-14.13	36.85	Average Max	H	181	61	54	-17.15	Pass
4801.6	28.34	4.71	-4.97	28.08	Average Max	V	197	115	54	-25.92	Pass

Above 1GHz-25GHz – 802.11n20 – 2437MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17415.97	38.78	9.01	7.80	55.59	Peak Max	H	236	52	74	-18.41	Pass
1683.42	66.79	2.92	-14.13	55.59	Peak Max	H	133	112	74	-18.42	Pass
4851.87	42.43	4.65	-5.05	42.03	Peak Max	V	282	226	74	-31.98	Pass
17415.97	25.95	9.01	7.80	42.76	Average Max	V	229	270	54	-11.24	Pass
1683.42	47.05	2.92	-14.13	35.84	Average Max	H	133	112	54	-18.16	Pass
4851.87	29.58	4.65	-5.05	29.18	Average Max	H	330	92	54	-24.82	Pass

Above 1GHz-25GHz- 802.11n20 - 2462MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17718.16	37.75	9.08	8.32	55.15	Peak Max	V	218	118	74	-18.85	Pass
1683.90	66.05	2.92	-14.13	54.85	Peak Max	H	104	130	74	-19.15	Pass
4850.85	41.52	4.65	-5.05	41.12	Peak Max	H	322	46	74	-32.88	Pass
17718.16	26.33	9.08	8.32	43.73	Average Max	H	340	28	54	-10.27	Pass
1683.90	46.51	2.92	-14.13	35.30	Average Max	H	104	130	54	-18.70	Pass
4850.85	29.67	4.65	-5.05	29.27	Average Max	H	322	46	54	-24.73	Pass

Above 1GHz-25GHz- 802.11n40 - 2422MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17726.53	38.84	9.08	8.25	56.17	Peak Max	H	392	159	74	-17.83	Pass
1683.75	69.08	2.92	-14.13	57.88	Peak Max	H	198	356	74	-16.12	Pass
4822.98	41.13	4.68	-5.00	40.81	Peak Max	H	163	169	74	-33.19	Pass
17726.53	26.52	9.08	8.25	43.85	Average Max	H	392	159	54	-10.15	Pass
1683.75	49.19	2.92	-14.13	37.99	Average Max	H	198	356	54	-16.01	Pass
4822.98	29.44	4.68	-5.00	29.12	Average Max	H	163	169	54	-24.88	Pass

Above 1GHz-25GHz – 802.11n40 – 2437MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17629.00	38.11	9.06	8.20	55.37	Peak Max	V	193	313	74	-18.63	Pass
1683.42	67.17	2.92	-14.13	55.96	Peak Max	H	210	104	74	-18.04	Pass
4839.80	41.20	4.67	-5.03	40.83	Peak Max	V	159	101	74	-33.17	Pass
17629.00	26.36	9.06	8.20	43.62	Average Max	H	264	238	54	-10.38	Pass
1683.42	47.58	2.92	-14.13	36.37	Average Max	H	210	104	54	-17.63	Pass
4839.80	29.11	4.67	-5.03	28.74	Average Max	H	117	84	54	-25.26	Pass

Above 1GHz-25GHz- 802.11n40 - 2452MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17933.40	39.11	9.14	8.43	56.68	Peak Max	H	283	203	74	-17.32	Pass
1683.67	67.97	2.92	-14.13	56.77	Peak Max	H	197	348	74	-17.23	Pass
4885.72	42.34	4.61	-5.11	41.84	Peak Max	H	225	250	74	-32.16	Pass
17933.40	26.30	9.14	8.43	43.88	Average Max	V	340	198	54	-10.13	Pass
1683.67	48.28	2.92	-14.13	37.07	Average Max	H	197	348	54	-16.93	Pass
4885.72	29.58	4.61	-5.11	29.08	Average Max	H	225	250	54	-24.92	Pass

Annex A. TEST INSTRUMENT

Instrument	Model	Serial #	Cal Date	Cal Cycle	Cal Due	In use
Conducted Emissions						
R & S Receiver	ESIB 40	100179	06/08/2016	1 Year	06/08/2017	☑
CHASE LISN	MN2050B	1018	08/16/2016	1 Year	08/16/2017	☑
Radiated Emissions						
R & S Receiver	ESIB 40	1018	06/08/2016	1 Year	06/08/2017	☑
Bi-Log antenna (30MHz~2GHz)	JB1	A030702	01/13/2017	1 Year	01/13/2018	☑
Horn Antenna (1GHz~26GHz)	3115	100059	08/11/2016	1 Year	08/11/2017	☑
Pre-Amplifier (1-26.5GHz)	8449B	3008A00715	03/30/2016	1 Year	03/30/2017	☑
Preamplifier (100KHz-7GHz)	LPA-6-30	11140711	02/09/2017	1 Year	02/09/2018	☑
3 Meters SAC	3M	N/A	06/09/2016	1 Year	06/09/2017	☐
10 Meters SAC	10M	N/A	07/06/2016	1 Year	07/06/2017	☑
RF Conducted Measurement						
Spectrum Analyzer	N9010A	10SL0219	11/16/2016	1 Year	11/16/2017	☑

Annex B. SIEMIC Accreditation

Accreditations	Document	Scope / Remark
ISO 17025 (A2LA)		Please see the documents for the detailed scope
ISO Guide 65 (A2LA)		Please see the documents for the detailed scope
TCB Designation		A1, A2, A3, A4, B1, B2, B3, B4, C
FCC DoC Accreditation		FCC Declaration of Conformity Accreditation
FCC Site Registration		3 meter site
FCC Site Registration		10 meter site
IC Site Registration		3 meter site
IC Site Registration		10 meter site
EU NB		Radio & Telecommunications Terminal Equipment: EN45001 – EN ISO/IEC 17025
		Electromagnetic Compatibility: EN45001 – EN ISO/IEC 17025
Singapore iDA CB(Certification Body)		Phase I, Phase II
Vietnam MIC CAB Accreditation		Please see the document for the detailed scope
Hong Kong OFCA		(Phase II) OFCA Foreign Certification Body for Radio and Telecom
		(Phase I) Conformity Assessment Body for Radio and Telecom
Industry Canada CAB		Radio: Scope A – All Radio Standard Specification in Category I
		Telecom: CS-03 Part I, II, V, VI, VII, VIII

Japan Recognized Certification Body Designation		Radio: A1. Terminal equipment for purpose of calling Telecom: B1. Specified radio equipment specified in Article 38-2, Paragraph 1, Item 1 of the Radio Law
Korea CAB Accreditation		EMI: KCC Notice 2008-39, RRL Notice 2008-3: CA Procedures for EMI KN22: Test Method for EMI EMS: KCC Notice 2008-38, RRL Notice 2008-4: CA Procedures for EMS KN24, KN61000-4-2, -4-3, -4-4, -4-5, -4-6, -4-8, -4-11: Test Method for EMS
		Radio: RRL Notice 2008-26, RRL Notice 2008-2, RRL Notice 2008-10, RRL Notice 2007-49, RRL Notice 2007-20, RRL Notice 2007-21, RRL Notice 2007-80, RRL Notice 2004-68
		Telecom: President Notice 20664, RRL Notice 2007-30, RRL Notice 2008-7 with attachments 1, 3, 5, 6; President Notice 20664, RRL Notice 2008-7 with attachment 4
Taiwan NCC CAB Recognition		LP0002, PSTN01, ADSL01, ID0002, IS6100, CNS14336, PLMN07, PLMN01, PLMN08
Taiwan BSMI CAB Recognition		CNS 13438
Japan VCCI		R-3083: Radiation 3 meter site C-3421: Main Ports Conducted Interference Measurement T-1597: Telecommunication Ports Conducted Interference Measurement
Australia CAB Recognition		EMC: AS/NZS CISPR 11, AS/NZS CISPR 14.1, AS/NZS CISPR22, AS/NZS 61000.6.3, AS/NZS 61000.6.4
		Radio communications: AS/NZS 4281, AS/NZS 4268, AS/NZS 4280.1, AS/NZS 4280.2, AS/NZS 4295, AS/NZS 4582, AS/NZS 4583, AS/NZS 4769.1, AS/NZS 4769.2, AS/NZS 4770, AS/NZS 4771
		Telecommunications: AS/ACIF S002:05, AS/ACIF S003:06, AS/ACIF S004:06 AS/ACIF S006:01, AS/ACIF S016:01, AS/ACIF S031:01, AS/ACIF S038:01, AS/ACIF S040:01, AS/ACIF S041:05, AS/ACIF S043.2:06, AS/ACIF S60950.1
Australia NATA Recognition		AS/ACIF S002, AS/ACIF S003, AS/ACIF S004, AS/ACIF S006, AS/ACIF S016,AS/ACIF S031, AS/ACIF S038, AS/ACIF S040, AS/ACIF S041, AS/ACIF S043.2