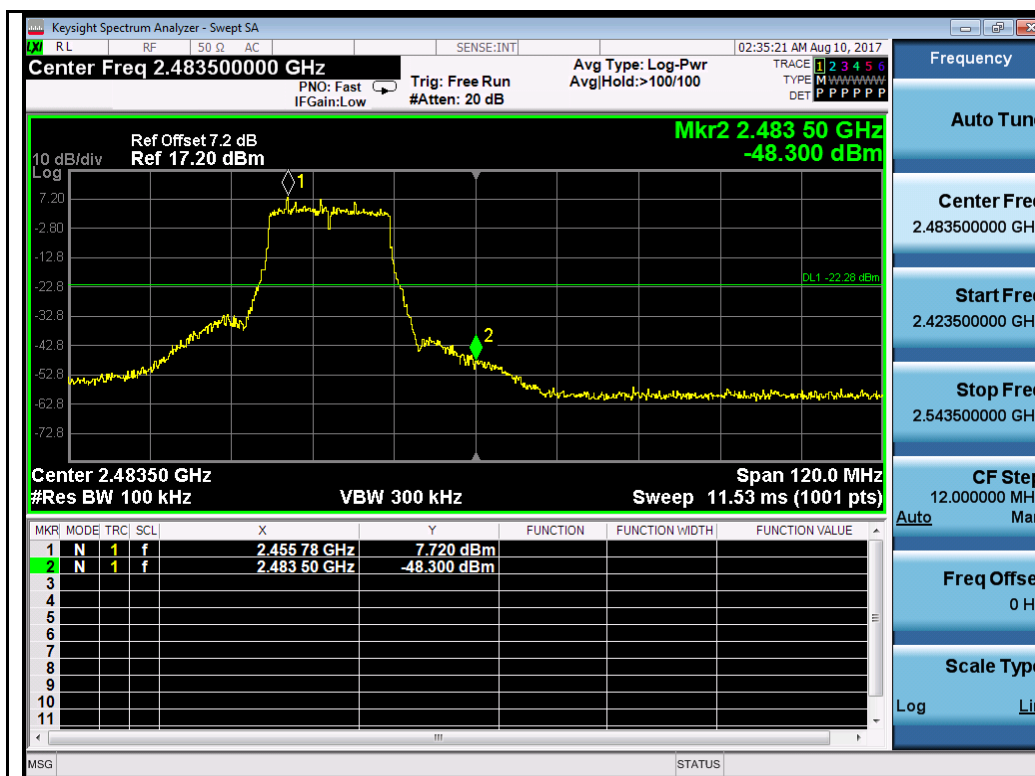
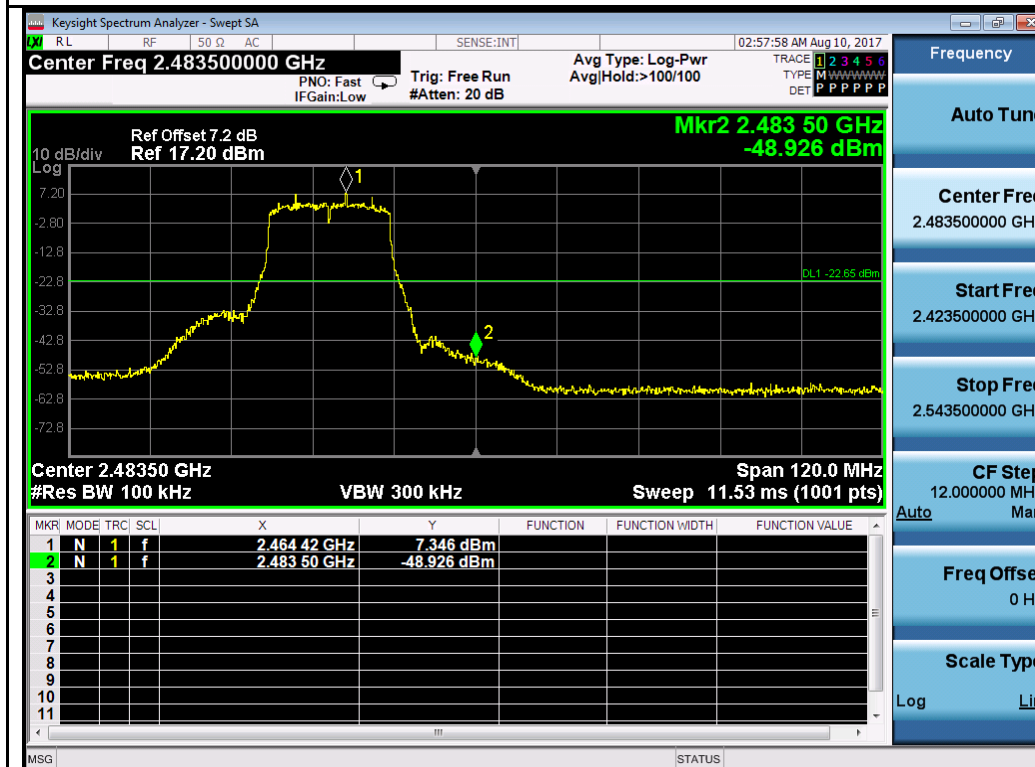
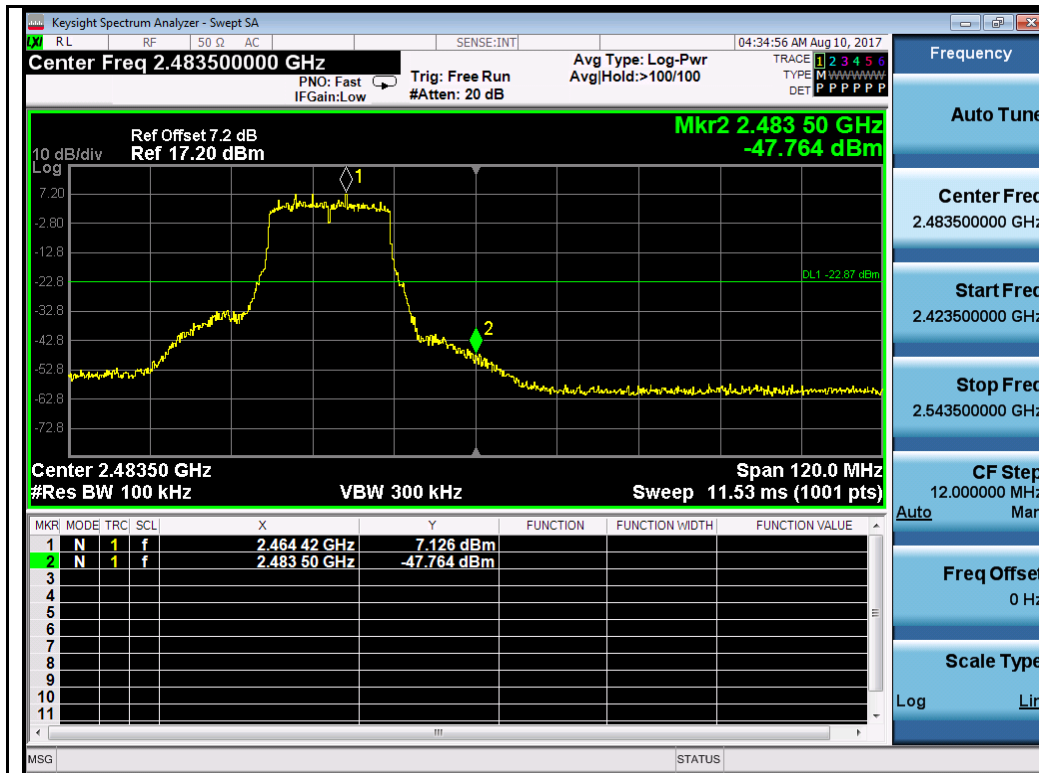




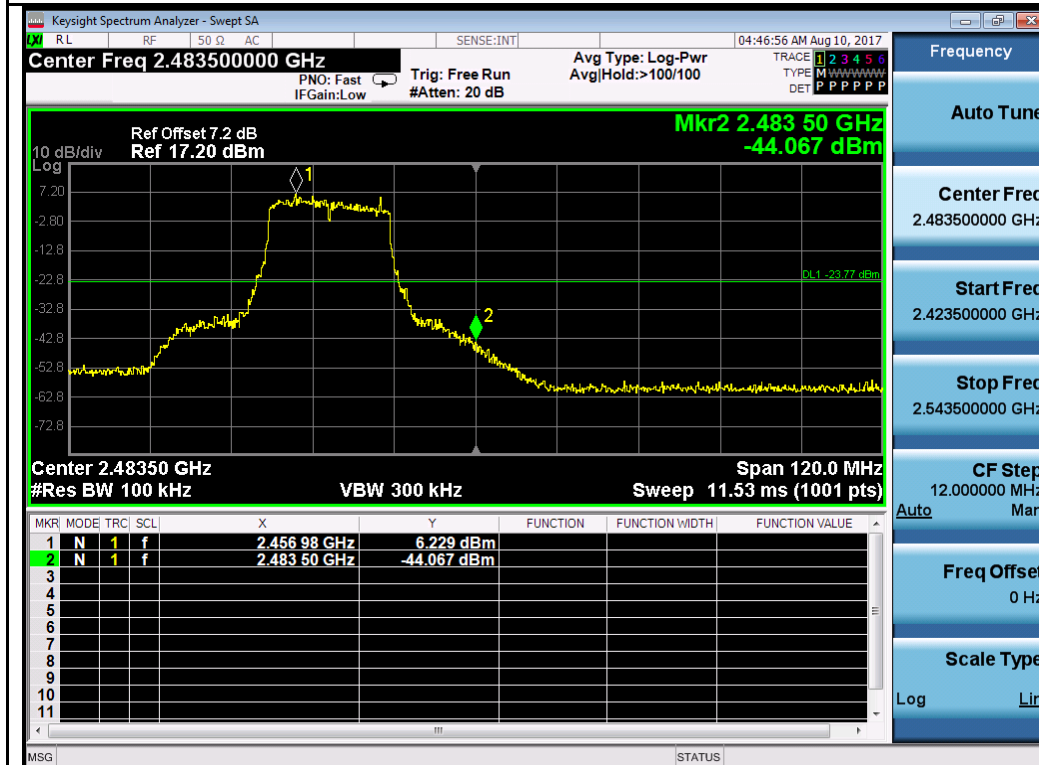
802.11n-HT20-2462MHz Chain 0



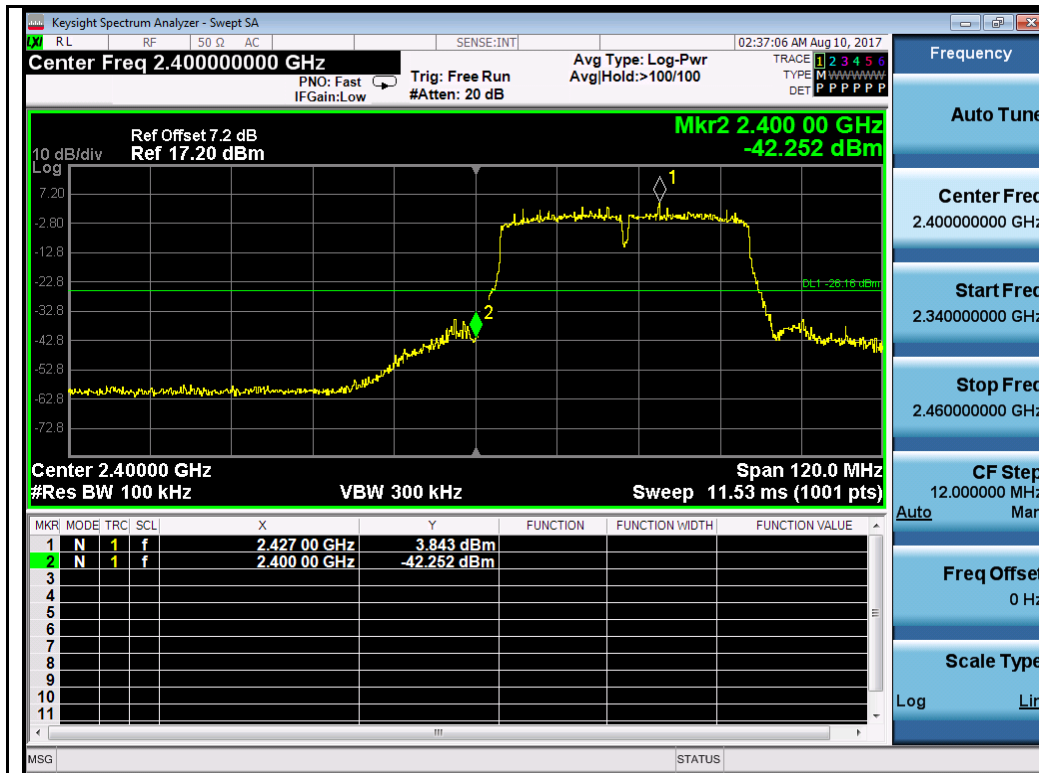
802.11n-HT20-2462MHz Chain 1



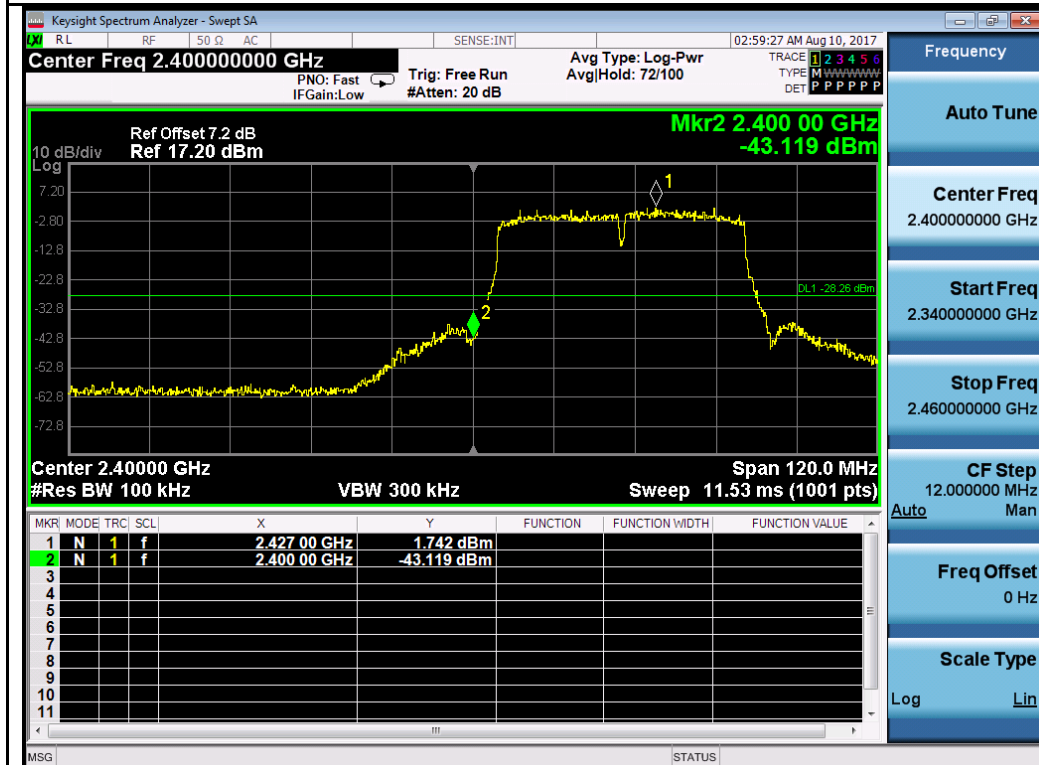
802.11n-HT20-2462MHz Chain 2



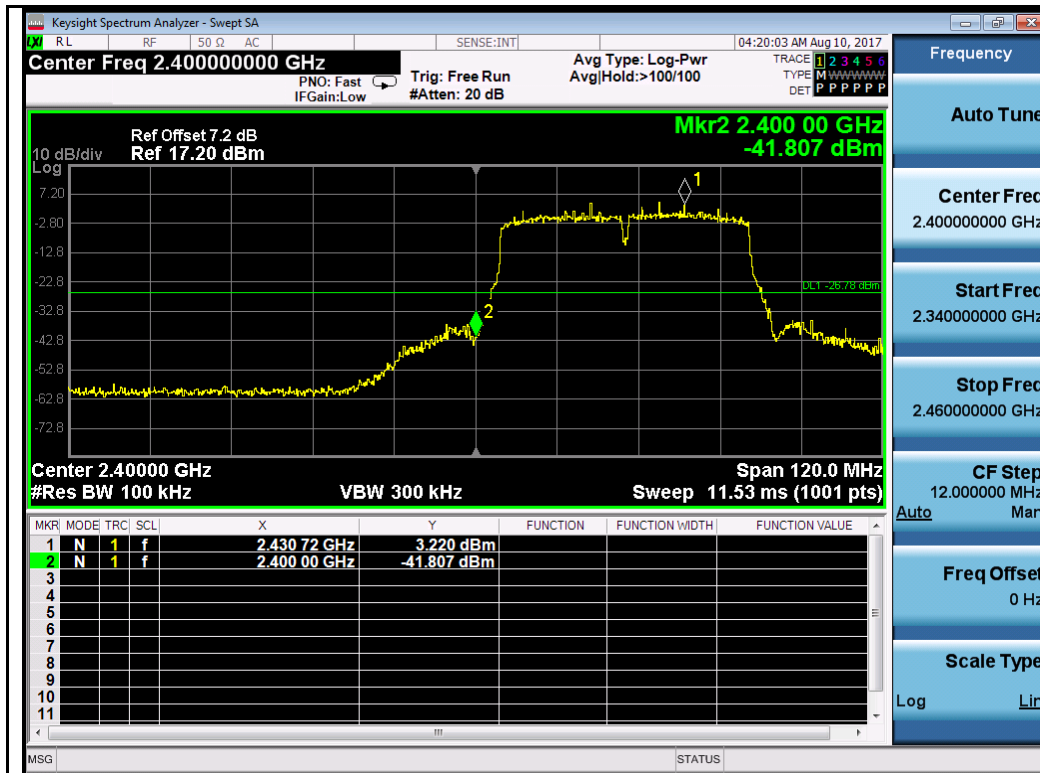
802.11n-HT20-2462MHz Chain 3



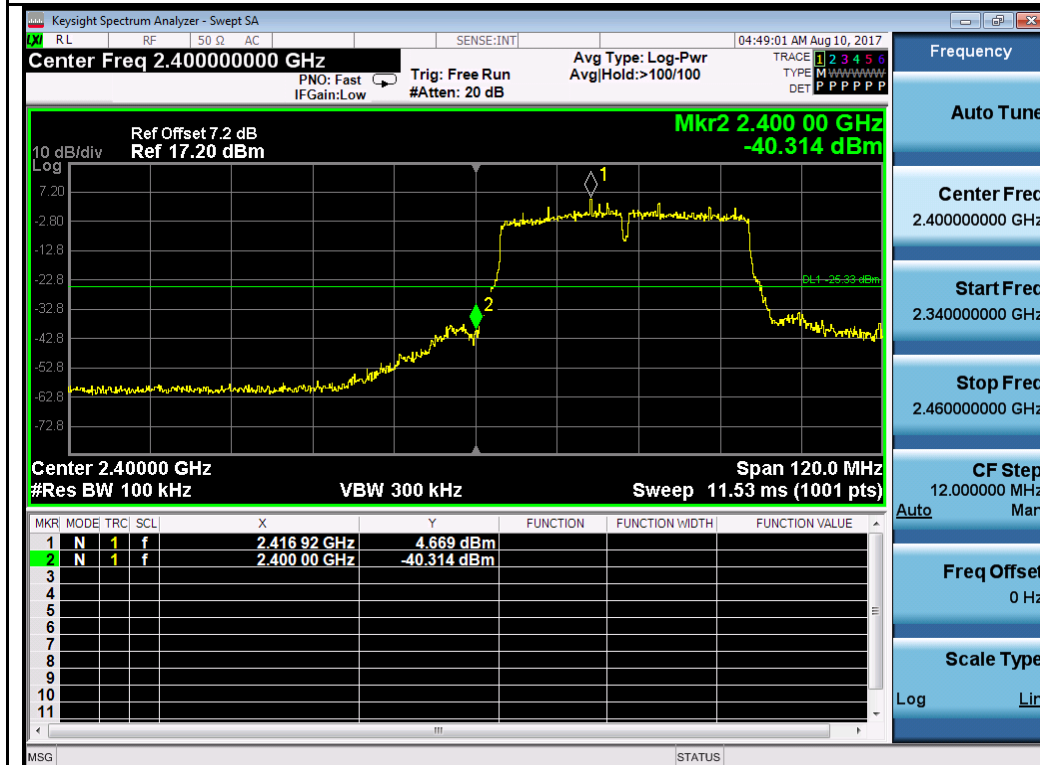
802.11n-HT40-2422MHz Chain 0



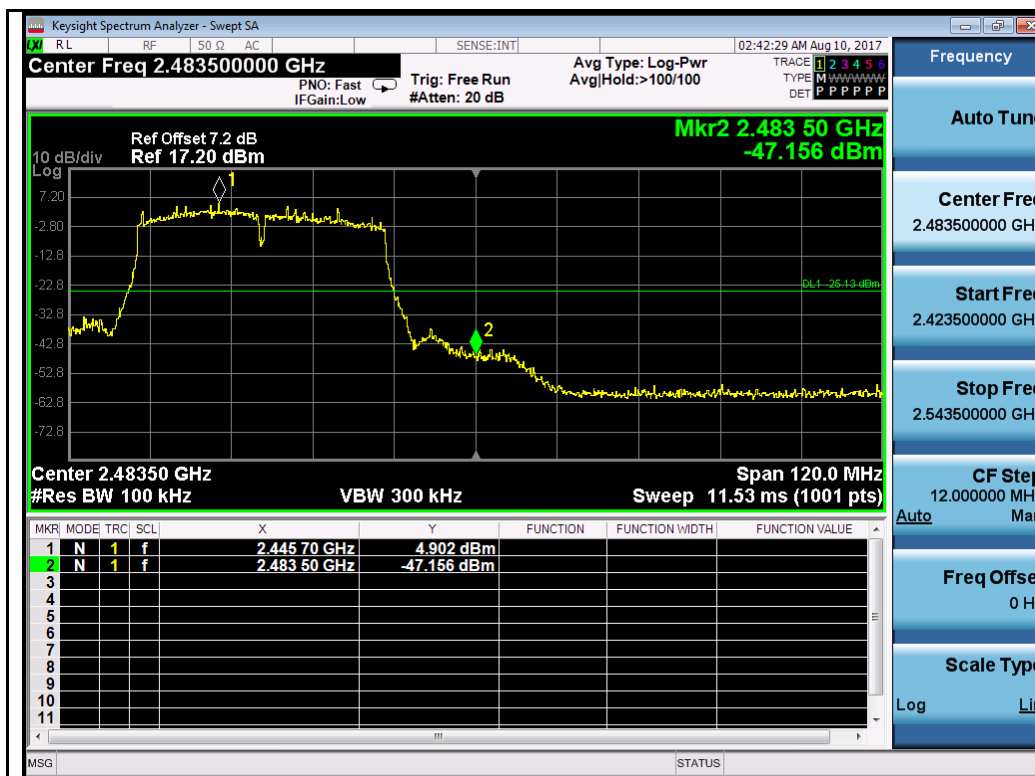
802.11n-HT40-2422MHz Chain 1



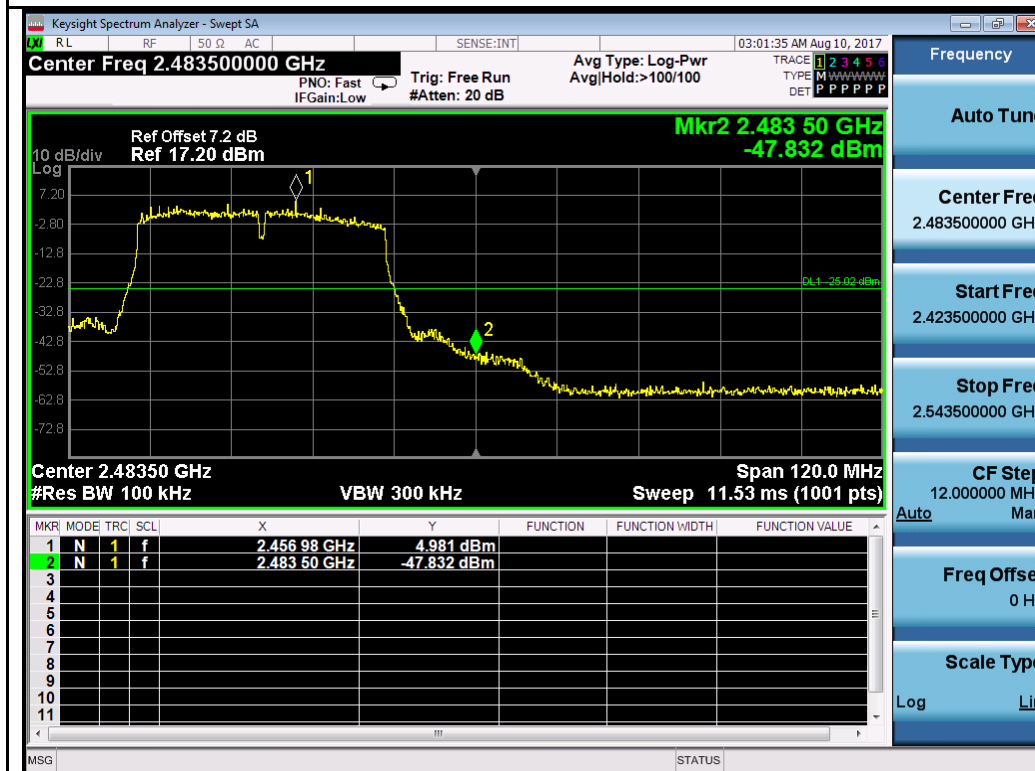
802.11n-HT40-2422MHz Chain 2



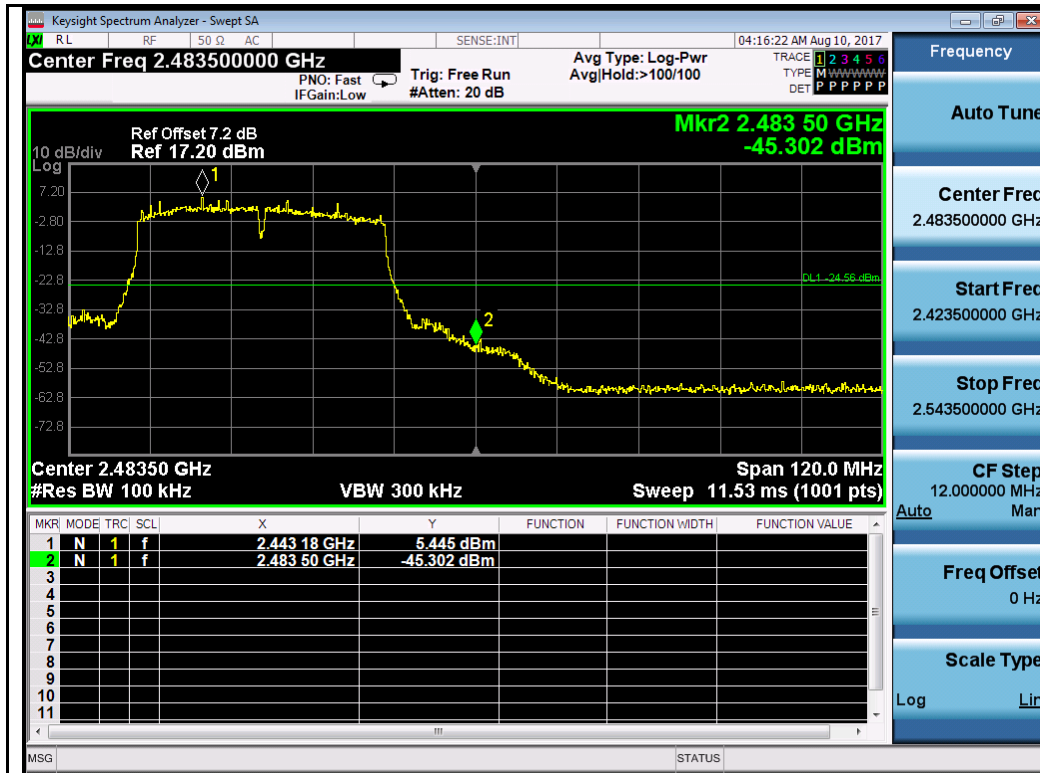
802.11n-HT40-2422MHz Chain 3



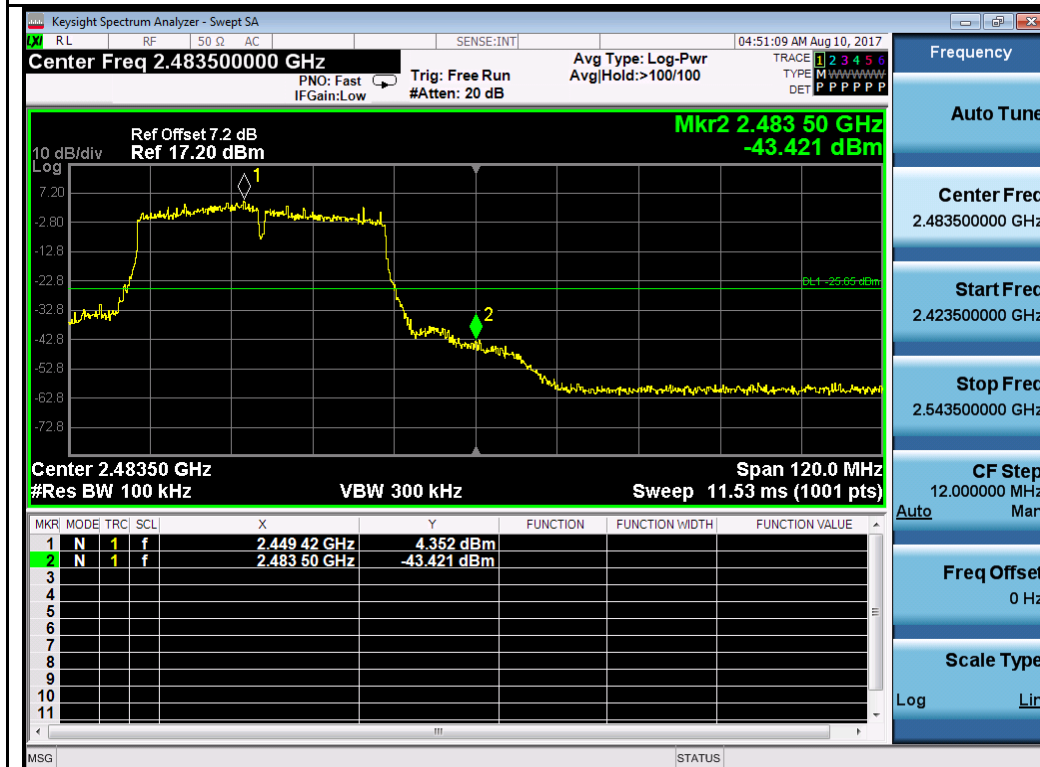
802.11n-HT40-2452MHz Chain 0



802.11n-HT40-2452MHz Chain 1



802.11n-HT40-2452MHz Chain 2



802.11n-HT40-2452MHz Chain 3

10.5 Peak Spectral Density

Requirement(s):

Spec	Item	Requirement	Applicable
§ 15.247(e) RSS247 (5.2.2)	e)	DSSS: $\leq 8\text{dBm}/3\text{KHz}$	☒
	f)	DSSS in hybrid sys with FH turned off: $\leq 8\text{dBm}/3\text{KHz}$	☐
Test Setup			
Test Procedure	558074 D01 DTS Meas Guidance v04, 10.2 Method PKPSD (peak PSD) <u>Peak spectral density measurement procedure</u> - Set analyzer center frequency to DTS channel center frequency. - Set the span to 1.5 times the DTS bandwidth. - Set the RBW to: $3\text{ kHz} \leq \text{RBW} \leq 100\text{ kHz}$. - Set the VBW $\geq 3 \times \text{RBW}$. - 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	08/10/2017	Environmental condition	Temperature 22°C Relative Humidity 46% Atmospheric Pressure 1020mbar
Remark	Per KDB 662911 D01 Multiple Transmitter Output v02r01, the direction gain for horizontal polarization and vertical polarization is calculated separately. For 2.4GHz band, peak antenna gain = 3 dBi, directional gain = 6 dBi. Highest of total directional gain is 6 dBi. The power limit and PSD limit will be reduced by amount of 0 dB.		
Result	☒ Pass ☐ Fail		

Test Data ☒ Yes ☐ N/A

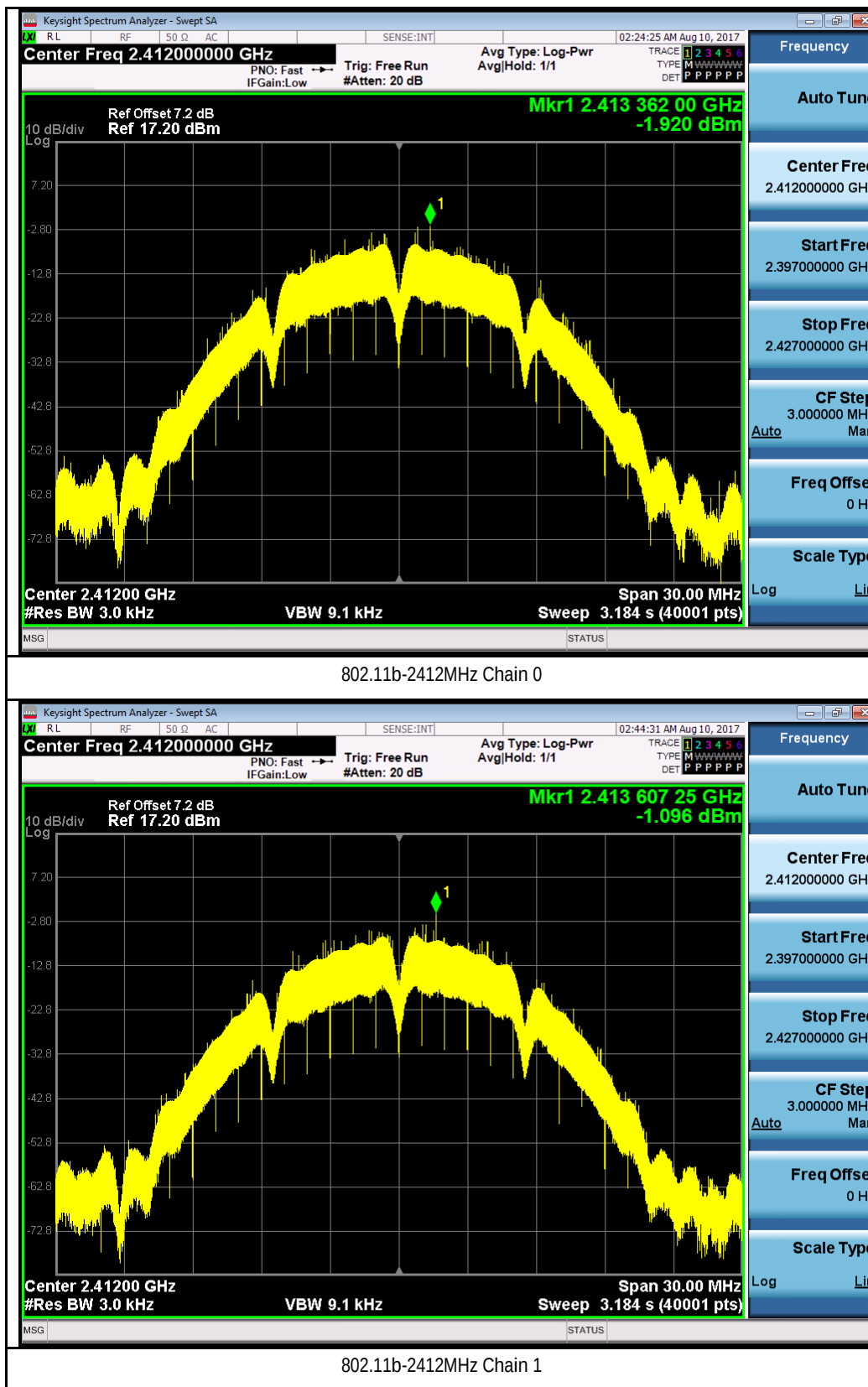
Test Plot ☒ Yes (See below) ☐ N/A

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
				Chain0	Chain1	Chain2	Chain3	Combine		
PSD	802.11b	2412	Low	-1.92	-1.10	-2.27	-2.12	4.19	≤8	Pass
		2437	Mid	-0.13	-2.45	-3.78	-2.57	4.00	≤8	Pass
		2462	High	-2.17	-1.96	-0.95	-1.79	4.33	≤8	Pass
	802.11g	2412	Low	-6.98	-7.34	-7.02	-8.02	-1.30	≤8	Pass
		2437	Mid	-6.46	-6.11	-4.58	-6.00	0.30	≤8	Pass
		2462	High	-9.53	-9.58	-8.49	-8.97	-3.10	≤8	Pass
	802.11n-20M	2412	Low	-7.30	-7.26	-7.68	-6.87	-1.25	≤8	Pass
		2437	Mid	-6.88	-6.70	-6.47	-5.19	-0.23	≤8	Pass
		2462	High	-9.64	-9.87	-9.15	-8.35	-3.19	≤8	Pass
	802.11n-40M	2422	Low	-13.32	-12.47	-12.86	-12.59	-6.78	≤8	Pass
		2437	Mid	-10.16	-10.15	-10.45	-9.66	-4.07	≤8	Pass
		2452	High	-10.04	-11.19	-10.08	-10.34	-4.37	≤8	Pass

Test Plots:

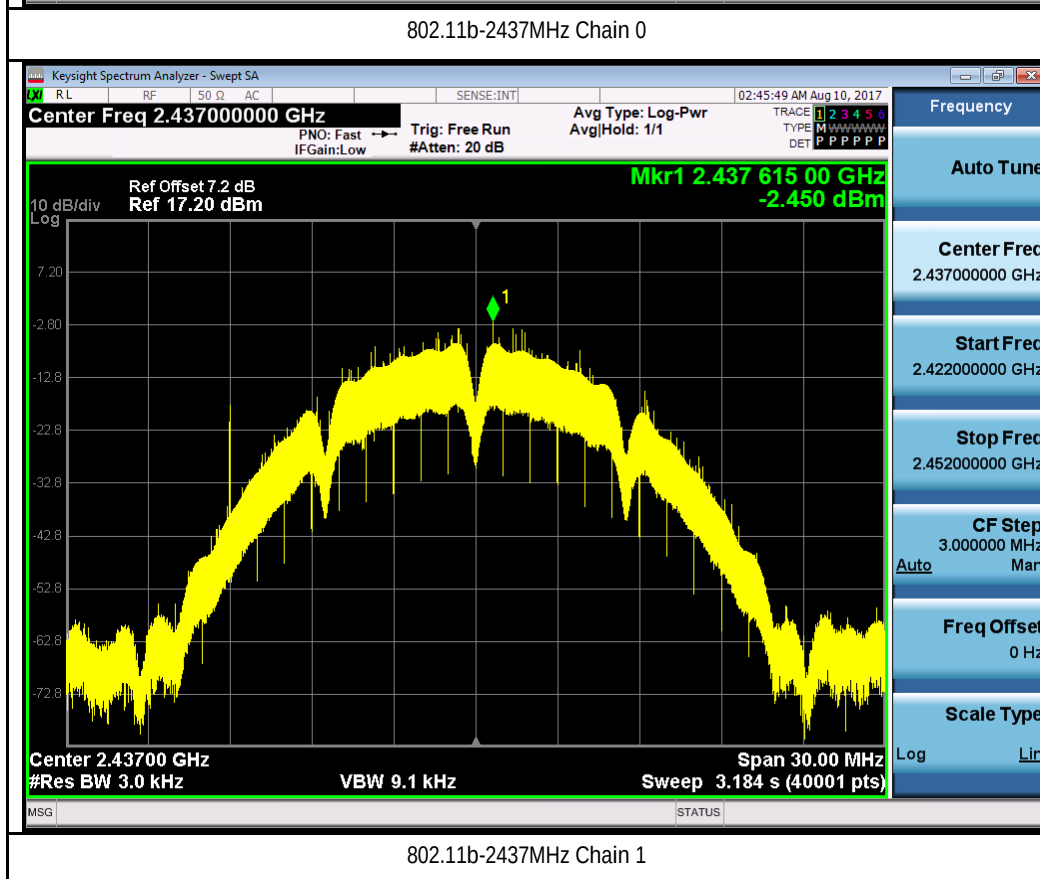
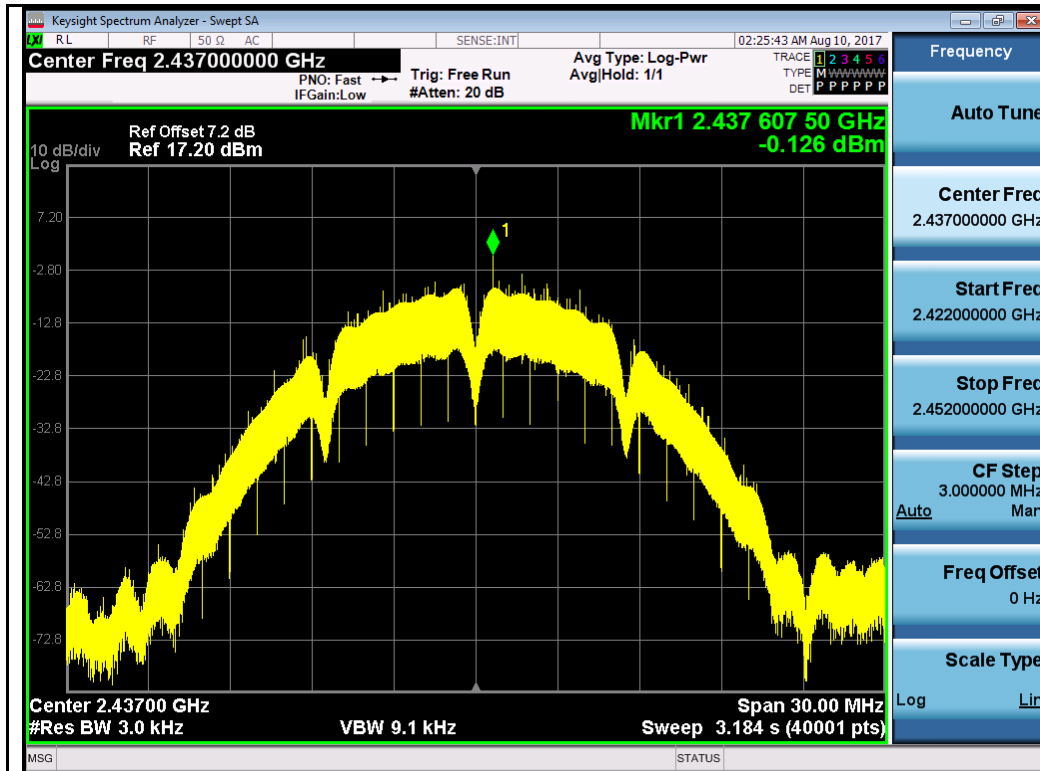


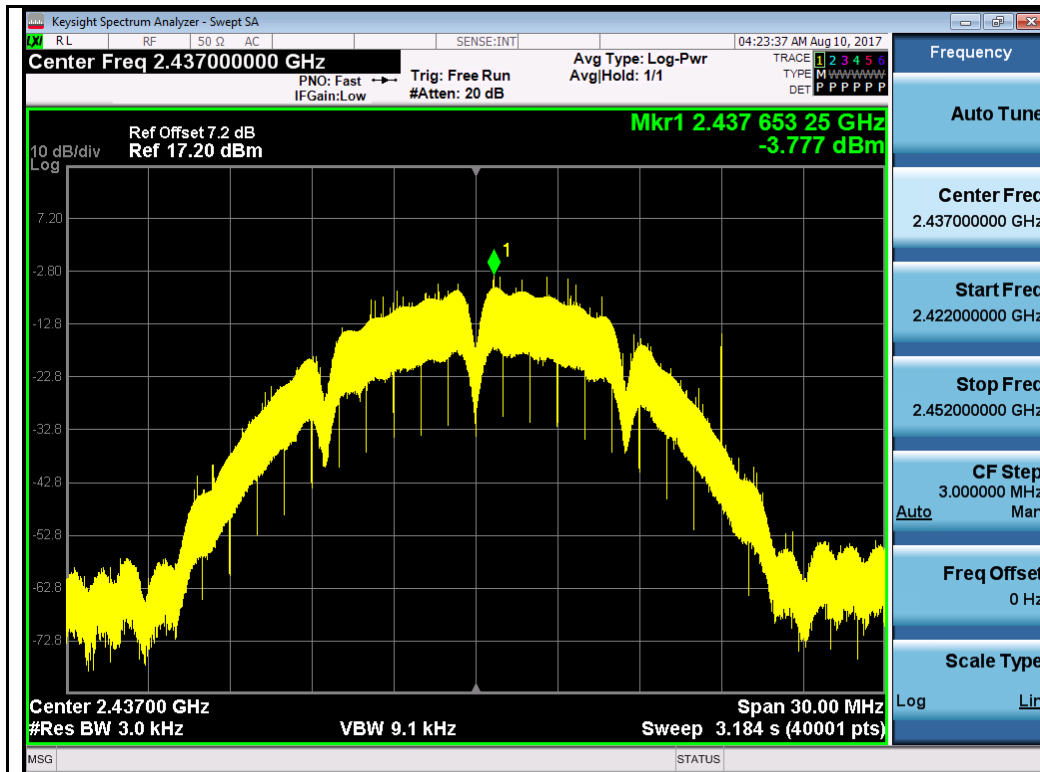


802.11b-2412MHz Chain 2



802.11b-2412MHz Chain 3

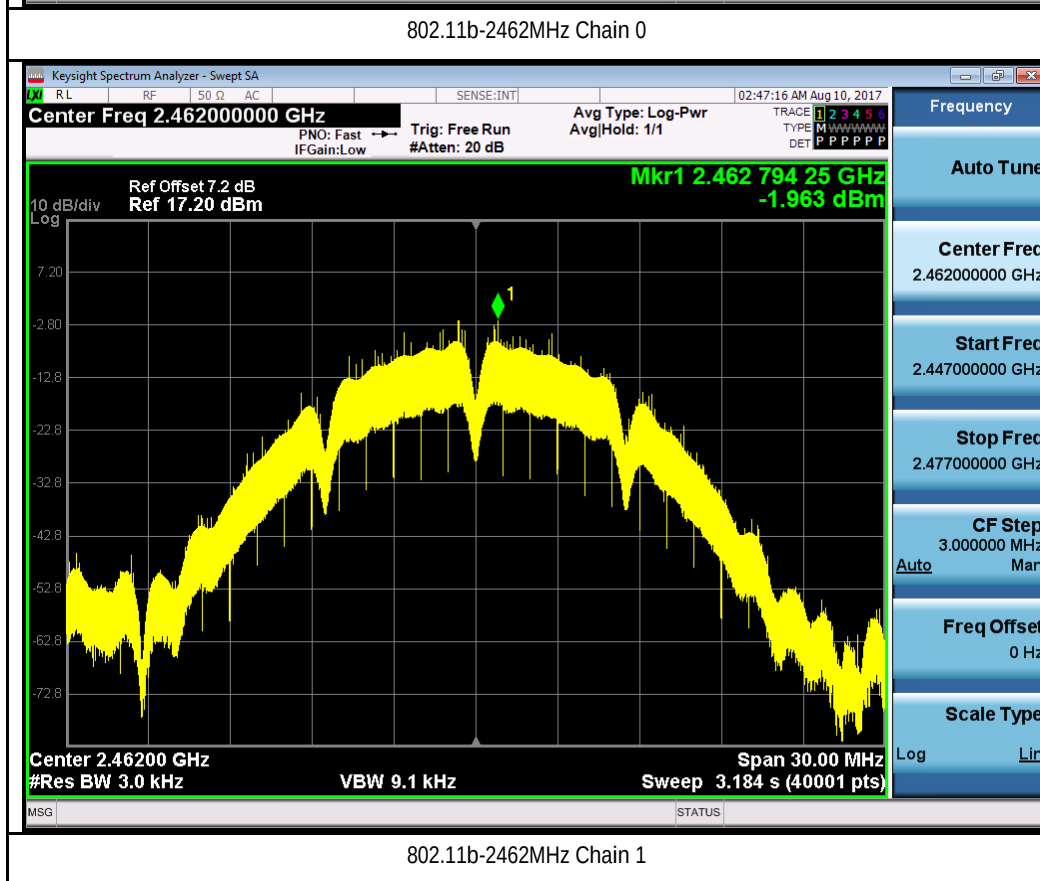
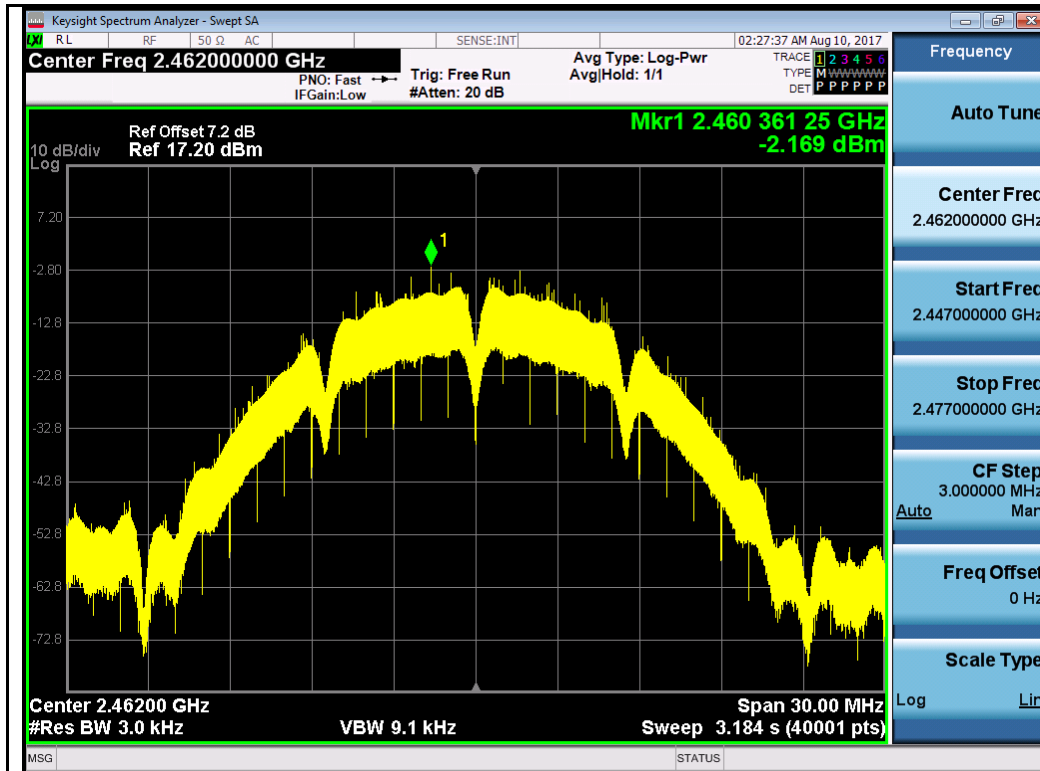




802.11b-2437MHz Chain 2

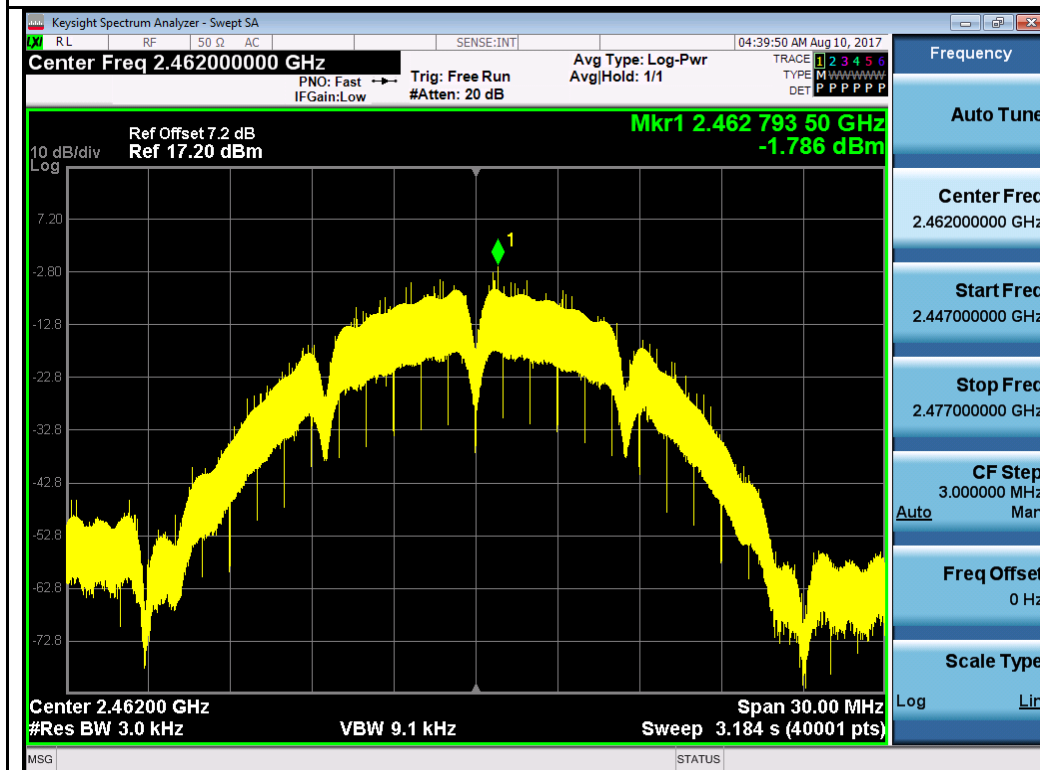


802.11b-2437MHz Chain 3

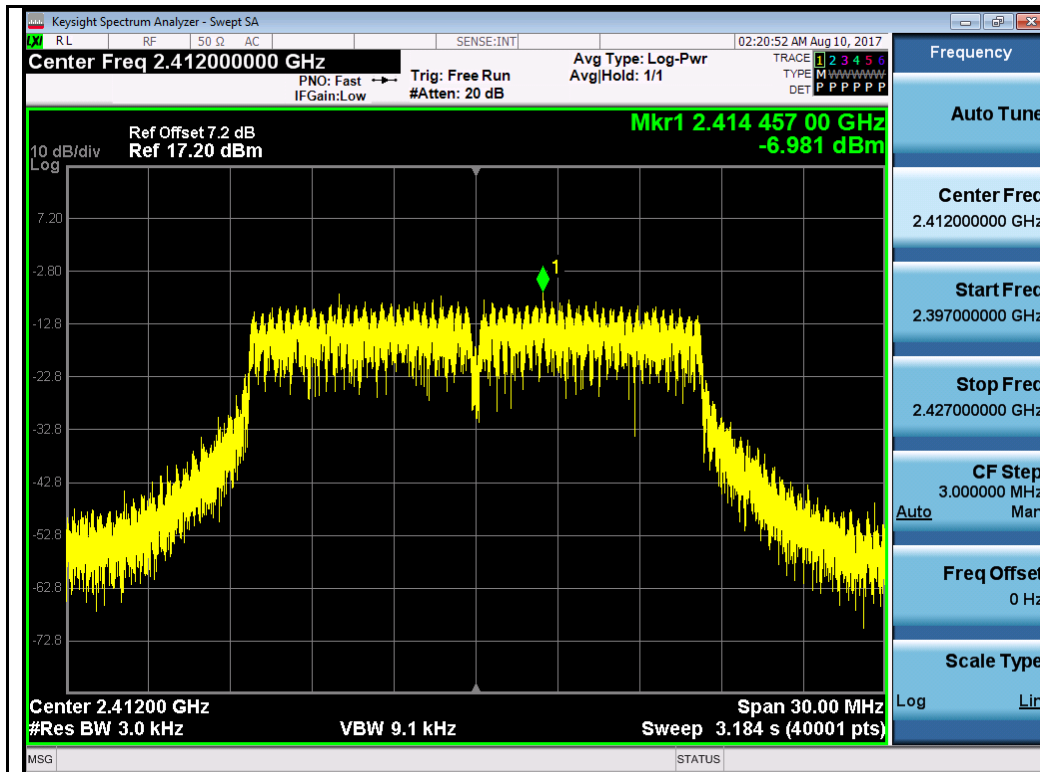




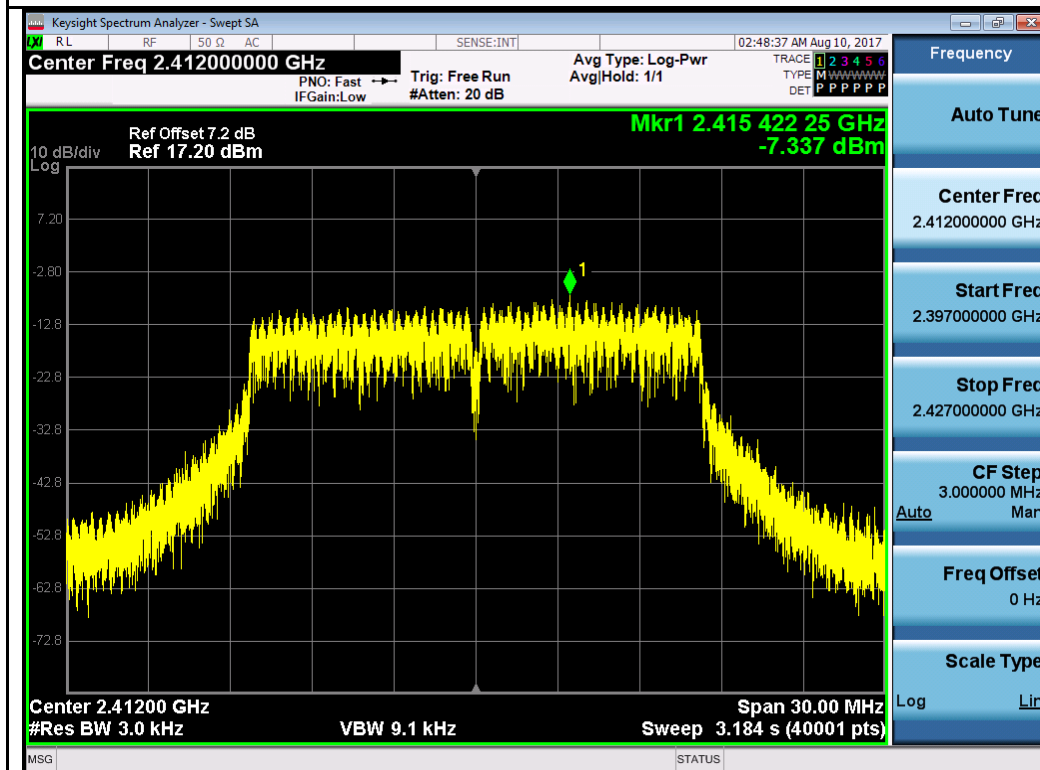
802.11b-2462MHz Chain 2



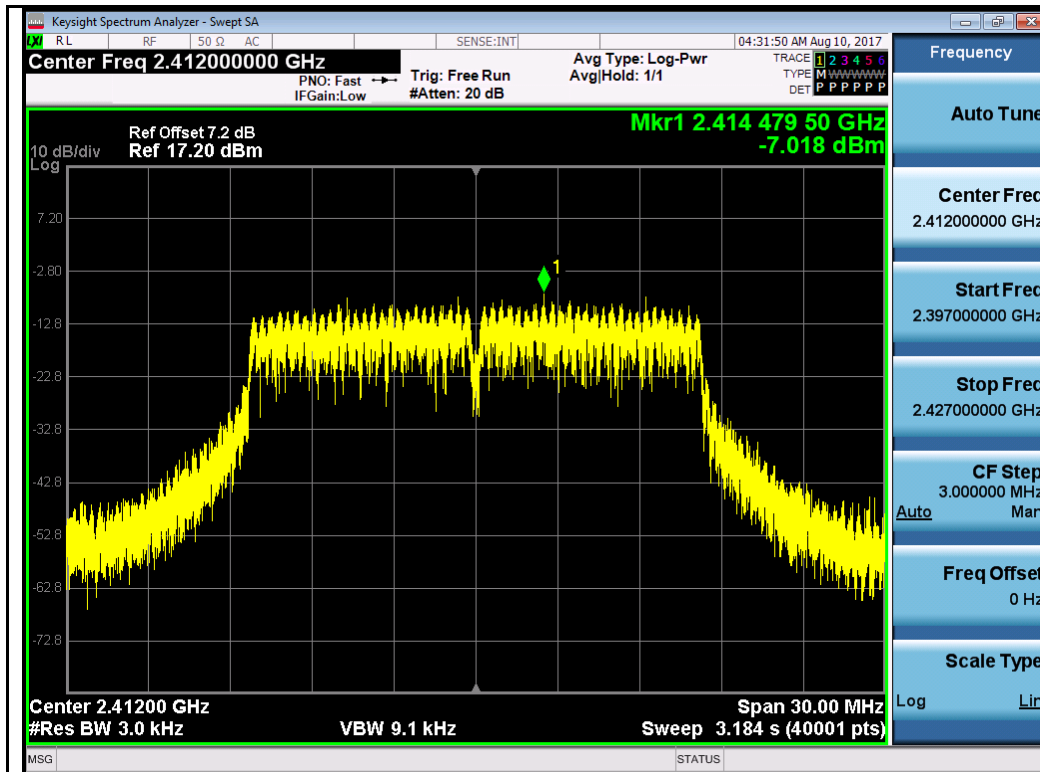
802.11b-2462MHz Chain 3



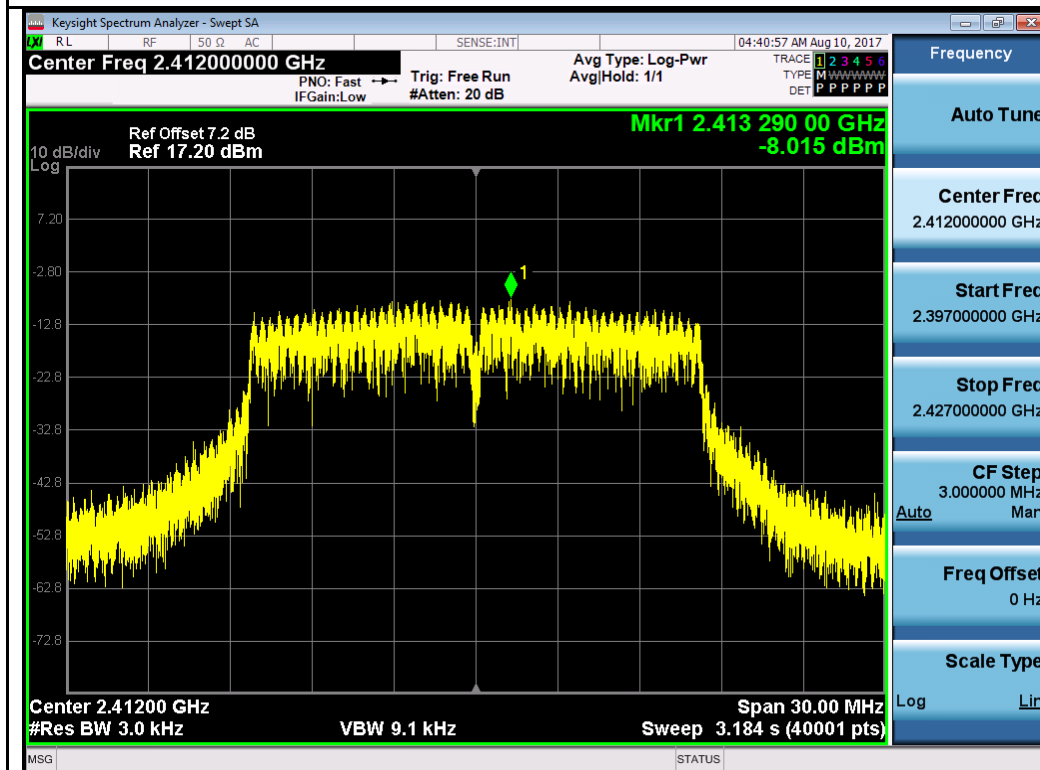
802.11g-2412MHz Chain 0



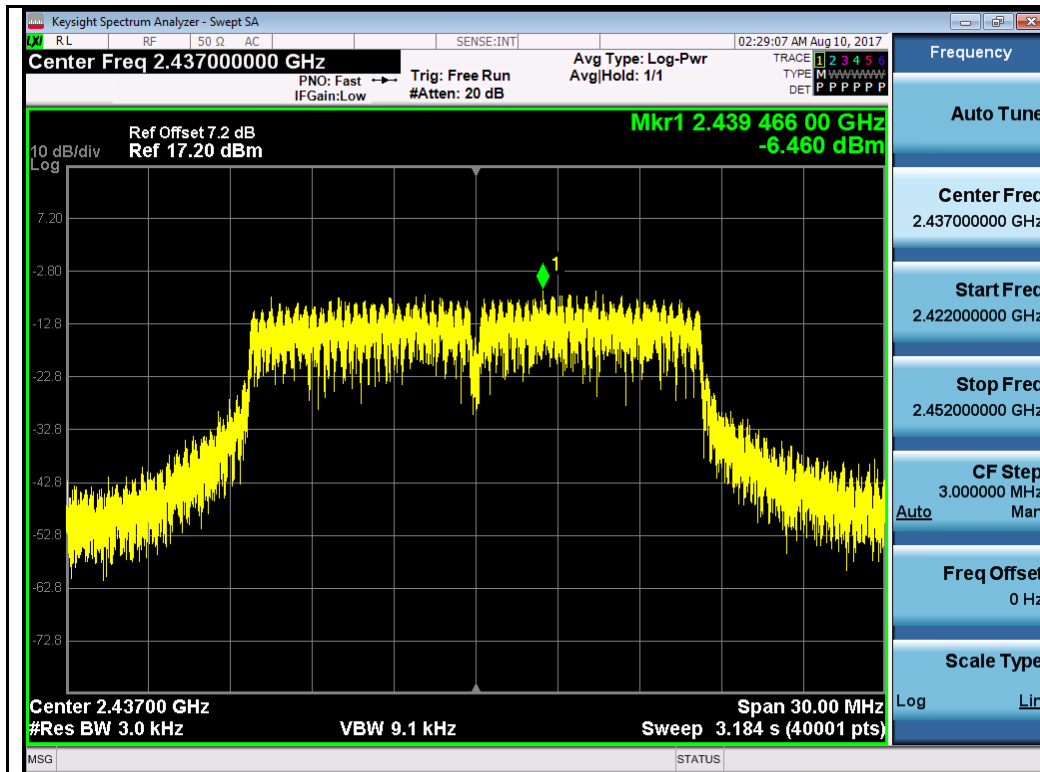
802.11g-2412MHz Chain 1



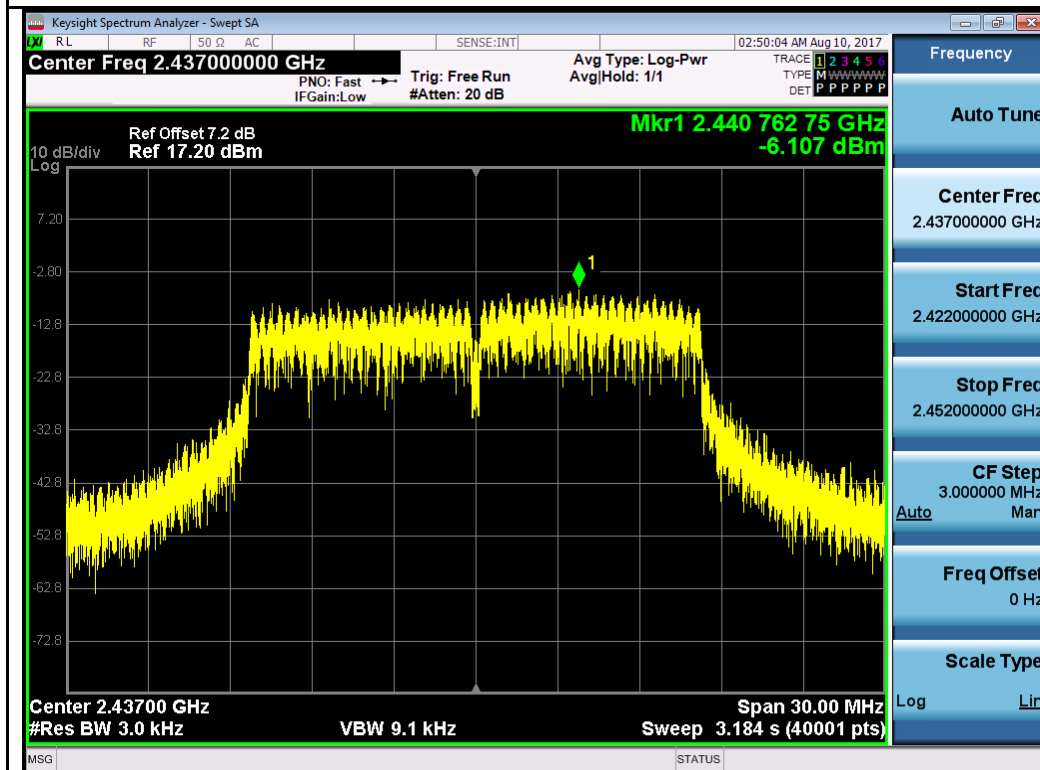
802.11g-2412MHz Chain 2



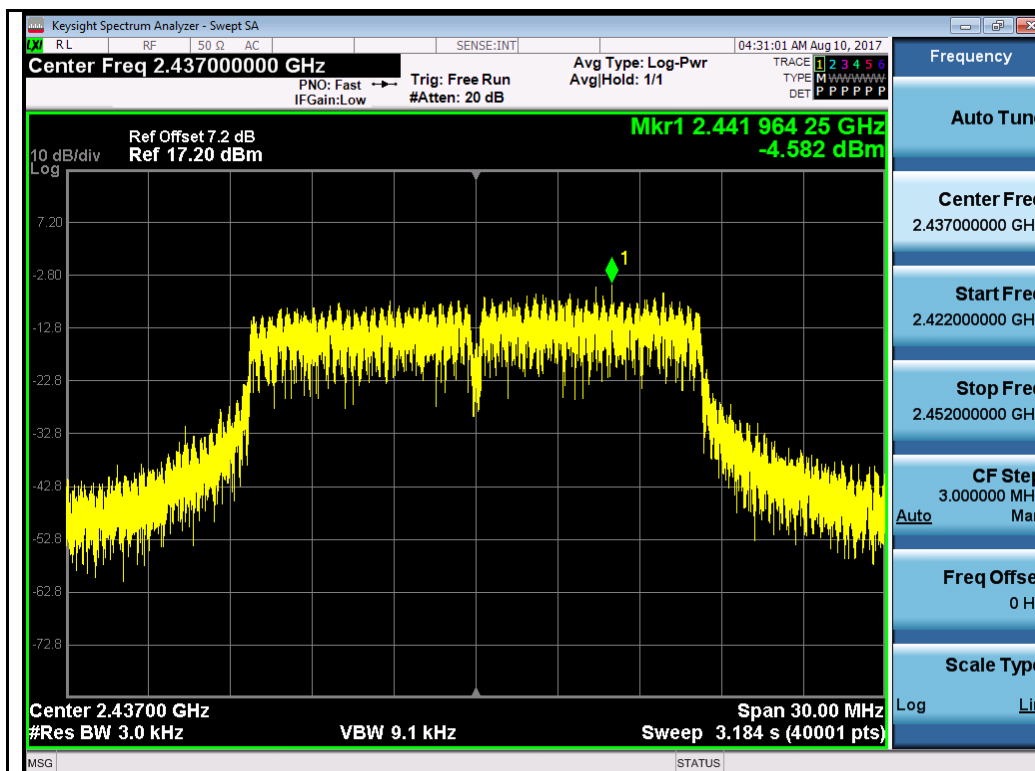
802.11g-2412MHz Chain 3



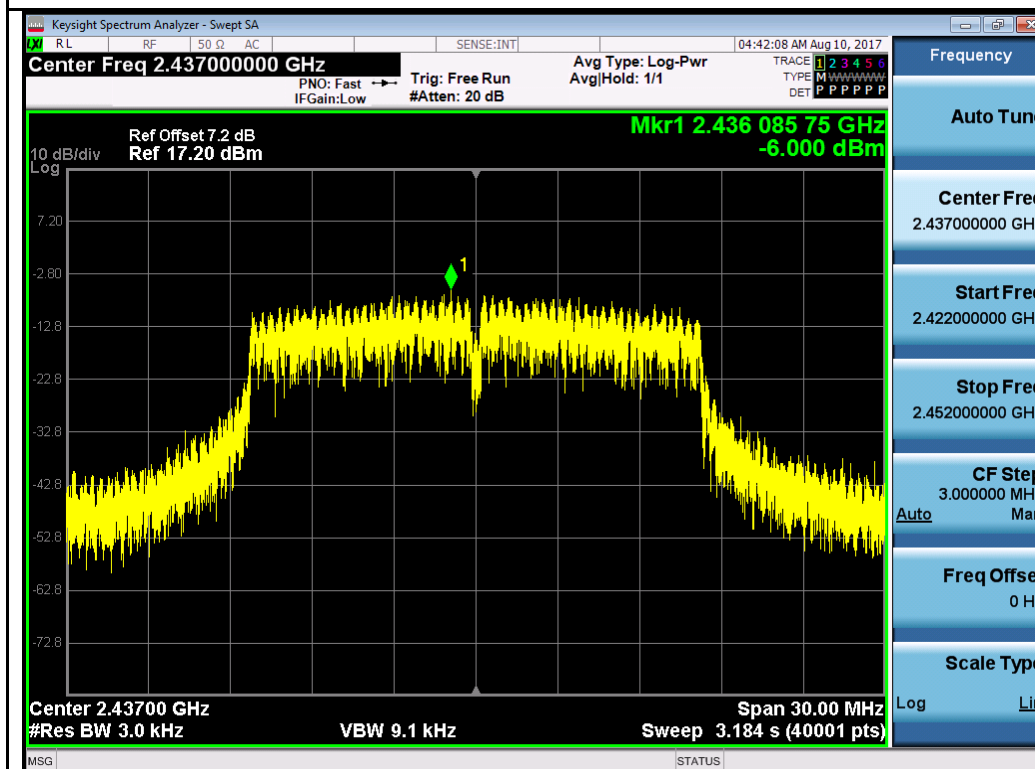
802.11g-2437MHz Chain 0



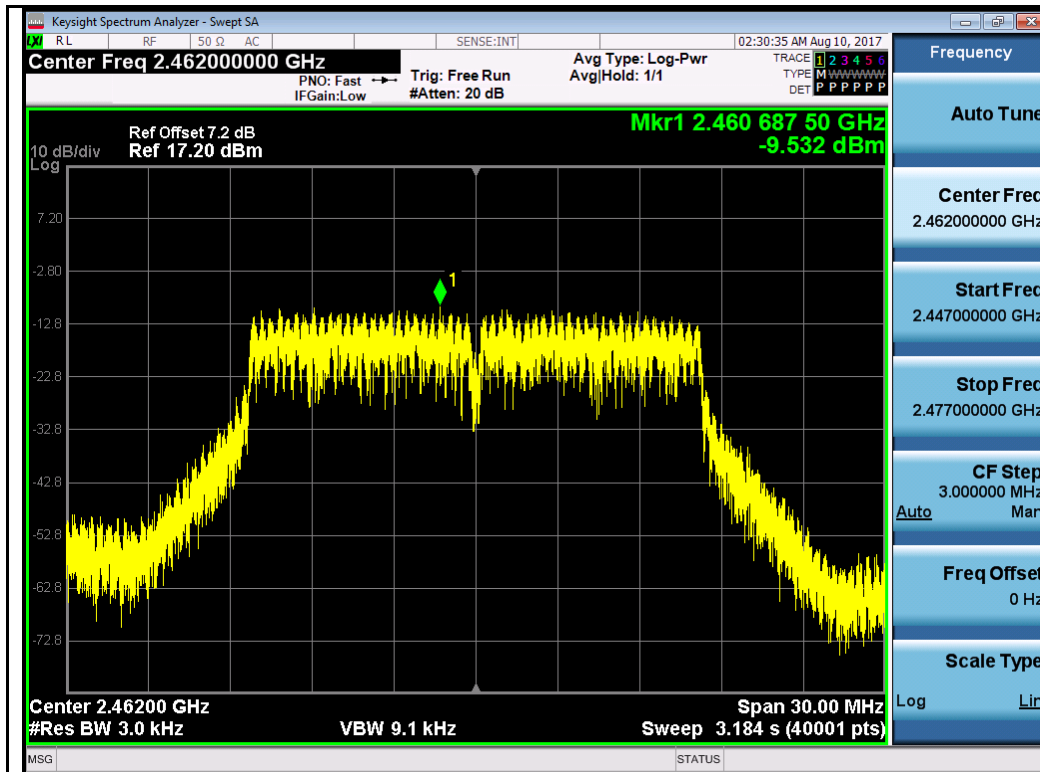
802.11g-2437MHz Chain 1



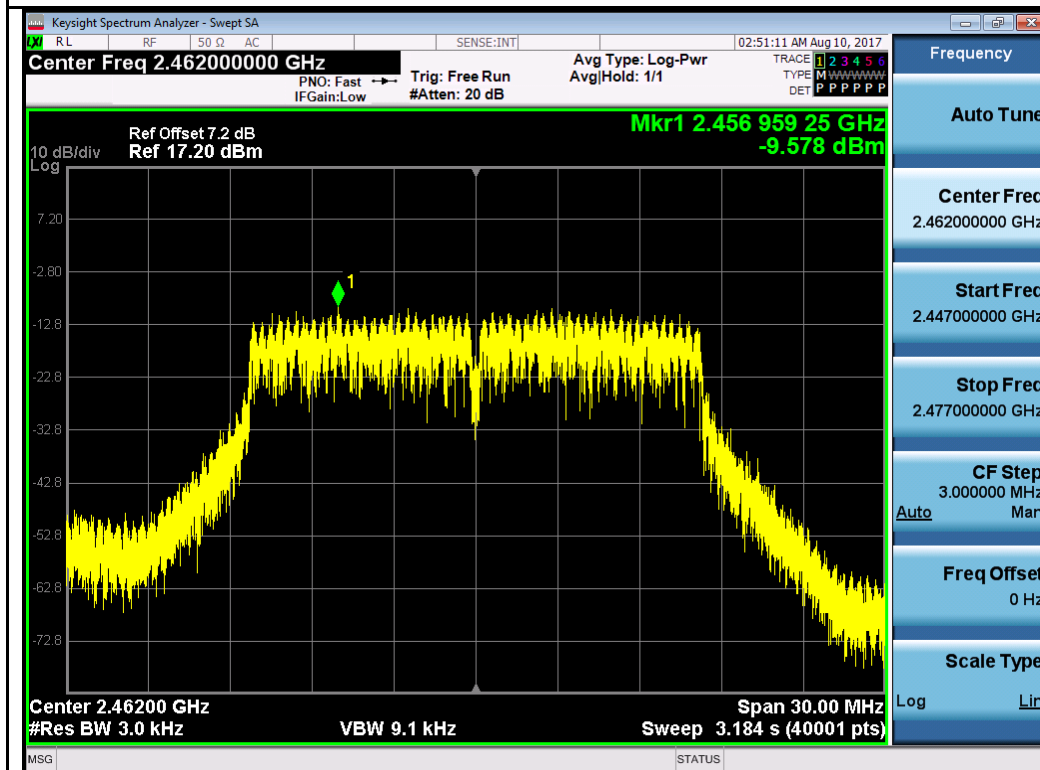
802.11g-2437MHz Chain 2



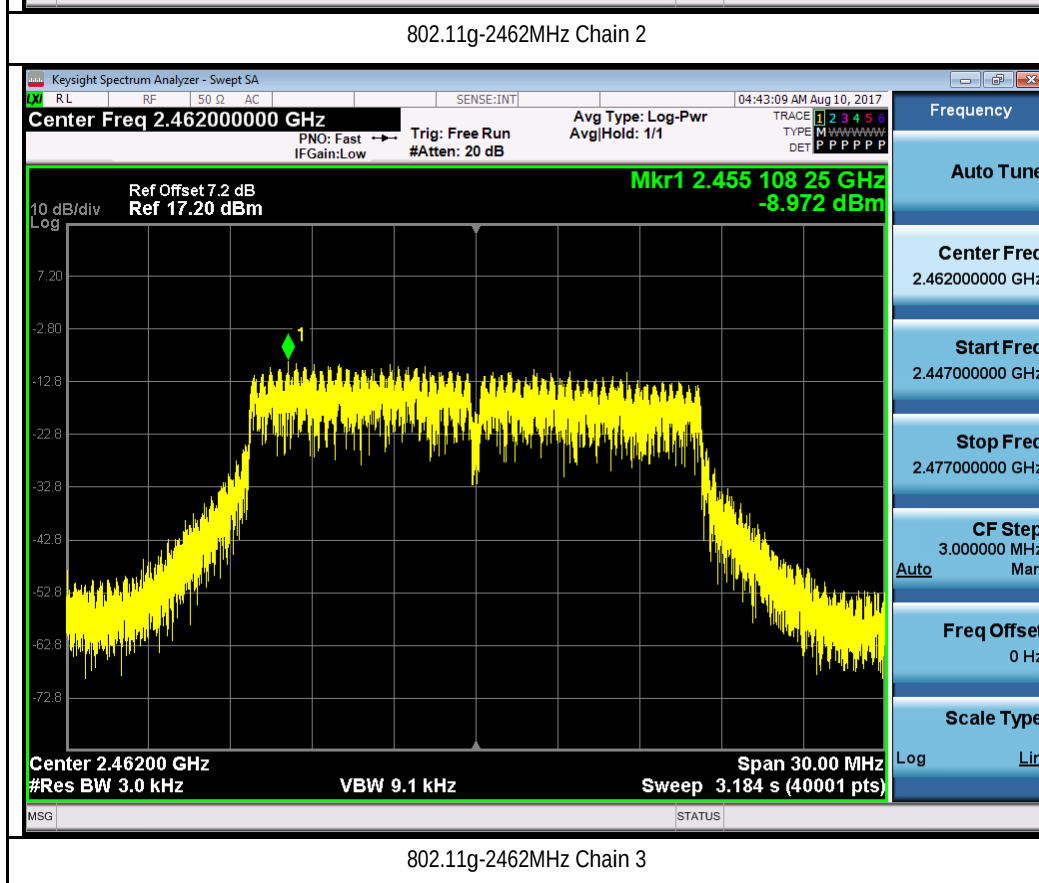
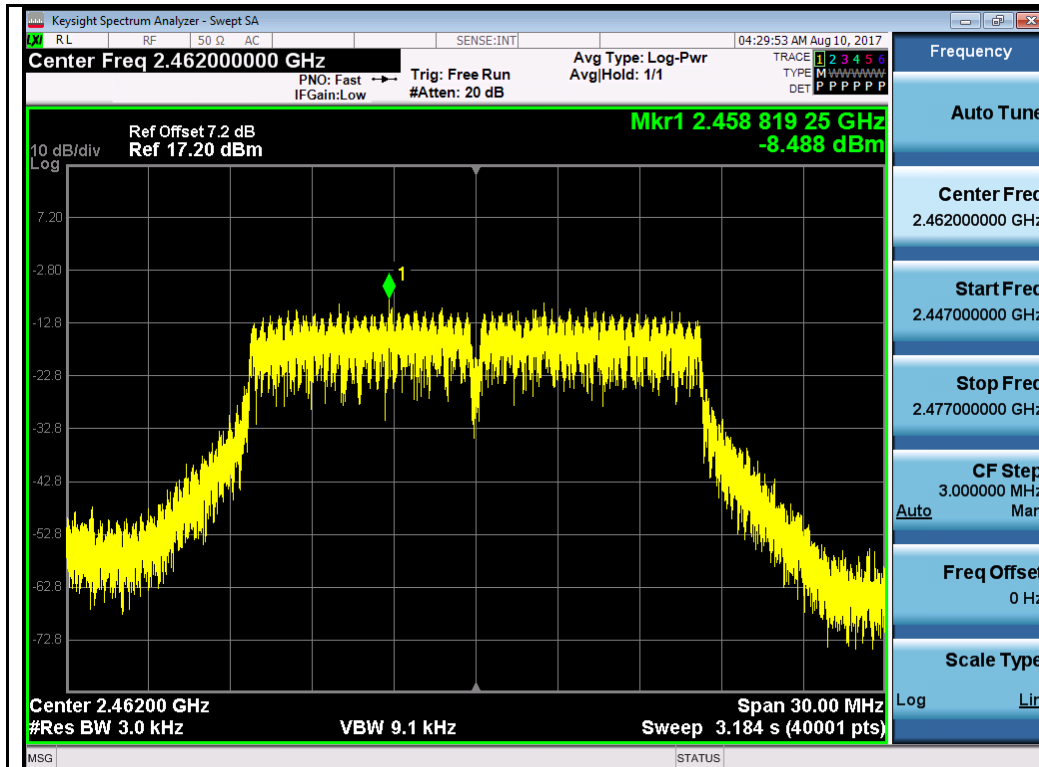
802.11g-2437MHz Chain 3

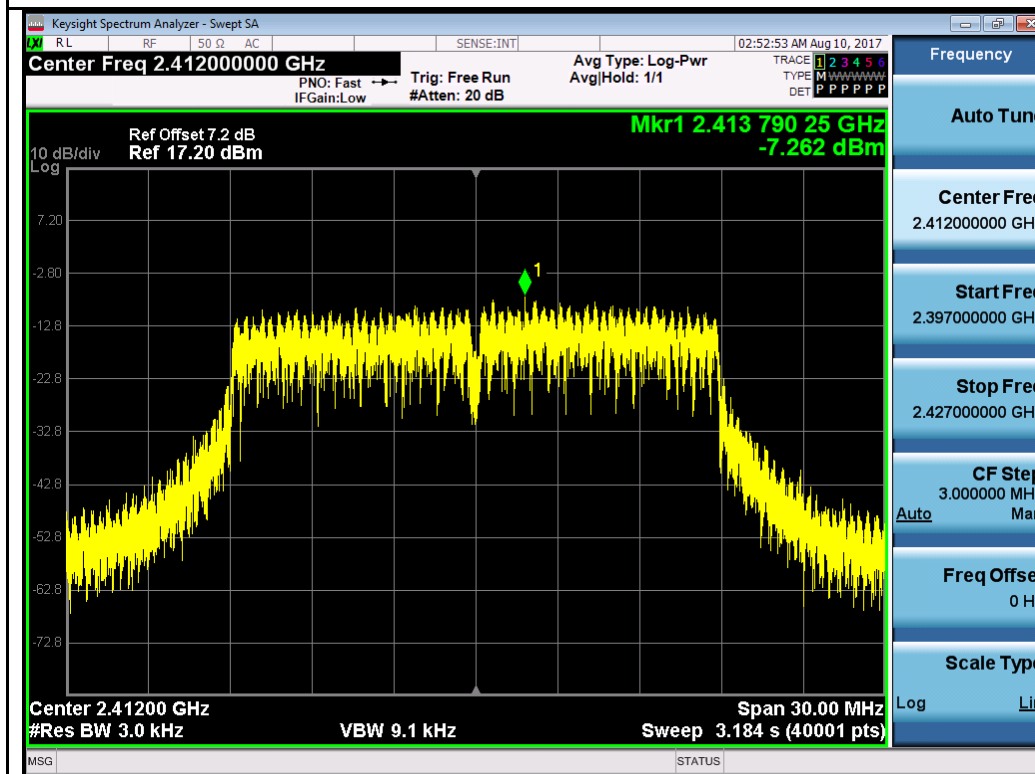
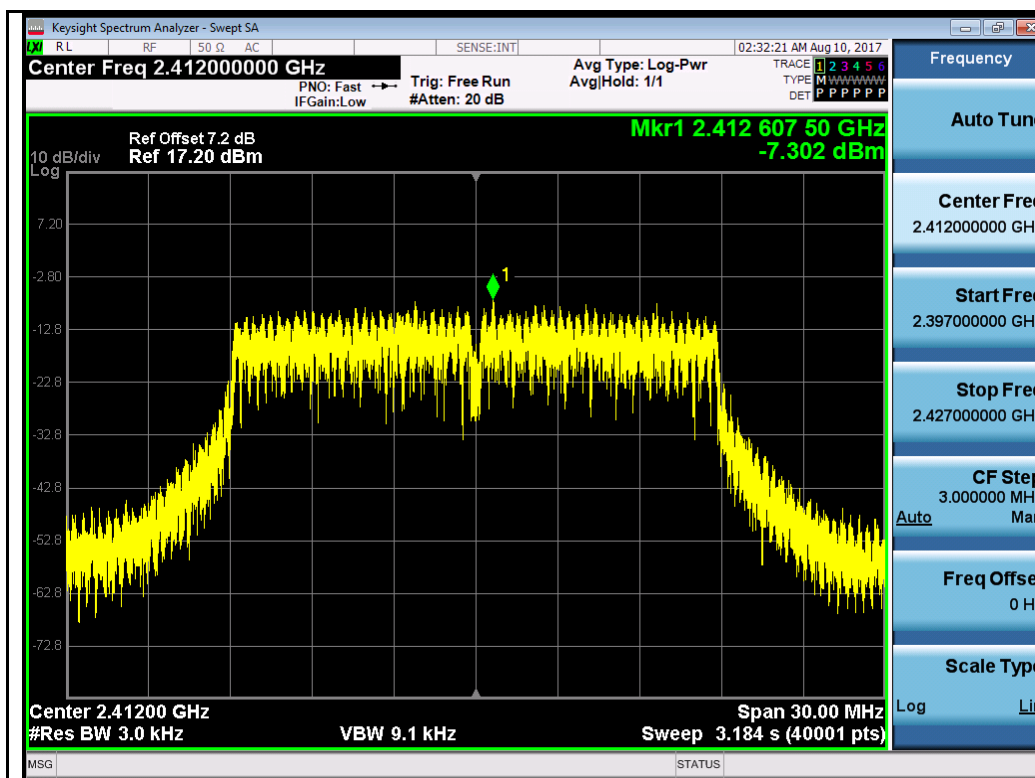


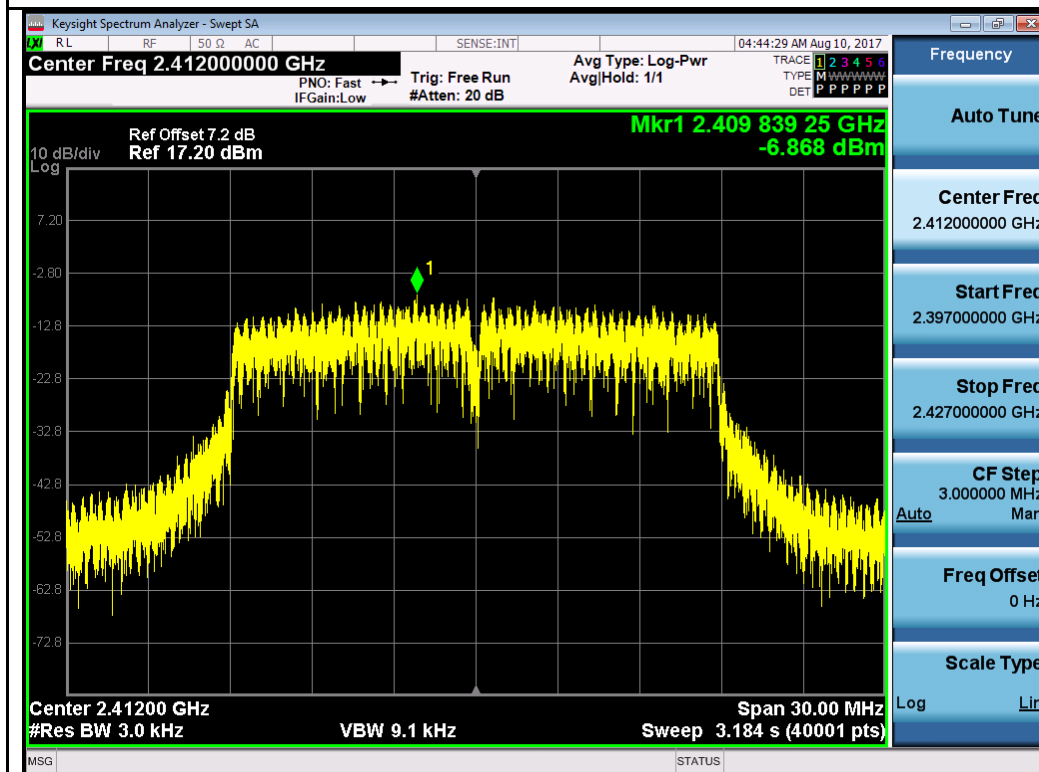
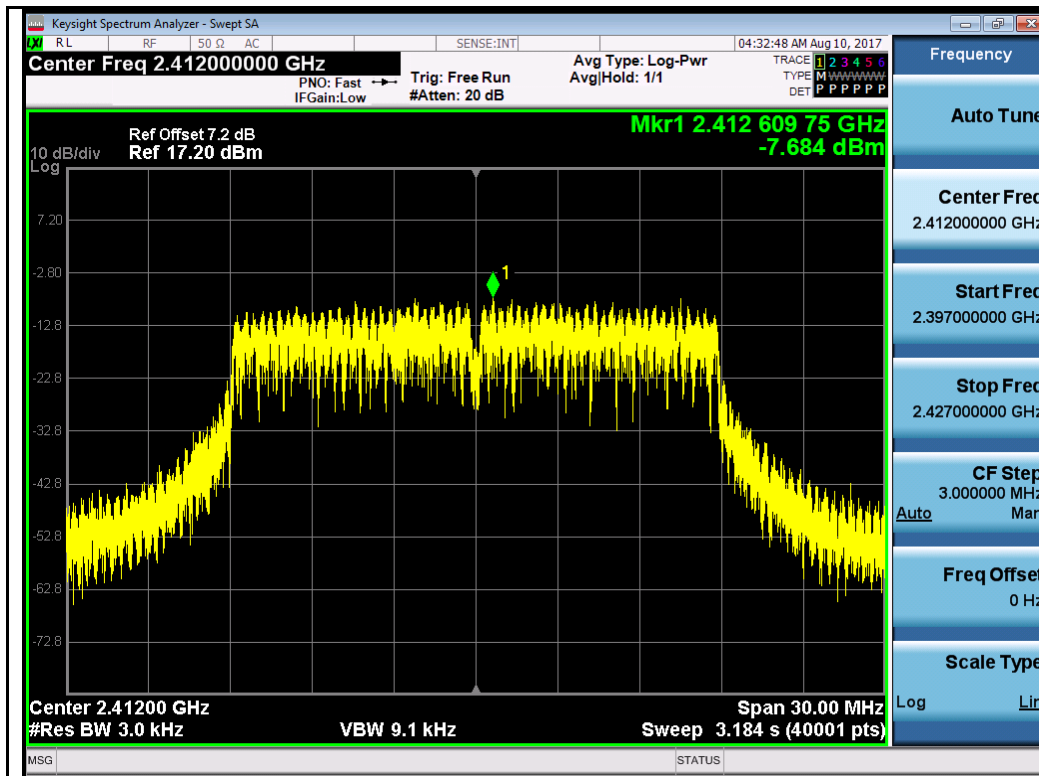
802.11g-2462MHz Chain 0

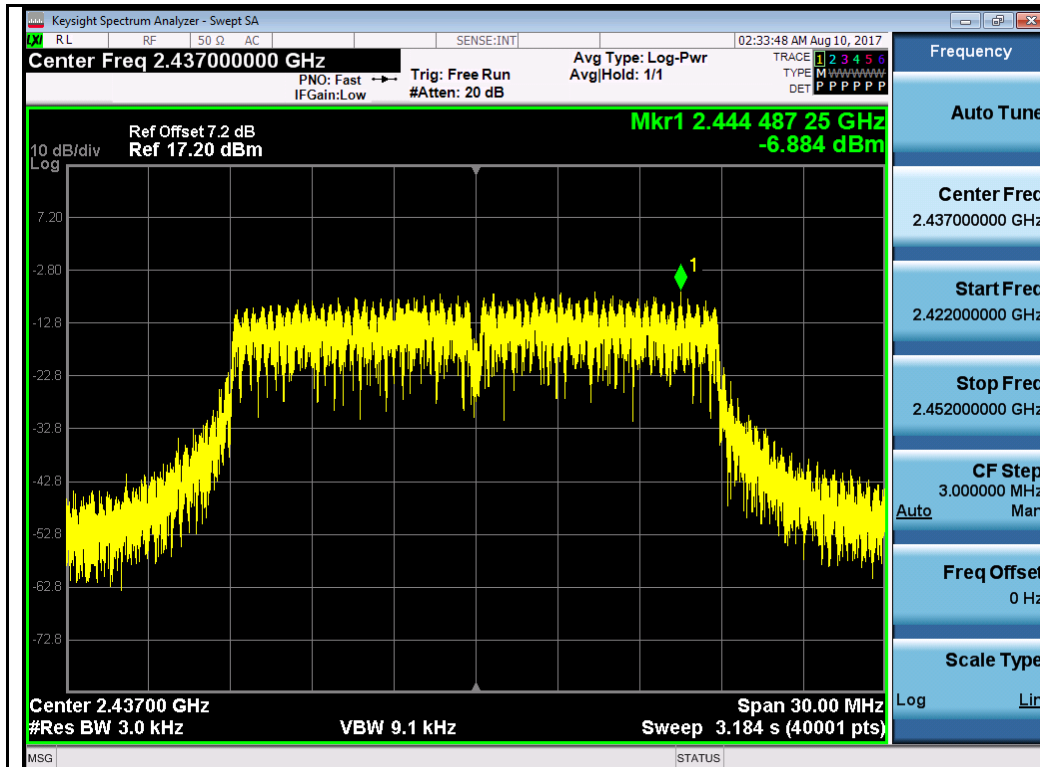


802.11g-2462MHz Chain 1

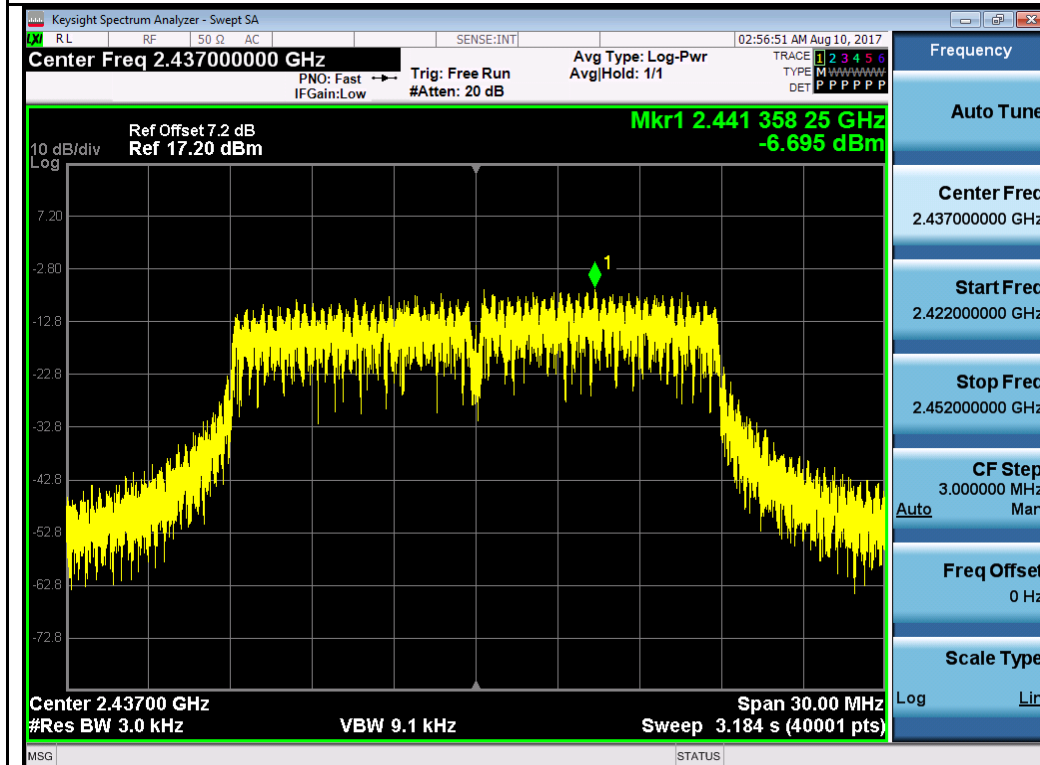




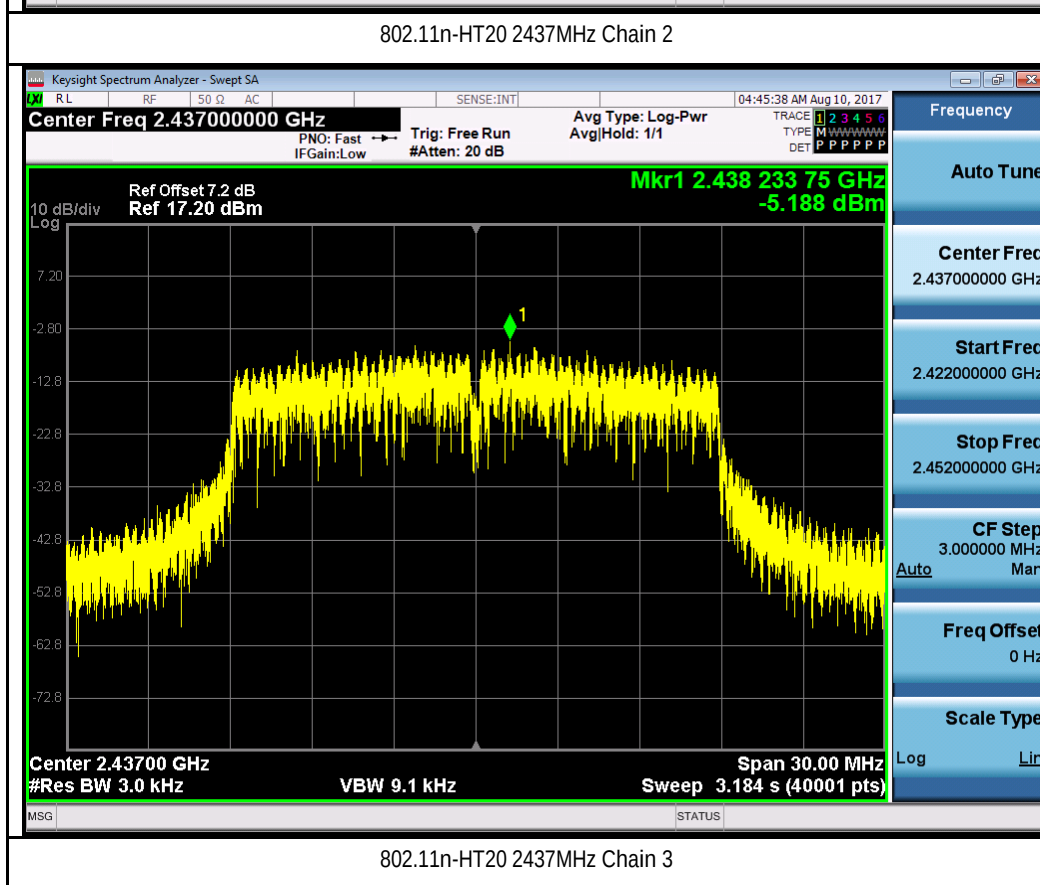
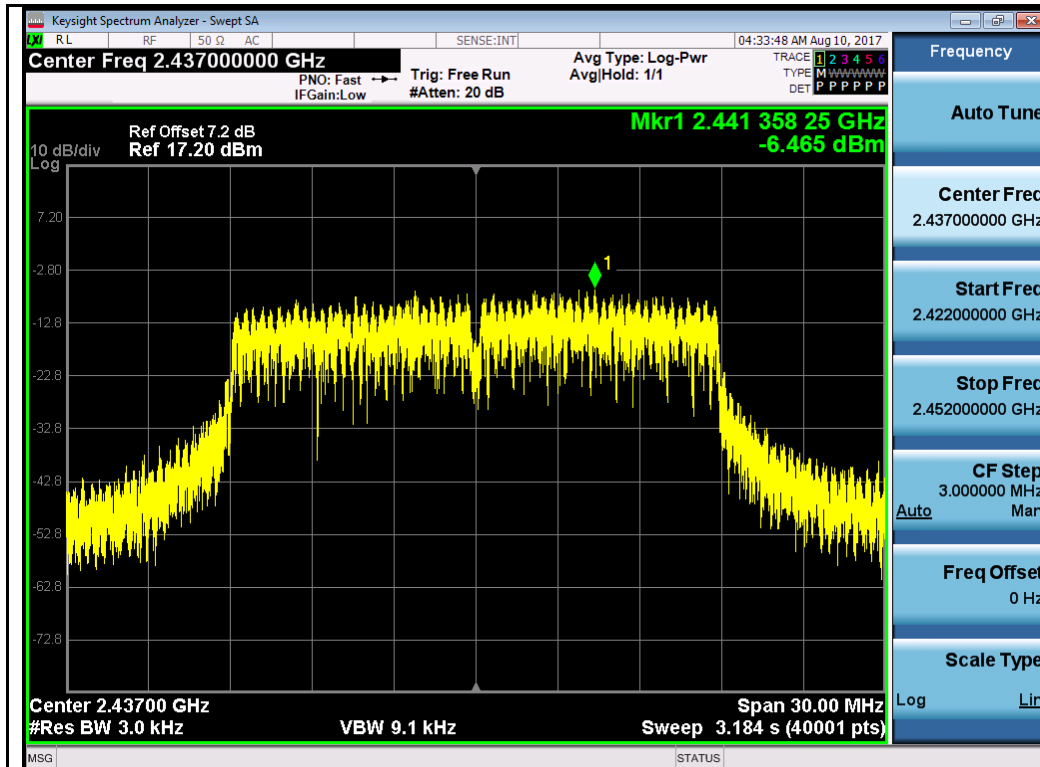


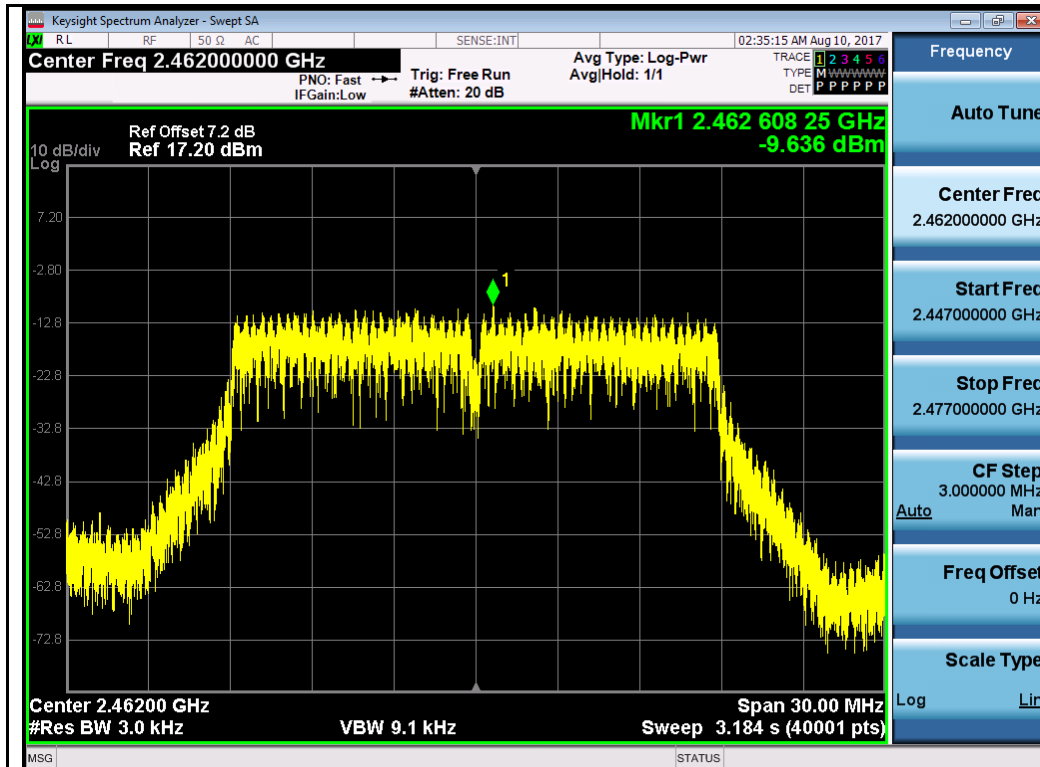


802.11n-HT20 2437MHz Chain 0

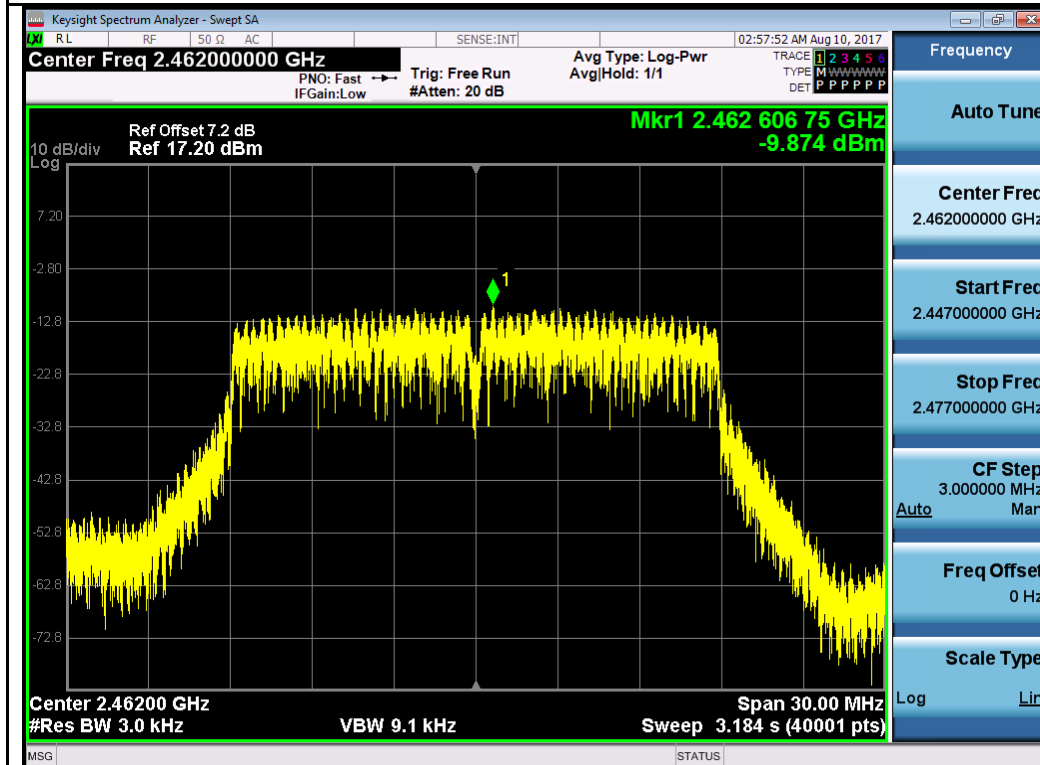


802.11n-HT20 2437MHz Chain 1

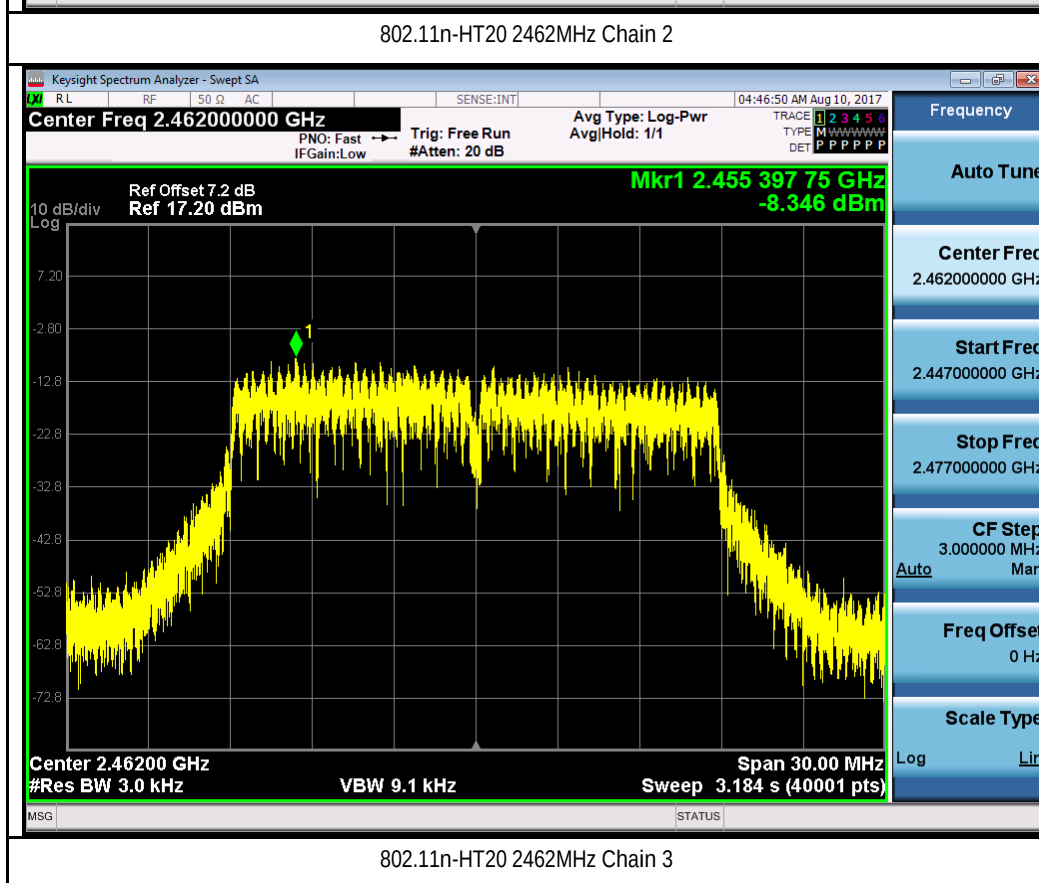
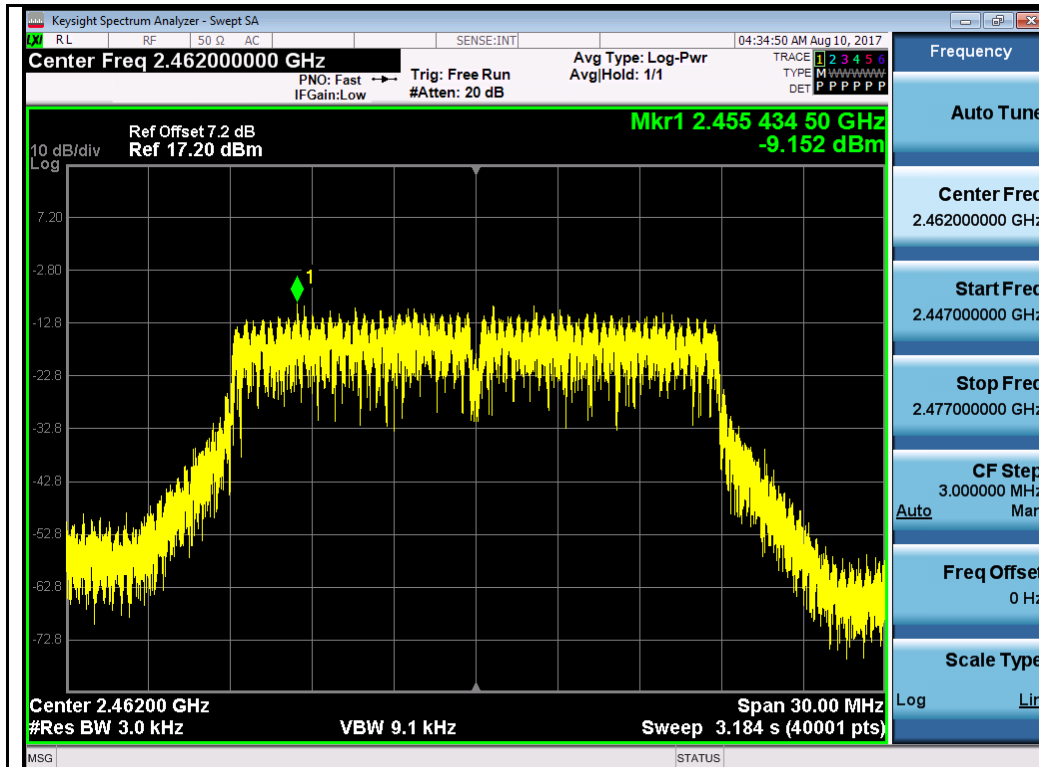


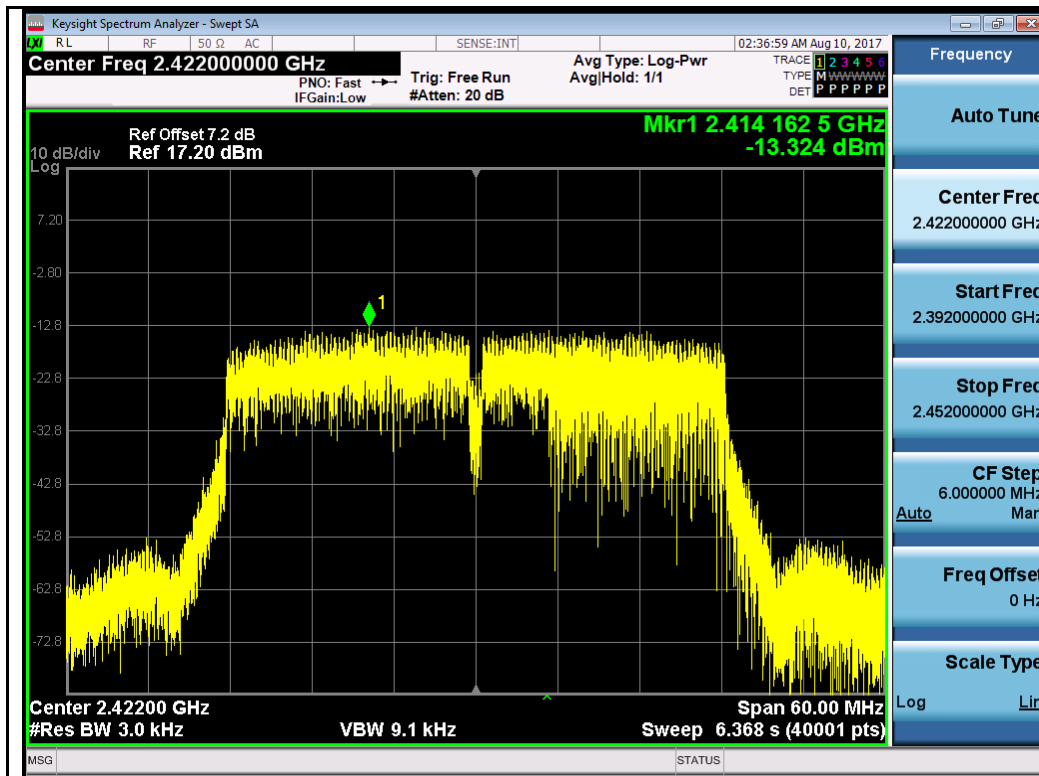


802.11n-HT20 2462MHz Chain 0

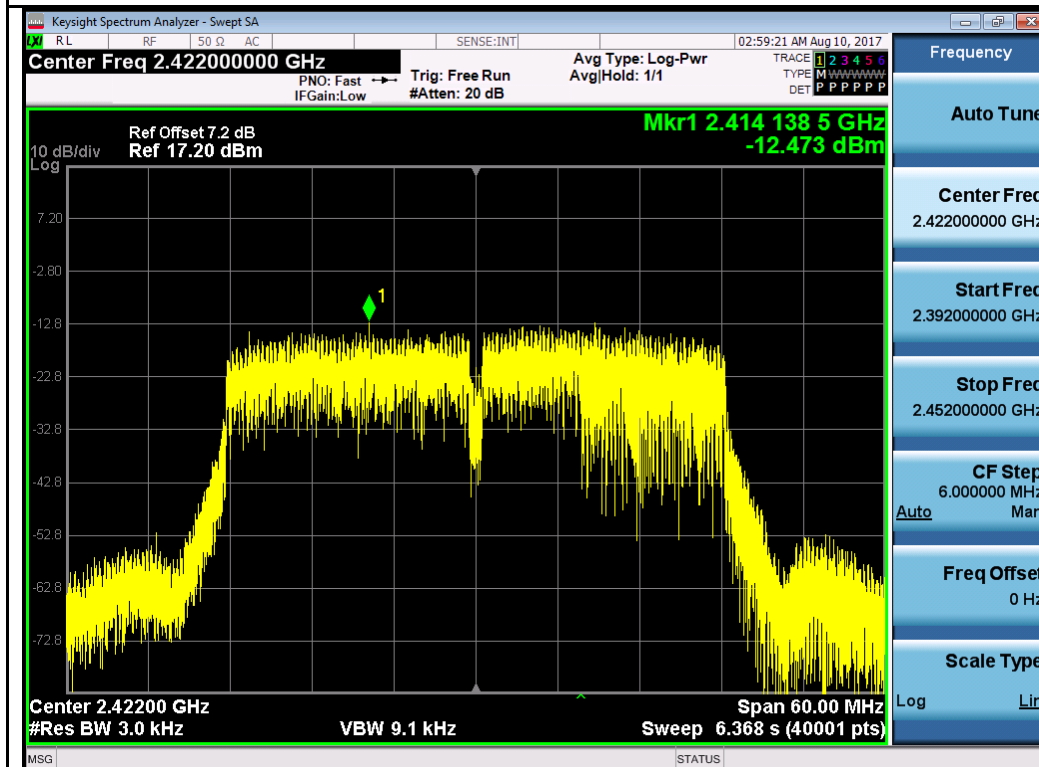


802.11n-HT20 2462MHz Chain 1

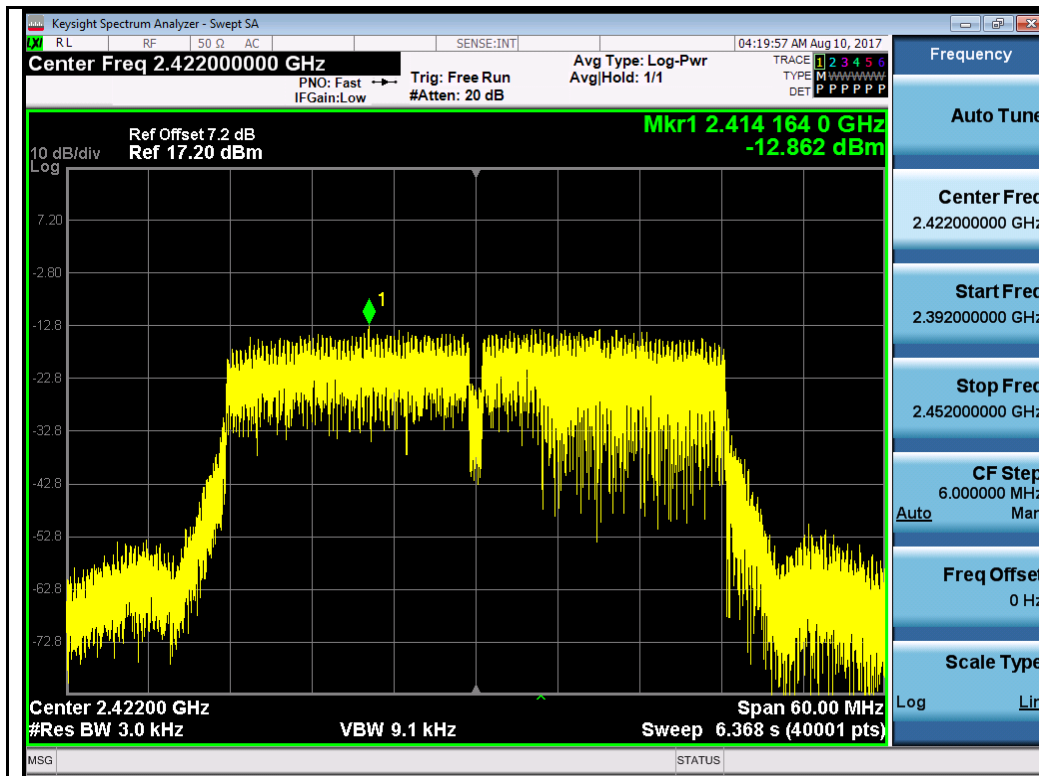




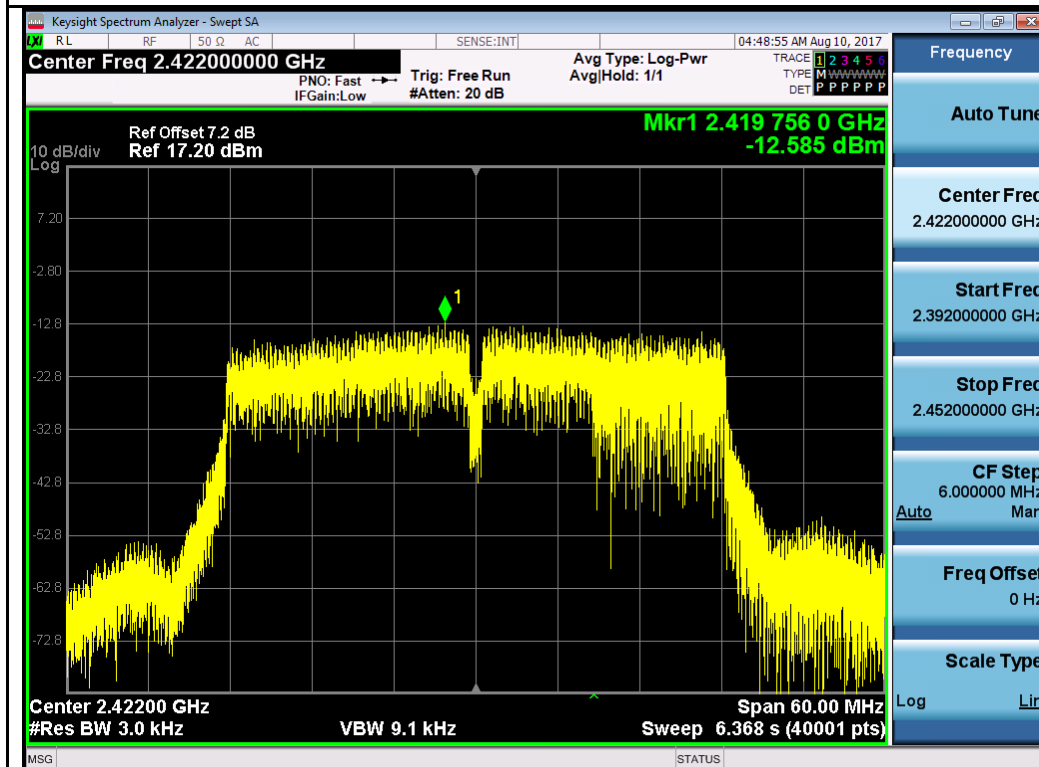
802.11n-HT40 2422MHz Chain 0



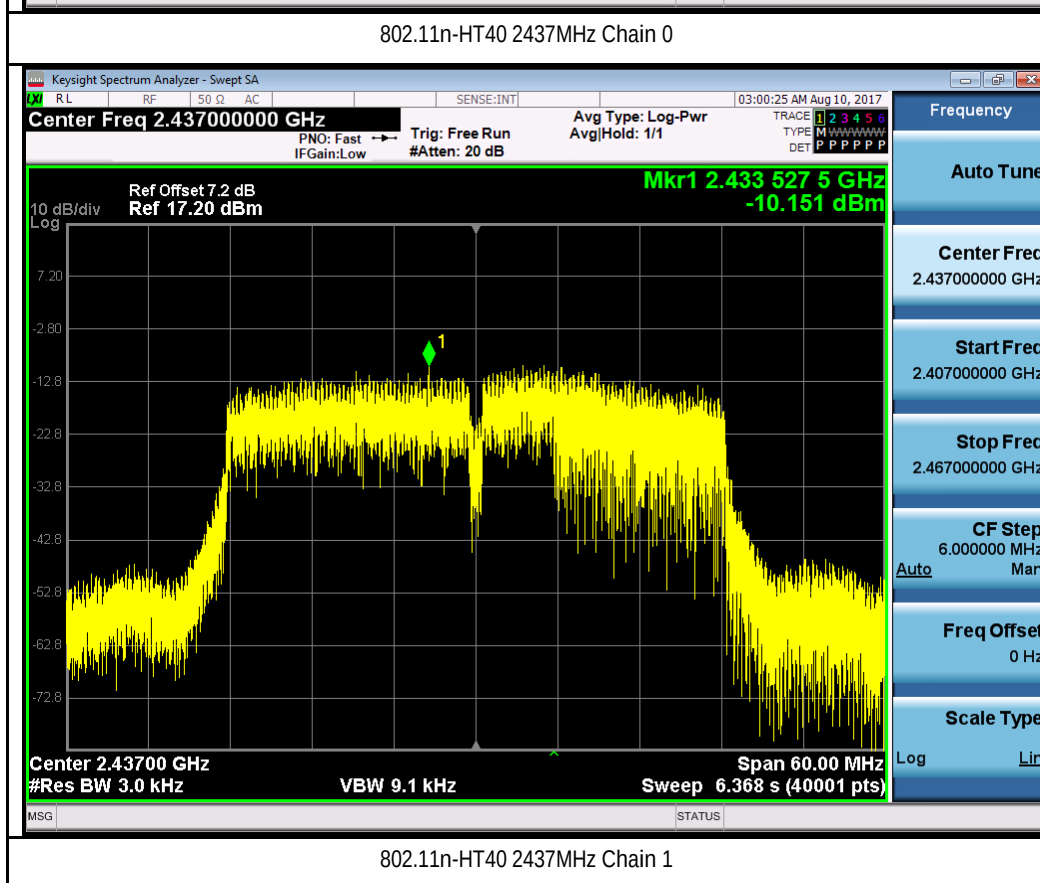
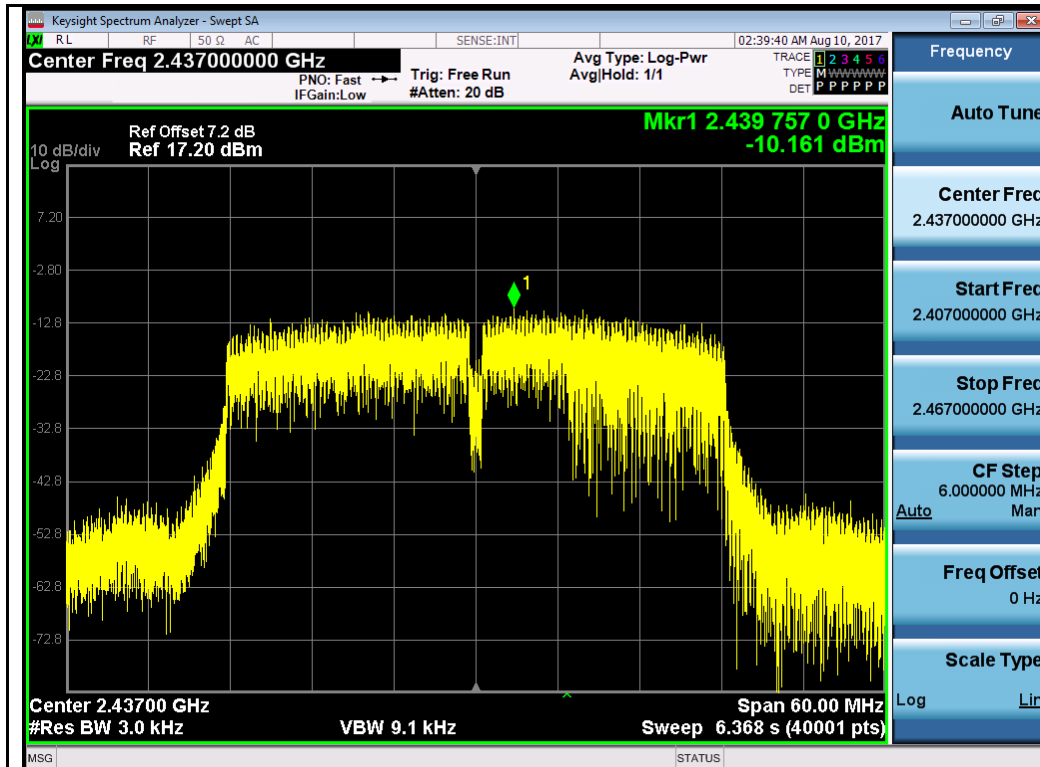
802.11n-HT40 2422MHz Chain 1

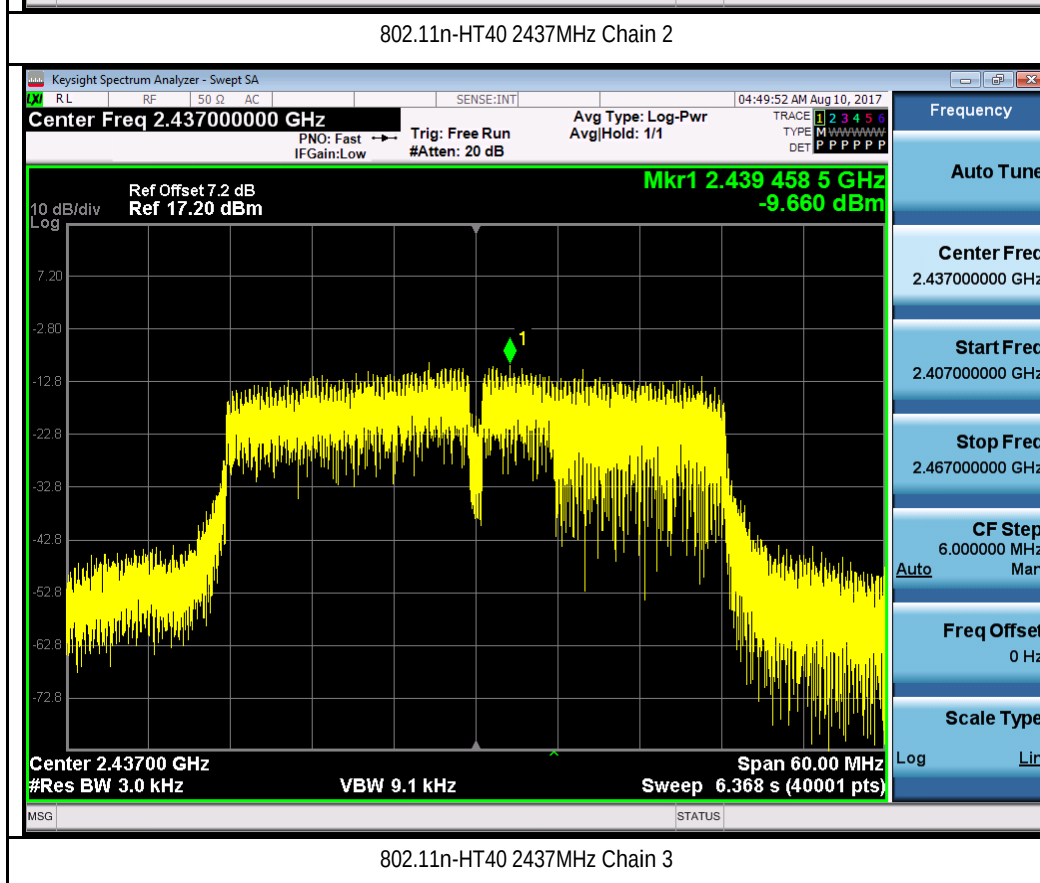
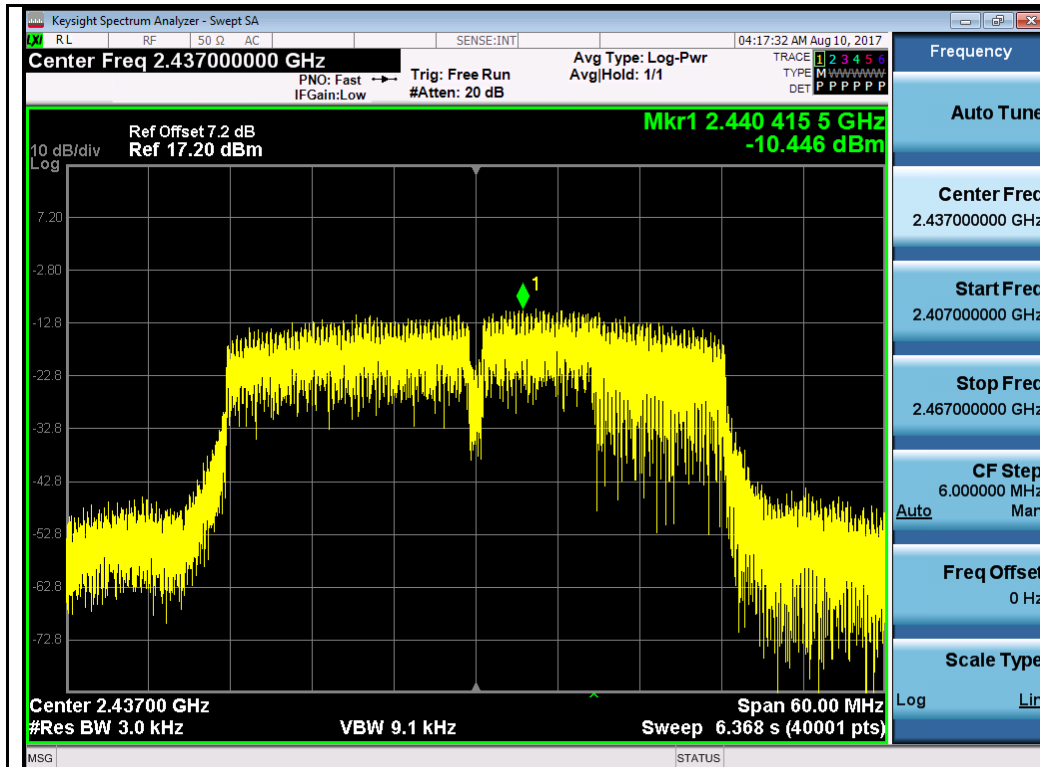


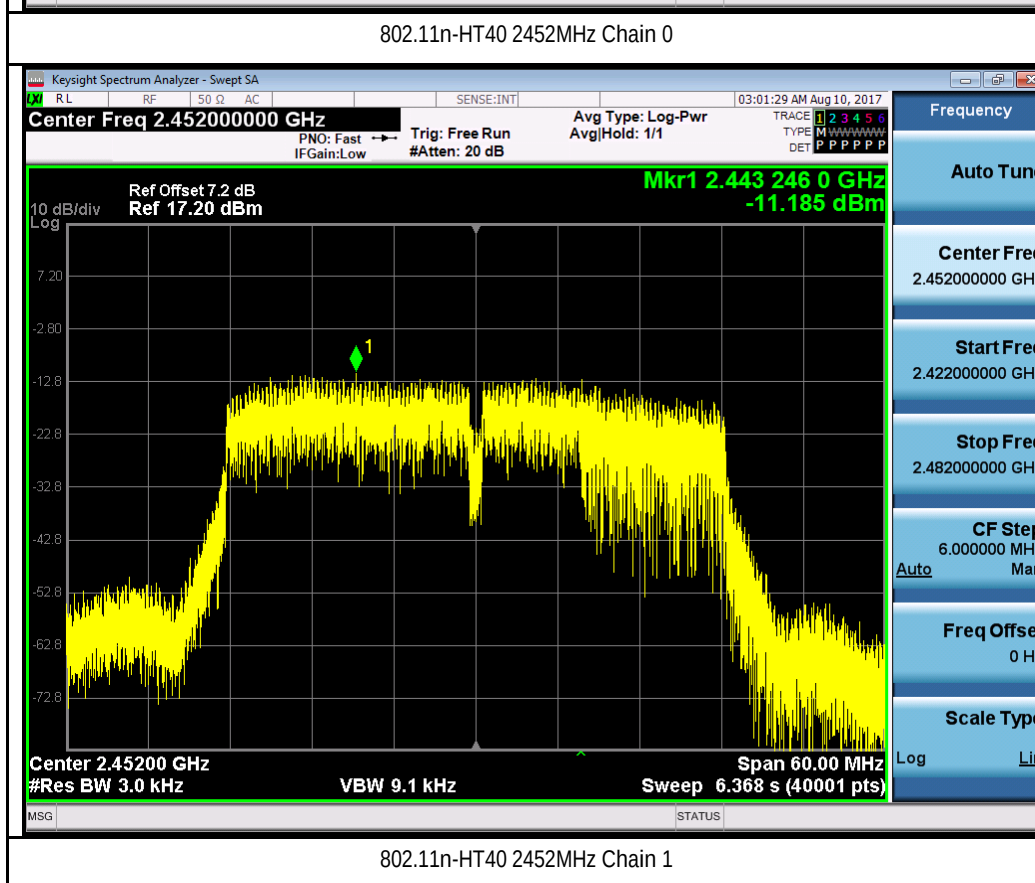
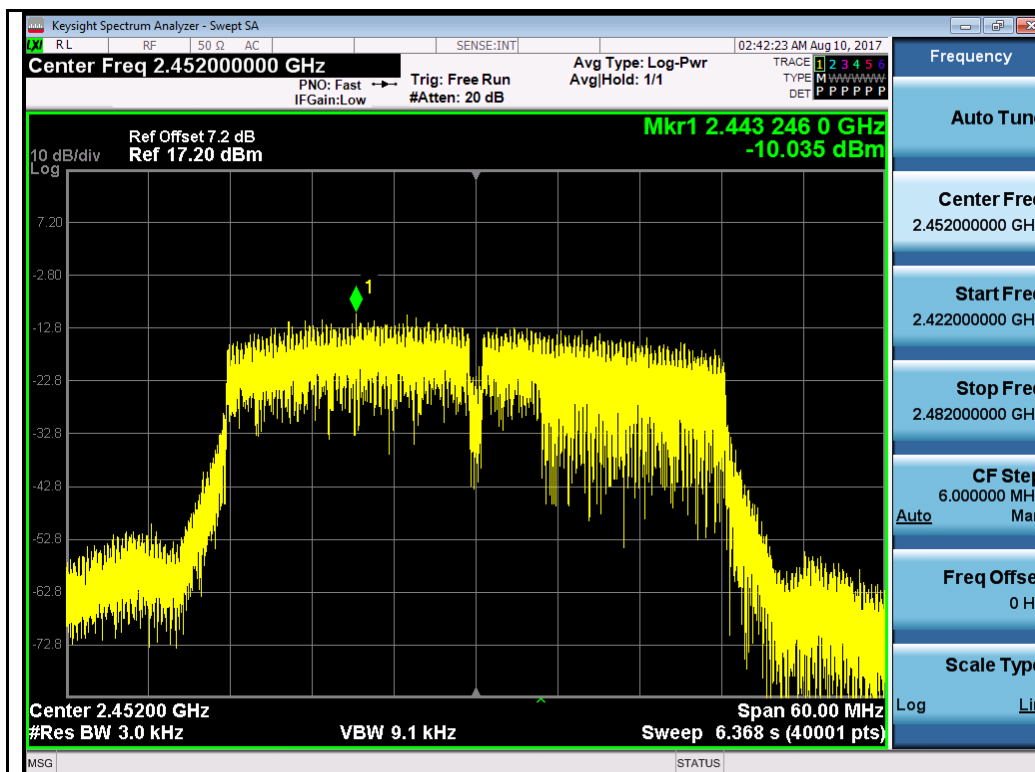
802.11n-HT40 2422MHz Chain 2

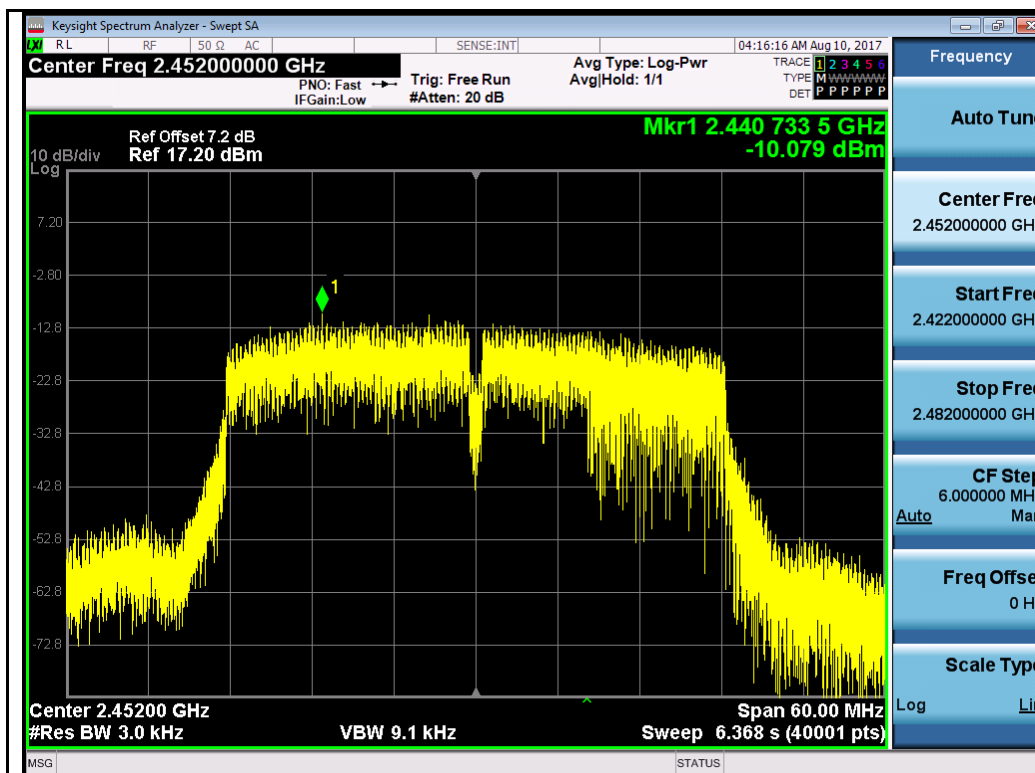


802.11n-HT40 2422MHz Chain 3

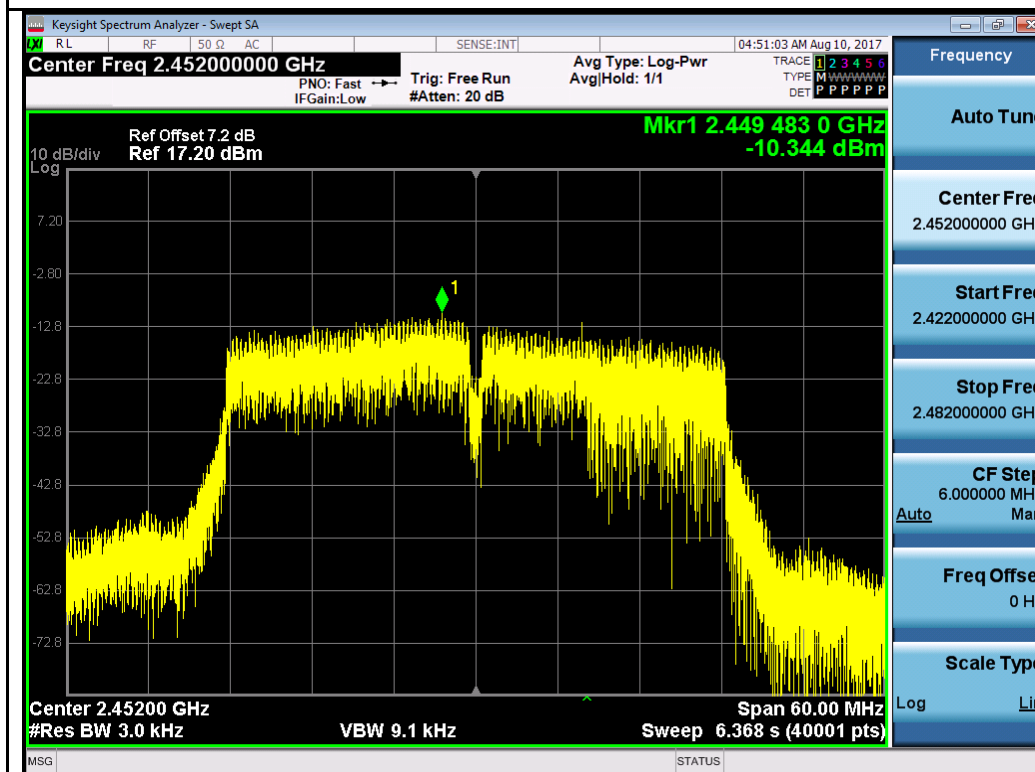








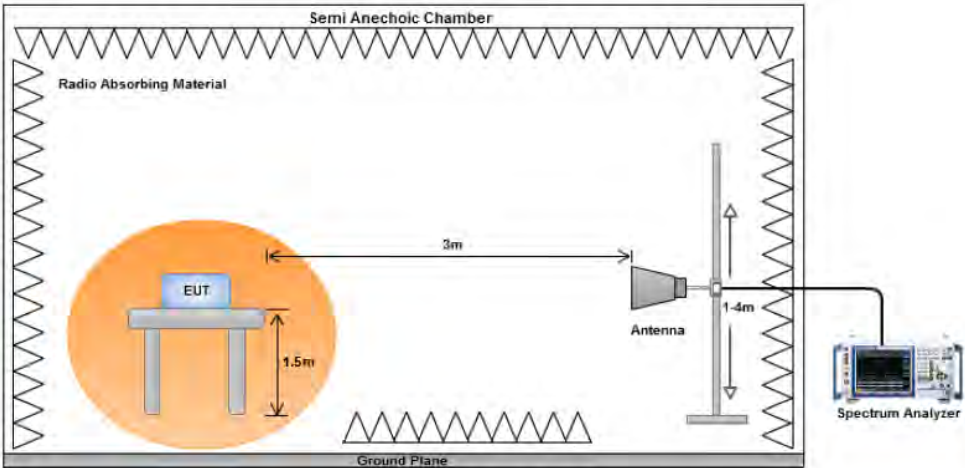
802.11n-HT40 2452MHz Chain 2



802.11n-HT40 2452MHz Chain 3

10.6 Radiated Spurious Emissions in restricted band

Requirement(s):

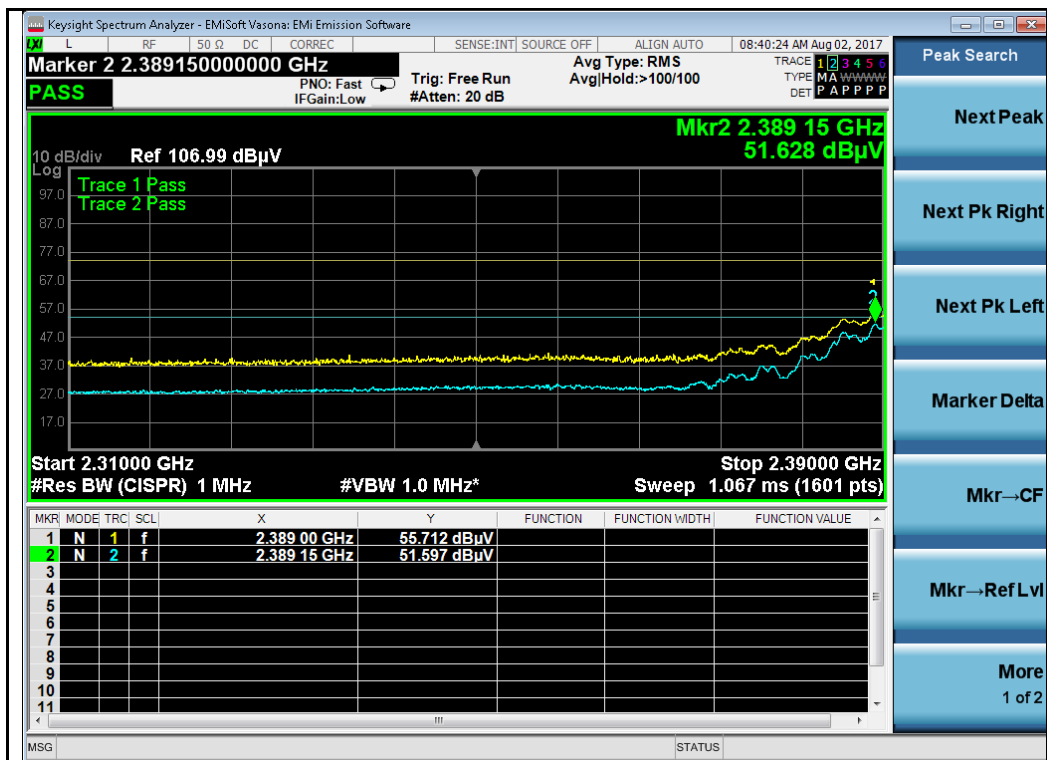
Spec	Item	Requirement	Applicable
47CFR§ 15.247(d), RSS247(A8.5)	a)	For non-restricted band, In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator 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	- The EUT was switched on and allowed to warm up to its normal operating condition. - 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: - Vertical or horizontal polarisation (whichever gave the higher emission level over a full rotation of the EUT) was chosen. - The EUT was then rotated to the direction that gave the maximum emission. - Finally, the antenna height was adjusted to the height that gave the maximum emission. - An average measurement was then made for that frequency point. - 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

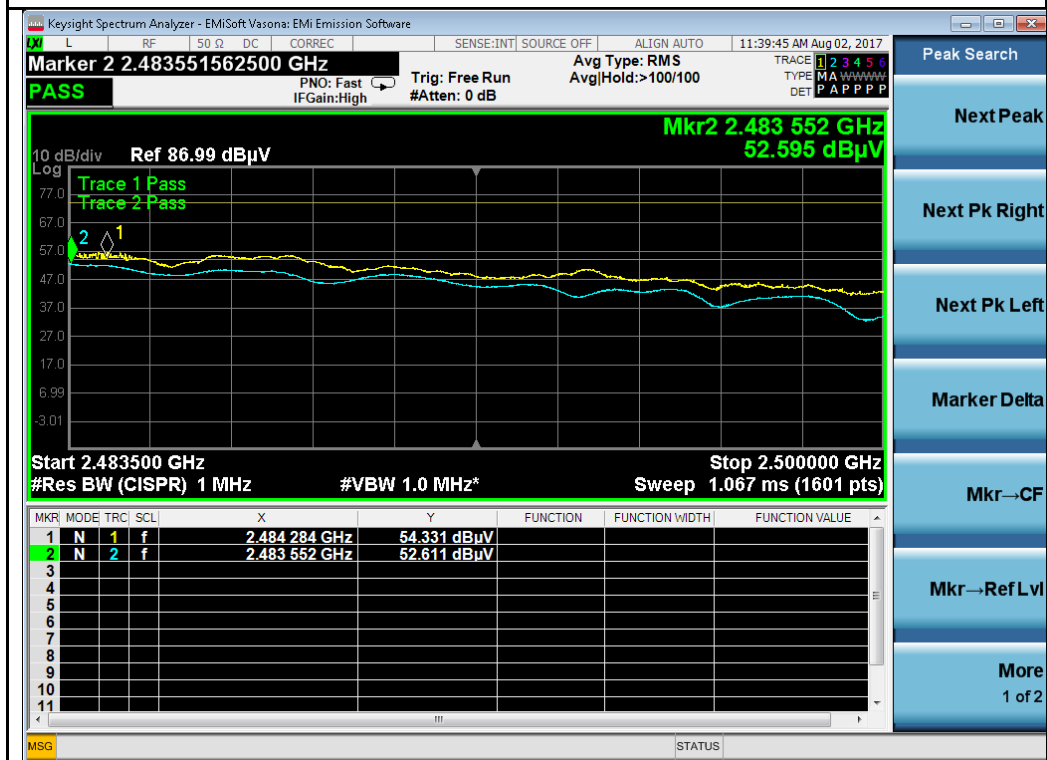
Test Plot ☒ Yes (See below) ☐ N/A

Test was done by Rachana Khanduri at 10m chamber.

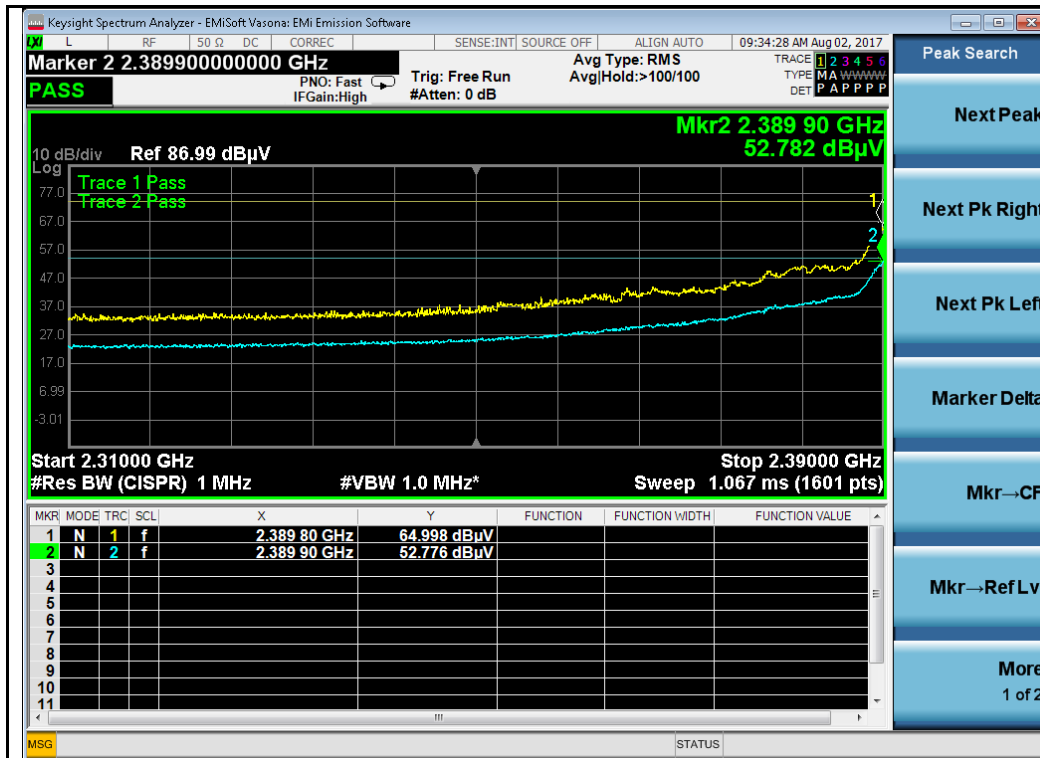
Restricted Band Measurement Plots:



802.11b-2412MHz



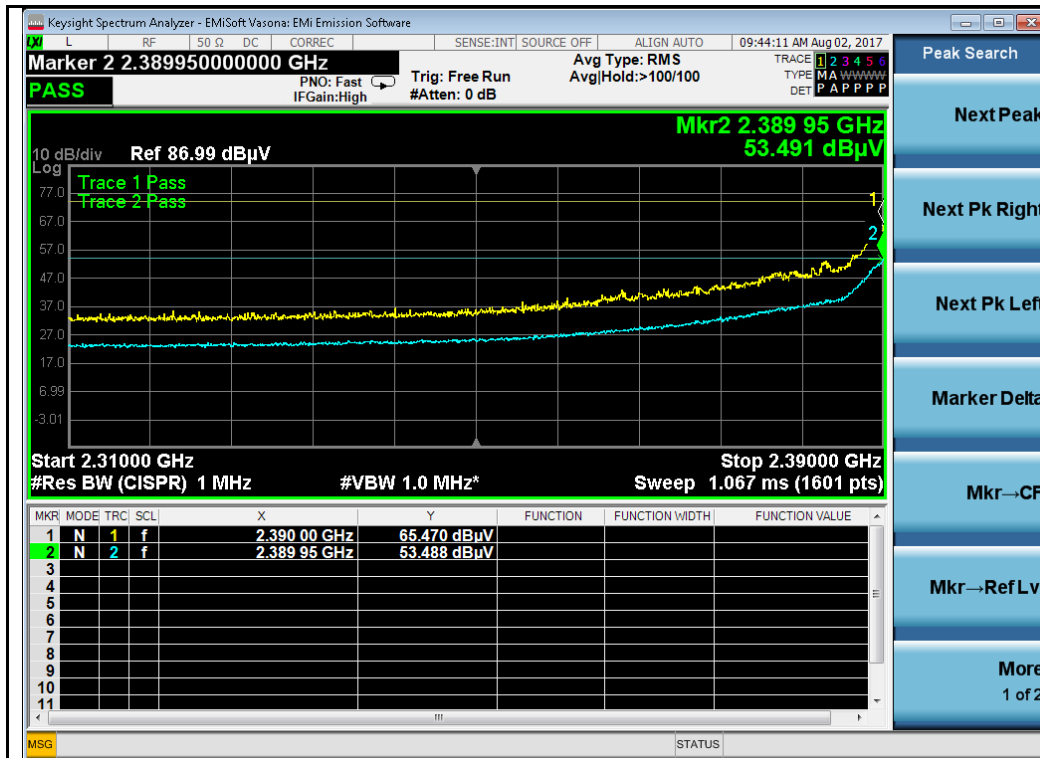
802.11b-2462MHz



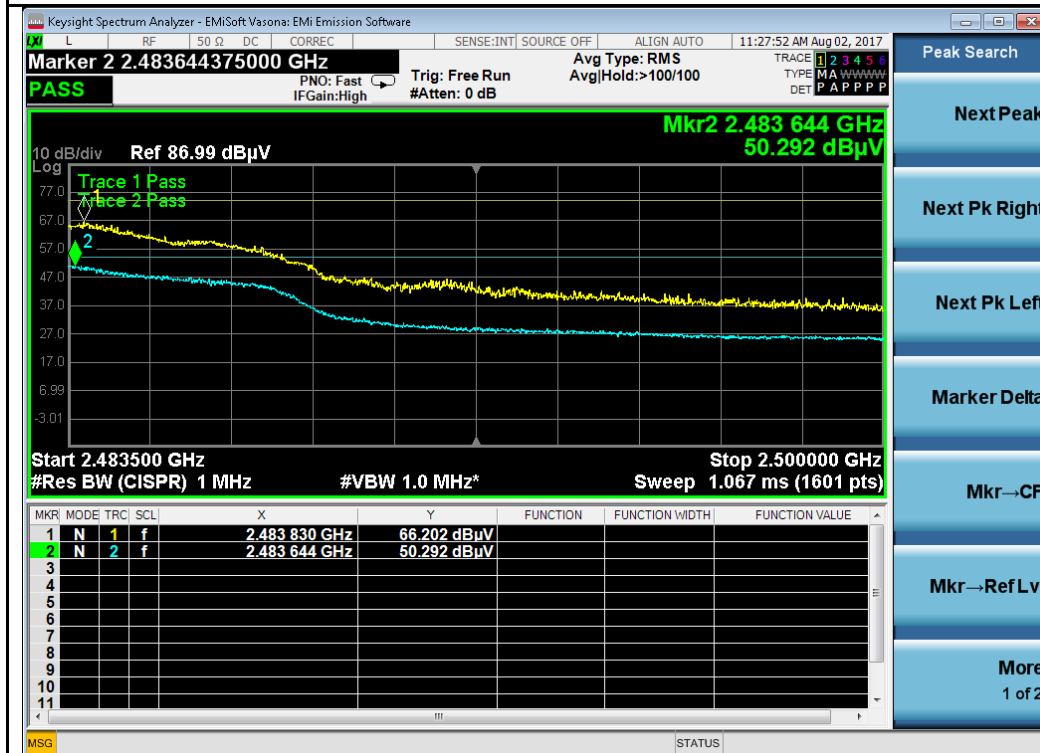
802.11g-2412MHz



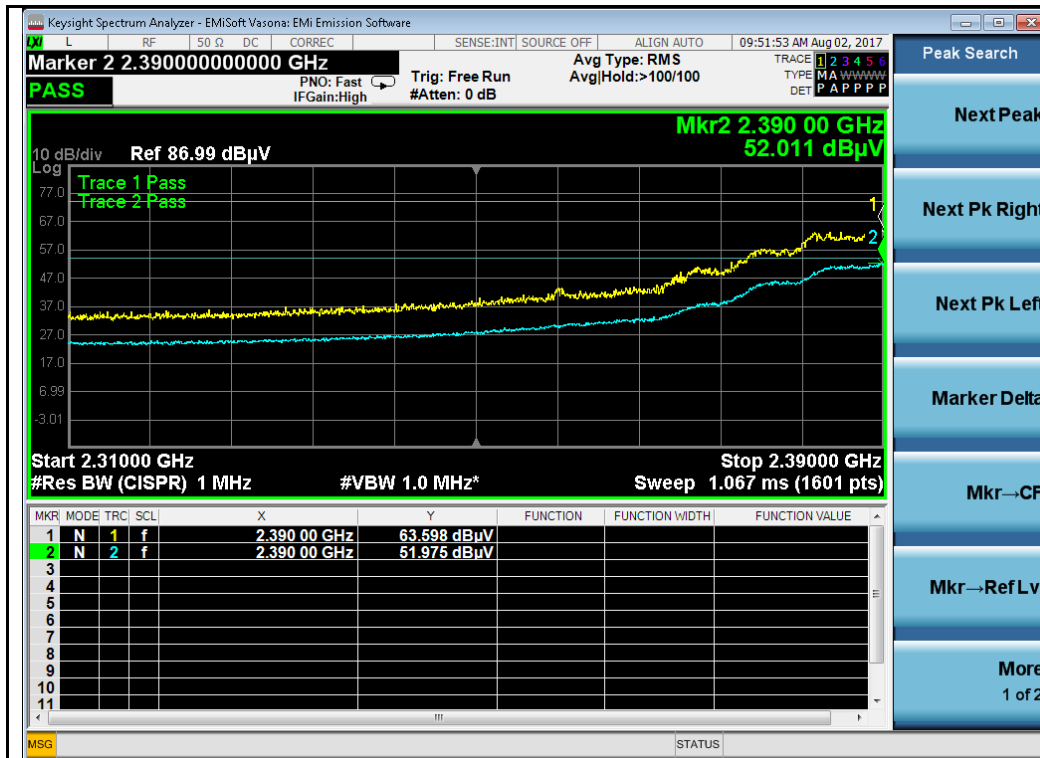
802.11g-2462MHz



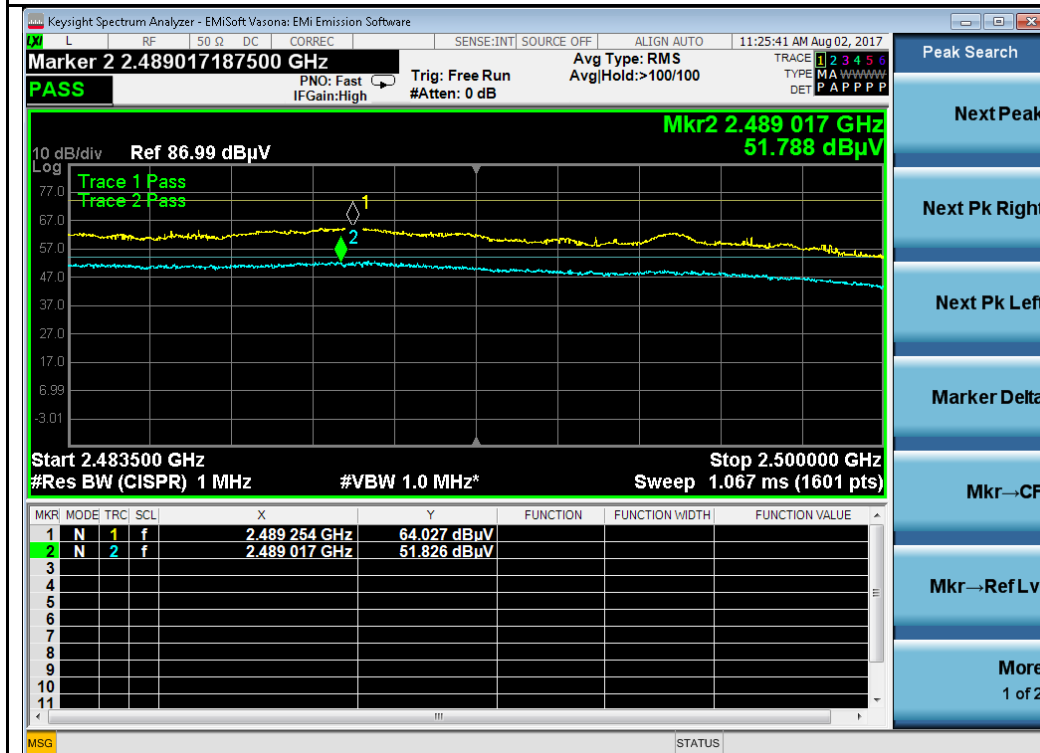
802.11n-HT20-2412MHz



802.11n-HT20-2462MHz



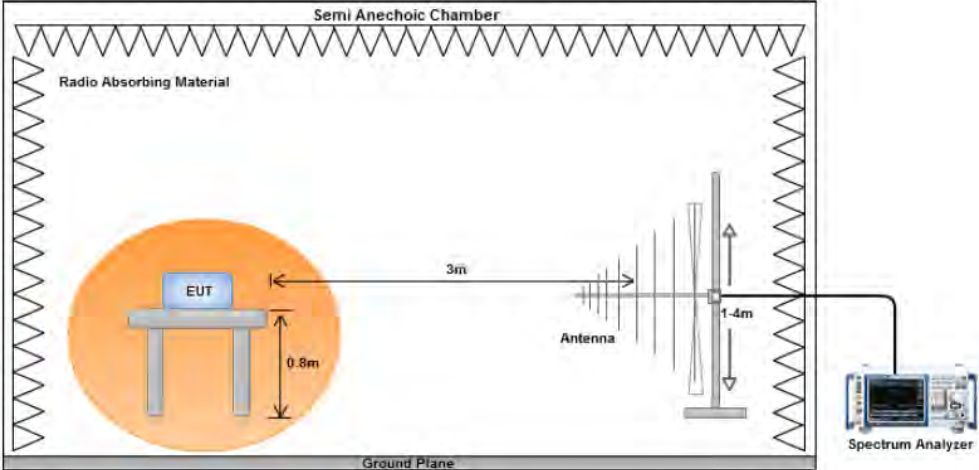
802.11n-HT40-2422MHz



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	☒										
		<table><tr><th>Frequency range (MHz)</th><th>Field Strength (uV/m)</th></tr><tr><td>30 – 88</td><td>100</td></tr><tr><td>88 – 216</td><td>150</td></tr><tr><td>216 960</td><td>200</td></tr><tr><td>Above 960</td><td>500</td></tr></table>		Frequency range (MHz)	Field Strength (uV/m)	30 – 88	100	88 – 216	150	216 960	200	Above 960	500
		Frequency range (MHz)		Field Strength (uV/m)									
		30 – 88		100									
		88 – 216		150									
216 960	200												
Above 960	500												
Test Setup													
Procedure		1. 2. 3. 4. The EUT was switched on and allowed to warm up to its normal operating condition. 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. b. c. Vertical or horizontal polarisation (whichever gave the higher emission level over a full rotation of the EUT) was chosen. The EUT was then rotated to the direction that gave the maximum emission. Finally, the antenna height was adjusted to the height that gave the maximum emission. A Quasi-peak measurement was then made for that frequency point. 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											

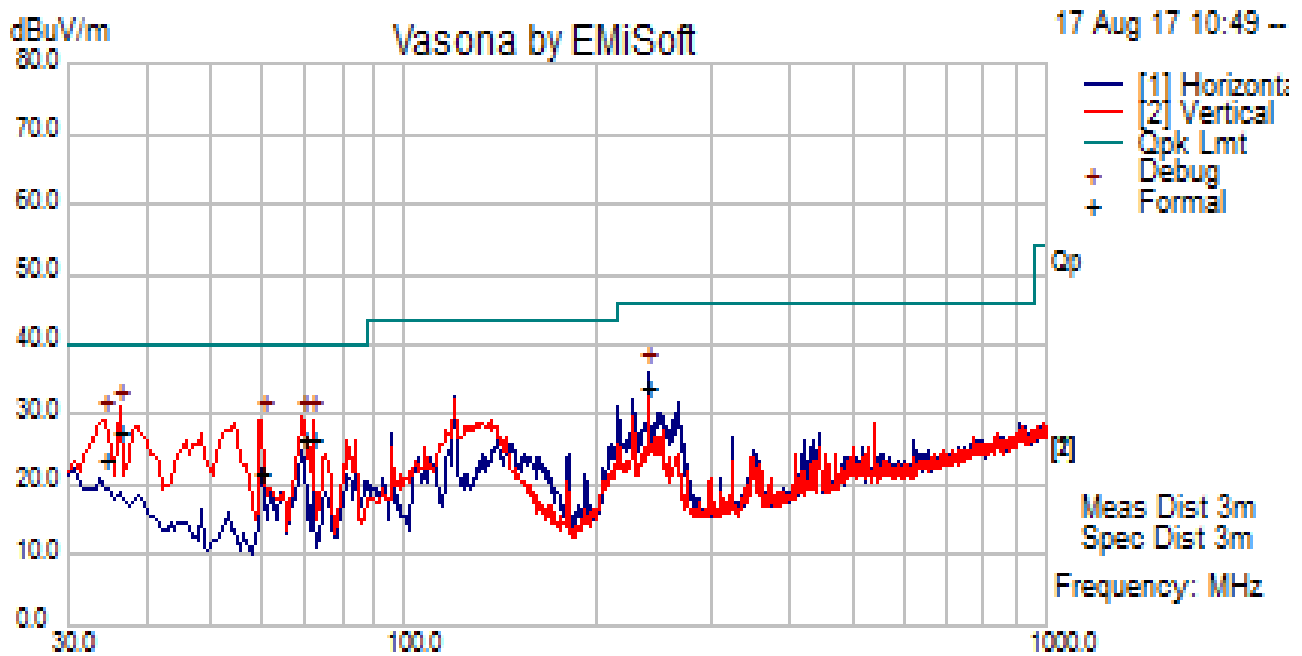
Test Data ☒ Yes (See below) ☐ N/A

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):	23	Result	Pass
	Humidity (%)	46		
	Atmospheric (mbar):	1018		
Mains Power:	120VAC, 60Hz			
Tested by:	Rachana Khanduri			
Test Date:	08/17/2017			
Remarks:	802.11n HT40, Middle Channel			



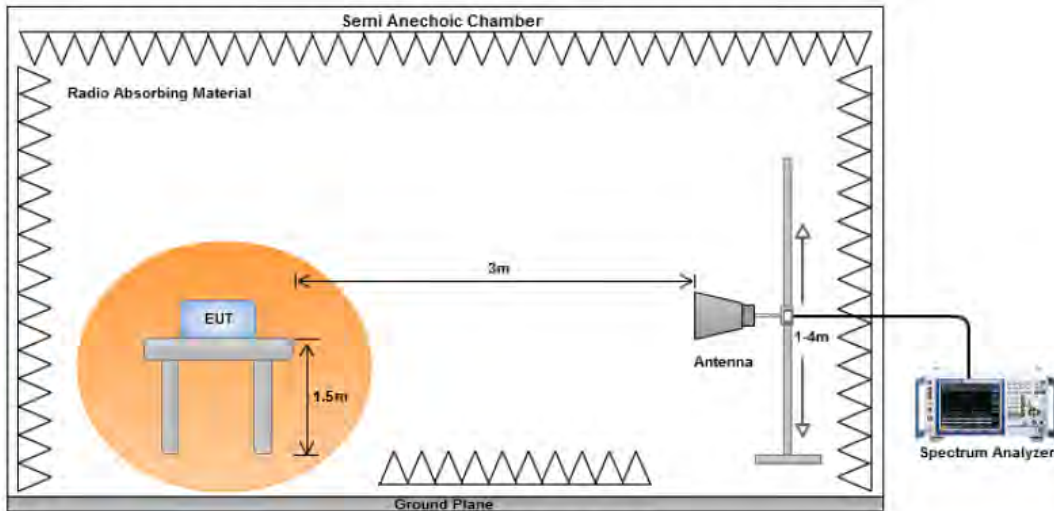
Quasi Max Measurements

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
36.00	34.80	11.39	-18.88	27.30	Quasi Max	V	105.00	147.00	40.00	-12.70	Pass
240.01	45.80	13.08	-24.87	34.01	Quasi Max	H	137.00	267.00	46.00	-11.99	Pass
69.57	42.96	11.70	-28.13	26.53	Quasi Max	V	100.00	176.00	40.00	-13.47	Pass
72.01	42.94	11.72	-27.94	26.71	Quasi Max	V	99.00	208.00	40.00	-13.29	Pass
60.07	38.08	11.66	-28.36	21.38	Quasi Max	V	156.00	28.00	40.00	-18.62	Pass
34.18	29.89	11.35	-17.49	23.76	Quasi Max	V	119.00	167.00	40.00	-16.25	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), RSS210(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	- The EUT was switched on and allowed to warm up to its normal operating condition. - 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: - Vertical or horizontal polarisation (whichever gave the higher emission level over a full rotation of the EUT) was chosen. - The EUT was then rotated to the direction that gave the maximum emission. - Finally, the antenna height was adjusted to the height that gave the maximum emission. - An average measurement was then made for that frequency point. - 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
7236.28	38.53	5.32	0.83	44.68	Peak Max	H	134.00	279.00	74.00	-29.32	Pass
12059.54	38.26	7.86	3.59	49.71	Peak Max	V	278.00	171.00	74.00	-24.29	Pass
4823.84	52.87	4.17	-2.19	54.86	Peak Max	H	211.00	33.00	74.00	-19.15	Pass
7236.28	26.30	5.32	0.83	32.45	Average Max	H	134.00	279.00	54.00	-21.55	Pass
12059.54	25.97	7.86	3.59	37.42	Average Max	V	278.00	171.00	54.00	-16.58	Pass
4823.84	50.48	4.17	-2.19	52.47	Average Max	H	211.00	33.00	54.00	-1.54	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
7314.29	38.40	5.35	0.78	44.53	Peak Max	H	124.00	25.00	74.00	-29.47	Pass
14623.95	38.21	8.01	8.08	54.29	Peak Max	V	212.00	344.00	74.00	-19.71	Pass
4873.85	45.95	4.20	-2.25	47.90	Peak Max	H	187.00	21.00	74.00	-26.10	Pass
7314.29	26.28	5.35	0.78	32.41	Average Max	V	274.00	332.00	54.00	-21.59	Pass
14623.95	26.09	8.01	8.08	42.18	Average Max	H	115.00	247.00	54.00	-11.82	Pass
4873.85	41.56	4.20	-2.25	43.51	Average Max	H	187.00	21.00	54.00	-10.49	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
4924.02	53.49	4.23	-2.26	55.45	Peak Max	H	226.00	265.00	74.00	-18.55	Pass
14303.20	38.54	8.01	8.03	54.57	Peak Max	V	363.00	131.00	74.00	-19.43	Pass
7315.97	38.42	5.35	0.77	44.54	Peak Max	V	172.00	153.00	74.00	-29.46	Pass
4924.02	51.11	4.23	-2.26	53.08	Average Max	H	226.00	265.00	54.00	-0.92	Pass
14303.20	25.77	8.01	8.03	41.81	Average Max	V	363.00	131.00	54.00	-12.19	Pass
7315.97	26.23	5.35	0.77	32.36	Average Max	V	172.00	153.00	54.00	-21.64	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
13405.81	36.86	8.48	6.28	51.62	Peak Max	V	132.00	120.00	74.00	-22.38	Pass
4824.68	49.32	4.17	-2.19	51.30	Peak Max	H	210.00	263.00	74.00	-22.70	Pass
7739.47	39.03	5.70	0.46	45.18	Peak Max	V	104.00	64.00	74.00	-28.82	Pass
13405.81	25.34	8.48	6.28	40.10	Average Max	V	132.00	120.00	54.00	-13.90	Pass
4824.68	36.05	4.17	-2.19	38.04	Average Max	H	210.00	263.00	54.00	-15.96	Pass
7739.47	26.32	5.70	0.46	32.48	Average Max	V	104.00	64.00	54.00	-21.52	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
14556.79	38.18	7.99	7.95	54.12	Peak Max	V	378.00	36.00	74.00	-19.88	Pass
4883.12	45.82	4.20	-2.26	47.77	Peak Max	H	192.00	249.00	74.00	-26.24	Pass
7243.01	38.36	5.32	0.84	44.53	Peak Max	V	156.00	239.00	74.00	-29.48	Pass
14556.79	25.94	7.99	7.95	41.88	Average Max	V	378.00	36.00	54.00	-12.12	Pass
4883.12	32.51	4.20	-2.26	34.45	Average Max	H	192.00	249.00	54.00	-19.55	Pass
7243.01	26.15	5.32	0.84	32.31	Average Max	V	156.00	239.00	54.00	-21.69	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
14366.56	38.31	8.00	7.55	53.85	Peak Max	V	236.00	146.00	74.00	-20.15	Pass
4920.22	44.15	4.22	-2.27	46.10	Peak Max	H	147.00	215.00	74.00	-27.90	Pass
9098.38	38.89	6.17	1.98	47.04	Peak Max	V	100.00	260.00	74.00	-26.96	Pass
14366.56	26.01	8.00	7.55	41.56	Average Max	V	236.00	146.00	54.00	-12.45	Pass
4920.22	30.18	4.22	-2.27	32.13	Average Max	H	147.00	215.00	54.00	-21.87	Pass
9098.38	26.83	6.17	1.98	34.98	Average Max	V	100.00	260.00	54.00	-19.02	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
14596.35	38.16	8.00	8.15	54.31	Peak Max	V	105.00	332.00	74.00	-19.69	Pass
4826.63	48.39	4.17	-2.19	50.37	Peak Max	H	267.00	29.00	74.00	-23.63	Pass
9528.88	38.47	6.58	1.98	47.04	Peak Max	V	390.00	203.00	74.00	-26.96	Pass
14596.35	25.94	8.00	8.15	42.08	Average Max	V	105.00	332.00	54.00	-11.92	Pass
4826.63	34.16	4.17	-2.19	36.14	Average Max	H	267.00	29.00	54.00	-17.86	Pass
9528.88	26.78	6.58	1.98	35.35	Average Max	V	390.00	203.00	54.00	-18.65	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
14895.93	38.75	8.08	7.97	54.80	Peak Max	V	254.00	4.00	74.00	-19.20	Pass
4876.67	51.70	4.20	-2.25	53.65	Peak Max	H	238.00	344.00	74.00	-20.35	Pass
9501.29	38.70	6.59	2.11	47.40	Peak Max	V	300.00	44.00	74.00	-26.60	Pass
14895.93	26.38	8.08	7.97	42.43	Average Max	V	254.00	4.00	54.00	-11.57	Pass
4876.67	37.50	4.20	-2.25	39.45	Average Max	H	238.00	344.00	54.00	-14.55	Pass
9501.29	26.51	6.59	2.11	35.21	Average Max	V	300.00	44.00	54.00	-18.79	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
15092.24	38.73	8.13	7.72	54.59	Peak Max	V	99.00	356.00	74.00	-19.41	Pass
4919.77	44.91	4.22	-2.27	46.86	Peak Max	H	168.00	34.00	74.00	-27.14	Pass
8740.74	38.47	5.94	1.17	45.58	Peak Max	V	173.00	46.00	74.00	-28.42	Pass
15092.24	26.48	8.13	7.72	42.34	Average Max	V	99.00	356.00	54.00	-11.66	Pass
4919.77	31.37	4.22	-2.27	33.33	Average Max	H	168.00	34.00	54.00	-20.67	Pass
8740.74	26.29	5.94	1.17	33.41	Average Max	V	173.00	46.00	54.00	-20.60	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
13482.12	37.35	8.84	6.66	52.84	Peak Max	V	400.00	100.00	74.00	-21.16	Pass
9587.13	39.63	6.57	1.70	47.91	Peak Max	V	100.00	164.00	74.00	-26.09	Pass
4835.02	43.77	4.17	-2.20	45.75	Peak Max	H	204.00	357.00	74.00	-28.25	Pass
13482.12	25.37	8.84	6.66	40.87	Average Max	V	400.00	100.00	54.00	-13.13	Pass
9587.13	26.97	6.57	1.70	35.24	Average Max	V	100.00	164.00	54.00	-18.76	Pass
4835.02	31.85	4.17	-2.20	33.82	Average Max	H	204.00	357.00	54.00	-20.18	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
13480.65	37.75	8.83	6.65	53.24	Peak Max	V	394.00	3.00	74.00	-20.77	Pass
4878.23	46.66	4.20	-2.25	48.61	Peak Max	H	187.00	320.00	74.00	-25.39	Pass
7607.92	38.06	5.55	0.66	44.26	Peak Max	V	153.00	77.00	74.00	-29.74	Pass
13480.65	25.39	8.83	6.65	40.87	Average Max	V	394.00	3.00	54.00	-13.13	Pass
4878.23	34.46	4.20	-2.25	36.41	Average Max	H	187.00	320.00	54.00	-17.59	Pass
7607.92	26.26	5.55	0.66	32.47	Average Max	V	153.00	77.00	54.00	-21.53	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
15177.73	38.75	8.15	7.53	54.43	Peak Max	V	400.00	43.00	74.00	-19.57	Pass
9810.48	38.60	6.53	1.69	46.83	Peak Max	V	363.00	278.00	74.00	-27.17	Pass
4914.58	38.96	4.22	-2.27	40.92	Peak Max	V	275.00	272.00	74.00	-33.08	Pass
15177.73	26.53	8.15	7.53	42.21	Average Max	V	400.00	43.00	54.00	-11.79	Pass
9810.48	26.27	6.53	1.69	34.50	Average Max	V	363.00	278.00	54.00	-19.50	Pass
4914.58	27.15	4.22	-2.27	29.10	Average Max	V	275.00	272.00	54.00	-24.90	Pass

Annex A. TEST INSTRUMENT

Instrument	Model	Serial #	Cal Date	Cal Cycle	Cal Due	In use
Conducted Emissions						
R & S Receiver	ESIB 40	100179	04/21/2017	1 Year	04/21/2018	☒
CHASE LISN	MN2050B	1018	08/16/2016	1 Year	08/16/2017	☒
Radiated Emissions						
Keysight EXA 44GHz Spectrum Analyzer	N9010A	MY51440112	11/02/2016	1 Year	11/02/2017	☒
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	☒
Horn Antenna (18GHz~40GHz)	PA-840	181251	06/23/2017	1 Year	06/23/2018	☒
Preamplifier (100KHz~7GHz)	LPA-6-30	11170602	02/09/2017	1 Year	02/09/2018	☒
Pre-Amplifier (1-40GHz)	SAS-474	579	05/04/2017	1 Year	05/04/2018	☒
10 Meters SAC	10M	N/A	10/06/2016	1 Year	10/06/2017	☒
RF Conducted Measurement						
Spectrum Analyzer	N9010A	10SL0180	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 Equipment: EN45011: EN ISO/IEC 17065
		Electromagnetic Compatibility: EN45011 – EN ISO/IEC 17065
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 Measuremet
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 Radiocommunications: 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