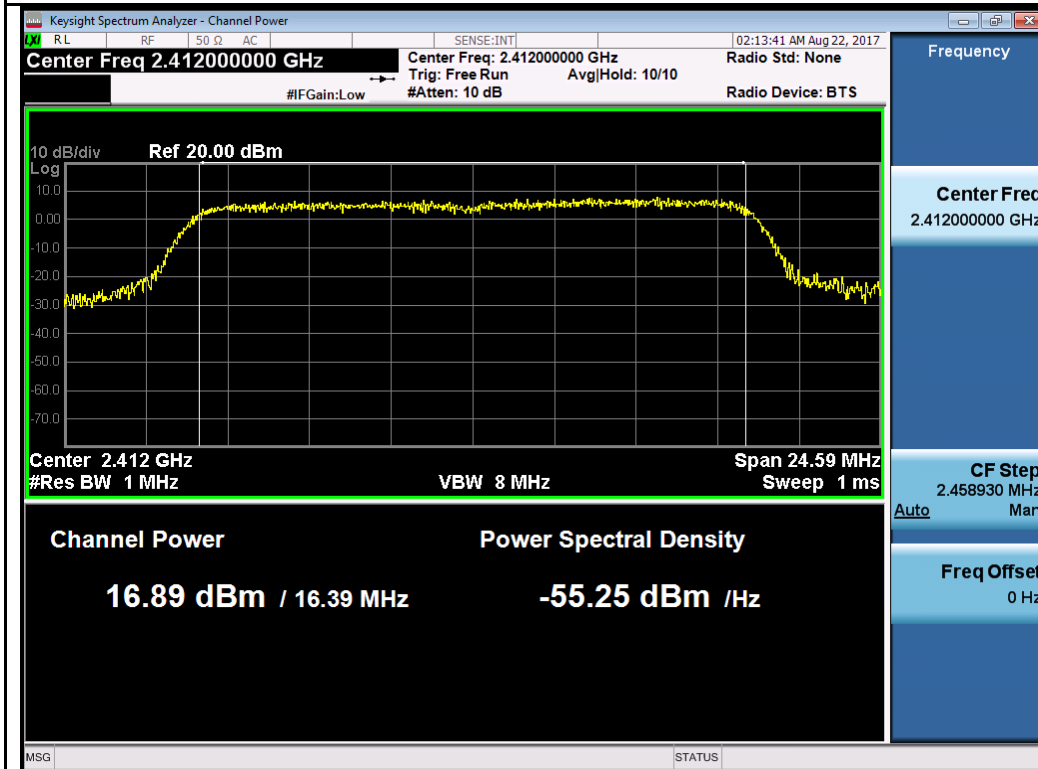
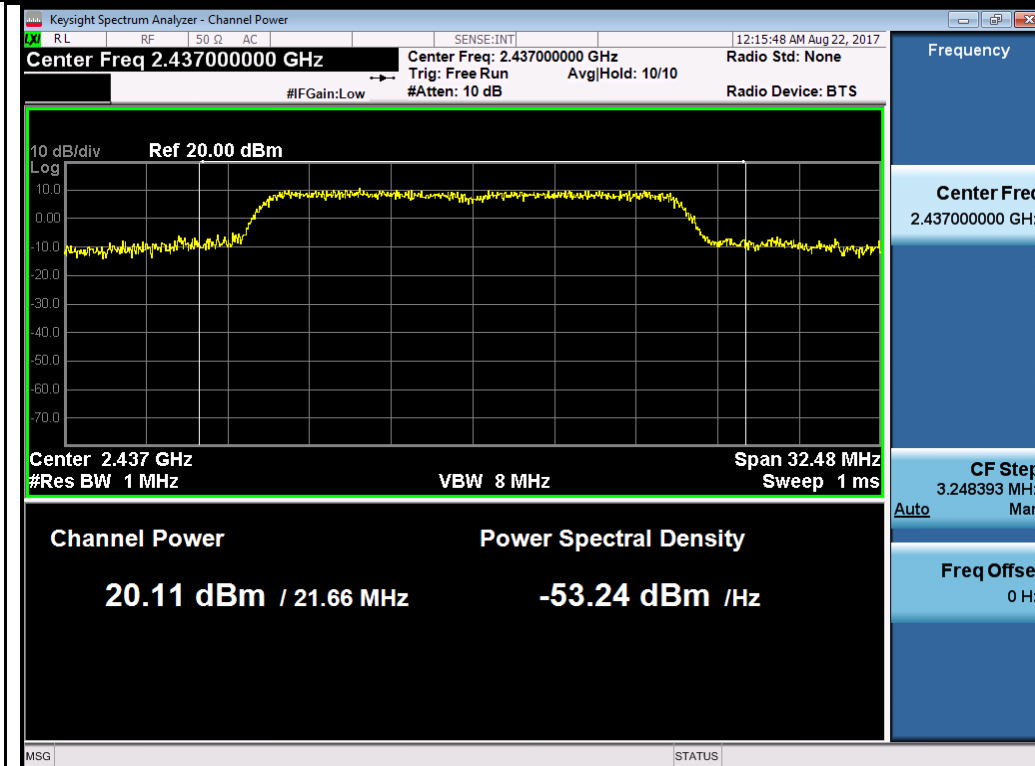


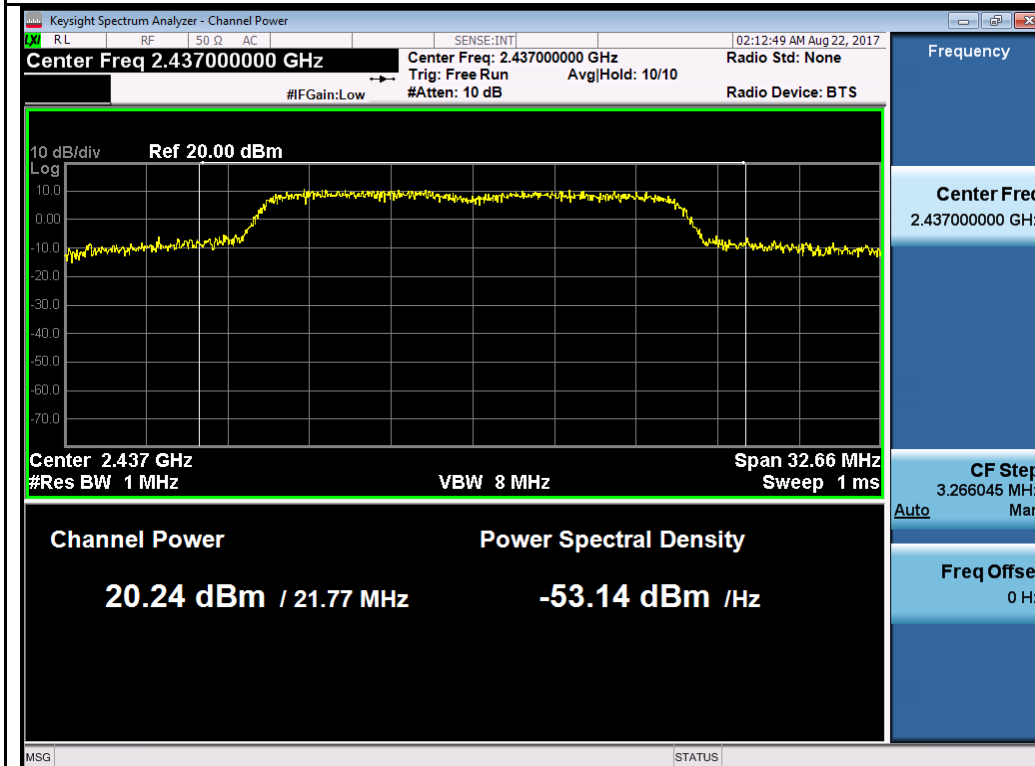
802.11g-2412MHz Chain 0



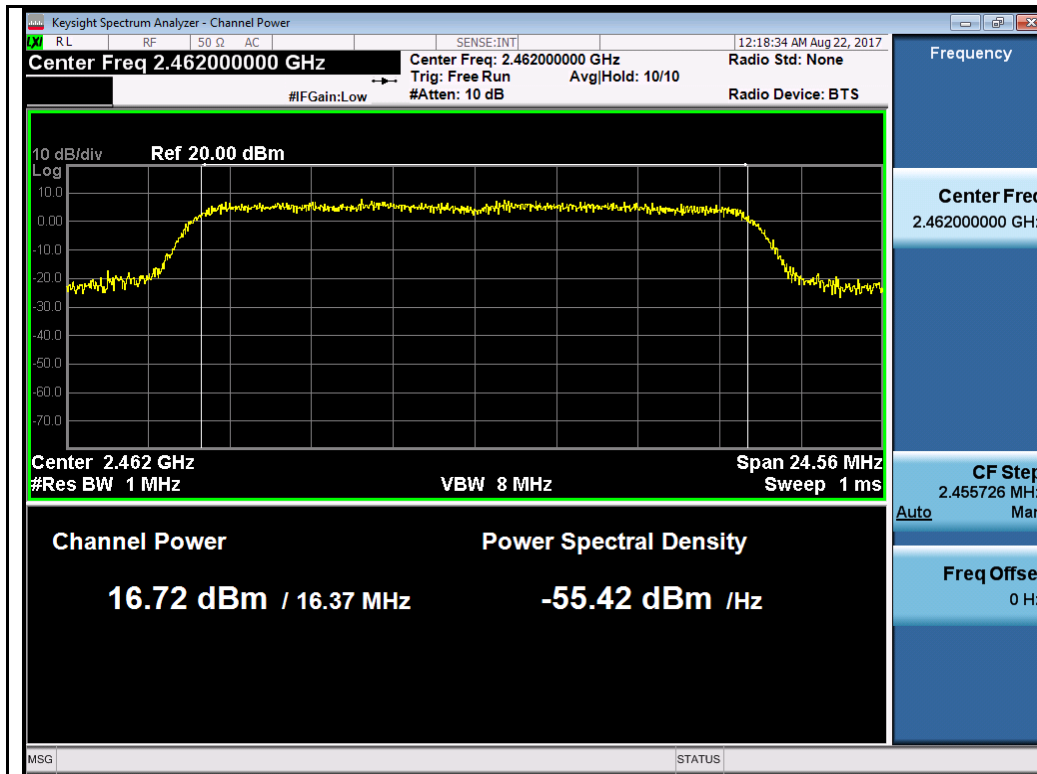
802.11g-2412MHz Chain 1



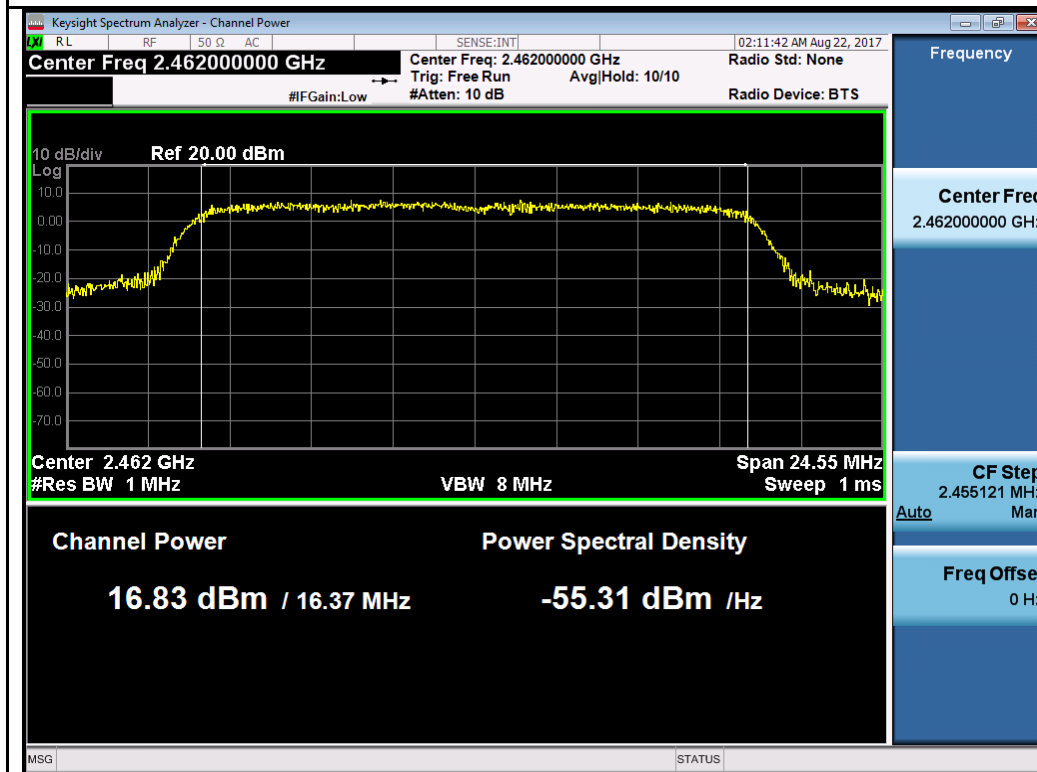
802.11g-2437MHz Chain 0



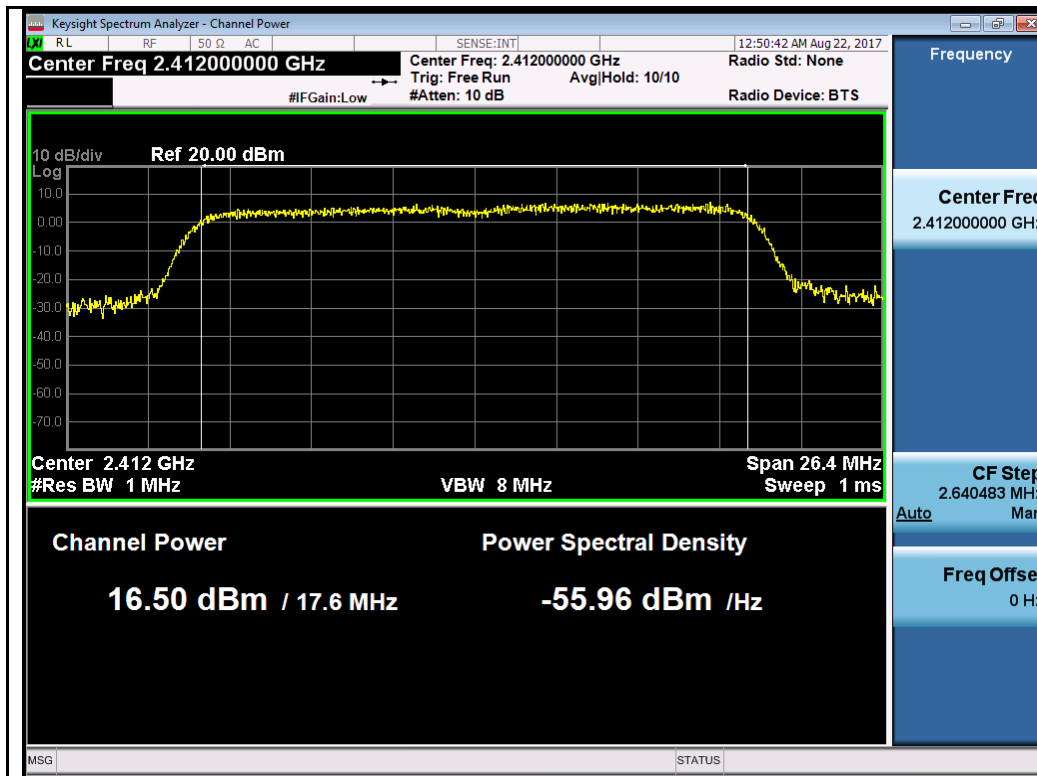
802.11g-2437MHz Chain 1



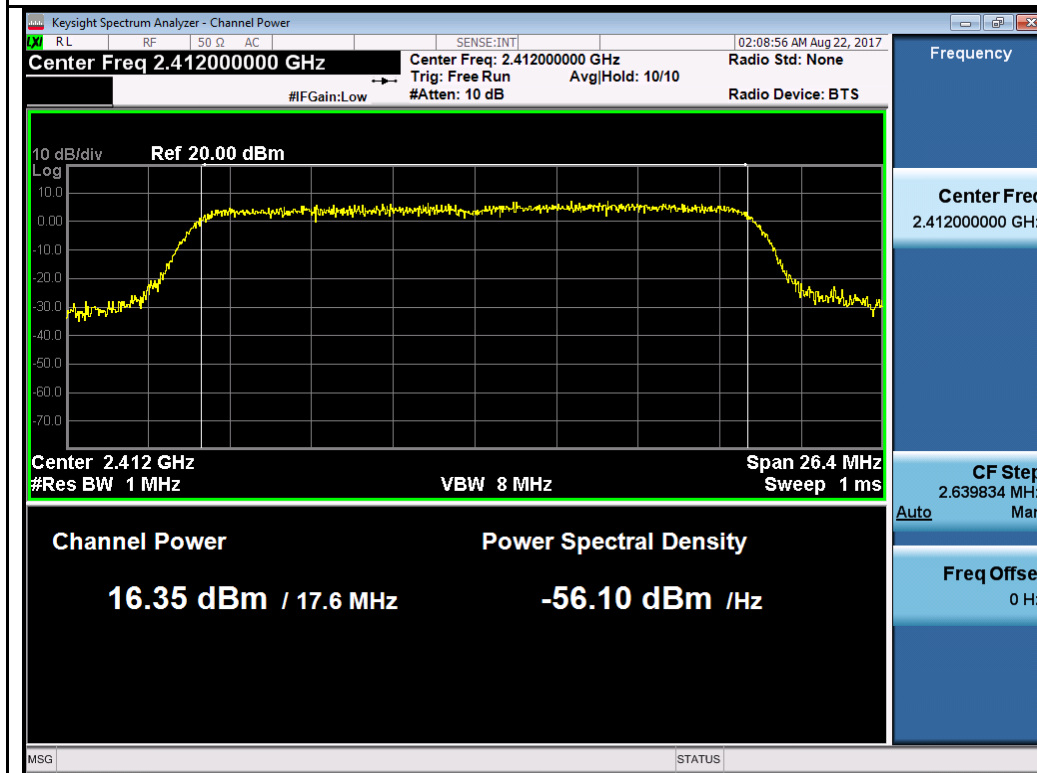
802.11g-2462MHz Chain 0



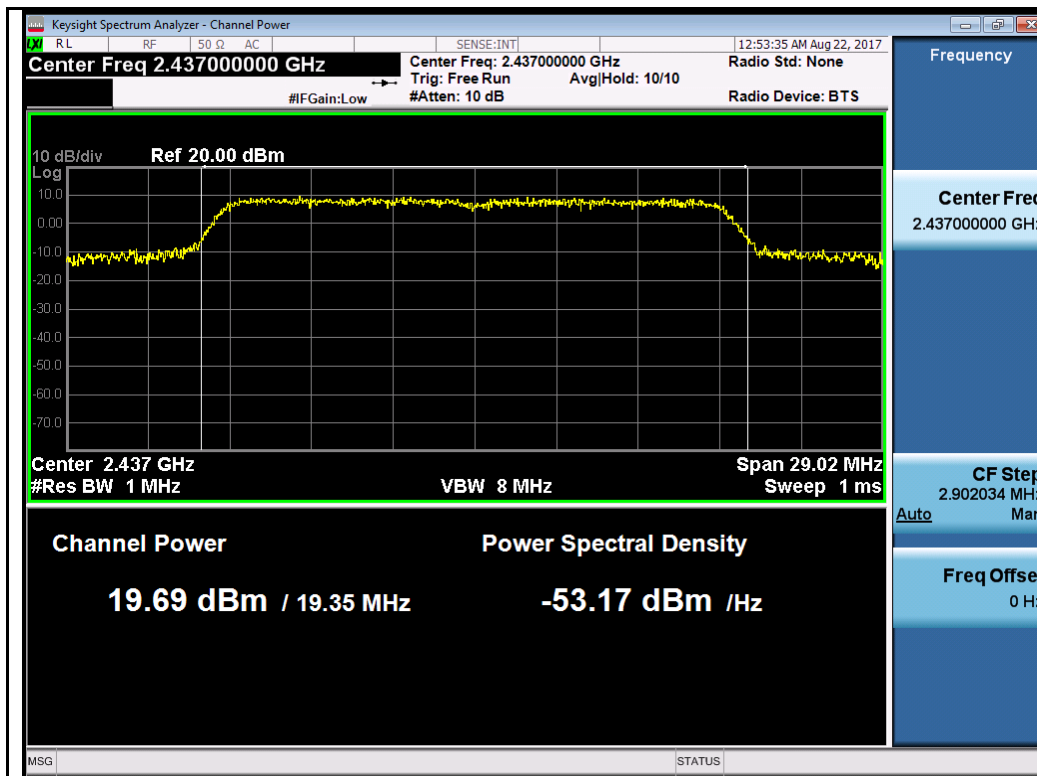
802.11g-2462MHz Chain 1



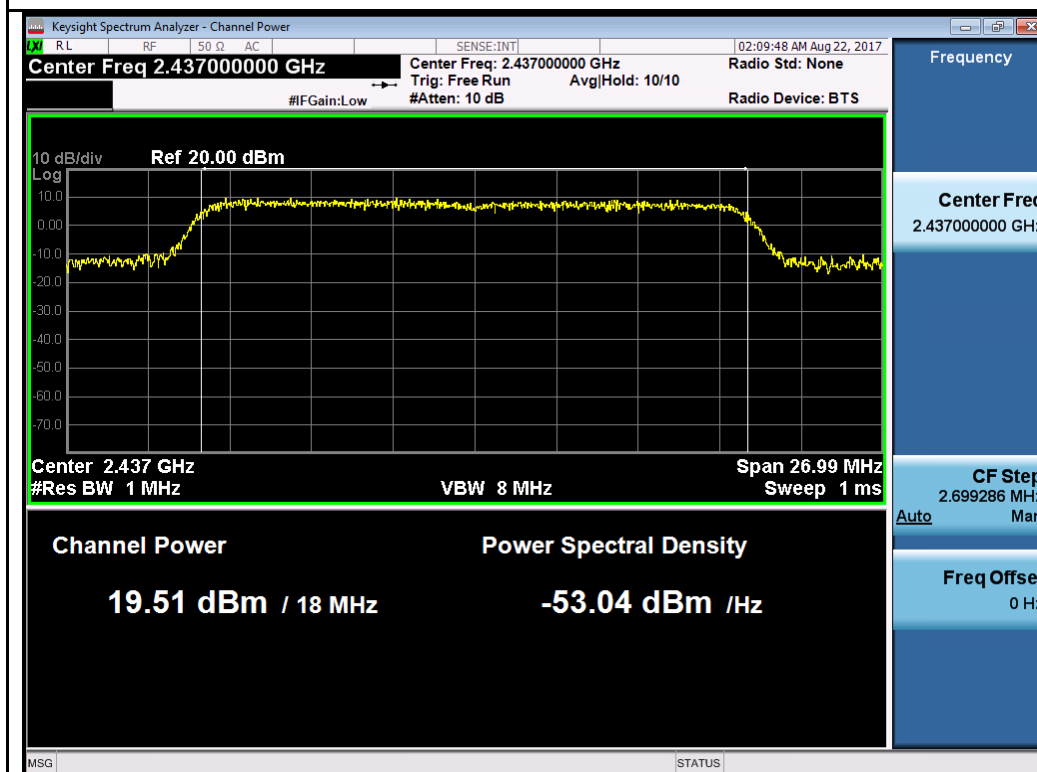
802.11n-HT20 2412MHz Chain 0



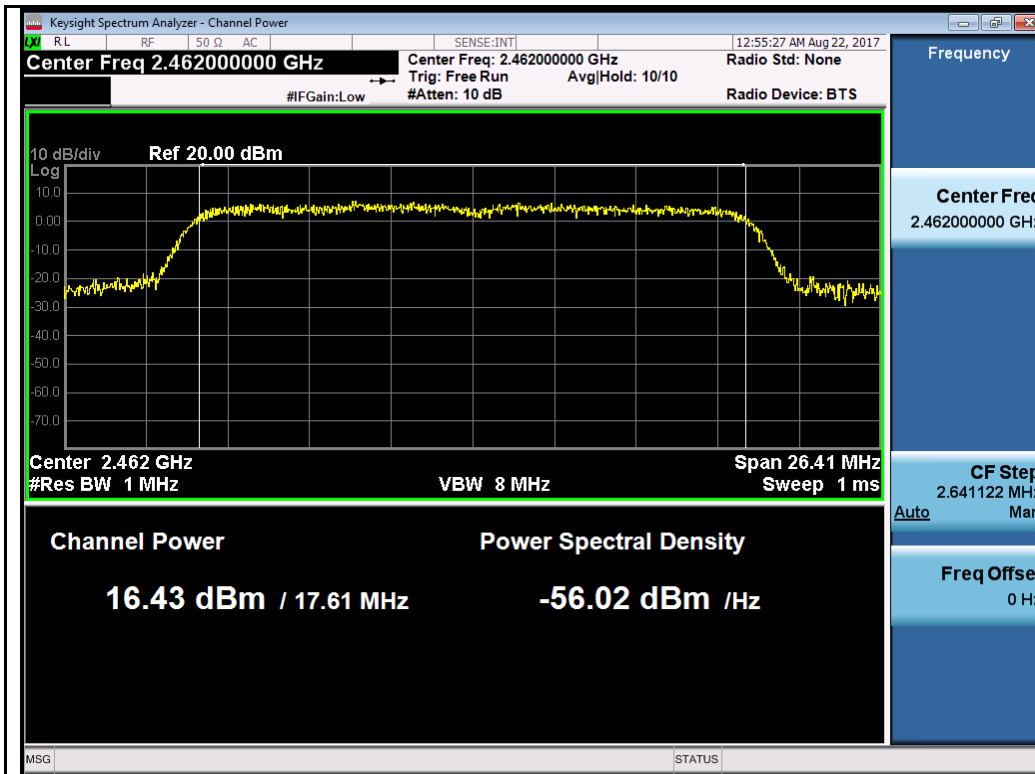
802.11n-HT20 2412MHz Chain 1



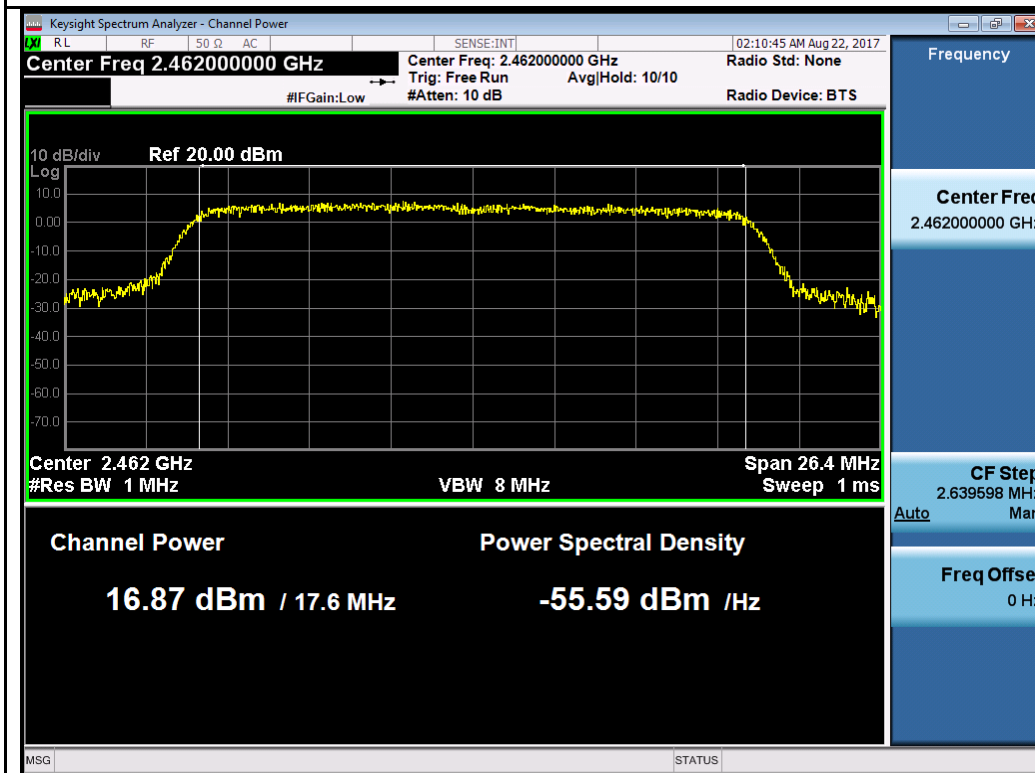
802.11n-HT20 2437MHz Chain 0



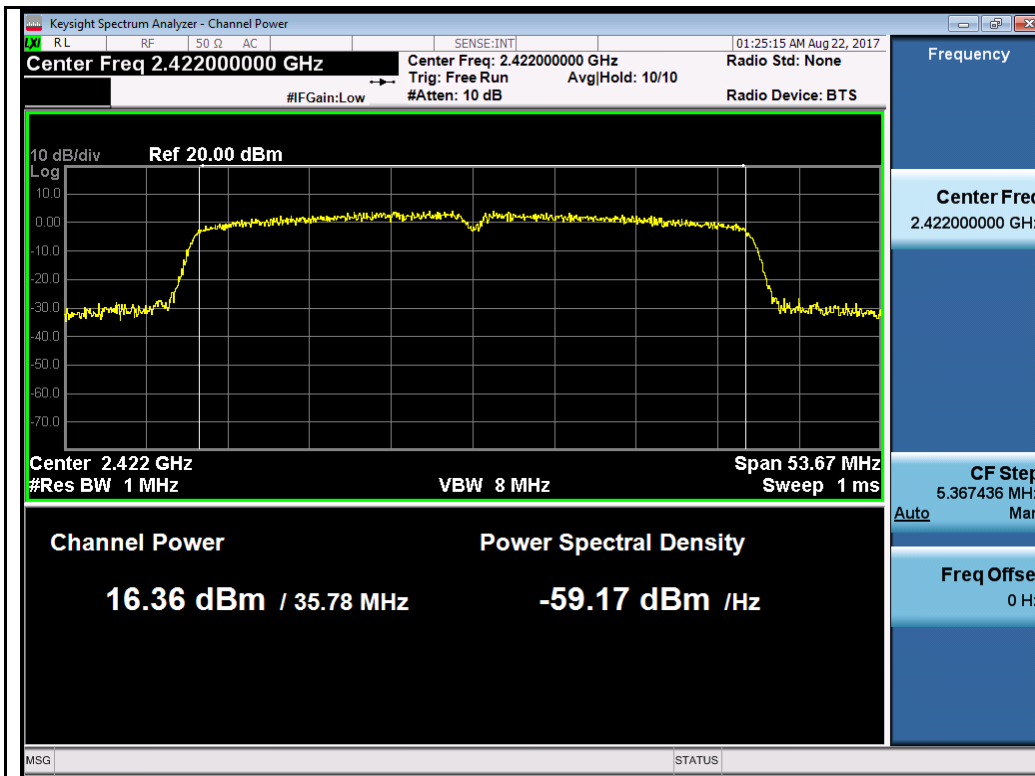
802.11n-HT20 2437MHz Chain 1



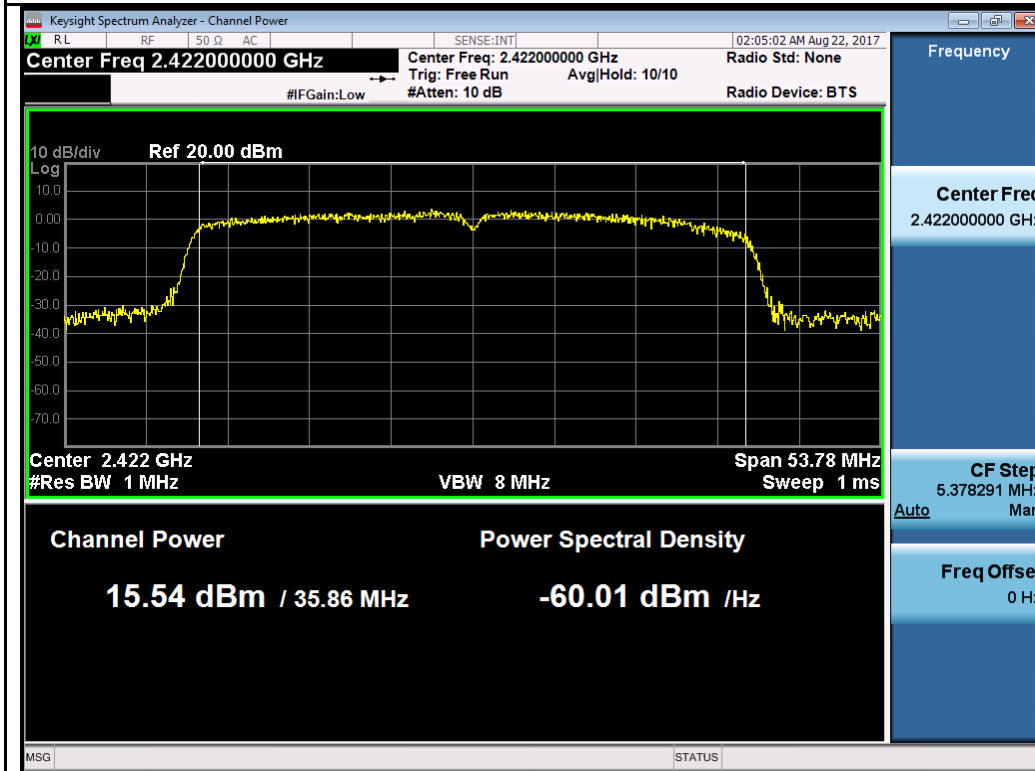
802.11n-HT20 2462MHz Chain 0



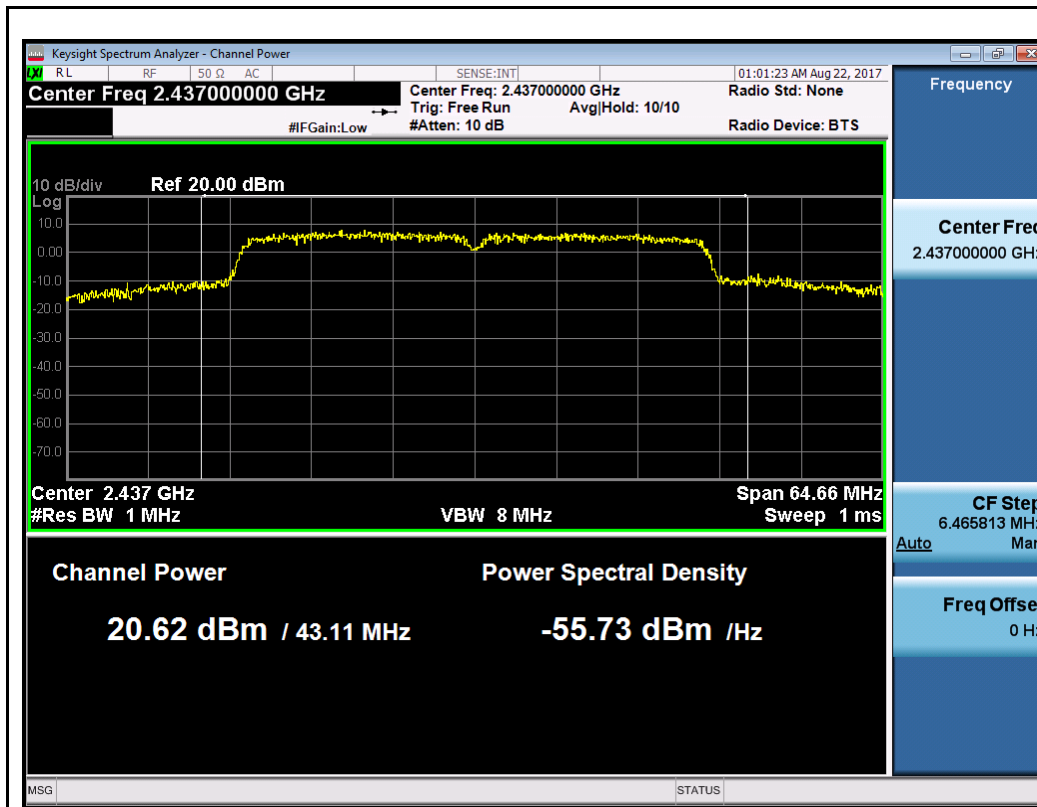
802.11n-HT20 2462MHz Chain 1



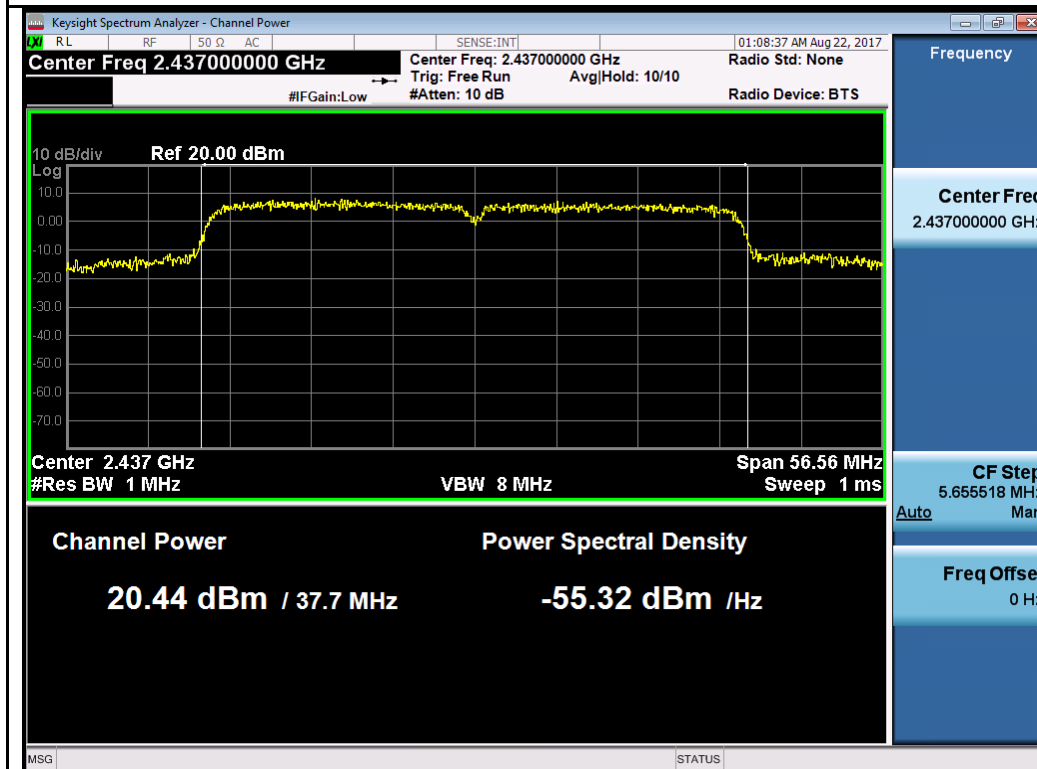
802.11n-HT40 2422MHz Chain 0



802.11n-HT40 2422MHz Chain 1

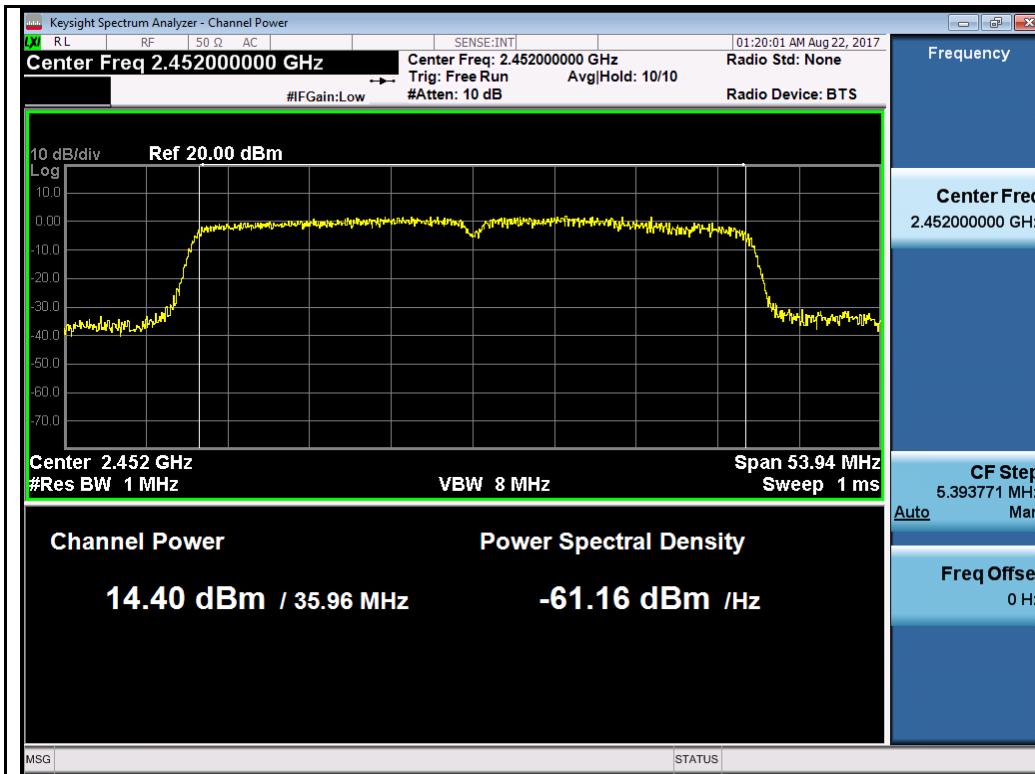


802.11n-HT40 2437MHz Chain 0

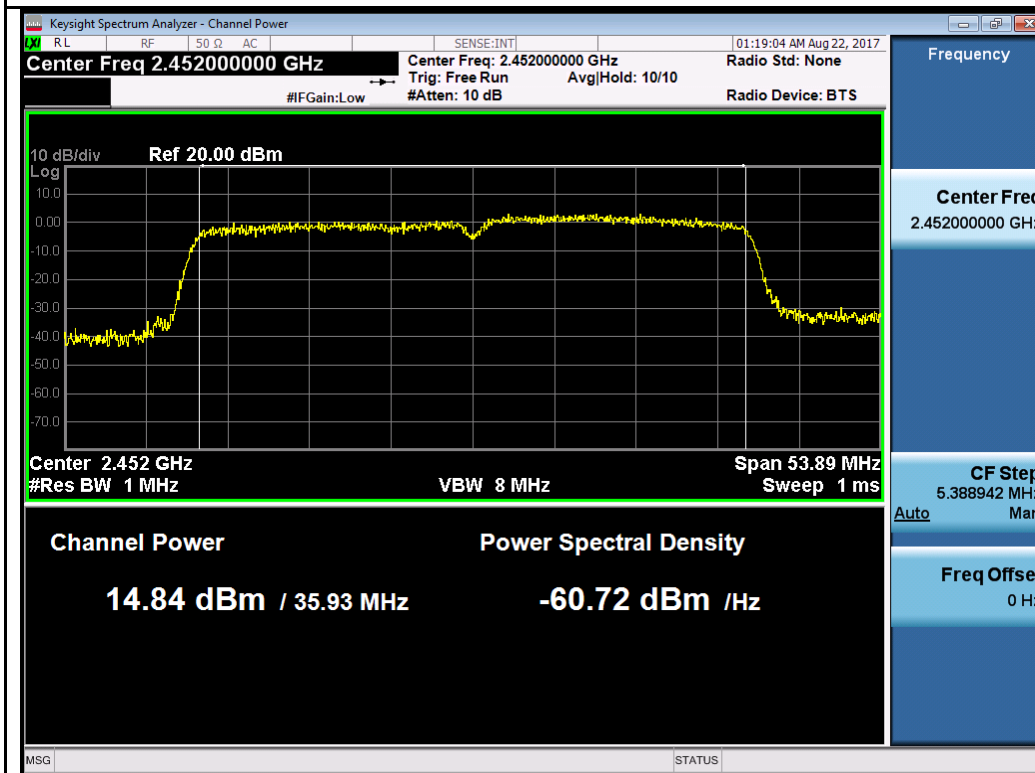


802.11n-HT40 2437MHz Chain 1





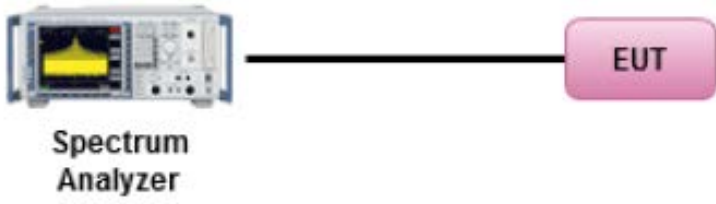
802.11n-HT40 2452MHz Chain 0



802.11n-HT40 2452MHz Chain 1

## 10.4 Band Edge

Requirement(s):

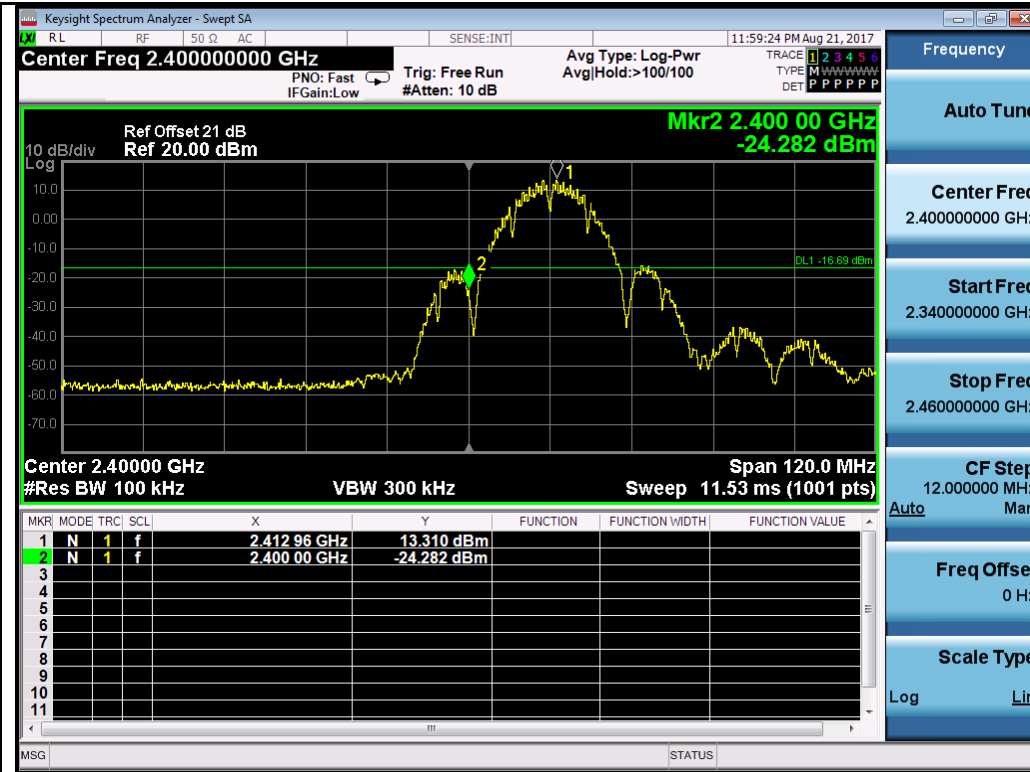
Spec	Item	Requirement	Applicable
§ 15.247 RSS247(5.5)	d)	For non-restricted band, In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be 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  <input type="checkbox"/> 20 dB down <input checked="" type="checkbox"/> 30 dB down	☒
Test Setup	 <p><b>Spectrum Analyzer</b>      <b>EUT</b></p>		
Test Procedure	<p>558074 D01 DTS Meas Guidance v03r05</p> <p><u>Band Edge measurement procedure</u></p> <ol style="list-style-type: none"> <li>1. Set the EUT to maximum power setting and enable the EUT transmit continuously.</li> <li>2. Band edge emissions must be at least 30 dB down from the highest emission level within the authorized band as a measured. The attenuation shall be 30 dB instead of 20 dB when Peak conducted output power procedure is used.</li> <li>3. Change modulation and channel bandwidth then repeat step 1 to 2.</li> <li>4. Measured and record the results in the test report.</li> </ol>		
Test Date	08/21/2017-10/05/2017	Environmental condition	Temperature      22°C Relative Humidity      46% Atmospheric Pressure      1020mbar
Remark	-		
Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail		

Test Data     Yes                       N/A

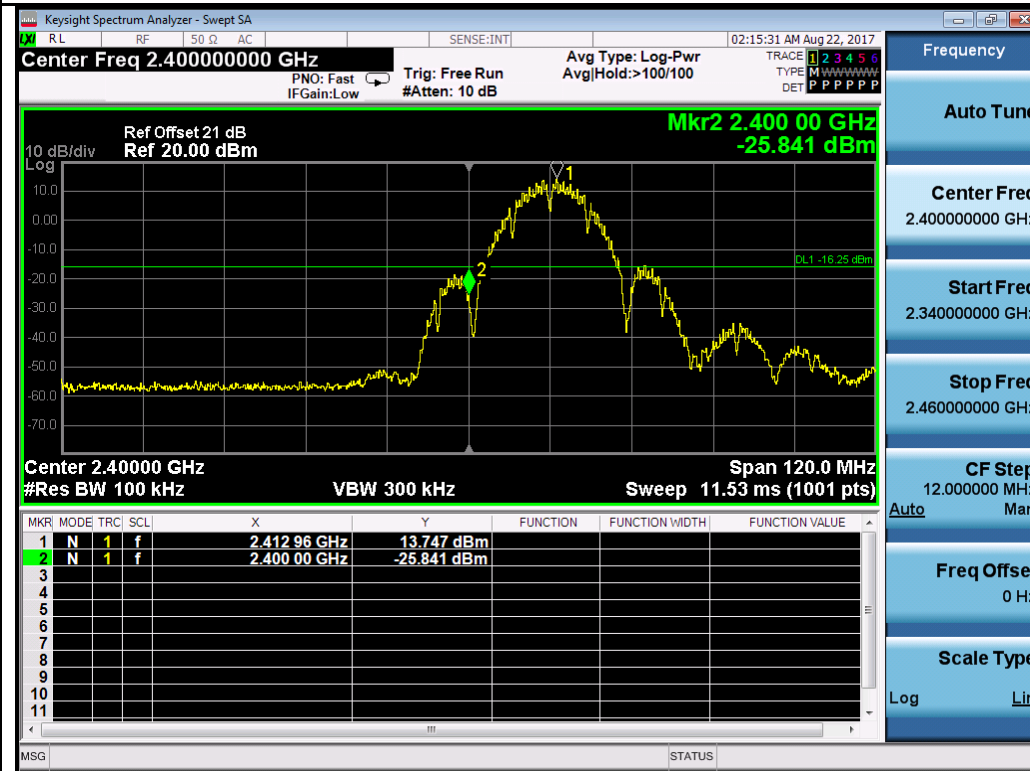
Test Plot     Yes (See below)       N/A

Test was done by Cipher at RF test site.

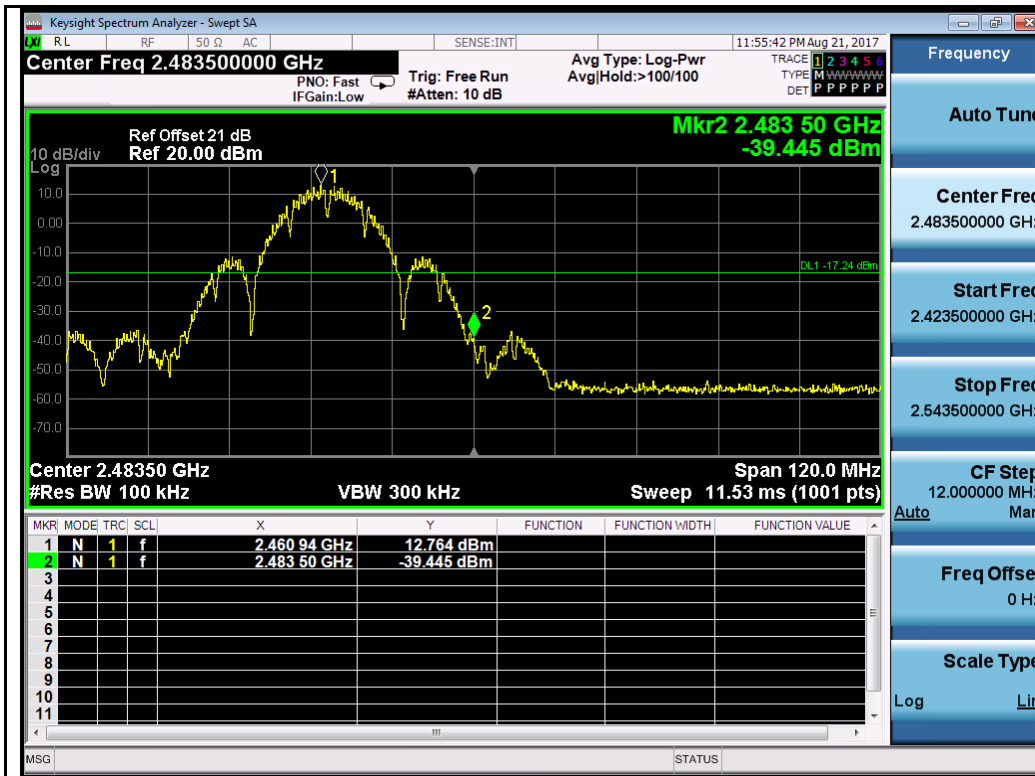
Test Plots



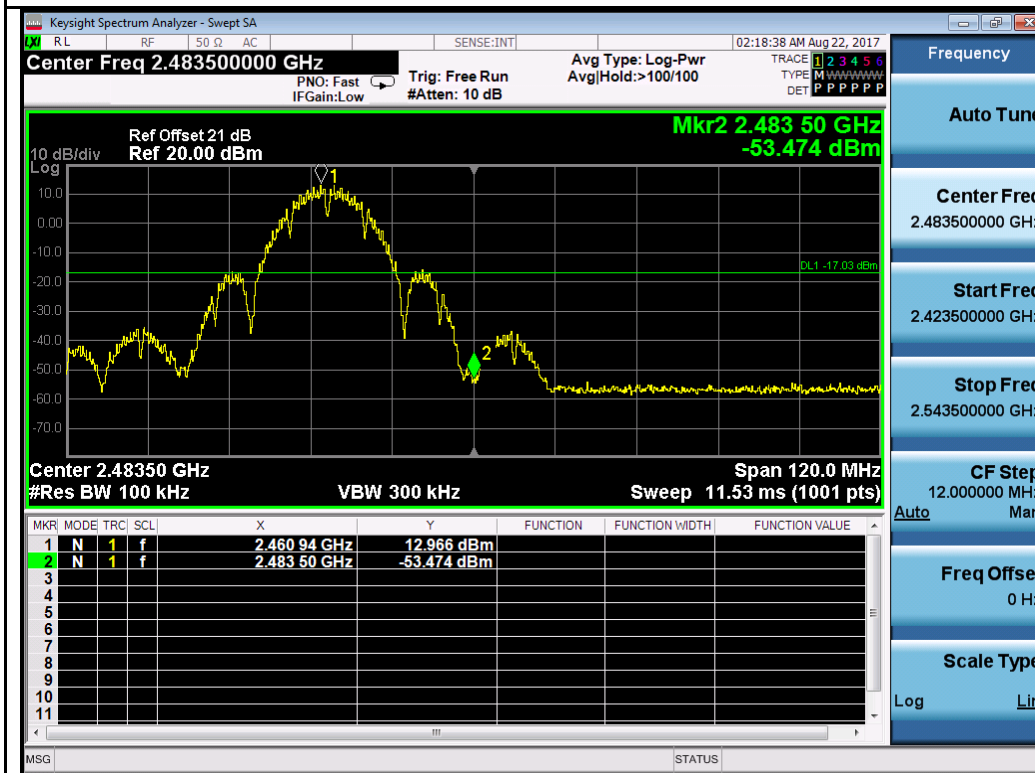
802.11b-2412MHz Chain 0



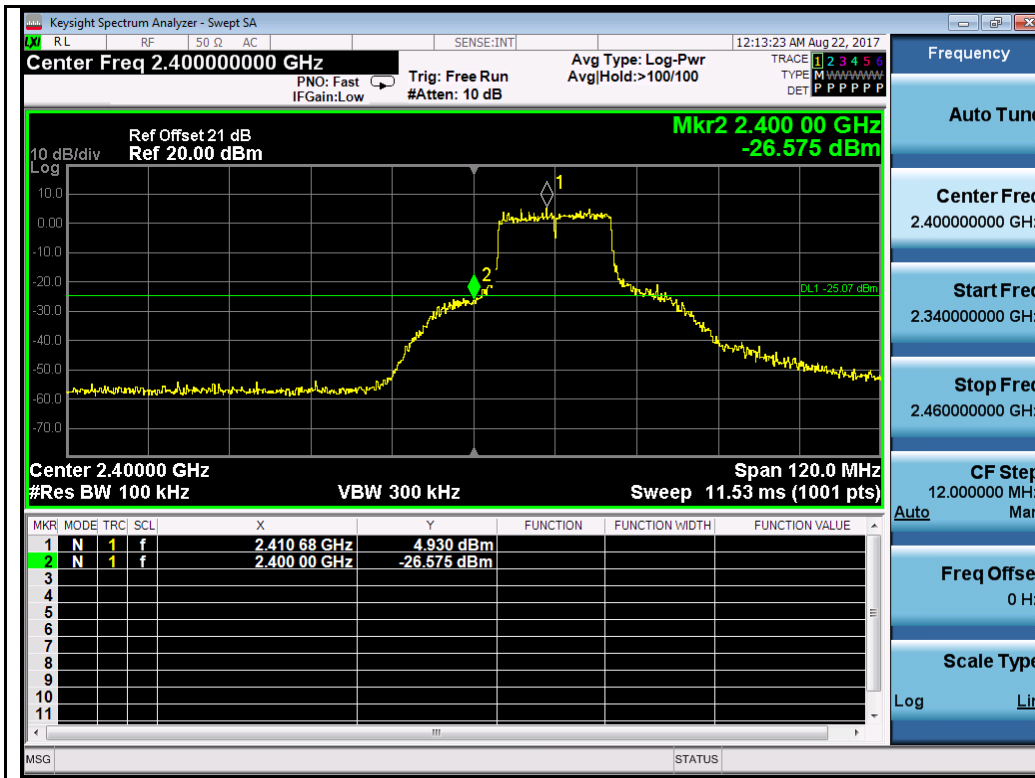
802.11b-2412MHz Chain 1



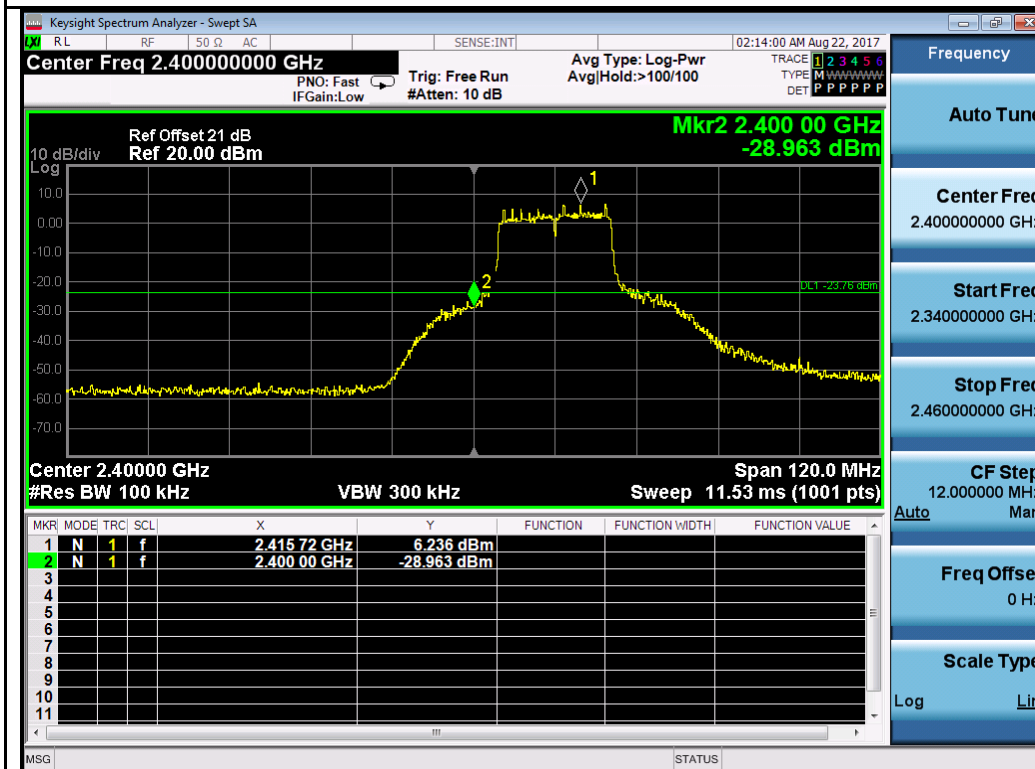
802.11b-2462MHz Chain 0



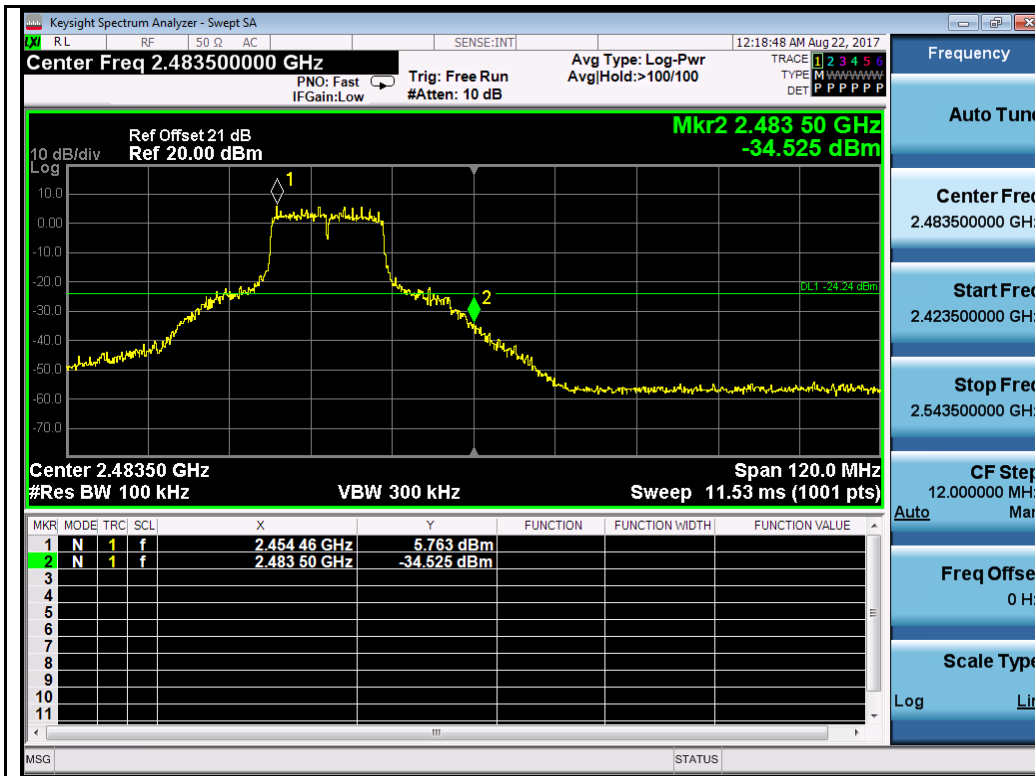
802.11b-2462MHz Chain 1



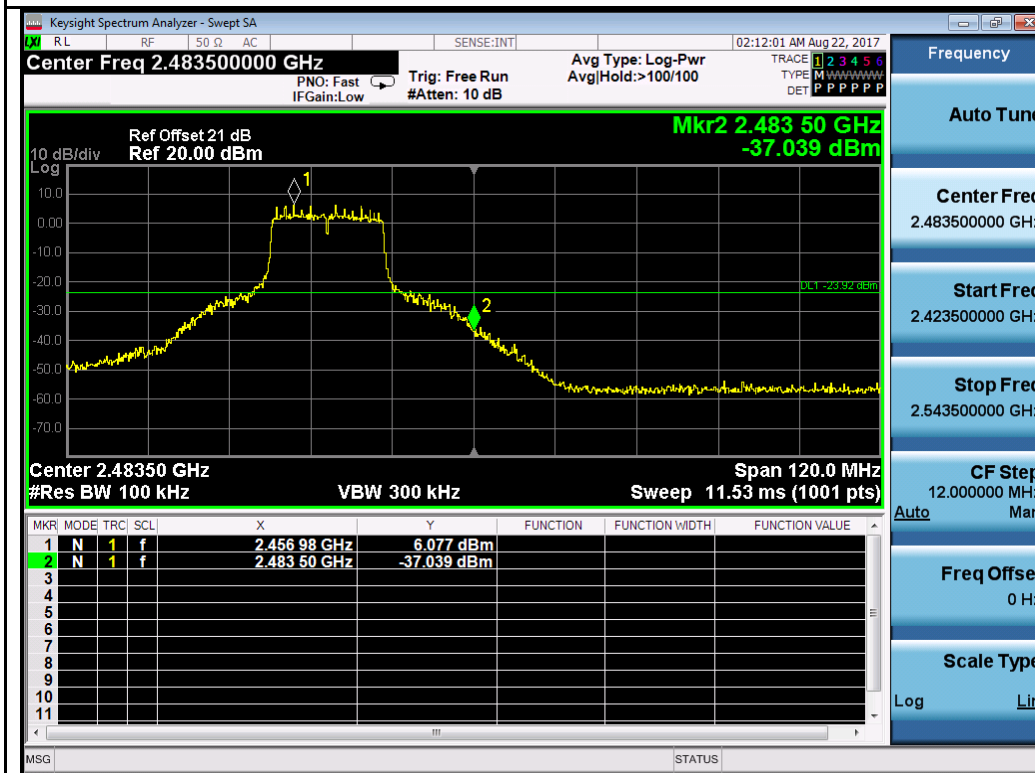
802.11g-2412MHz Chain 0



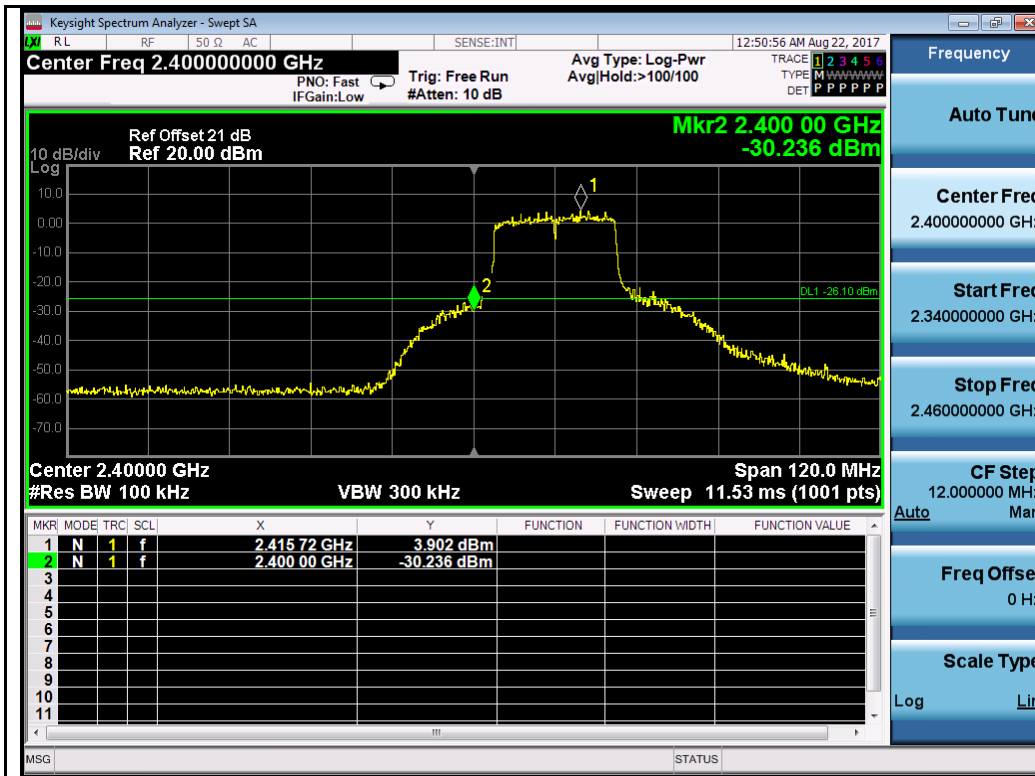
802.11g-2412MHz Chain 1



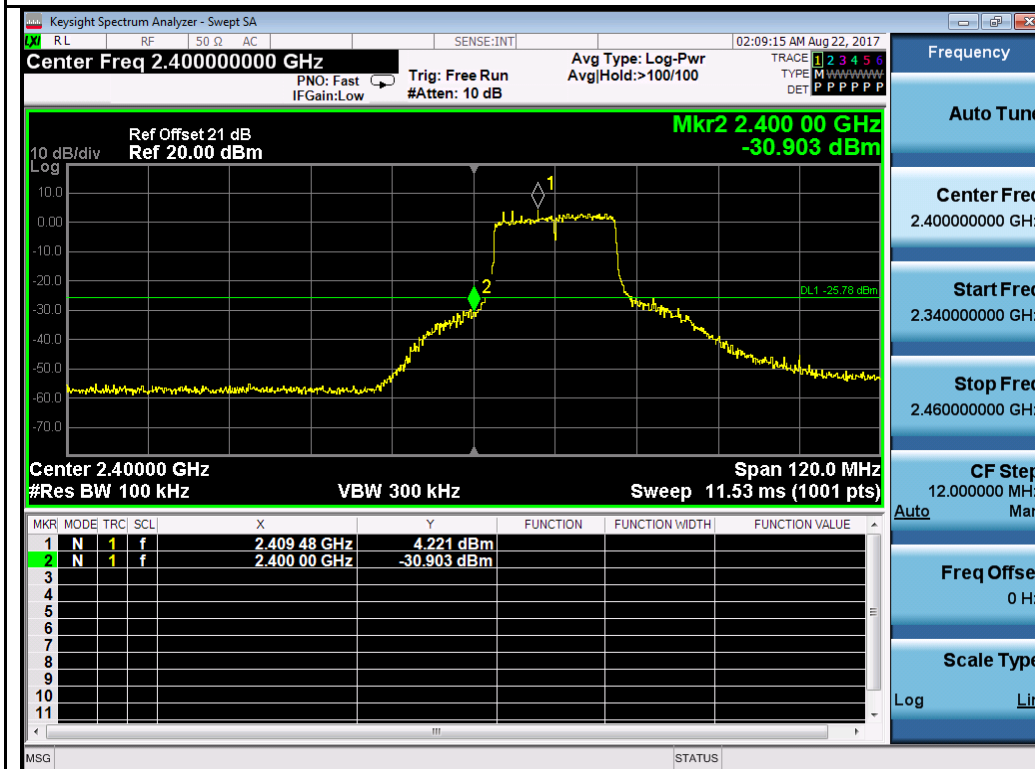
802.11g-2462MHz Chain 0



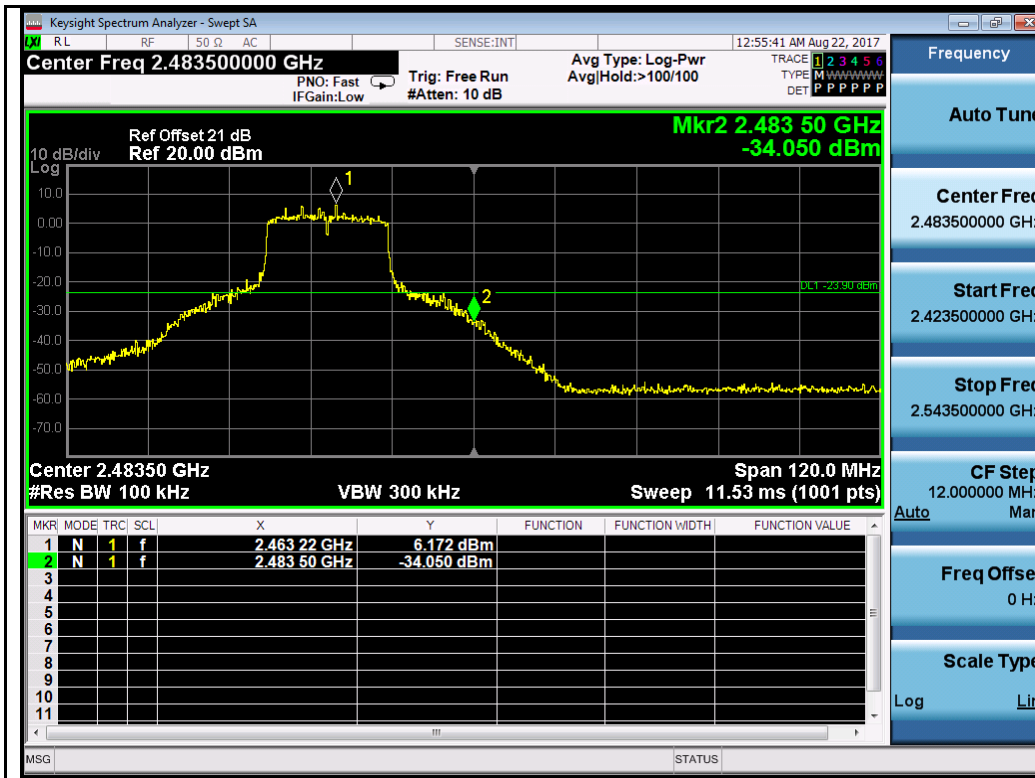
802.11g-2462MHz Chain 1



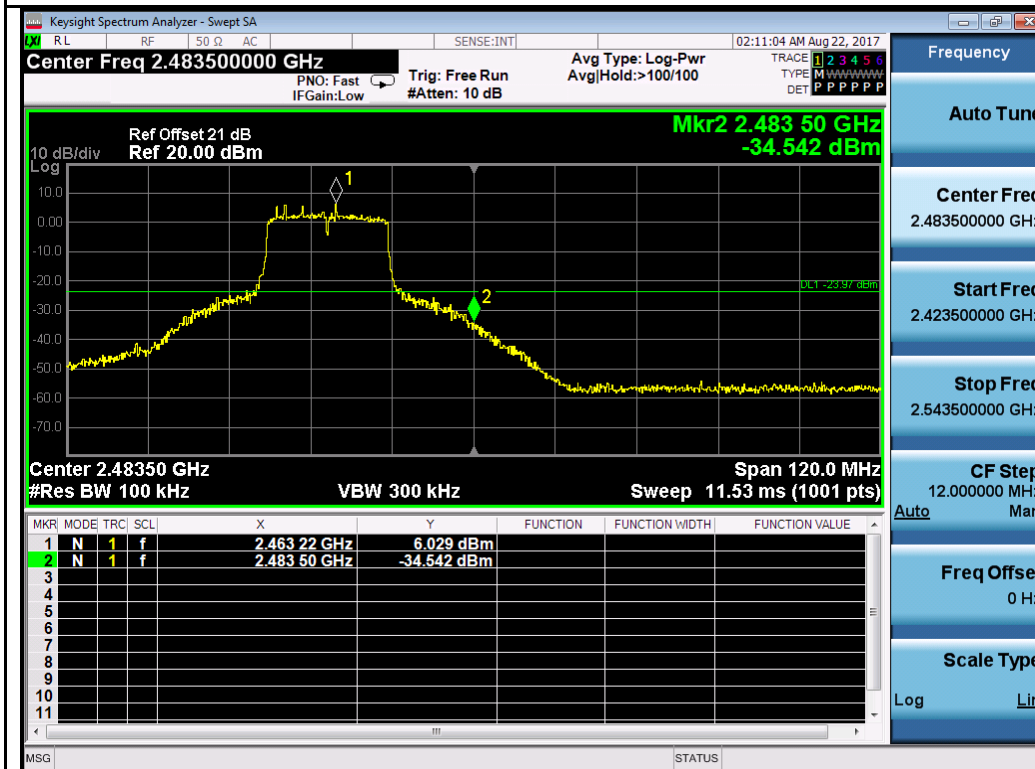
802.11n-HT20-2412MHz Chain 0



802.11n-HT20-2412MHz Chain 1

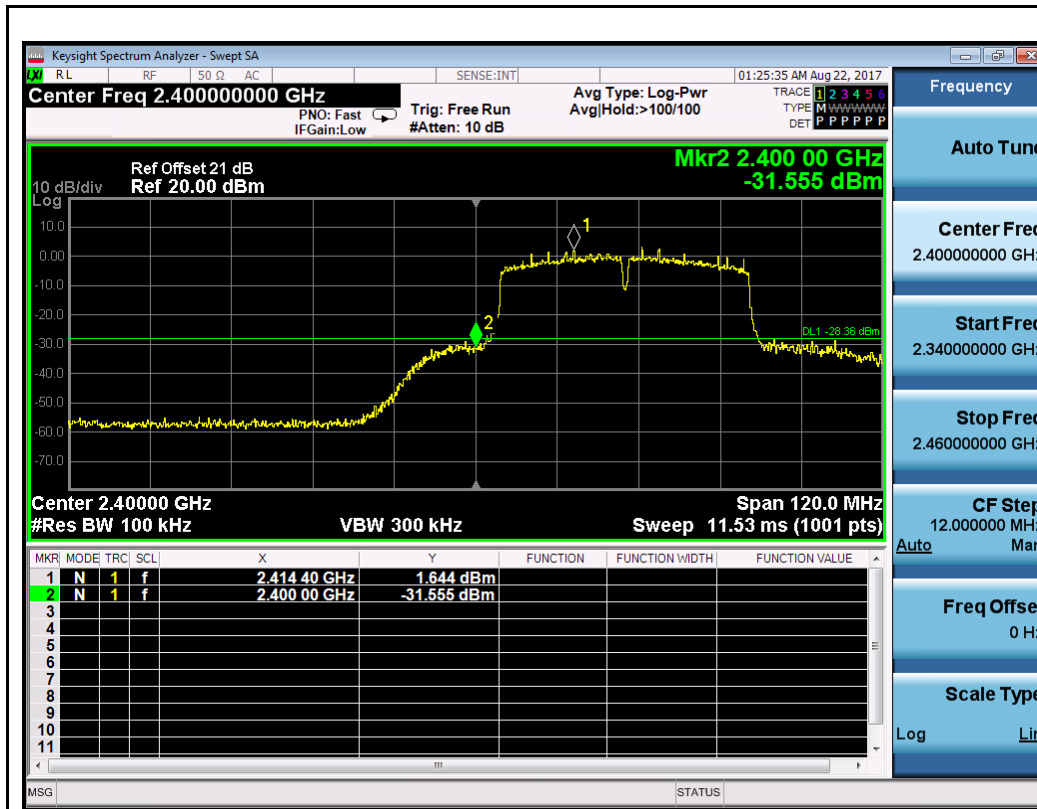


802.11n-HT20-2462MHz Chain 0

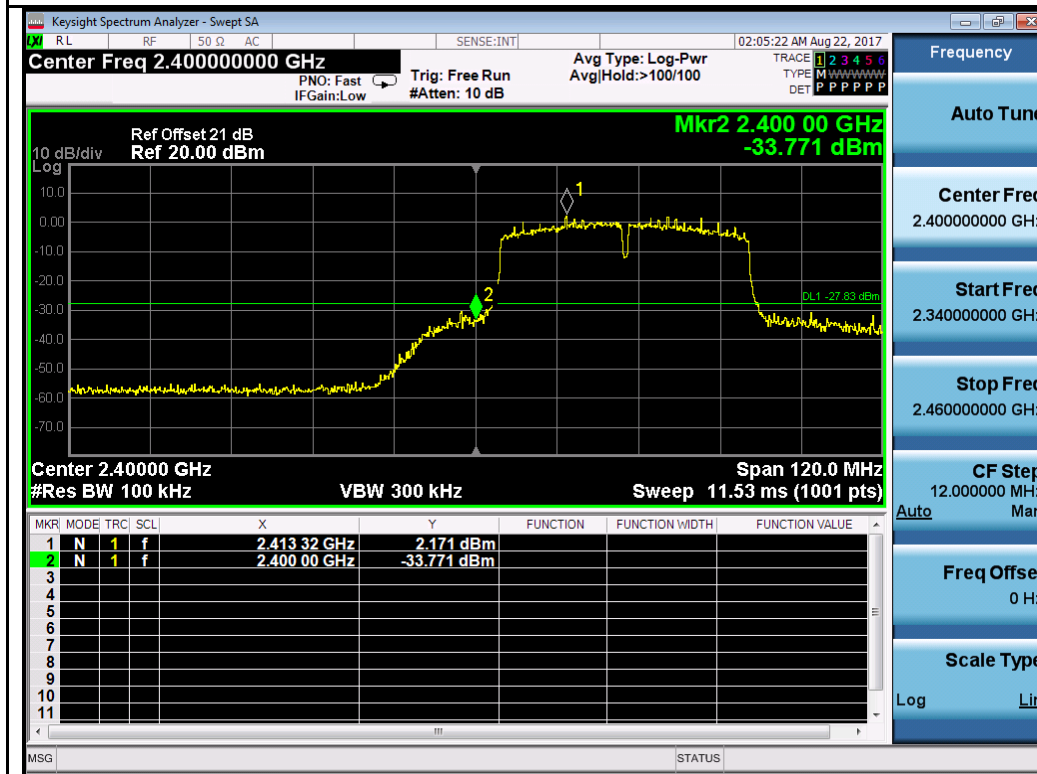


802.11n-HT20-2462MHz Chain 1

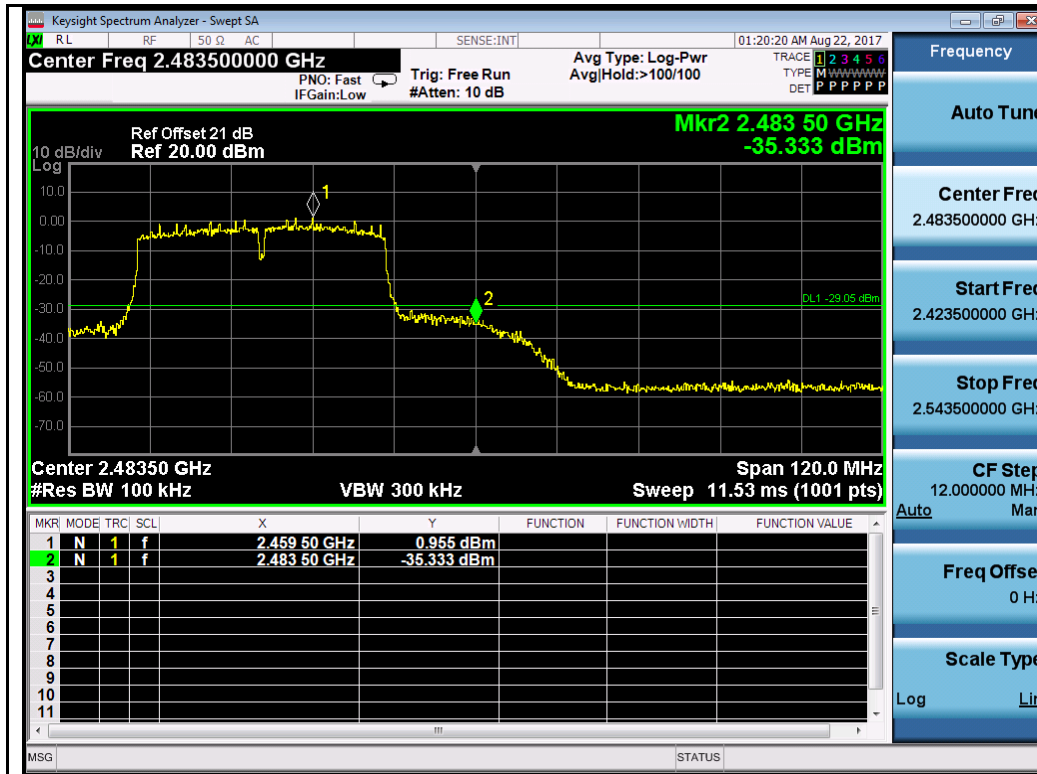




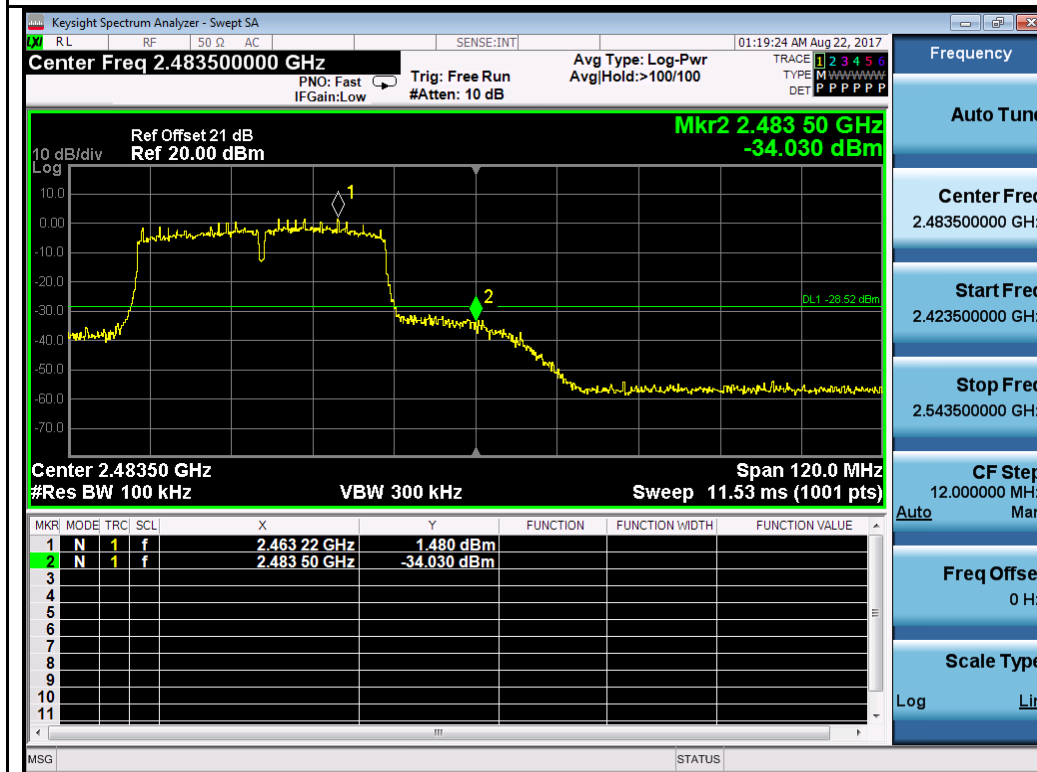
802.11n-HT40-2422MHz Chain 0



802.11n-HT40-2422MHz Chain 1



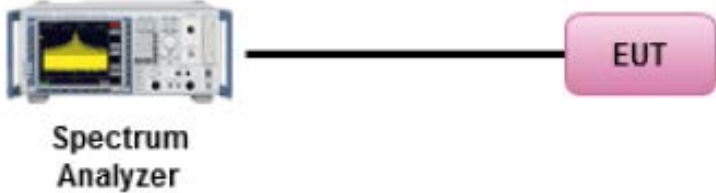
802.11n-HT40-2452MHz Chain 0



802.11n-HT40-2452MHz Chain 1

## 10.5 Peak Spectral Density

Requirement(s):

Spec	Item	Requirement	Applicable
§ 15.247(e) RSS247 (5.2.2)	e)	DSSS: $\leq 8\text{dBm}/3\text{KHz}$	<input checked="" type="checkbox"/>
	f)	DSSS in hybrid sys with FH turned off: $\leq 8\text{dBm}/3\text{KHz}$	<input type="checkbox"/>
Test Setup	 <p style="text-align: center;"><b>Spectrum Analyzer</b>      <b>EUT</b></p>		
Test Procedure	<p>558074 D01 DTS Meas Guidance v03r05, 10.2 Method PKPSD (peak PSD)</p> <p><u>Peak spectral density measurement procedure</u></p> <ul style="list-style-type: none"> <li>- Set analyzer center frequency to DTS channel center frequency.</li> <li>- Set the span to 1.5 times the DTS bandwidth.</li> <li>- Set the RBW to: <math>3\text{ kHz} \leq \text{RBW} \leq 100\text{ kHz}</math>.</li> <li>- Set the VBW <math>\geq 3 \times \text{RBW}</math>.</li> <li>- Detector = Peak</li> <li>- Sweep time = auto couple.</li> <li>- Trace mode = Max Hold</li> <li>- Allow trace to fully stabilize.</li> <li>- Use the peak marker function to determine the maximum amplitude level within the RBW.</li> <li>- If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.</li> </ul>		
Test Date	08/21/2017-10/05/2017	Environmental condition	Temperature 22°C Relative Humidity 46% Atmospheric Pressure 1020mbar
Remark	N/A		
Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail		

Test Data     Yes                       N/A

Test Plot     Yes (See below)             N/A

Test was done by CIPHER at RF test site.

### PSD measurement results

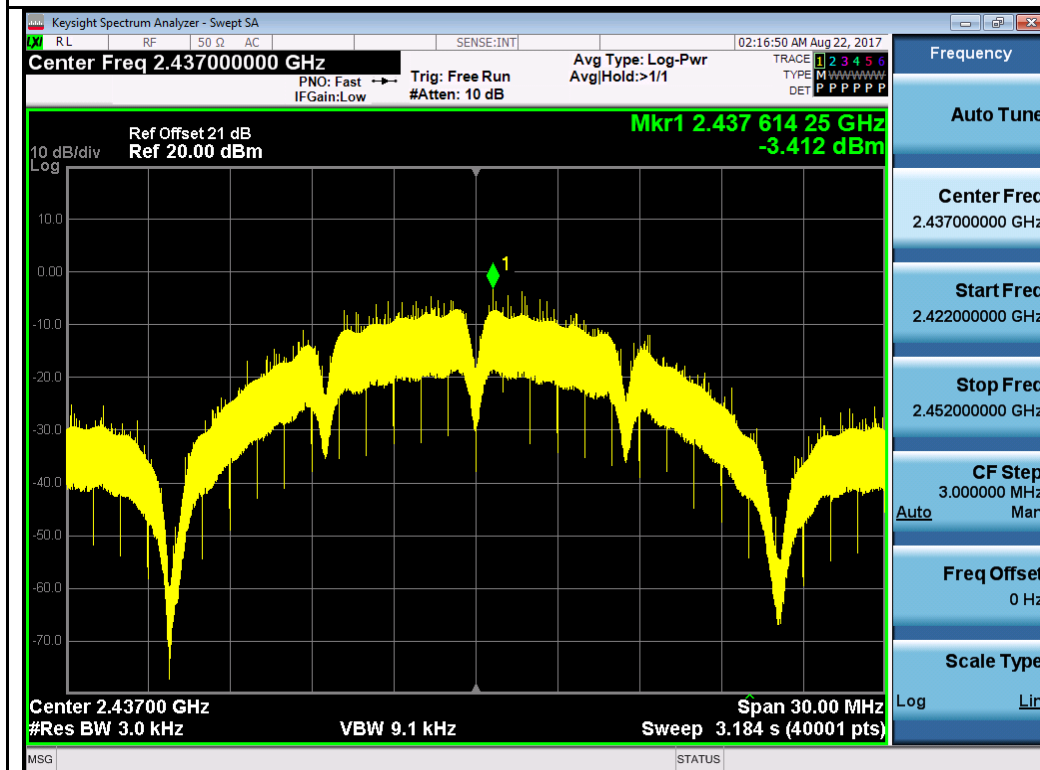
Type	Test mode	Freq (MHz)	CH	Conducted PSD (dBm/3KHz)			Limit (dBm/3KHz)	Result
				Chain0	Chain1	Combine		
PSD	802.11b	2412	Low	-2.217	-2.966	0.435	≤8	Pass
		2437	Mid	-4.881	-3.412	-1.074	≤8	Pass
		2462	High	-4.016	-2.994	-0.465	≤8	Pass
	802.11g	2412	Low	-10.375	-10.406	-7.380	≤8	Pass
		2437	Mid	-7.388	-7.345	-4.356	≤8	Pass
		2462	High	-10.878	-9.492	-7.120	≤8	Pass
	802.11n-20M	2412	Low	-10.978	-11.058	-8.008	≤8	Pass
		2437	Mid	-8.324	-8.183	-5.243	≤8	Pass
		2462	High	-9.228	-10.223	-6.687	≤8	Pass
	802.11n-40M	2422	Low	-12.540	-13.092	-9.797	≤8	Pass
		2437	Mid	-8.445	-9.711	-6.022	≤8	Pass
		2452	High	-14.508	-14.272	-11.378	≤8	Pass
Note	Two chains are cross-polarized, additional gain is $10 \log_{10}(NANT)=0\text{dB}$ , $N=1$ , max directional gain of the EUT is 2.5dBi. No limit adjustment is needed. All the mode transmission is MIMO.							

Test Plots:

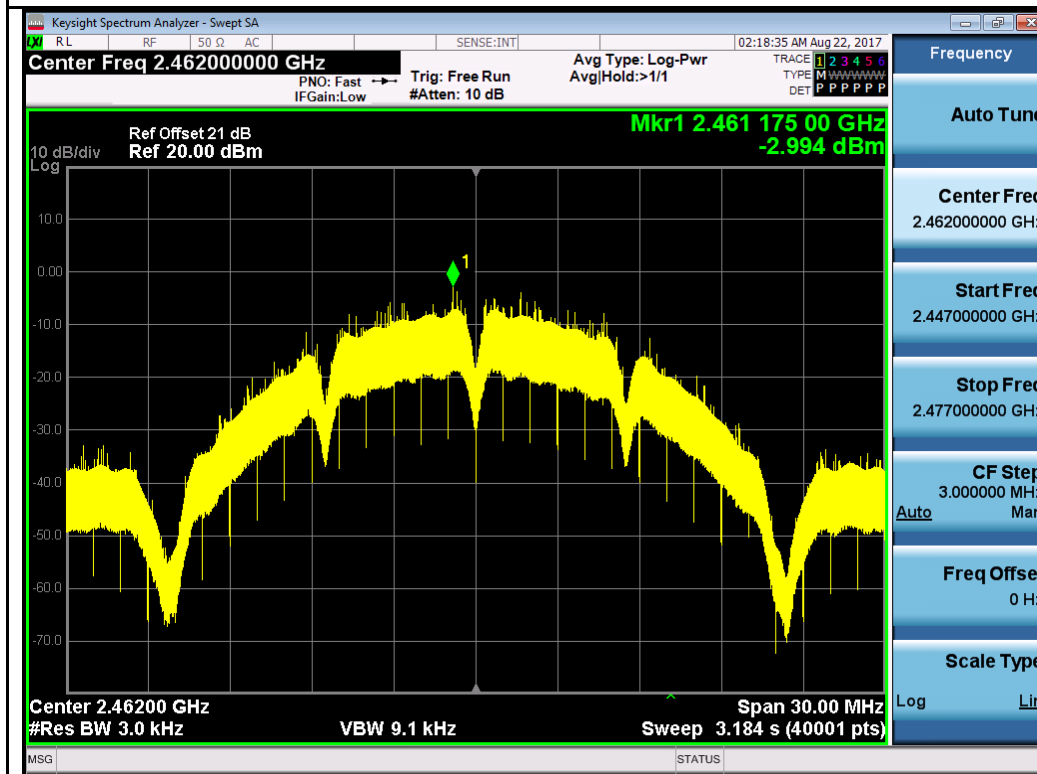


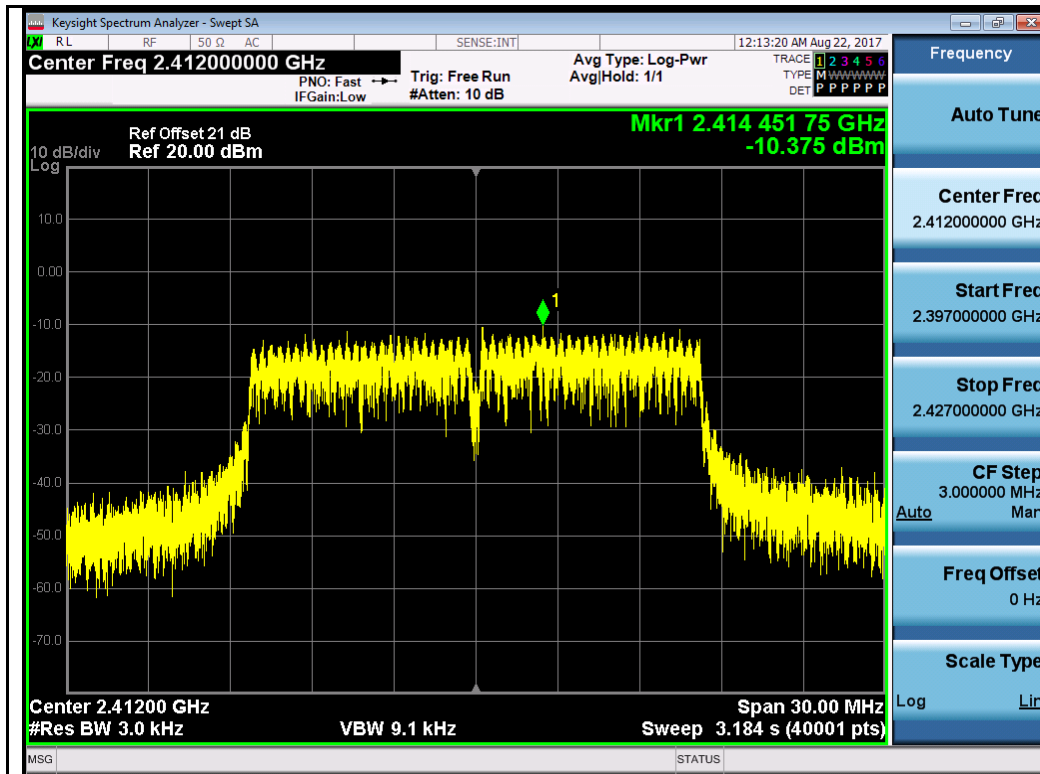


802.11b-2437MHz Chain 0

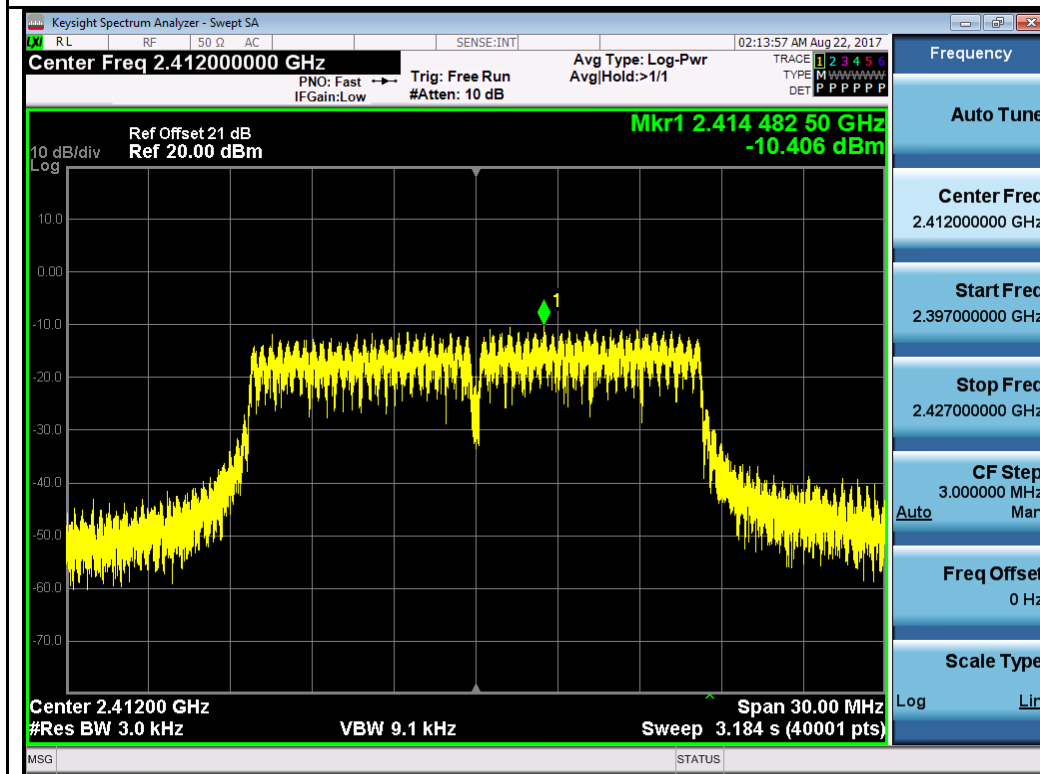


802.11b-2437MHz Chain 1



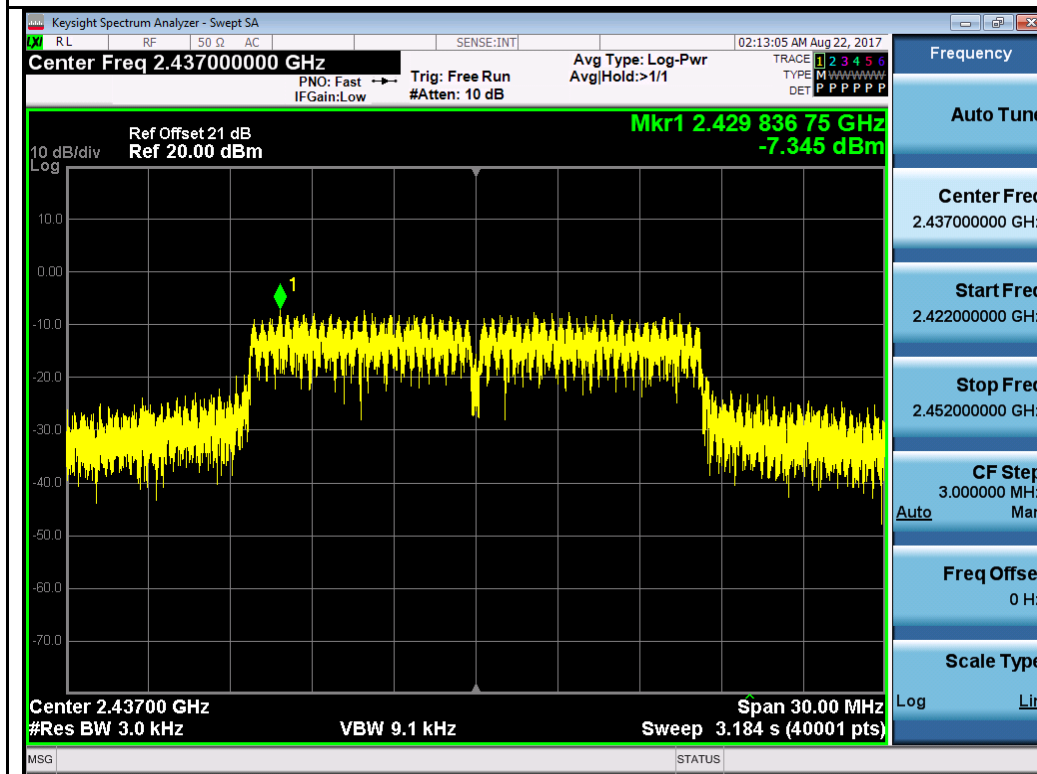
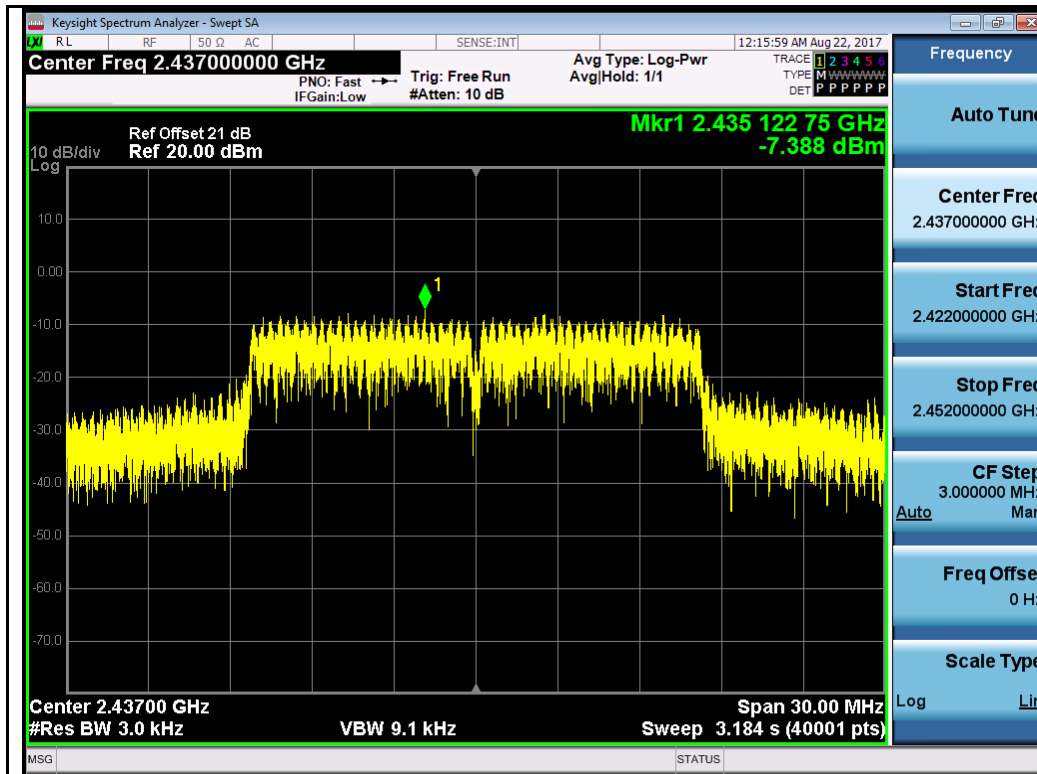


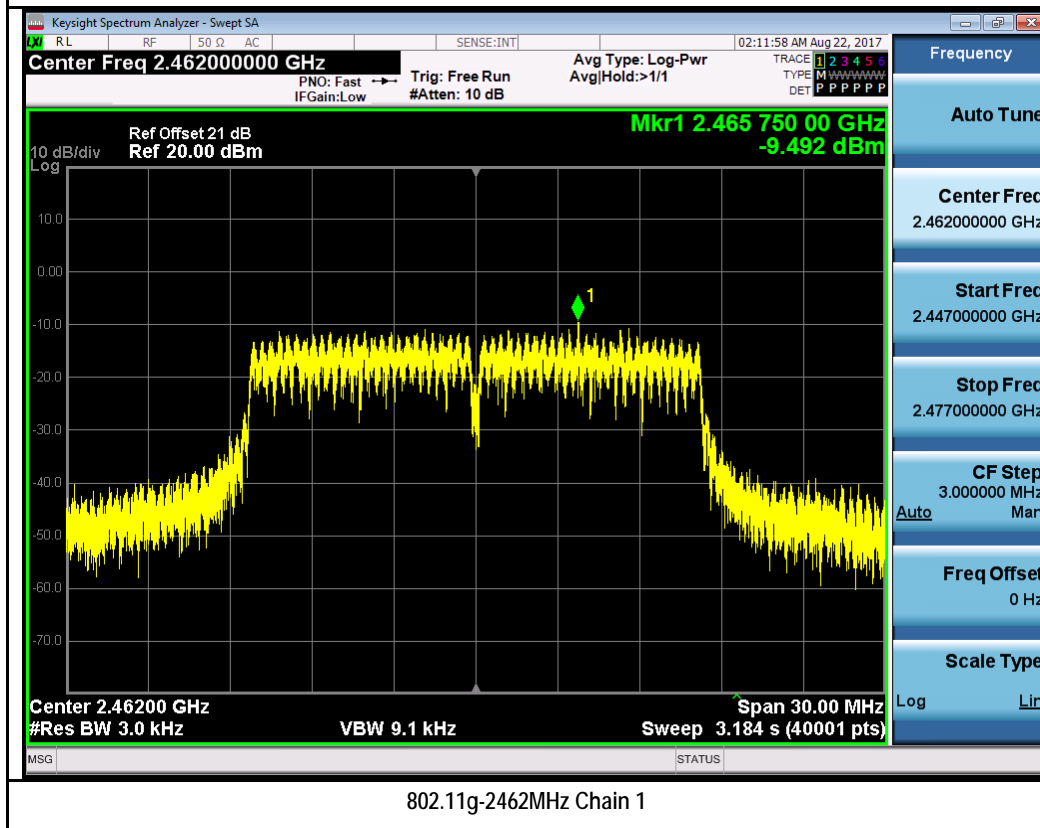
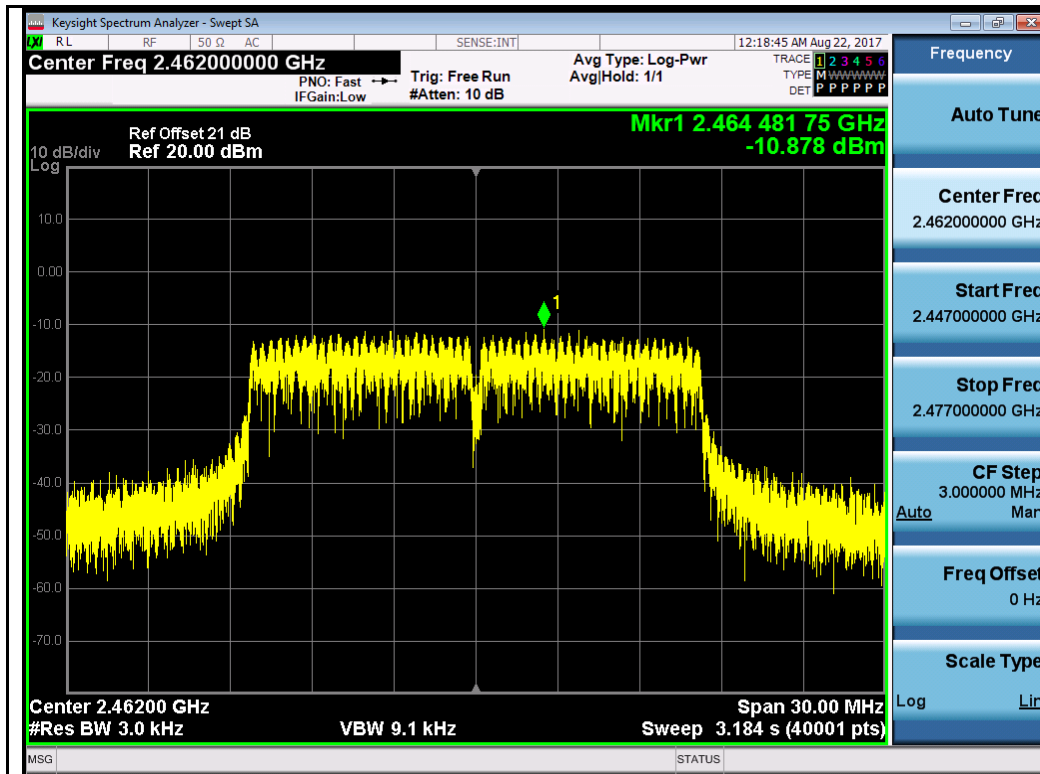
802.11g-2412MHz Chain 0

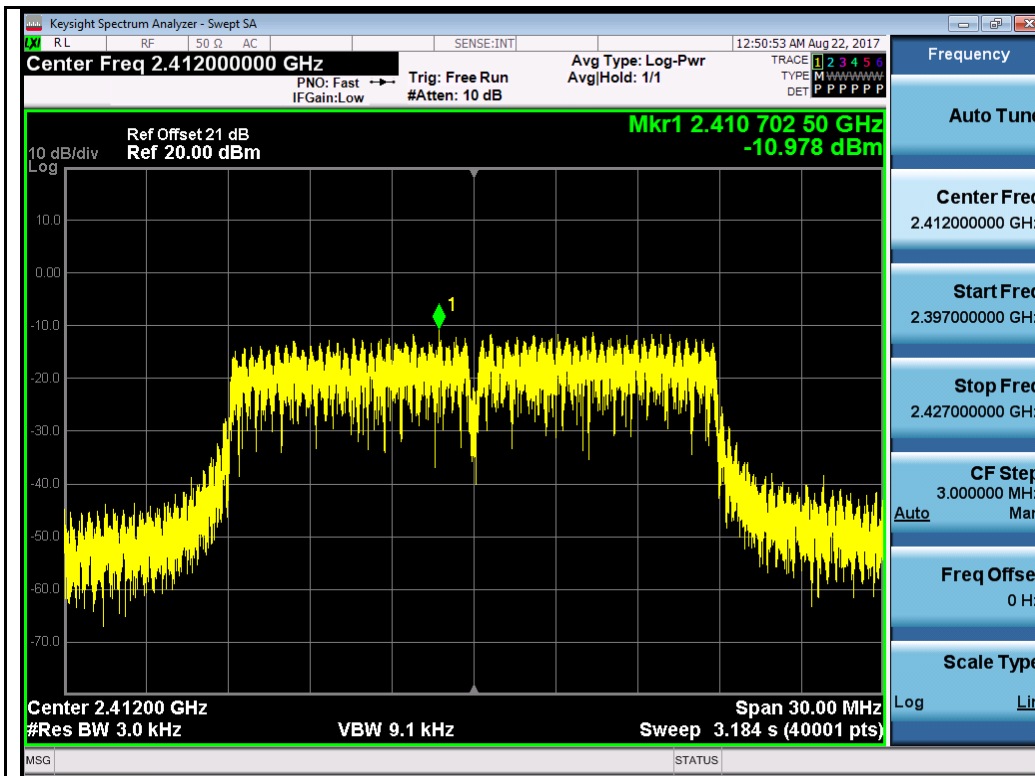


802.11g-2412MHz Chain 1

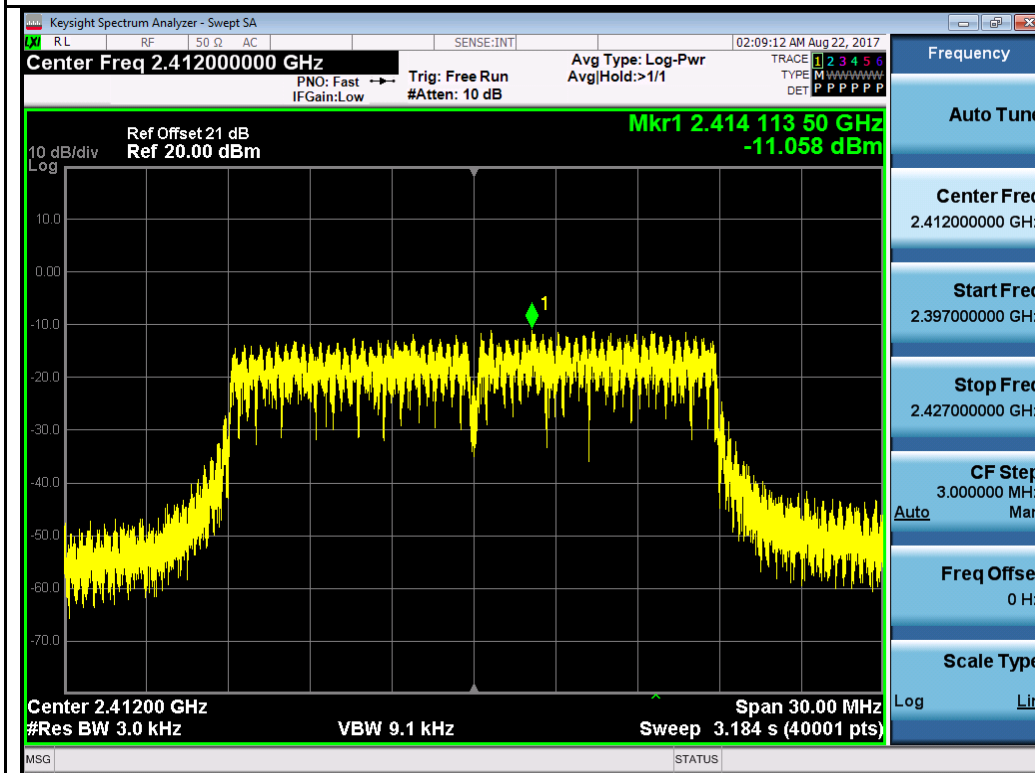




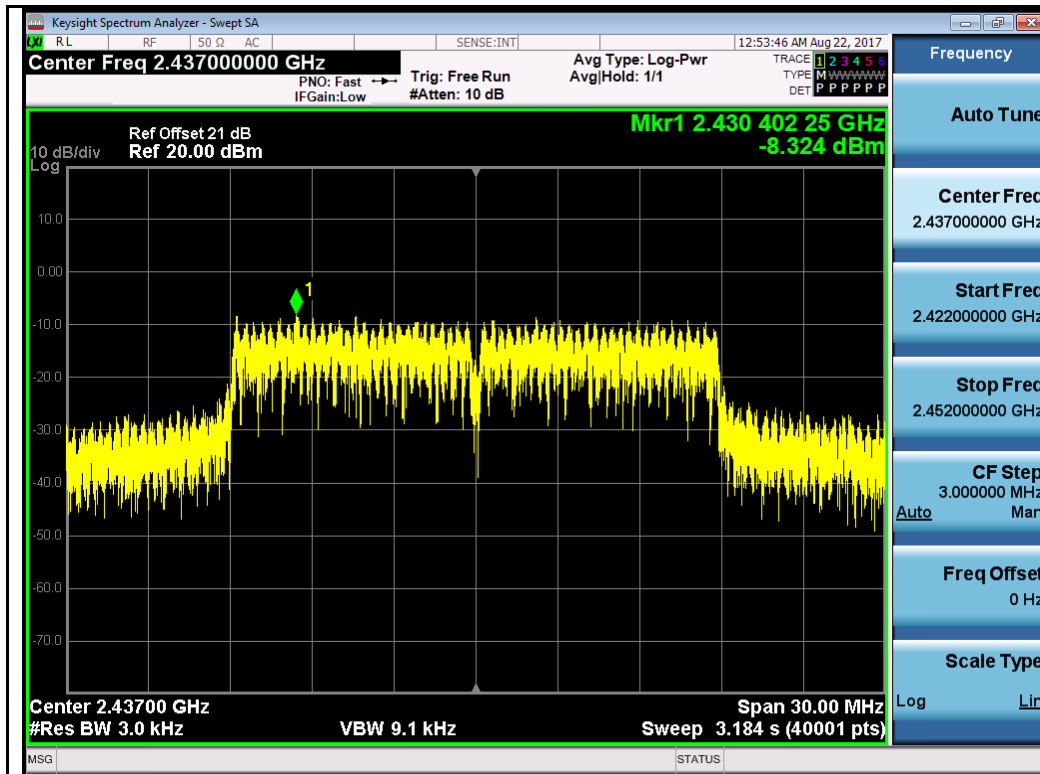




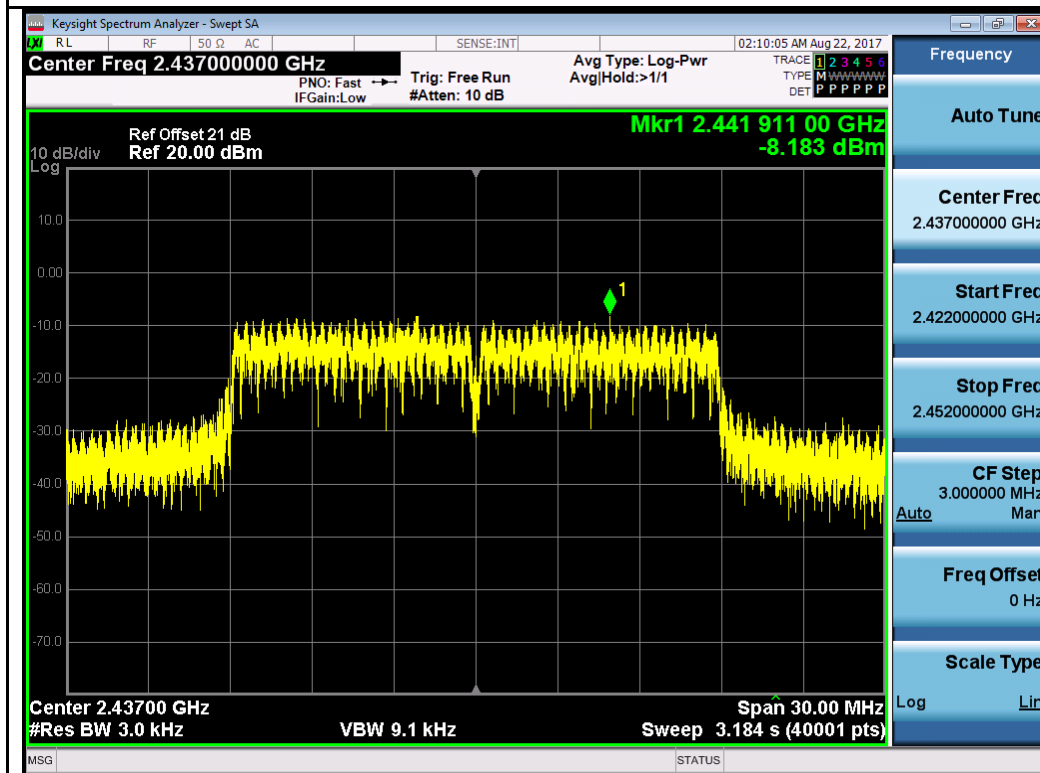
802.11n-HT20 2412MHz Chain 0



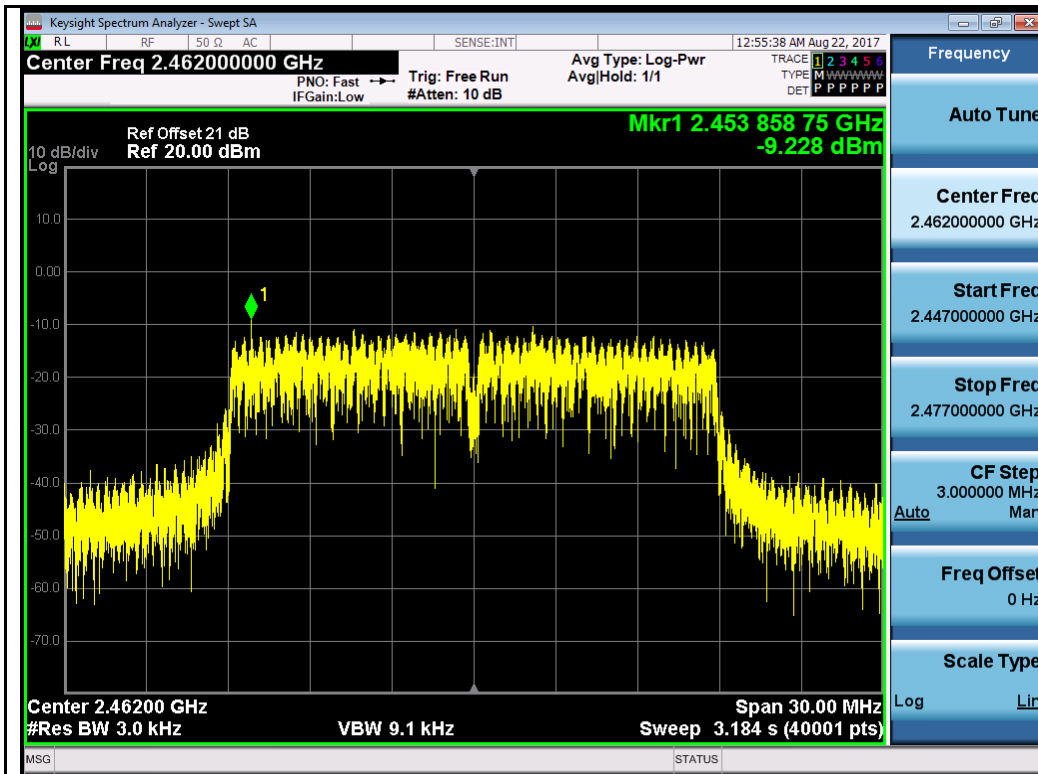
802.11n-HT20 2412MHz Chain 1



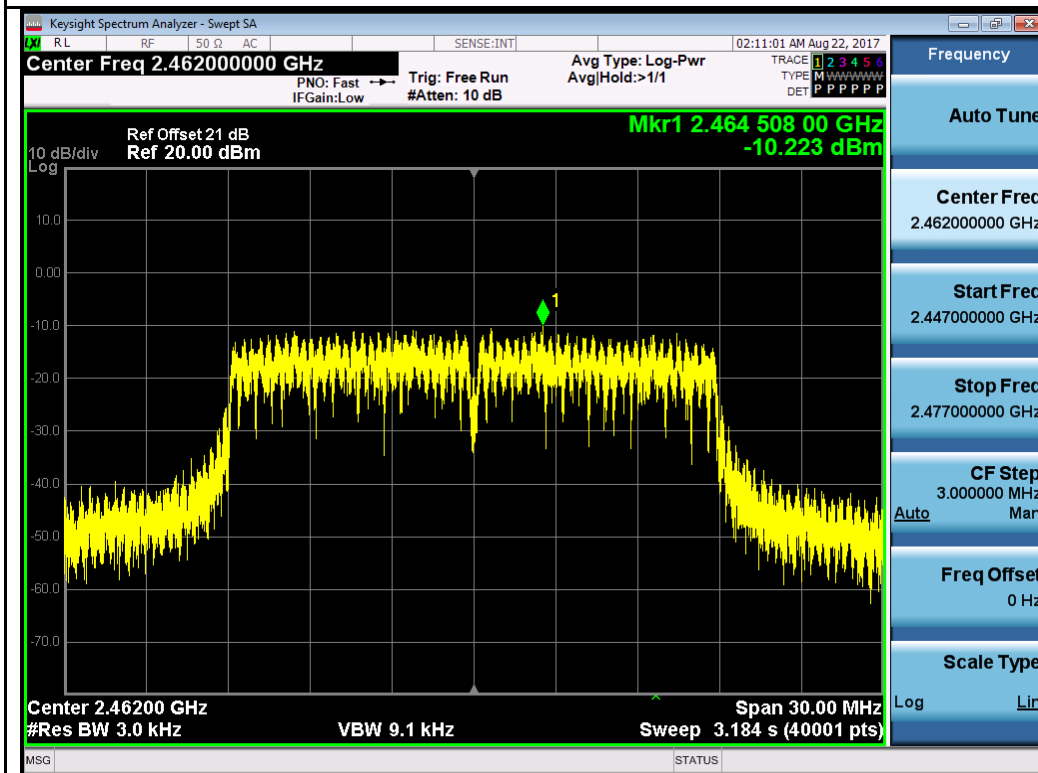
802.11n-HT20 2437MHz Chain 0



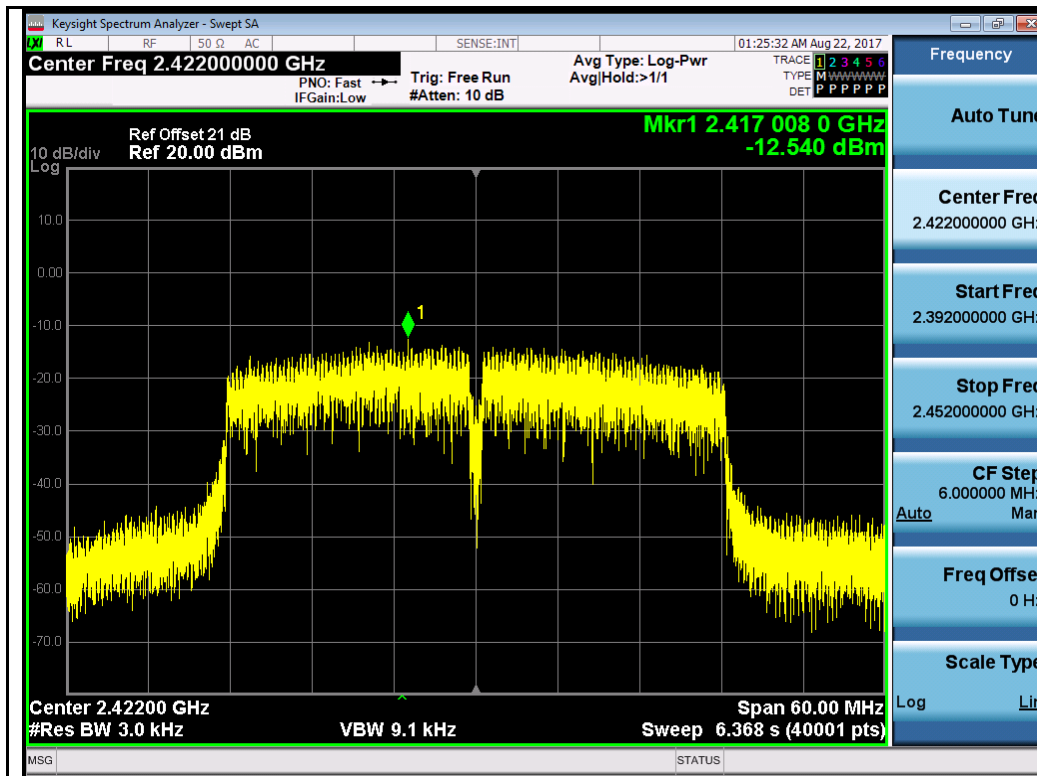
802.11n-HT20 2437MHz Chain 1



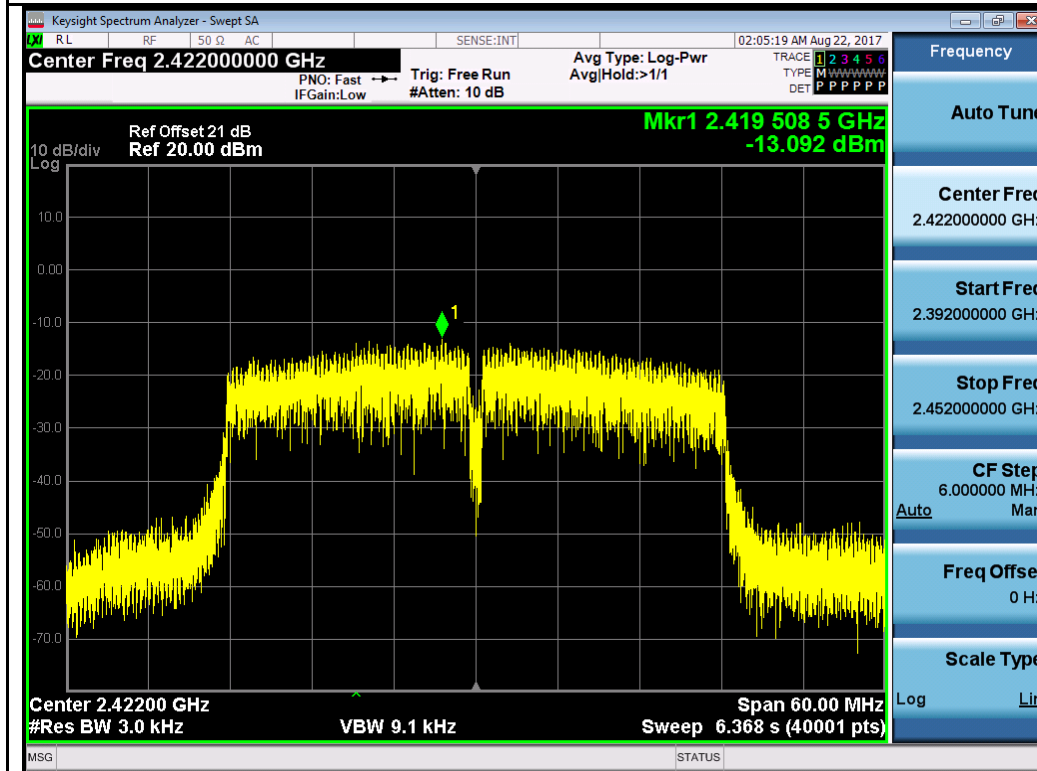
802.11n-HT20 2462MHz Chain 0



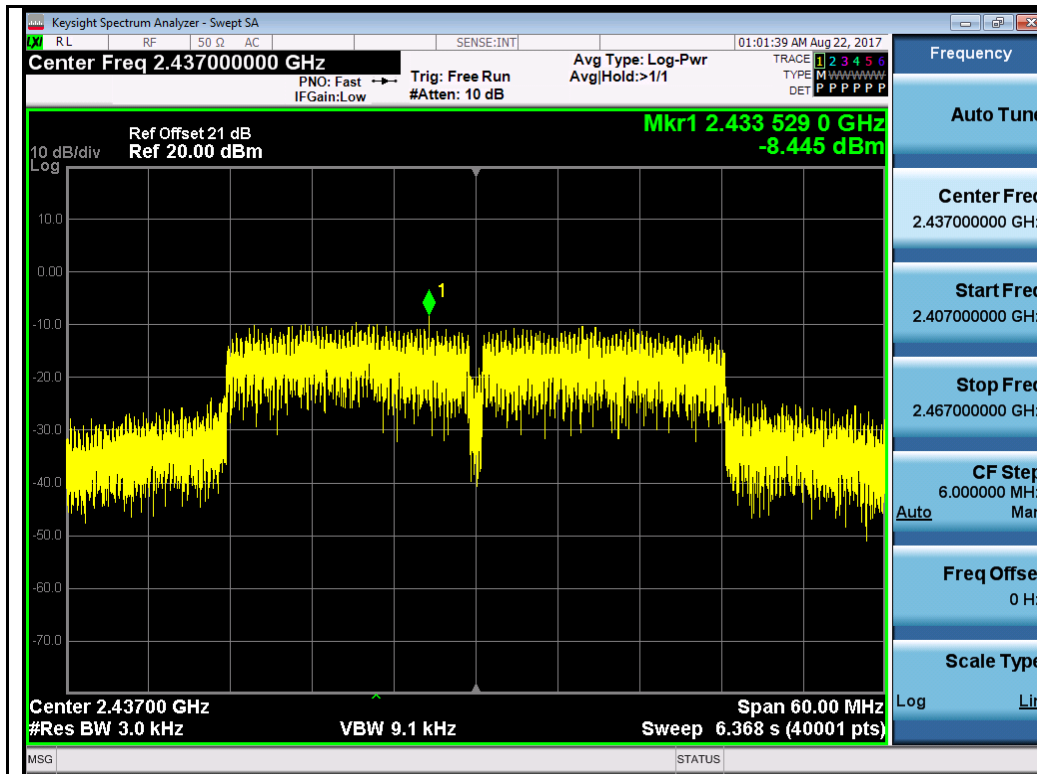
802.11n-HT20 2462MHz Chain 1



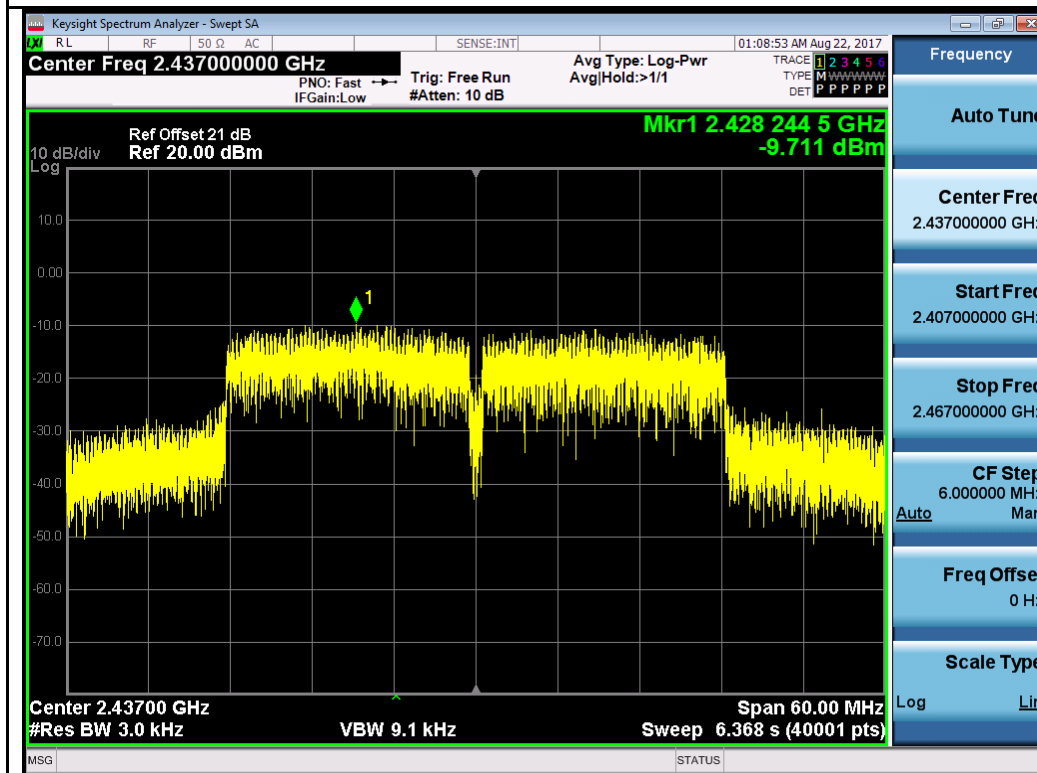
802.11n-HT40 2422MHz Chain 0



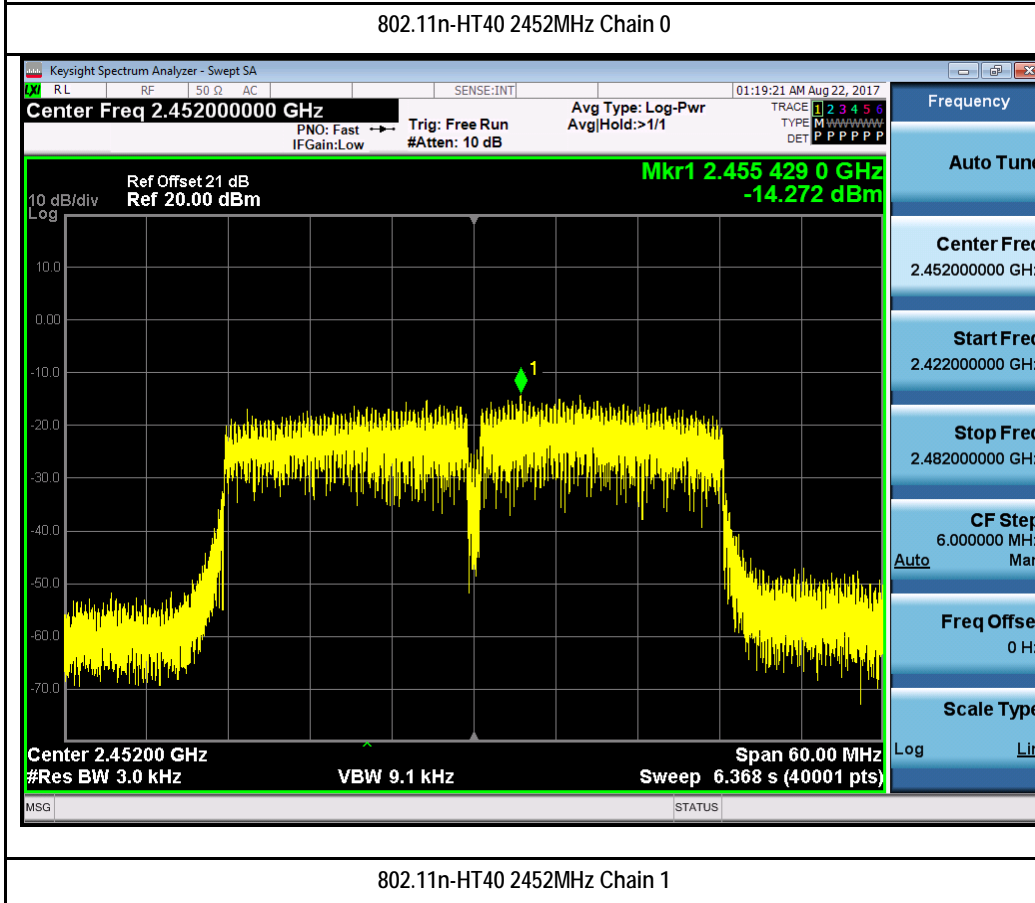
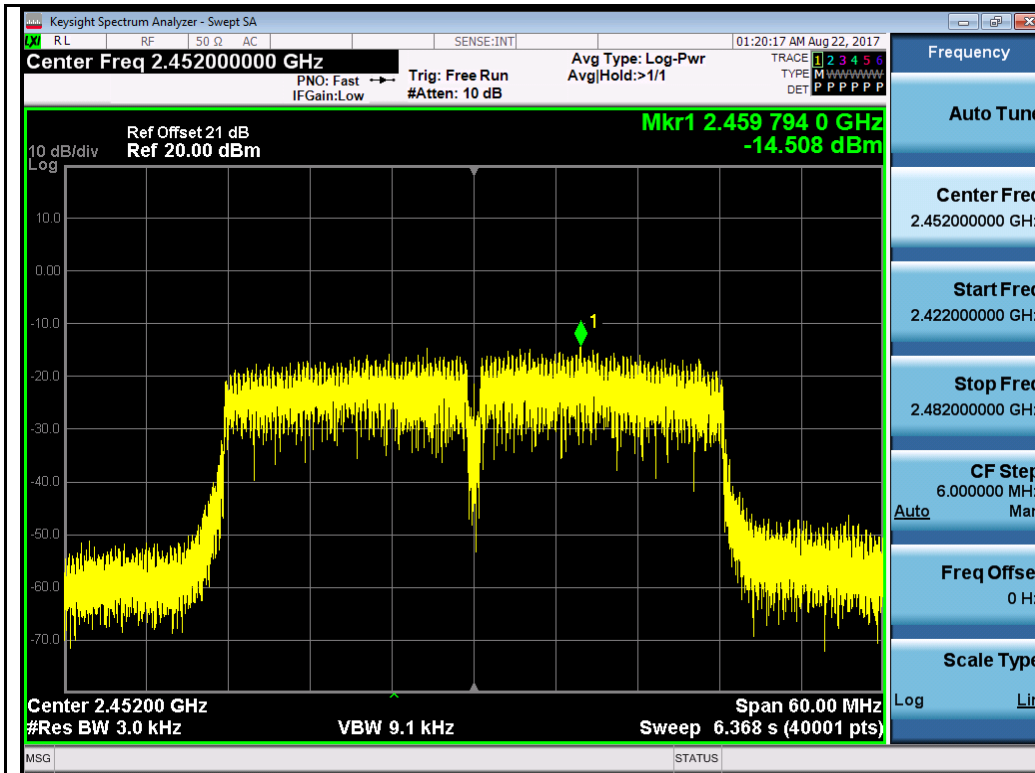
802.11n-HT40 2422MHz Chain 1



802.11n-HT40 2437MHz Chain 0



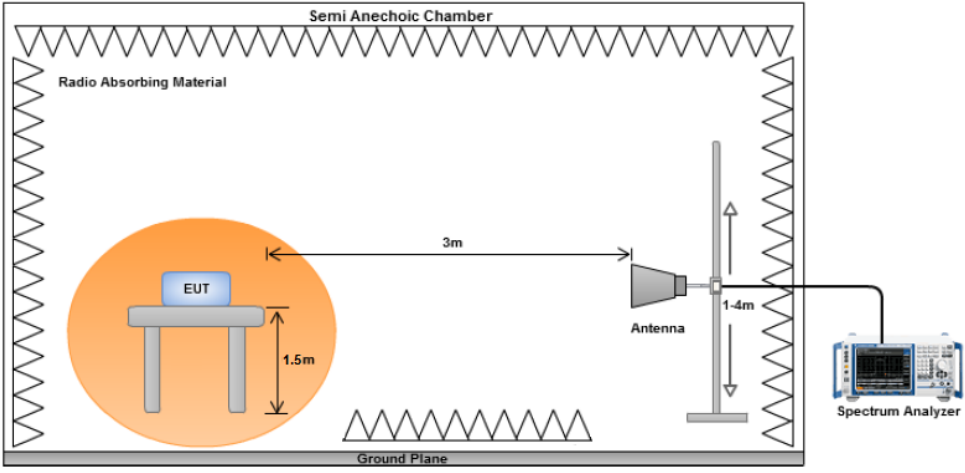
802.11n-HT40 2437MHz Chain 1





### 10.6 Radiated Spurious Emissions in restricted band

Requirement(s):

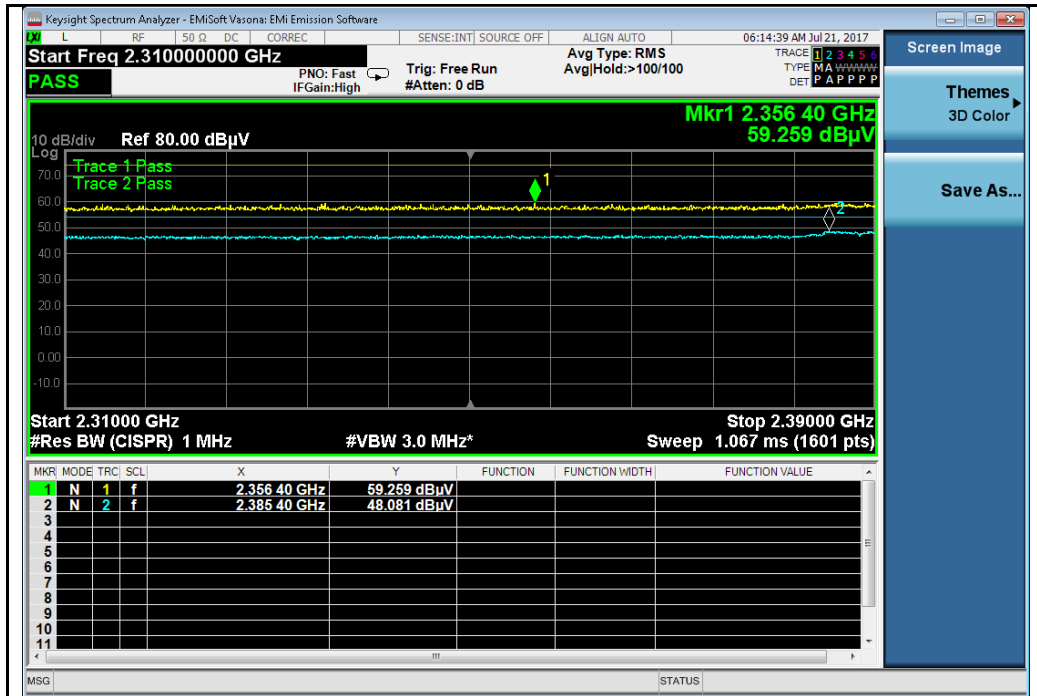
Spec	Item	Requirement	Applicable
47CFR§15.247(d), RSS247(A8.5)	a)	For non-restricted band, In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator 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  <input type="checkbox"/> 20 dB down <input checked="" type="checkbox"/> 30 dB down	<input checked="" type="checkbox"/>
	b)	or restricted band, emission must also comply with the radiated emission limits specified in 15.209	<input checked="" type="checkbox"/>
Test Setup			
Procedure	<ol style="list-style-type: none"> <li>1. The EUT was switched on and allowed to warm up to its normal operating condition.</li> <li>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: <ol style="list-style-type: none"> <li>a. Vertical or horizontal polarisation (whichever gave the higher emission level over a full rotation of the EUT) was chosen.</li> <li>b. The EUT was then rotated to the direction that gave the maximum emission.</li> <li>c. Finally, the antenna height was adjusted to the height that gave the maximum emission.</li> </ol> </li> <li>3. An average measurement was then made for that frequency point.</li> <li>4. Steps 2 and 3 were repeated for the next frequency point, until all selected frequency points were measured.</li> </ol>		
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	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail		

Test Data     Yes (See below)     N/A

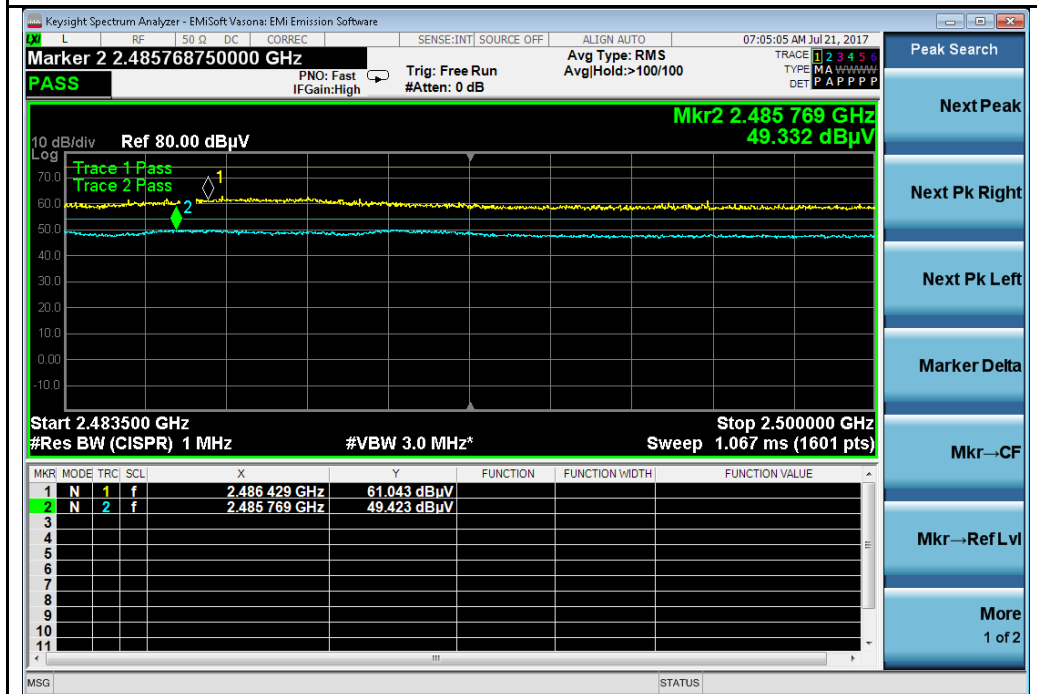
Test Plot     Yes (See below)     N/A

Test was done by CIPHER at 10m chamber.

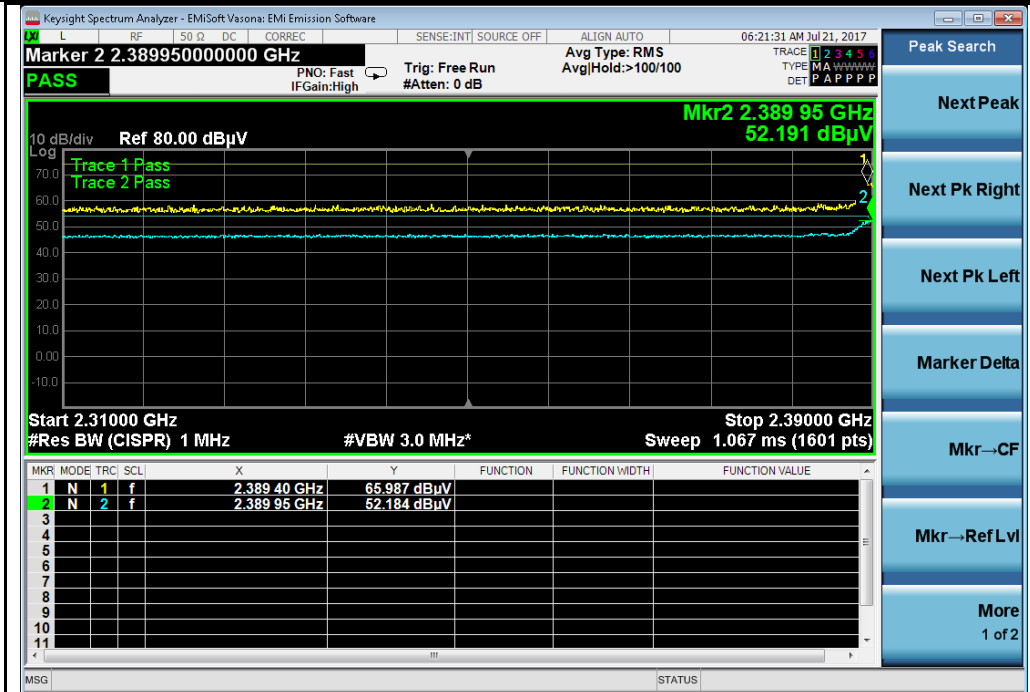
Restricted Band Measurement Plots:



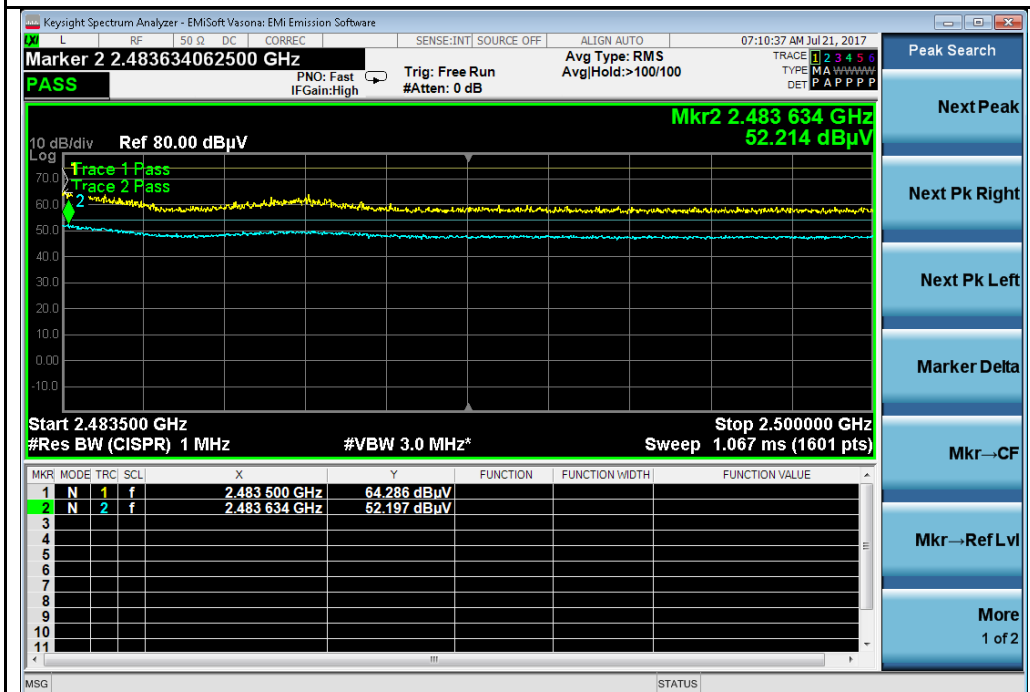
802.11b-2412MHz



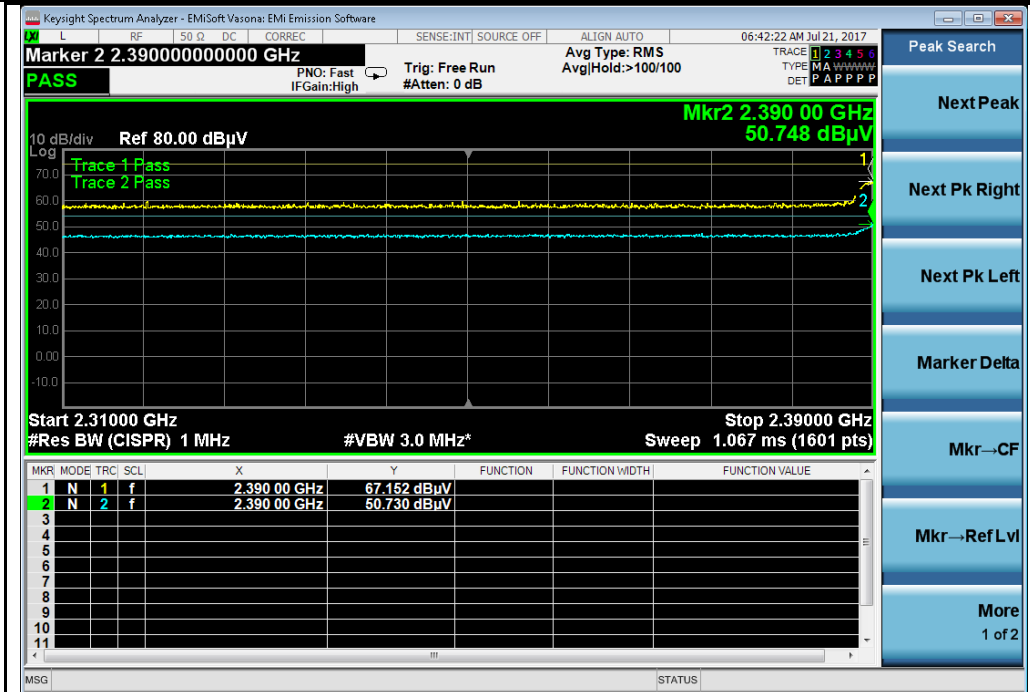
802.11b-2462MHz



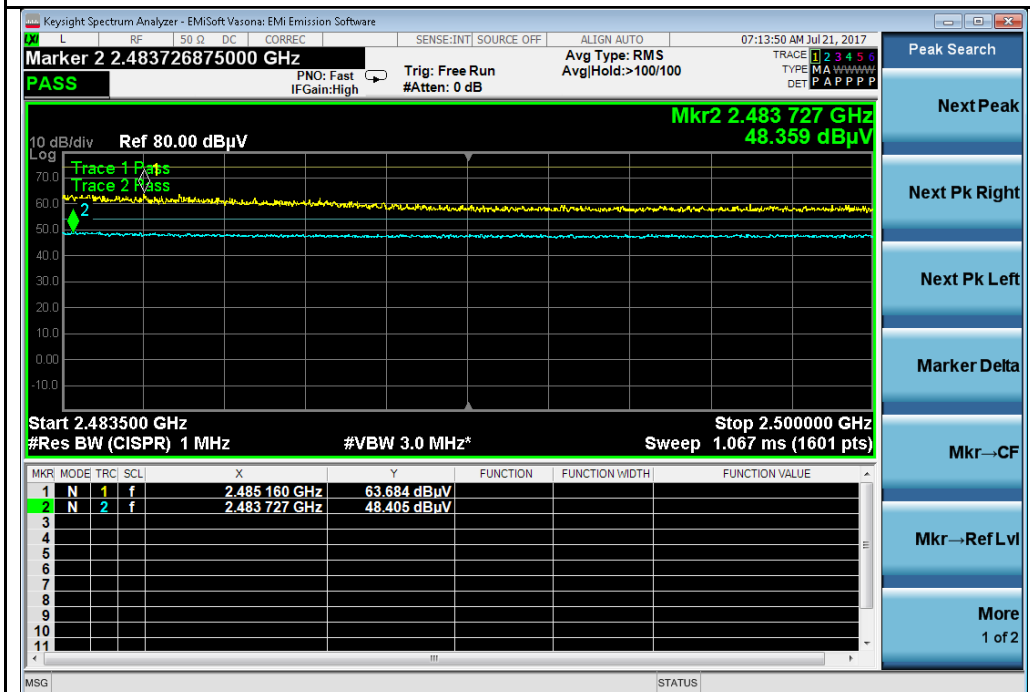
802.11g-2412MHz



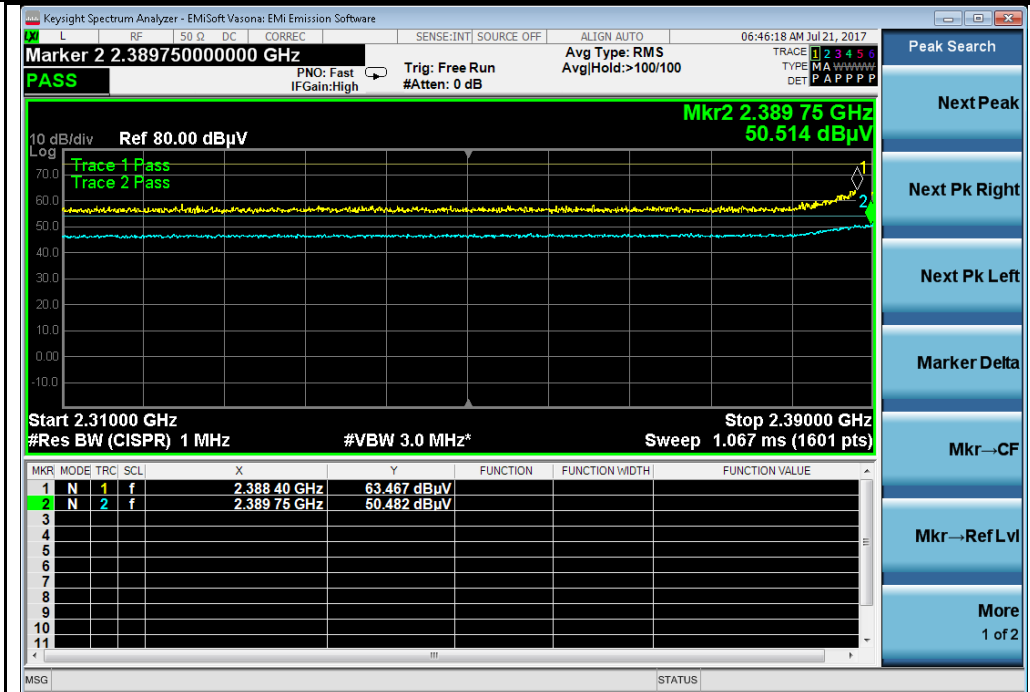
802.11g-2462MHz



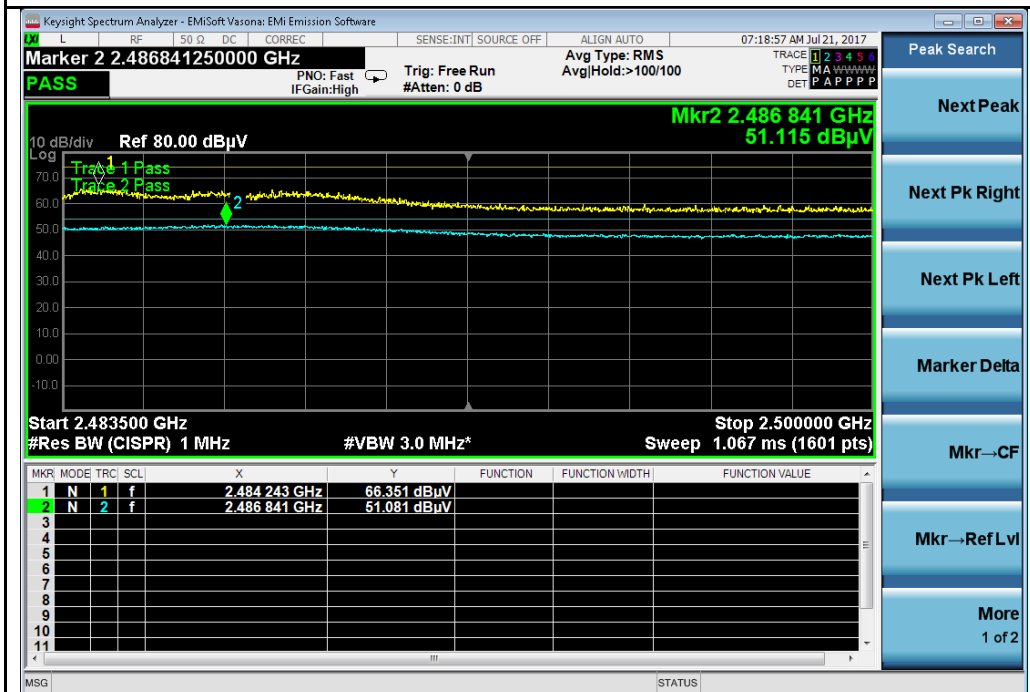
802.11n-HT20-2412MHz



802.11n-HT20-2462MHz



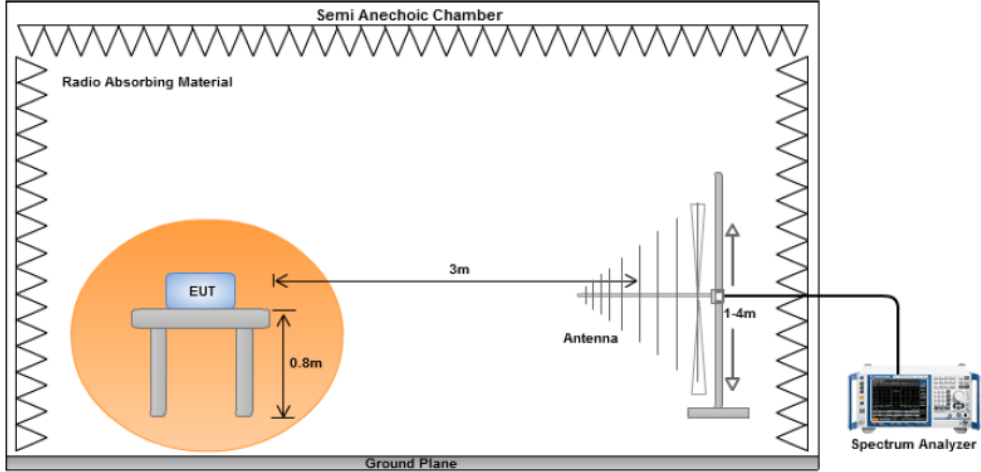
802.11n-HT40-2422MHz



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)	<p>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</p> <table border="1"> <thead> <tr> <th>Frequency range (MHz)</th> <th>Field Strength (uV/m)</th> </tr> </thead> <tbody> <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> </tbody> </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	<ol style="list-style-type: none"> <li>The EUT was switched on and allowed to warm up to its normal operating condition.</li> <li>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: <ol style="list-style-type: none"> <li>Vertical or horizontal polarisation (whichever gave the higher emission level over a full rotation of the EUT) was chosen.</li> <li>The EUT was then rotated to the direction that gave the maximum emission.</li> <li>Finally, the antenna height was adjusted to the height that gave the maximum emission.</li> </ol> </li> <li>A Quasi-peak measurement was then made for that frequency point.</li> <li>Steps 2 and 3 were repeated for the next frequency point, until all selected frequency points were measured.</li> </ol>												
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												

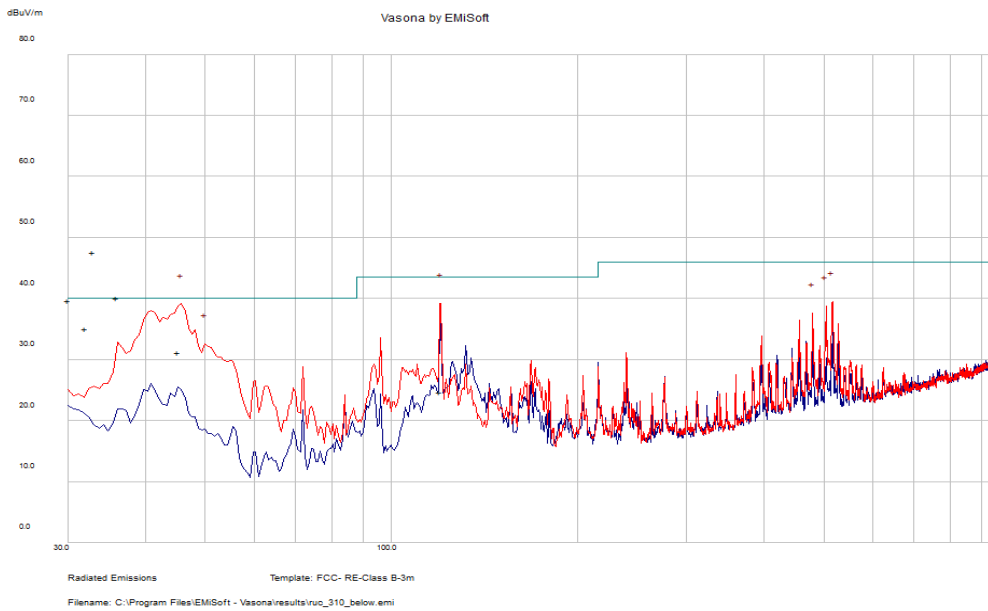
Test Data    ☒ Yes (See below)      ☐ N/A

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

Test was done by Shuo Zhang at 10m chamber.

### Radiated Emission Test Results (Below 1GHz)

Test specification	below 1GHz			Result	Pass
Environmental Conditions:	Temp (°C):	23			
	Humidity (%)	46			
	Atmospheric (mbar):	1018			
Mains Power:	120VAC, 60Hz				
Tested by:	Shuo Zhang				
Test Date:	08/21/2017-10/05/2017				
Remarks:	802.11n HT40, middle channel				



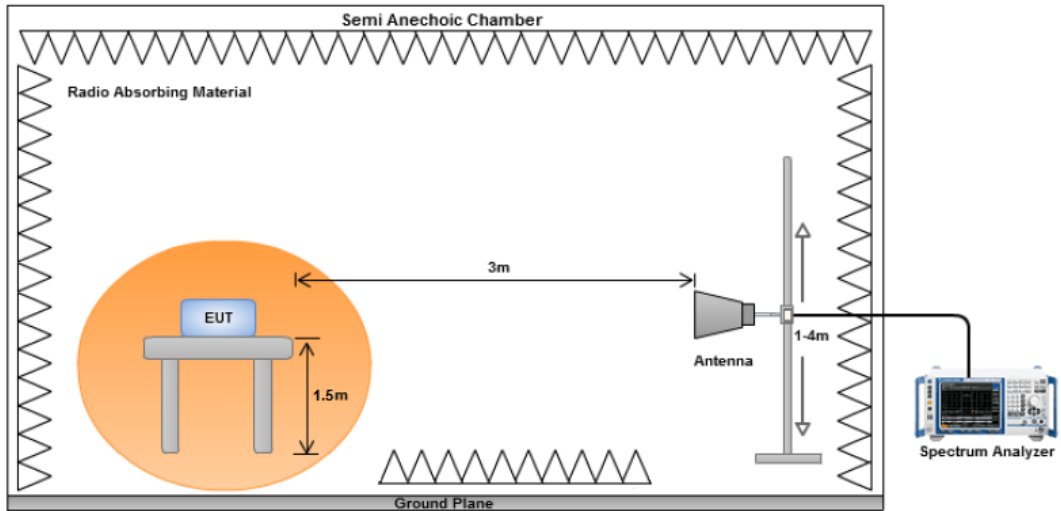
### Quasi Max Measurements

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
45.56	42.84	11.53	-25.38	28.99	Quasi Max	V	246	8	40	-11.01	Pass
120.08	41.79	12.25	-22.85	31.19	Quasi Max	V	159	181	43.5	-12.31	Pass
516.06	36.94	14.76	-18.71	32.98	Quasi Max	V	100	55	46	-13.02	Pass
504.16	33.6	14.63	-18.6	29.63	Quasi Max	V	100	36	46	-16.37	Pass
50.16	41.08	11.58	-26.88	25.78	Quasi Max	V	152	309	40	-14.22	Pass
480.04	36.96	14.55	-19.06	32.45	Quasi Max	V	115	66	46	-13.55	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  <input type="checkbox"/> 20 dB down <input checked="" type="checkbox"/> 30 dB down	<input checked="" type="checkbox"/>
	b)	or restricted band, emission must also comply with the radiated emission limits specified in 15.209	<input checked="" type="checkbox"/>
Test Setup			
Procedure	<ol style="list-style-type: none"> <li>The EUT was switched on and allowed to warm up to its normal operating condition.</li> <li>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: <ol style="list-style-type: none"> <li>Vertical or horizontal polarisation (whichever gave the higher emission level over a full rotation of the EUT) was chosen.</li> <li>The EUT was then rotated to the direction that gave the maximum emission.</li> <li>Finally, the antenna height was adjusted to the height that gave the maximum emission.</li> </ol> </li> <li>An average measurement was then made for that frequency point.</li> <li>Steps 2 and 3 were repeated for the next frequency point, until all selected frequency points were measured.</li> </ol>		
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	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail		

Test Data     Yes (See below)     N/A

Test Plot     Yes (See below)     N/A

Test was done by Shuo Zhang 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
4823.77	55.37	4.17	-2.06	57.47	Peak Max	H	277	122	74	-16.53	Pass
8873.76	38.74	6	1.39	46.13	Peak Max	V	230	260	74	-27.88	Pass
3872.20	39.39	3.77	-2.39	40.78	Peak Max	V	361	64	74	-33.22	Pass
4823.77	38.01	4.17	-2.06	40.12	Average Max	H	277	122	54	-13.88	Pass
8873.76	25.88	6	1.39	33.27	Average Max	V	230	260	54	-20.73	Pass
3872.20	27.3	3.77	-2.39	28.68	Average Max	V	361	64	54	-25.32	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
4874.10	49.67	4.2	-2.14	51.73	Peak Max	H	335	299	74	-22.27	Pass
9686.75	38.21	6.56	1.12	45.89	Peak Max	H	233	211	74	-28.11	Pass
3944.08	39.41	3.81	-2.26	40.96	Peak Max	V	328	198	74	-33.04	Pass
4874.10	32.33	4.2	-2.14	34.39	Average Max	H	335	299	54	-19.61	Pass
9686.75	26.21	6.56	1.12	33.89	Average Max	H	233	211	54	-20.11	Pass
3944.08	26.55	3.81	-2.26	28.09	Average Max	V	328	198	54	-25.91	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
9647.49	38.29	6.56	1.26	46.11	Peak Max	H	247	332	74	-27.89	Pass
4924.08	48.74	4.23	-2.18	50.79	Peak Max	H	222	109	74	-23.21	Pass
5216.98	38.9	4.54	-1.64	41.8	Peak Max	V	334	319	74	-32.2	Pass
9647.49	26.03	6.56	1.26	33.85	Average Max	H	247	332	54	-20.15	Pass
4924.08	34.3	4.23	-2.18	36.35	Average Max	H	222	109	54	-17.65	Pass
5216.98	26.82	4.54	-1.64	29.72	Average Max	V	334	319	54	-24.28	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
9049.19	38.81	6.11	1.39	46.32	Peak Max	H	143	237	74	-27.68	Pass
4830.82	38.34	4.17	-2.07	40.44	Peak Max	V	270	169	74	-33.56	Pass
3613.50	39.76	3.63	-3.35	40.04	Peak Max	V	109	337	74	-33.96	Pass
9049.19	26.26	6.11	1.39	33.77	Average Max	H	143	237	54	-20.23	Pass
4830.82	26.86	4.17	-2.07	28.96	Average Max	V	270	169	54	-25.04	Pass
3613.50	27.36	3.63	-3.35	27.65	Average Max	V	109	337	54	-26.35	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
9608.32	38.62	6.57	1.4	46.59	Peak Max	H	103	24	74	-27.41	Pass
4875.40	45.38	4.2	-2.14	47.44	Peak Max	H	148	81	74	-26.56	Pass
7312.17	37.76	5.35	0.93	44.04	Peak Max	V	310	97	74	-29.97	Pass
9608.32	26.67	6.57	1.4	34.64	Average Max	H	103	24	54	-19.36	Pass
4875.40	27.09	4.2	-2.14	29.14	Average Max	H	148	81	54	-24.86	Pass
7312.17	25.79	5.35	0.93	32.07	Average Max	V	310	97	54	-21.94	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
9451.48	38.22	6.54	1.73	46.49	Peak Max	H	334	20	74	-27.51	Pass
4864.23	39.14	4.19	-2.13	41.2	Peak Max	V	166	100	74	-32.8	Pass
3610.30	39.42	3.63	-3.35	39.7	Peak Max	V	377	277	74	-34.3	Pass
9451.48	26.38	6.54	1.73	34.65	Average Max	H	334	20	54	-19.35	Pass
4864.23	27.03	4.19	-2.13	29.09	Average Max	V	166	100	54	-24.91	Pass
3610.30	27.33	3.63	-3.35	27.61	Average Max	V	377	277	54	-26.39	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
9591.19	38.83	6.57	1.48	46.88	Peak Max	V	378	249	74	-27.12	Pass
4824.93	44.79	4.17	-2.06	46.89	Peak Max	H	231	275	74	-27.11	Pass
3953.45	39.77	3.82	-2.25	41.34	Peak Max	V	270	83	74	-32.67	Pass
9591.19	26.51	6.57	1.48	34.57	Average Max	V	378	249	54	-19.43	Pass
4824.93	26.99	4.17	-2.06	29.1	Average Max	H	231	275	54	-24.9	Pass
3953.45	26.95	3.82	-2.25	28.52	Average Max	V	270	83	54	-25.48	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
9587.58	37.89	6.57	1.51	45.97	Peak Max	H	362	198	74	-28.03	Pass
4870.57	41.57	4.2	-2.14	43.63	Peak Max	H	147	269	74	-30.38	Pass
3814.28	39.95	3.74	-2.5	41.2	Peak Max	V	376	308	74	-32.8	Pass
9587.58	26.39	6.57	1.51	34.47	Average Max	H	362	198	54	-19.53	Pass
4870.57	26.93	4.2	-2.14	28.99	Average Max	H	147	269	54	-25.01	Pass
3814.28	27.37	3.74	-2.5	28.62	Average Max	V	376	308	54	-25.38	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
9693.06	38.35	6.55	1.1	46.01	Peak Max	H	299	298	74	-27.99	Pass
3875.34	39.53	3.78	-2.38	40.93	Peak Max	V	132	131	74	-33.08	Pass
3256.34	41.58	3.5	-3.85	41.23	Peak Max	V	103	70	74	-32.77	Pass
9693.06	26.37	6.55	1.1	34.03	Average Max	H	299	298	54	-19.97	Pass
3875.34	27.48	3.78	-2.38	28.87	Average Max	V	132	131	54	-25.13	Pass
3256.34	28.4	3.5	-3.85	28.05	Average Max	V	103	70	54	-25.95	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
9608.46	38.97	6.57	1.4	46.94	Peak Max	V	225	181	74	-27.06	Pass
4843.99	39.59	4.18	-2.09	41.67	Peak Max	H	121	14	74	-32.33	Pass
3795.36	39.43	3.73	-2.56	40.61	Peak Max	V	112	270	74	-33.4	Pass
9608.46	26.98	6.57	1.4	34.95	Average Max	V	225	181	54	-19.05	Pass
4843.99	27.5	4.18	-2.09	29.59	Average Max	H	121	14	54	-24.41	Pass
3795.36	27.53	3.73	-2.56	28.71	Average Max	V	112	270	54	-25.29	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
9454.23	38.64	6.54	1.75	46.94	Peak Max	V	113	74	74	-27.06	Pass
4875.49	45.71	4.2	-2.14	47.76	Peak Max	H	231	288	74	-26.24	Pass
5978.37	39.17	4.79	-0.26	43.7	Peak Max	V	124	276	74	-30.3	Pass
9454.23	26.3	6.54	1.75	34.59	Average Max	V	113	74	54	-19.41	Pass
4875.49	27.66	4.2	-2.14	29.71	Average Max	H	231	288	54	-24.29	Pass
5978.37	26.34	4.79	-0.26	30.88	Average Max	V	124	276	54	-23.13	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
9505.45	39.04	6.59	2.03	47.65	Peak Max	H	273	39	74	-26.35	Pass
4779.91	39.01	4.14	-2.12	41.04	Peak Max	V	355	301	74	-32.96	Pass
3884.54	39.93	3.78	-2.37	41.34	Peak Max	V	268	307	74	-32.66	Pass
9505.45	26.26	6.59	2.03	34.88	Average Max	H	273	39	54	-19.13	Pass
4779.91	27.09	4.14	-2.12	29.11	Average Max	V	355	301	54	-24.89	Pass
3884.54	27.42	3.78	-2.37	28.84	Average Max	V	268	307	54	-25.16	Pass

## Annex A. TEST INSTRUMENT

Instrument	Model	Serial #	Cal Date	Cal Cycle	Cal Due	In use
<b>Conducted Emissions</b>						
R & S Receiver	ESIB 40	100179	06/08/2017	1 Year	06/08/2018	<input checked="" type="checkbox"/>
CHASE LISN	MN2050B	1018	08/07/2017	1 Year	08/07/2018	<input checked="" type="checkbox"/>
<b>Radiated Emissions</b>						
R & S Receiver	ESIB 40	1018	08/07/2017	1 Year	08/07/2018	<input checked="" type="checkbox"/>
Bi-Log antenna (30MHz-2GHz)	JB1	A030702	08/12/2017	1 Year	08/12/2018	<input checked="" type="checkbox"/>
Horn Antenna (1GHz-26GHz)	3115	100059	08/25/2017	1 Year	08/25/2018	<input checked="" type="checkbox"/>
3 Meters SAC	3M	N/A	08/08/2017	1 Year	08/08/2018	<input checked="" type="checkbox"/>
10 Meters SAC	10M	N/A	09/05/2017	1 Year	09/05/2018	<input checked="" type="checkbox"/>
<b>RF Conducted Measurement</b>						
Spectrum Analyzer	N9010A	10SL0219	08/20/2017	1 Year	08/20/2018	<input checked="" type="checkbox"/>
R & S Receiver	ESIB 40	100179	06/08/2017	1 Year	06/08/2018	<input checked="" type="checkbox"/>
ETS-Lingren USB RF Power Sensor	7002-006	10SL0190	09/03/2017	1 Year	09/03/2018	<input checked="" type="checkbox"/>

## 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		<a href="#">A1</a> , <a href="#">A2</a> , <a href="#">A3</a> , <a href="#">A4</a> , <a href="#">B1</a> , <a href="#">B2</a> , <a href="#">B3</a> , <a href="#">B4</a> , <a href="#">C</a>
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		<b>Radio &amp; Telecommunications Terminal Equipment:</b> EN45001 – EN ISO/IEC 17025
		<b>Electromagnetic Compatibility:</b> EN45001 – EN ISO/IEC 17025
Singapore iDA CB(Certification Body)		<a href="#">Phase I</a> , <a href="#">Phase II</a>
Vietnam MIC CAB Accreditation		Please see the document for the detailed scope
Hong Kong OFCA		<b>(Phase II)</b> OFCA Foreign Certification Body for Radio and Telecom
		<b>(Phase I)</b> Conformity Assessment Body for Radio and Telecom
Industry Canada CAB		<b>Radio:</b> Scope A – All Radio Standard Specification in Category I
		<b>Telecom:</b> CS-03 Part I, II, V, VI, VII, VIII

Japan Recognized Certification Body Designation		<p><b>Radio:</b> A1. Terminal equipment for purpose of calling</p> <p><b>Telecom:</b> B1. Specified radio equipment specified in Article 38-2, Paragraph 1, Item 1 of the Radio Law</p>
Korea CAB Accreditation		<p><b>EMI:</b> KCC Notice 2008-39, RRL Notice 2008-3: CA Procedures for EMI KN22: Test Method for EMI</p> <p><b>EMS:</b> 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</p> <p><b>Radio:</b> 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</p> <p><b>Telecom:</b> 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</p>
Taiwan NCC CAB Recognition		LP0002, PSTN01, ADSL01, ID0002, IS6100, CNS14336, PLMN07, PLMN01, PLMN08
Taiwan BSMI CAB Recognition		CNS 13438
Japan VCCI		<p>R-3083: Radiation 3 meter site</p> <p>C-3421: Main Ports Conducted Interference Measurement</p> <p>T-1597: Telecommunication Ports Conducted Interference Measurement</p>
Australia CAB Recognition		<p><b>EMC:</b> AS/NZS CISPR 11, AS/NZS CISPR 14.1, AS/NZS CISPR22, AS/NZS 61000.6.3, AS/NZS 61000.6.4</p> <p><b>Radio communications:</b> 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</p> <p><b>Telecommunications:</b> 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</p>
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