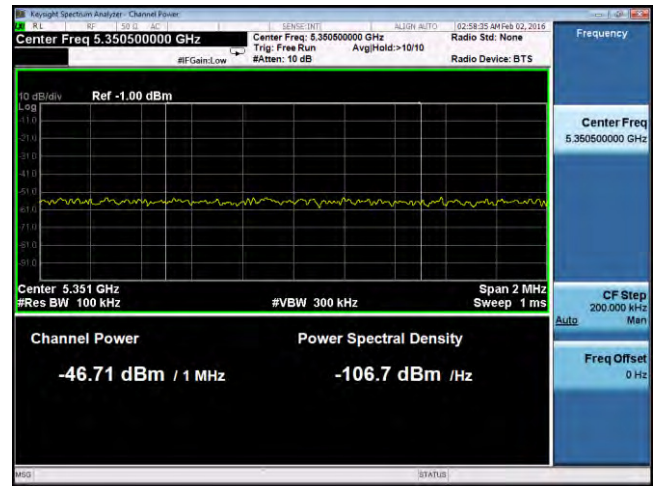




Band Edge -802.11n-20M-5240M-chain1



Band Edge -802.11n-20M-5240M-chain2



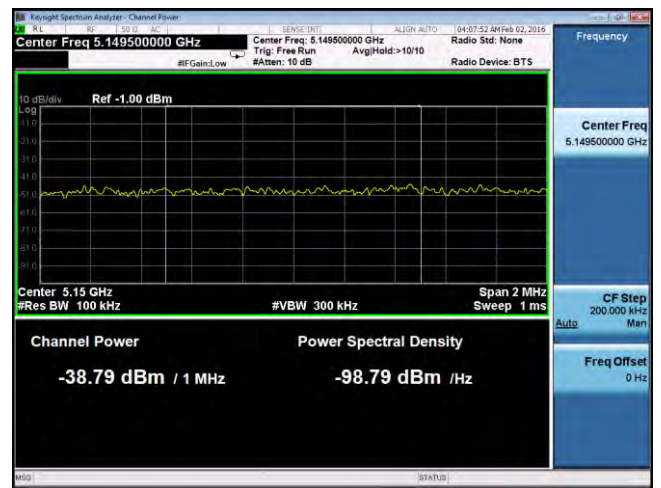
Band Edge -802.11n-20M-5240M-chain3



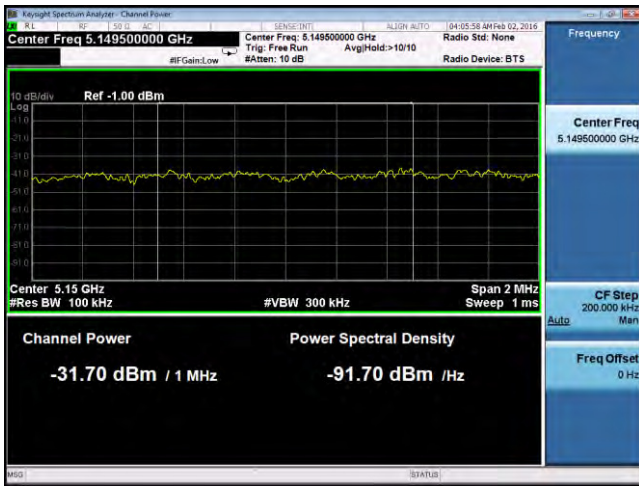
Band Edge -802.11n-20M-5240M-chain4



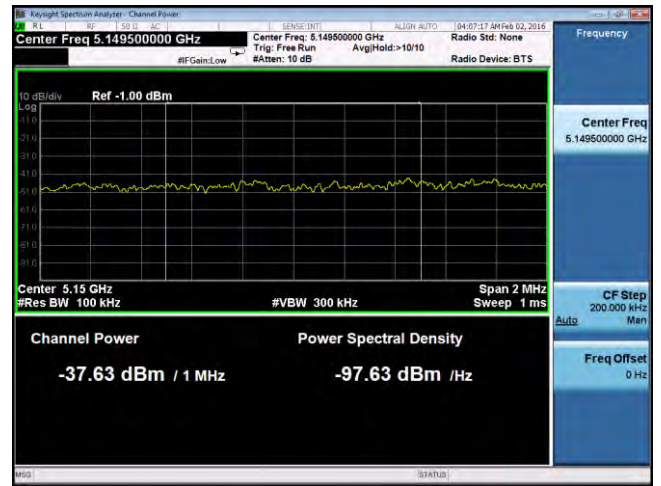
Band Edge -802.11n-40M-5190M-chain1



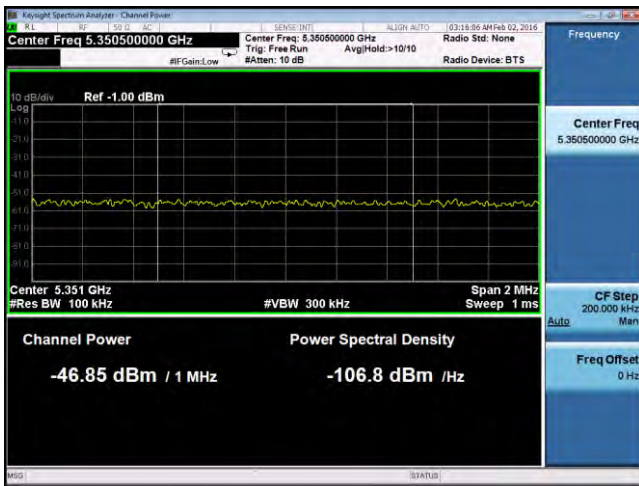
Band Edge -802.11n-40M-5190M-chain2



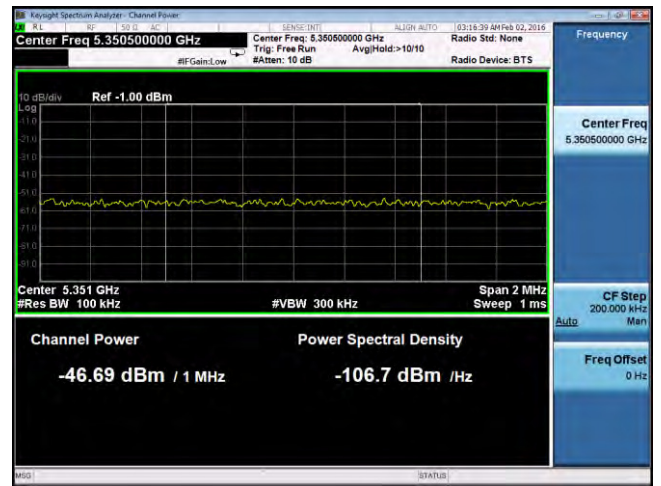
Band Edge -802.11n-40M-5190M-chain3



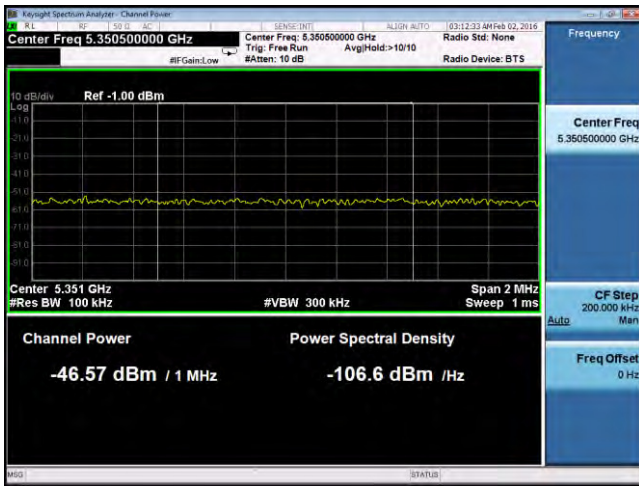
Band Edge -802.11n-40M-5190M-chain4



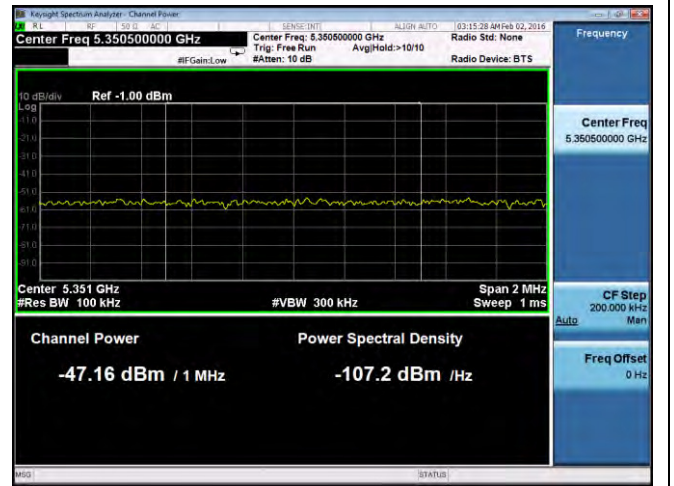
Band Edge -802.11n-40M-5230M-chain1



Band Edge -802.11n-40M-5230M-chain2



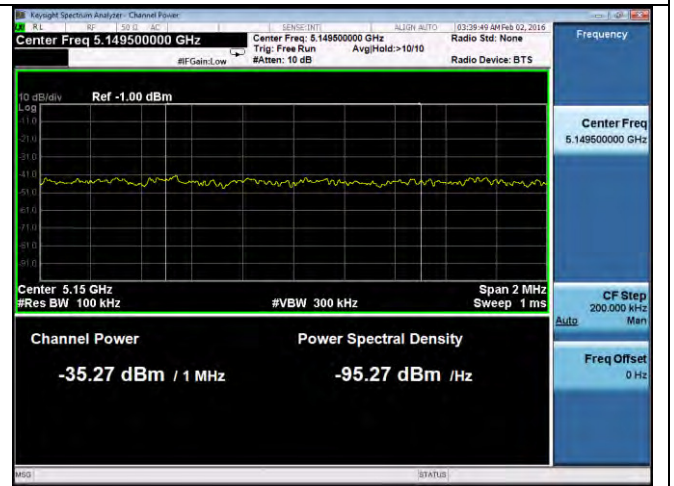
Band Edge -802.11n-40M-5230M-chain3



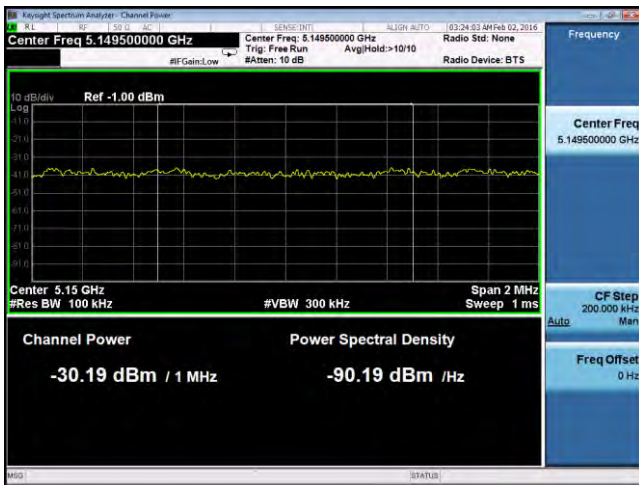
Band Edge -802.11n-40M-5230M-chain4



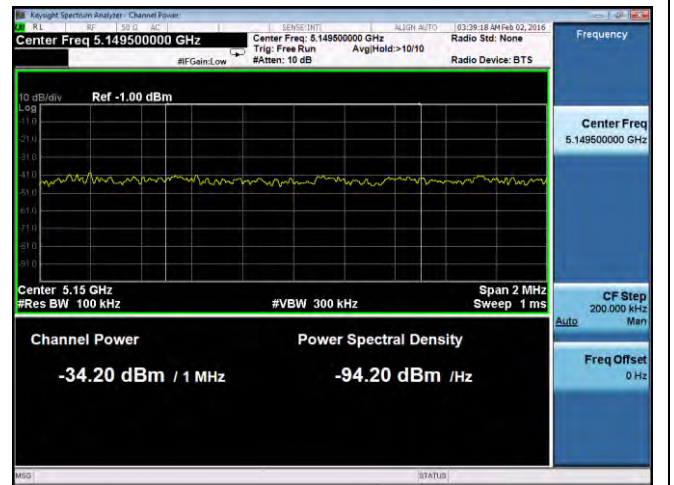
Band Edge -802.11ac-80M-5210M-chain1



Band Edge -802.11ac-80M-5210M-chain2



Band Edge -802.11ac-80M-5210M-chain3

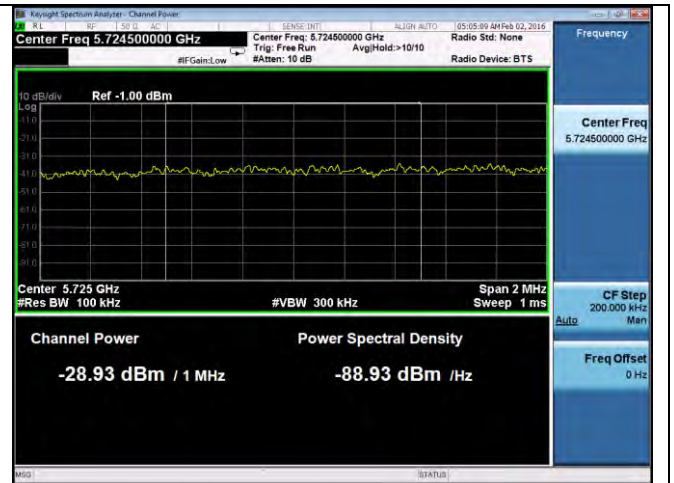


Band Edge -802.11ac-80M-5210M-chain4

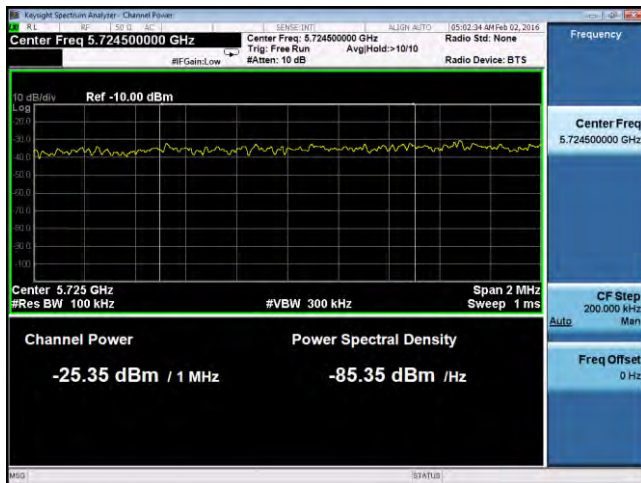
5.8GHz band: (10MHz offset)



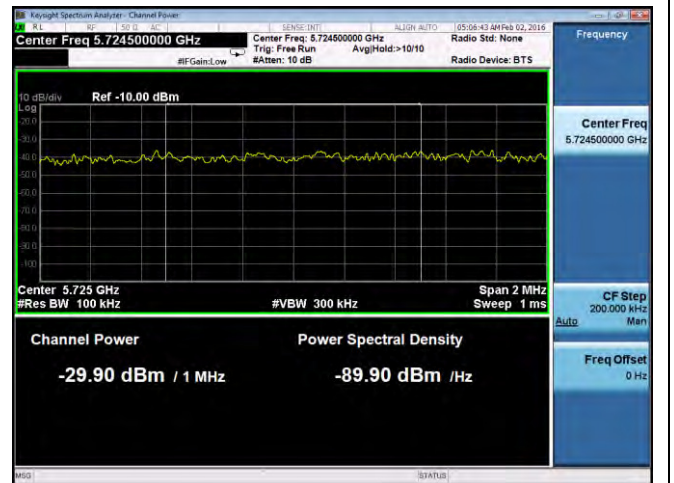
Band Edge -802.11a-5745M-chain1



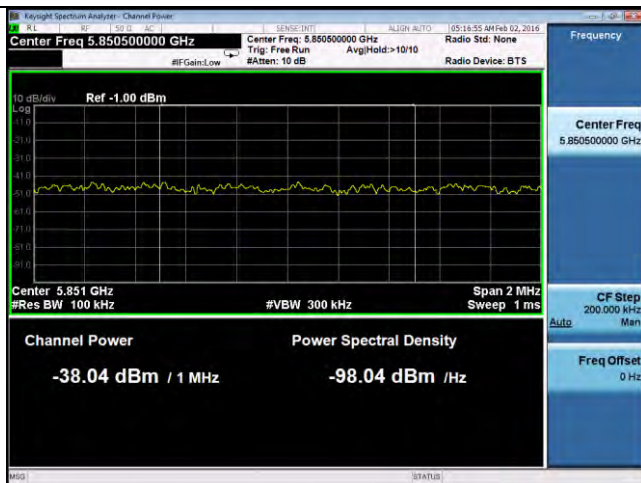
Band Edge -802.11a-5745M-chain2



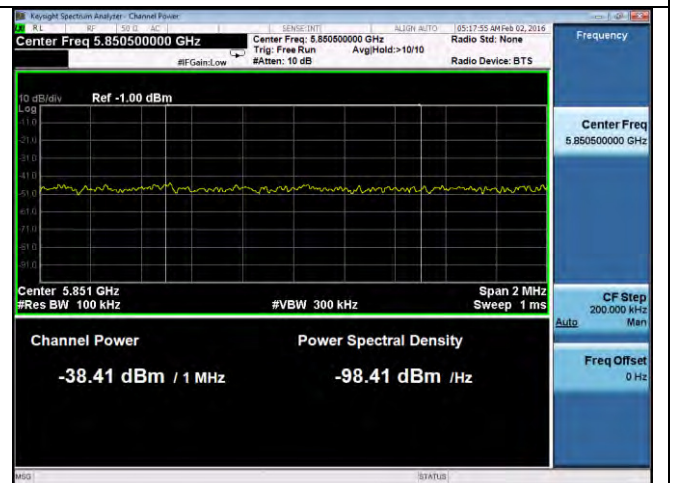
Band Edge -802.11a-5745M-chain3



Band Edge -802.11a-5745M-chain4



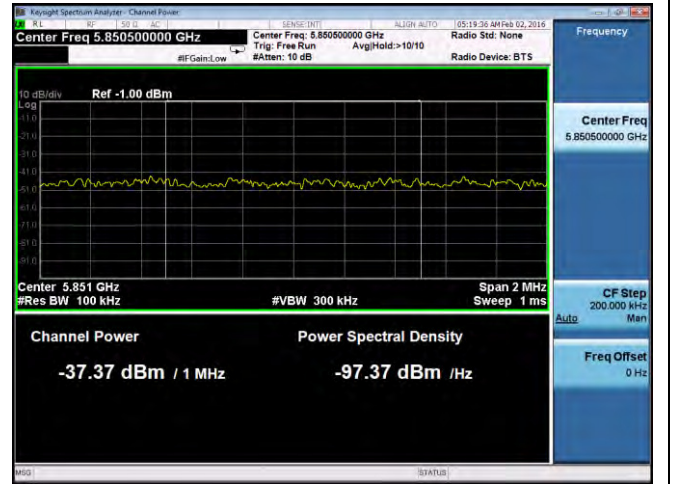
Band Edge -802.11a-5785M-chain1



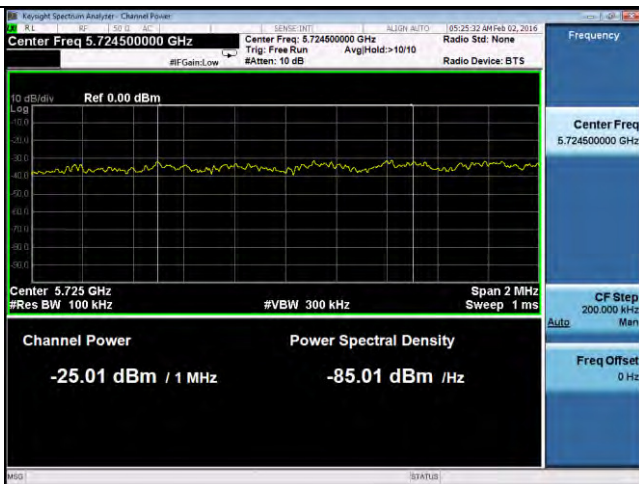
Band Edge -802.11a-5785M-chain2



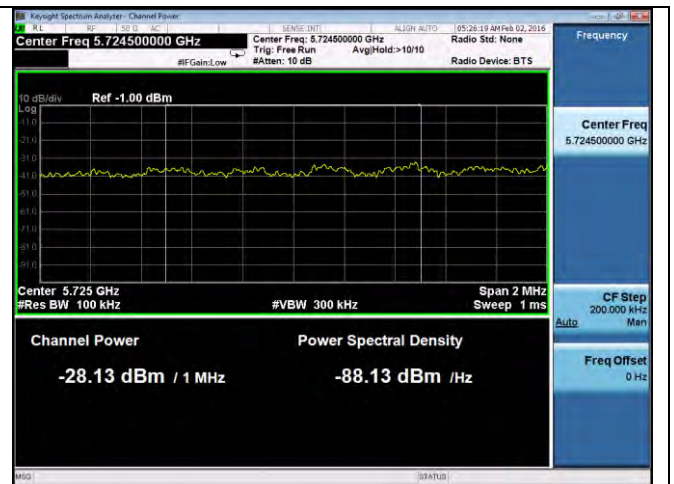
Band Edge -802.11a-5785M-chain3



Band Edge -802.11a-5785M-chain4



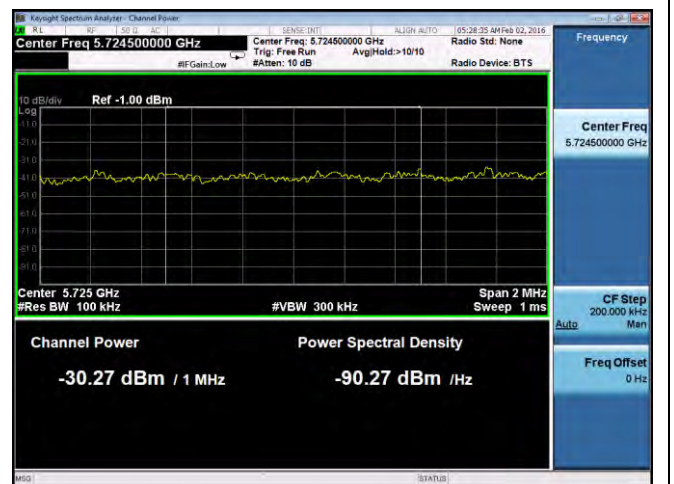
Band Edge -802.11n-20M -5745M-chain1



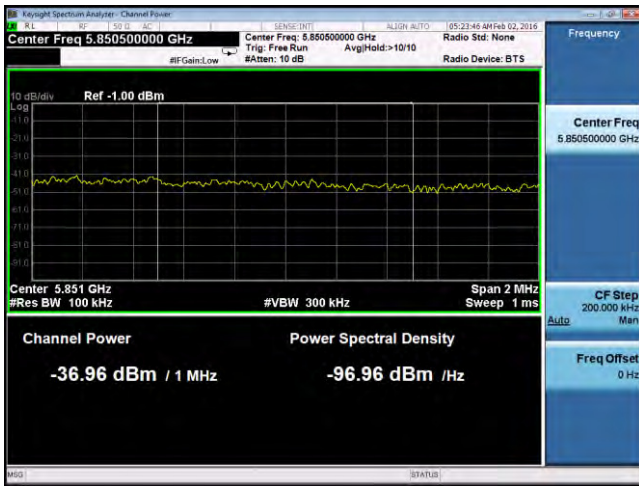
Band Edge -802.11n-20M -5745M-chain2



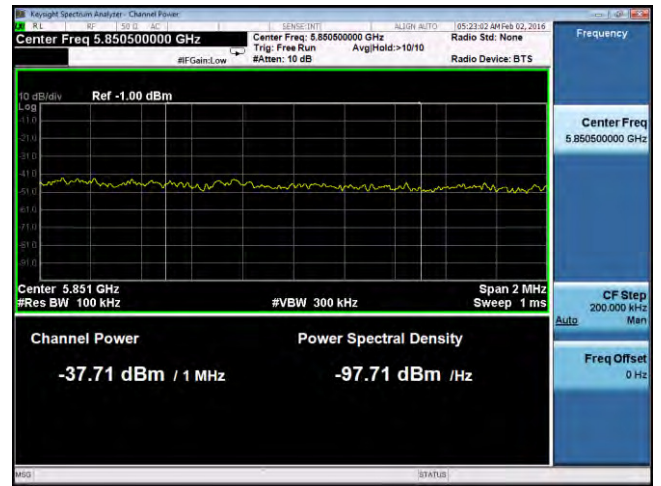
Band Edge -802.11n-20M -5745M-chain3



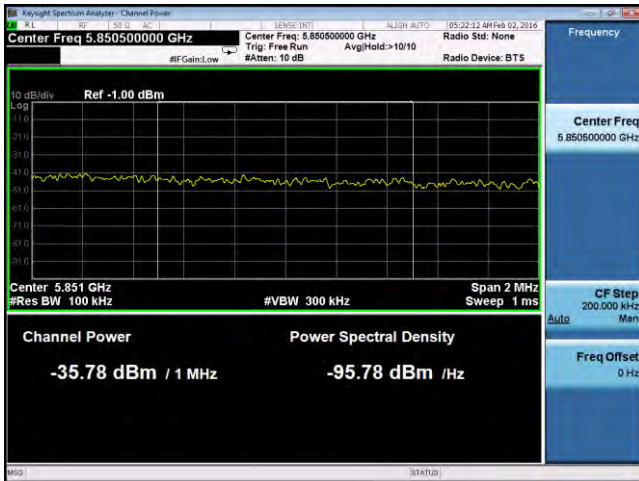
Band Edge -802.11n-20M -5745M-chain4



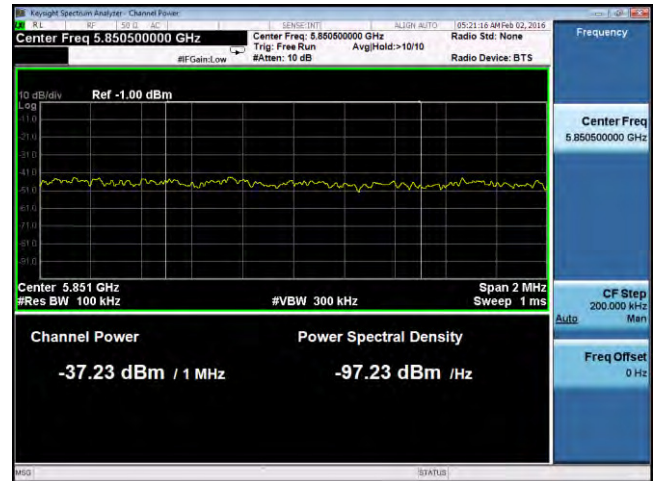
Band Edge -802.11n-20M-5825M-chain1



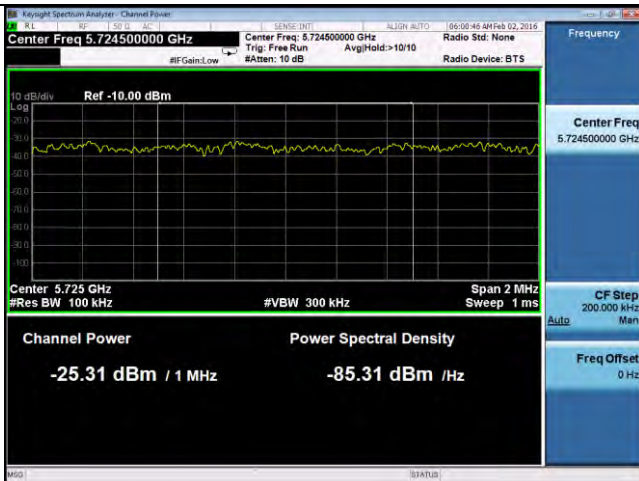
Band Edge -802.11n-20M-5825M-chain2



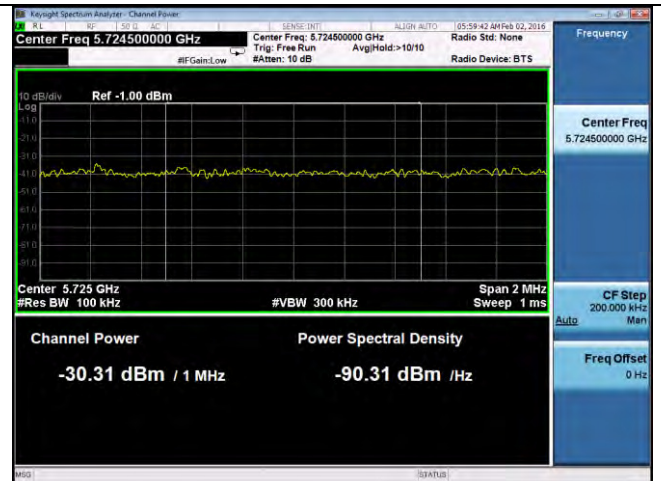
Band Edge -802.11n-20M-5825M-chain3



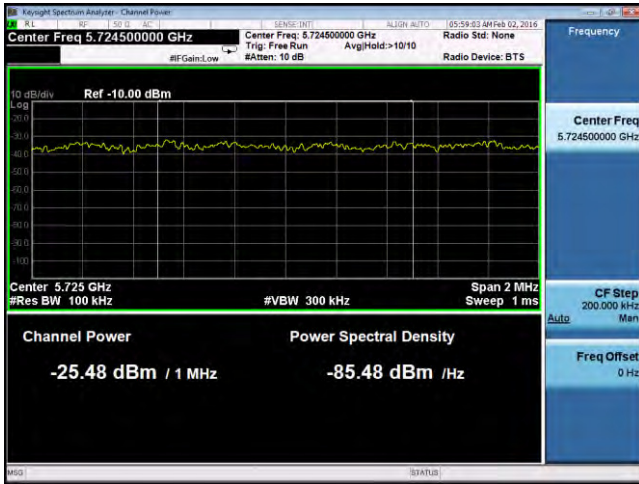
Band Edge -802.11n-20M-5825M-chain4



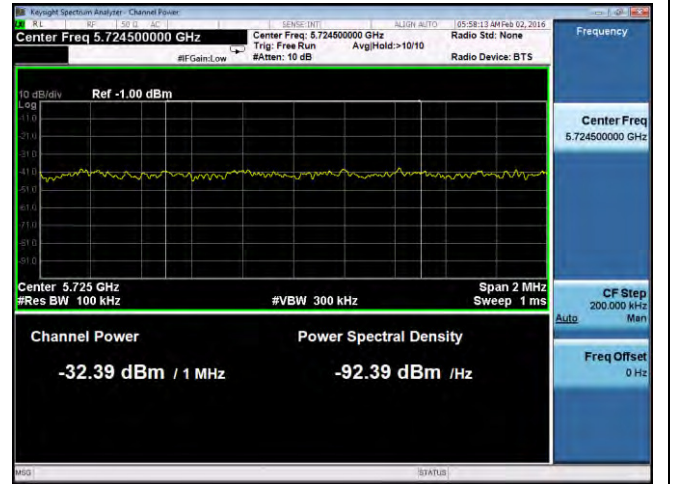
Band Edge -802.11n-40M-5755M-chain1



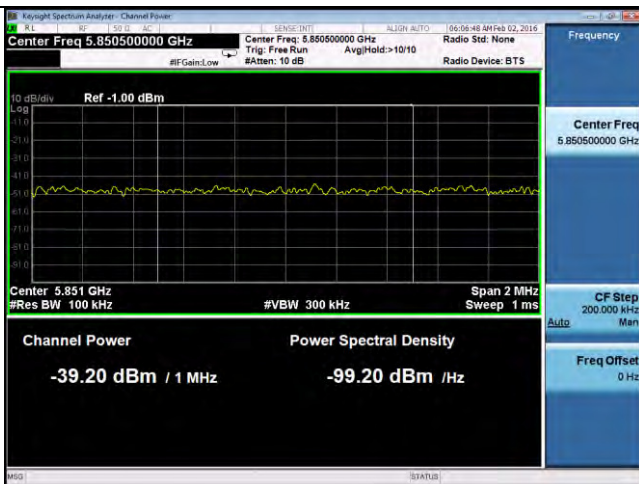
Band Edge -802.11n-40M-5755M-chain2



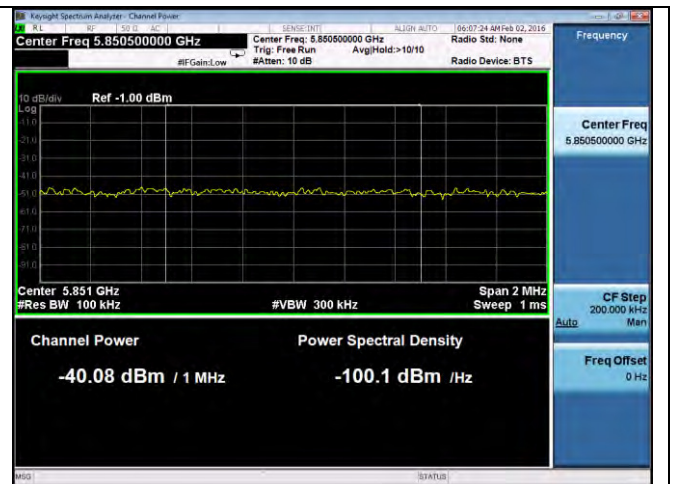
Band Edge -802.11n-40M-5755M-chain3



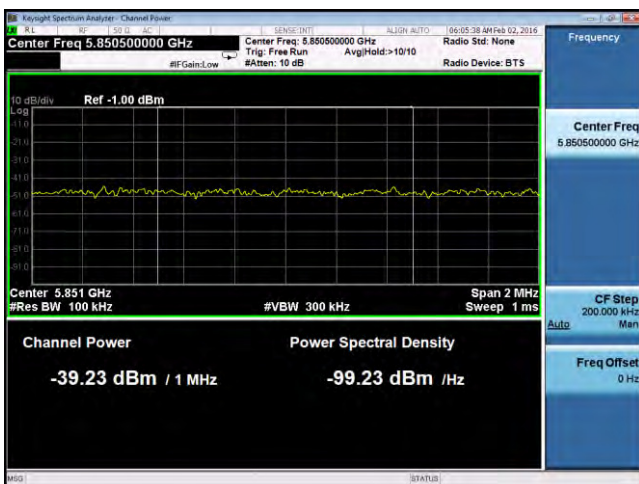
Band Edge -802.11n-40M-5755M-chain4



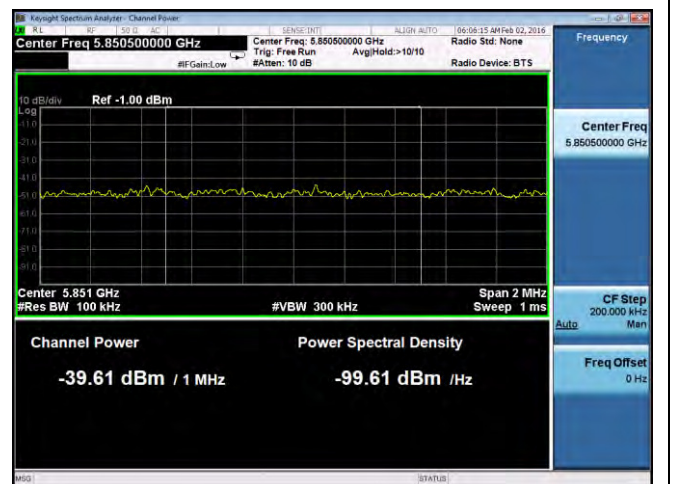
Band Edge -802.11n-40M-5795M-chain1



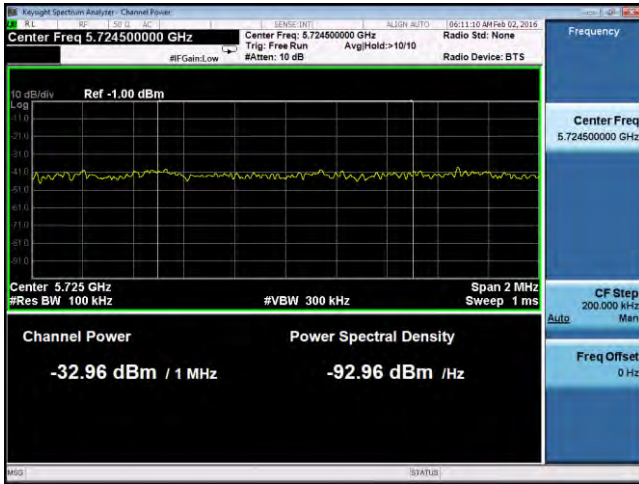
Band Edge -802.11n-40M-5795M-chain2



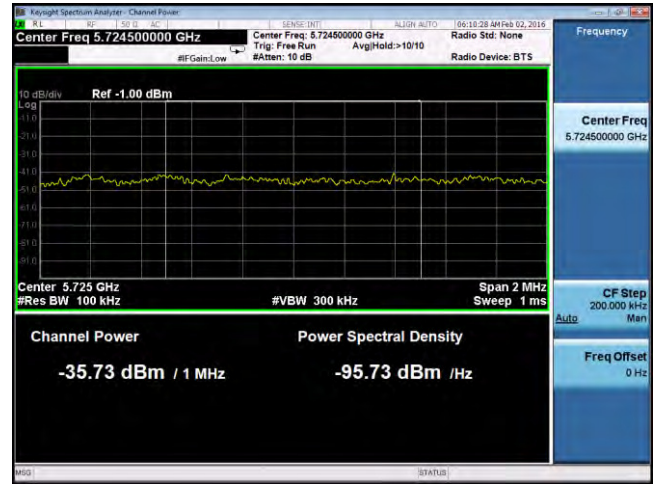
Band Edge -802.11n-40M-5795M-chain3



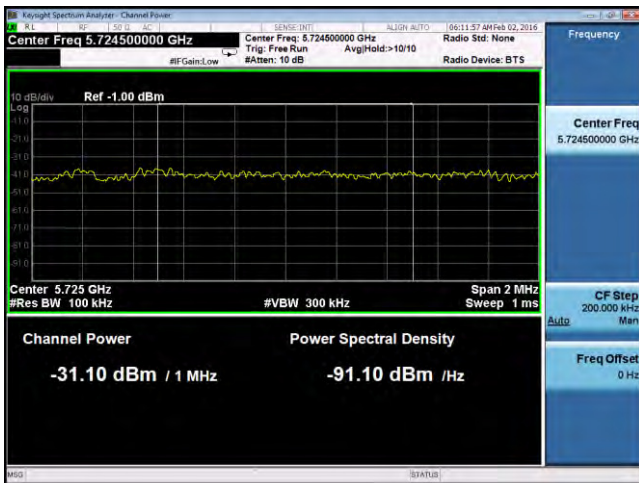
Band Edge -802.11n-40M-5795M-chain4



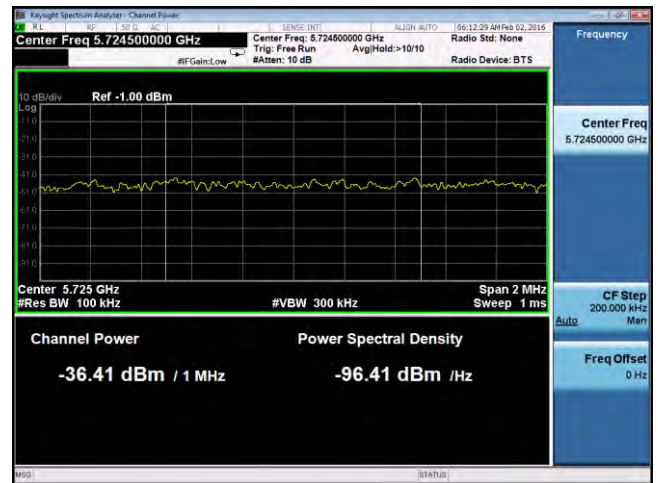
Band Edge -802.11ac-80M-5775M-chain1 (Left)



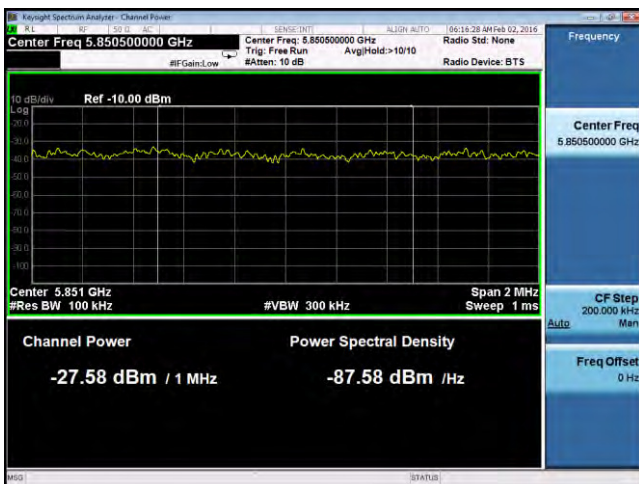
Band Edge -802.11ac-80M-5775M-chain2 (Left)



Band Edge -802.11ac-80M-5775M-chain3 (Left)



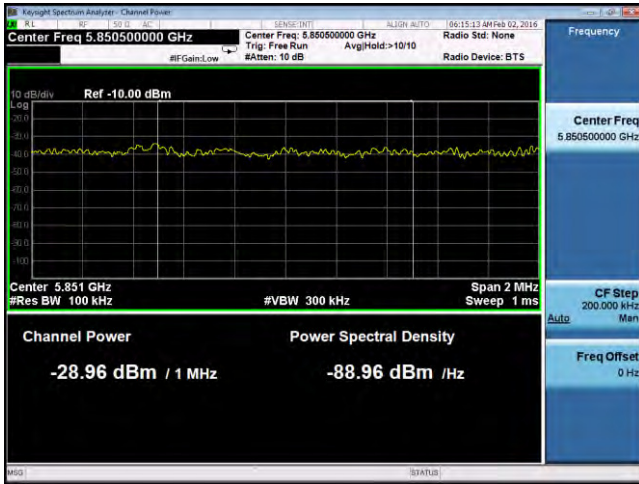
Band Edge -802.11ac-80M-5775M-chain4 (Left)



Band Edge -802.11ac-80M-5775M-chain1 (Right)



Band Edge -802.11ac-80M-5775M-chain2 (Right)

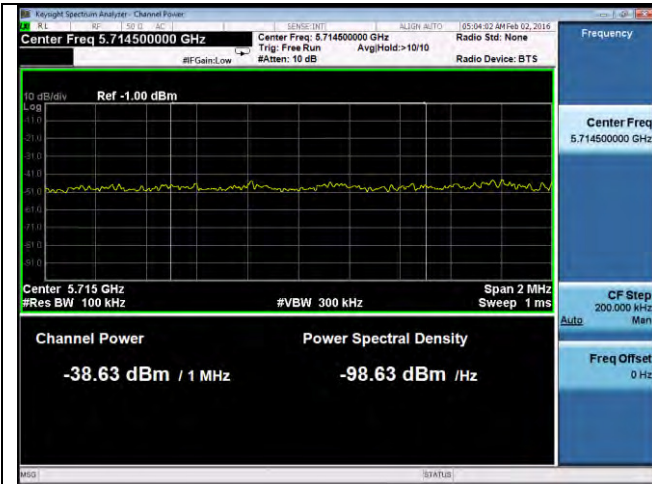


Band Edge -802.11ac-80M-5775M-chain3 (Right)

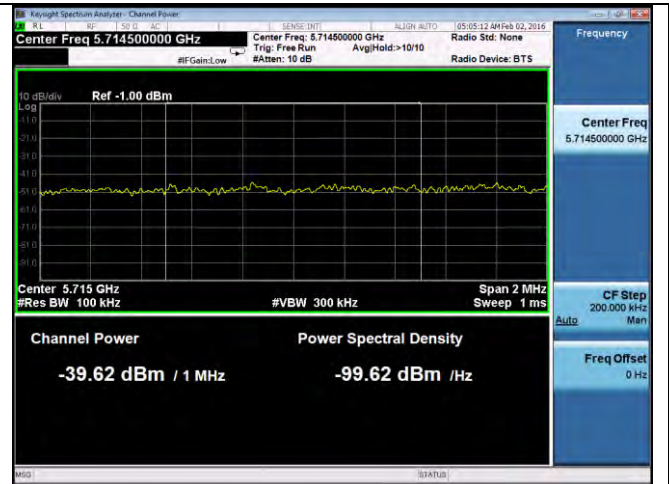


Band Edge -802.11ac-80M-5775M-chain4 (Right)

5.8GHz band: (20MHz offset)



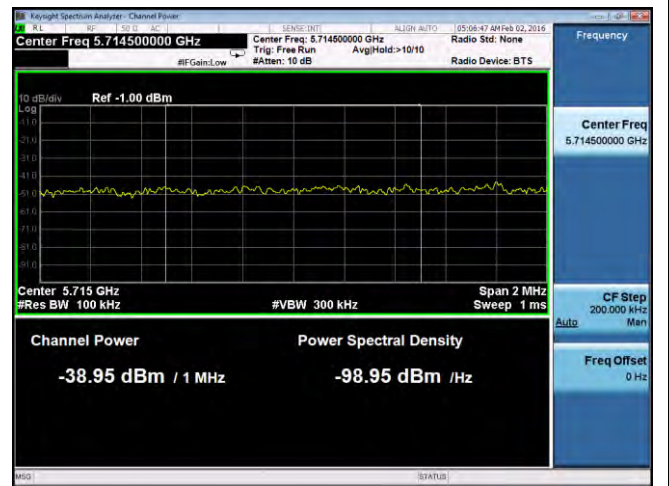
Band Edge -802.11a-5745M-chain1



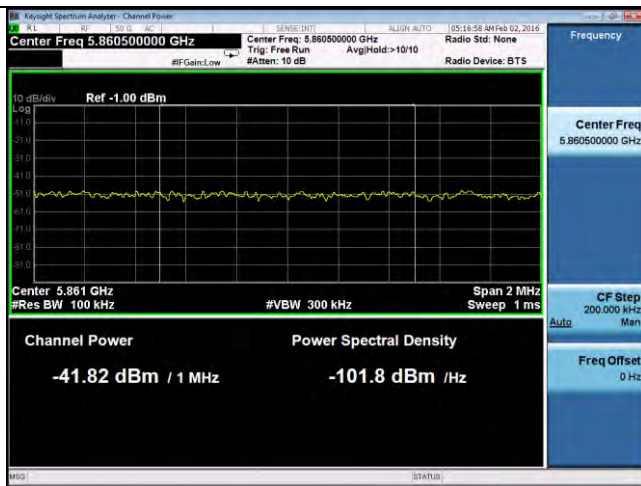
Band Edge -802.11a-5745M-chain2



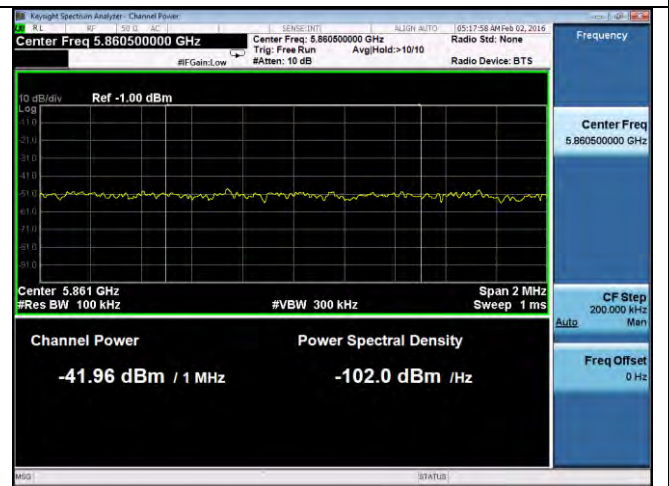
Band Edge -802.11a-5745M-chain3



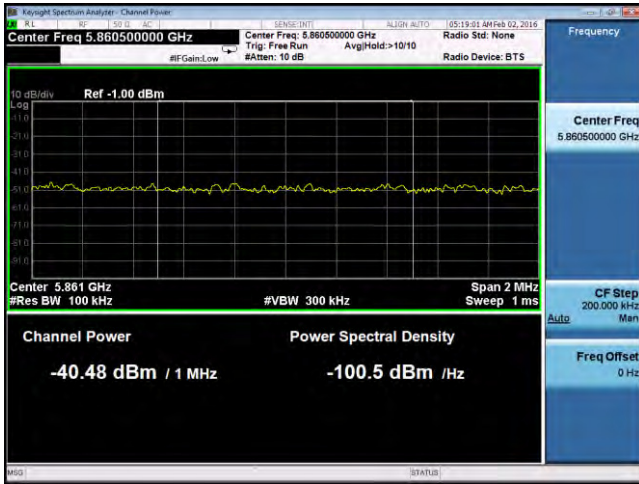
Band Edge -802.11a-5745M-chain4



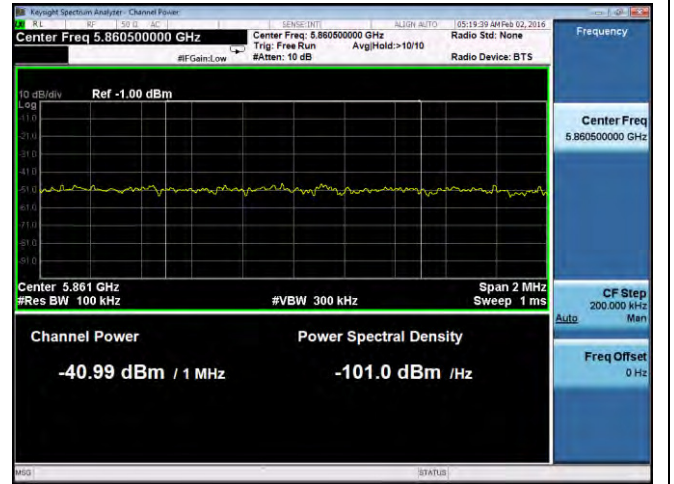
Band Edge -802.11a-5785M-chain1



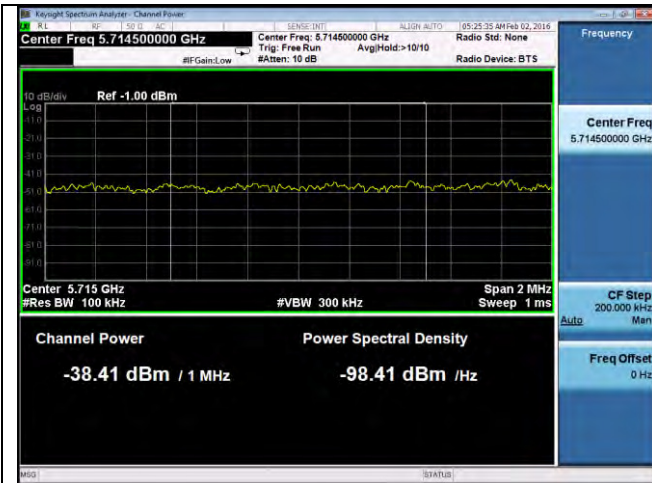
Band Edge -802.11a-5785M-chain2



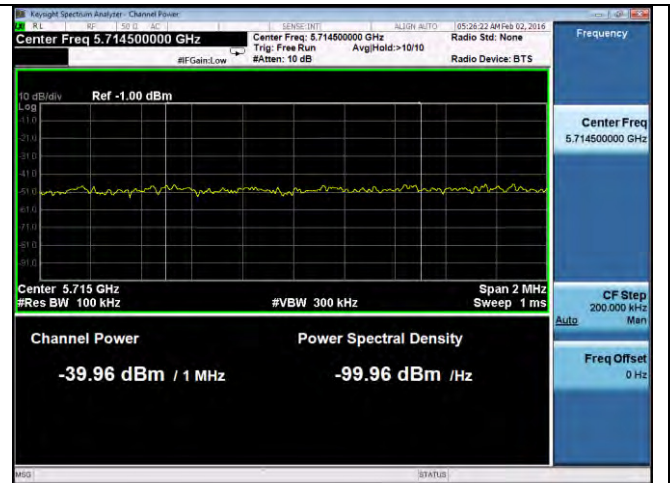
Band Edge -802.11a-5785M-chain3



Band Edge -802.11a-5785M-chain4



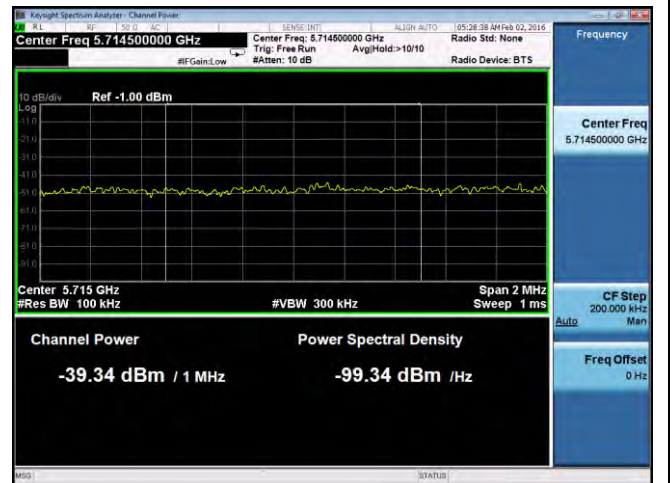
Band Edge -802.11n-20M -5745M-chain1



Band Edge -802.11n-20M -5745M-chain2



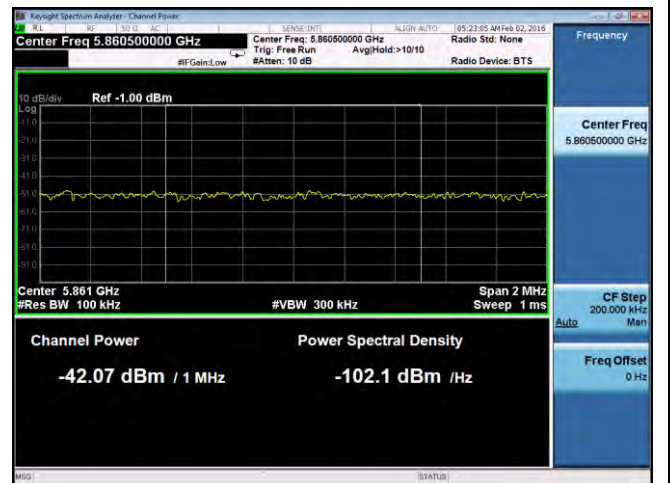
Band Edge -802.11n-20M -5745M-chain3



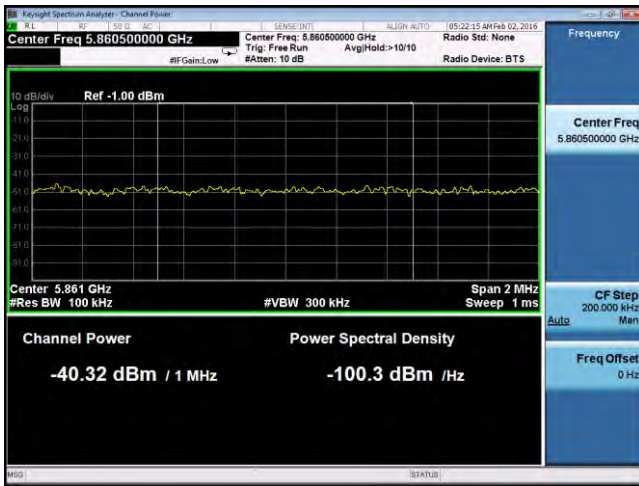
Band Edge -802.11n-20M -5745M-chain4



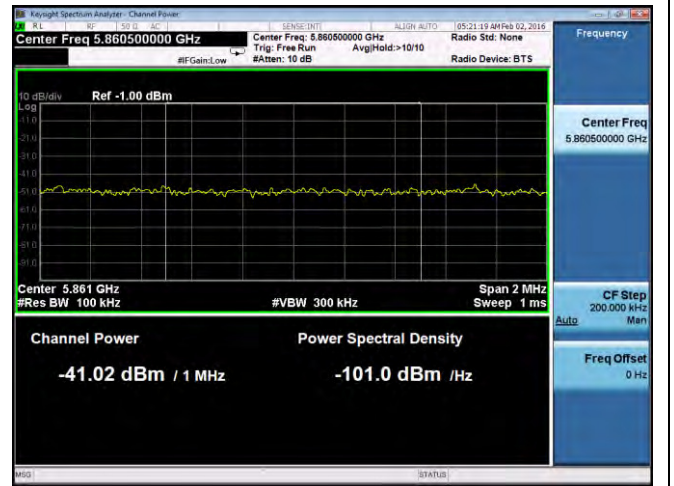
Band Edge -802.11n-20M -5825M-chain1



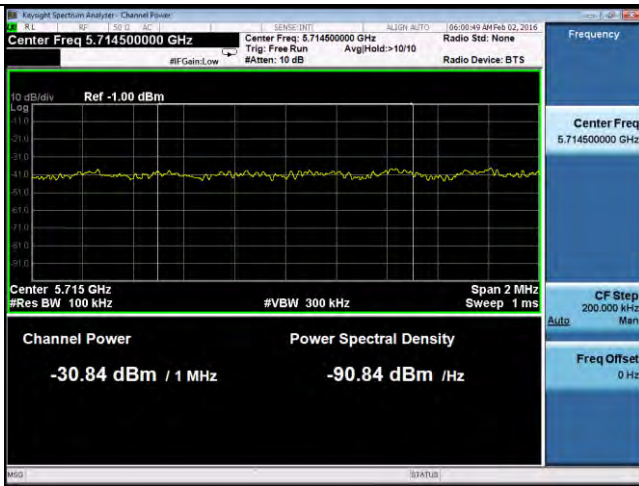
Band Edge -802.11n-20M -5825M-chain2



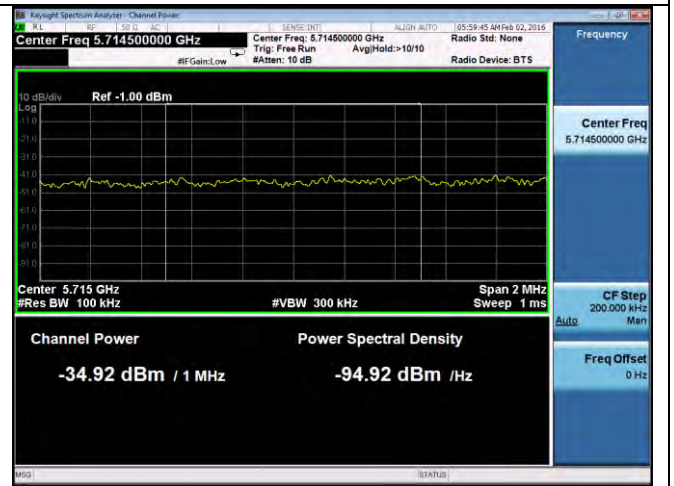
Band Edge -802.11n-20M-5825M-chain3



Band Edge -802.11n-20M-5825M-chain4



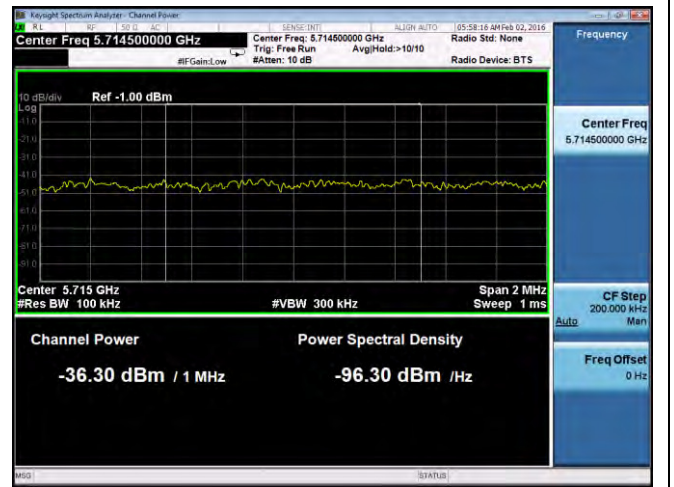
Band Edge -802.11n-40M-5755M-chain1



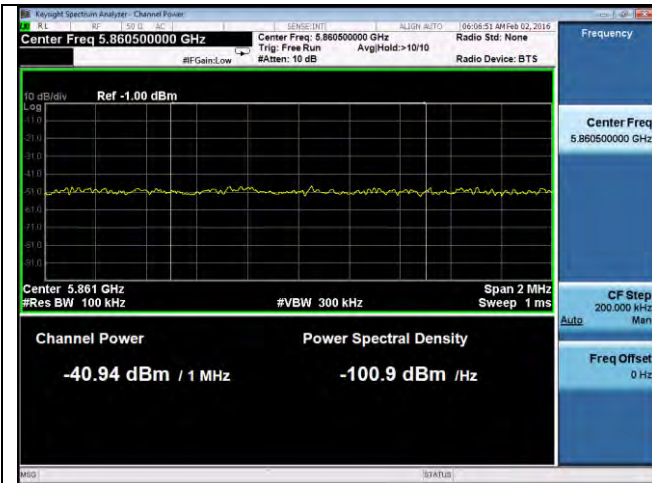
Band Edge -802.11n-40M-5755M-chain2



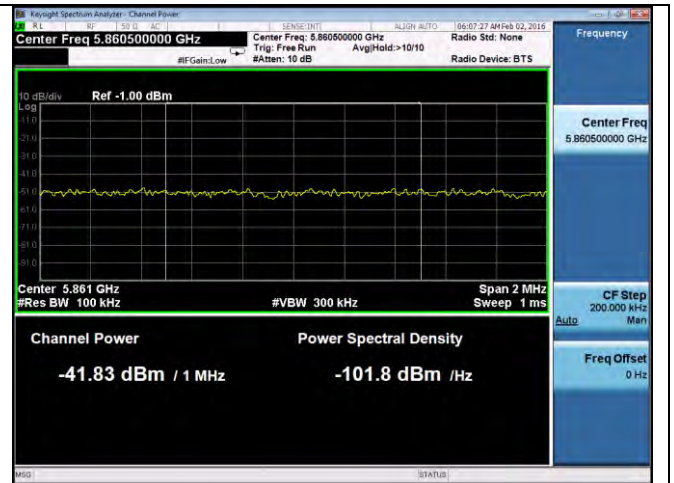
Band Edge -802.11n-40M-5755M-chain3



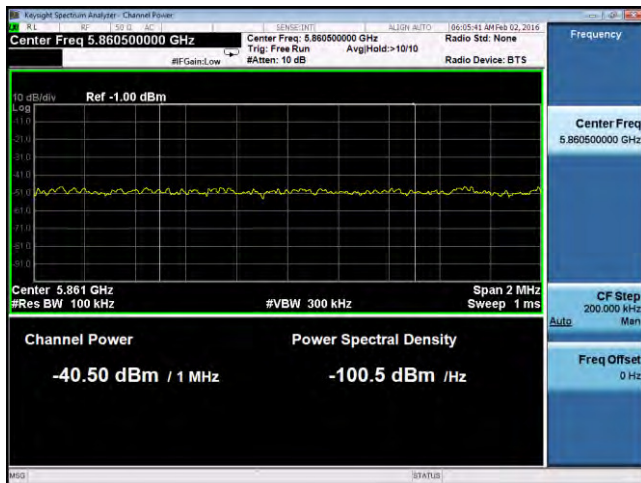
Band Edge -802.11n-40M-5755M-chain4



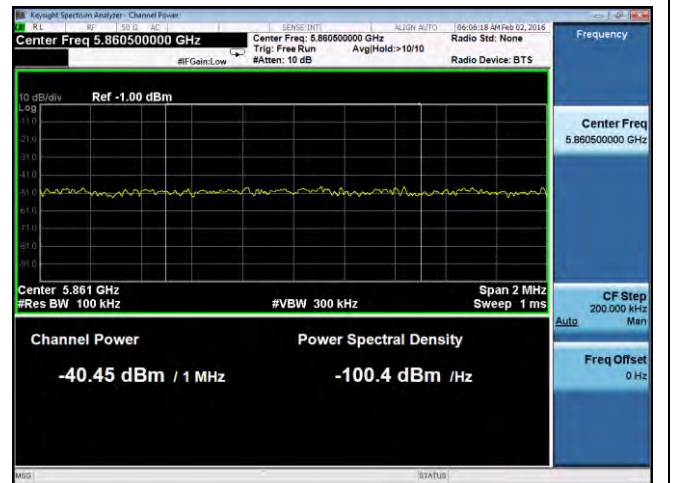
Band Edge -802.11n-40M-5795M-chain1



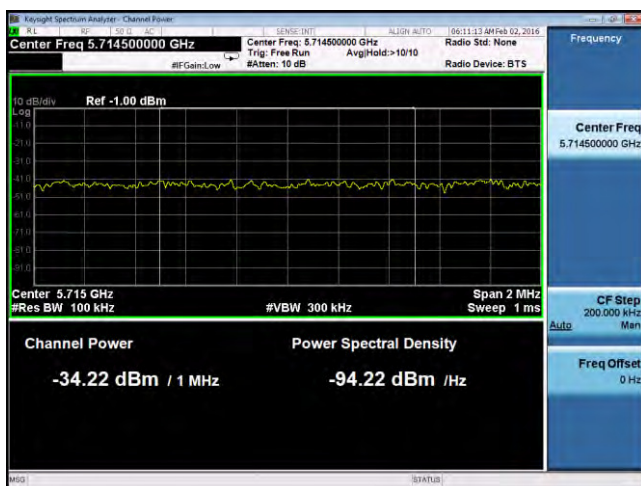
Band Edge -802.11n-40M-5795M-chain2



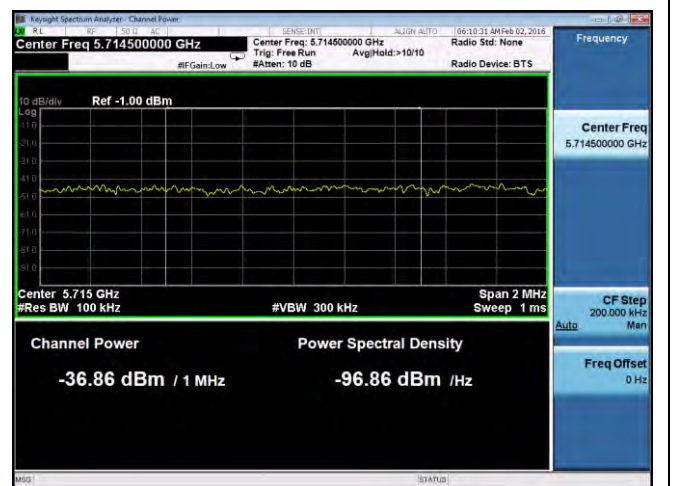
Band Edge -802.11n-40M-5795M-chain3



Band Edge -802.11n-40M-5795M-chain4



Band Edge -802.11ac-80M-5775M-chain1 (Left)



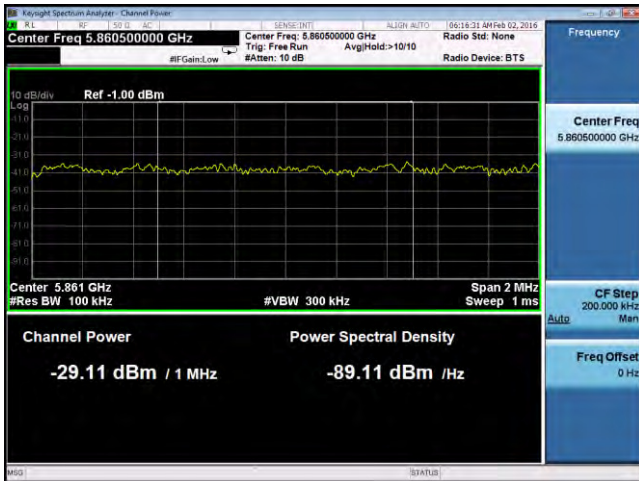
Band Edge -802.11ac-80M-5775M-chain2 (Left)



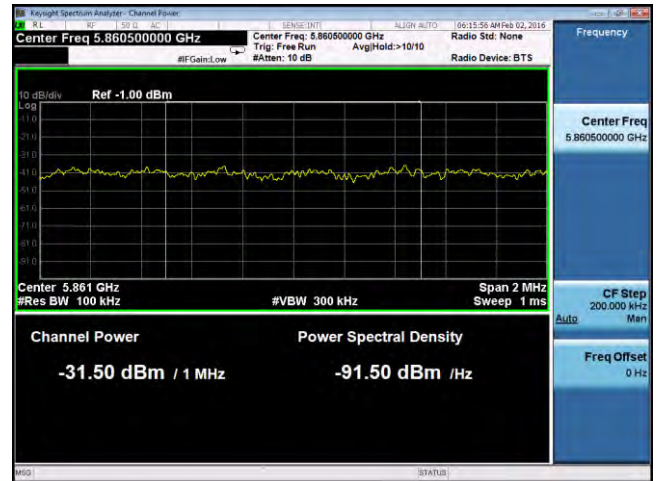
Band Edge -802.11ac-80M-5775M-chain3 (Left)



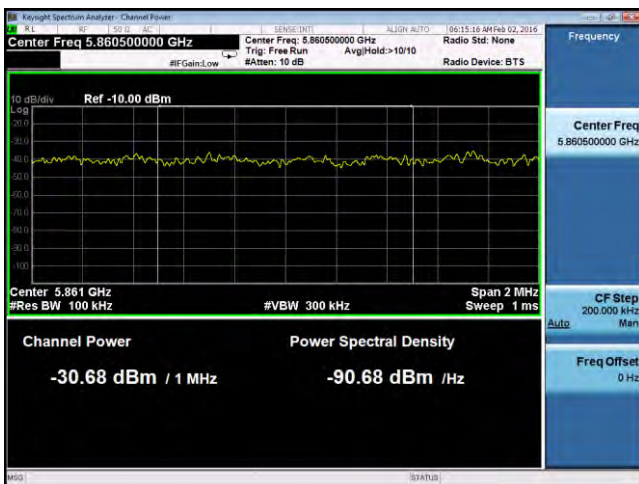
Band Edge -802.11ac-80M-5775M-chain4 (Left)



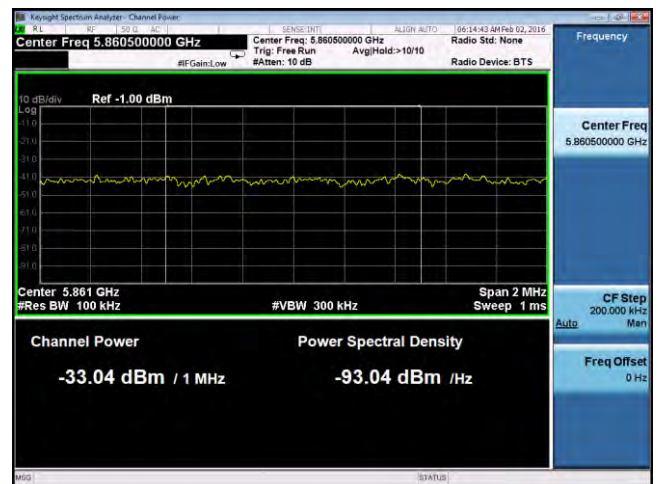
Band Edge -802.11ac-80M-5775M-chain1 (Right)



Band Edge -802.11ac-80M-5775M-chain2 (Right)



Band Edge -802.11ac-80M-5775M-chain3 (Right)



Band Edge -802.11ac-80M-5775M-chain4 (Right)

10.6 Radiated Spurious Emissions below 1GHz

Requirement(s):

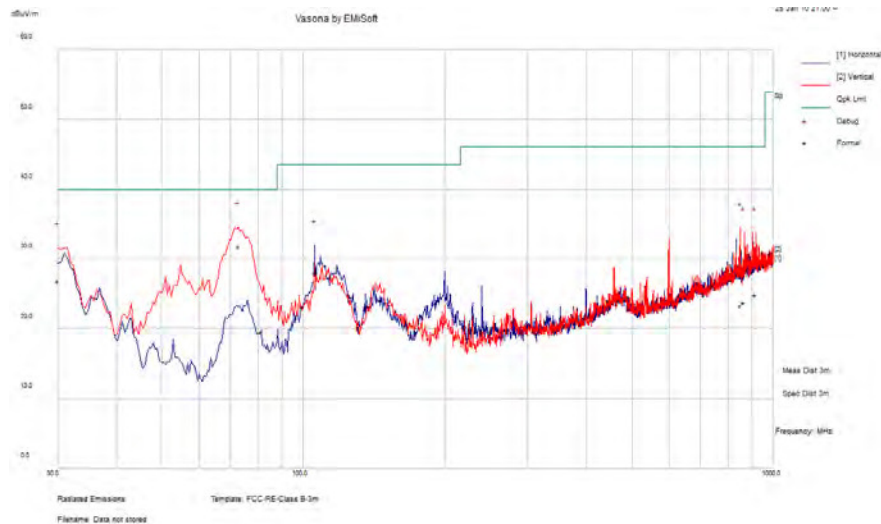
Spec	Requirement	Applicable										
47CFR§ 15.407(b) 15.209 (a)	<p>Except higher limit as specified elsewhere in other section, the emissions from the low-power radio-frequency devices shall not exceed the field strength levels specified in the following table and the level of any unwanted emissions 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"> 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: <ol style="list-style-type: none"> 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

Radiated Emission Test Results (Below 1GHz)

Test specification	below 1GHz			Result	Pass
Environmental Conditions:	Temp (°C):	25			
	Humidity (%)	45			
	Atmospheric (mbar):	1016			
Mains Power:	120VAC, 60Hz				
Tested by:	Gary Chou				
Test Date:	01/29/2016				
Remarks:	N/A				



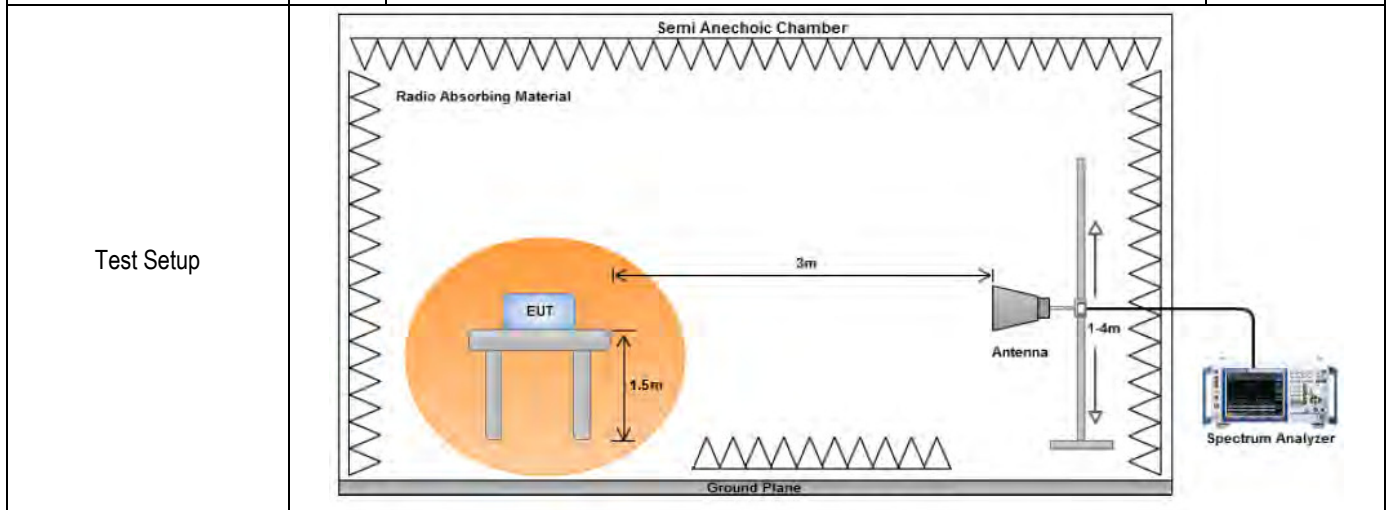
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
72.82	60.71	1.37	-30.22	31.86	Quasi Max	V	101	231	40	-8.14	Pass
30.00	40.48	0.81	-14.38	26.91	Quasi Max	V	101	86	40	-13.09	Pass
105.69	53.06	1.7	-26.86	27.9	Quasi Max	H	284	349	43.52	-15.62	Pass
851.39	34.97	5.18	-16.77	23.38	Quasi Max	V	147	197	46.02	-22.64	Pass
866.86	35.12	5.19	-16.52	23.79	Quasi Max	V	149	242	46.02	-22.23	Pass
916.44	35.03	5.61	-15.74	24.9	Quasi Max	V	133	286	46.02	-21.12	Pass

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

10.7 Radiated Spurious Emissions above 1GHz

Requirement(s):

Spec	Item	Requirement	Applicable
47CFR§ 15.407(b)(2), 15.407(b)(6)	(1)	For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.	<input checked="" type="checkbox"/>
	(2)	For transmitters operating in the 5.25-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5.25-5.35 GHz band that generate emissions in the 5.15-5.25 GHz band must meet all applicable technical requirements for operation in the 5.15-5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5.15-5.25 GHz band.	<input type="checkbox"/>
	(3)	For transmitters operating in the 5.47-5.725 GHz band: all emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.	<input type="checkbox"/>
	(4)	For transmitters operating in the 5.725-5.825 GHz band: all emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an EIRP of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an EIRP of -27 dBm/MHz.	<input checked="" type="checkbox"/>
	(5)	Restricted band, emission must also comply with the radiated emission limits specified in 15.209	<input checked="" type="checkbox"/>



Procedure	<ol style="list-style-type: none"> 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: <ol style="list-style-type: none"> 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.
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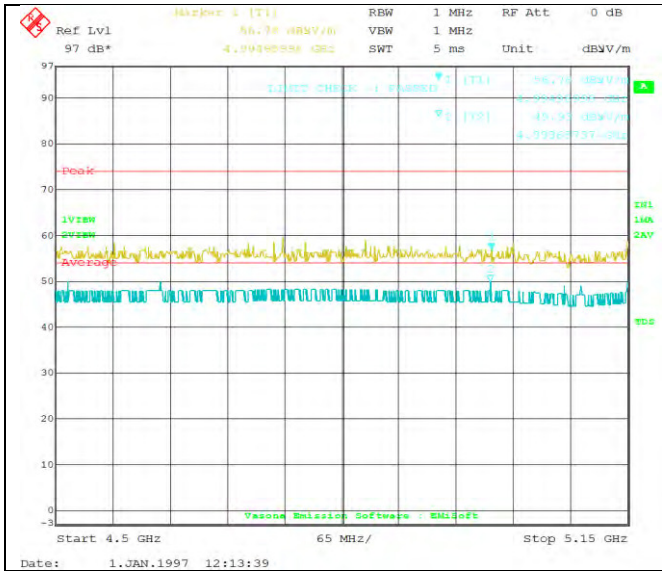
Remark	The EUT was scanned up to 40GHz. Both horizontal and vertical polarities were investigated. The results show only the worst case.
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Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
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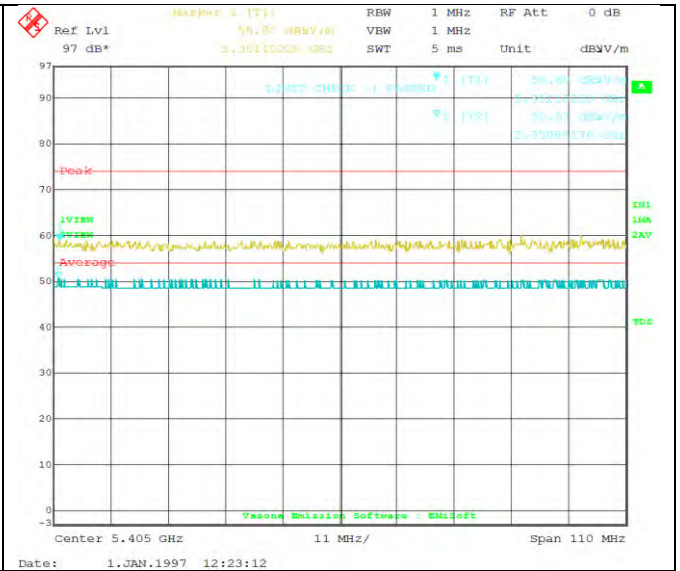
Test Data Yes (See below) N/A

Test Plot Yes (See below) N/A

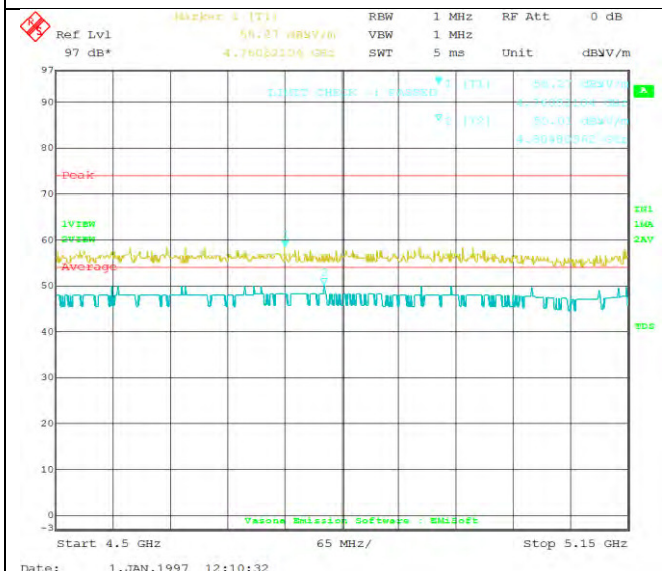
Radiated Restricted band Measurement Plots:



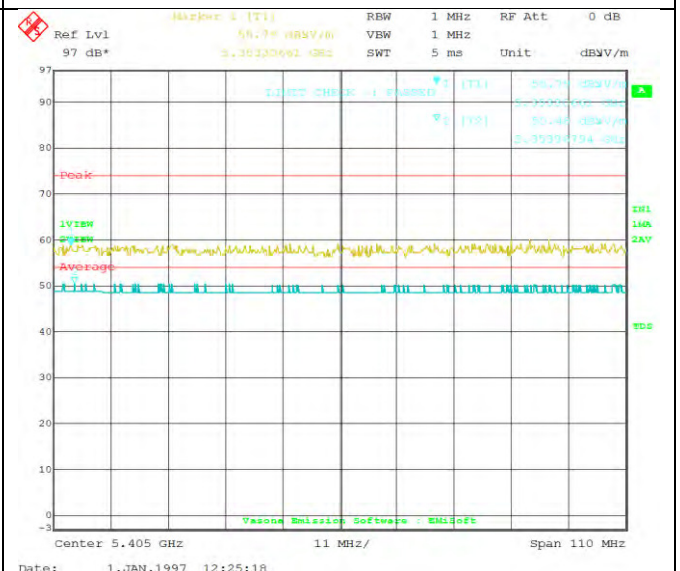
802.11a 5180M



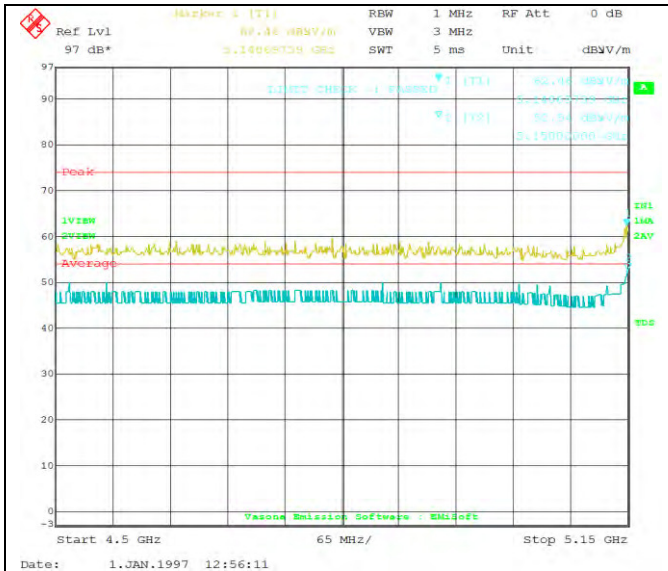
802.11a 5240M



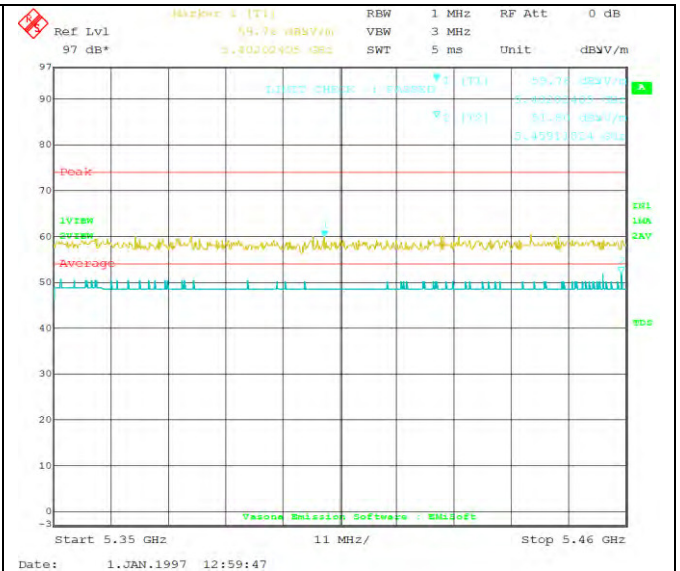
802.11n-HT20 5180M



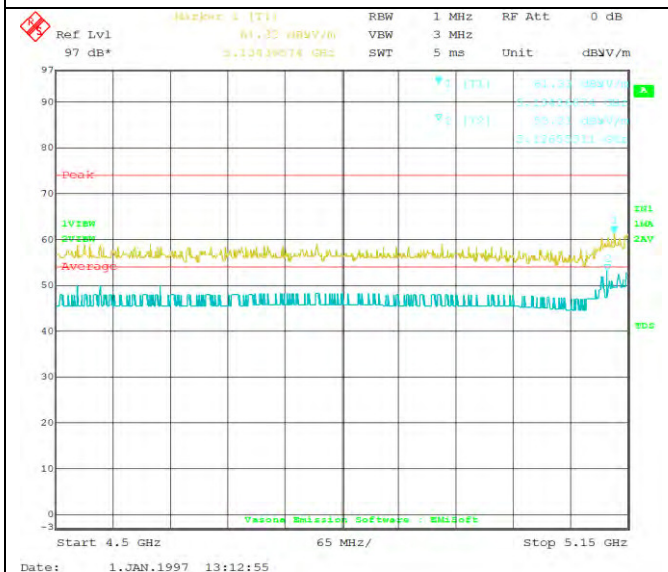
802.11n-HT20 5240M



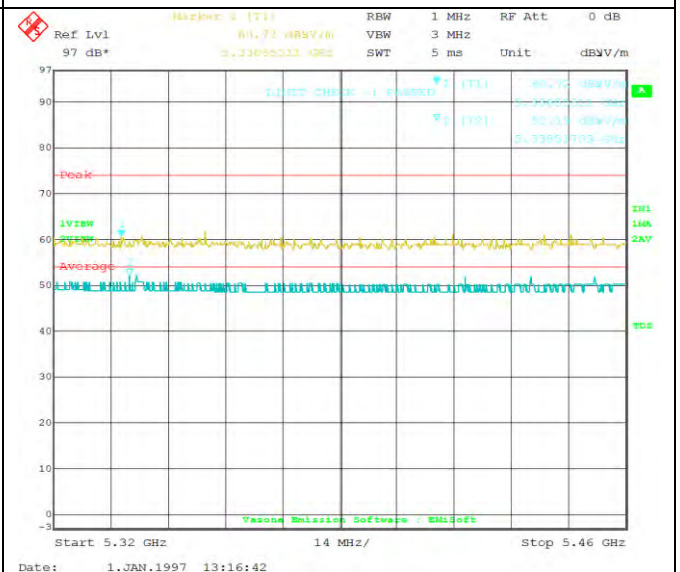
802.11n-HT40 5190M



802.11n-HT40 5230M



802.1ac-VHT80 5210M(4500-5150MHz)



802.1ac-VHT80 5210M(5350-5460MHz)

Radiated Emission Test Results (Above 1GHz)

W52 band:

Above 1GHz-40GHz – 802.11a – 5180MHz

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
17511.68	34.77	16.77	10.41	61.95	Peak Max	H	210	178	74	-12.05	Pass
4090.84	37.15	8.73	11.83	57.71	Peak Max	V	219	326	74	-16.29	Pass
6112.60	37.06	10.62	10.79	58.47	Peak Max	V	154	139	74	-15.53	Pass
17511.68	23.67	16.77	10.41	50.85	Average Max	H	210	178	54	-3.15	Pass
4090.84	26.05	8.73	11.83	46.61	Average Max	V	219	326	54	-7.39	Pass
6112.60	25.13	10.62	10.79	46.55	Average Max	V	154	139	54	-7.45	Pass

Above 1GHz-40GHz – 802.11a – 5200MHz

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
17607.09	35.29	16.6	10.51	62.4	Peak Max	V	152	182	74	-11.60	Pass
4241.87	37.64	9.1	11.18	57.93	Peak Max	V	230	358	74	-16.07	Pass
6194.71	36.59	10.72	10.6	57.91	Peak Max	H	189	29	74	-16.09	Pass
17607.09	23.52	16.6	10.51	50.63	Average Max	V	152	182	54	-3.37	Pass
4241.87	25.91	9.1	11.18	46.19	Average Max	V	230	358	54	-7.81	Pass
6194.71	24.65	10.72	10.6	45.97	Average Max	H	189	29	54	-8.03	Pass

Above 1GHz-40GHz – 802.11a – 5240MHz

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
17416.03	34.8	16.78	10.15	61.73	Peak Max	V	137	220	74	-12.27	Pass
4058.36	37.04	8.65	11.97	57.66	Peak Max	H	174	17	74	-16.34	Pass
6119.43	36.74	10.63	10.78	58.15	Peak Max	H	125	0	74	-15.85	Pass
17416.03	23.48	16.78	10.15	50.4	Average Max	V	137	220	54	-3.60	Pass
4058.36	25.66	8.65	11.97	46.28	Average Max	H	174	17	54	-7.72	Pass
6119.43	25.16	10.63	10.78	46.57	Average Max	H	125	0	54	-7.43	Pass

Above 1GHz-40GHz – 802.11n-20M – 5180MHz

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
17564.76	34.91	16.68	10.46	62.05	Peak Max	H	172	298	74	-11.95	Pass
4079.72	38.56	8.7	11.88	59.14	Peak Max	V	111	106	74	-14.86	Pass
6132.37	36.96	10.65	10.75	58.35	Peak Max	H	166	306	74	-15.65	Pass
17564.76	23.6	16.68	10.46	50.74	Average Max	H	172	298	54	-3.26	Pass
4079.72	25.99	8.7	11.88	46.57	Average Max	V	111	106	54	-7.43	Pass
6132.37	25.08	10.65	10.75	46.48	Average Max	H	166	306	54	-7.52	Pass

Above 1GHz-40GHz – 802.11n-20M – 5200MHz

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
17403.84	35.74	16.78	10.11	62.63	Peak Max	V	164	204	74	-11.38	Pass
4188.14	38.03	8.97	11.41	58.41	Peak Max	H	218	152	74	-15.59	Pass
6142.22	37.01	10.66	10.72	58.39	Peak Max	V	147	298	74	-15.61	Pass
17403.84	23.56	16.78	10.11	50.45	Average Max	V	164	204	54	-3.55	Pass
4188.14	25.85	8.97	11.41	46.23	Average Max	H	218	152	54	-7.77	Pass
6142.22	25.07	10.66	10.72	46.46	Average Max	V	147	298	54	-7.55	Pass

Above 1GHz-40GHz – 802.11n-20M – 5240MHz

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
4221.10	37.72	9.05	11.27	58.04	Peak Max	H	151	0	74	-15.96	Pass
17615.85	35.86	16.59	10.52	62.97	Peak Max	H	235	83	74	-11.03	Pass
6045.80	37.31	10.54	10.96	58.8	Peak Max	H	162	154	74	-15.20	Pass
4221.10	25.76	9.05	11.27	46.08	Average Max	H	151	0	54	-7.92	Pass
17615.85	23.53	16.59	10.52	50.63	Average Max	H	235	83	54	-3.37	Pass
6045.80	24.78	10.54	10.96	46.28	Average Max	H	162	154	54	-7.72	Pass

Above 1GHz-40GHz – 802.11n-40M – 5190MHz

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
4157.54	37.77	8.9	11.54	58.21	Peak Max	V	176	226	74	-15.79	Pass
4089.02	37.72	8.73	11.84	58.28	Peak Max	V	150	80	74	-15.72	Pass
6119.56	36.5	10.63	10.78	57.91	Peak Max	H	131	218	74	-16.09	Pass
4157.54	25.96	8.9	11.54	46.4	Average Max	V	176	226	54	-7.60	Pass
4089.02	25.9	8.73	11.84	46.46	Average Max	V	150	80	54	-7.54	Pass
6119.56	24.95	10.63	10.78	46.36	Average Max	H	131	218	54	-7.64	Pass

Above 1GHz-40GHz – 802.11n-40M – 5230MHz

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
6017.94	36.43	10.5	11.02	57.95	Peak Max	V	209	225	74	-16.05	Pass
4200.80	38.18	9	11.35	58.54	Peak Max	V	117	324	74	-15.46	Pass
6301.03	37.45	10.85	10.35	58.65	Peak Max	V	117	295	74	-15.35	Pass
6017.94	24.74	10.5	11.02	46.27	Average Max	V	209	225	54	-7.73	Pass
4200.80	25.75	9	11.35	46.11	Average Max	V	117	324	54	-7.89	Pass
6301.03	24.52	10.85	10.35	45.72	Average Max	V	117	295	54	-8.28	Pass

Above 1GHz-40GHz – 802.11ac-80M – 5210MHz

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
6303.73	35.58	10.86	10.34	56.78	Peak Max	V	219	227	74	-17.22	Pass
1031.68	43.53	3.4	9.63	56.56	Peak Max	H	226	243	74	-17.44	Pass
2035.02	40.16	4.31	11.37	55.84	Peak Max	V	251	192	74	-18.16	Pass
6303.73	24.5	10.86	10.34	45.7	Average Max	V	219	227	54	-8.30	Pass
1031.68	31.62	3.4	9.63	44.65	Average Max	H	226	243	54	-9.36	Pass
2035.02	28.69	4.31	11.37	44.37	Average Max	V	251	192	54	-9.63	Pass

W58 band:

Above 1GHz-40GHz – 802.11a – 5745MHz

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
6152.99	36.6	10.67	10.7	57.97	Peak Max	H	126	95	74	-16.03	Pass
10560.78	39.99	11.56	8.49	60.04	Peak Max	H	149	216	74	-13.96	Pass
4125.754	37.19	8.82	11.68	57.68	Peak Max	V	234	158	74	-16.32	Pass
6152.99	24.94	10.67	10.7	46.31	Average Max	H	126	95	54	-7.70	Pass
10560.78	27.46	11.56	8.49	47.51	Average Max	H	149	216	54	-6.50	Pass
4125.754	25.84	8.82	11.68	46.33	Average Max	V	234	158	54	-7.67	Pass

Above 1GHz-40GHz – 802.11a – 5785MHz

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
6140.82	37.09	10.66	10.73	58.48	Peak Max	V	191	109	74	-15.52	Pass
1021.50	43.34	3.38	9.64	56.37	Peak Max	V	107	329	74	-17.63	Pass
2074.08	40.07	4.35	11.24	55.65	Peak Max	V	135	243	74	-18.35	Pass
6140.82	25.02	10.66	10.73	46.4	Average Max	V	191	109	54	-7.60	Pass
1021.50	31.75	3.38	9.64	44.78	Average Max	V	107	329	54	-9.22	Pass
2074.08	28.76	4.35	11.24	44.35	Average Max	V	135	243	54	-9.65	Pass

Above 1GHz-40GHz – 802.11a – 5825MHz

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
5283.10	42.03	9.65	9.67	61.35	Peak Max	H	167	156	74	-12.66	Pass
10562.16	39.35	11.56	8.49	59.4	Peak Max	H	200	215	74	-14.60	Pass
1041.15	43.21	3.41	9.61	56.24	Peak Max	V	150	89	74	-17.76	Pass
5283.10	30.75	9.65	9.67	50.07	Average Max	H	167	156	54	-3.93	Pass
10562.16	27.77	11.56	8.49	47.82	Average Max	H	200	215	54	-6.18	Pass
1041.15	31.45	3.41	9.61	44.48	Average Max	V	150	89	54	-9.52	Pass

Above 1GHz-40GHz – 802.11n-20M – 5745MHz

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
6162.49	37.06	10.68	10.68	58.42	Peak Max	V	239	90	74	-15.58	Pass
2050.08	40.39	4.33	11.32	56.03	Peak Max	H	243	66	74	-17.97	Pass
4268.12	37.43	9.17	11.07	57.67	Peak Max	V	228	236	74	-16.33	Pass
6162.49	24.91	10.68	10.68	46.27	Average Max	V	239	90	54	-7.73	Pass
2050.08	28.67	4.33	11.32	44.31	Average Max	H	243	66	54	-9.69	Pass
4268.12	25.39	9.17	11.07	45.62	Average Max	V	228	236	54	-8.38	Pass

Above 1GHz-40GHz – 802.11n-20M – 5785MHz

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
4986.74	37.47	10.68	9.49	57.65	Peak Max	V	106	36	74	-16.35	Pass
2118.52	40.22	4.38	11.1	55.71	Peak Max	V	132	183	74	-18.30	Pass
9951.88	36.43	10.77	8.64	55.84	Peak Max	V	204	176	74	-18.16	Pass
4986.74	24.81	10.68	9.49	44.99	Average Max	V	106	36	54	-9.01	Pass
2118.52	28.58	4.38	11.1	44.06	Average Max	V	132	183	54	-9.94	Pass
9951.88	24.59	10.77	8.64	44	Average Max	V	204	176	54	-10.00	Pass

Above 1GHz-40GHz – 802.11n-20M – 5825MHz

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
6203.55	35.98	10.73	10.58	57.29	Peak Max	V	237	212	74	-16.71	Pass
10114.09	37.12	10.91	8.76	56.78	Peak Max	V	220	212	74	-17.22	Pass
11854.60	35.47	12.1	8.4	55.97	Peak Max	V	224	142	74	-18.03	Pass
6203.55	24.63	10.73	10.58	45.94	Average Max	V	237	212	54	-8.06	Pass
10114.09	24.35	10.91	8.76	44.01	Average Max	V	220	212	54	-9.99	Pass
11854.60	23.57	12.1	8.4	44.07	Average Max	V	224	142	54	-9.93	Pass

Above 1GHz-40GHz – 802.11n-40M – 5755MHz

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
4090.87	37.72	8.73	11.83	58.28	Peak Max	V	191	305	74	-15.73	Pass
6121.10	37.88	10.63	10.77	59.28	Peak Max	H	236	312	74	-14.72	Pass
4201.14	38.39	9	11.35	58.75	Peak Max	V	176	199	74	-15.25	Pass
4090.87	25.8	8.73	11.83	46.35	Average Max	V	191	305	54	-7.65	Pass
6121.10	24.95	10.63	10.77	46.35	Average Max	H	236	312	54	-7.65	Pass
4201.14	25.73	9	11.35	46.09	Average Max	V	176	199	54	-7.91	Pass

Above 1GHz-40GHz – 802.11n-40M – 5795MHz

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
4158.27	37.61	8.9	11.54	58.04	Peak Max	V	138	322	74	-15.96	Pass
1030.13	43.71	3.4	9.63	56.74	Peak Max	H	111	66	74	-17.26	Pass
2085.46	40.93	4.36	11.21	56.5	Peak Max	V	236	79	74	-17.51	Pass
4158.27	25.94	8.9	11.54	46.38	Average Max	V	138	322	54	-7.62	Pass
1030.13	31.66	3.4	9.63	44.69	Average Max	H	111	66	54	-9.31	Pass
2085.46	28.79	4.36	11.21	44.35	Average Max	V	236	79	54	-9.65	Pass

Above 1GHz-40GHz – 802.11ac-80M – 5775MHz

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
6017.38	37.08	10.5	11.03	58.61	Peak Max	V	203	177	74	-15.39	Pass
6302.99	36.49	10.86	10.34	57.69	Peak Max	V	151	5	74	-16.32	Pass
6304.79	36.06	10.86	10.34	57.26	Peak Max	V	120	23	74	-16.74	Pass
6017.38	24.73	10.5	11.03	46.25	Average Max	V	203	177	54	-7.75	Pass
6302.99	24.47	10.86	10.34	45.67	Average Max	V	151	5	54	-8.33	Pass
6304.79	24.47	10.86	10.34	45.67	Average Max	V	120	23	54	-8.33	Pass

















1GHz-40GHz- Collocation testing (2.4GHz WLAN & 5GHz WLAN on the main-board transmitting simultaneously)








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
4873.06	36.78	14.89	2.46	54.13	Peak Max	V	118	301	74	-19.87	Pass
3134.88	39.23	5.35	10.11	54.69	Peak Max	V	213	293	74	-19.31	Pass
4873.06	23.59	14.89	2.46	40.94	Average Max	V	118	301	54	-13.06	Pass
3134.88	27.91	5.35	10.11	43.37	Average Max	V	213	293	54	-10.63	Pass

Annex A. TEST INSTRUMENT

Instrument	Model	Serial #	Cal Date	Cal Cycle	Cal Due	In use
Conducted Emissions						
R & S Receiver	ESIB 40	100179	05/23/2015	1 Year	05/23/2016	<input checked="" type="checkbox"/>
CHASE LISN	MN2050B	1018	08/07/2015	1 Year	08/07/2016	<input checked="" type="checkbox"/>
Radiated Emissions						
R & S Receiver	ESL6	100178	05/27/2015	1 Year	05/27/2016	<input checked="" type="checkbox"/>
R & S Receiver	ESIB 40	100179	05/23/2015	1 Year	05/23/2016	<input checked="" type="checkbox"/>
ETS-Lingren Loop Antenna	6512	00049120	05/12/2015	1 Year	05/12/2016	<input checked="" type="checkbox"/>
Bi-Log antenna (30MHz~2GHz)	JB1	A030702	08/12/2015	1 Year	08/12/2016	<input checked="" type="checkbox"/>
3 Meters SAC	3M	N/A	08/08/2015	1 Year	08/08/2016	<input checked="" type="checkbox"/>
10 Meters SAC	10M	N/A	09/05/2015	1 Year	09/05/2016	<input checked="" type="checkbox"/>
RF Conducted Measurement						
Spectrum Analyzer	N9010A	10SL0219	08/20/2015	1 Year	08/20/2016	<input checked="" type="checkbox"/>
R & S Receiver	ESIB 40	100179	05/23/2015	1 Year	05/23/2016	<input checked="" type="checkbox"/>
ETS-Lingren USB RF Power Sensor	7002-006	10SL0190	09/03/2015	1 Year	09/03/2016	<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		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		<p>Radio: A1. Terminal equipment for purpose of calling</p> <p>Telecom: B1. Specified radio equipment specified in Article 38-2, Paragraph 1, Item 1 of the Radio Law</p>
Korea CAB Accreditation		<p>EMI: KCC Notice 2008-39, RRL Notice 2008-3: CA Procedures for EMI KN22: Test Method for EMI</p> <p>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</p> <p>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</p> <p>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</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>EMC: AS/NZS CISPR 11, AS/NZS CISPR 14.1, AS/NZS CISPR22, AS/NZS 61000.6.3, AS/NZS 61000.6.4</p> <p>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</p> <p>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</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