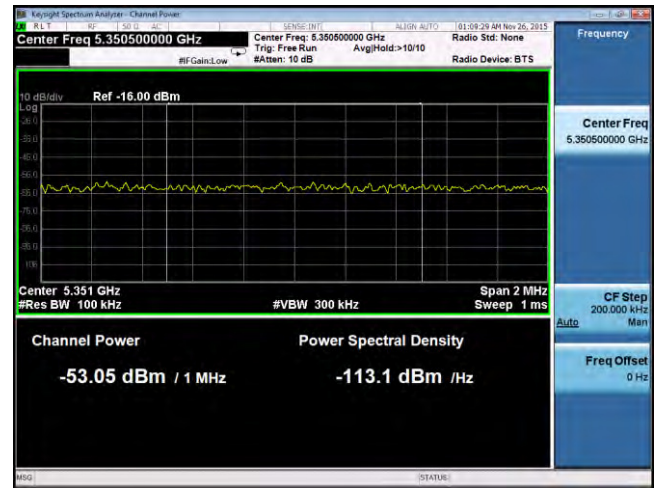
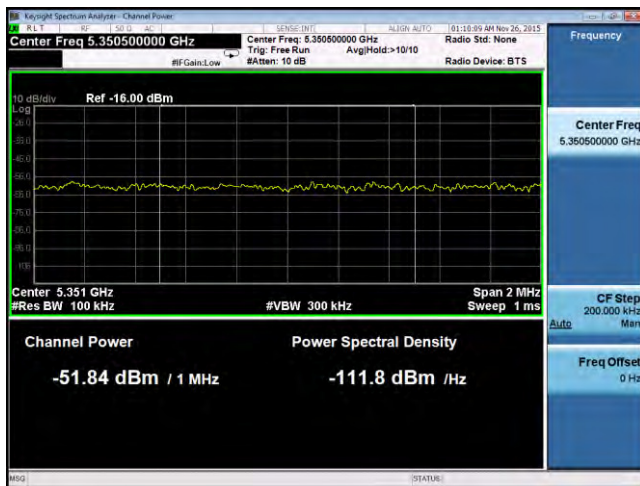




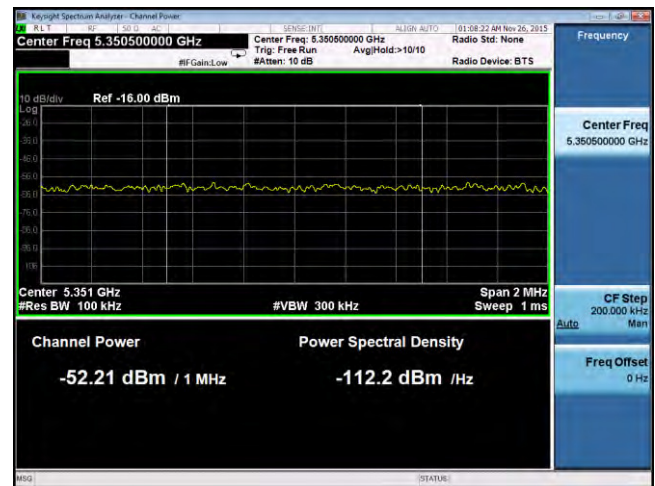
Band Edge -802.11n-20M-5240M-chain1



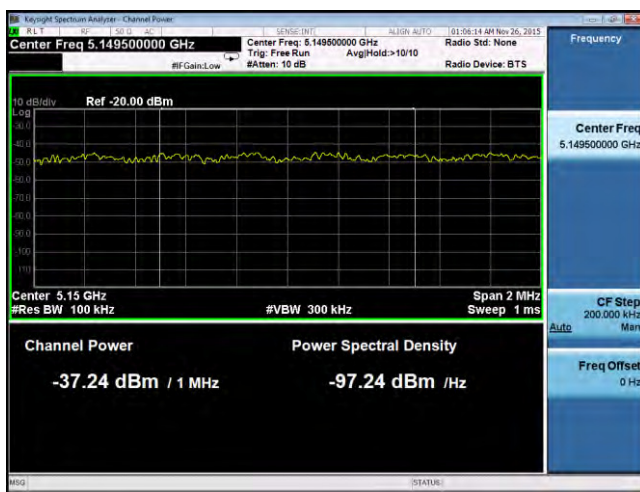
Band Edge -802.11n-20M-5240M-chain2



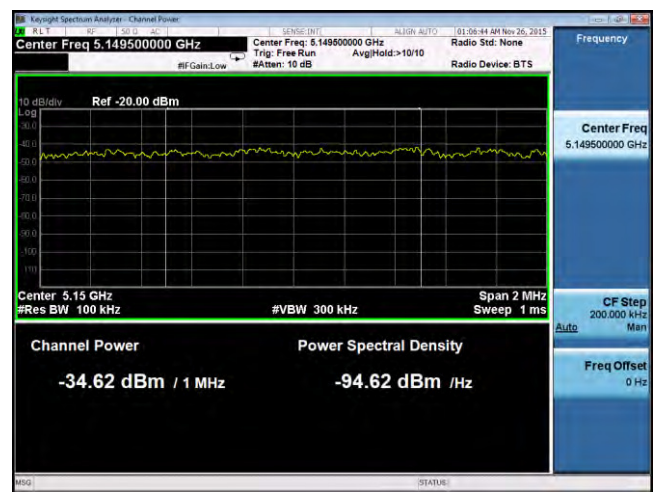
Band Edge -802.11n-20M-5240M-chain3



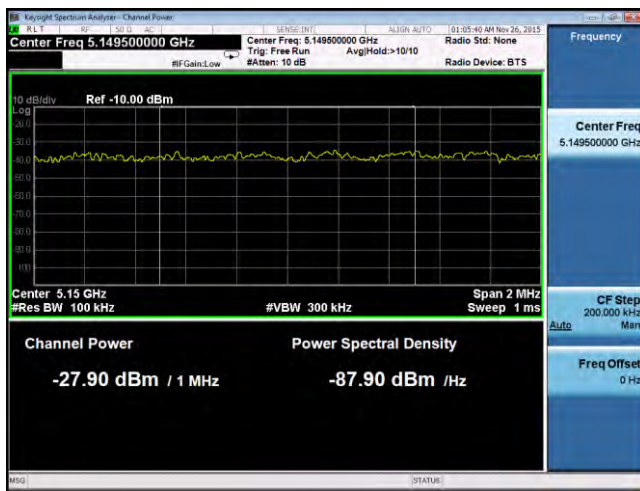
Band Edge -802.11n-20M-5240M-chain4



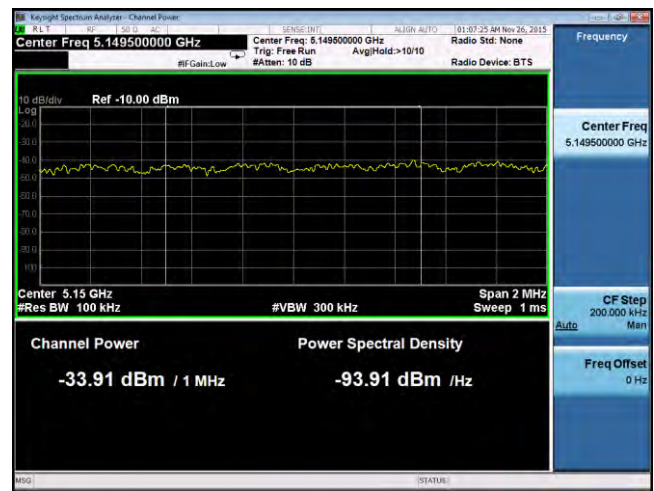
Band Edge -802.11n-40M-5190M-chain1



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



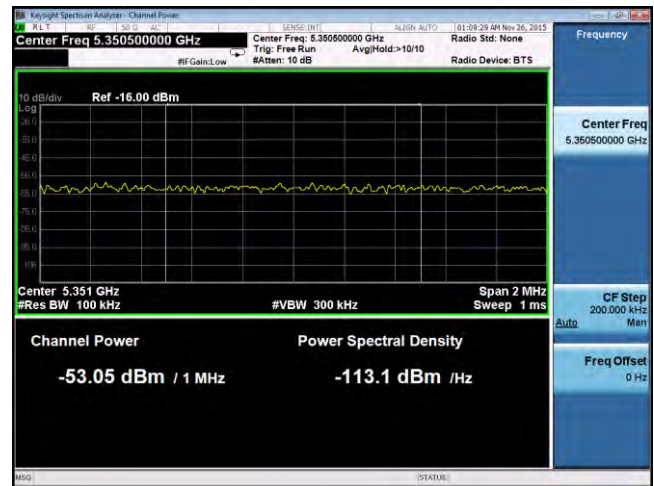
Band Edge -802.11n-40M-5190M-chain3



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



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



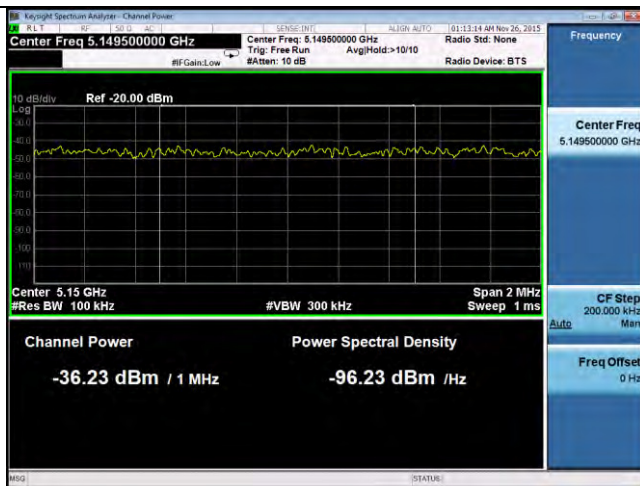
Band Edge -802.11n-40M-5230M-chain2



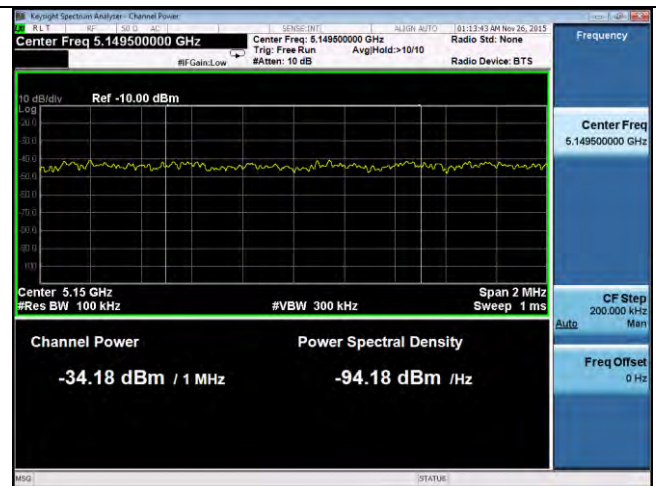
Band Edge -802.11n-40M-5230M-chain3



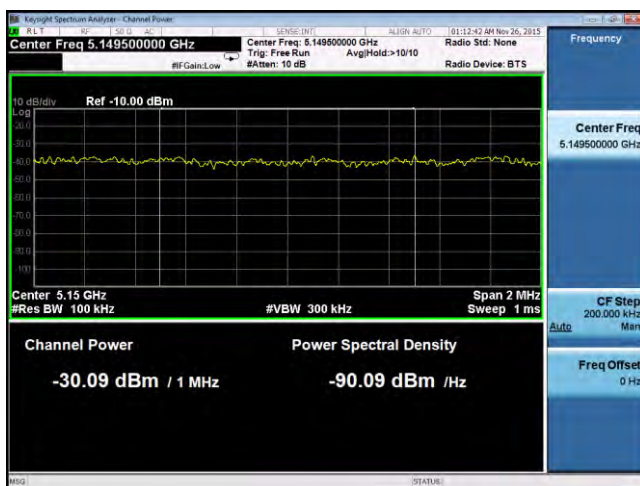
Band Edge -802.11n-40M-5230M-chain4



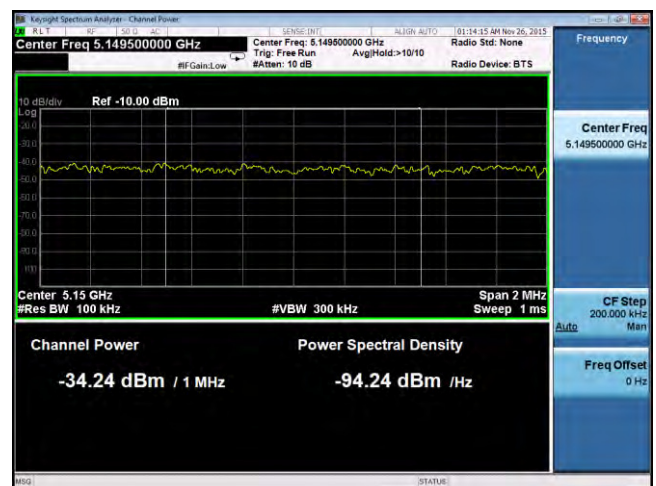
Band Edge -802.11ac-80M-5210M-chain1 (Left)



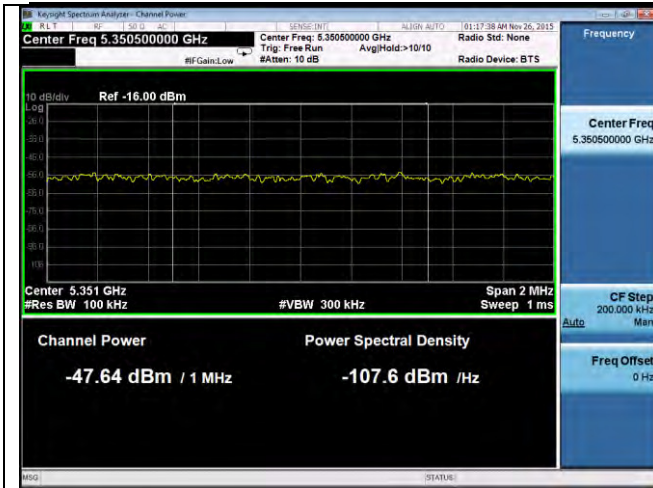
Band Edge -802.11ac-80M-5210M-chain2 (Left)



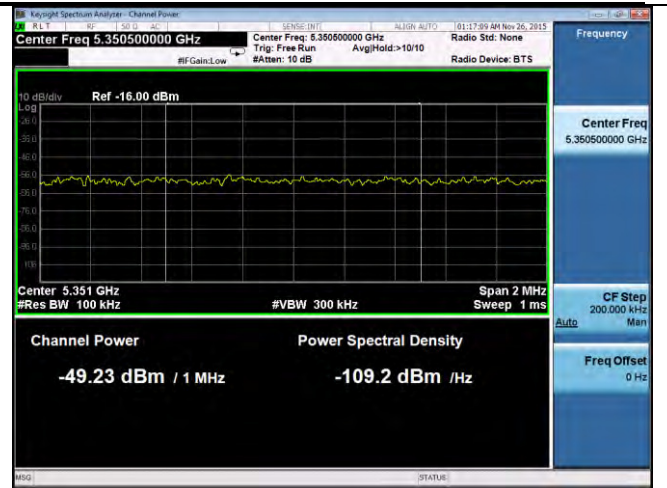
Band Edge -802.11ac-80M-5210M-chain3 (Left)



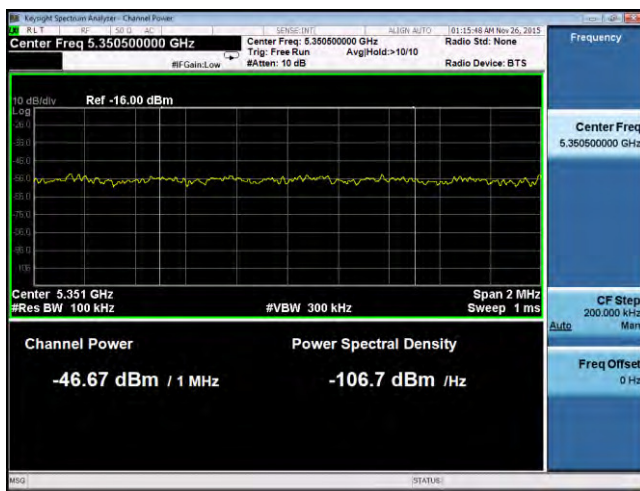
Band Edge -802.11ac-80M-5210M-chain4 (Left)



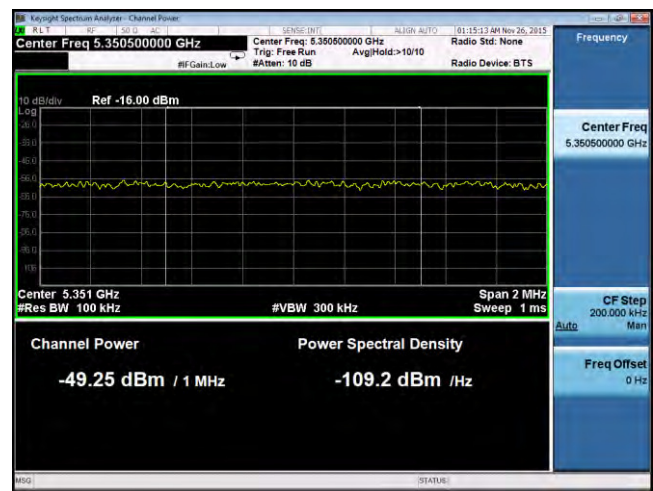
Band Edge -802.11ac-80M-5210M-chain1 (Right)



Band Edge -802.11ac-80M-5210M-chain2 (Right)

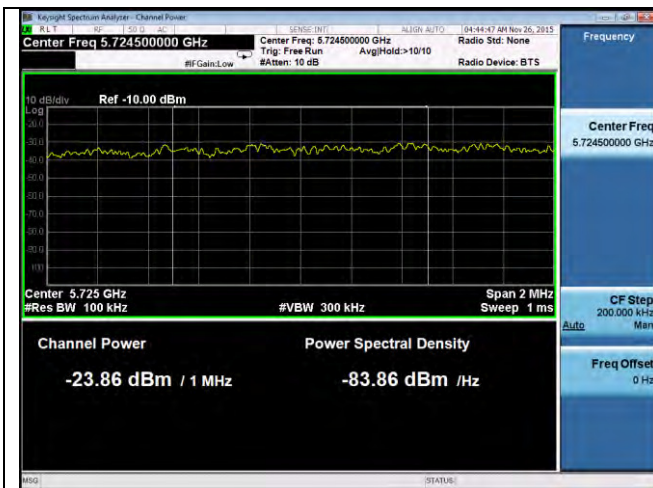


Band Edge -802.11ac-80M-5210M-chain3 (Right)

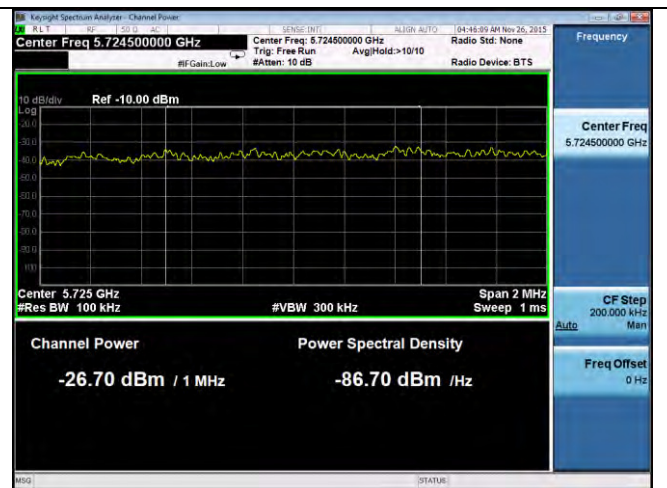


Band Edge -802.11ac-80M-5210M-chain4 (Right)

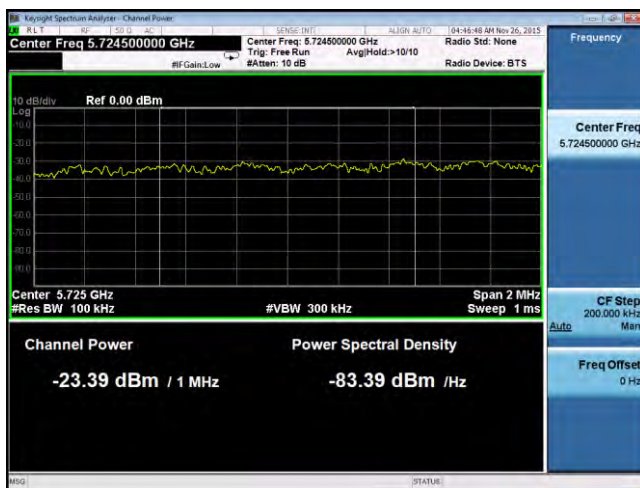
5.8GHz band: (10MHz offset)



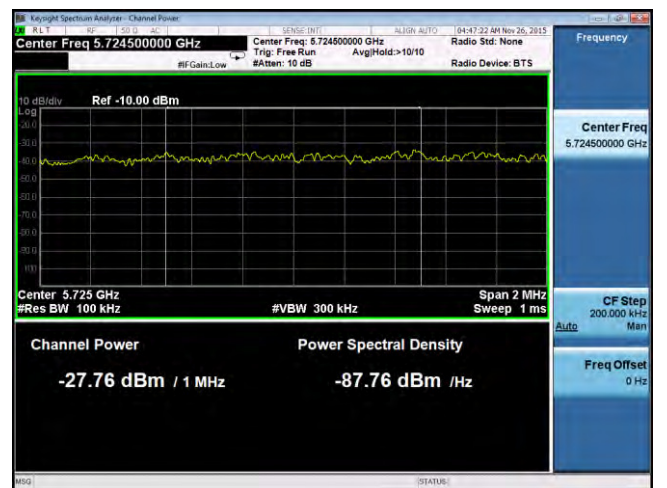
Band Edge -802.11a-5745M-chain1



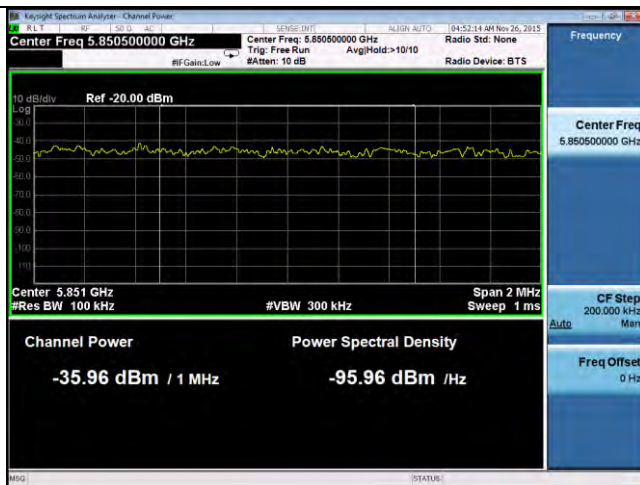
Band Edge -802.11a-5745M-chain2



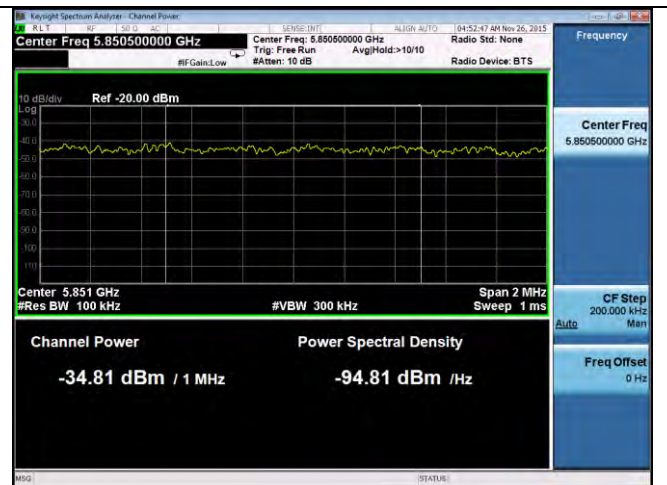
Band Edge -802.11a-5745M-chain3



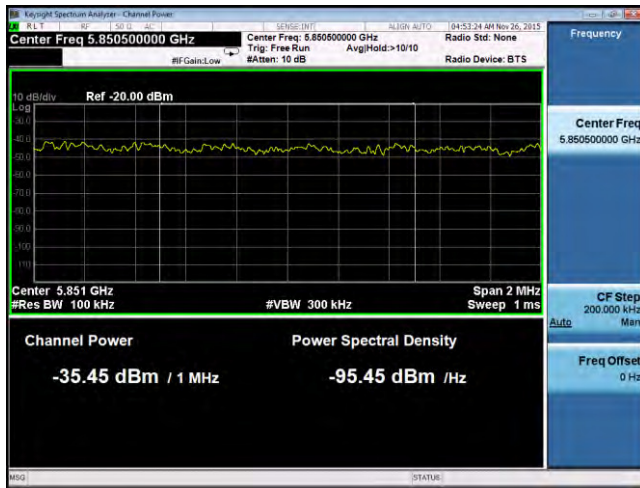
Band Edge -802.11a-5745M-chain4



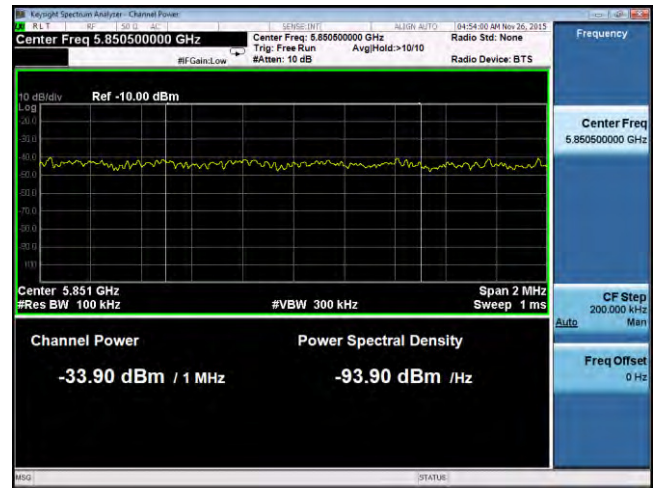
Band Edge -802.11a-5785M-chain1



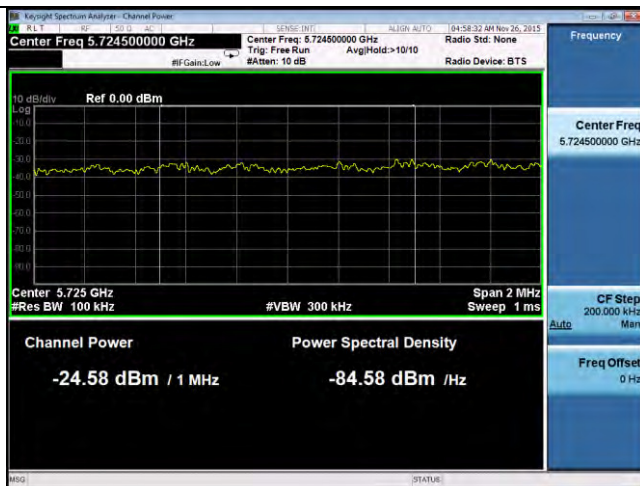
Band Edge -802.11a-5785M-chain2



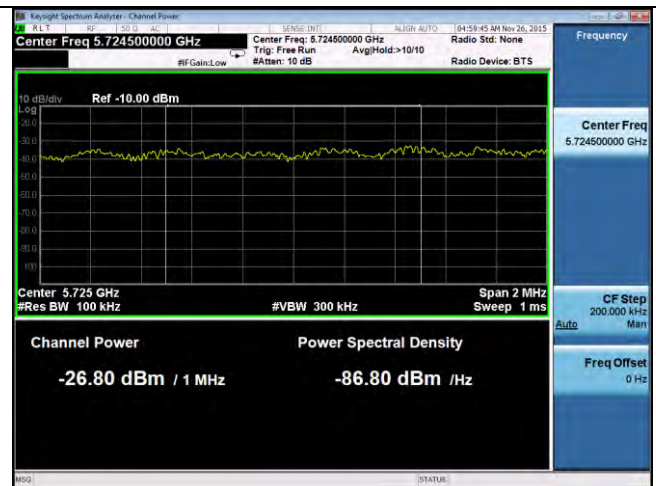
Band Edge -802.11a-5785M-chain3



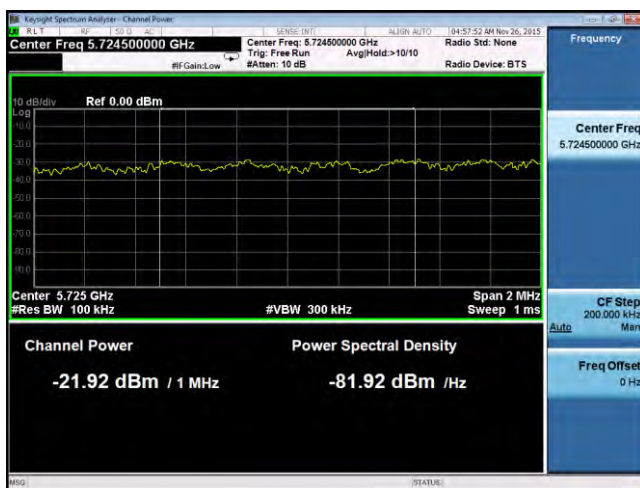
Band Edge -802.11a-5785M-chain4



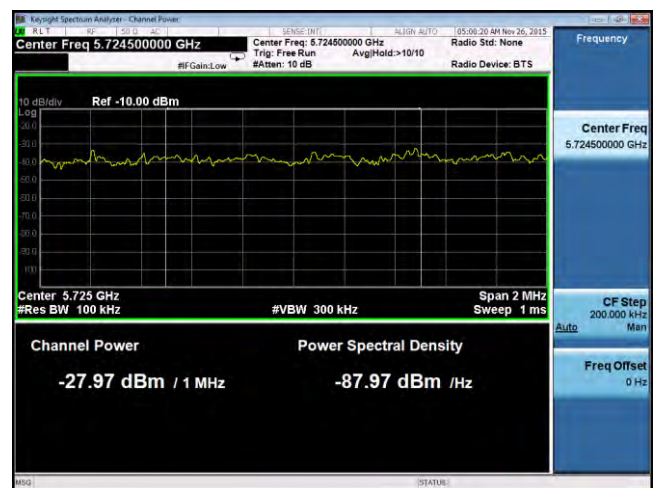
Band Edge -802.11n-20M -5745M-chain1



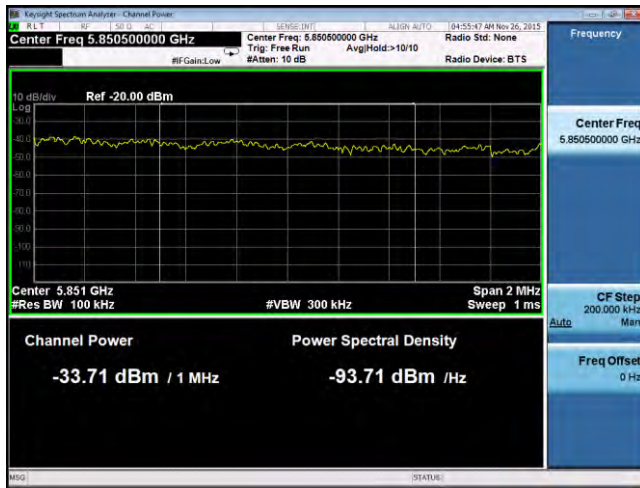
Band Edge -802.11n-20M -5745M-chain2



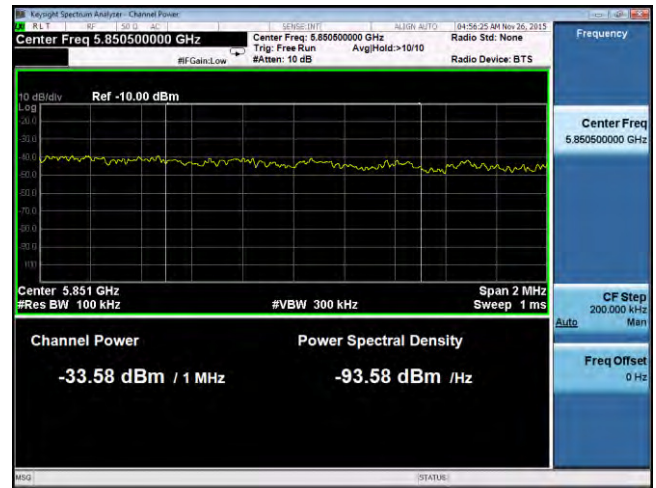
Band Edge -802.11n-20M -5745M-chain3



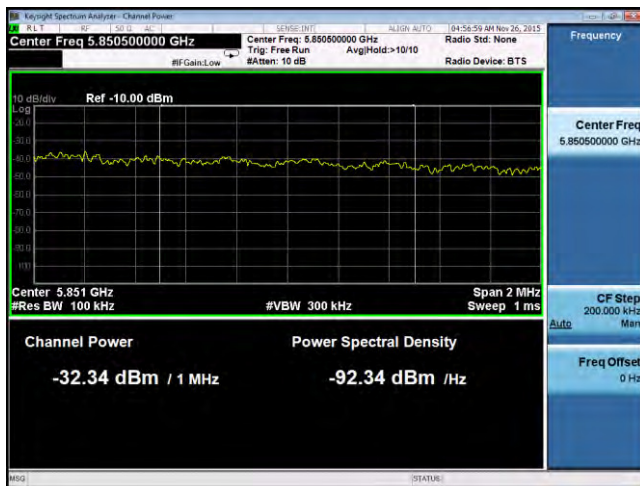
Band Edge -802.11n-20M -5745M-chain4



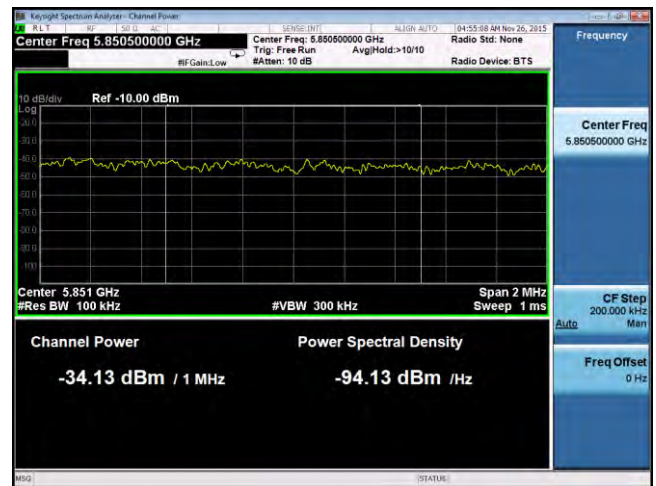
Band Edge -802.11n-20M-5825M-chain1



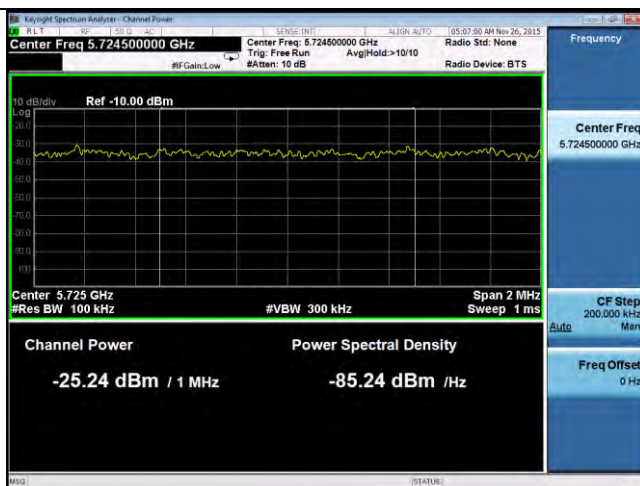
Band Edge -802.11n-20M-5825M-chain2



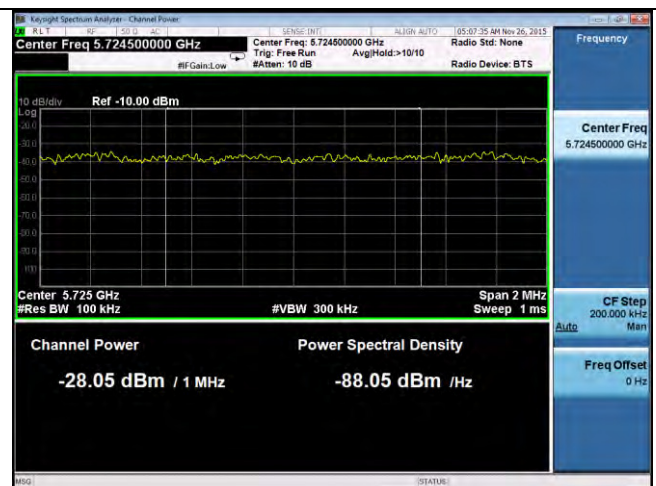
Band Edge -802.11n-20M-5825M-chain3



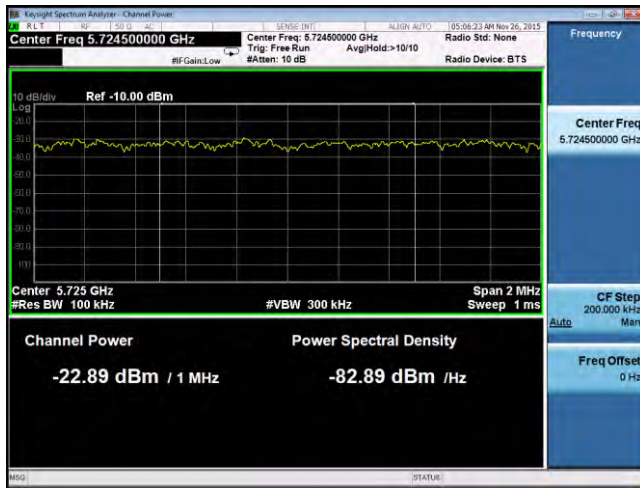
Band Edge -802.11n-20M-5825M-chain4



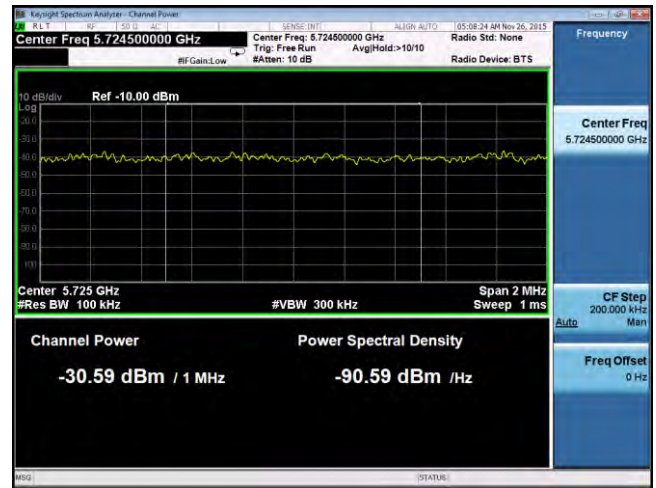
Band Edge -802.11n-40M-5755M-chain1



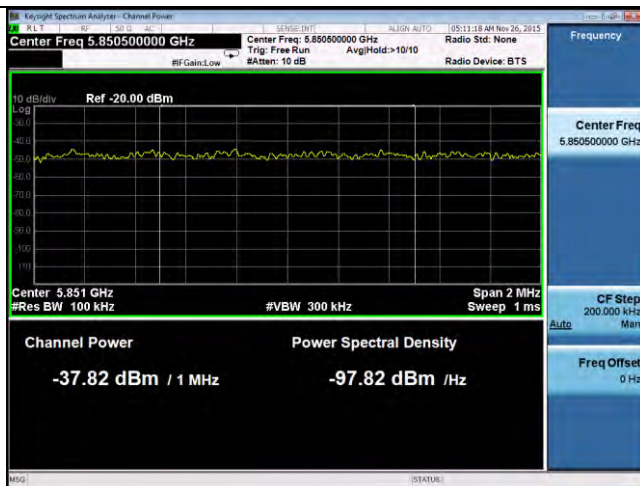
Band Edge -802.11n-40M-5755M-chain2



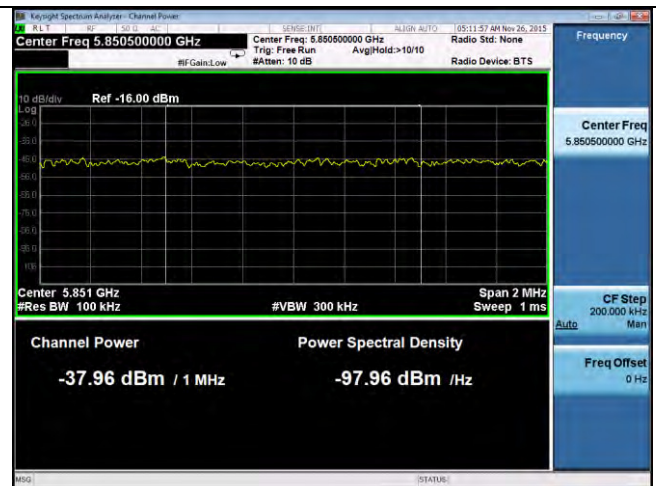
Band Edge -802.11n-40M-5755M-chain3



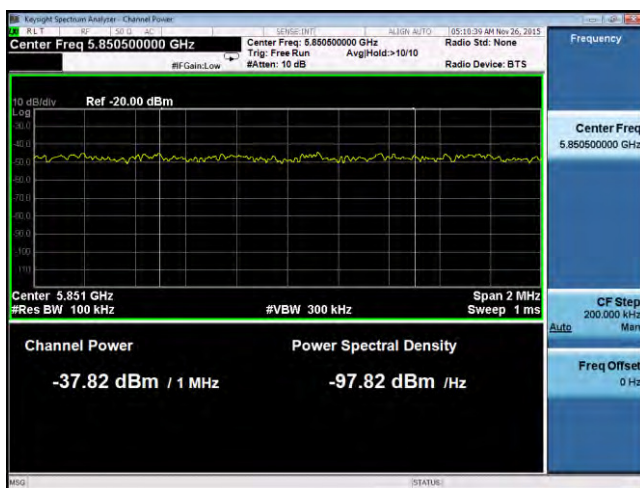
Band Edge -802.11n-40M-5755M-chain4



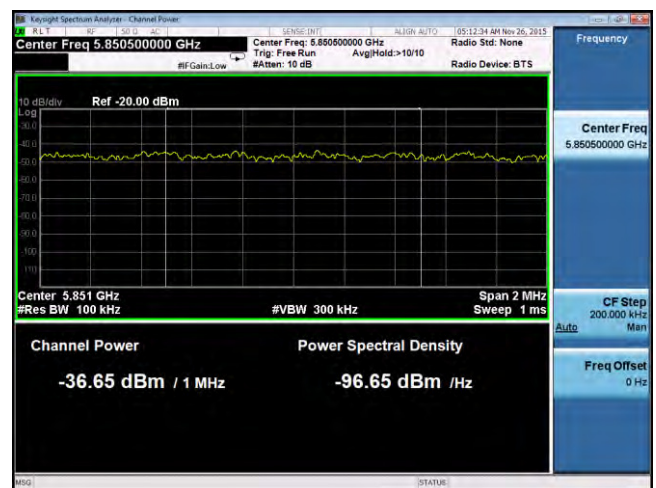
Band Edge -802.11n-40M-5795M-chain1



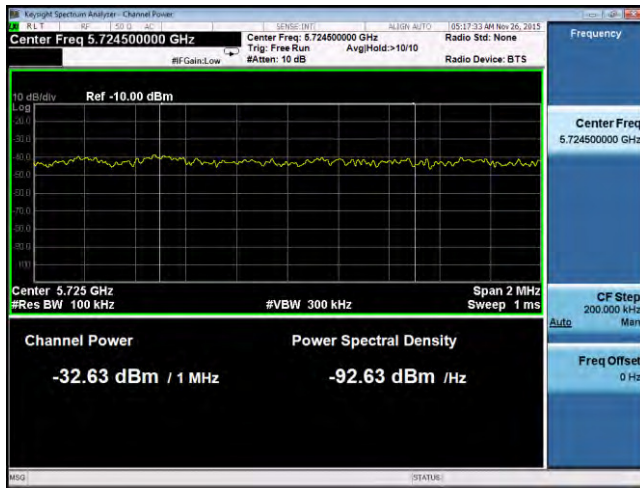
Band Edge -802.11n-40M-5795M-chain2



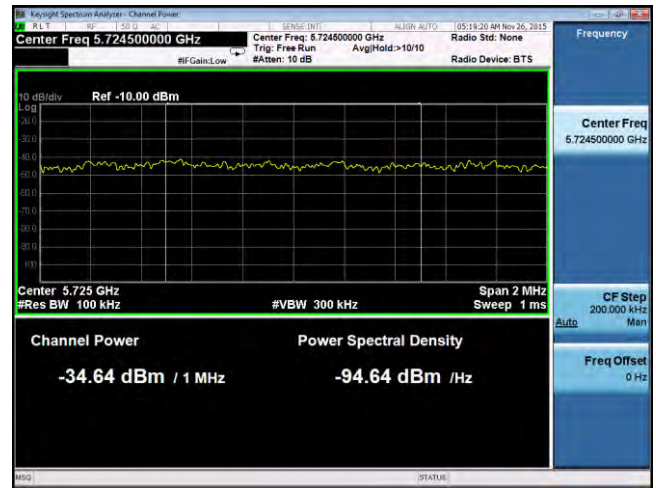
Band Edge -802.11n-40M-5795M-chain3



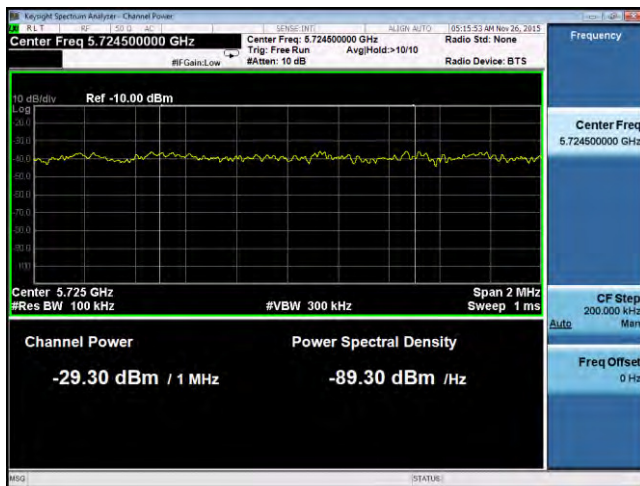
Band Edge -802.11n-40M-5795M-chain4



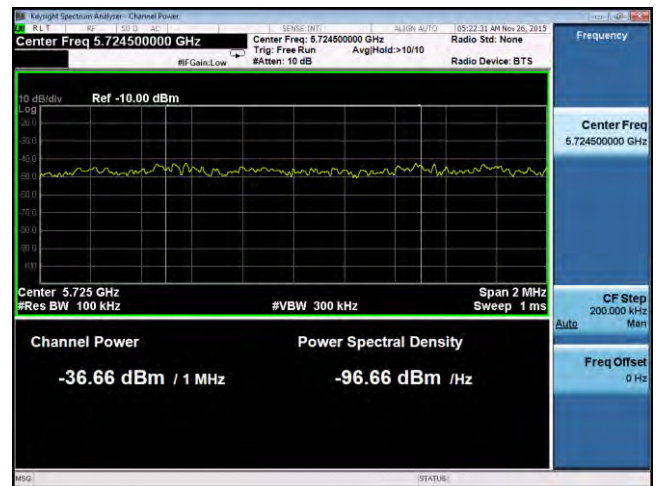
Band Edge -802.11ac-80M-5775M-chain1 (Left)



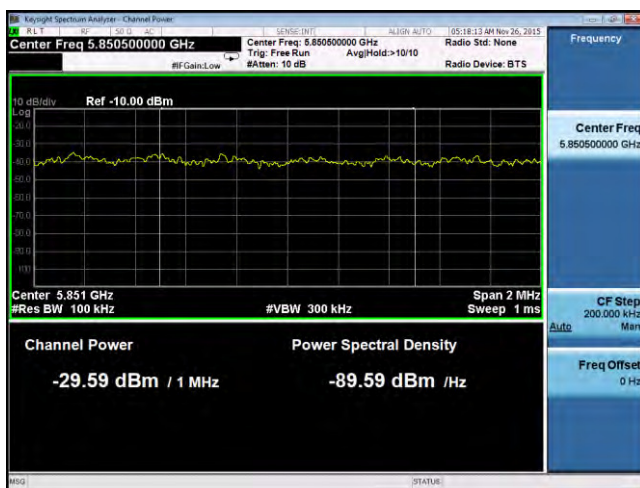
Band Edge -802.11ac-80M-5775M-chain2 (Left)



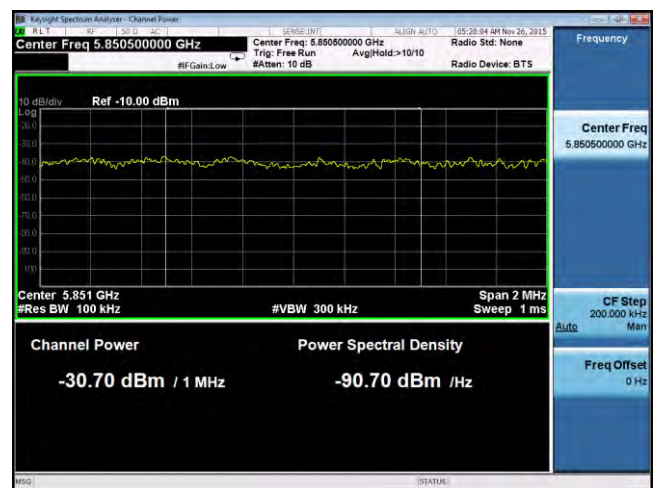
Band Edge -802.11ac-80M-5775M-chain3 (Left)



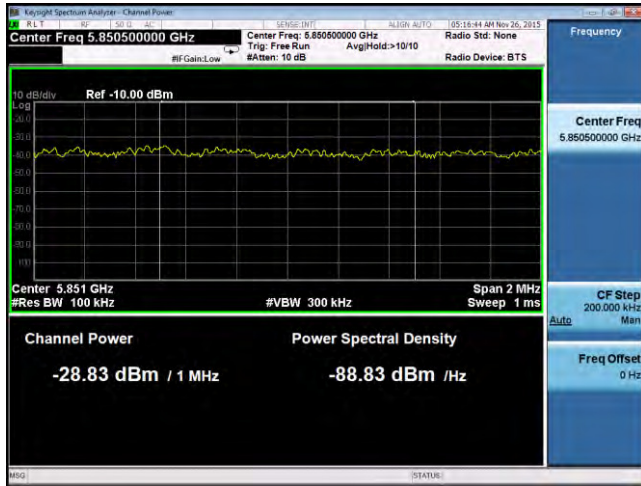
Band Edge -802.11ac-80M-5775M-chain4 (Left)



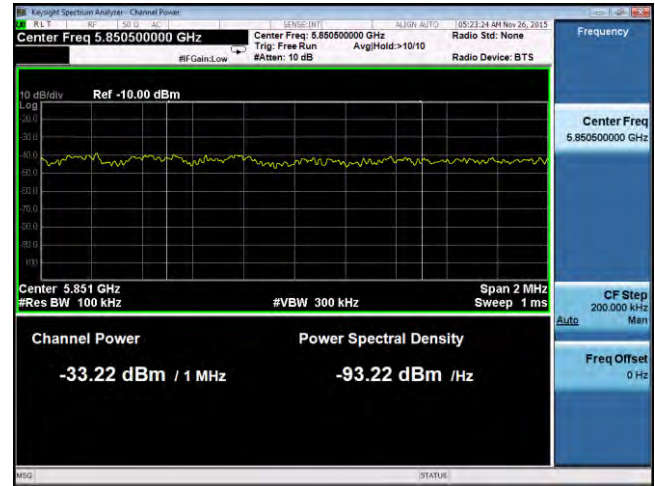
Band Edge -802.11ac-80M-5775M-chain1 (Right)



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

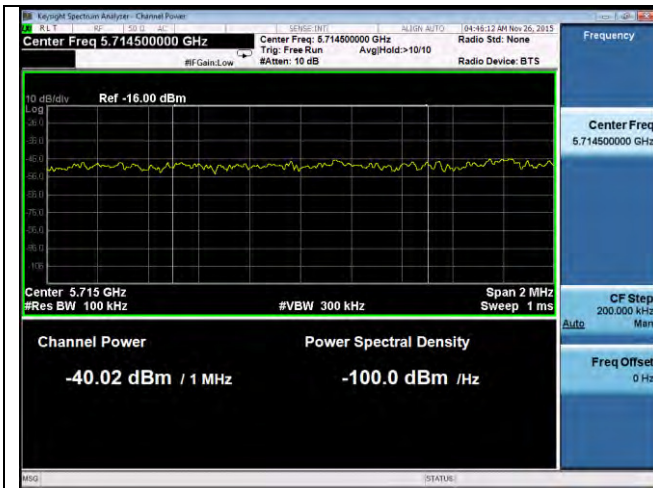


Band Edge -802.11ac-80M-5775M-chain3 (Right)

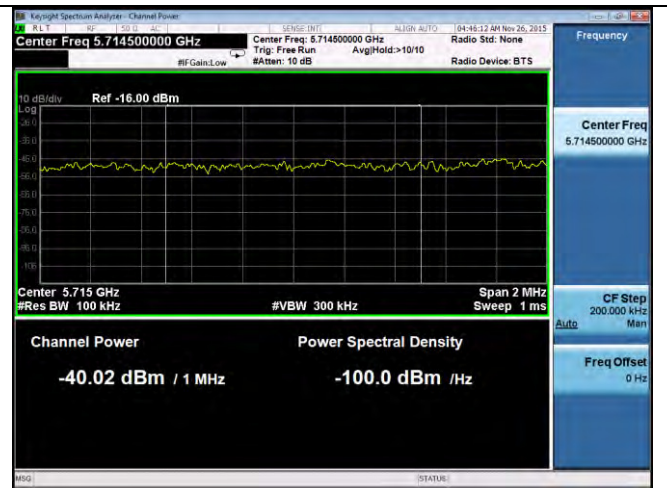


Band Edge -802.11ac-80M-5775M-chain4 (Right)

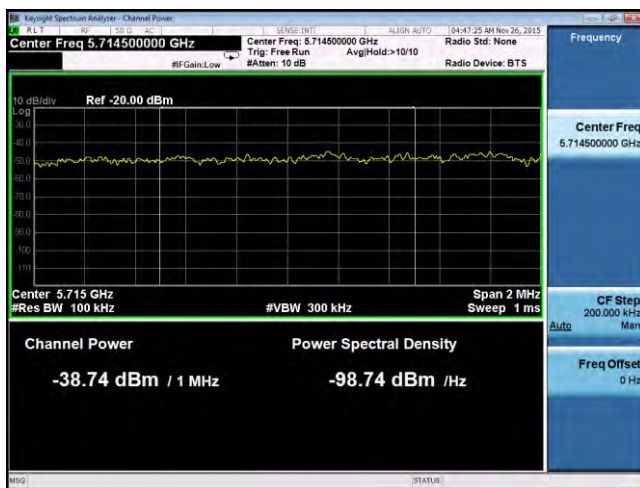
5.8GHz band: (20MHz offset)



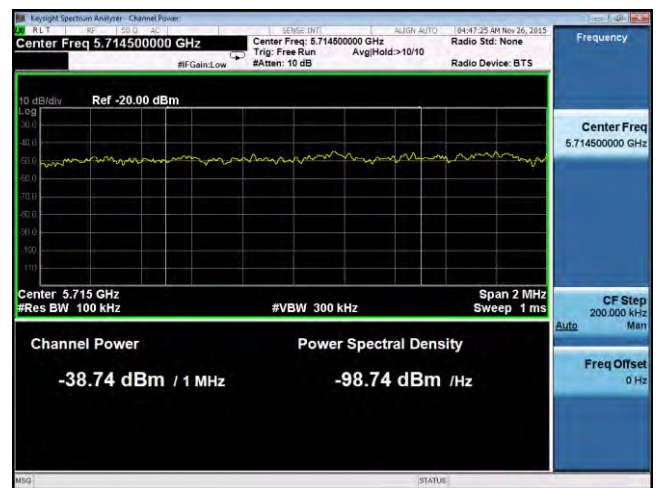
Band Edge -802.11a-5745M-chain1



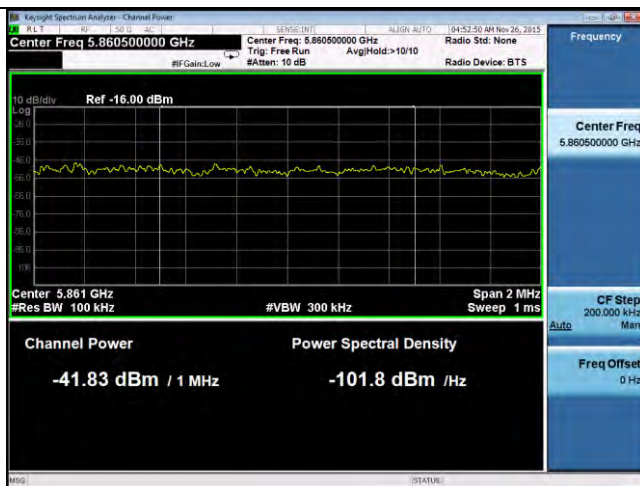
Band Edge -802.11a-5745M-chain2



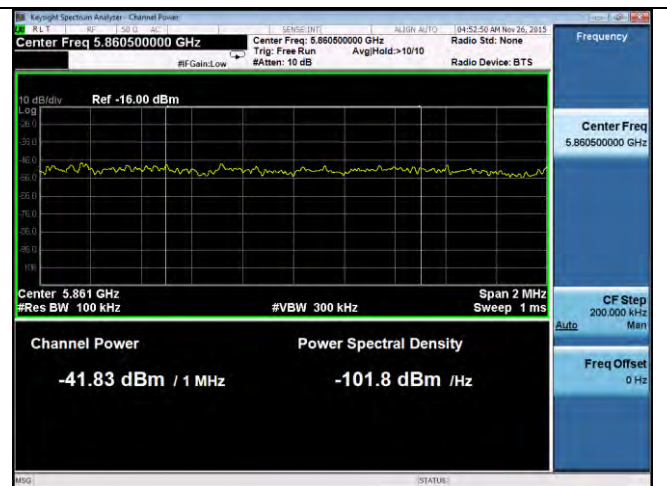
Band Edge -802.11a-5745M-chain3



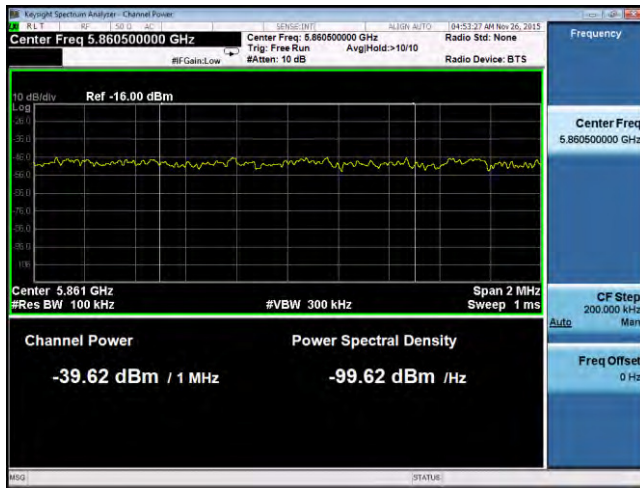
Band Edge -802.11a-5745M-chain4



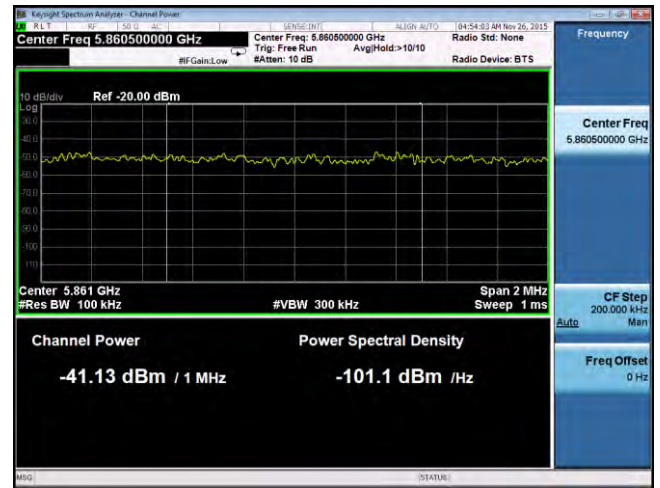
Band Edge -802.11a-5785M-chain1



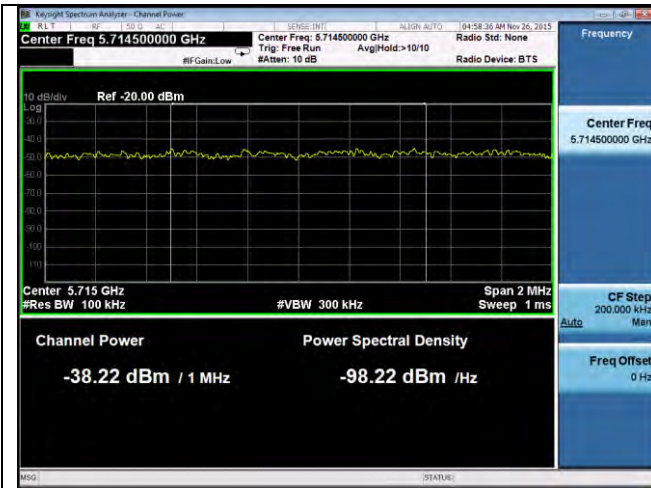
Band Edge -802.11a-5785M-chain2



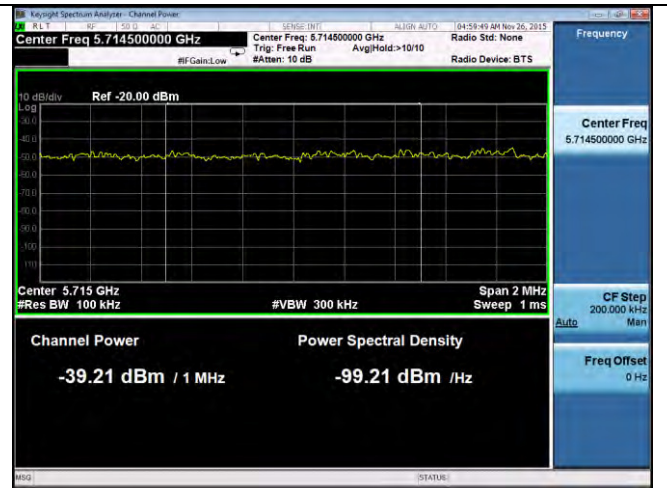
Band Edge -802.11a-5785M-chain3



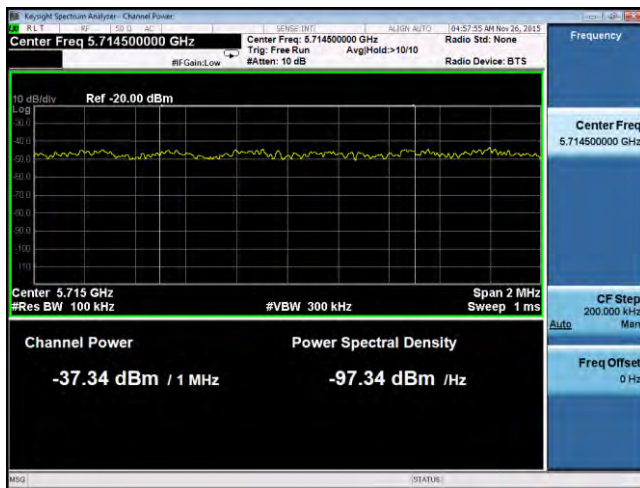
Band Edge -802.11a-5785M-chain4



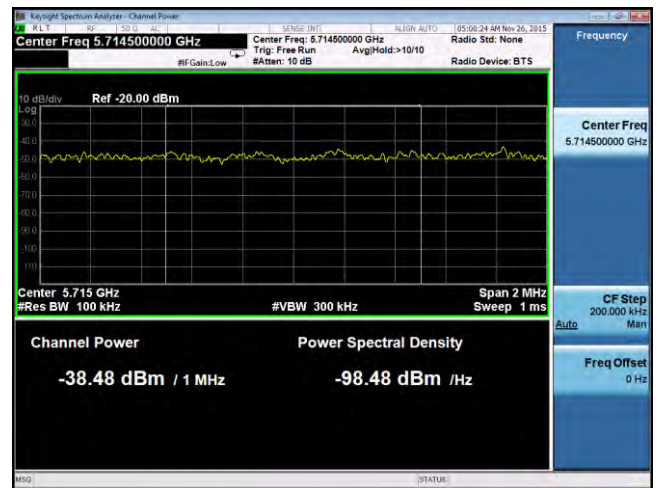
Band Edge -802.11n-20M -5745M-chain1



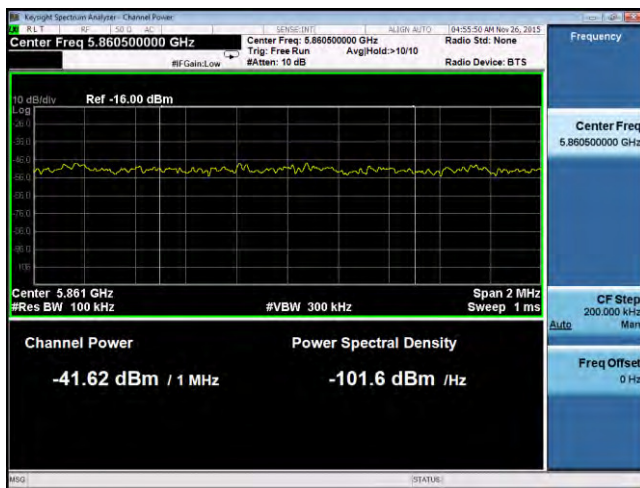
Band Edge -802.11n-20M -5745M-chain2



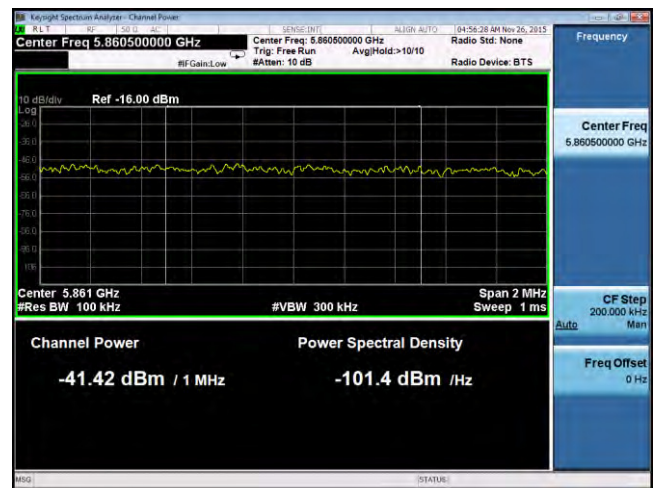
Band Edge -802.11n-20M -5745M-chain3



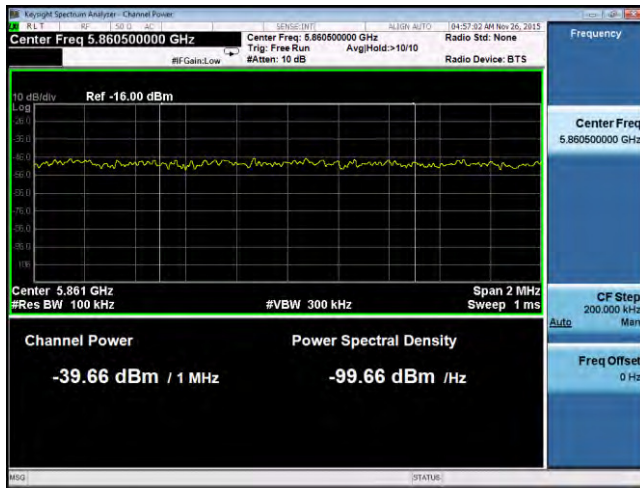
Band Edge -802.11n-20M -5745M-chain4



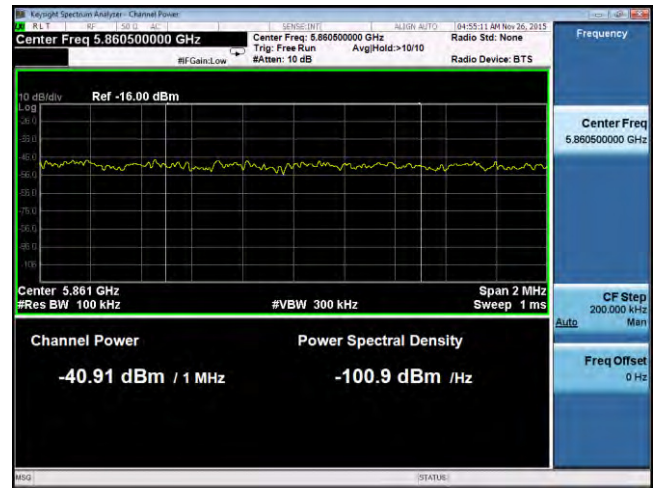
Band Edge -802.11n-20M -5825M-chain1



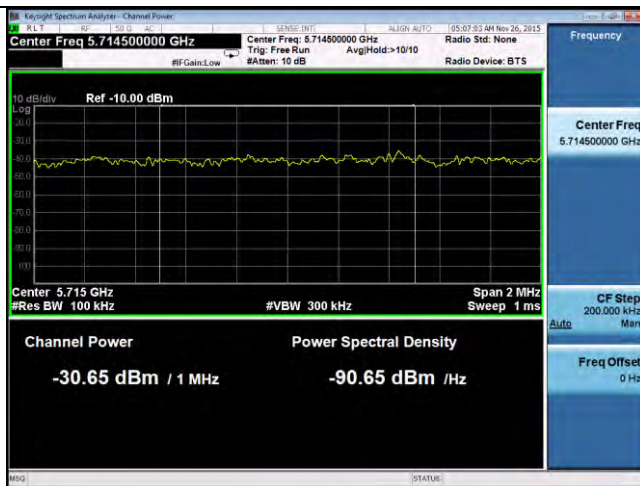
Band Edge -802.11n-20M -5825M-chain2



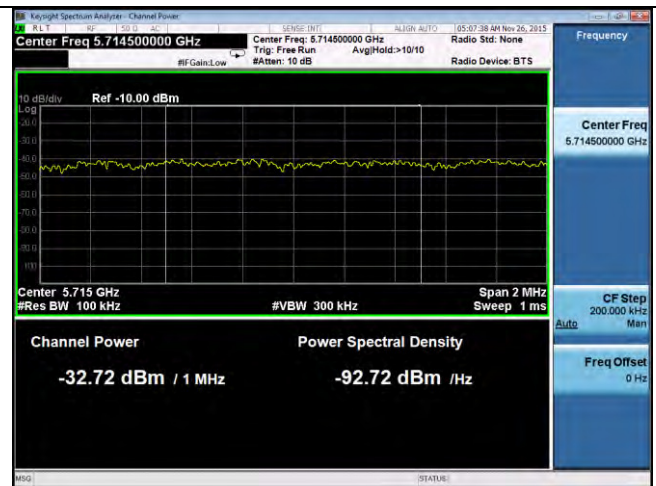
Band Edge -802.11n-20M-5825M-chain3



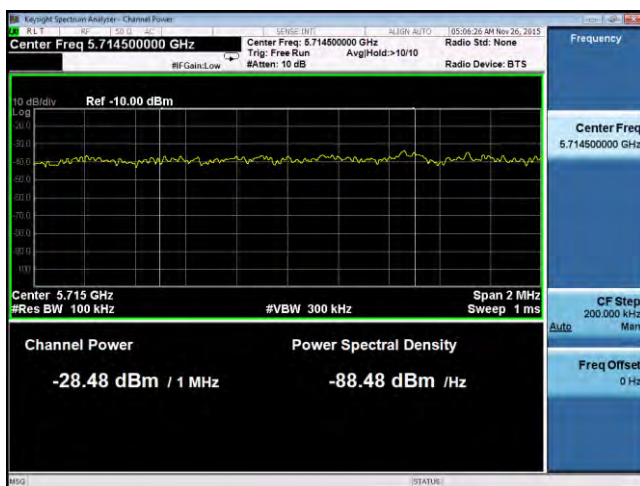
Band Edge -802.11n-20M-5825M-chain4



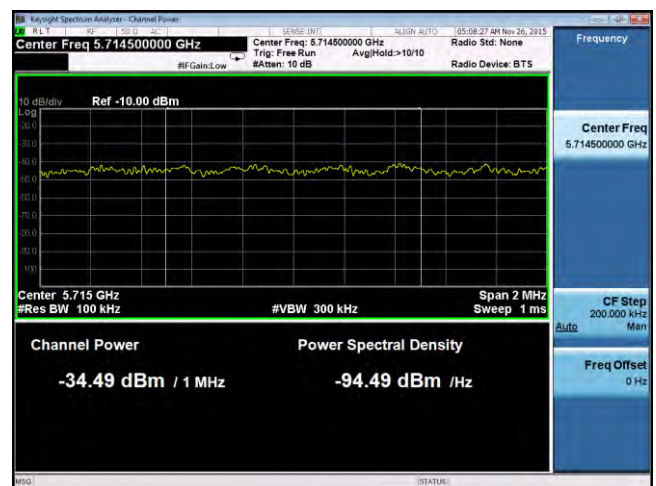
Band Edge -802.11n-40M-5755M-chain1



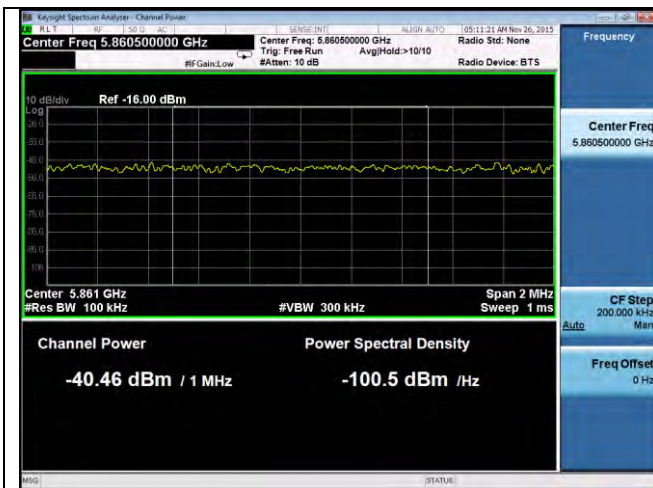
Band Edge -802.11n-40M-5755M-chain2



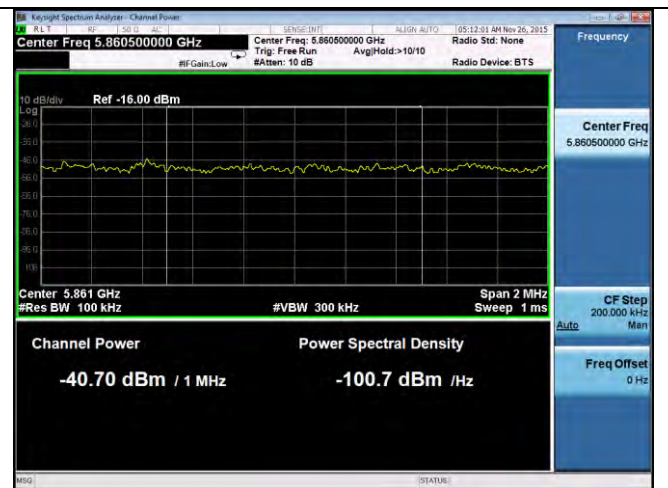
Band Edge -802.11n-40M-5755M-chain3



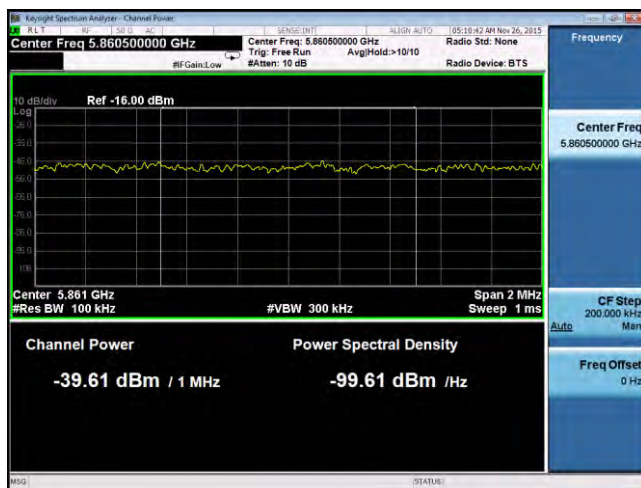
Band Edge -802.11n-40M-5755M-chain4



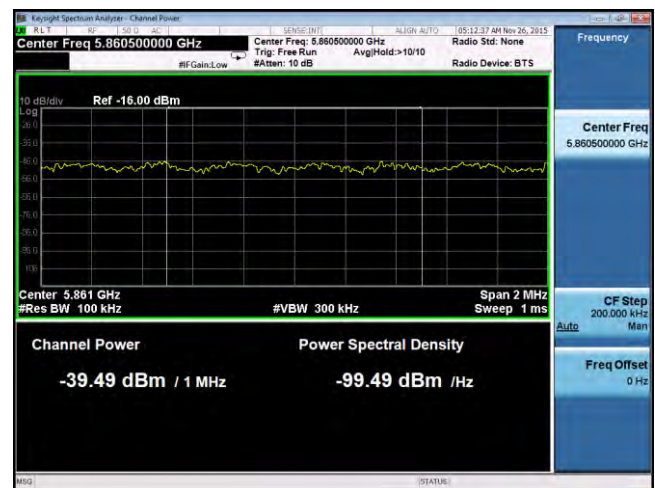
Band Edge -802.11n-40M-5795M-chain1



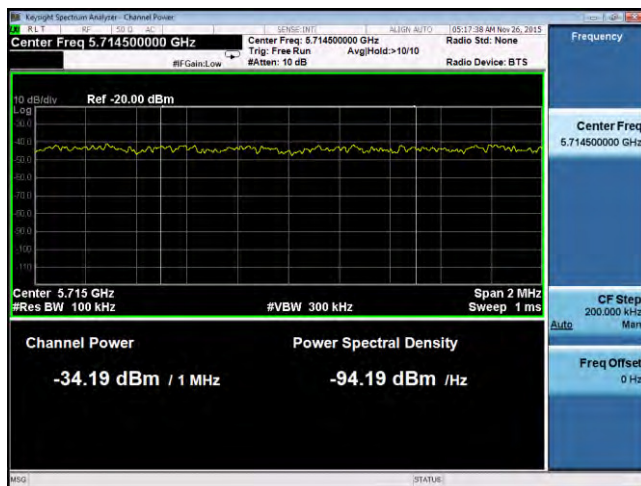
Band Edge -802.11n-40M-5795M-chain2



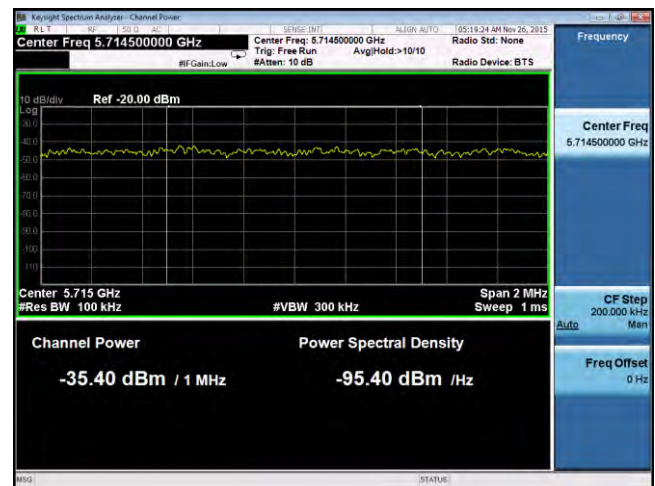
Band Edge -802.11n-40M-5795M-chain3



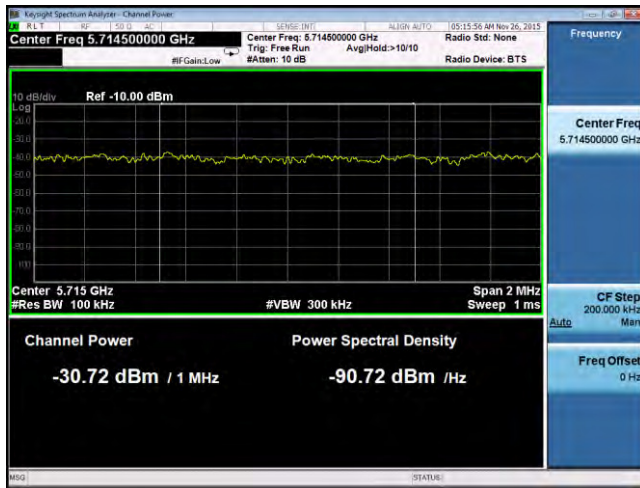
Band Edge -802.11n-40M-5795M-chain4



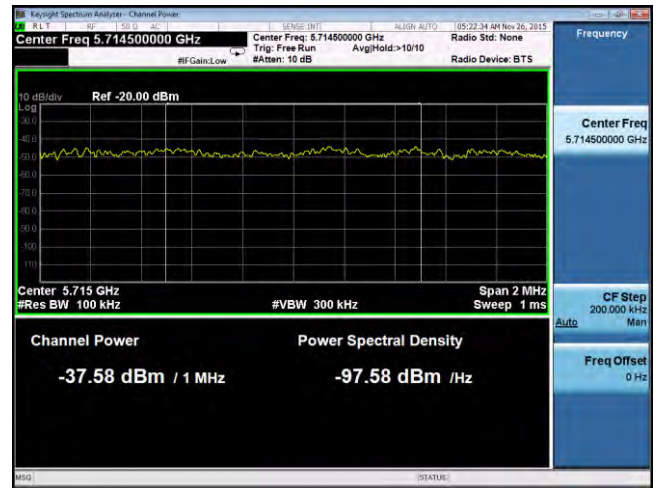
Band Edge -802.11ac-80M-5775M-chain1 (Left)



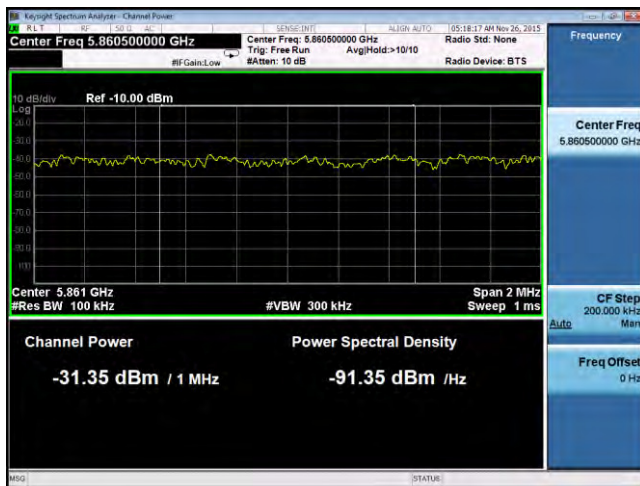
Band Edge -802.11ac-80M-5775M-chain2 (Left)



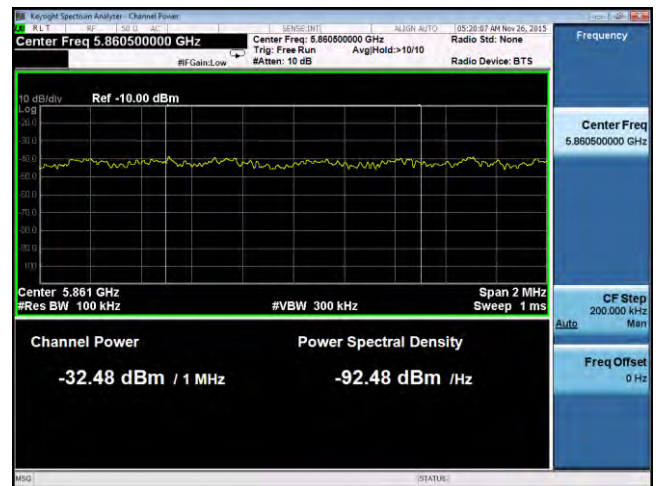
Band Edge -802.11ac-80M-5775M-chain3 (Left)



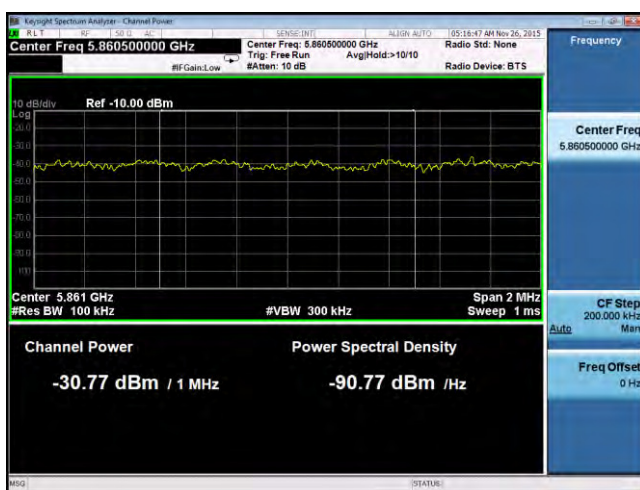
Band Edge -802.11ac-80M-5775M-chain4 (Left)



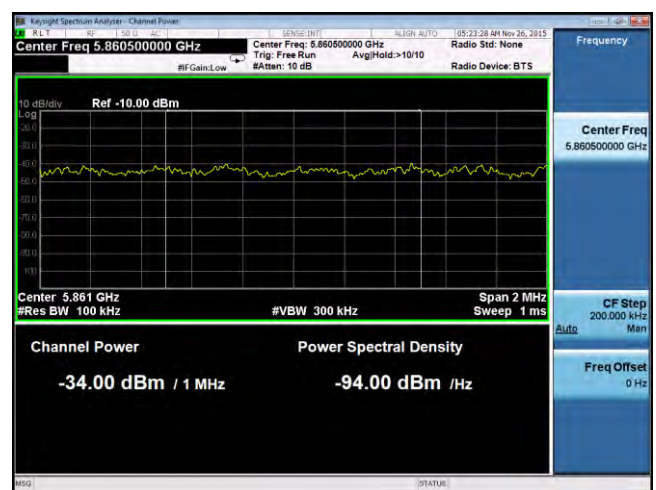
Band Edge -802.11ac-80M-5775M-chain1 (Right)



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



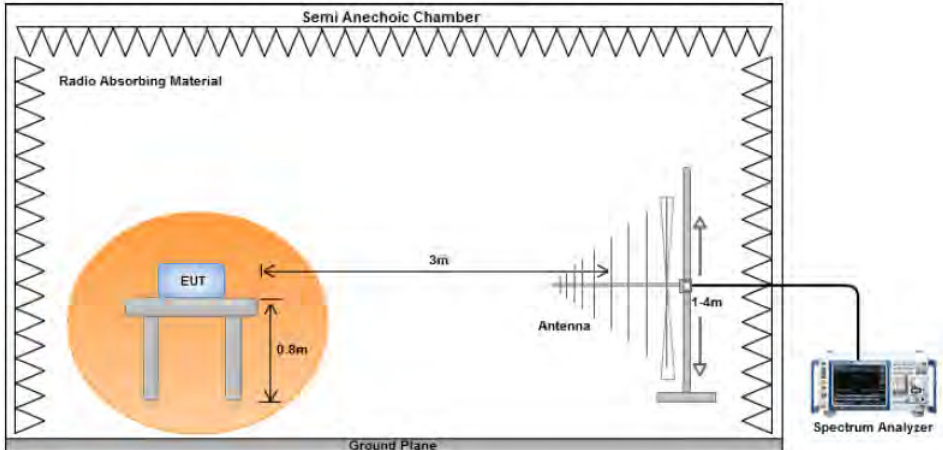
Band Edge -802.11ac-80M-5775M-chain3 (Right)



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

10.6 Radiated Spurious Emissions below 1GHz

Requirement(s):

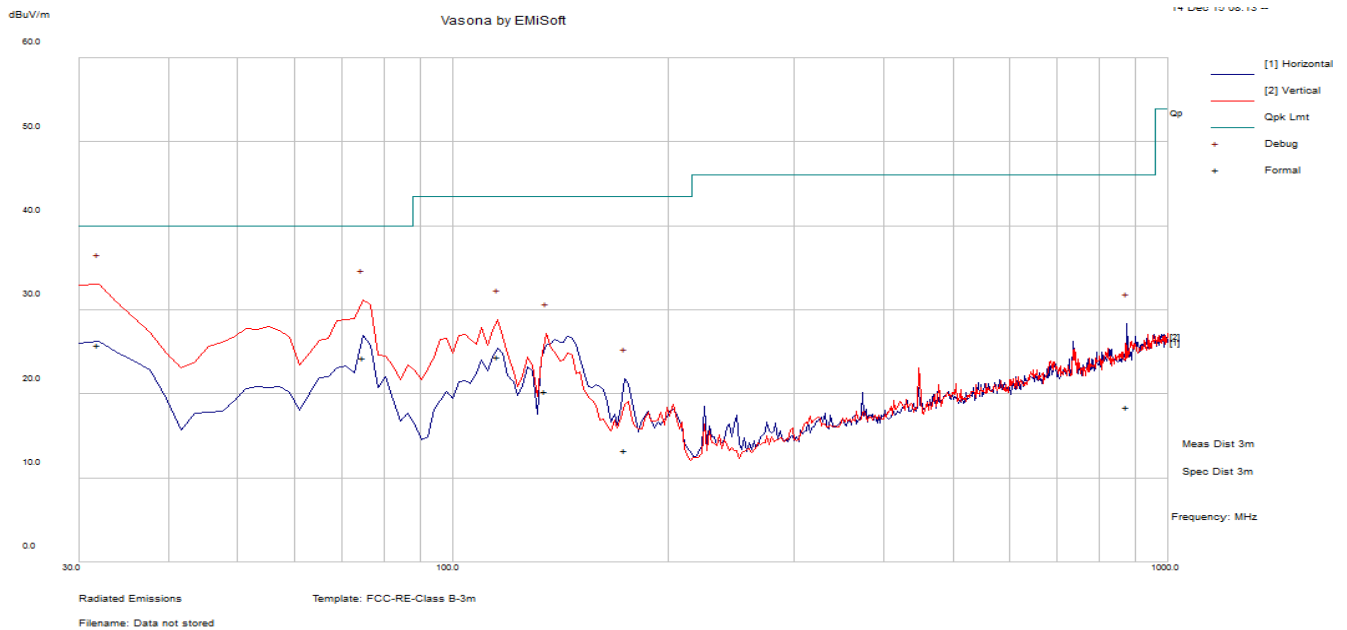
Spec	Requirement	Applicable										
47CFR§ 15.407(b) 15.209 (a)	Except higher limit as specified elsewhere in other section, the emissions from the low-power radio-frequency devices shall not exceed the field strength levels specified in the following table and the level of any unwanted emissions shall 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. The EUT was switched on and allowed to warm up to its normal operating condition. 2. The test was carried out at the selected frequency points obtained from the EUT characterisation. Maximization of the emissions, was carried out by rotating the EUT, changing the antenna polarization, and adjusting the antenna height in the following manner: a. Vertical or horizontal polarisation (whichever gave the higher emission level over a full rotation of the EUT) was chosen. b. The EUT was then rotated to the direction that gave the maximum emission. c. Finally, the antenna height was adjusted to the height that gave the maximum emission. 3. A Quasi-peak measurement was then made for that frequency point. 4. Steps 2 and 3 were repeated for the next frequency point, until all selected frequency points were measured.											
Remark	The EUT was scanned up to 1GHz. Both horizontal and vertical polarities were investigated. The results show only the worst case.											
Result	☒ Pass ☐ Fail											

Test Data ☒ Yes (See below) ☐ N/A

Test Plot ☒ Yes (See below) ☐ N/A

Radiated Emission Test Results (Below 1GHz)

Test specification	below 1GHz				
Environmental Conditions:	Temp (°C):	26.1	Result	Pass	
	Humidity (%)	47.5			
	Atmospheric (mbar):	1020			
Mains Power:	120VAC, 60Hz				
Tested by:	Gary Chou				
Test Date:	11/29/2015				
Remarks:	N/A				



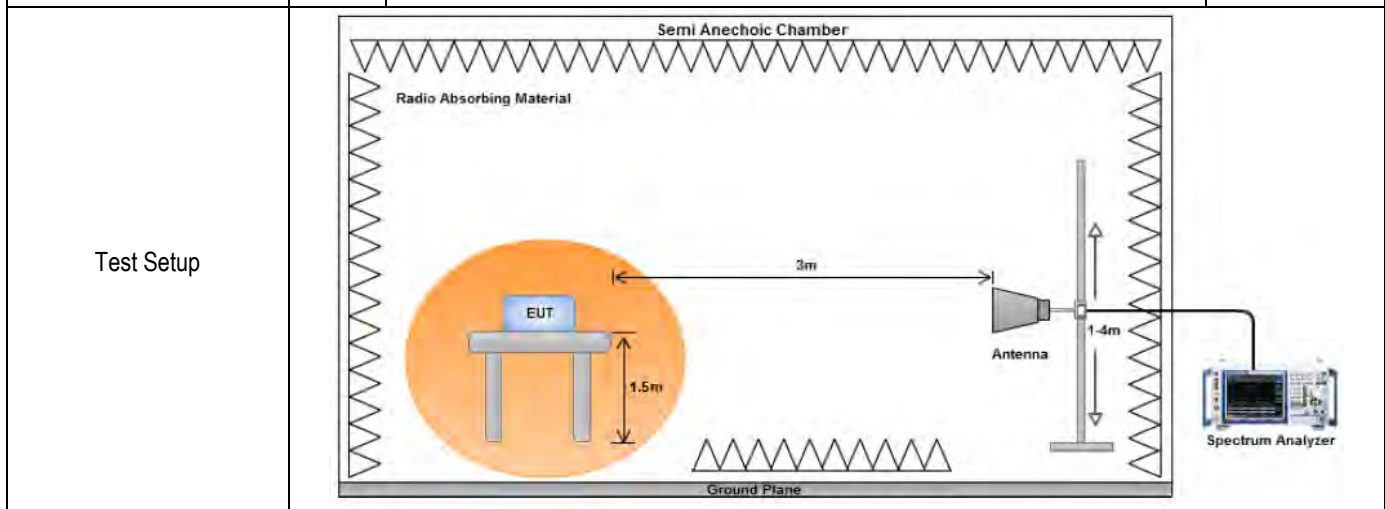
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
31.85	41.1	0.82	-16.09	25.82	Quasi Max	V	104	148	40	-14.18	Pass
74.94	53.25	1.37	-30.35	24.27	Quasi Max	V	122	220	40	-15.73	Pass
115.58	47.83	1.76	-25.13	24.47	Quasi Max	V	110	175	43.52	-19.05	Pass
134.85	43.29	1.92	-24.88	20.32	Quasi Max	V	133	213	43.52	-23.2	Pass
875.37	29.55	5.33	-16.39	18.49	Quasi Max	H	197	344	46.02	-27.53	Pass
173.75	38.4	2.24	-27.37	13.26	Quasi Max	H	129	67	43.52	-30.26	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.	☒
	(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.	☐
	(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.	☐
	(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.	☒
	(5)	Restricted band, emission must also comply with the radiated emission limits specified in 15.209	☒

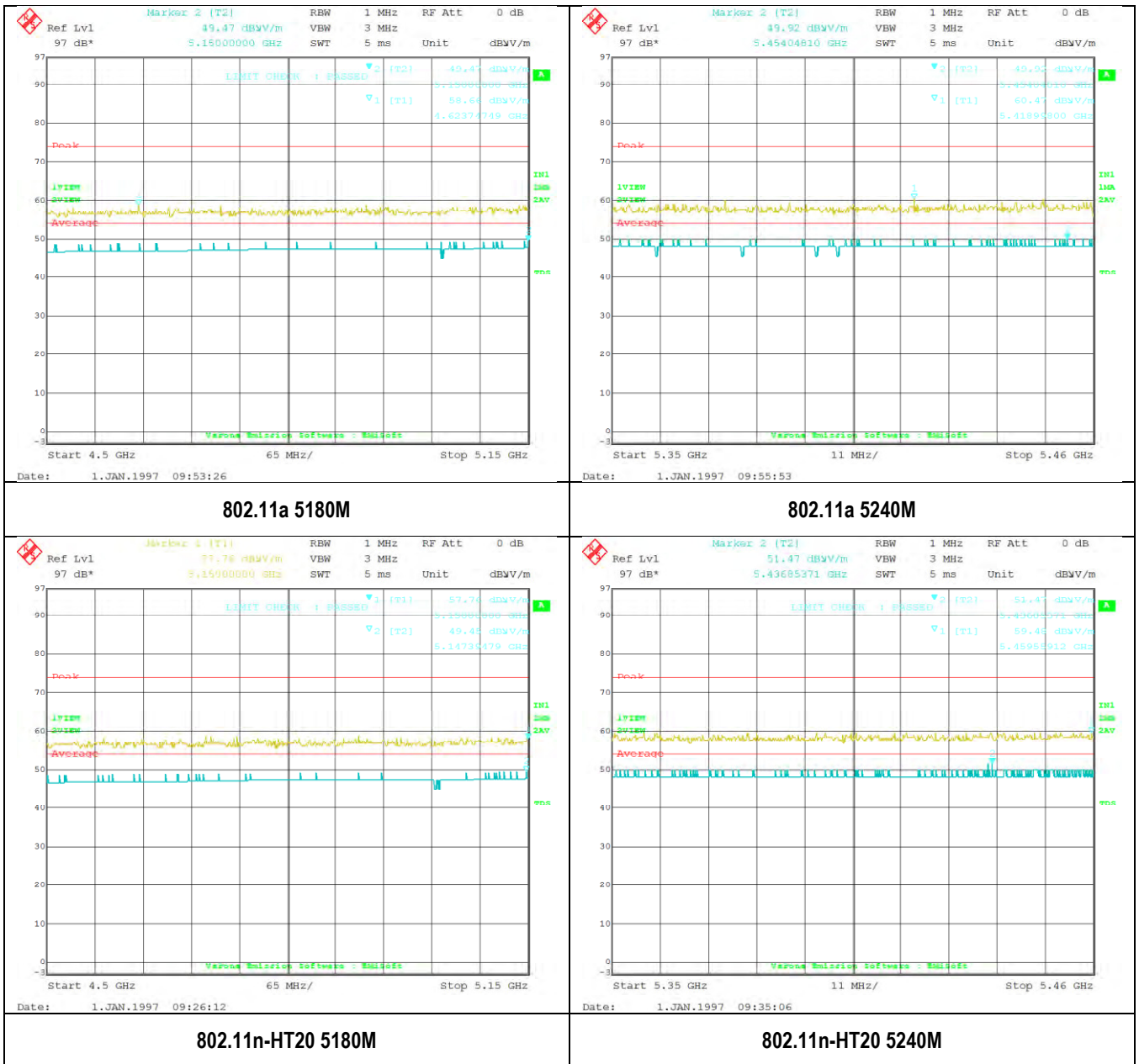


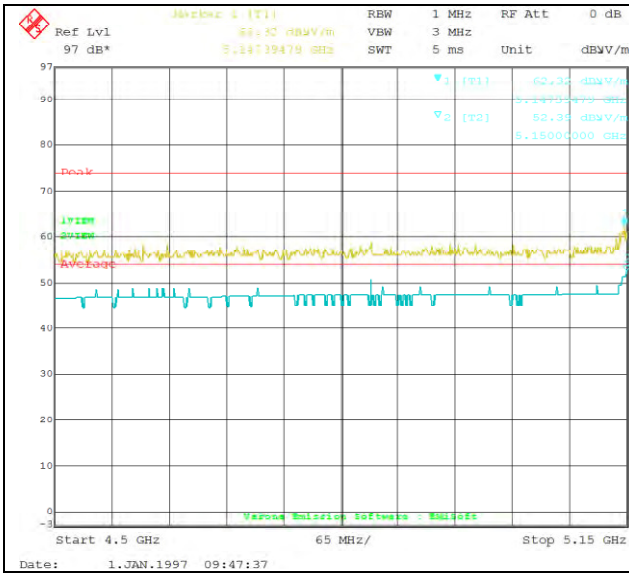
Procedure	- The EUT was switched on and allowed to warm up to its normal operating condition. - The test was carried out at the selected frequency points obtained from the EUT characterisation. Maximization of the emissions, was carried out by rotating the EUT, changing the antenna polarization, and 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.
Result	☒ Pass ☐ Fail

Test Data ☒ Yes (See below) ☐ N/A

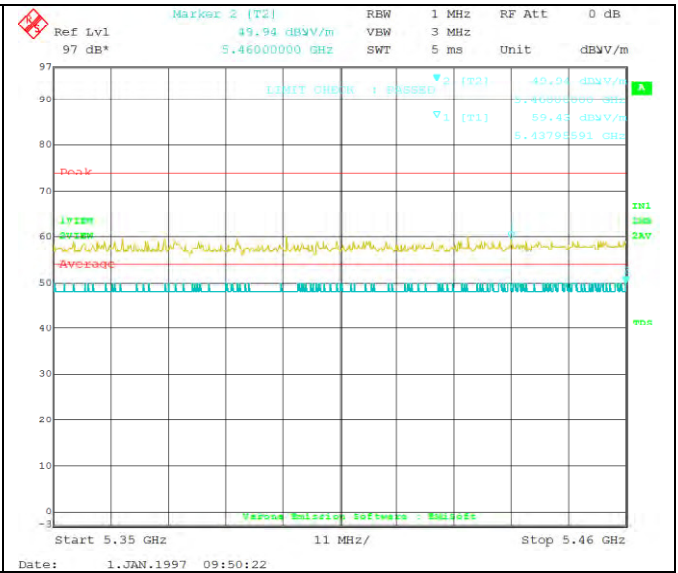
Test Plot ☒ Yes (See below) ☐ N/A

Radiated Restricted band and Band Edge Measurement Plots:

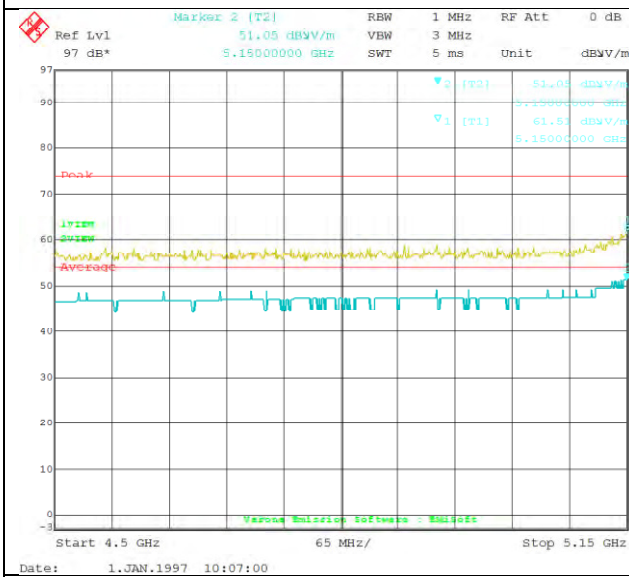




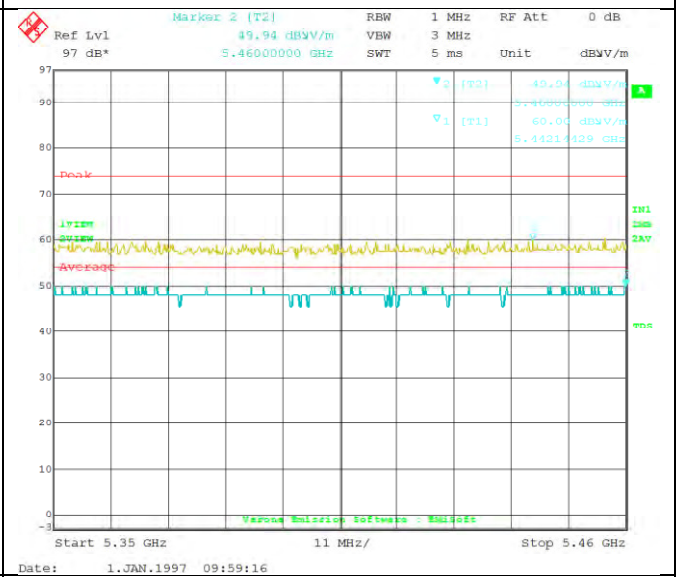
802.11n-HT40 5190M



802.11n-HT40 5230M



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



802.1ac-VHT80 5210M(5320-5460MHz)

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
4111.96	37.58	8.78	15.26	61.63	Peak Max	H	163	127	74	-12.37	Pass
6153.79	37.08	10.67	14.22	61.97	Peak Max	H	147	136	74	-12.03	Pass
1000.00	35.29	3.35	13.2	51.84	Peak Max	H	156	177	74	-22.16	Pass
4111.96	26.11	8.78	15.26	50.15	Average Max	H	163	127	54	-3.85	Pass
6153.79	25.54	10.67	14.22	50.44	Average Max	H	147	136	54	-3.57	Pass
1000.00	31.89	3.35	13.2	48.44	Average Max	H	156	177	54	-5.56	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
4208.37	38.04	9.02	14.84	61.91	Peak Max	H	210	124	74	-12.09	Pass
6162.44	36.99	10.68	14.2	61.87	Peak Max	V	118	10	74	-12.13	Pass
1020.07	42.95	3.38	13.17	59.5	Peak Max	V	199	152	74	-14.5	Pass
4208.37	26.37	9.02	14.84	50.23	Average Max	H	210	124	54	-3.77	Pass
6162.44	25.46	10.68	14.2	50.34	Average Max	V	118	10	54	-3.66	Pass
1020.07	31.68	3.38	13.17	48.22	Average Max	V	199	152	54	-5.78	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
4124.90	37.36	8.82	15.2	61.38	Peak Max	H	171	117	74	-12.62	Pass
6143.25	36.87	10.66	14.24	61.78	Peak Max	V	113	185	74	-12.23	Pass
1000.20	44.13	3.35	13.2	60.68	Peak Max	H	178	157	74	-13.32	Pass
4124.90	25.96	8.82	15.2	49.98	Average Max	H	171	117	54	-4.02	Pass
6143.25	24.81	10.66	14.24	49.72	Average Max	V	113	185	54	-4.28	Pass
1000.20	31.88	3.35	13.2	48.43	Average Max	H	178	157	54	-5.57	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
4156.24	37.72	8.89	15.07	61.68	Peak Max	V	126	262	74	-12.32	Pass
6226.32	35.92	10.76	14.05	60.73	Peak Max	H	244	98	74	-13.27	Pass
2092.91	39.34	4.36	14.7	58.41	Peak Max	V	149	61	74	-15.59	Pass
4156.24	25.88	8.89	15.07	49.84	Average Max	V	126	262	54	-4.16	Pass
6226.32	24.61	10.76	14.05	49.41	Average Max	H	244	98	54	-4.59	Pass
2092.91	28	4.36	14.7	47.07	Average Max	V	149	61	54	-6.93	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
4080.78	37.56	8.71	15.39	61.66	Peak Max	H	207	179	74	-12.34	Pass
6321.49	35.99	10.88	13.82	60.69	Peak Max	V	182	101	74	-13.31	Pass
1968.66	39.51	4.26	14.75	58.53	Peak Max	H	180	341	74	-15.48	Pass
4080.78	25.8	8.71	15.39	49.9	Average Max	H	207	179	54	-4.11	Pass
6321.49	24.41	10.88	13.82	49.11	Average Max	V	182	101	54	-4.89	Pass
1968.66	27.93	4.26	14.75	46.95	Average Max	H	180	341	54	-7.05	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
4241.47	37.6	9.1	14.7	61.41	Peak Max	V	122	124	74	-12.59	Pass
6120.38	36.39	10.63	14.3	61.32	Peak Max	V	151	158	74	-12.68	Pass
2159.74	38.88	4.41	14.5	57.79	Peak Max	H	247	102	74	-16.21	Pass
4241.47	25.92	9.1	14.7	49.73	Average Max	V	122	124	54	-4.27	Pass
6120.38	24.62	10.63	14.3	49.55	Average Max	V	151	158	54	-4.45	Pass
2159.74	27.82	4.41	14.5	46.73	Average Max	H	247	102	54	-7.27	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
4164.74	37.52	8.91	15.03	61.47	Peak Max	V	206	331	74	-12.53	Pass
6111.45	35.91	10.62	14.32	60.85	Peak Max	H	117	148	74	-13.15	Pass
2092.42	40.85	4.36	14.71	59.92	Peak Max	H	235	296	74	-14.08	Pass
4164.74	26.07	8.91	15.03	50.01	Average Max	V	206	331	54	-3.99	Pass
6111.45	24.42	10.62	14.32	49.36	Average Max	H	117	148	54	-4.64	Pass
2092.42	28.24	4.36	14.71	47.31	Average Max	H	235	296	54	-6.69	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
4134.60	38.06	8.84	15.16	62.06	Peak Max	V	139	316	74	-11.94	Pass
6324.47	36.61	10.88	13.82	61.31	Peak Max	H	223	223	74	-12.69	Pass
1998.17	39.82	4.28	14.99	59.09	Peak Max	H	116	35	74	-14.91	Pass
4134.60	25.92	8.84	15.16	49.92	Average Max	V	139	316	54	-4.08	Pass
6324.47	24.44	10.88	13.82	49.14	Average Max	H	223	223	54	-4.86	Pass
1998.17	27.86	4.28	14.99	47.12	Average Max	H	116	35	54	-6.88	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
4261.74	37.12	9.15	14.62	60.89	Peak Max	H	197	75	74	-13.11	Pass
6130.92	36.93	10.64	14.27	61.85	Peak Max	V	166	0	74	-12.15	Pass
2124.31	39.8	4.38	14.61	58.79	Peak Max	V	149	350	74	-15.21	Pass
4261.74	25.49	9.15	14.62	49.26	Average Max	H	197	75	54	-4.74	Pass
6130.92	24.55	10.64	14.27	49.47	Average Max	V	166	0	54	-4.53	Pass
2124.31	27.89	4.38	14.61	46.88	Average Max	V	149	350	54	-7.12	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
4200.00	37.32	9	14.88	61.2	Peak Max	V	235	293	74	-12.8	Pass
6217.66	37.12	10.75	14.07	61.94	Peak Max	H	117	79	74	-12.06	Pass
1989.61	39.64	4.27	14.92	58.83	Peak Max	V	193	173	74	-15.17	Pass
4200.00	25.94	9	14.88	49.82	Average Max	V	235	293	54	-4.18	Pass
6217.66	24.8	10.75	14.07	49.61	Average Max	H	117	79	54	-4.39	Pass
1989.61	28.34	4.27	14.92	47.54	Average Max	V	193	173	54	-6.46	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
4251.17	37.46	9.13	14.66	61.25	Peak Max	V	184	199	74	-12.75	Pass
6249.35	37.1	10.79	13.99	61.88	Peak Max	V	110	158	74	-12.12	Pass
1989.00	40.39	4.27	14.91	59.58	Peak Max	H	156	248	74	-14.42	Pass
4251.17	25.96	9.13	14.66	49.75	Average Max	V	184	199	54	-4.25	Pass
6249.35	24.69	10.79	13.99	49.48	Average Max	V	110	158	54	-4.53	Pass
1989.00	28.32	4.27	14.91	47.51	Average Max	H	156	248	54	-6.49	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
4081.13	37.89	8.71	15.39	61.99	Peak Max	H	155	224	74	-12.01	Pass
6163.90	36.71	10.69	14.19	61.59	Peak Max	H	109	171	74	-12.41	Pass
2114.92	40.85	4.38	14.64	59.86	Peak Max	V	158	82	74	-14.14	Pass
4081.13	26.21	8.71	15.39	50.31	Average Max	H	155	224	54	-3.69	Pass
6163.90	24.72	10.69	14.19	49.6	Average Max	H	109	171	54	-4.41	Pass
2114.92	28.16	4.38	14.64	47.18	Average Max	V	158	82	54	-6.82	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
4228.42	37.5	9.07	14.76	61.33	Peak Max	V	243	116	74	-12.67	Pass
6132.98	36.05	10.65	14.27	60.96	Peak Max	H	224	300	74	-13.04	Pass
2062.36	39.91	4.34	14.8	59.04	Peak Max	H	194	108	74	-14.96	Pass
4228.42	25.86	9.07	14.76	49.69	Average Max	V	243	116	54	-4.31	Pass
6132.98	24.75	10.65	14.27	49.67	Average Max	H	224	300	54	-4.33	Pass
2062.36	28.32	4.34	14.8	47.46	Average Max	H	194	108	54	-6.54	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
4219.81	37.63	9.05	14.8	61.48	Peak Max	H	229	111	74	-12.52	Pass
6111.73	36.16	10.62	14.32	61.1	Peak Max	H	168	281	74	-12.9	Pass
2028.71	39.62	4.31	14.91	58.84	Peak Max	H	171	227	74	-15.16	Pass
4219.81	25.77	9.05	14.8	49.61	Average Max	H	229	111	54	-4.39	Pass
6111.73	24.58	10.62	14.32	49.52	Average Max	H	168	281	54	-4.48	Pass
2028.71	28.27	4.31	14.91	47.48	Average Max	H	171	227	54	-6.52	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
4102.97	37.06	8.76	15.3	61.12	Peak Max	V	123	144	74	-12.88	Pass
6226.52	36.13	10.76	14.05	60.94	Peak Max	H	211	359	74	-13.06	Pass
2010.25	39.98	4.29	14.97	59.24	Peak Max	H	220	45	74	-14.76	Pass
4102.97	25.61	8.76	15.3	49.67	Average Max	V	123	144	54	-4.33	Pass
6226.52	24.6	10.76	14.05	49.41	Average Max	H	211	359	54	-4.59	Pass
2010.25	28.15	4.29	14.97	47.41	Average Max	H	220	45	54	-6.59	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
4242.55	38.04	9.1	14.7	61.85	Peak Max	V	224	106	74	-12.15	Pass
6292.46	36.01	10.84	13.89	60.74	Peak Max	H	243	200	74	-13.26	Pass
2000.71	39.95	4.28	15	59.23	Peak Max	H	126	261	74	-14.77	Pass
4242.55	25.8	9.1	14.7	49.6	Average Max	V	224	106	54	-4.4	Pass
6292.46	24.58	10.84	13.89	49.31	Average Max	H	243	200	54	-4.69	Pass
2000.71	28.33	4.28	15	47.61	Average Max	H	126	261	54	-6.39	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
4124.90	38.11	8.82	15.2	62.13	Peak Max	H	139	273	74	-11.87	Pass
6271.89	36.29	10.82	13.94	61.05	Peak Max	H	215	183	74	-12.95	Pass
2093.51	40.35	4.36	14.7	59.41	Peak Max	H	146	347	74	-14.59	Pass
4124.90	25.84	8.82	15.2	49.86	Average Max	H	139	273	54	-4.14	Pass
6271.89	24.54	10.82	13.94	49.3	Average Max	H	215	183	54	-4.7	Pass
2093.51	28.07	4.36	14.7	47.14	Average Max	H	146	347	54	-6.86	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
1999.51	28.13	4.28	15	47.4	Average Max	H	225	91	54	-6.6	Pass
1999.51	40.16	4.28	15	59.43	Peak Max	H	225	91	74	-14.57	Pass
4196.93	25.62	8.99	14.89	49.51	Average Max	V	137	16	54	-4.49	Pass
4196.93	37.36	8.99	14.89	61.25	Peak Max	V	137	16	74	-12.75	Pass
6227.41	24.47	10.76	14.04	49.27	Average Max	H	227	245	54	-4.73	Pass
6227.41	36.43	10.76	14.04	61.24	Peak Max	H	227	245	74	-12.76	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
4251.28	37.65	9.13	14.66	61.44	Peak Max	H	251	197	74	-12.56	Pass
2446.68	38.33	4.76	13.69	56.77	Peak Max	H	251	267	74	-17.23	Pass
6270.03	36.25	10.82	13.94	61	Peak Max	H	251	346	74	-13	Pass
4251.28	25.82	9.13	14.66	49.61	Average Max	H	251	197	54	-4.39	Pass
2446.68	25.16	4.76	13.69	43.61	Average Max	H	251	267	54	-10.39	Pass
6270.03	24.53	10.82	13.94	49.29	Average Max	H	251	346	54	-4.71	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	☒
CHASE LISN	MN2050B	1018	08/07/2015	1 Year	08/07/2016	☒
Radiated Emissions						
R & S Receiver	ESL6	100178	05/27/2015	1 Year	05/27/2016	☒
R & S Receiver	ESIB 40	100179	05/23/2015	1 Year	05/23/2016	☒
ETS-Lingren Loop Antenna	6512	00049120	05/12/2015	1 Year	05/12/2016	☒
Bi-Log antenna (30MHz~2GHz)	JB1	A030702	08/12/2015	1 Year	08/12/2016	☒
3 Meters SAC	3M	N/A	08/08/2015	1 Year	08/08/2016	☒
10 Meters SAC	10M	N/A	09/05/2015	1 Year	09/05/2016	☒
RF Conducted Measurement						
Spectrum Analyzer	N9010A	10SL0219	08/20/2015	1 Year	08/20/2016	☒
R & S Receiver	ESIB 40	100179	05/23/2015	1 Year	05/23/2016	☒
ETS-Lingren USB RF Power Sensor	7002-006	10SL0190	09/03/2015	1 Year	09/03/2016	☒

Annex B. SIEMIC Accreditation

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

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