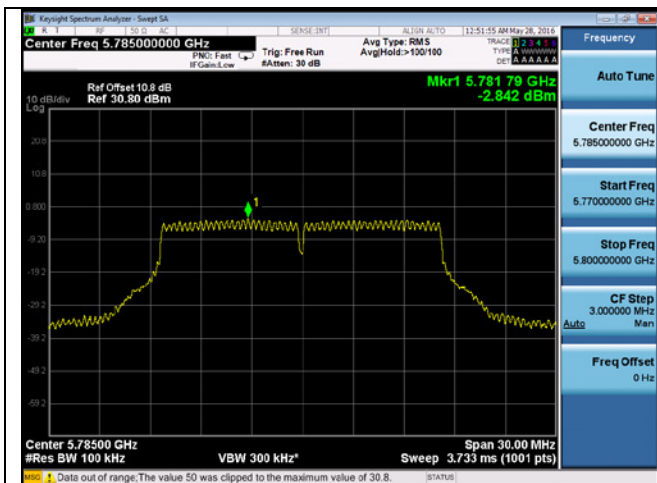
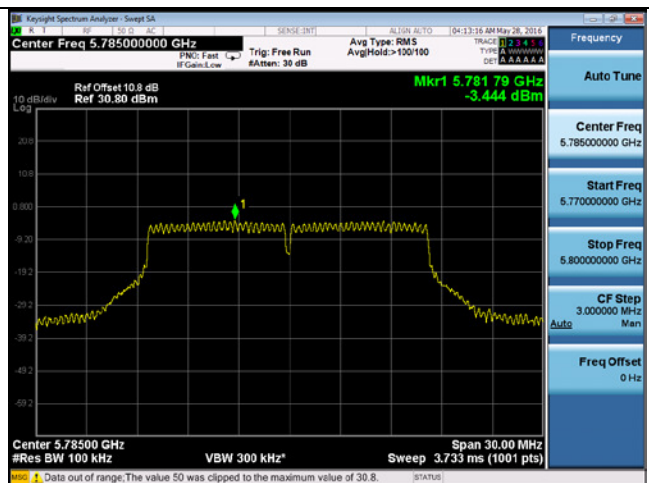
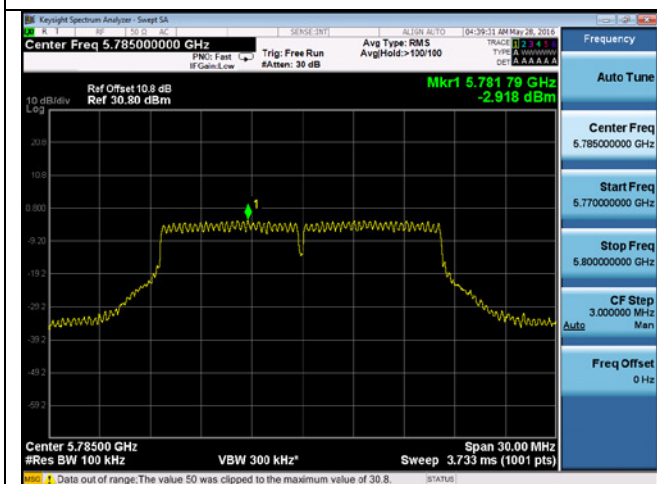




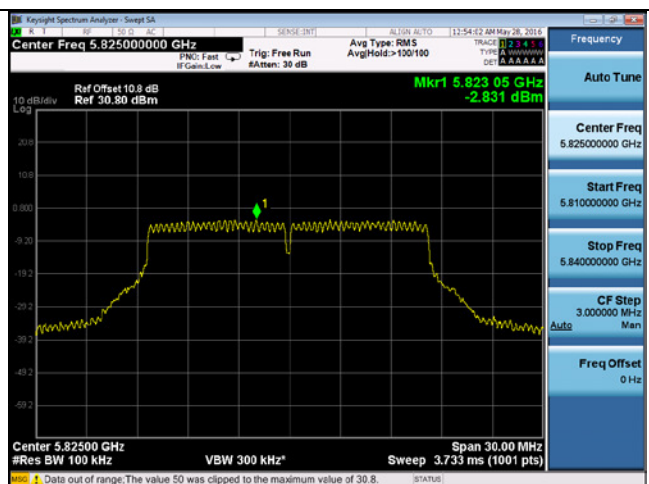
PSD-802.11a-5785M-chain1



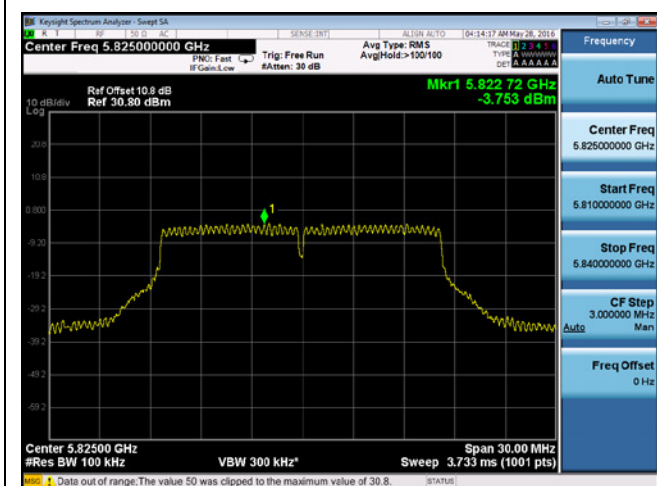
PSD-802.11a-5785M-chain2



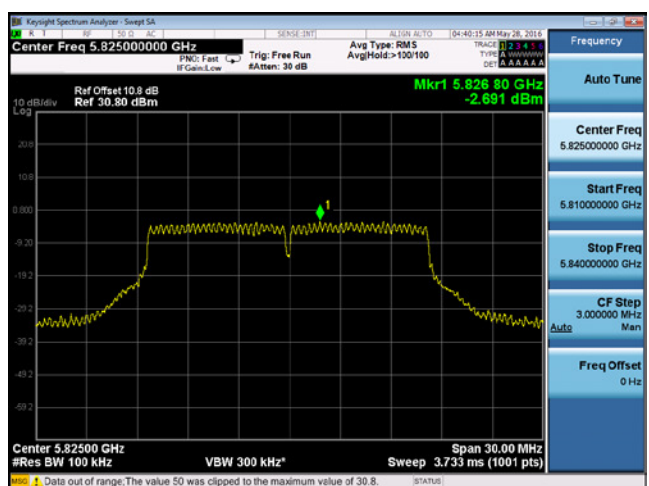
PSD-802.11a-5785M-chain3



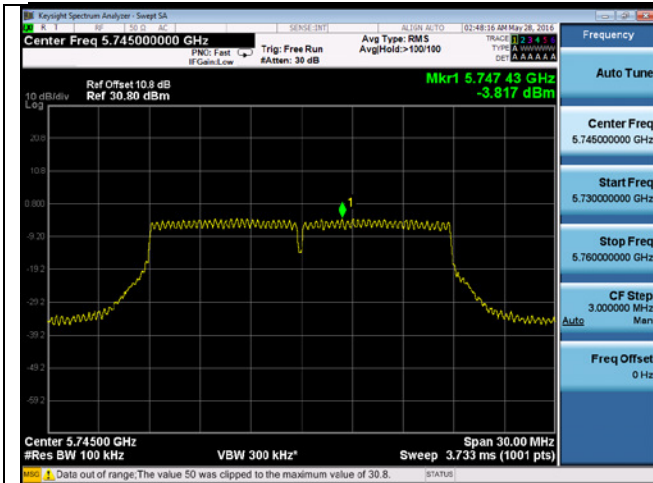
PSD-802.11a-5825M-chain1



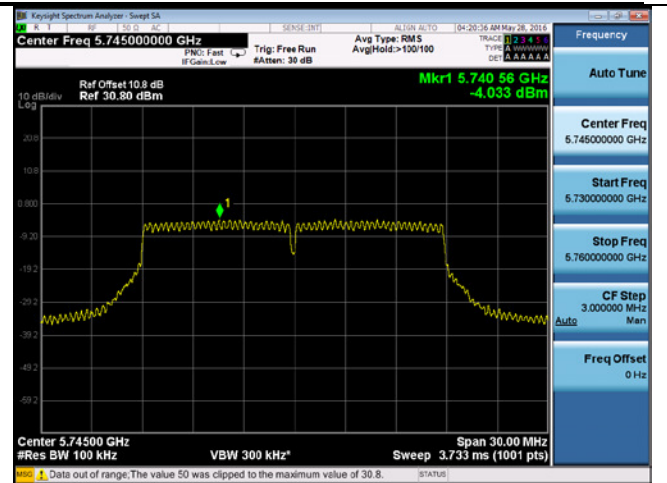
PSD-802.11a-5825M-chain2



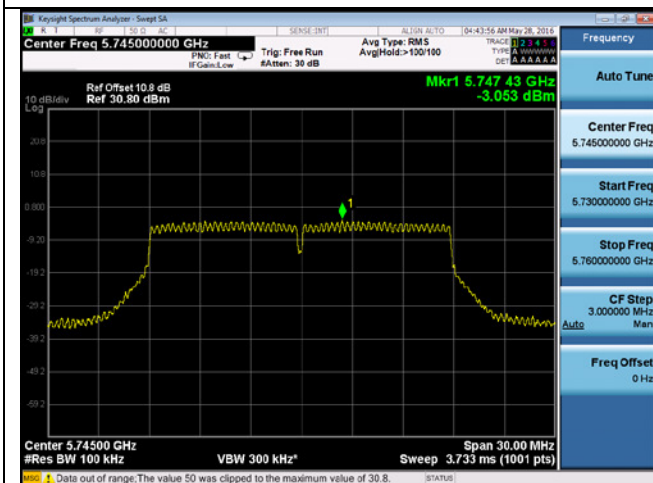
PSD-802.11a-5825M-chain3



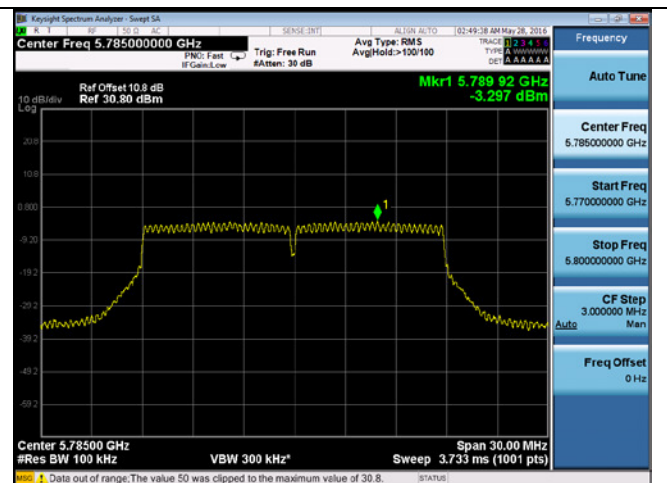
PSD-802.11n-20-5745M-chain1



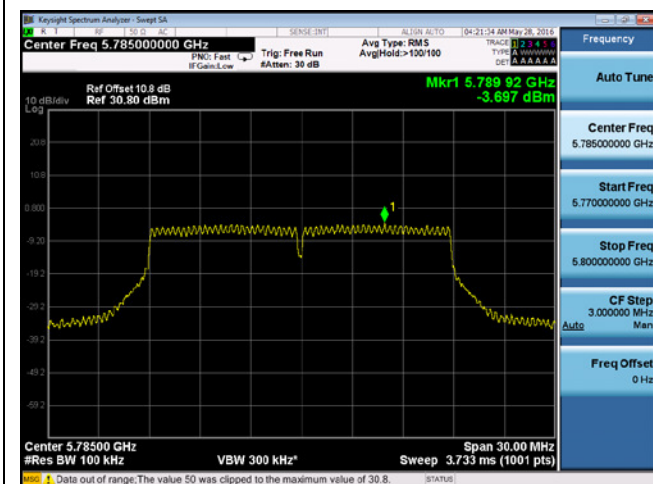
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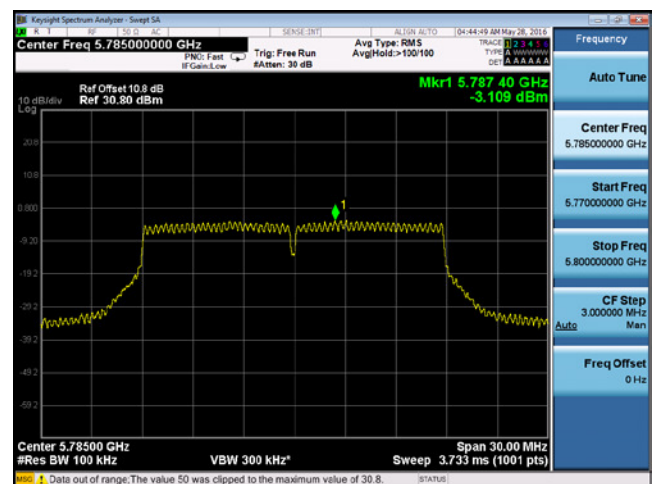
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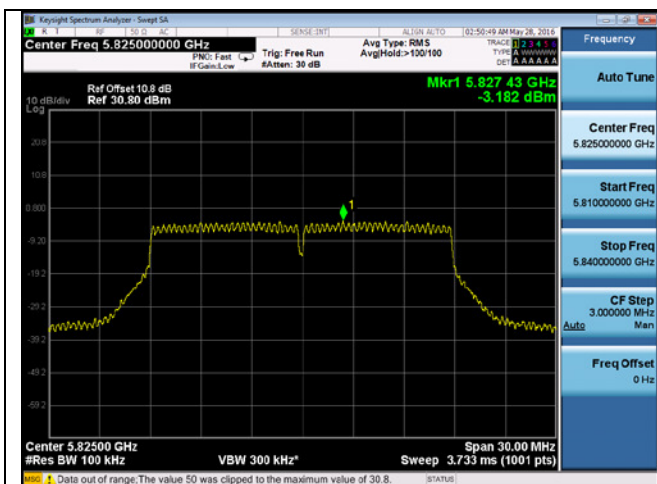
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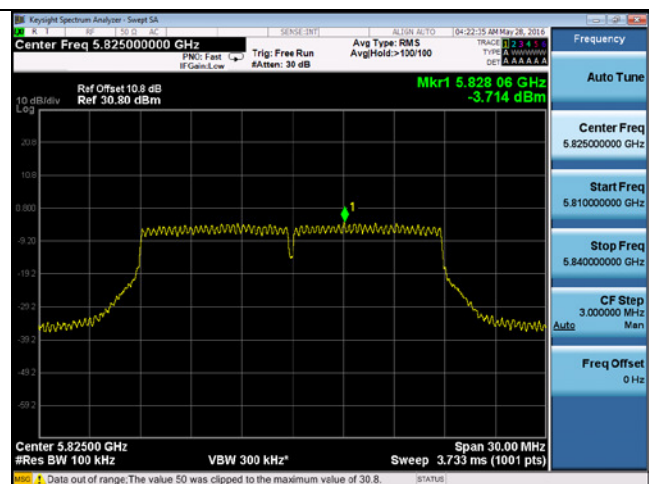
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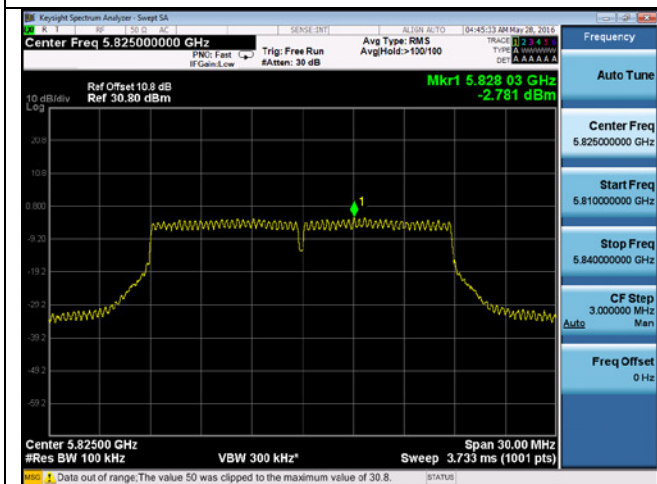
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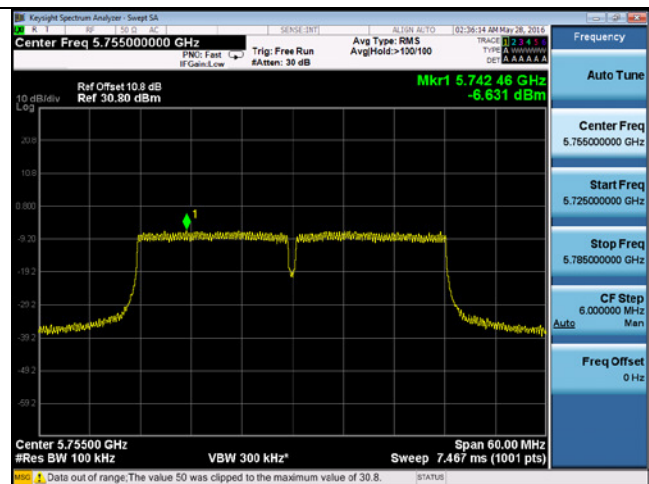
PSD-802.11n-20-5825M-chain1



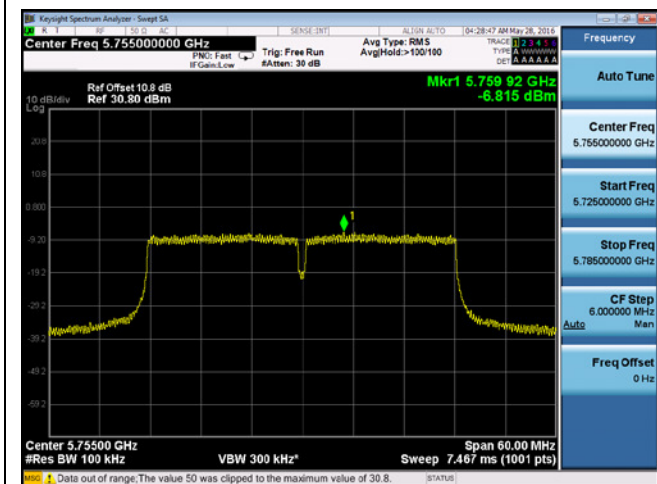
PSD-802.11n-20-5825M-chain2



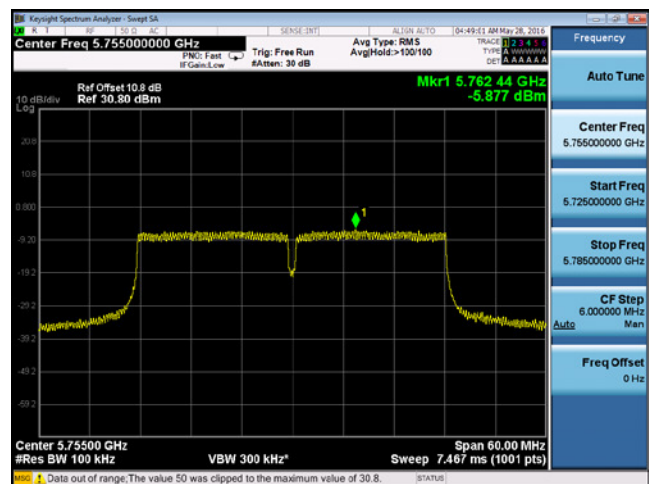
PSD-802.11n-20-5825M-chain3



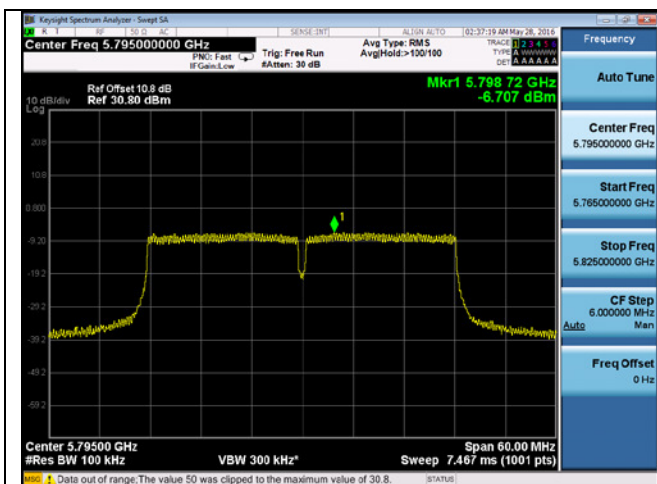
PSD-802.11n-40-5755M-chain1



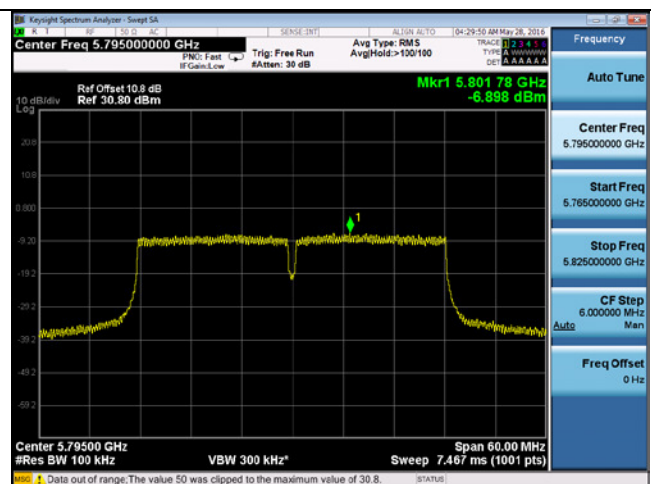
PSD-802.11n-40-5755M-chain2



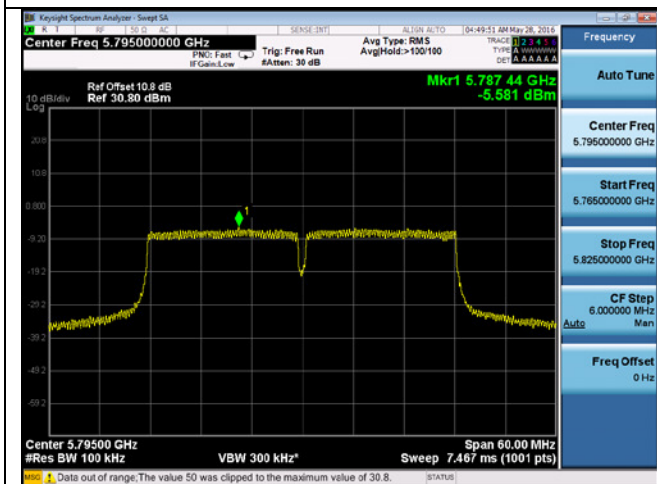
PSD-802.11n-40-5755M-chain3



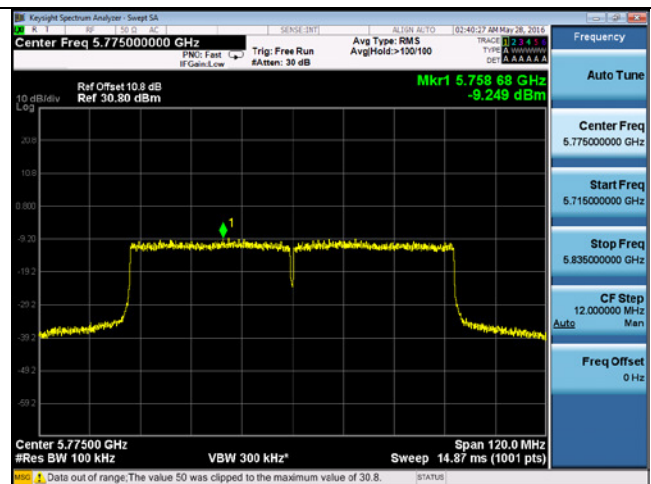
PSD-802.11n-40-5795M-chain1



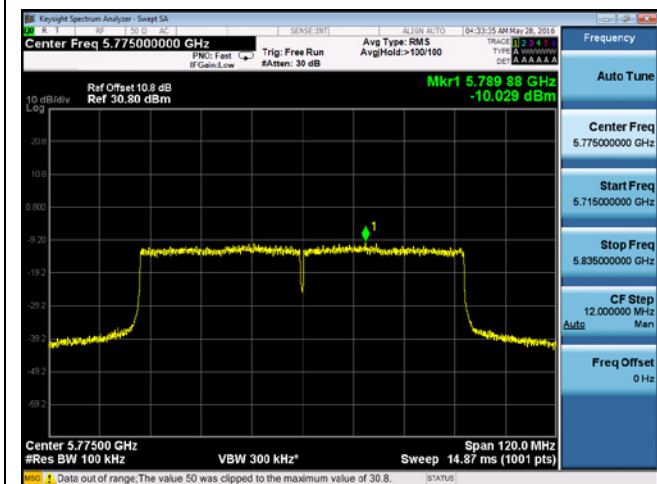
PSD-802.11n-40-5795M-chain2



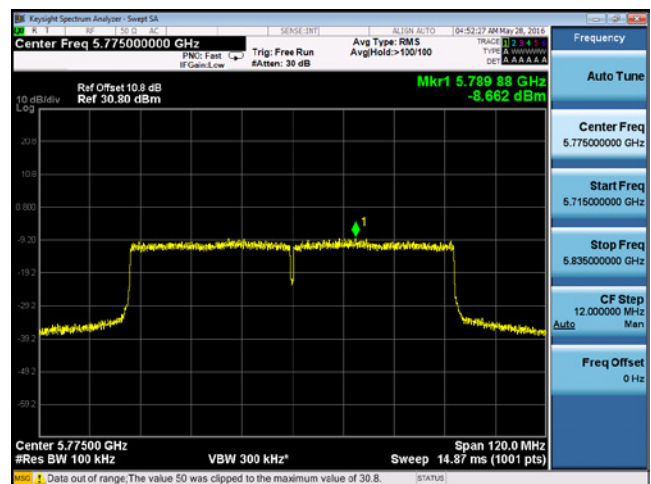
PSD-802.11n-40-5795M-chain3



PSD-802.11ac-80-5775M-chain1



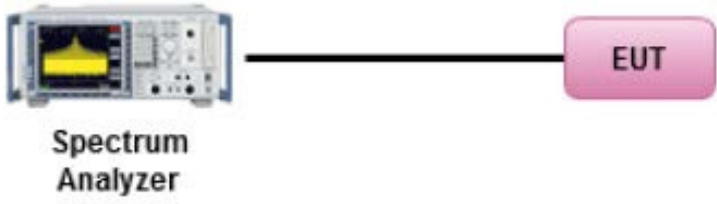
PSD-802.11ac-80-5775M-chain2



PSD-802.11ac-80-5775M-chain3

10.5 Band Edge Measurement

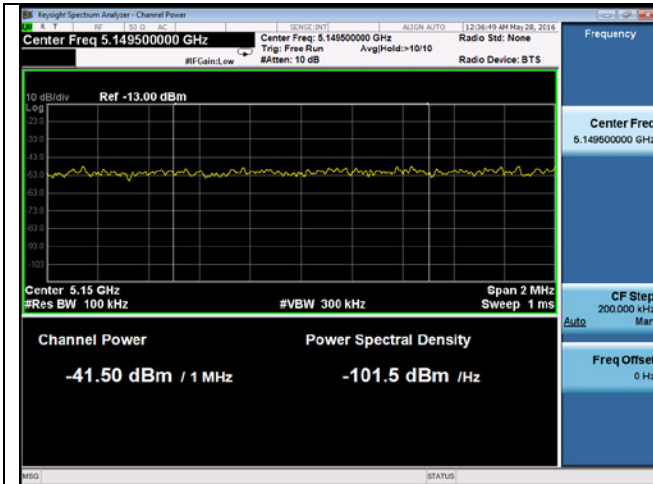
Requirement(s):

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.	☒
Test Setup	 The diagram illustrates the test setup. On the left is a Spectrum Analyzer with a yellow signal trace on its screen. A black line connects the Spectrum Analyzer to a pink rounded rectangle on the right labeled 'EUT' (Equipment Under Test).		
Procedure	789033 D02 General UNII Test Procedures New Rules v01, II.F. Method SA-1 <u>Band Edge measurement:</u> - For average emissions measurements, follow the procedures described in section II.G.6., "Procedures for Average Unwanted Emissions Measurements above 1000 MHz", except for the following changes: - Set RBW=100kHz - Set VBW=300kHz - Perform a band-power integration across the 1 MHz bandwidth in which the band-edge emission level is to be measured.		
Remark	Antenna gain was added to the offset.		
Result	☒ Pass ☐ Fail		

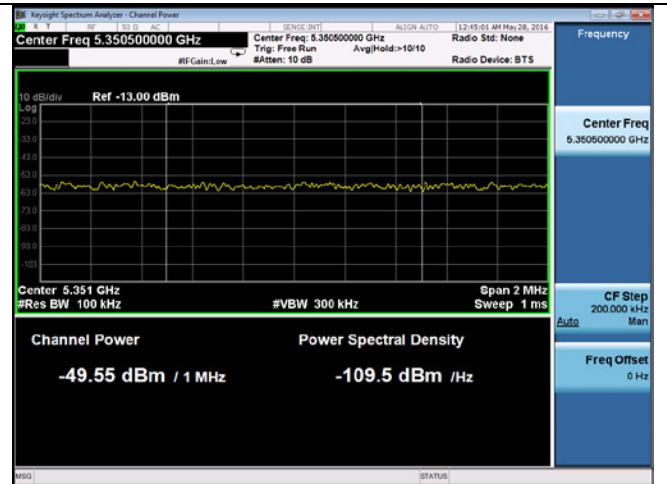
Test Data ☐ Yes (See below) ☒ N/A
Test Plot ☒ Yes (See below) ☐ N/A

Test was done by *Rachana Khanduri* at *RF Test Site*.

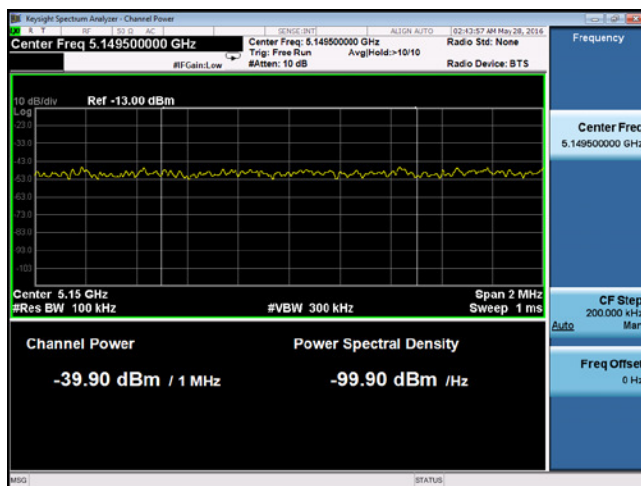
Test Plots



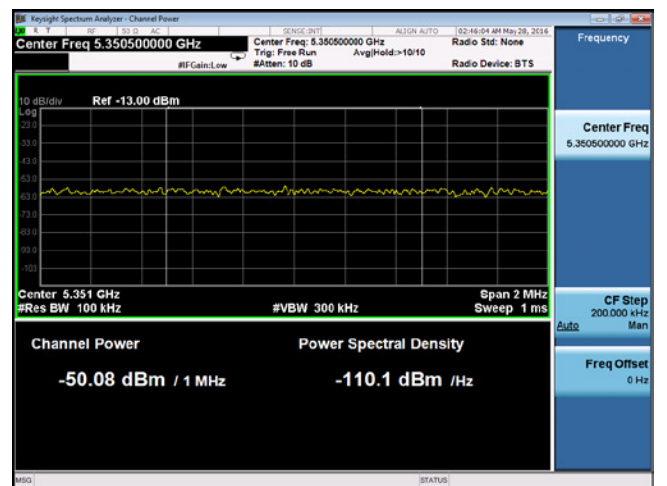
Band Edge-802.11a 5180 MHz (Limit: -27dBm/MHz eirp)



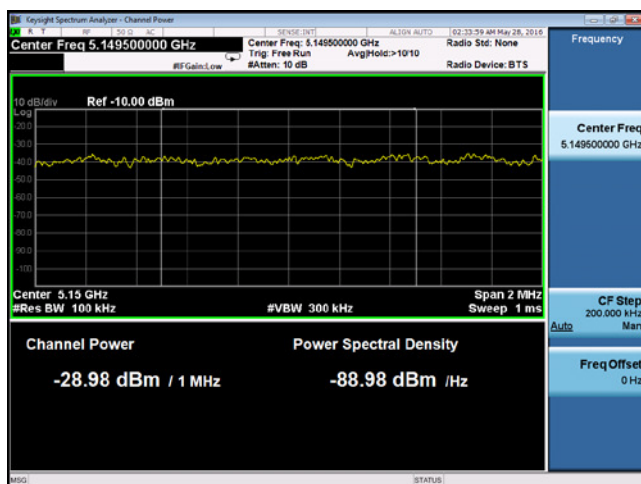
Band Edge-802.11a 5240 MHz (Limit: -27dBm/MHz eirp)



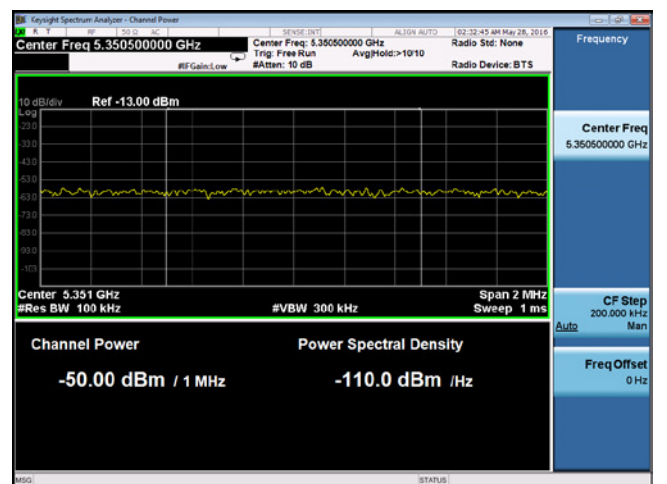
Band Edge-802.11n20 5180 MHz (Limit: -27dBm/MHz eirp)



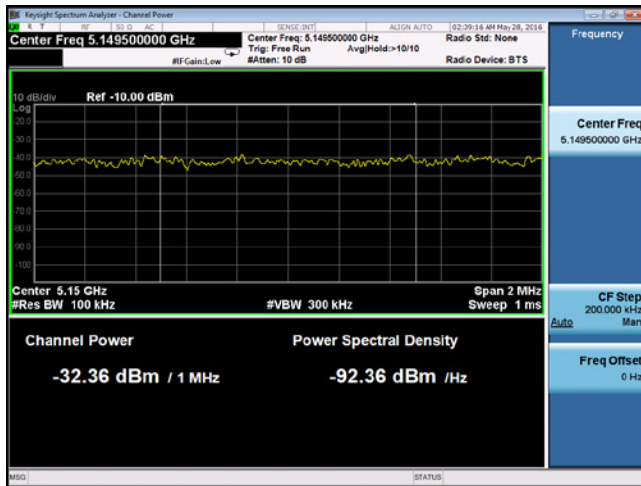
Band Edge-802.11n20 5240 MHz (Limit: -27dBm/MHz eirp)



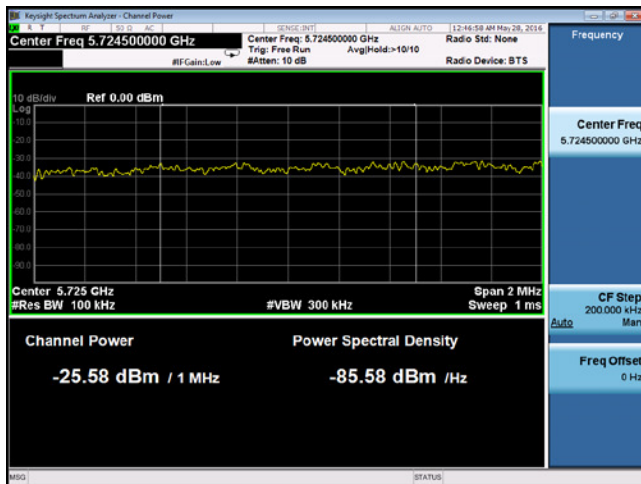
Band Edge-802.11n40 5190 MHz (Limit: -27dBm/MHz eirp)



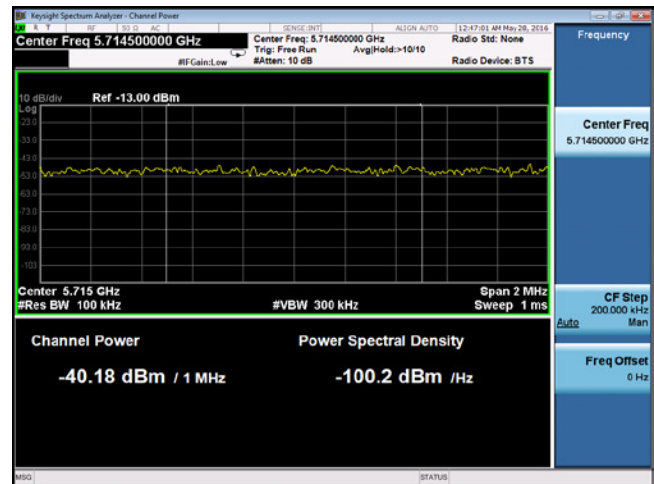
Band Edge-802.11n40 5230 MHz (Limit: -27dBm/MHz eirp)



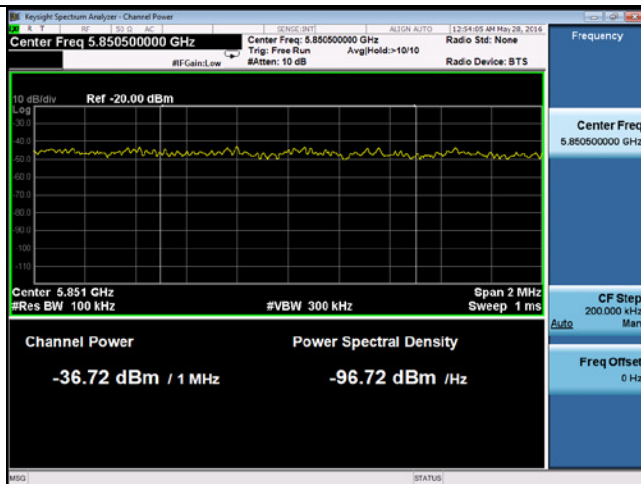
Band Edge-802.11ac 5210 MHz (Limit: -27dBm/MHz eirp)



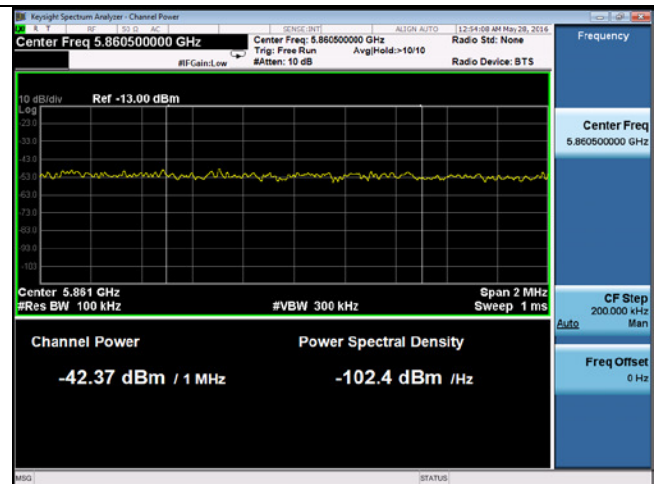
5.8GHz Band Edge-802.11a 5745 MHz (Limit: -17 eirp)



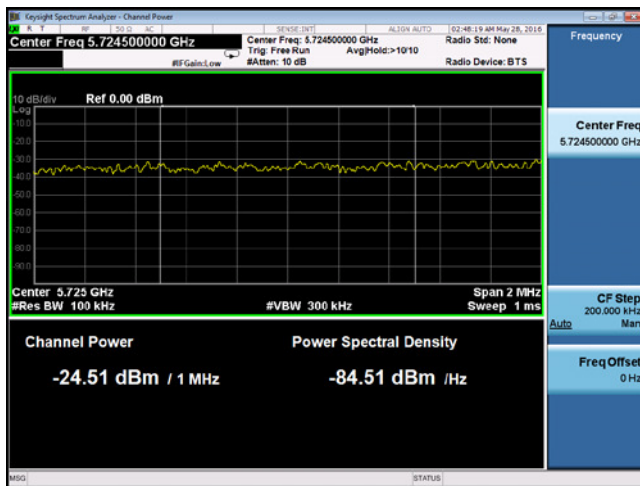
5.8GHz Band Edge-802.11a 5745 MHz (Limit: -27 eirp)



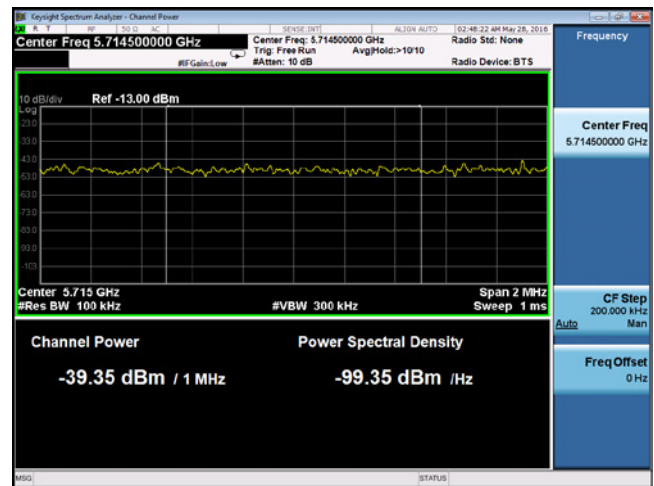
5.8GHz Band Edge-802.11a 5825 MHz (Limit: -17 eirp)



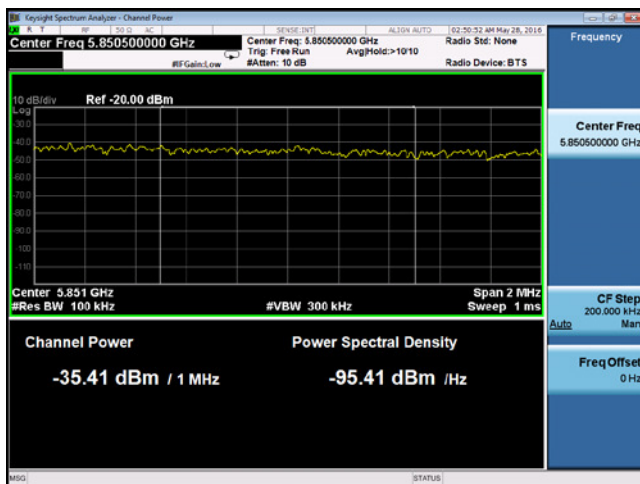
5.8GHz Band Edge-802.11a 5825 MHz (Limit: -27 eirp)



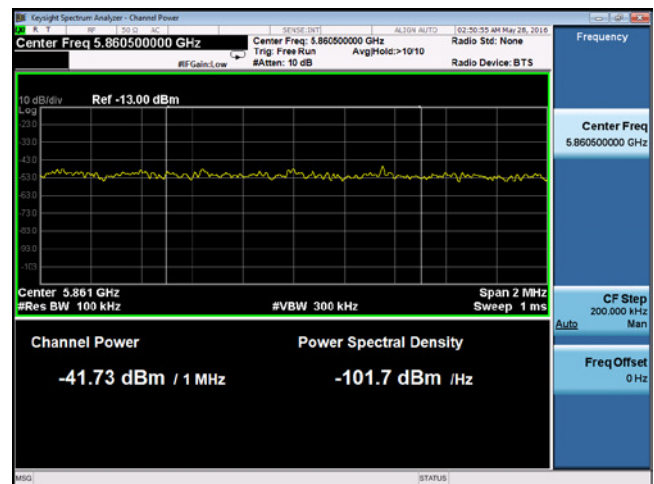
5.8GHz Band Edge-802.11n20 5745 MHz (Limit: -17 eirp)



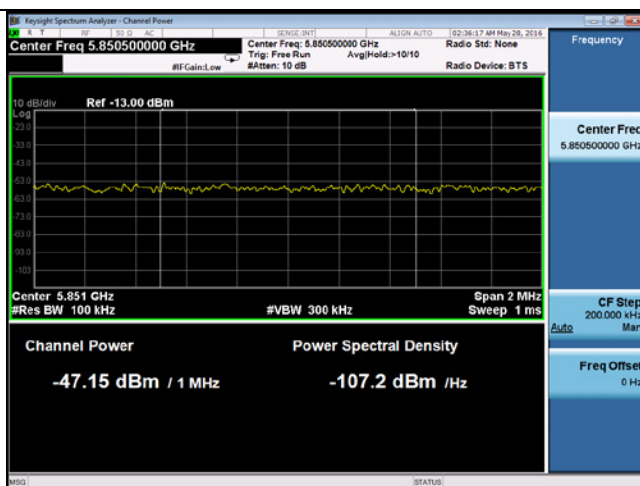
5.8GHz Band Edge-802.11n20 5745 MHz (Limit: -27 eirp)



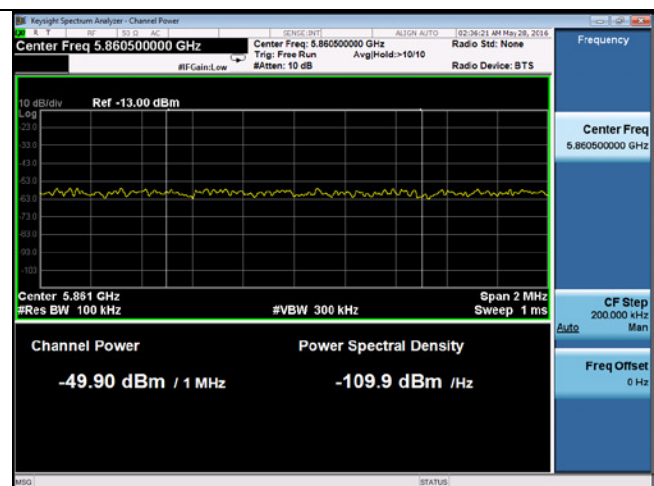
5.8GHz Band Edge-802.11n20 5825 MHz (Limit: -17 eirp)



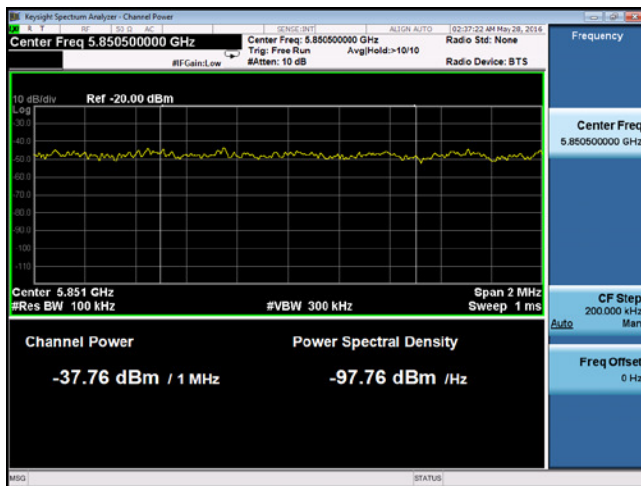
5.8GHz Band Edge-802.11n20 5825 MHz (Limit: -27 eirp)



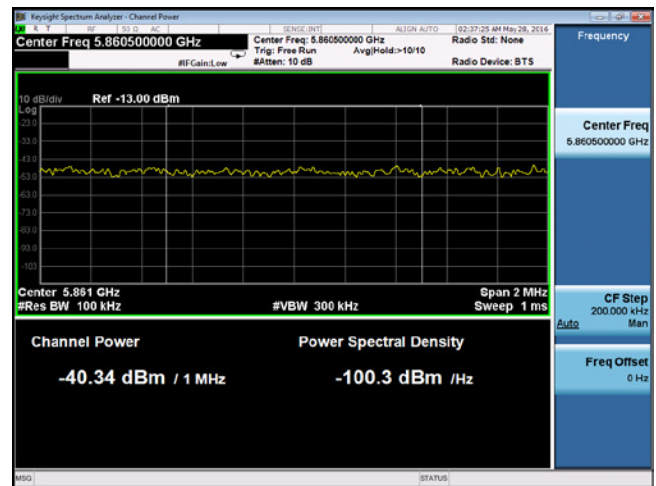
5.8GHz Band Edge-802.11n40 5755 MHz (Limit: -17 eirp)



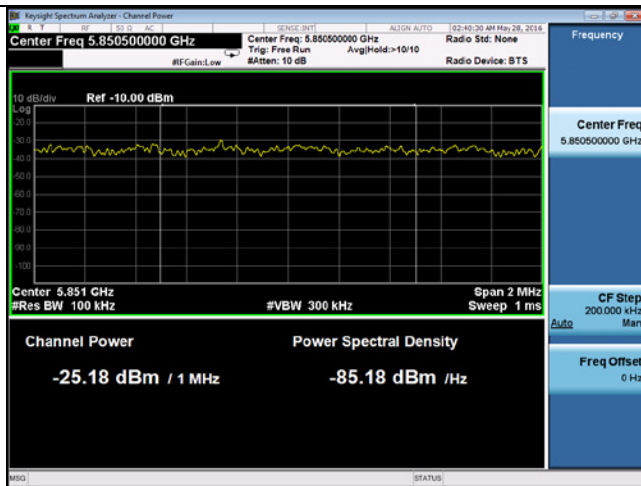
5.8GHz Band Edge-802.11n40 5755 MHz (Limit: -27 eirp)



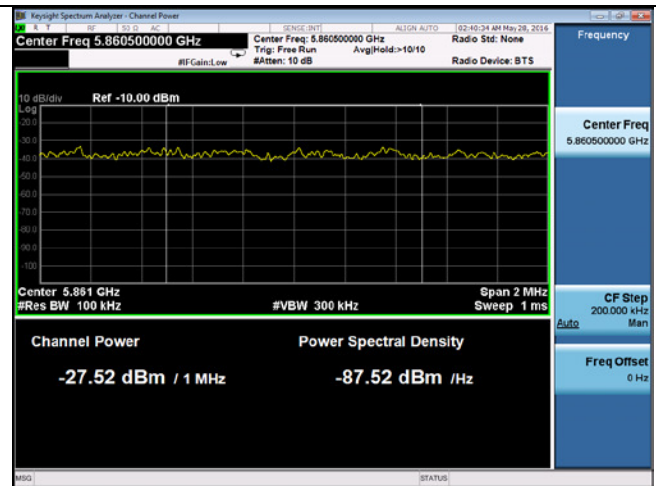
5.8GHz Band Edge-802.11n40 5795 MHz (Limit: -17 eirp)



5.8GHz Band Edge-802.11n40 5795 MHz (Limit: -27 eirp)



5.8GHz Band Edge-802.11ac 5775 MHz (Limit: -17 eirp)

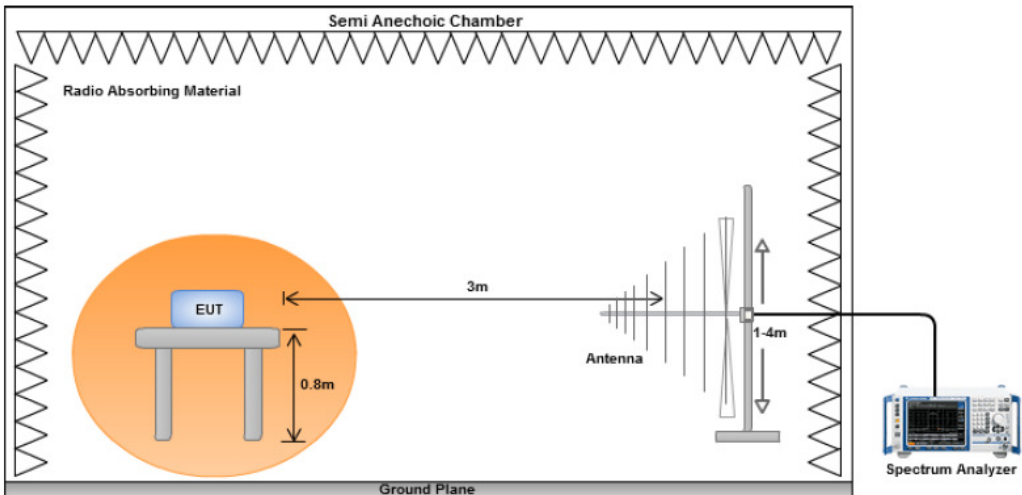


5.8GHz Band Edge-802.11ac 5775 MHz (Limit: -27 eirp)

Note: The results above show only the worst case. Omnidirectional antenna gain - 5.7 dBi.

10.6 Radiated 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><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	1. The EUT was switched on and allowed to warm up to its normal operating condition. 2. The test was carried out at the selected frequency points obtained from the EUT characterisation. Maximization of the emissions, was carried out by rotating the EUT, changing the antenna polarization, and adjusting the antenna height in the following manner: a. Vertical or horizontal polarisation (whichever gave the higher emission level over a full rotation of the EUT) was chosen. b. The EUT was then rotated to the direction that gave the maximum emission. c. Finally, the antenna height was adjusted to the height that gave the maximum emission. 3. A Quasi-peak measurement was then made for that frequency point. 4. Steps 2 and 3 were repeated for the next frequency point, until all selected frequency points were measured.											
Remark	The EUT was scanned up to 1GHz. Both horizontal and vertical polarities were investigated. The results show only the worst case.											
Result	☒ Pass ☐ Fail											

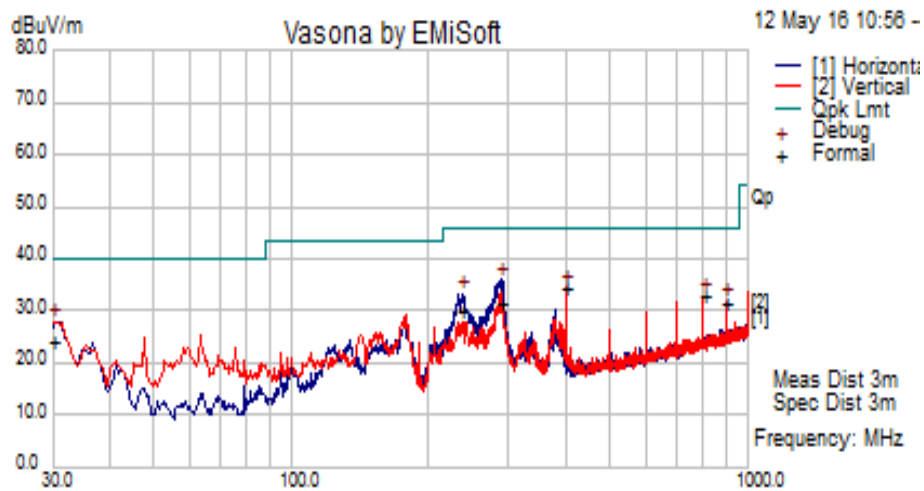
Test Data ☒ Yes (See below) ☐ N/A

Test Plot ☒ Yes (See below) ☐ N/A

Test was done by *Rachana Khanduri* **at** *10m Chamber*.

Radiated Emission Test Results (Below 1GHz)

Test specification	below 1GHz			
Environmental Conditions:	Temp (°C):	26	Result	Pass
	Humidity (%)	47		
	Atmospheric (mbar):	1020		
Mains Power:	120VAC, 60Hz			
Tested by:	Rachana Khanduri			
Test Date:	05/12/2016			
Remarks:	Worst case, 802.11n HT40, 5240MHz			

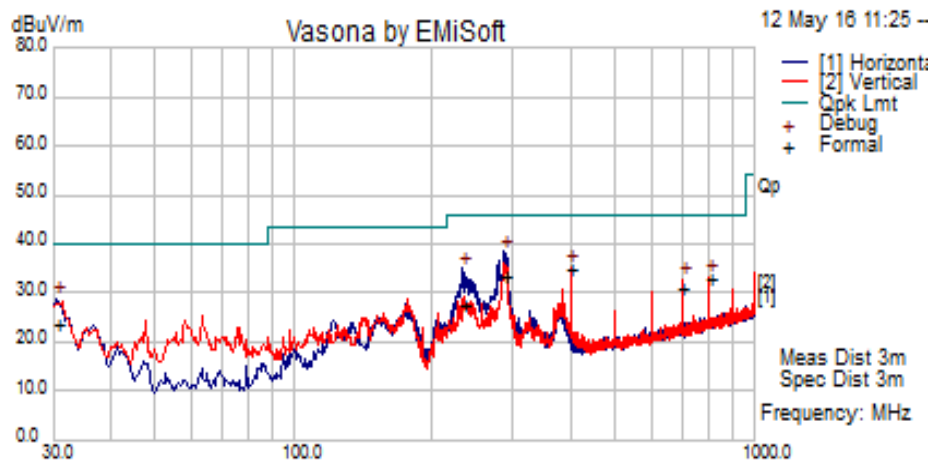


Quasi Max Measurement

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
288.24	54.97	2.58	-26.31	31.25	Quasi Max	H	146.00	70.00	46.02	-14.77	Pass
400.00	55.00	3.10	-23.86	34.25	Quasi Max	V	115.00	187.00	46.02	-11.77	Pass
30.00	38.89	0.82	-15.61	24.10	Quasi Max	V	135.00	314.00	40.00	-15.90	Pass
237.20	55.07	2.33	-27.69	29.70	Quasi Max	H	100.00	95.00	46.02	-16.32	Pass
800.01	45.95	4.51	-17.40	33.06	Quasi Max	H	103.00	167.00	46.02	-12.96	Pass
900.01	42.73	4.77	-15.99	31.51	Quasi Max	H	102.00	357.00	46.02	-14.51	Pass

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

Test specification	below 1GHz			
Environmental Conditions:	Temp (°C):	26	Result	Pass
	Humidity (%)	47		
	Atmospheric (mbar):	1020		
Mains Power:	120VAC, 60Hz			
Tested by:	Rachana Khanduri			
Test Date:	05/12/2016			
Remarks:	Worst case, 802.11ac-80, 5775MHz			



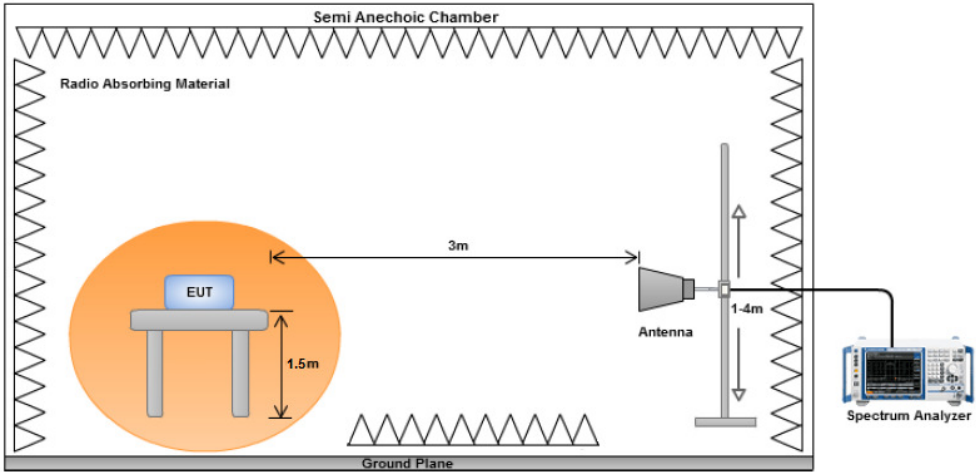
Quasi Max Measurement

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
286.19	56.94	2.60	-26.28	33.26	Quasi Max	H	102.00	31.00	46.02	-12.76	Pass
399.99	55.36	3.10	-23.86	34.61	Quasi Max	V	122.00	188.00	46.02	-11.41	Pass
233.32	52.87	2.28	-27.84	27.30	Quasi Max	H	112.00	298.00	46.02	-18.72	Pass
30.64	39.18	0.83	-16.22	23.79	Quasi Max	H	268.00	281.00	40.00	-16.21	Pass
800.03	45.85	4.51	-17.40	32.96	Quasi Max	V	107.00	185.00	46.02	-13.06	Pass
700.03	45.69	4.17	-18.73	31.13	Quasi Max	V	101.00	357.00	46.02	-14.89	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	☒
Test Setup			
Procedure	- The EUT was switched on and allowed to warm up to its normal operating condition. - The test was carried out at the selected frequency points obtained from the EUT characterisation. Maximization of the emissions, was carried out by rotating the EUT, changing the antenna polarization, and adjusting the antenna height in the following manner: - Vertical or horizontal polarisation (whichever gave the higher emission level over a full rotation of the EUT) was chosen. - The EUT was then rotated to the direction that gave the maximum emission. - Finally, the antenna height was adjusted to the height that gave the maximum emission. - An average measurement was then made for that frequency point. - Steps 2 and 3 were repeated for the next frequency point, until all selected frequency points were measured.		
Remark	The EUT was scanned up to 40GHz. Both horizontal and vertical polarities were investigated. The results show only the worst case.		
Result	☒ Pass ☐ Fail		

Test Data ☐ Yes (See below) ☒ N/A

Test Plot ☒ Yes (See below) ☐ N/A

Test was done by **Rachana Khanduri** at **3m Chamber**.

Radiated Emission Test Results (Above 1GHz)

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
9607.76	49.93	7.89	-10.42	47.40	Peak Max	H	189	57	74	-26.60	Pass
7206.56	50.31	7.36	-11.58	46.09	Peak Max	V	237	307	74	-27.91	Pass
1754.50	56.40	4.76	-28.65	32.52	Peak Max	H	174	228	74	-41.48	Pass
9607.76	38.23	7.89	-10.42	35.71	Average Max	V	175	313	54	-18.30	Pass
7206.56	38.68	7.36	-11.58	34.46	Average Max	V	237	307	54	-19.54	Pass
1754.50	44.69	4.76	-28.65	20.81	Average Max	H	174	228	54	-33.20	Pass

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
4804.40	50.56	7.04	-17.29	40.3	Peak Max	V	245	252	74	-33.70	Pass
9608.98	50.07	7.89	-10.41	47.55	Peak Max	V	137	280	74	-26.45	Pass
1738.95	56.77	4.76	-28.51	33.03	Peak Max	V	242	223	74	-40.97	Pass
4804.40	39.00	7.04	-17.29	28.74	Average Max	V	245	252	54	-25.26	Pass
9608.98	38.46	7.89	-10.41	35.94	Average Max	H	100	100	54	-18.06	Pass
1738.95	44.83	4.76	-28.51	21.09	Average Max	V	242	223	54	-32.91	Pass

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
17745.05	48.83	9.44	-3.26	55.01	Peak Max	H	207	67	74	-19.00	Pass
9461.05	50.30	7.83	-10.29	47.83	Peak Max	V	195	348	74	-26.17	Pass
1736.49	54.36	4.76	-28.49	30.63	Peak Max	H	137	52	74	-43.37	Pass
17745.05	37.04	9.44	-3.26	43.22	Average Max	H	207	67	54	-10.78	Pass
9461.05	38.65	7.83	-10.29	36.19	Average Max	V	195	348	54	-17.81	Pass
1736.49	42.67	4.76	-28.49	18.95	Average Max	H	137	52	54	-35.05	Pass

802.11n20 – 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
17937.72	49.11	9.46	-3.14	55.43	Peak Max	V	162	273	74	-18.57	Pass
4670.85	49.27	7	-18.02	38.26	Peak Max	V	140	224	74	-35.75	Pass
2134.29	65.13	5.1	-25.49	44.75	Peak Max	V	230	200	74	-29.26	Pass
17937.72	37.40	9.46	-3.14	43.72	Average Max	V	162	273	54	-10.28	Pass
4670.85	37.72	7	-18.02	26.70	Average Max	V	140	224	54	-27.30	Pass
2134.29	48.41	5.1	-25.49	28.03	Average Max	H	152	191	54	-25.97	Pass

802.11n20 – 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
17329.68	48.44	9.38	-4.29	53.52	Peak Max	V	141	248	74	-20.48	Pass
9406.16	50.81	7.81	-10.19	48.43	Peak Max	V	222	290	74	-25.57	Pass
4128.76	49.25	6.84	-18.98	37.11	Peak Max	V	141	0	74	-36.89	Pass
17329.68	37.11	9.38	-4.29	42.2	Average Max	V	141	248	54	-11.80	Pass
9406.16	38.48	7.81	-10.19	36.1	Average Max	V	222	290	54	-17.90	Pass
4128.76	38.04	6.84	-18.98	25.91	Average Max	V	141	0	54	-28.09	Pass

802.11n20 – 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
17360.86	48.93	9.38	-4.25	54.06	Peak Max	H	193	62	74	-19.94	Pass
9310.81	50.73	7.78	-10.54	47.98	Peak Max	V	156	240	74	-26.02	Pass
7540.16	50.24	7.31	-11.00	46.56	Peak Max	V	164	34	74	-27.44	Pass
17360.86	36.77	9.38	-4.25	41.91	Average Max	H	193	62	54	-12.09	Pass
9310.81	38.99	7.78	-10.54	36.24	Average Max	V	156	240	54	-17.76	Pass
7540.16	37.92	7.31	-11.00	34.24	Average Max	V	164	34	54	-19.77	Pass

802.11n40 – 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
9587.13	49.99	7.88	-10.44	47.43	Peak Max	V	161	269	74	-26.57	Pass
7170.04	49.86	7.37	-11.75	45.48	Peak Max	V	113	259	74	-28.53	Pass
1755.20	54.26	4.76	-28.66	30.37	Peak Max	H	243	155	74	-43.63	Pass
9587.13	38.18	7.88	-10.44	35.62	Average Max	V	161	269	54	-18.38	Pass
7170.04	38.21	7.37	-11.75	33.83	Average Max	V	113	259	54	-20.17	Pass
1755.20	43.08	4.76	-28.66	19.19	Average Max	H	243	155	54	-34.81	Pass

802.11n40 – 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
9435.31	50.70	7.82	-10.24	48.28	Peak Max	V	140	184	74	-25.72	Pass
4061.04	48.63	6.82	-18.81	36.63	Peak Max	V	217	206	74	-37.37	Pass
1754.26	57.46	4.76	-28.65	33.58	Peak Max	H	243	162	74	-40.42	Pass
9435.31	38.81	7.82	-10.24	36.38	Average Max	V	140	184	54	-17.62	Pass
4061.04	37.32	6.82	-18.81	25.33	Average Max	V	217	206	54	-28.67	Pass
1754.26	43.90	4.76	-28.65	20.01	Average Max	H	243	162	54	-33.99	Pass

802.11ac – 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
17894.70	49.29	9.46	-3.09	55.66	Peak Max	H	100	242	74	-18.35	Pass
9067.06	50.47	7.71	-10.82	47.36	Peak Max	H	101	198	74	-26.64	Pass
1946.96	63.27	4.76	-27.82	40.21	Peak Max	H	234	235	74	-33.80	Pass
17894.70	37.27	9.46	-3.09	43.63	Average Max	H	100	242	54	-10.37	Pass
9067.06	38.56	7.71	-10.82	35.46	Average Max	H	101	198	54	-18.54	Pass
1946.96	51.50	4.76	-27.82	28.44	Average Max	H	234	235	54	-25.56	Pass

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
17281.63	48.90	9.37	-4.37	53.91	Peak Max	V	100	0	74	-20.10	Pass
9608.97	50.07	7.89	-10.41	47.55	Peak Max	V	173	228	74	-26.45	Pass
2339.43	54.13	5.59	-24.27	35.44	Peak Max	V	100	269	74	-38.56	Pass
17281.63	37.26	9.37	-4.37	42.27	Average Max	V	100	0	54	-11.74	Pass
9608.97	38.24	7.89	-10.41	35.72	Average Max	H	119	315	54	-18.28	Pass
2339.43	42.56	5.59	-24.27	23.88	Average Max	V	100	269	54	-30.12	Pass

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
17652.82	48.91	9.43	-3.29	55.05	Peak Max	V	133	202	74	-18.95	Pass
9606.78	49.91	7.89	-10.42	47.38	Peak Max	H	167	184	74	-26.62	Pass
1255.82	55.88	4.20	-29.31	30.78	Peak Max	H	101	263	74	-43.22	Pass
17652.82	37.06	9.43	-3.29	43.2	Average Max	V	133	202	54	-10.8	Pass
9606.78	38.15	7.89	-10.42	35.62	Average Max	H	167	184	54	-18.39	Pass
1255.82	44.29	4.20	-29.31	19.19	Average Max	H	101	263	54	-34.81	Pass

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
17719.65	48.60	9.44	-3.15	54.89	Peak Max	V	199	100	74	-19.11	Pass
4802.86	49.99	7.04	-17.30	39.74	Peak Max	V	101	0	74	-34.27	Pass
1950.06	58.10	4.76	-27.77	35.09	Peak Max	V	244	143	74	-38.91	Pass
17719.65	36.77	9.44	-3.15	43.05	Average Max	V	199	100	54	-10.95	Pass
4802.86	38.37	7.04	-17.30	28.11	Average Max	V	101	0	54	-25.89	Pass
1950.06	45.00	4.76	-27.77	21.99	Average Max	V	244	143	54	-32.01	Pass

802.11n20 – 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
17916.11	49.06	9.46	-3.10	55.42	Peak Max	V	165	110	74	-18.58	Pass
7205.58	50.56	7.36	-11.59	46.33	Peak Max	V	104	115	74	-27.67	Pass
9608.10	49.67	7.89	-10.41	47.15	Peak Max	H	195	0	74	-26.85	Pass
17916.11	37.53	9.46	-3.10	43.89	Average Max	V	165	110	54	-10.12	Pass
7205.58	37.95	7.36	-11.59	33.73	Average Max	V	104	115	54	-20.27	Pass
9608.10	38.16	7.89	-10.41	35.63	Average Max	H	195	0	54	-18.37	Pass

802.11n20 – 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
17916.38	49.24	9.46	-3.10	55.60	Peak Max	V	109	175	74	-18.40	Pass
9604.81	49.78	7.88	-10.43	47.23	Peak Max	V	138	54	74	-26.77	Pass
6034.73	53.35	7.17	-15.21	45.31	Peak Max	H	217	308	74	-28.69	Pass
17916.38	37.51	9.46	-3.10	43.87	Average Max	V	109	175	54	-10.13	Pass
9604.81	38.34	7.88	-10.43	35.80	Average Max	V	138	54	54	-18.20	Pass
6034.73	41.48	7.17	-15.21	33.44	Average Max	H	217	308	54	-20.56	Pass

802.11n20 – 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
17904.74	48.61	9.46	-3.08	54.99	Peak Max	V	127	230	74	-19.01	Pass
6073.26	55.30	7.17	-15.17	47.31	Peak Max	V	154	35	74	-26.69	Pass
9365.66	51.23	7.80	-10.32	48.71	Peak Max	V	150	336	74	-25.29	Pass
17904.74	37.33	9.46	-3.08	43.70	Average Max	V	127	230	54	-10.30	Pass
6073.26	44.44	7.17	-15.17	36.45	Average Max	V	154	35	54	-17.55	Pass
9365.66	39.04	7.80	-10.32	36.52	Average Max	V	150	336	54	-17.48	Pass

802.11n40 – 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
17590.42	48.25	9.42	-3.56	54.11	Peak Max	V	124	56	74	-19.90	Pass
9608.42	50.92	7.89	-10.41	48.40	Peak Max	V	161	153	74	-25.60	Pass
1737.68	64.17	4.76	-28.5	40.43	Peak Max	H	243	324	74	-33.57	Pass
17590.42	36.83	9.42	-3.56	42.69	Average Max	V	124	56	54	-11.32	Pass
9608.42	38.33	7.89	-10.41	35.81	Average Max	V	161	153	54	-18.19	Pass
1737.68	43.69	4.76	-28.5	19.95	Average Max	H	243	324	54	-34.05	Pass

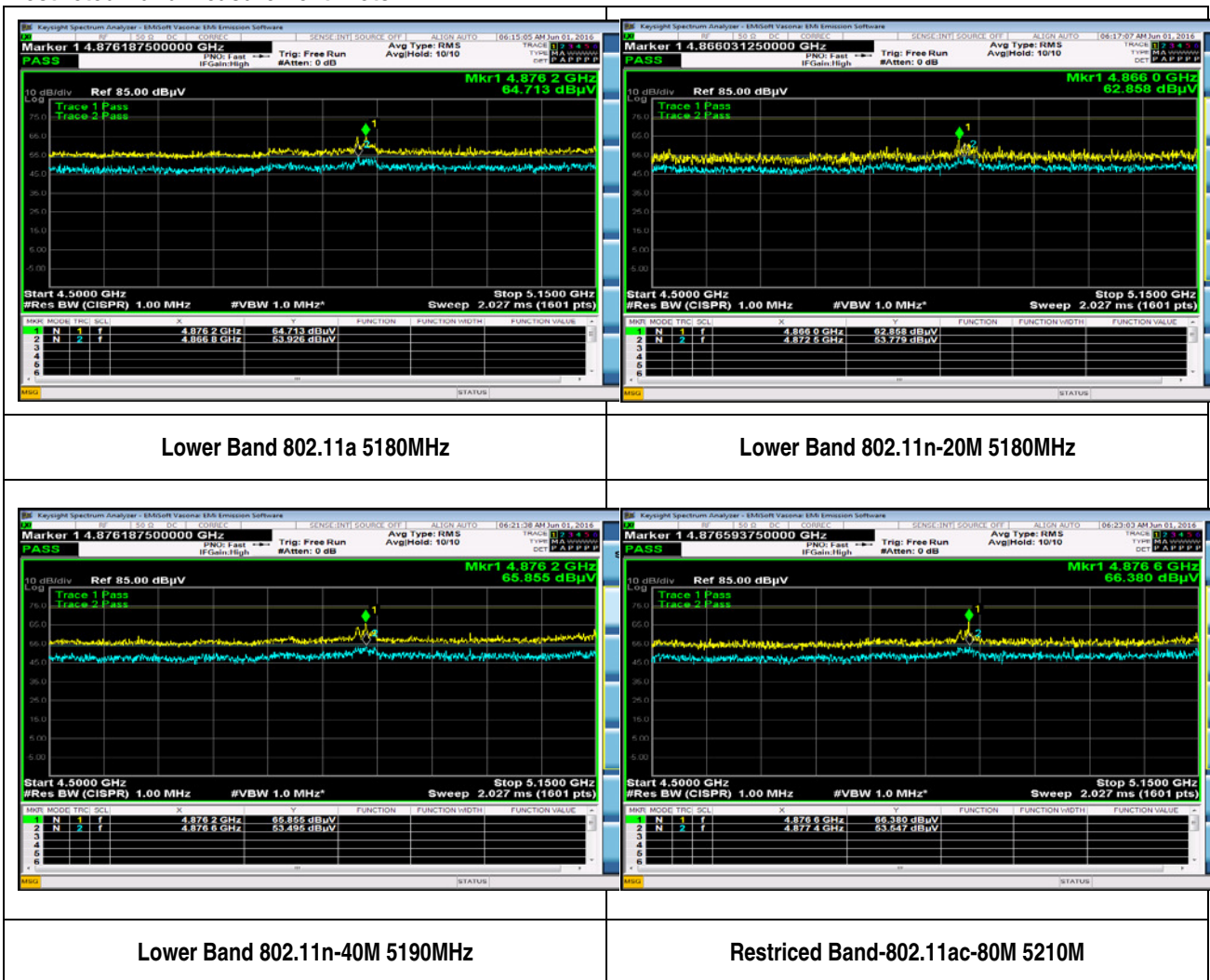
802.11n40 – 5795MHz

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
17741.09	48.99	9.44	-3.25	55.18	Peak Max	V	227	74	74	-18.82	Pass
9127.74	50.03	7.73	-10.65	47.11	Peak Max	V	121	54	74	-26.89	Pass
6303.39	49.46	7.22	-14.68	42.00	Peak Max	V	204	42	74	-32.00	Pass
17741.09	37.14	9.44	-3.25	43.33	Average Max	V	227	74	54	-10.67	Pass
9127.74	38.44	7.73	-10.65	35.52	Average Max	V	121	54	54	-18.48	Pass
6303.39	38.12	7.22	-14.68	30.66	Average Max	V	204	42	54	-23.34	Pass

802.11ac– 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
17753.96	49.36	9.44	-3.3	55.50	Peak Max	H	209	114	74	-18.50	Pass
9502.33	50.94	7.84	-10.36	48.42	Peak Max	V	150	268	74	-25.58	Pass
1949.83	64.84	4.76	-27.78	41.82	Peak Max	V	203	207	74	-32.18	Pass
17753.96	37.33	9.44	-3.3	43.47	Average Max	H	209	114	54	-10.53	Pass
9502.33	38.95	7.84	-10.36	36.43	Average Max	V	150	268	54	-17.57	Pass
1949.83	49.99	4.76	-27.78	26.97	Average Max	V	203	207	54	-27.03	Pass

Restricted Band Measurement Plots:



Annex A. TEST INSTRUMENT

Instrument	Model	Manufacturer	Serial #	Cal Date	Cal Cycle	Cal Due	In use
Conducted Emissions							
R & S Receiver	ESIB 40	Rohde & Schwarz	100179	06/08/2016	1 Year	06/08/2017	☒
CHASE LISN (9k-30MHz)	MN2050B	Chase	1018	08/07/2015	1 Year	08/07/2016	☒
Radiated Emissions							
R & S Receiver	ESIB 40	Rohde & Schwarz	100179	06/08/2016	1 Year	06/08/2017	☒
Spectrum Analyzer	N9010A	Keysight	10SL0219	08/20/2015	1 Year	08/20/2016	☒
Pre-Amplifier (1-26.5GHz)	8449B	Hewlett Packard	3008A00715	03/30/2016	1 Year	03/30/2017	☒
Preamplifier (100KHz-7GHz)	LPA-6-30	RF Bay, Inc.	11140711	02/10/2016	1 Year	02/10/2017	☒
ETS-Lingren Loop Antenna	6512	ETS-Lingren	00049120	05/12/2015	1 Year	05/12/2016	☐
Bi-Log antenna (30MHz~2GHz)	JB1	Sunol Sciences	A030702	08/15/2015	1 Year	08/15/2016	☒
Horn Antenna (1-26.5GHz)	3115	EMCO	10SL0059	08/25/2015	1 Year	08/25/2016	☒
3 Meters SAC	3M	ETS-Lingren	N/A	06/09/2016	1 Year	06/09/2017	☒
10 Meters SAC	10M	ETS-Lingren	N/A	09/05/2015	1 Year	09/05/2016	☒
RF Conducted Measurement							
Spectrum Analyzer	N9010A	Keysight	10SL0219	08/20/2015	1 Year	08/20/2016	☒
USB RF Power Sensor	7002-006	ETS-Lingren	10SL0190	09/03/2015	1 Year	09/03/2016	☒

Test Software Version

Test Item	Vendor	Software	Version
Radiated Emission	EMISoft	EMISoft Vasona	V5.0

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