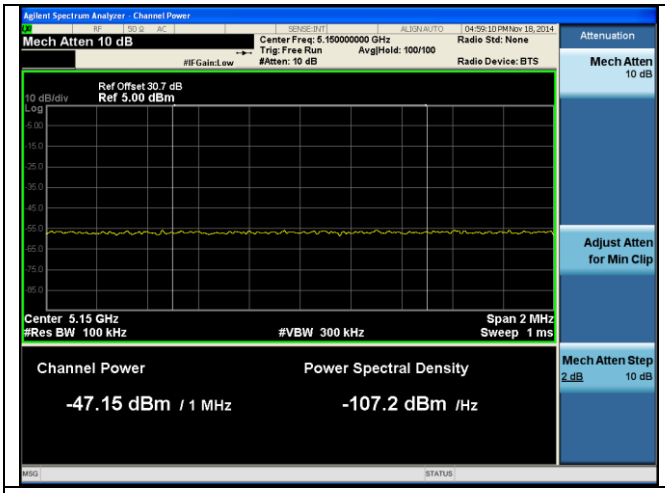
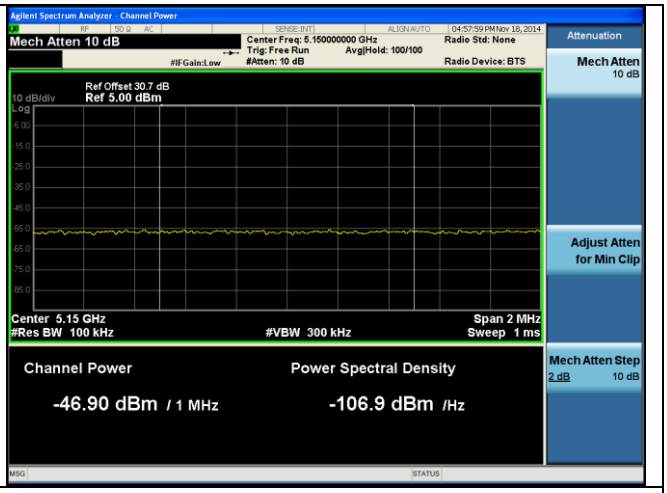
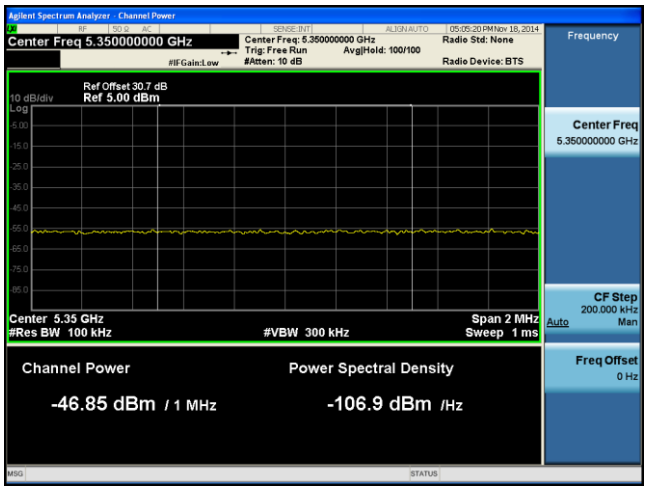
Test Plots



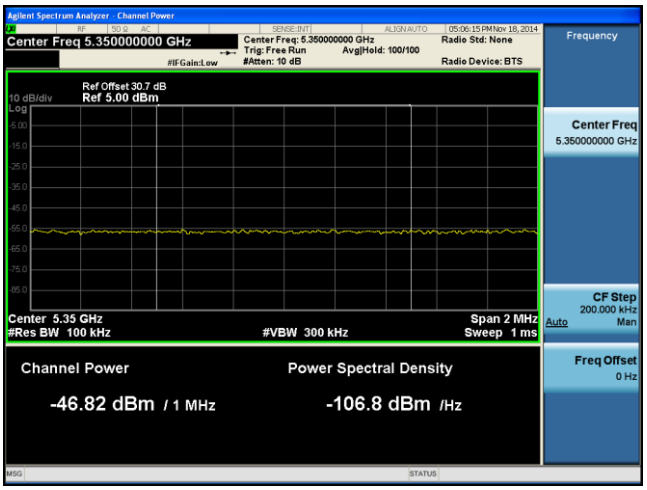
Band Edge-5150MHz-802.11a Low-Chain1



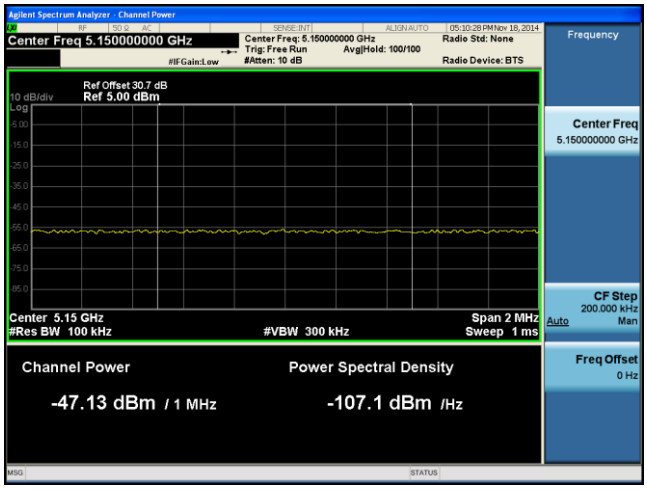
Band Edge-5150MHz -802.11a Low-Chain2



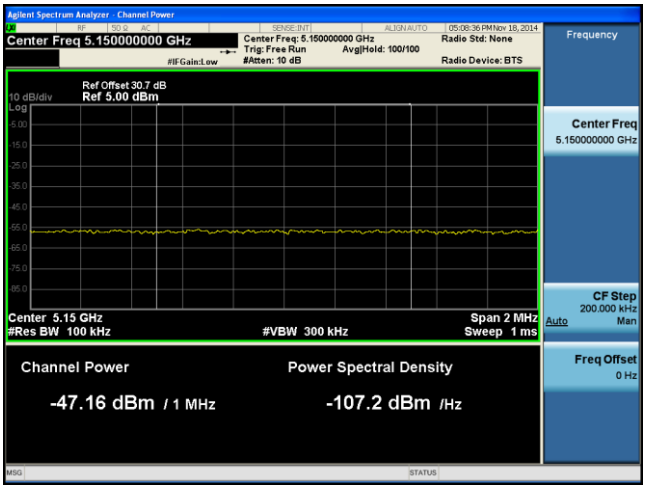
Band Edge-5350MHz-802.11a High-Chain1



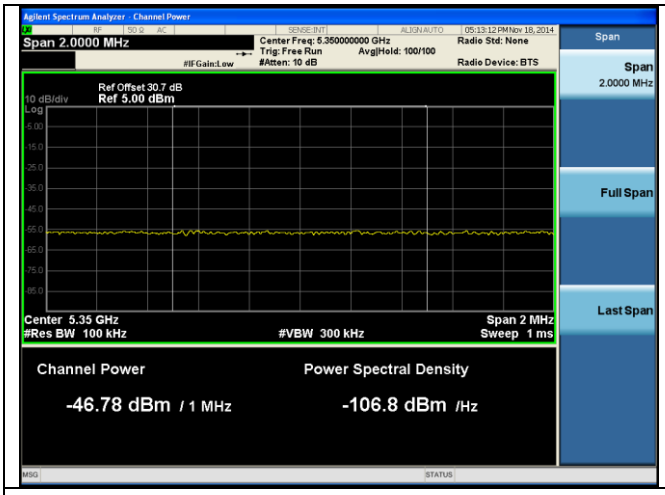
Band Edge-5350MHz -802.11a High-Chain2



Band Edge-5150MHz-802.11n-20 Low-Chain1

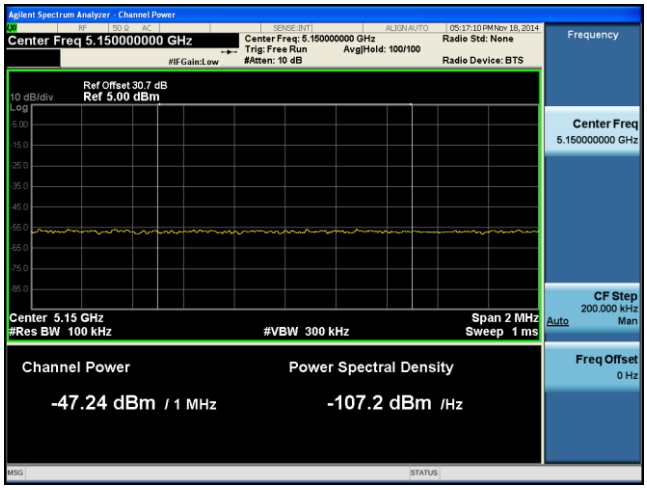


Band Edge-5150MHz -802.11n-20 Low-Chain2

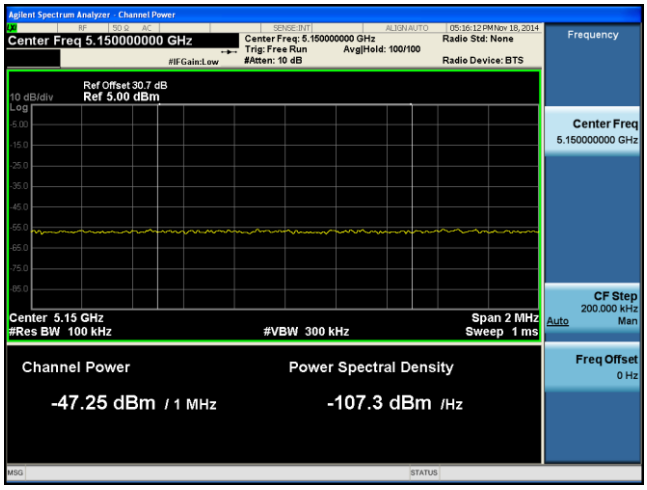


Band Edge-5350MHz-802.11n-20 High-Chain1

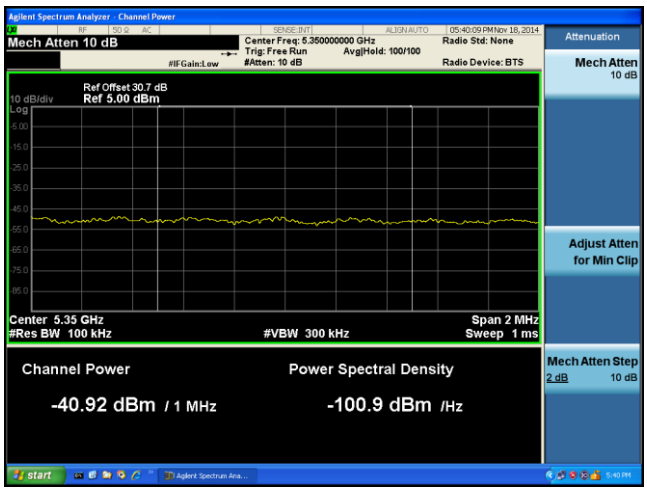
Band Edge-5350MHz -802.11n-20 High-Chain2



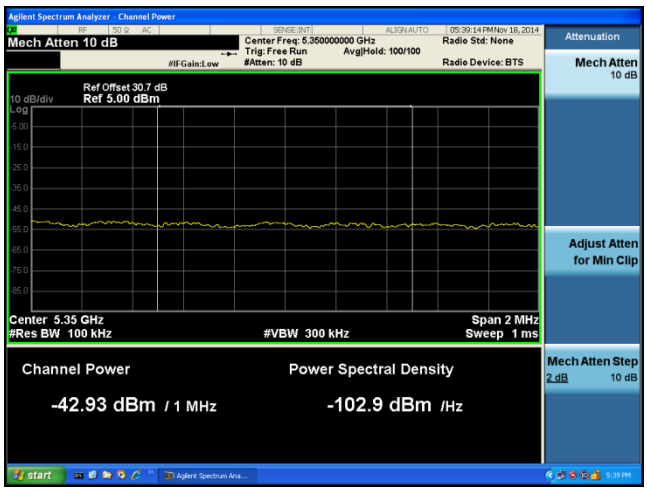
Band Edge-5150MHz-802.11n-40 Low-Chain1



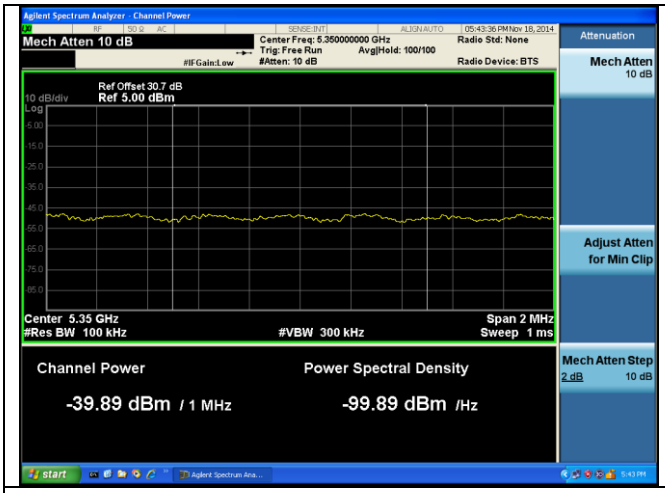
Band Edge-5150MHz -802.11n-40 Low-Chain2



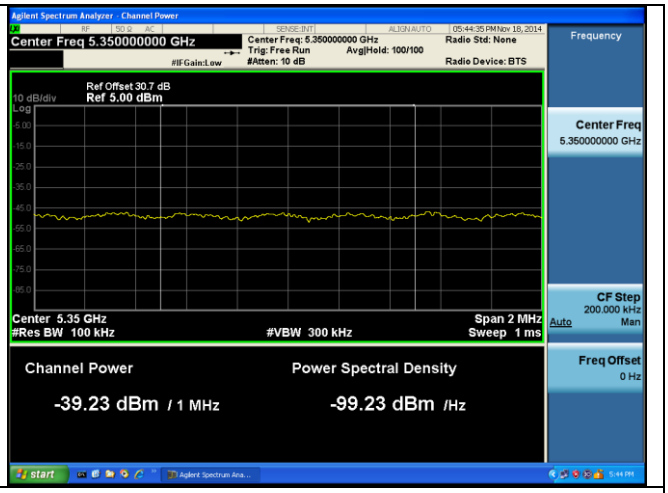
Band Edge-5350MHz-802.11n-40 High-Chain1



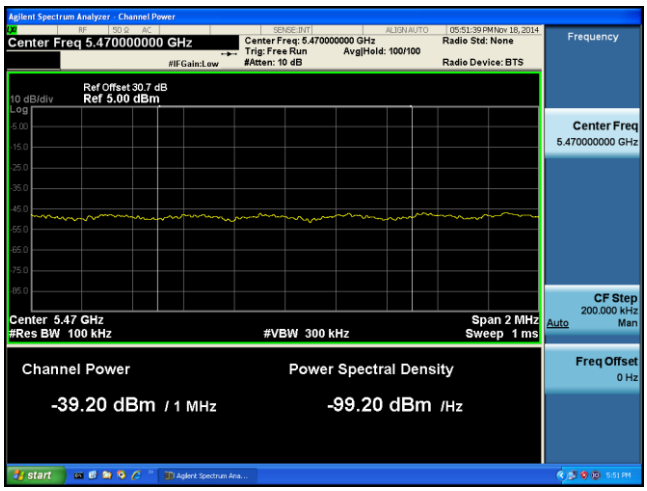
Band Edge-5350MHz -802.11n-40 High-Chain2



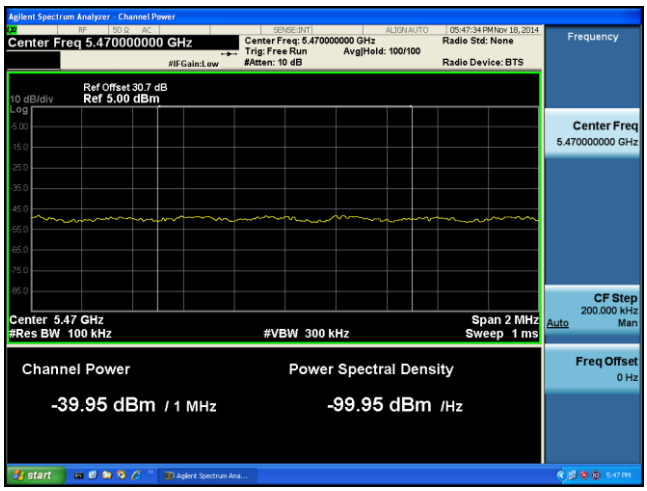
Band Edge-5350MHz-802.11ac-80 High-Chain1



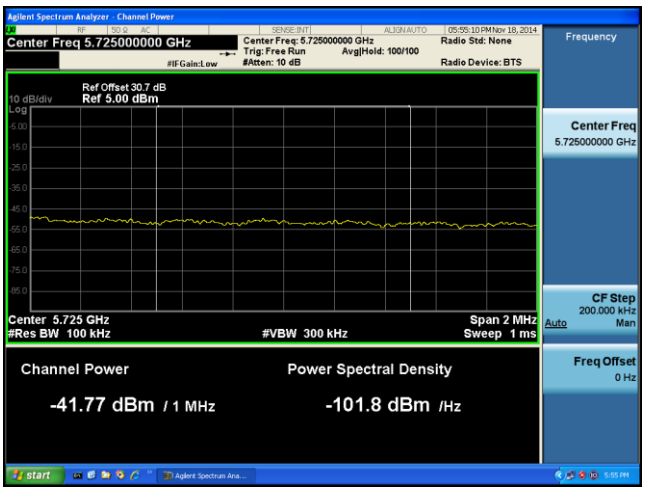
Band Edge-5350MHz -802.11ac-80 High-Chain2



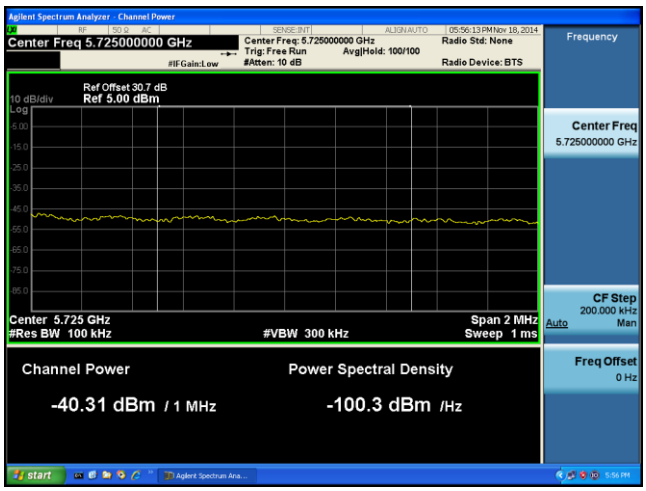
Band Edge-5470MHz-802.11a Low-Chain1



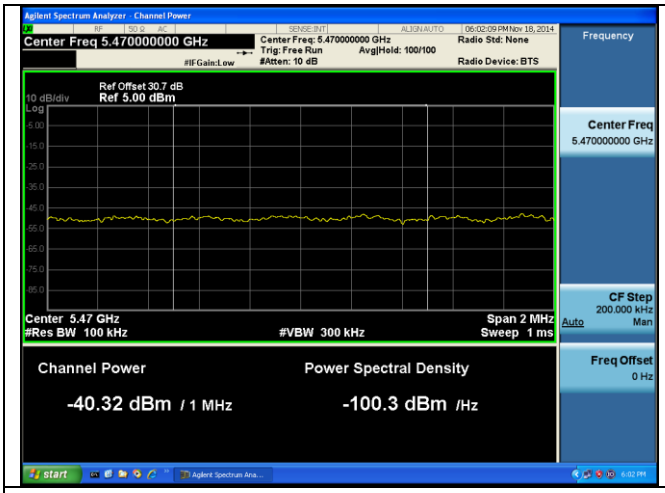
Band Edge-5470MHz -802.11a Low-Chain2



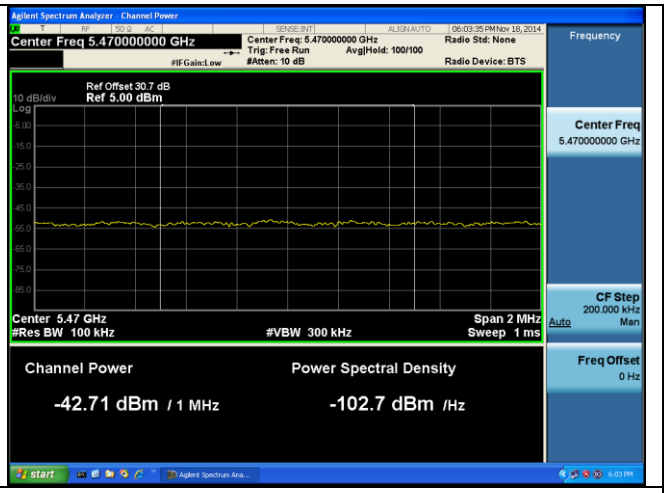
Band Edge-5725MHz-802.11a High-Chain1



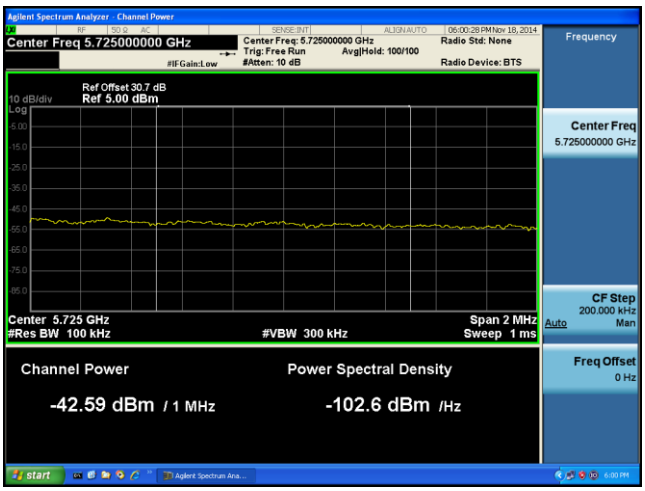
Band Edge-5725MHz -802.11a High-Chain2



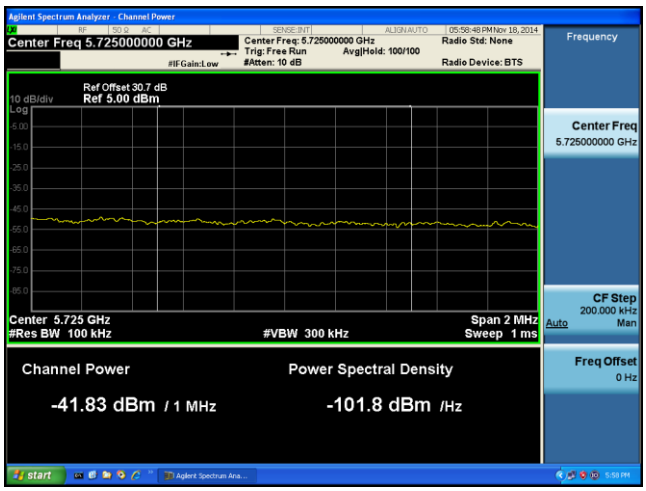
Band Edge-5470MHz-802.11n-20 Low-Chain1



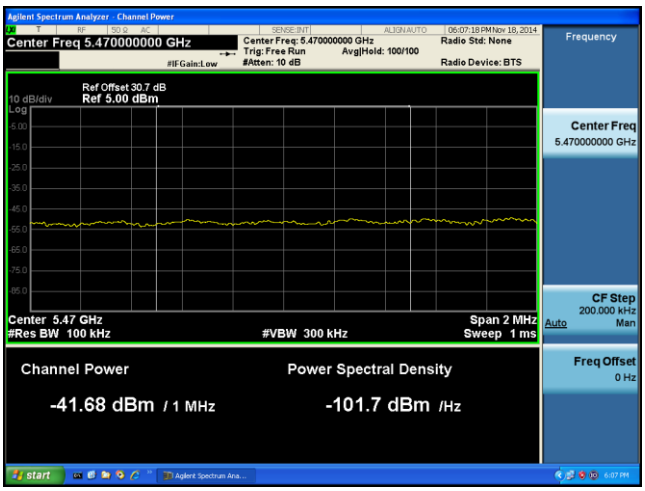
Band Edge-5470MHz -802.11n-20 Low-Chain2



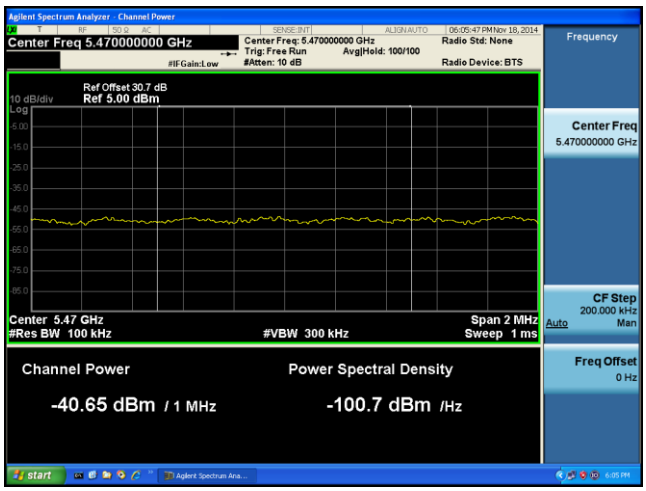
Band Edge-5725MHz-802.11n-20 High-Chain1



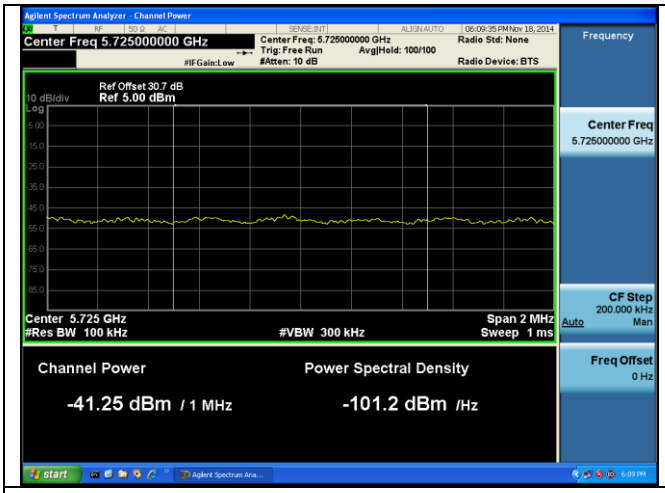
Band Edge-5725MHz -802.11n-20 High-Chain2



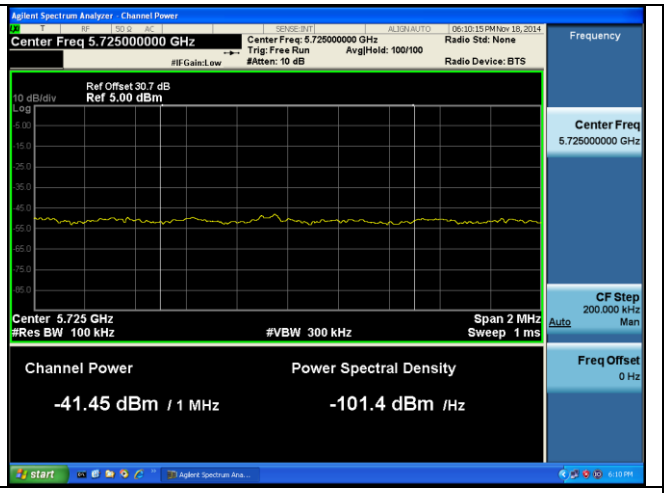
Band Edge-5470MHz-802.11n-40 Low-Chain1



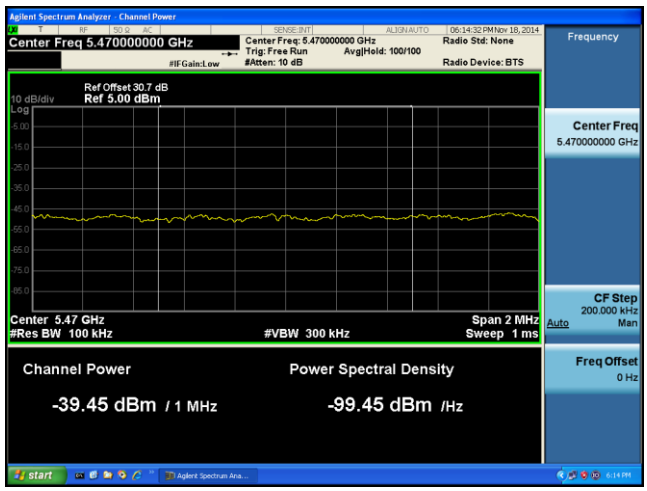
Band Edge-5470MHz -802.11n-40 Low-Chain2



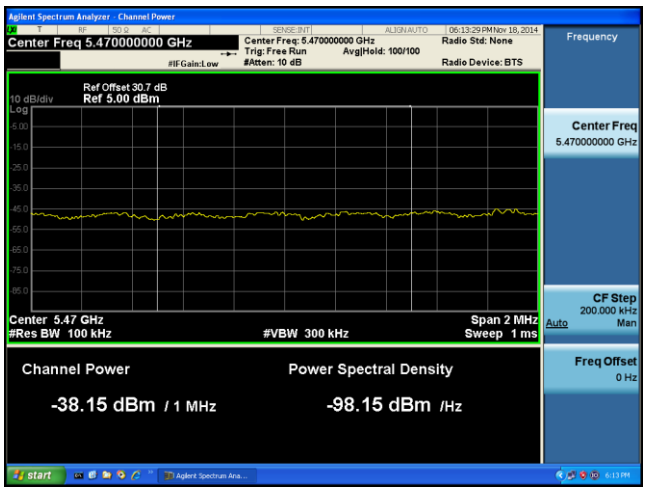
Band Edge-5725MHz-802.11n-40 High-Chain1



Band Edge-5725MHz -802.11n-40 High-Chain2



Band Edge-5470MHz-802.11ac-80 Low-Chain1



Band Edge-5470MHz -802.11ac-80 Low-Chain2

10.6 Peak Spectral Density

Requirement(s):

Spec	Item	Requirement	Applicable
§ 15.407 (a)(2) RSS210 (A9.2)	a)	For transmitters operating in the 5.15-5.25 GHz band: For FCC, the conducted PSD limit is 4 dBm/MHz. For IC, The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.	☐
	b)	For transmitters operating in the 5.25-5.35 GHz band: The power spectral density shall not exceed 11 dBm in any 1.0 MHz band	☒
	c)	For transmitters operating in the 5.47-5.725 GHz band: The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.	☒
	d)	For transmitters operating in the 5.725-5.85 GHz band: The power spectral density shall not exceed 17 dBm in any 1.0 MHz band	☐
Test Setup			
Test Procedure	789033 D02 General UNII Test Procedures New Rules v01, II.F. Method SA-1 Maximum spectral density measurement procedure - Set span to encompass the entire emission bandwidth (EBW) (or, alternatively, the entire 99% occupied bandwidth) of the signal. - Set RBW = 1 MHz - Set VBW ⩾ 3 MHz - Detector = RMS. - Sweep time = auto couple. - Trace mode = max hold. - Trace average at least 100 traces in power averaging - Use the peak marker function to determine the maximum amplitude level within the RBW. Apply correction to the result if different RBW is used.		
Test Date	08/16/2014	Environmental condition	Temperature 22ºC Relative Humidity 46% Atmospheric Pressure 1020mbar
Remark	The directional gain exceeds 6dBi; therefore, the PSD limit was calculated as follow: 11dBm/1MHz - The amount in dB that the directional gain of the antenna exceeds 6 dBi = PSD Limit Directional Gain = 8.764 11dBm/1MHz - (8.764 – 6) = 8.236 dBm/1MHz		
Result	☒ Pass ☐ Fail		

Equipment Setting

TEST	RBW	VBW	SPAN	Detector	SWEEP	Trace	NOTES
PSD	1MHz	≥3MHz	>EBW	RMS	Auto	Average	-

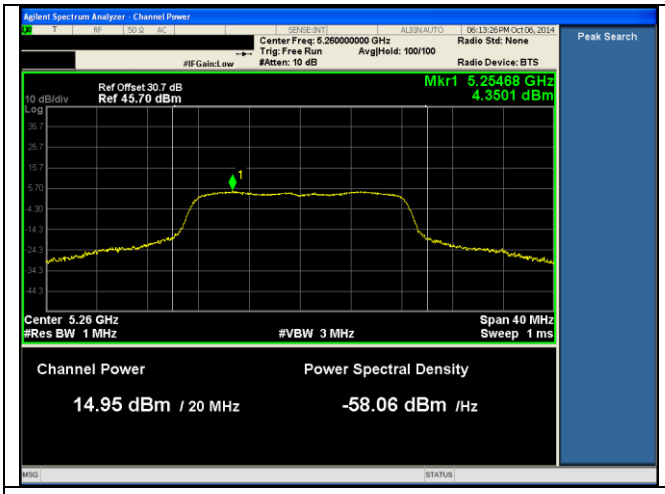
Test Data ☒ Yes ☐ N/A

Test Plot ☒ Yes (See below) ☐ N/A

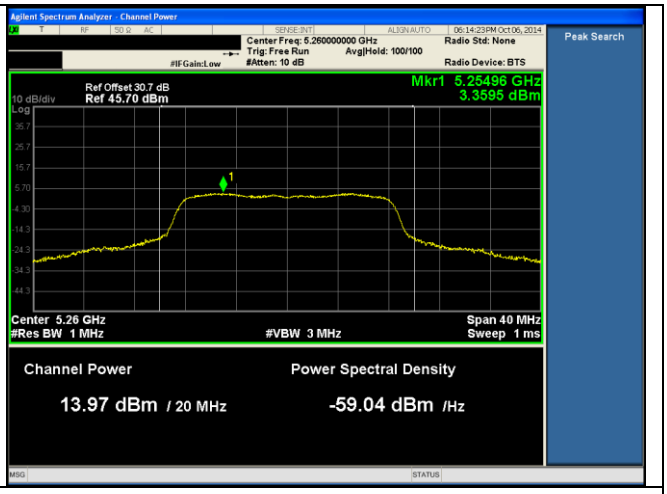
PSD Measurement Results

Type	Test mode	Freq (MHz)	CH	Conducted PSD (dBm/MHz)			Limit (dBm/MHz)	Result
				Chain1	Chain2	Combined Power or Highest Power		
PSD	802.11a	5260	Low	4.3501	3.3595	4.3501	≤8.236	Pass
PSD	802.11a	5280	Mid	3.4334	3.1690	3.4334	≤8.236	Pass
PSD	802.11a	5320	High	4.1505	4.0198	4.1505	≤8.236	Pass
PSD	802.11n-20	5260	Low	3.8724	3.1790	6.5498	≤8.236	Pass
PSD	802.11n-20	5280	Mid	3.4946	3.0339	6.2807	≤8.236	Pass
PSD	802.11n-20	5320	High	3.2801	3.4629	6.3828	≤8.236	Pass
PSD	802.11n-40	5270	Low	0.6091	-0.3071	3.1854	≤8.236	Pass
PSD	802.11n-40	5310	High	-2.3275	-2.5487	0.5736	≤8.236	Pass
PSD	802.11ac-80	5290	Mid	-5.4784	-5.9624	-2.7034	≤8.236	Pass
PSD	802.11a	5500	Low	7.5370	6.9062	7.5370	≤8.236	Pass
PSD	802.11a	5580	Mid	7.6723	7.7094	7.7094	≤8.236	Pass
PSD	802.11a	5700	High	5.8035	6.4591	6.4591	≤8.236	Pass
PSD	802.11n-20	5500	Low	5.1518	5.1975	8.1850	≤8.236	Pass
PSD	802.11n-20	5580	Mid	5.0577	5.3234	8.2029	≤8.236	Pass
PSD	802.11n-20	5700	High	4.7261	5.5249	8.1541	≤8.236	Pass
PSD	802.11n-40	5510	Low	0.5002	0.5887	3.5550	≤8.236	Pass
PSD	802.11n-40	5550	Mid	4.0485	4.0615	7.0653	≤8.236	Pass
PSD	802.11n-40	5670	High	3.2065	3.3238	6.2758	≤8.236	Pass
PSD	802.11ac-80	5530	Mid	-3.4170	-3.3316	-0.3638	≤8.236	Pass

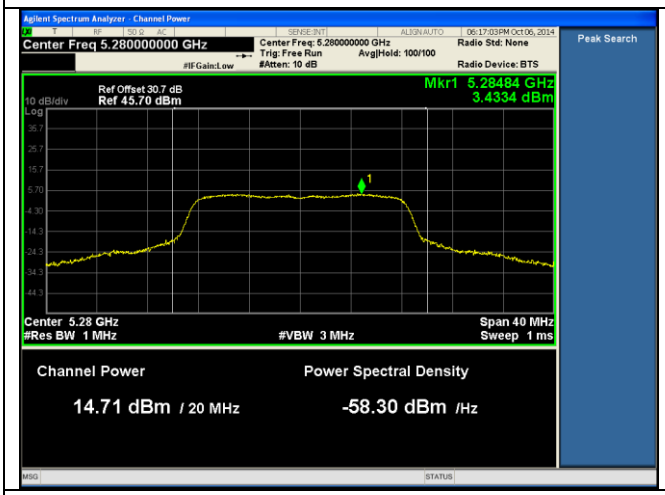
Test Plots



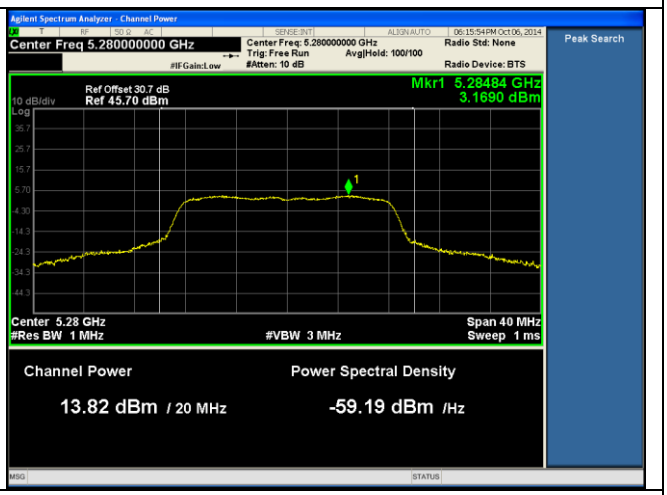
PSD-5260MHz-802.11a Low-chain1



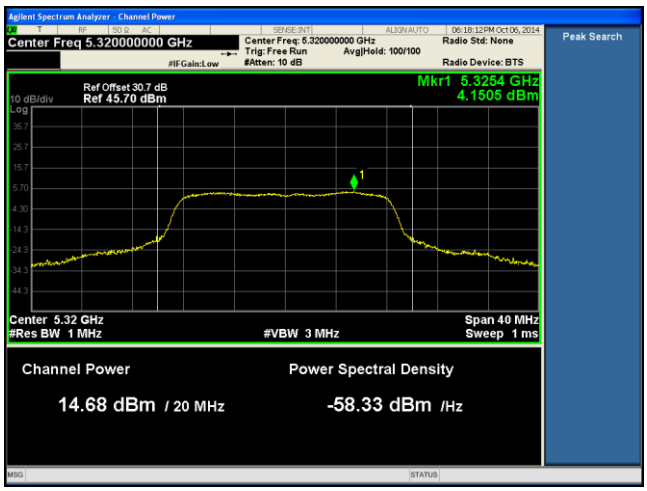
PSD-5260Mhz-802.11a Low-chain2



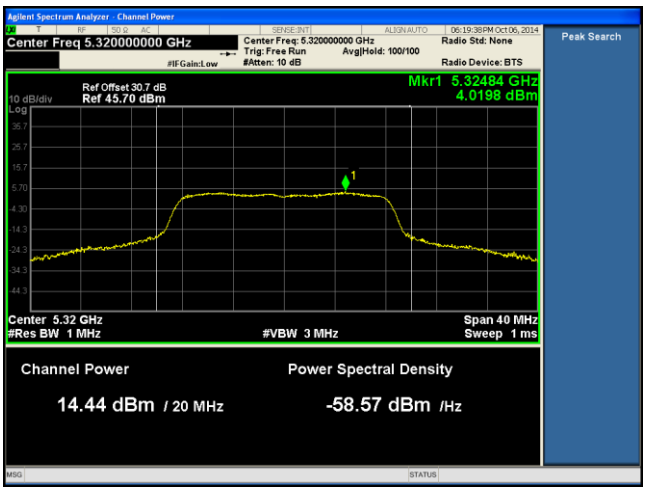
PSD-5280MHz-802.11a Mid-chain1



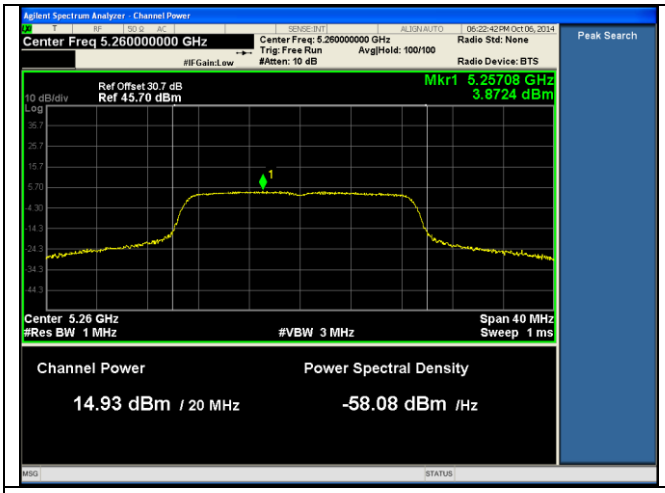
PSD-5280MHz-802.11a Mid-chain2



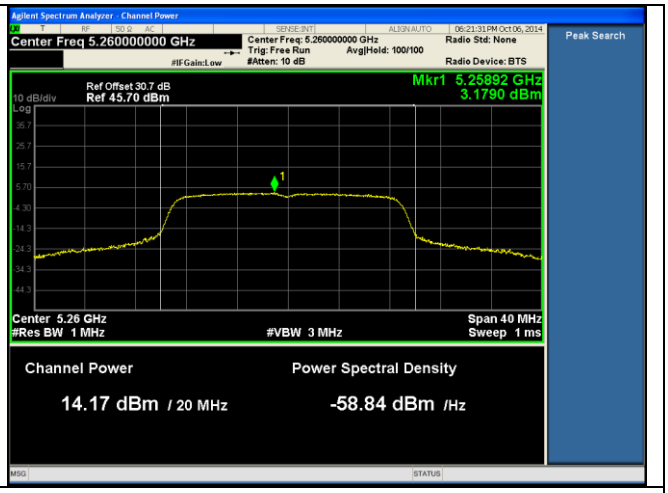
PSD-5320MHz-802.11a High-chain1



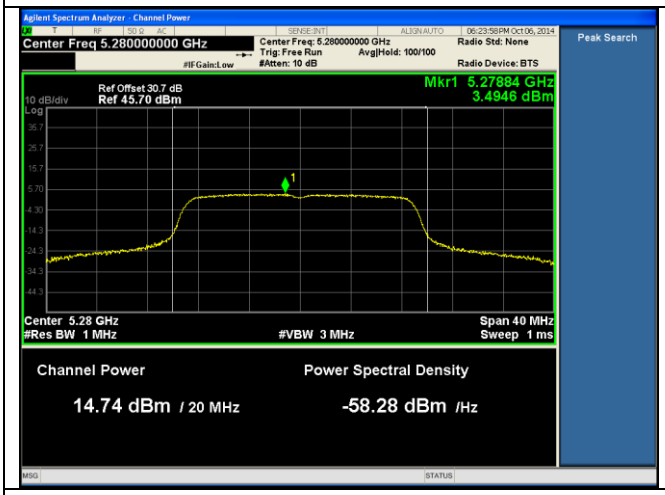
PSD-5320MHz-802.11a High-chain2



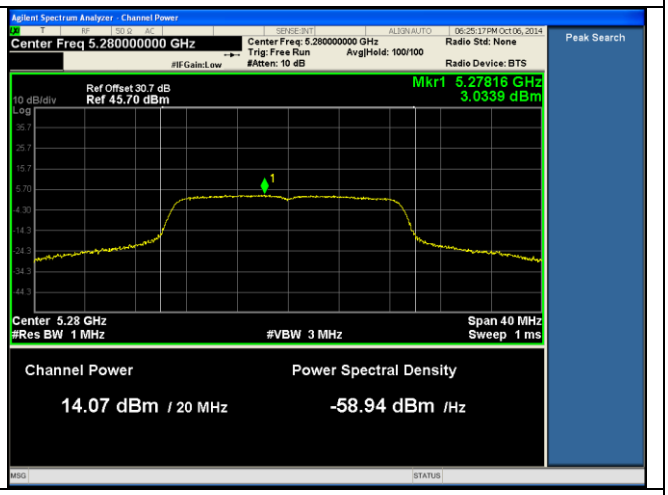
PSD-5260MHz-802.11n-20 Low-chain1



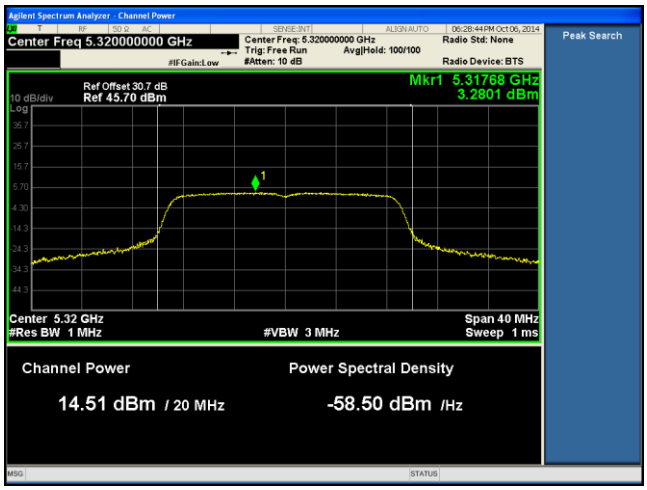
PSD-5260Mhz-802.11n-20 Low-chain2



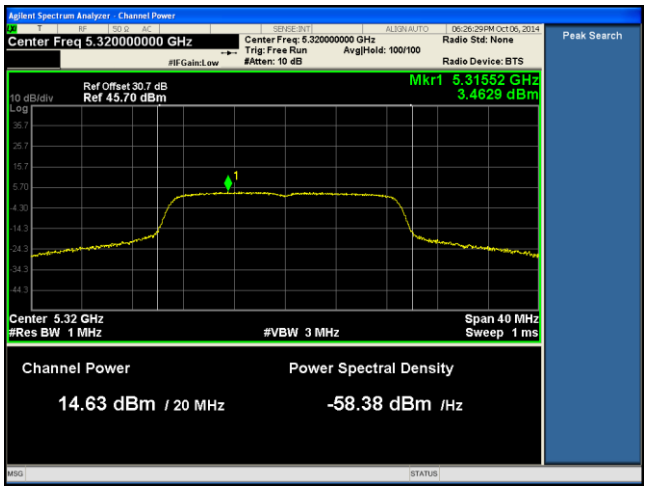
PSD-5280MHz-802.11n-20 Mid-chain1



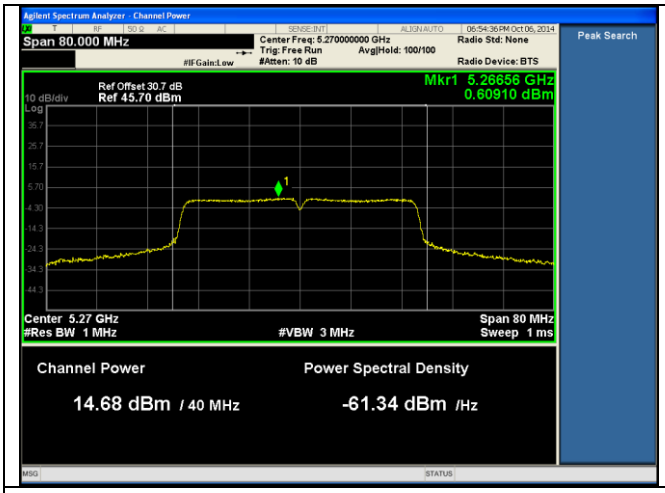
PSD-5280MHz-802.11n-20 Mid-chain2



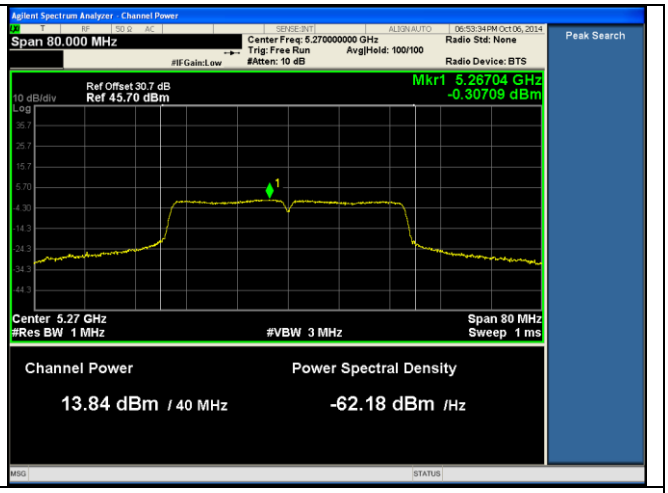
PSD-5320MHz-802.11n-20 High-chain1



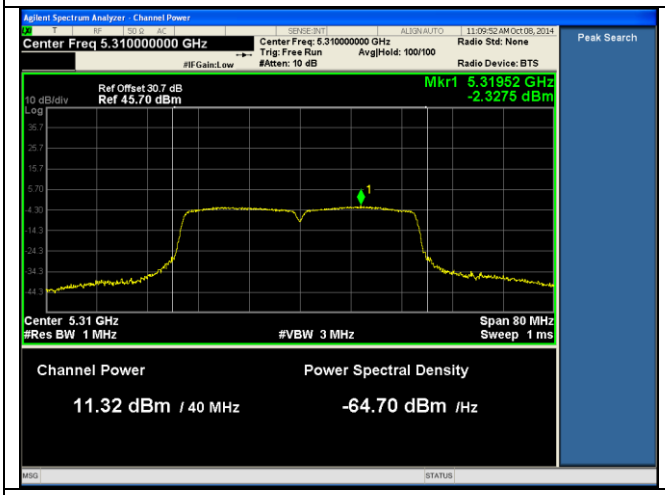
PSD-5320MHz-802.11n-20 High-chain2



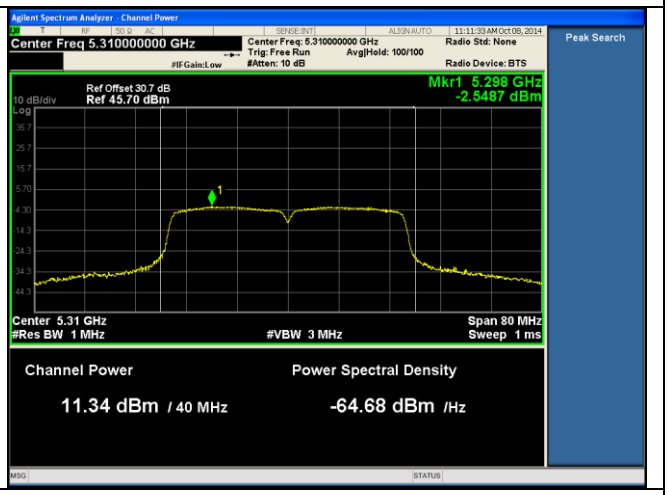
PSD-5270MHz-802.11n-40 Low-chain1



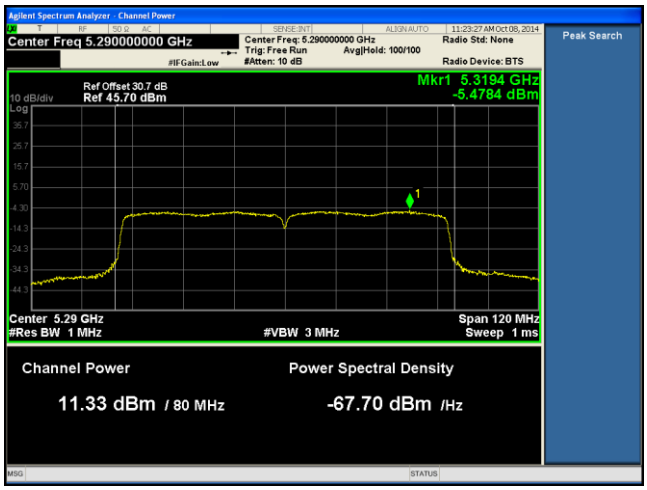
PSD-5270Mhz-802.11n-40 Low-chain2



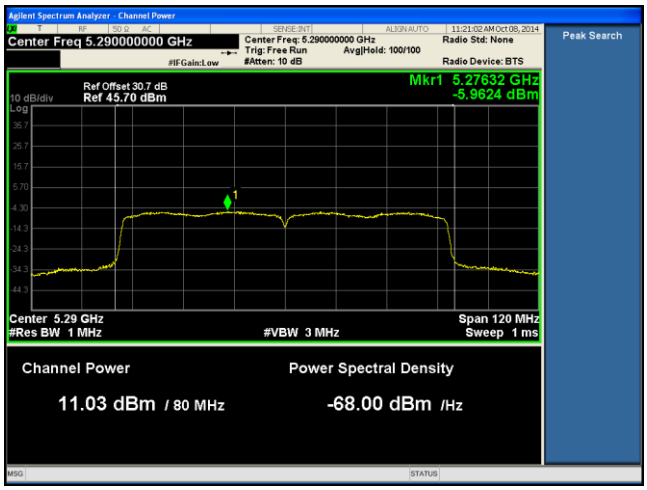
PSD-5310MHz-802.11n-40 High-chain1



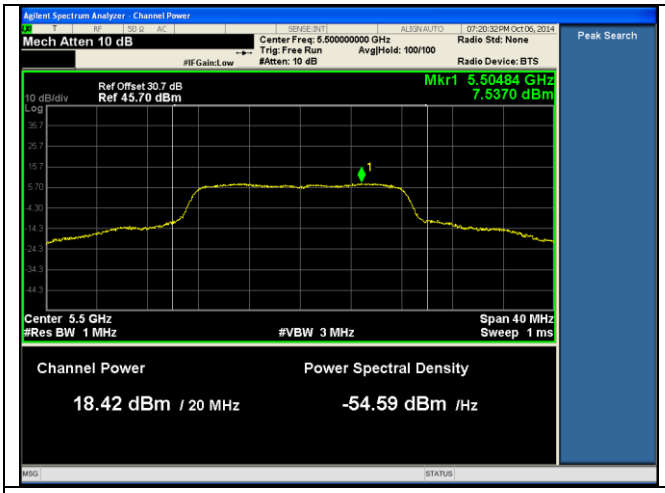
PSD-5310MHz-802.11n-40 High-chain2



PSD-5290MHz-802.11ac-80 Mid-chain1

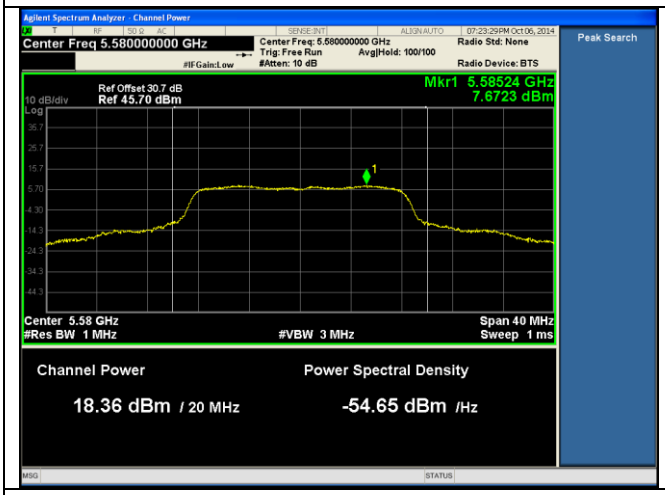


PSD-5290MHz-802.11ac-80 Mid-chain2

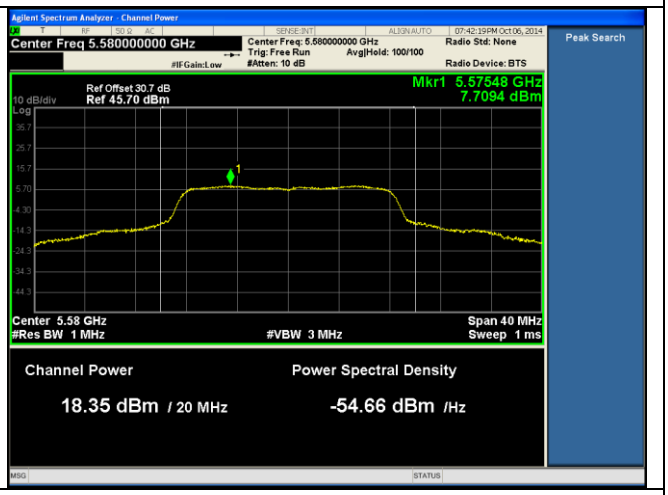


PSD-5500MHz-802.11a Low-chain1

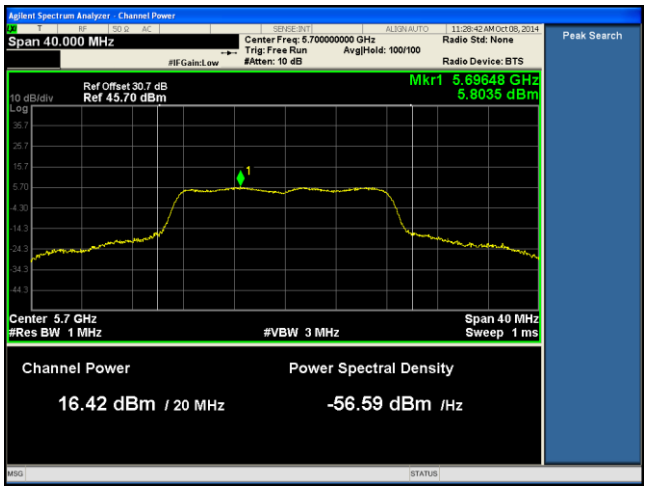
PSD-5500Mhz-802.11a Low-chain2



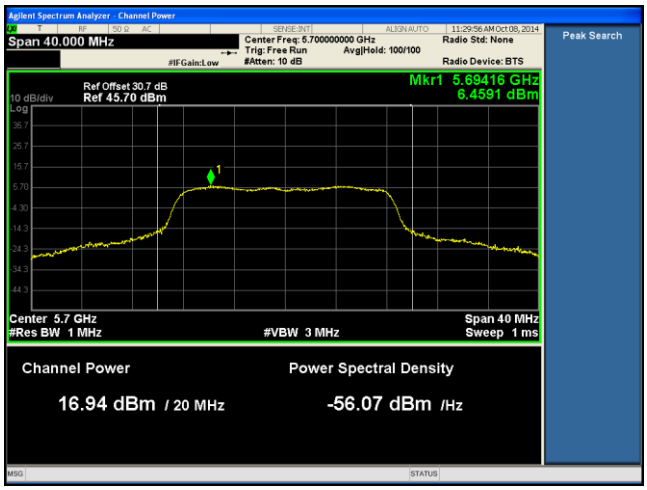
PSD-5580MHz-802.11a Mid-chain1



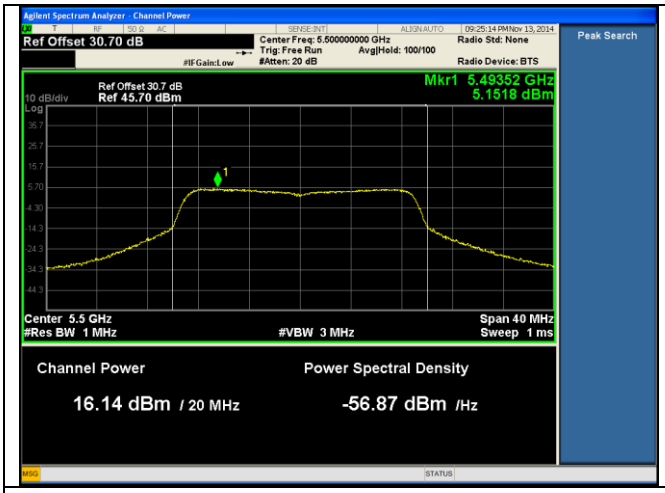
PSD-5580MHz-802.11a Mid-chain2



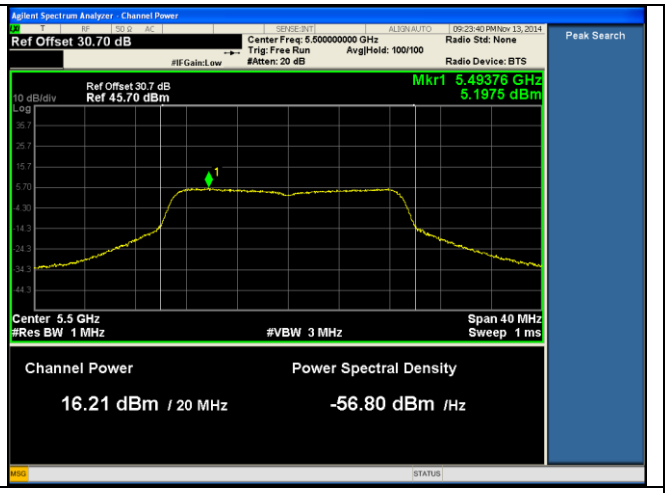
PSD-5700MHz-802.11a High-chain1



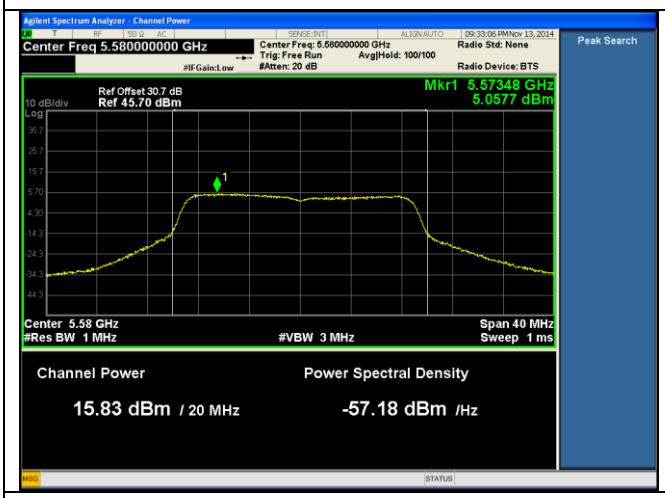
PSD-5700MHz-802.11a High-chain2



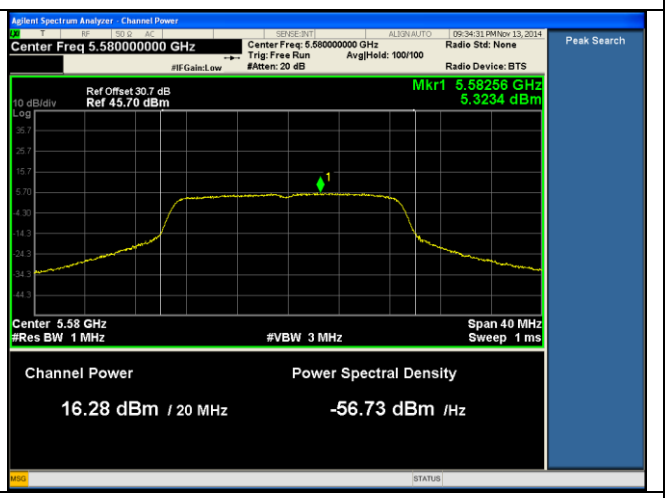
PSD-5500MHz-802.11n-20 Low-chain1



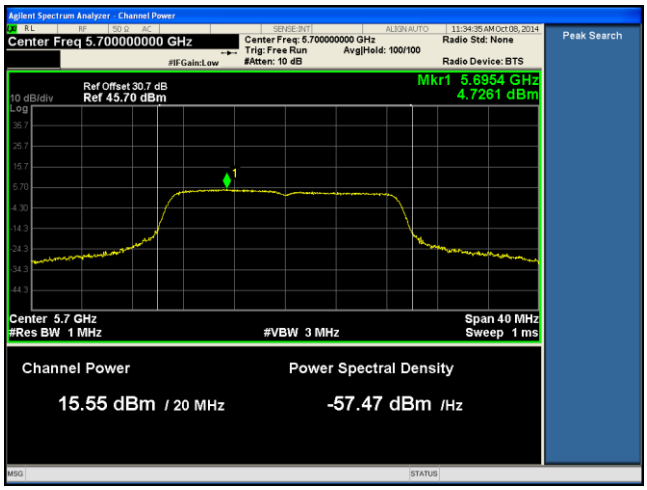
PSD-5500Mhz-802.11n-20 Low-chain2



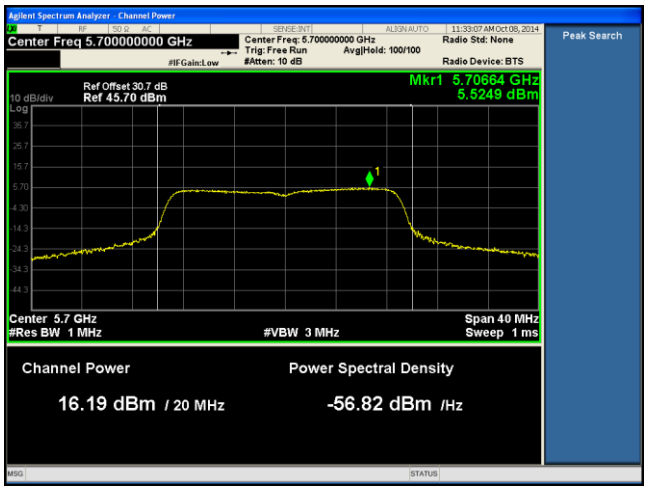
PSD-5580MHz-802.11n-20 Mid-chain1



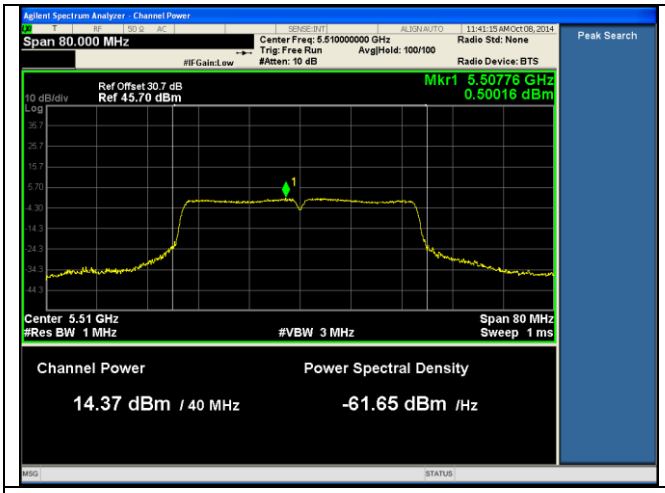
PSD-5580MHz-802.11n-20 Mid-chain2



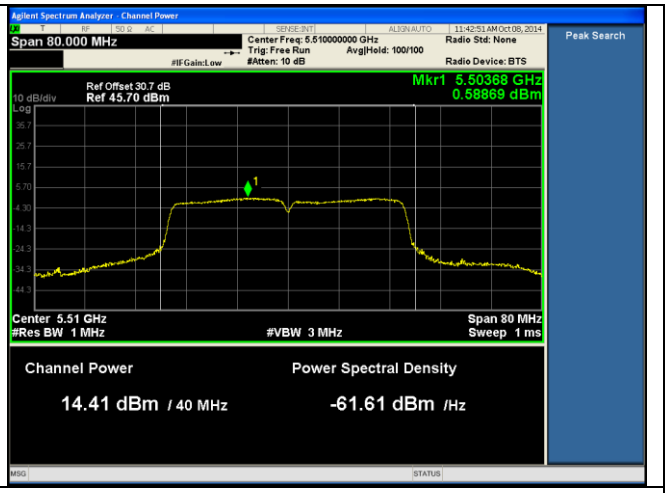
PSD-5700MHz-802.11n-20 High-chain1



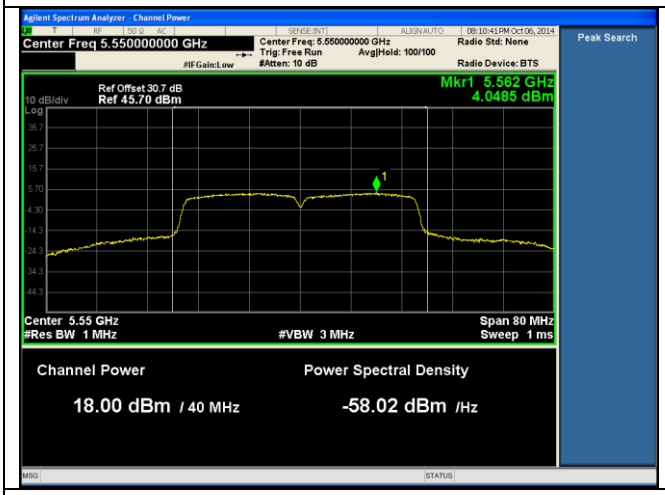
PSD-5700MHz-802.11n-20 High-chain2



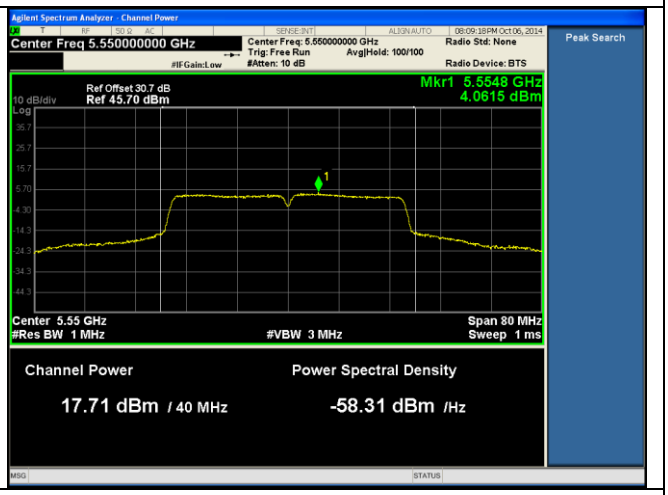
PSD-5510MHz-802.11n-40 Low-chain1



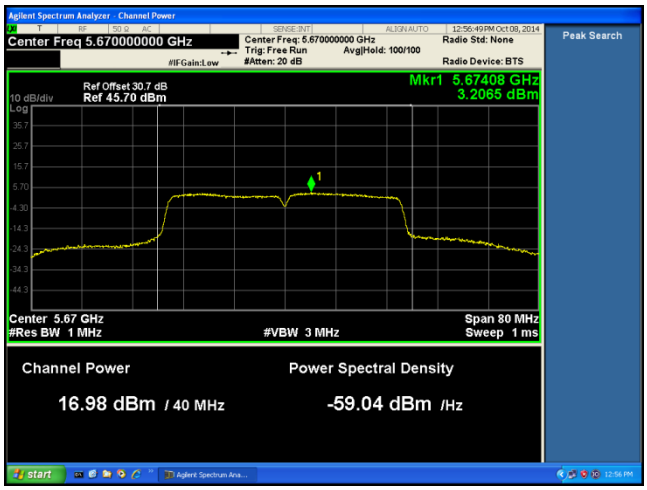
PSD-5510Mhz-802.11n-40 Low-chain2



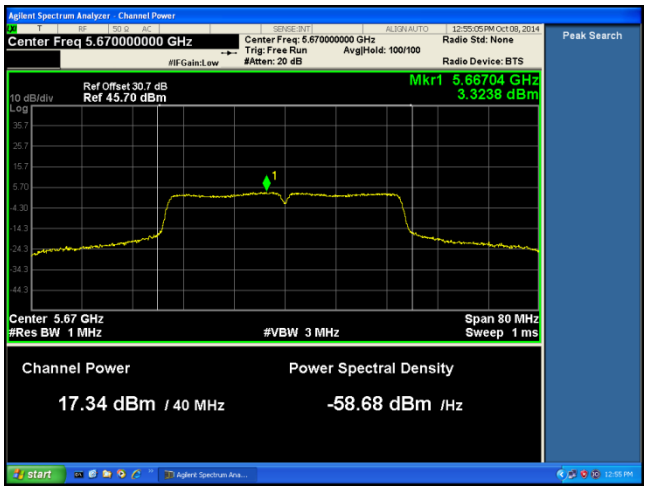
PSD-5550MHz-802.11n-40 Mid-chain1



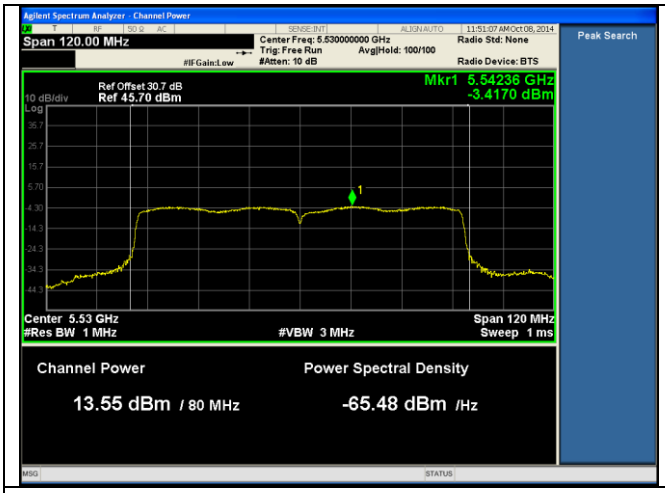
PSD-5550MHz-802.11n-40 Mid-chain2



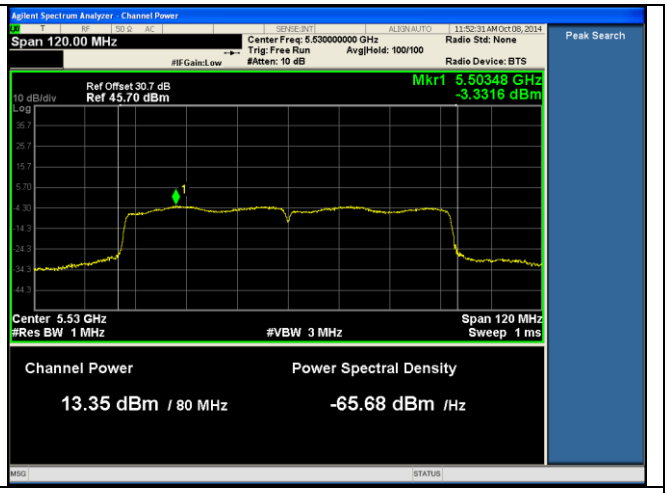
PSD-5670MHz-802.11n-40 High-chain1



PSD-5670MHz-802.11n-40 High-chain2



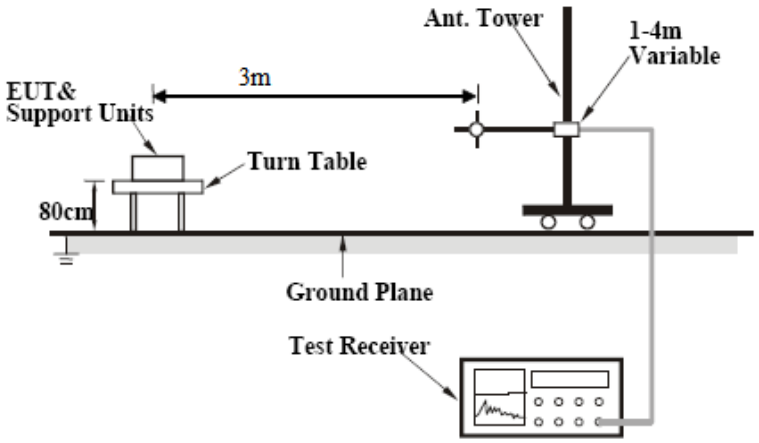
PSD-5530MHz-802.11ac-80 Mid-chain1



PSD-5530Mhz-802.11ac-80 Mid-chain2

10.7 Radiated Emissions below 1GHz

Requirement(s):

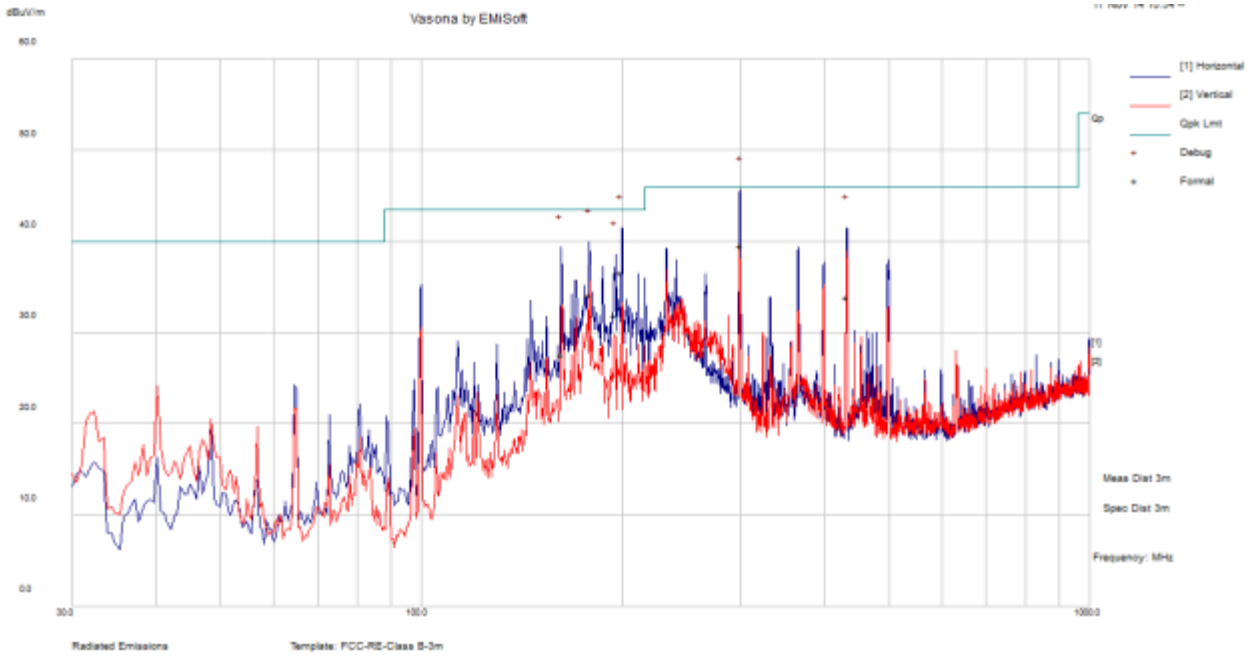
<table>
<tr><th>Spec</th><th>Requirement</th><th>Applicable</th></tr>
<tr><td>47CFR§
15.407(b)
15.209 (a)
RSS210(A9.2)</td><td>Except higher limit as specified elsewhere in other section, the emissions from the low-power radio-frequency devices shall not exceed the field strength levels specified in 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></td><td>☒</td></tr>
<tr><td>Test Setup</td><td colspan="2"> 
</td></tr>
<tr><td>Procedure</td><td colspan="2">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.</td></tr>
<tr><td>Remark</td><td colspan="2">The EUT was scanned up to 1GHz. Both horizontal and vertical polarities were investigated. The results show only the worst case.</td></tr>
<tr><td>Result</td><td colspan="2">☒ Pass ☐ Fail</td></tr>
</table>

Test Data ☒ Yes (See below) ☐ N/A

Test Plot ☒ Yes (See below) ☐ N/A

Radiated Emission Test Results (Below 1GHz)

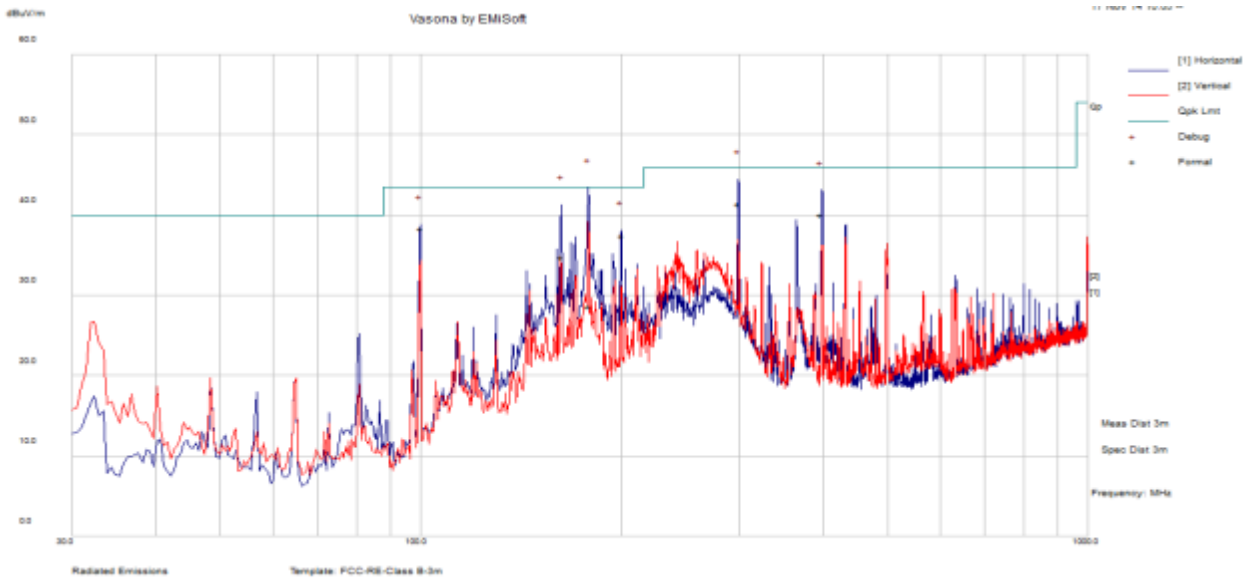
Test specification	Radiated Spurious Emissions			
Environmental Conditions:	Temp (°C):	23	Result	Pass
	Humidity (%)	46		
	Atmospheric (mbar):	1021		
Mains Power:	120VAC, 60Hz			
Tested by:	Angel Escamilla			
Test Date:	10/13/ 2014			
Remarks:	EUT tested with internal patch antennas			



30MHz to 1000MHz at 3 meters

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
299.83	62.67	3.00	-26.17	39.50	Quasi Max	H	341.00	82.00	46.00	-6.50	Pass
199.03	61.20	2.50	-27.04	36.65	Quasi Max	H	127.00	64.00	43.50	-6.85	Pass
178.01	60.55	2.39	-28.80	34.15	Quasi Max	H	132.00	242.00	43.50	-9.35	Pass
194.93	57.38	2.48	-27.93	31.93	Quasi Max	H	209.00	251.00	43.50	-11.57	Pass
432.70	53.52	3.62	-23.20	33.94	Quasi Max	H	234.00	99.00	46.00	-12.06	Pass
161.67	53.14	2.29	-27.80	27.64	Quasi Max	H	126.00	235.00	43.50	-15.86	Pass

Test specification	Radiated Spurious Emissions			
Environmental Conditions:	Temp (°C):	23	Result	Pass
	Humidity (%)	46		
	Atmospheric (mbar):	1021		
Mains Power:	120VAC, 60Hz			
Tested by:	Angel Escamilla			
Test Date:	10/13/ 2014			
Remarks:	EUT tested with external dipole antennas			

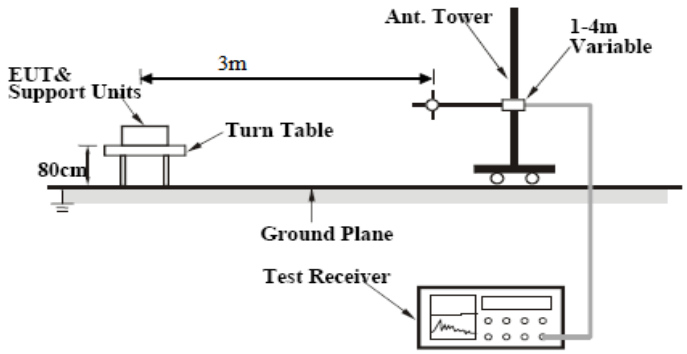


30MHz to 1000MHz at 3 meters

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
298.98	64.64	3.00	-26.19	41.44	Quasi Max	H	115.00	64.00	46.00	-4.56	Pass
99.92	66.32	1.83	-29.72	38.43	Quasi Max	H	323.00	195.00	43.50	-5.07	Pass
398.19	60.82	3.32	-24.14	40.01	Quasi Max	H	103.00	94.00	46.00	-5.99	Pass
199.86	61.75	2.50	-26.86	37.39	Quasi Max	H	173.00	206.00	43.50	-6.11	Pass
162.41	60.28	2.30	-27.83	34.75	Quasi Max	H	281.00	350.00	43.50	-8.75	Pass
177.97	55.09	2.39	-28.79	28.69	Quasi Max	H	359.00	70.00	43.50	-14.81	Pass

10.8 Radiated Spurious Emissions above 1GHz

Requirement(s):

Spec	Item	Requirement	Applicable
47CFR§ 15.407(b)(2), 15.407(b)(6) RSS210	(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 emissions must also comply with the radiated emissions limits specified in 15.209	☒
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. 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.		
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		

Equipment Setting

TEST	RBW	VBW	SPAN	Detector	SWEEP	Trace	NOTES
Radiated Spurious Emission	1MHz	3MHz	1GHz - 25 GHz	Peak	Auto	Max hold	PK Measurement
Radiated Spurious Emission	1MHz	10Hz	1GHz - 25 GHz	Peak	Auto	Max hold	Ave Measurement

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

Radiated Emission Test Results (Above 1GHz)

Above 1GHz-40GHz – 802.11a – 5260MHz: EUT with Internal Patch Antennas

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
12101.92	41.17	5.30	6.48	52.95	Peak Max	V	158.00	118.00	74.00	-21.05	Pass
12101.92	28.05	5.30	6.48	39.83	Average Max	V	158.00	118.00	54.00	-14.17	Pass
15437.82	41.19	6.50	10.05	57.74	Peak Max	V	237.00	152.00	74.00	-16.26	Pass
15437.82	27.96	6.50	10.05	44.51	Average Max	V	237.00	152.00	54.00	-9.49	Pass

Restricted Band 802.11a – 5150MHz: EUT with Internal Patch Antennas

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
5150.00	43.20	3.64	0.53	47.36	Peak Max	V	259.00	60.00	74.00	-26.64	Pass
5150.00	42.93	3.64	0.53	47.10	Peak Max	H	211.00	12.00	74.00	-26.90	Pass
5150.00	30.07	3.64	0.53	34.24	Average Max	V	259.00	60.00	54.00	-19.76	Pass
5150.00	29.99	3.64	0.53	34.15	Average Max	H	211.00	12.00	54.00	-19.85	Pass

Above 1GHz-40GHz – 802.11a – 5280MHz: EUT with Internal Patch Antennas

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
12361.88	42.30	5.37	6.32	54.00	Peak Max	H	114.00	106.00	74.00	-20.00	Pass
12361.88	28.60	5.37	6.32	40.30	Average Max	H	114.00	106.00	54.00	-13.70	Pass
15595.77	41.31	6.51	9.37	57.18	Peak Max	V	290.00	133.00	74.00	-16.82	Pass
15595.77	27.93	6.51	9.37	43.81	Average Max	V	290.00	133.00	54.00	-10.19	Pass

Above 1GHz-40GHz – 802.11a – 5320MHz: EUT with Internal Patch Antennas

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
8075.78	42.25	4.21	4.59	51.05	Peak Max	V	154.00	291.00	74.00	-22.95	Pass
8075.78	29.03	4.21	4.59	37.83	Average Max	V	154.00	291.00	54.00	-16.17	Pass
12630.87	41.71	5.47	6.56	53.73	Peak Max	H	192.00	104.00	74.00	-20.27	Pass
12630.87	28.20	5.47	6.56	40.23	Average Max	H	192.00	104.00	54.00	-13.77	Pass
15425.75	41.46	6.50	10.02	57.98	Peak Max	H	252.00	154.00	74.00	-16.02	Pass
15425.75	28.15	6.50	10.02	44.67	Average Max	H	252.00	154.00	54.00	-9.33	Pass

Restricted Band 802.11a – 5350MHz: EUT with Internal Patch Antennas

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
5350.00	48.03	3.70	0.75	52.48	Peak Max	V	221.00	287.00	74.00	-21.52	Pass
5350.00	42.46	3.70	0.76	46.92	Peak Max	H	119.00	212.00	74.00	-27.08	Pass
5350.00	33.07	3.70	0.75	37.52	Average Max	V	221.00	287.00	54.00	-16.48	Pass
5350.00	29.52	3.70	0.76	33.98	Average Max	H	119.00	212.00	54.00	-20.02	Pass

Above 1GHz-40GHz – 802.11n-20M – 5260MHz: EUT with Internal Patch Antennas

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
7352.77	42.75	4.50	3.37	50.61	Peak Max	V	229.00	109.00	74.00	-23.39	Pass
7352.77	29.84	4.50	3.37	37.71	Average Max	V	229.00	109.00	54.00	-16.29	Pass
11970.48	41.68	5.26	6.50	53.45	Peak Max	H	140.00	9.00	74.00	-20.55	Pass
11970.48	28.26	5.26	6.50	40.03	Average Max	H	140.00	9.00	54.00	-13.97	Pass
15648.94	41.78	6.51	8.90	57.19	Peak Max	V	152.00	157.00	74.00	-16.81	Pass
15648.94	27.94	6.51	8.90	43.35	Average Max	V	152.00	157.00	54.00	-10.65	Pass

Restricted Band 802.11n20-M – 5150MHz: EUT with Internal Patch Antennas

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
5150.00	43.06	3.64	0.53	47.22	Peak Max	V	207.00	173.00	74.00	-26.78	Pass
5150.00	43.60	3.64	0.53	47.76	Peak Max	H	221.00	89.00	74.00	-26.24	Pass
5150.00	30.01	3.64	0.53	34.17	Average Max	V	207.00	173.00	54.00	-19.83	Pass
5150.00	29.99	3.64	0.53	34.15	Average Max	H	221.00	89.00	54.00	-19.85	Pass

Above 1GHz-40GHz – 802.11n-20M – 5280MHz: EUT with Internal Patch Antennas

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
11151.67	41.92	5.03	5.60	52.54	Peak Max	H	171.00	22.00	74.00	-21.46	Pass
11151.67	28.14	5.03	5.60	38.77	Average Max	H	171.00	22.00	54.00	-15.23	Pass
11955.28	41.69	5.26	6.48	53.43	Peak Max	V	247.00	291.00	74.00	-20.57	Pass
11955.28	28.33	5.26	6.48	40.07	Average Max	V	247.00	291.00	54.00	-13.93	Pass

Above 1GHz-40GHz – 802.11n-20M – 5320MHz: EUT with Internal Patch Antennas

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
8112.56	41.74	4.21	4.66	50.61	Peak Max	H	189.00	200.00	74.00	-23.39	Pass
8112.56	28.65	4.21	4.66	37.53	Average Max	H	189.00	200.00	54.00	-16.47	Pass
9452.68	41.49	4.45	6.50	52.44	Peak Max	H	207.00	0.00	74.00	-21.56	Pass
9452.68	28.17	4.45	6.50	39.12	Average Max	H	207.00	0.00	54.00	-14.88	Pass
12676.47	41.84	5.49	6.67	54.00	Peak Max	V	138.00	291.00	74.00	-20.00	Pass
12676.47	28.41	5.49	6.67	40.57	Average Max	V	138.00	291.00	54.00	-13.43	Pass

Restricted Band 802.11n-20M – 5350MHz: EUT with Internal Patch Antennas

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
5350.00	43.90	3.70	0.76	48.36	Peak Max	V	0.00	0.00	74.00	-25.64	Pass
5350.00	43.23	3.70	0.75	47.69	Peak Max	H	173.00	71.00	74.00	-26.31	Pass
5350.00	30.06	3.70	0.76	34.51	Average Max	V	0.00	0.00	54.00	-19.49	Pass
5350.00	29.94	3.70	0.75	34.39	Average Max	H	173.00	71.00	54.00	-19.61	Pass

Above 1GHz-40GHz – 802.11n-40M – 5270MHz: EUT with Internal Patch Antennas

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
1006.63	47.89	1.75	-7.18	42.46	Peak Max	V	264.00	44.00	74.00	-31.54	Pass
1006.63	34.75	1.75	-7.18	29.33	Average Max	V	264.00	44.00	54.00	-24.67	Pass
12049.69	41.56	5.29	6.51	53.35	Peak Max	H	248.00	216.00	74.00	-20.65	Pass
12049.69	28.08	5.29	6.51	39.88	Average Max	H	248.00	216.00	54.00	-14.12	Pass
15445.79	41.72	6.50	10.07	58.29	Peak Max	H	124.00	16.00	74.00	-15.71	Pass
15445.79	27.84	6.50	10.07	44.41	Average Max	H	124.00	16.00	54.00	-9.59	Pass

Restricted Band 802.11n40-M – 5150MHz: EUT with Internal Patch Antennas

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
5150.00	43.33	3.64	0.53	47.49	Peak Max	V	231.00	118.00	74.00	-26.51	Pass
5150.00	43.73	3.64	0.53	47.90	Peak Max	H	147.00	312.00	74.00	-26.10	Pass
5150.00	29.99	3.64	0.53	34.15	Average Max	V	231.00	118.00	54.00	-19.85	Pass
5150.00	29.96	3.64	0.53	34.12	Average Max	H	147.00	312.00	54.00	-19.88	Pass

Above 1GHz-40GHz – 802.11n-40M – 5310MHz: EUT with Internal Patch Antennas

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
7340.98	43.40	4.51	3.34	51.25	Peak Max	V	124.00	222.00	74.00	-22.75	Pass
7340.98	29.76	4.51	3.34	37.61	Average Max	V	124.00	222.00	54.00	-16.39	Pass
12067.06	41.30	5.29	6.50	53.09	Peak Max	V	173.00	61.00	74.00	-20.91	Pass
12067.06	28.28	5.29	6.50	40.08	Average Max	V	173.00	61.00	54.00	-13.92	Pass
15631.20	40.88	6.51	9.05	56.44	Peak Max	V	256.00	352.00	74.00	-17.56	Pass
15631.20	27.91	6.51	9.05	43.47	Average Max	V	256.00	352.00	54.00	-10.53	Pass

Restricted Band 802.11n-40M – 5350MHz: EUT with Internal Patch Antennas

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
5350.00	58.01	3.70	0.75	62.46	Peak Max	V	166.00	142.00	74.00	-11.54	Pass
5350.00	47.91	3.70	0.75	52.36	Peak Max	H	171.00	225.00	74.00	-21.64	Pass
5350.00	43.44	3.70	0.75	47.89	Average Max	V	166.00	142.00	54.00	-6.11	Pass
5350.00	33.52	3.70	0.75	37.96	Average Max	H	171.00	225.00	54.00	-16.04	Pass

Above 1GHz-40GHz – 802.11ac-80M – 5290MHz: EUT with Internal Patch Antennas

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
12483.79	42.60	5.41	6.25	54.26	Peak Max	V	260.00	257.00	74.00	-19.74	Pass
12483.79	28.46	5.41	6.25	40.12	Average Max	V	260.00	257.00	54.00	-13.88	Pass
15512.73	41.36	6.51	10.11	57.97	Peak Max	V	248.00	158.00	74.00	-16.03	Pass
15512.73	27.66	6.51	10.11	44.27	Average Max	V	248.00	158.00	54.00	-9.73	Pass
17944.00	40.09	6.61	14.28	60.98	Peak Max	H	100.00	333.00	74.00	-13.02	Pass
17944.00	26.75	6.61	14.28	47.64	Average Max	H	100.00	333.00	54.00	-6.36	Pass

Restricted Band 802.11ac-80M – 5350MHz: EUT with Internal Patch Antennas

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
5350.00	54.13	3.70	0.76	58.58	Peak Max	V	128.00	307.00	74.00	-15.42	Pass
5350.00	42.34	3.70	0.75	46.79	Peak Max	H	202.00	320.00	74.00	-27.21	Pass
5350.00	38.40	3.70	0.76	42.85	Average Max	V	128.00	307.00	54.00	-11.15	Pass
5350.00	29.11	3.70	0.75	33.57	Average Max	H	202.00	320.00	54.00	-20.43	Pass

Above 1GHz-40GHz – 802.11a – 5500MHz: EUT with Internal Patch Antennas

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
8348.69	41.92	4.23	5.12	51.27	Peak Max	H	236.00	272.00	74.00	-22.73	Pass
8348.69	28.58	4.23	5.12	37.92	Average Max	H	236.00	272.00	54.00	-16.08	Pass
12500.12	41.45	5.41	6.24	53.10	Peak Max	V	232.00	23.00	74.00	-20.9	Pass
12500.12	28.28	5.41	6.24	39.93	Average Max	V	232.00	23.00	54.00	-14.07	Pass
15449.79	40.77	6.50	10.08	57.36	Peak Max	V	271.00	21.00	74.00	-16.64	Pass
15449.79	27.74	6.50	10.08	44.33	Average Max	V	271.00	21.00	54.00	-9.67	Pass

Restricted Band 802.11a – 5460MHz: EUT with Internal Patch Antennas

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
5460.00	46.60	3.73	0.88	51.20	Peak Max	V	165.00	5.00	74.00	-22.80	Pass
5460.00	41.97	3.73	0.88	46.58	Peak Max	H	281.00	281.00	74.00	-27.42	Pass
5460.00	30.03	3.73	0.88	34.64	Average Max	V	165.00	5.00	54.00	-19.36	Pass
5460.00	28.91	3.73	0.88	33.52	Average Max	H	281.00	281.00	54.00	-20.48	Pass

Above 1GHz-40GHz – 802.11a – 5580MHz: EUT with Internal Patch Antennas

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
1010.02	48.35	1.75	-7.17	42.93	Peak Max	V	293.00	124.00	74.00	-31.07	Pass
1010.02	34.74	1.75	-7.17	29.32	Average Max	V	293.00	124.00	54.00	-24.68	Pass
7388.76	43.13	4.49	3.43	51.04	Peak Max	H	202.00	112.00	74.00	-22.96	Pass
7388.76	29.78	4.49	3.43	37.69	Average Max	H	202.00	112.00	54.00	-16.31	Pass
15452.68	41.18	6.50	10.09	57.77	Peak Max	H	143.00	155.00	74.00	-16.23	Pass
15452.68	27.76	6.50	10.09	44.35	Average Max	H	143.00	155.00	54.00	-9.65	Pass

Above 1GHz-40GHz – 802.11a – 5700MHz: EUT with Internal Patch Antennas

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
7512.60	42.61	4.43	3.65	50.69	Peak Max	H	163.00	34.00	74.00	-23.31	Pass
7512.60	29.43	4.43	3.65	37.50	Average Max	H	163.00	34.00	54.00	-16.50	Pass
11937.94	41.29	5.26	6.46	53.00	Peak Max	V	186.00	128.00	74.00	-21.00	Pass
11937.94	28.36	5.26	6.46	40.08	Average Max	V	186.00	128.00	54.00	-13.92	Pass
15422.38	41.73	6.50	10.01	58.24	Peak Max	H	266.00	90.00	74.00	-15.76	Pass
15422.38	28.14	6.50	10.01	44.65	Average Max	H	266.00	90.00	54.00	-9.35	Pass

Above 1GHz-40GHz – 802.11n-20M – 5500MHz: EUT with Internal Patch Antennas

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
7257.83	43.26	4.55	3.19	51.00	Peak Max	H	135.00	255.00	74.00	-23.00	Pass
7257.83	29.77	4.55	3.19	37.52	Average Max	H	135.00	255.00	54.00	-16.48	Pass
12369.36	41.79	5.37	6.32	53.48	Peak Max	V	177.00	263.00	74.00	-20.52	Pass
12369.36	28.60	5.37	6.32	40.30	Average Max	V	177.00	263.00	54.00	-13.70	Pass

Restricted Band 802.11n-20M – 5460MHz: EUT with Internal Patch Antennas

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
5460.00	50.87	3.73	0.88	55.48	Peak Max	V	124.00	254.00	74.00	-18.52	Pass
5460.00	42.48	3.73	0.88	47.09	Peak Max	H	205.00	333.00	74.00	-26.91	Pass
5460.00	32.97	3.73	0.88	37.58	Average Max	V	124.00	254.00	54.00	-16.42	Pass
5460.00	29.09	3.73	0.88	33.69	Average Max	H	205.00	333.00	54.00	-20.31	Pass

Above 1GHz-40GHz – 802.11n-20M – 5580MHz: EUT with Internal Patch Antennas

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
8347.47	42.30	4.23	5.12	51.65	Peak Max	H	189.00	295.00	74.00	-22.35	Pass
8347.47	28.65	4.23	5.12	37.99	Average Max	H	189.00	295.00	54.00	-16.01	Pass
12482.29	41.96	5.41	6.25	53.62	Peak Max	V	164.00	61.00	74.00	-20.38	Pass
12482.29	28.55	5.41	6.25	40.20	Average Max	V	164.00	61.00	54.00	-13.80	Pass
15425.99	41.33	6.50	10.02	57.85	Peak Max	V	227.00	123.00	74.00	-16.15	Pass
15425.99	28.21	6.50	10.02	44.73	Average Max	V	227.00	123.00	54.00	-9.27	Pass

Above 1GHz-40GHz – 802.11n-20M – 5700MHz: EUT with Internal Patch Antennas

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
7577.72	43.11	4.39	3.76	51.27	Peak Max	H	196.00	49.00	74.00	-22.73	Pass
7577.72	29.28	4.39	3.76	37.43	Average Max	H	196.00	49.00	54.00	-16.57	Pass
12664.24	41.71	5.49	6.64	53.83	Peak Max	H	254.00	0.00	74.00	-20.17	Pass
12664.24	28.39	5.49	6.64	40.51	Average Max	H	254.00	0.00	54.00	-13.49	Pass

Above 1GHz-40GHz – 802.11n-40M – 5510MHz: EUT with Internal Patch Antennas

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
8284.38	42.29	4.22	5.00	51.51	Peak Max	V	216.00	20.00	74.00	-22.49	Pass
8284.38	28.79	4.22	5.00	38.01	Average Max	V	216.00	20.00	54.00	-15.99	Pass
11939.18	41.96	5.26	6.46	53.67	Peak Max	H	102.00	54.00	74.00	-20.33	Pass
11939.18	28.39	5.26	6.46	40.11	Average Max	H	102.00	54.00	54.00	-13.89	Pass

Restricted Band 802.11n-40M – 5460MHz: EUT with Internal Patch Antennas

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
5460.00	42.35	3.73	0.88	46.96	Peak Max	V	258.00	270.00	74.00	-27.04	Pass
5460.00	42.98	3.73	0.88	47.59	Peak Max	H	220.00	58.00	74.00	-26.41	Pass
5460.00	29.05	3.73	0.88	33.66	Average Max	V	258.00	270.00	54.00	-20.34	Pass
5460.00	28.90	3.73	0.88	33.50	Average Max	H	220.00	58.00	54.00	-20.50	Pass

Above 1GHz-40GHz – 802.11n-40M – 5550MHz: EUT with Internal Patch Antennas

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
7467.23	43.39	4.45	3.57	51.41	Peak Max	V	278.00	139.00	74.00	-22.59	Pass
7467.23	29.38	4.45	3.57	37.40	Average Max	V	278.00	139.00	54.00	-16.60	Pass
8381.15	41.65	4.23	5.18	51.07	Peak Max	H	225.00	94.00	74.00	-22.93	Pass
8381.15	28.33	4.23	5.18	37.75	Average Max	H	225.00	94.00	54.00	-16.25	Pass
11907.91	41.57	5.25	6.41	53.23	Peak Max	V	172.00	347.00	74.00	-20.77	Pass
11907.91	28.39	5.25	6.41	40.04	Average Max	V	172.00	347.00	54.00	-13.96	Pass

Above 1GHz-40GHz – 802.11n-40M – 5670MHz: EUT with Internal Patch Antennas

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
7402.60	43.00	4.48	3.46	50.93	Peak Max	V	202.00	44.00	74.00	-23.07	Pass
7402.60	29.73	4.48	3.46	37.66	Average Max	V	202.00	44.00	54.00	-16.34	Pass
11696.95	41.41	5.19	6.11	52.71	Peak Max	H	161.00	319.00	74.00	-21.29	Pass
11696.95	28.06	5.19	6.11	39.36	Average Max	H	161.00	319.00	54.00	-14.64	Pass

Above 1GHz-40GHz – 802.11ac-80M – 5530MHz: EUT with Internal Patch Antennas

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
8219.97	42.40	4.22	4.87	51.49	Peak Max	V	158.00	108.00	74.00	-22.51	Pass
8219.97	28.72	4.22	4.87	37.81	Average Max	V	158.00	108.00	54.00	-16.19	Pass
11841.23	41.30	5.23	6.32	52.84	Peak Max	H	295.00	55.00	74.00	-21.16	Pass
11841.23	28.07	5.23	6.32	39.62	Average Max	H	295.00	55.00	54.00	-14.38	Pass
15481.67	41.14	6.50	10.17	57.81	Peak Max	V	123.00	88.00	74.00	-16.19	Pass
15481.67	27.87	6.50	10.17	44.54	Average Max	V	123.00	88.00	54.00	-9.46	Pass

Restricted Band 802.11ac-80M – 5460MHz: EUT with Internal Patch Antennas

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
5460.00	41.97	3.73	0.87	46.57	Peak Max	V	115.00	186.00	74.00	-21.73	Pass
5460.00	43.79	3.73	0.88	48.39	Peak Max	H	162.00	360.00	74.00	-19.91	Pass
5460.00	28.98	3.73	0.87	33.59	Average Max	V	115.00	186.00	54.00	-20.41	Pass
5460.00	29.53	3.73	0.88	34.14	Average Max	H	162.00	360.00	54.00	-19.86	Pass

Above 1GHz-40GHz – 802.11a – 5260MHz: EUT with External Dipole Antennas

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
1003.64	47.63	1.74	-7.18	42.19	Peak Max	H	263.00	46.00	74.00	-31.81	Pass
1003.64	34.48	1.74	-7.18	29.04	Average Max	H	263.00	46.00	54.00	-24.96	Pass
11713.33	41.15	5.19	6.14	52.47	Peak Max	H	178.00	56.00	74.00	-21.53	Pass
11713.33	27.89	5.19	6.14	39.22	Average Max	H	178.00	56.00	54.00	-14.78	Pass
14470.43	42.41	6.28	10.91	59.60	Peak Max	V	176.00	126.00	74.00	-14.40	Pass
14470.43	28.83	6.28	10.91	46.02	Average Max	V	176.00	126.00	54.00	-7.98	Pass

Restricted Band 802.11a – 5150MHz: EUT with External Dipole Antennas

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
5150.00	42.93	3.64	0.53	47.09	Peak Max	V	229.00	348.00	74.00	-26.91	Pass
5150.00	43.33	3.64	0.53	47.49	Peak Max	H	197.00	151.00	74.00	-26.51	Pass
5150.00	29.74	3.64	0.53	33.90	Average Max	V	229.00	348.00	54.00	-20.10	Pass
5150.00	29.79	3.64	0.53	33.95	Average Max	H	197.00	151.00	54.00	-20.05	Pass

Above 1GHz-40GHz – 802.11a – 5280MHz: EUT with External Dipole Antennas

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
1002.87	47.88	1.74	-7.18	42.44	Peak Max	H	100.00	302.00	74.00	-31.56	Pass
1002.87	34.45	1.74	-7.18	29.01	Average Max	H	100.00	302.00	54.00	-24.99	Pass
11938.07	41.83	5.26	6.46	53.54	Peak Max	V	143.00	80.00	74.00	-20.46	Pass
11938.07	28.38	5.26	6.46	40.09	Average Max	V	143.00	80.00	54.00	-13.91	Pass

Above 1GHz-40GHz – 802.11a – 5320MHz: EUT with External Dipole Antennas

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
1008.87	47.23	1.75	-7.17	41.81	Peak Max	H	100.00	80.00	74.00	-32.19	Pass
1008.87	34.39	1.75	-7.17	28.97	Average Max	H	100.00	80.00	54.00	-25.03	Pass
11135.94	41.52	5.02	5.59	52.13	Peak Max	V	140.00	146.00	74.00	-21.87	Pass
11135.94	28.38	5.02	5.59	38.99	Average Max	V	140.00	146.00	54.00	-15.01	Pass
15582.22	41.29	6.51	9.49	57.29	Peak Max	V	122.00	28.00	74.00	-16.71	Pass
15582.22	27.92	6.51	9.49	43.91	Average Max	V	122.00	28.00	54.00	-10.09	Pass

Restricted Band 802.11a – 5350MHz: EUT with External Dipole Antennas

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
5350.00	42.46	3.70	0.75	46.91	Peak Max	V	117.00	27.00	74.00	-27.09	Pass
5350.00	42.59	3.70	0.75	47.04	Peak Max	H	192.00	267.00	74.00	-26.96	Pass
5350.00	29.06	3.70	0.75	33.51	Average Max	V	117.00	27.00	54.00	-20.49	Pass
5350.00	29.26	3.70	0.75	33.71	Average Max	H	192.00	267.00	54.00	-20.29	Pass

Above 1GHz-40GHz – 802.11n-20M – 5260MHz: EUT with External Dipole Antennas

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
1045.25	46.76	1.78	-7.09	41.45	Peak Max	H	287.00	202.00	74.00	-32.55	Pass
1045.25	33.48	1.78	-7.09	28.18	Average Max	H	287.00	202.00	54.00	-25.82	Pass
11570.27	41.42	5.15	5.93	52.50	Peak Max	V	174.00	103.00	74.00	-21.50	Pass
11570.27	28.38	5.15	5.93	39.46	Average Max	V	174.00	103.00	54.00	-14.54	Pass
15421.91	41.33	6.50	10.01	57.84	Peak Max	V	102.00	221.00	74.00	-16.16	Pass
15421.91	28.13	6.50	10.01	44.64	Average Max	V	102.00	221.00	54.00	-9.36	Pass

Restricted Band 802.11n20-M – 5150MHz: EUT with External Dipole Antennas

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
5150.00	43.20	3.64	0.53	47.36	Peak Max	V	195.00	118.00	74.00	-26.64	Pass
5150.00	43.60	3.64	0.53	47.77	Peak Max	H	143.00	52.00	74.00	-26.23	Pass
5150.00	29.84	3.64	0.53	34.01	Average Max	V	195.00	118.00	54.00	-19.99	Pass
5150.00	29.85	3.64	0.53	34.01	Average Max	H	143.00	52.00	54.00	-19.99	Pass

Above 1GHz-40GHz – 802.11n-20M – 5280MHz: EUT with External Dipole Antennas

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
13310.89	42.82	5.78	8.13	56.74	Peak Max	V	157.00	234.00	74.00	-17.26	Pass
13310.89	29.53	5.78	8.13	43.44	Average Max	V	157.00	234.00	54.00	-10.56	Pass
15512.46	40.82	6.51	10.11	57.43	Peak Max	V	198.00	229.00	74.00	-16.57	Pass
15512.46	27.61	6.51	10.11	44.23	Average Max	V	198.00	229.00	54.00	-9.77	Pass

Above 1GHz-40GHz – 802.11n-20M – 5320MHz: EUT with External Dipole Antennas

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
1042.80	46.90	1.78	-7.10	41.59	Peak Max	V	135.00	44.00	74.00	-32.41	Pass
1042.80	33.58	1.78	-7.10	28.26	Average Max	V	135.00	44.00	54.00	-25.74	Pass
12643.53	41.84	5.48	6.59	53.90	Peak Max	V	269.00	97.00	74.00	-20.10	Pass
12643.53	28.28	5.48	6.59	40.35	Average Max	V	269.00	97.00	54.00	-13.65	Pass

Restricted Band 802.11n-20M – 5350MHz: EUT with External Dipole Antennas

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
5350.00	41.95	3.70	0.75	46.41	Peak Max	V	257.00	355.00	74.00	-27.59	Pass
5350.00	48.29	3.70	0.76	52.74	Peak Max	H	143.00	297.00	74.00	-21.26	Pass
5350.00	28.92	3.70	0.75	33.37	Average Max	V	257.00	355.00	54.00	-20.63	Pass
5350.00	33.32	3.70	0.76	37.77	Average Max	H	143.00	297.00	54.00	-16.23	Pass

Above 1GHz-40GHz – 802.11n-40M – 5270MHz: EUT with External Dipole Antennas

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
1024.92	47.27	1.76	-7.13	41.90	Peak Max	V	282.00	275.00	74.00	-32.10	Pass
1024.92	34.07	1.76	-7.13	28.70	Average Max	V	282.00	275.00	54.00	-25.30	Pass
9484.30	41.07	4.46	6.55	52.08	Peak Max	H	297.00	68.00	74.00	-21.92	Pass
9484.30	28.02	4.46	6.55	39.04	Average Max	H	297.00	68.00	54.00	-14.96	Pass
15515.63	40.58	6.51	10.08	57.16	Peak Max	V	287.00	103.00	74.00	-16.84	Pass
15515.63	27.65	6.51	10.08	44.23	Average Max	V	287.00	103.00	54.00	-9.77	Pass

Restricted Band 802.11n40-M – 5150MHz: EUT with External Dipole Antennas

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
5150.00	43.20	3.64	0.53	47.36	Peak Max	V	126.00	128.00	74.00	-26.64	Pass
5150.00	43.87	3.64	0.53	48.03	Peak Max	H	111.00	305.00	74.00	-25.97	Pass
5150.00	29.84	3.64	0.53	34.00	Average Max	V	126.00	128.00	54.00	-20.00	Pass
5150.00	29.82	3.64	0.53	33.99	Average Max	H	111.00	305.00	54.00	-20.01	Pass

Above 1GHz-40GHz – 802.11n-40M – 5310MHz: EUT with External Dipole Antennas

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
1014.87	48.20	1.75	-7.16	42.80	Peak Max	H	100.00	330.00	74.00	-31.20	Pass
1014.87	34.30	1.75	-7.16	28.90	Average Max	H	100.00	330.00	54.00	-25.10	Pass
13380.65	42.43	5.81	8.29	56.53	Peak Max	V	226.00	1.00	74.00	-17.47	Pass
13380.65	29.23	5.81	8.29	43.33	Average Max	V	226.00	1.00	54.00	-10.67	Pass
15486.87	41.40	6.50	10.18	58.09	Peak Max	H	117.00	231.00	74.00	-15.91	Pass
15486.87	27.69	6.50	10.18	44.38	Average Max	H	117.00	231.00	54.00	-9.62	Pass

Restricted Band 802.11n-40M – 5350MHz: EUT with External Dipole Antennas

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
5350.00	47.56	3.70	0.75	52.01	Peak Max	V	101.00	303.00	74.00	-21.99	Pass
5350.00	51.95	3.70	0.76	56.40	Peak Max	H	129.00	174.00	74.00	-17.60	Pass
5350.00	33.55	3.70	0.75	38.00	Average Max	V	101.00	303.00	54.00	-16.00	Pass
5350.00	37.10	3.70	0.76	41.56	Average Max	H	129.00	174.00	54.00	-12.44	Pass

Above 1GHz-40GHz – 802.11ac-80M – 5290MHz: EUT with External Dipole Antennas

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
12339.75	42.43	5.37	6.34	54.14	Peak Max	H	293.00	336.00	74.00	-19.86	Pass
12339.75	28.52	5.37	6.34	40.22	Average Max	H	293.00	336.00	54.00	-13.78	Pass
15410.14	41.47	6.50	9.97	57.95	Peak Max	V	218.00	1.00	74.00	-16.05	Pass
15410.14	28.13	6.50	9.97	44.60	Average Max	V	218.00	1.00	54.00	-9.40	Pass

Restricted Band 802.11ac-80M – 5350MHz: EUT with External Dipole Antennas

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
5350.00	44.87	3.70	0.76	49.33	Peak Max	V	158.00	185.00	74.00	-24.67	Pass
5350.00	47.44	3.70	0.76	51.90	Peak Max	H	166.00	120.00	74.00	-22.10	Pass
5350.00	30.85	3.70	0.76	35.31	Average Max	V	158.00	185.00	54.00	-18.69	Pass
5350.00	32.39	3.70	0.76	36.85	Average Max	H	166.00	120.00	54.00	-17.15	Pass

Above 1GHz-40GHz – 802.11a – 5500MHz: EUT with External Dipole Antennas

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
1022.52	47.15	1.76	-7.14	41.78	Peak Max	H	274.00	212.00	74.00	-32.22	Pass
1022.52	33.90	1.76	-7.14	28.52	Average Max	H	274.00	212.00	54.00	-25.48	Pass
9196.16	41.43	4.35	6.04	51.82	Peak Max	H	267.00	305.00	74.00	-22.18	Pass
9196.16	27.50	4.35	6.04	37.89	Average Max	H	267.00	305.00	54.00	-16.11	Pass
15410.28	41.47	6.50	9.97	57.95	Peak Max	V	251.00	197.00	74.00	-16.05	Pass
15410.28	28.13	6.50	9.97	44.60	Average Max	V	251.00	197.00	54.00	-9.40	Pass

Restricted Band 802.11a – 5460MHz: EUT with External Dipole Antennas

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
5460.00	45.42	3.73	0.88	50.03	Peak Max	V	297.00	77.00	74.00	-23.97	Pass
5460.00	47.22	3.73	0.87	51.83	Peak Max	H	111.00	120.00	74.00	-22.17	Pass
5460.00	30.48	3.73	0.88	35.09	Average Max	V	297.00	77.00	54.00	-18.91	Pass
5460.00	30.71	3.73	0.87	35.32	Average Max	H	111.00	120.00	54.00	-18.68	Pass

Above 1GHz-40GHz – 802.11a – 5580MHz: EUT with External Dipole Antennas

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
12339.45	41.79	5.37	6.34	53.50	Peak Max	V	147.00	33.00	74.00	-20.50	Pass
12339.45	28.49	5.37	6.34	40.19	Average Max	V	147.00	33.00	54.00	-13.81	Pass
13319.13	43.08	5.79	8.15	57.01	Peak Max	V	298.00	236.00	74.00	-16.99	Pass
13319.13	29.55	5.79	8.15	43.49	Average Max	V	298.00	236.00	54.00	-10.51	Pass
15438.75	41.59	6.50	10.05	58.14	Peak Max	H	120.00	222.00	74.00	-15.86	Pass
15438.75	27.92	6.50	10.05	44.48	Average Max	H	120.00	222.00	54.00	-9.52	Pass

Above 1GHz-40GHz – 802.11a – 5700MHz: EUT with External Dipole Antennas

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
11921.77	41.30	5.25	6.43	52.98	Peak Max	H	221.00	339.00	74.00	-21.02	Pass
11921.77	28.31	5.25	6.43	39.99	Average Max	H	221.00	339.00	54.00	-14.01	Pass
13268.20	42.83	5.76	8.04	56.63	Peak Max	V	172.00	154.00	74.00	-17.37	Pass
13268.20	29.56	5.76	8.04	43.36	Average Max	V	172.00	154.00	54.00	-10.64	Pass

Above 1GHz-40GHz – 802.11n-20M – 5500MHz: EUT with External Dipole Antennas

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
12564.71	40.90	5.44	6.40	52.74	Peak Max	H	121.00	258.00	74.00	-21.26	Pass
12564.71	27.78	5.44	6.40	39.62	Average Max	H	121.00	258.00	54.00	-14.38	Pass
15518.03	41.14	6.51	10.06	57.70	Peak Max	V	132.00	30.00	74.00	-16.30	Pass
15518.03	27.71	6.51	10.06	44.28	Average Max	V	132.00	30.00	54.00	-9.72	Pass

Restricted Band 802.11n-20M – 5460MHz: EUT with External Dipole Antennas

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
5460.00	43.38	3.73	0.88	47.99	Peak Max	V	232.00	168.00	74.00	-26.01	Pass
5460.00	43.11	3.73	0.87	47.72	Peak Max	H	251.00	160.00	74.00	-26.28	Pass
5460.00	29.27	3.73	0.88	33.88	Average Max	V	232.00	168.00	54.00	-20.12	Pass
5460.00	29.39	3.73	0.87	34.00	Average Max	H	251.00	160.00	54.00	-20.00	Pass

Above 1GHz-40GHz – 802.11n-20M – 5580MHz: EUT with External Dipole Antennas

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
11665.72	41.41	5.18	6.07	52.66	Peak Max	V	142.00	1.00	74.00	-21.34	Pass
11665.72	28.37	5.18	6.07	39.61	Average Max	V	142.00	1.00	54.00	-14.39	Pass
15457.66	41.30	6.50	10.10	57.91	Peak Max	H	232.00	150.00	74.00	-16.09	Pass
15457.66	27.75	6.50	10.10	44.36	Average Max	H	232.00	150.00	54.00	-9.64	Pass

Above 1GHz-40GHz – 802.11n-20M – 5700MHz: EUT with External Dipole Antennas

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
8305.51	42.29	4.22	5.04	51.56	Peak Max	V	268.00	170.00	74.00	-22.44	Pass
8305.51	28.72	4.22	5.04	37.98	Average Max	V	268.00	170.00	54.00	-16.02	Pass
11956.08	41.42	5.26	6.48	53.16	Peak Max	H	268.00	128.00	74.00	-20.84	Pass
11956.08	28.27	5.26	6.48	40.01	Average Max	H	268.00	128.00	54.00	-13.99	Pass

Above 1GHz-40GHz – 802.11n-40M – 5510MHz: EUT with External Dipole Antennas

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
9426.08	41.09	4.44	6.45	51.99	Peak Max	H	115.00	179.00	74.00	-22.01	Pass
9426.08	27.94	4.44	6.45	38.83	Average Max	H	115.00	179.00	54.00	-15.17	Pass
13270.63	42.70	5.76	8.04	56.51	Peak Max	H	154.00	340.00	74.00	-17.49	Pass
13270.63	29.55	5.76	8.04	43.36	Average Max	H	154.00	340.00	54.00	-10.64	Pass

Restricted Band 802.11n-40M – 5460MHz: EUT with External Dipole Antennas

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
5460.00	42.86	3.73	0.88	47.47	Peak Max	V	0.00	0.00	74.00	-26.53	Pass
5460.00	42.61	3.73	0.88	47.21	Peak Max	H	234.00	126.00	74.00	-26.79	Pass
5460.00	29.58	3.73	0.88	34.19	Average Max	V	0.00	0.00	54.00	-19.81	Pass
5460.00	29.15	3.73	0.88	33.75	Average Max	H	234.00	126.00	54.00	-20.25	Pass

Above 1GHz-40GHz – 802.11n-40M – 5550MHz: EUT with External Dipole Antennas

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
13382.43	42.43	5.81	8.29	56.54	Peak Max	V	176.00	302.00	74.00	-17.46	Pass
13382.43	29.21	5.81	8.29	43.31	Average Max	V	176.00	302.00	54.00	-10.69	Pass
15404.79	41.74	6.50	9.96	58.20	Peak Max	H	173.00	40.00	74.00	-15.80	Pass
15404.79	28.13	6.50	9.96	44.59	Average Max	H	173.00	40.00	54.00	-9.41	Pass

Above 1GHz-40GHz – 802.11n-40M – 5670MHz: EUT with External Dipole Antennas

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
12387.65	41.52	5.38	6.31	53.21	Peak Max	V	123.00	13.00	74.00	-20.79	Pass
12387.65	28.39	5.38	6.31	40.08	Average Max	V	123.00	13.00	54.00	-13.92	Pass
13336.10	42.57	5.79	8.19	56.55	Peak Max	V	148.00	235.00	74.00	-17.45	Pass
13336.10	29.41	5.79	8.19	43.40	Average Max	V	148.00	235.00	54.00	-10.60	Pass

Above 1GHz-40GHz – 802.11ac-80M – 5530MHz: EUT with External Dipole Antennas

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
12082.79	42.10	5.30	6.49	53.89	Peak Max	V	220.00	318.00	74.00	-20.11	Pass
12082.79	28.24	5.30	6.49	40.03	Average Max	V	220.00	318.00	54.00	-13.97	Pass
15477.48	41.15	6.50	10.16	57.81	Peak Max	V	202.00	34.00	74.00	-16.19	Pass
15477.48	27.88	6.50	10.16	44.54	Average Max	V	202.00	34.00	54.00	-9.46	Pass

Restricted Band 802.11ac-80M – 5460MHz: EUT with External Dipole Antennas

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
5460.00	43.52	3.73	0.88	48.13	Peak Max	V	195.00	344.00	74.00	-25.87	Pass
5460.00	48.56	3.73	0.88	53.17	Peak Max	H	130.00	89.00	74.00	-20.83	Pass
5460.00	29.41	3.73	0.88	34.02	Average Max	V	195.00	344.00	54.00	-19.98	Pass
5460.00	33.73	3.73	0.88	38.34	Average Max	H	130.00	89.00	54.00	-15.66	Pass

Annex A. TEST INSTRUMENT

Instrument	Model	Serial #	Cal Date	Cal Cycle	Cal Due	In use
Conducted Emissions						
R & S Receiver	ESIB 40	100179	04/20/2014	1 Year	04/20/2015	☑
R&S LISN	ESH2-Z5	861741/013	05/18/2014	1 Year	05/18/2015	☑
CHASE LISN	MN2050B	1018	07/24/2014	1 Year	07/24/2015	☑
Sekonic Hygro Hermograph	ST-50	HE01-000092	05/25/2014	1 Year	05/25/2015	☑
Radiated Emissions						
R & S Receiver	ESL6	100178	03/01/2014	1 Year	03/01/2015	☑
R & S Receiver	ESIB 40	100179	04/20/2014	1 Year	04/20/2015	☑
ETS-Lingren Loop Antenna	6512	00049120	05/13/2014	1 Year	05/13/2015	☐
Bi-Log antenna (30MHz~2GHz)	JB1	A030702	07/03/2014	1 Year	07/03/2015	☑
Horn Antenna (1-26.5GHz)	3115	10SL0059	04/26/2014	1 Year	04/26/2015	☑
Horn Antenna (18-40 GHz)	AH-840	101013	04/23/2014	1 Year	04/23/2015	☑
Pre-Amplifier (1-26.5GHz)	8449B	3008A00715	05/30/2014	1 Year	05/30/2015	☑
Microwave Preamplifier (18-40 GHz)	PA-840	181251	05/30/2014	1 Year	05/30/2015	☑
3 Meters SAC	3M	N/A	10/13/2014	1 Year	10/13/2015	☑
10 Meters SAC	10M	N/A	06/05/2014	1 Year	06/05/2015	☑
Sekonic Hygro Hermograph	ST-50	HE01-000092	05/25/2014	1 Year	05/25/2015	☑
RF Conducted Measurement						
Spectrum Analyzer	N9010A	MY50210206	05/30/2014	1 Year	05/30/2015	☑
Spectrum Analyzer	E4407B	US88441016	05/31/2014	1 Year	05/31/2015	☐
R & S Receiver	ESIB 40	100179	04/20/2014	1 Year	04/20/2015	☐

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