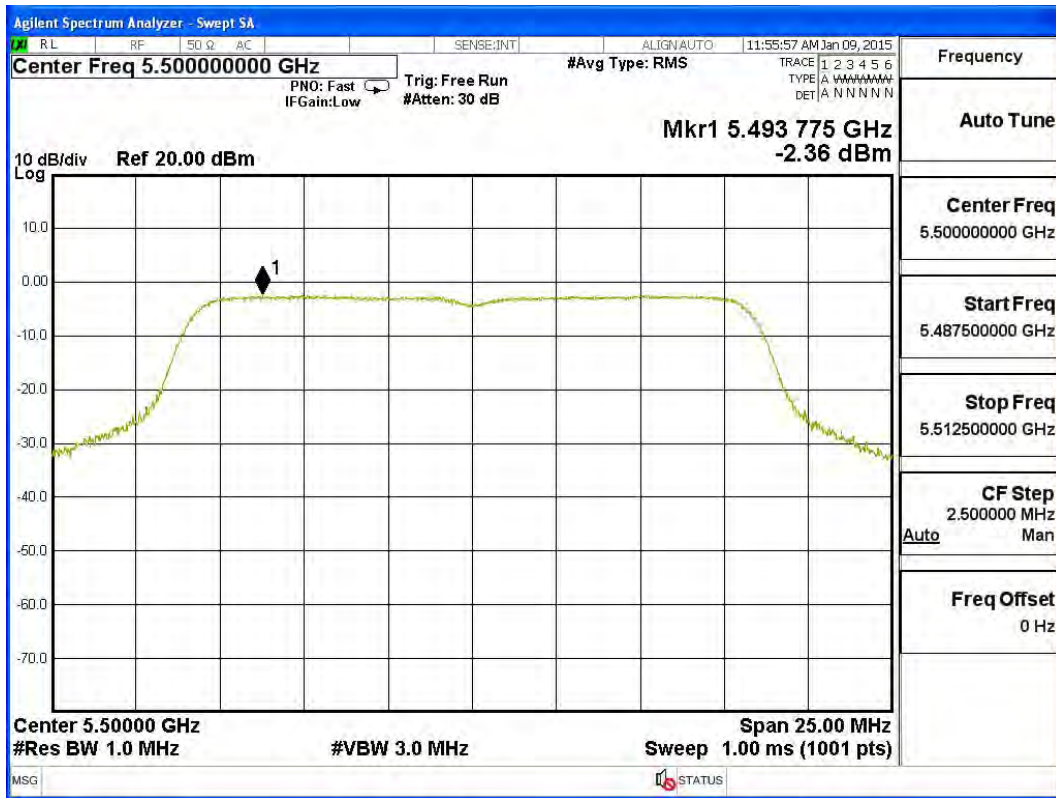
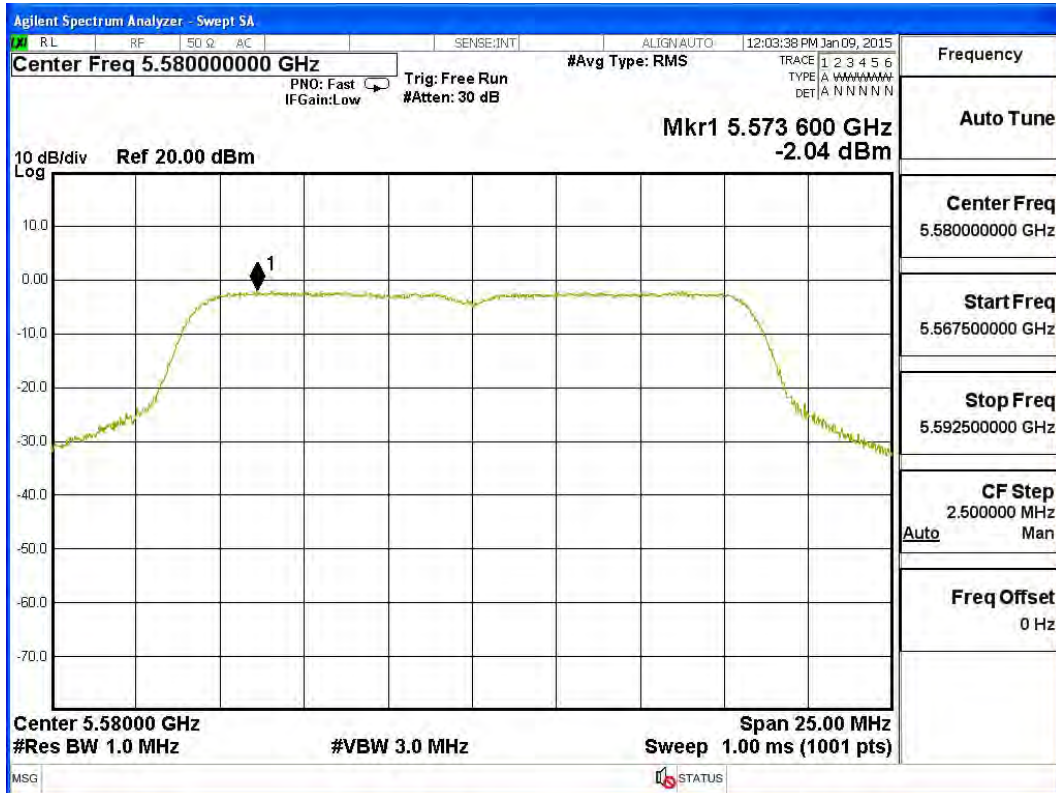


Channel 100:



Channel 116:



Channel 140:

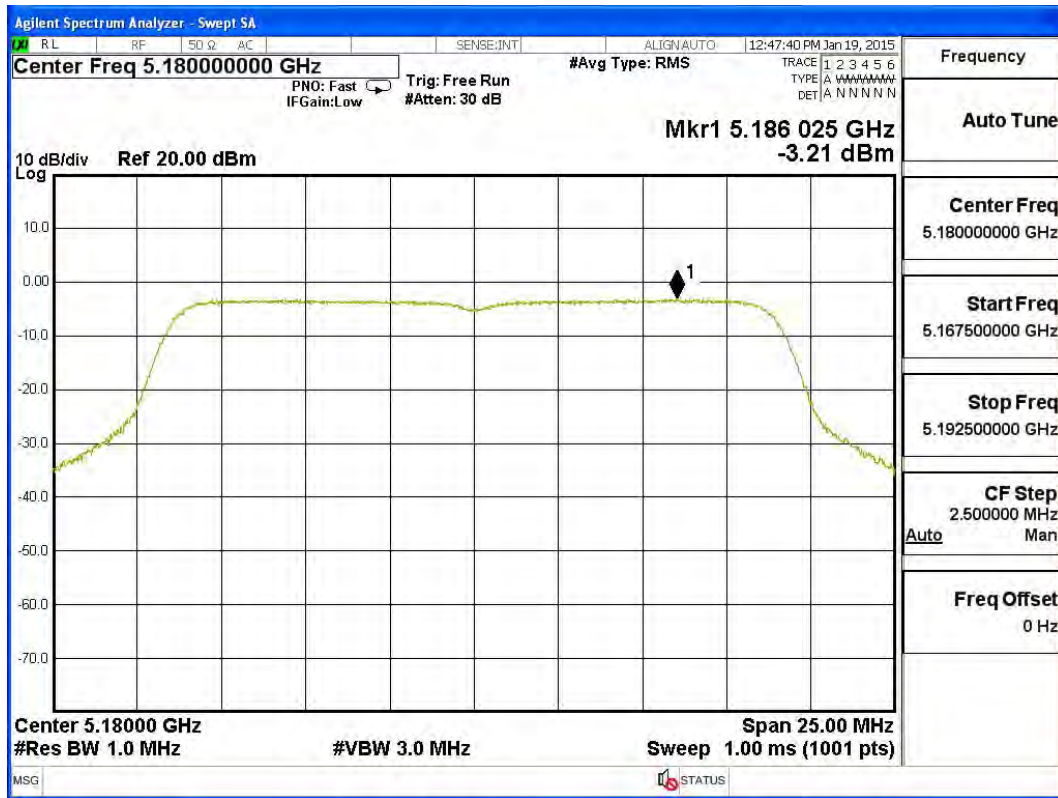


Product : Wireless Access Point
 Test Item : Peak Power Spectral Density
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (Internal Antenna)

Channel Number	Frequency (MHz)	Chain	Reading PPSD/MHz (dBm)	Cable Loss (dB)	Measurement PPSD/MHz (dBm)	Total PPSD/MHz (dBm)	Required Limit (dBm)	Result
36	5180	A	-3.21	1.2	-2.01	1.00	4	Pass
		B	-5.16	1.2	-3.96	-0.95	4	Pass
44	5220	A	-4.35	1.2	-3.15	-0.14	4	Pass
		B	-4.77	1.2	-3.57	-0.56	4	Pass
48	5240	A	-4.71	1.2	-3.51	-0.50	4	Pass
		B	-5.00	1.2	-3.80	-0.79	4	Pass
52	5260	A	-4.98	1.2	-3.78	-0.77	11	Pass
		B	-4.93	1.2	-3.73	-0.72	11	Pass
60	5300	A	-4.94	1.2	-3.74	-0.73	11	Pass
		B	-4.71	1.2	-3.51	-0.50	11	Pass
64	5320	A	-4.76	1.2	-3.56	-0.55	11	Pass
		B	-4.74	1.2	-3.54	-0.53	11	Pass
100	5500	A	-2.46	1.5	-0.96	2.05	11	Pass
		B	-1.85	1.5	-0.35	2.66	11	Pass
116	5580	A	-1.08	1.5	0.42	3.43	11	Pass
		B	-1.37	1.5	0.13	3.14	11	Pass
140	5700	A	-2.99	1.5	-1.49	1.52	11	Pass
		B	-2.99	1.5	-1.49	1.52	11	Pass

Note 1: The quantity $10 \cdot \log 2$ (two antennas) is added to the spectrum peak value according to document 662911 D01.

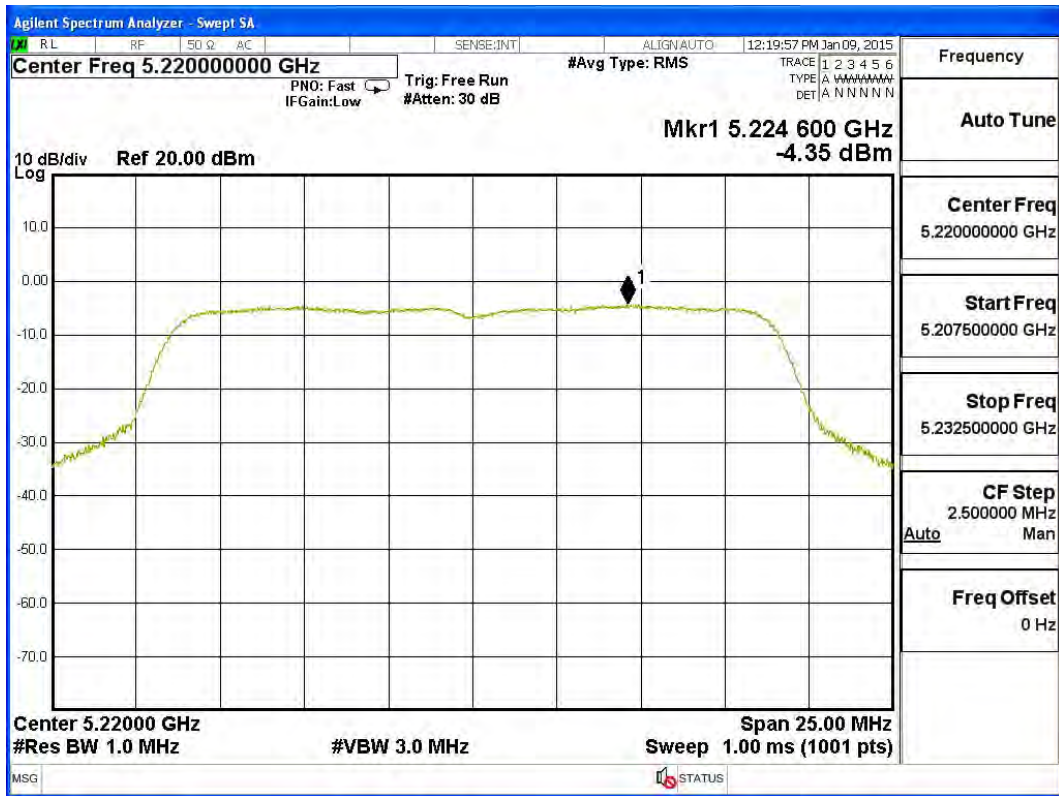
Channel 36 – Chain A



Channel 36 – Chain B



Channel 44 – Chain A



Channel 44 – Chain B



Channel 48 – Chain A



Channel 48 – Chain B



Channel 52 – Chain A



Channel 52 – Chain B



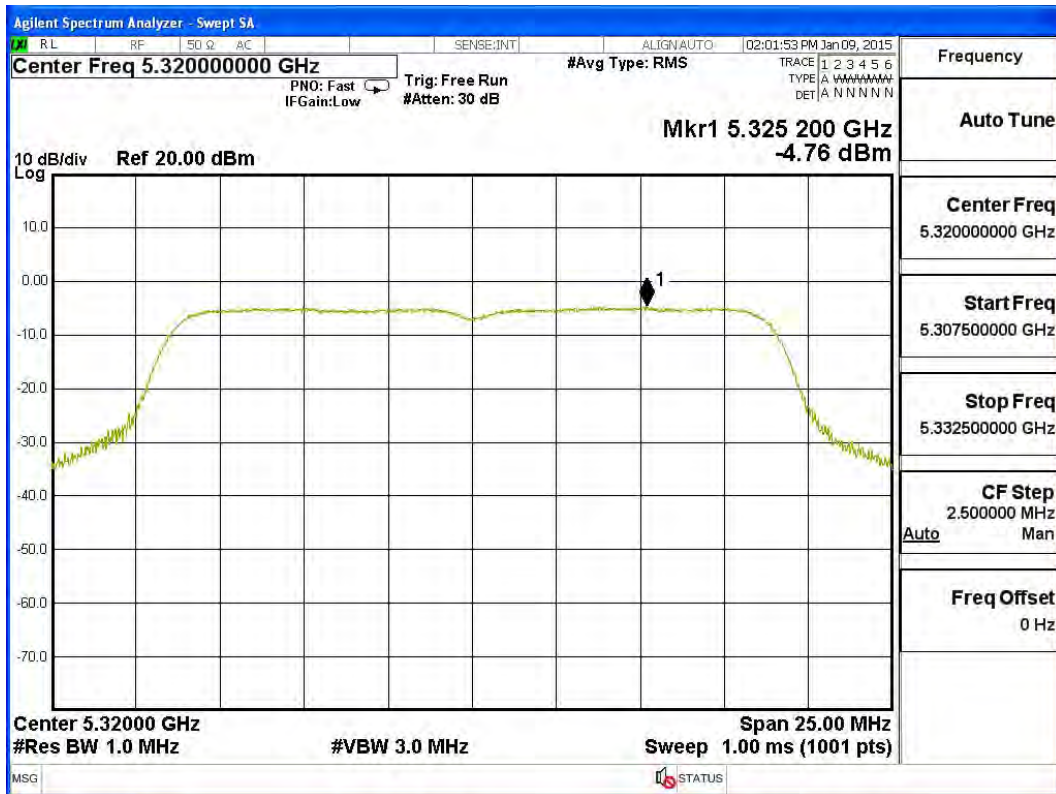
Channel 60 – Chain A



Channel 60 – Chain B



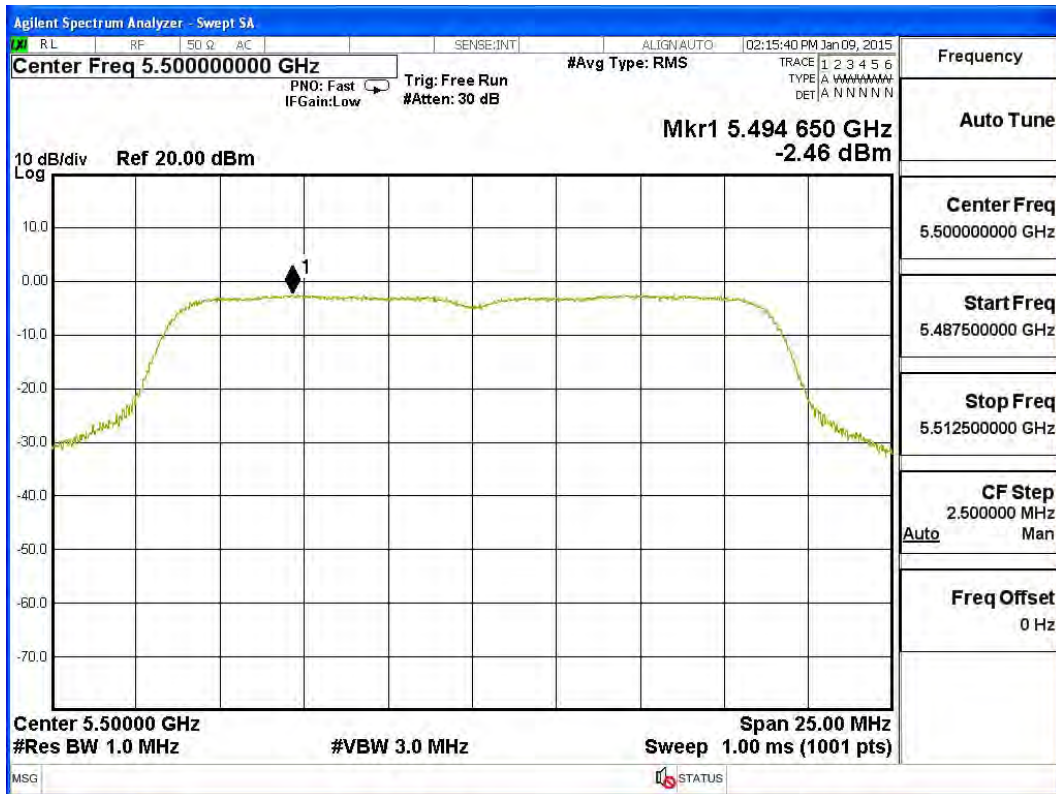
Channel 64 – Chain A



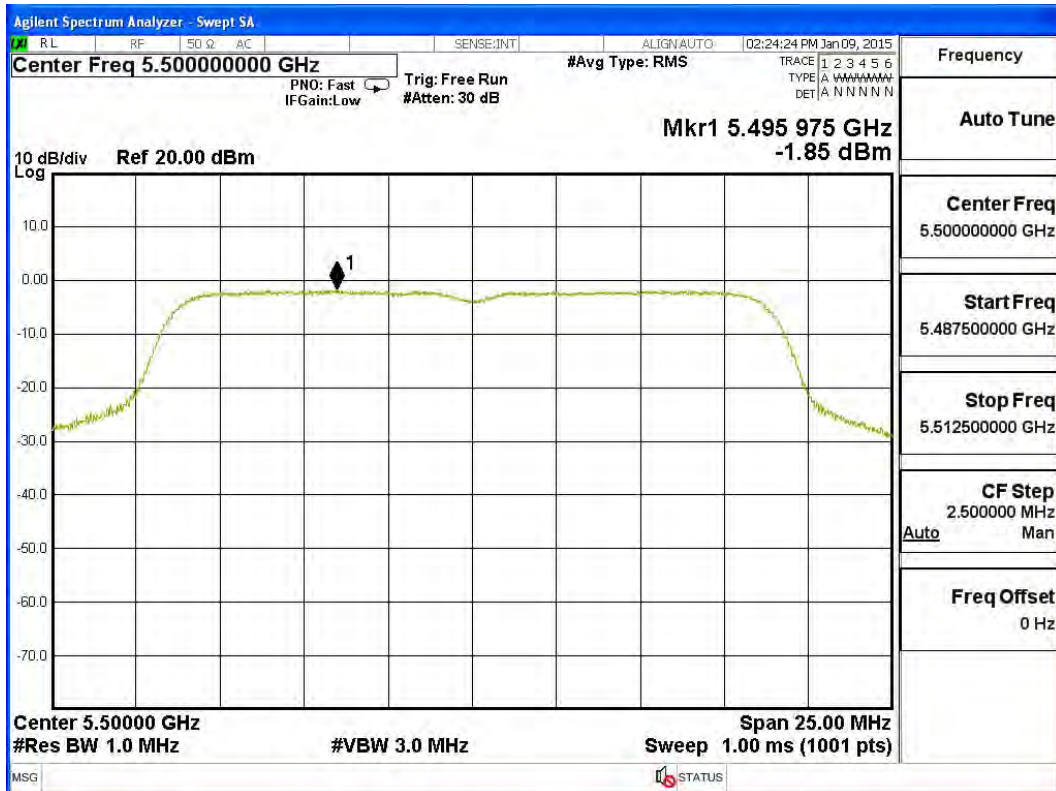
Channel 64 – Chain B



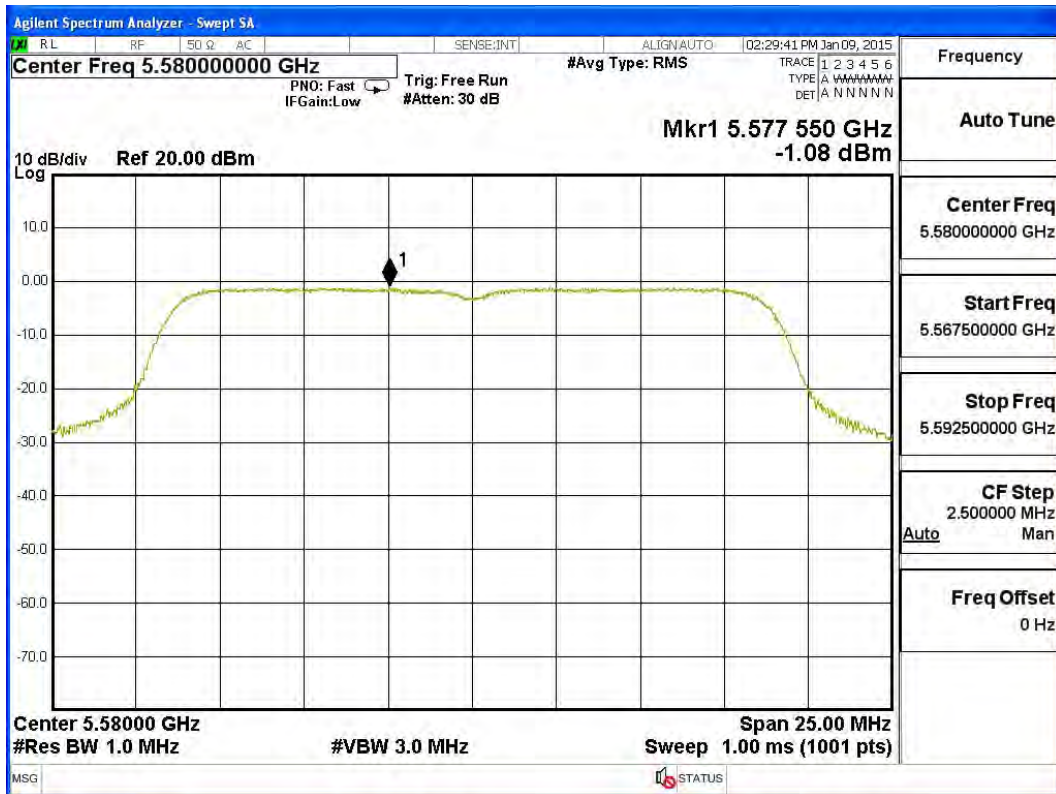
Channel 100 – Chain A



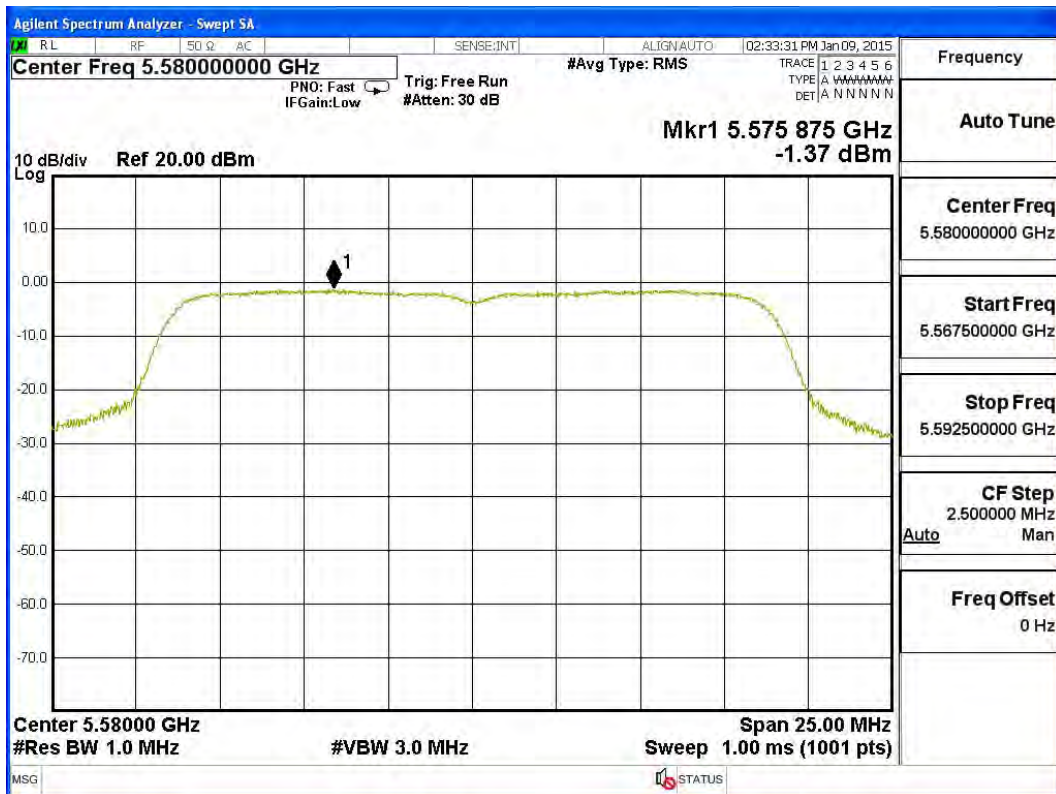
Channel 100 – Chain B



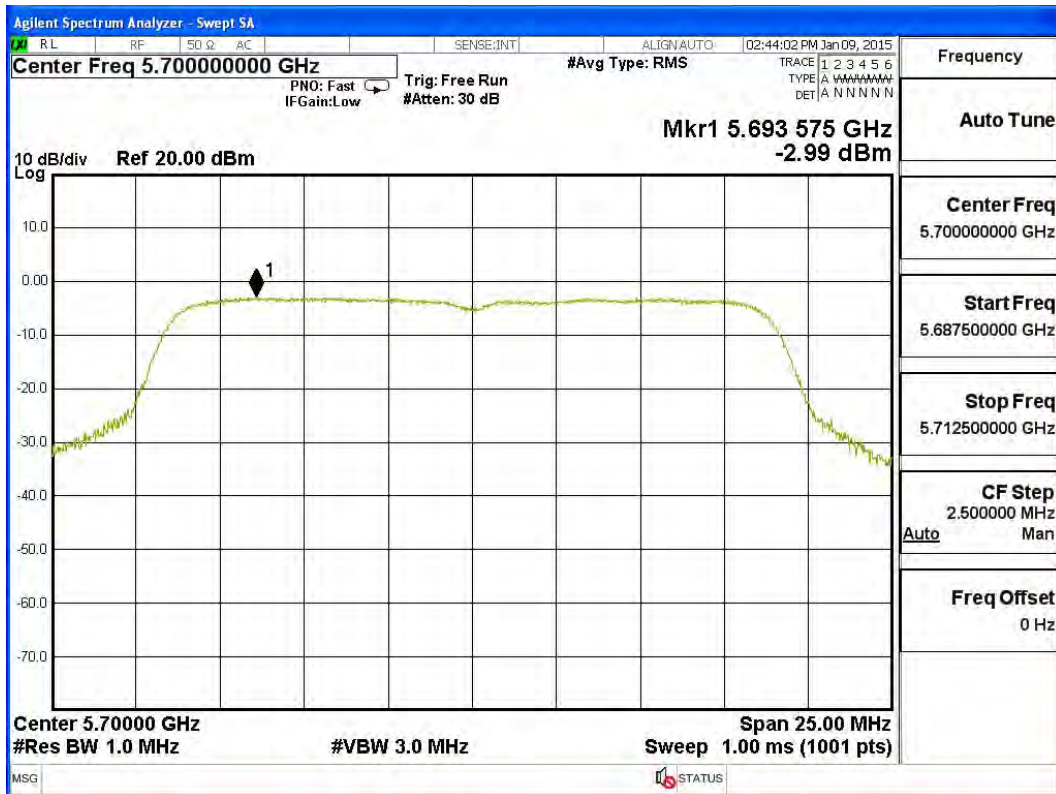
Channel 116 – Chain A



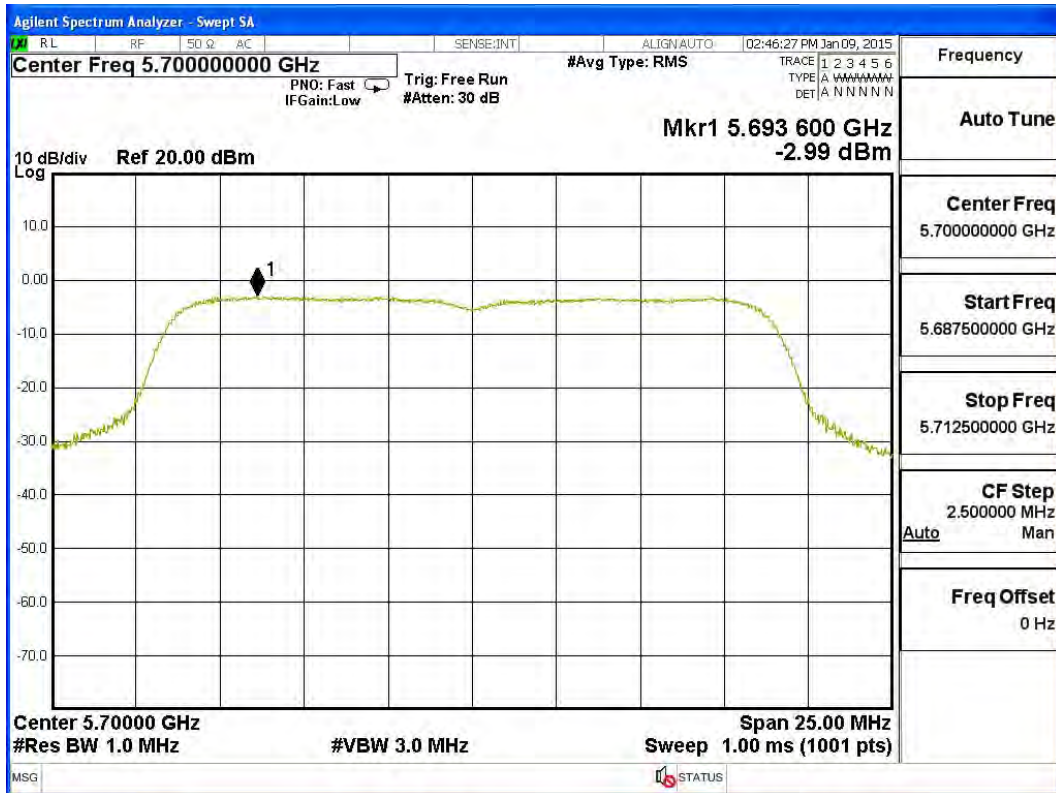
Channel 116 – Chain B



Channel 140 – Chain A



Channel 140 – Chain B



Product : Wireless Access Point
 Test Item : Peak Power Spectral Density
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (Internal Antenna)

Channel Number	Frequency (MHz)	Chain	Reading PPSD/MHz (dBm)	Cable Loss (dB)	Measurement PPSD/MHz (dBm)	Total PPSD/MHz (dBm)	Required Limit (dBm)	Result
38	5190	A	-7.57	1.2	-6.37	-3.36	4	Pass
		B	-8.4	1.2	-7.2	-4.19	4	Pass
46	5230	A	-8.42	1.2	-7.22	-4.21	4	Pass
		B	-8.35	1.2	-7.15	-4.14	4	Pass
54	5270	--	--	--	--	--	--	Pass
		--	--	--	--	--	--	Pass
62	5310	--	--	--	--	--	--	Pass
		--	--	--	--	--	--	Pass
102	5510	--	--	--	--	--	--	Pass
		--	--	--	--	--	--	Pass
110	5550	--	--	--	--	--	--	Pass
		--	--	--	--	--	--	Pass
134	5670	--	--	--	--	--	--	Pass
		--	--	--	--	--	--	Pass

Note 1: The quantity $10 \cdot \log 2$ (two antennas) is added to the spectrum peak value according to document 662911 D01.

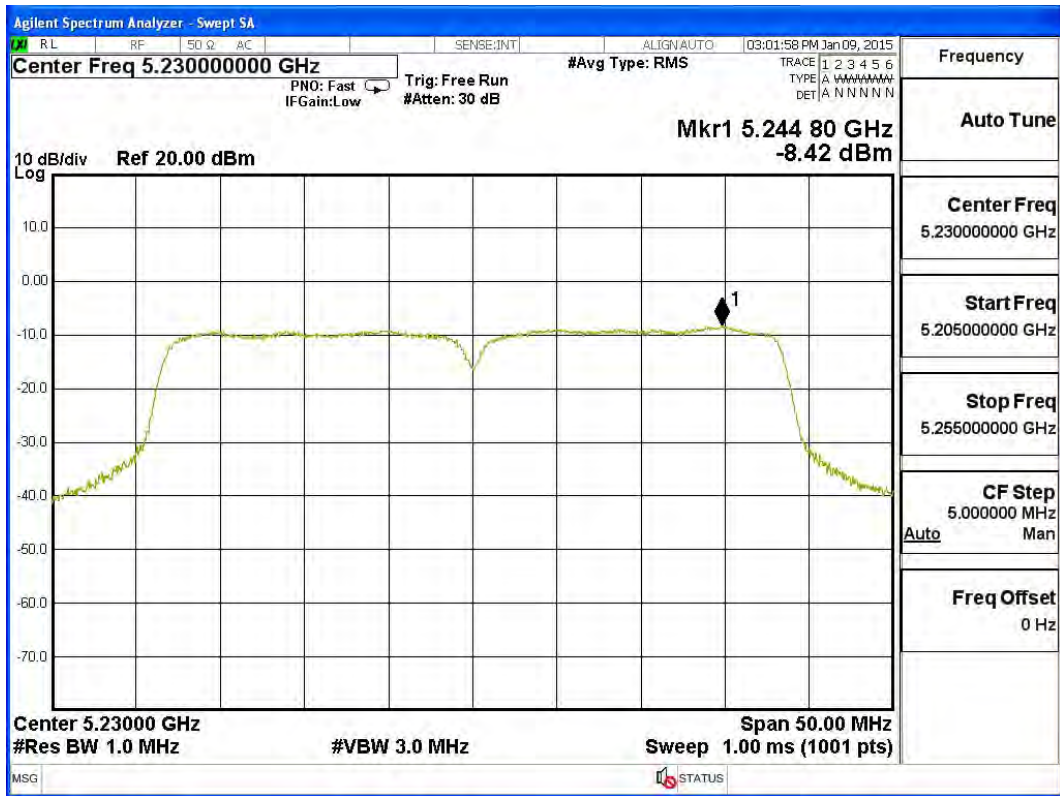
Channel 38 – Chain A



Channel 38 – Chain B



Channel 46 – Chain A



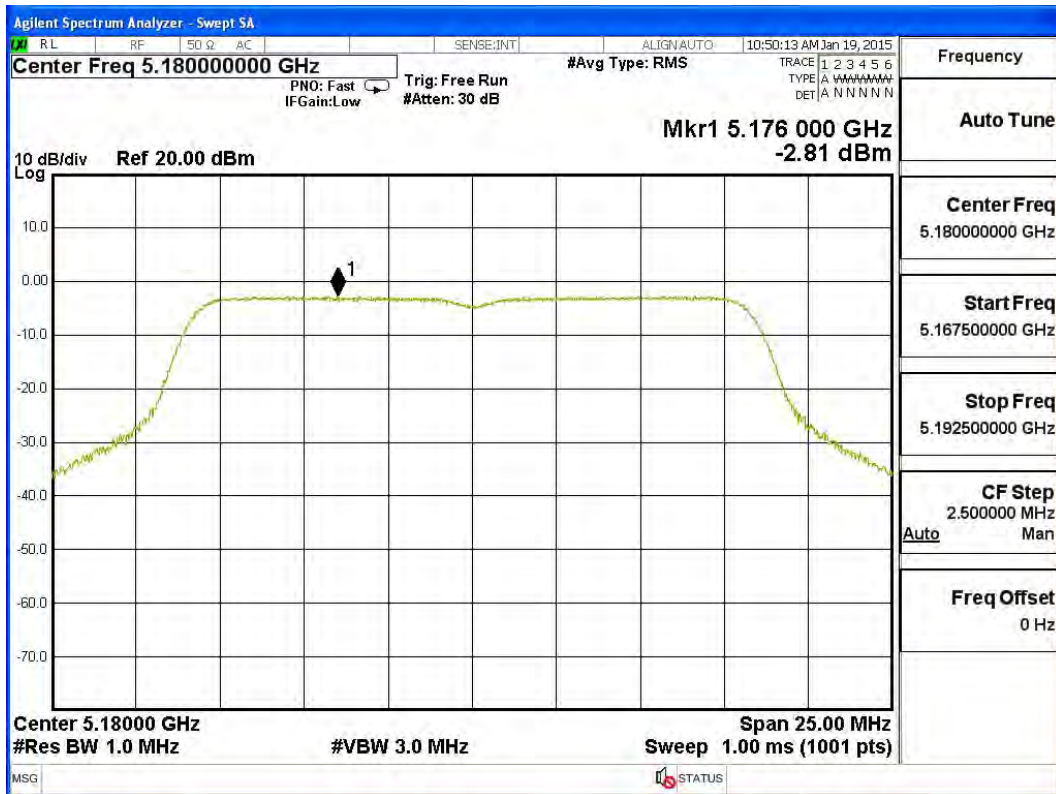
Channel 46 – Chain B



Product : Wireless Access Point
 Test Item : Peak Power Spectral Density
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (External Antenna)

Channel Number	Frequency (MHz)	Data Rate (Mbps)	Reading Level (dBm)	Cable Loss (dB)	Measurement Level (dBm)	Required Limit (dBm)	Result
36	5180	6	-2.810	1.2	-1.61	4	Pass
44	5220	6	-2.770	1.2	-1.57	4	Pass
48	5240	6	-2.940	1.2	-1.74	4	Pass
52	5260	6	-2.700	1.2	-1.5	11	Pass
60	5300	6	-2.780	1.2	-1.58	11	Pass
64	5320	6	-3.050	1.2	-1.85	11	Pass
100	5500	6	-2.020	1.5	-0.52	11	Pass
116	5580	6	-0.690	1.5	0.81	11	Pass
140	5700	6	-1.120	1.5	0.38	11	Pass

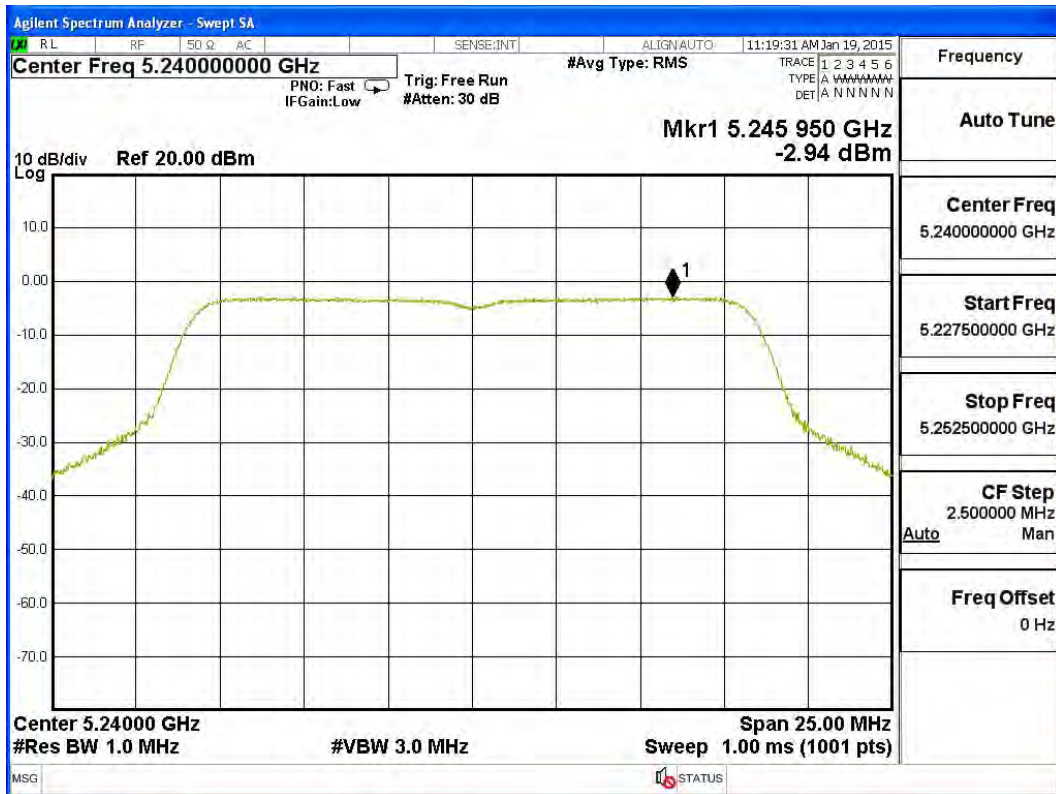
Channel 36:



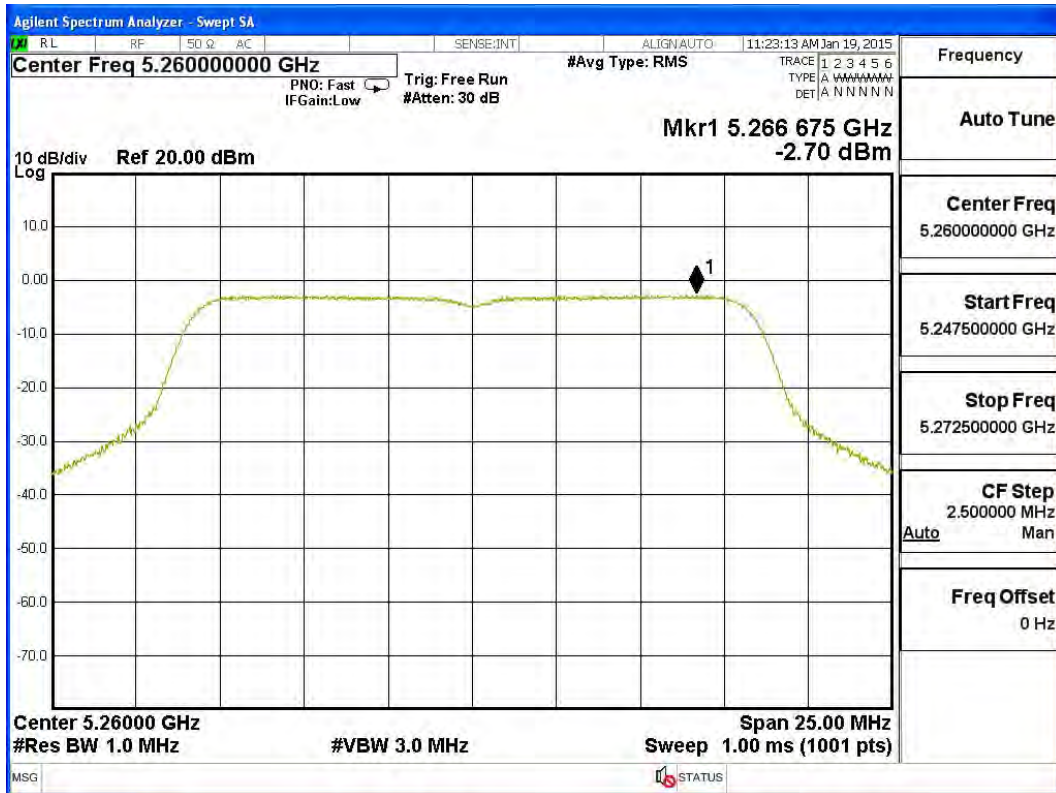
Channel 44:



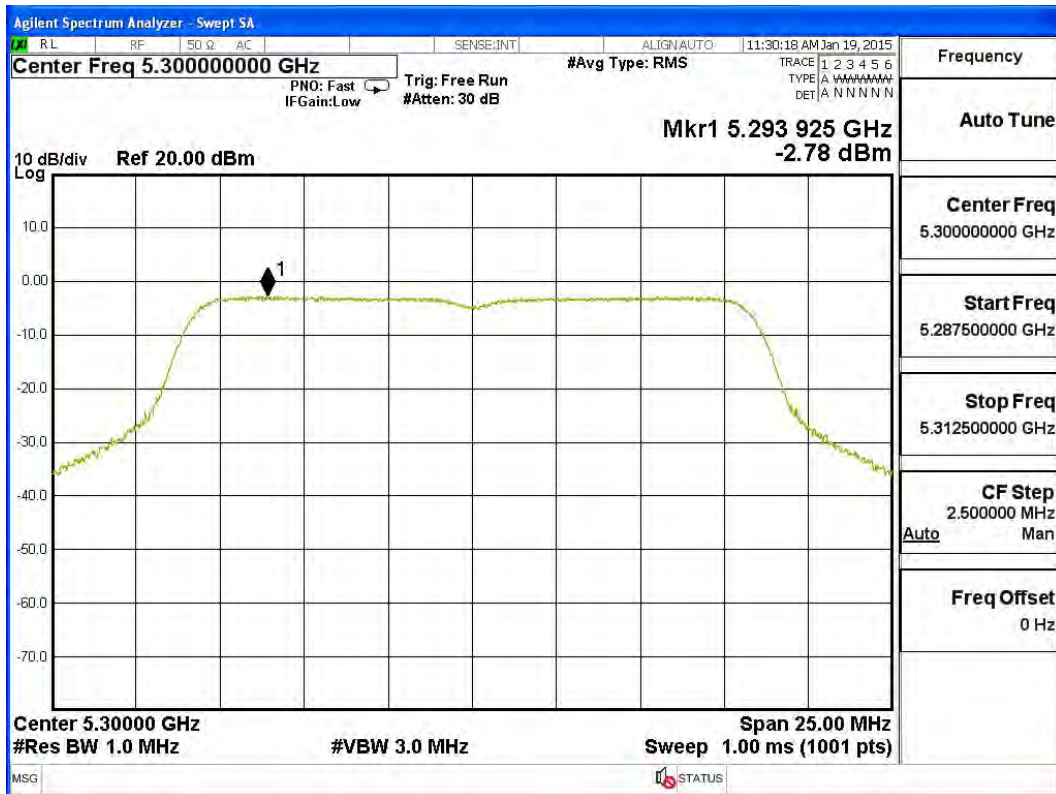
Channel 48:



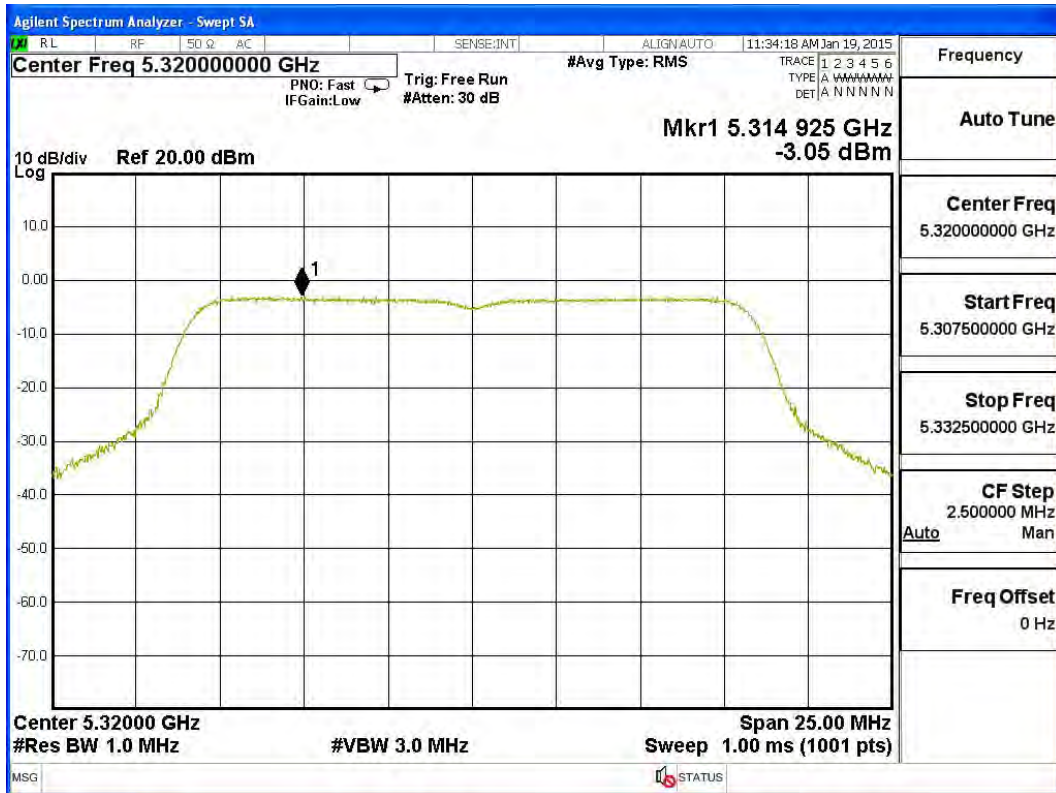
Channel 52:



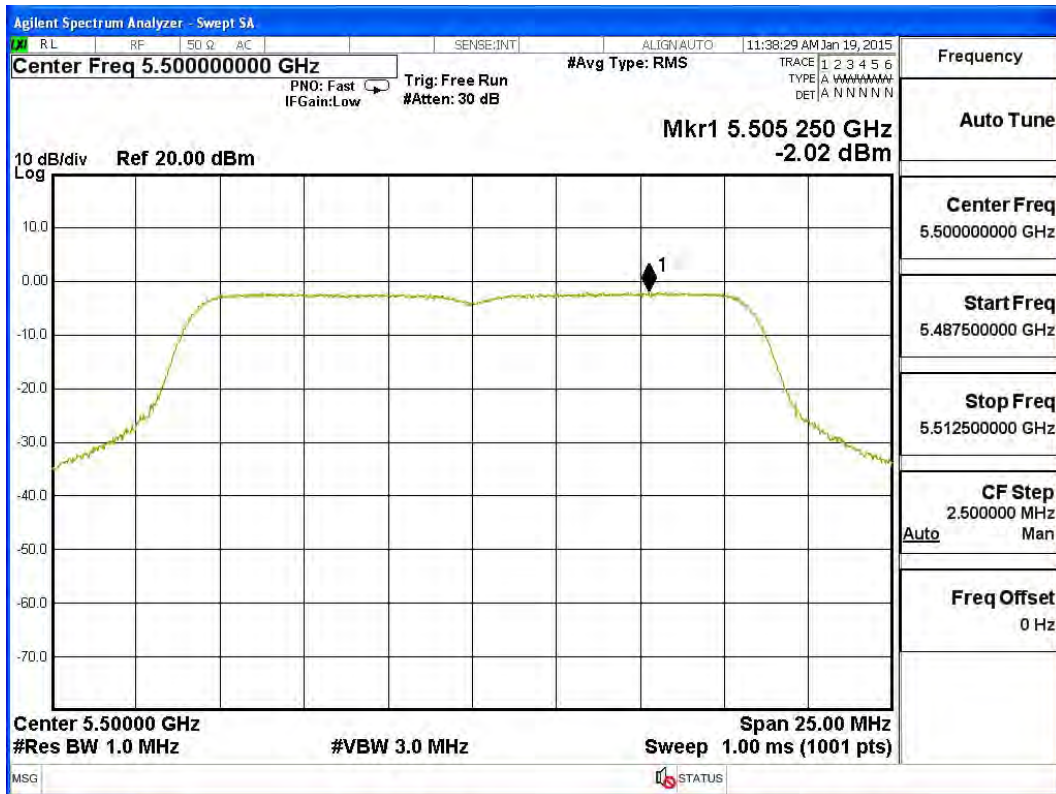
Channel 60:



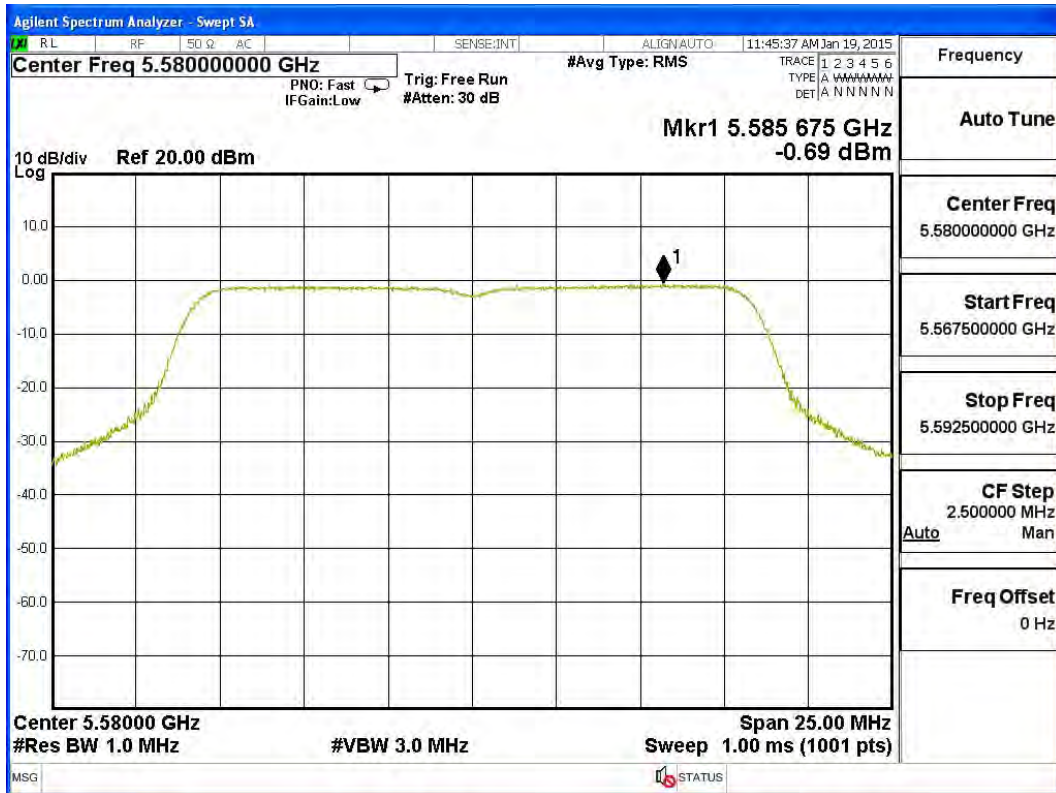
Channel 64:



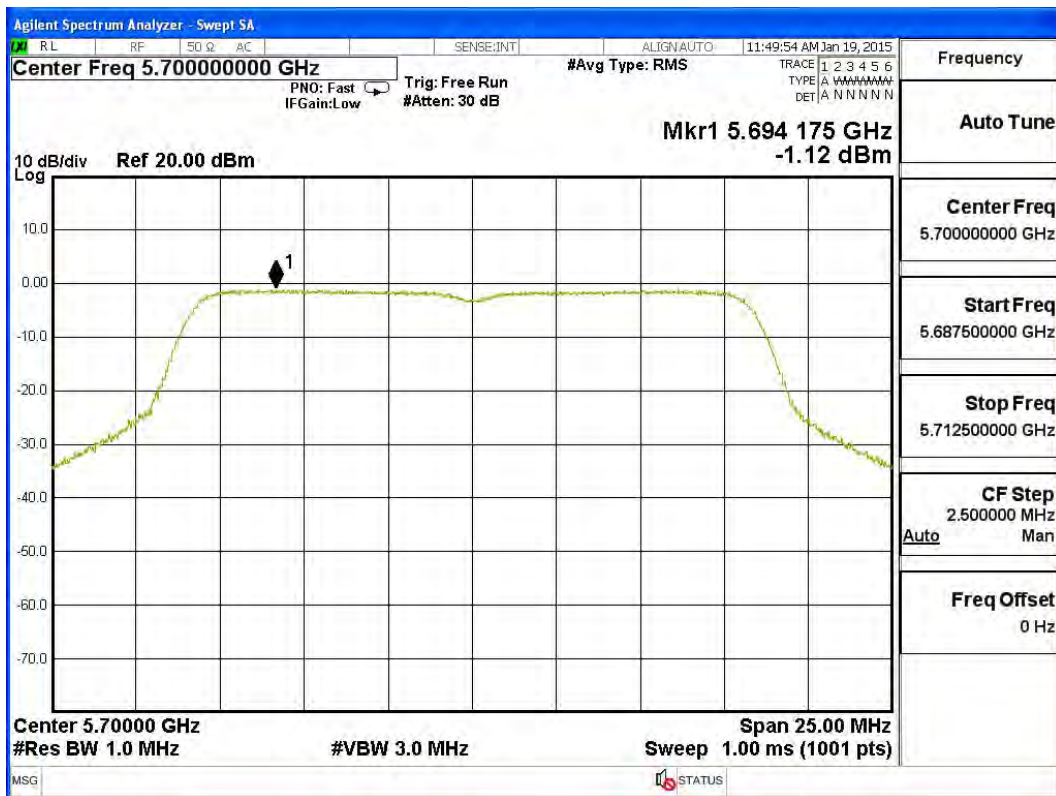
Channel 100:



Channel 116:



Channel 140:

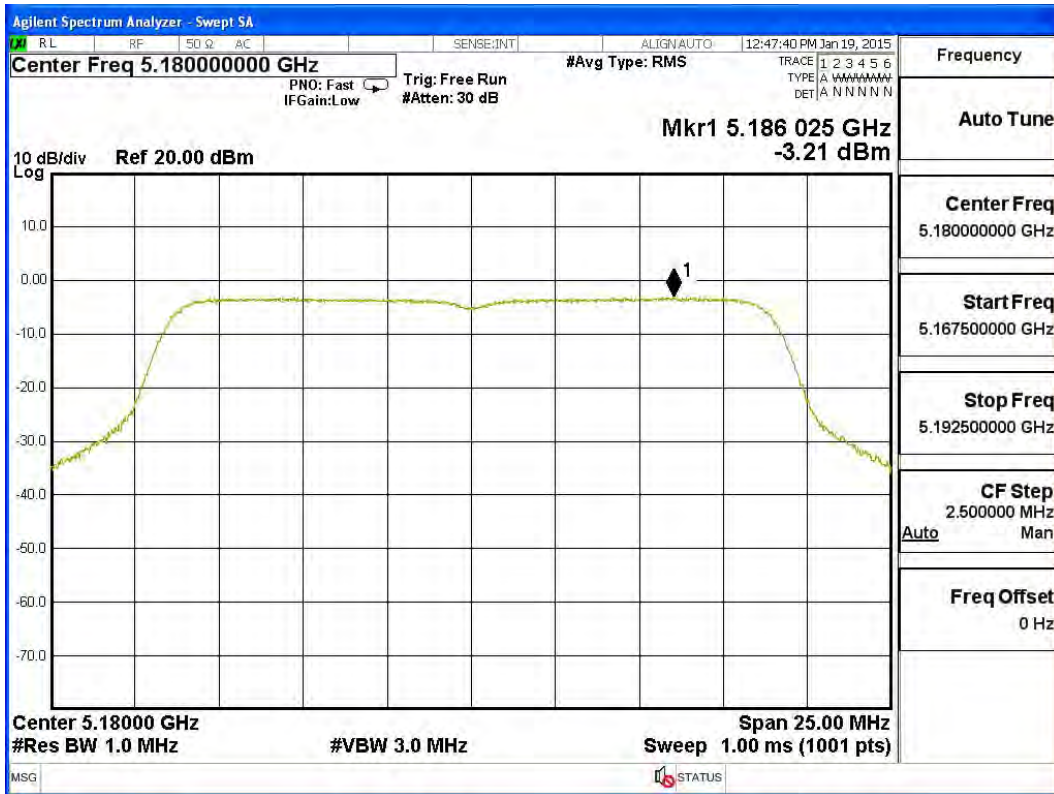


Product : Wireless Access Point
 Test Item : Peak Power Spectral Density
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (External Antenna)

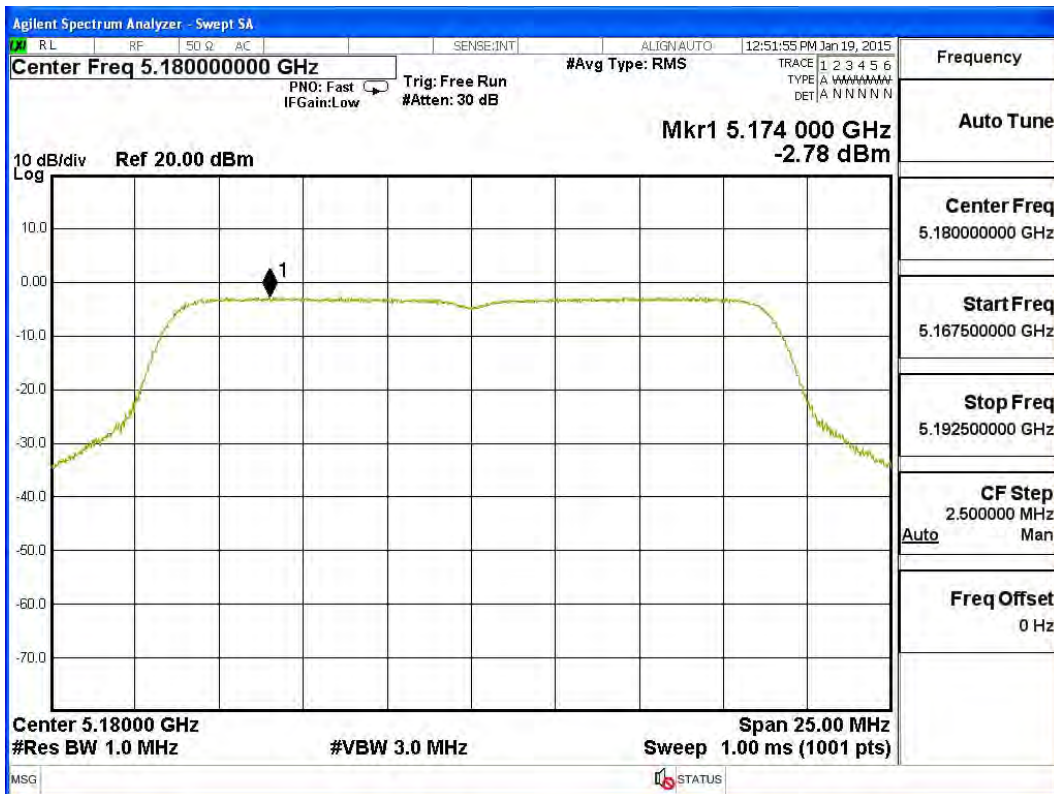
Channel Number	Frequency (MHz)	Chain	Reading PPSD/MHz (dBm)	Cable Loss (dB)	Measurement PPSD/MHz (dBm)	Total PPSD/MHz (dBm)	Required Limit (dBm)	Result
36	5180	A	-3.21	1.2	-2.01	1.00	4	Pass
		B	-2.78	1.2	-1.58	1.43	4	Pass
44	5220	A	-3.14	1.2	-1.94	1.07	4	Pass
		B	-4.05	1.2	-2.85	0.16	4	Pass
48	5240	A	-3.39	1.2	-2.19	0.82	4	Pass
		B	-4.52	1.2	-3.32	-0.31	4	Pass
52	5260	A	-3.20	1.2	-2.00	1.01	11	Pass
		B	-4.65	1.2	-3.45	-0.44	11	Pass
60	5300	A	-3.32	1.2	-2.12	0.89	11	Pass
		B	-5.20	1.2	-4.00	-0.99	11	Pass
64	5320	A	-3.62	1.2	-2.42	0.59	11	Pass
		B	-5.58	1.2	-4.38	-1.37	11	Pass
100	5500	A	-1.99	1.5	-0.49	2.52	11	Pass
		B	-0.44	1.5	1.06	4.07	11	Pass
116	5580	A	-0.81	1.5	0.69	3.70	11	Pass
		B	1.18	1.5	2.68	5.69	11	Pass
140	5700	A	-1.34	1.5	0.16	3.17	11	Pass
		B	0.02	1.5	1.52	4.53	11	Pass

Note 1: The quantity $10 \cdot \log 2$ (two antennas) is added to the spectrum peak value according to document 662911 D01.

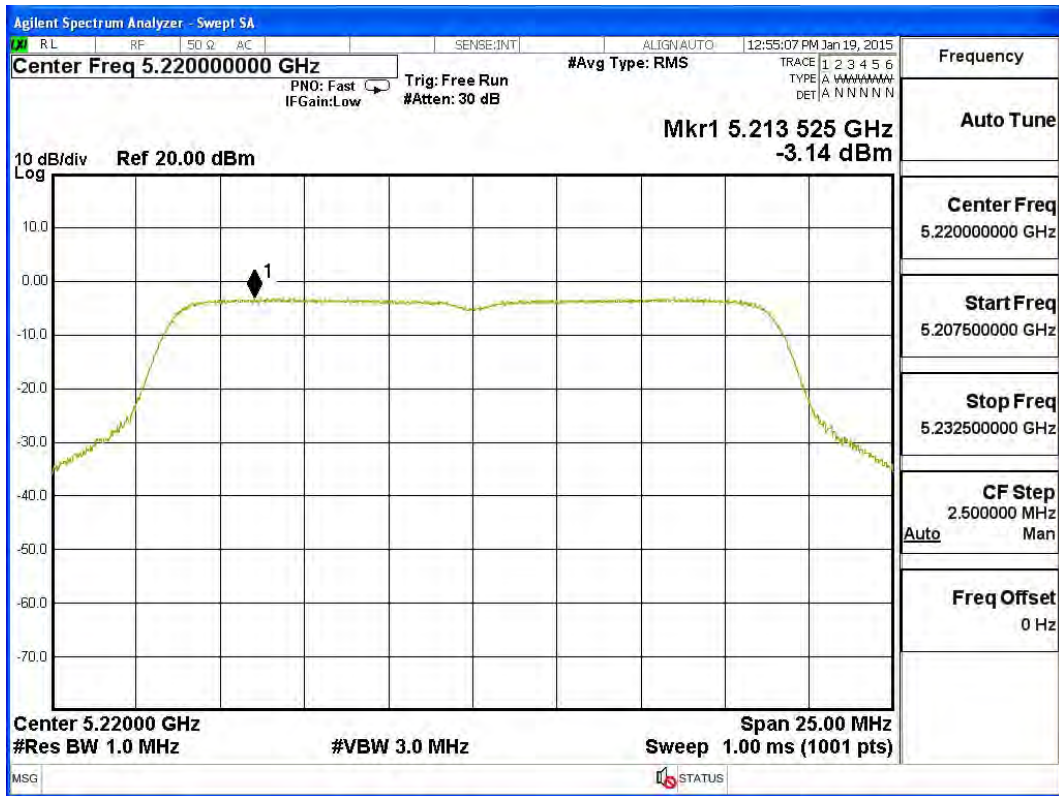
Channel 36 – Chain A



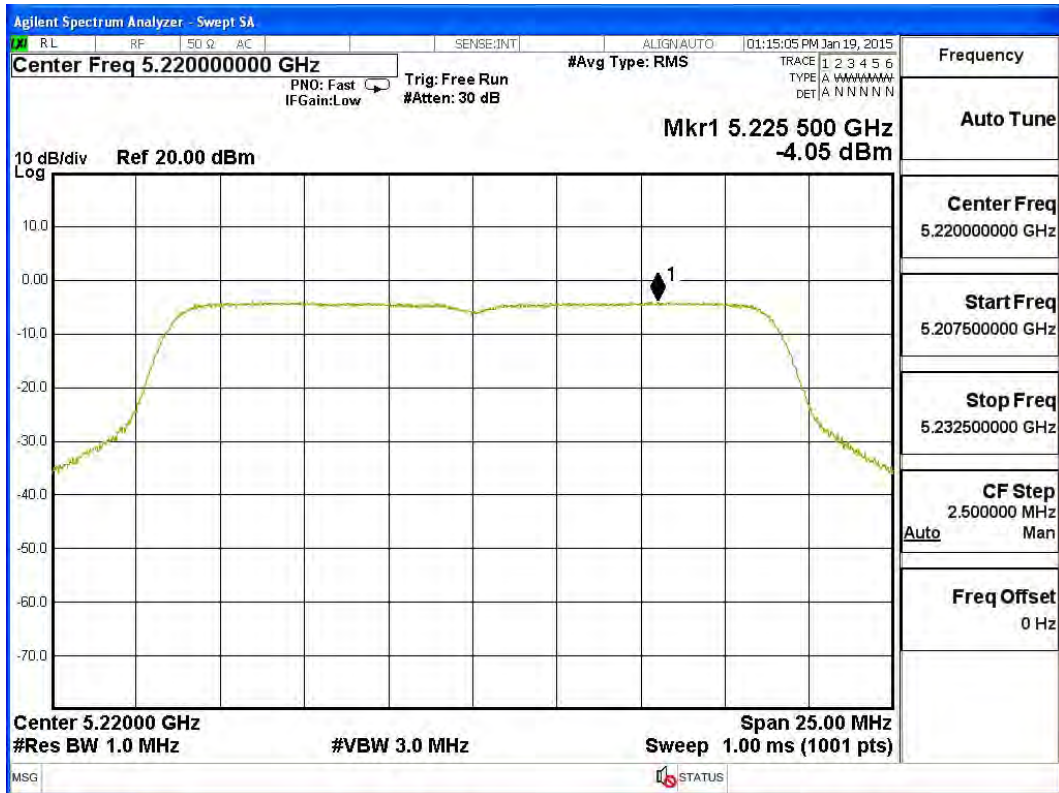
Channel 36 – Chain B



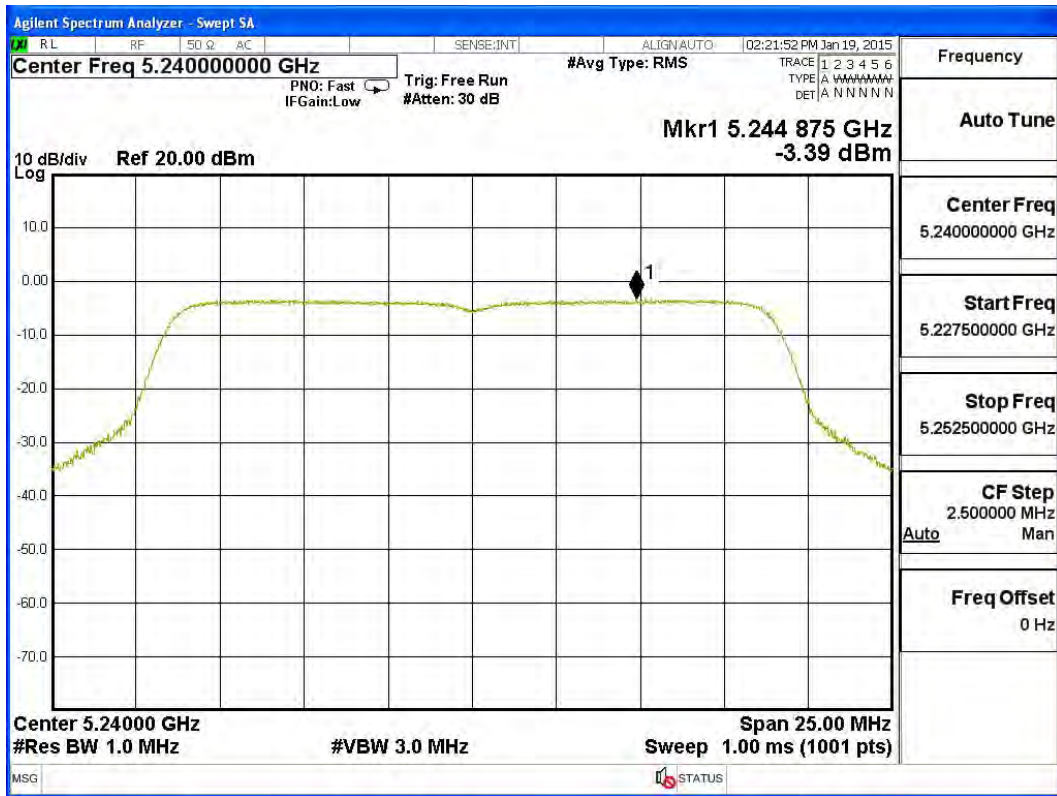
Channel 44 – Chain A



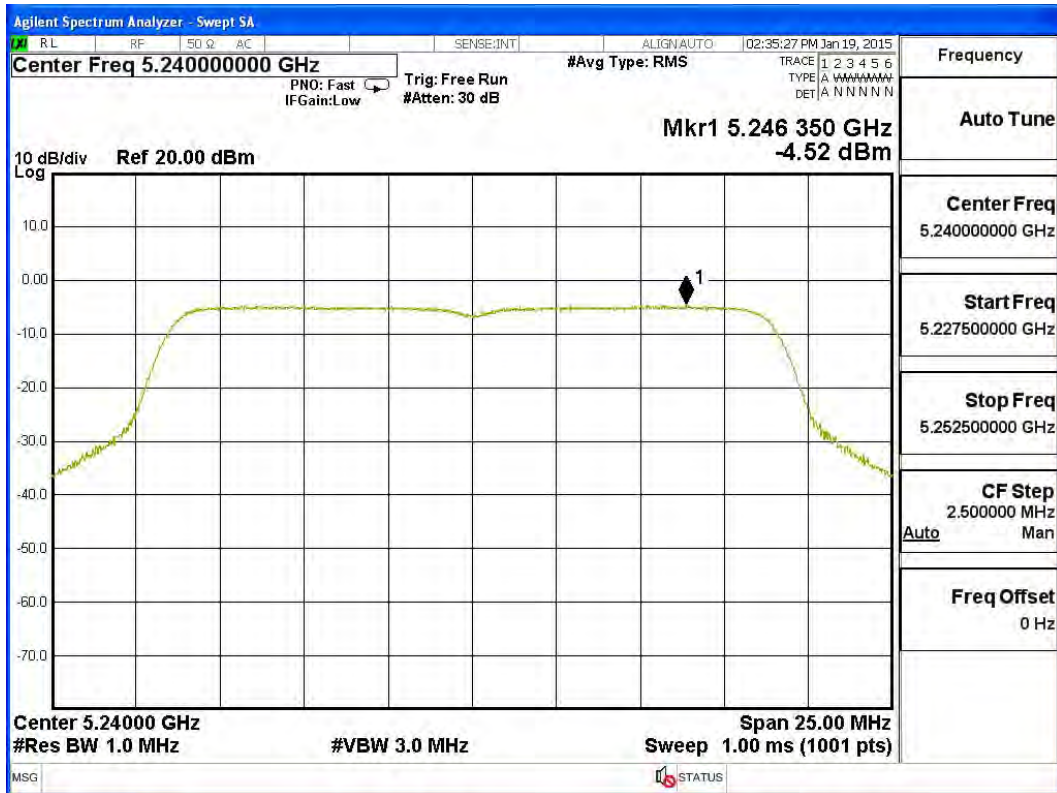
Channel 44 – Chain B



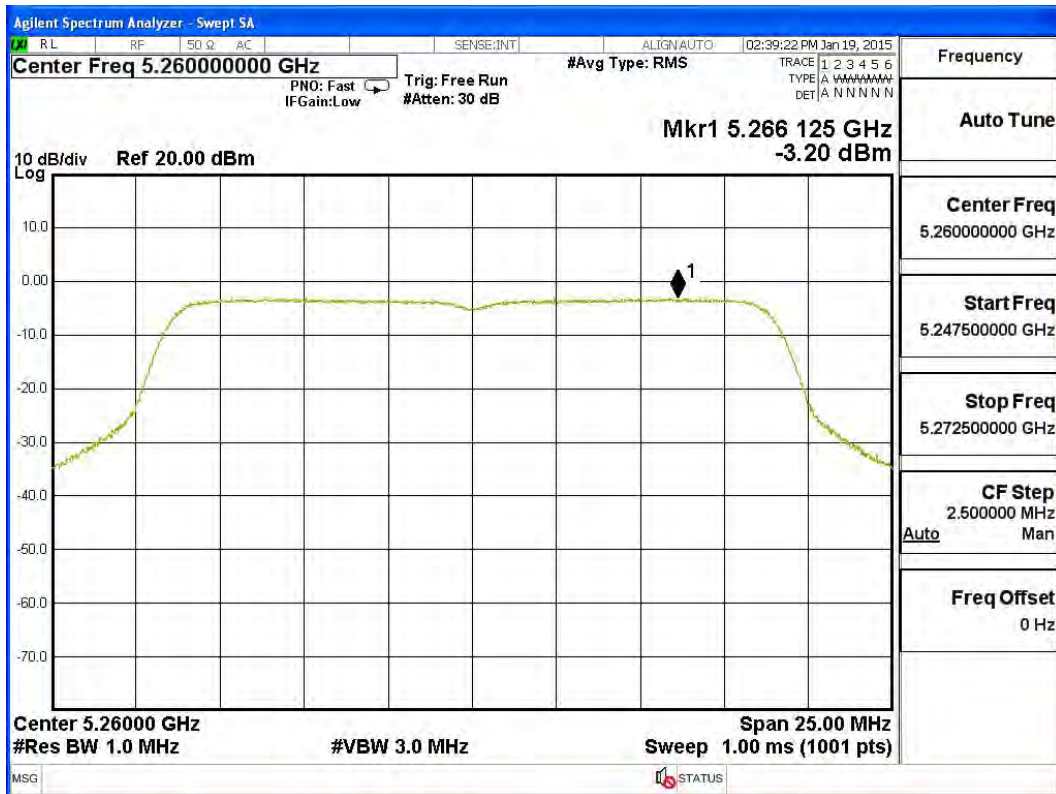
Channel 48 – Chain A



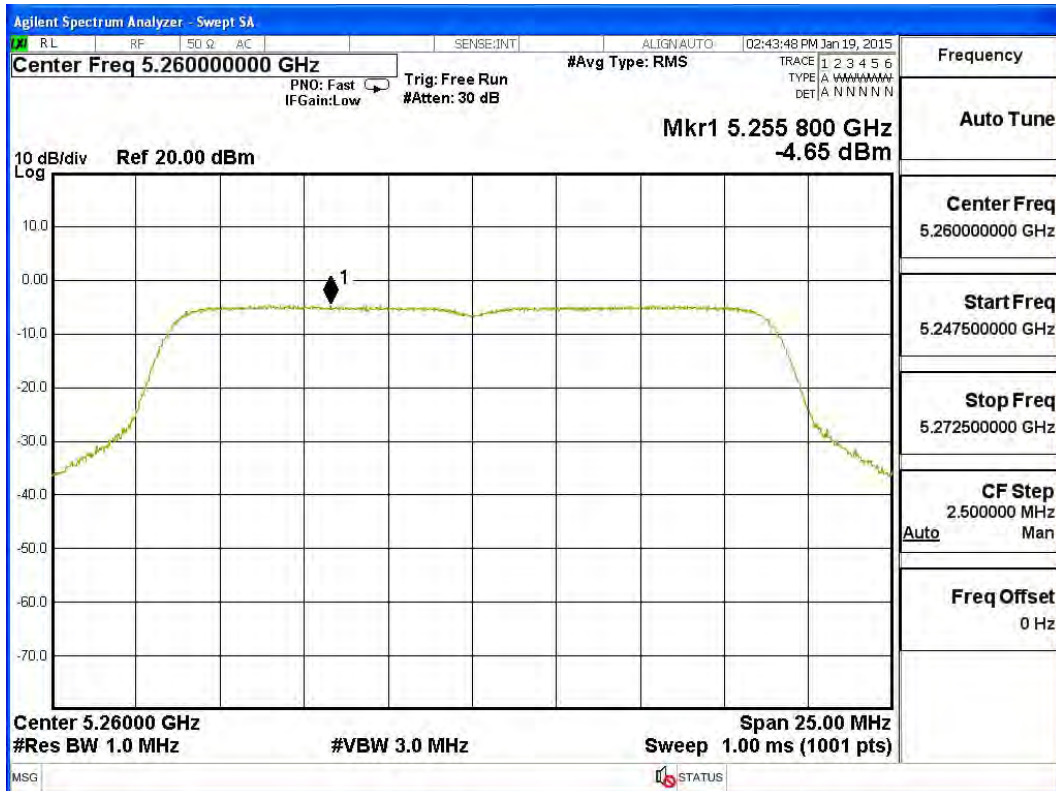
Channel 48 – Chain B



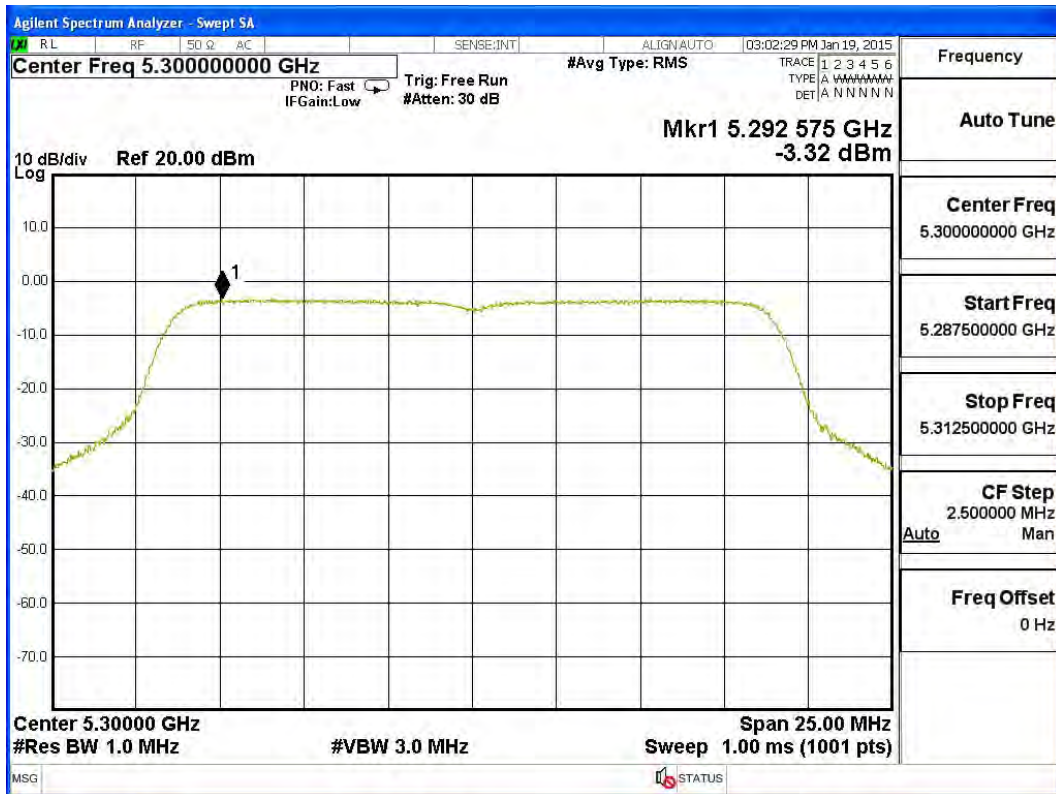
Channel 52 – Chain A



Channel 52 – Chain B



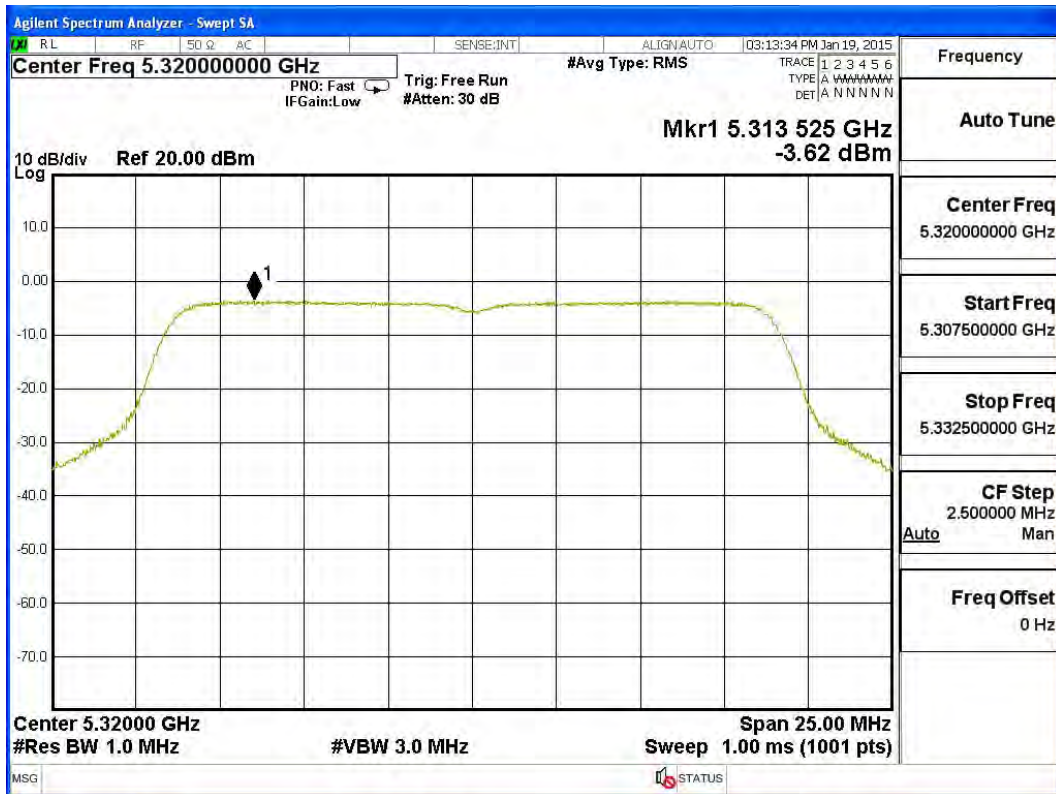
Channel 60 – Chain A



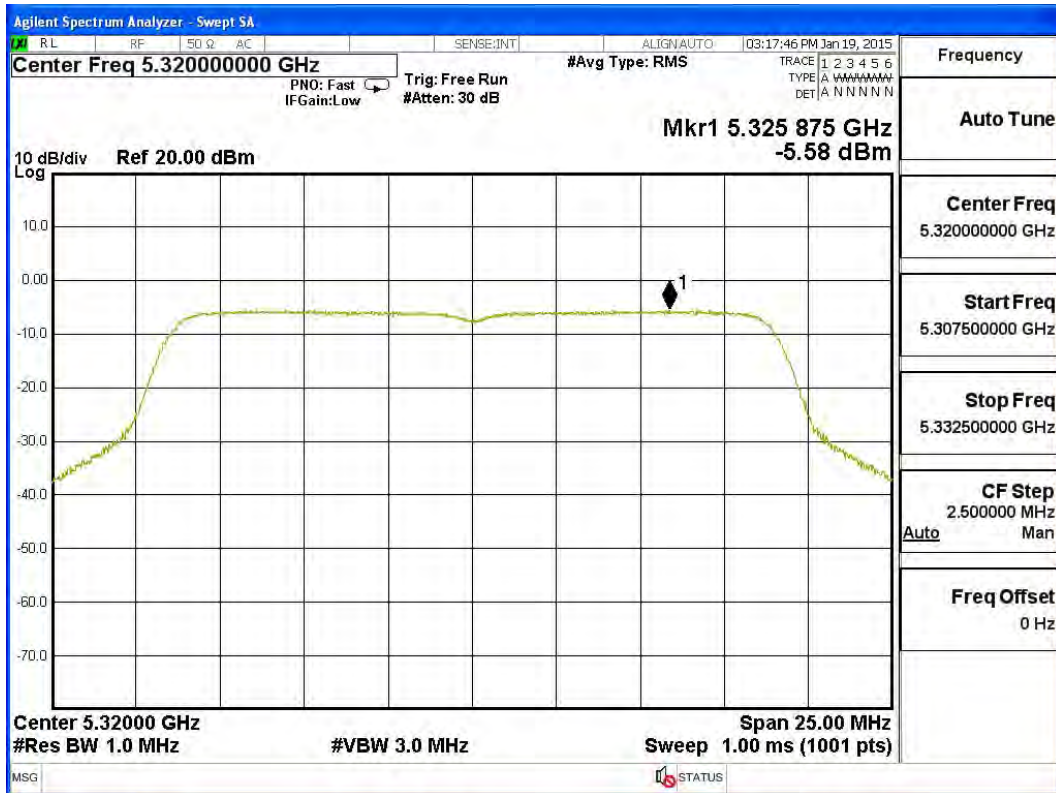
Channel 60 – Chain B



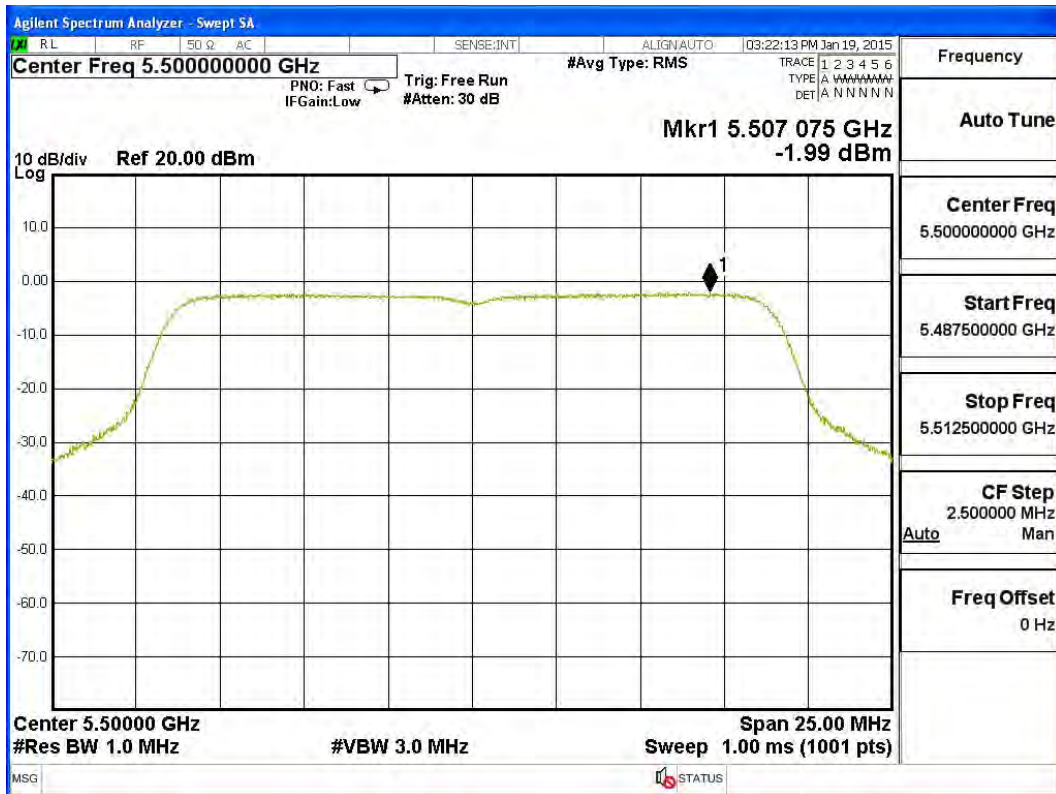
Channel 64 – Chain A



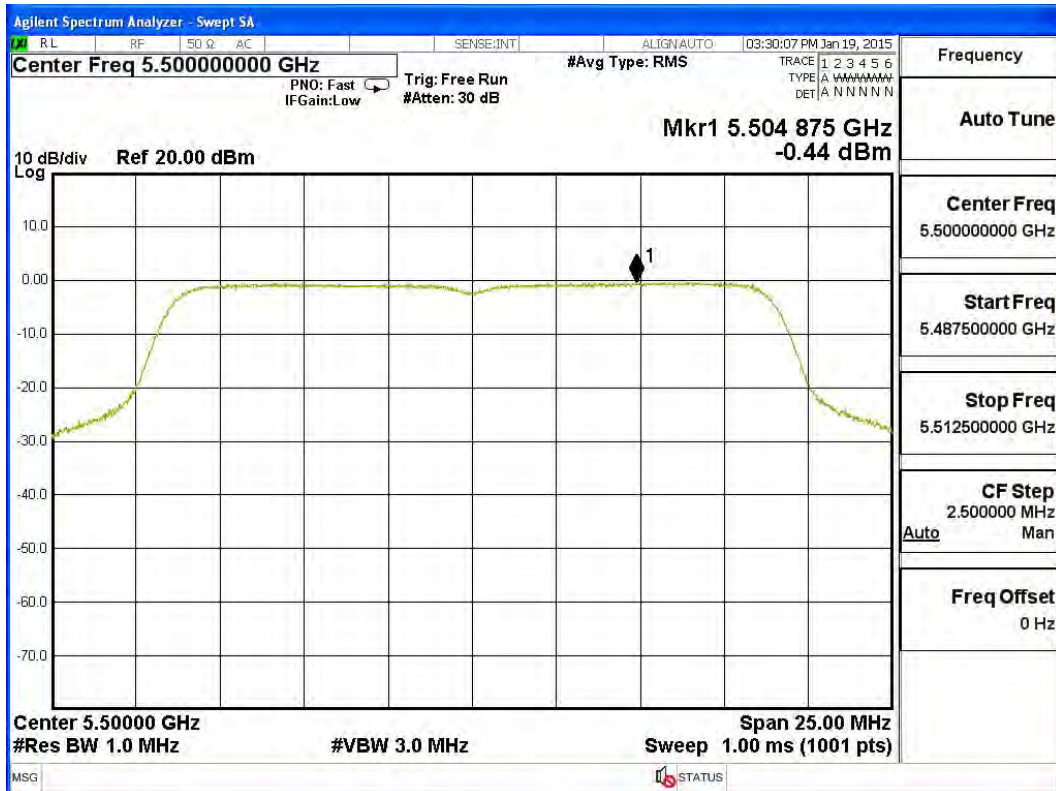
Channel 64 – Chain B



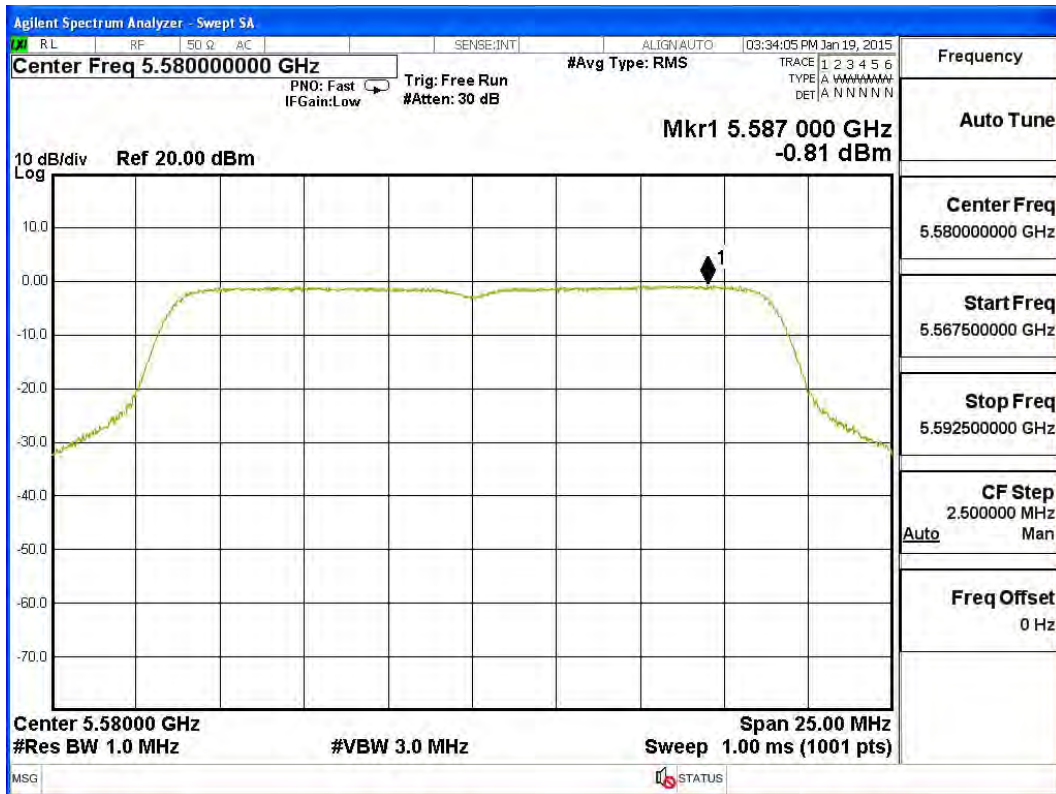
Channel 100 – Chain A



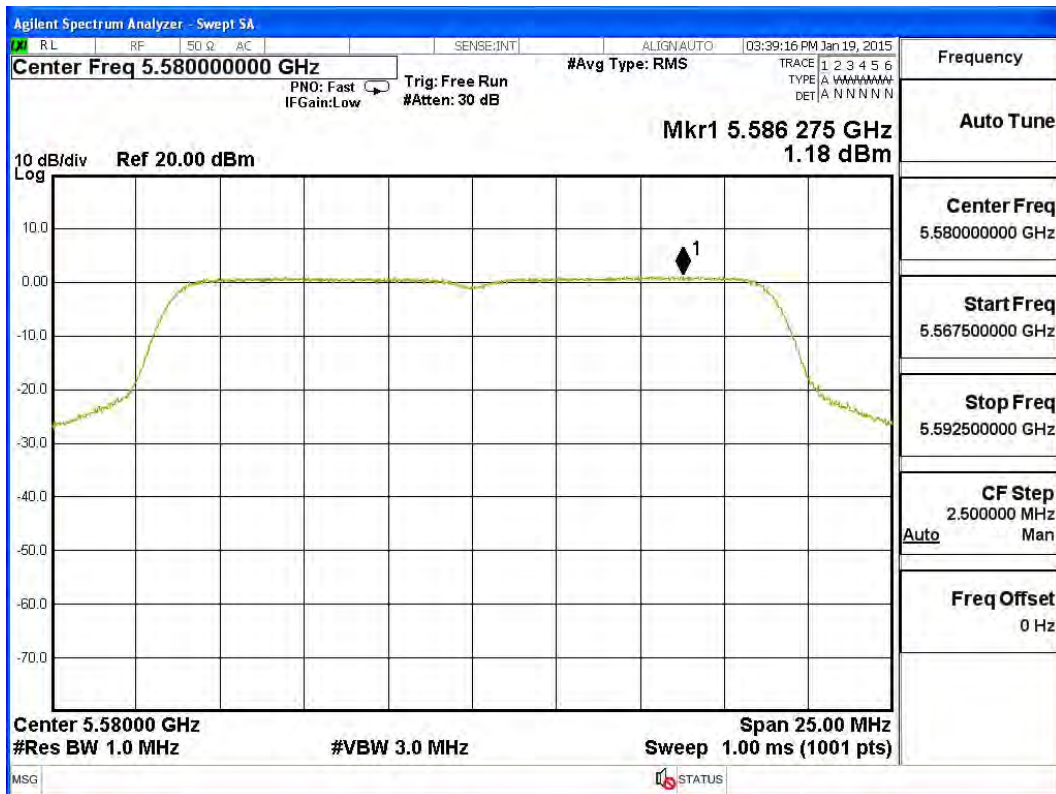
Channel 100 – Chain B



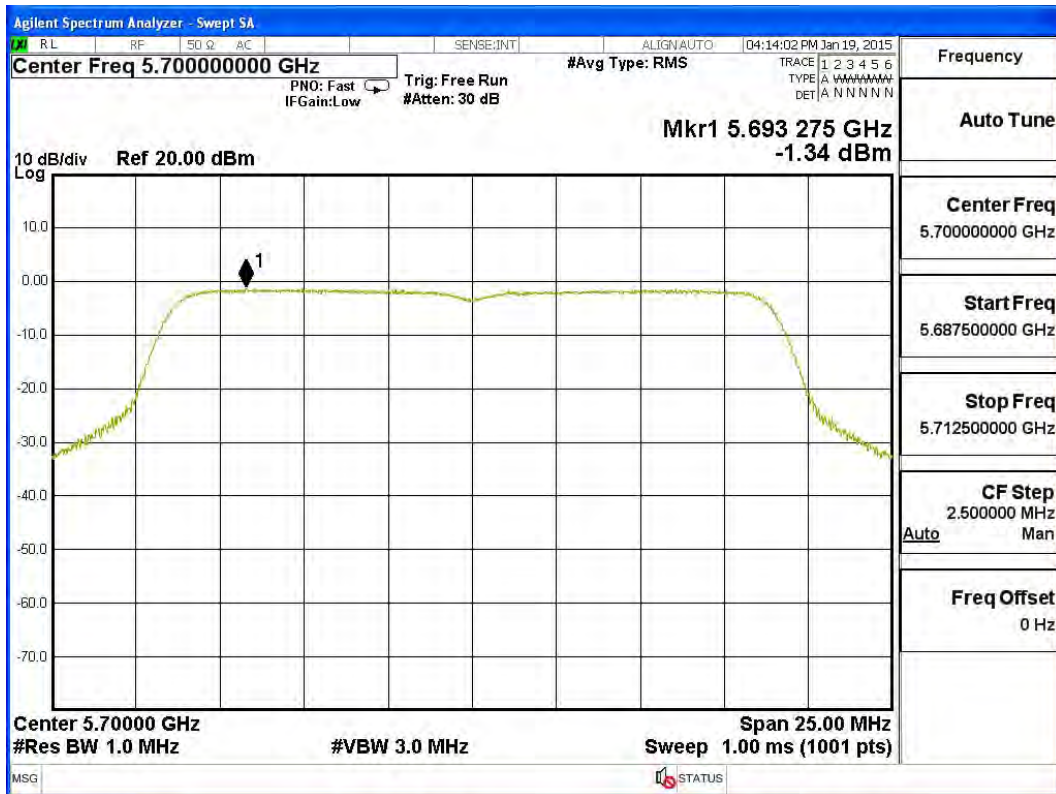
Channel 116 – Chain A



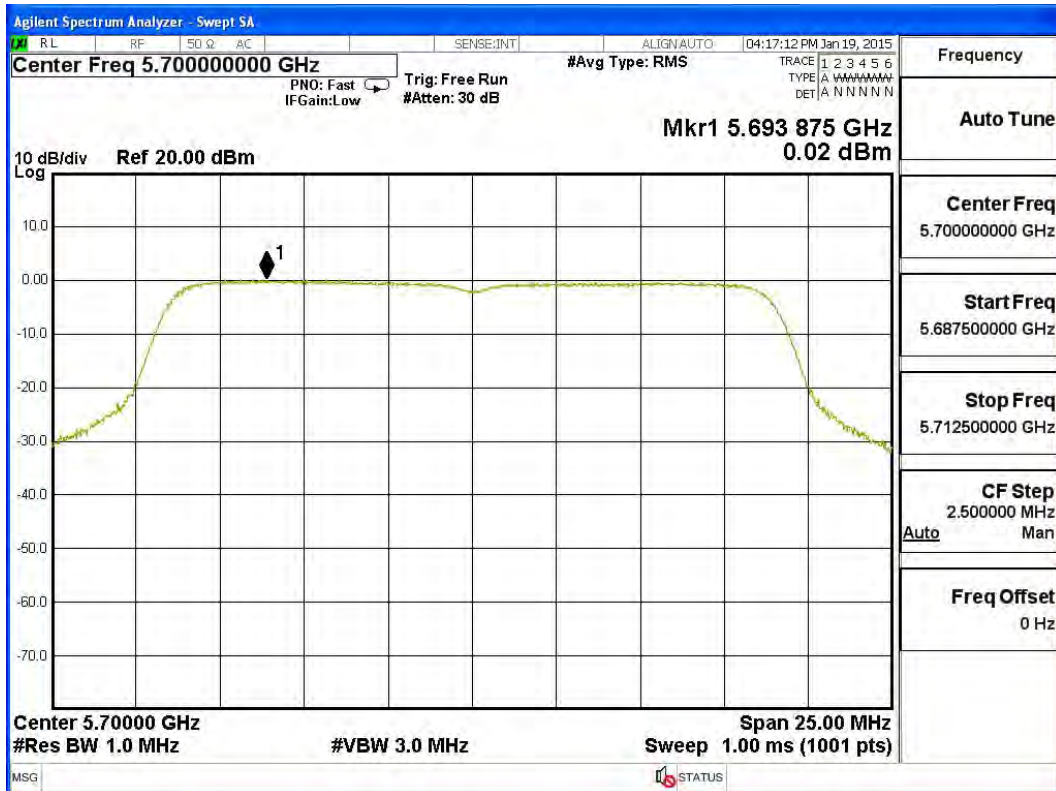
Channel 116 – Chain B



Channel 140 – Chain A



Channel 140 – Chain B

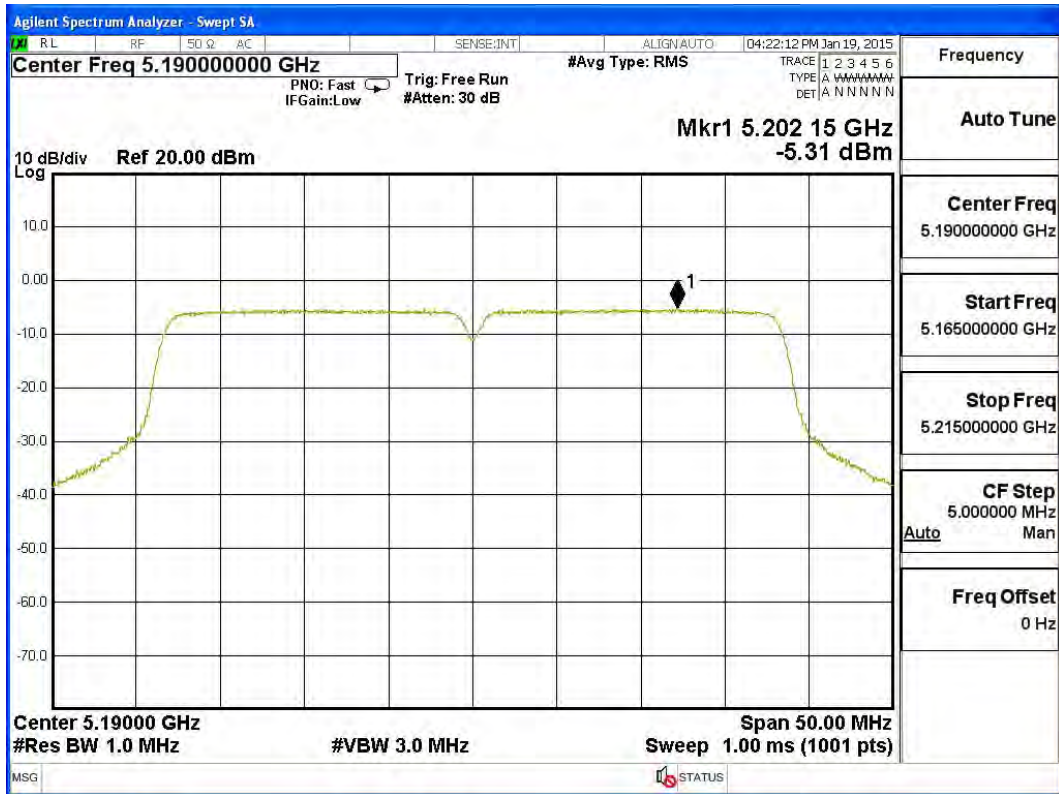


Product : Wireless Access Point
 Test Item : Peak Power Spectral Density
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (External Antenna)

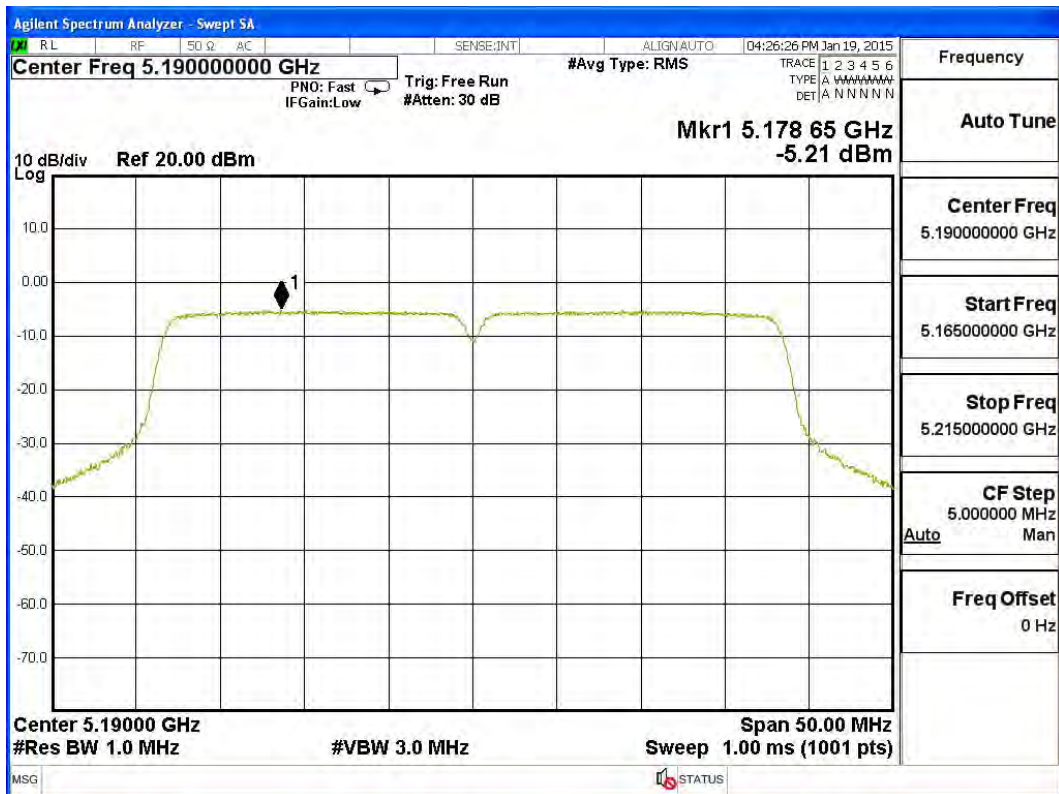
Channel Number	Frequency (MHz)	Chain	Reading PPSD/MHz (dBm)	Cable Loss (dB)	Measurement PPSD/MHz (dBm)	Total PPSD/MHz (dBm)	Required Limit (dBm)	Result
38	5190	A	-5.31	1.2	-4.11	-1.10	4	Pass
		B	-5.21	1.2	-4.01	-1.00	4	Pass
46	5230	A	-5.62	1.2	-4.42	-1.41	4	Pass
		B	-6.49	1.2	-5.29	-2.28	4	Pass
54	5270	A	-5.68	1.2	-4.48	-1.47	11	Pass
		B	-6.92	1.2	-5.72	-2.71	11	Pass
62	5310	A	-5.85	1.2	-4.65	-1.64	11	Pass
		B	-7.34	1.2	-6.14	-3.13	11	Pass
102	5510	A	-4.35	1.5	-2.85	0.16	11	Pass
		B	-2.79	1.5	-1.29	1.72	11	Pass
110	5550	A	-3.67	1.5	-2.17	0.84	11	Pass
		B	-1.99	1.5	-0.49	2.52	11	Pass
134	5670	A	-3.37	1.5	-1.87	1.14	11	Pass
		B	-1.90	1.5	-0.40	2.61	11	Pass

Note 1: The quantity $10 \cdot \log 2$ (two antennas) is added to the spectrum peak value according to document 662911 D01.

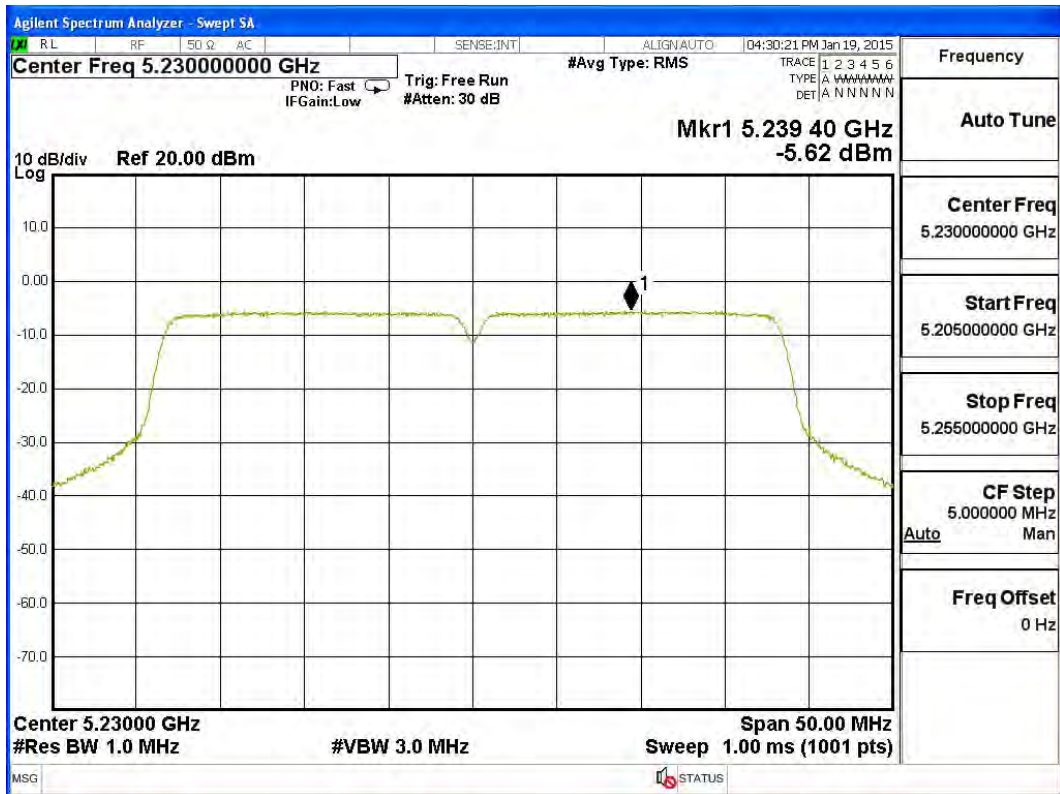
Channel 38 – Chain A



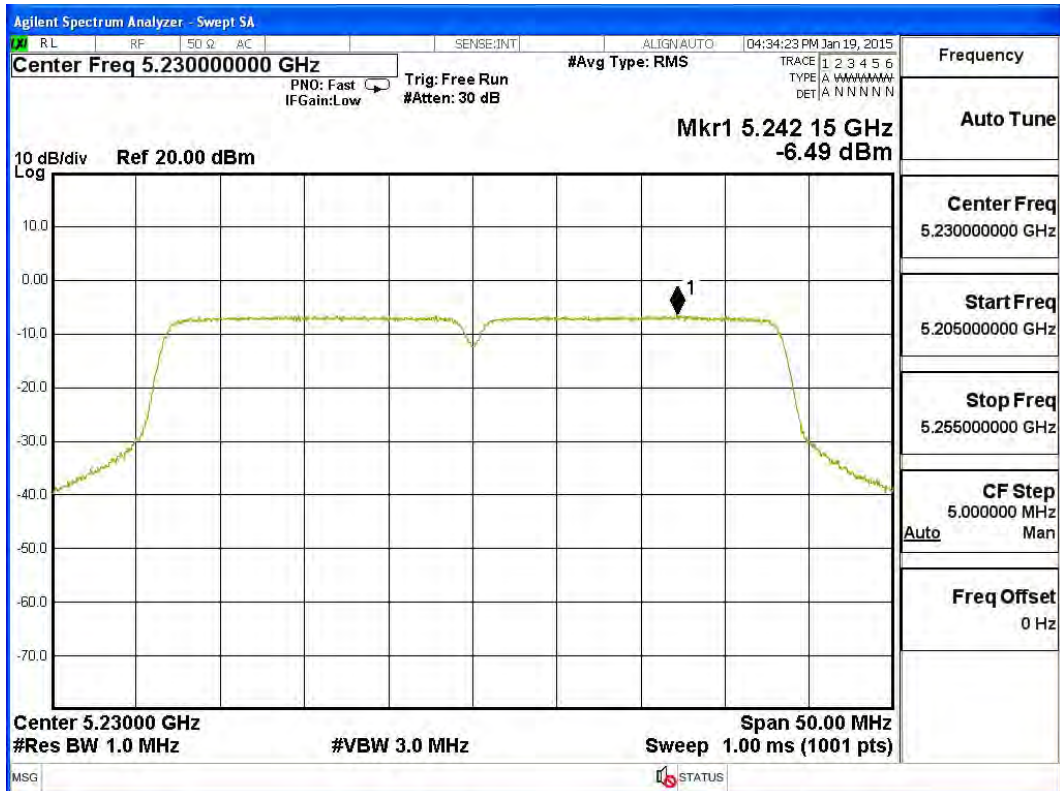
Channel 38 – Chain B



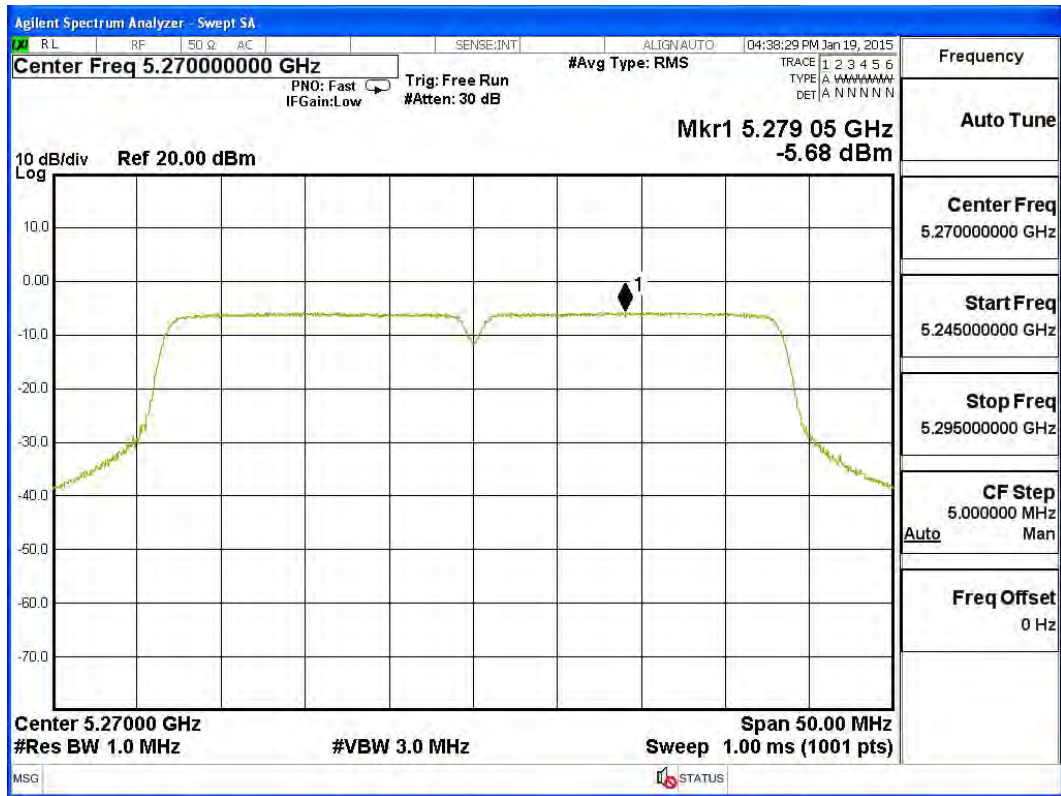
Channel 46 – Chain A



Channel 46 – Chain B



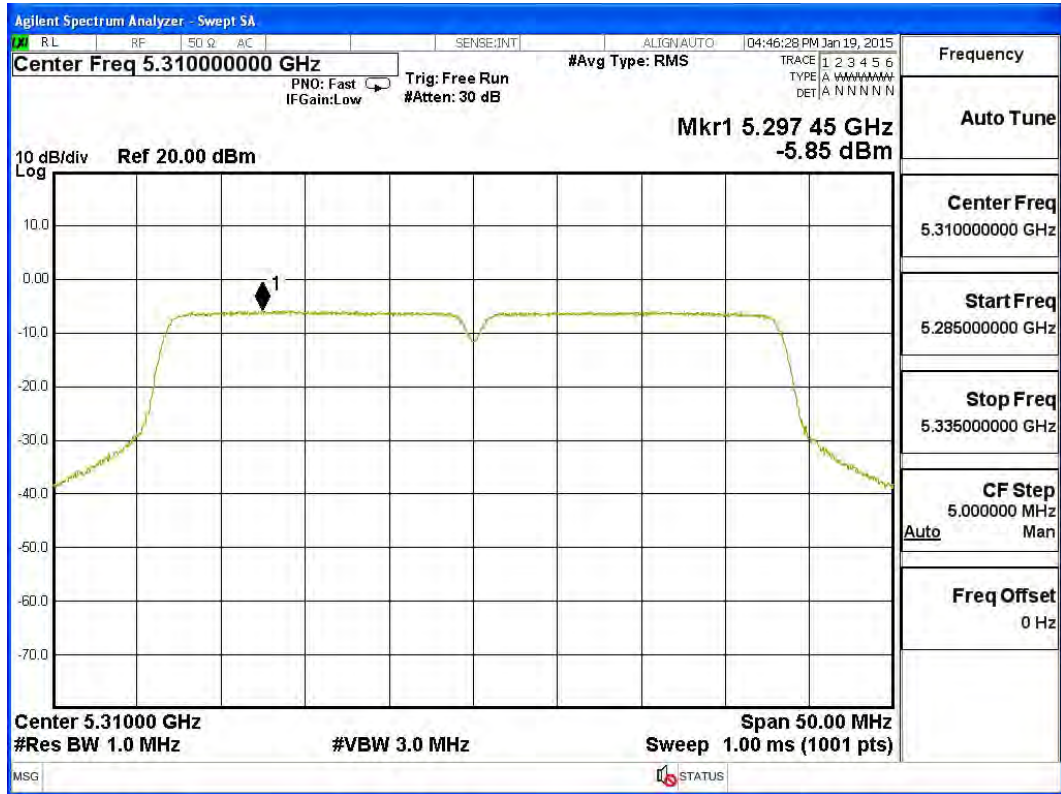
Channel 54 – Chain A



Channel 54 – Chain B



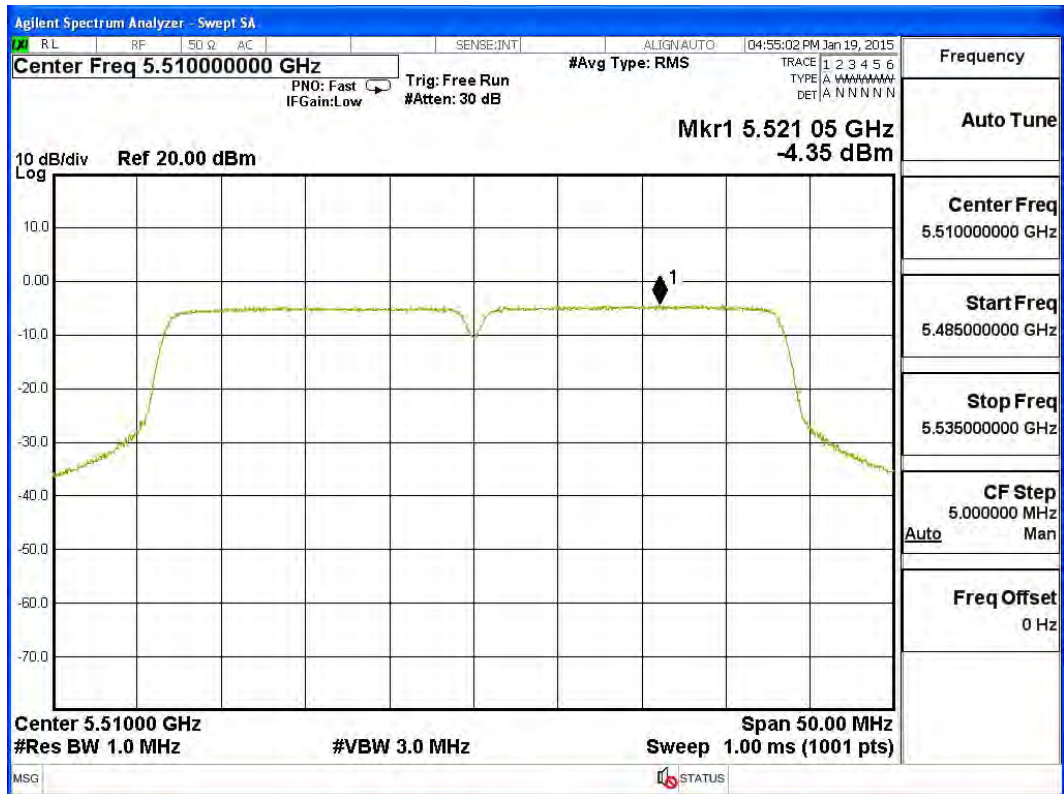
Channel 62 – Chain A



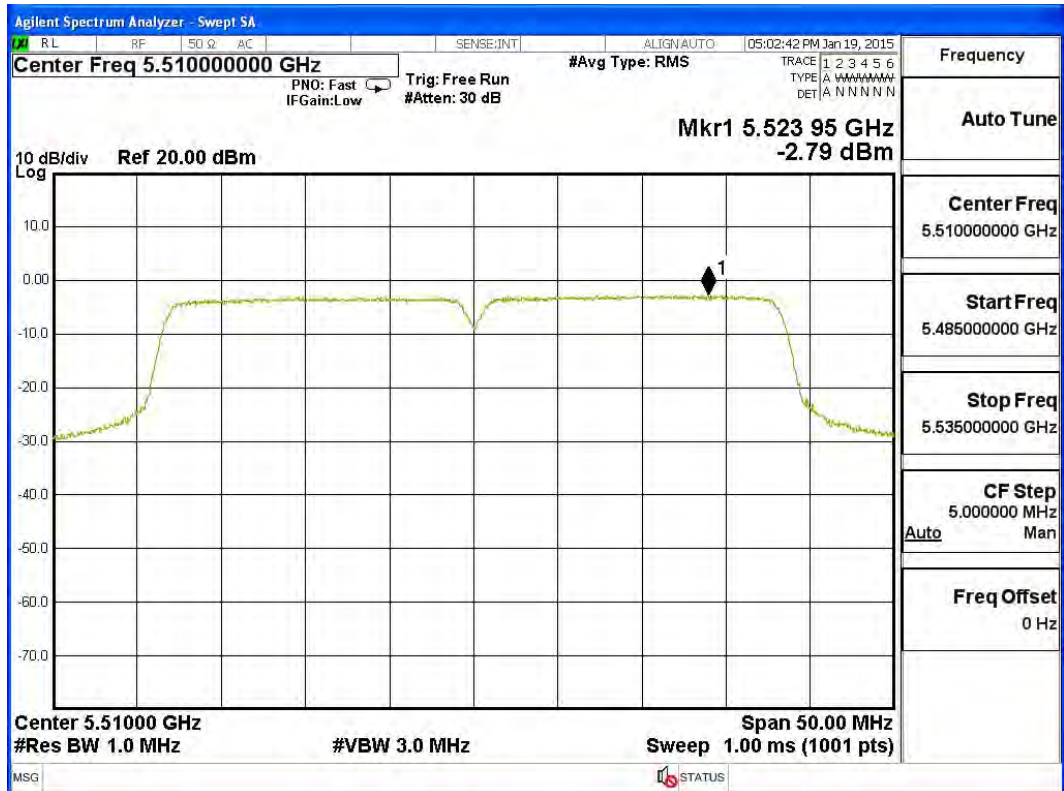
Channel 62 – Chain B



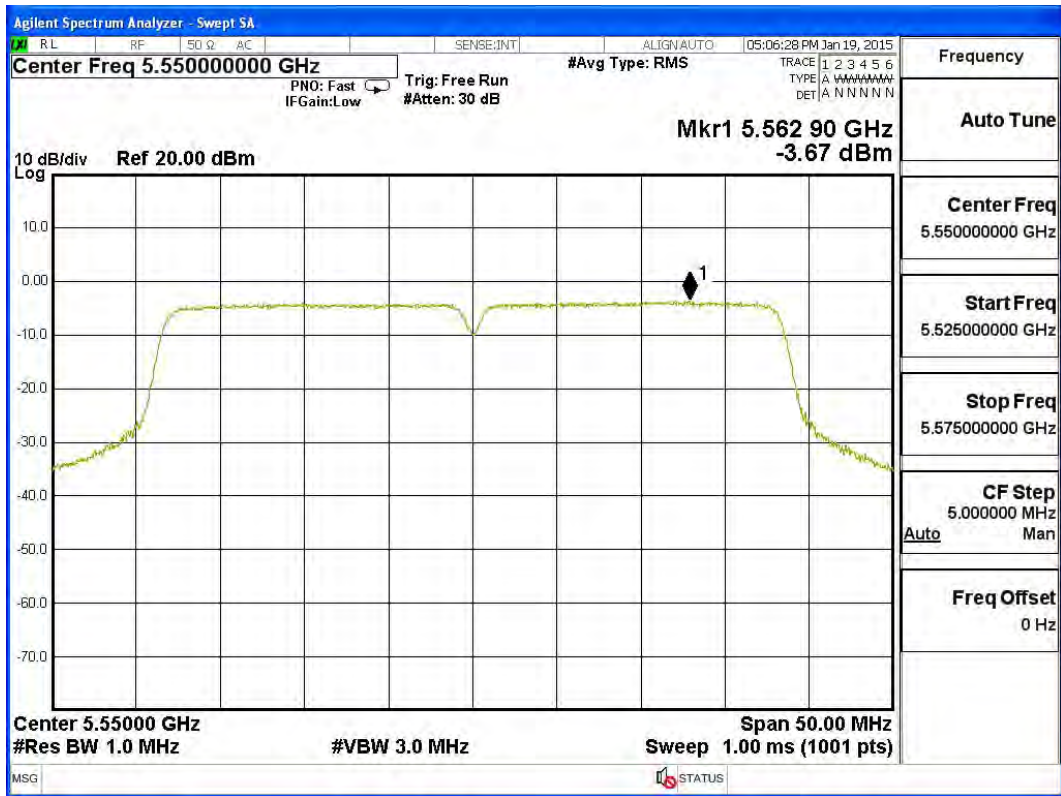
Channel 102 – Chain A



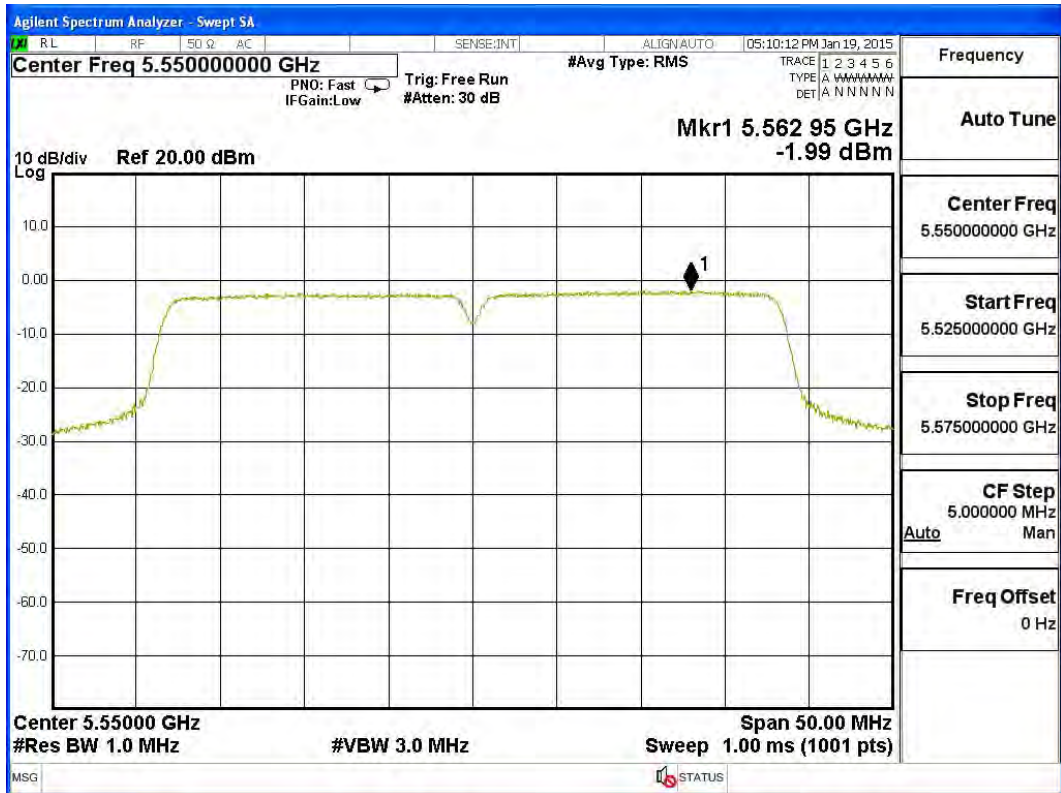
Channel 102 – Chain B



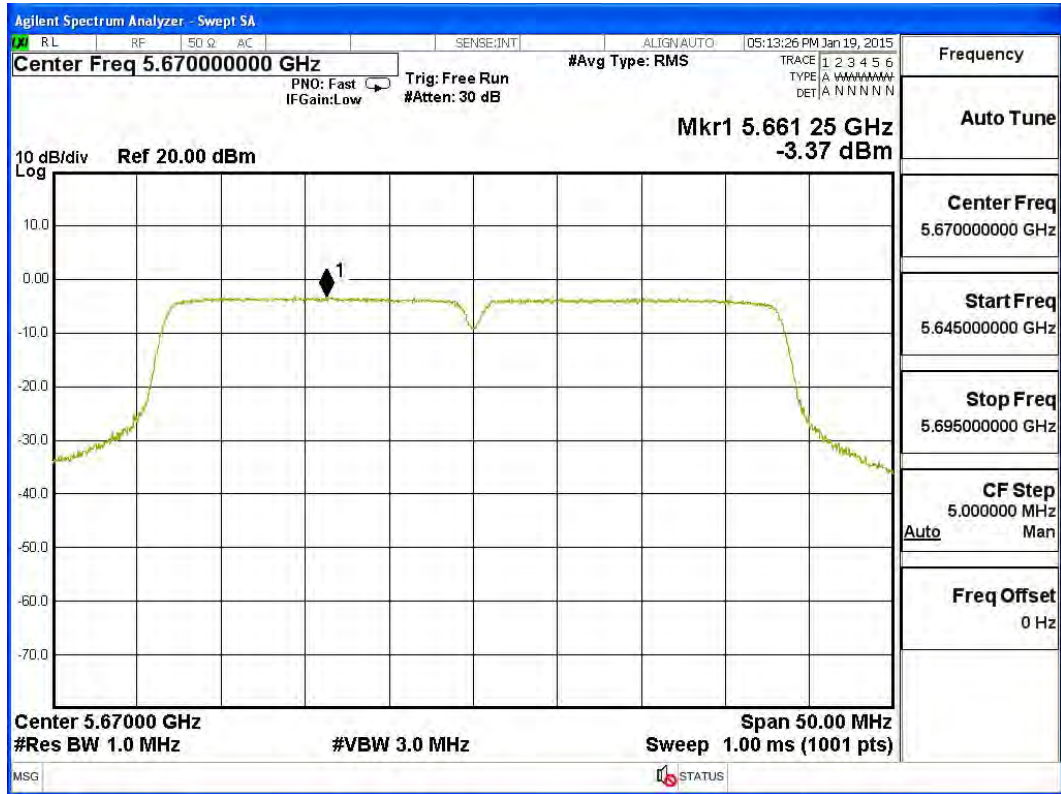
Channel 110 – Chain A



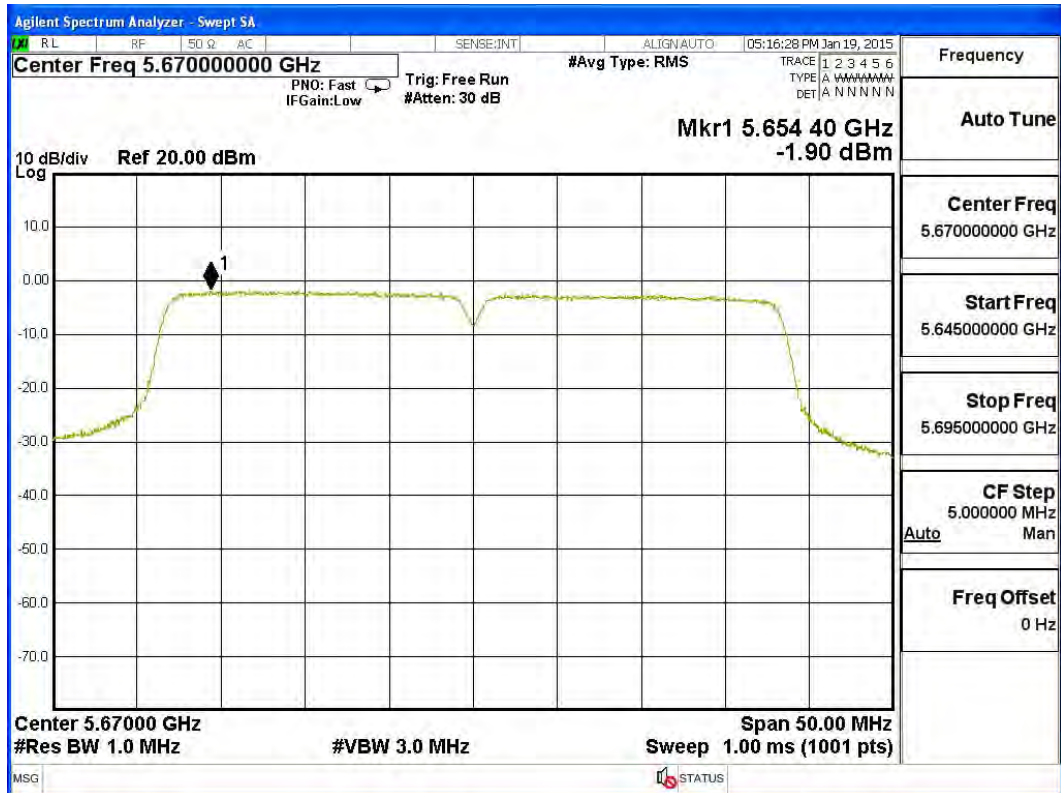
Channel 110 – Chain B



Channel 134 – Chain A



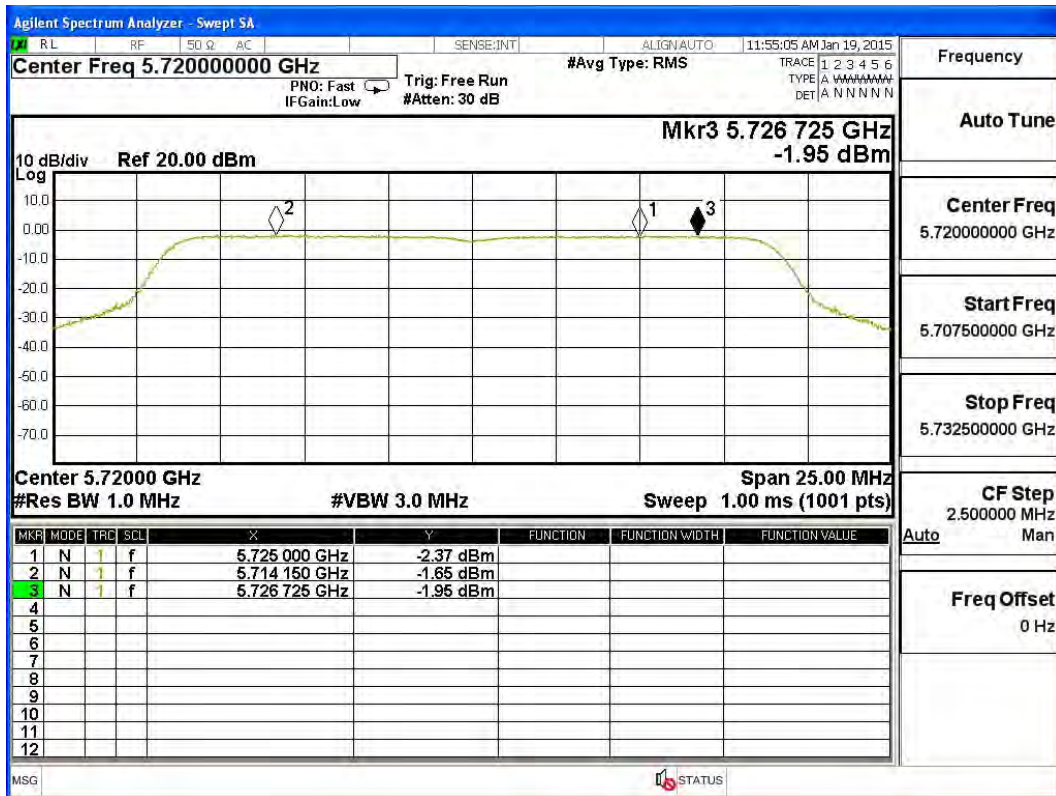
Channel 134 – Chain B



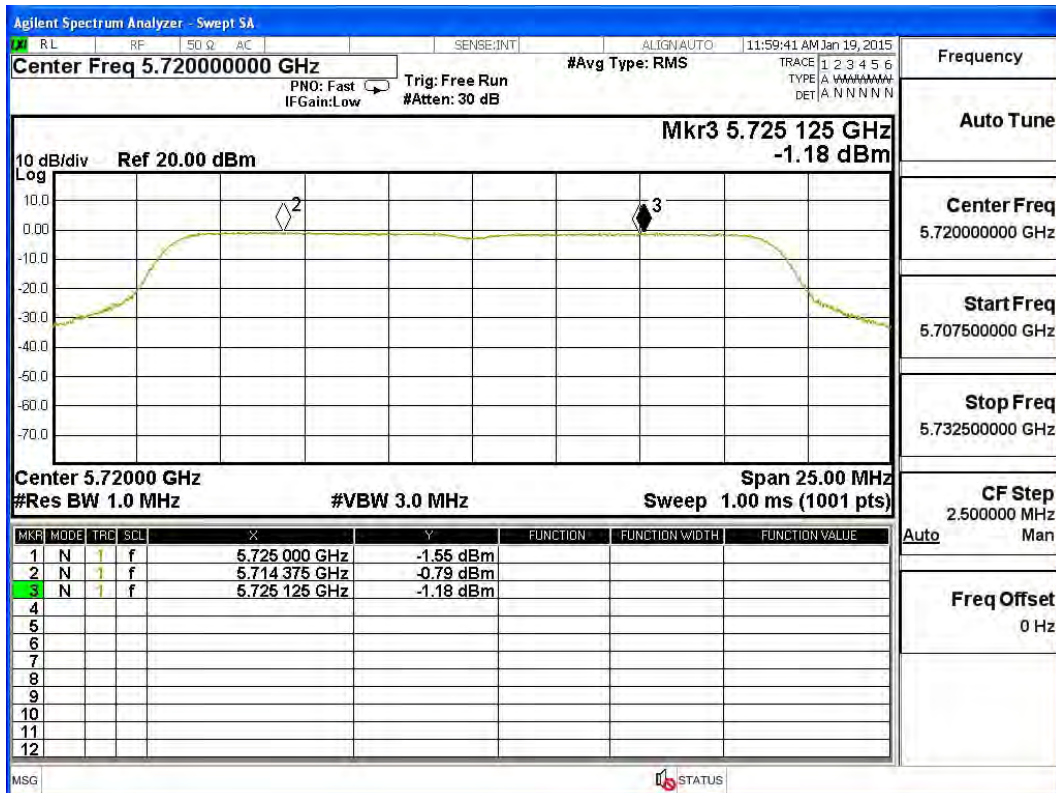
Product : Wireless Access Point
 Test Item : Peak Power Spectral Density
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit (802.11ac-20BW-7.2Mbps) (External Antenna)

Channel Number	Frequency (MHz)	Chain	Reading PPSD/MHz (dBm)	Cable Loss (dB)	Measurement PPSD/MHz (dBm)	Total PPSD/MHz (dBm)	Required Limit (dBm)	Result
144	5720(Band3)	A	-1.65	1.5	-0.15	2.86	<11	Pass
		B	-0.79	1.5	0.71	3.72	<11	Pass
144	5720(Band4)	A	-1.95	1.5	-0.45	2.56	<11	Pass
		B	-1.18	1.5	0.32	3.33	<11	Pass

Channel 144 – Chain A



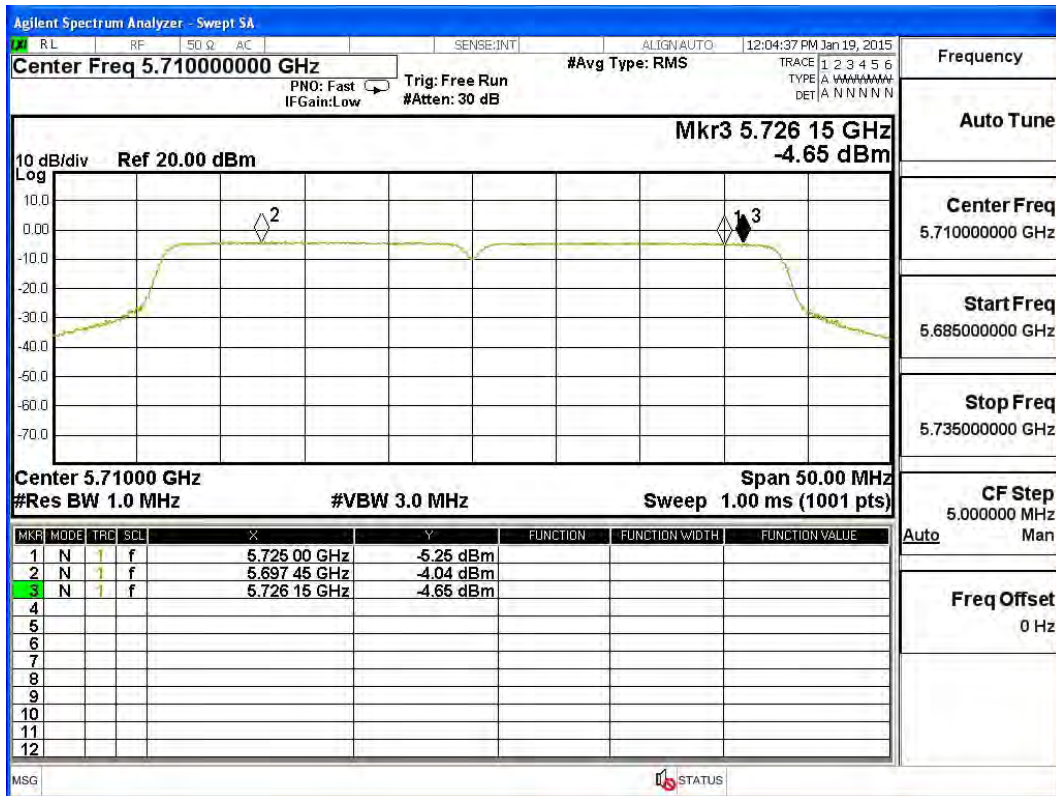
Channel 144 – Chain B



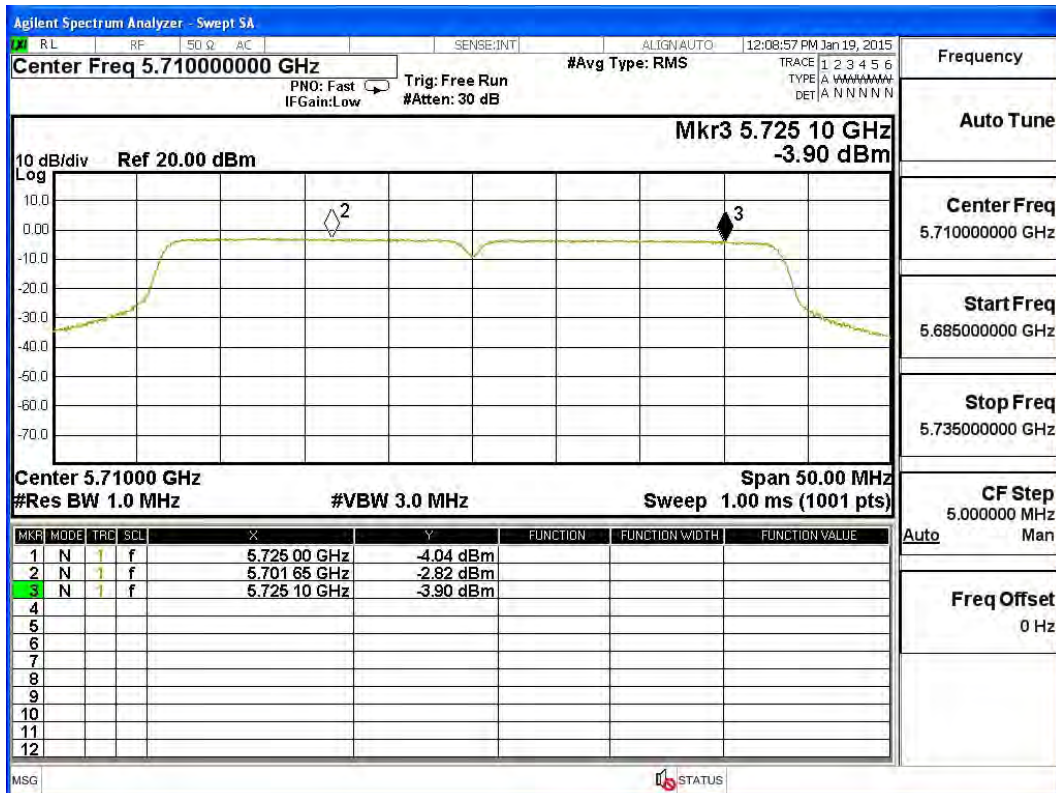
Product : Wireless Access Point
 Test Item : Peak Power Spectral Density
 Test Site : No.3 OATS
 Test Mode : Mode 5: Transmit (802.11ac-40BW-15Mbps) (External Antenna)

Channel Number	Frequency (MHz)	Chain	Reading PPSD/MHz (dBm)	Cable Loss (dB)	Measurement PPSD/MHz (dBm)	Total PPSD/MHz (dBm)	Required Limit (dBm)	Result
142	5710(Band3)	A	-4.04	1.5	-2.54	0.47	<11	Pass
		B	-2.82	1.5	-1.32	1.69	<11	Pass
142	5710(Band4)	A	-4.65	1.5	-3.15	-0.14	<11	Pass
		B	-3.90	1.5	-2.40	0.61	<11	Pass

Channel 142 – Chain A



Channel 142 – Chain B

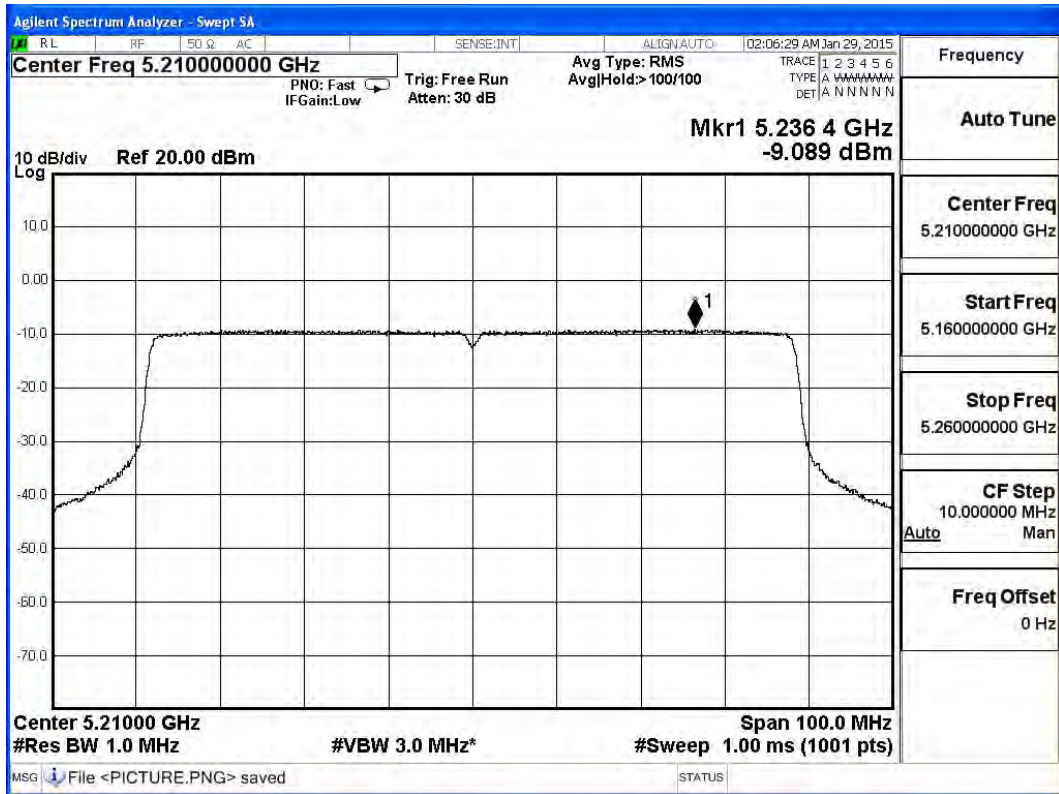


Product : Wireless Access Point
 Test Item : Peak Power Spectral Density
 Test Site : No.3 OATS
 Test Mode : Mode 6: Transmit (802.11ac-80BW-65Mbps) (External Antenna)

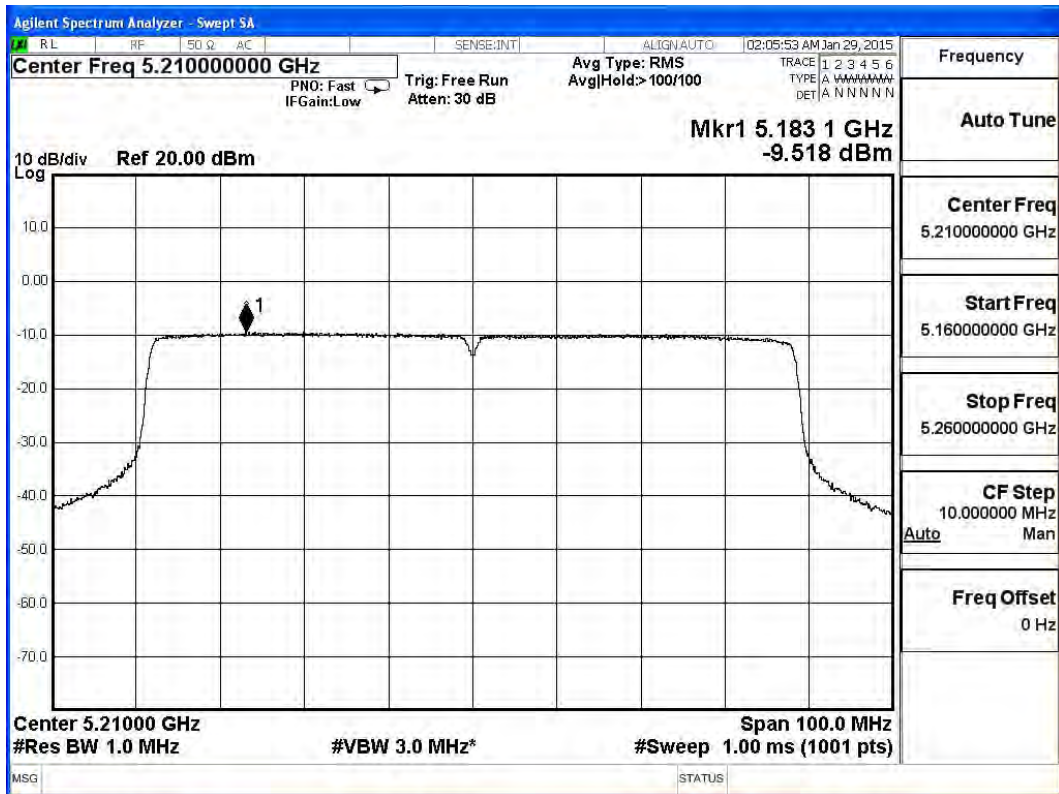
Channel Number	Frequency (MHz)	Chain	Reading PPSD/MHz (dBm)	Cable Loss (dB)	Measurement PPSD/MHz (dBm)	Total PPSD/MHz (dBm)	Required Limit (dBm)	Result
42	5210	A	-9.089	1.5	-7.589	-4.579	<4	Pass
		B	-9.518	1.5	-8.018	-5.008	<4	Pass
58	5290	A	-9.248	1.5	-7.748	-4.738	<4	Pass
		B	-11.209	1.5	-9.709	-6.699	<4	Pass
106	5530	A	-7.61	1.5	-7.589	-4.579	<11	Pass
		B	-5.4	1.5	-8.018	-5.008	<11	Pass
138	5690 (Band3)	A	-7.38	1.5	-7.748	-4.738	<11	Pass
		B	-5.66	1.5	-9.709	-6.699	<11	Pass
138	5690 (Band4)	A	-8.48	1.5	-7.748	-4.738	<17	Pass
		B	-8.04	1.5	-9.709	-6.699	<17	Pass

Note: The quantity $10 \cdot \log 2$ (two antennas) is added to the spectrum peak value according to document 662911 D01.

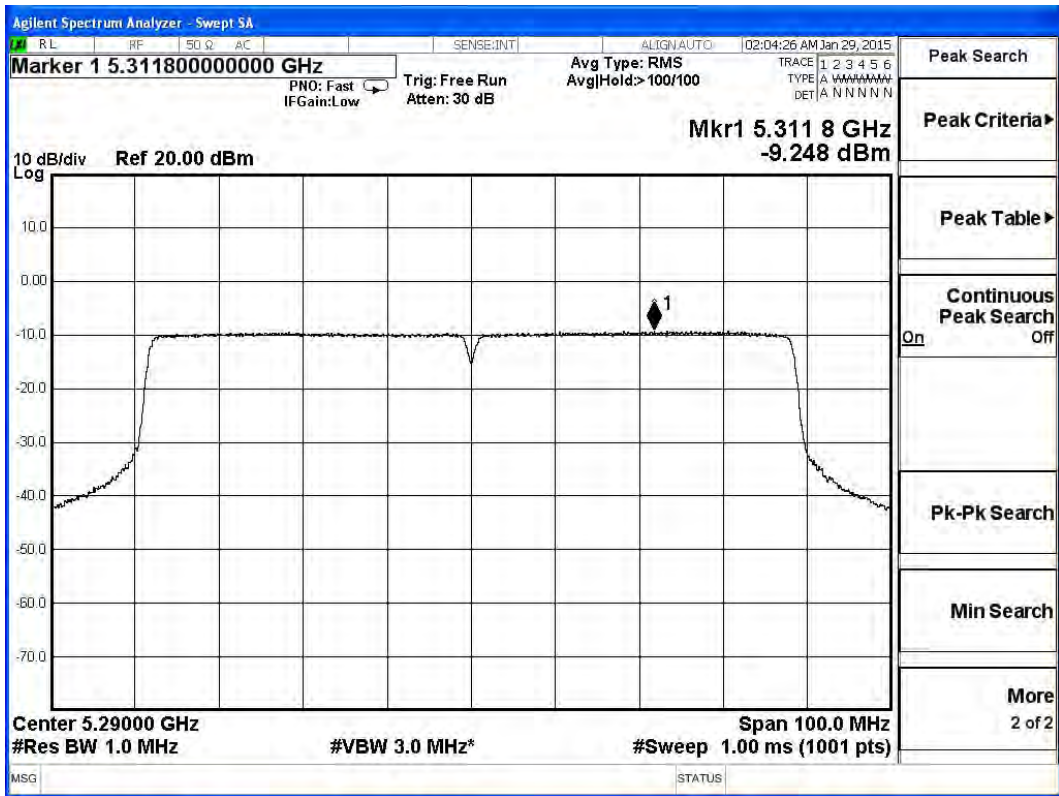
Channel 42 – Chain A



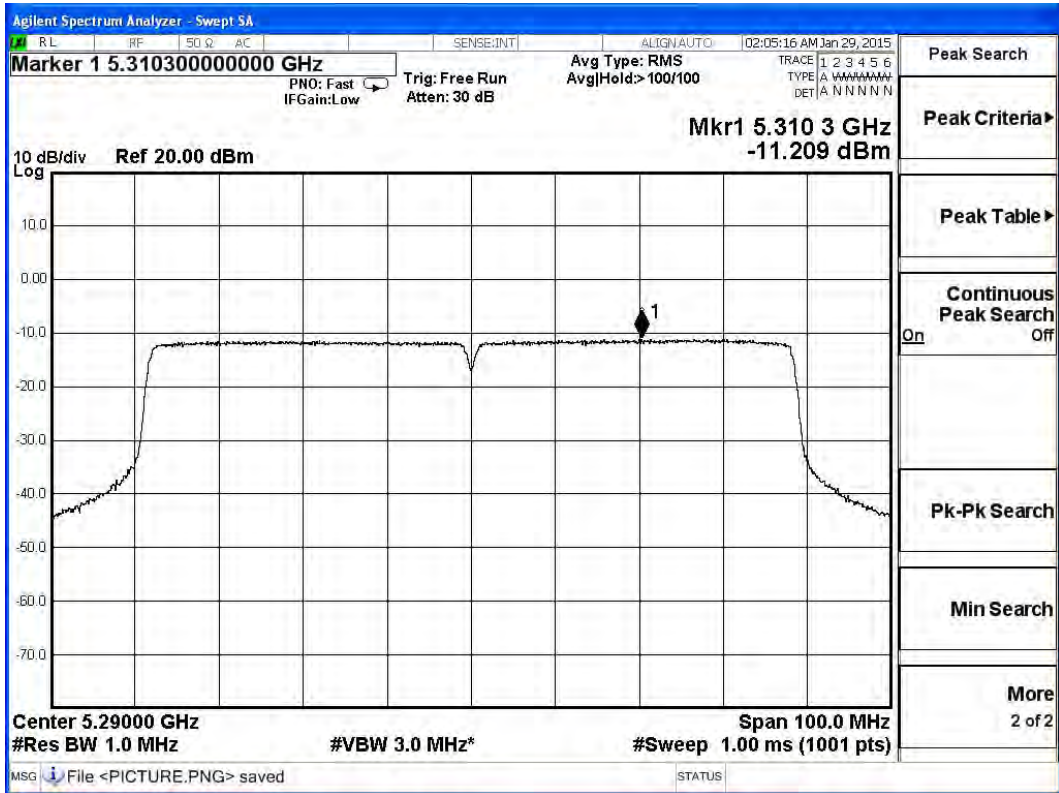
Channel 42 – Chain B



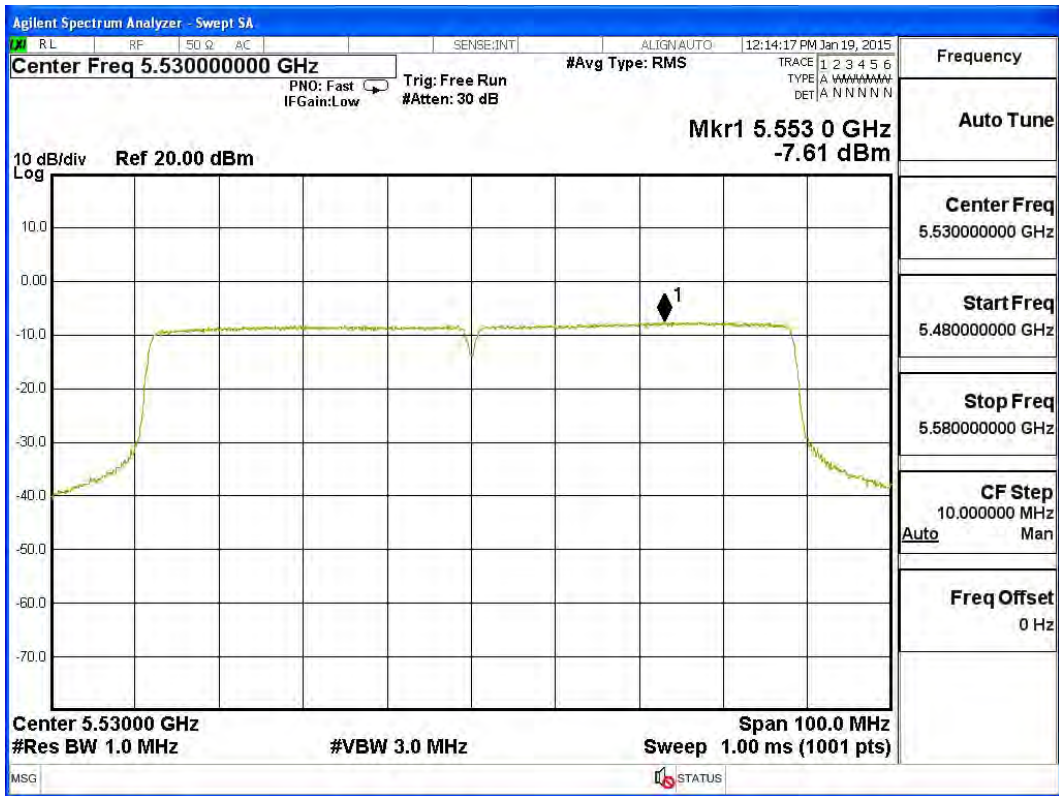
Channel 58 – Chain A



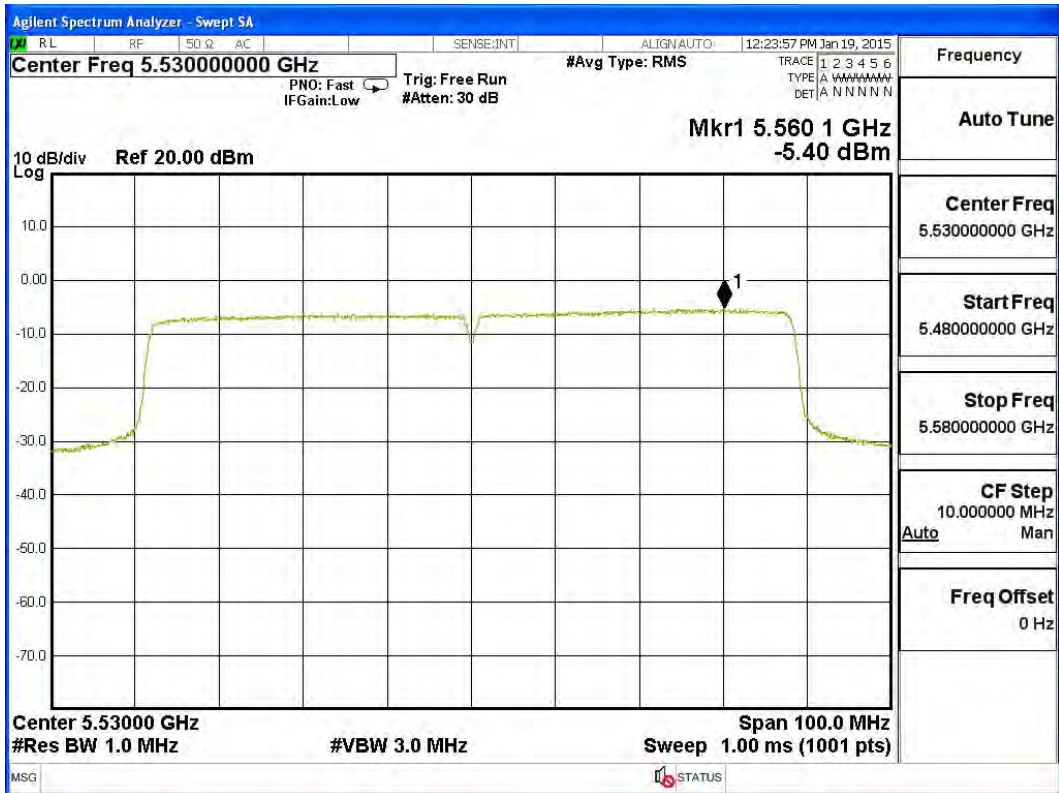
Channel 58 – Chain B



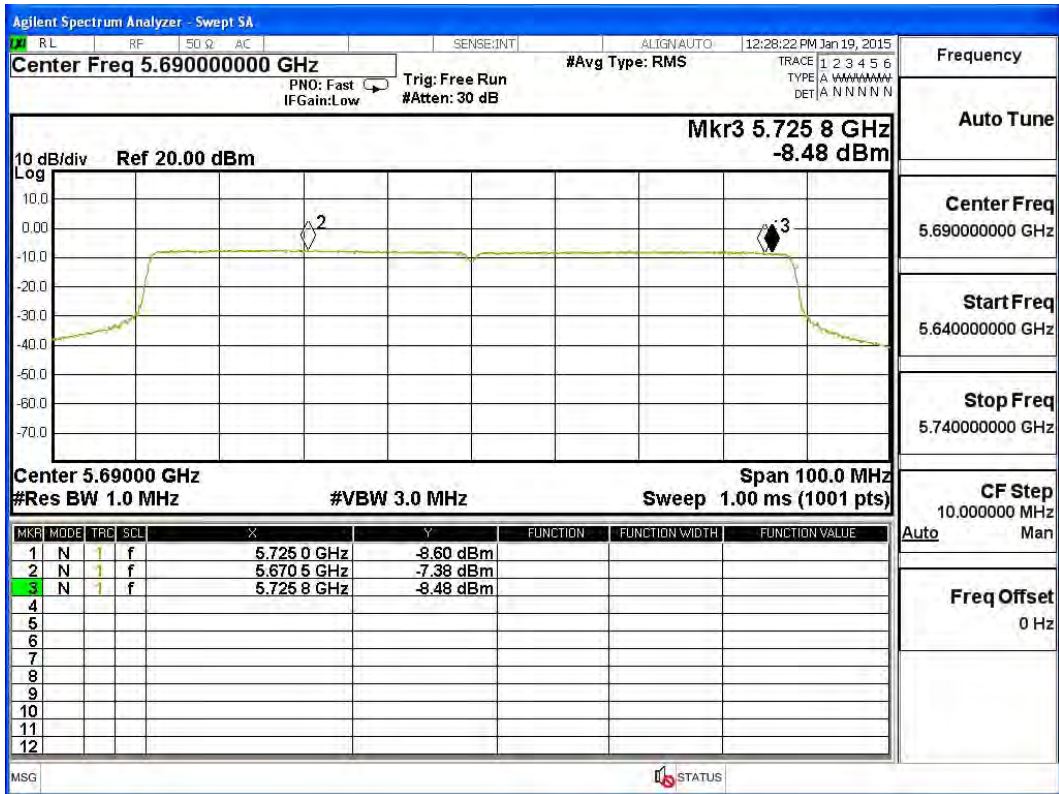
Channel 106 – Chain A



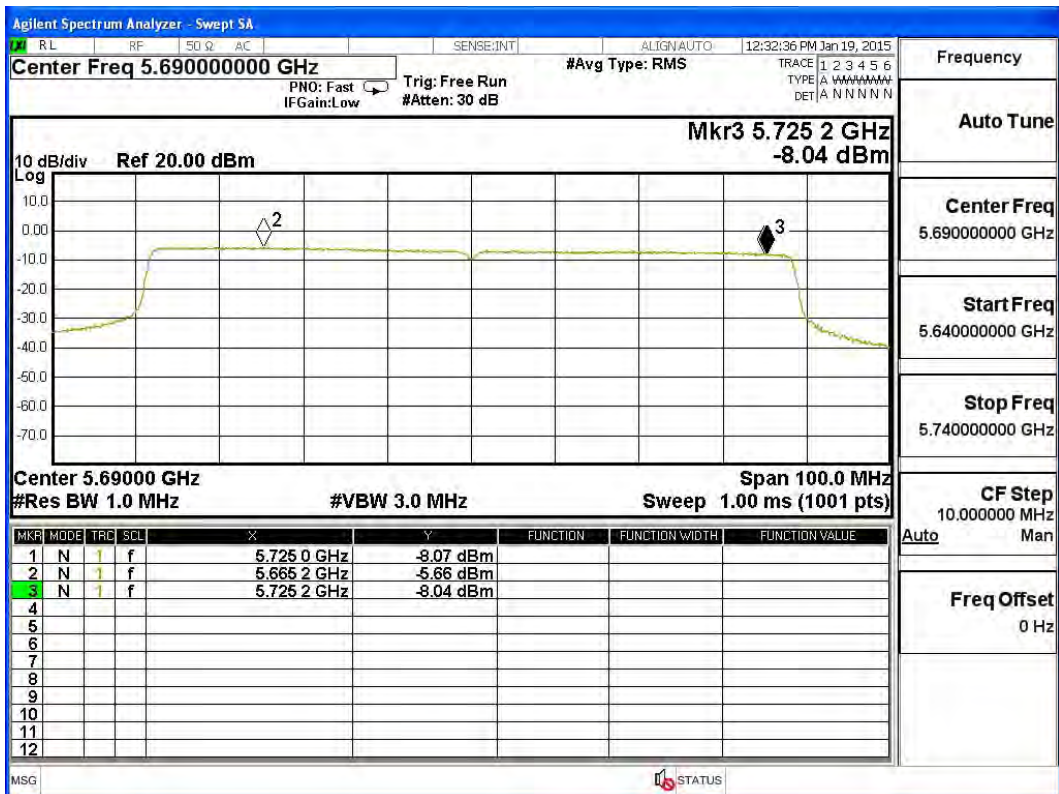
Channel 106 – Chain B



Channel 138 – Chain A



Channel 138 – Chain B



5. Peak Excursion

5.1. Test Equipment

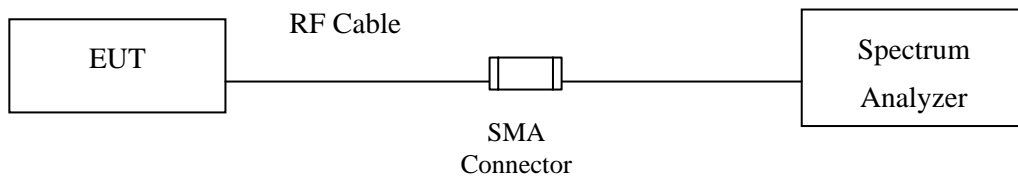
	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun., 2014
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun., 2014
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2014

Note:

1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with “X” are used to measure the final test results.

5.2. Test Setup

Conduction Power Measurement



5.3. Limits

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

5.4. Test Procedure

The EUT was setup to ANSI C63.10: 2009; tested to DTS test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

Step 1: Set the spectrum analyzer or EMI receiver span to view the entire emission bandwidth.

Step 2: Find the maximum of the peak-max-hold spectrum.

(Set RBW = 1 MHz, VBW \geq 3 MHz, Detector = peak, Trace mode = max-hold,

Allow the sweeps to continue until the trace stabilizes, Use the peak search function to find the peak of the spectrum.)

Step 3: Use the procedure found under KDB-789033 F) to measure the PPSD.

Step 4: Compute the ratio of the maximum of the peak-max-hold spectrum to the PPSD.

5.5. Uncertainty

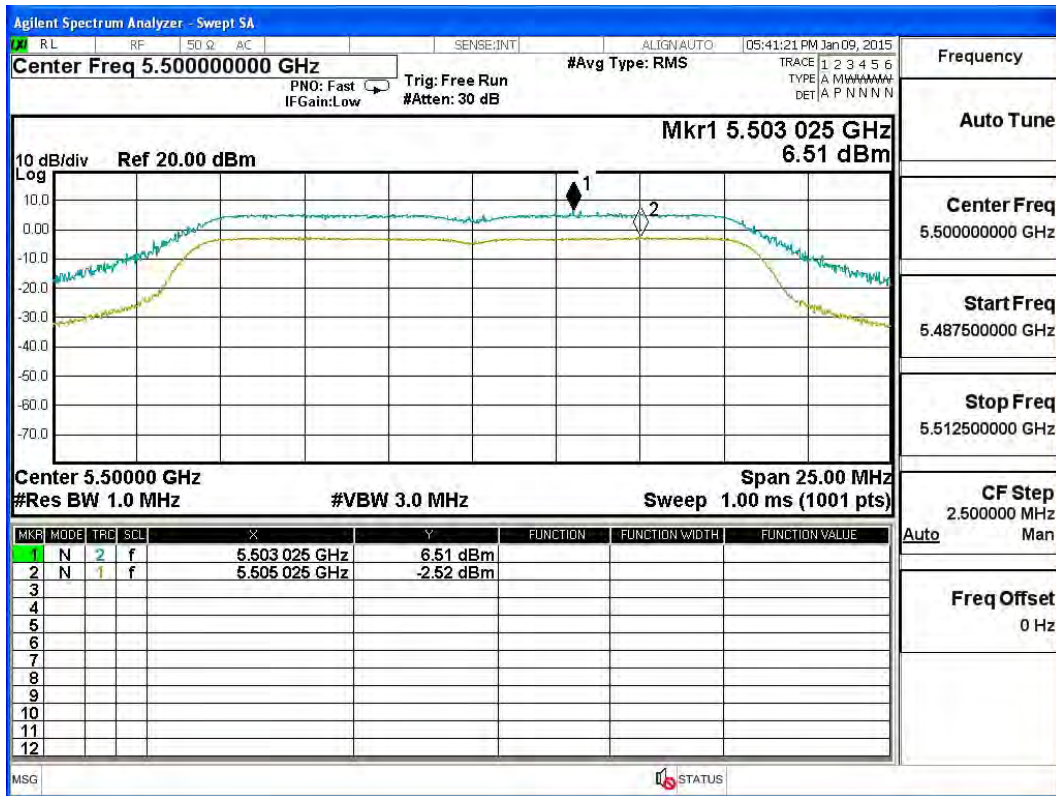
± 1.27 dB

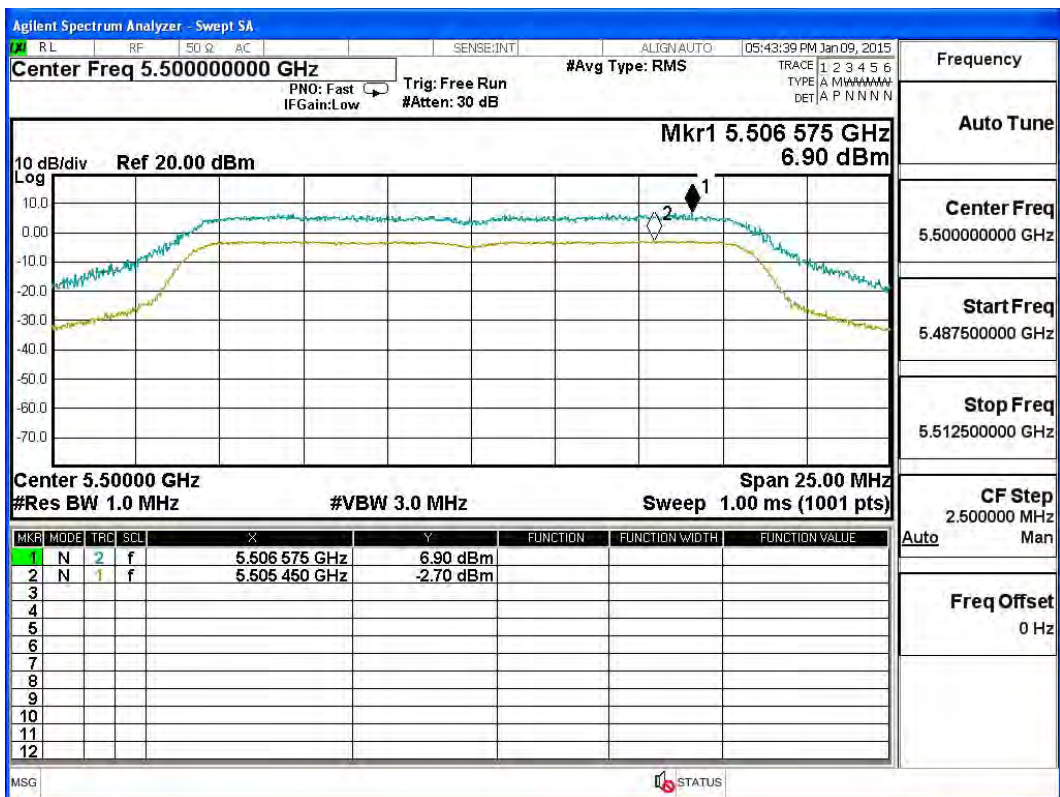
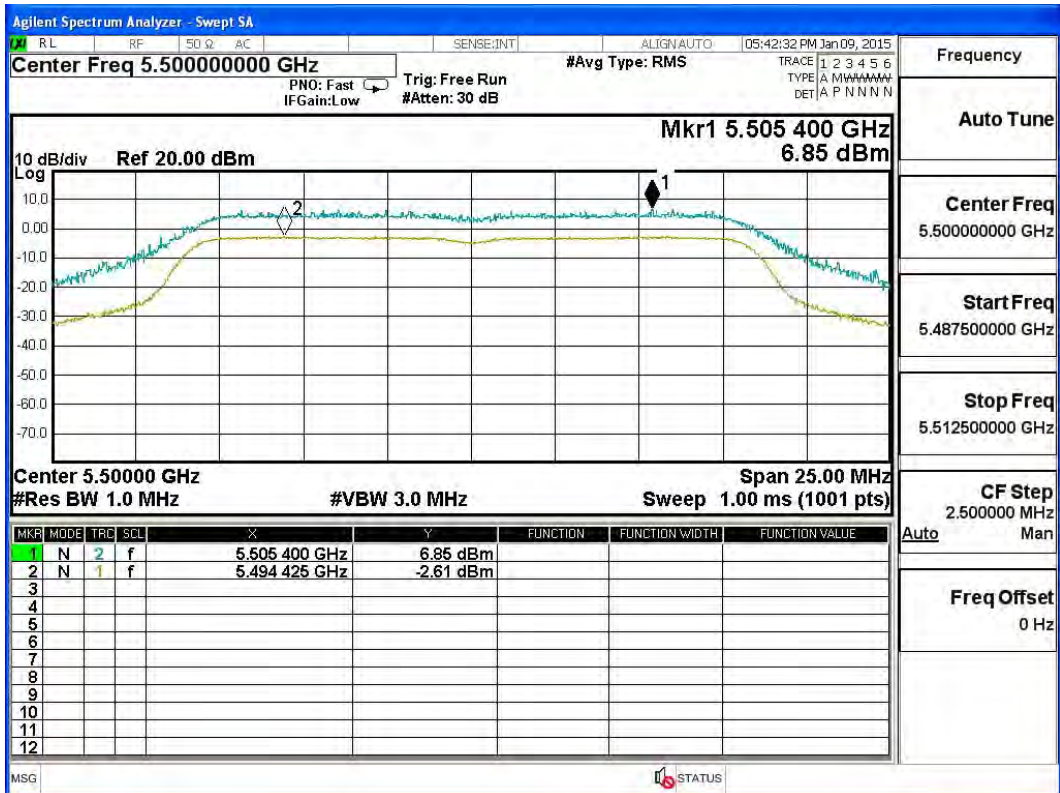
5.6. Test Result of Peak Excursion

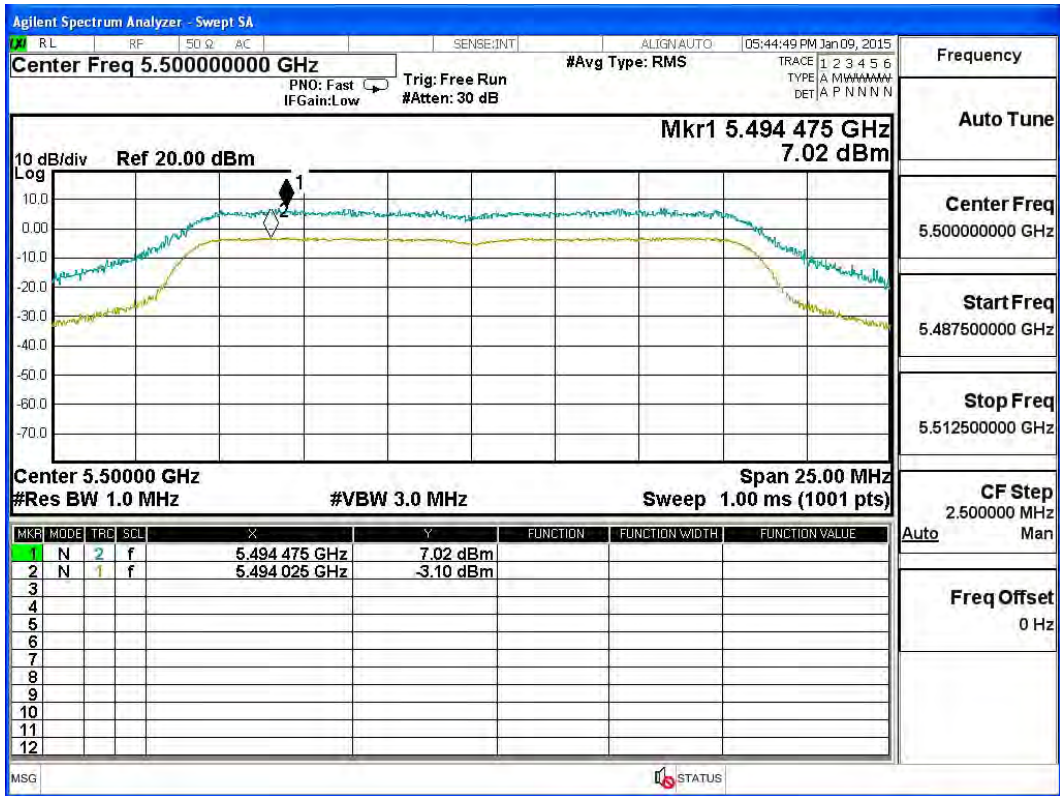
Product : Wireless Access Point
 Test Item : Peak Excursion
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (Internal Antenna)

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
100	5500	MCS (0)	9.030	<13	Pass
		MCS (2)	9.460	<13	Pass
		MCS (4)	9.600	<13	Pass
		MCS (7)	10.120	<13	Pass

Channel 100:







Product : Wireless Access Point
 Test Item : Peak Excursion
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (Internal Antenna)

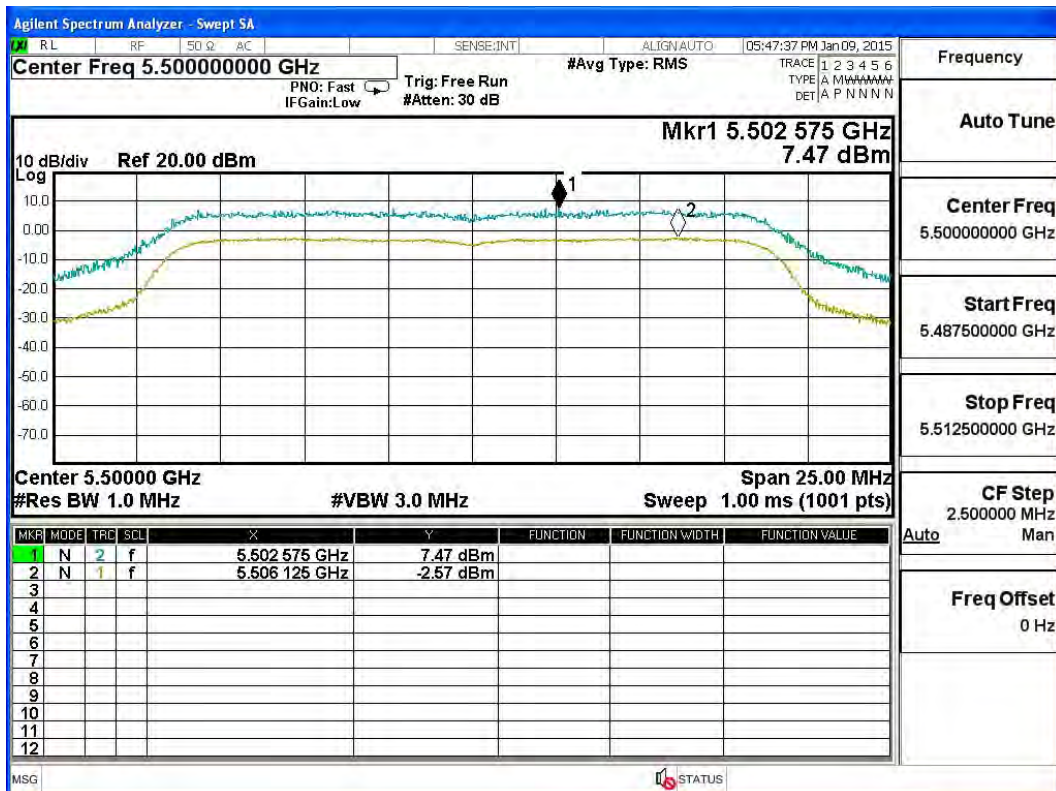
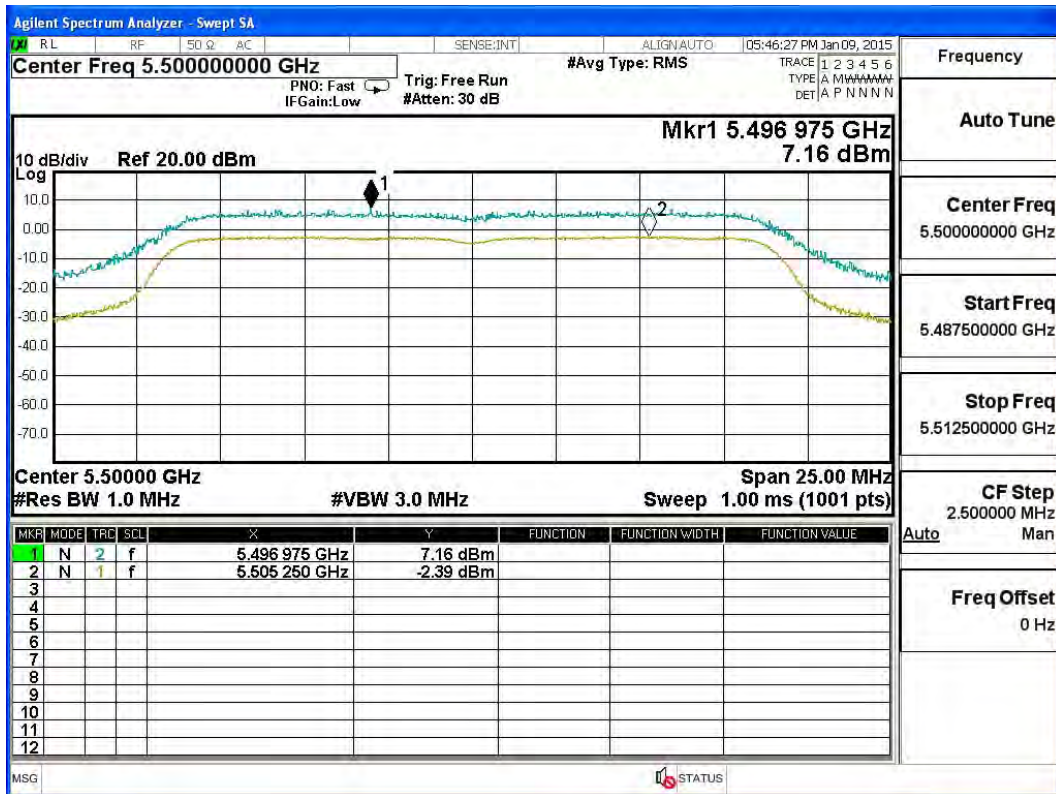
Chain A

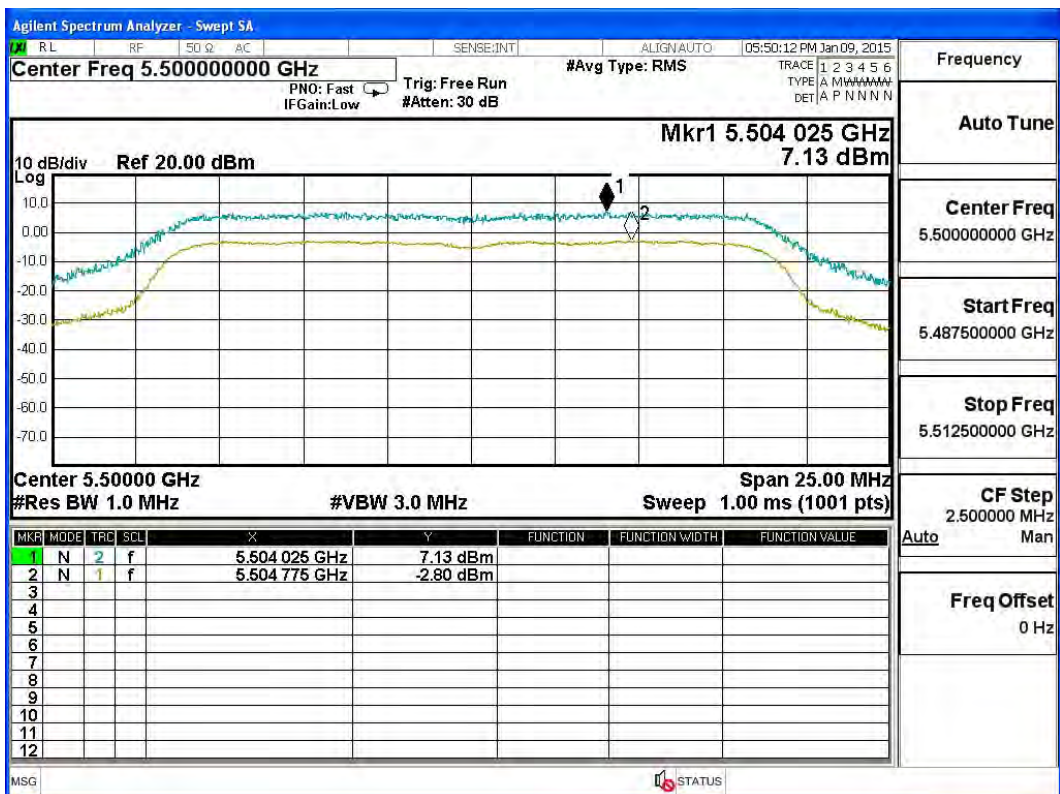
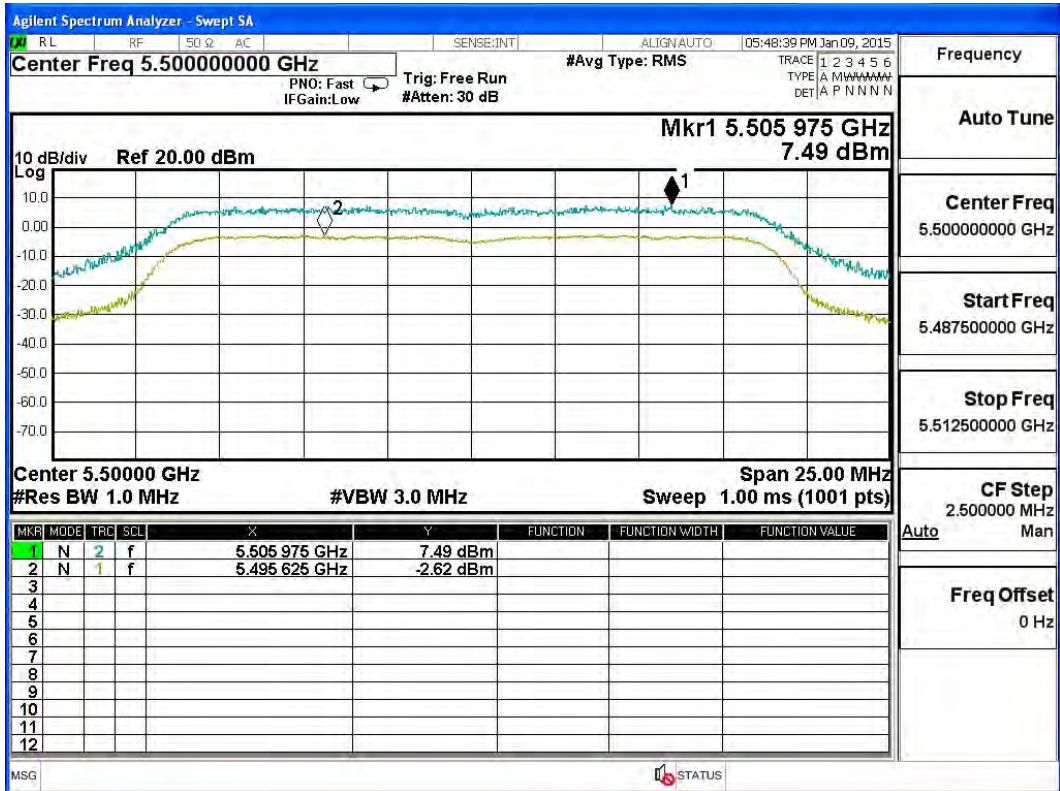
Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
100	5500	MCS (0)	9.830	<13	Pass
		MCS (2)	9.940	<13	Pass
		MCS (4)	10.200	<13	Pass
		MCS (7)	10.180	<13	Pass

Chain B

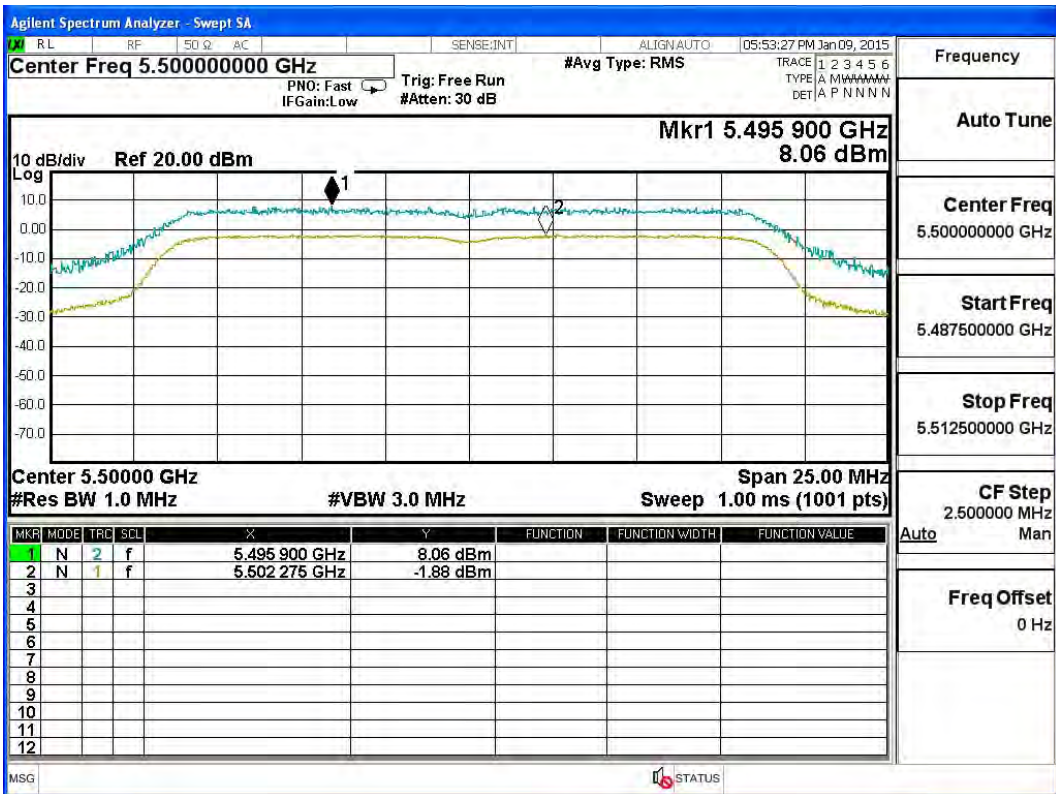
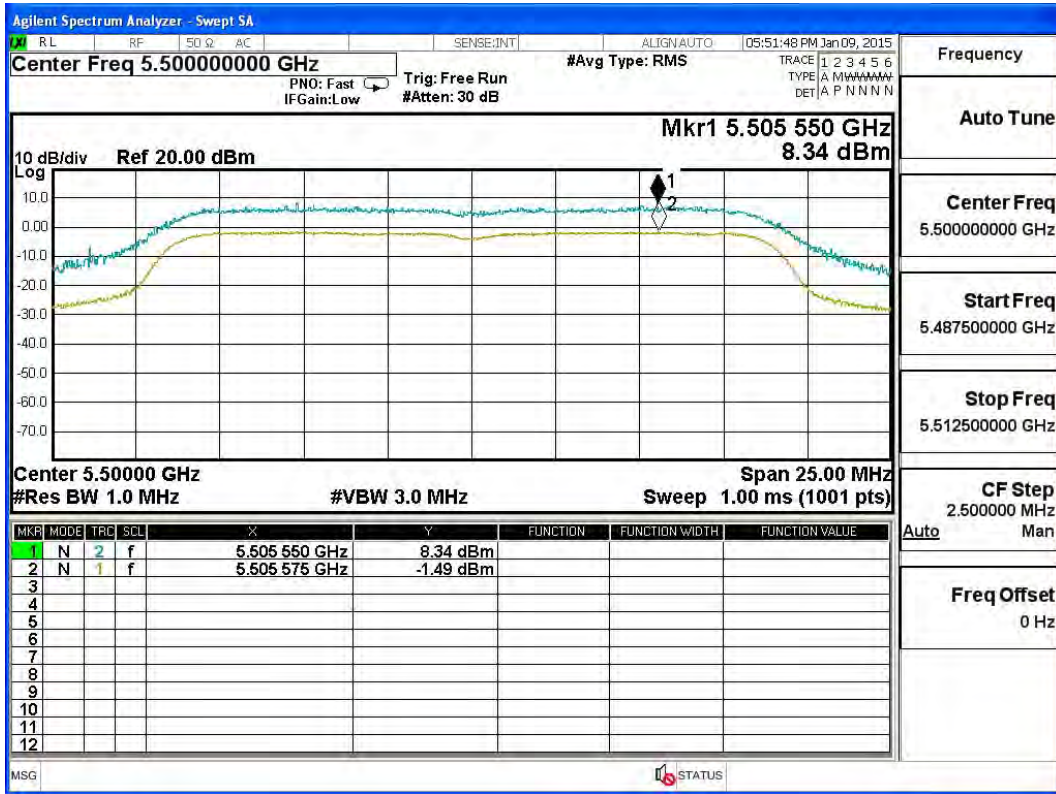
Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
100	5500	MCS (0)	9.550	<13	Pass
		MCS (2)	10.040	<13	Pass
		MCS (4)	10.110	<13	Pass
		MCS (7)	9.930	<13	Pass

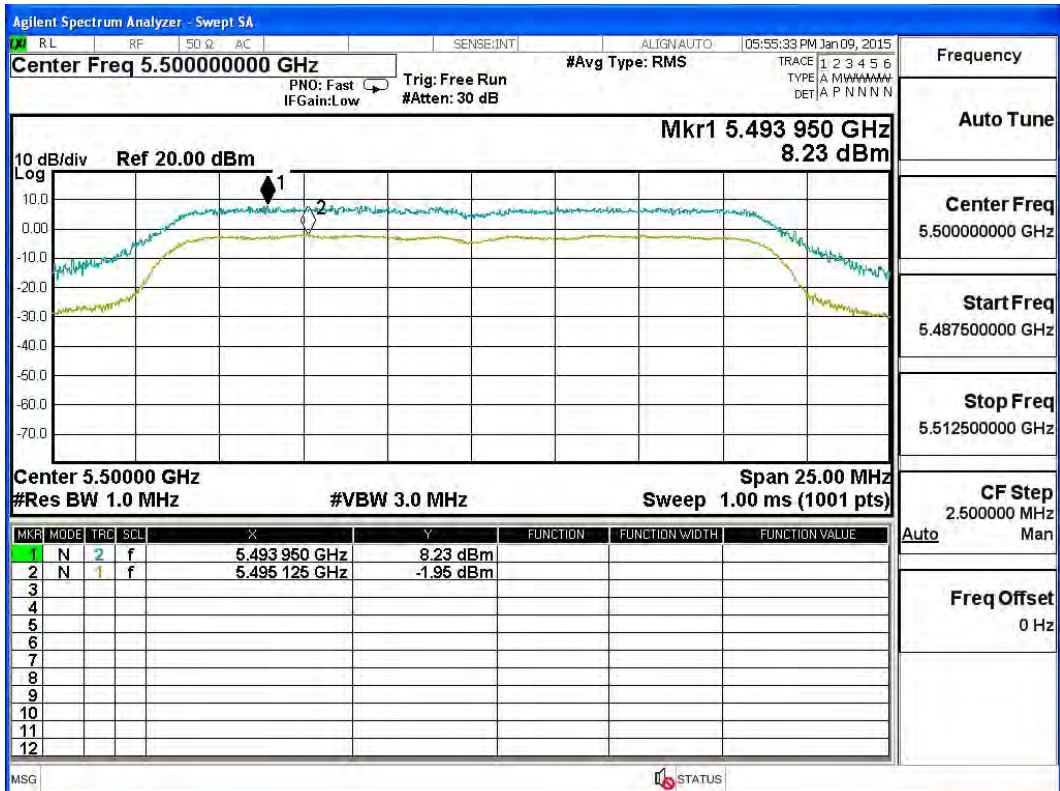
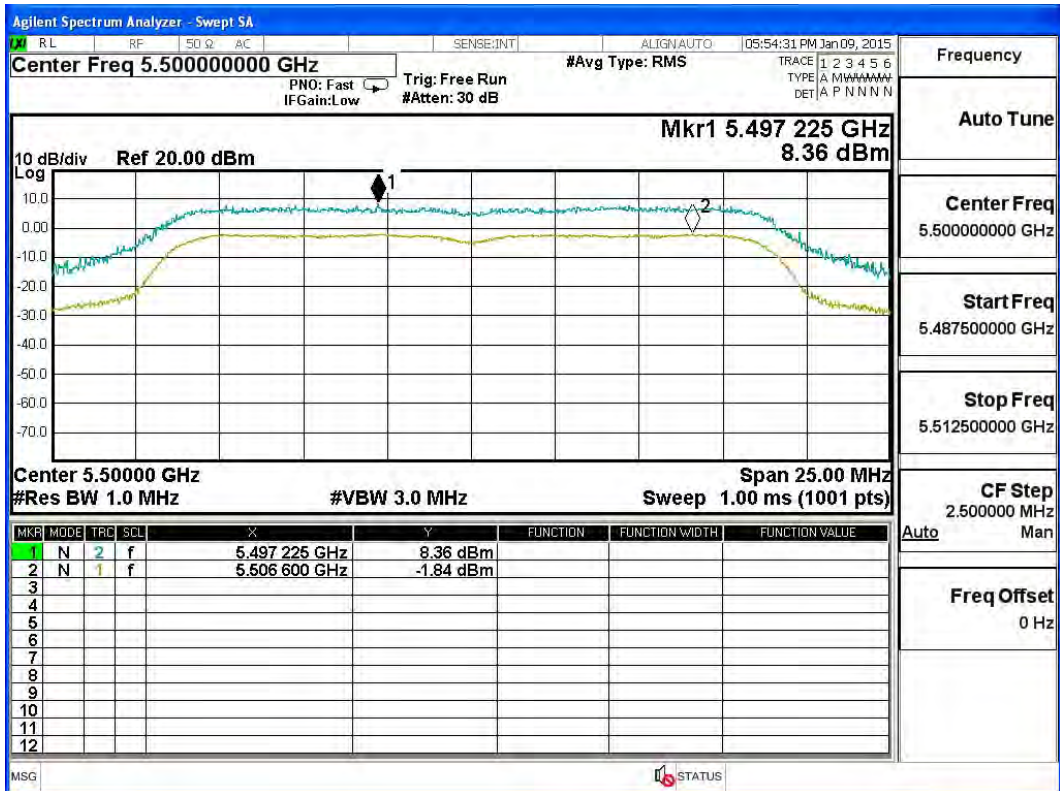
Channel 100 (Chain A):





Channel 100 (Chain B):





Product : Wireless Access Point
 Test Item : Peak Excursion
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (Internal Antenna)

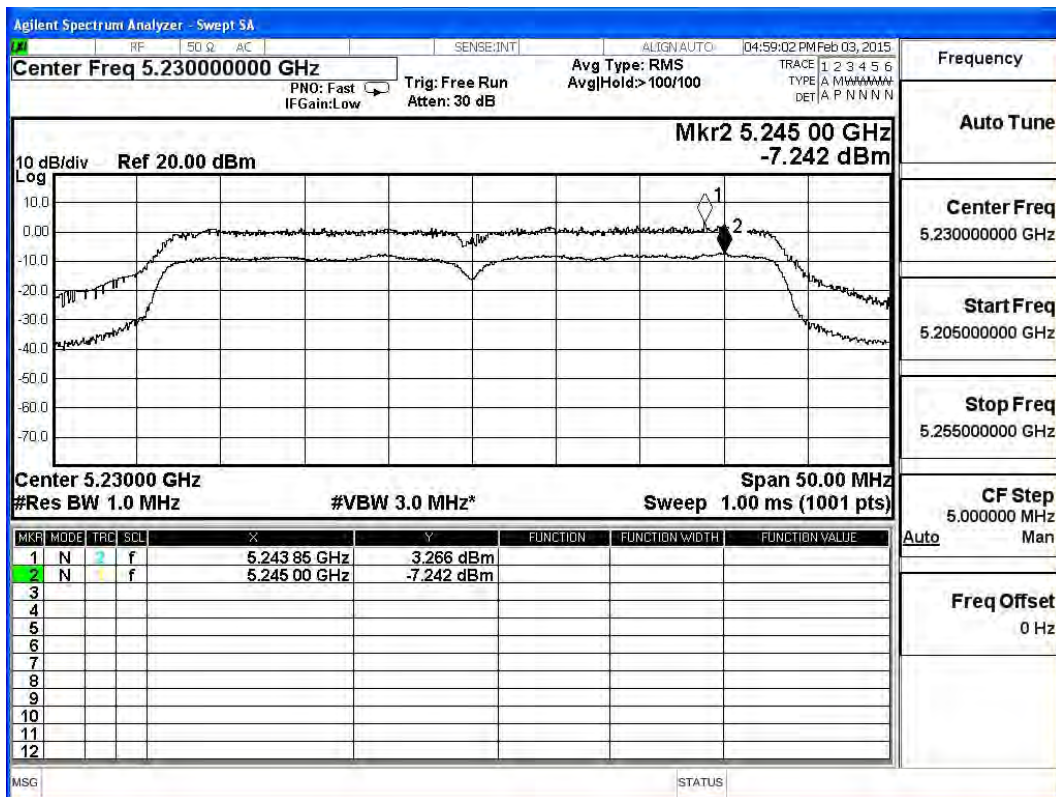
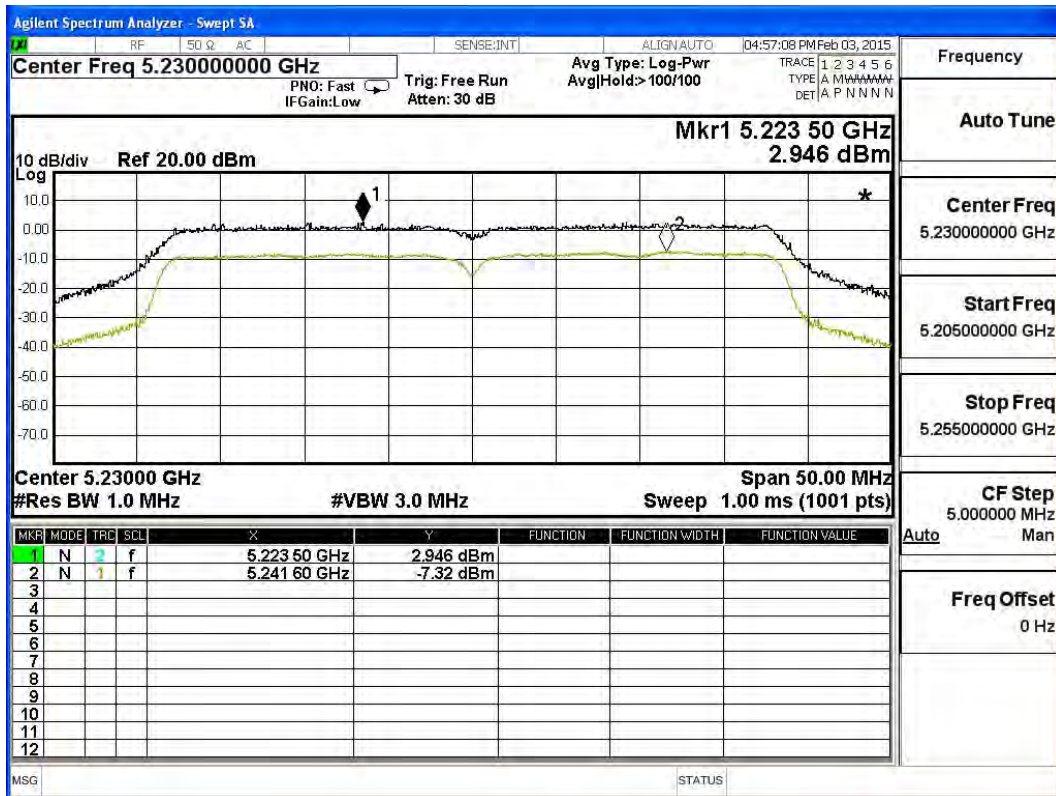
Chain A

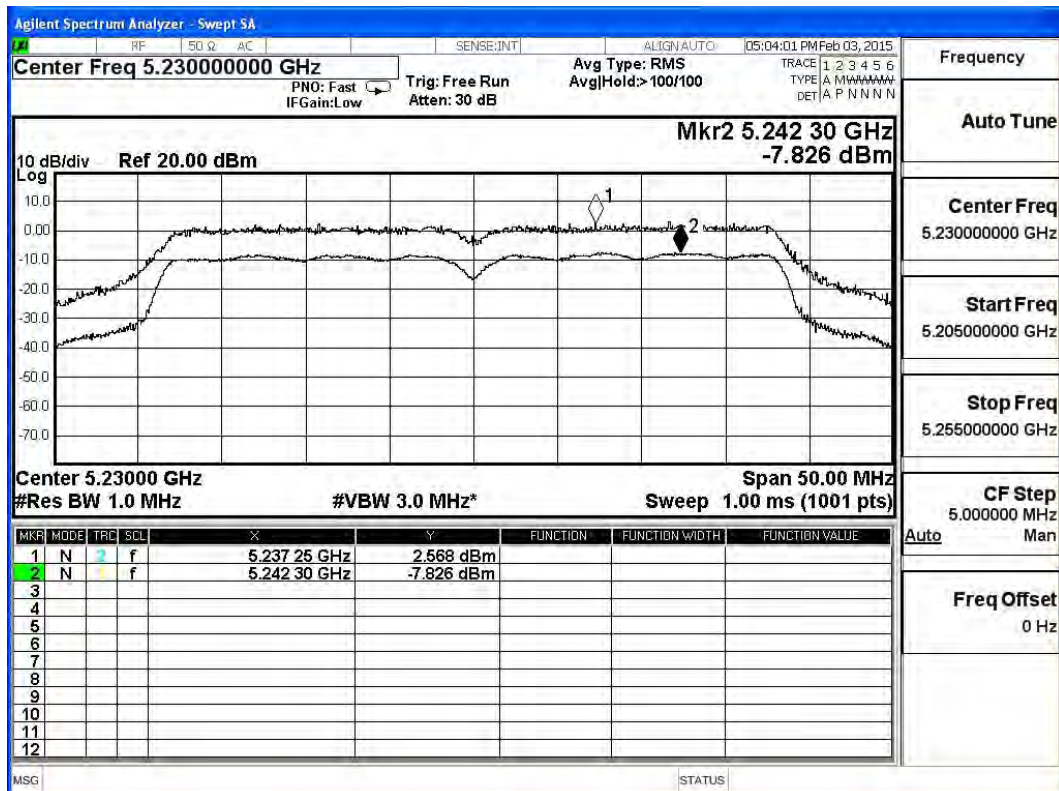
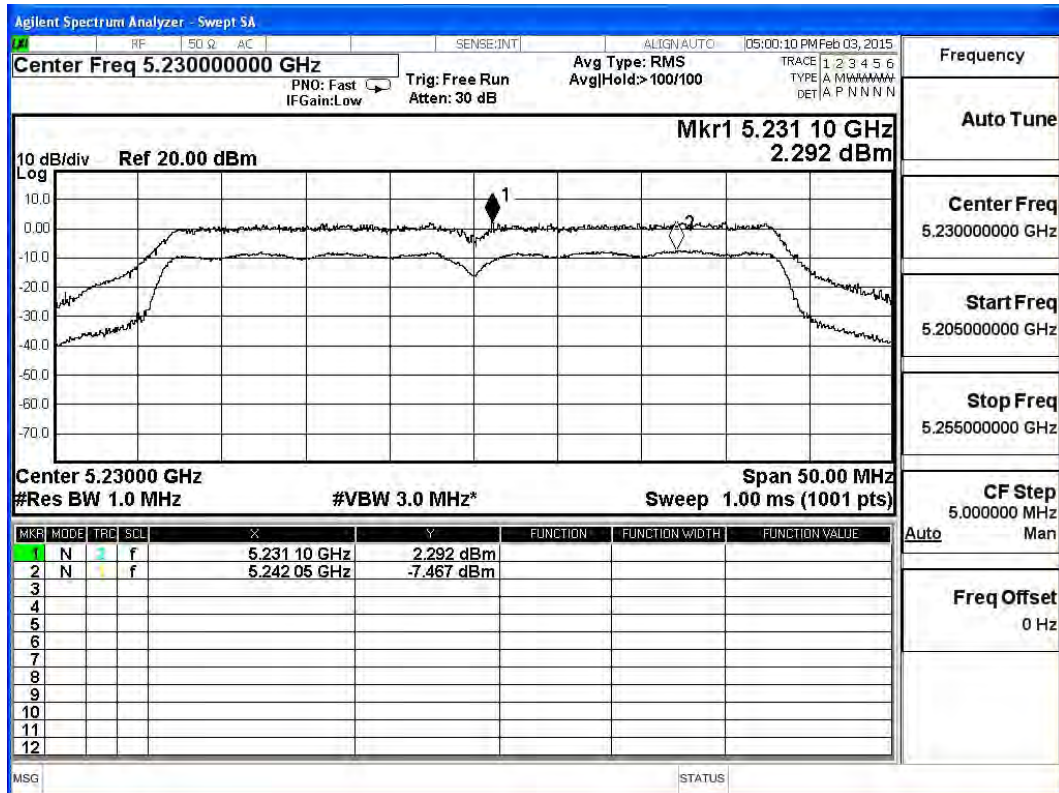
Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
102	5230	MCS (0)	10.266	<13	Pass
		MCS (2)	10.508	<13	Pass
		MCS (4)	9.759	<13	Pass
		MCS (7)	10.394	<13	Pass

Chain B

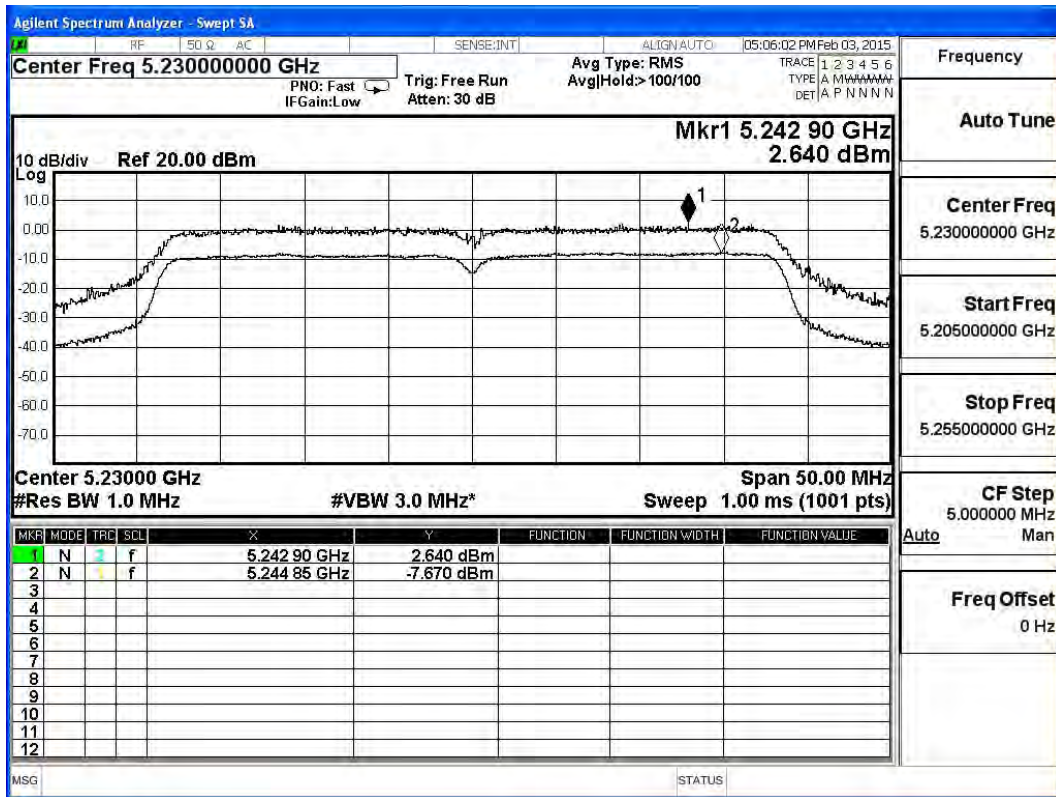
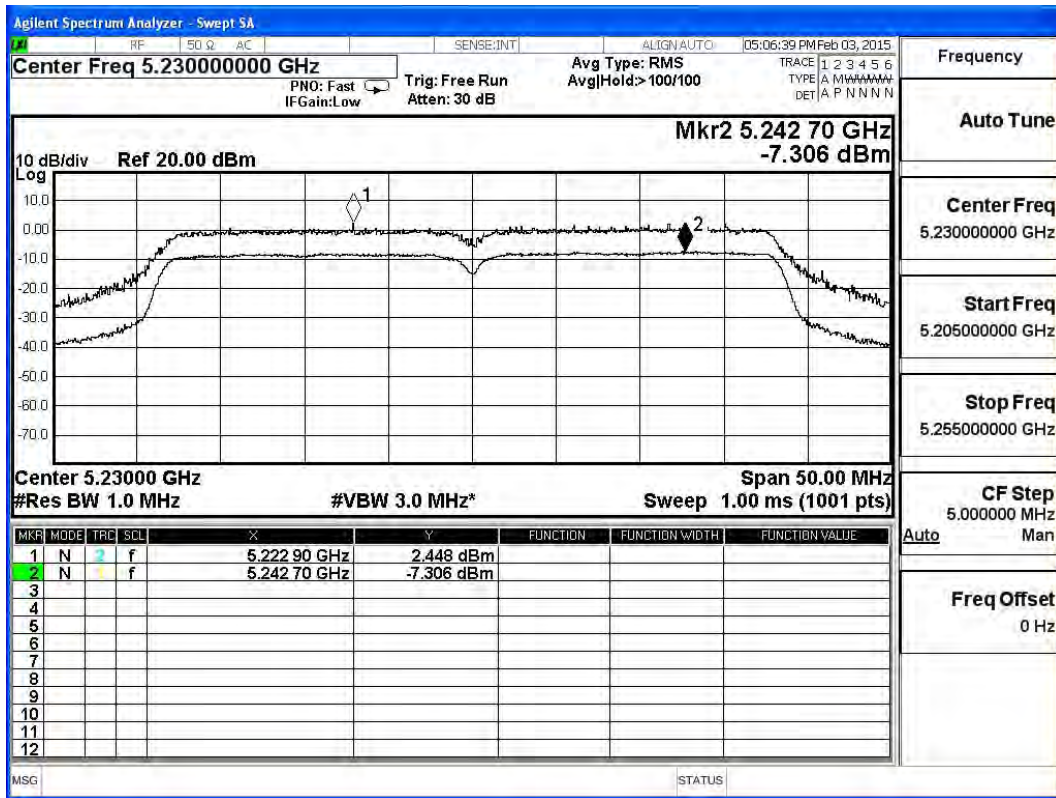
Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
102	5230	MCS (0)	9.754	<13	Pass
		MCS (2)	10.310	<13	Pass
		MCS (4)	10.053	<13	Pass
		MCS (7)	9.798	<13	Pass

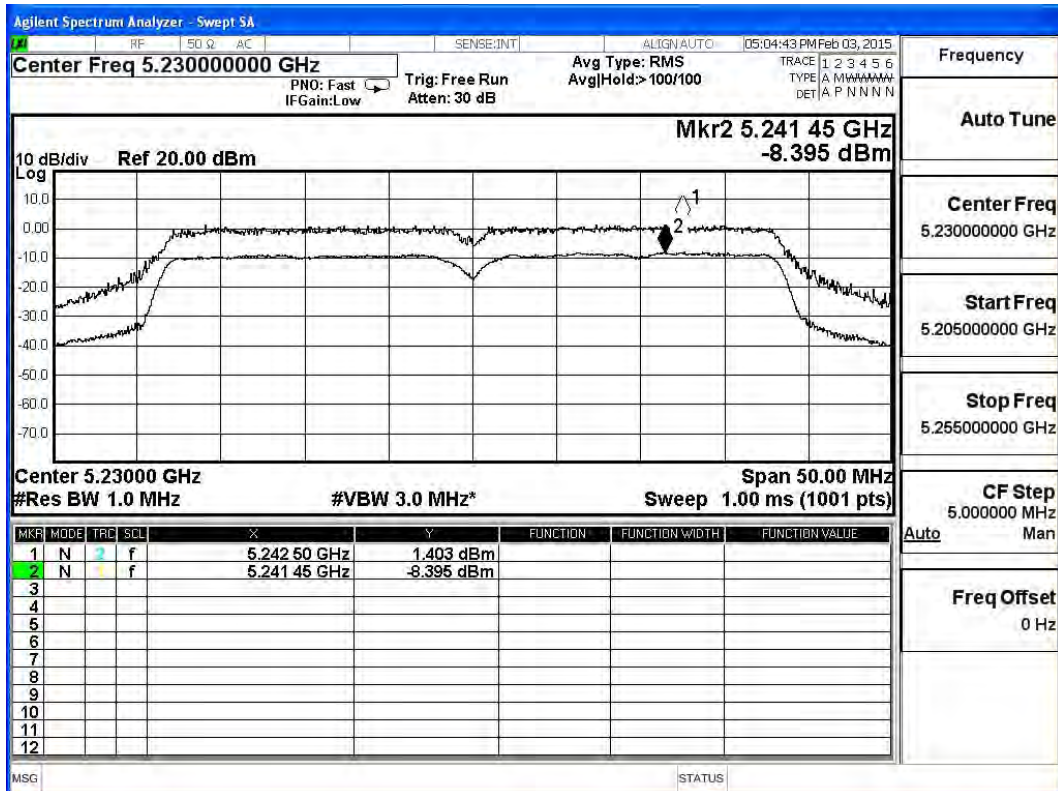
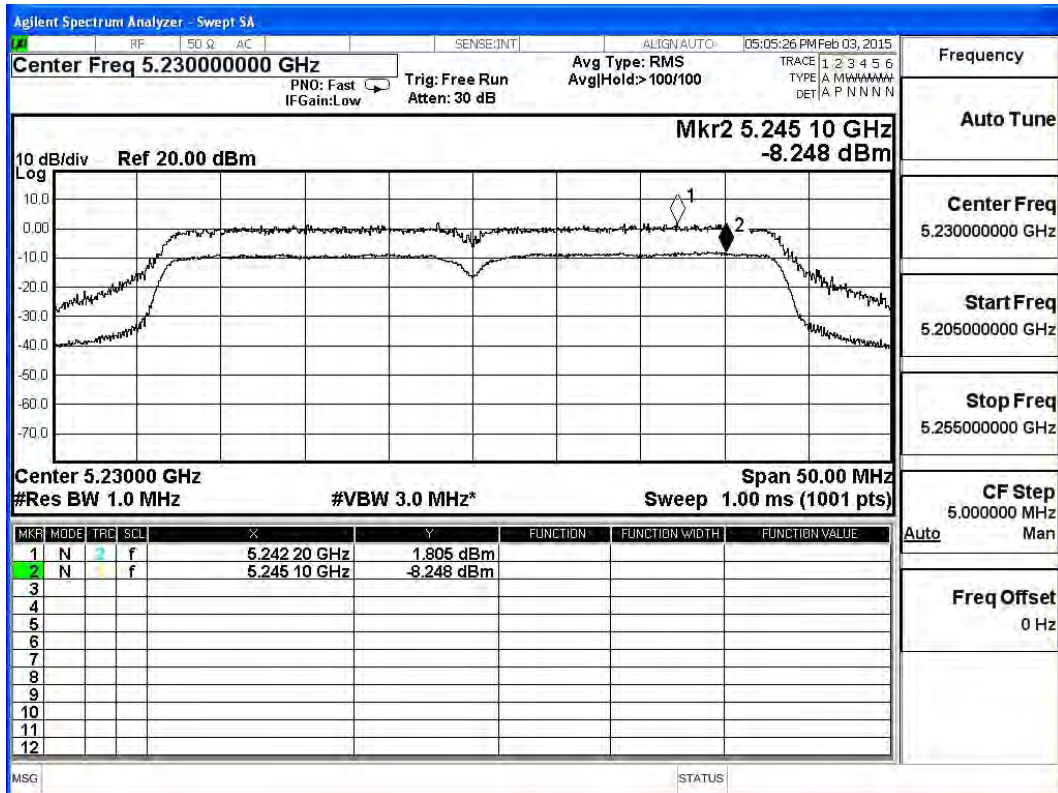
Channel 102 (Chain A):





Channel 102 (Chain B):

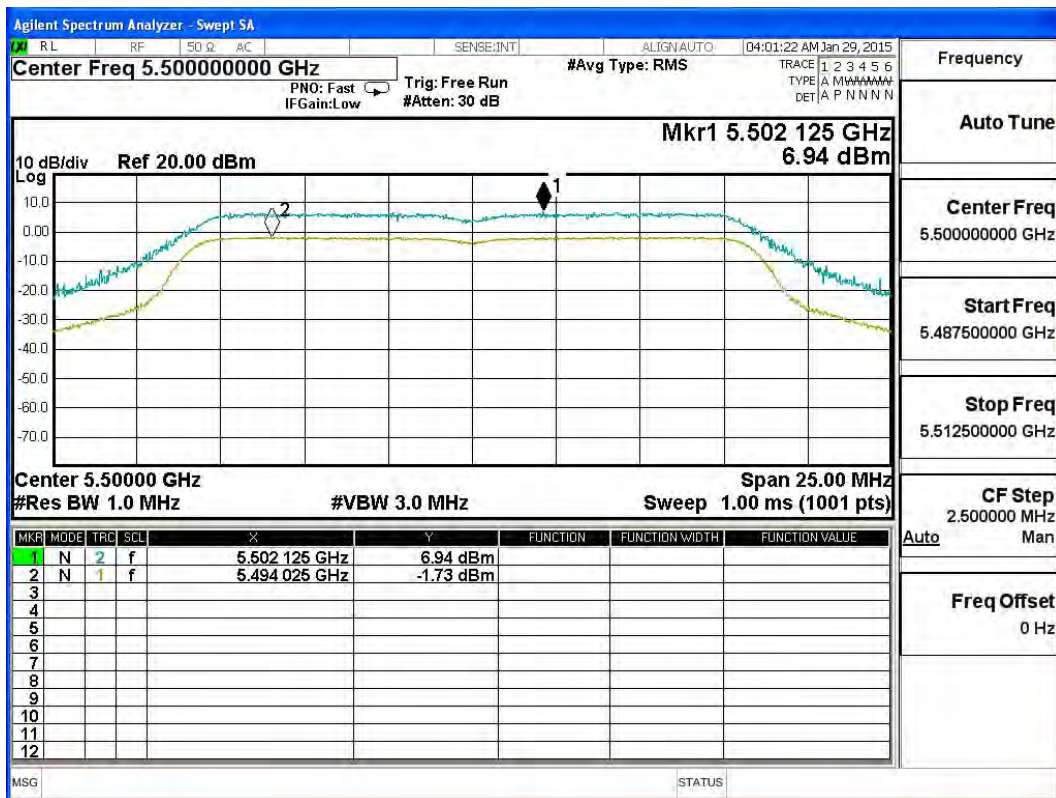


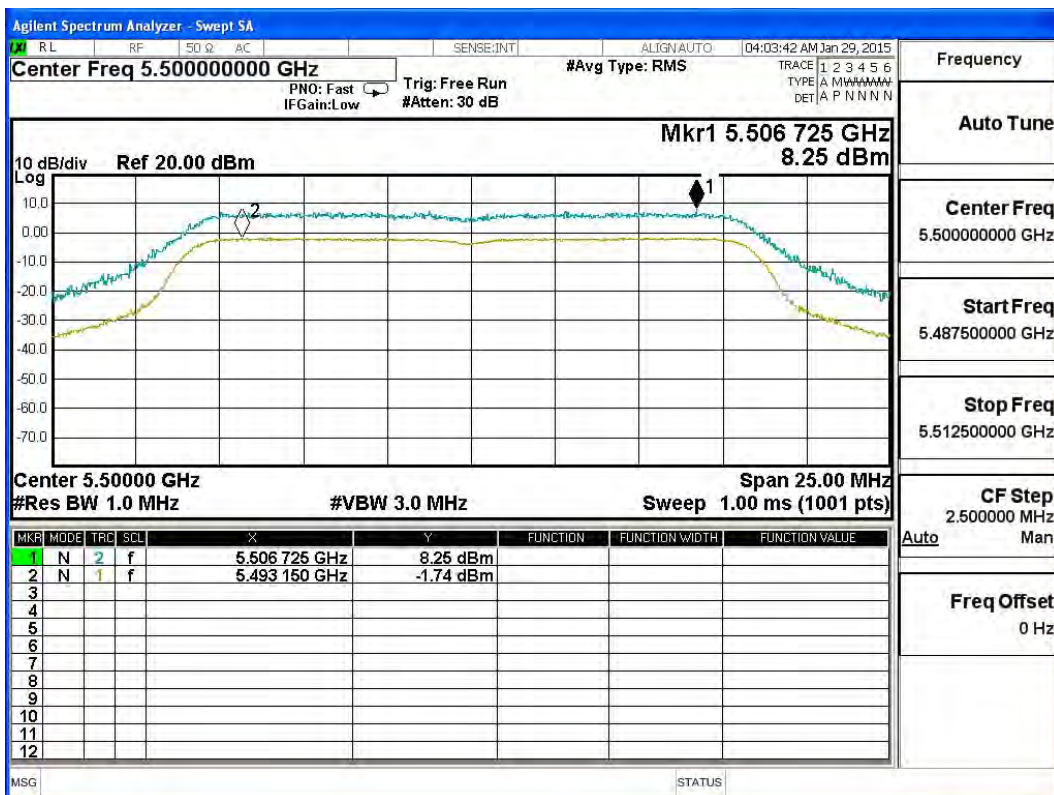
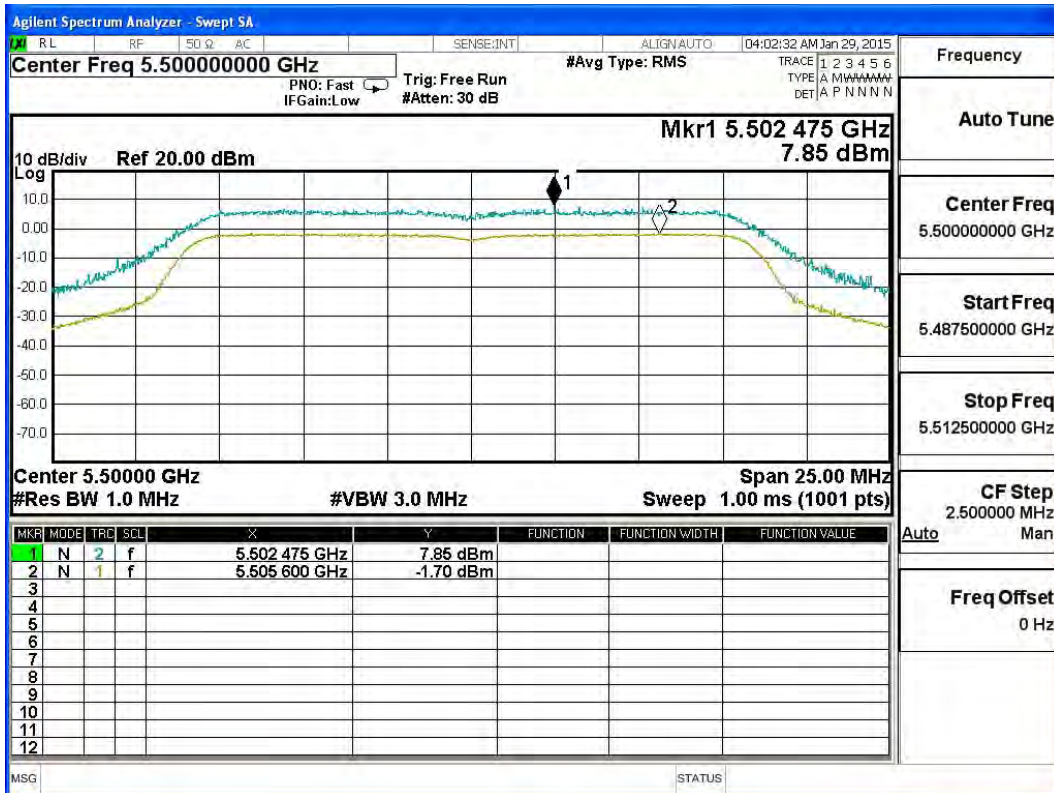


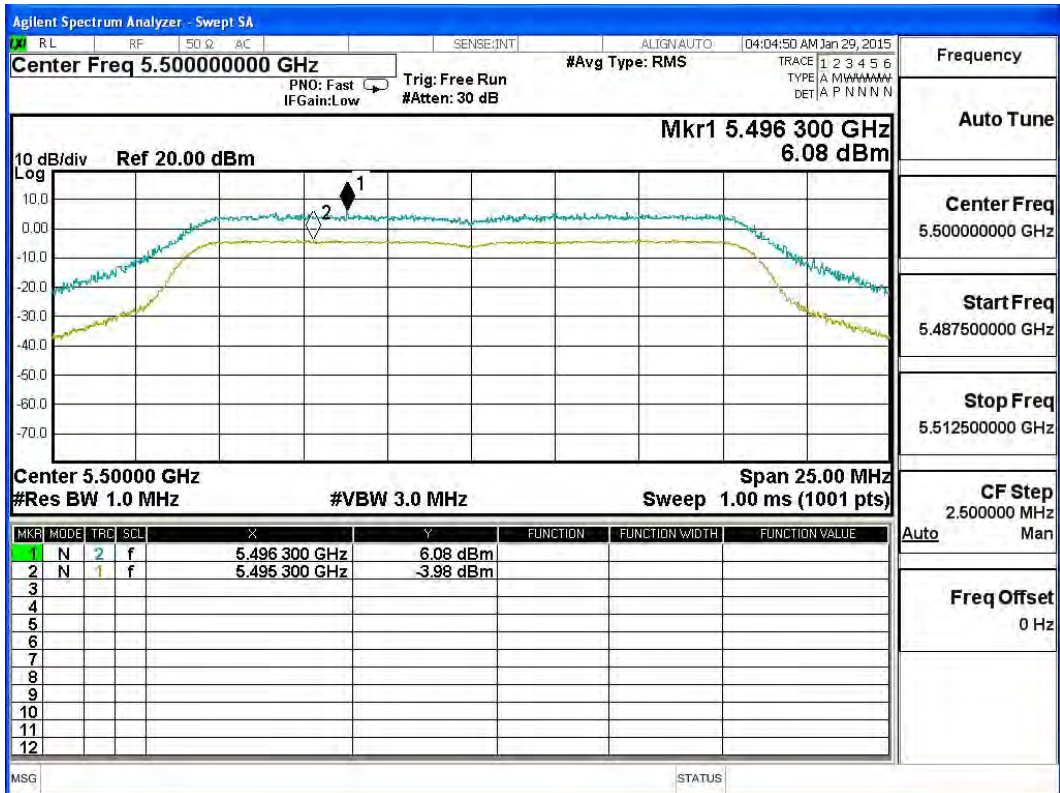
Product : Wireless Access Point
 Test Item : Peak Excursion
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11 a-6Mbps) (External Antenna)

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
100	5500	MCS (0)	8.670	<13	Pass
		MCS (2)	9.550	<13	Pass
		MCS (4)	9.990	<13	Pass
		MCS (7)	10.063	<13	Pass

Channel 100:







Product : Wireless Access Point
 Test Item : Peak Excursion
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (External Antenna)

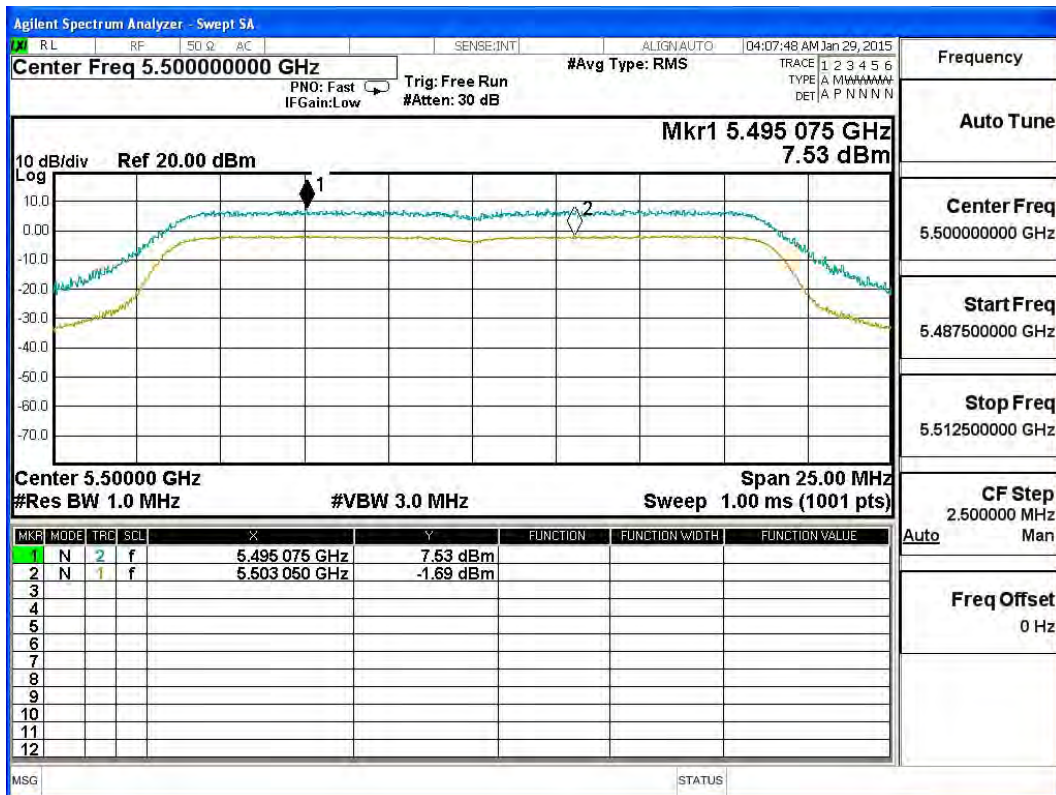
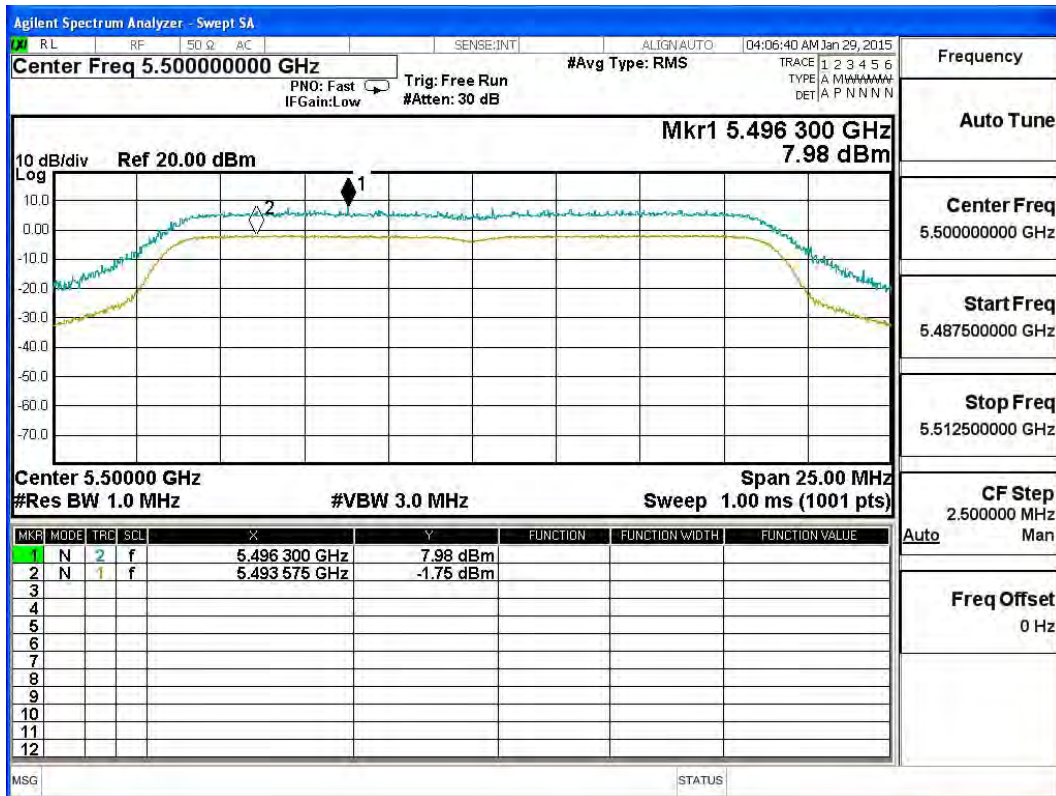
Chain A

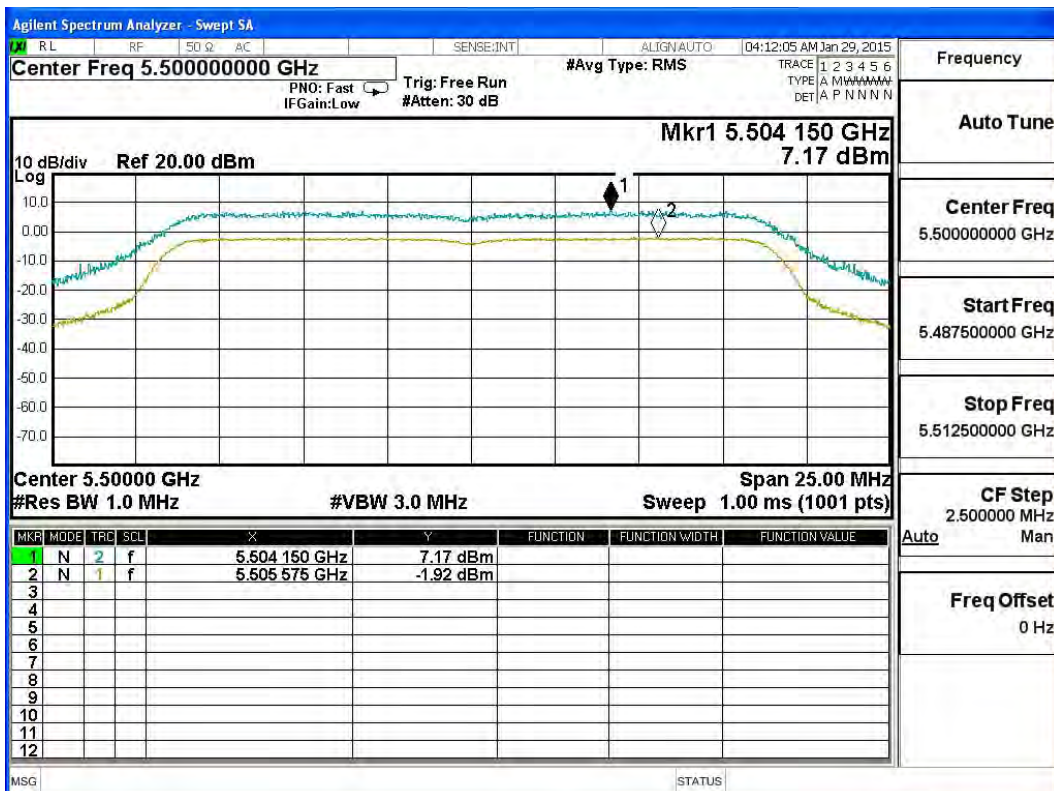
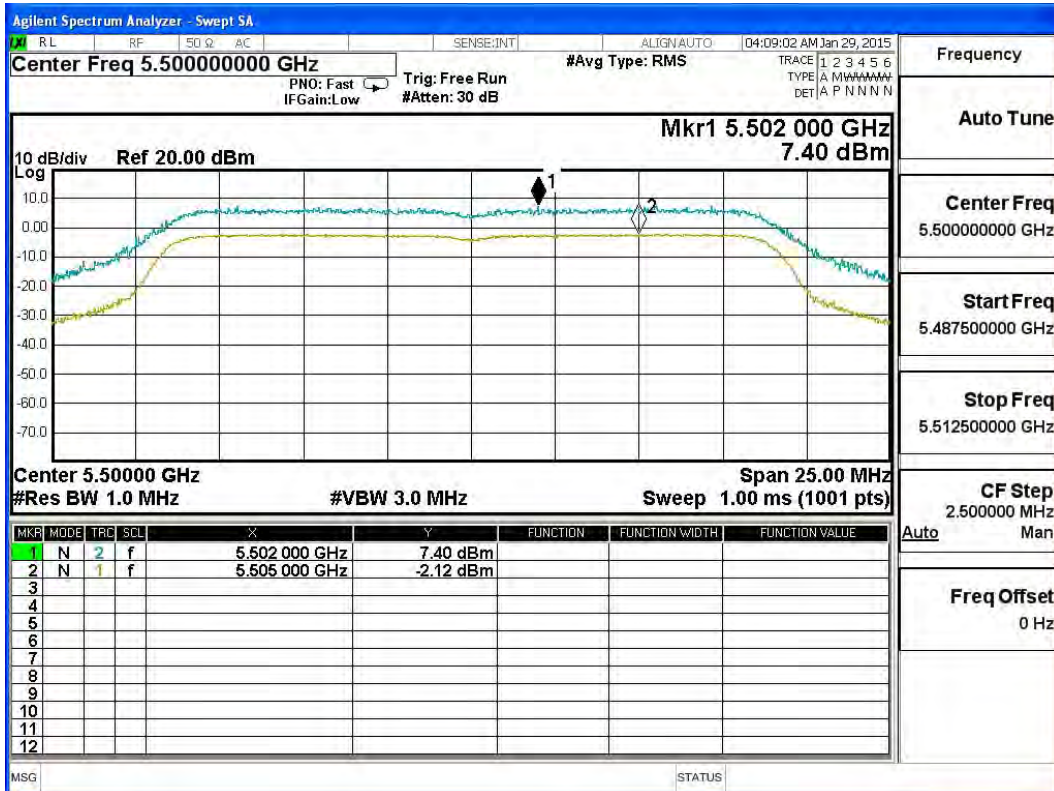
Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
100	5500	MCS (0)	9.730	<13	Pass
		MCS (2)	9.220	<13	Pass
		MCS (4)	9.520	<13	Pass
		MCS (7)	9.090	<13	Pass

Chain B

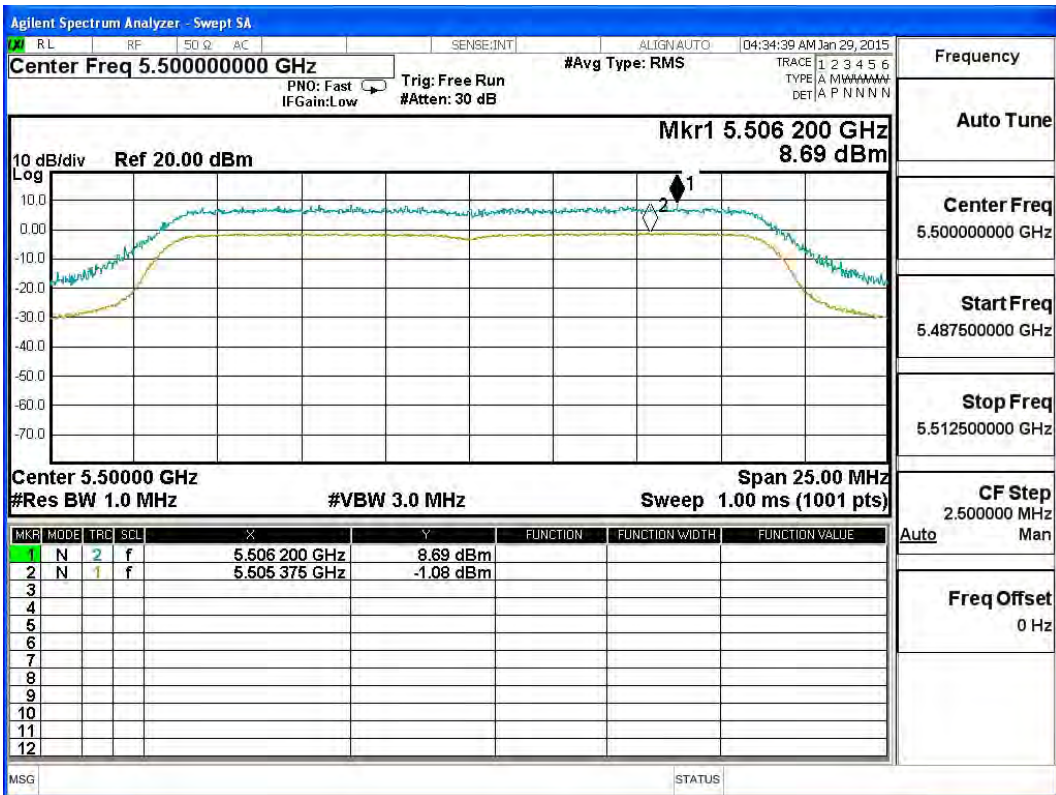
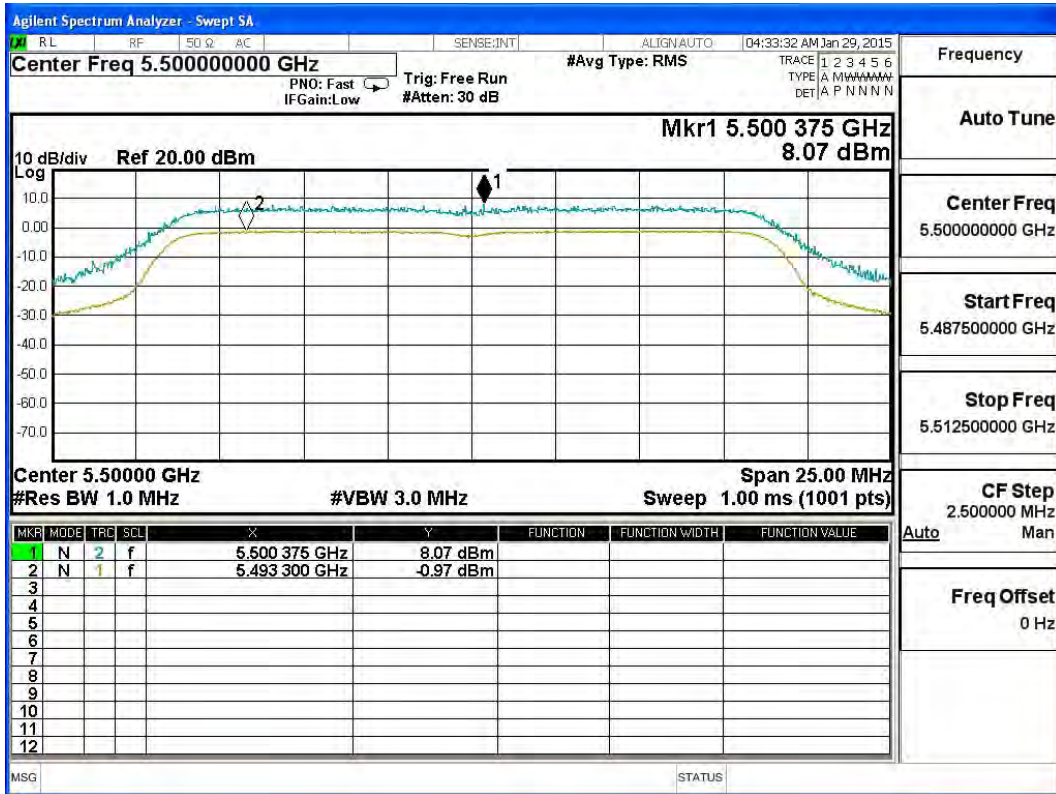
Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
100	5500	MCS (0)	9.040	<13	Pass
		MCS (2)	9.770	<13	Pass
		MCS (4)	8.920	<13	Pass
		MCS (7)	10.380	<13	Pass

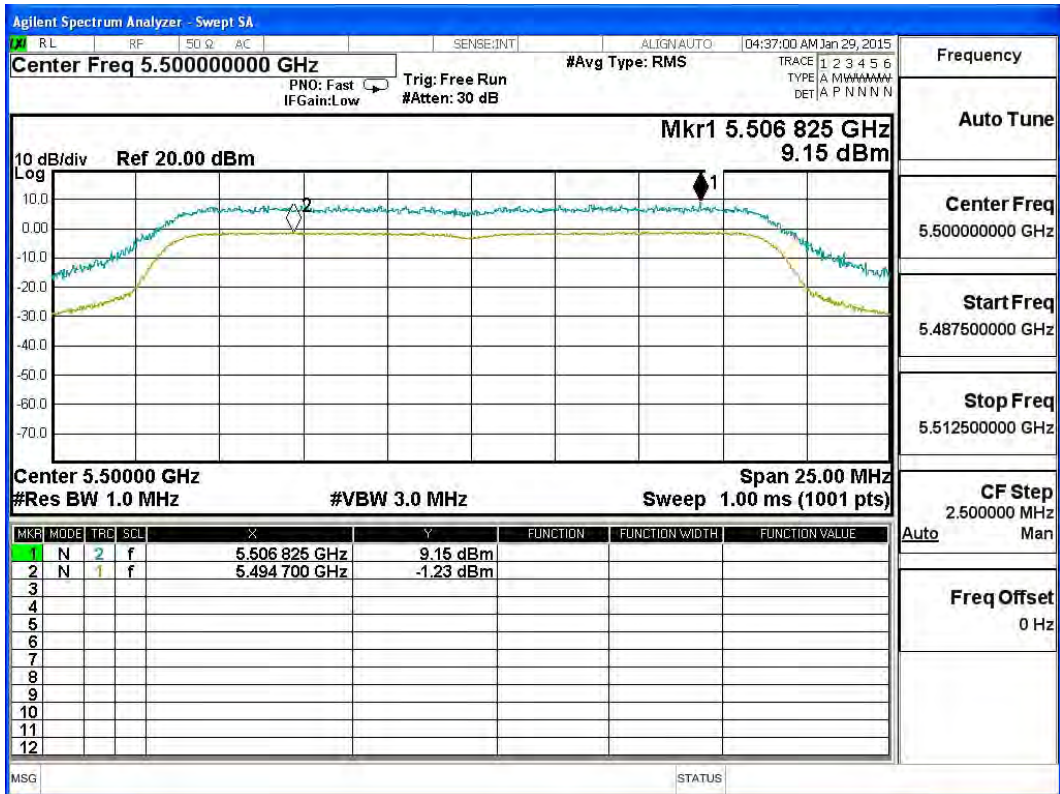
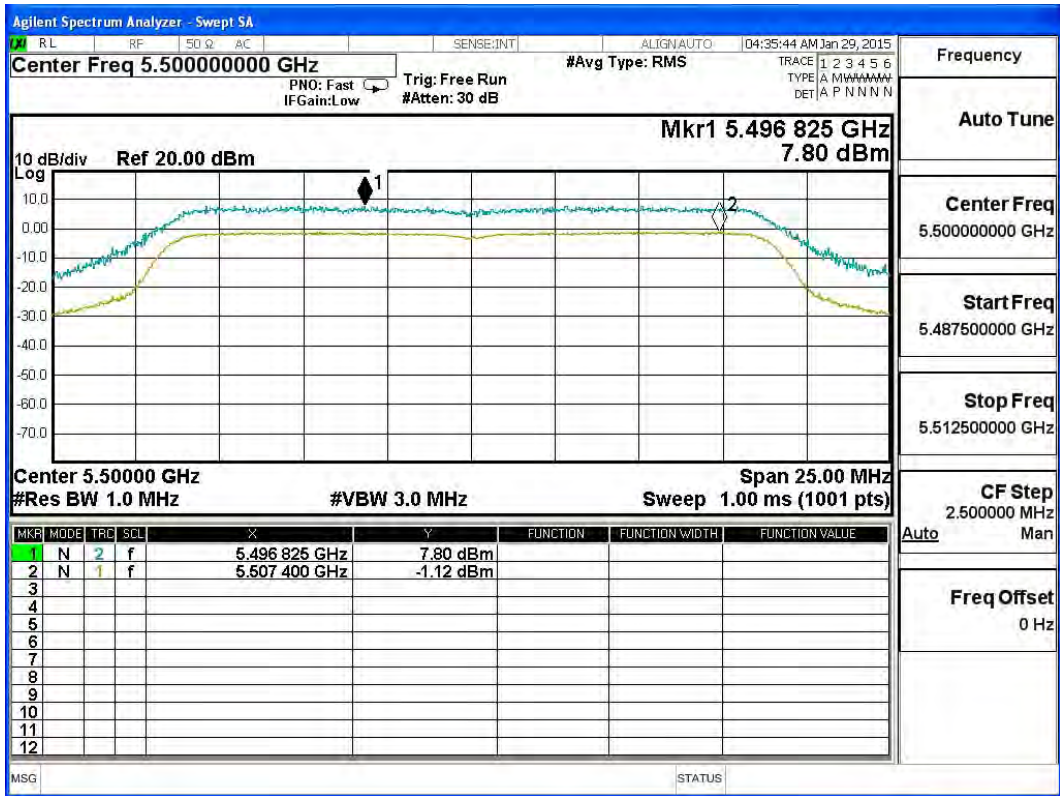
Channel 100 (Chain A):





Channel 100 (Chain B):





Product : Wireless Access Point
 Test Item : Peak Excursion
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (External Antenna)

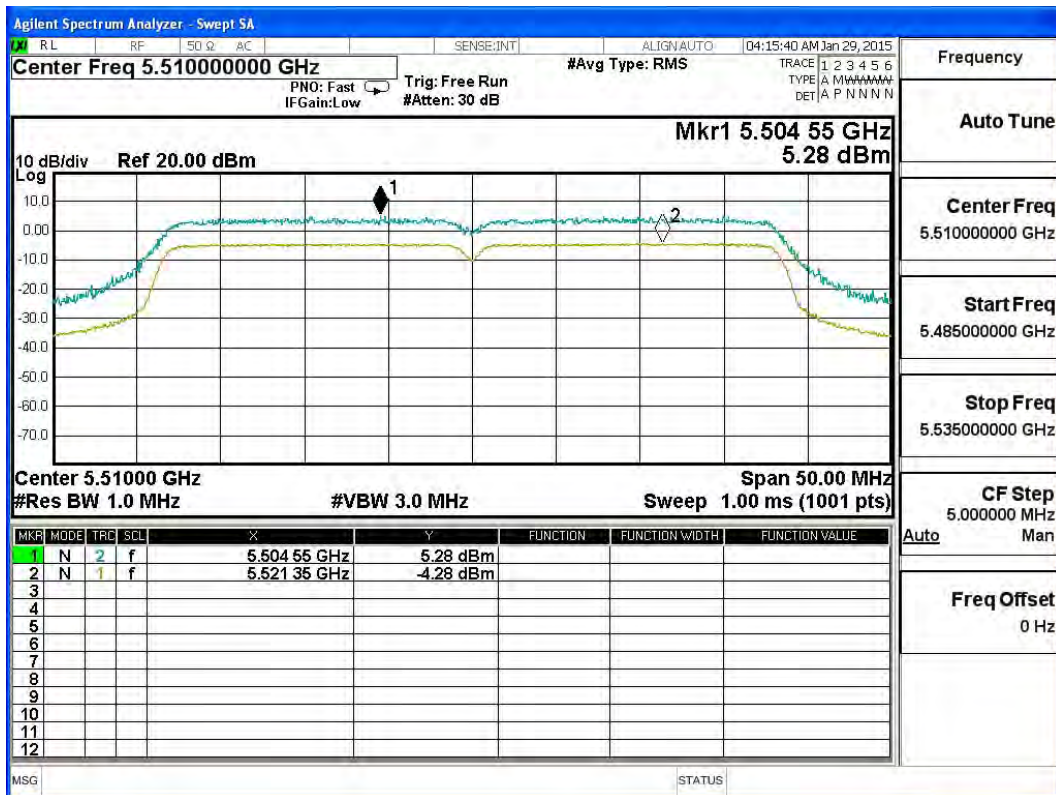
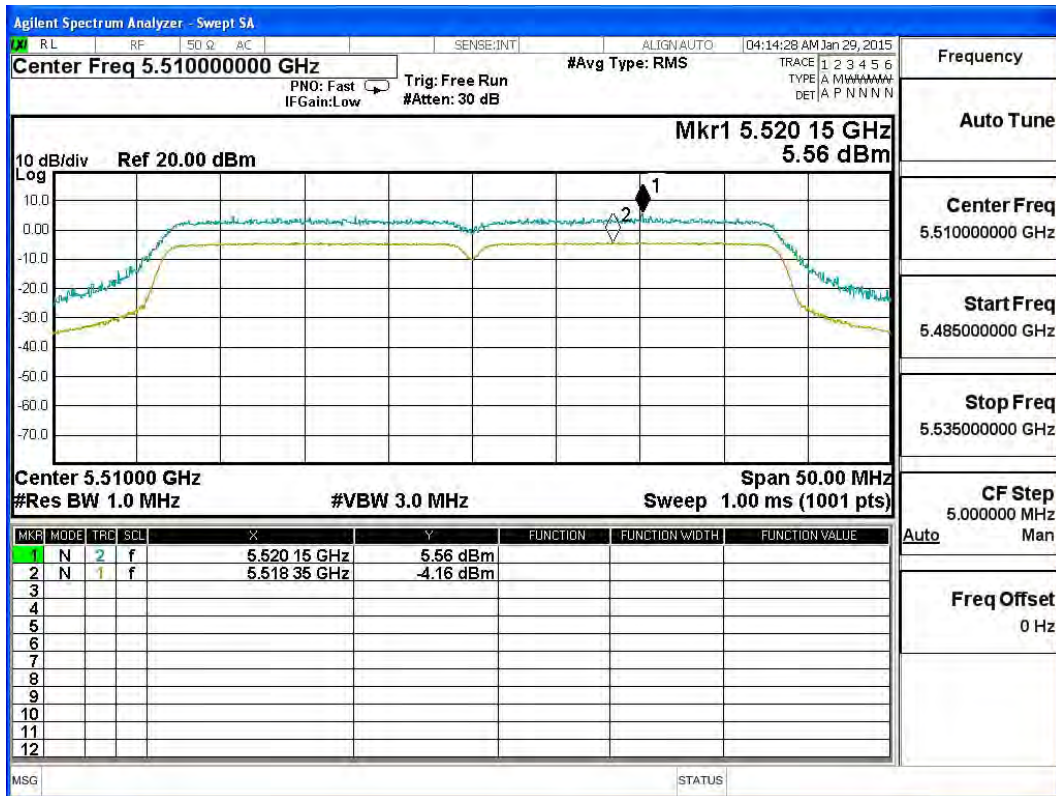
Chain A

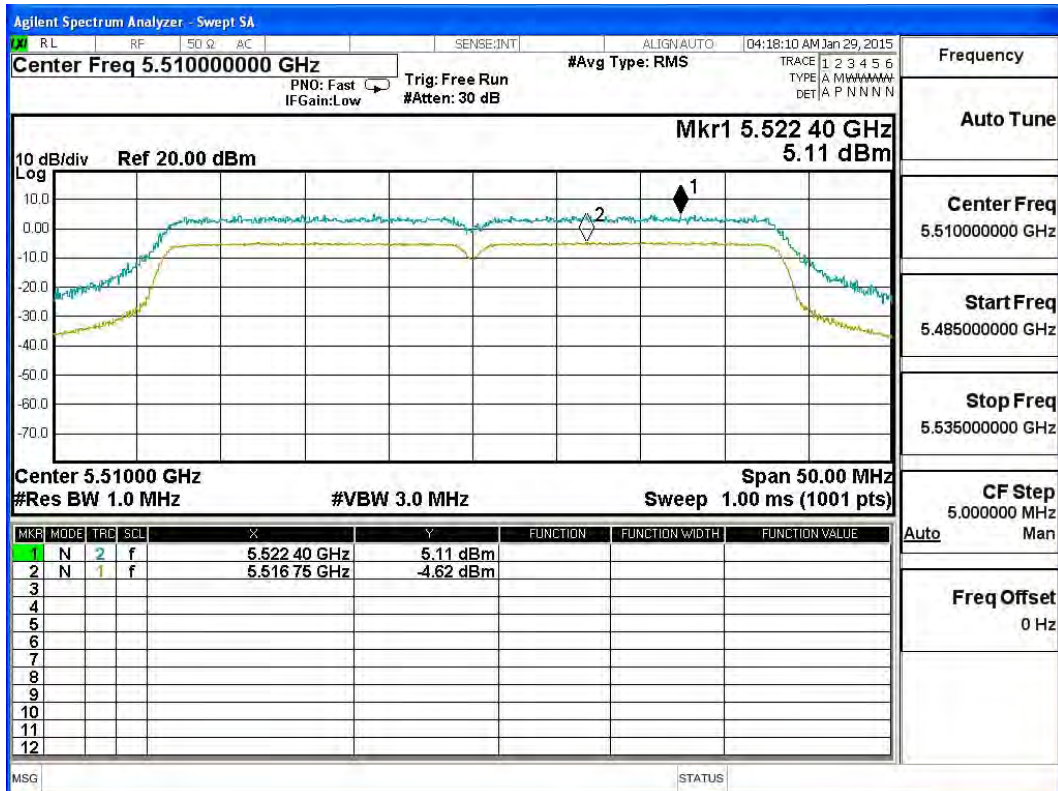
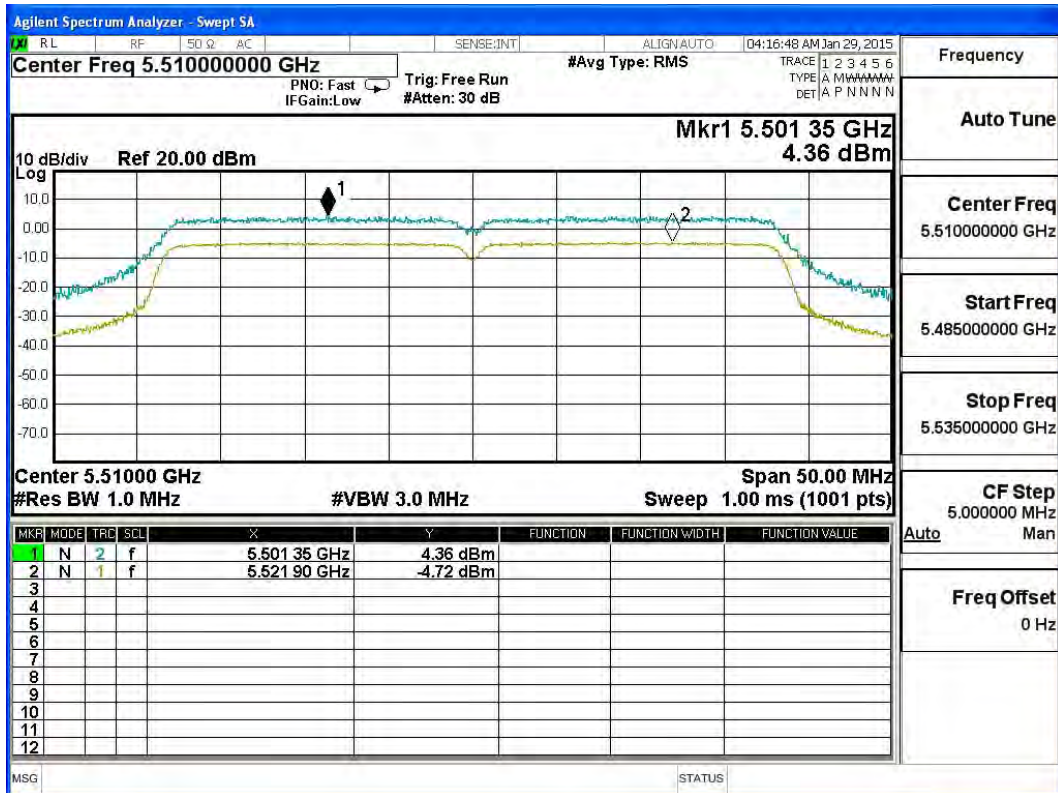
Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
102	5510	MCS (0)	9.720	<13	Pass
		MCS (2)	9.560	<13	Pass
		MCS (4)	9.080	<13	Pass
		MCS (7)	9.730	<13	Pass

Chain B

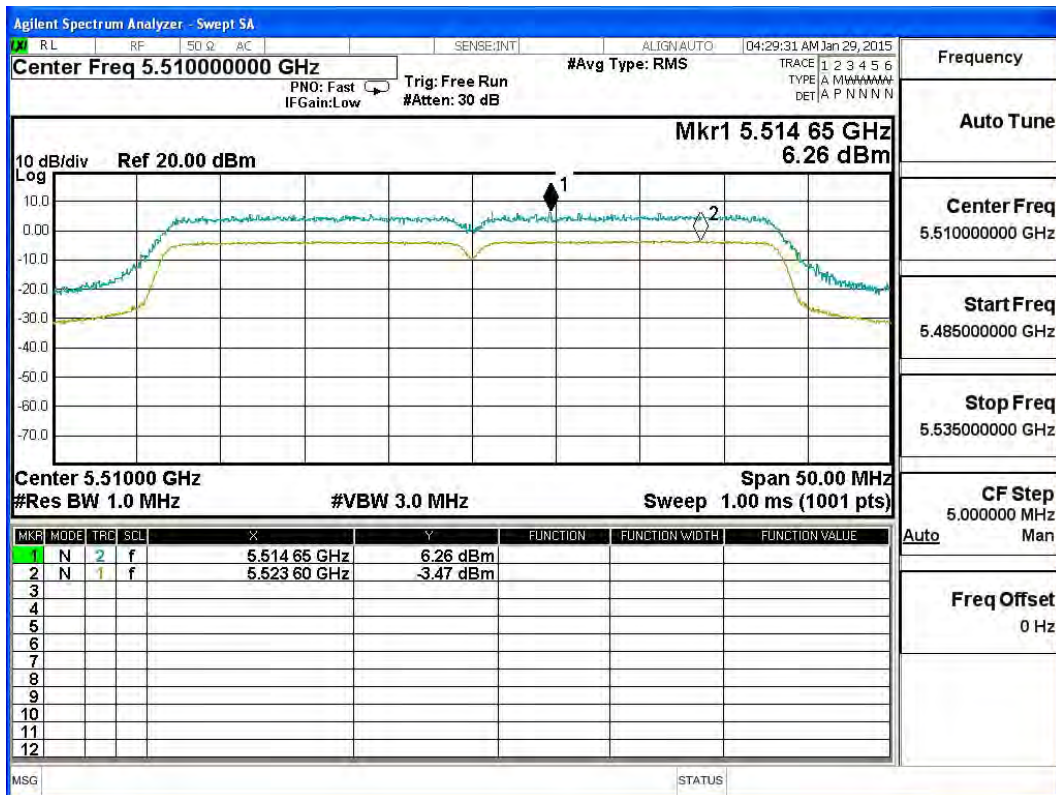
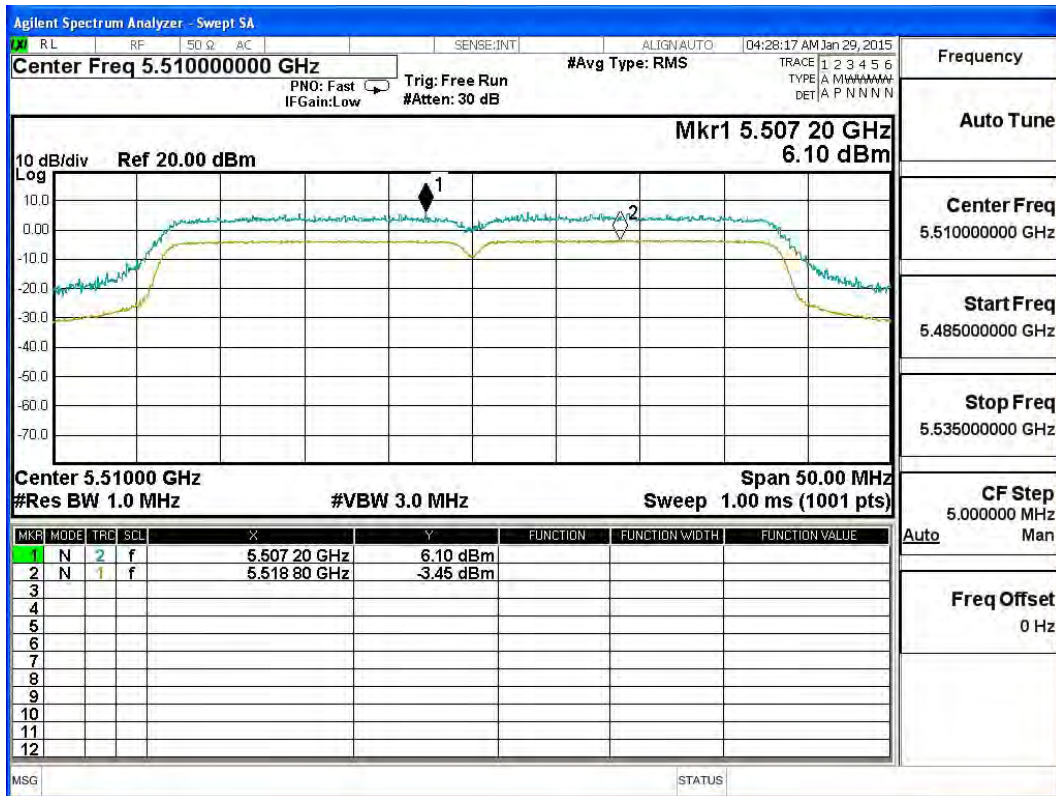
Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
102	5510	MCS (0)	9.550	<13	Pass
		MCS (2)	9.730	<13	Pass
		MCS (4)	10.200	<13	Pass
		MCS (7)	9.910	<13	Pass

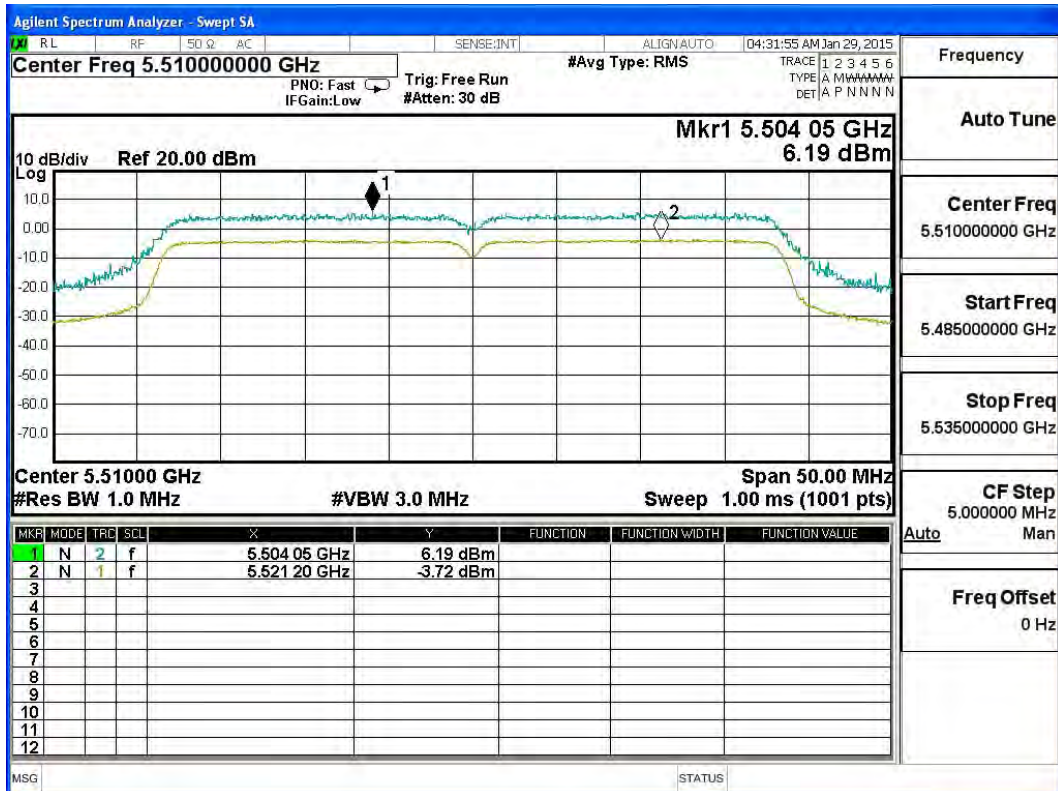
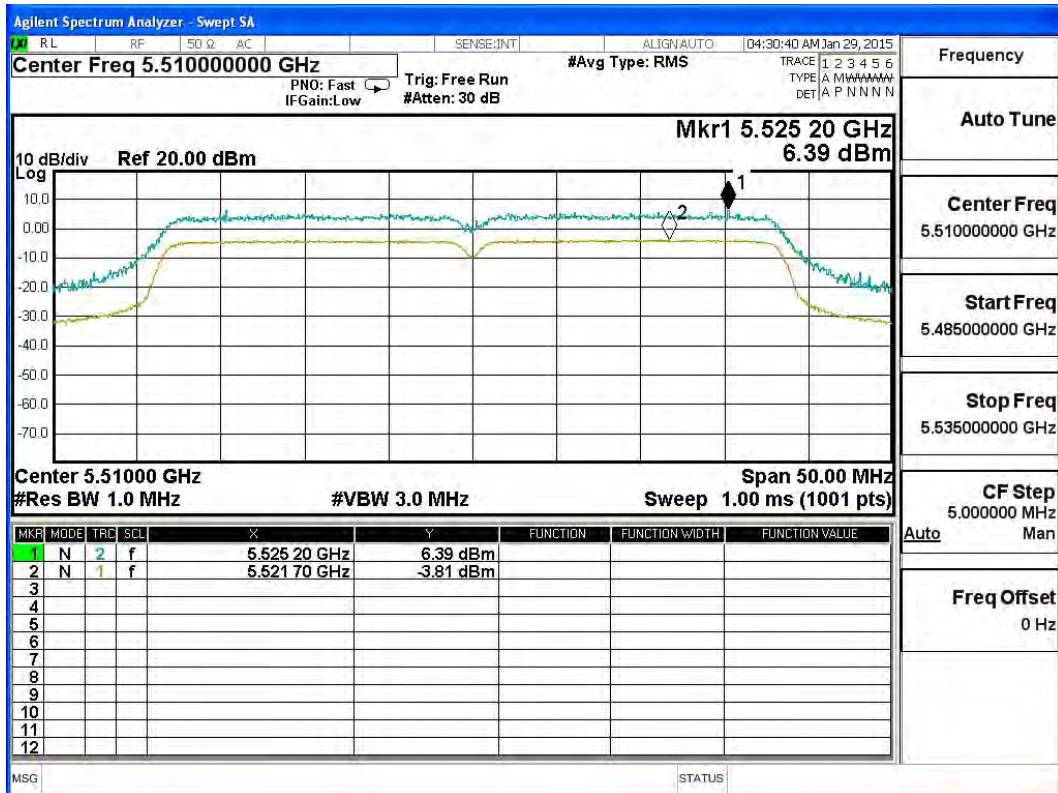
Channel 102 (Chain A):





Channel 102 (Chain B):





Product : Wireless Access Point
 Test Item : Peak Excursion
 Test Site : No.3 OATS
 Test Mode : Mode 6: Transmit (802.11ac-80BW-65Mbps) (External Antenna)

Chain A

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
106	5530	(VTH0)	9.150	<13	Pass
		(VTH2)	9.450	<13	Pass
		(VTH4)	8.990	<13	Pass
		(VTH7)	9.100	<13	Pass
		(VTH9)	9.610	<13	Pass

Chain B

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dB)	Required Limit (dB)	Result
106	5530	(VTH0)	9.440	<13	Pass
		(VTH2)	9.580	<13	Pass
		(VTH4)	9.130	<13	Pass
		(VTH7)	10.000	<13	Pass
		(VTH9)	9.730	<13	Pass

Channel 106 (Chain A):

