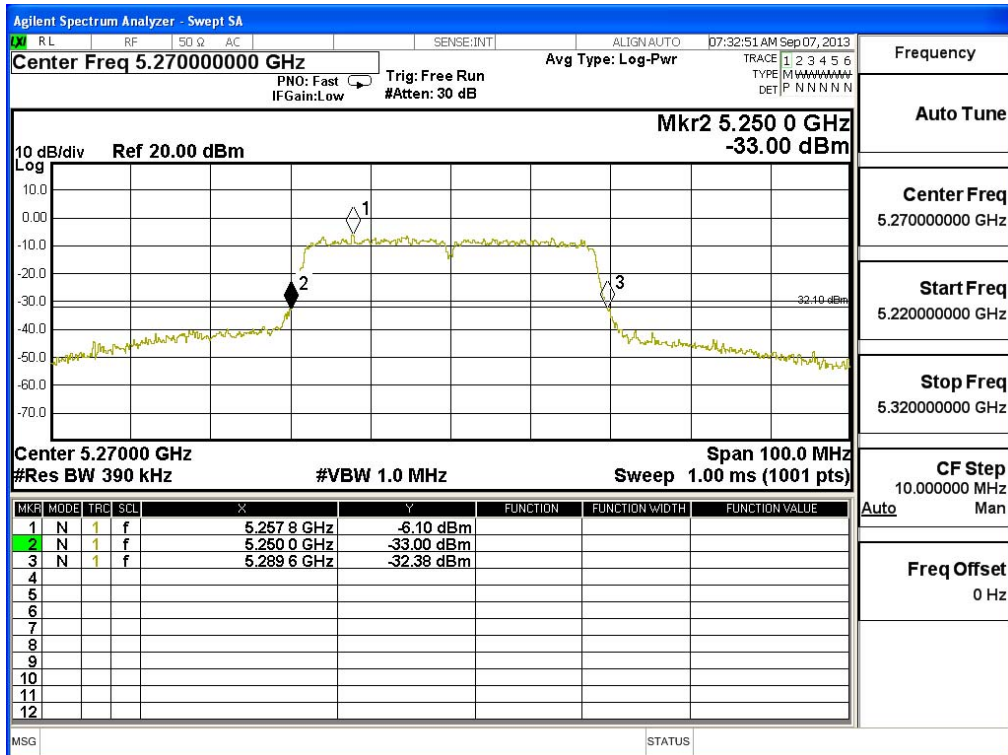
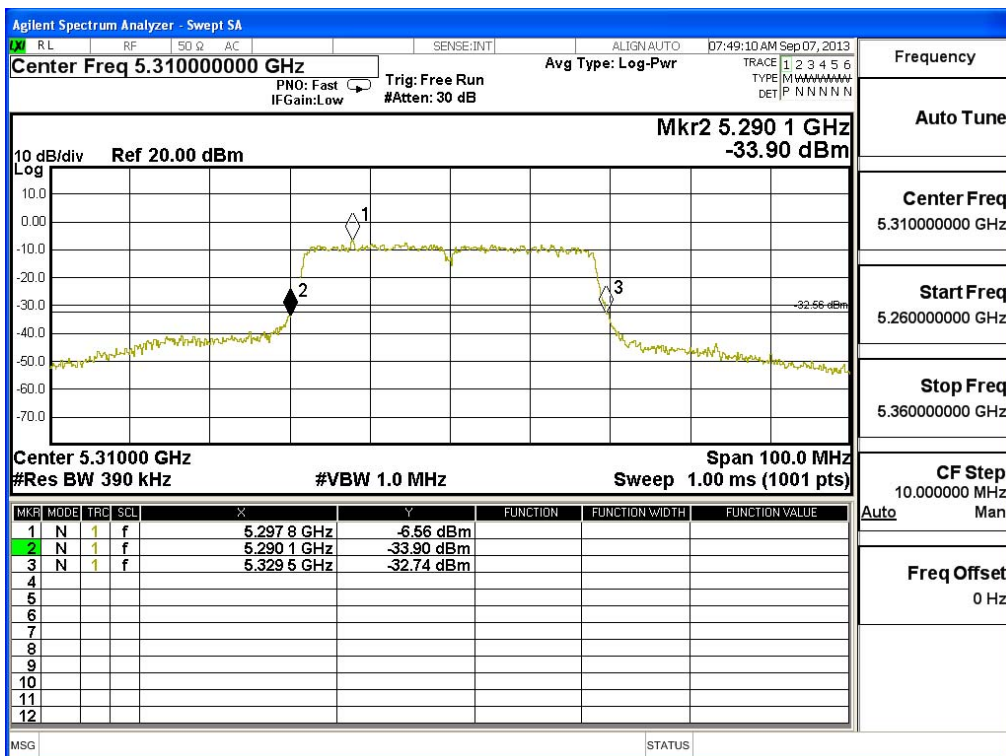


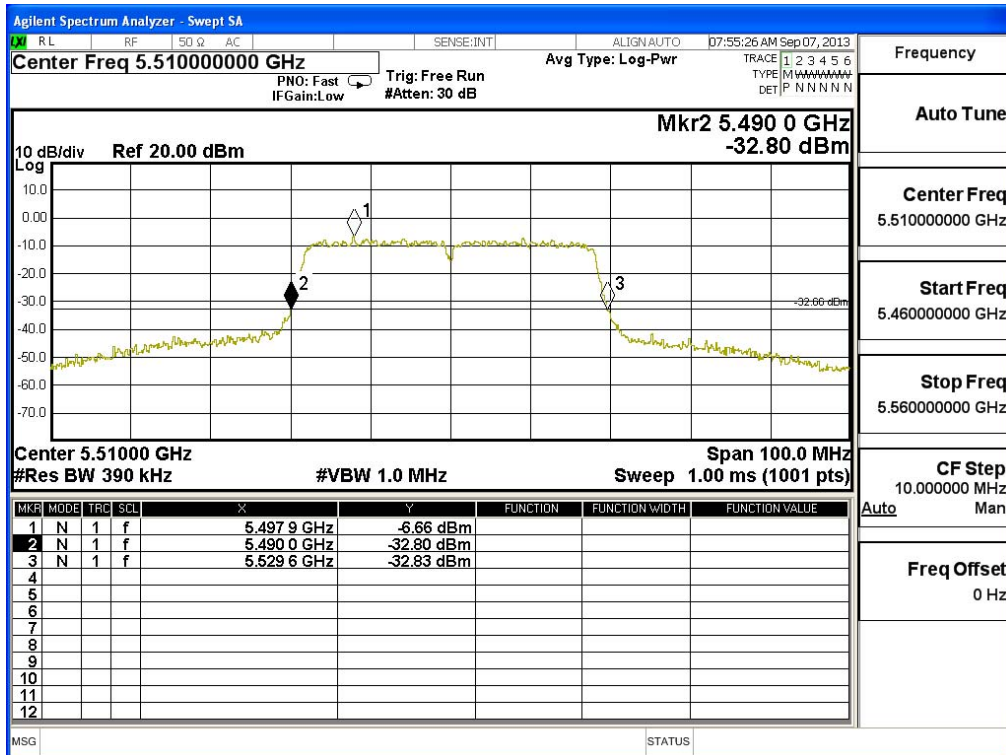
Channel 54 – Chain A



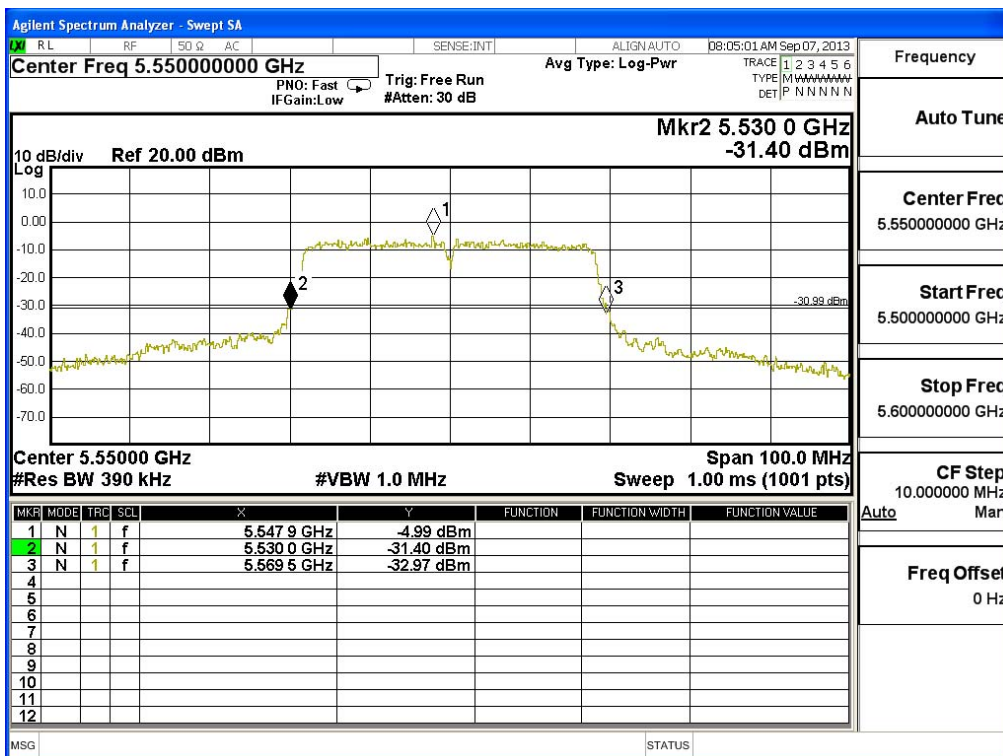
Channel 62 – Chain A



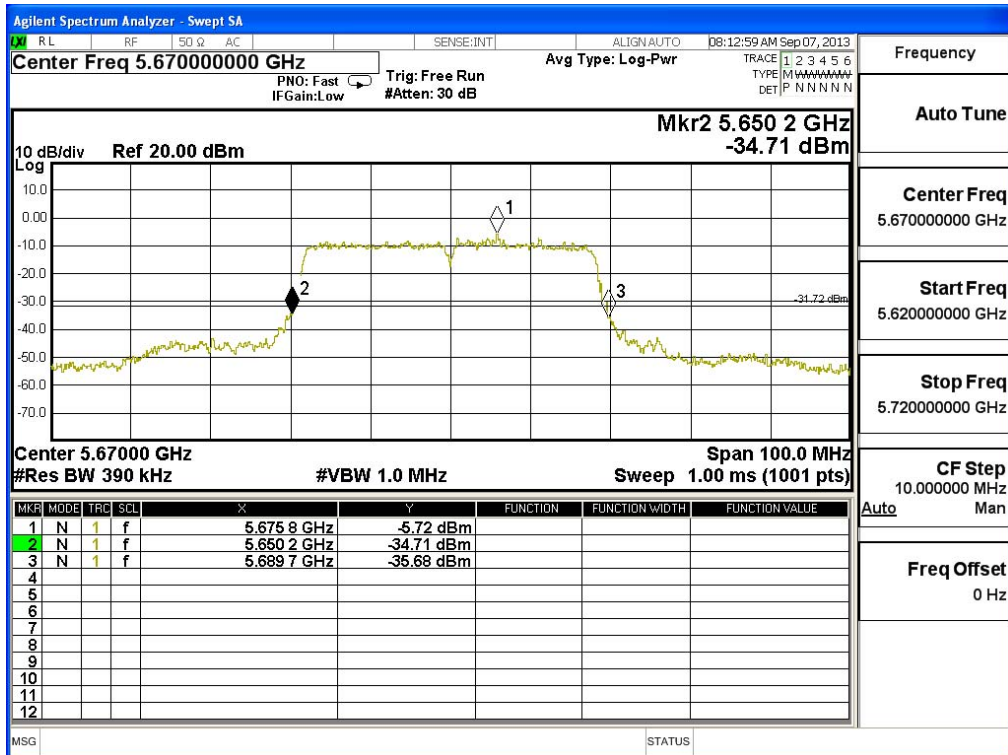
Channel 102 – Chain A



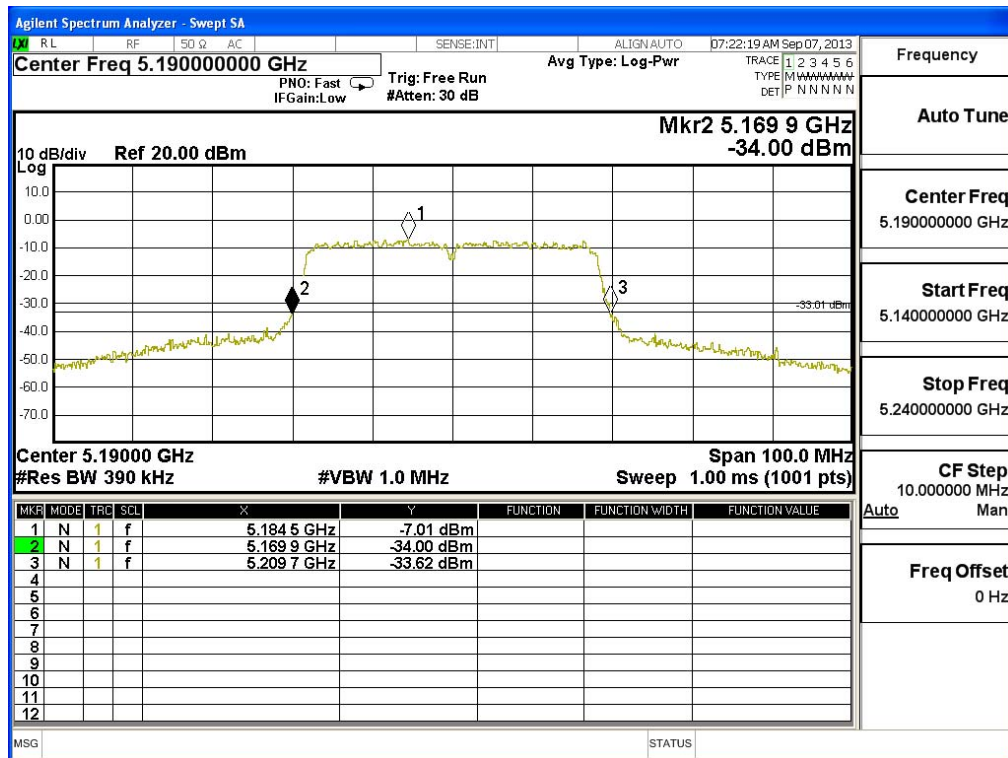
Channel 110 – Chain A



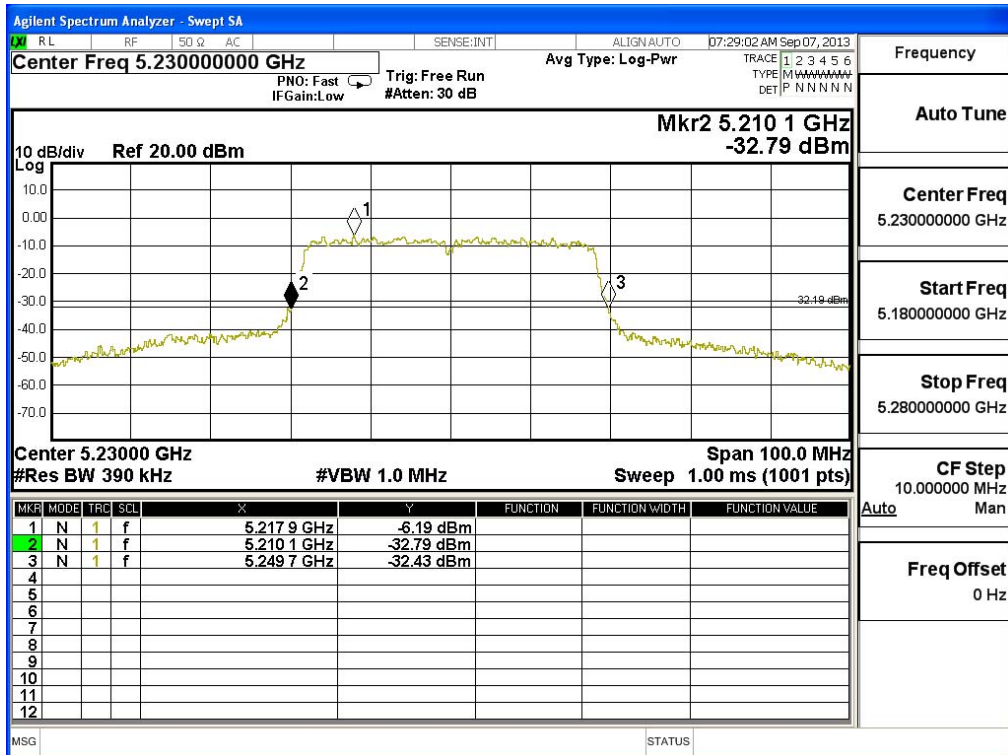
Channel 134 – Chain A



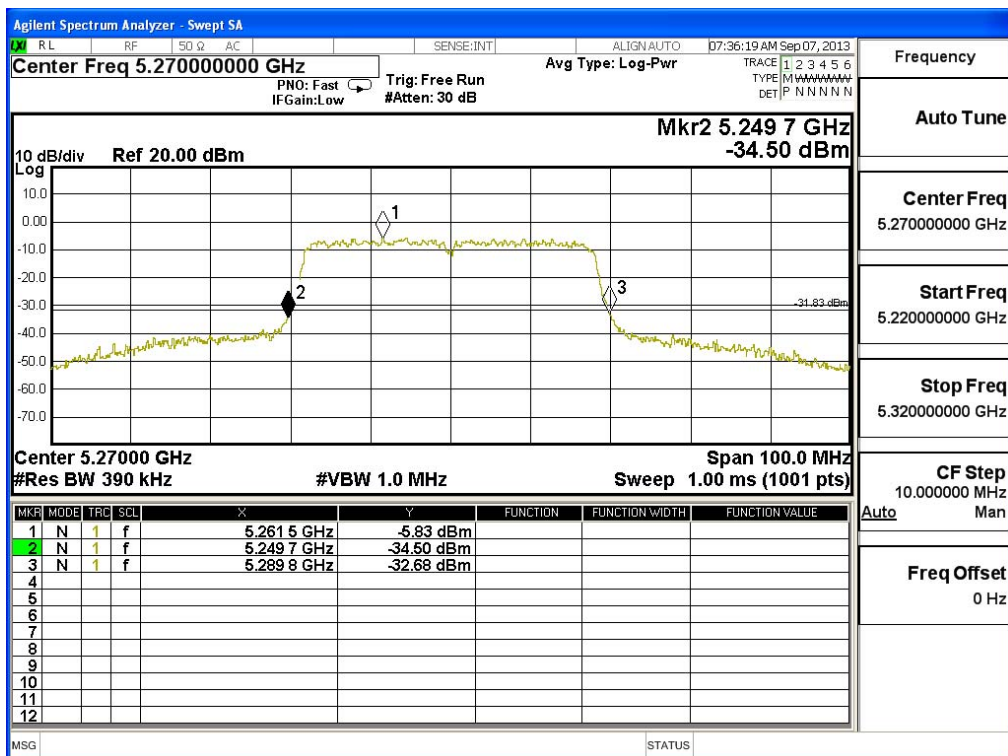
Channel 38 – Chain B



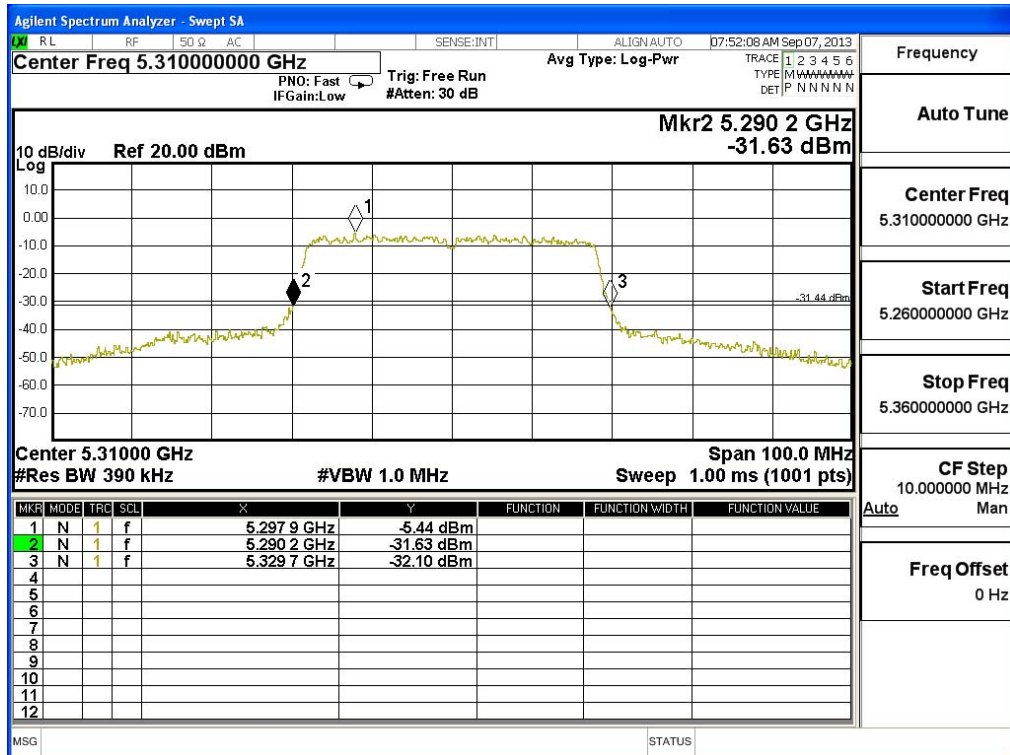
Channel 46 – Chain B



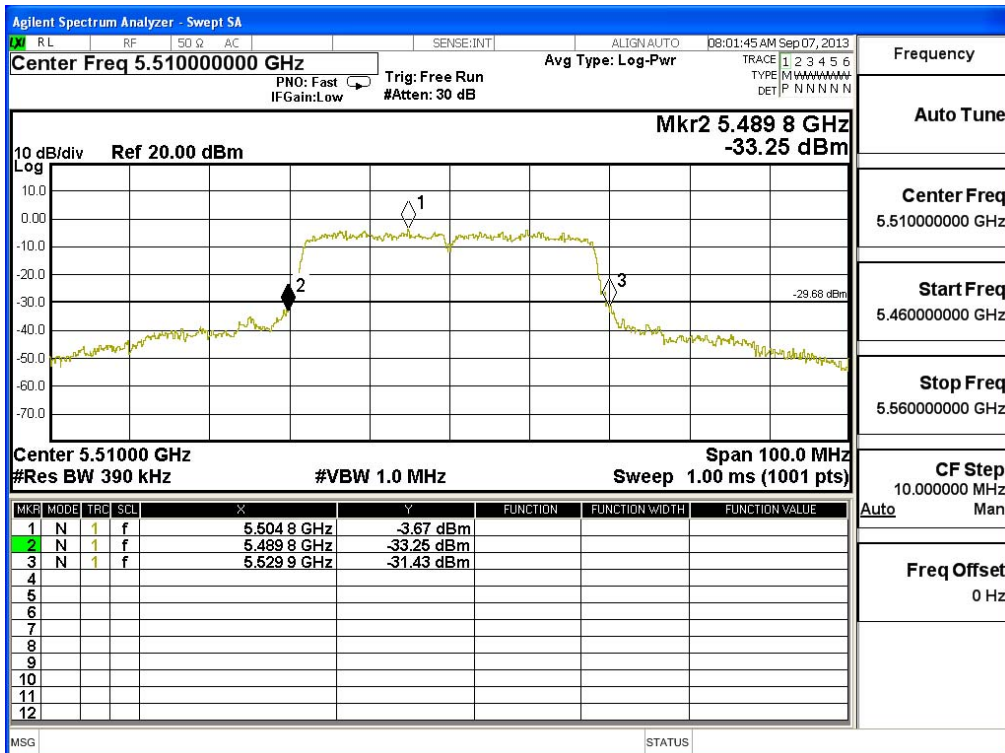
Channel 54 – Chain B



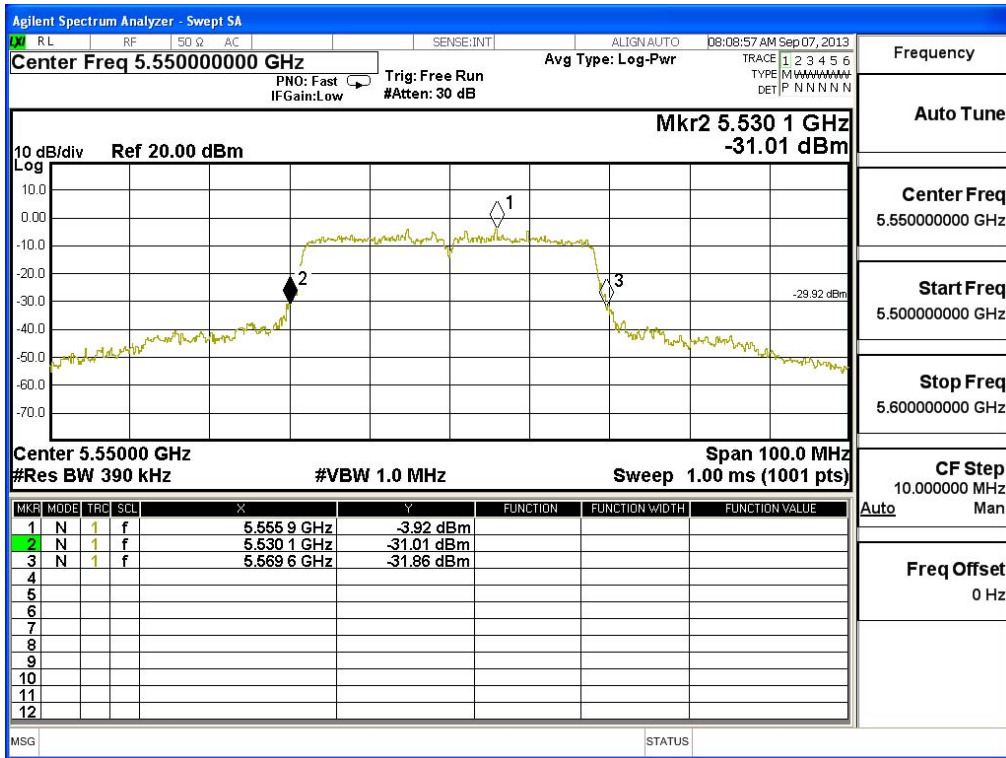
Channel 62 – Chain B



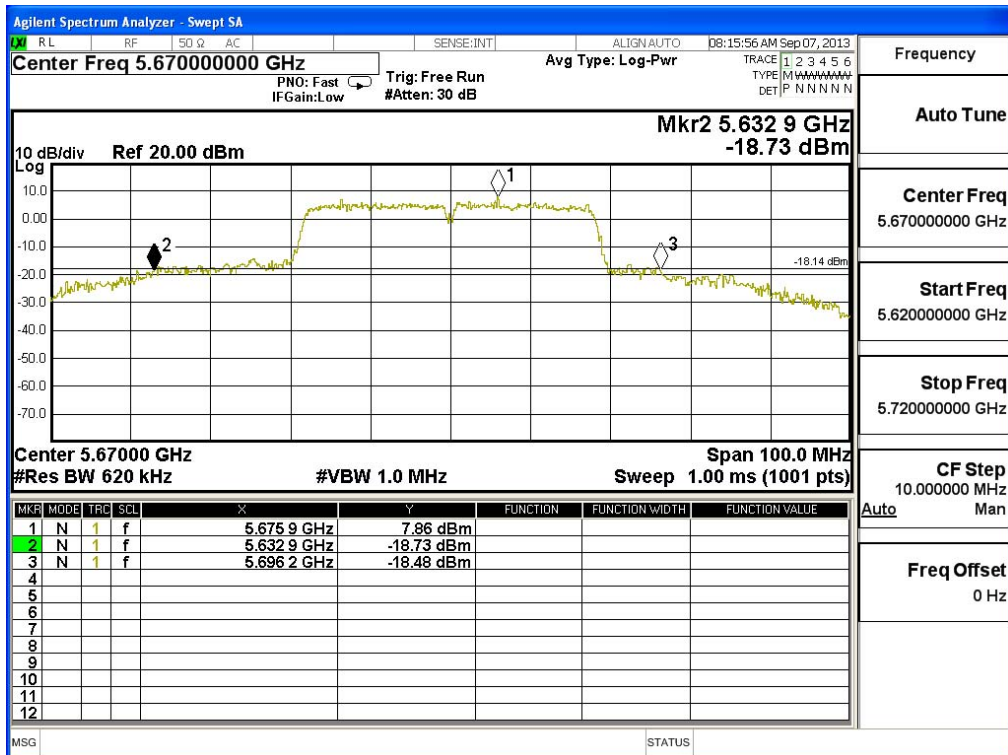
Channel 102 – Chain B



Channel 110 – Chain B



Channel 134 – Chain B



4. Peak Power Spectral Density

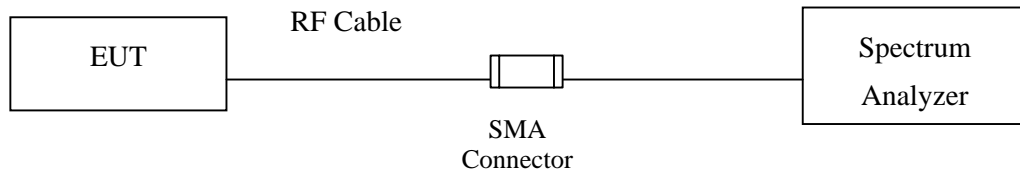
4.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2013
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2013
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr, 2013

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.

4.2. Test Setup



4.3. Limits

- (4) For the band 5.15-5.25 GHz, the peak power spectral density shall not exceed 4 dBm in any 1-MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
- (5) For the band 5.25-5.35 GHz, the peak power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
- (6) For the band 5.725-5.825 GHz, the peak power spectral density shall not exceed 17 dBm in any 1-MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.

4.4. 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.

The Peak Power Spectral Density using KDB 789033 section F) procedure, Create an average power spectrum for the EUT operating mode being tested by following the instructions in section E)2) for measuring maximum conducted output power using a spectrum analyzer.

SA-1 method is selected to run the test.

4.5. Uncertainty

± 1.27 dB

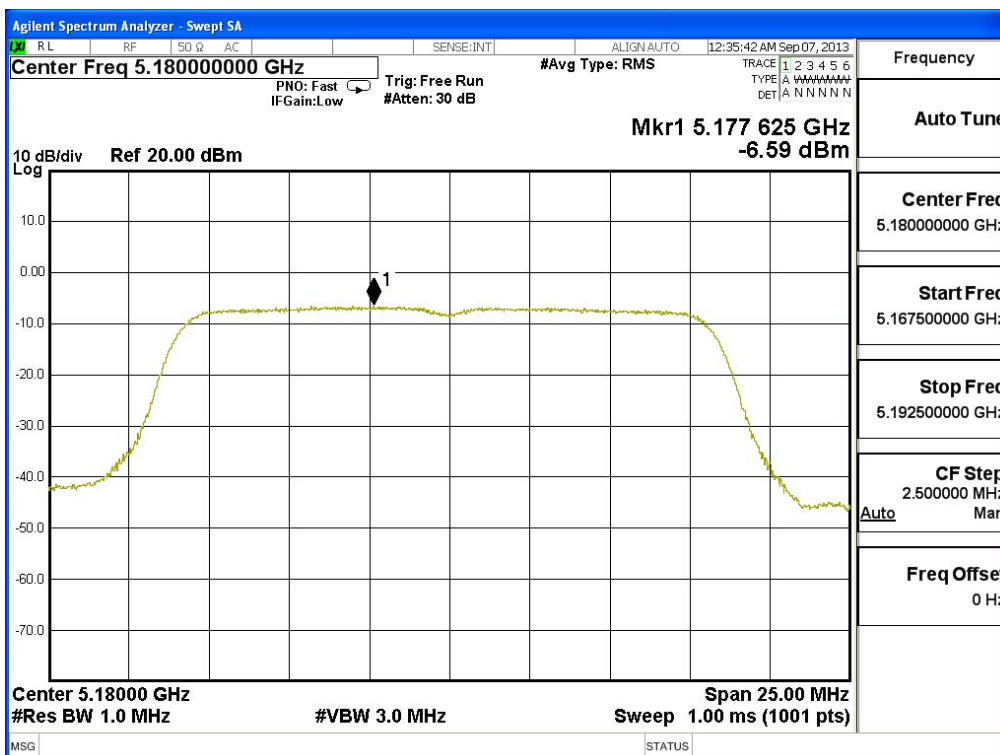
4.6. Test Result of Peak Power Spectral Density

Product : 802.11a/b/g/n 2T2R Wireless Lan USB Module
 Test Item : Peak Power Spectral Density
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)

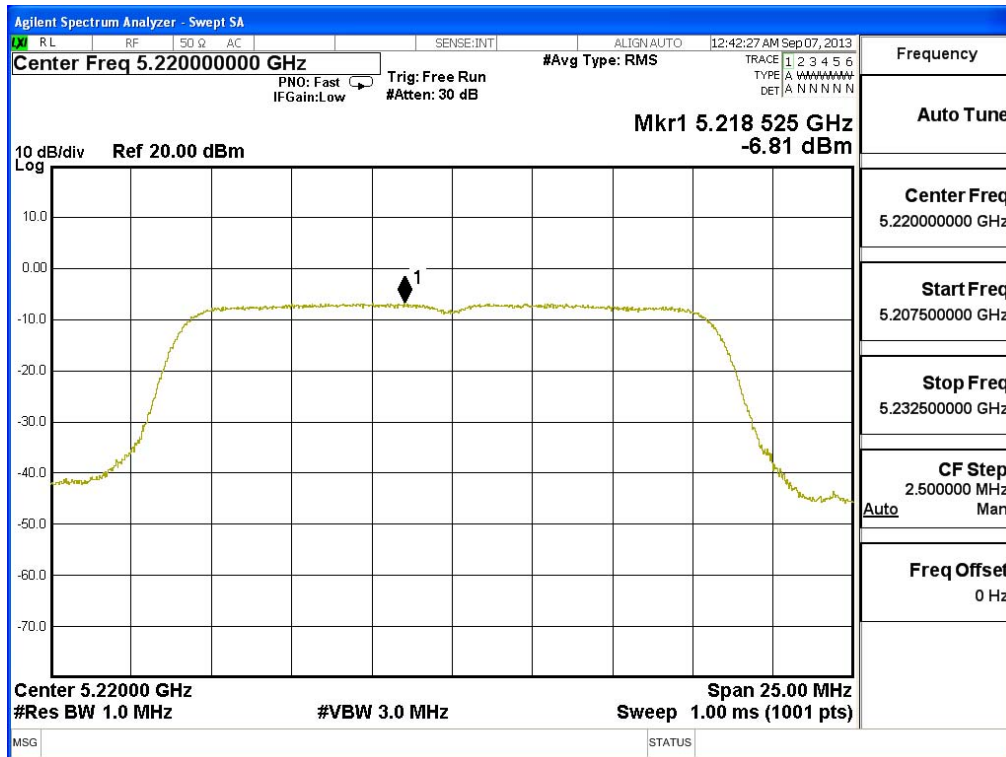
Channel Number	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
36	5180	-6.590	<3.86	Pass
44	5220	-6.810	<3.86	Pass
48	5240	-6.920	<3.86	Pass
52	5260	-5.960	<10.68	Pass
60	5300	-6.930	<10.68	Pass
64	5320	-7.500	<10.68	Pass
100	5500	-5.970	<11	Pass
116	5800	-6.610	<11	Pass
140	5700	-3.570	<11	Pass

Note: .The peak antenna gain exceeds 6 dBi that therefore the limit needs to reduce.

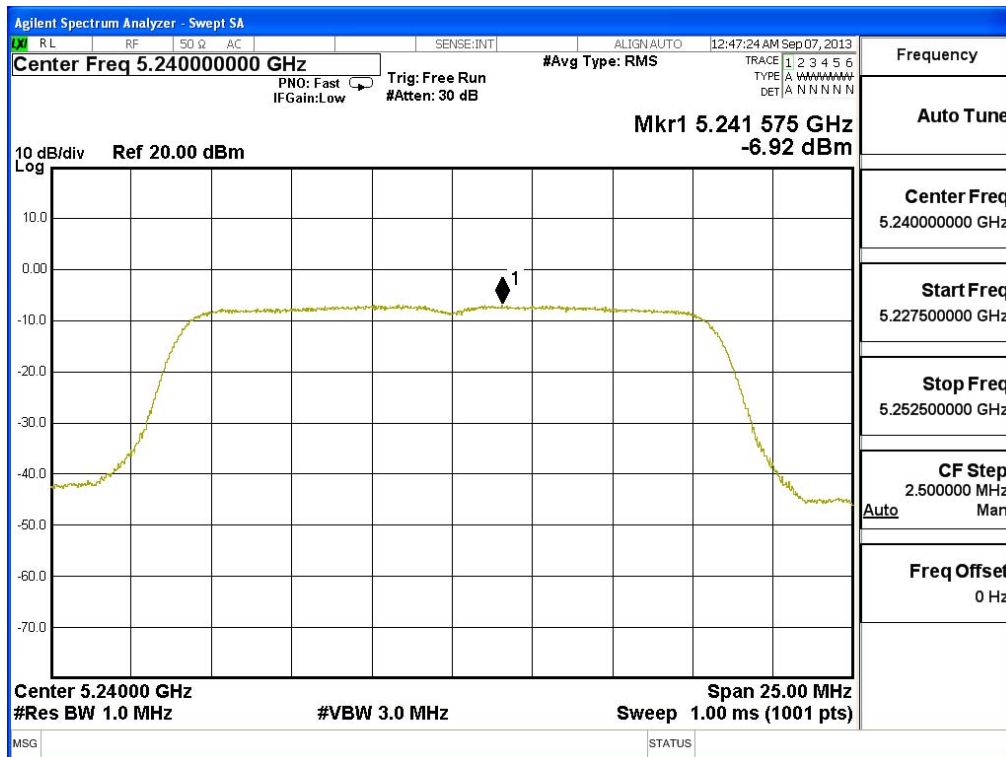
Channel 36:



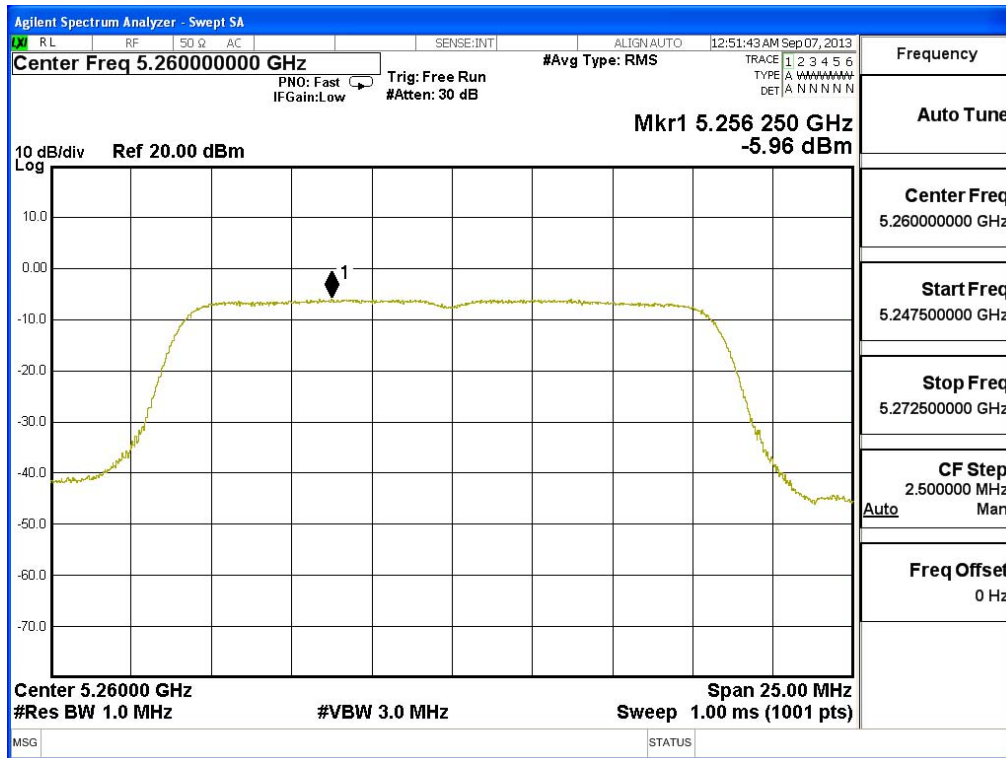
Channel 44:



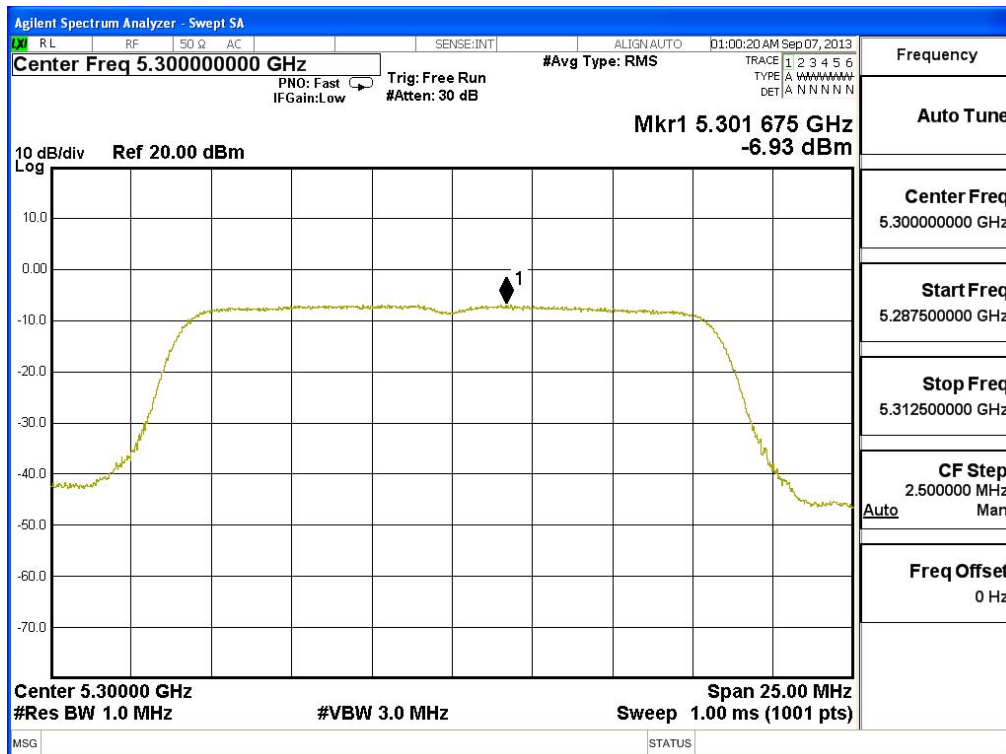
Channel 48:



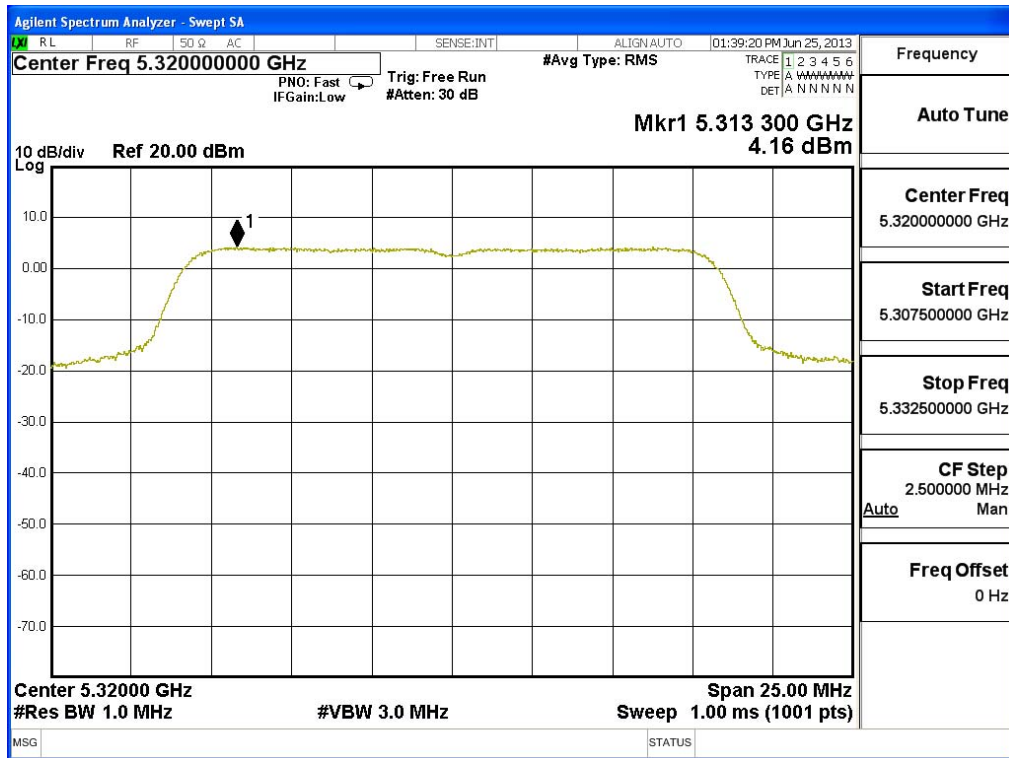
Channel 52:



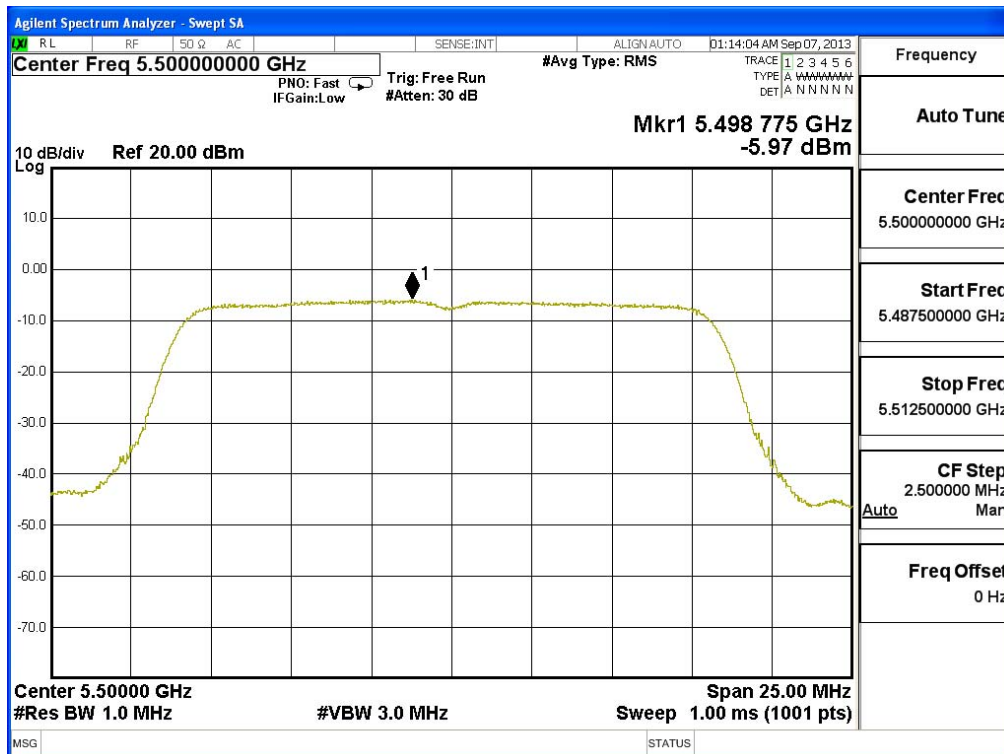
Channel 60:



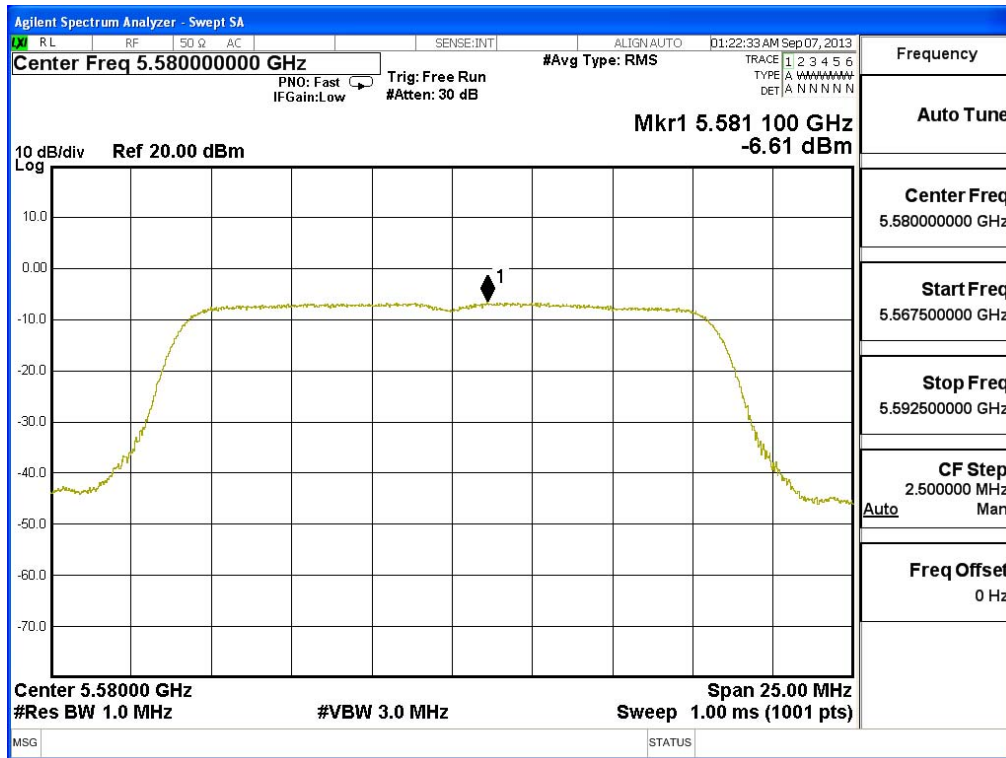
Channel 64:



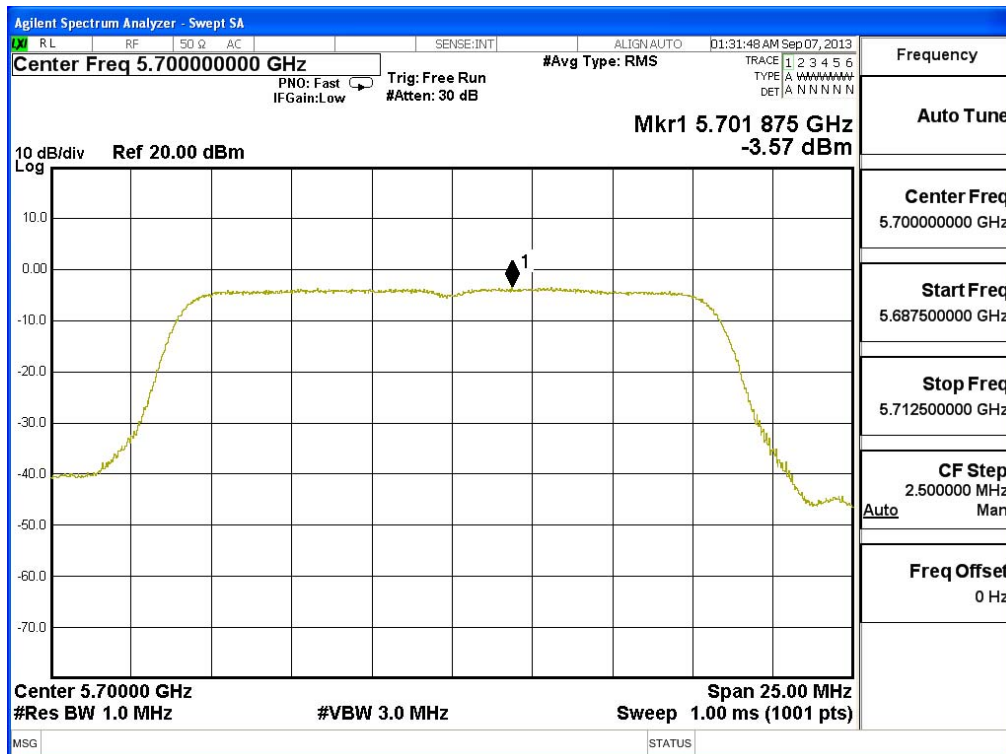
Channel 100:



Channel 116:



Channel 140:



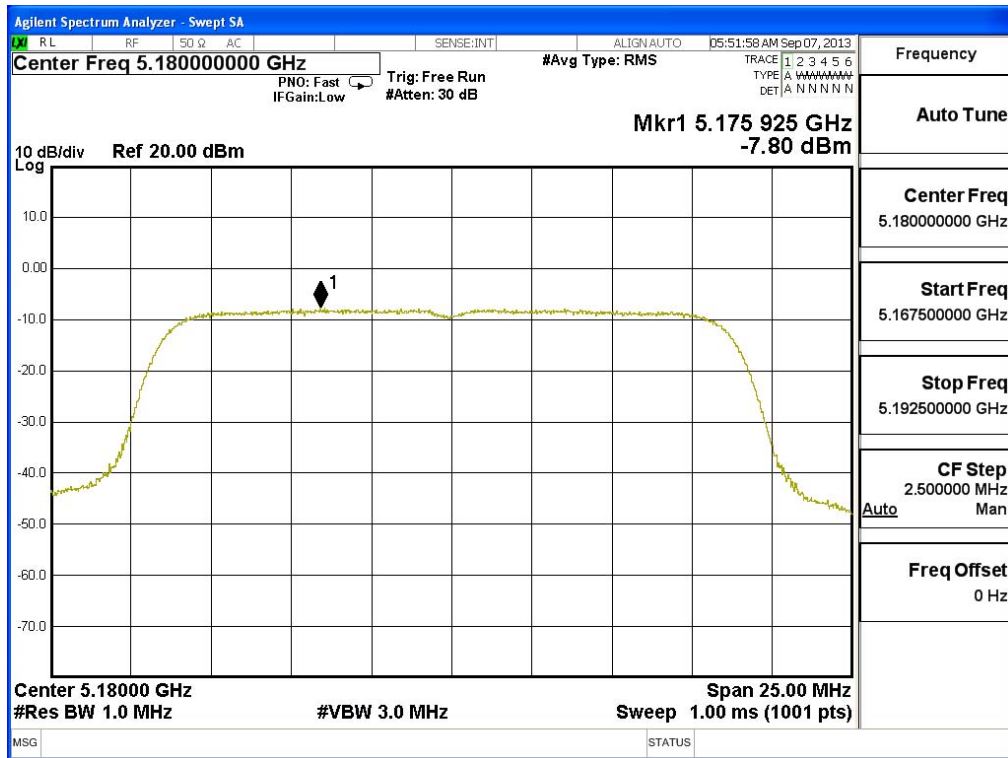
Product : 802.11a/b/g/n 2T2R Wireless Lan USB Module
 Test Item : Peak Power Spectral Density
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps)

Channel Number	Frequency (MHz)	Chain	PPSD/MHz (dBm)	Total PPSD/MHz (dBm) ₁	Required Limit (dBm)	Result
36	5180	A	-7.80	-4.79	<3.86	Pass
		B	-7.83	-4.82	<3.86	Pass
44	5220	A	-8.24	-5.23	<3.86	Pass
		B	-7.68	-4.67	<3.86	Pass
48	5240	A	-7.63	-4.62	<3.86	Pass
		B	-7.92	-4.91	<3.86	Pass
52	5260	A	-7.28	-4.27	<10.68	Pass
		B	-6.58	-3.57	<10.68	Pass
60	5300	A	-8.68	-5.67	<10.68	Pass
		B	-7.03	-4.02	<10.68	Pass
64	5320	A	-9.27	-6.26	<10.68	Pass
		B	-7.54	-4.53	<10.68	Pass
100	5500	A	-7.72	-4.71	<11	Pass
		B	-7.90	-4.89	<11	Pass
116	5580	A	-8.37	-5.36	<11	Pass
		B	-7.25	-4.24	<11	Pass
140	5700	A	-5.44	-2.43	<11	Pass
		B	-3.84	-0.83	<11	Pass

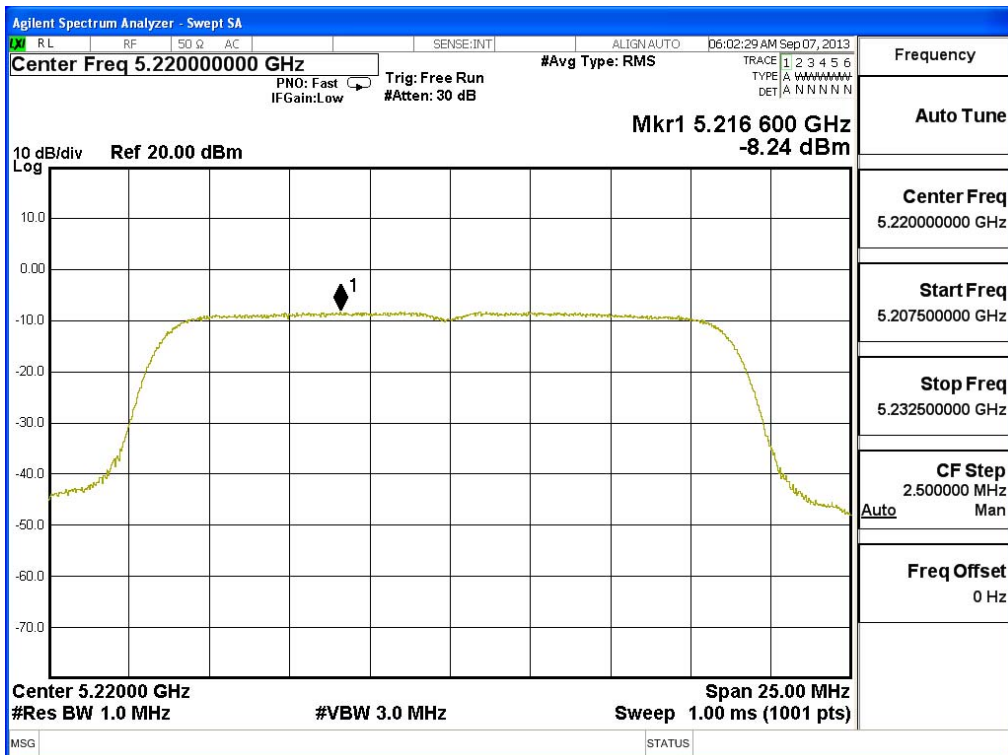
Note: 1. The quantity $10 \cdot \log 2$ (two antennas) is added to the spectrum peak value according to document 662911 D01.

2. The peak antenna gain exceeds 6 dBi that therefore the limit needs to reduce.

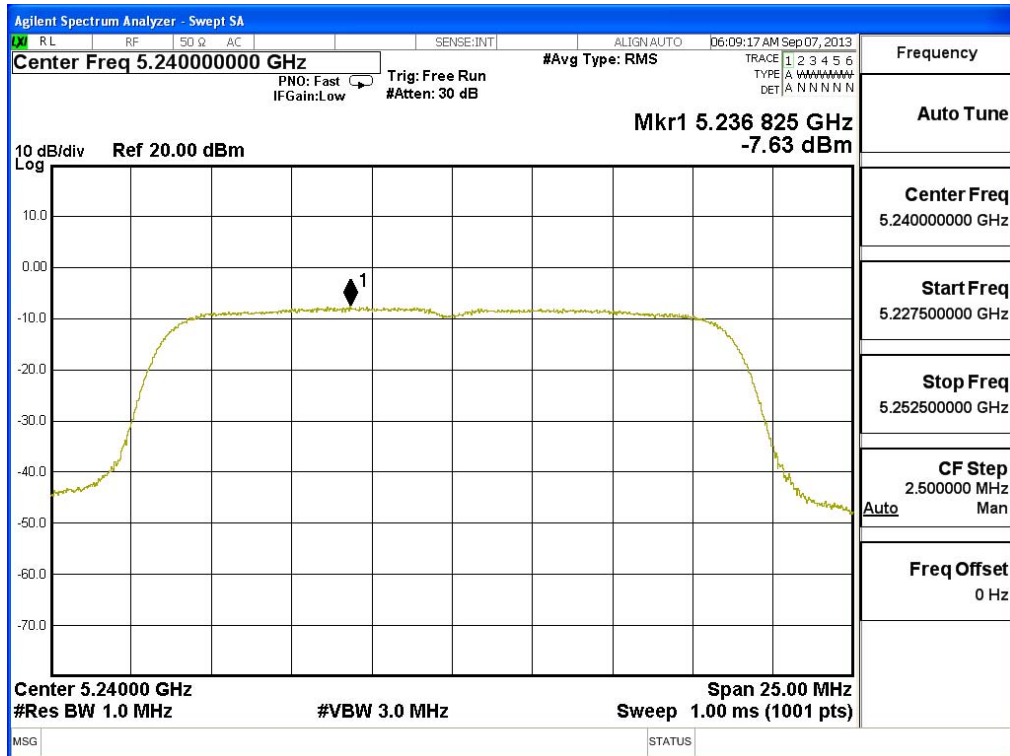
Channel 36 – Chain A



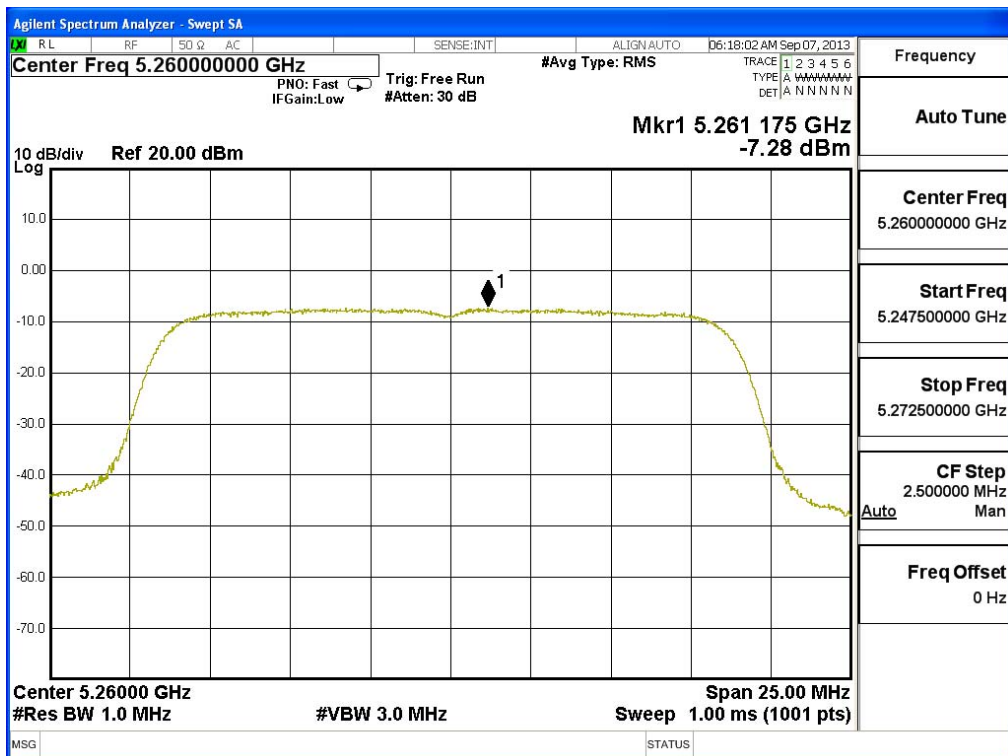
Channel 44 – Chain A



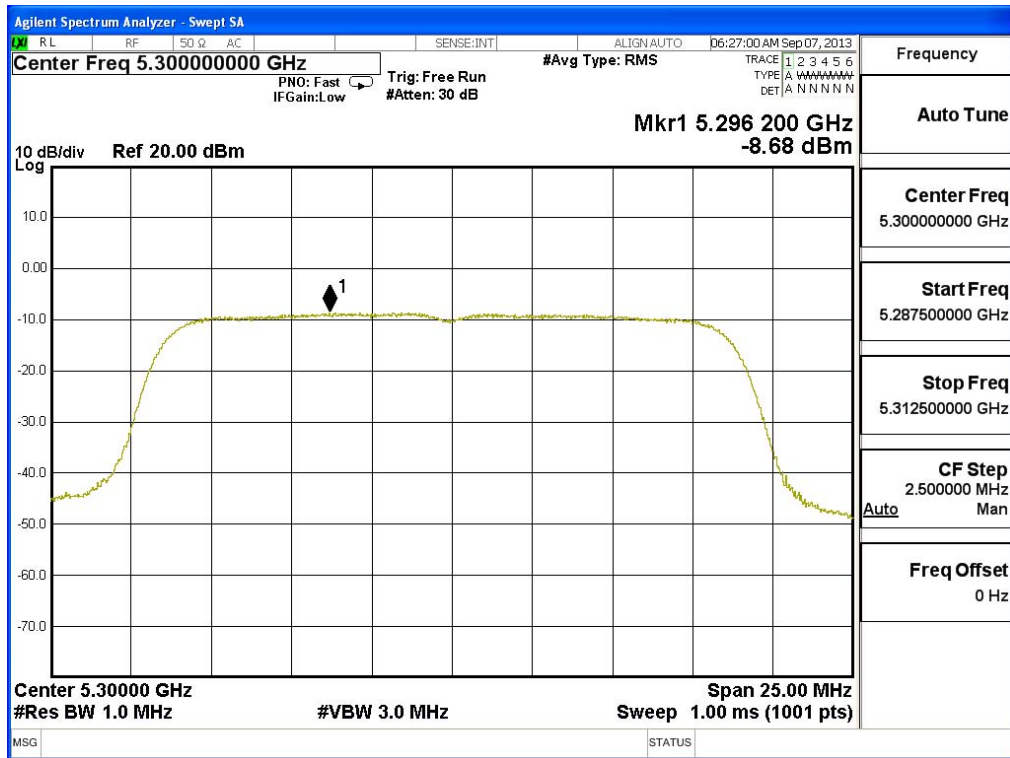
Channel 48 – Chain A



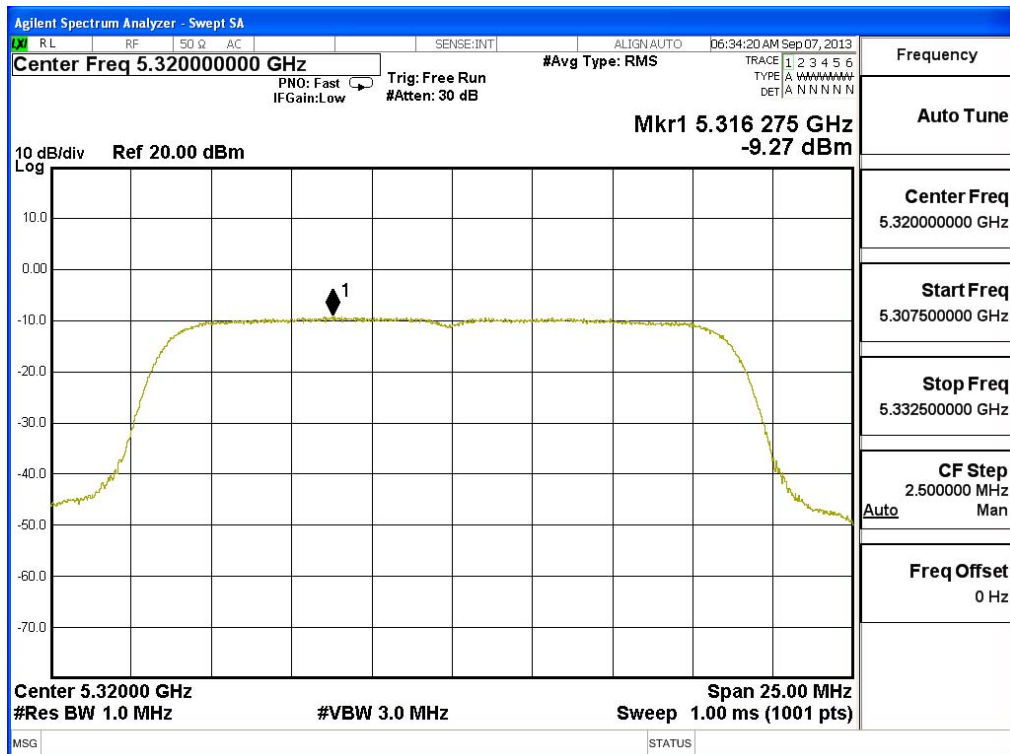
Channel 52 – Chain A



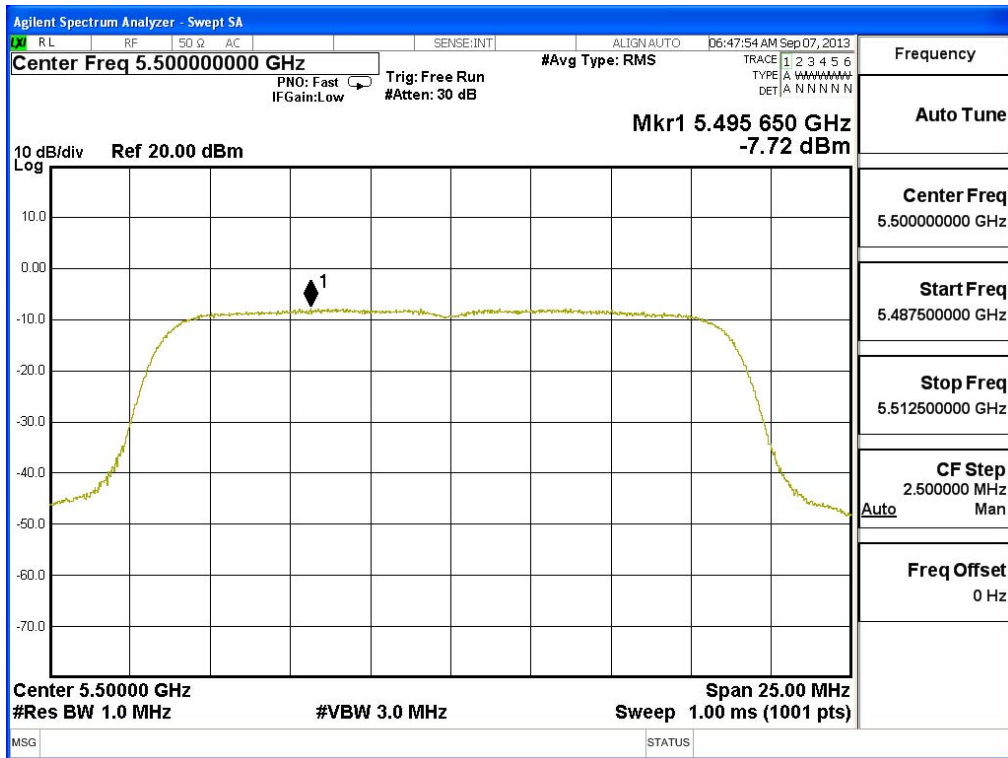
Channel 60 – Chain A



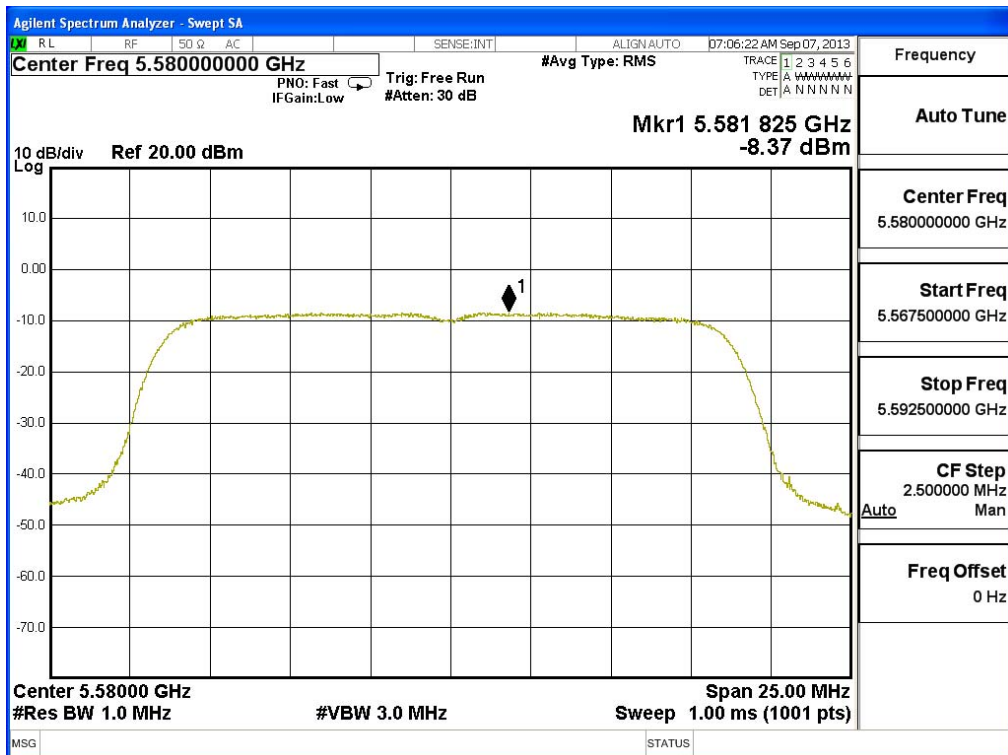
Channel 64 – Chain A



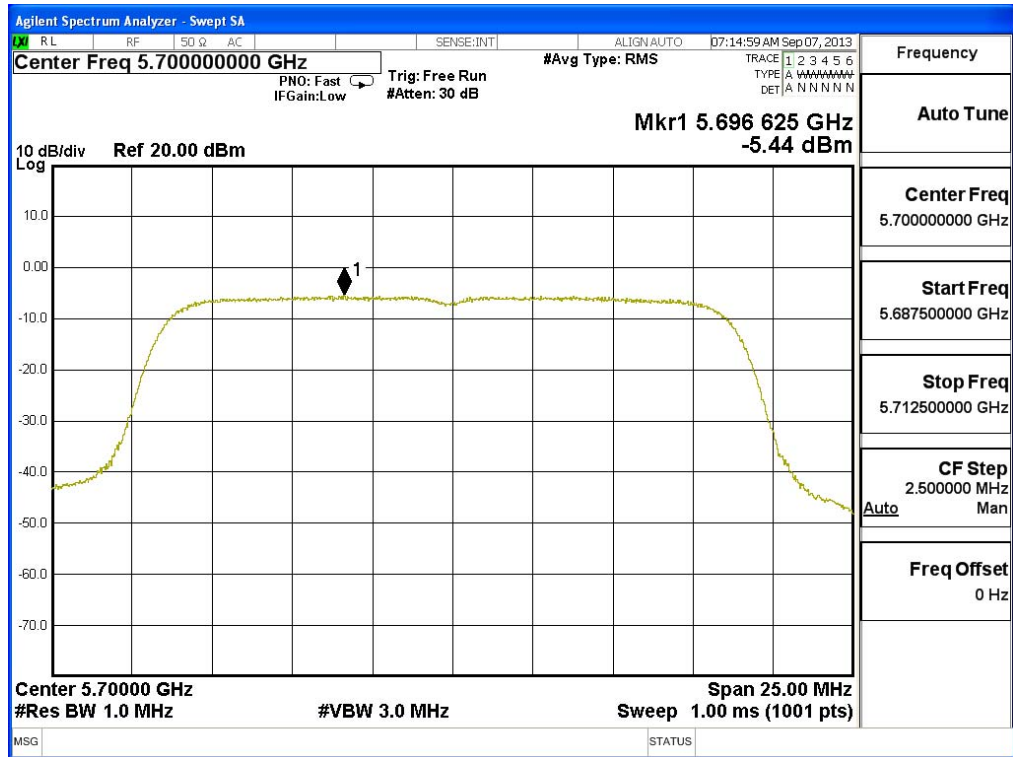
Channel 100 – Chain A



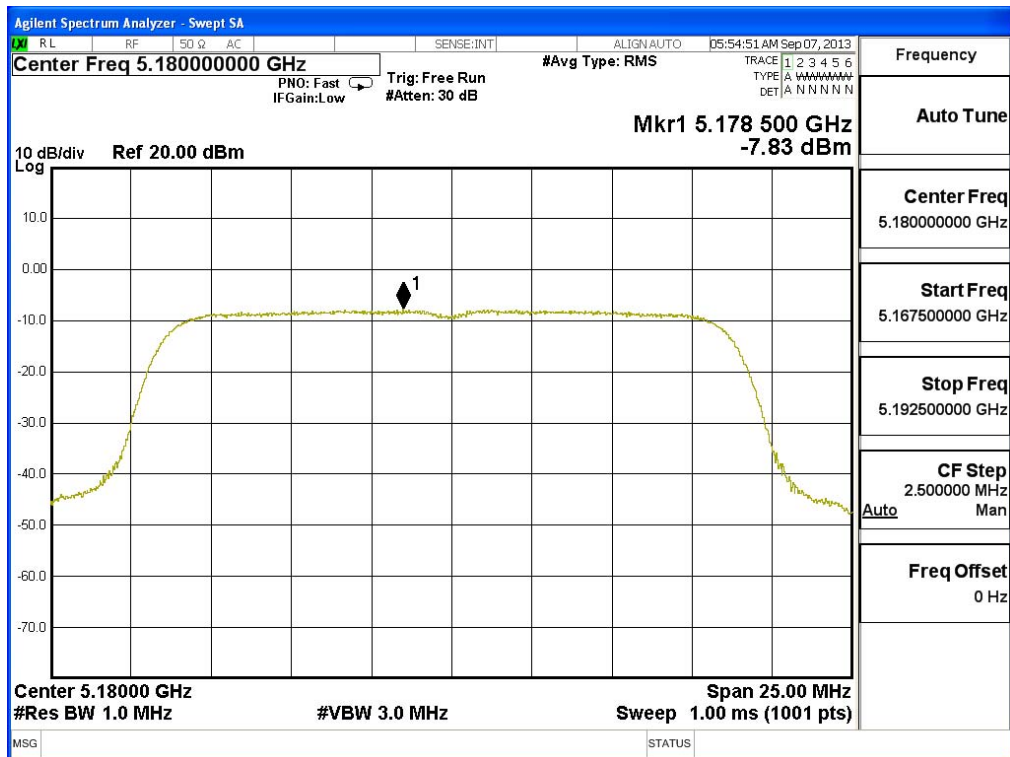
Channel 116 – Chain A



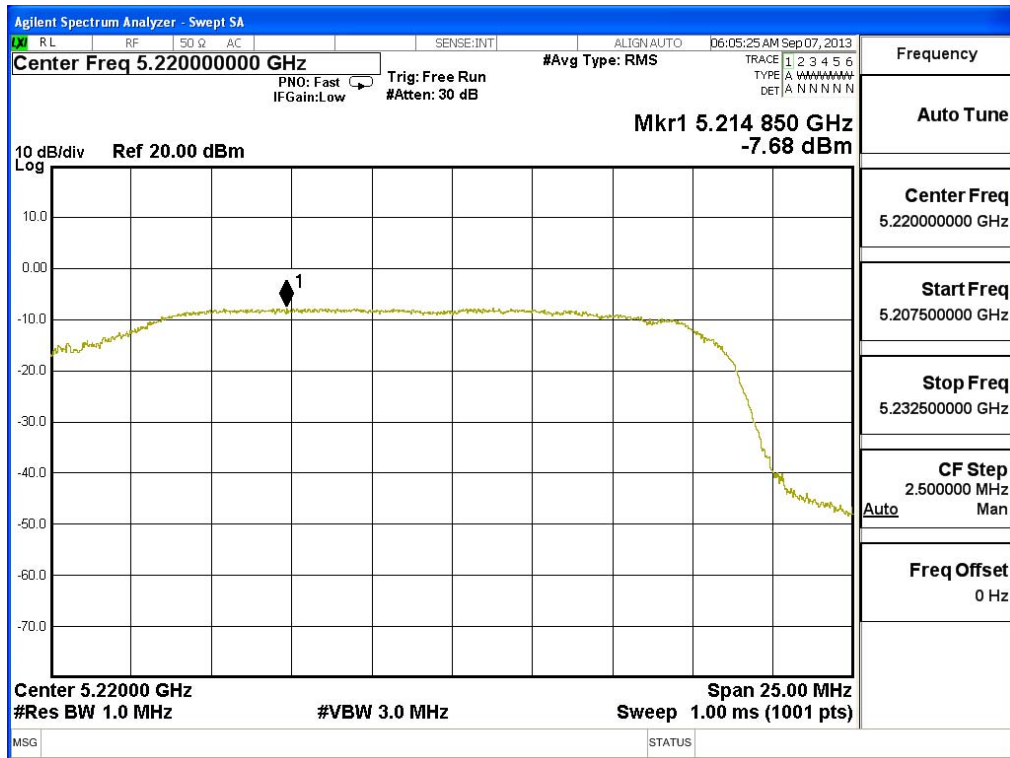
Channel 140 – Chain A



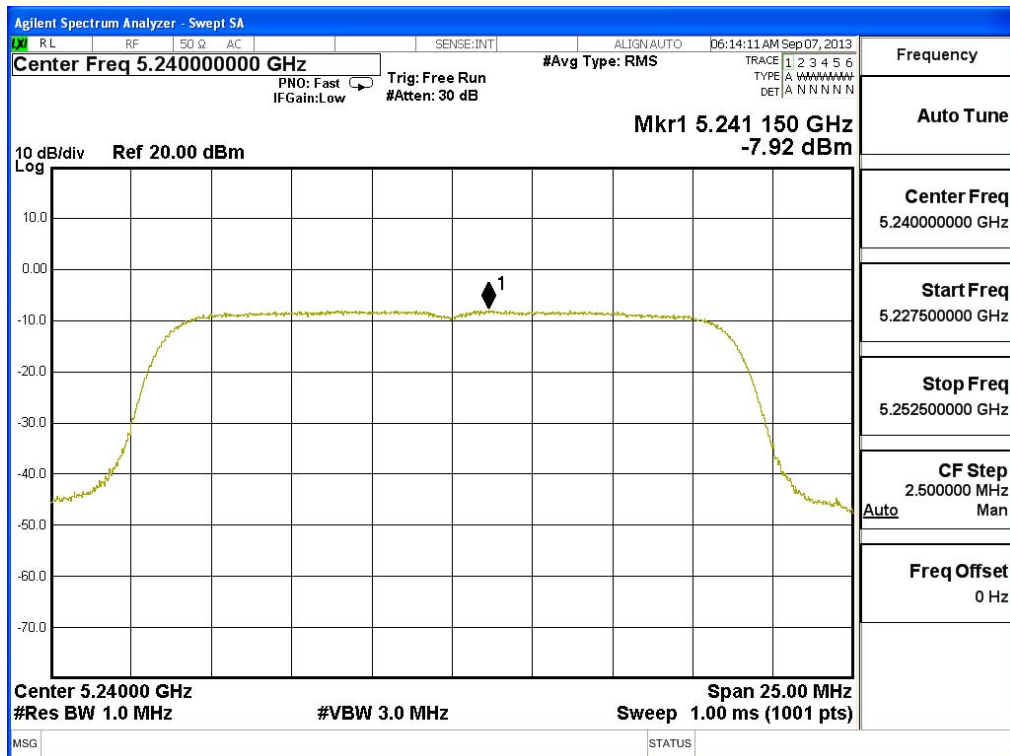
Channel 36 – Chain B



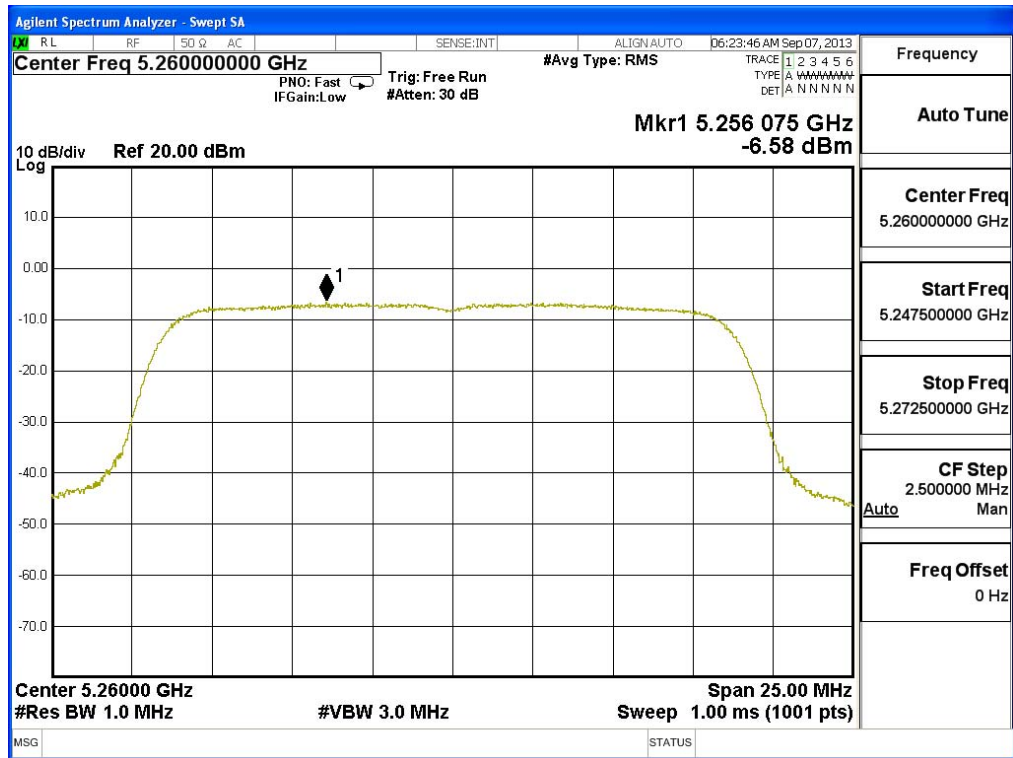
Channel 44 – Chain B



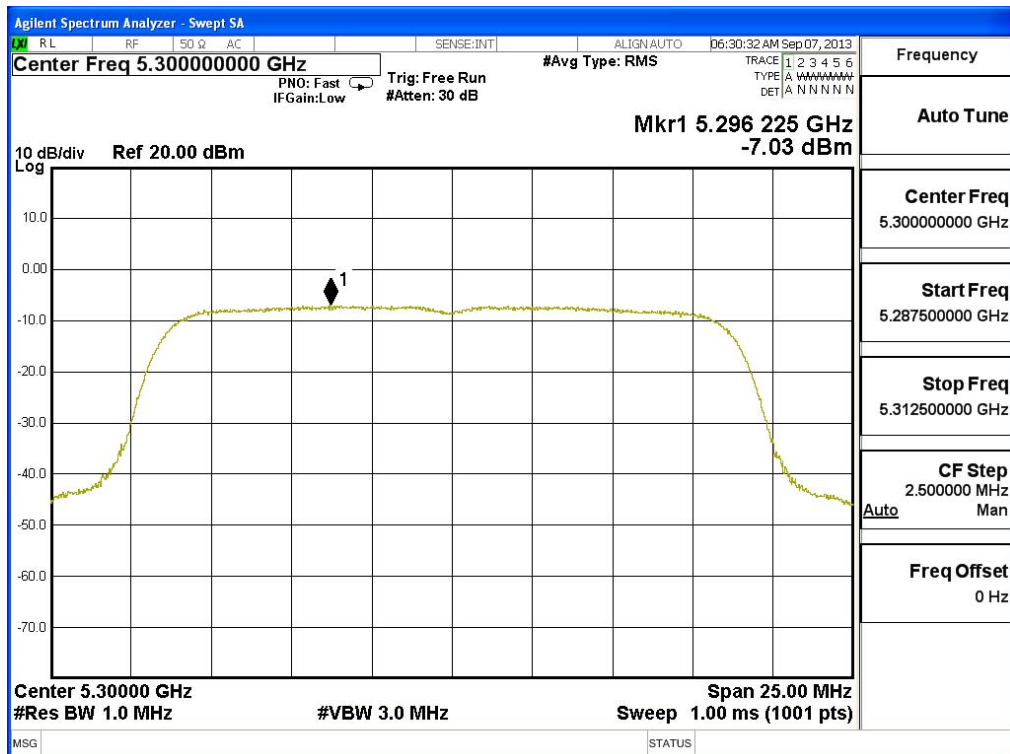
Channel 48 – Chain B



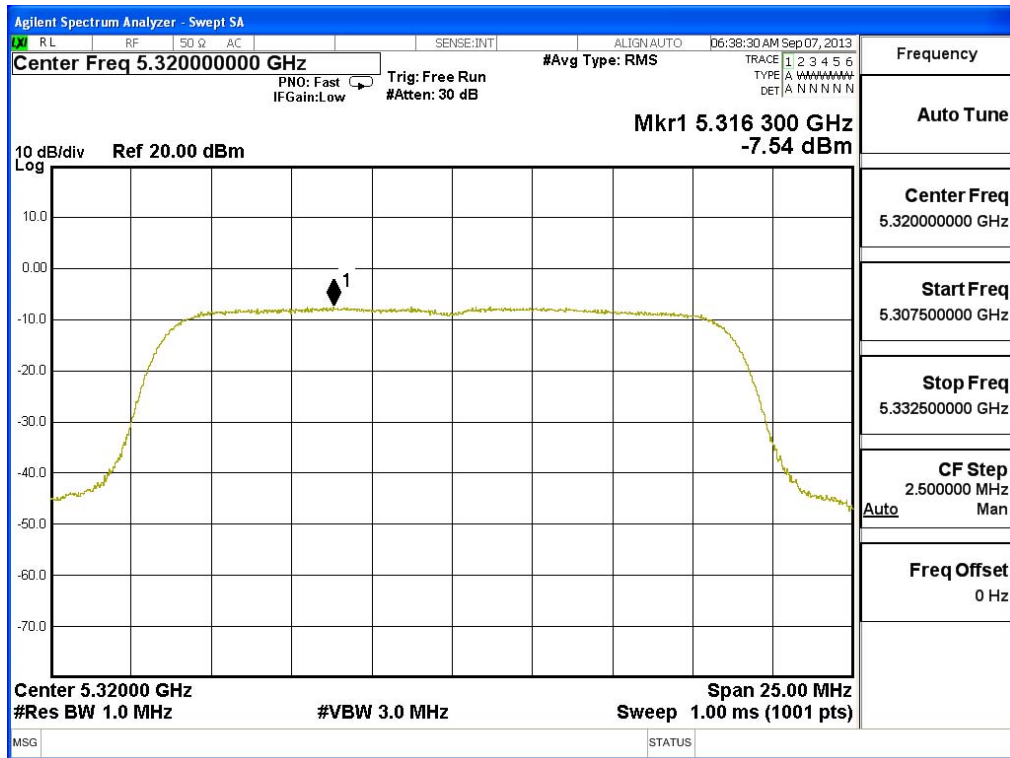
Channel 52 – Chain B



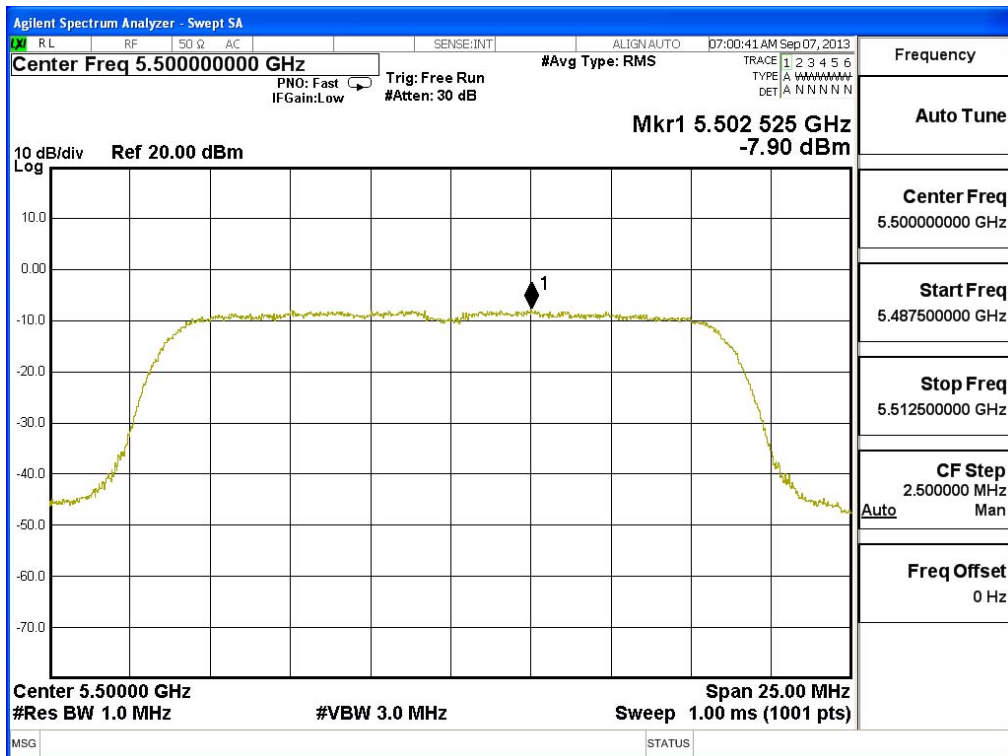
Channel 60 – Chain B



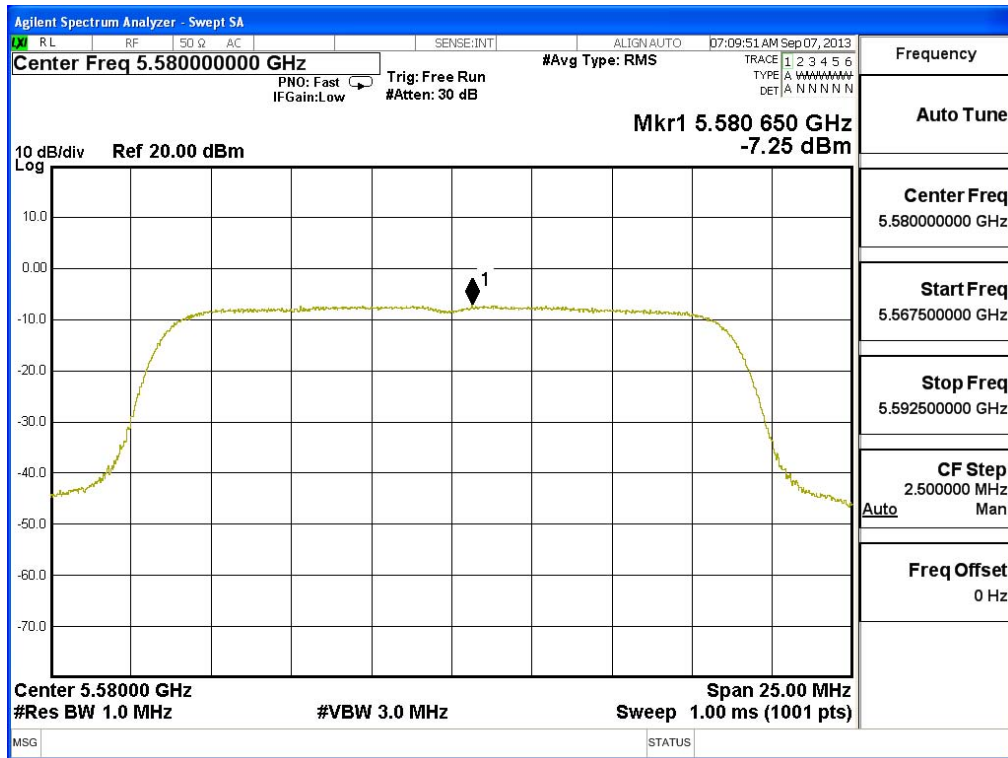
Channel 64 – Chain B



Channel 100 – Chain B



Channel 116 – Chain B



Channel 140 – Chain B

