

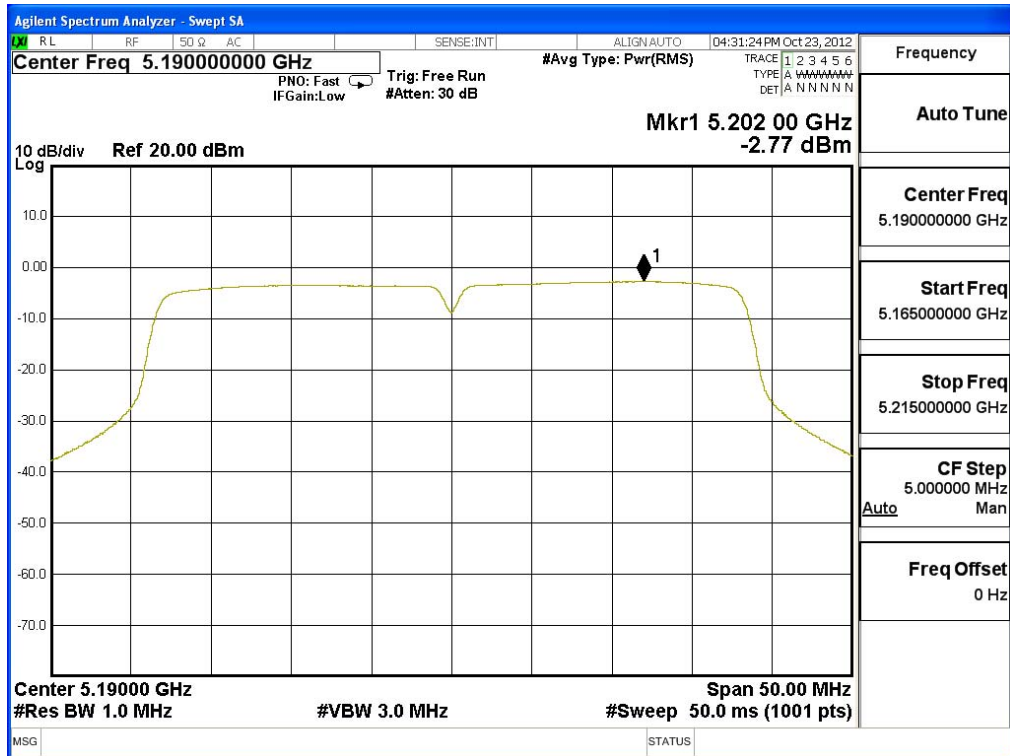
Product : SpectraGuardR Access Point / Sensor
 Test Item : Peak Power Spectral Density
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps)(Dipole Antenna)

Channel Number	Frequency (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Measurement Level (dBm)	Required Limit (dBm)	Result
38	5190	-2.770	-7.320	-7.100	-0.415	<4	Pass
46	5230	-5.190	-6.290	-6.490	-1.180	<4	Pass

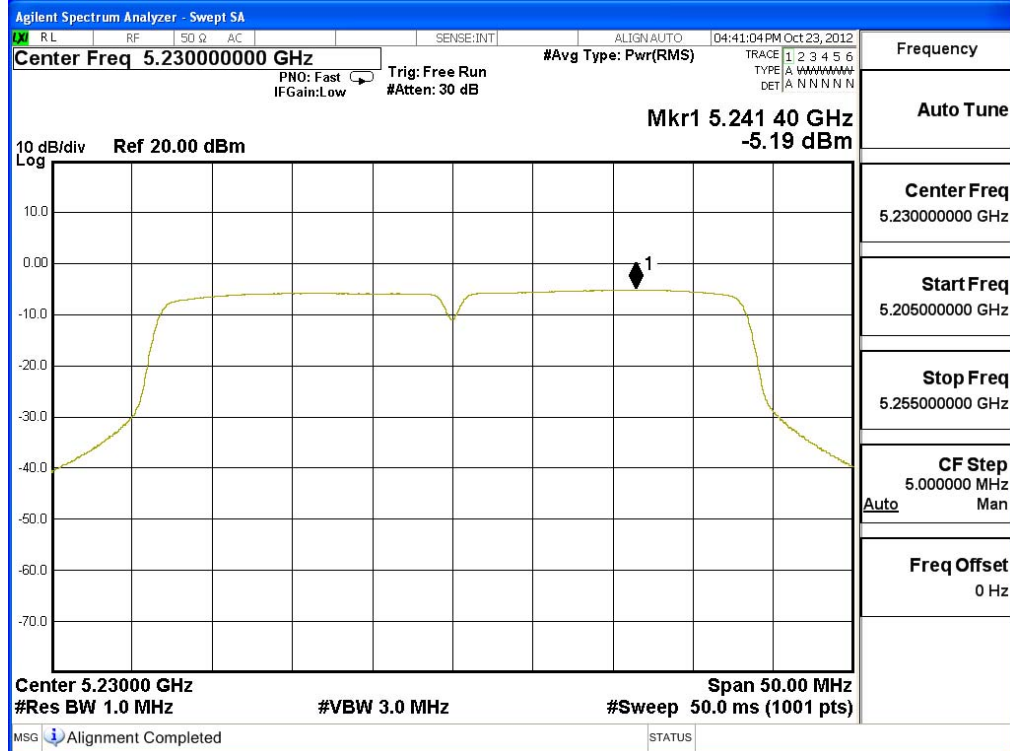
Note:

1. Measurement Level (dBm) = 10LOG (Chain A Power (mW)+ Chain B Power (mW) + Chain C Power (mW))

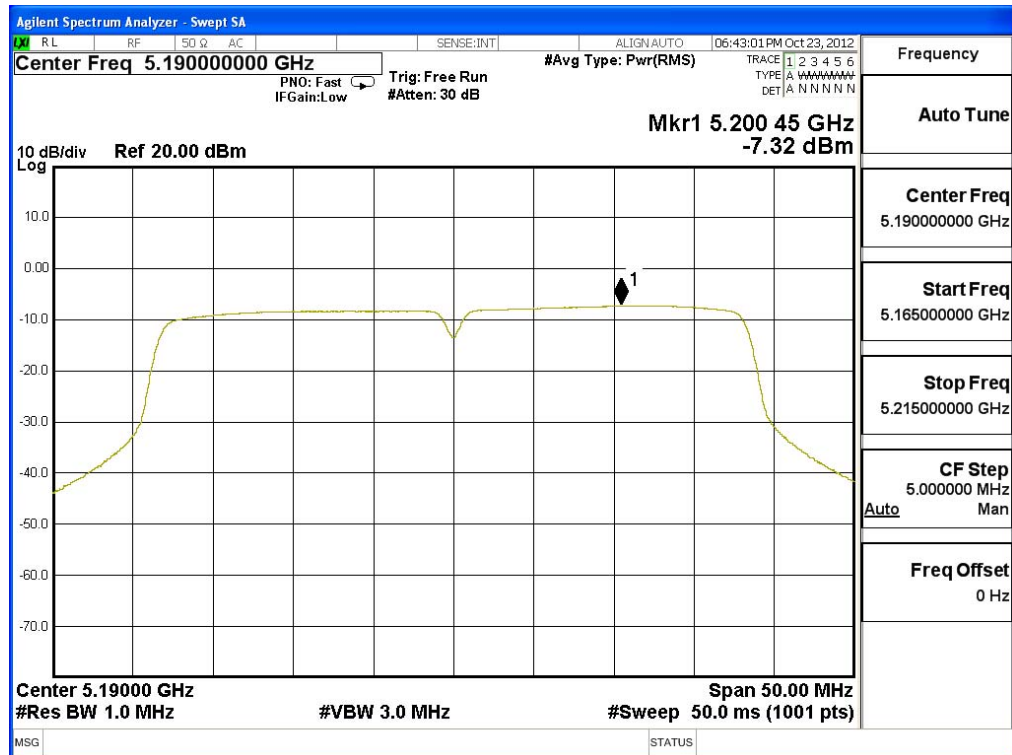
Channel 38 – Chain A



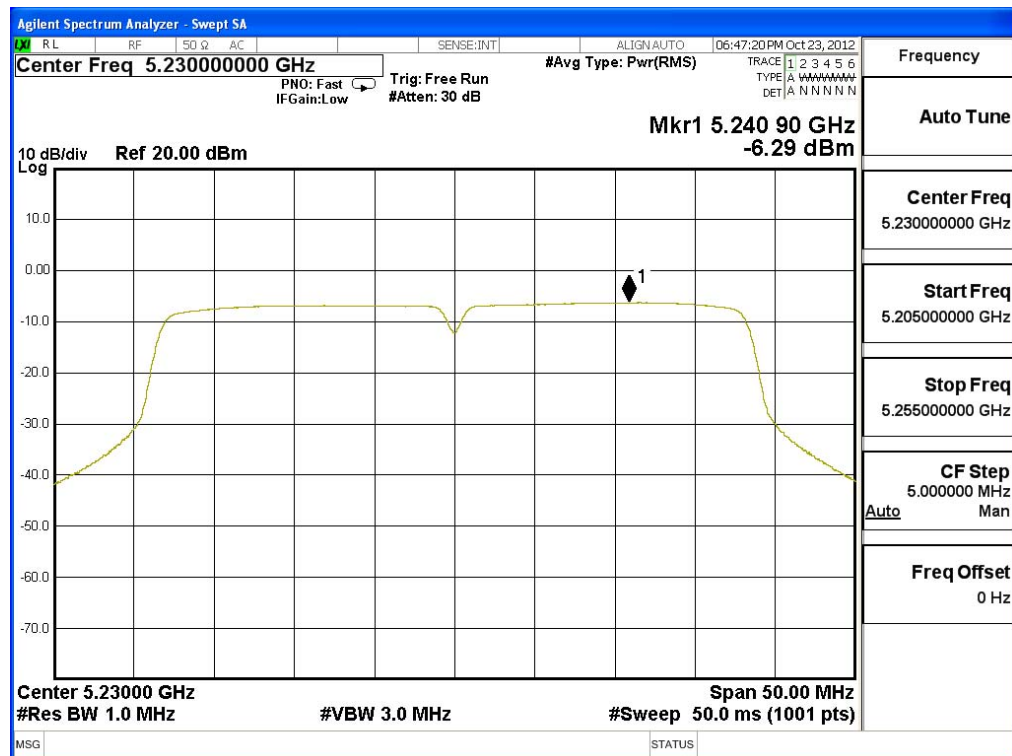
Channel 46 – Chain A



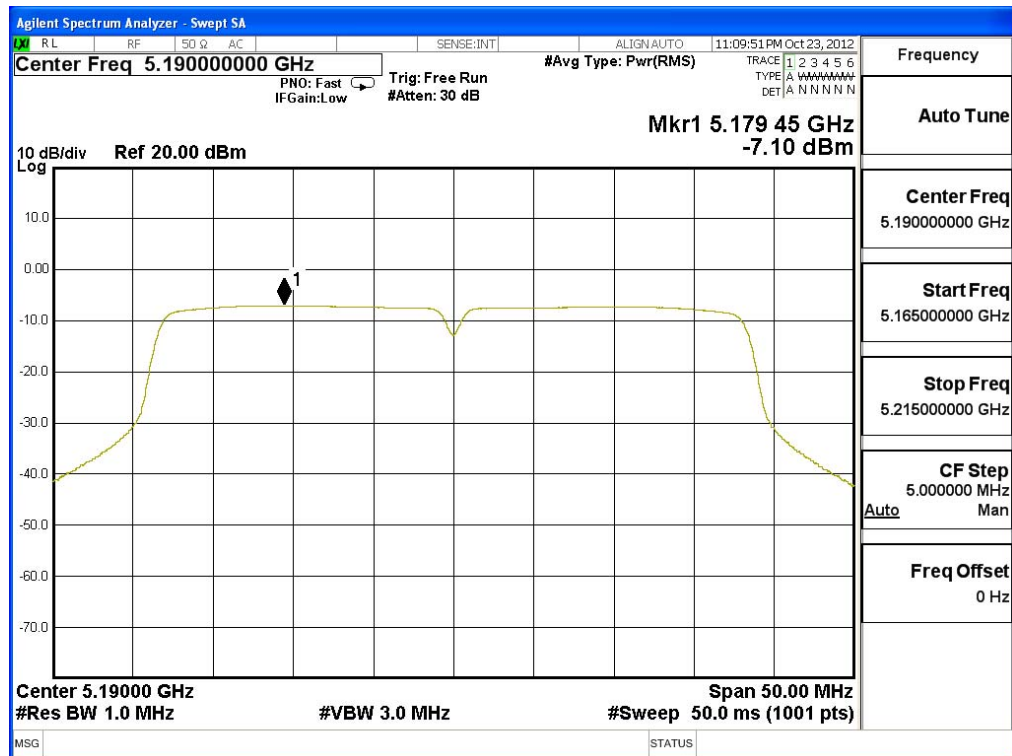
Channel 38 – Chain B



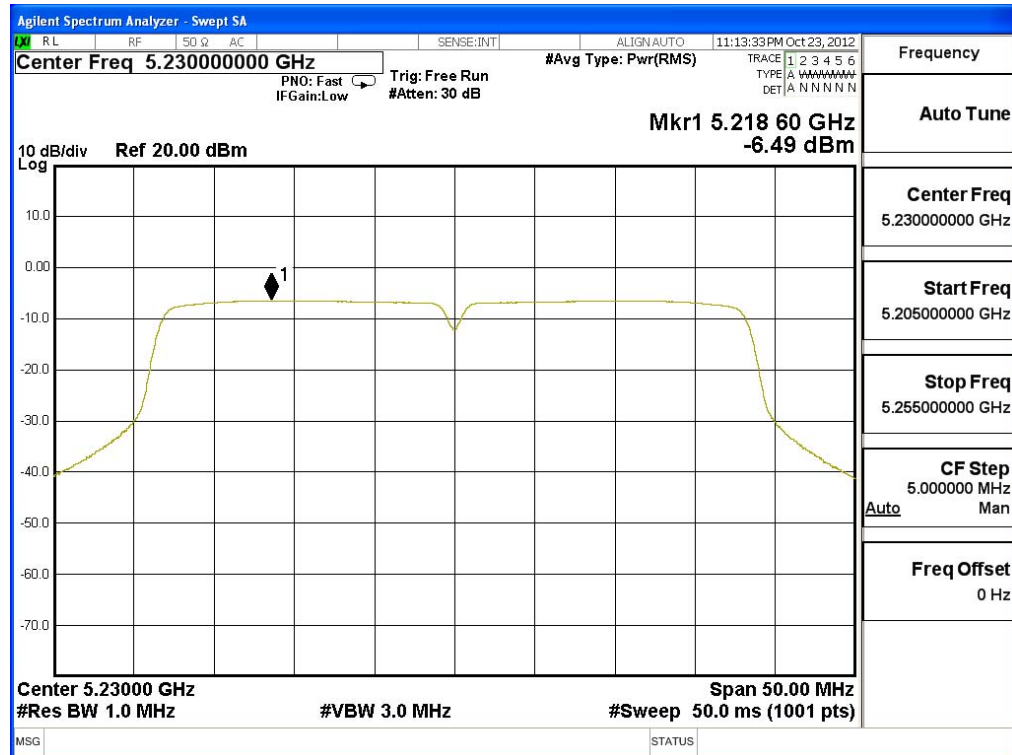
Channel 46 – Chain B



Channel 38 – Chain C



Channel 46 – Chain C



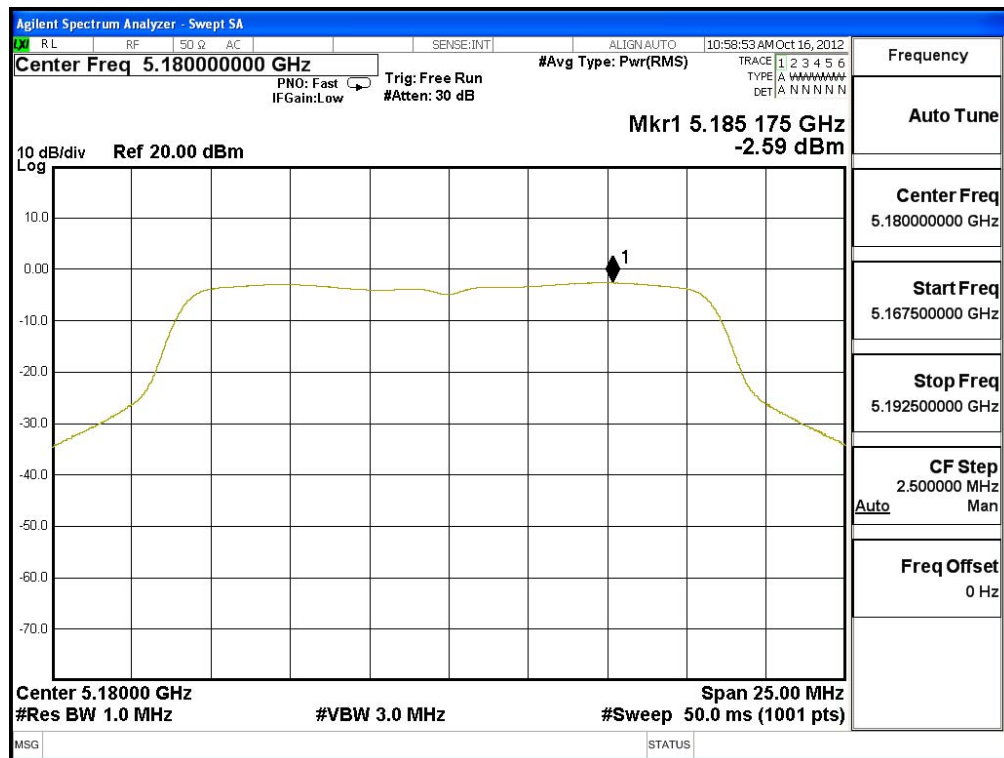
Product : SpectraGuardR Access Point / Sensor
 Test Item : Peak Power Spectral Density
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit (802.11a-6Mbps)(PIFA Antenna)

Channel Number	Frequency (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Measurement Level (dBm)	Required Limit (dBm)	Result
36	5180	-2.590	-2.830	-2.100	2.275	<4	Pass
44	5220	-2.250	-2.530	-2.200	2.447	<4	Pass
48	5240	-1.880	-2.580	-1.840	2.684	<4	Pass

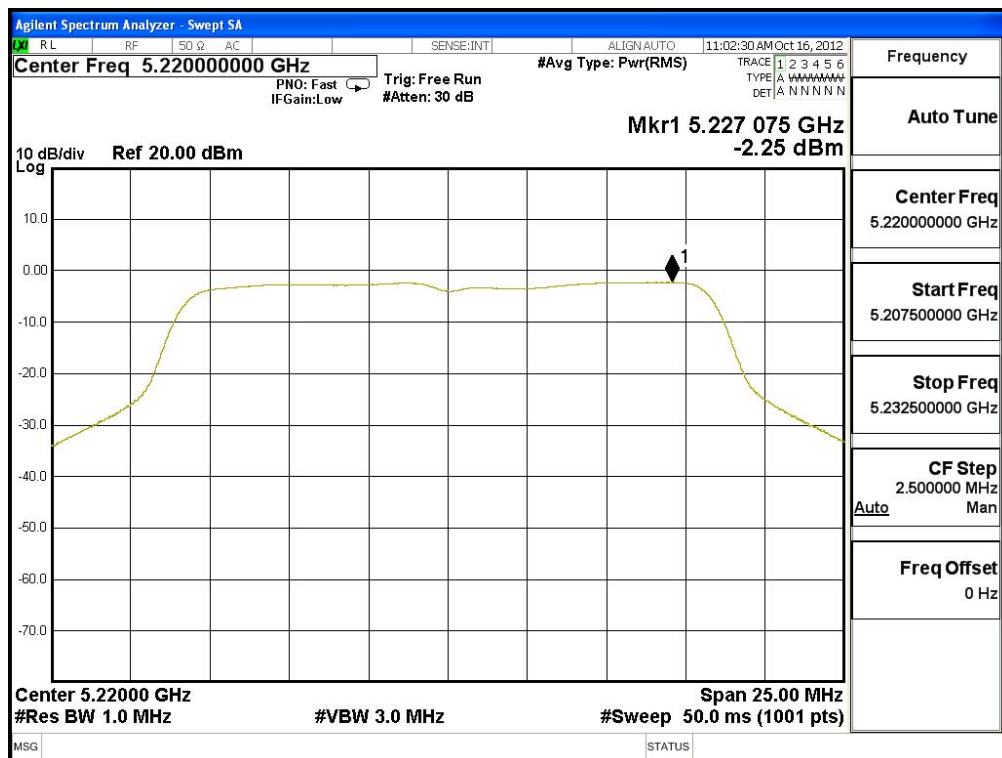
Note:

- Measurement Level (dBm) = 10LOG (Chain A Power (mW)+ Chain B Power (mW) + Chain C Power (mW))

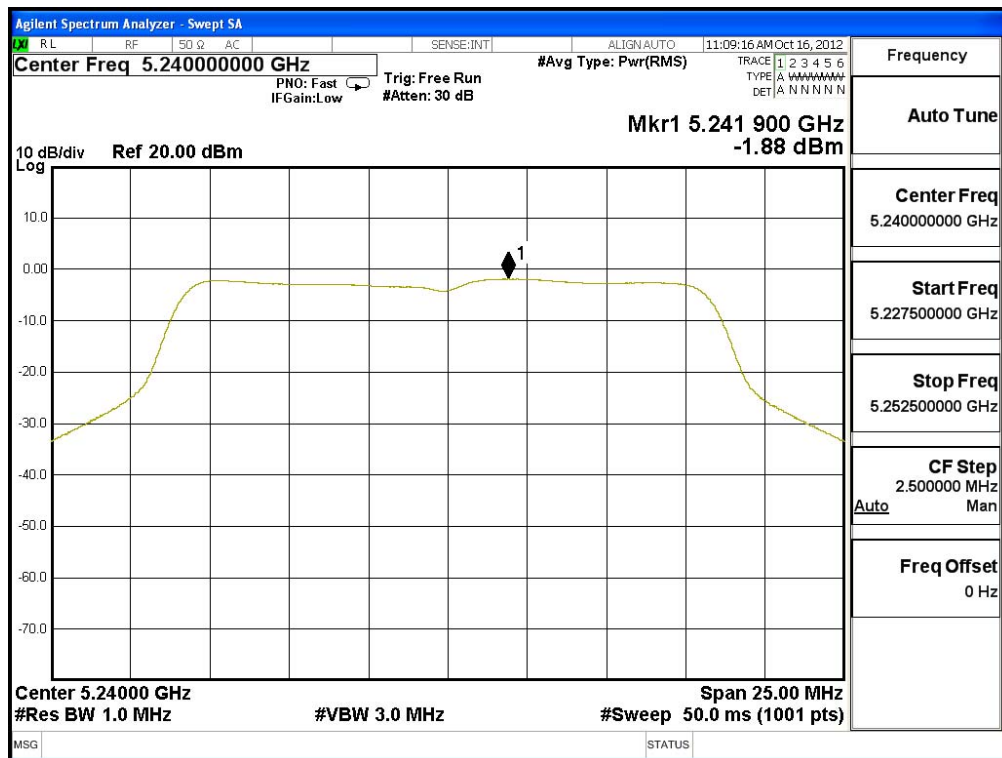
Channel 36: CHAIN A



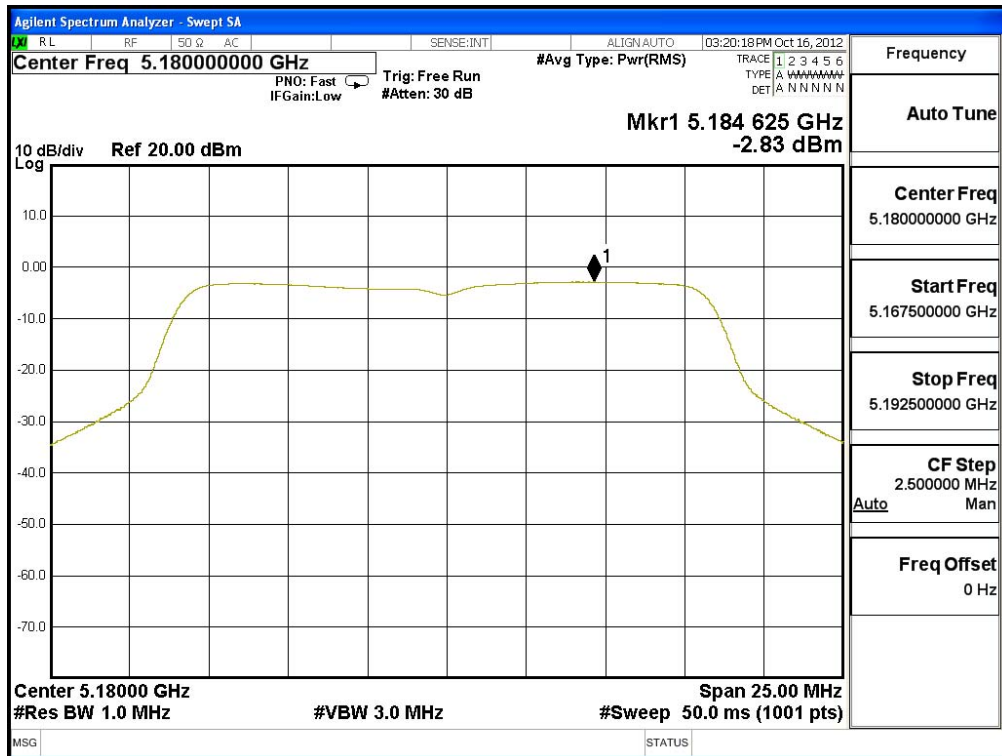
Channel 44: CHAIN A



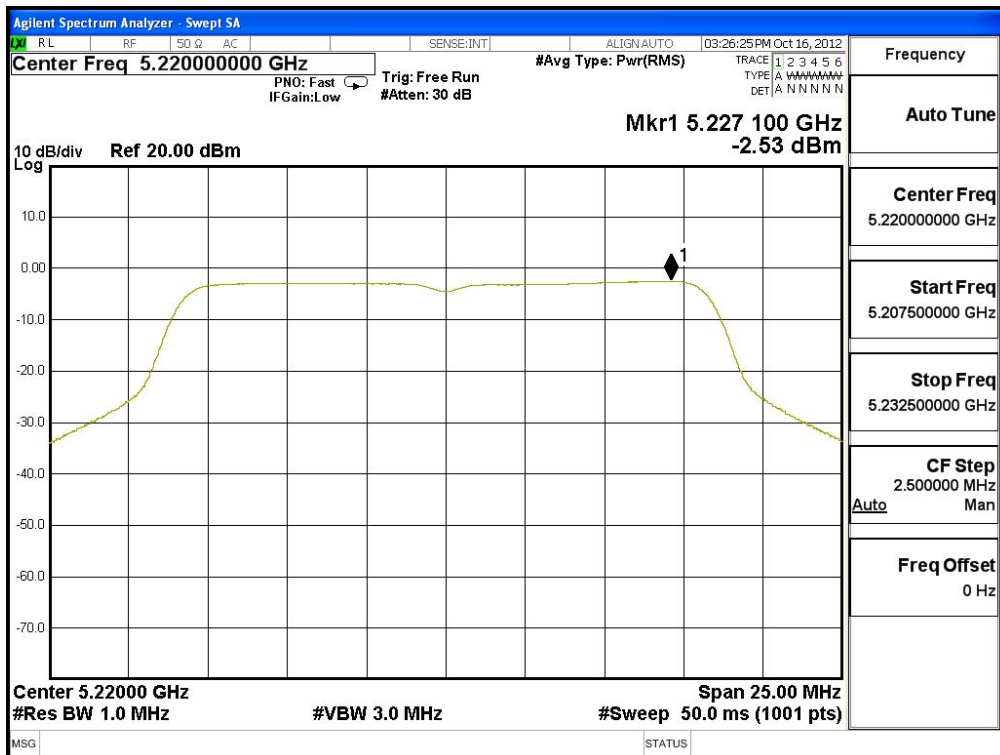
Channel 48: CHAIN A



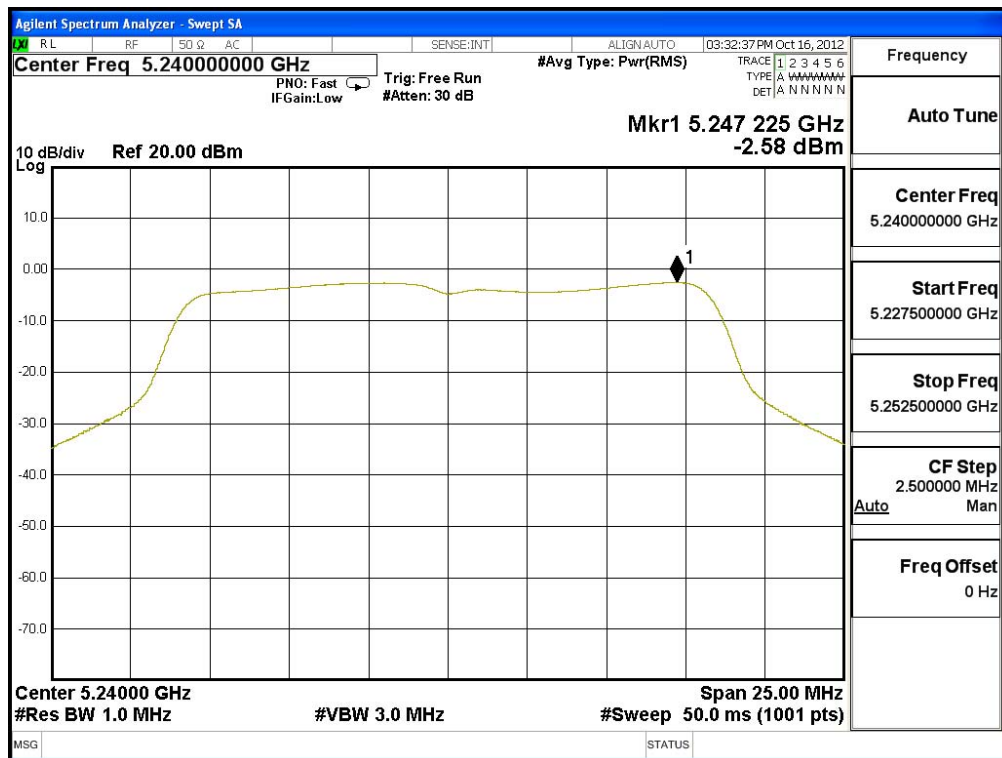
Channel 36: CHAIN B



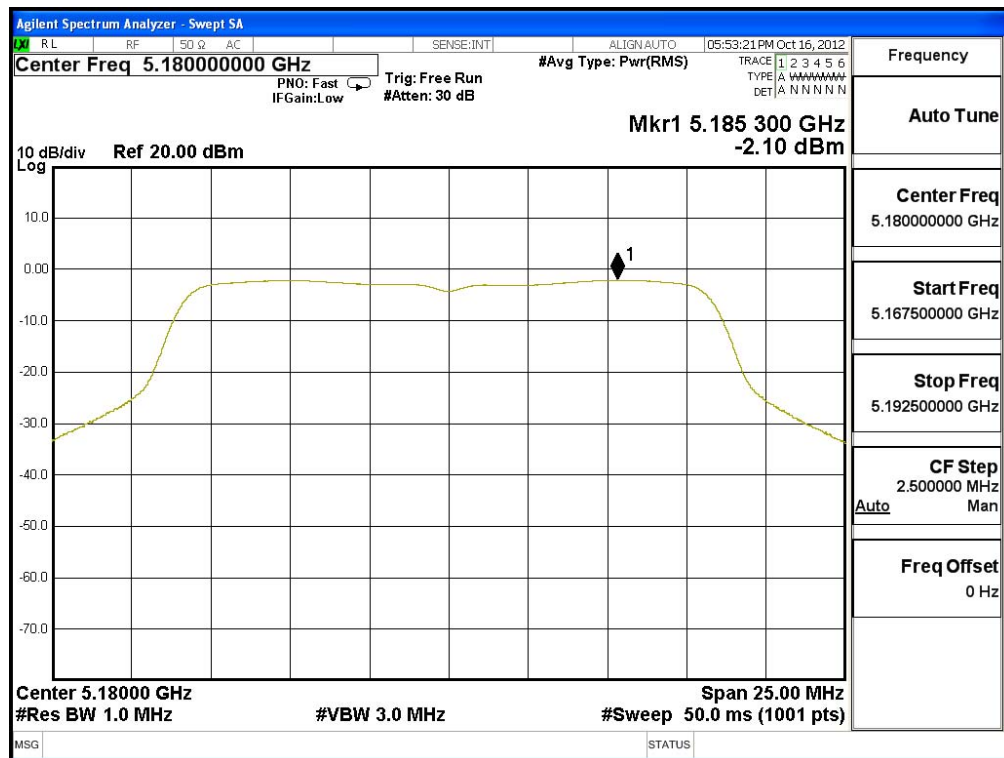
Channel 44: CHAIN B



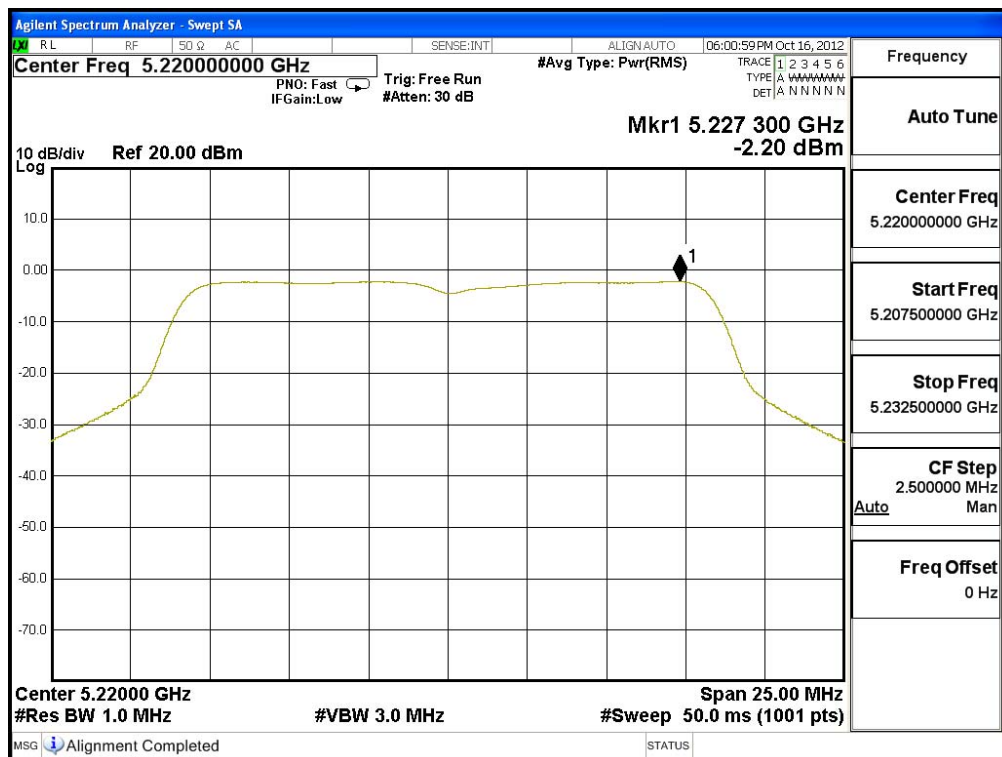
Channel 48: CHAIN B



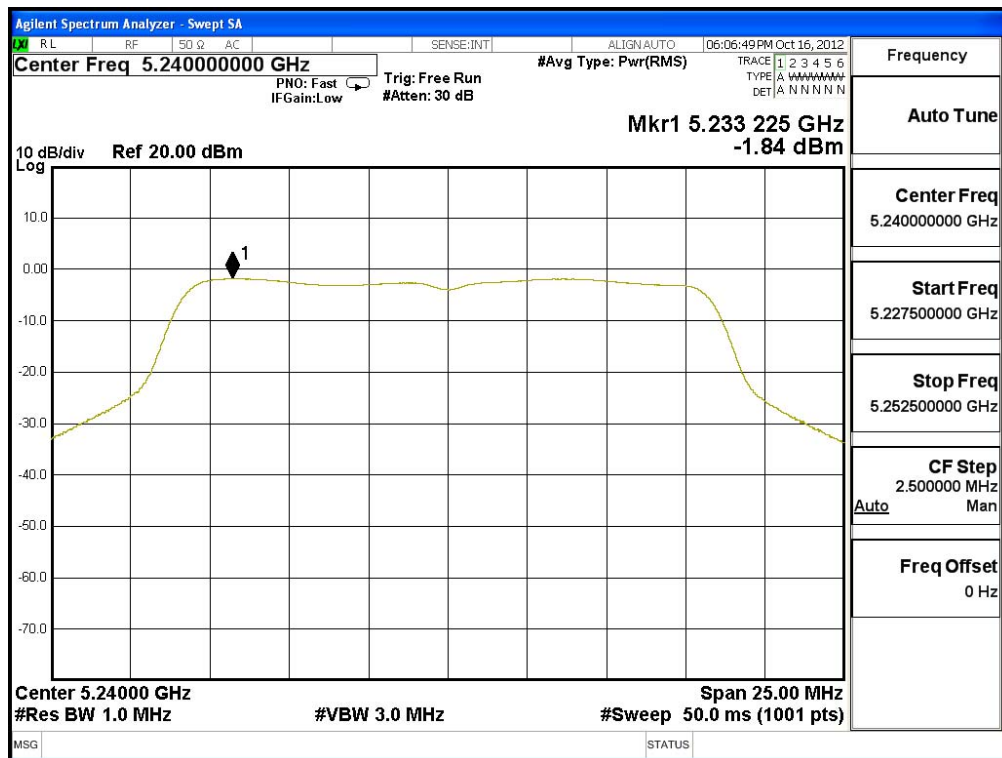
Channel 36: CHAIN C



Channel 44: CHAIN C



Channel 48: CHAIN C



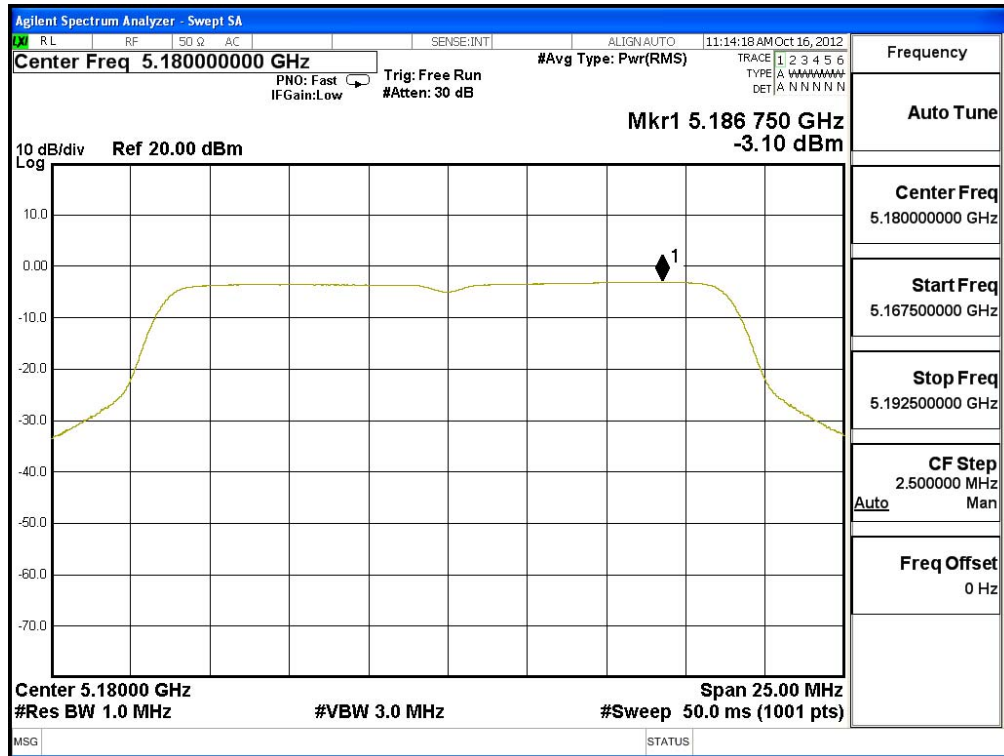
Product : SpectraGuardR Access Point / Sensor
 Test Item : Peak Power Spectral Density
 Test Site : No.3 OATS
 Test Mode : Mode 5: Transmit (802.11n-20BW 21.7Mbps)(PIFA Antenna)

Channel Number	Frequency (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Measurement Level (dBm)	Required Limit (dBm)	Result
36	5180	-3.100	-3.150	-2.570	1.839	<4	Pass
44	5220	-2.700	-2.150	-2.660	2.275	<4	Pass
48	5240	-2.610	-3.320	-2.640	1.927	<4	Pass

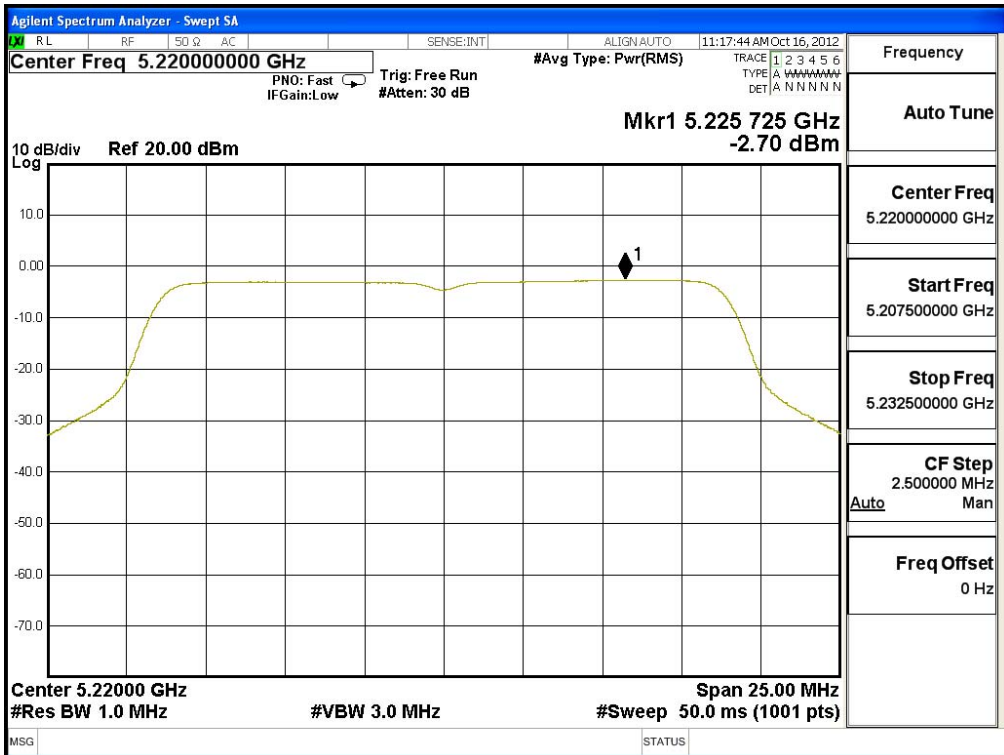
Note:

1. Measurement Level (dBm) = 10LOG (Chain A Power (mW)+ Chain B Power (mW) + Chain C Power (mW))

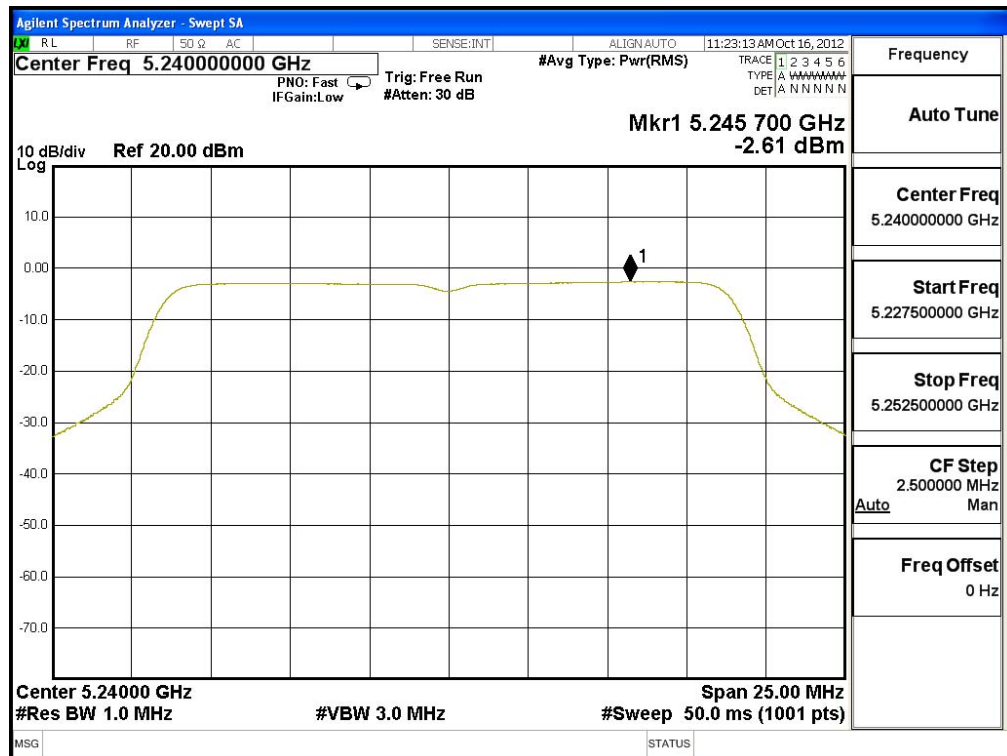
Channel 36 – Chain A



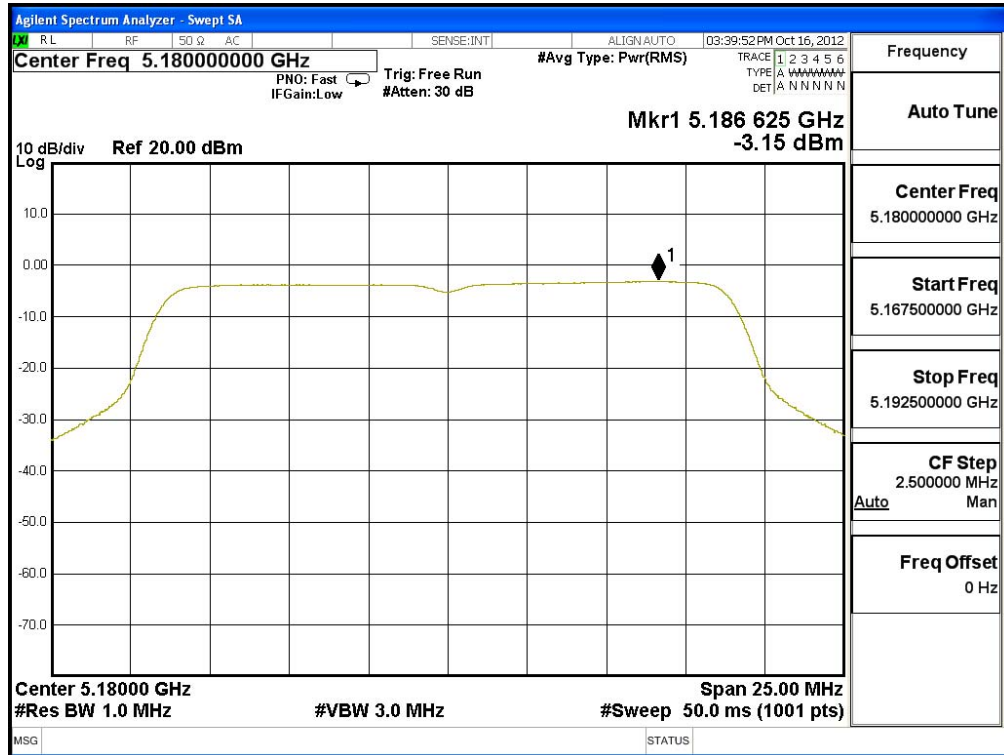
Channel 44 – Chain A



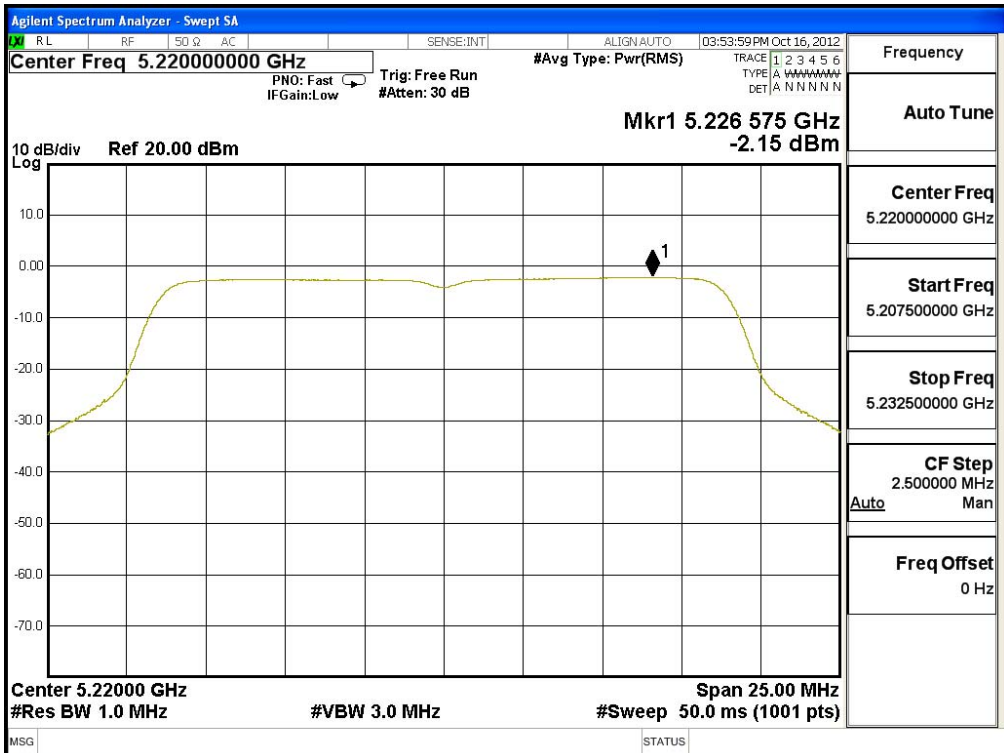
Channel 48 – Chain A



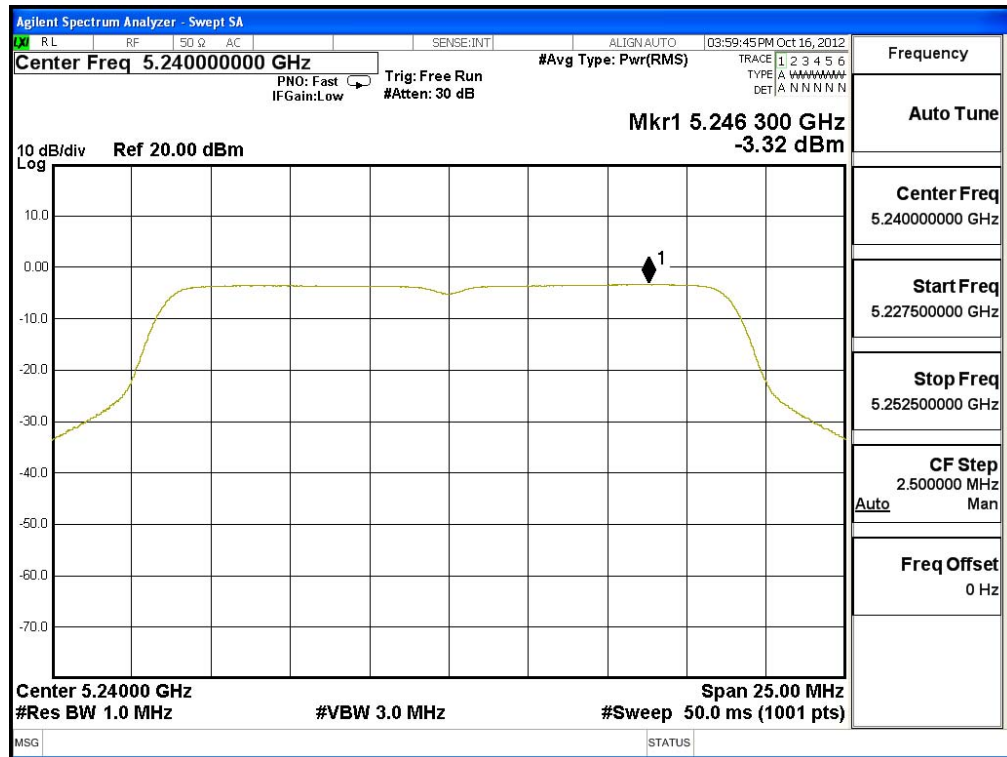
Channel 36 – Chain B



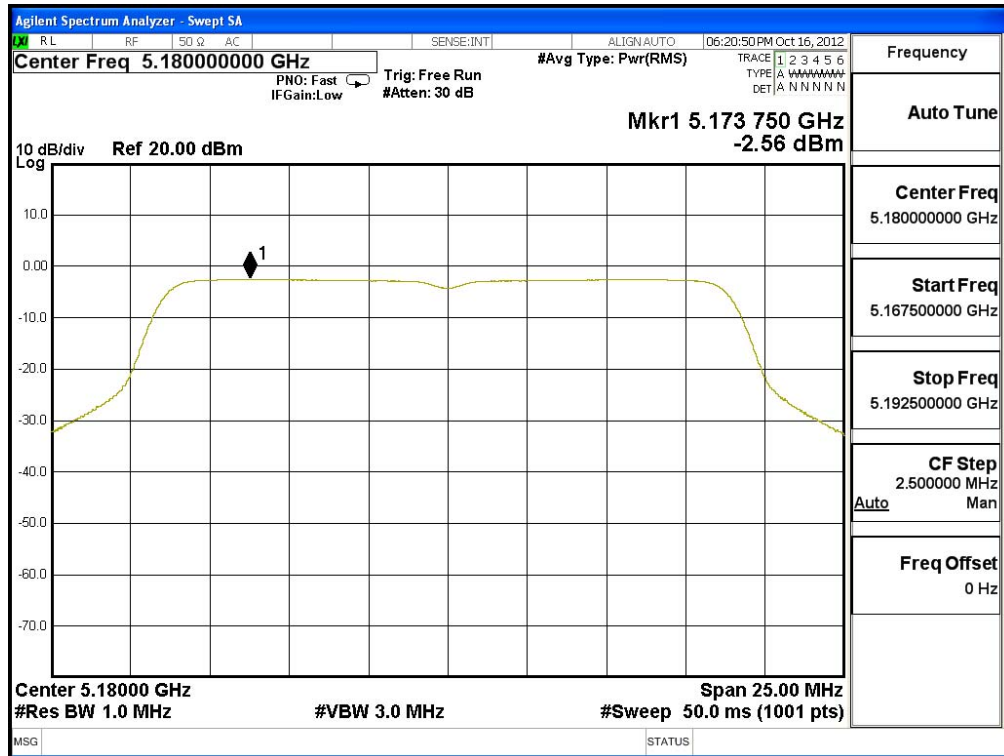
Channel 44 – Chain B



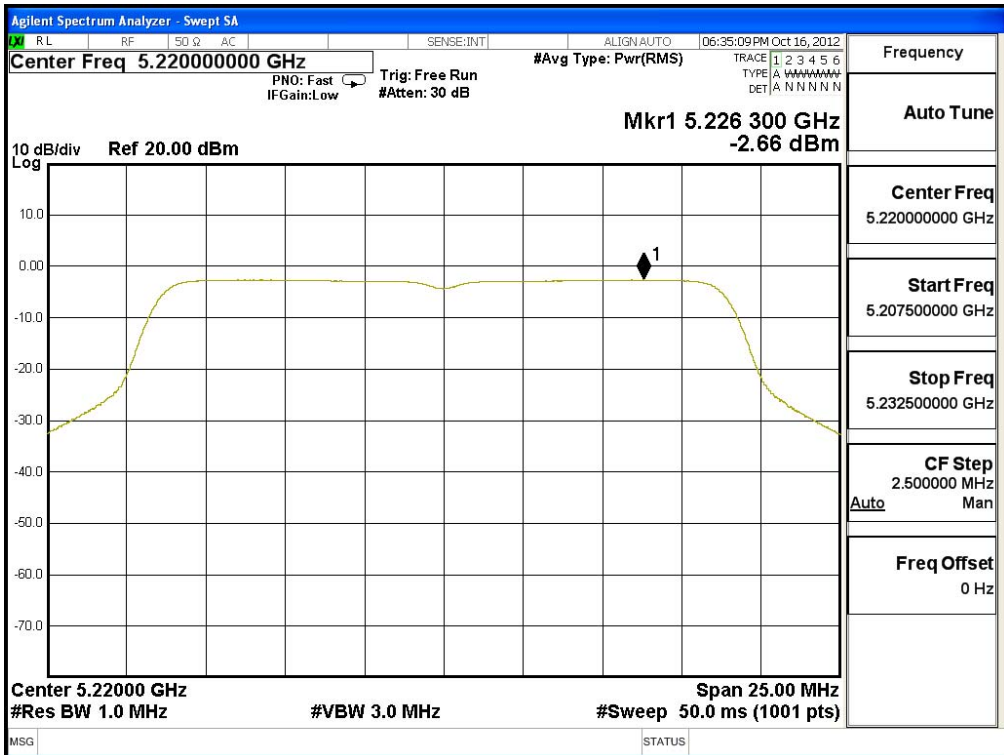
Channel 48 – Chain B



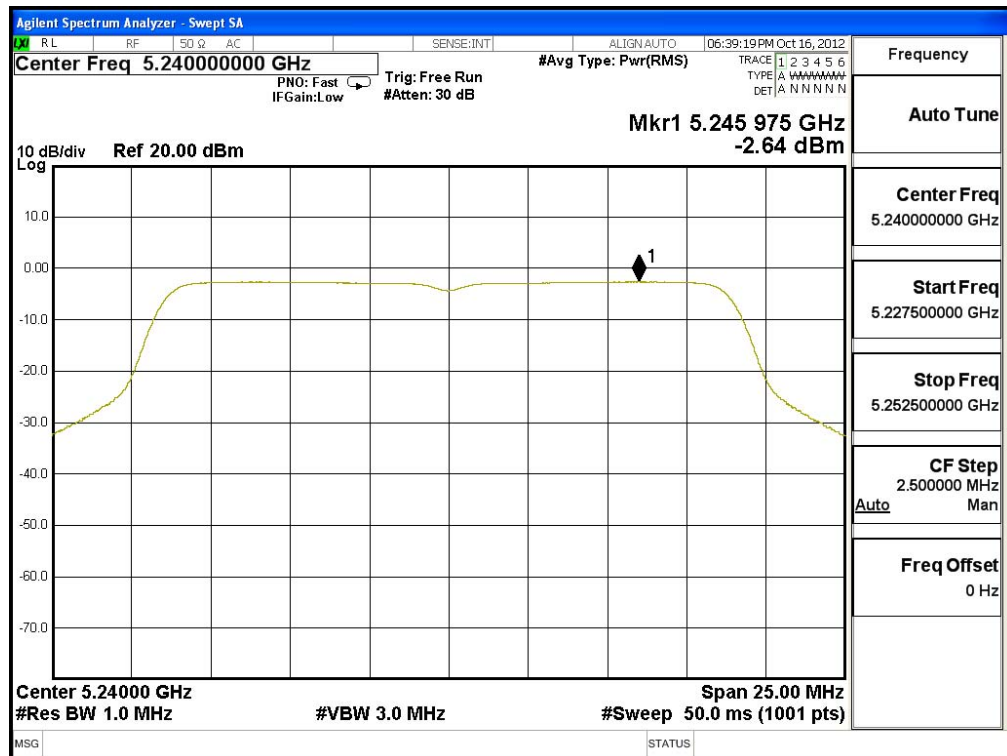
Channel 36 – Chain C



Channel 44 – Chain C



Channel 48 – Chain C



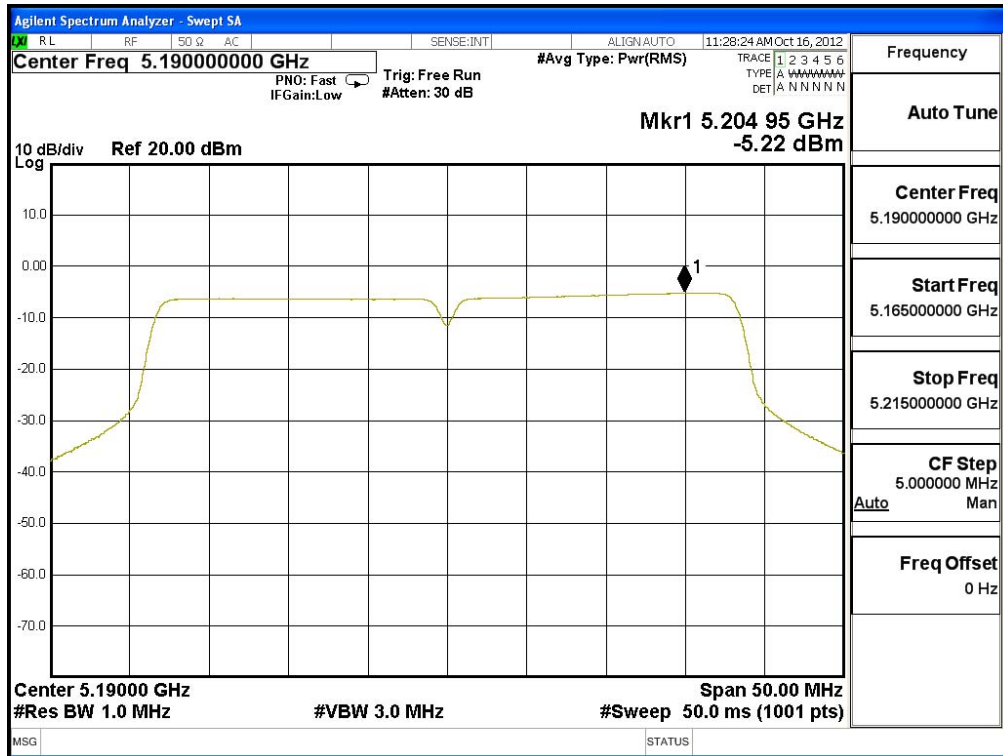
Product : SpectraGuardR Access Point / Sensor
 Test Item : Peak Power Spectral Density
 Test Site : No.3 OATS
 Test Mode : Mode 6: Transmit (802.11n-40BW 45Mbps)(PIFA Antenna)

Channel Number	Frequency (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Measurement Level (dBm)	Required Limit (dBm)	Result
38	5190	-5.220	-4.920	-5.360	-0.392	<4	Pass
46	5230	-4.990	-5.310	-5.380	-0.452	<4	Pass

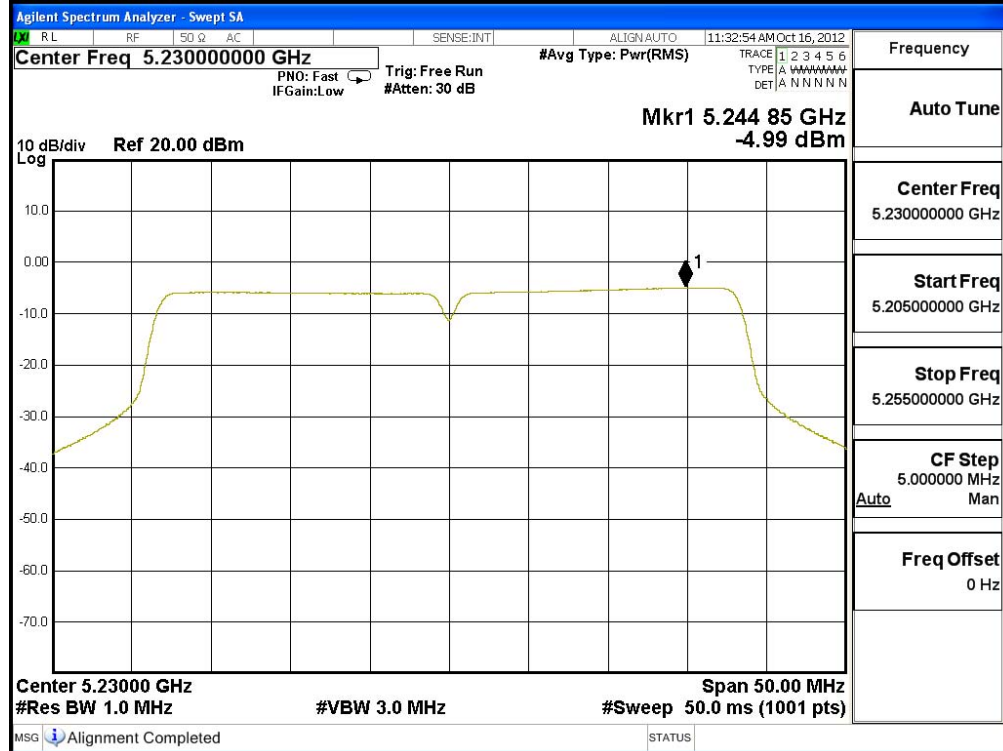
Note:

- Measurement Level (dBm) = 10LOG (Chain A Power (mW)+ Chain B Power (mW) + Chain C Power (mW))

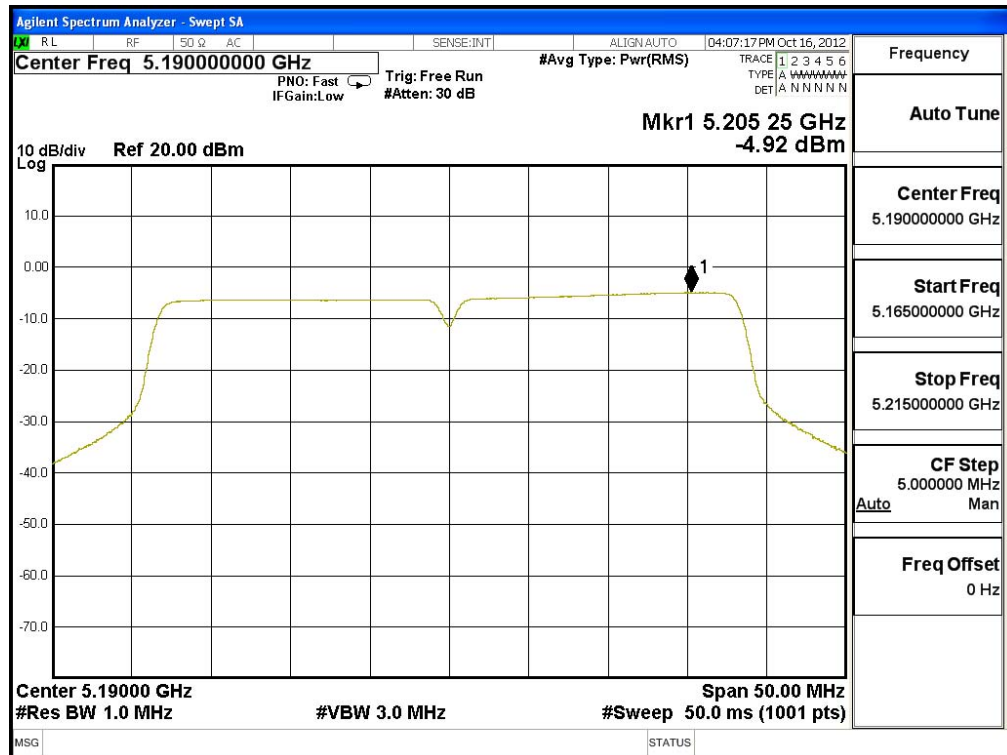
Channel 38 – Chain A



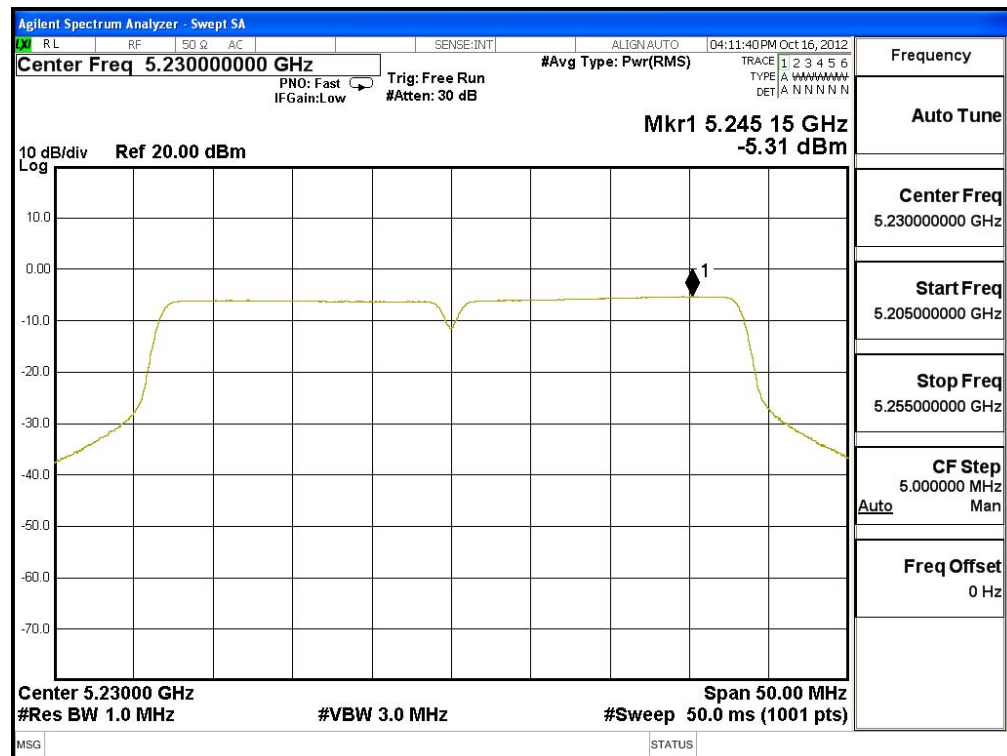
Channel 46 – Chain A



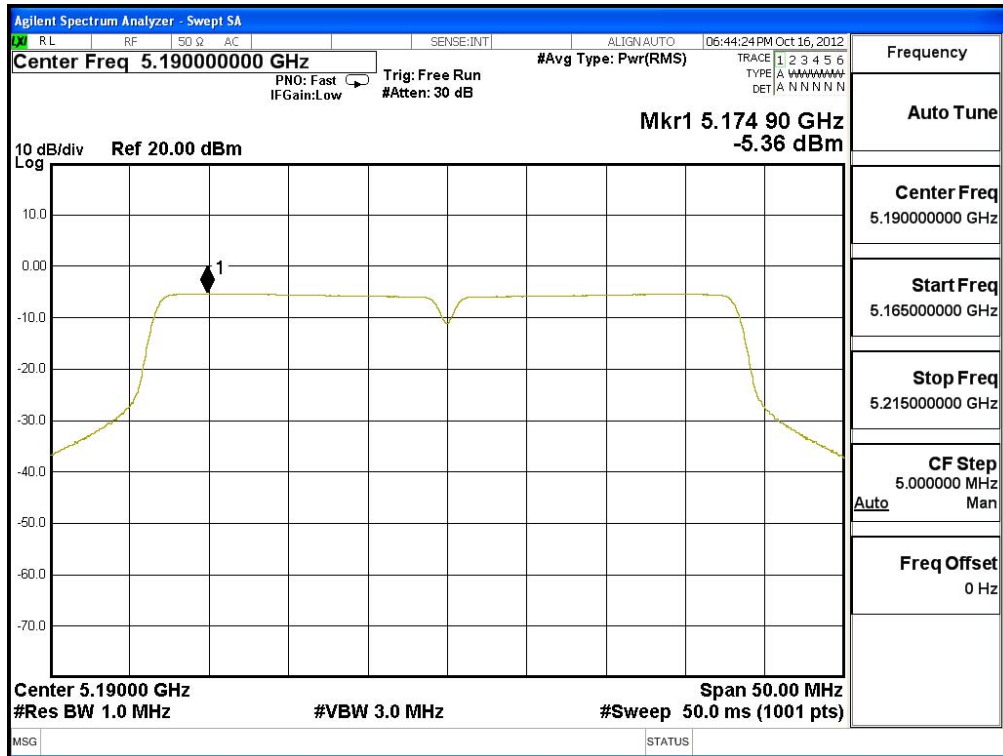
Channel 38 – Chain B



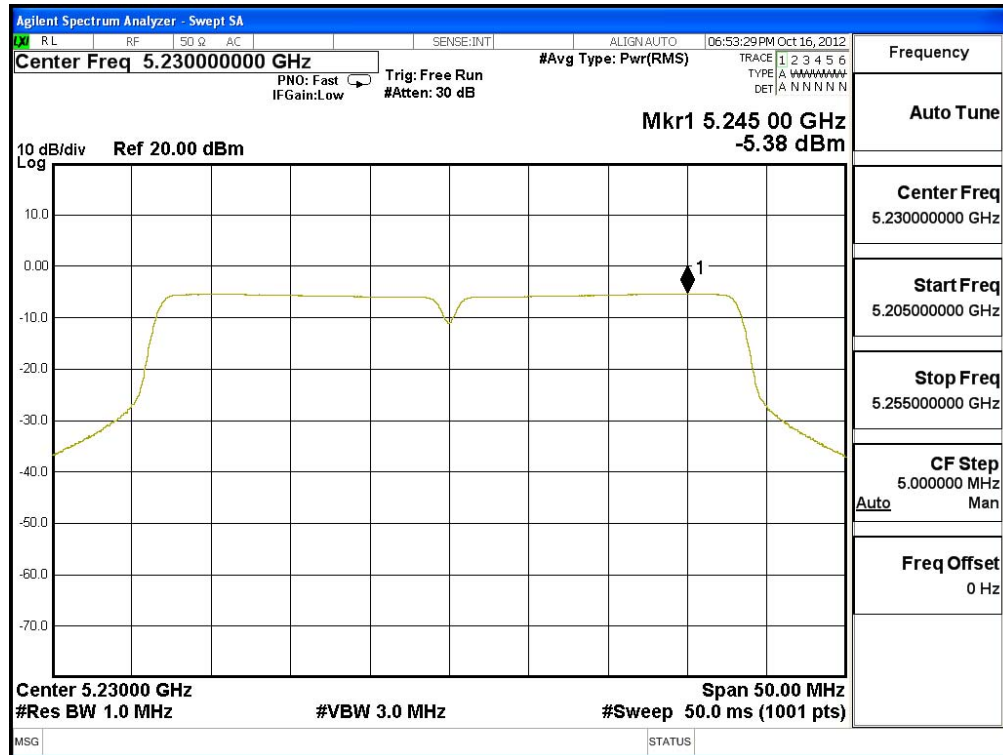
Channel 46 – Chain B



Channel 38 – Chain C



Channel 46 – Chain C



5. Peak Excursion

5.1. Test Equipment

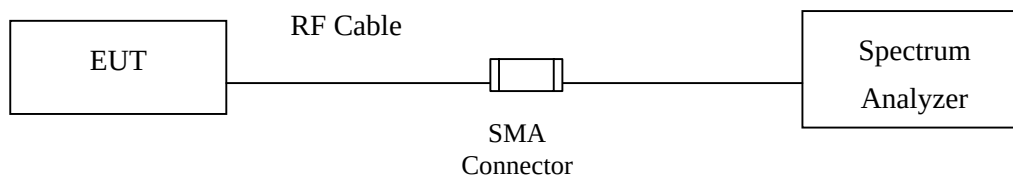
	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2012
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2012
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2012

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 C63.4, 2003; tested to DTS test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

5.5. Uncertainty

± 1.27 dB

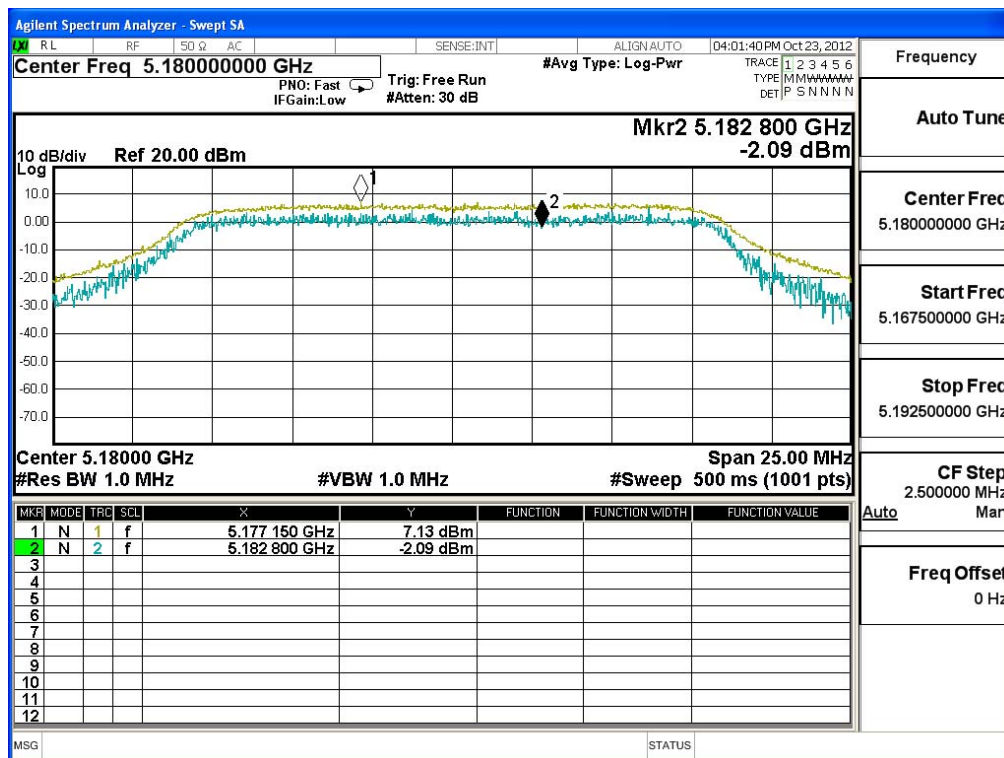
5.6. Test Result of Peak Excursion

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

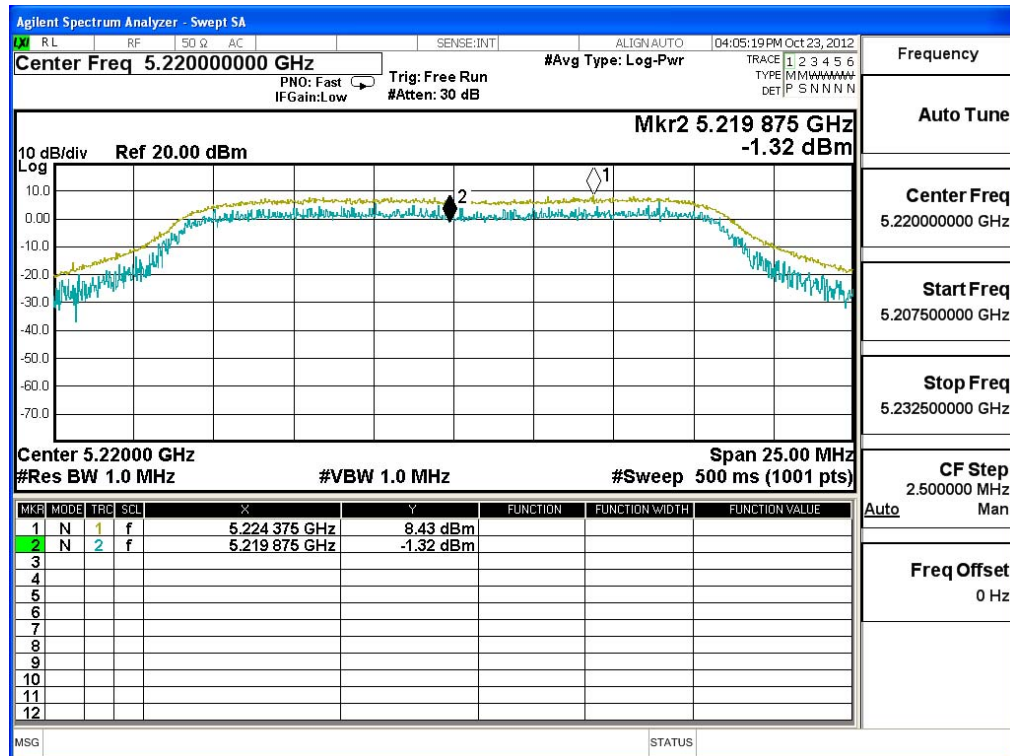
CHAIN A

Channel No.	Frequency (MHz)	Measurement Level (dB)	Required Limit (dB)	Result
36	5180	9.220	<13	Pass
44	5220	9.750	<13	Pass
48	5240	9.650	<13	Pass

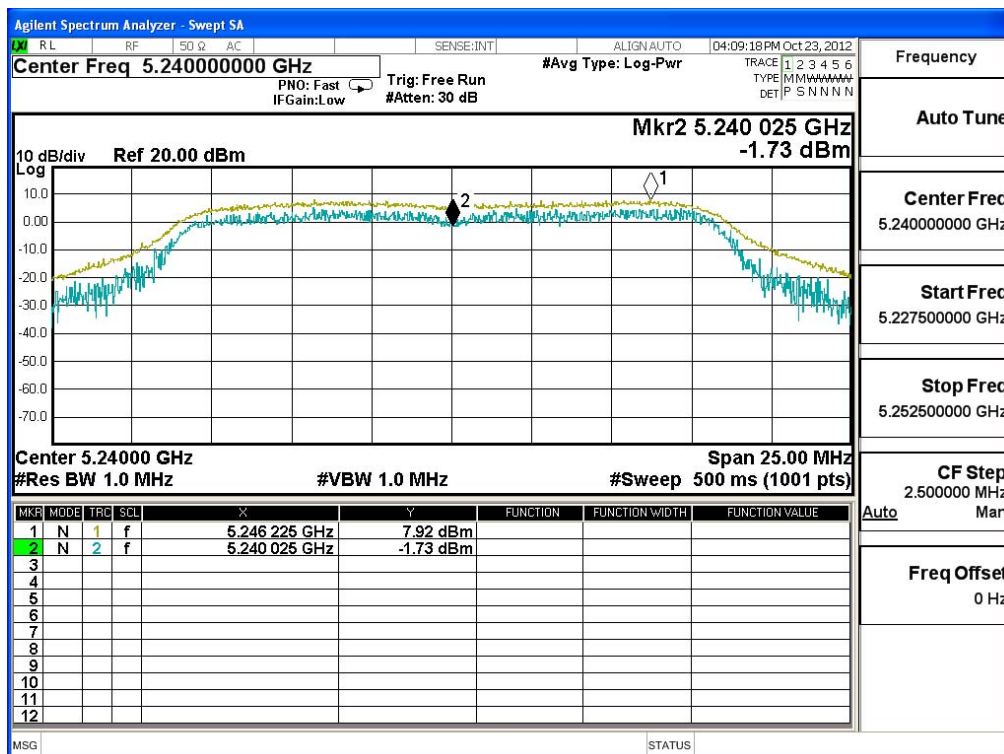
Channel 36:



Channel 44:



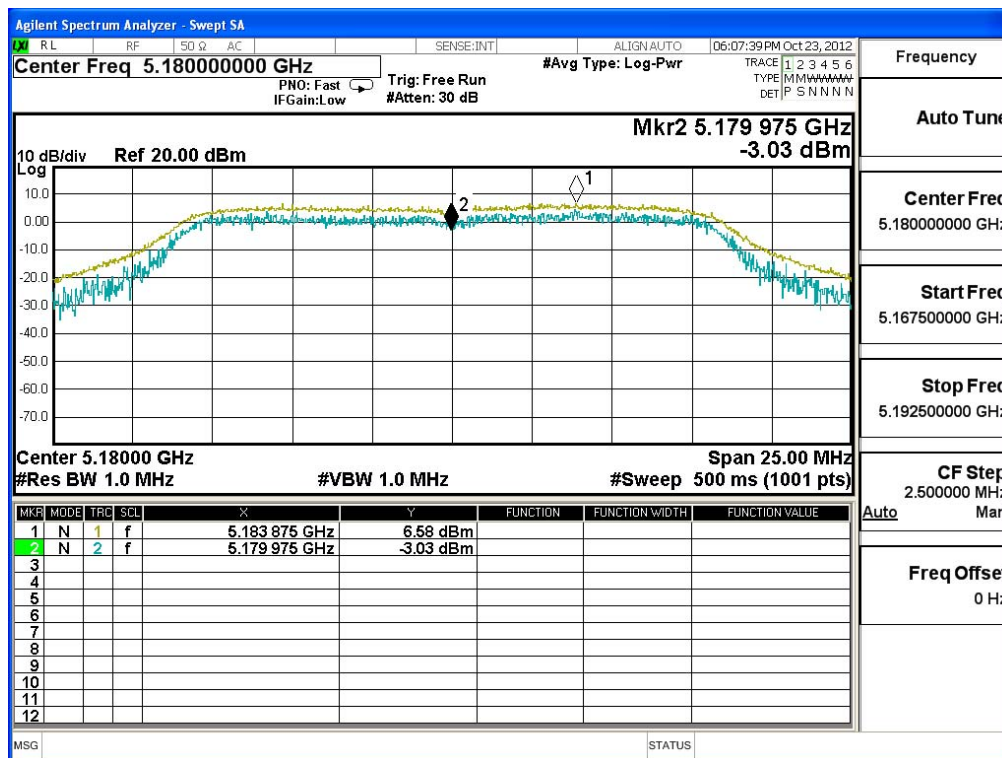
Channel 48:



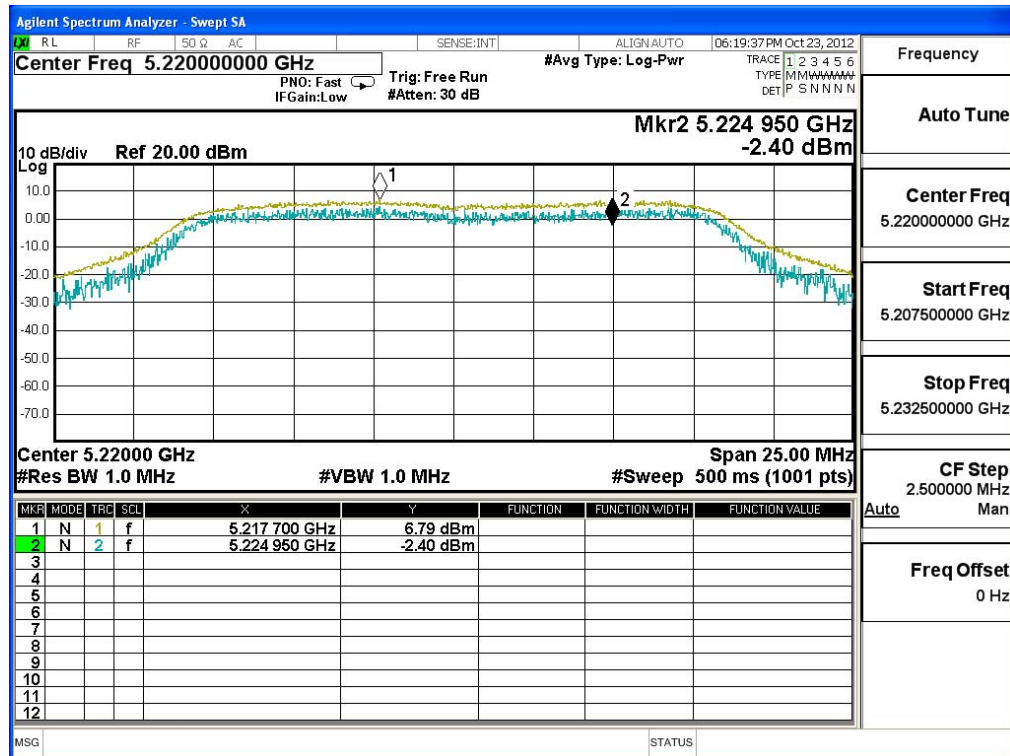
CHAIN B

Channel No.	Frequency (MHz)	Measurement Level (dB)	Required Limit (dB)	Result
36	5180	9.610	<13	Pass
44	5220	9.190	<13	Pass
48	5240	10.280	<13	Pass

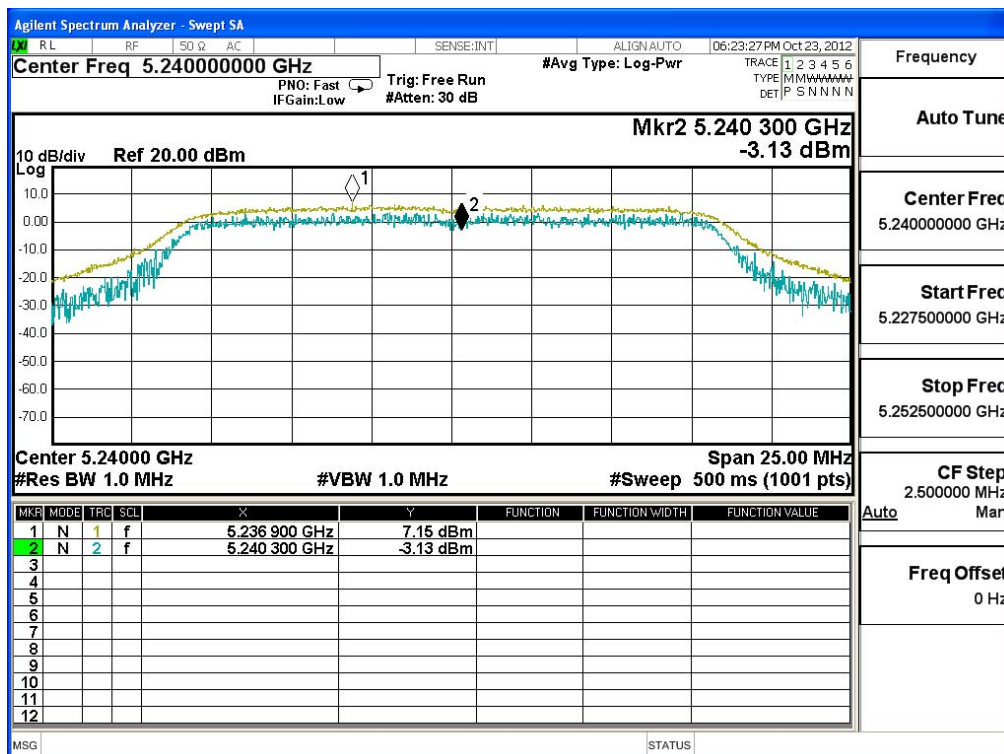
Channel 36:



Channel 44:



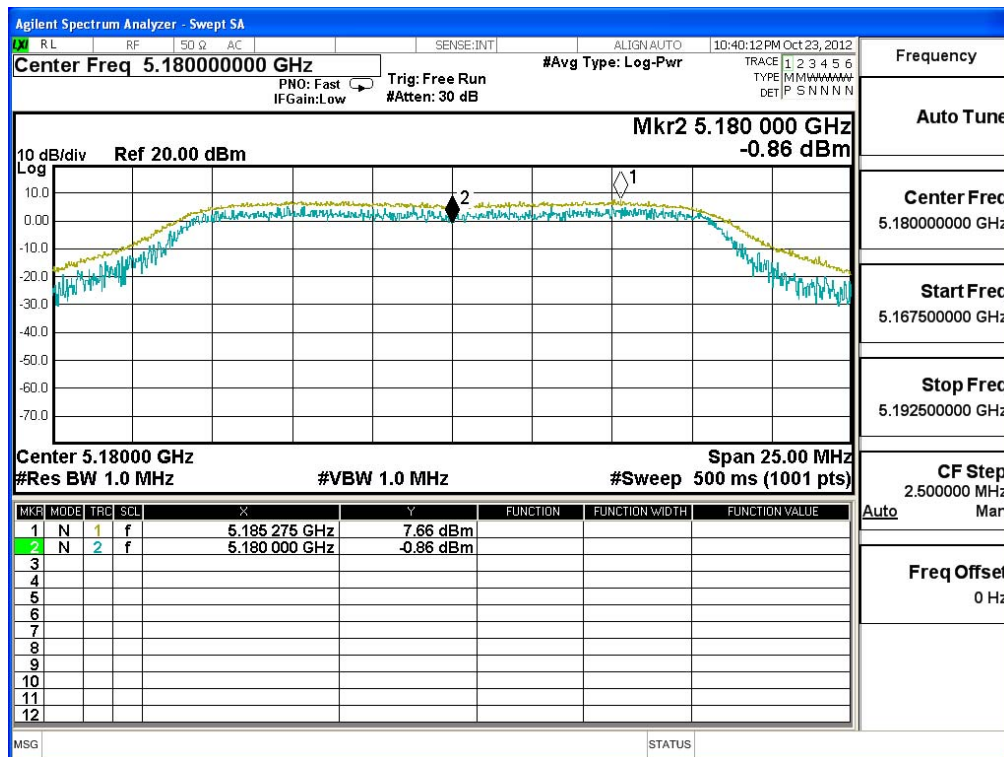
Channel 48:



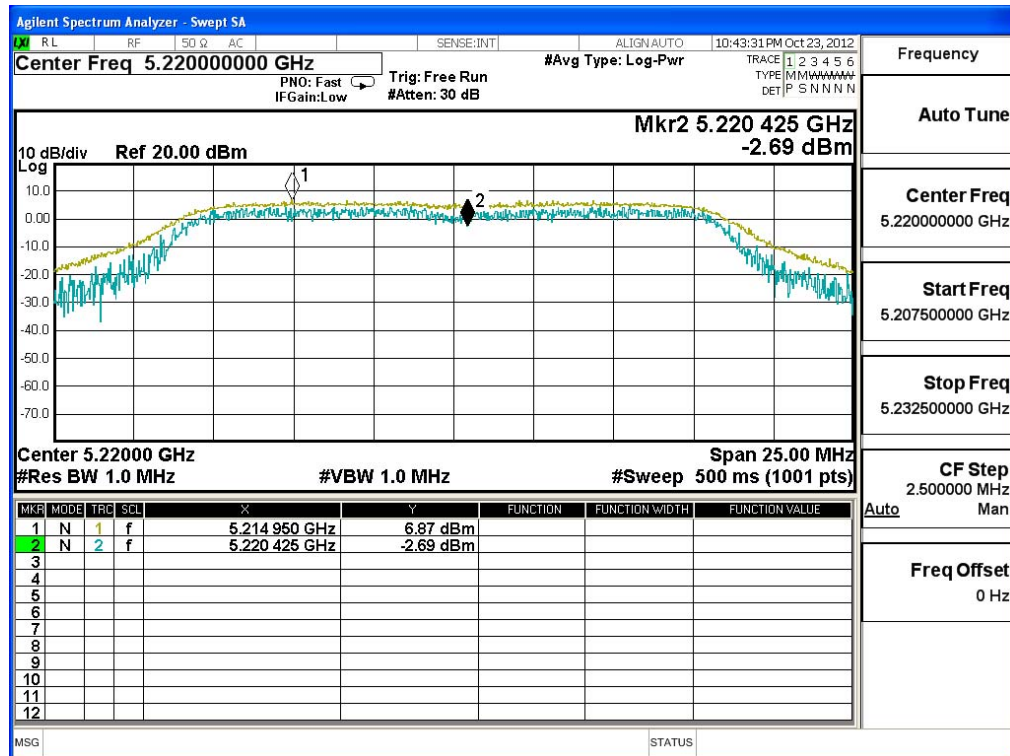
CHAIN C

Channel No.	Frequency (MHz)	Measurement Level (dB)	Required Limit (dB)	Result
36	5180	8.520	<13	Pass
44	5220	9.560	<13	Pass
48	5240	9.340	<13	Pass

Channel 36:



Channel 44:



Channel 48:

