

# FCC Test Report

## (Class II Permissive Change)

Product Name	802.11abgn/11ac WLAN + Bluetooth PCI-E Mini Card
Model No	BCM94360HMB
FCC ID	QDS-BRCM1082

Applicant	Broadcom Corporation
Address	190 Mathilda Place Sunnyvale CA 94086 U.S.A.

Date of Receipt	Apr. 01, 2014
Issued Date	Jun. 27, 2014
Report No.	1440118R-RFUSP63V00
Report Version	V1.0



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

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# Test Report

Issued Date: Jun. 27, 2014

Report No.: 1440118R-RFUSP63V00



Product Name	802.11abgn/11ac WLAN + Bluetooth PCI-E Mini Card
Applicant	Broadcom Corporation
Address	190 Mathilda Place Sunnyvale CA 94086 U.S.A.
Manufacturer	Broadcom Corporation
Model No.	BCM94360HMB
FCC ID.	QDS-BRCM1082
EUT Rated Voltage	DC 3.3V (via Mini-PCI Express slot)
EUT Test Voltage	AC 120V/60Hz
Trade Name	Broadcom
Applicable Standard	FCC CFR Title 47 Part 15 Subpart E: 2014 ANSI C63.10: 2009, FCC KDB-789033
Test Result	Complied

Documented By : Rita Huang

( Senior Adm. Specialist / Rita Huang )

Tested By : Andy Lin

( Engineer / Andy Lin )

Approved By : [Signature]

( Director / Vincent Lin )

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## 1. GENERAL INFORMATION

### 1.1. EUT Description

Product Name	802.11abgn/11ac WLAN + Bluetooth PCI-E Mini Card
Trade Name	Broadcom
FCC ID.	QDS-BRCM1082
Model No.	BCM94360HMB
Frequency Range	802.11a/n-20MHz: 5180-5320MHz, 5500-5700MHz 802.11n-40MHz: 5190-5310, 5510-5670MHz 802.11ac-20MHz: 5720, 802.11ac-40MHz: 5710 802.11ac-80MHz: 5210-5290MHz, 5530-5690MHz
Number of Channels	802.11a/n-20MHz: 19; 802.11n-40MHz: 9 802.11ac-20MHz: 1, 802.11ac-40MHz: 1, 802.11ac-80MHz: 5
Data Rate	802.11a: 6 - 54Mbps 802.11n: up to 300Mbps 802.11ac-80MHz: up to 866.7MHz
Channel Control	Auto
Type of Modulation	802.11a/n/ac:OFDM, BPSK, QPSK, 16QAM, 64QAM, 256QAM
Antenna Type	PIFA Antenna
Antenna Gain	Refer to the table "Antenna List"
Test Platform.(Notebook PC)	Brand Name: ASUS, M/N: NX500J / GX500J
Power Adapter	MFR: DELTA, M/N: ADP-130EB D Input: AC 100-240V ~ 50-60Hz, 1.8A Output: 19.5Vdc ---6.67A Cable Out: Non-shielded, 1.8m

#### Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	ACON	APP6Y-700108 (Main)(Aux)(MIMO)	PIFA	2.29dBi For 5.15~5.35GHz 3.52dBi For 5.47~5.725GHz -0.85dBi For 5725-5825GHz
2	INPAQ	WA-F-LBLBLB-12-001 (Main)(Aux) (MIMO)	PIFA	1.08dBi For 5.15~5.35GHz 1.00dBi For 5.47~5.725GHz -1.38dBi For 5725-5825GHz

Note: 1. The antenna of EUT is conform to FCC 15.203

2. Only the higher gain antenna was tested and recorded in this report.

## 802.11a/n-20MHz Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 36:	5180 MHz	Channel 40:	5200 MHz	Channel 44:	5220 MHz	Channel 48:	5240 MHz
Channel 52:	5260 MHz	Channel 56:	5280 MHz	Channel 60:	5300 MHz	Channel 64:	5320 MHz
Channel 100:	5500 MHz	Channel 104:	5520 MHz	Channel 108:	5540 MHz	Channel 112:	5560 MHz
Channel 116:	5580 MHz	Channel 120:	5600 MHz	Channel 124:	5620 MHz	Channel 128:	5640 MHz
Channel 132:	5660 MHz	Channel 136:	5680 MHz	Channel 140:	5700 MHz		

## 802.11n-40MHz Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 38:	5190 MHz	Channel 46:	5230 MHz	Channel 54:	5270 MHz	Channel 62:	5310 MHz
Channel 102:	5510 MHz	Channel 110:	5550 MHz	Channel 118:	5590 MHz	Channel 126:	5630 MHz
Channel 134:	5670 MHz						

## 802.11ac-20MHz Carrier Frequency of Each Channel:

Channel	Frequency
Channel 144:	5720 MHz

## 802.11ac-40MHz Carrier Frequency of Each Channel:

Channel	Frequency
Channel 142:	5710 MHz

## 802.11ac-80MHz Carrier Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 42:	5210 MHz	Channel 58:	5290 MHz	Channel 106:	5530 MHz	Channel 122:	5610 MHz
Channel 138:	5690 MHz						

Note:

1. This device is a 802.11abgn/11ac WLAN + Bluetooth PCI-E Mini Card, Contains functions and so on WLAN 、 Bluetooth , This report for WLAN.
2. The Hardware is identical for two models, the differences between the models is sale via different distributors.
3. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
4. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report. (802.11a is 6Mbps 、 802.11n(20M-BW) is 21.7Mbps and 802.11n(40M-BW) is 45Mbps 、 802.11ac(20M-BW) is 21.7Mbps and 802.11ac(40M-BW) is 45Mbps 、 802.11ac(80M-BW) is 97.5Mbps).
5. These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15 Subpart E for Unlicensed National Information Infrastructure devices.
6. This is to request a Class II permissive change for FCC ID: QDS-BRCM1082, originally granted on 06/16/2014.

The major change filed under this application is:

Change #1: Additional Chassis added, Model number: NX500J, GX500J

#2: Reduce the Output Power through firmware (only reduce Wi-Fi Power, bluetooth power haven't changes).

#3: Addition two new antennas, the antenna type is the same, the antenna gain is smaller than the original application.

Test Mode	Mode 1: Transmit (802.11a-6Mbps) Mode 2: Transmit (802.11n-20BW 21.7Mbps) Mode 3: Transmit (802.11n-40BW 45Mbps) Mode 4: Transmit (802.11ac-20BW) Mode 5: Transmit (802.11ac-40BW) Mode 6: Transmit (802.11ac-80BW)
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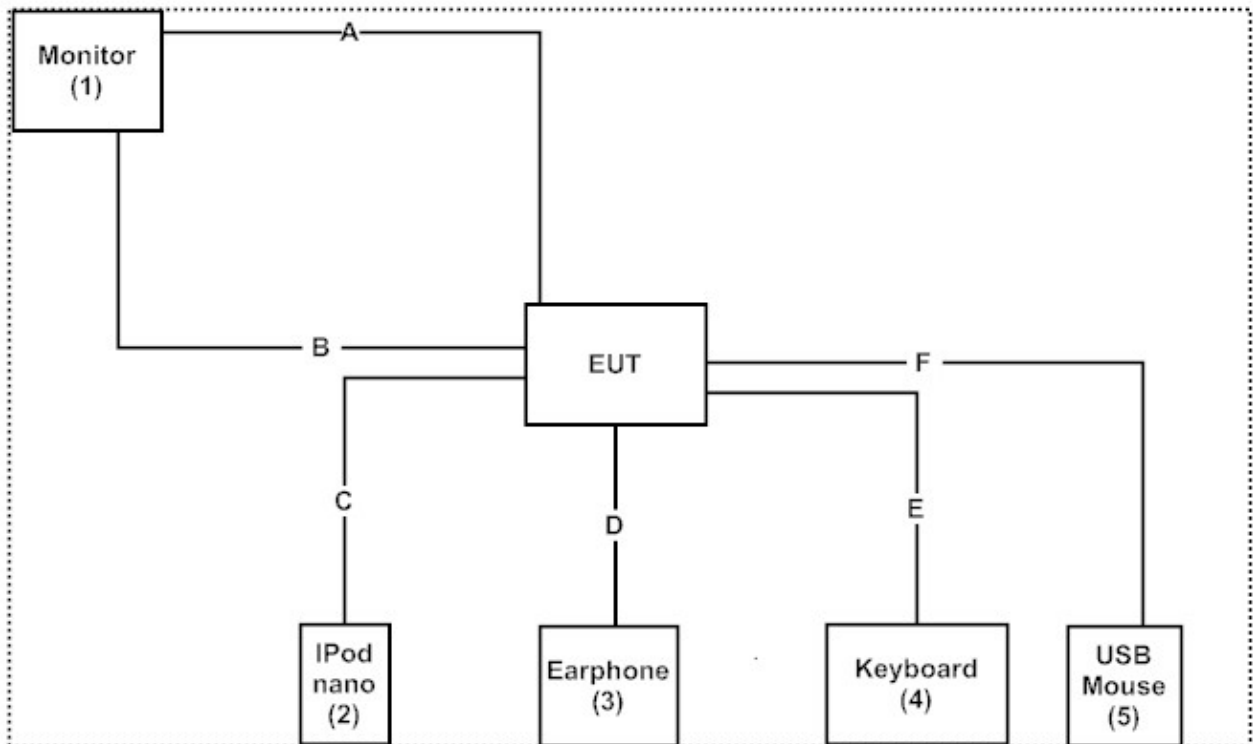
### 1.3. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product	Manufacturer	Model No.	Serial No.	Power Cord
1 Monitor	DELL	U2410f	CN-082WXD-72872-23E-ACRL	Non-Shielded, 1.8m
2 IPod nano	Apple	A1199	5U705F6YVQ5	N/A
3 Earphone	Dr.AV	CD-806B	N/A	N/A
4 Keyboard	DELL	SK-8115	MY-0DJ325-71619-79D-0176	N/A
5 USB Mouse	Logitech	M-U0026	1245HS0684D8	N/A

Signal Cable Type	Signal cable Description
A HDMI Cable	Non-Shielded, 1.5m
B Display Cable	Non-Shielded, 1.8m
C I-Pod Cable	Non-Shielded, 0.9m
D Earphone Cable	Non-Shielded, 1.5m
E Keyboard Cable	Non-Shielded, 1.8 m, with one ferrite core bonded.
F Mouse Cable	Non-Shielded, 1.8m

### 1.4. Configuration of tested System



## 1.5. EUT Exercise Software

- (1) Setup the EUT as shown in Section 1.4
- (2) Execute "MTool Ver2.0.1.8" program on the Notebook PC.
- (3) Configure the test mode, the test channel, and the data rate.
- (4) Press "OK" to start the continuous Transmit.
- (5) Verify that the EUT works properly.



## 1.6. Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	50-65
Barometric pressure (mbar)	860-1060	950-1000

The related certificate for our laboratories about the test site and management system can be downloaded from Quietek Corporation's Web Site : <http://www.quietek.com/tw/ctg/cts/accreditations.htm>

The address and introduction of Quietek Corporation's laboratories can be founded in our Web site : <http://www.quietek.com/>

Site Description: File on  
Federal Communications Commission  
FCC Engineering Laboratory  
7435 Oakland Mills Road  
Columbia, MD 21046  
Registration Number: 92195

Site Name: Quietek Corporation  
Site Address: No.5-22, Ruishukeng Linkou Dist., New Taipei City  
24451, Taiwan, R.O.C.  
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E-Mail : [service@quietek.com](mailto:service@quietek.com)

FCC Accreditation Number: TW1014

## 2. Maximun conducted output power

### 2.1. Test Equipment

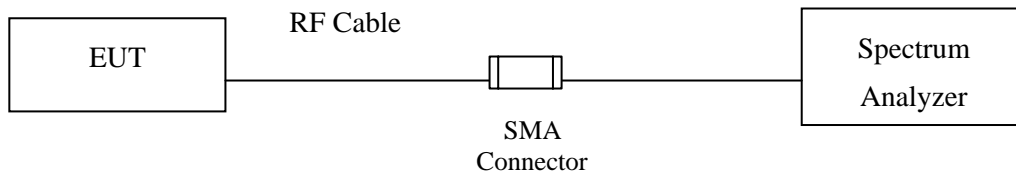
	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Power Meter	Anritsu	ML2495A/6K00003357	May, 2014
X	Power Sensor	Anritsu	MA2411B/0738448	Jun., 2014
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2014

Note:

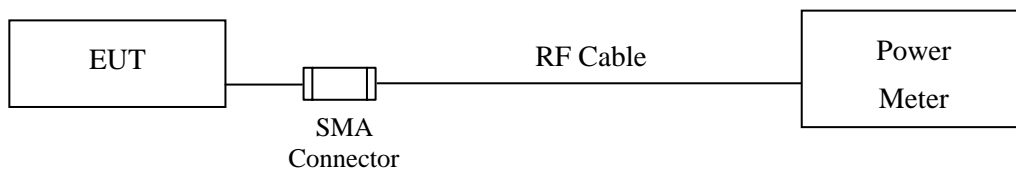
1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with “X” are used to measure the final test results.

### 2.2. Test Setup

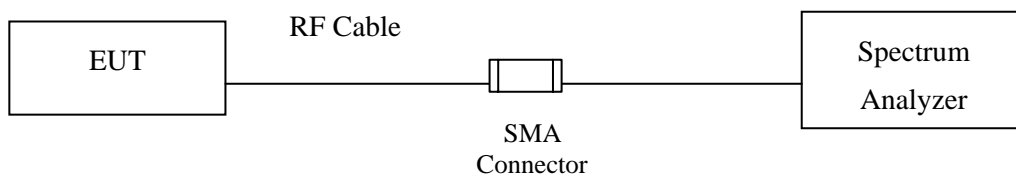
#### 26dBc Occupied Bandwidth



#### Conduction Power Measurement (for 802.11a)



#### Conduction Power Measurement (for 802.11ac)



## 2.3. Limits

- (1) For the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or  $4 \text{ dBm} + 10\log B$ , where B is the 26-dB emission bandwidth in MHz. If transmitting antenna of directional gain greater than 6 dBi are used, the Maximum conducted output power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
- (2) For the band 5.25-5.35 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or  $11 \text{ dBm} + 10\log B$ , where B is the 26-dB emission bandwidth in MHz. If transmitting antenna of directional gain greater than 6 dBi are used, the Maximum conducted output power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
- (3) For the band 5.725-5.825 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 1W or  $17 \text{ dBm} + 10\log B$ , where B is the 26-dB emission bandwidth in MHz. If transmitting antenna of directional gain greater than 6 dBi are used, the Maximum conducted output power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.

## 2.4. Test Procedure

As an alternative to FCC KDB-789033, the EUT maximum conducted output power was measured with an average power meter employing a video bandwidth greater than 6dB BW of the emission under test. Maximum conducted output power was read directly from the meter across all data rates, and across three channels within each sub-band. Special care was used to make sure that the EUT was transmitting in continuous mode. This method exceeds the limitations of FCC KDB-789033, and provides more accurate measurements.

802.11an ( $BW \leq 40\text{MHz}$ ) Maximum conducted output power using KDB 789033 section E)3)b) Method PM-G (Measurement using a gated RF average power meter)

Note: the power meter have a video bandwidth that is greater than or equal to the measurement bandwidth, (Anritsu/ MA2411B video bandwidth: 65MHz)

802.11ac ( $BW=80\text{MHz}$ ) Maximum conducted output power using KDB 789033 section E)2)b) Method SA-1 (trace averaging with the EUT transmitting at full power throughout each sweep).

When transmitted signals consist of two or more non-contiguous spectrum segments (e.g., 80+80 MHz mode) or when a single spectrum segment of a transmission crosses the boundary between two adjacent U-NII bands, KDB 644545 D01 section F) procedure is used for measurements.

## 2.5. Uncertainty

$\pm 1.27$  dB

## 2.6. Test Result of Maximum conducted output power

Product : 802.11abgn/11ac WLAN + Bluetooth PCI-E Mini Card  
 Test Item : Maximum conducted output power  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)

### Maximum conducted output power Measurement:

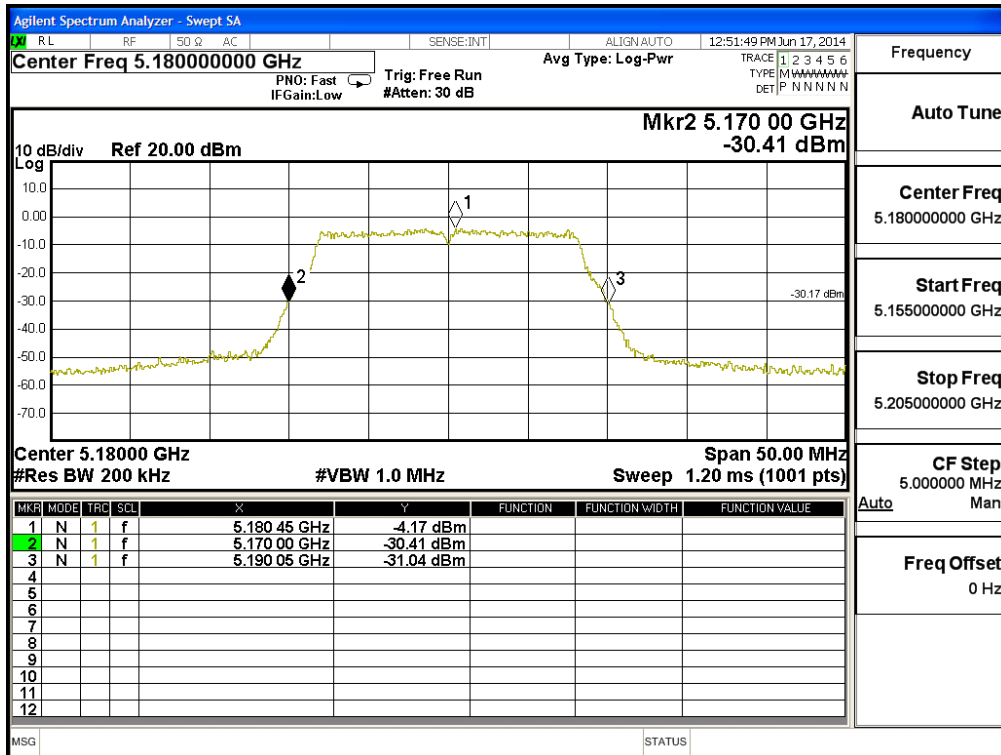
#### CHAIN A+B+C

Channel Number	Frequency (MHz)	Data Rate (Mbps)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Output Power (dBm)	Output Power Limit	
								(dBm)	dBm+10log(BW)
36	5180	6	20.050	9.29	9.31	9.23	14.05	17	17.02
40	5200	6	19.950	8.73	8.82	9.58	13.83	17	17.00
48	5240	6	19.950	8.30	8.49	9.45	13.55	17	17.00
52	5260	6	20.050	10.40	11.03	11.00	15.59	24	24.02
60	5300	6	19.950	10.25	11.24	11.18	15.68	24	24.00
64	5320	6	19.950	10.17	11.15	11.23	15.65	24	24.00
100	5500	6	19.900	12.47	12.15	10.61	16.59	24	23.99
116	5580	6	20.000	12.45	12.21	10.27	16.52	24	24.01
140	5700	6	19.900	12.42	12.19	10.32	16.51	24	23.99

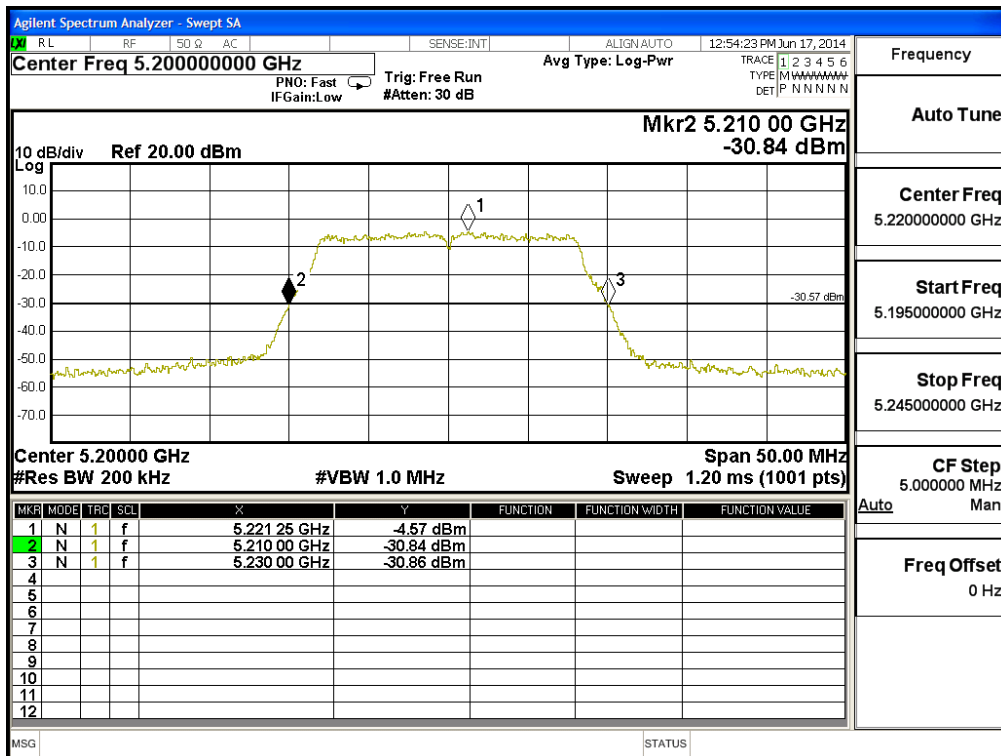
Note:

1. Power Output Value = Reading value on average power meter + cable loss
2. Output Power (dBm) = 10\*LOG (Chain A Power (mW)+ Chain B Power (mW))
3. 26 dB Bandwidth is the bandwidth of chain A or chain B whichever is less bandwidth, output power limitation is more stringent.

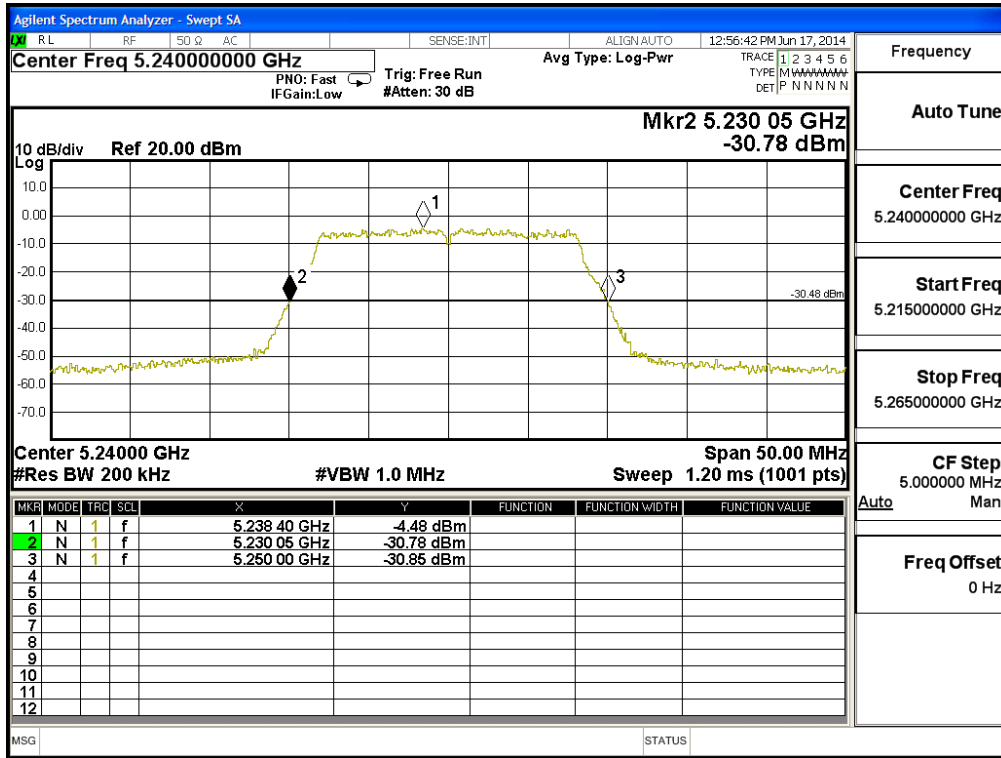
### 26dB Occupied Bandwidth: Channel 36-Chain A



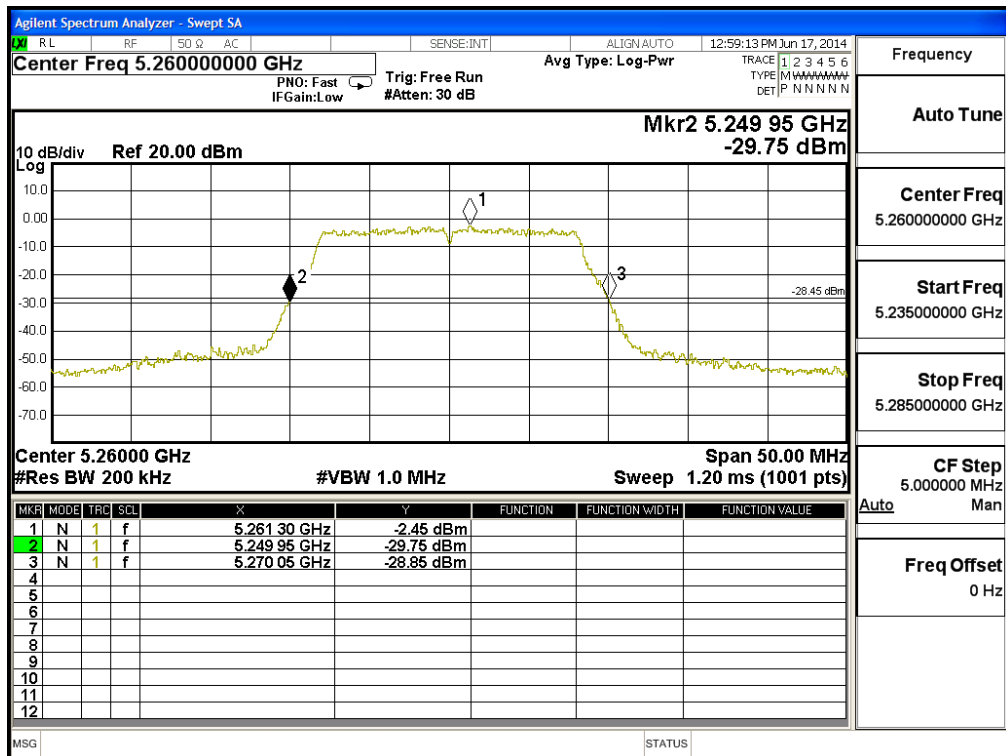
### Channel 40-Chain A



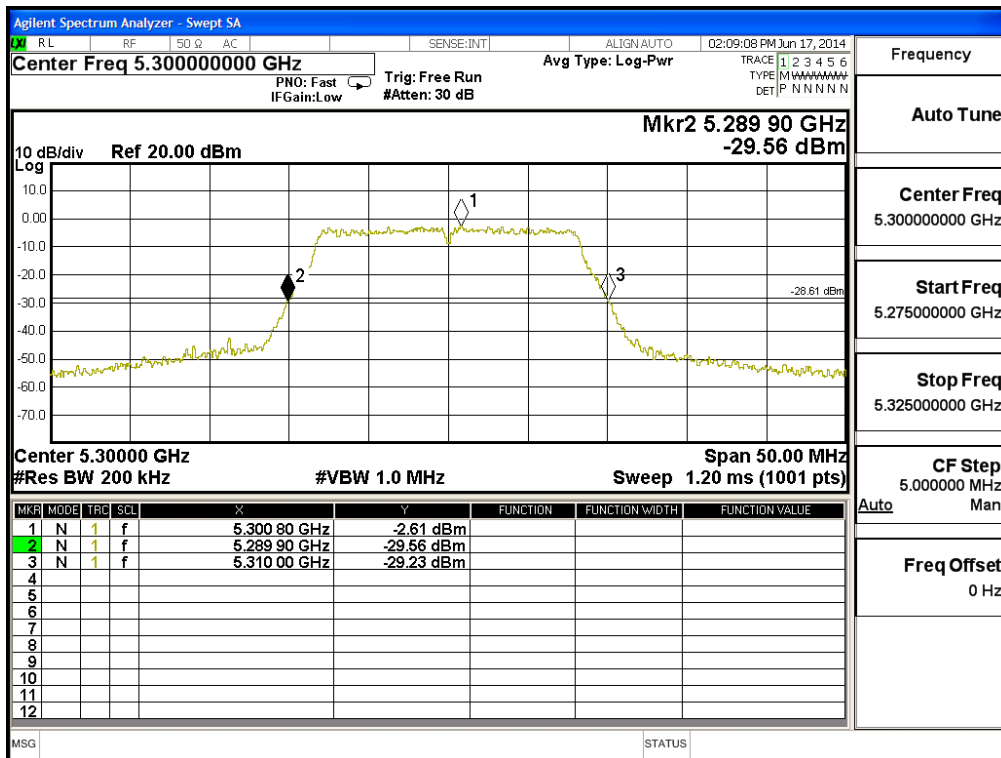
### Channel 48-Chain A



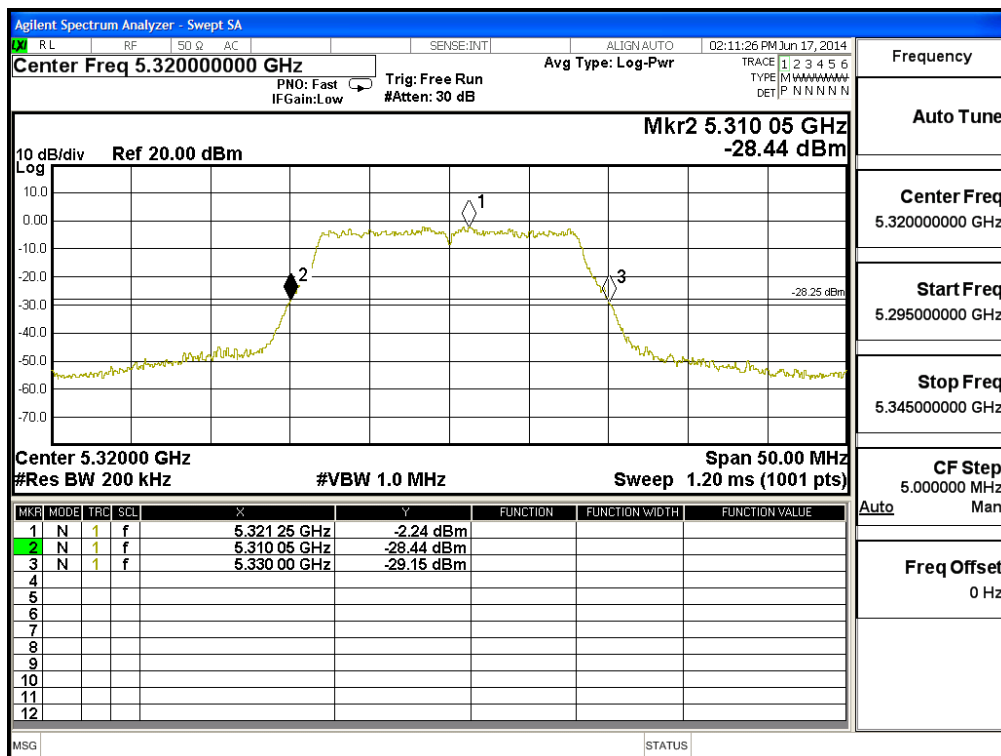
### Channel 52-Chain A



### Channel 60-Chain A

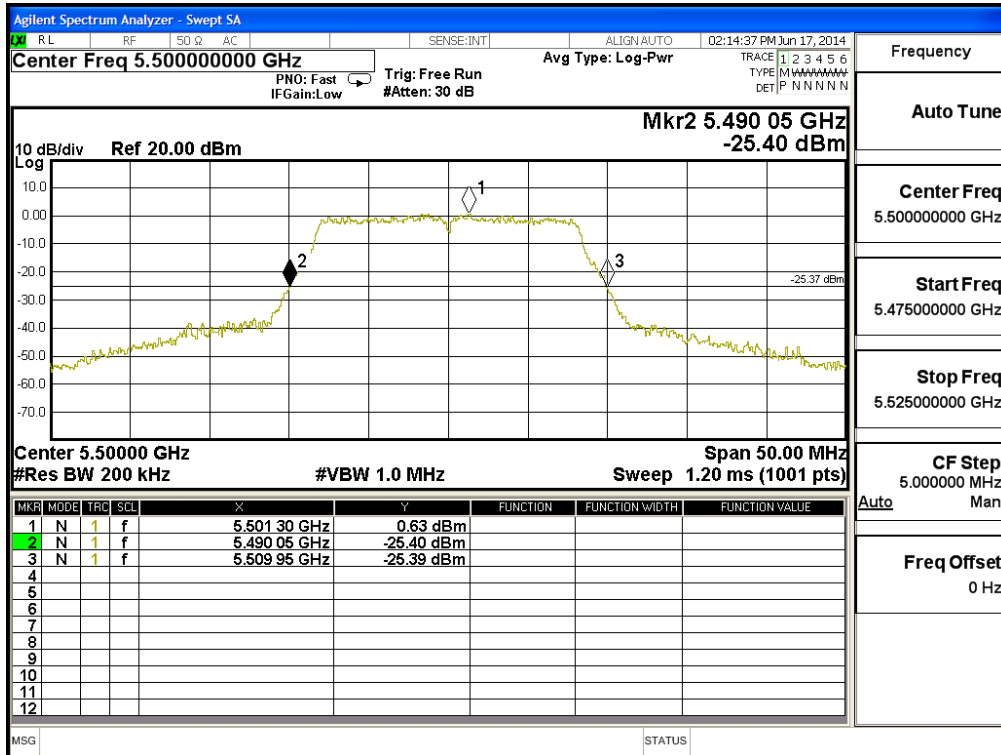


### Channel 64-Chain A



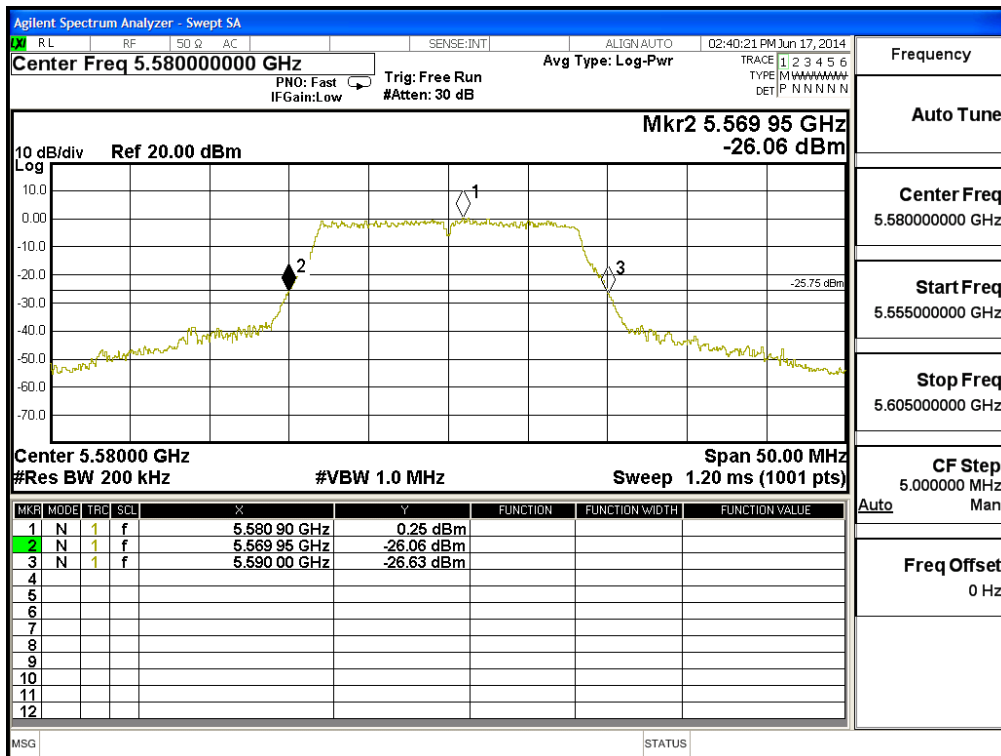


Channel 100-Chain A



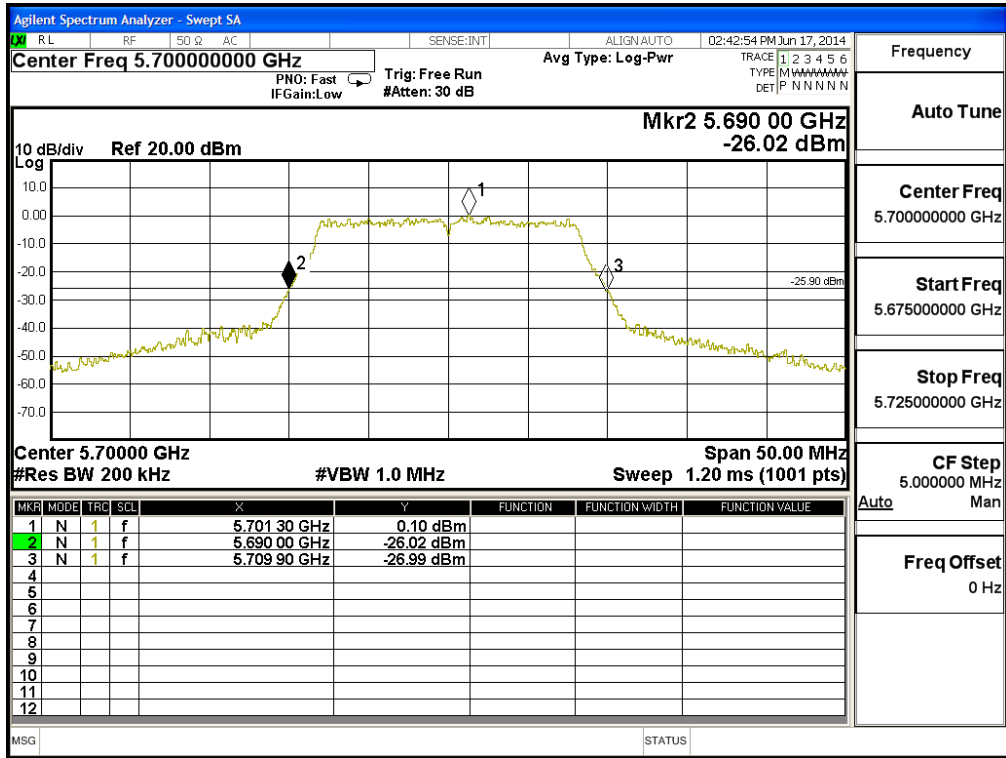
Frequency	
Auto Tune	
Center Freq	5.50000000 GHz
Start Freq	5.475000000 GHz
Stop Freq	5.525000000 GHz
CF Step	5.000000 MHz
Auto	Man
Freq Offset	0 Hz

Channel 116-Chain A

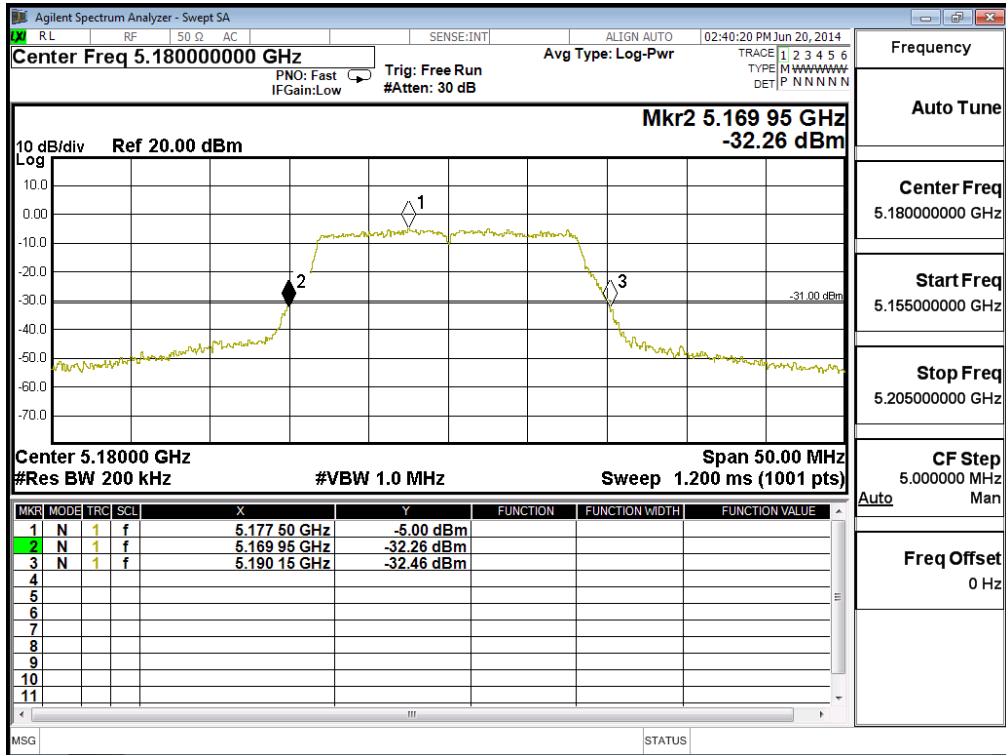


Frequency	
Auto Tune	
Center Freq	5.580000000 GHz
Start Freq	5.555000000 GHz
Stop Freq	5.605000000 GHz
CF Step	5.000000 MHz
Auto	Man
Freq Offset	0 Hz

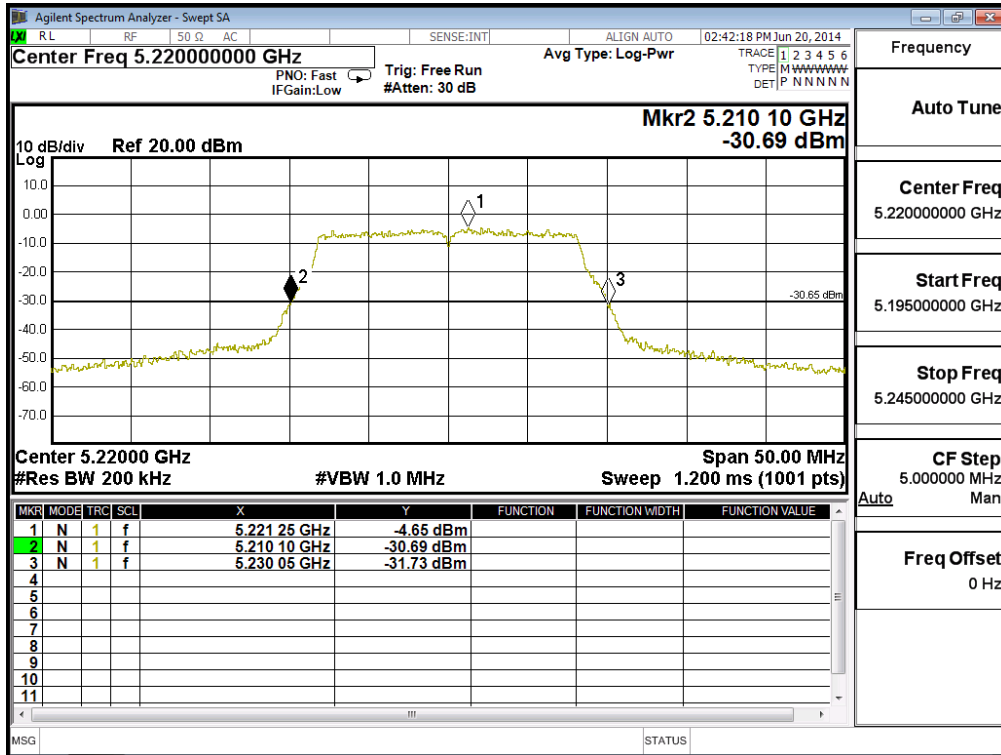
Channel 140-Chain A



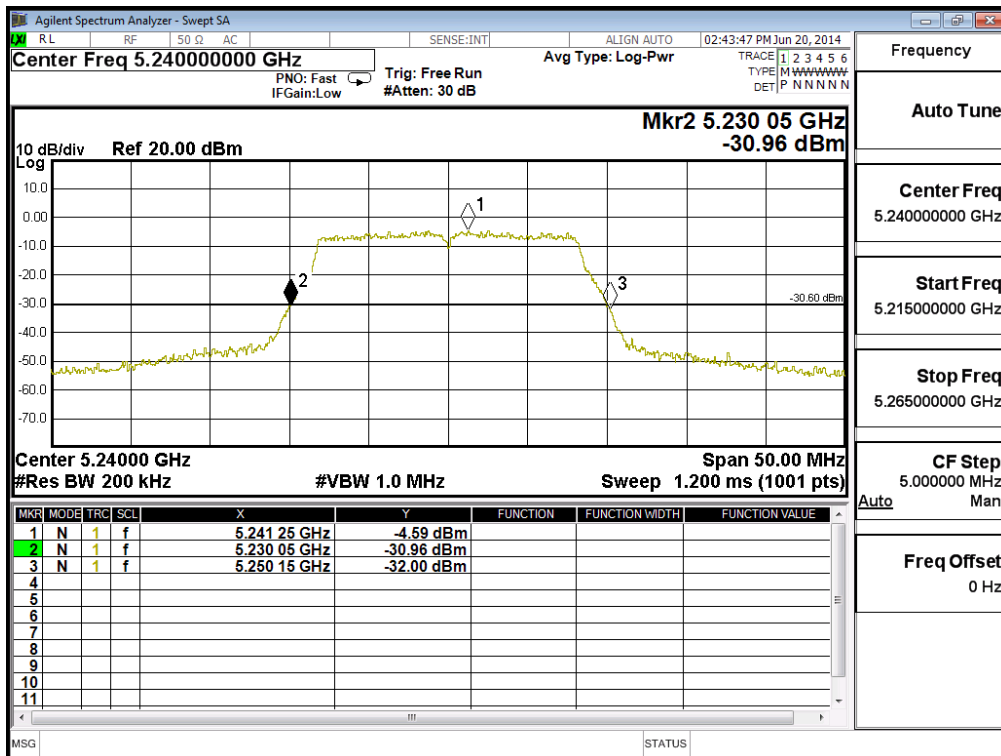
26dB Occupied Bandwidth:  
Channel 36-Chain B



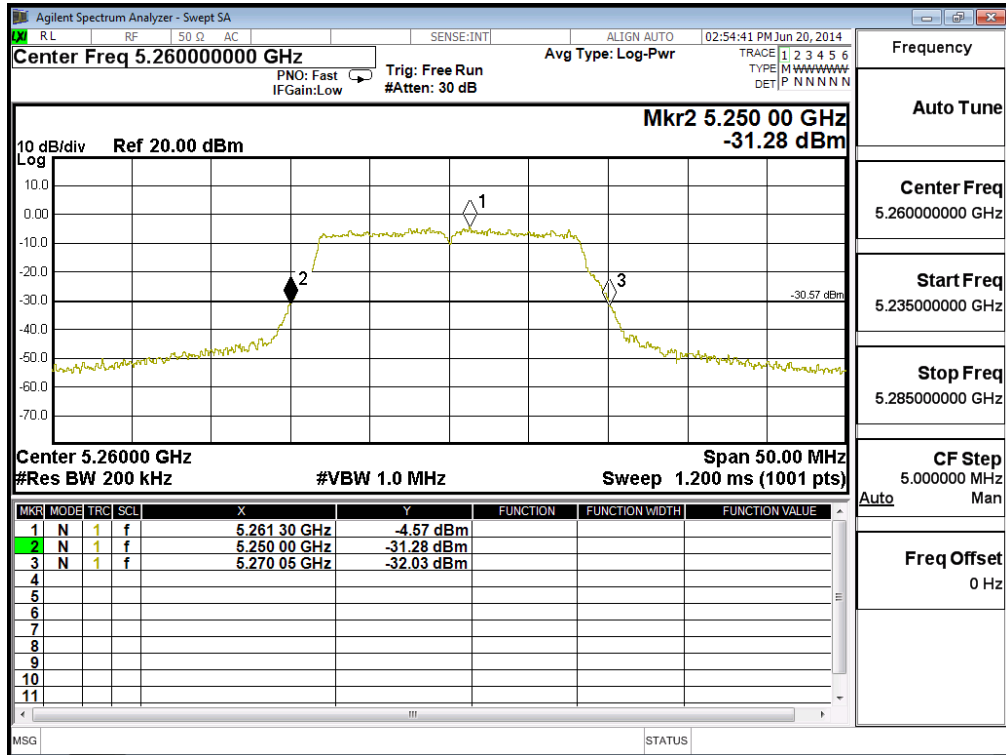
### Channel 40-Chain B



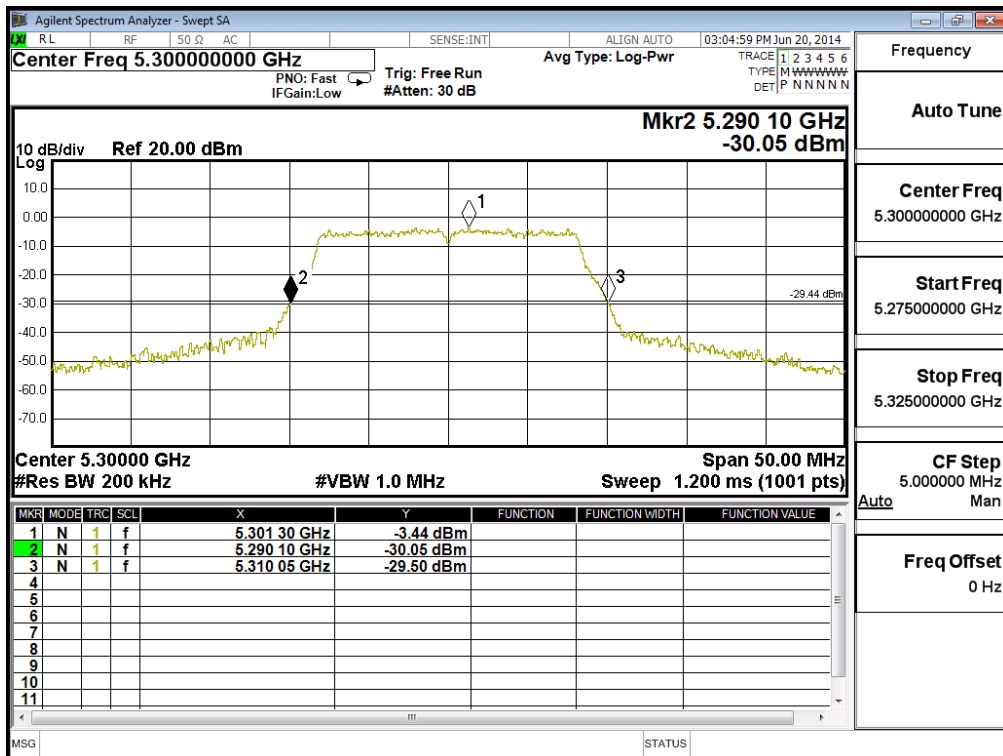
### Channel 48-Chain B



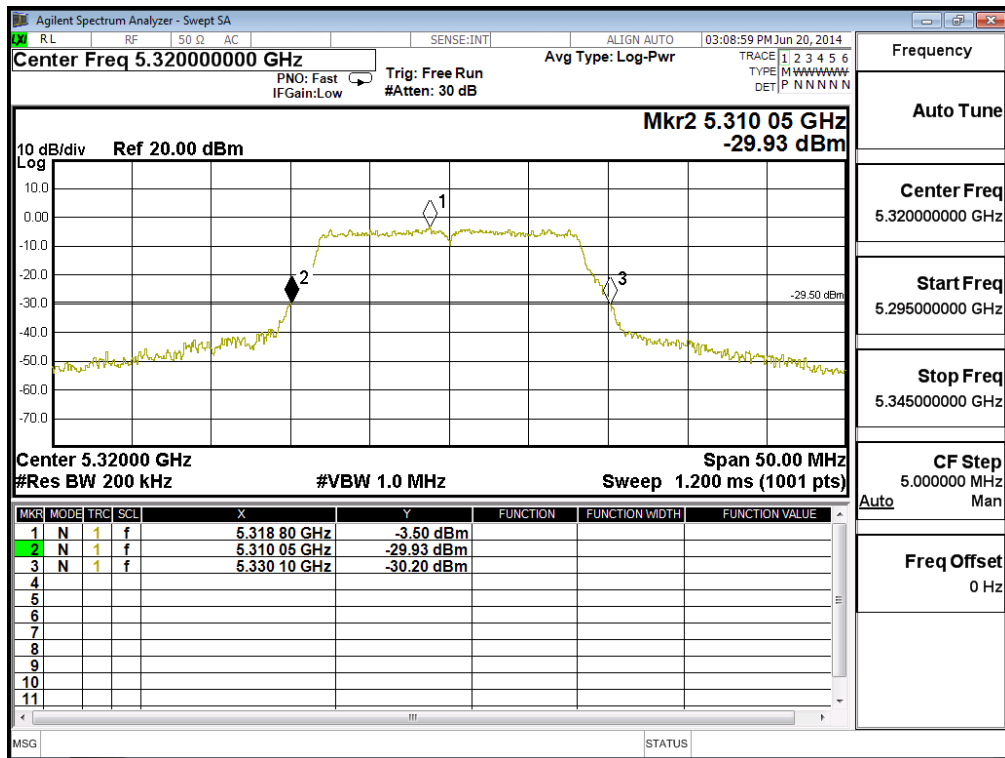
### Channel 52-Chain B



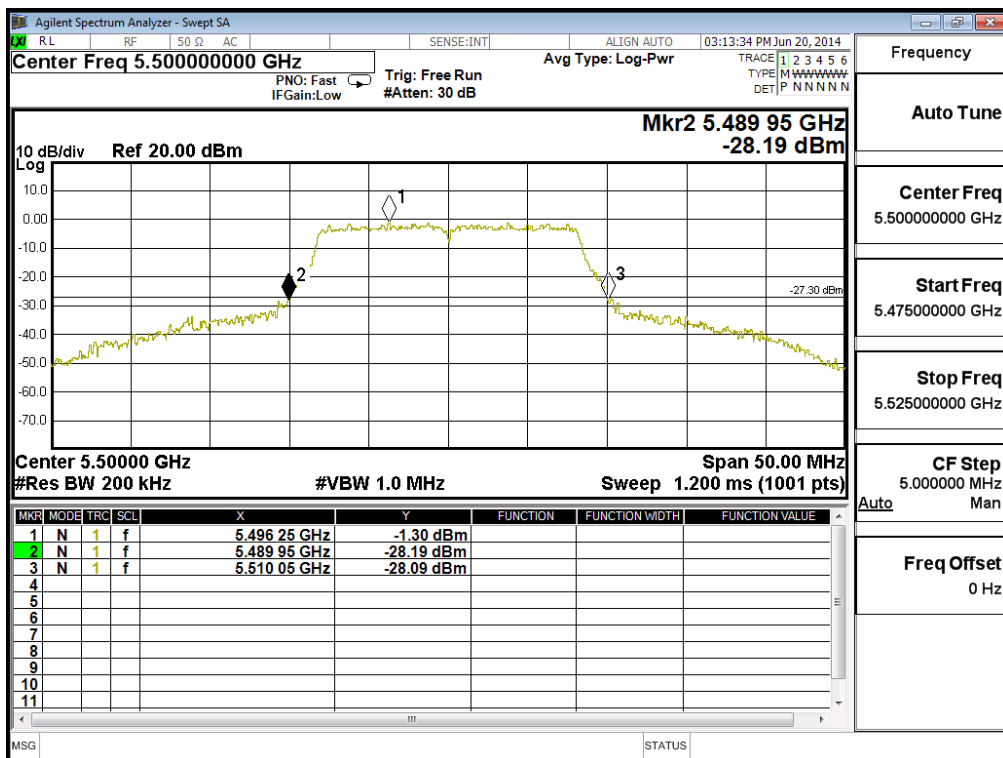
### Channel 60-Chain B



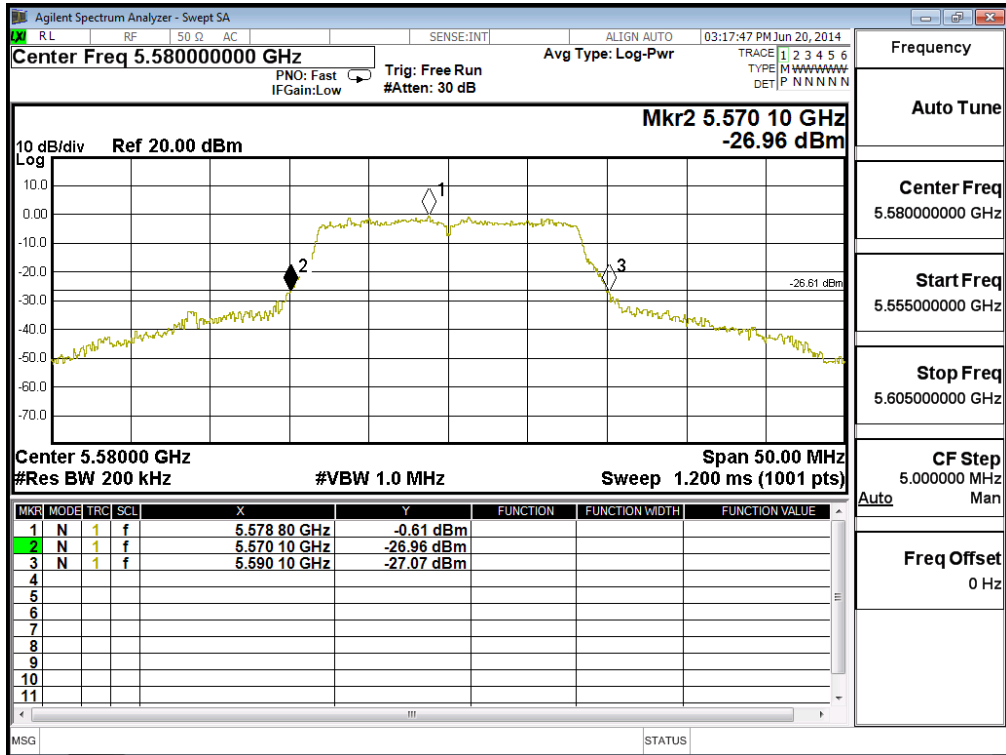
### Channel 64-Chain B



### Channel 100-Chain B

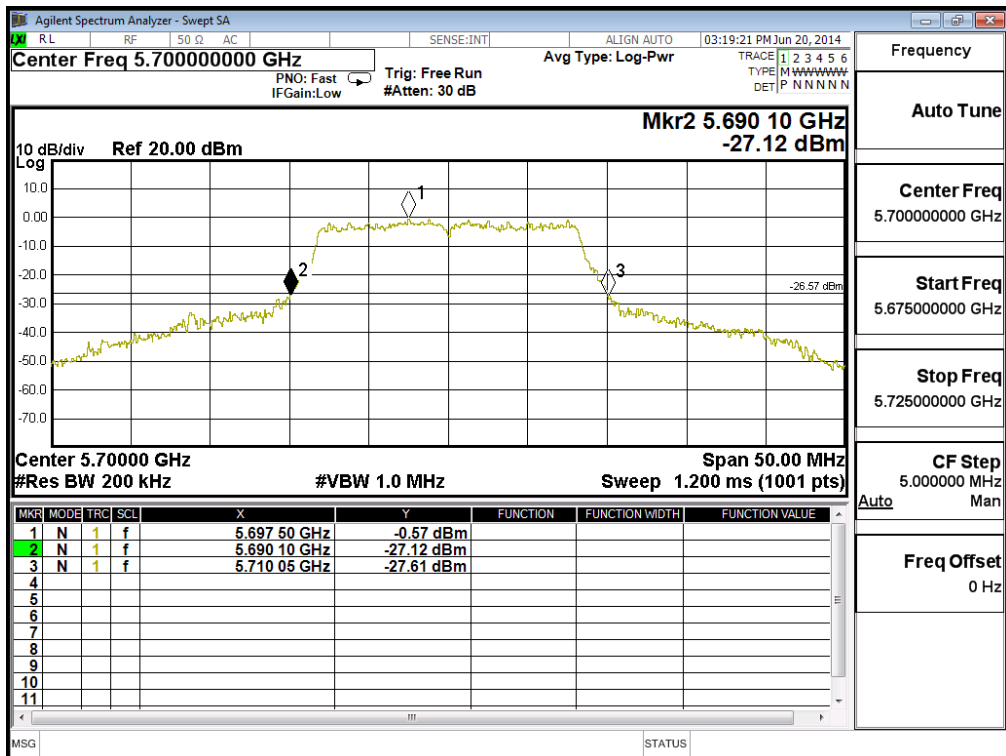


Channel 116-Chain B



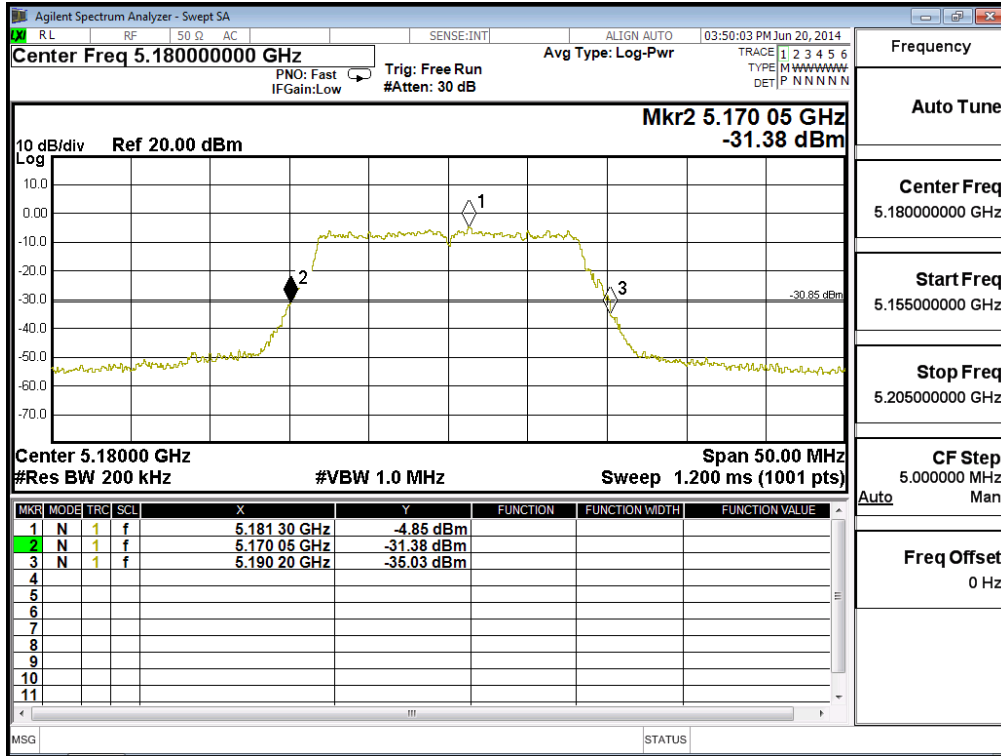
Frequency
Auto Tune
Center Freq 5.58000000 GHz
Start Freq 5.55500000 GHz
Stop Freq 5.60500000 GHz
CF Step 5.000000 MHz Auto Man
Freq Offset 0 Hz

Channel 140-Chain B

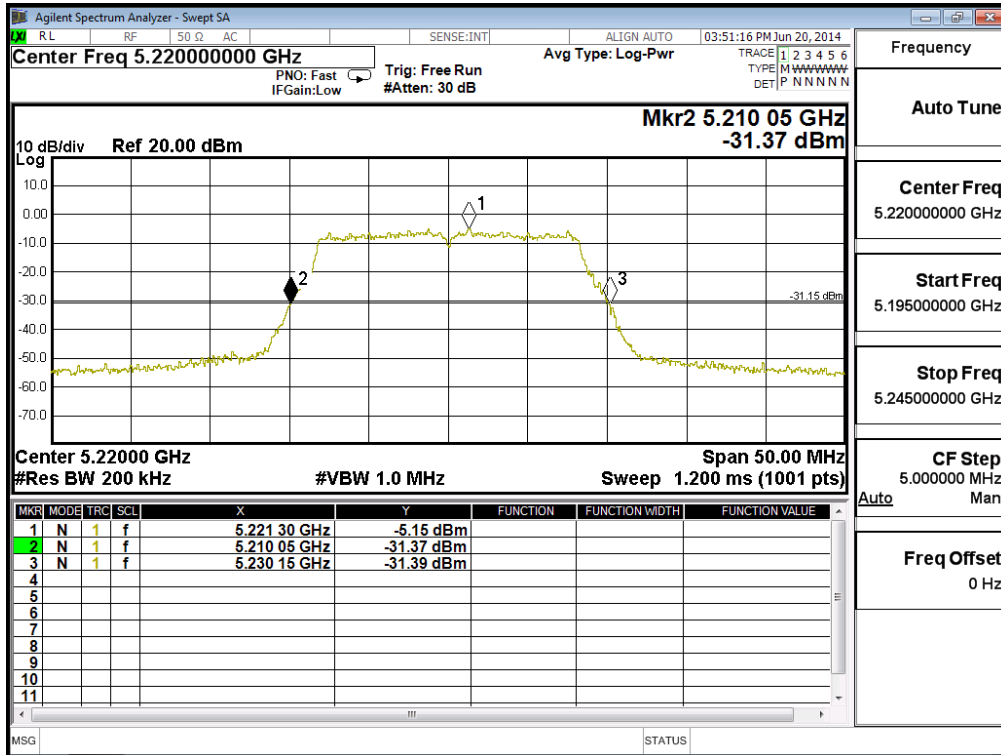


Frequency
Auto Tune
Center Freq 5.70000000 GHz
Start Freq 5.67500000 GHz
Stop Freq 5.72500000 GHz
CF Step 5.000000 MHz Auto Man
Freq Offset 0 Hz

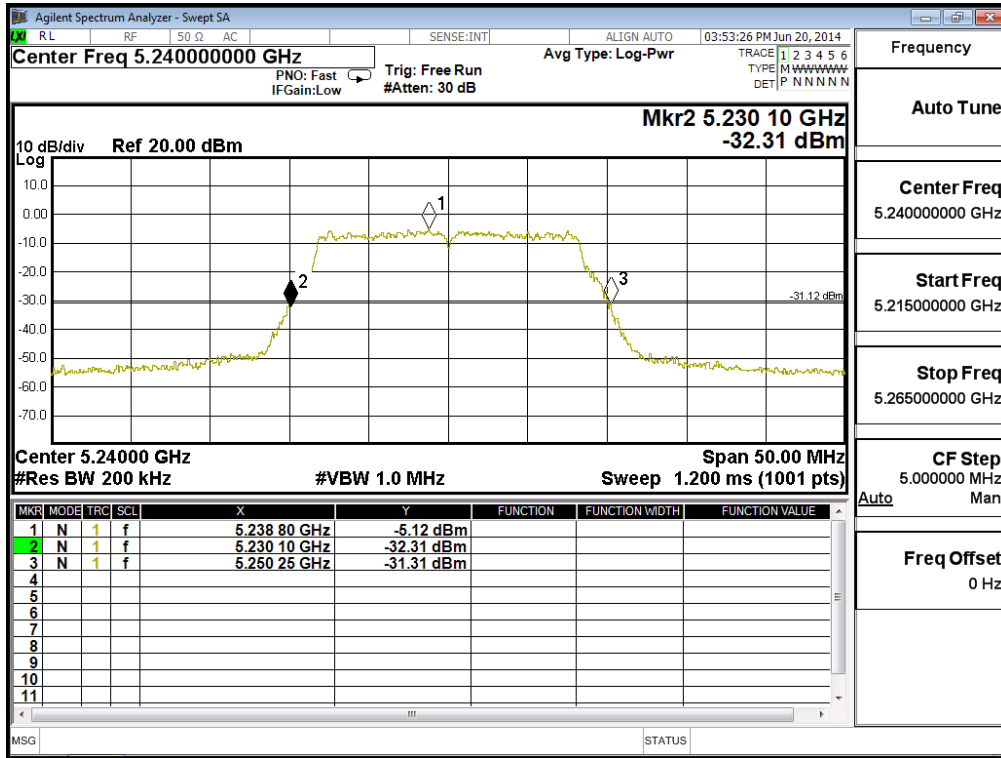
### 26dB Occupied Bandwidth: Channel 36-Chain C



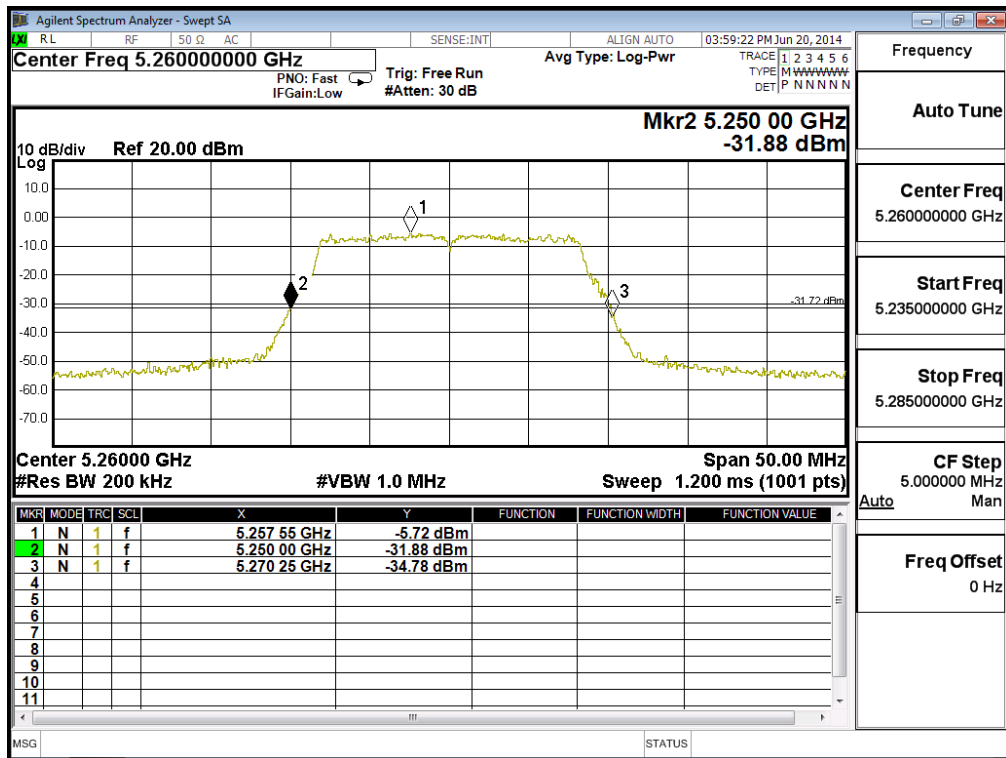
### Channel 40-Chain C



### Channel 48-Chain C

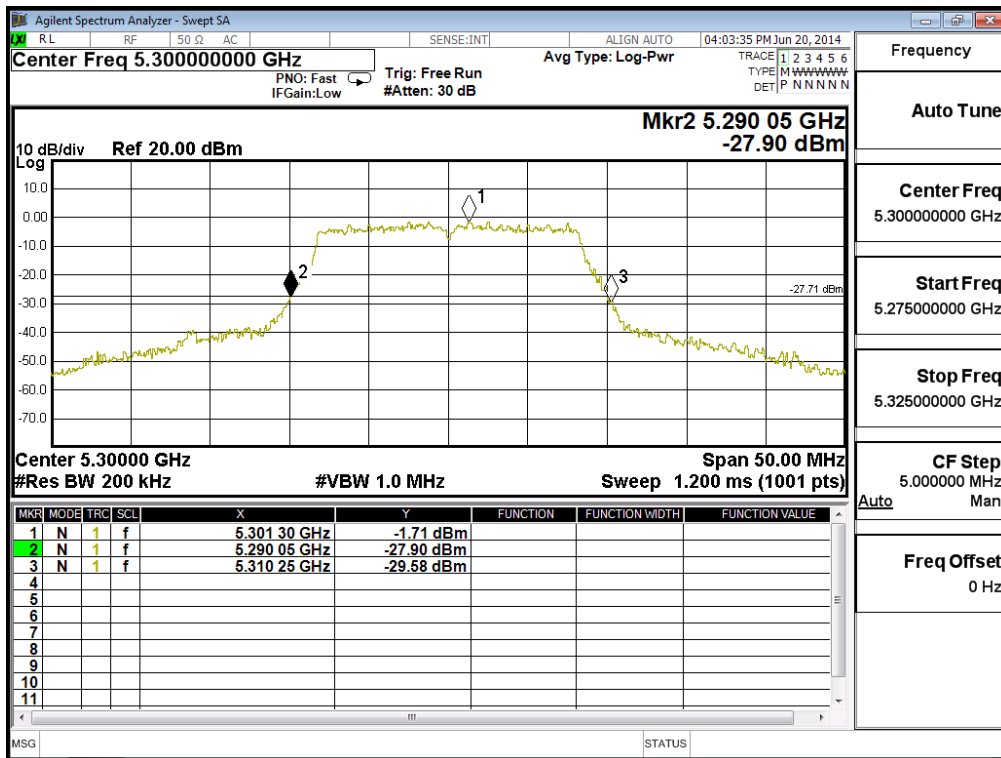


### Channel 52-Chain C

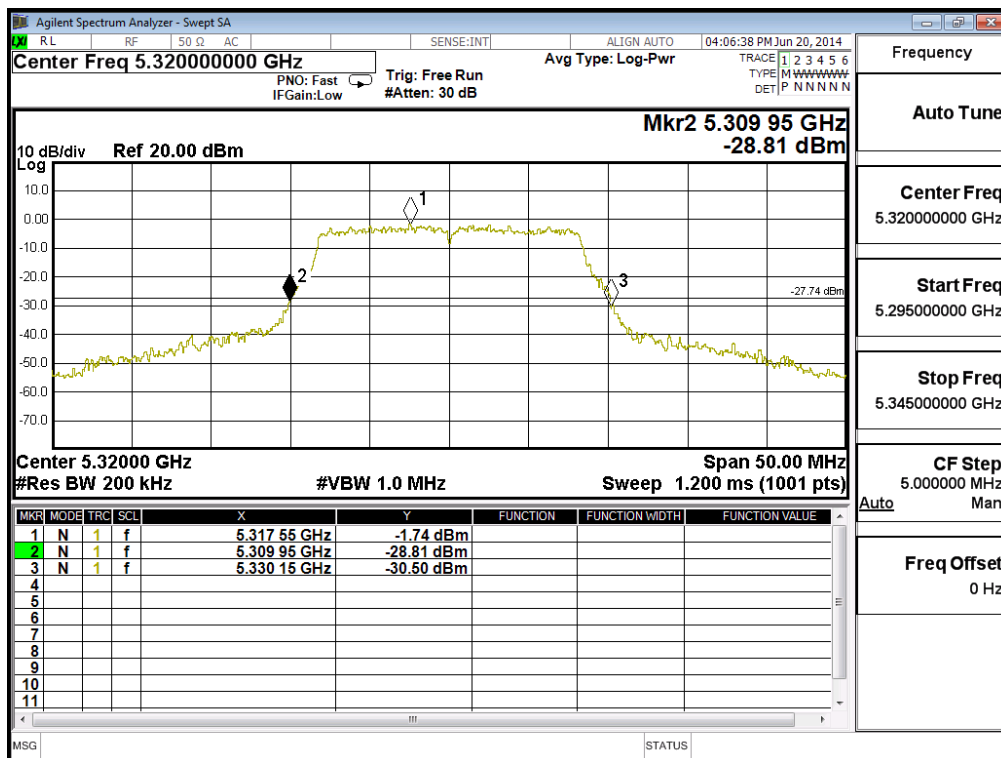




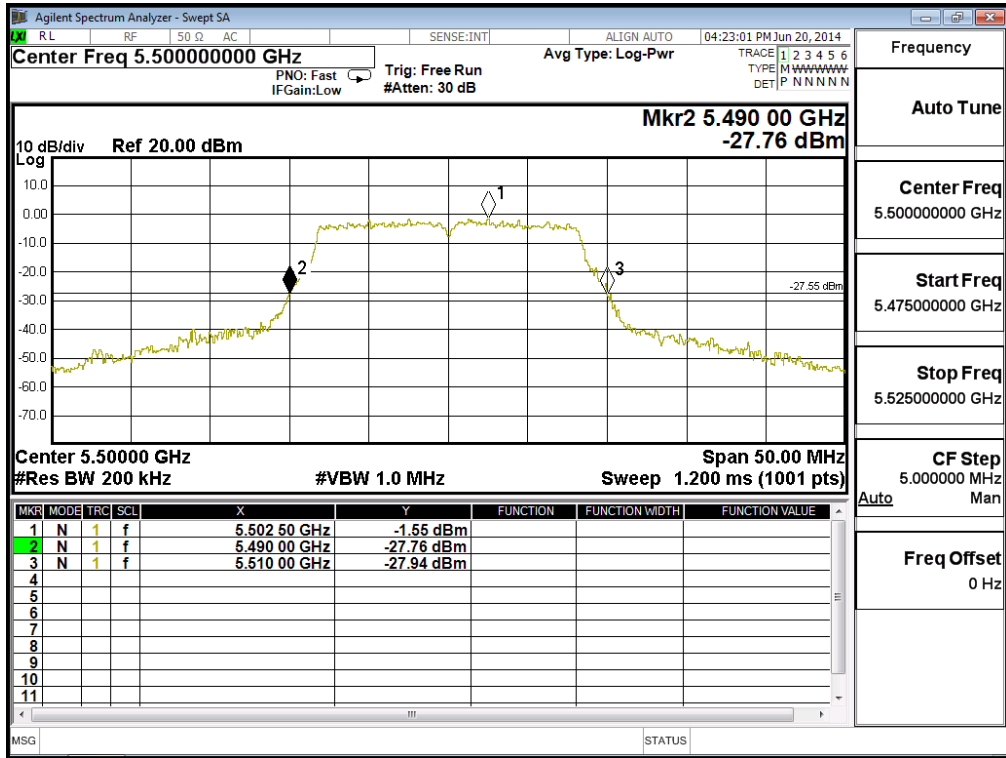
### Channel 60-Chain C



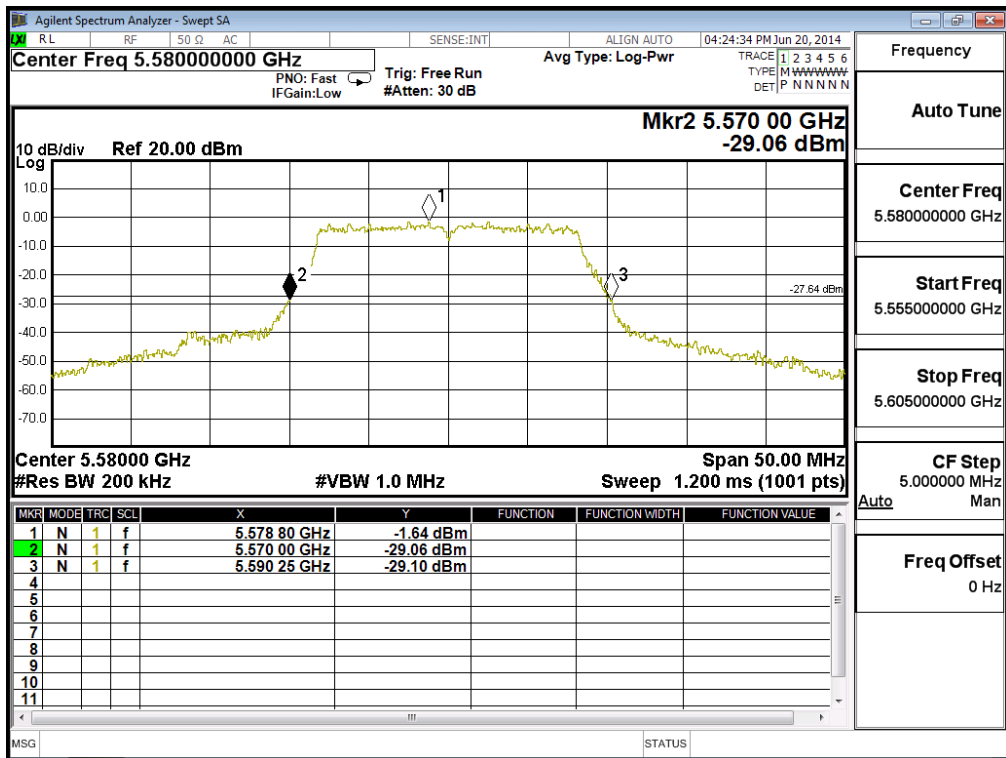
### Channel 64-Chain C



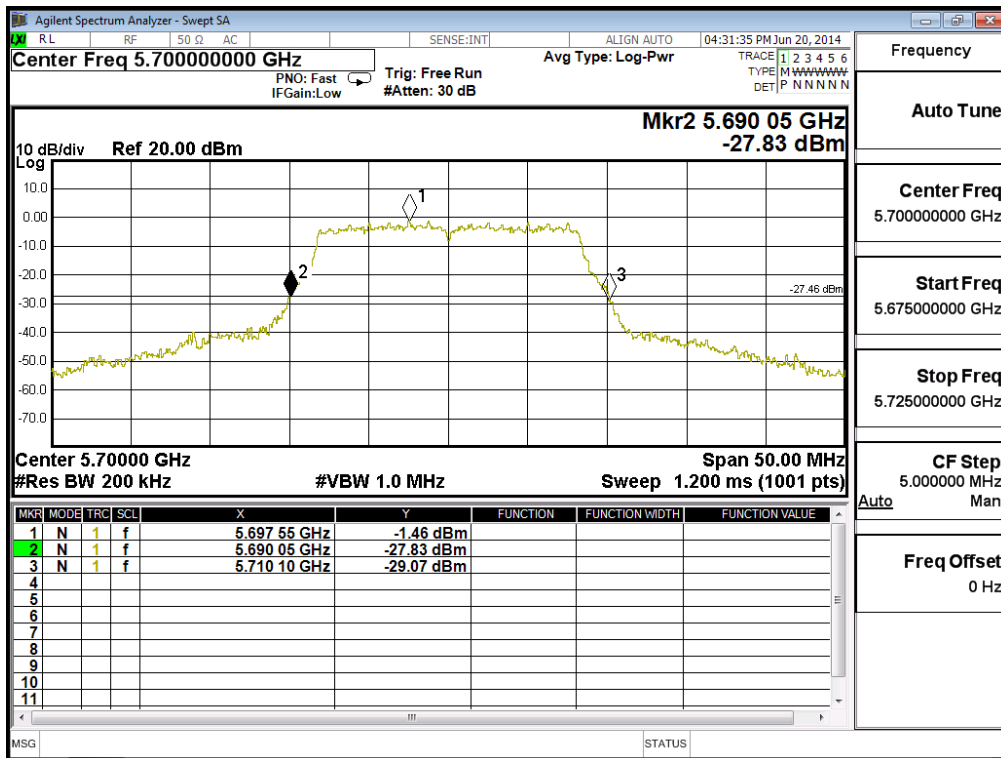
Channel 100-Chain C



Channel 116-Chain C



Channel 140-Chain C



Product : 802.11abgn/11ac WLAN + Bluetooth PCI-E Mini Card  
 Test Item : Maximum conducted output power  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 21.7Mbps)

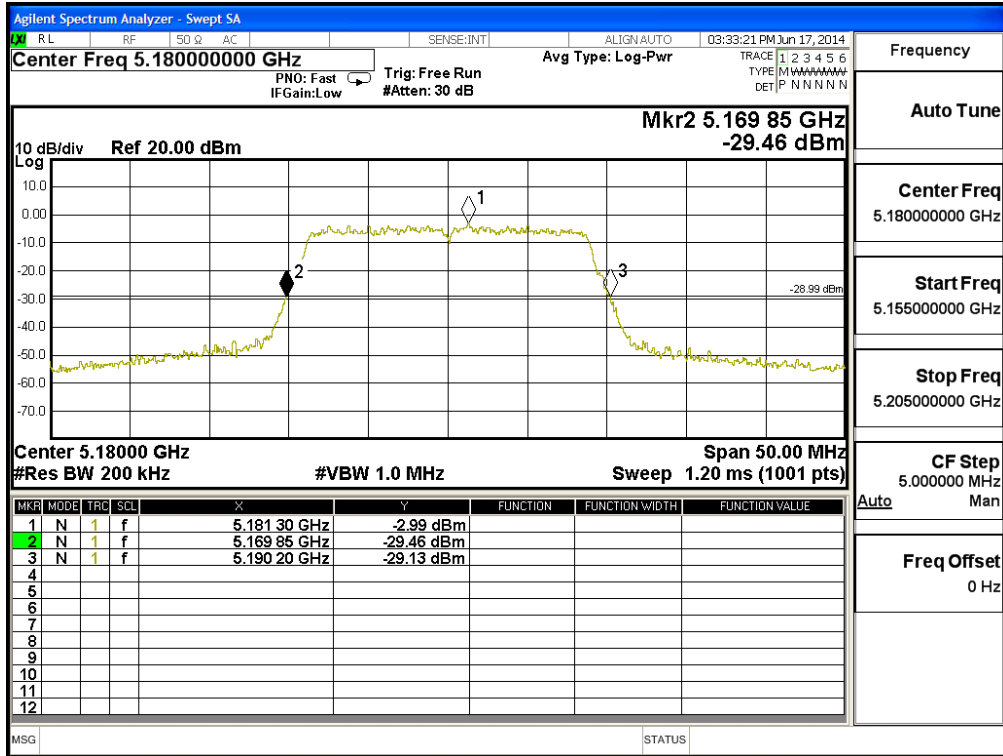
**Maximum conducted output power Measurement:**
**CHAIN A+B+C**

Channel Number	Frequency (MHz)	Data Rate (Mbps)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Output Power (dBm)	Output Power Limit	
								(dBm)	dBm+10log(BW)
36	5180	21.7	20.100	9.60	10.12	9.32	14.46	17	17.03
40	5200	21.7	20.250	9.21	10.03	8.89	14.17	17	17.06
48	5240	21.7	20.250	9.14	10.08	9.22	14.27	17	17.06
52	5260	21.7	20.200	9.66	10.20	9.74	14.64	24	24.05
60	5300	21.7	20.250	9.61	10.30	9.34	14.54	24	24.06
64	5320	21.7	20.250	9.38	10.45	9.26	14.50	24	24.06
100	5500	21.7	20.350	9.44	10.70	9.48	14.69	24	24.09
116	5580	21.7	20.200	9.31	10.60	9.27	14.54	24	24.05
140	5700	21.7	20.200	9.37	10.61	9.32	14.58	24	24.05

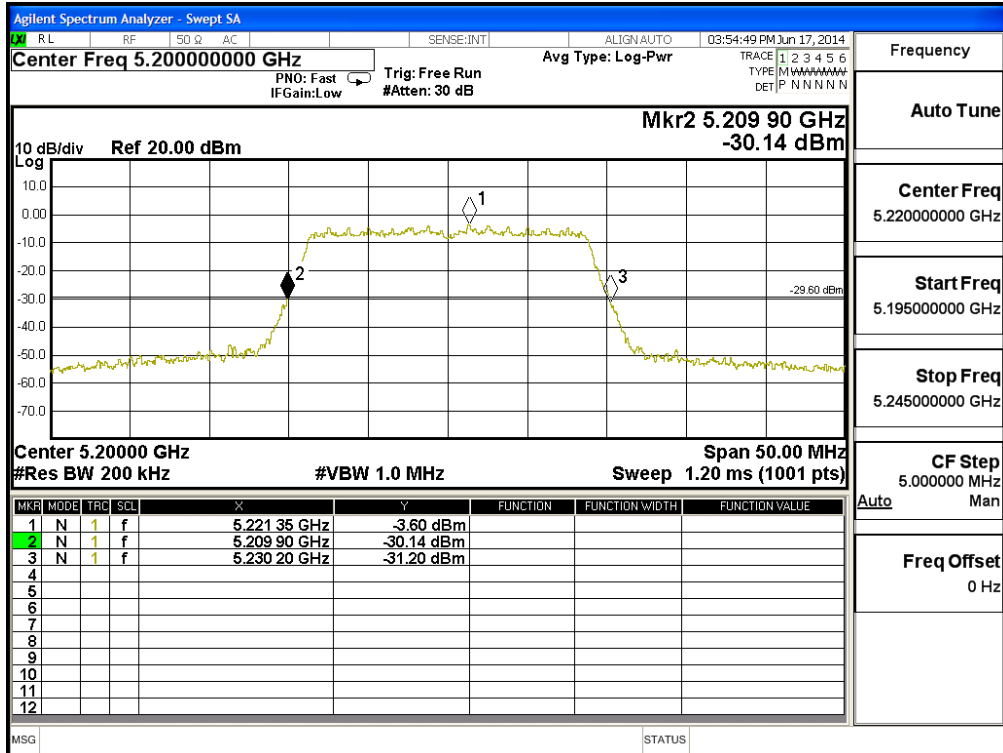
Note:

1. Power Output Value = Reading value on average power meter + cable loss
2. Output Power (dBm) = 10\*LOG (Chain A Power (mW)+ Chain B Power (mW) + Chain C Power (mW))
3. 26 dB Bandwidth is the bandwidth of chain A or chain B whichever is less bandwidth, output power limitation is more stringent.

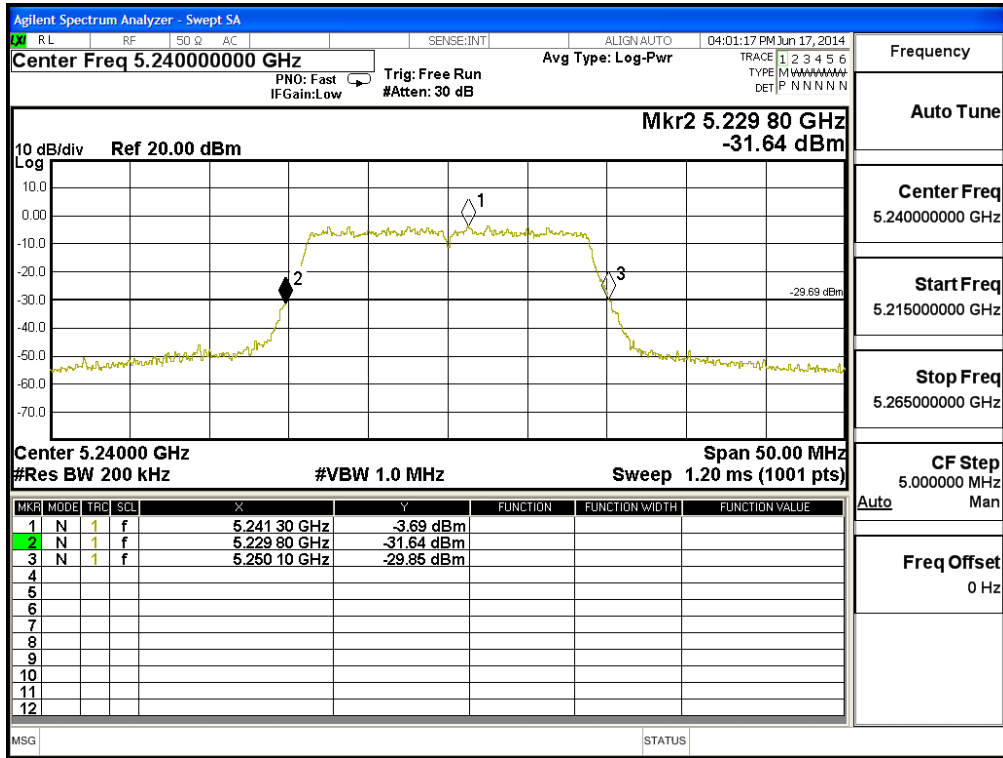
**26dB Occupied Bandwidth:  
Channel 36 -Chain A**



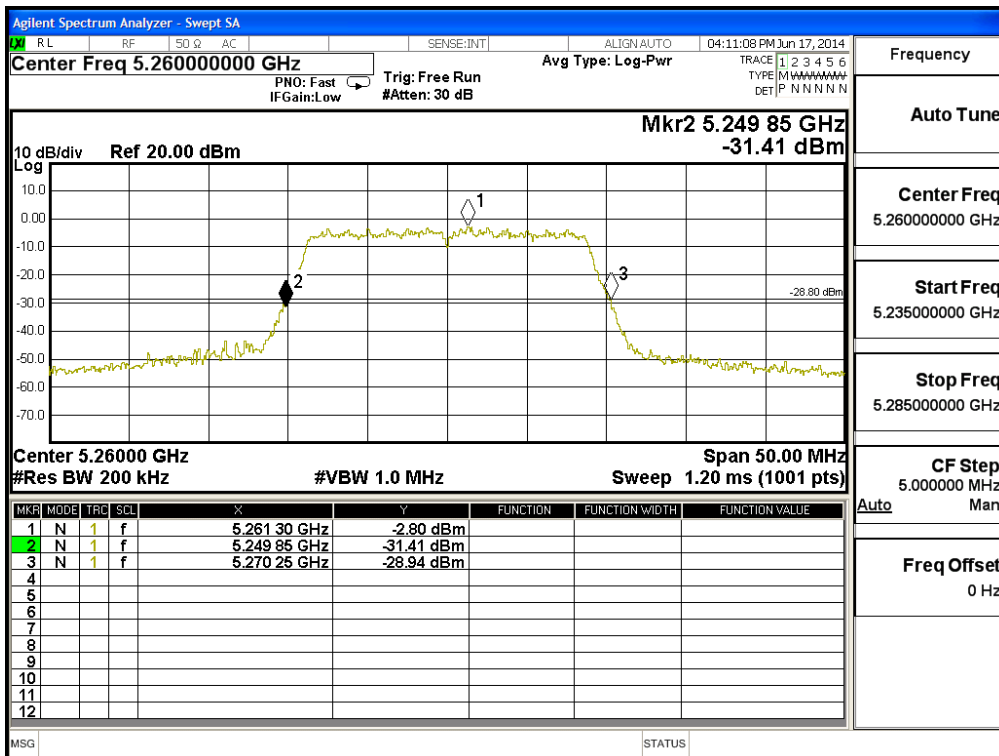
**Channel 40 -Chain A**



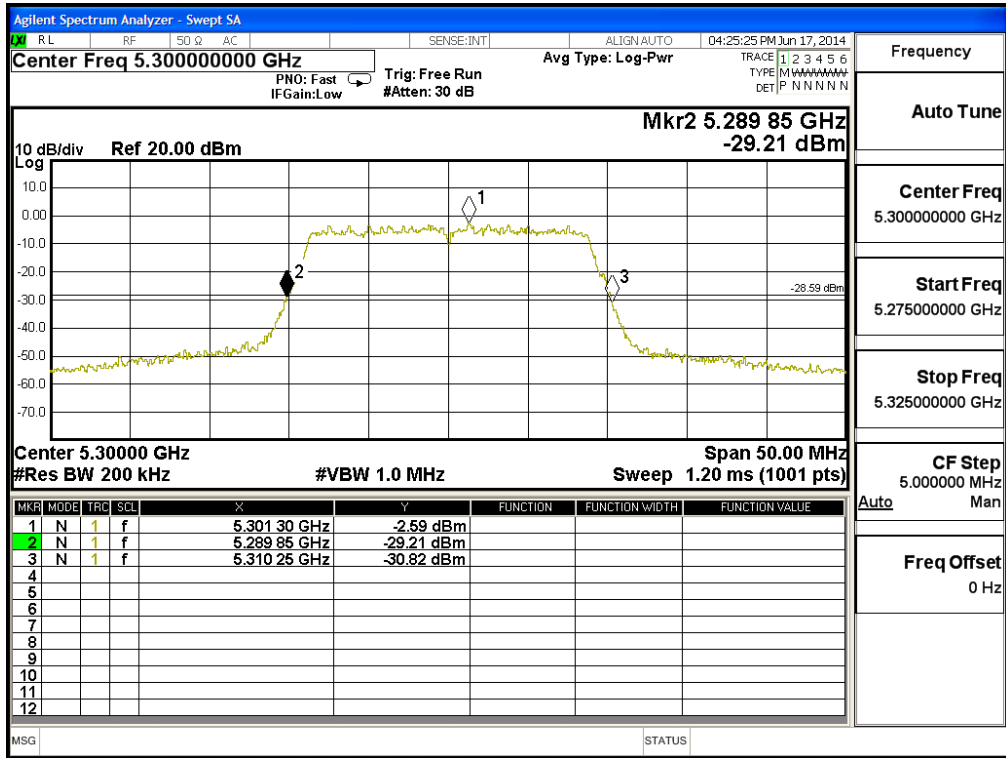
### Channel 48 -Chain A



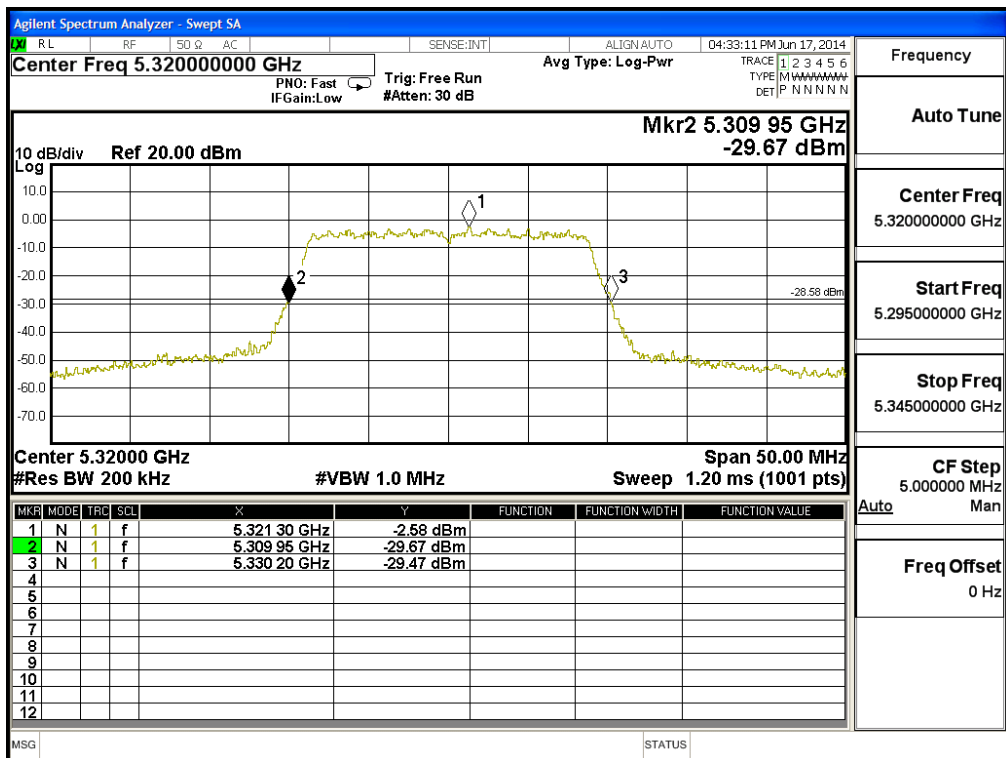
### Channel 52 -Chain A



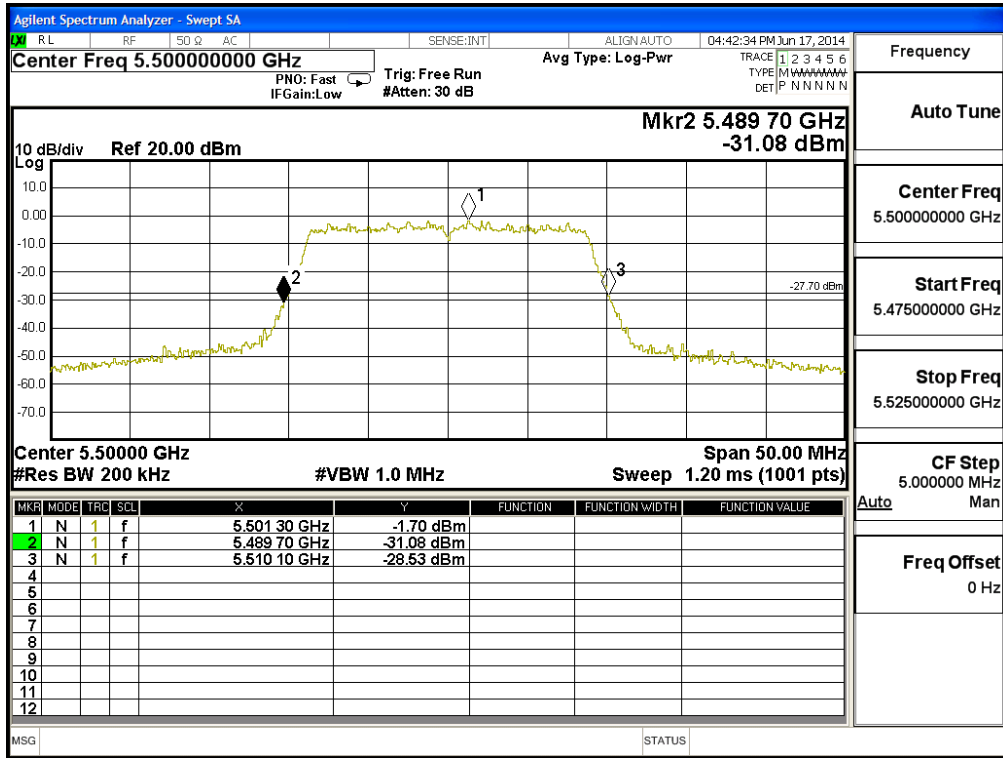
Channel 60 -Chain A



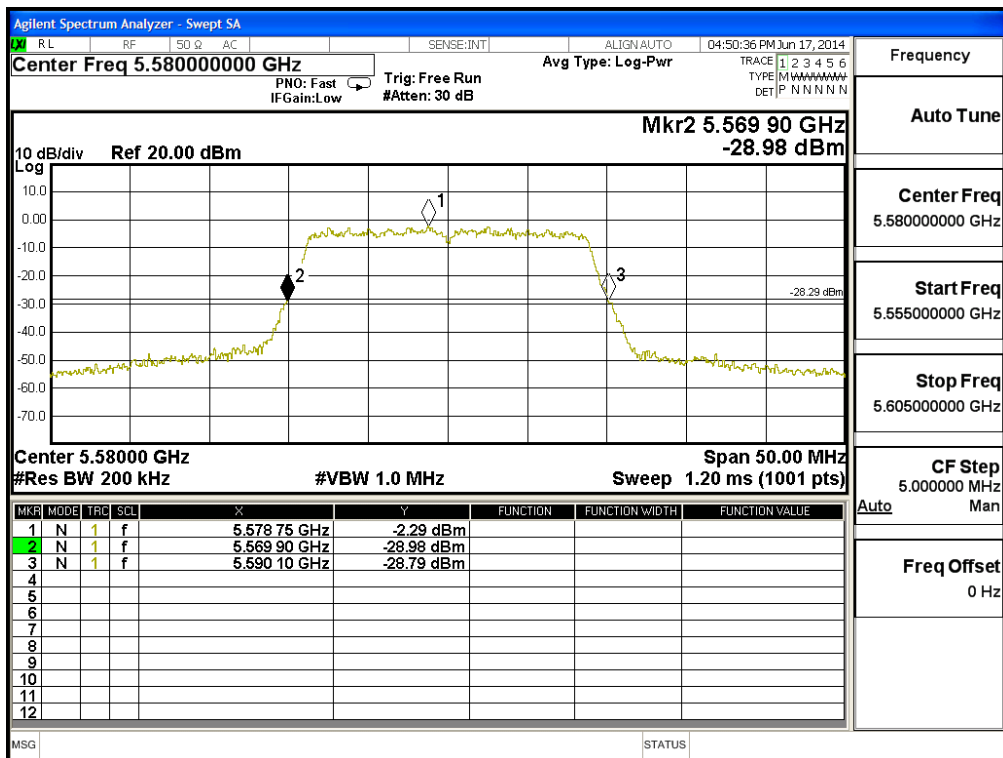
Channel 64 -Chain A



### Channel 100 -Chain A

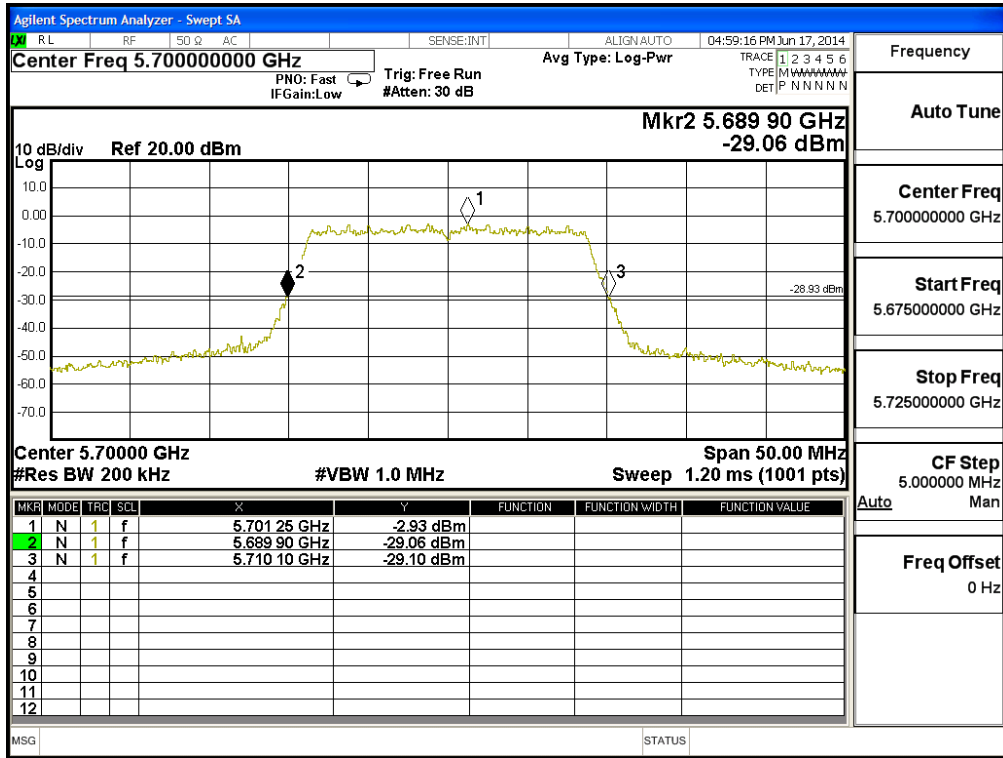


### Channel 116 -Chain A

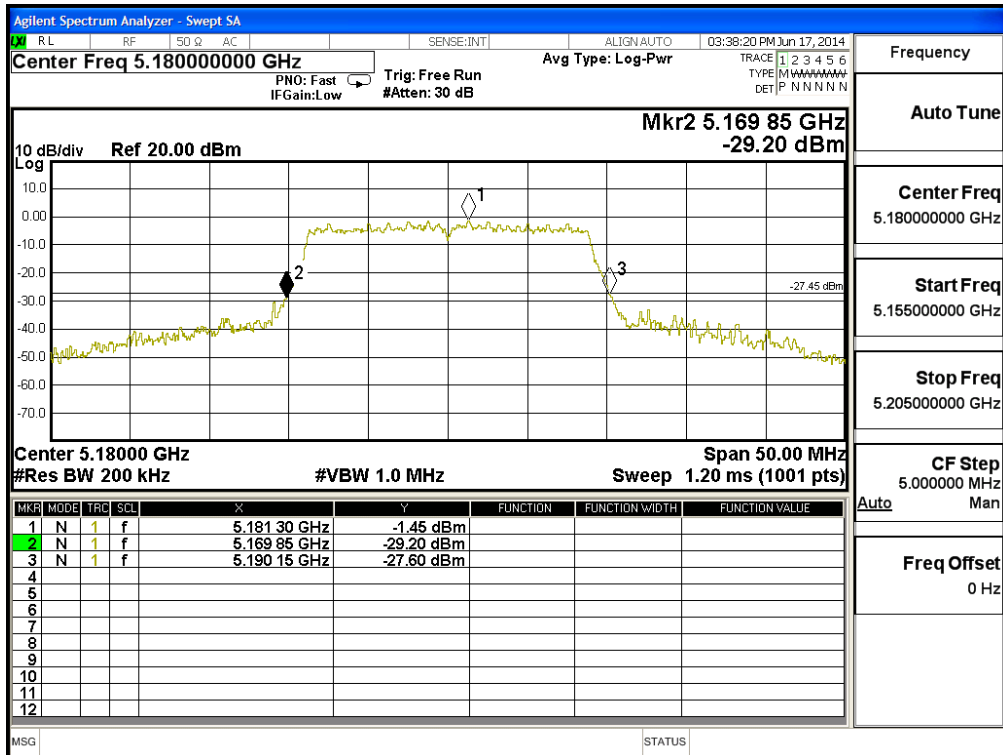




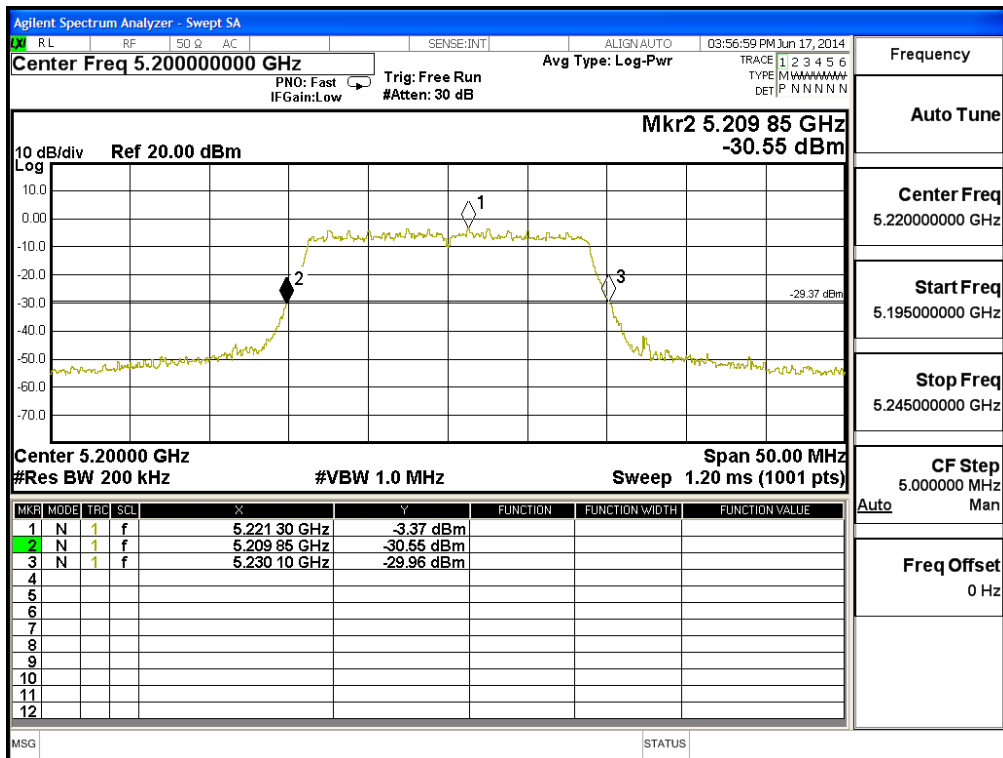
### Channel 140 -Chain A



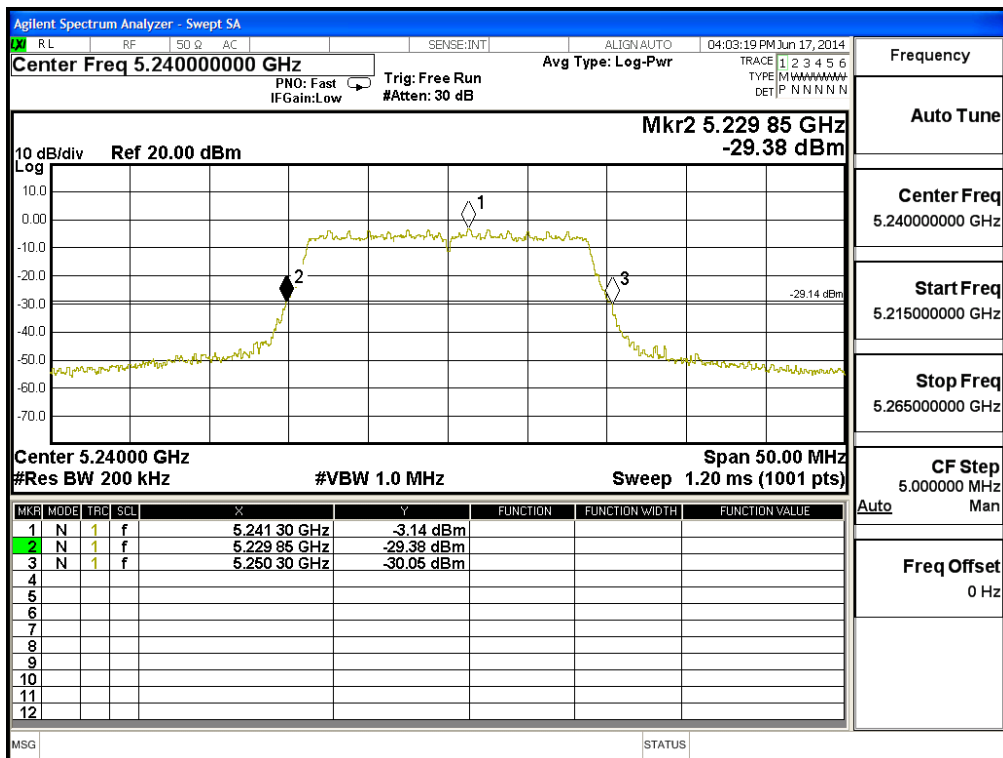
### Channel 36 -Chain B



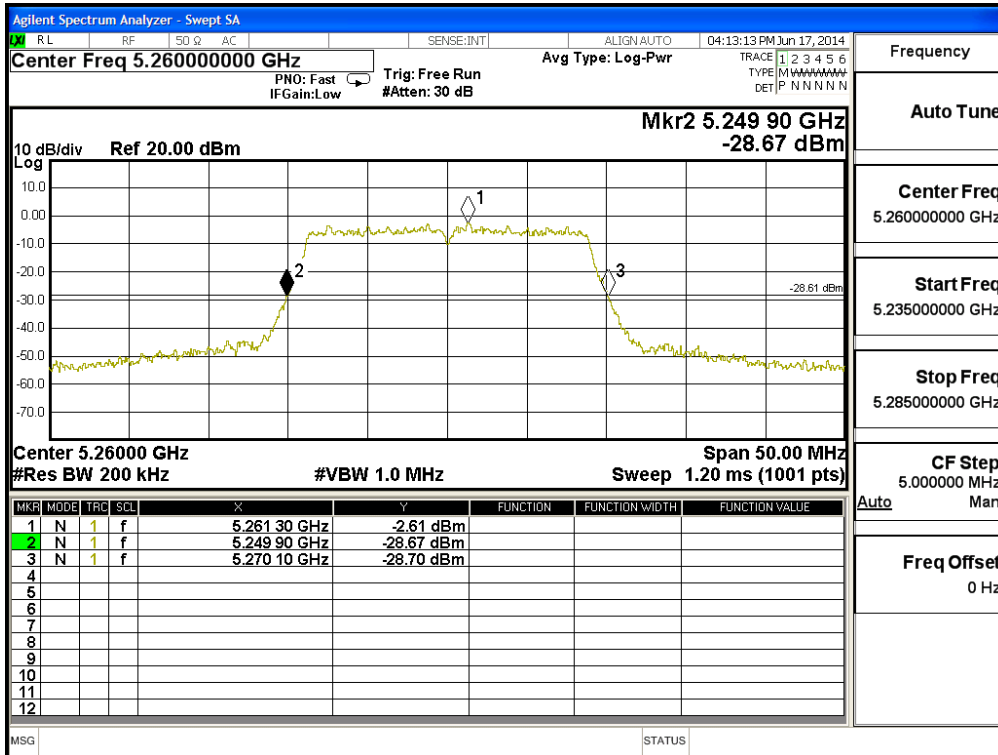
Channel 40 -Chain B



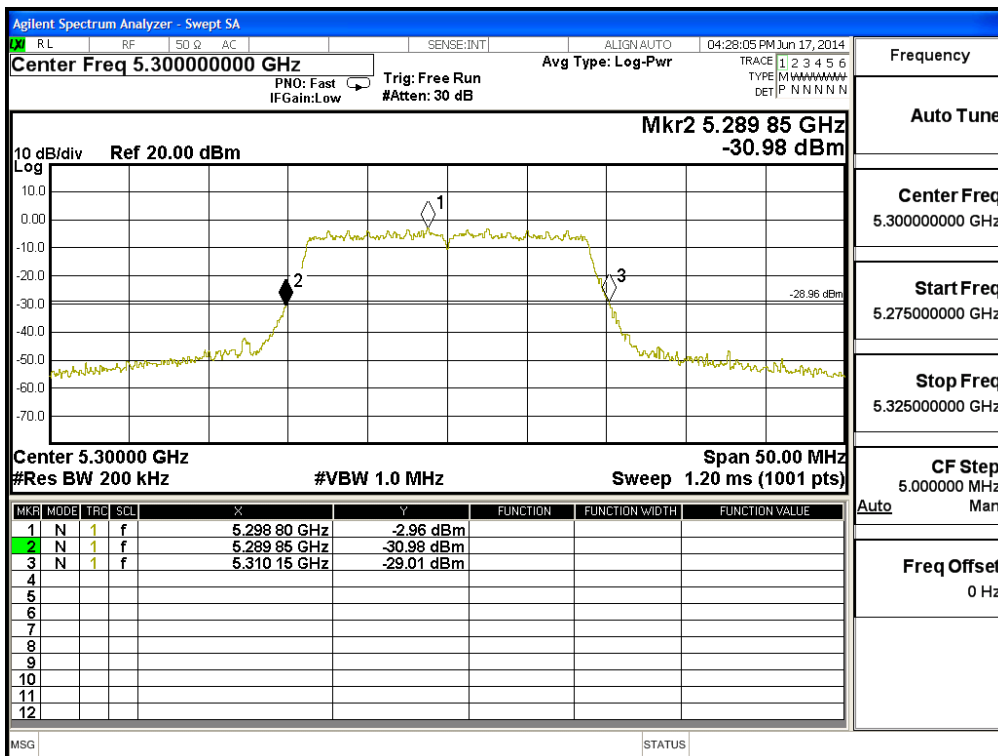
Channel 48 -Chain B



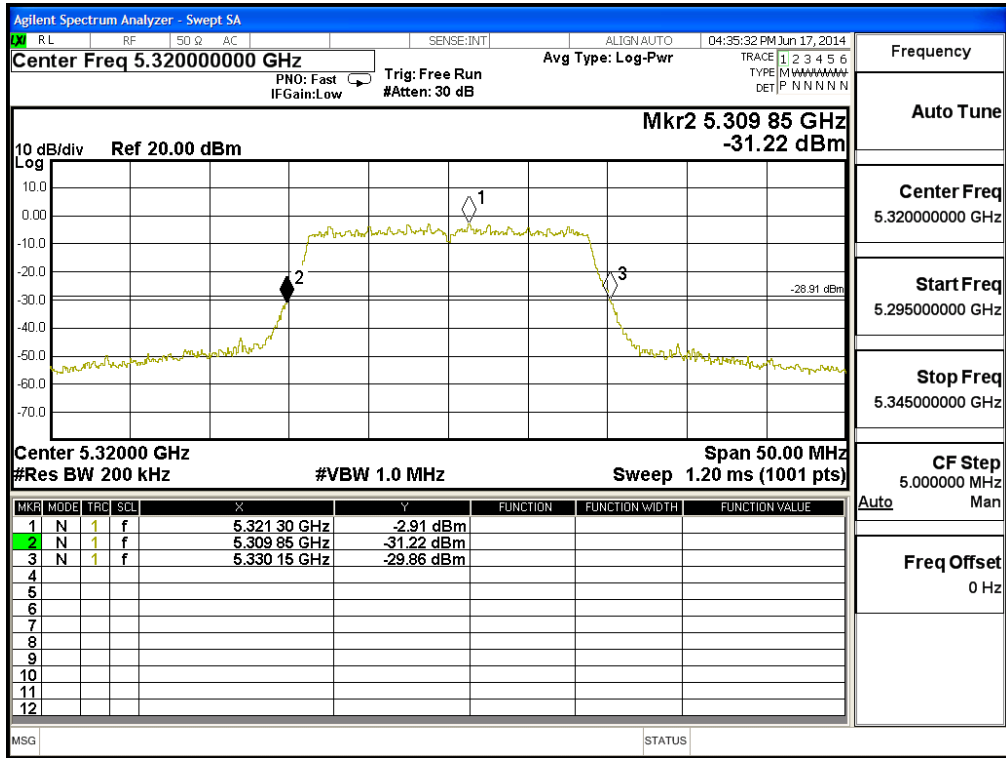
### Channel 52 -Chain B



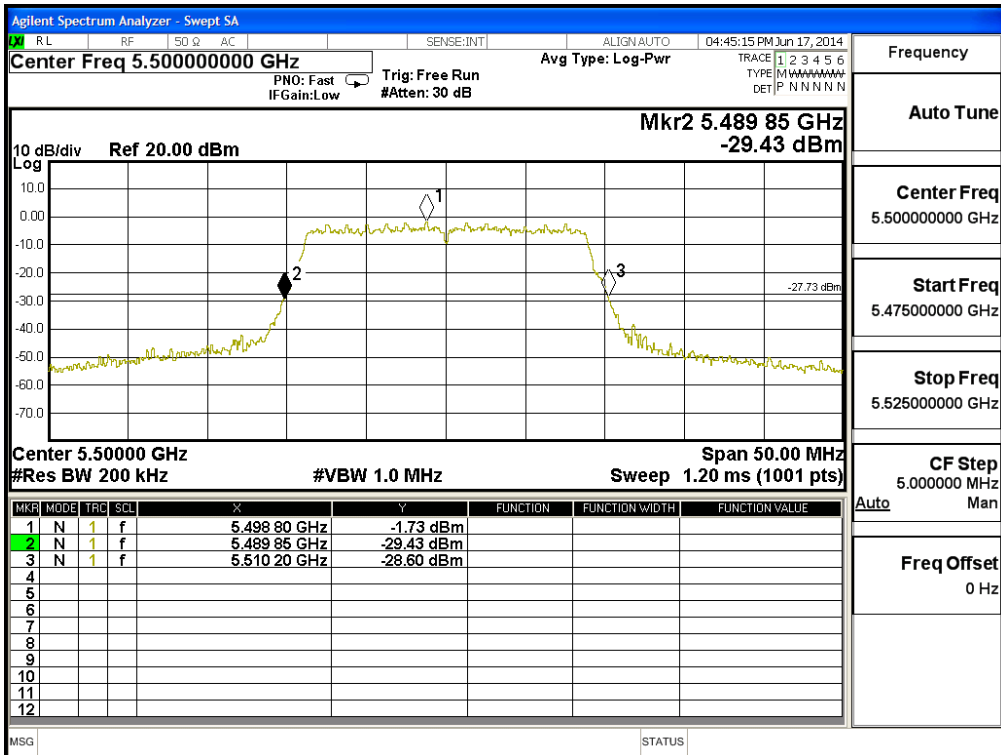
### Channel 60 -Chain B



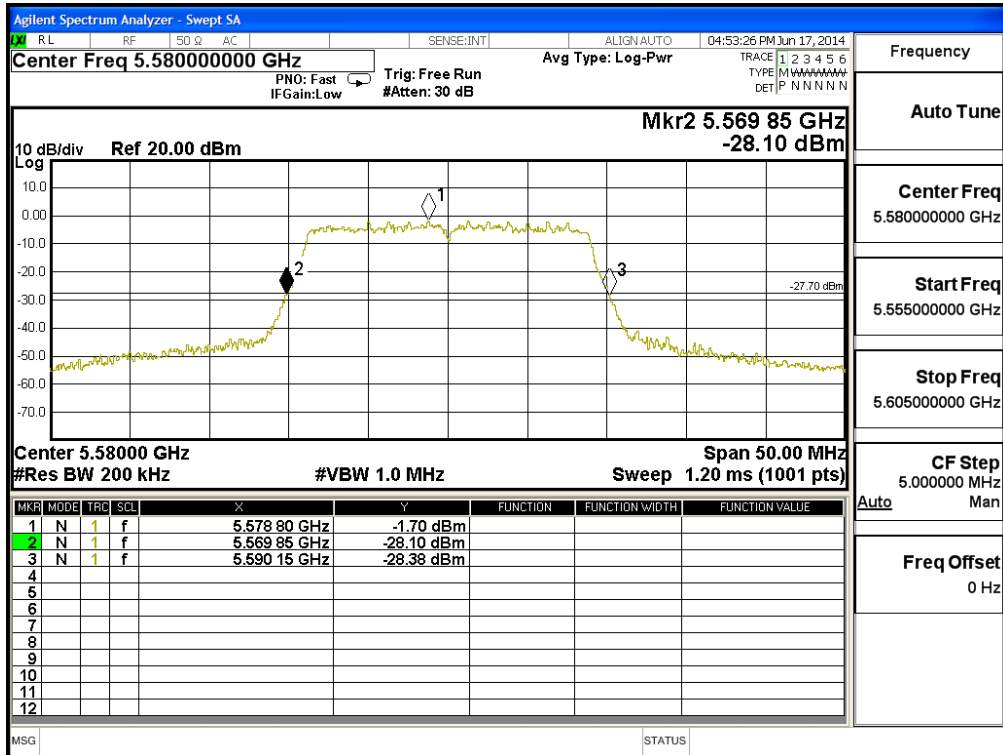
Channel 64 -Chain B



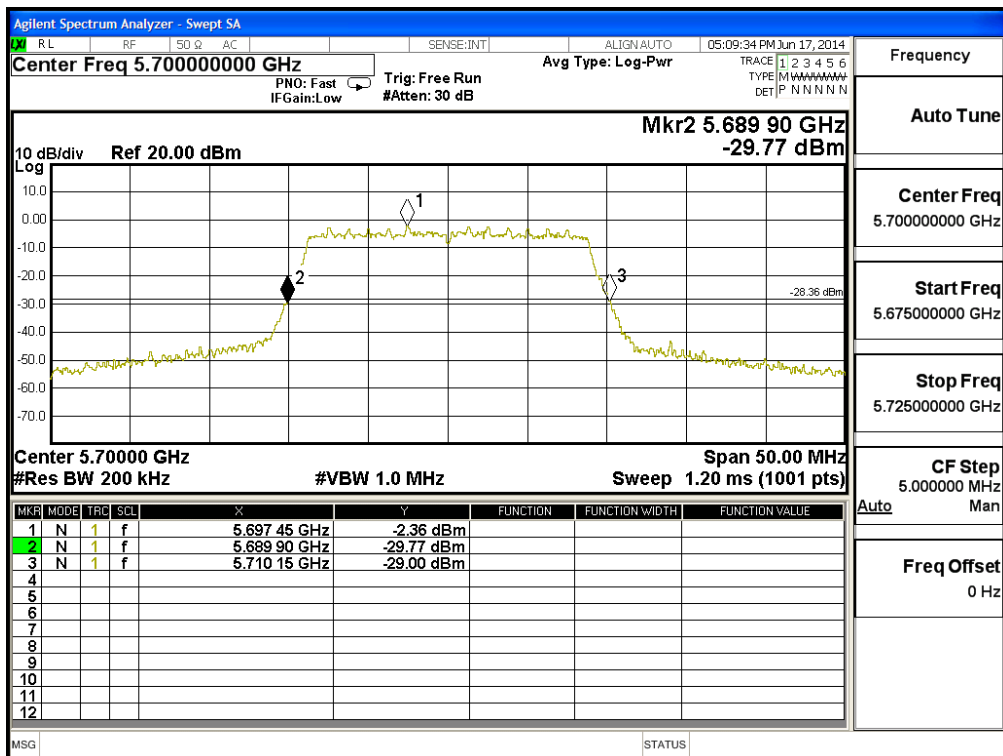
Channel 100 -Chain B



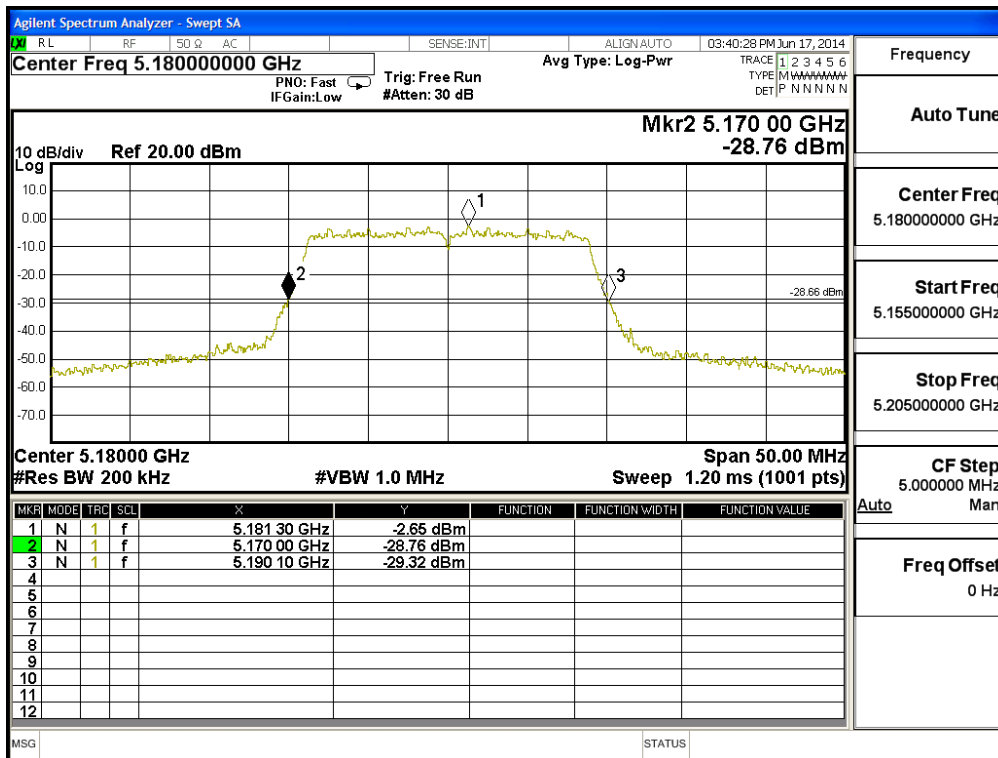
### Channel 116 -Chain B



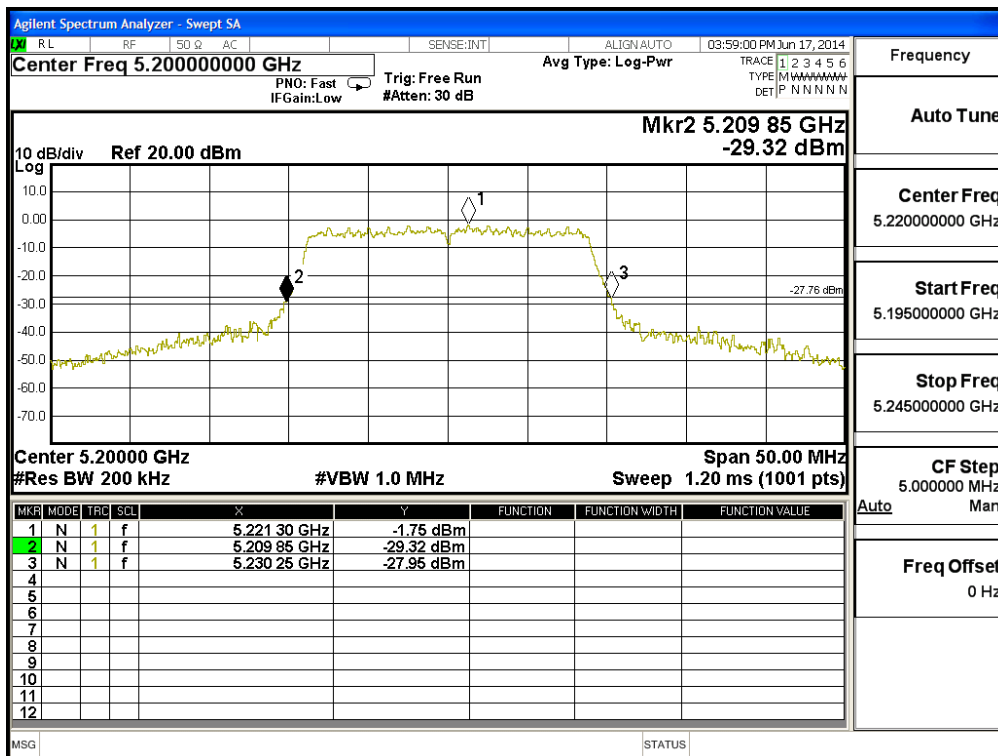
### Channel 140 -Chain B



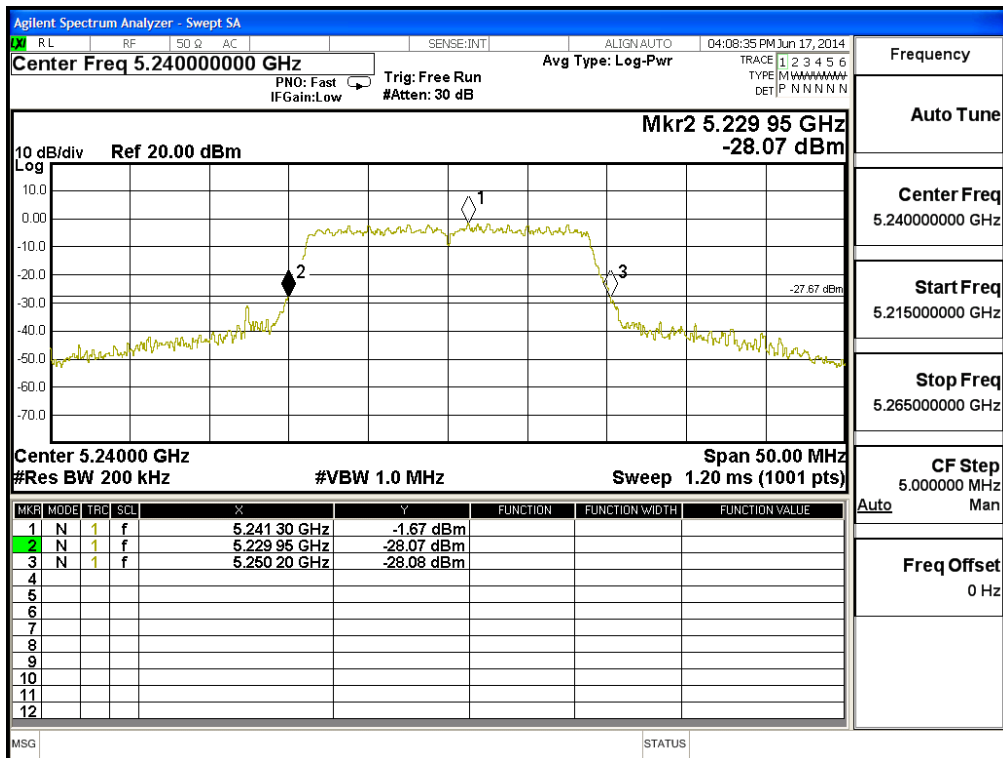
### Channel 36 -Chain C



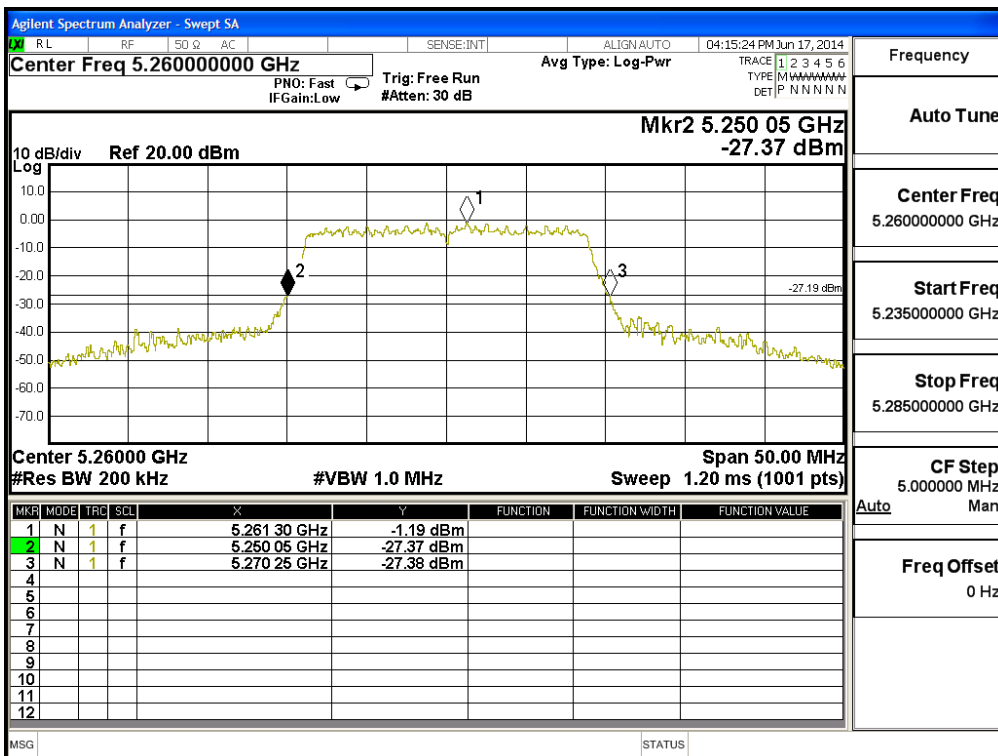
### Channel 40 -Chain C



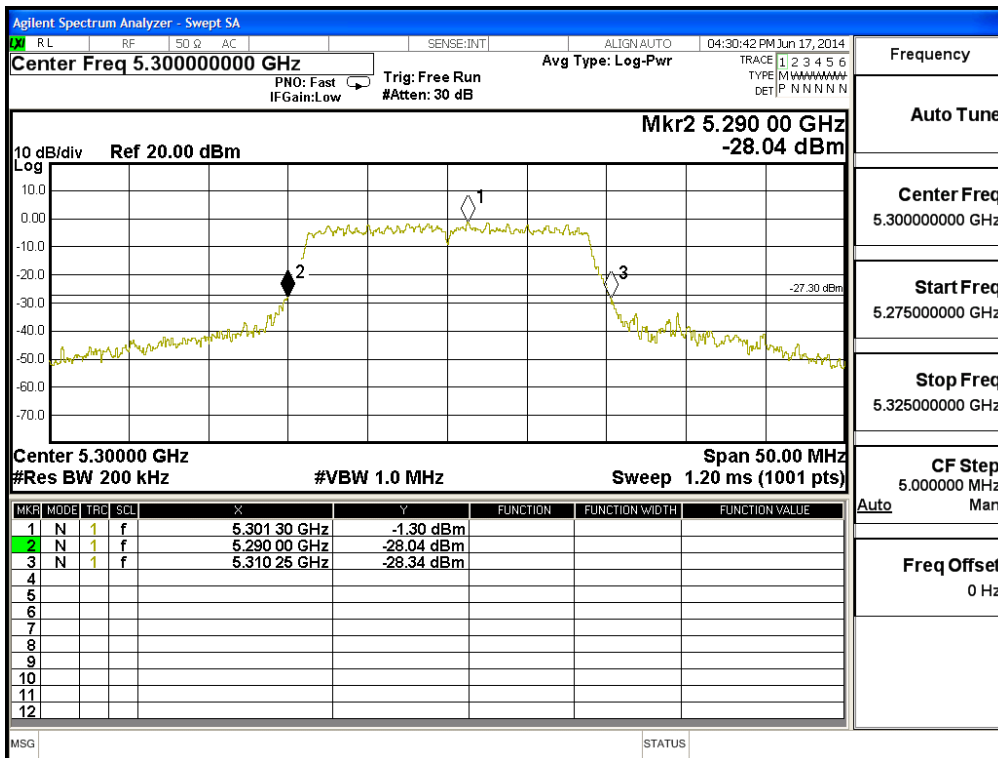
Channel 48 -Chain C



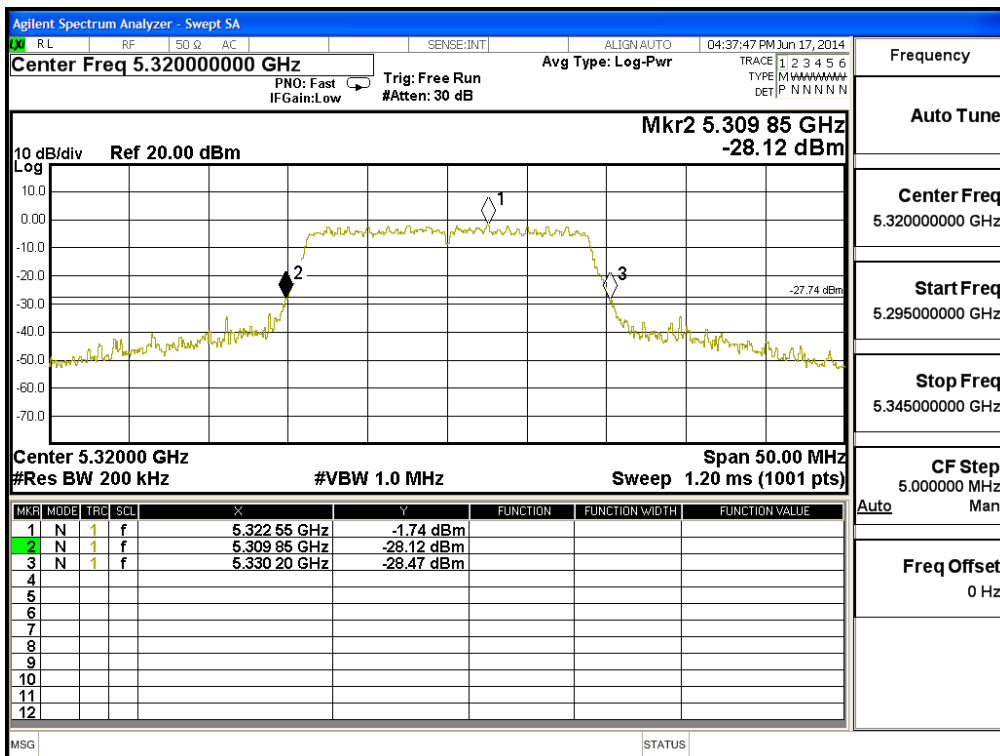
Channel 52 -Chain C



Channel 60 -Chain C

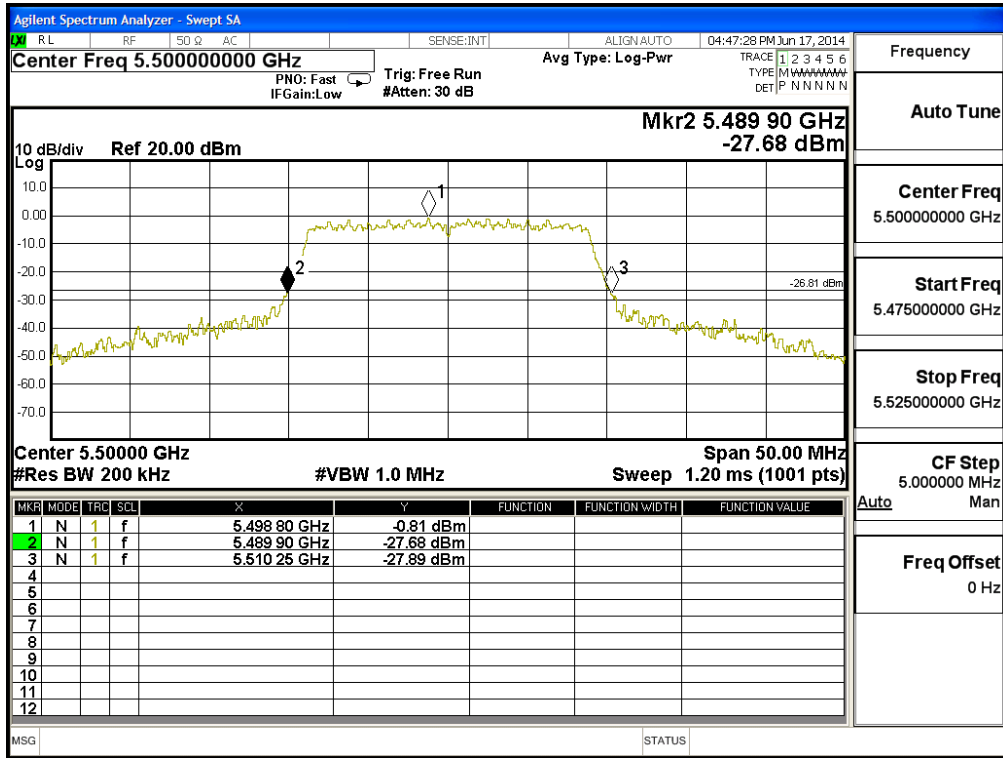


Channel 64 -Chain C

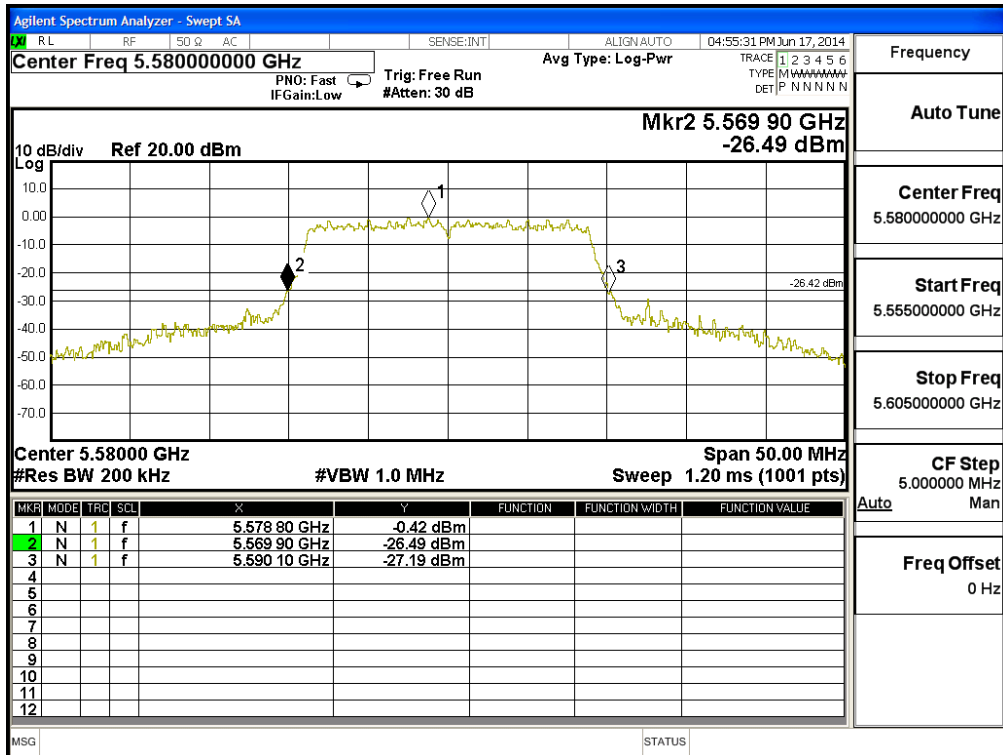




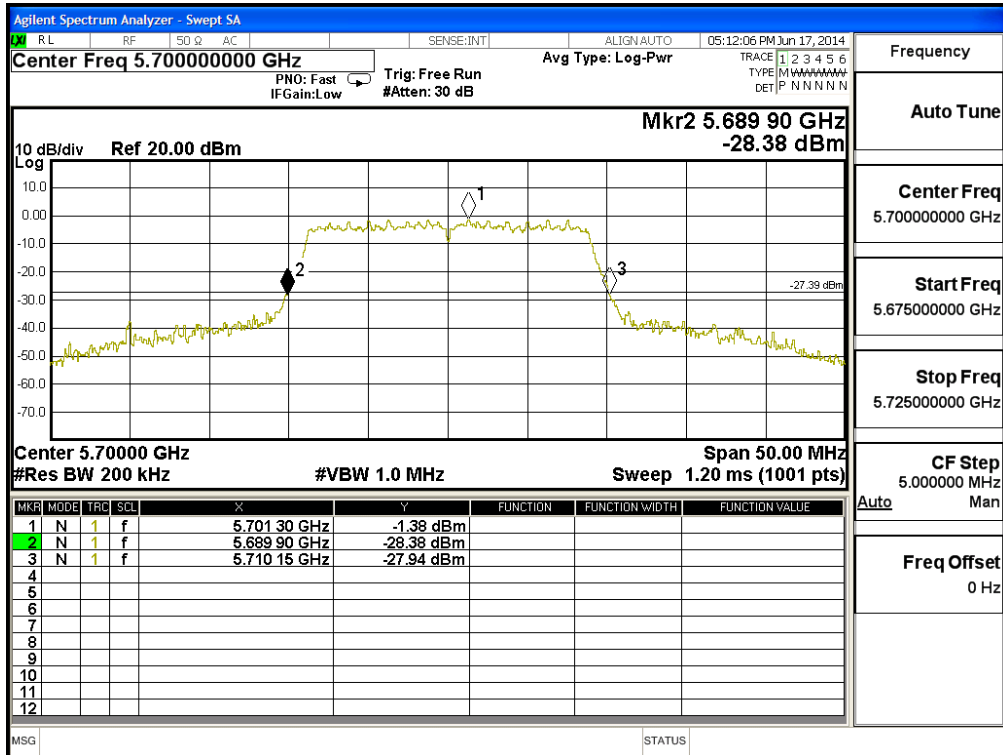
### Channel 100 -Chain C



### Channel 116 -Chain C



Channel 140 -Chain C



Product : 802.11abgn/11ac WLAN + Bluetooth PCI-E Mini Card  
 Test Item : Maximum conducted output power  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 45Mbps)

### Maximum conducted output power Measurement:

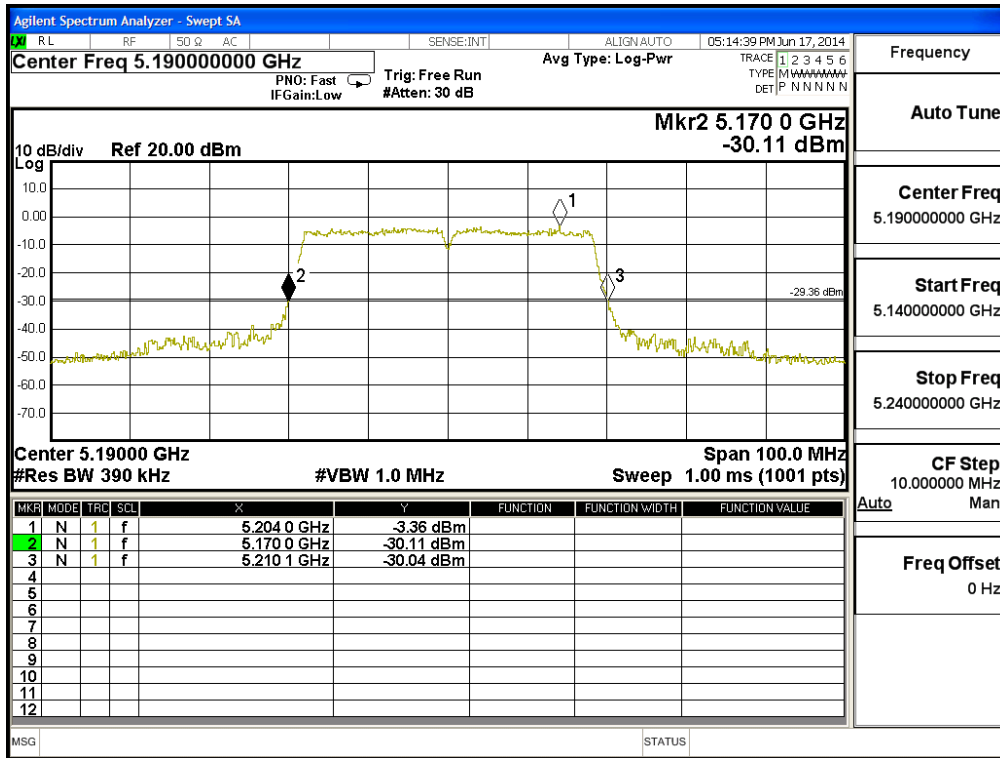
#### CHAIN A+B+C

Channel Number	Frequency (MHz)	Data Rate (Mbps)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Output Power (dBm)	Output Power Limit	
								(dBm)	dBm+10log(BW)
38	5190	45	39.300	9.44	10.30	9.33	14.48	17	19.94
46	5230	45	39.300	9.59	10.38	9.24	14.53	17	19.94
54	5270	45	39.300	9.41	10.42	9.52	14.58	24	26.94
62	5310	45	39.300	9.24	10.51	9.28	14.49	24	26.94
102	5510	45	39.400	9.14	10.31	9.11	14.33	24	26.95
110	5550	45	39.500	9.19	10.34	9.08	14.35	24	26.97
134	5670	45	39.500	9.38	10.66	9.22	14.57	24	26.97

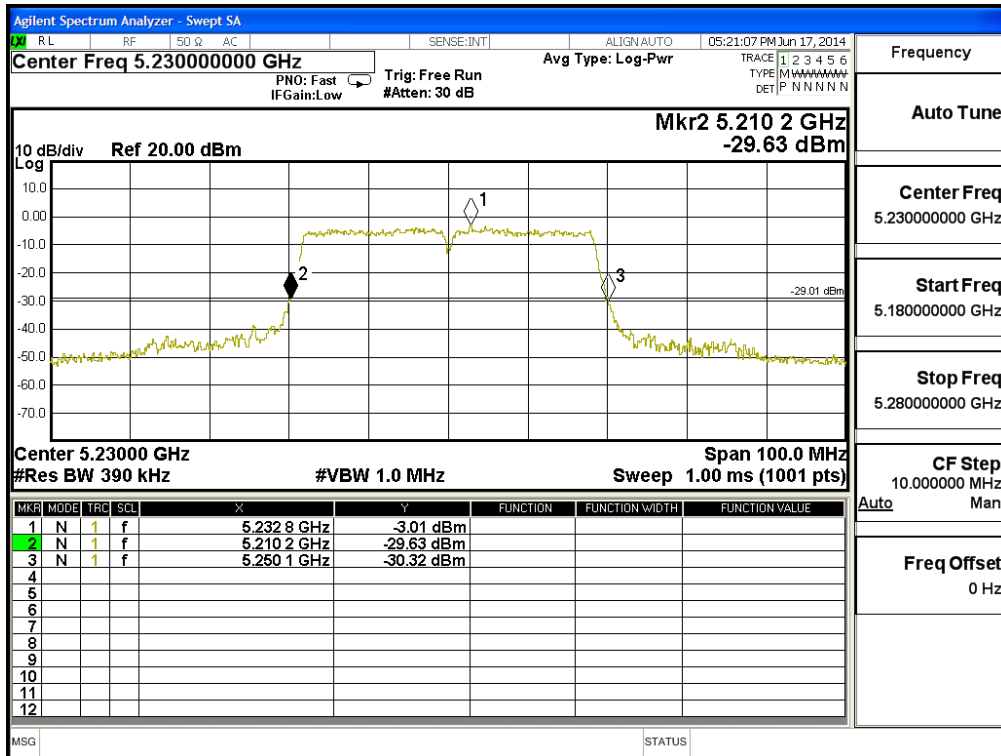
#### Note:

1. Power Output Value = Reading value on average power meter + cable loss
2. Output Power (dBm) = 10\*LOG (Chain A Power (mW)+ Chain B Power (mW) + Chain C Power (mW))
3. 26 dB Bandwidth is the bandwidth of chain A or chain B whichever is less bandwidth, output power limitation is more stringent.

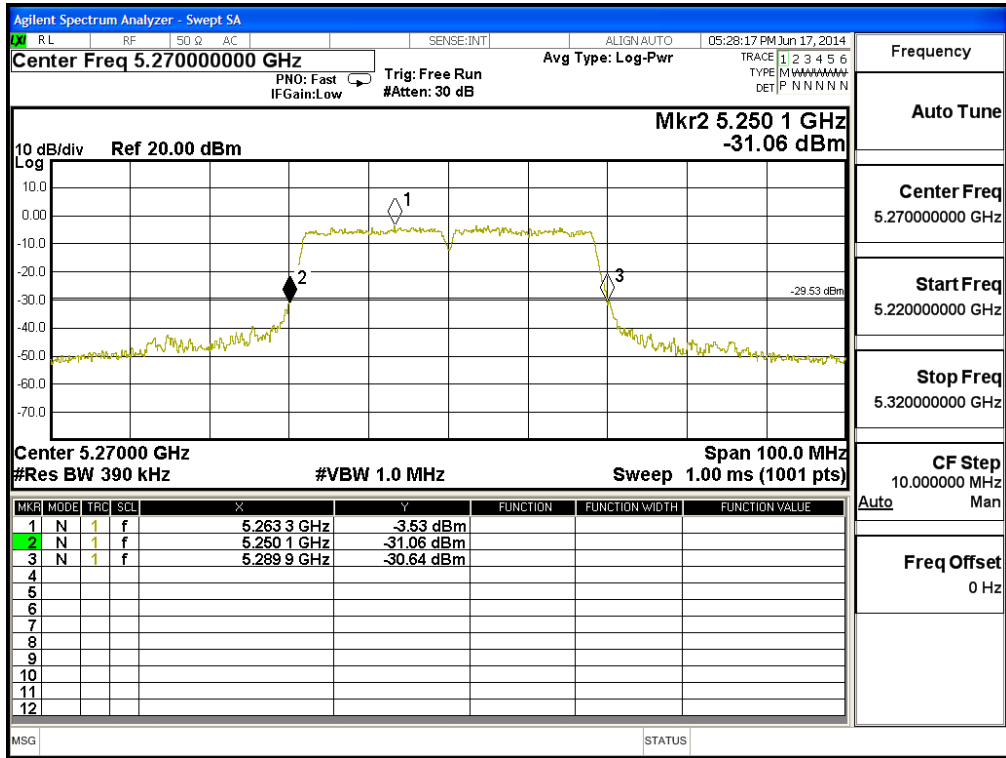
26dB Occupied Bandwidth:  
Channel 38 – Chain A



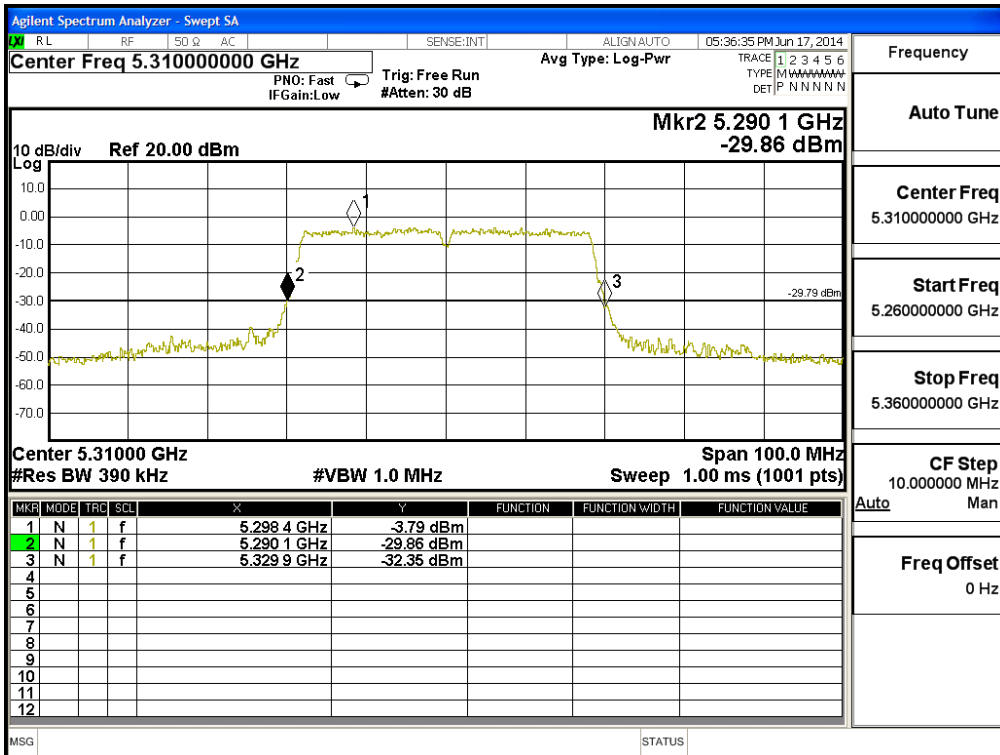
Channel 46 – Chain A



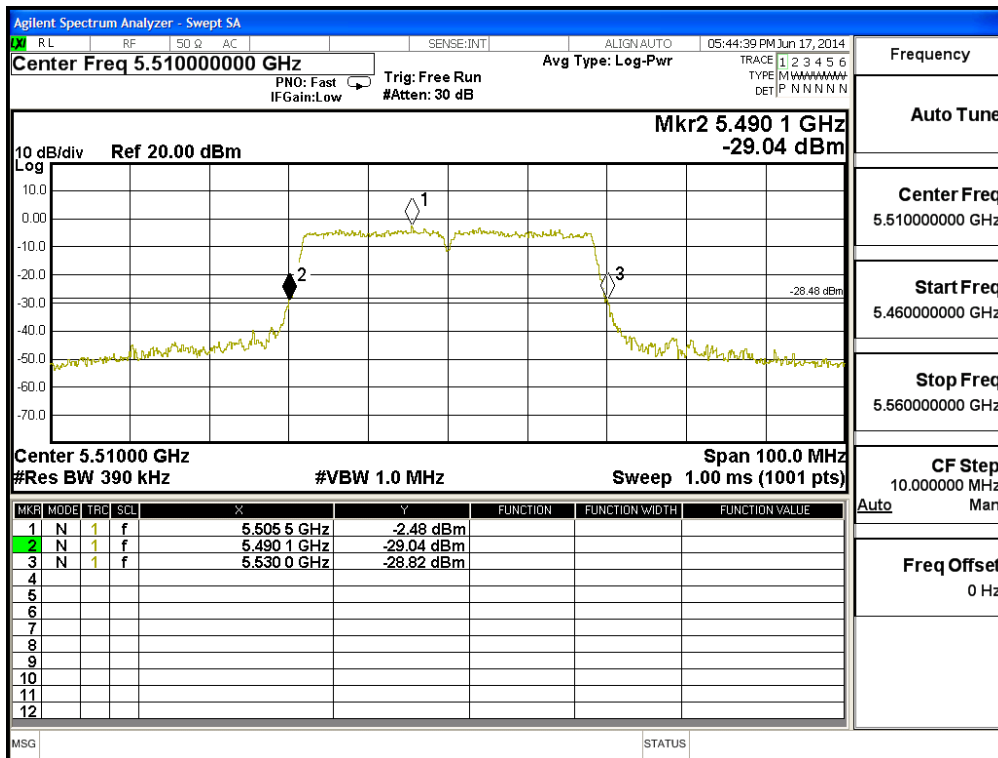
Channel 54 – Chain A



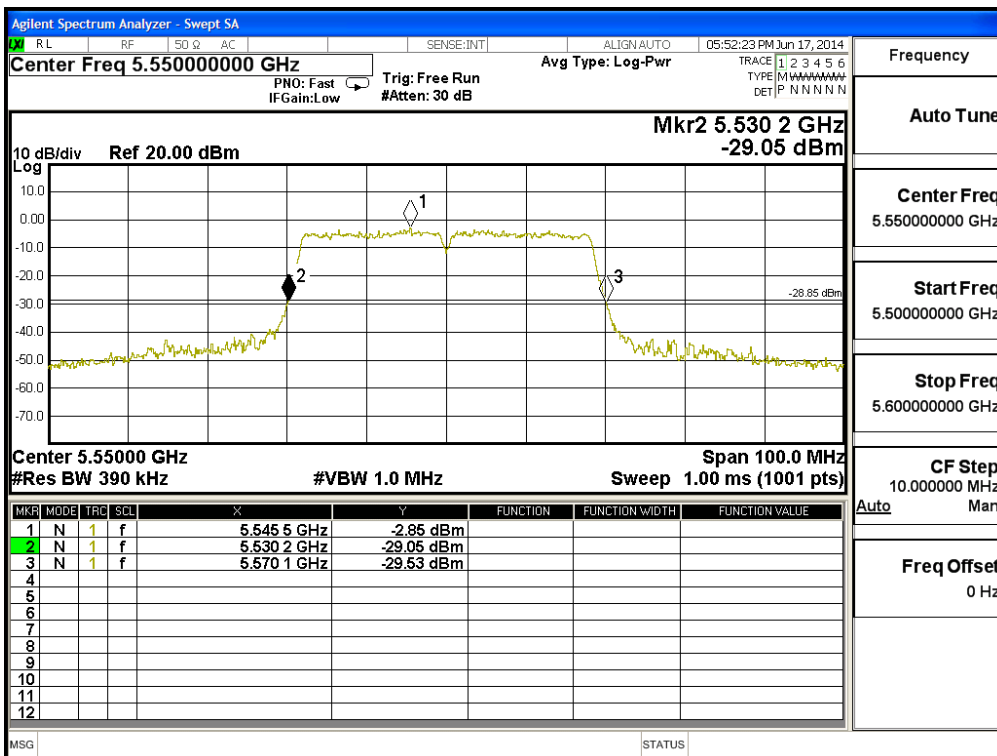
Channel 62 – Chain A



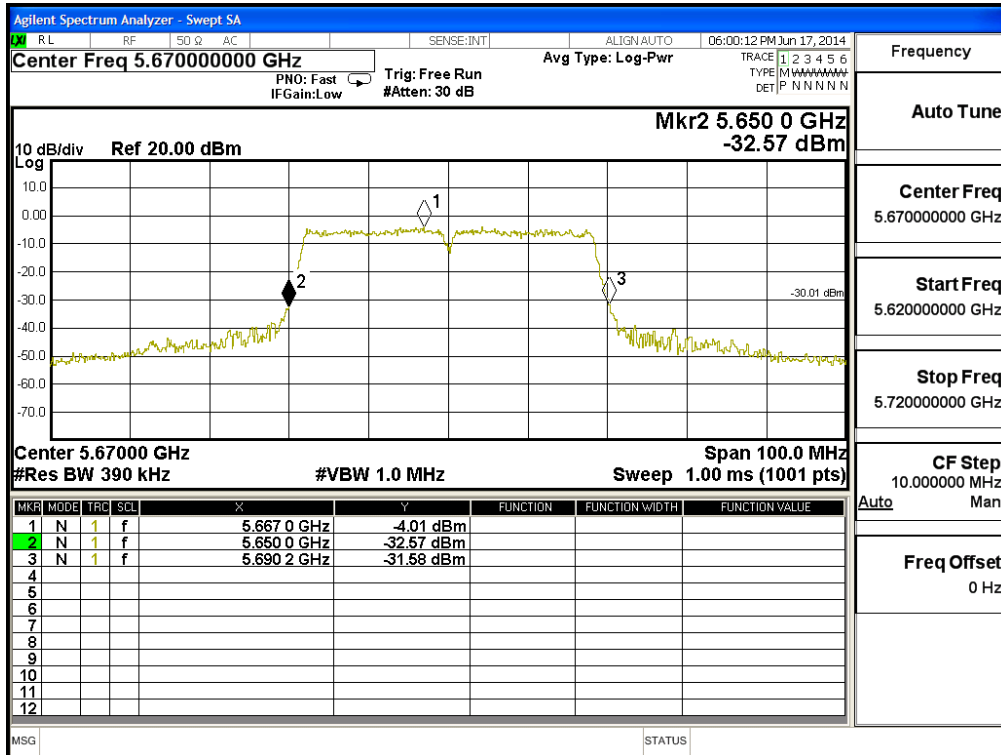
### Channel 102 – Chain A



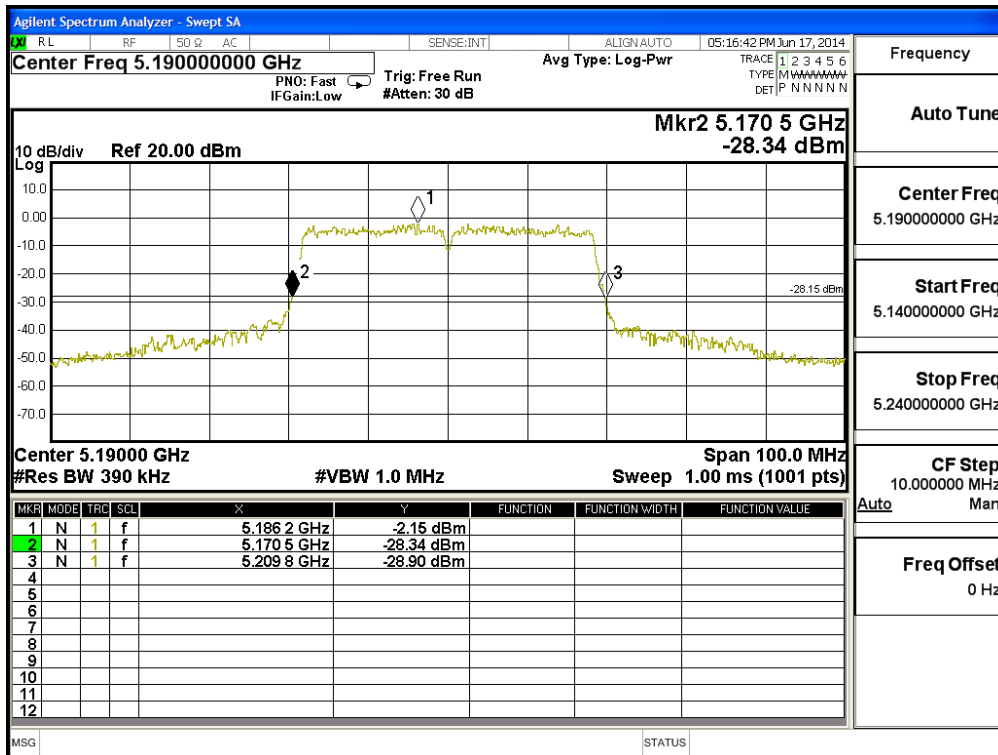
### Channel 110 – Chain A



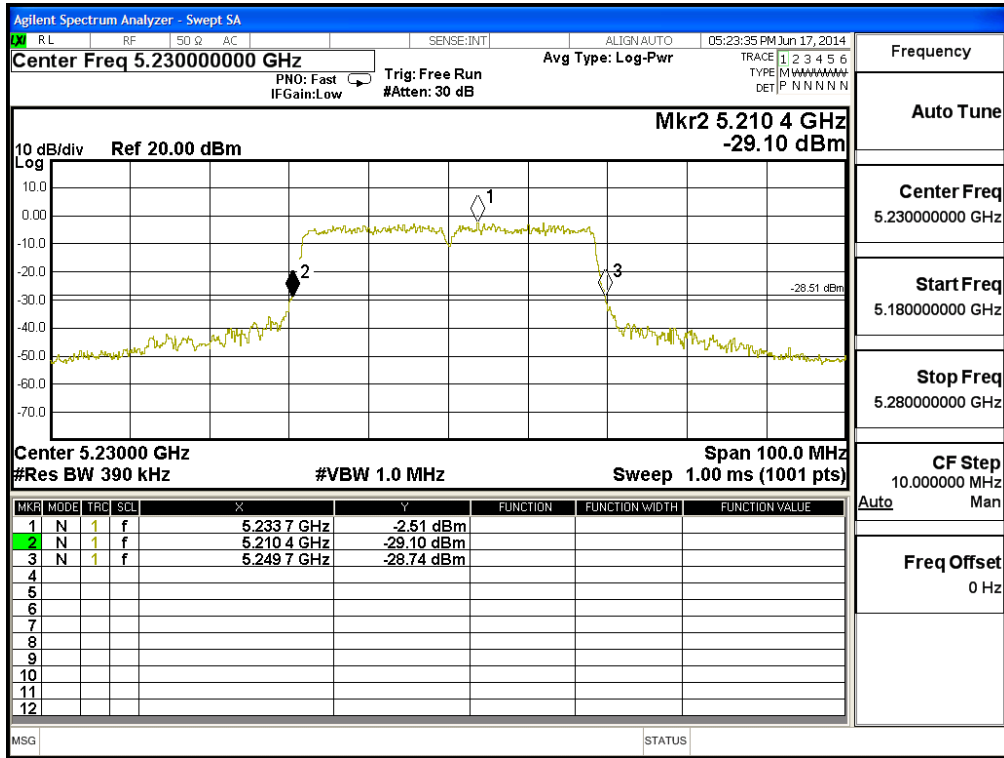
Channel 134 – Chain A



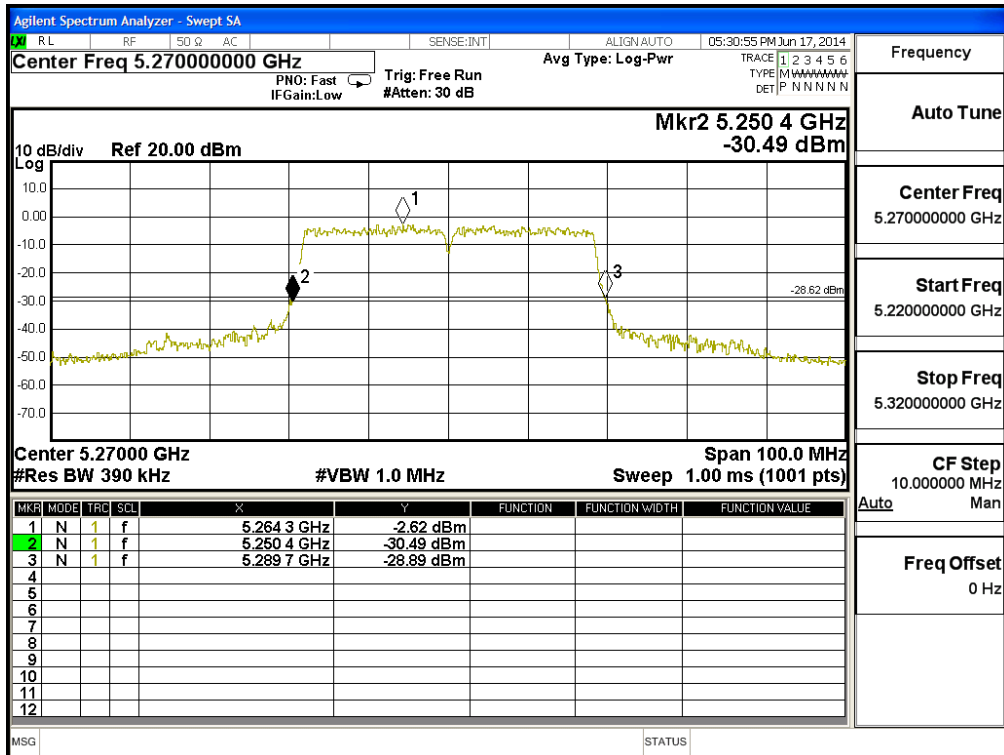
Channel 38 – Chain B



Channel 46 – Chain B

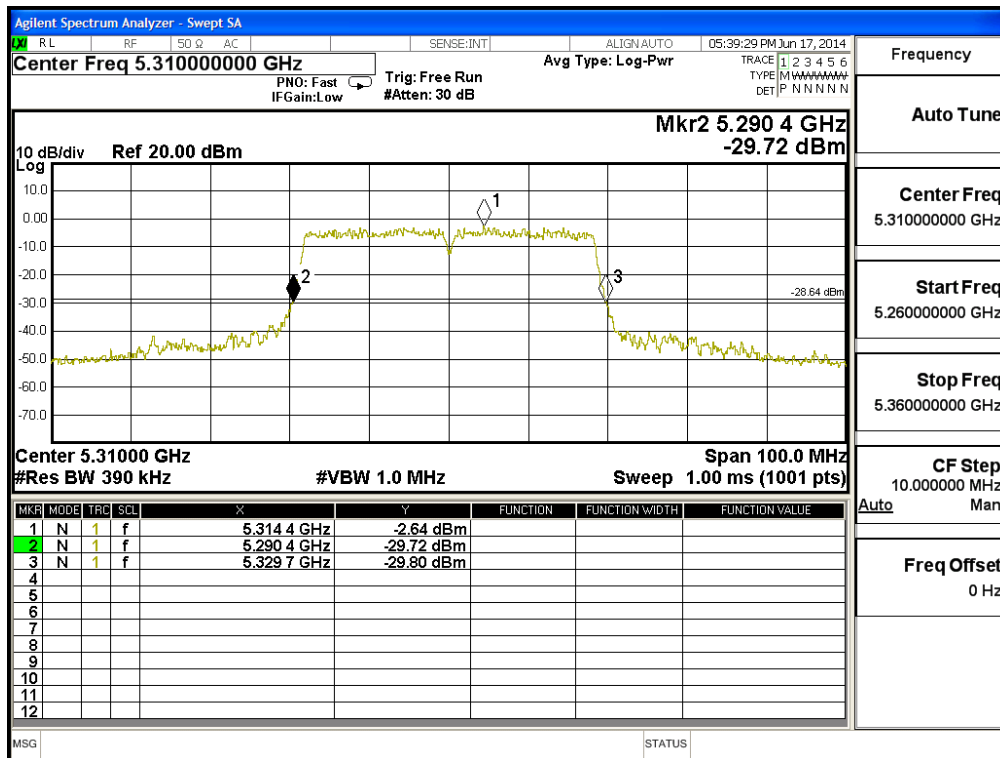


Channel 54 – Chain B

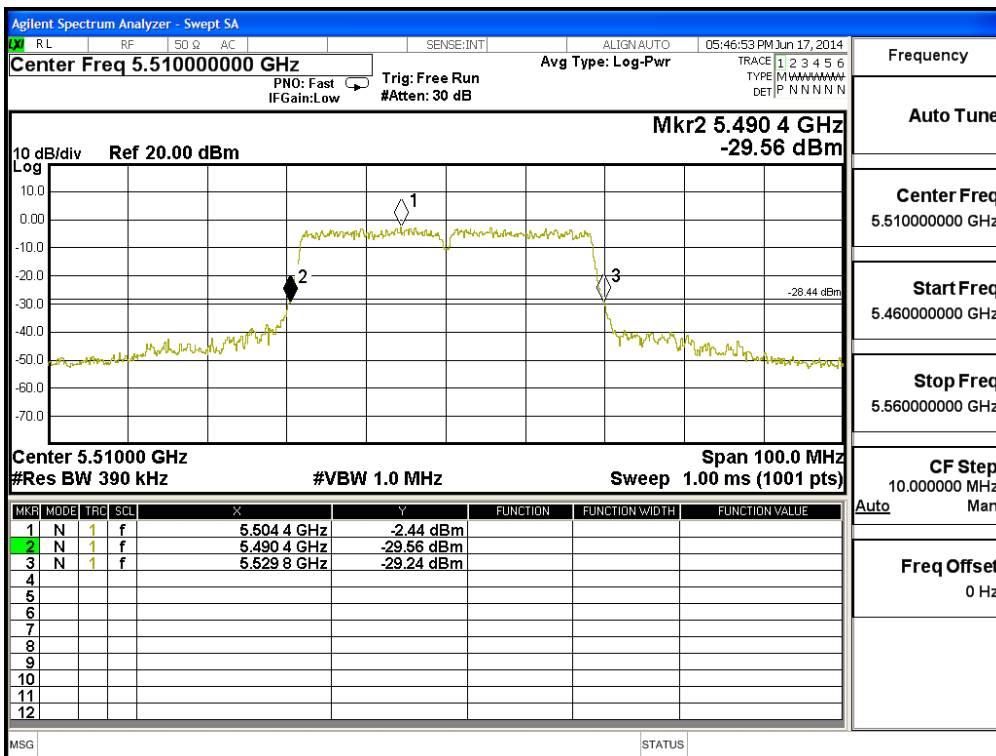




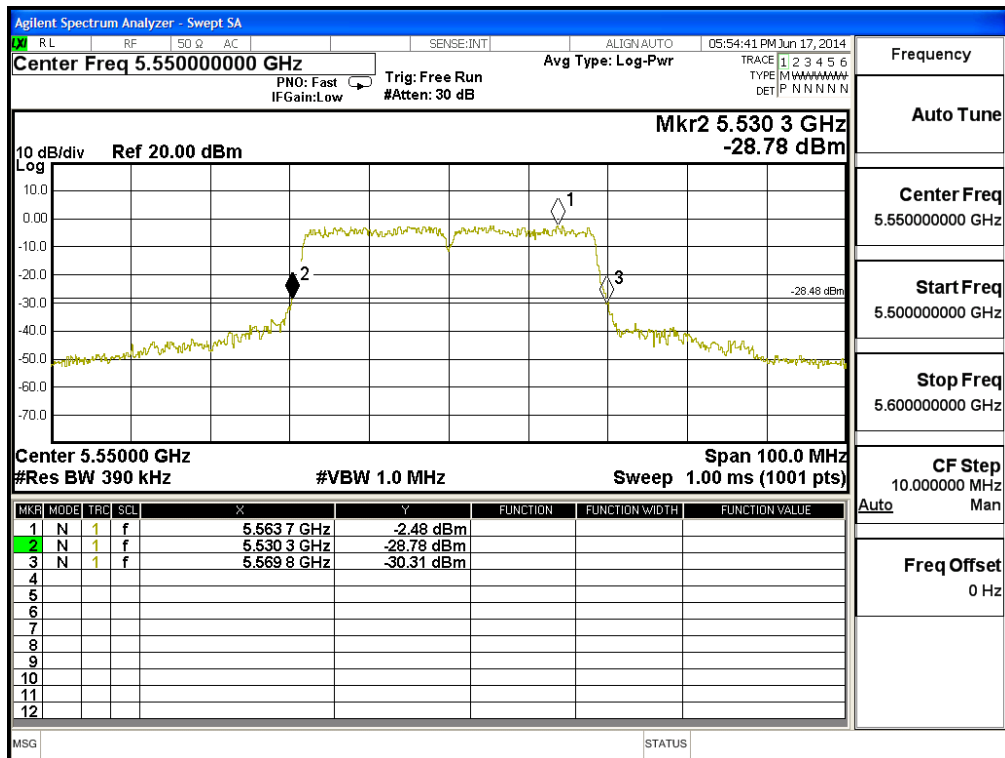
Channel 62 – Chain B



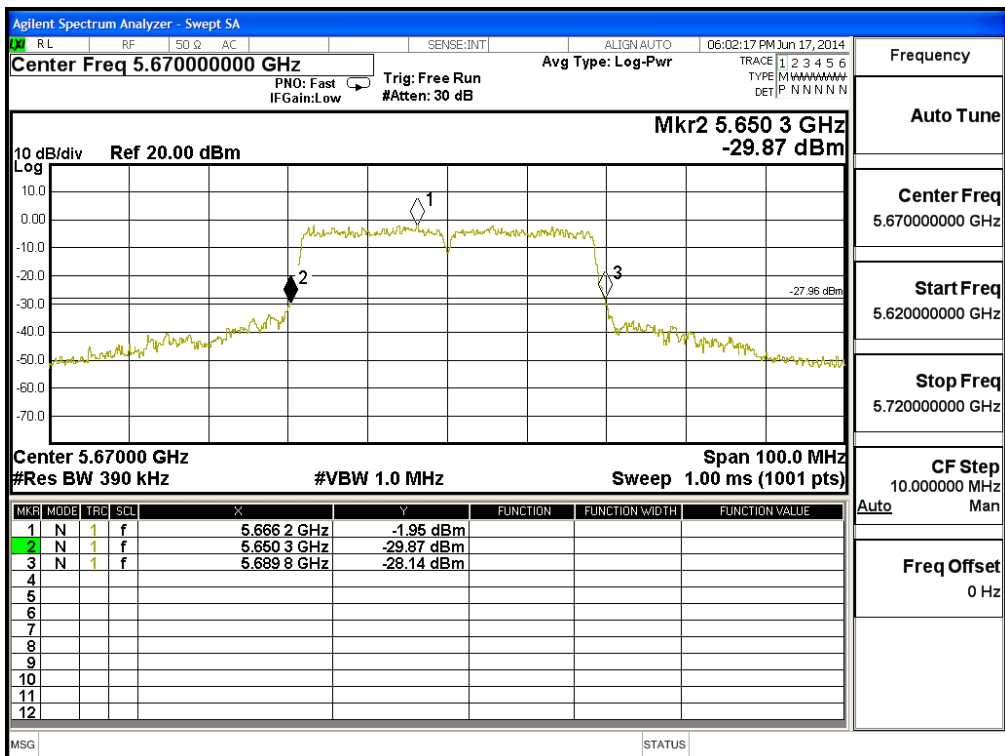
Channel 102 – Chain B



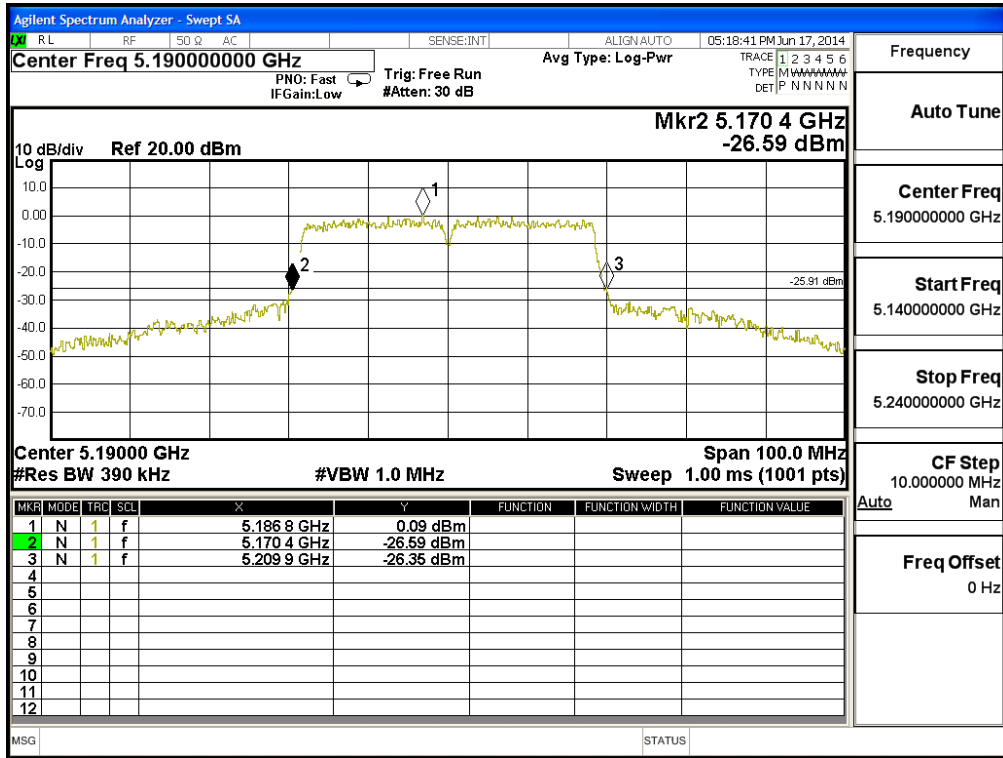
Channel 110 – Chain B



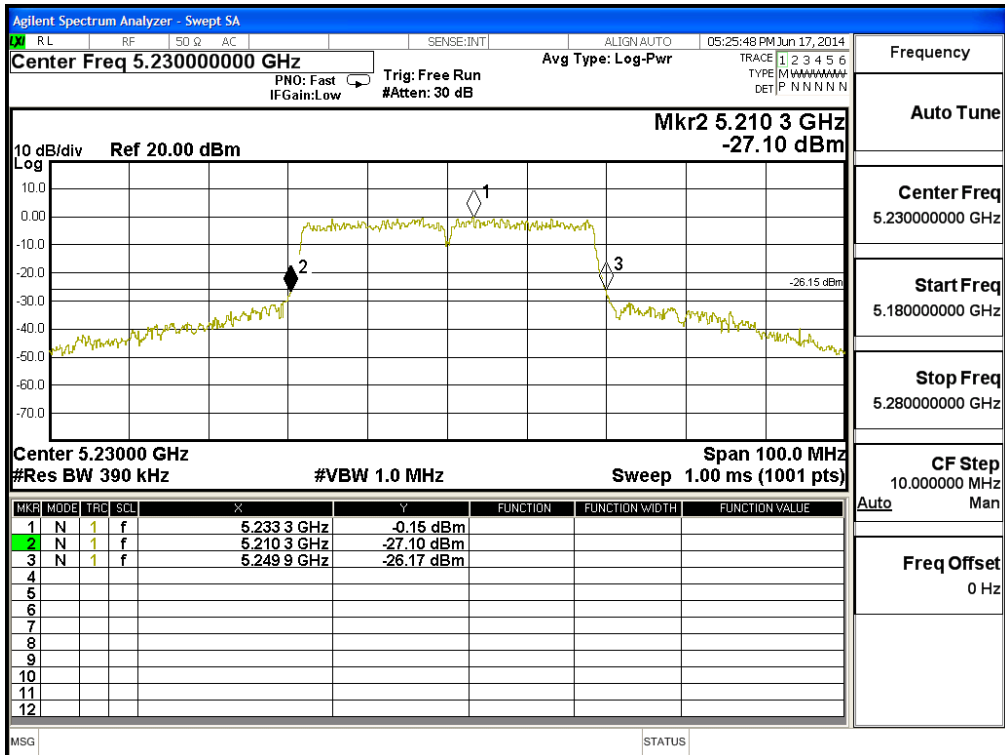
Channel 134 – Chain B



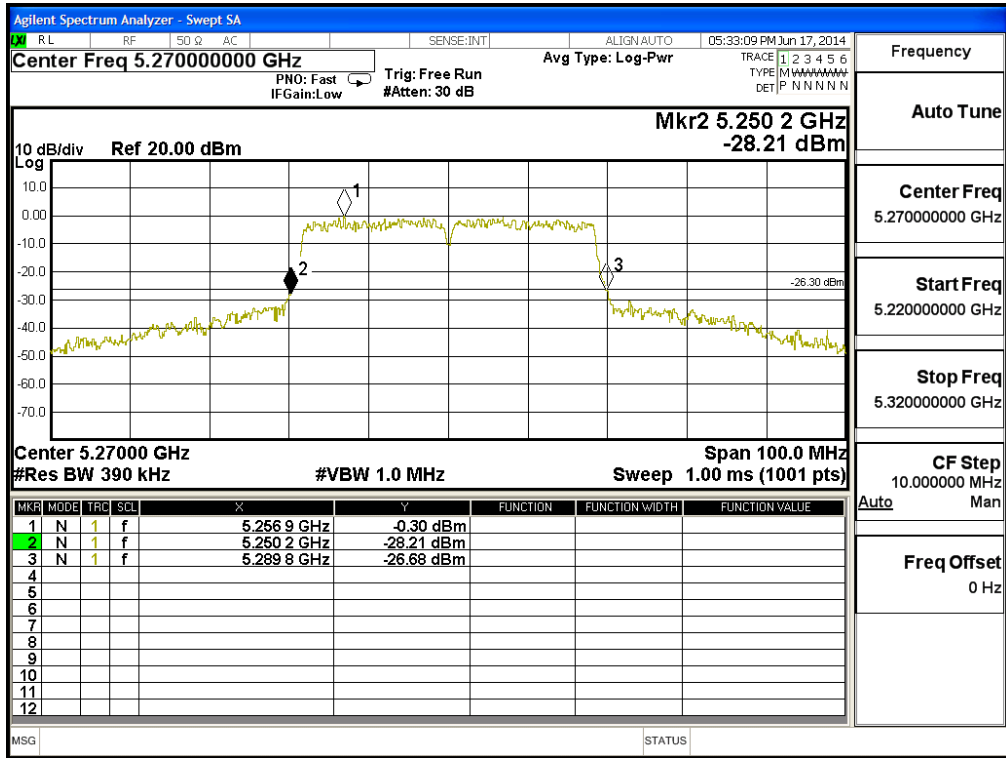
Channel 38 – Chain C



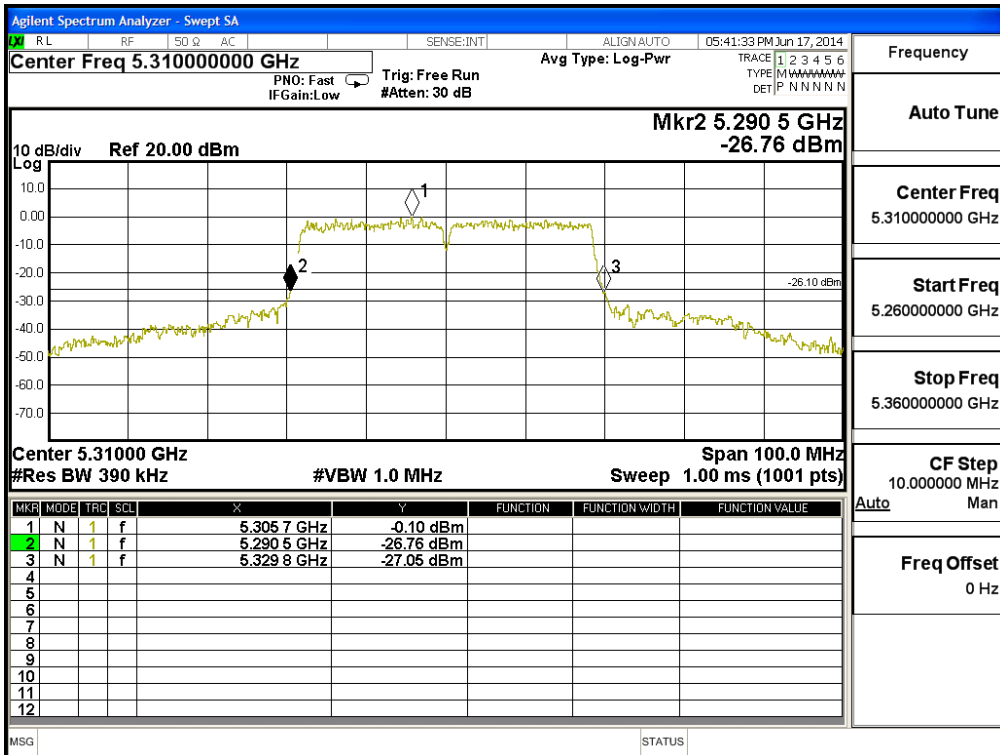
Channel 46 – Chain C



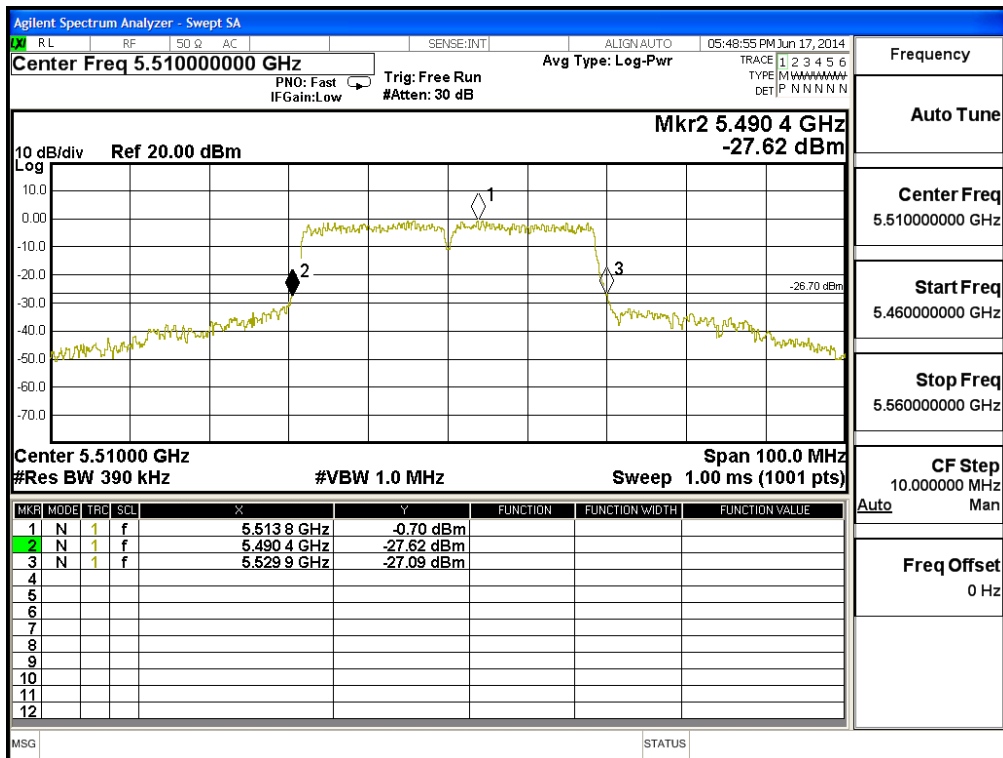
Channel 54 – Chain C



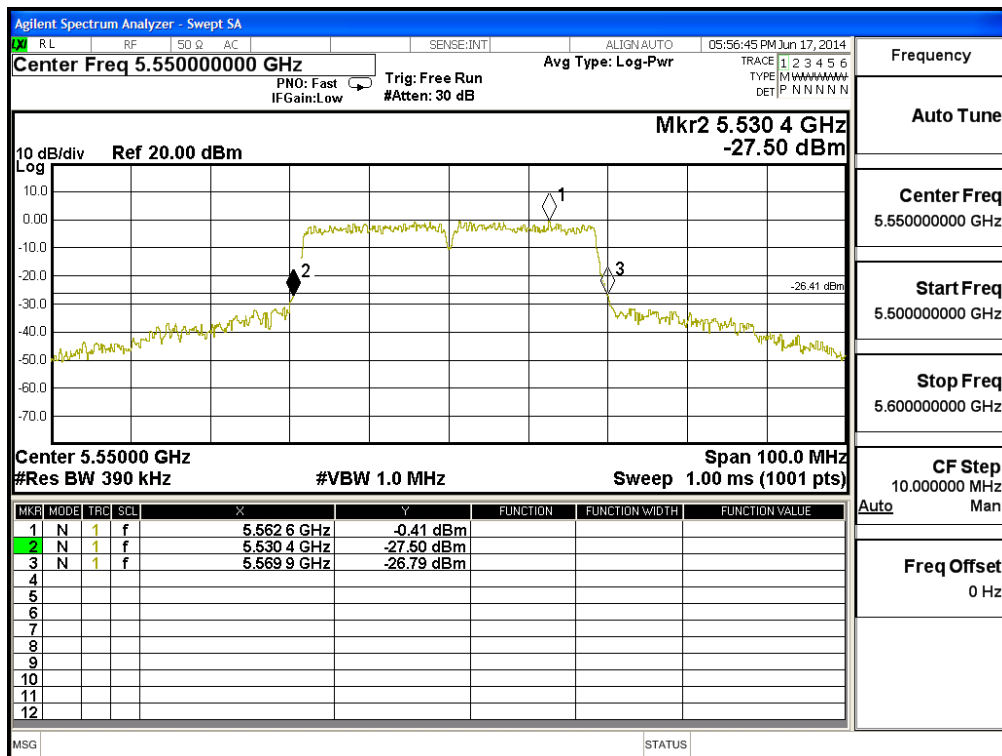
Channel 62 – Chain C



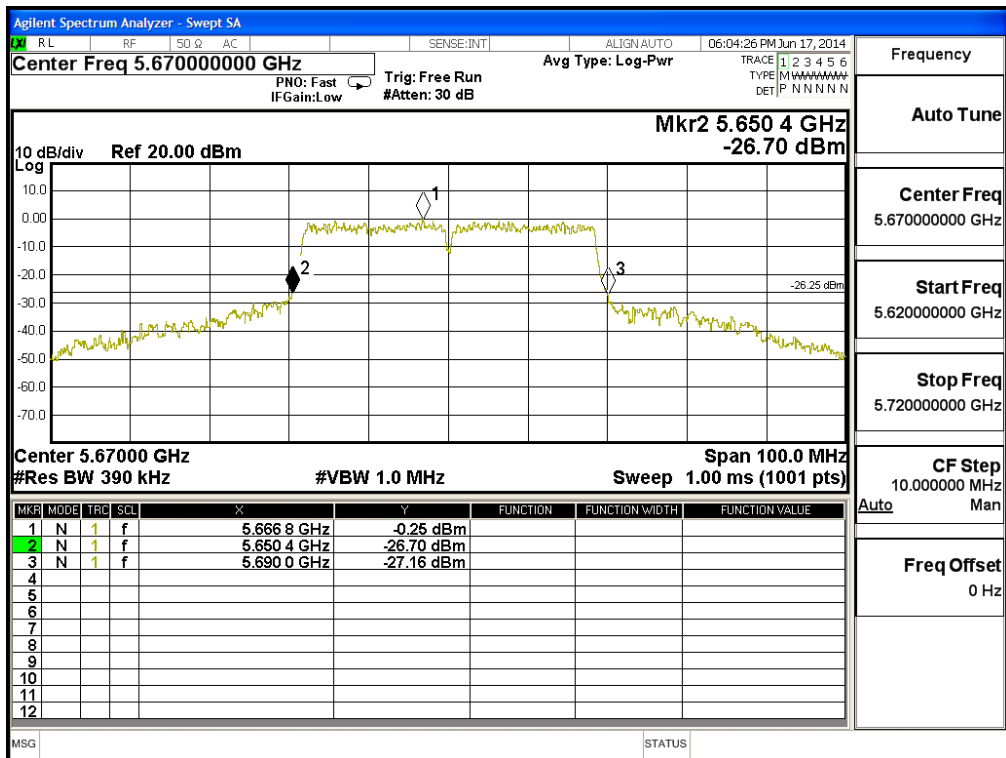
### Channel 102 – Chain C



### Channel 110 – Chain C



Channel 134 – Chain C



Frequency	
Auto Tune	
Center Freq	5.670000000 GHz
Start Freq	5.620000000 GHz
Stop Freq	5.720000000 GHz
CF Step	10.000000 MHz
Auto	Man
Freq Offset	0 Hz

Product : 802.11abgn/11ac WLAN + Bluetooth PCI-E Mini Card  
 Test Item : Maximum conducted output power  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit (802.11ac-20BW)

**Maximum conducted output power Measurement:**

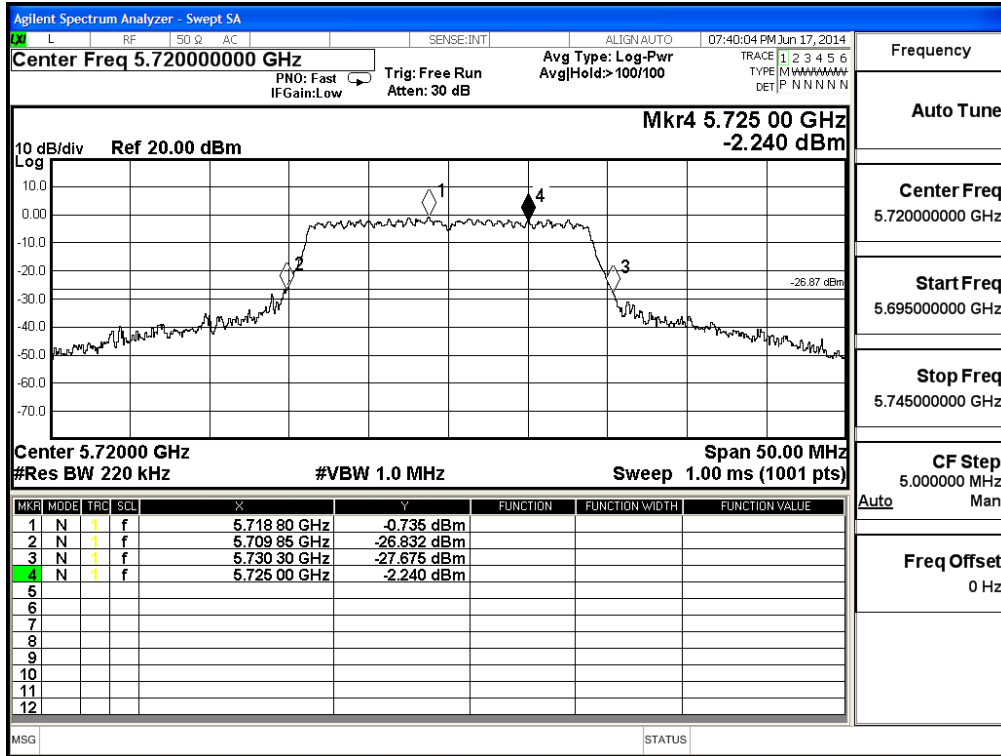
**(CHAIN A+B+C)**

Channel Number	Frequency (MHz)	Data Rate (Mbps)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Output Power (dBm)	Output Power Limit	
								(dBm)	dBm+10log(BW)
144 (Band3)	5720	21.7	15.100	9.35	10.43	9.21	14.47	24	22.79
144 (Band4)	5720	21.7	5.250	2.39	2.54	2.41	7.22	30	24.20

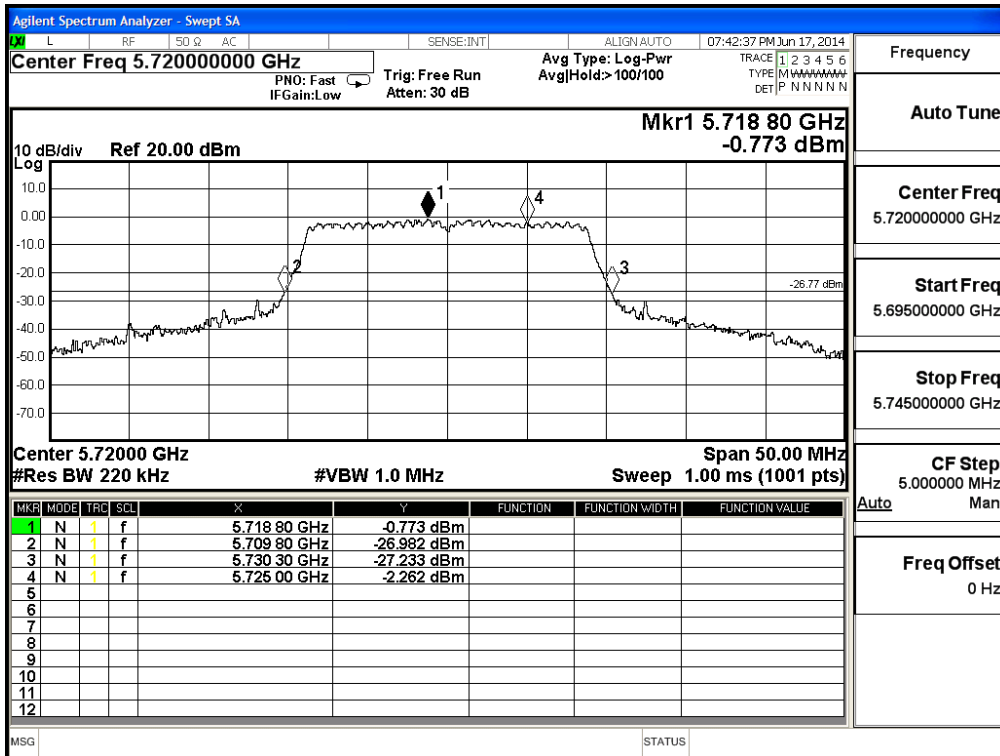
Note:

1. Power Output Value =Reading value on average power meter + cable loss
2. Output Power (dBm) = 10\*LOG (Chain A Power (mW)+ Chain B Power (mW) + Chain C Power (mW))
3. 26 dB Bandwidth is the bandwidth of chain A or chain B whichever is less bandwidth, output power limitation is more stringent.
4. According to KDB 644545 D01 Guidance for IEEE 802.11ac v01, the operation channel work across the 5470-5725 MHz and 5725-5825 MHz band, the operation channel 5725 MHz is a dividing point, must each meet the band limits.

### 26dB Occupied Bandwidth: Channel 144- Chain A

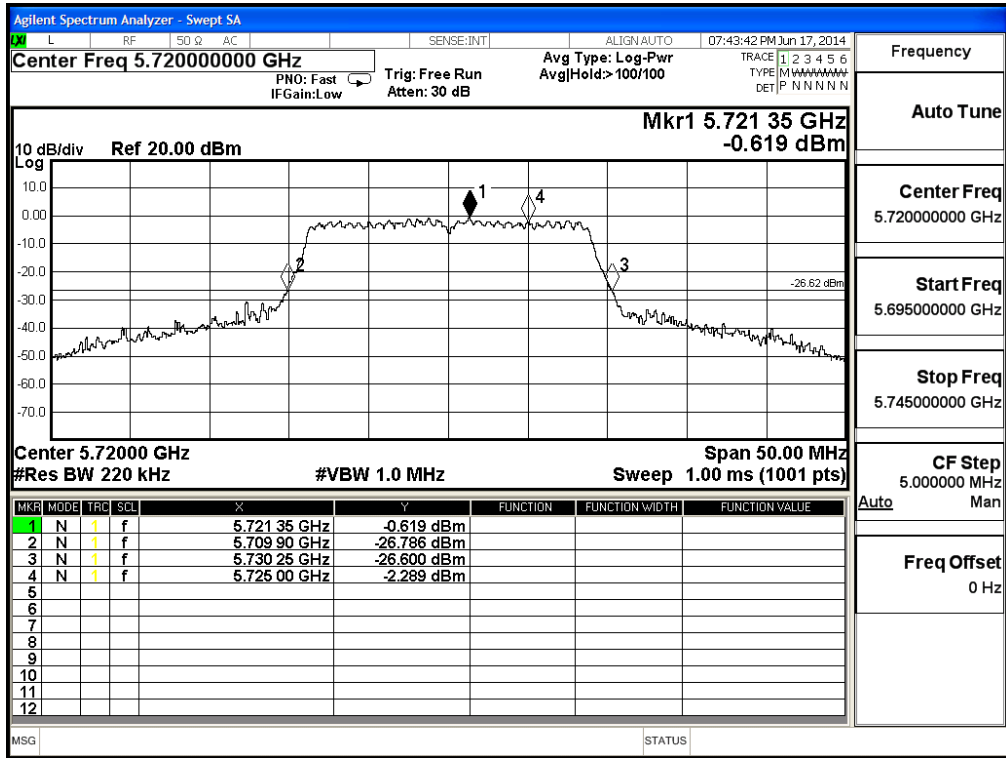


### Channel 144 - Chain B

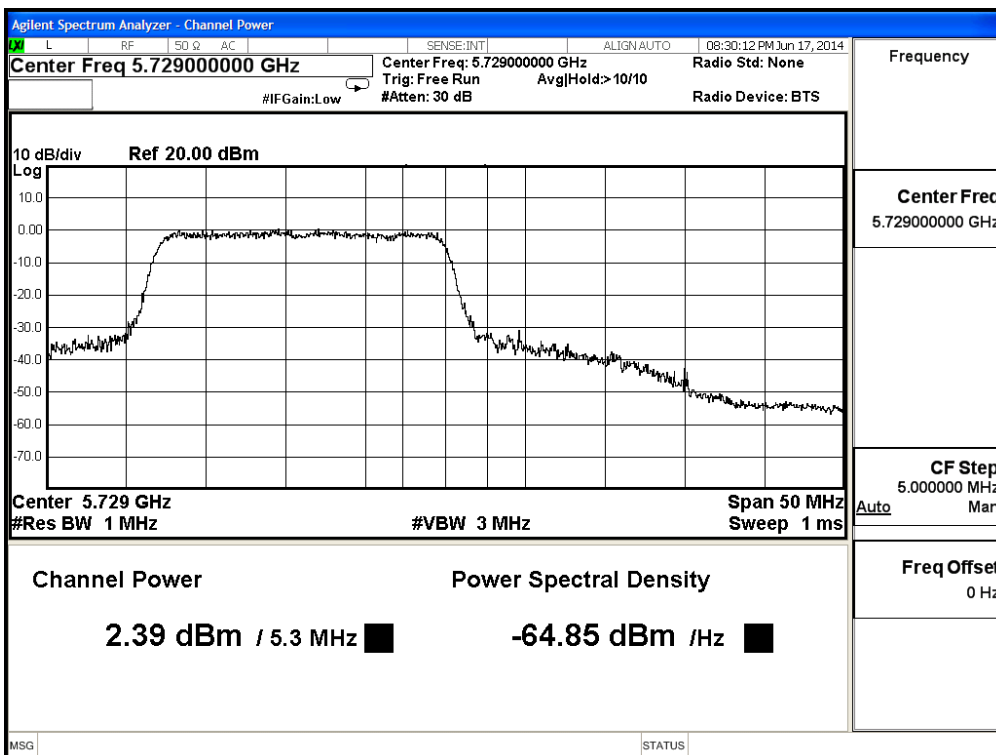
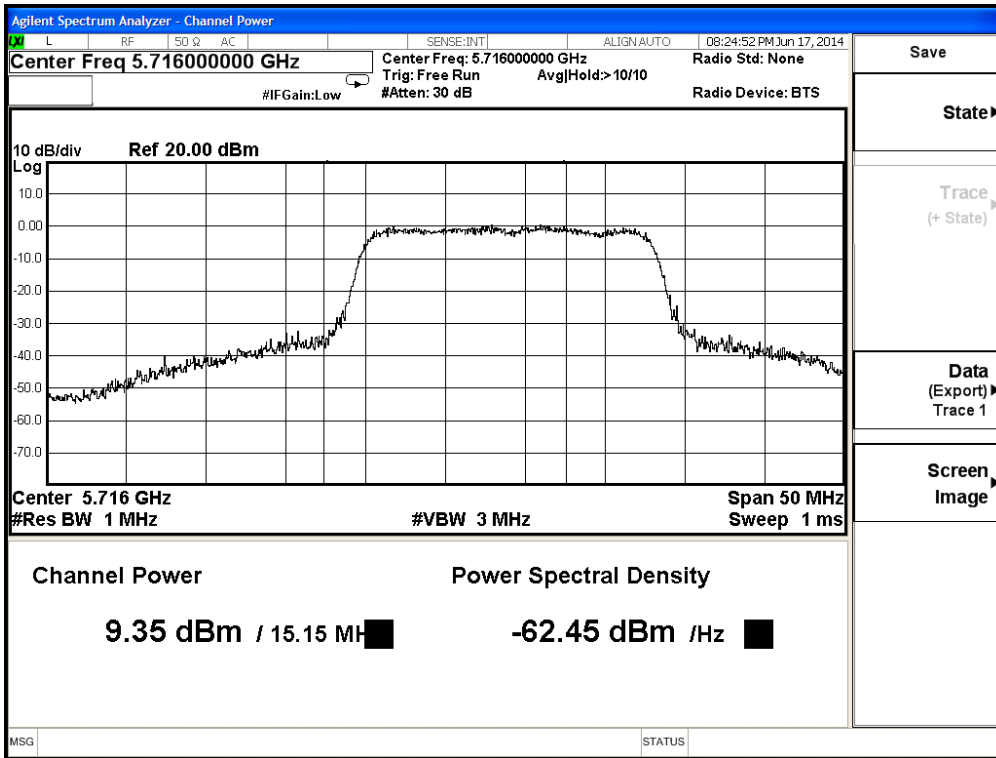




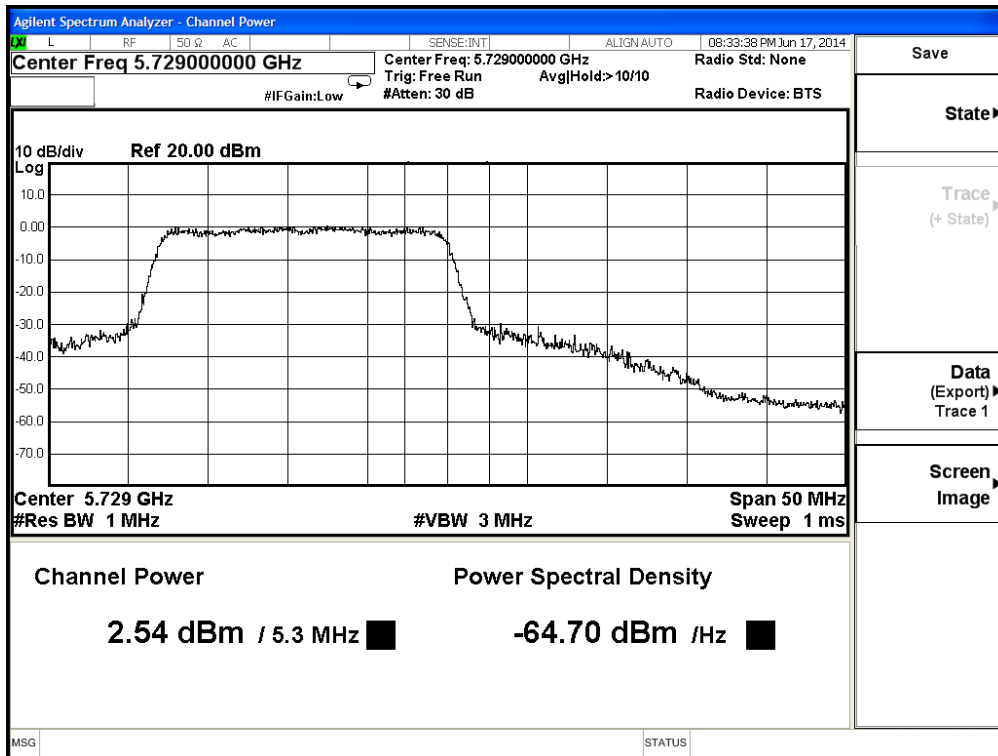
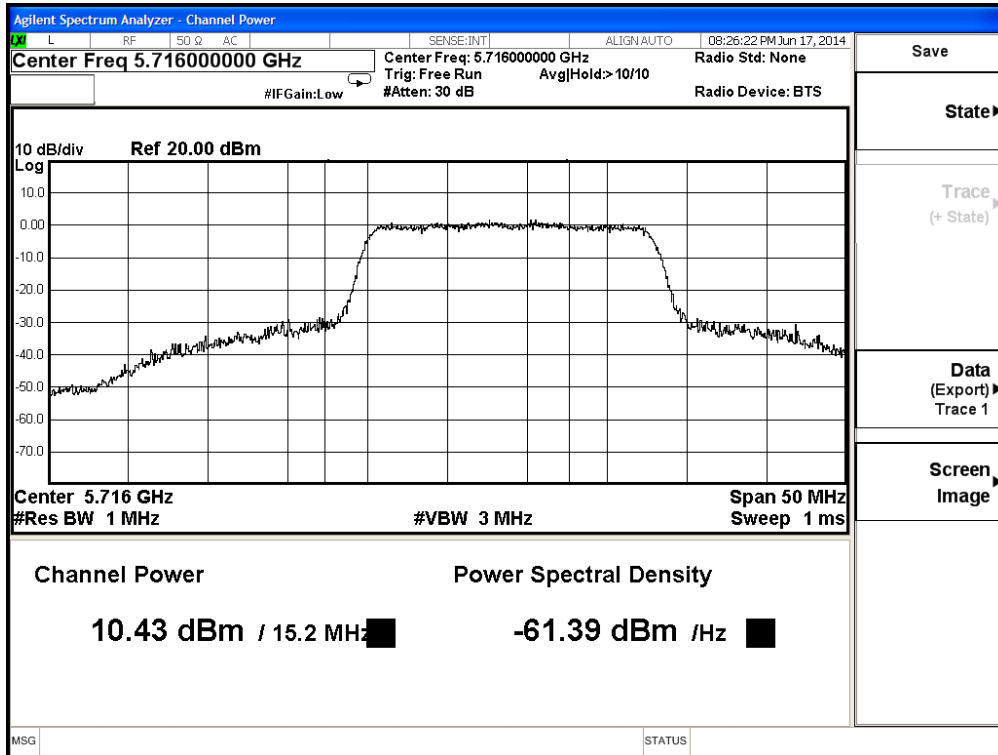
Channel 144 – Chain C



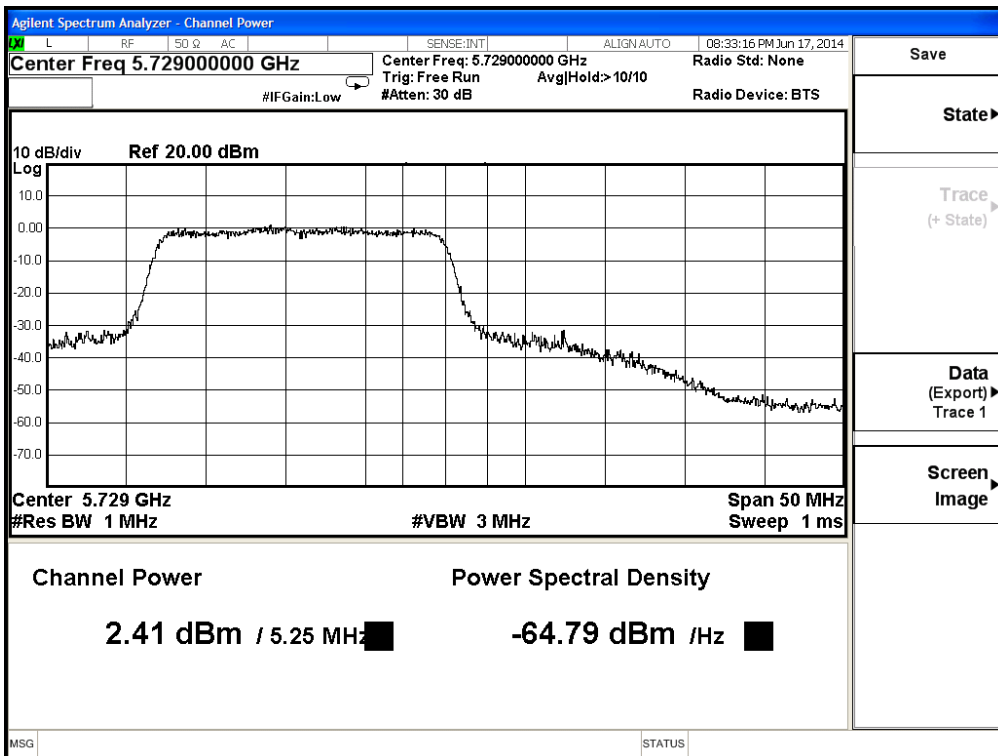
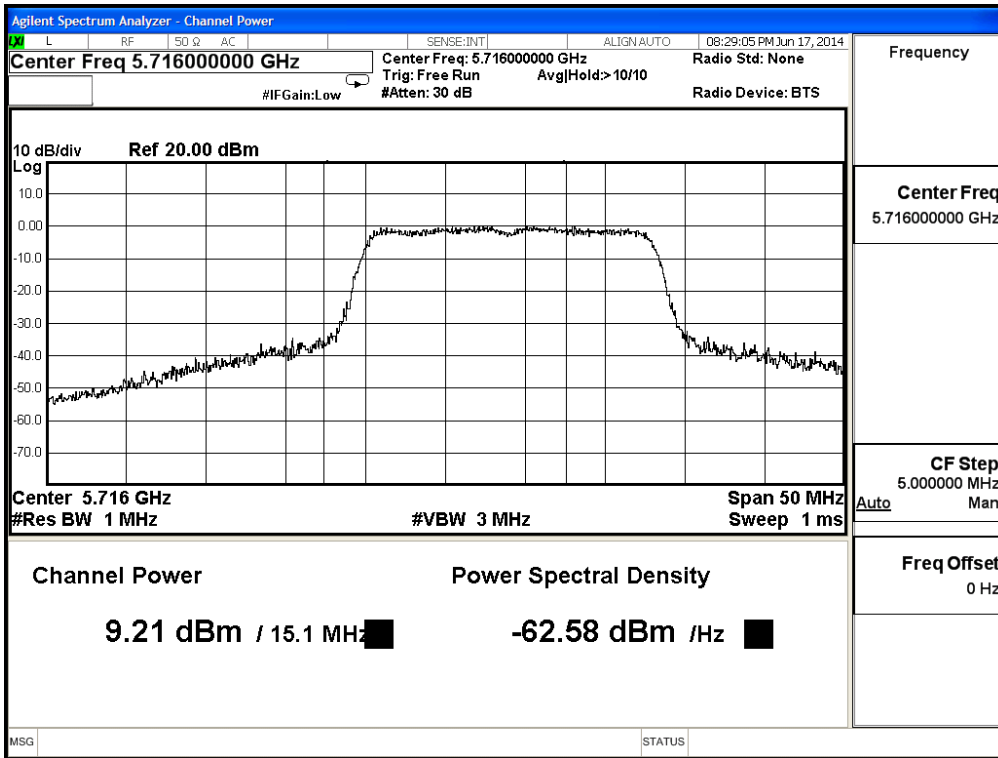
**Maximum conducted output power:  
Channel 144- Chain A**



Channel 144- Chain B



Channel 144- Chain C



Product : 802.11abgn/11ac WLAN + Bluetooth PCI-E Mini Card  
 Test Item : Maximum conducted output power  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmit (802.11ac-40BW)

### Maximum conducted output power Measurement:

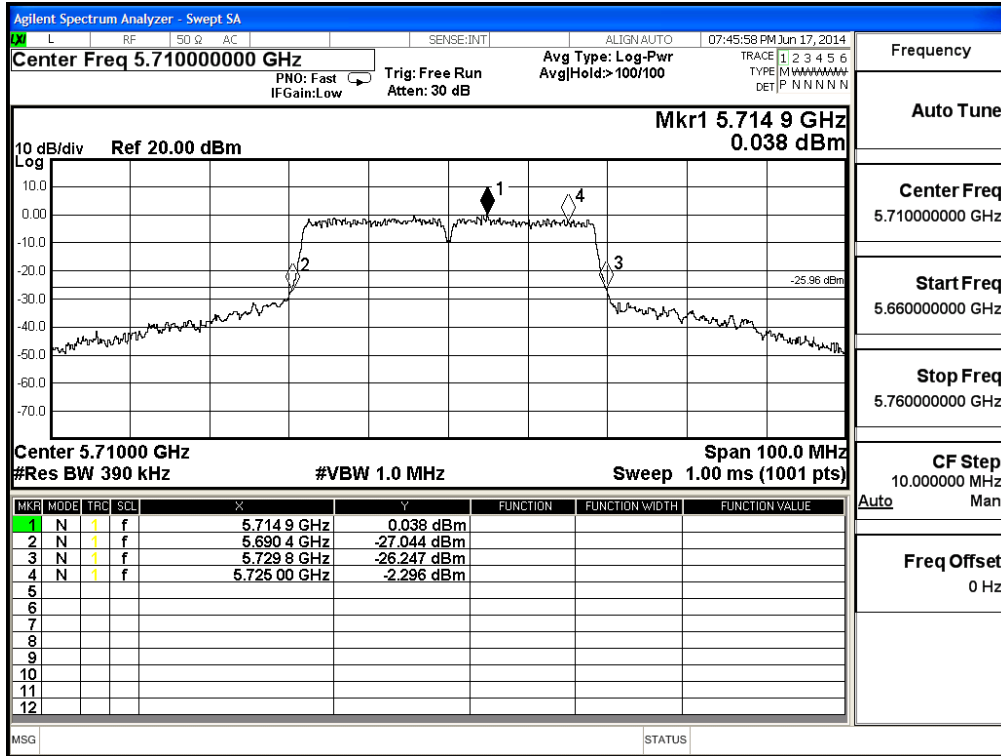
#### (CHAIN A+B+C)

Channel Number	Frequency (MHz)	Data Rate (Mbps)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Output Power (dBm)	Output Power Limit	
								(dBm)	dBm+10log(BW)
142 (Band3)	5710	45	34.600	9.29	10.43	9.10	14.42	24	26.39
142 (Band4)	5710	45	4.800	-1.90	-0.88	-1.99	3.21	30	23.81

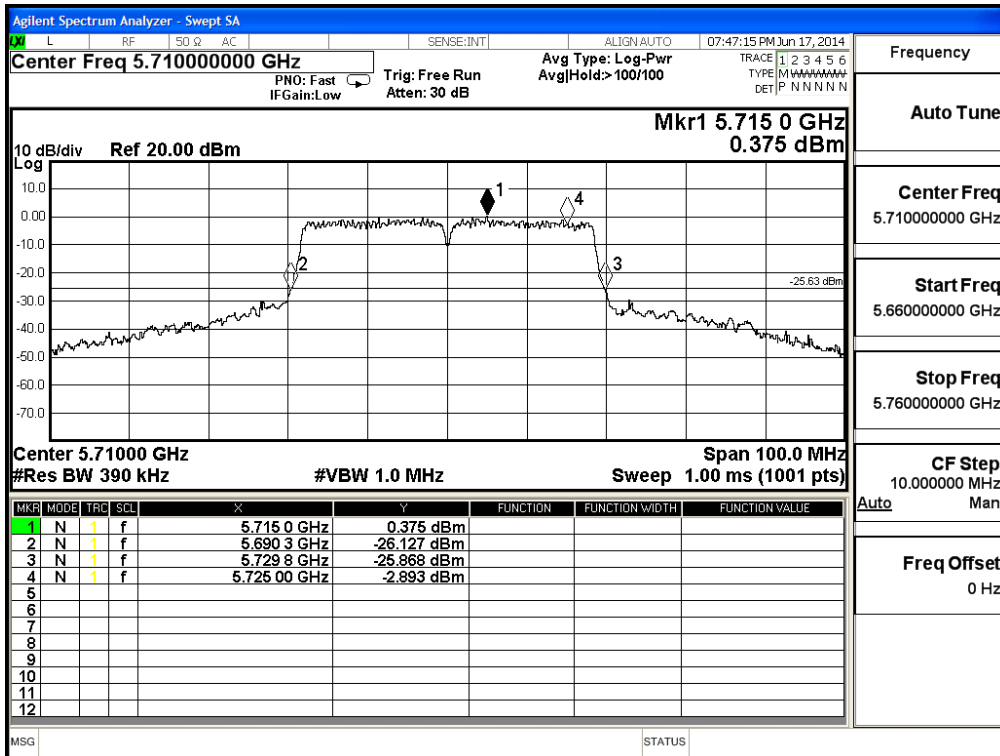
Note:

1. Power Output Value =Reading value on average power meter + cable loss
2. Output Power (dBm) = 10\*LOG (Chain A Power (mW)+ Chain B Power (mW) + Chain C Power (mW))
3. 26 dB Bandwidth is the bandwidth of chain A or chain B whichever is less bandwidth, output power limitation is more stringent.
4. According to KDB 644545 D01 Guidance for IEEE 802.11ac v01, the operation channel work across the 5470-5725 MHz and 5725-5825 MHz band, the operation channel 5725 MHz is a dividing point, must each meet the band limits.

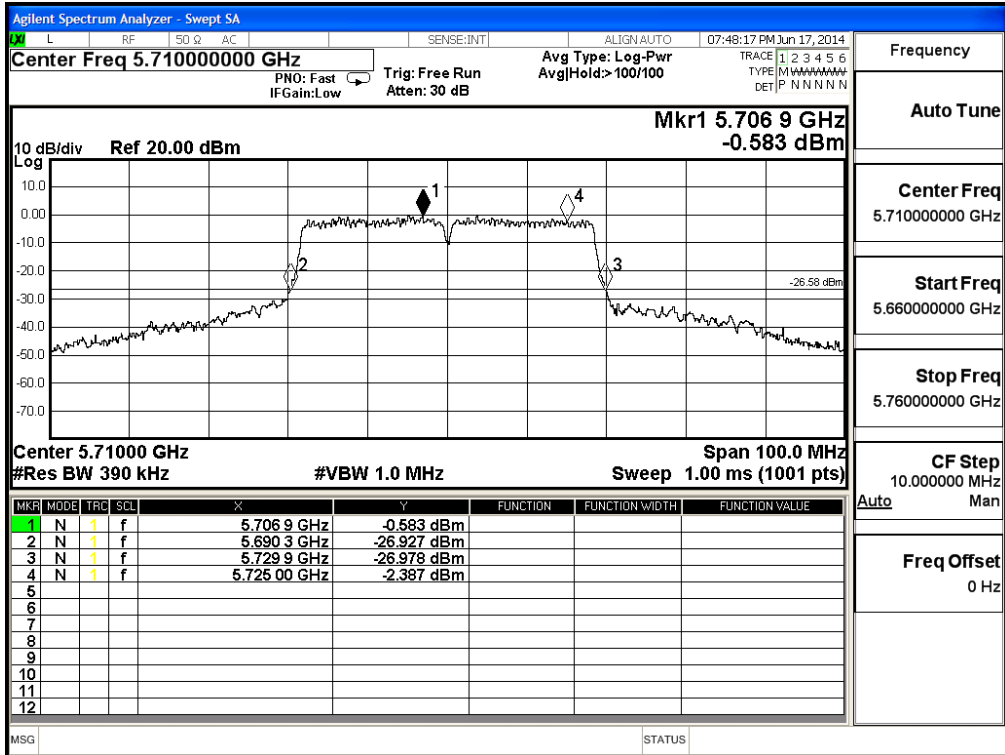
### 26dB Occupied Bandwidth: Channel 142- Chain A



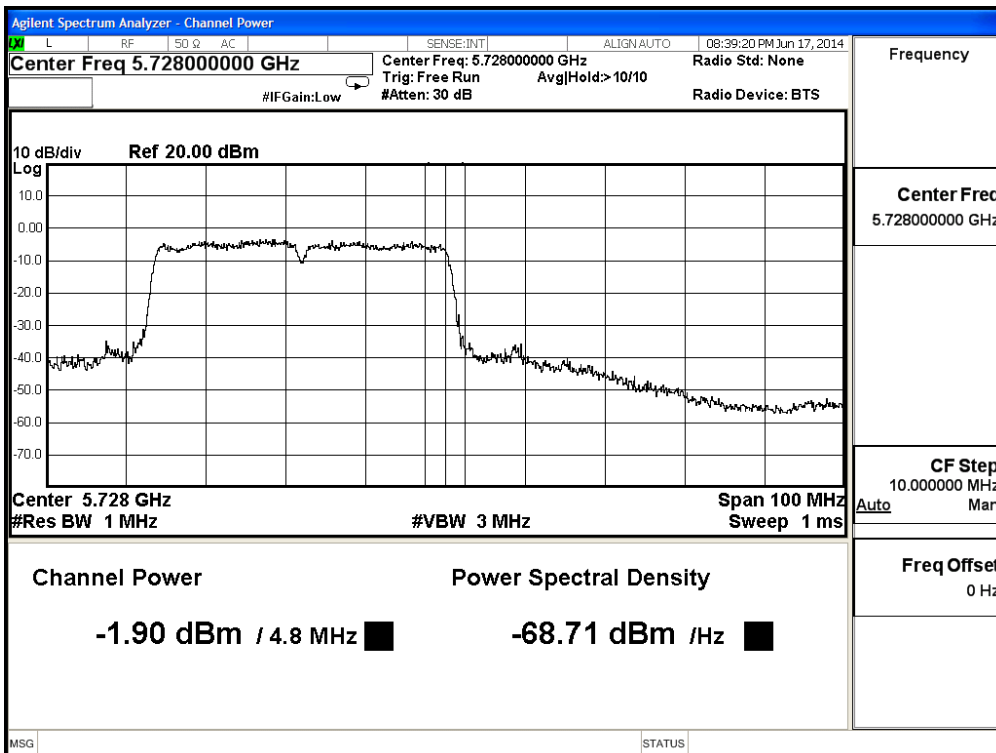
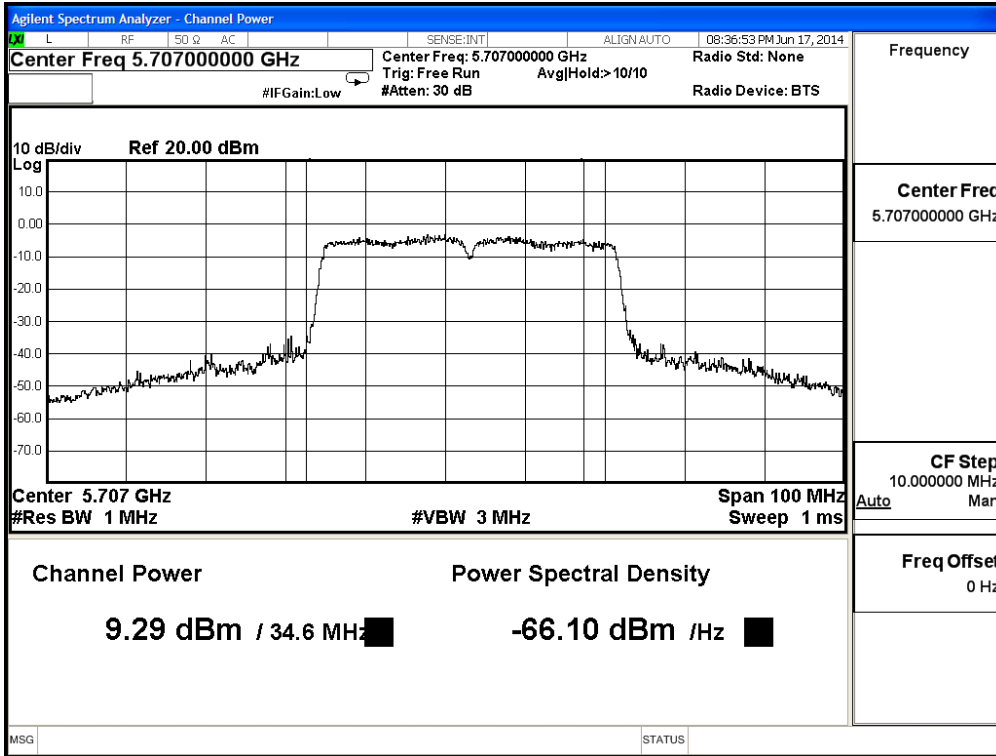
### Channel 142 - Chain B



Channel 142 – Chain C

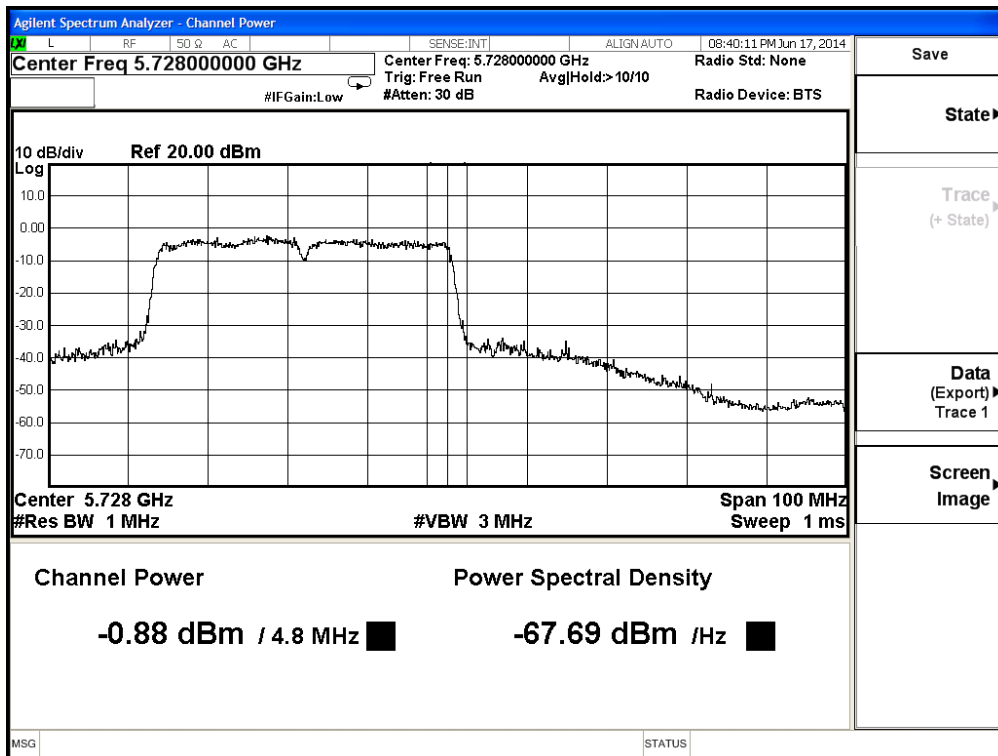
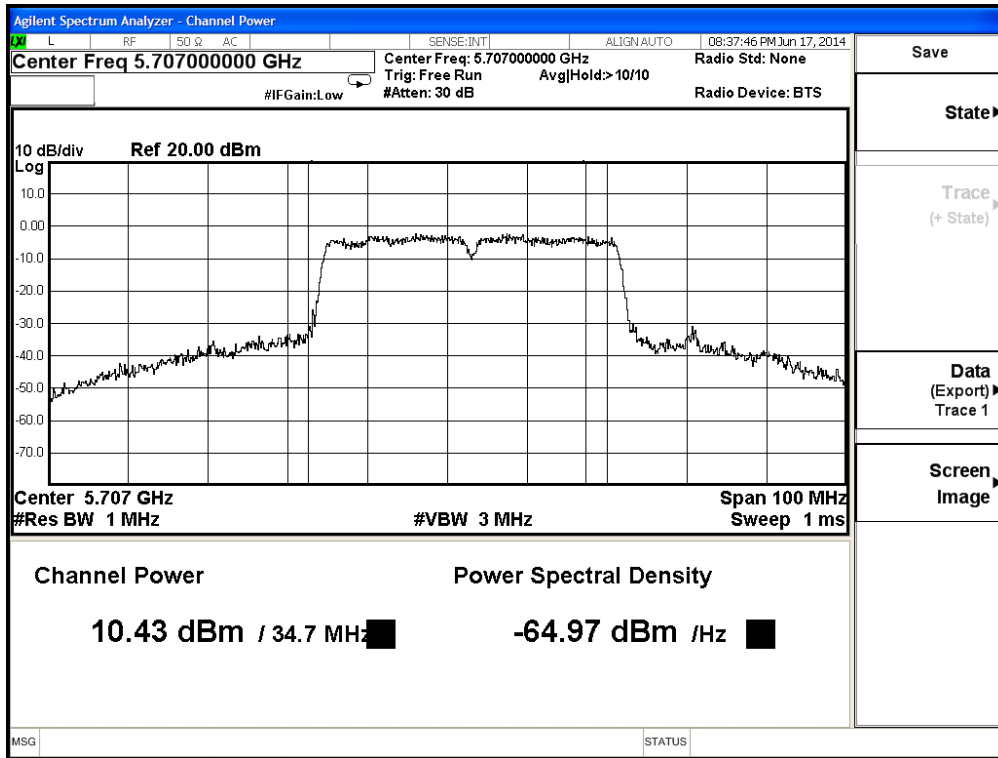


Maximum conducted output power:  
Channel 142- Chain A





Channel 142- Chain B



**Channel 142- Chain C**

