FCC/IC RF Test Report

APPLICANT	:	**Atheros Communications, Inc.**
EQUIPMENT	:	**802.11a/b/g/n with Beam Foaming (Module)**
BRAND NAME	:	**Atheros**
MODEL NAME	:	**AR5BHB112**
FCC ID	:	**PPD-AR5BHB112**
IC	:	**4104A-AR5BHB112**
STANDARD	:	**FCC Part 15 Subpart E**
		IC RSS-210 Issue 7
CLASSIFICATION	:	**Unlicensed National Information Infrastructure (UNII)**

The WiFi module was tested on extended card inserted to a host laptop PC.

The product was received on Oct. 08, 2010 and completely tested on Nov. 10, 2010. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.4-2003 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by:

Anderson Chiu

Anderson Chiu / Deputy Manager

Testing Laboratory
1190

SPORTON INTERNATIONAL INC.
No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR0O0823B	Rev. 01	Initial issue of report	Nov. 17, 2010

SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	15.403(i)	A9.2	26dB & 99% Bandwidth Measurement	-	N/A	-
3.2	15.407(a)	A9.2	Power Spectral Density Measurement	≤ 4, 11, 17 dBm (depend on band)	Pass	-
3.3	-	-	Average Power Measurement	-	N/A	-
3.4	15.407(a)	A9.2	Output Power Measurement	≤ 17, 24, 30 dBm (depend on band)	Pass	-
3.5	15.407(b)	A9.3	Band Edges Measurement	≤ -17, -27 dBm (depend on band)&15.209(a)	Pass	-
3.6	15.407(b)	A9.3	Peak Excursion Ratio Measurement	≤ 13dB	Pass	-
3.7	15.407(g)	A9.5	Frequency Stability Measurement	Within Operation Band	Pass	-
3.8	15.407(b)	A9.3	Radiated Emission Measurement	≤ -17, -27 dBm (depend on band)&15.209(a)	Pass	Under limit 0.32 dB at 5350.55 MHz
3.9	15.207	Gen 7.2.2	AC Conducted Emission Measurement	15.207(a)	Pass	Under limit 15.9 dB at 0.198 MHz
3.10	15.407(c)	A9.5	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-

1 General Description

1.1 Applicant

Atheros Communications, Inc.
1700 Technology Drive, San Jose, CA 95110, United States

1.2 Manufacturer

Atheros Communications, Inc.
1700 Technology Drive, San Jose, CA 95110, United States

1.3 Testing Site Facilities

Test Site	SPORTON INTERNATIONAL INC.		
Test Site Location	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL: +886-3-3273456 / FAX: +886-3-3284978		
Test Site No.	**Sporton Site No.**		**FCC/IC Registration No.**
	CO05-HY	03CH05-HY	TW1022/4086B-1

1.4 Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15 Subpart E
- IC RSS-210 Issued 7
- FCC Public Notice DA 02-2138, (Measurement Guidelines of UNII)
- ANSI C63.4-2003

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B (DoC), recorded in a separate test report.

1.5 Ancillary Equipment List

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Notebook	Lenovo	0769	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
2.	Notebook	Lenovo	N200	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
3.	LCD Monitor	Lenovo	6135-AB1	FCC DoC	Shielded, 1.6 m	Unshielded, 1.8 m
4.	iPod	Apple	A1285	FCC DoC	Shielded, 1.0 m	N/A

2 Equipment Under Test

2.1 General Information of EUT

Product Feature & Specification	
Equipment	802.11a/b/g/n with Beam Foaming (Module)
Brand Name	Atheros
Model Name	AR5BHB112
FCC ID	PPD-AR5BHB112
IC	4104A-AR5BHB112
Tx/Rx Frequency Range	5150 MHz ~ 5250 MHz 5250 MHz ~ 5350 MHz 5470 MHz ~ 5725 MHz
Beam-Forming	This device supports beam-forming technology
Type of Antenna Connector	IPEX
HW Version	HB112-251
Test SW Version	ART 1.8
Type of Modulation	OFDM (BPSK / QPSK / 16QAM / 64QAM)
EUT Stage	Engineering Prototype

Remark:

1. For other wireless features of this EUT, test report will be issued separately.
2. This test report recorded only product characteristics and test results of Unlicensed National Information Infrastructure (UNII).
3. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

2.2 Carrier Frequency Channel

802.11a Carrier Frequency Channel							
Channel	**Freq. (MHz)**	**Channel**	**Freq. (MHz)**	**Channel**	**Freq. (MHz)**	**Channel**	**Freq. (MHz)**
36	5180	**40**	5200	**44**	5220	**48**	5240
52	5260	**56**	5280	**60**	5300	**64**	5320
100	5500	**104**	5520	**108**	5540	**112**	5560
116	5580	**120**	5600	**124**	5620	**128**	5640
132	5660	**136**	5680	**140**	5700	-	-

802.11n (HT-20) Carrier Frequency Channel							
Channel	**Freq. (MHz)**	**Channel**	**Freq. (MHz)**	**Channel**	**Freq. (MHz)**	**Channel**	**Freq. (MHz)**
36	5180	**40**	5200	**44**	5220	**48**	5240
52	5260	**56**	5280	**60**	5300	**64**	5320
100	5500	**104**	5520	**108**	5540	**112**	5560
116	5580	**120**	5600	**124**	5620	**128**	5640
132	5660	**136**	5680	**140**	5700	-	-

802.11n (HT-40) Carrier Frequency Channel							
Channel	**Freq. (MHz)**	**Channel**	**Freq. (MHz)**	**Channel**	**Freq. (MHz)**	**Channel**	**Freq. (MHz)**
38	5190	**46**	5230	**54**	5270	**62**	5310
102	5510	**110**	5550	**118**	5590	**126**	5630
134	5670	-	-	-	-	-	-

2.3 Maximum Output Power

2.3.1 Average Conducted Power

The device has the maximum average conducted power as below:

<Normal Mode: 3x3>

Frequency Range (MHz)	Mode	Band I RF Power (dBm)			
		Chain 0	Chain 1	Chain 2	Total Power
5150 ~ 5250	802.11a	9.13	8.75	7.47	13.28

Frequency Range (MHz)	Mode	Band II RF Power (dBm)			
		Chain 0	Chain 1	Chain 2	Total Power
5250 ~ 5350	802.11a	16.14	14.88	14.78	20.08

Frequency Range (MHz)	Mode	Band III RF Power (dBm)			
		Chain 0	Chain 1	Chain 2	Total Power
5470 ~ 5725	802.11a	16.72	16.37	14.72	20.79

<Normal Mode: 2x3>

Frequency Range (MHz)	Mode	Band I RF Power (dBm)		
		Chain 0	Chain 1	Total Power
5150 ~ 5250	802.11a	11.89	10.73	14.36

Frequency Range (MHz)	Mode	Band II RF Power (dBm)		
		Chain 0	Chain 1	Total Power
5250 ~ 5350	802.11a	16.09	15.32	18.73

Frequency Range (MHz)	Mode	Band III RF Power (dBm)		
		Chain 0	Chain 1	Total Power
5470 ~ 5725	802.11a	15.84	15.72	18.79

<Beam-Forming On: 3x3>

Frequency Range (MHz)	Mode	Band I RF Power (dBm)			
		Chain 0	Chain 1	Chain 2	Total Power
5150 ~ 5250	802.11n HT-20	9.93	8.56	8.15	13.72
	802.11n HT-40	12.38	11.07	10.88	16.27

Frequency Range (MHz)	Mode	Band II RF Power (dBm)			
		Chain 0	Chain 1	Chain 2	Total Power
5250 ~ 5350	802.11n HT-20	15.98	14.55	14.84	19.94
	802.11n HT-40	15.77	14.72	14.72	19.87

Frequency Range (MHz)	Mode	Band III RF Power (dBm)			
		Chain 0	Chain 1	Chain 2	Total Power
5470 ~ 5725	802.11n HT-20	16.82	16.42	14.93	20.90
	802.11n HT-40	16.11	15.78	14.12	20.19

<Beam-Forming On: 2x3>

Frequency Range (MHz)	Mode	Band I RF Power (dBm)		
		Chain 0	Chain 1	Total Power
5150 ~ 5250	802.11n HT-20	11.87	10.92	14.43
	802.11n HT-40	14.38	12.95	16.73

Frequency Range (MHz)	Mode	Band II RF Power (dBm)		
		Chain 0	Chain 1	Total Power
5250 ~ 5350	802.11n HT-20	16.78	15.23	19.08
	802.11n HT-40	15.27	14.53	17.93

Frequency Range (MHz)	Mode	Band III RF Power (dBm)		
		Chain 0	Chain 1	Total Power
5470 ~ 5725	802.11n HT-20	16.16	15.78	18.98
	802.11n HT-40	15.12	14.78	17.96

<Beam-Forming Off: 3x3>

Frequency Range (MHz)	Mode	Band I RF Power (dBm)			
		Chain 0	Chain 1	Chain 2	Total Power
5150 ~ 5250	802.11n HT-20	10.87	9.91	8.56	14.65
	802.11n HT-40	13.02	11.67	10.68	16.67

Frequency Range (MHz)	Mode	Band II RF Power (dBm)			
		Chain 0	Chain 1	Chain 2	Total Power
5250 ~ 5350	802.11n HT-20	15.98	14.55	14.84	19.94
	802.11n HT-40	15.77	14.72	14.72	19.87

Frequency Range (MHz)	Mode	Band III RF Power (dBm)			
		Chain 0	Chain 1	Chain 2	Total Power
5470 ~ 5725	802.11n HT-20	16.82	16.42	14.93	20.90
	802.11n HT-40	16.11	15.78	14.12	20.19

<Beam-Forming Off: 2x3>

Frequency Range (MHz)	Mode	Band I RF Power (dBm)		
		Chain 0	Chain 1	Total Power
5150 ~ 5250	802.11n HT-20	10.87	9.91	13.43
	802.11n HT-40	13.02	11.67	15.41

Frequency Range (MHz)	Mode	Band II RF Power (dBm)		
		Chain 0	Chain 1	Total Power
5250 ~ 5350	802.11n HT-20	15.98	14.55	18.33
	802.11n HT-40	15.77	14.72	18.29

Frequency Range (MHz)	Mode	Band III RF Power (dBm)		
		Chain 0	Chain 1	Total Power
5470 ~ 5725	802.11n HT-20	16.82	16.42	19.63
	802.11n HT-40	16.11	15.78	18.96

2.3.2 Output Conducted Power

The device has the maximum output conducted power as below:

<Normal Mode: 3x3>

Frequency Range (MHz)	Mode	Band I RF Power (dBm)			
		Chain 0	Chain 1	Chain 2	Total Power
5150 ~ 5250	802.11a	9.59	8.31	7.1	13.22

Frequency Range (MHz)	Mode	Band II RF Power (dBm)			
		Chain 0	Chain 1	Chain 2	Total Power
5250 ~ 5350	802.11a	16.31	14.78	14.43	20.02

Frequency Range (MHz)	Mode	Band III RF Power (dBm)			
		Chain 0	Chain 1	Chain 2	Total Power
5470 ~ 5725	802.11a	16.28	15.23	14.83	20.26

<Normal Mode: 2x3>

Frequency Range (MHz)	Mode	Band I RF Power (dBm)		
		Chain 0	Chain 1	Total Power
5150 ~ 5250	802.11a	12.30	10.94	14.68

Frequency Range (MHz)	Mode	Band II RF Power (dBm)		
		Chain 0	Chain 1	Total Power
5250 ~ 5350	802.11a	16.76	15.05	19.00

Frequency Range (MHz)	Mode	Band III RF Power (dBm)		
		Chain 0	Chain 1	Total Power
5470 ~ 5725	802.11a	16.44	16.57	19.52

<Beam-Forming On: 3x3>

Frequency Range (MHz)	Mode	Band I RF Power (dBm)			
		Chain 0	Chain 1	Chain 2	Total Power
5150 ~ 5250	802.11n HT-20	9.76	8.43	7.82	13.52
	802.11n HT-40	11.25	10.09	9.14	15.02

Frequency Range (MHz)	Mode	Band II RF Power (dBm)			
		Chain 0	Chain 1	Chain 2	Total Power
5250 ~ 5350	802.11n HT-20	15.97	14.28	14.78	19.84
	802.11n HT-40	15.46	14.50	14.53	19.62

Frequency Range (MHz)	Mode	Band III RF Power (dBm)			
		Chain 0	Chain 1	Chain 2	Total Power
5470 ~ 5725	802.11n HT-20	15.90	16.44	14.53	20.47
	802.11n HT-40	15.56	15.59	13.88	19.85

<Beam-Forming On: 2x3>

Frequency Range (MHz)	Mode	Band I RF Power (dBm)		
		Chain 0	Chain 1	Total Power
5150 ~ 5250	802.11n HT-20	11.68	11.21	14.46
	802.11n HT-40	14.23	13.38	16.84

Frequency Range (MHz)	Mode	Band II RF Power (dBm)		
		Chain 0	Chain 1	Total Power
5250 ~ 5350	802.11n HT-20	17.17	15.40	19.38
	802.11n HT-40	15.17	14.02	17.64

Frequency Range (MHz)	Mode	Band III RF Power (dBm)		
		Chain 0	Chain 1	Total Power
5470 ~ 5725	802.11n HT-20	16.69	16.30	19.51
	802.11n HT-40	15.44	15.58	18.52

<Beam-Forming Off: 3x3>

Frequency Range (MHz)	Mode	Band I RF Power (dBm)			
		Chain 0	Chain 1	Chain 2	Total Power
5150 ~ 5250	802.11n HT-20	11.21	10.33	8.75	14.98
	802.11n HT-40	13.27	12.01	10.51	16.85

Frequency Range (MHz)	Mode	Band II RF Power (dBm)			
		Chain 0	Chain 1	Chain 2	Total Power
5250 ~ 5350	802.11n HT-20	15.97	14.28	14.78	19.84
	802.11n HT-40	15.46	14.50	14.53	19.62

Frequency Range (MHz)	Mode	Band III RF Power (dBm)			
		Chain 0	Chain 1	Chain 2	Total Power
5470 ~ 5725	802.11n HT-20	15.90	16.44	14.53	20.47
	802.11n HT-40	15.56	15.59	13.88	19.85

<Beam-Forming Off: 2x3>

Frequency Range (MHz)	Mode	Band I RF Power (dBm)		
		Chain 0	Chain 1	Total Power
5150 ~ 5250	802.11n HT-20	11.21	10.33	13.80
	802.11n HT-40	13.27	12.01	15.70

Frequency Range (MHz)	Mode	Band II RF Power (dBm)		
		Chain 0	Chain 1	Total Power
5250 ~ 5350	802.11n HT-20	15.97	14.28	18.22
	802.11n HT-40	15.46	14.50	18.02

Frequency Range (MHz)	Mode	Band III RF Power (dBm)		
		Chain 0	Chain 1	Total Power
5470 ~ 5725	802.11n HT-20	16.76	15.60	19.23
	802.11n HT-40	15.56	15.59	18.59

Remark: The EUT is programmed to transmit signal continuously for all testing.

2.4 Antenna Information

<Beam-Forming On>

The device is 3x3 configuration and 3 PIFA antennas are utilized for radiation emission testing. The antenna composite gain on different frequency range is shown in the following table:

Brand / Model Name	Type	Frequency Range (MHz)	Antenna Gain (dBi)	Composite Gain (dBi)
Wistron Neweb Corporation / EBJ Aux. + EBJ Aux.	PIFA	5150 ~ 5350	3.08	7.85
Wistron Neweb Corporation / EBJ Main + EBJ Main	PIFA	5470 ~ 5725	4.76	9.53

The device is 2x3 configuration and 3 PIFA antennas are utilized for radiation emission testing. The antenna composite gain on different frequency range is shown in the following table:

Brand / Model Name	Type	Frequency Range (MHz)	Antenna Gain (dBi)	Composite Gain (dBi)
Wistron Neweb Corporation / EBJ Aux. + EBJ Aux.	PIFA	5150 ~ 5350	3.08	6.09
Wistron Neweb Corporation / EBJ Main + EBJ Main	PIFA	5470 ~ 5725	4.76	7.77

<Beam-Forming Off>

The device is 3x3 configuration and 3 PIFA antennas are utilized for radiation emission testing. The antenna gain on different frequency range is shown in the following table:

Brand / Model Name	Type	Frequency Range (MHz)	Antenna Gain (dBi)
Wistron Neweb Corporation / EBJ Aux. + EBJ Aux.	PIFA	5150 ~ 5350	3.08
Wistron Neweb Corporation / EBJ Main + EBJ Main	PIFA	5470 ~ 5725	4.76

The device is 2x3 configuration and 3 PIFA antennas are utilized for radiation emission testing. The antenna gain on different frequency range is shown in the following table:

Brand / Model Name	Type	Frequency Range (MHz)	Antenna Gain (dBi)
Wistron Neweb Corporation / EBJ Aux. + EBJ Aux.	PIFA	5150 ~ 5350	3.08
Wistron Neweb Corporation / EBJ Main + EBJ Main	PIFA	5470 ~ 5725	4.76

2.5 Worst-case Configuration and Test Mode

The 3x3 and 2x3 configurations were used for conducted and radiated testing in this report. The WiFi module was tested as a modular. The module was tested outside of the laptop via an extender.

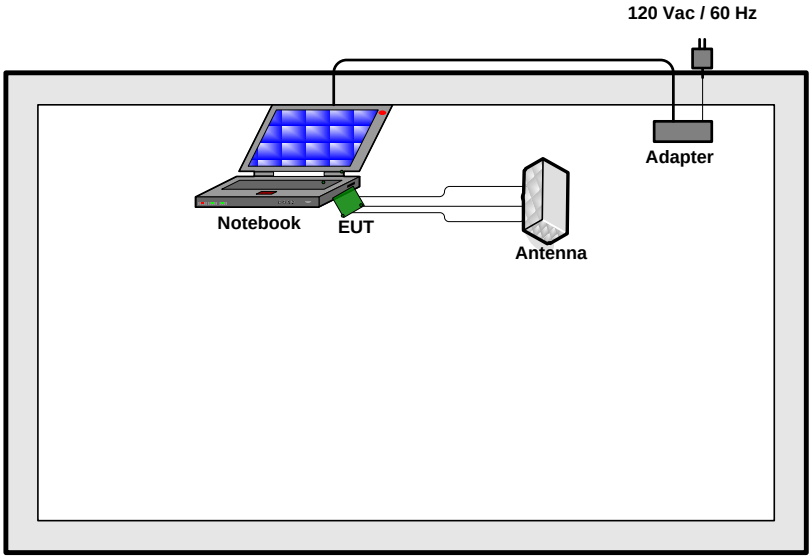
The EUT has been associated with peripherals pursuant to ANSI C63.4-2003 and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conducted emission (150 kHz to 30 MHz), radiated emission (30 MHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

WORST-CASE CONFIGURATION AND MODE
The worst-case data rates are determined to be as follows for each mode, based on the investigations by measuring the average power, output power and PPSD across all the data rates, bandwidths, modulations and spatial stream modes.
Thus all tests were made with following data rates:
802.11a mode, 20 MHz Channel Bandwidth, 9 Mb/s, OFDM Modulation;
802.11n HT20 mode, 20 MHz Channel Bandwidth, MCS0, 6.5 Mb/s, OFDM Modulation;
802.11n HT40 mode, 40 MHz Channel Bandwidth, MCS0, 13.5 Mb/s, OFDM Modulation;
In addition, the radiated emission power is higher when Beam Forming is on, thus, all the radiated emission tests were performed with Beam Forming on; plus, the composite antenna gains were taken into the consideration for calculating transmit power limits; therefore, all the data listed in this report will adhere to both Beam Forming and non Bean Forming cases.

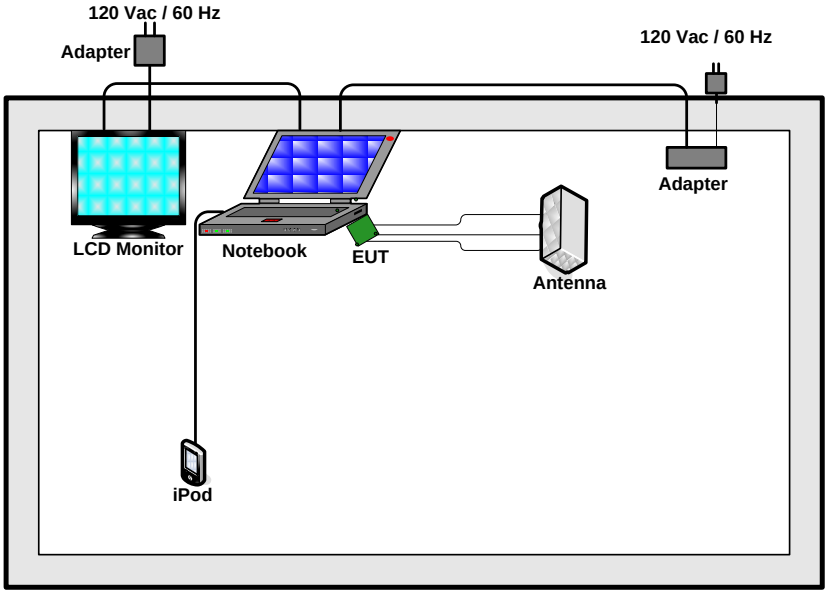
This device has been evaluated as module of mobile device, as well as portable device. Therefore, for radiated spurious emission, the EUT antenna has been tested in X,Y, and Z axis to simulate mobile and portable position. The worst case position is Z-axis, only data from Z-axis was recorded in this report.

2.6 Connection Diagram of Test System

<WLAN Tx Mode>



<AC Conducted Emission Mode>



2.7 RF Utility

The programmed RF Utility “Art”, is installed in notebook to provide channel selection, power level, data rate and the application type. RF Utility can send transmitting signal for all testing. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

3 Test Result

3.1 26dB & 99% Bandwidth Measurement

3.1.1 Limit of 26dB & 99% Bandwidth

There is no restriction limits for bandwidth. The maximum conducted output power can be limited by measured emission bandwidth (B). 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 (17dBm) or 4 dBm + 10log B. For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW (24dBm) or 11 dBm + 10log B.

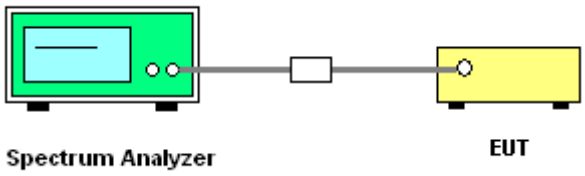
3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 Test Procedures

1. The testing follows FCC Public Notice DA 02-2138 (Measurement Guidelines of UNII).
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Read RBW and repeat measurement as needed until the RBW/BW ratio is approximately 1%.
4. Use a RBW = approximately 1% of the emission bandwidth; Set the VBW > RBW; Use a peak detector.
5. Measure the maximum width of the emission that is 26 dB relative to the peak of the emission and 99% occupied bandwidth.

3.1.4 Test Setup



3.1.5 Test Result of 26dB and 99% Bandwidth

Test Mode :	802.11a L/M/H channels	Temperature :	25~27℃
Test Engineer :	Lewis He	Relative Humidity :	64~66%

<Normal Mode: 3x3>

Channel	Frequency (MHz)	802.11a 26dB Bandwidth (MHz)		
		Chain 0	Chain 1	Chain 2
36	5180	26.09	25.35	24.01
44	5220	25.22	24.69	24.28
48	5240	24.92	24.93	23.91
52	5260	37.43	32.47	35.60
60	5300	36.02	35.14	38.73
64	5320	32.71	35.38	39.35
100	5500	34.97	40.07	40.38
120	5600	36.83	39.68	41.02
140	5700	43.09	39.62	44.98

Channel	Frequency (MHz)	802.11a 99% Occupied Bandwidth (MHz)		
		Chain 0	Chain 1	Chain 2
36	5180	17.33	17.11	17.04
44	5220	17.27	17.14	17.07
48	5240	17.29	17.13	17.07
52	5260	18.51	17.83	18.84
60	5300	18.58	18.22	20.51
64	5320	18.26	18.13	20.23
100	5500	18.72	20.02	22.26
120	5600	19.68	20.50	23.35
140	5700	24.01	19.66	27.37

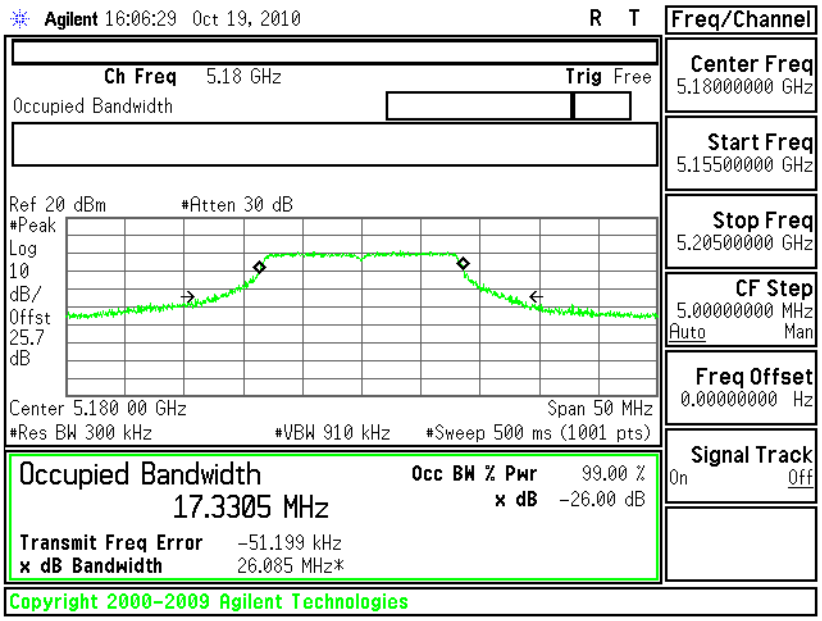
<Normal Mode: 2x3>

Channel	Frequency (MHz)	802.11a 26dB Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	25.87	25.48
44	5220	25.33	24.99
48	5240	25.52	24.98
52	5260	36.98	35.38
60	5300	36.66	32.74
64	5320	32.71	35.38
100	5500	38.98	41.27
120	5600	36.99	39.47
140	5700	38.52	37.41

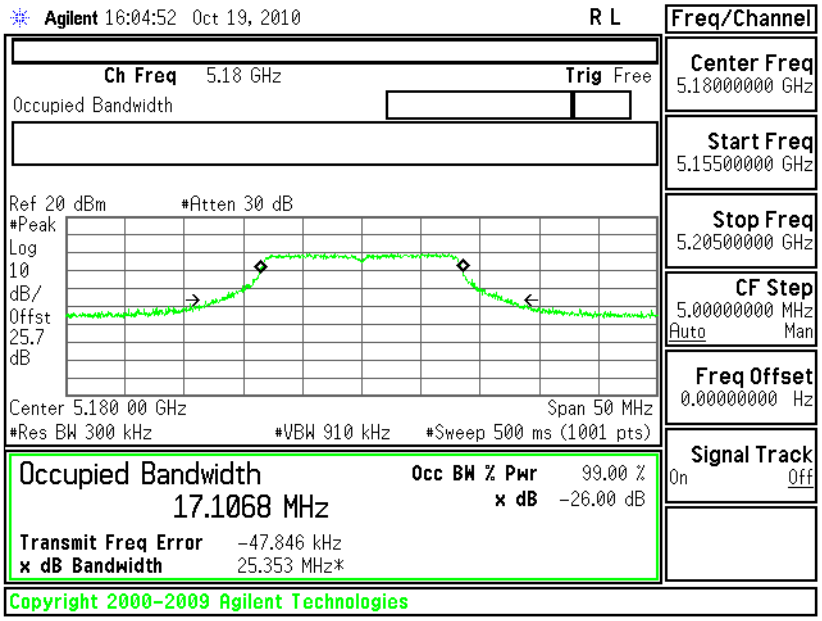
Channel	Frequency (MHz)	802.11a 99% Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	17.33	17.09
44	5220	17.29	17.11
48	5240	17.24	17.13
52	5260	18.66	18.03
60	5300	18.58	17.96
64	5320	18.26	18.13
100	5500	19.40	21.98
120	5600	19.92	21.43
140	5700	19.18	20.23

<Normal Mode: 3x3>

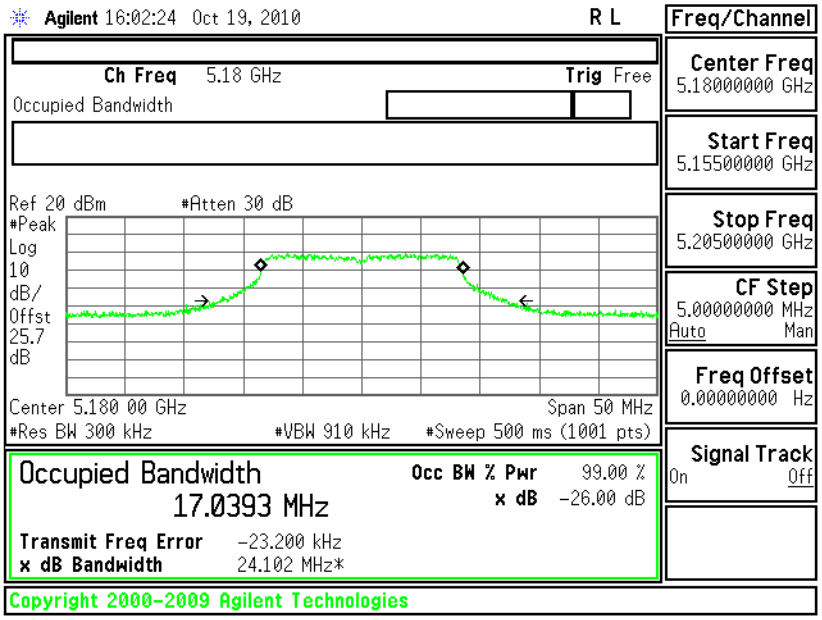
26 dB & 99% Bandwidth Plot on 802.11a Channel 36 - Chain 0



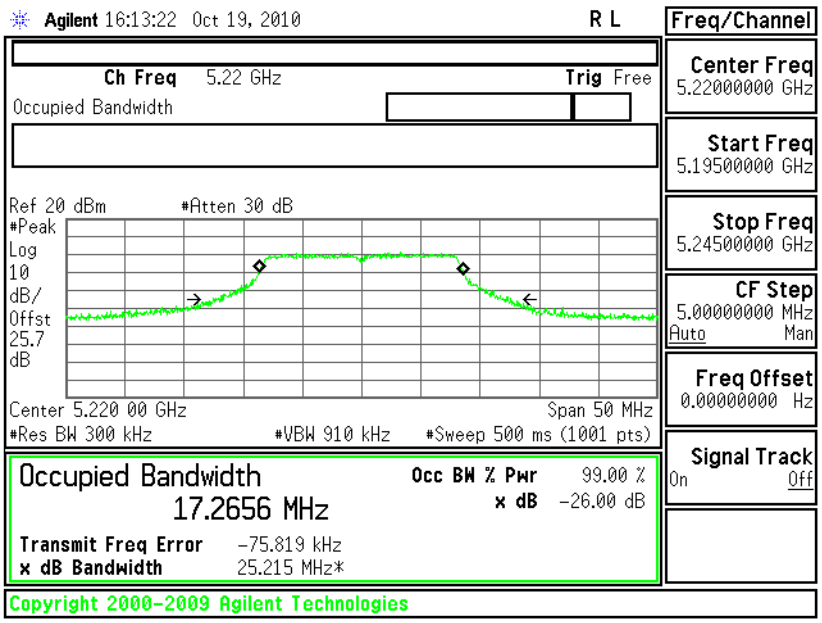
26 dB & 99% Bandwidth Plot on 802.11a Channel 36 - Chain 1



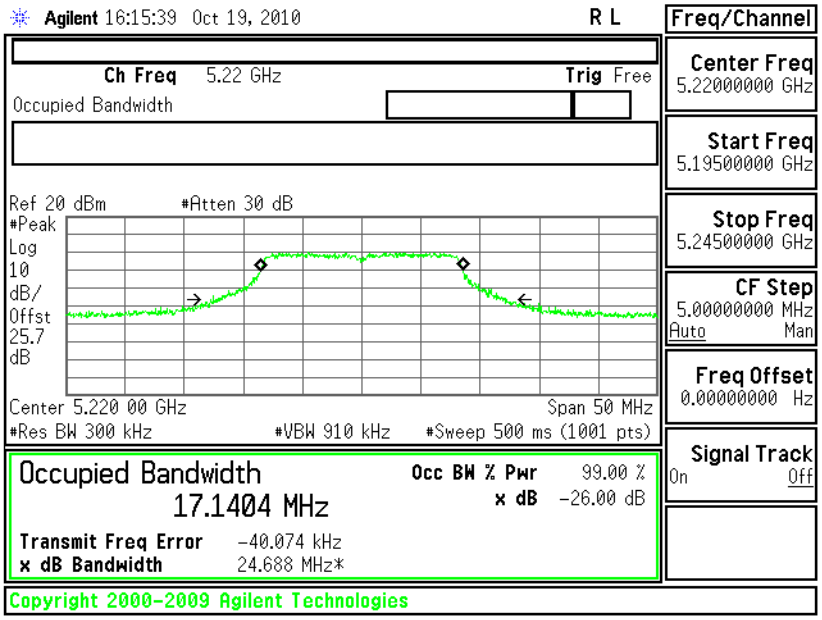
26 dB & 99% Bandwidth Plot on 802.11a Channel 36 - Chain 2



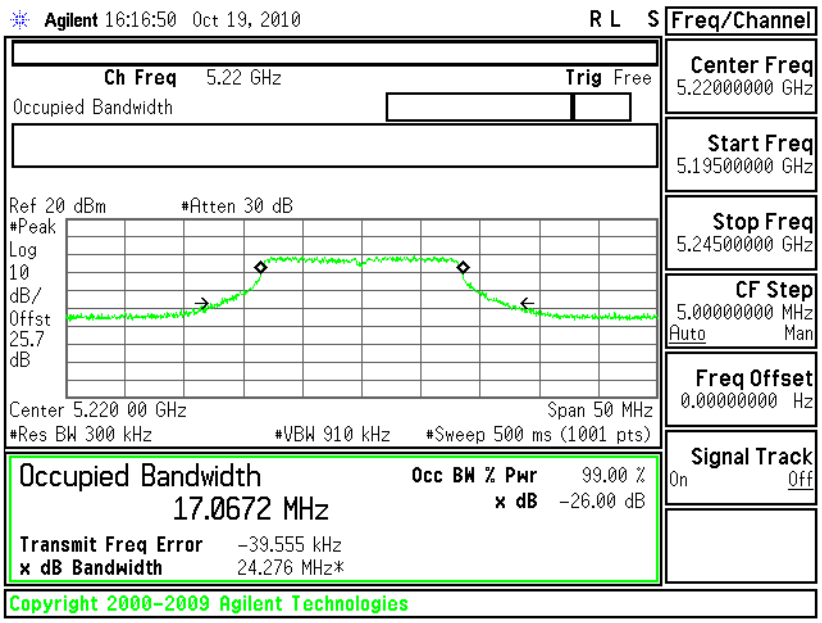
26 dB & 99% Bandwidth Plot on 802.11a Channel 44 - Chain 0



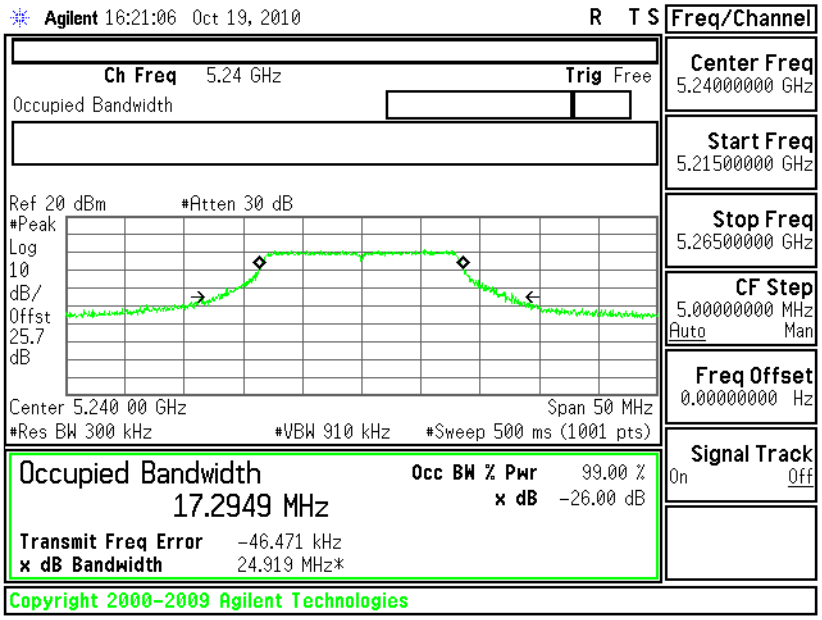
26 dB & 99% Bandwidth Plot on 802.11a Channel 44 - Chain 1



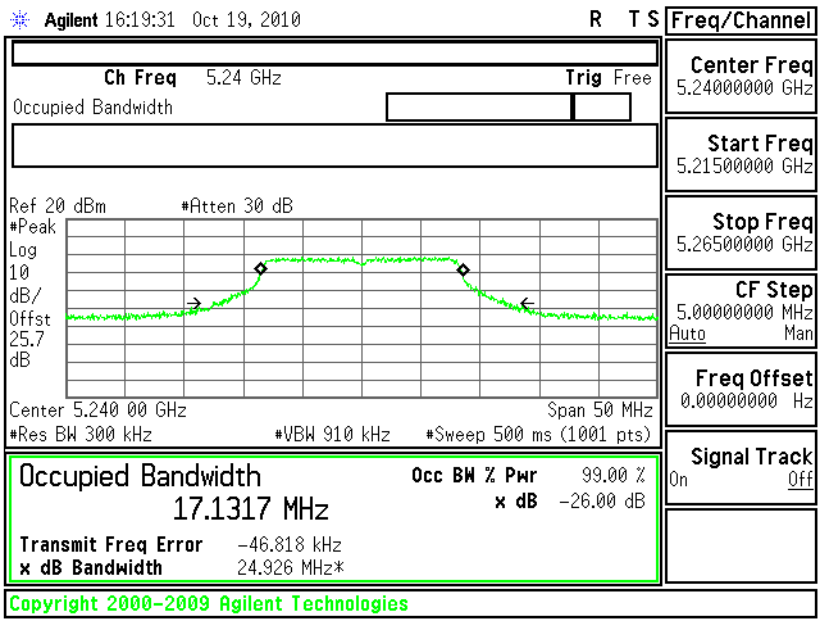
26 dB & 99% Bandwidth Plot on 802.11a Channel 44 - Chain 2



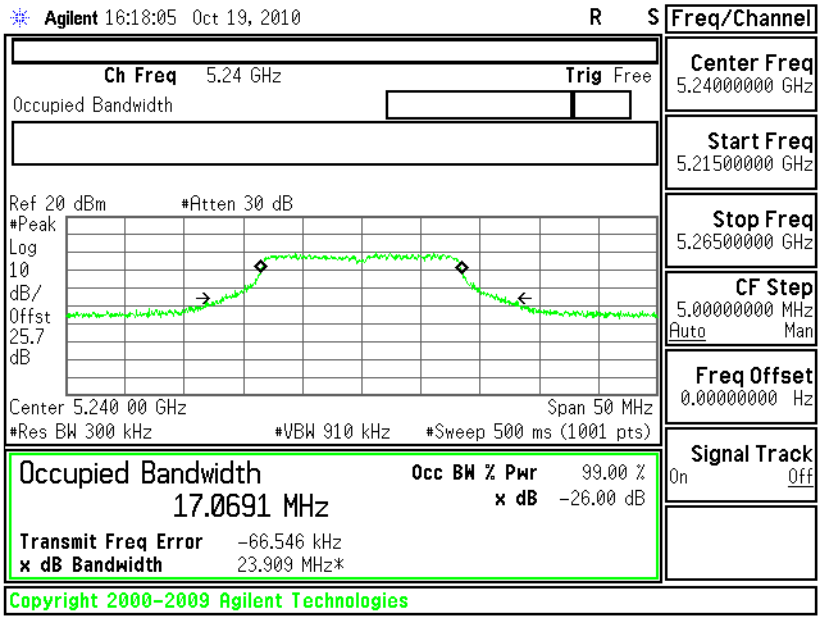
26 dB & 99% Bandwidth Plot on 802.11a Channel 48 - Chain 0



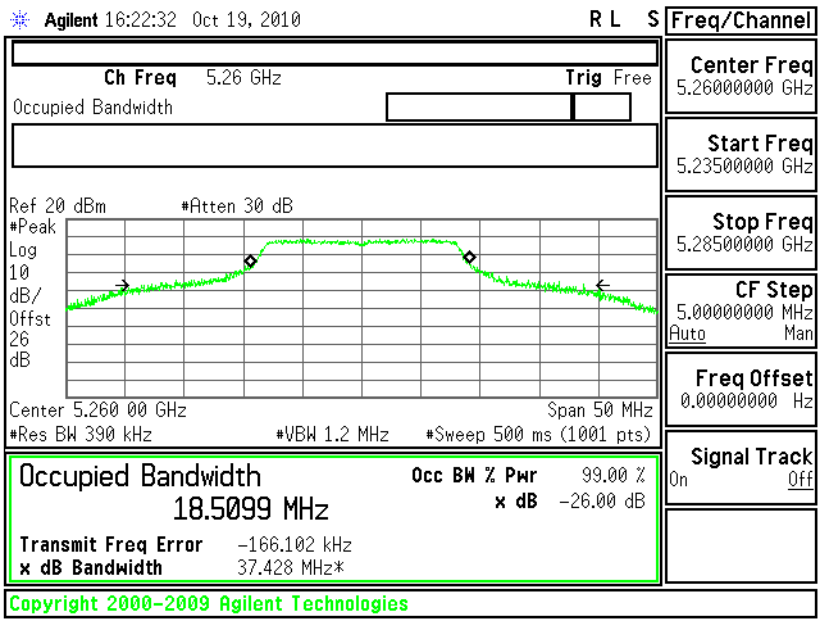
26 dB & 99% Bandwidth Plot on 802.11a Channel 48 - Chain 1



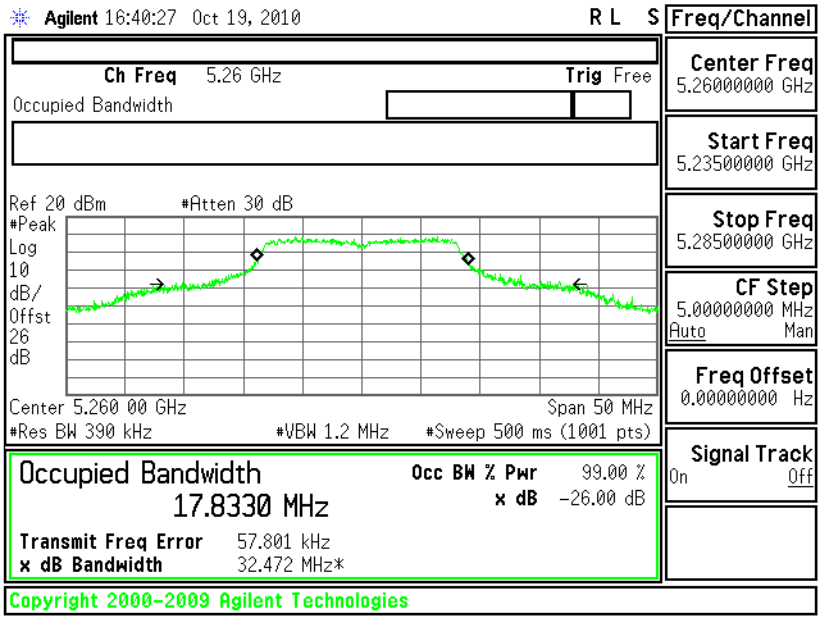
26 dB & 99% Bandwidth Plot on 802.11a Channel 48 - Chain 2



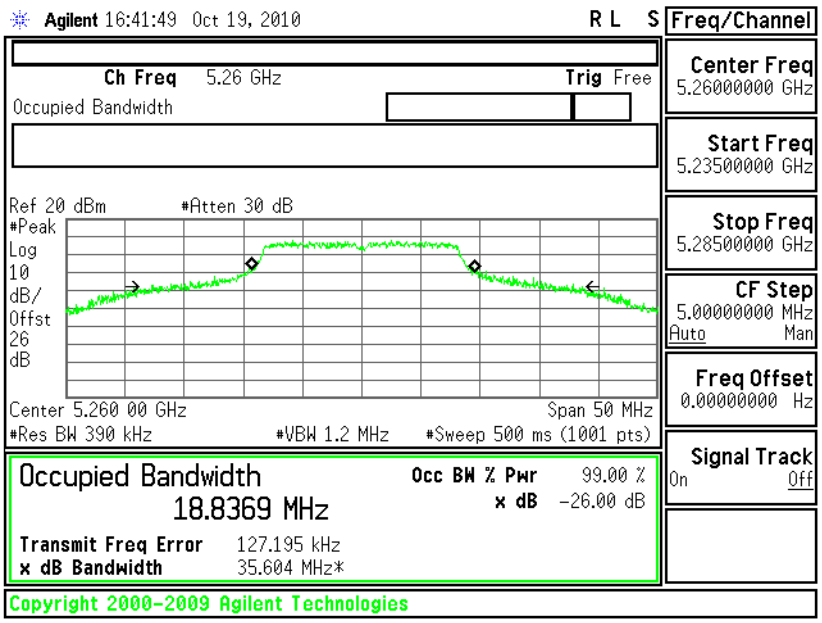
26 dB & 99% Bandwidth Plot on 802.11a Channel 52 - Chain 0



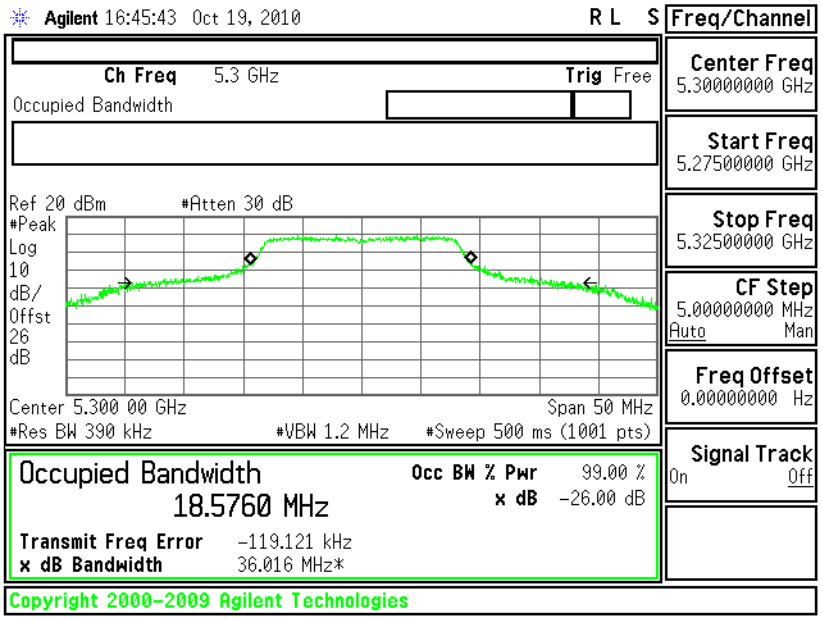
26 dB & 99% Bandwidth Plot on 802.11a Channel 52 - Chain 1



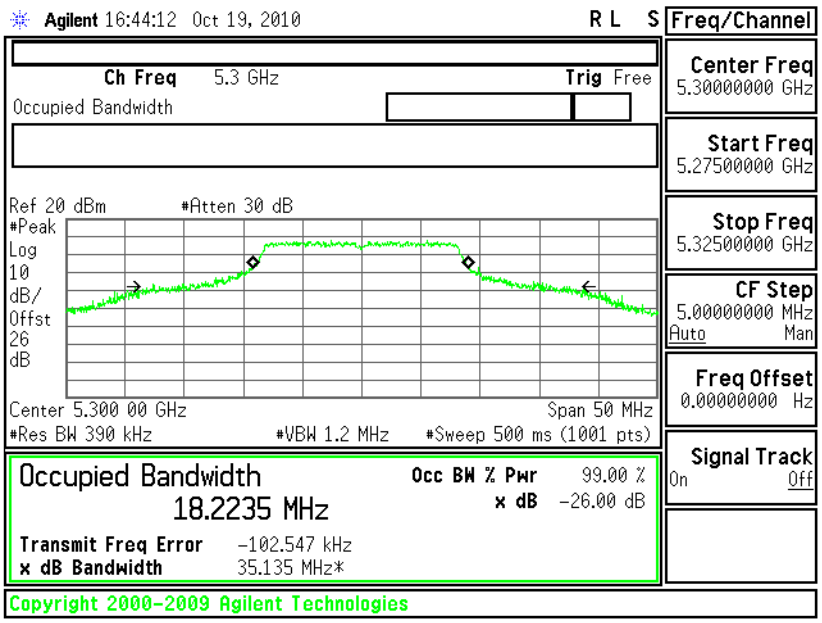
26 dB & 99% Bandwidth Plot on 802.11a Channel 52 - Chain 2



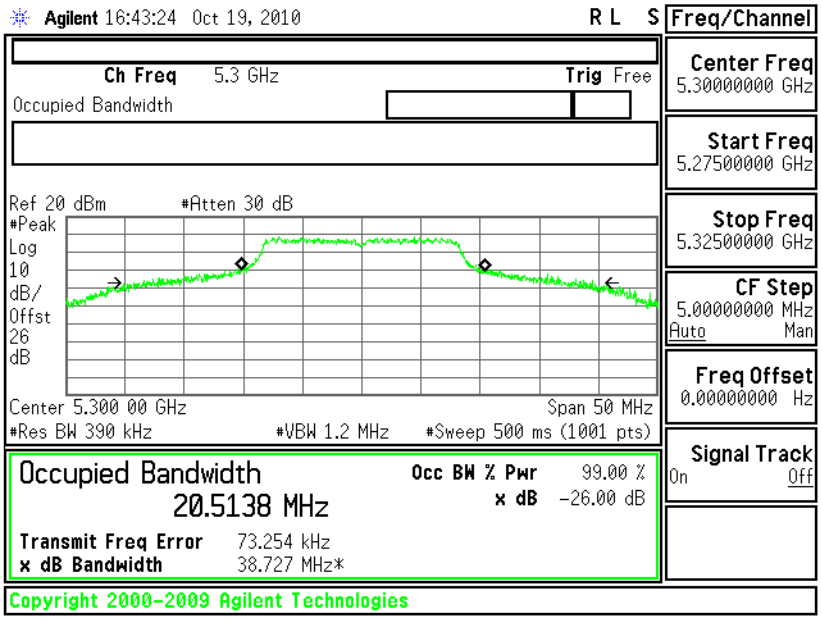
26 dB & 99% Bandwidth Plot on 802.11a Channel 60 - Chain 0



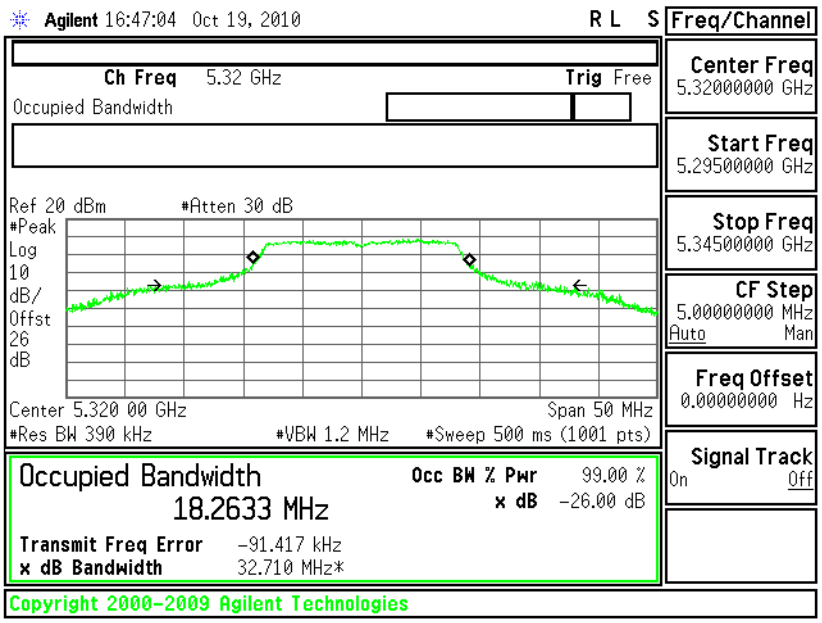
26 dB & 99% Bandwidth Plot on 802.11a Channel 60 - Chain 1



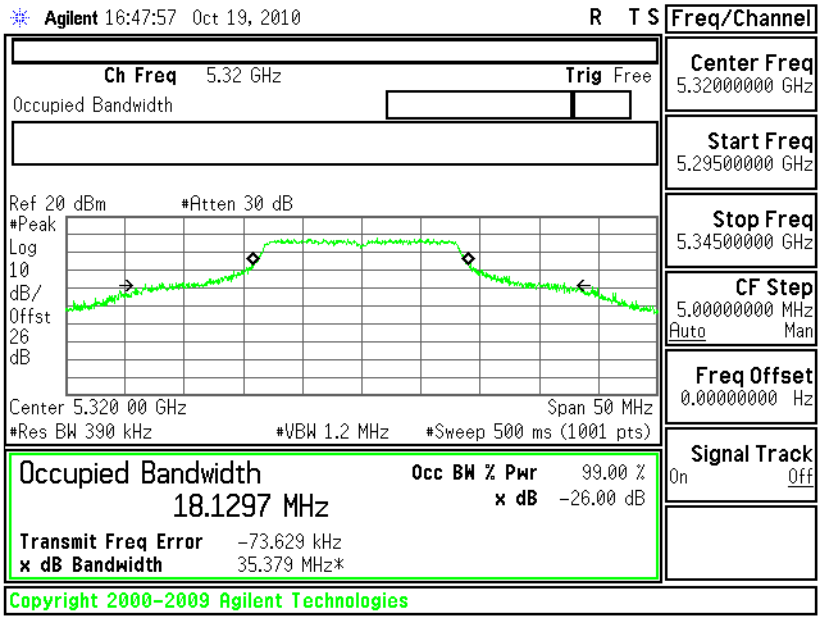
26 dB & 99% Bandwidth Plot on 802.11a Channel 60 - Chain 2



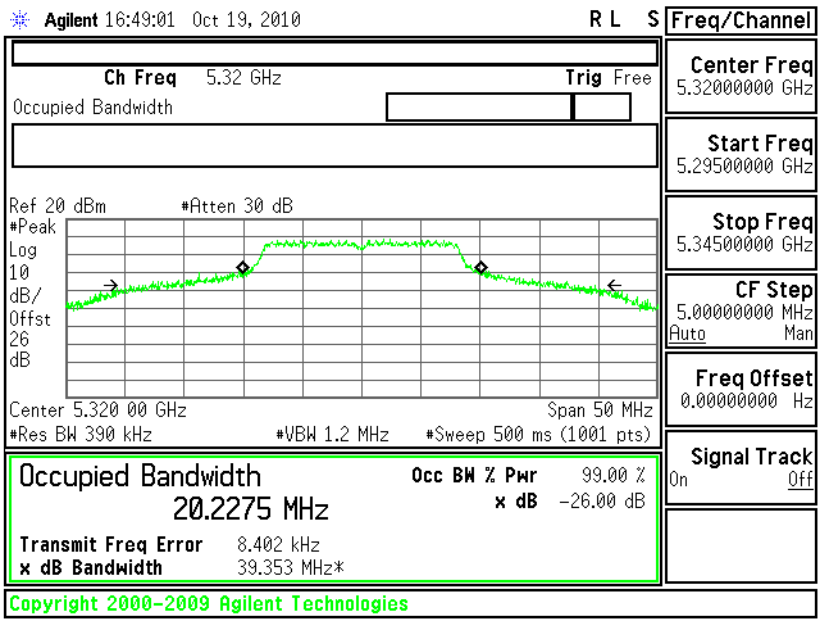
26 dB & 99% Bandwidth Plot on 802.11a Channel 64 - Chain 0



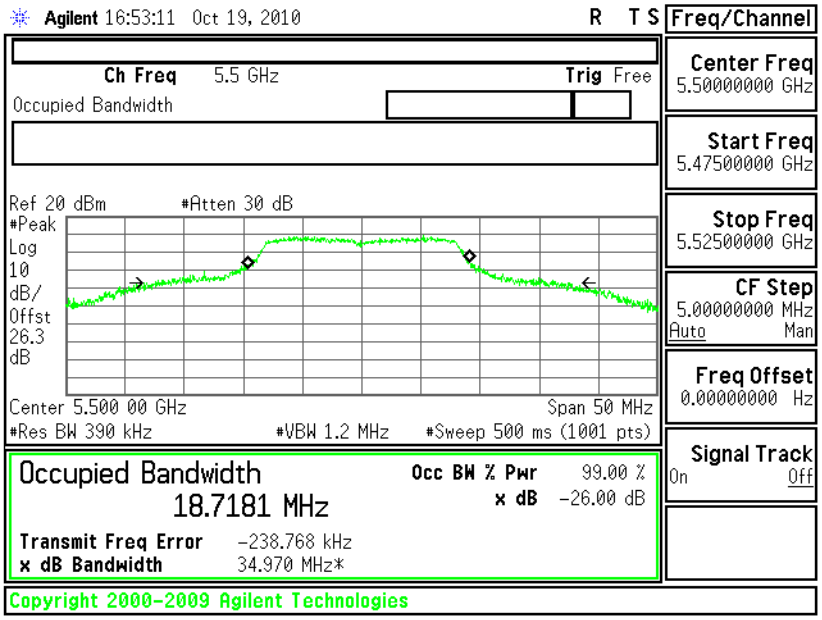
26 dB & 99% Bandwidth Plot on 802.11a Channel 64 - Chain 1



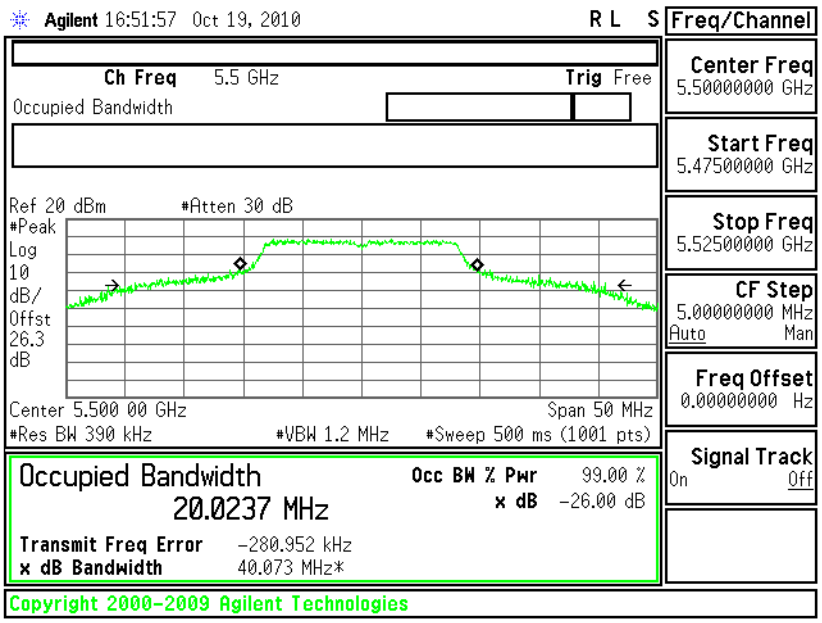
26 dB & 99% Bandwidth Plot on 802.11a Channel 64 - Chain 2



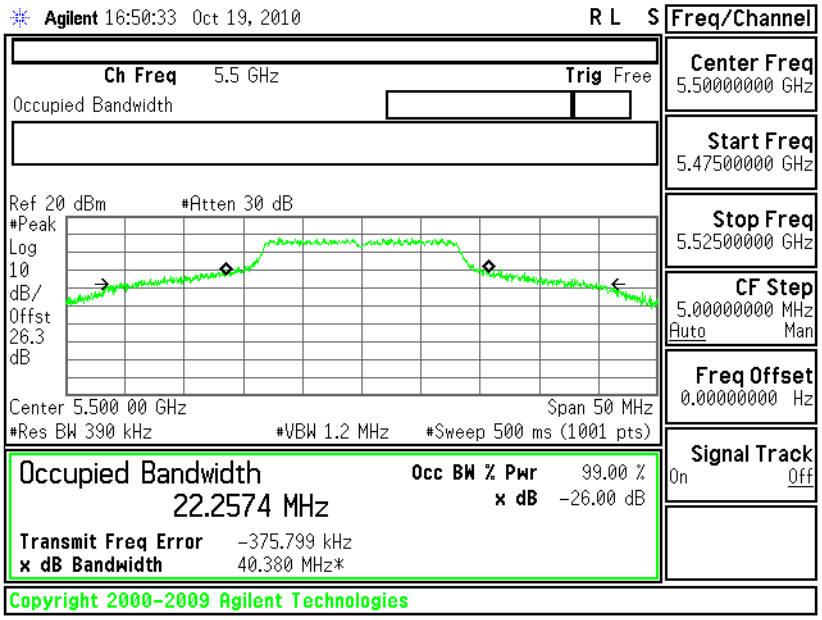
26 dB & 99% Bandwidth Plot on 802.11a Channel 100 - Chain 0



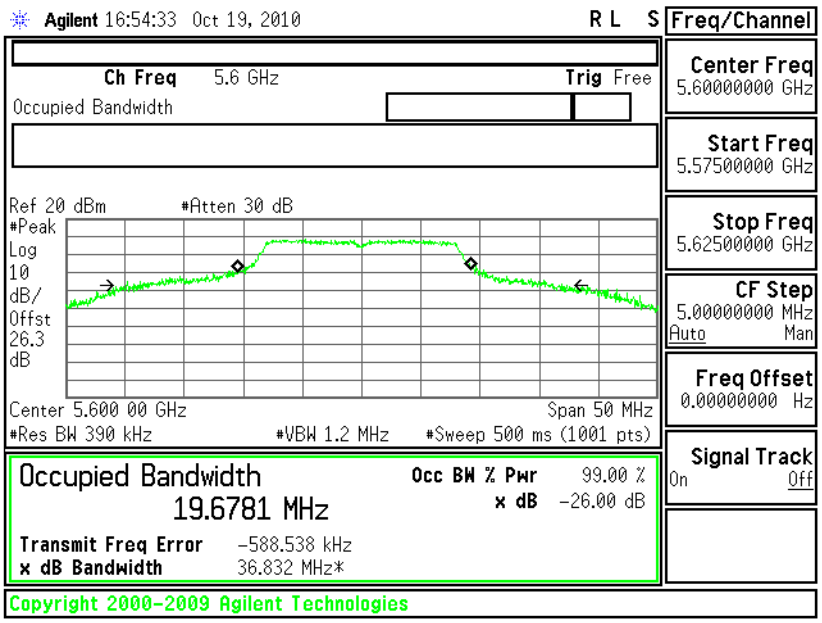
26 dB & 99% Bandwidth Plot on 802.11a Channel 100 - Chain 1



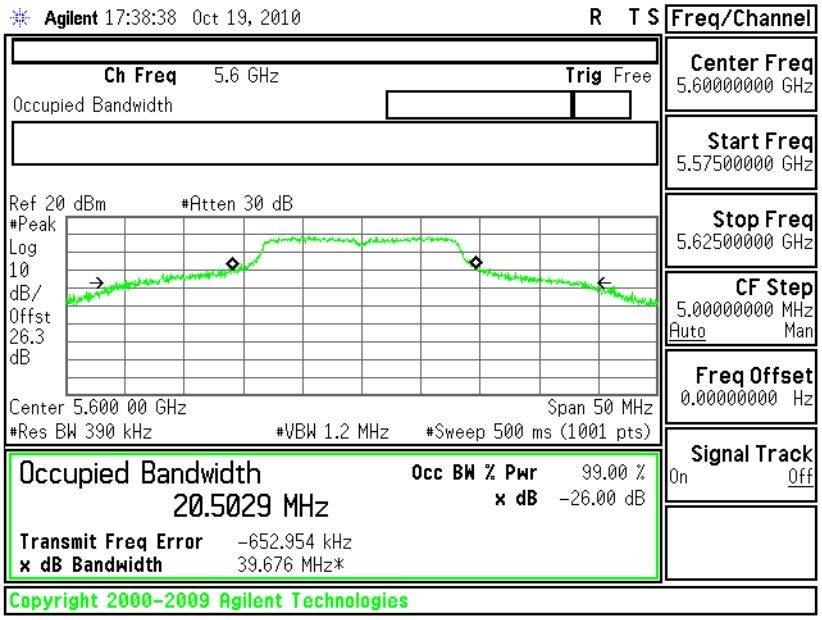
26 dB & 99% Bandwidth Plot on 802.11a Channel 100 - Chain 2



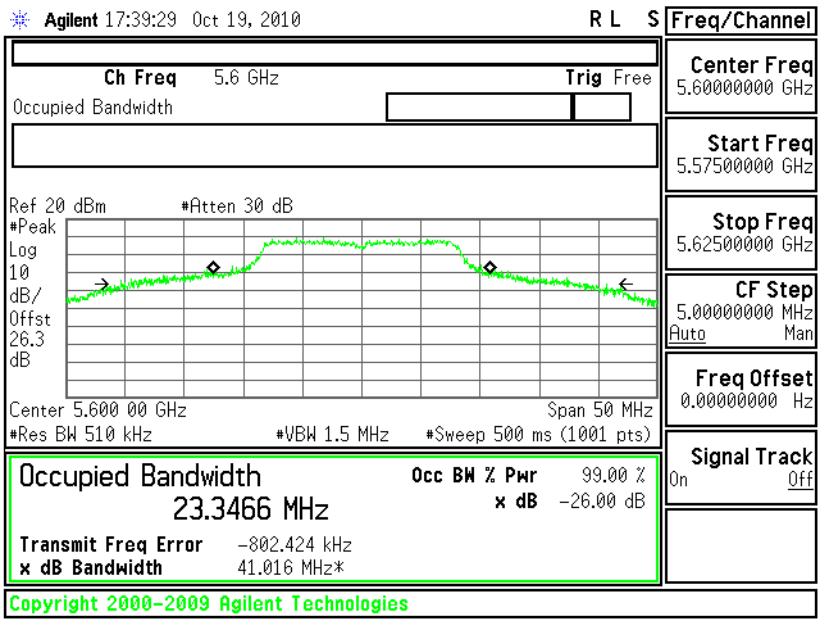
26 dB & 99% Bandwidth Plot on 802.11a Channel 120 - Chain 0



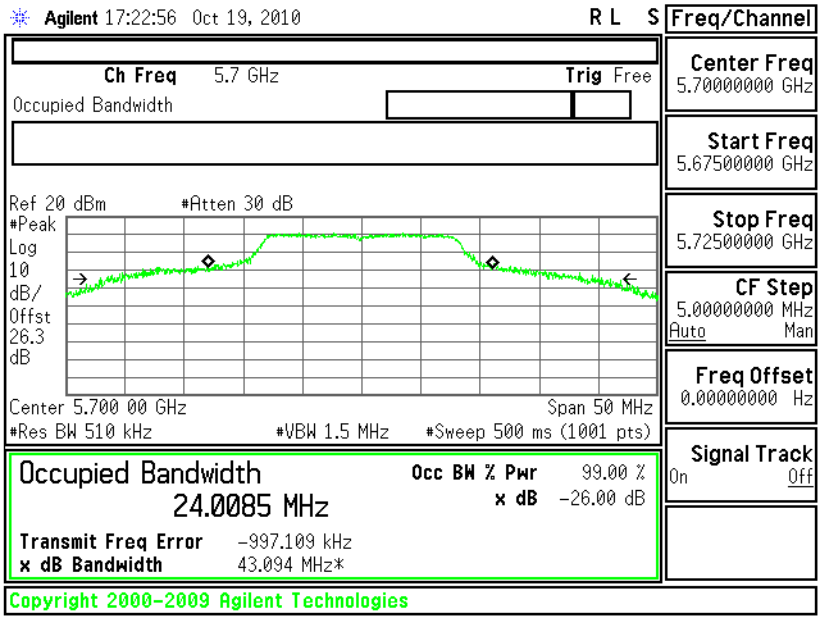
26 dB & 99% Bandwidth Plot on 802.11a Channel 120 - Chain 1



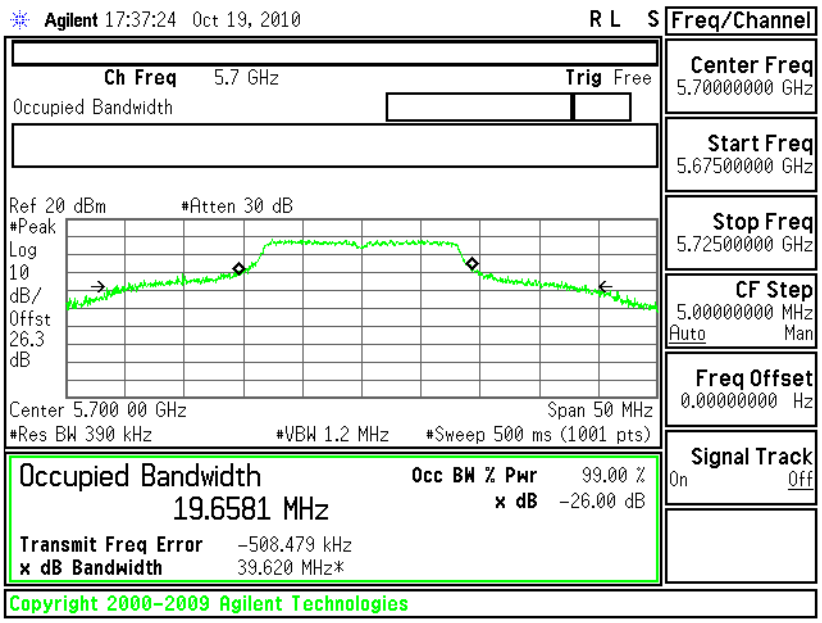
26 dB & 99% Bandwidth Plot on 802.11a Channel 120 - Chain 2



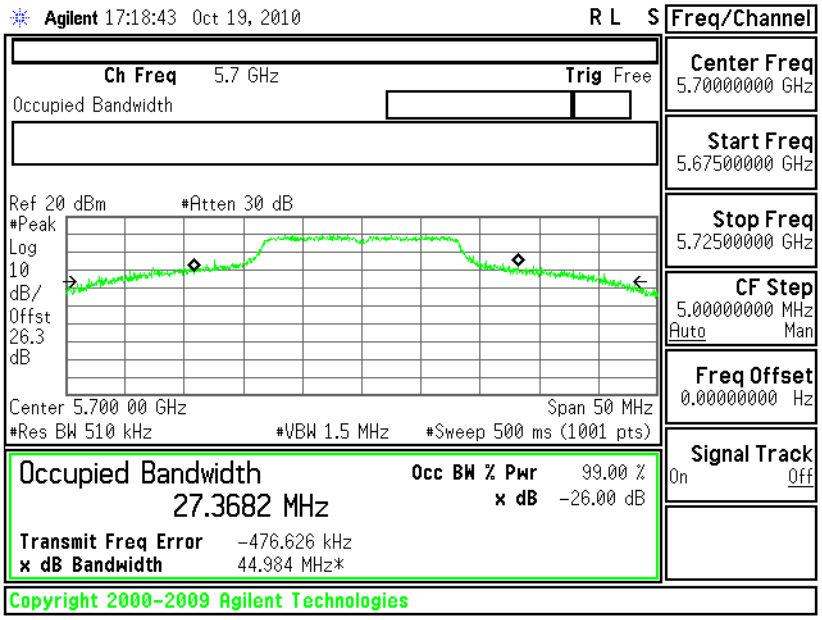
26 dB & 99% Bandwidth Plot on 802.11a Channel 140 - Chain 0



26 dB & 99% Bandwidth Plot on 802.11a Channel 140 - Chain 1

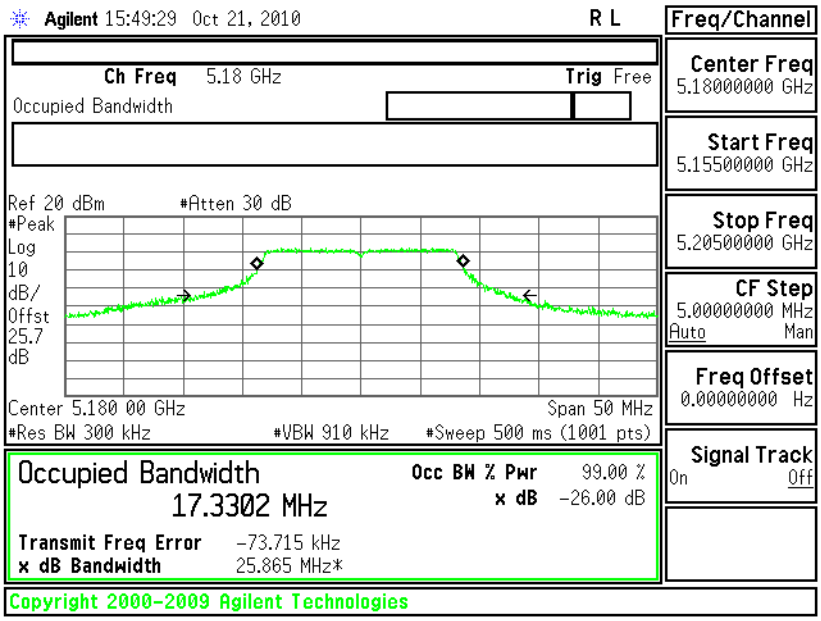


26 dB & 99% Bandwidth Plot on 802.11a Channel 140 - Chain 2

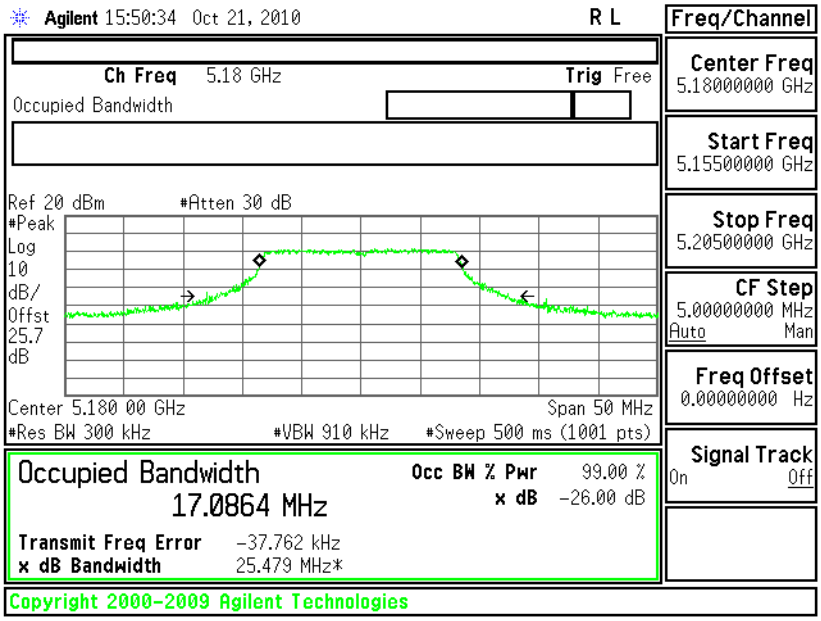


<Normal Mode: 2x3>

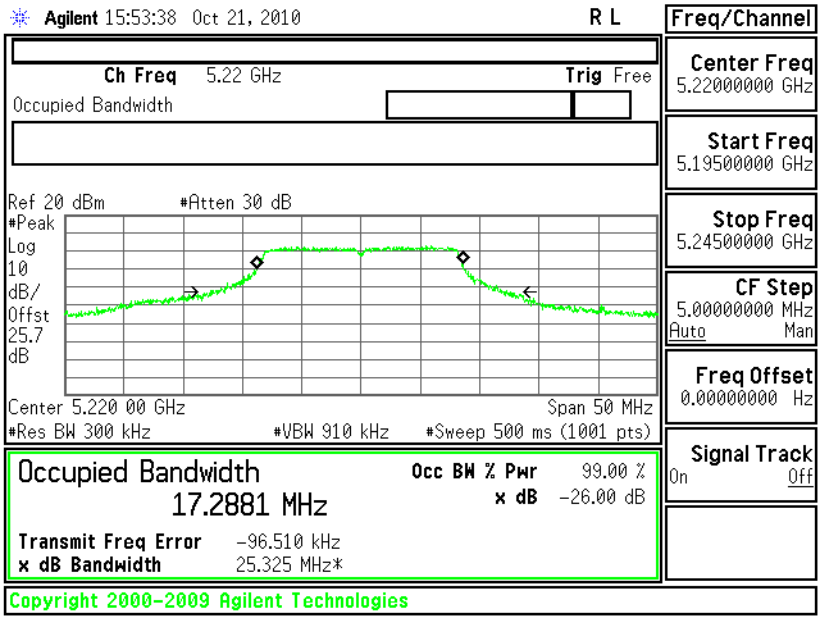
26 dB & 99% Bandwidth Plot on 802.11a Channel 36 - Chain 0



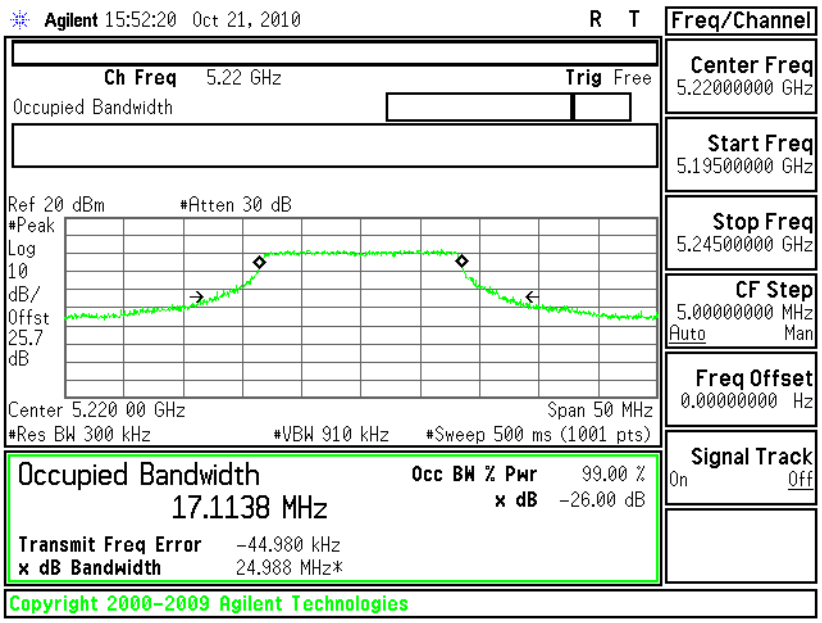
26 dB & 99% Bandwidth Plot on 802.11a Channel 36 - Chain 1



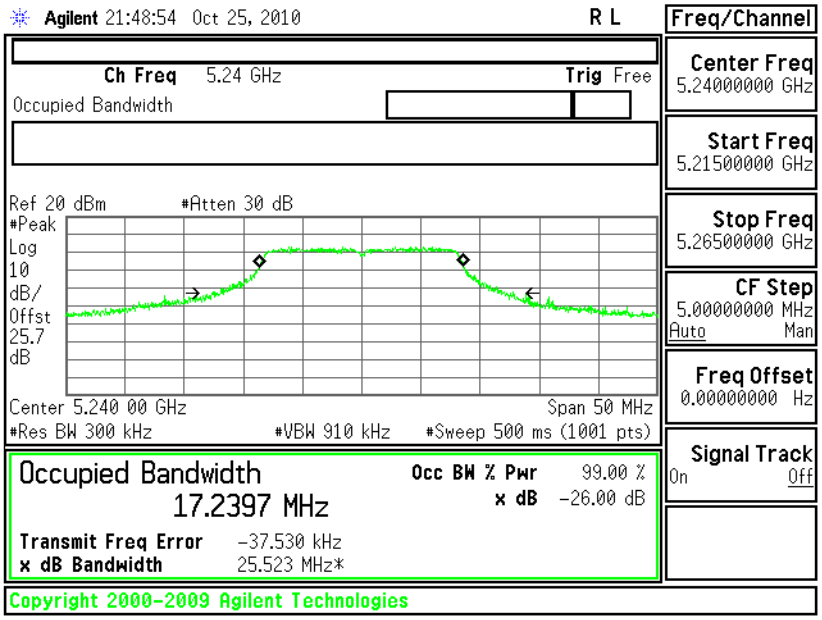
26 dB & 99% Bandwidth Plot on 802.11a Channel 44 - Chain 0



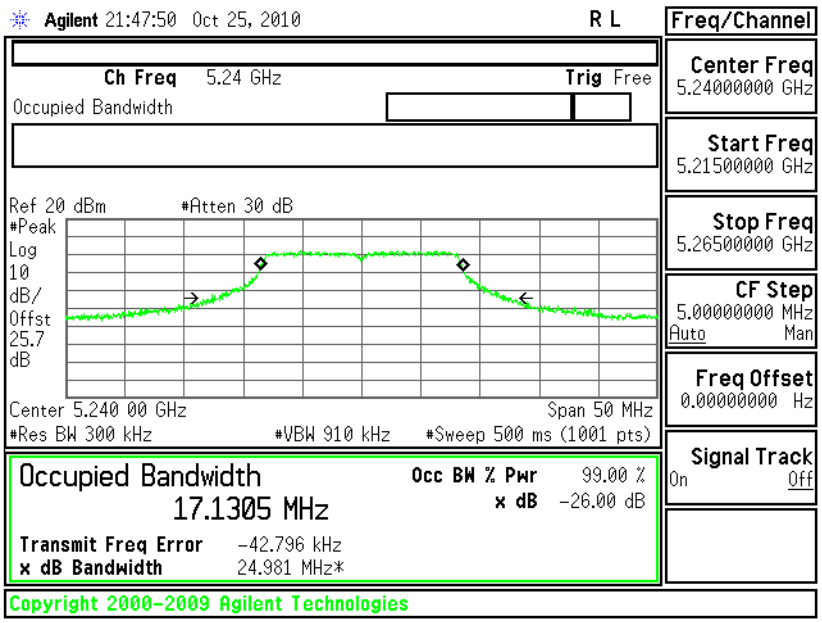
26 dB & 99% Bandwidth Plot on 802.11a Channel 44 - Chain 1



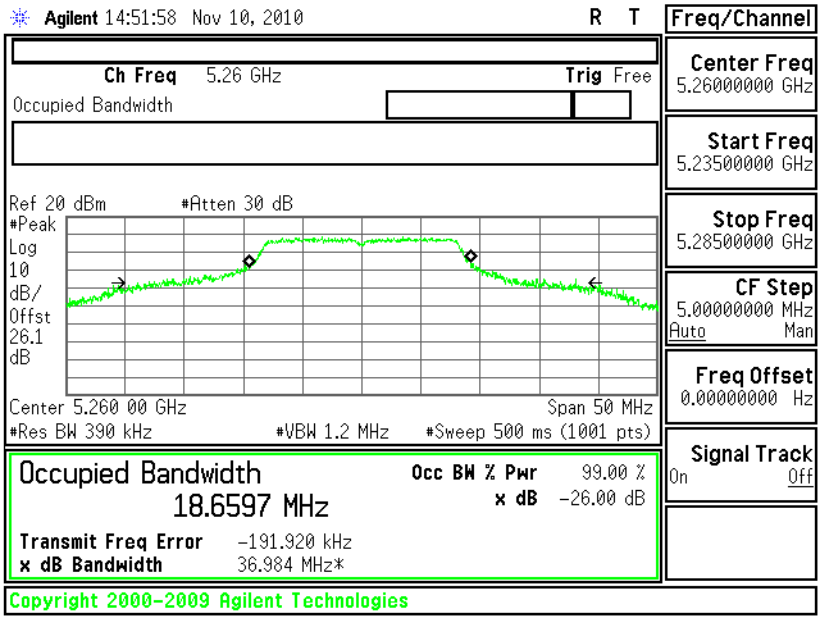
26 dB & 99% Bandwidth Plot on 802.11a Channel 48 - Chain 0



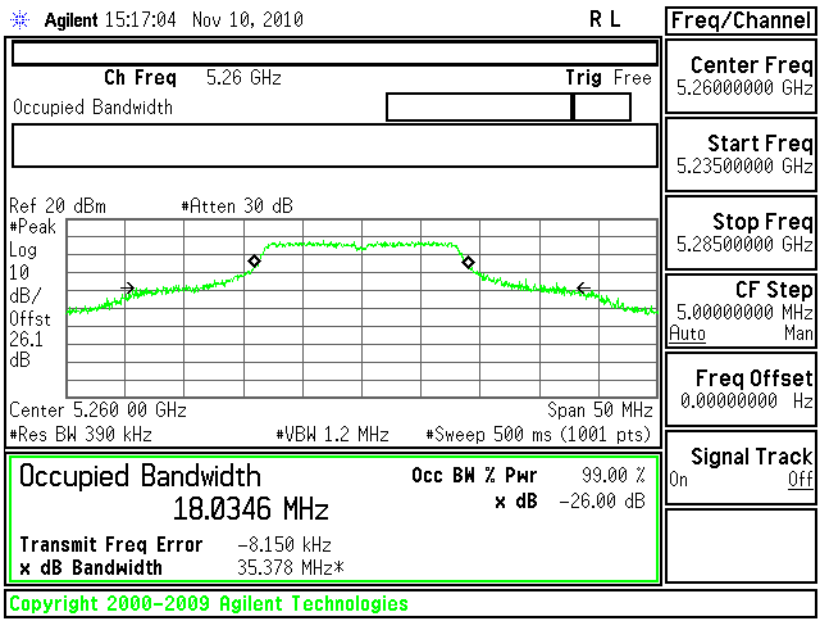
26 dB & 99% Bandwidth Plot on 802.11a Channel 48 - Chain 1



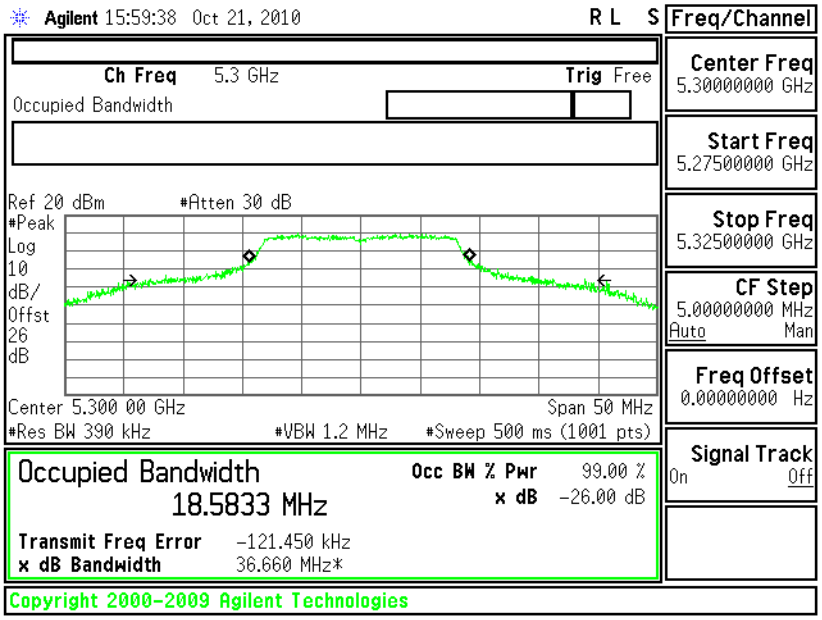
26 dB & 99% Bandwidth Plot on 802.11a Channel 52 - Chain 0



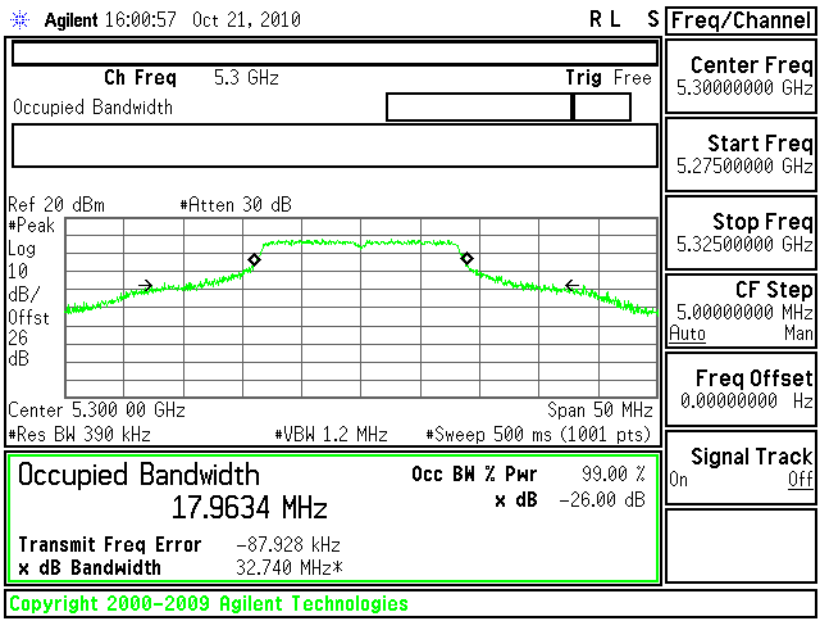
26 dB & 99% Bandwidth Plot on 802.11a Channel 52 - Chain 1



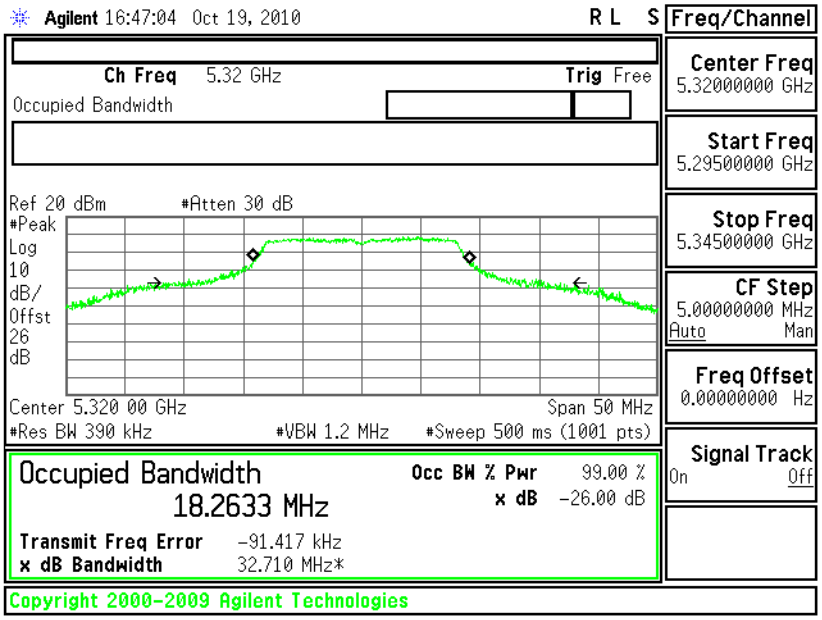
26 dB & 99% Bandwidth Plot on 802.11a Channel 60 - Chain 0



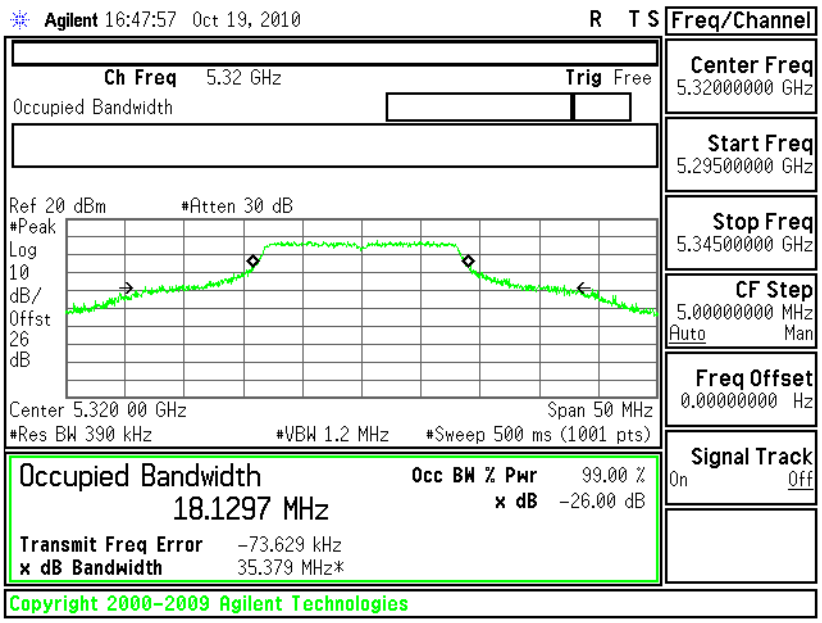
26 dB & 99% Bandwidth Plot on 802.11a Channel 60 - Chain 1



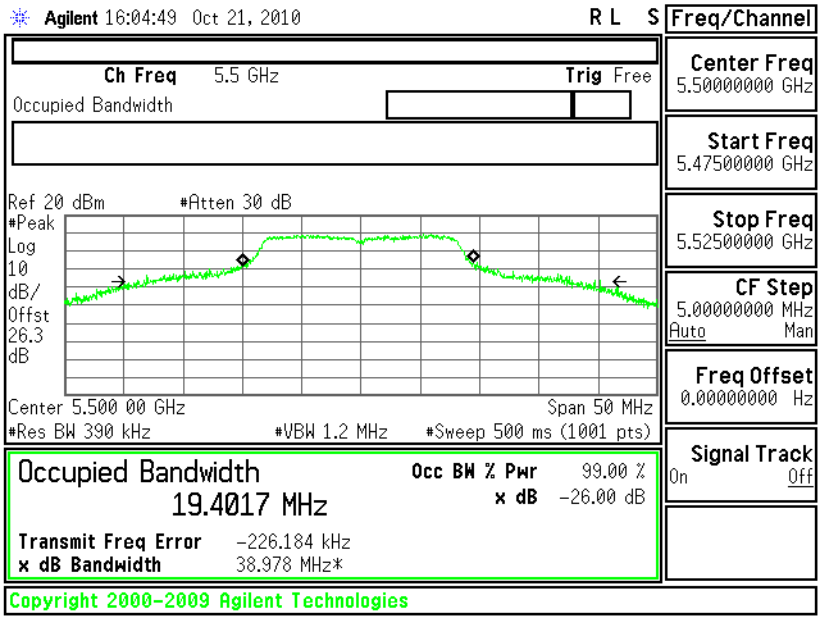
26 dB & 99% Bandwidth Plot on 802.11a Channel 64 - Chain 0



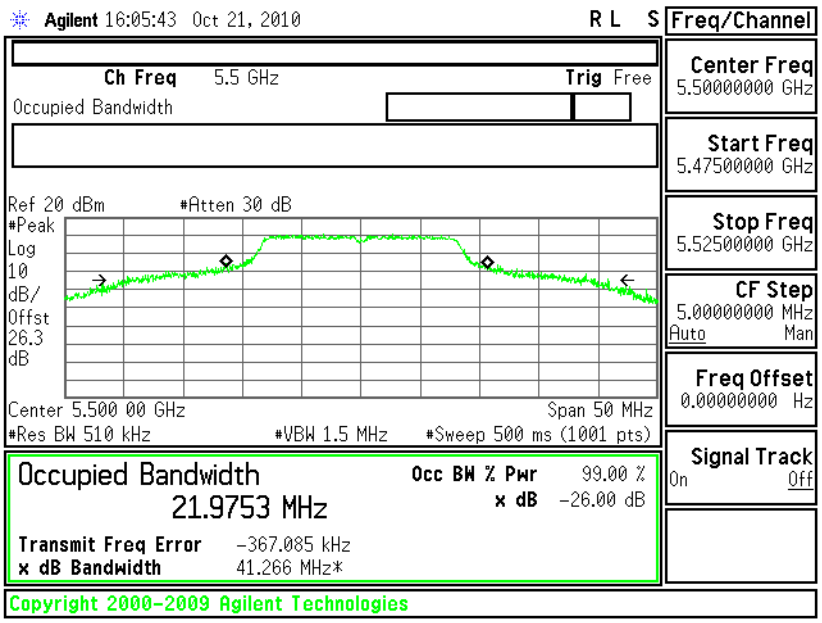
26 dB & 99% Bandwidth Plot on 802.11a Channel 64 - Chain 1



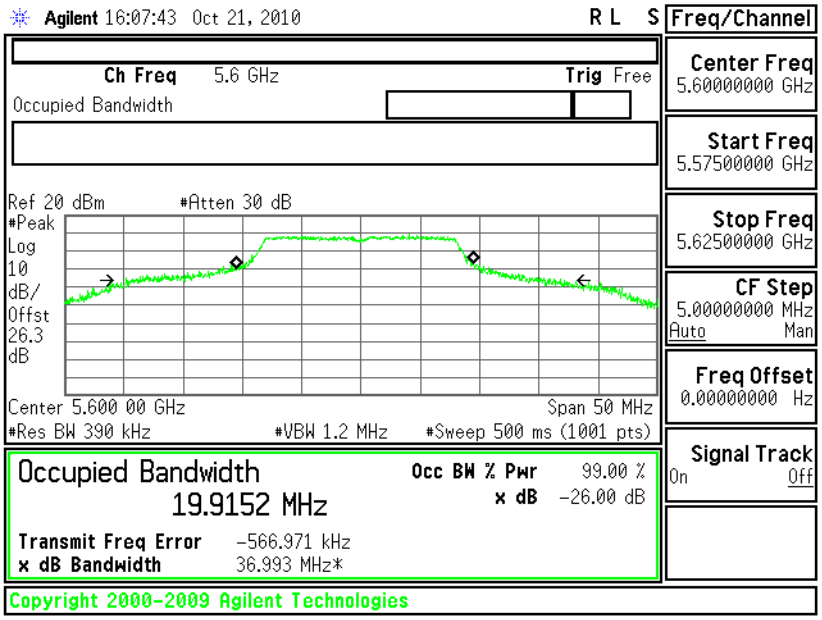
26 dB & 99% Bandwidth Plot on 802.11a Channel 100 - Chain 0



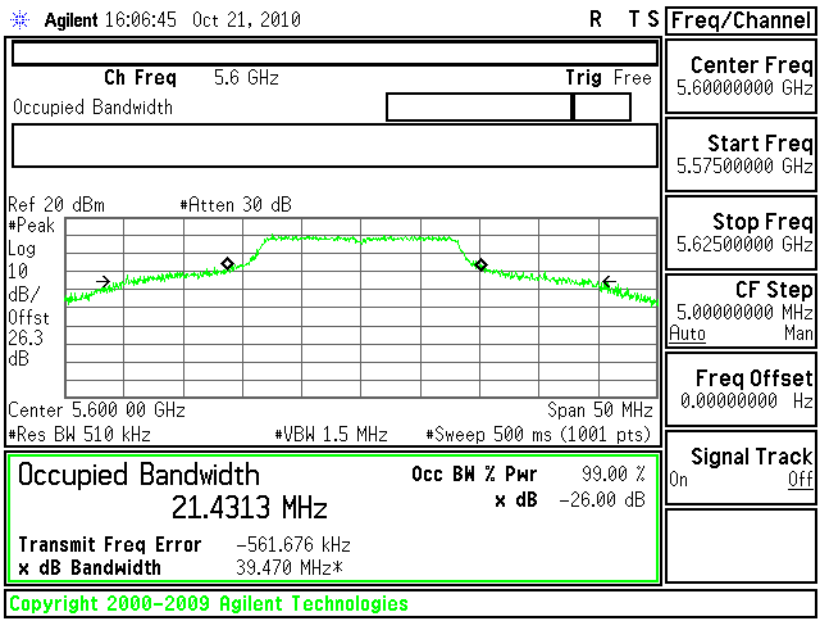
26 dB & 99% Bandwidth Plot on 802.11a Channel 100 - Chain 1



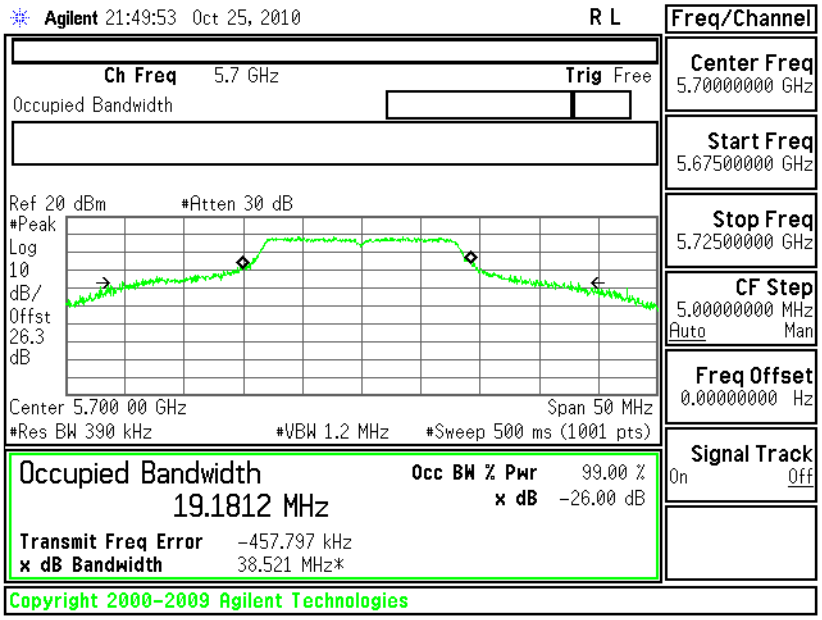
26 dB & 99% Bandwidth Plot on 802.11a Channel 120 - Chain 0



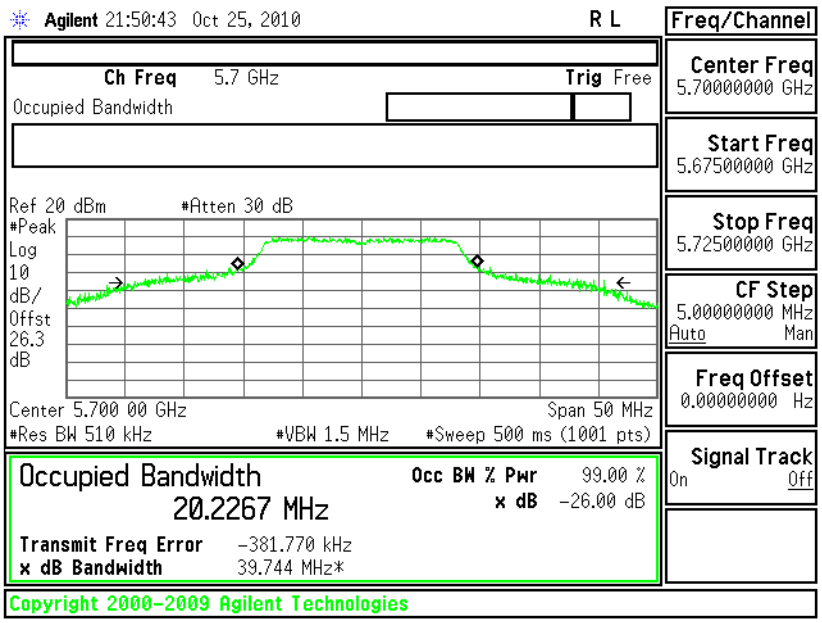
26 dB & 99% Bandwidth Plot on 802.11a Channel 120 - Chain 1



26 dB & 99% Bandwidth Plot on 802.11a Channel 140 - Chain 0



26 dB & 99% Bandwidth Plot on 802.11a Channel 140 - Chain 1



Test Mode :	802.11n (HT-20) L/M/H channels	Temperature :	25~27℃
Test Engineer :	Lewis He	Relative Humidity :	64~66%

<Beam-Forming On: 3x3>

Channel	Frequency (MHz)	802.11n (HT-20) 26dB Bandwidth (MHz)		
		Chain 0	Chain 1	Chain 2
36	5180	25.42	25.82	25.42
44	5220	25.12	26.42	25.84
48	5240	25.70	26.78	24.98
52	5260	37.34	33.04	40.31
60	5300	40.93	34.81	45.13
64	5320	42.76	33.61	42.47
100	5500	41.25	42.41	44.37
120	5600	42.28	47.38	45.41
140	5700	44.80	46.31	48.48

Channel	Frequency (MHz)	802.11n (HT-20) 99% Bandwidth (MHz)		
		Chain 0	Chain 1	Chain 2
36	5180	18.37	18.27	18.24
44	5220	18.30	18.18	18.24
48	5240	18.36	18.28	18.20
52	5260	19.24	18.51	20.40
60	5300	20.10	19.03	22.86
64	5320	19.61	18.95	21.23
100	5500	19.68	20.62	22.91
120	5600	21.15	26.22	24.03
140	5700	23.73	25.42	29.21

<Beam-Forming On: 2x3>

Channel	Frequency (MHz)	802.11n (HT-20) 26dB Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	26.39	25.66
44	5220	29.37	26.02
48	5240	25.09	26.19
52	5260	45.12	40.93
60	5300	36.58	35.70
64	5320	26.69	27.67
100	5500	44.08	46.76
120	5600	41.40	45.72
140	5700	41.34	46.17

Channel	Frequency (MHz)	802.11n (HT-20) 99% Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	18.41	18.20
44	5220	18.28	18.23
48	5240	18.33	18.25
52	5260	20.80	19.27
60	5300	19.52	29.08
64	5320	18.40	18.27
100	5500	20.41	22.47
120	5600	20.94	22.02
140	5700	20.23	20.99

<Beam-Forming Off: 3x3>

Channel	Frequency (MHz)	802.11n (HT-20) 26dB Bandwidth (MHz)		
		Chain 0	Chain 1	Chain 2
36	5180	28.33	26.04	25.36
44	5220	25.49	26.67	26.17
48	5240	25.52	26.26	16.26
52	5260	37.34	33.04	40.31
60	5300	40.93	34.81	45.13
64	5320	42.76	33.61	42.47
100	5500	41.25	42.41	44.37
120	5600	42.28	47.38	45.41
140	5700	44.80	46.31	48.48

Channel	Frequency (MHz)	802.11n (HT-20) 99% Bandwidth (MHz)		
		Chain 0	Chain 1	Chain 2
36	5180	18.47	18.17	18.14
44	5220	18.34	18.21	18.21
48	5240	18.31	18.25	18.17
52	5260	19.24	18.51	20.40
60	5300	20.10	19.03	22.86
64	5320	19.61	18.95	21.23
100	5500	19.68	20.62	22.91
120	5600	21.15	26.22	24.03
140	5700	23.73	25.42	29.21

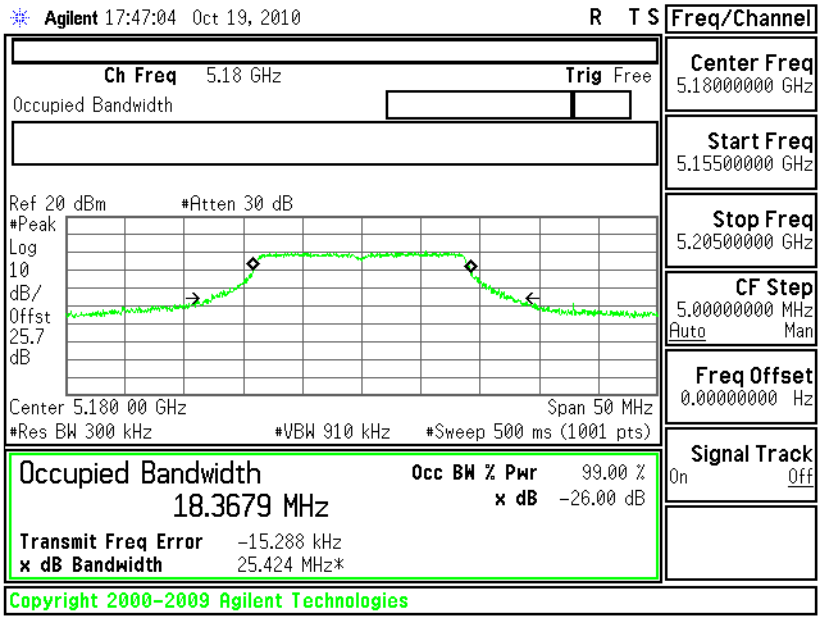
<Beam-Forming Off: 2x3>

Channel	Frequency (MHz)	802.11n (HT-20) 26dB Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	28.33	26.04
44	5220	25.49	26.67
48	5240	25.52	26.26
52	5260	37.34	33.04
60	5300	40.93	34.81
64	5320	42.76	33.61
100	5500	41.25	42.41
120	5600	42.28	47.38
140	5700	44.80	46.31

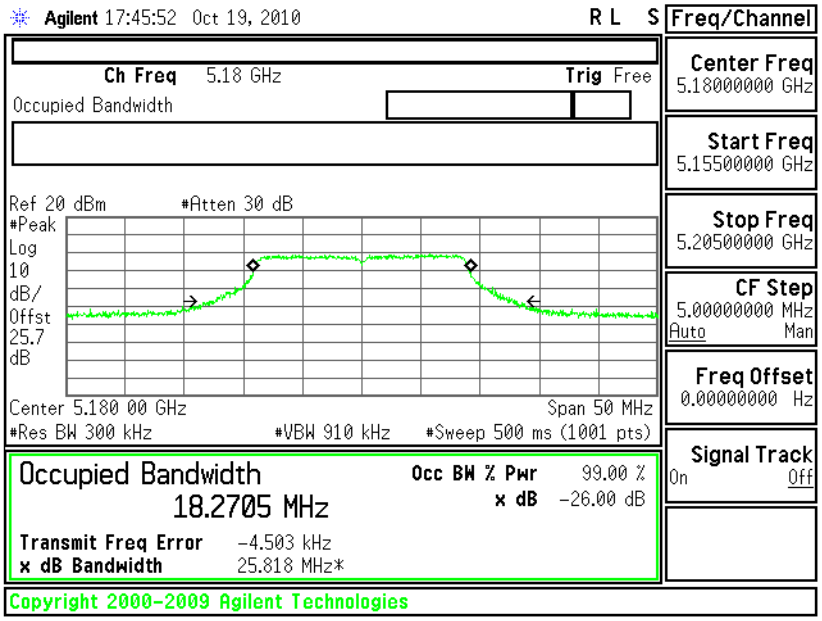
Channel	Frequency (MHz)	802.11n (HT-20) 99% Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	18.47	18.17
44	5220	18.34	18.21
48	5240	18.31	18.25
52	5260	19.24	18.51
60	5300	20.10	19.03
64	5320	19.61	18.95
100	5500	19.68	20.62
120	5600	21.15	26.22
140	5700	23.73	25.42

<Beam-Forming On: 3x3>

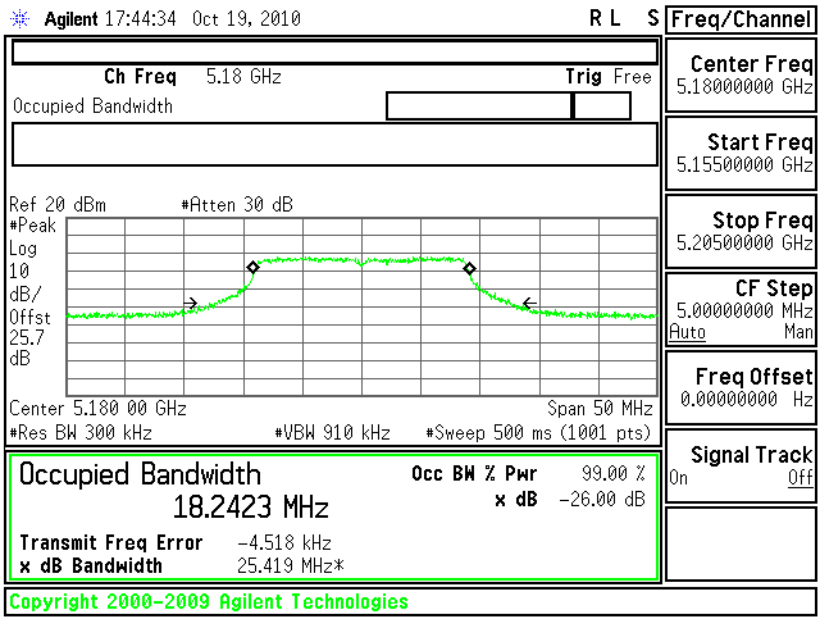
26 & 99% dB Bandwidth Plot on 802.11n (HT-20) Channel 36 - Chain 0



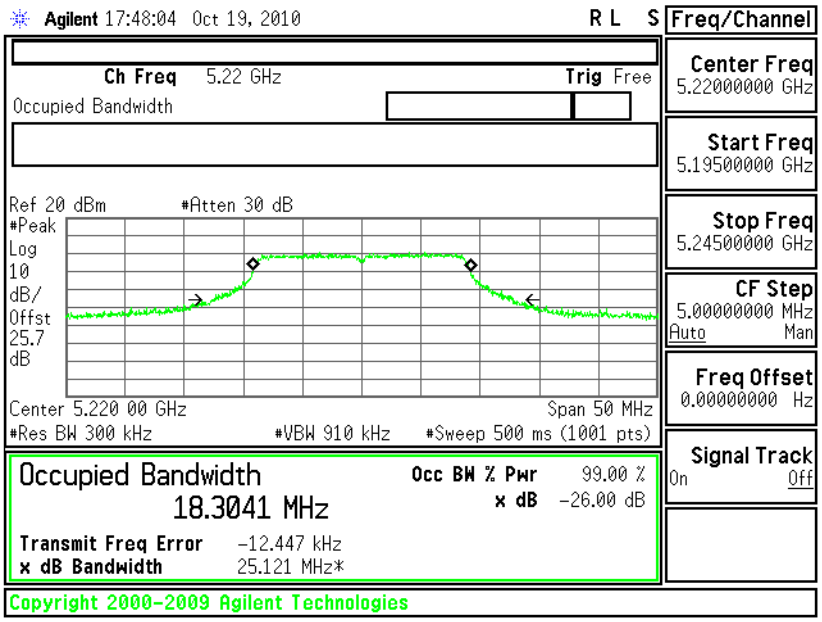
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 36 - Chain 1



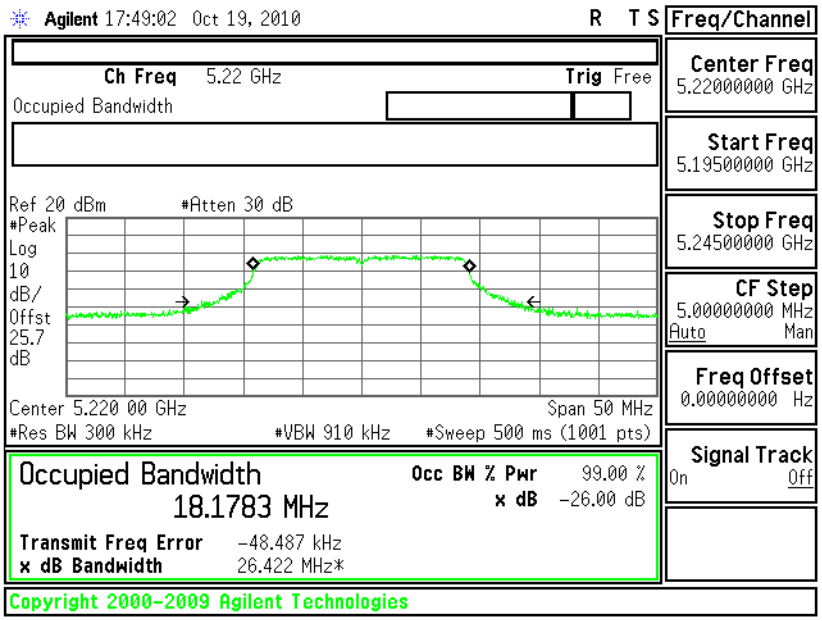
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 36 - Chain 2



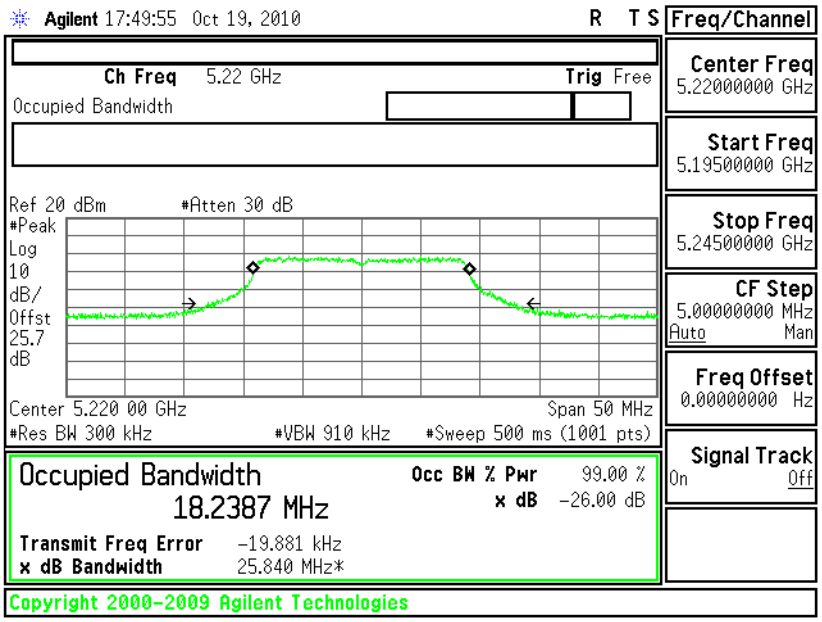
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 44 - Chain 0



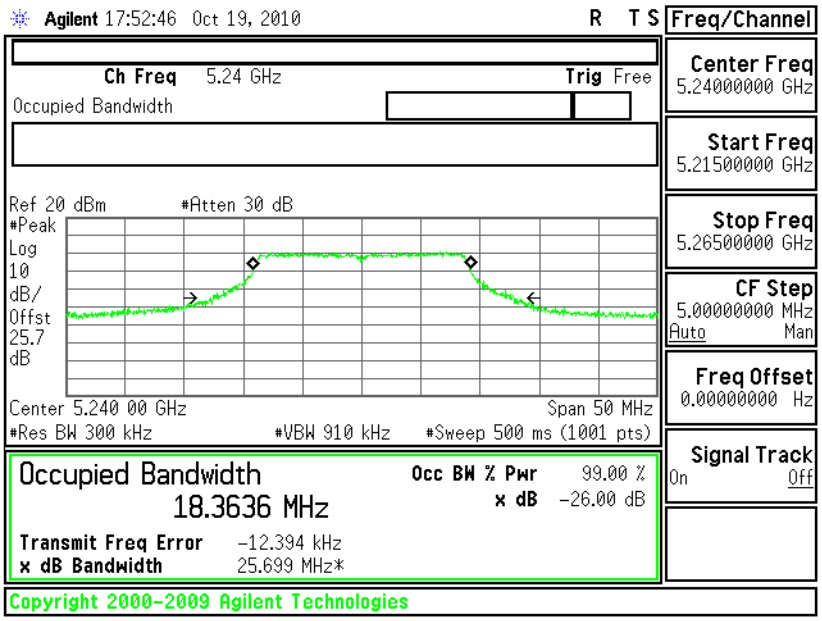
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 44 - Chain 1



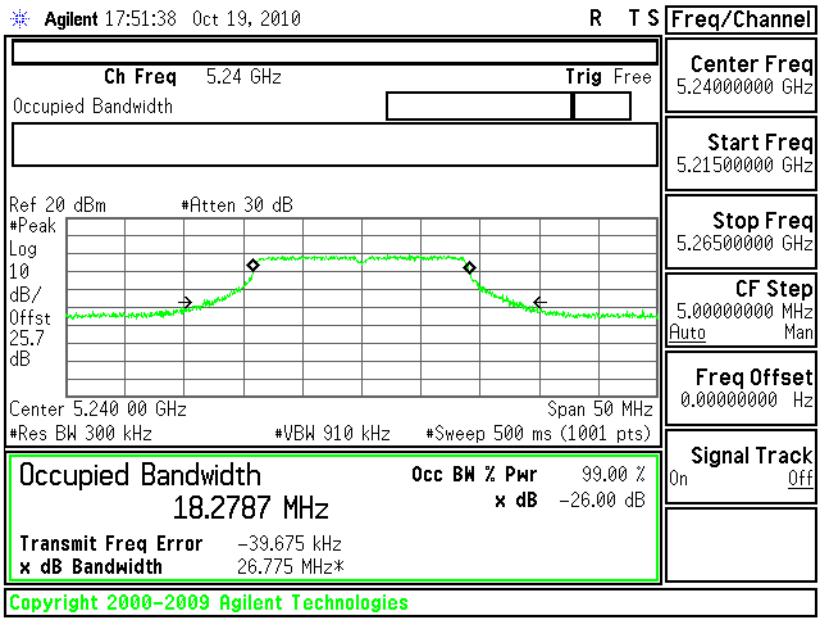
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 44 - Chain 2



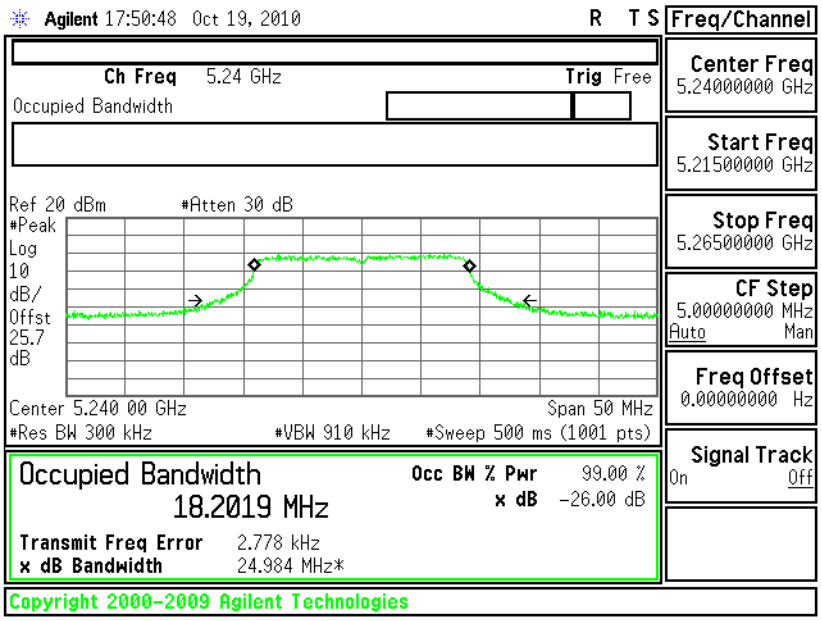
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 48 - Chain 0



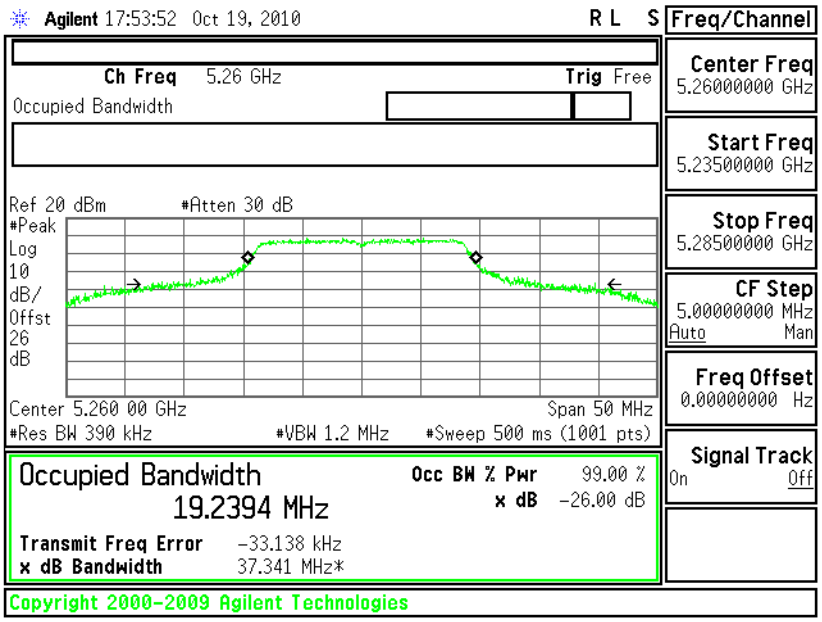
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 48 - Chain 1



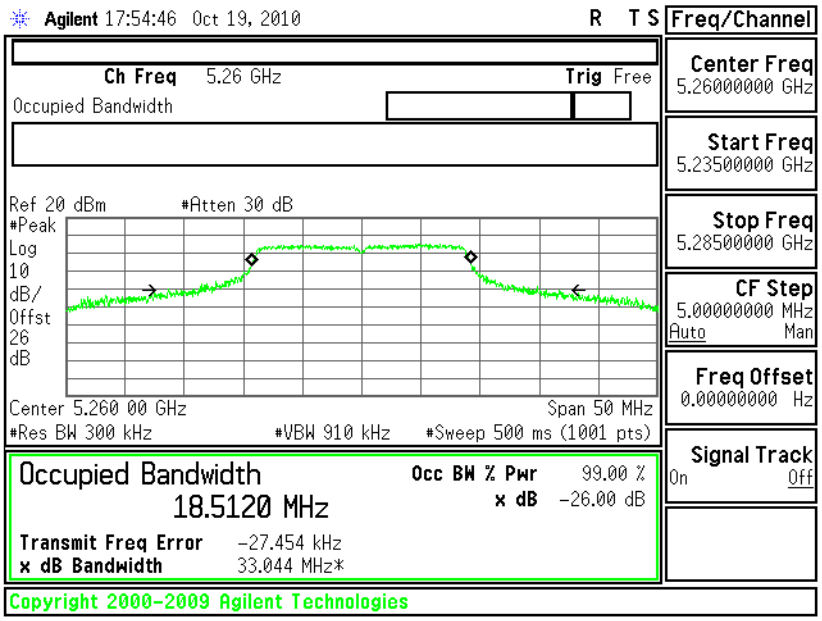
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 48 - Chain 2



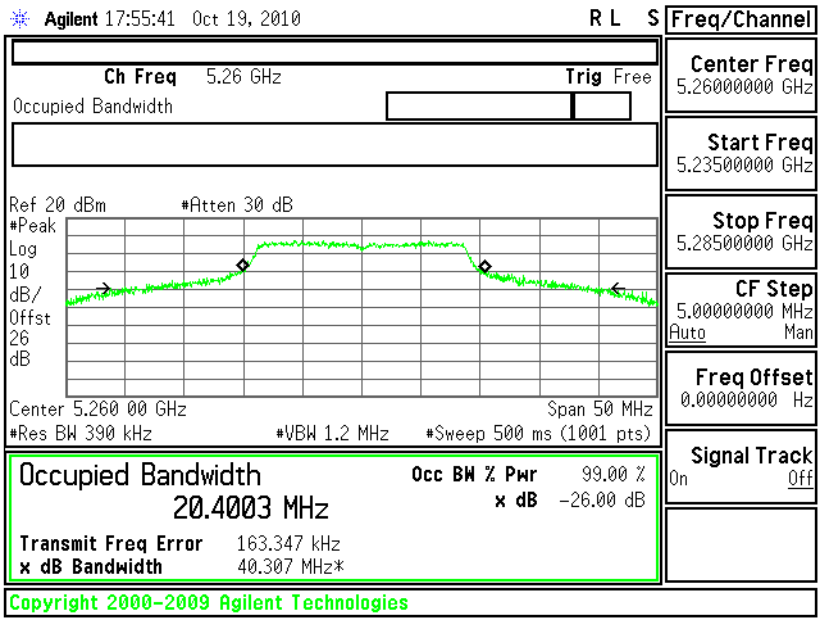
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 52 - Chain 0



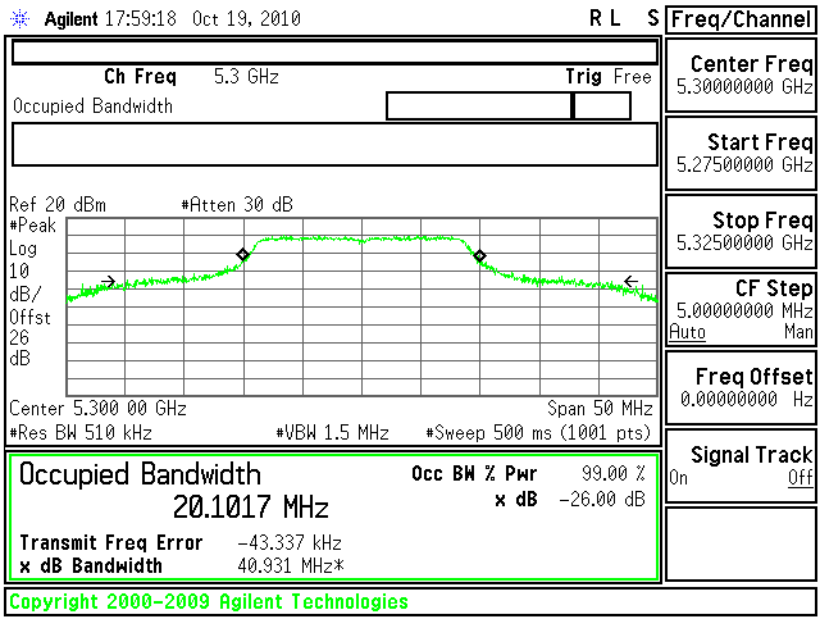
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 52 - Chain 1



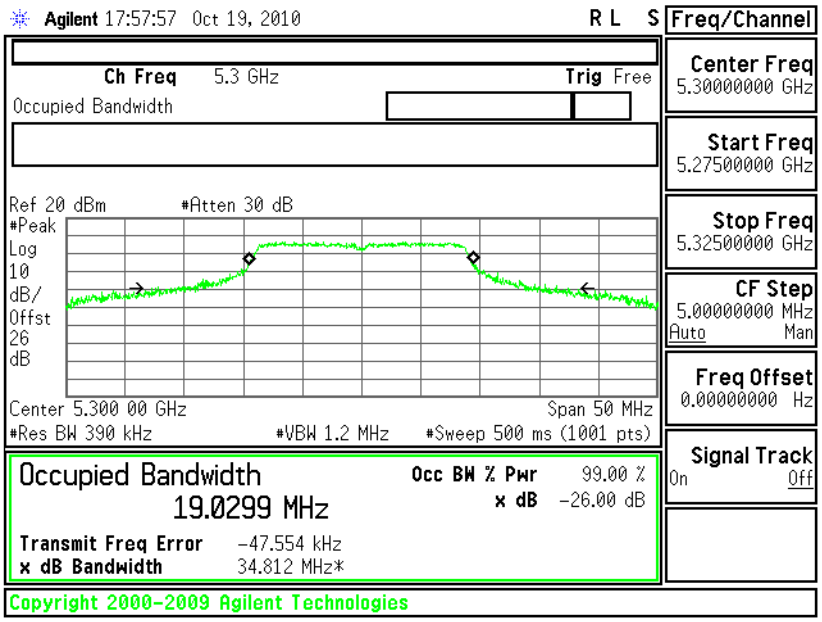
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 52 - Chain 2



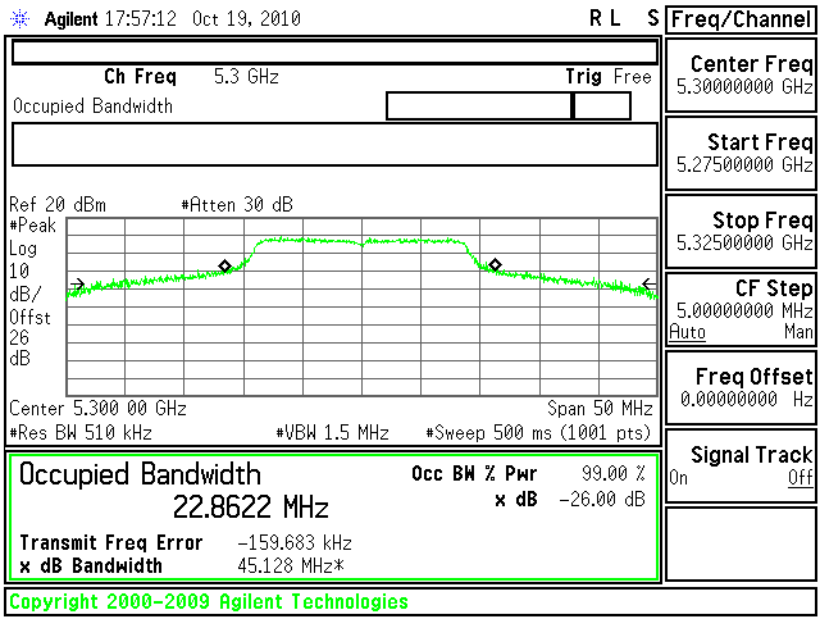
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 60 - Chain 0



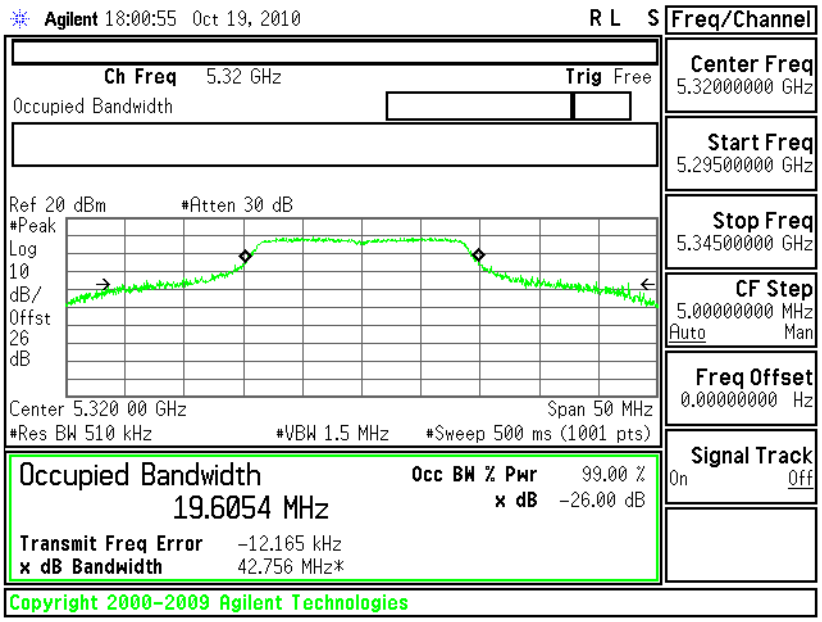
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 60 - Chain 1



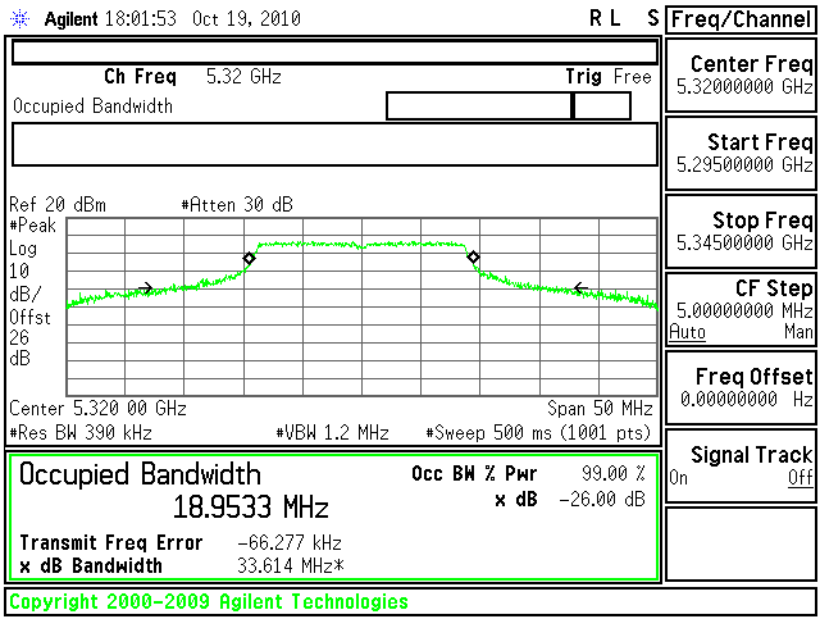
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 60 - Chain 2



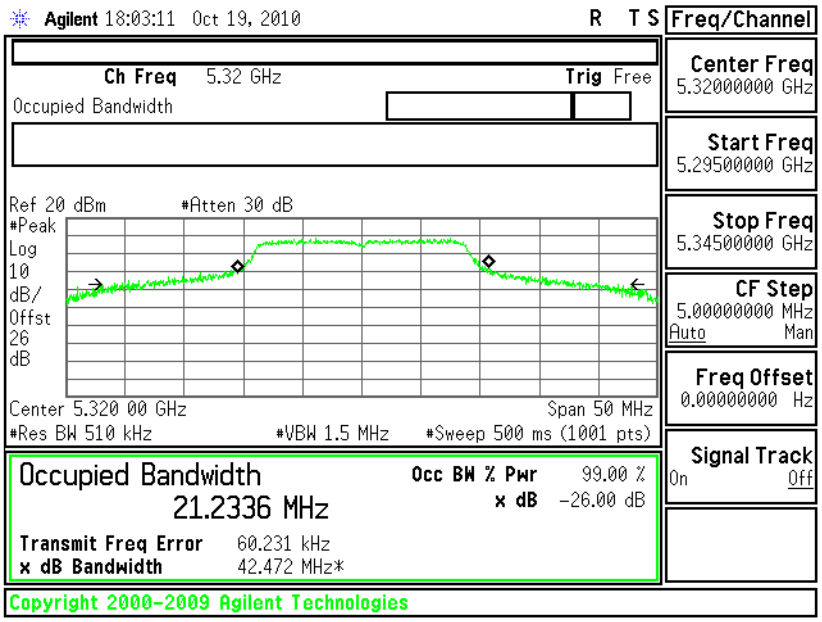
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 64 - Chain 0



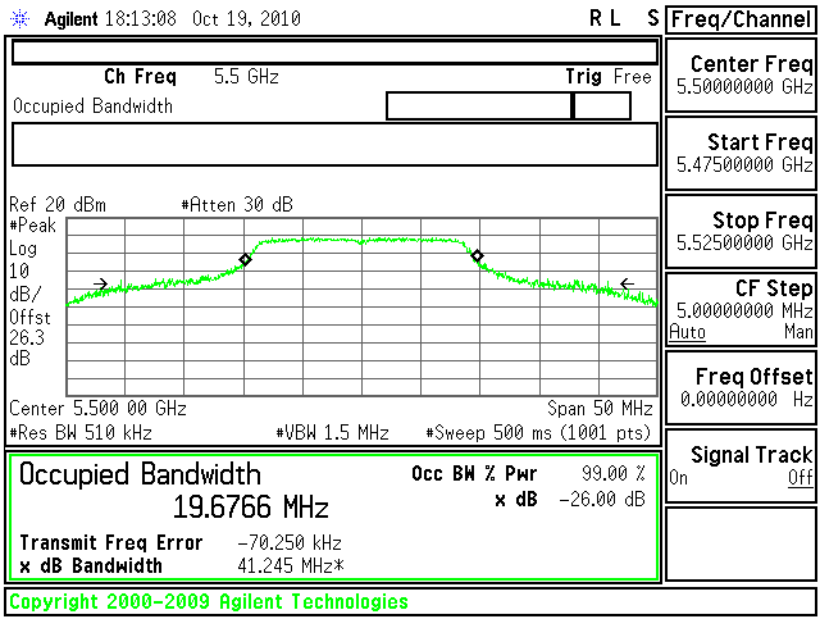
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 64 - Chain 1



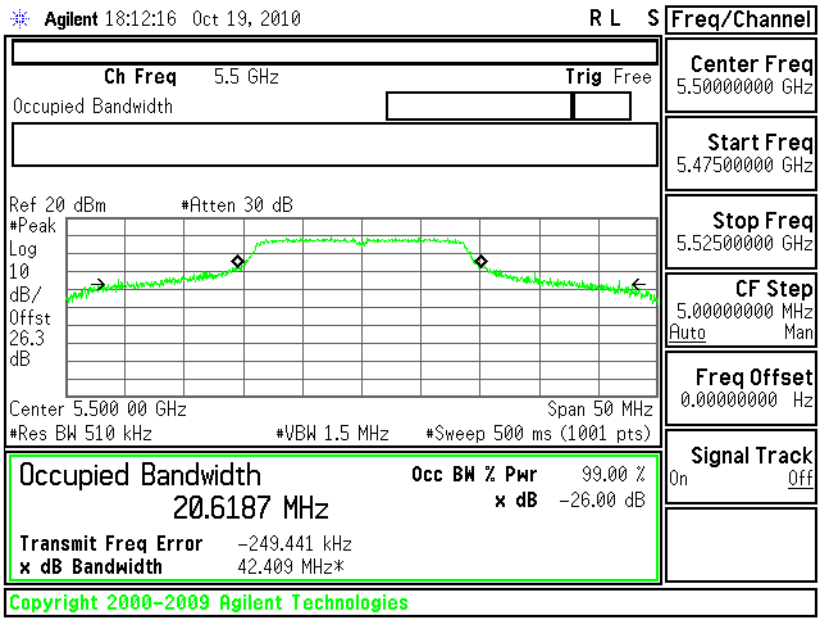
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 64 - Chain 2



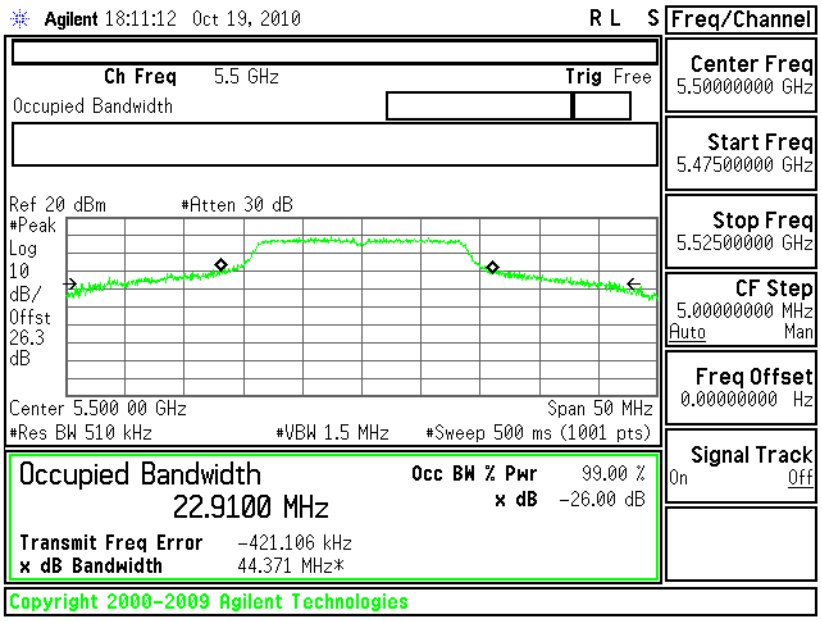
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 100 - Chain 0



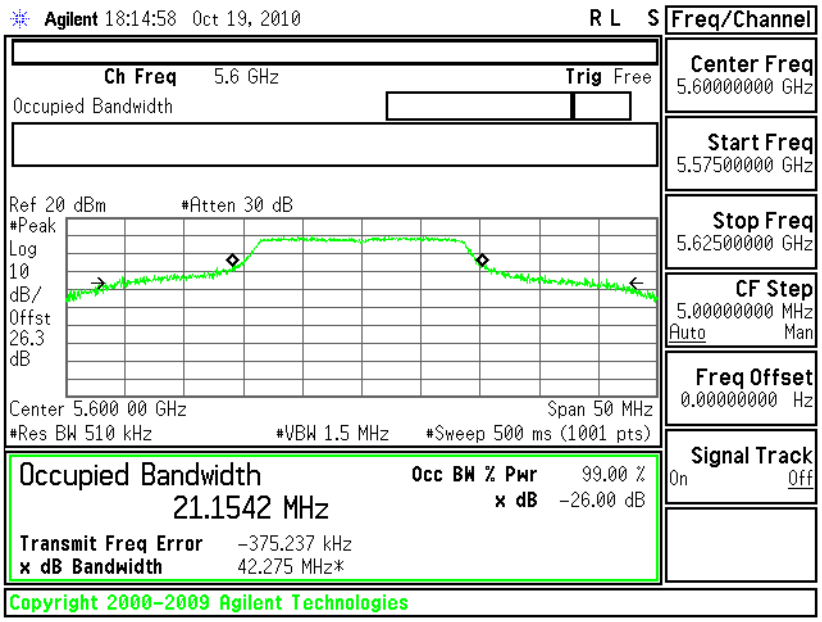
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 100 - Chain 1



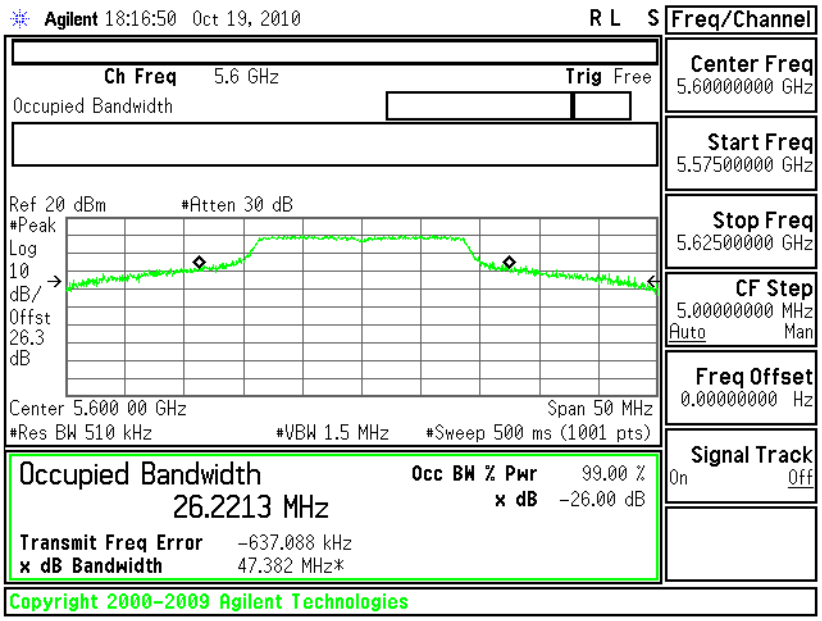
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 100 - Chain 2



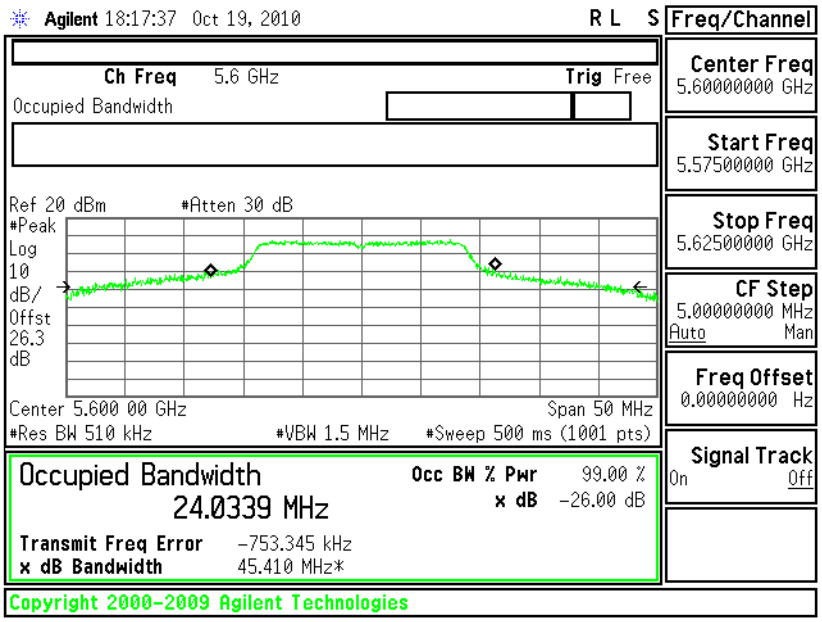
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 120 - Chain 0



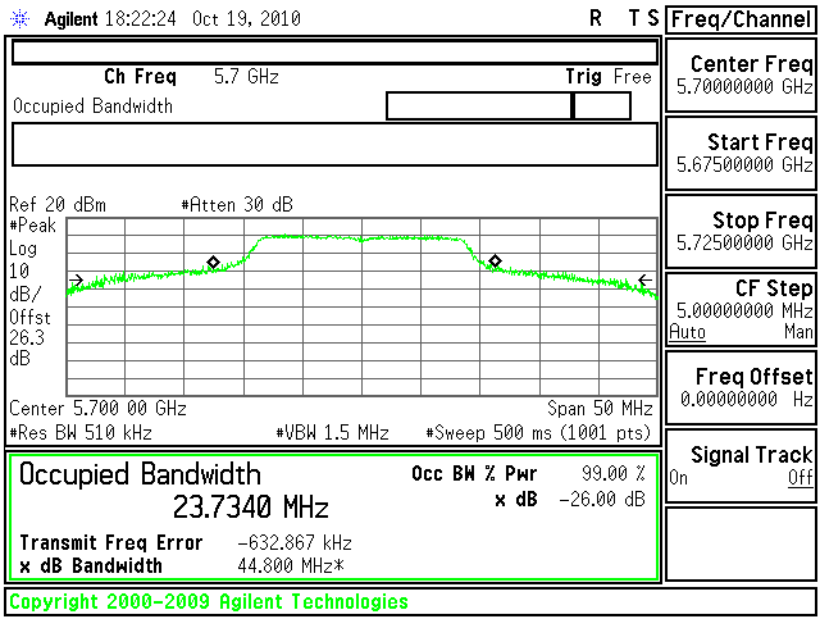
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 120 - Chain 1



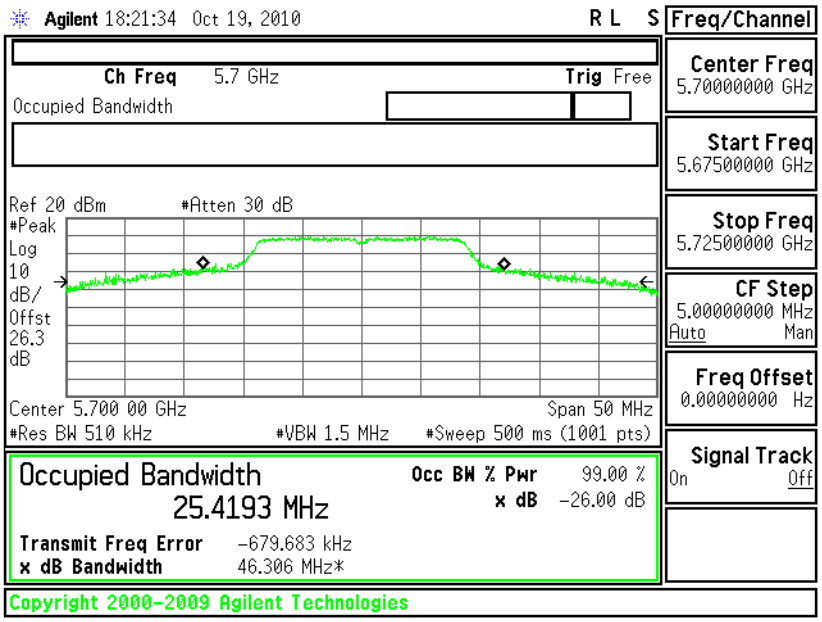
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 120 – Chain 2



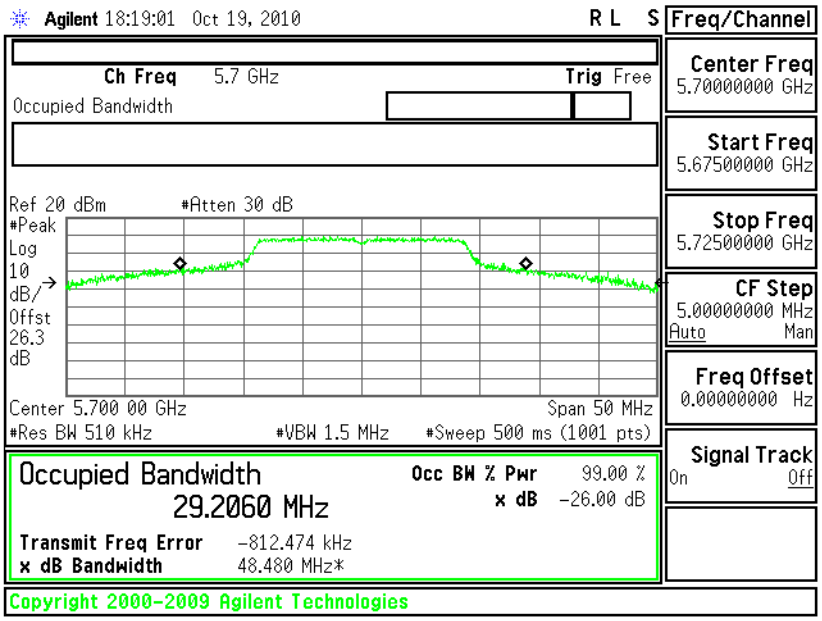
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 140 - Chain 0



26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 140 - Chain 1

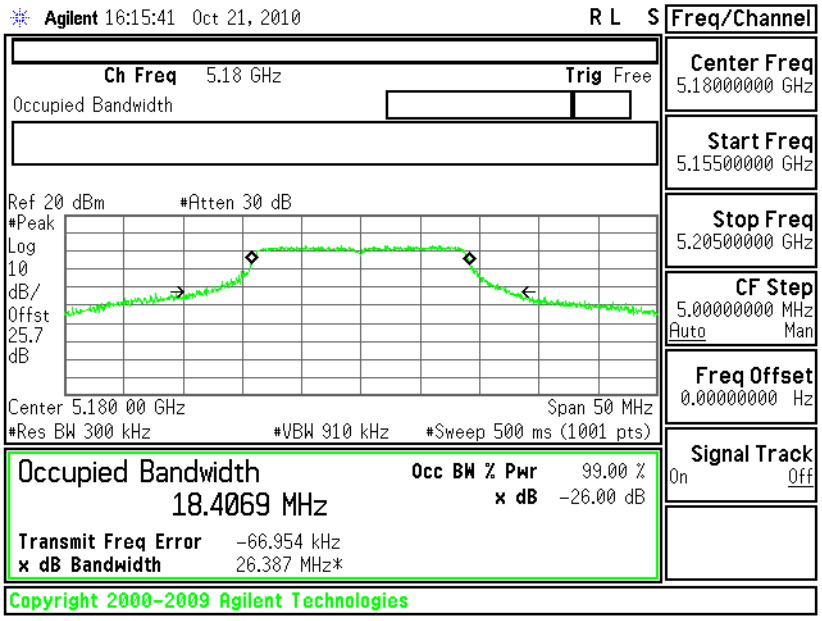


26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 140 - Chain 2

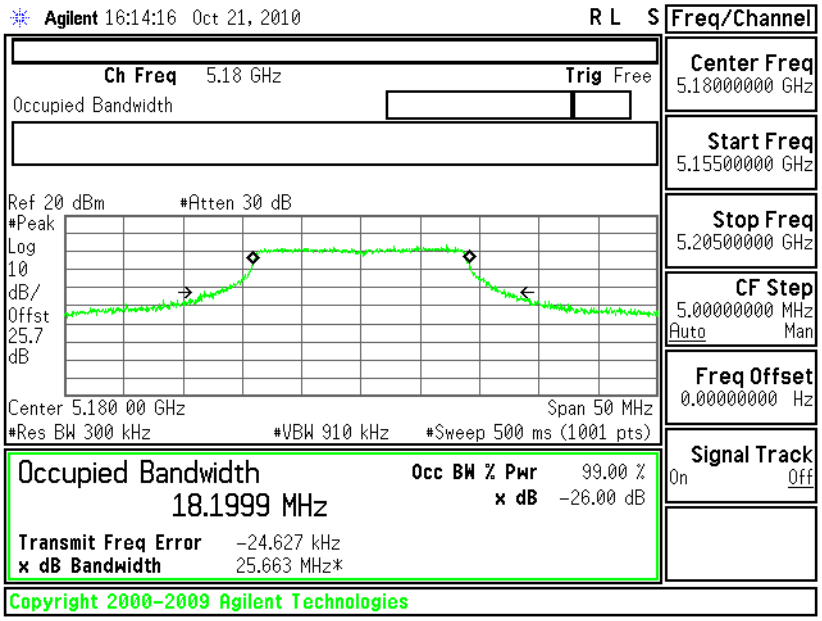


<Beam-Forming On: 2x3>

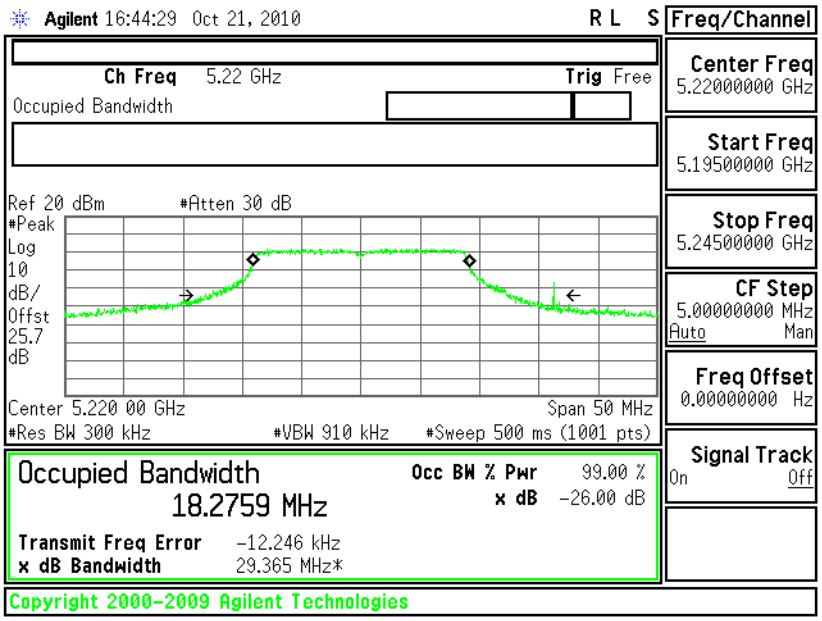
26 & 99% dB Bandwidth Plot on 802.11n (HT-20) Channel 36 - Chain 0



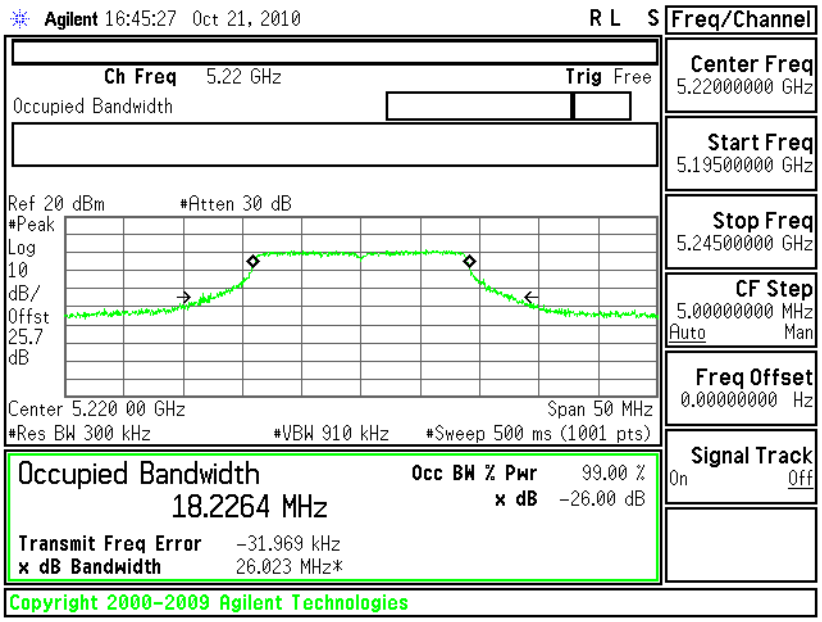
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 36 - Chain 1



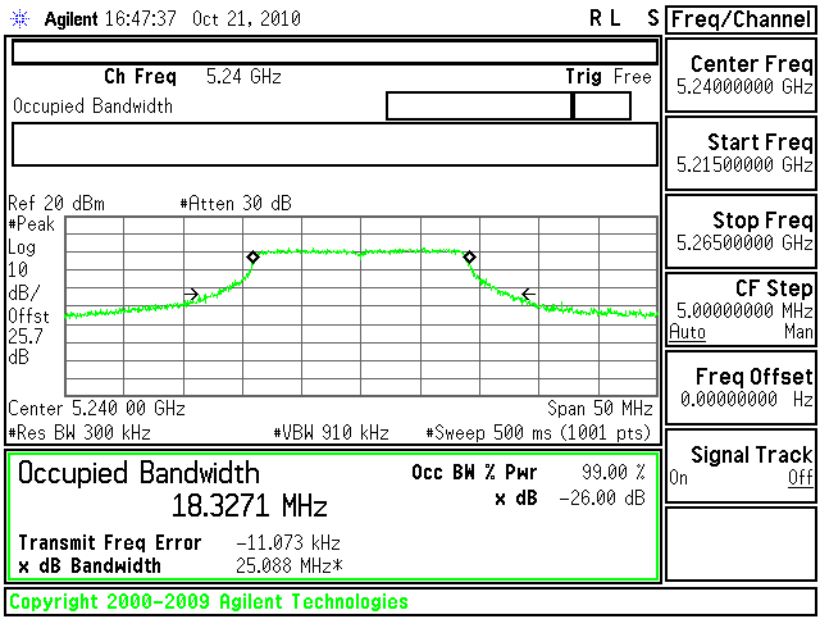
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 44 - Chain 0



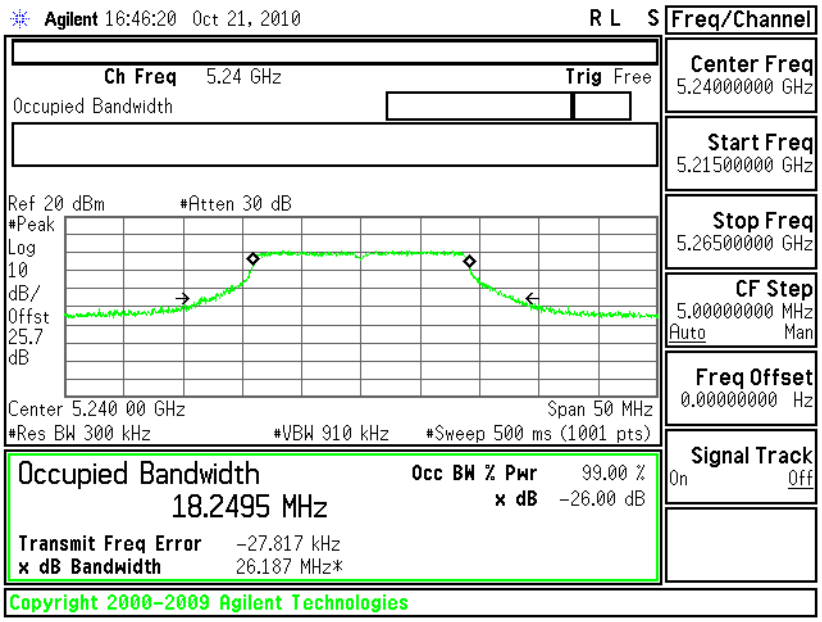
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 44 - Chain 1



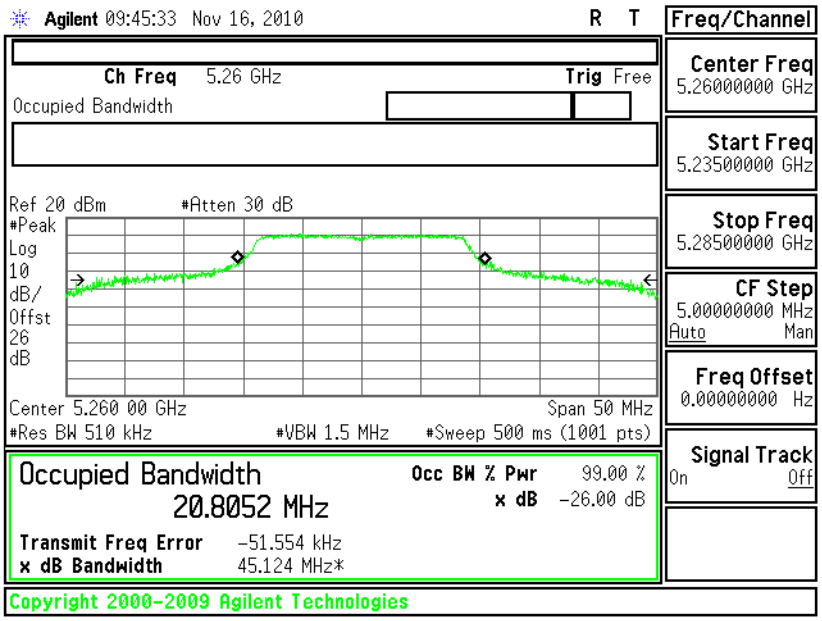
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 48 - Chain 0



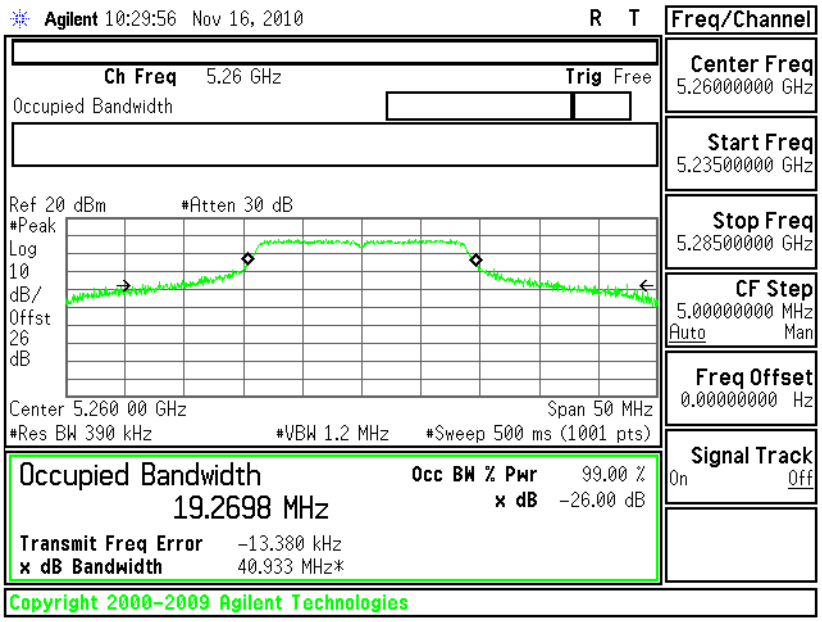
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 48 - Chain 1



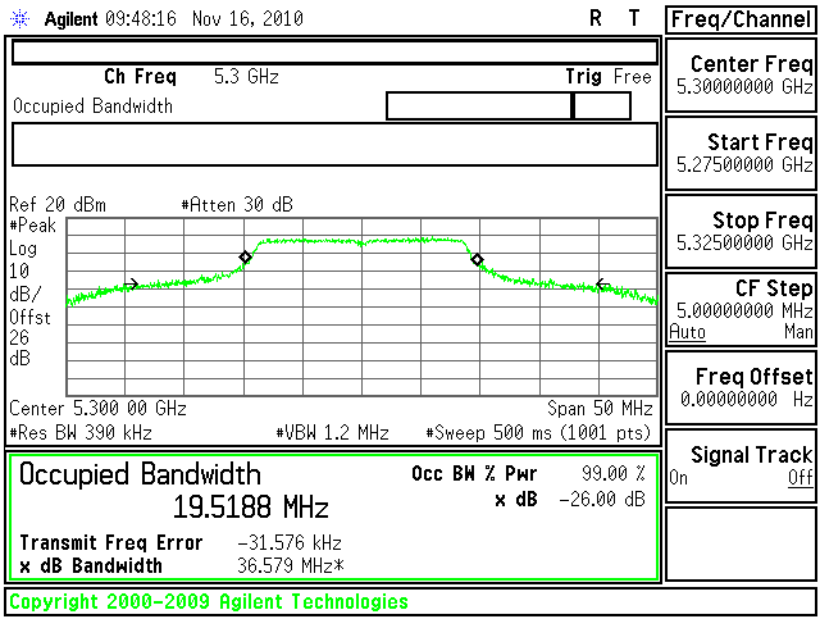
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 52 - Chain 0



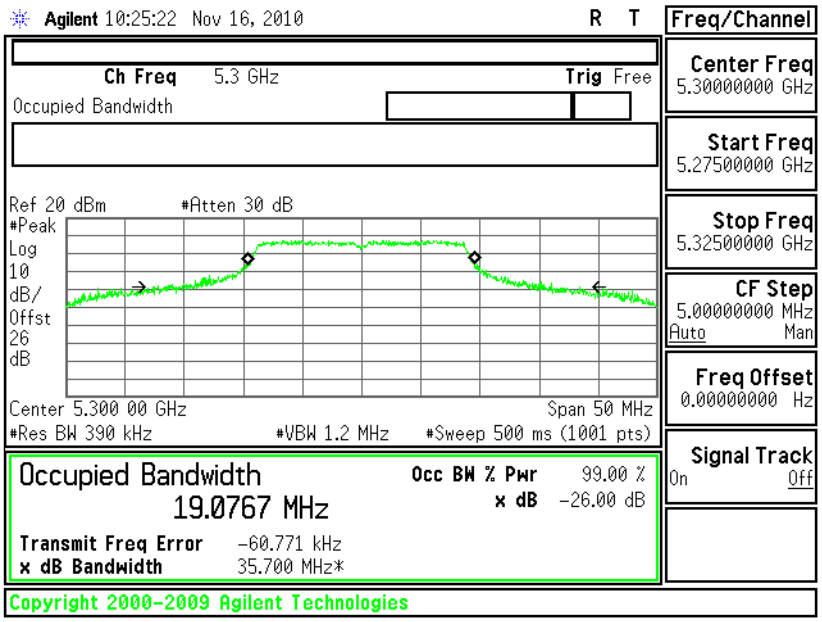
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 52 - Chain 1



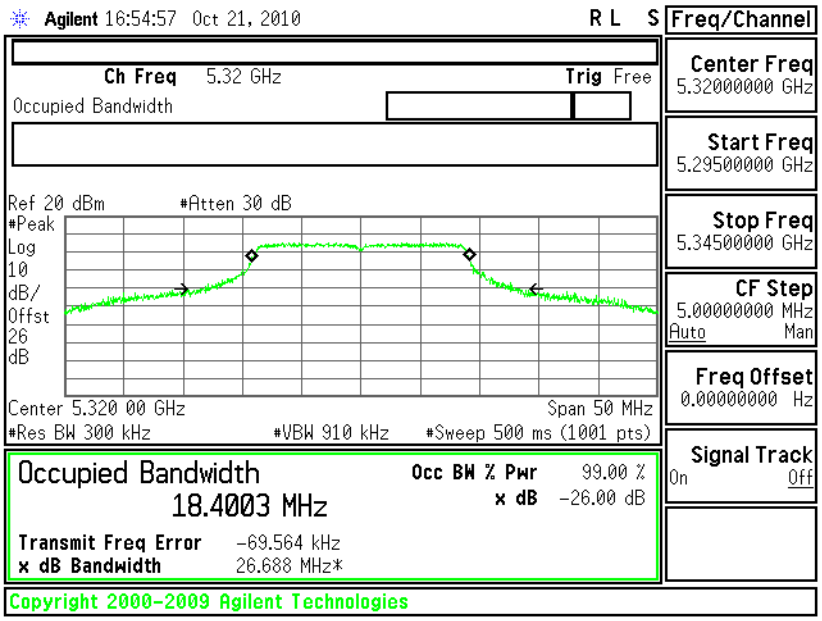
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 60 - Chain 0



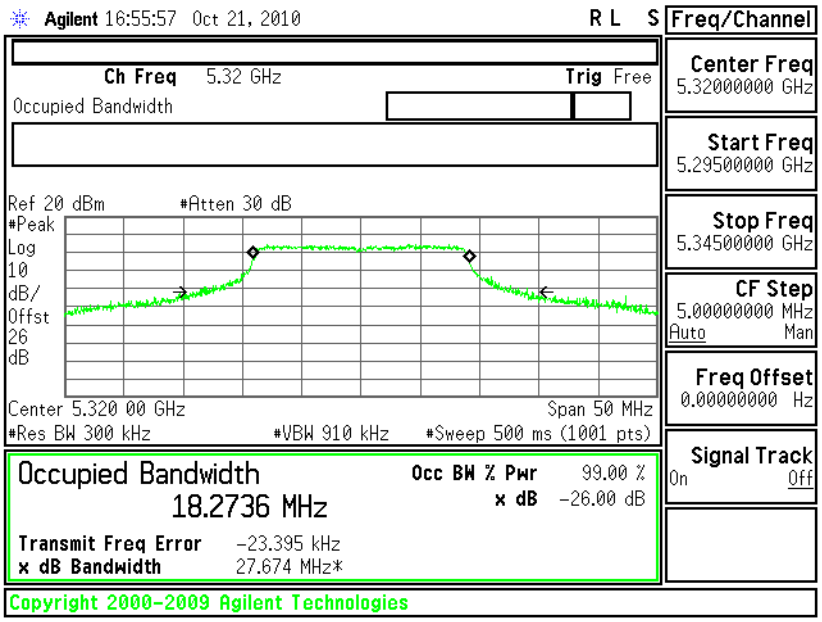
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 60 - Chain 1



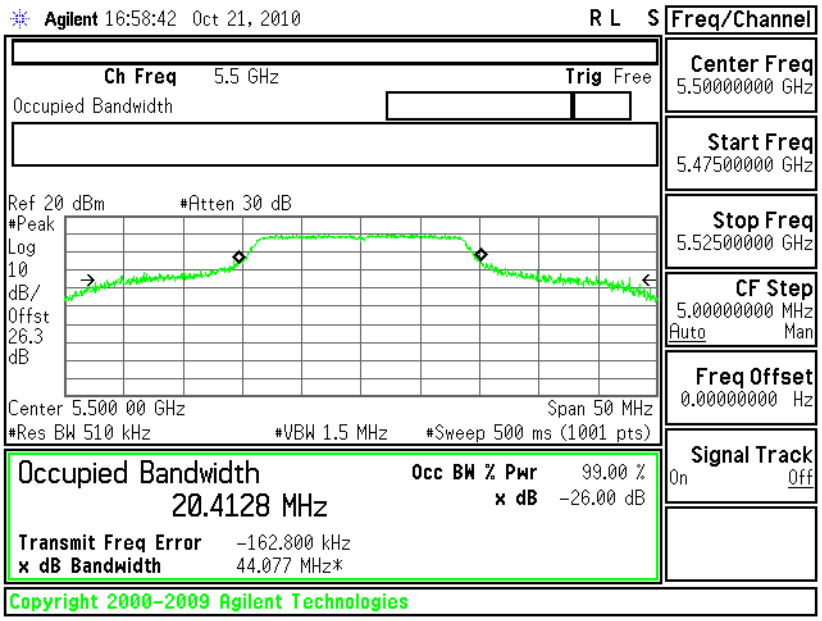
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 64 - Chain 0



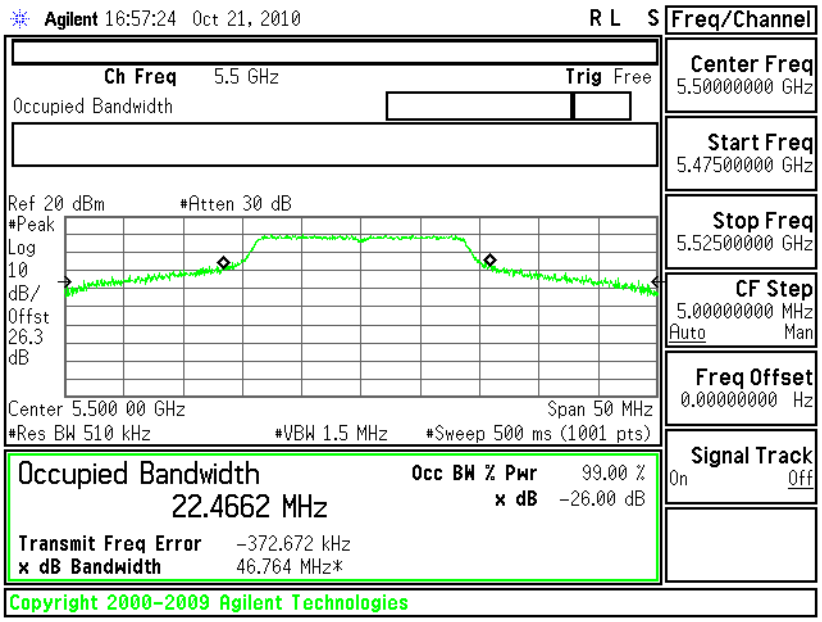
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 64 - Chain 1



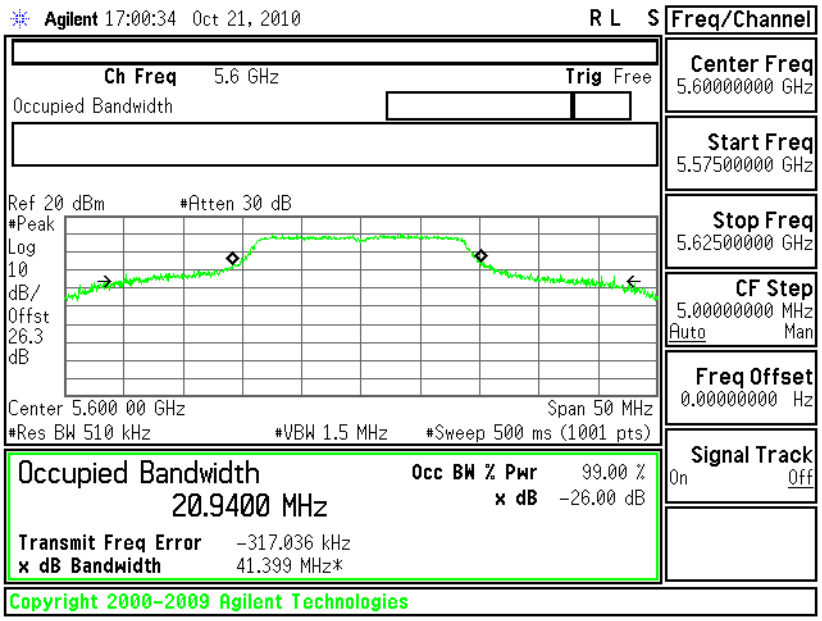
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 100 - Chain 0



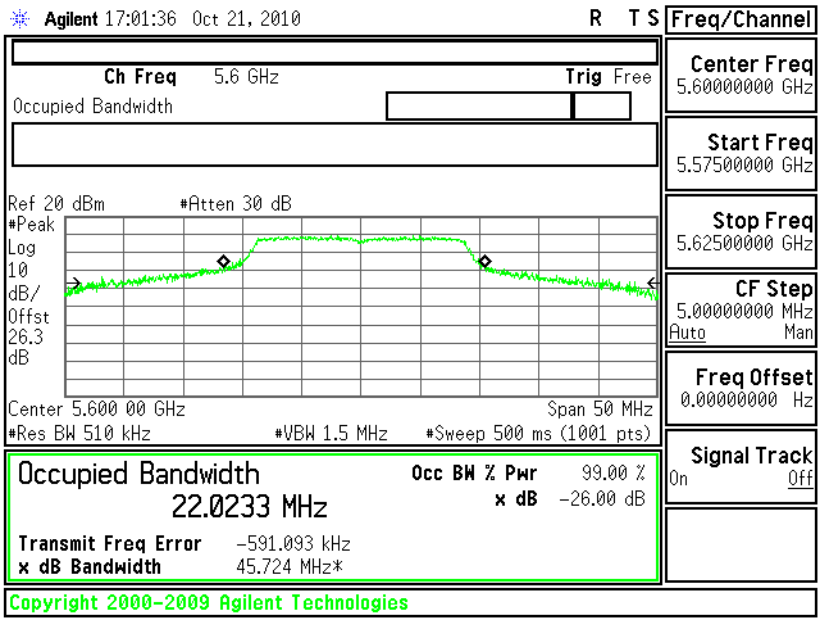
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 100 - Chain 1



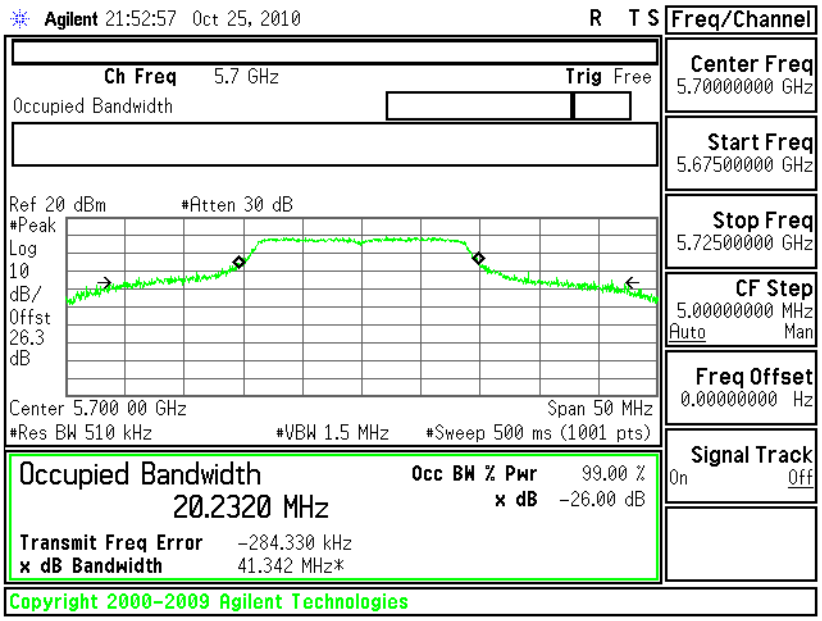
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 120 - Chain 0



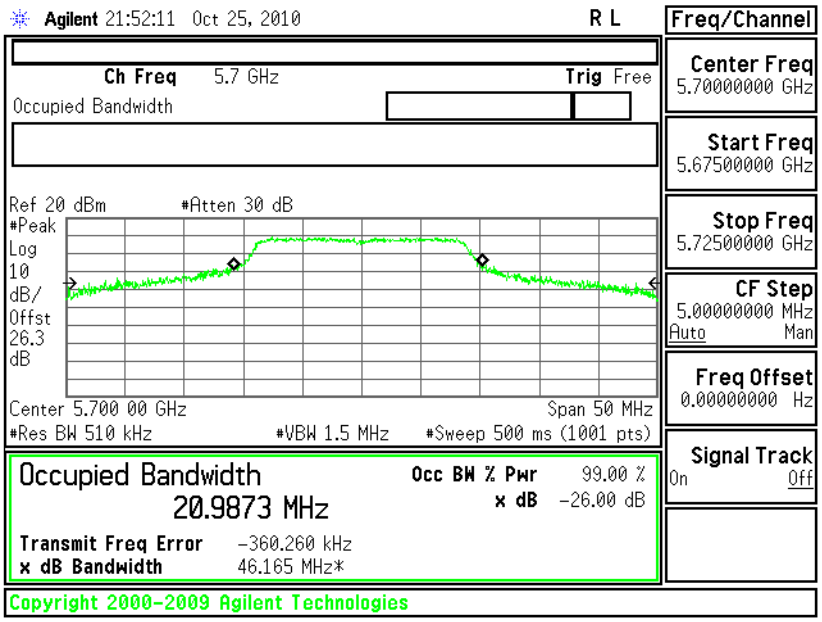
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 120 - Chain 1



26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 140 - Chain 0

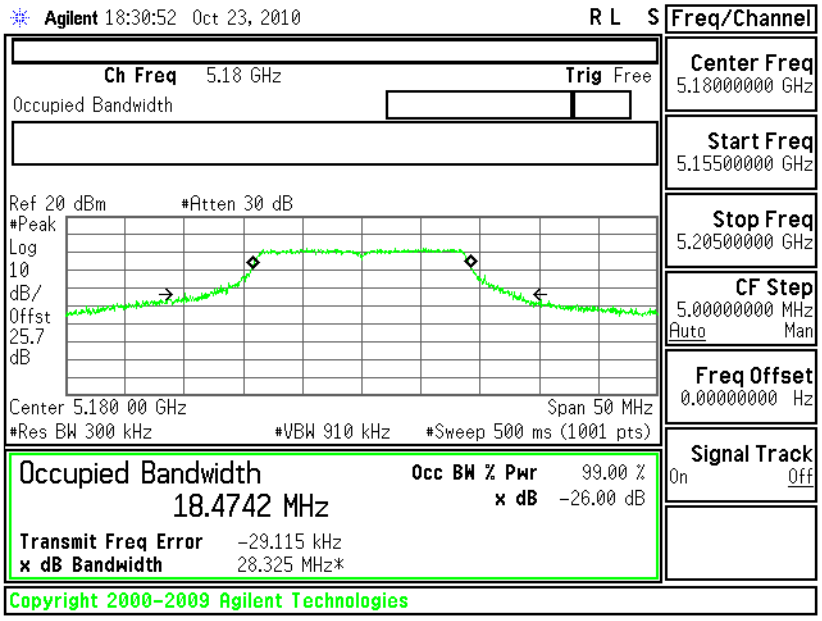


26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 140 - Chain 1

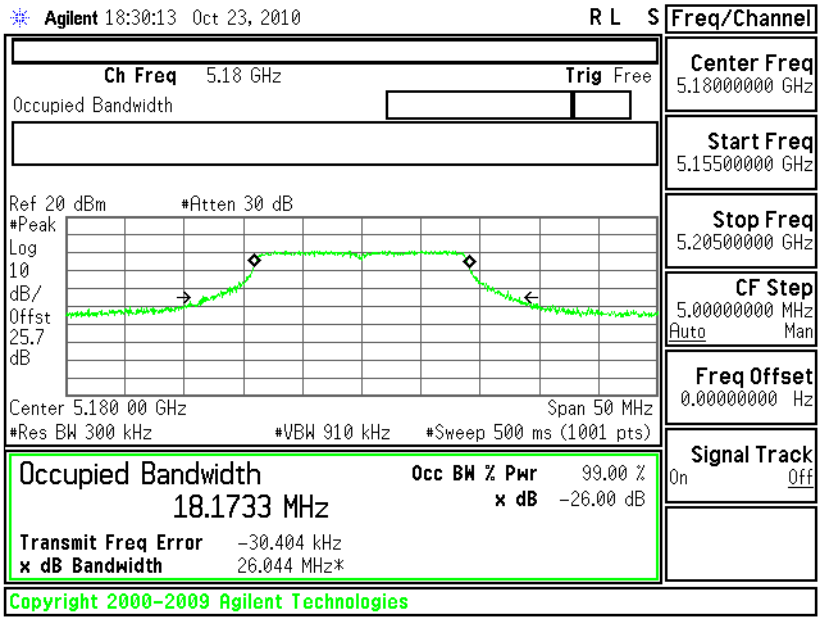


<Beam-Forming Off: 3x3>

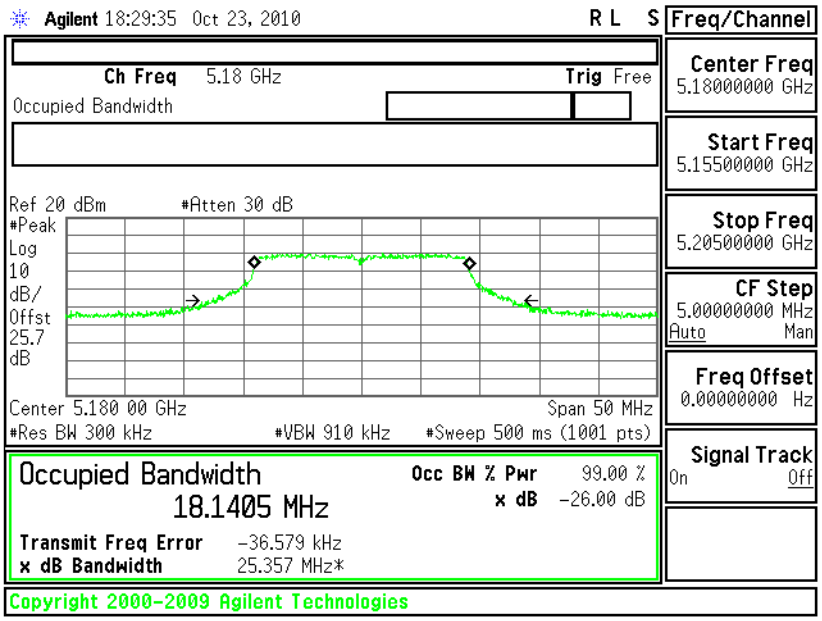
26 & 99% dB Bandwidth Plot on 802.11n (HT-20) Channel 36 - Chain 0



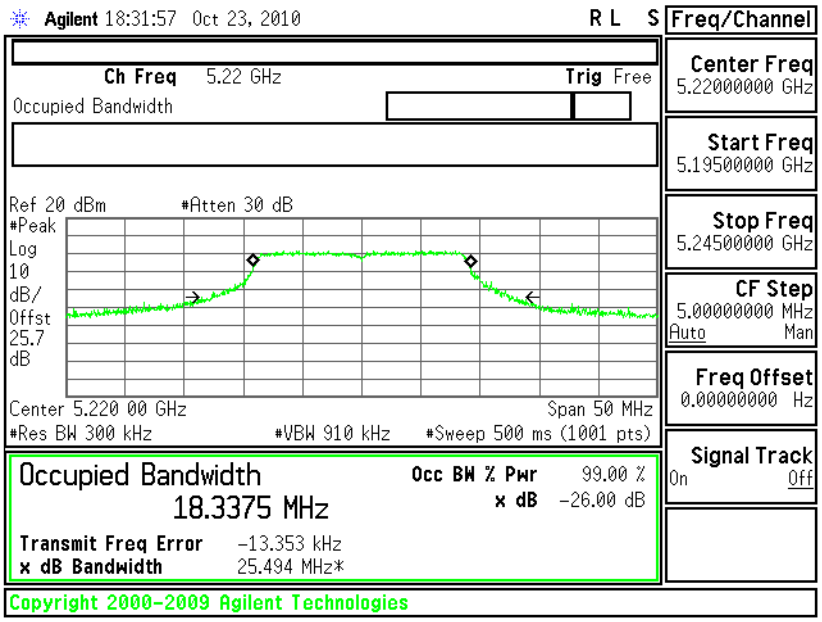
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 36 - Chain 1



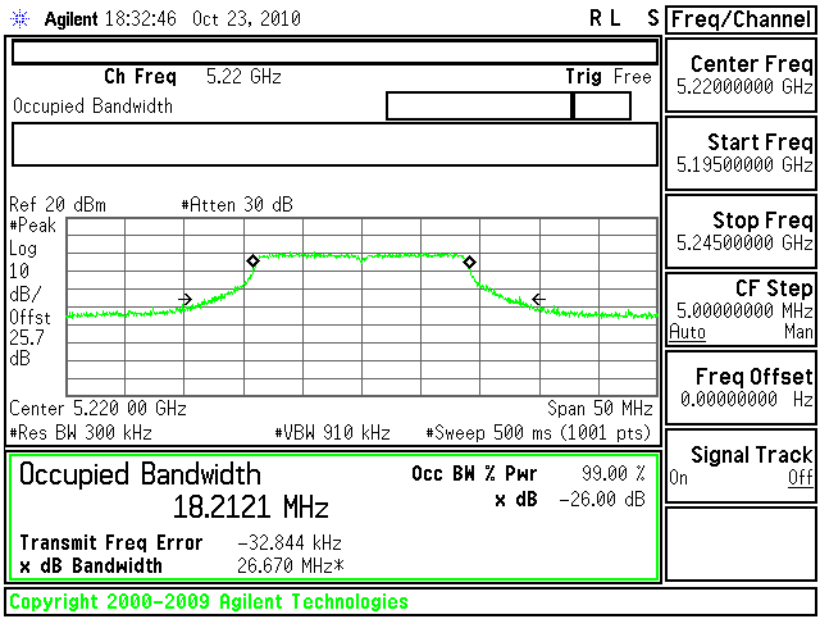
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 36 - Chain 2



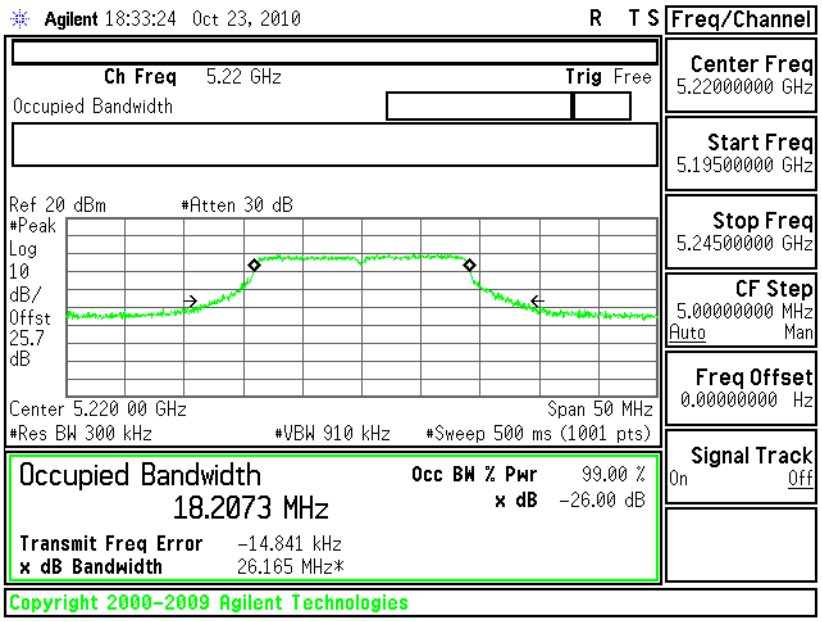
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 44 - Chain 0



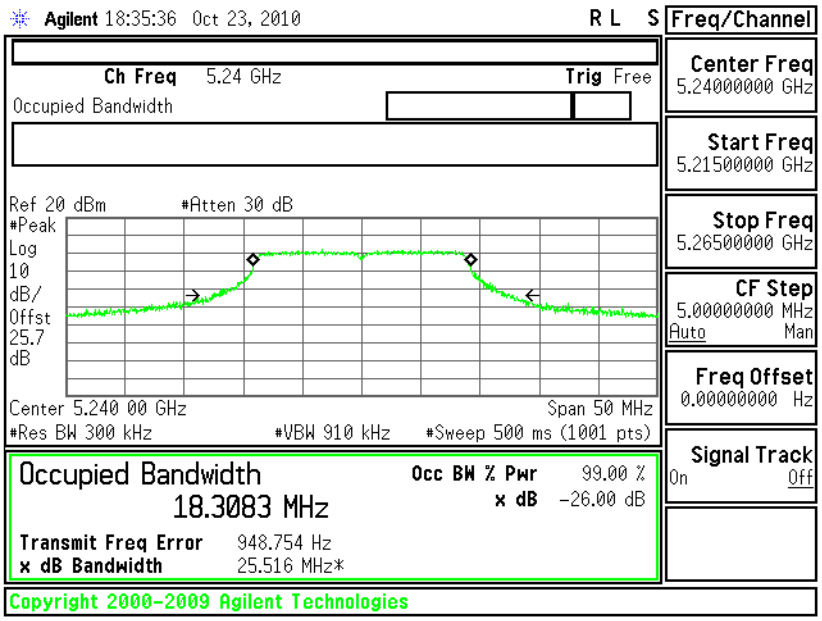
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 44 - Chain 1



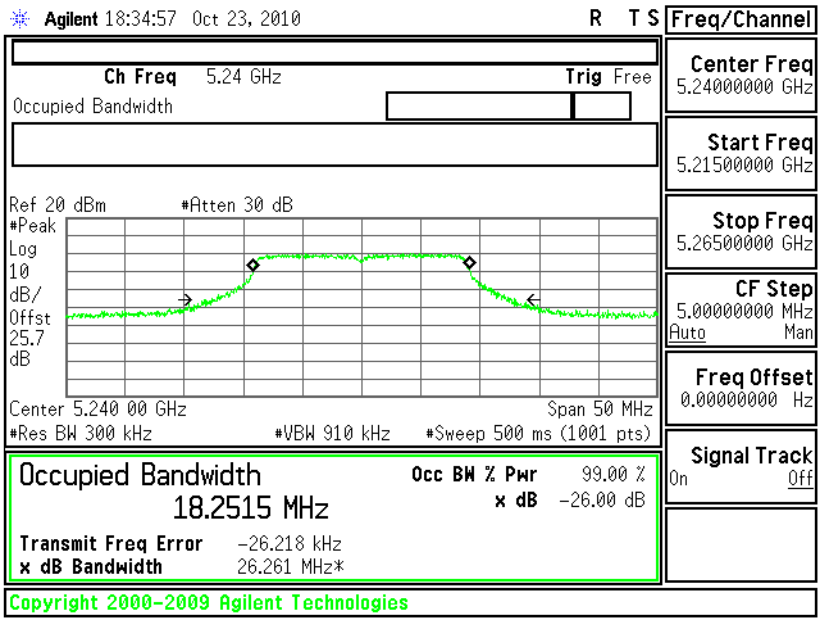
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 44 - Chain 2



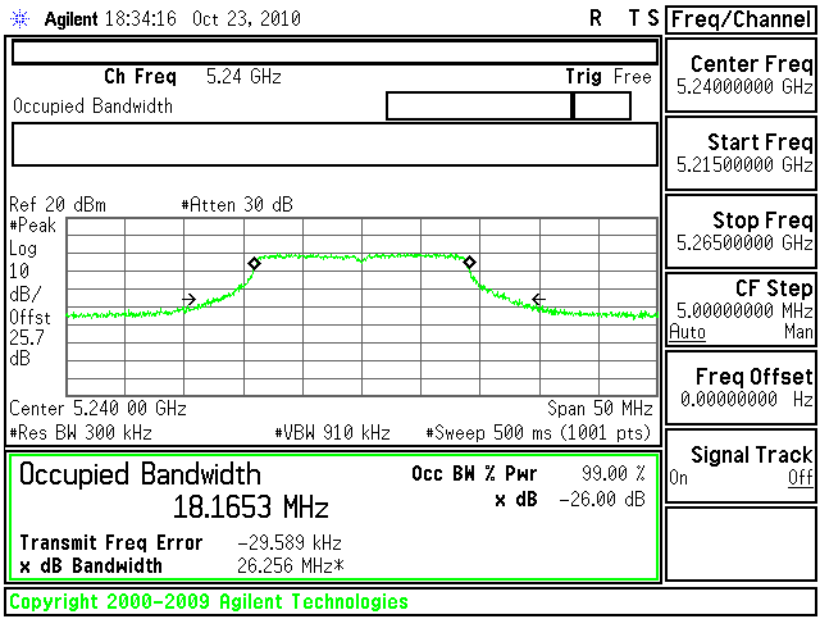
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 48 - Chain 0



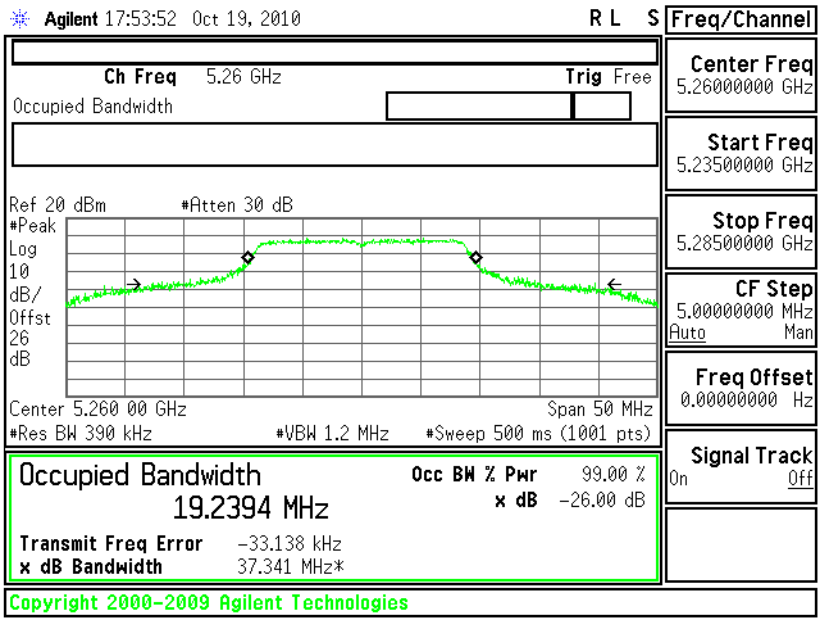
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 48 - Chain 1



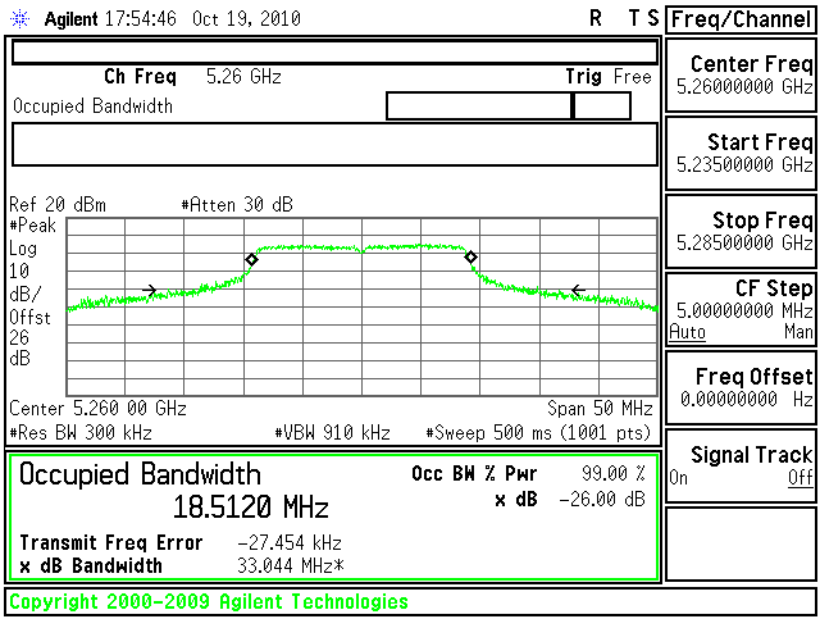
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 48 - Chain 2



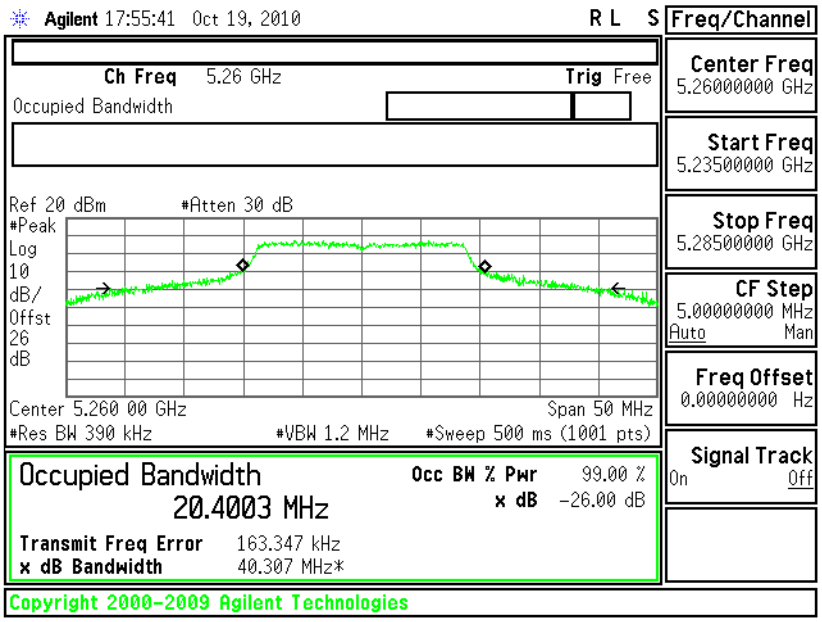
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 52 - Chain 0



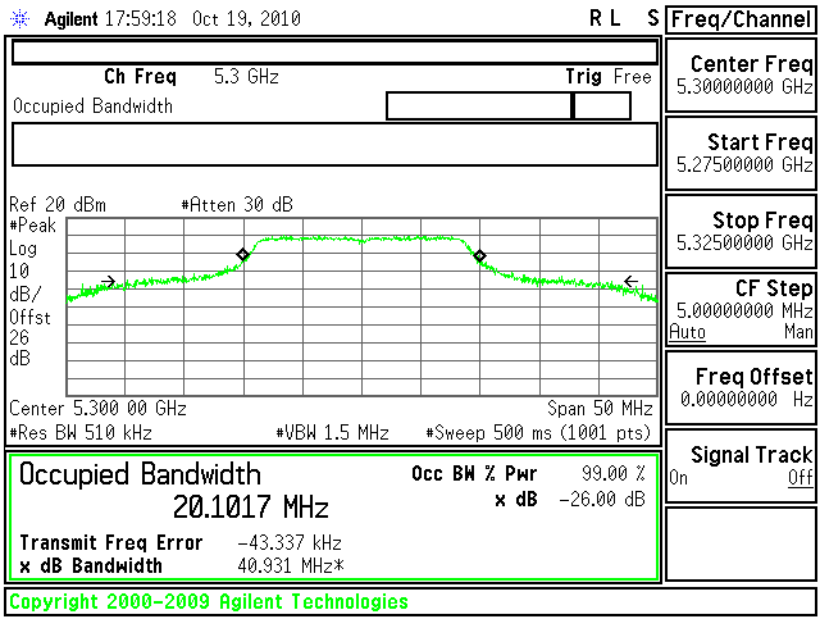
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 52 - Chain 1



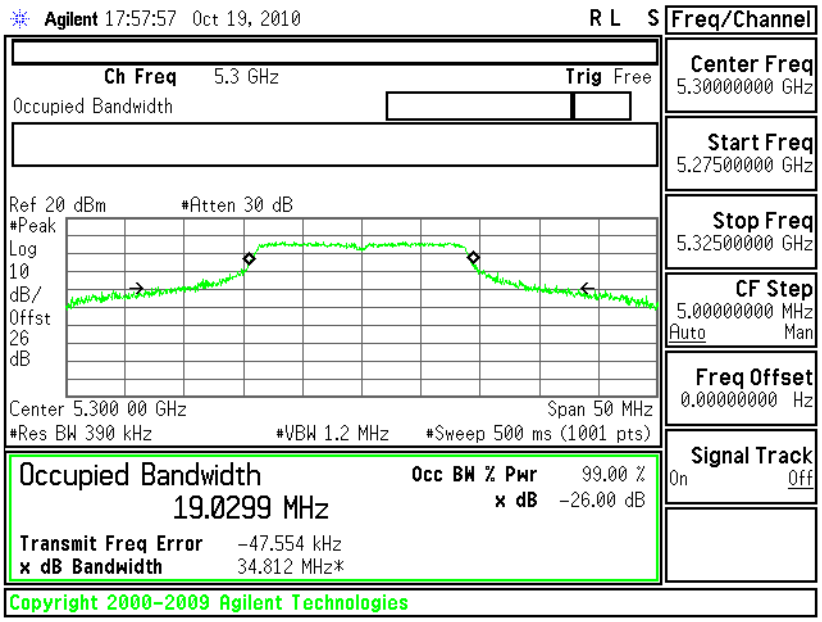
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 52 - Chain 2



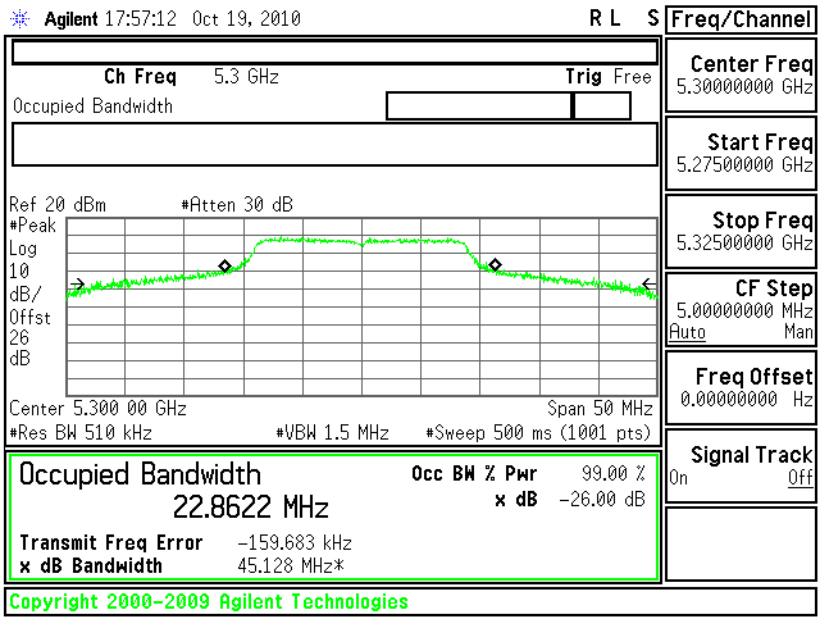
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 60 - Chain 0



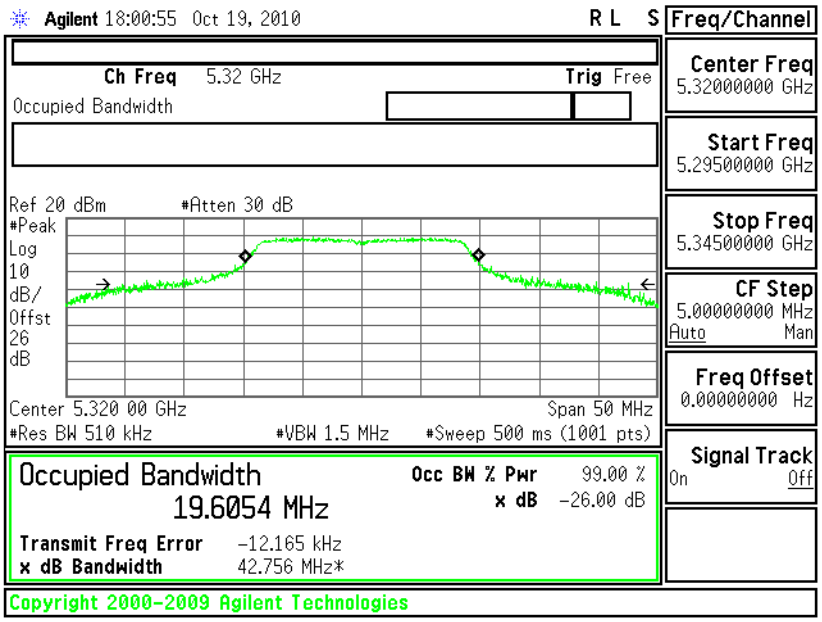
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 60 - Chain 1



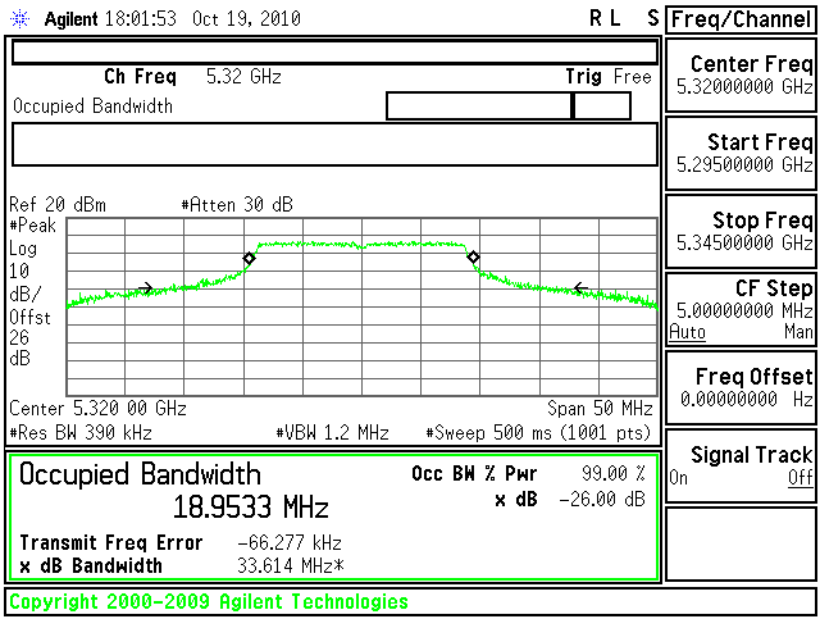
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 60 - Chain 2



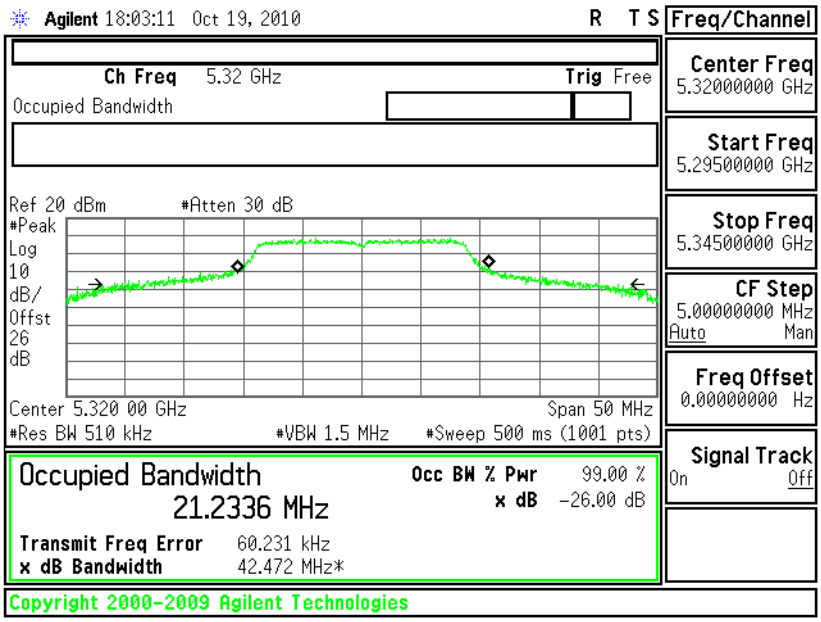
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 64 - Chain 0



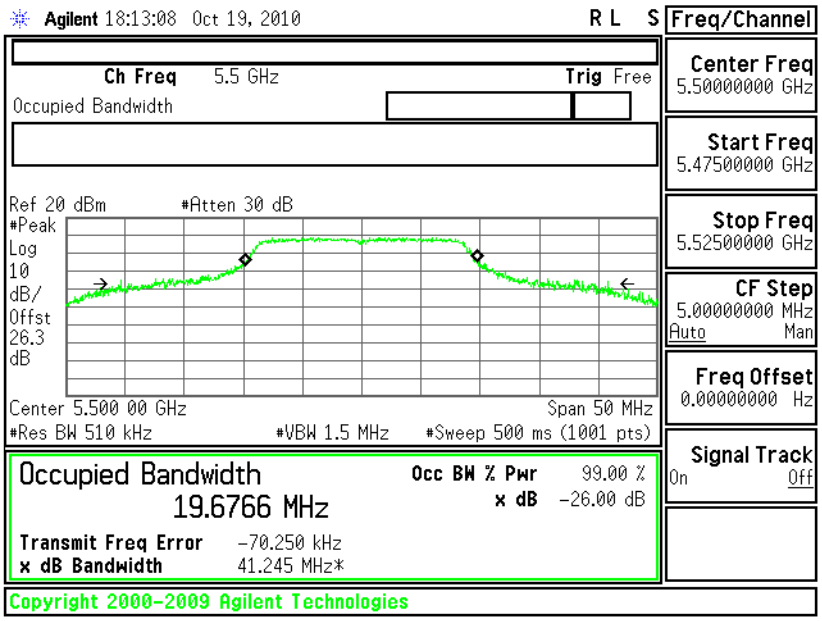
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 64 - Chain 1



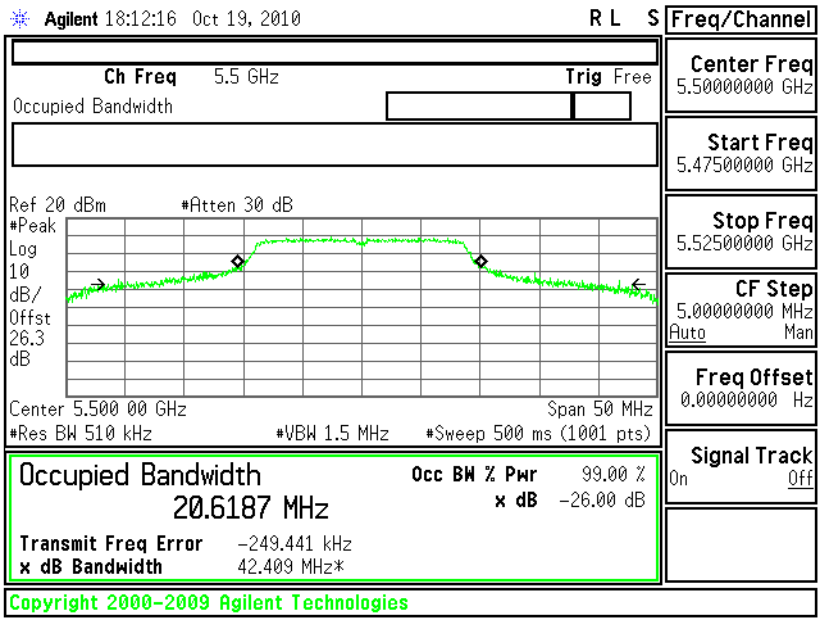
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 64 - Chain 2



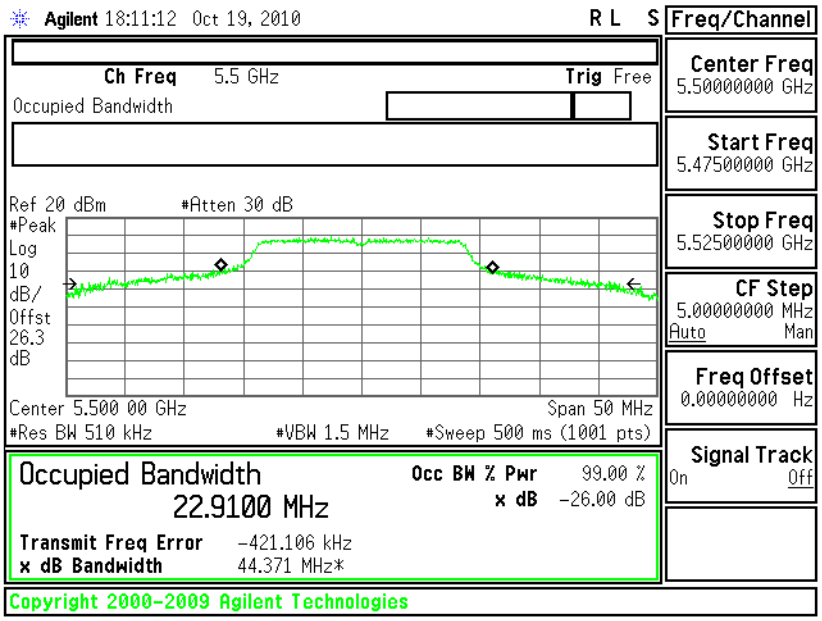
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 100 - Chain 0



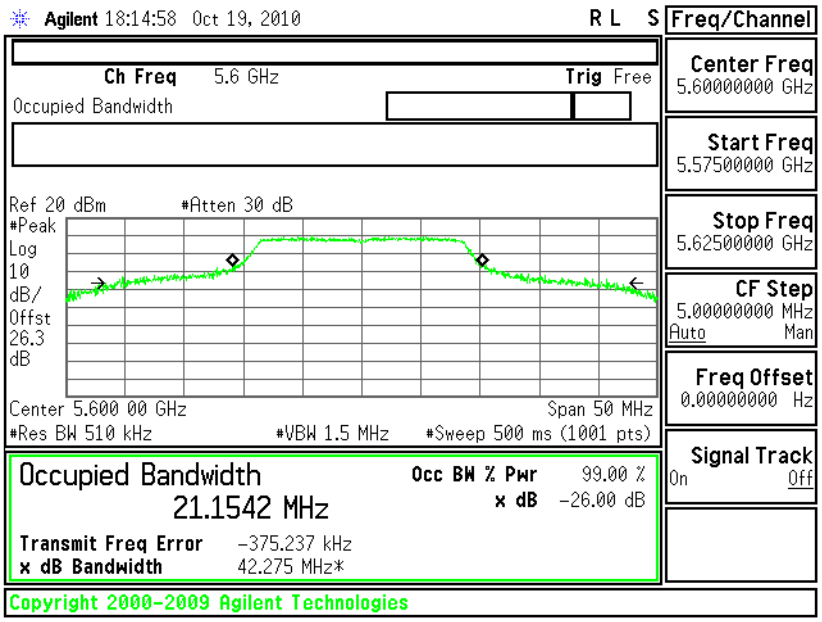
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 100 - Chain 1



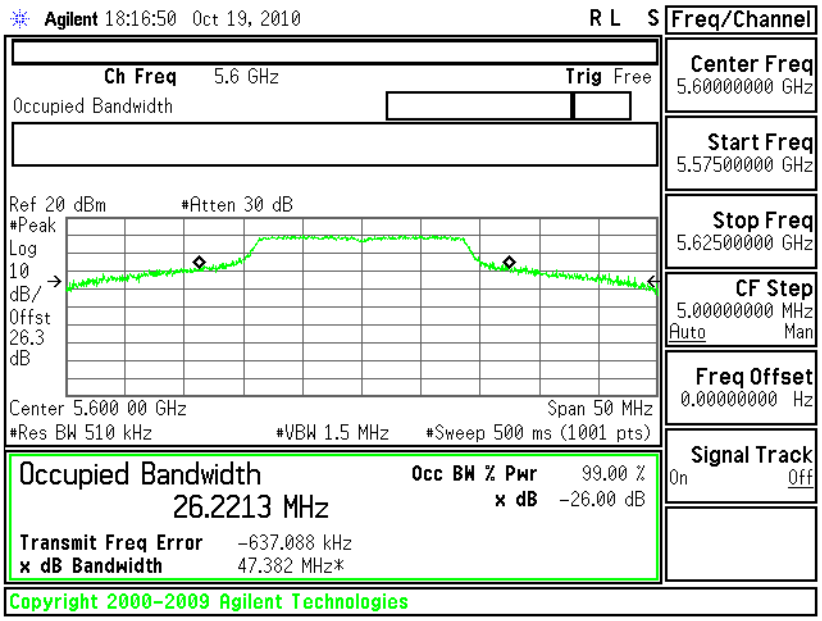
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 100 - Chain 2



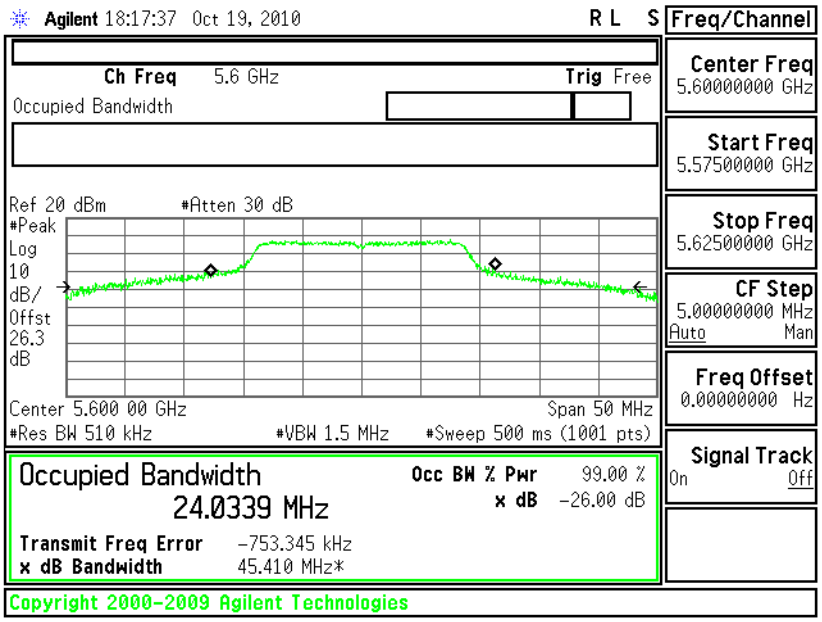
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 120 - Chain 0



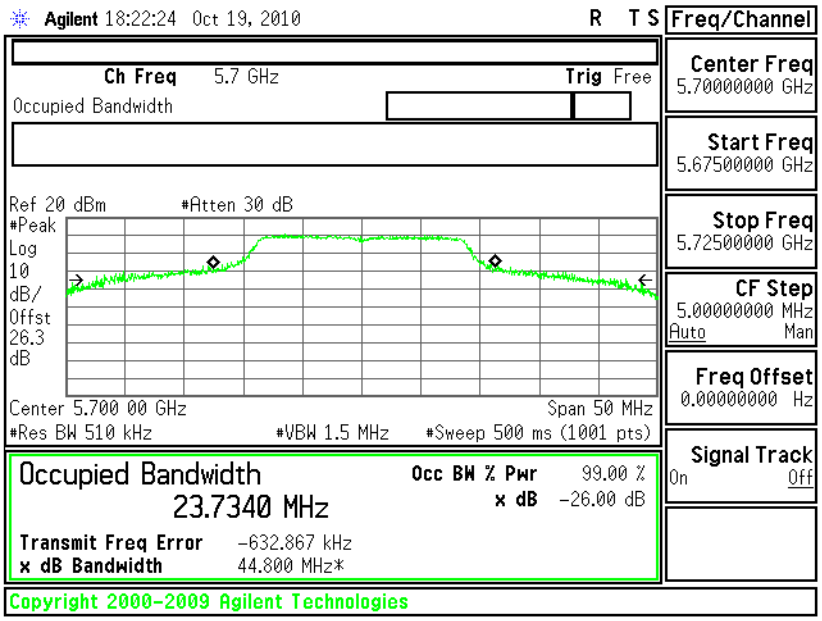
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 120 - Chain 1



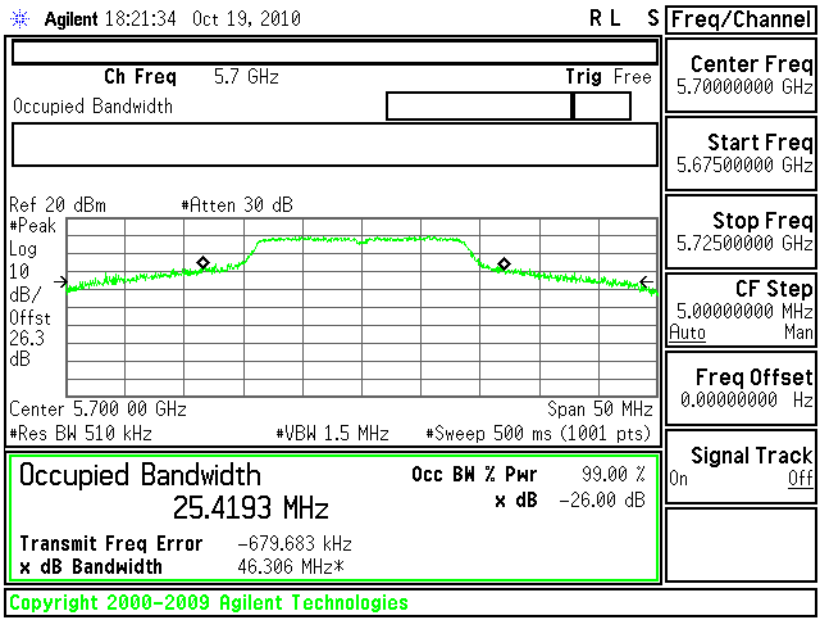
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 120 – Chain 2



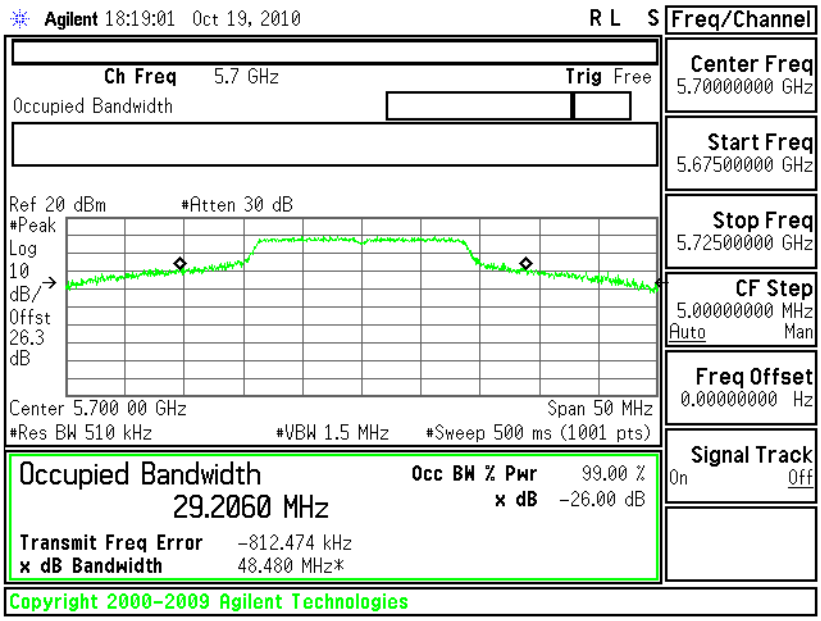
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 140 - Chain 0



26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 140 - Chain 1

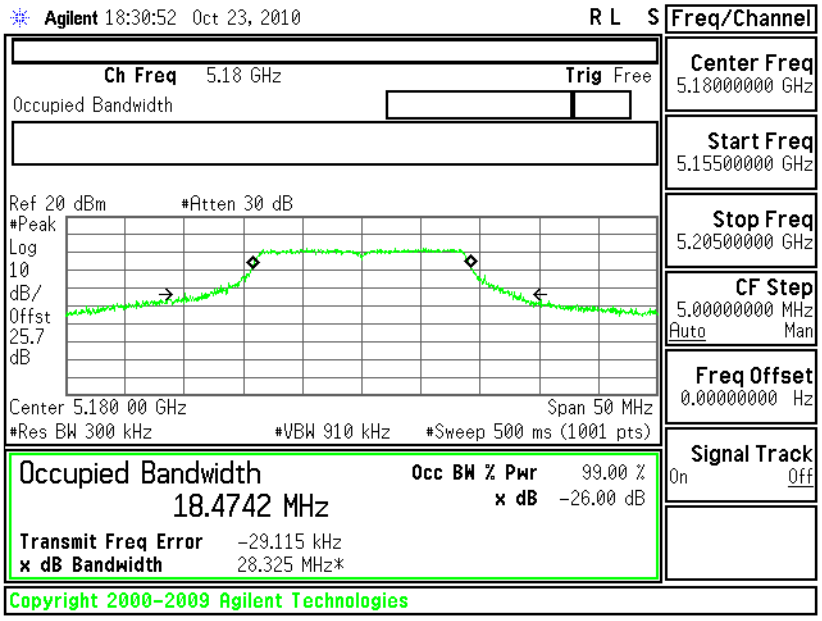


26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 140 - Chain 2

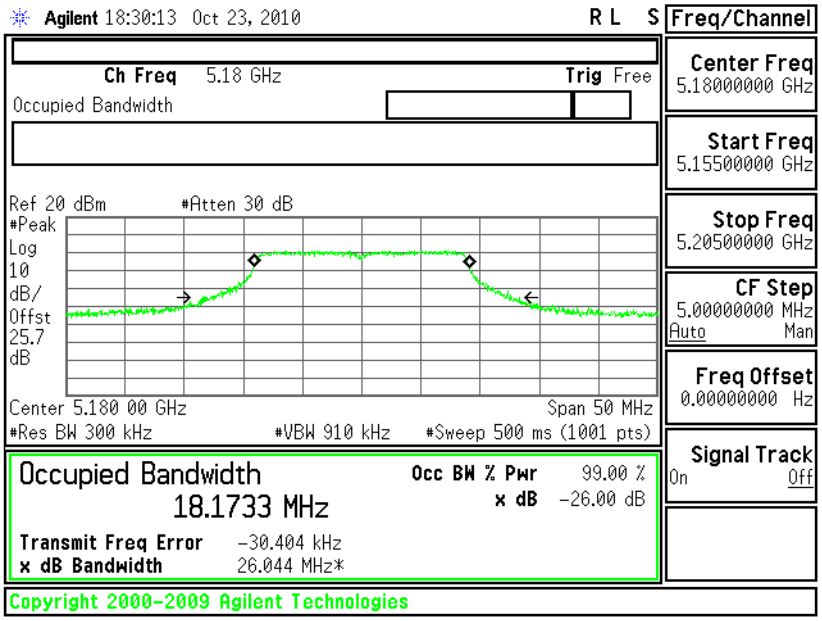


<Beam-Forming Off: 2x3>

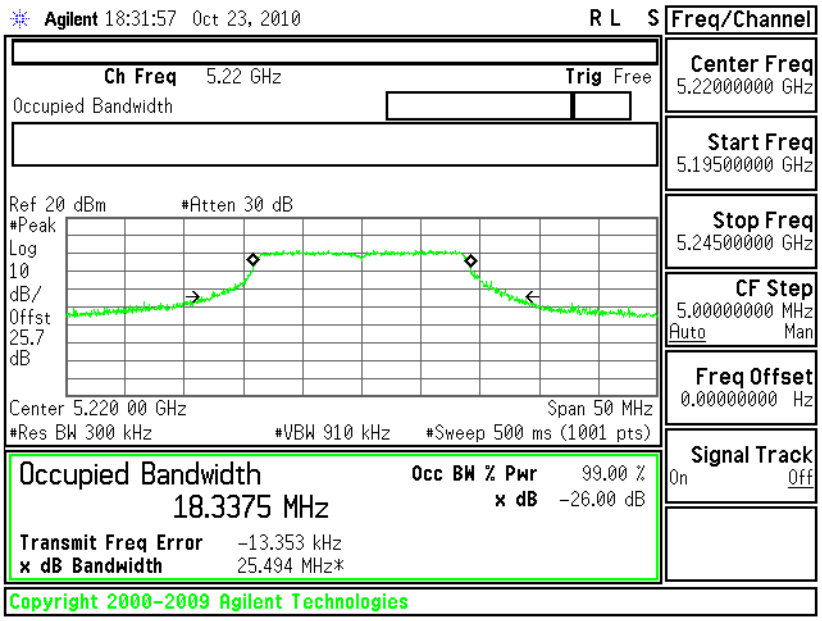
26 & 99% dB Bandwidth Plot on 802.11n (HT-20) Channel 36 - Chain 0



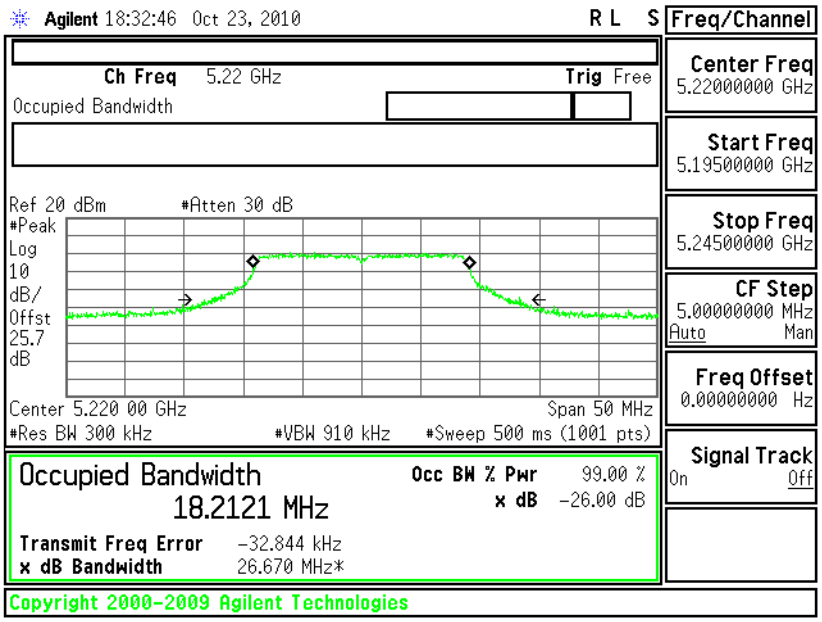
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 36 - Chain 1



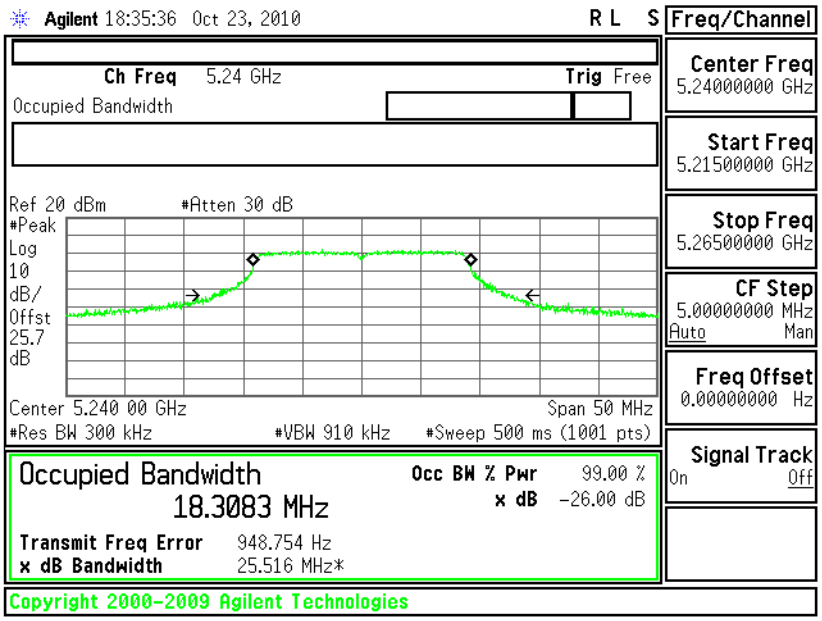
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 44 - Chain 0



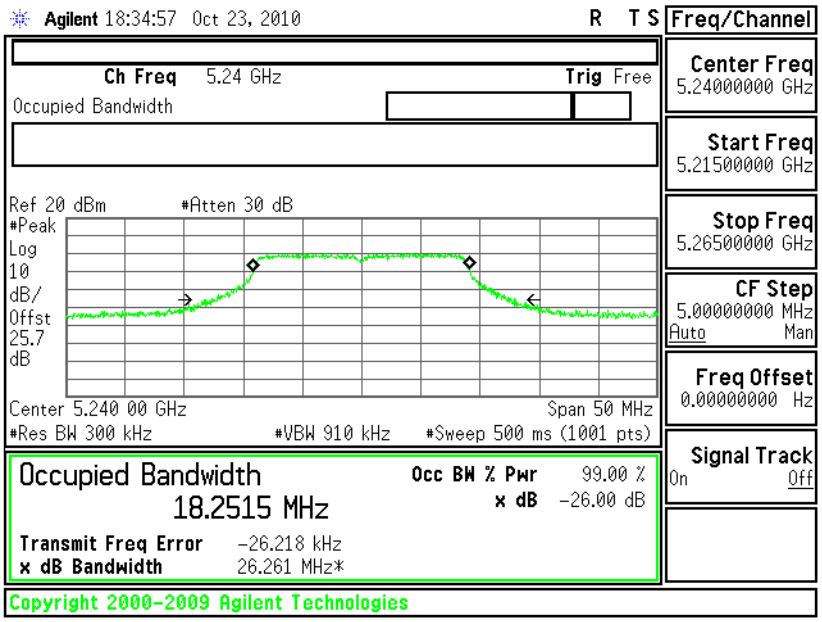
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 44 - Chain 1



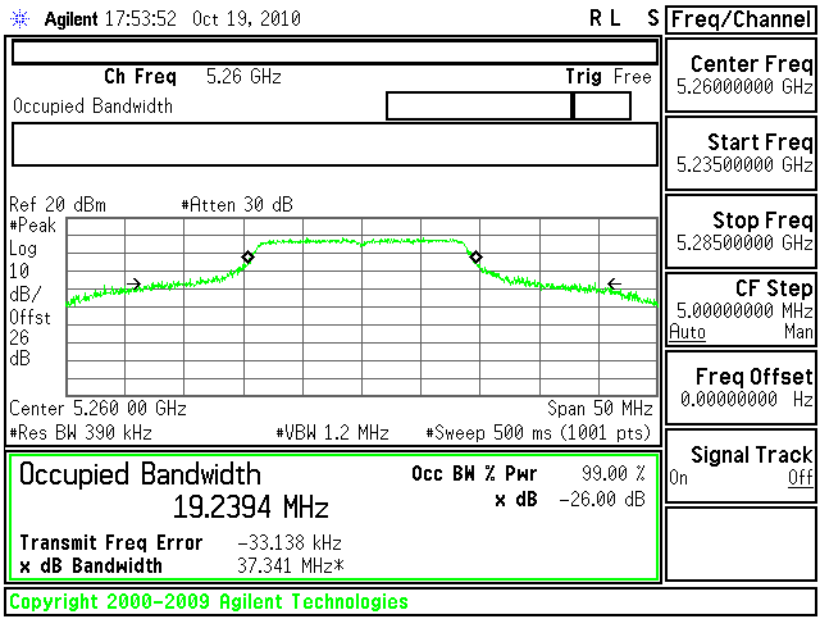
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 48 - Chain 0



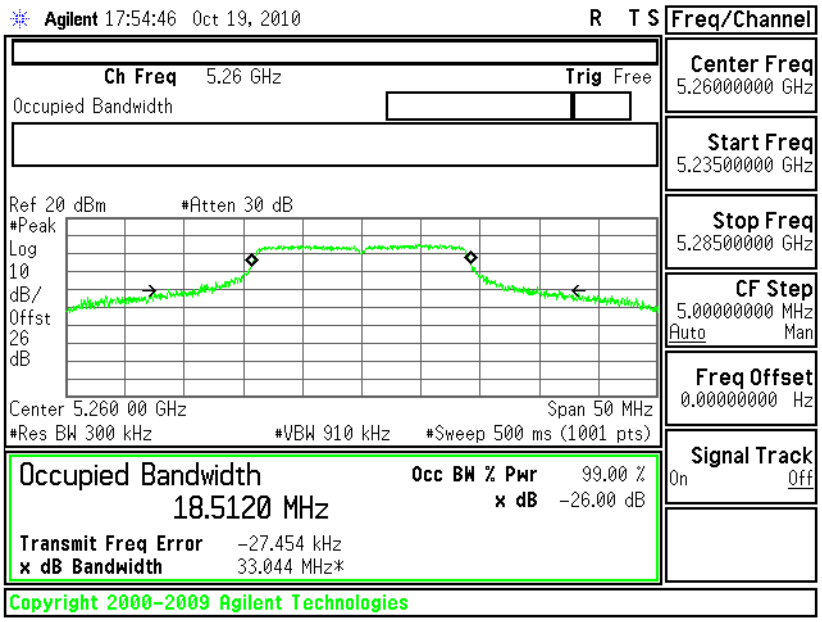
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 48 - Chain 1



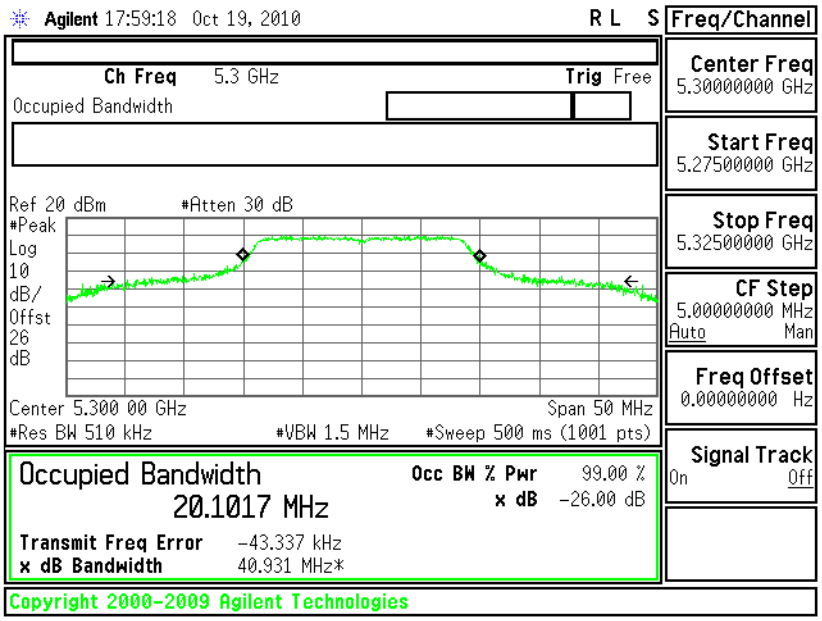
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 52 - Chain 0



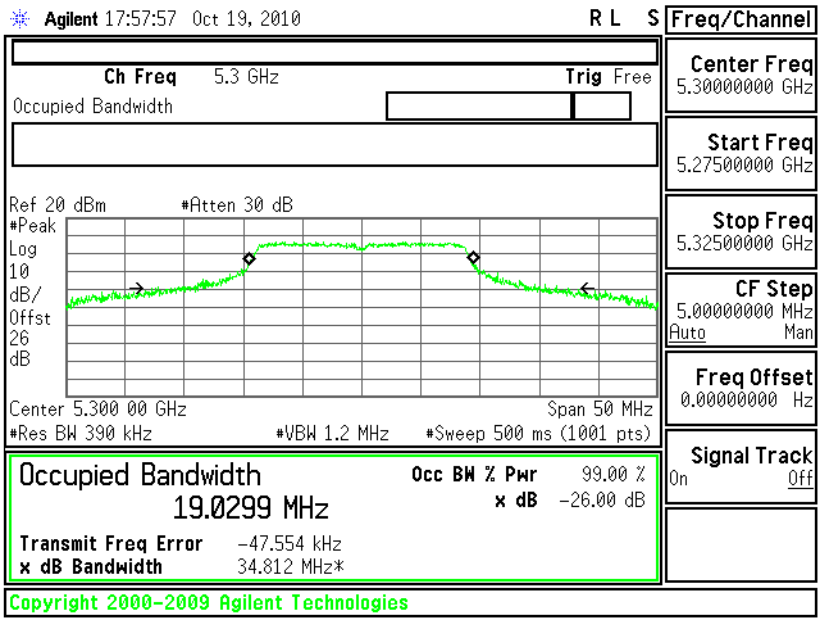
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 52 - Chain 1



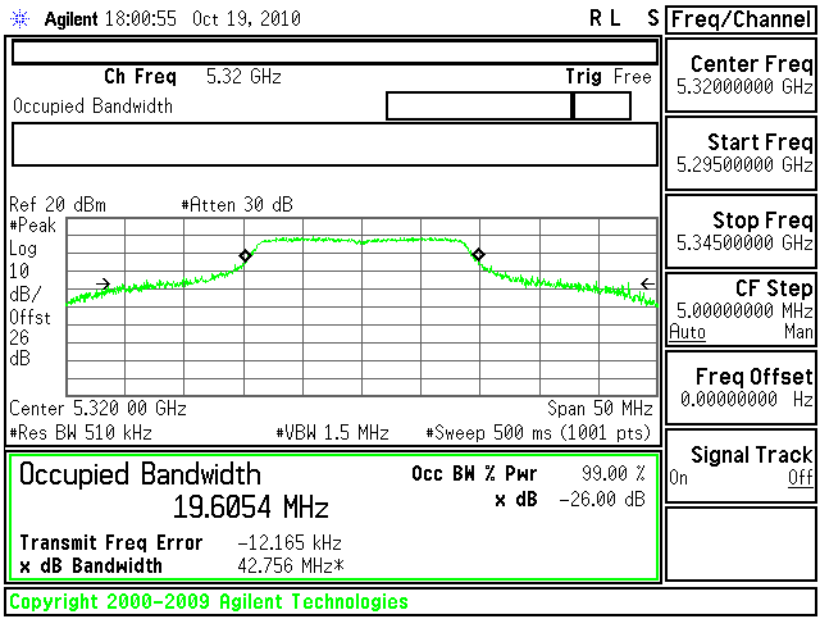
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 60 - Chain 0



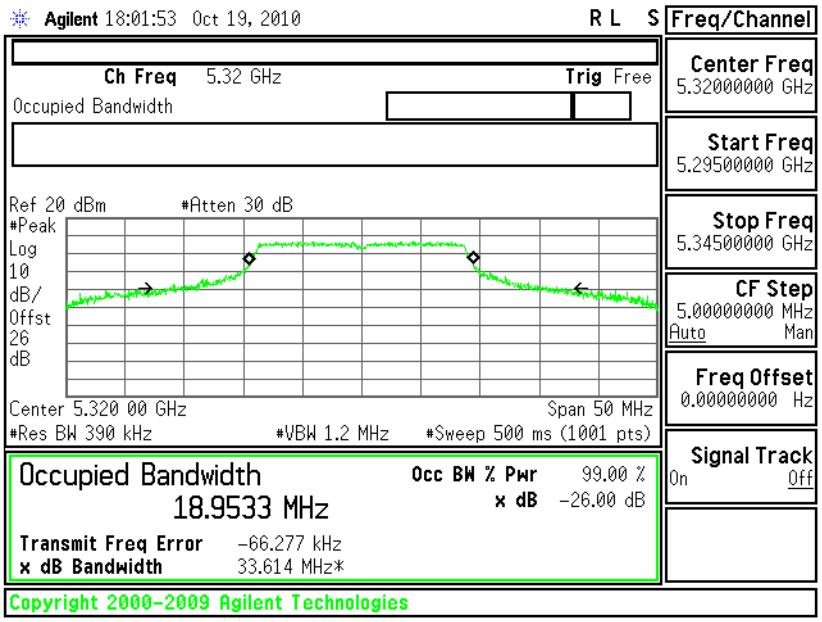
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 60 - Chain 1



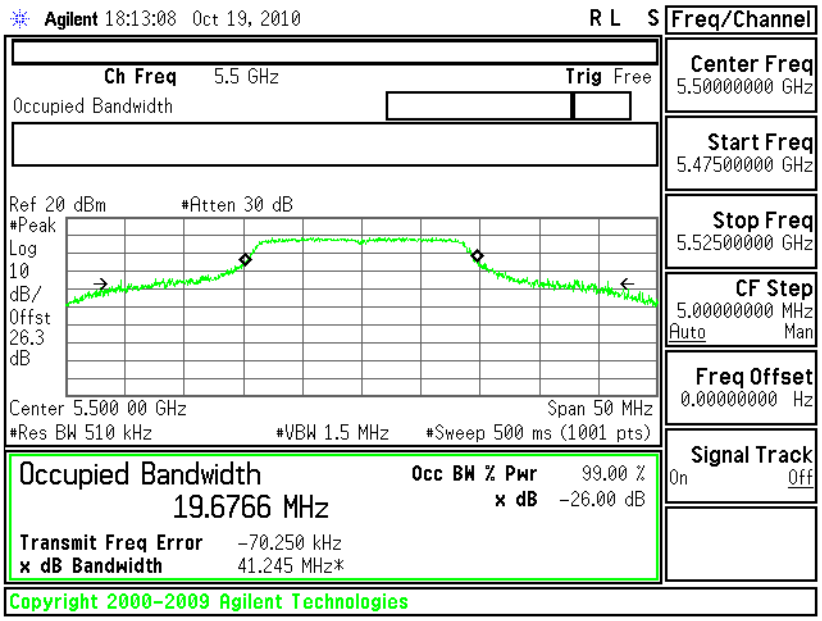
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 64 - Chain 0



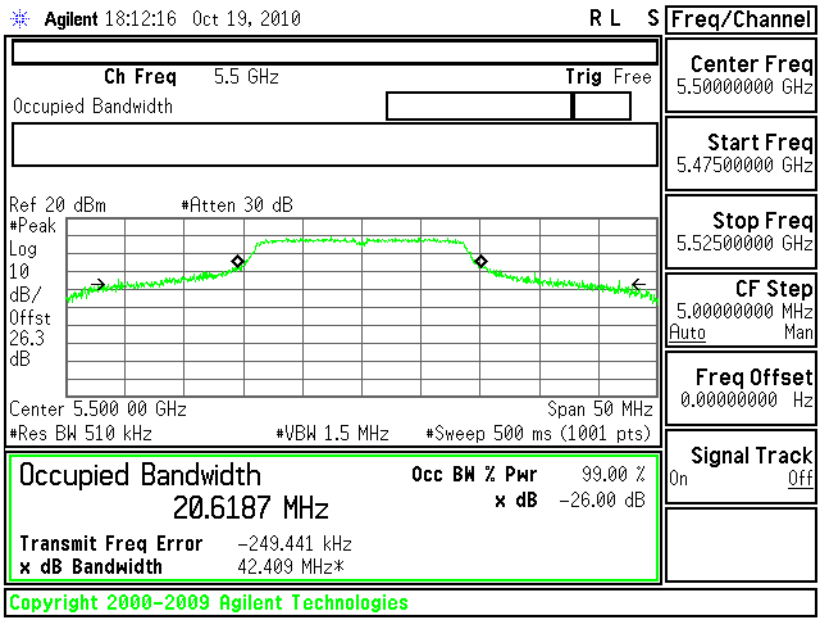
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 64 - Chain 1



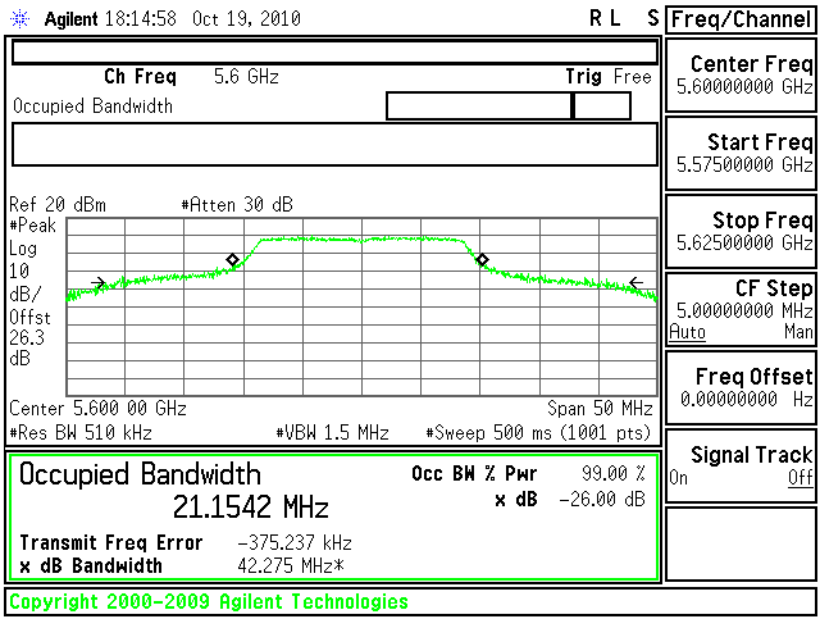
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 100 - Chain 0



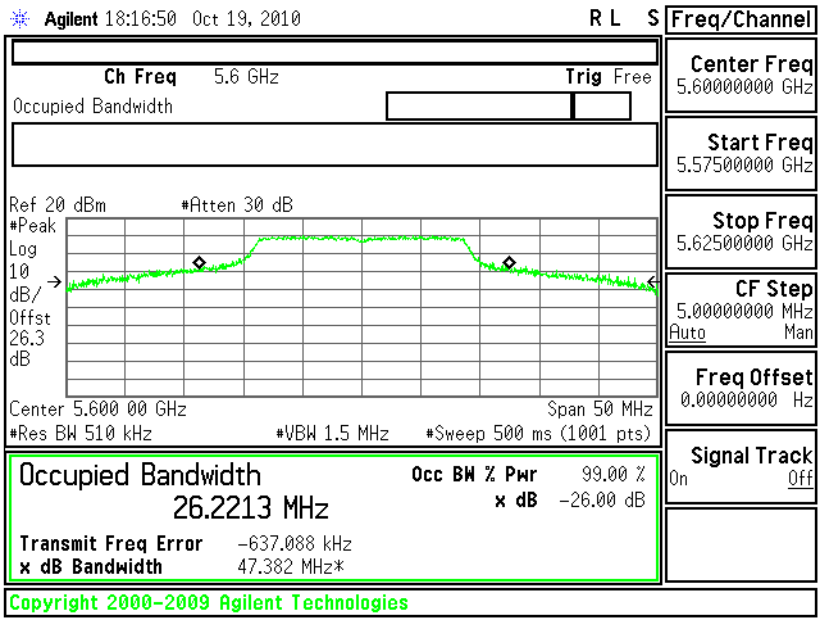
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 100 - Chain 1



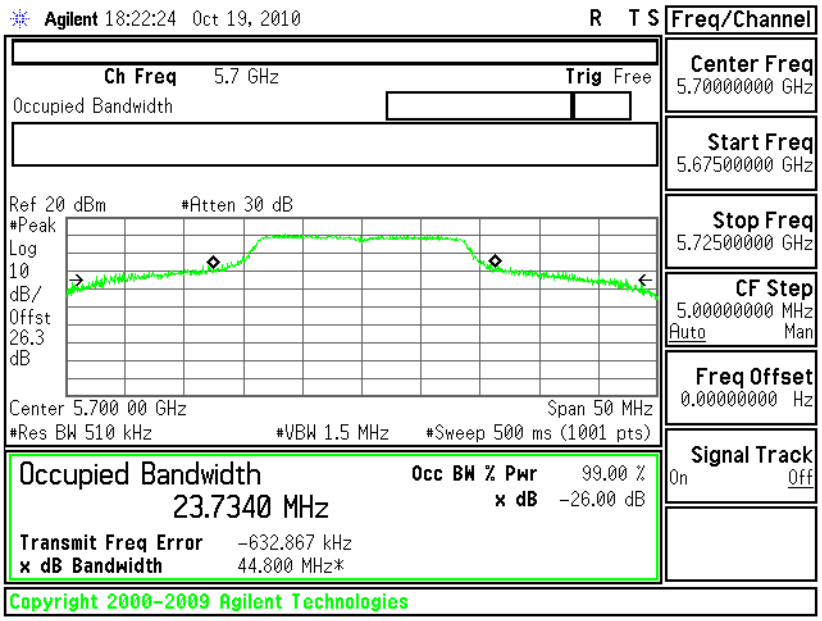
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 120 - Chain 0



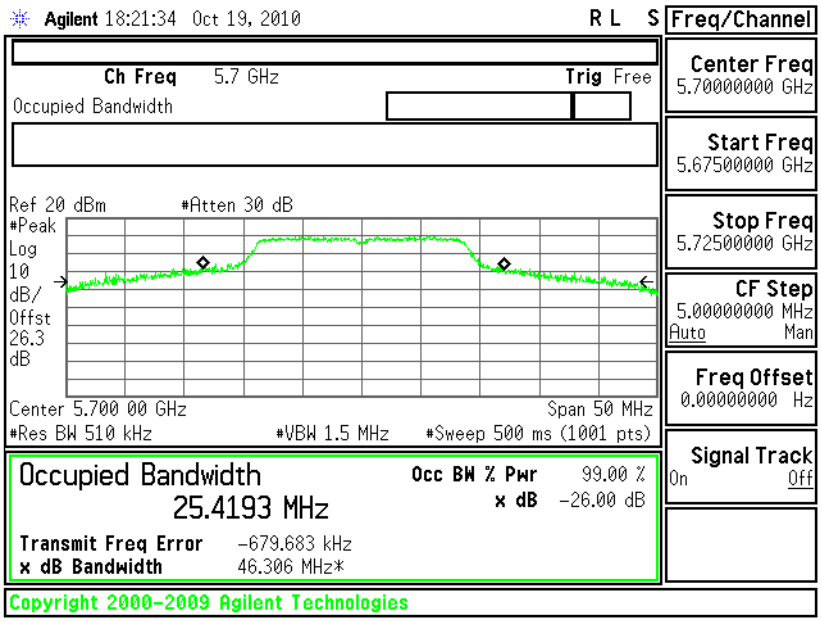
26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 120 - Chain 1



26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 140 - Chain 0



26 dB & 99% Bandwidth Plot on 802.11n (HT-20) Channel 140 - Chain 1



Test Mode :	802.11n (HT-40) L/M/H channels	Temperature :	25~27℃
Test Engineer :	Lewis He	Relative Humidity :	64~66%

<Beam-Forming On: 3x3>

Channel	Frequency (MHz)	802.11n (HT-40) 26dB Bandwidth (MHz)		
		Chain 0	Chain 1	Chain 2
38	5190	65.37	50.72	53.04
46	5230	60.70	51.33	52.97
54	5270	75.41	74.45	84.10
62	5310	55.56	51.82	53.35
102	5510	54.14	54.58	53.78
118	5590	87.56	83.10	88.46
134	5670	81.40	84.08	89.94

Channel	Frequency (MHz)	802.11n (HT-40) 99% Bandwidth (MHz)		
		Chain 0	Chain 1	Chain 2
38	5190	38.23	37.62	37.45
46	5230	38.18	37.55	37.46
54	5270	39.37	38.76	40.45
62	5310	37.93	37.69	37.53
102	5510	38.01	37.58	37.68
118	5590	40.28	41.03	45.57
134	5670	40.19	41.39	53.77

<Beam-Forming On: 2x3>

Channel	Frequency (MHz)	802.11n (HT-40) 26dB Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	62.39	50.41
46	5230	69.77	63.63
54	5270	80.03	72.52
62	5310	52.94	51.96
102	5510	79.46	80.02
118	5590	84.22	88.93
134	5670	86.99	88.65

Channel	Frequency (MHz)	802.11n (HT-40) 99% Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	38.03	37.22
46	5230	39.08	38.45
54	5270	39.40	38.67
62	5310	37.89	37.54
102	5510	39.01	38.88
118	5590	40.39	41.31
134	5670	44.33	42.57

<Beam-Forming Off: 3x3>

Channel	Frequency (MHz)	802.11n (HT-40) 26dB Bandwidth (MHz)		
		Chain 0	Chain 1	Chain 2
38	5190	77.42	60.25	54.52
46	5230	61.57	51.36	61.45
54	5270	75.41	74.45	84.10
62	5310	55.56	51.82	53.35
102	5510	54.14	54.58	53.78
118	5590	87.56	83.10	88.46
134	5670	81.40	84.08	89.94

Channel	Frequency (MHz)	802.11n (HT-40) 99% Bandwidth (MHz)		
		Chain 0	Chain 1	Chain 2
38	5190	38.92	37.66	37.78
46	5230	38.12	37.59	37.85
54	5270	39.37	38.76	40.45
62	5310	37.93	37.69	37.53
102	5510	38.01	37.58	37.68
118	5590	40.28	41.03	45.57
134	5670	40.19	41.39	53.77

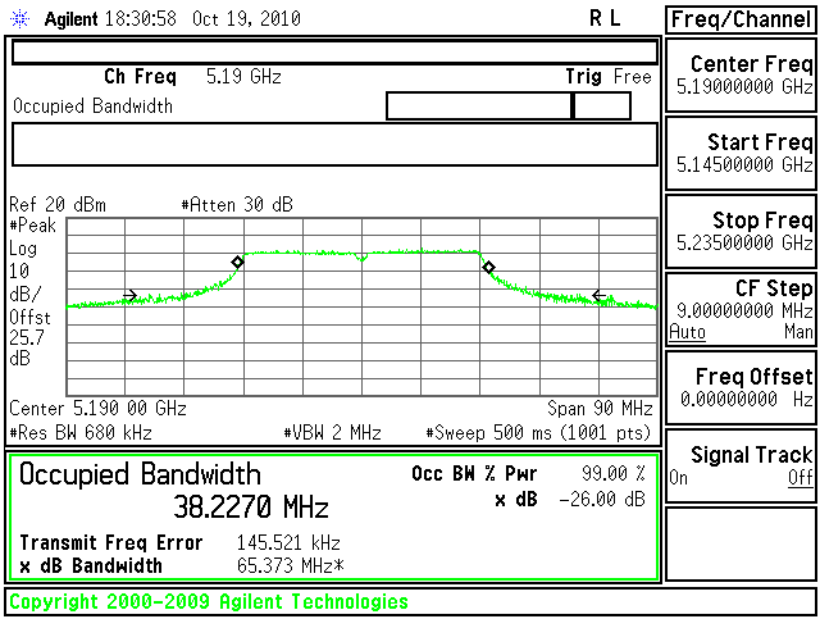
<Beam-Forming Off: 2x3>

Channel	Frequency (MHz)	802.11n (HT-40) 26dB Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	77.42	60.25
46	5230	61.57	51.36
54	5270	75.41	74.45
62	5310	55.56	51.82
102	5510	54.14	54.58
118	5590	87.56	83.10
134	5670	81.40	84.08

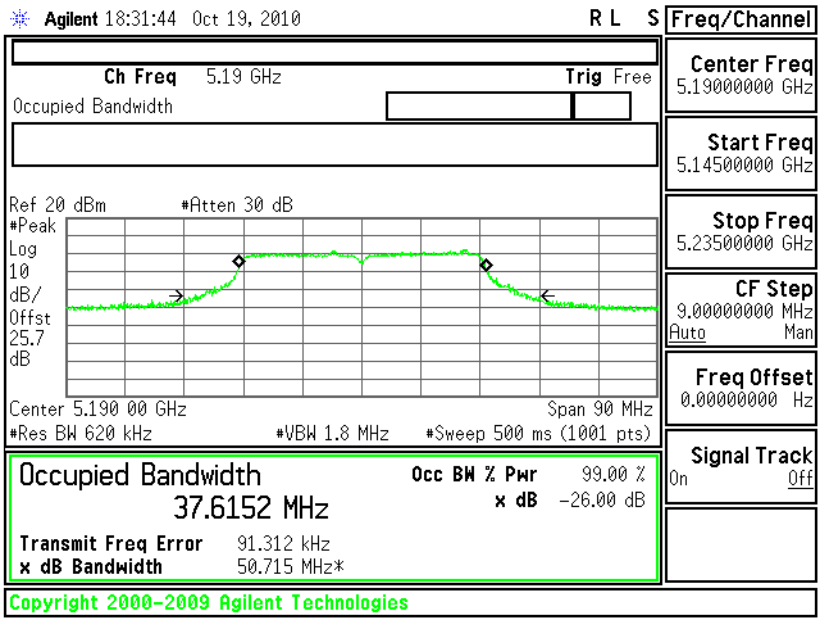
Channel	Frequency (MHz)	802.11n (HT-40) 99% Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	38.92	37.66
46	5230	38.12	37.59
54	5270	39.37	38.76
62	5310	37.93	37.69
102	5510	38.01	37.58
118	5590	40.28	41.03
134	5670	40.19	41.39

<Beam-Forming On: 3x3>

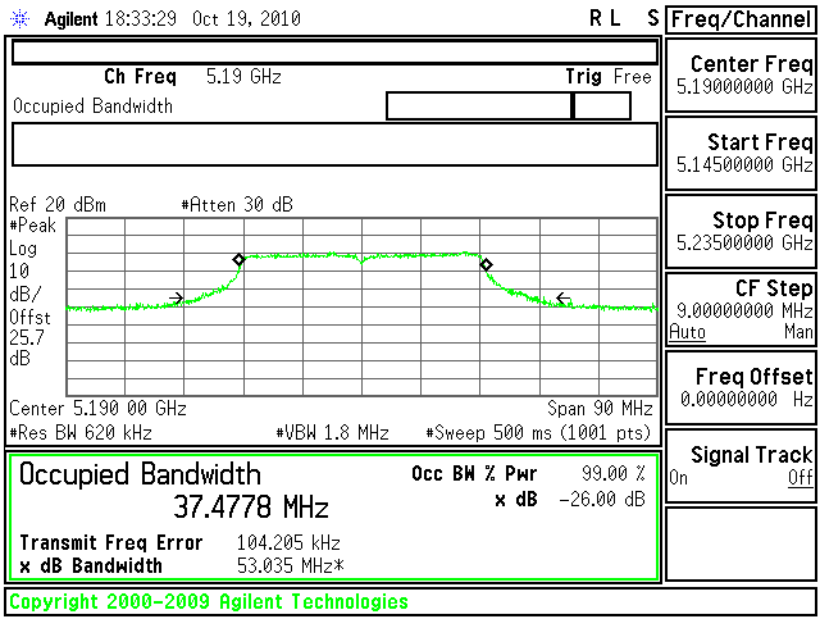
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 38 - Chain 0



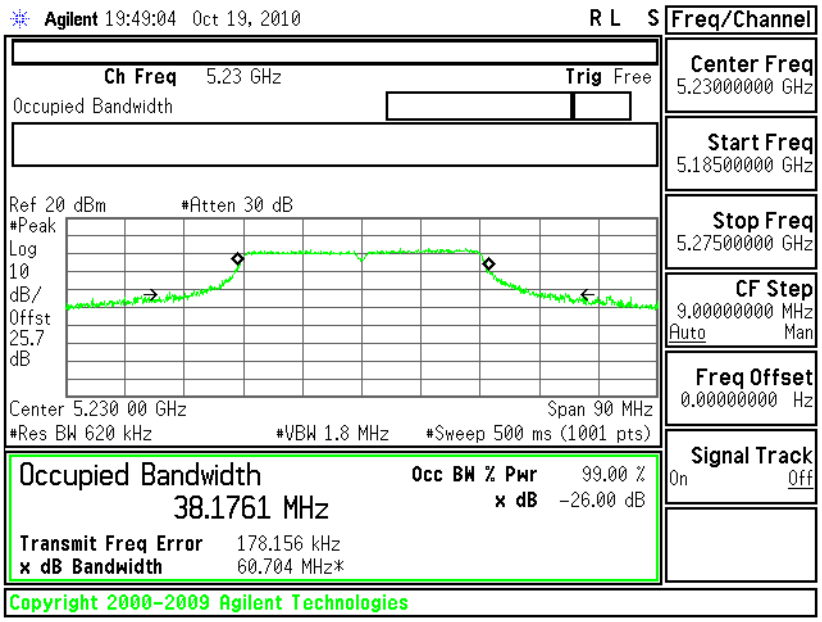
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 38 - Chain 1



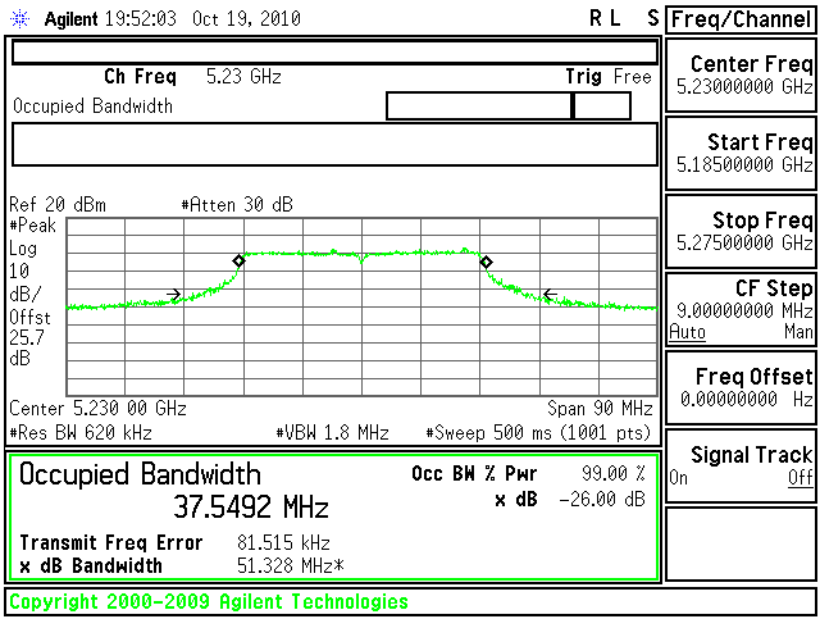
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 38 - Chain 2



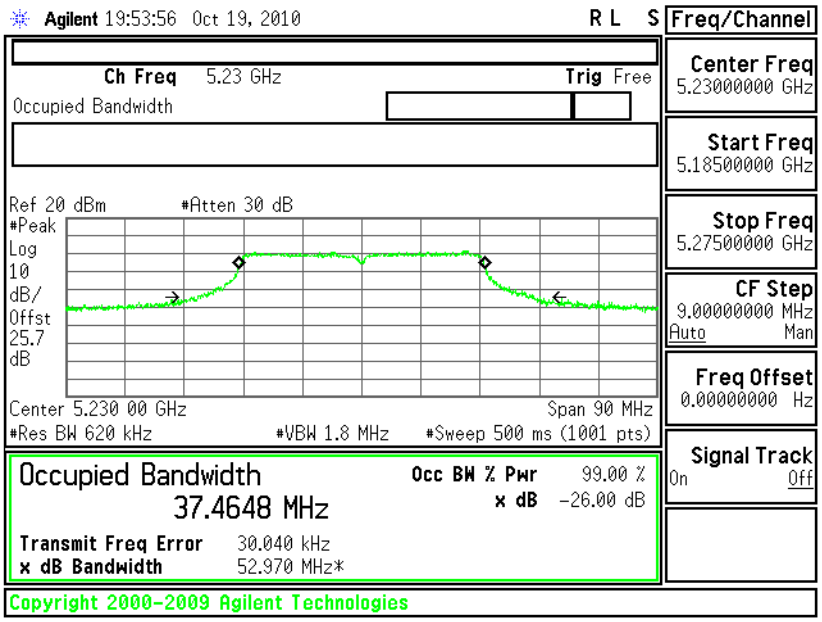
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 46 - Chain 0



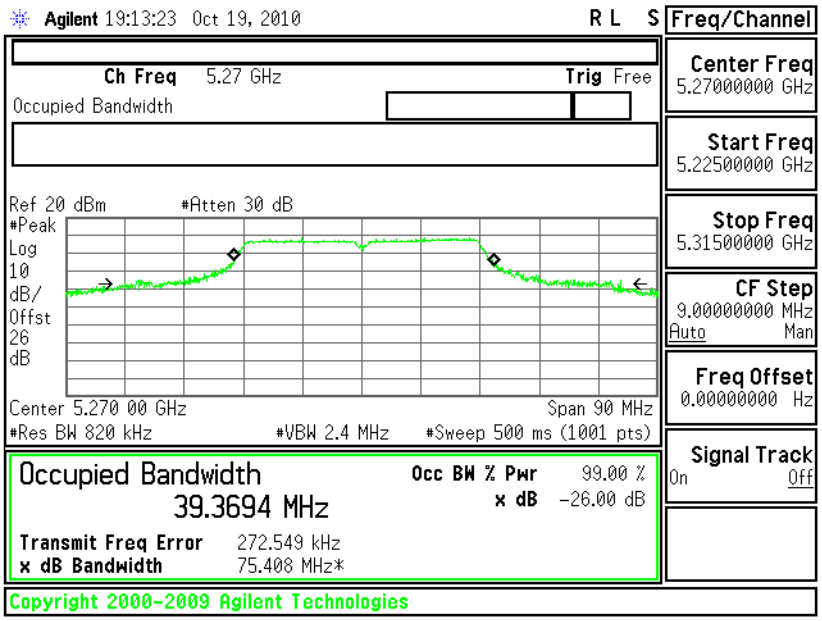
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 46 - Chain 1



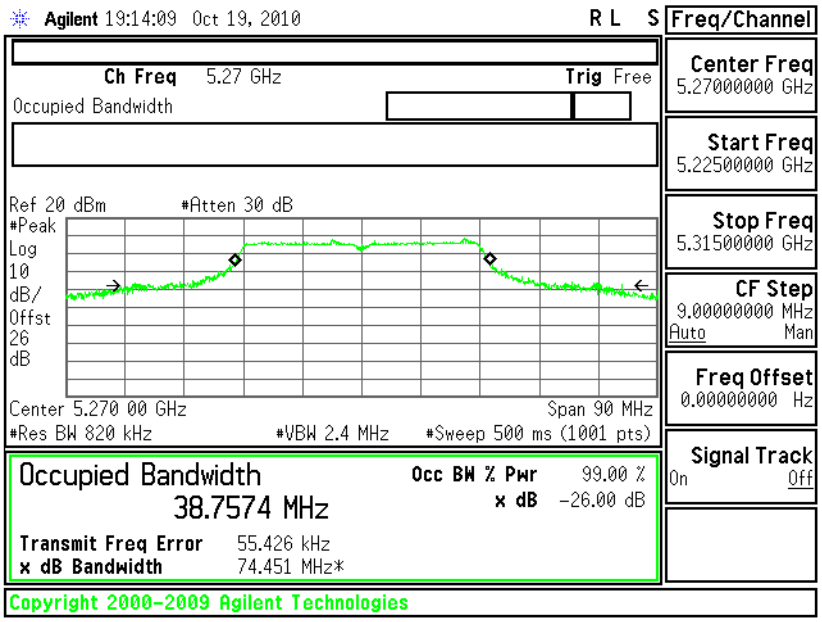
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 46 - Chain 2



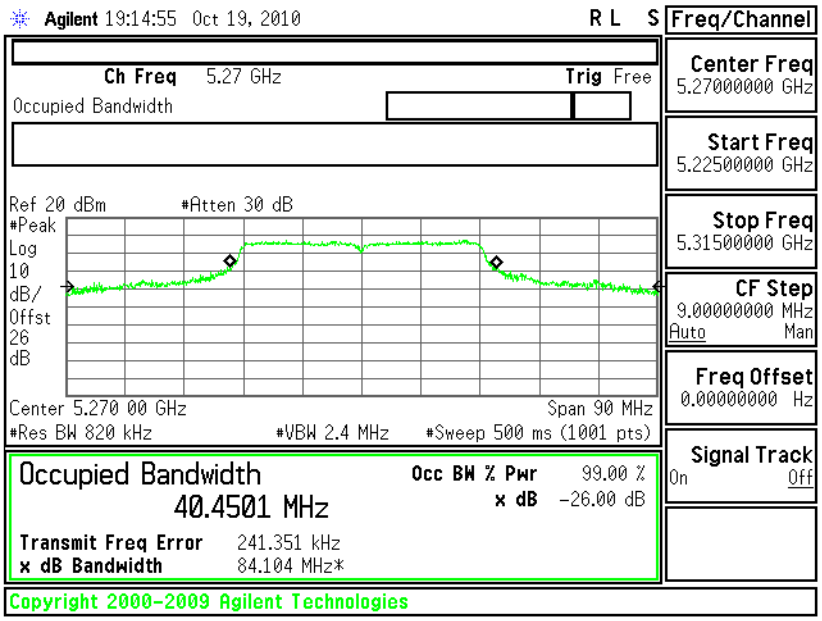
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 54 - Chain 0



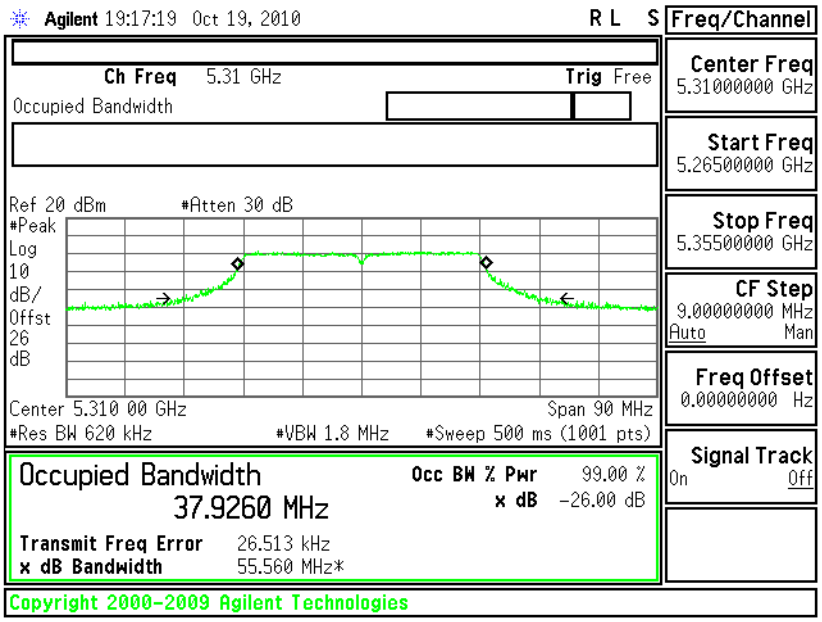
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 54 - Chain 1



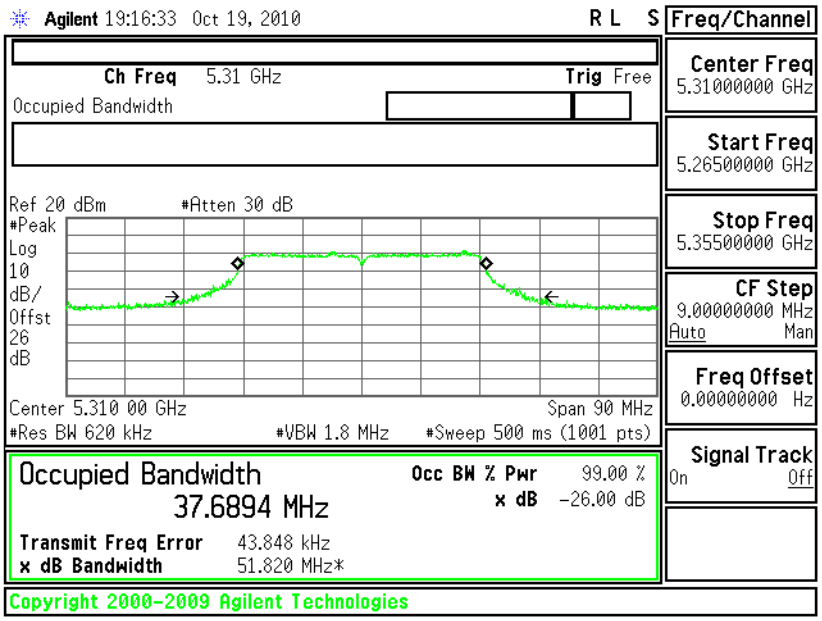
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 54 - Chain 2



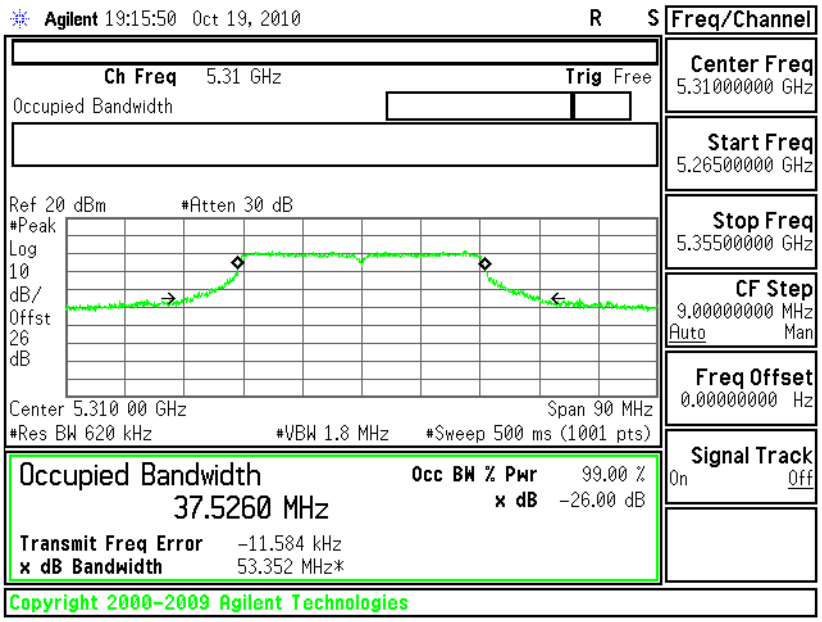
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 62 - Chain 0



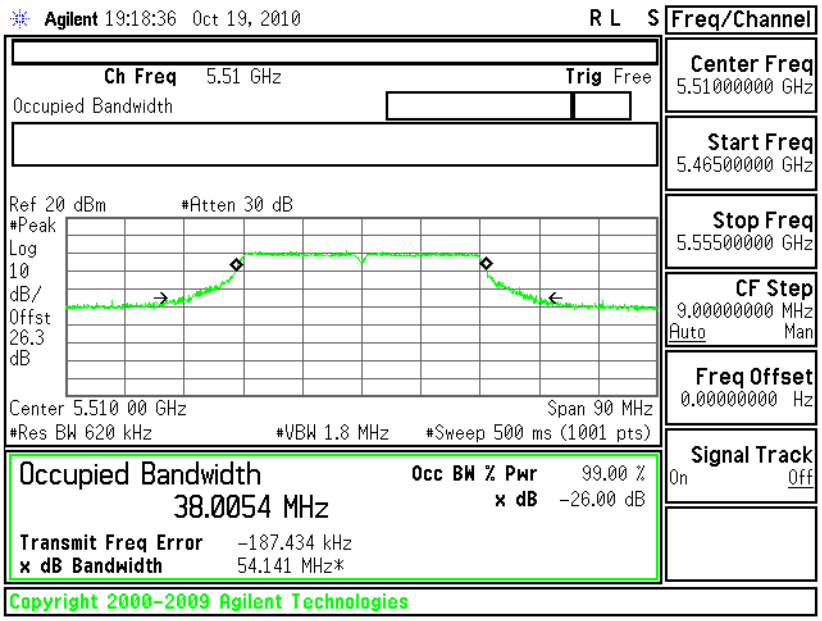
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 62 - Chain 1



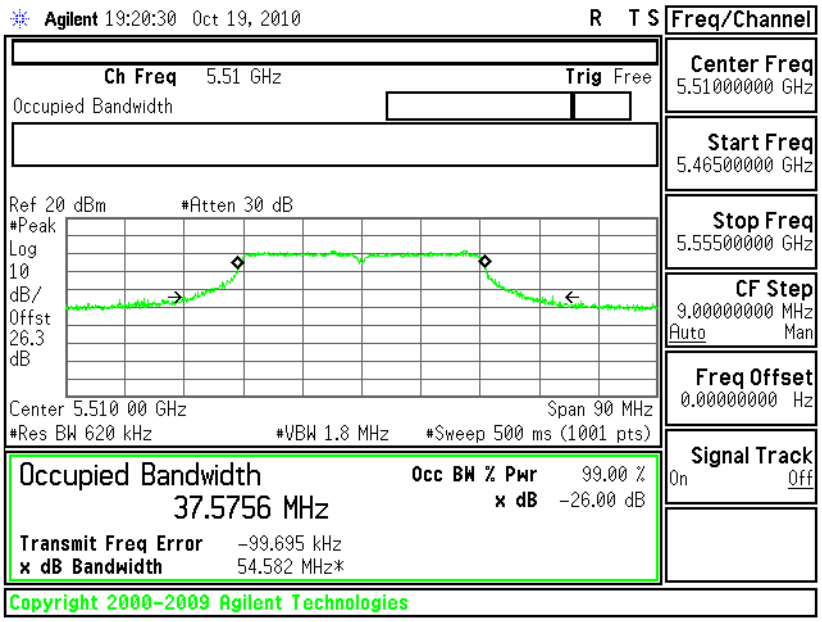
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 62 - Chain 2



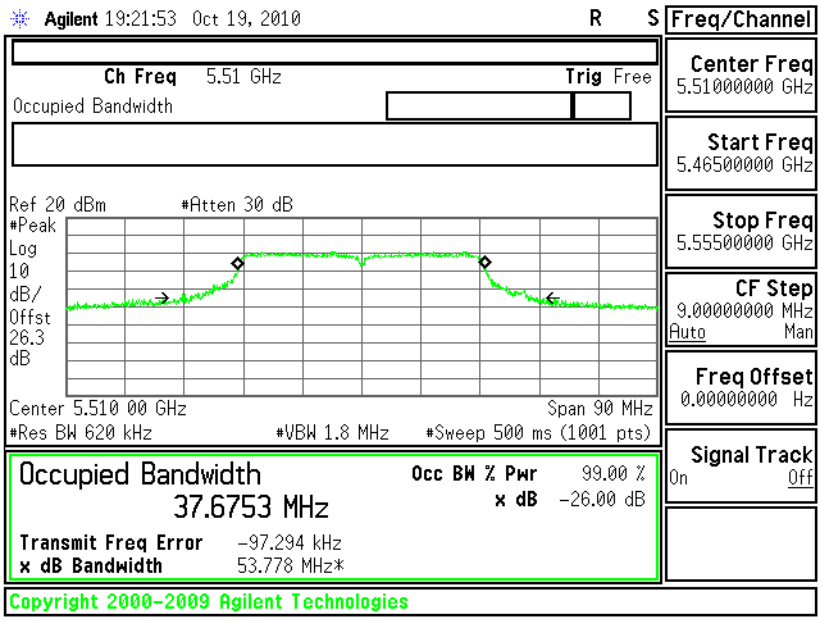
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 102 - Chain 0



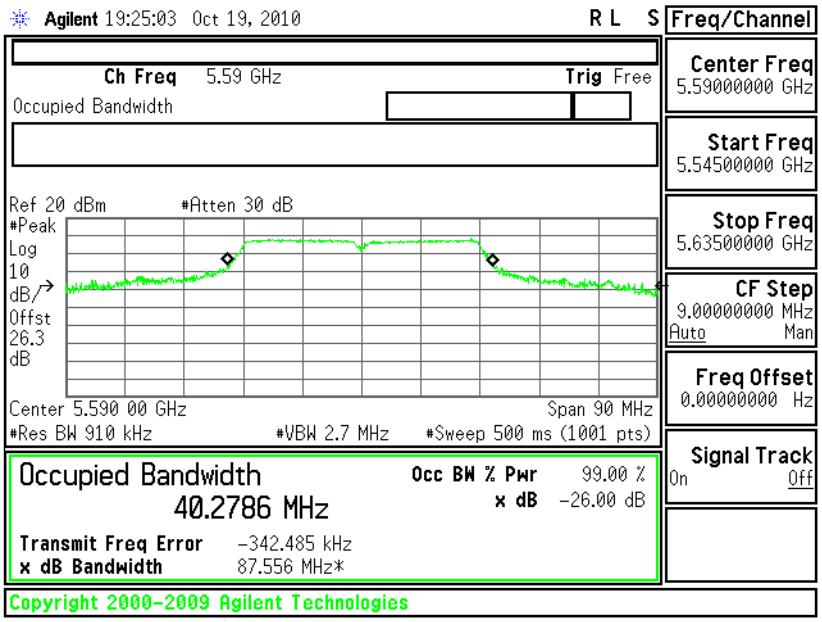
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 102 - Chain 1



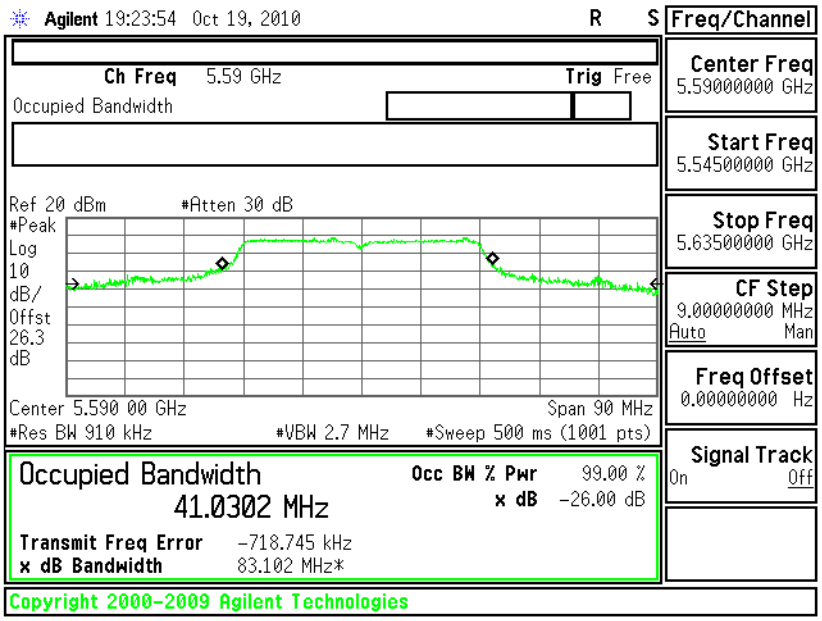
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 102 - Chain 2



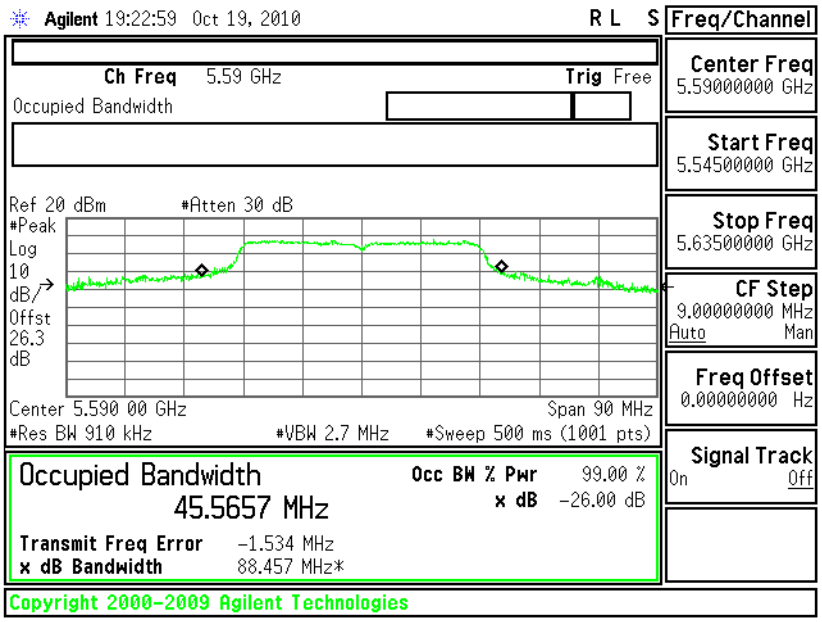
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 118 - Chain 0



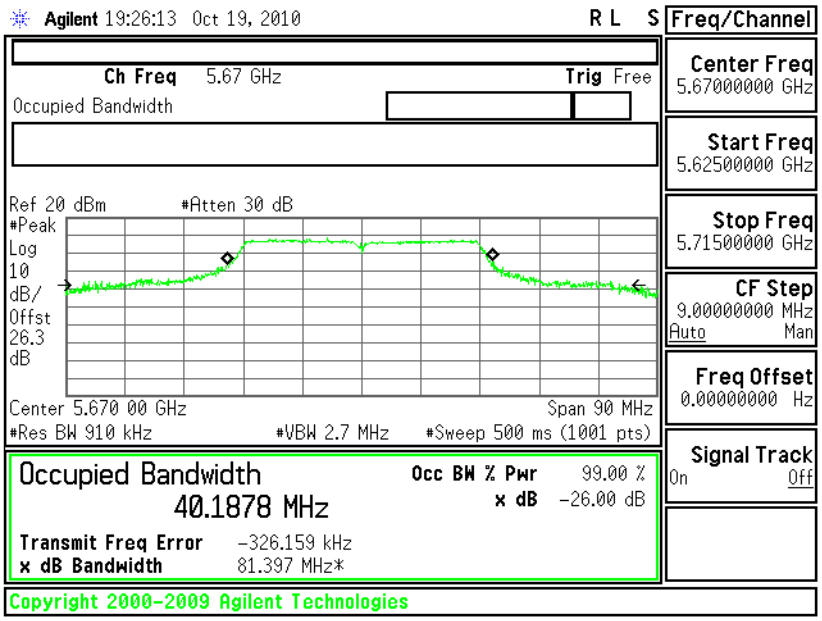
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 118 - Chain 1



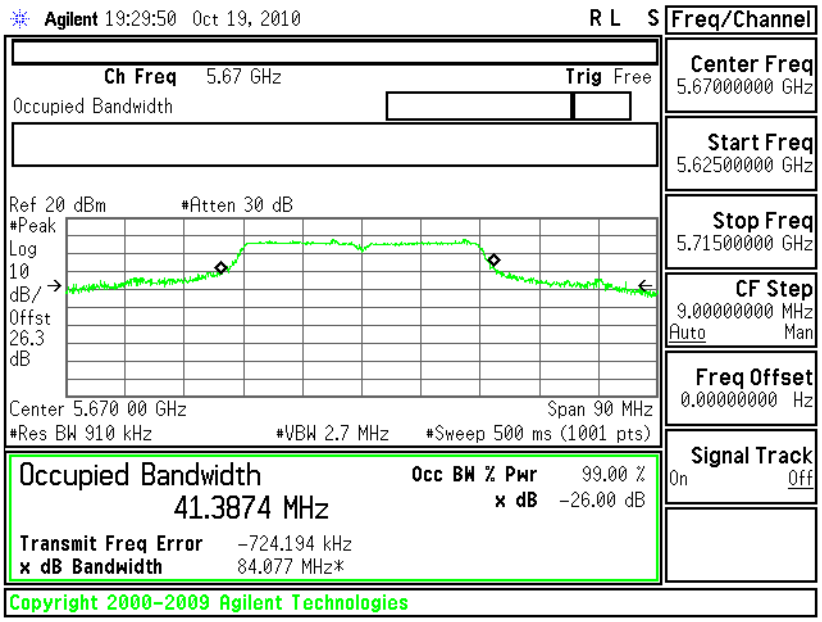
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 118 - Chain 2



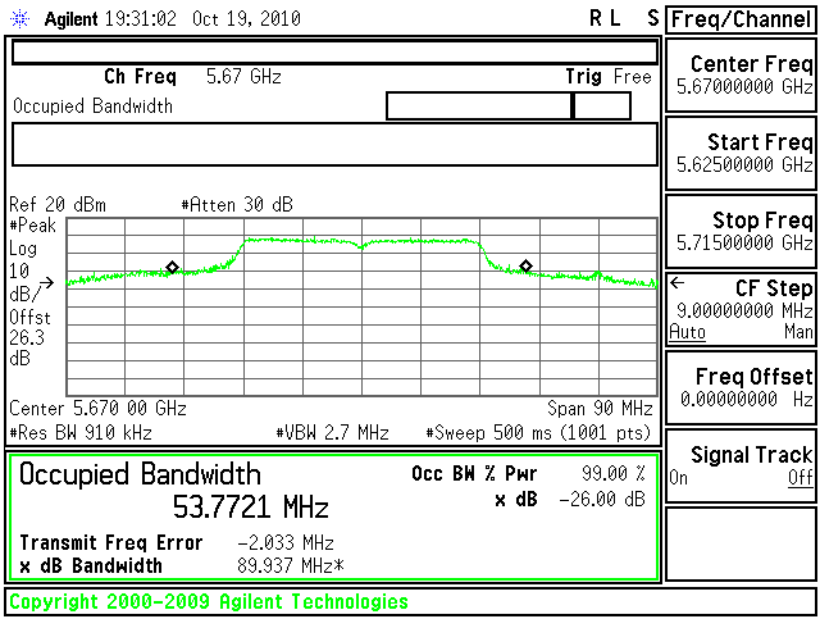
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 134 - Chain 0



26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 134 - Chain 1

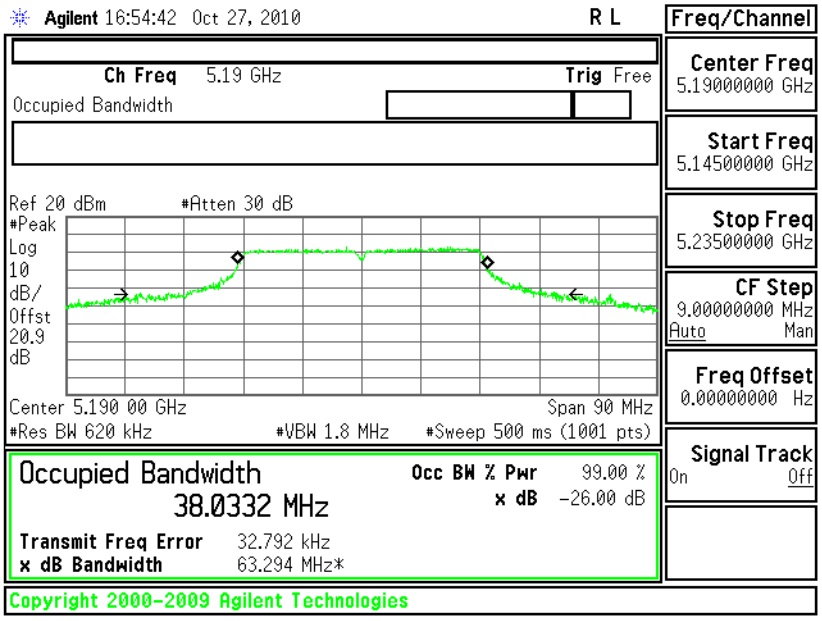


26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 134 - Chain 2

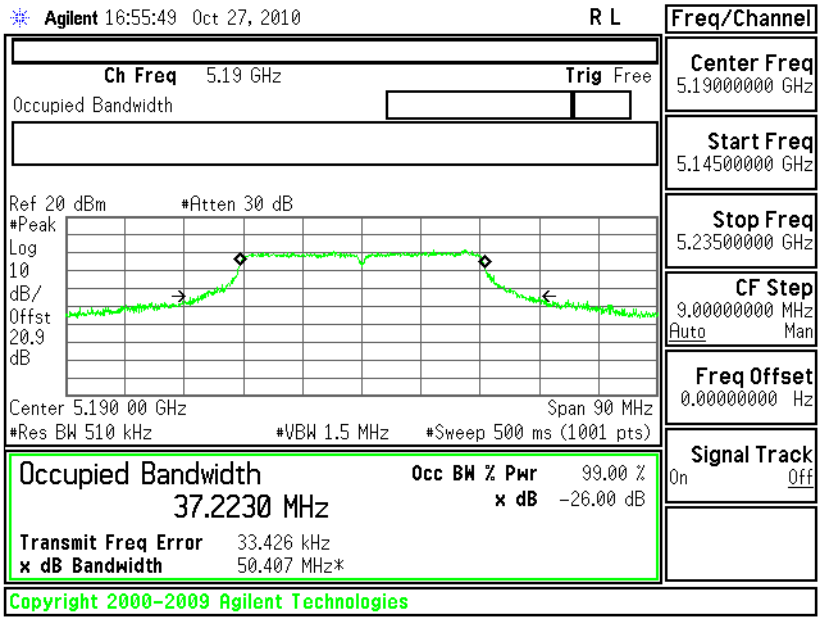


<Beam-Forming On: 2x3>

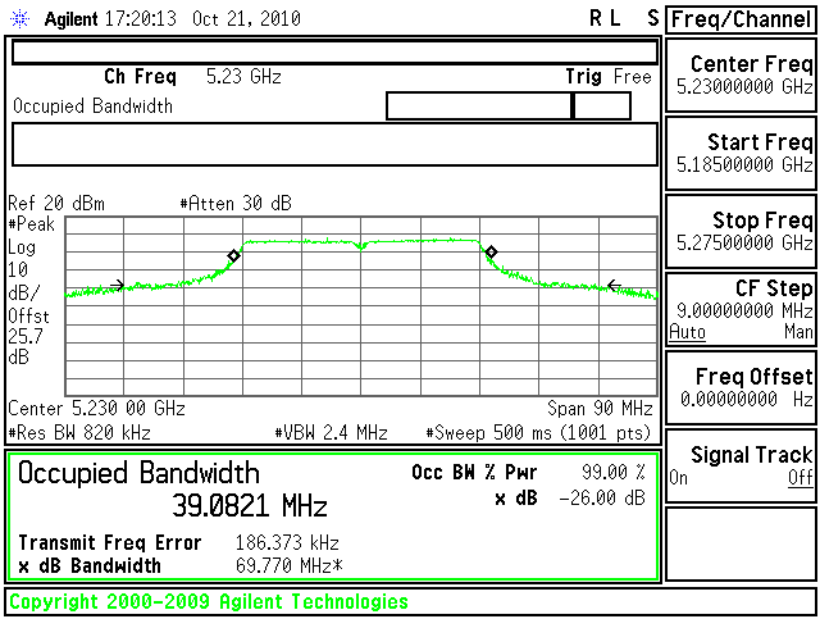
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 38 - Chain 0



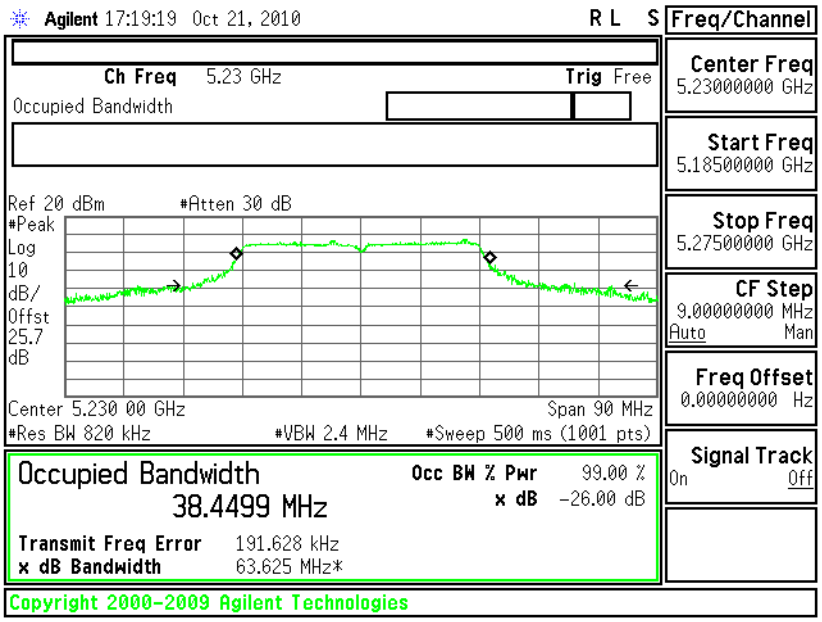
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 38 - Chain 1



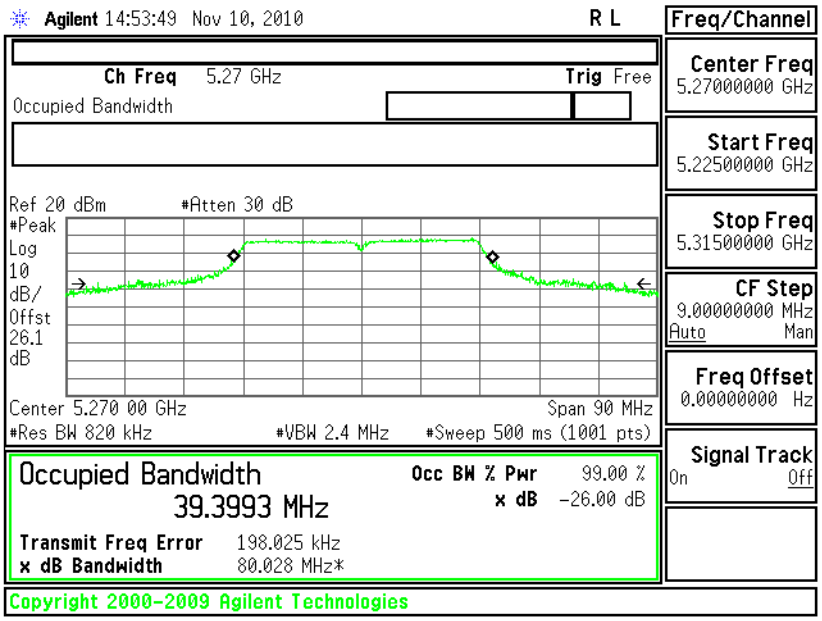
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 46 - Chain 0



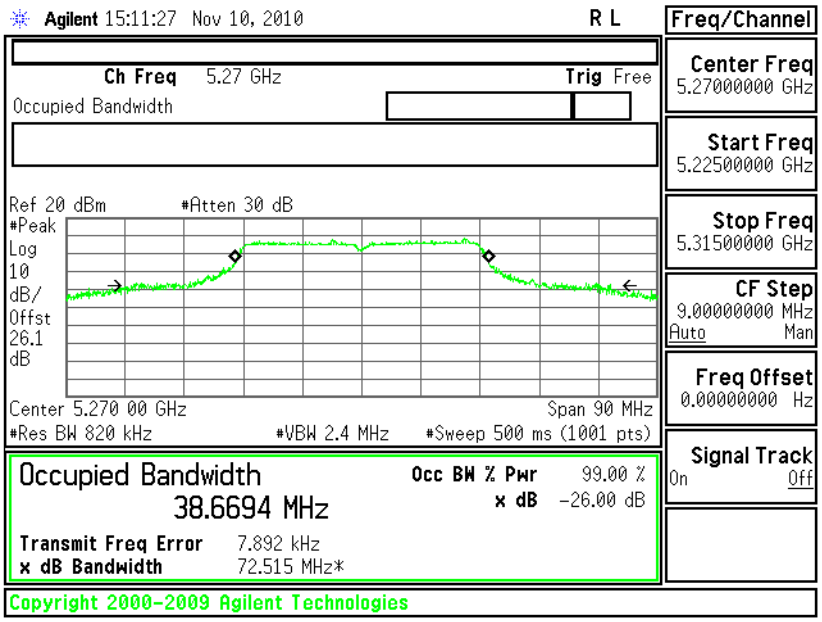
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 46 - Chain 1



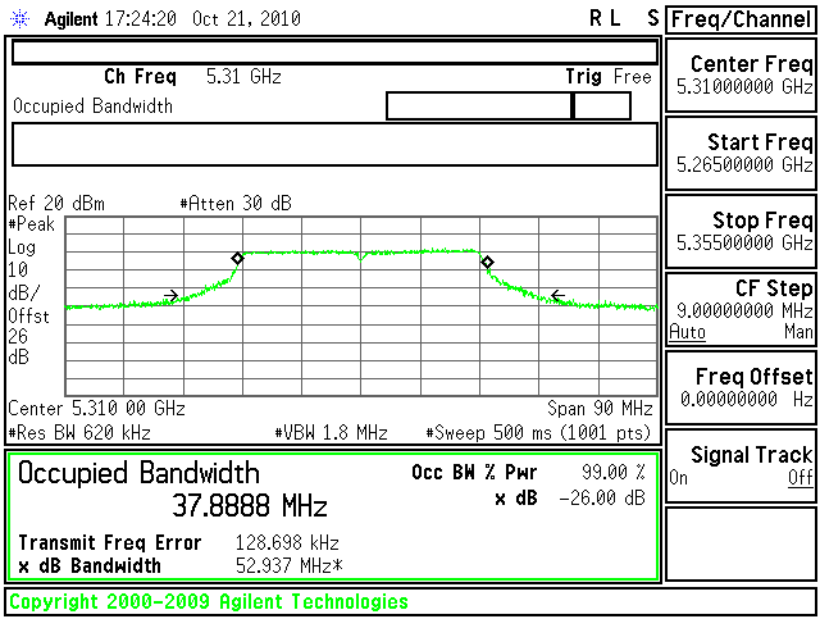
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 54 - Chain 0



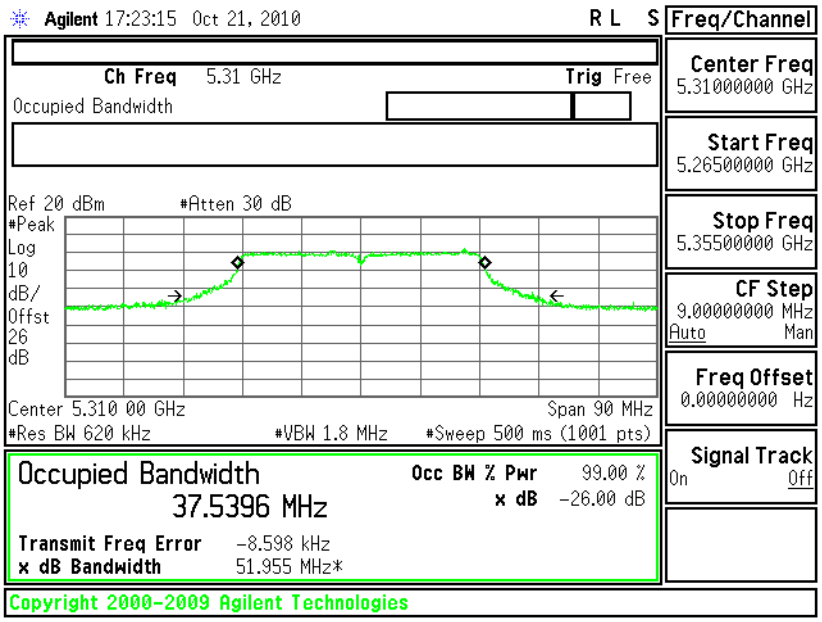
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 54 - Chain 1



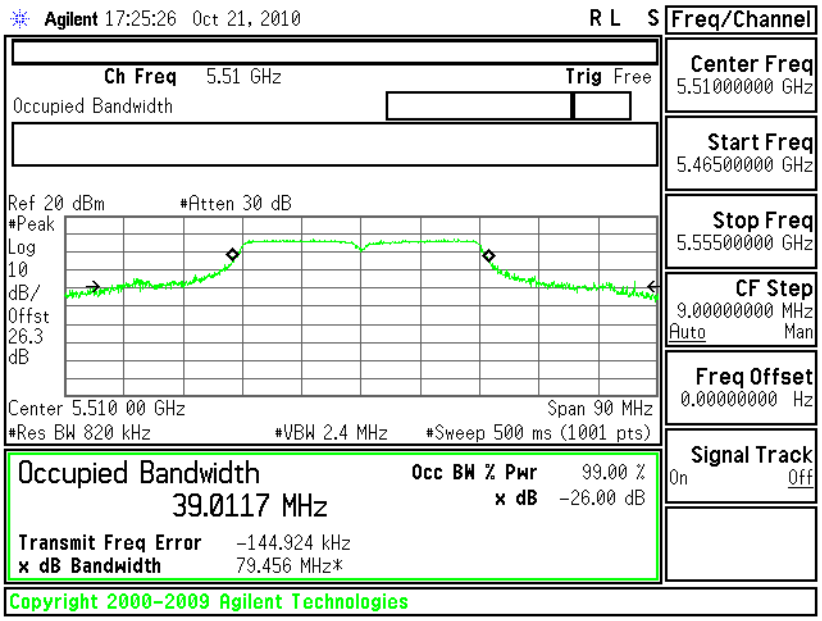
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 62 - Chain 0



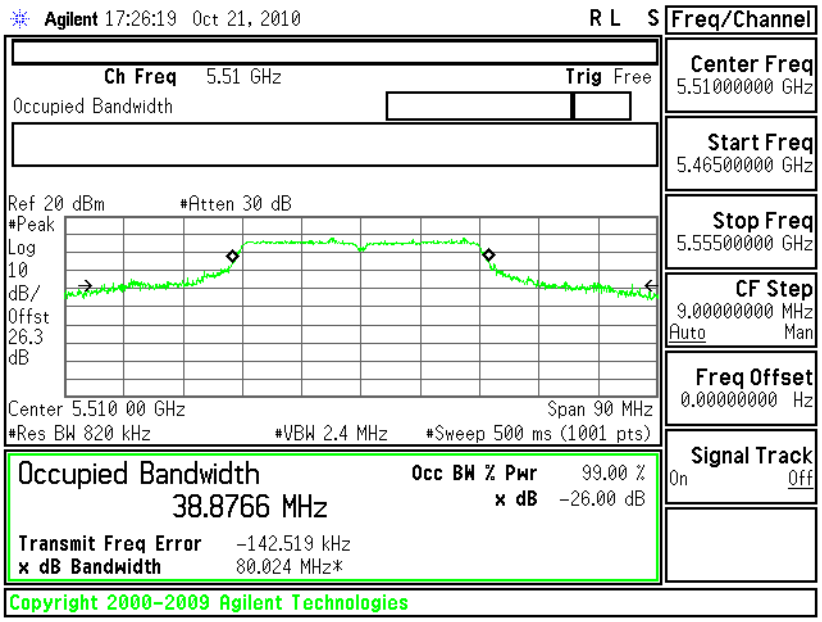
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 62 - Chain 1



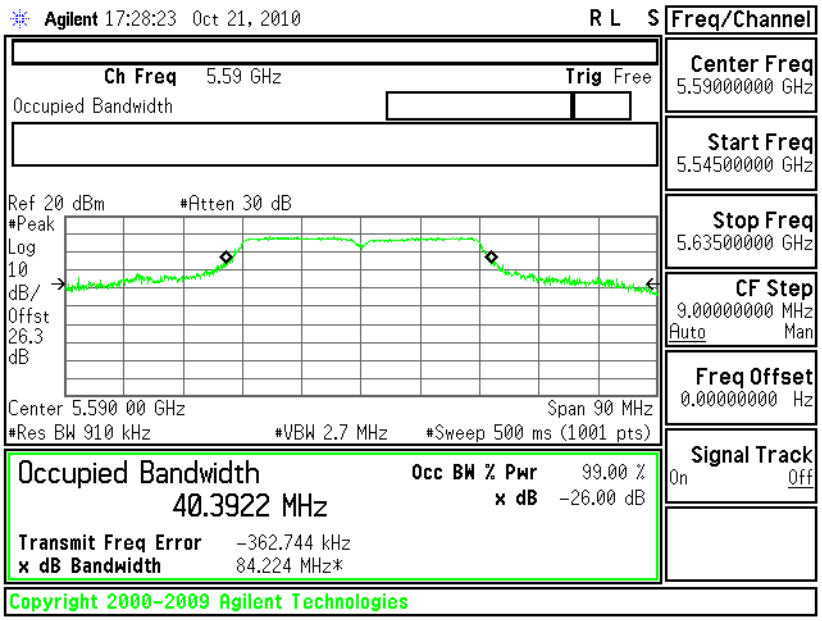
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 102 - Chain 0



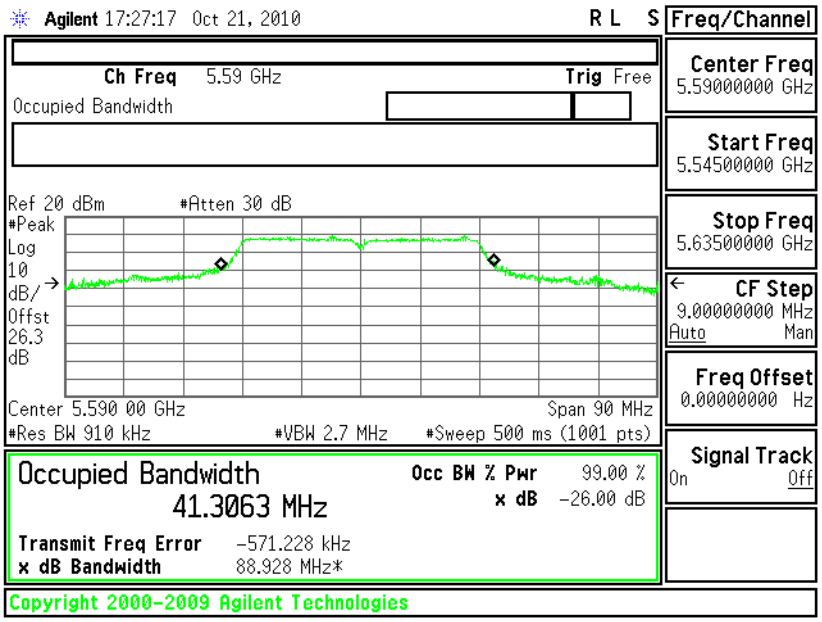
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 102 - Chain 1



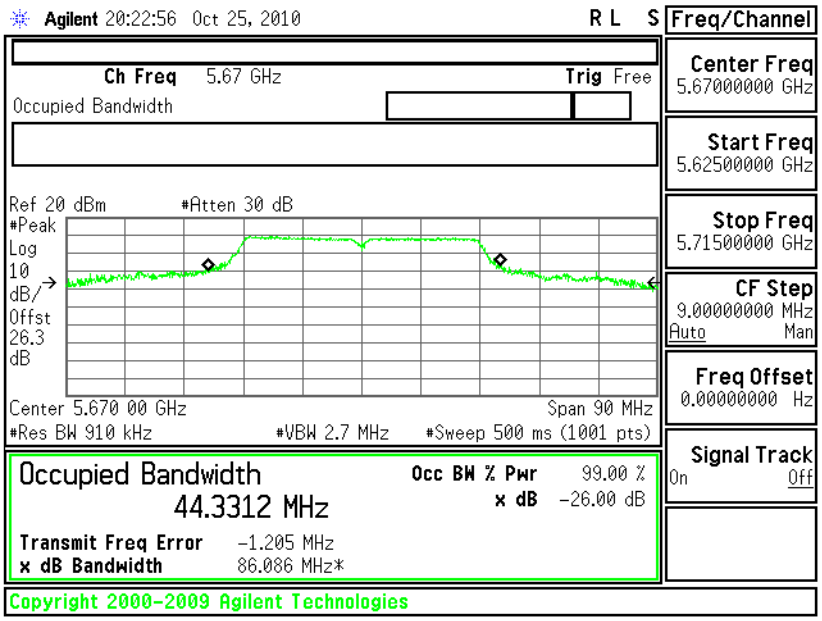
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 118 - Chain 0



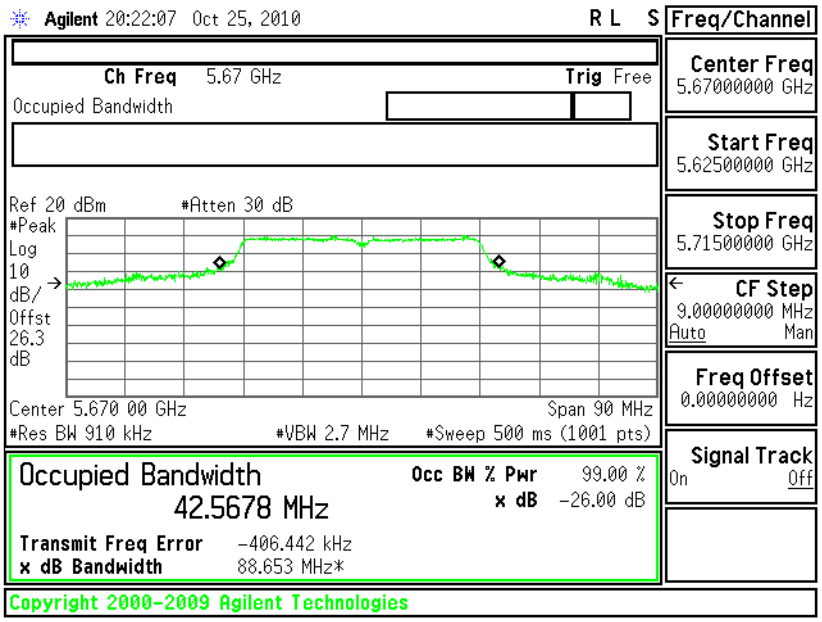
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 118 - Chain 1



26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 134 - Chain 0

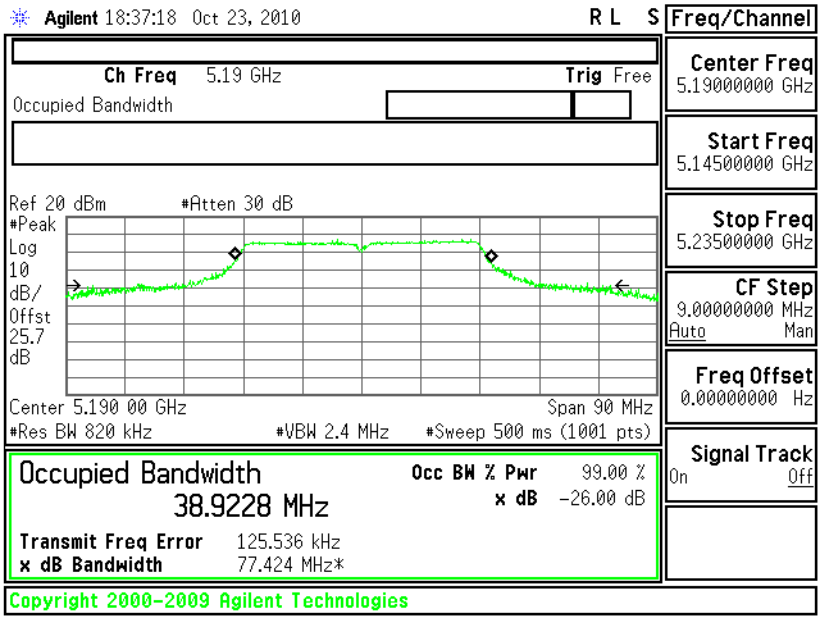


26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 134 - Chain 1

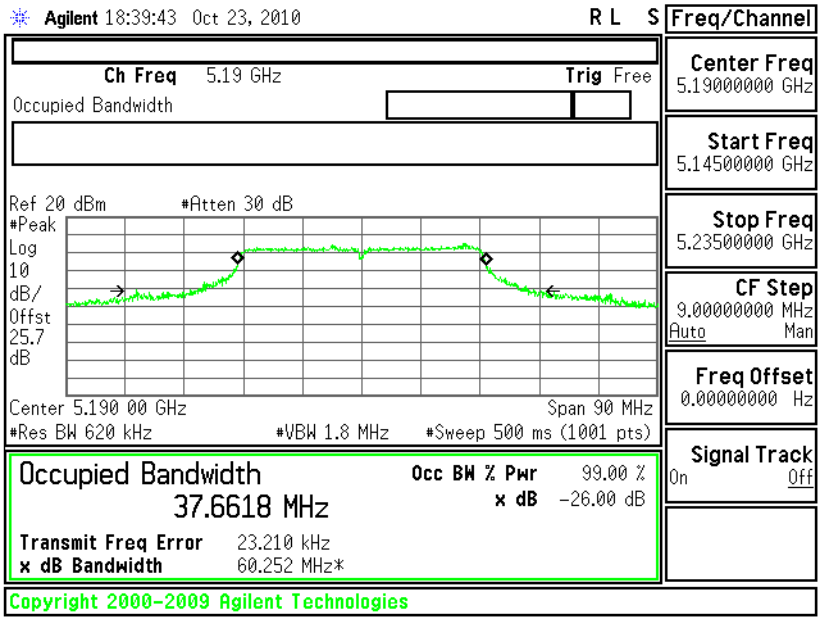


<Beam-Forming Off: 3x3>

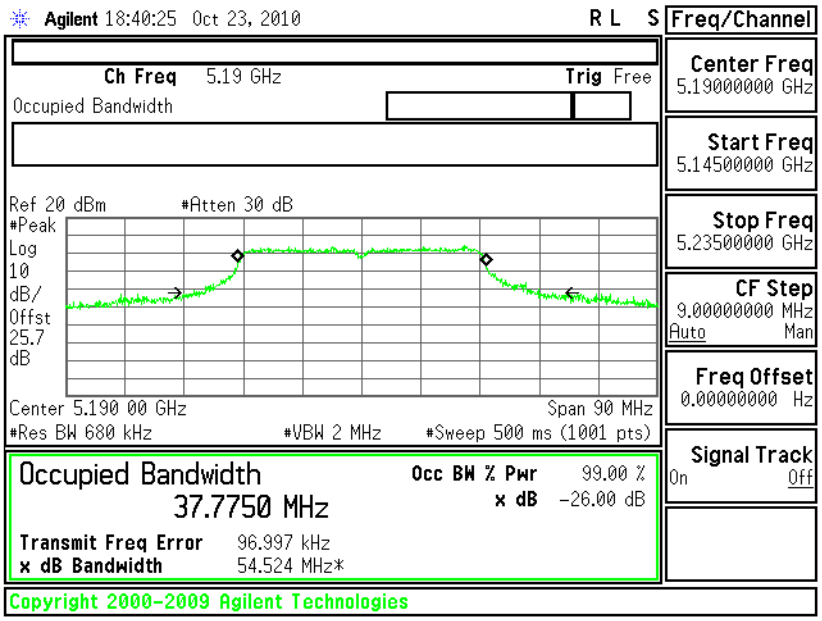
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 38 - Chain 0



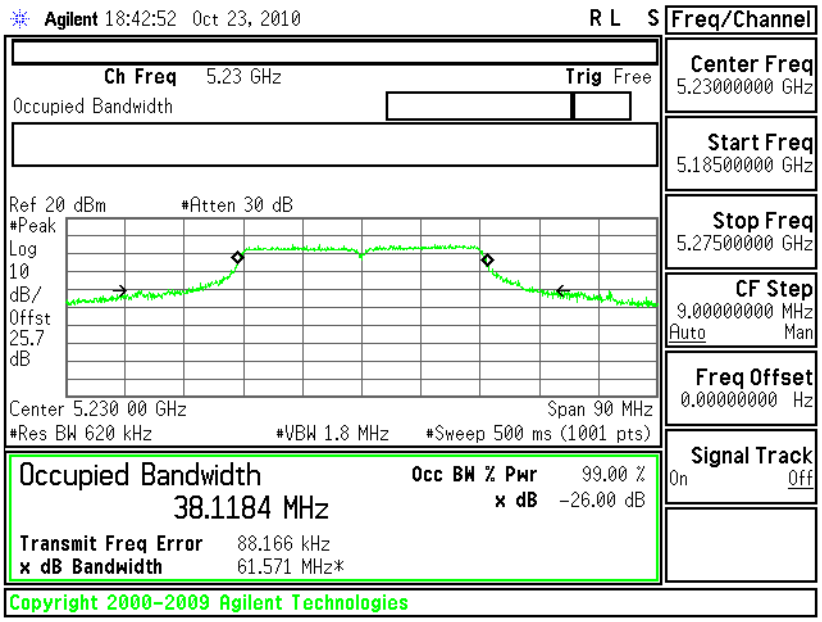
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 38 - Chain 1



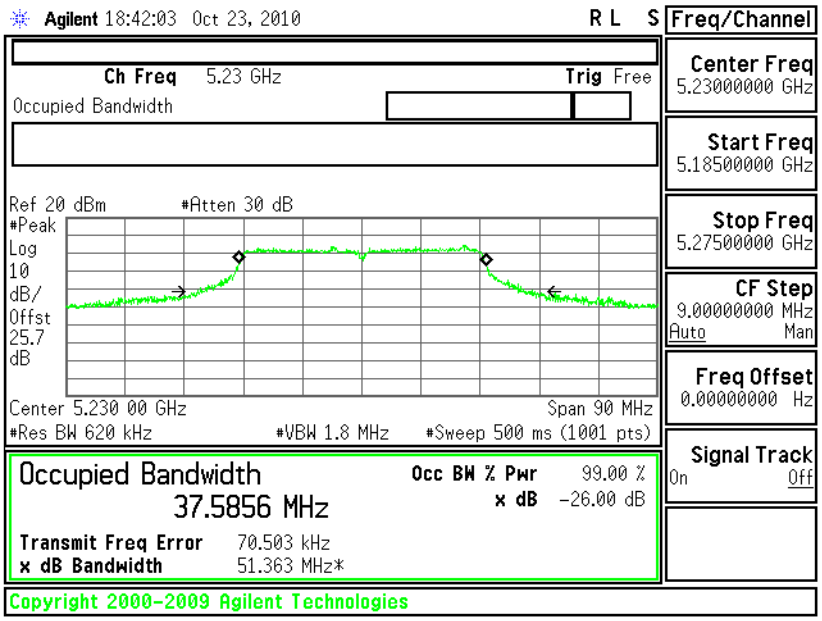
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 38 - Chain 2



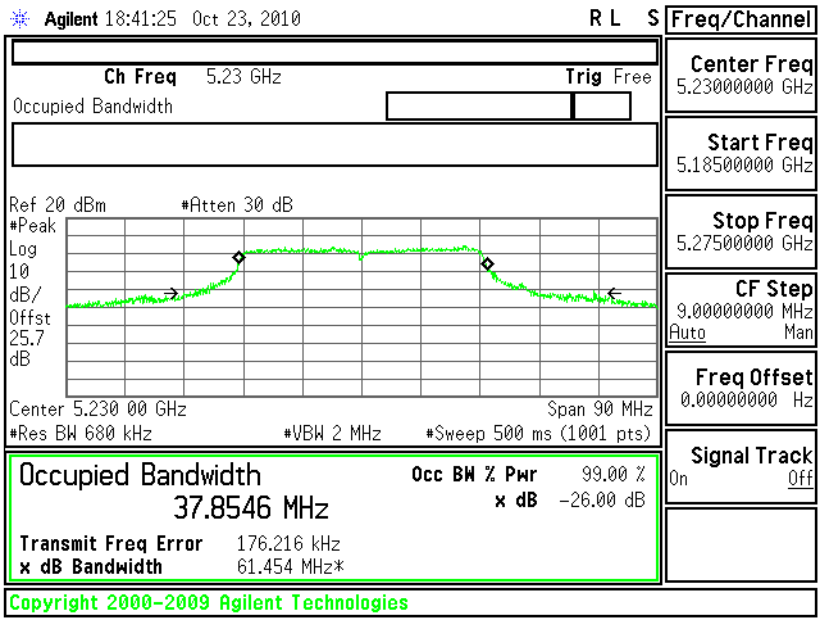
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 46 - Chain 0



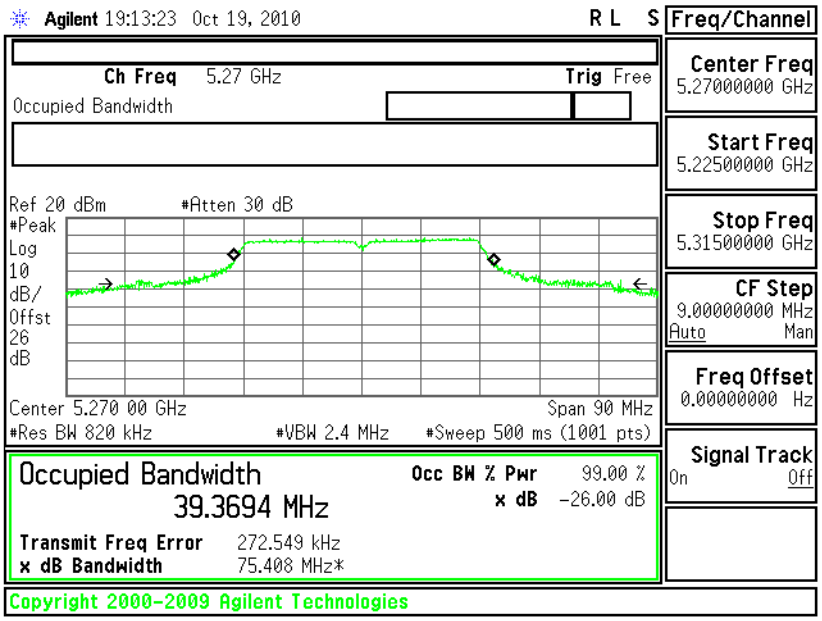
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 46 - Chain 1



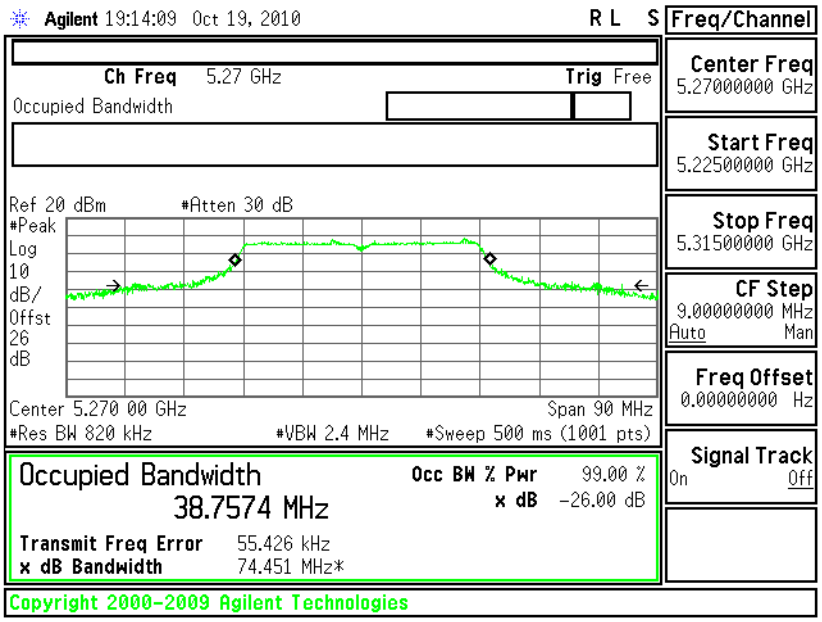
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 46 - Chain 2



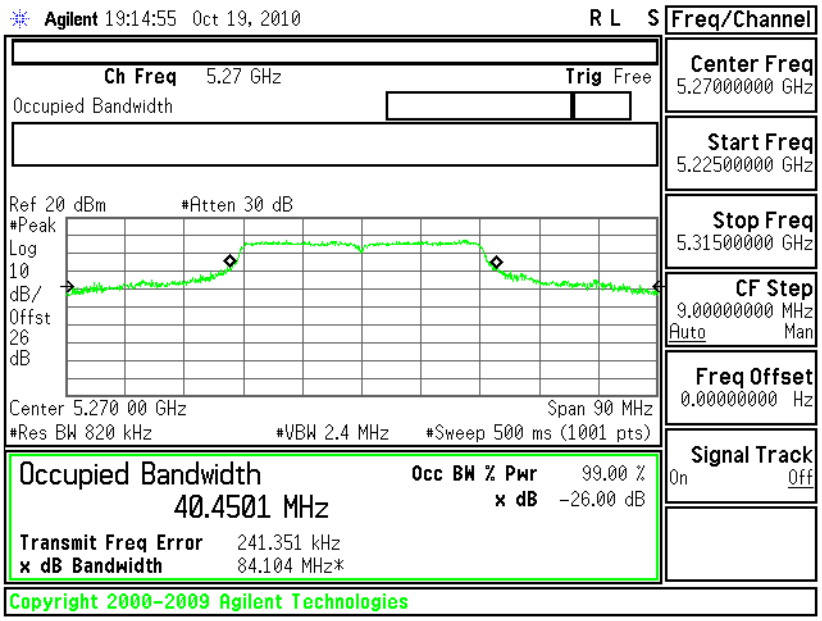
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 54 - Chain 0



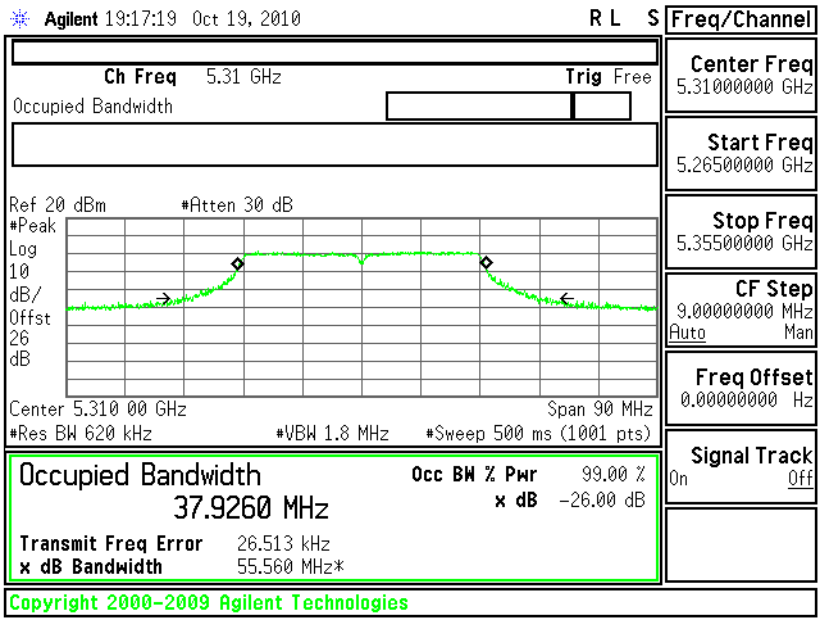
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 54 - Chain 1



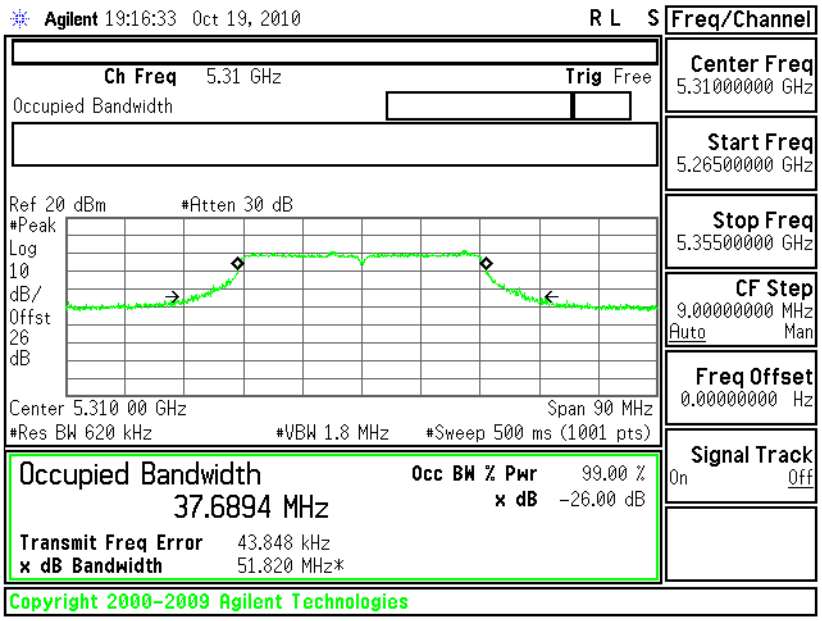
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 54 - Chain 2



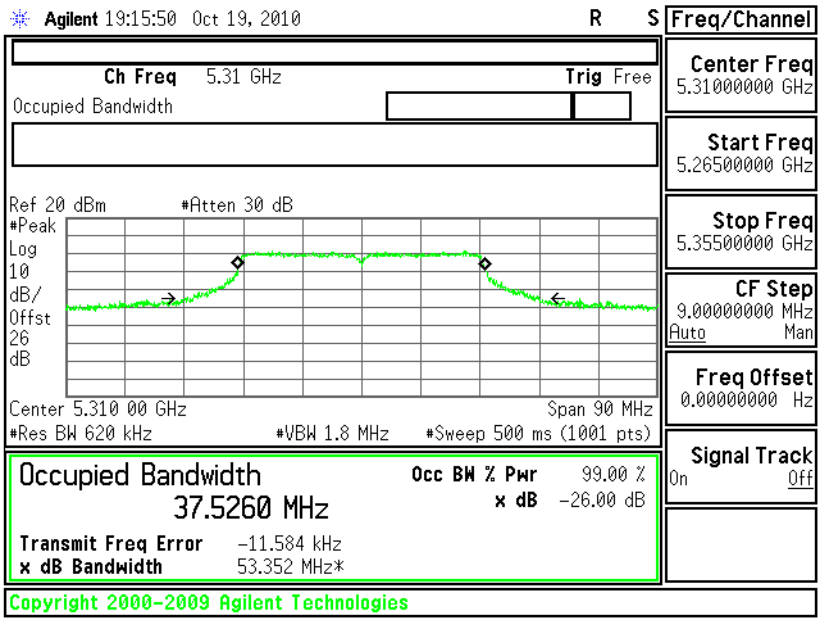
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 62 - Chain 0



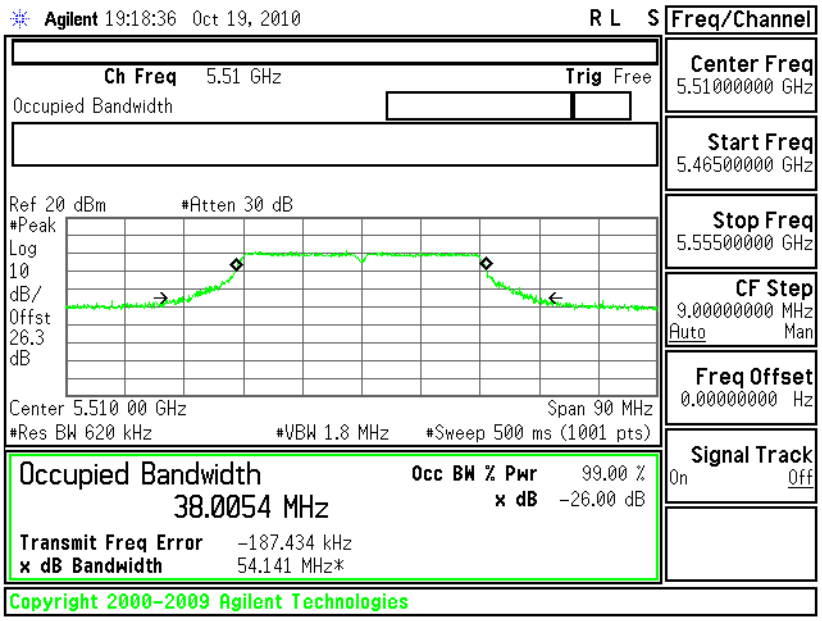
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 62 - Chain 1



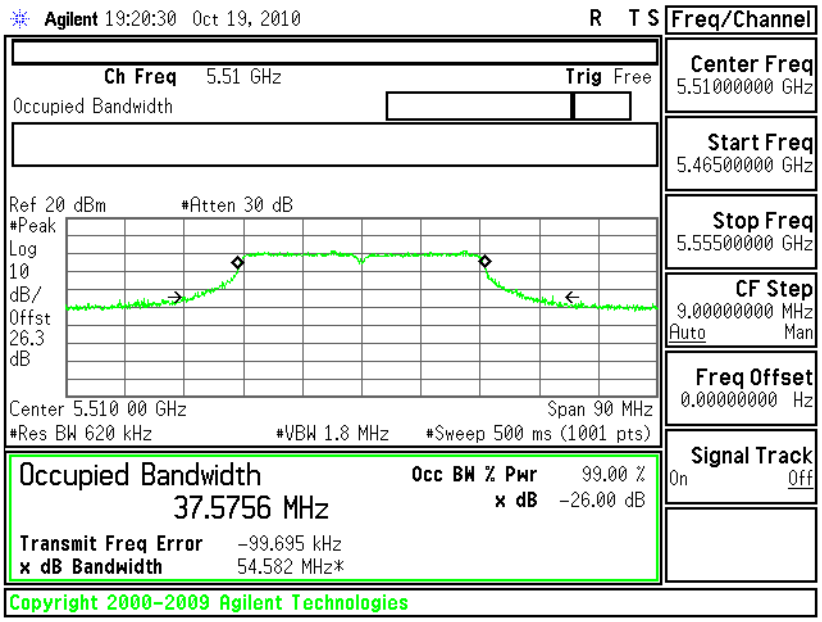
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 62 - Chain 2



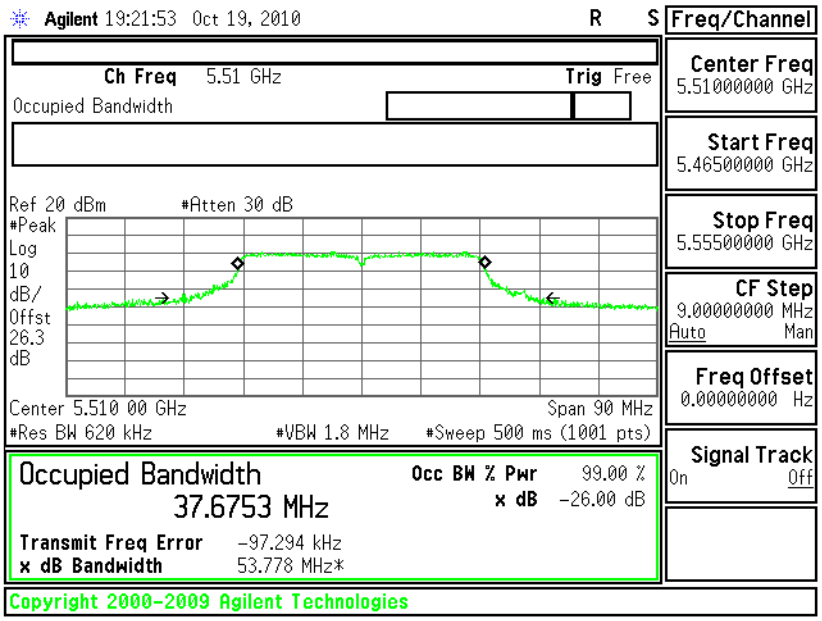
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 102 - Chain 0



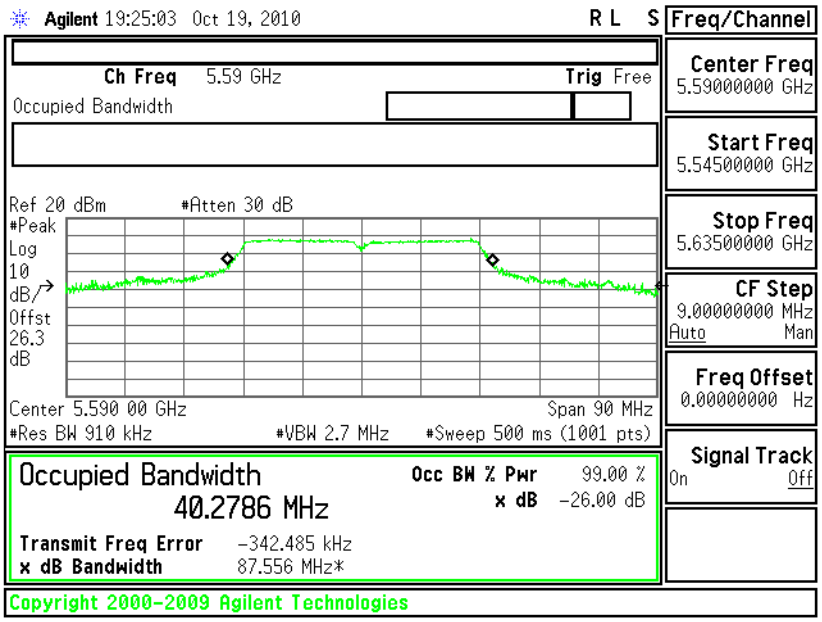
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 102 - Chain 1



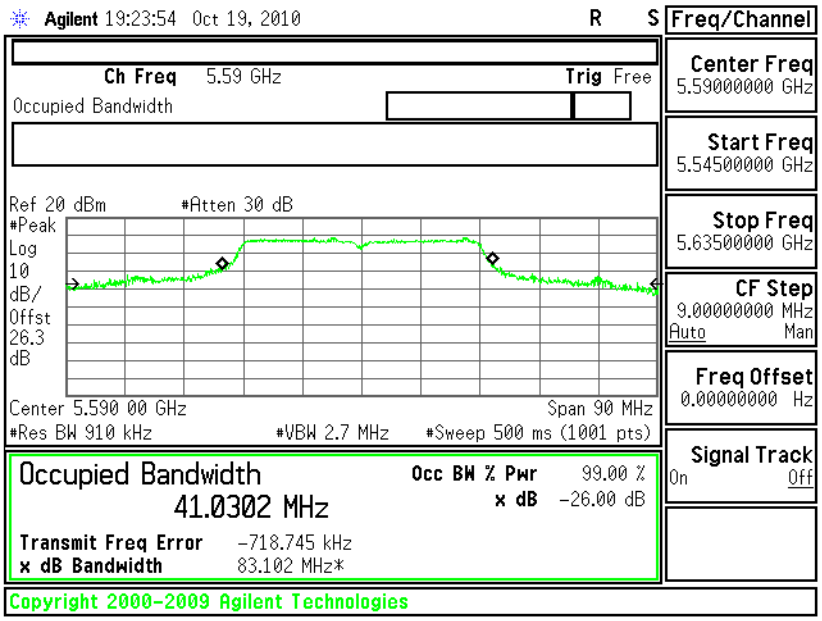
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 102 - Chain 2



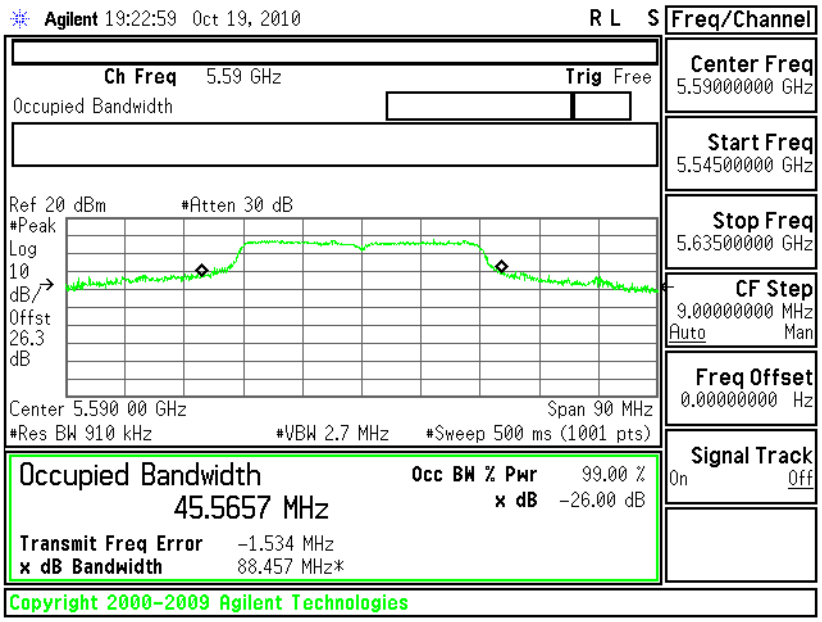
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 118 - Chain 0



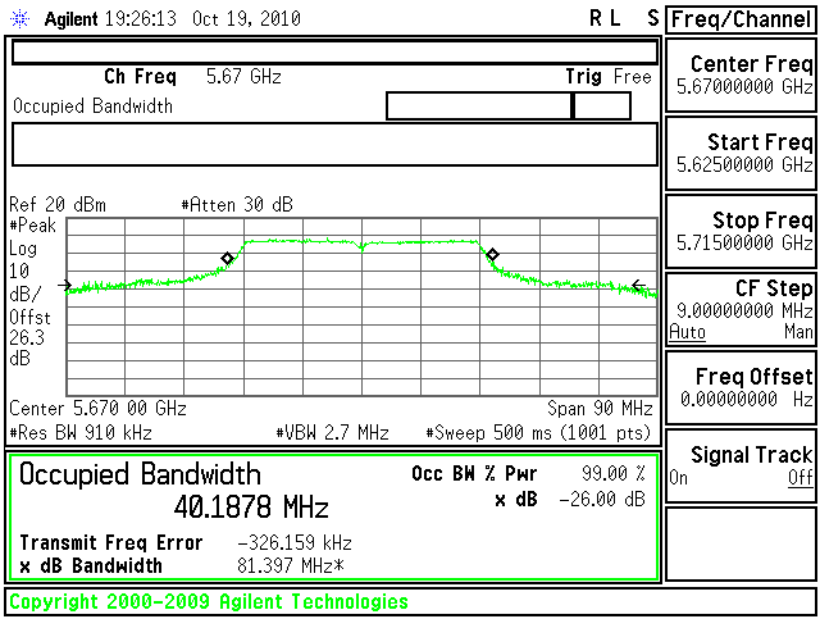
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 118 - Chain 1



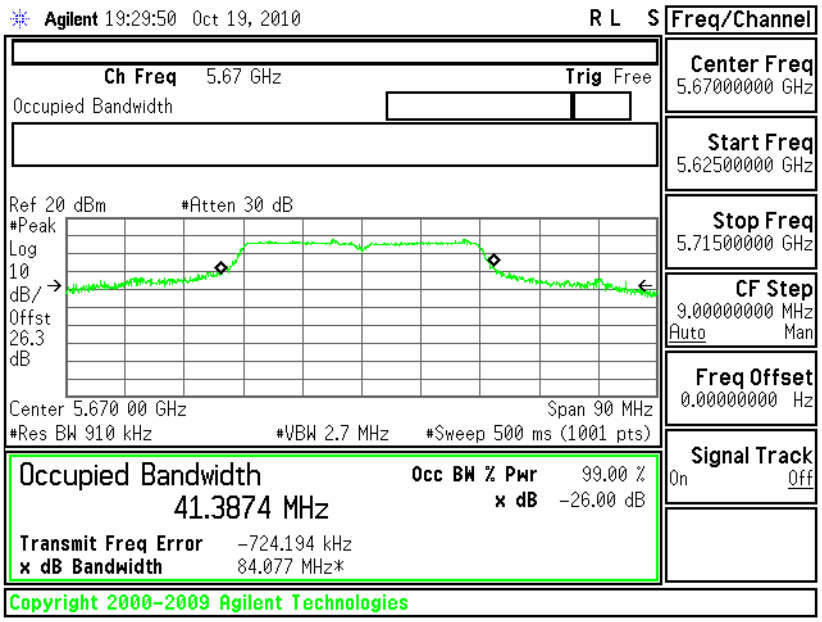
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 118 - Chain 2



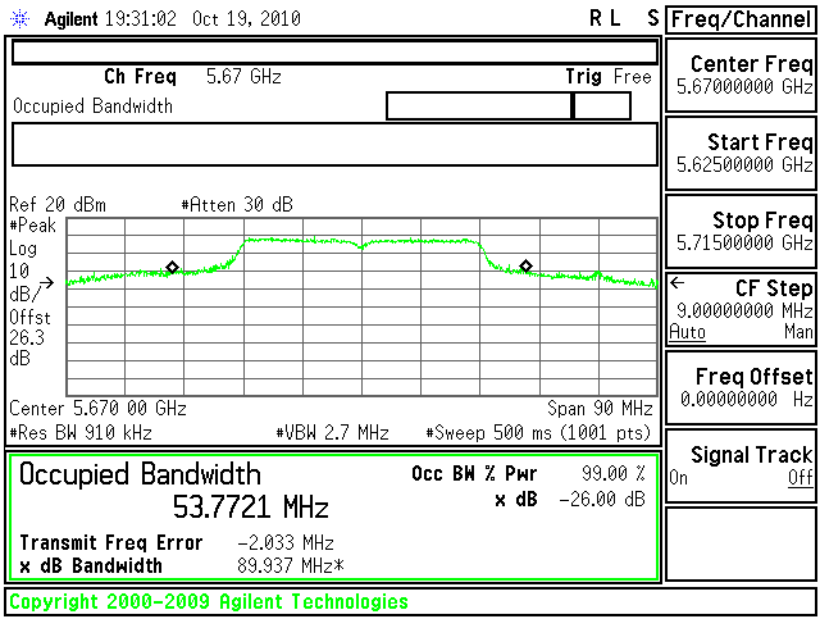
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 134 - Chain 0



26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 134 - Chain 1

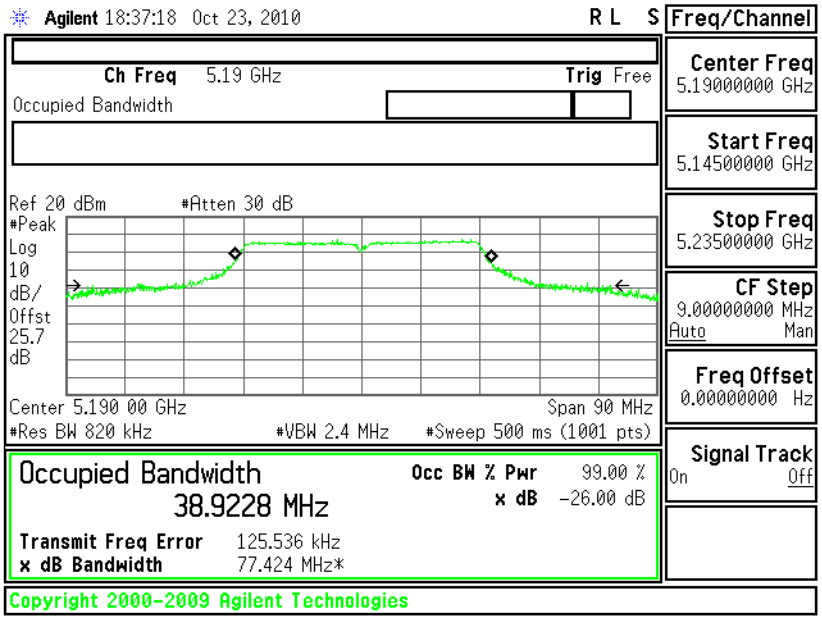


26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 134 - Chain 2

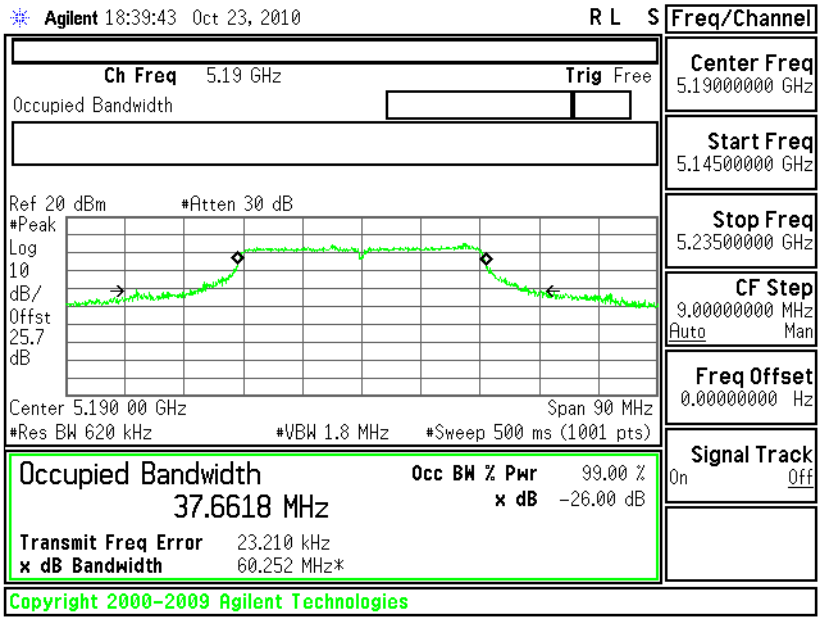


<Beam-Forming Off: 2x3>

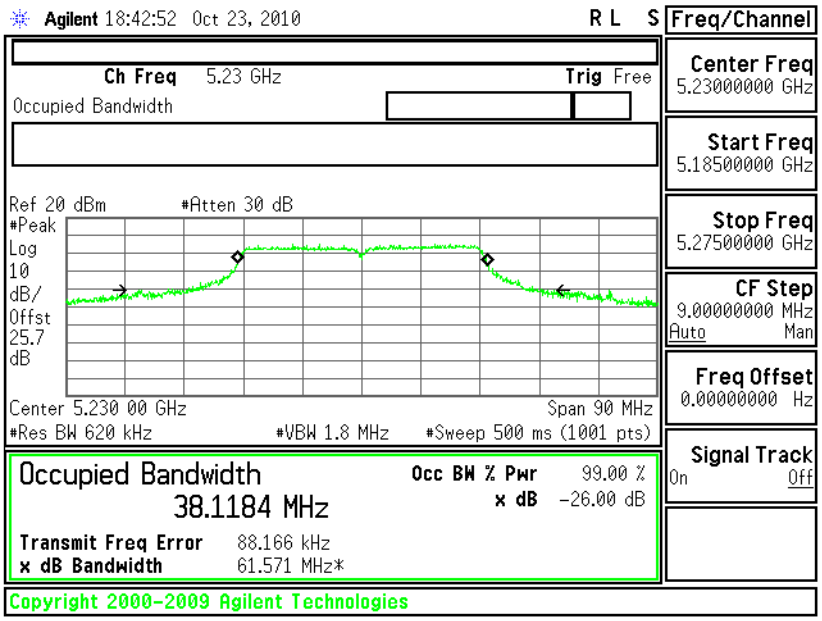
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 38 - Chain 0



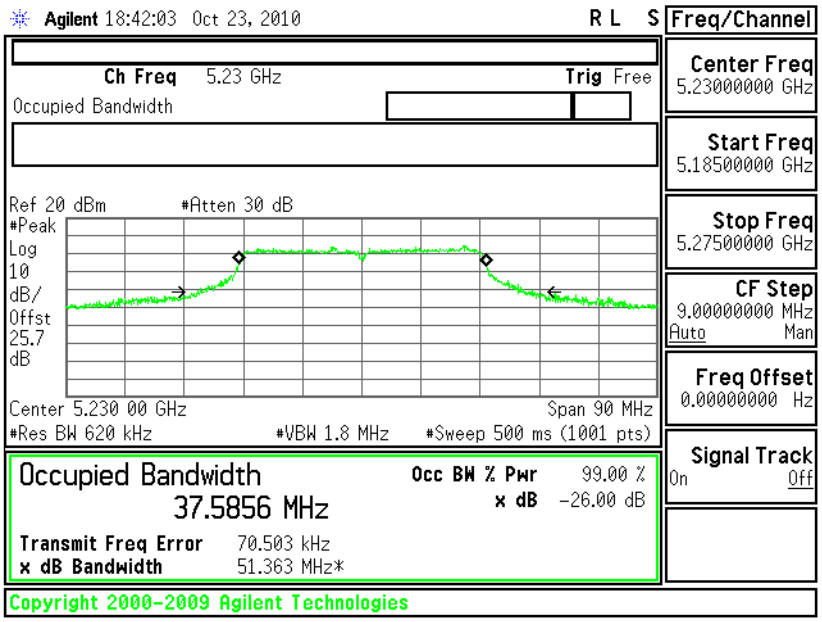
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 38 - Chain 1



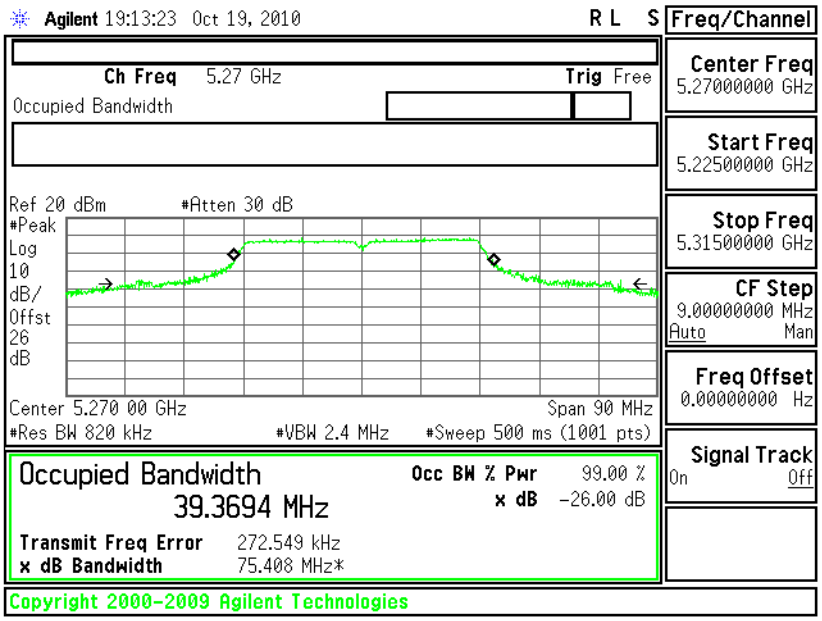
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 46 - Chain 0



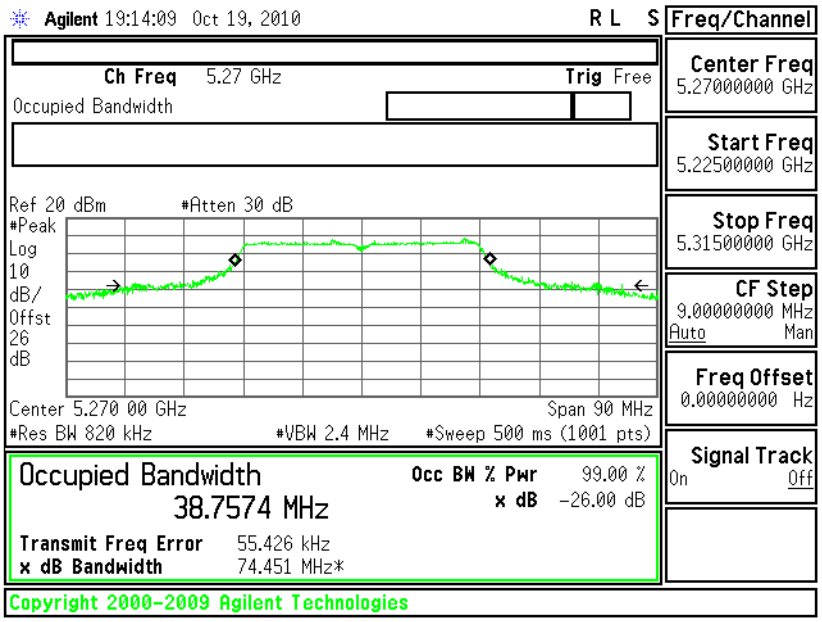
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 46 - Chain 1



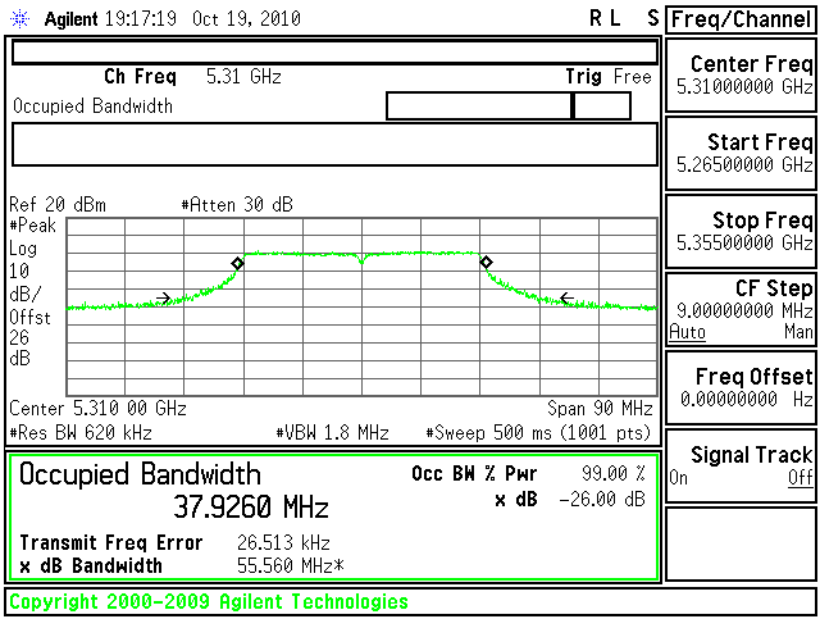
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 54 - Chain 0



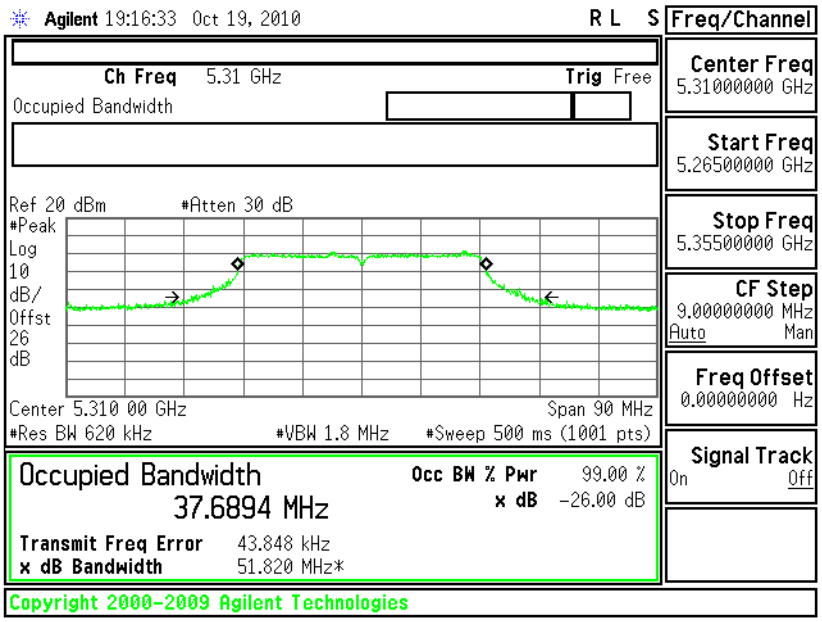
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 54 - Chain 1



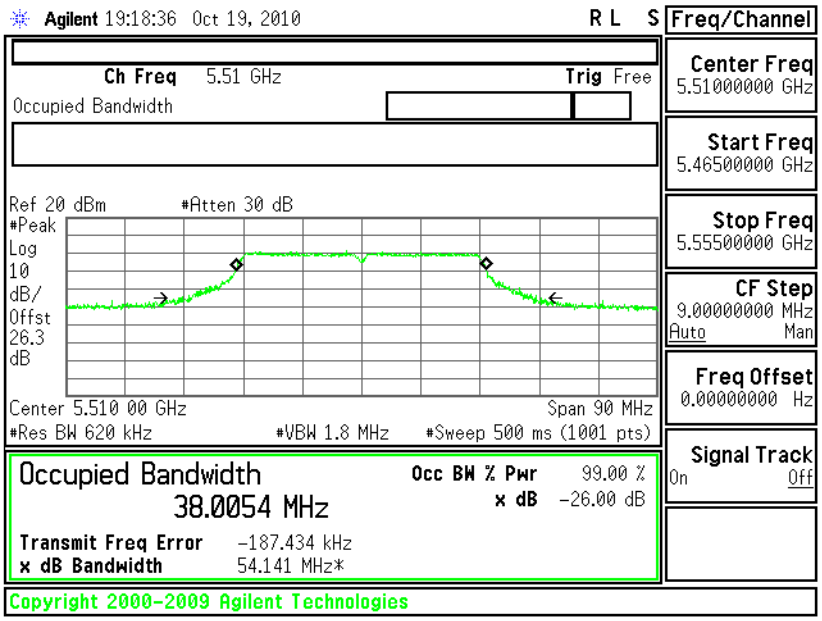
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 62 - Chain 0



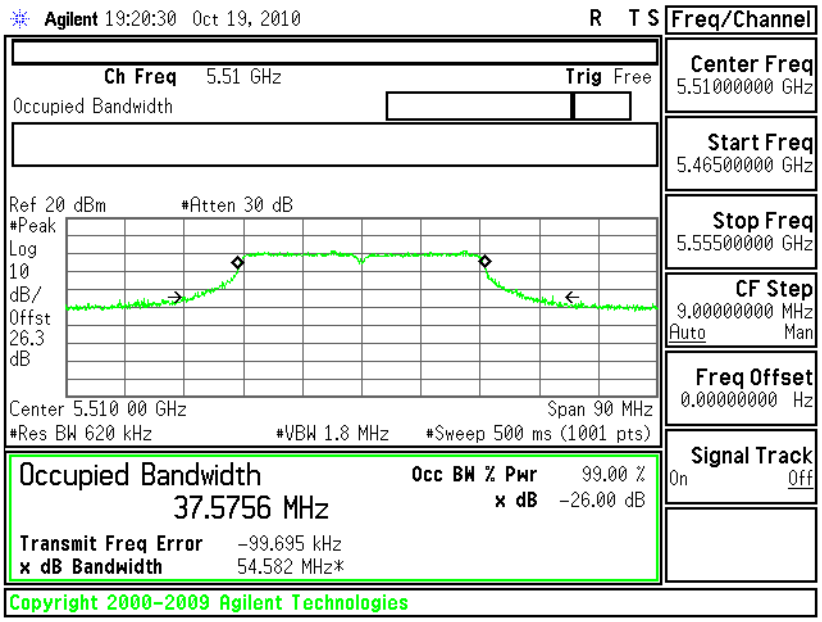
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 62 - Chain 1



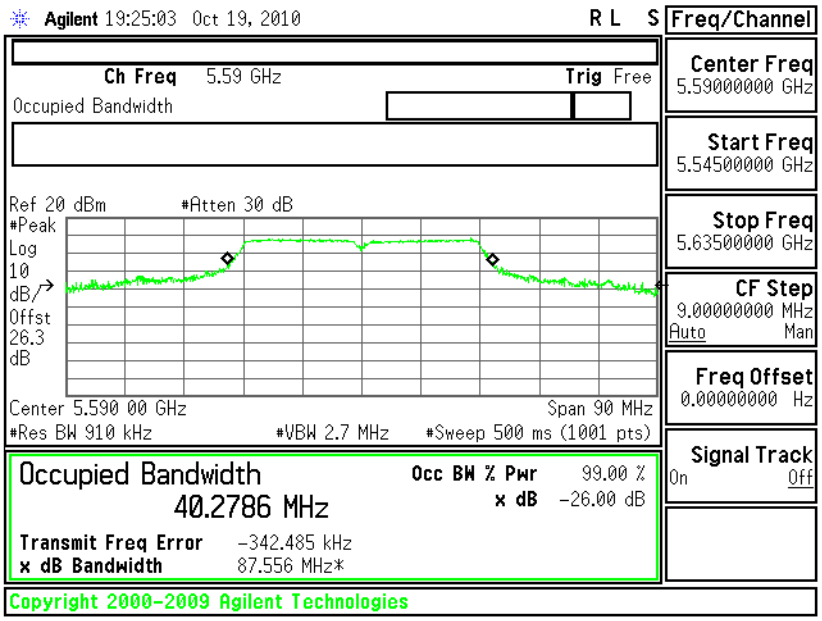
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 102 - Chain 0



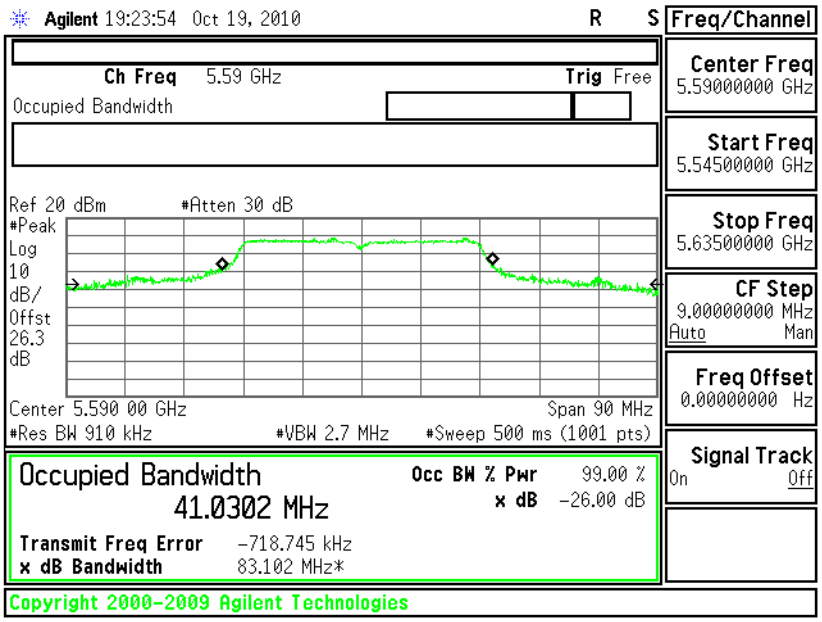
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 102 - Chain 1



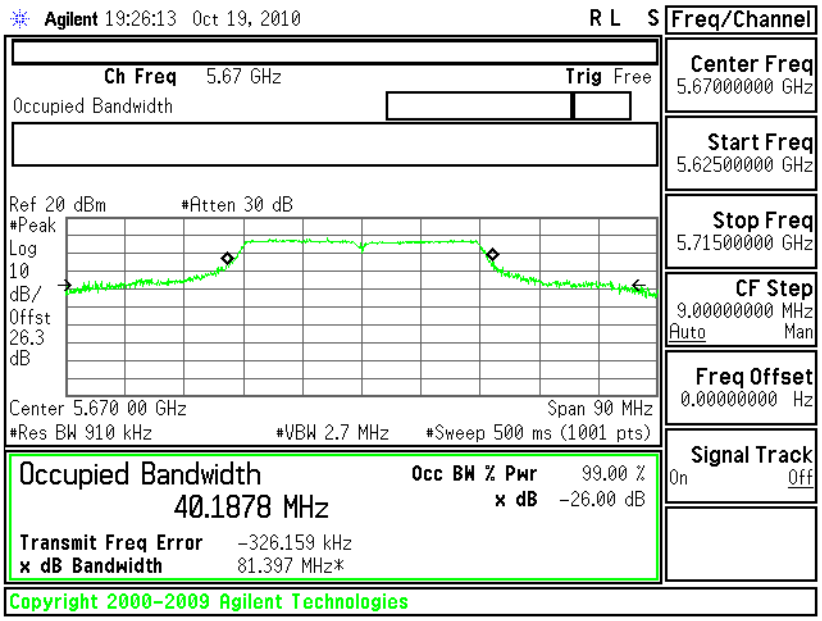
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 118 - Chain 0



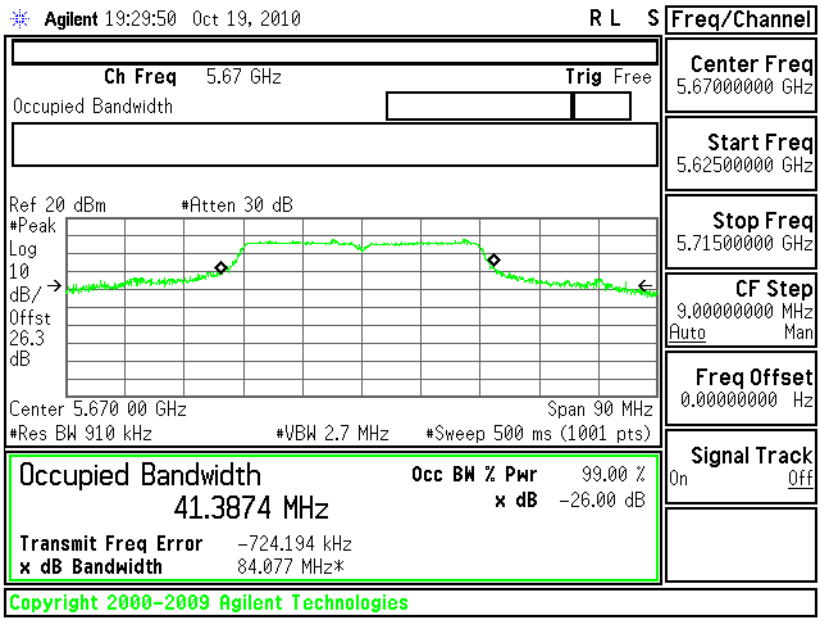
26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 118 - Chain 1



26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 134 - Chain 0



26 dB & 99% Bandwidth Plot on 802.11n (HT-40) Channel 134 - Chain 1



3.2 Power Spectral Density Measurement

3.2.1 Limit of Power Spectral Density

For the band 5.15–5.25 GHz, the peak power spectral density shall not exceed 4 dBm in any 1MHz band. For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the peak power spectral density shall not exceed 11 dBm in any 1MHz band. If transmitting antenna directional gain is greater than 6 dBi, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

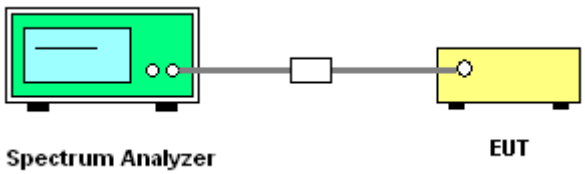
3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

3.2.3 Test Procedures

The transmitter output is connected to the spectrum analyzer. According to the method 3 of DA-02-2138, the resolution bandwidth is set to 1 MHz, video bandwidth is 3MHz, trace average 100 traces in power averaging mode, and sample detection is used, and the analyzer is set for video averaging.

3.2.4 Test Setup



3.2.5 Test Result of Power Spectral Density

Test Mode :	802.11a L/M/H channels	Temperature :	25~27℃
Test Engineer :	Lewis He	Relative Humidity :	64~66%

<Normal Mode: 3x3>

Channel	Frequency (MHz)	802.11a Measured PSD (dBm)				Max. Limits (dBm)	Pass/Fail
		Chain 0	Chain 1	Chain 2	Summation		
36	5180	-1.79	-2.88	-3.54	2.10	2.15	Pass
44	5220	-1.84	-2.84	-3.54	2.09	2.15	Pass
48	5240	-1.94	-2.95	-3.31	2.08	2.15	Pass
52	5260	4.28	3.81	3.90	8.77	9.15	Pass
60	5300	5.03	3.52	3.85	8.95	9.15	Pass
64	5320	4.80	3.78	3.94	8.97	9.15	Pass
100	5500	4.71	4.03	2.96	8.73	13.47	Pass
120	5600	4.54	3.74	2.81	8.52	13.47	Pass
140	5700	5.61	4.74	4.27	9.68	13.47	Pass

Note: The maximum composite antenna gain is 7.85 for 5150 MHz ~ 5350 MHz and 9.53 dBi for 5470 MHz ~ 5725 MHz; therefore the limits are 2.15 dBm for 5150 MHz ~ 5250 MHz, 9.15 dBm for 5250 MHz ~ 5350 MHz and 13.47 dBm for 5470 MHz ~ 5725 MHz.

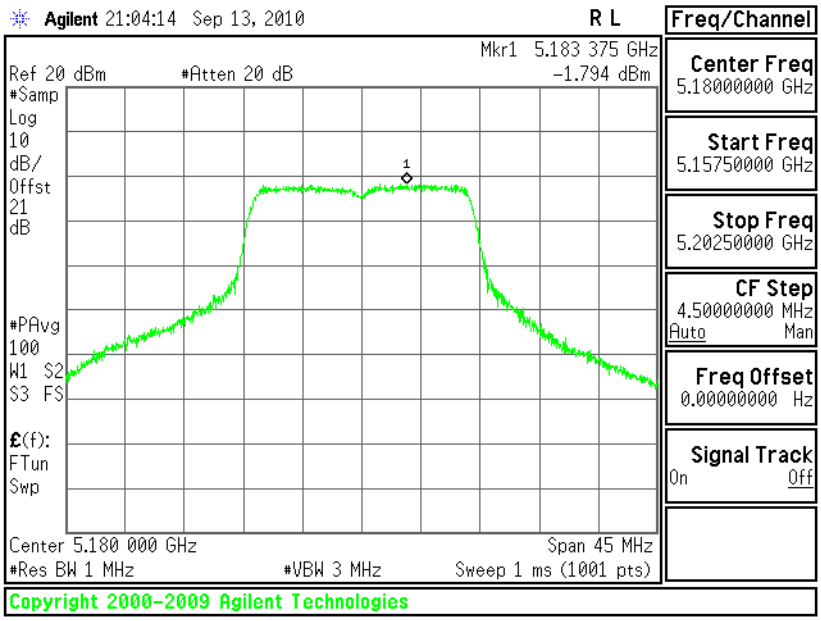
<Normal Mode: 2x3>

Channel	Frequency (MHz)	802.11a Measured PSD (dBm)			Max. Limits (dBm)	Pass/Fail
		Chain 0	Chain 1	Summation		
36	5180	0.46	-0.51	3.01	3.91	Pass
44	5220	0.57	-0.60	3.03	3.91	Pass
48	5240	0.72	-0.20	3.29	3.91	Pass
52	5260	5.23	3.84	7.60	10.91	Pass
60	5300	5.48	4.41	7.99	10.91	Pass
64	5320	4.47	3.47	7.01	10.91	Pass
100	5500	6.00	5.37	8.71	15.23	Pass
120	5600	5.82	4.85	8.37	15.23	Pass
140	5700	5.14	5.11	8.14	15.23	Pass

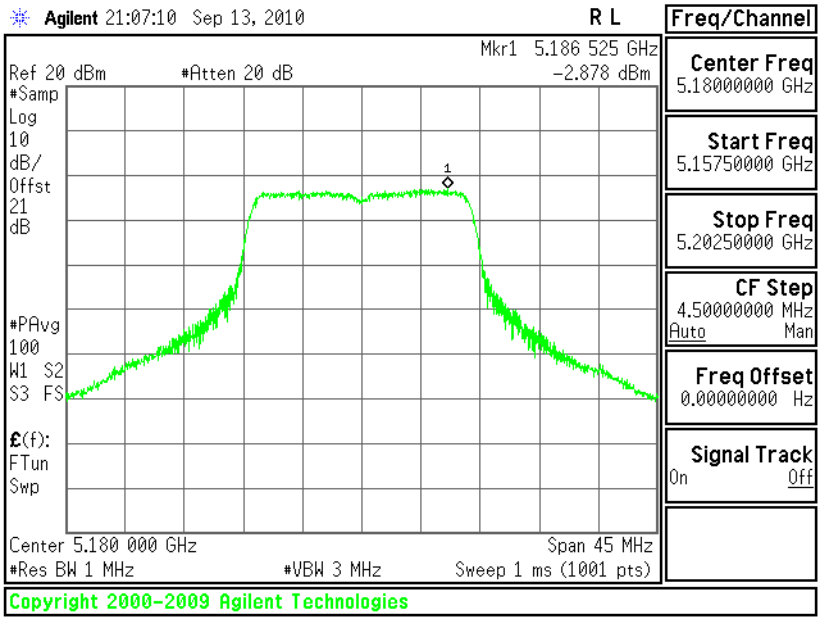
Note: The maximum composite antenna gain is 6.09 for 5150 MHz ~ 5350 MHz and 7.77 dBi for 5470 MHz ~ 5725 MHz; therefore the limits are 3.91 dBm for 5150 MHz ~ 5250 MHz, 10.91 dBm for 5250 MHz ~ 5350 MHz and 15.23 dBm for 5470 MHz ~ 5725 MHz.

< Normal Mode: 3x3>

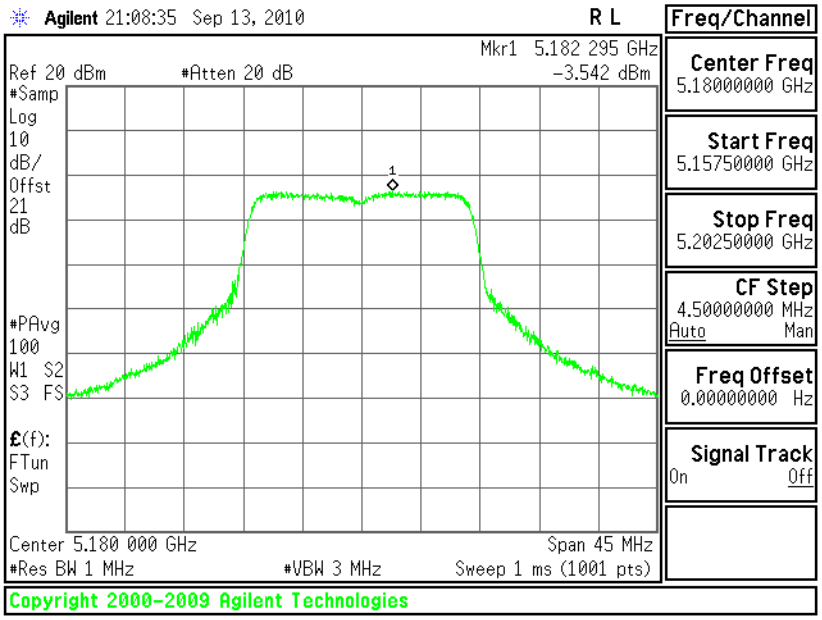
PSD Plot on 802.11a Channel 36 - Chain 0



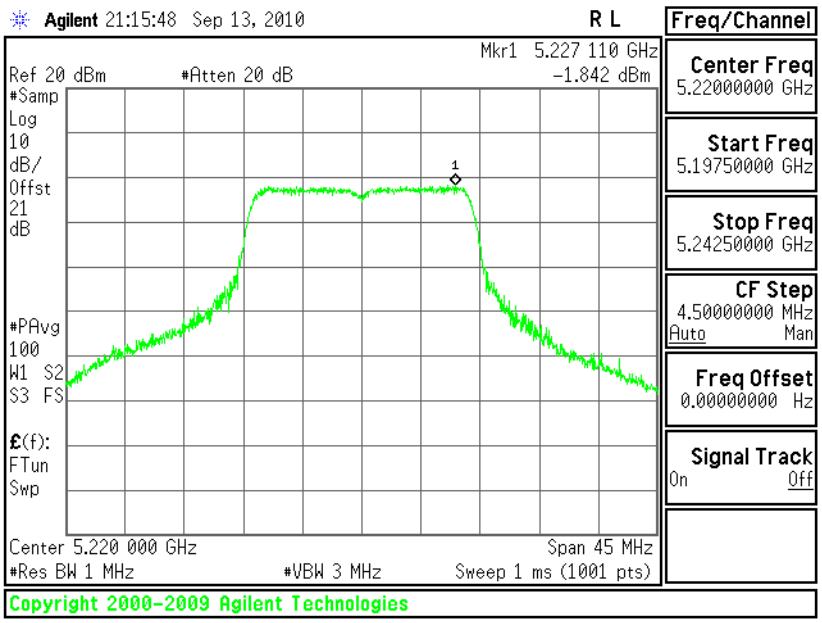
PSD Plot on 802.11a Channel 36 - Chain 1



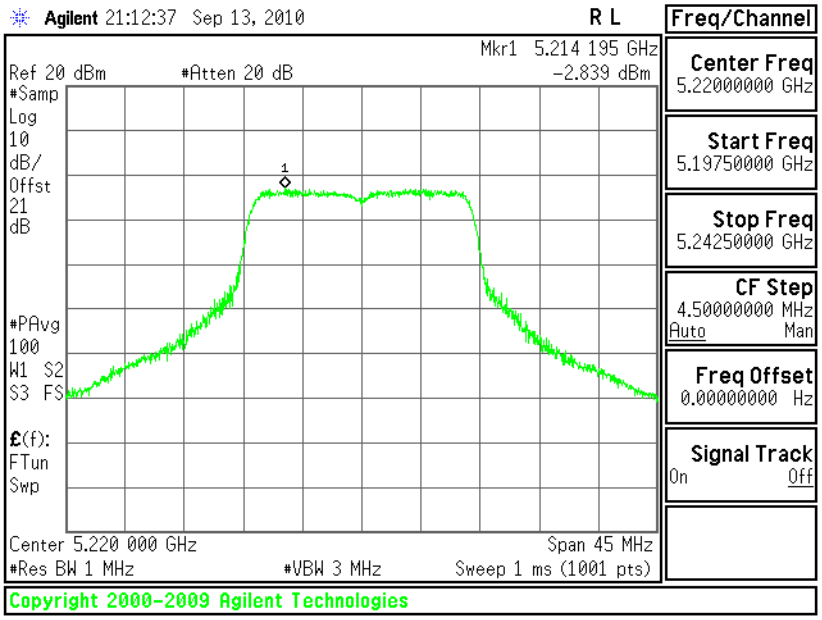
PSD Plot on 802.11a Channel 36 - Chain 2



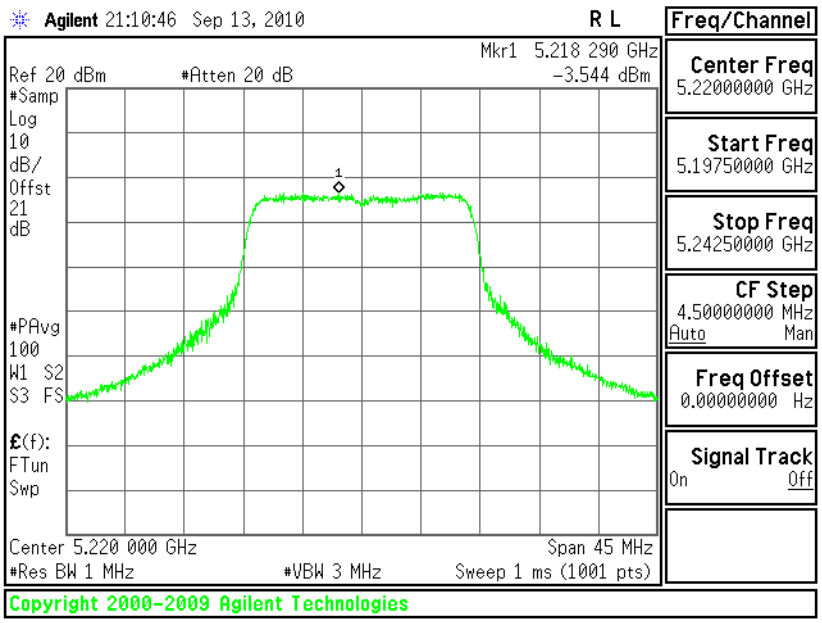
PSD Plot on 802.11a Channel 44 - Chain 0



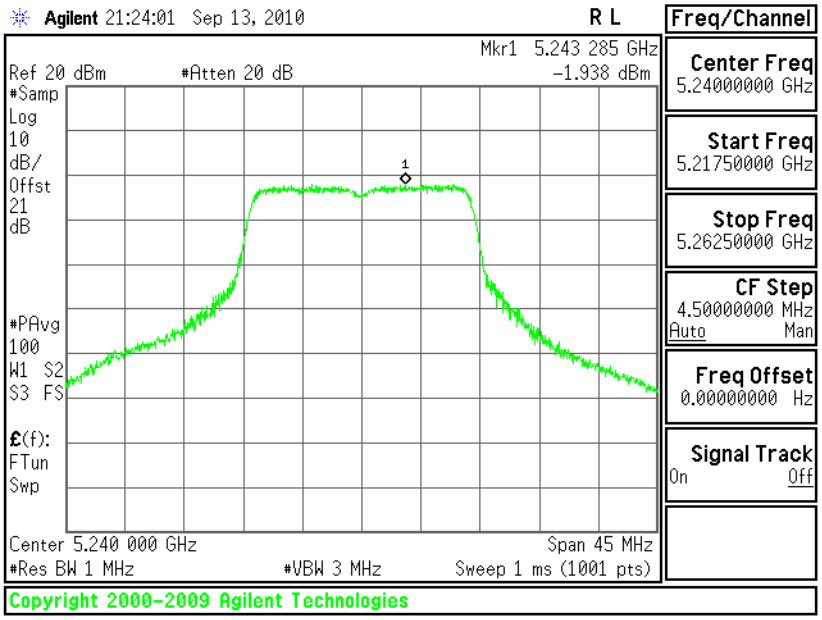
PSD Plot on 802.11a Channel 44 - Chain 1



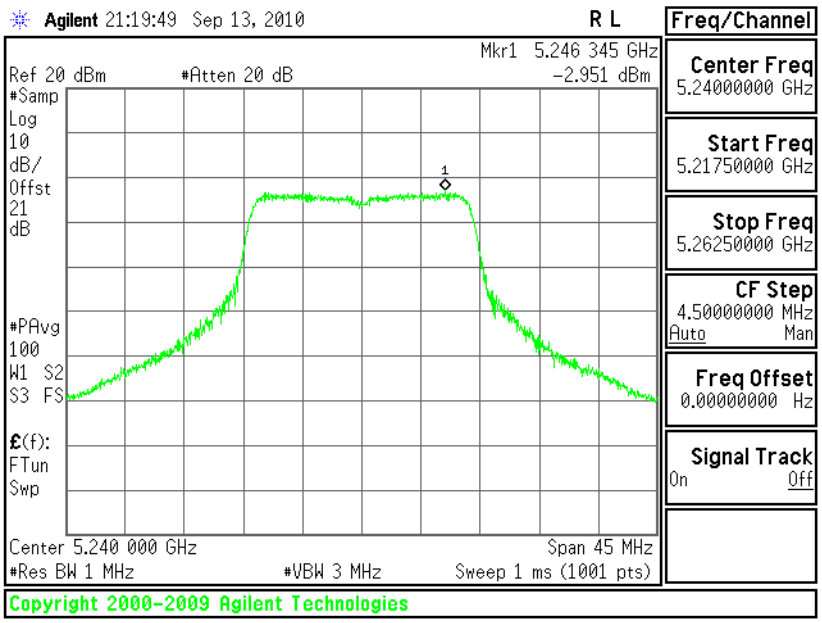
PSD Plot on 802.11a Channel 44 - Chain 2



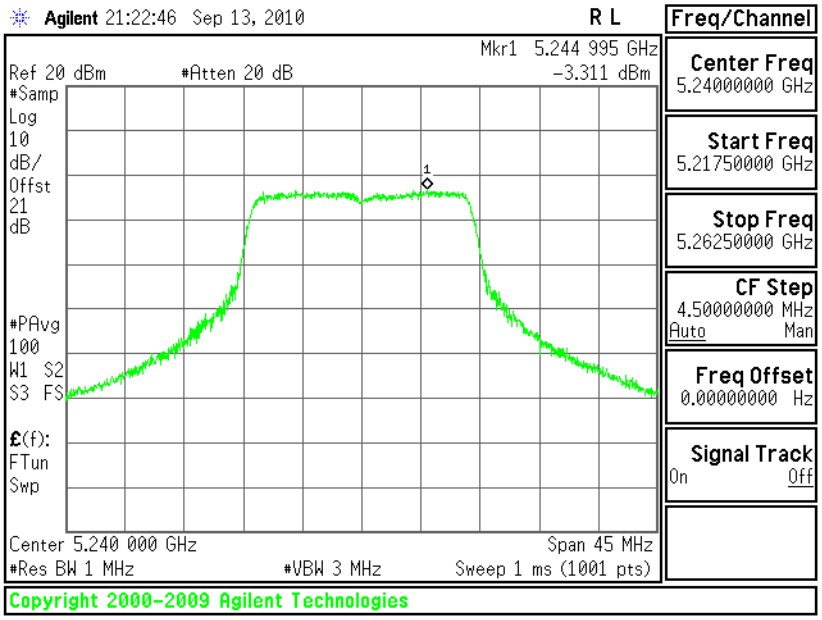
PSD Plot on 802.11a Channel 48 - Chain 0



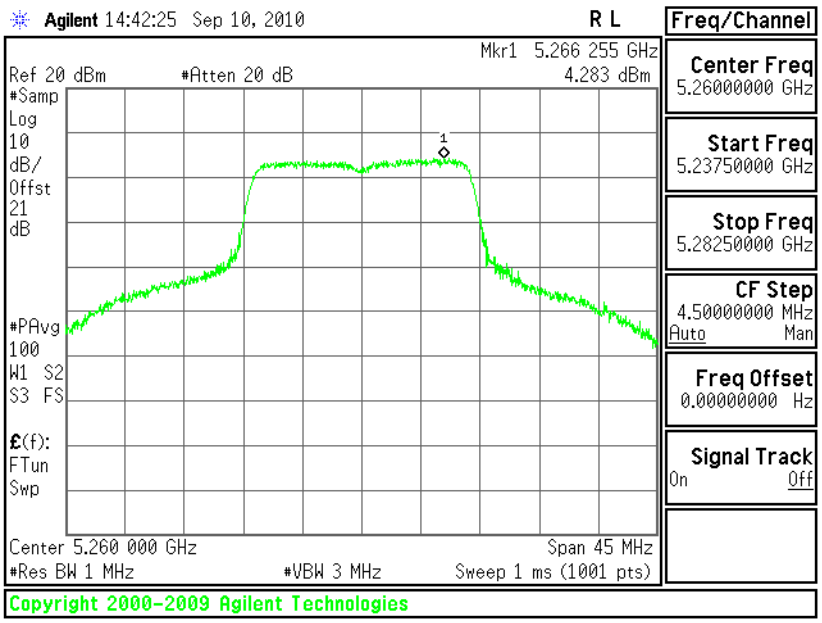
PSD Plot on 802.11a Channel 48 - Chain 1



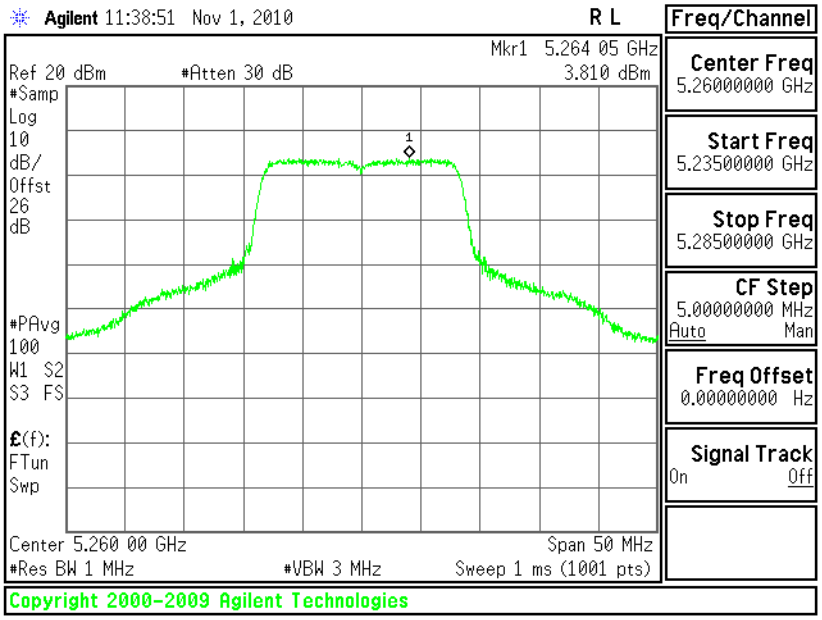
PSD Plot on 802.11a Channel 48 - Chain 2



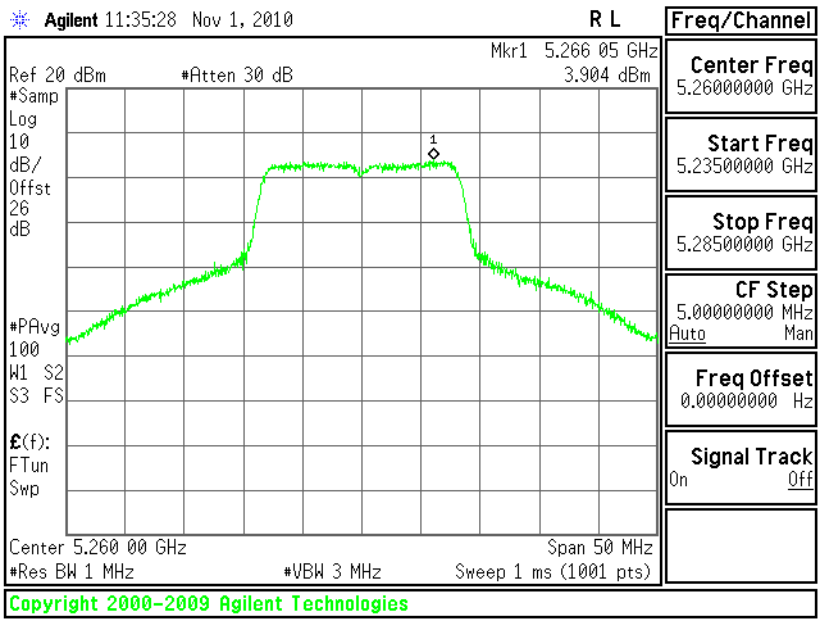
PSD Plot on 802.11a Channel 52 - Chain 0



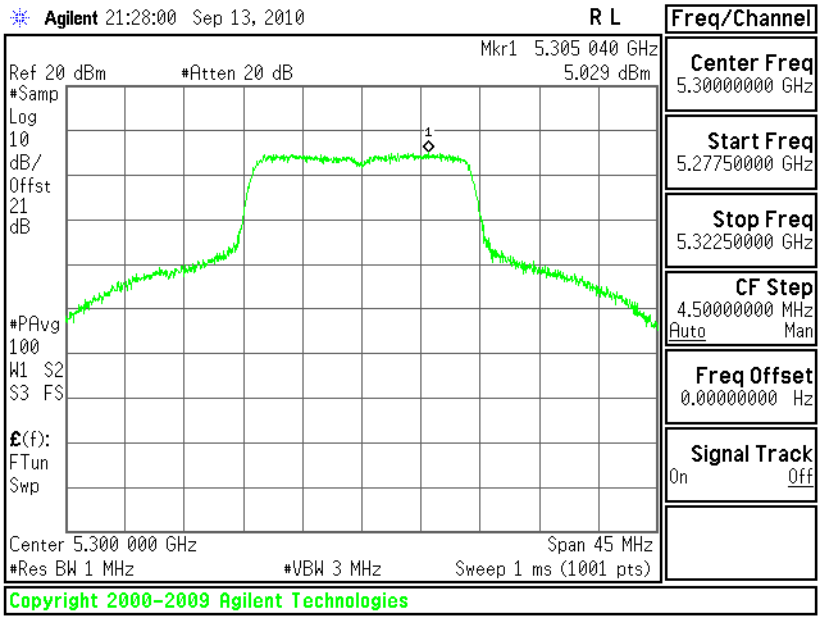
PSD Plot on 802.11a Channel 52 - Chain 1



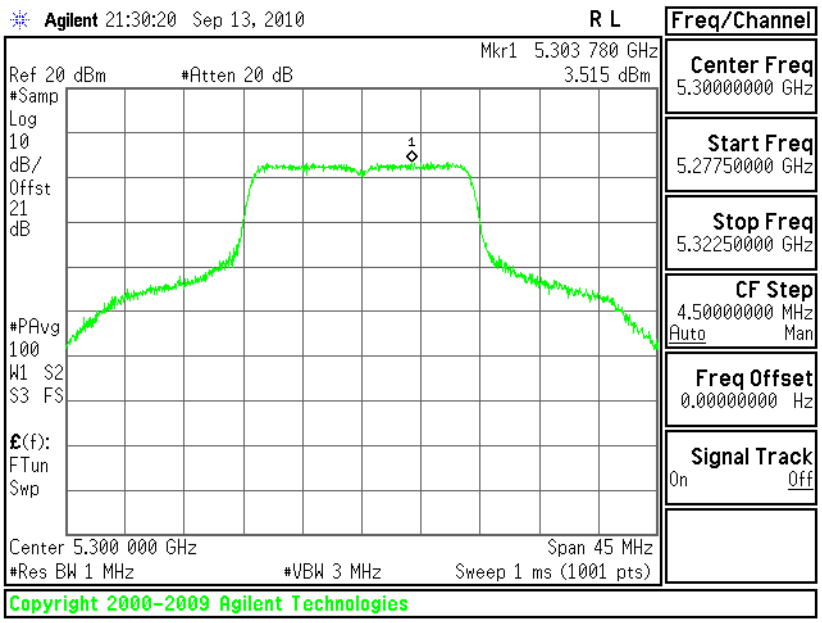
PSD Plot on 802.11a Channel 52 - Chain 2



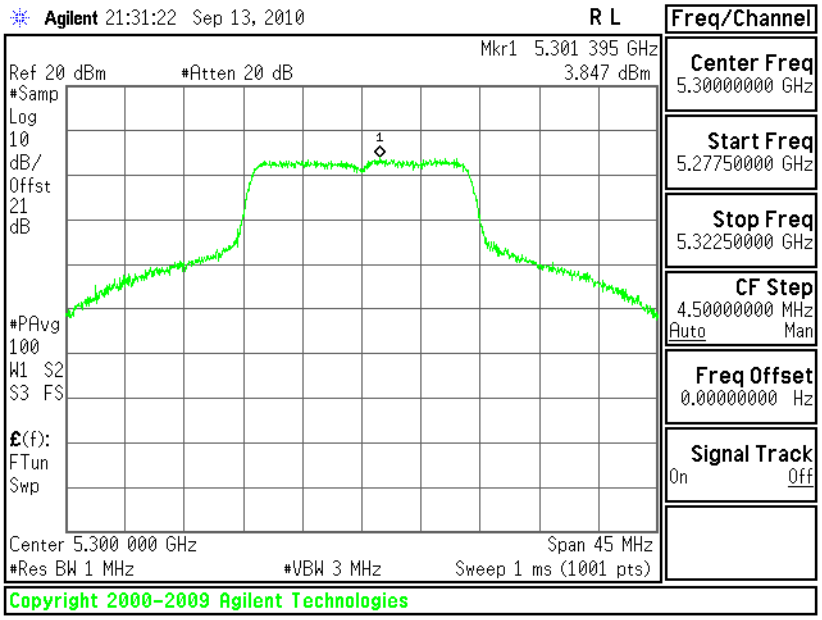
PSD Plot on 802.11a Channel 60 - Chain 0



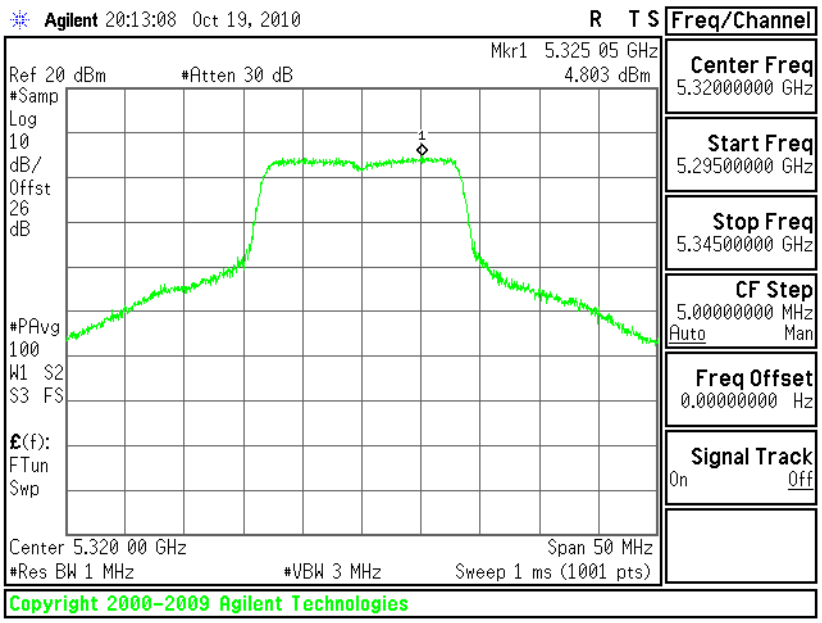
PSD Plot on 802.11a Channel 60 - Chain 1



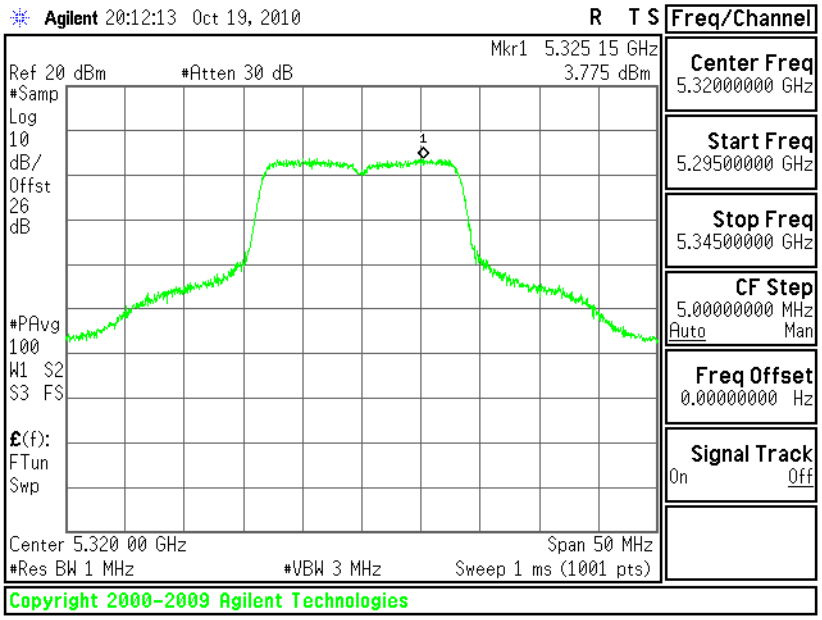
PSD Plot on 802.11a Channel 60 - Chain 2



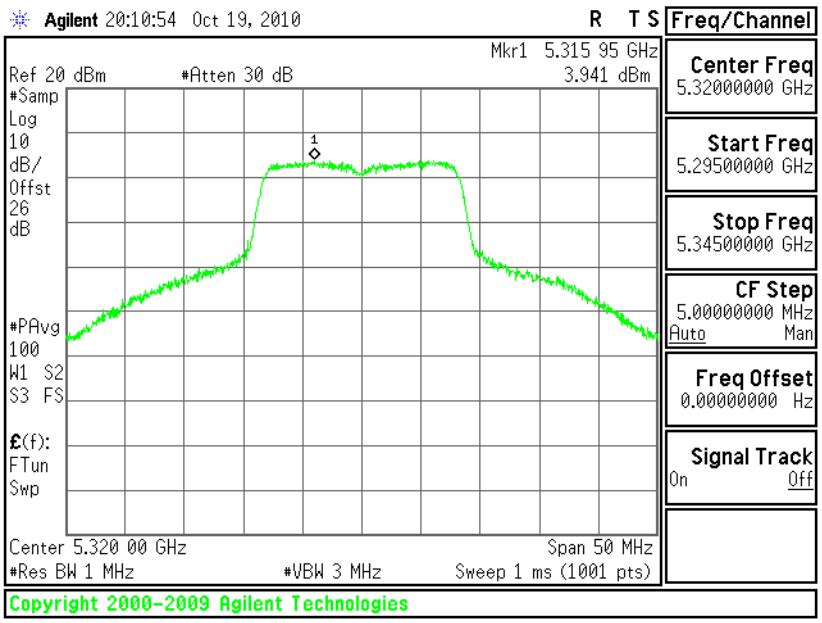
PSD Plot on 802.11a Channel 64 - Chain 0



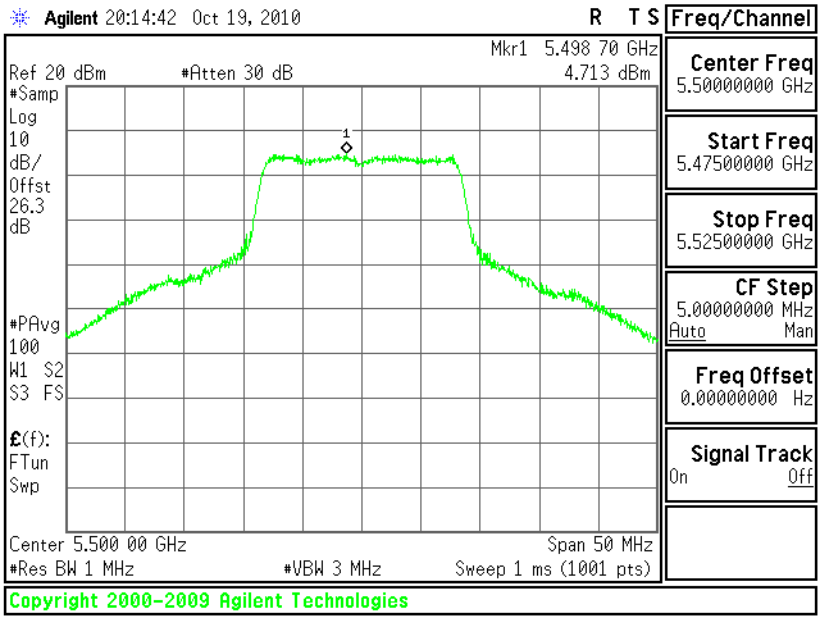
PSD Plot on 802.11a Channel 64 - Chain 1



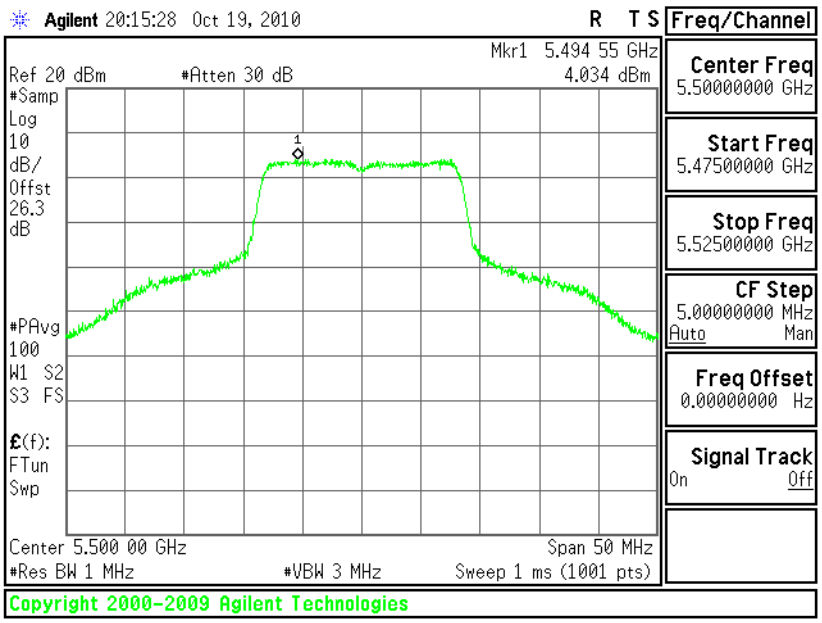
PSD Plot on 802.11a Channel 64 - Chain 2



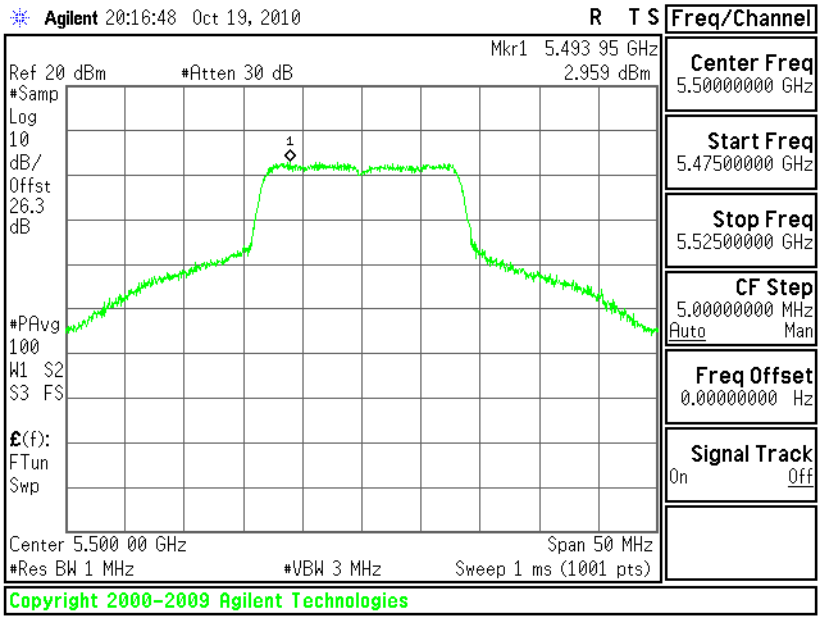
PSD Plot on 802.11a Channel 100 - Chain 0



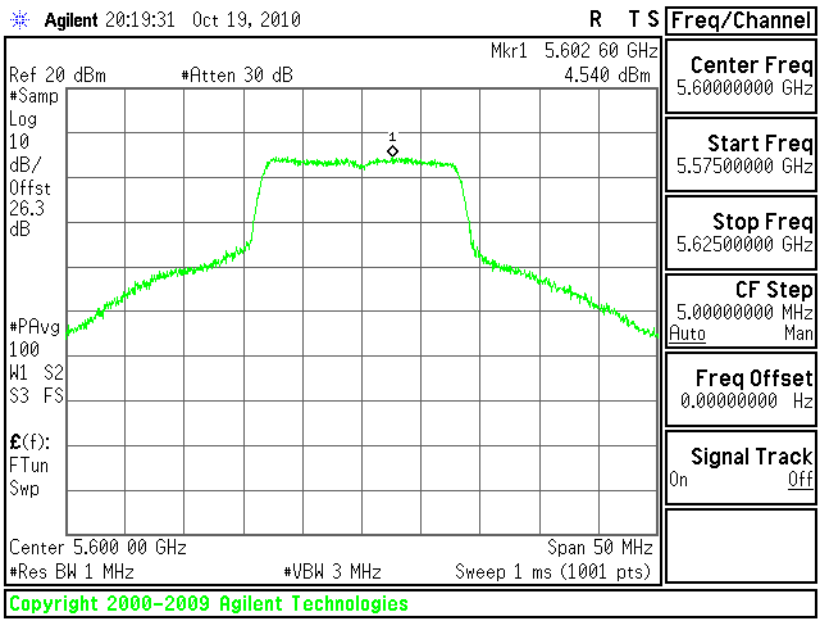
PSD Plot on 802.11a Channel 100 - Chain 1



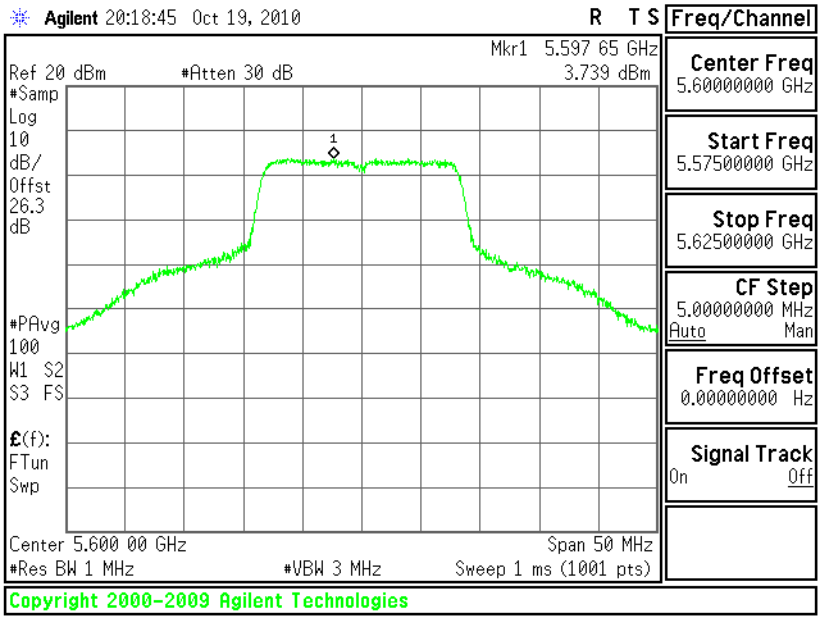
PSD Plot on 802.11a Channel 100 - Chain 2



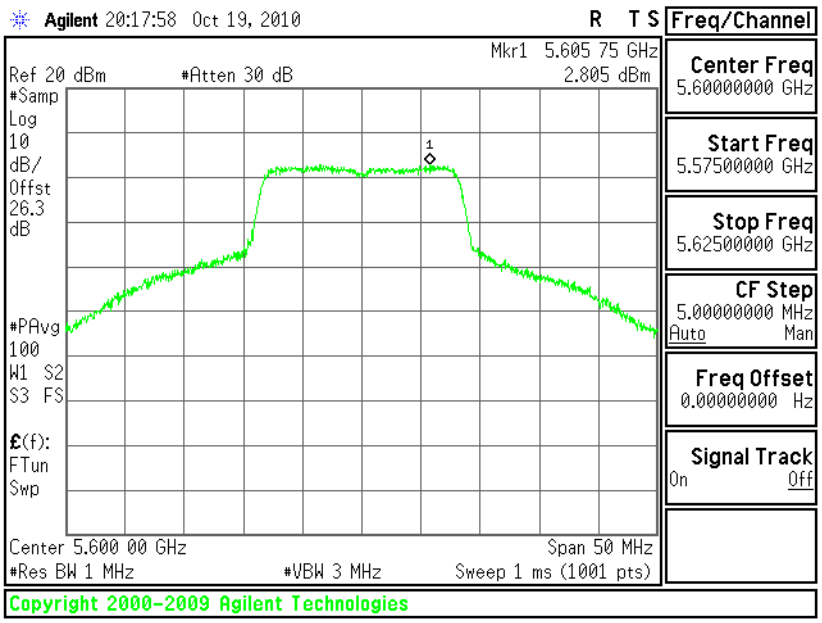
PSD Plot on 802.11a Channel 120 - Chain 0



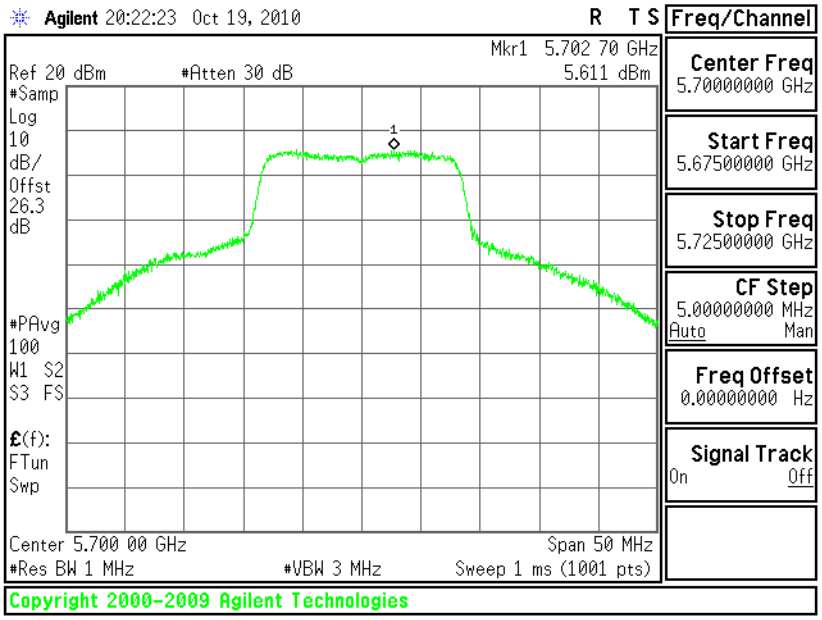
PSD Plot on 802.11a Channel 120 - Chain 1



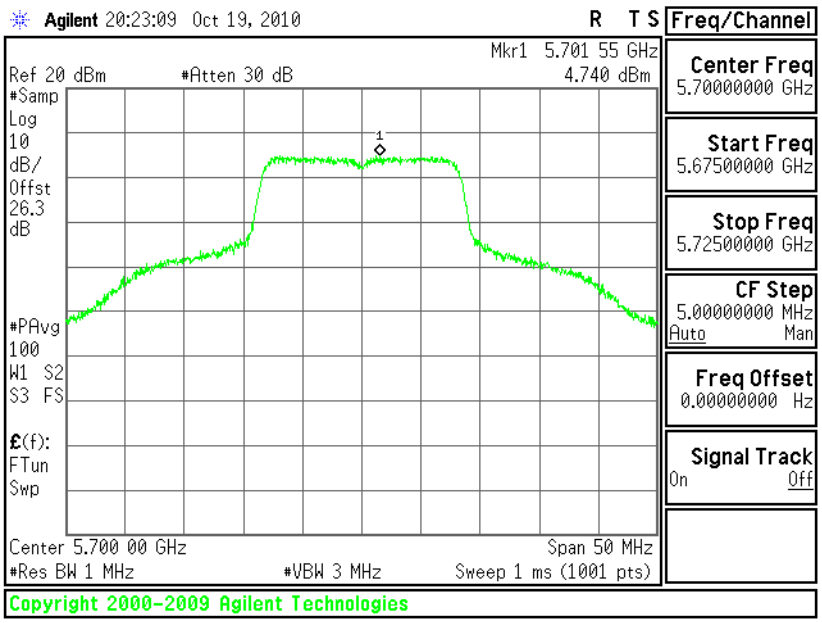
PSD Plot on 802.11a Channel 120 - Chain 2



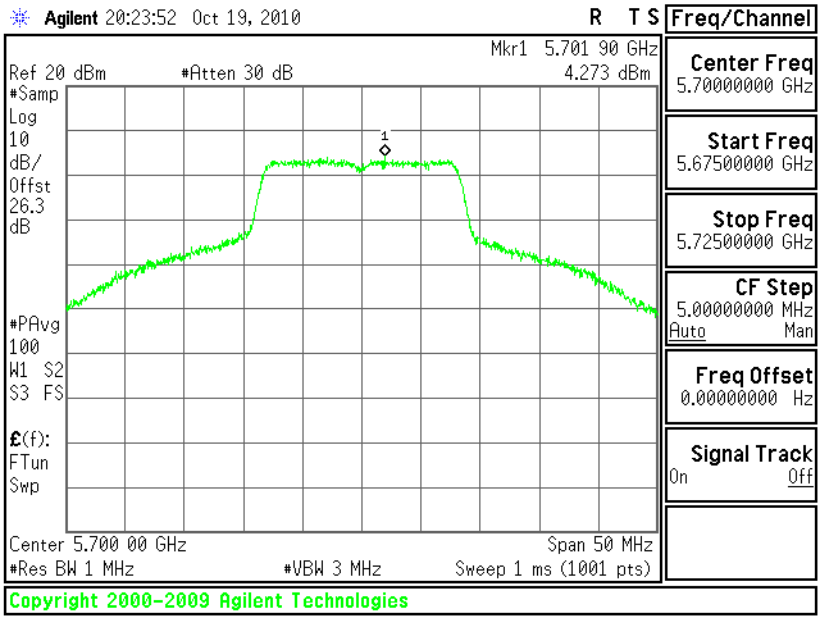
PSD Plot on 802.11a Channel 140 - Chain 0



PSD Plot on 802.11a Channel 140 - Chain 1

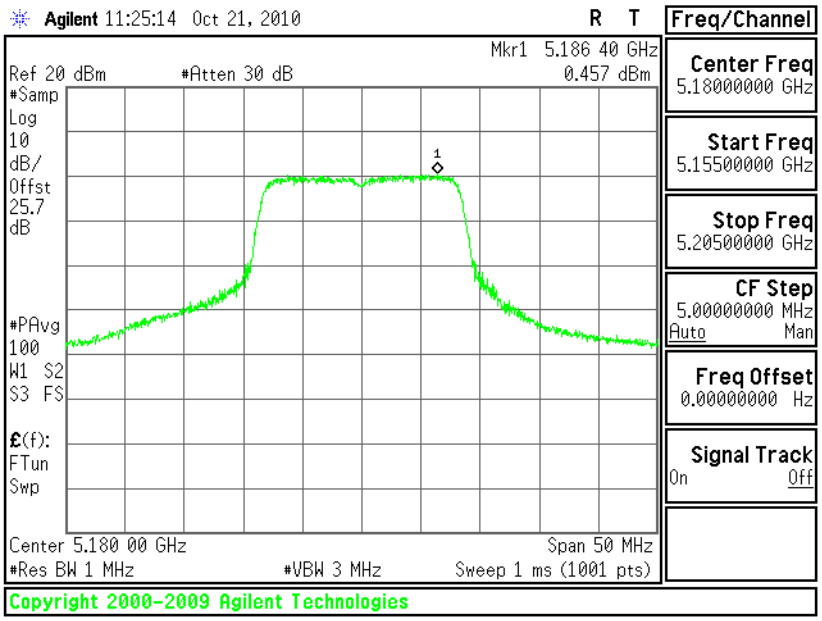


PSD Plot on 802.11a Channel 140 - Chain 2

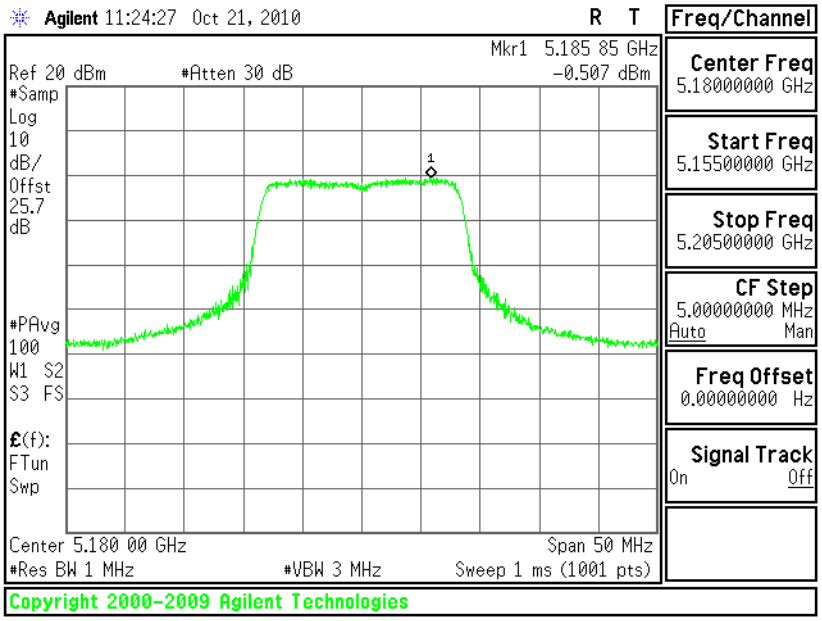


< Normal Mode: 2x3>

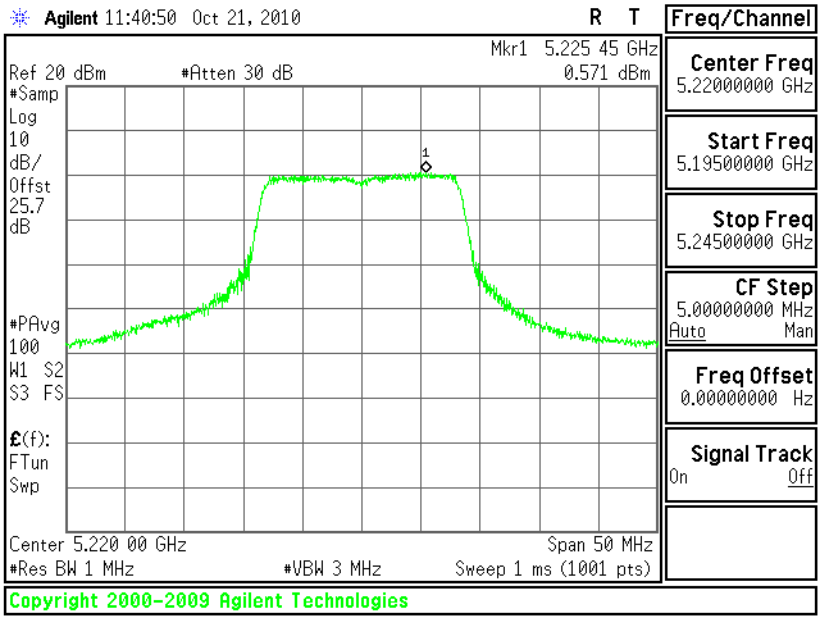
PSD Plot on 802.11a Channel 36 - Chain 0



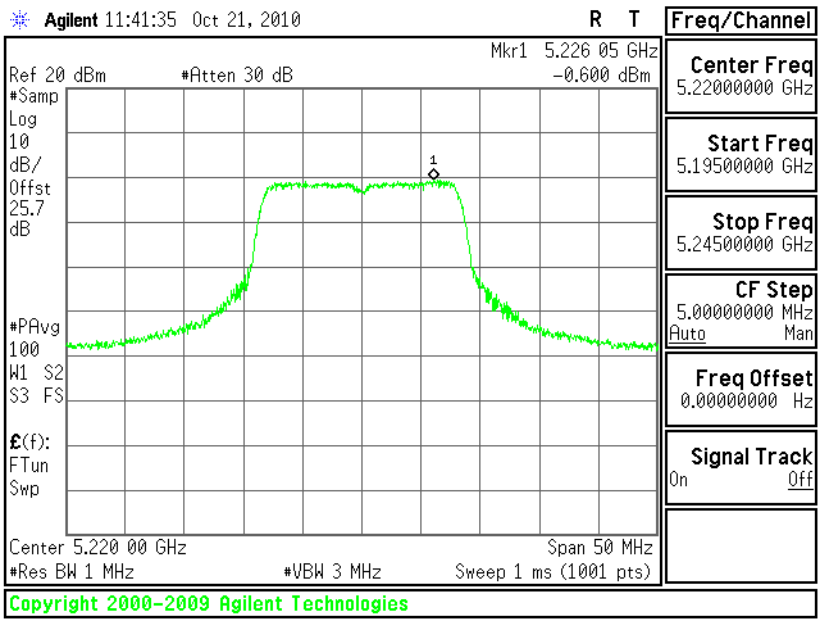
PSD Plot on 802.11a Channel 36 - Chain 1



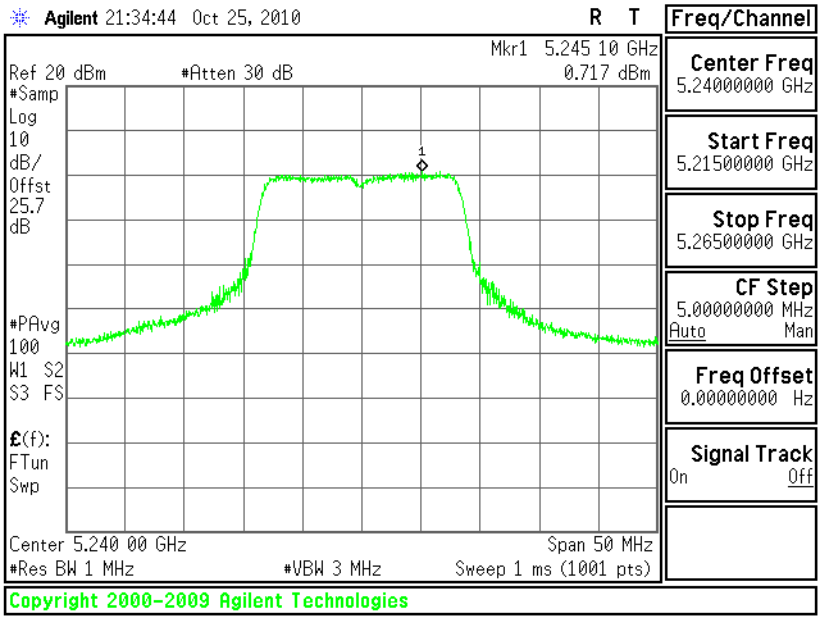
PSD Plot on 802.11a Channel 44 - Chain 0



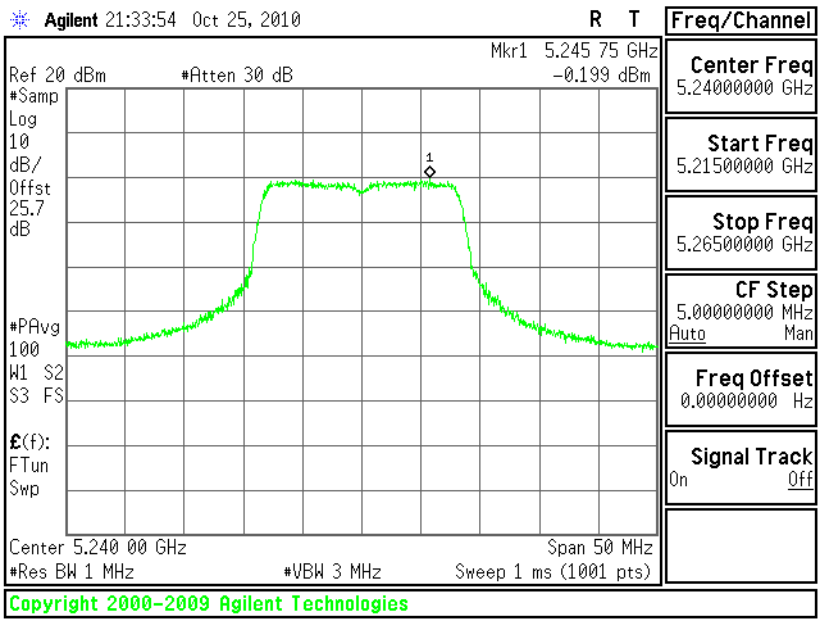
PSD Plot on 802.11a Channel 44 - Chain 1



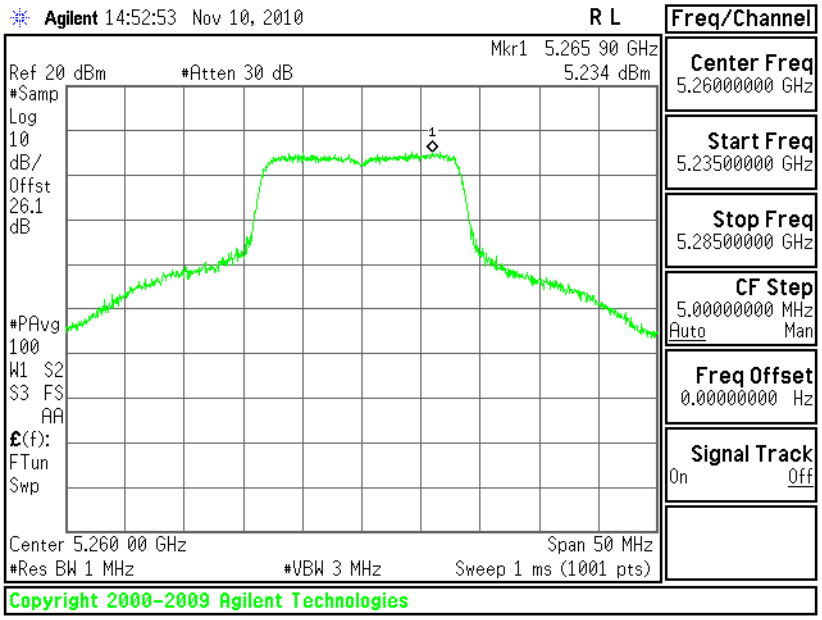
PSD Plot on 802.11a Channel 48 - Chain 0



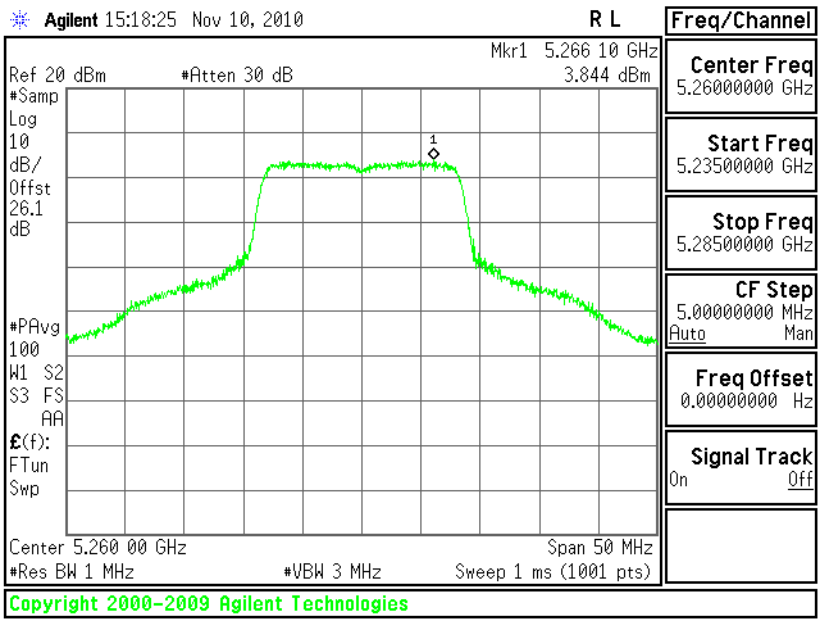
PSD Plot on 802.11a Channel 48 - Chain 1



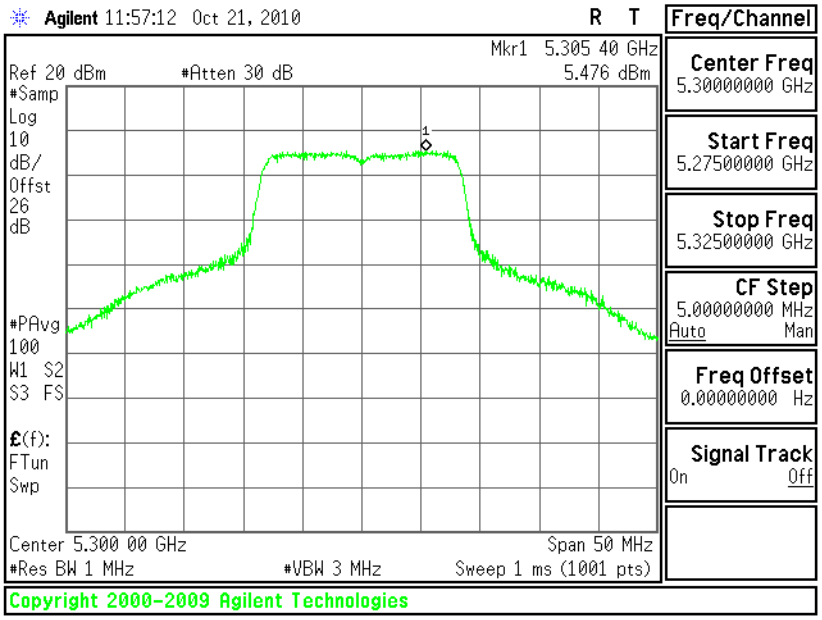
PSD Plot on 802.11a Channel 52 - Chain 0



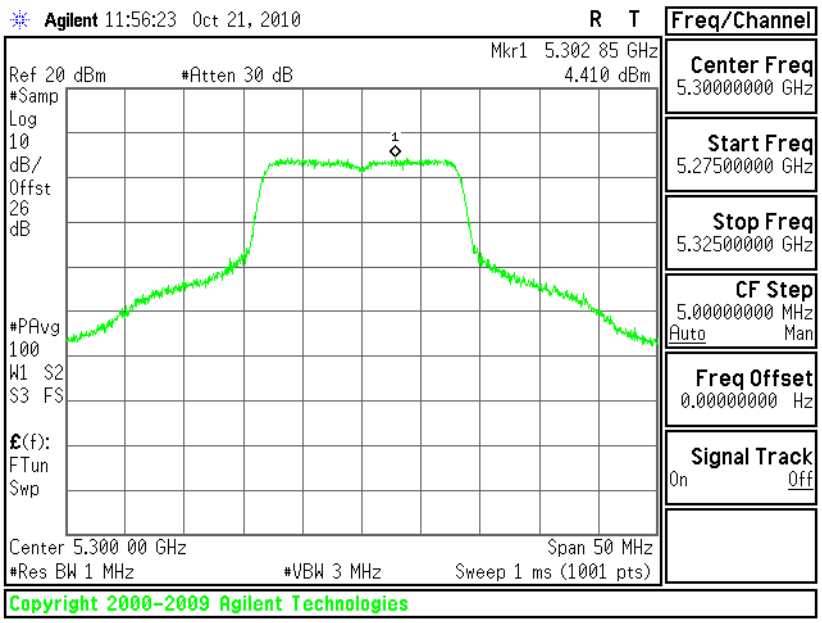
PSD Plot on 802.11a Channel 52 - Chain 1



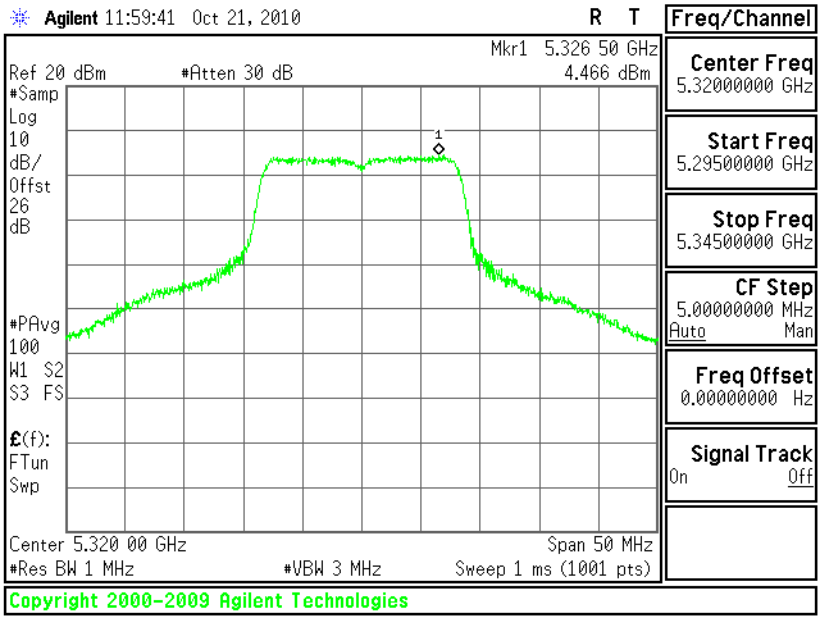
PSD Plot on 802.11a Channel 60 - Chain 0



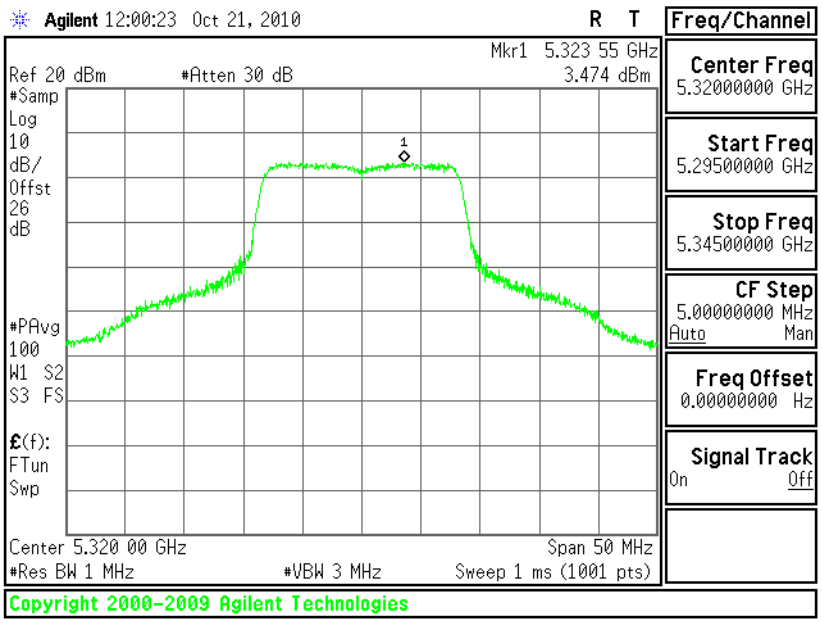
PSD Plot on 802.11a Channel 60 - Chain 1



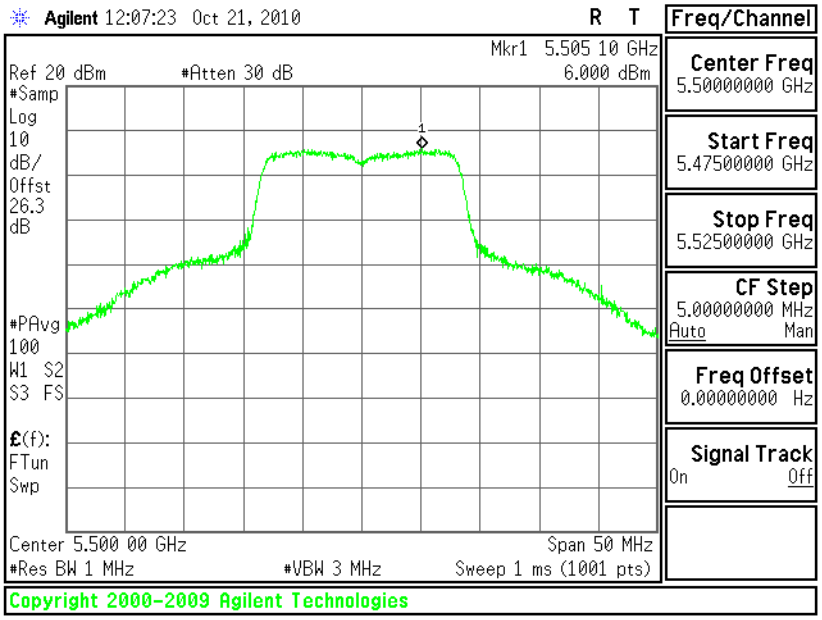
PSD Plot on 802.11a Channel 64 - Chain 0



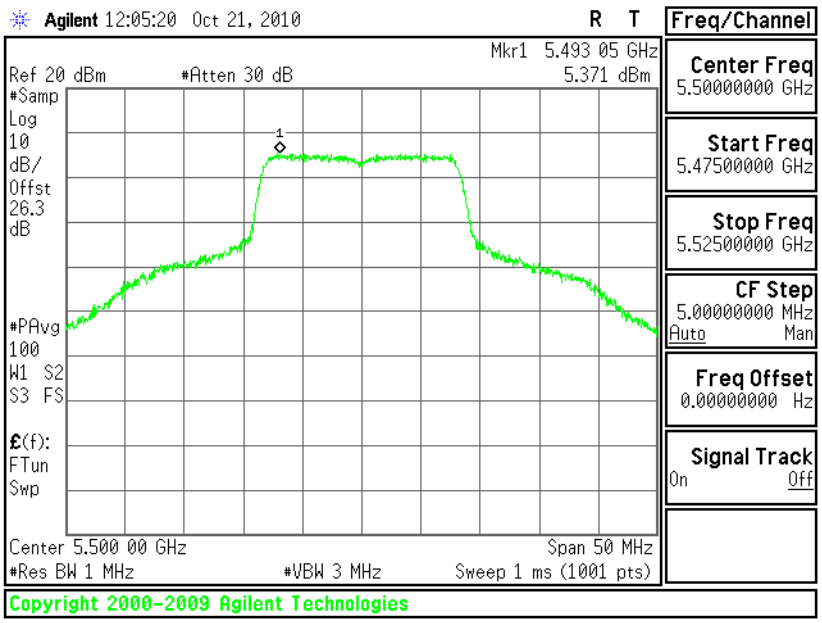
PSD Plot on 802.11a Channel 64 - Chain 1



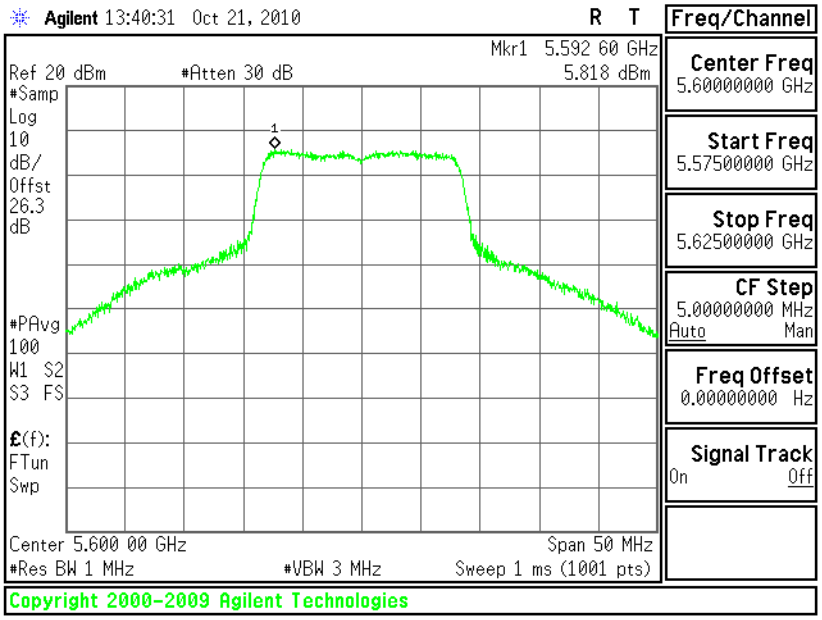
PSD Plot on 802.11a Channel 100 - Chain 0



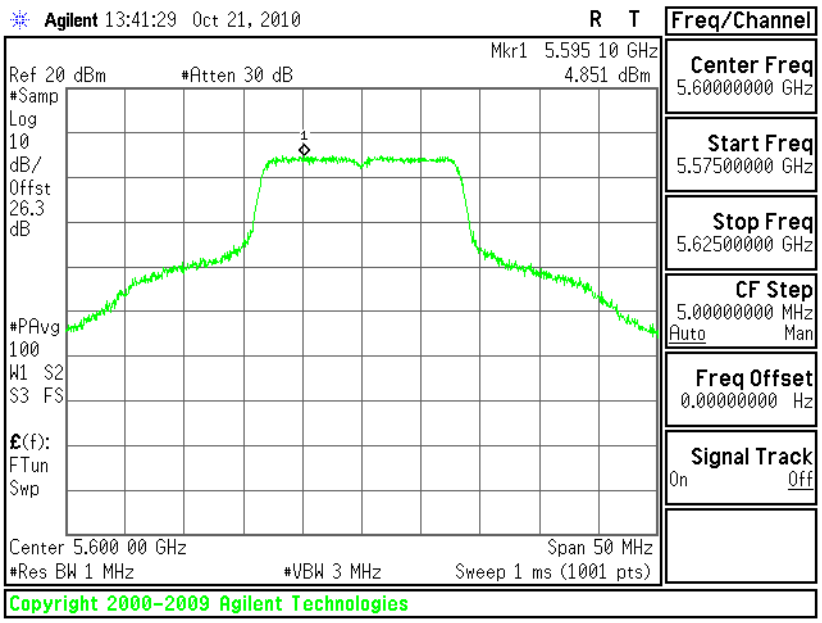
PSD Plot on 802.11a Channel 100 - Chain 1



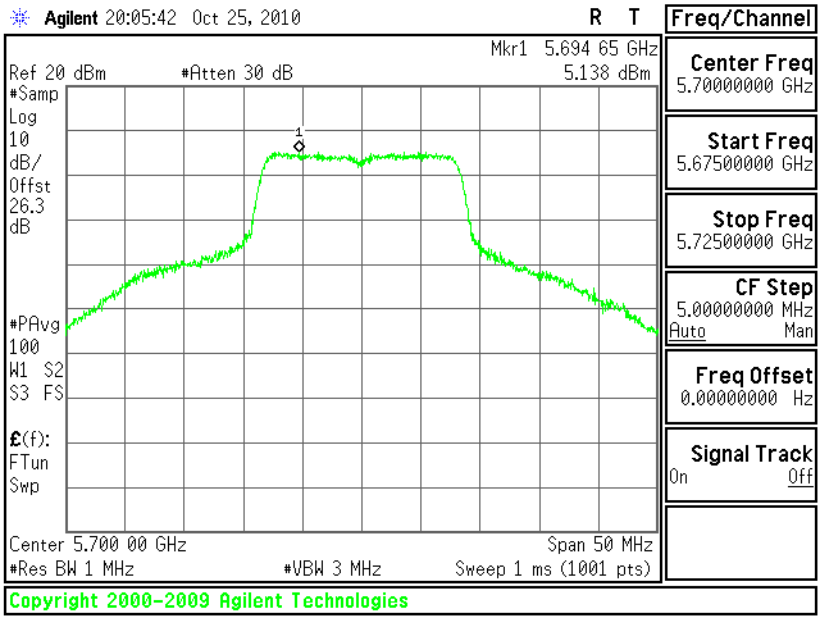
PSD Plot on 802.11a Channel 120 - Chain 0



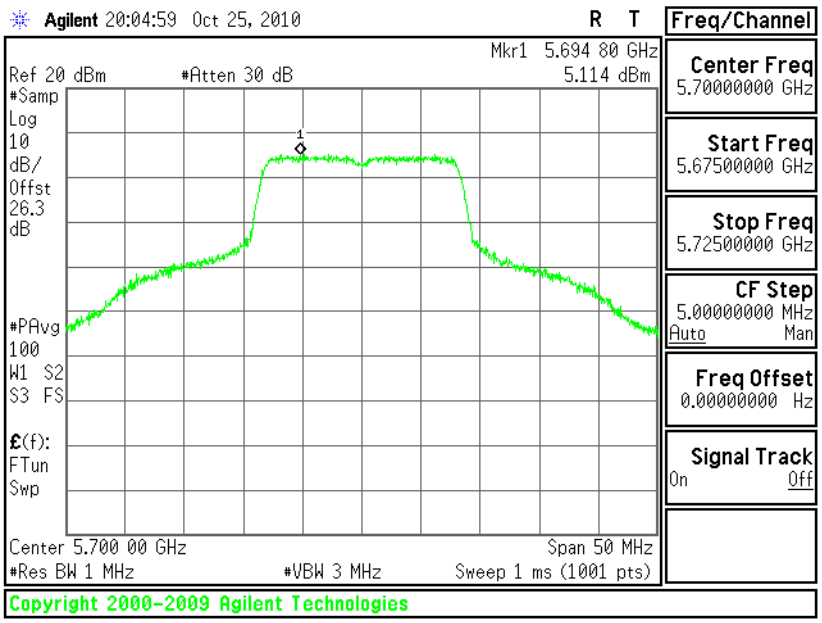
PSD Plot on 802.11a Channel 120 - Chain 1



PSD Plot on 802.11a Channel 140 - Chain 0

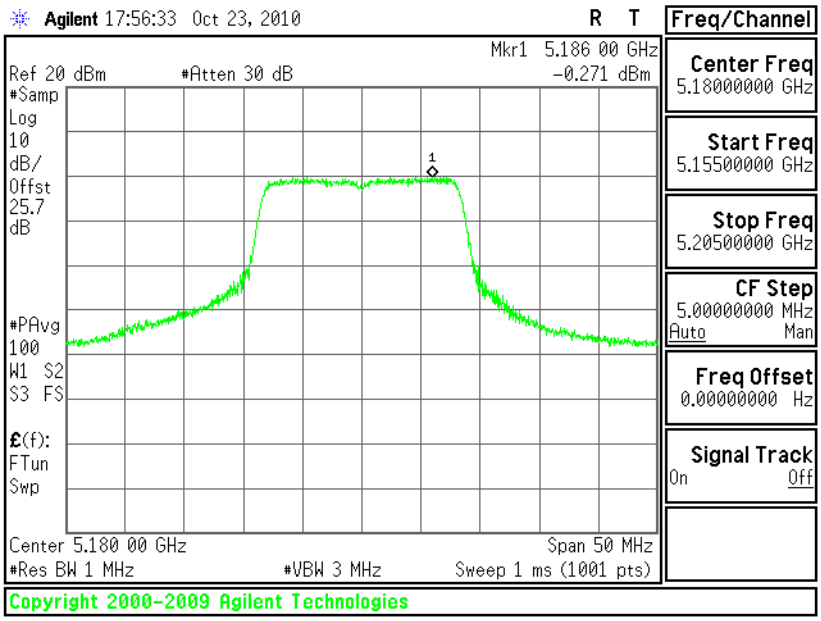


PSD Plot on 802.11a Channel 140 - Chain 1

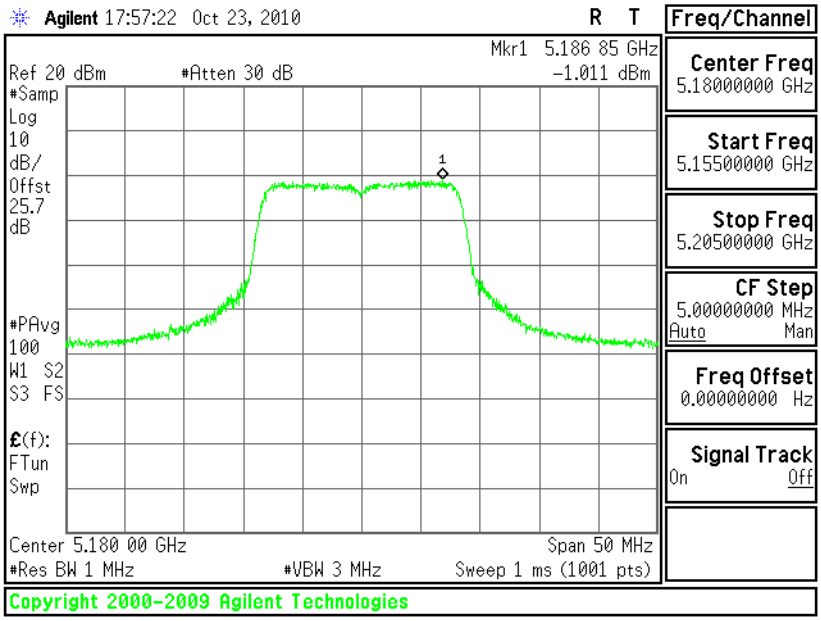


<Beam-Forming Off: 3x3>

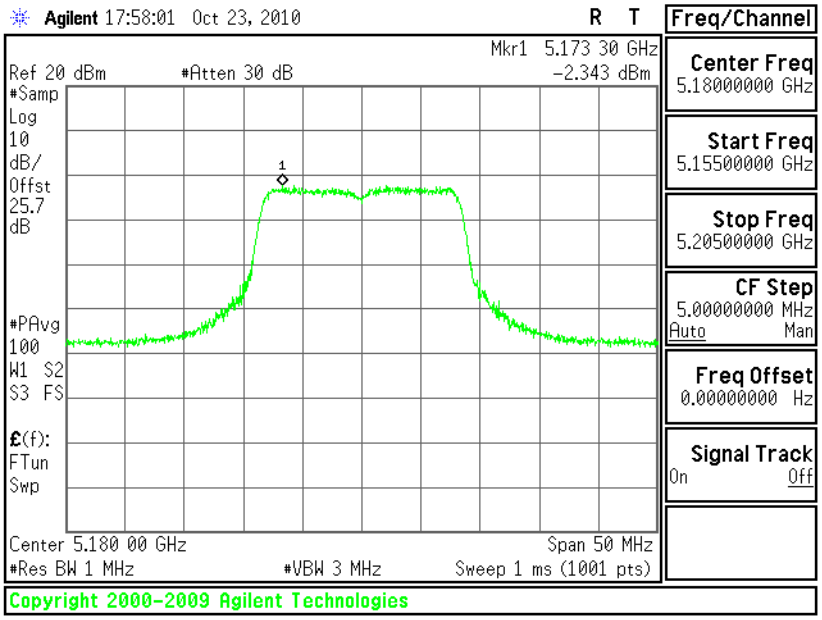
PSD Plot on 802.11a Channel 36 - Chain 0



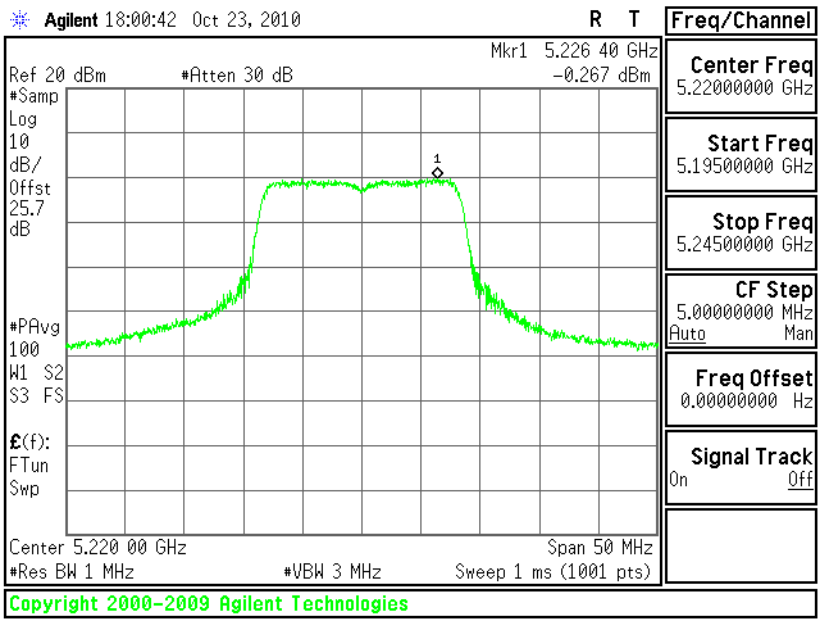
PSD Plot on 802.11a Channel 36 - Chain 1



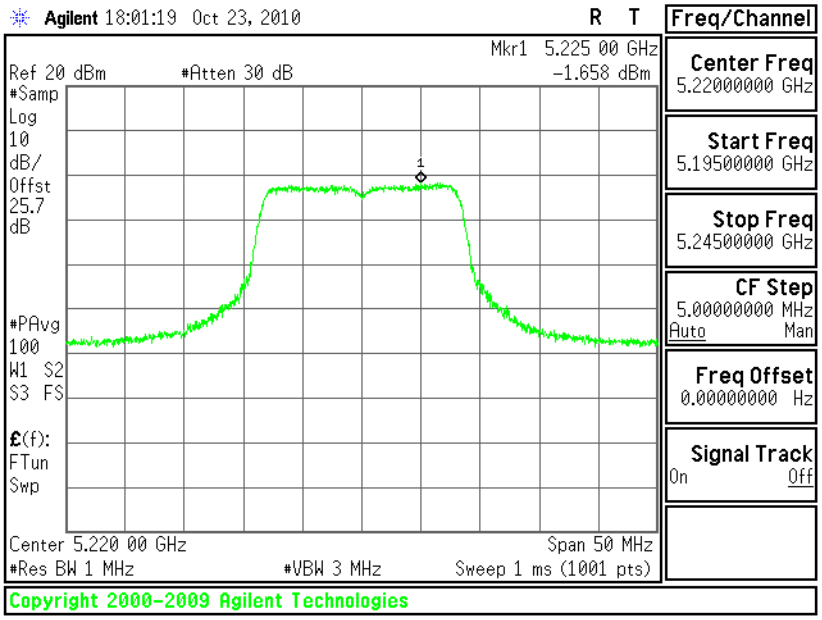
PSD Plot on 802.11a Channel 36 - Chain 2



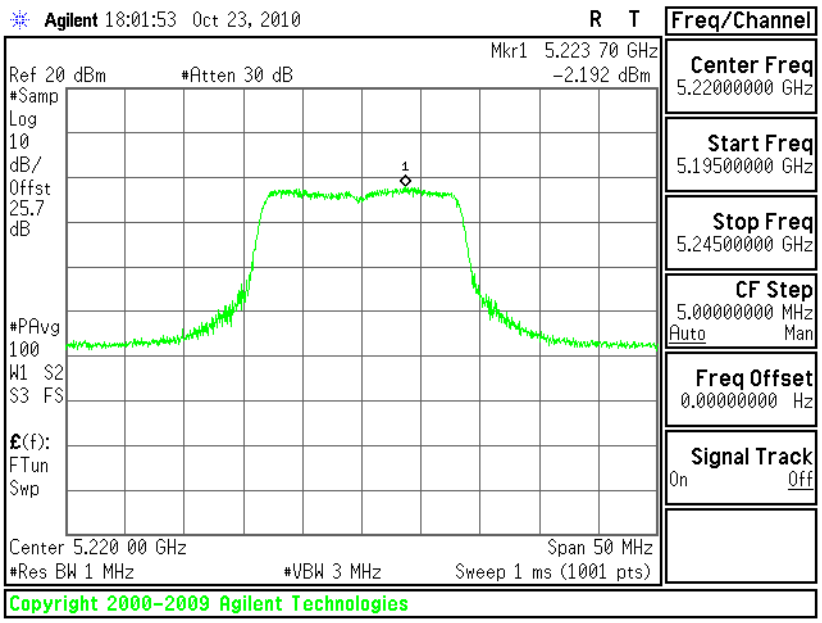
PSD Plot on 802.11a Channel 44 - Chain 0



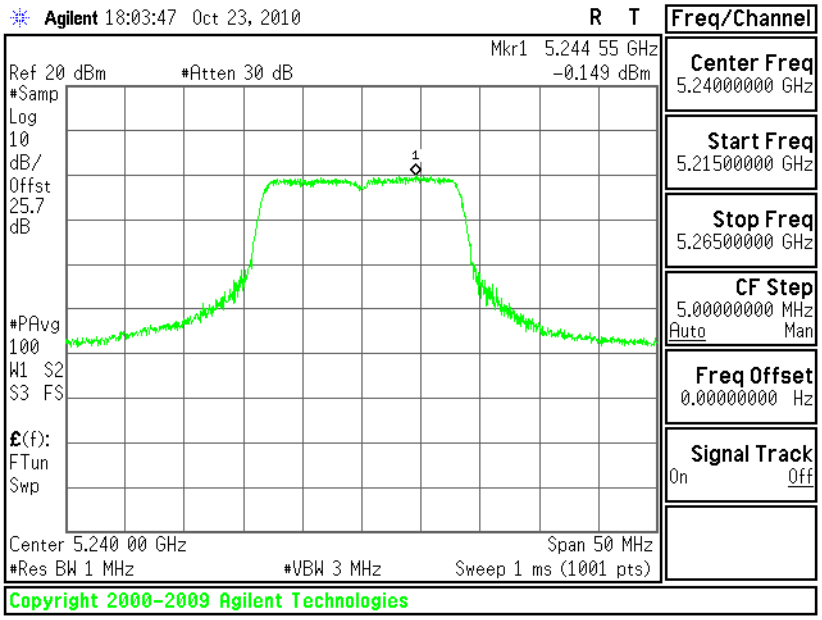
PSD Plot on 802.11a Channel 44 - Chain 1



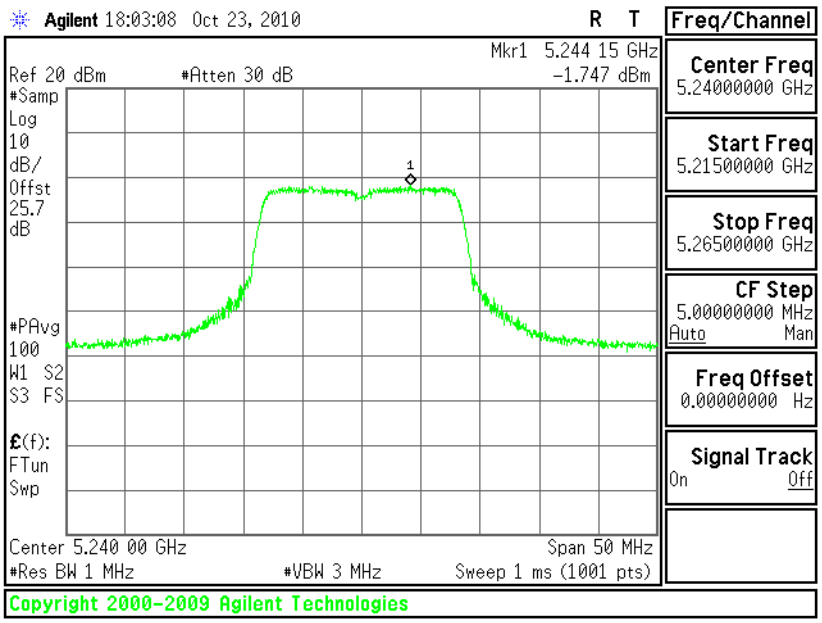
PSD Plot on 802.11a Channel 44 - Chain 2



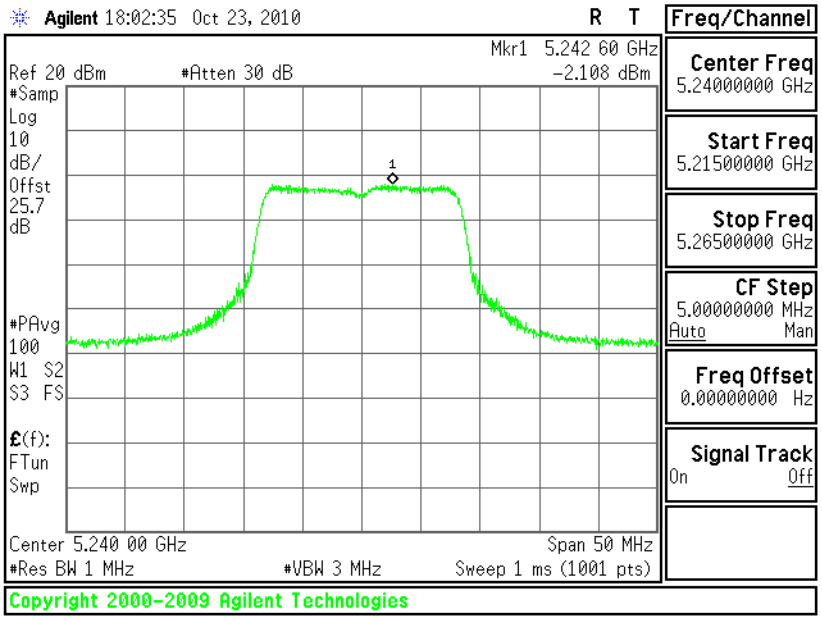
PSD Plot on 802.11a Channel 48 - Chain 0



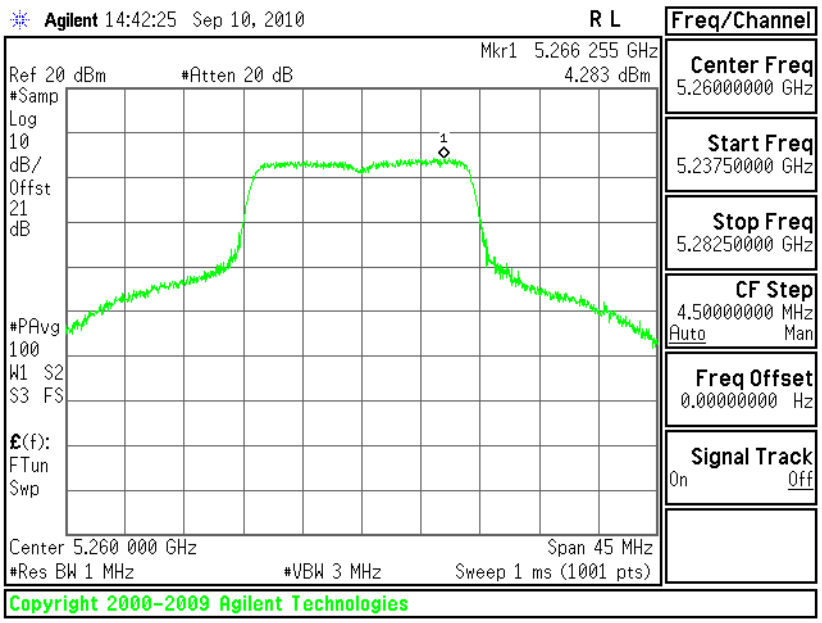
PSD Plot on 802.11a Channel 48 - Chain 1



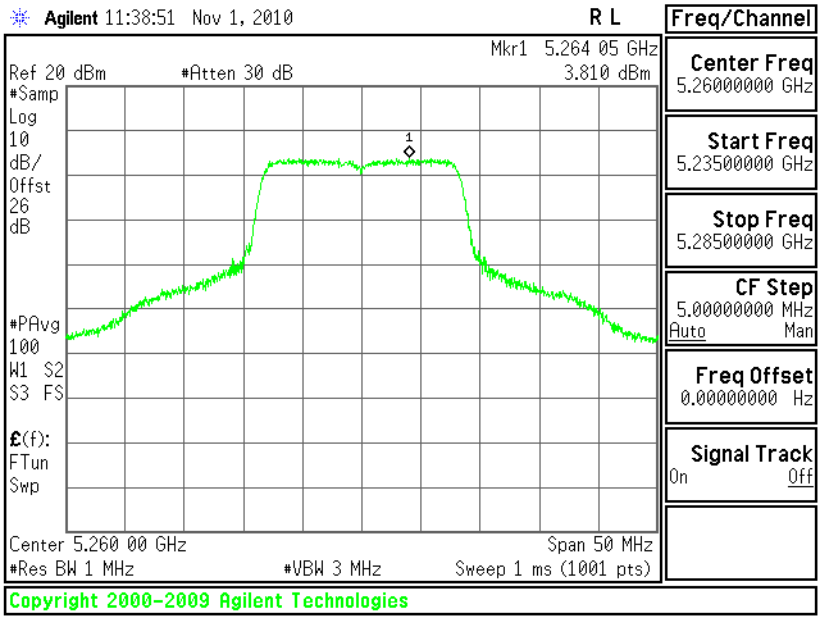
PSD Plot on 802.11a Channel 48 - Chain 2



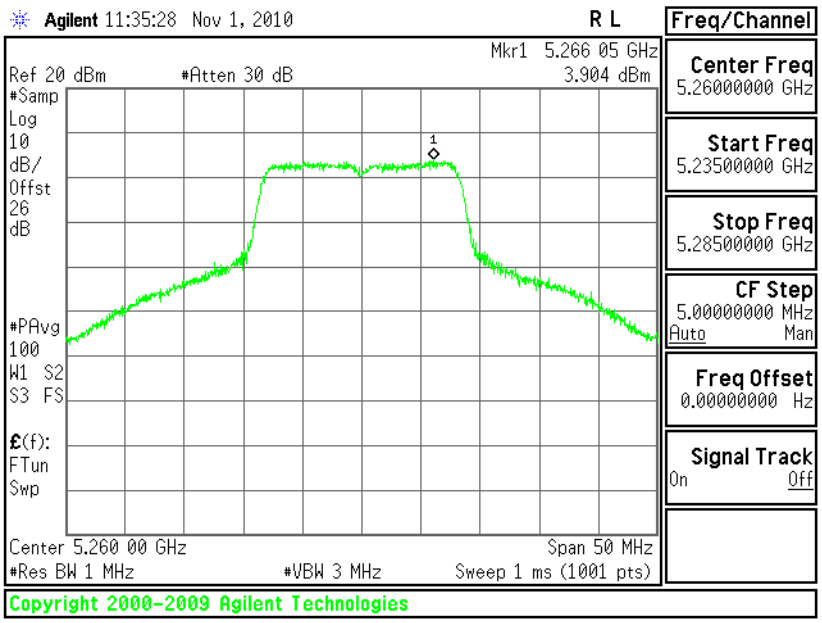
PSD Plot on 802.11a Channel 52 - Chain 0



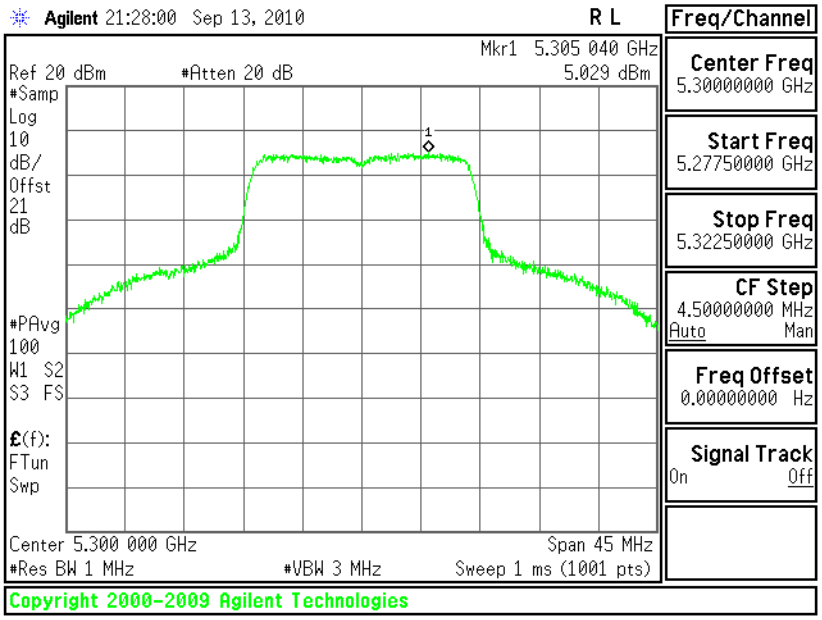
PSD Plot on 802.11a Channel 52 - Chain 1



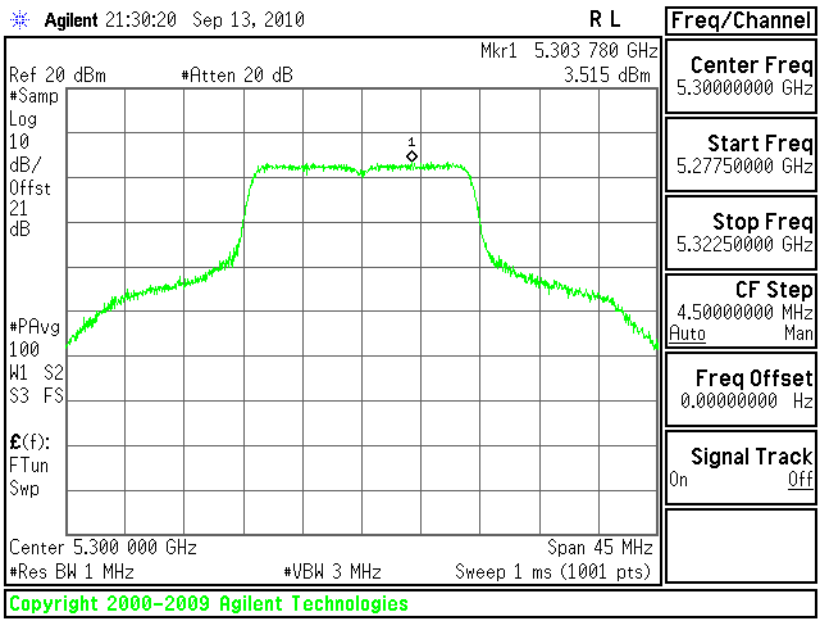
PSD Plot on 802.11a Channel 52 - Chain 2



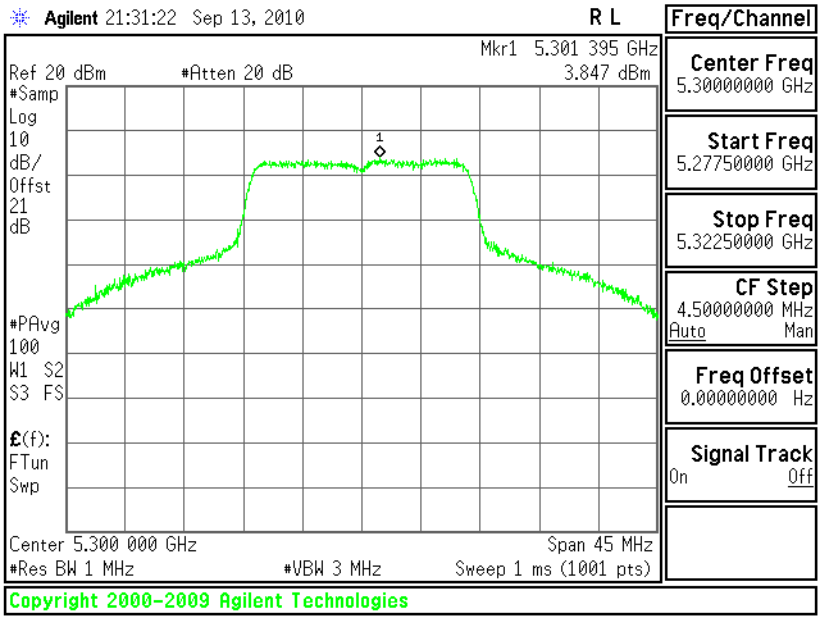
PSD Plot on 802.11a Channel 60 - Chain 0



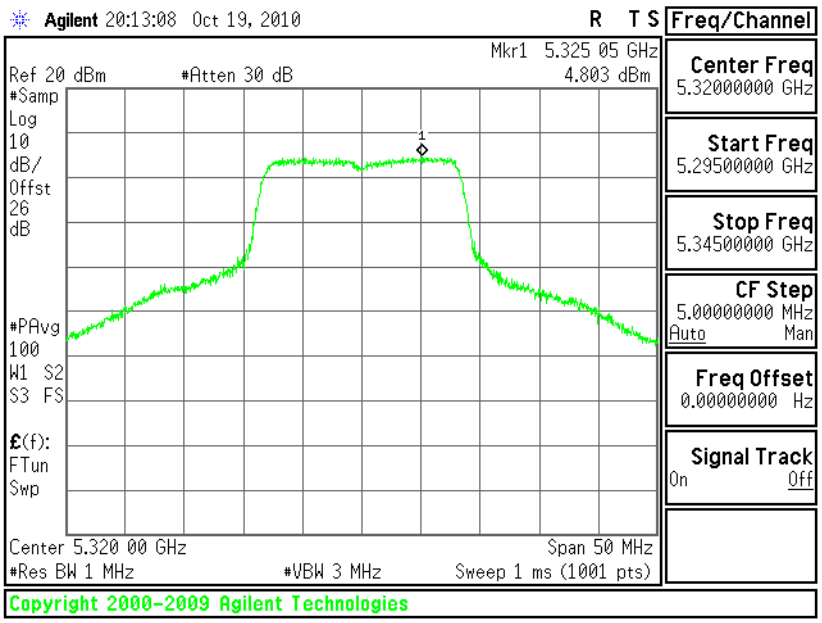
PSD Plot on 802.11a Channel 60 - Chain 1



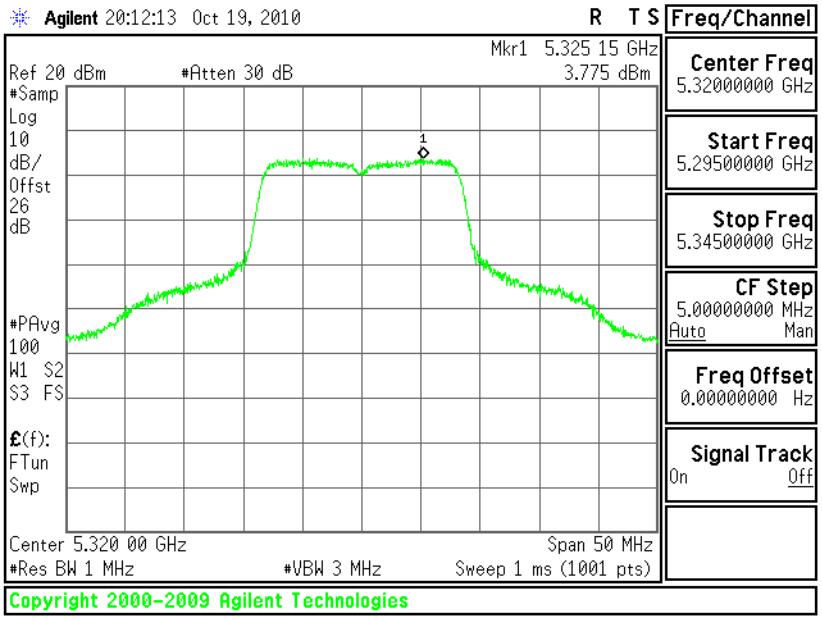
PSD Plot on 802.11a Channel 60 - Chain 2



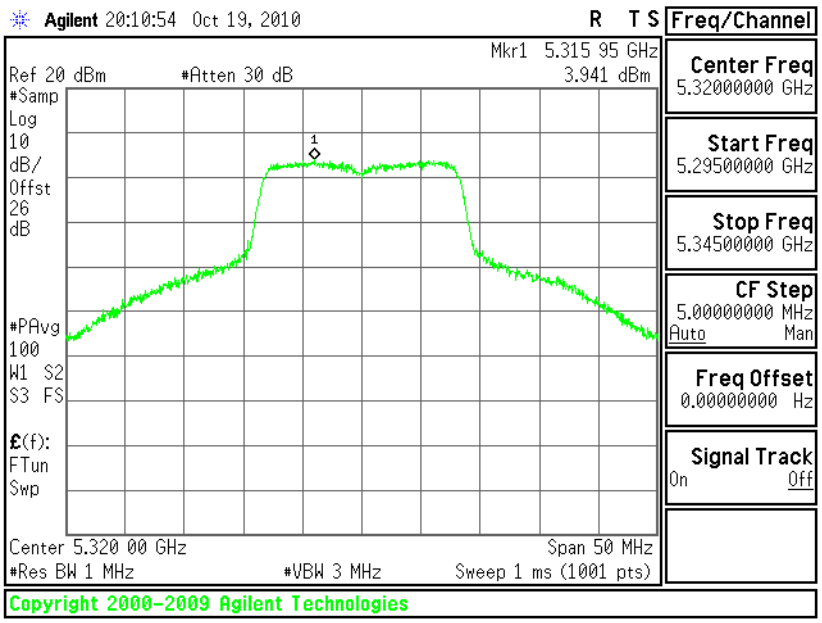
PSD Plot on 802.11a Channel 64 - Chain 0



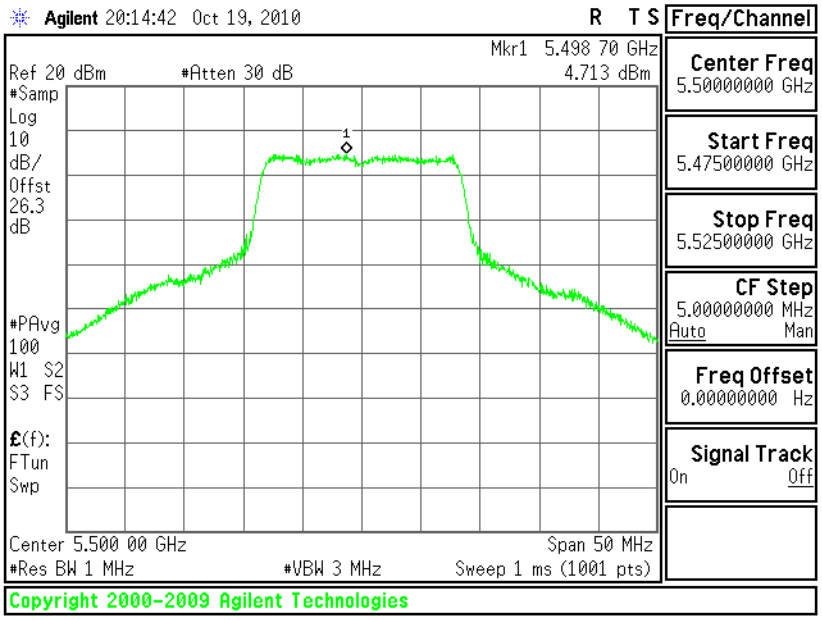
PSD Plot on 802.11a Channel 64 - Chain 1



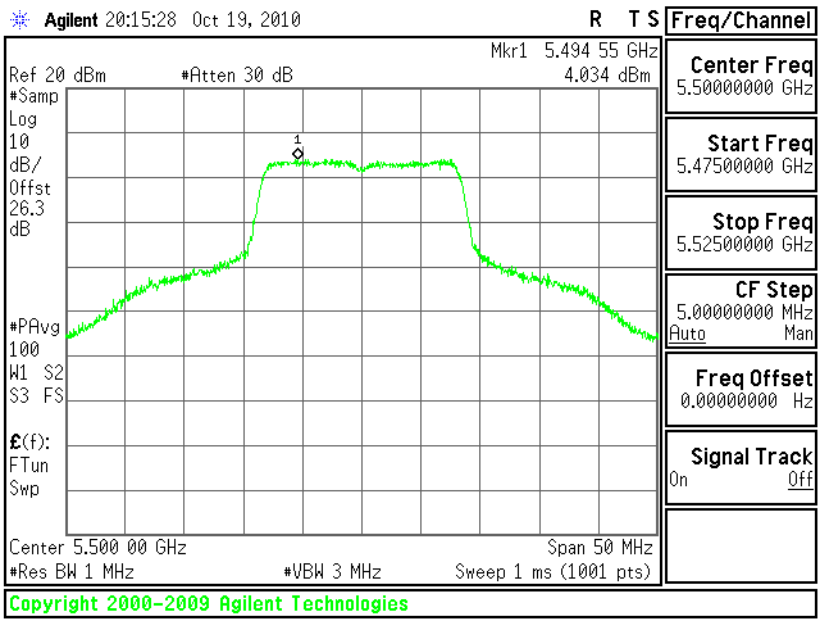
PSD Plot on 802.11a Channel 64 - Chain 2



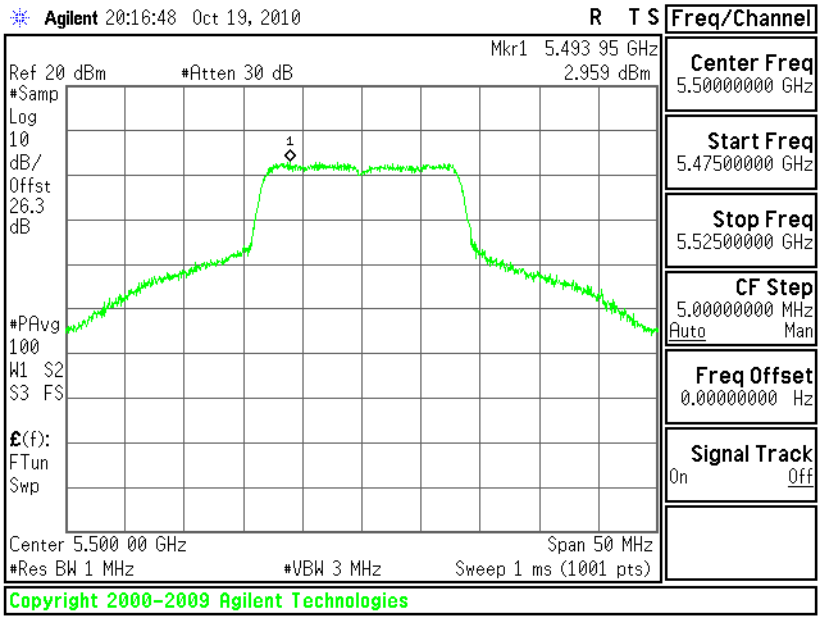
PSD Plot on 802.11a Channel 100 - Chain 0



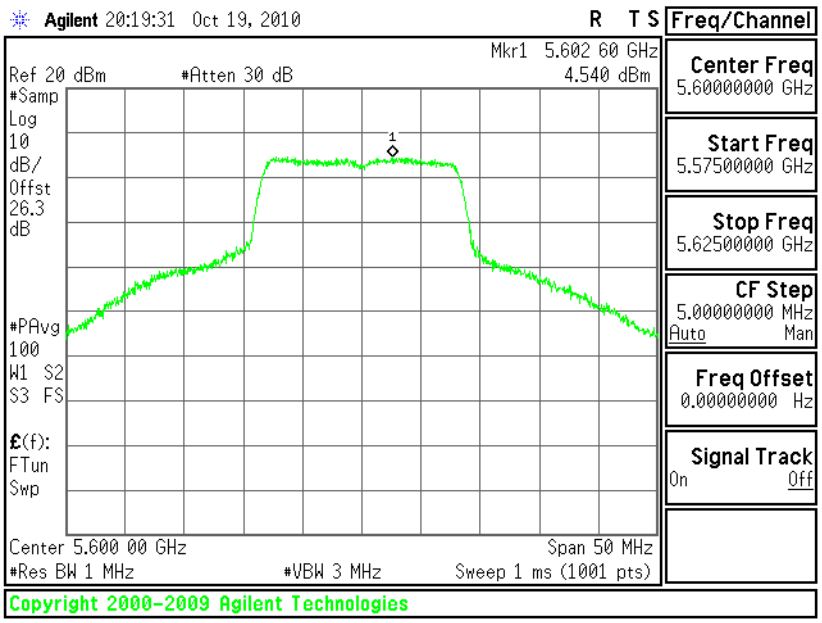
PSD Plot on 802.11a Channel 100 - Chain 1



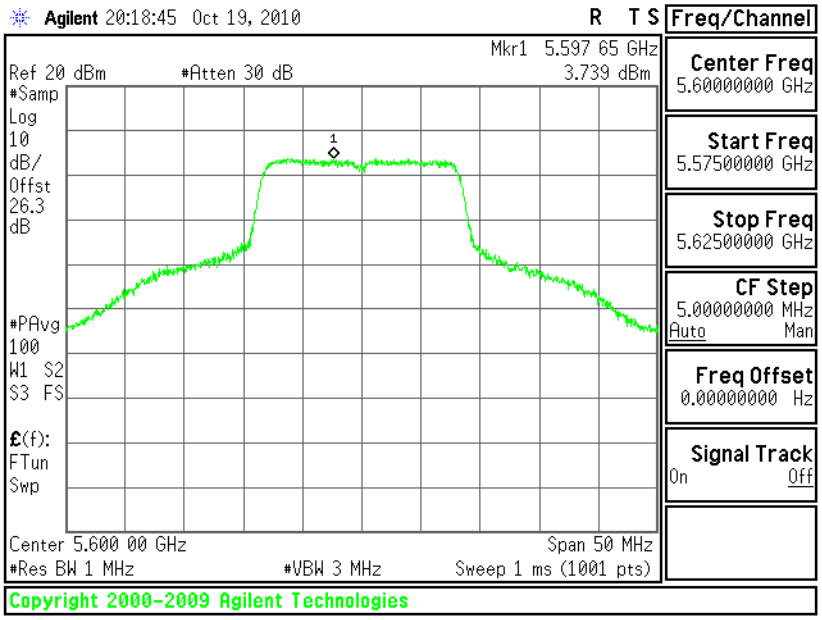
PSD Plot on 802.11a Channel 100 - Chain 2



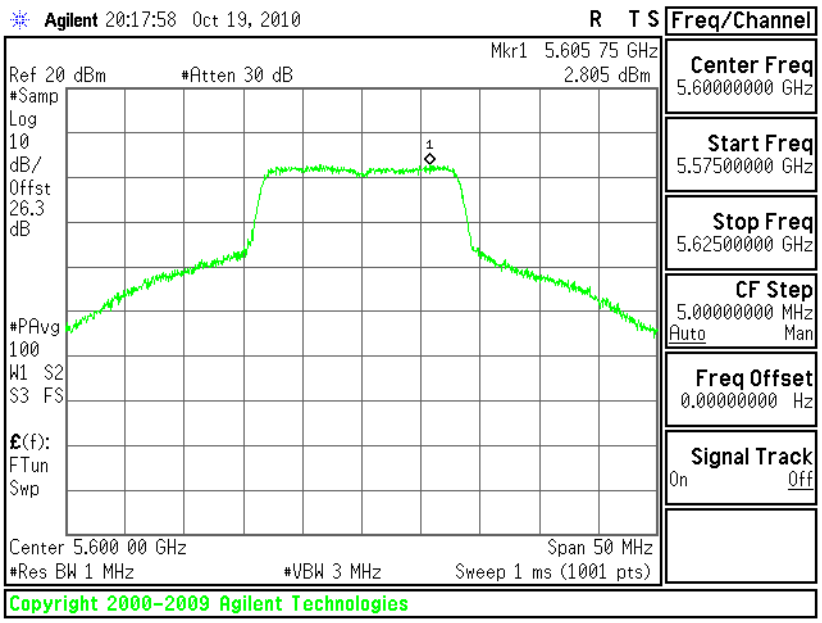
PSD Plot on 802.11a Channel 120 - Chain 0



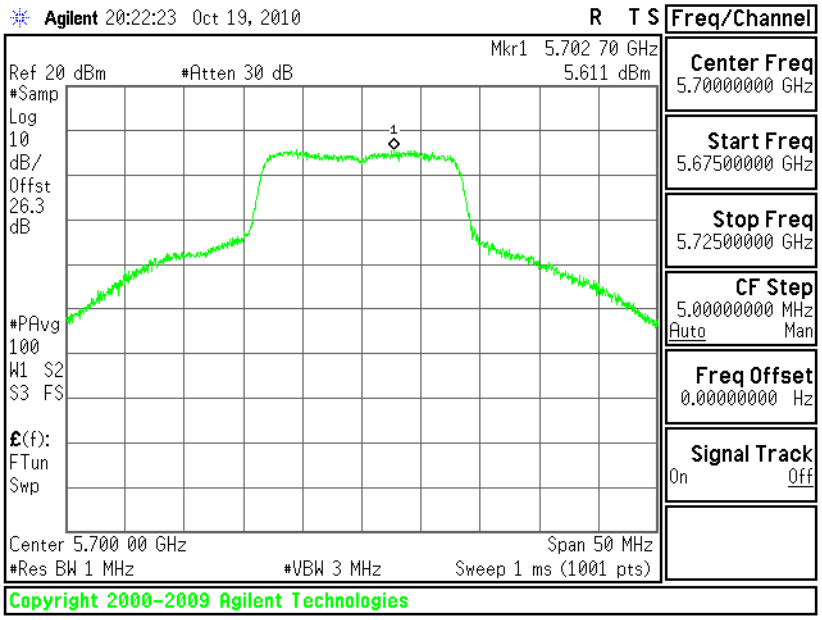
PSD Plot on 802.11a Channel 120 - Chain 1



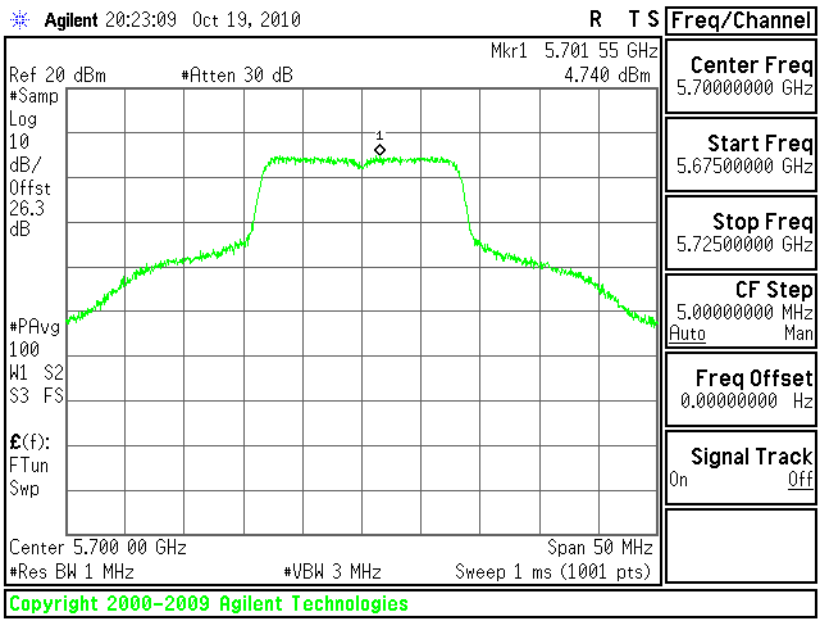
PSD Plot on 802.11a Channel 120 - Chain 2



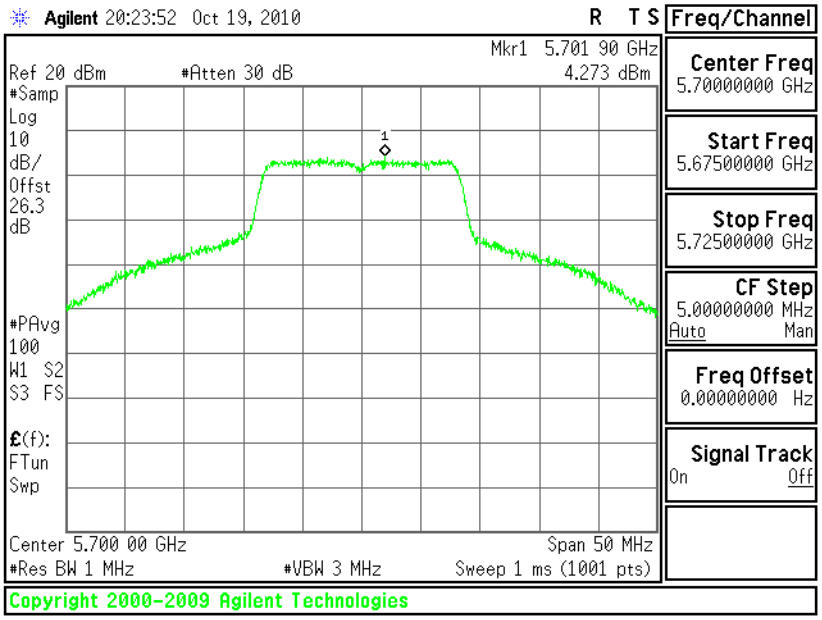
PSD Plot on 802.11a Channel 140 - Chain 0



PSD Plot on 802.11a Channel 140 - Chain 1



PSD Plot on 802.11a Channel 140 - Chain 2



Test Mode :	802.11n (HT-20) L/M/H channels	Temperature :	25~27℃
Test Engineer :	Lewis He	Relative Humidity :	64~66%

<Beam-Forming On: 3x3>

Channel	Frequency (MHz)	802.11n (HT-20) Measured PSD (dBm)				Max. Limits (dBm)	Pass/Fail
		Chain 0	Chain 1	Chain 2	Summation		
36	5180	-1.99	-2.72	-3.51	2.08	2.15	Pass
44	5220	-1.85	-3.08	-3.81	1.93	2.15	Pass
48	5240	-1.70	-3.07	-3.44	2.10	2.15	Pass
52	5260	3.81	3.27	2.80	8.08	9.15	Pass
60	5300	4.79	3.34	3.90	8.82	9.15	Pass
64	5320	4.02	3.06	2.79	8.09	9.15	Pass
100	5500	4.74	4.35	3.14	8.90	13.47	Pass
120	5600	4.70	4.86	3.41	9.14	13.47	Pass
140	5700	5.85	5.30	4.03	9.89	13.47	Pass

Note: The maximum composite antenna gain is 7.85 for 5150 MHz ~ 5350 MHz and 9.53 dBi for 5470 MHz ~ 5725 MHz; therefore the limits are 2.15 dBm for 5150 MHz ~ 5250 MHz, 9.15 dBm for 5250 MHz ~ 5350 MHz and 13.47 dBm for 5470 MHz ~ 5725 MHz.

<Beam-Forming On: 2x3>

Channel	Frequency (MHz)	802.11n (HT-20) Measured PSD (dBm)			Max. Limits (dBm)	Pass/Fail
		Chain 0	Chain 1	Summation		
36	5180	1.44	-0.05	3.77	3.91	Pass
44	5220	0.55	-0.61	3.02	3.91	Pass
48	5240	0.48	-0.42	3.06	3.91	Pass
52	5260	6.54	4.55	8.67	10.91	Pass
60	5300	5.08	3.57	7.40	10.91	Pass
64	5320	3.65	2.41	6.08	10.91	Pass
100	5500	5.88	5.24	8.58	15.23	Pass
120	5600	5.32	4.29	7.85	15.23	Pass
140	5700	5.10	4.01	7.60	15.23	Pass

Note: The maximum composite antenna gain is 6.09 for 5150 MHz ~ 5350 MHz and 7.77 dBi for 5470 MHz ~ 5725 MHz; therefore the limits are 3.91 dBm for 5150 MHz ~ 5250 MHz, 10.91 dBm for 5250 MHz ~ 5350 MHz and 15.23 dBm for 5470 MHz ~ 5725 MHz.

<Beam-Forming Off: 3x3>

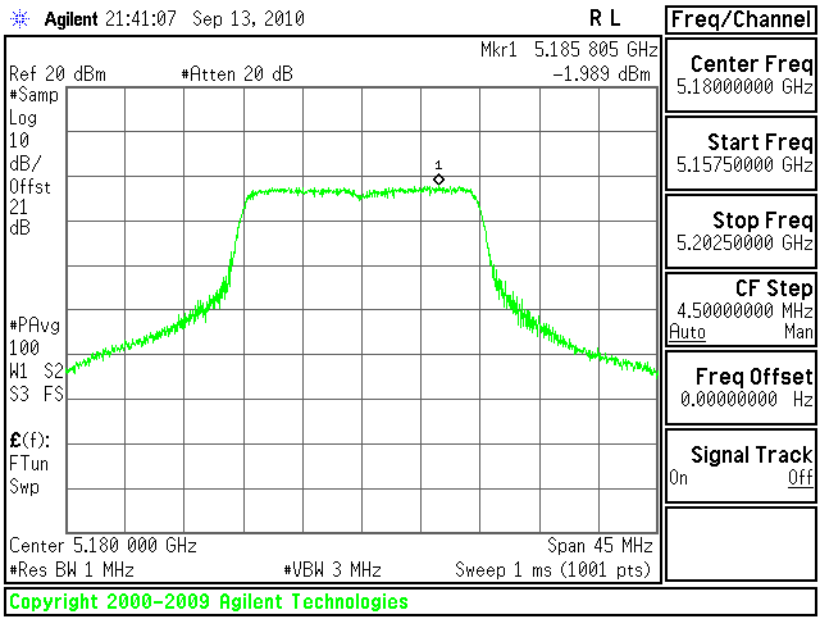
Channel	Frequency (MHz)	802.11n (HT-20) Measured PSD (dBm)				Max. Limits (dBm)	Pass/Fail
		Chain 0	Chain 1	Chain 2	Summation		
36	5180	0.03	-0.68	-2.29	3.90	4.00	Pass
44	5220	-0.71	-1.89	-2.78	3.06	4.00	Pass
48	5240	-0.24	-1.82	-2.4	3.38	4.00	Pass
52	5260	4.41	3.32	2.81	8.34	11.00	Pass
60	5300	4.79	3.34	3.90	8.82	11.00	Pass
64	5320	4.02	3.06	2.79	8.09	11.00	Pass
100	5500	4.74	4.35	3.14	8.90	17.00	Pass
120	5600	4.70	4.86	3.41	9.14	17.00	Pass
140	5700	5.84	5.30	4.03	9.89	17.00	Pass

<Beam-Forming Off: 2x3>

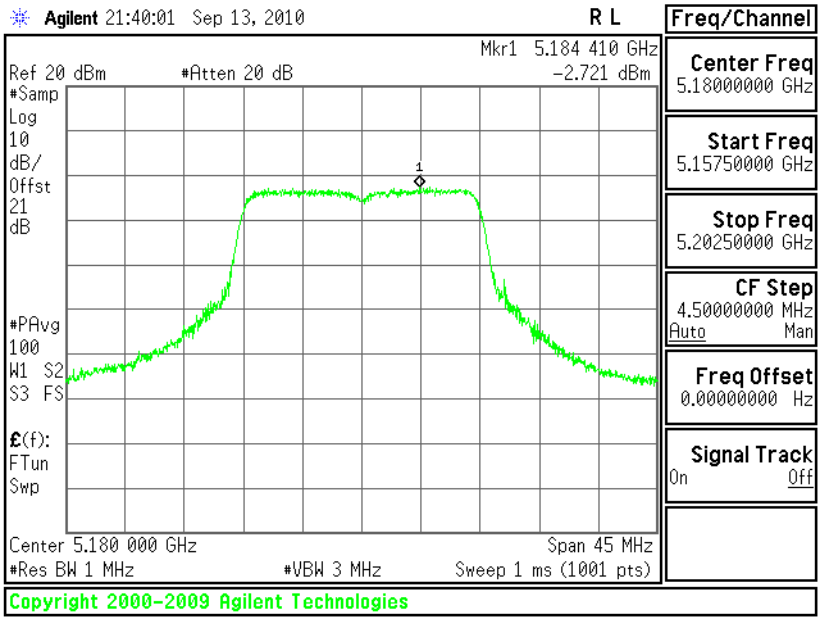
Channel	Frequency (MHz)	802.11n (HT-20) Measured PSD (dBm)			Max. Limits (dBm)	Pass/Fail
		Chain 0	Chain 1	Summation		
36	5180	0.03	-0.68	2.70	4.00	Pass
44	5220	-0.71	-1.89	1.75	4.00	Pass
48	5240	-0.24	-1.82	2.05	4.00	Pass
52	5260	4.41	3.32	6.91	11.00	Pass
60	5300	4.79	3.34	7.14	11.00	Pass
64	5320	4.02	3.06	6.58	11.00	Pass
100	5500	4.74	4.35	7.56	17.00	Pass
120	5600	4.70	4.86	7.79	17.00	Pass
140	5700	5.84	5.30	8.59	17.00	Pass

<Beam-Forming On: 3x3>

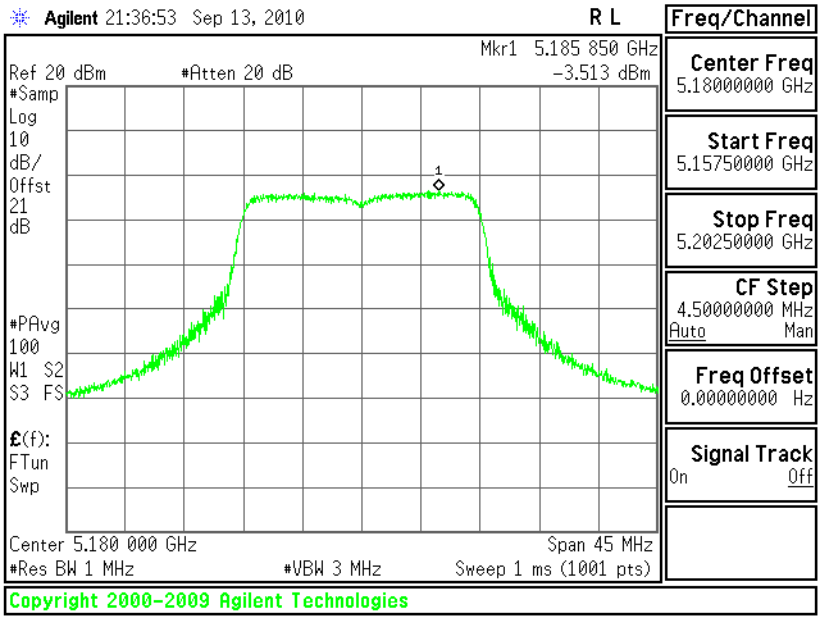
PSD Plot on 802.11n (HT-20) Channel 36 - Chain 0



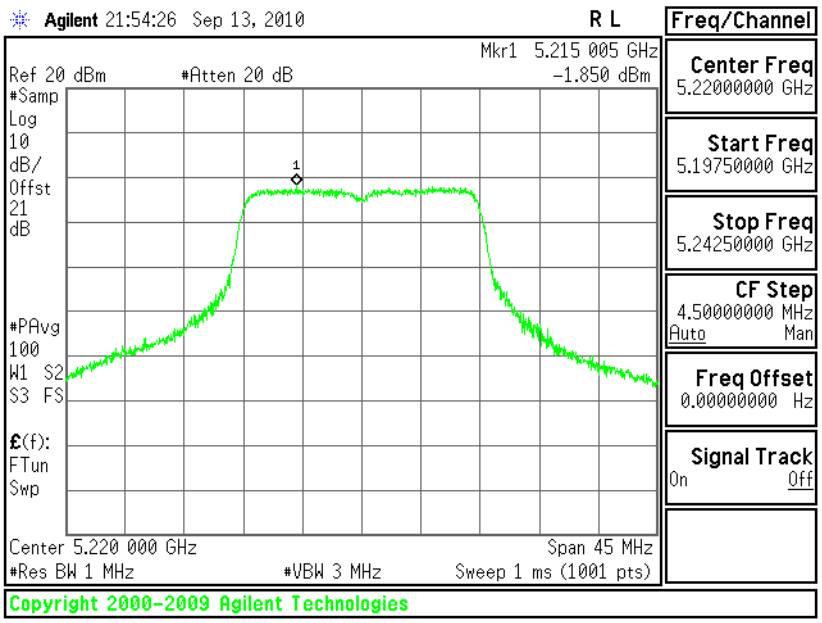
PSD Plot on 802.11n (HT-20) Channel 36 - Chain 1



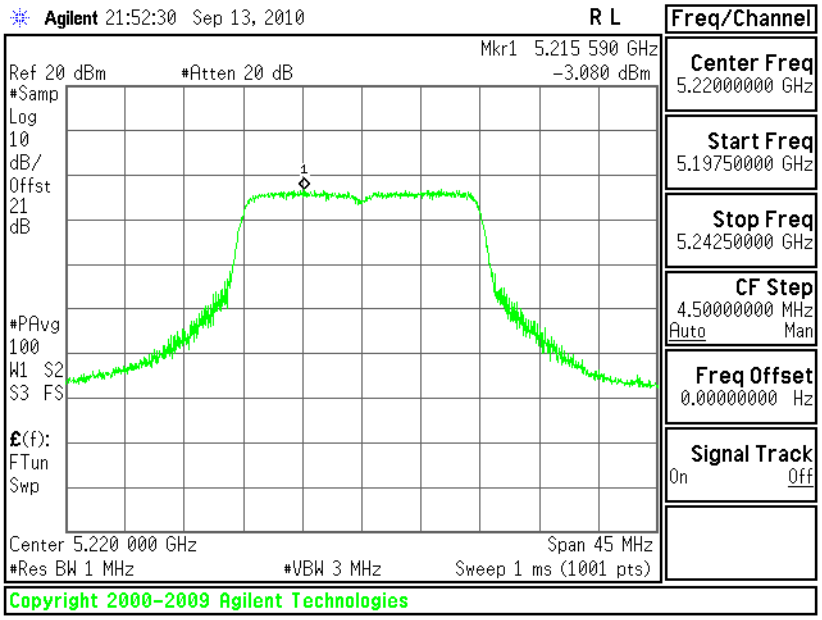
PSD Plot on 802.11n (HT-20) Channel 36 - Chain 2



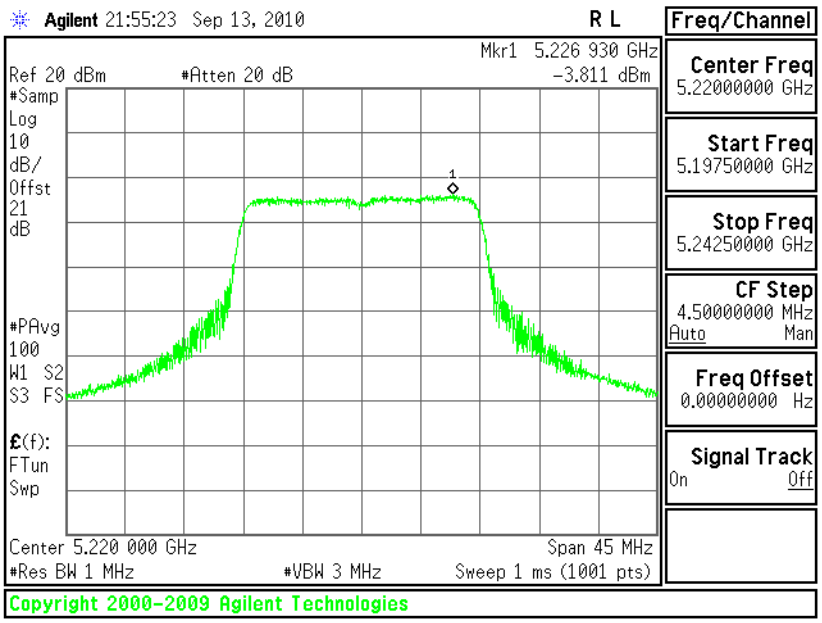
PSD Plot on 802.11n (HT-20) Channel 44 - Chain 0



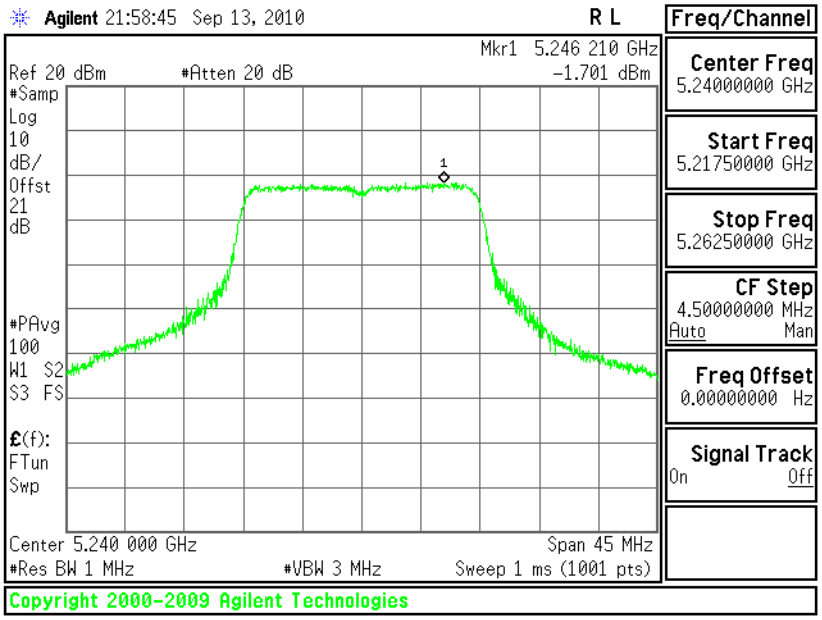
PSD Plot on 802.11n (HT-20) Channel 44 - Chain 1



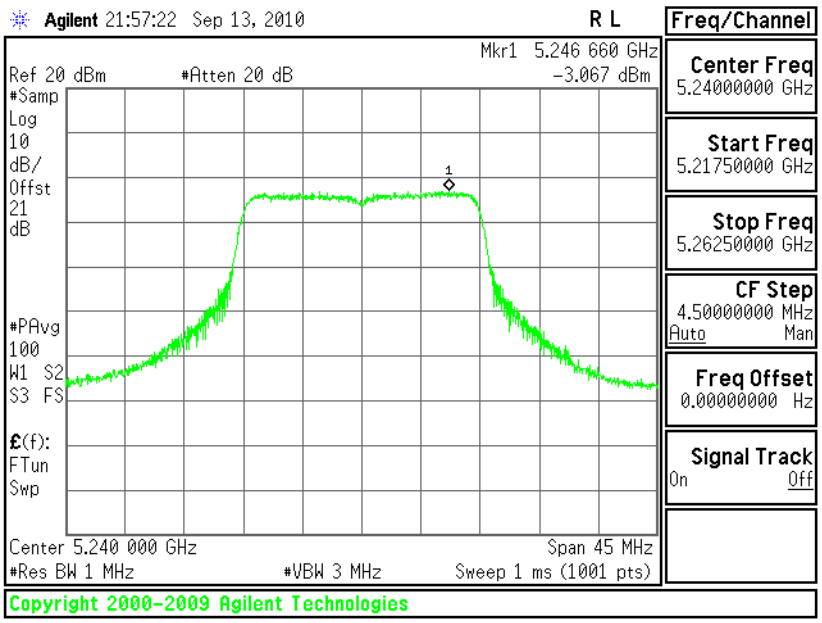
PSD Plot on 802.11n (HT-20) Channel 44 - Chain 2



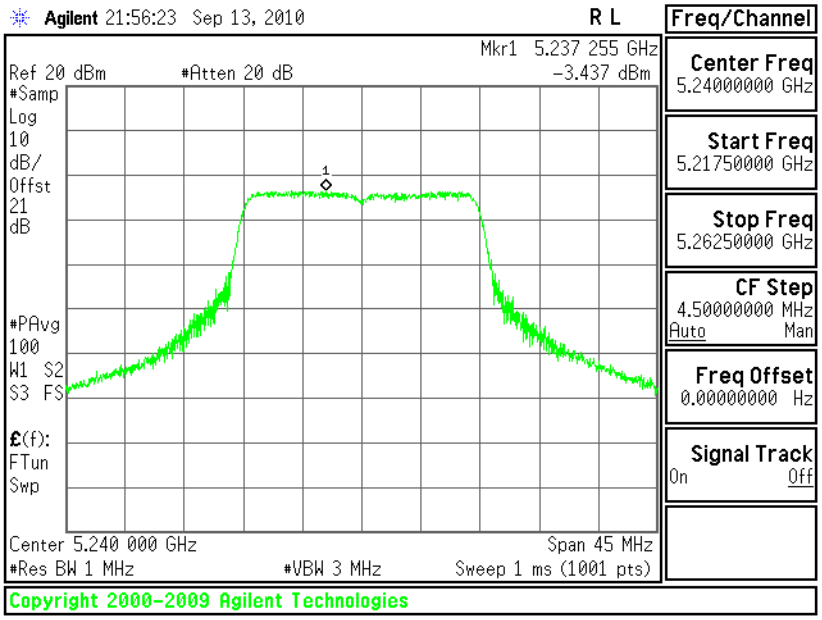
PSD Plot on 802.11n (HT-20) Channel 48 - Chain 0



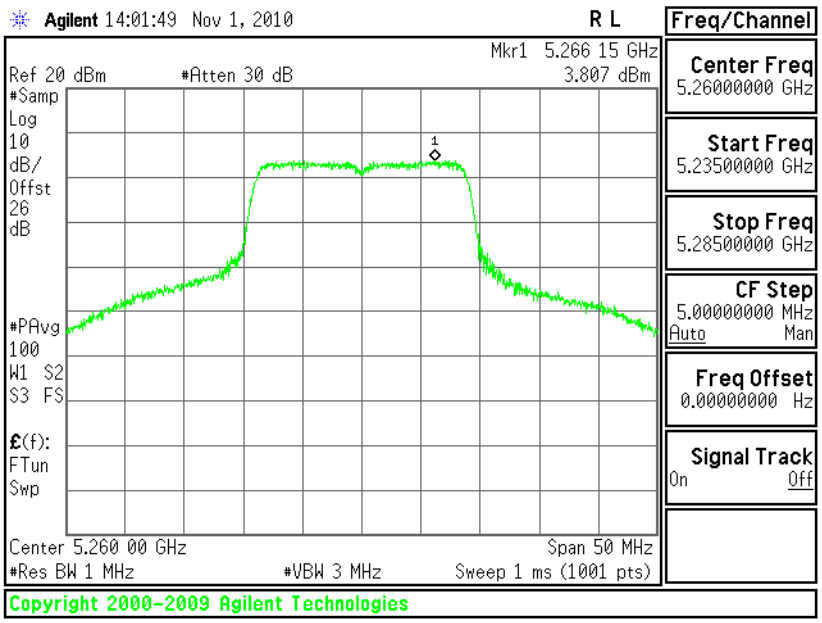
PSD Plot on 802.11n (HT-20) Channel 48 - Chain 1



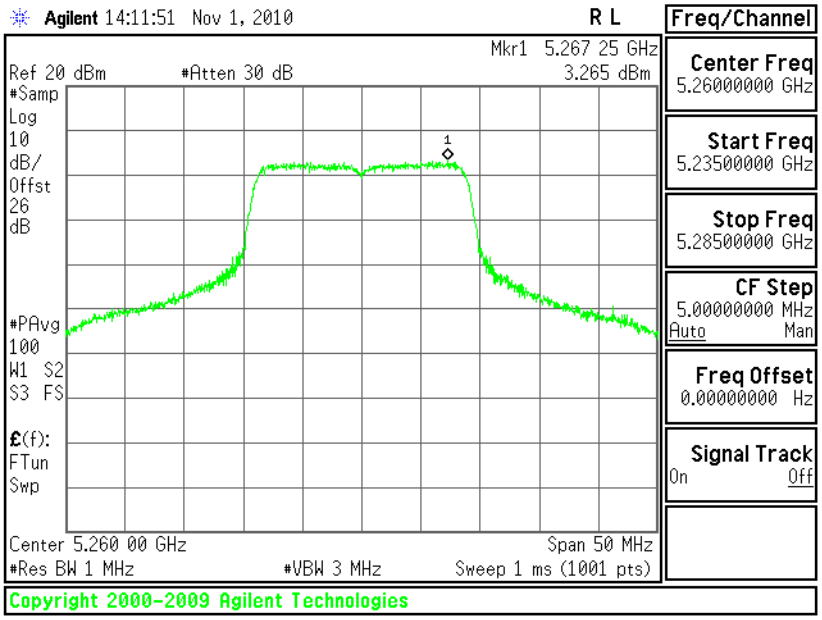
PSD Plot on 802.11n (HT-20) Channel 48 - Chain 2



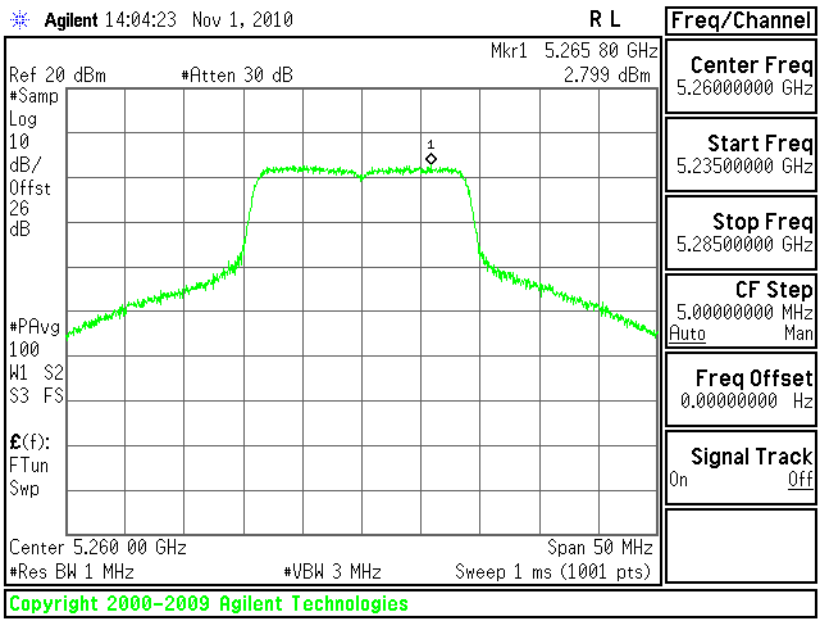
PSD Plot on 802.11n (HT-20) Channel 52 - Chain 0



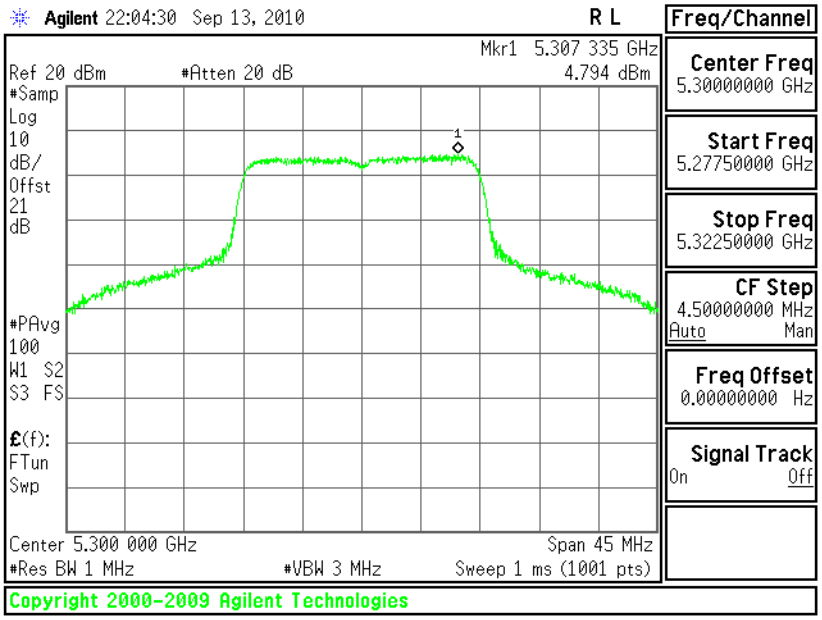
PSD Plot on 802.11n (HT-20) Channel 52 - Chain 1



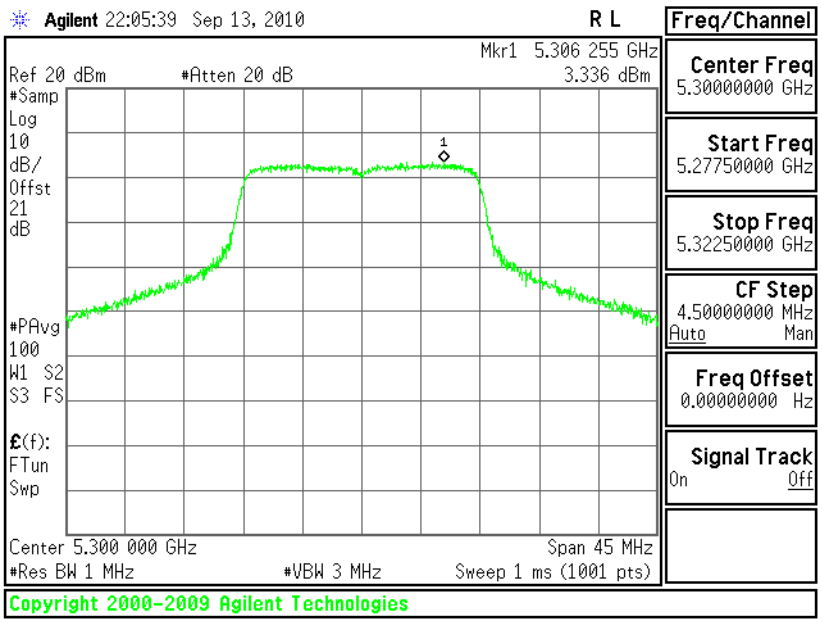
PSD Plot on 802.11n (HT-20) Channel 52 - Chain 2



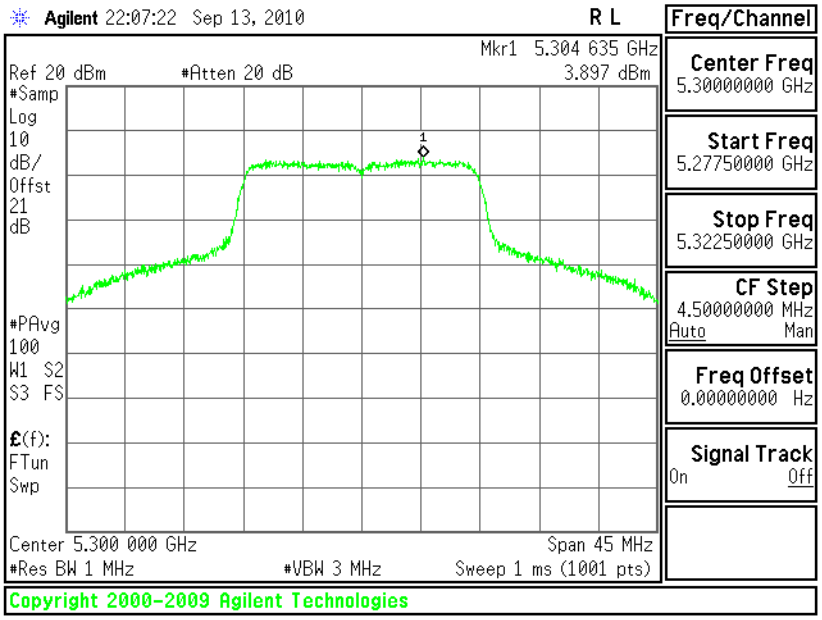
PSD Plot on 802.11n (HT-20) Channel 60 - Chain 0



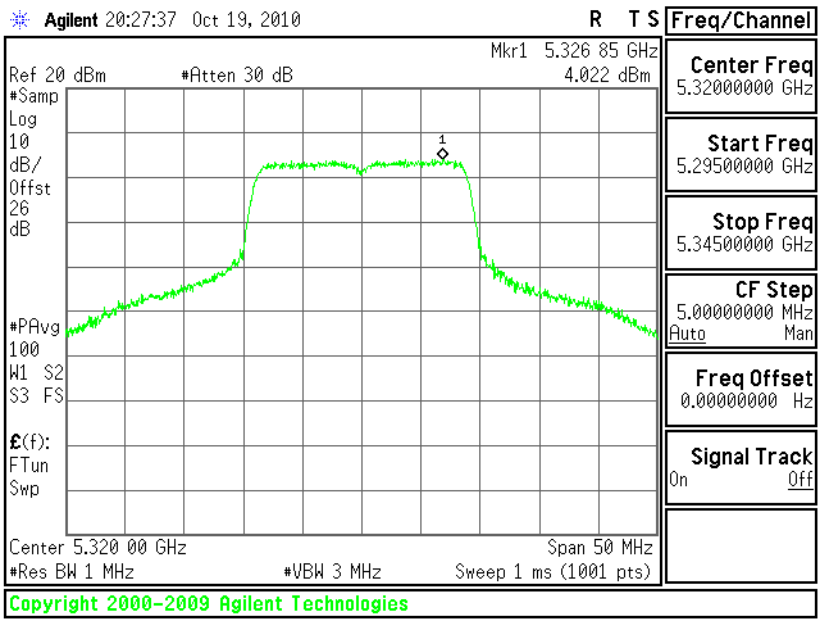
PSD Plot on 802.11n (HT-20) Channel 60 - Chain 1



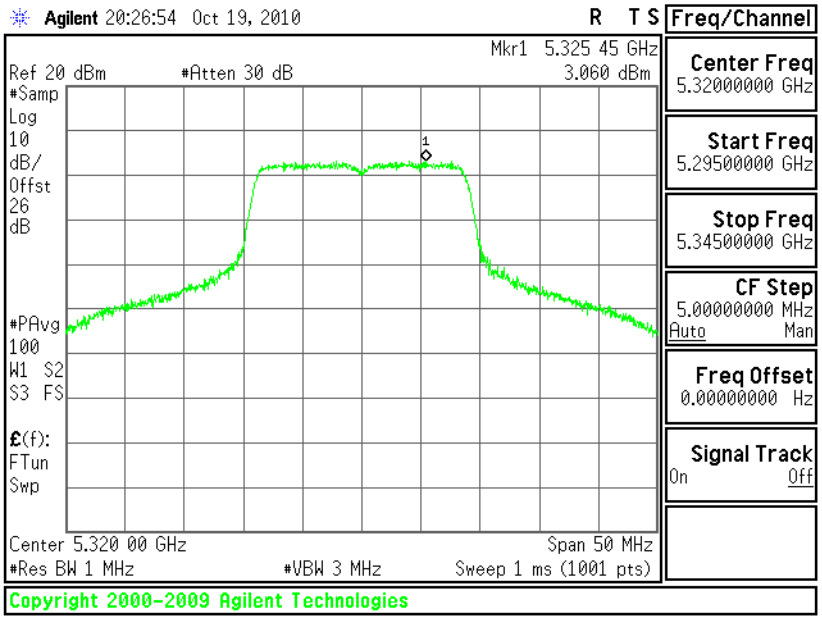
PSD Plot on 802.11n (HT-20) Channel 60 - Chain 2



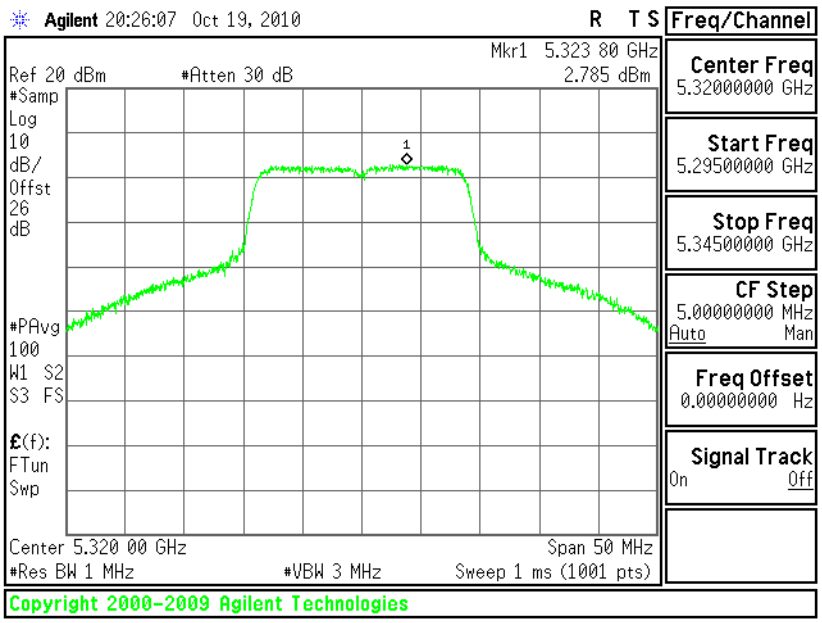
PSD Plot on 802.11n (HT-20) Channel 64 - Chain 0



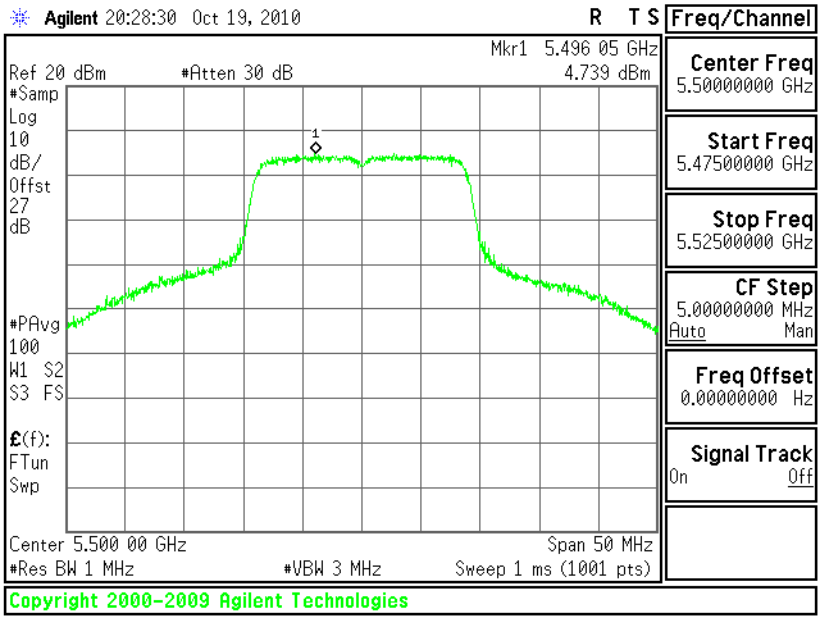
PSD Plot on 802.11n (HT-20) Channel 64 - Chain 1



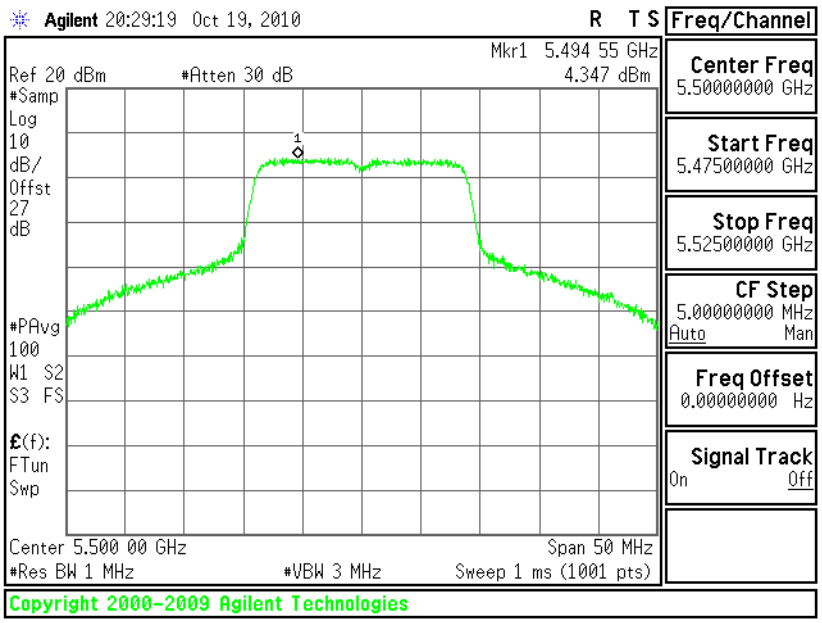
PSD Plot on 802.11n (HT-20) Channel 64 - Chain 2



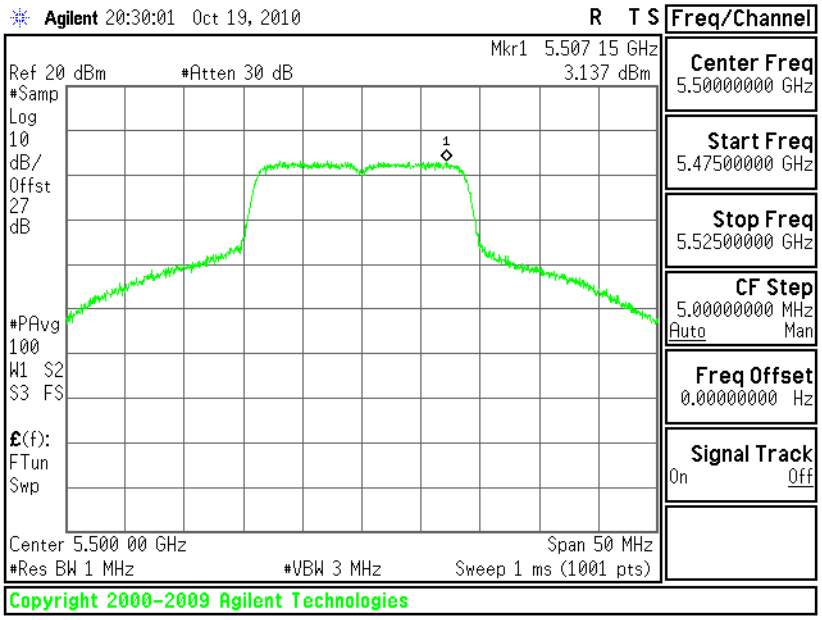
PSD Plot on 802.11n (HT-20) Channel 100 - Chain 0



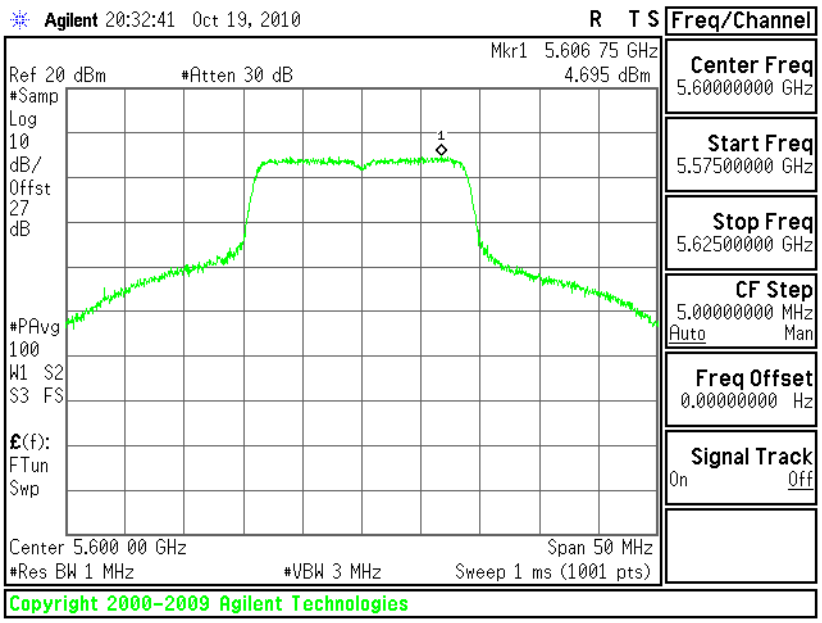
PSD Plot on 802.11n (HT-20) Channel 100 - Chain 1



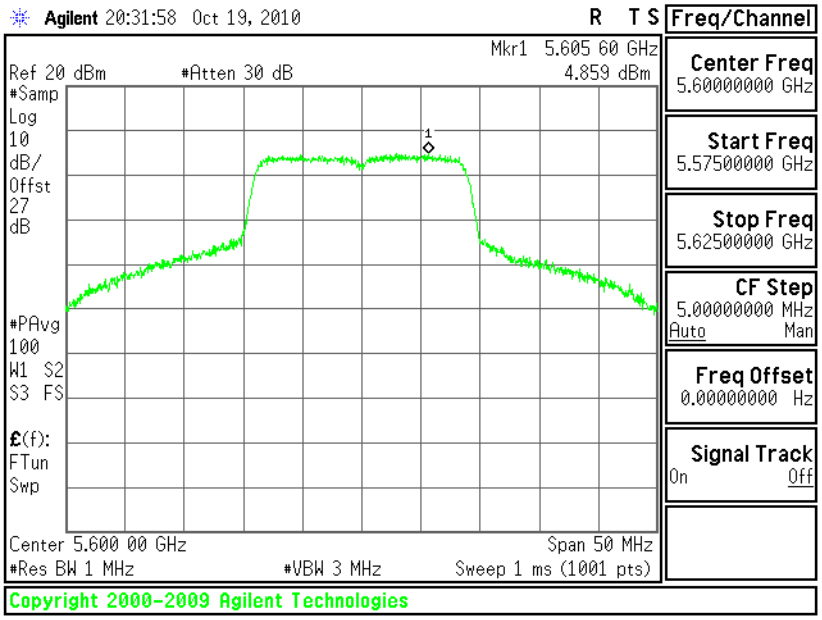
PSD Plot on 802.11n (HT-20) Channel 100 - Chain 2



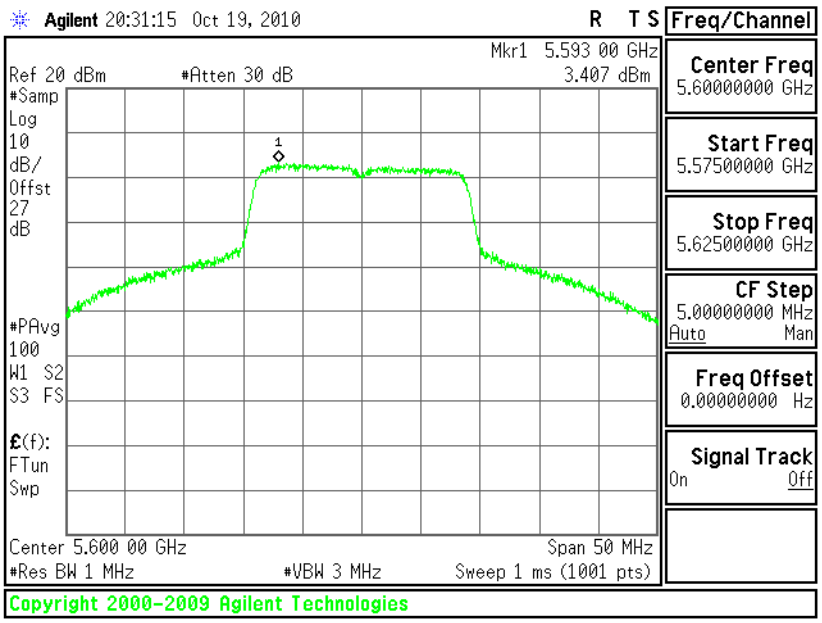
PSD Plot on 802.11n (HT-20) Channel 120 - Chain 0



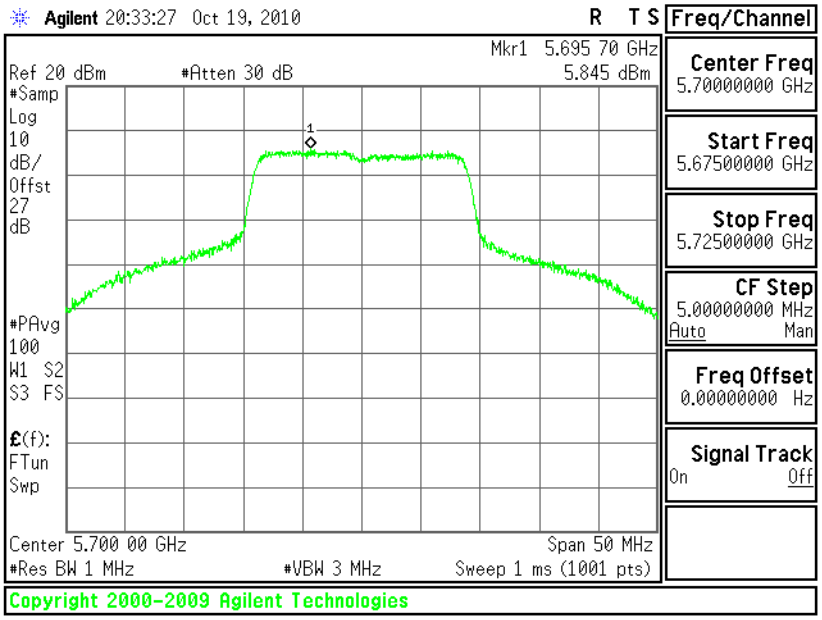
PSD Plot on 802.11n (HT-20) Channel 120 - Chain 1



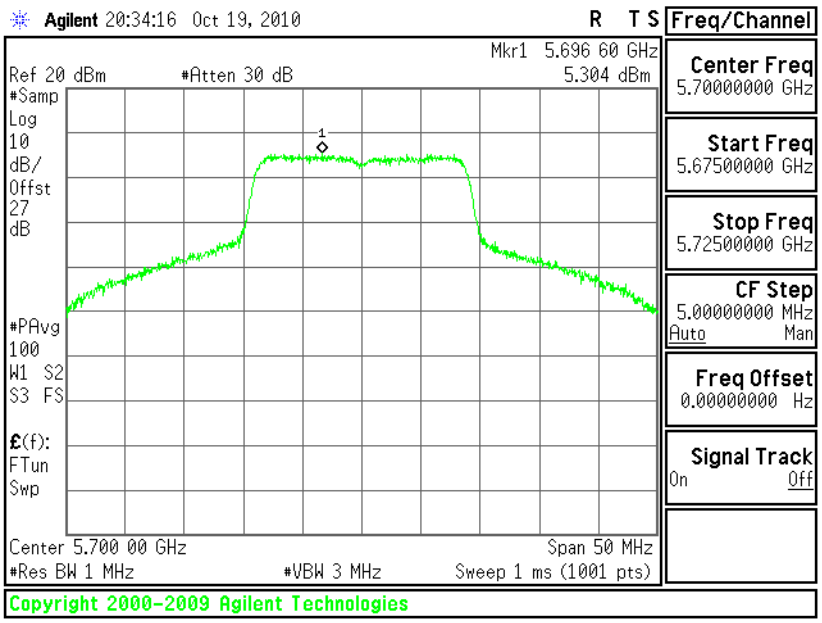
PSD Plot on 802.11n (HT-20) Channel 120 - Chain 2



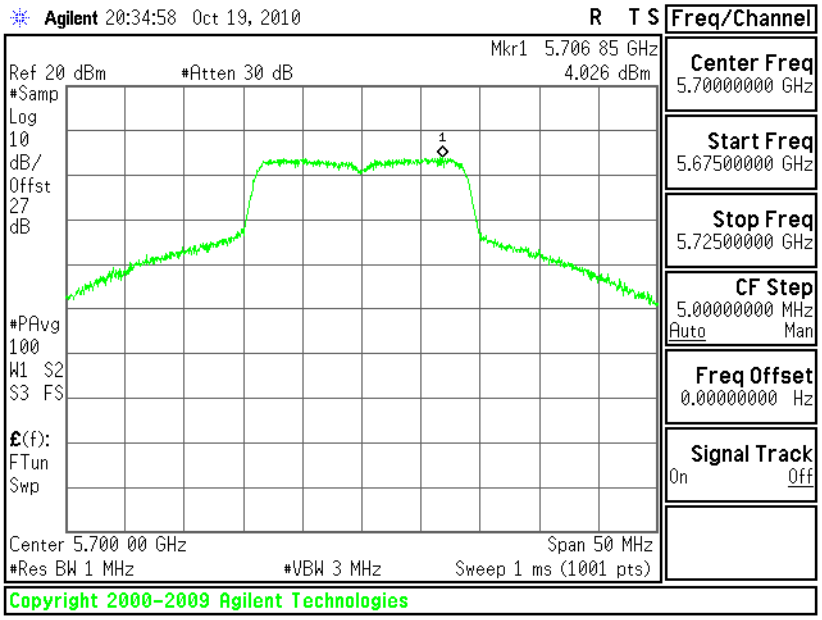
PSD Plot on 802.11n (HT-20) Channel 140 - Chain 0



PSD Plot on 802.11n (HT-20) Channel 140 - Chain 1

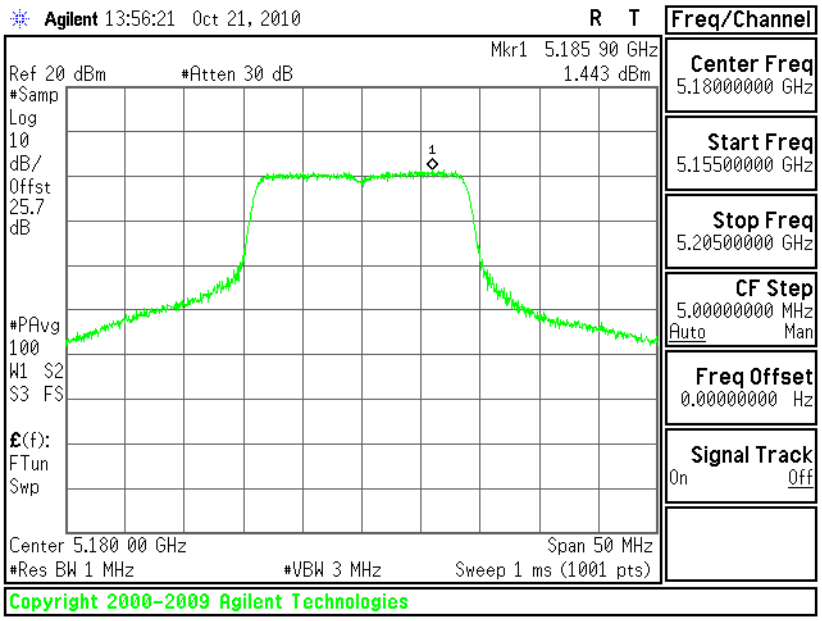


PSD Plot on 802.11n (HT-20) Channel 140 - Chain 2

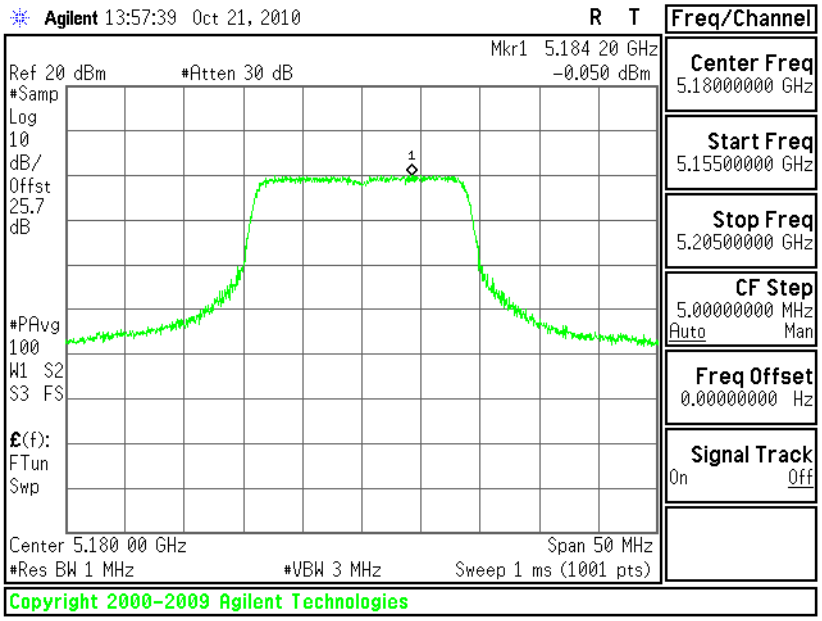


<Beam-Forming On: 2x3>

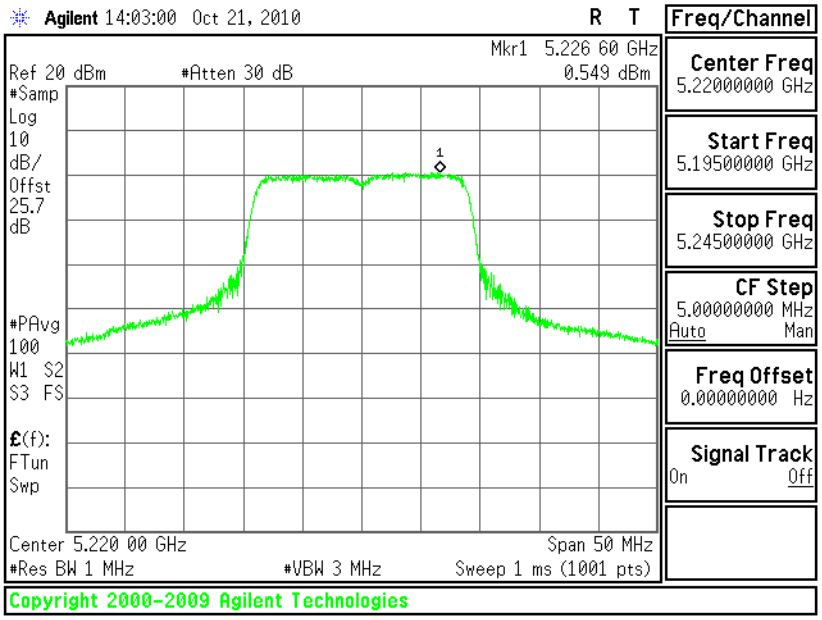
PSD Plot on 802.11n (HT-20) Channel 36 - Chain 0



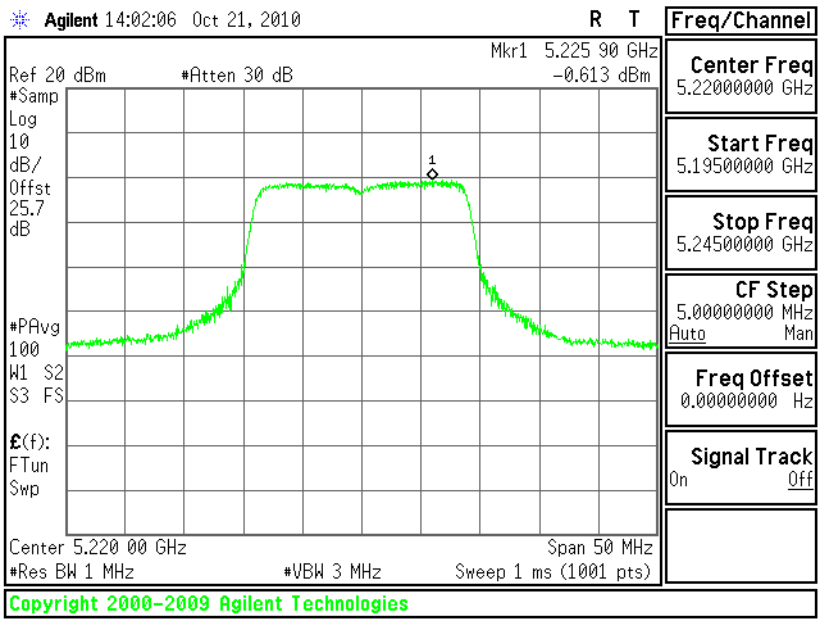
PSD Plot on 802.11n (HT-20) Channel 36 - Chain 1



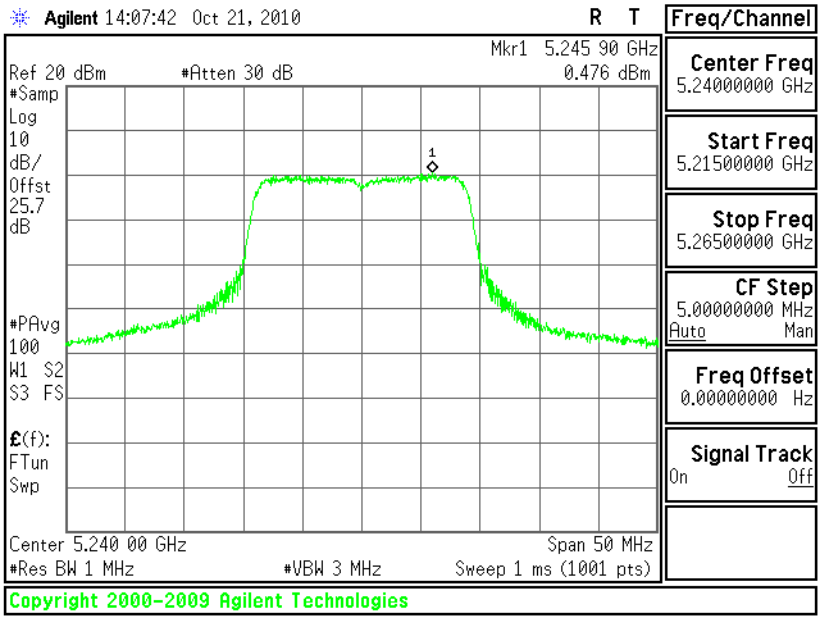
PSD Plot on 802.11n (HT-20) Channel 44 - Chain 0



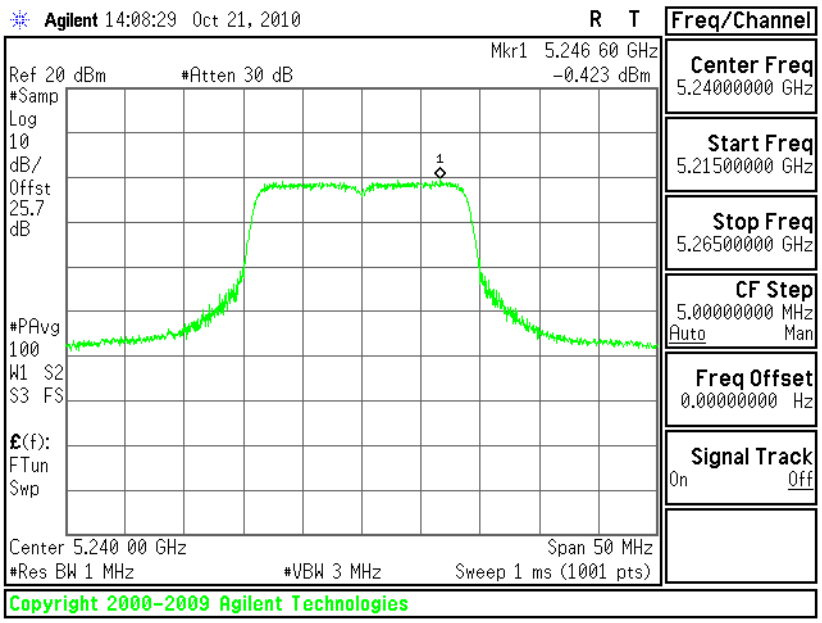
PSD Plot on 802.11n (HT-20) Channel 44 - Chain 1



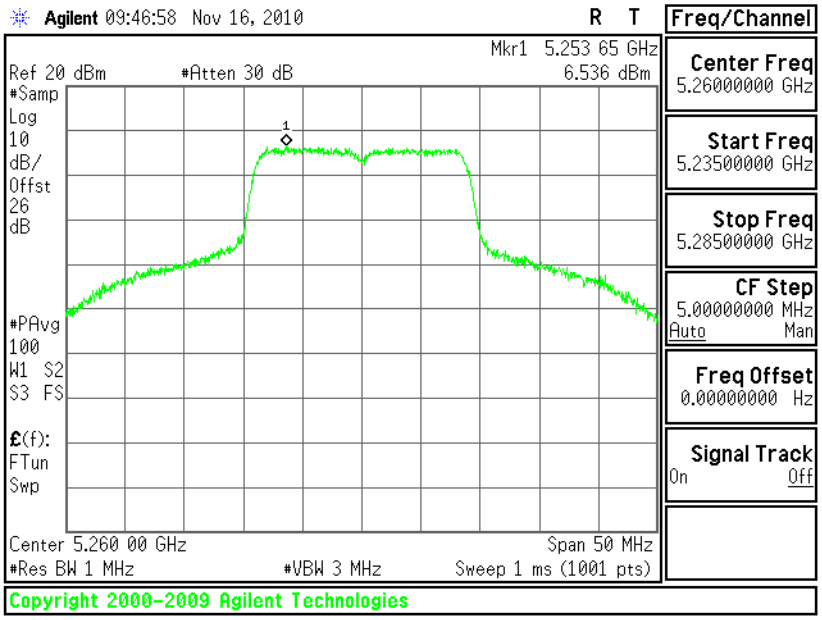
PSD Plot on 802.11n (HT-20) Channel 48 - Chain 0



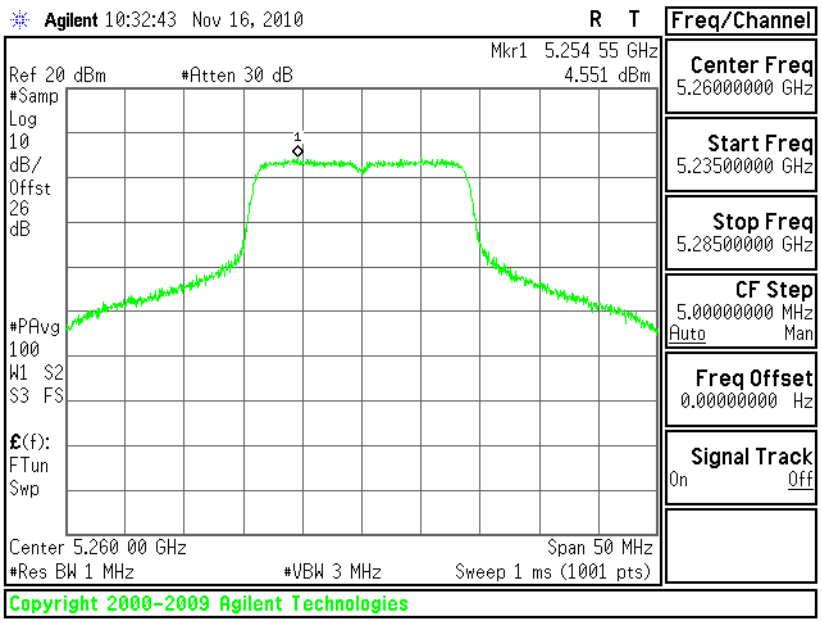
PSD Plot on 802.11n (HT-20) Channel 48 - Chain 1



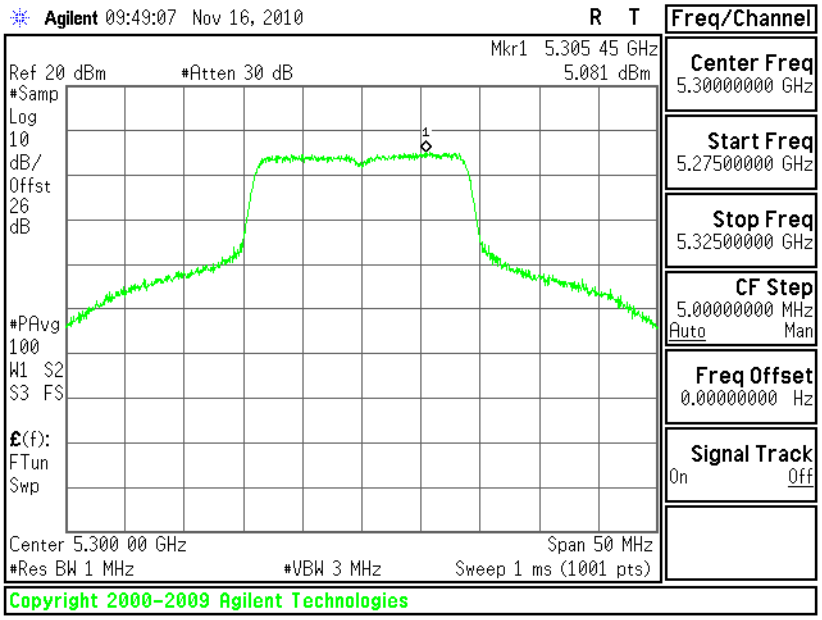
PSD Plot on 802.11n (HT-20) Channel 52 - Chain 0



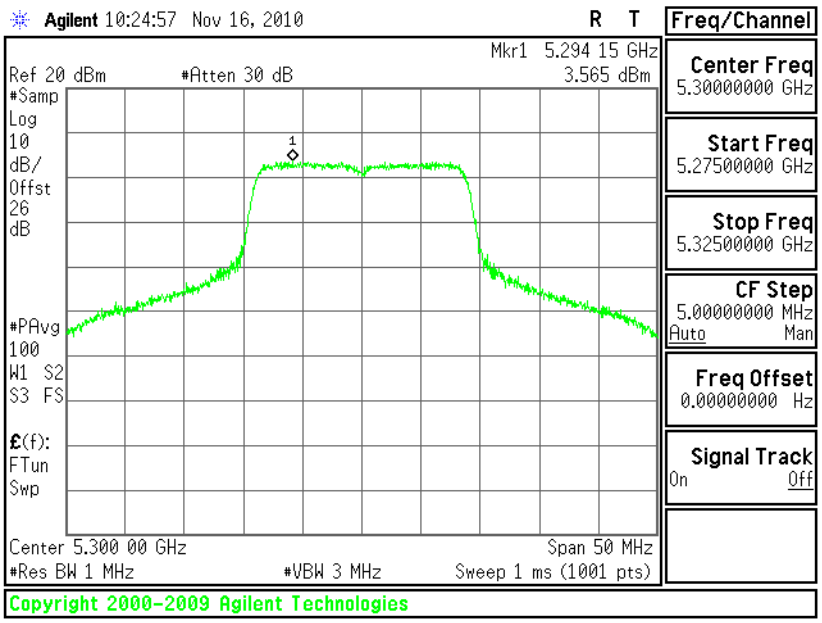
PSD Plot on 802.11n (HT-20) Channel 52 - Chain 1



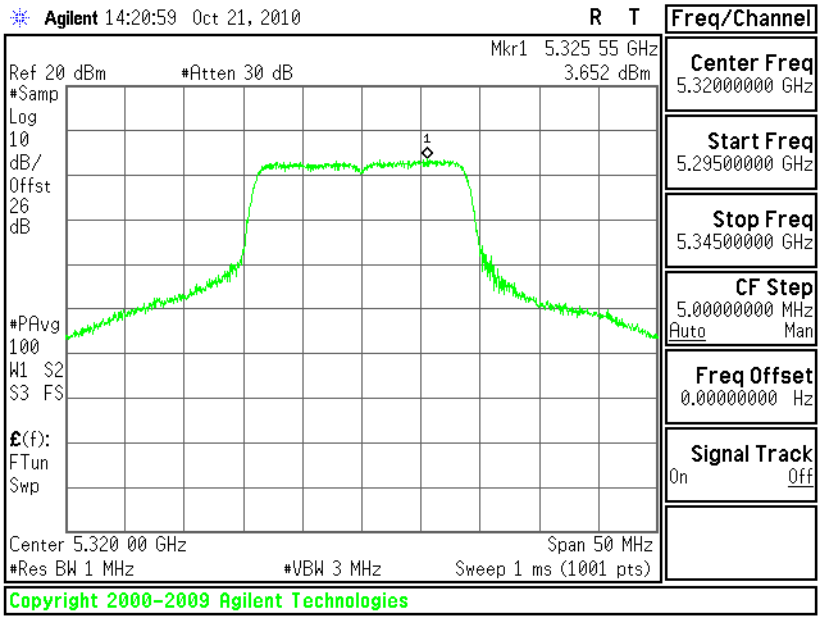
PSD Plot on 802.11n (HT-20) Channel 60 - Chain 0



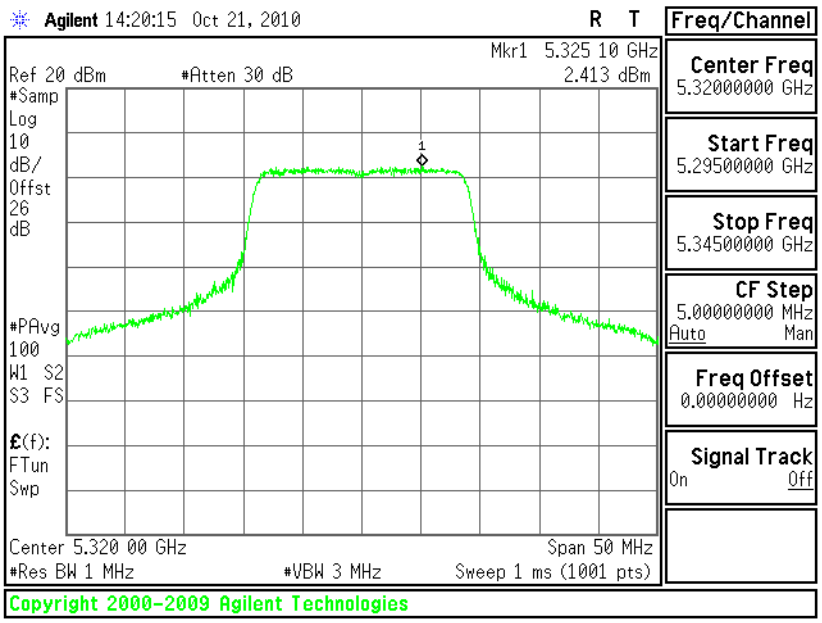
PSD Plot on 802.11n (HT-20) Channel 60 - Chain 1



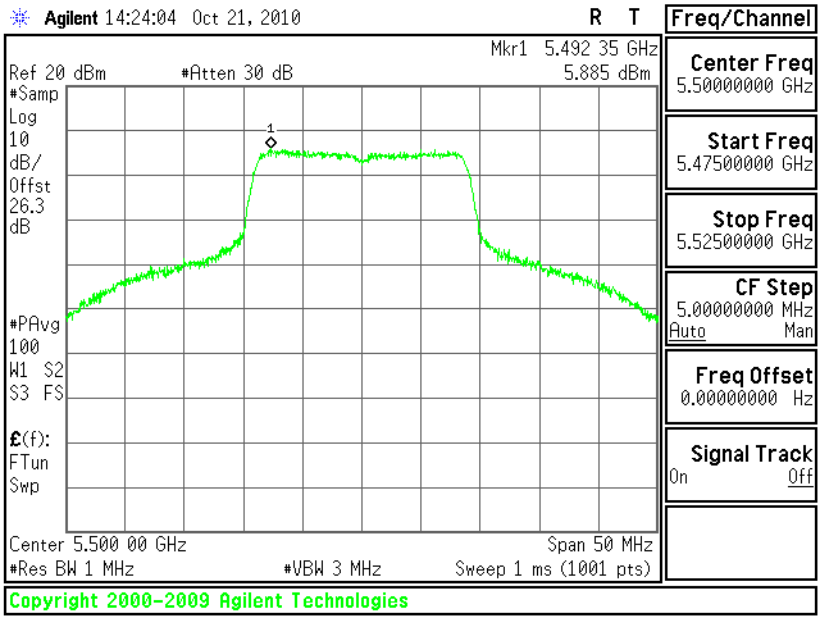
PSD Plot on 802.11n (HT-20) Channel 64 - Chain 0



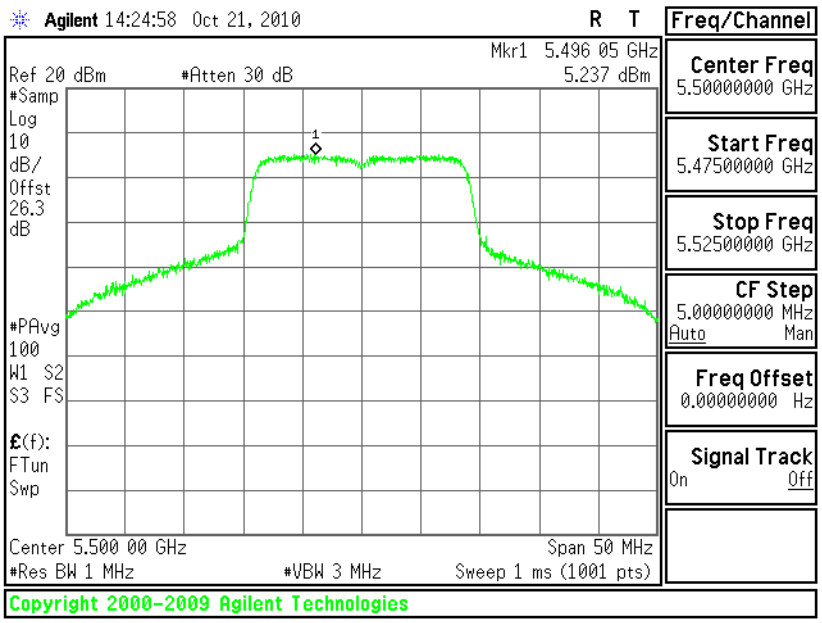
PSD Plot on 802.11n (HT-20) Channel 64 - Chain 1



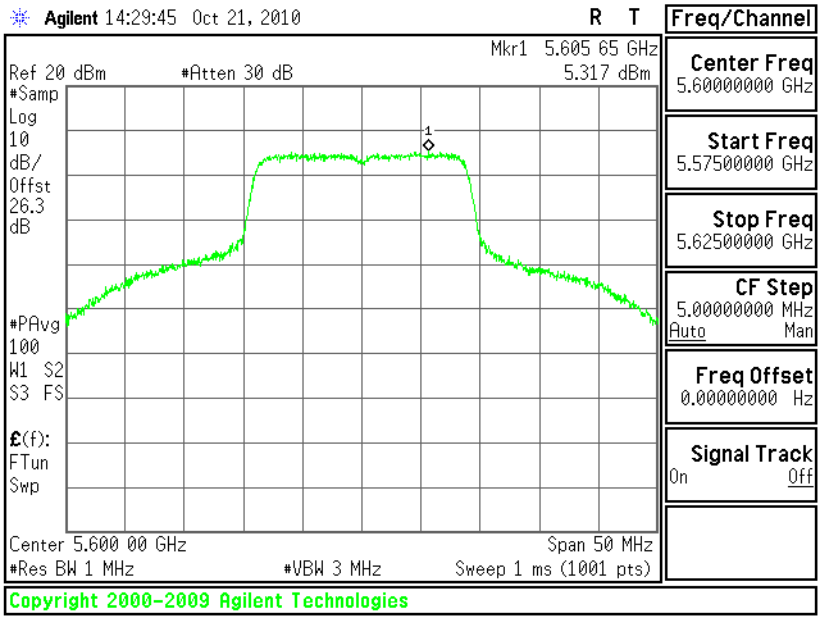
PSD Plot on 802.11n (HT-20) Channel 100 - Chain 0



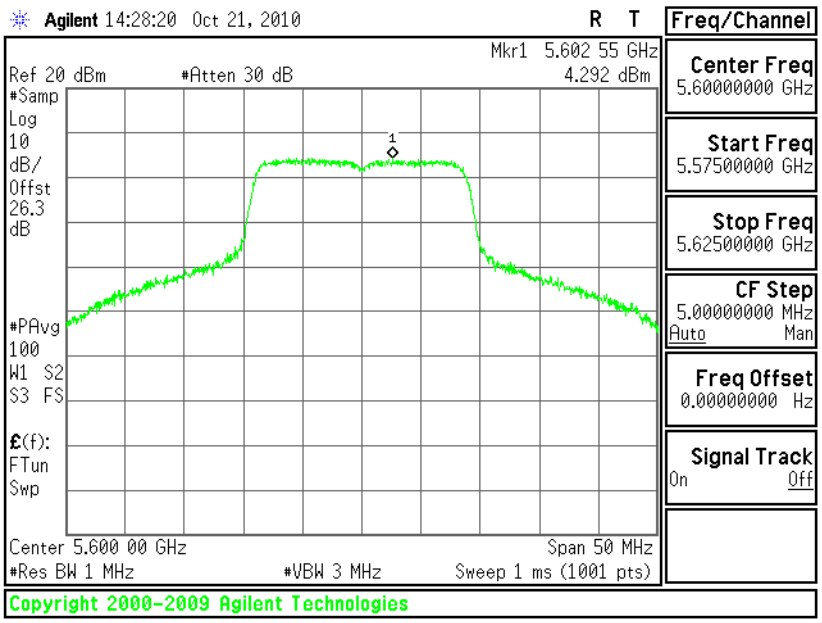
PSD Plot on 802.11n (HT-20) Channel 100 - Chain 1



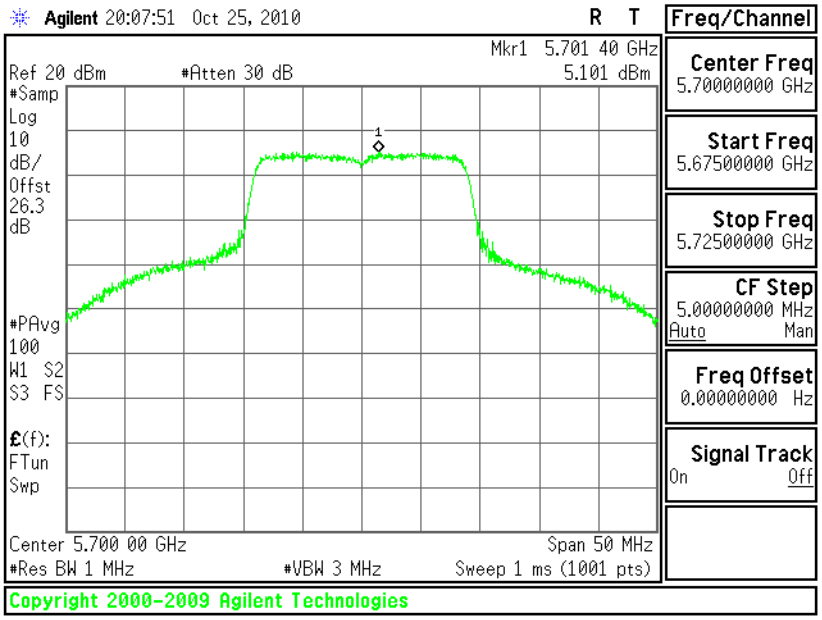
PSD Plot on 802.11n (HT-20) Channel 120 - Chain 0



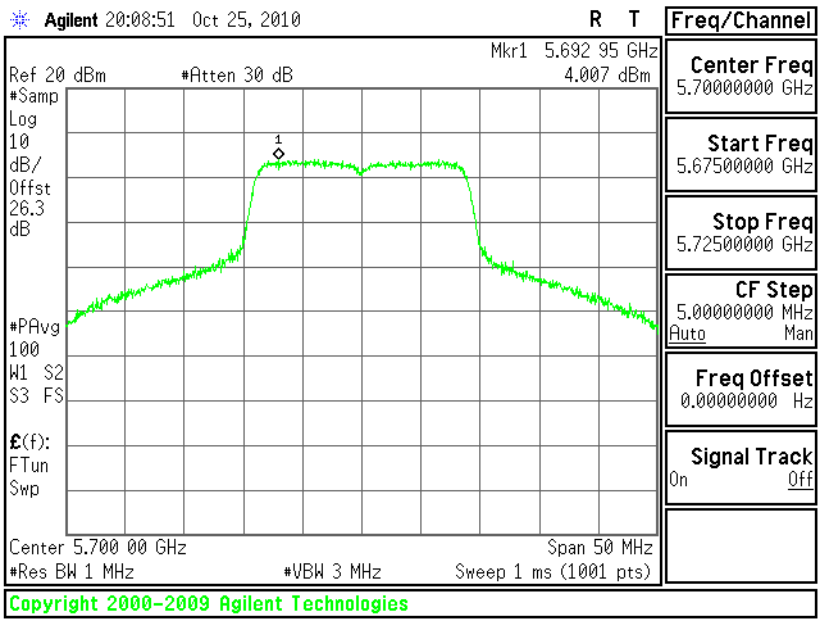
PSD Plot on 802.11n (HT-20) Channel 120 - Chain 1



PSD Plot on 802.11n (HT-20) Channel 140 - Chain 0

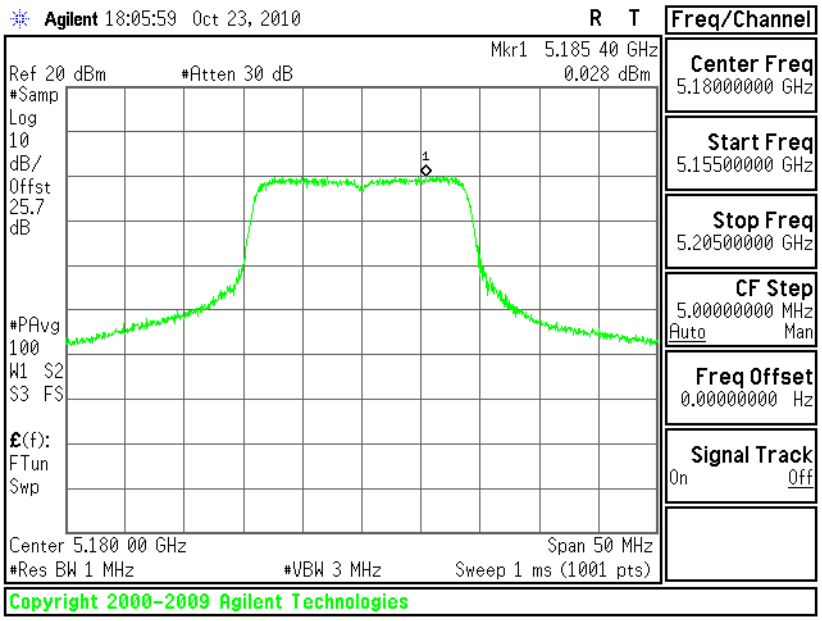


PSD Plot on 802.11n (HT-20) Channel 140 - Chain 1

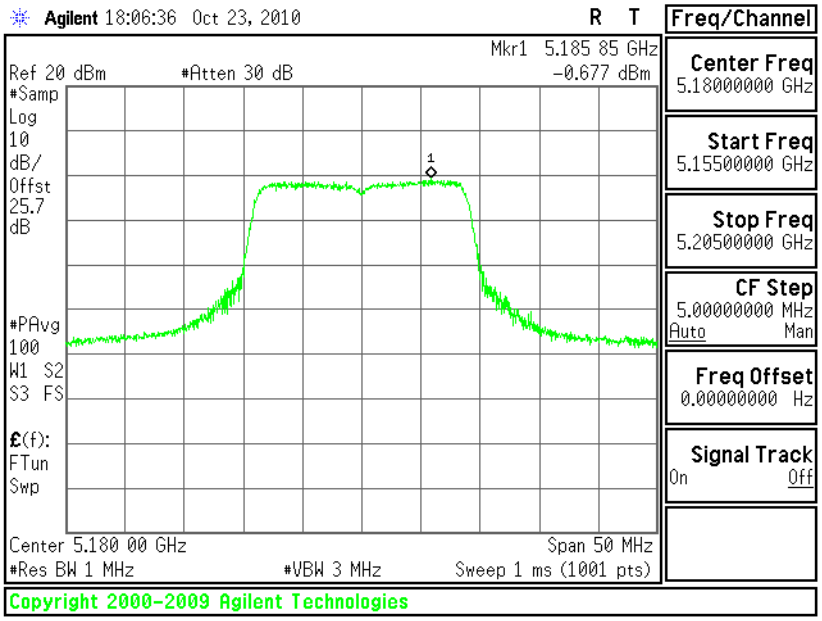


<Beam-Forming Off: 3x3>

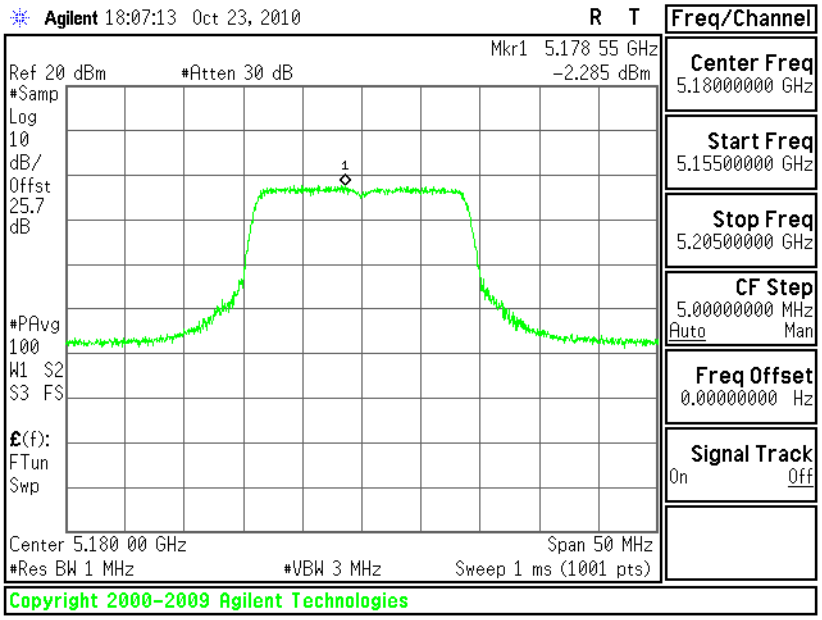
PSD Plot on 802.11n (HT-20) Channel 36 - Chain 0



PSD Plot on 802.11n (HT-20) Channel 36 - Chain 1



PSD Plot on 802.11n (HT-20) Channel 36 - Chain 2



PSD Plot on 802.11n (HT-20) Channel 44 - Chain 0