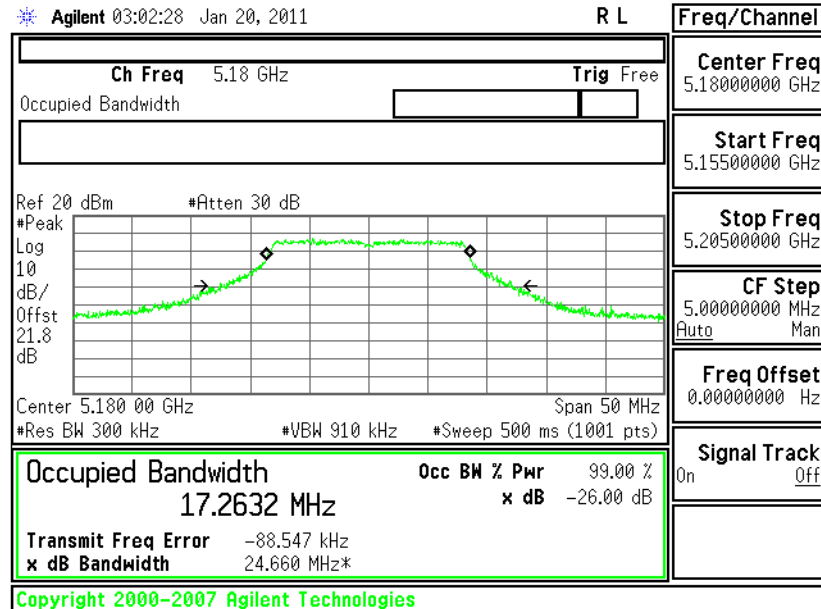


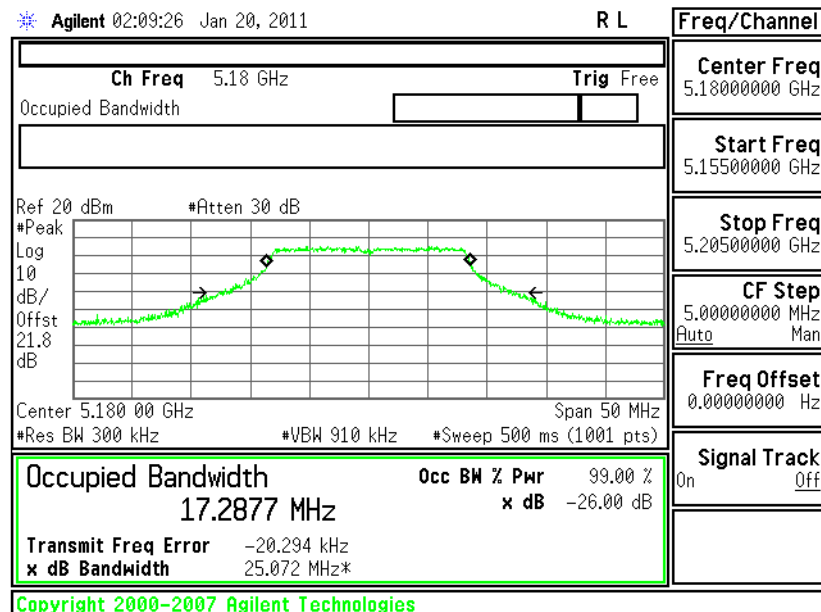


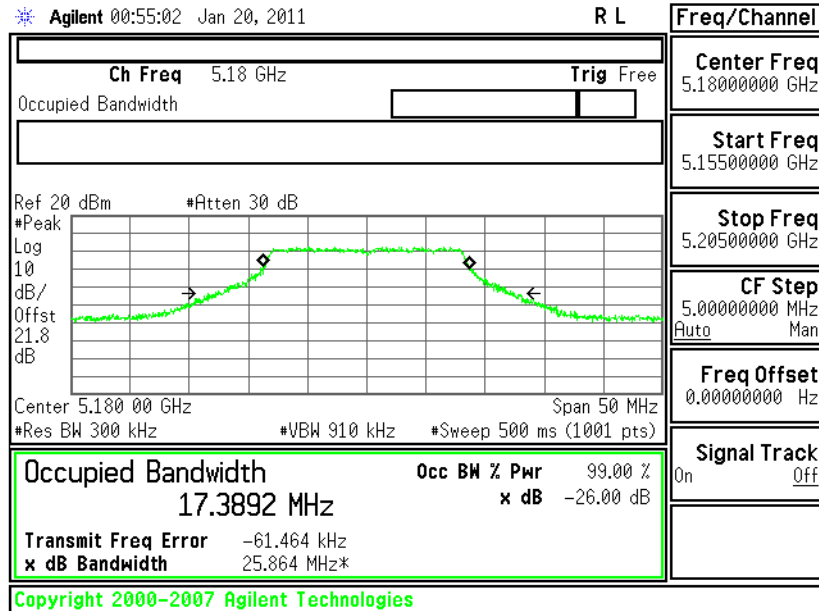
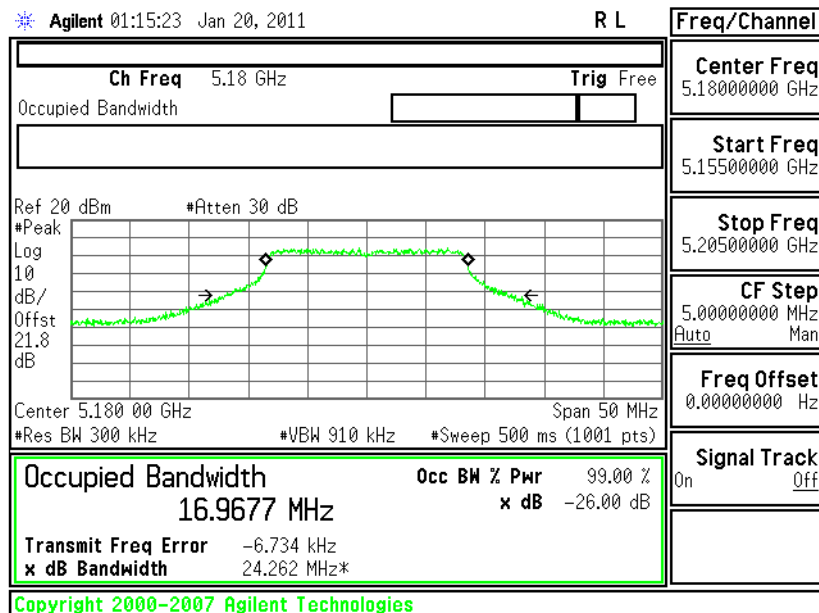
## &lt;Antenna 3 for 3.3V&gt;

## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 36 - Chain A



## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 36 - Chain B



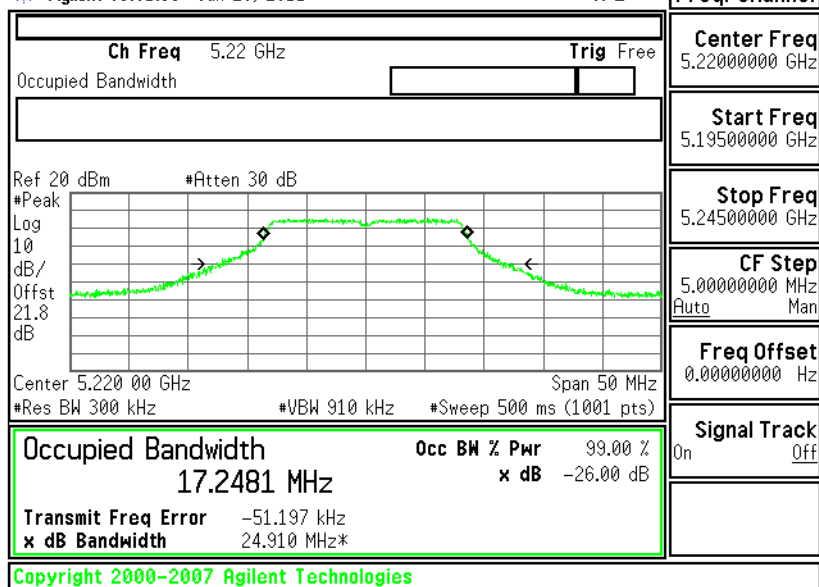
**26 dB & 99% Bandwidth Plot on 802.11a Channel 36 - Chain****A+B(A)****26 dB & 99% Bandwidth Plot on 802.11a Channel 36 - Chain****A+B(B)**



## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 44 - Chain A

Agilent 03:01:33 Jan 20, 2011

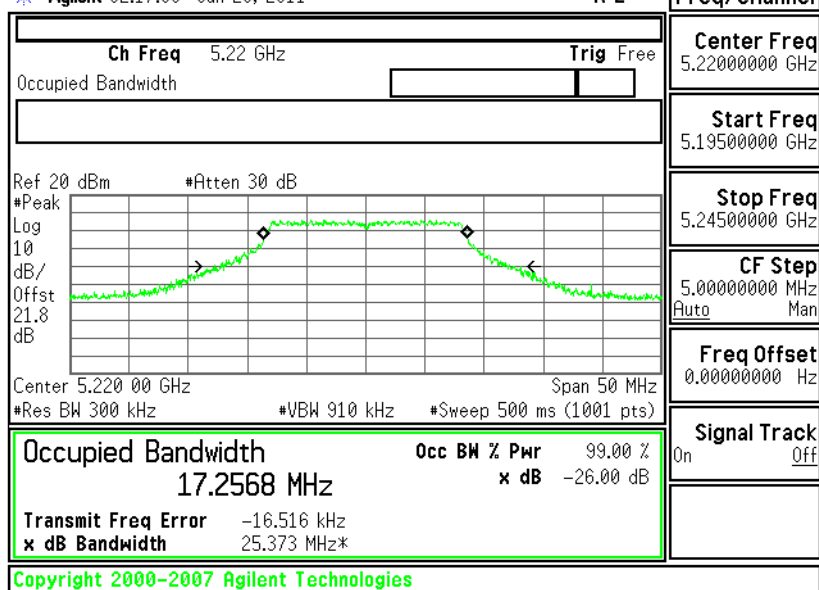
R L



## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 44 - Chain B

Agilent 02:17:08 Jan 20, 2011

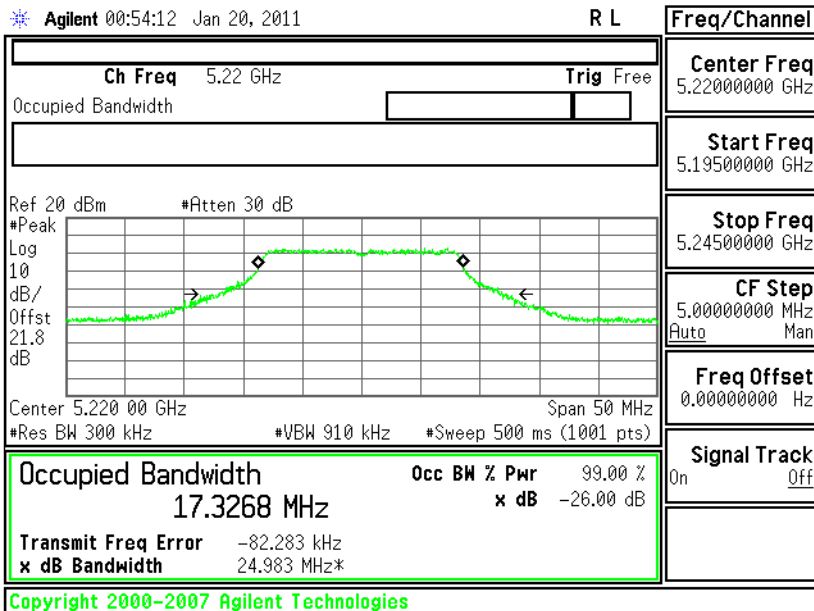
R L





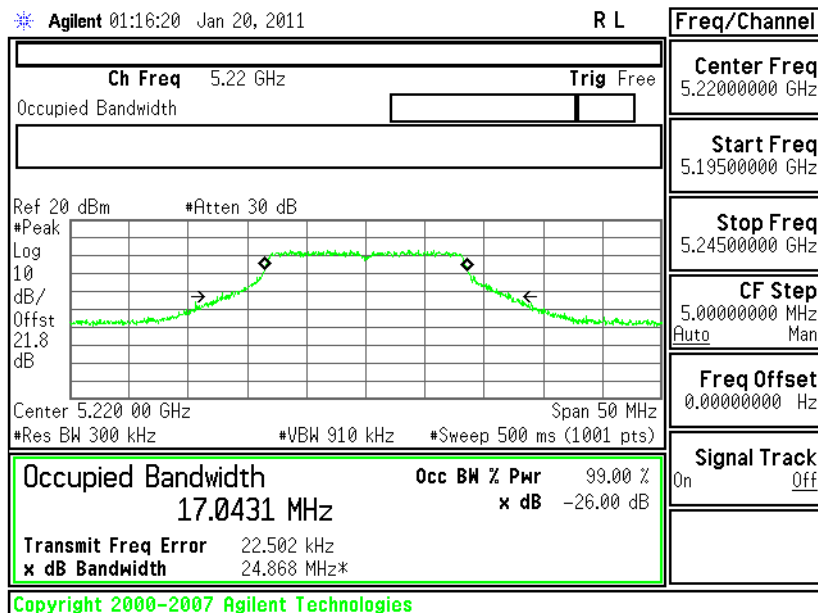
## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 44 - Chain

## A+B(A)



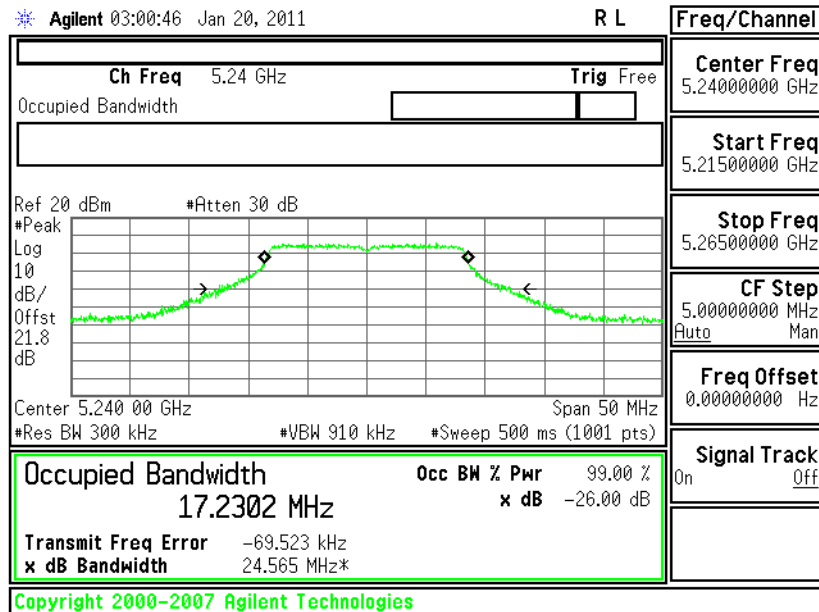
## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 44 - Chain

## A+B(B)

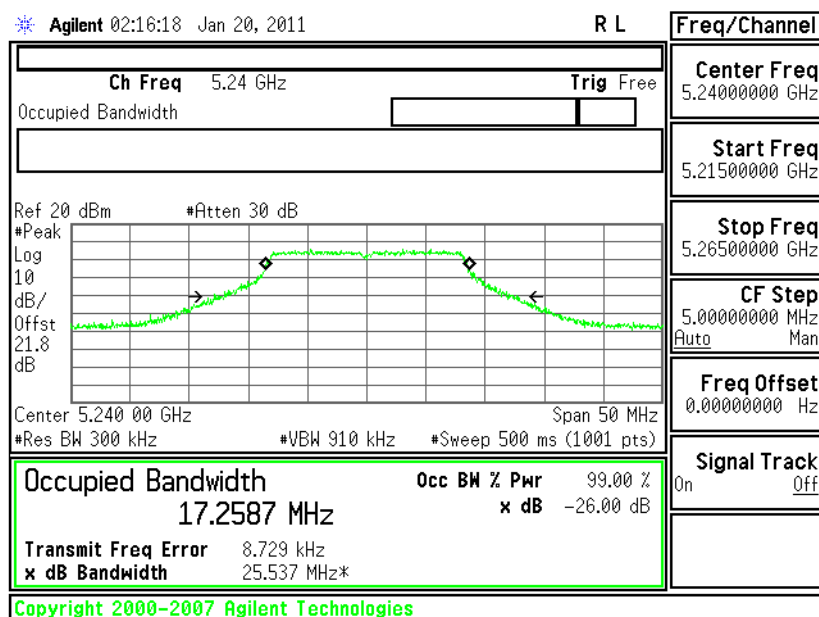




## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 48 - Chain A



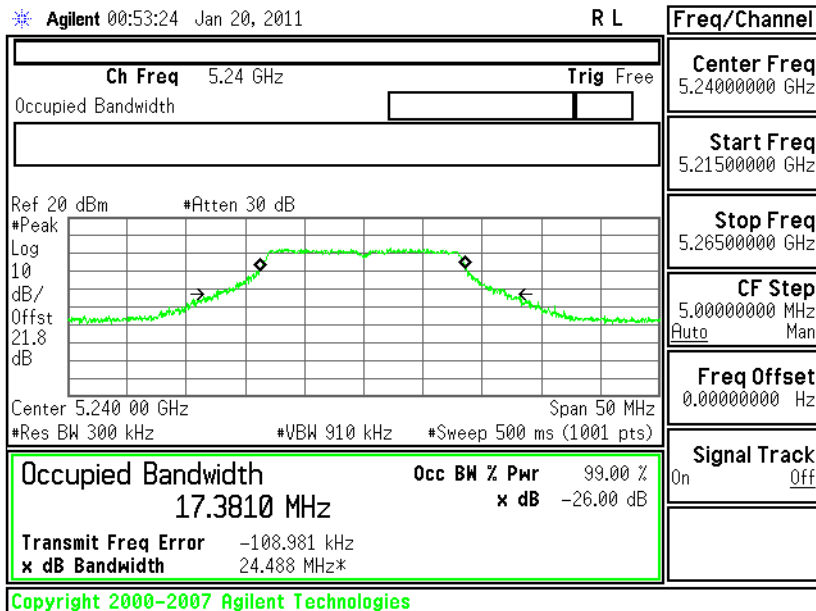
## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 48 - Chain B





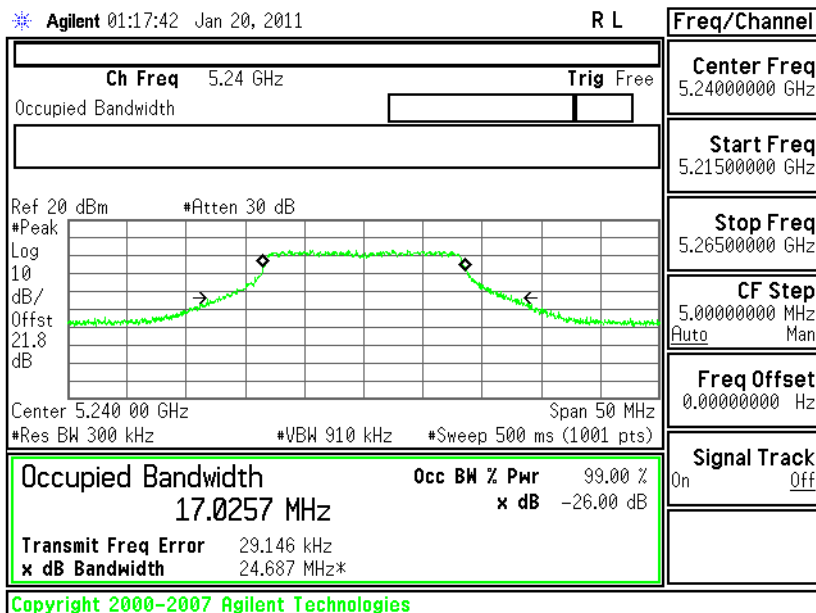
## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 48 - Chain

## A+B(A)



## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 48 - Chain

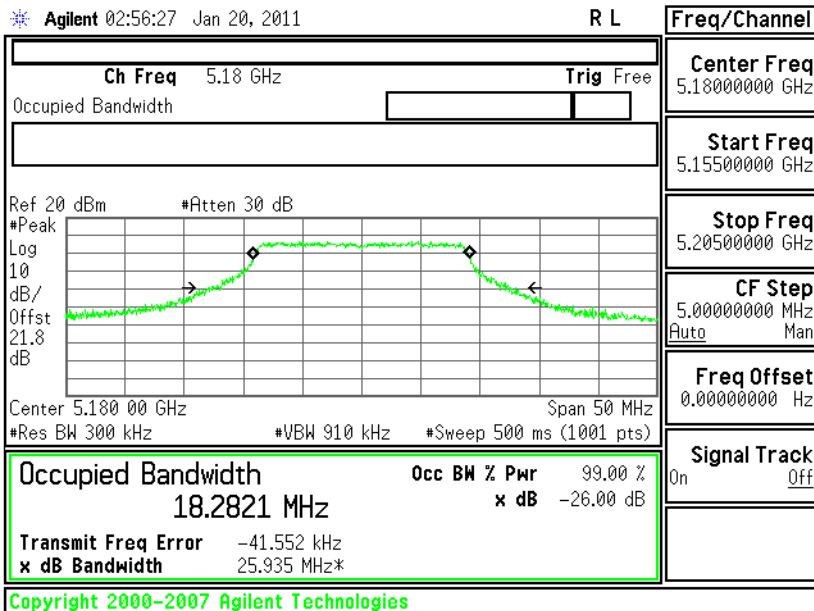
## A+B(B)





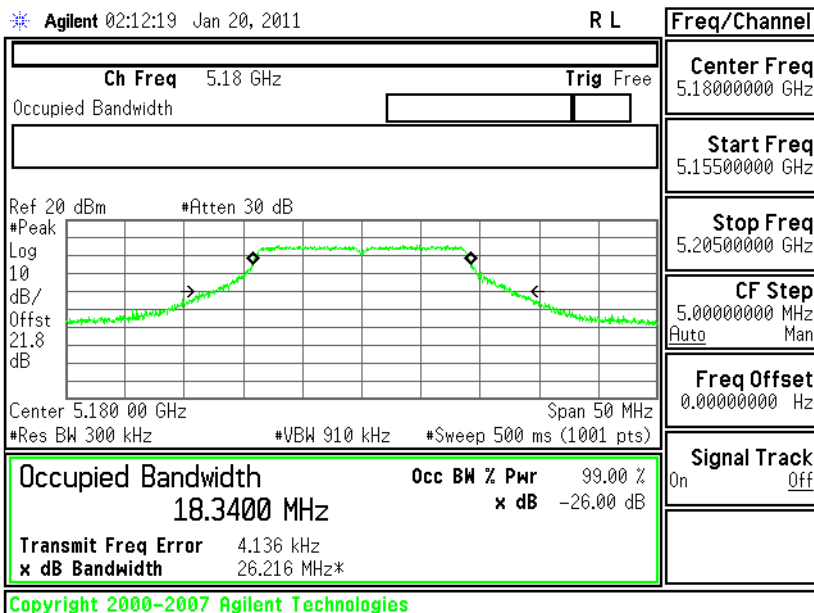
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 36

## - Chain A



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 36

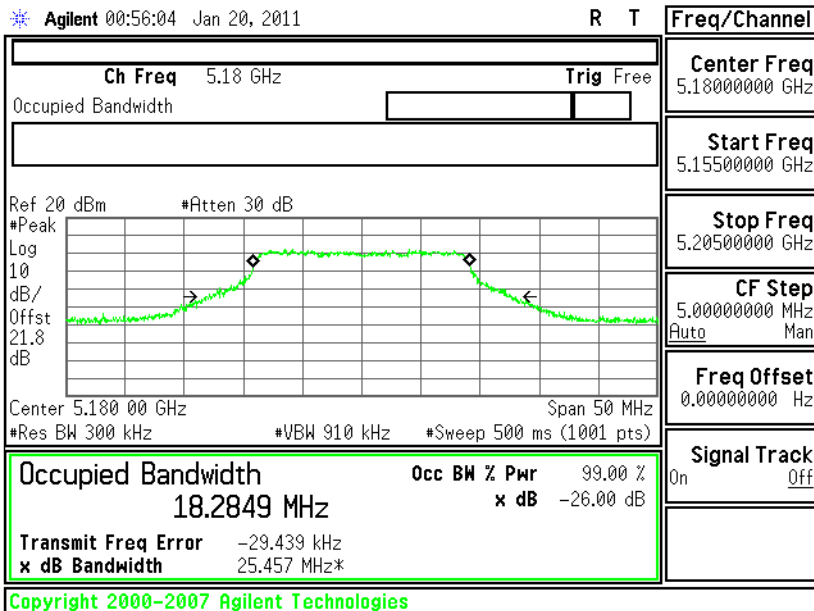
## - Chain B





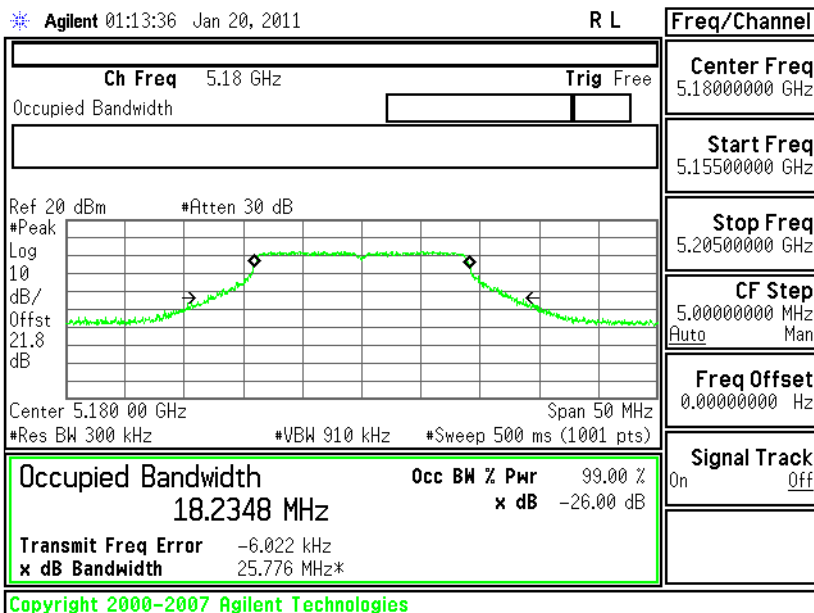
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 36

## - Chain A+B(A)



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 36

## - Chain A+B(B)

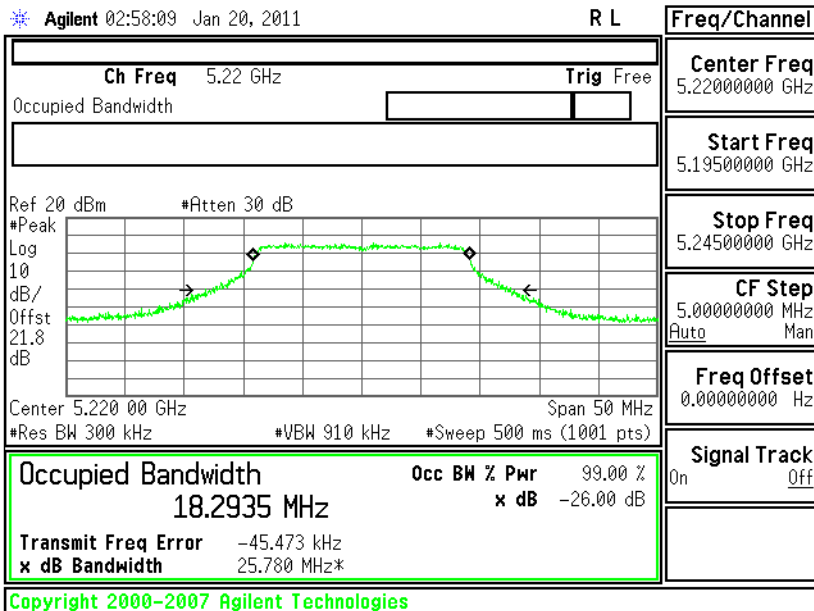






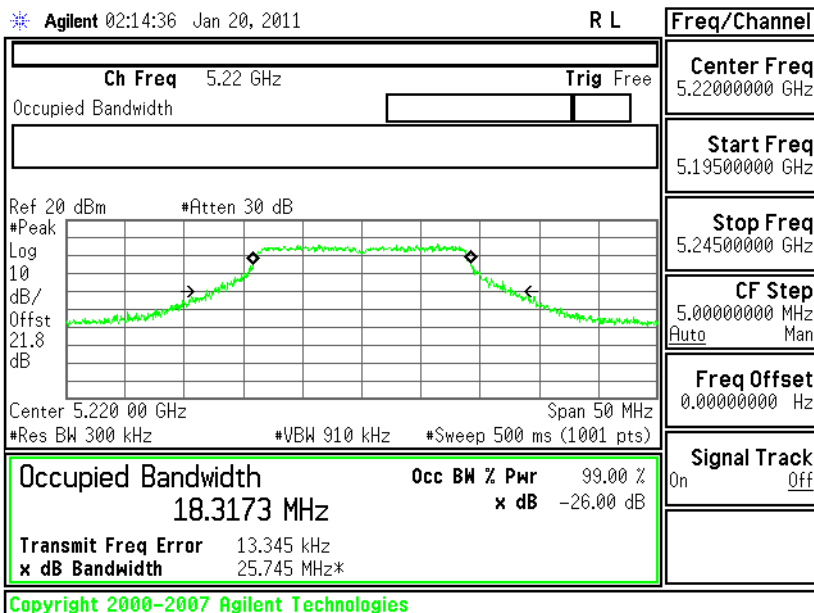
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 44

## - Chain A



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 44

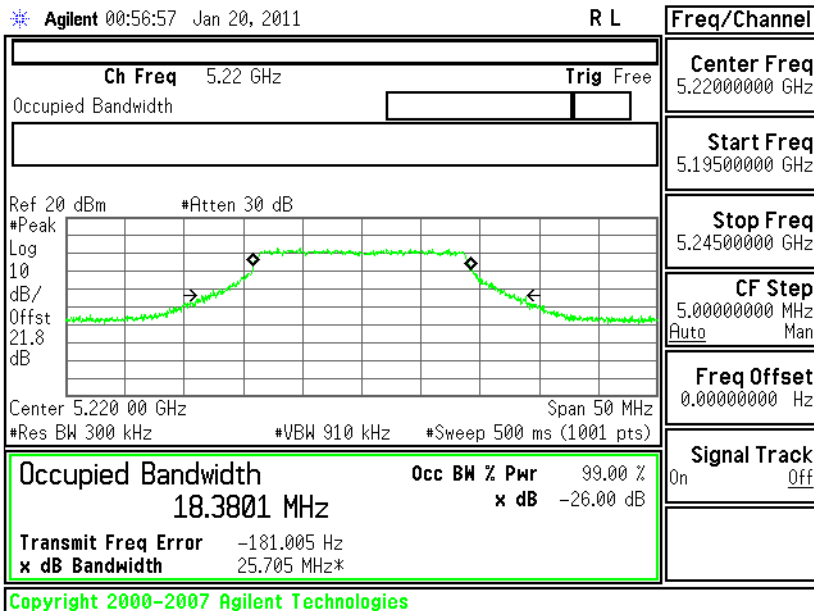
## - Chain B





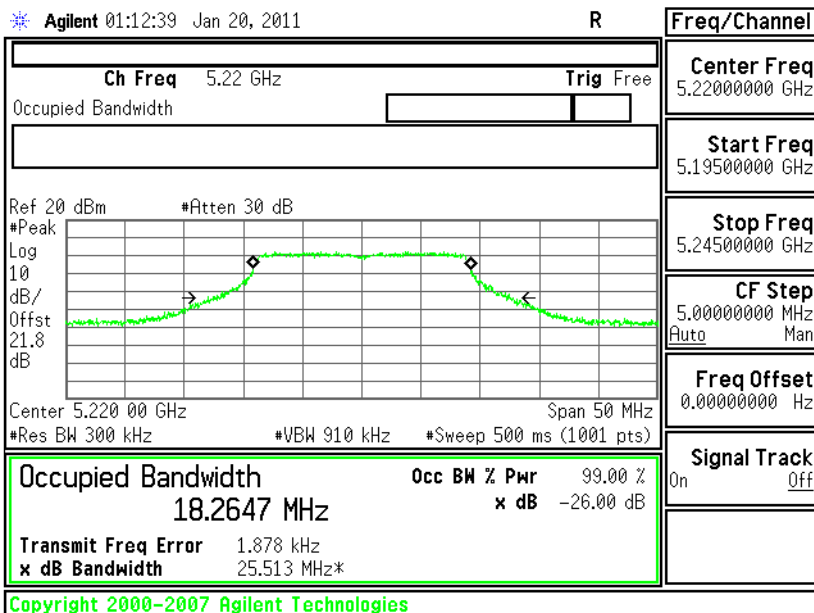
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 44

## - Chain A+B(A)



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 44

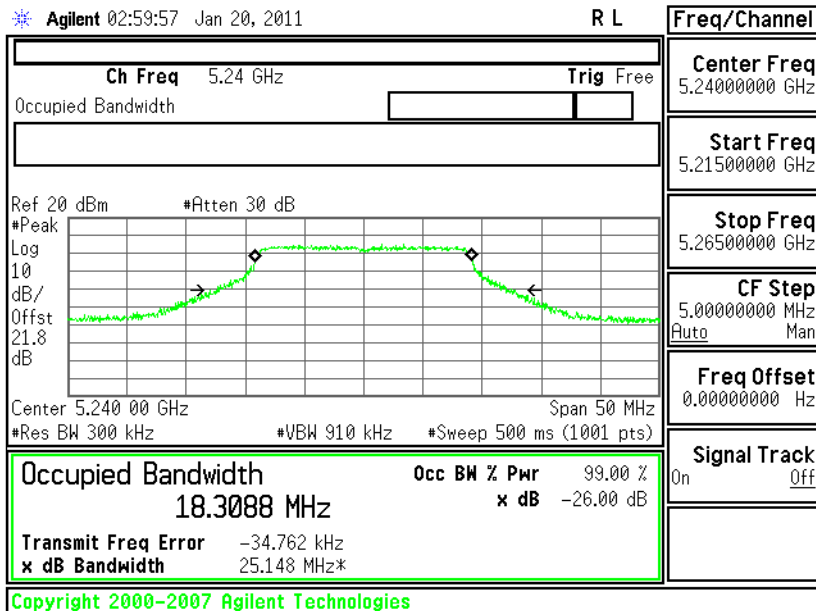
## - Chain A+B(B)





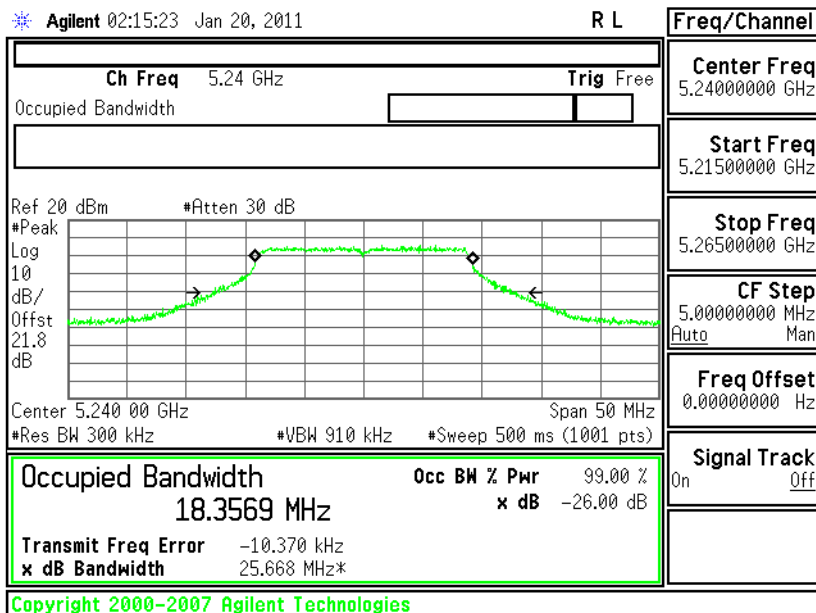
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 48

## - Chain A



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 48

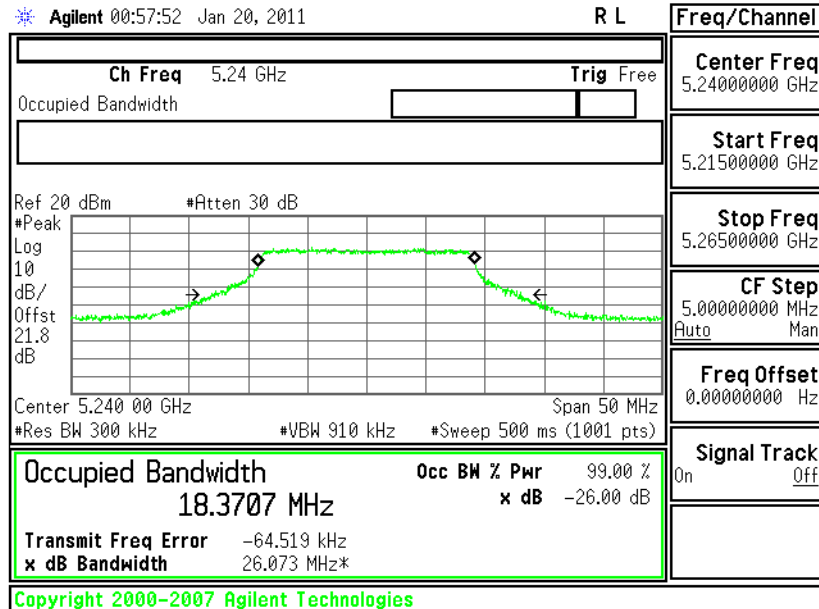
## - Chain B





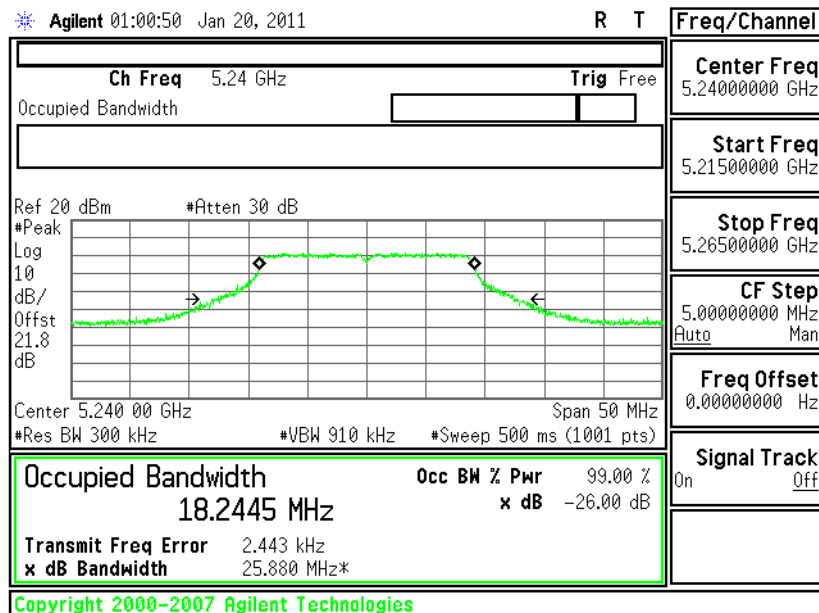
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 48

## - Chain A+B(A)



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 48

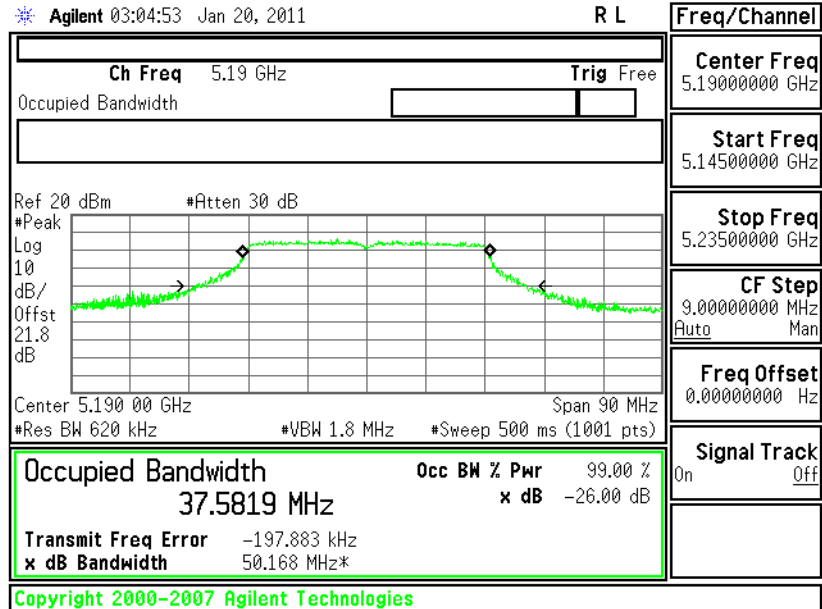
## - Chain A+B(B)





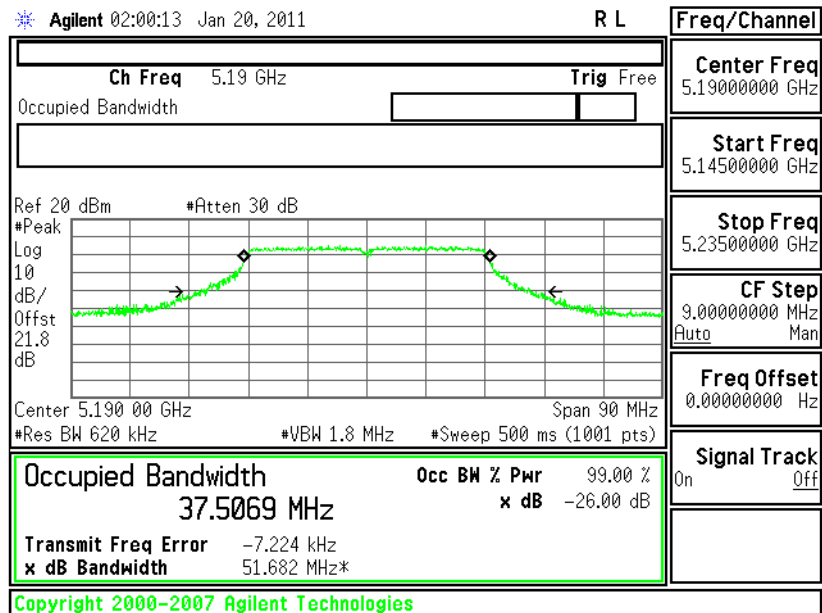
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 40MHz) Channel 38

## - Chain A



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 40MHz) Channel 38

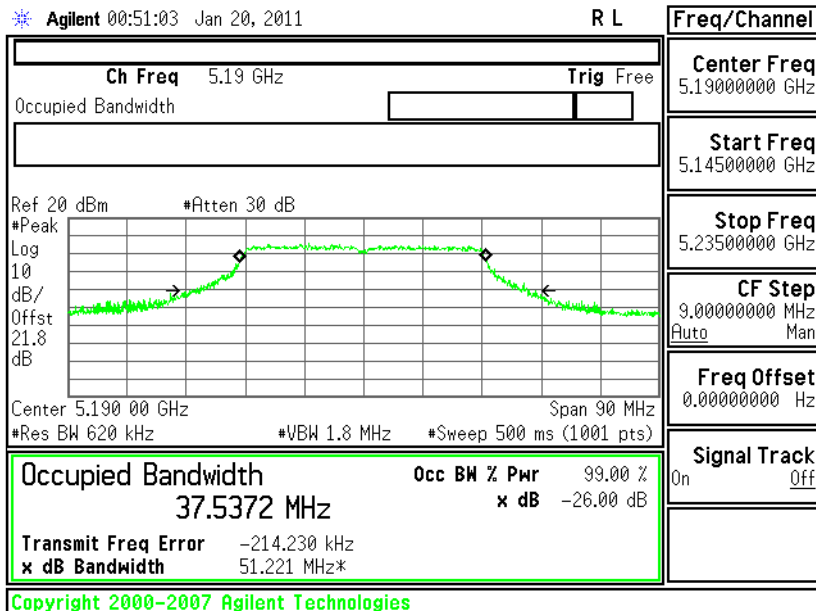
## - Chain B





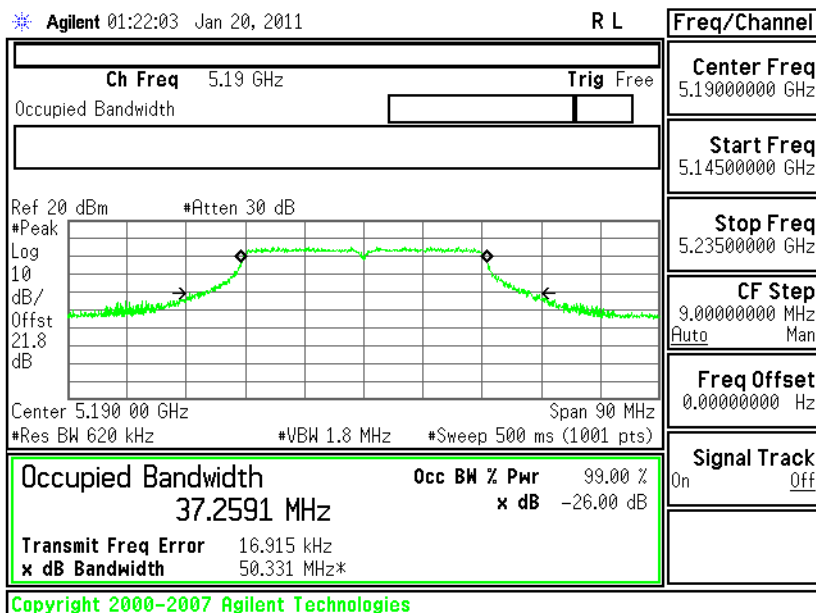
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 40MHz) Channel 38

## - Chain A+B(A)



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 40MHz) Channel 38

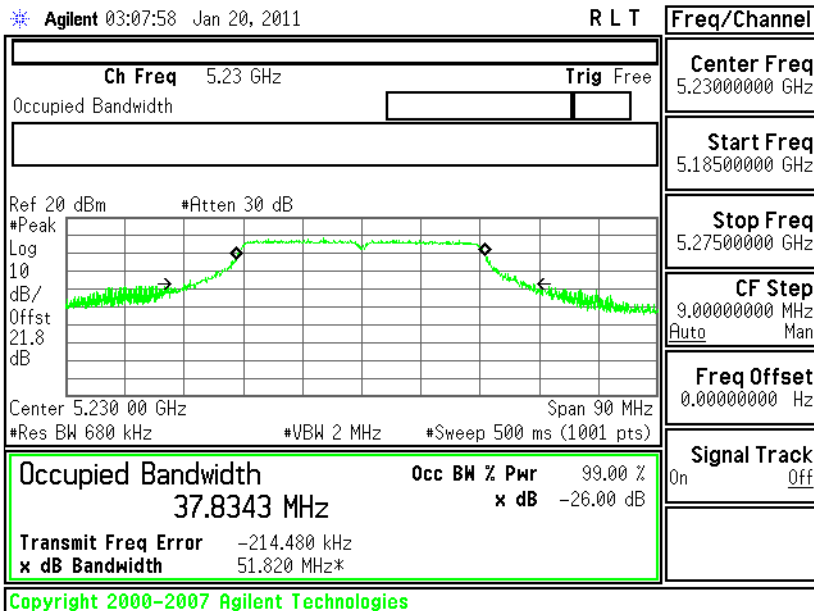
## - Chain A+B(B)





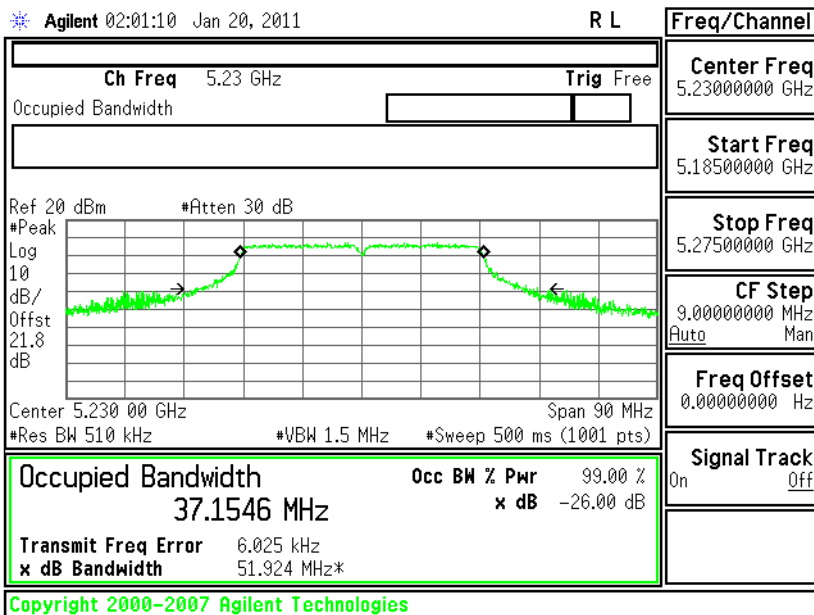
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 40MHz) Channel 46

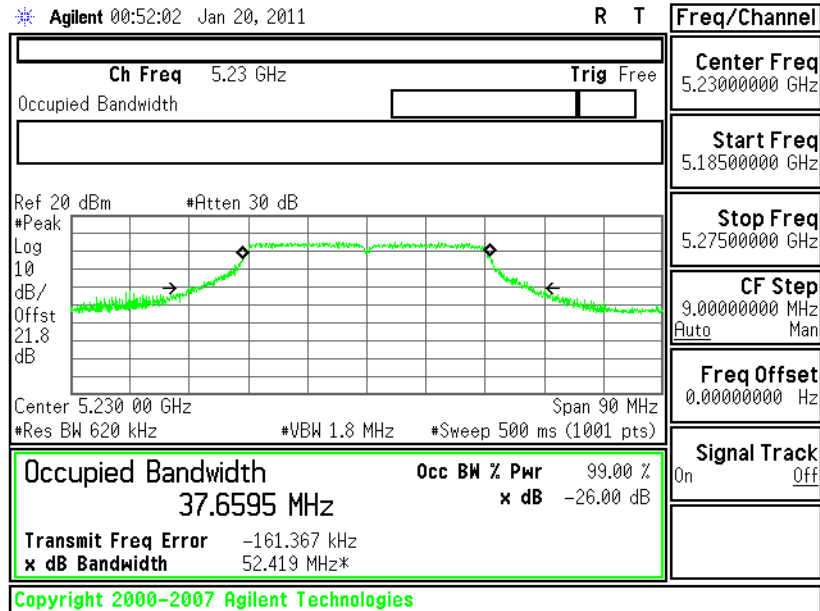
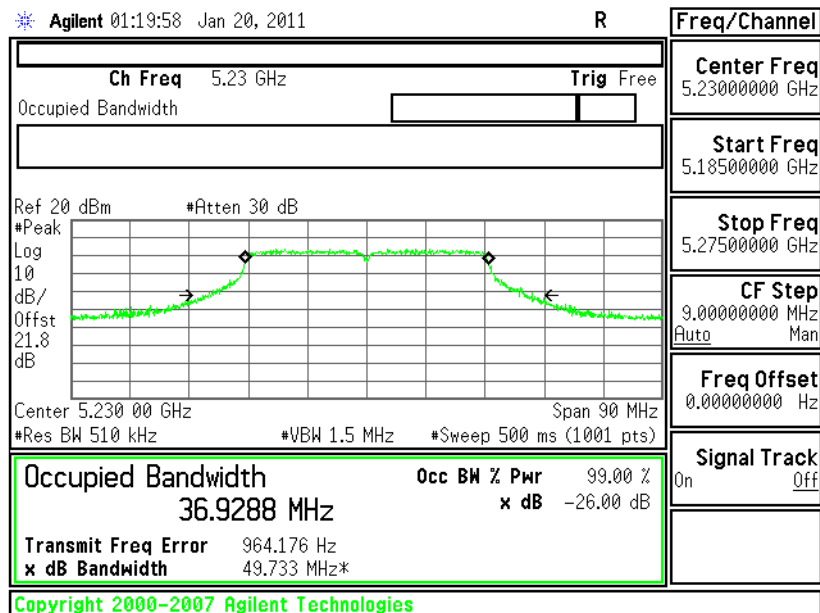
## - Chain A



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 40MHz) Channel 46

## - Chain B



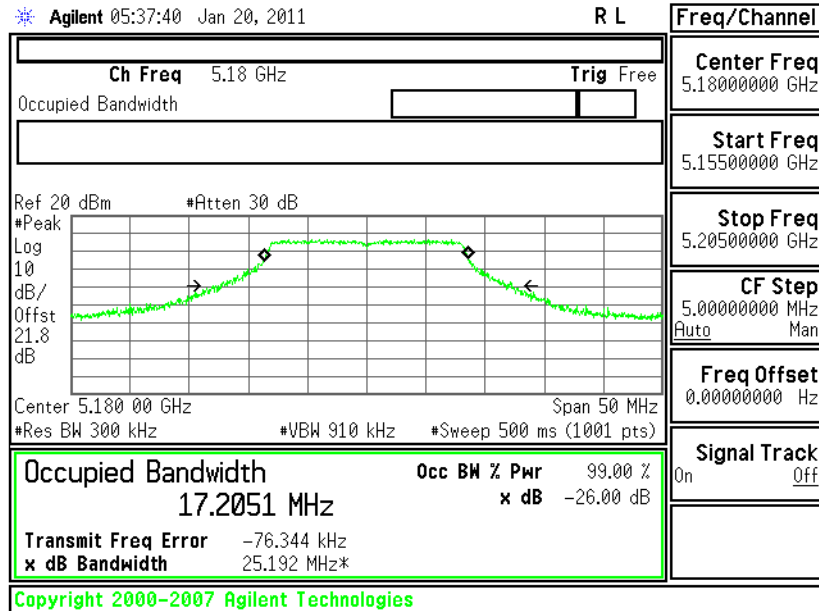
**26 dB & 99% Bandwidth Plot on 802.11n (BW 40MHz) Channel 46****- Chain A+B(A)****26 dB & 99% Bandwidth Plot on 802.11n (BW 40MHz) Channel 46****- Chain A+B(B)**



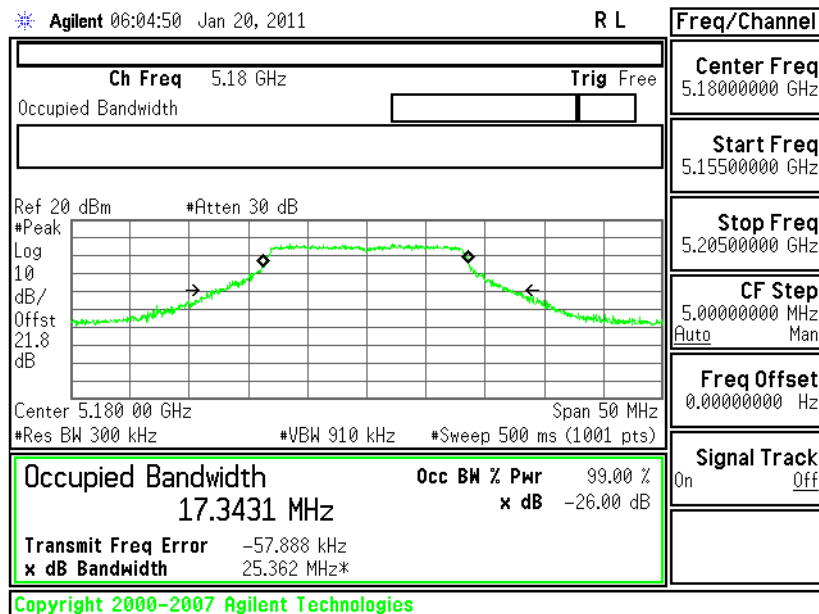


## &lt;Antenna 4 for 3.3V&gt;

## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 36 - Chain A



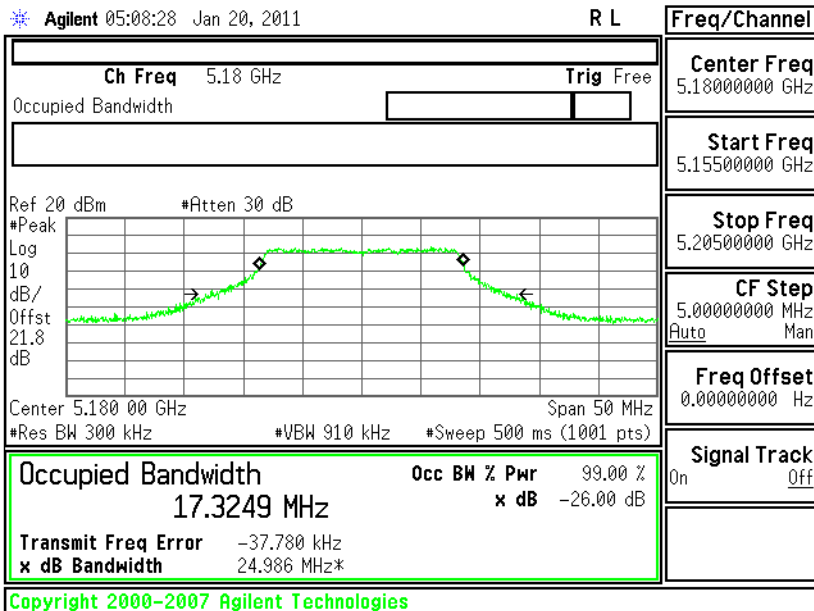
## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 36 - Chain B





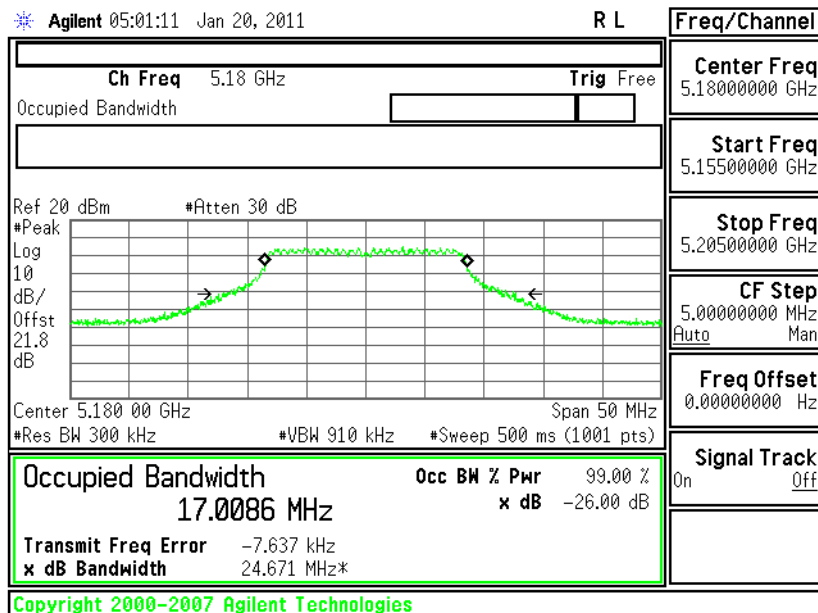
## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 36 - Chain

## A+B(A)



## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 36 - Chain

## A+B(B)

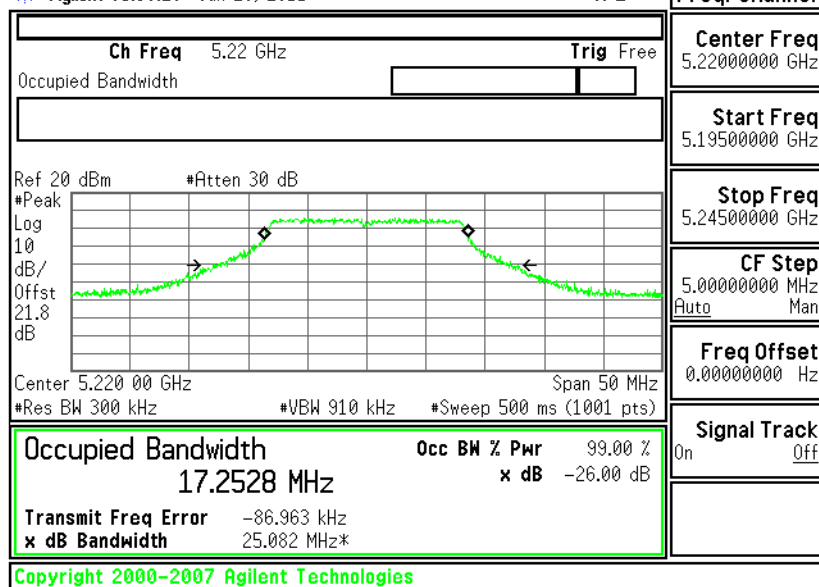




## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 44 - Chain A

Agilent 05:38:26 Jan 20, 2011

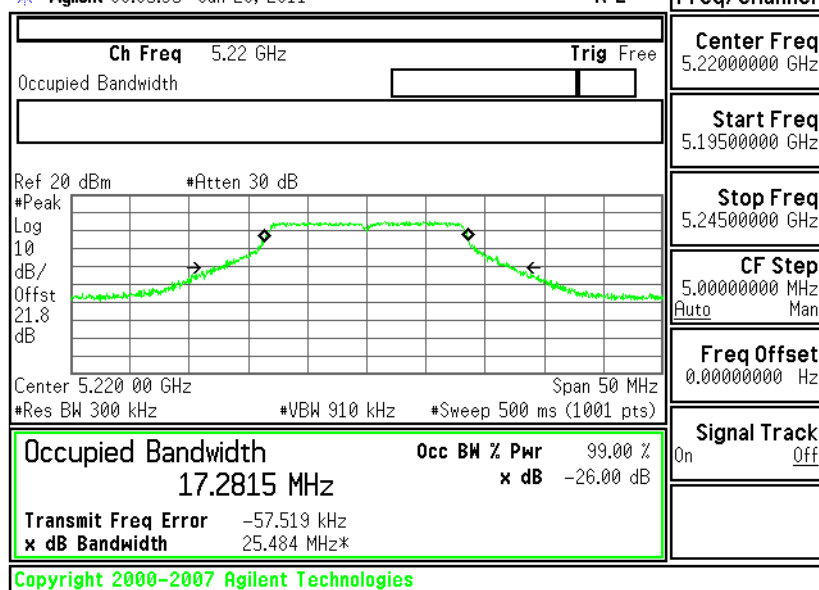
R L



## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 44 - Chain B

Agilent 06:05:35 Jan 20, 2011

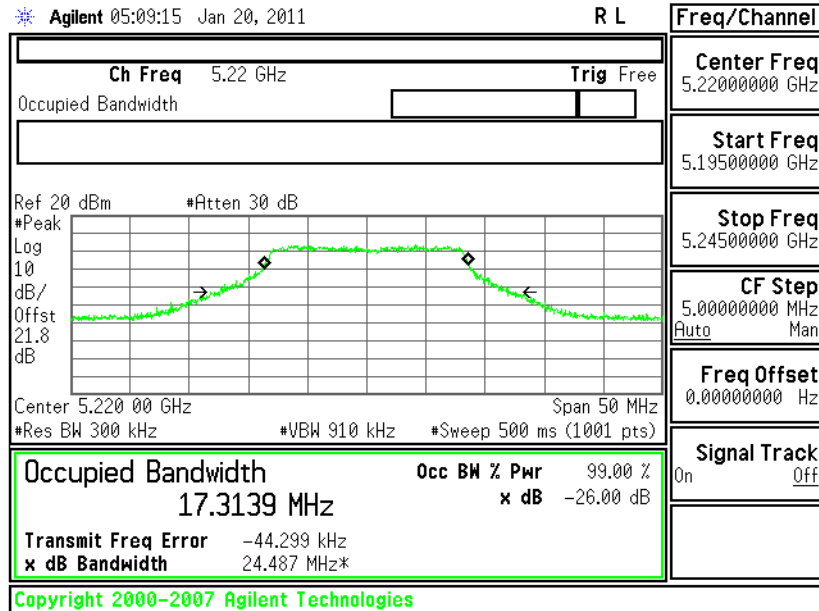
R L





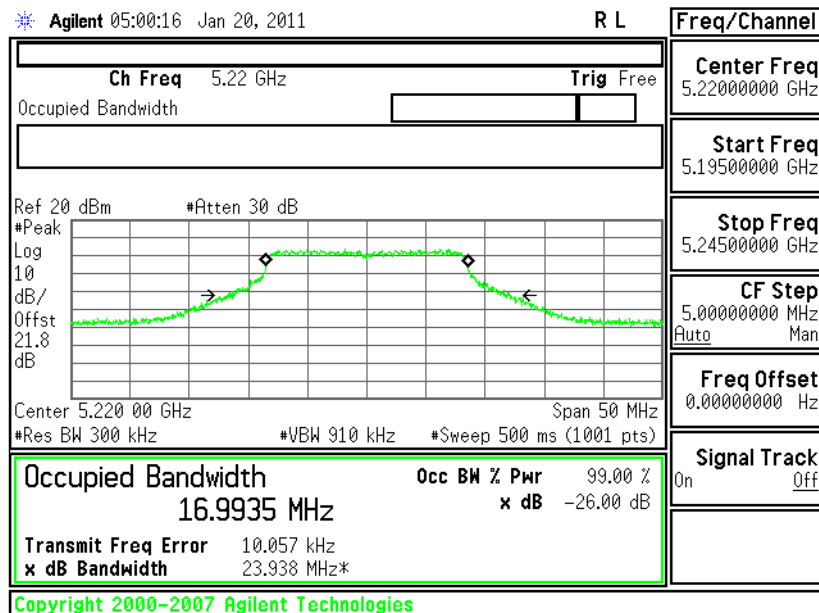
## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 44 - Chain

## A+B(A)



## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 44 - Chain

## A+B(B)

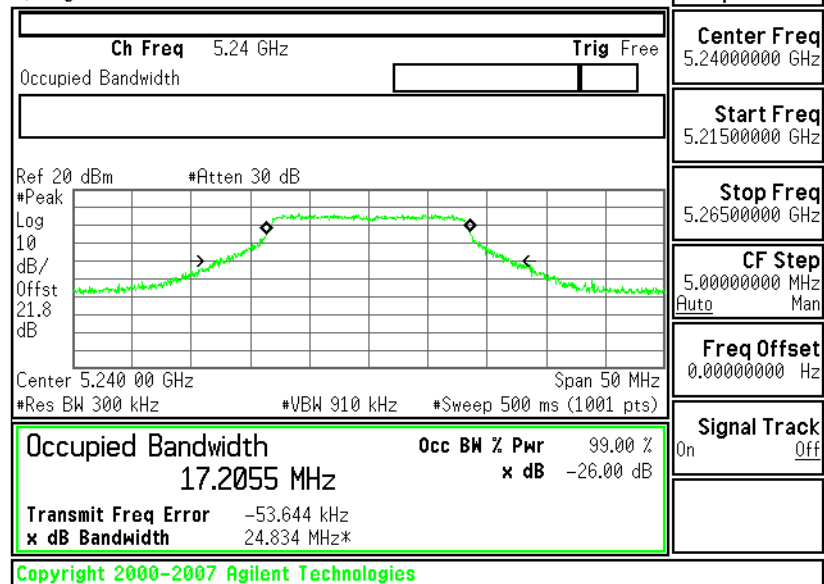




## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 48 - Chain A

Agilent 05:39:15 Jan 20, 2011

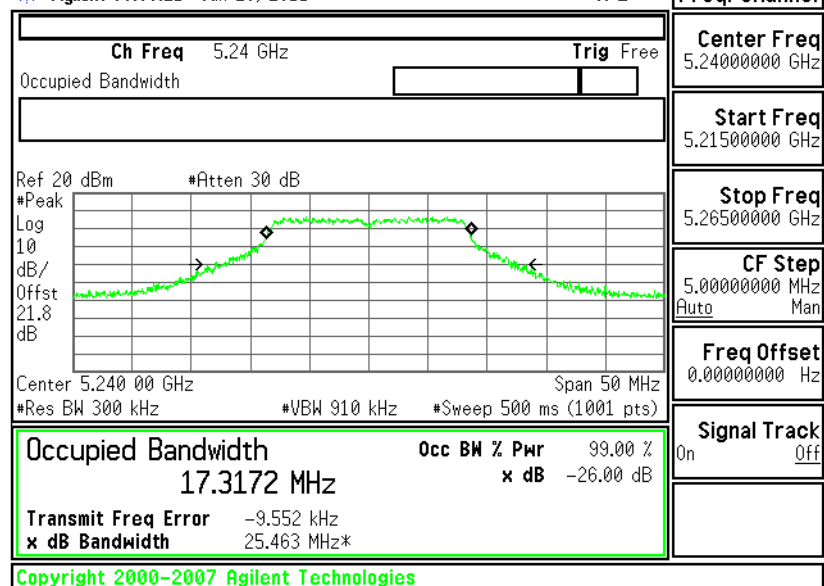
R L

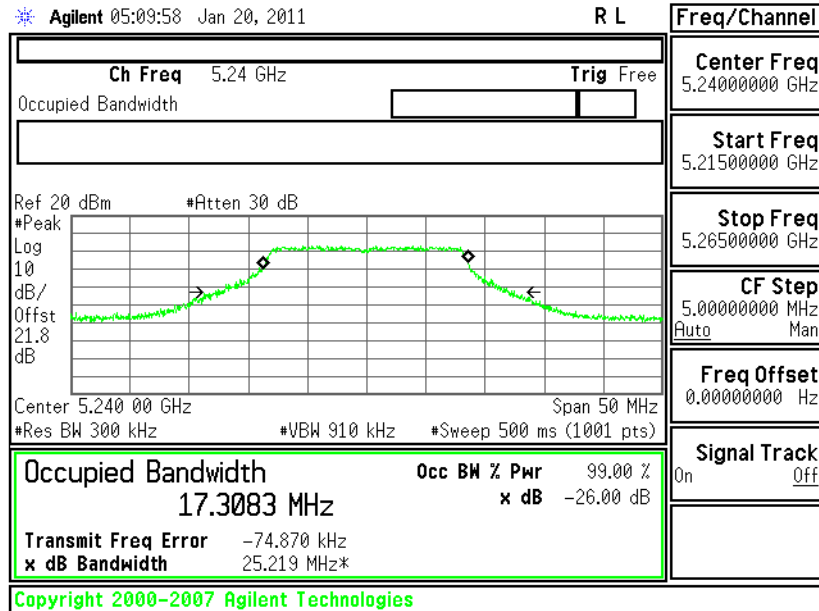
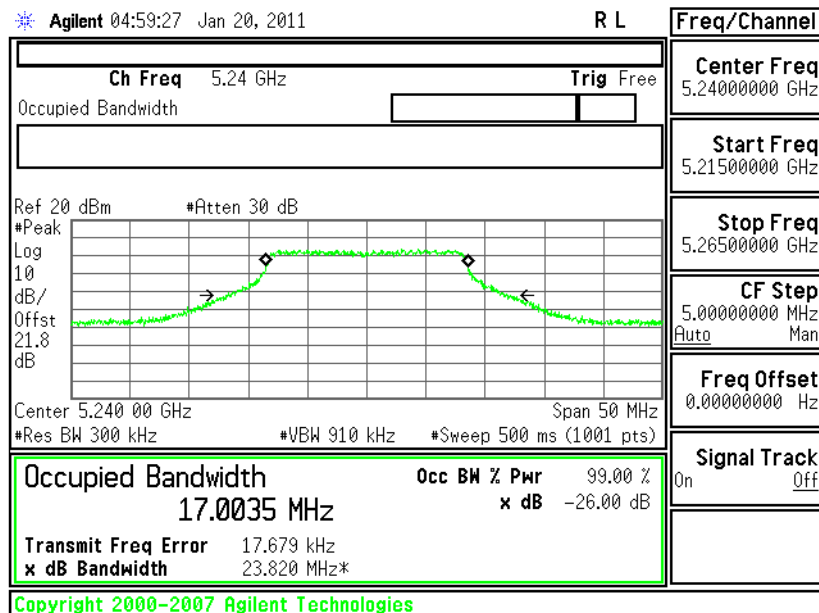


## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 48 - Chain B

Agilent 06:06:21 Jan 20, 2011

R L

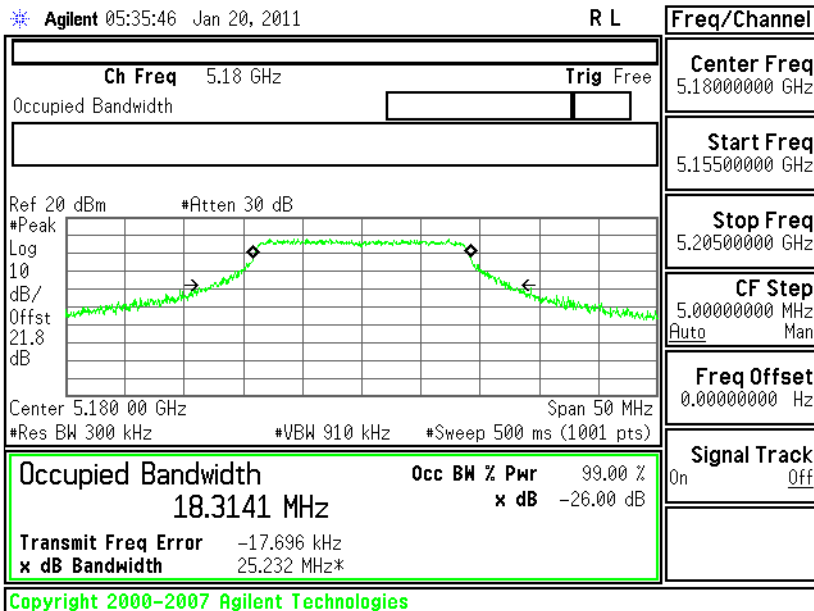


**26 dB & 99% Bandwidth Plot on 802.11a Channel 48 - Chain****A+B(A)****26 dB & 99% Bandwidth Plot on 802.11a Channel 48 - Chain****A+B(B)**



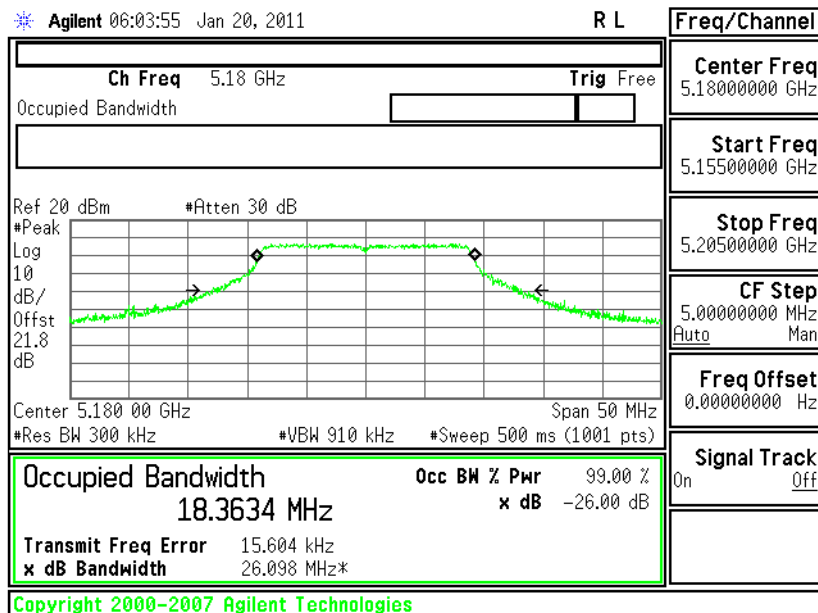
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 36

## - Chain A



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 36

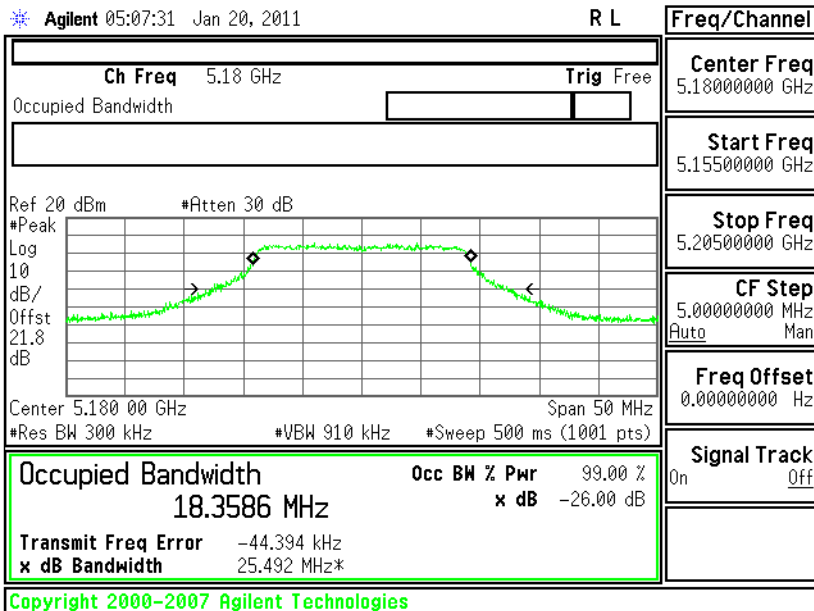
## - Chain B





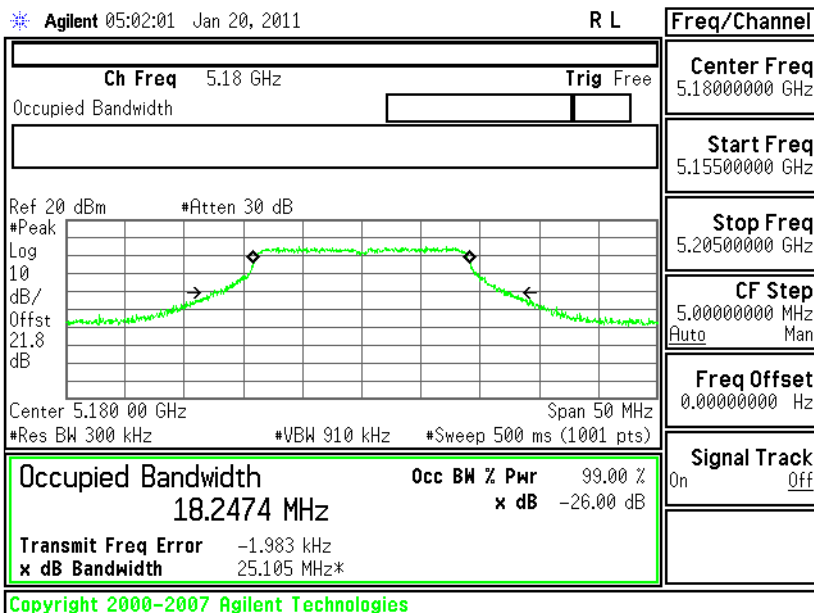
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 36

## - Chain A+B(A)



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 36

## - Chain A+B(B)

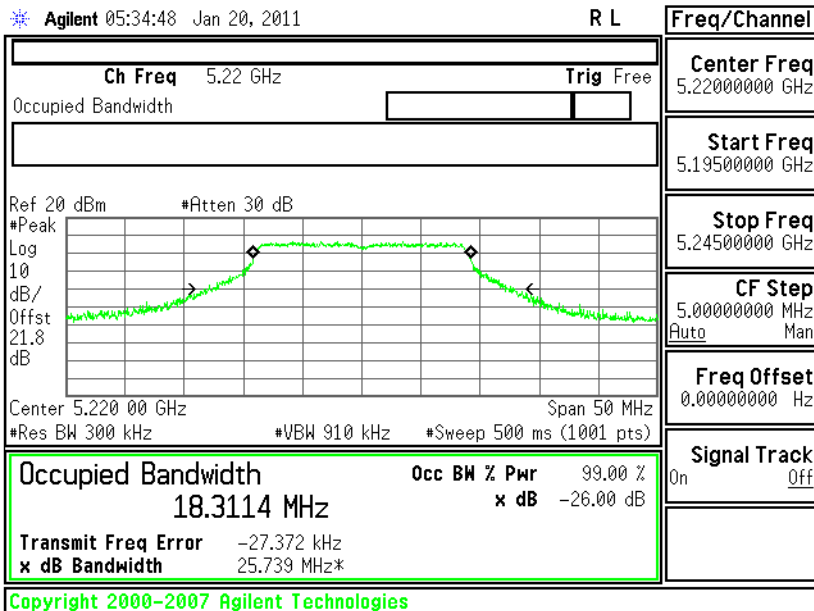






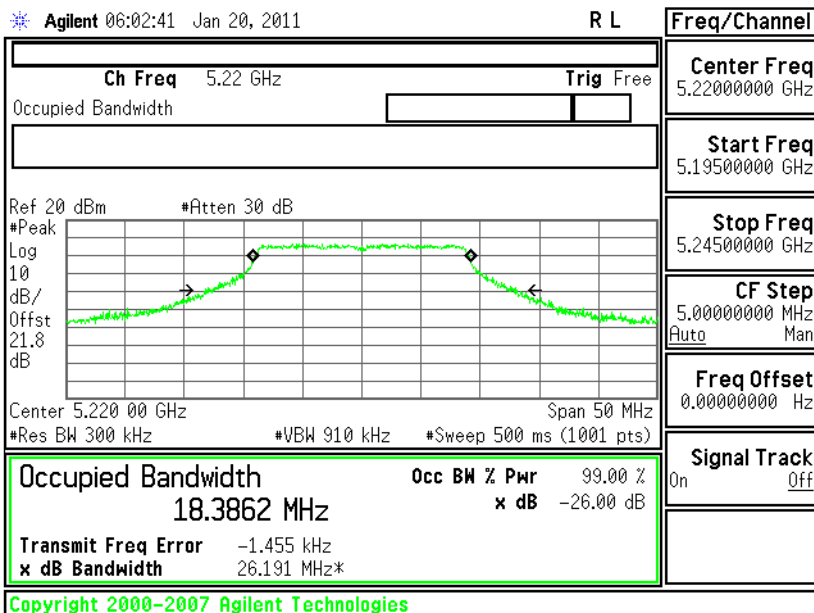
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 44

## - Chain A



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 44

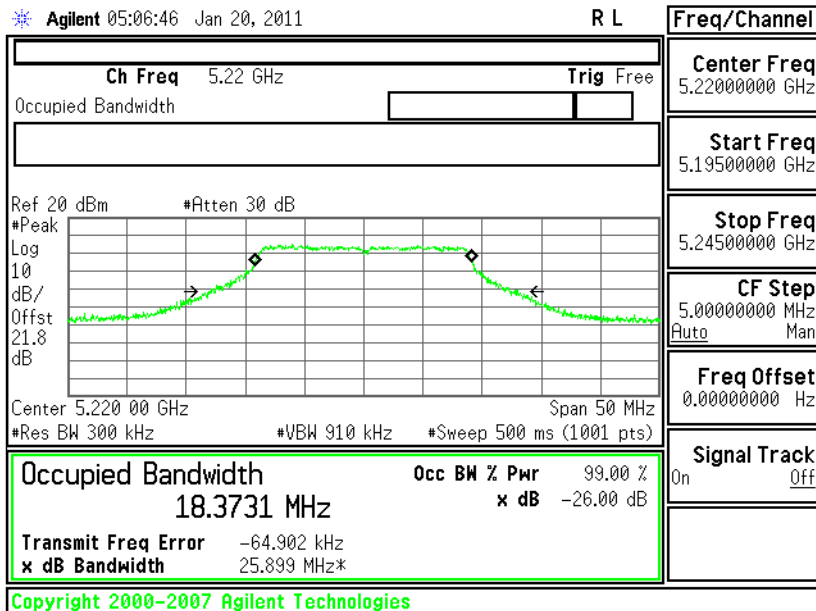
## - Chain B





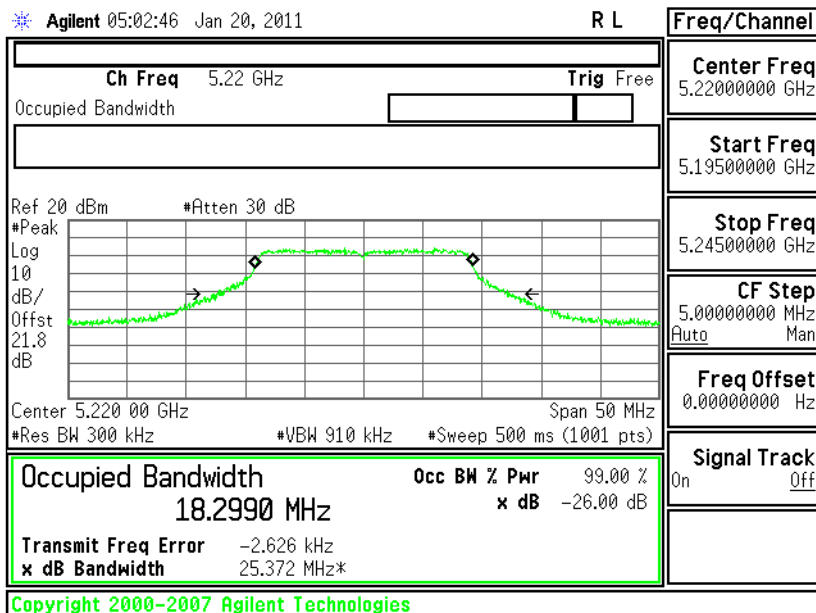
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 44

## - Chain A+B(A)



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 44

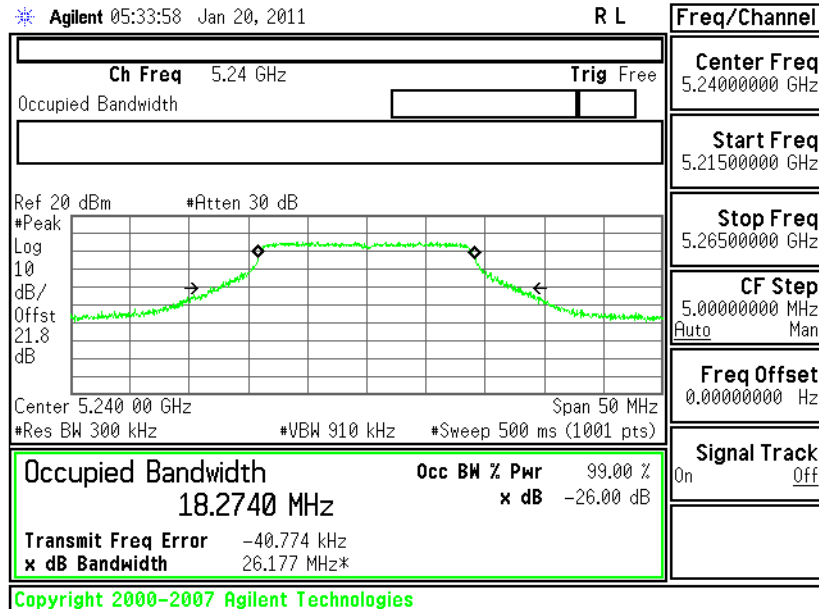
## - Chain A+B(B)





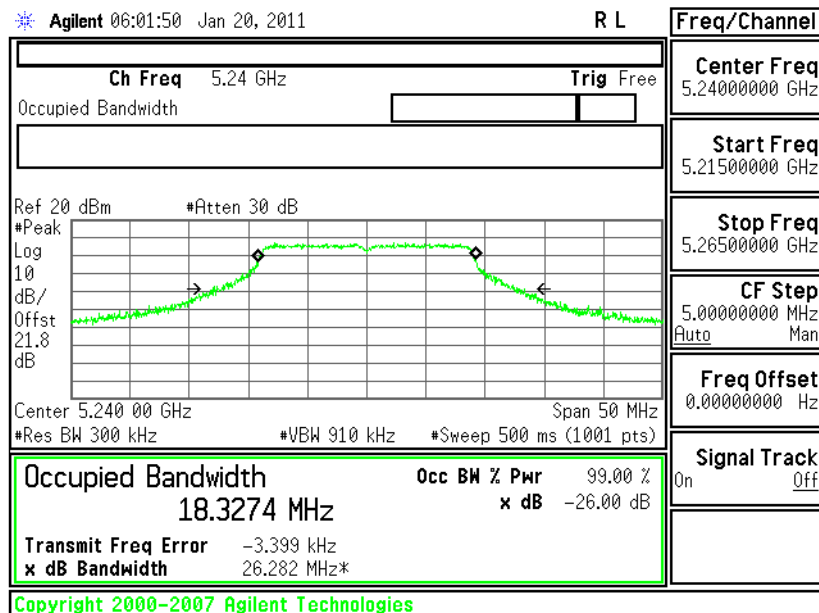
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 48

## - Chain A



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 48

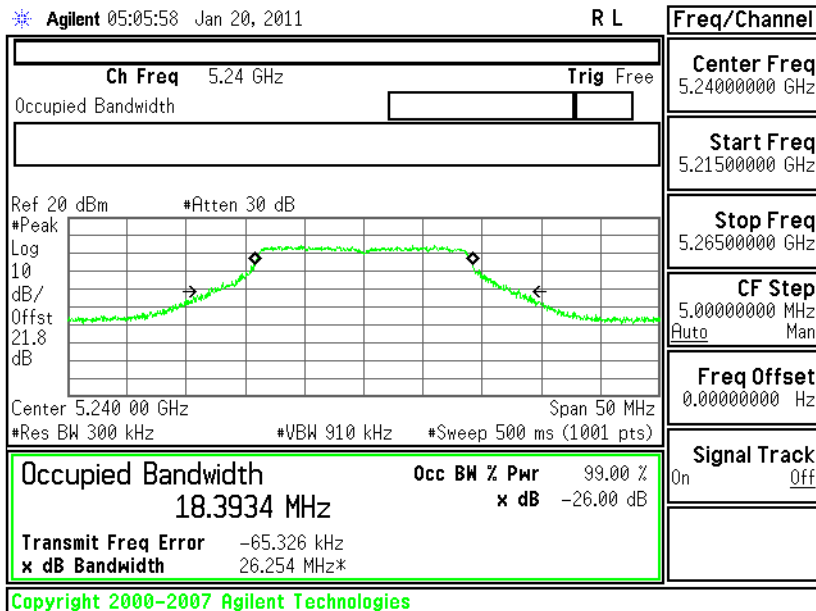
## - Chain B





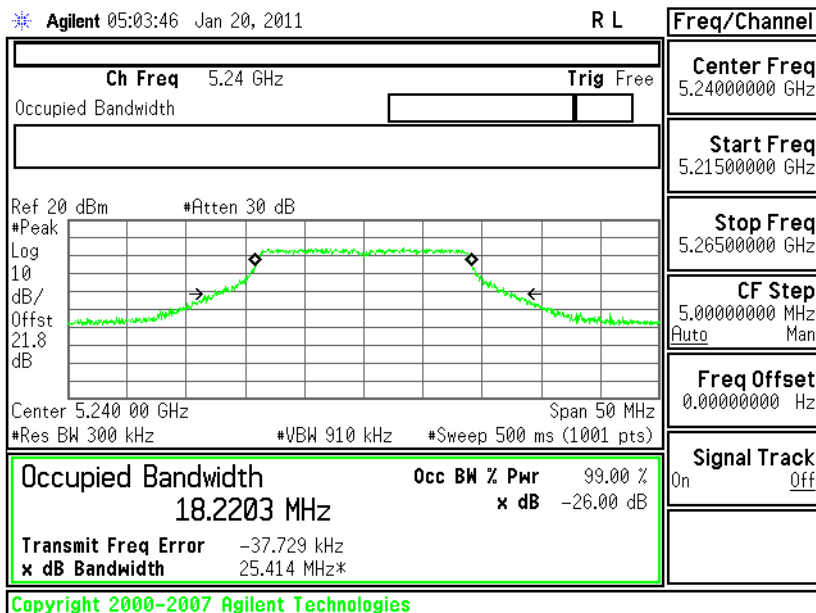
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 48

## - Chain A+B(A)



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 48

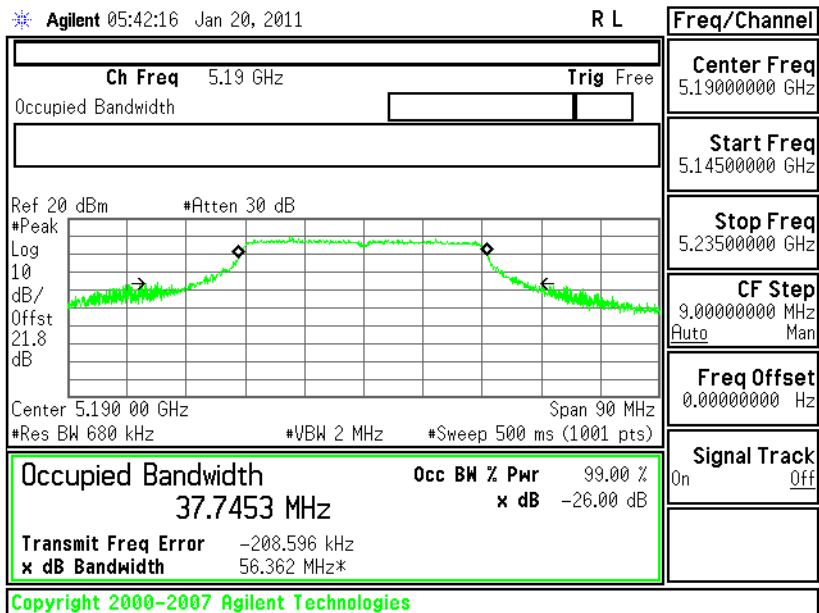
## - Chain A+B(B)





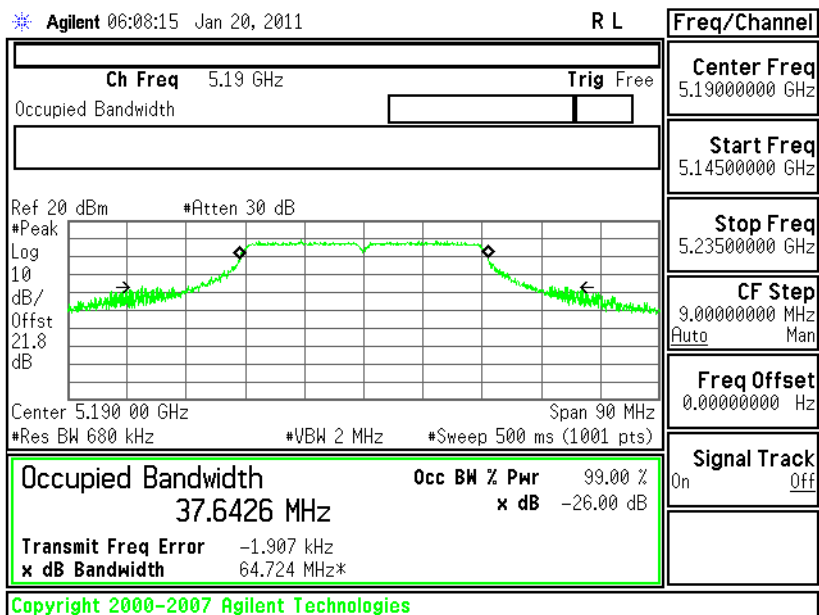
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 40MHz) Channel 38

## - Chain A



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 40MHz) Channel 38

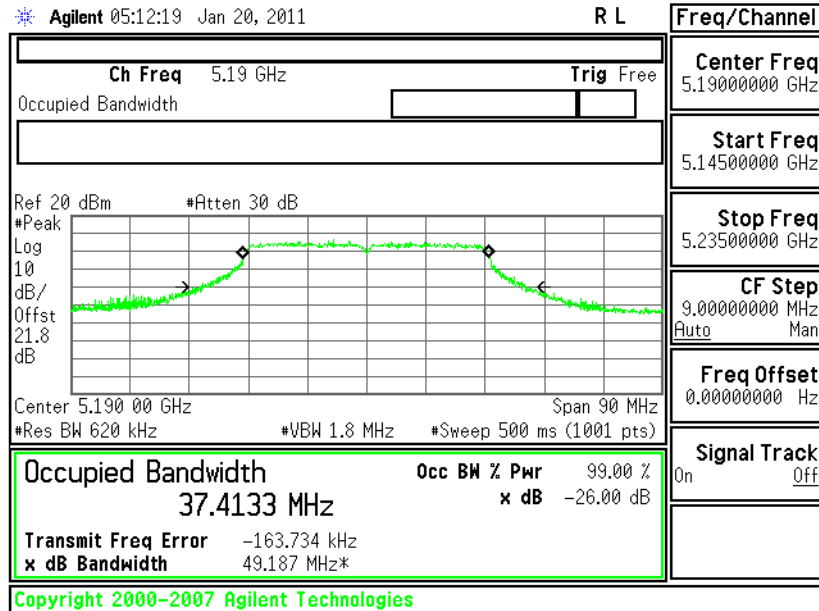
## - Chain B





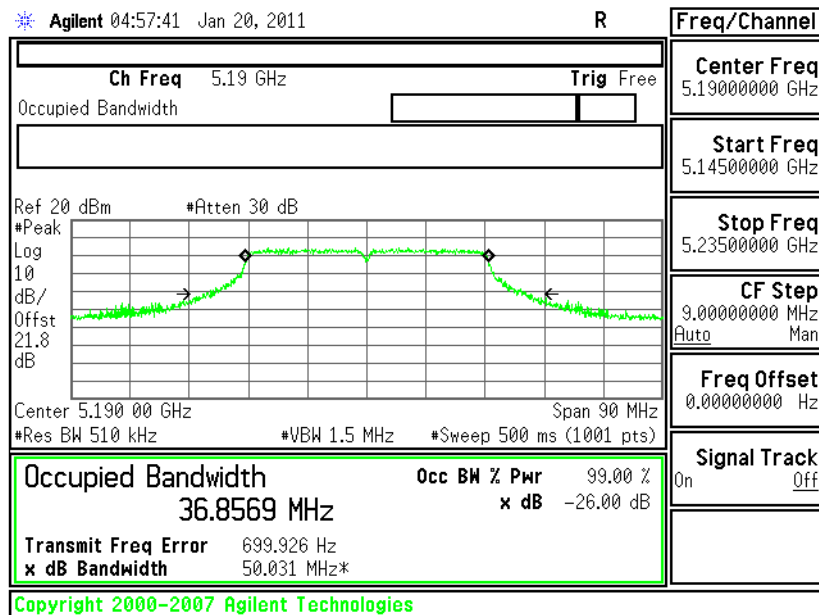
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 40MHz) Channel 38

## - Chain A+B(A)



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 40MHz) Channel 38

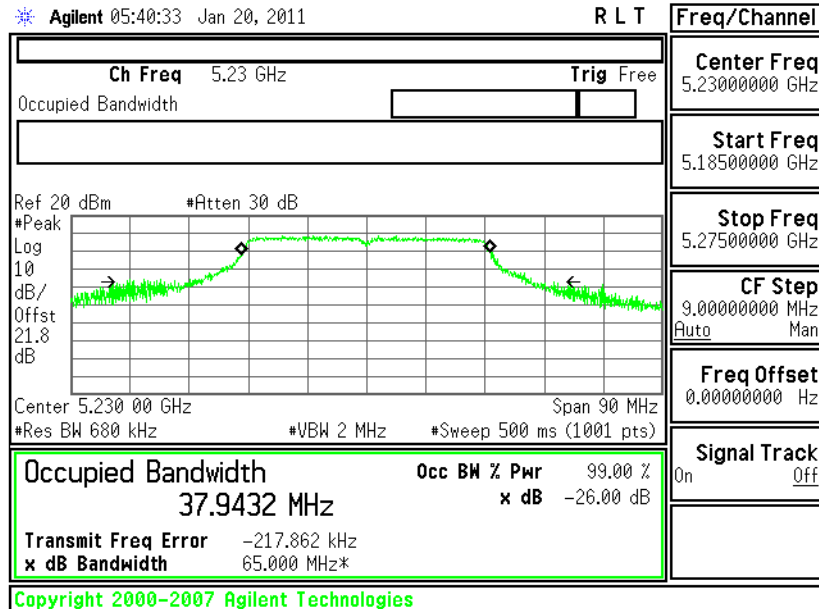
## - Chain A+B(B)





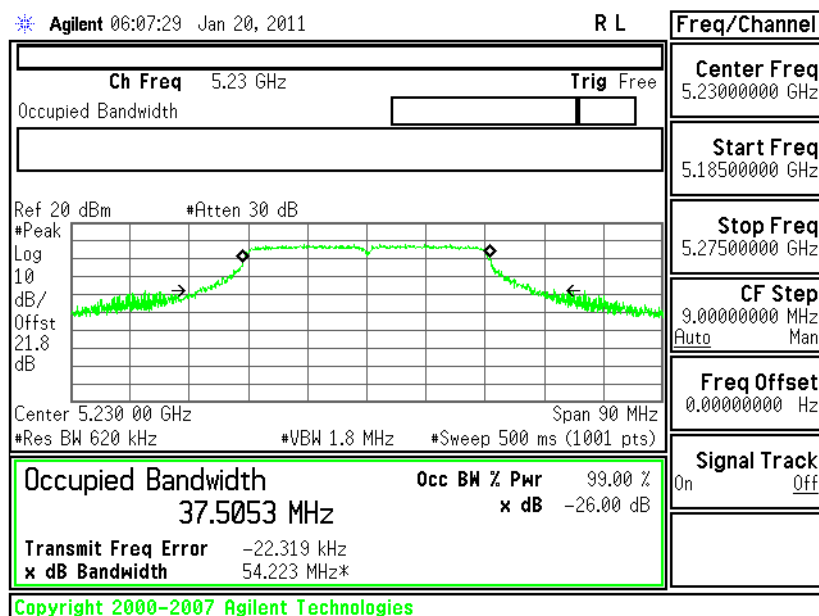
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 40MHz) Channel 46

## - Chain A



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 40MHz) Channel 46

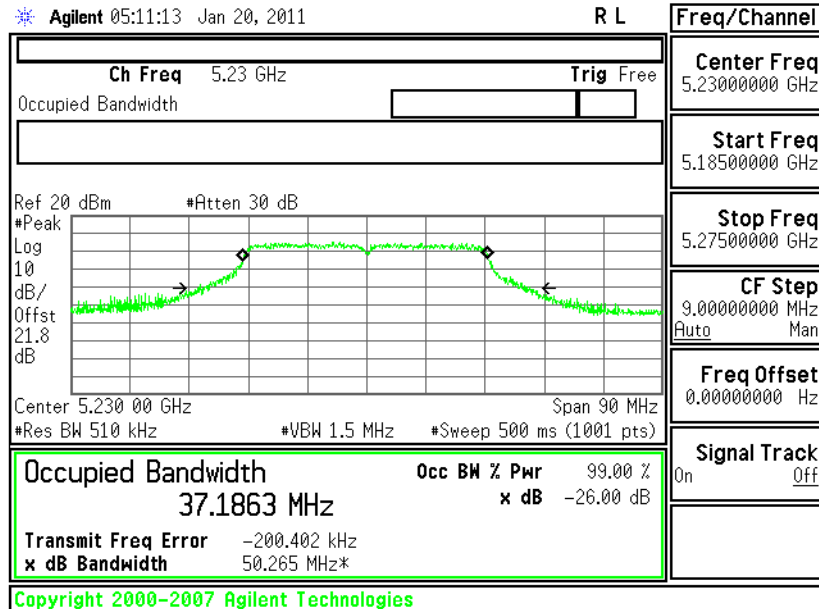
## - Chain B





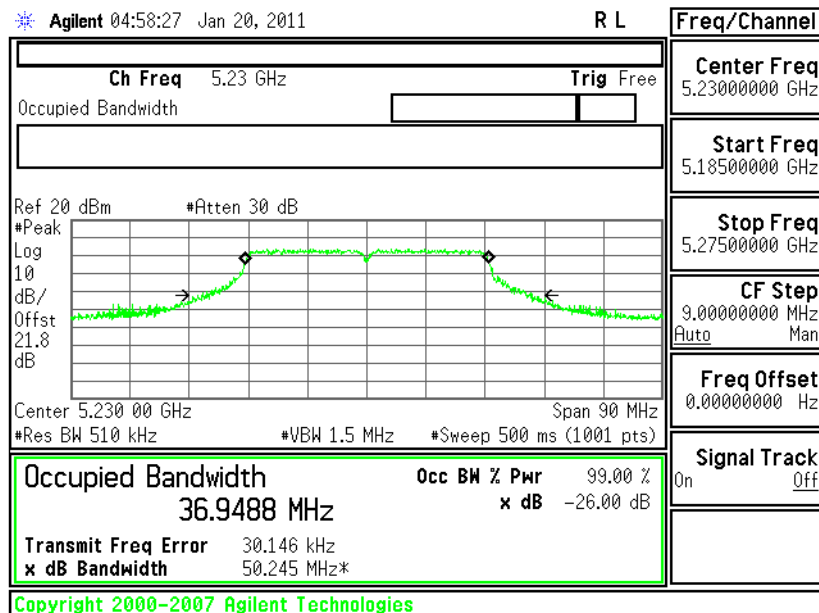
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 40MHz) Channel 46

## - Chain A+B(A)



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 40MHz) Channel 46

## - Chain A+B(B)

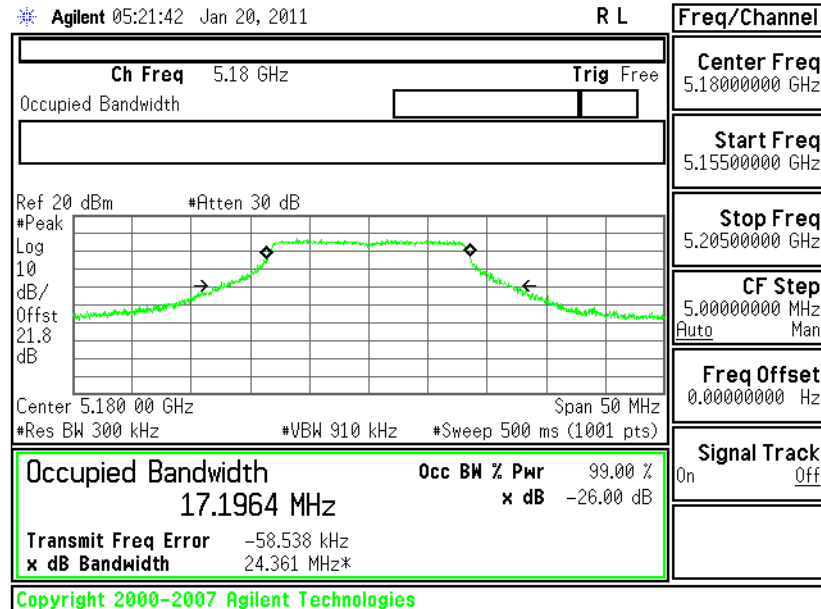




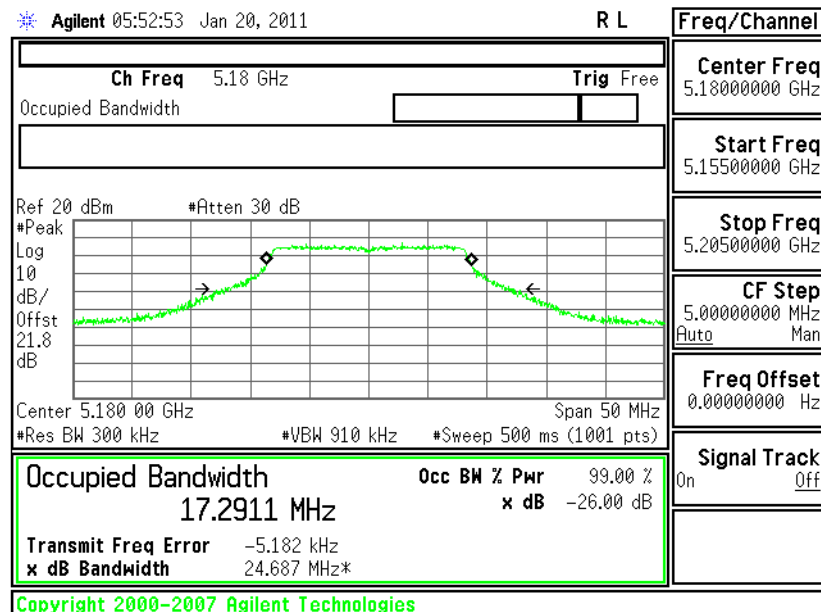


## &lt;Antenna 5 for 3.3V&gt;

## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 36 - Chain A



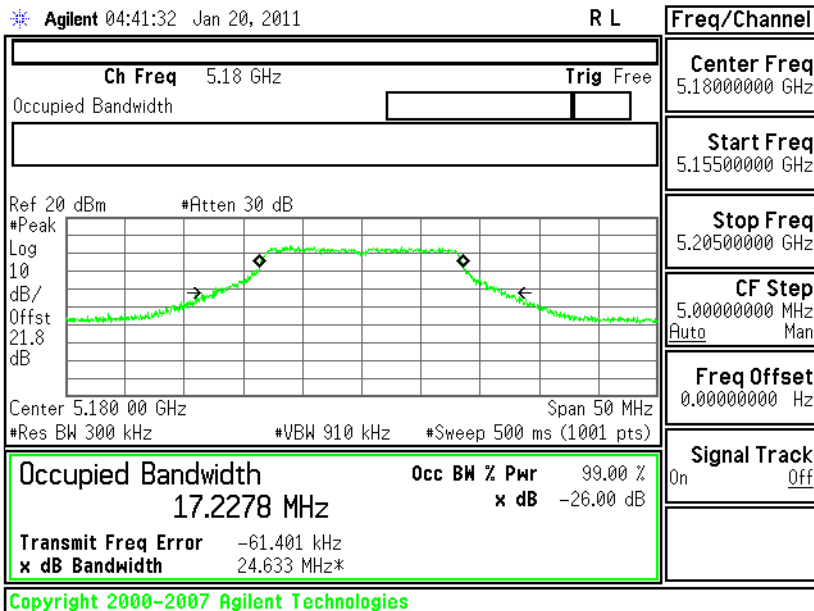
## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 36 - Chain B





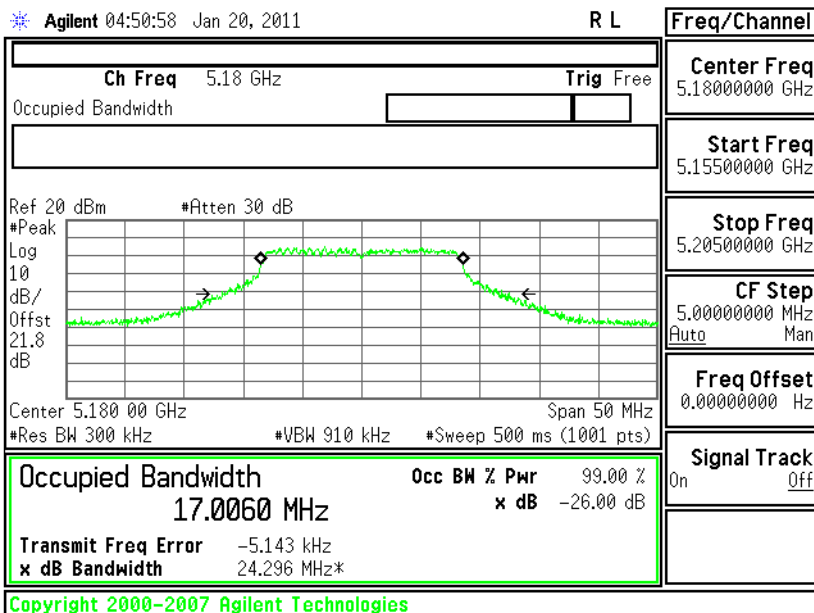
## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 36 - Chain

## A+B(A)



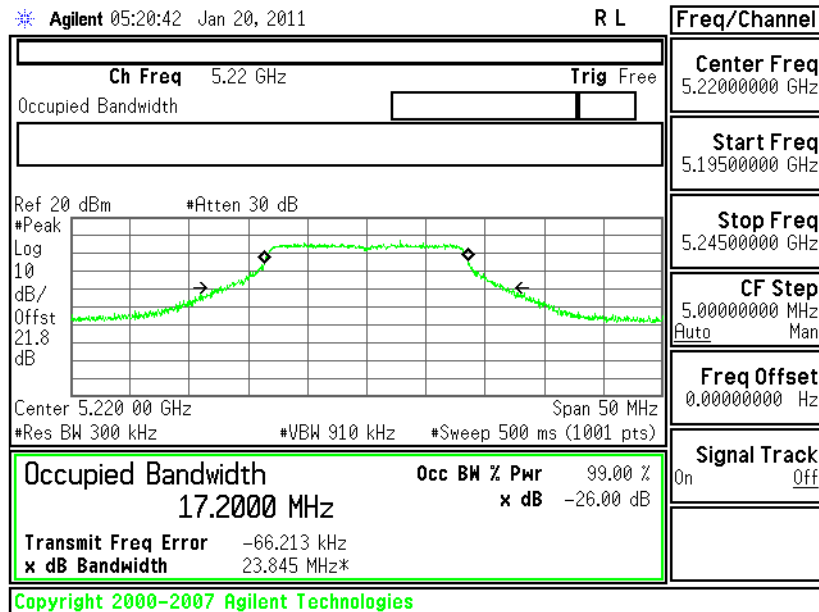
## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 36 - Chain

## A+B(B)

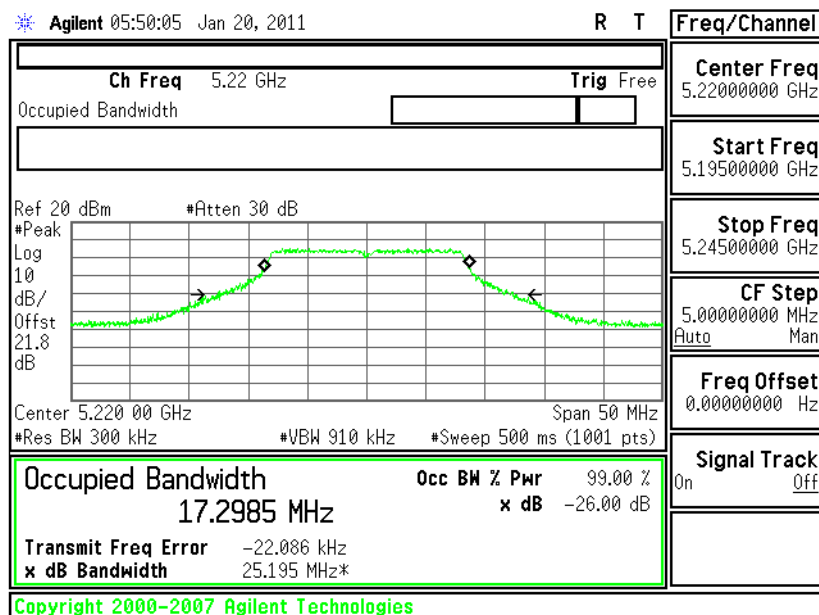




## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 44 - Chain A



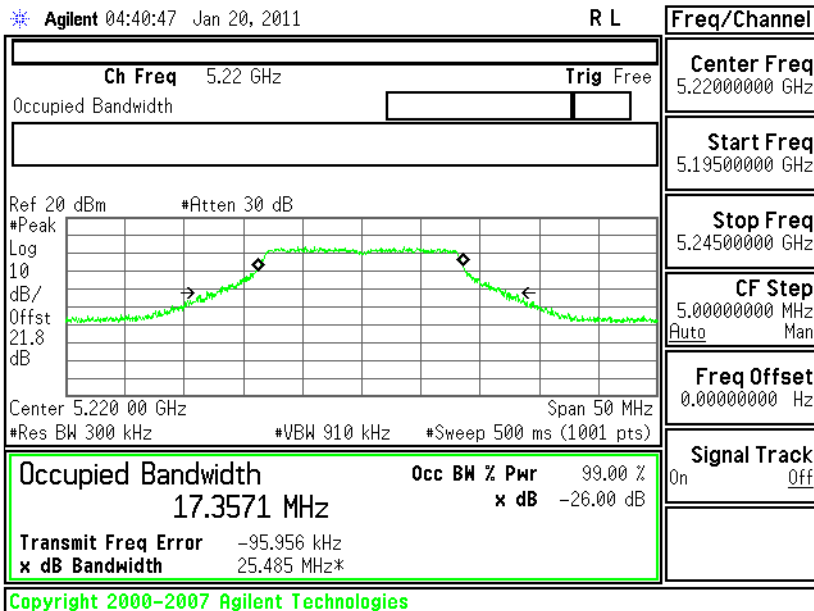
## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 44 - Chain B





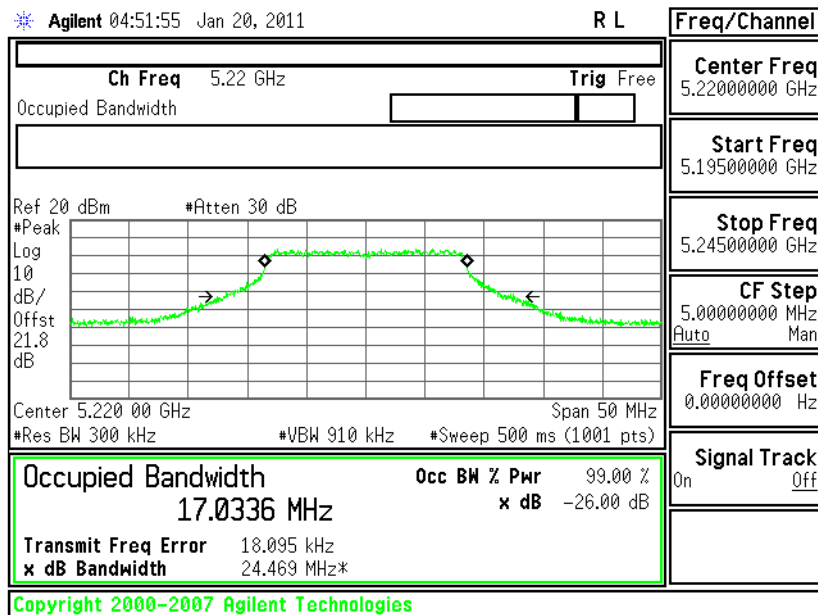
## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 44 - Chain

## A+B(A)



## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 44 - Chain

## A+B(B)

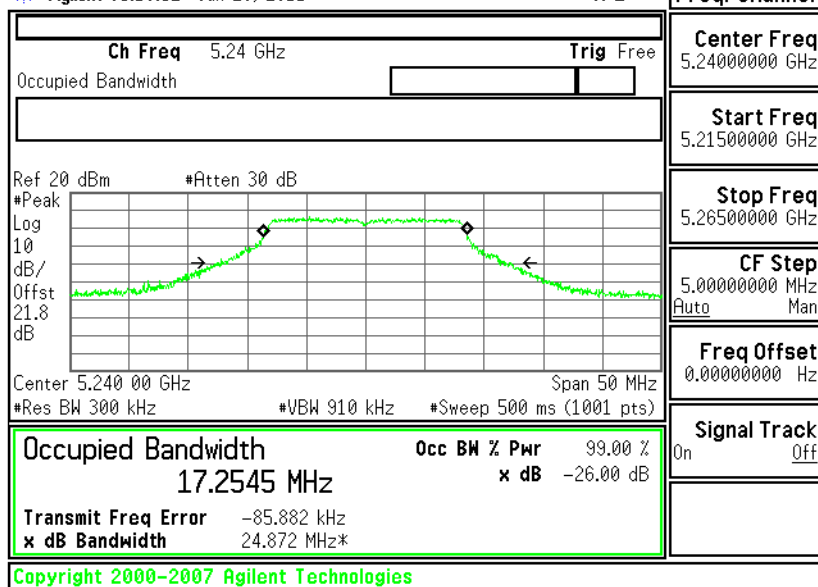




## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 48 - Chain A

Agilent 05:19:52 Jan 20, 2011

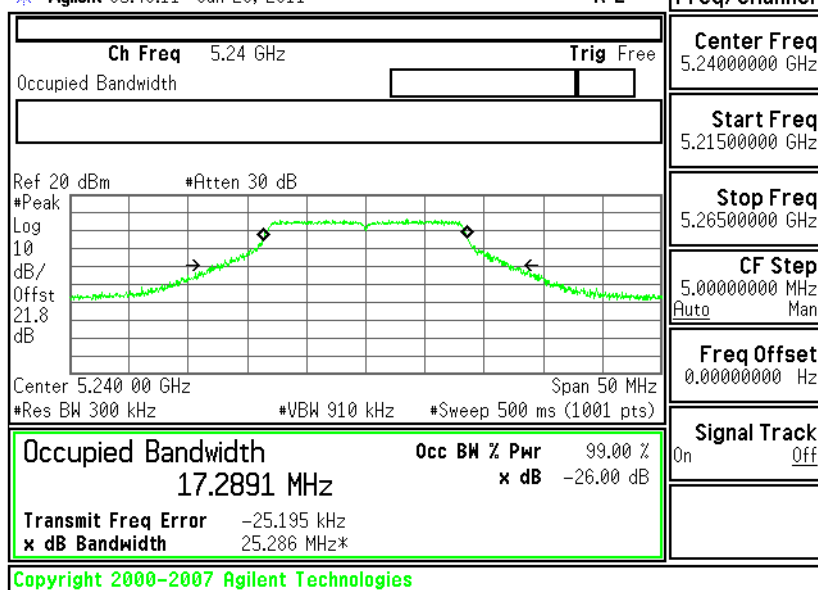
R L



## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 48 - Chain B

Agilent 05:49:11 Jan 20, 2011

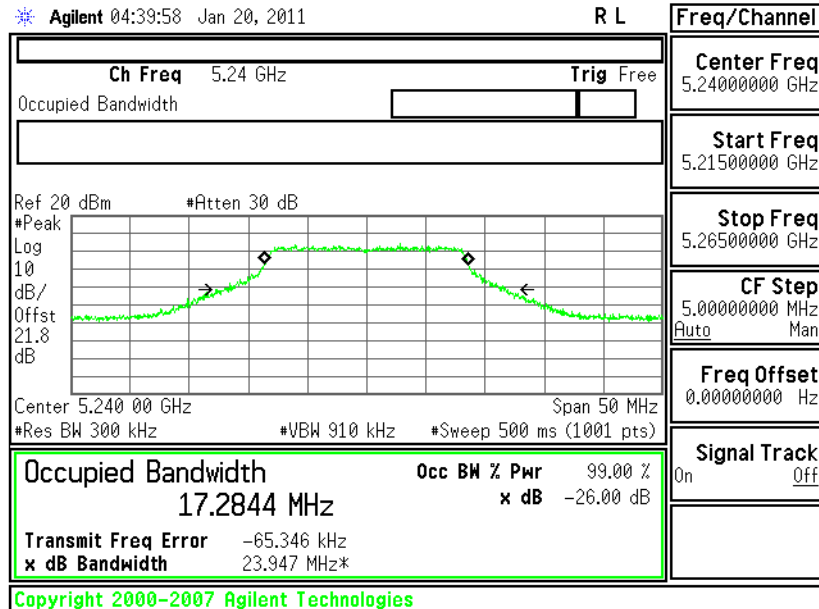
R L





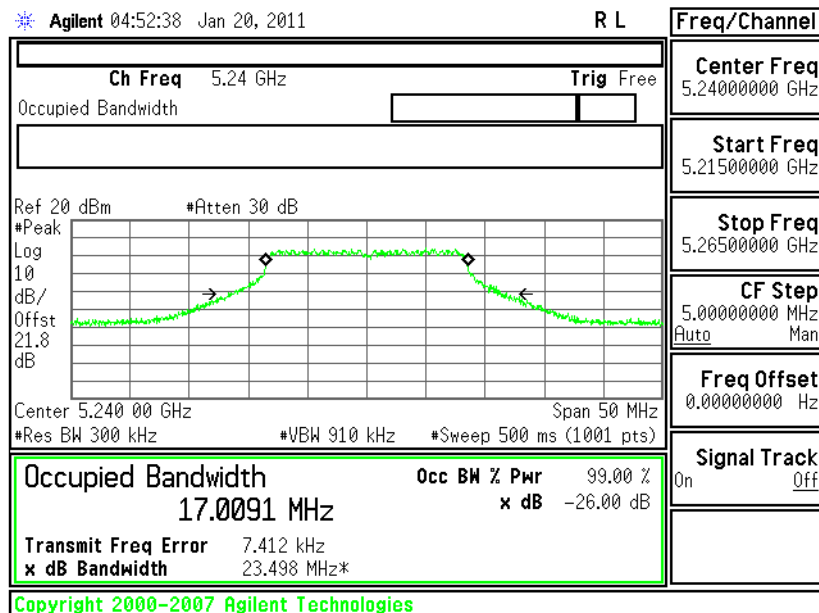
## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 48 - Chain

## A+B(A)



## 26 dB &amp; 99% Bandwidth Plot on 802.11a Channel 48 - Chain

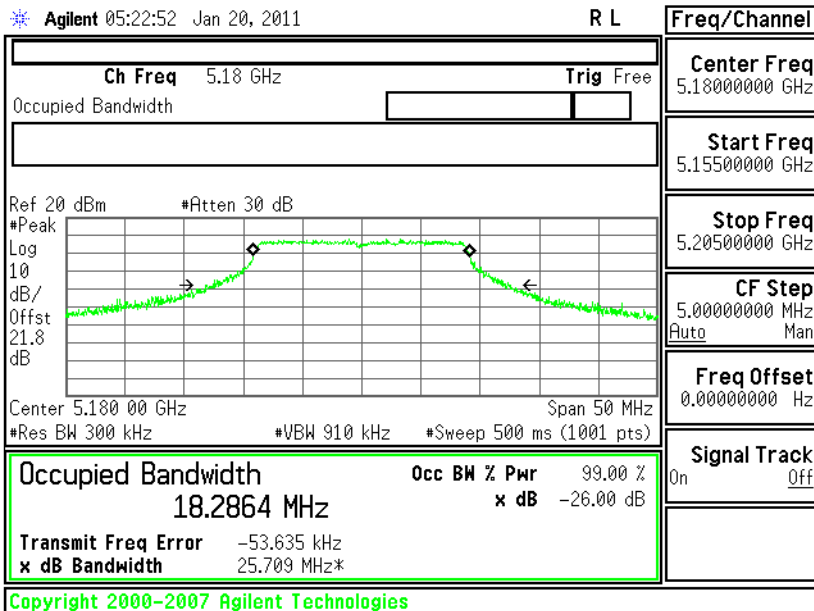
## A+B(B)





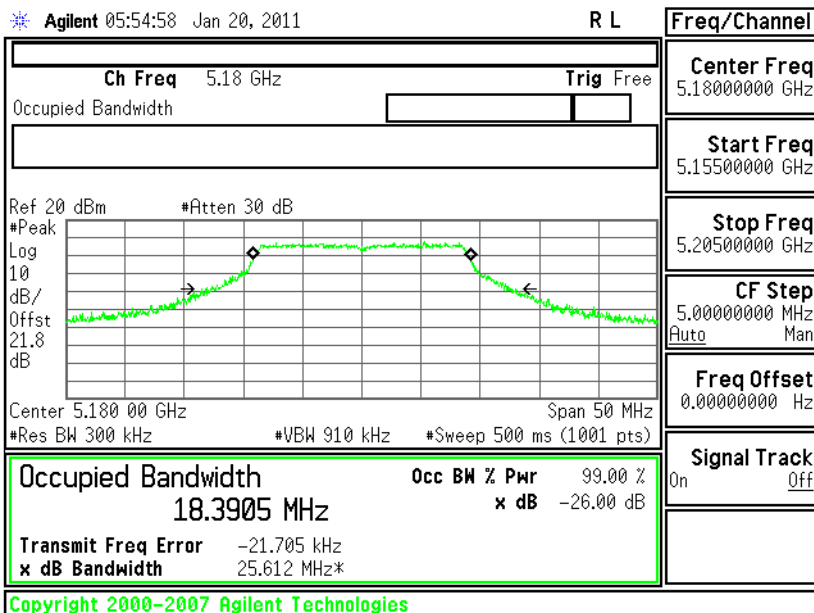
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 36

## - Chain A



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 36

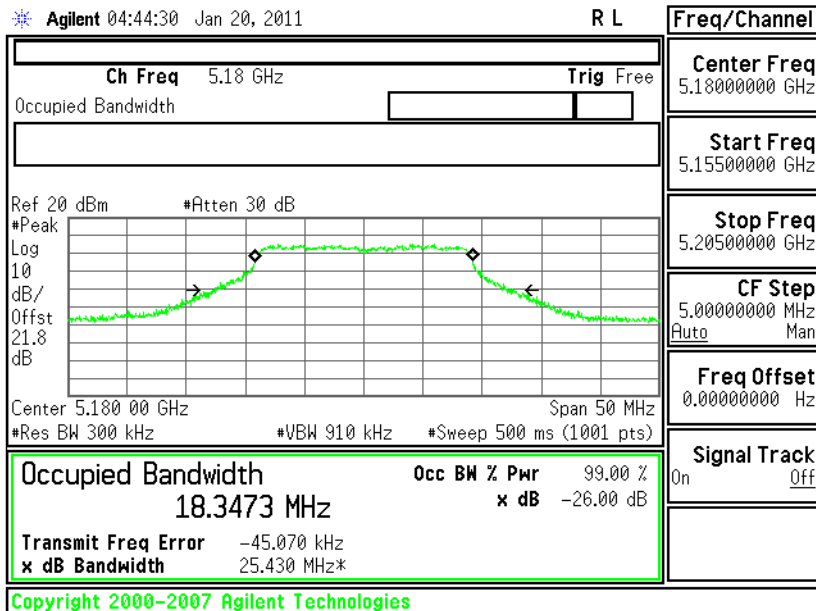
## - Chain B





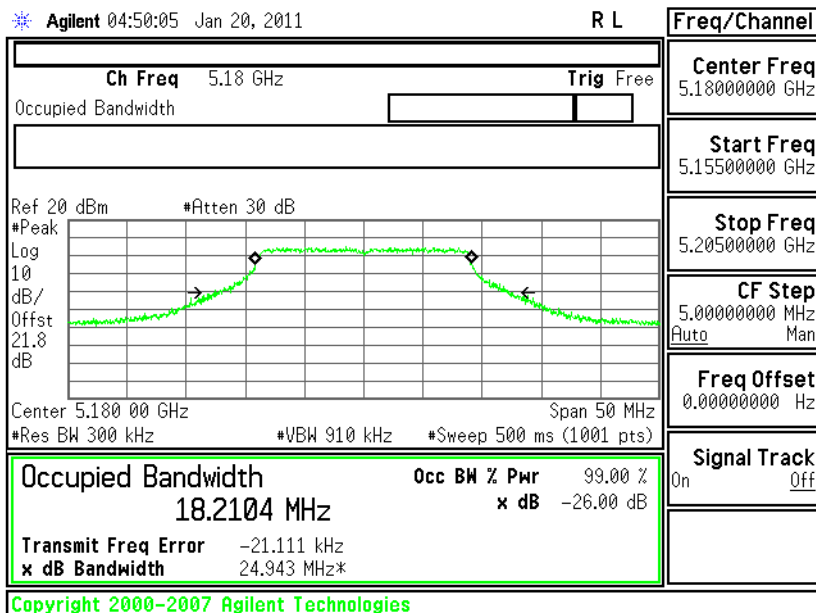
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 36

## - Chain A+B(A)



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 36

## - Chain A+B(B)

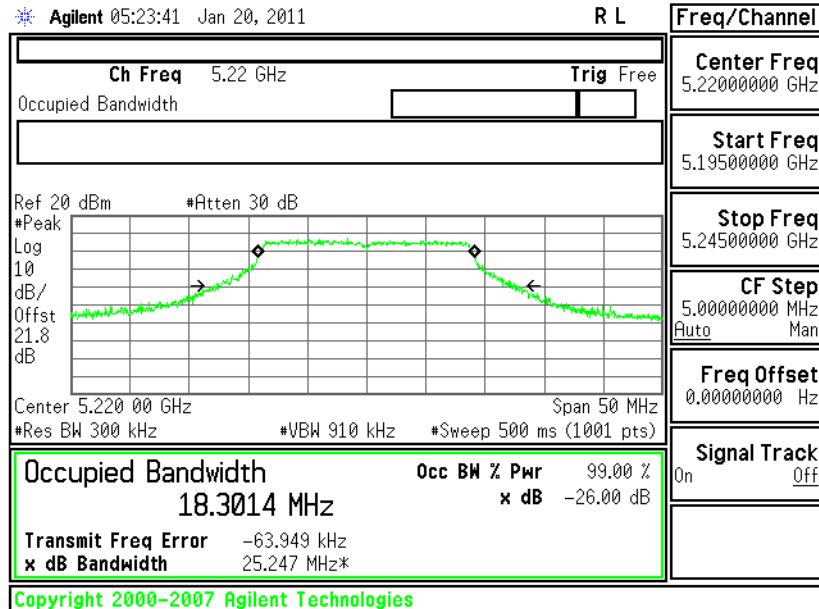






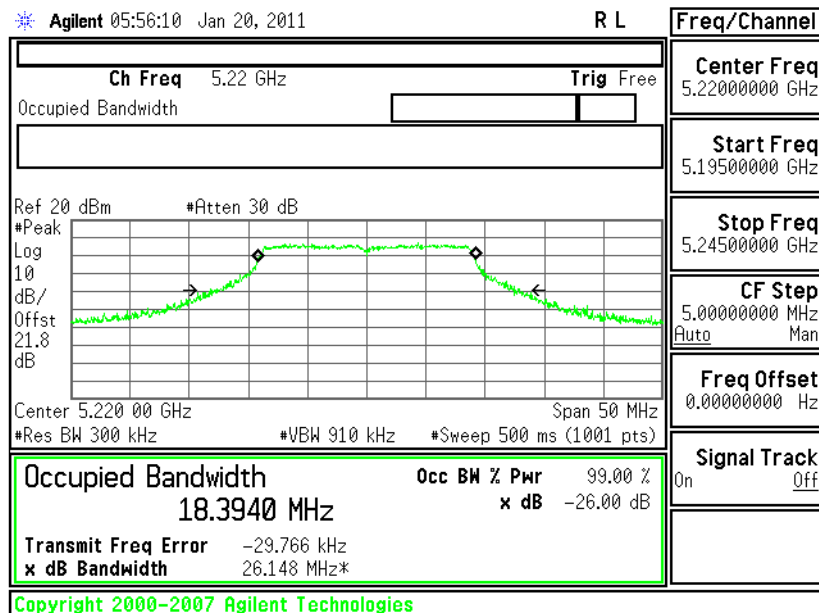
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 44

## - Chain A



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 44

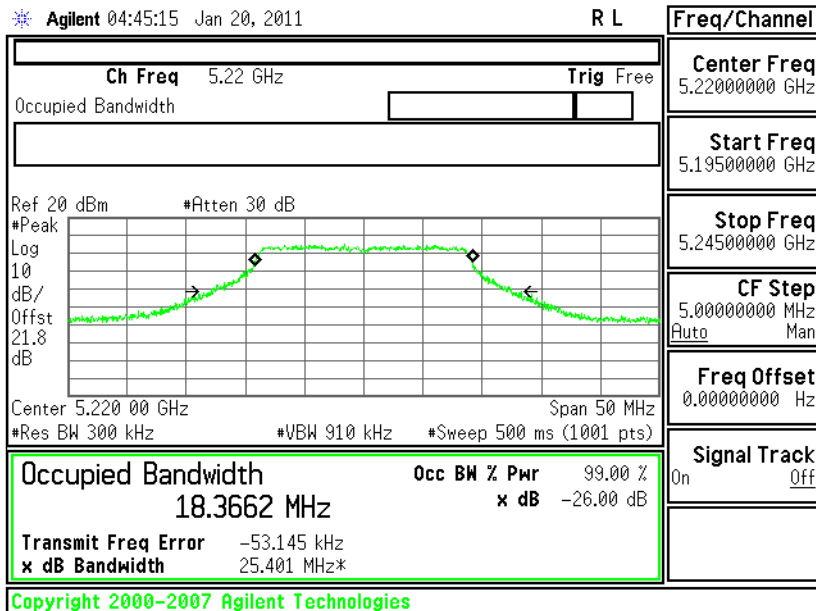
## - Chain B





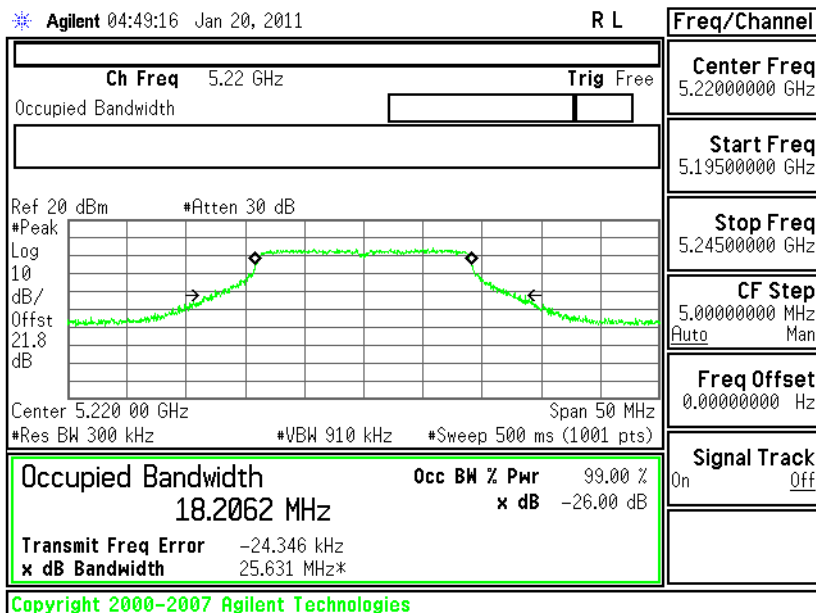
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 44

## - Chain A+B(A)



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 44

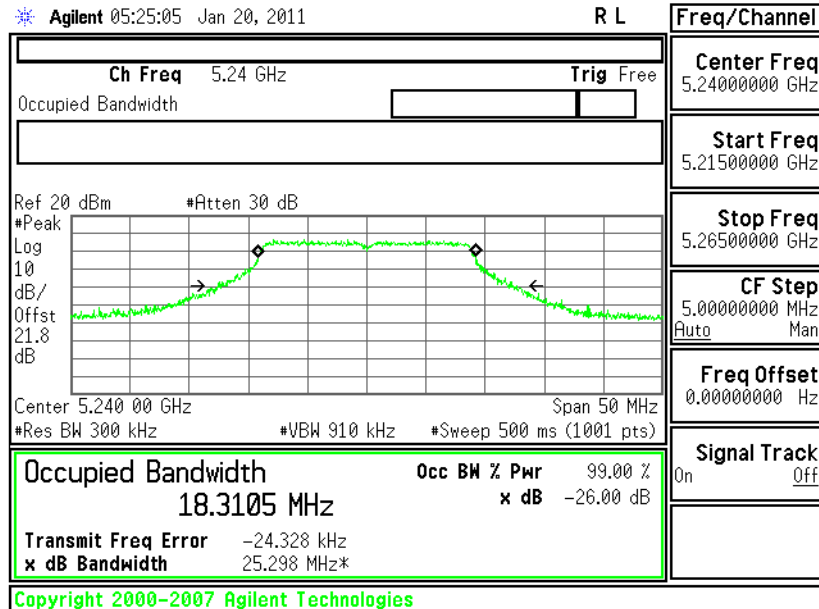
## - Chain A+B(B)





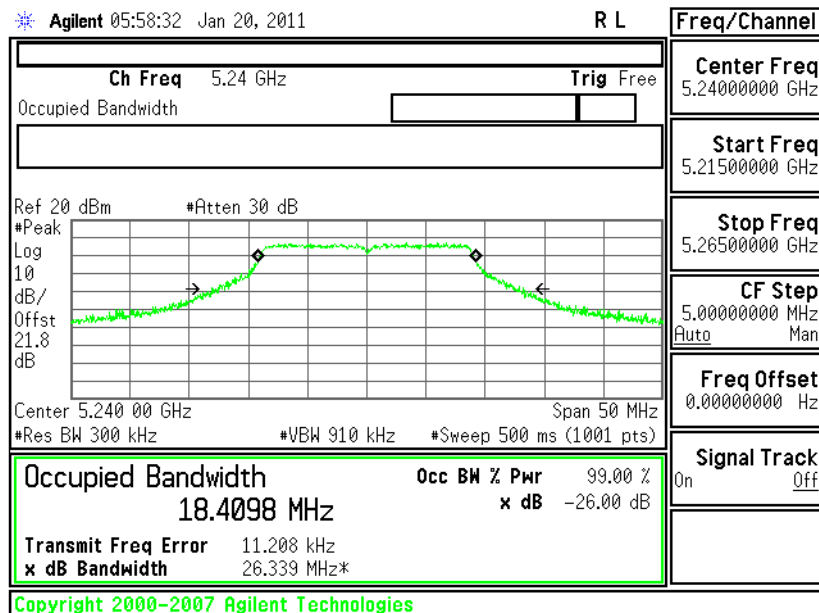
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 48

## - Chain A



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 48

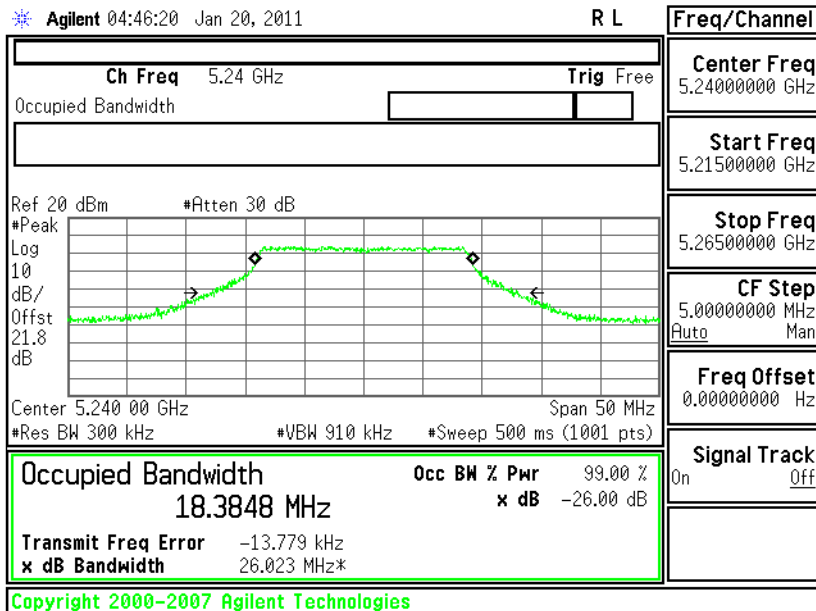
## - Chain B





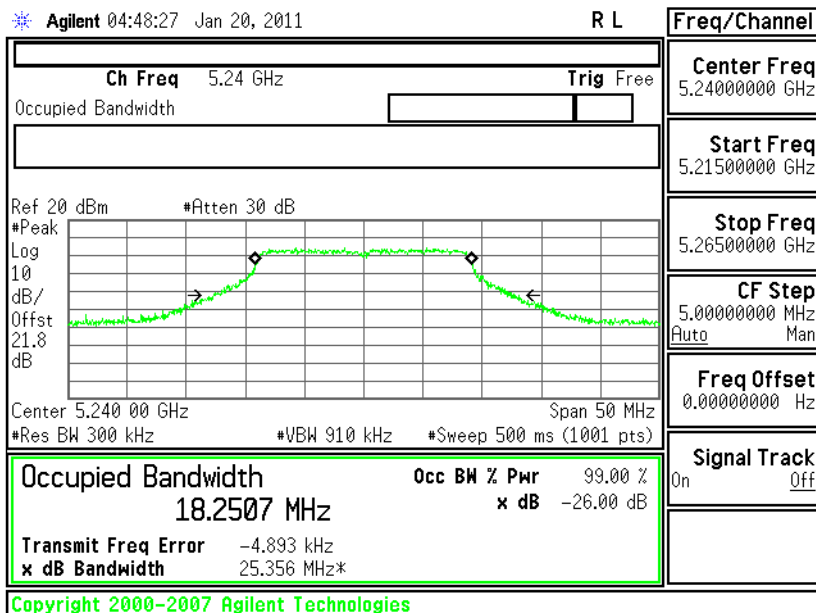
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 48

## - Chain A+B(A)



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 20MHz) Channel 48

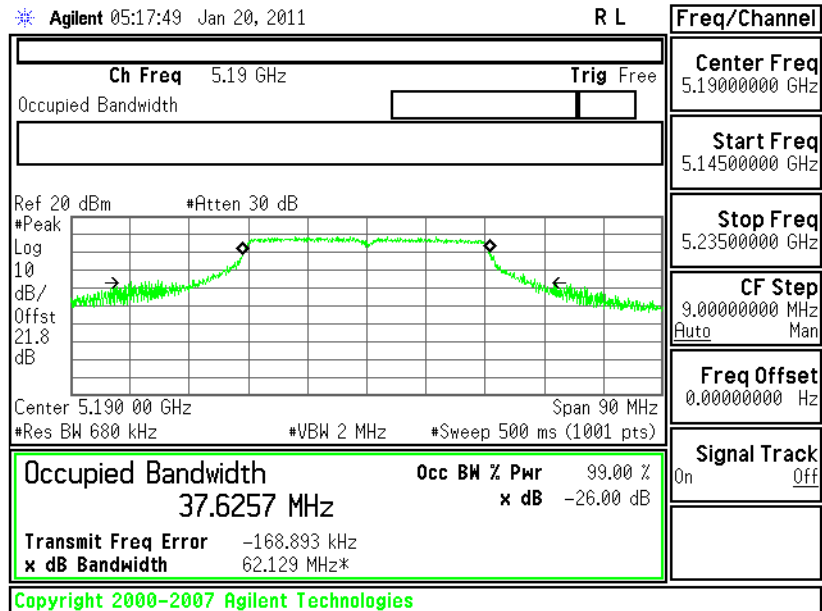
## - Chain A+B(B)





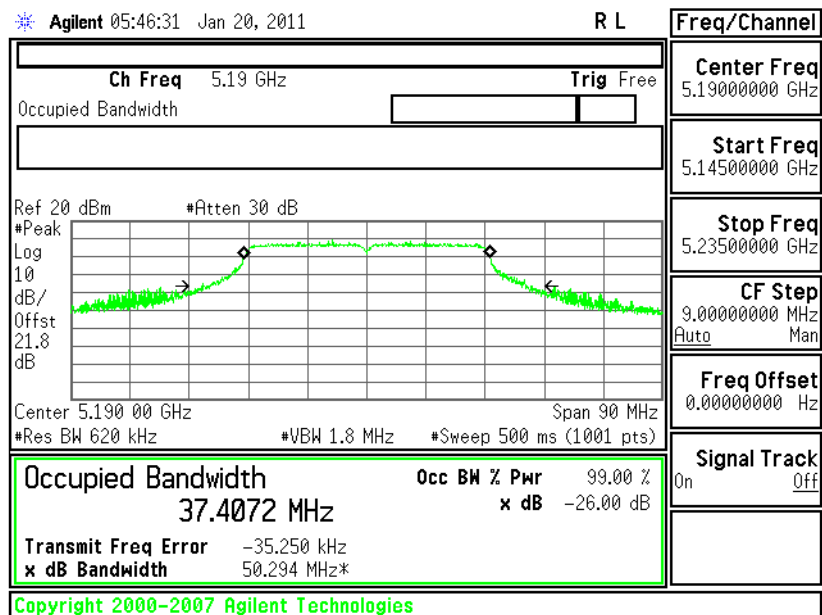
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 40MHz) Channel 38

## - Chain A



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 40MHz) Channel 38

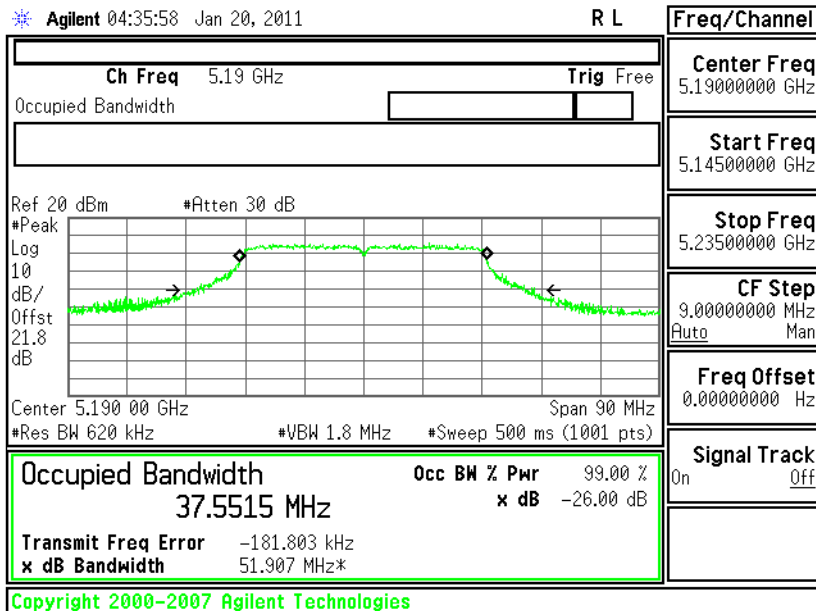
## - Chain B





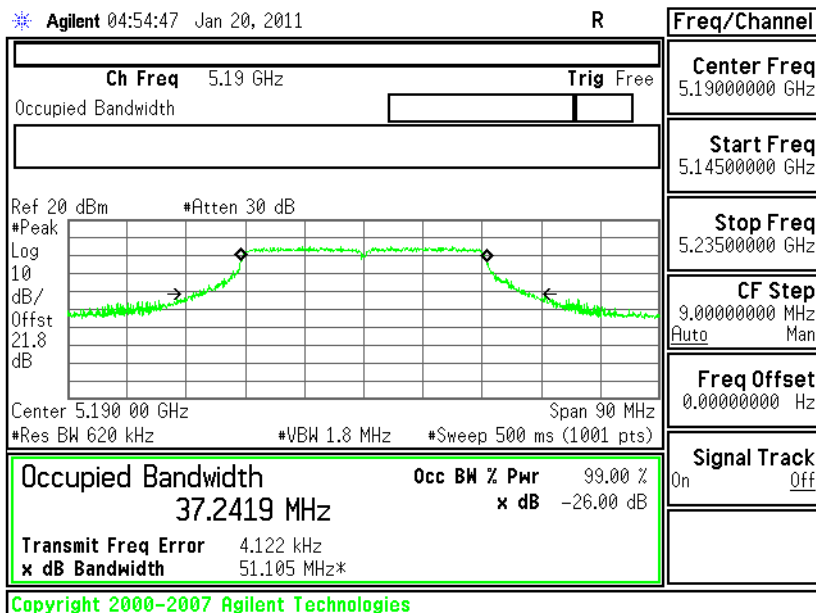
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 40MHz) Channel 38

## - Chain A+B(A)



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 40MHz) Channel 38

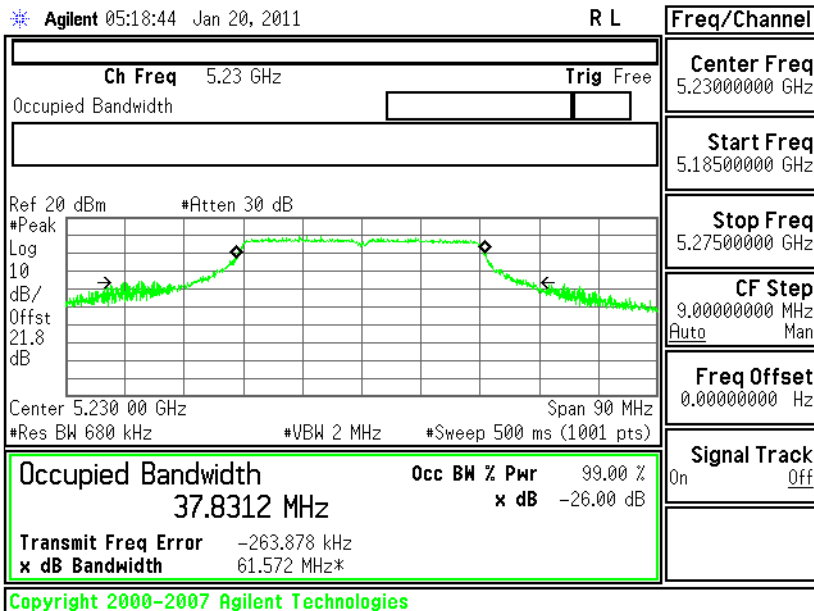
## - Chain A+B(B)





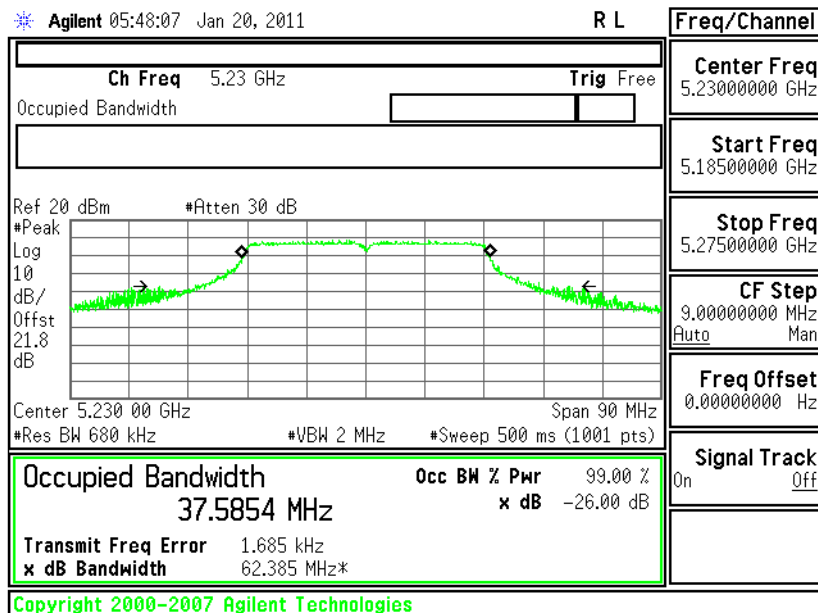
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 40MHz) Channel 46

## - Chain A



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 40MHz) Channel 46

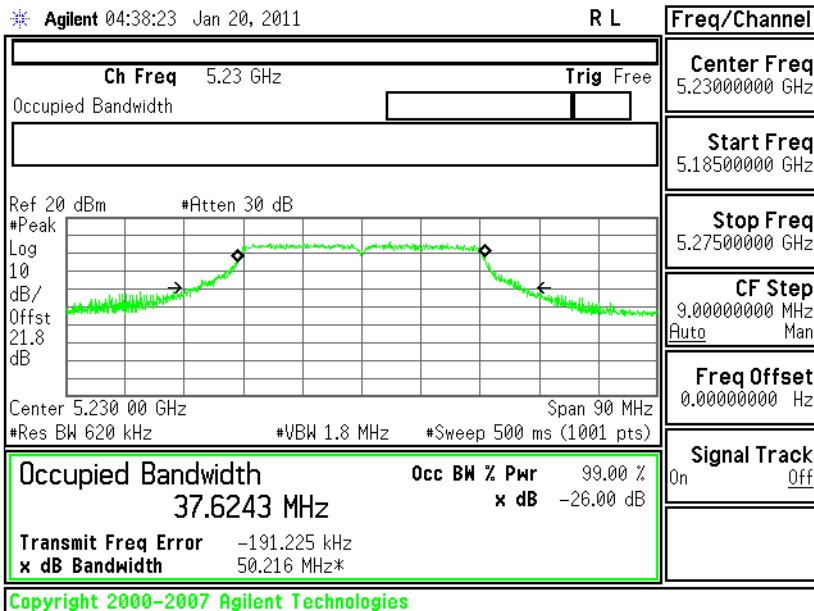
## - Chain B





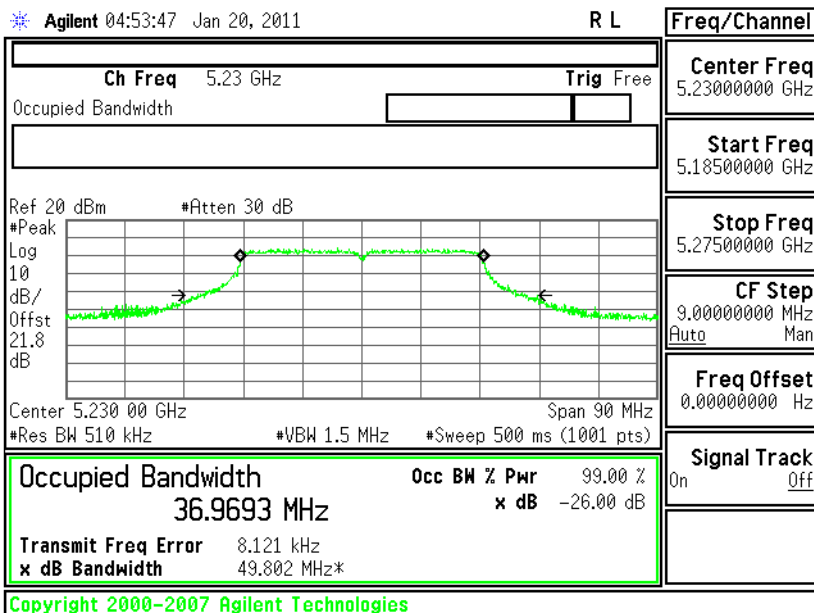
## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 40MHz) Channel 46

## - Chain A+B(A)



## 26 dB &amp; 99% Bandwidth Plot on 802.11n (BW 40MHz) Channel 46

## - Chain A+B(B)





## 3.2 Maximum Conducted Output Power Measurement

### 3.2.1 Limit of Maximum Conducted Output Power

For the band 5.15~5.25 GHz, the maximum conducted output power shall not exceed the lesser of 50 mW (17dBm) or  $4 \text{ dBm} + 10\log B$ , where B is the 26 dB emissions bandwidth in MHz. If transmitting antenna directional gain is greater than 6 dBi, the peak output power and power density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power shall not exceed the lesser of 250 mW (24dBm) or  $11 \text{ dBm} + 10\log B$ . If transmitting antenna directional gain is greater than 6 dBi, the peak output power and power 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

1. The testing follows FCC Public Notice DA 02-2138 (Measurement Guidelines of UNII).  
Method #1:
  - Set span to encompass the entire emission bandwidth (EBW) of the signal.
  - Set RBW = 1 MHz.
  - Set VBW  $\geq$  3 MHz.
  - Use sample detector mode
  - Use a video trigger with the trigger level set to enable triggering only on full power pulses.  
Transmitter must operate at full control power for entire sweep of every sweep.
  - Trace average 100 traces in power averaging mode.
  - Compute power by integrating the spectrum across the 26 dB EBW of the signal.
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. The cable loss (1.8 dB) and attenuator loss (20 dB) are normalized / entered in to the Spectrum Analyzer as an offset as below examples,
  - (1) For SISO mode,  
<Antenna 1 for 4.5V>: For 802.11a Channel 36 Chain A, the final power in test report is 15.30 dBm which is the reading of spectrum analyzer with offsetted cable loss (1.8 dB), and attenuator loss (20 dB).

(2) For MIMO mode, each chain was measured individually and calculated with the formula of  $10 \cdot \text{LOG} (10^{\text{(chain A/10)}} + 10^{\text{(chain B/10)}})$ .

<Antenna 1 for 4.5V>: For 802.11a Channel 36 Chain A+B: the total final power is 14.82 dBm from the formula of  $10 \cdot \text{LOG} (10^{\text{(11.27 dBm/10)}} + 10^{\text{(12.29 dBm/10)}})$ .

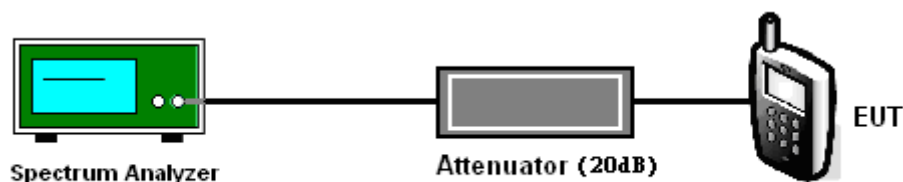
(a) Plot: Conducted Output Power on 802.11a Channel 36 - Chain A+B (A): 11.27 dBm

(b) Plot: Conducted Output Power on 802.11a Channel 36 - Chain A+B (B): 12.29 dBm.

Each plots has already offsetted with cable loss (1.8 dB), and attenuator loss (20 dB).

4. When the radio transmitter enables both transmit chains, the power on each chain is reduced below when only chain A or chain B is enabled.
5. Measure the power and record it.

### 3.2.4 Test Setup



### 3.2.5 Test Result of Conducted Output Power

<Antenna 1 for 4.5V>

<b>Test Mode :</b>	Mode 1~3	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11a (Chain A) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	6	14.5	15.30	17	Pass
44	5220	6	14.5	14.78	17	Pass
48	5240	6	14.5	14.53	17	Pass

<b>Test Mode :</b>	Mode 1~3	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11a (Chain B) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	6	14.5	14.73	17	Pass
44	5220	6	14.5	14.05	17	Pass
48	5240	6	14.5	14.20	17	Pass

<b>Test Mode :</b>	Mode 1~3	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11a (Chain A+B) Measured Output Power (dBm)			Max. Limits (dBm)	Pass/Fail
				Chain A	Chain B	Total Power		
36	5180	6	11.5	11.27	12.29	14.82	17	Pass
44	5220	6	11.5	11.09	11.29	14.20	17	Pass
48	5240	6	11.5	11.11	11.62	14.38	17	Pass

**Note:** Each chain was measured individually and calculated with the formula of  $10 \cdot \log(10^{\text{chain A}/10} + 10^{\text{chain B}/10})$ .



Test Mode :	Mode 4~6	Temperature :	24~26℃
Test Engineer :	Ken Hsu	Relative Humidity :	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 20MHz, Chain A) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	MCS0	15	15.51	17	Pass
44	5220	MCS0	14.5	14.60	17	Pass
48	5240	MCS0	14.5	14.50	17	Pass

Test Mode :	Mode 4~6	Temperature :	24~26℃
Test Engineer :	Ken Hsu	Relative Humidity :	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 20MHz, Chain B) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	MCS0	15	15.32	17	Pass
44	5220	MCS0	15	14.82	17	Pass
48	5240	MCS0	14.5	14.26	17	Pass

Test Mode :	Mode 4~6	Temperature :	24~26℃
Test Engineer :	Ken Hsu	Relative Humidity :	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 20MHz, Chain A+B) Measured Output Power (dBm)			Max. Limits (dBm)	Pass/Fail
				Chain A	Chain B	Total Power		
36	5180	MCS8	11.5	11.22	12.41	14.87	17	Pass
44	5220	MCS8	11.5	11.05	11.33	14.20	17	Pass
48	5240	MCS8	11.5	11.35	11.61	14.29	17	Pass

**Note:** Each chain was measured individually and calculated with the formula of  $10 \cdot \log(10^{\text{(chain A/10)}} + 10^{\text{(chain B/10)}})$ .



Test Mode :	Mode 7~8	Temperature :	24~26℃
Test Engineer :	Ken Hsu	Relative Humidity :	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 40MHz, Chain A) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
38	5190	MCS0	14	14.76	17	Pass
46	5230	MCS0	16	16.38	17	Pass

Test Mode :	Mode 7~8	Temperature :	24~26℃
Test Engineer :	Ken Hsu	Relative Humidity :	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 40MHz, Chain B) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
38	5190	MCS0	13.5	14.21	17	Pass
46	5230	MCS0	16	16.41	17	Pass

Test Mode :	Mode 7~8	Temperature :	24~26℃
Test Engineer :	Ken Hsu	Relative Humidity :	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 40MHz, Chain A+B) Measured Output Power (dBm)			Max. Limits (dBm)	Pass/Fail
				Chain A	Chain B	Total Power		
38	5190	MCS8	13	13.66	13.79	16.74	17	Pass
46	5230	MCS8	13	13.59	13.10	16.36	17	Pass

**Note:** Each chain was measured individually and calculated with the formula of  $10 \cdot \log(10^{\text{(chain A/10)}} + 10^{\text{(chain B/10)}})$ .

**<Antenna 1 for 3.3V>**

<b>Test Mode :</b>	Mode 1~3	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11a (Chain A) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	6	15.5	15.40	17	Pass
44	5220	6	15	14.54	17	Pass
48	5240	6	15.5	14.79	17	Pass

<b>Test Mode :</b>	Mode 1~3	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11a (Chain B) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	6	15.5	15.12	17	Pass
44	5220	6	15.5	14.61	17	Pass
48	5240	6	15.5	14.84	17	Pass

<b>Test Mode :</b>	Mode 1~3	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11a (Chain A+B) Measured Output Power (dBm)			Max. Limits (dBm)	Pass/Fail
				Chain A	Chain B	Total Power		
36	5180	6	12	11.27	12.17	14.75	17	Pass
44	5220	6	12.5	11.83	11.89	14.87	17	Pass
48	5240	6	12	11.49	11.57	14.54	17	Pass

**Note:** Each chain was measured individually and calculated with the formula of  $10 \cdot \log(10^{\text{chain A}/10} + 10^{\text{chain B}/10})$ .



Test Mode :	Mode 4~6	Temperature :	24~26℃
Test Engineer :	Ken Hsu	Relative Humidity :	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 20MHz, Chain A) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	MCS0	16	15.81	17	Pass
44	5220	MCS0	15	14.50	17	Pass
48	5240	MCS0	15	14.24	17	Pass

Test Mode :	Mode 4~6	Temperature :	24~26℃
Test Engineer :	Ken Hsu	Relative Humidity :	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 20MHz, Chain B) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	MCS0	16	15.57	17	Pass
44	5220	MCS0	15.5	14.61	17	Pass
48	5240	MCS0	15	14.17	17	Pass

Test Mode :	Mode 4~6	Temperature :	24~26℃
Test Engineer :	Ken Hsu	Relative Humidity :	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 20MHz, Chain A+B) Measured Output Power (dBm)			Max. Limits (dBm)	Pass/Fail
				Chain A	Chain B	Total Power		
36	5180	MCS8	12	11.30	12.22	14.79	17	Pass
44	5220	MCS8	12.5	11.93	11.85	14.90	17	Pass
48	5240	MCS8	12	11.42	11.52	14.48	17	Pass

**Note:** Each chain was measured individually and calculated with the formula of  $10 \cdot \log(10^A (\text{chain A}/10) + 10^B (\text{chain B}/10))$ .



<b>Test Mode :</b>	Mode 7~8	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 40MHz, Chain A) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
38	5190	MCS0	14	14.24	17	Pass
46	5230	MCS0	17	16.71	17	Pass

<b>Test Mode :</b>	Mode 7~8	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 40MHz, Chain B) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
38	5190	MCS0	13.5	13.62	17	Pass
46	5230	MCS0	17	16.92	17	Pass

<b>Test Mode :</b>	Mode 7~8	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 40MHz, Chain A+B) Measured Output Power (dBm)			Max. Limits (dBm)	Pass/Fail
				Chain A	Chain B	Total Power		
38	5190	MCS8	13.5	13.68	13.46	16.58	17	Pass
46	5230	MCS8	13.5	13.42	12.92	16.19	17	Pass

**Note:** Each chain was measured individually and calculated with the formula of  $10 \cdot \log(10^{\text{chain A}/10} + 10^{\text{chain B}/10})$ .



**<Antenna 2 for 4.5V>**

<b>Test Mode :</b>	Mode 1~3	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11a (Chain A) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	6	14.5	15.28	17	Pass
44	5220	6	14.5	14.85	17	Pass
48	5240	6	14.5	14.44	17	Pass

<b>Test Mode :</b>	Mode 1~3	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11a (Chain B) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	6	14.5	14.81	17	Pass
44	5220	6	14.5	14.00	17	Pass
48	5240	6	14.5	14.07	17	Pass

<b>Test Mode :</b>	Mode 1~3	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11a (Chain A+B) Measured Output Power (dBm)			Max. Limits (dBm)	Pass/Fail
				Chain A	Chain B	Total Power		
36	5180	6	11.5	11.11	12.50	14.87	17	Pass
44	5220	6	11.5	11.11	11.51	14.32	17	Pass
48	5240	6	11.5	11.32	11.79	14.57	17	Pass

**Note:** Each chain was measured individually and calculated with the formula of  $10 \cdot \log(10^{\text{chain A}/10} + 10^{\text{chain B}/10})$ .



<b>Test Mode :</b>	Mode 4~6	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 20MHz, Chain A) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	MCS0	15	15.55	17	Pass
44	5220	MCS0	14.5	14.74	17	Pass
48	5240	MCS0	14.5	14.54	17	Pass

<b>Test Mode :</b>	Mode 4~6	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 20MHz, Chain B) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	MCS0	15	15.27	17	Pass
44	5220	MCS0	15	14.82	17	Pass
48	5240	MCS0	14.5	14.08	17	Pass

<b>Test Mode :</b>	Mode 4~6	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 20MHz, Chain A+B) Measured Output Power (dBm)			Max. Limits (dBm)	Pass/Fail
				Chain A	Chain B	Total Power		
36	5180	MCS8	11.5	11.22	12.37	14.84	17	Pass
44	5220	MCS8	11.5	11.07	11.48	14.29	17	Pass
48	5240	MCS8	11.5	11.42	11.81	14.63	17	Pass

**Note:** Each chain was measured individually and calculated with the formula of  $10 \cdot \log(10^{\text{(chain A/10)}} + 10^{\text{(chain B/10)}})$ .



<b>Test Mode :</b>	Mode 7~8	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 40MHz, Chain A) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
38	5190	MCS0	14	14.60	17	Pass
46	5230	MCS0	16	16.45	17	Pass

<b>Test Mode :</b>	Mode 7~8	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 40MHz, Chain B) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
38	5190	MCS0	13.5	14.09	17	Pass
46	5230	MCS0	16	16.36	17	Pass

<b>Test Mode :</b>	Mode 7~8	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 40MHz, Chain A+B) Measured Output Power (dBm)			Max. Limits (dBm)	Pass/Fail
				Chain A	Chain B	Total Power		
38	5190	MCS8	13	13.55	13.81	16.69	17	Pass
46	5230	MCS8	13	13.67	13.18	16.44	17	Pass

**Note:** Each chain was measured individually and calculated with the formula of  $10 \cdot \log(10^{\text{chain A}/10} + 10^{\text{chain B}/10})$ .

**<Antenna 2 for 3.3V>**

<b>Test Mode :</b>	Mode 1~3	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11a (Chain A) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	6	15.5	15.51	17	Pass
44	5220	6	15.5	14.95	17	Pass
48	5240	6	15.5	14.81	17	Pass

<b>Test Mode :</b>	Mode 1~3	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11a (Chain B) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	6	15	14.65	17	Pass
44	5220	6	15	14.18	17	Pass
48	5240	6	15.5	14.85	17	Pass

<b>Test Mode :</b>	Mode 1~3	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11a (Chain A+B) Measured Output Power (dBm)			Max. Limits (dBm)	Pass/Fail
				Chain A	Chain B	Total Power		
36	5180	6	12	11.18	12.14	14.70	17	Pass
44	5220	6	12	11.29	11.33	14.32	17	Pass
48	5240	6	12	11.46	11.54	14.51	17	Pass

**Note:** Each chain was measured individually and calculated with the formula of  $10 \cdot \log(10^{\text{chain A}/10} + 10^{\text{chain B}/10})$ .



<b>Test Mode :</b>	Mode 4~6	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 20MHz, Chain A) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	MCS0	15.5	15.65	17	Pass
44	5220	MCS0	15.5	14.76	17	Pass
48	5240	MCS0	15.5	14.78	17	Pass

<b>Test Mode :</b>	Mode 4~6	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 20MHz, Chain B) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	MCS0	15.5	15.11	17	Pass
44	5220	MCS0	15.5	14.62	17	Pass
48	5240	MCS0	15.5	14.71	17	Pass

<b>Test Mode :</b>	Mode 4~6	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 20MHz, Chain A+B) Measured Output Power (dBm)			Max. Limits (dBm)	Pass/Fail
				Chain A	Chain B	Total Power		
36	5180	MCS8	12	11.21	12.19	14.74	17	Pass
44	5220	MCS8	12	11.25	11.35	14.31	17	Pass
48	5240	MCS8	12	11.39	11.51	14.46	17	Pass

**Note:** Each chain was measured individually and calculated with the formula of  $10 \cdot \log(10^{\text{(chain A/10)}} + 10^{\text{(chain B/10)}})$ .



<b>Test Mode :</b>	Mode 7~8	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 40MHz, Chain A) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
38	5190	MCS0	14.5	14.84	17	Pass
46	5230	MCS0	17	16.86	17	Pass

<b>Test Mode :</b>	Mode 7~8	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 40MHz, Chain B) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
38	5190	MCS0	14	13.91	17	Pass
46	5230	MCS0	16.5	16.30	17	Pass

<b>Test Mode :</b>	Mode 7~8	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 40MHz, Chain A+B) Measured Output Power (dBm)			Max. Limits (dBm)	Pass/Fail
				Chain A	Chain B	Total Power		
38	5190	MCS8	13.5	13.63	13.43	16.54	17	Pass
46	5230	MCS8	14	13.80	13.26	16.55	17	Pass

**Note:** Each chain was measured individually and calculated with the formula of  $10 \cdot \log(10^{\text{chain A}/10} + 10^{\text{chain B}/10})$ .



## &lt;Antenna 3 for 4.5V&gt;

Test Mode :	Mode 1~3	Temperature :	24~26℃
Test Engineer :	Ken Hsu	Relative Humidity :	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11a (Chain A) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	6	14.5	15.39	17	Pass
44	5220	6	14.5	14.63	17	Pass
48	5240	6	14.5	14.44	17	Pass

Test Mode :	Mode 1~3	Temperature :	24~26℃
Test Engineer :	Ken Hsu	Relative Humidity :	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11a (Chain B) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	6	14.5	14.85	17	Pass
44	5220	6	14.5	14.00	17	Pass
48	5240	6	14.5	14.16	17	Pass

Test Mode :	Mode 1~3	Temperature :	24~26℃
Test Engineer :	Ken Hsu	Relative Humidity :	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11a (Chain A+B) Measured Output Power (dBm)			Max. Limits (dBm)	Pass/Fail
				Chain A	Chain B	Total Power		
36	5180	6	11.5	11.18	12.45	14.87	17	Pass
44	5220	6	11.5	11.11	11.53	14.34	17	Pass
48	5240	6	11.5	11.28	11.68	14.49	17	Pass

**Note:** Each chain was measured individually and calculated with the formula of  $10 \cdot \log(10^{A/10} + 10^{B/10})$ .

<b>Test Mode :</b>	Mode 4~6	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 20MHz, Chain A) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	MCS0	15	15.57	17	Pass
44	5220	MCS0	14.5	14.70	17	Pass
48	5240	MCS0	14.5	14.46	17	Pass

<b>Test Mode :</b>	Mode 4~6	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 20MHz, Chain B) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	MCS0	15	15.12	17	Pass
44	5220	MCS0	15	14.68	17	Pass
48	5240	MCS0	14.5	14.11	17	Pass

<b>Test Mode :</b>	Mode 4~6	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 20MHz, Chain A+B) Measured Output Power (dBm)			Max. Limits (dBm)	Pass/Fail
				Chain A	Chain B	Total Power		
36	5180	MCS8	11.5	11.31	12.48	14.94	17	Pass
44	5220	MCS8	11.5	11.13	11.50	14.33	17	Pass
48	5240	MCS8	11.5	11.40	11.68	14.55	17	Pass

**Note:** Each chain was measured individually and calculated with the formula of  $10 \cdot \log(10^{\text{(chain A/10)}} + 10^{\text{(chain B/10)}})$ .





<b>Test Mode :</b>	Mode 7~8	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 40MHz, Chain A) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
38	5190	MCS0	14	14.77	17	Pass
46	5230	MCS0	16	16.32	17	Pass

<b>Test Mode :</b>	Mode 7~8	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 40MHz, Chain B) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
38	5190	MCS0	13.5	14.11	17	Pass
46	5230	MCS0	16	16.17	17	Pass

<b>Test Mode :</b>	Mode 7~8	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 40MHz, Chain A+B) Measured Output Power (dBm)			Max. Limits (dBm)	Pass/Fail
				Chain A	Chain B	Total Power		
38	5190	MCS8	11	11.03	11.95	14.52	17	Pass
46	5230	MCS8	13	13.52	13.18	16.36	17	Pass

**Note:** Each chain was measured individually and calculated with the formula of  $10 \cdot \log(10^{\text{chain A}/10} + 10^{\text{chain B}/10})$ .



## &lt;Antenna 3 for 3.3V&gt;

Test Mode :	Mode 1~3	Temperature :	24~26℃
Test Engineer :	Ken Hsu	Relative Humidity :	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11a (Chain A) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	6	15.5	15.54	17	Pass
44	5220	6	15	14.49	17	Pass
48	5240	6	15	14.26	17	Pass

Test Mode :	Mode 1~3	Temperature :	24~26℃
Test Engineer :	Ken Hsu	Relative Humidity :	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11a (Chain B) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	6	14.5	14.14	17	Pass
44	5220	6	15.5	14.61	17	Pass
48	5240	6	15	14.24	17	Pass

Test Mode :	Mode 1~3	Temperature :	24~26℃
Test Engineer :	Ken Hsu	Relative Humidity :	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11a (Chain A+B) Measured Output Power (dBm)			Max. Limits (dBm)	Pass/Fail
				Chain A	Chain B	Total Power		
36	5180	6	12	11.32	12.31	14.85	17	Pass
44	5220	6	12	11.35	11.34	14.36	17	Pass
48	5240	6	12	11.35	11.46	14.42	17	Pass

**Note:** Each chain was measured individually and calculated with the formula of  $10 \cdot \log(10^{\text{chain A}/10} + 10^{\text{chain B}/10})$ .



Test Mode :	Mode 4~6	Temperature :	24~26°C
Test Engineer :	Ken Hsu	Relative Humidity :	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 20MHz, Chain A) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	MCS0	15.5	15.57	17	Pass
44	5220	MCS0	15	14.38	17	Pass
48	5240	MCS0	14.5	13.74	17	Pass

Test Mode :	Mode 4~6	Temperature :	24~26°C
Test Engineer :	Ken Hsu	Relative Humidity :	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 20MHz, Chain B) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	MCS0	15.5	14.95	17	Pass
44	5220	MCS0	15.5	14.61	17	Pass
48	5240	MCS0	15	14.19	17	Pass

Test Mode :	Mode 4~6	Temperature :	24~26°C
Test Engineer :	Ken Hsu	Relative Humidity :	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 20MHz, Chain A+B) Measured Output Power (dBm)			Max. Limits (dBm)	Pass/Fail
				Chain A	Chain B	Total Power		
36	5180	MCS8	11.5	10.72	11.85	14.33	17	Pass
44	5220	MCS8	12	11.19	11.28	14.25	17	Pass
48	5240	MCS8	11.5	10.65	10.72	13.70	17	Pass

**Note:** Each chain was measured individually and calculated with the formula of  $10 \cdot \log(10^{\text{chain A}/10} + 10^{\text{chain B}/10})$ .



<b>Test Mode :</b>	Mode 7~8	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 40MHz, Chain A) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
38	5190	MCS0	14	14.12	17	Pass
46	5230	MCS0	16.5	16.07	17	Pass

<b>Test Mode :</b>	Mode 7~8	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 40MHz, Chain B) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
38	5190	MCS0	13.5	13.52	17	Pass
46	5230	MCS0	17	16.72	17	Pass

<b>Test Mode :</b>	Mode 7~8	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 40MHz, Chain A+B) Measured Output Power (dBm)			Max. Limits (dBm)	Pass/Fail
				Chain A	Chain B	Total Power		
38	5190	MCS8	13.5	13.61	13.61	16.62	17	Pass
46	5230	MCS8	13.5	13.55	12.91	16.25	17	Pass

**Note:** Each chain was measured individually and calculated with the formula of  $10 \cdot \log(10^{\text{chain A}/10} + 10^{\text{chain B}/10})$ .

**<Antenna 4 for 3.3V>**

<b>Test Mode :</b>	Mode 1~3	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11a (Chain A) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	6	15.5	15.51	17	Pass
44	5220	6	15	14.49	17	Pass
48	5240	6	15.5	14.79	17	Pass

<b>Test Mode :</b>	Mode 1~3	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11a (Chain B) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	6	15.5	15.16	17	Pass
44	5220	6	15	14.15	17	Pass
48	5240	6	15.5	15.09	17	Pass

<b>Test Mode :</b>	Mode 1~3	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11a (Chain A+B) Measured Output Power (dBm)			Max. Limits (dBm)	Pass/Fail
				Chain A	Chain B	Total Power		
36	5180	6	12.5	11.92	12.63	15.3	17	Pass
44	5220	6	12.5	12.03	11.96	15.01	17	Pass
48	5240	6	12.5	11.93	12.01	14.98	17	Pass

**Note:** Each chain was measured individually and calculated with the formula of  $10 \cdot \log(10^{\text{chain A}/10} + 10^{\text{chain B}/10})$ .



<b>Test Mode :</b>	Mode 4~6	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 20MHz, Chain A) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	MCS0	17	16.85	17	Pass
44	5220	MCS0	16	15.54	17	Pass
48	5240	MCS0	15	14.41	17	Pass

<b>Test Mode :</b>	Mode 4~6	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 20MHz, Chain B) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	MCS0	16.5	16.16	17	Pass
44	5220	MCS0	16.5	15.98	17	Pass
48	5240	MCS0	16.5	16.05	17	Pass

<b>Test Mode :</b>	Mode 4~6	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 20MHz, Chain A+B) Measured Output Power (dBm)			Max. Limits (dBm)	Pass/Fail
				Chain A	Chain B	Total Power		
36	5180	MCS8	14	13.81	13.77	16.80	17	Pass
44	5220	MCS8	14	13.68	13.06	16.39	17	Pass
48	5240	MCS8	14	13.25	13.18	16.23	17	Pass

**Note:** Each chain was measured individually and calculated with the formula of  $10 \cdot \log(10^{\text{(chain A/10)}} + 10^{\text{(chain B/10)}})$ .



<b>Test Mode :</b>	Mode 7~8	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 40MHz, Chain A) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
38	5190	MCS0	16.5	16.68	17	Pass
46	5230	MCS0	17	16.69	17	Pass

<b>Test Mode :</b>	Mode 7~8	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 40MHz, Chain B) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
38	5190	MCS0	17	16.94	17	Pass
46	5230	MCS0	17	16.77	17	Pass

<b>Test Mode :</b>	Mode 7~8	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 40MHz, Chain A+B) Measured Output Power (dBm)			Max. Limits (dBm)	Pass/Fail
				Chain A	Chain B	Total Power		
38	5190	MCS8	13.5	13.66	13.55	16.62	17	Pass
46	5230	MCS8	14	13.90	13.39	16.66	17	Pass

**Note:** Each chain was measured individually and calculated with the formula of  $10 \cdot \log(10^{\text{chain A}/10} + 10^{\text{chain B}/10})$ .

**<Antenna 5 for 3.3V>**

<b>Test Mode :</b>	Mode 1~3	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11a (Chain A) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	6	15.5	15.33	17	Pass
44	5220	6	15	14.45	17	Pass
48	5240	6	15.5	14.79	17	Pass

<b>Test Mode :</b>	Mode 1~3	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11a (Chain B) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	6	15.5	15.08	17	Pass
44	5220	6	15	14.06	17	Pass
48	5240	6	15.5	14.94	17	Pass

<b>Test Mode :</b>	Mode 1~3	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11a (Chain A+B) Measured Output Power (dBm)			Max. Limits (dBm)	Pass/Fail
				Chain A	Chain B	Total Power		
36	5180	6	12.5	12.10	12.59	15.36	17	Pass
44	5220	6	12.5	11.99	11.83	14.92	17	Pass
48	5240	6	12.5	11.88	11.92	14.91	17	Pass

**Note:** Each chain was measured individually and calculated with the formula of  $10 \cdot \log(10^{\text{chain A/10}} + 10^{\text{chain B/10}})$ .





<b>Test Mode :</b>	Mode 4~6	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 20MHz, Chain A) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	MCS0	17	16.67	17	Pass
44	5220	MCS0	16	15.48	17	Pass
48	5240	MCS0	16	15.11	17	Pass

<b>Test Mode :</b>	Mode 4~6	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 20MHz, Chain B) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	MCS0	16.5	16.16	17	Pass
44	5220	MCS0	16.5	15.79	17	Pass
48	5240	MCS0	16.5	16.06	17	Pass

<b>Test Mode :</b>	Mode 4~6	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 20MHz, Chain A+B) Measured Output Power (dBm)			Max. Limits (dBm)	Pass/Fail
				Chain A	Chain B	Total Power		
36	5180	MCS8	14	14.00	13.70	16.86	17	Pass
44	5220	MCS8	14	13.61	13.02	16.34	17	Pass
48	5240	MCS8	14	13.32	13.15	16.25	17	Pass

**Note:** Each chain was measured individually and calculated with the formula of  $10 \cdot \log(10^{\text{(chain A/10)}} + 10^{\text{(chain B/10)}})$ .



<b>Test Mode :</b>	Mode 7~8	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 40MHz, Chain A) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
38	5190	MCS0	16.5	16.64	17	Pass
46	5230	MCS0	17	16.78	17	Pass

<b>Test Mode :</b>	Mode 7~8	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 40MHz, Chain B) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
38	5190	MCS0	17	16.83	17	Pass
46	5230	MCS0	17	16.71	17	Pass

<b>Test Mode :</b>	Mode 7~8	<b>Temperature :</b>	24~26℃
<b>Test Engineer :</b>	Ken Hsu	<b>Relative Humidity :</b>	52~55%

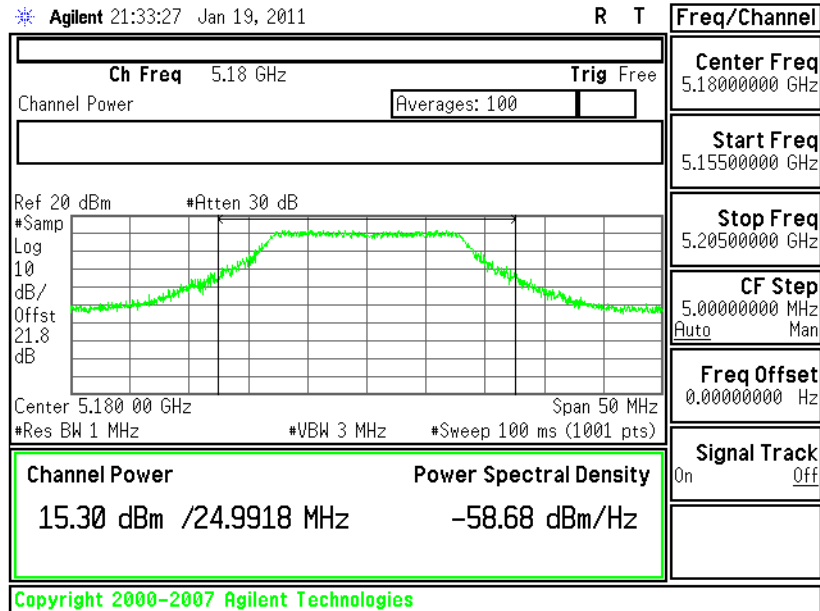
Channel	Frequency (MHz)	Date Rate	Power Setting	802.11n (BW 40MHz, Chain A+B) Measured Output Power (dBm)			Max. Limits (dBm)	Pass/Fail
				Chain A	Chain B	Total Power		
38	5190	MCS8	13.5	13.69	13.59	16.65	17	Pass
46	5230	MCS8	14	13.99	13.27	16.66	17	Pass

**Note:** Each chain was measured individually and calculated with the formula of  $10 \cdot \log(10^{\text{chain A}/10} + 10^{\text{chain B}/10})$ .

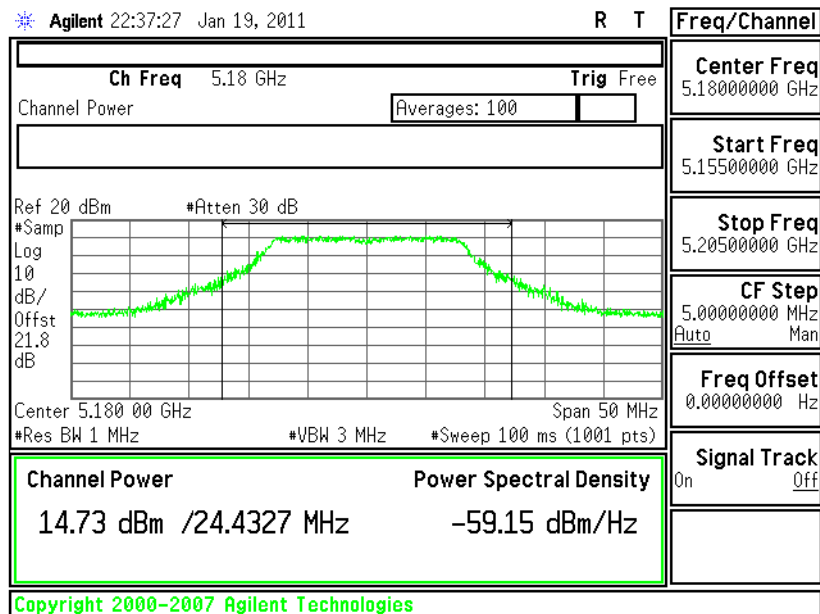


## &lt;Antenna 1 for 4.5V&gt;

## Conducted Output Power on 802.11a Channel 36 - Chain A



## Conducted Output Power on 802.11a Channel 36 - Chain B

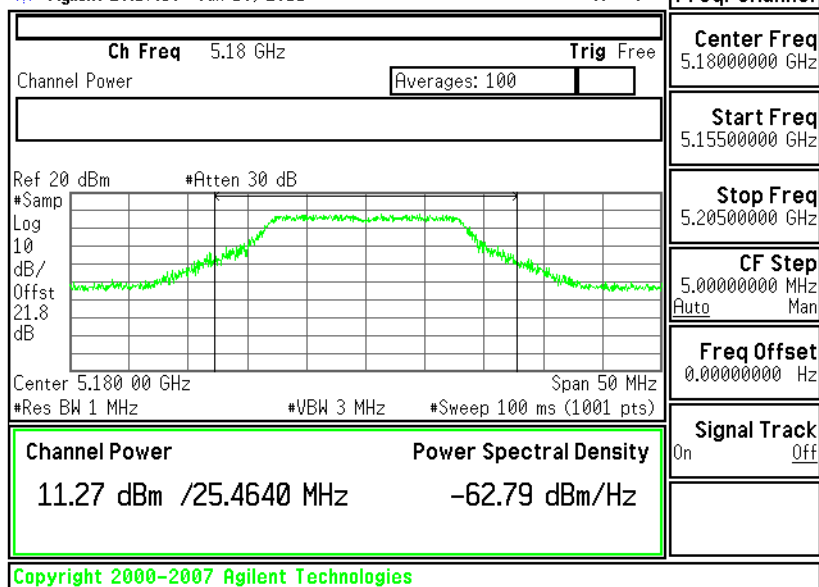




## Conducted Output Power on 802.11a Channel 36 - Chain A+B(A)

Agilent 20:17:50 Jan 19, 2011

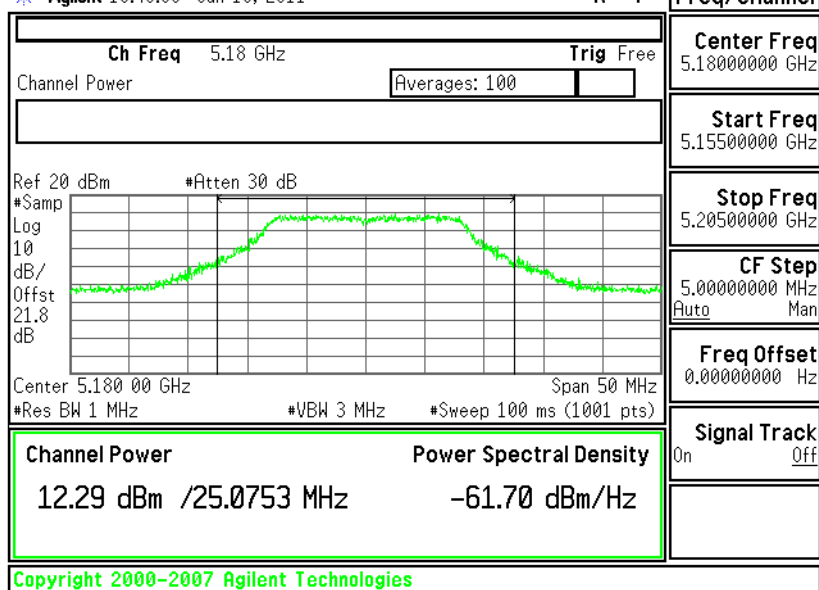
R T



## Conducted Output Power on 802.11a Channel 36 - Chain A+B(B)

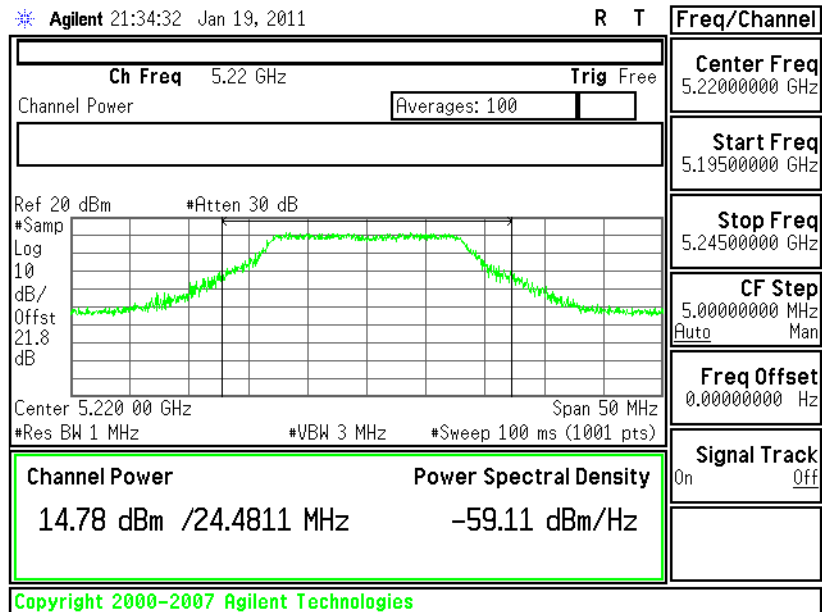
Agilent 19:46:00 Jan 19, 2011

R T

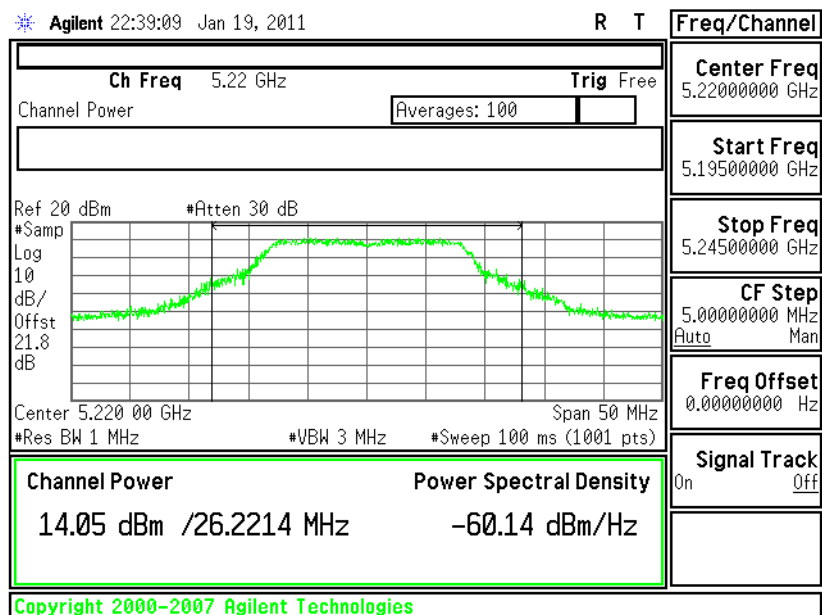




## Conducted Output Power on 802.11a Channel 44 - Chain A

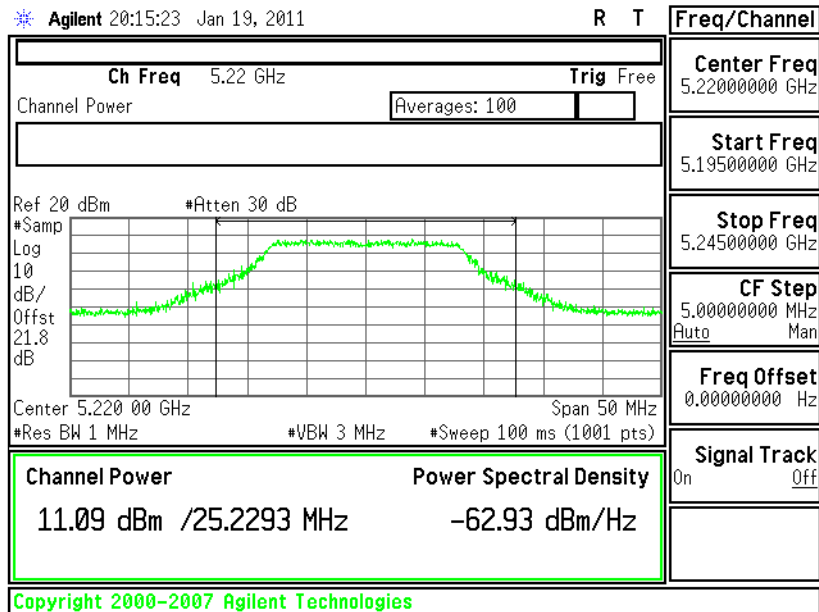


## Conducted Output Power on 802.11a Channel 44 - Chain B

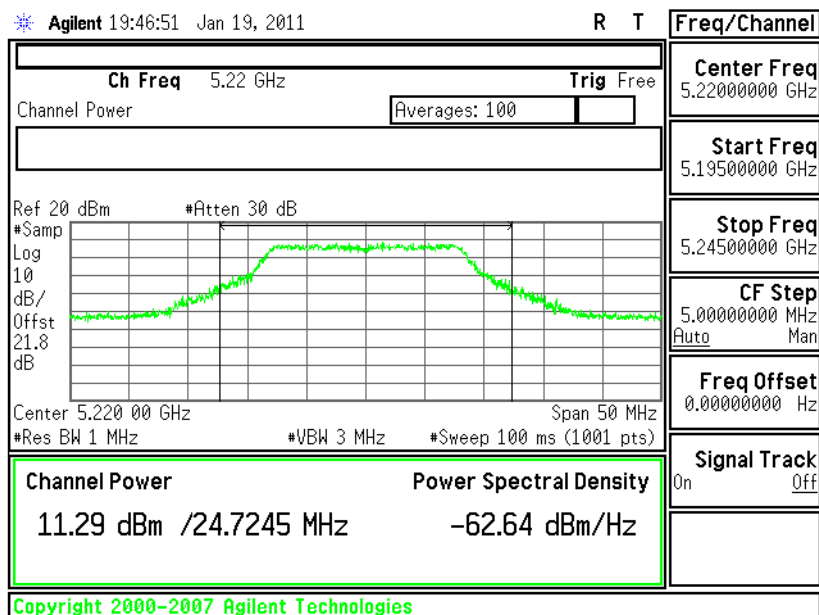




## Conducted Output Power on 802.11a Channel 44 - Chain A+B(A)

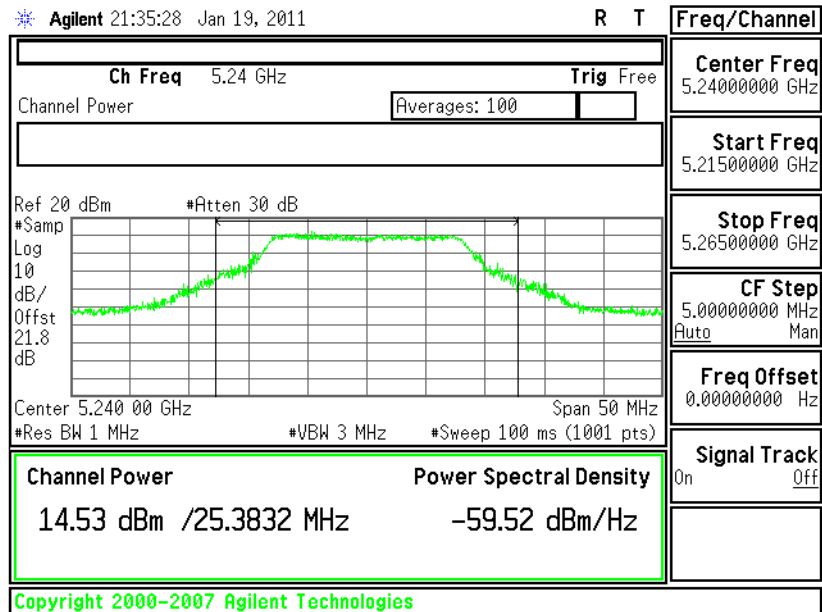


## Conducted Output Power on 802.11a Channel 44 - Chain A+B(B)

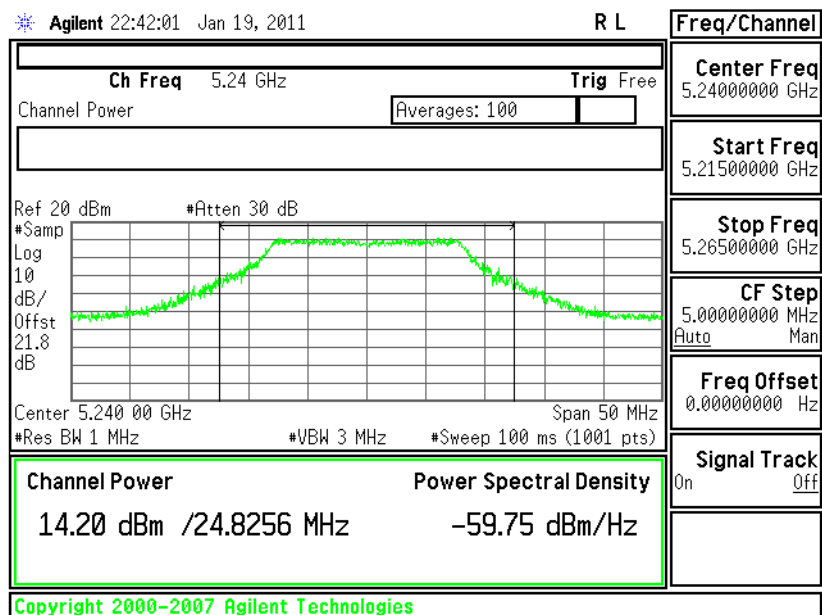




## Conducted Output Power on 802.11a Channel 48 - Chain A

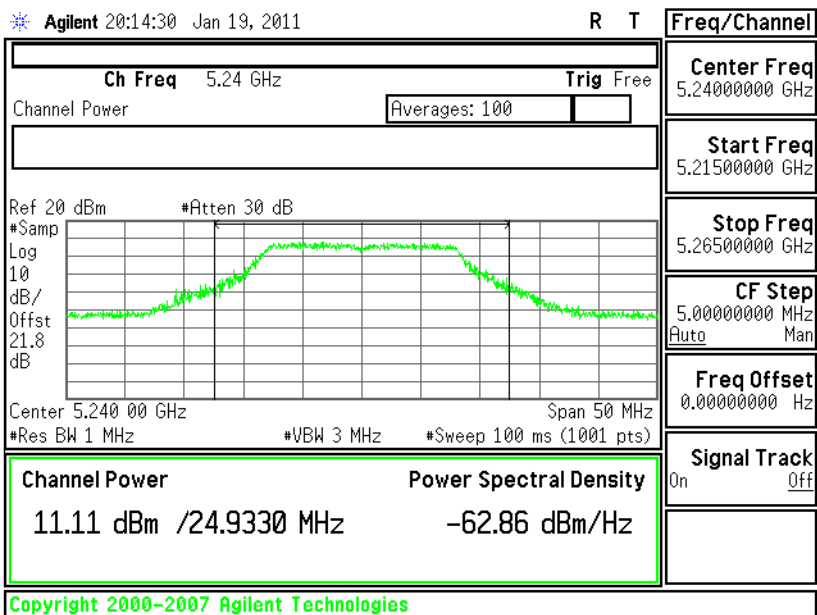


## Conducted Output Power on 802.11a Channel 48 - Chain B

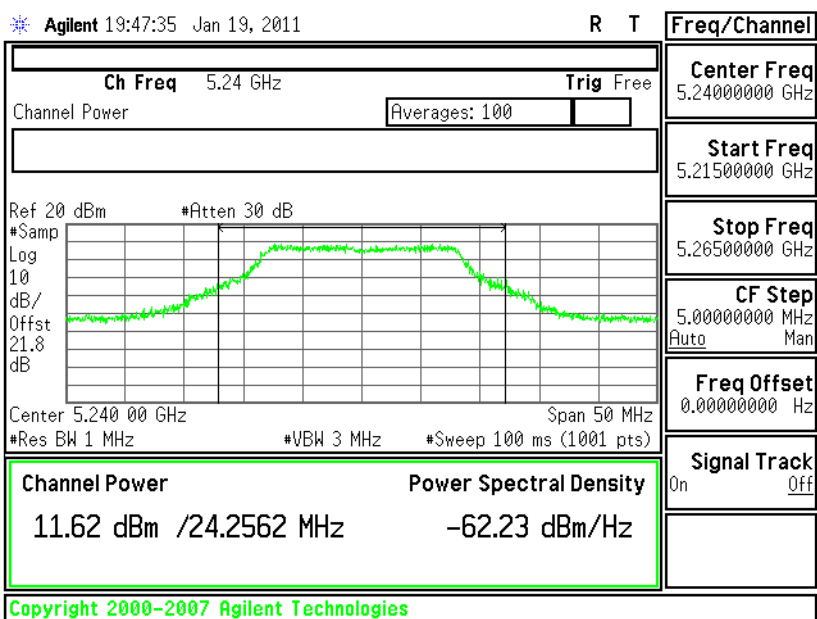




## Conducted Output Power on 802.11a Channel 48 - Chain A+B(A)



## Conducted Output Power on 802.11a Channel 48 - Chain A+B(B)

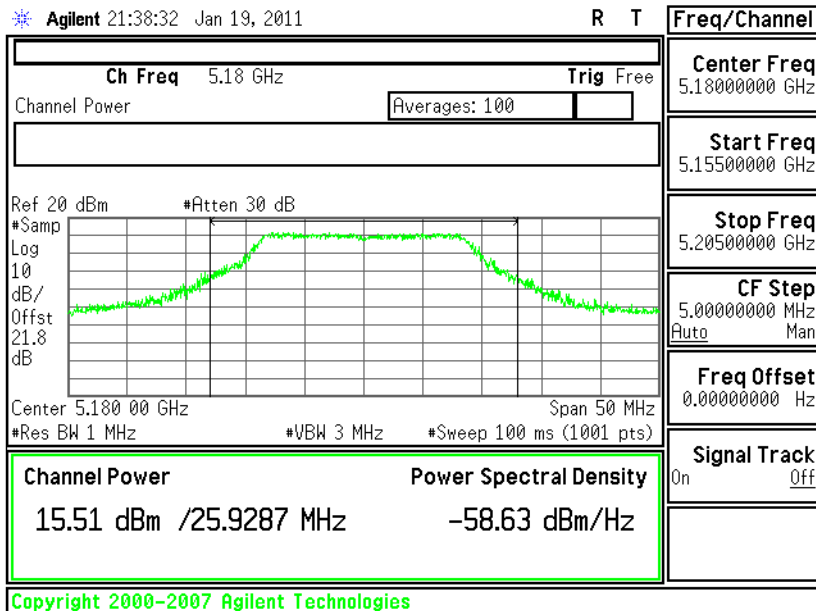






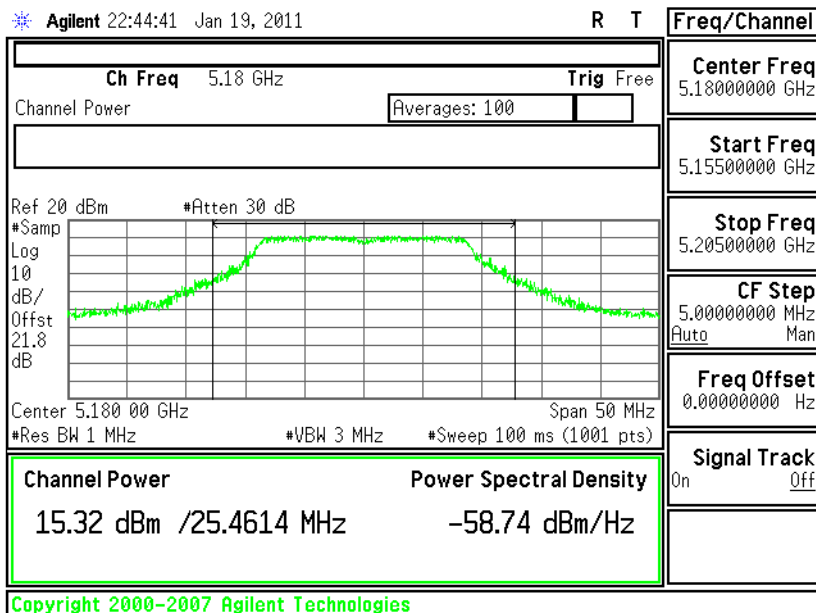
## Conducted Output Power on 802.11n (BW 20MHz) Channel 36 -

## Chain A



## Conducted Output Power on 802.11n (BW 20MHz) Channel 36 -

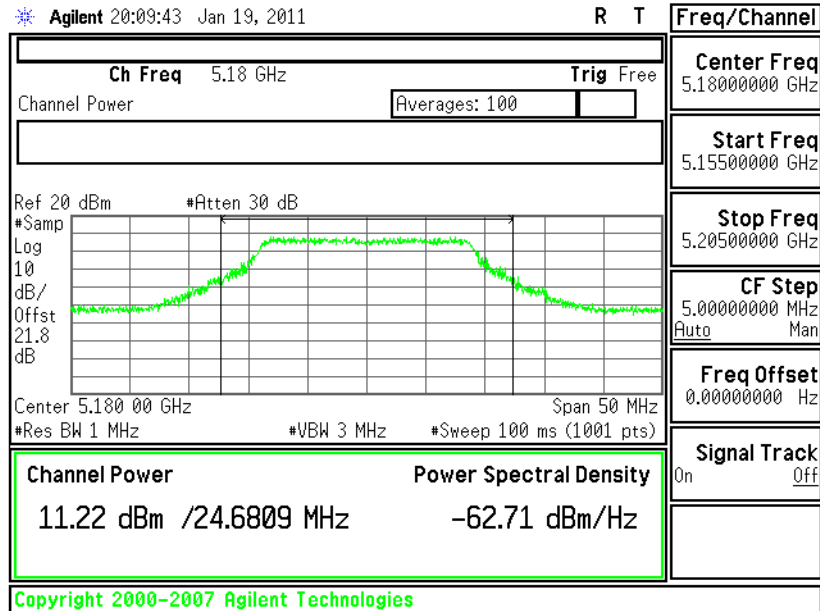
## Chain B





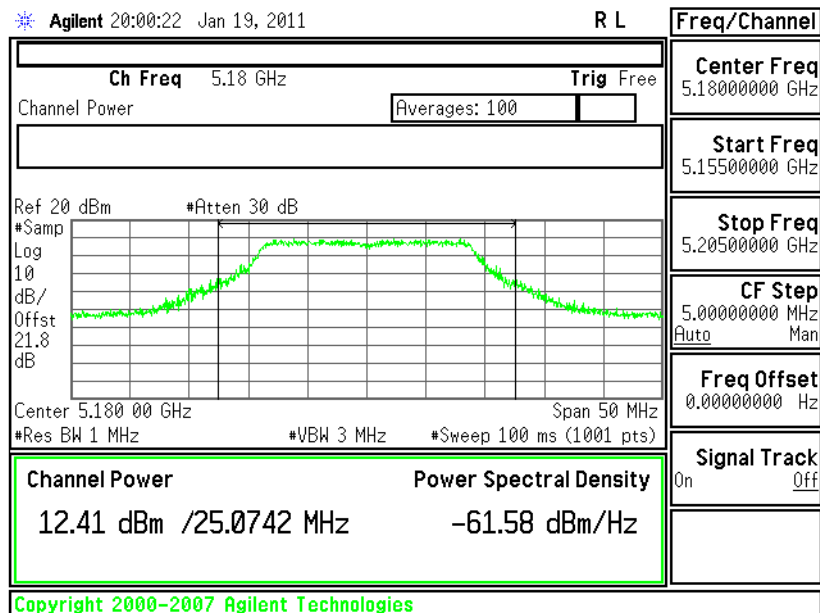
## Conducted Output Power on 802.11n (BW 20MHz) Channel 36 -

## Chain A+B(A)



## Conducted Output Power on 802.11n (BW 20MHz) Channel 36 -

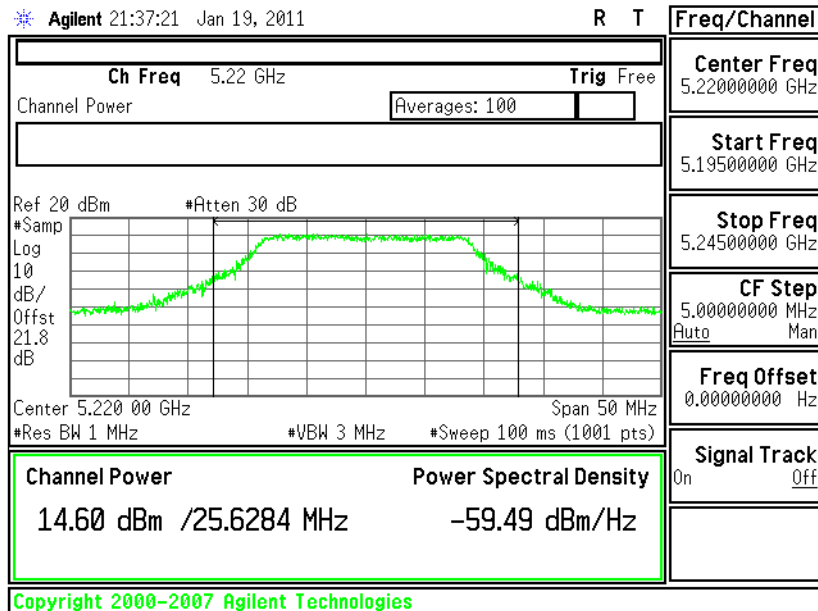
## Chain A+B(B)





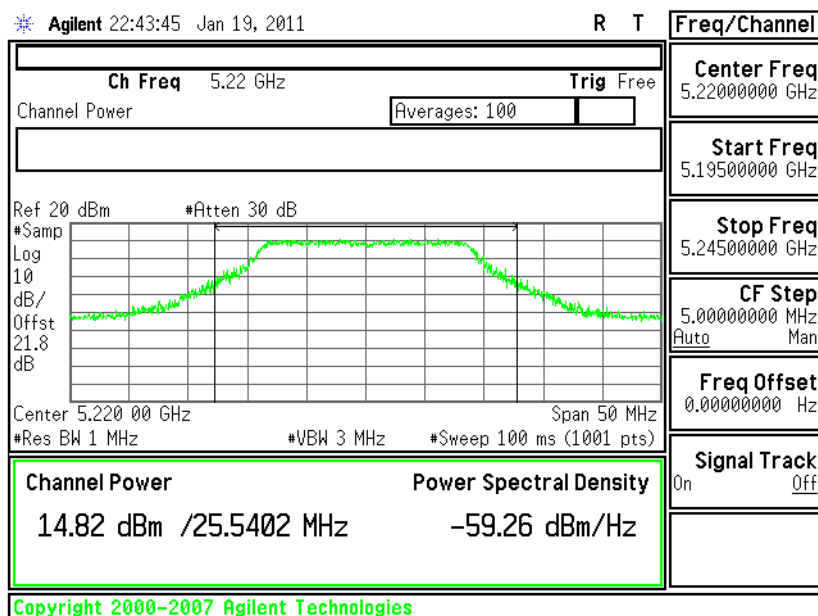
## Conducted Output Power on 802.11n (BW 20MHz) Channel 44 -

## Chain A



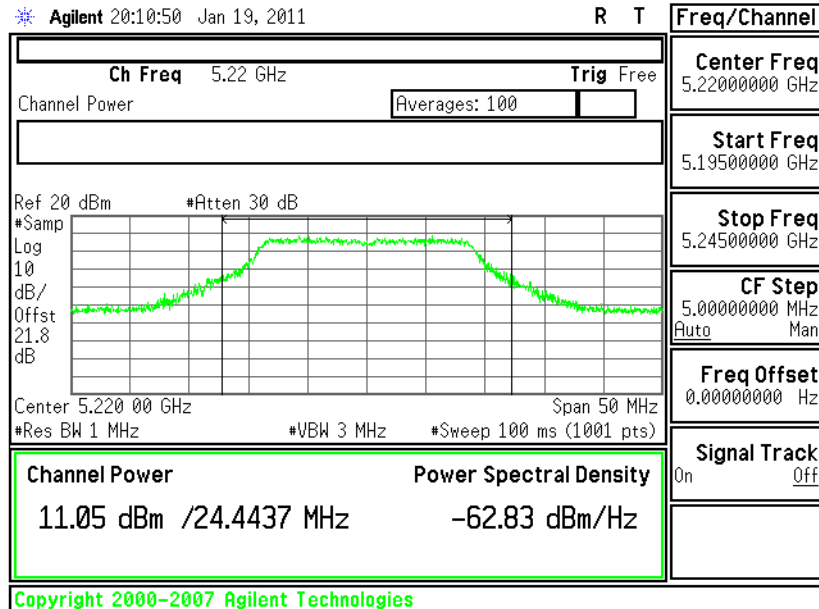
## Conducted Output Power on 802.11n (BW 20MHz) Channel 44 -

## Chain B

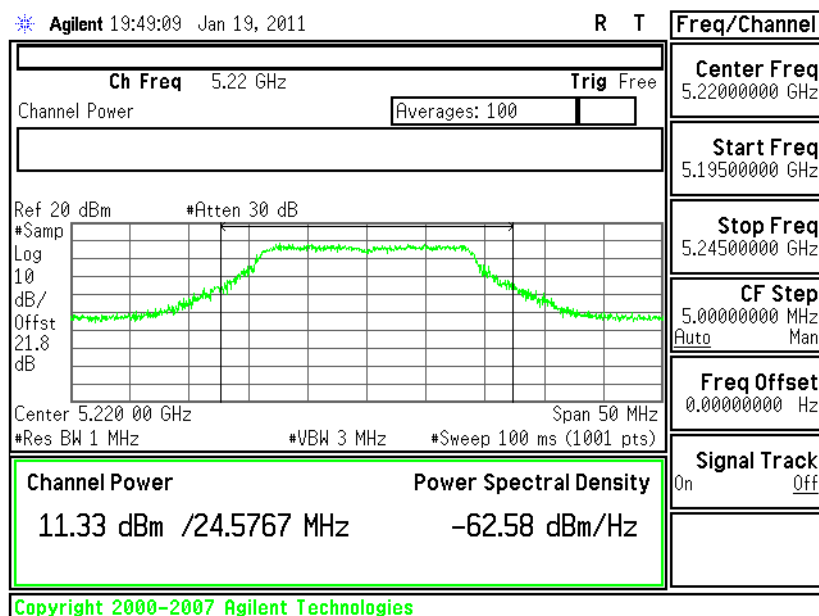




Conducted Output Power on 802.11n (BW 20MHz) Channel 44 -  
Chain A+B(A)



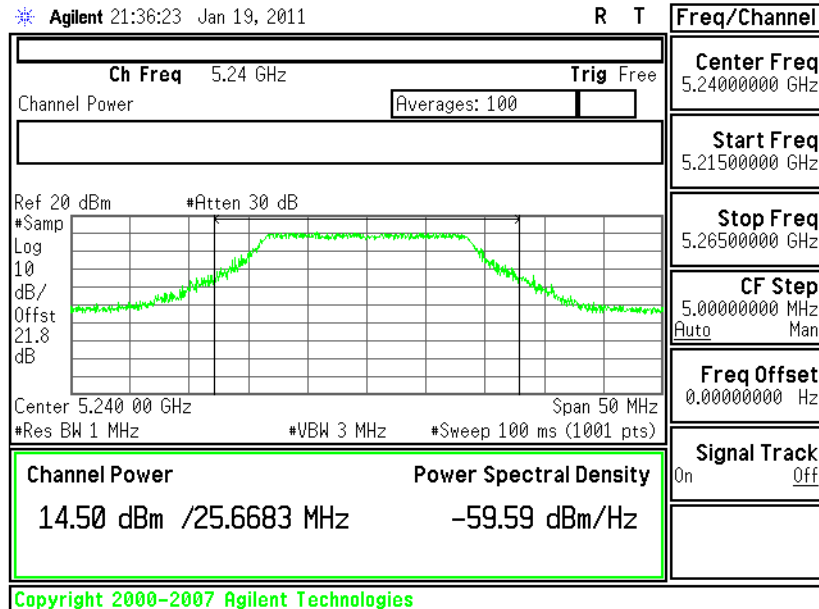
Conducted Output Power on 802.11n (BW 20MHz) Channel 44 -  
Chain A+B(B)





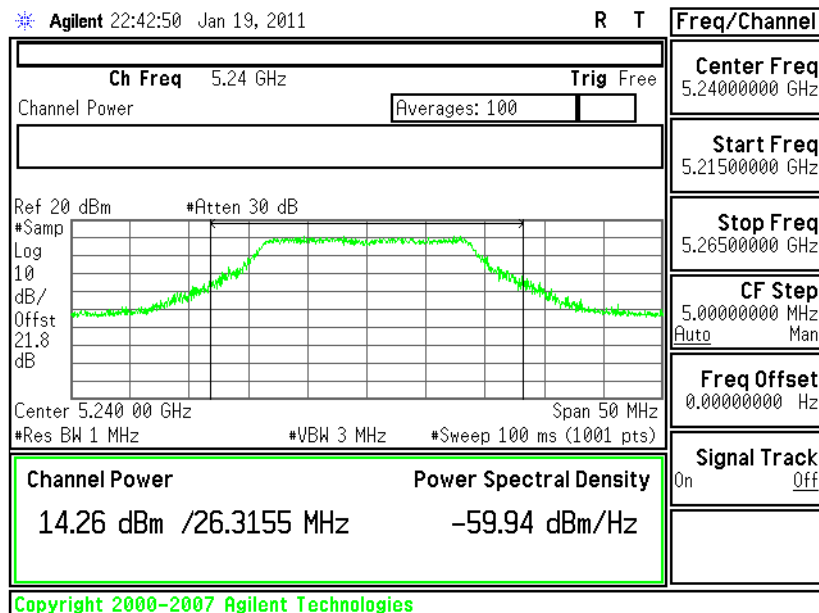
Conducted Output Power on 802.11n (BW 20MHz) Channel 48 -

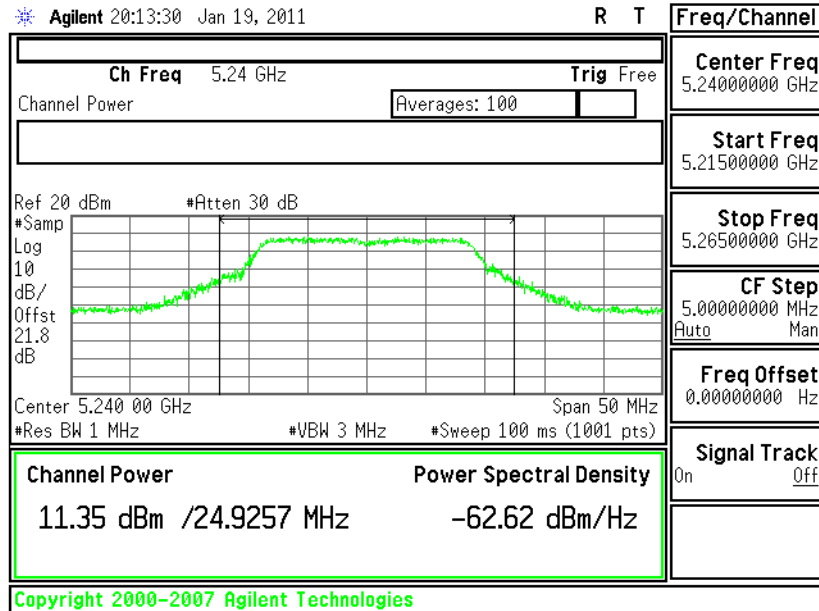
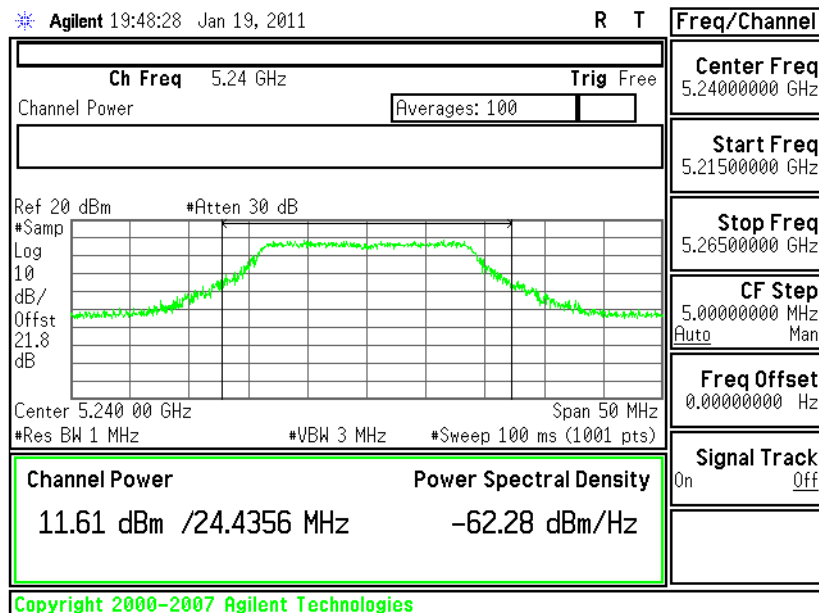
Chain A



Conducted Output Power on 802.11n (BW 20MHz) Channel 48 -

Chain B

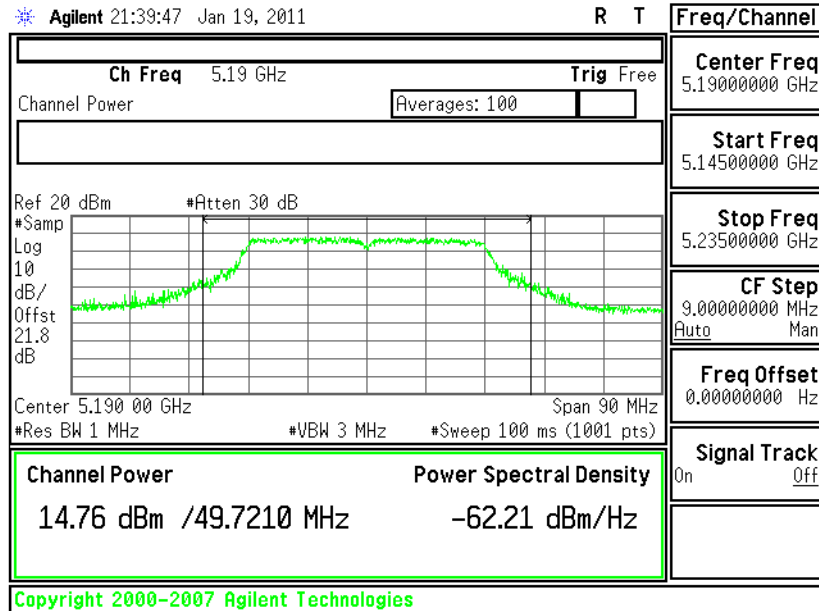


**Conducted Output Power on 802.11n (BW 20MHz) Channel 48 -****Chain A+B(A)****Conducted Output Power on 802.11n (BW 20MHz) Channel 48 -****Chain A+B(B)**



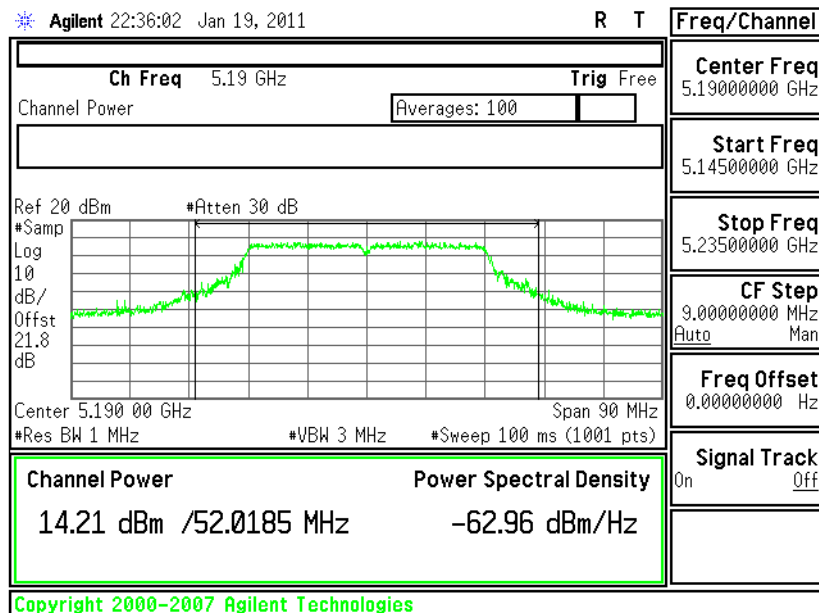
Conducted Output Power on 802.11n (BW 40MHz) Channel 38 -

Chain A



Conducted Output Power on 802.11n (BW 40MHz) Channel 38 -

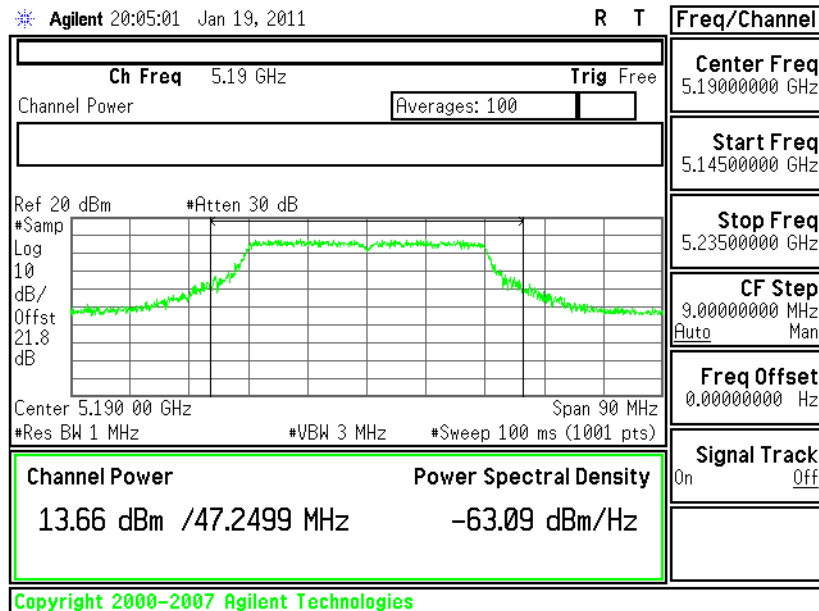
Chain B





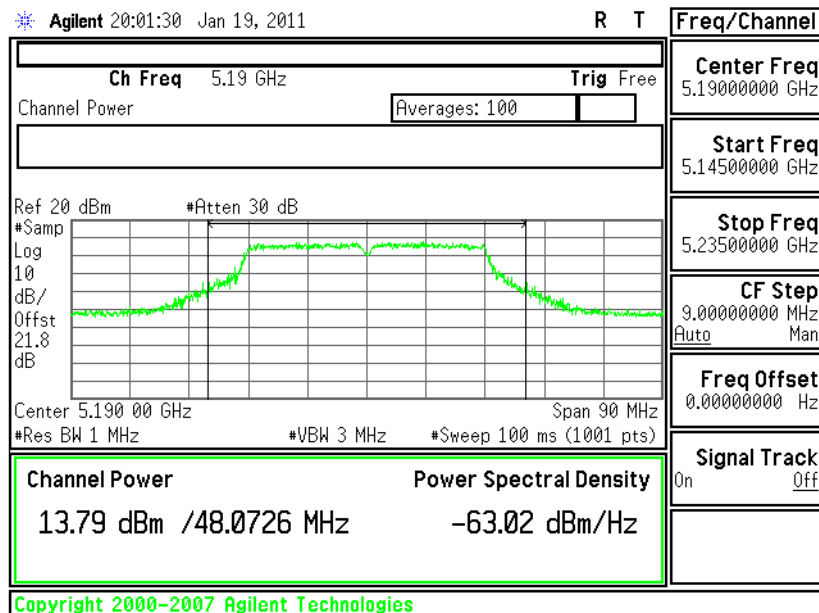
## Conducted Output Power on 802.11n (BW 40MHz) Channel 38 -

## Chain A+B(A)



## Conducted Output Power on 802.11n (BW 40MHz) Channel 38 -

## Chain A+B(B)

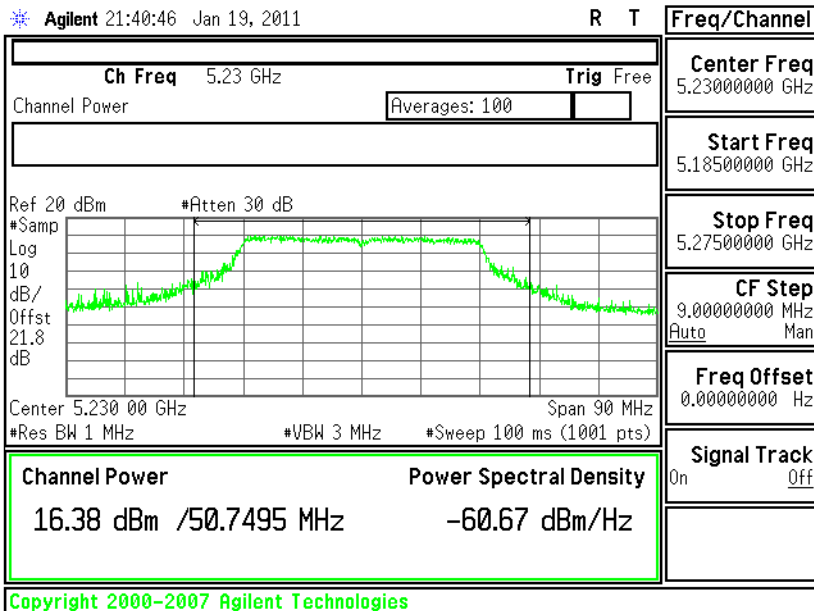






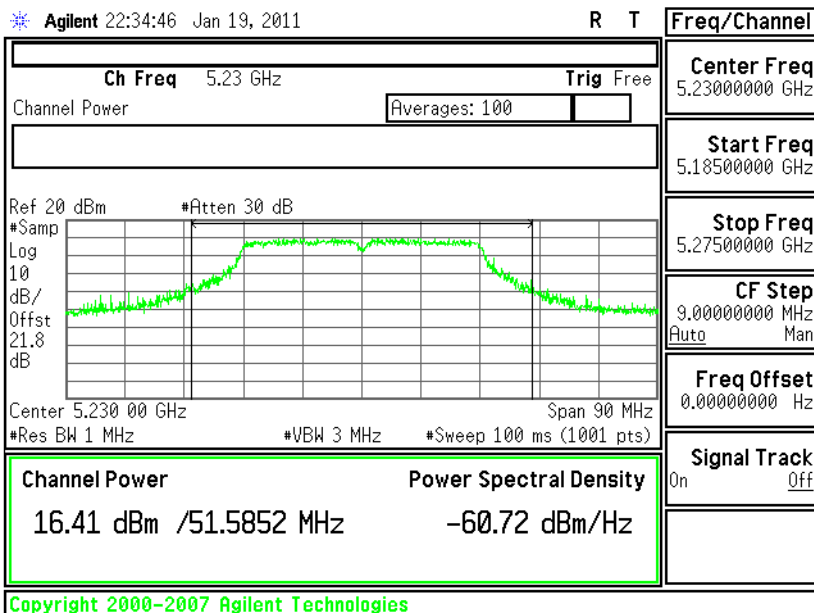
## Conducted Output Power on 802.11n (BW 40MHz) Channel 46 -

## Chain A



## Conducted Output Power on 802.11n (BW 40MHz) Channel 46 -

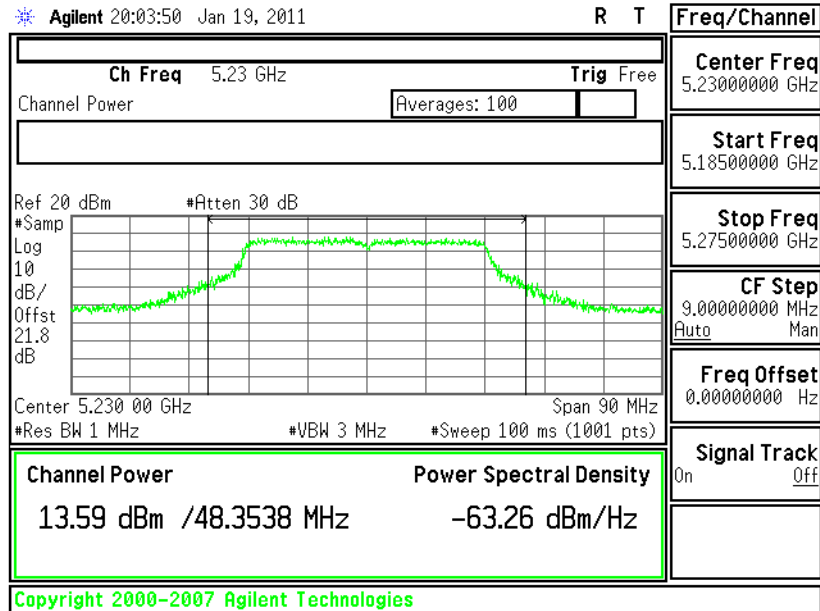
## Chain B





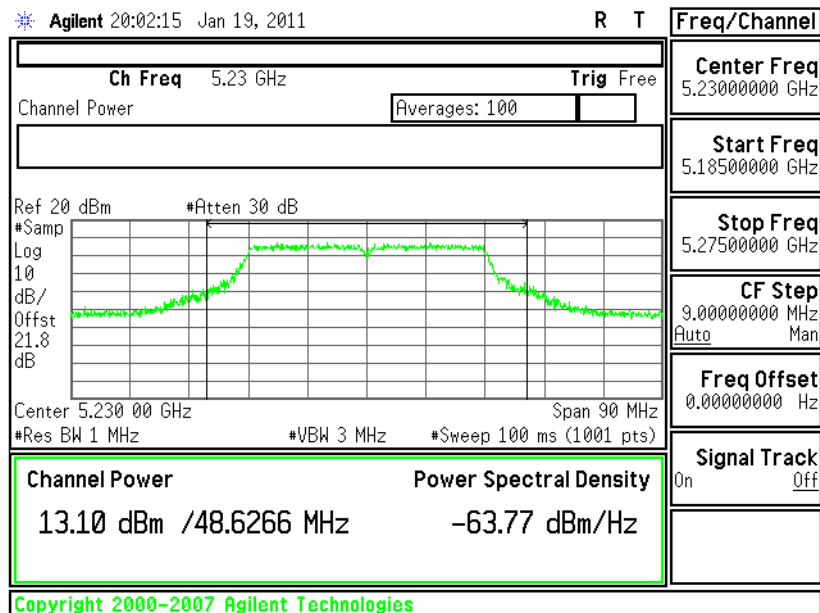
## Conducted Output Power on 802.11n (BW 40MHz) Channel 46 -

## Chain A+B(A)



## Conducted Output Power on 802.11n (BW 40MHz) Channel 46 -

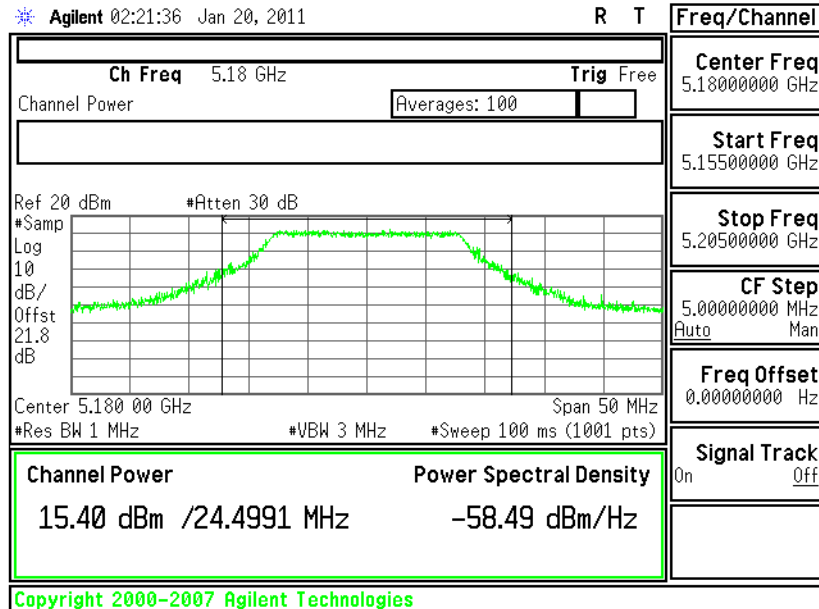
## Chain A+B(B)



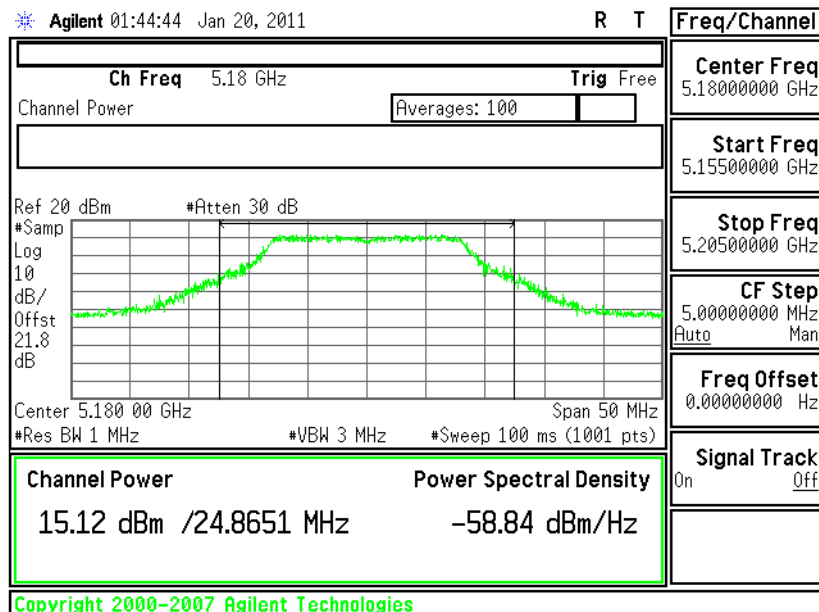


## &lt;Antenna 1 for 3.3V&gt;

## Conducted Output Power on 802.11a Channel 36 - Chain A



## Conducted Output Power on 802.11a Channel 36 - Chain B

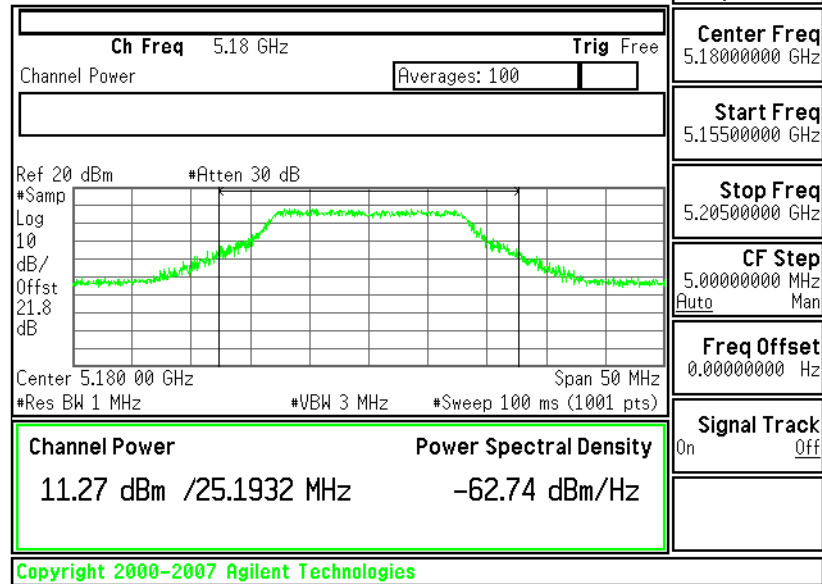




## Conducted Output Power on 802.11a Channel 36 - Chain A+B(A)

Agilent 23:47:56 Jan 19, 2011

R T



## Conducted Output Power on 802.11a Channel 36 - Chain A+B(B)

Agilent 23:14:26 Jan 19, 2011

R T

