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6. CONDUCTED EMISSIONS 206

1. Maximum peak conducted output power

Channel (mode) SISO	Channel Frequency (MHz)	RF Output Power (Ant0)		Limit (mW)	Result
		dBm	mW		
1 (802.11b)	2412	15.24	33.42	1000	Pass
6 (802.11b)	2437	14.98	31.48	1000	Pass
11 (802.11b)	2462	14.62	28.97	1000	Pass
1 (802.11g)	2412	19.11	81.47	1000	Pass
6 (802.11g)	2437	18.73	74.64	1000	Pass
11 (802.11g)	2462	18.79	75.68	1000	Pass
1 (802.11n-HT20)	2412	16.70	46.77	1000	Pass
6 (802.11n-HT20)	2437	16.72	46.99	1000	Pass
11 (802.11n-HT20)	2462	16.84	48.31	1000	Pass
3 (802.11n-HT40)	2422	16.70	46.77	1000	Pass
6 (802.11n-HT40)	2437	15.76	37.67	1000	Pass
9 (802.11n-HT40)	2452	17.73	59.29	1000	Pass

Channel (mode) MIMO	Channel Frequency (MHz)	RF Output Power (Ant0+Ant1)					Limit (mW)	Result
		dBm		mW		Total (mW)		
		Ant0	Ant1	Ant0	Ant1			
1 (802.11n-HT20)	2412	16.74	16.59	47.21	45.60	92.81	1000	Pass
6 (802.11n-HT20)	2437	16.69	17.09	46.67	51.17	97.83	1000	Pass
11 (802.11n-HT20)	2462	16.79	16.68	47.75	46.56	94.31	1000	Pass
3 (802.11n-HT40)	2422	16.78	16.59	47.64	45.60	93.25	1000	Pass
6 (802.11n-HT40)	2437	15.85	17.09	38.46	51.17	89.63	1000	Pass
9 (802.11n-HT40)	2452	17.63	16.68	57.94	46.56	104.50	1000	Pass

Note: The maximum peak conducted output power measured using a broadband peak RF power meter.

2. 6dB Bandwidth and 99% Bandwidth

2.1 Test Datas of 6dB Bandwidth

Channel (mode)	Channel Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
		Ant0		
1 (802.11b)	2412	10.10	>0.5	Pass
6 (802.11b)	2437	10.09	>0.5	Pass
11 (802.11b)	2462	10.07	>0.5	Pass
1 (802.11g)	2412	16.07	>0.5	Pass
6 (802.11g)	2437	15.91	>0.5	Pass
11 (802.11g)	2462	16.14	>0.5	Pass
1 (802.11n-HT20)	2412	17.04	>0.5	Pass
6 (802.11n-HT20)	2437	16.89	>0.5	Pass
11 (802.11n-HT20)	2462	16.94	>0.5	Pass
3 (802.11n-HT40)	2422	35.59	>0.5	Pass
6 (802.11n-HT40)	2437	35.45	>0.5	Pass
9 (802.11n-HT40)	2452	35.40	>0.5	Pass

Channel (mode)	Channel Frequency (MHz)	6dB Bandwidth (MHz)		Limit (MHz)	Result
		Ant0	Ant1		
1 (802.11n-HT20)	2412	16.98	16.66	>0.5	Pass
6 (802.11n-HT20)	2437	16.30	16.98	>0.5	Pass
11 (802.11n-HT20)	2462	16.94	16.94	>0.5	Pass
3 (802.11n-HT40)	2422	35.23	35.53	>0.5	Pass
6 (802.11n-HT40)	2437	35.21	35.26	>0.5	Pass
9 (802.11n-HT40)	2452	35.26	35.29	>0.5	Pass

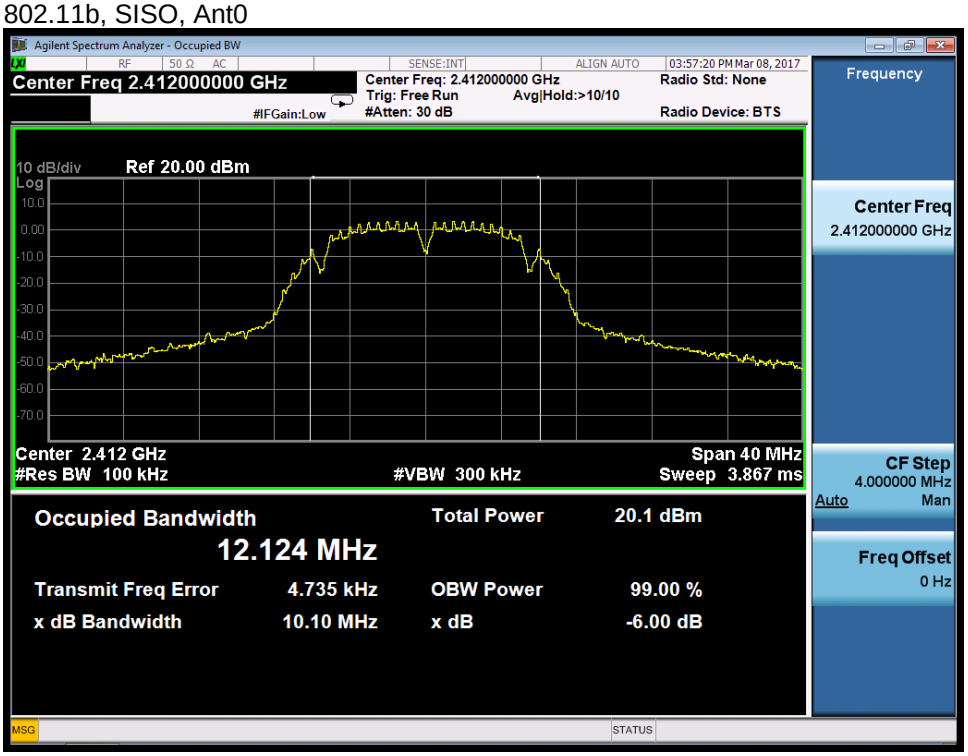
2.2 Test Datas of 99% Bandwidth

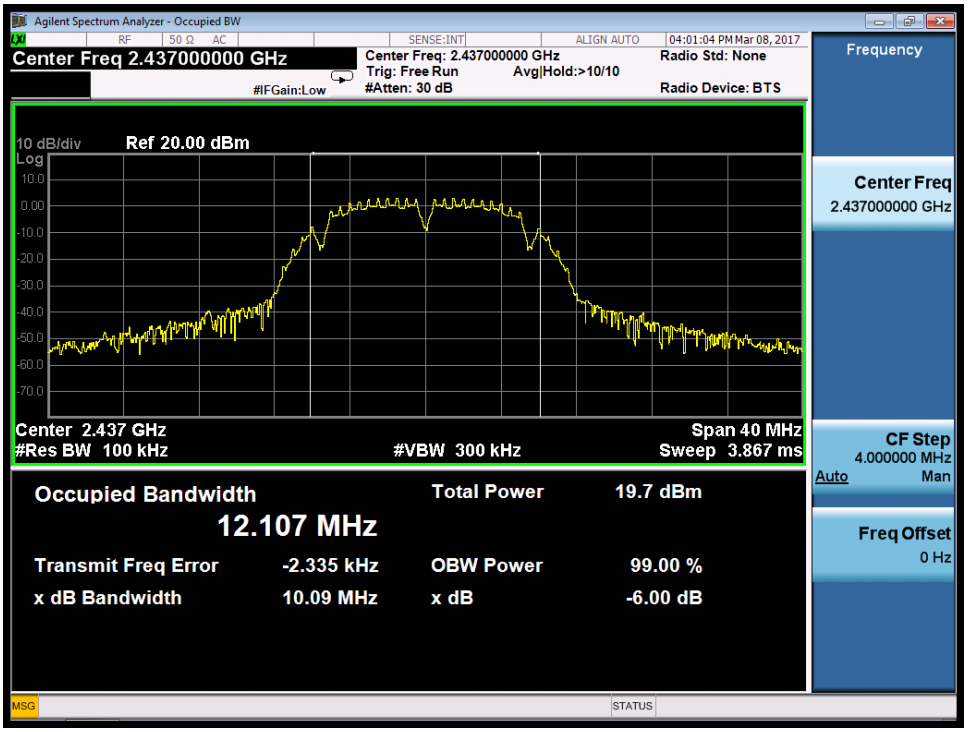
Channel (mode)	Channel Frequency (MHz)	99% Bandwidth (MHz)
		Ant0
1 (802.11b)	2412	12.175
6 (802.11b)	2437	12.159
11 (802.11b)	2462	12.167
1 (802.11g)	2412	16.582
6 (802.11g)	2437	16.561
11 (802.11g)	2462	16.570
1 (802.11n-HT20)	2412	17.622
6 (802.11n-HT20)	2437	17.607
11 (802.11n-HT20)	2462	17.611
3 (802.11n-HT40)	2422	35.90
6 (802.11n-HT40)	2437	36.23
9 (802.11n-HT40)	2452	36.173

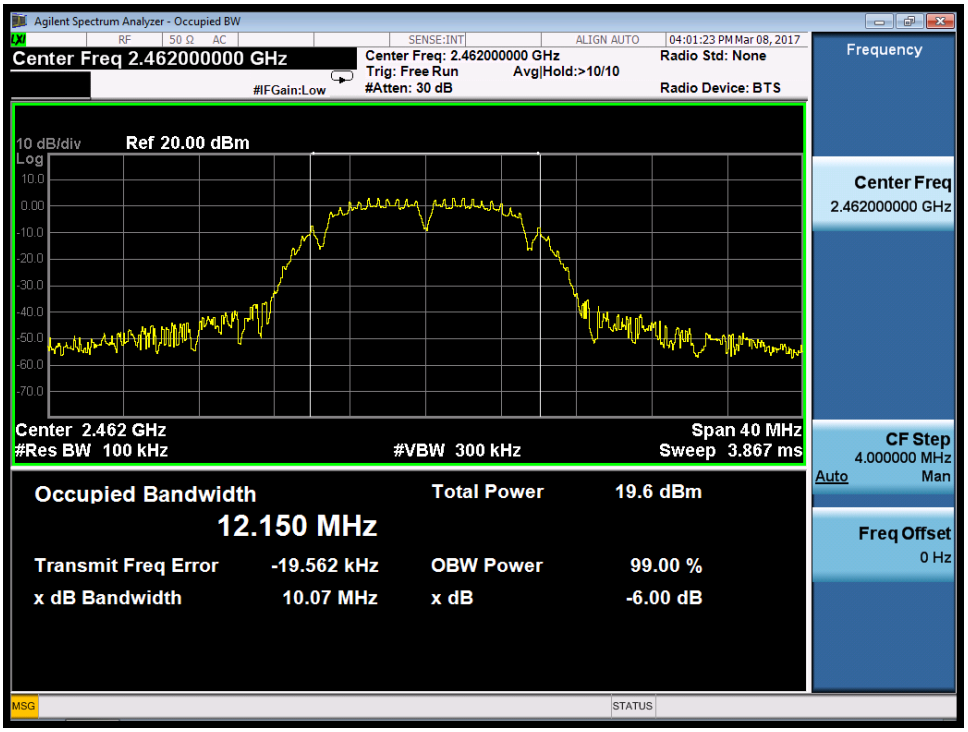
Channel (mode)	Channel Frequency (MHz)	99% Bandwidth (MHz)	
		Ant0	Ant1
1 (802.11n-HT20)	2412	17.598	17.598
6 (802.11n-HT20)	2437	17.631	17.606
11 (802.11n-HT20)	2462	17.608	17.600
3 (802.11n-HT40)	2422	36.107	36.195
6 (802.11n-HT40)	2437	36.181	36.142
9 (802.11n-HT40)	2452	36.175	36.184

2.3 Test Graphs of 6dB Bandwidth

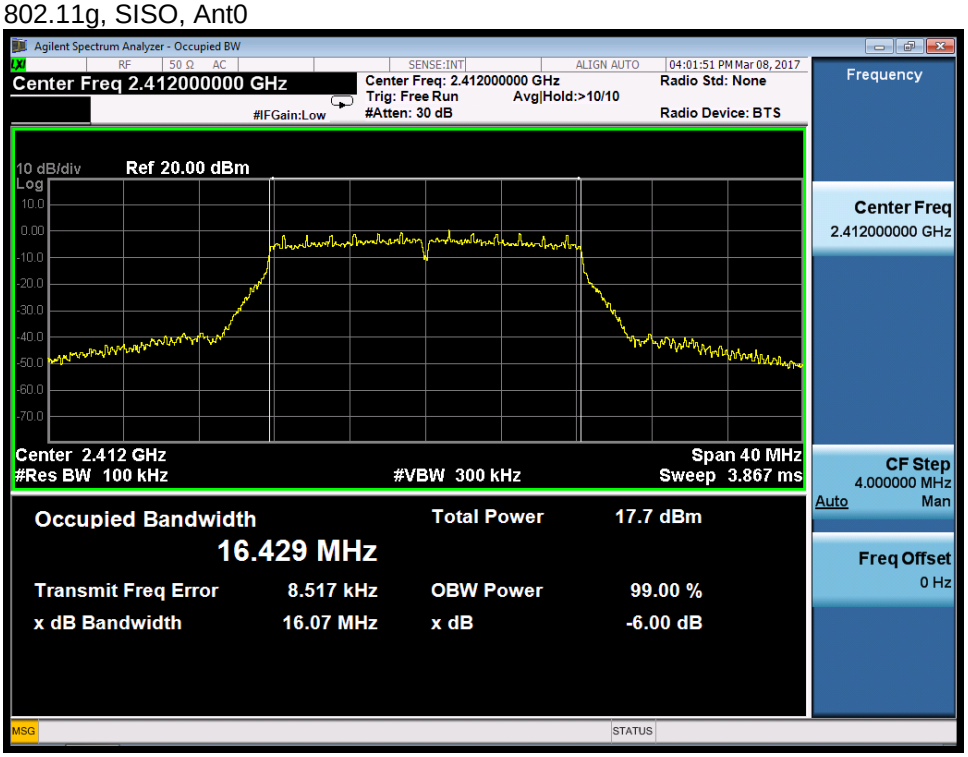
802.11b, SISO, Ant0

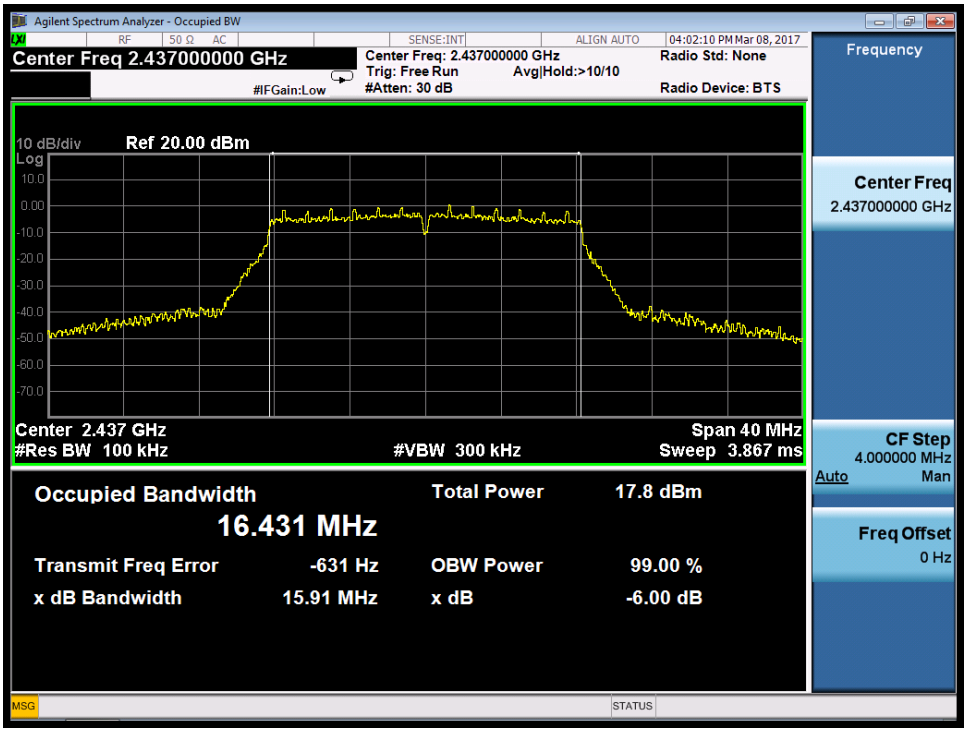


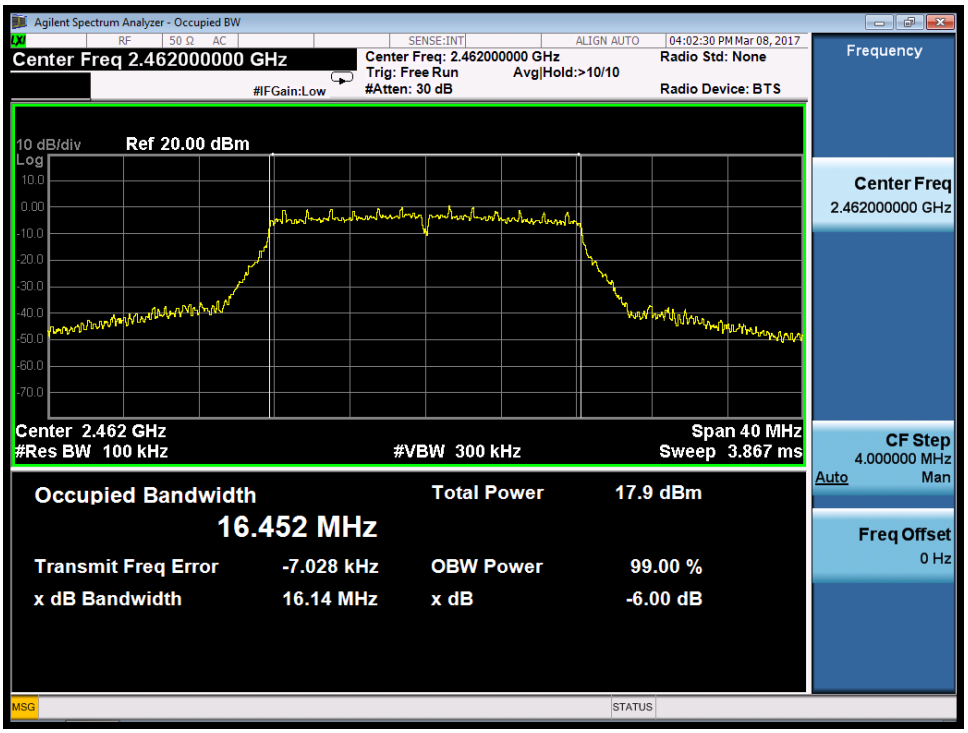




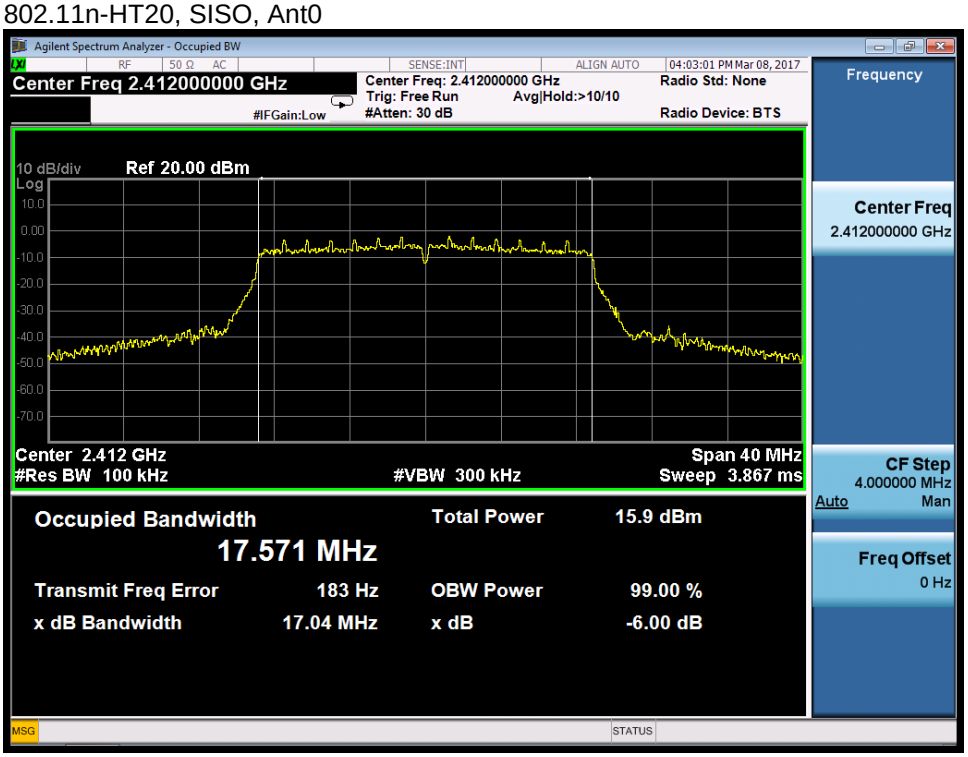
802.11g, SISO, Ant0

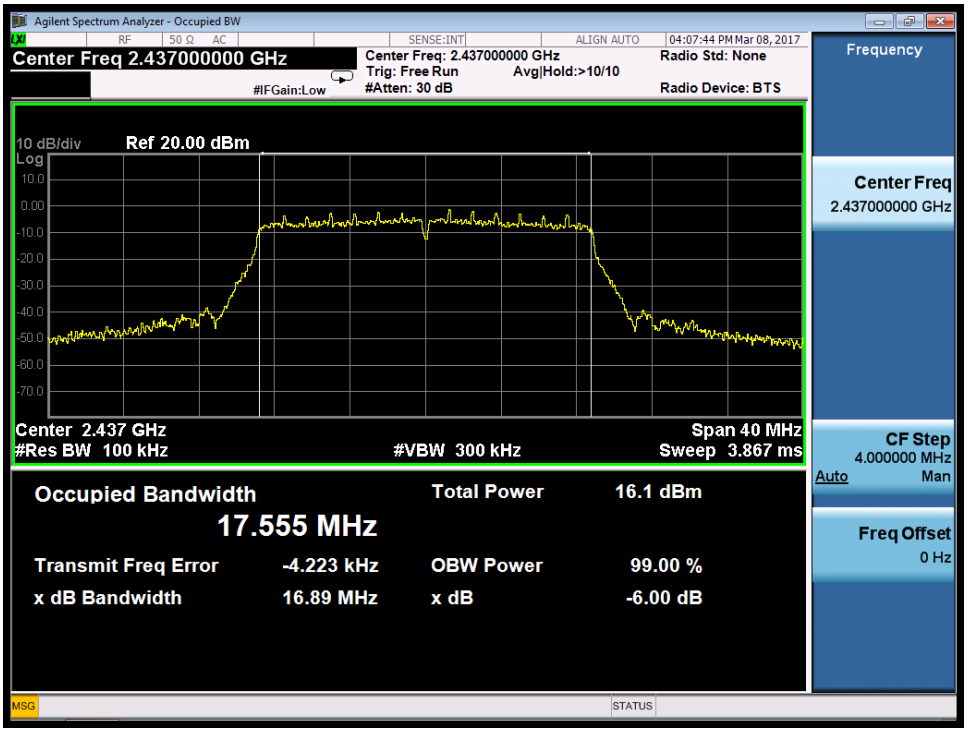


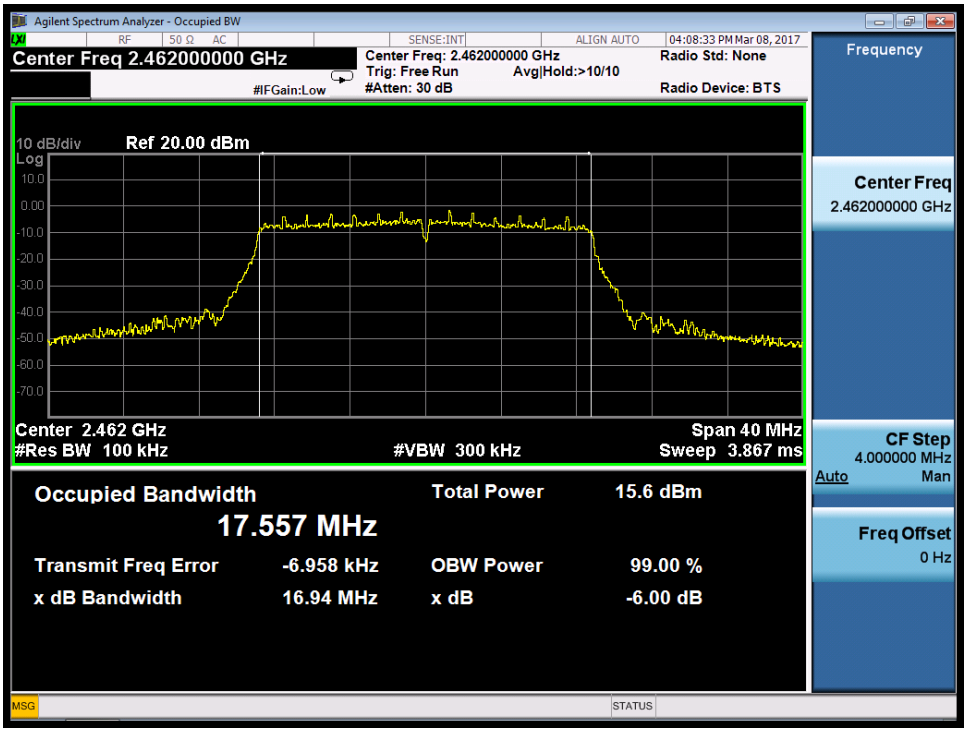

Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.437000000 GHz
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
04:02:10 PM Mar 08, 2017
Frequency
10 dB/div
Ref 20.00 dBm
Log
Center 2.437 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 3.867 ms
Occupied Bandwidth
16.431 MHz
Total Power
17.8 dBm
Transmit Freq Error
-631 Hz
OBW Power
99.00 %
x dB Bandwidth
15.91 MHz
x dB
-6.00 dB
Center Freq
2.437000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS


Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.462000000 GHz
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
04:02:30 PM Mar 08, 2017
Frequency
10 dB/div
Ref 20.00 dBm
Log
Center 2.462 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 3.867 ms
Occupied Bandwidth
16.452 MHz
Total Power
17.9 dBm
Transmit Freq Error
-7.028 kHz
OBW Power
99.00 %
x dB Bandwidth
16.14 MHz
x dB
-6.00 dB
Center Freq
2.462000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

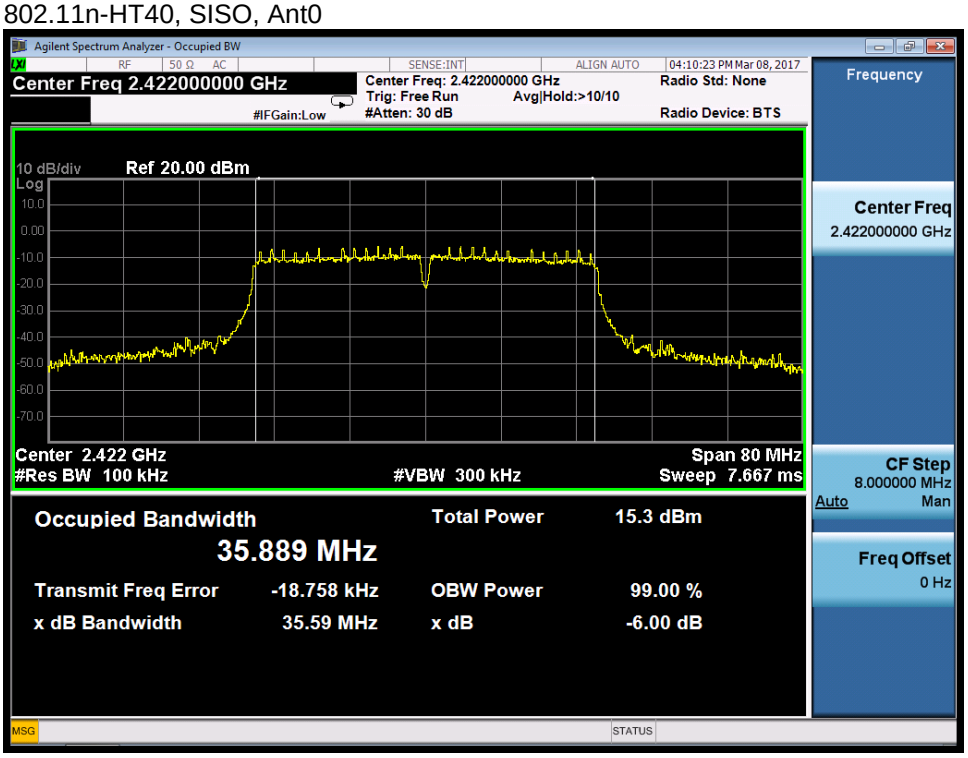
802.11n-HT20, SISO, Ant0

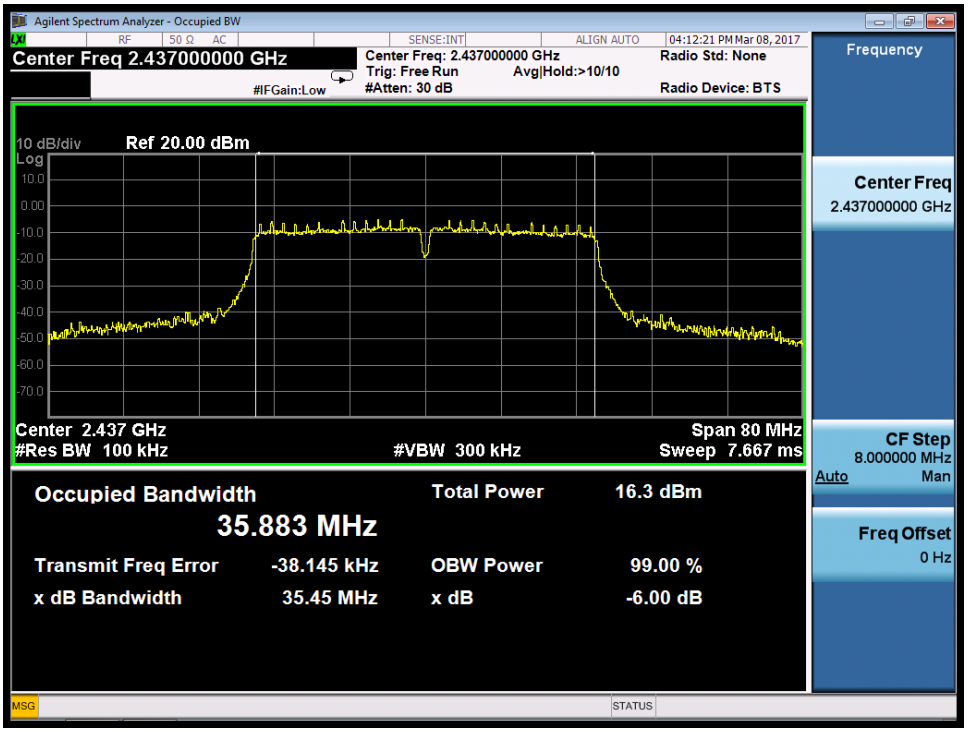


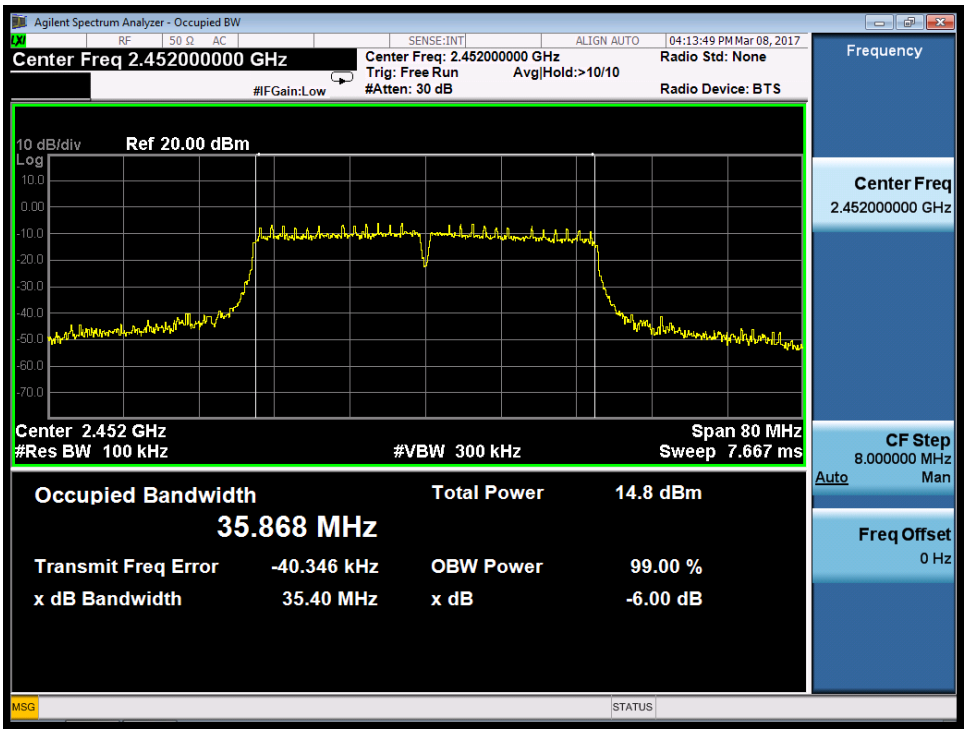




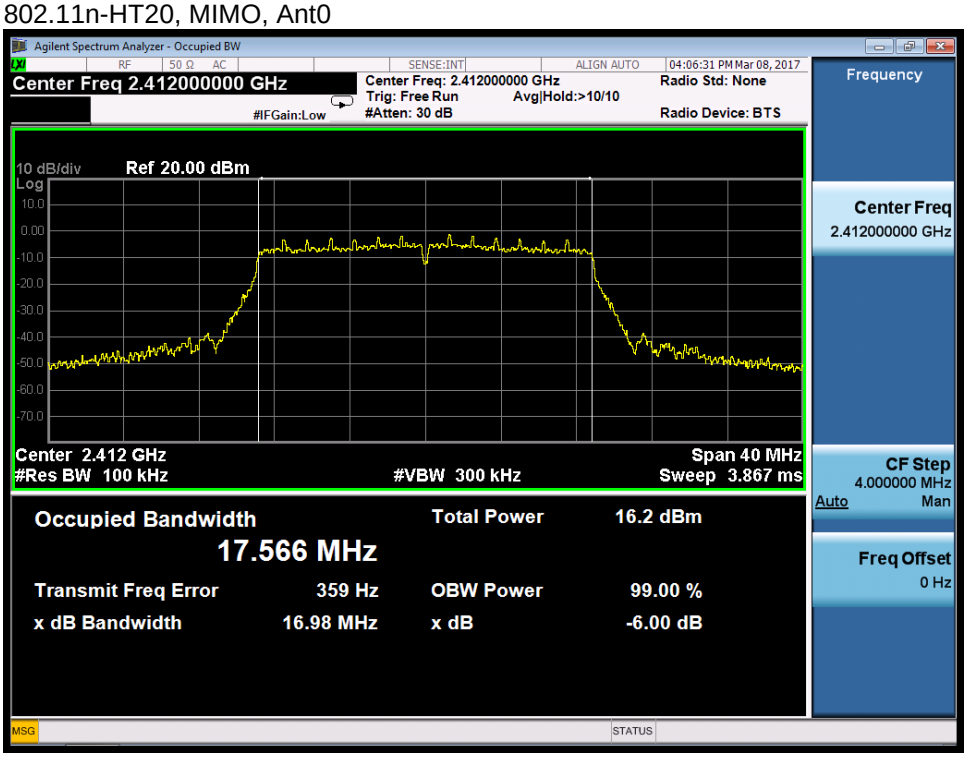
802.11n-HT40, SISO, Ant0

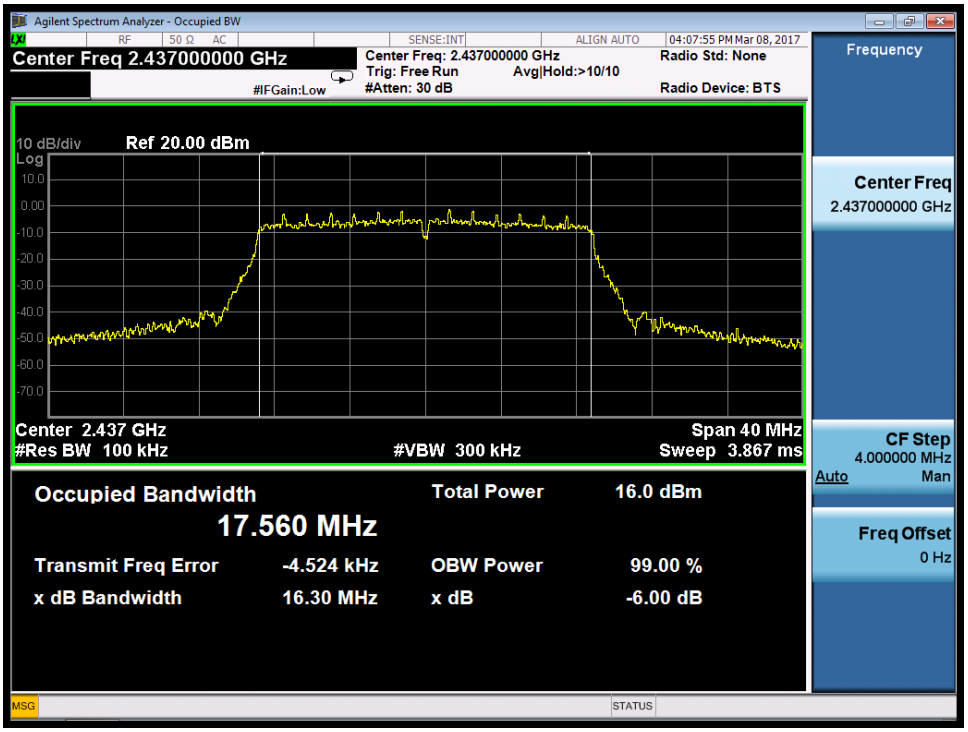


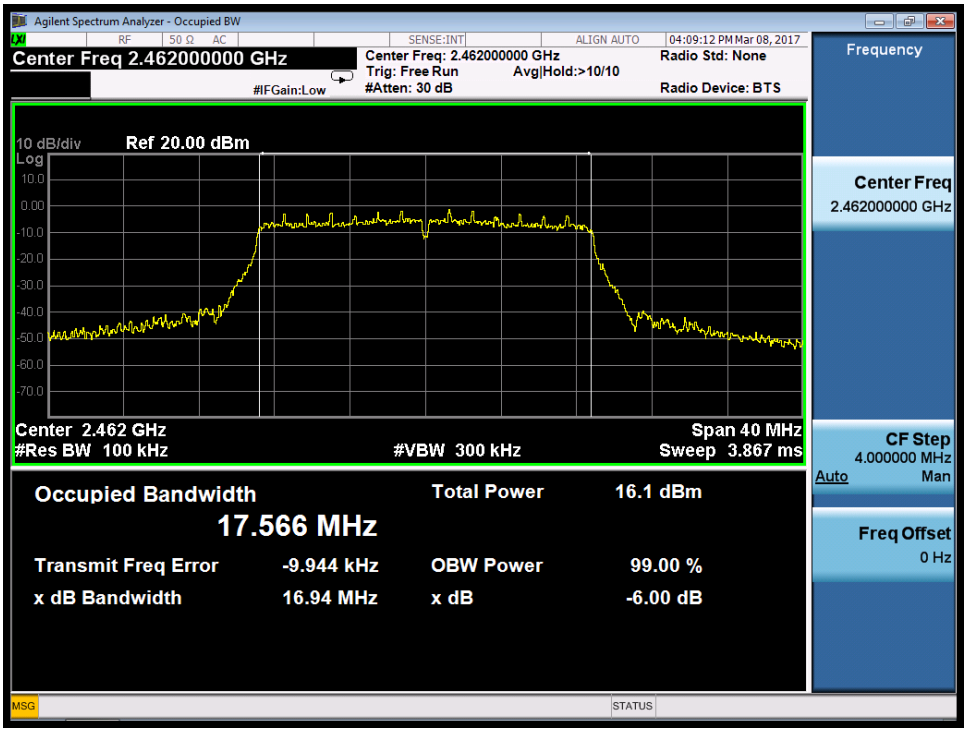

Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.437000000 GHz
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
04:12:21 PM Mar 08, 2017
Frequency
10 dB/div
Ref 20.00 dBm
Log
Center 2.437 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 80 MHz
Sweep 7.667 ms
Occupied Bandwidth
35.883 MHz
Total Power
16.3 dBm
Transmit Freq Error
-38.145 kHz
OBW Power
99.00 %
x dB Bandwidth
35.45 MHz
x dB
-6.00 dB
Center Freq
2.437000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS


Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.452000000 GHz
Center Freq: 2.452000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
04:13:49 PM Mar 08, 2017
Frequency
10 dB/div
Ref 20.00 dBm
Log
Center 2.452 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 80 MHz
Sweep 7.667 ms
Occupied Bandwidth
35.868 MHz
Total Power
14.8 dBm
Transmit Freq Error
-40.346 kHz
OBW Power
99.00 %
x dB Bandwidth
35.40 MHz
x dB
-6.00 dB
Center Freq
2.452000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

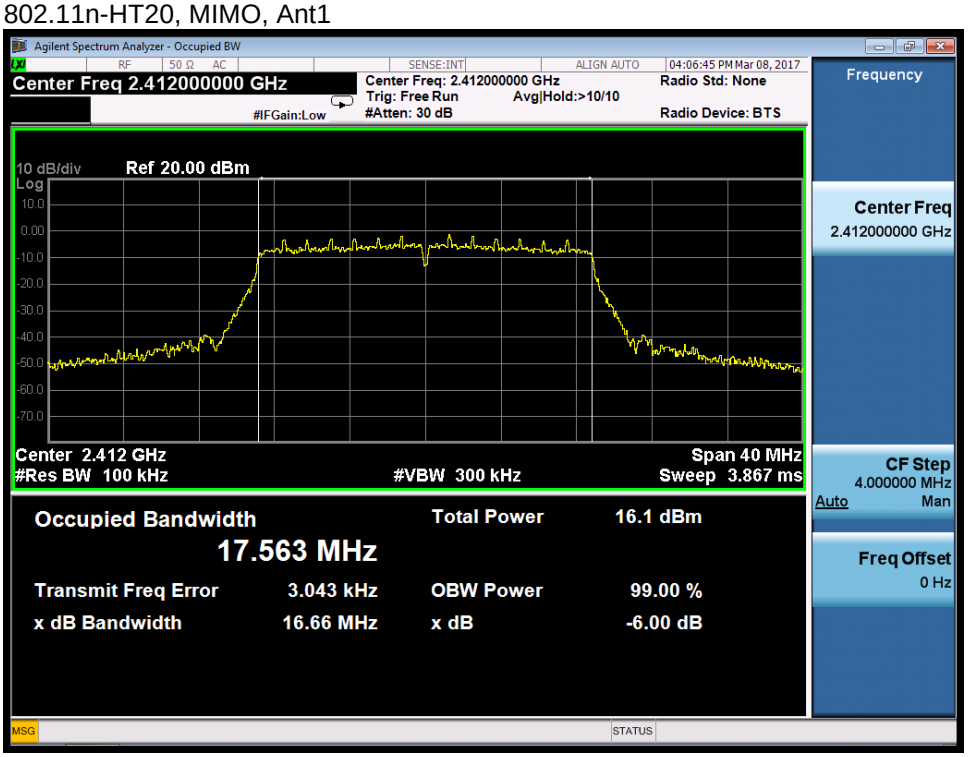
802.11n-HT20, MIMO, Ant0

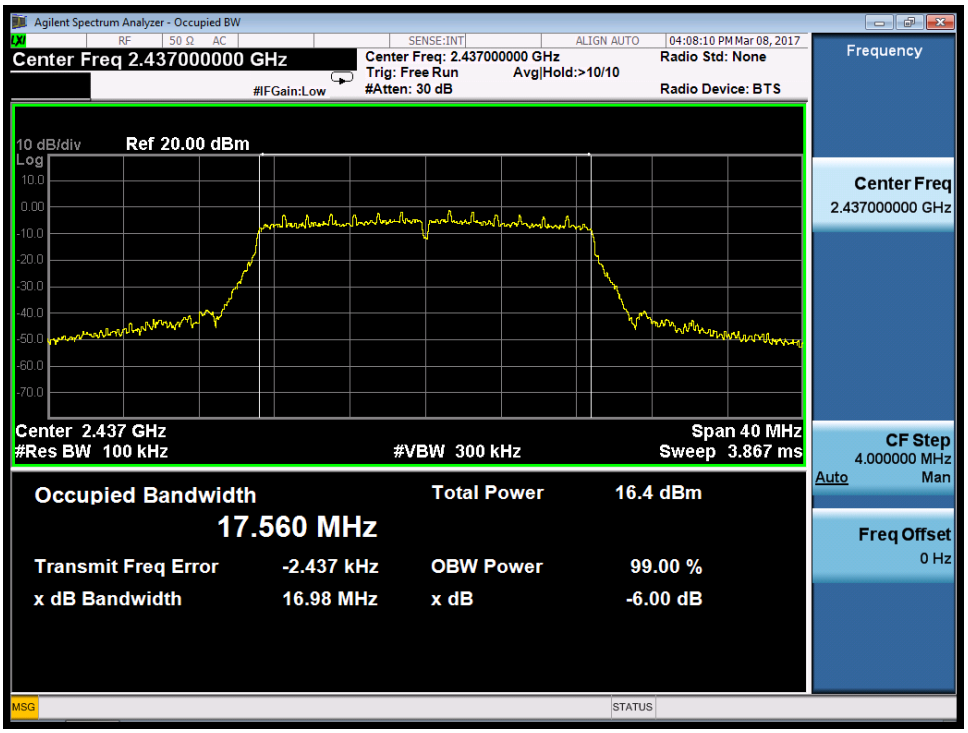


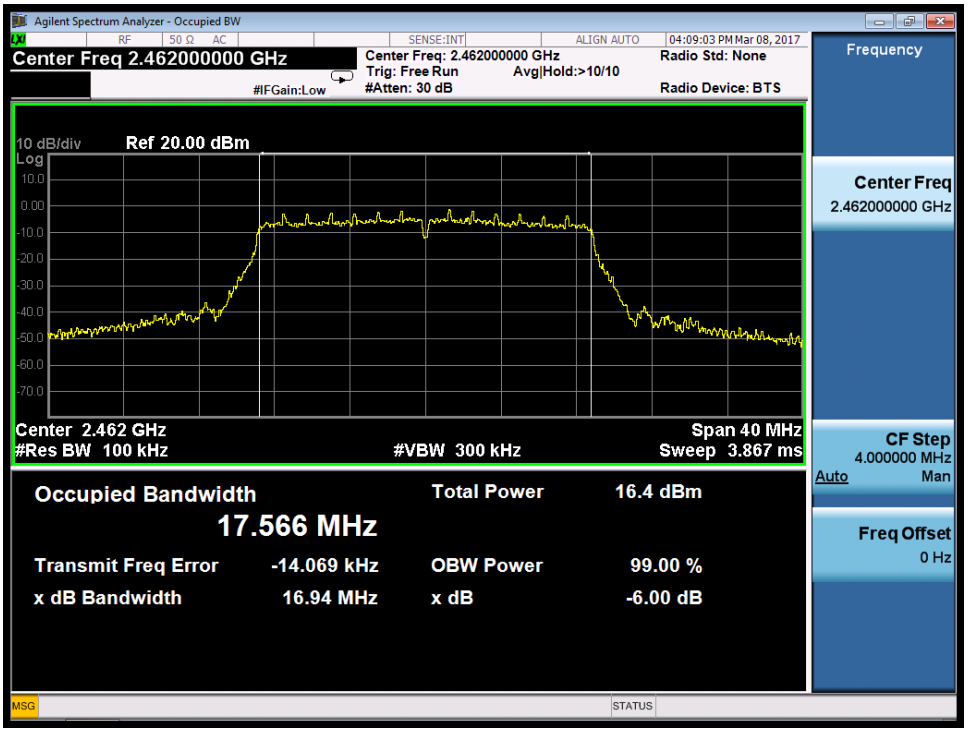




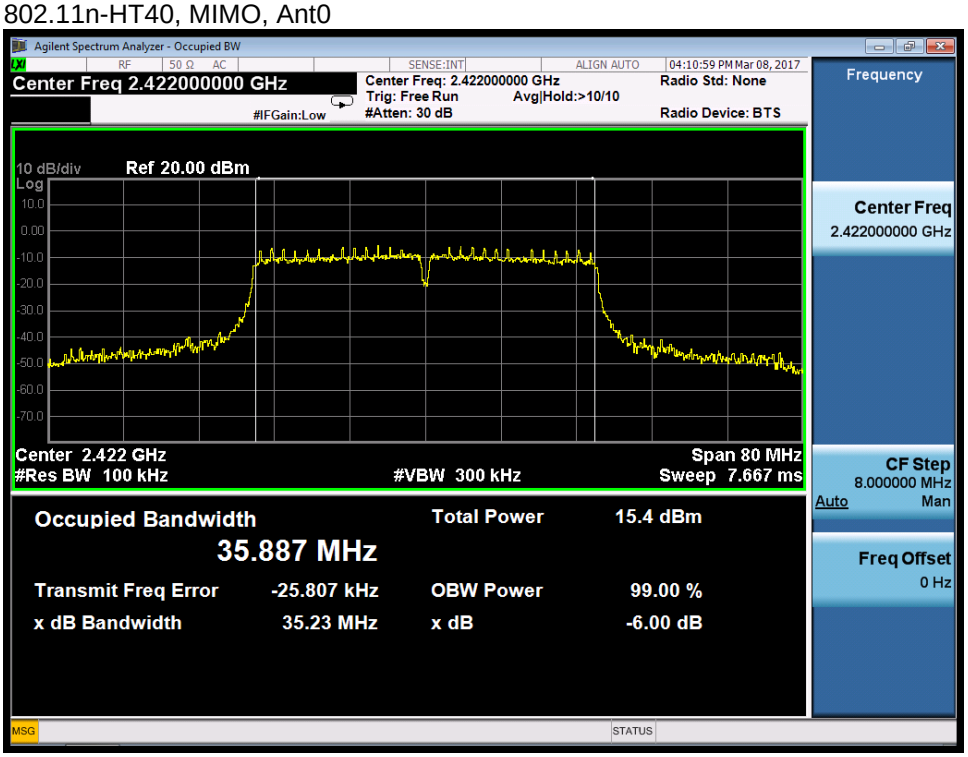
802.11n-HT20, MIMO, Ant1

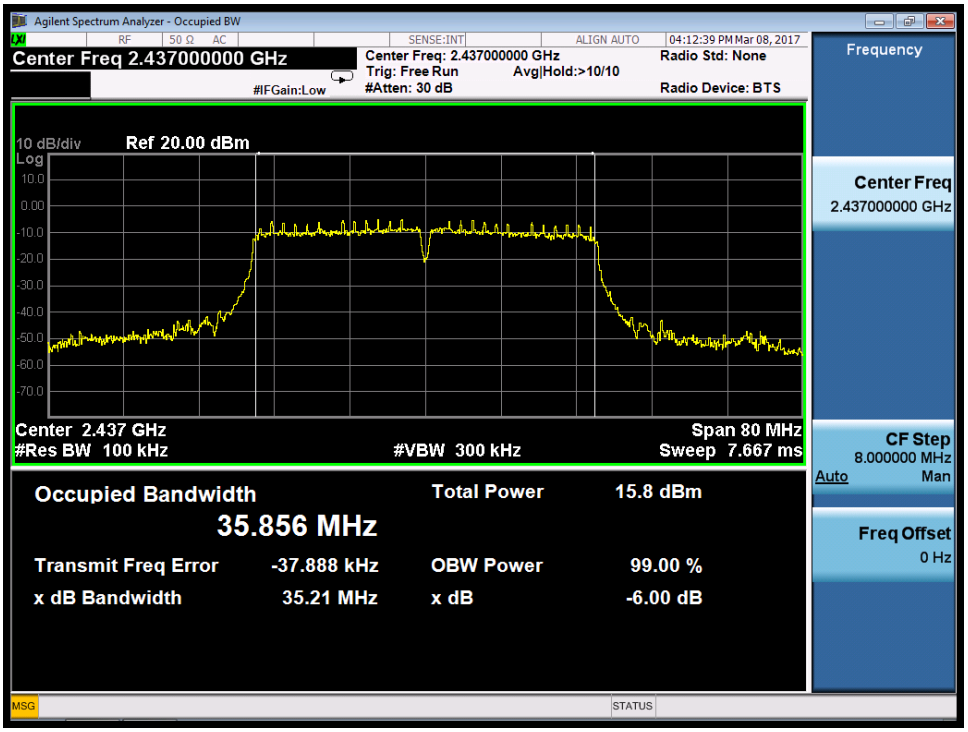


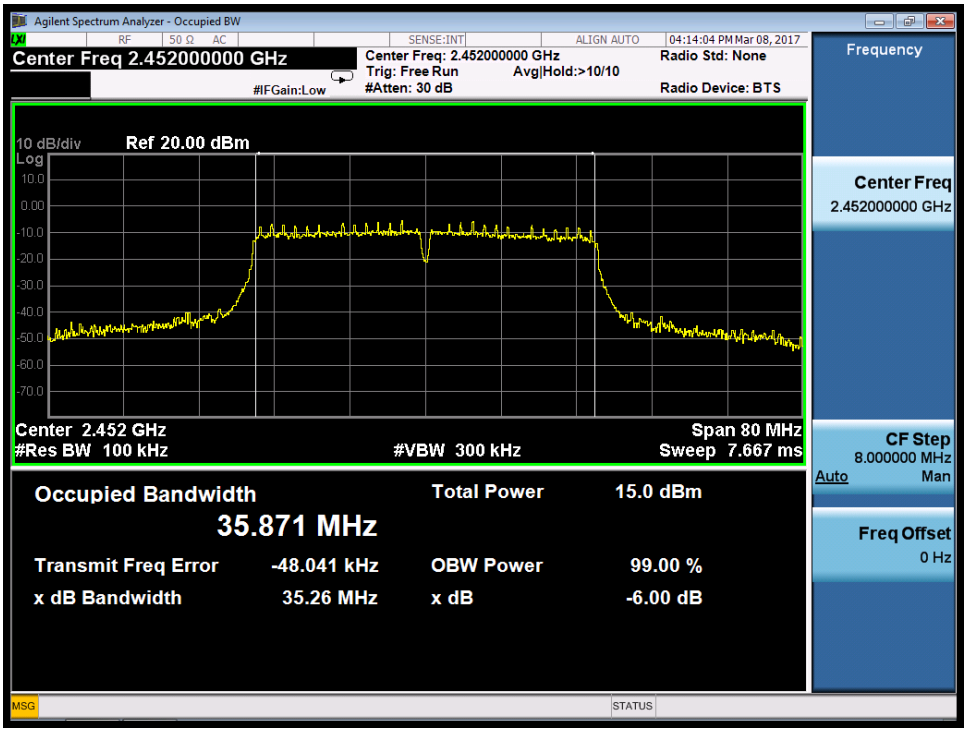

Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.437000000 GHz
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
04:08:10 PM Mar 08, 2017
Frequency
10 dB/div
Ref 20.00 dBm
Log
Center 2.437 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 3.867 ms
Occupied Bandwidth
17.560 MHz
Total Power
16.4 dBm
Transmit Freq Error
-2.437 kHz
OBW Power
99.00 %
x dB Bandwidth
16.98 MHz
x dB
-6.00 dB
Center Freq
2.437000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS


Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.462000000 GHz
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
04:09:03 PM Mar 08, 2017
Frequency
10 dB/div
Ref 20.00 dBm
Log
Center 2.462 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 3.867 ms
Occupied Bandwidth
17.566 MHz
Total Power
16.4 dBm
Transmit Freq Error
-14.069 kHz
OBW Power
99.00 %
x dB Bandwidth
16.94 MHz
x dB
-6.00 dB
Center Freq
2.462000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

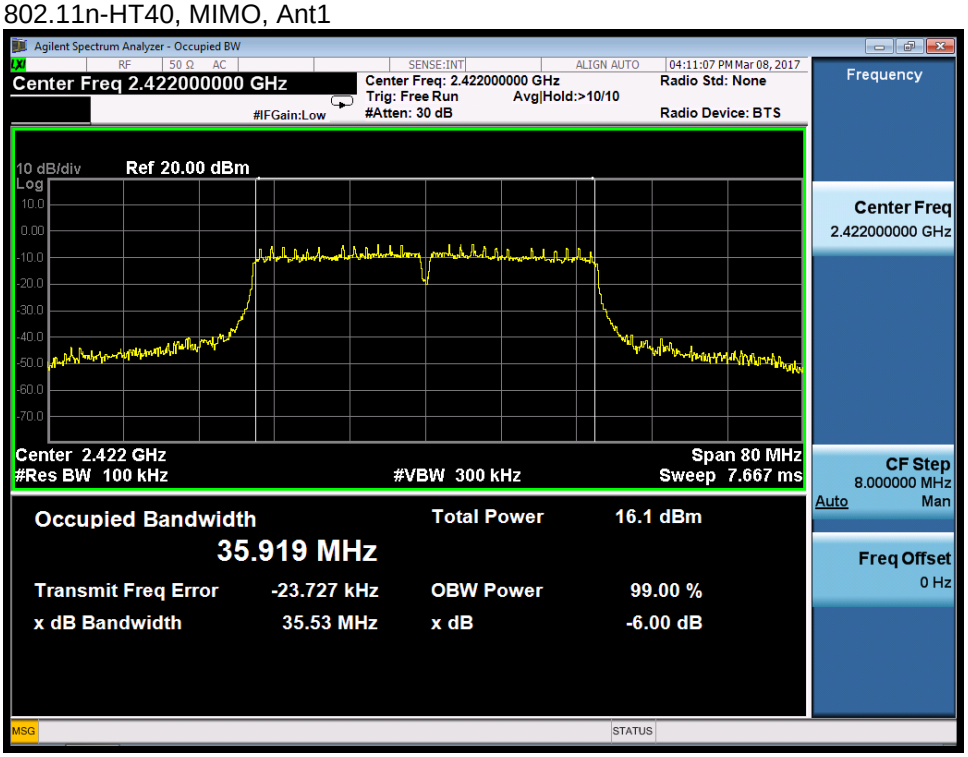
802.11n-HT40, MIMO, Ant0

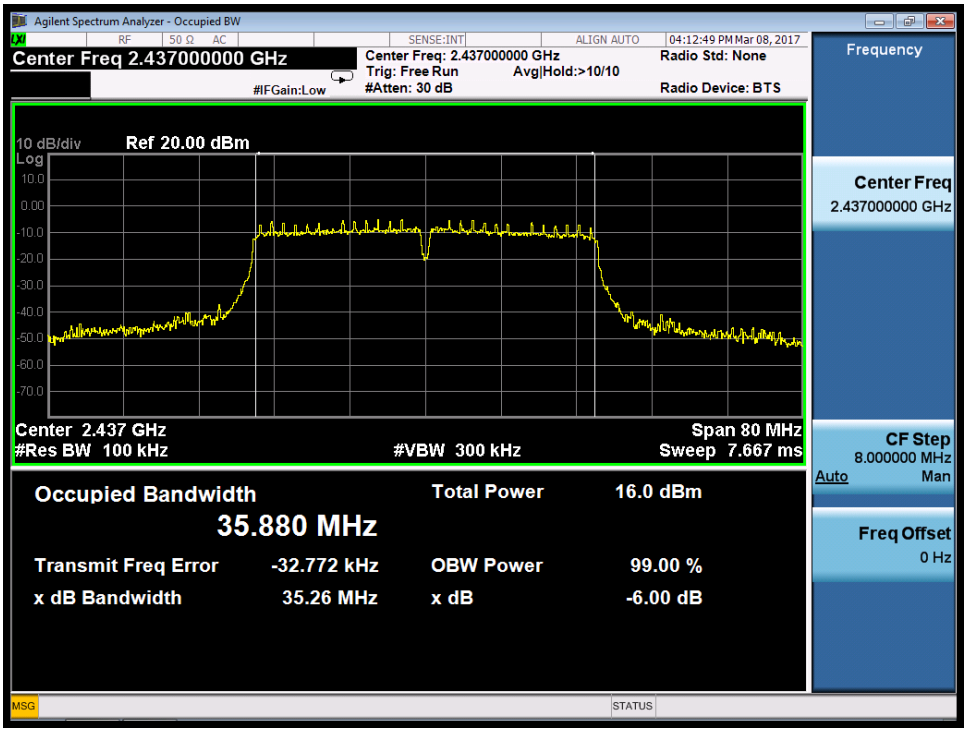


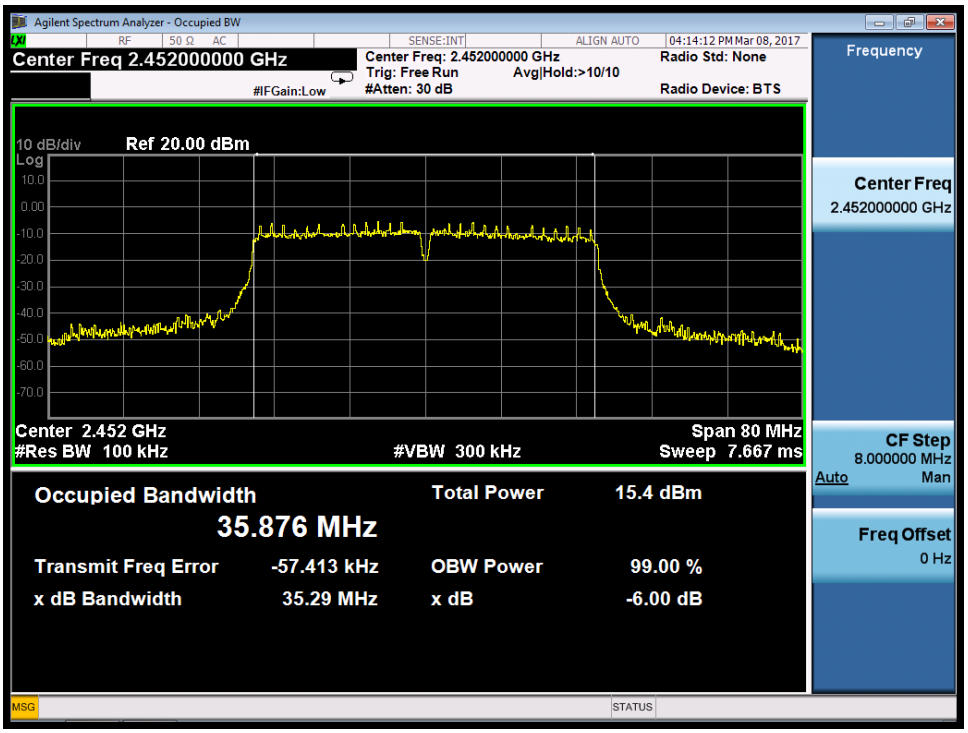




802.11n-HT40, MIMO, Ant1

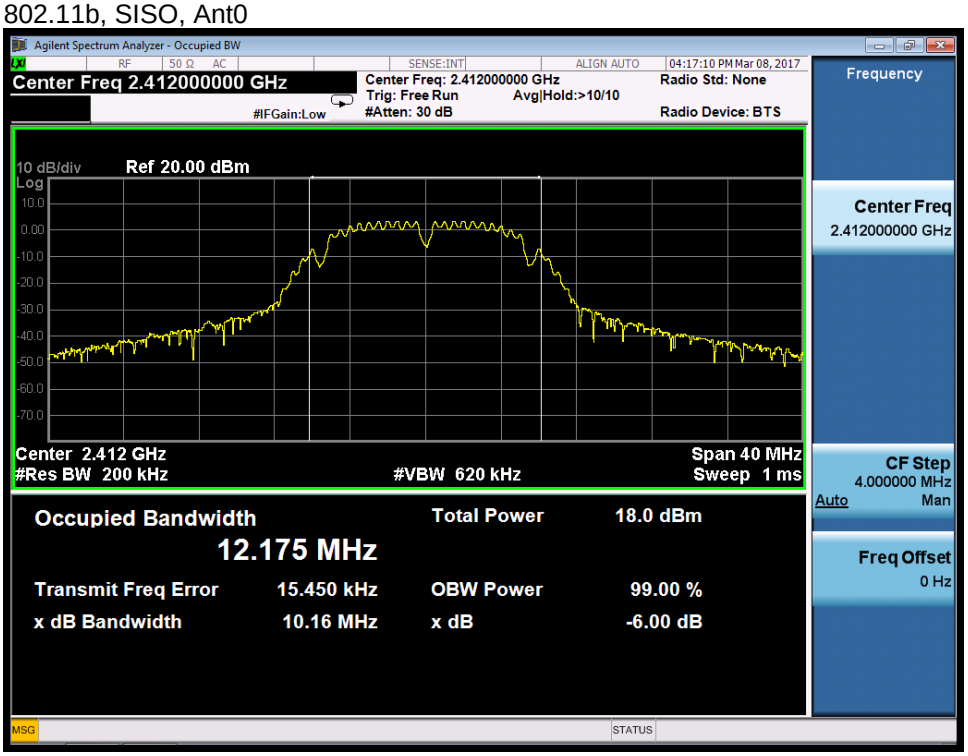


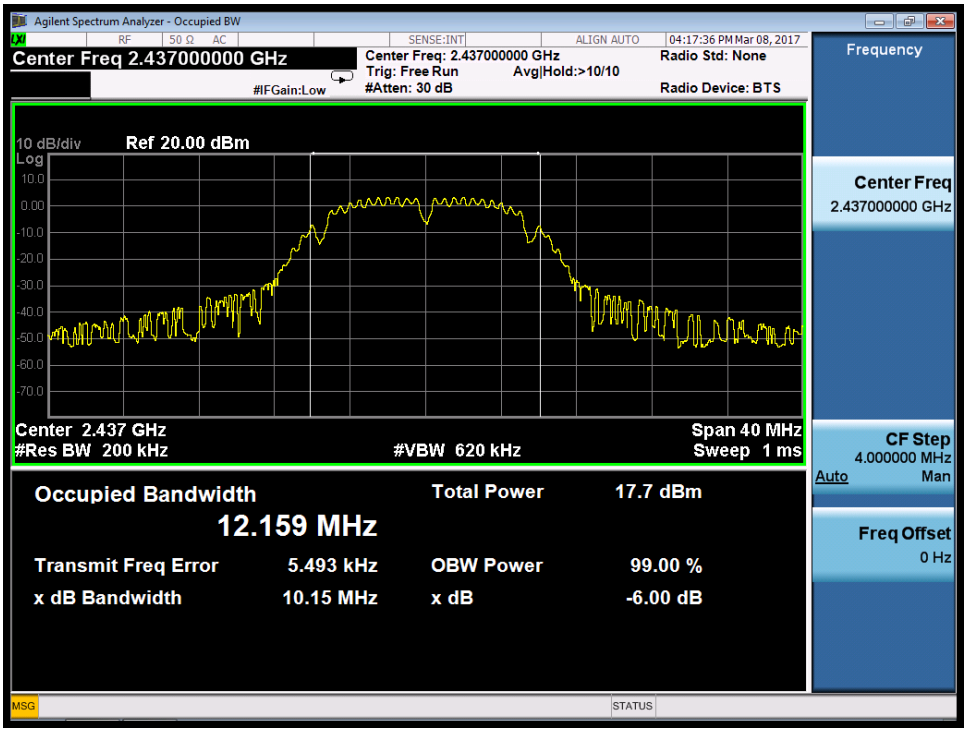

Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.437000000 GHz
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
04:12:49 PM Mar 08, 2017
Frequency
10 dB/div
Ref 20.00 dBm
Log
Center 2.437 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 80 MHz
Sweep 7.667 ms
Occupied Bandwidth
35.880 MHz
Total Power
16.0 dBm
Transmit Freq Error
-32.772 kHz
OBW Power
99.00 %
x dB Bandwidth
35.26 MHz
x dB
-6.00 dB
Center Freq
2.437000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

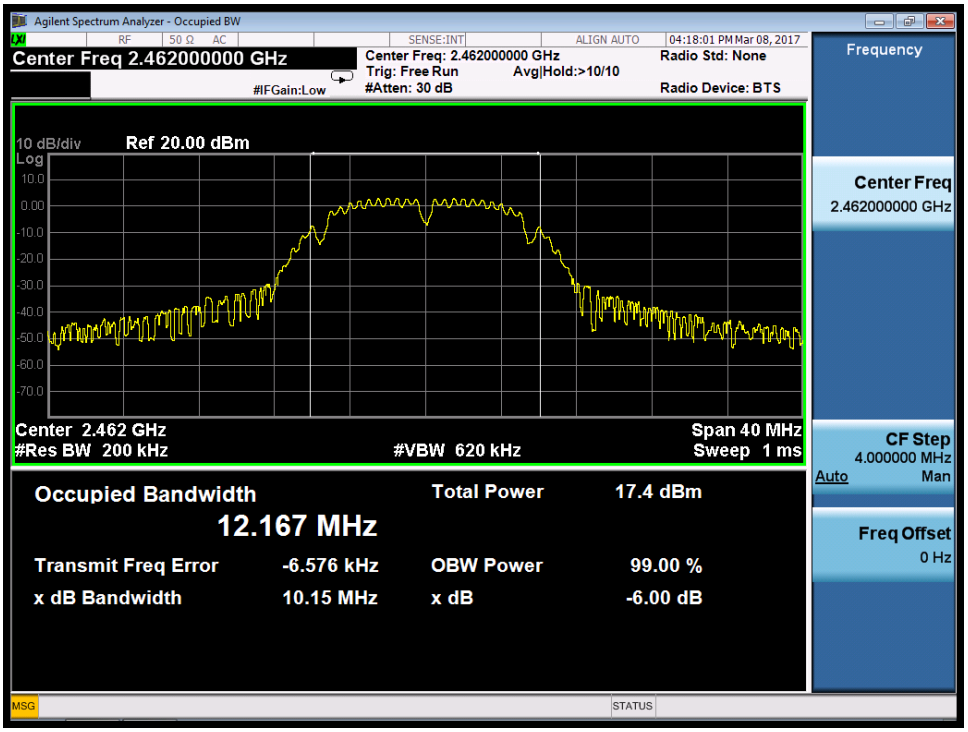

Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.452000000 GHz
Center Freq: 2.452000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
04:14:12 PM Mar 08, 2017
Frequency
10 dB/div
Ref 20.00 dBm
Log
Center 2.452 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 80 MHz
Sweep 7.667 ms
Occupied Bandwidth
35.876 MHz
Total Power
15.4 dBm
Transmit Freq Error
-57.413 kHz
OBW Power
99.00 %
x dB Bandwidth
35.29 MHz
x dB
-6.00 dB
Center Freq
2.452000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

2.4 Test Graphs of 99% Bandwidth

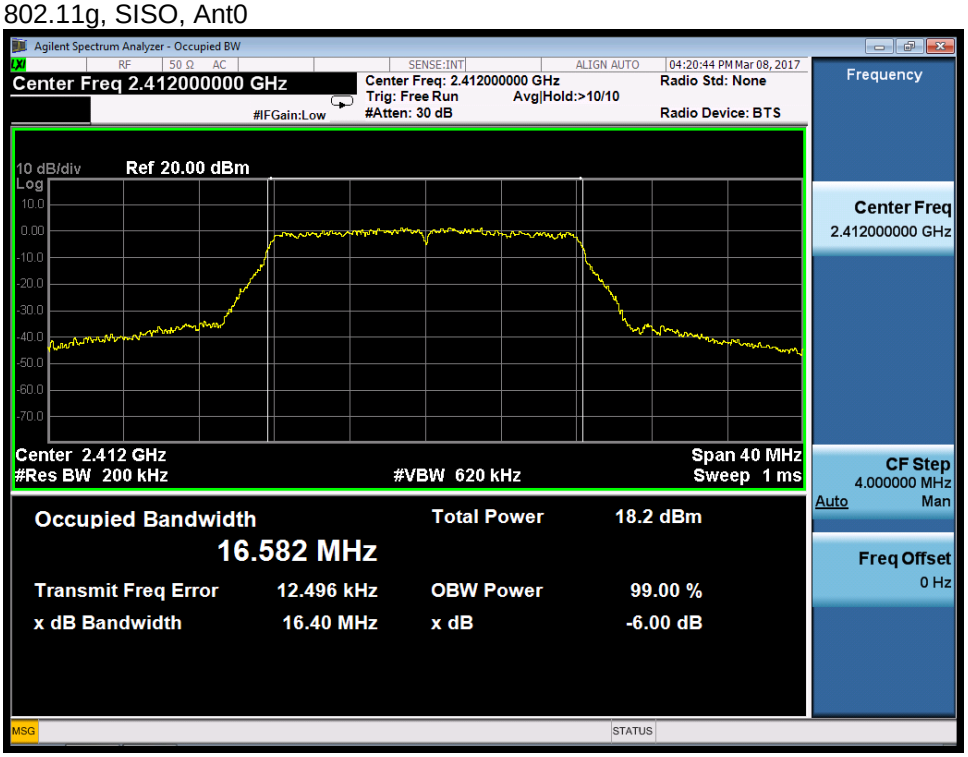
802.11b, SISO, Ant0

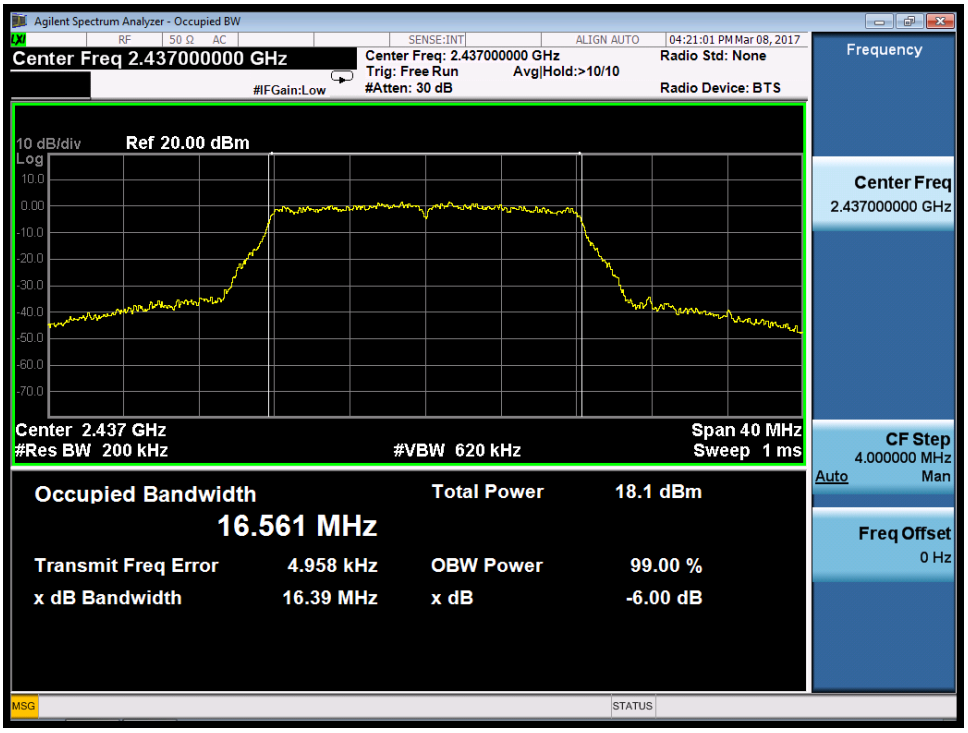


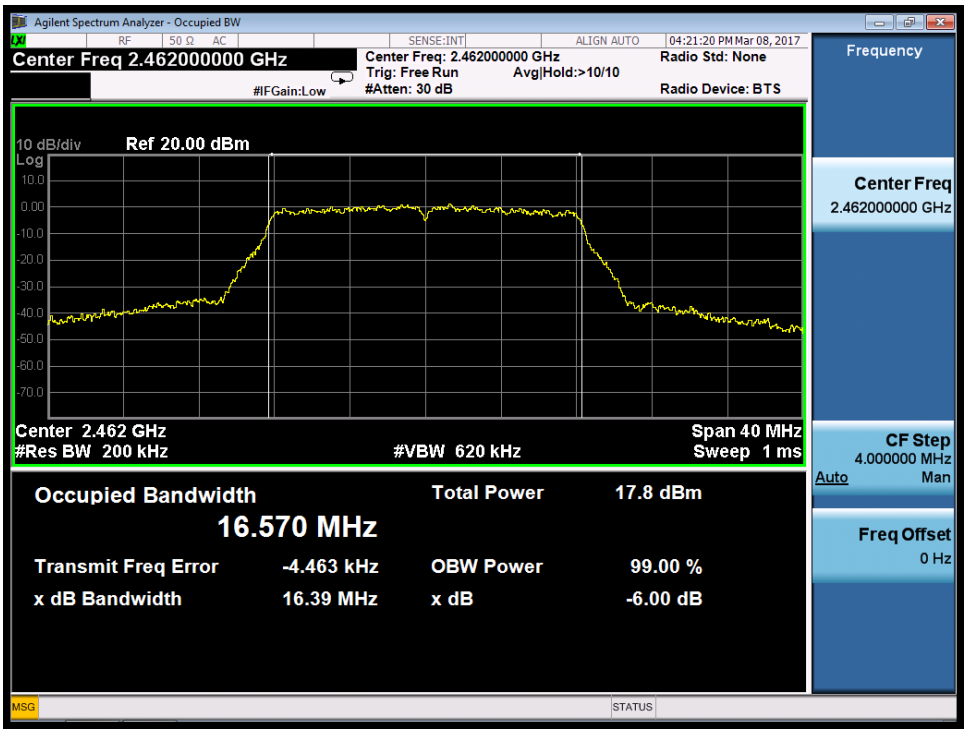




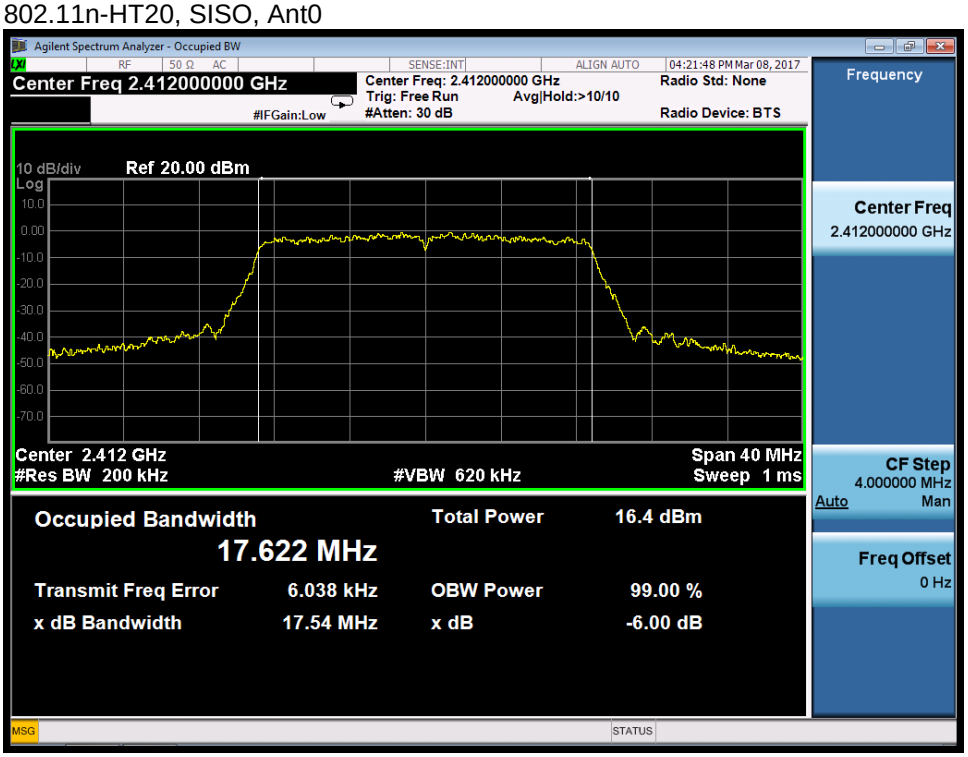
802.11g, SISO, Ant0

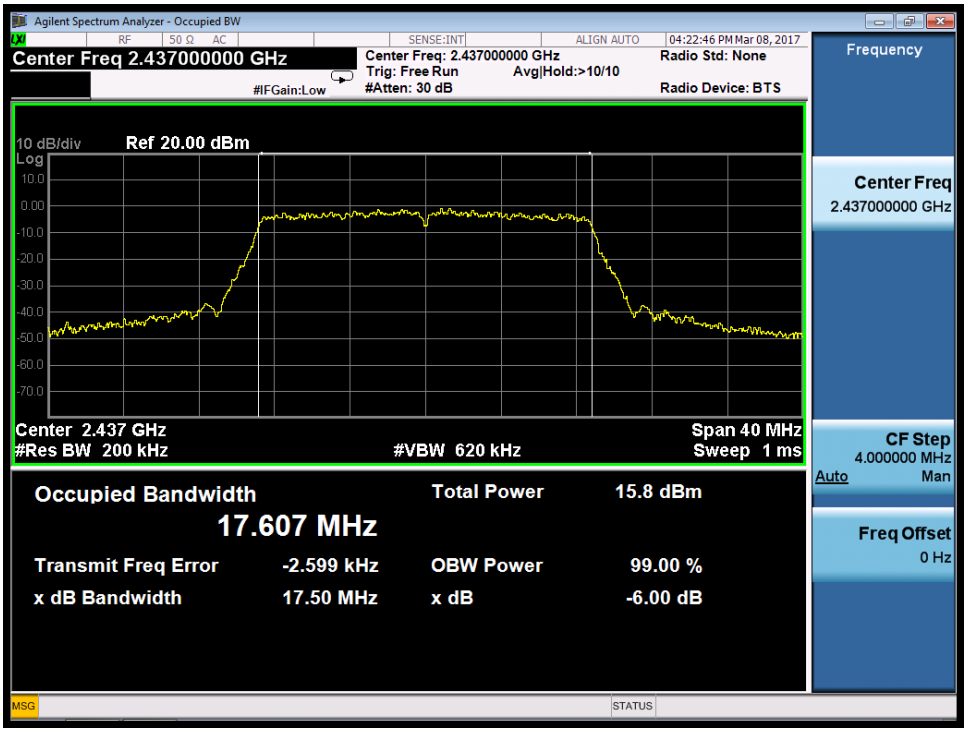


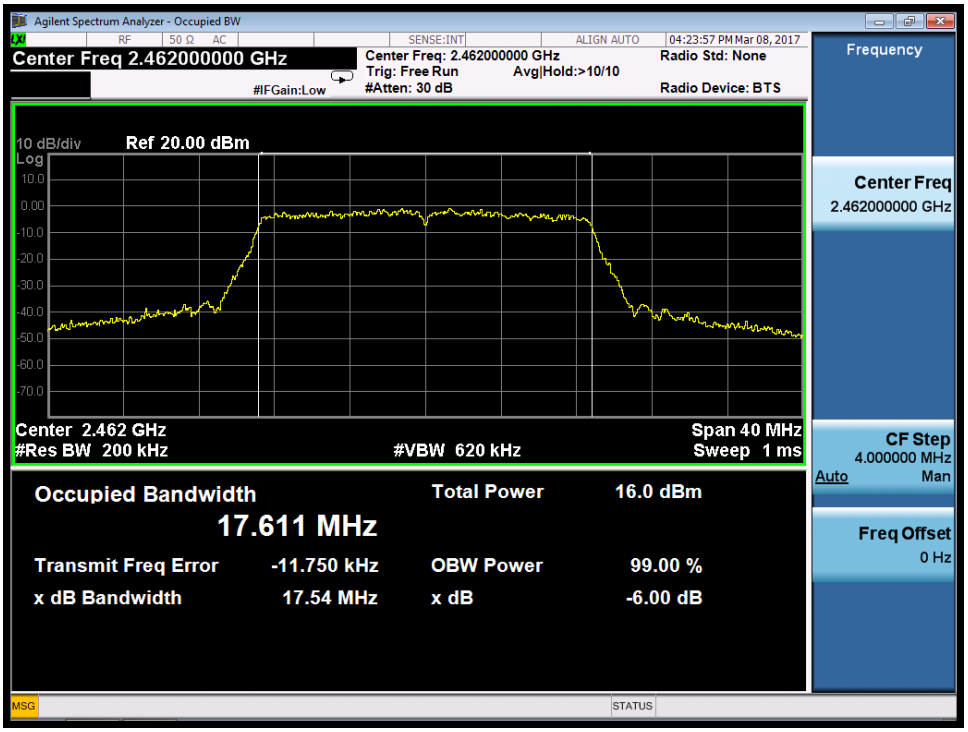

Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.437000000 GHz
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
04:21:01 PM Mar 08, 2017
Frequency
10 dB/div
Ref 20.00 dBm
Log
Center 2.437 GHz
#Res BW 200 kHz
#VBW 620 kHz
Span 40 MHz
Sweep 1 ms
Occupied Bandwidth
16.561 MHz
Total Power
18.1 dBm
Transmit Freq Error
4.958 kHz
OBW Power
99.00 %
x dB Bandwidth
16.39 MHz
x dB
-6.00 dB
Center Freq
2.437000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS


Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.462000000 GHz
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
04:21:20 PM Mar 08, 2017
Frequency
10 dB/div
Ref 20.00 dBm
Log
Center 2.462 GHz
#Res BW 200 kHz
#VBW 620 kHz
Span 40 MHz
Sweep 1 ms
Occupied Bandwidth
16.570 MHz
Total Power
17.8 dBm
Transmit Freq Error
-4.463 kHz
OBW Power
99.00 %
x dB Bandwidth
16.39 MHz
x dB
-6.00 dB
Center Freq
2.462000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

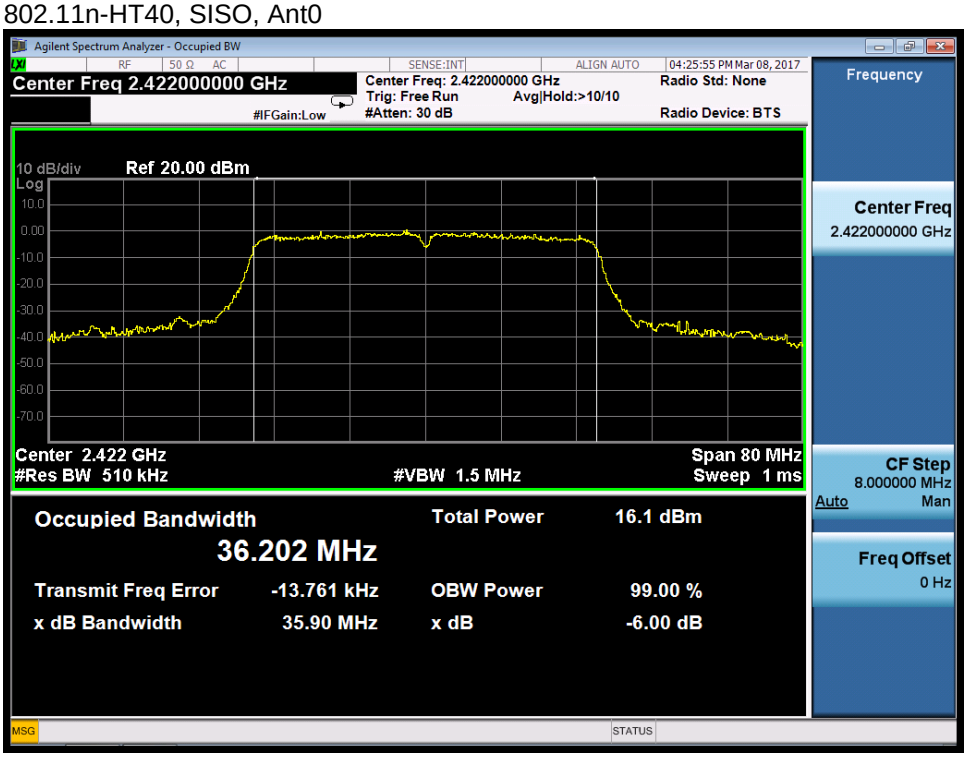
802.11n-HT20, SISO, Ant0

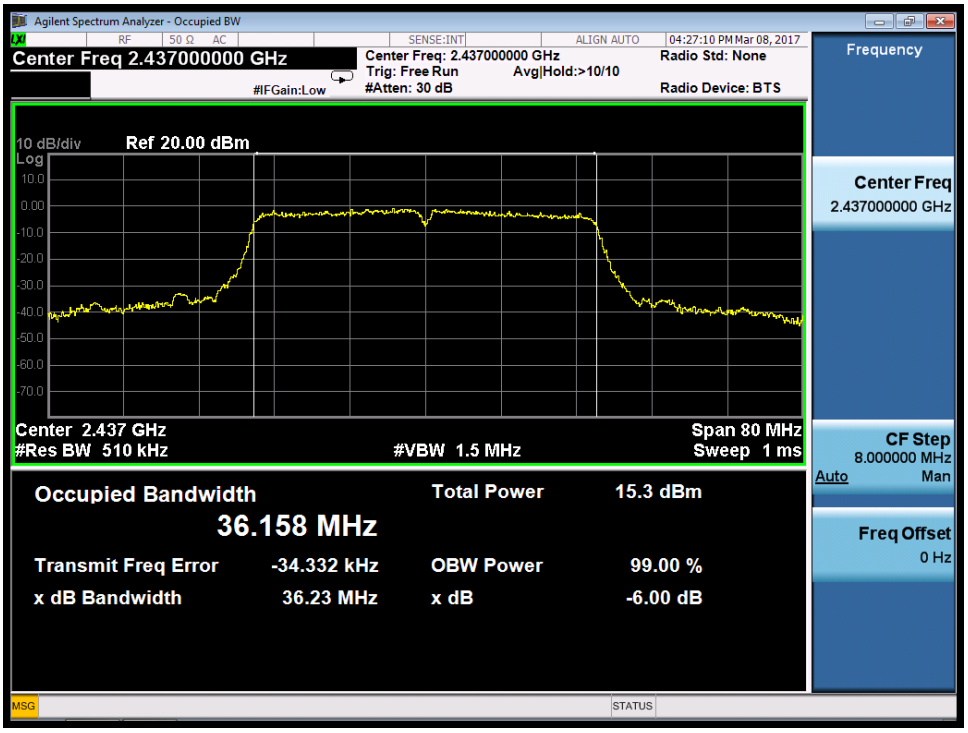


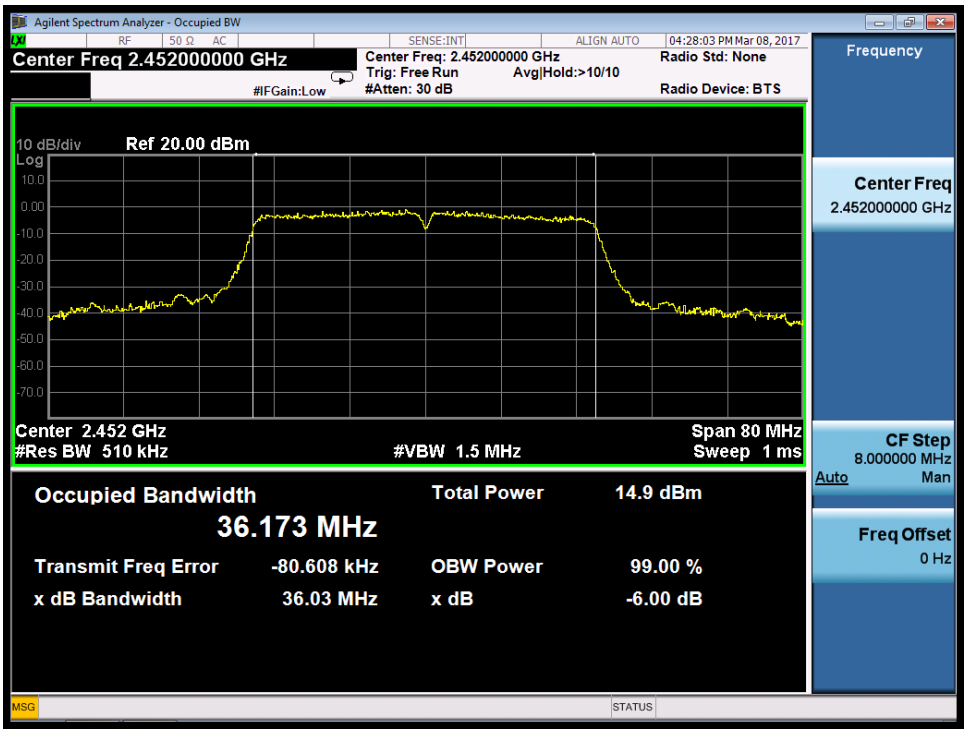




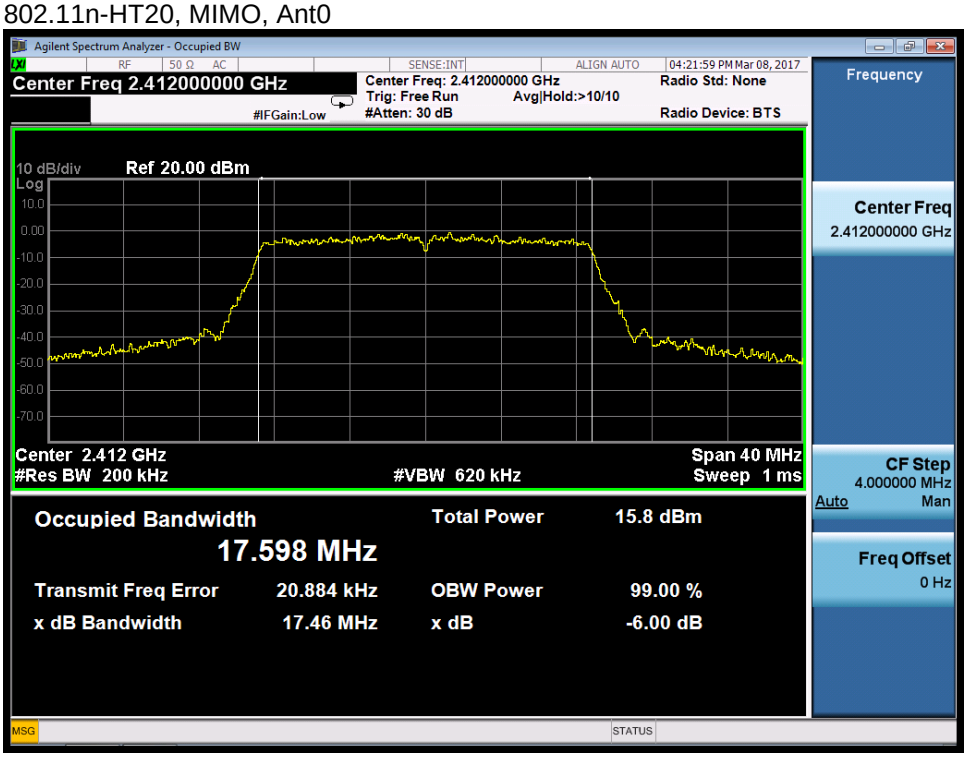
802.11n-HT40, SISO, Ant0

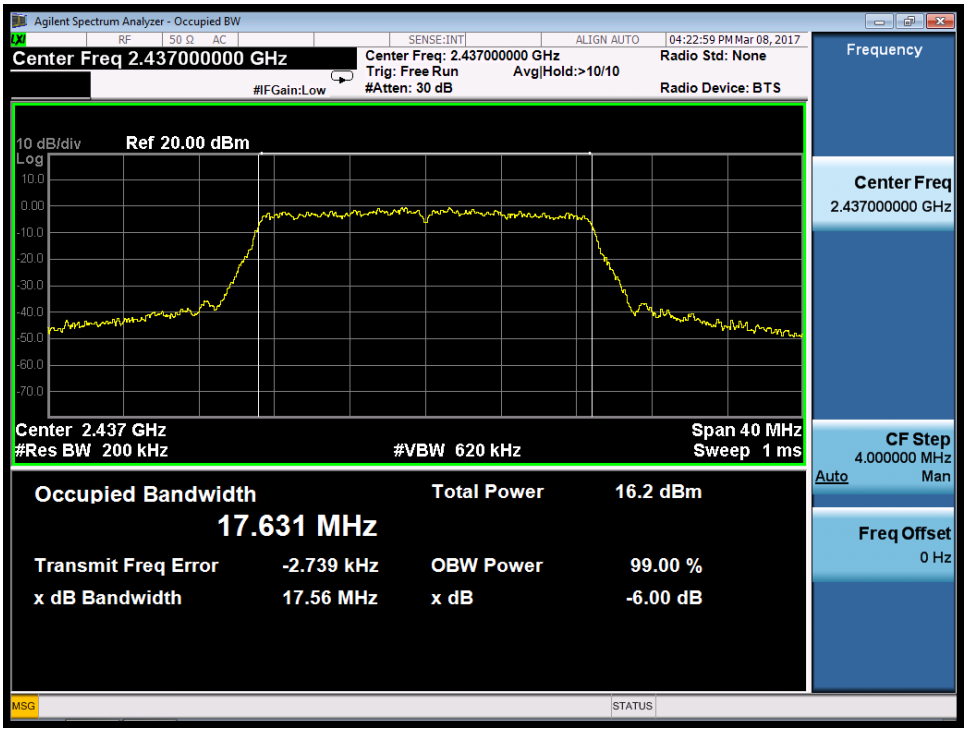


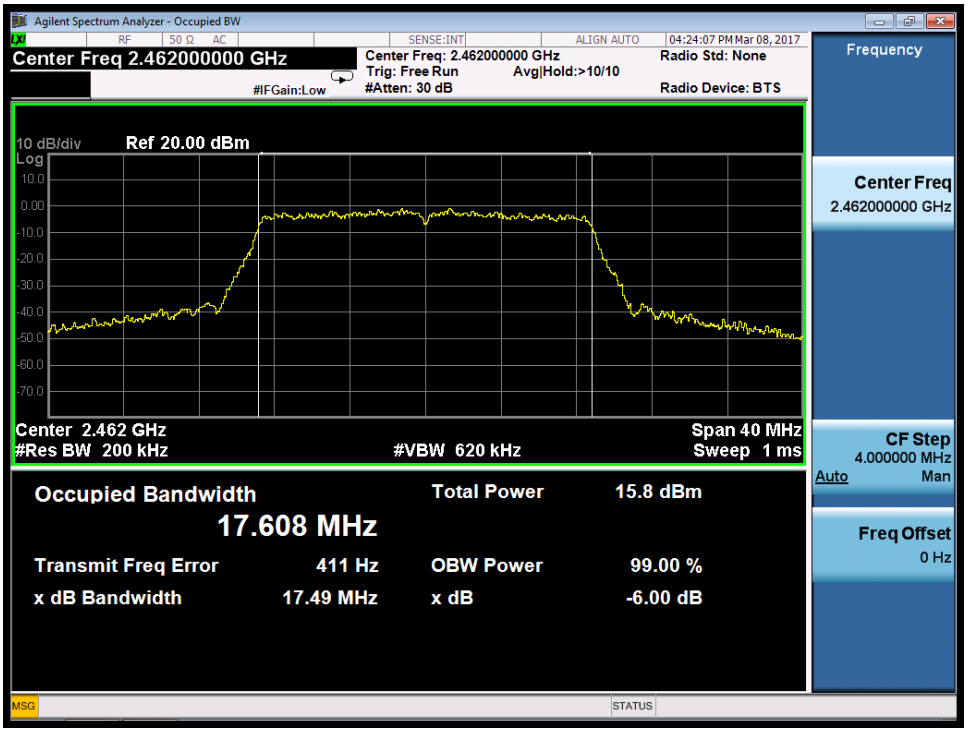

Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.437000000 GHz
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
04:27:10 PM Mar 08, 2017
Frequency
10 dB/div
Ref 20.00 dBm
Log
Center 2.437 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 80 MHz
Sweep 1 ms
Occupied Bandwidth
36.158 MHz
Total Power
15.3 dBm
Transmit Freq Error
-34.332 kHz
OBW Power
99.00 %
x dB Bandwidth
36.23 MHz
x dB
-6.00 dB
Center Freq
2.437000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS


Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.452000000 GHz
Center Freq: 2.452000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
04:28:03 PM Mar 08, 2017
Frequency
10 dB/div
Ref 20.00 dBm
Log
Center 2.452 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 80 MHz
Sweep 1 ms
Occupied Bandwidth
36.173 MHz
Total Power
14.9 dBm
Transmit Freq Error
-80.608 kHz
OBW Power
99.00 %
x dB Bandwidth
36.03 MHz
x dB
-6.00 dB
Center Freq
2.452000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

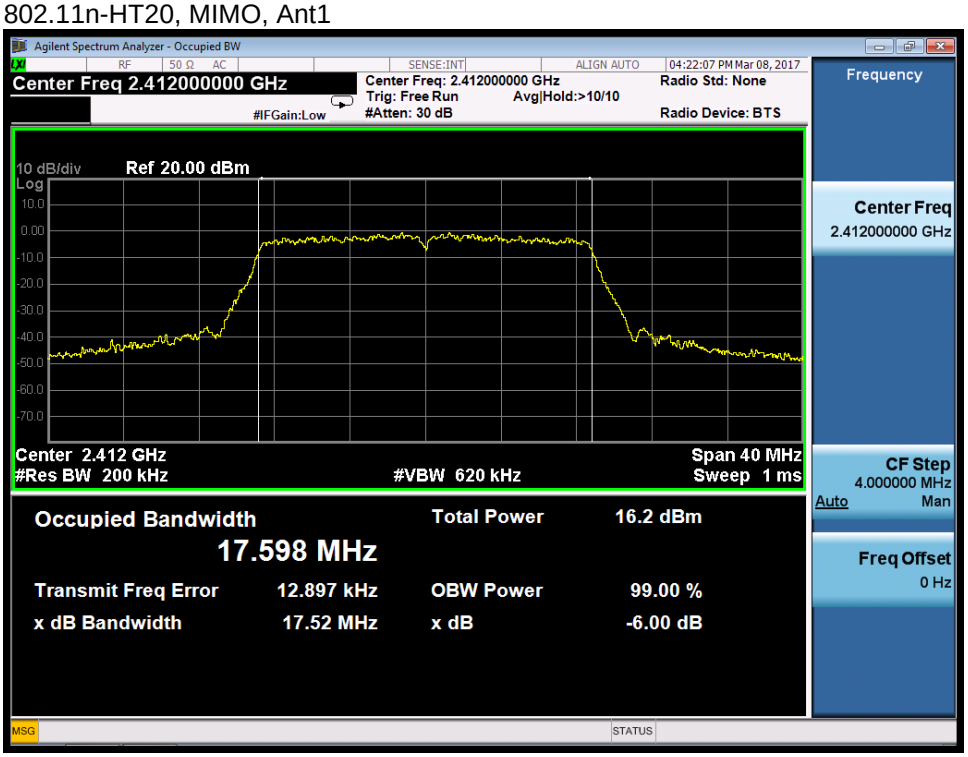
802.11n-HT20, MIMO, Ant0

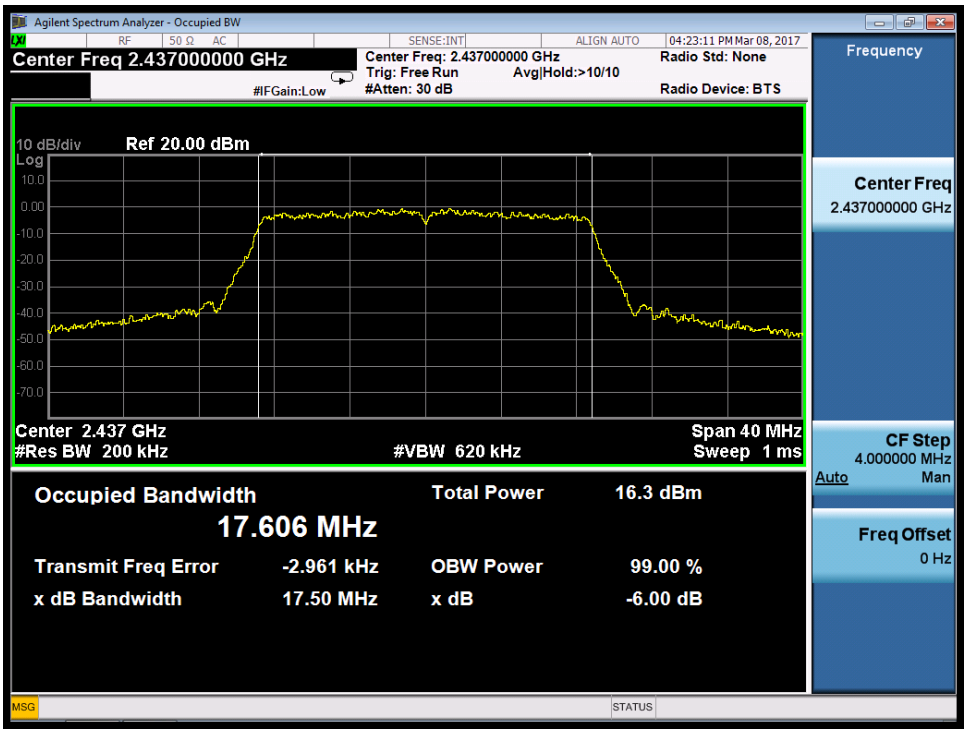


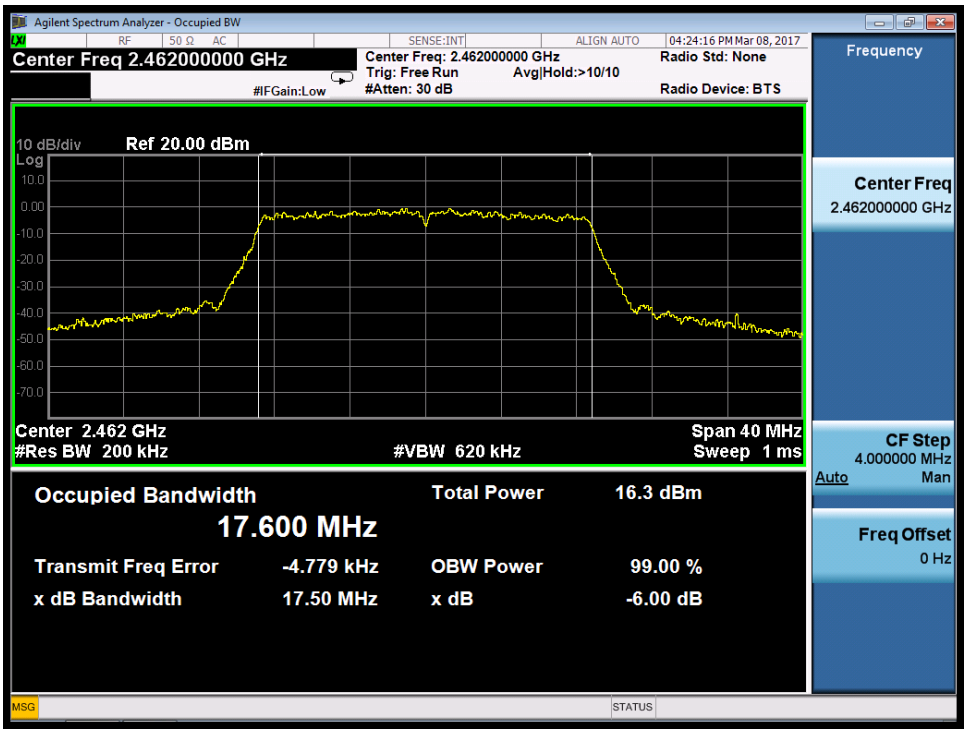




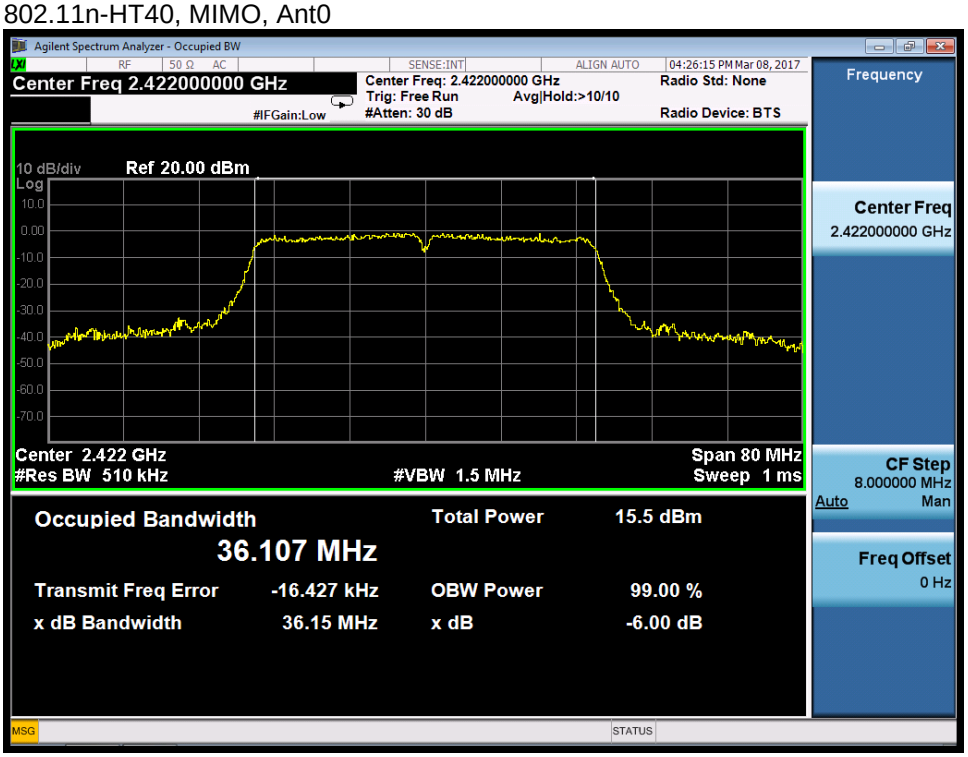
802.11n-HT20, MIMO, Ant1

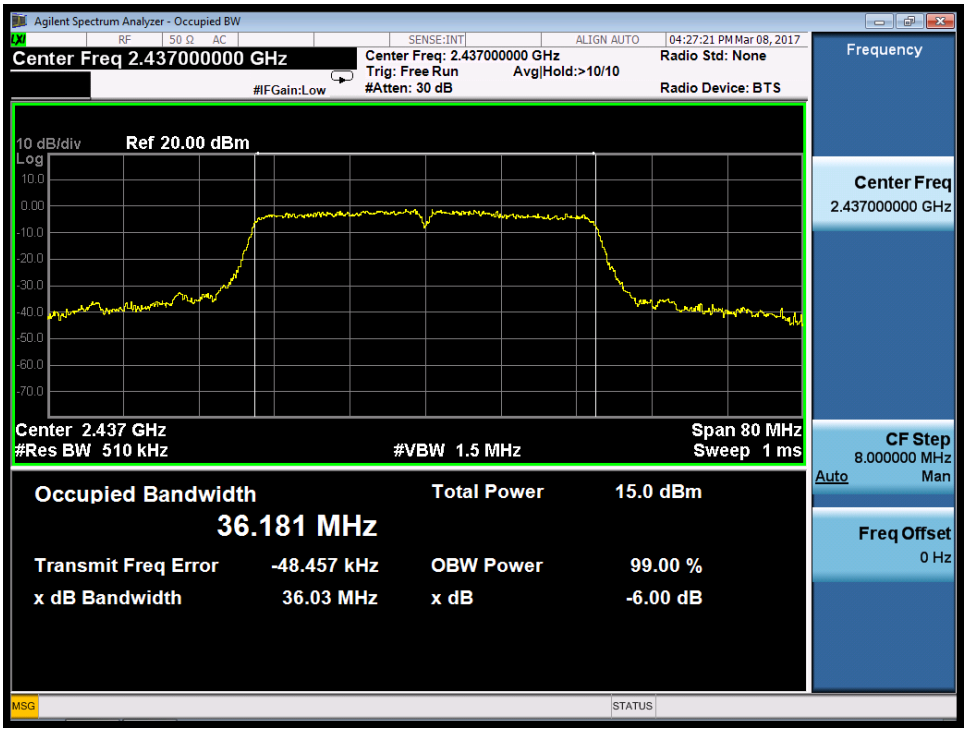


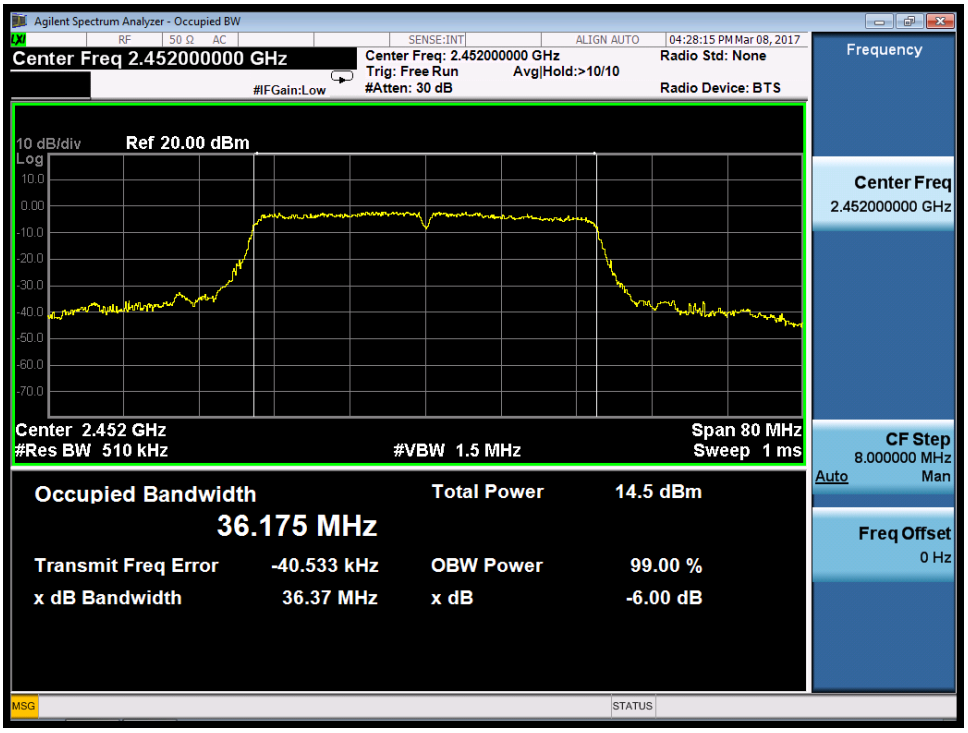

Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.437000000 GHz
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
04:23:11 PM Mar 08, 2017
Frequency
10 dB/div
Ref 20.00 dBm
Log
Center Freq
2.437000000 GHz
Center 2.437 GHz
#Res BW 200 kHz
#VBW 620 kHz
Span 40 MHz
Sweep 1 ms
CF Step
4.000000 MHz
Auto
Man
Occupied Bandwidth
17.606 MHz
Total Power
16.3 dBm
Transmit Freq Error
-2.961 kHz
OBW Power
99.00 %
x dB Bandwidth
17.50 MHz
x dB
-6.00 dB
Freq Offset
0 Hz
MSG
STATUS


Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.462000000 GHz
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
04:24:16 PM Mar 08, 2017
Frequency
10 dB/div
Ref 20.00 dBm
Log
Center Freq
2.462000000 GHz
Center 2.462 GHz
#Res BW 200 kHz
#VBW 620 kHz
Span 40 MHz
Sweep 1 ms
CF Step
4.000000 MHz
Auto
Man
Occupied Bandwidth
17.600 MHz
Total Power
16.3 dBm
Transmit Freq Error
-4.779 kHz
OBW Power
99.00 %
x dB Bandwidth
17.50 MHz
x dB
-6.00 dB
Freq Offset
0 Hz
MSG
STATUS

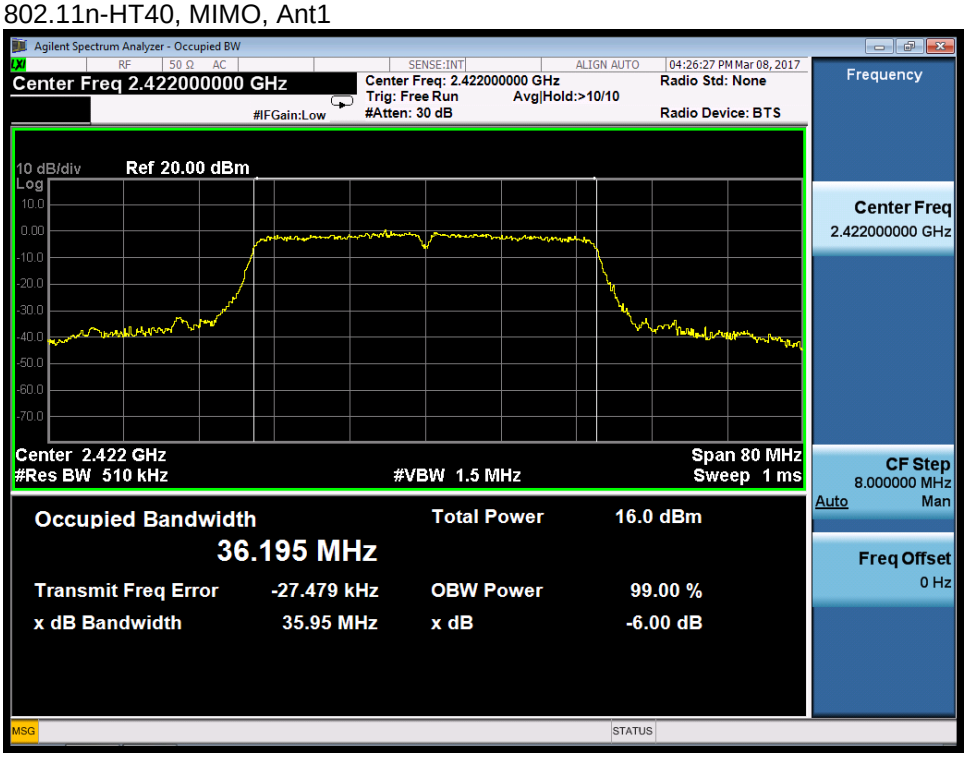
802.11n-HT40, MIMO, Ant0

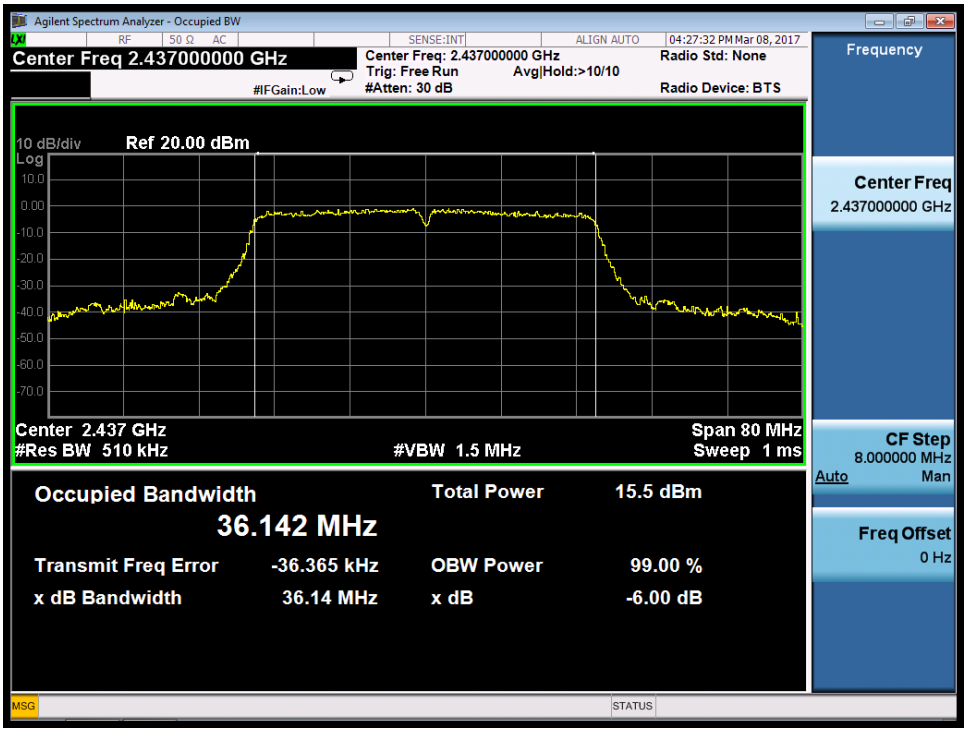


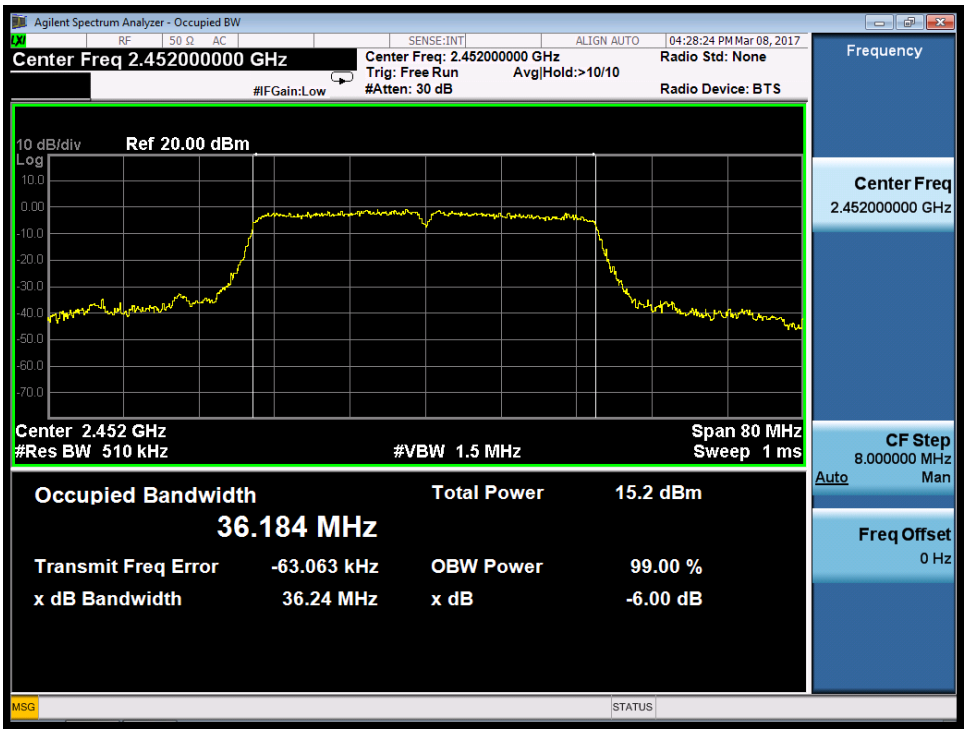




802.11n-HT40, MIMO, Ant1




Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.437000000 GHz
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
04:27:32 PM Mar 08, 2017
Frequency
10 dB/div
Ref 20.00 dBm
Log
Center 2.437 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 80 MHz
Sweep 1 ms
Occupied Bandwidth
36.142 MHz
Total Power
15.5 dBm
Transmit Freq Error
-36.365 kHz
OBW Power
99.00 %
x dB Bandwidth
36.14 MHz
x dB
-6.00 dB
Center Freq
2.437000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS


Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.452000000 GHz
Center Freq: 2.452000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
04:28:24 PM Mar 08, 2017
Frequency
10 dB/div
Ref 20.00 dBm
Log
Center 2.452 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 80 MHz
Sweep 1 ms
Occupied Bandwidth
36.184 MHz
Total Power
15.2 dBm
Transmit Freq Error
-63.063 kHz
OBW Power
99.00 %
x dB Bandwidth
36.24 MHz
x dB
-6.00 dB
Center Freq
2.452000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

3. Power Spectral Density

3.1 Test Datas

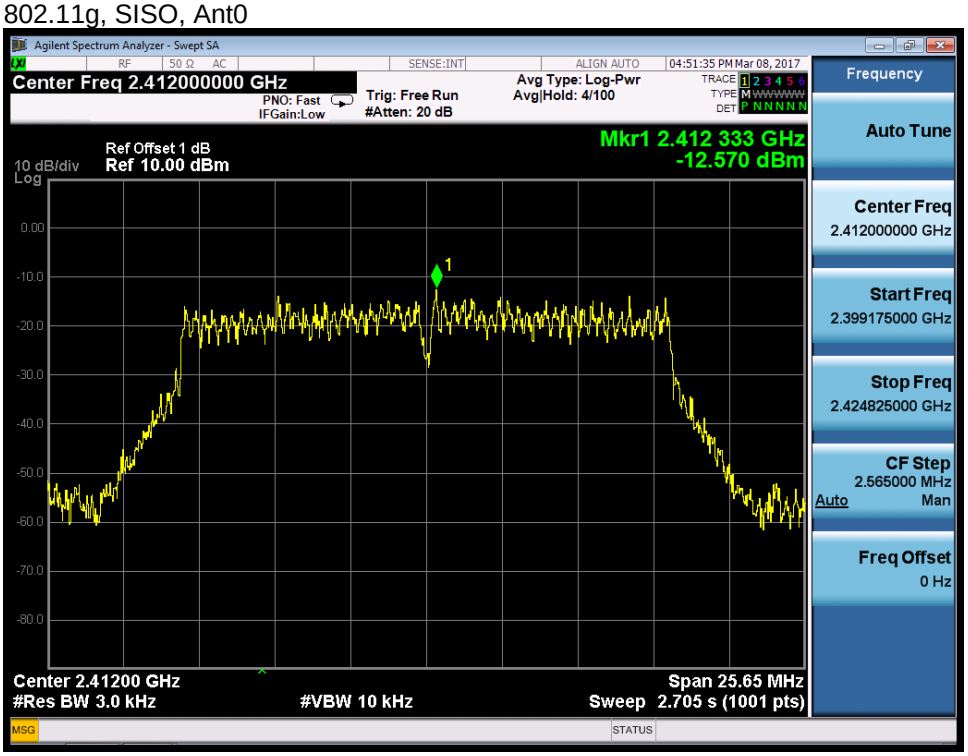
Channel (mode) SISO	Channel Frequency (MHz)	Power Spectral Density (dBm/3KHz)	Limit	Result
		Ant0		
1 (802.11b)	2412	-10.319	8dBm/3KHz	Pass
6 (802.11b)	2437	-10.153	8dBm/3KHz	Pass
11 (802.11b)	2462	-10.102	8dBm/3KHz	Pass
1 (802.11g)	2412	-12.570	8dBm/3KHz	Pass
6 (802.11g)	2437	-12.337	8dBm/3KHz	Pass
11 (802.11g)	2462	-12.739	8dBm/3KHz	Pass
1 (802.11n-HT20)	2412	-14.548	8dBm/3KHz	Pass
6 (802.11n-HT20)	2437	-15.720	8dBm/3KHz	Pass
11 (802.11n-HT20)	2462	-16.103	8dBm/3KHz	Pass
3 (802.11n-HT40)	2422	-21.910	8dBm/3KHz	Pass
6 (802.11n-HT40)	2437	-22.311	8dBm/3KHz	Pass
9 (802.11n-HT40)	2452	-22.719	8dBm/3KHz	Pass

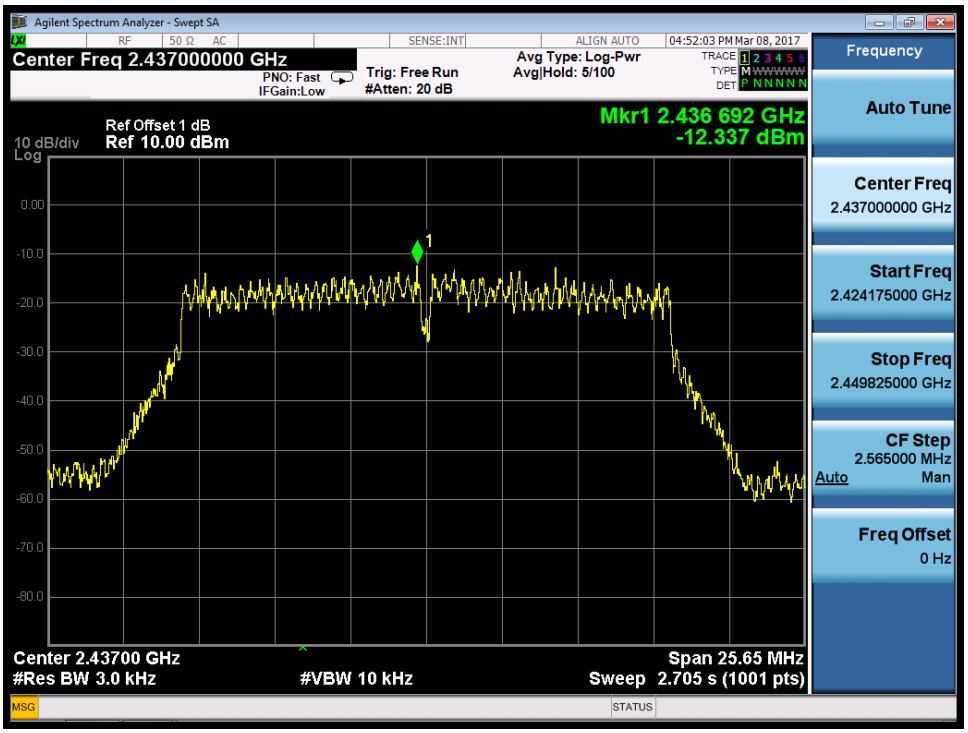
Channel (mode) MIMO	Channel Frequency (MHz)	Power Spectral Density (dBm/3KHz)			Limit	Result
		Ant0	Ant1	Total		
1 (802.11n-HT20)	2412	-15.694	-15.284	-12.47	8dBm/3KHz	Pass
6 (802.11n-HT20)	2437	-14.493	-15.426	-11.92	8dBm/3KHz	Pass
11 (802.11n-HT20)	2462	-16.233	-16.531	-13.37	8dBm/3KHz	Pass
3 (802.11n-HT40)	2422	-21.815	-20.628	-18.17	8dBm/3KHz	Pass
6 (802.11n-HT40)	2437	-22.631	-22.245	-19.42	8dBm/3KHz	Pass
9 (802.11n-HT40)	2452	-22.648	-22.175	-19.39	8dBm/3KHz	Pass

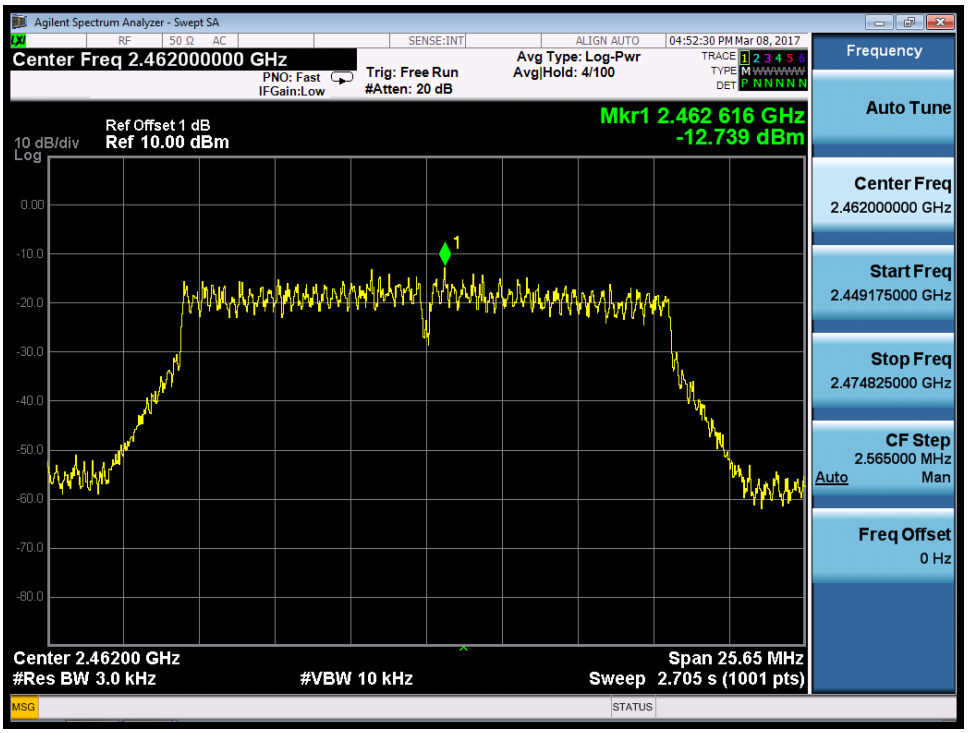
3.2 Test Graphs

802.11b, SISO, Ant0

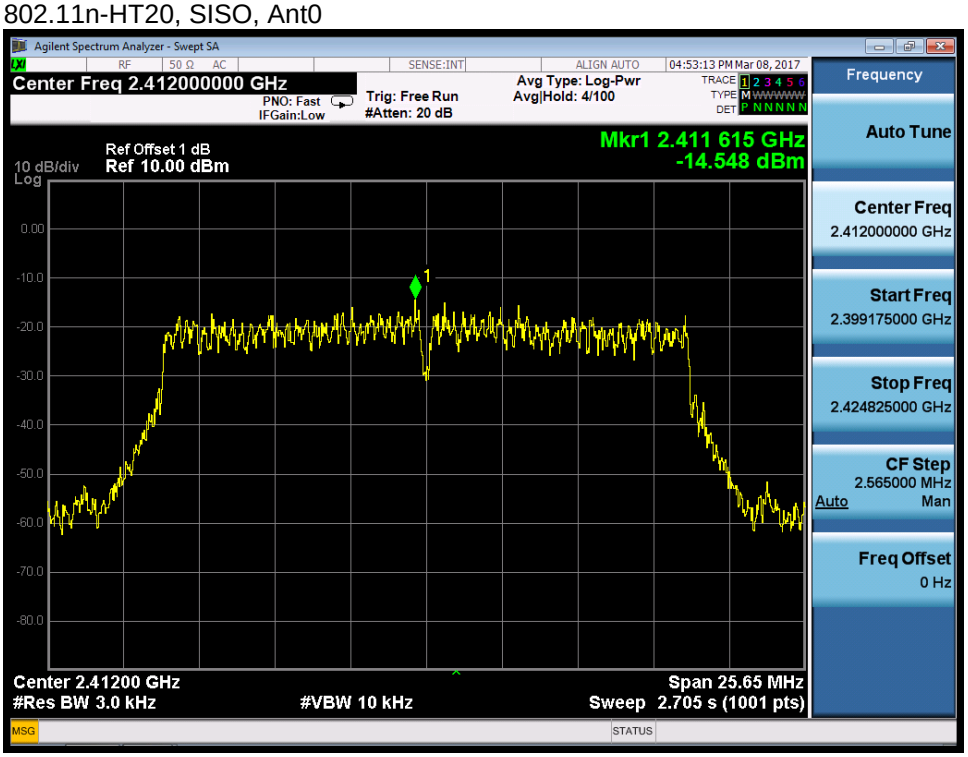
802.11g, SISO, Ant0

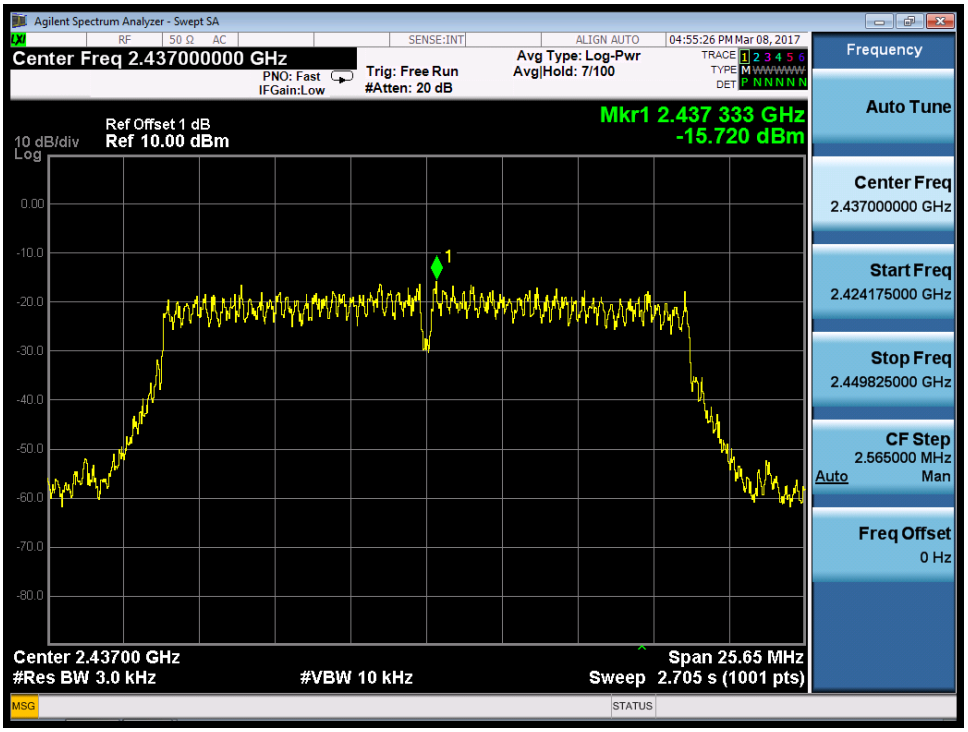


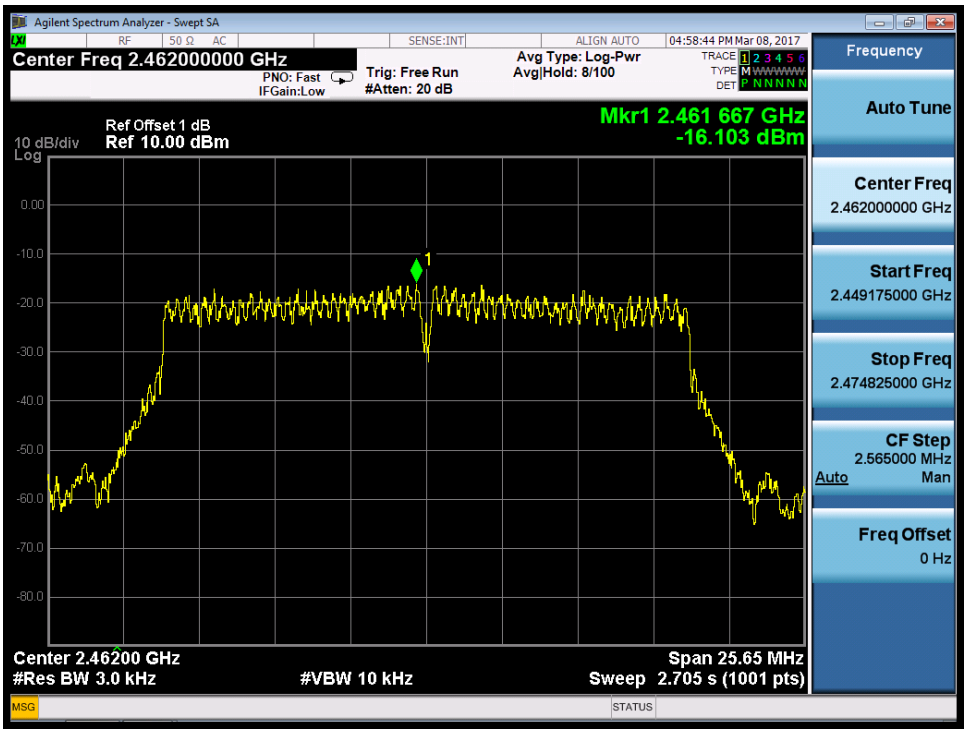
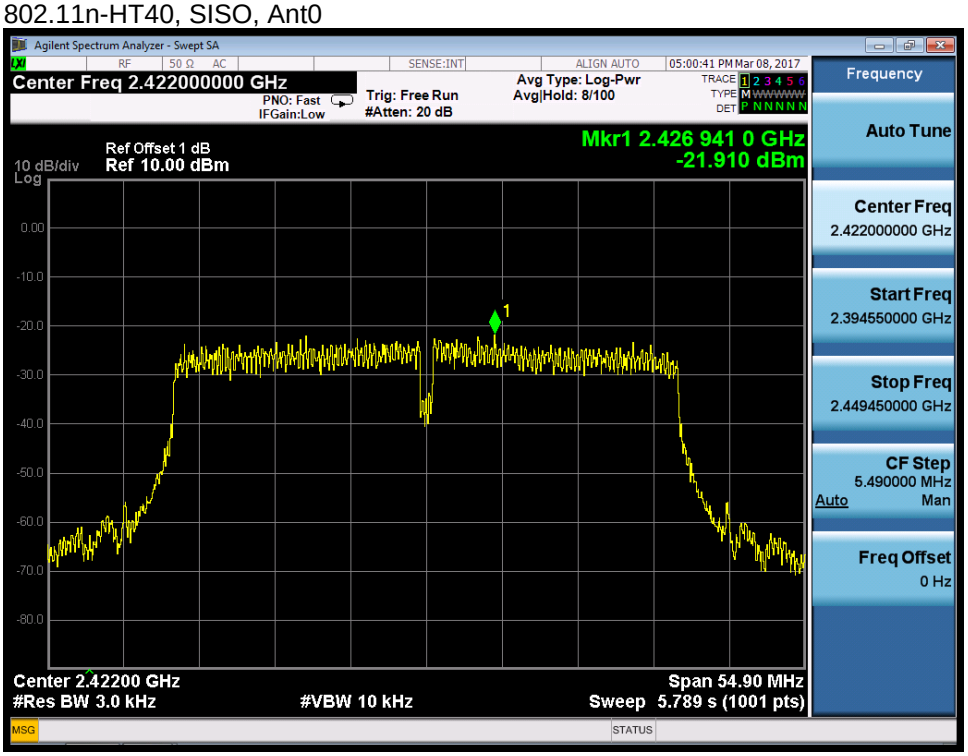

Agilent Spectrum Analyzer - Swept SA
Center Freq 2.437000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
Avg|Hold: 5/100
04:52:03 PM Mar 08, 2017
Ref Offset 1 dB
10 dB/div
Ref 10.00 dBm
Mkr1 2.436 692 GHz
-12.337 dBm
Center 2.43700 GHz
#Res BW 3.0 kHz
#VBW 10 kHz
Span 25.65 MHz
Sweep 2.705 s (1001 pts)
Frequency
Auto Tune
Center Freq
2.437000000 GHz
Start Freq
2.424175000 GHz
Stop Freq
2.449825000 GHz
CF Step
2.565000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.462000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
Avg|Hold: 4/100
04:52:30 PM Mar 08, 2017
Ref Offset 1 dB
10 dB/div
Ref 10.00 dBm
Mkr1 2.462 616 GHz
-12.739 dBm
Center 2.46200 GHz
#Res BW 3.0 kHz
#VBW 10 kHz
Span 25.65 MHz
Sweep 2.705 s (1001 pts)
Frequency
Auto Tune
Center Freq
2.462000000 GHz
Start Freq
2.449175000 GHz
Stop Freq
2.474825000 GHz
CF Step
2.565000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

802.11n-HT20, SISO, Ant0







802.11n-HT40, SISO, Ant0