



Appendix for Test report



Appendix A: DTS (6 dB) Bandwidth

In this document, the "DTS6dBBW" refers to the measured "DTS (6 dB) Bandwidth" value. In this Appendix, the "fc(DTS6dBBW)" refers to the centre of the measured "DTS6dBBW". The introduction of the "fc(DTS6dBBW)" is due to that other measurements use it as the spectrum analyzer setting.

For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain, and used as respective results for each chain.

Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Ant	DTS6dBBW[MHz]	Verdict
11B	L	2412	Ant 1	8.09	pass
11B	L	2412	Ant 2	8.09	pass
11B	M	2437	Ant 1	8.08	pass
11B	M	2437	Ant 2	8.09	pass
11B	H	2462	Ant 1	8.10	pass
11B	H	2462	Ant 2	8.08	pass
11G	L	2412	Ant 1	16.07	pass
11G	L	2412	Ant 2	16.33	pass
11G	M	2437	Ant 1	15.74	pass
11G	M	2437	Ant 2	16.12	pass
11G	H	2462	Ant 1	16.34	pass
11G	H	2462	Ant 2	15.76	pass
11N20	L	2412	Ant 1	16.85	pass
11N20	L	2412	Ant 2	17.16	pass
11N20	M	2437	Ant 1	16.33	pass
11N20	M	2437	Ant 2	16.57	pass
11N20	H	2462	Ant 1	17.36	pass
11N20	H	2462	Ant 2	15.96	pass
11N20m	L	2412	Ant 1	16.85	pass
11N20m	L	2412	Ant 2	16.67	pass
11N20m	M	2437	Ant 1	16.60	pass
11N20m	M	2437	Ant 2	17.19	pass
11N20m	H	2462	Ant 1	17.06	pass
11N20m	H	2462	Ant 2	15.99	pass
11N40	L	2422	Ant 1	35.42	pass
11N40	L	2422	Ant 2	35.21	pass
11N40	M	2437	Ant 1	35.20	pass

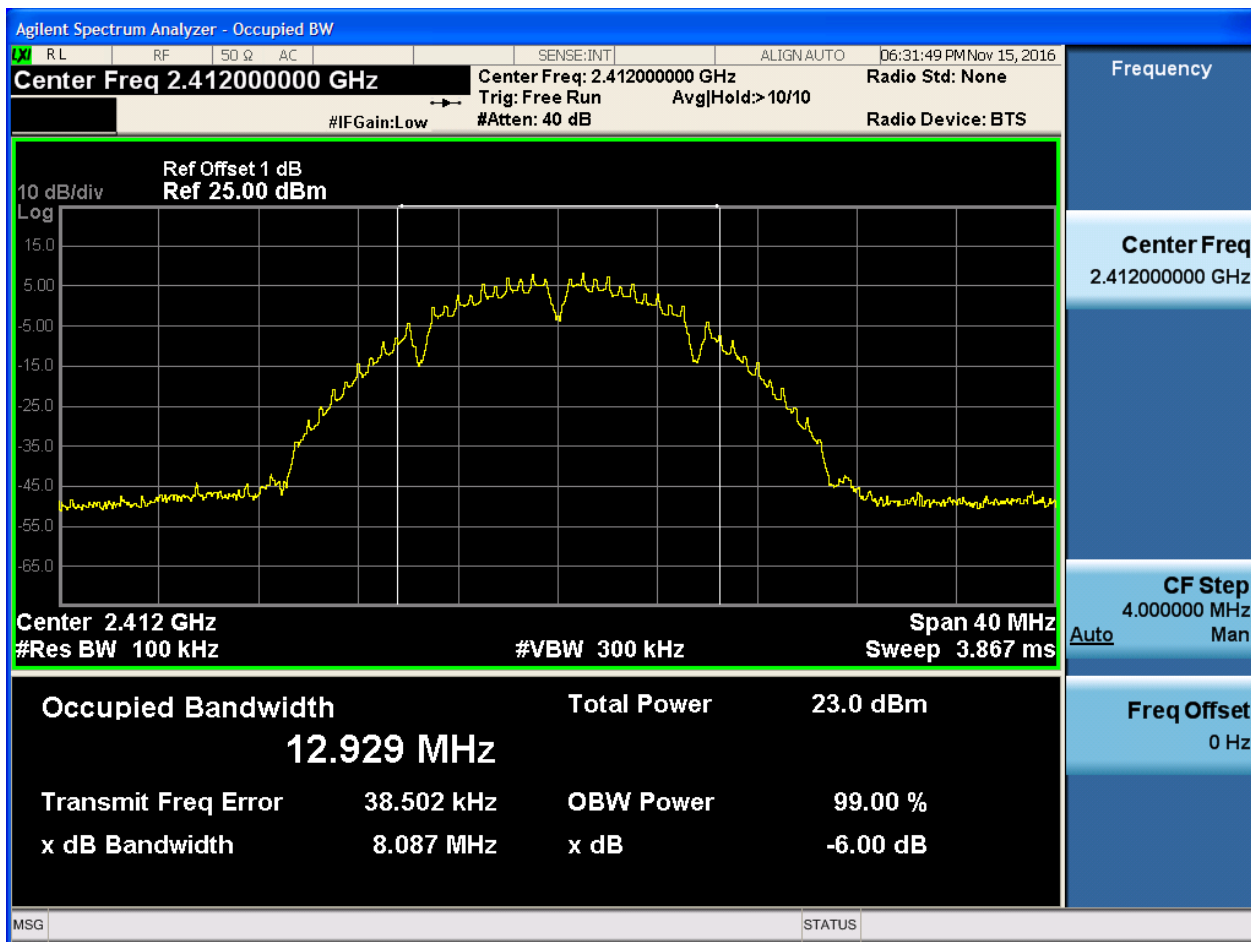


Test Mode	Test Channel	Frequency[MHz]	Ant	DTS6dBBW[MHz]	Verdict
11N40	M	2437	Ant 2	35.74	pass
11N40	H	2452	Ant 1	35.17	pass
11N40	H	2452	Ant 2	35.19	pass
11N40m	L	2422	Ant 1	35.38	pass
11N40m	L	2422	Ant 2	35.21	pass
11N40m	M	2437	Ant 1	35.15	pass
11N40m	M	2437	Ant 2	35.23	pass
11N40m	H	2452	Ant 1	35.20	pass
11N40m	H	2452	Ant 2	35.20	pass



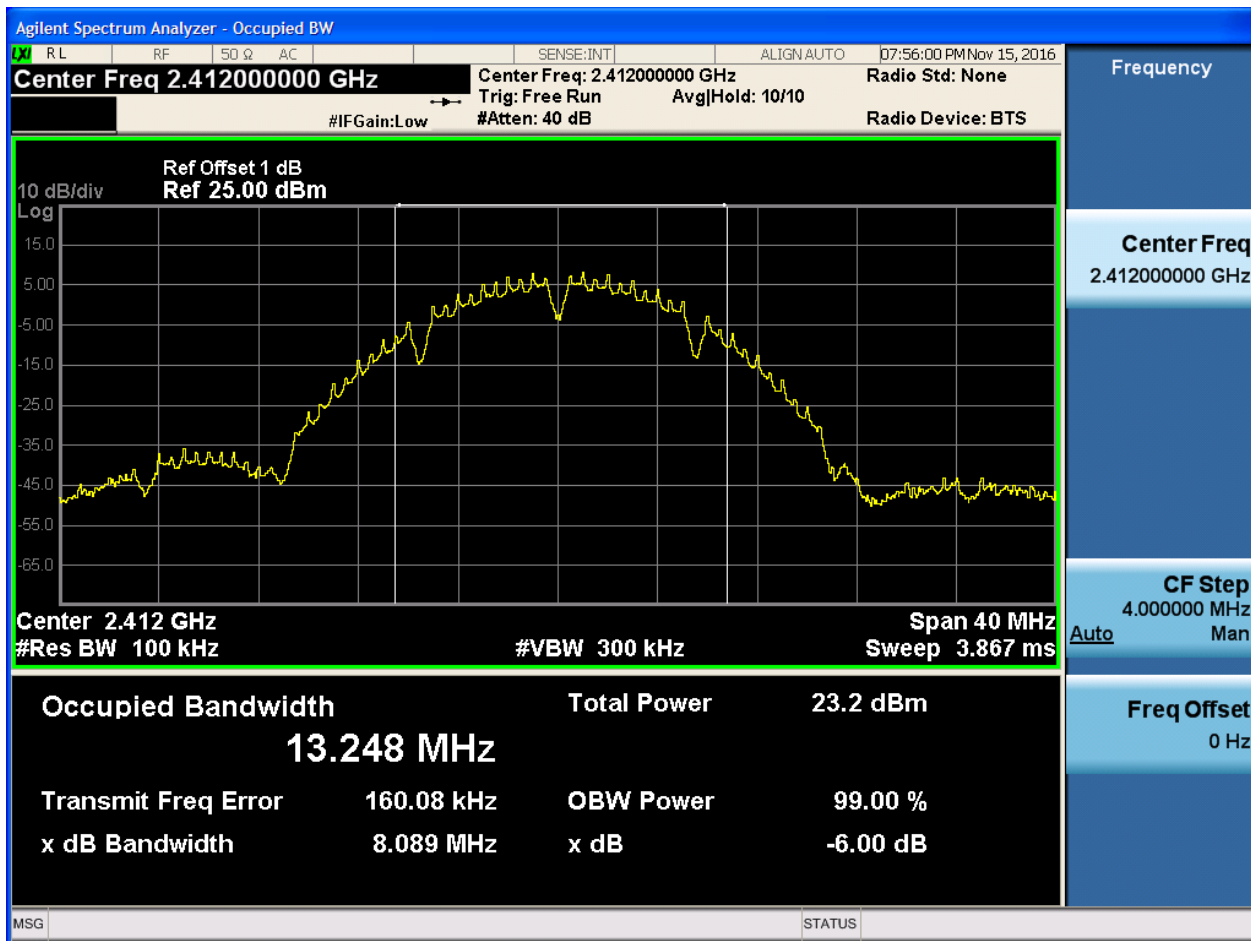
Part II - Test Plots

2.1 11B_L@Ant 1



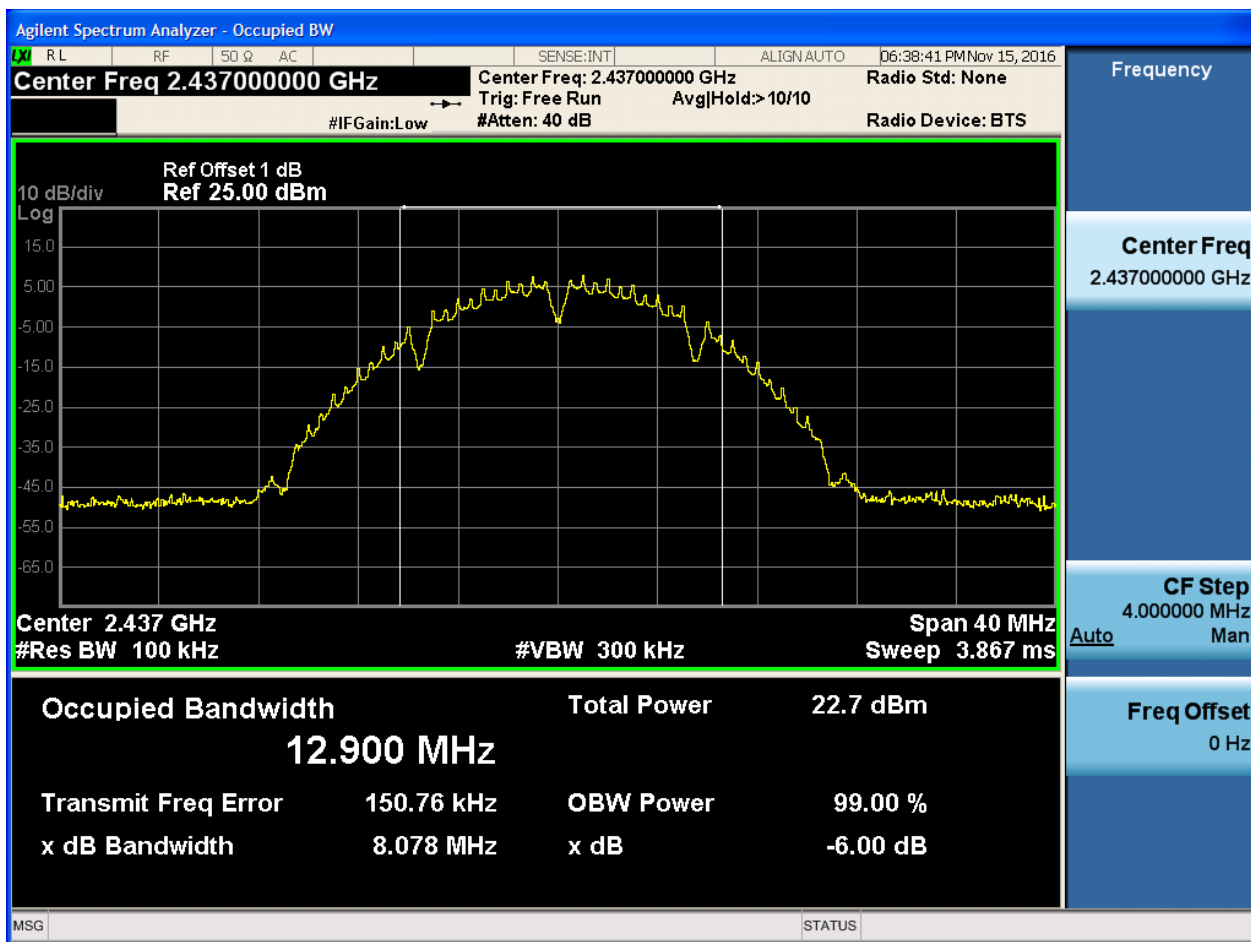


2.2 11B_L@Ant 2



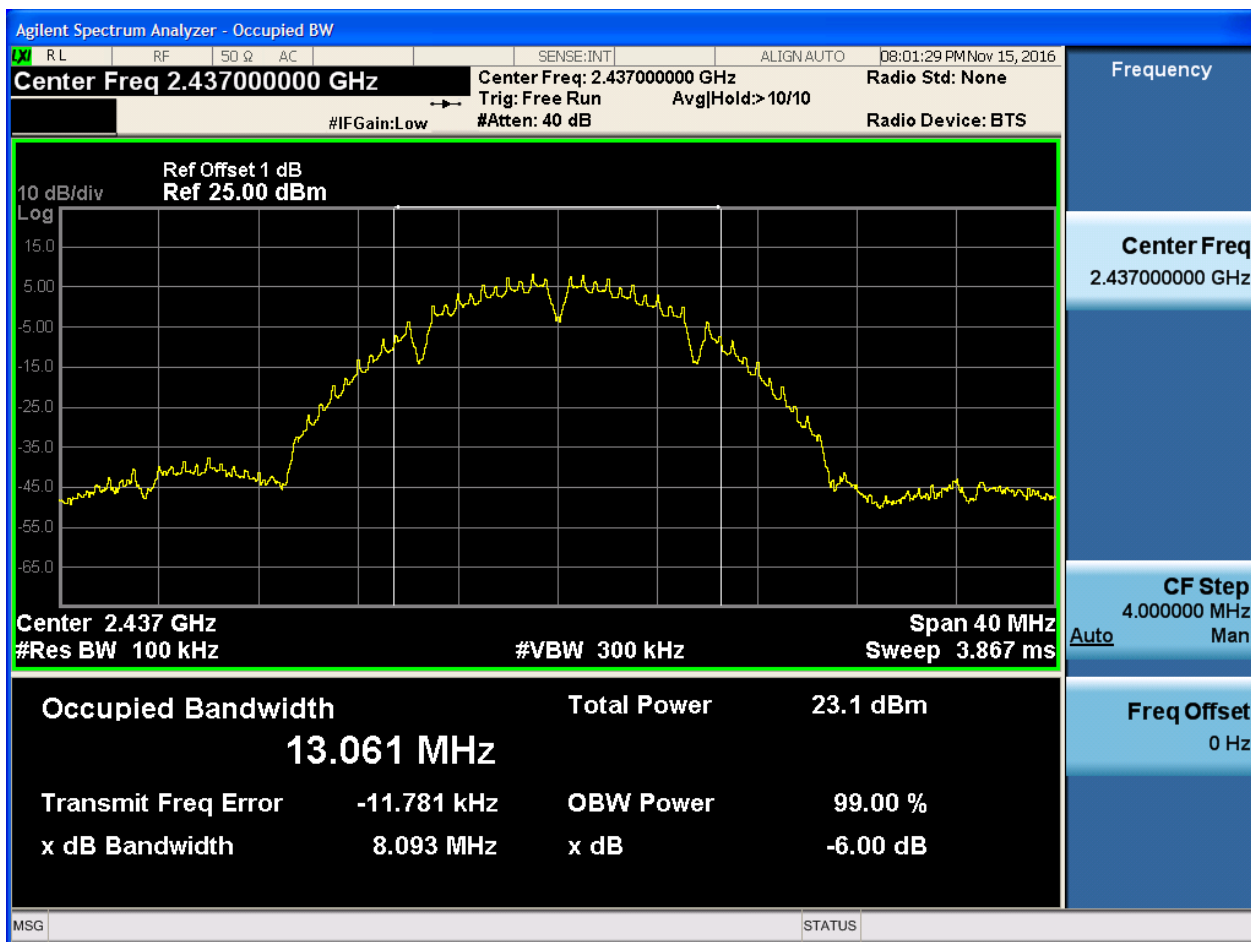


2.3 11B_M@Ant 1



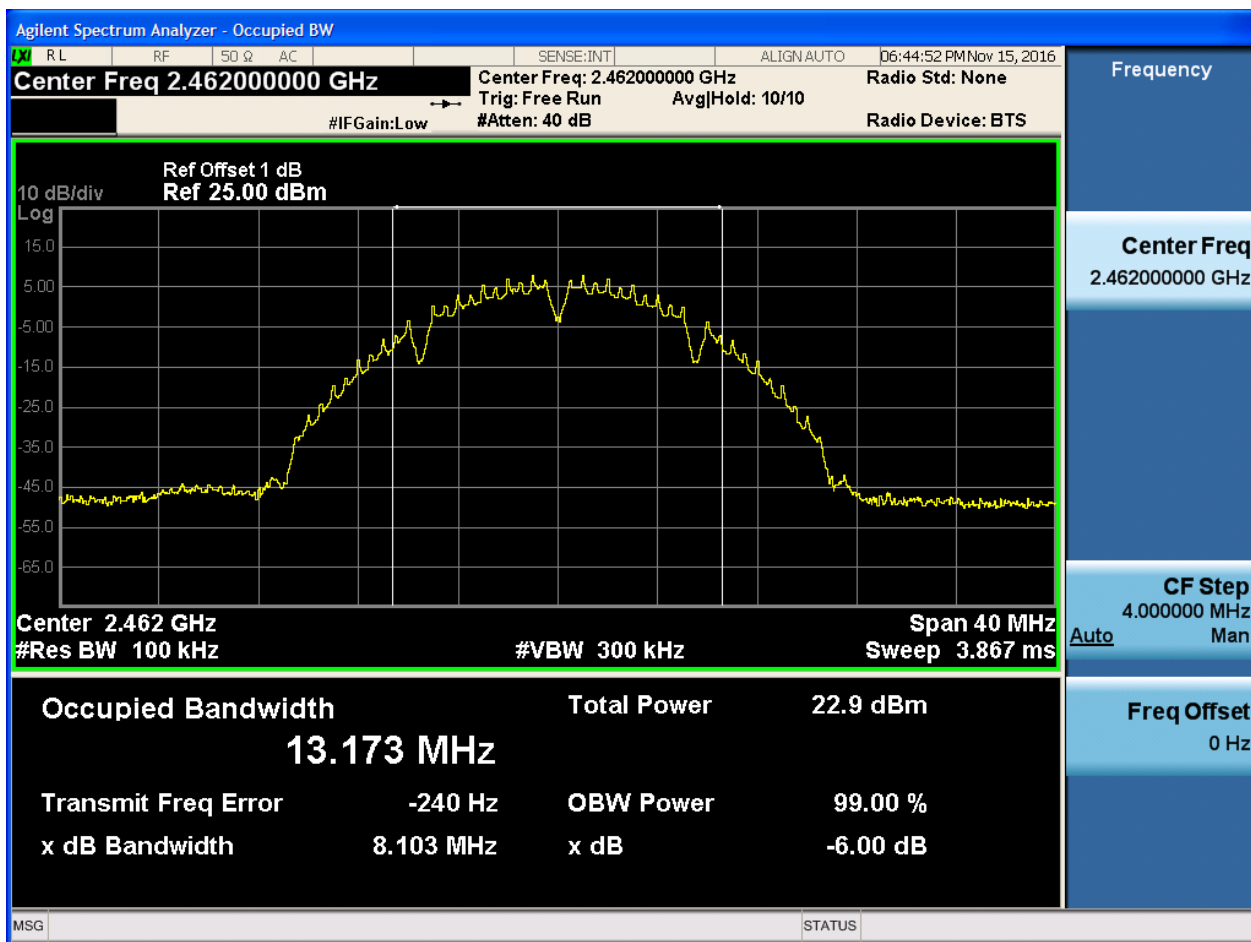


2.4 11B_M@Ant 2



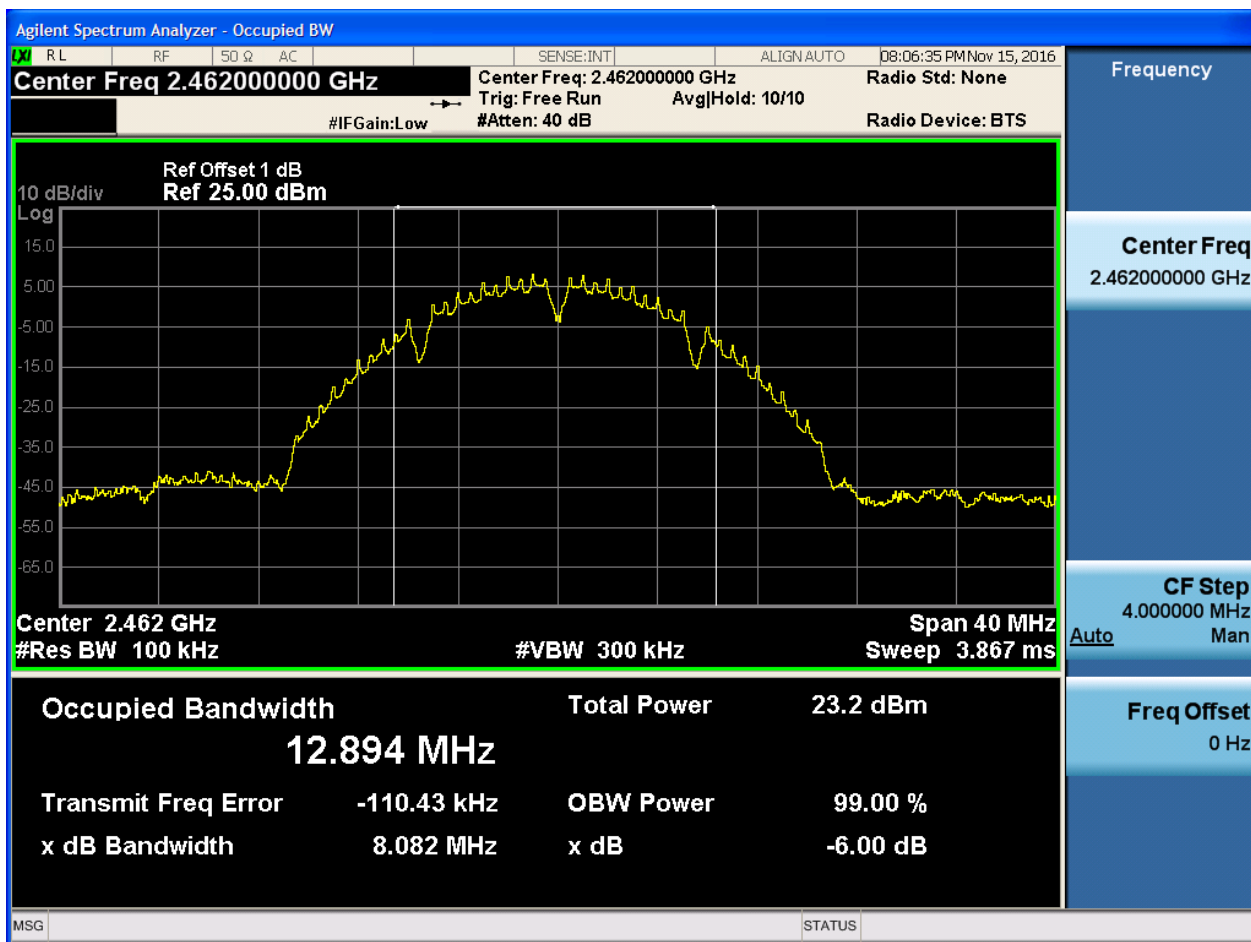


2.5 11B_H@Ant 1



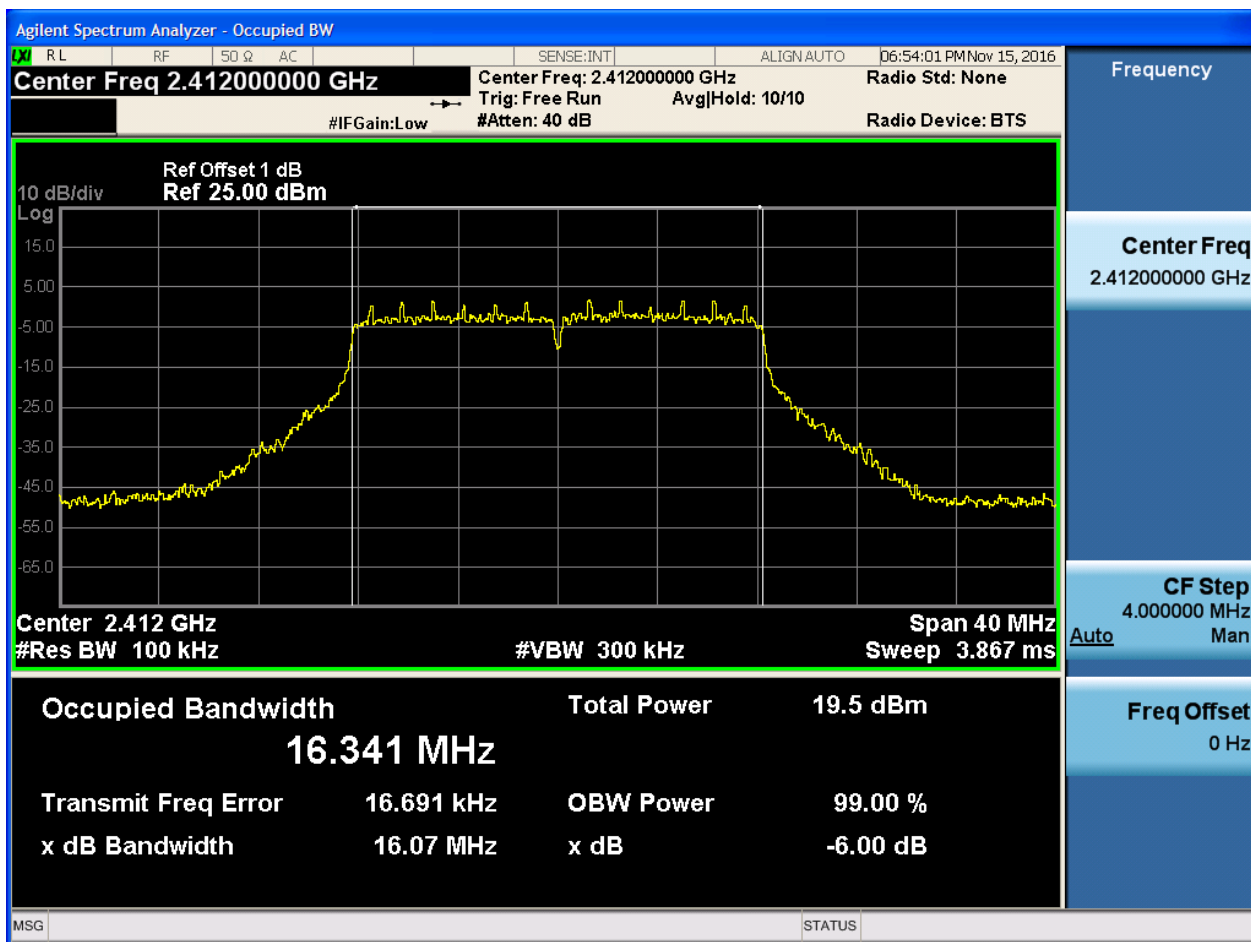


2.6 11B_H@Ant 2



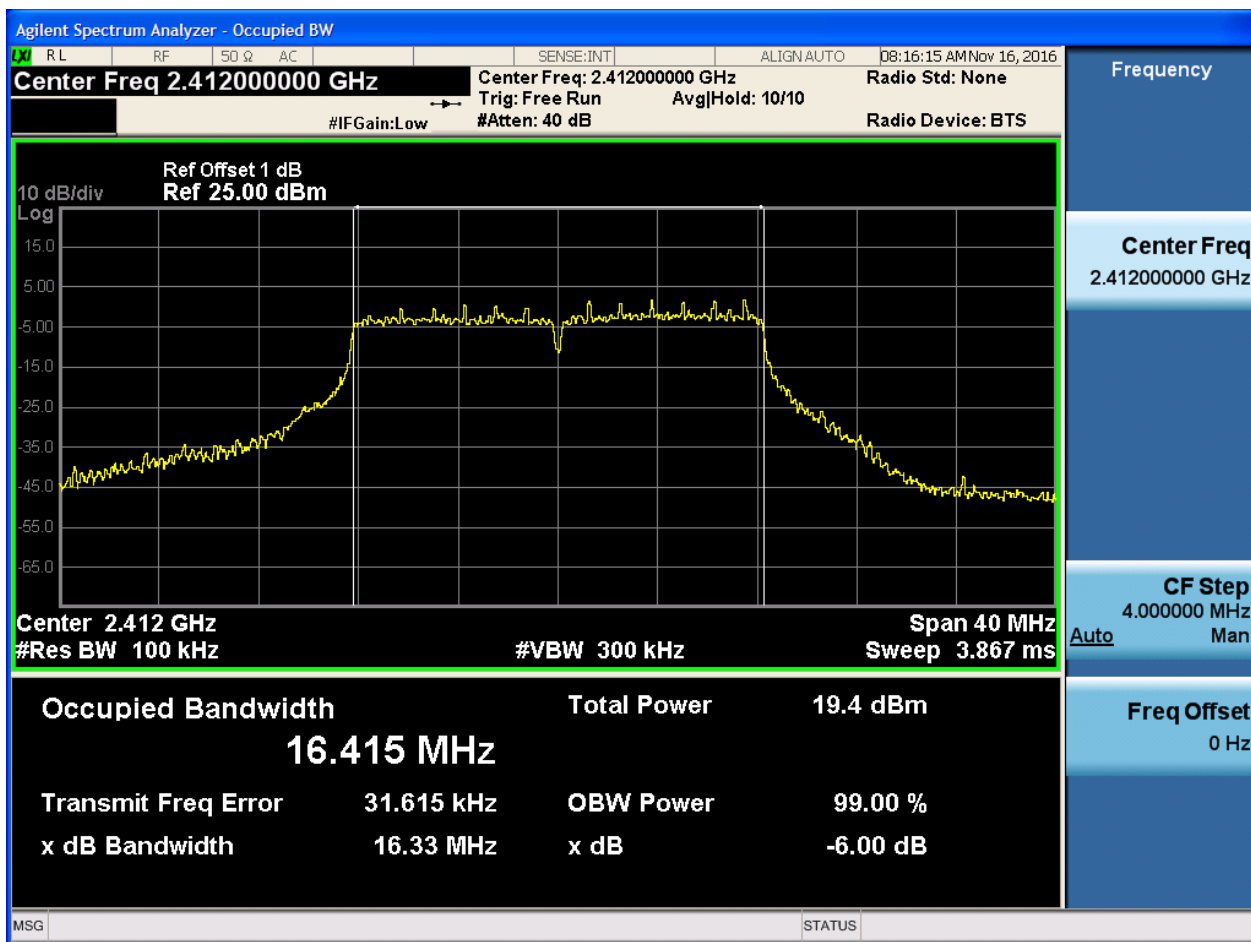


2.7 11G_L@Ant 1



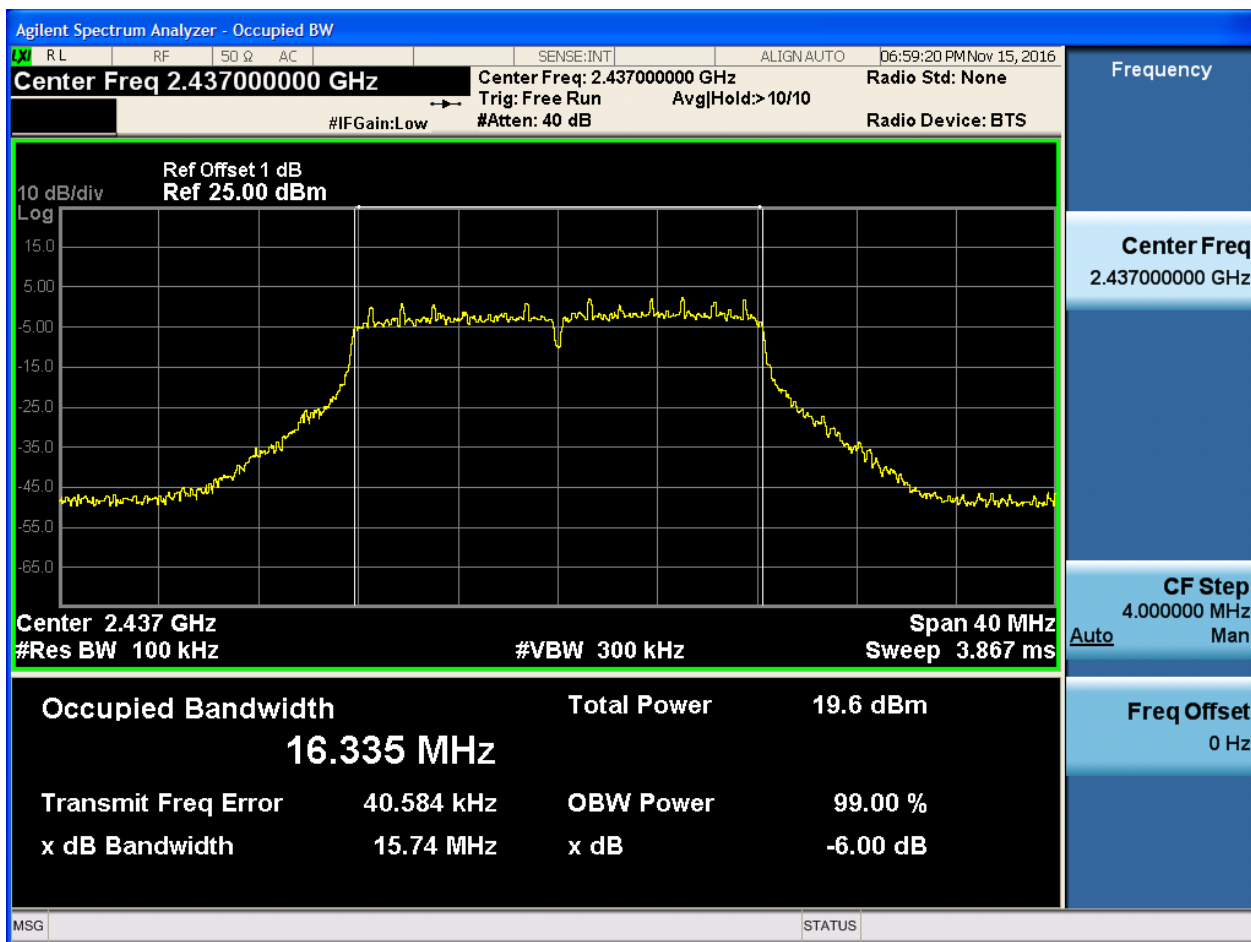


2.8 11G_L@Ant 2



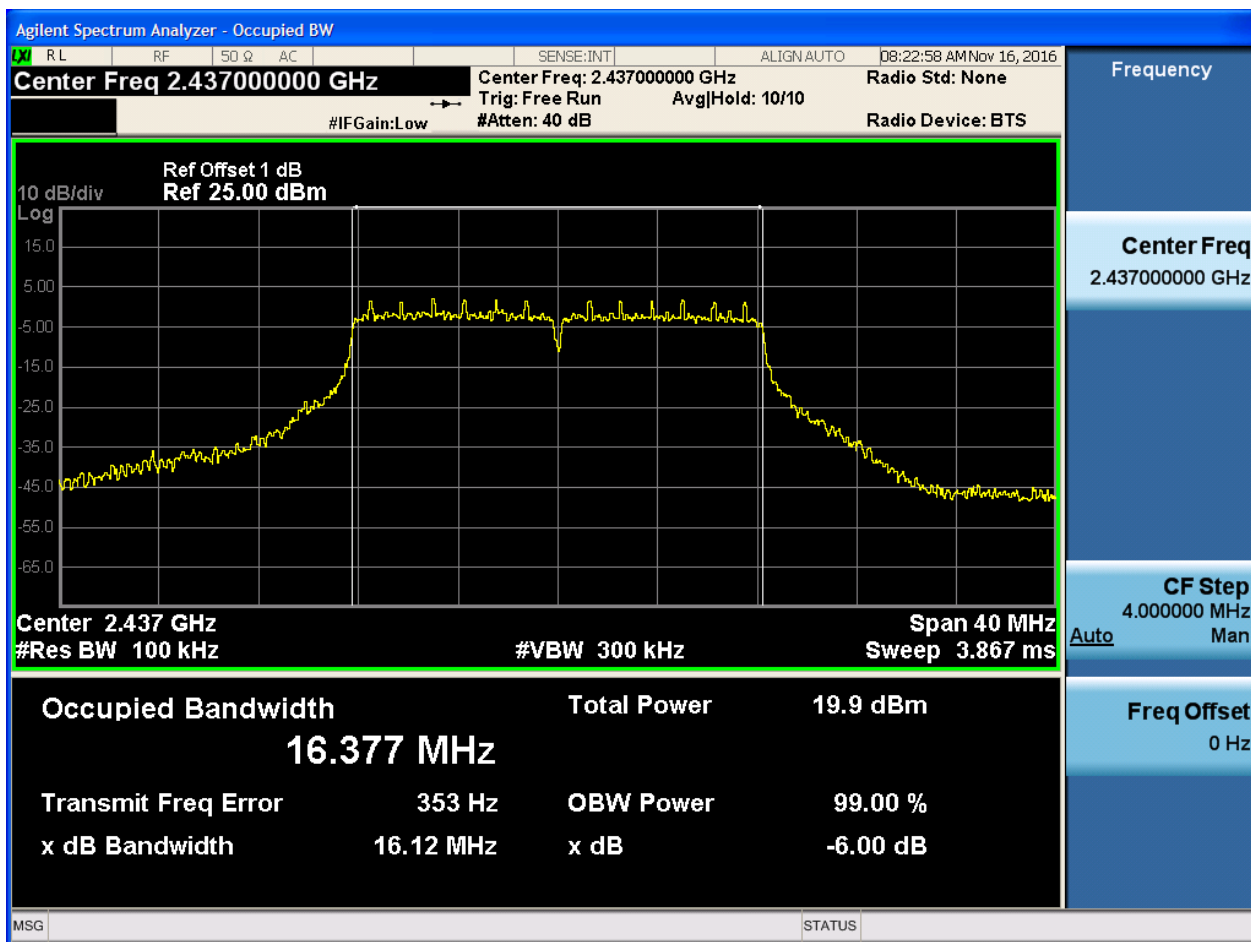


2.9 11G_M@Ant 1



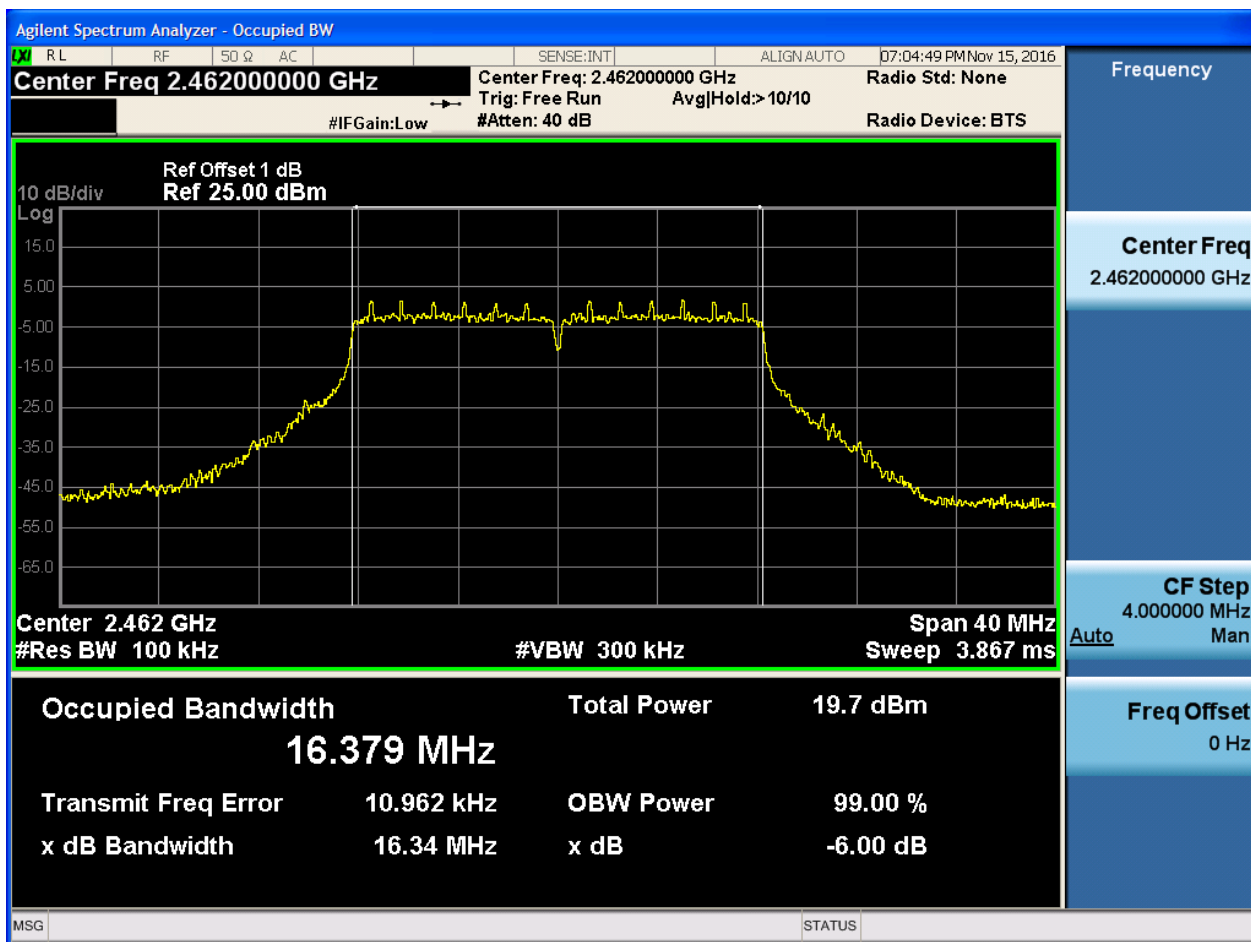


2.10 11G_M@Ant 2



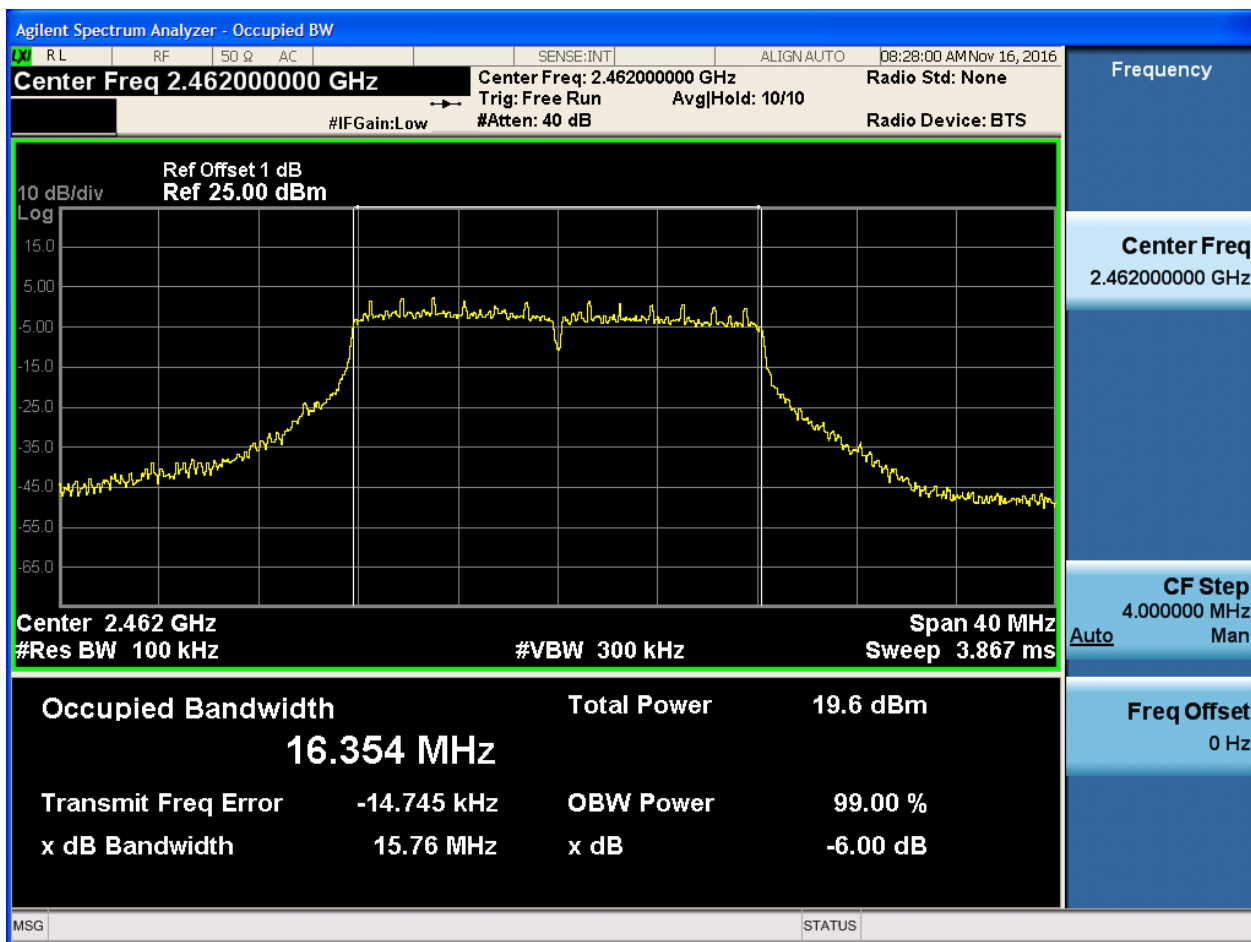


2.11 11G_H@Ant 1



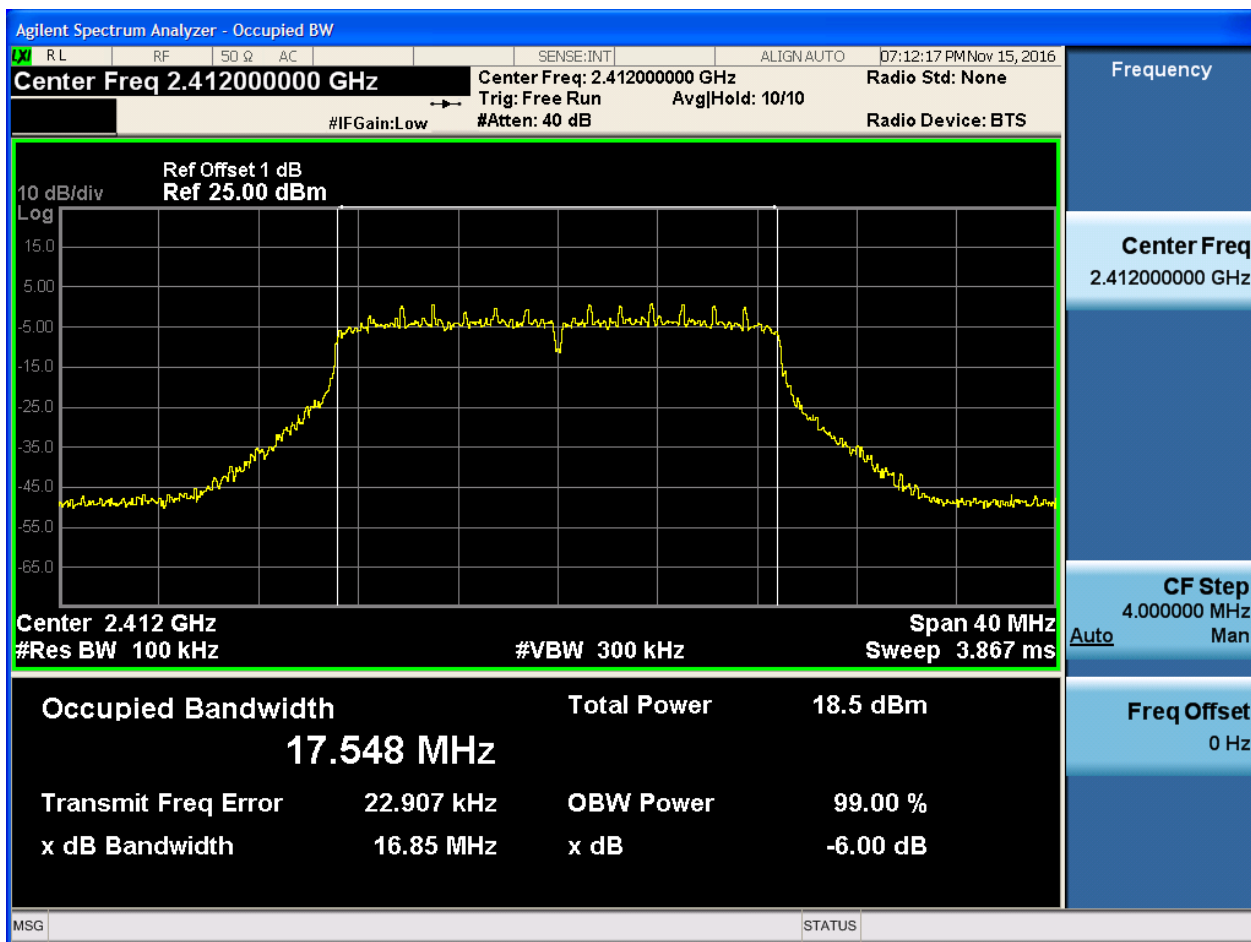


2.12 11G_H@Ant 2



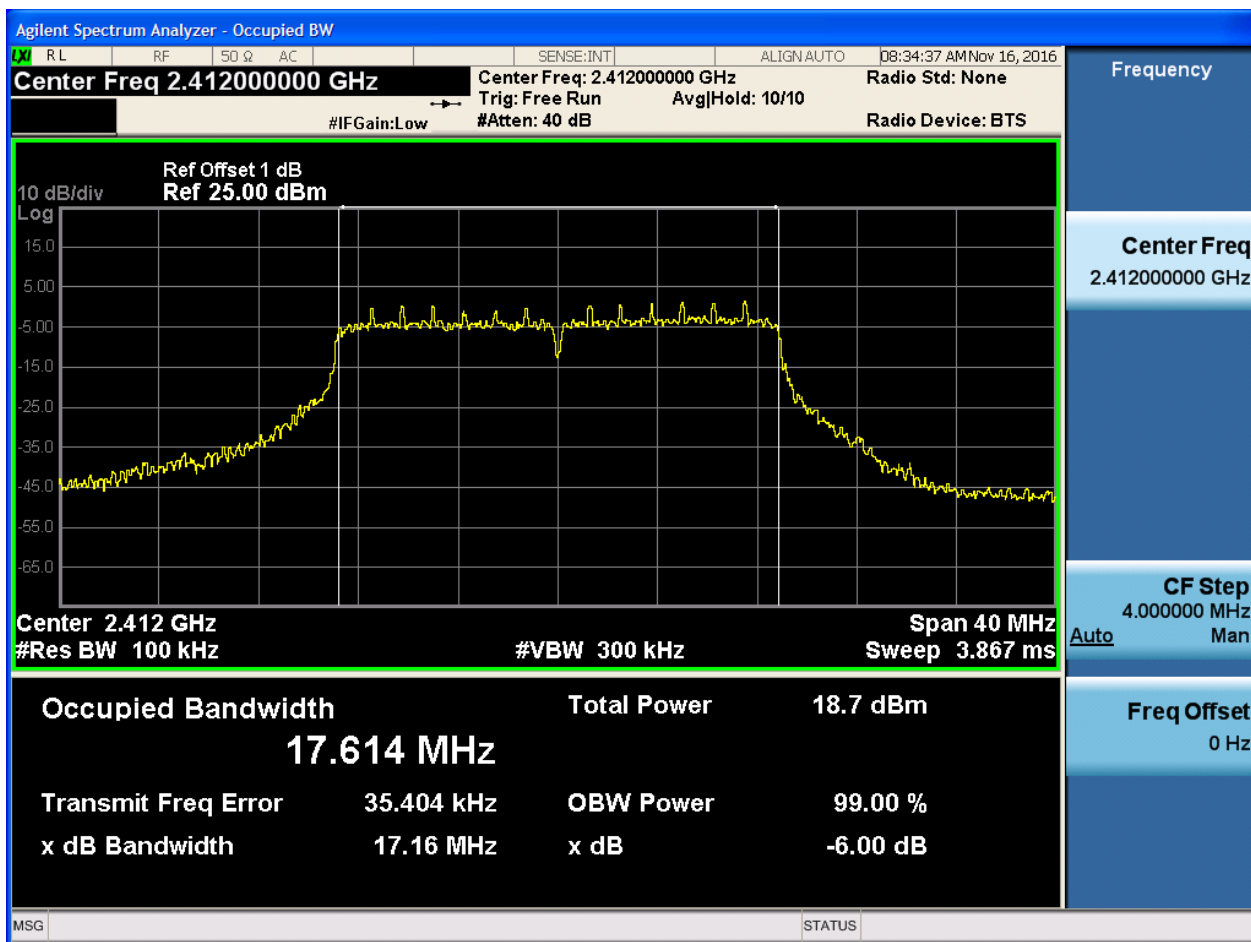


2.13 11N20_L@Ant 1



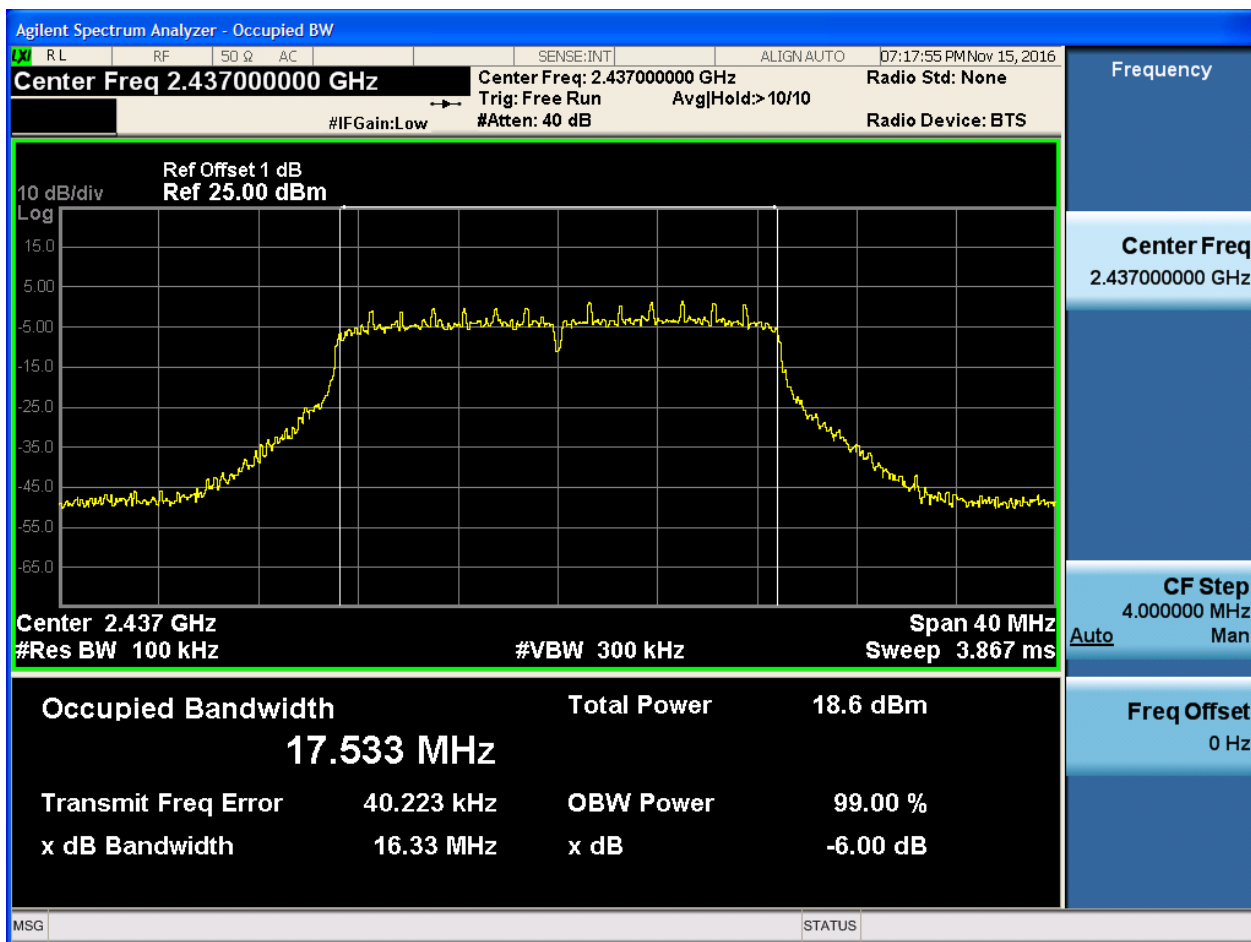


2.14 11N20_L@Ant 2



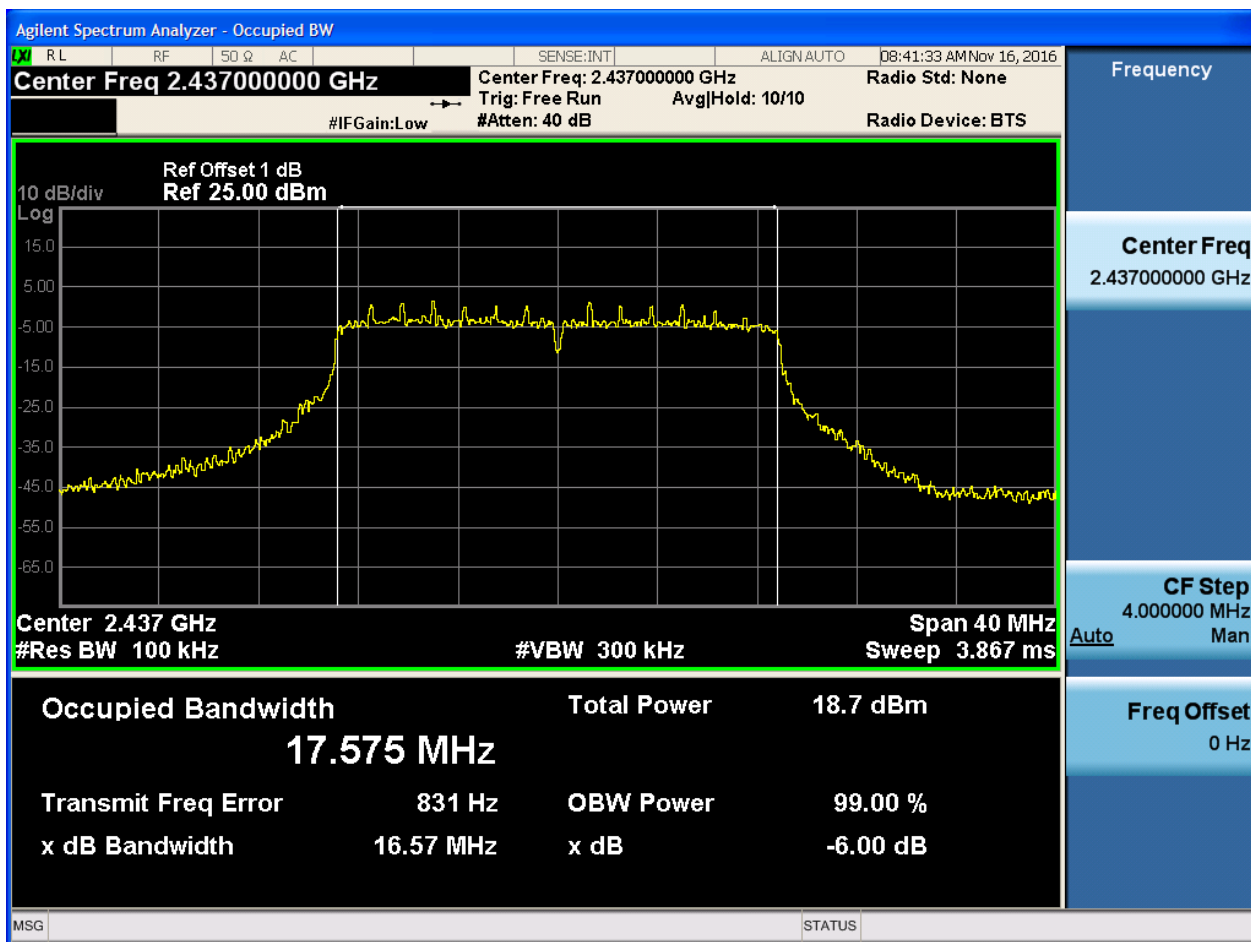


2.15 11N20_M@Ant 1



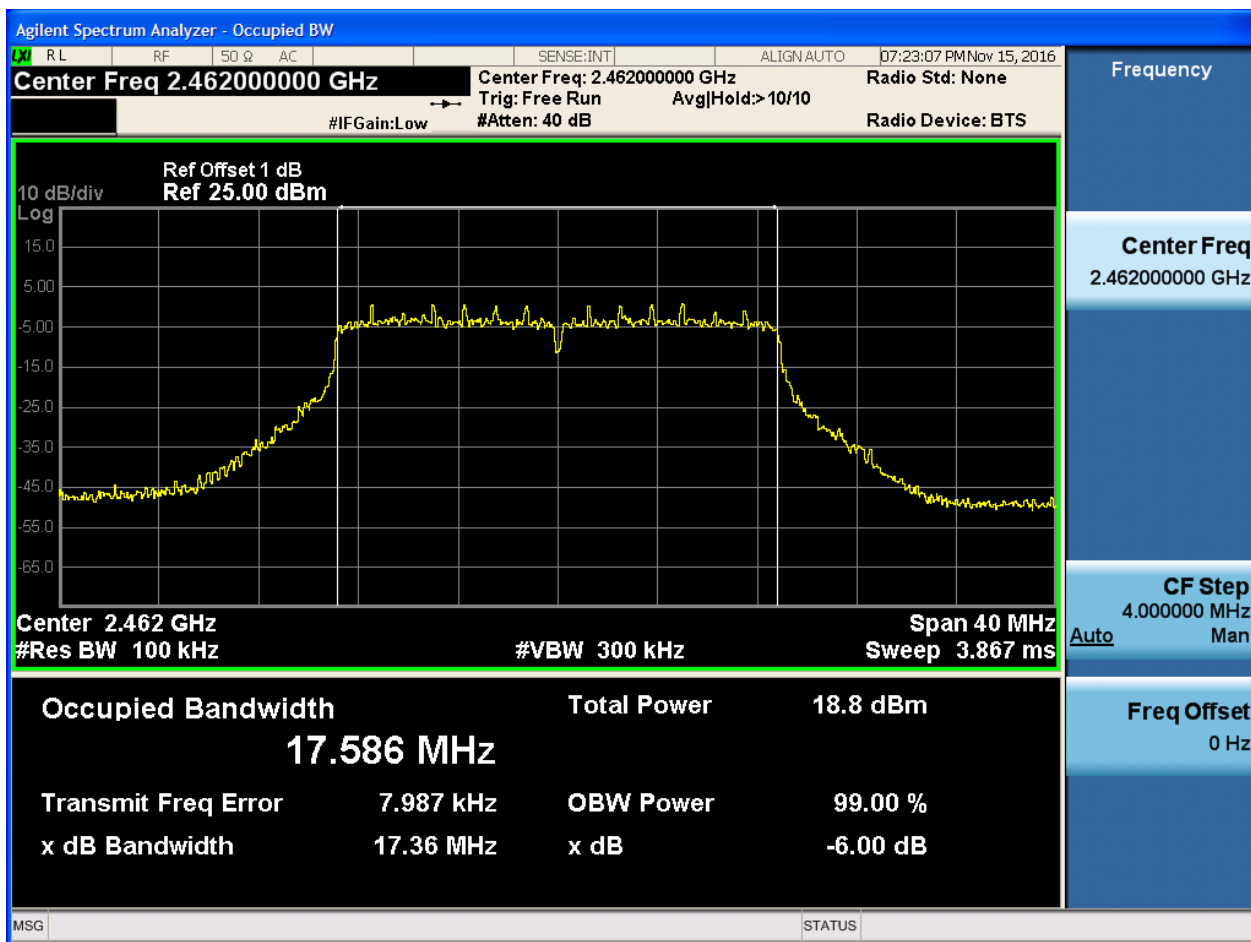


2.16 11N20_M@Ant 2



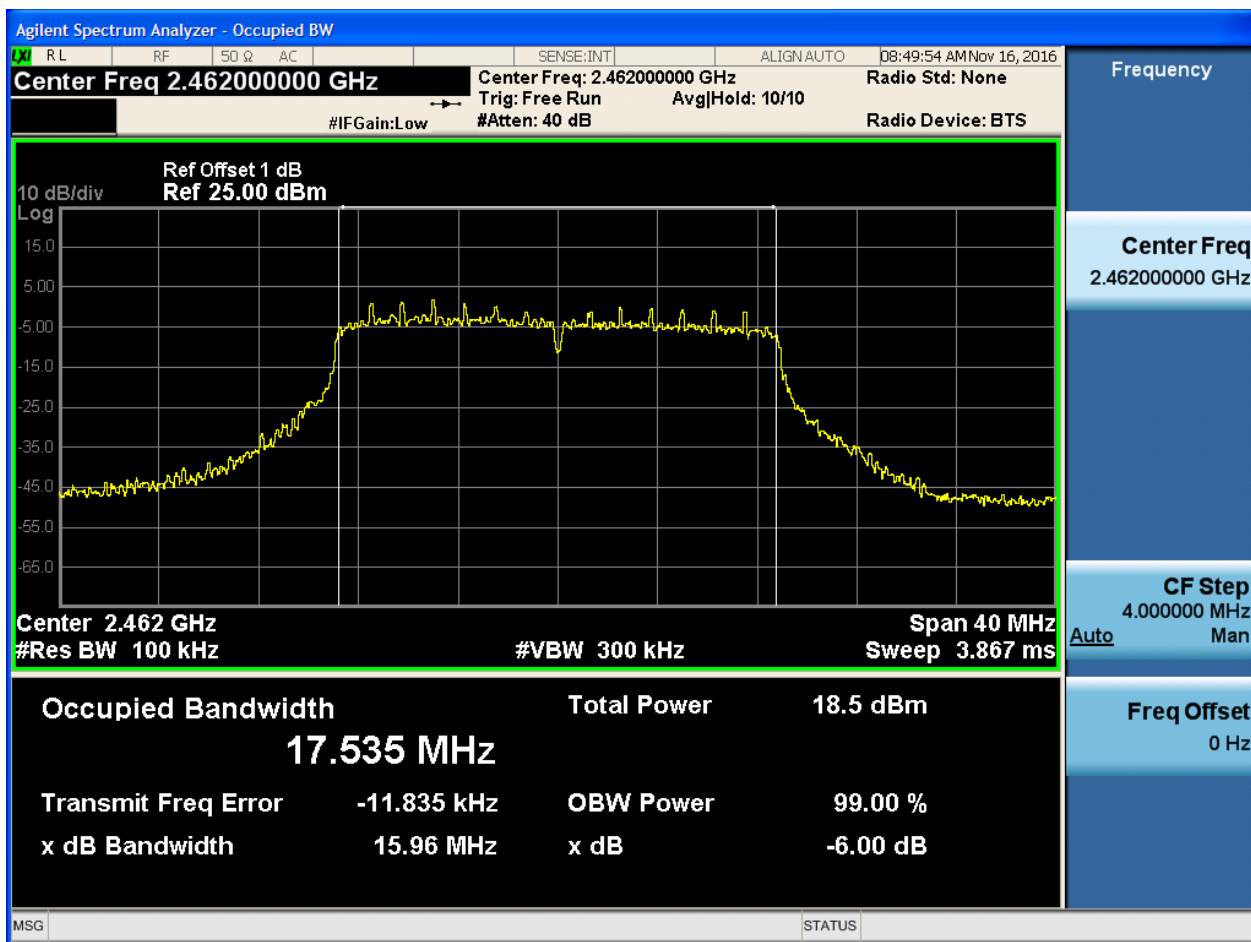


2.17 11N20_H@Ant 1



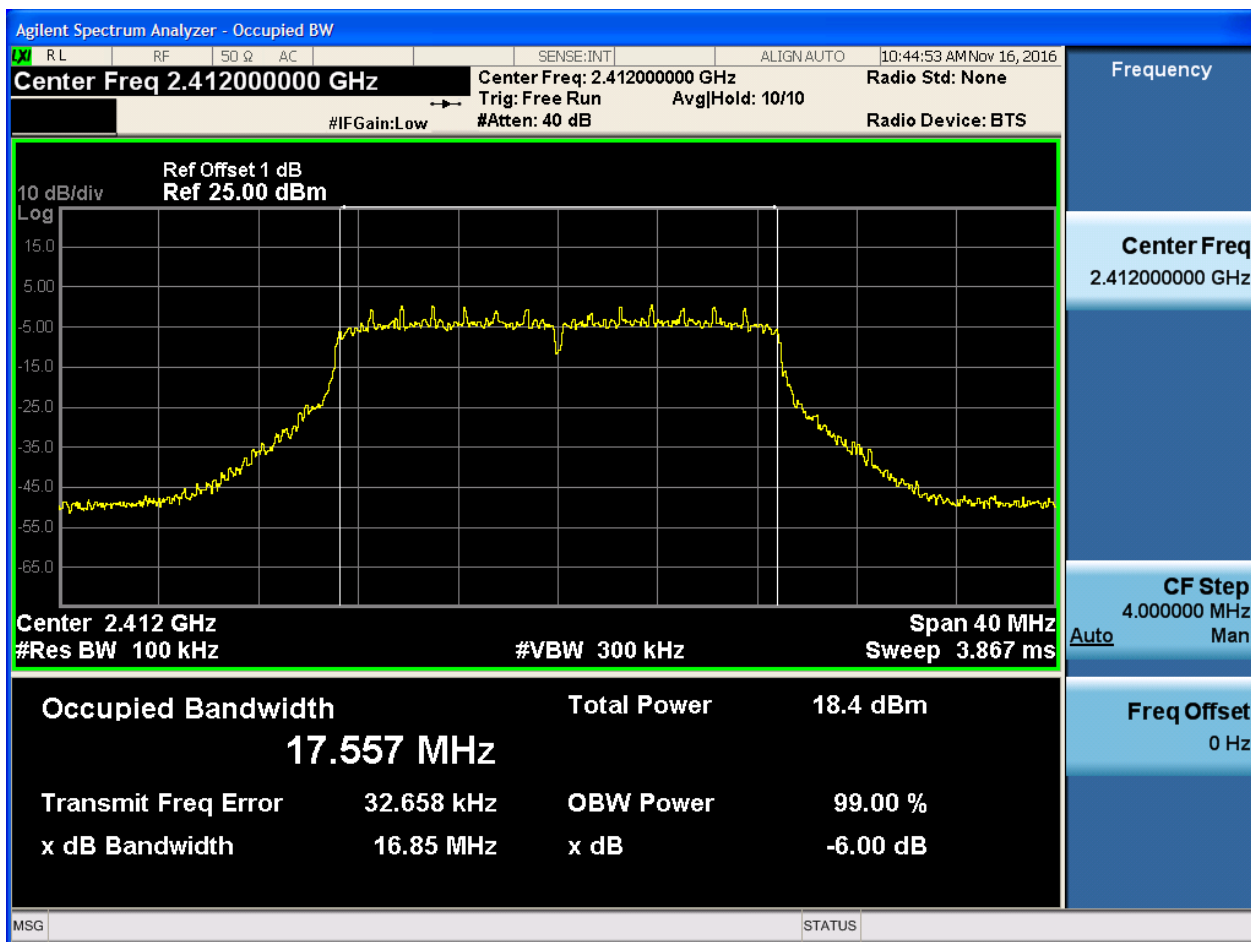


2.18 11N20_H@Ant 2



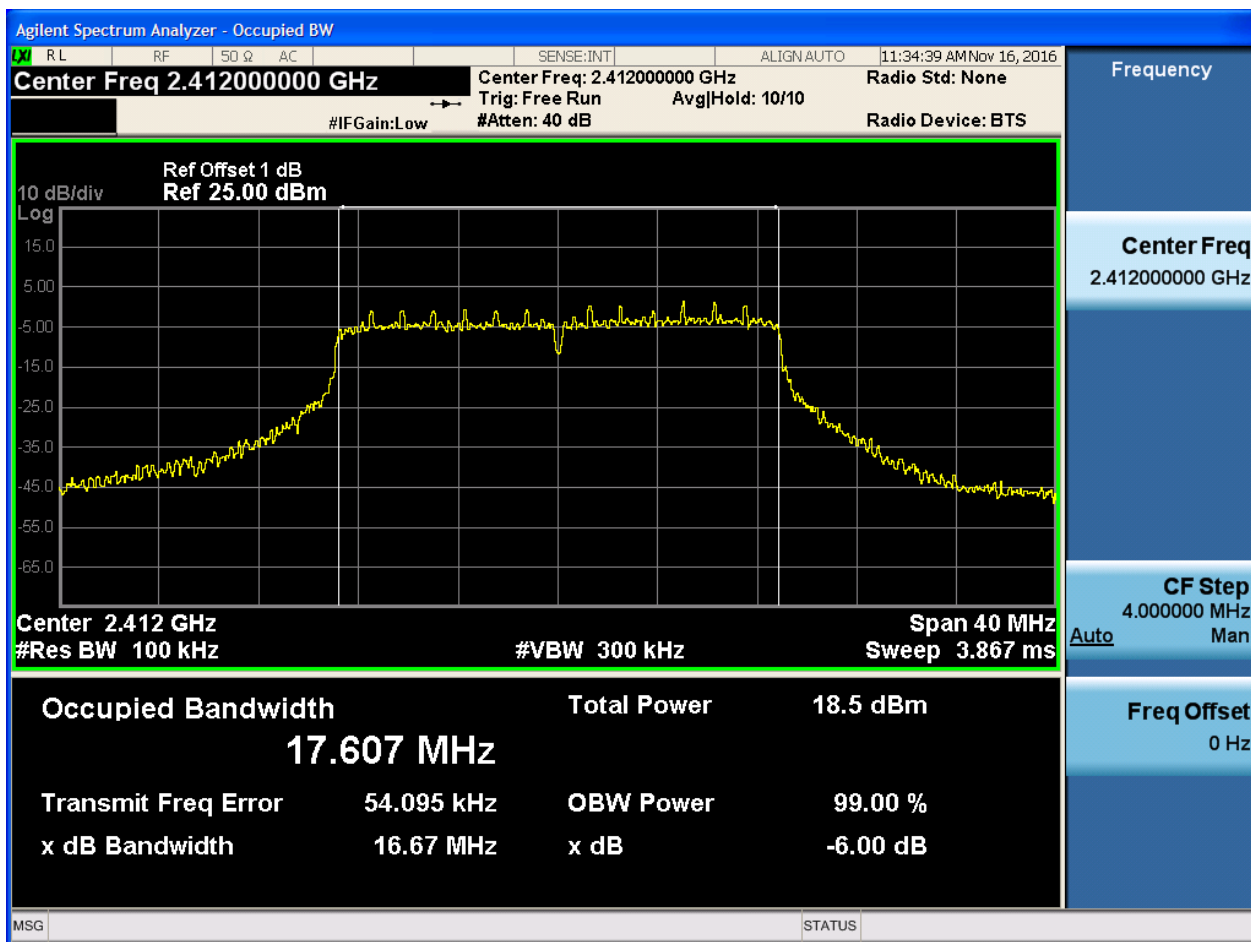


2.19 11N20m_L@Ant 1



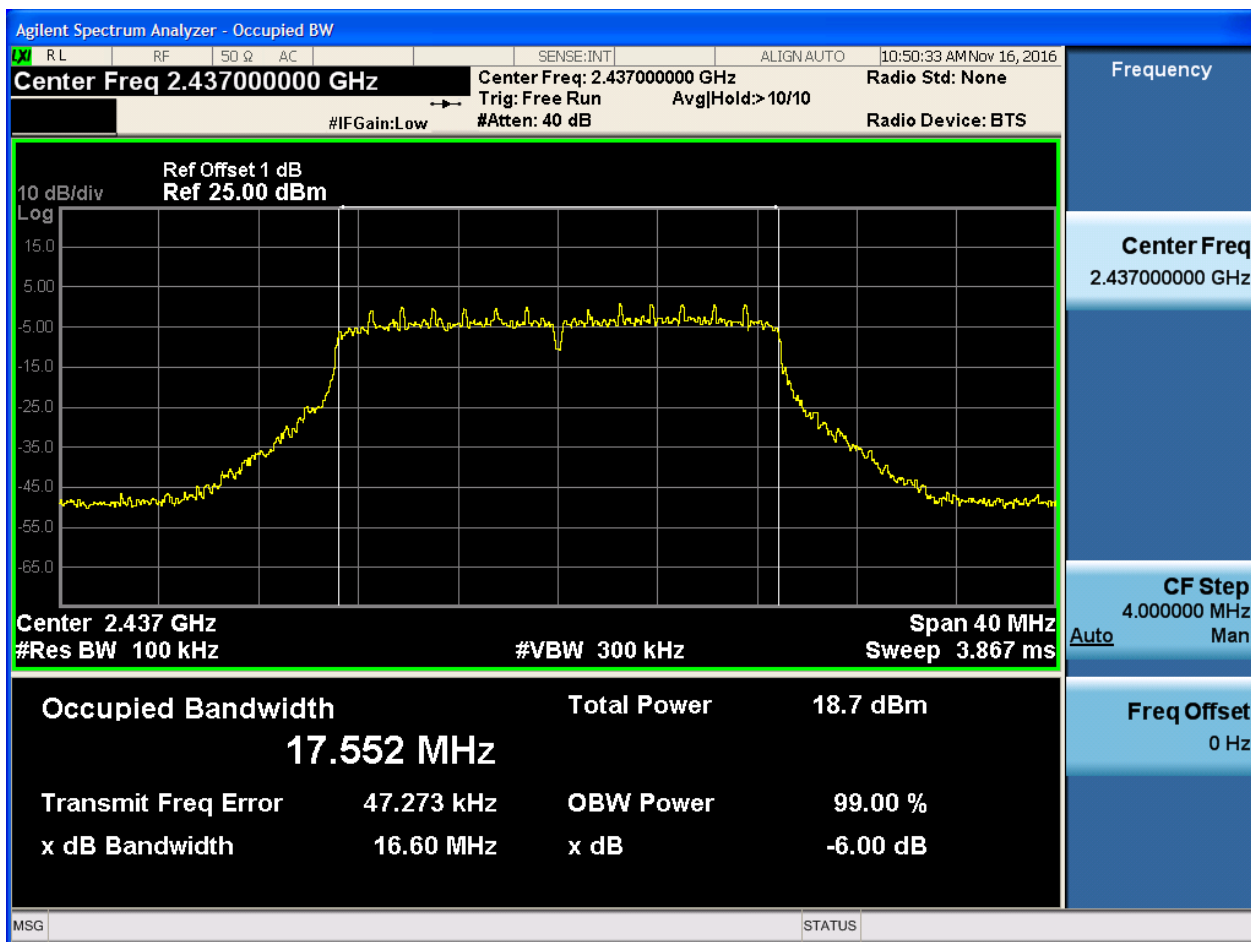


2.20 11N20m_L@Ant 2



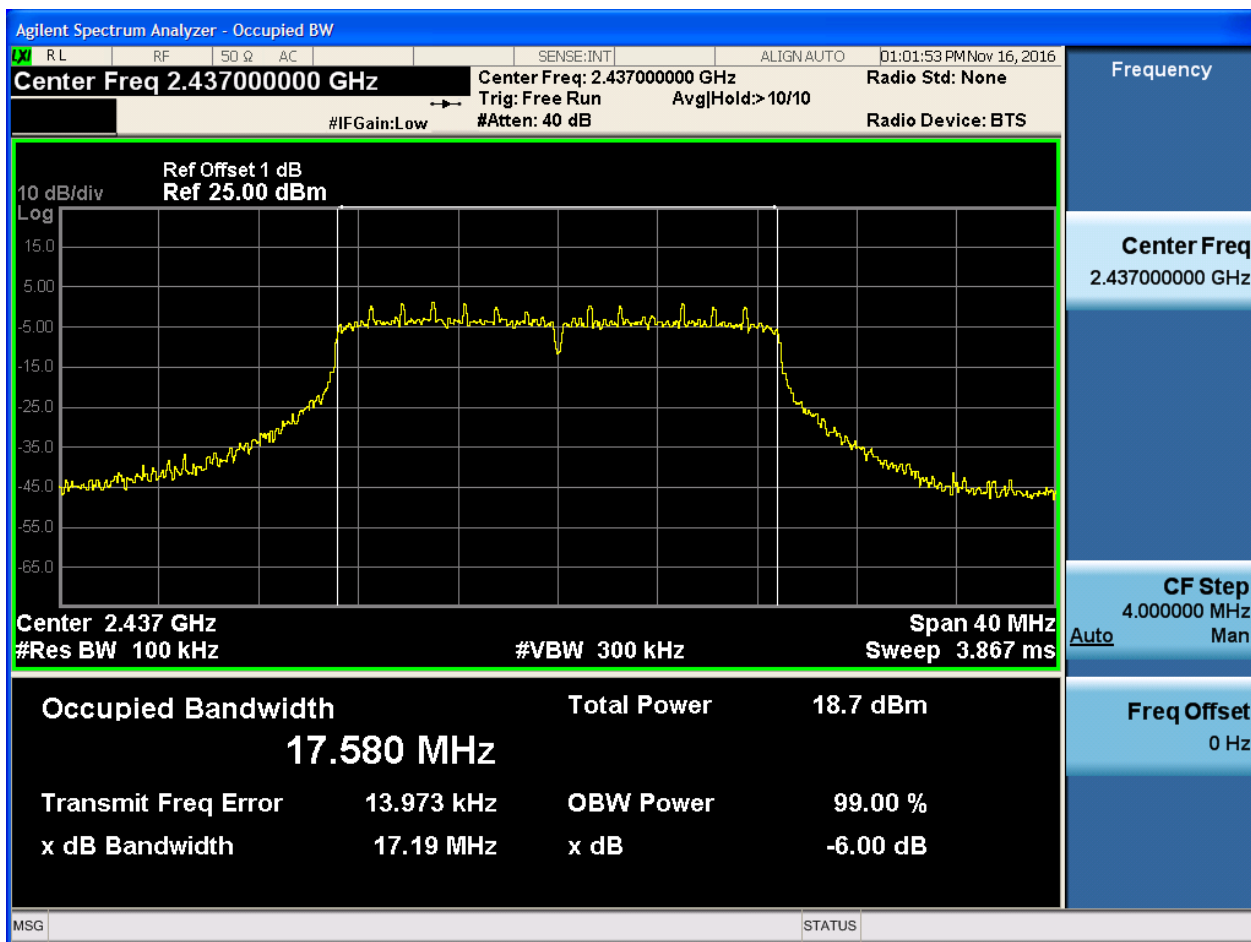


2.21 11N20m_M@Ant 1



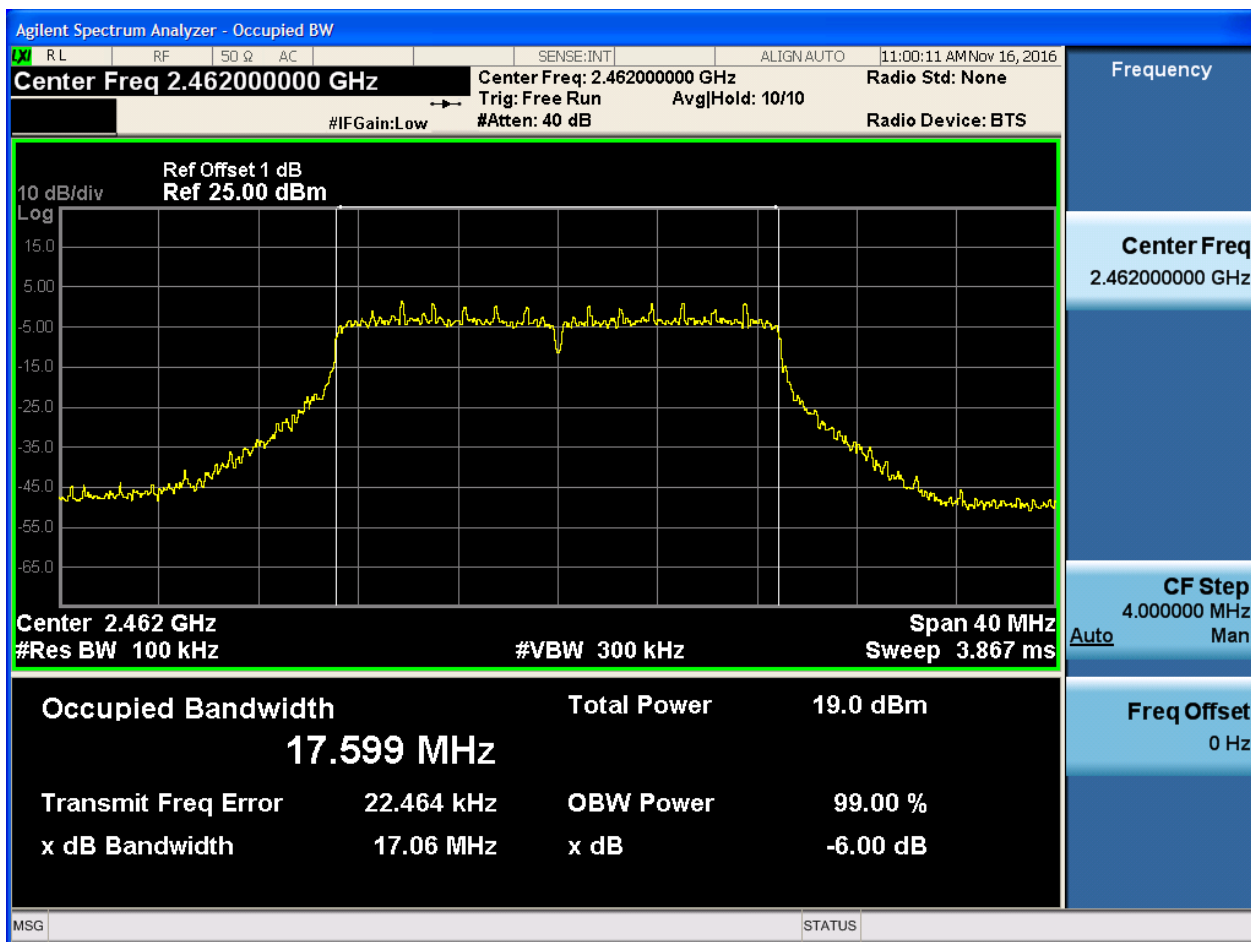


2.22 11N20m_M@Ant 2



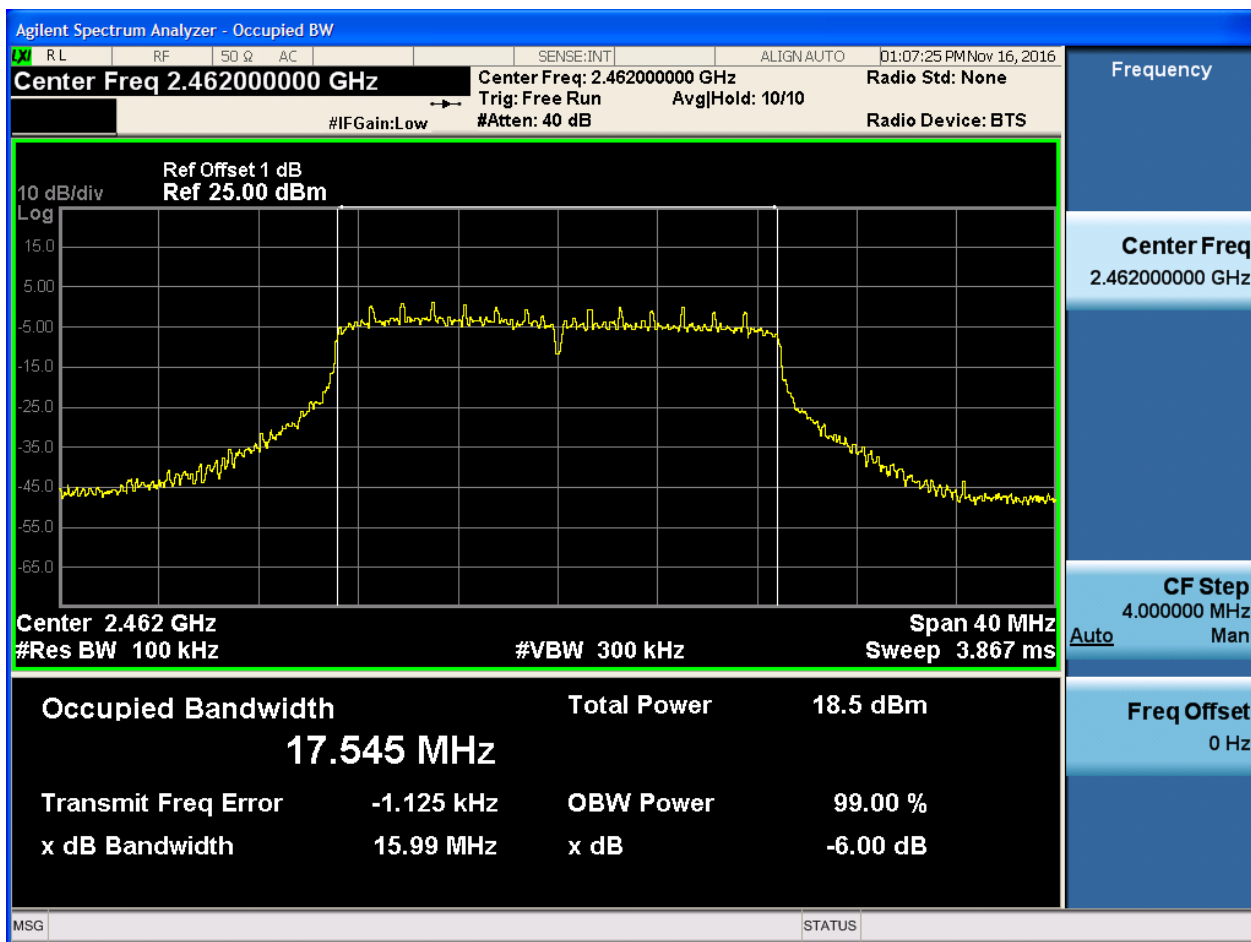


2.23 11N20m_H@Ant 1



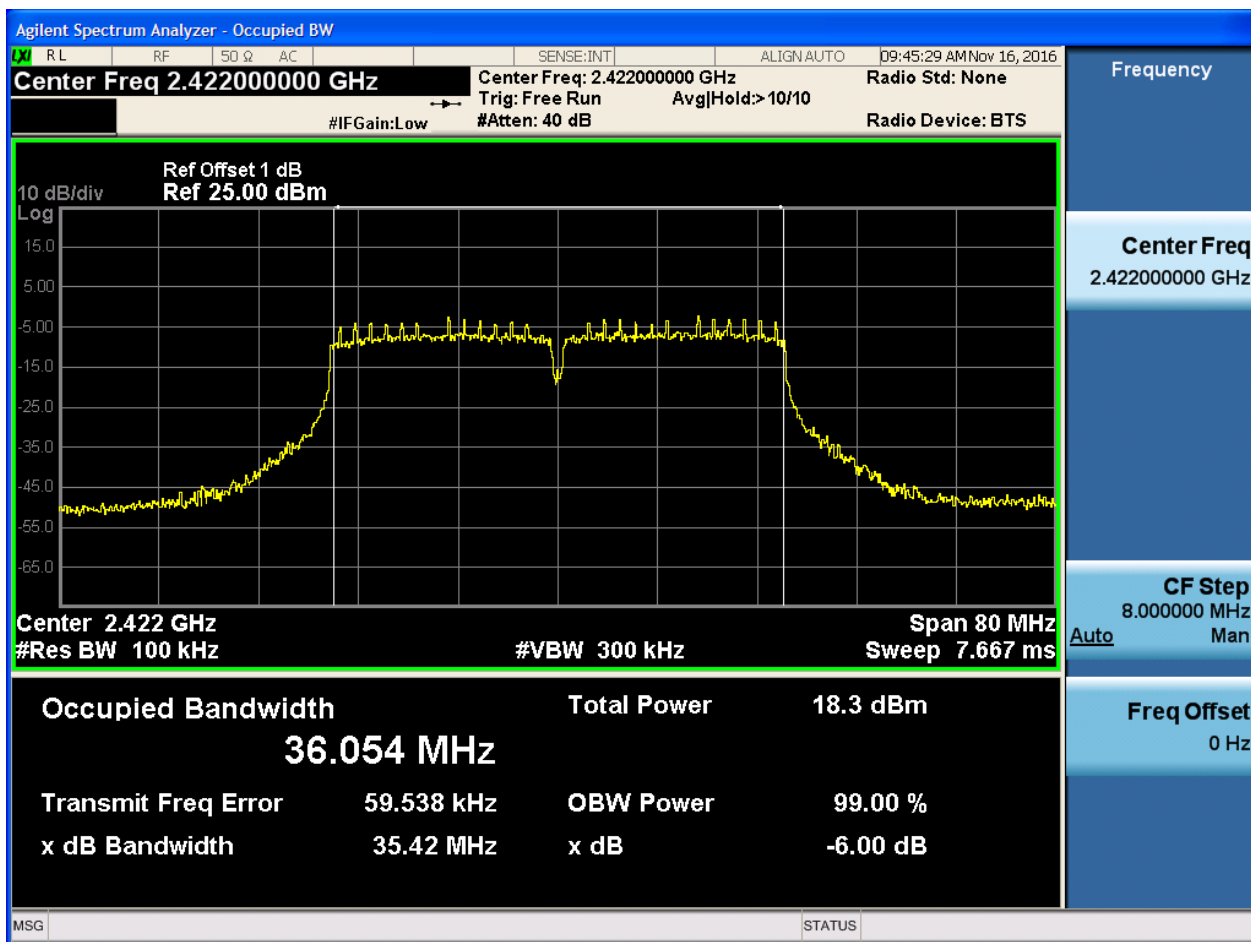


2.24 11N20m_H@Ant 2



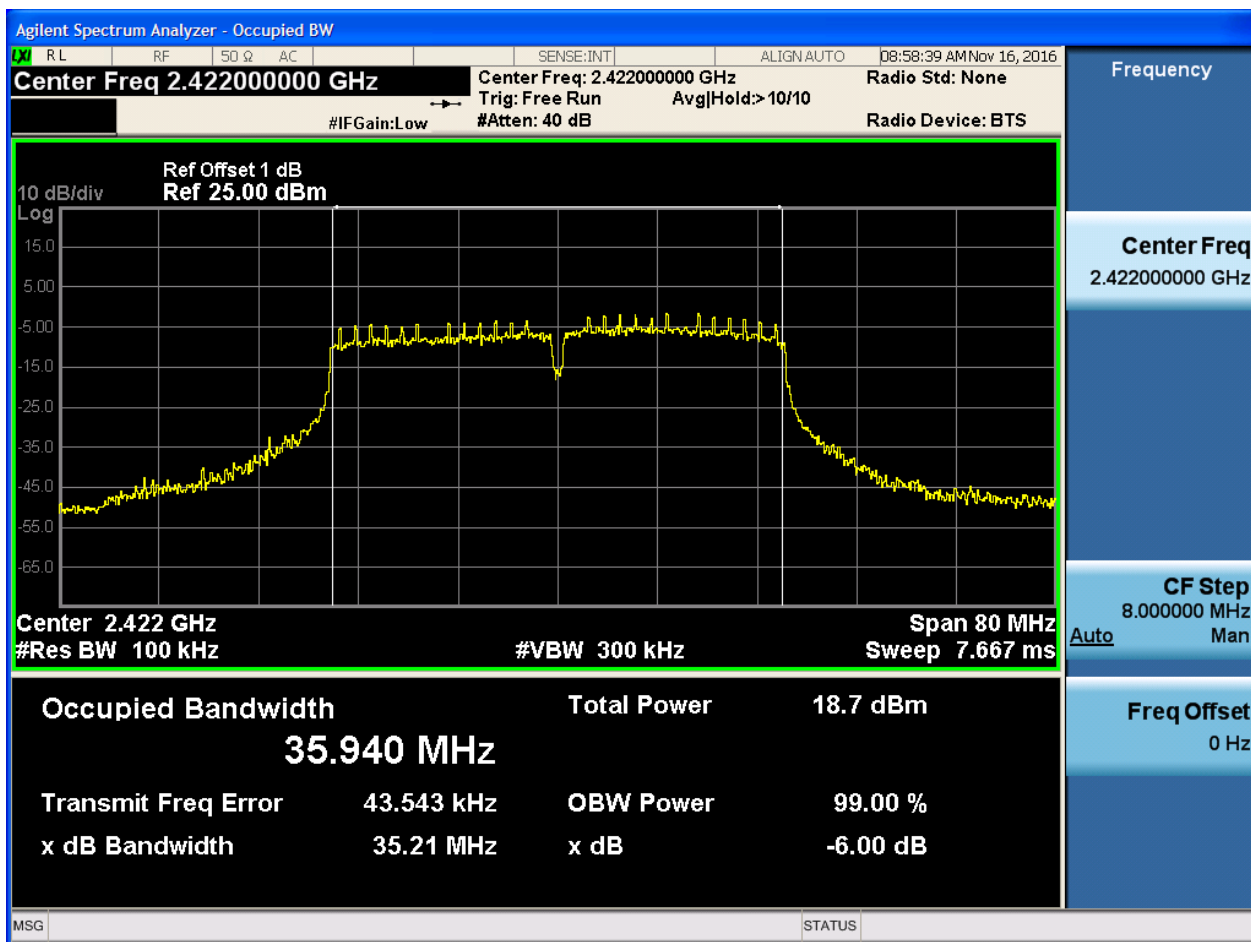


2.25 11N40_L@Ant 1



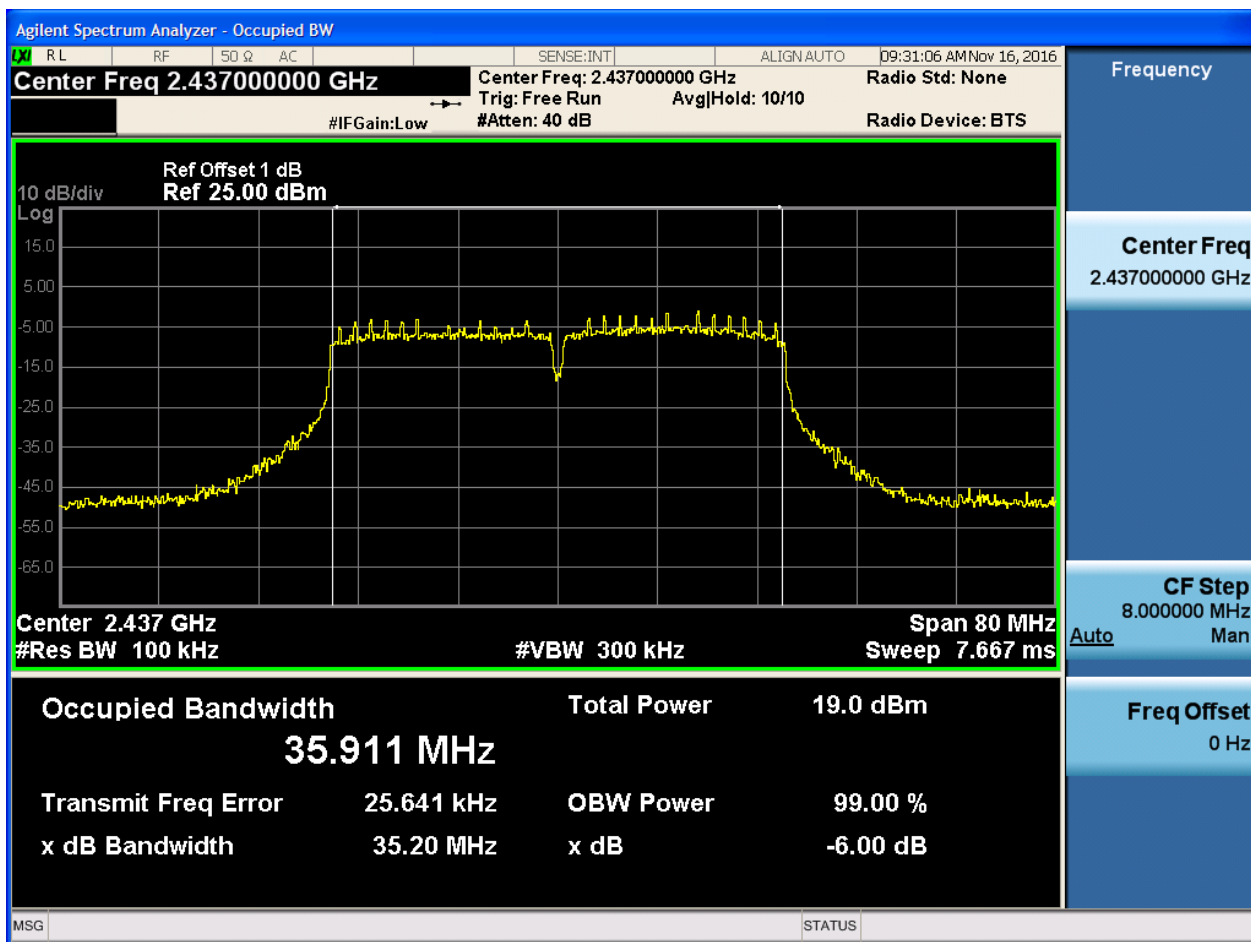


2.26 11N40_L@Ant 2



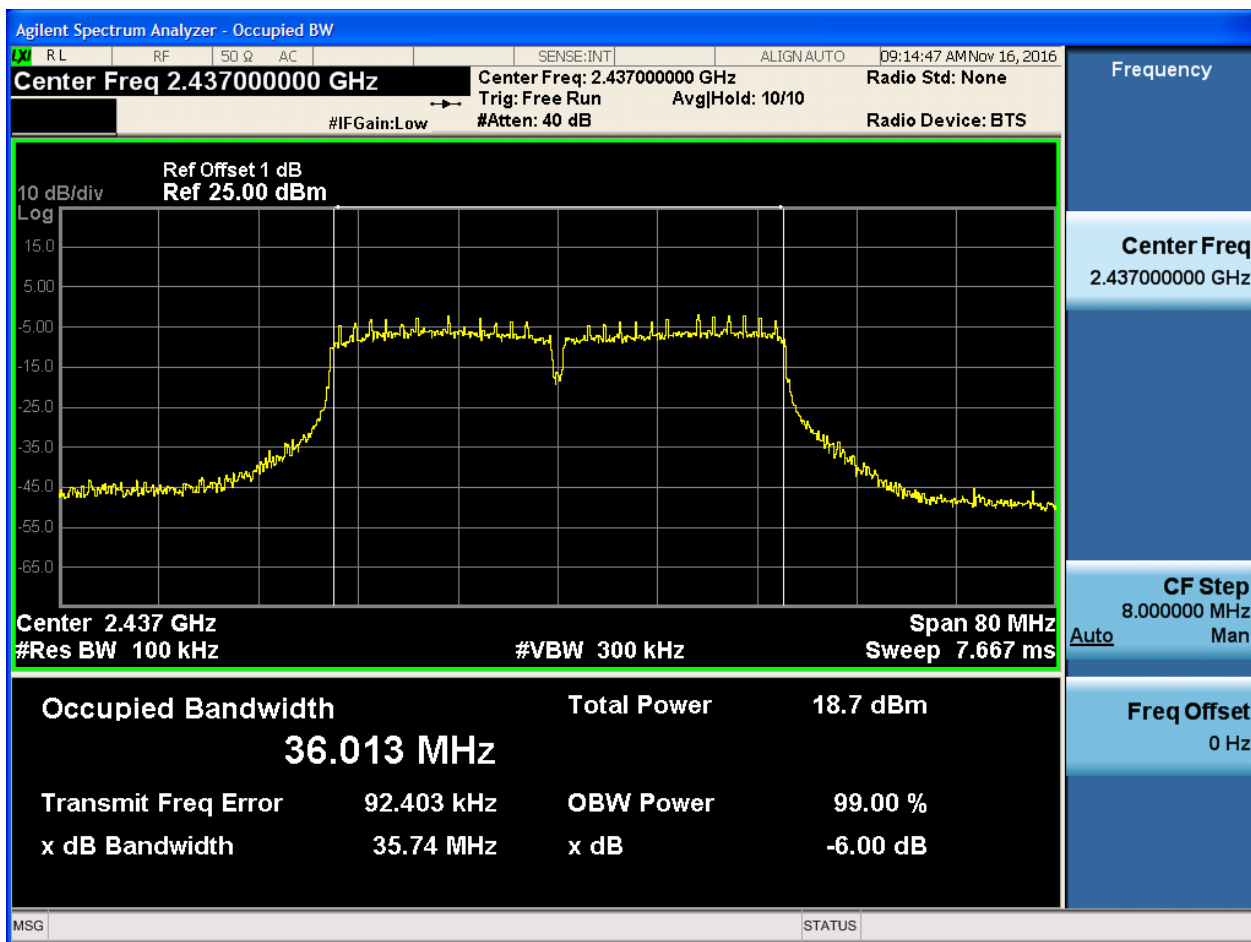


2.27 11N40_M@Ant 1



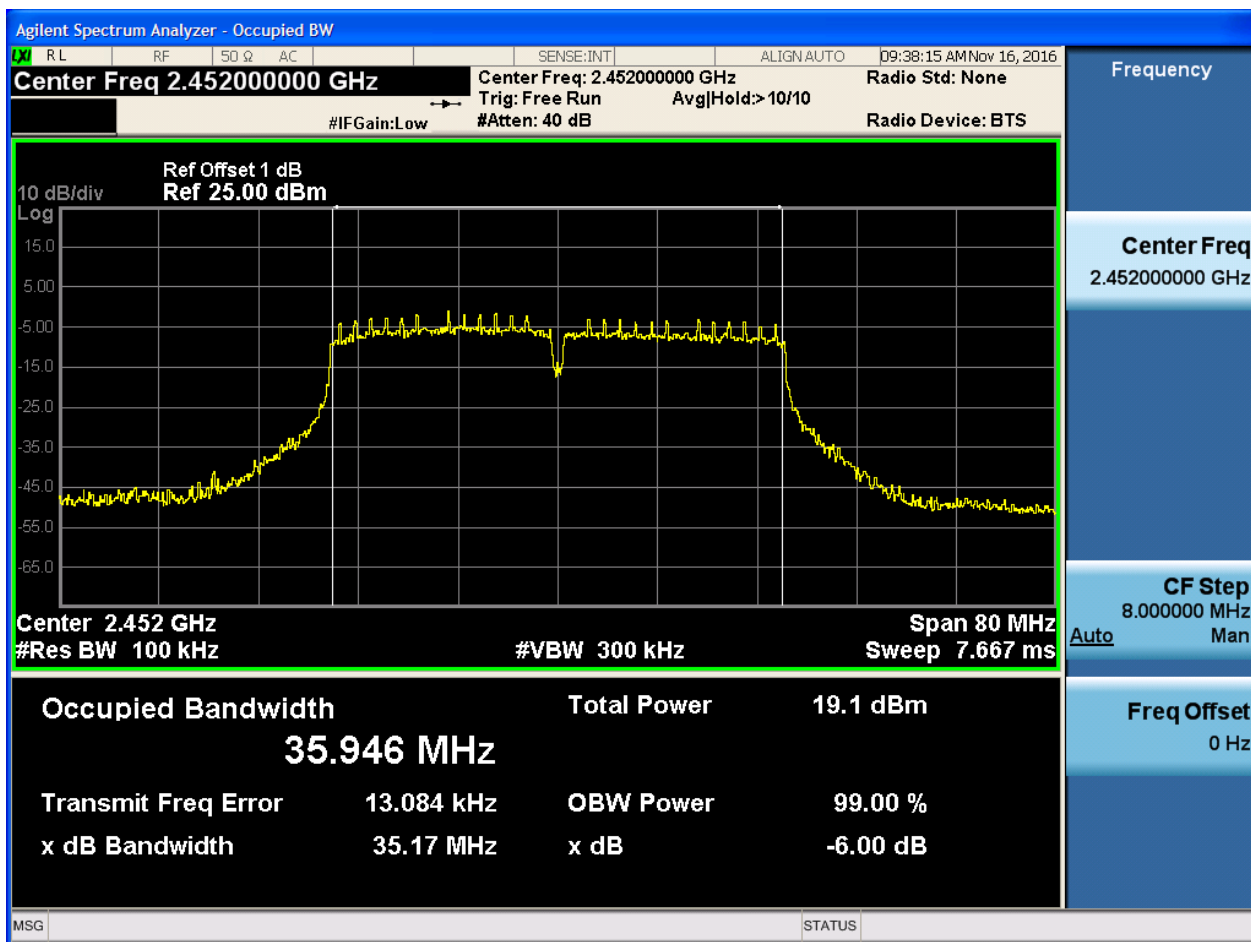


2.28 11N40_M@Ant 2



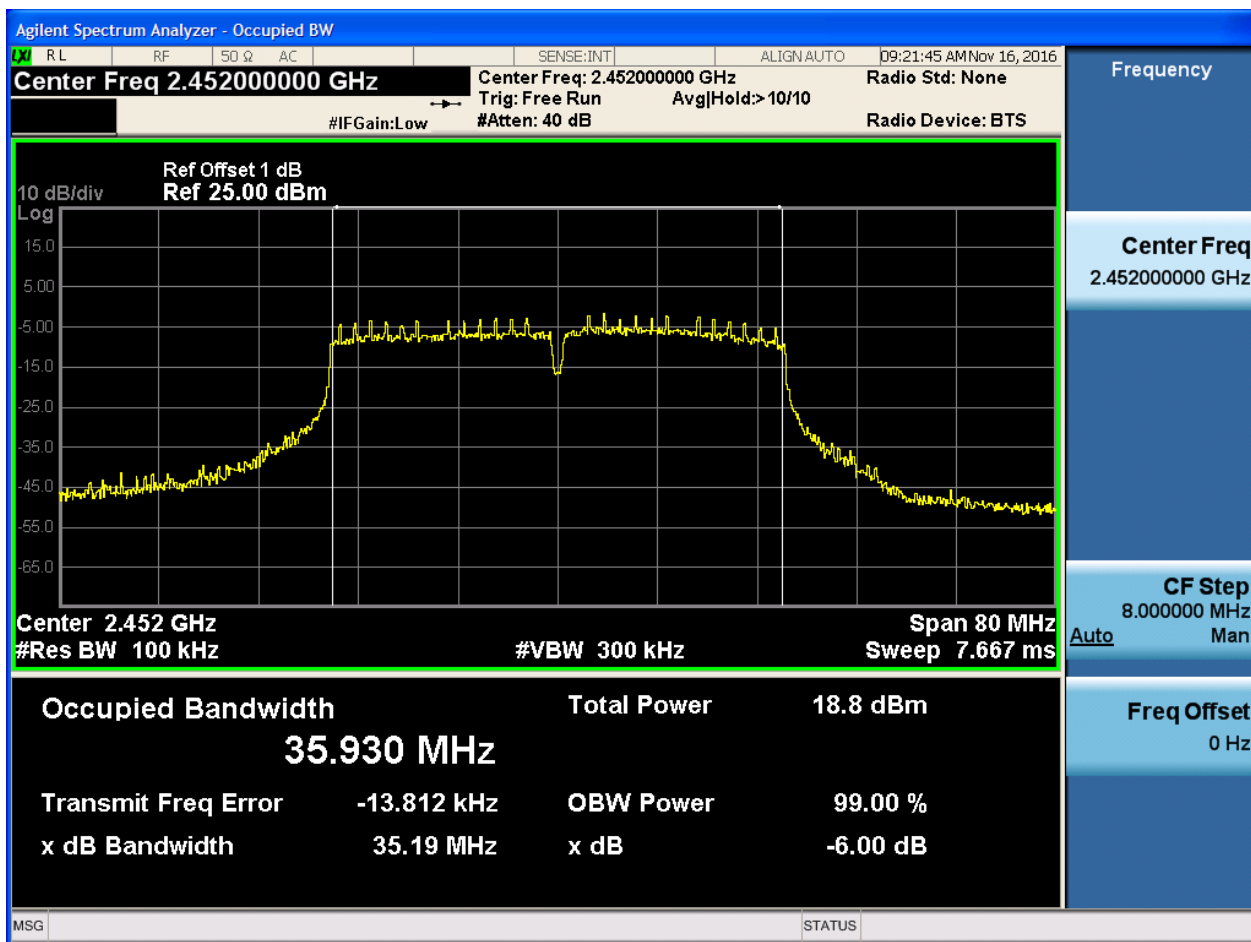


2.29 11N40_H@Ant 1



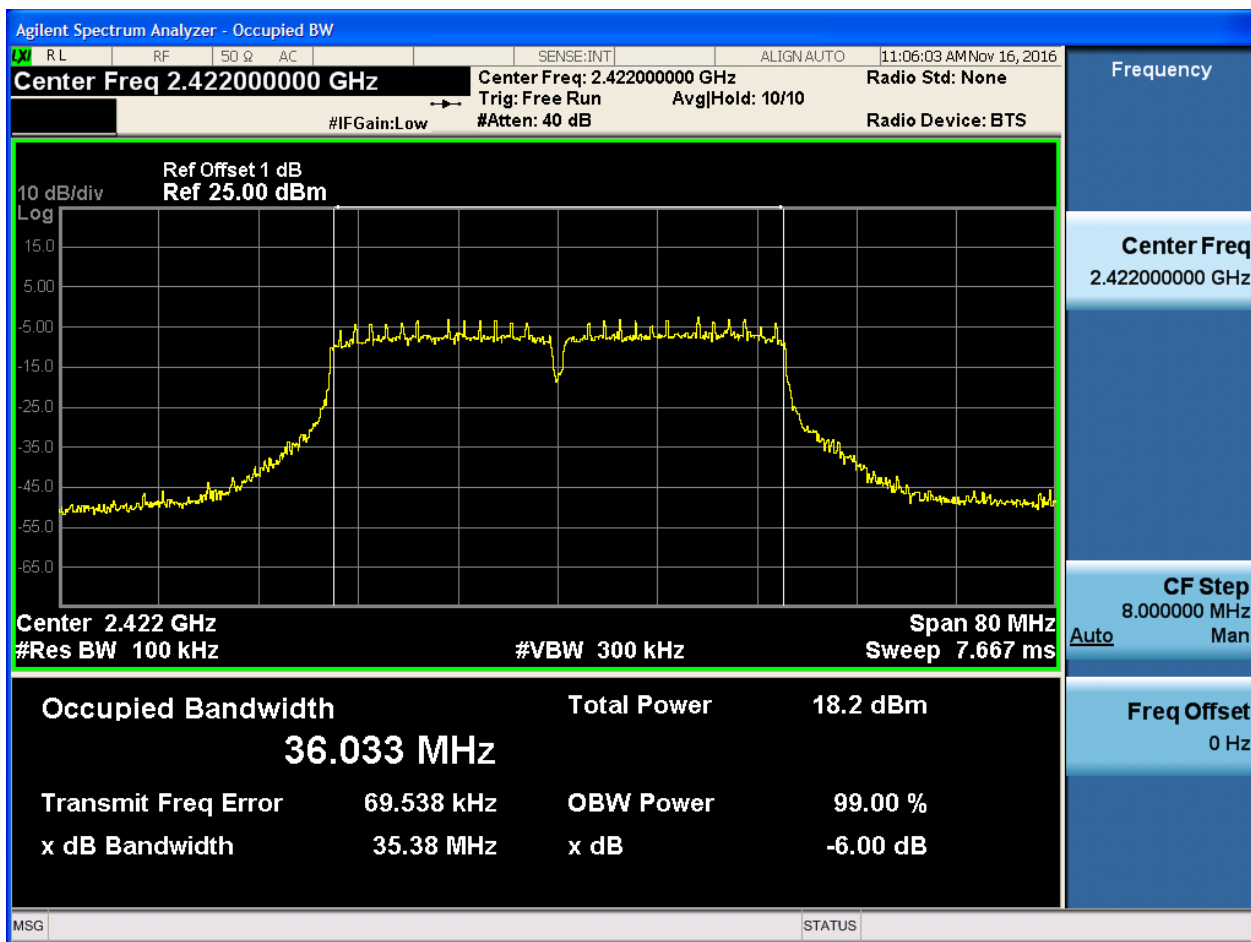


2.30 11N40_H@Ant 2



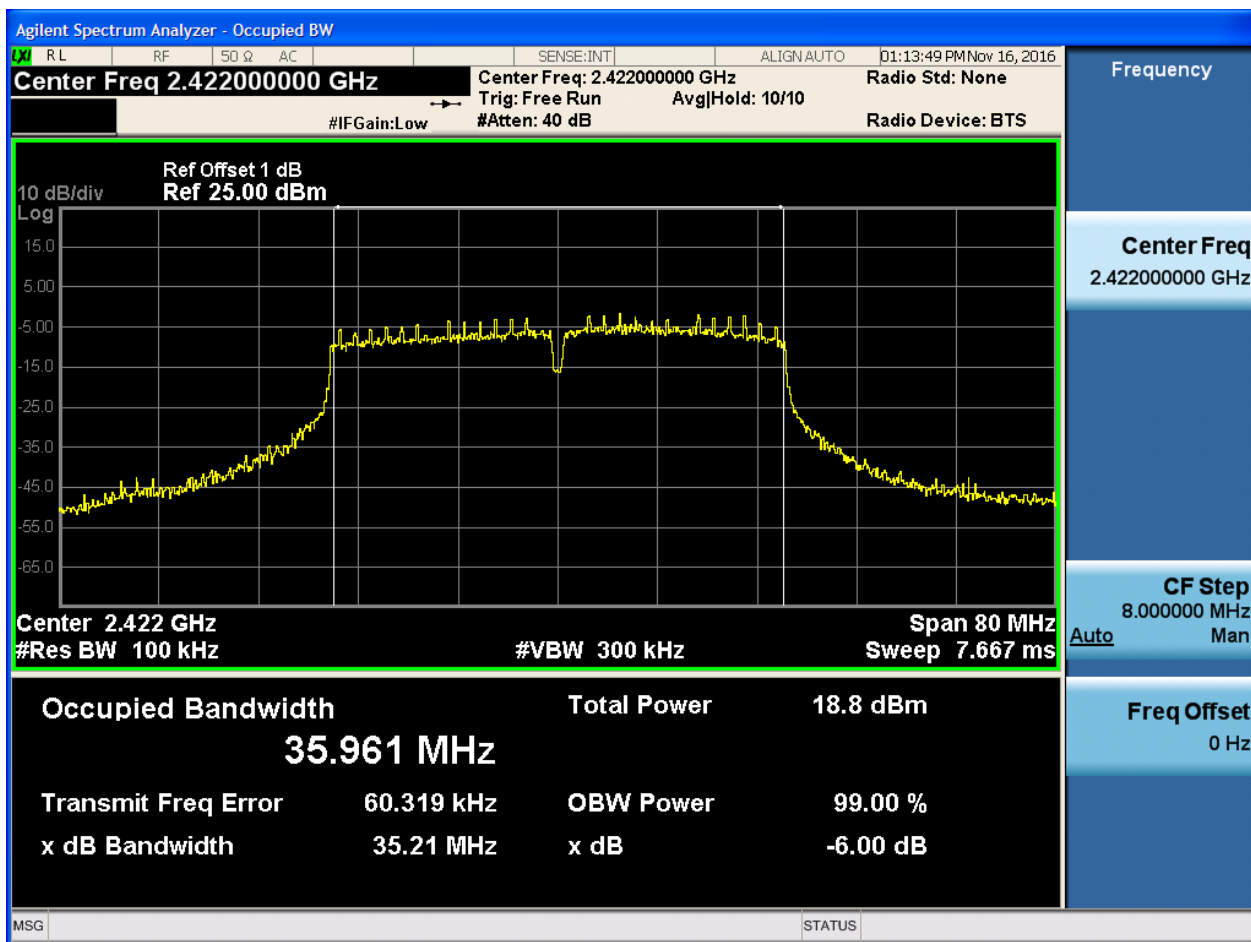


2.31 11N40m_L@Ant 1



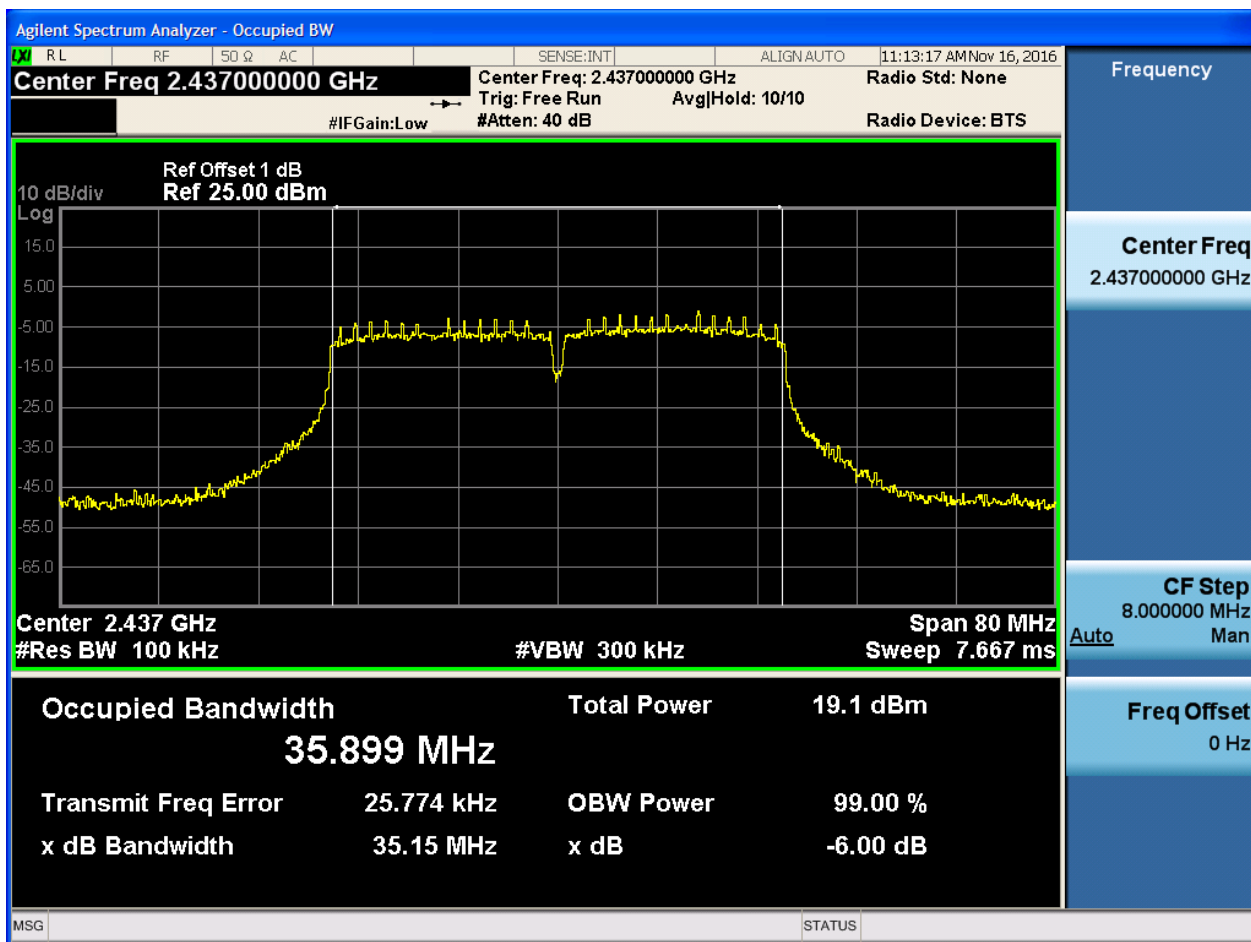


2.32 11N40m_L@Ant 2



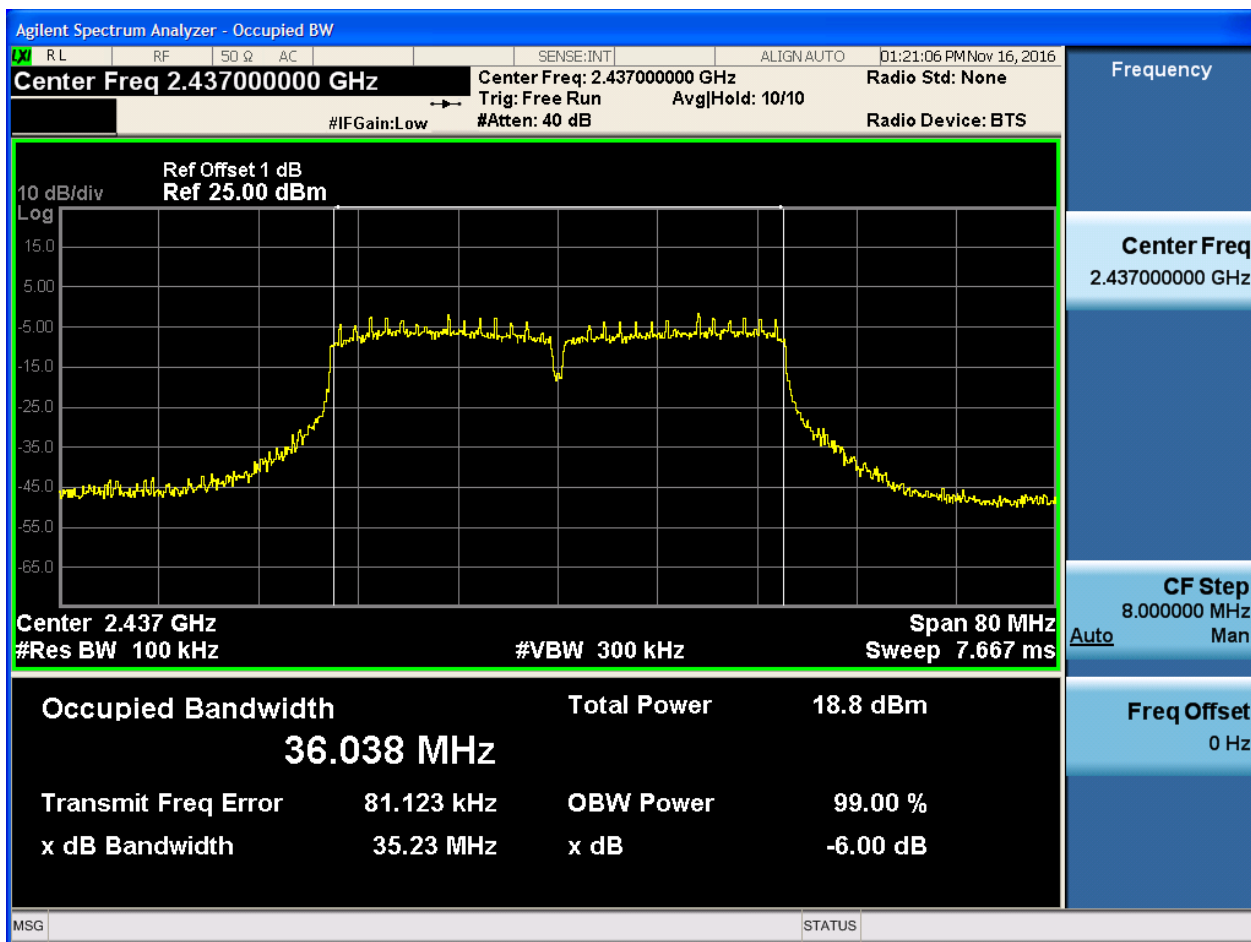


2.33 11N40m_M@Ant 1



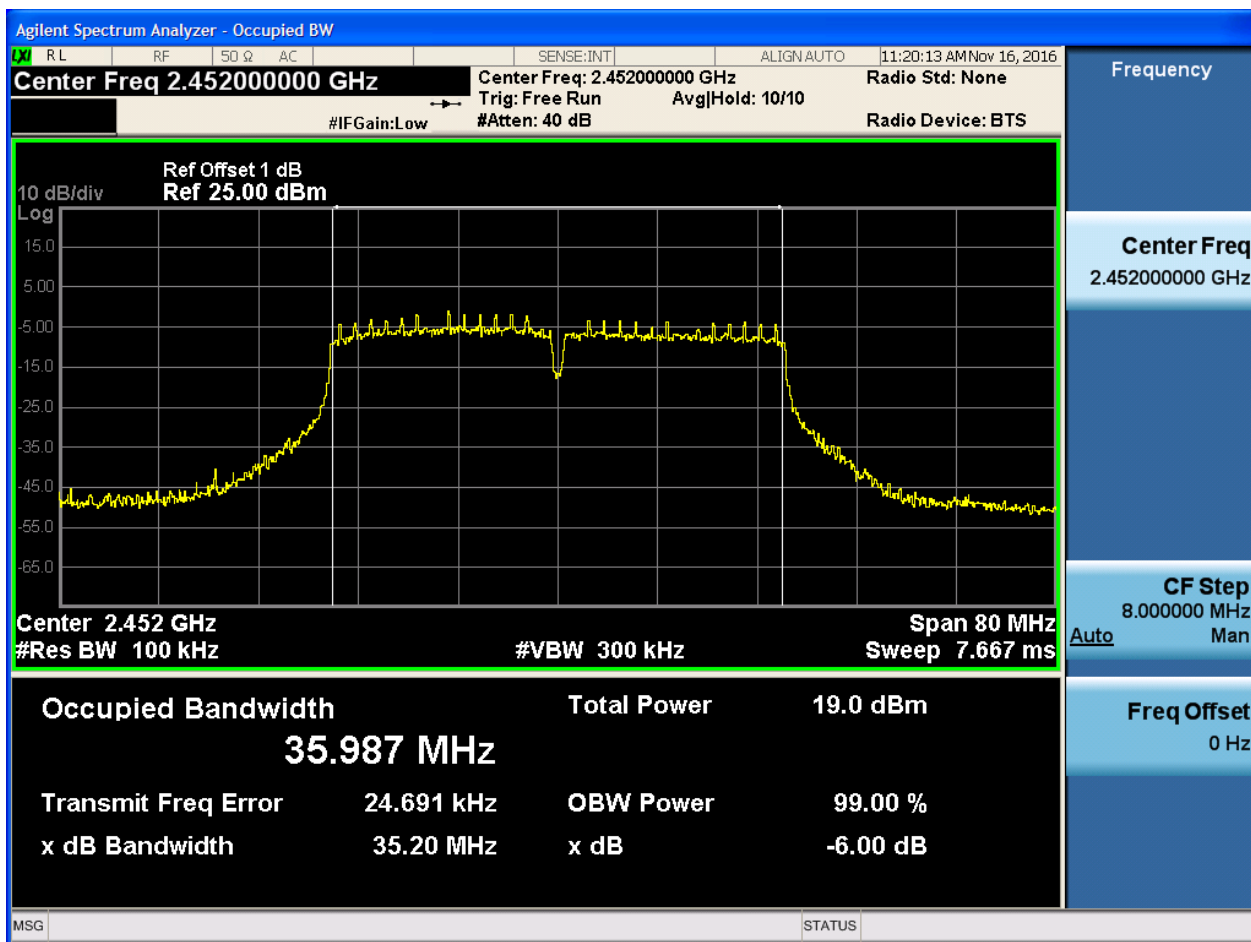


2.34 11N40m_M@Ant 2



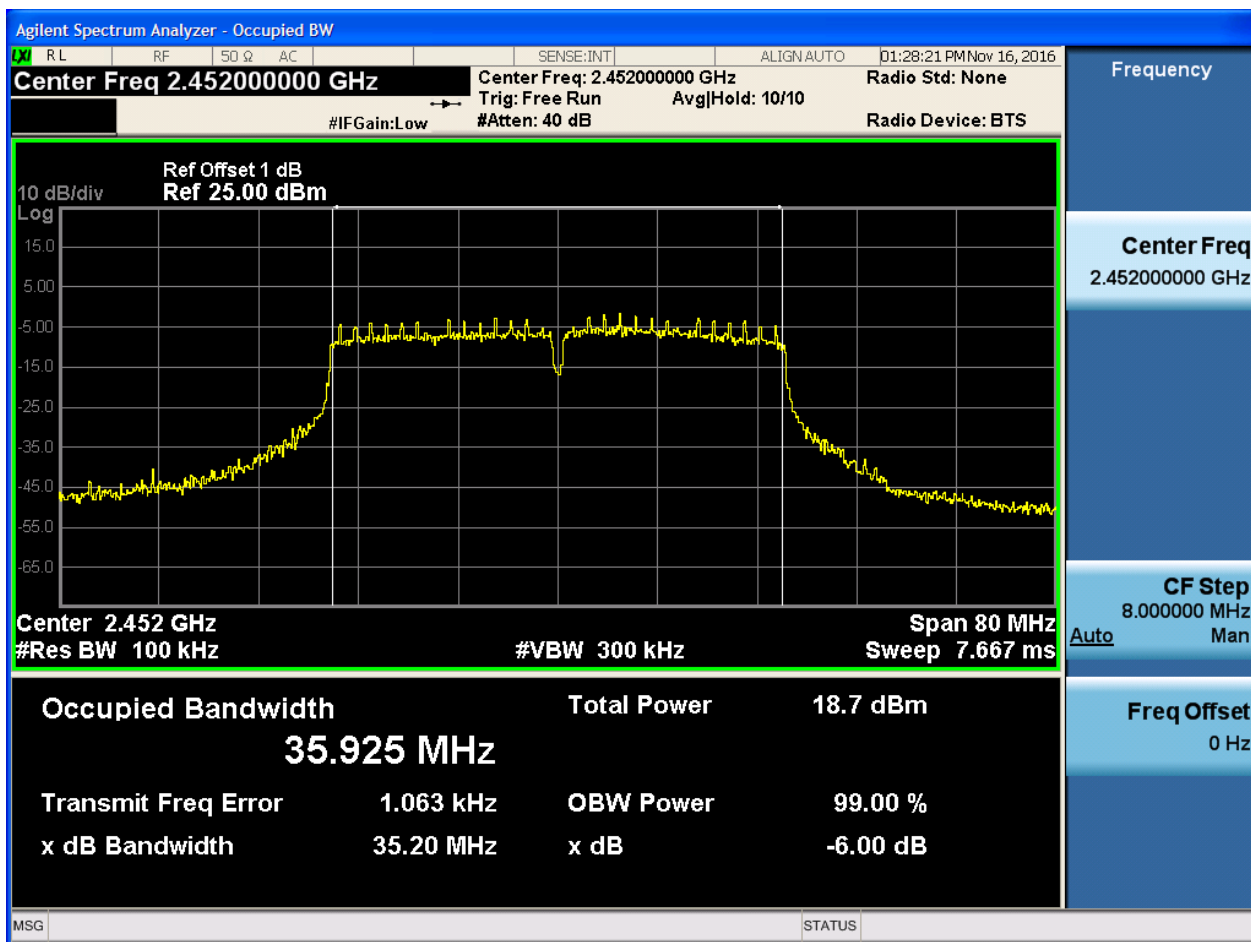


2.35 11N40m_H@Ant 1





2.36 11N40m_H@Ant 2



Appendix B: Occupied Bandwidth

For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain, and used as respective results for each chain.

Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Ant	Occupied Bandwidth [MHz]	Verdict
11B	L	2412	Ant 1	12.95	pass
11B	L	2412	Ant 2	13.22	pass
11B	M	2437	Ant 1	12.94	pass
11B	M	2437	Ant 2	13.07	pass
11B	H	2462	Ant 1	13.17	pass
11B	H	2462	Ant 2	12.92	pass
11G	L	2412	Ant 1	16.39	pass
11G	L	2412	Ant 2	16.50	pass
11G	M	2437	Ant 1	16.39	pass
11G	M	2437	Ant 2	16.44	pass
11G	H	2462	Ant 1	16.46	pass
11G	H	2462	Ant 2	16.40	pass
11N20	L	2412	Ant 1	17.55	pass
11N20	L	2412	Ant 2	17.66	pass
11N20	M	2437	Ant 1	17.55	pass
11N20	M	2437	Ant 2	17.60	pass
11N20	H	2462	Ant 1	17.62	pass
11N20	H	2462	Ant 2	17.55	pass
11N20m	L	2412	Ant 1	17.57	pass
11N20m	L	2412	Ant 2	17.64	pass
11N20m	M	2437	Ant 1	17.56	pass
11N20m	M	2437	Ant 2	17.60	pass
11N20m	H	2462	Ant 1	17.63	pass
11N20m	H	2462	Ant 2	17.55	pass
11N40	L	2422	Ant 1	36.19	pass
11N40	L	2422	Ant 2	36.10	pass
11N40	M	2437	Ant 1	36.05	pass
11N40	M	2437	Ant 2	36.16	pass
11N40	H	2452	Ant 1	36.11	pass
11N40	H	2452	Ant 2	36.06	pass
11N40m	L	2422	Ant 1	36.18	pass
11N40m	L	2422	Ant 2	36.01	pass

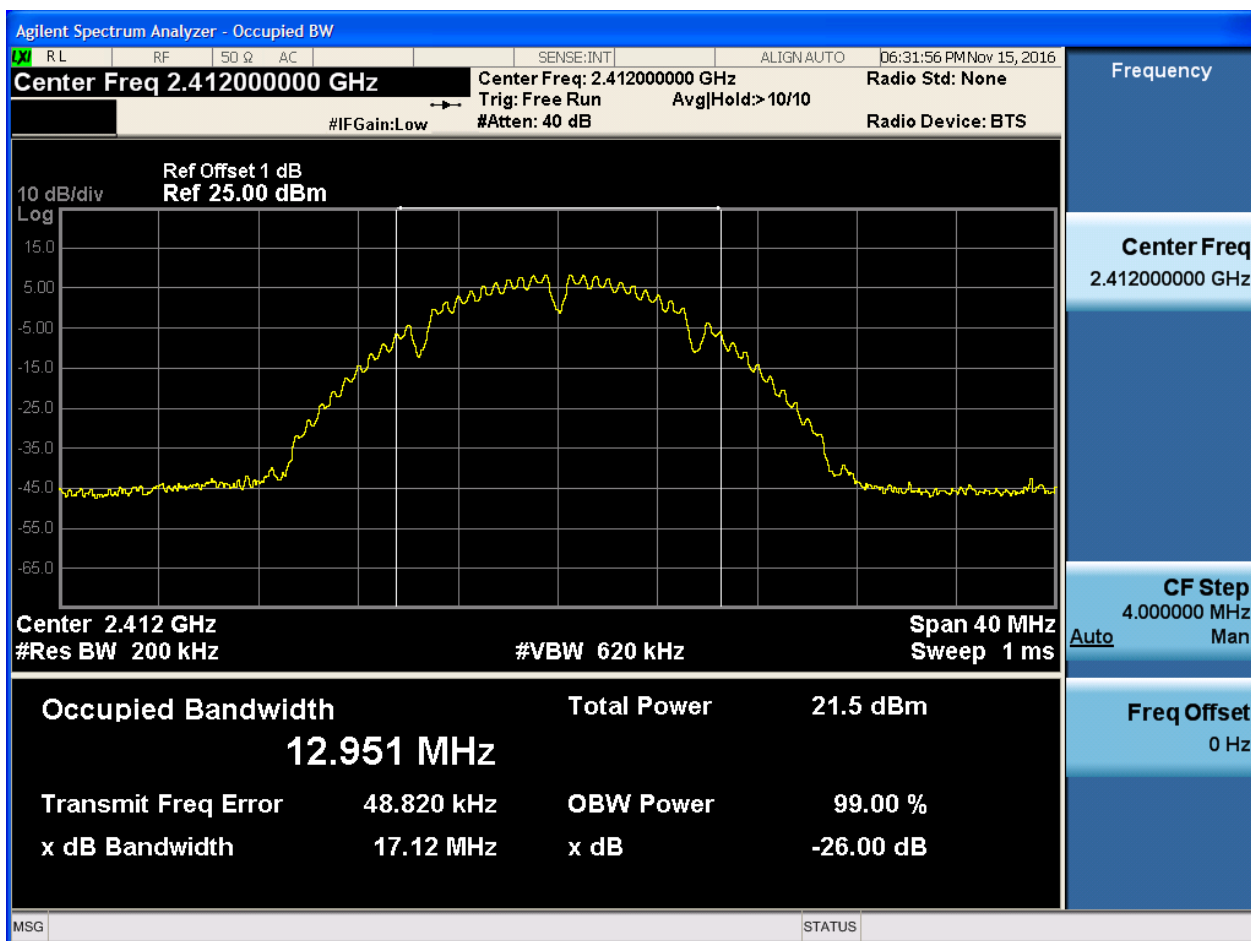


Test Mode	Test Channel	Frequency[MHz]	Ant	Occupied Bandwidth [MHz]	Verdict
11N40m	M	2437	Ant 1	36.05	pass
11N40m	M	2437	Ant 2	36.15	pass
11N40m	H	2452	Ant 1	36.12	pass
11N40m	H	2452	Ant 2	36.04	pass



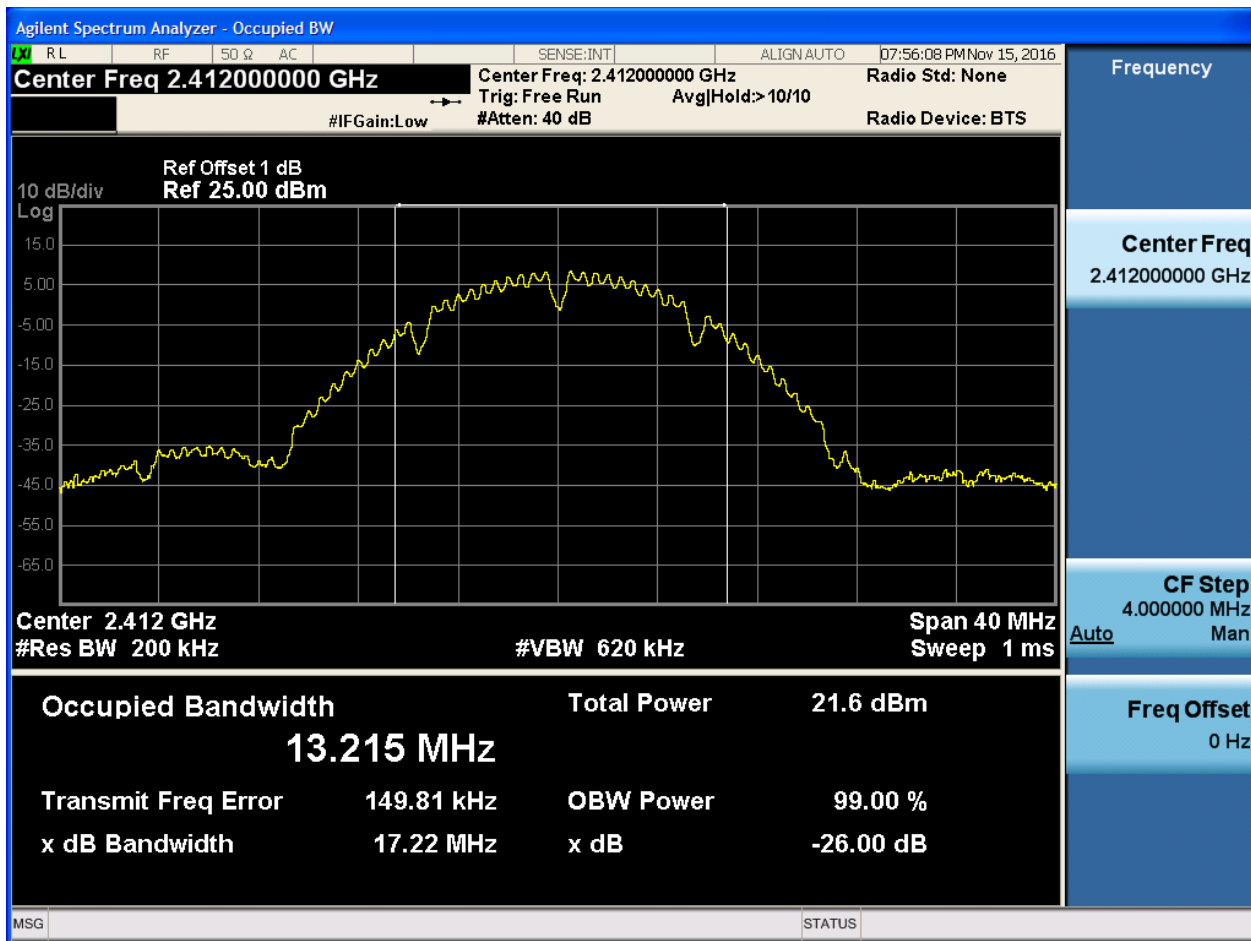
Part II - Test Plots

2.1 11B_L@Ant 1



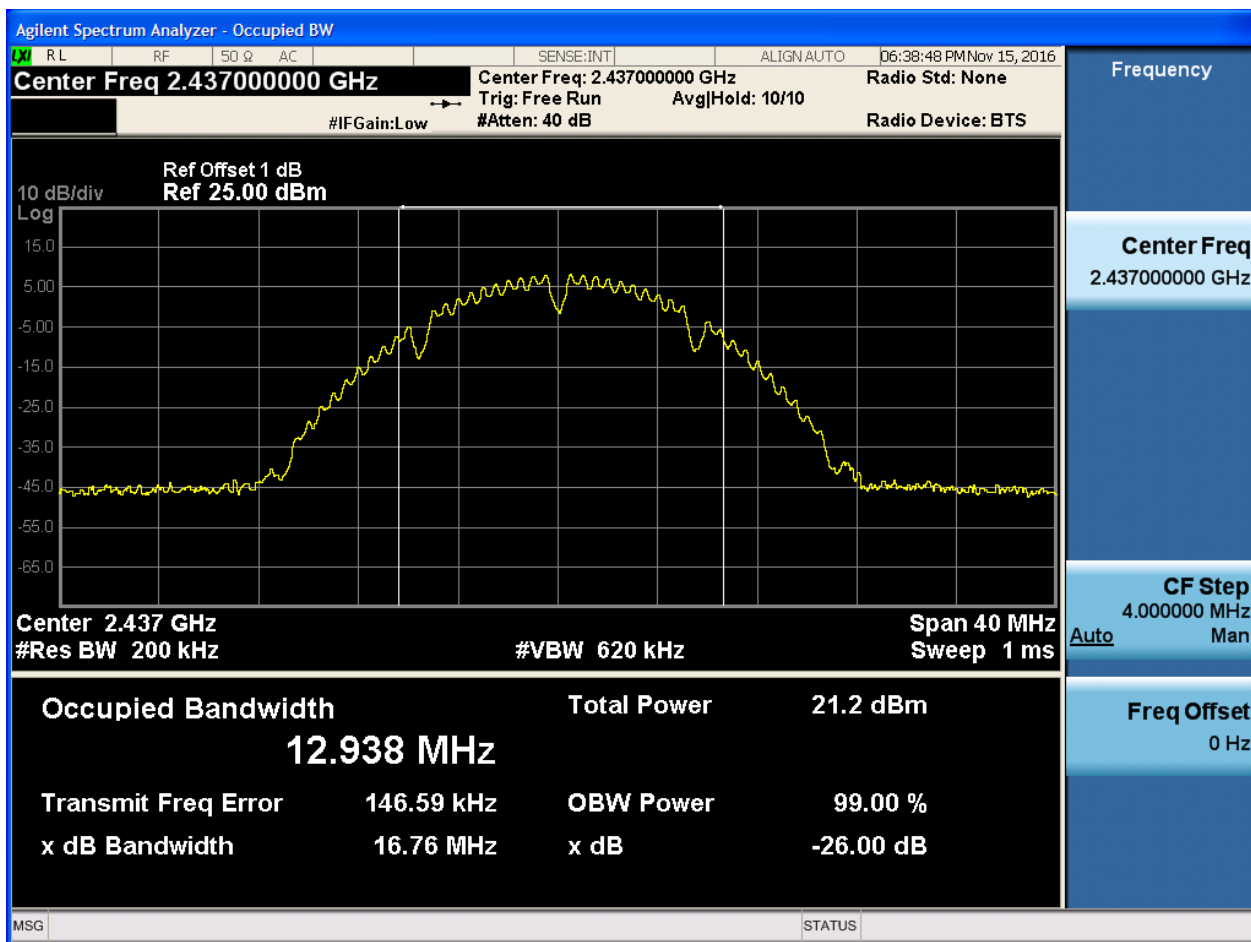


2.2 11B_L@Ant 2



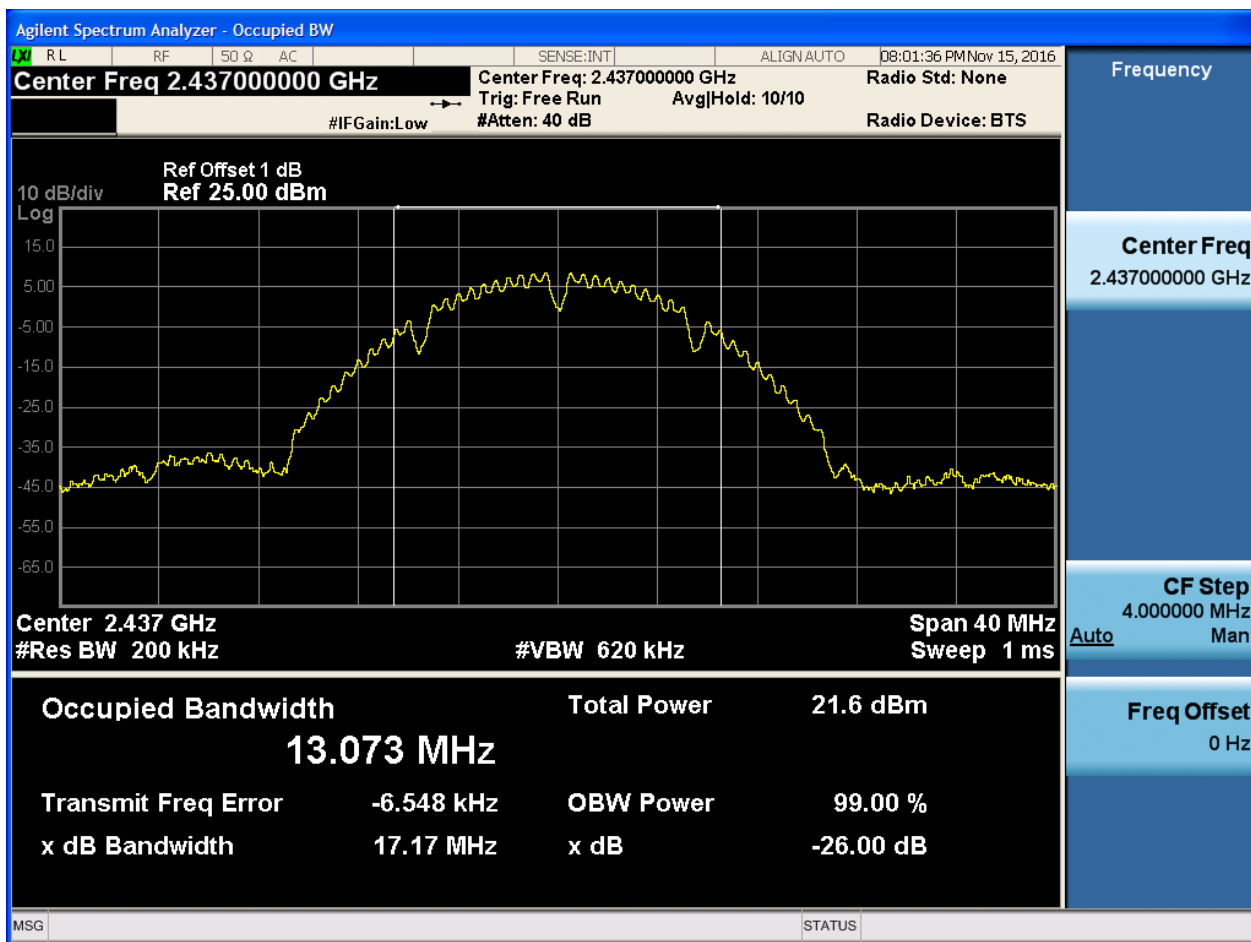


2.3 11B_M@Ant 1



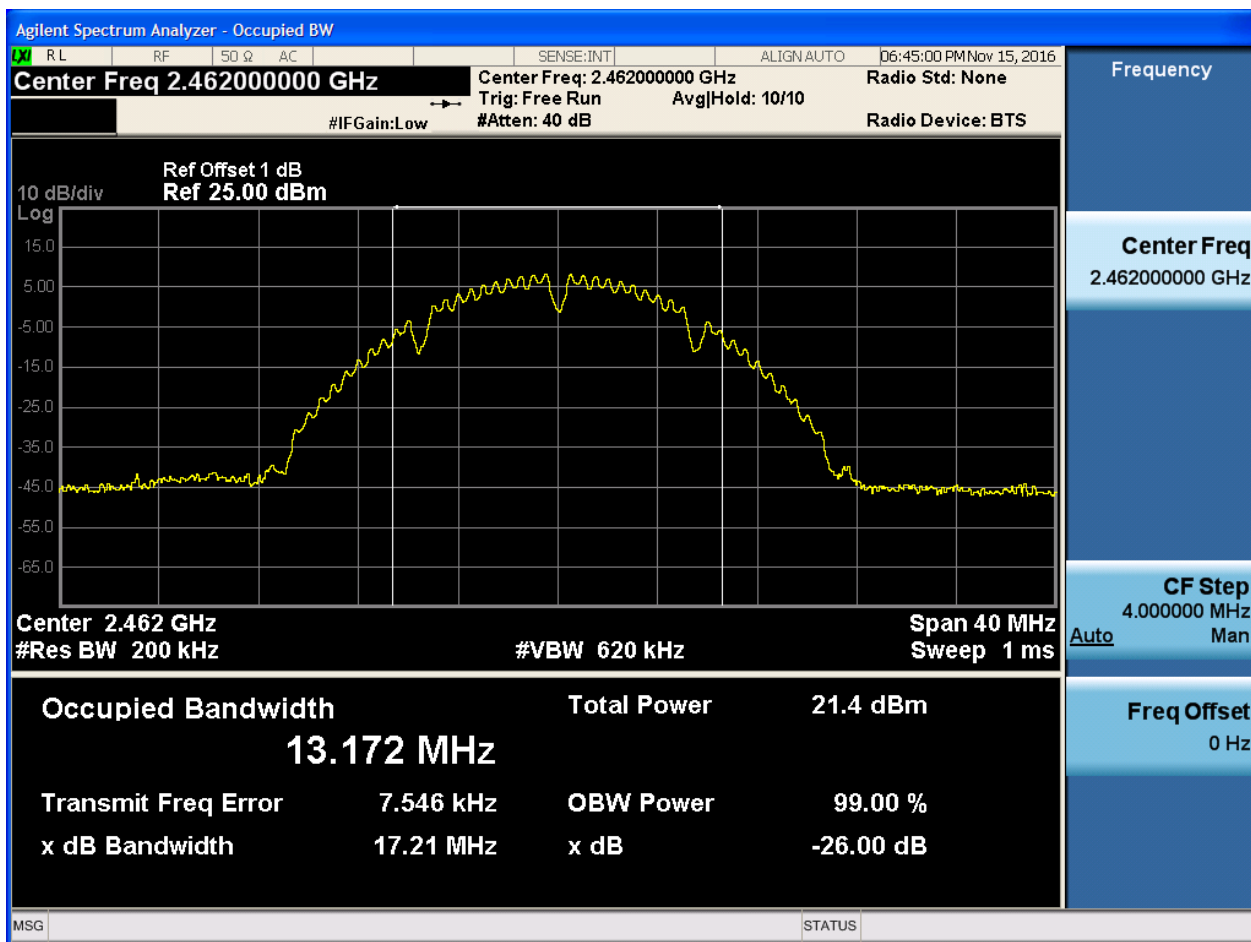


2.4 11B_M@Ant 2



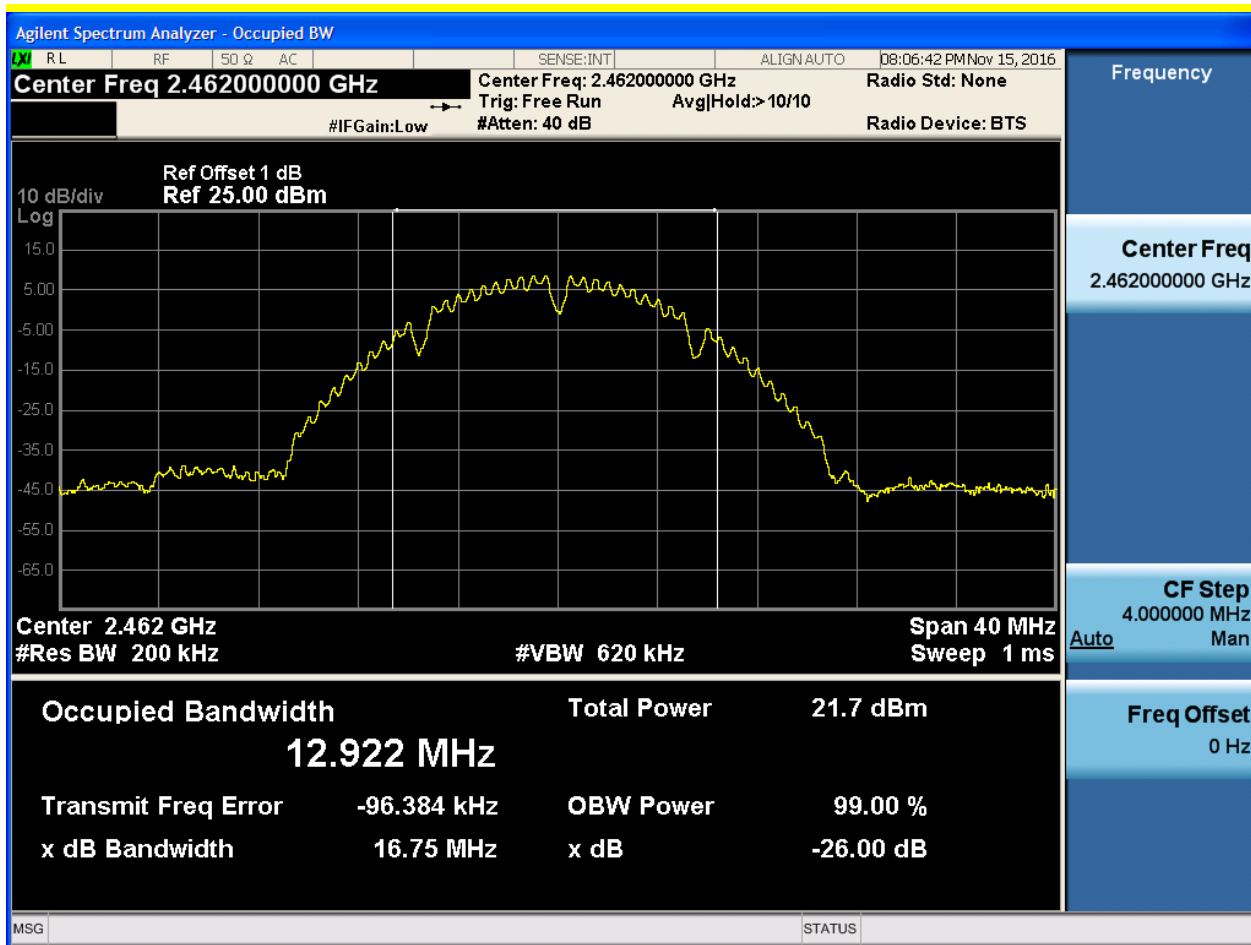


2.5 11B_H@Ant 1



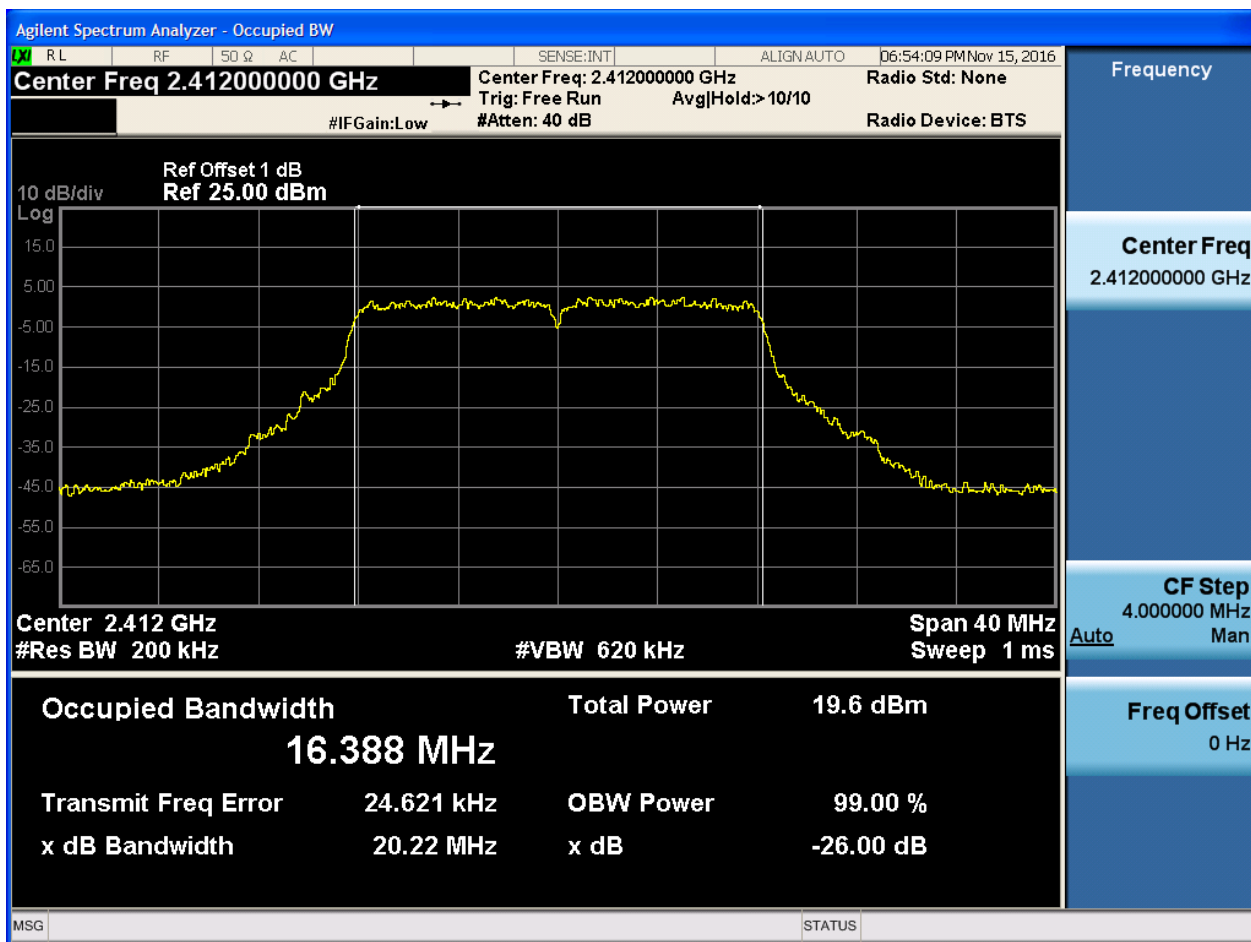


2.6 11B_H@Ant 2



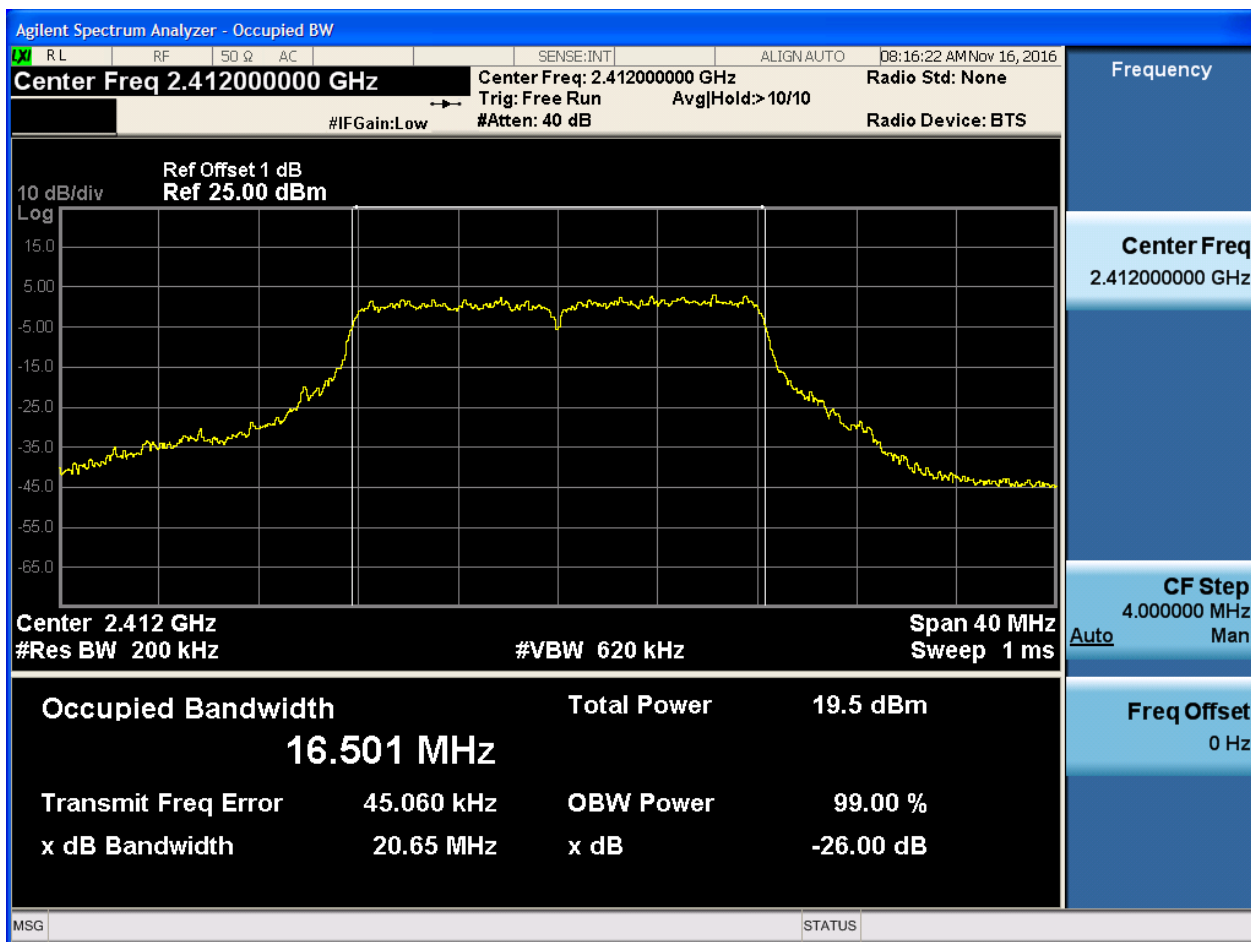


2.7 11G_L@Ant 1



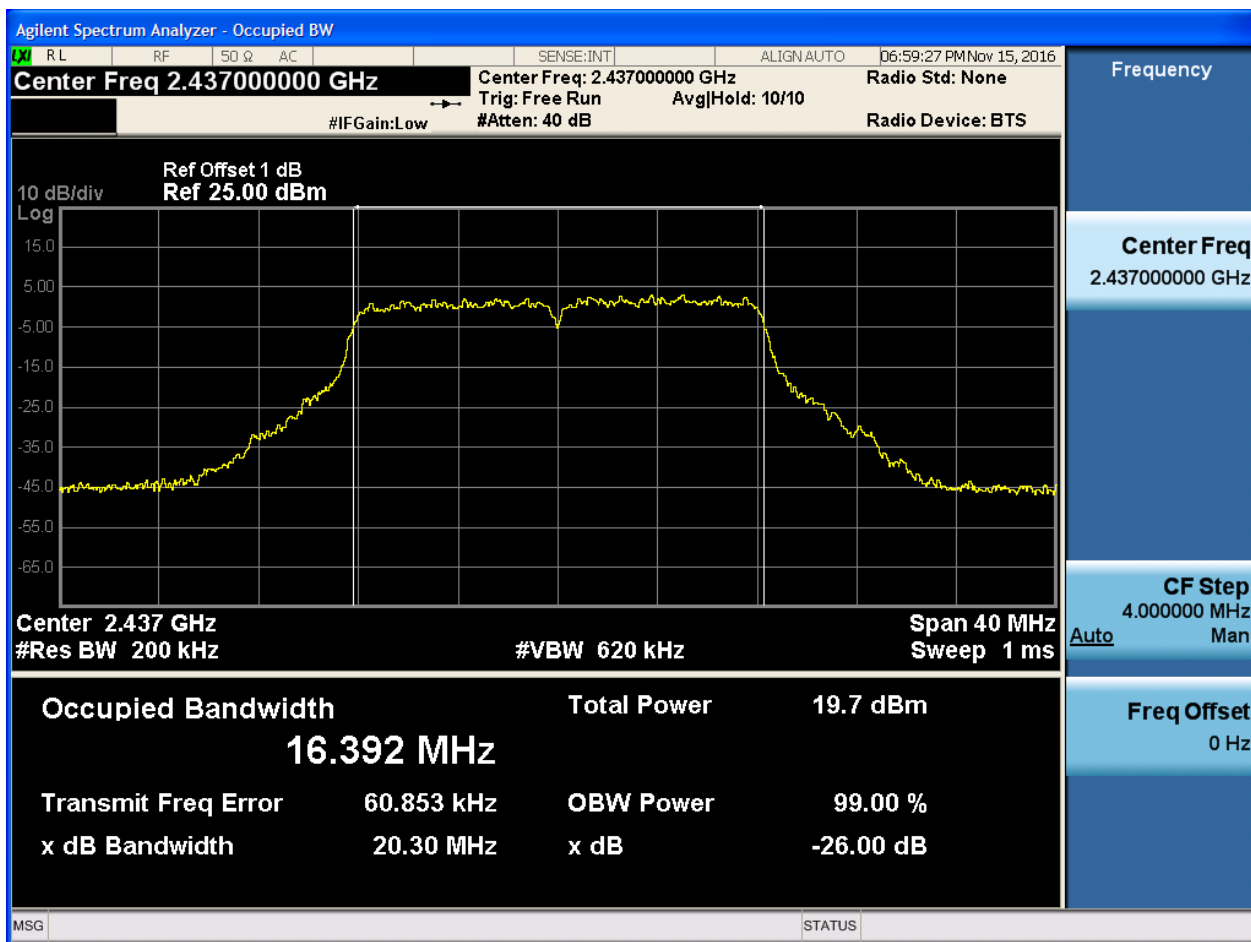


2.8 11G_L@Ant 2



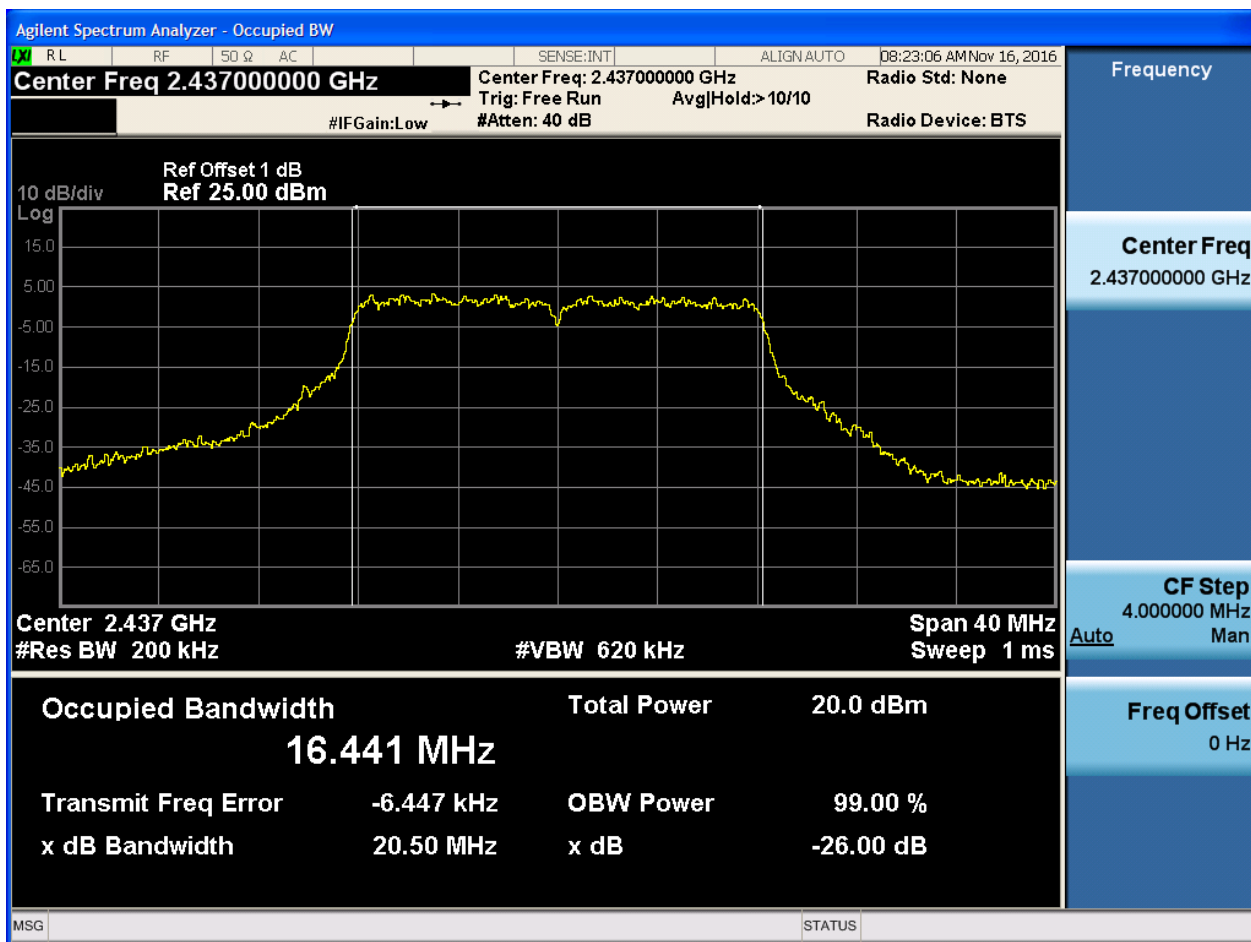


2.9 11G_M@Ant 1



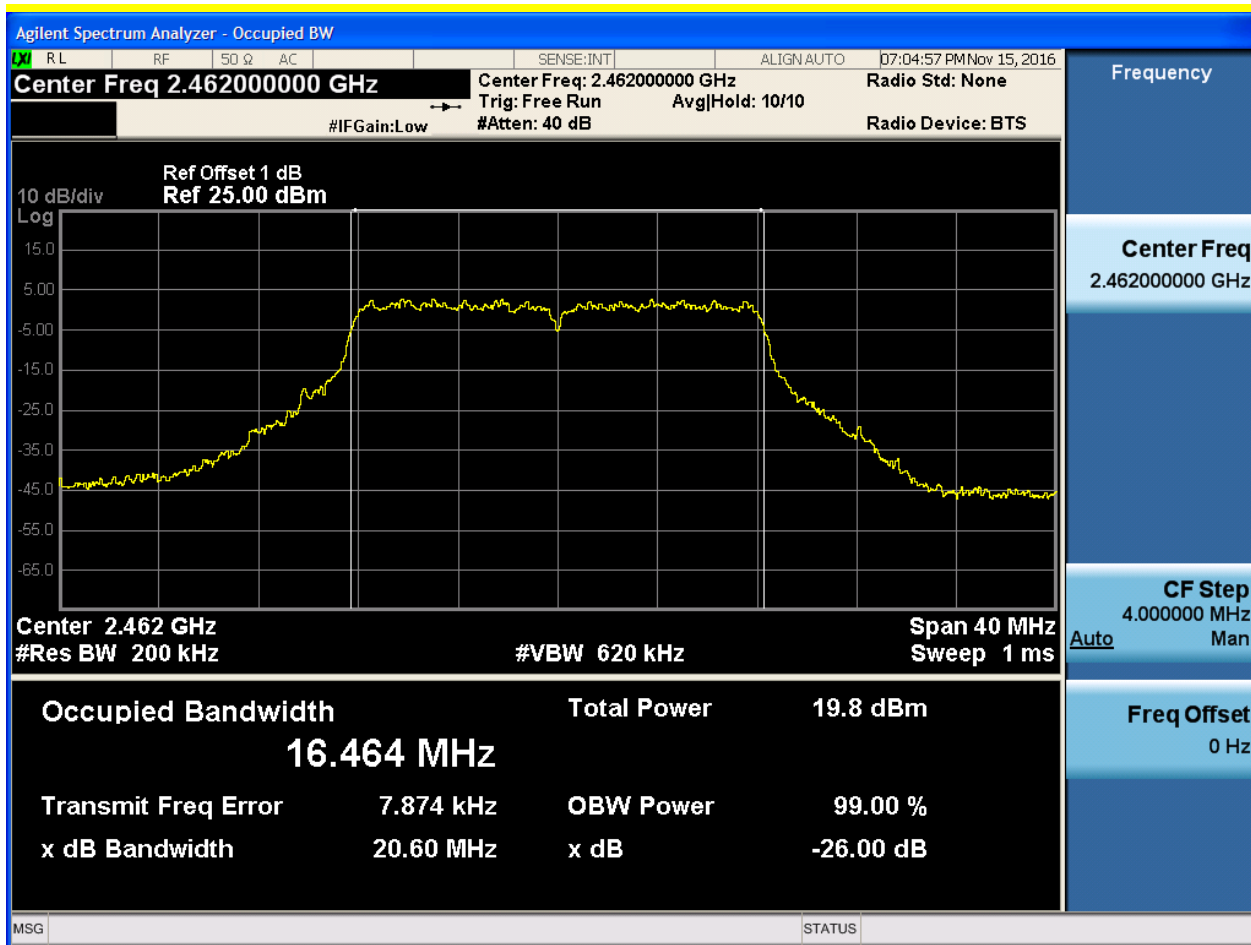


2.10 11G_M@Ant 2



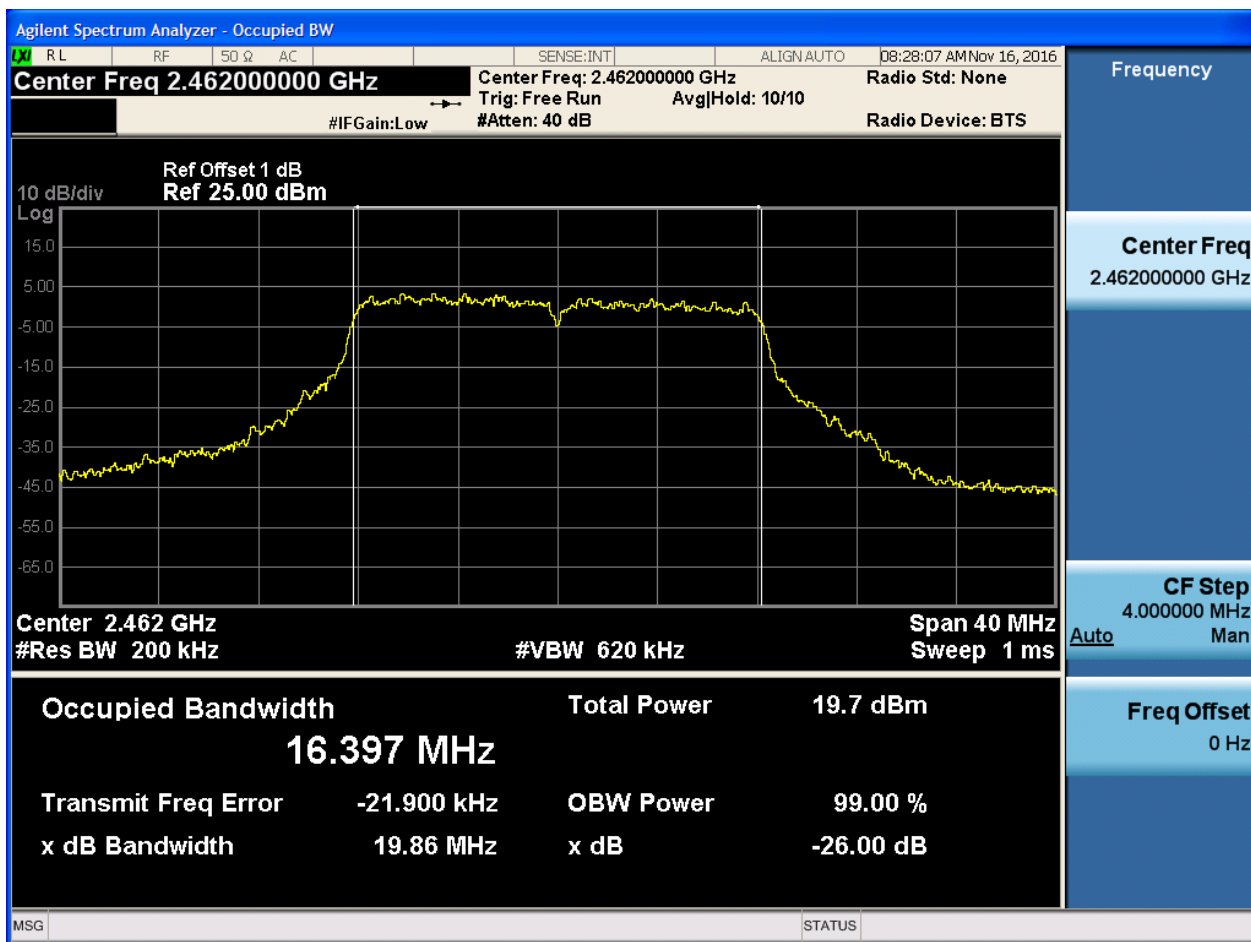


2.11 11G_H@Ant 1



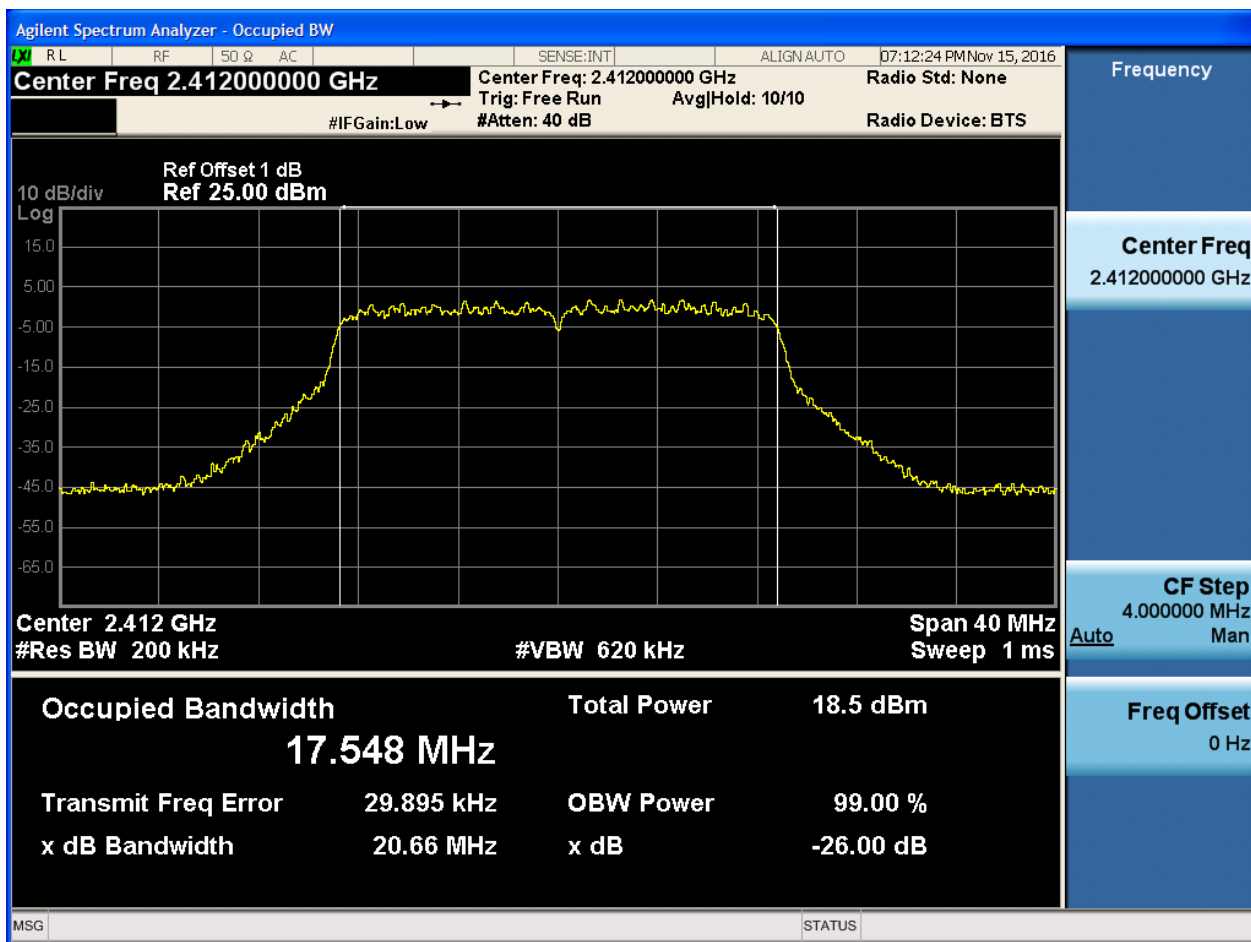


2.12 11G_H@Ant 2



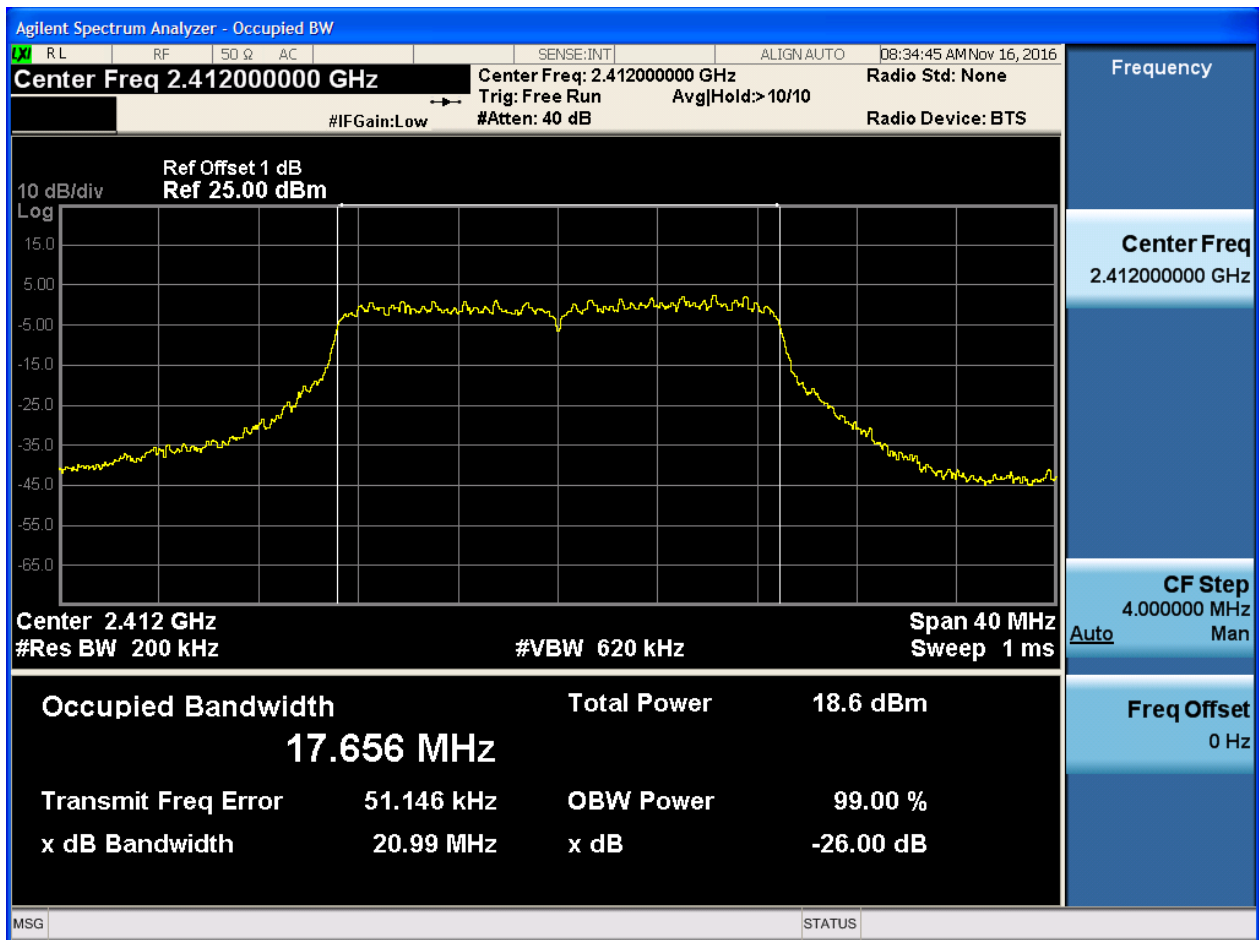


2.13 11N20_L@Ant 1



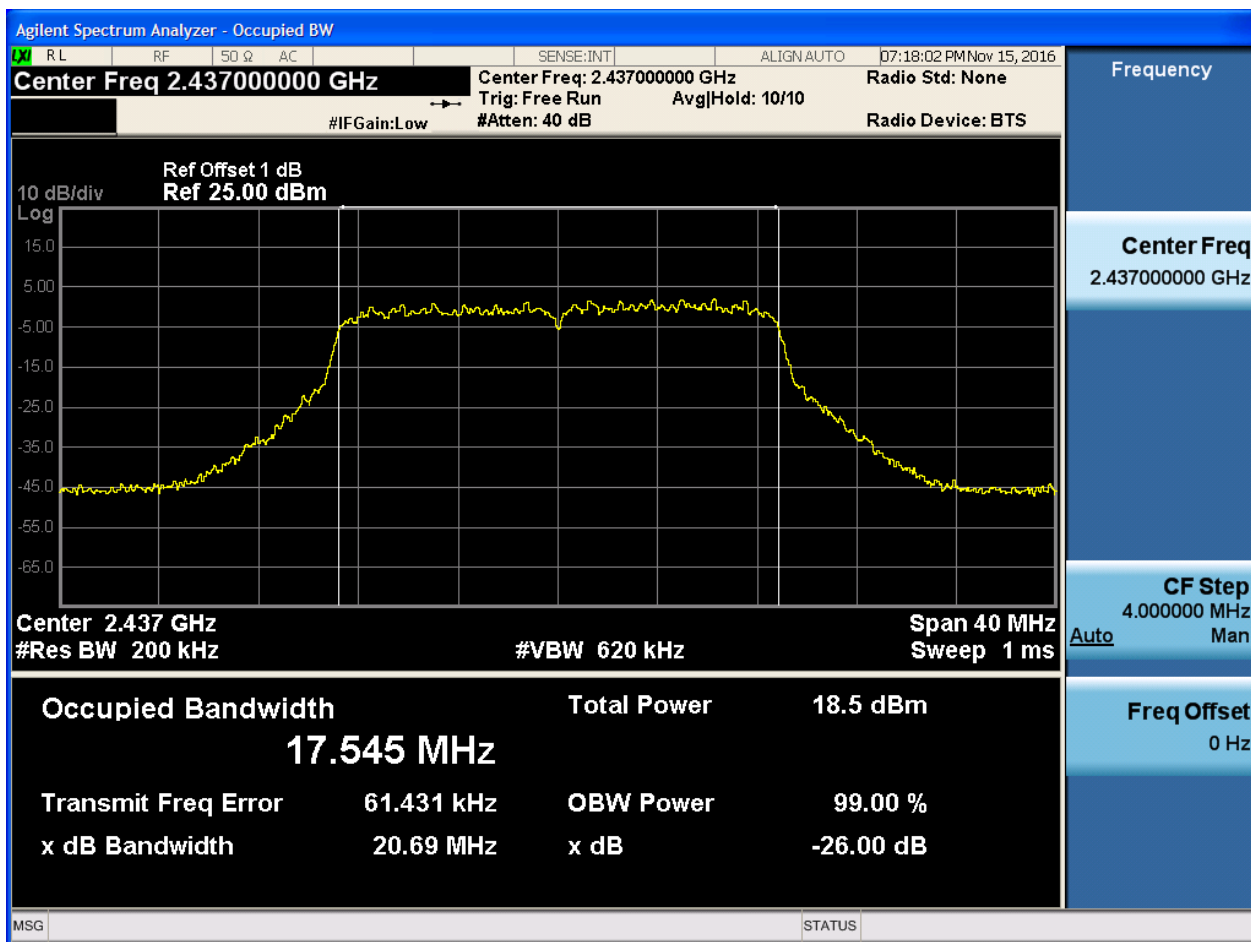


2.14 11N20_L@Ant 2



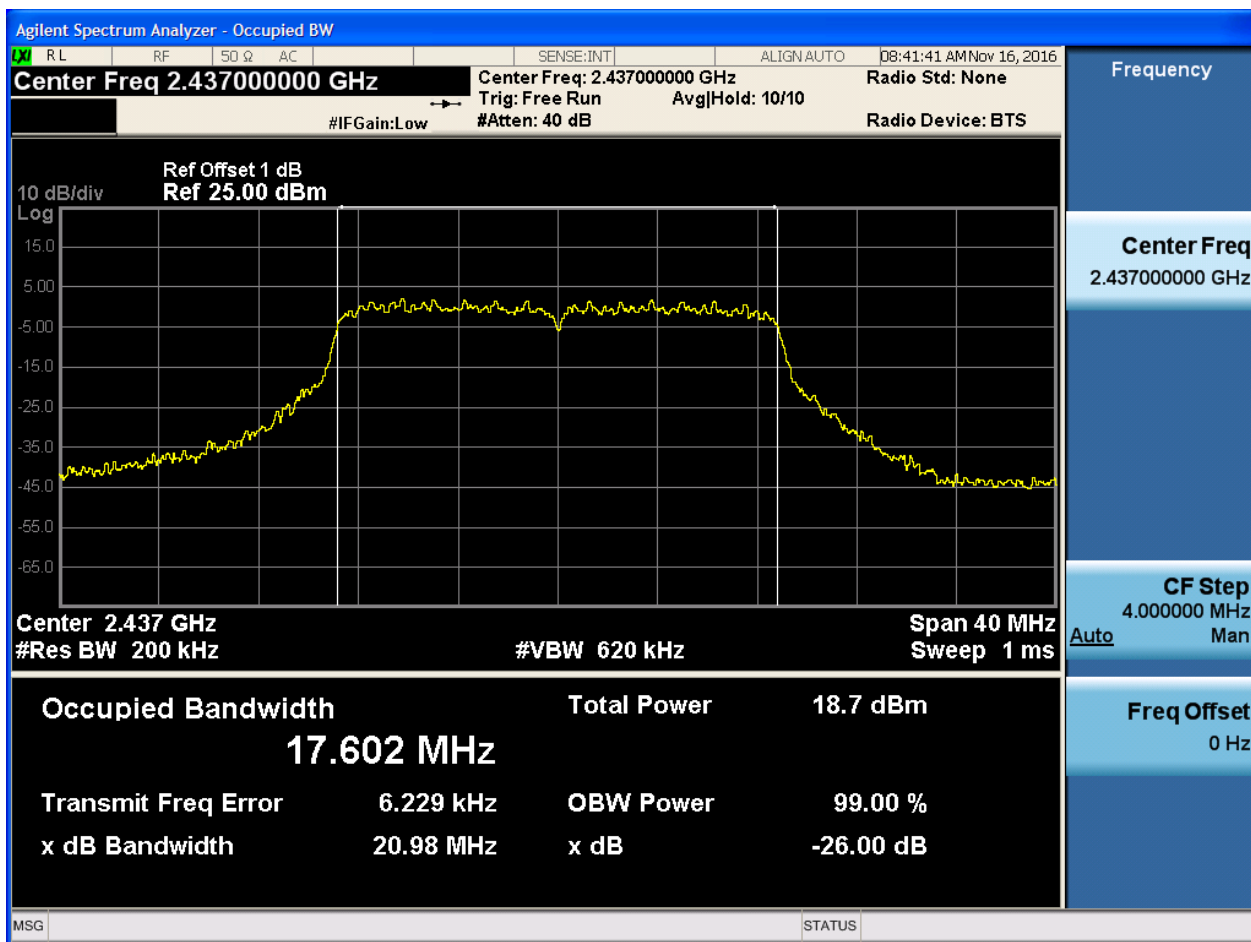


2.15 11N20_M@Ant 1



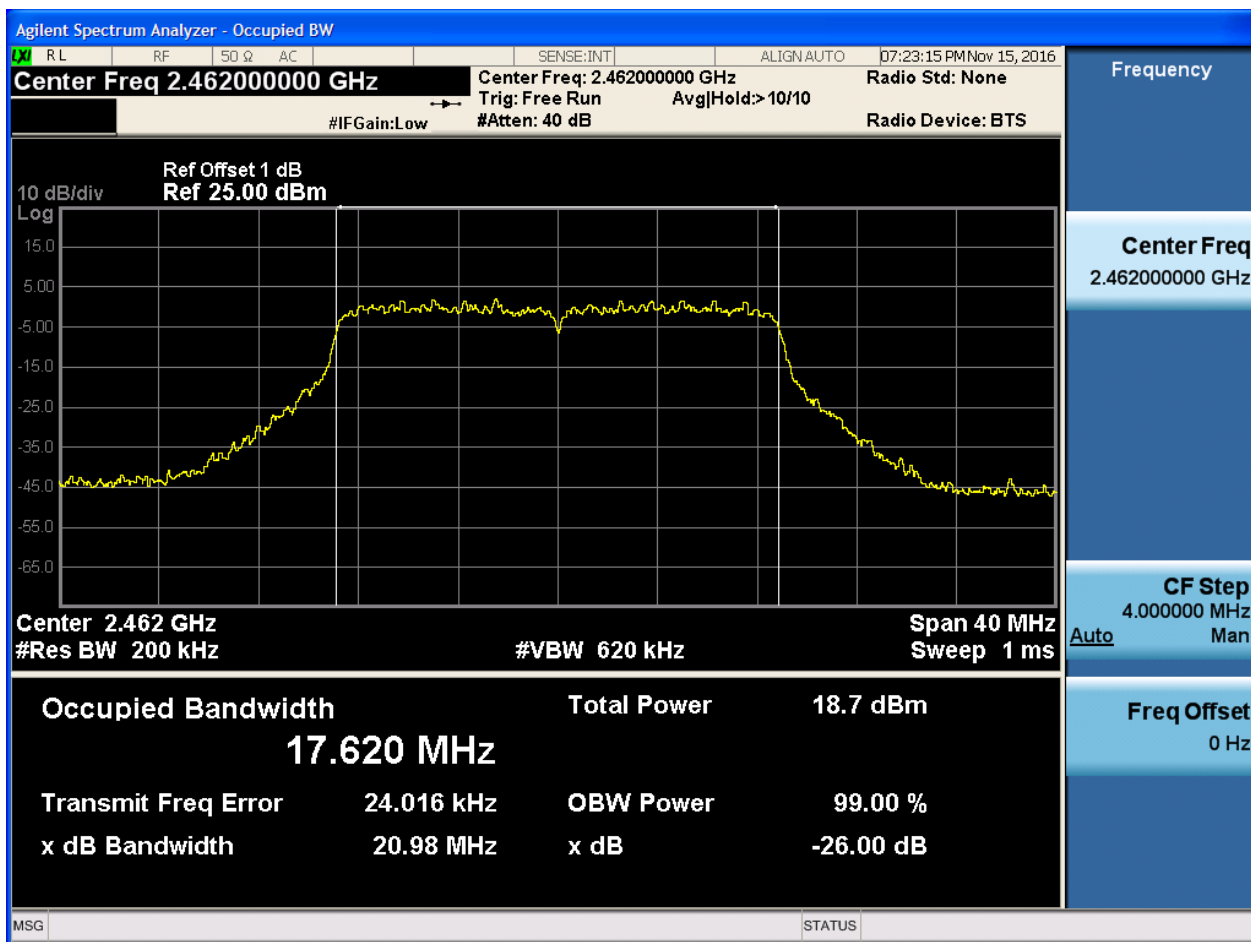


2.16 11N20_M@Ant 2



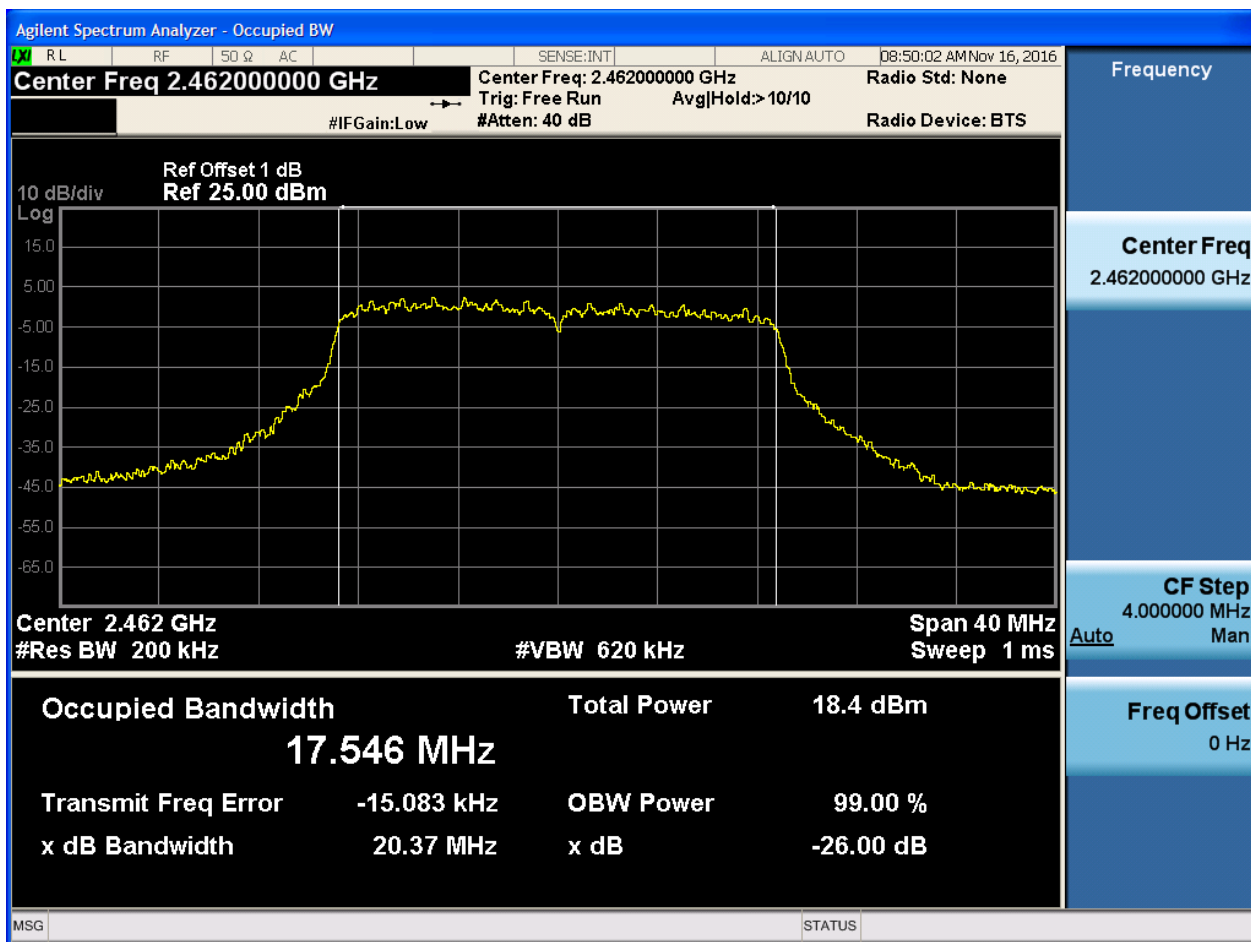


2.17 11N20_H@Ant 1



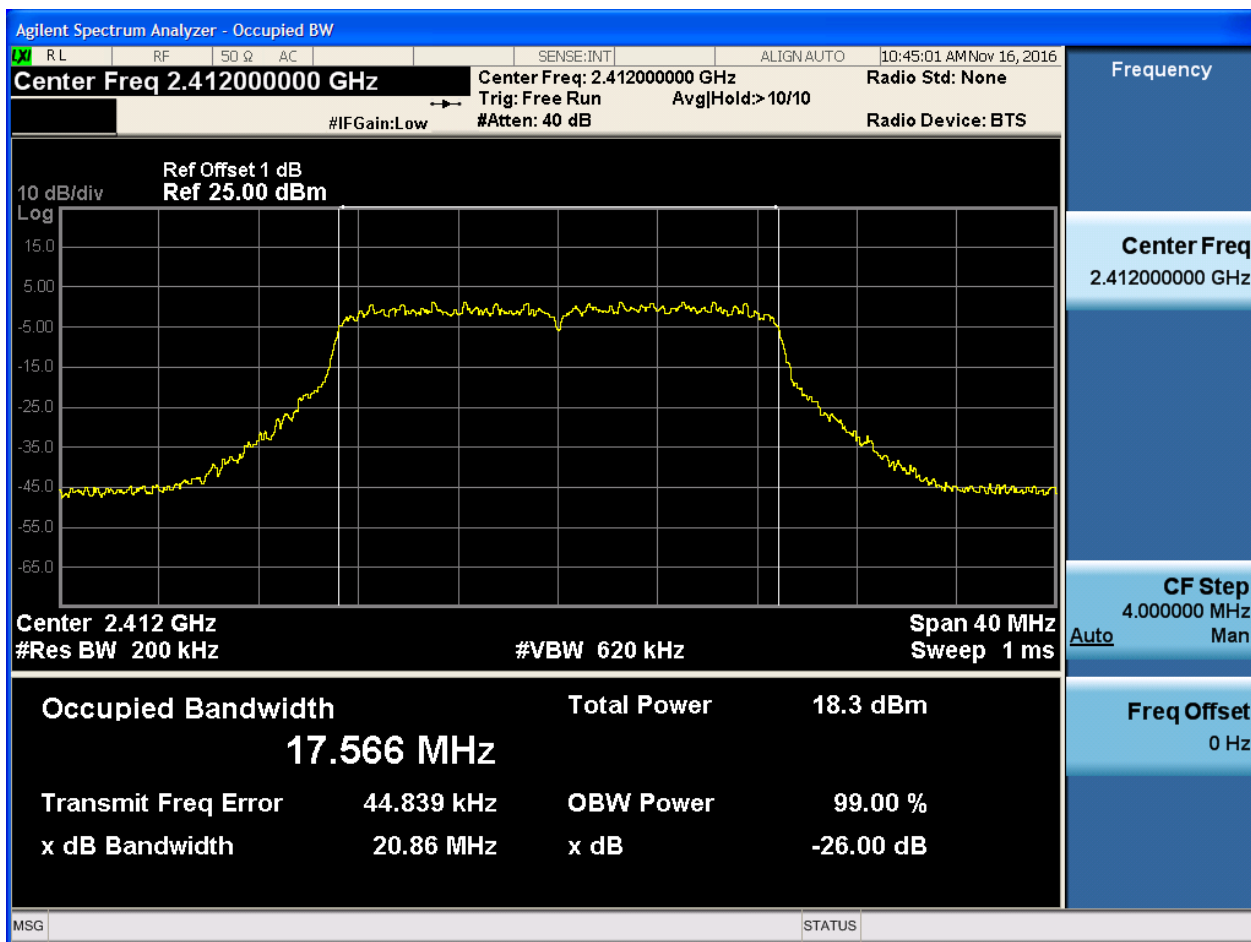


2.18 11N20_H@Ant 2



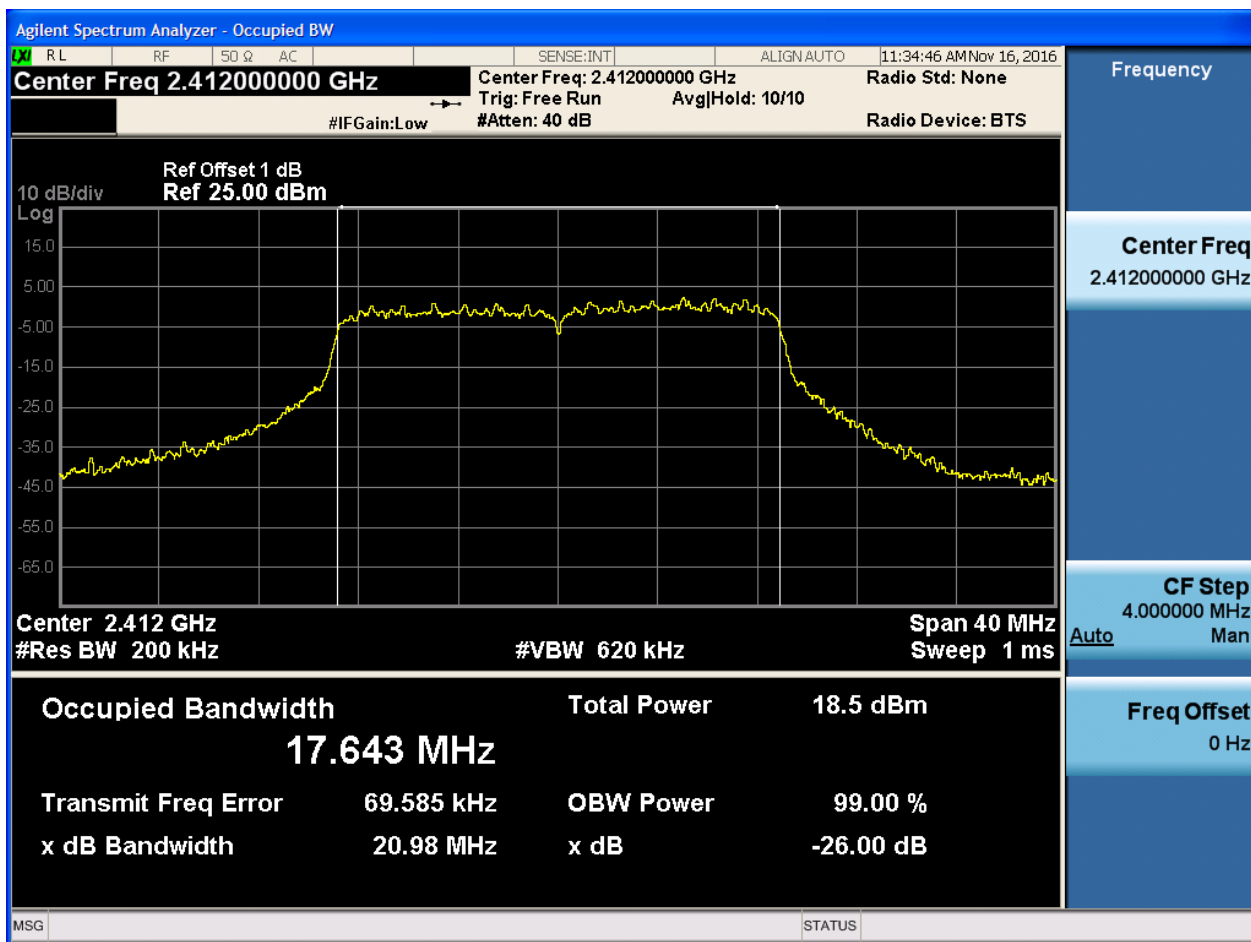


2.19 11N20m_L@Ant 1



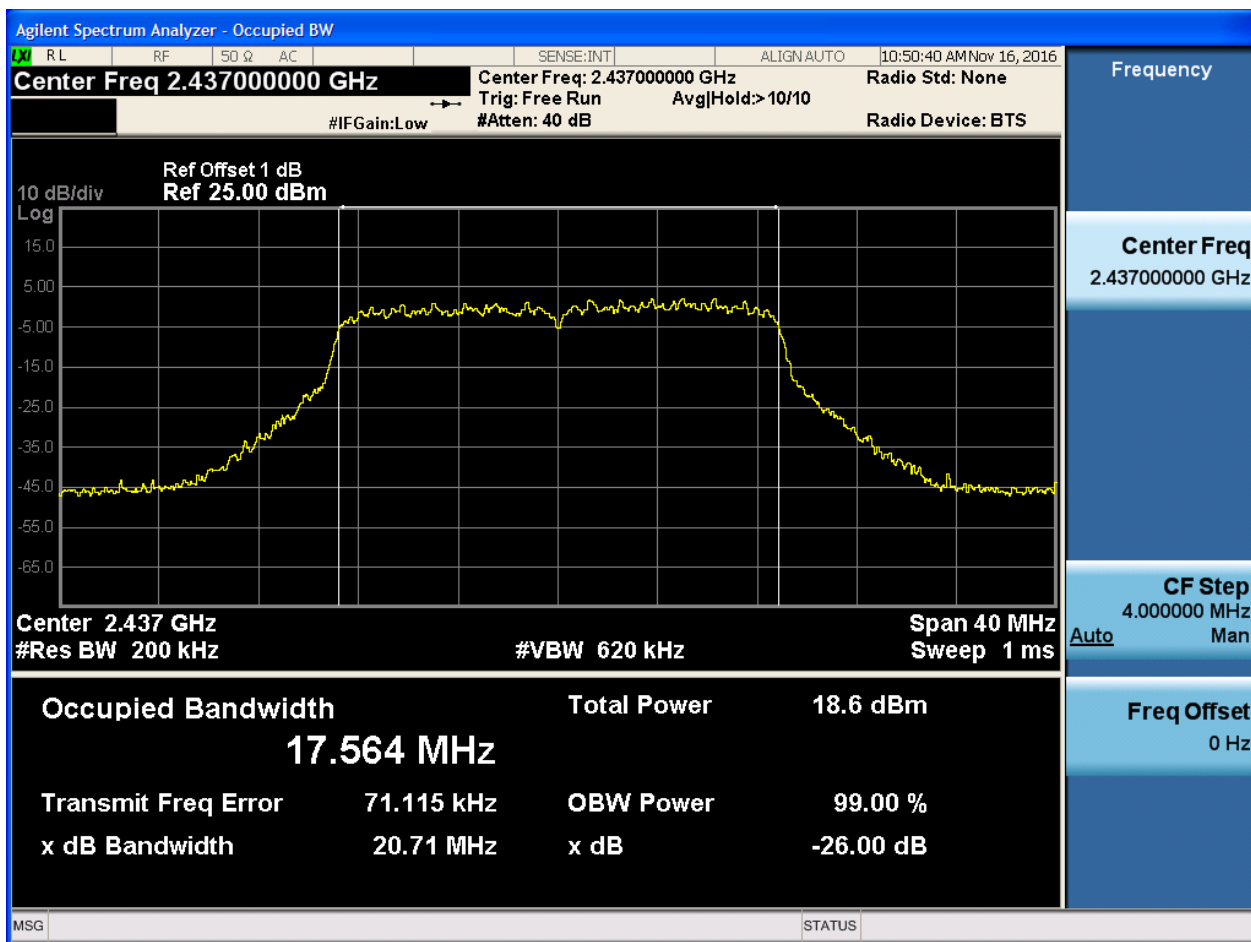


2.20 11N20m_L@Ant 2



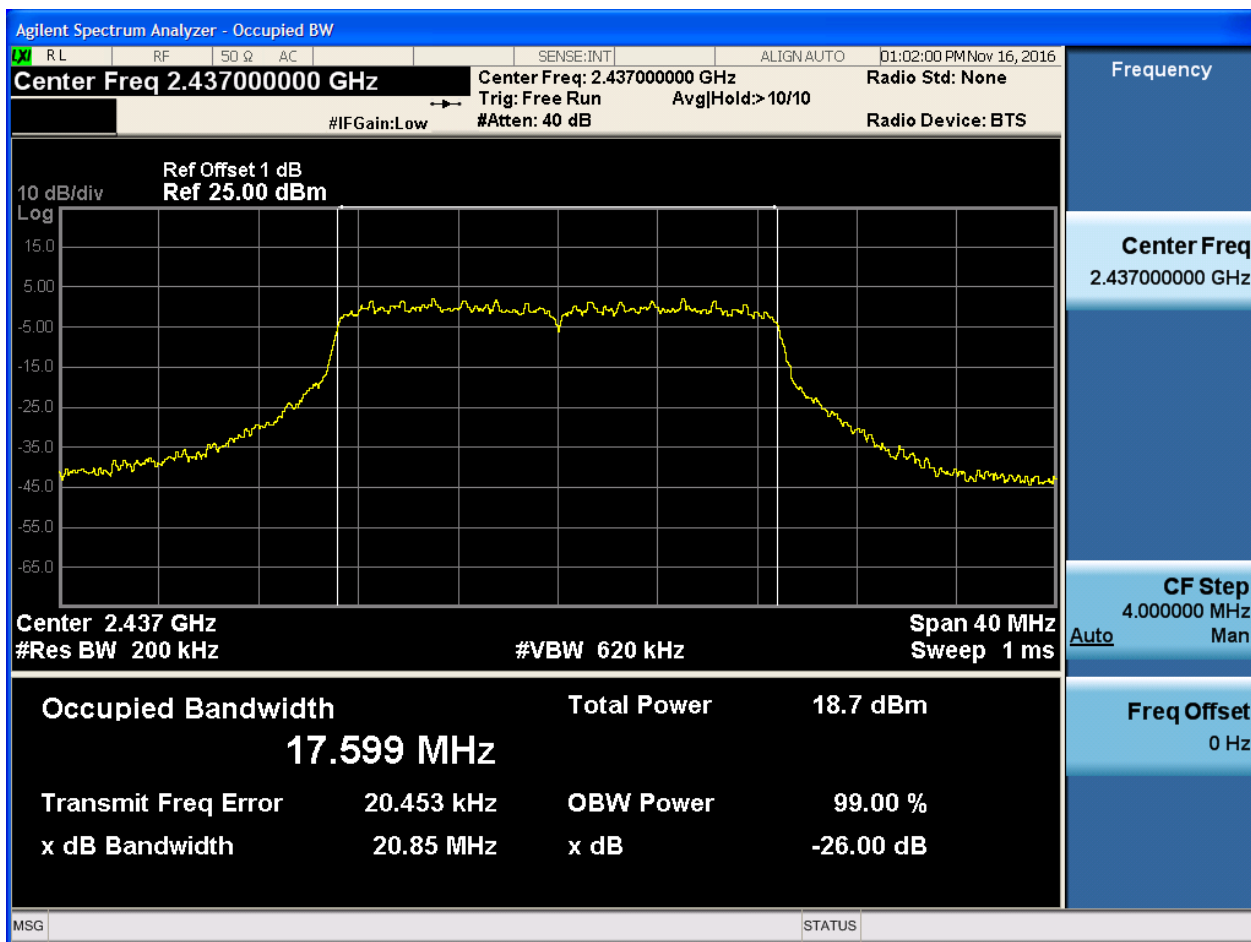


2.21 11N20m_M@Ant 1



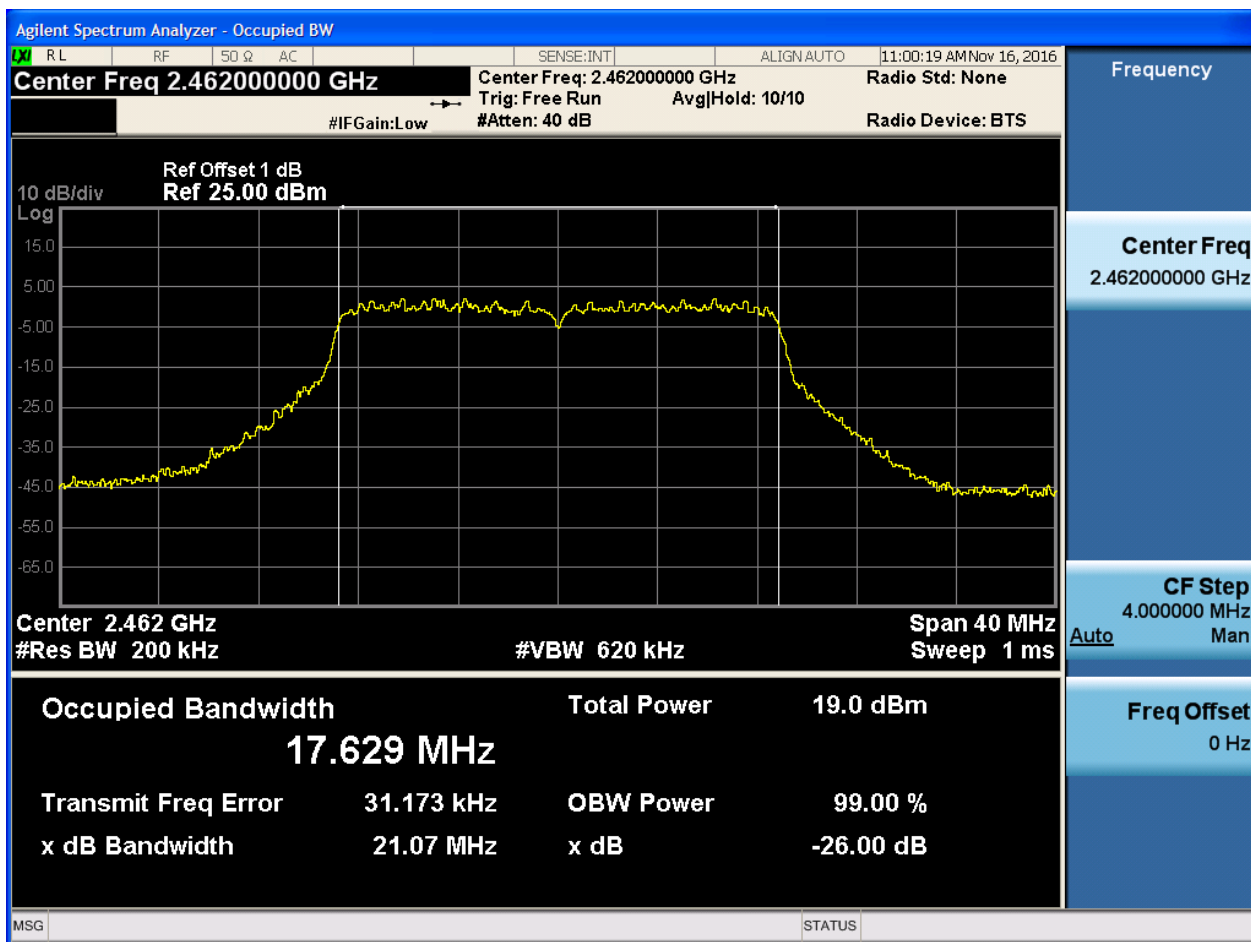


2.22 11N20m_M@Ant 2



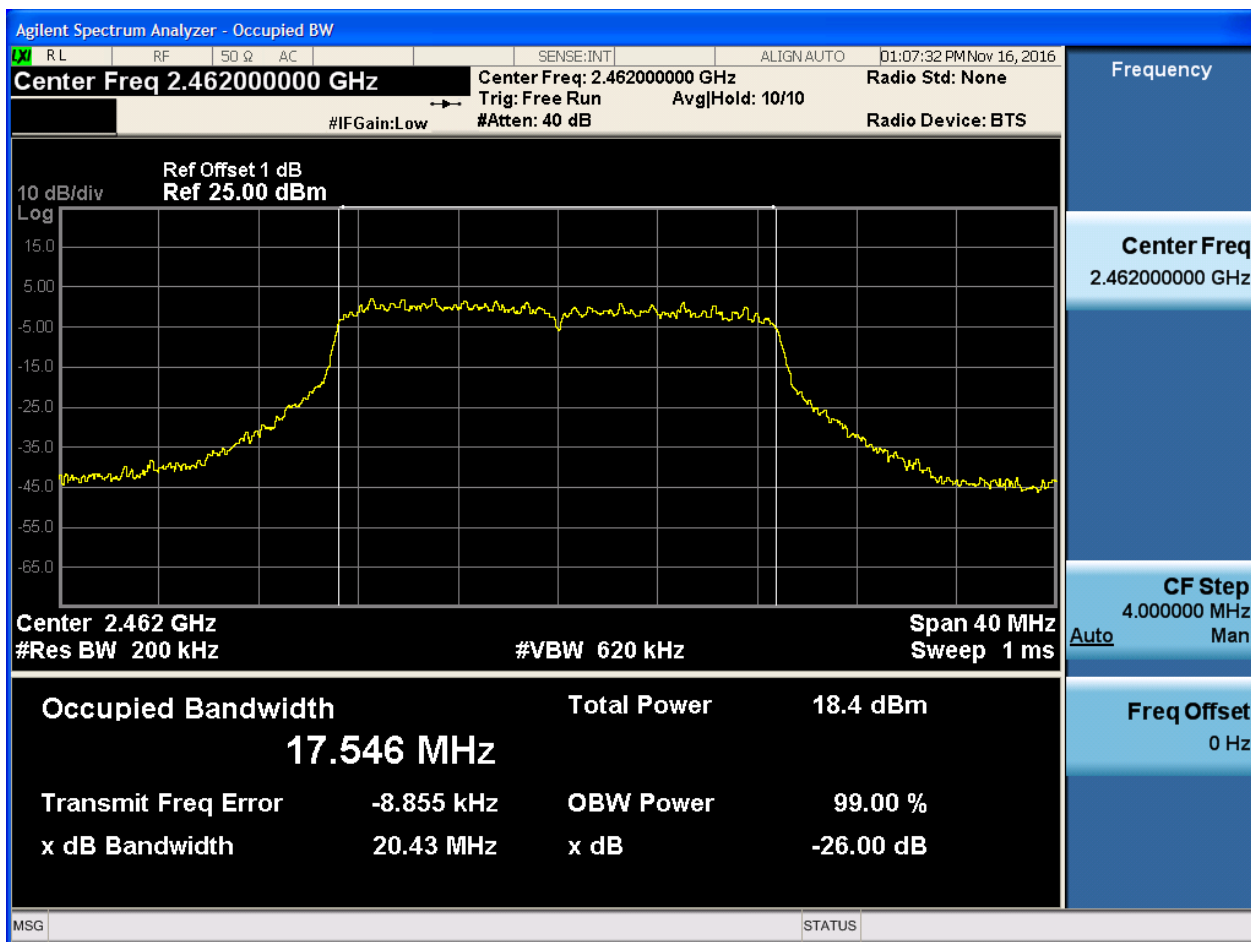


2.23 11N20m_H@Ant 1



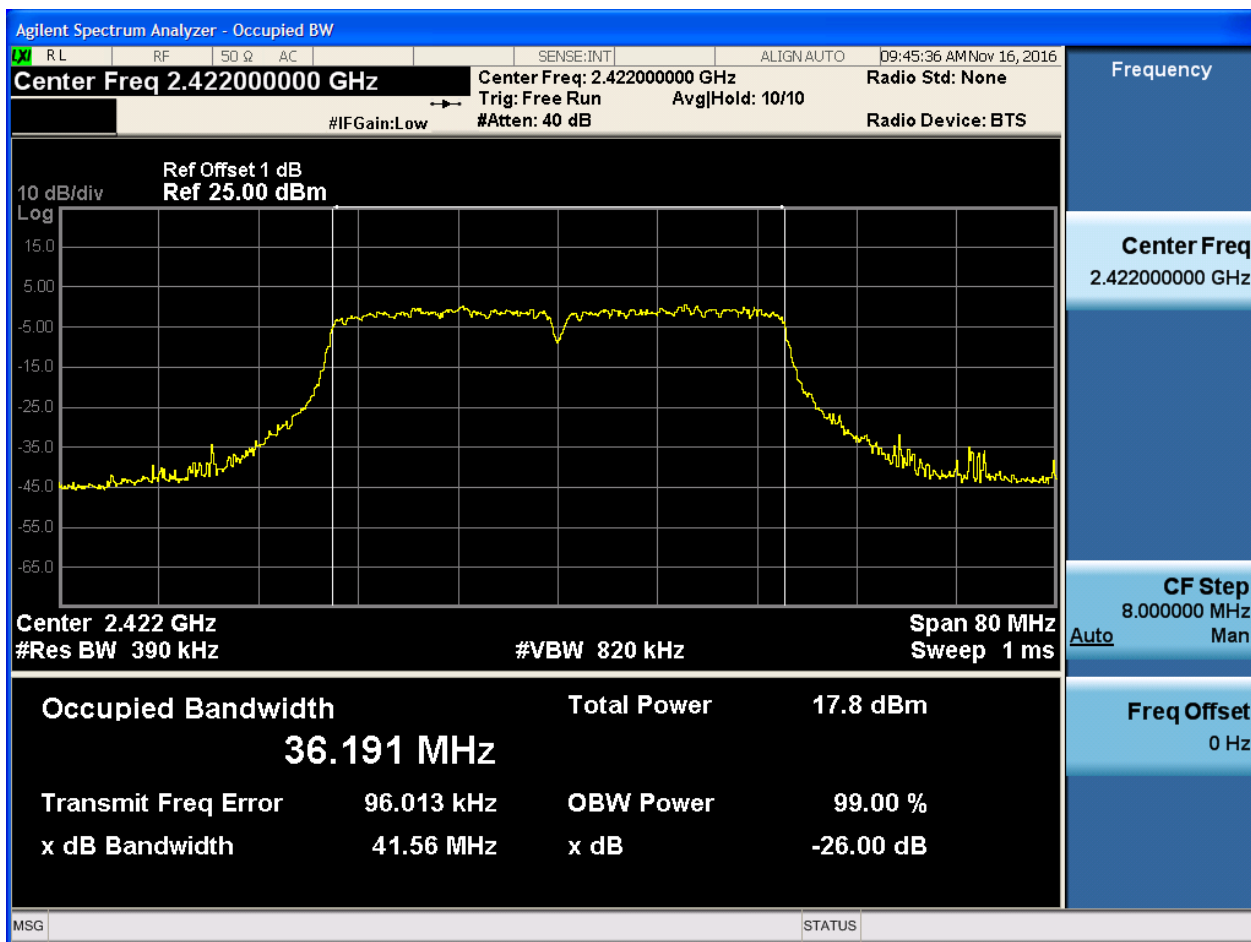


2.24 11N20m_H@Ant 2



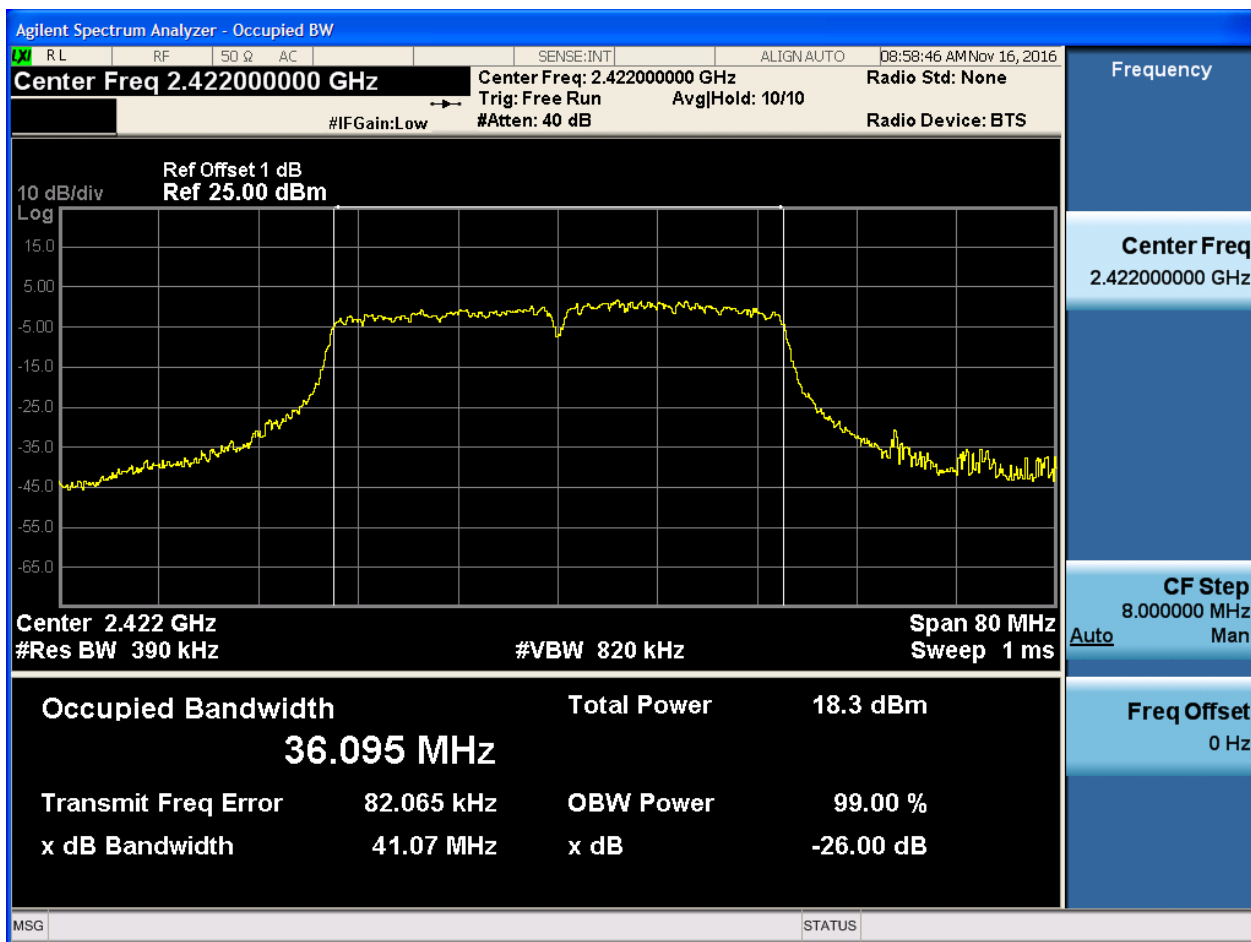


2.25 11N40_L@Ant 1



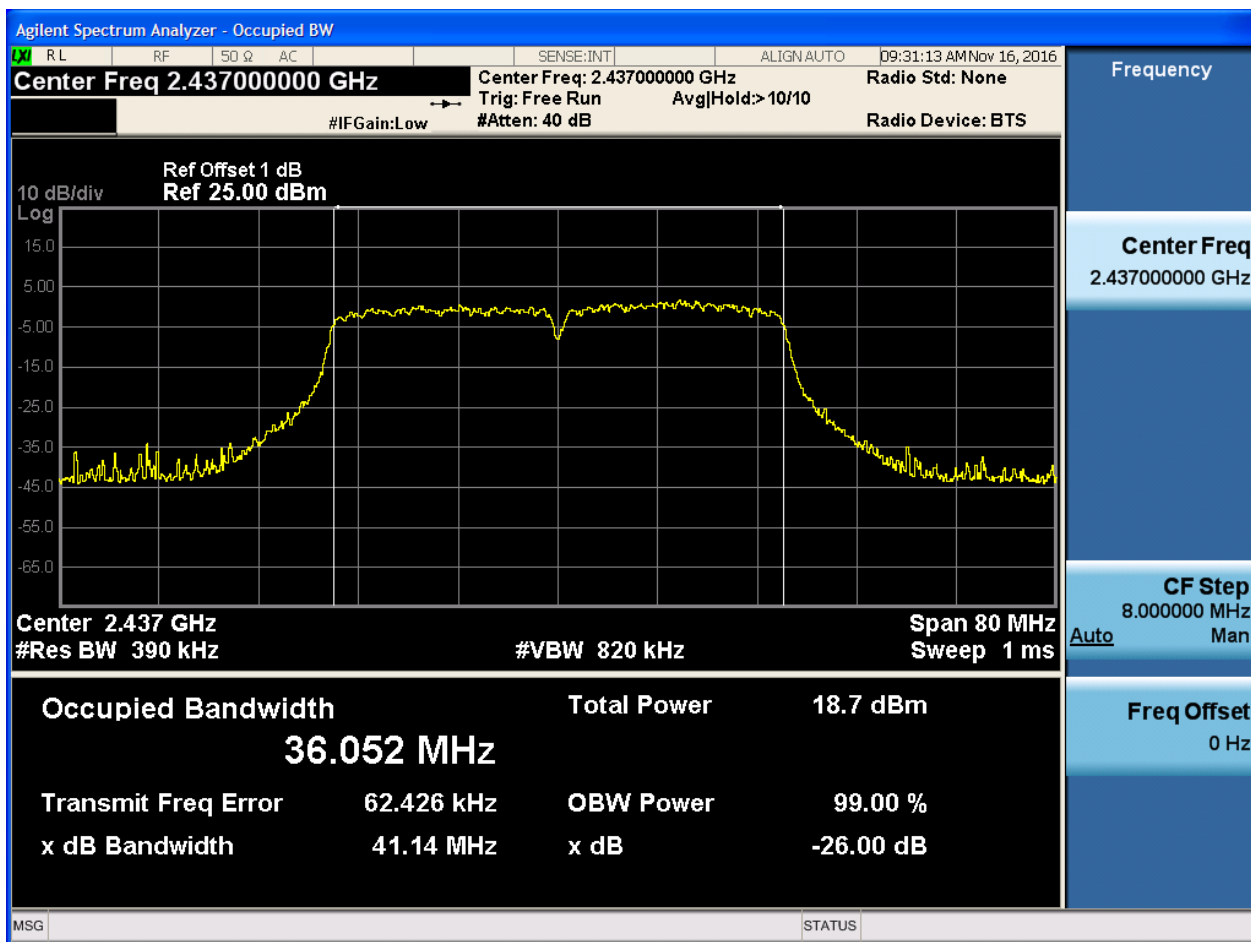


2.26 11N40_L@Ant 2



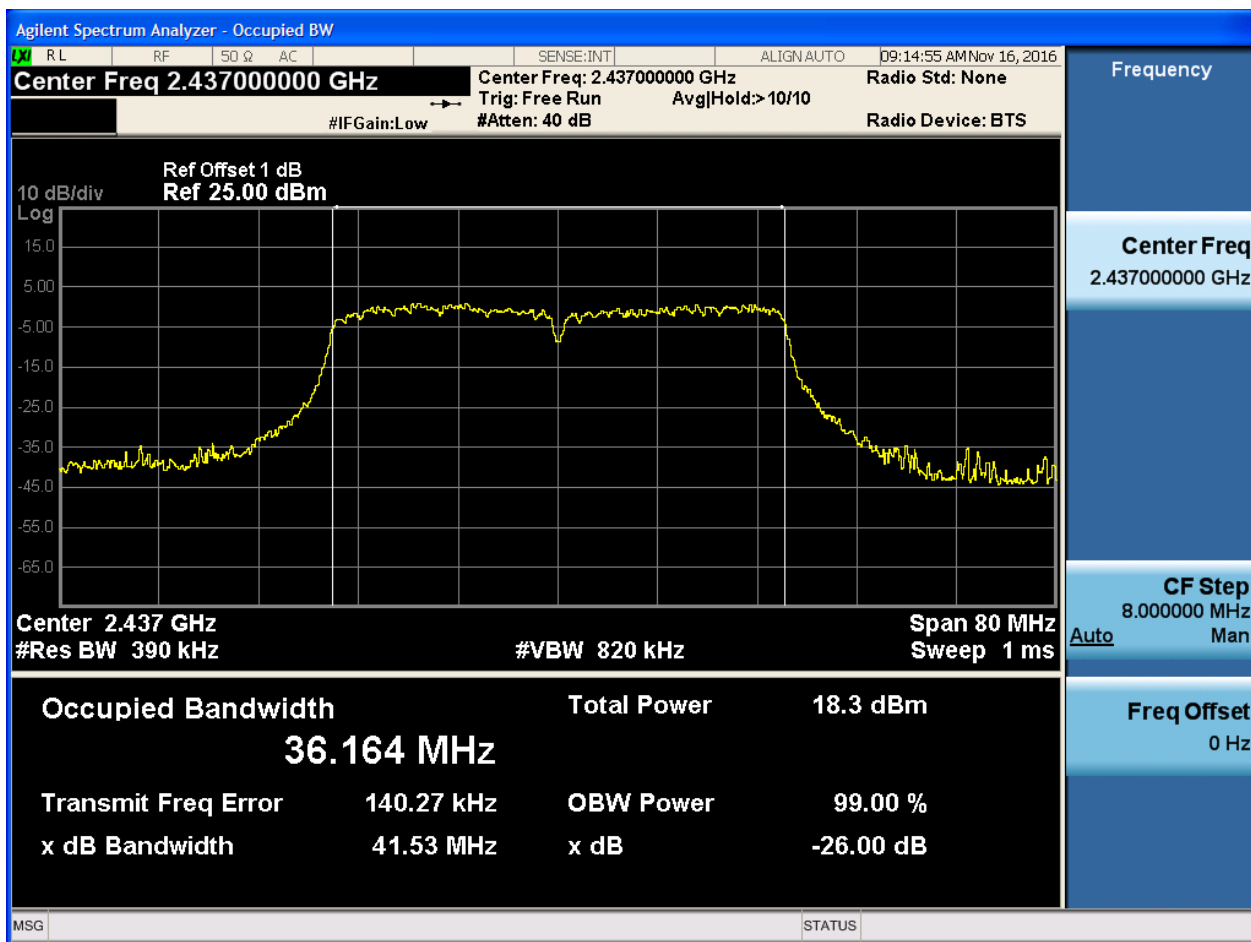


2.27 11N40_M@Ant 1



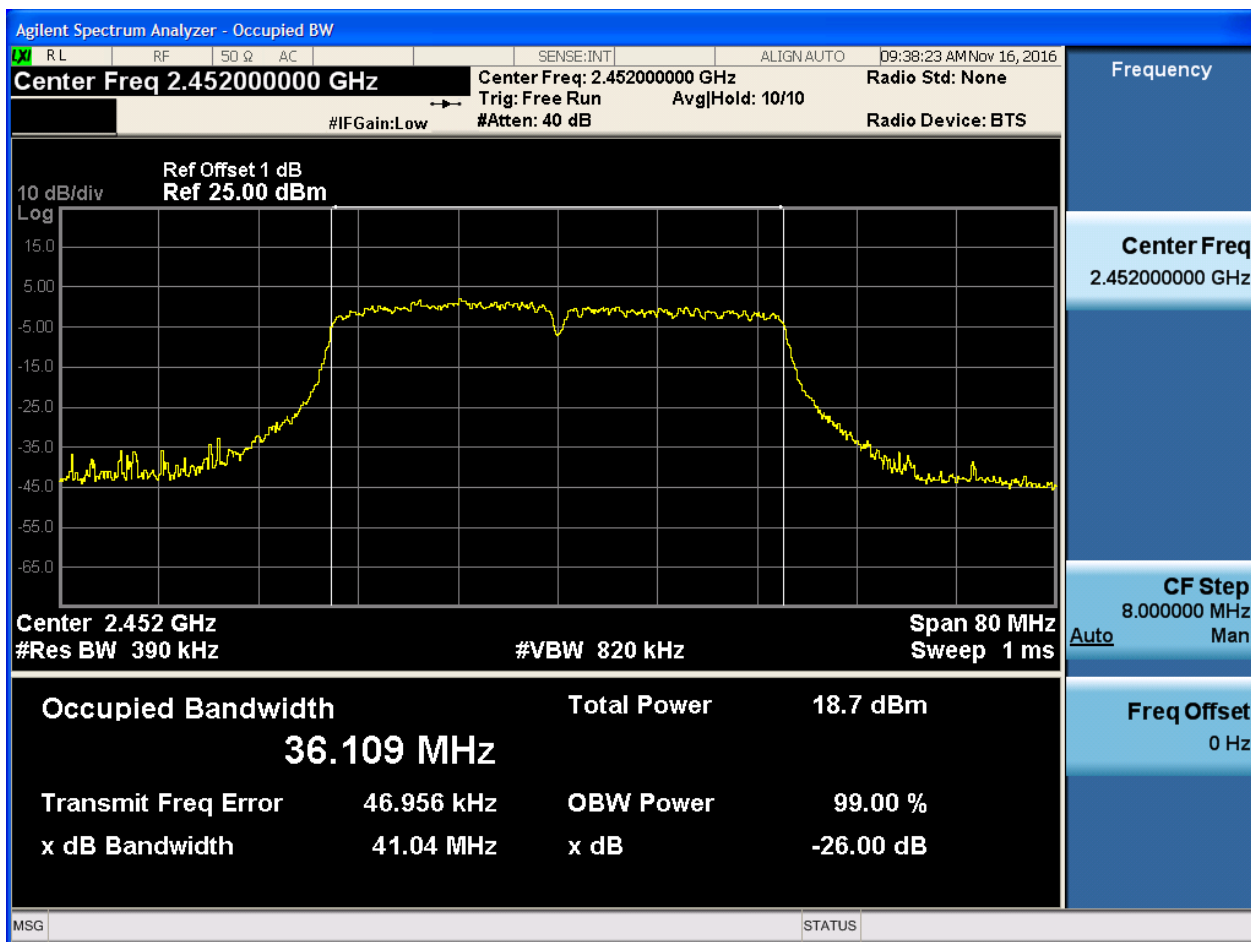


2.28 11N40_M@Ant 2



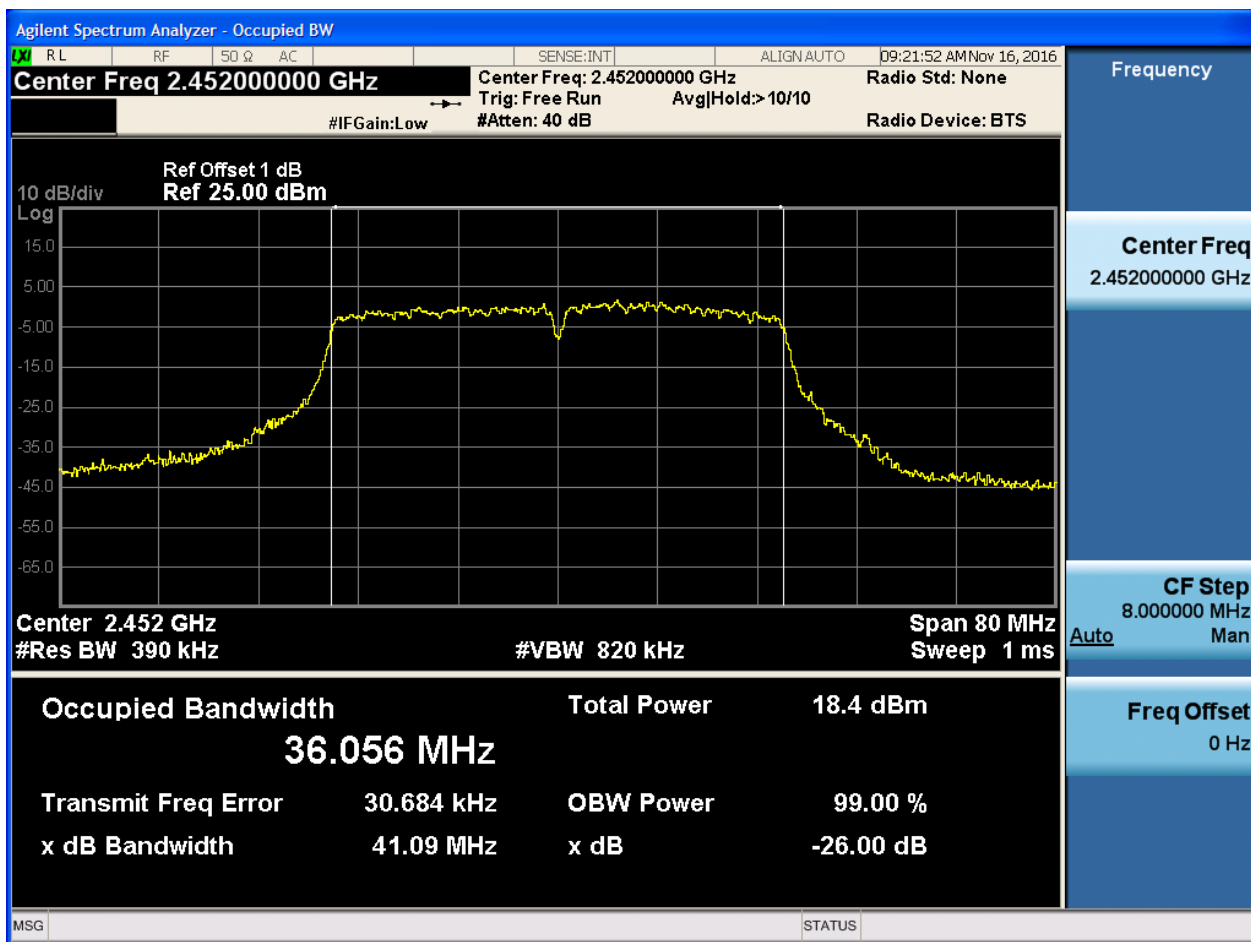


2.29 11N40_H@Ant 1



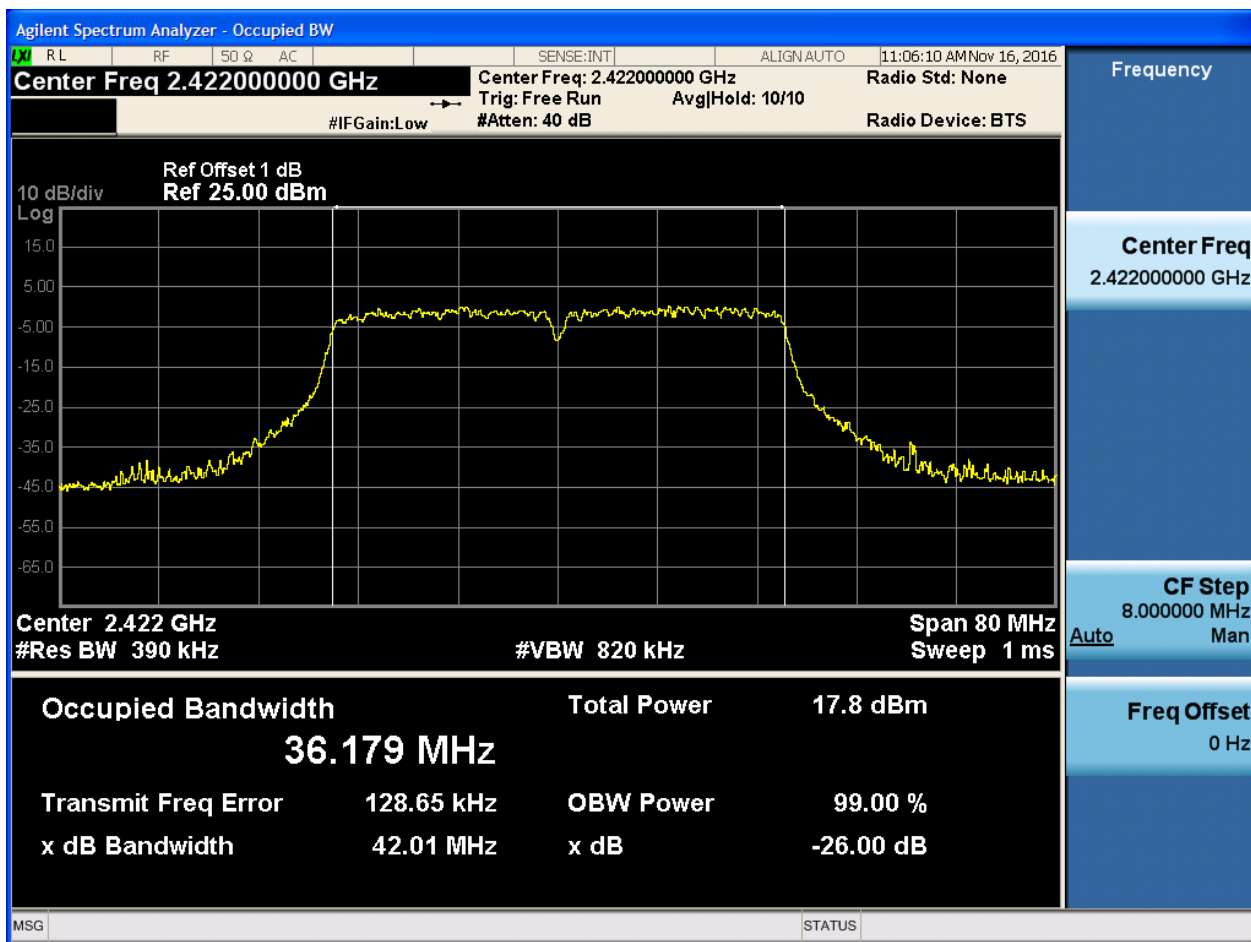


2.30 11N40_H@Ant 2



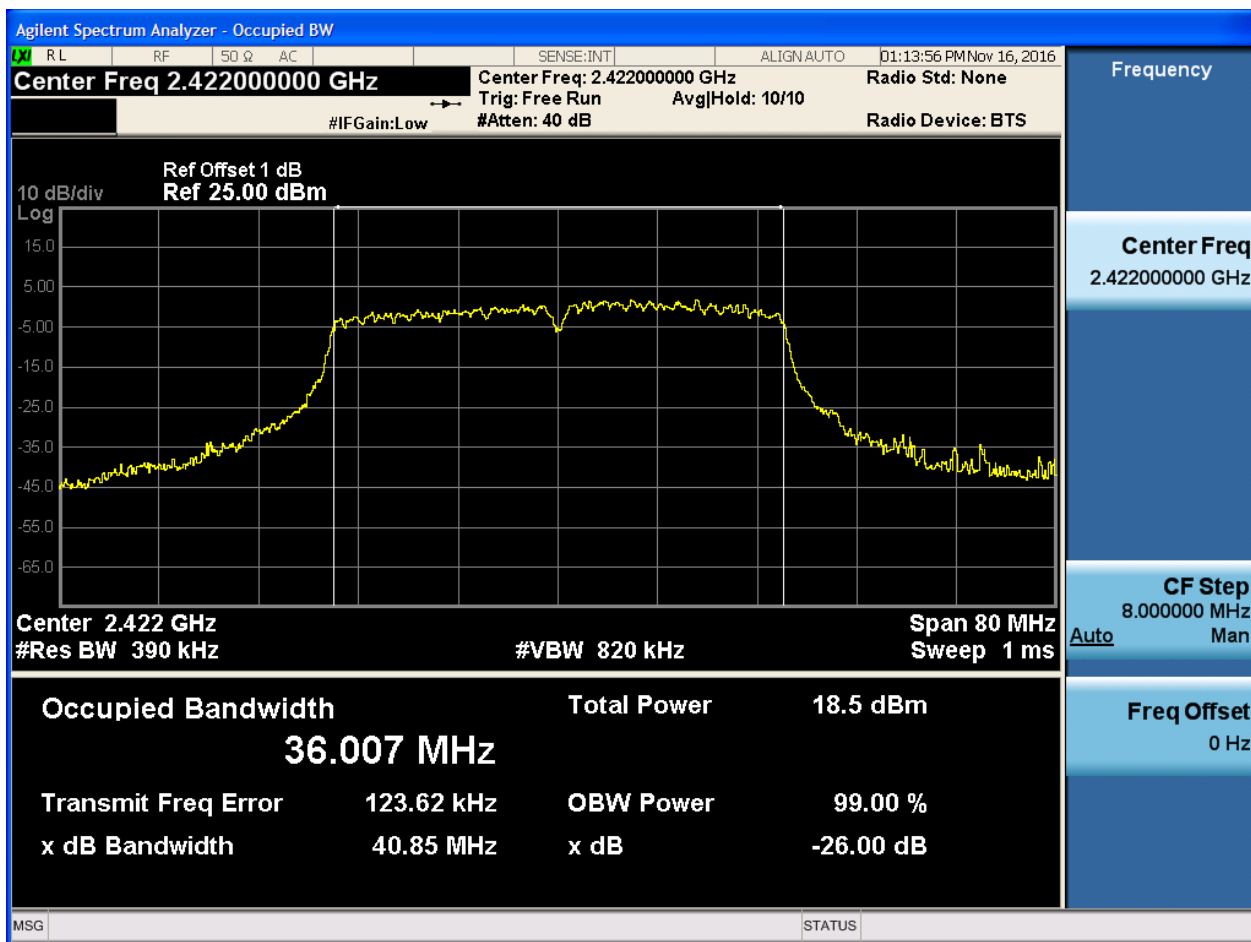


2.31 11N40m_L@Ant 1



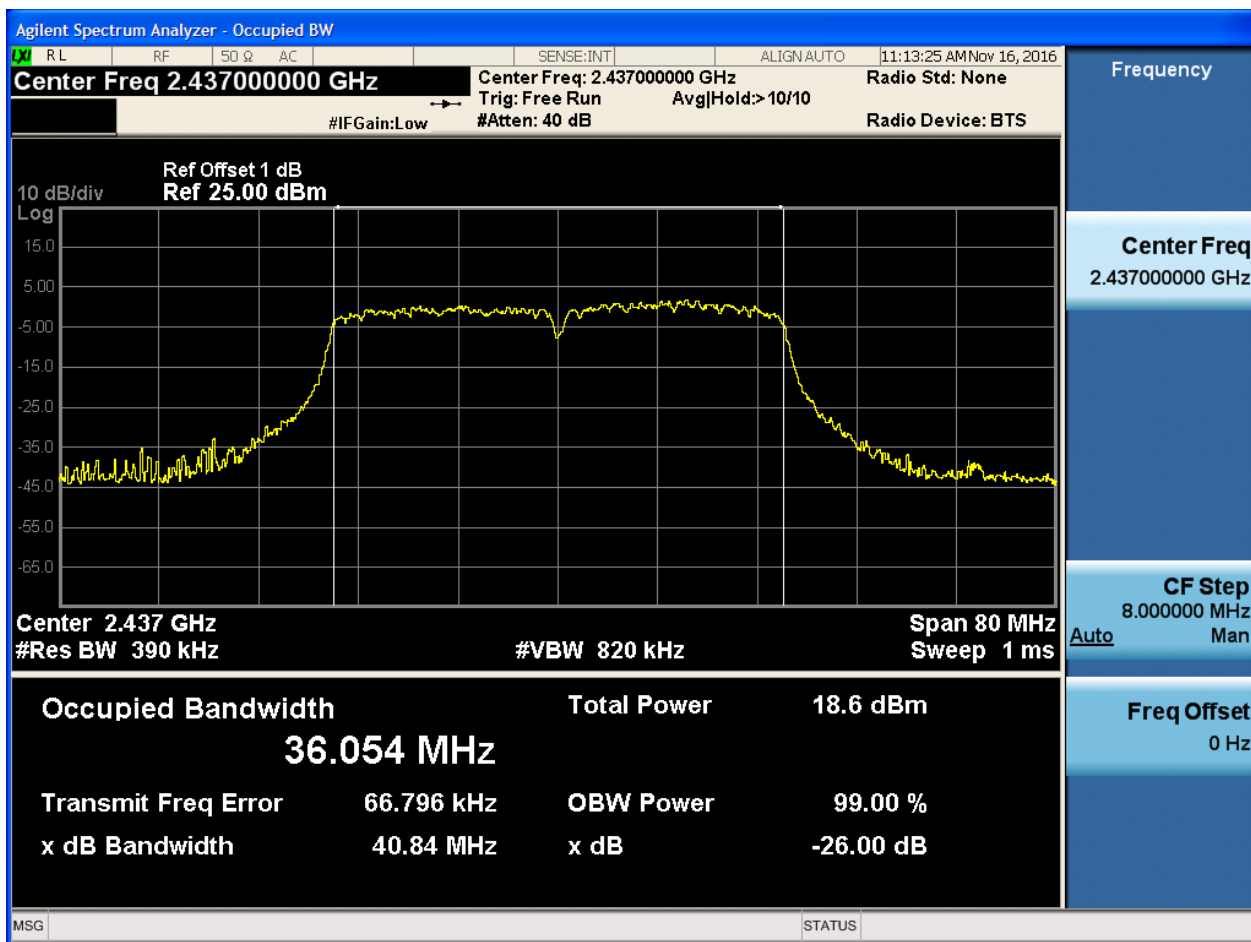


2.32 11N40m_L@Ant 2



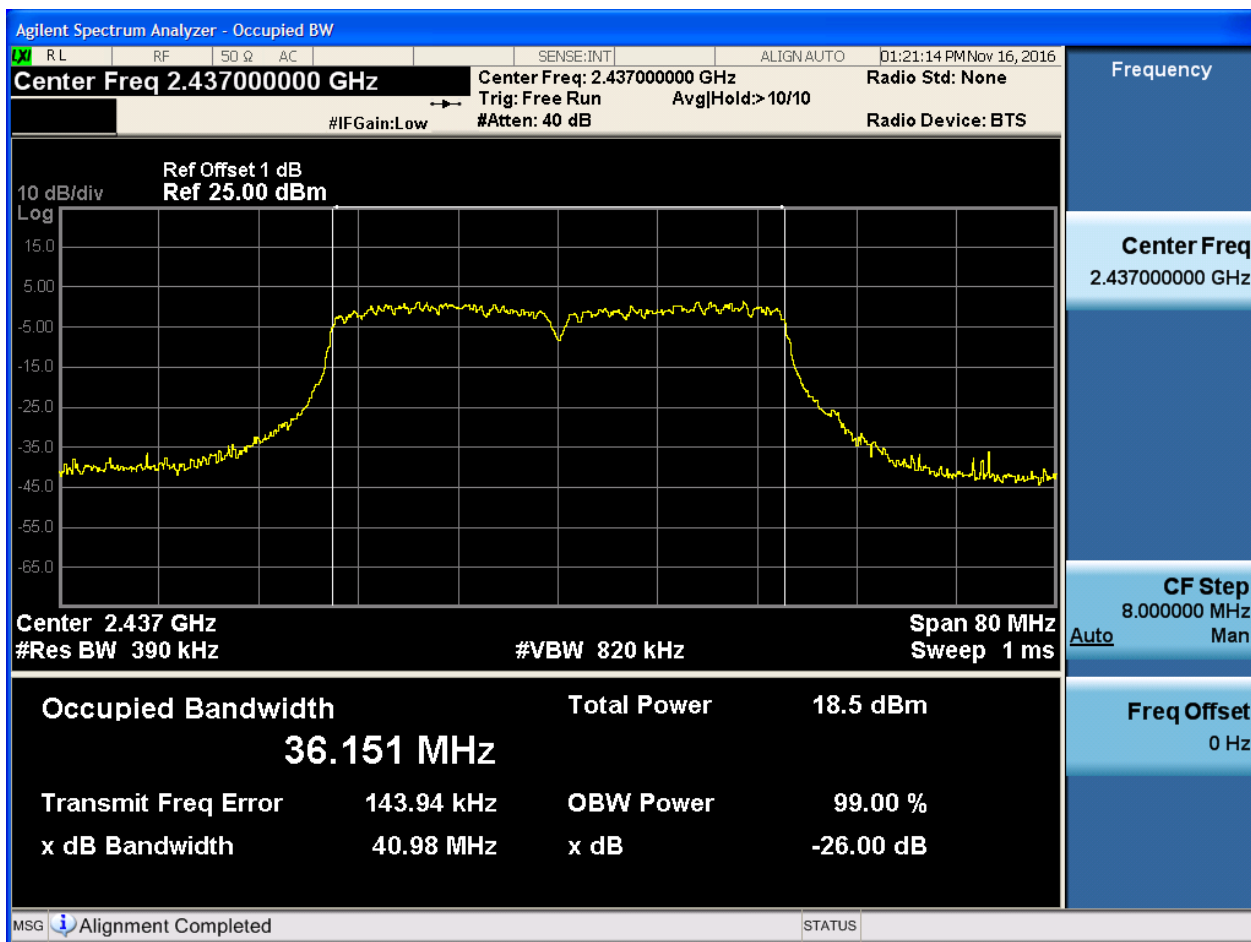


2.33 11N40m_M@Ant 1



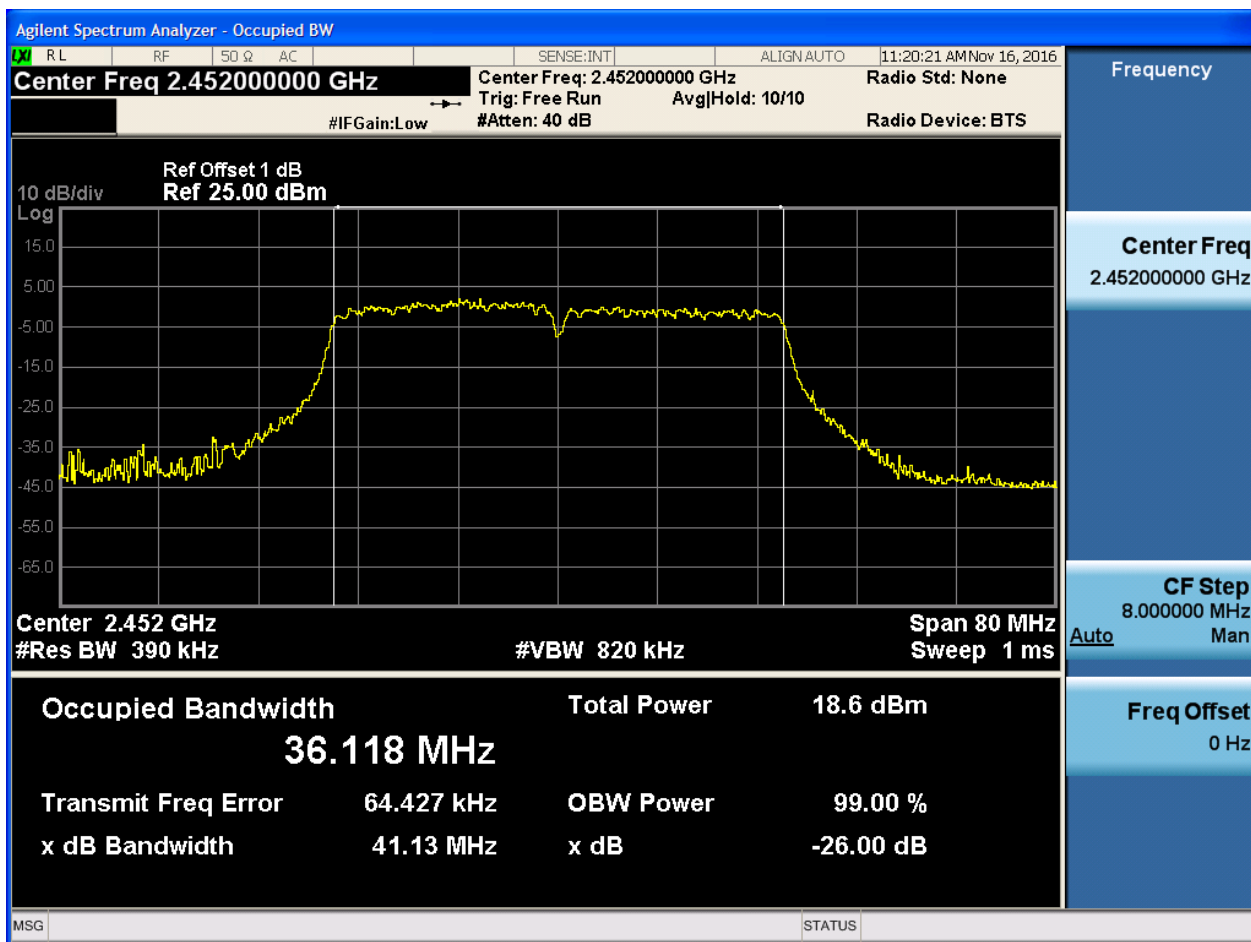


2.34 11N40m_M@Ant 2



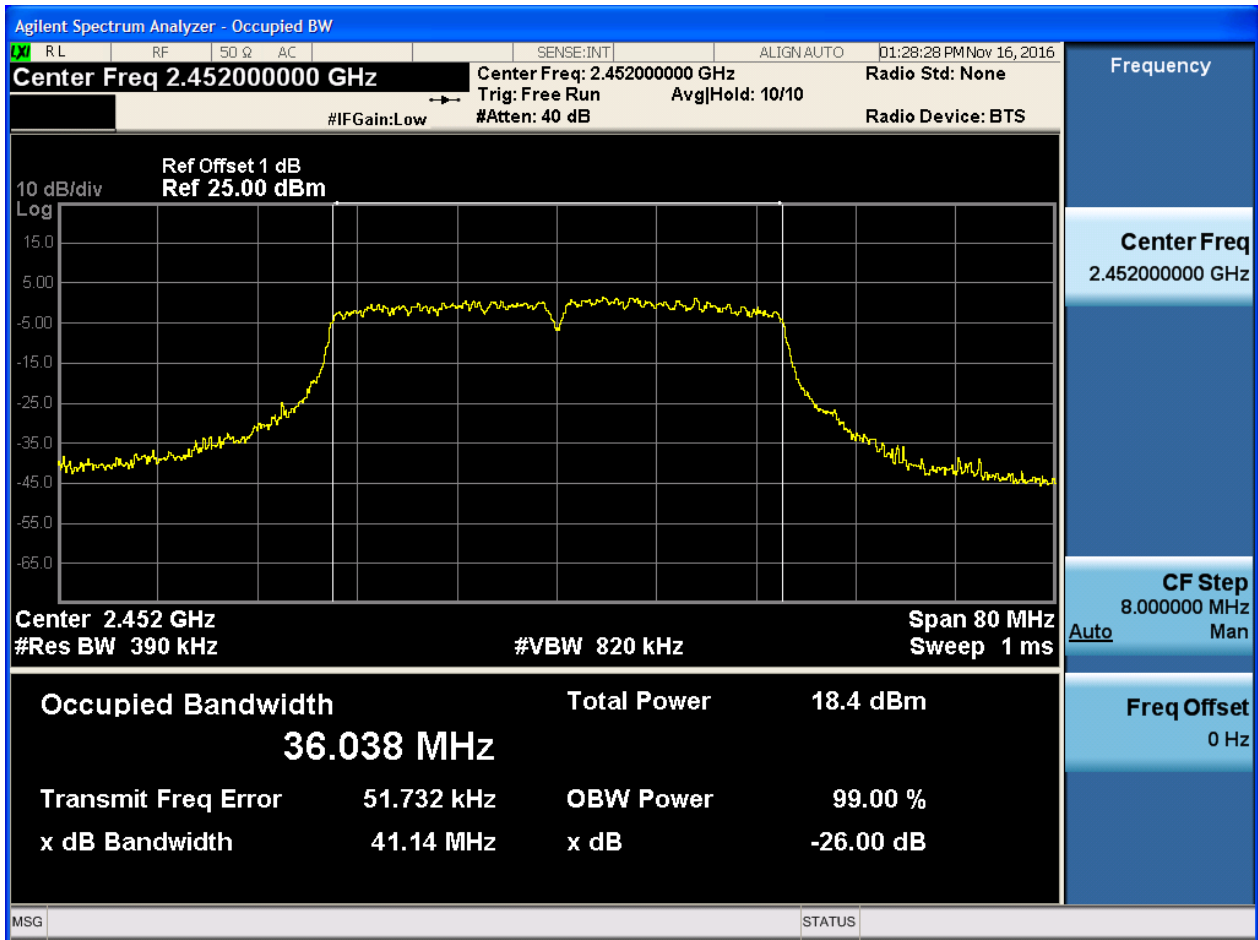


2.35 11N40m_H@Ant 1





2.36 11N40m_H@Ant 2



Appendix C: Duty Cycle

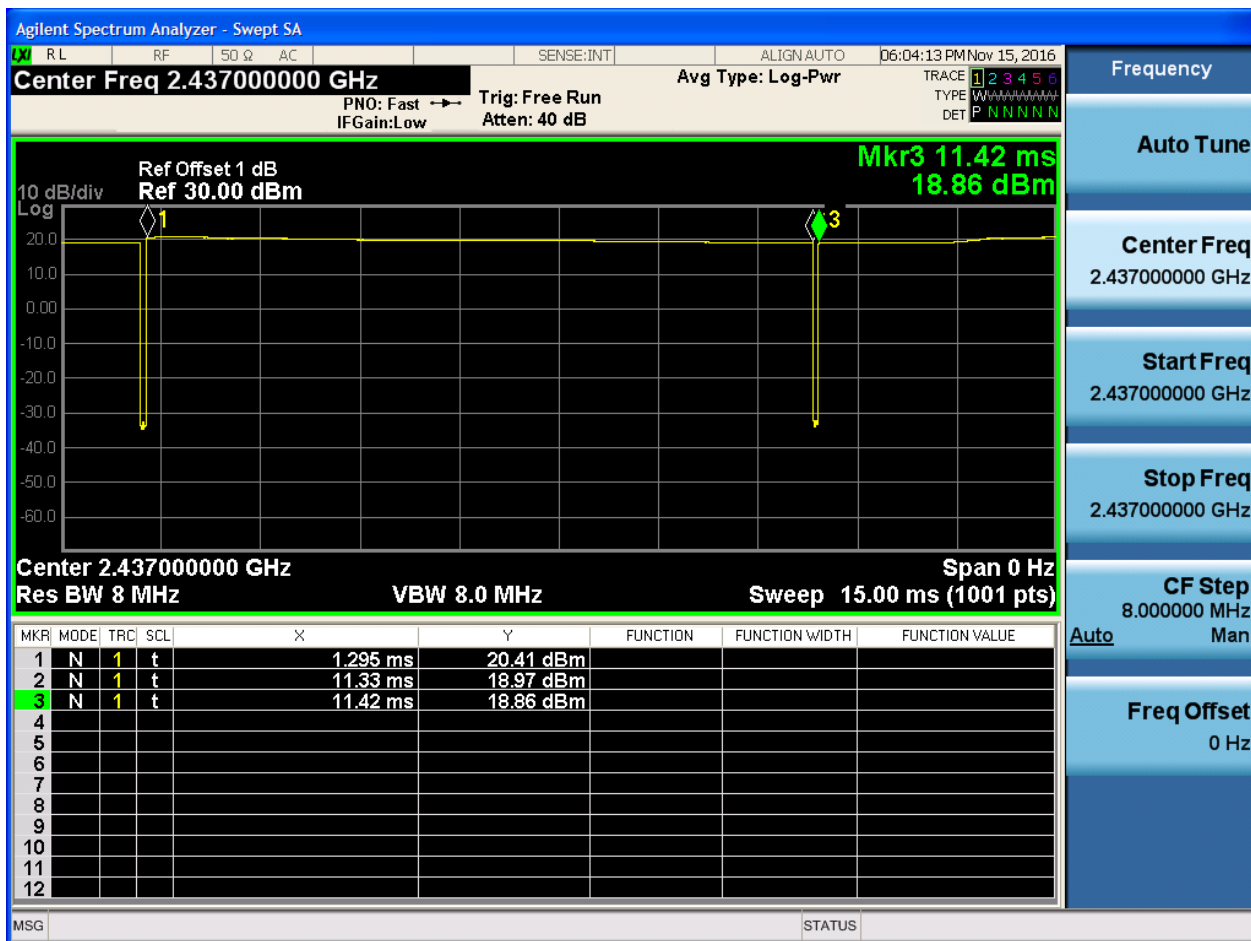
Part I - Test Results

Test Mode	TX Freq. [MHz]	Duty cycle [%]
11B	Ant 1: CH1,CH6,CH11	99
11B	Ant 2: CH1,CH6,CH11	99
11G	Ant 1: CH1,CH6,CH11	94
11G	Ant 2: CH1,CH6,CH11	94
11N_20	Ant 1: CH1,CH6,CH11	94
11N_20	Ant 2: CH1,CH6,CH11	94
11N_20m	Ant 1: CH1,CH6,CH11	94
11N_20m	Ant 2: CH1,CH6,CH11	93
11N_40	Ant 1: CH3,CH6,CH9	88
11N_40	Ant 2: CH3,CH6,CH9	88
11N_40m	Ant 1: CH3,CH6,CH9	88
11N_40m	Ant 2: CH3,CH6,CH9	87

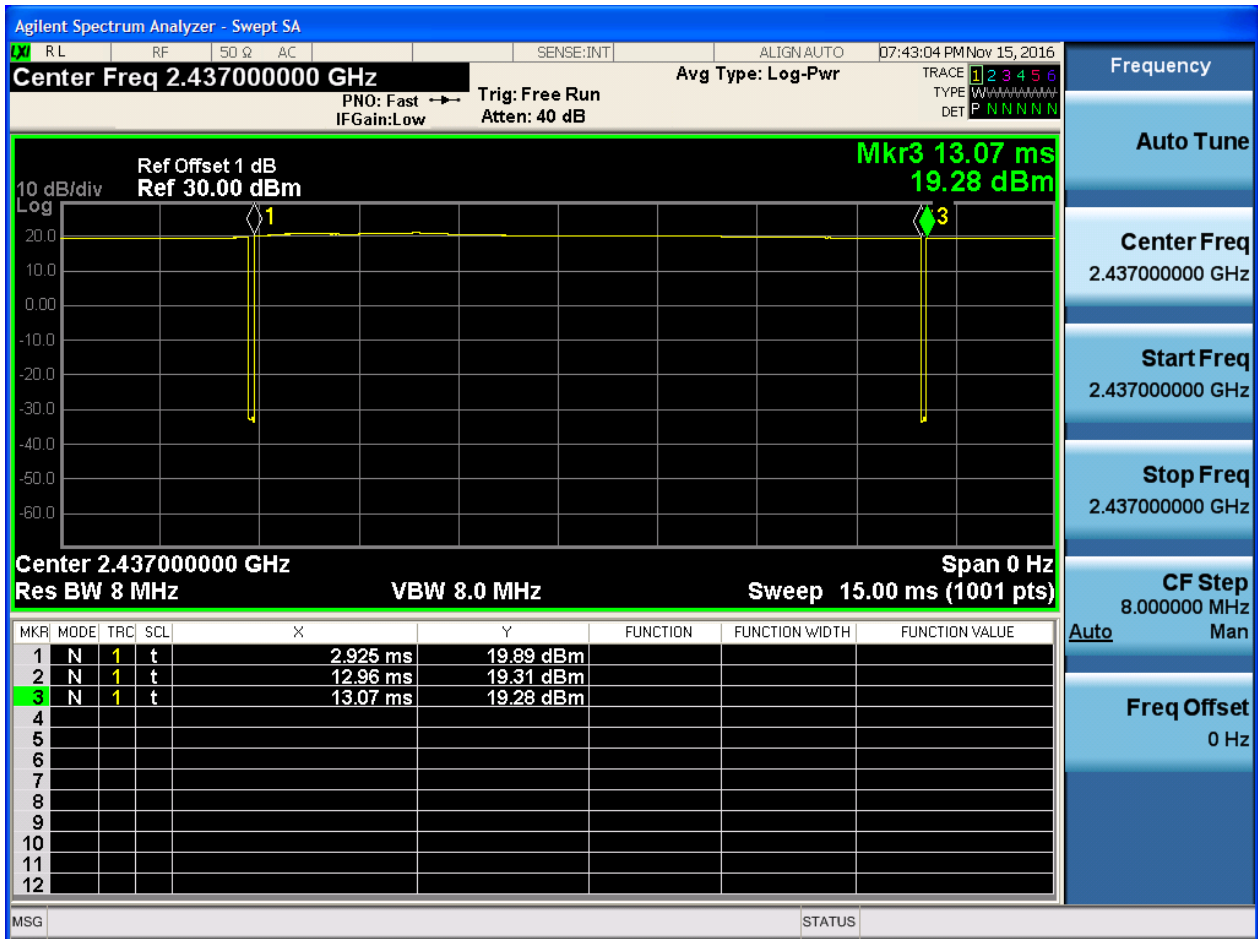


Part II - Test Plots

2.1 11B @Ant 1

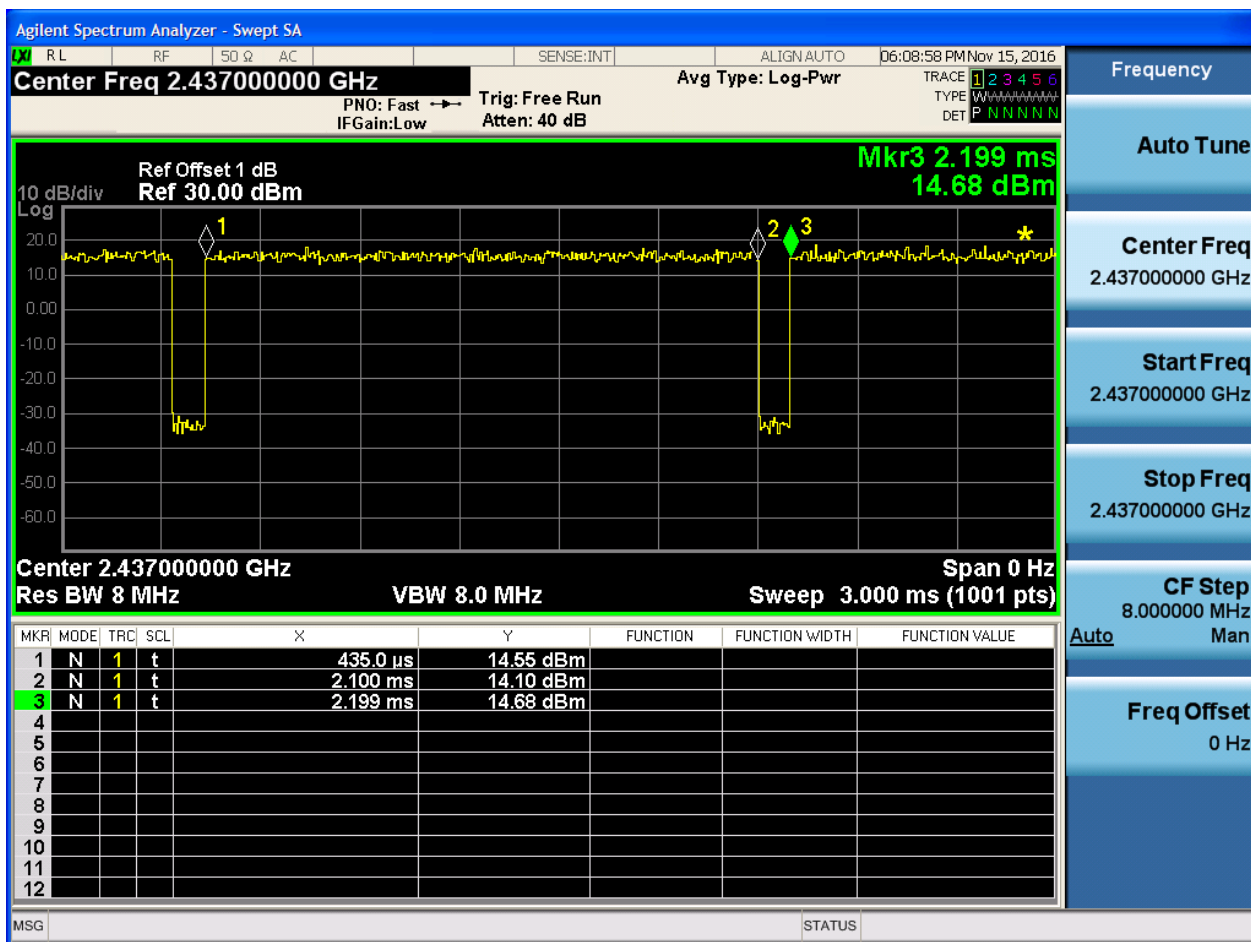


2.2 11B @Ant 2



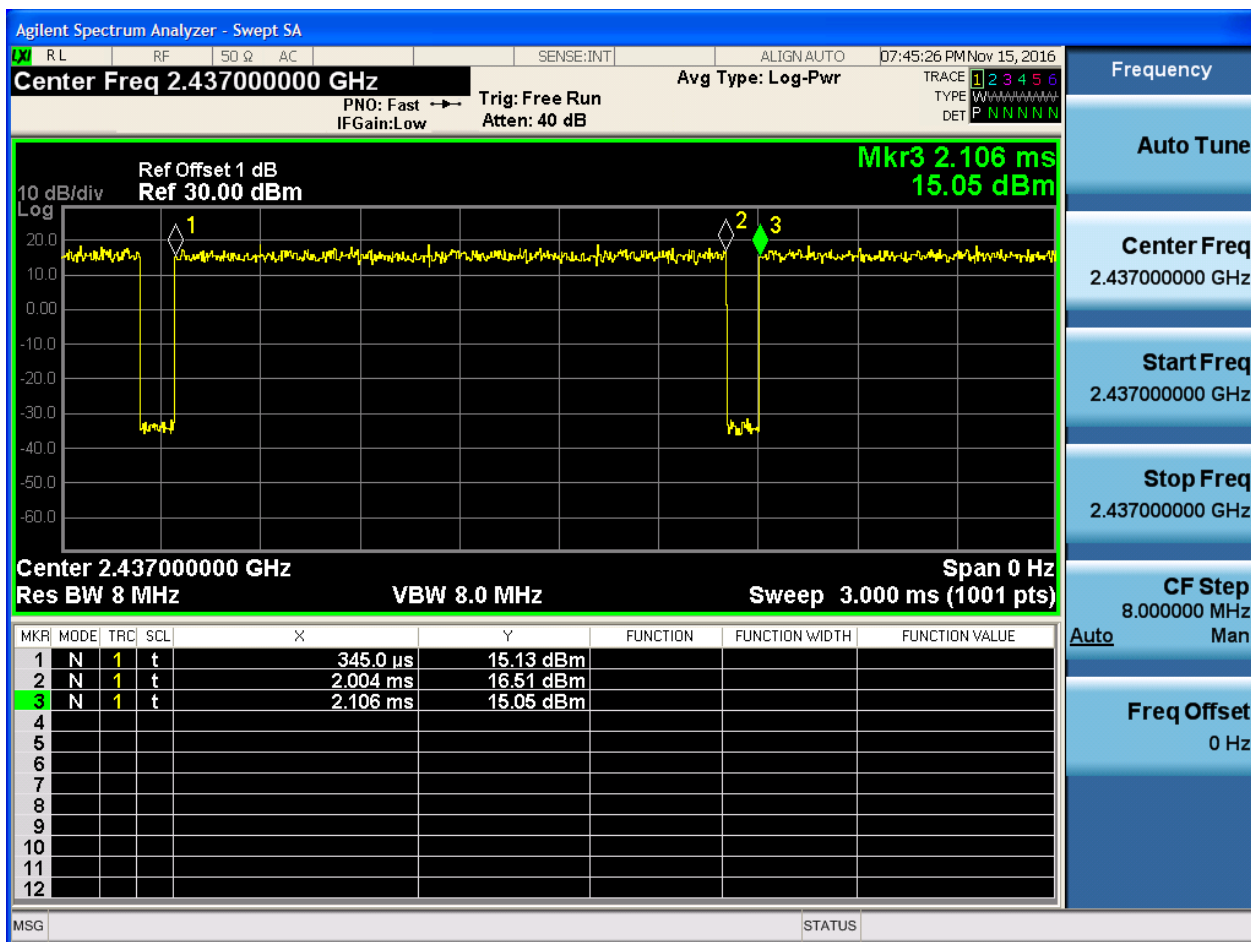


2.3 11G@Ant 1



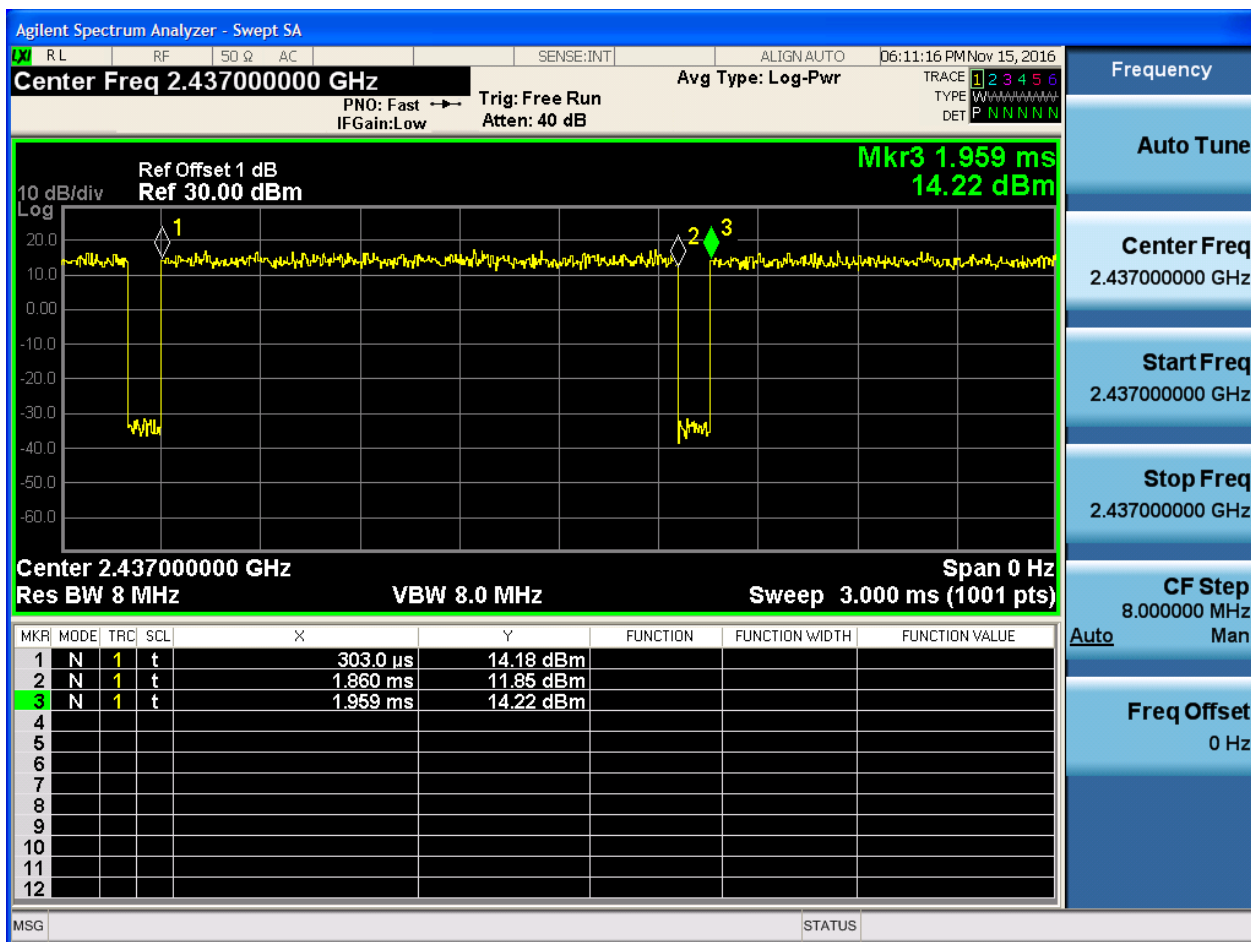


2.4 11G@Ant 2

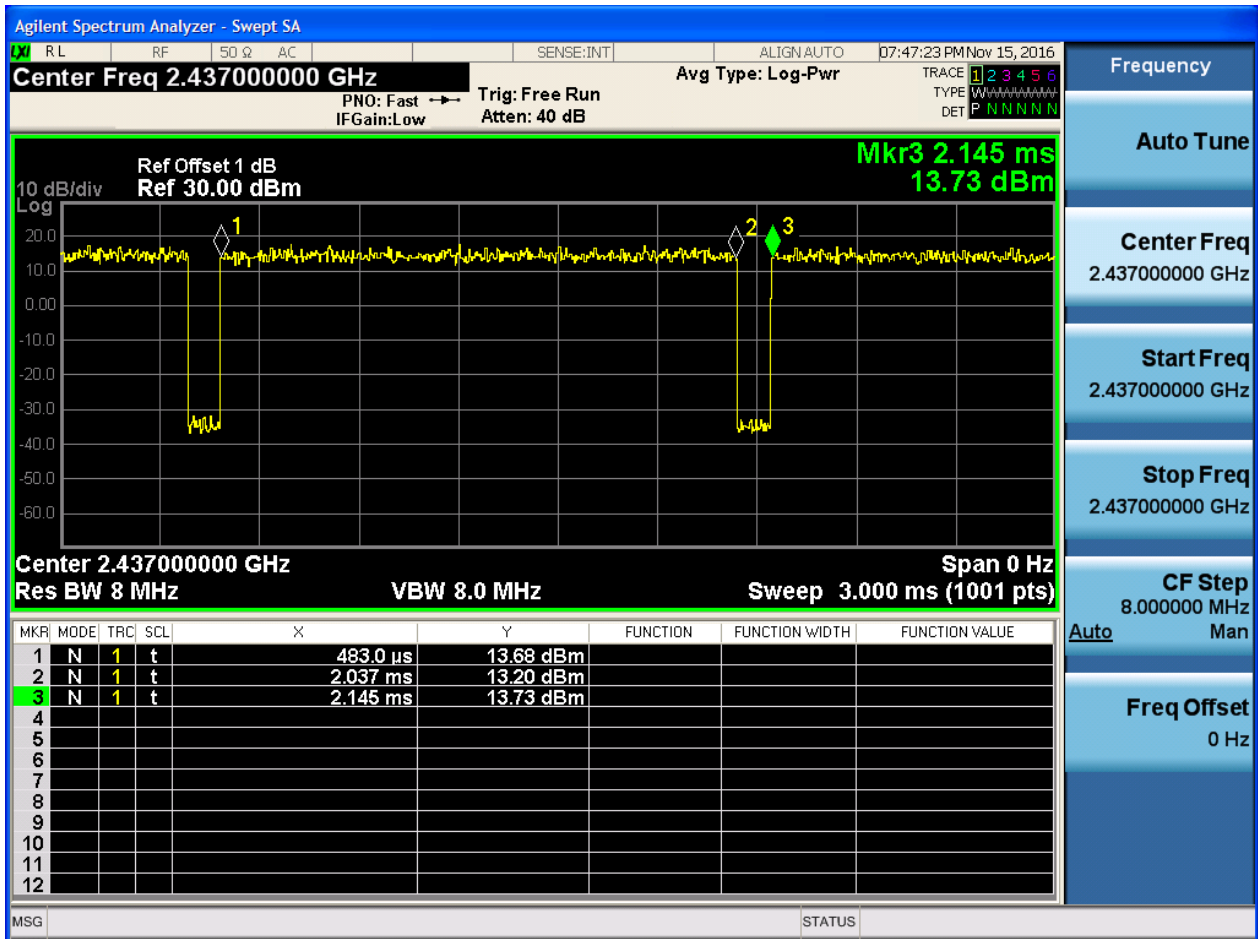




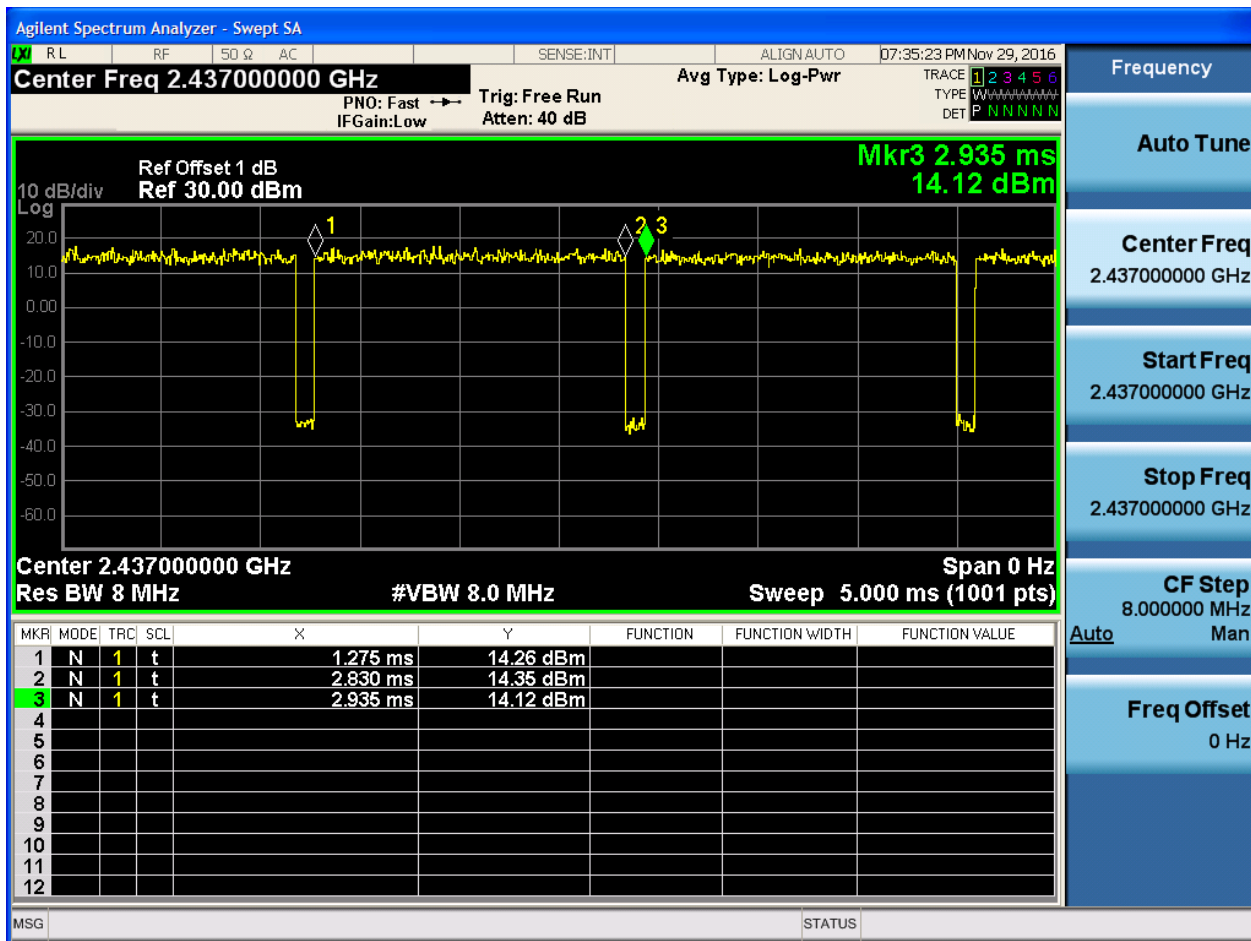
2.5 11N20@Ant 1



2.6 11N20@Ant 2

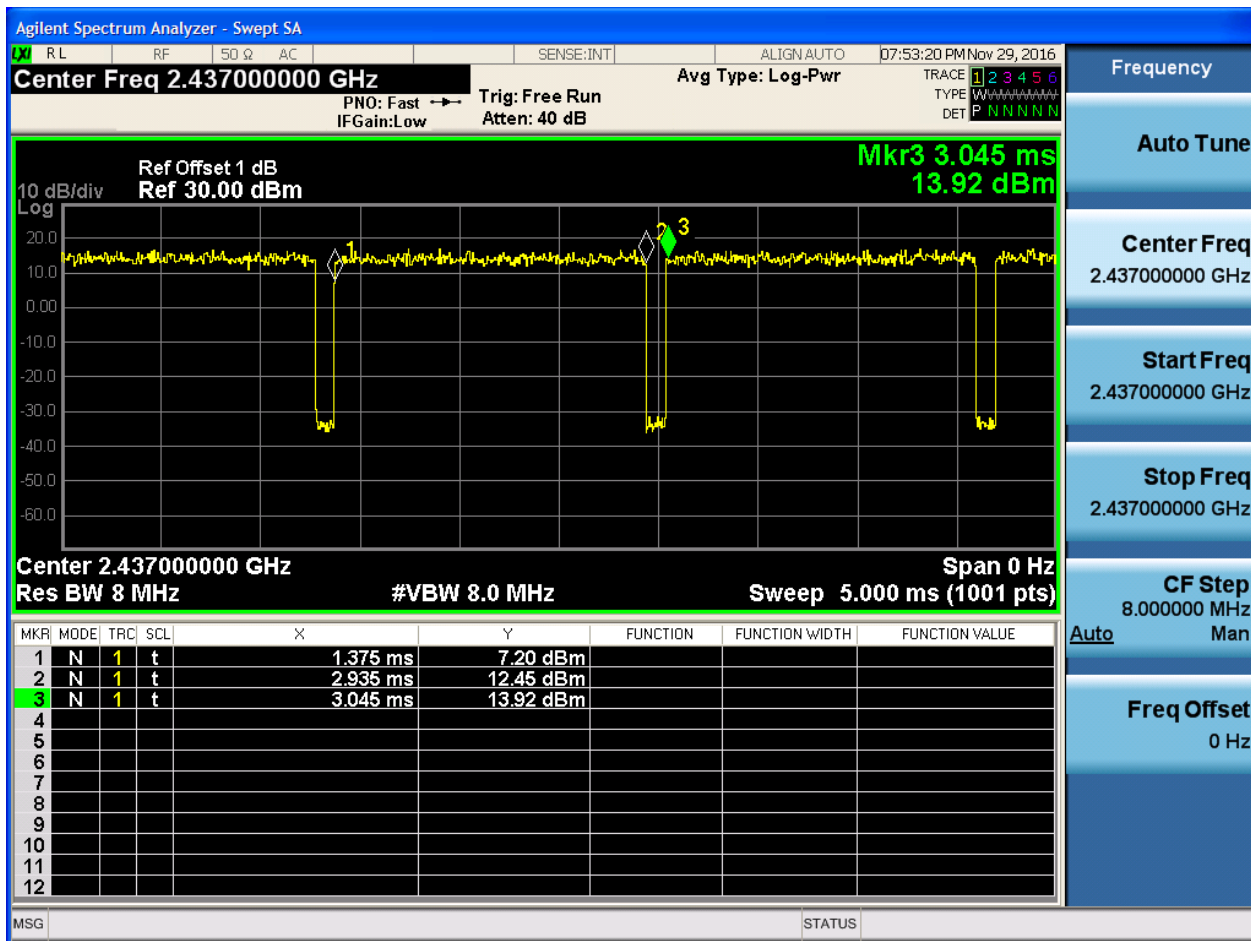


2.7 11N20m@Ant 1





2.8 11N20m@Ant 2





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN:AUTO D6:17:09 PM Nov 15, 2016

Center Freq 2.437000000 GHz Avg Type: Log-Pwr

PNO: Fast Trig: Free Run
IFGain:Low Atten: 40 dB

TRACE 1 2 3 4 5 6
TYPE W W W W W W W W
DET P N N N N N N

Ref Offset 1 dB
Ref 30.00 dBm

Mkr3 1.794 ms
5.46 dBm

10 dB/div
Log

20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0

Center 2.437000000 GHz Span 0 Hz
Res BW 8 MHz VBW 8.0 MHz Sweep 2.000 ms (1001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	926.0 μ s	5.42 dBm			
2	N	1	t	1.694 ms	11.93 dBm			
3	N	1	t	1.794 ms	5.46 dBm			
4								
5								
6								
7								
8								
9								
10								
11								
12								

MSG STATUS

Frequency

Auto Tune

Center Freq
2.437000000 GHz

Start Freq
2.437000000 GHz

Stop Freq
2.437000000 GHz

CF Step
8.000000 MHz
Man

Auto

Freq Offset
0 Hz



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 07:49:33 PM Nov 15, 2016

Center Freq 2.437000000 GHz Avg Type: Log-Pwr

PNO: Fast Trig: Free Run
IF Gain: Low Atten: 40 dB

TRACE 1 2 3 4 5 6
TYPE W W W W W W W W
DET P N N N N N N

Ref Offset 1 dB
Ref 30.00 dBm

10 dB/div
Log

Mkr3 1.496 ms
4.40 dBm

Center 2.437000000 GHz Span 0 Hz
Res BW 8 MHz VBW 8.0 MHz Sweep 2.000 ms (1001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	622.0 μ s	4.15 dBm			
2	N	1	t	1.388 ms	11.63 dBm			
3	N	1	t	1.496 ms	4.40 dBm			
4								
5								
6								
7								
8								
9								
10								
11								
12								

MSG STATUS

Frequency

Auto Tune

Center Freq
2.437000000 GHz

Start Freq
2.437000000 GHz

Stop Freq
2.437000000 GHz

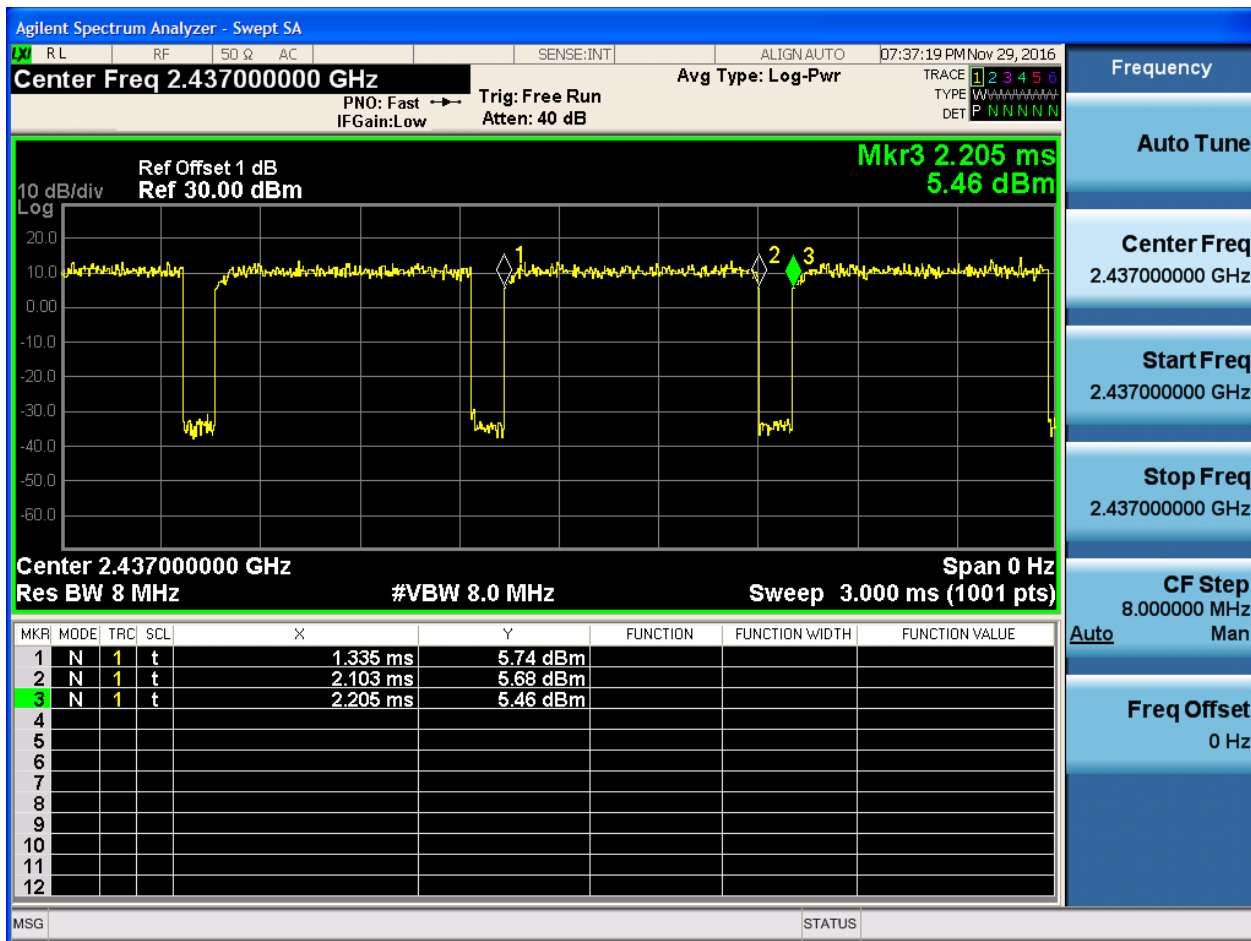
CF Step
8.000000 MHz
Man

Auto

Freq Offset
0 Hz



2.11 11N40m@Ant 1



[illegible]



Appendix D: Maximum Conducted Average Output Power

Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Ant	Power[dBm]	Verdict
11B	L	2412	Ant 1	15.88	pass
11B	L	2412	Ant 2	16.07	pass
11B	M	2437	Ant 1	15.61	pass
11B	M	2437	Ant 2	16.07	pass
11B	H	2462	Ant 1	15.87	pass
11B	H	2462	Ant 2	16.07	pass
11G	L	2412	Ant 1	12.31	pass
11G	L	2412	Ant 2	12.23	pass
11G	M	2437	Ant 1	12.53	pass
11G	M	2437	Ant 2	12.70	pass
11G	H	2462	Ant 1	12.57	pass
11G	H	2462	Ant 2	12.44	pass
11N20	L	2412	Ant 1	11.24	pass
11N20	L	2412	Ant 2	11.67	pass
11N20	M	2437	Ant 1	11.39	pass
11N20	M	2437	Ant 2	11.72	pass
11N20	H	2462	Ant 1	11.55	pass
11N20	H	2462	Ant 2	11.45	pass
11N20m	L	2412	Ant 1	11.3	pass
11N20m	L	2412	Ant 2	11.41	pass
11N20m	L	2412	Ant sum	14.37	pass
11N20m	M	2437	Ant 1	11.48	pass
11N20m	M	2437	Ant 2	11.73	pass
11N20m	M	2437	Ant sum	14.62	pass
11N20m	H	2462	Ant 1	11.78	pass
11N20m	H	2462	Ant 2	11.52	pass
11N20m	H	2462	Ant sum	14.66	pass
11N40	L	2422	Ant 1	10.82	pass
11N40	L	2422	Ant 2	11.26	pass
11N40	M	2437	Ant 1	11.73	pass
11N40	M	2437	Ant 2	11.28	pass
11N40	H	2452	Ant 1	11.77	pass
11N40	H	2452	Ant 2	11.45	pass

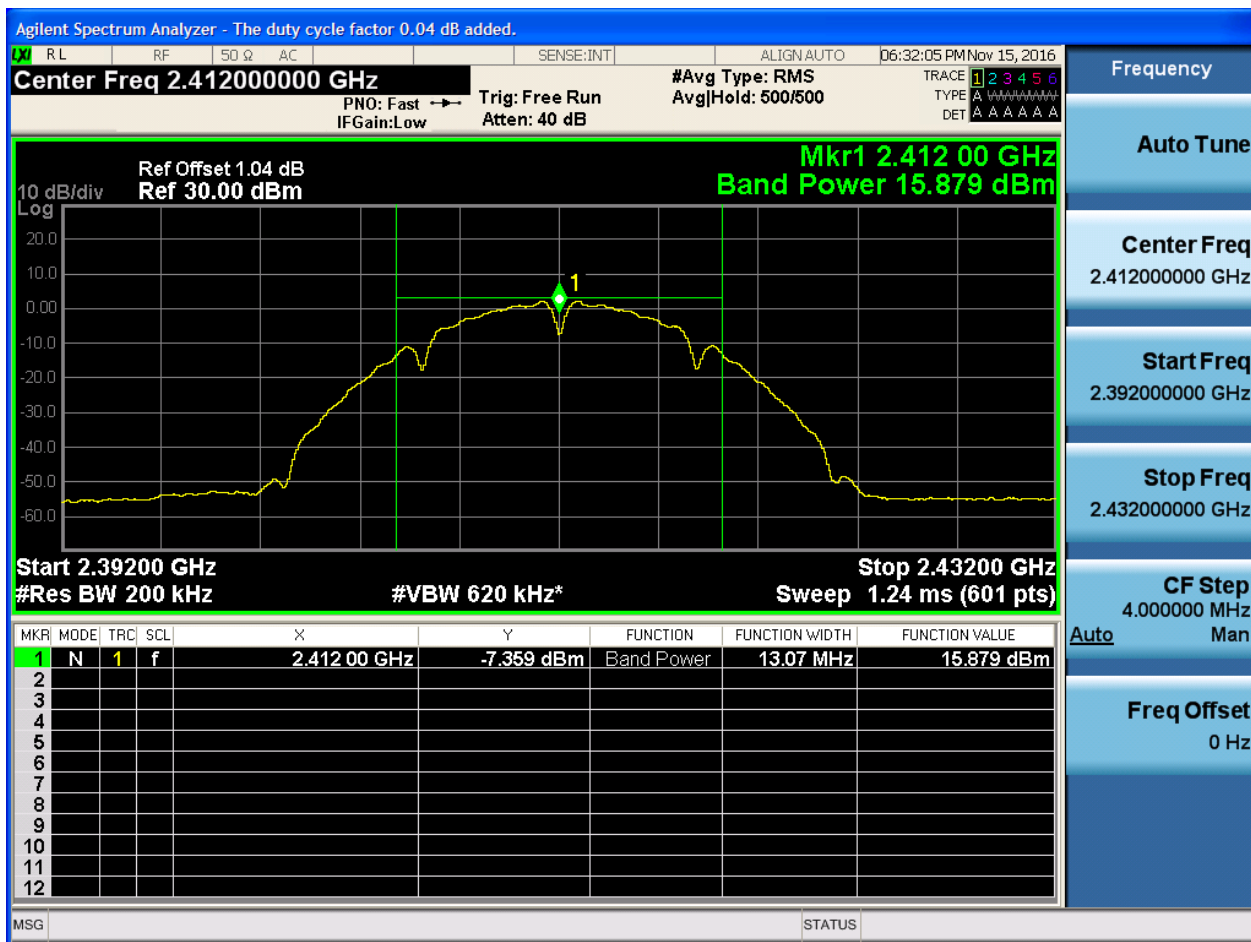


Test Mode	Test Channel	Frequency[MHz]	Ant	Power[dBm]	Verdict
11N40m	L	2422	Ant 1	10.91	pass
11N40m	L	2422	Ant 2	11.41	pass
11N40m	L	2422	Ant sum	14.18	pass
11N40m	M	2437	Ant 1	11.72	pass
11N40m	M	2437	Ant 2	11.43	pass
11N40m	M	2437	Ant sum	14.59	pass
11N40m	H	2452	Ant 1	11.5	pass
11N40m	H	2452	Ant 2	11.44	pass
11N40m	H	2452	Ant sum	14.48	pass



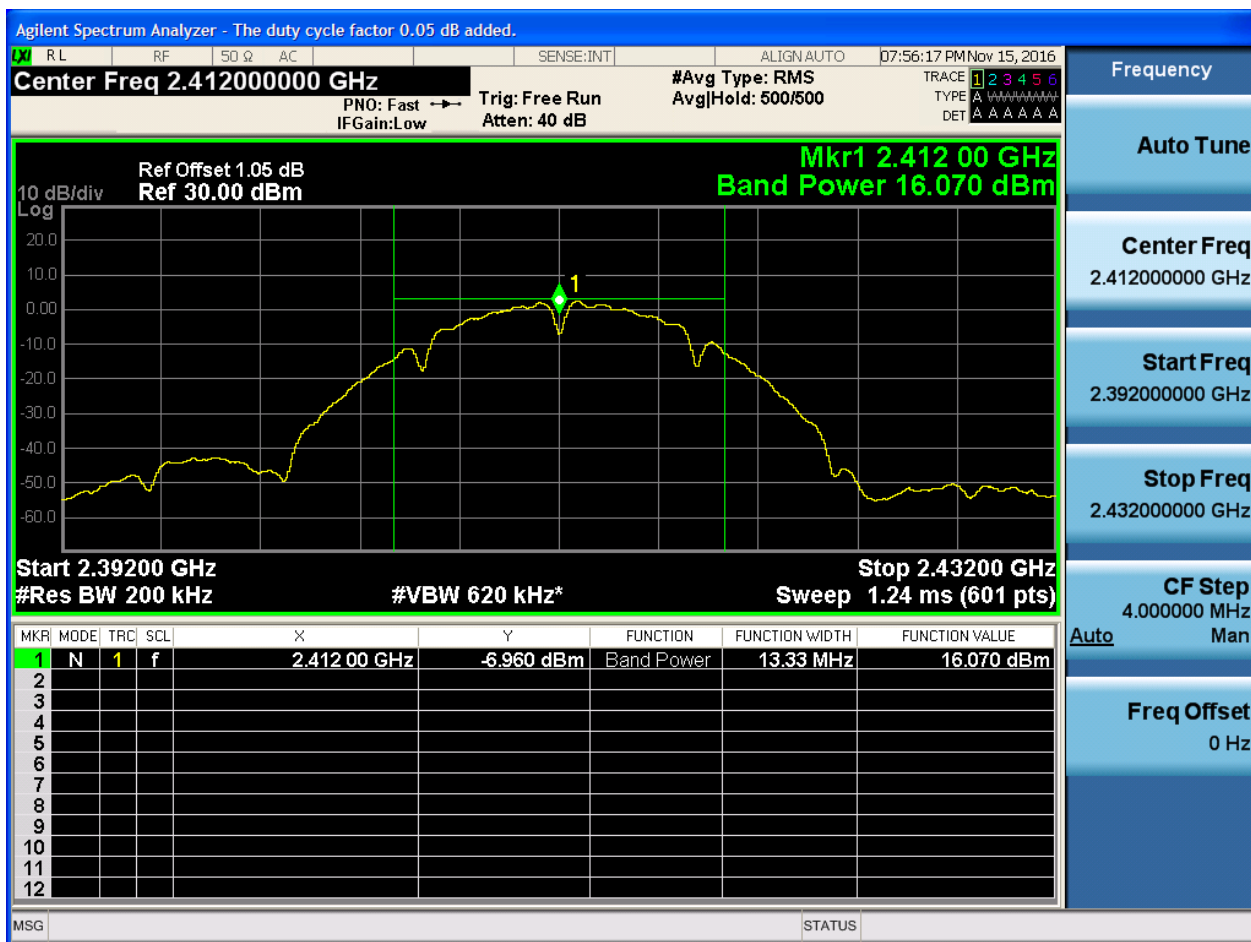
Part II - Test Plots

2.1 11B_L@Ant 1



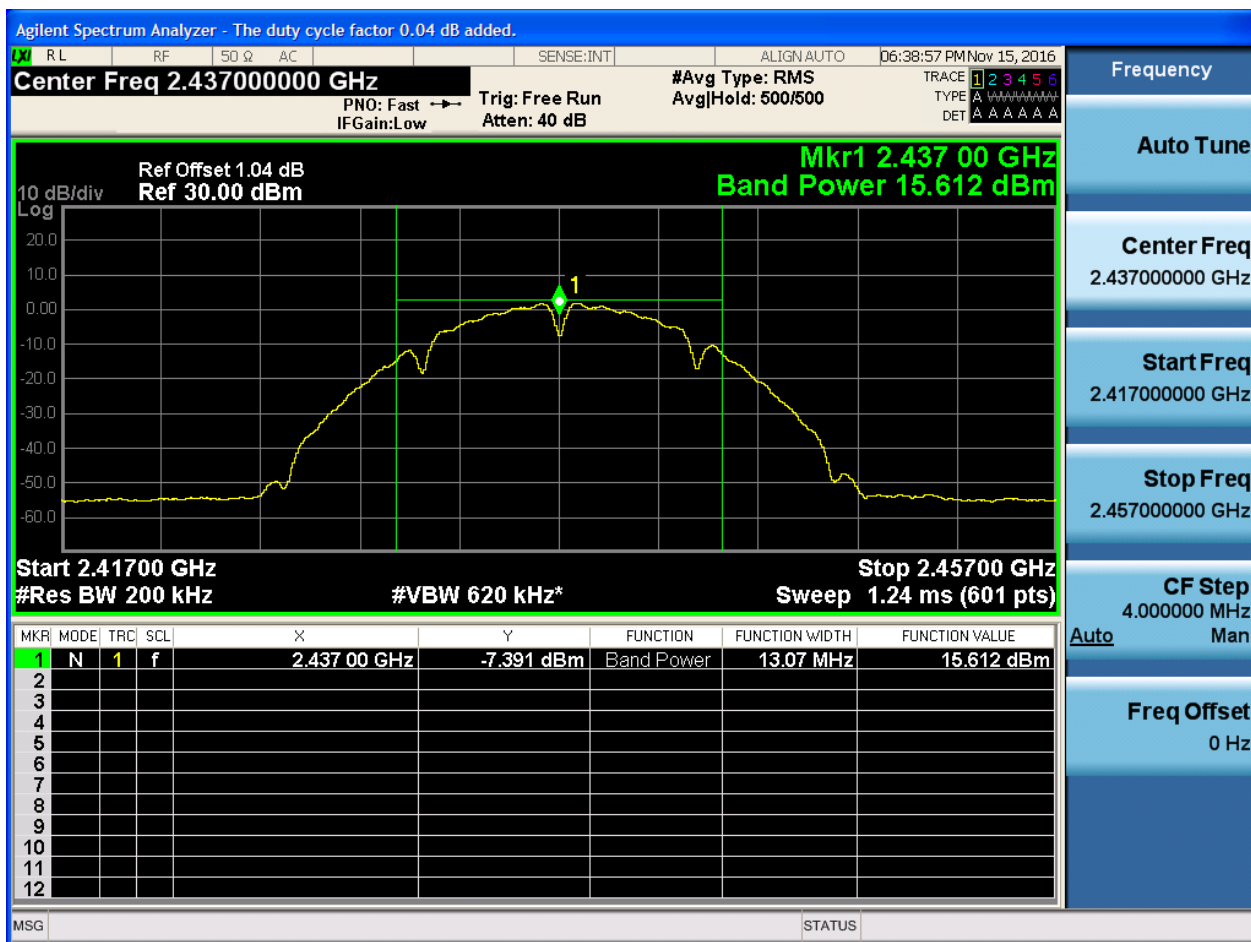


2.2 11B_L@Ant 2



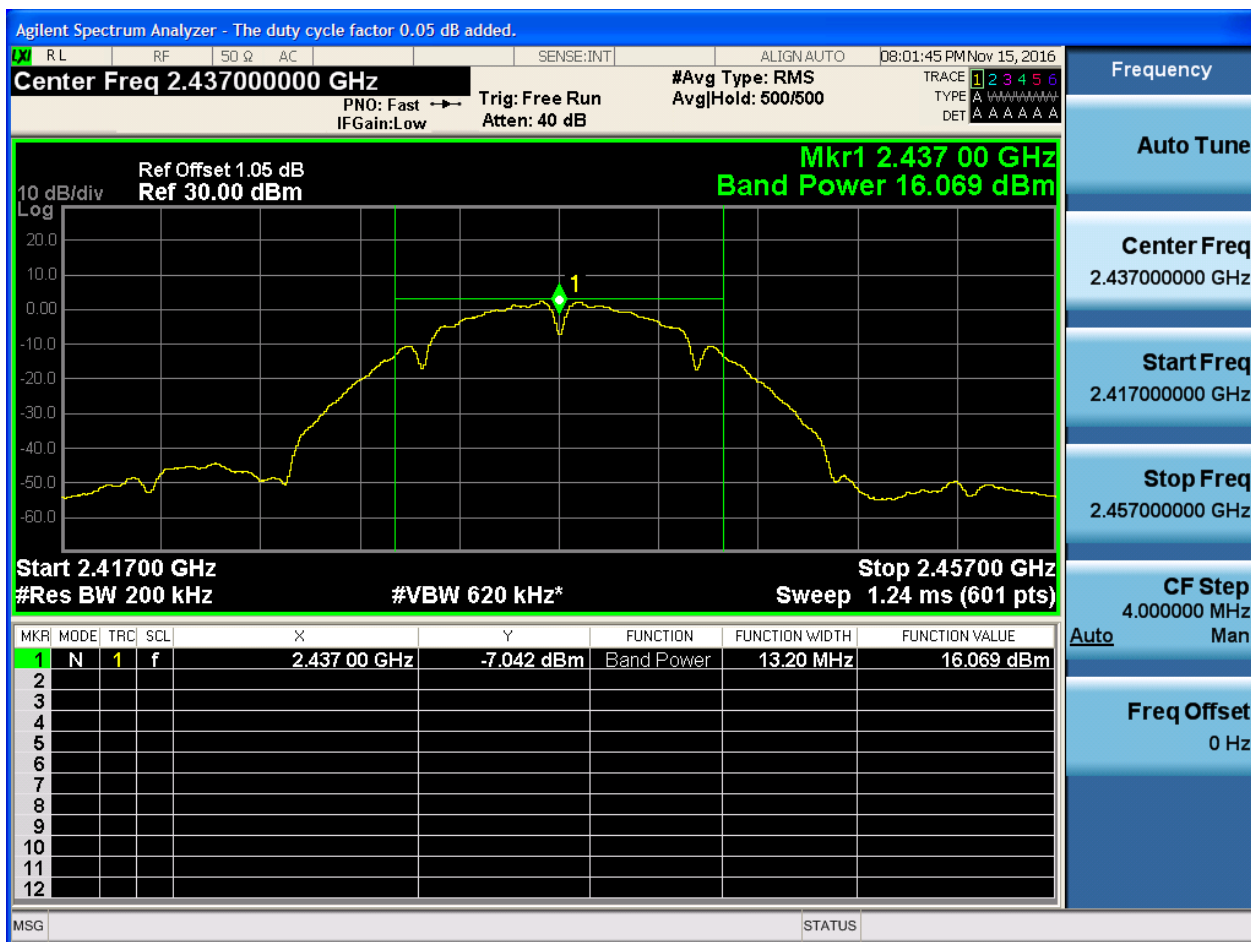


2.3 11B_M@Ant 1



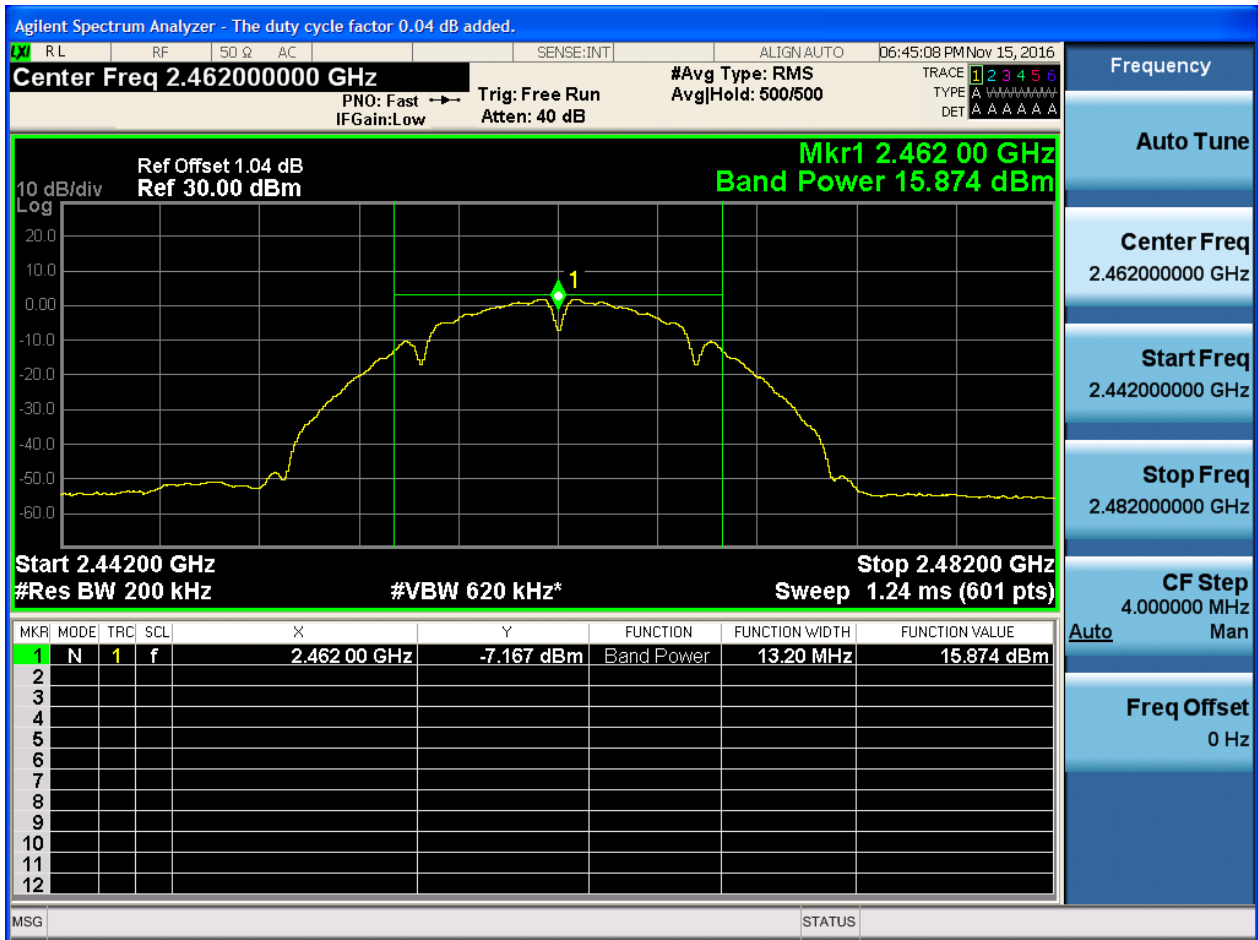


2.4 11B_M@Ant 2



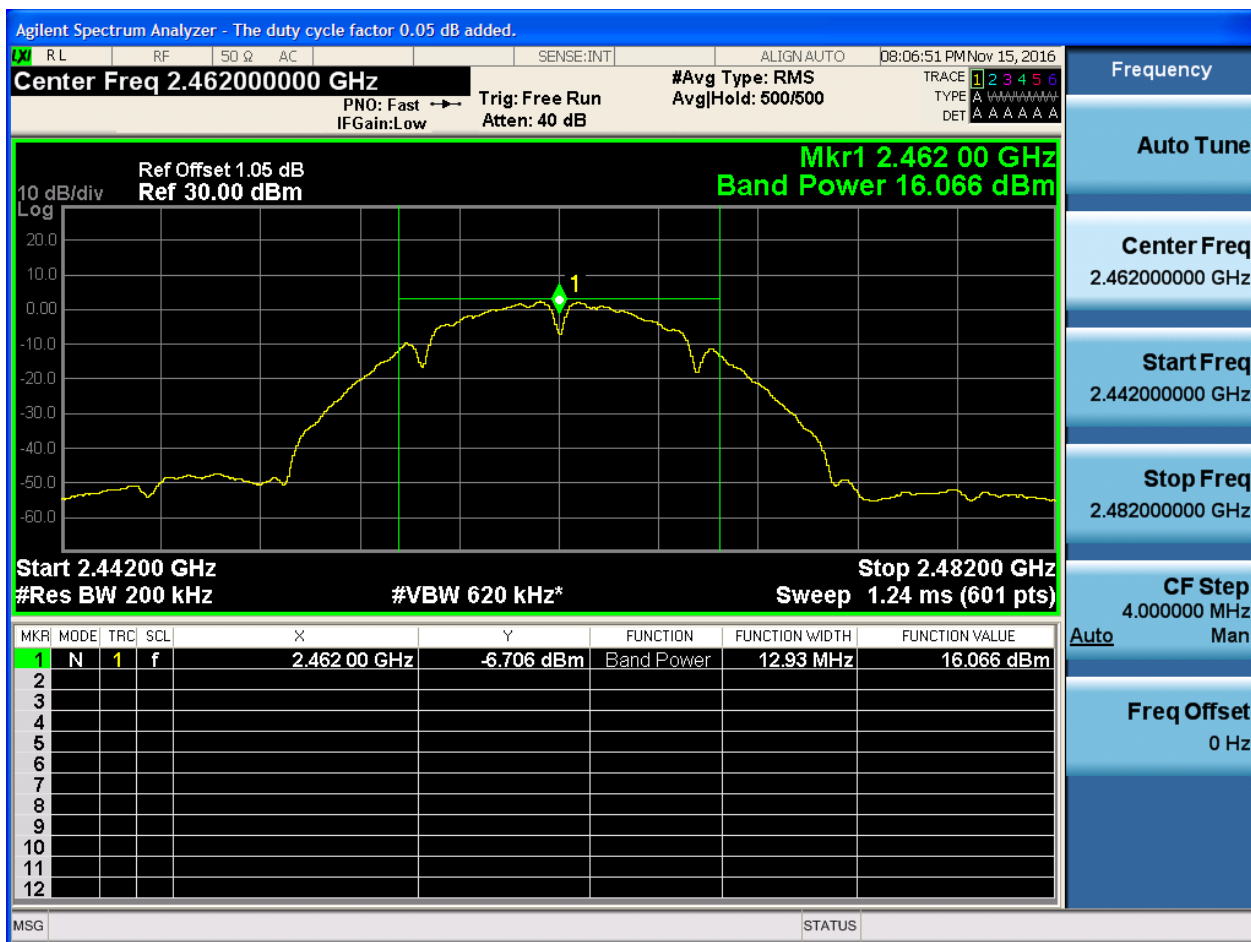


2.5 11B_H@Ant 1



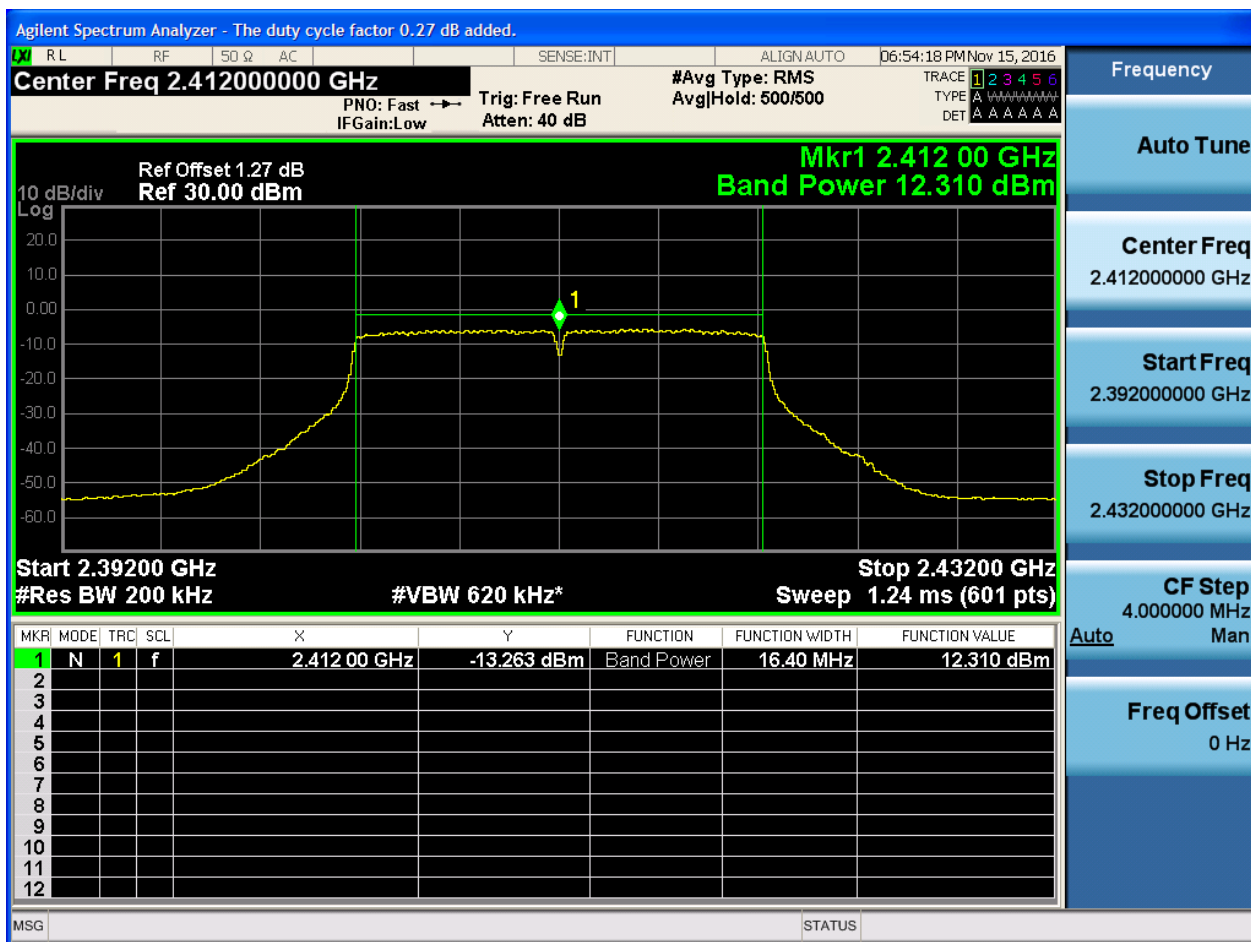


2.6 11B_H@Ant 2



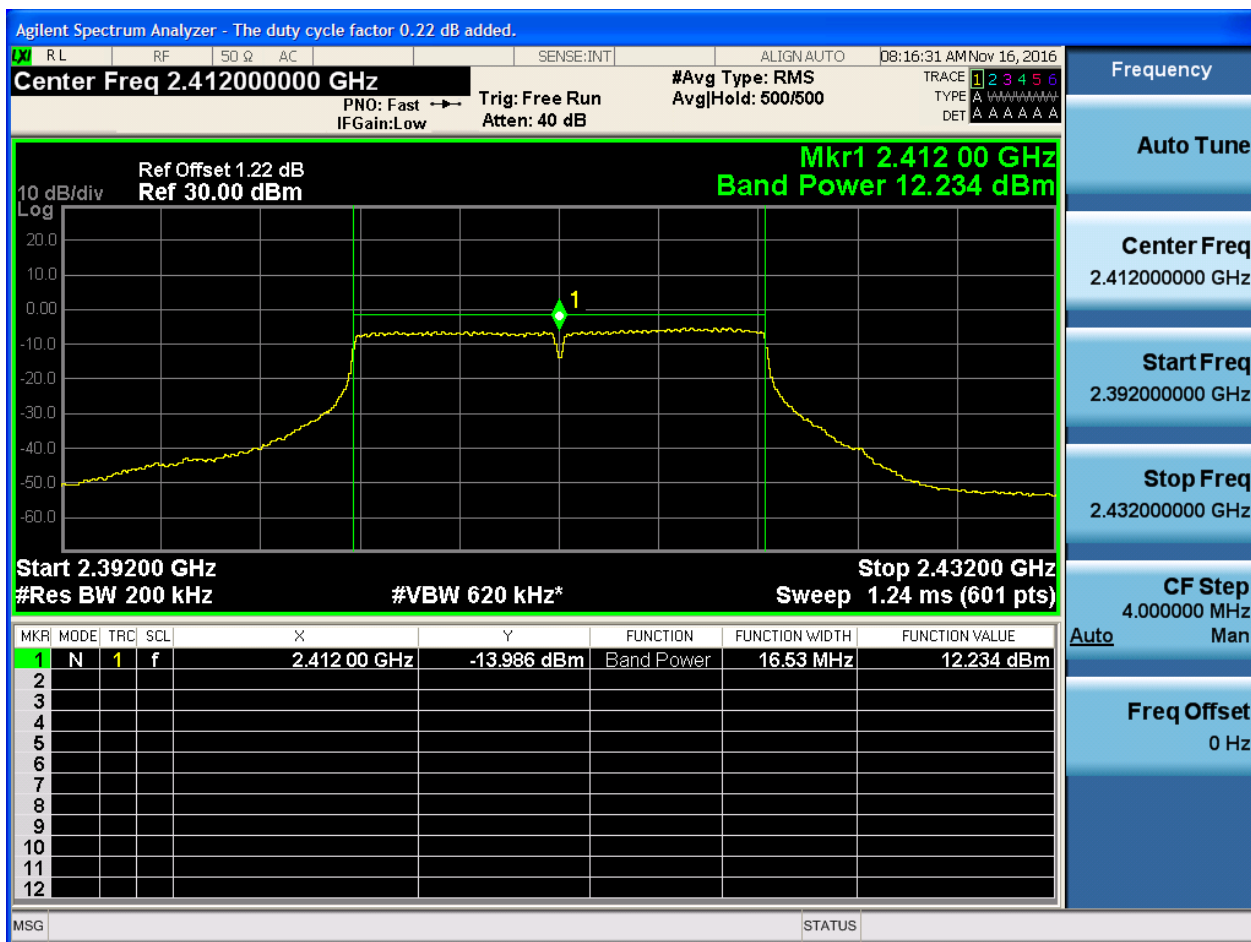


2.7 11G_L@Ant 1



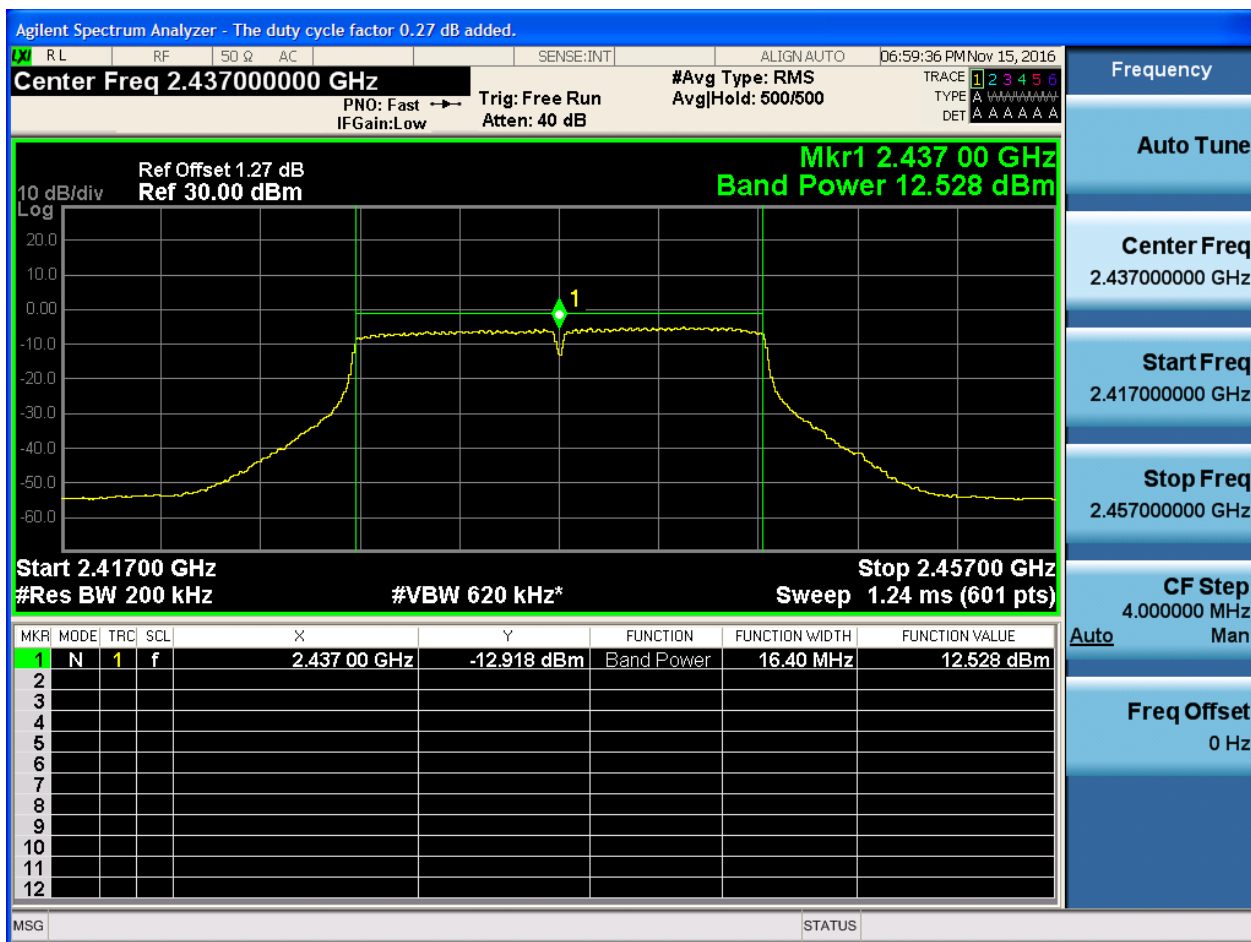


2.8 11G_L@Ant 2



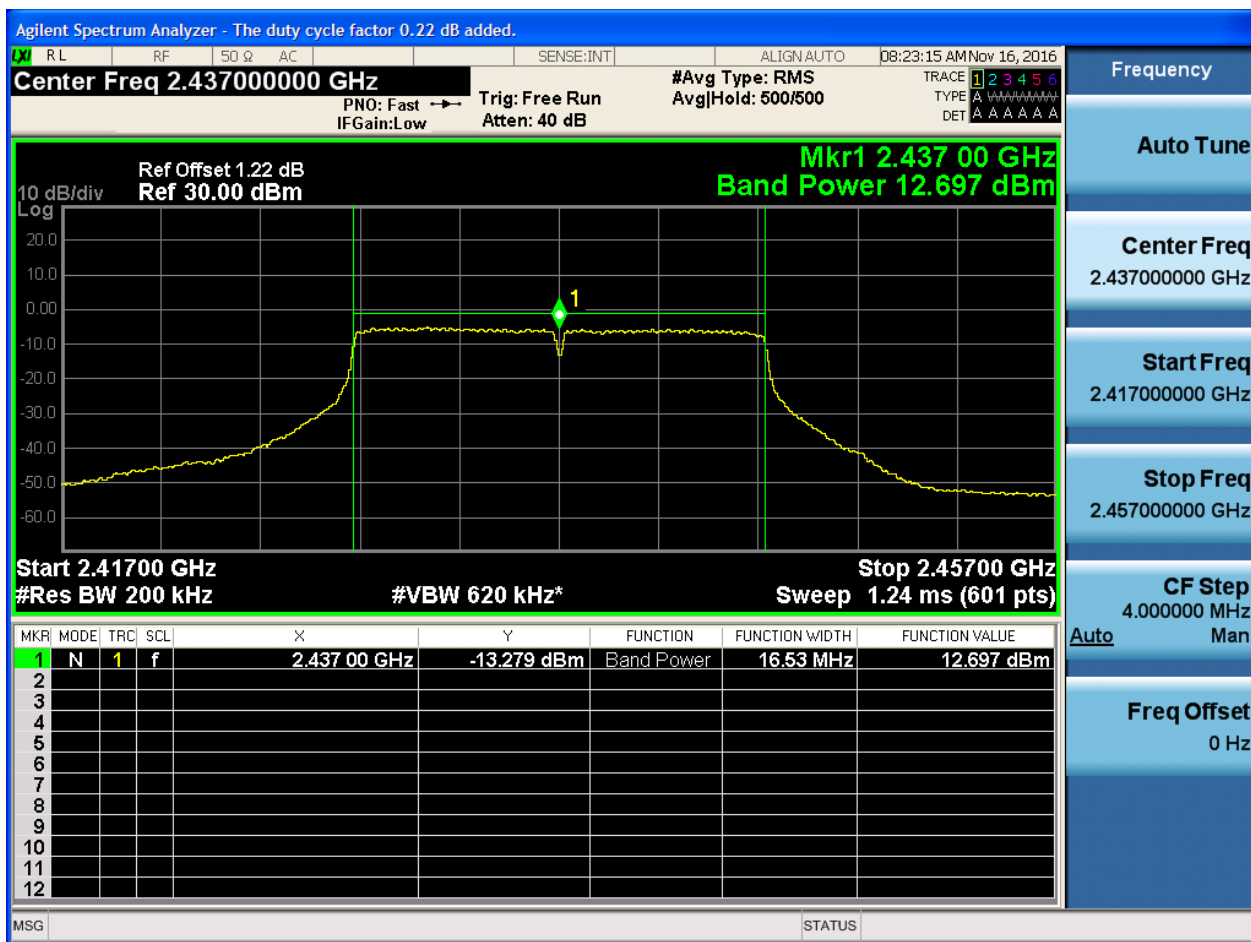


2.9 11G_M@Ant 1



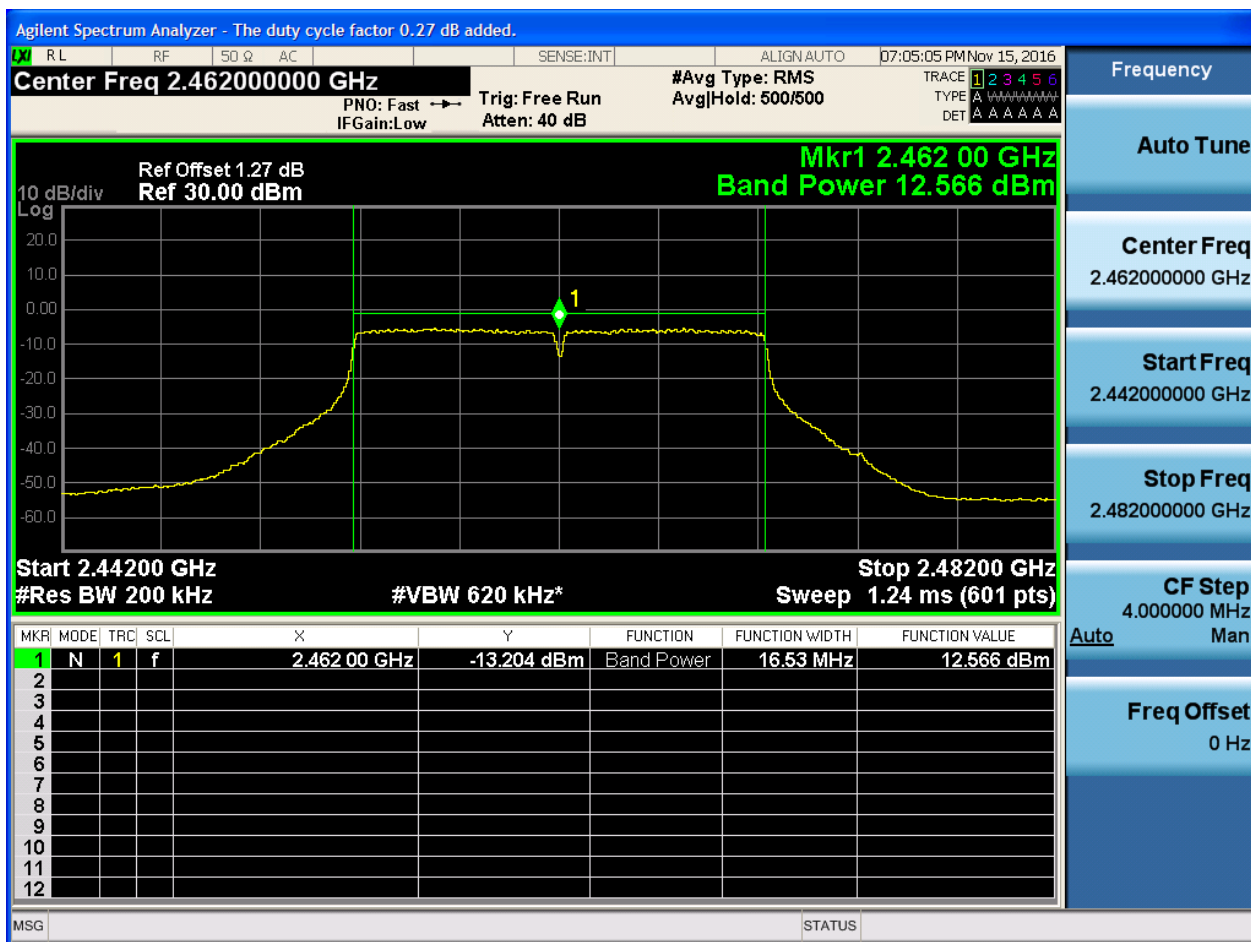


2.10 11G_M@Ant 2



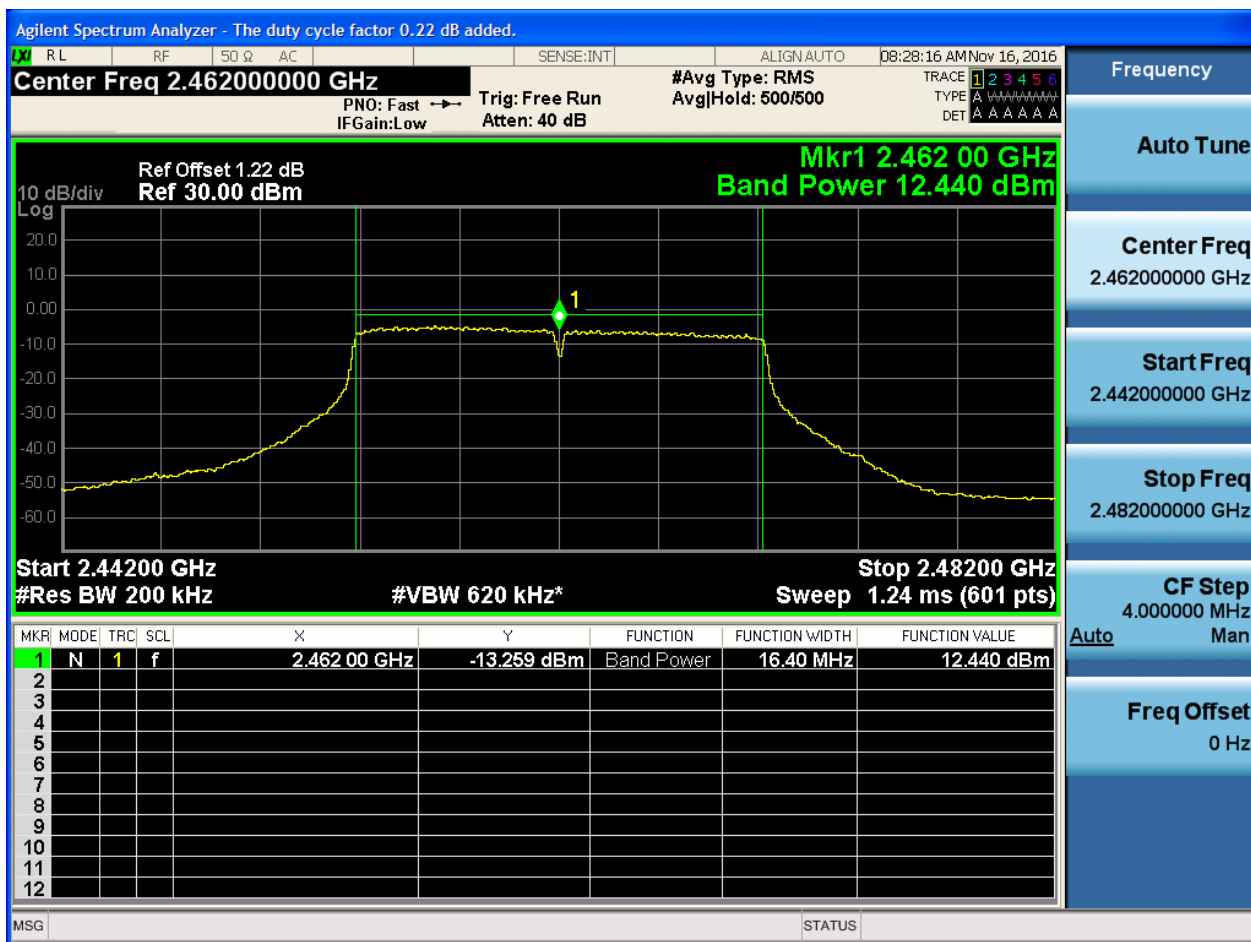


2.11 11G_H@Ant 1



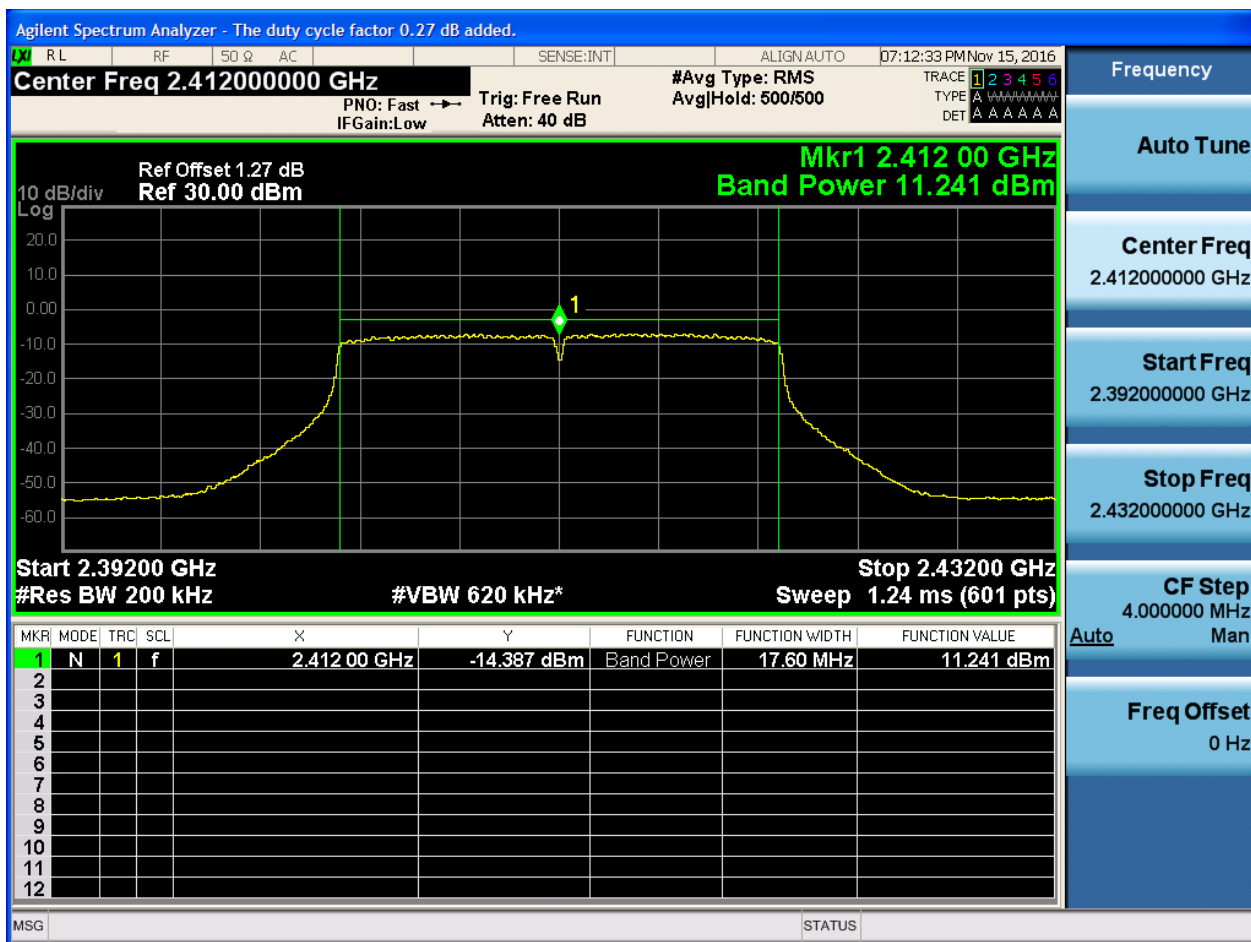


2.12 11G_H@Ant 2



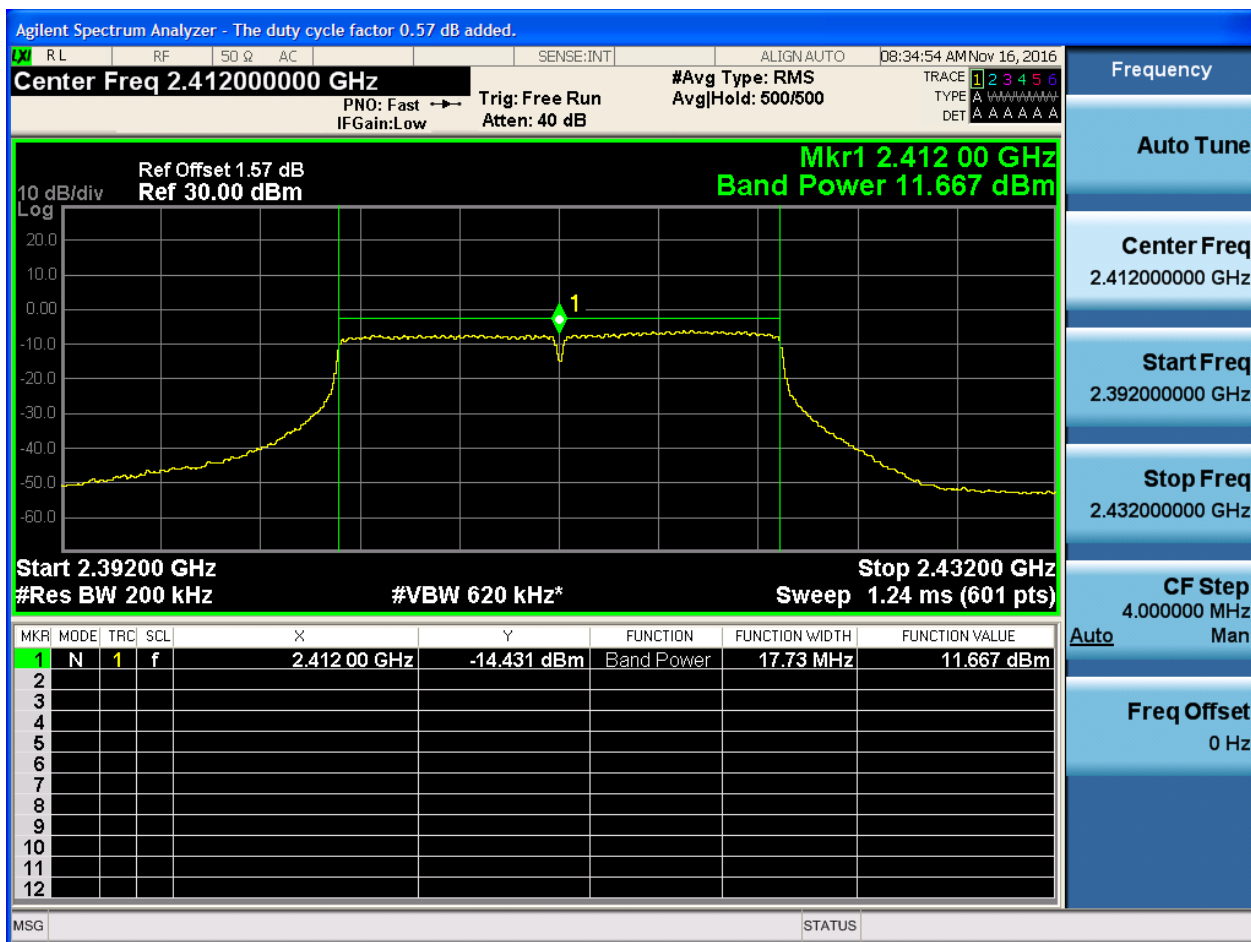


2.13 11N20_L@Ant 1



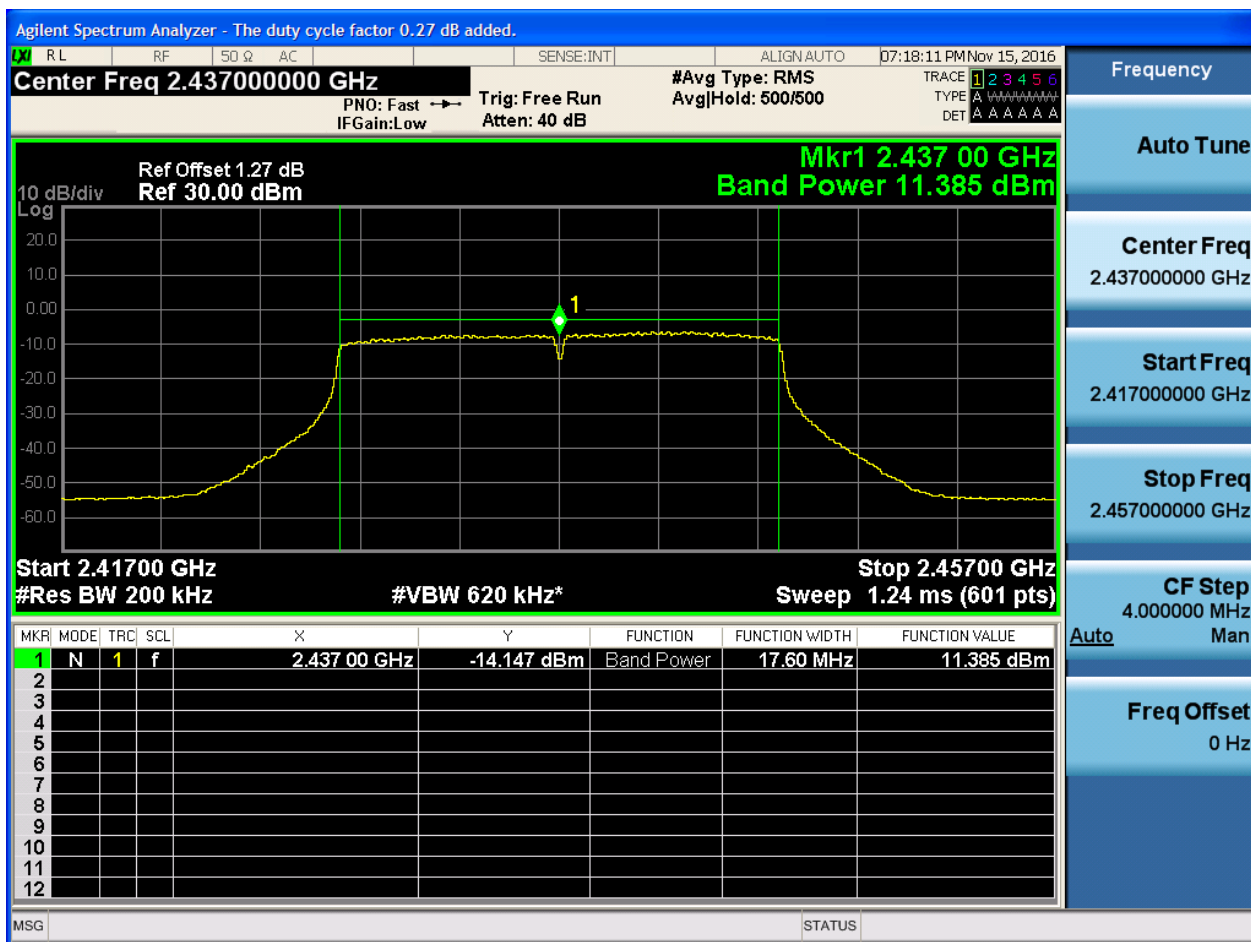


2.14 11N20_L@Ant 2



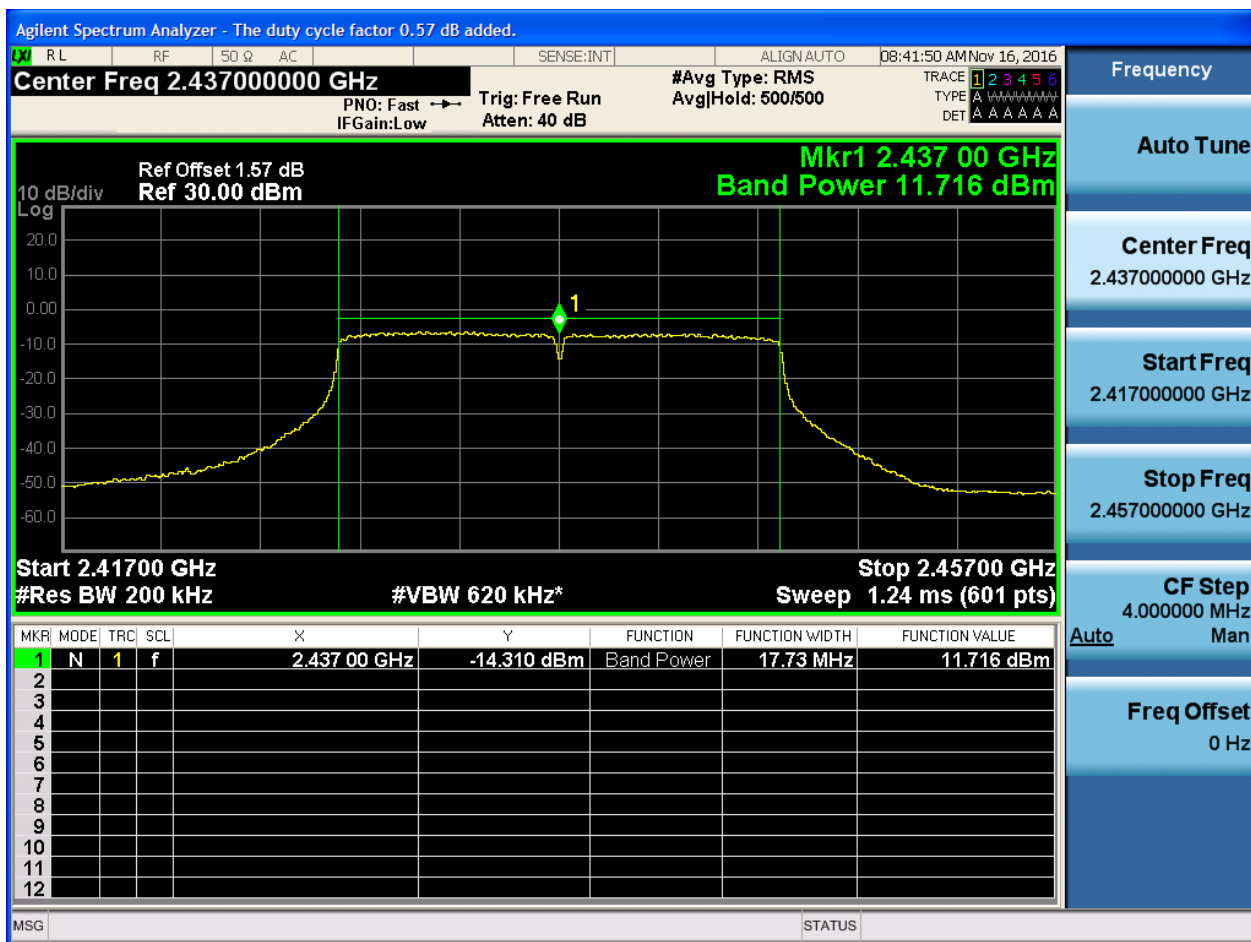


2.15 11N20_M@Ant 1



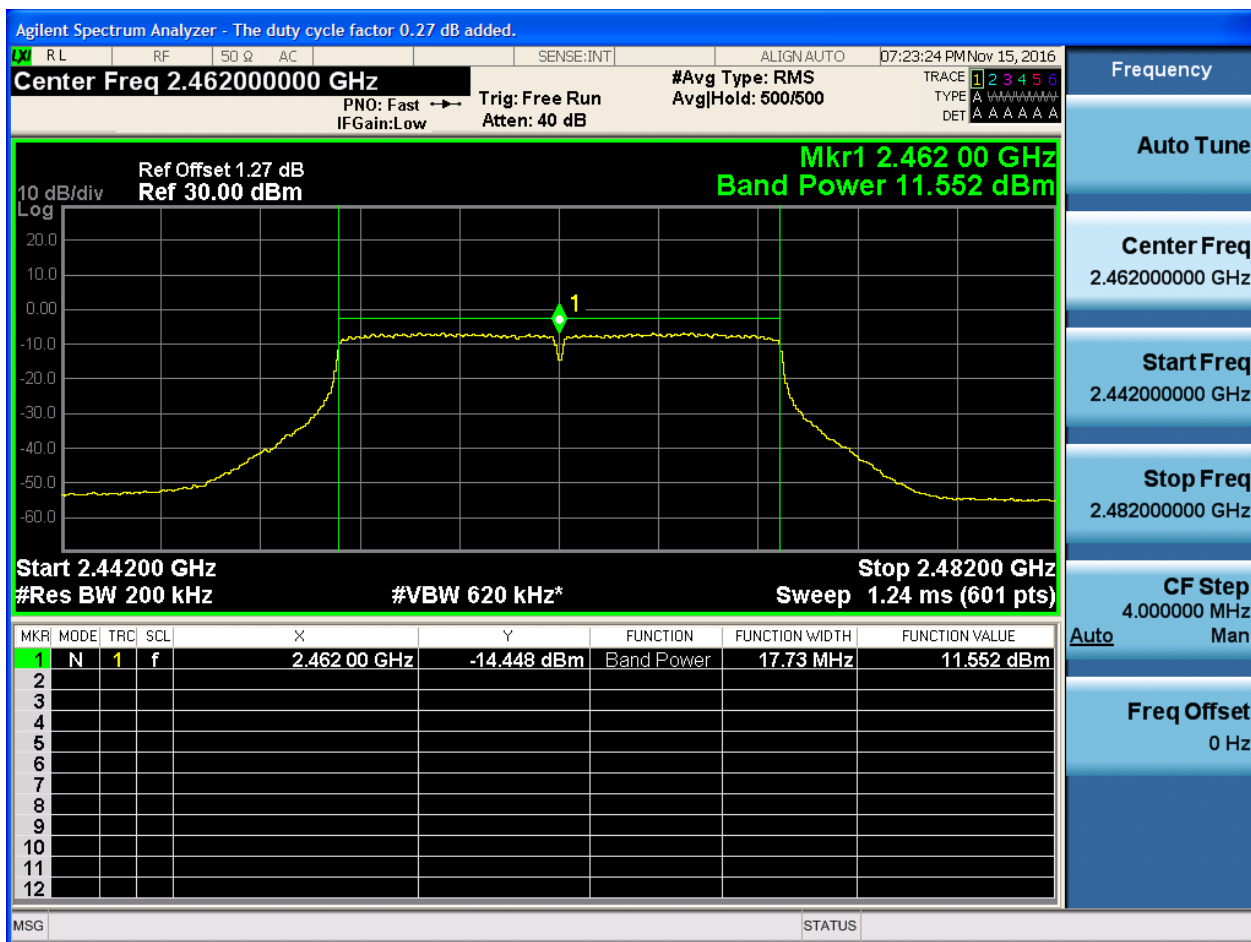


2.16 11N20_M@Ant 2



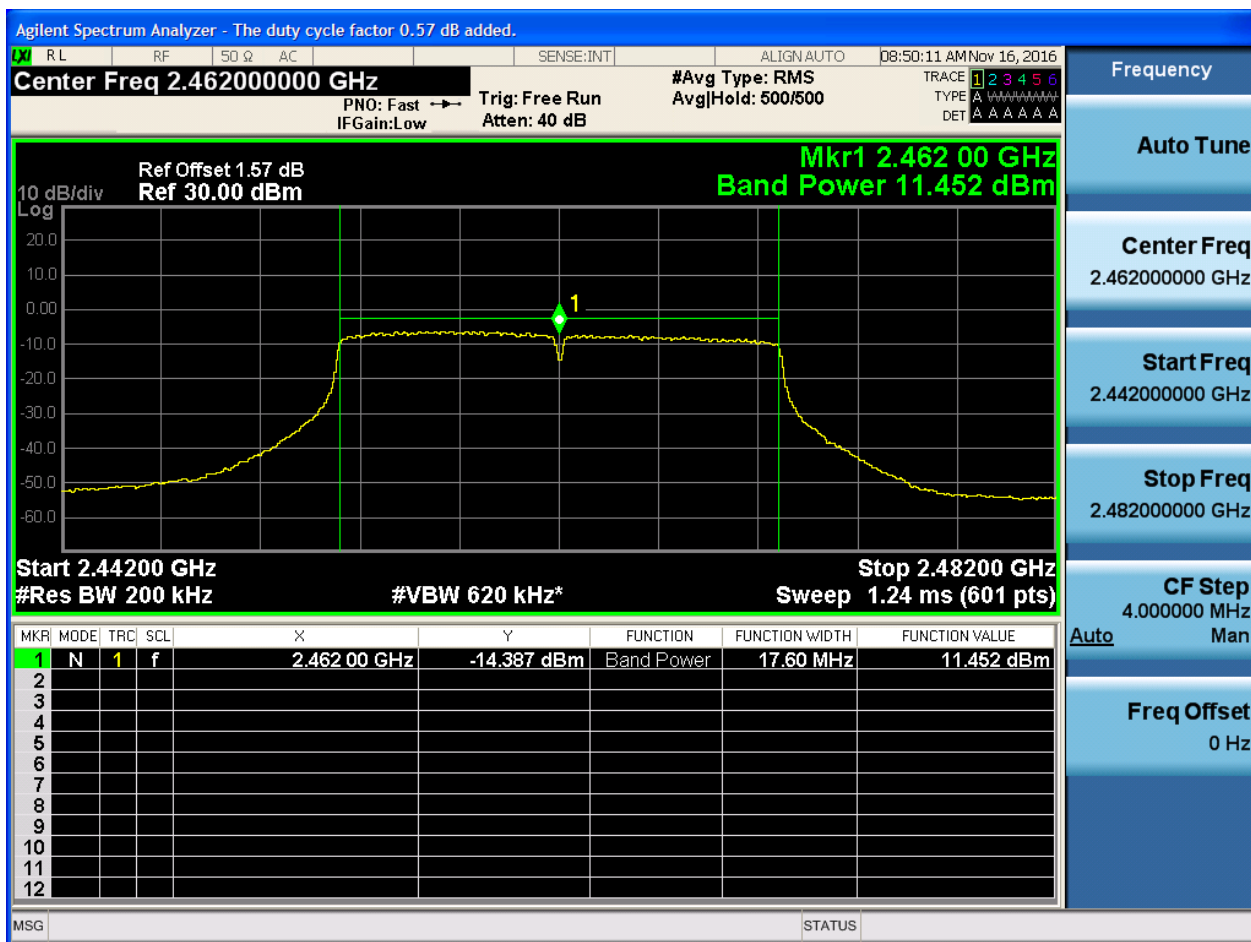


2.17 11N20_H@Ant 1



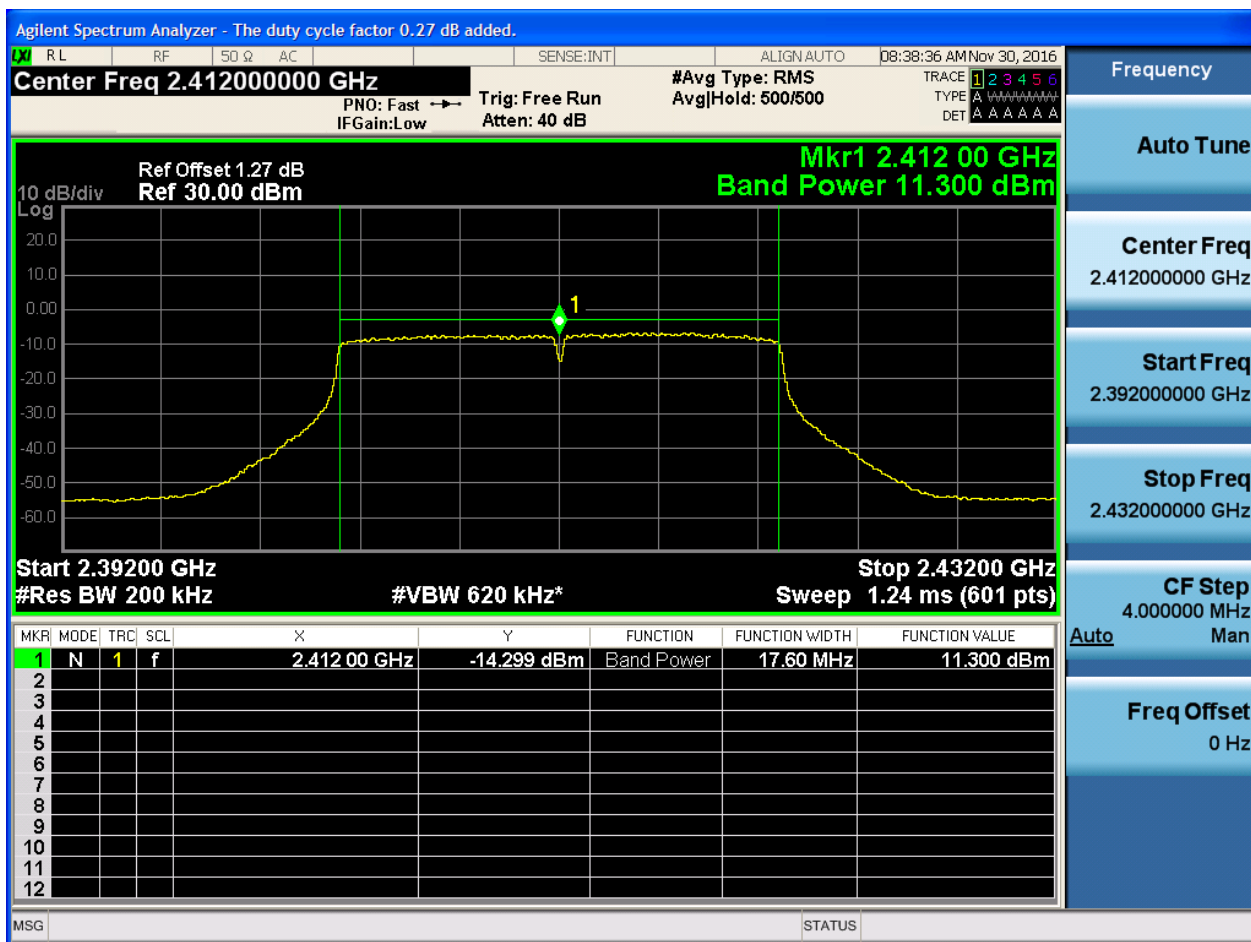


2.18 11N20_H@Ant 2



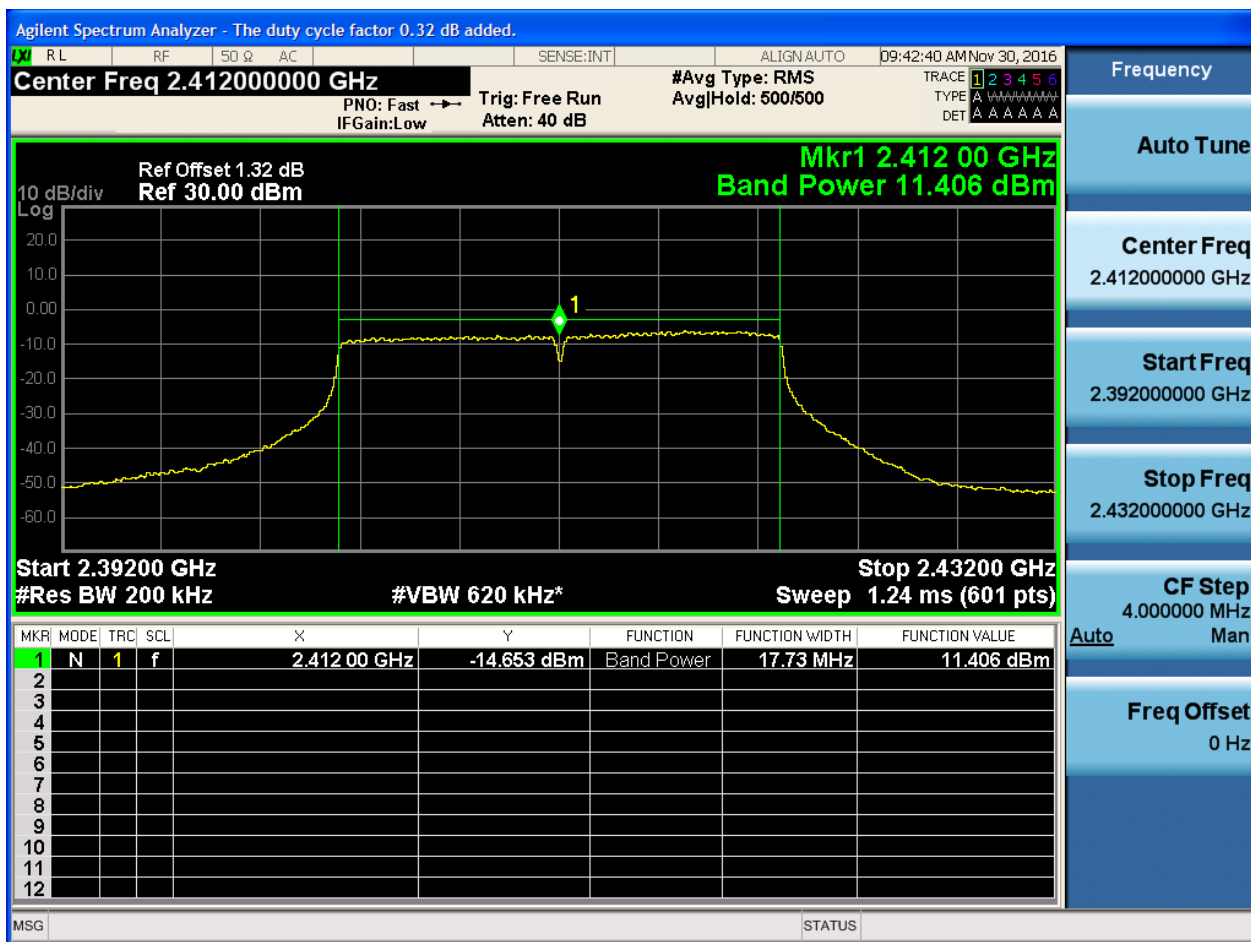


2.19 11N20m_L@Ant 1



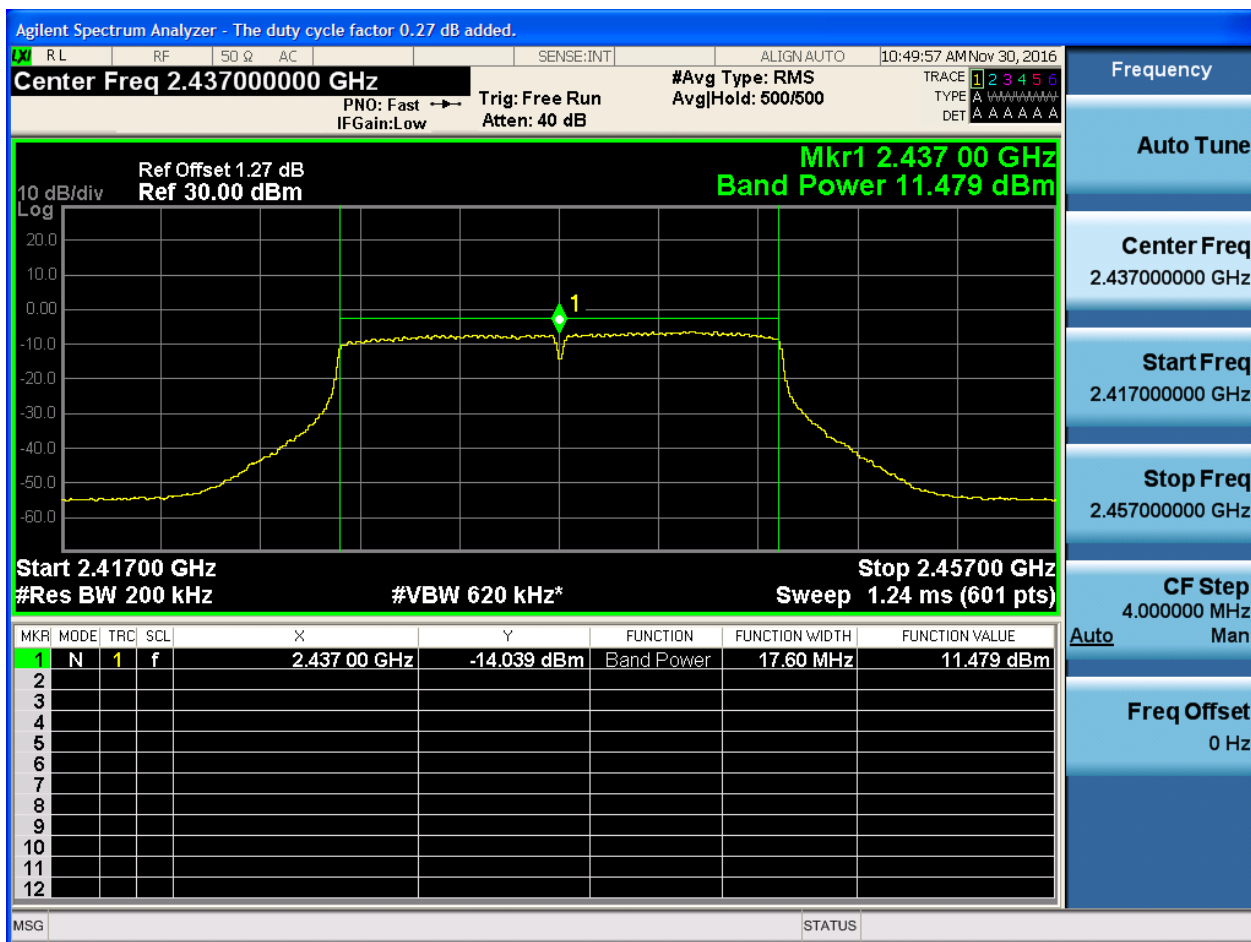


2.20 11N20m_L@Ant 2



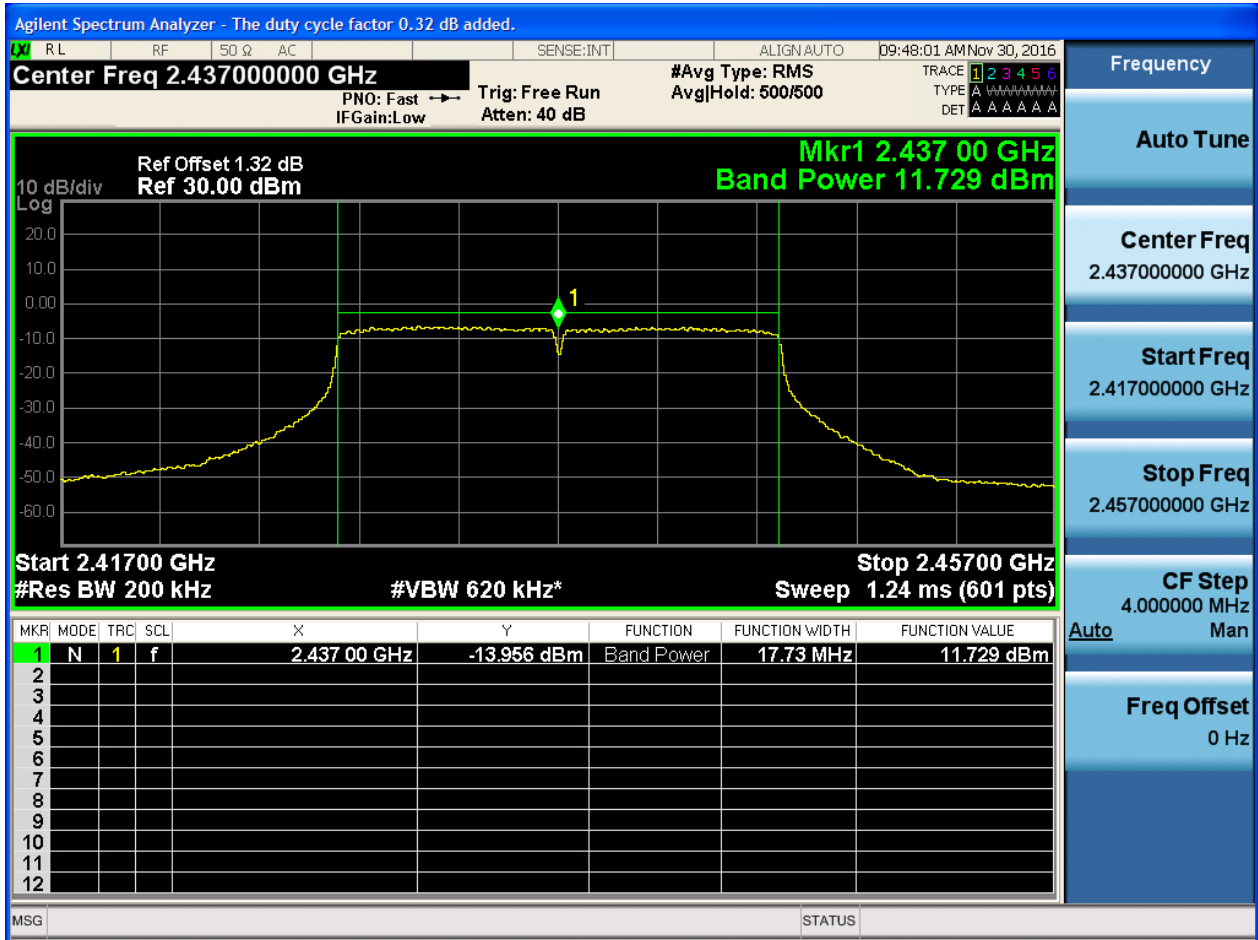


2.21 11N20m_M@Ant 1



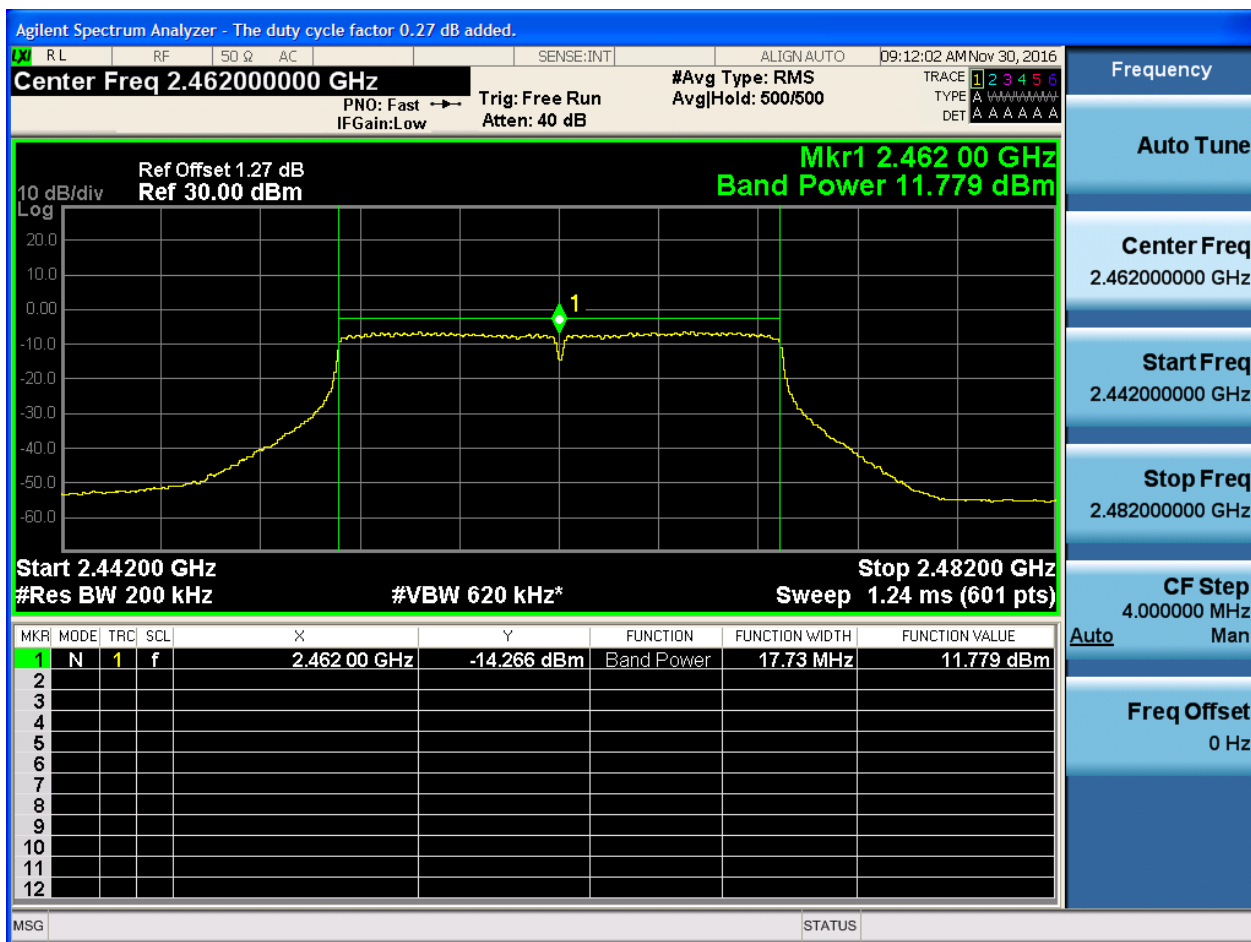


2.22 11N20m_M@Ant 2



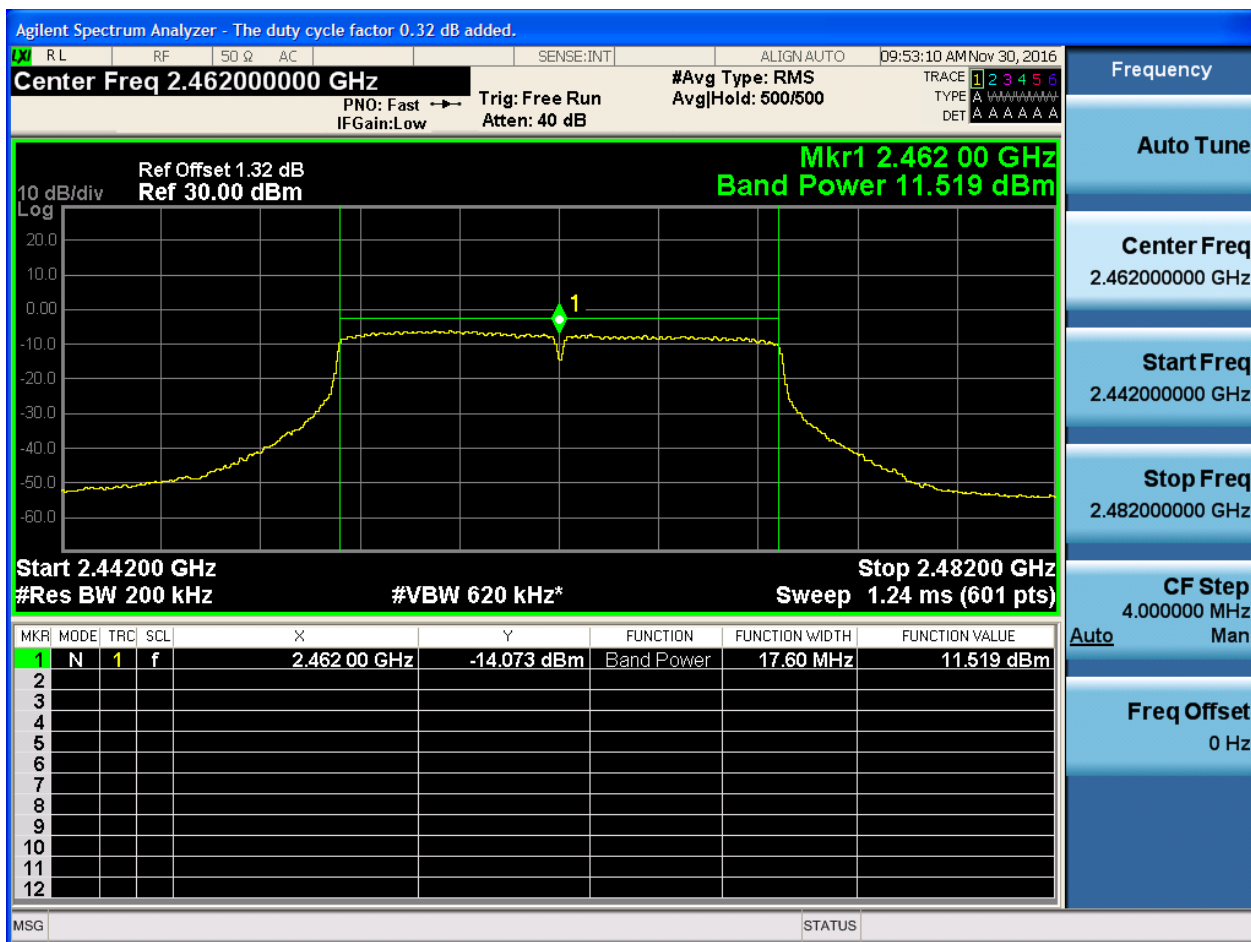


2.23 11N20m_H@Ant 1



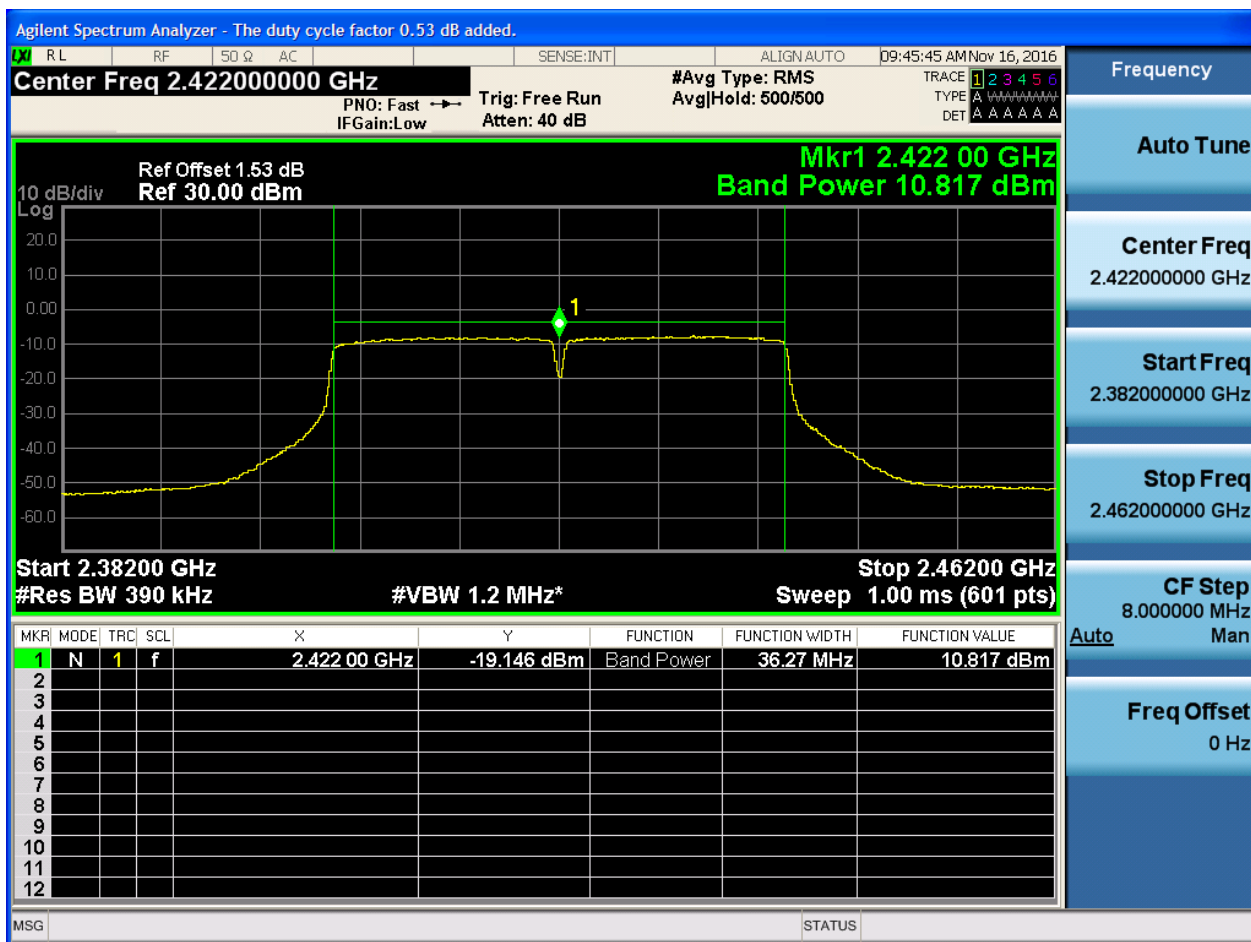


2.24 11N20m_H@Ant 2



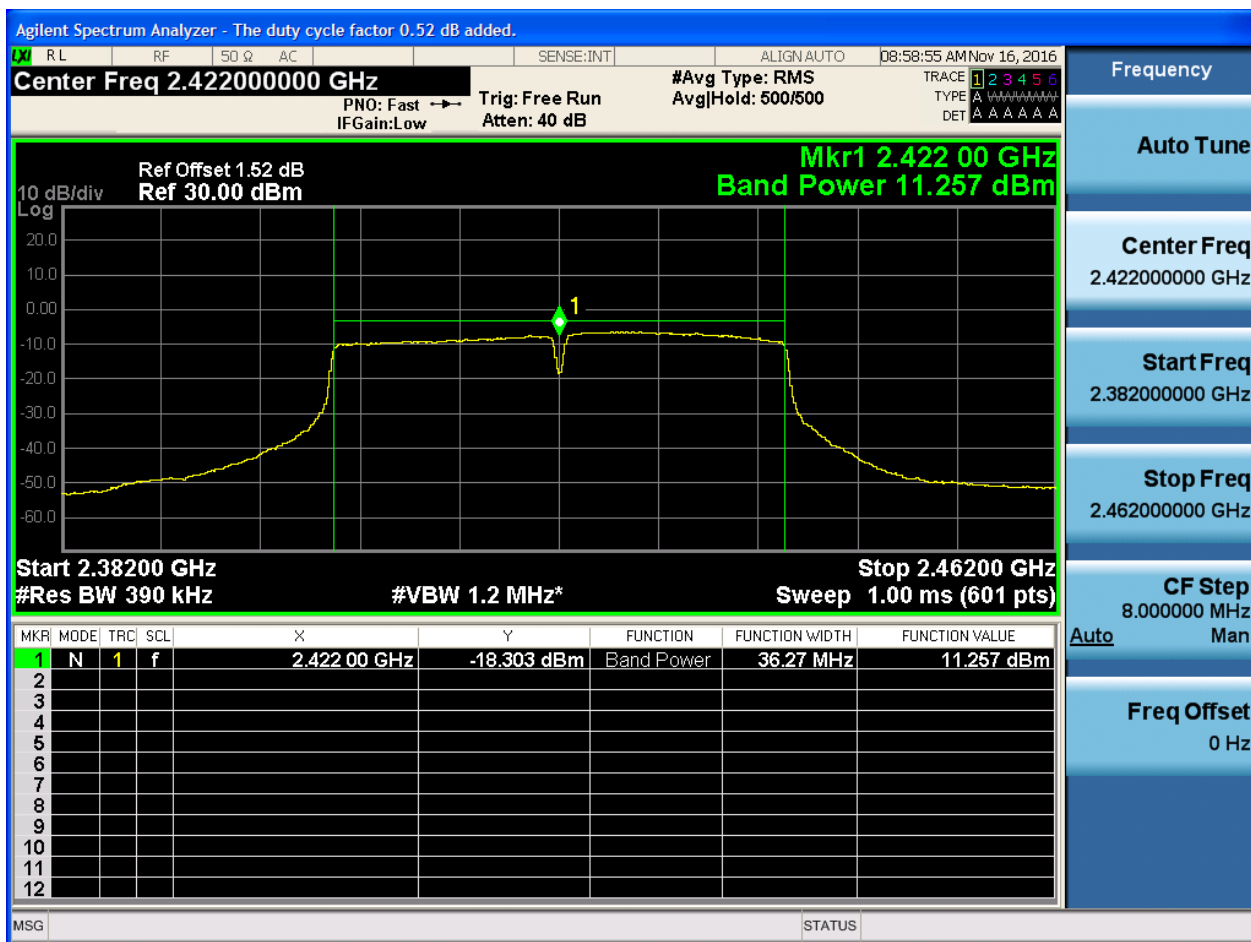


2.25 11N40_L@Ant 1



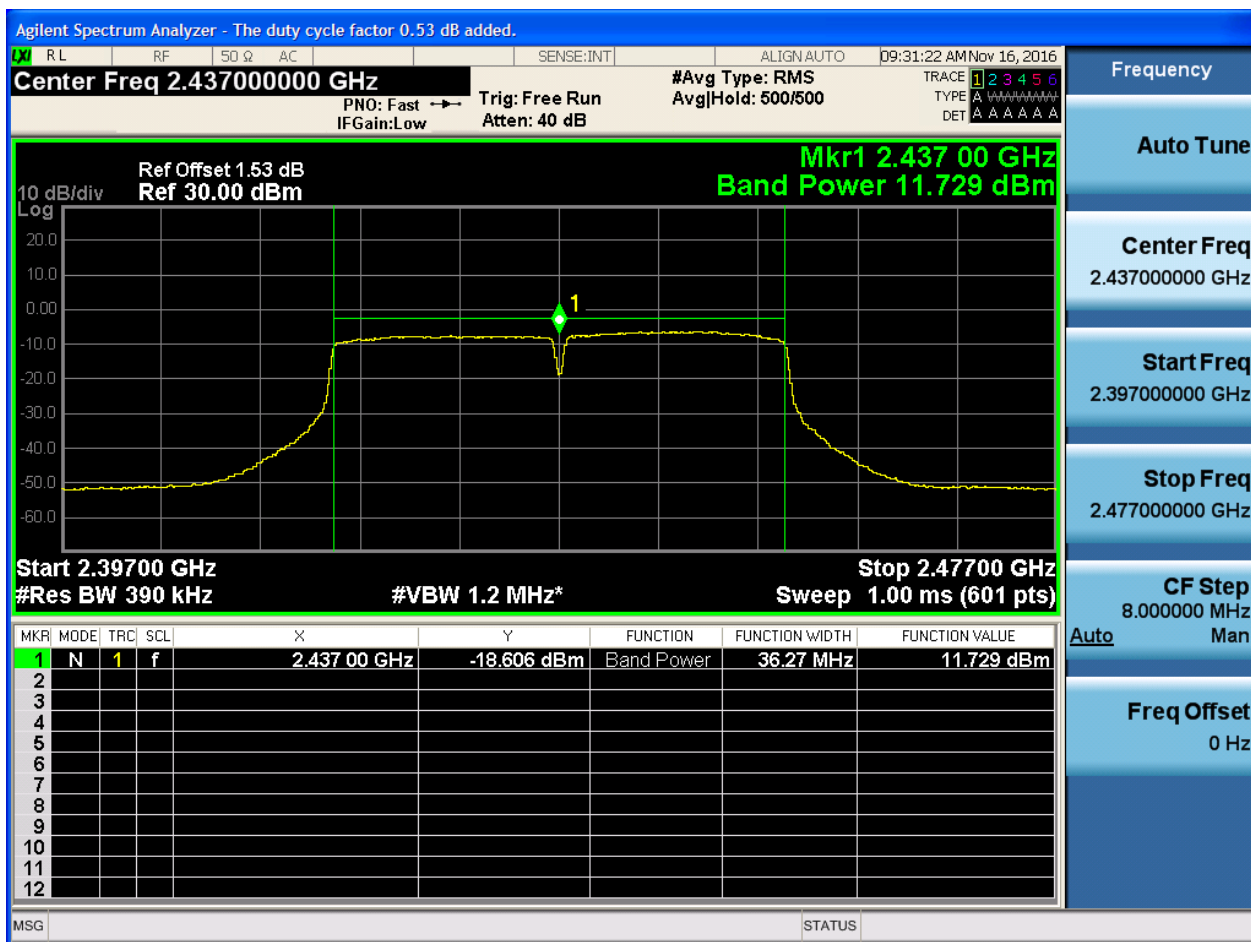


2.26 11N40_L@Ant 2



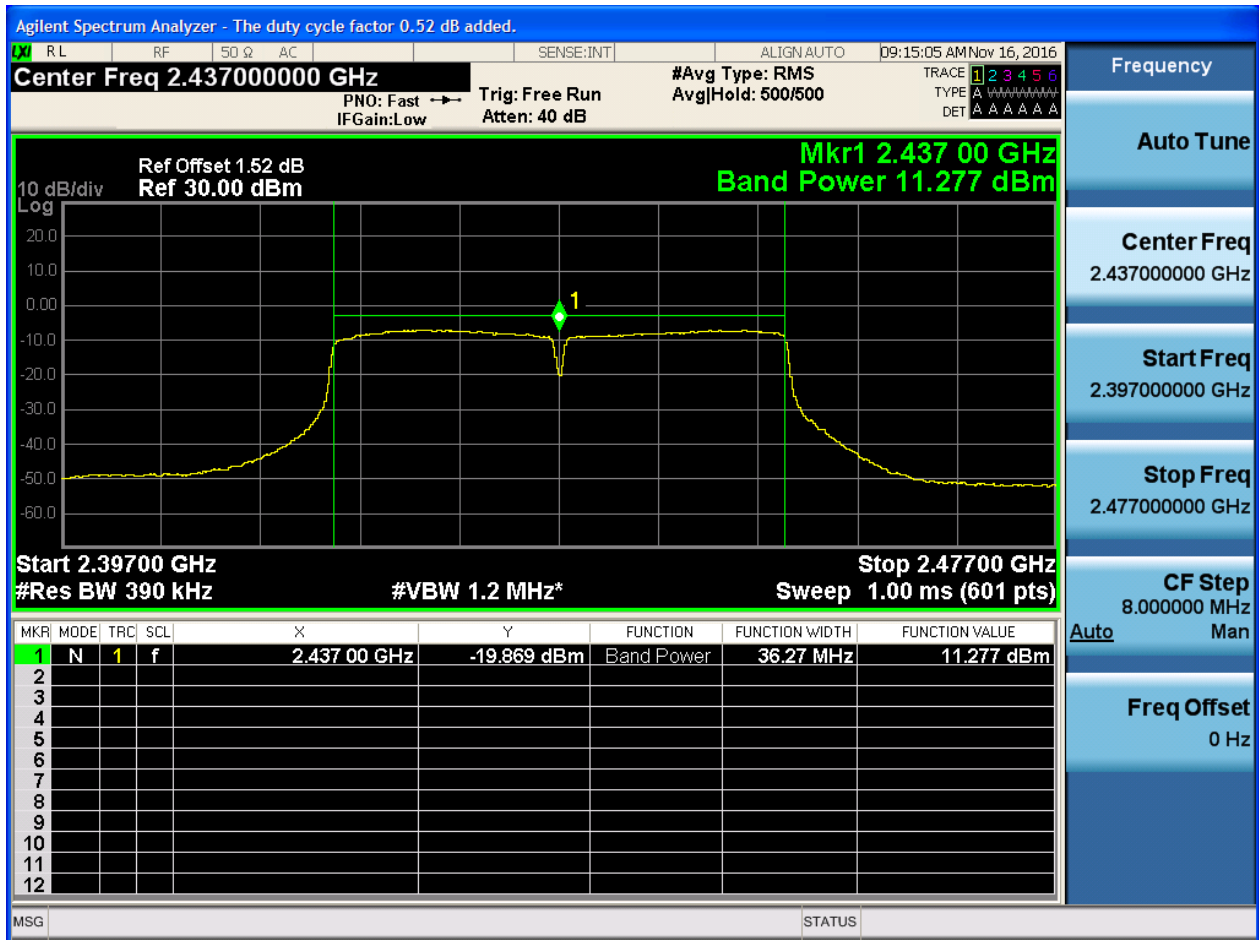


2.27 11N40_M@Ant 1



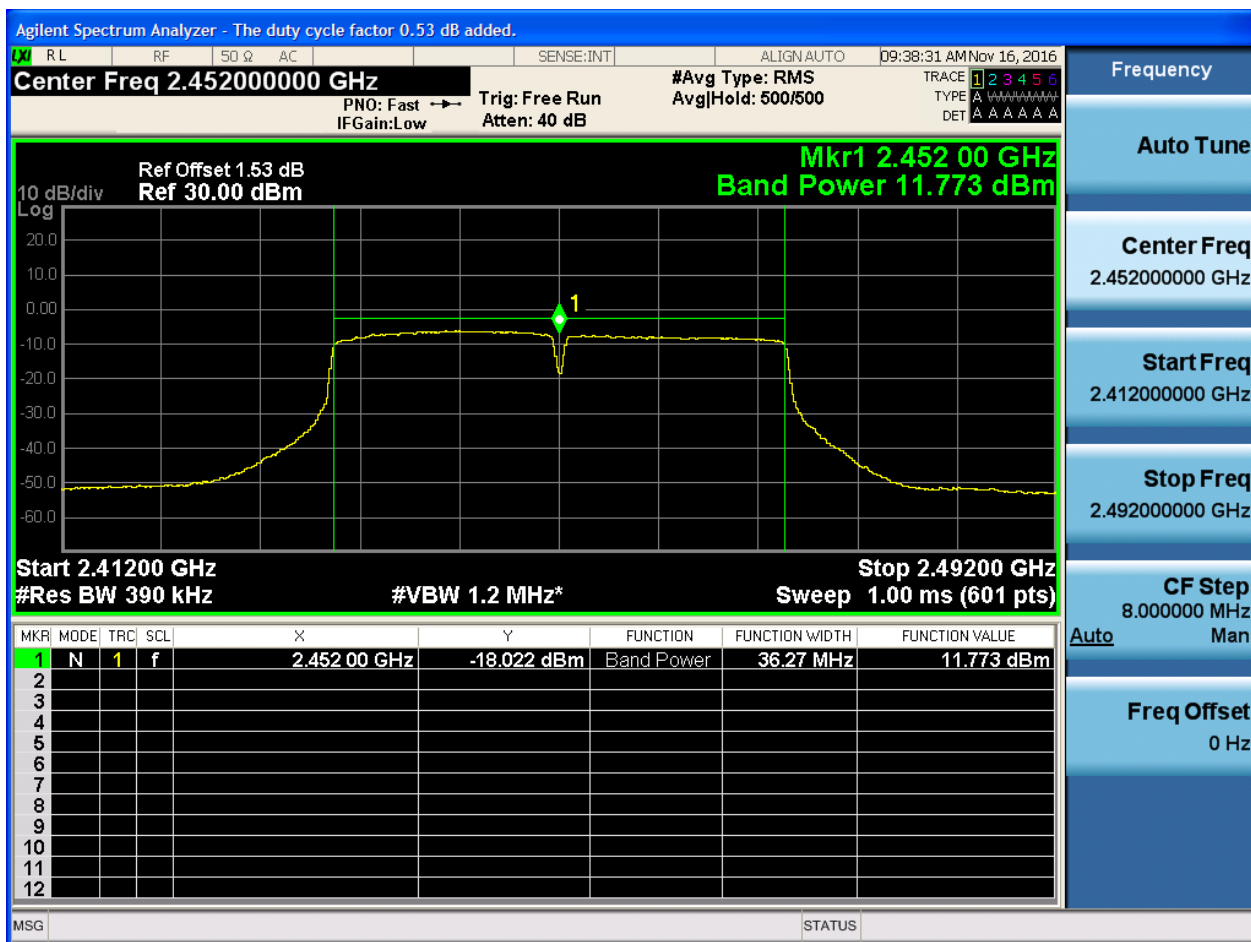


2.28 11N40_M@Ant 2



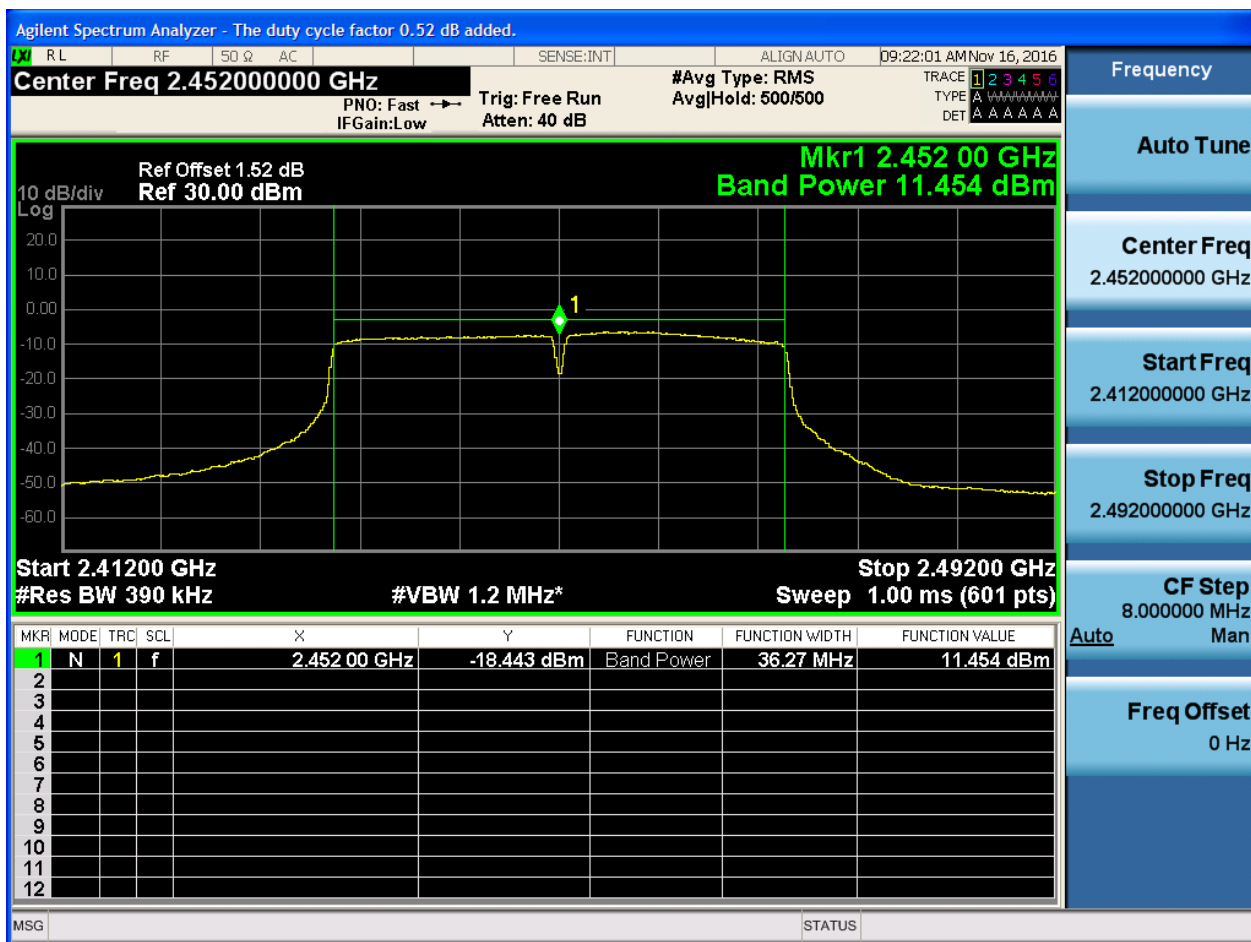


2.29 11N40_H@Ant 1



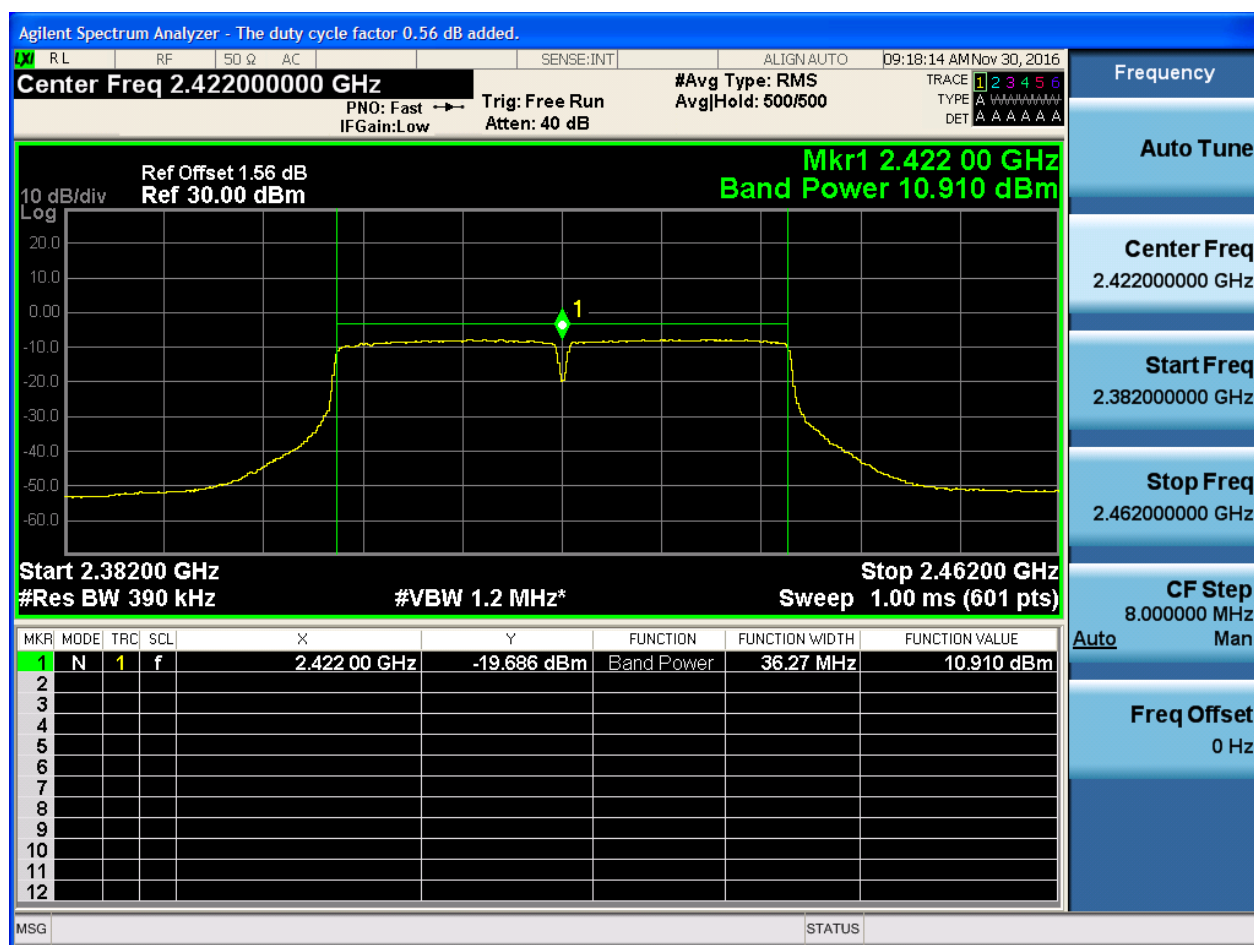


2.30 11N40_H@Ant 2



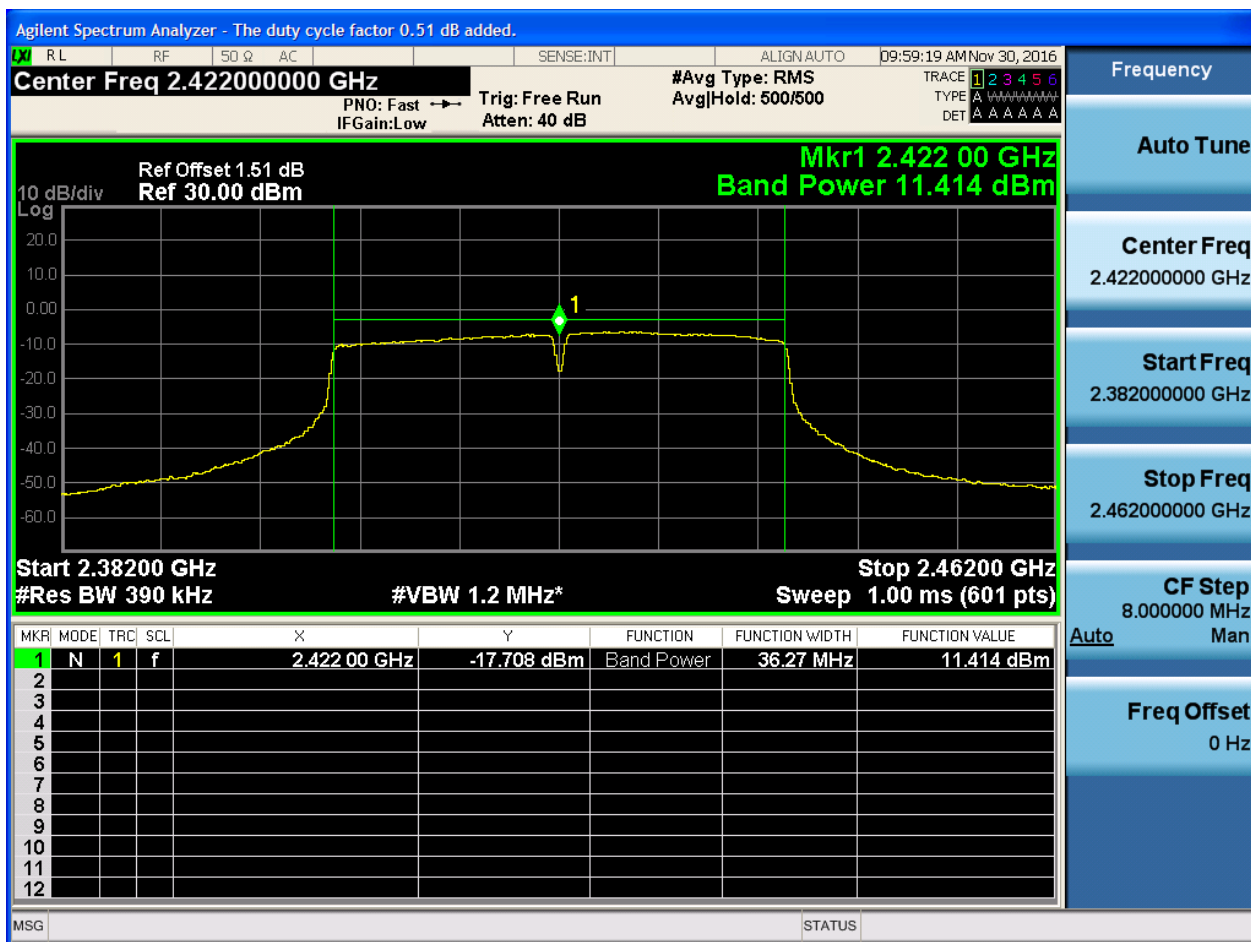


2.31 11N40m_L@Ant 1



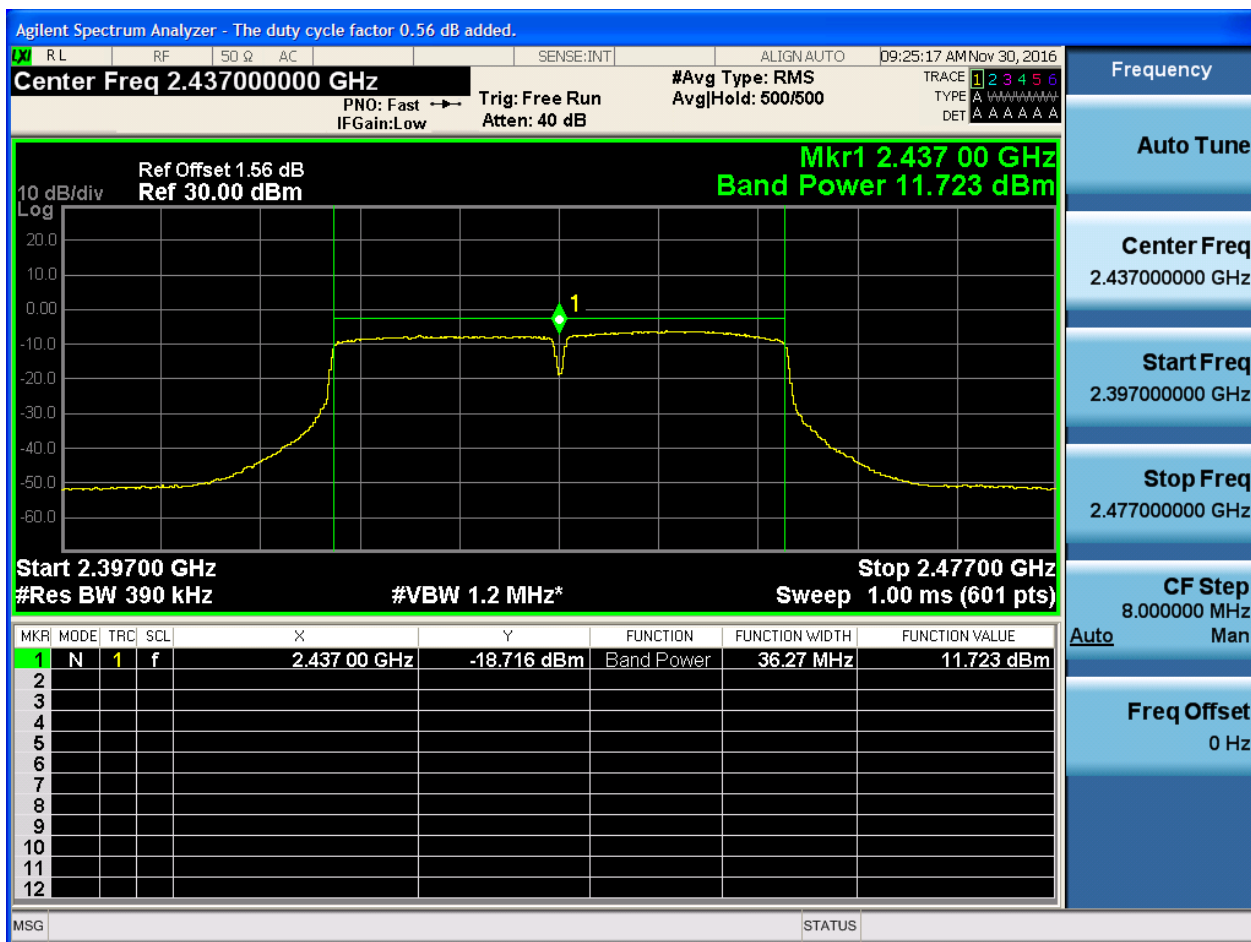


2.32 11N40m_L@Ant 2



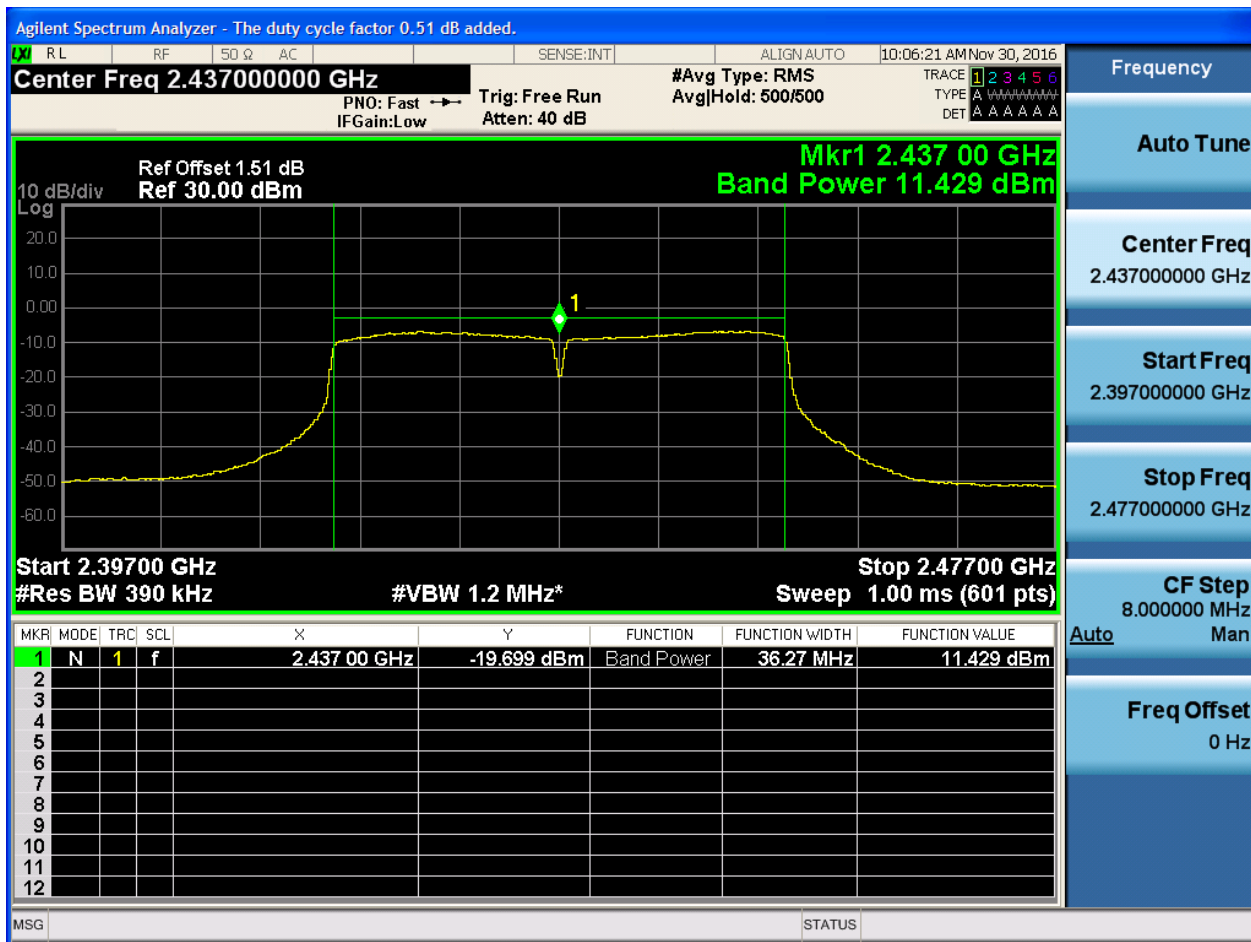


2.33 11N40m_M@Ant 1



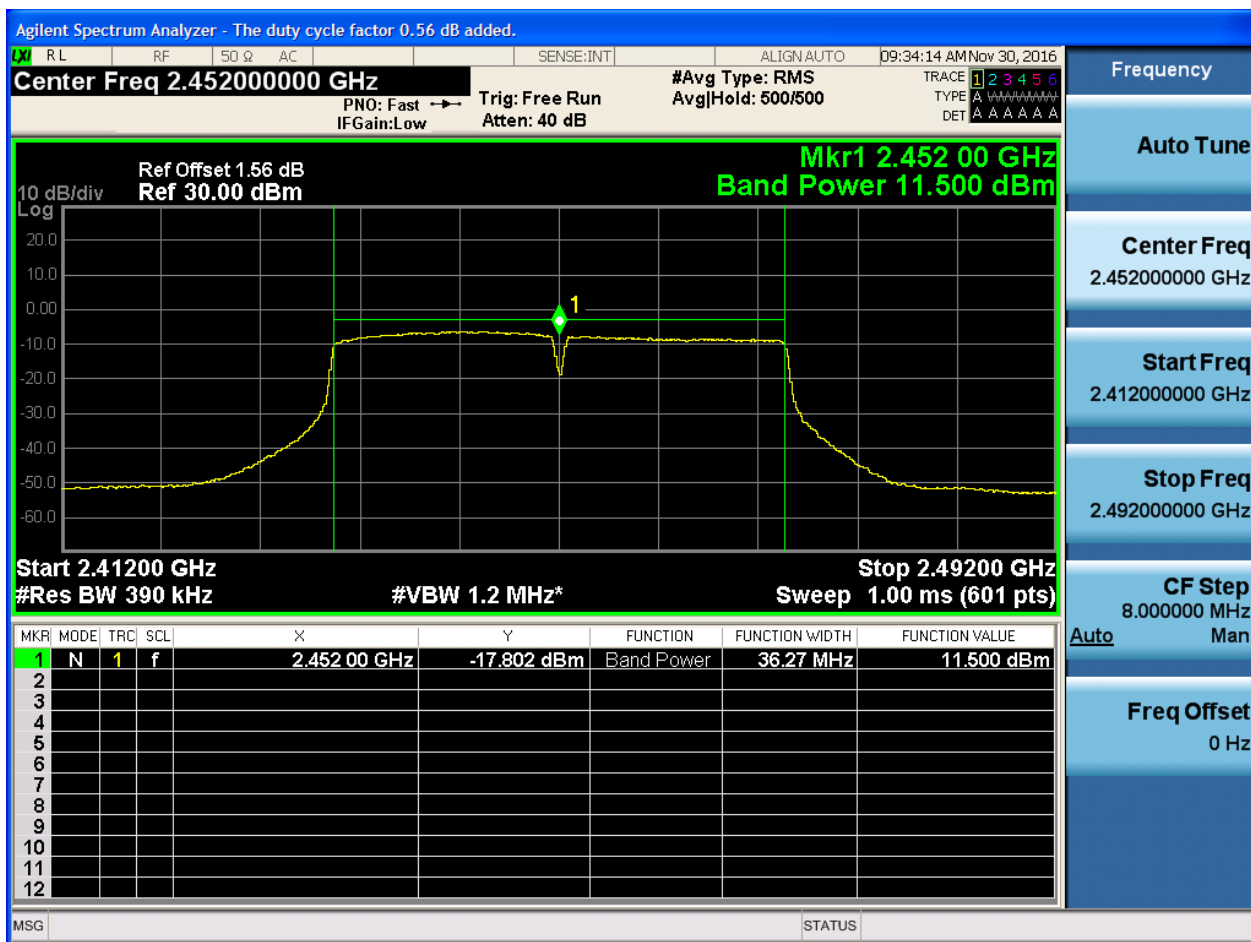


2.34 11N40m_M@Ant 2



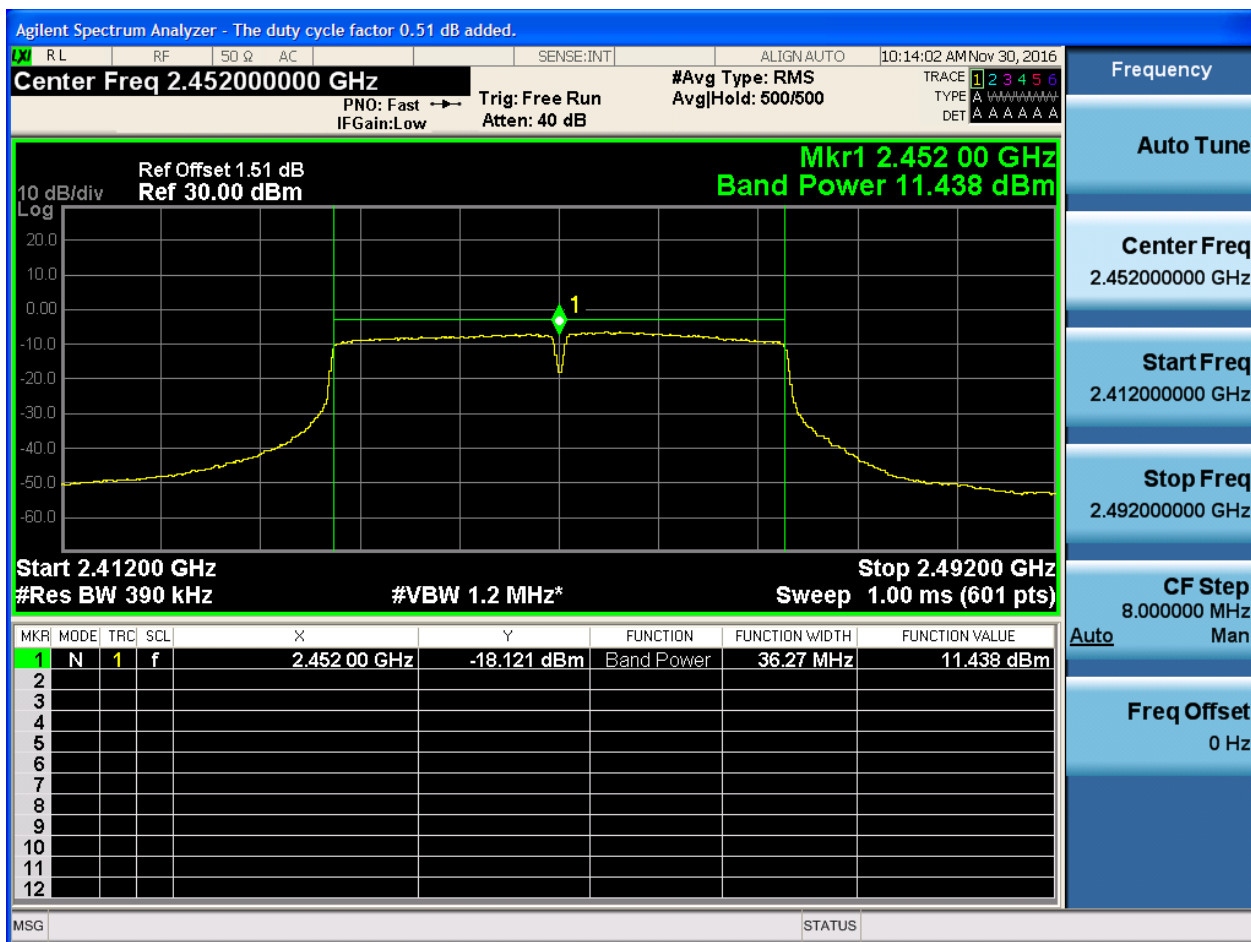


2.35 11N40m_H@Ant 1





2.36 11N40m_H@Ant 2





Appendix E: Maximum Power Spectral Density Level

Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Ant	PD[MHz]	Verdict
11B	L	2412	Ant 1	-10.82	pass
11B	L	2412	Ant 2	-10.69	pass
11B	M	2437	Ant 1	-11.04	pass
11B	M	2437	Ant 2	-10.65	pass
11B	H	2462	Ant 1	-10.96	pass
11B	H	2462	Ant 2	-10.54	pass
11G	L	2412	Ant 1	-17.59	pass
11G	L	2412	Ant 2	-17.23	pass
11G	M	2437	Ant 1	-16.83	pass
11G	M	2437	Ant 2	-16.93	pass
11G	H	2462	Ant 1	-17.27	pass
11G	H	2462	Ant 2	-16.55	pass
11N20	L	2412	Ant 1	-18.67	pass
11N20	L	2412	Ant 2	-17.99	pass
11N20	M	2437	Ant 1	-18.12	pass
11N20	M	2437	Ant 2	-18.14	pass
11N20	H	2462	Ant 1	-18.53	pass
11N20	H	2462	Ant 2	-17.72	pass
11N20m	L	2412	Ant 1	-18.46	pass
11N20m	L	2412	Ant 2	-17.93	pass
11N20m	L	2412	Ant sum	-15.18	pass
11N20m	M	2437	Ant 1	-18.11	pass
11N20m	M	2437	Ant 2	-18.19	pass
11N20m	M	2437	Ant sum	-15.14	pass
11N20m	H	2462	Ant 1	-18.34	pass
11N20m	H	2462	Ant 2	-17.90	pass
11N20m	H	2462	Ant sum	-15.10	pass
11N40	L	2422	Ant 1	-22.63	pass
11N40	L	2422	Ant 2	-21.23	pass
11N40	M	2437	Ant 1	-21.15	pass
11N40	M	2437	Ant 2	-21.92	pass
11N40	H	2452	Ant 1	-21.02	pass
11N40	H	2452	Ant 2	-20.95	pass
11N40m	L	2422	Ant 1	-22.61	pass
11N40m	L	2422	Ant 2	-21.18	pass

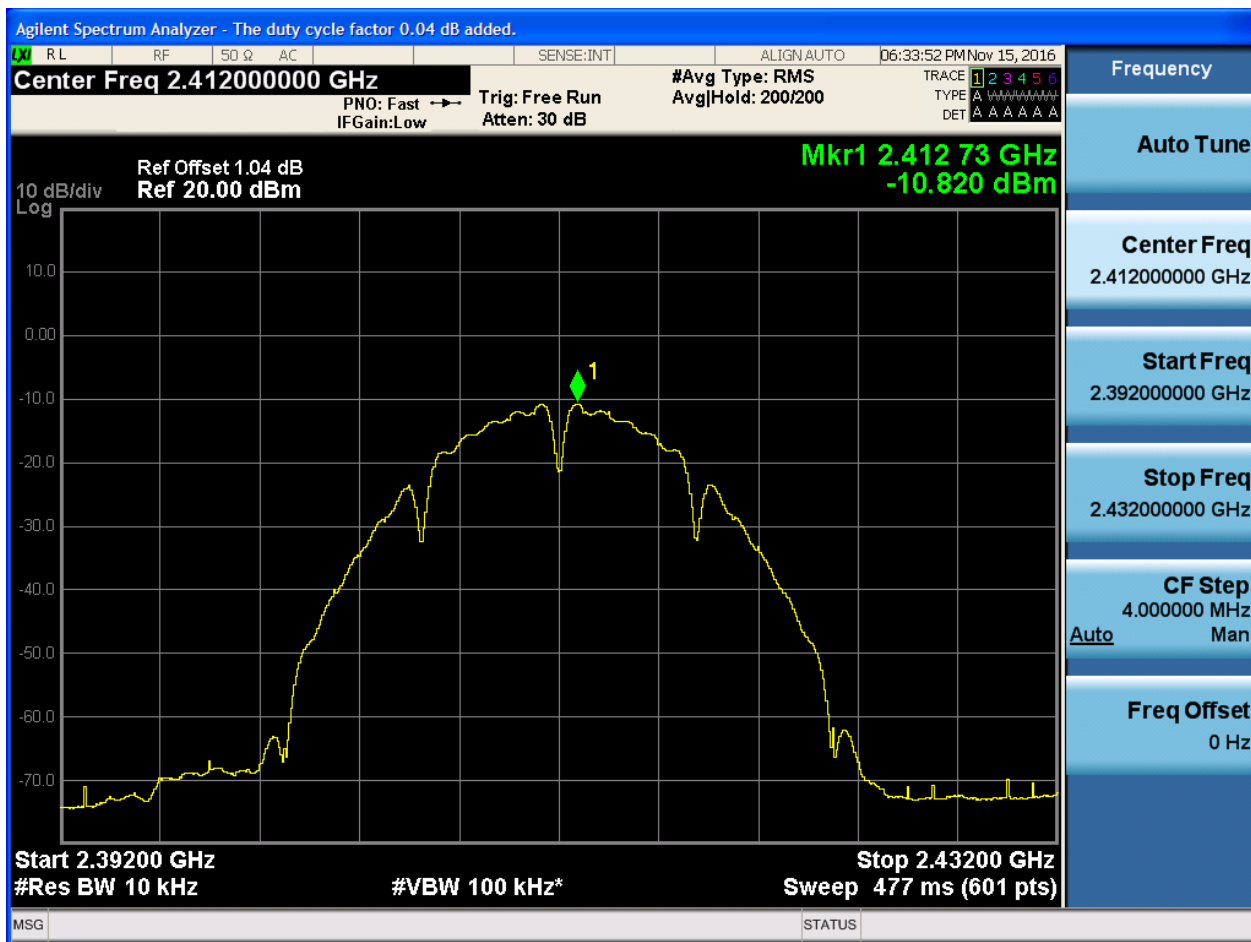


Test Mode	Test Channel	Frequency[MHz]	Ant	PD[MHz]	Verdict
11N40m	L	2422	Ant sum	-18.83	pass
11N40m	M	2437	Ant 1	-20.85	pass
11N40m	M	2437	Ant 2	-21.64	pass
11N40m	M	2437	Ant sum	-18.22	pass
11N40m	H	2452	Ant 1	-21.07	pass
11N40m	H	2452	Ant 2	-21.26	pass
11N40m	H	2452	Ant sum	-18.15	pass



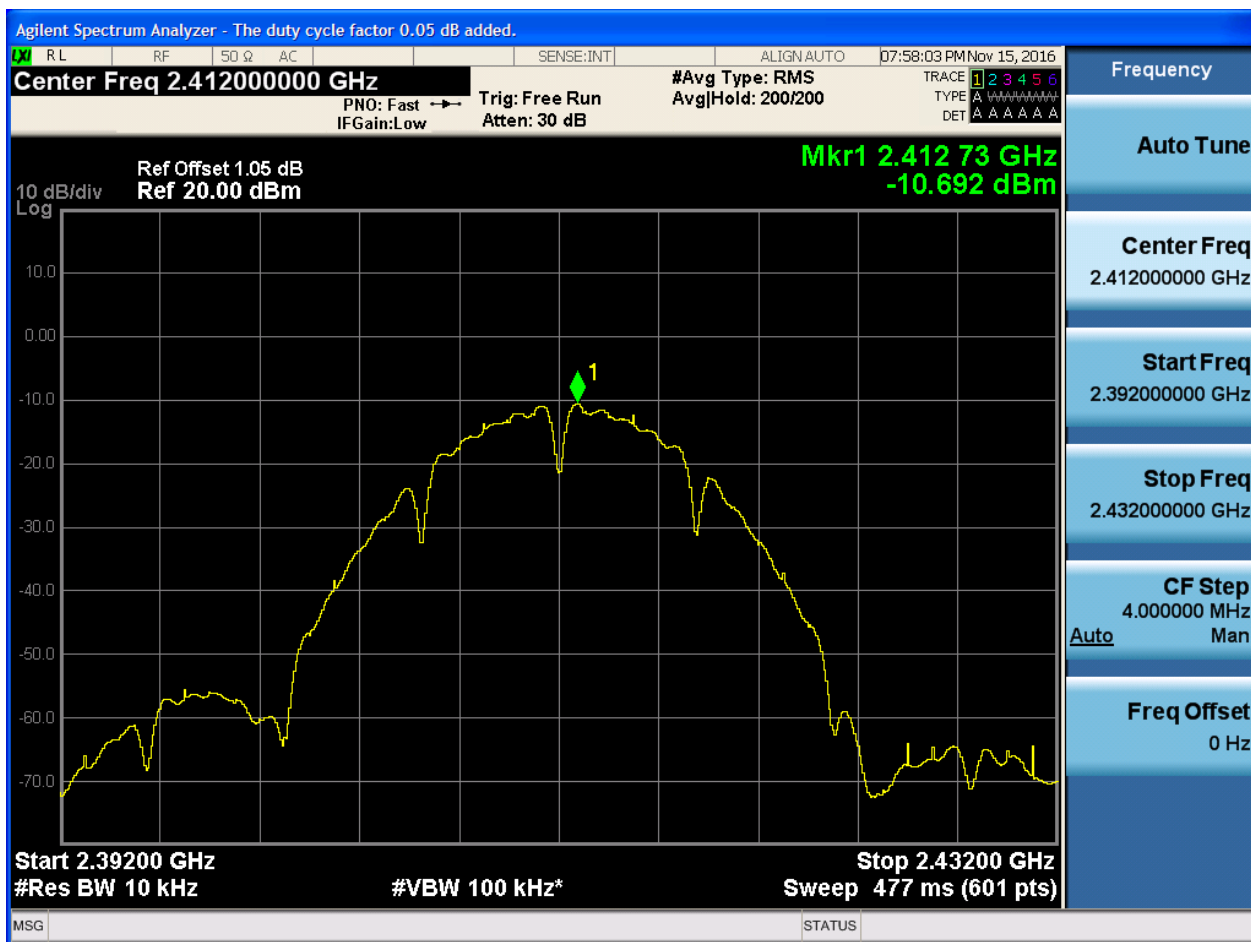
Part II - Test Plots

2.1 11B_L@Ant 1





2.2 11B_L@Ant 2





2.3 11B_M@Ant 1

