



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

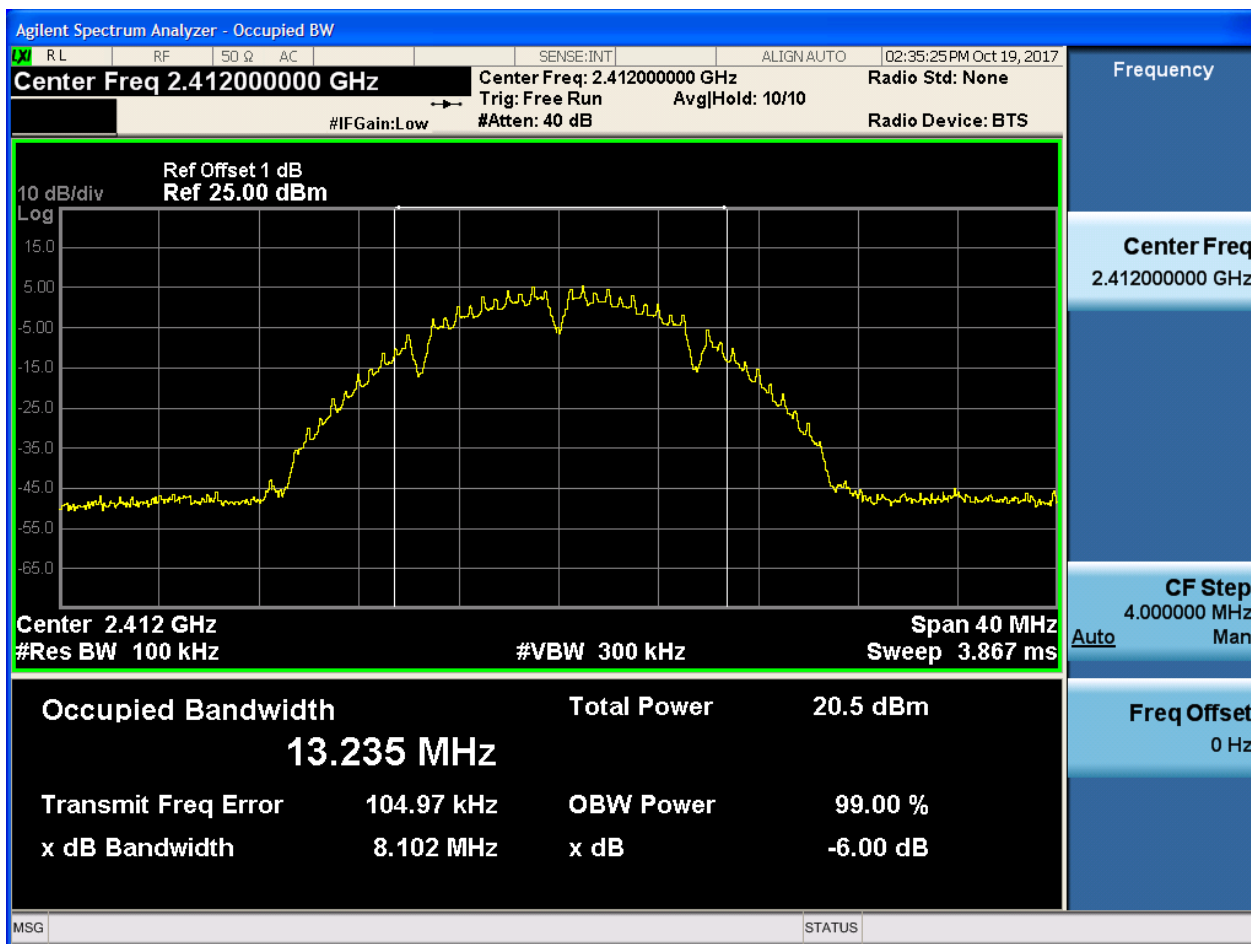
Test Mode	Test Channel	Frequency[MHz]	Ant	DTS6dBBW[MHz]	Verdict
11B	L	2412	Ant 1	8.10	pass
11B	L	2412	Ant 2	8.10	pass
11B	M	2437	Ant 1	8.09	pass
11B	M	2437	Ant 2	8.08	pass
11B	H	2462	Ant 1	8.08	pass
11B	H	2462	Ant 2	8.08	pass
11G	L	2412	Ant 1	15.99	pass
11G	L	2412	Ant 2	16.32	pass
11G	M	2437	Ant 1	15.97	pass
11G	M	2437	Ant 2	15.93	pass
11G	H	2462	Ant 1	15.36	pass
11G	H	2462	Ant 2	15.67	pass
11N20	L	2412	Ant 1	16.70	pass
11N20	L	2412	Ant 2	16.98	pass
11N20	M	2437	Ant 1	16.00	pass
11N20	M	2437	Ant 2	15.99	pass
11N20	H	2462	Ant 1	16.01	pass
11N20	H	2462	Ant 2	16.54	pass
11N20m	L	2412	Ant 1	17.20	pass
11N20m	L	2412	Ant 2	16.94	pass
11N20m	M	2437	Ant 1	16.35	pass
11N20m	M	2437	Ant 2	16.00	pass
11N20m	H	2462	Ant 1	16.00	pass
11N20m	H	2462	Ant 2	16.11	pass
11N40	L	2422	Ant 1	35.18	pass
11N40	L	2422	Ant 2	35.16	pass
11N40	M	2437	Ant 1	35.16	pass
11N40	M	2437	Ant 2	35.12	pass

Test Mode	Test Channel	Frequency[MHz]	Ant	DTS6dBBW[MHz]	Verdict
11N40	H	2452	Ant 1	35.34	pass
11N40	H	2452	Ant 2	35.54	pass
11N40m	L	2422	Ant 1	35.16	pass
11N40m	L	2422	Ant 2	35.21	pass
11N40m	M	2437	Ant 1	35.20	pass
11N40m	M	2437	Ant 2	35.20	pass
11N40m	H	2452	Ant 1	35.40	pass
11N40m	H	2452	Ant 2	35.80	pass



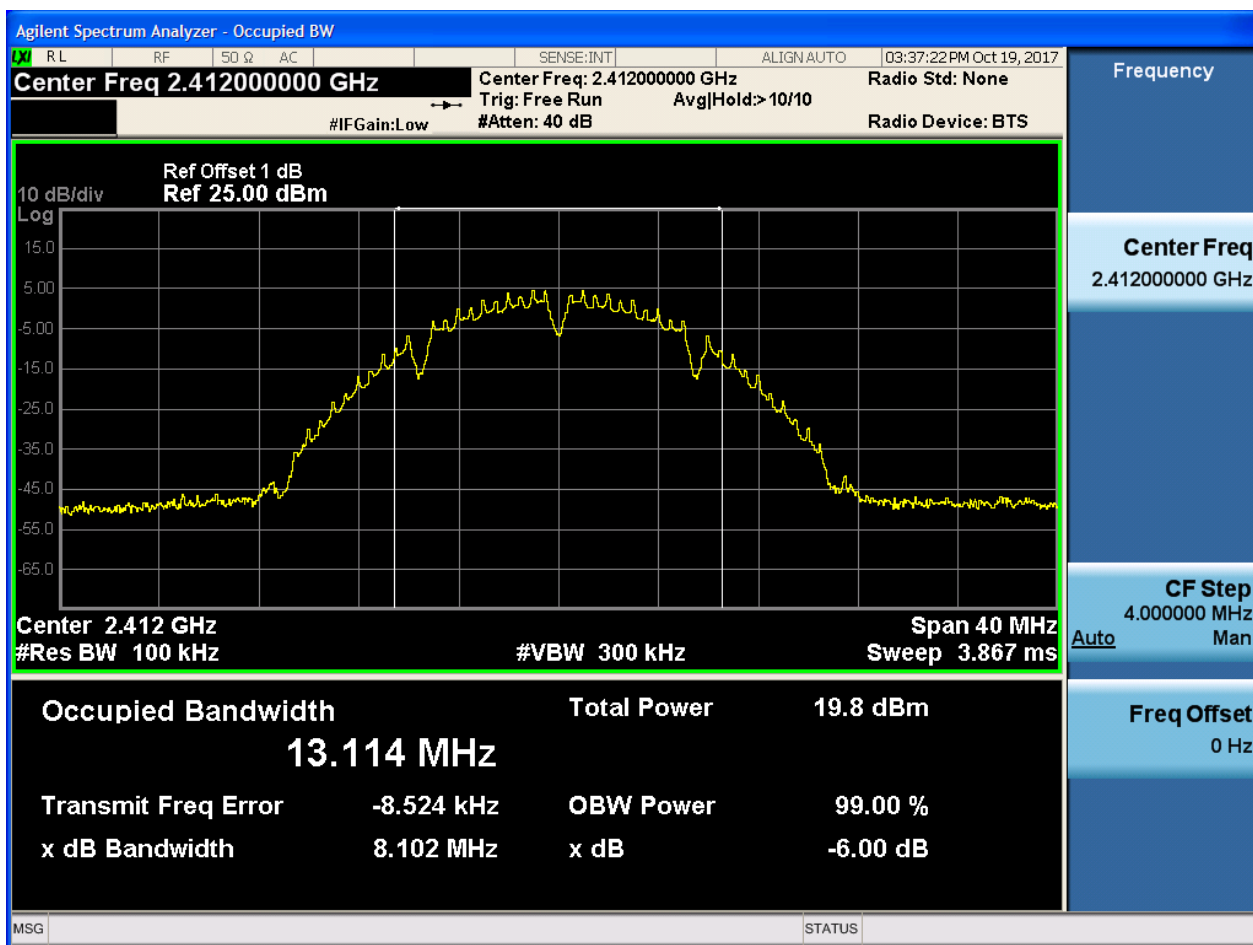
Part II - Test Plots

2.1 11B_L@Ant 1



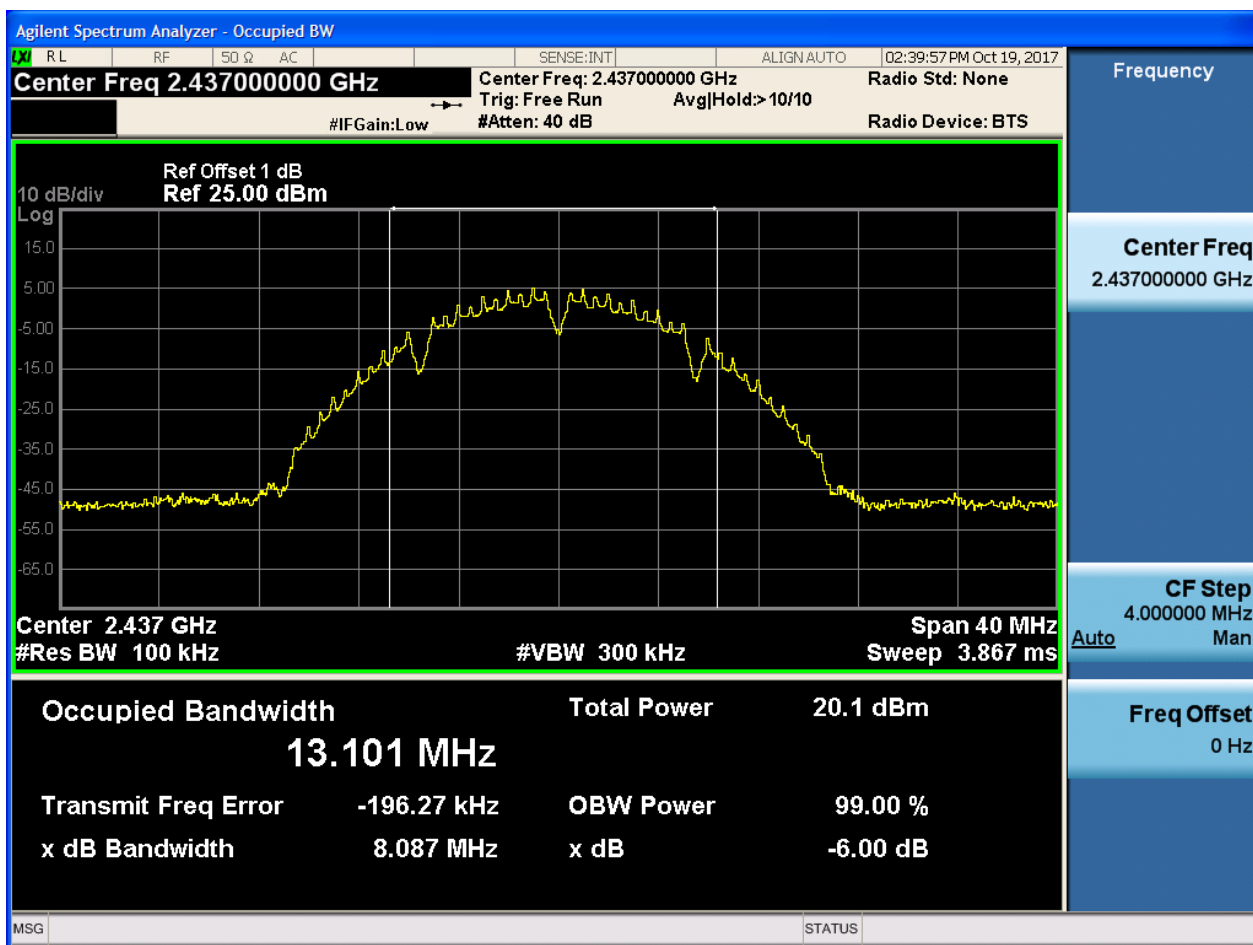


2.2 11B_L@Ant 2



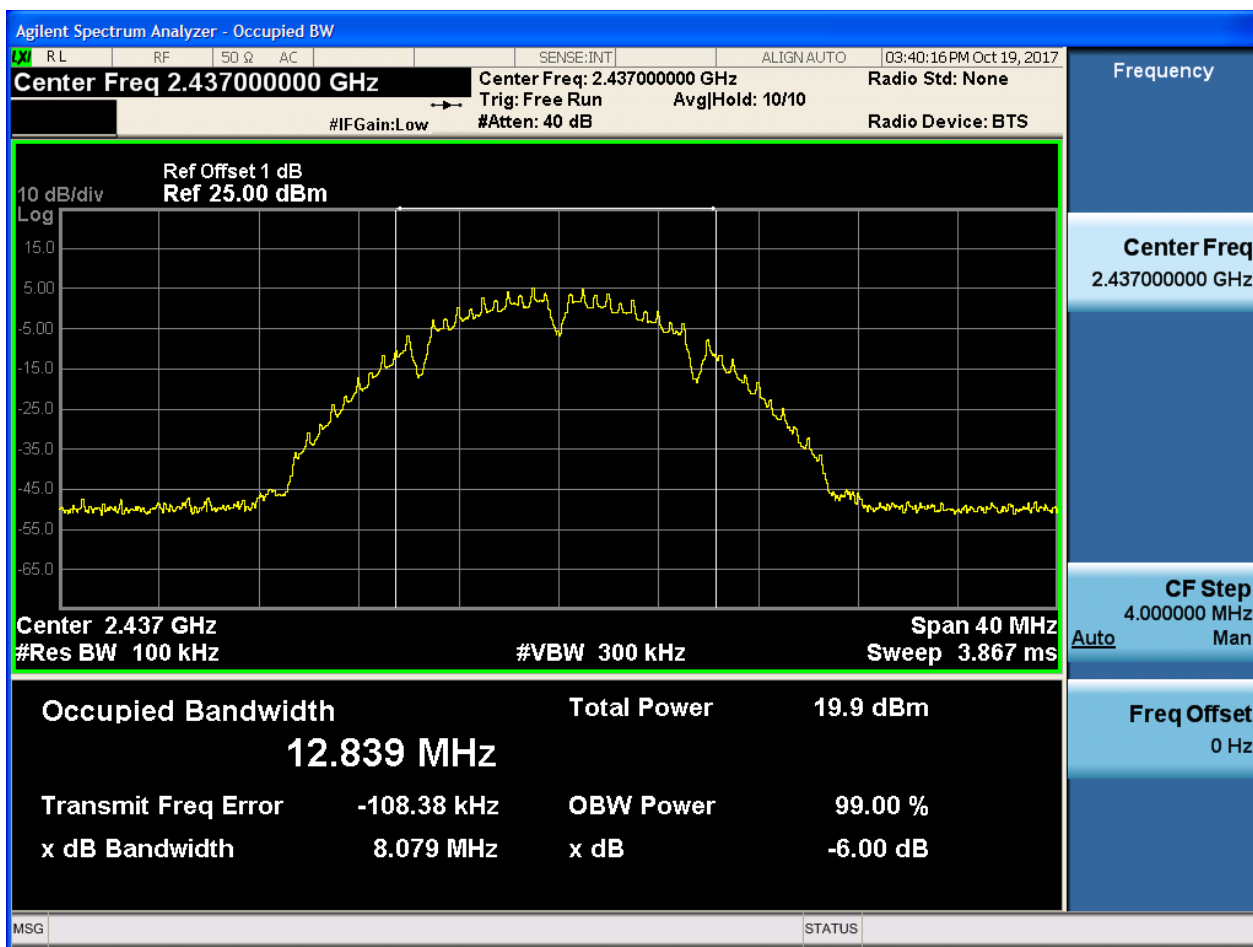


2.3 11B_M@Ant 1



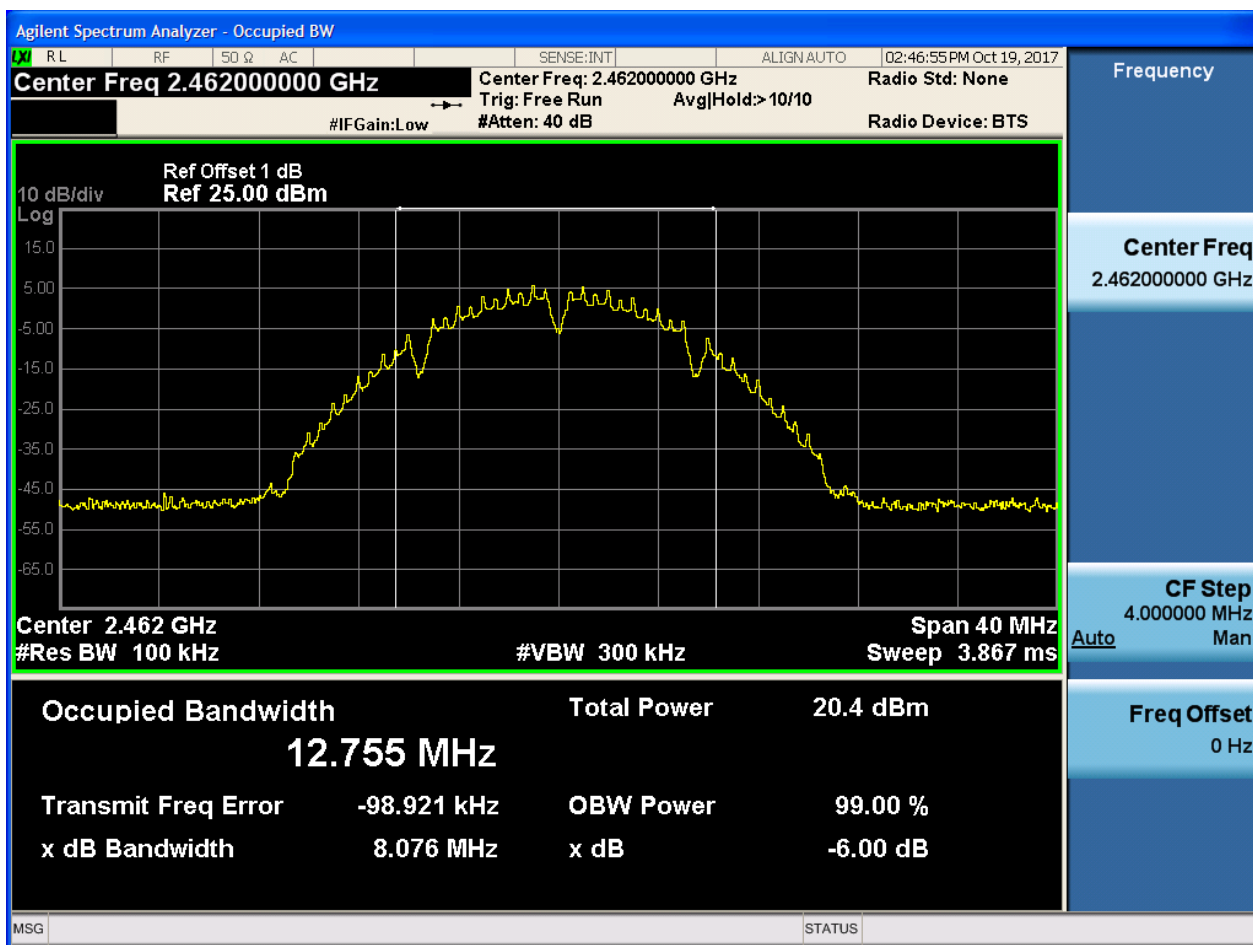


2.4 11B_M@Ant 2



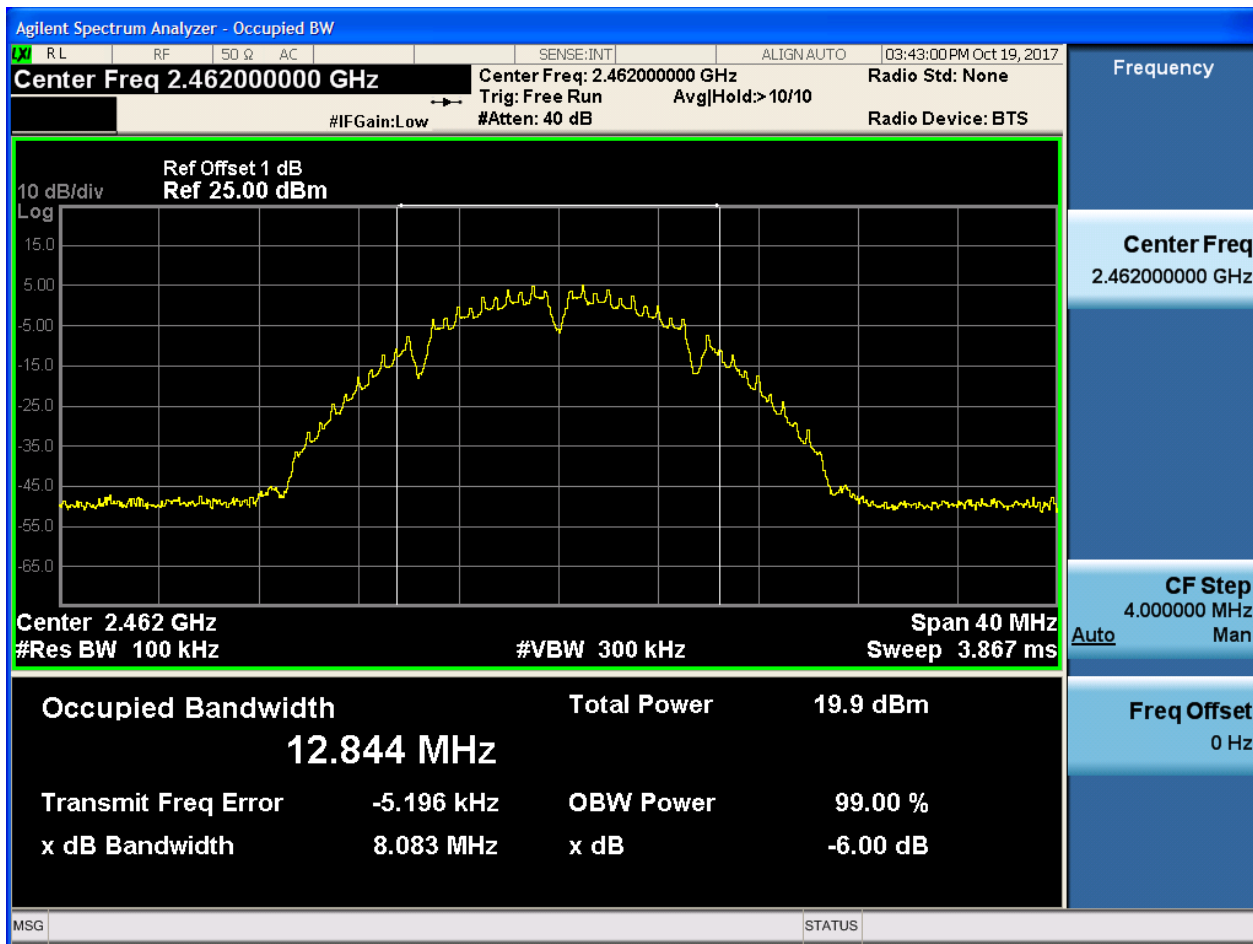


2.5 11B_H@Ant 1



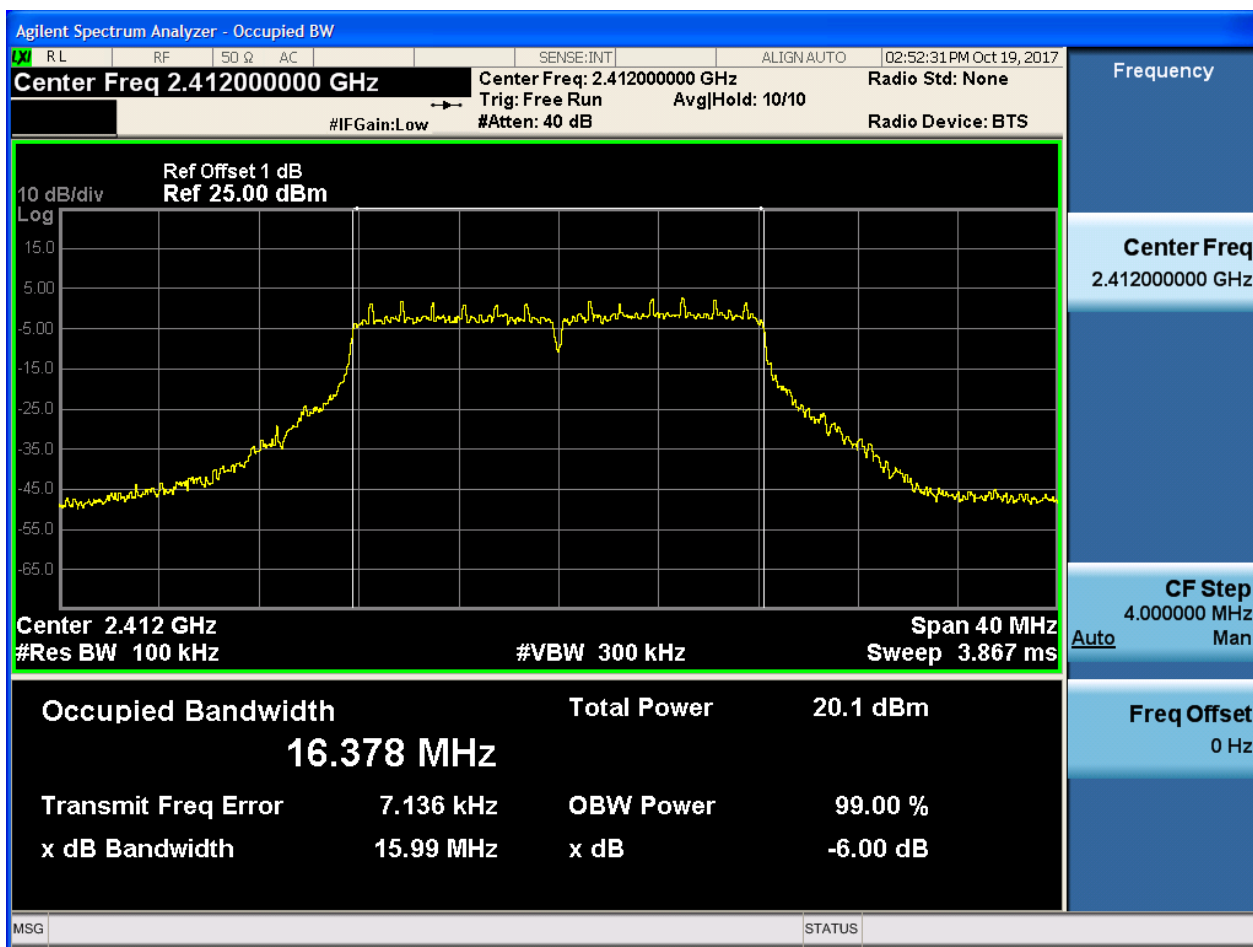


2.6 11B_H@Ant 2



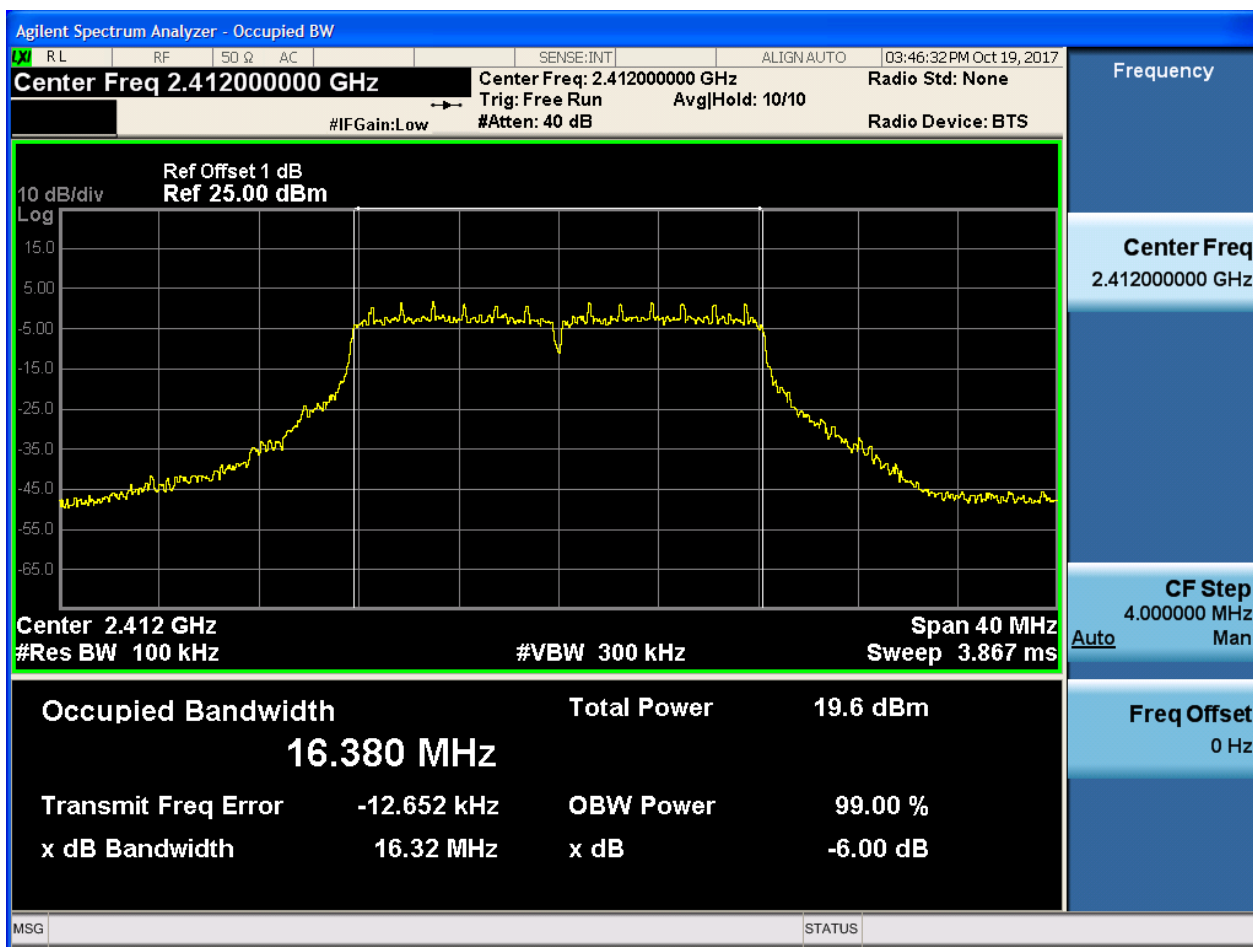


2.7 11G_L@Ant 1



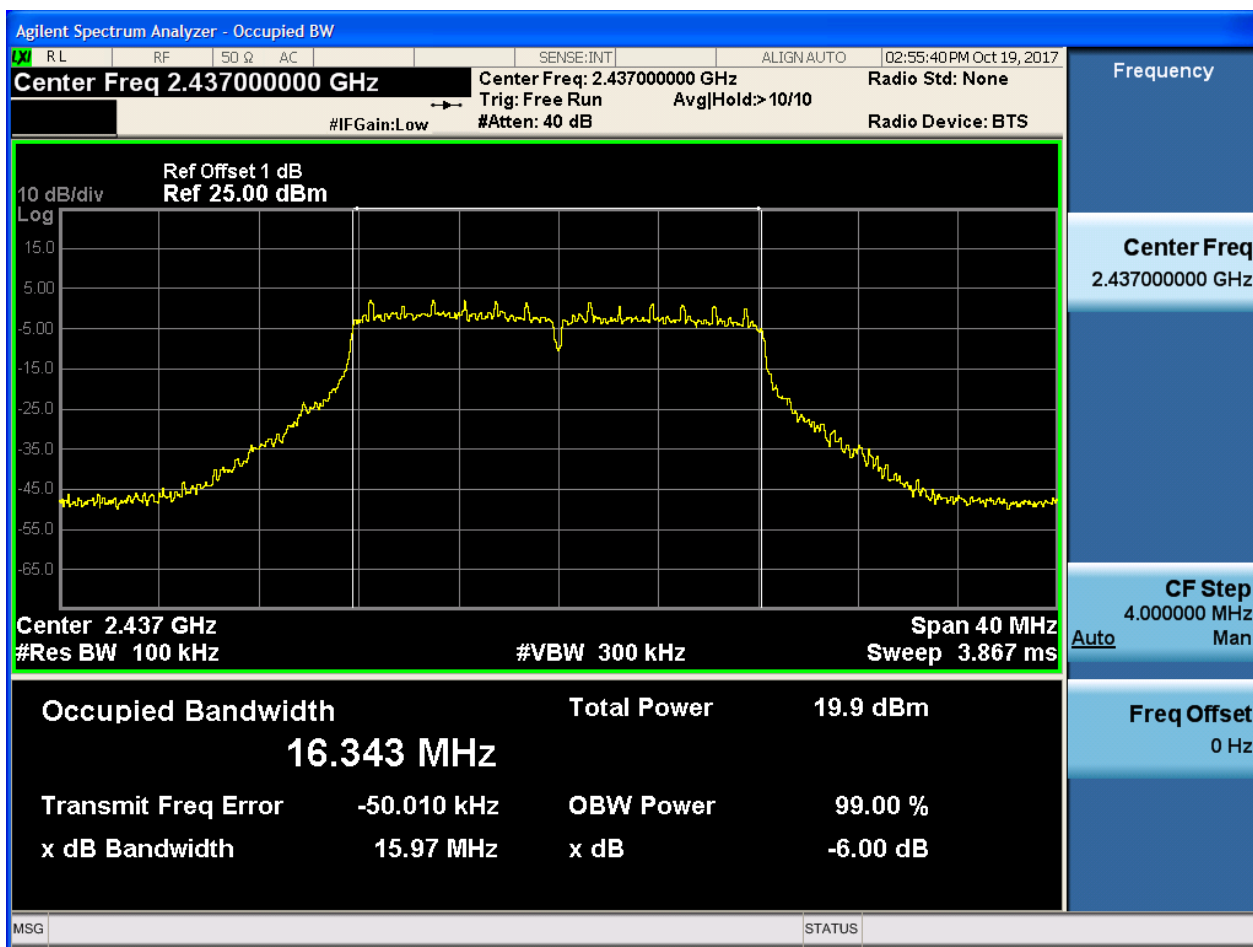


2.8 11G_L@Ant 2



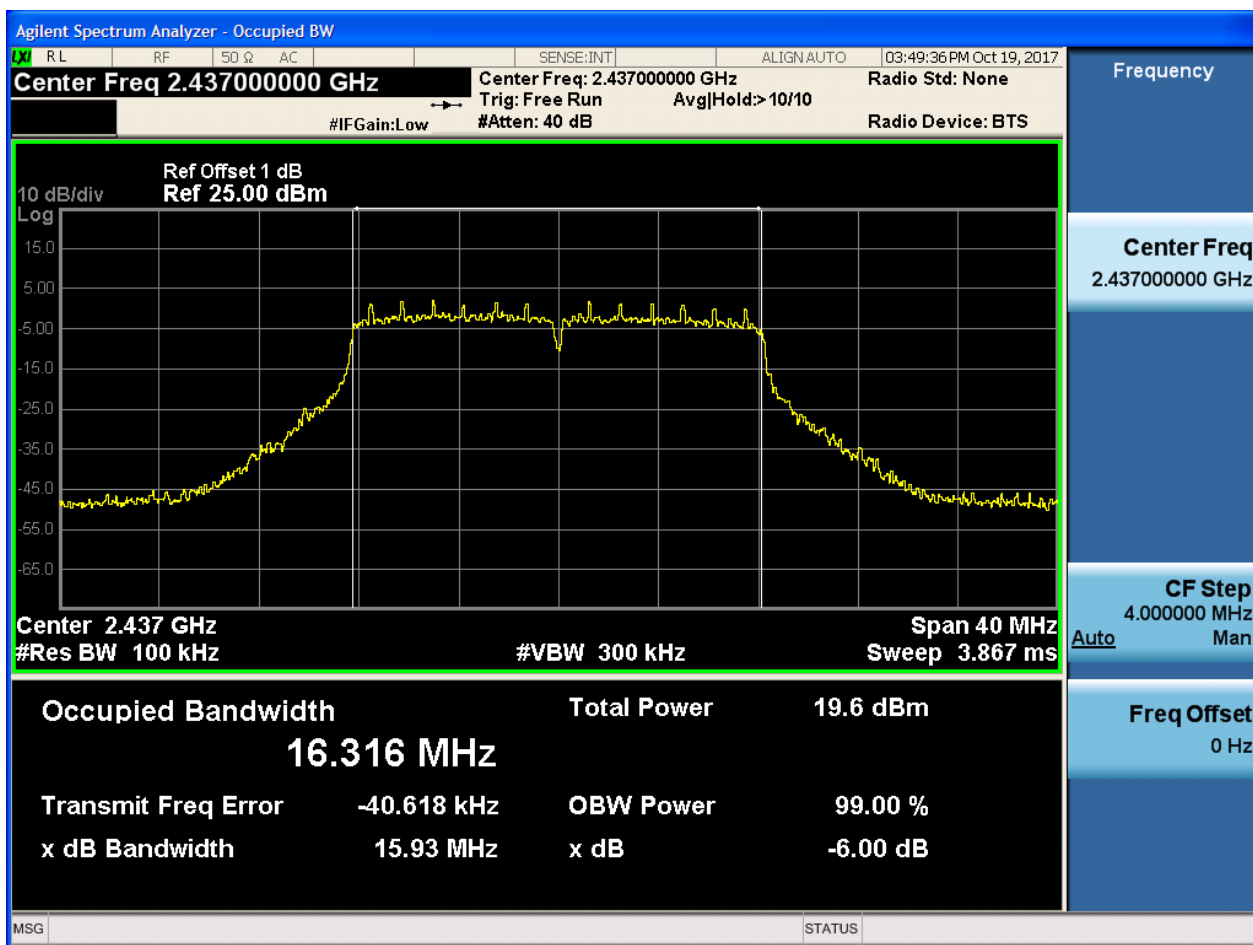


2.9 11G_M@Ant 1



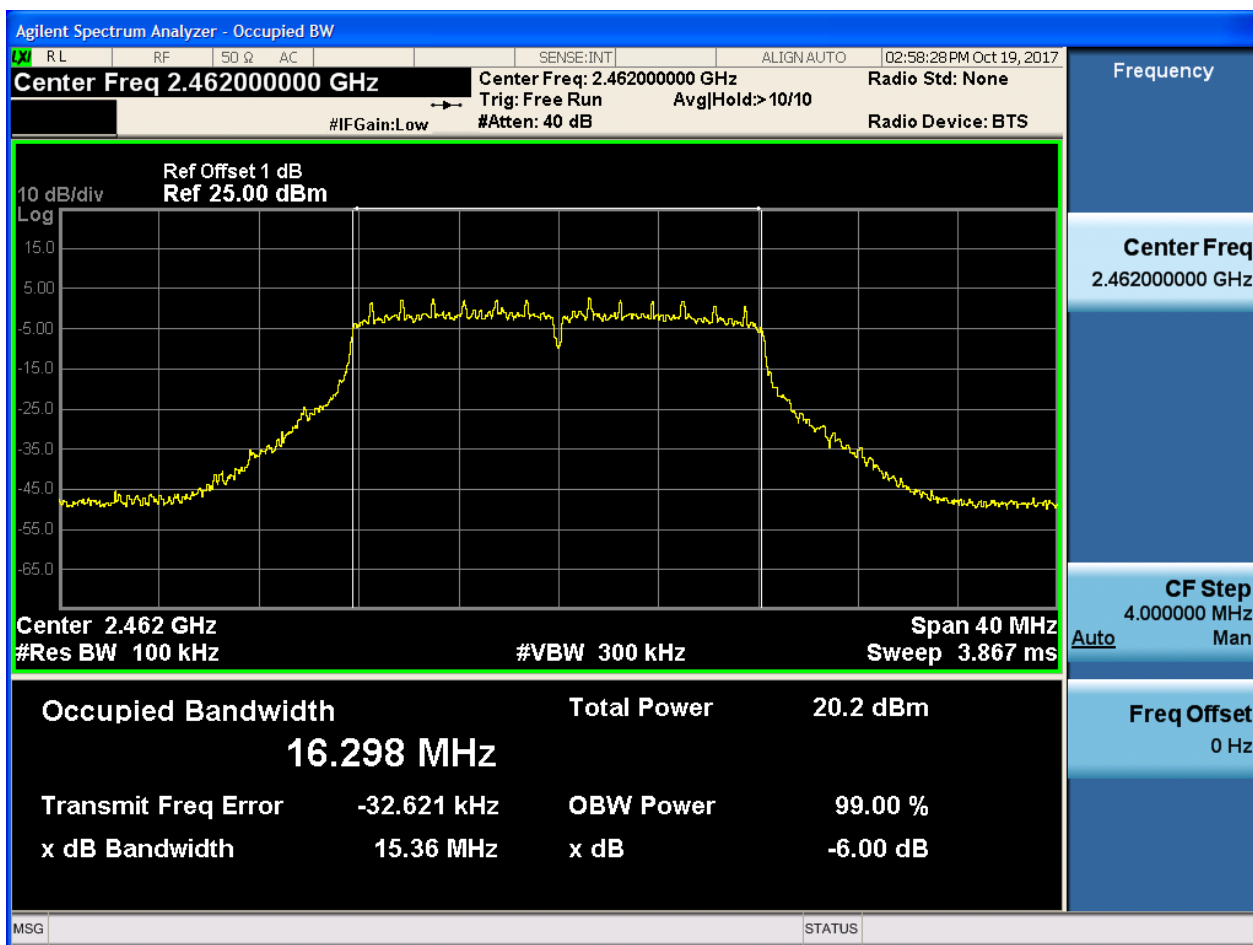


2.10 11G_M@Ant 2



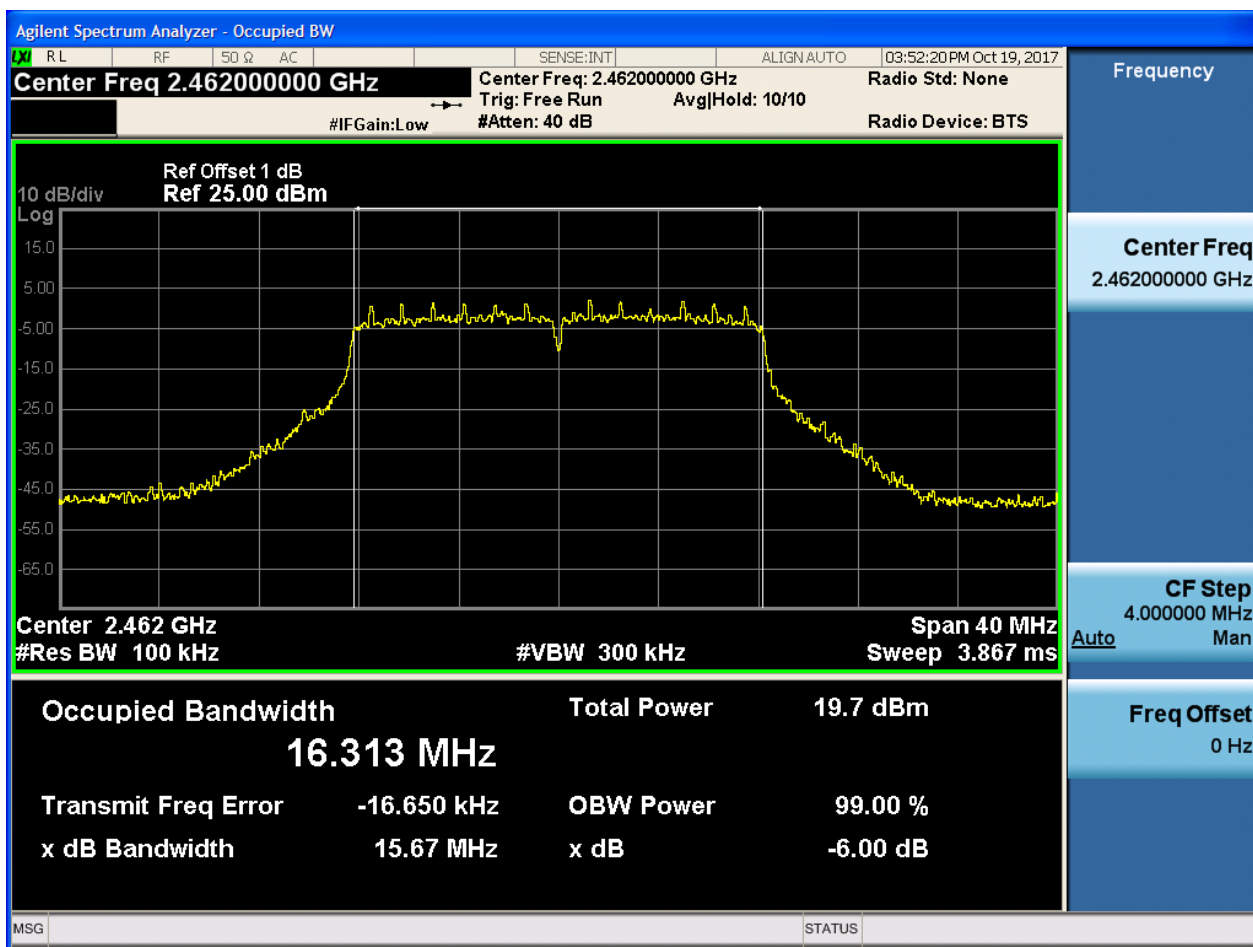


2.11 11G_H@Ant 1



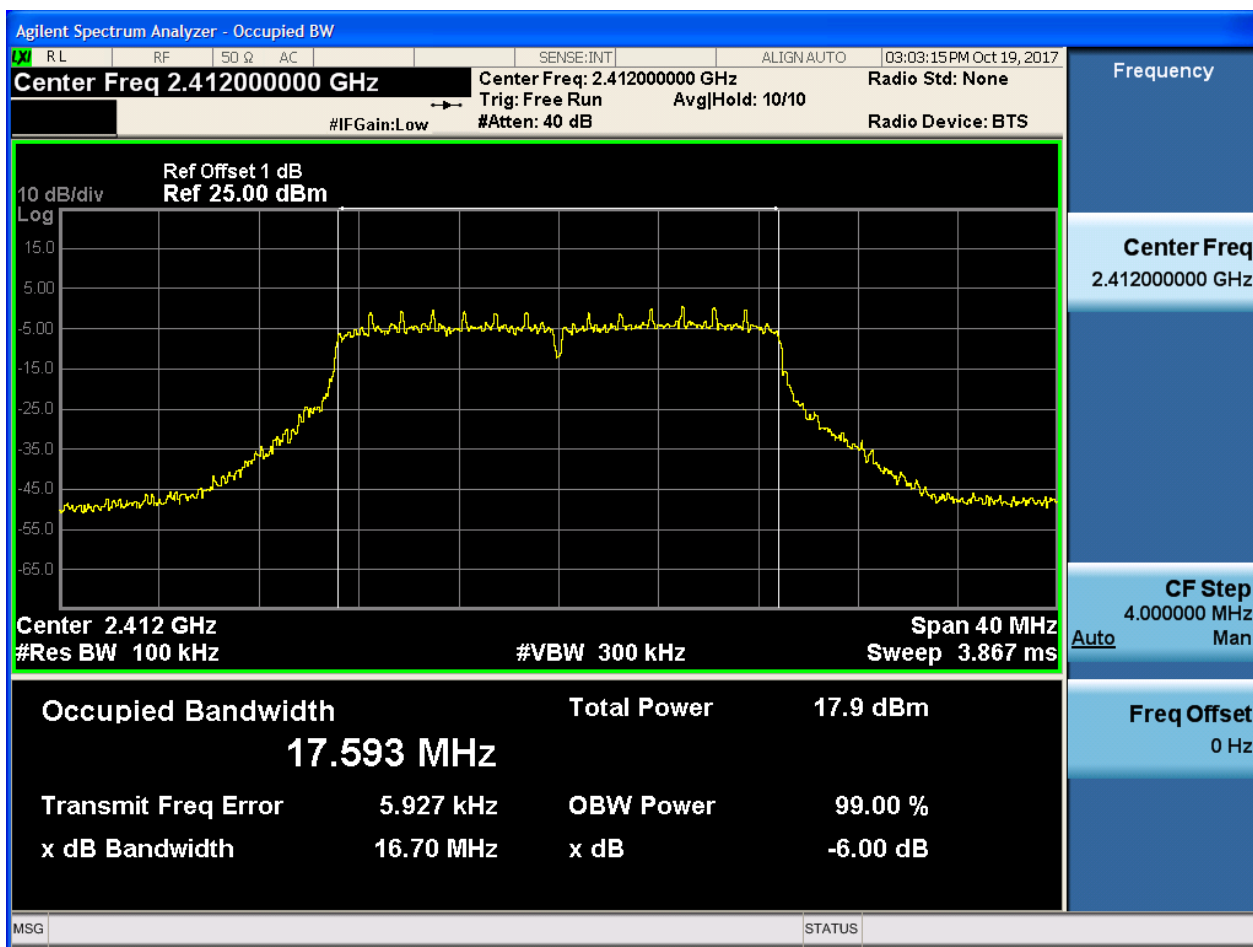


2.12 11G_H@Ant 2



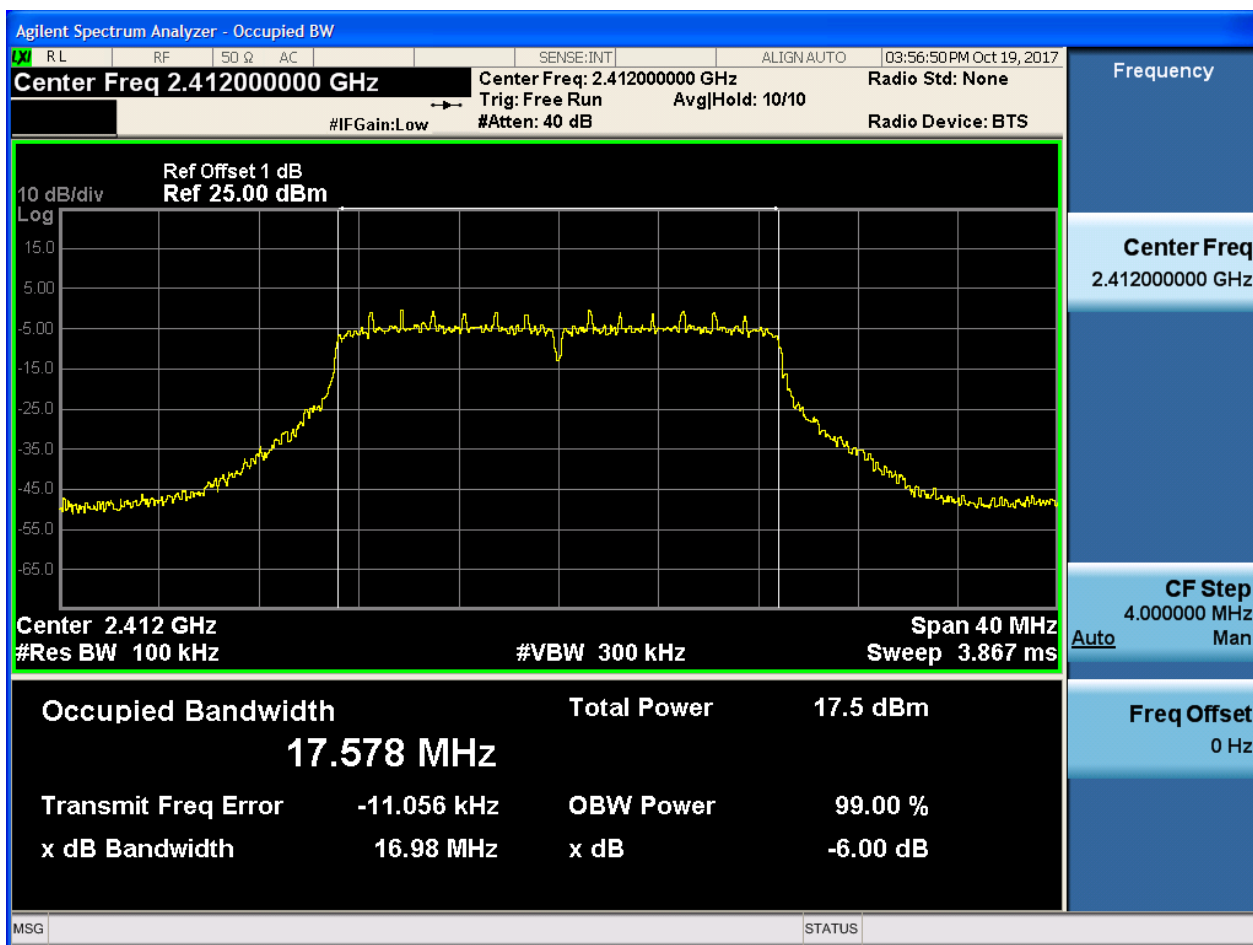


2.13 11N20_L@Ant 1



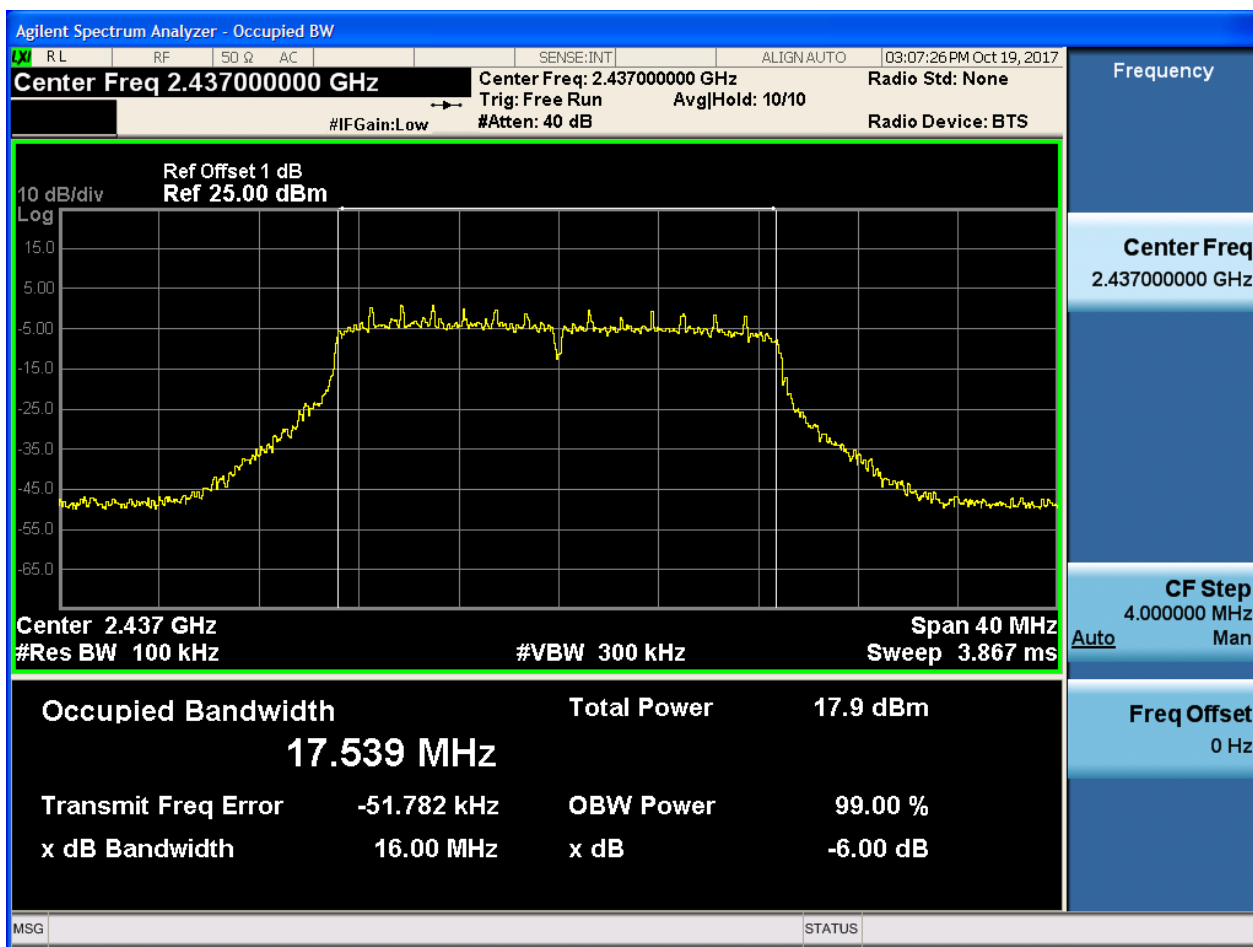


2.14 11N20_L@Ant 2



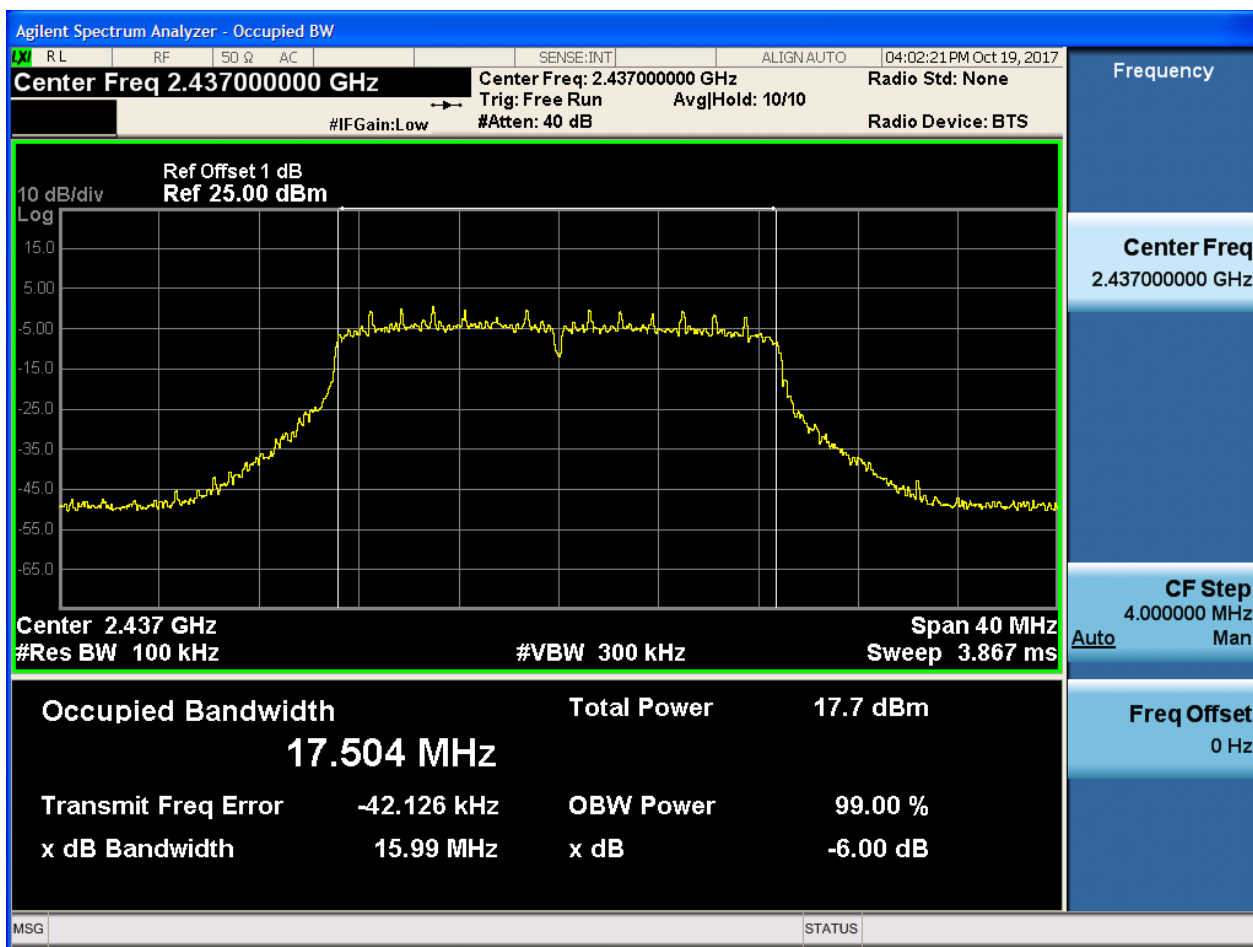


2.15 11N20_M@Ant 1



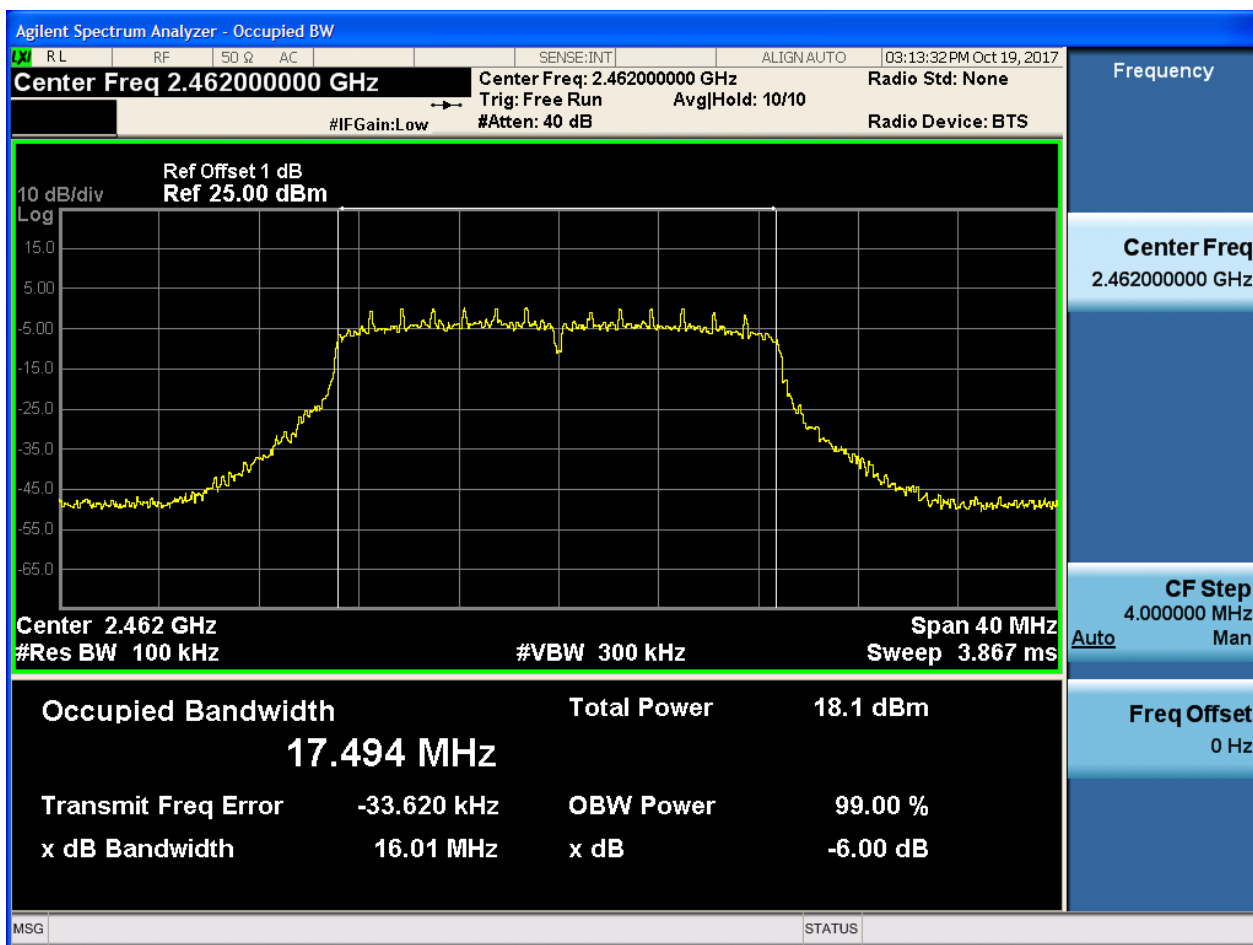


2.16 11N20_M@Ant 2



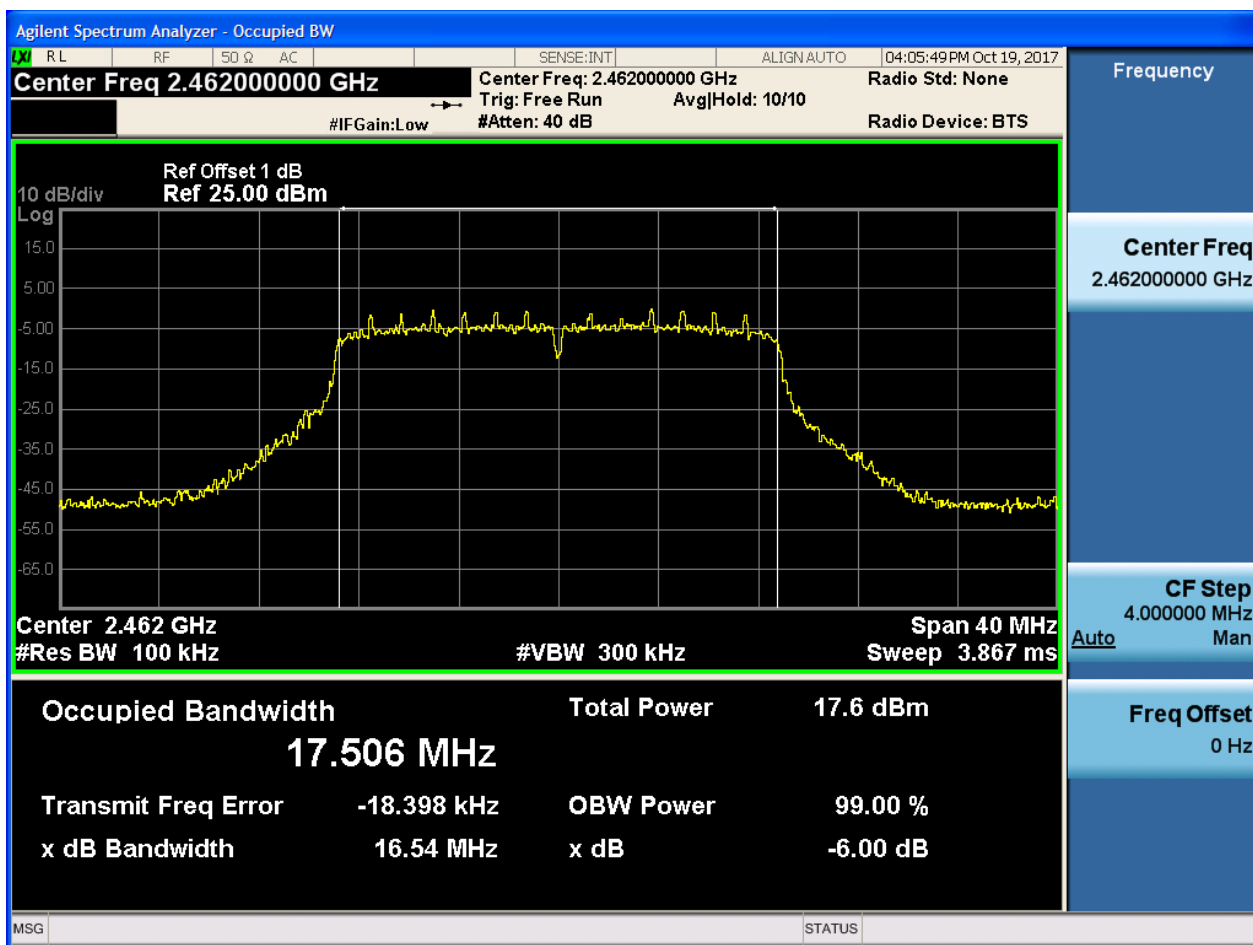


2.17 11N20_H@Ant 1



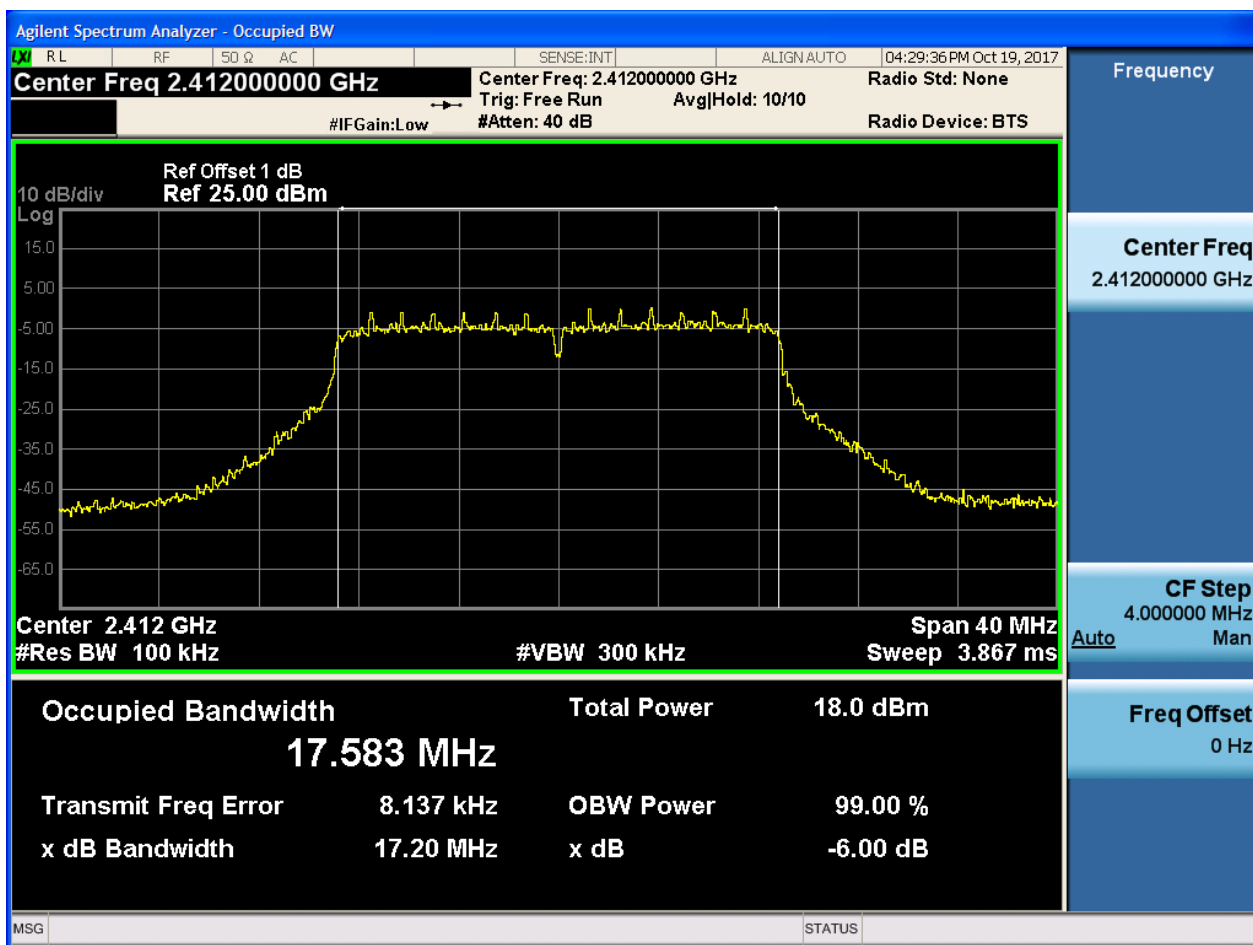


2.18 11N20_H@Ant 2



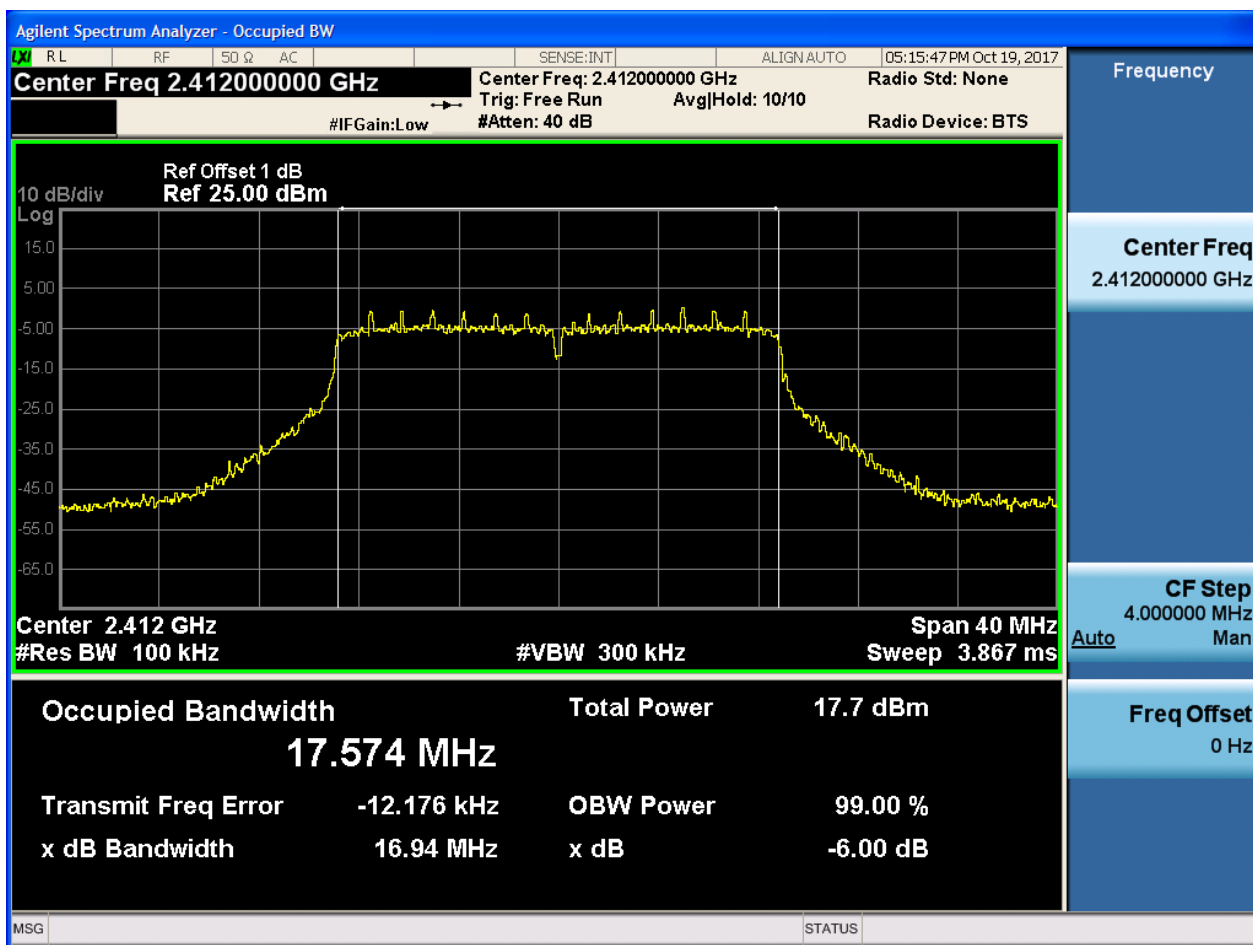


2.19 11N20m_L@Ant 1



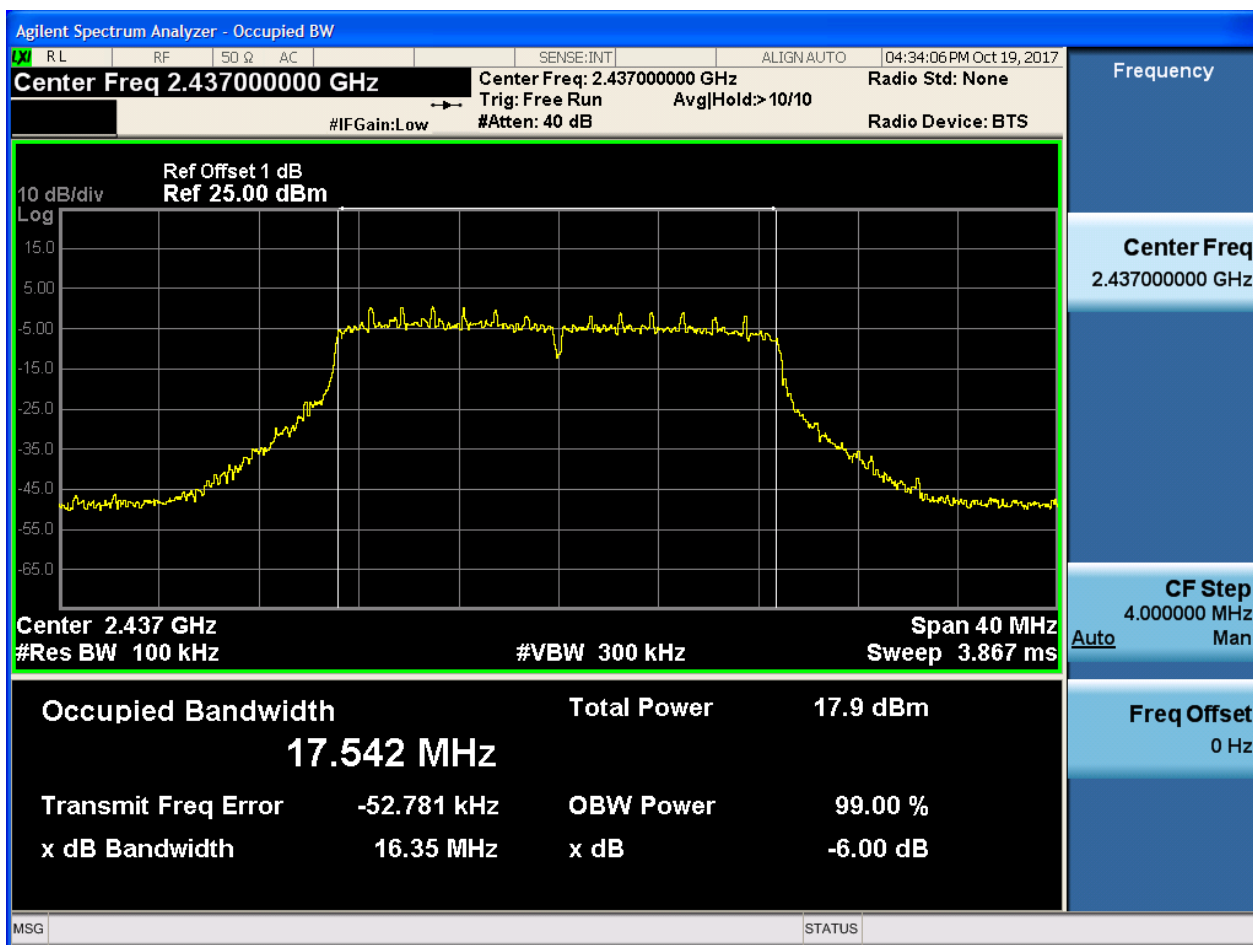


2.20 11N20m_L@Ant 2



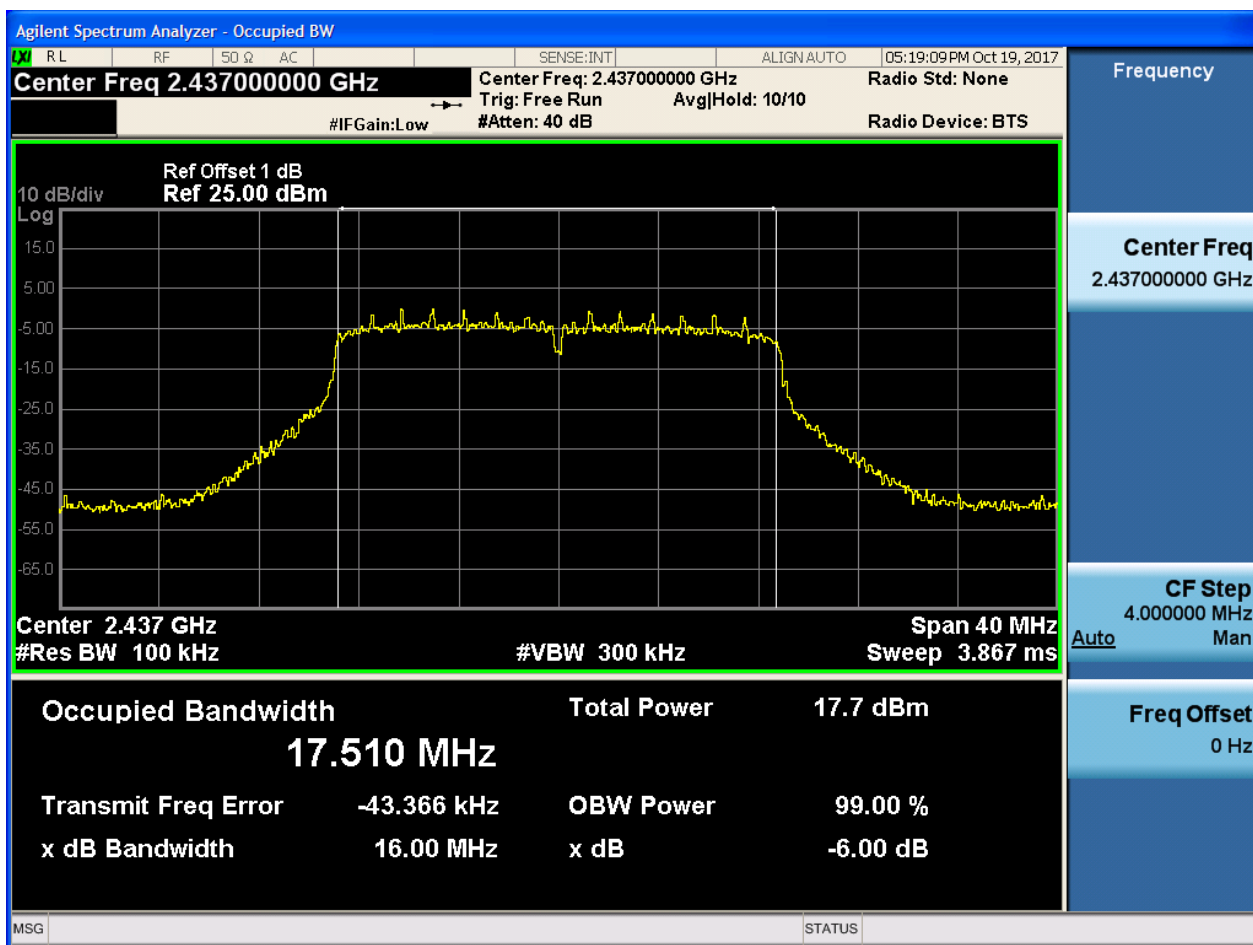


2.21 11N20m_M@Ant 1



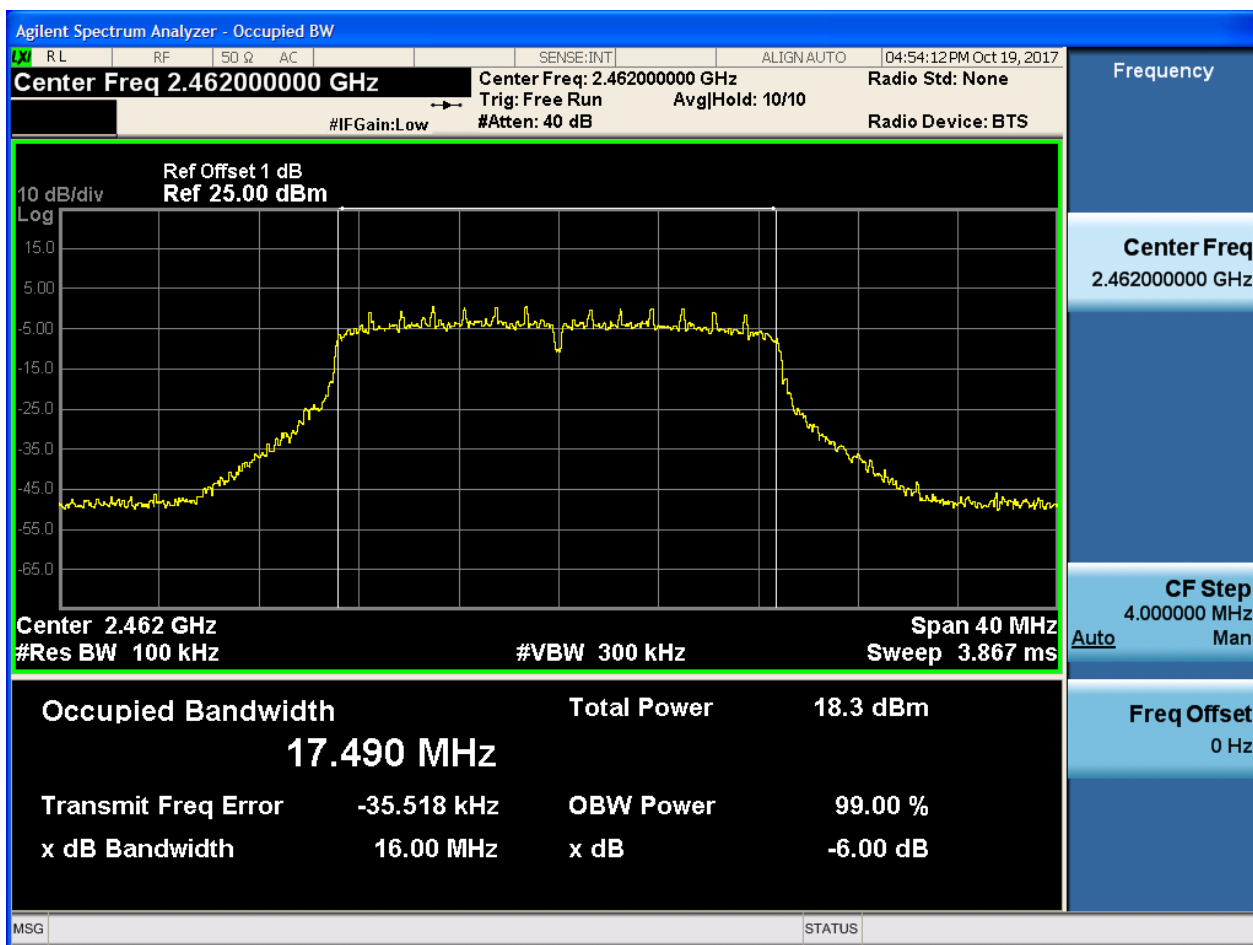


2.22 11N20m_M@Ant 2



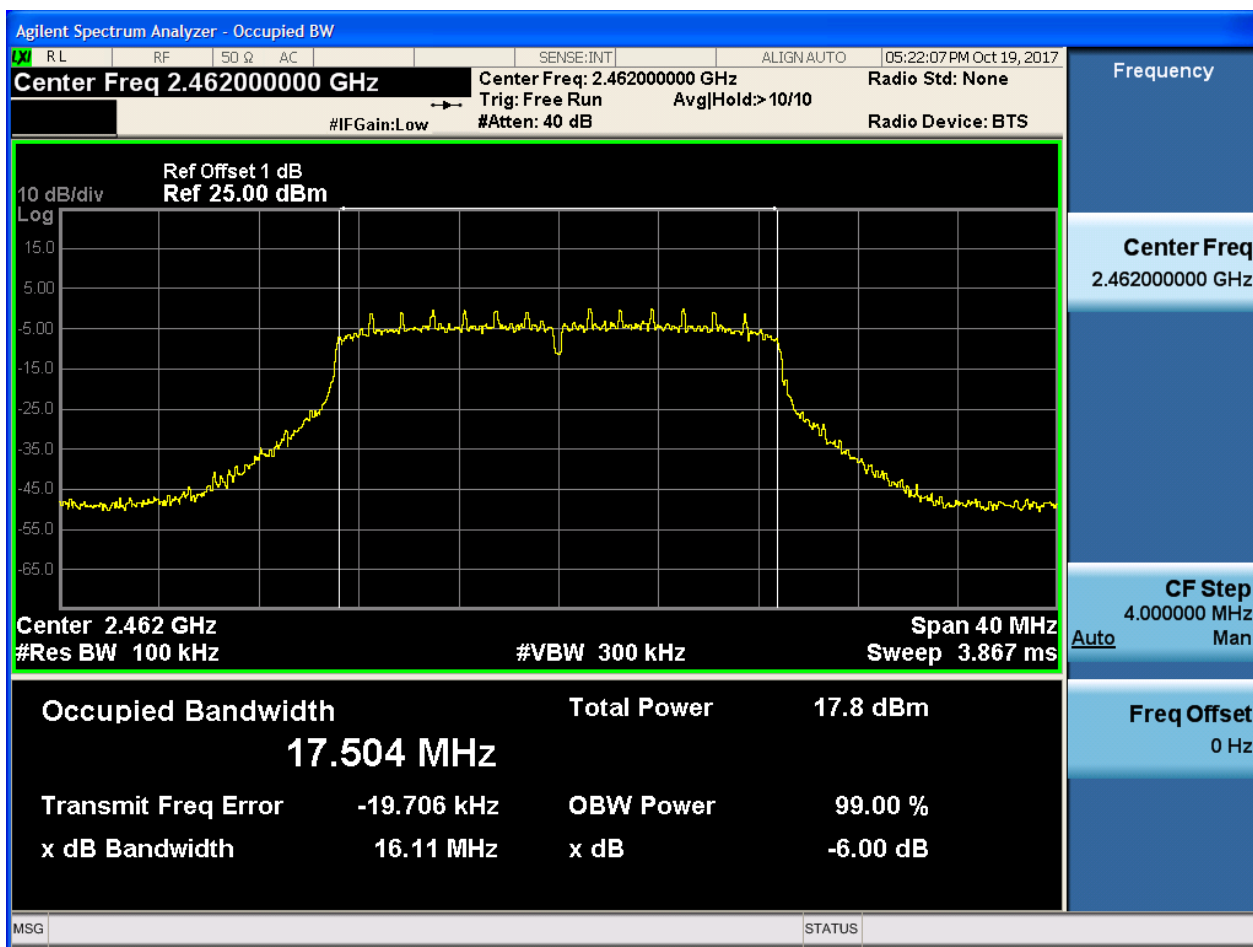


2.23 11N20m_H@Ant 1



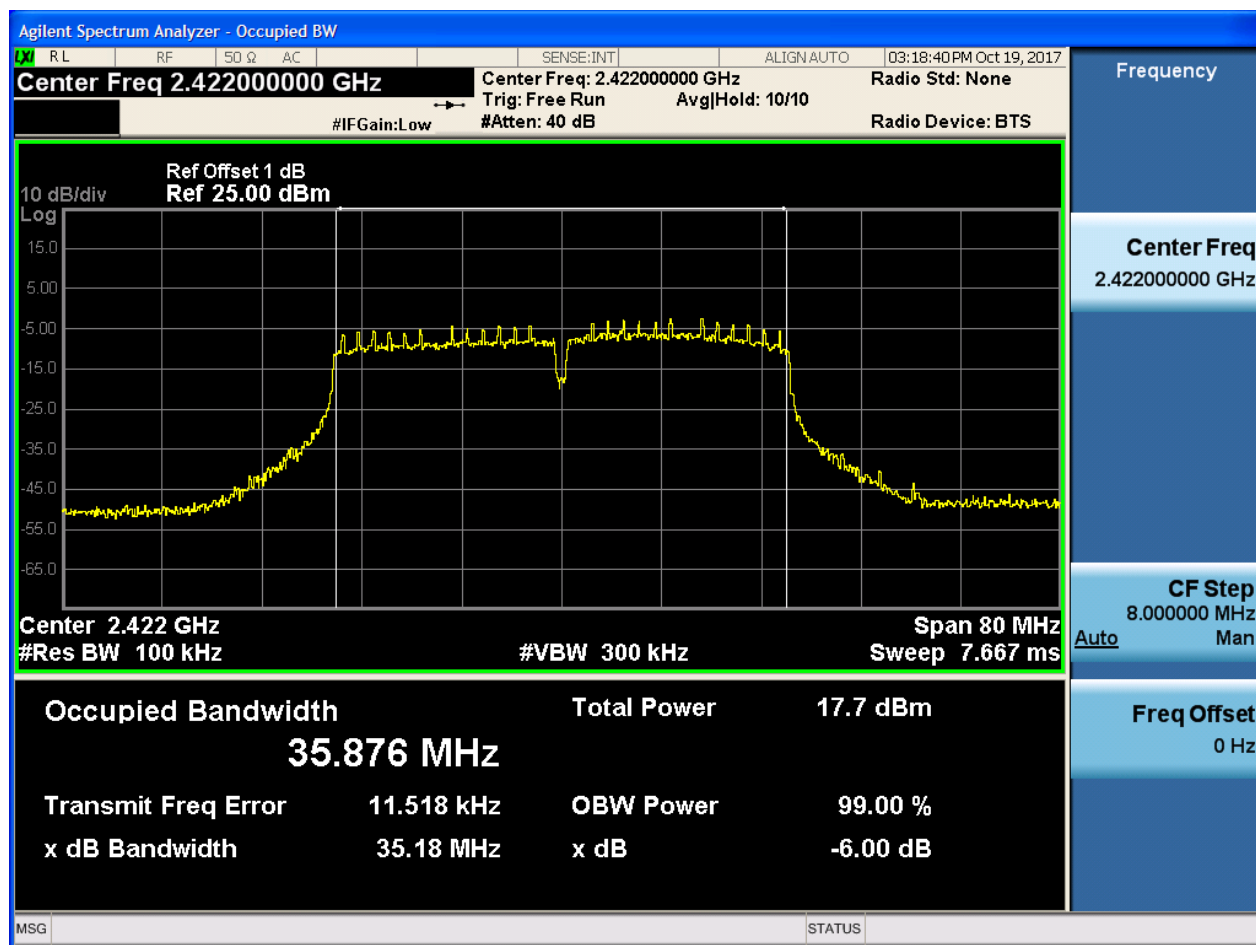


2.24 11N20m_H@Ant 2



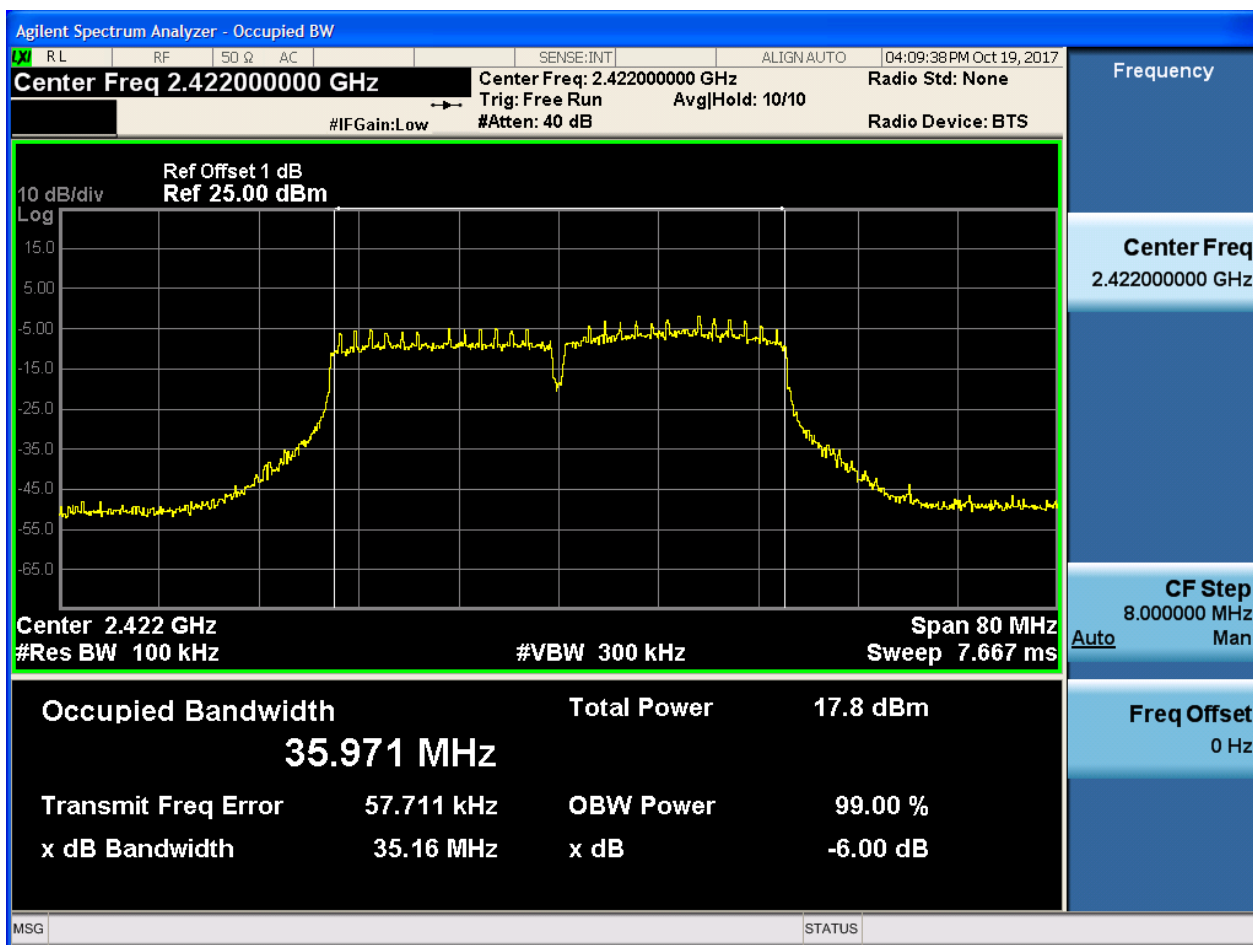


2.25 11N40_L@Ant 1



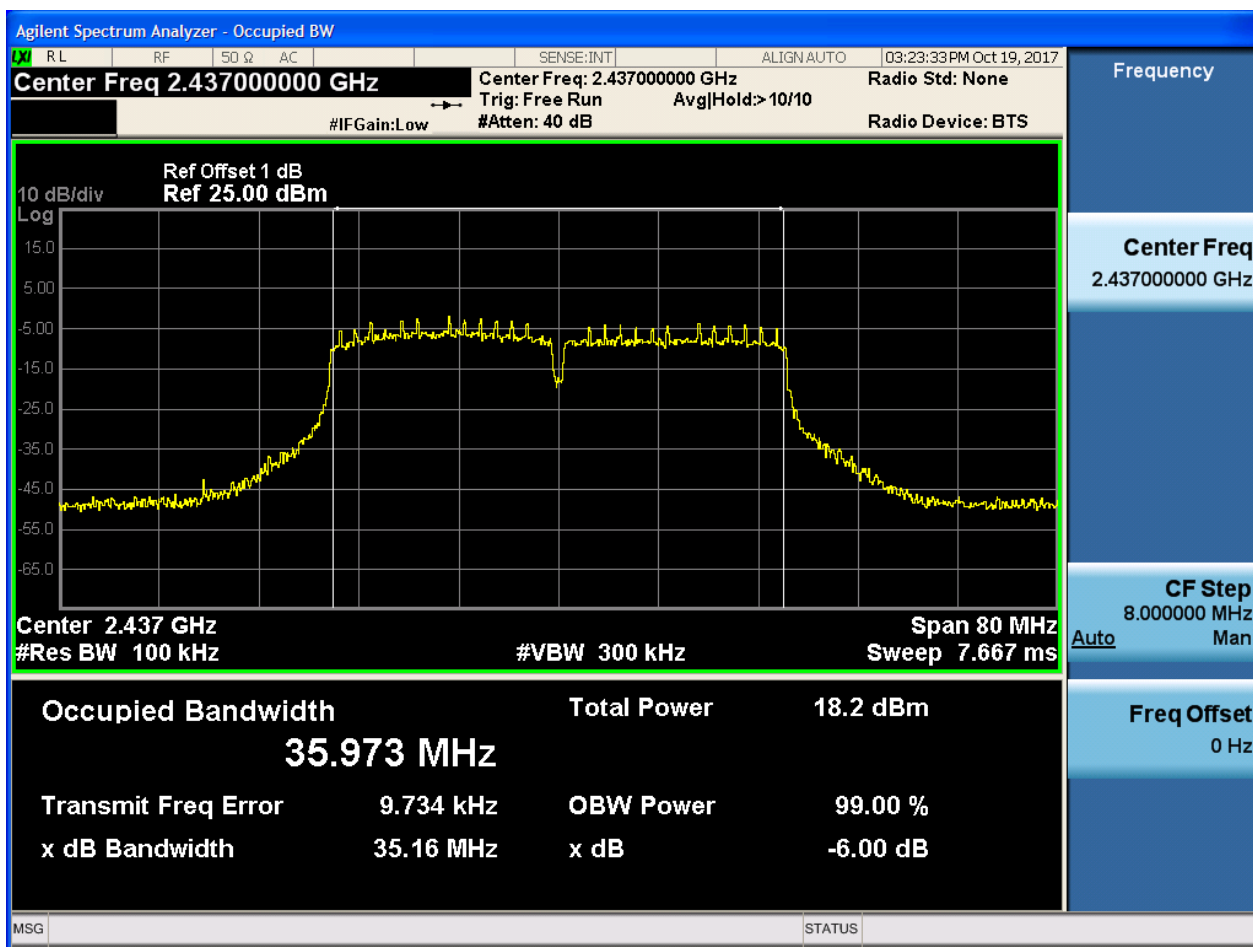


2.26 11N40_L@Ant 2



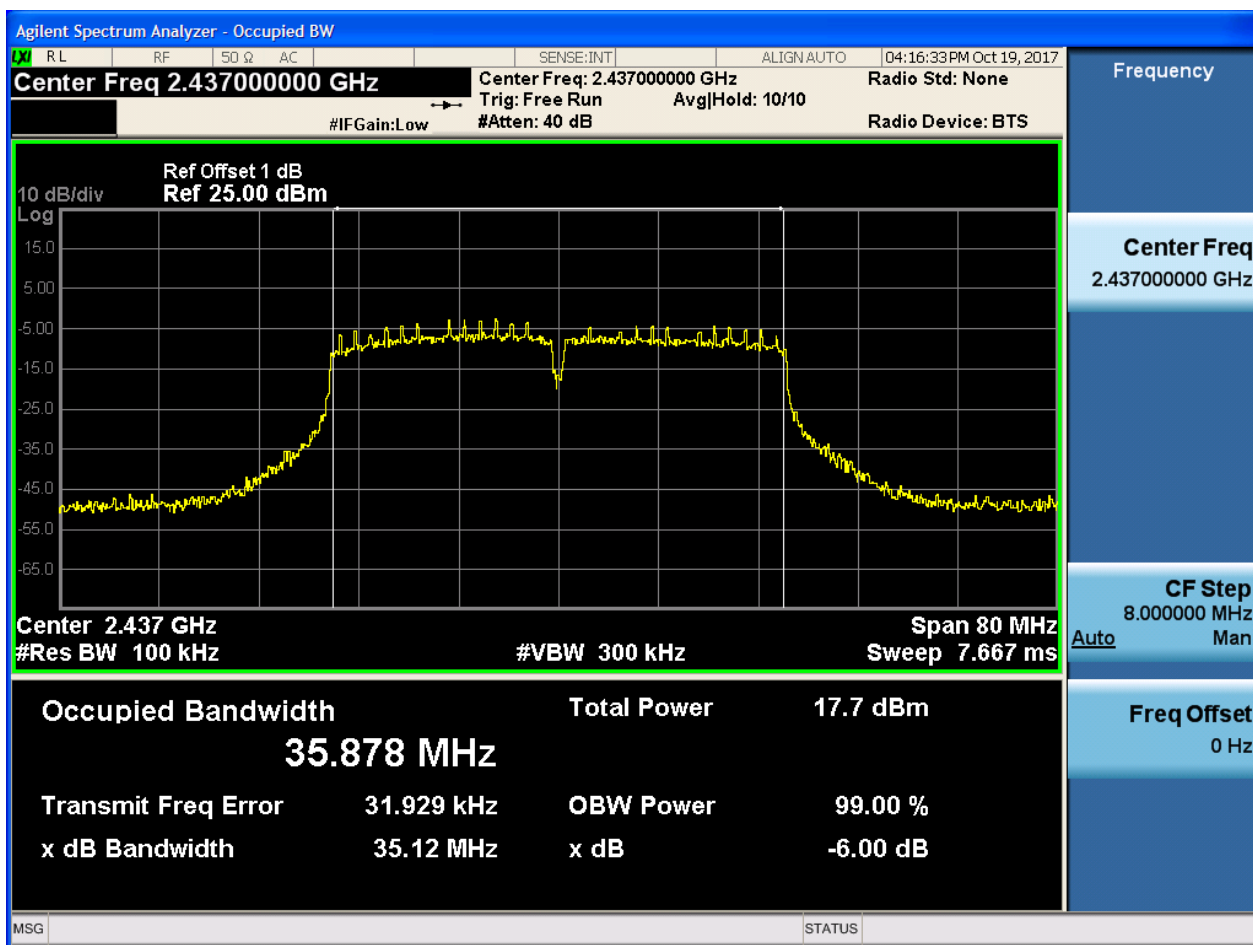


2.27 11N40_M@Ant 1



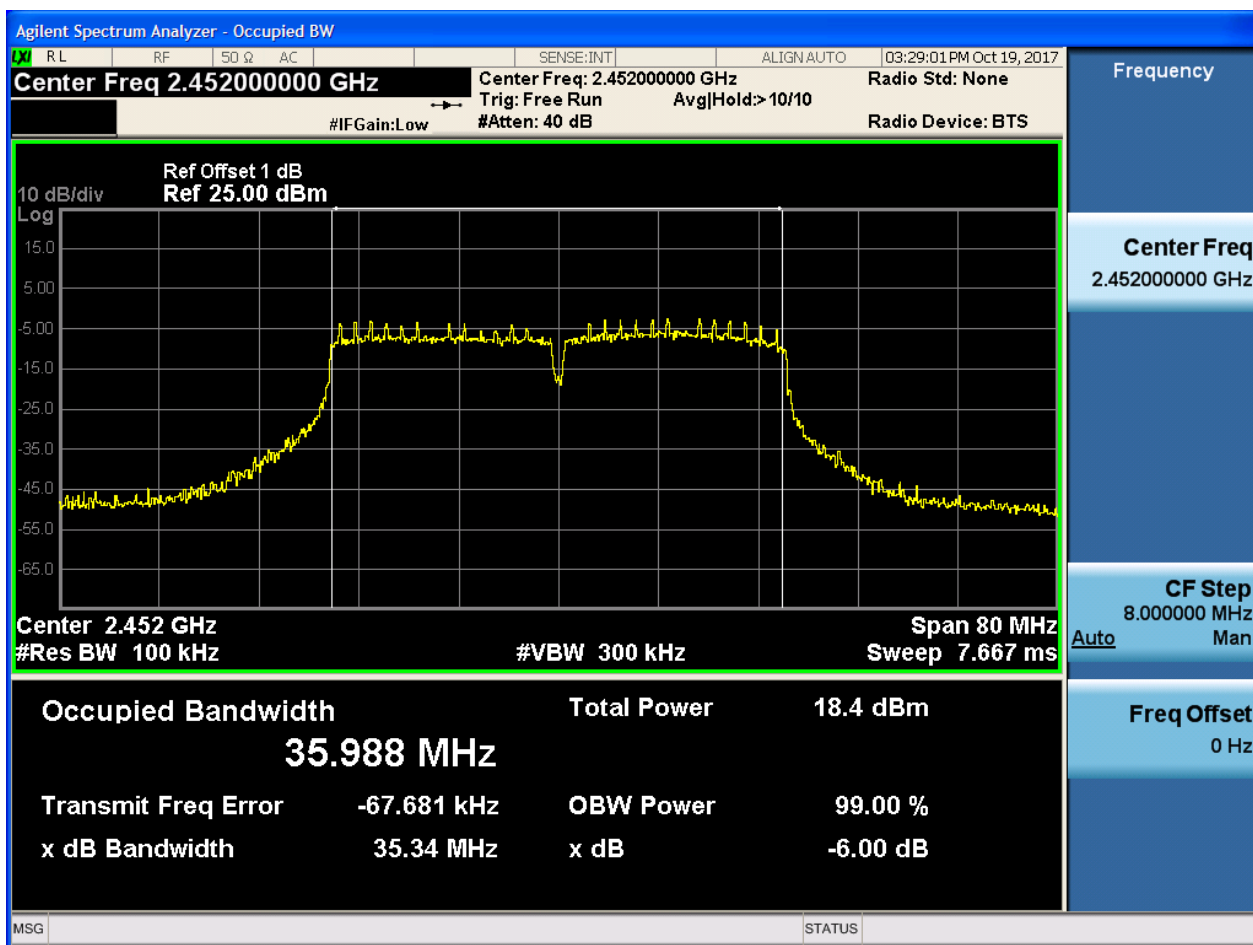


2.28 11N40_M@Ant 2



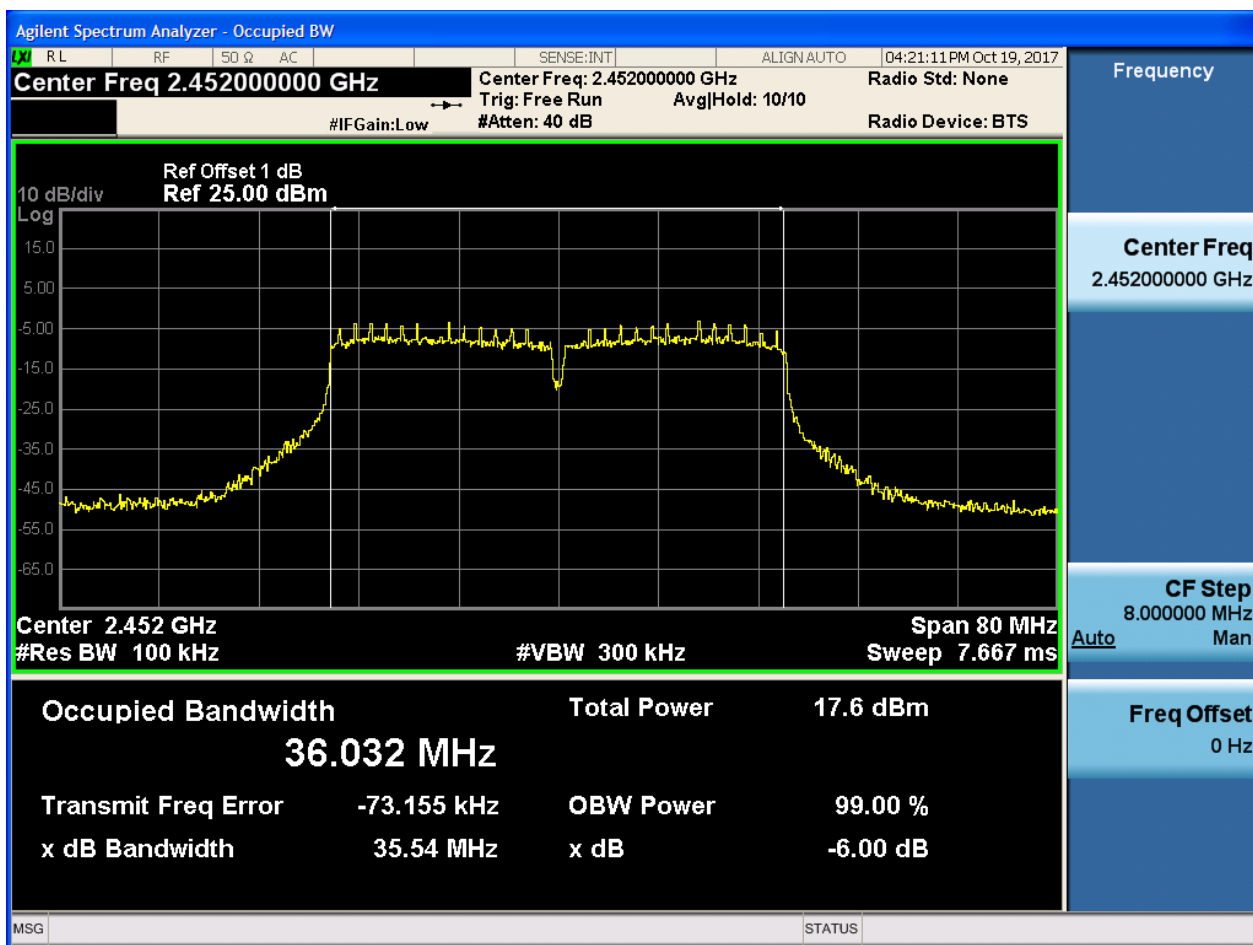


2.29 11N40_H@Ant 1



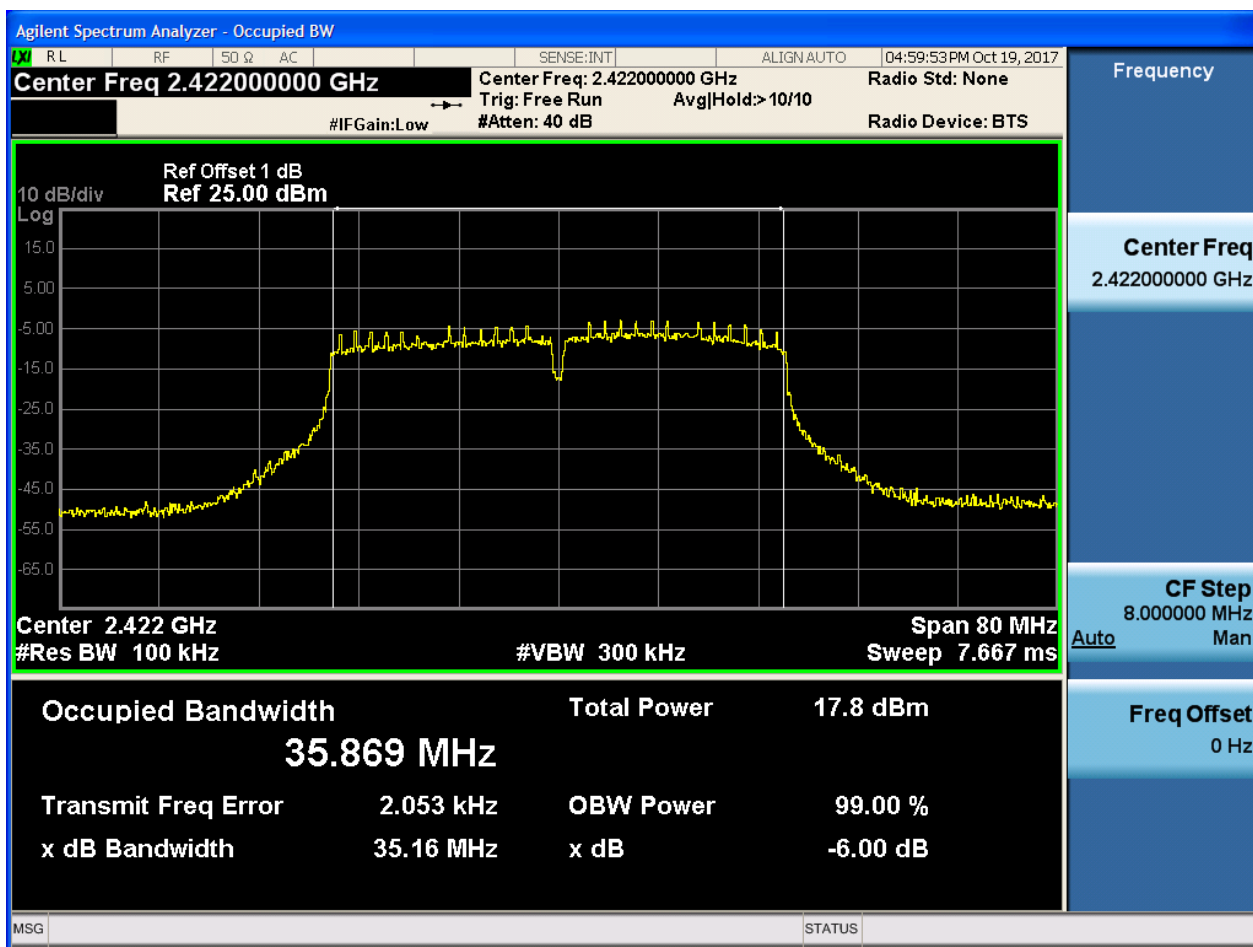


2.30 11N40_H@Ant 2



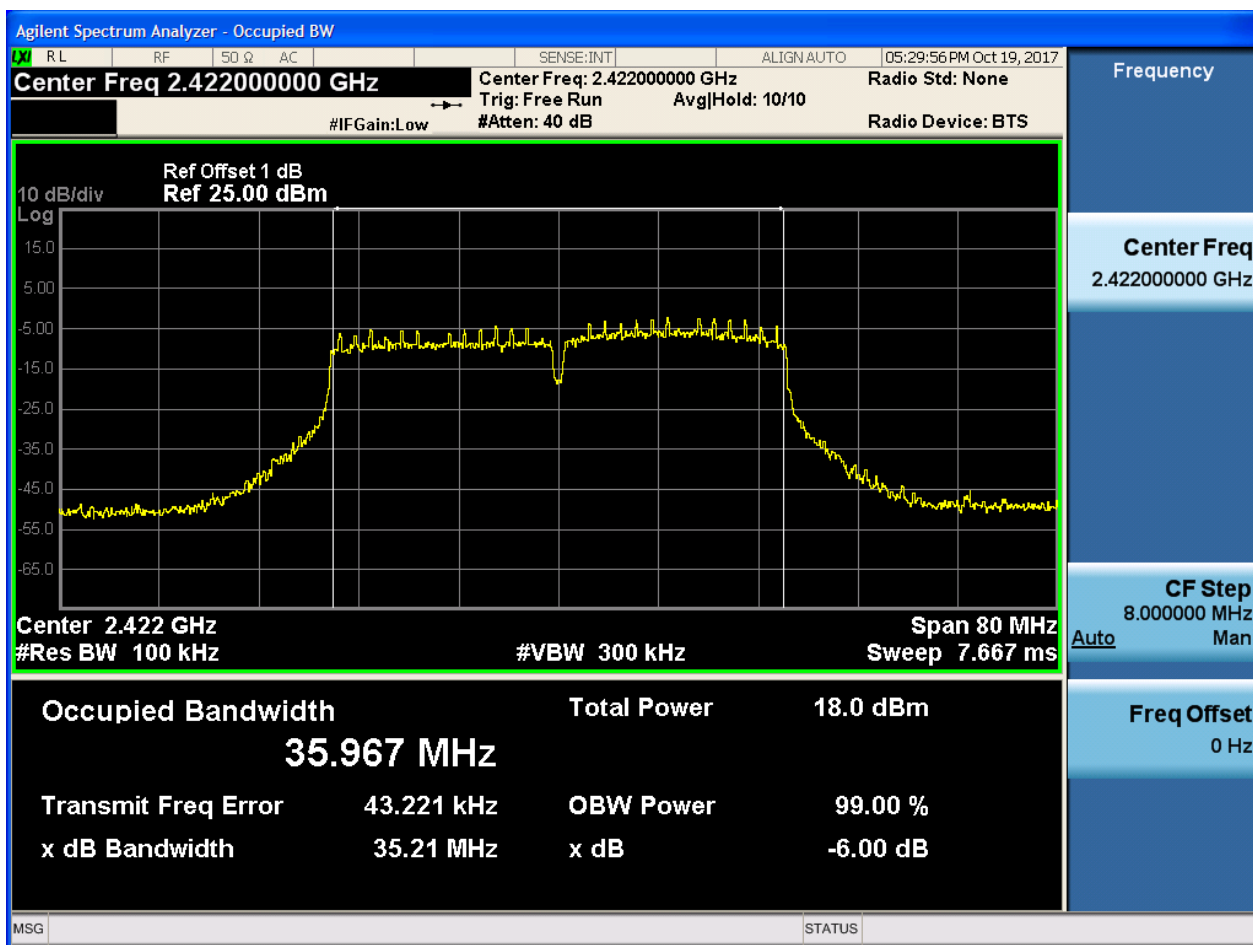


2.31 11N40m_L@Ant 1



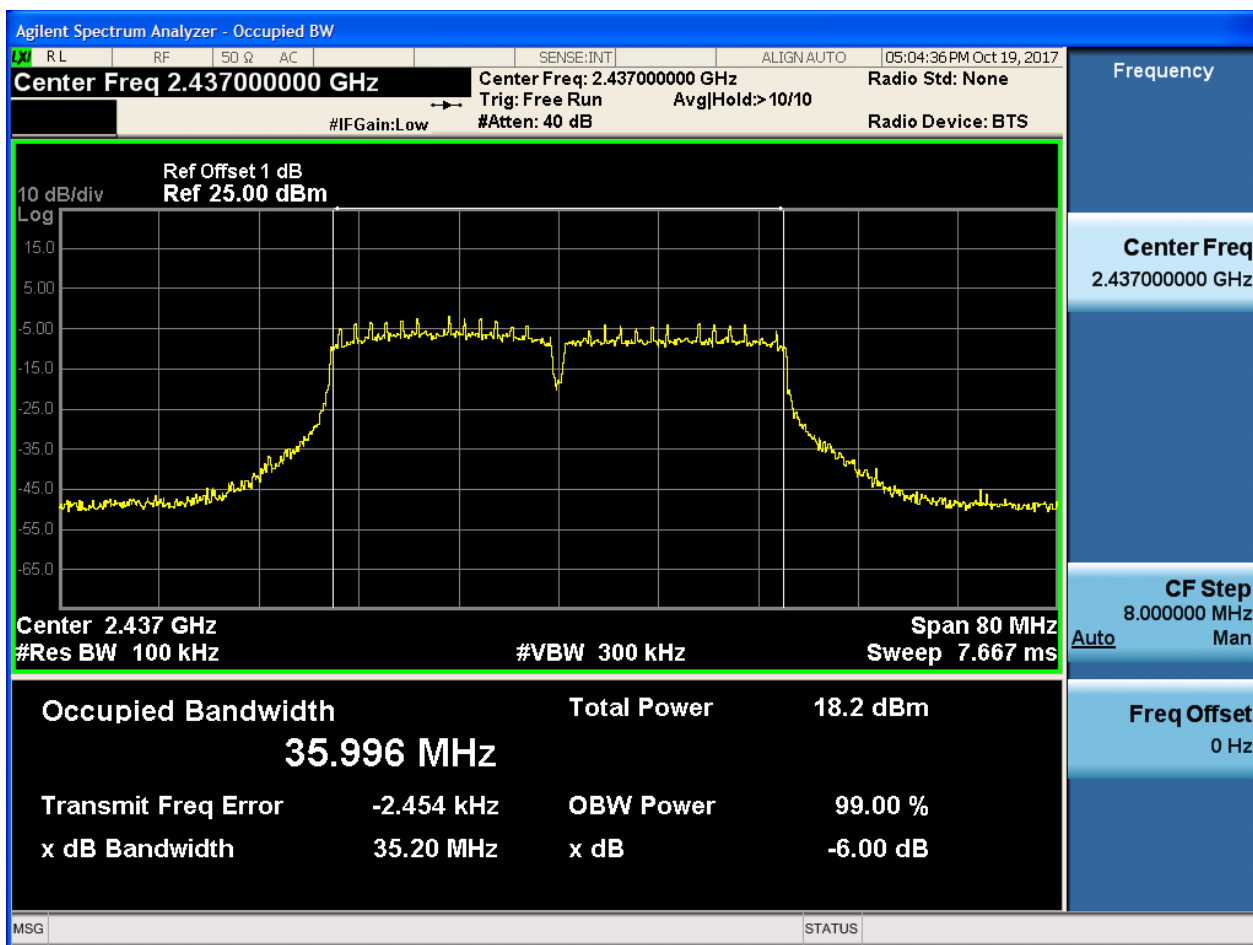


2.32 11N40m_L@Ant 2



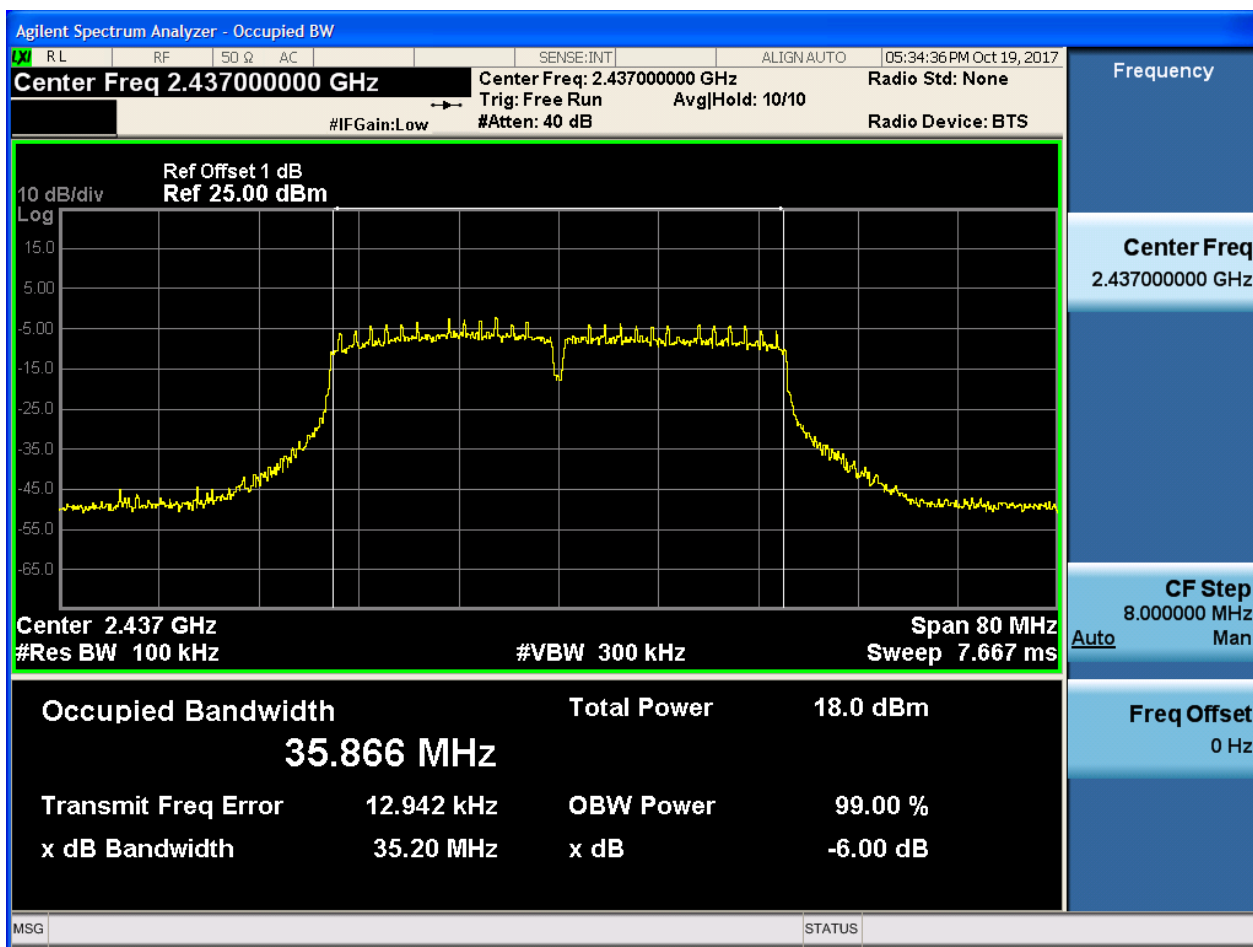


2.33 11N40m_M@Ant 1



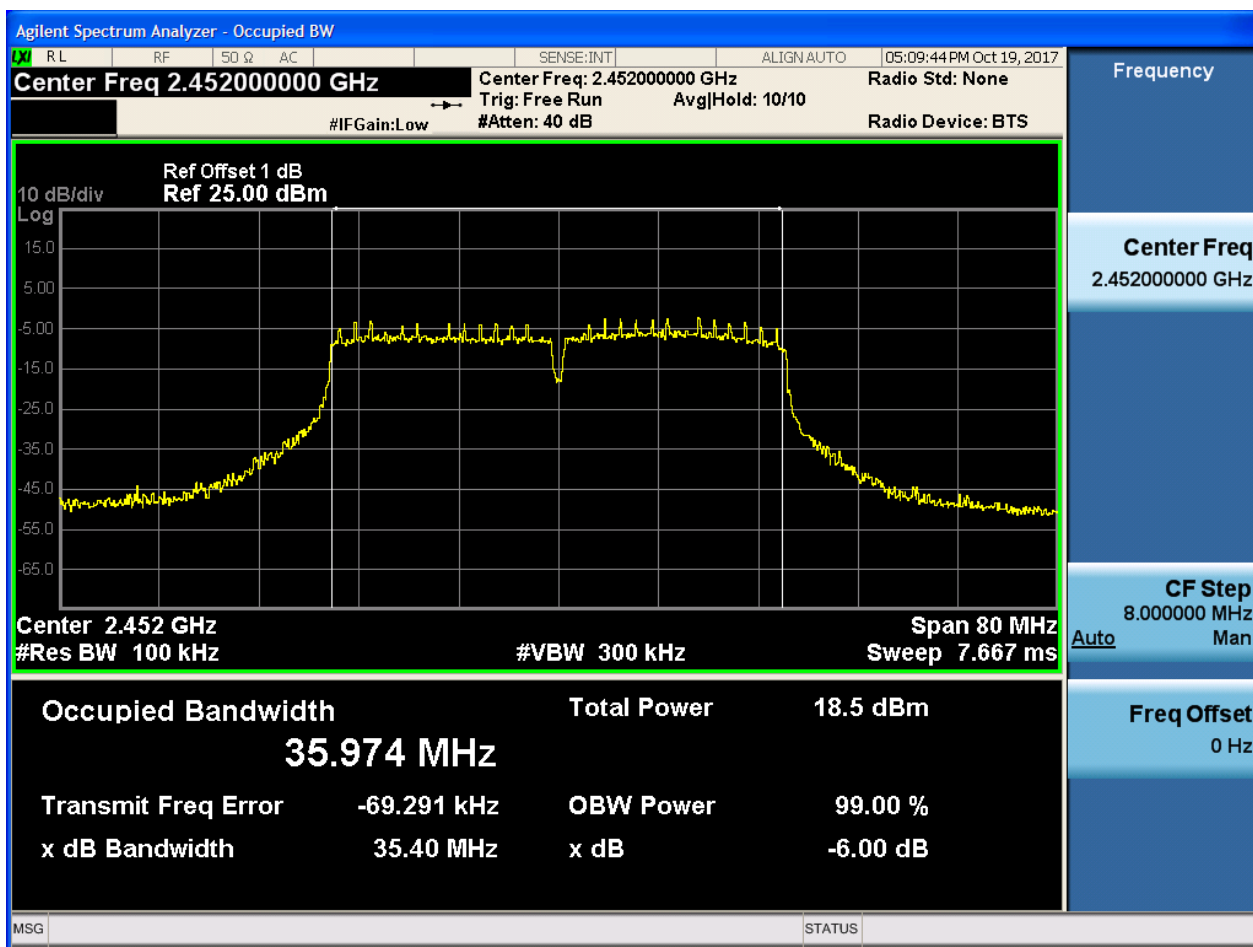


2.34 11N40m_M@Ant 2



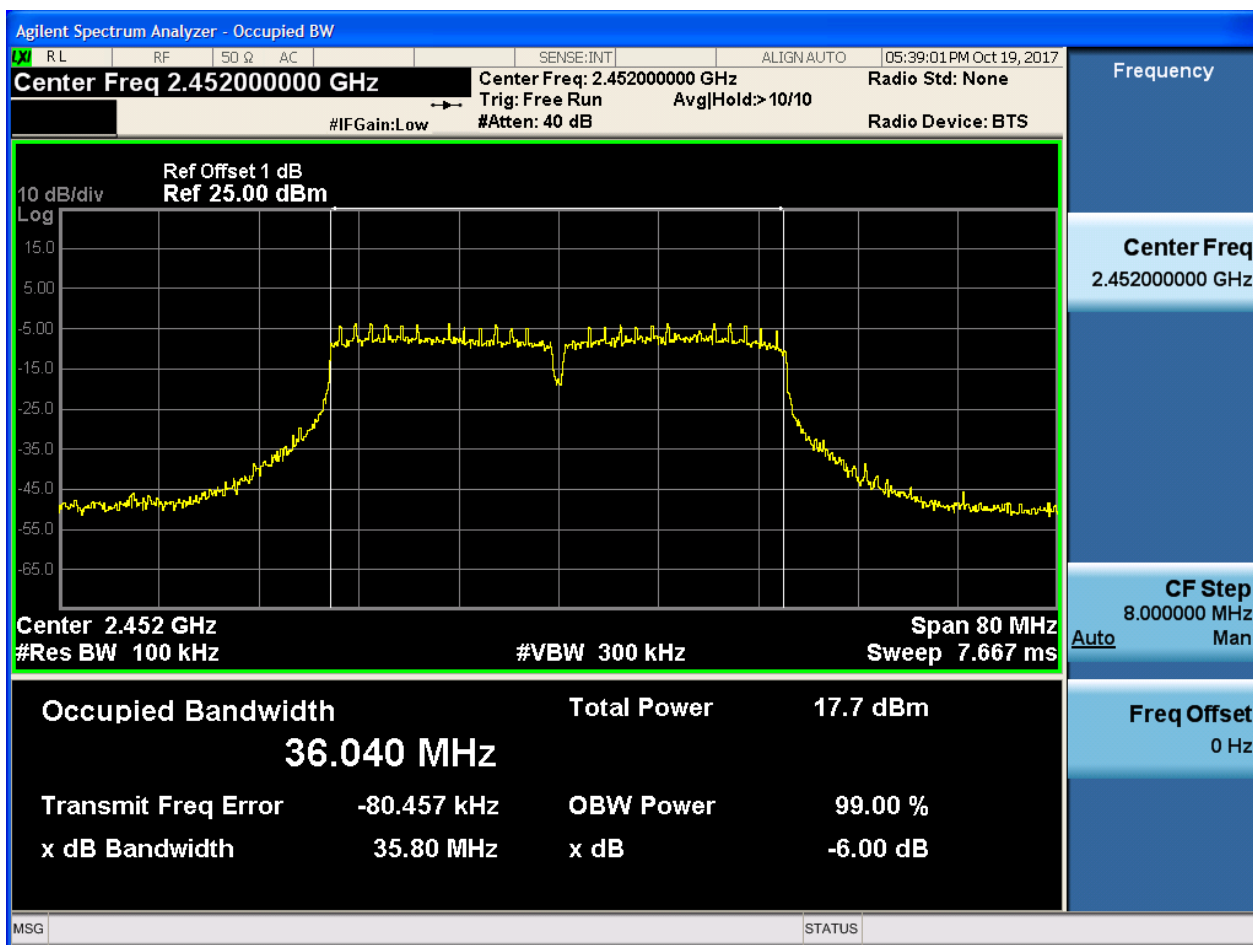


2.35 11N40m_H@Ant 1





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

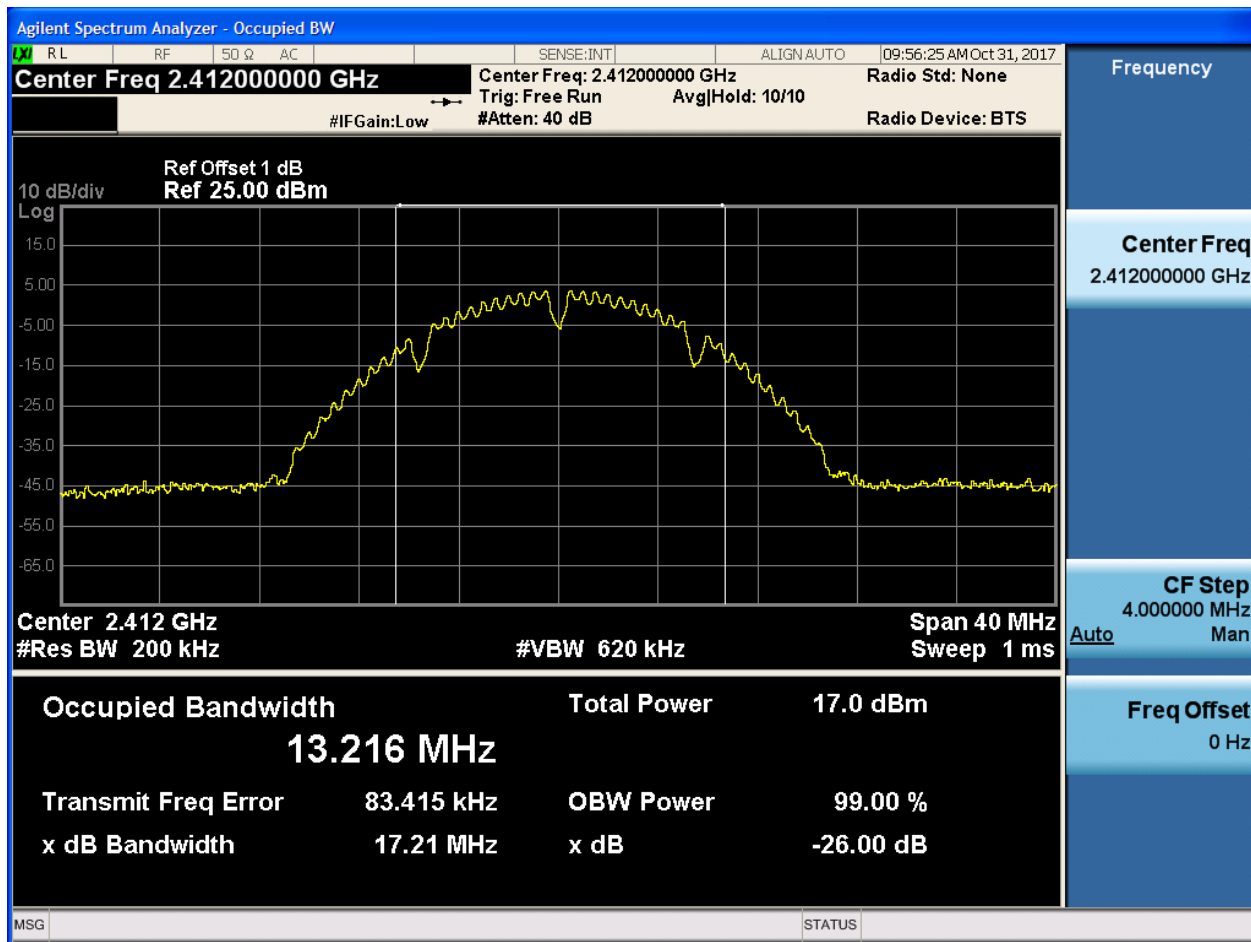
Test Mode	Test Channel	Frequency[MHz]	Ant	Occupied Bandwidth [MHz]	Verdict
11B	L	2412	Ant 1	13.22	pass
11B	L	2412	Ant 2	13.15	pass
11B	M	2437	Ant 1	13.07	pass
11B	M	2437	Ant 2	12.86	pass
11B	H	2462	Ant 1	12.82	pass
11B	H	2462	Ant 2	12.88	pass
11G	L	2412	Ant 1	16.46	pass
11G	L	2412	Ant 2	16.44	pass
11G	M	2437	Ant 1	16.40	pass
11G	M	2437	Ant 2	16.35	pass
11G	H	2462	Ant 1	16.32	pass
11G	H	2462	Ant 2	16.33	pass
11N20	L	2412	Ant 1	17.62	pass
11N20	L	2412	Ant 2	17.61	pass
11N20	M	2437	Ant 1	17.55	pass
11N20	M	2437	Ant 2	17.50	pass
11N20	H	2462	Ant 1	17.47	pass
11N20	H	2462	Ant 2	17.51	pass
11N20m	L	2412	Ant 1	17.62	pass
11N20m	L	2412	Ant 2	17.60	pass
11N20m	M	2437	Ant 1	17.56	pass
11N20m	M	2437	Ant 2	17.50	pass
11N20m	H	2462	Ant 1	17.49	pass
11N20m	H	2462	Ant 2	17.50	pass
11N40	L	2422	Ant 1	36.00	pass
11N40	L	2422	Ant 2	36.10	pass
11N40	M	2437	Ant 1	36.11	pass
11N40	M	2437	Ant 2	35.97	pass
11N40	H	2452	Ant 1	36.14	pass
11N40	H	2452	Ant 2	36.19	pass
11N40m	L	2422	Ant 1	35.98	pass
11N40m	L	2422	Ant 2	36.03	pass
11N40m	M	2437	Ant 1	36.14	pass
11N40m	M	2437	Ant 2	35.95	pass



Test Mode	Test Channel	Frequency[MHz]	Ant	Occupied Bandwidth [MHz]	Verdict
11N40m	H	2452	Ant 1	36.13	pass
11N40m	H	2452	Ant 2	36.13	pass

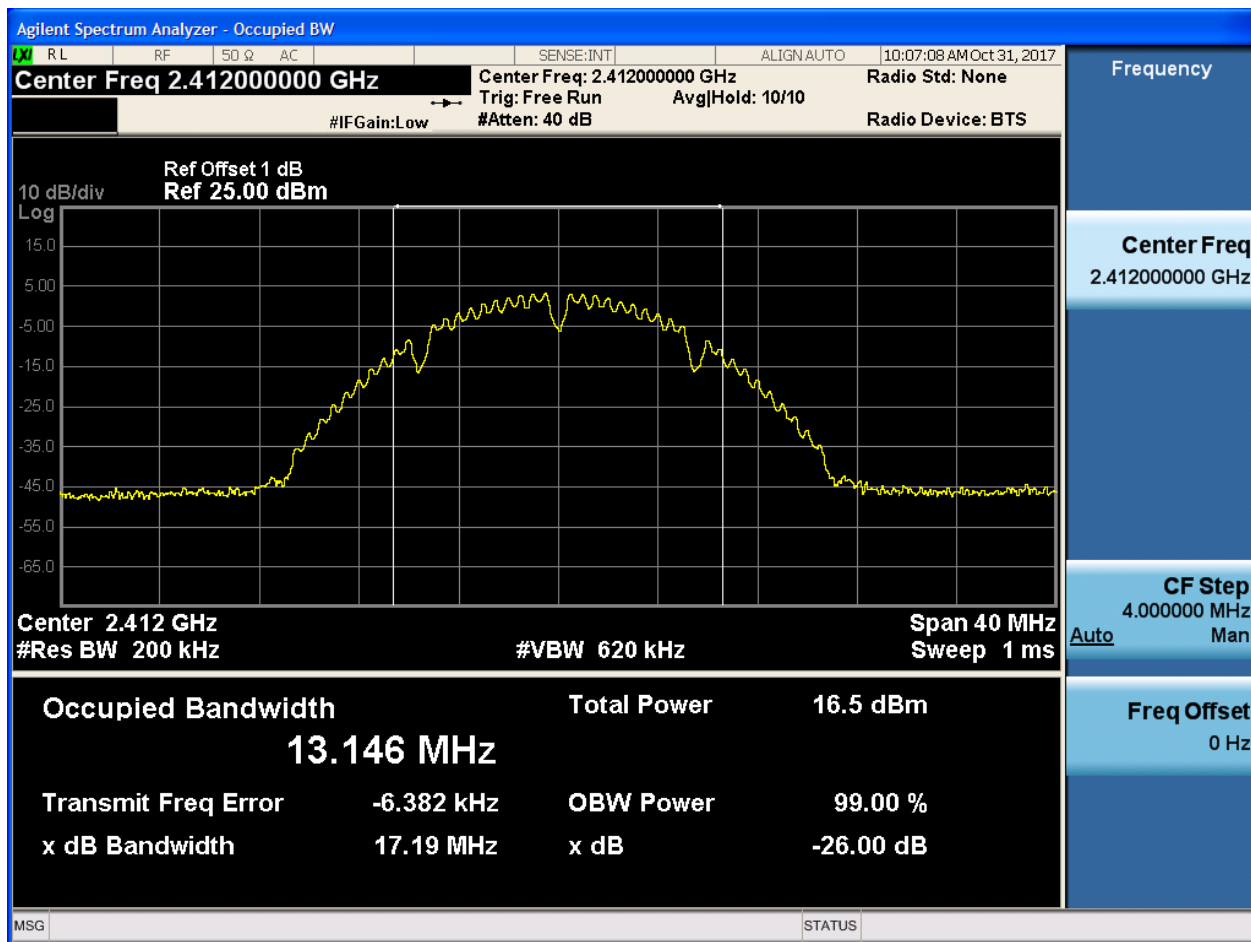
Part II - Test Plots

2.1 11B_L@Ant 1



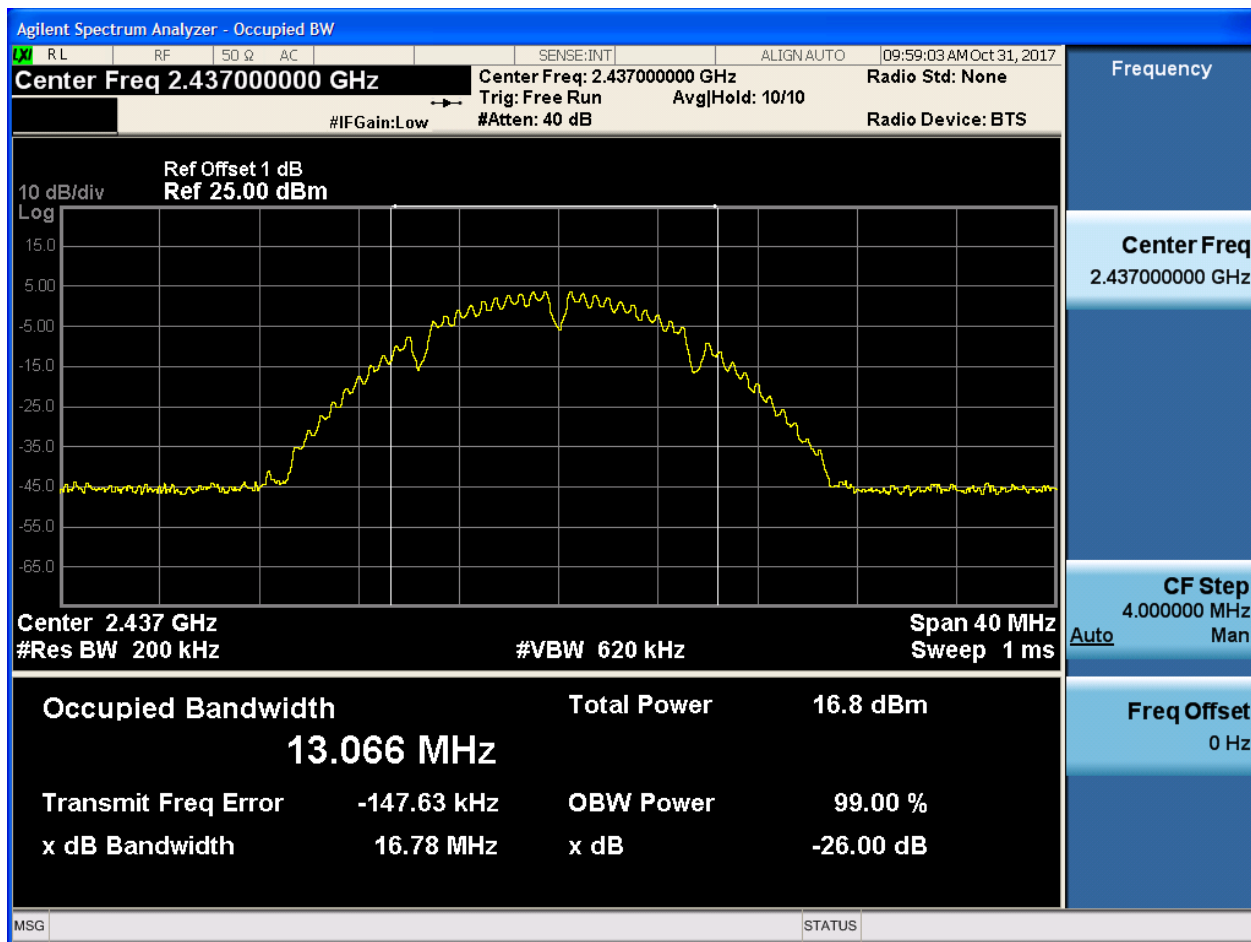


2.2 11B_L@Ant 2



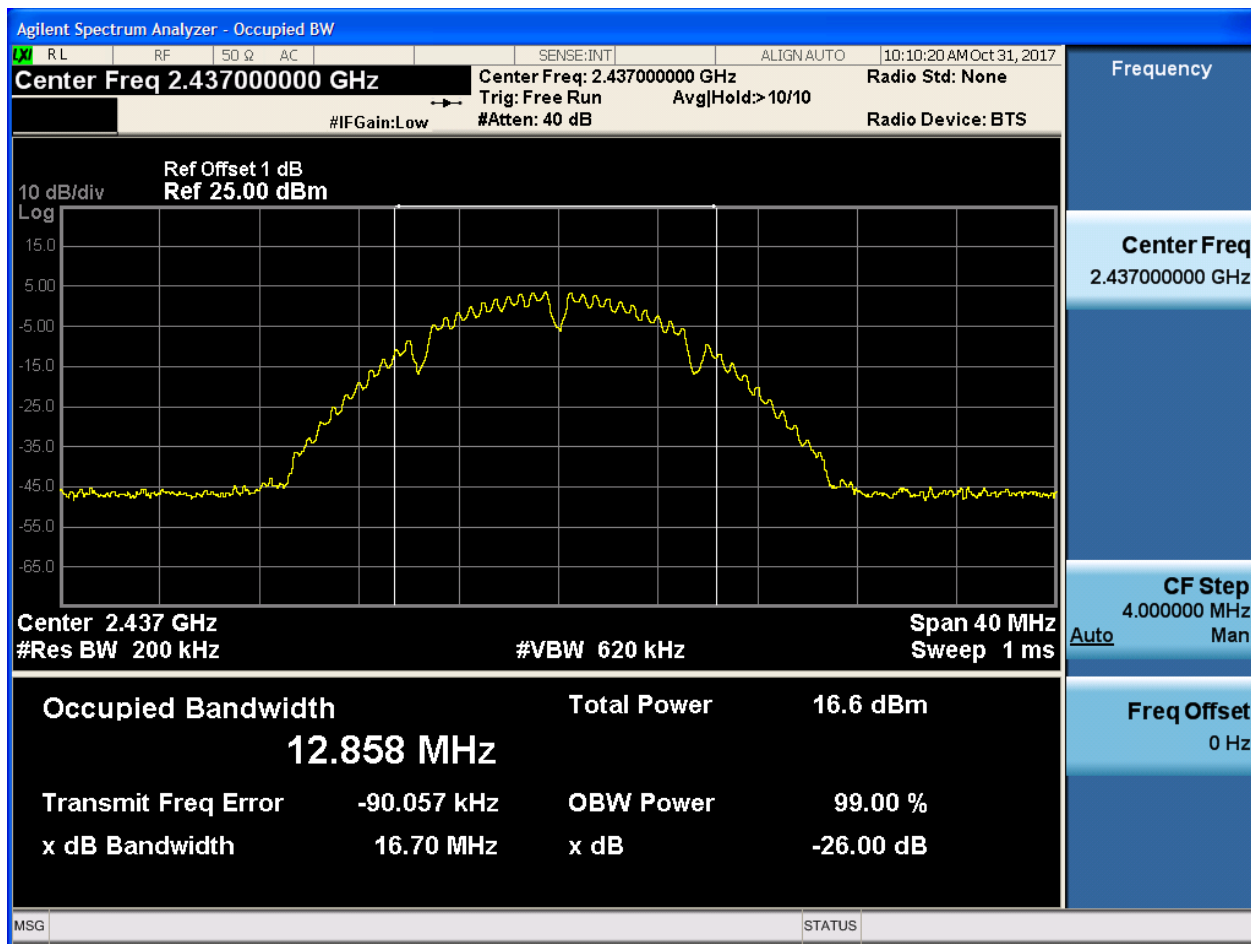


2.3 11B_M@Ant 1



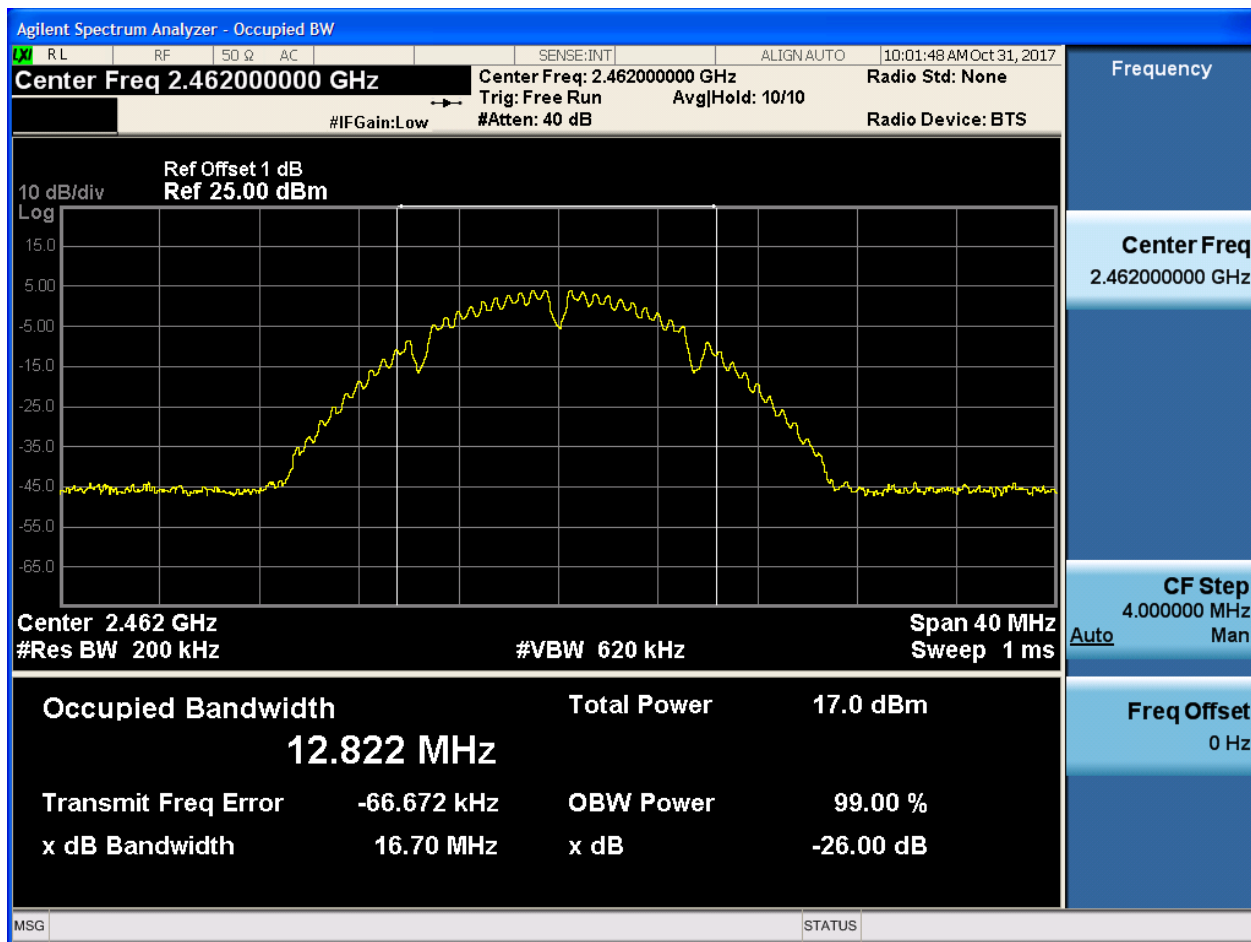


2.4 11B_M@Ant 2



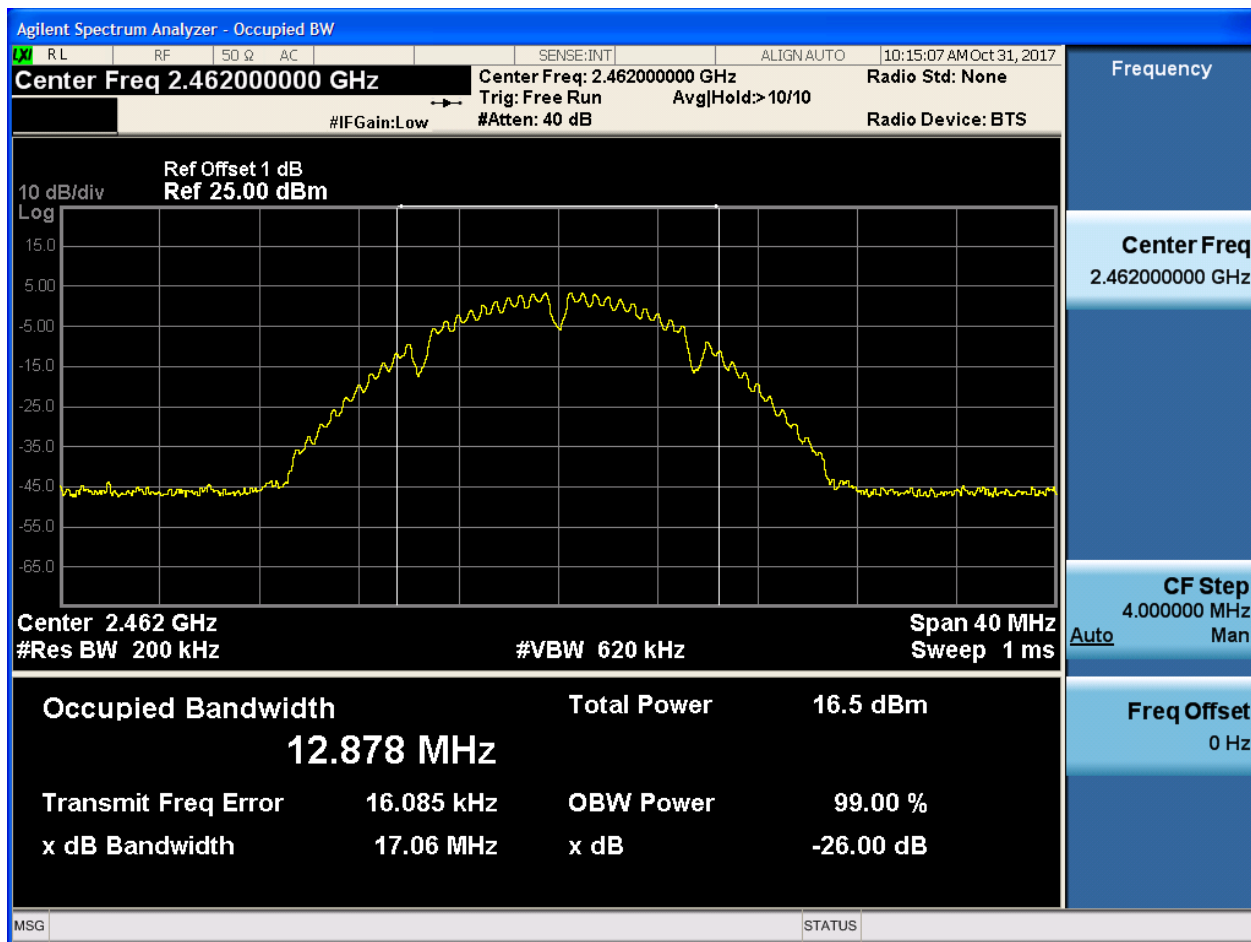


2.5 11B_H@Ant 1



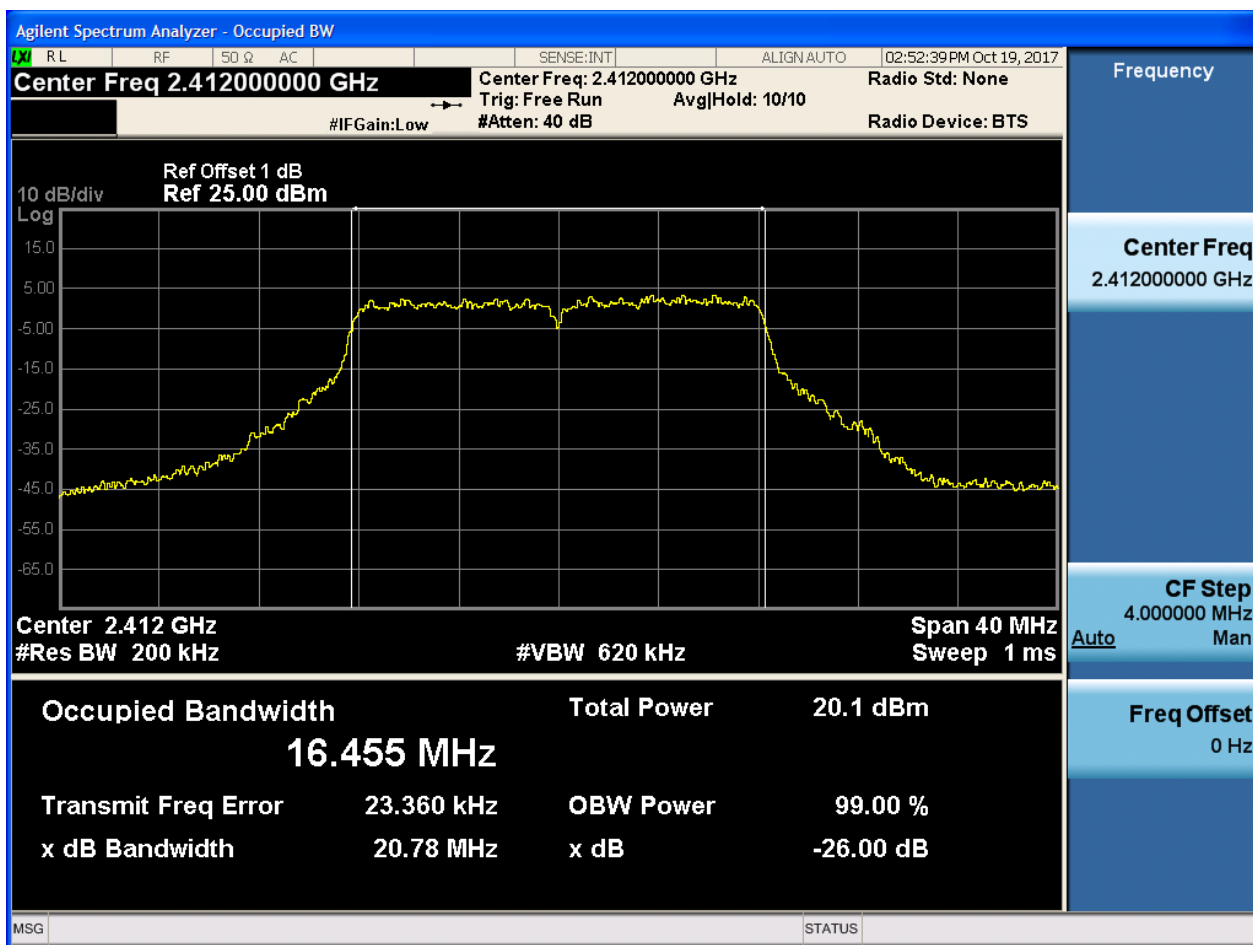


2.6 11B_H@Ant 2



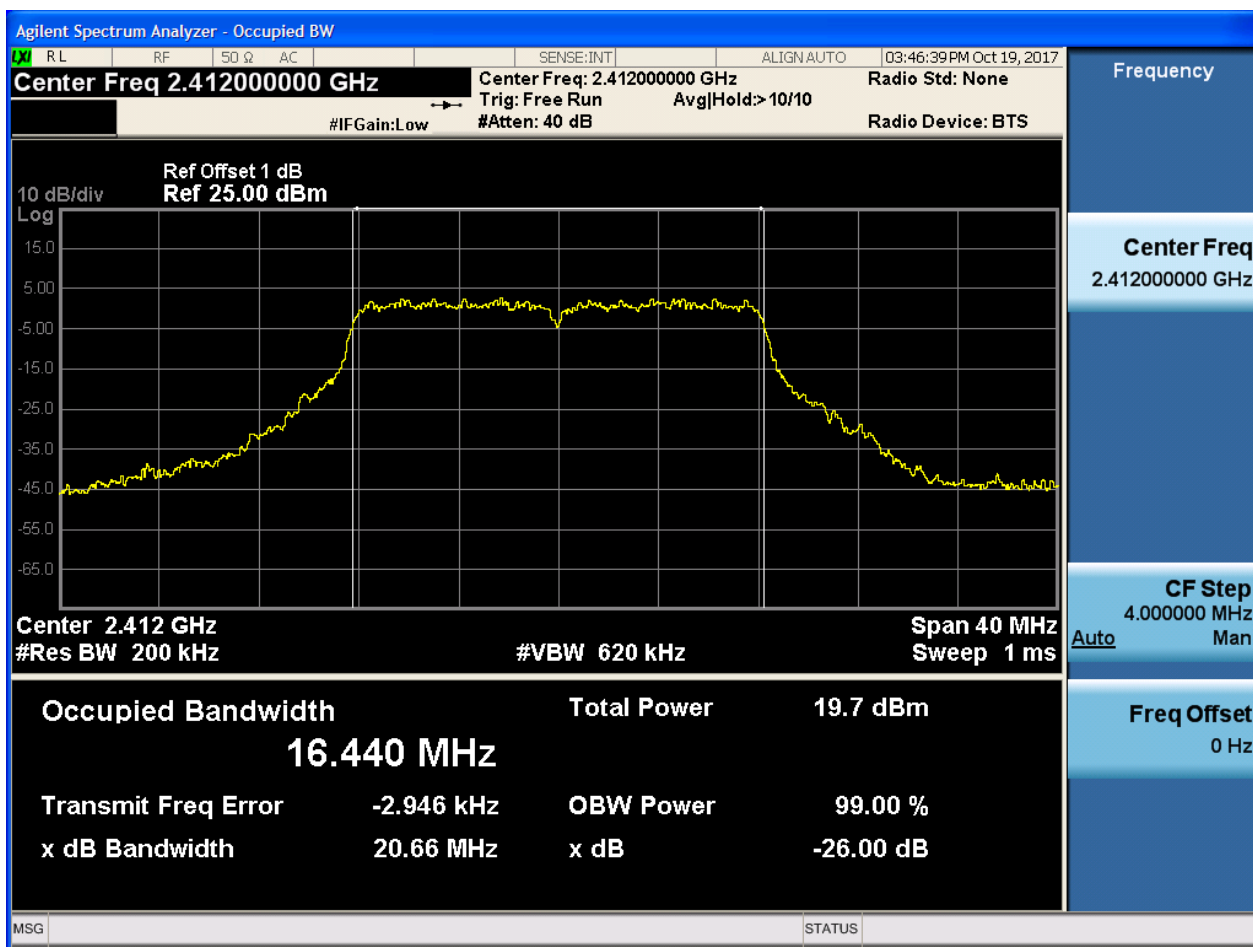


2.7 11G_L@Ant 1



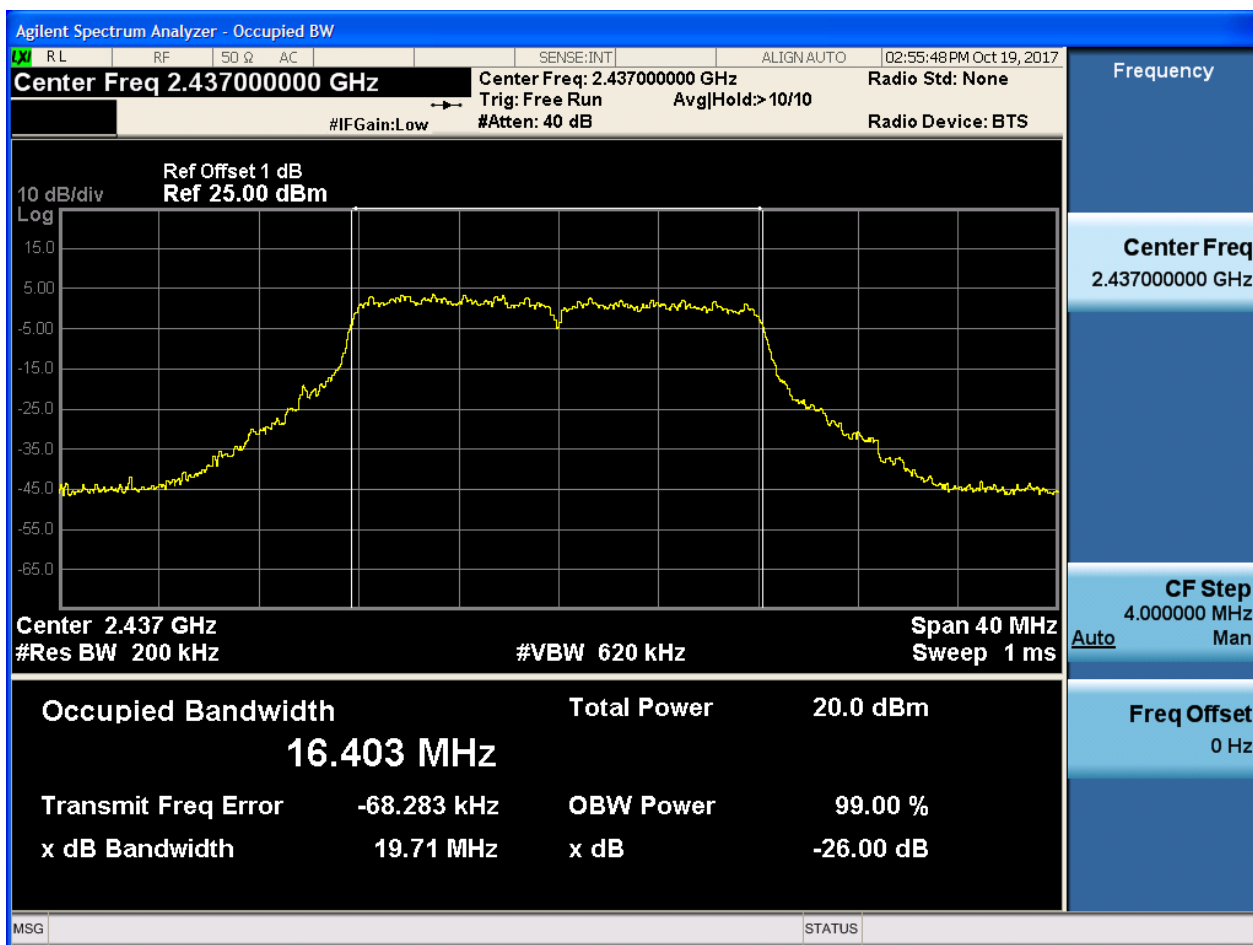


2.8 11G_L@Ant 2



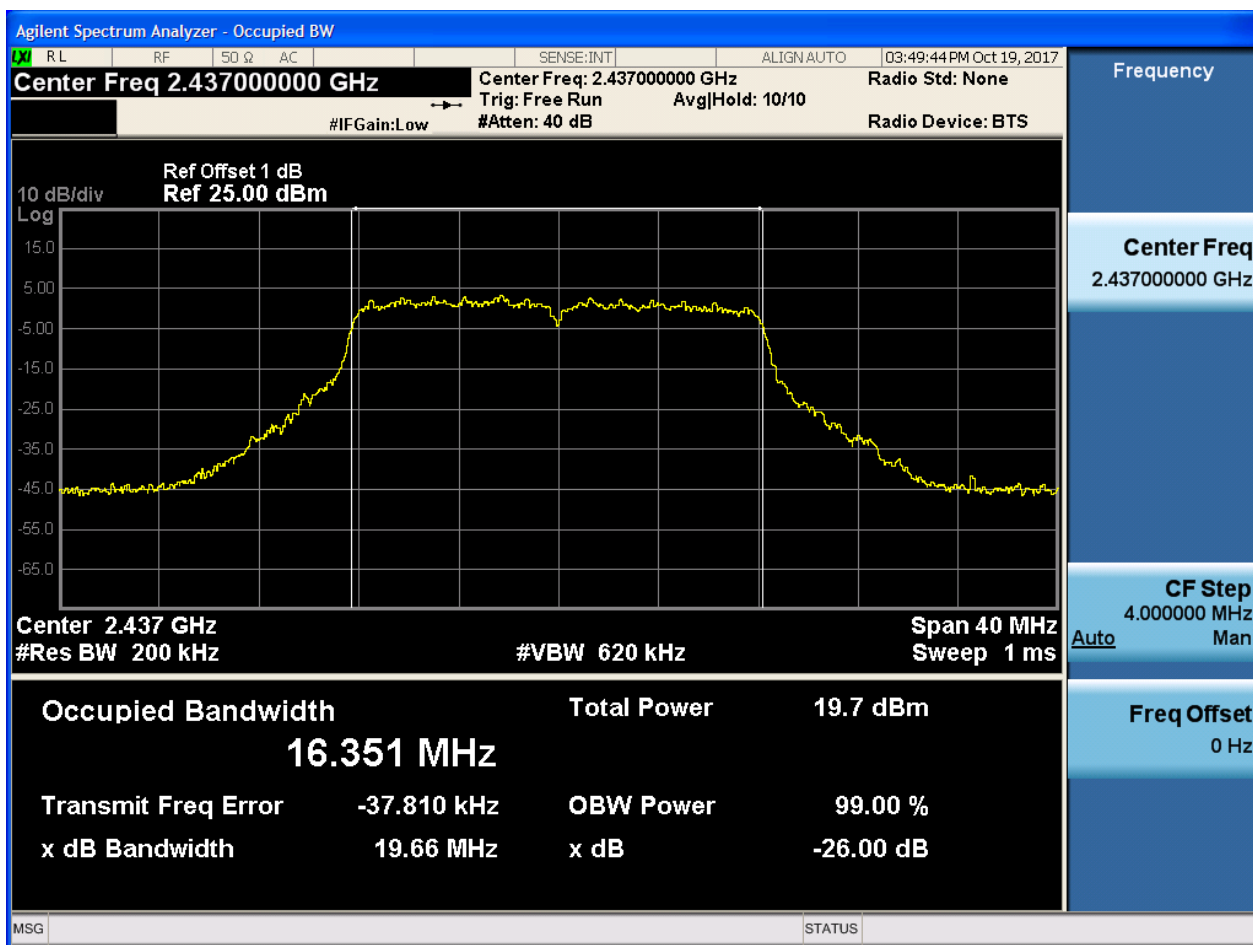


2.9 11G_M@Ant 1



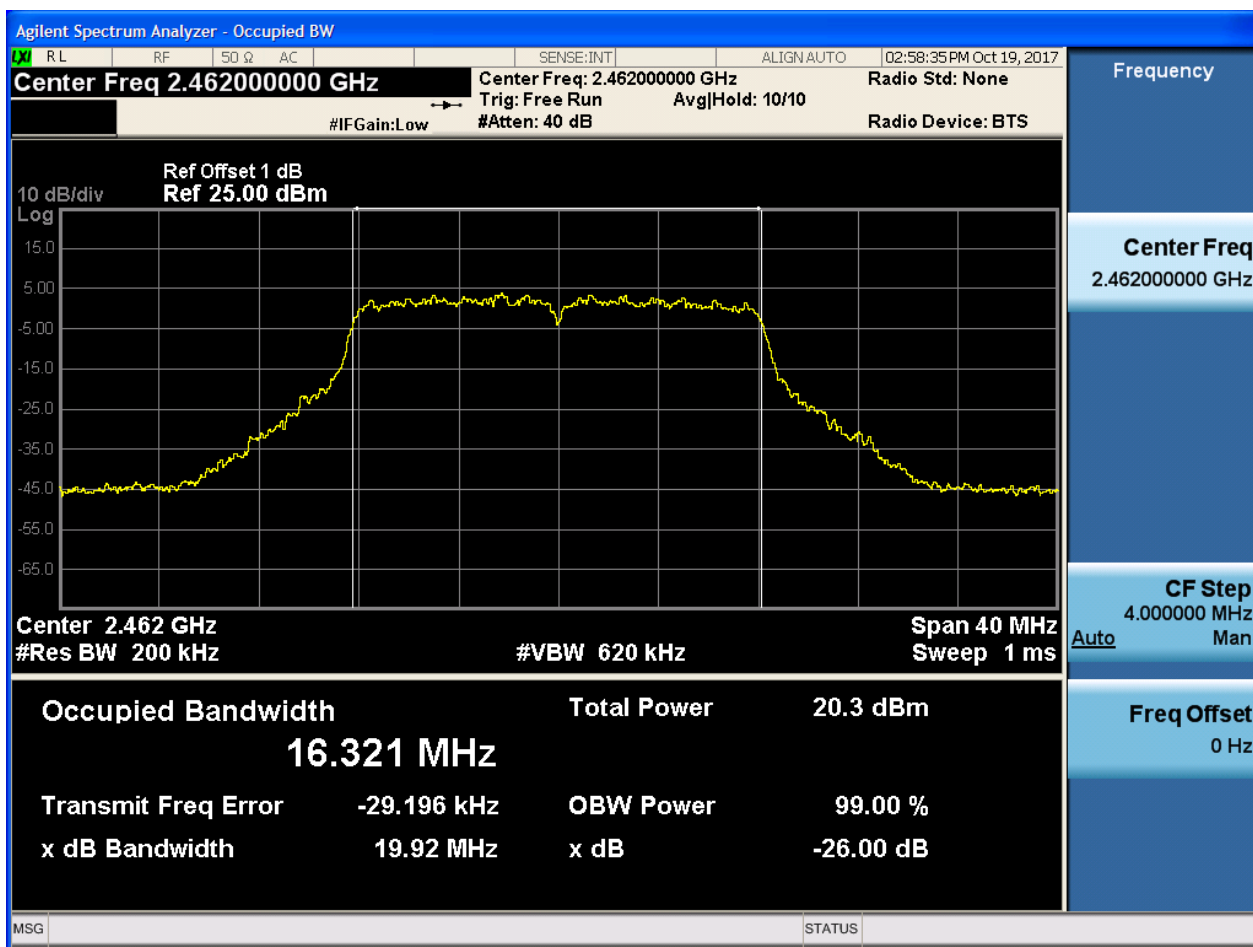


2.10 11G_M@Ant 2



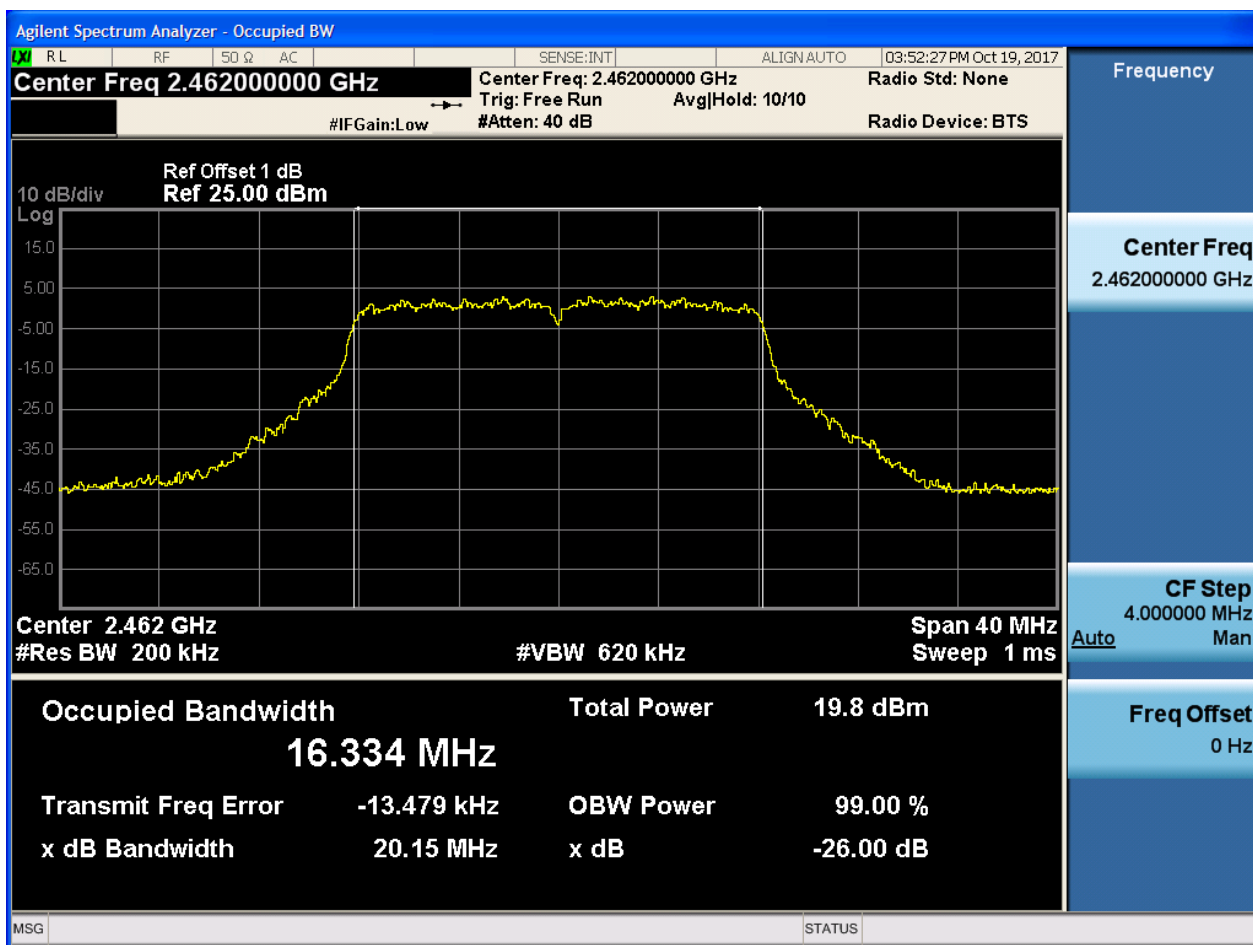


2.11 11G_H@Ant 1



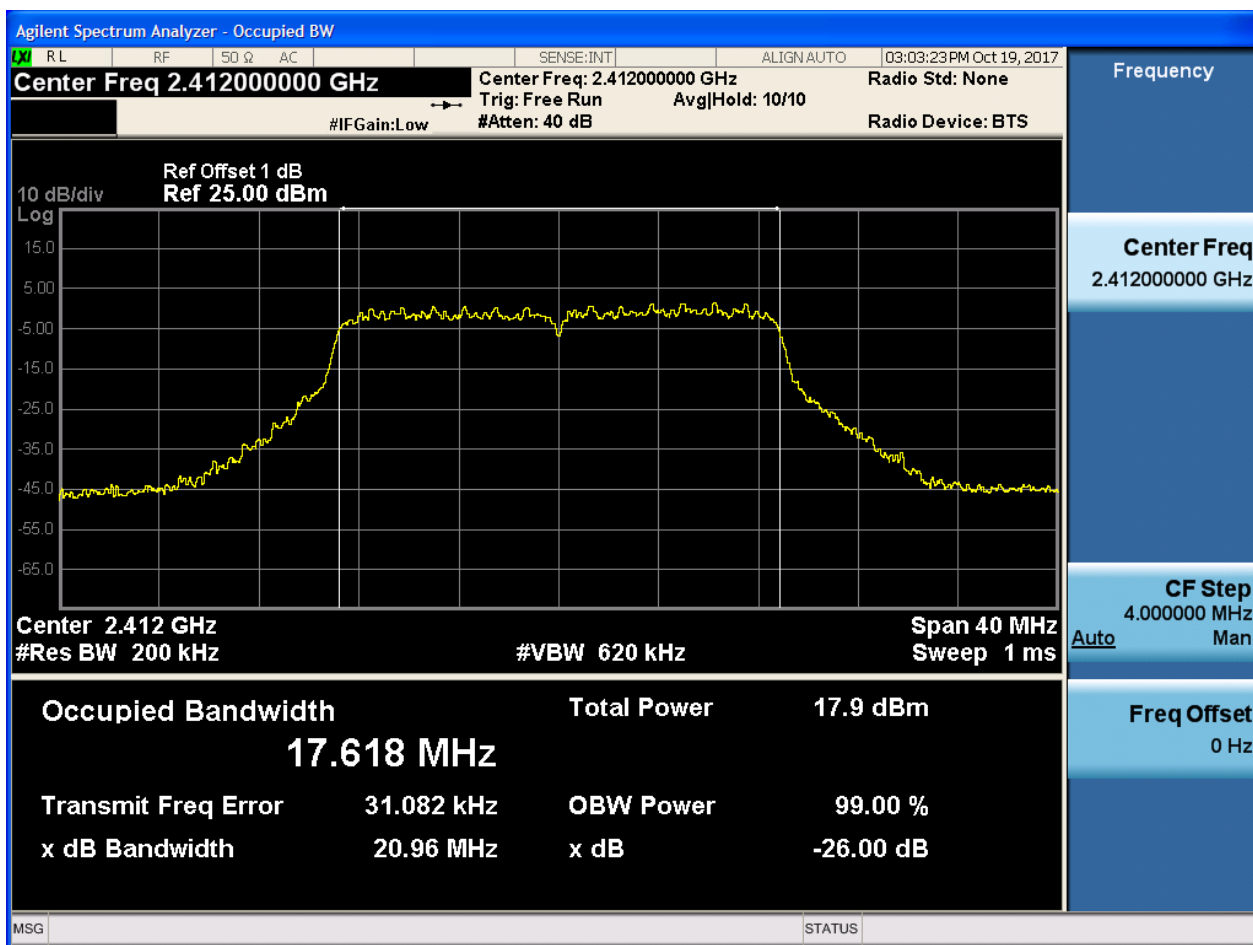


2.12 11G_H@Ant 2



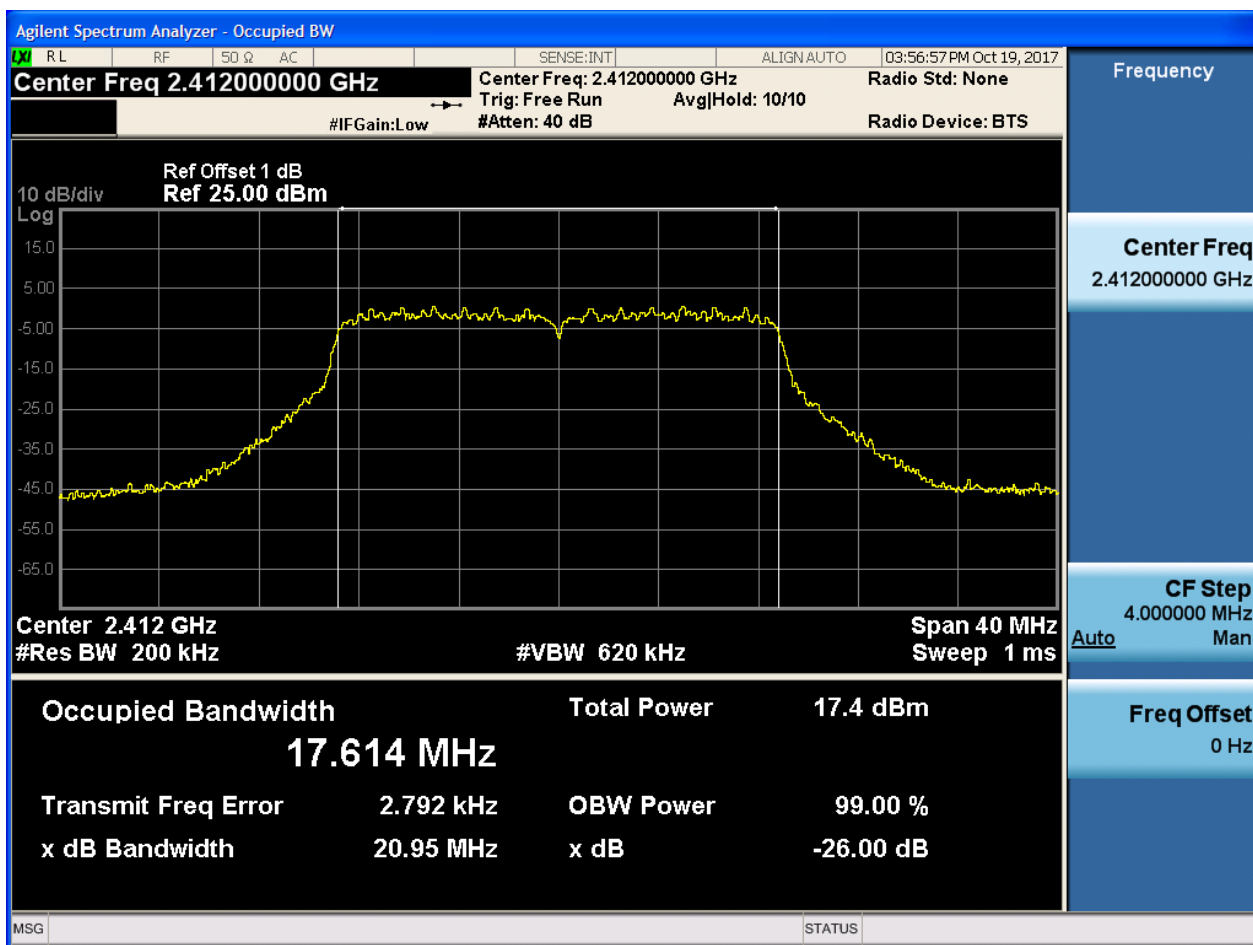


2.13 11N20_L@Ant 1



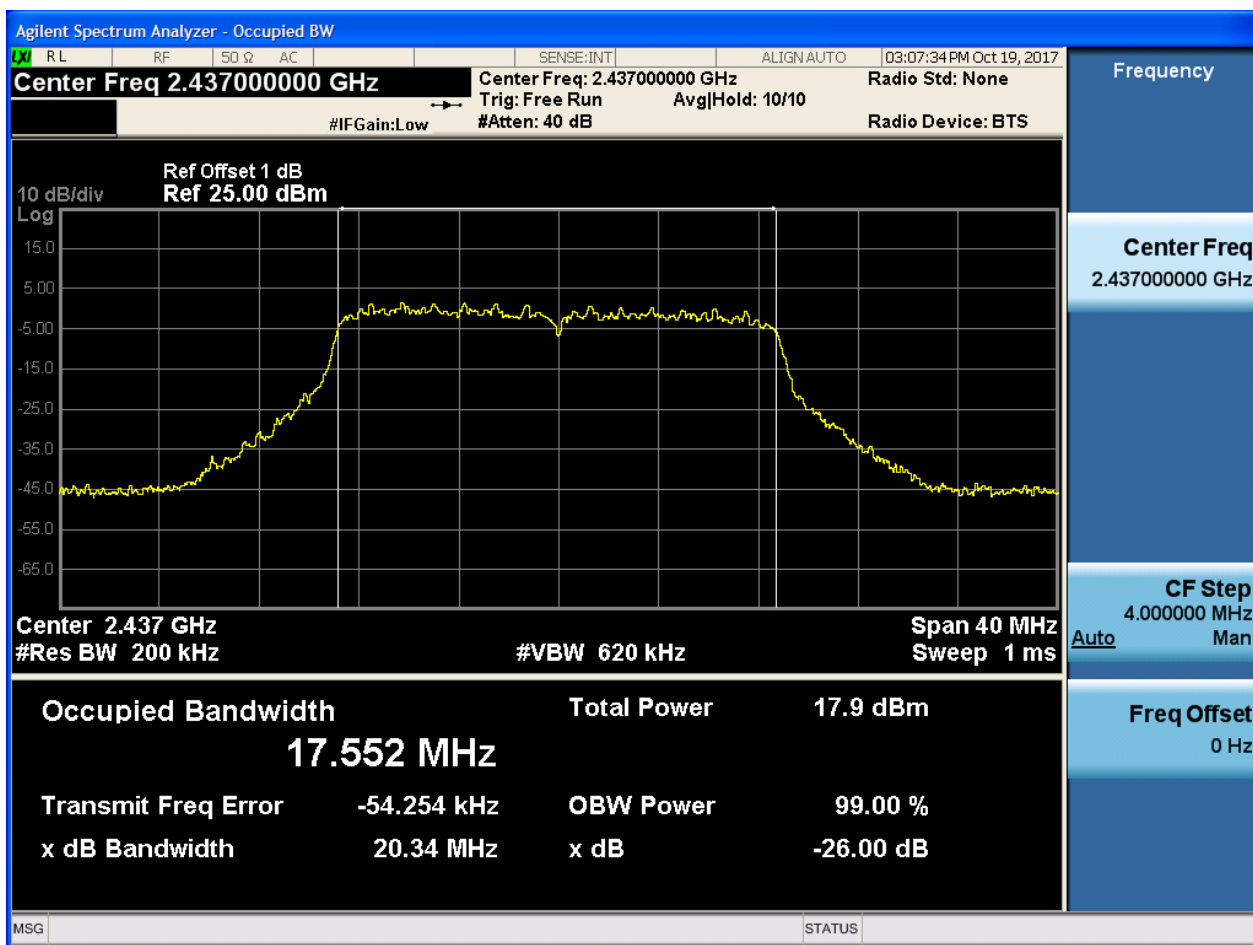


2.14 11N20_L@Ant 2



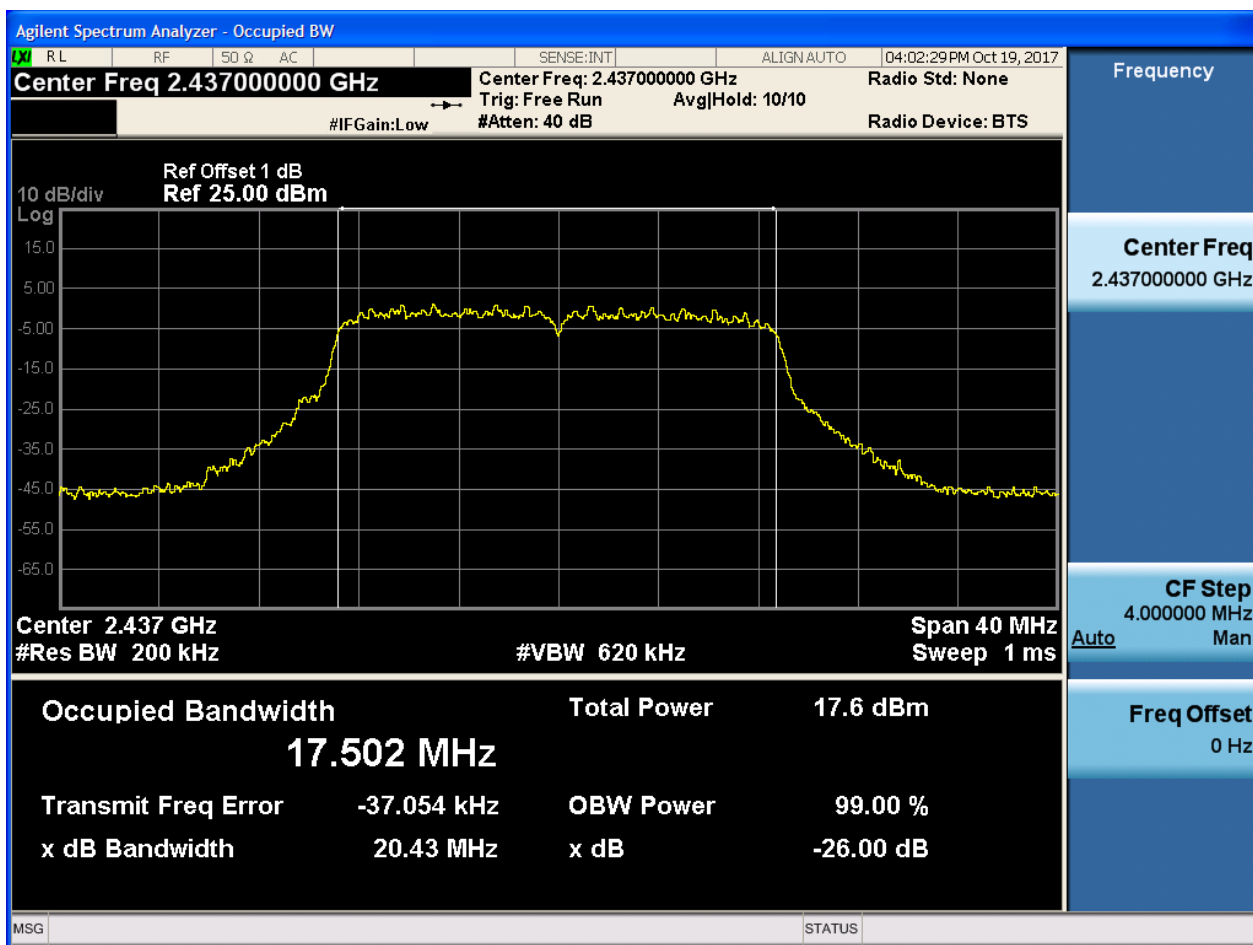


2.15 11N20_M@Ant 1



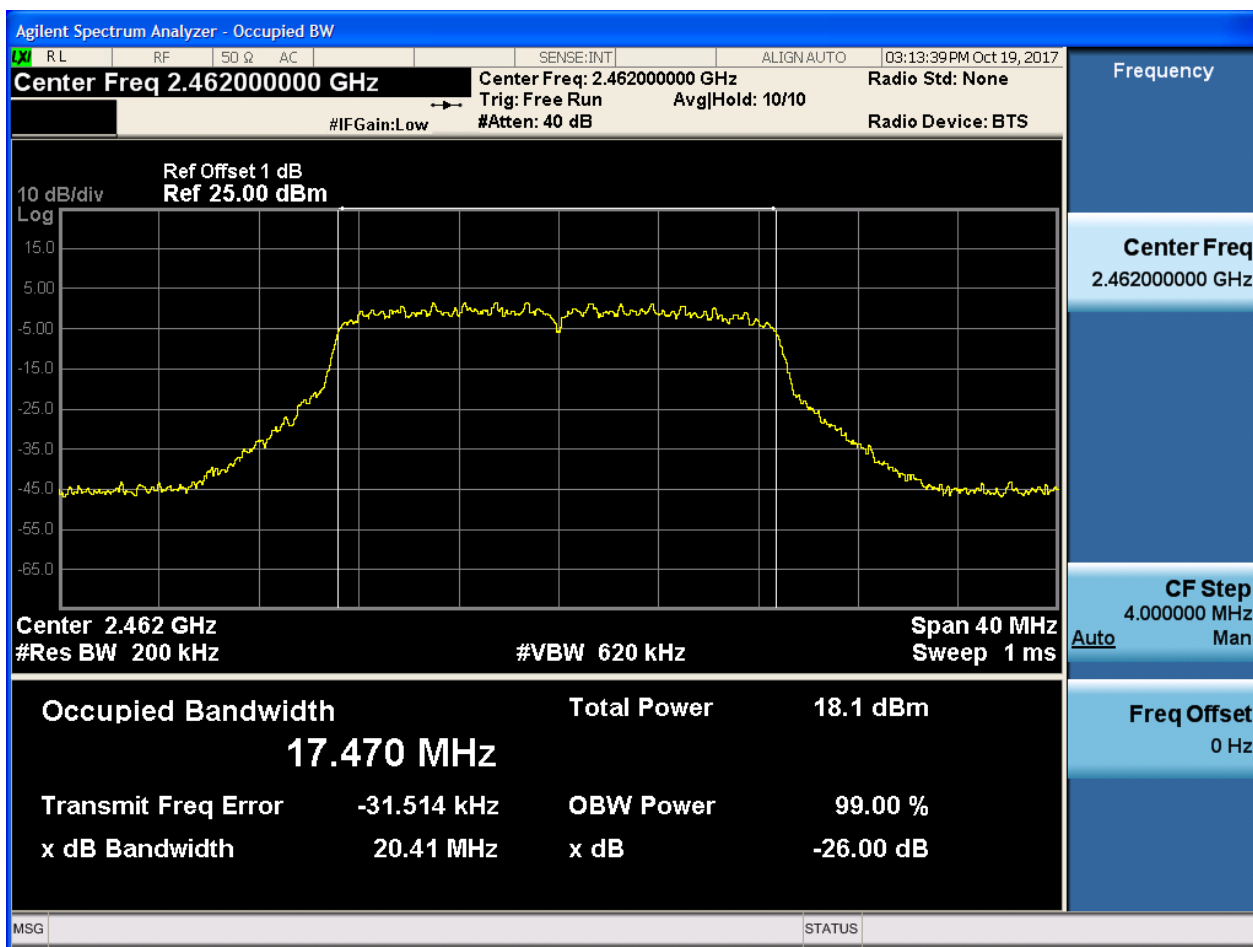


2.16 11N20_M@Ant 2



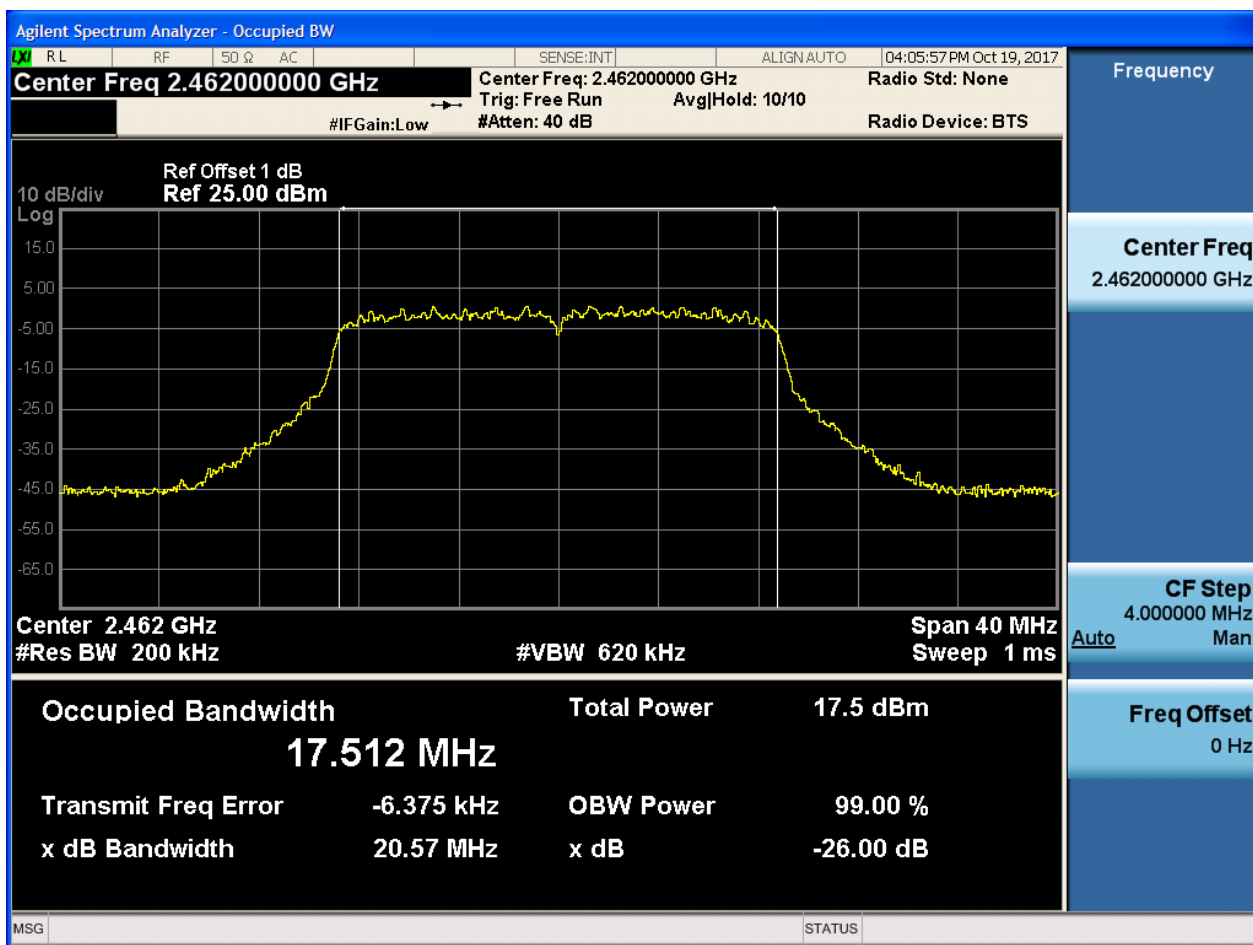


2.17 11N20_H@Ant 1



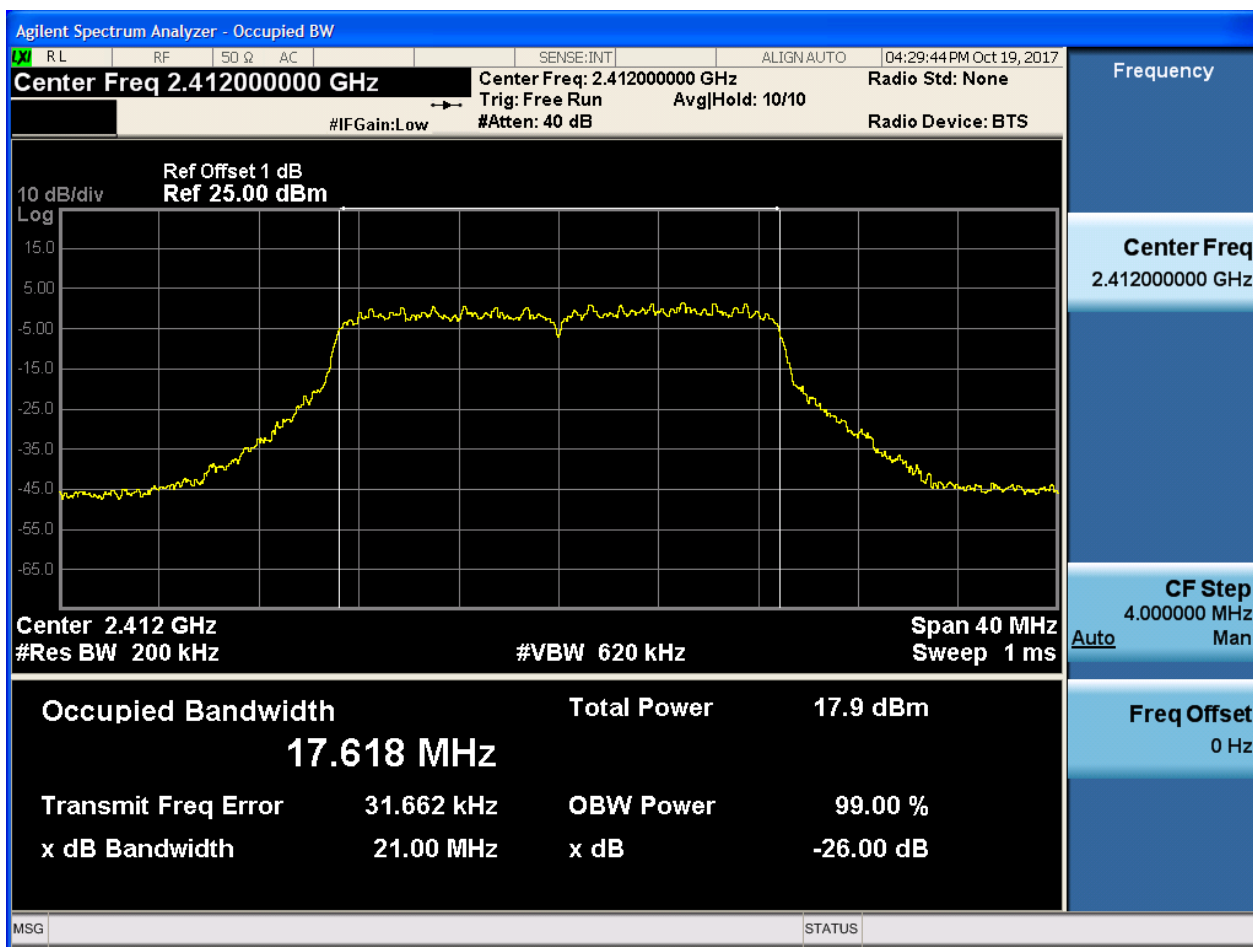


2.18 11N20_H@Ant 2



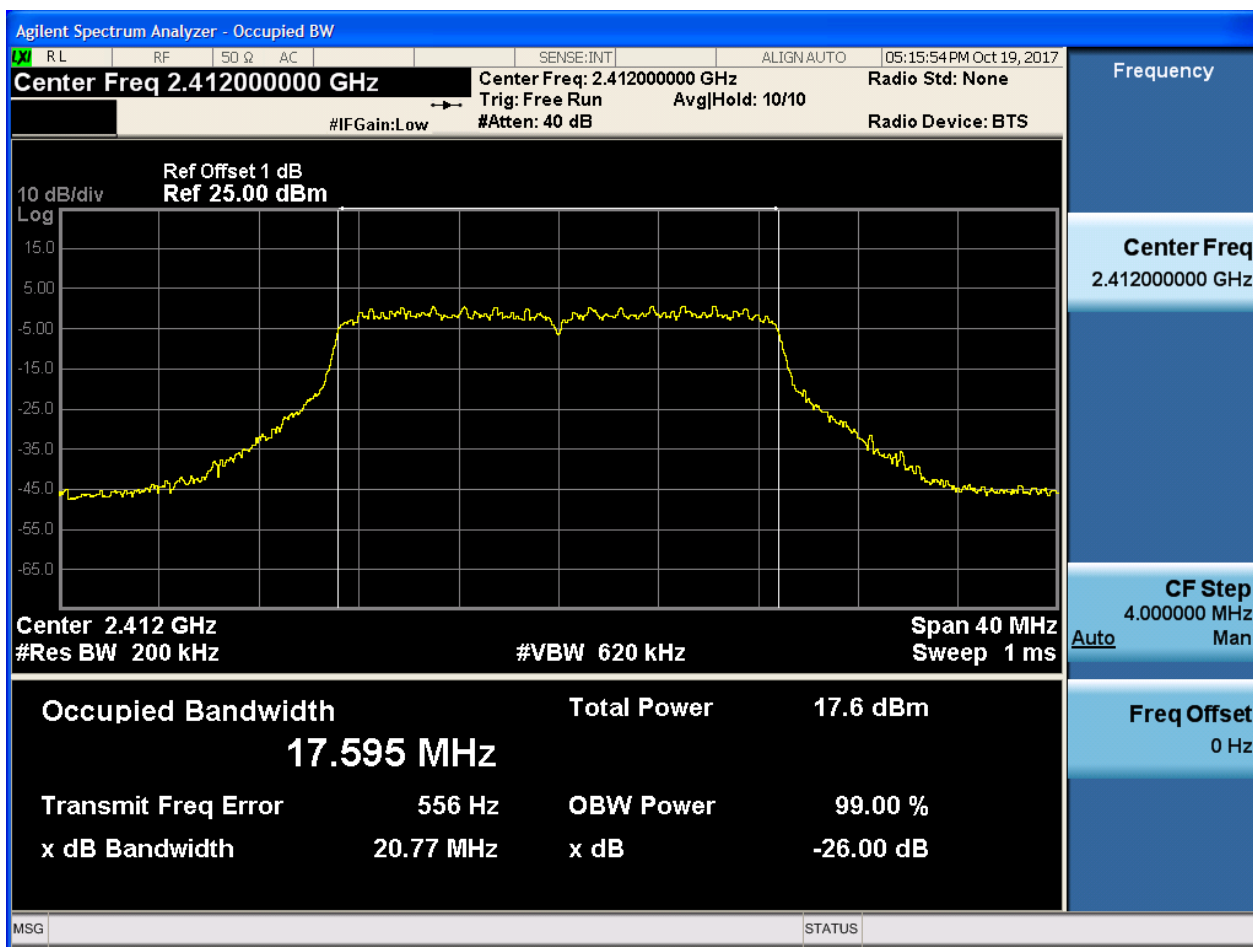


2.19 11N20m_L@Ant 1



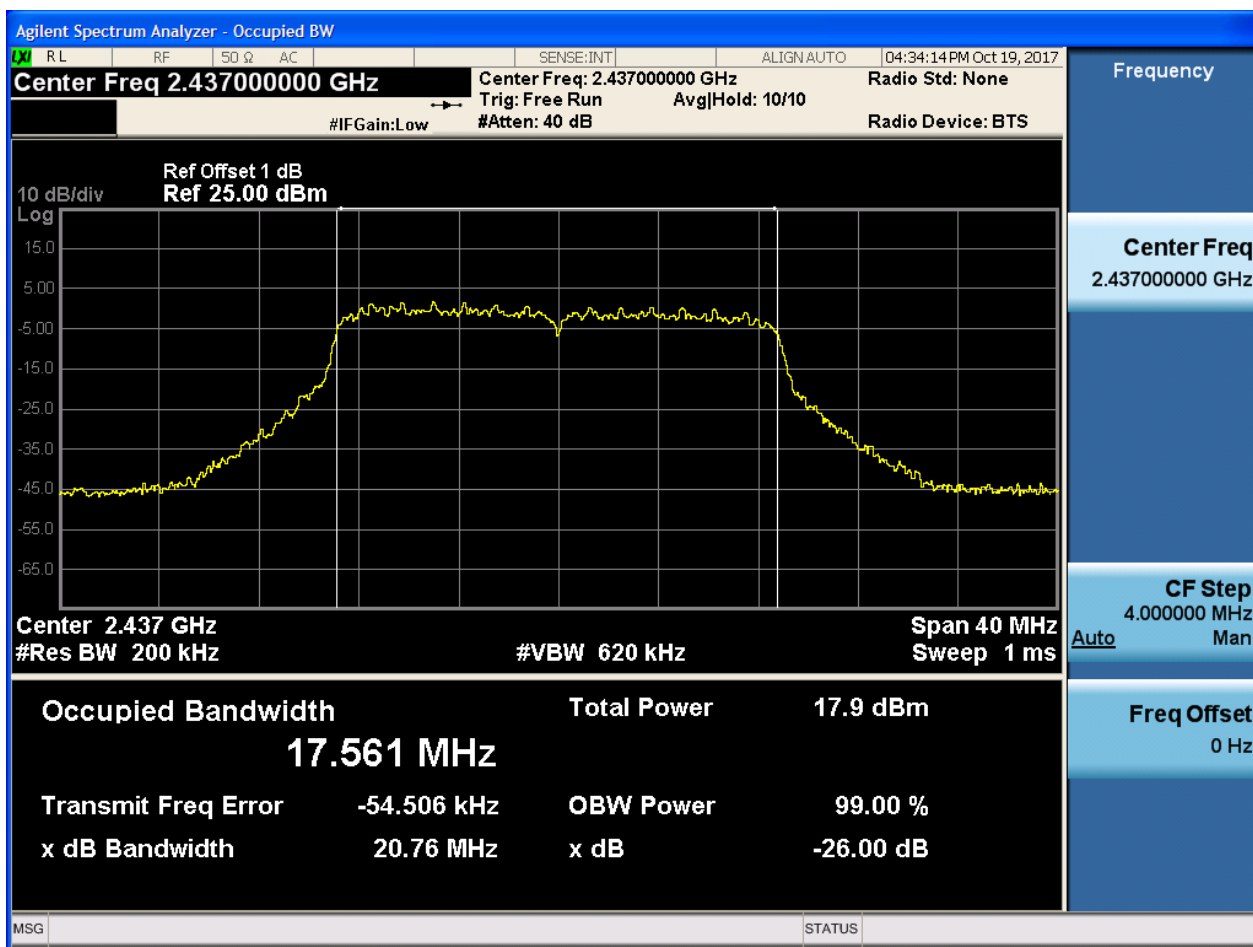


2.20 11N20m_L@Ant 2



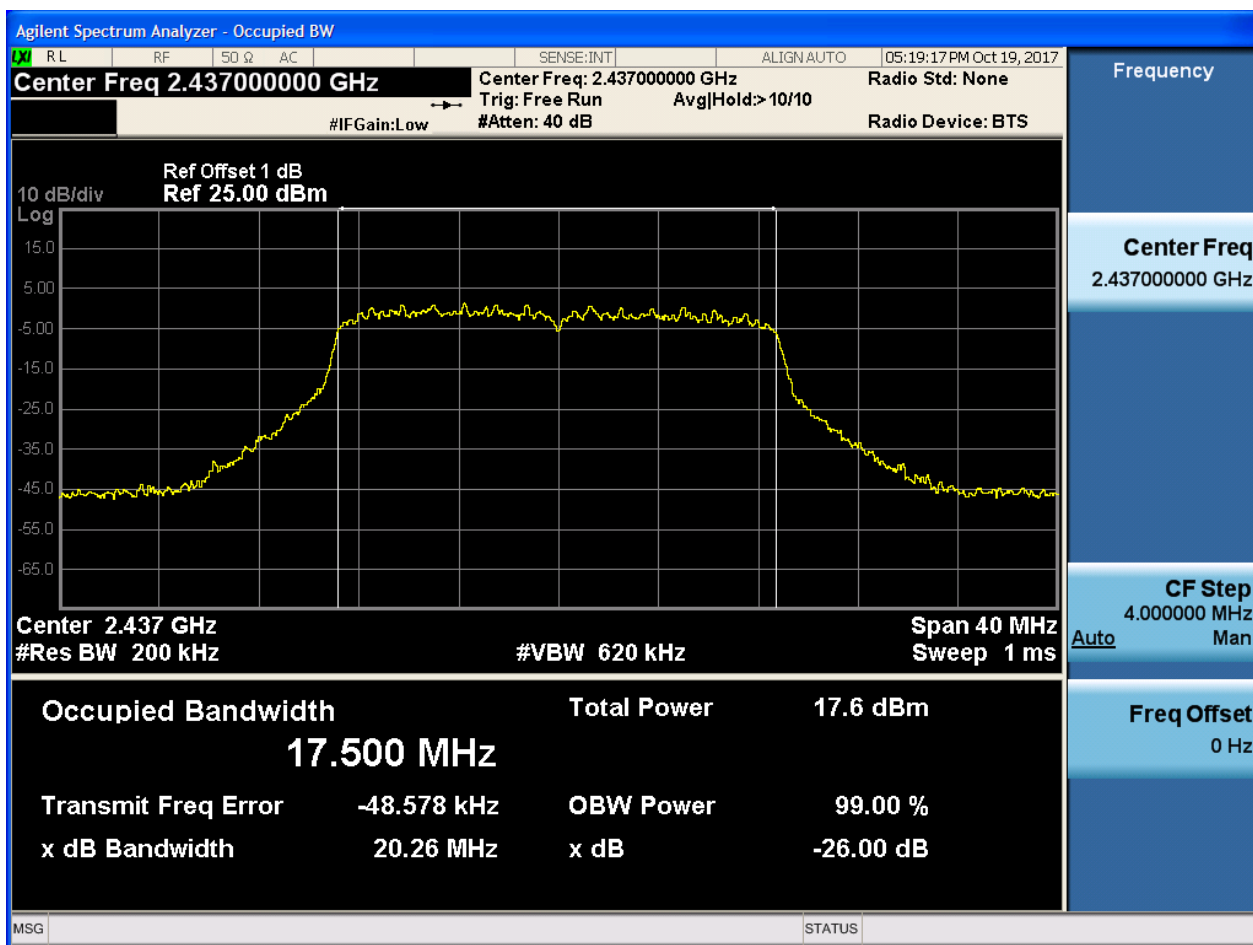


2.21 11N20m_M@Ant 1



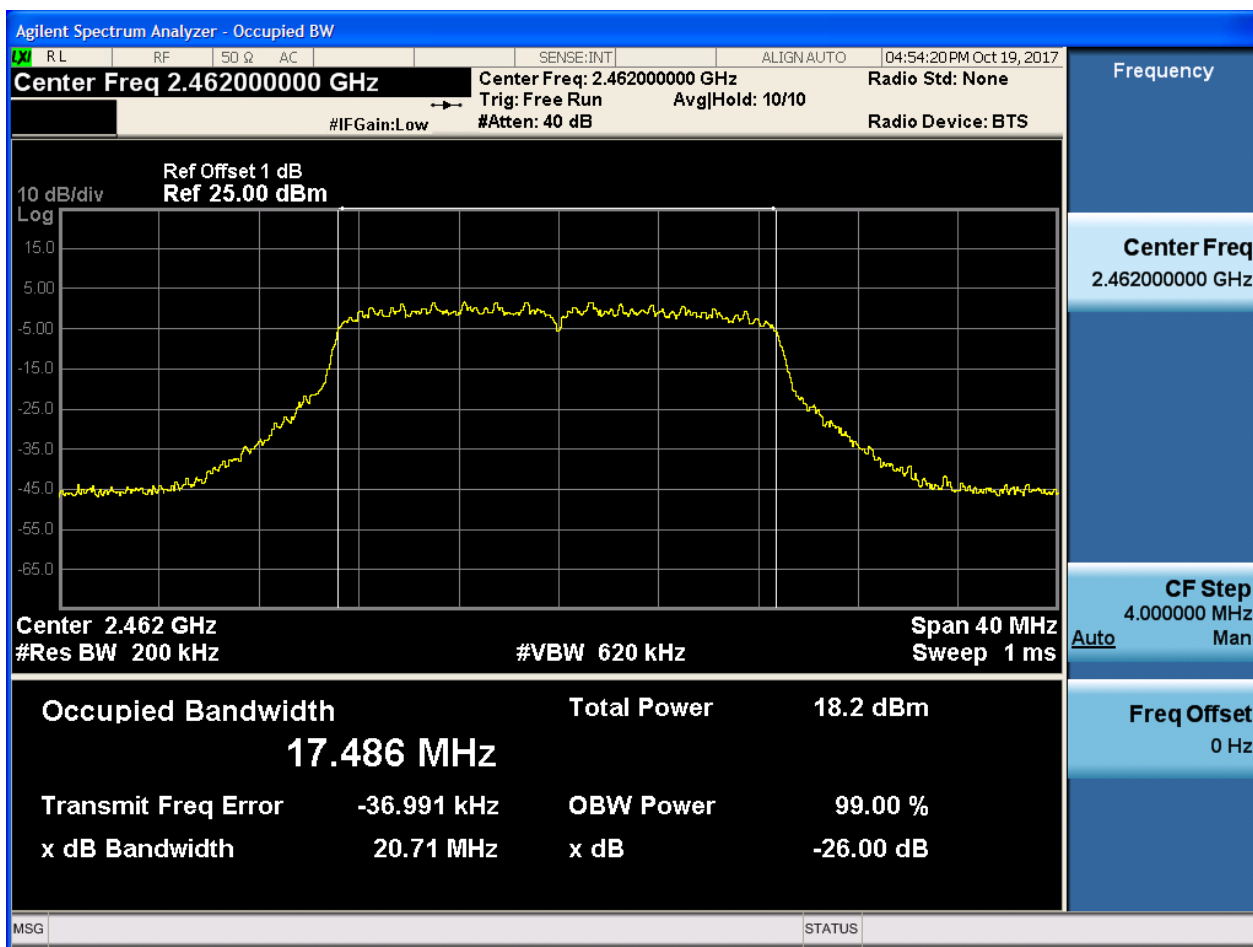


2.22 11N20m_M@Ant 2



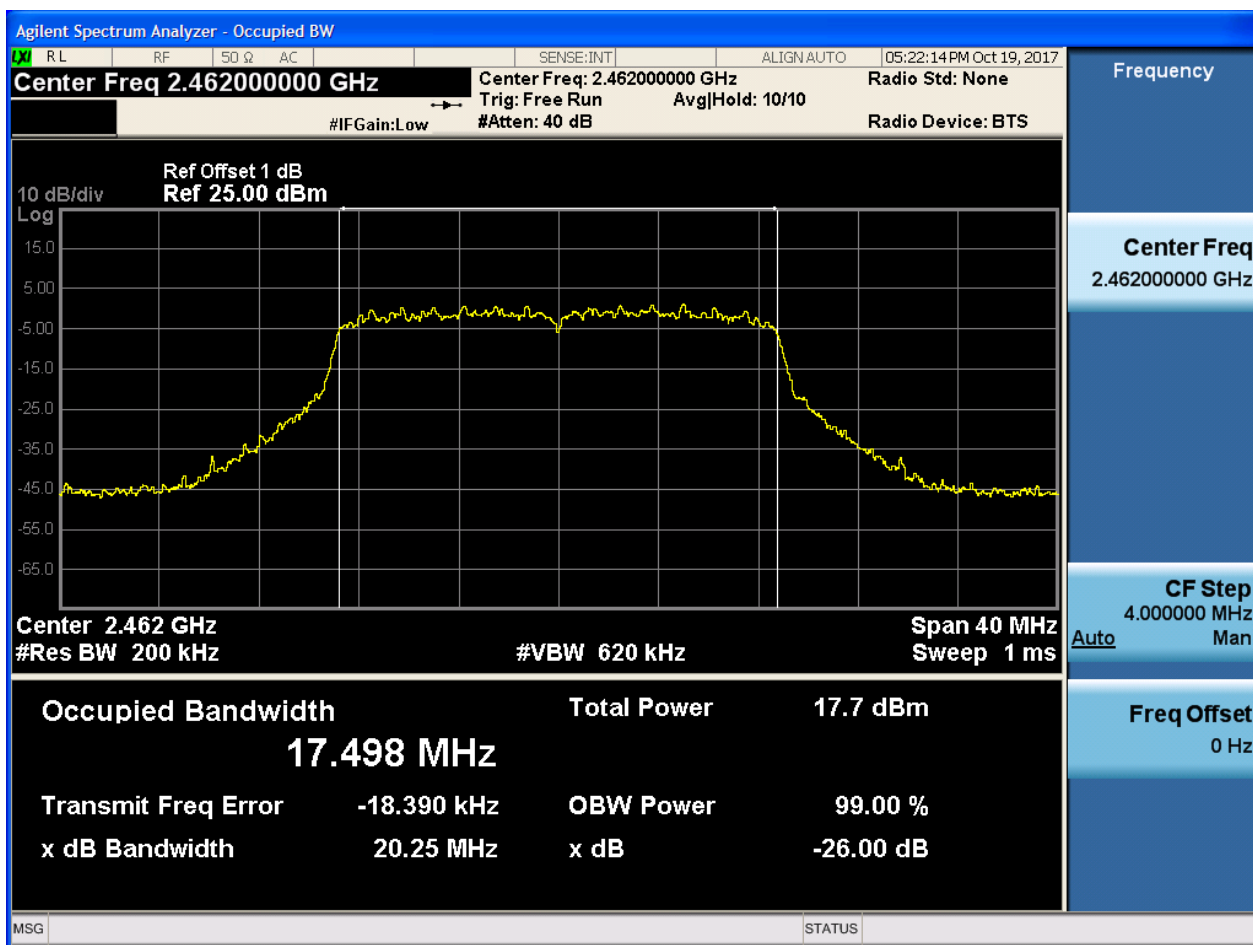


2.23 11N20m_H@Ant 1



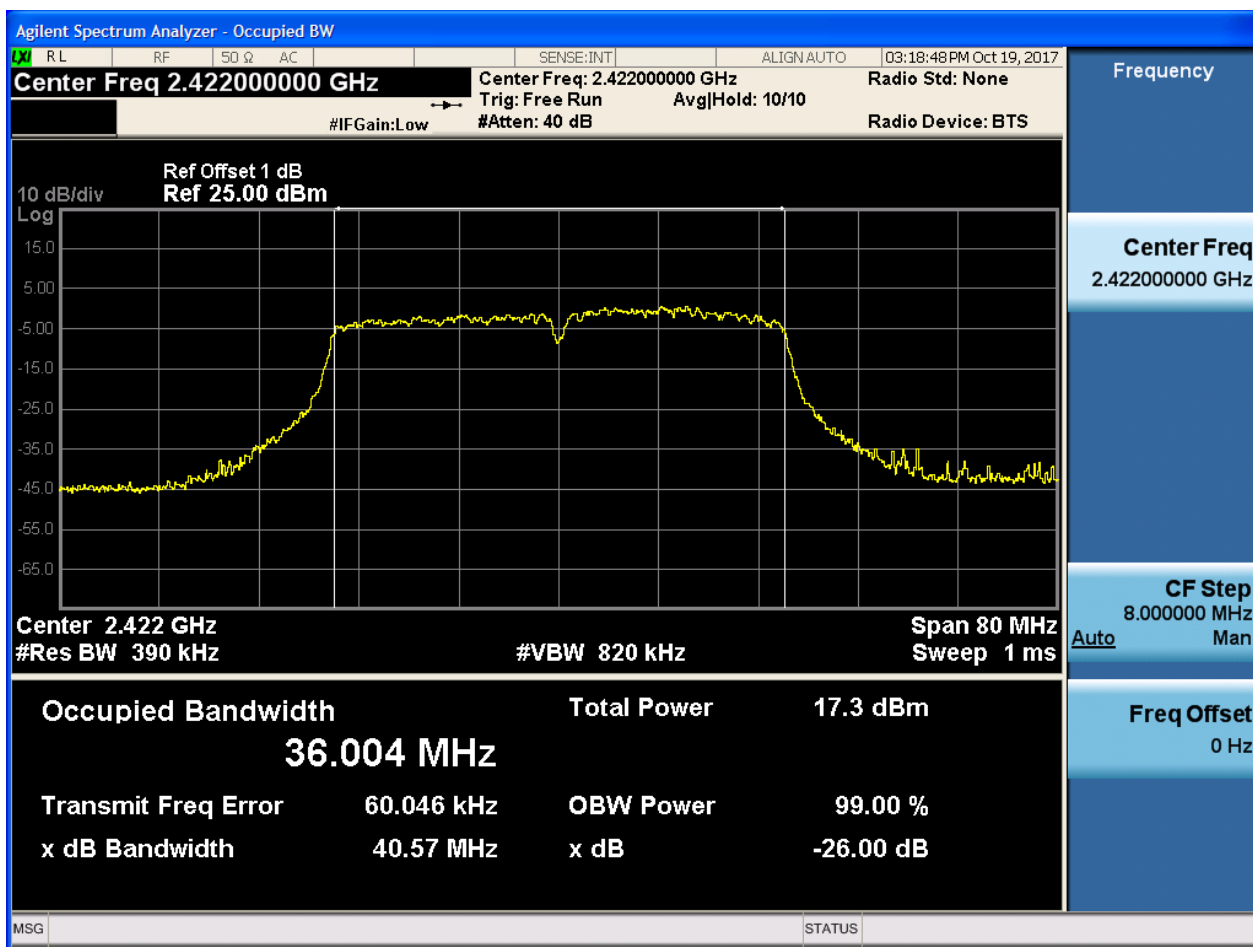


2.24 11N20m_H@Ant 2



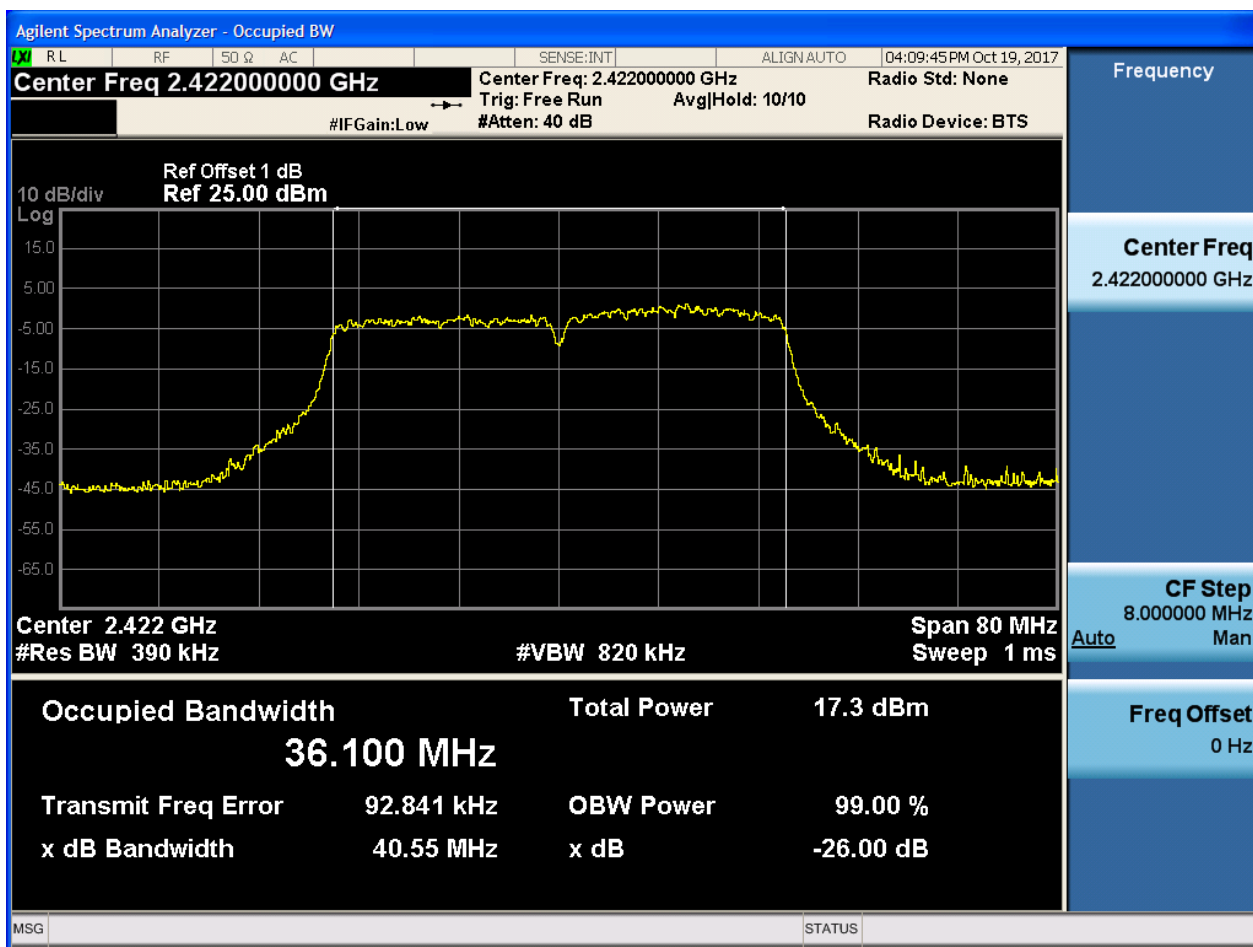


2.25 11N40_L@Ant 1



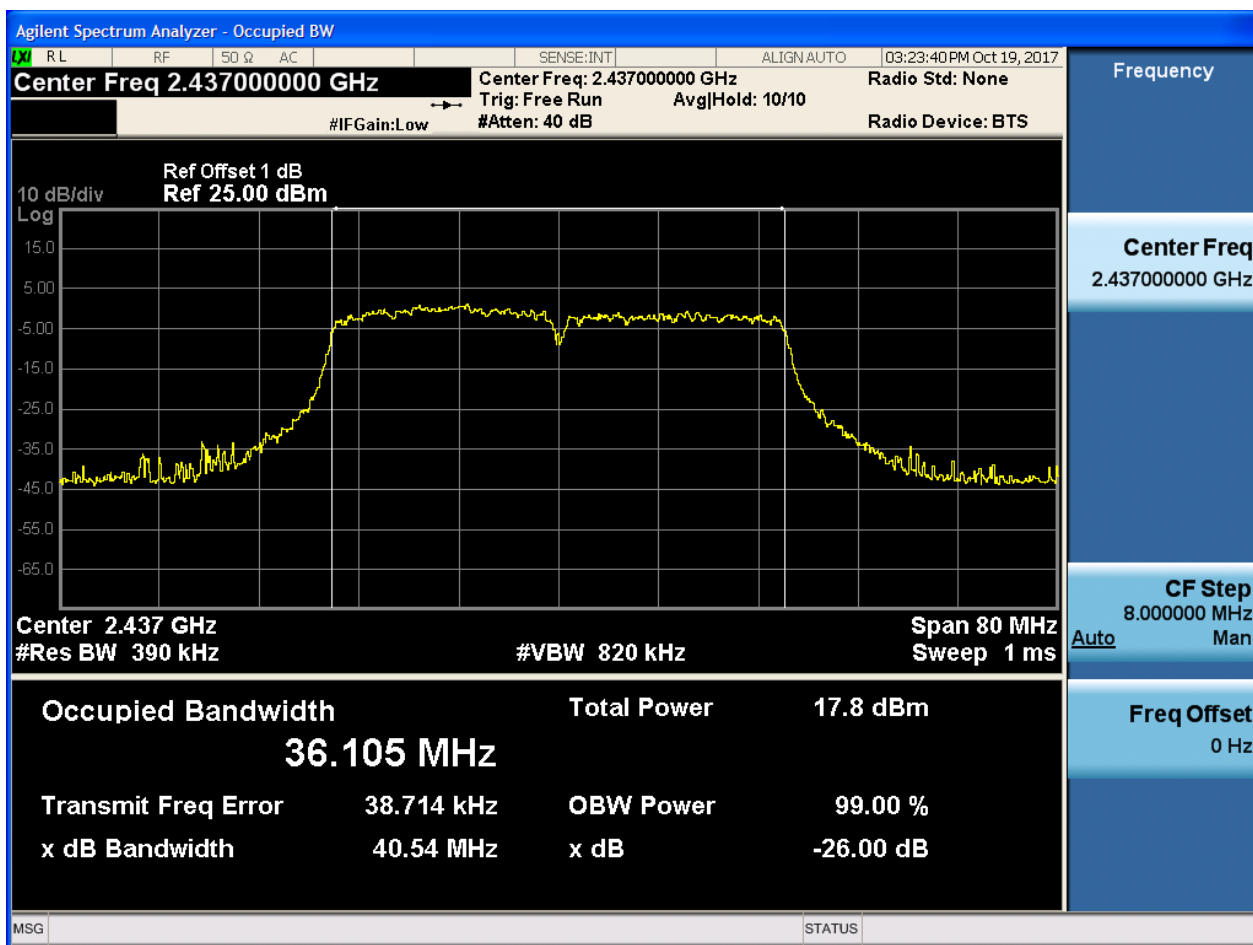


2.26 11N40_L@Ant 2



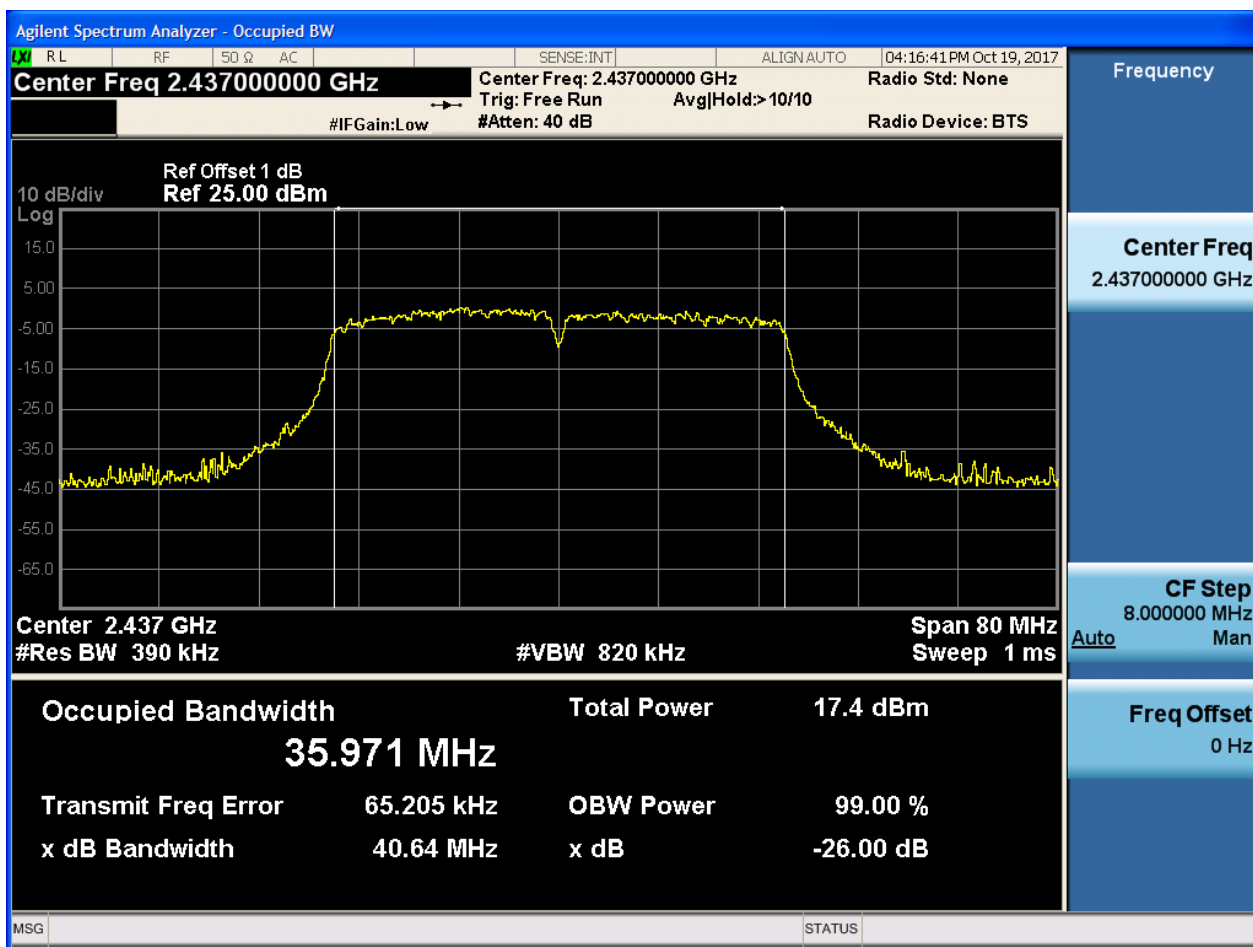


2.27 11N40_M@Ant 1



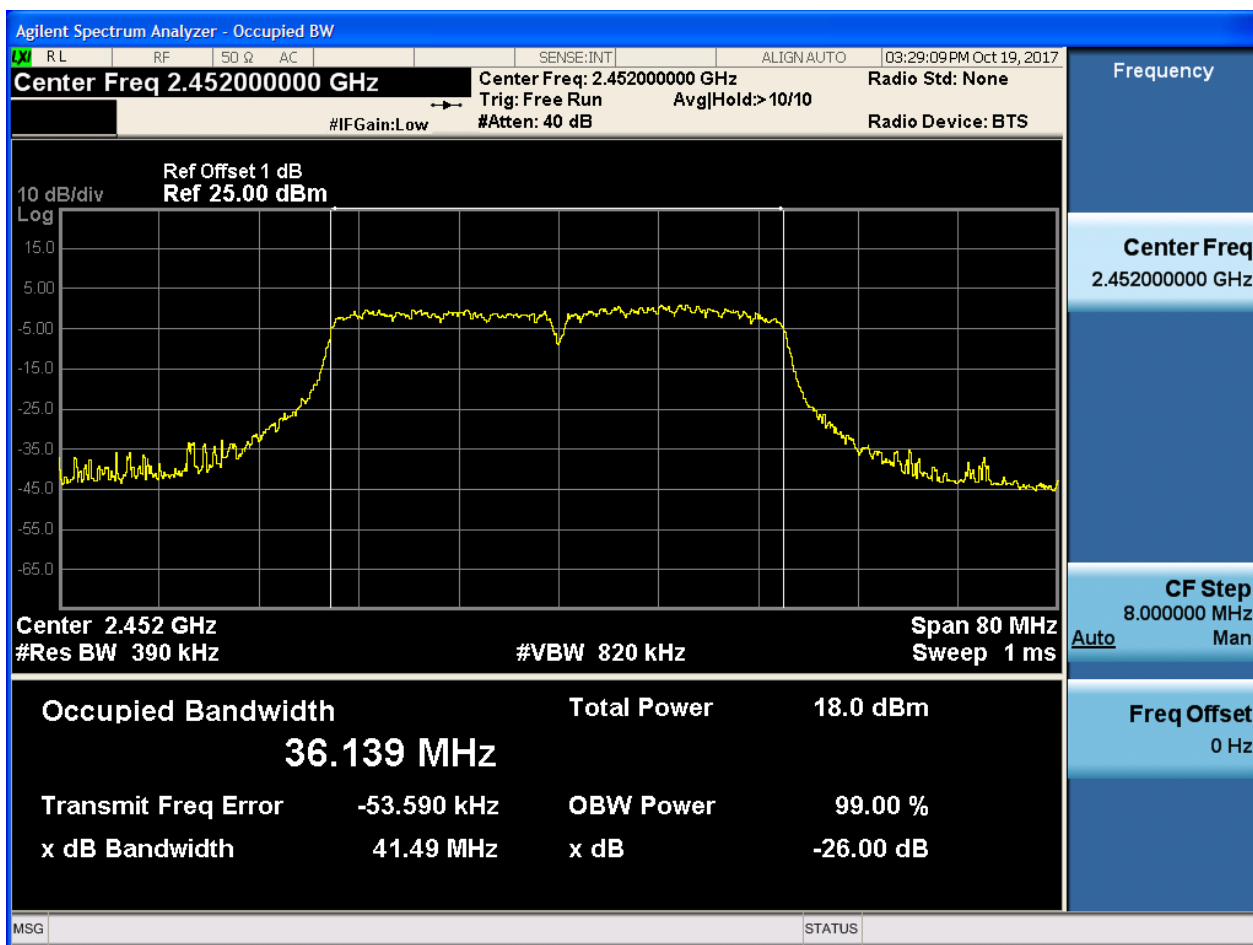


2.28 11N40_M@Ant 2



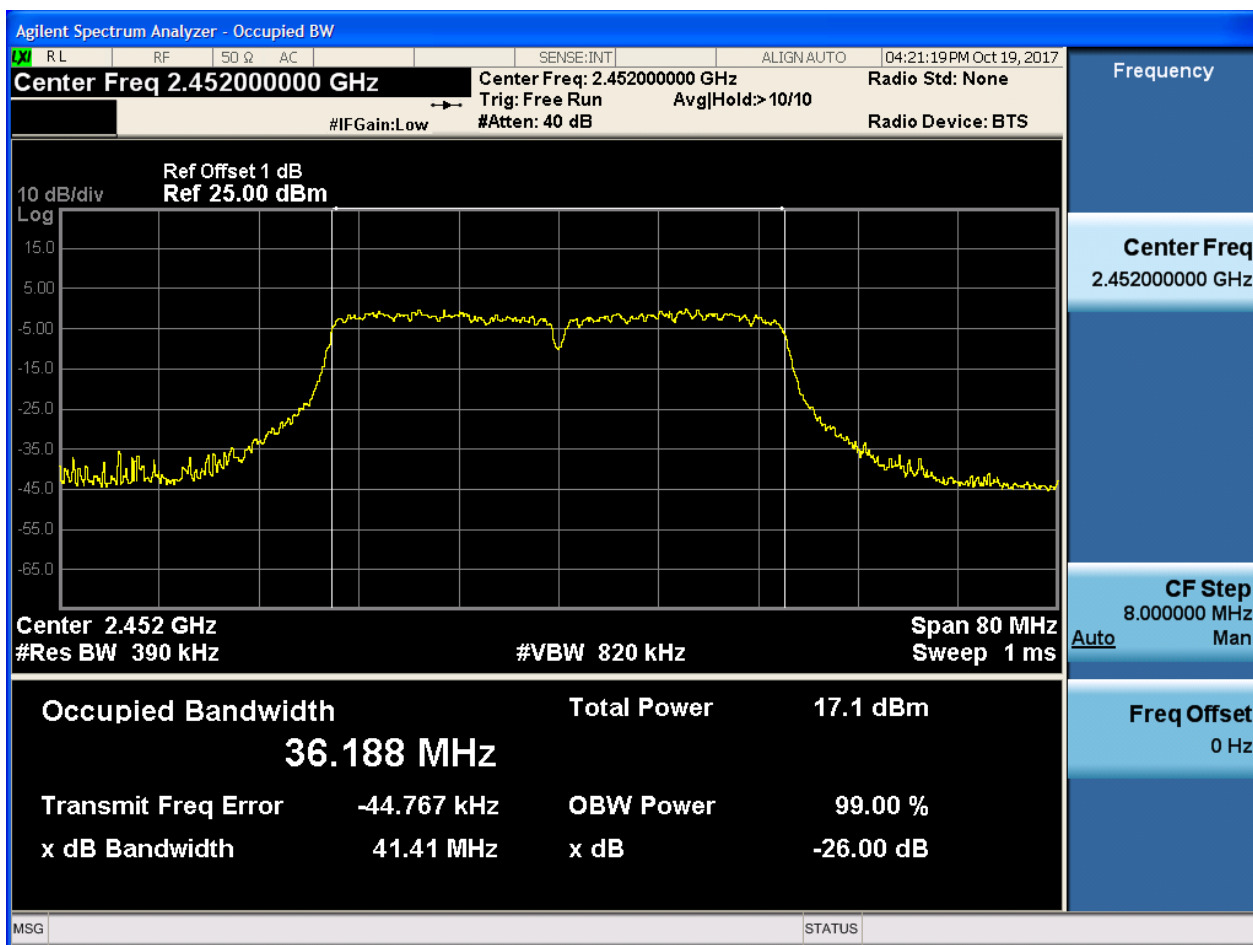


2.29 11N40_H@Ant 1



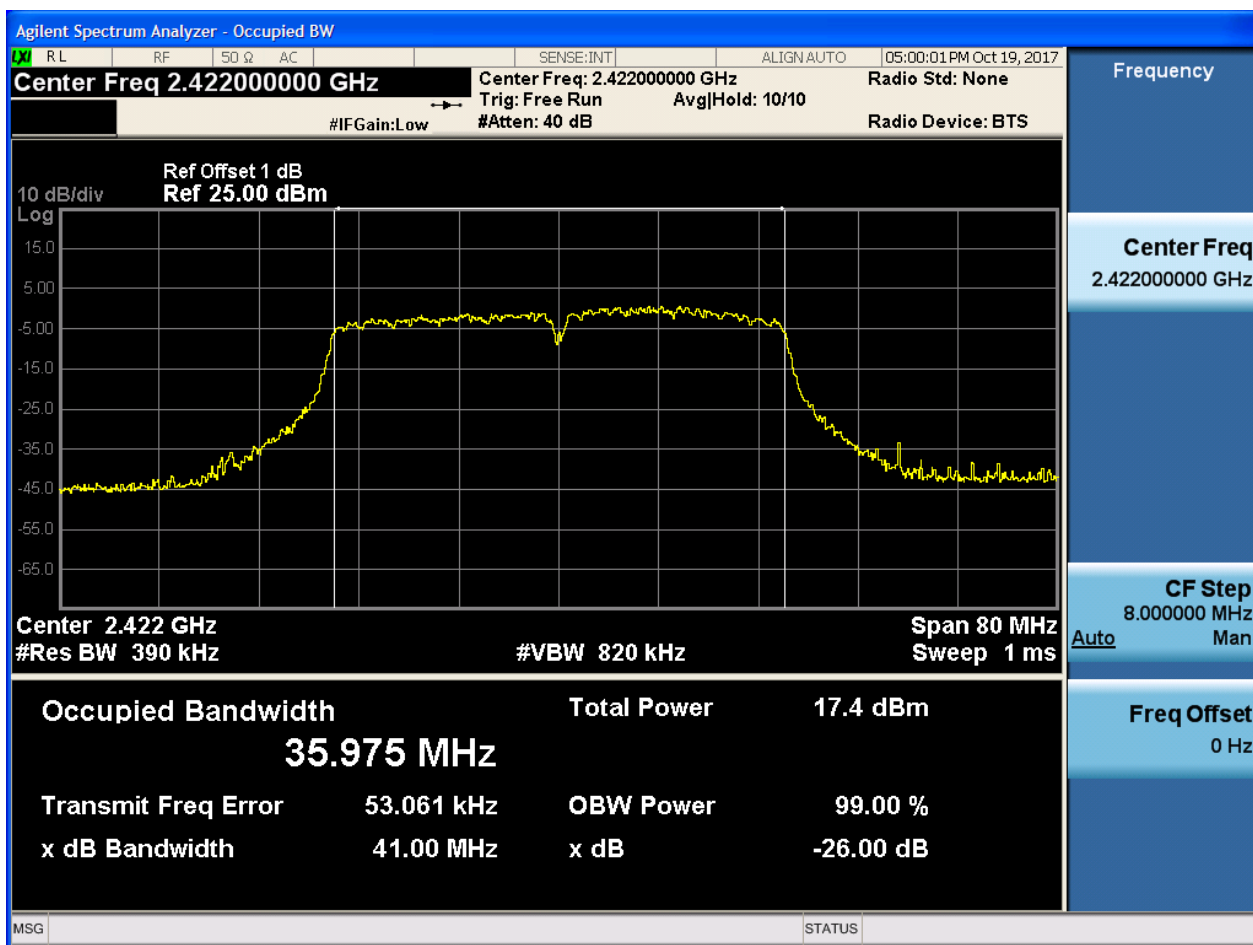


2.30 11N40_H@Ant 2



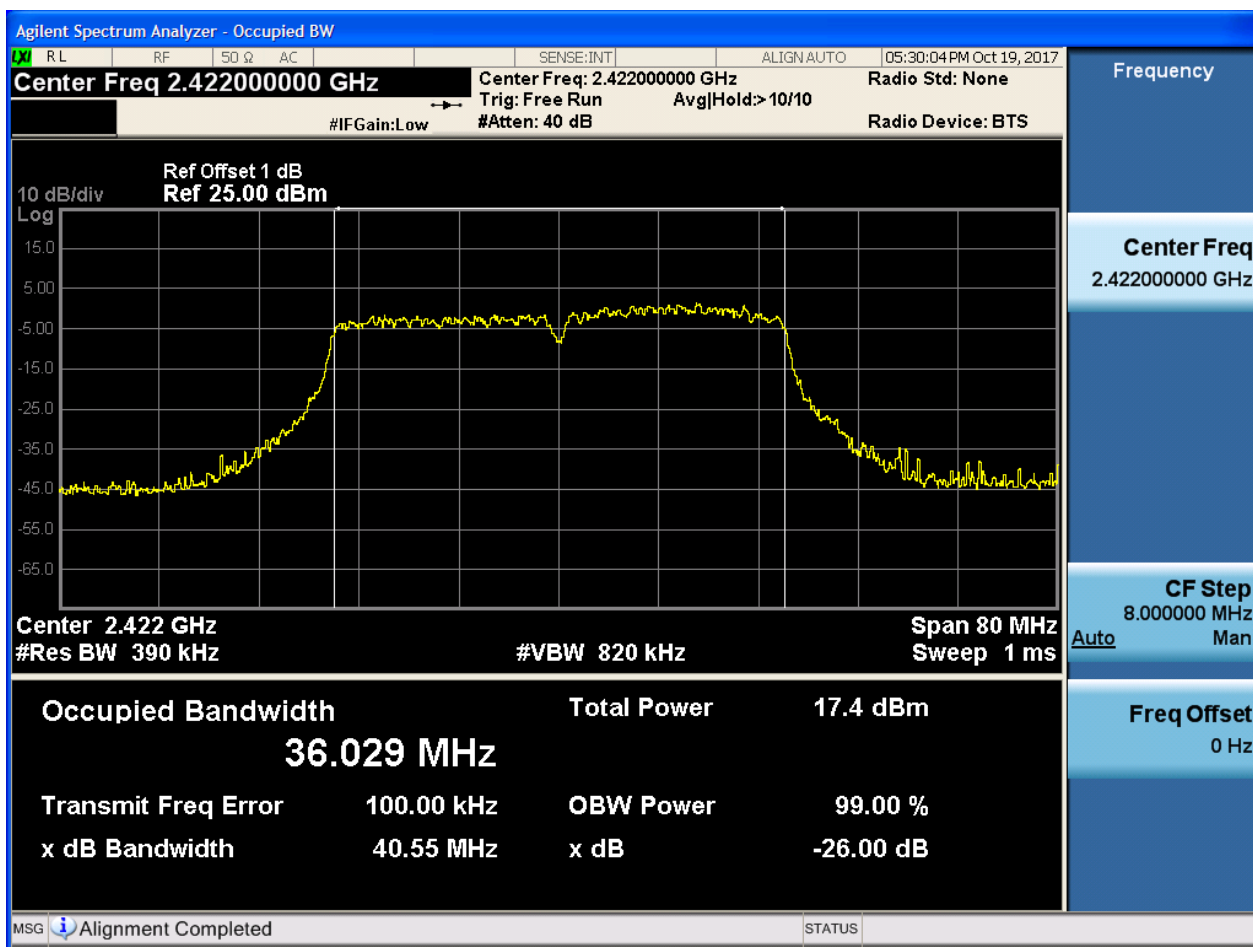


2.31 11N40m_L@Ant 1



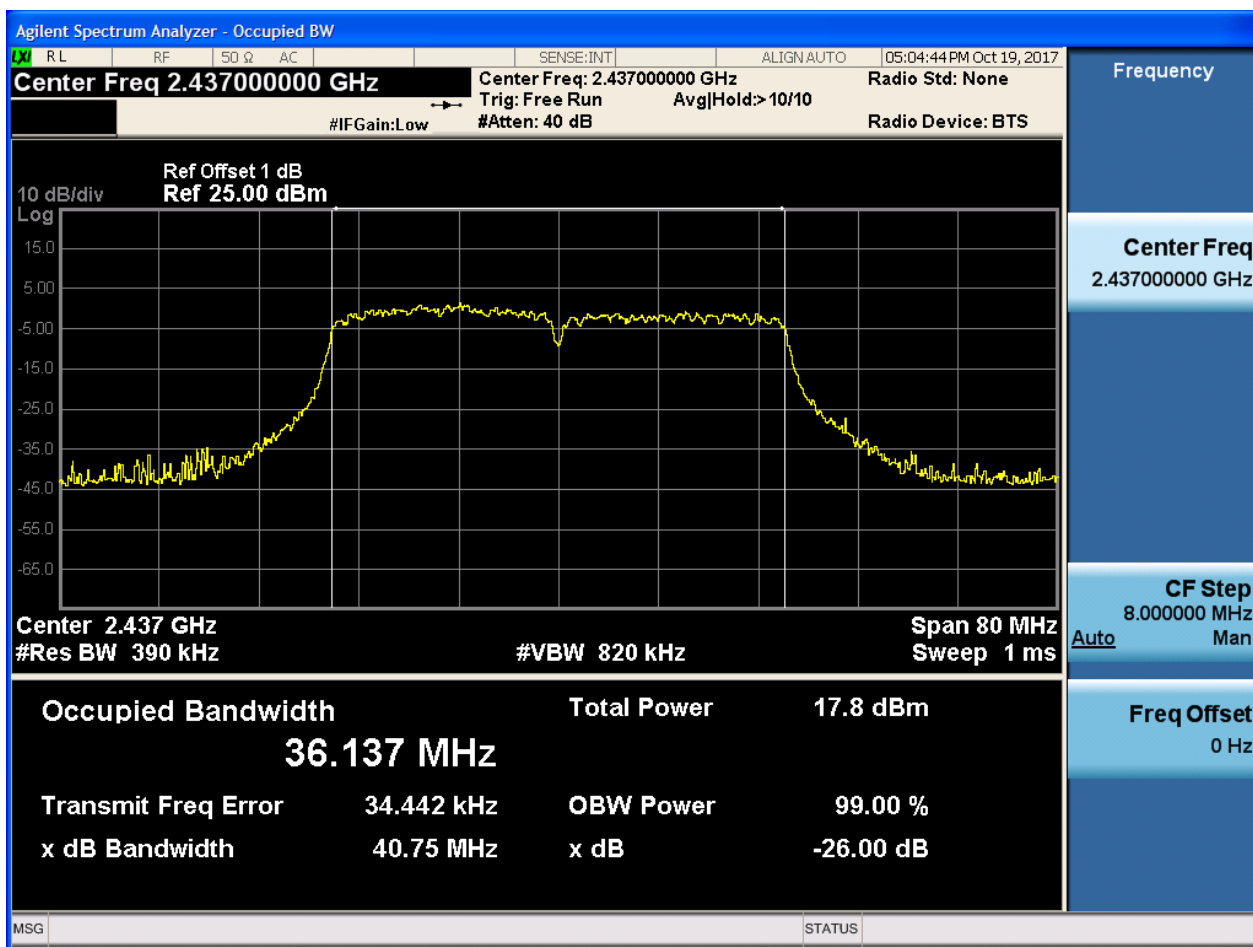


2.32 11N40m_L@Ant 2



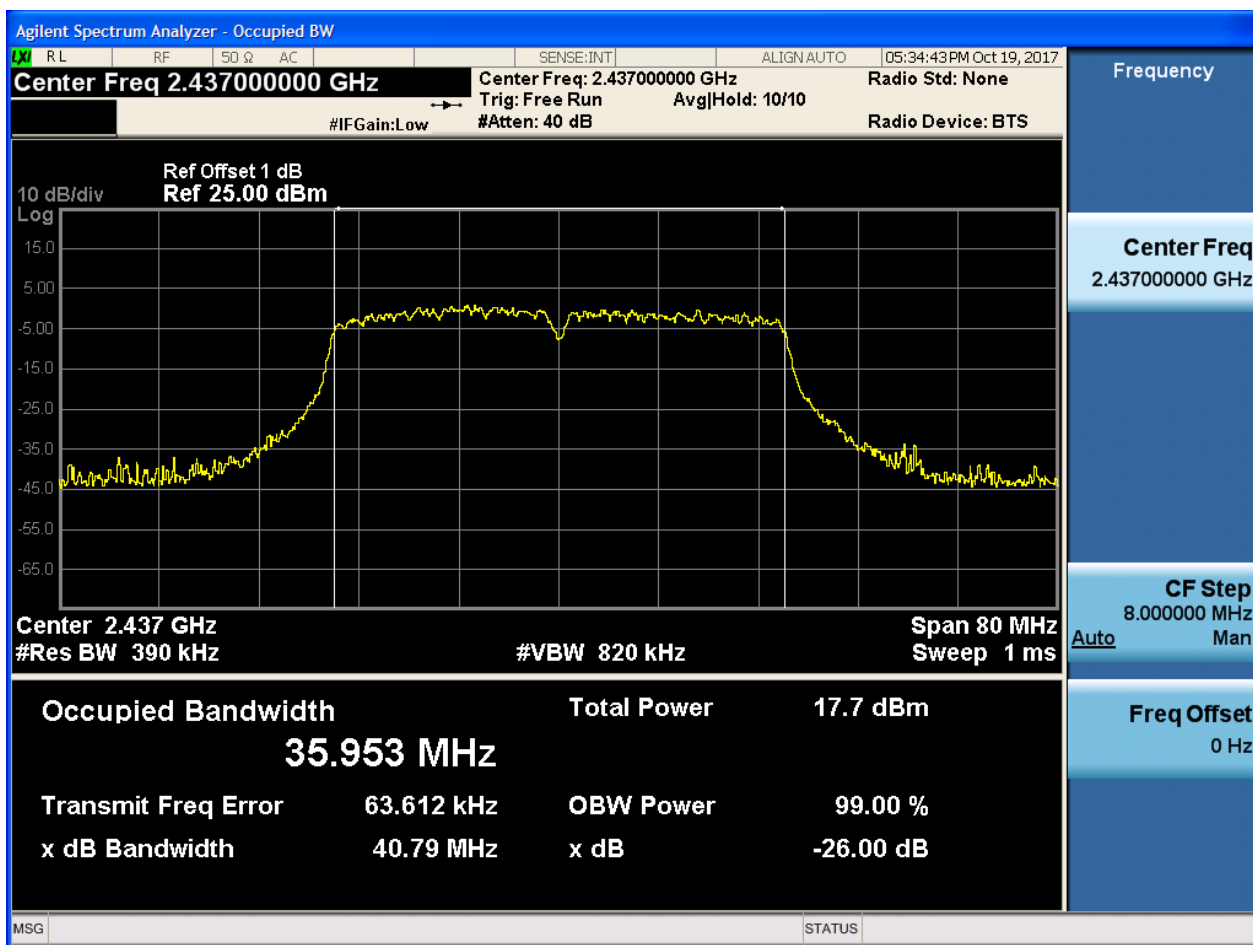


2.33 11N40m_M@Ant 1



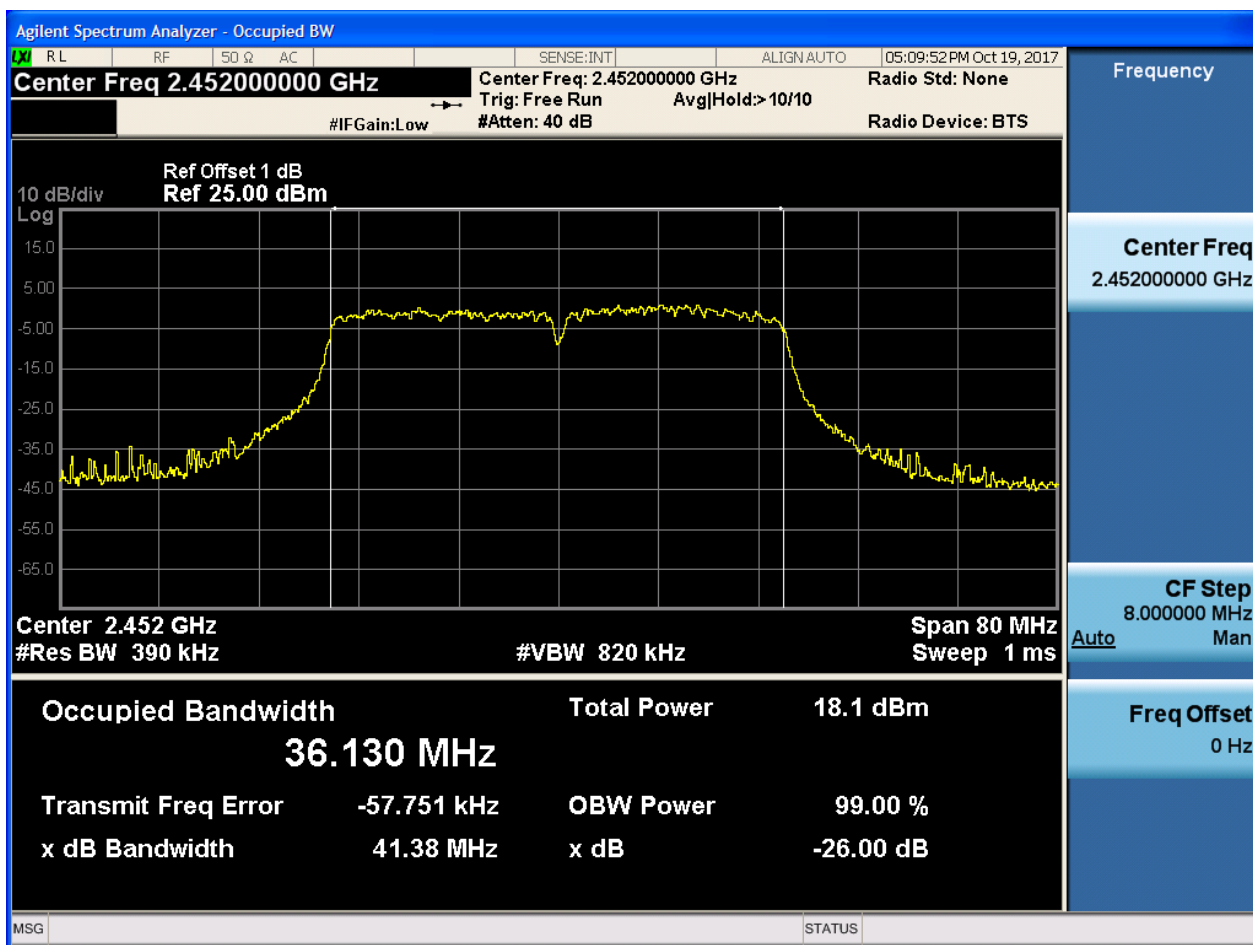


2.34 11N40m_M@Ant 2



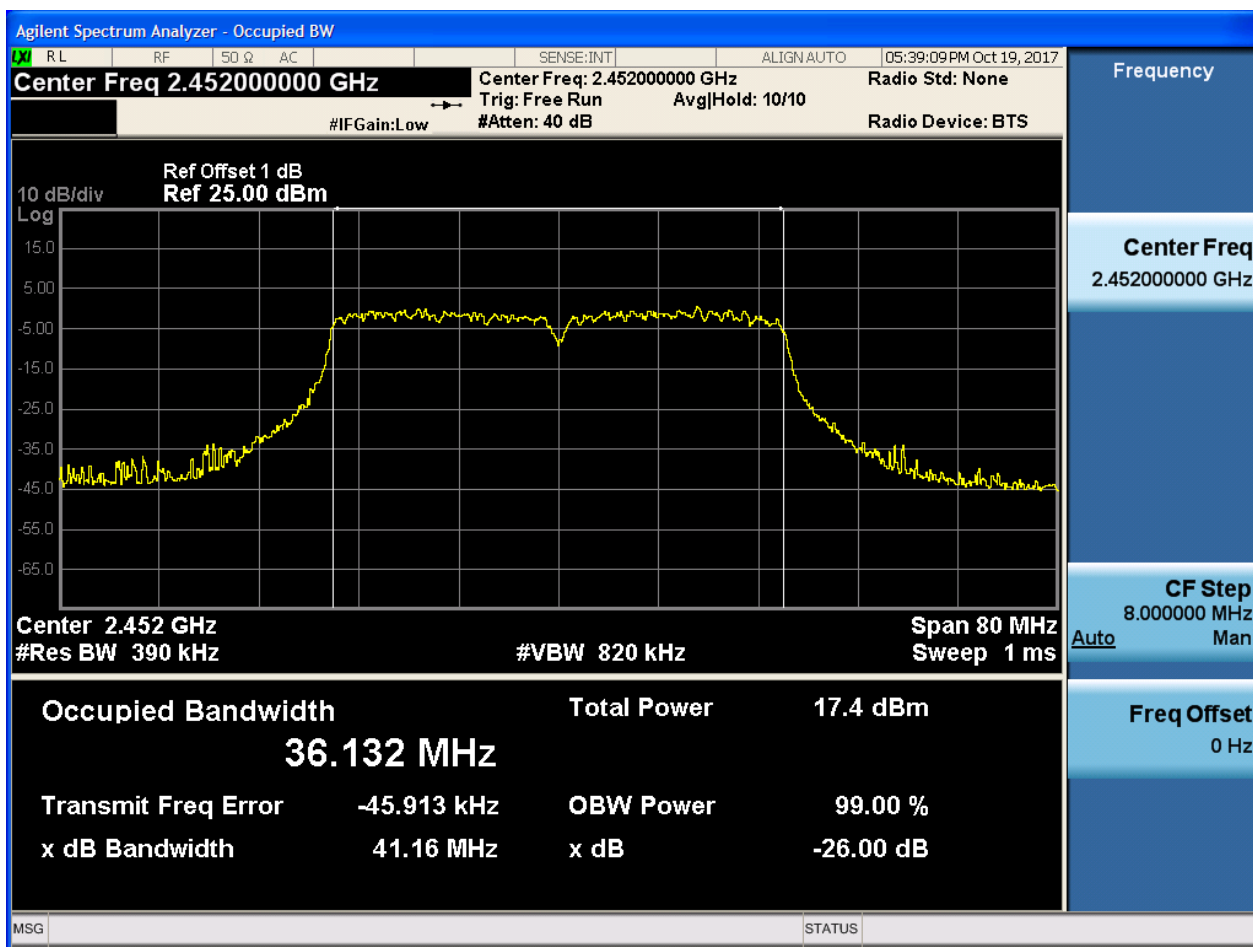


2.35 11N40m_H@Ant 1





2.36 11N40m_H@Ant 2



Appendix C: Duty Cycle

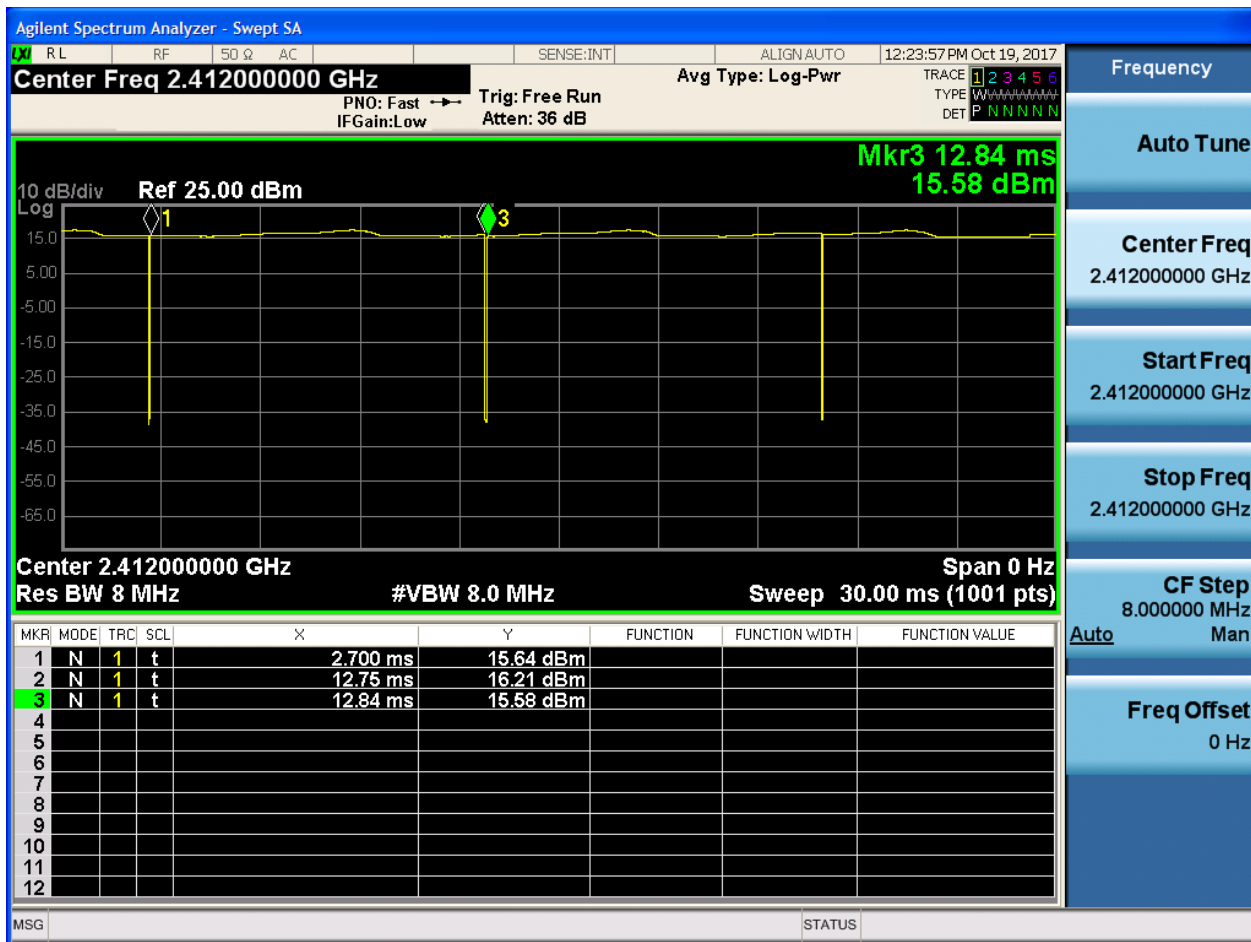
Part I - Test Results

Test Mode	TX Freq. [MHz]	Ant	Duty cycle [%]
11B	CH1,CH6,CH11	Ant 1	99.1
11B	CH1,CH6,CH11	Ant 2	98.7
11G	CH1,CH6,CH11	Ant 1	93.8
11G	CH1,CH6,CH11	Ant 2	94.3
11N20SISO	CH1,CH6,CH11	Ant 1	94.0
11N20SISO	CH1,CH6,CH11	Ant 2	93.4
11N20MIMO	CH1,CH6,CH11	Ant 1	93.7
11N20MIMO	CH1,CH6,CH11	Ant 2	94.0
11N40SISO	CH3,CH6,CH9	Ant 1	88.5
11N40SISO	CH3,CH6,CH9	Ant 2	88.5
11N40MIMO	CH3,CH6,CH9	Ant 1	88.5
11N40MIMO	CH3,CH6,CH9	Ant 2	88.3



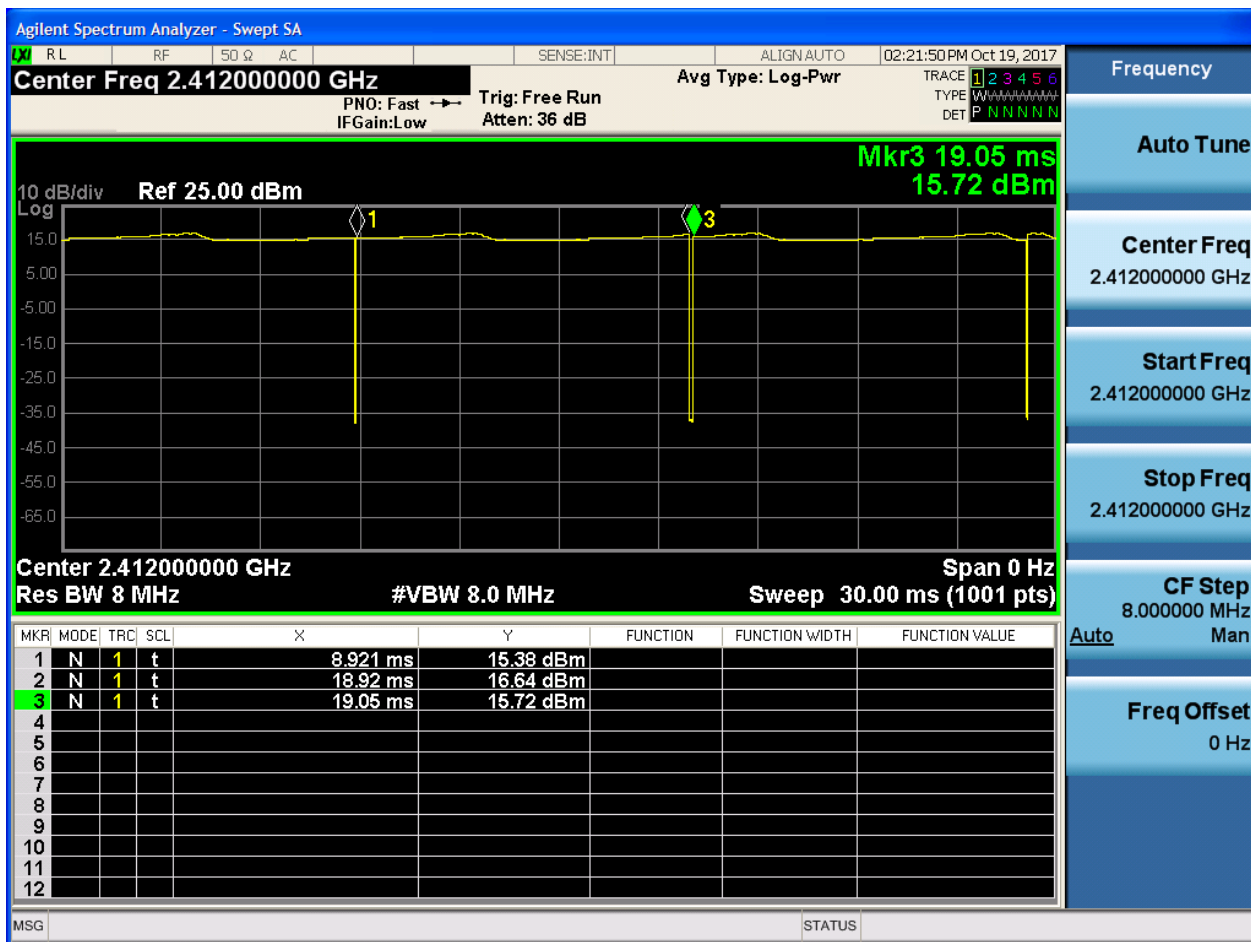
Part II - Test Plots

2.1 11B@ANT1





2.2 11B@ANT2





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 12:26:52 PM Oct 19, 2017

Center Freq 2.41200000 GHz Avg Type: Log-Pwr

PNO: Fast Trg: Free Run
IFGain:Low Atten: 36 dB

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

10 dB/div Ref 25.00 dBm

Log

Mkr3 2.960 ms
14.43 dBm

Center 2.41200000 GHz Span 0 Hz
Res BW 8 MHz #VBW 8.0 MHz Sweep 5.000 ms (1001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	1.190 ms	13.66 dBm			
2	N	1	t	2.850 ms	13.14 dBm			
3	N	1	t	2.960 ms	14.43 dBm			
4								
5								
6								
7								
8								
9								
10								
11								
12								

MSG STATUS

Frequency

Auto Tune

Center Freq
2.41200000 GHz

Start Freq
2.41200000 GHz

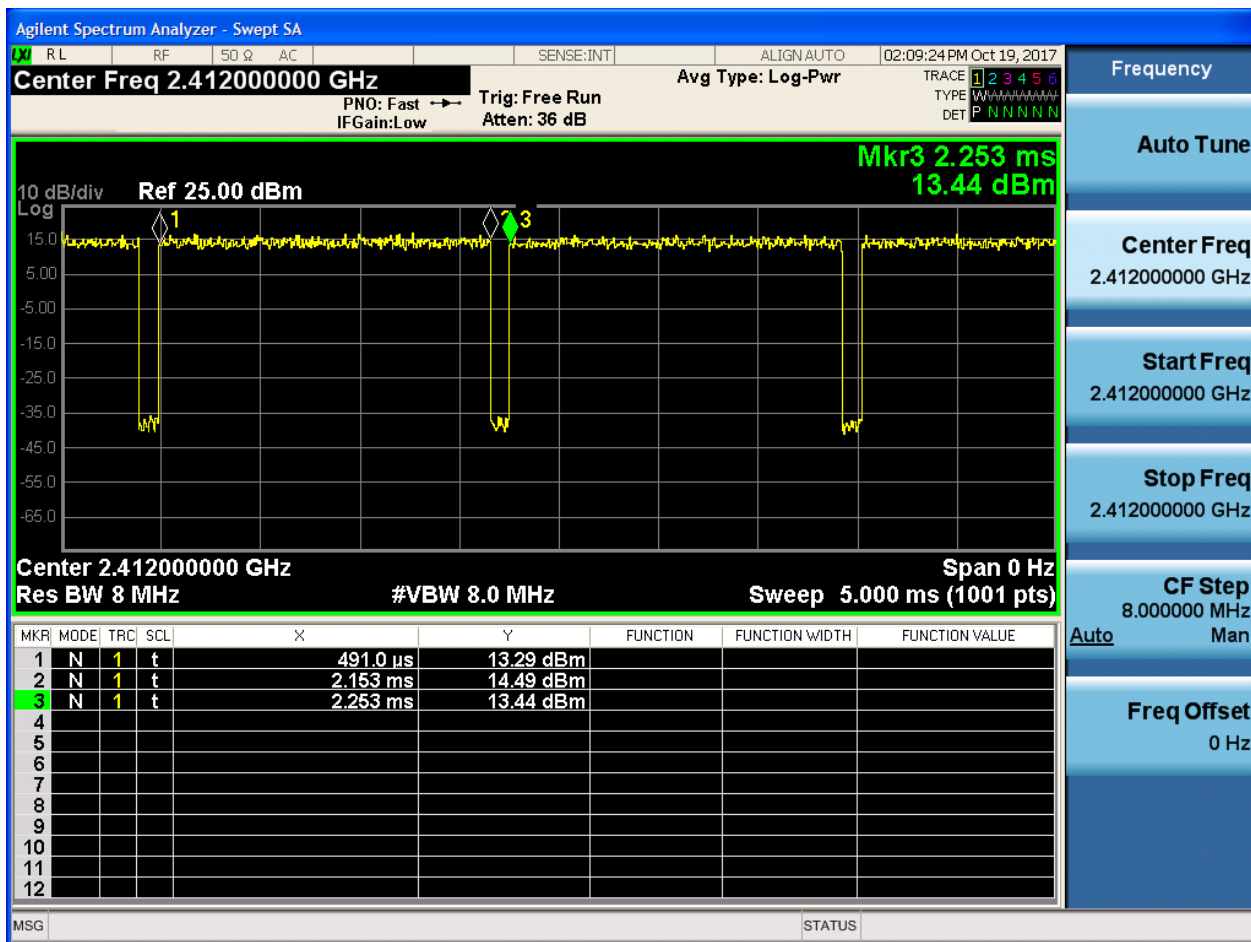
Stop Freq
2.41200000 GHz

CF Step
8.000000 MHz
Man

Freq Offset
0 Hz

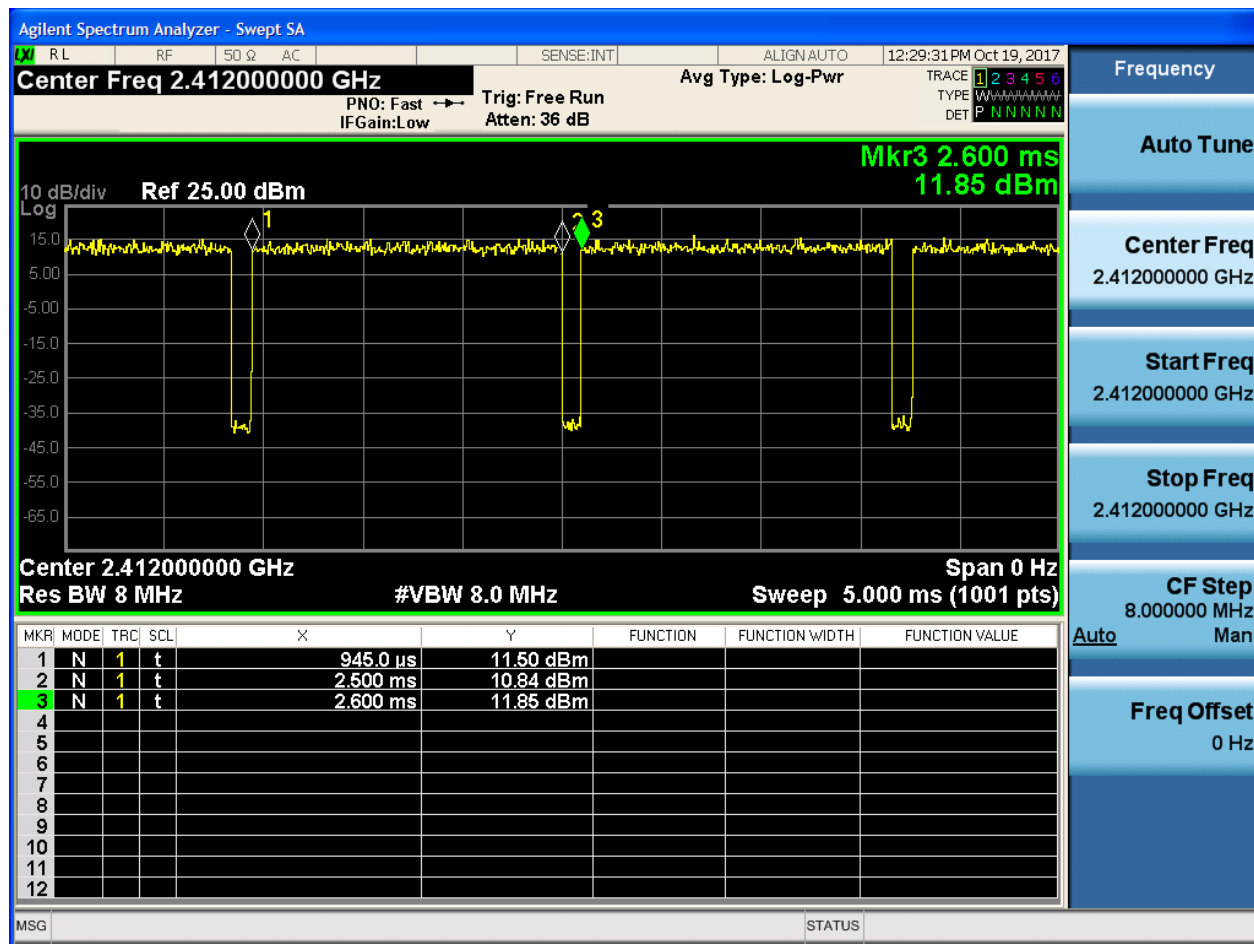


2.4 11G@ANT2



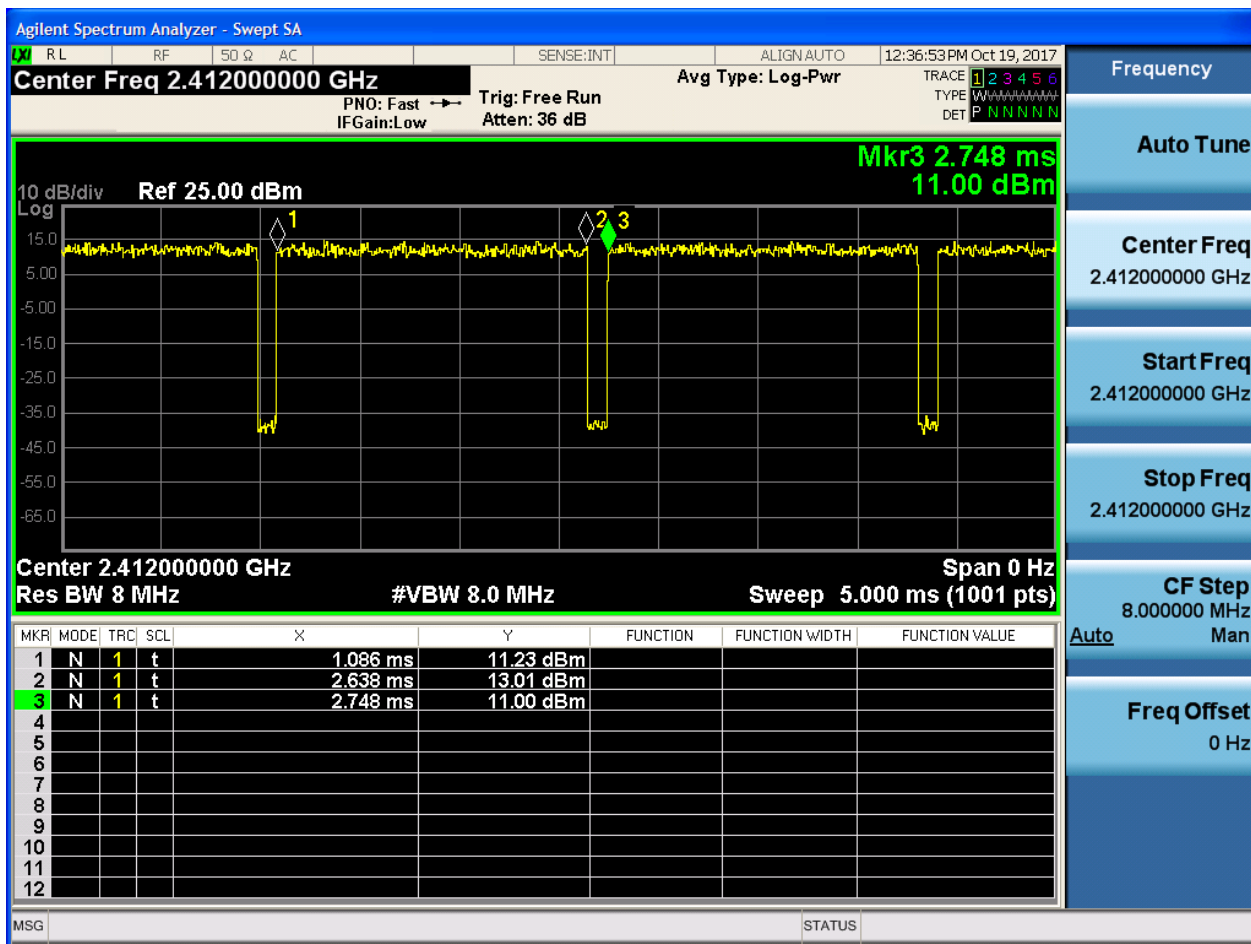


2.5 11N20@ANT1



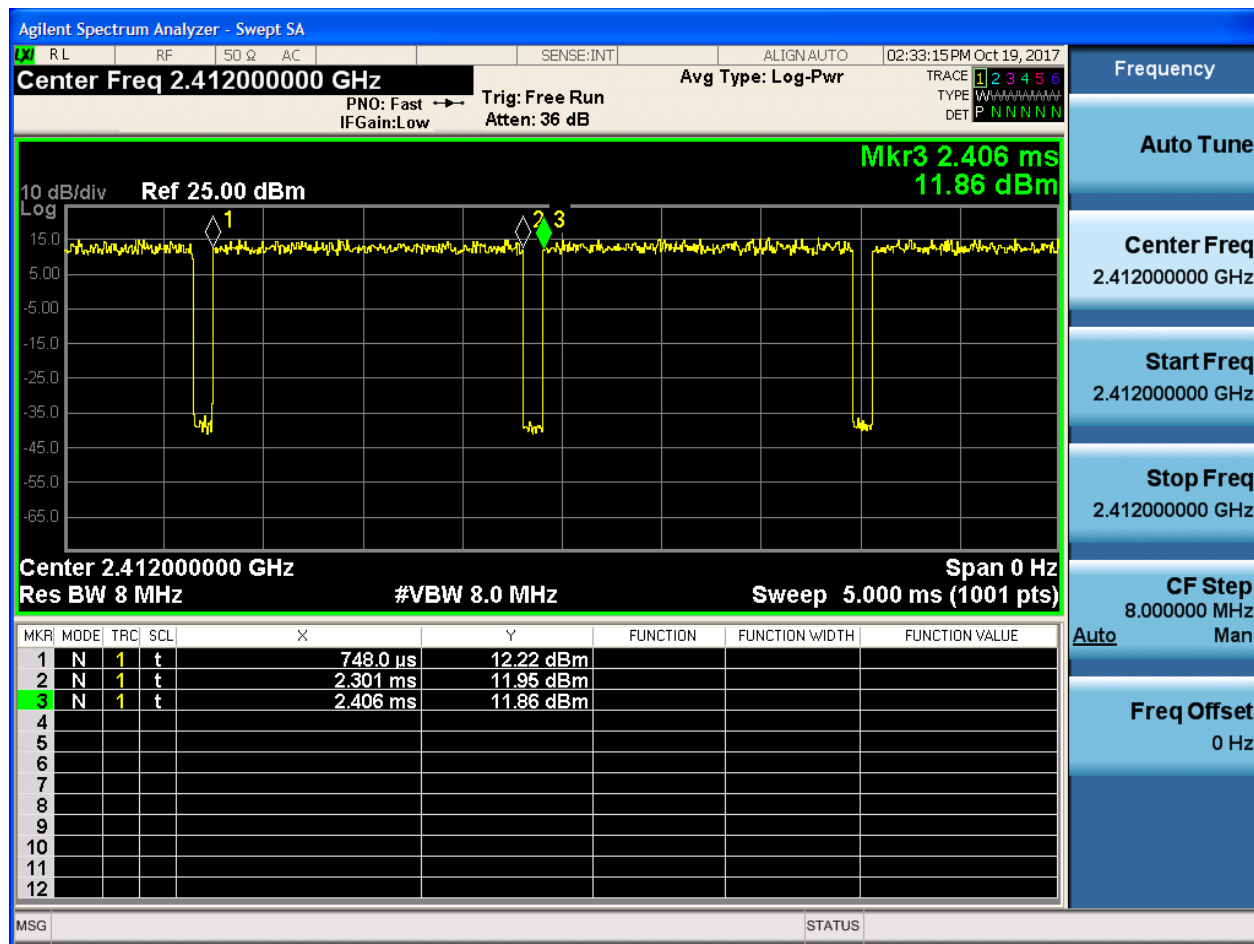


2.6 11N20@ANT2



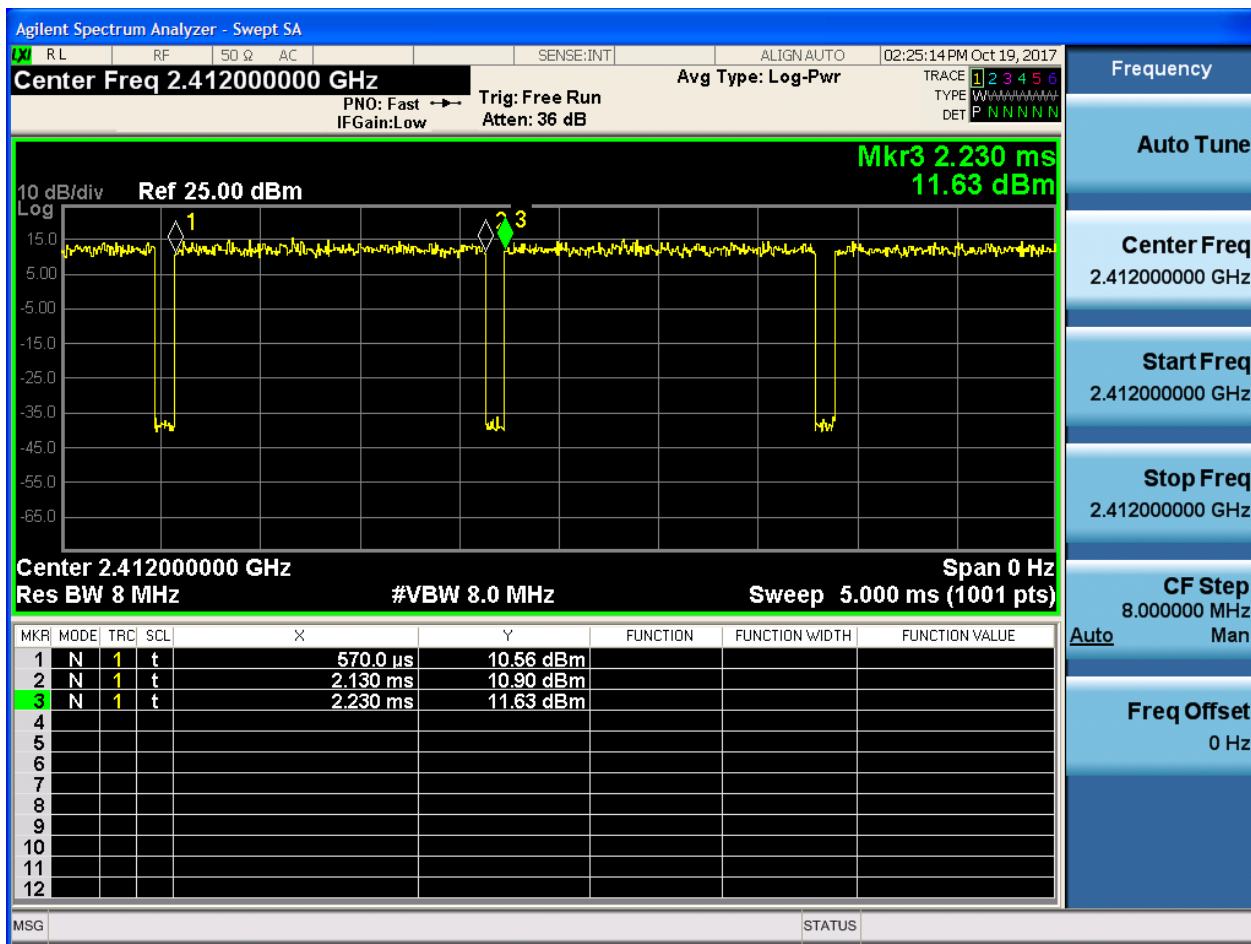


2.7 11N20m@ANT1



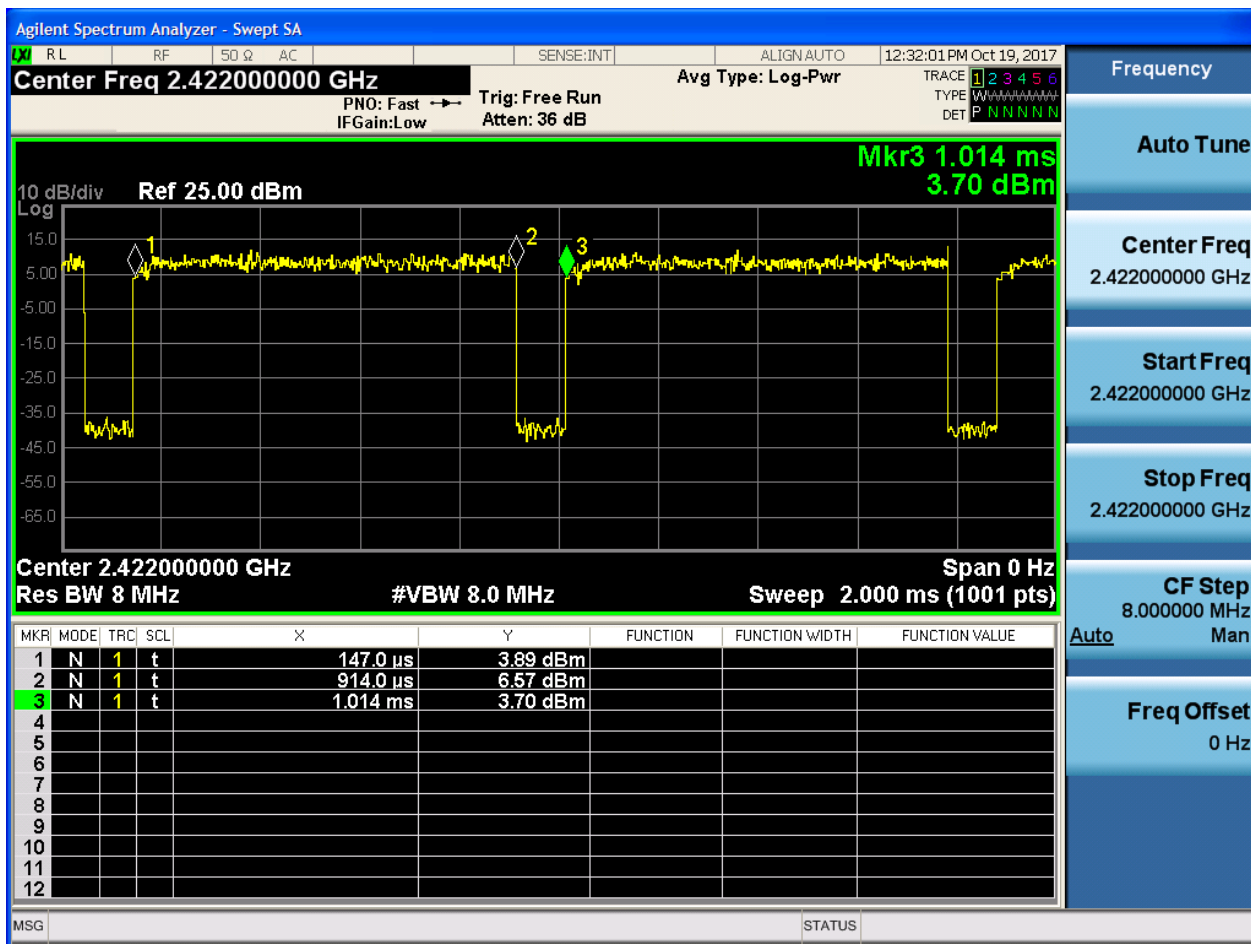


2.8 11N20m@ANT2



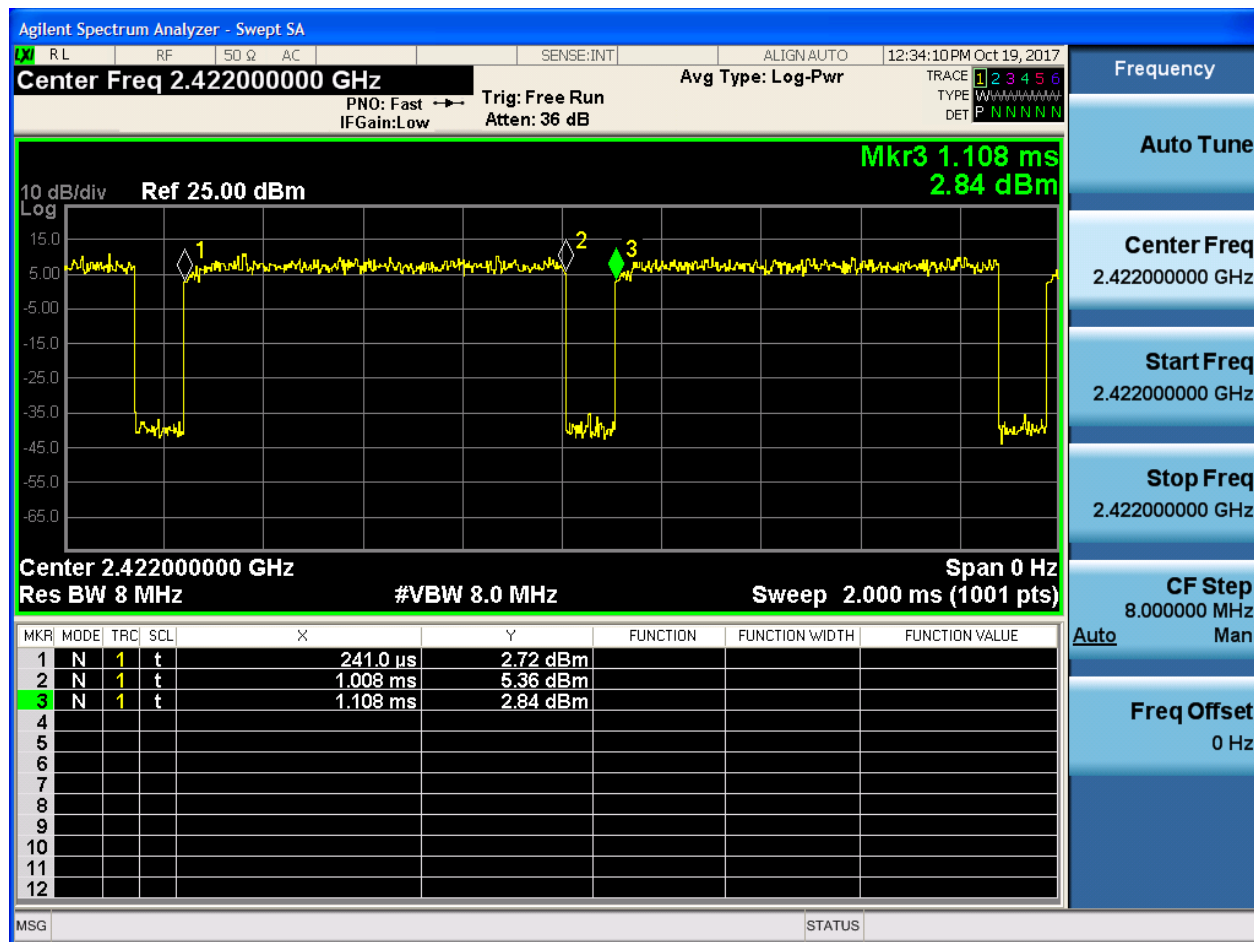


2.9 11N40@ANT1



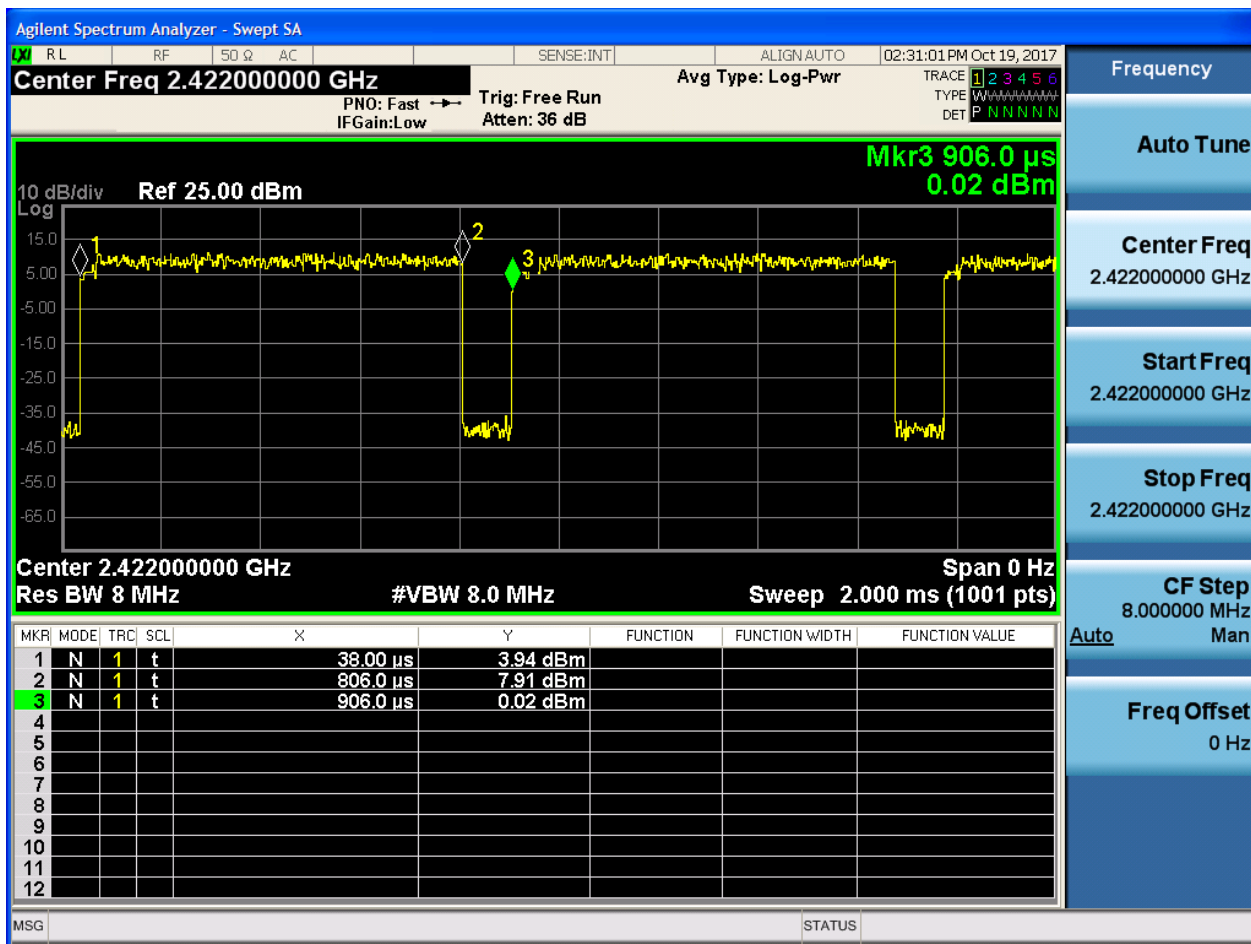


2.10 11N40@ANT2



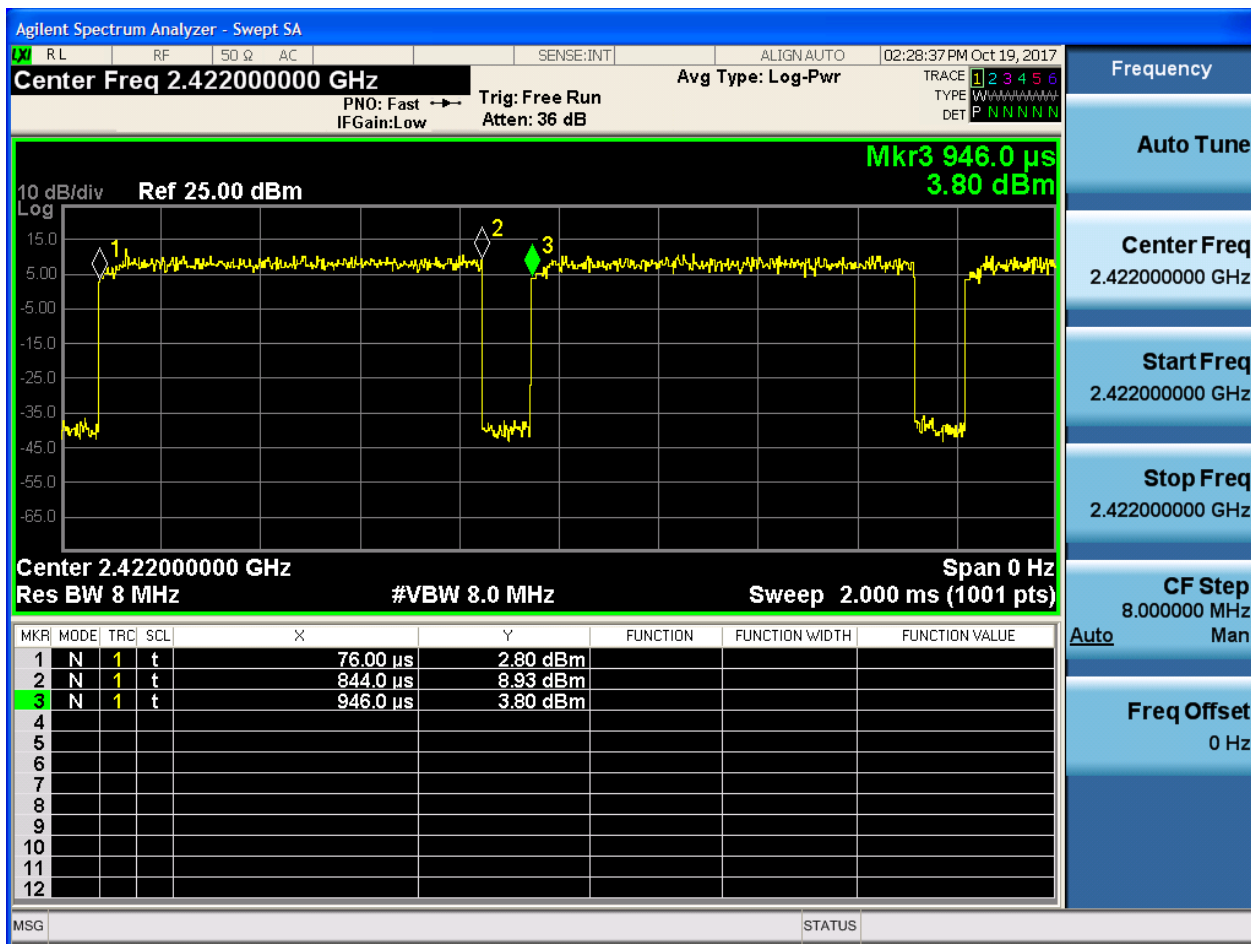


2.11 11N40m@ANT1





2.12 11N40m@ANT2



Appendix D: Maximum Conducted Average Output Power

Part I - Test Results

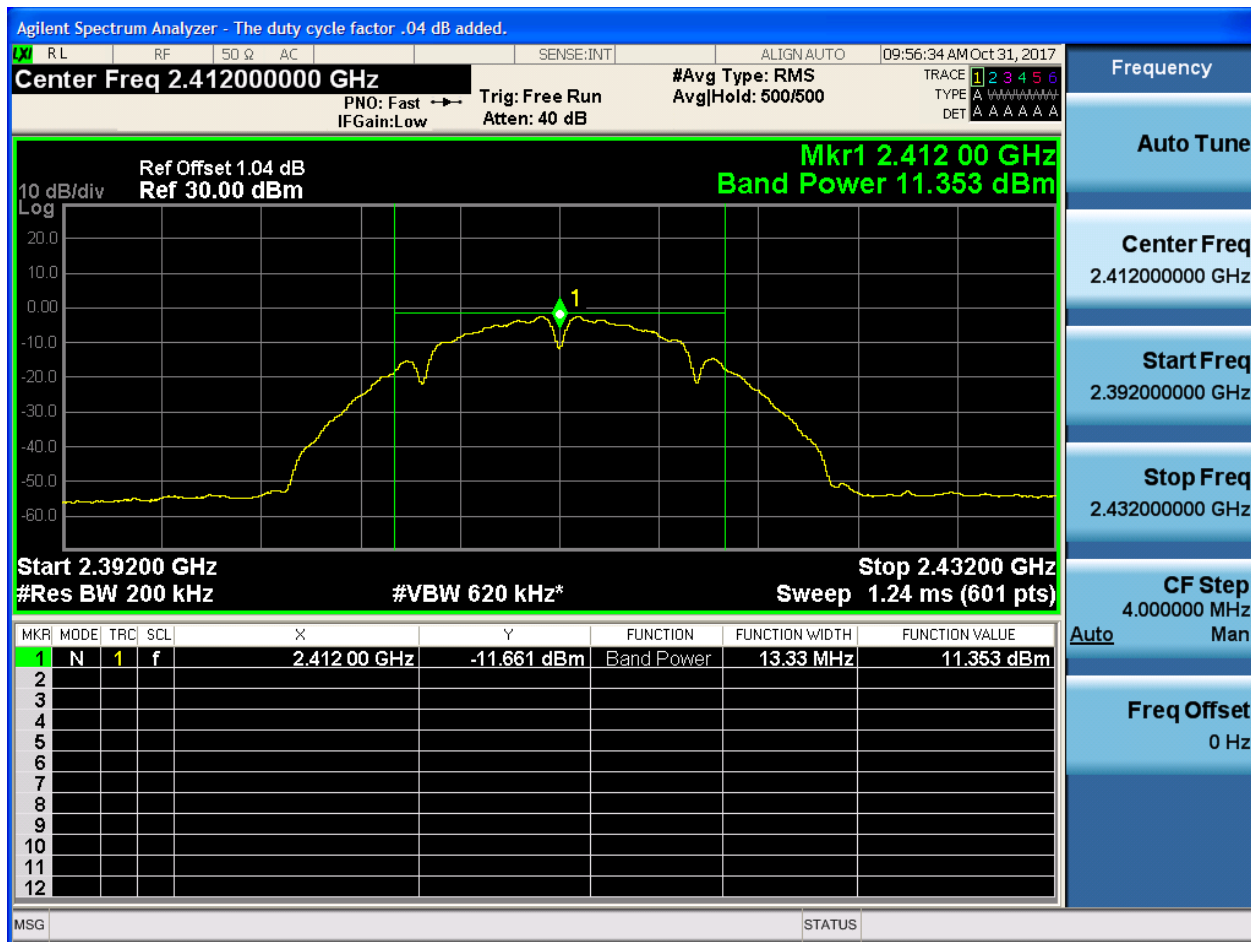
Test Mode	Test Channel	Frequency[MHz]	Ant	Power[dBm]	Verdict
11B	L	2412	Ant 1	11.35	pass
11B	L	2412	Ant 2	10.89	pass
11B	M	2437	Ant 1	11.20	pass
11B	M	2437	Ant 2	10.98	pass
11B	H	2462	Ant 1	11.41	pass
11B	H	2462	Ant 2	10.93	pass
11G	L	2412	Ant 1	12.97	pass
11G	L	2412	Ant 2	12.43	pass
11G	M	2437	Ant 1	12.82	pass
11G	M	2437	Ant 2	12.18	pass
11G	H	2462	Ant 1	13.10	pass
11G	H	2462	Ant 2	12.54	pass
11N20	L	2412	Ant 1	10.77	pass
11N20	L	2412	Ant 2	10.34	pass
11N20	M	2437	Ant 1	10.42	pass
11N20	M	2437	Ant 2	10.20	pass
11N20	H	2462	Ant 1	10.91	pass
11N20	H	2462	Ant 2	10.44	pass
11N20m	L	2412	Ant 1	10.60	pass
11N20m	L	2412	Ant 2	10.14	pass
11N20m	L	2412	SUM	13.39	pass
11N20m	M	2437	Ant 1	10.70	pass
11N20m	M	2437	Ant 2	10.50	pass
11N20m	M	2437	SUM	13.61	pass
11N20m	H	2462	Ant 1	11.06	pass
11N20m	H	2462	Ant 2	10.55	pass
11N20m	H	2462	SUM	13.82	pass
11N40	L	2422	Ant 1	10.39	pass
11N40	L	2422	Ant 2	10.41	pass
11N40	M	2437	Ant 1	10.81	pass
11N40	M	2437	Ant 2	9.60	pass
11N40	H	2452	Ant 1	11.11	pass
11N40	H	2452	Ant 2	10.14	pass
11N40m	L	2422	Ant 1	10.44	pass
11N40m	L	2422	Ant 2	10.63	pass
11N40m	L	2422	SUM	13.55	pass

Test Mode	Test Channel	Frequency[MHz]	Ant	Power[dBm]	Verdict
11N40m	M	2437	Ant 1	10.86	pass
11N40m	M	2437	Ant 2	10.63	pass
11N40m	M	2437	SUM	13.76	pass
11N40m	H	2452	Ant 1	11.14	pass
11N40m	H	2452	Ant 2	10.25	pass
11N40m	H	2452	SUM	13.73	pass



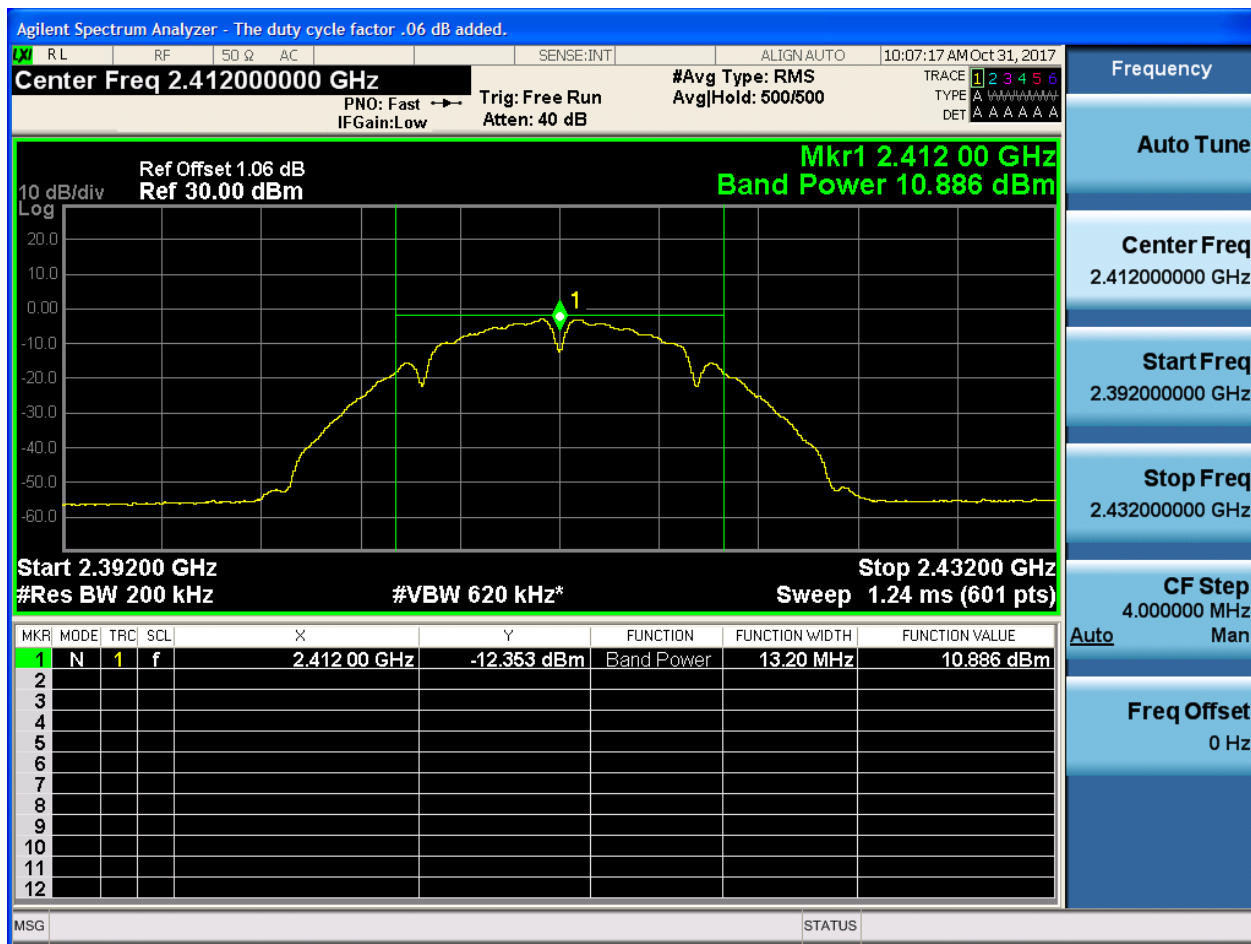
Part II - Test Plots

2.1 11B_L@Ant 1



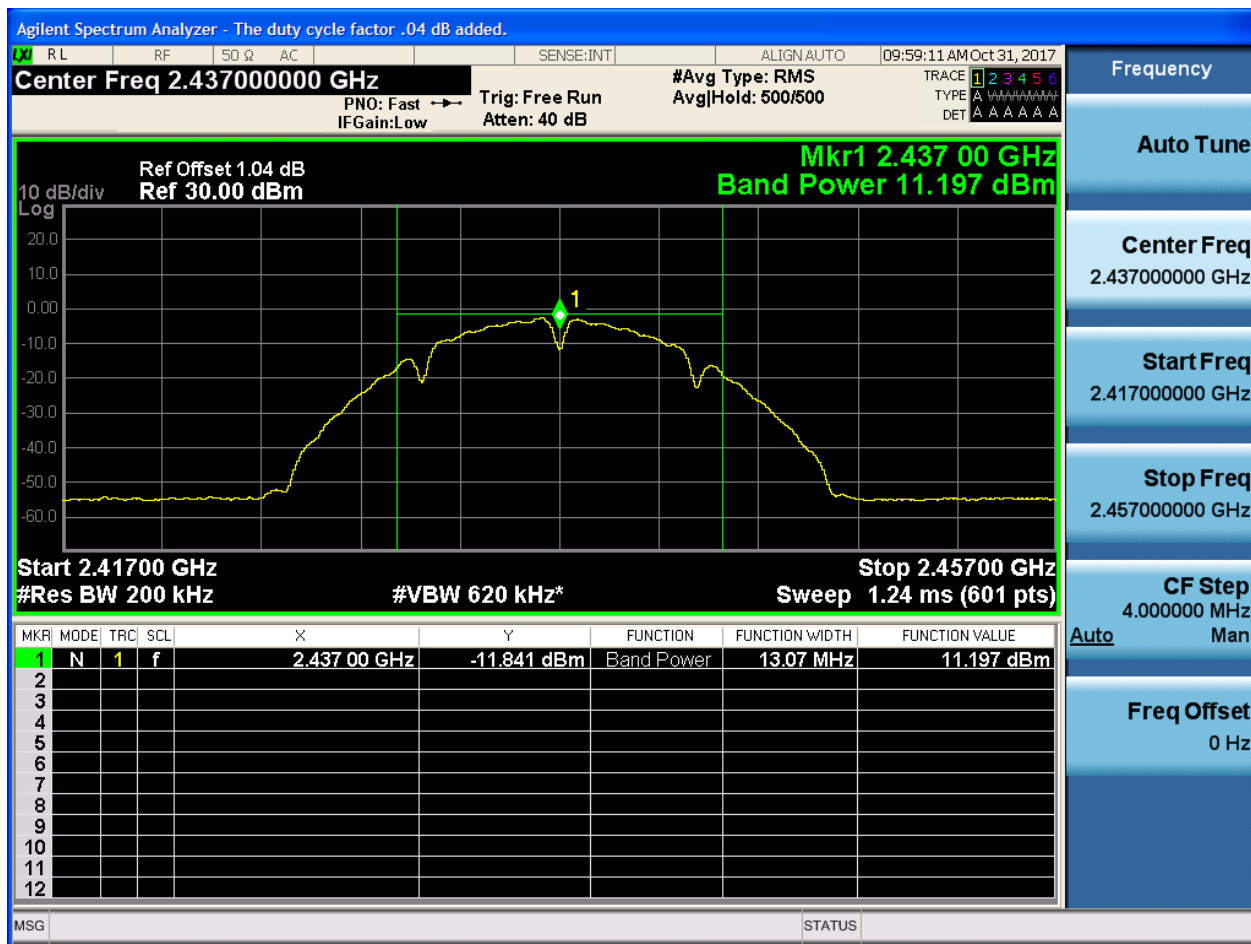


2.2 11B_L@Ant 2



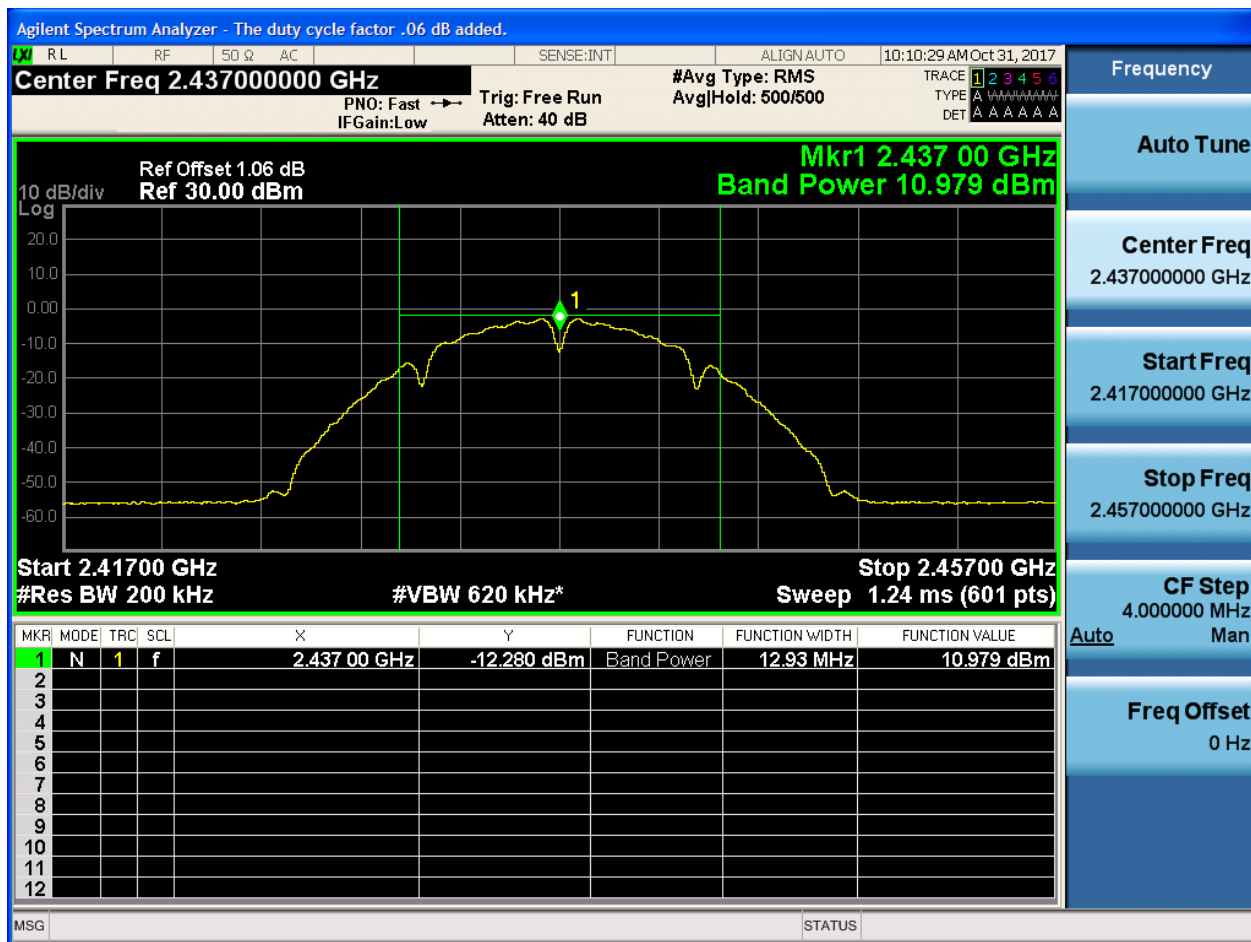


2.3 11B_M@Ant 1



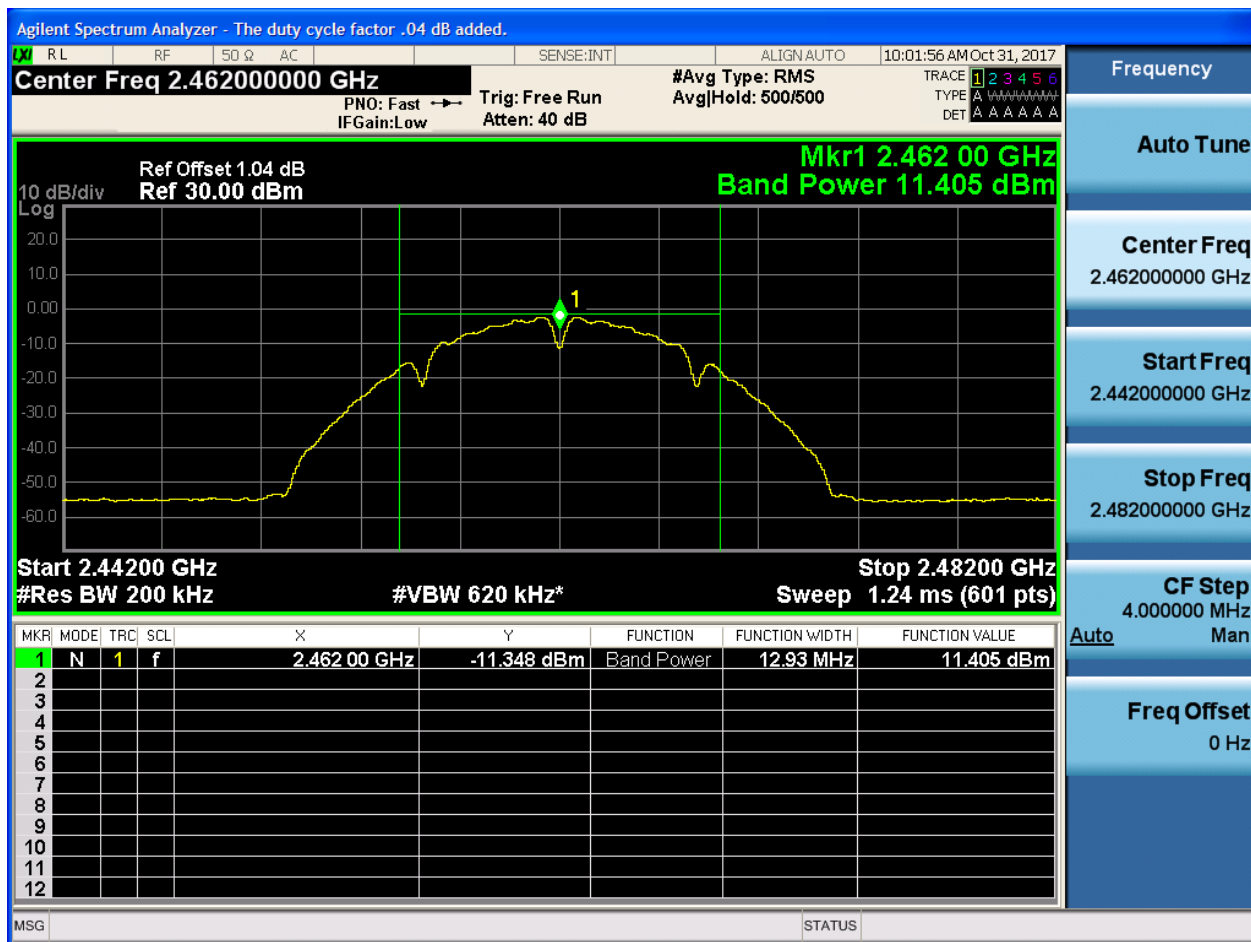


2.4 11B_M@Ant 2



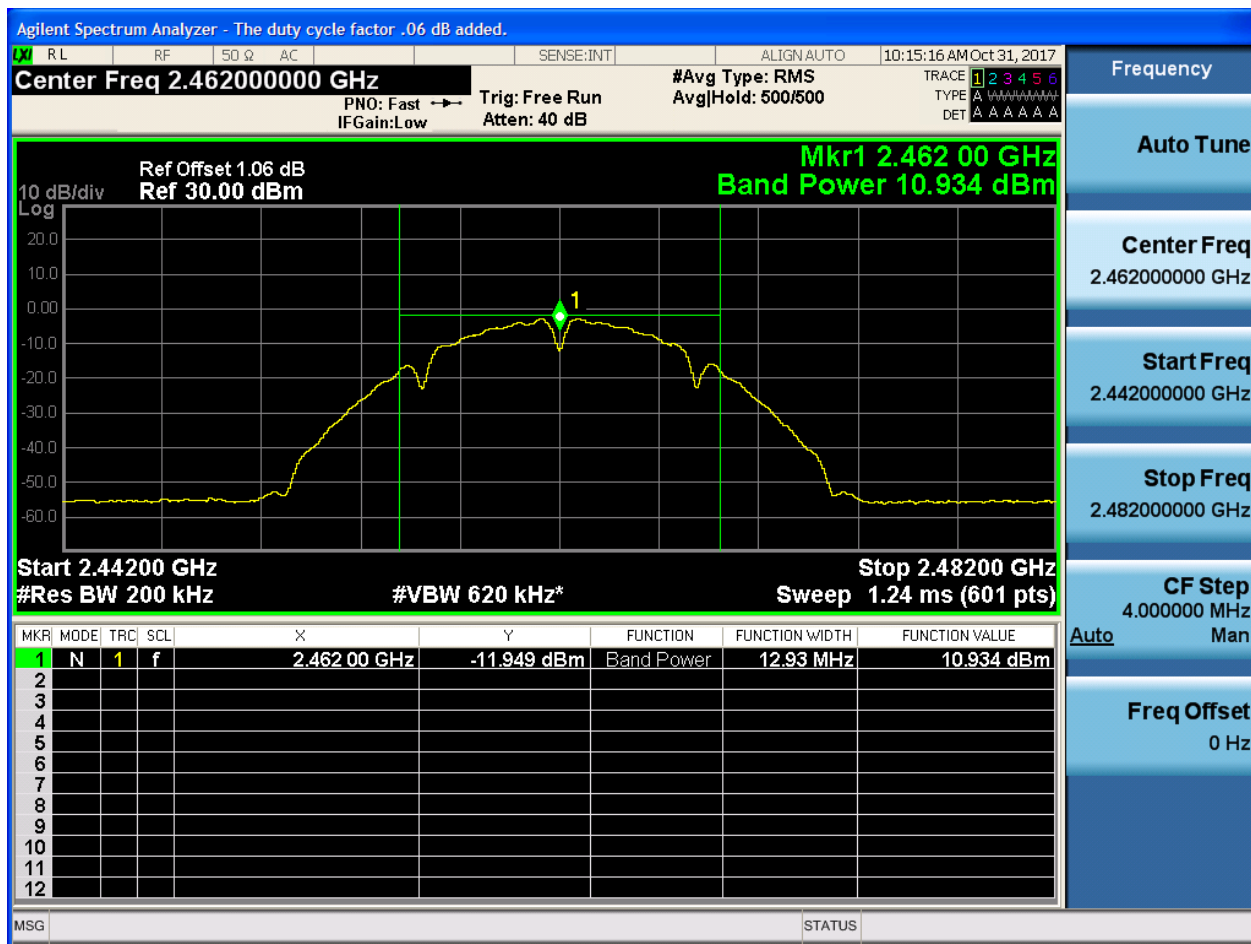


2.5 11B_H@Ant 1



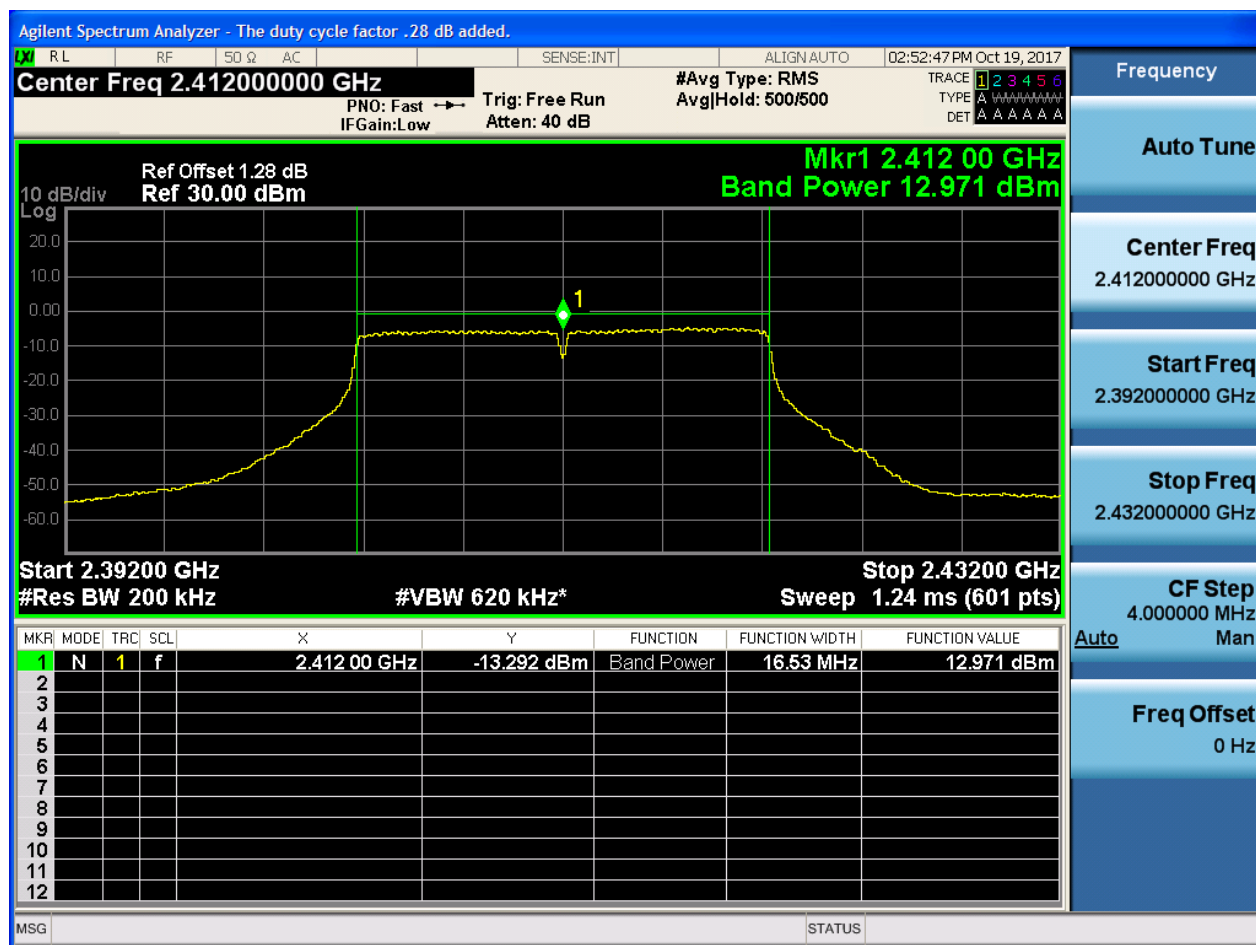


2.6 11B_H@Ant 2



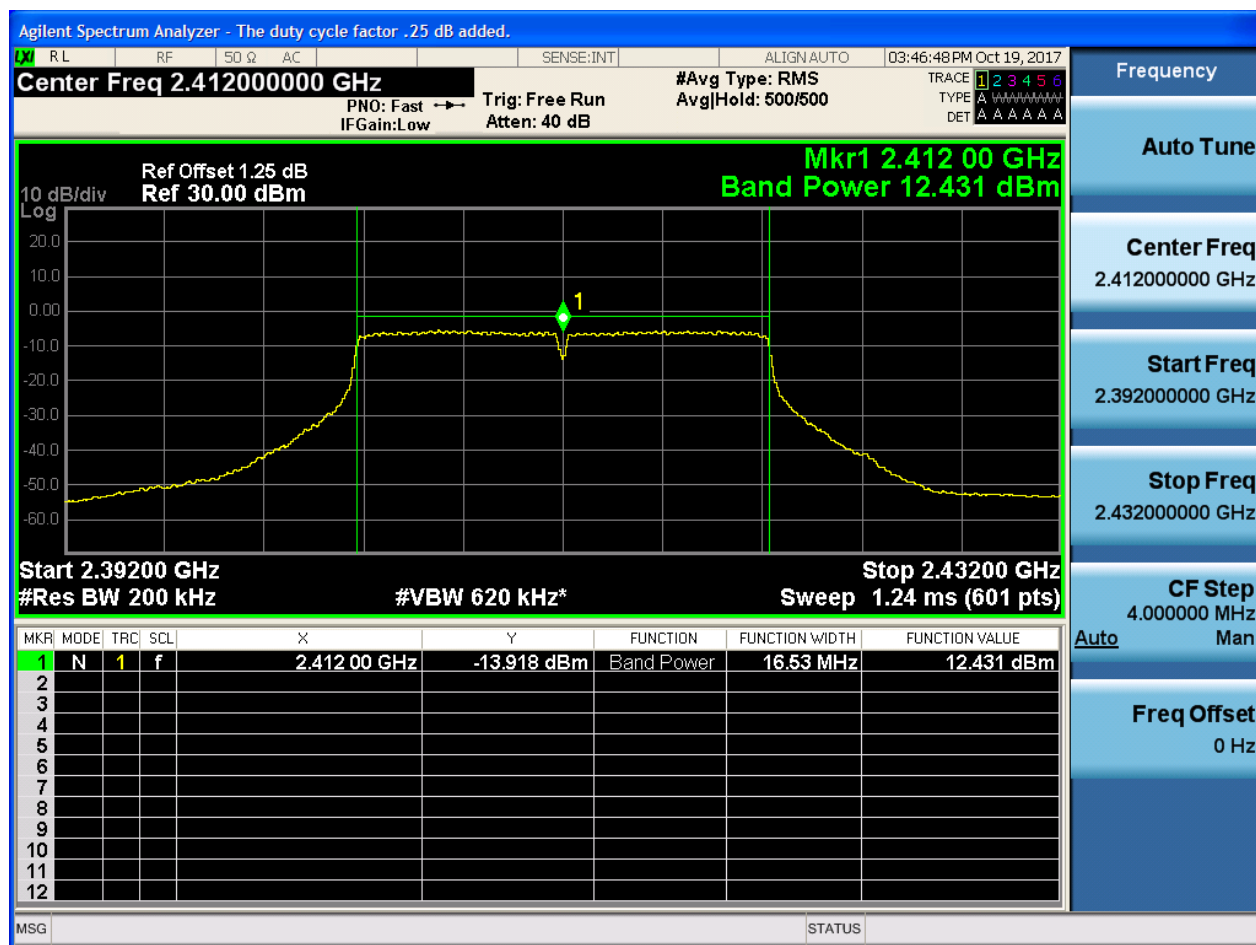


2.7 11G_L@Ant 1



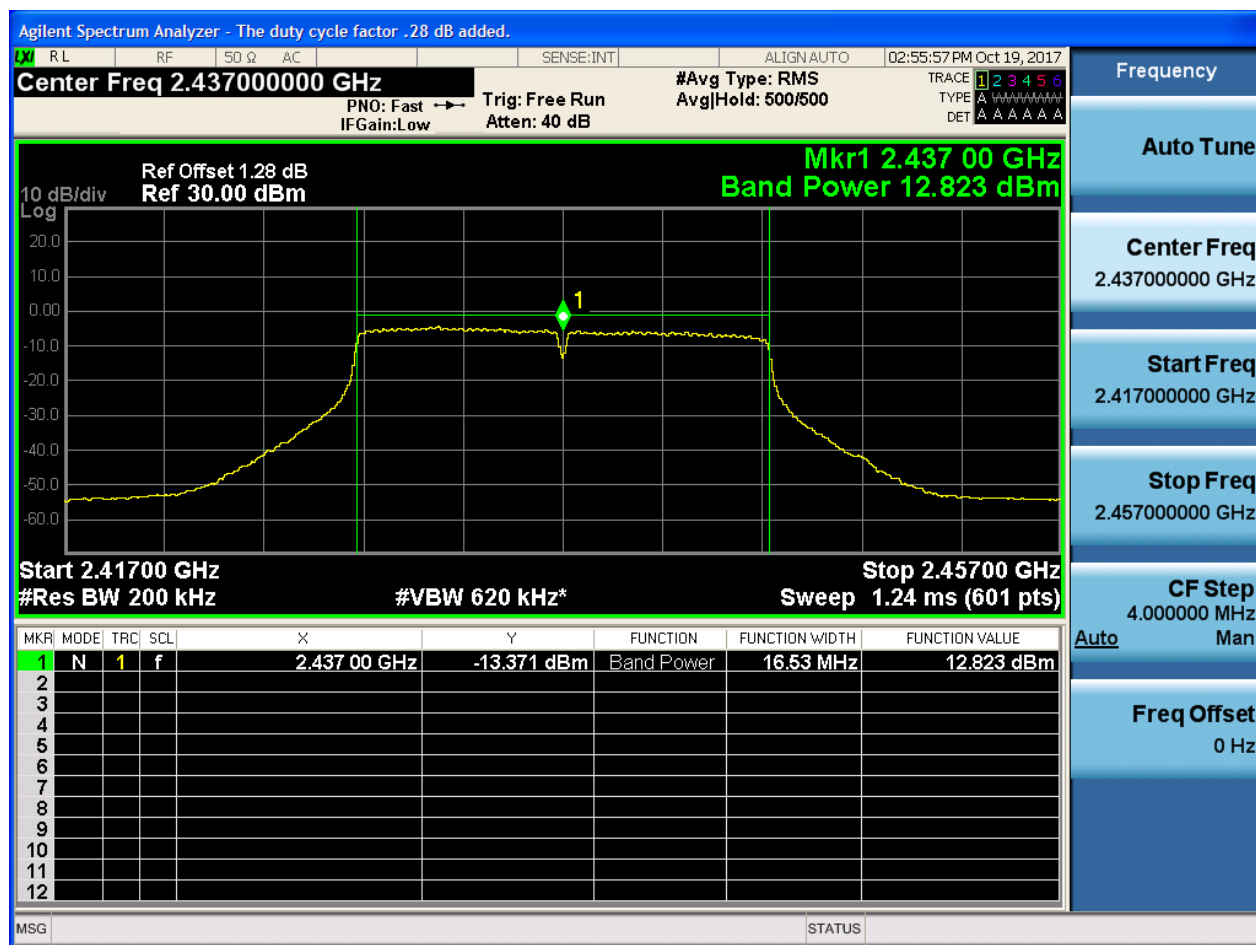


2.8 11G_L@Ant 2



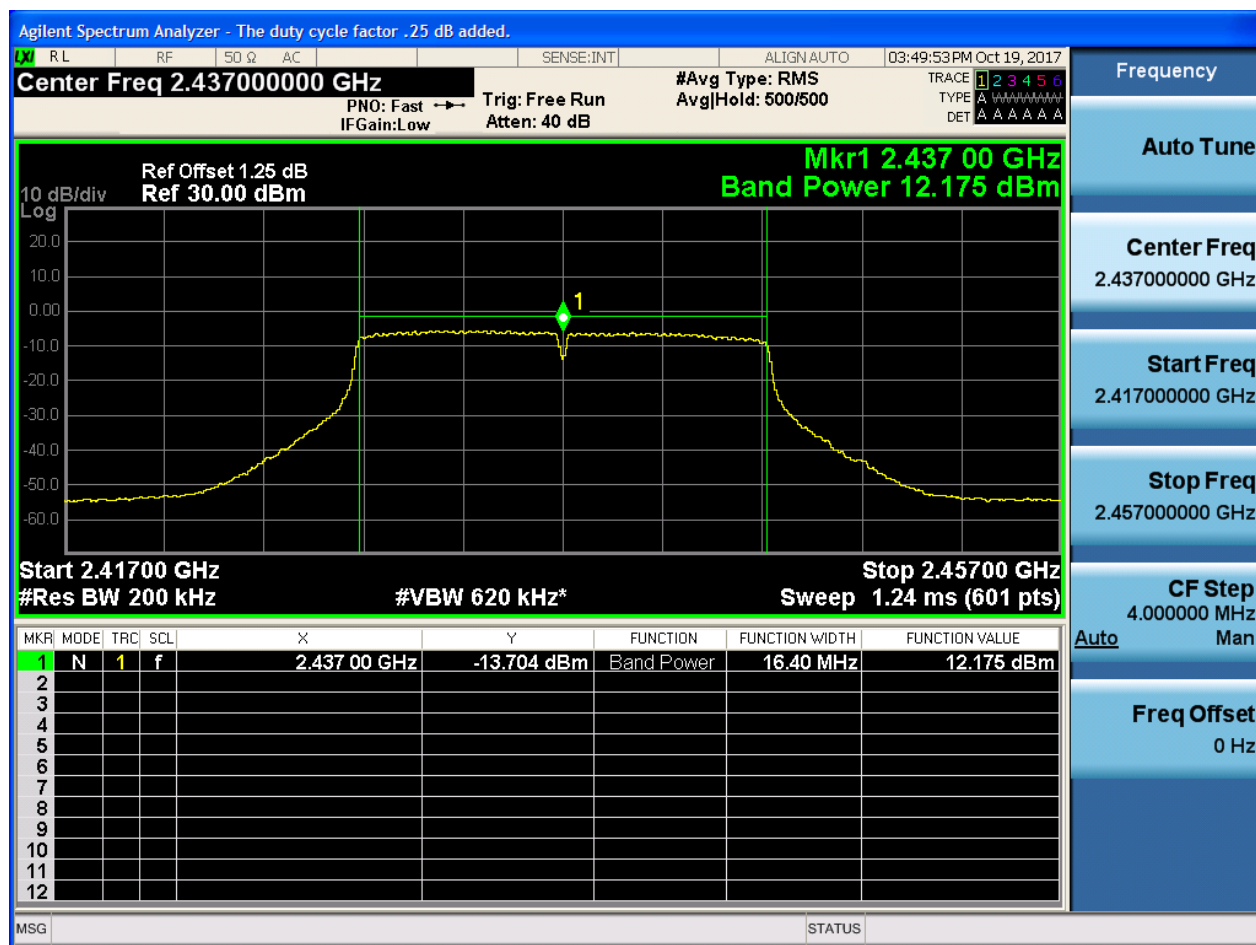


2.9 11G_M@Ant 1



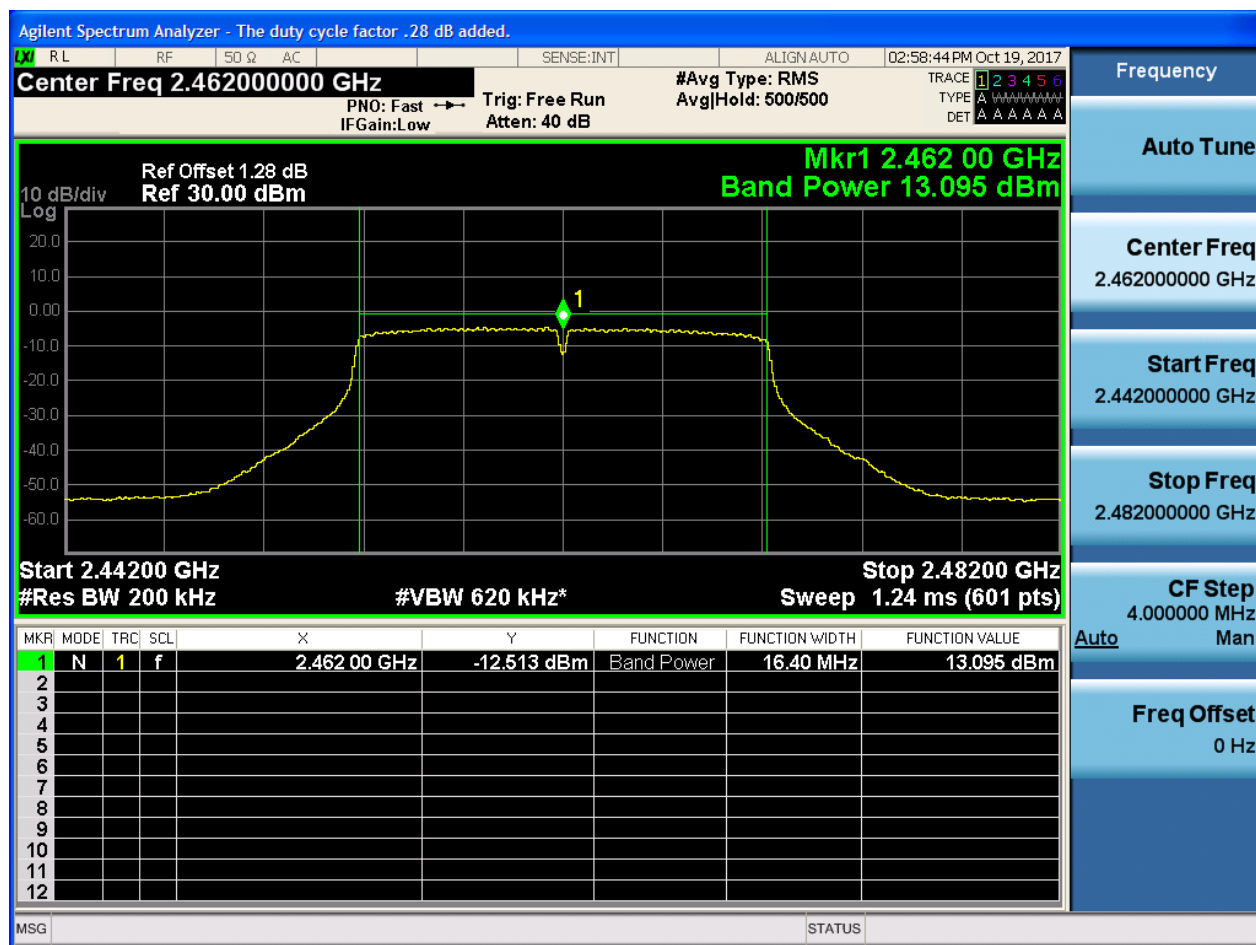


2.10 11G_M@Ant 2



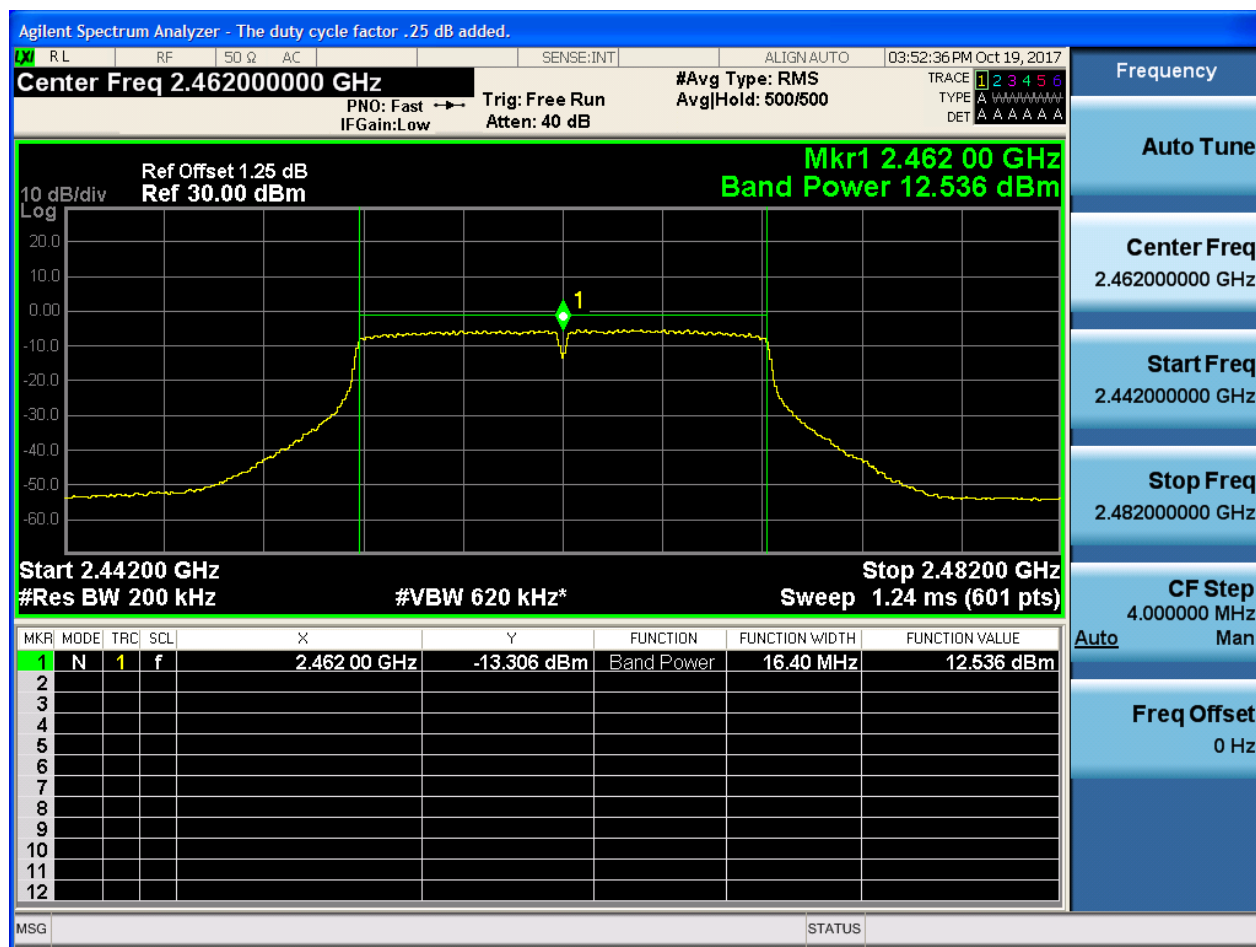


2.11 11G_H@Ant 1



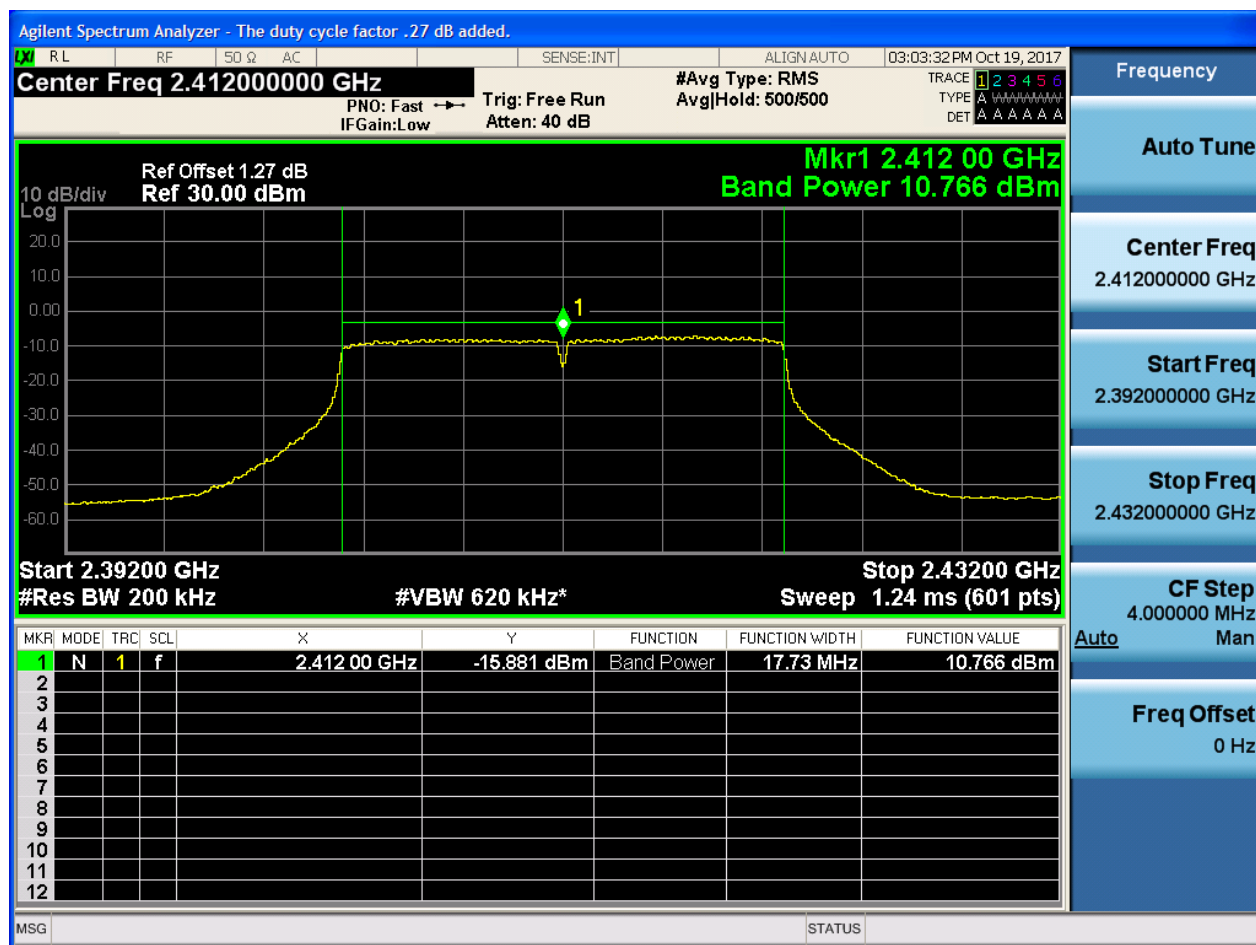


2.12 11G_H@Ant 2



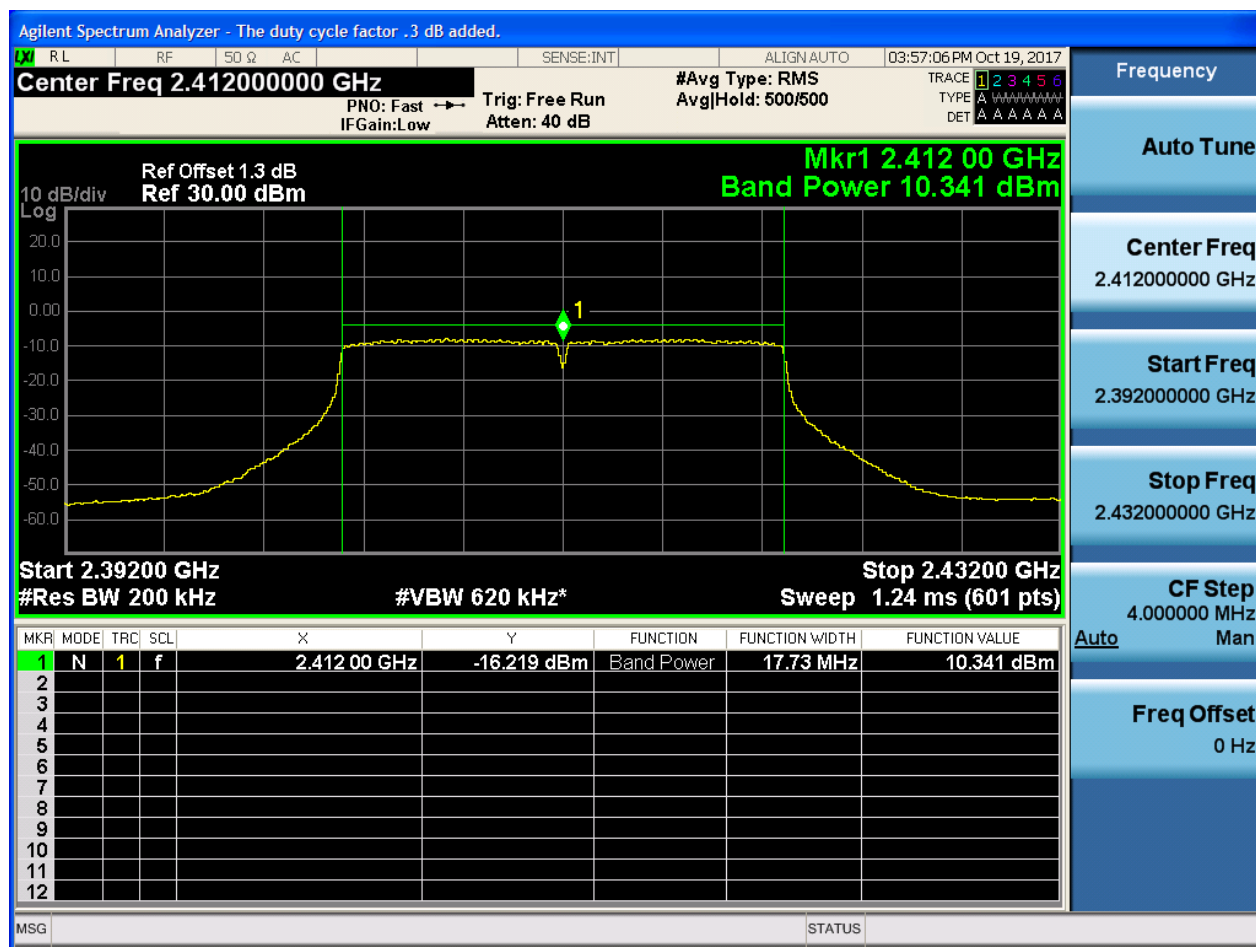


2.13 11N20_L@Ant 1



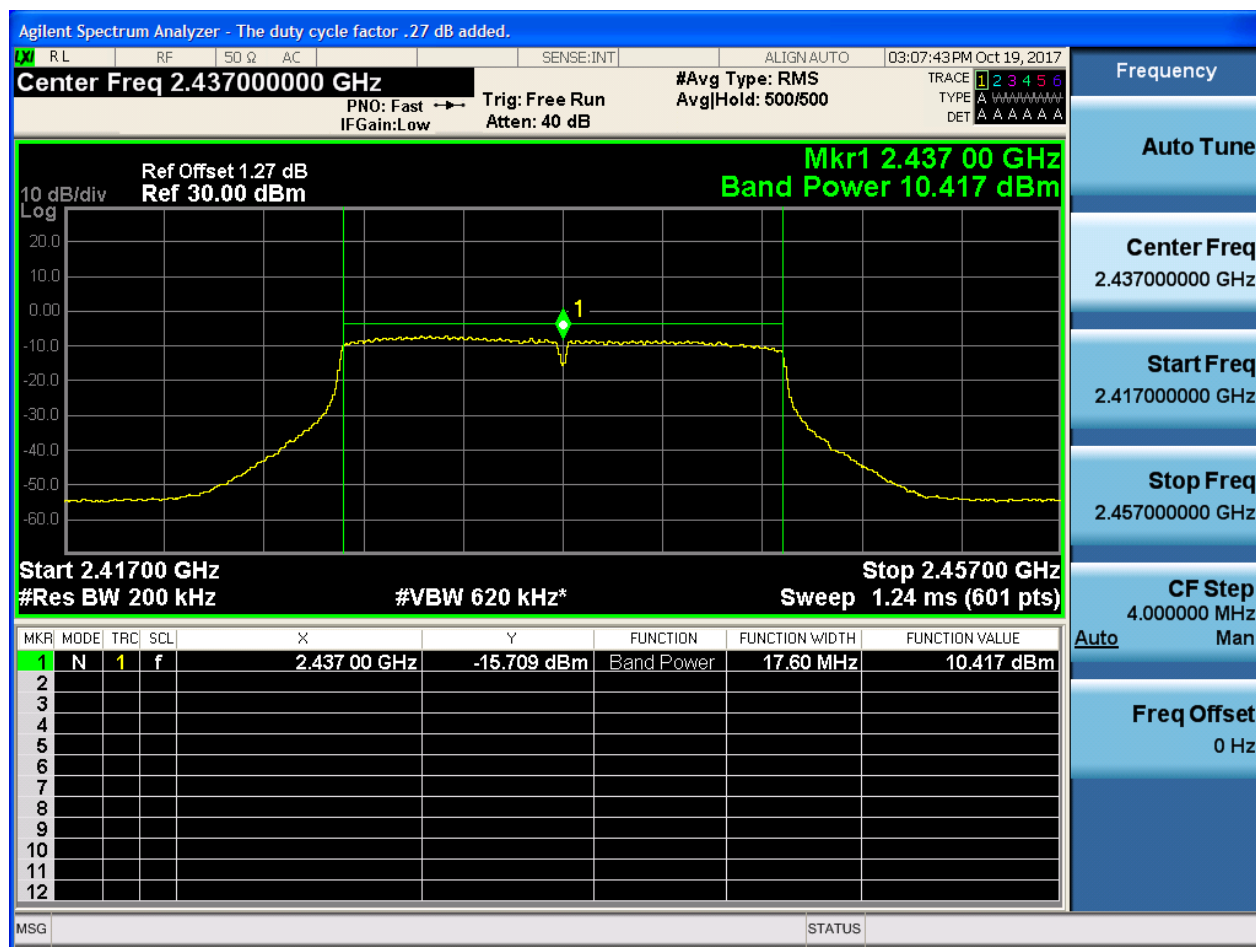


2.14 11N20_L@Ant 2



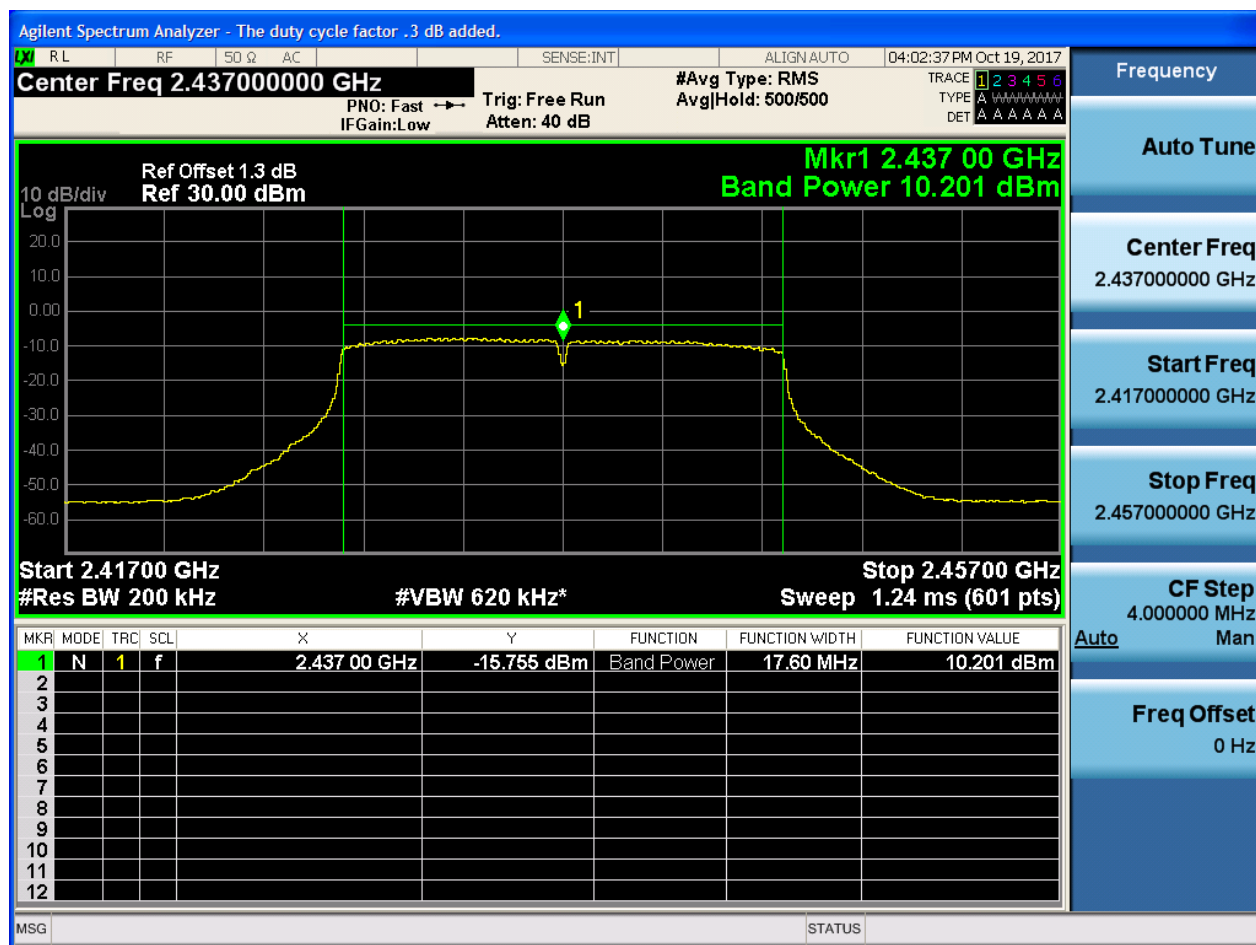


2.15 11N20_M@Ant 1



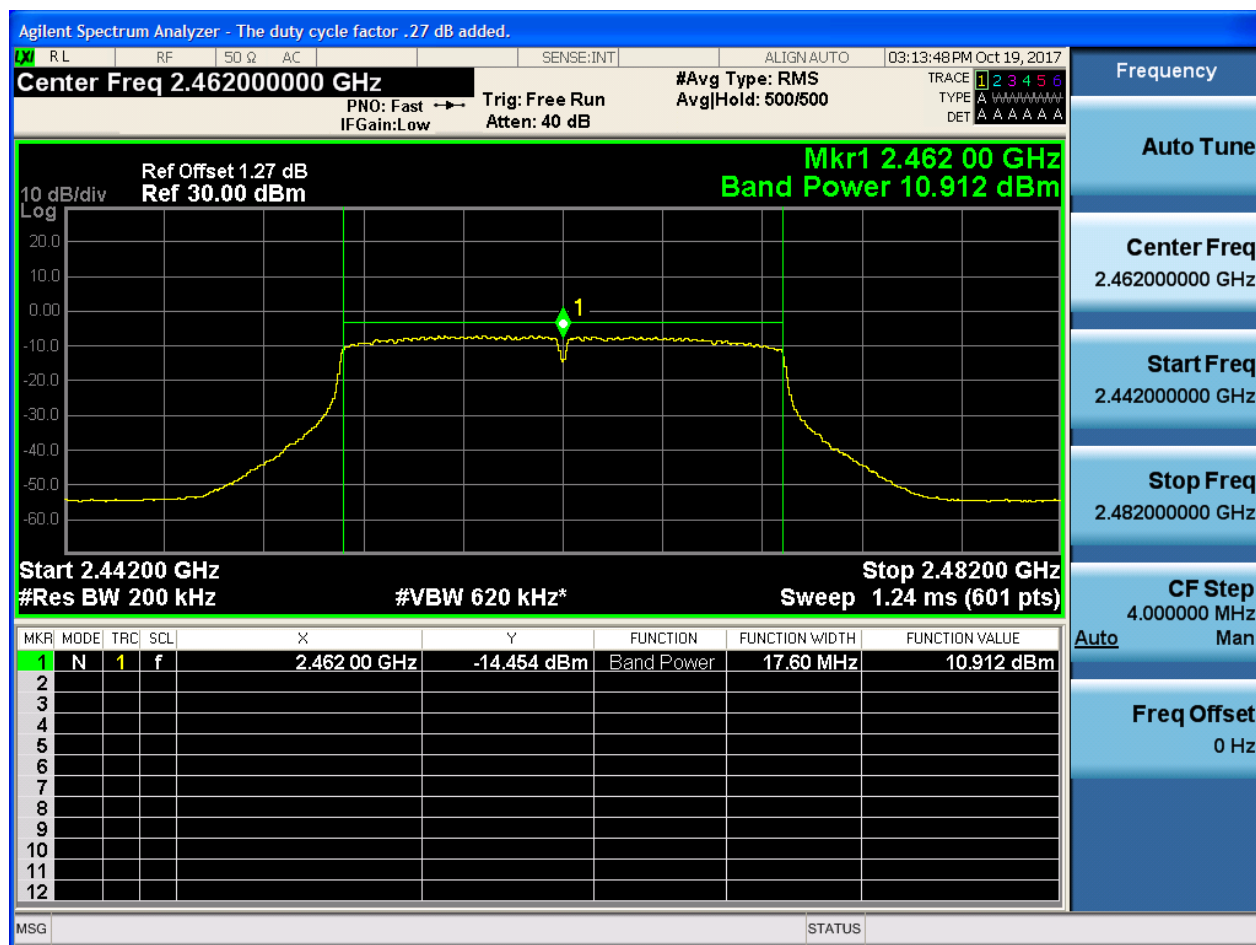


2.16 11N20_M@Ant 2



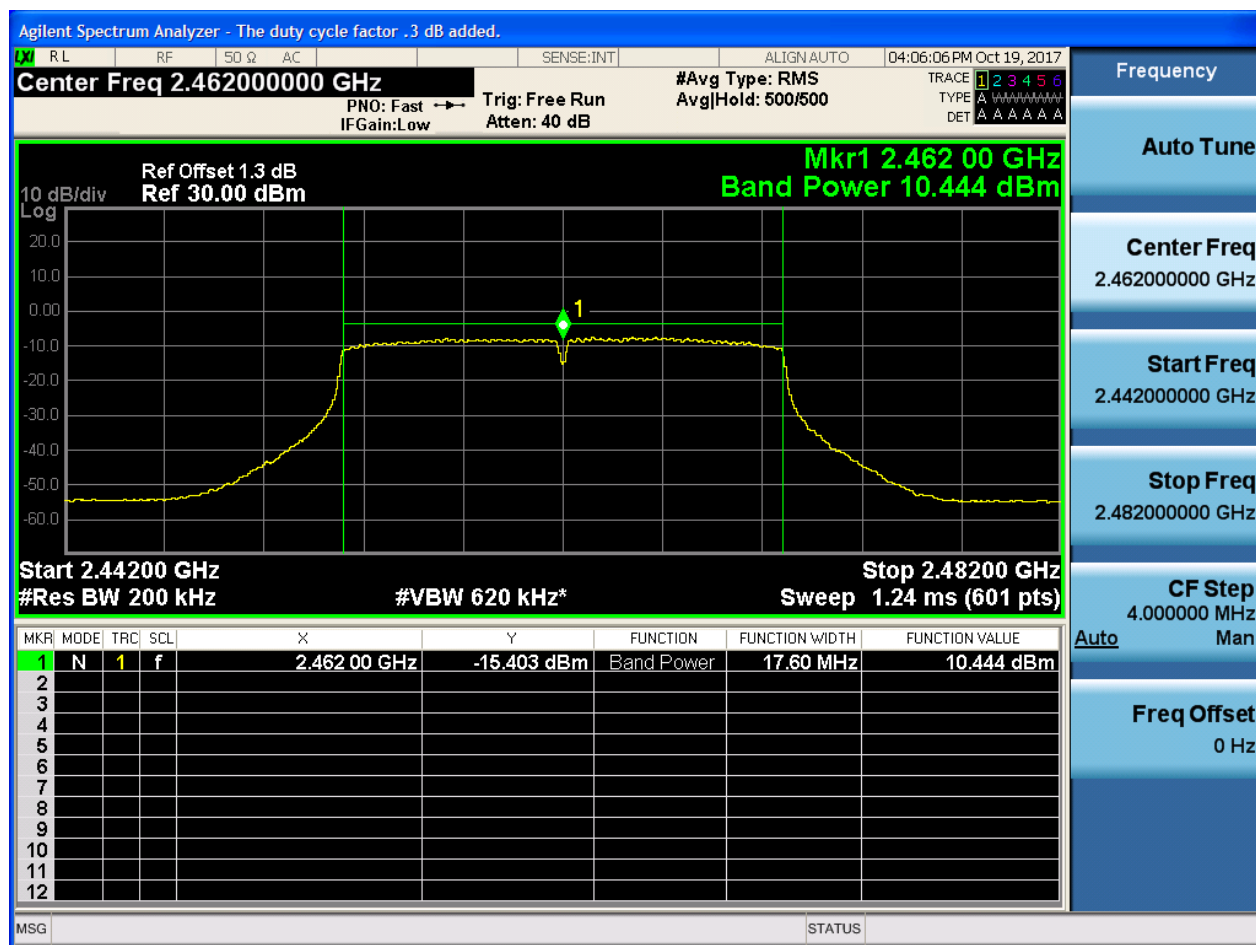


2.17 11N20_H@Ant 1



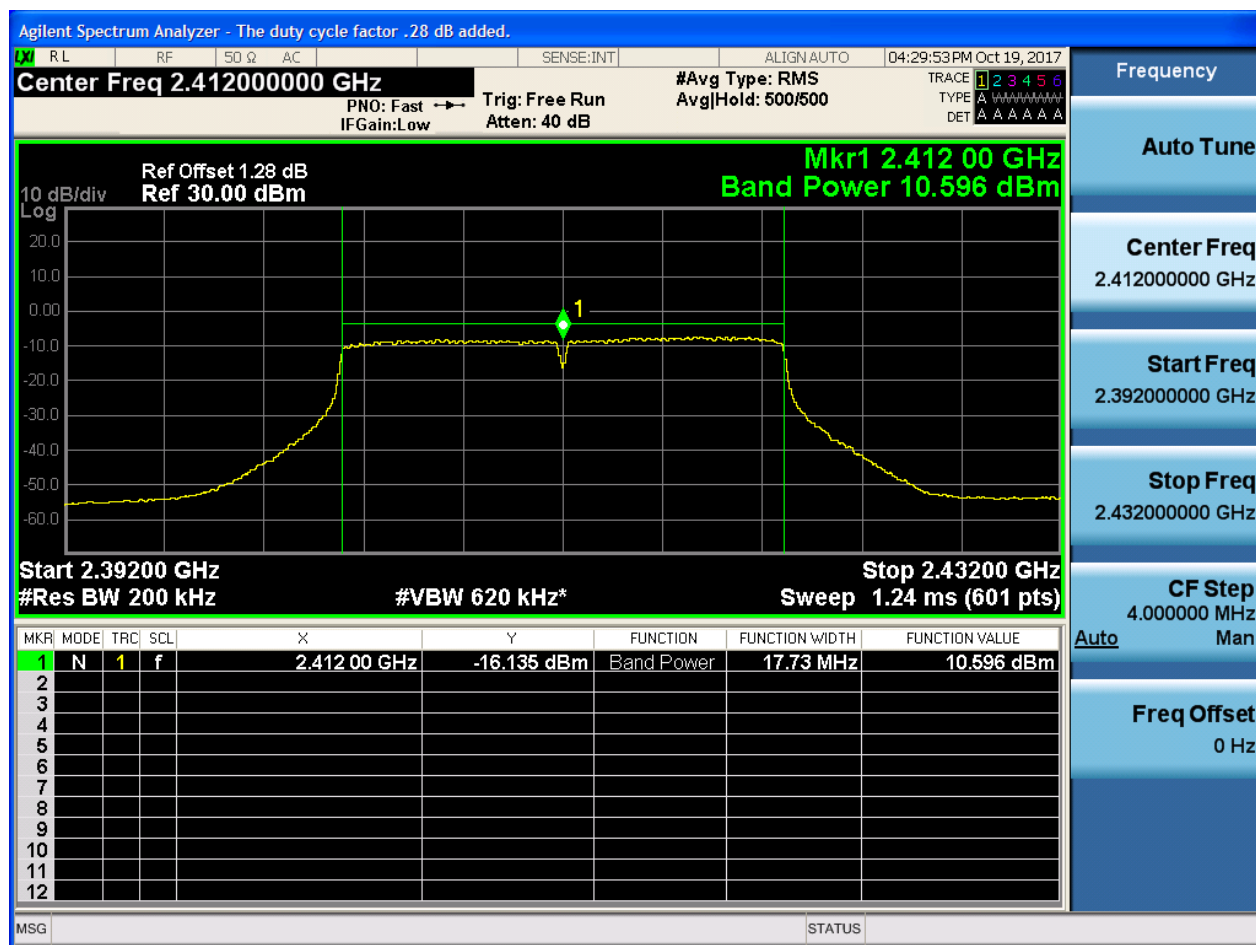


2.18 11N20_H@Ant 2



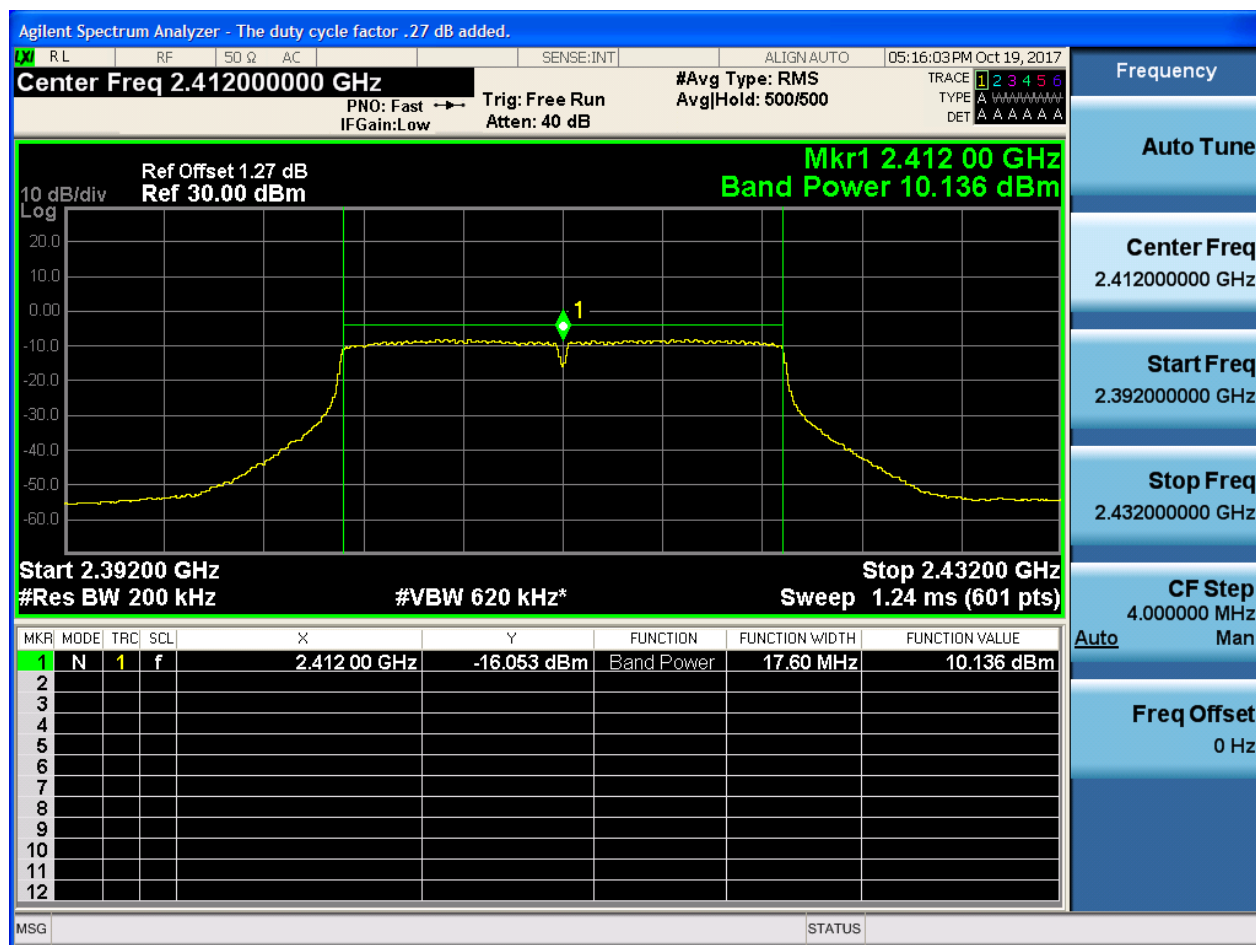


2.19 11N20m_L@Ant 1





2.20 11N20m_L@Ant 2





2.21 11N20m_M@Ant 1

