



Appendix for Testreport



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	7.09	pass
11B	L	2412	Ant 2	7.58	pass
11B	M	2437	Ant 1	7.08	pass
11B	M	2437	Ant 2	7.58	pass
11B	H	2462	Ant 1	7.09	pass
11B	H	2462	Ant 2	7.10	pass
11G	L	2412	Ant 1	16.36	pass
11G	L	2412	Ant 2	16.40	pass
11G	M	2437	Ant 1	16.36	pass
11G	M	2437	Ant 2	16.37	pass
11G	H	2462	Ant 1	16.42	pass
11G	H	2462	Ant 2	16.34	pass
11N20	L	2412	Ant 1	17.60	pass
11N20	L	2412	Ant 2	17.64	pass
11N20	M	2437	Ant 1	17.58	pass
11N20	M	2437	Ant 2	17.25	pass
11N20	H	2462	Ant 1	17.66	pass
11N20	H	2462	Ant 2	17.23	pass
11N20m	L	2412	Ant 1	17.62	pass
11N20m	L	2412	Ant 2	17.64	pass
11N20m	M	2437	Ant 1	17.61	pass
11N20m	M	2437	Ant 2	17.65	pass
11N20m	H	2462	Ant 1	17.64	pass
11N20m	H	2462	Ant 2	17.60	pass
11G CDD	L	2412	Ant 1	16.38	pass
11G CDD	L	2412	Ant 2	16.39	pass
11G CDD	M	2437	Ant 1	16.40	pass
11G CDD	M	2437	Ant 2	16.40	pass

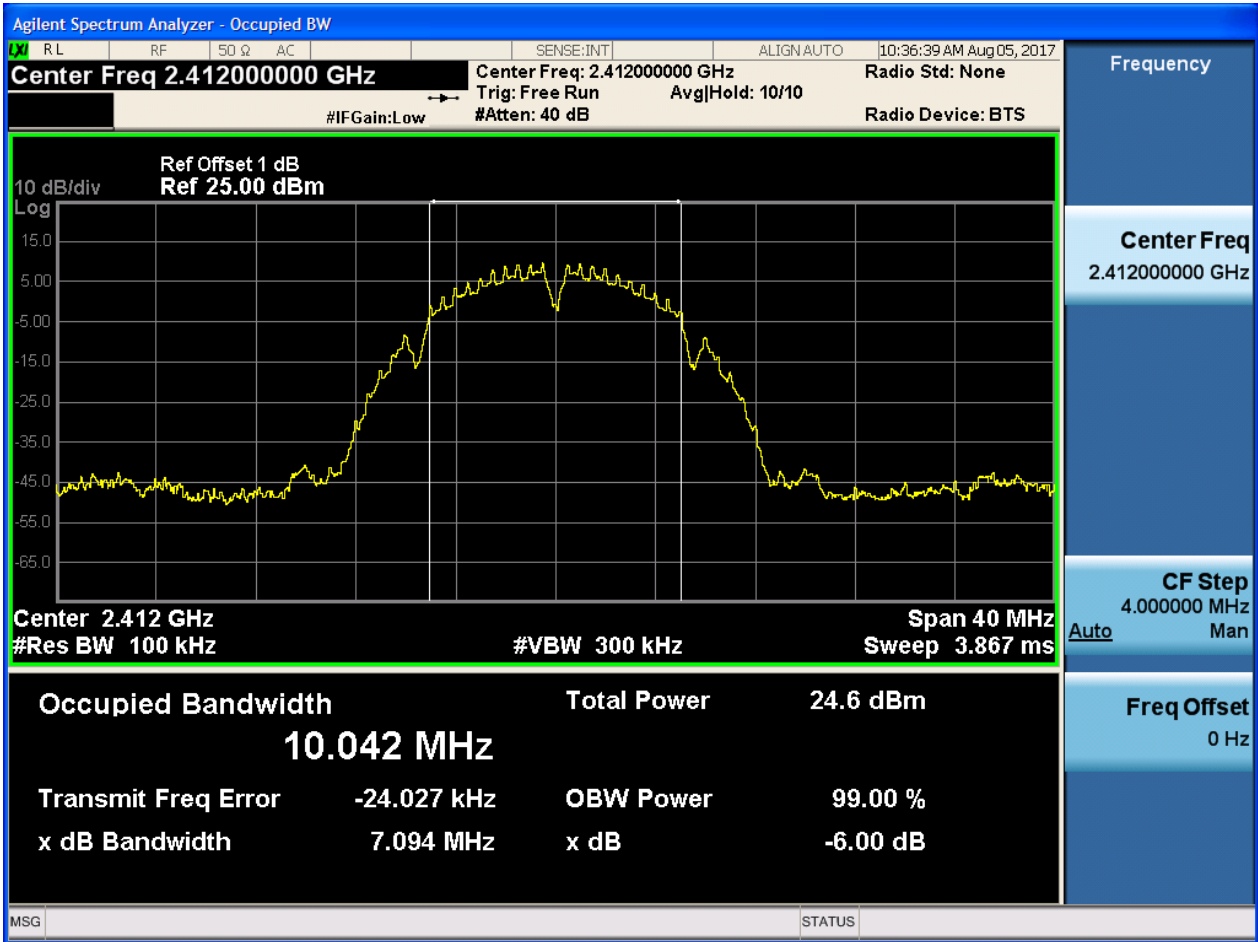


Test Mode	Test Channel	Frequency[MHz]	Ant	DTS6dBBW[MHz]	Verdict
11G CDD	H	2462	Ant 1	16.43	pass
11G CDD	H	2462	Ant 2	16.14	pass



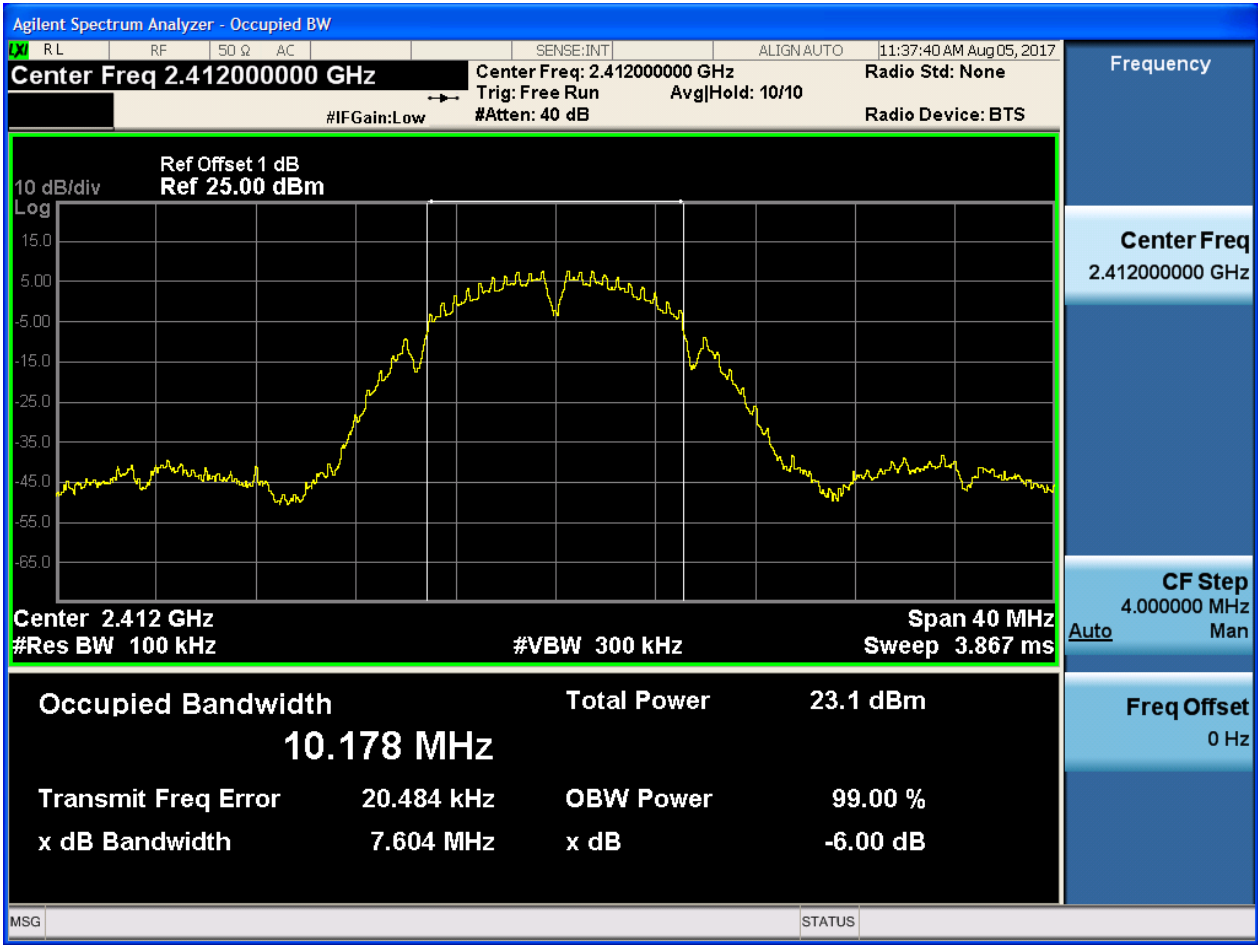
Part II - Test Plots

2.1 11B_L@Ant 1



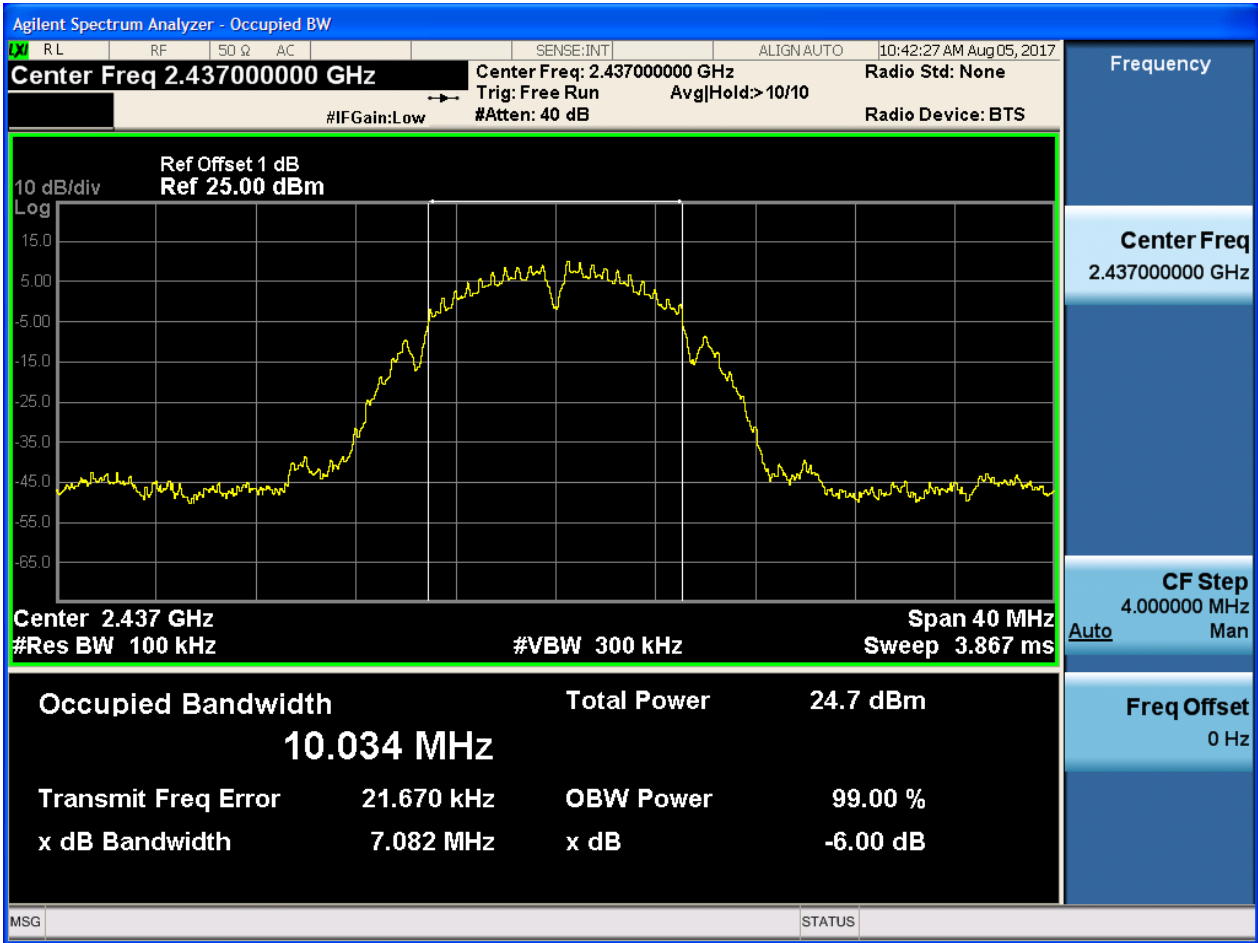


2.2 11B_L@Ant 2



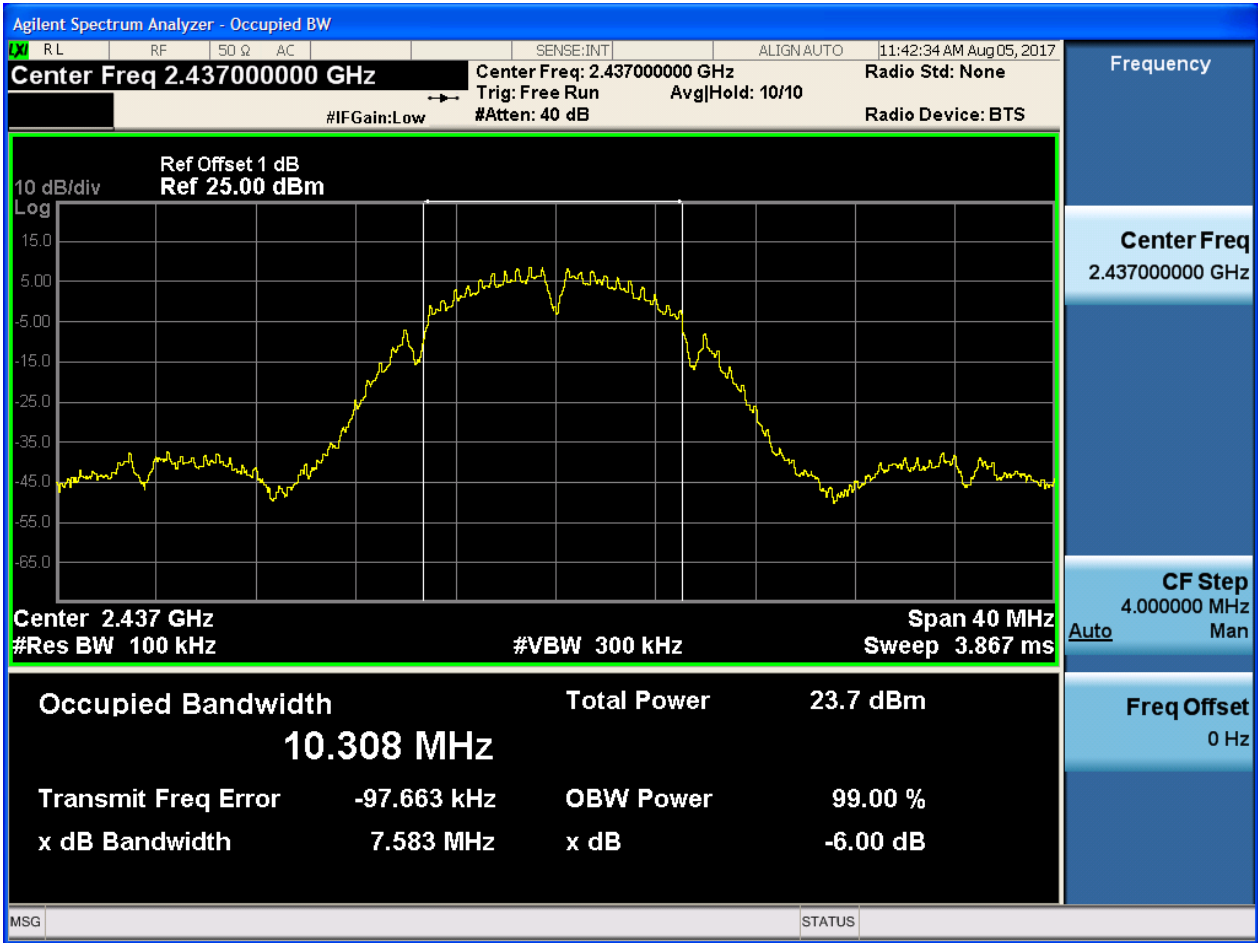


2.3 11B_M@Ant 1



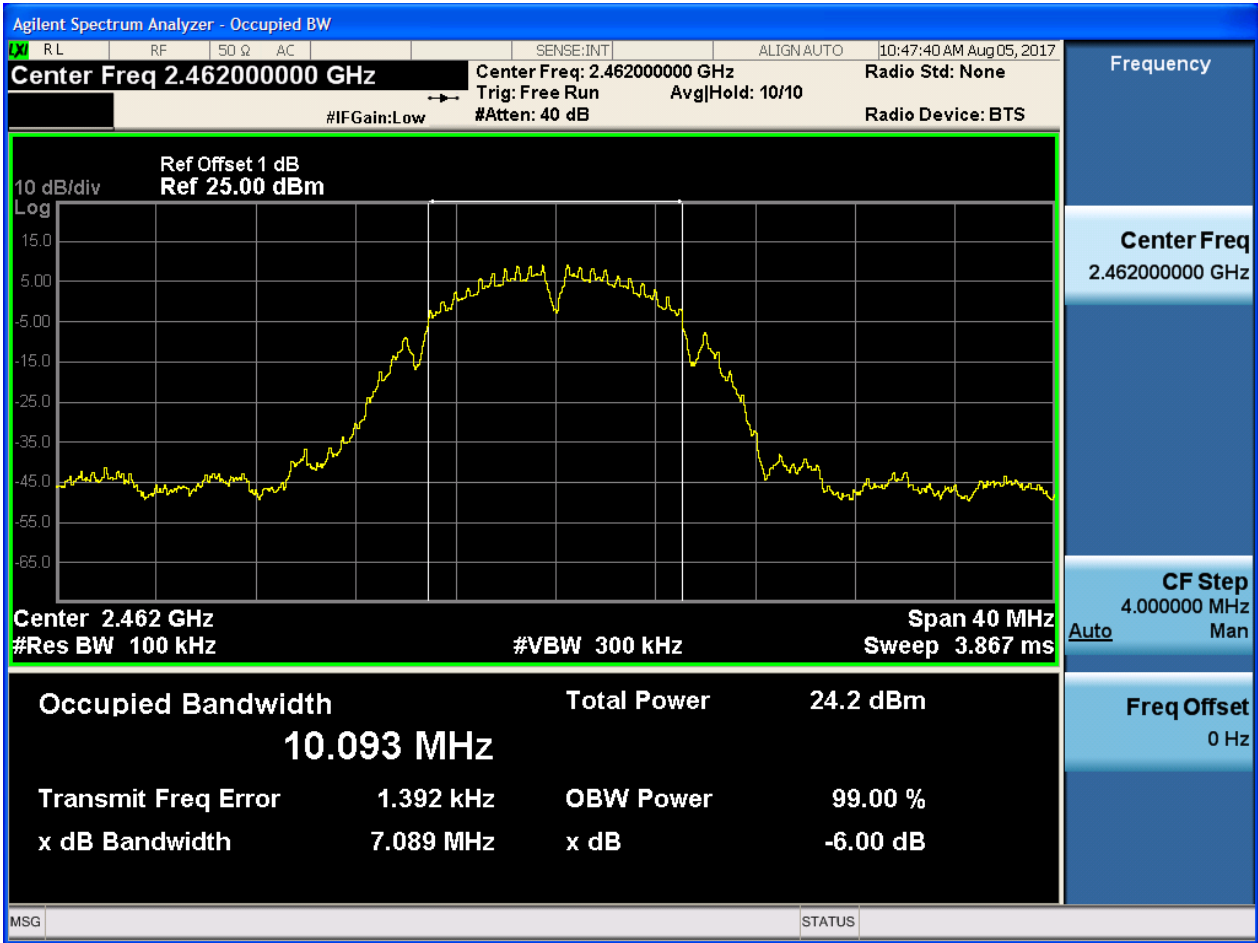


2.4 11B_M@Ant 2



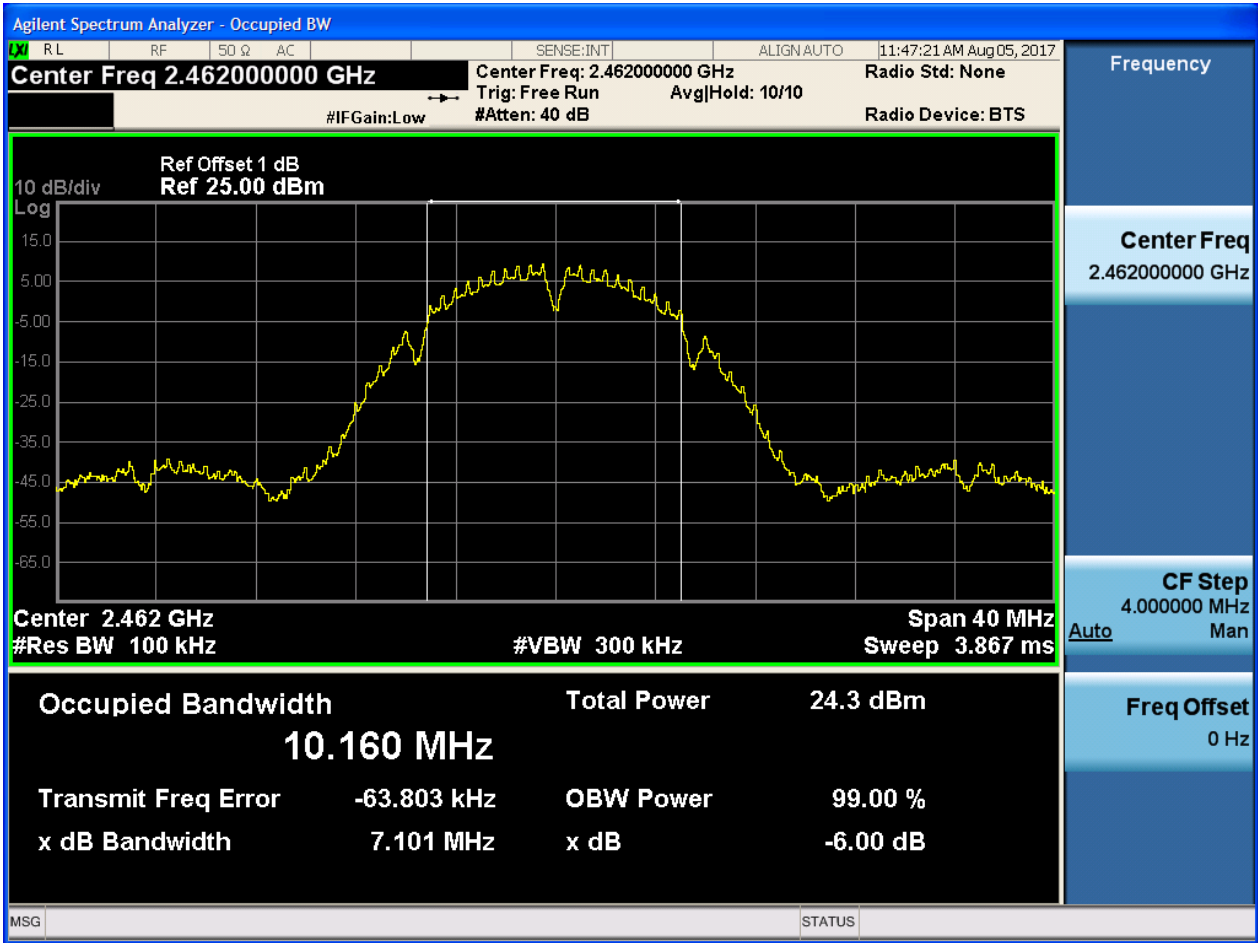


2.5 11B_H@Ant 1



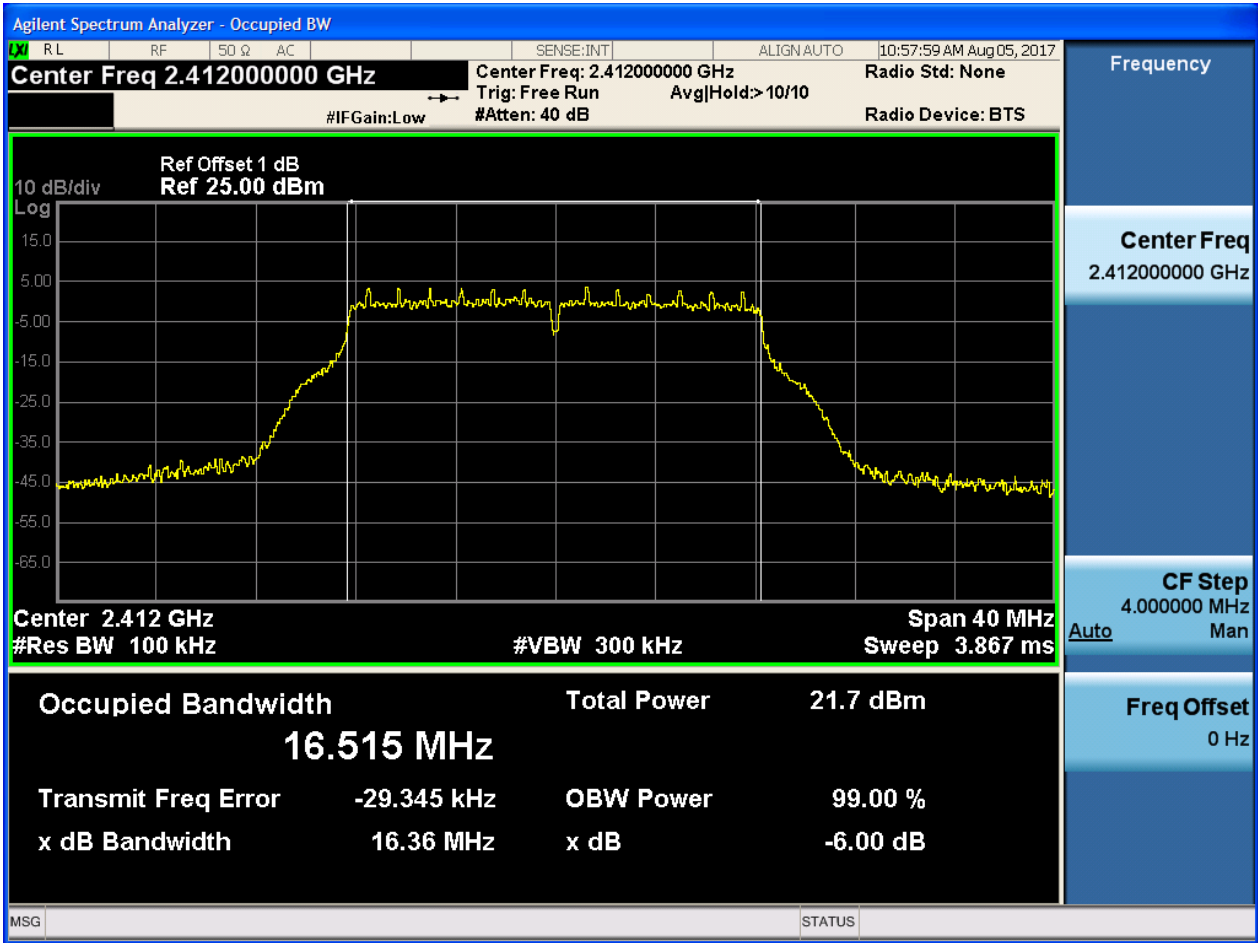


2.6 11B_H@Ant 2



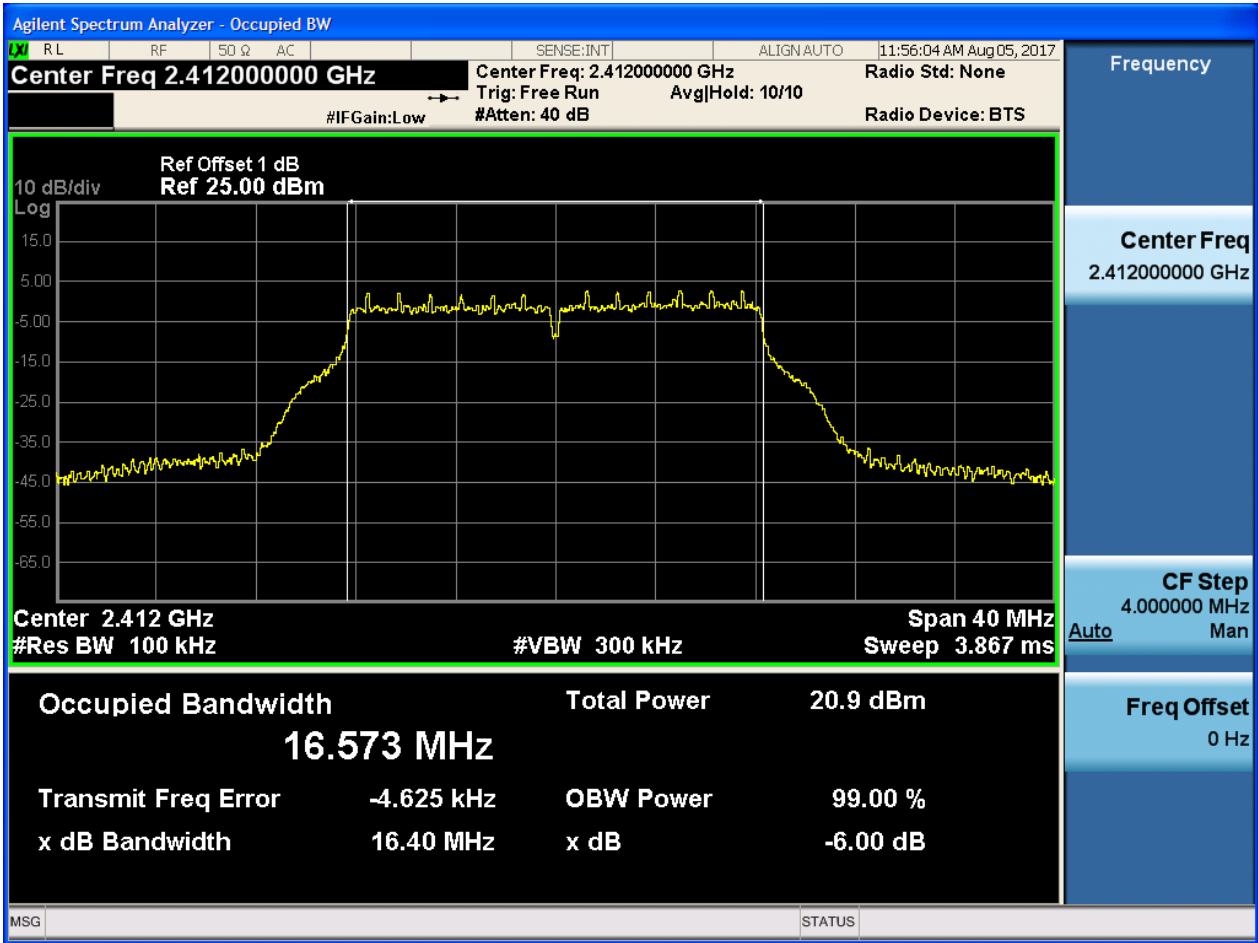


2.7 11G_L@Ant 1



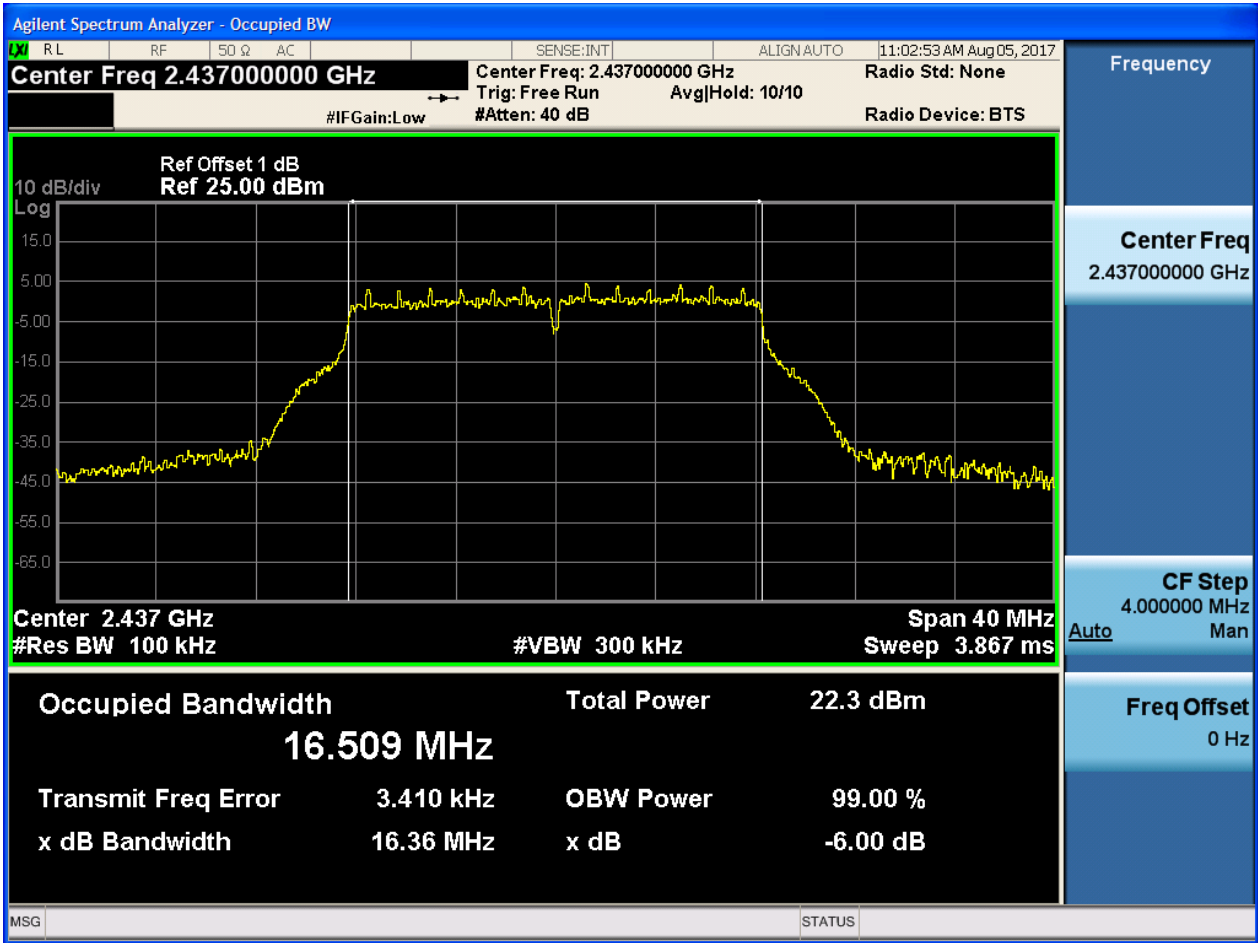


2.8 11G_L@Ant 2



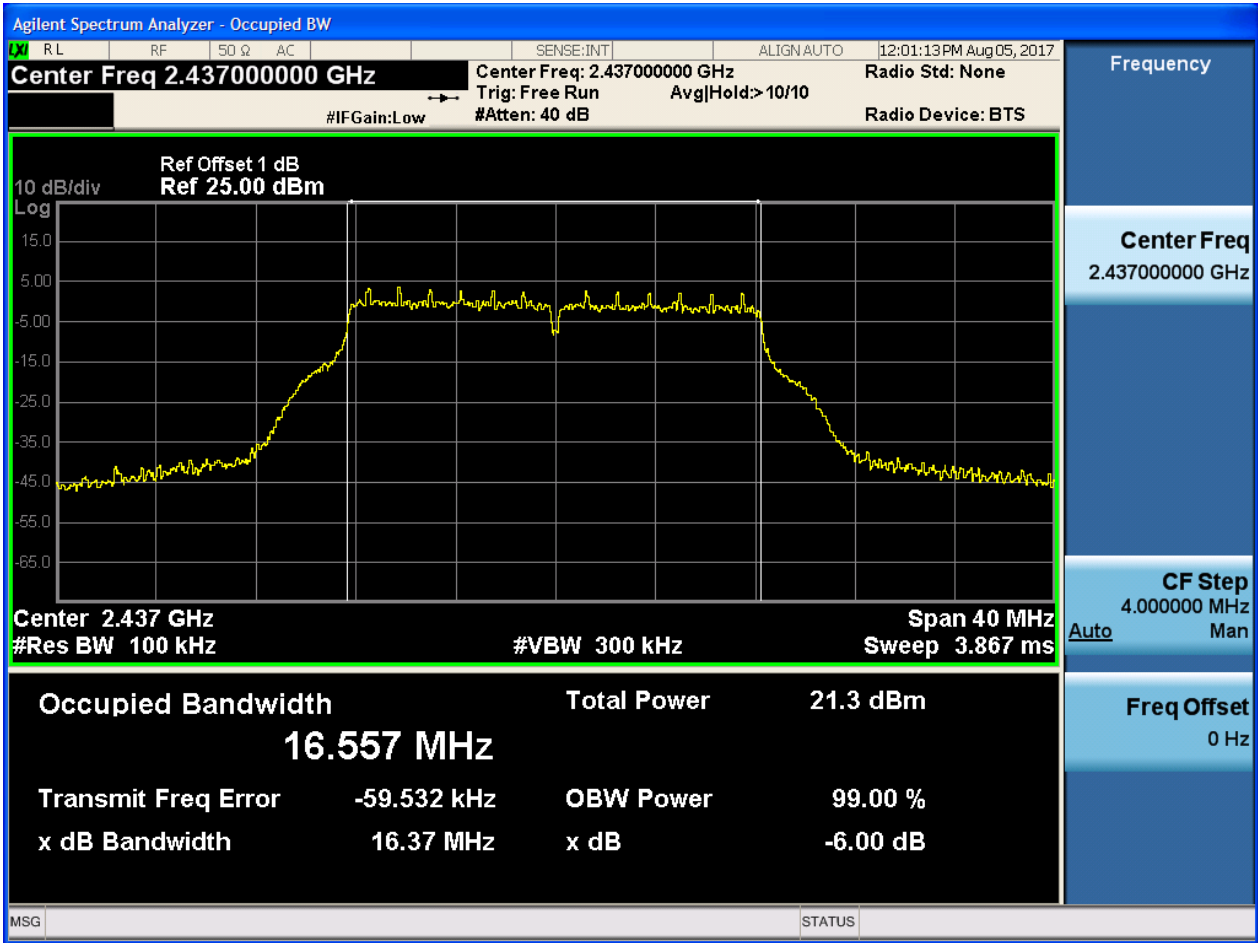


2.9 11G_M@Ant 1



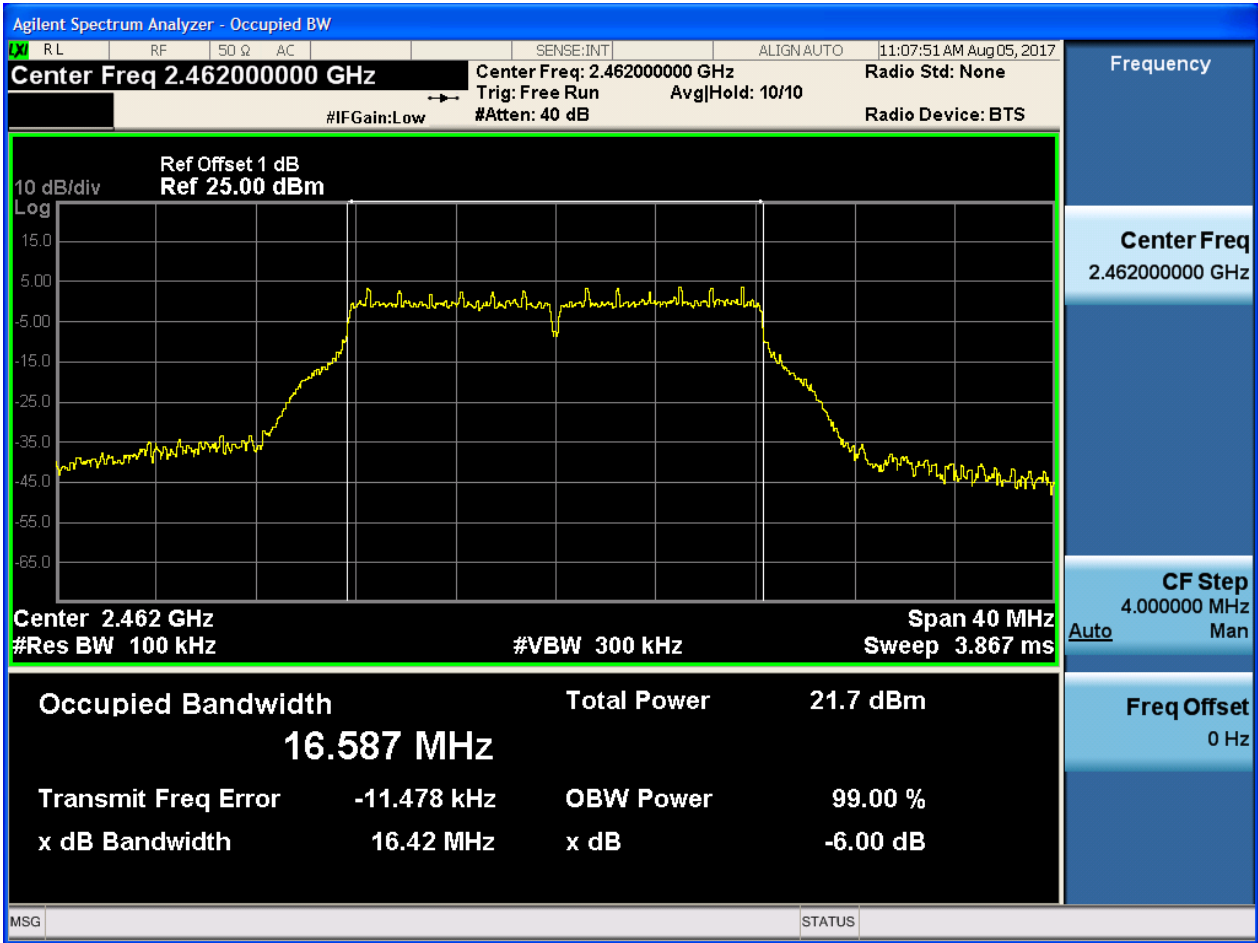


2.10 11G_M@Ant 2



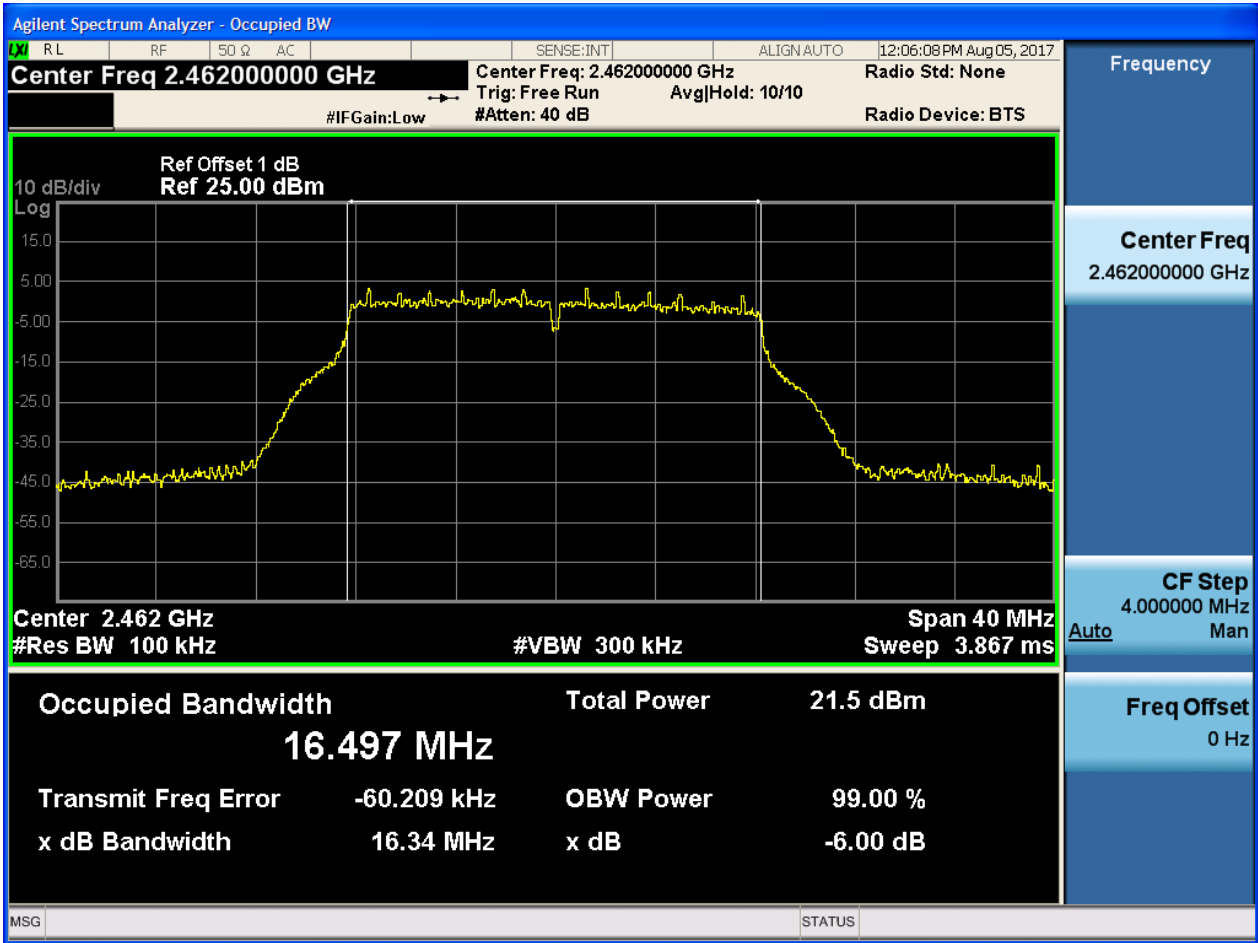


2.11 11G_H@Ant 1



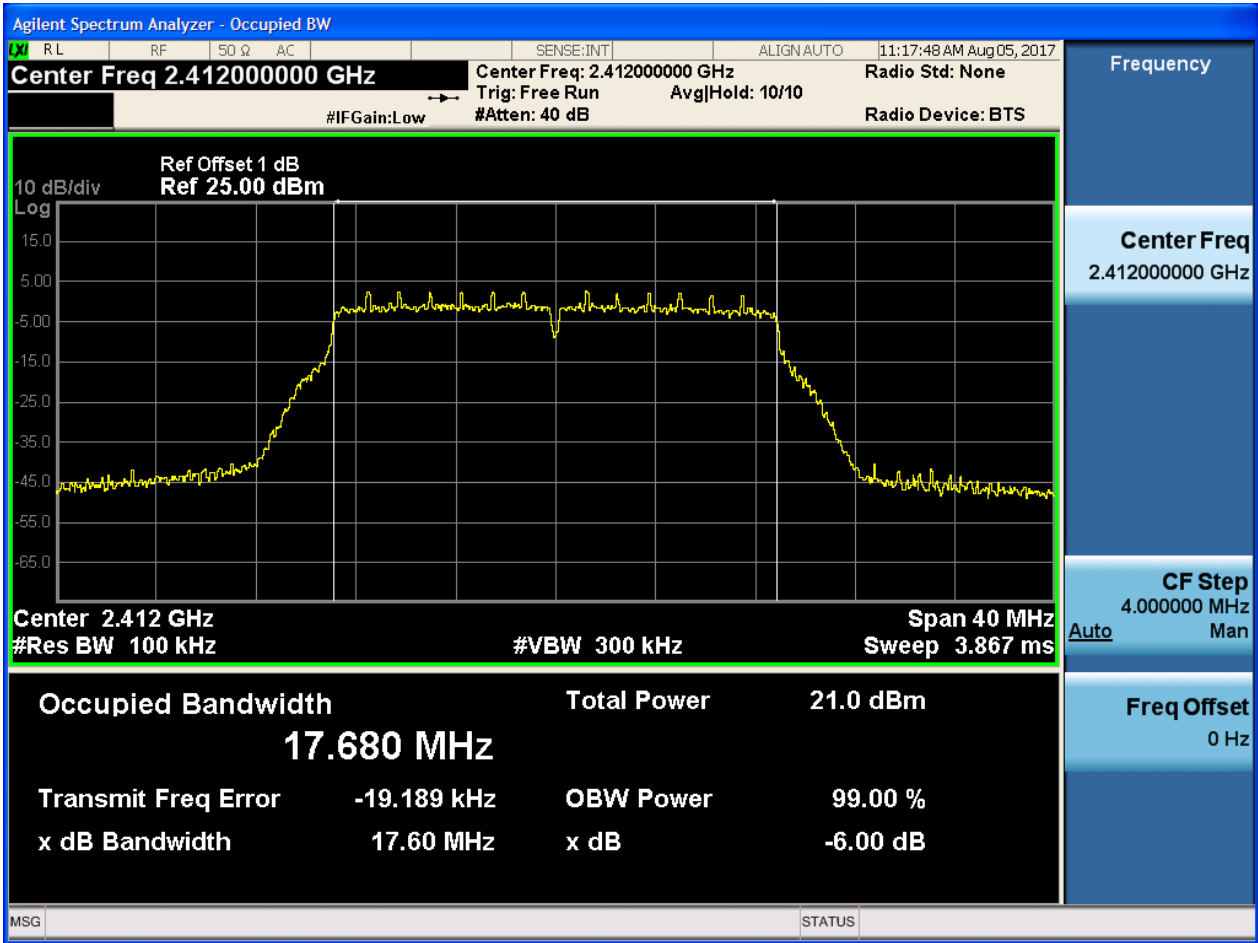


2.12 11G_H@Ant 2



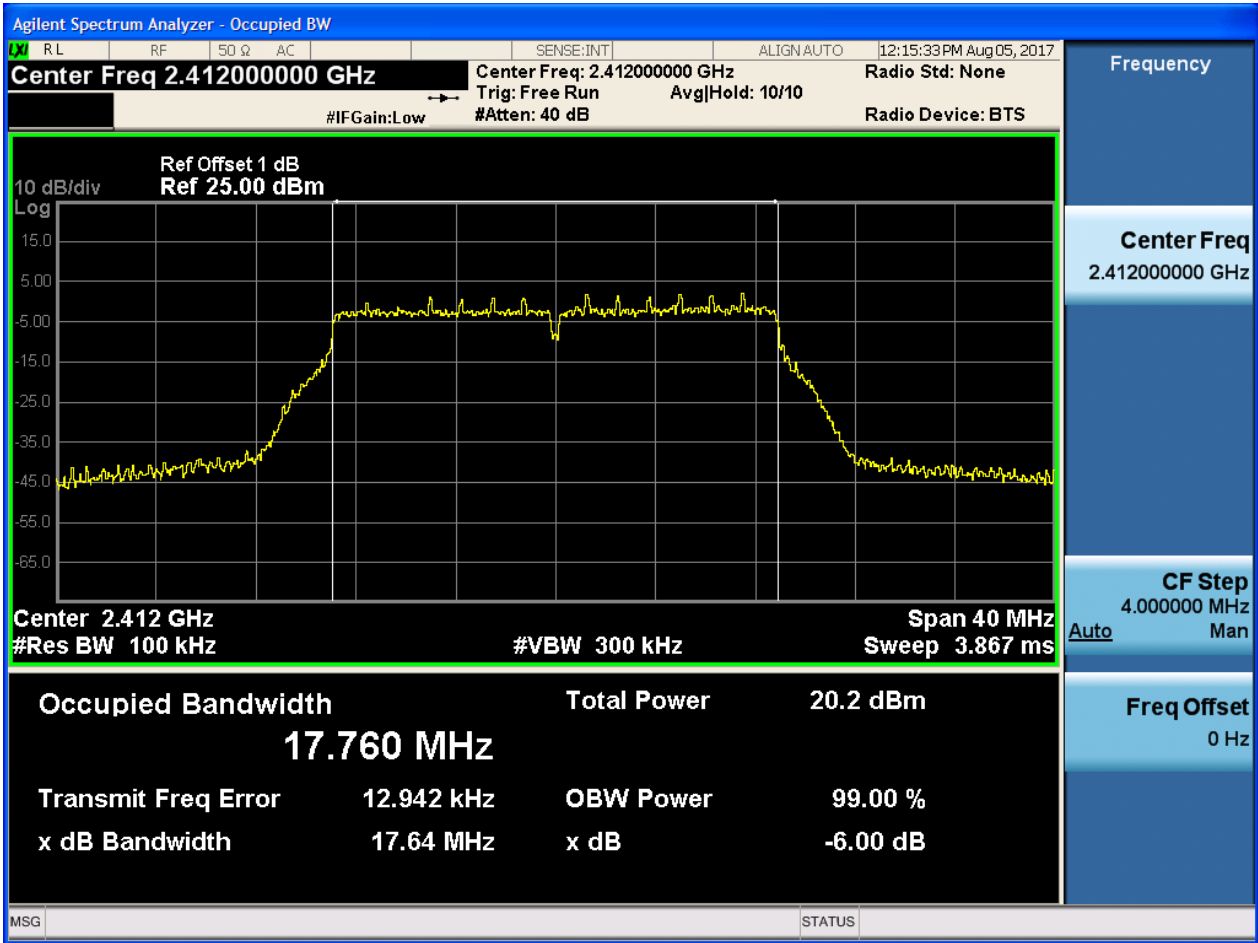


2.13 11N20_L@Ant 1



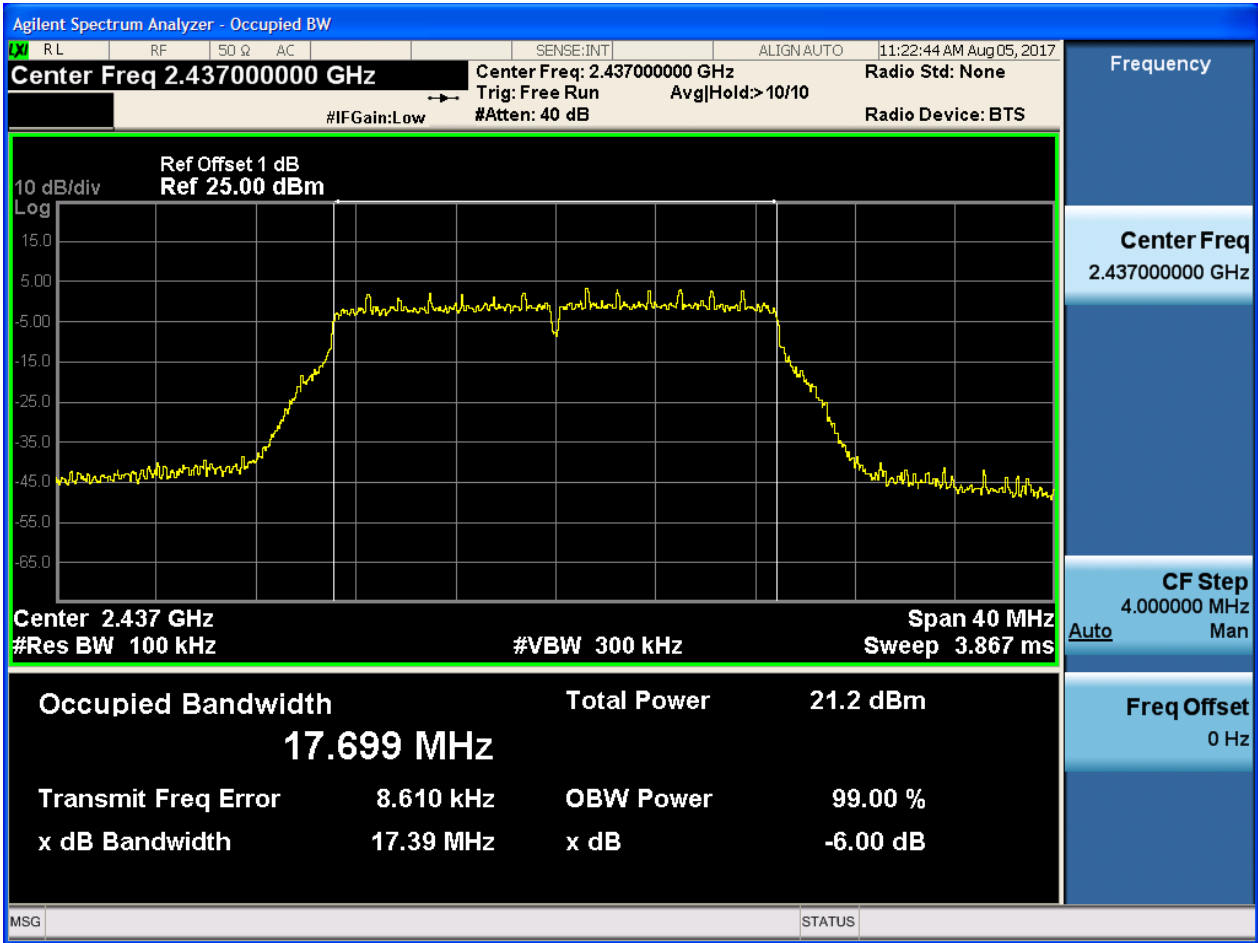


2.14 11N20_L@Ant 2



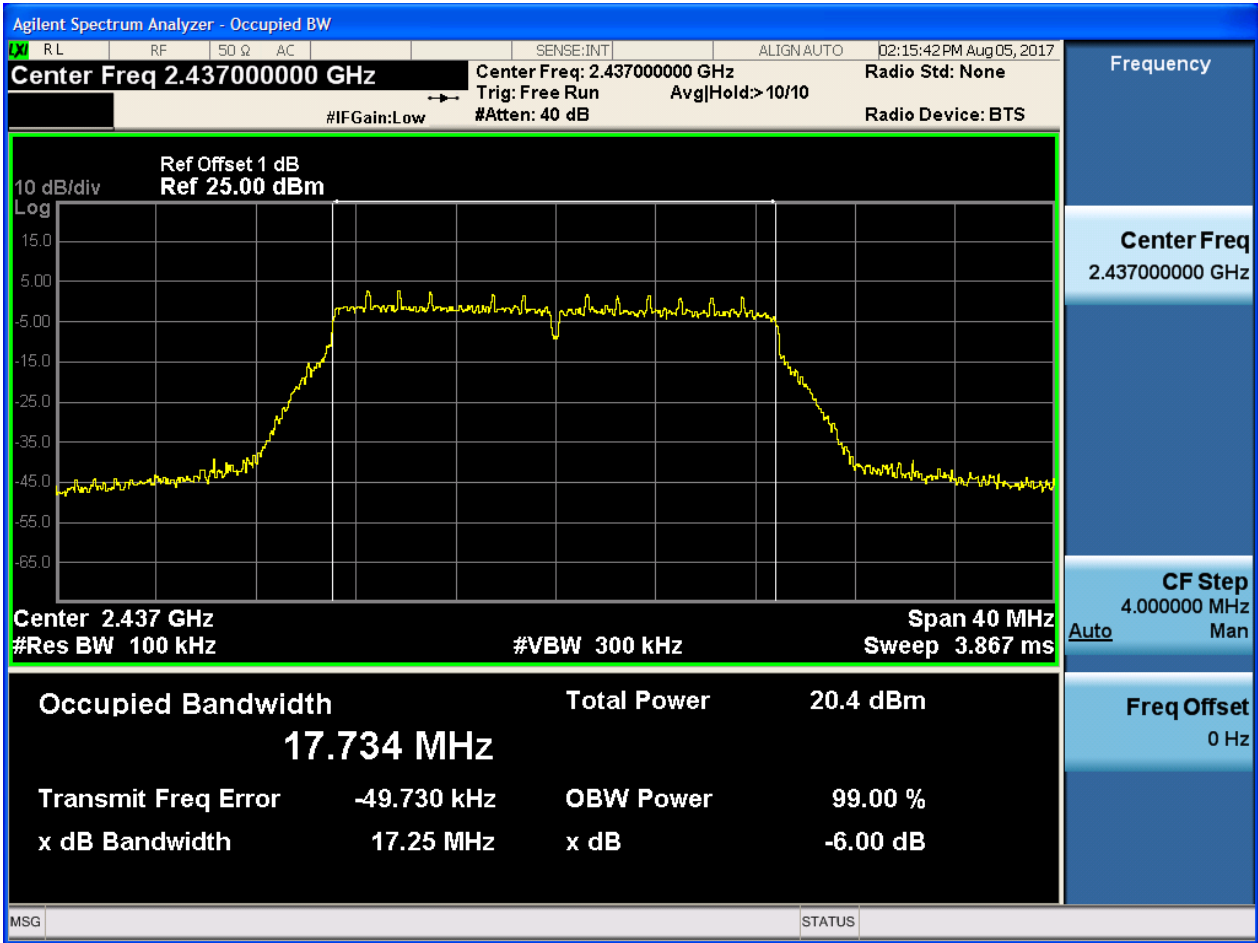


2.15 11N20_M@Ant 1



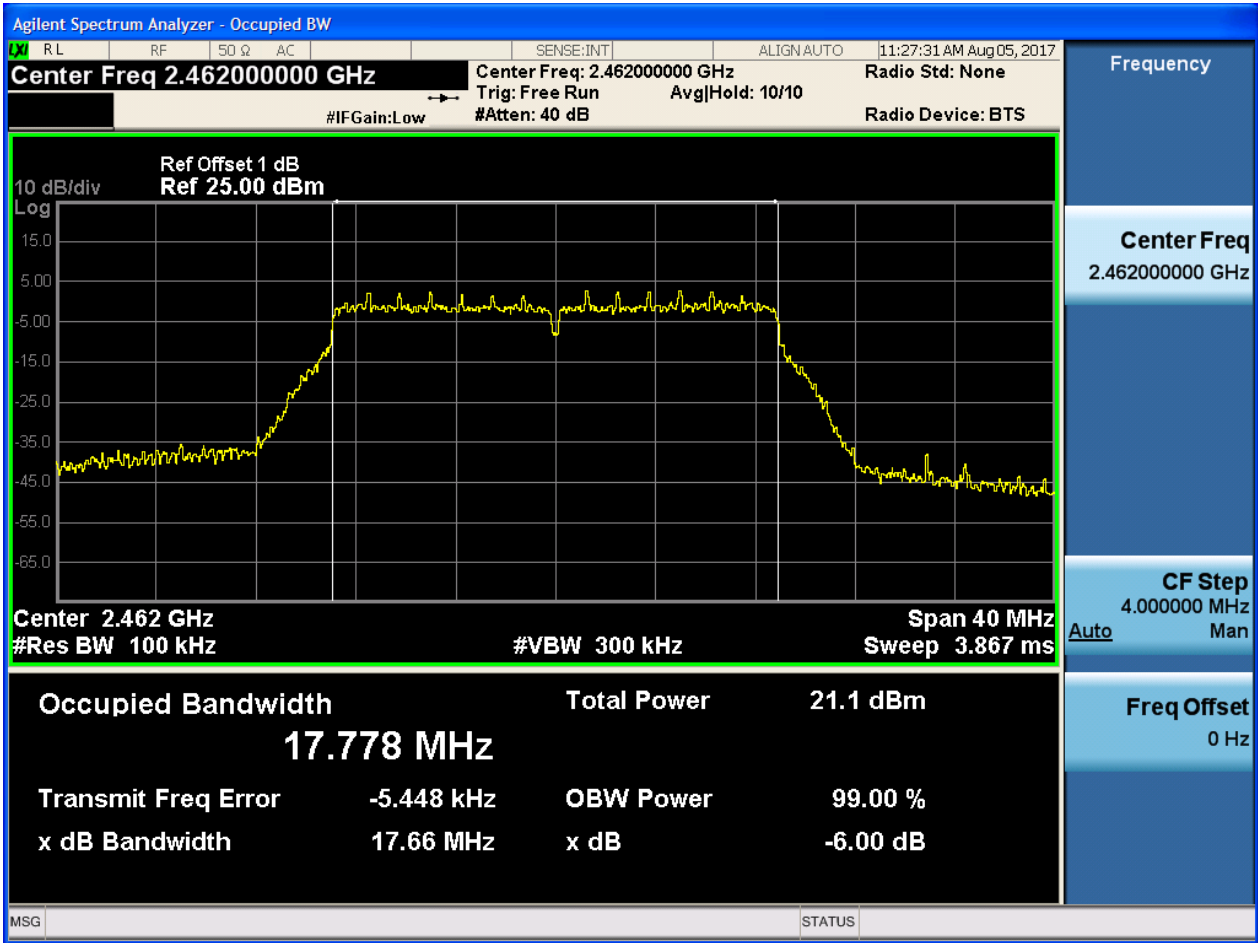


2.16 11N20_M@Ant 2



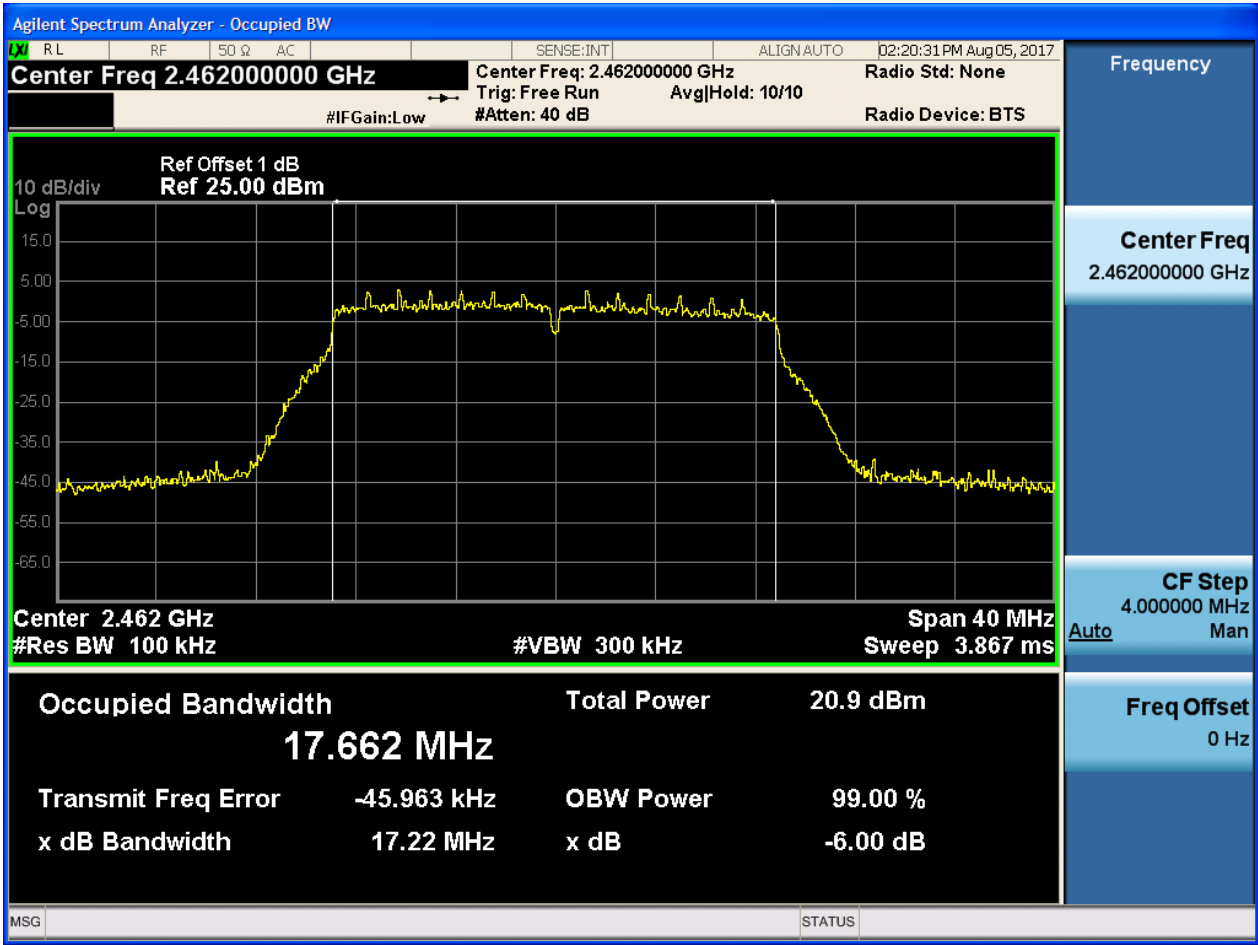


2.17 11N20_H@Ant 1



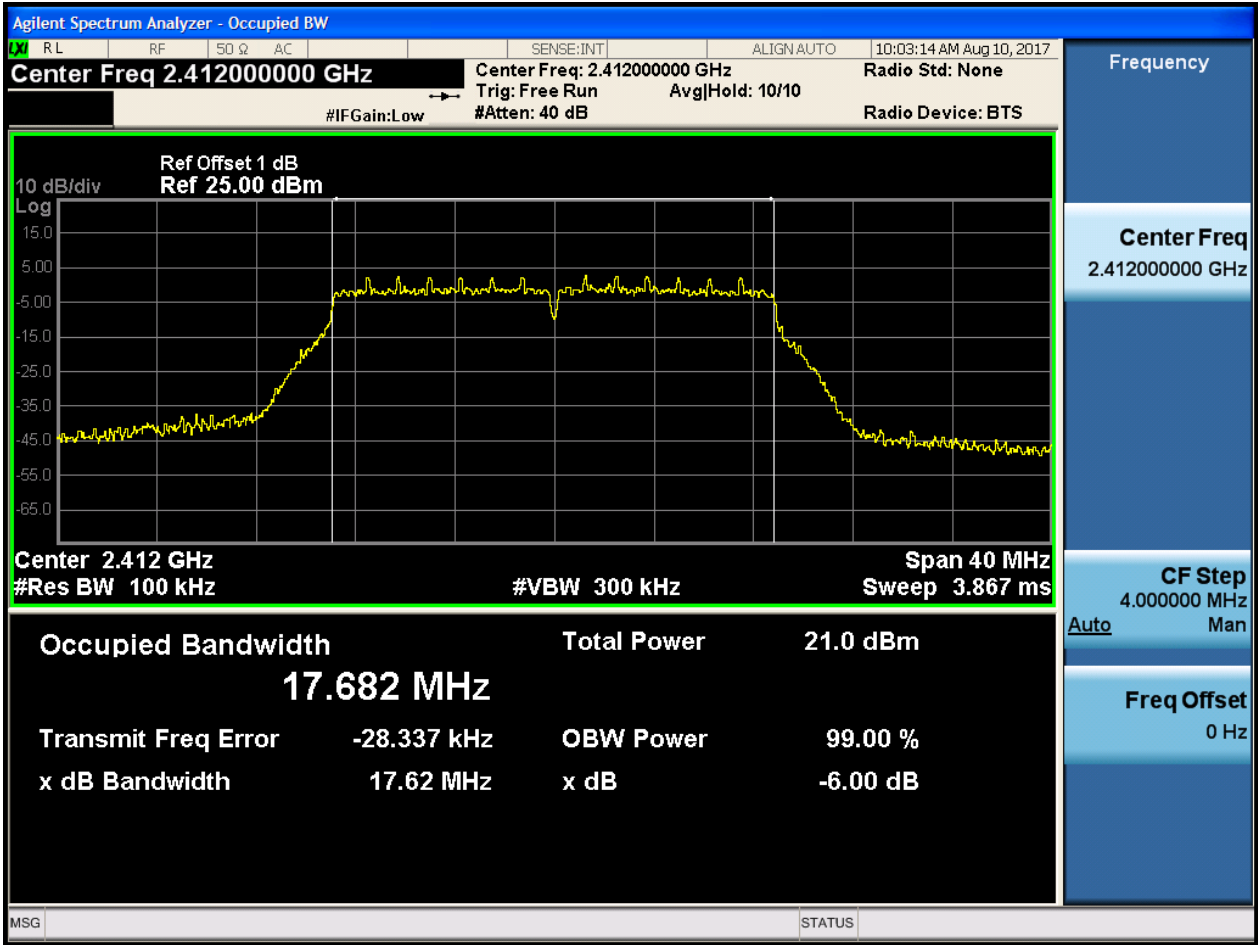


2.18 11N20_H@Ant 2



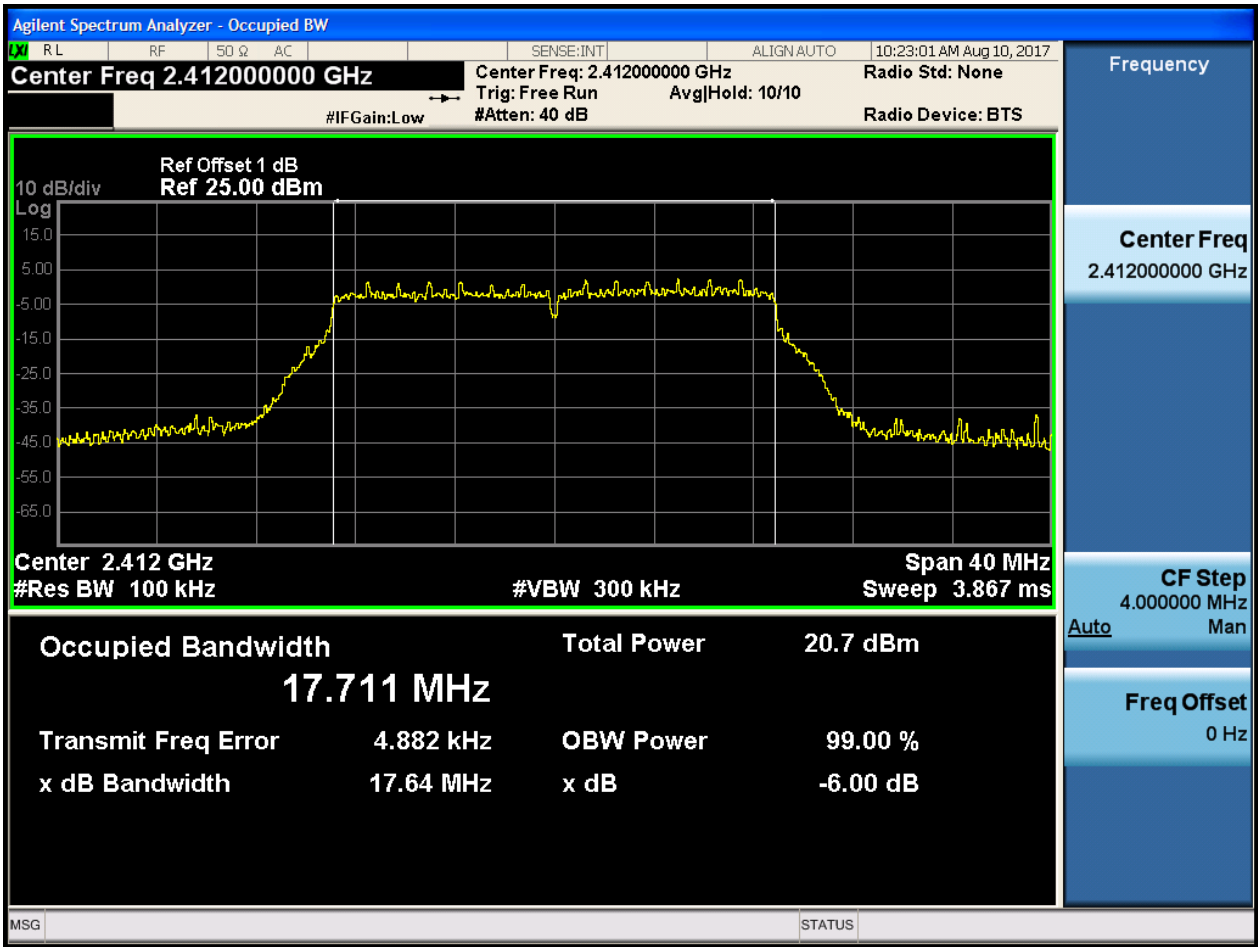


2.19 11N20m_L@Ant 1



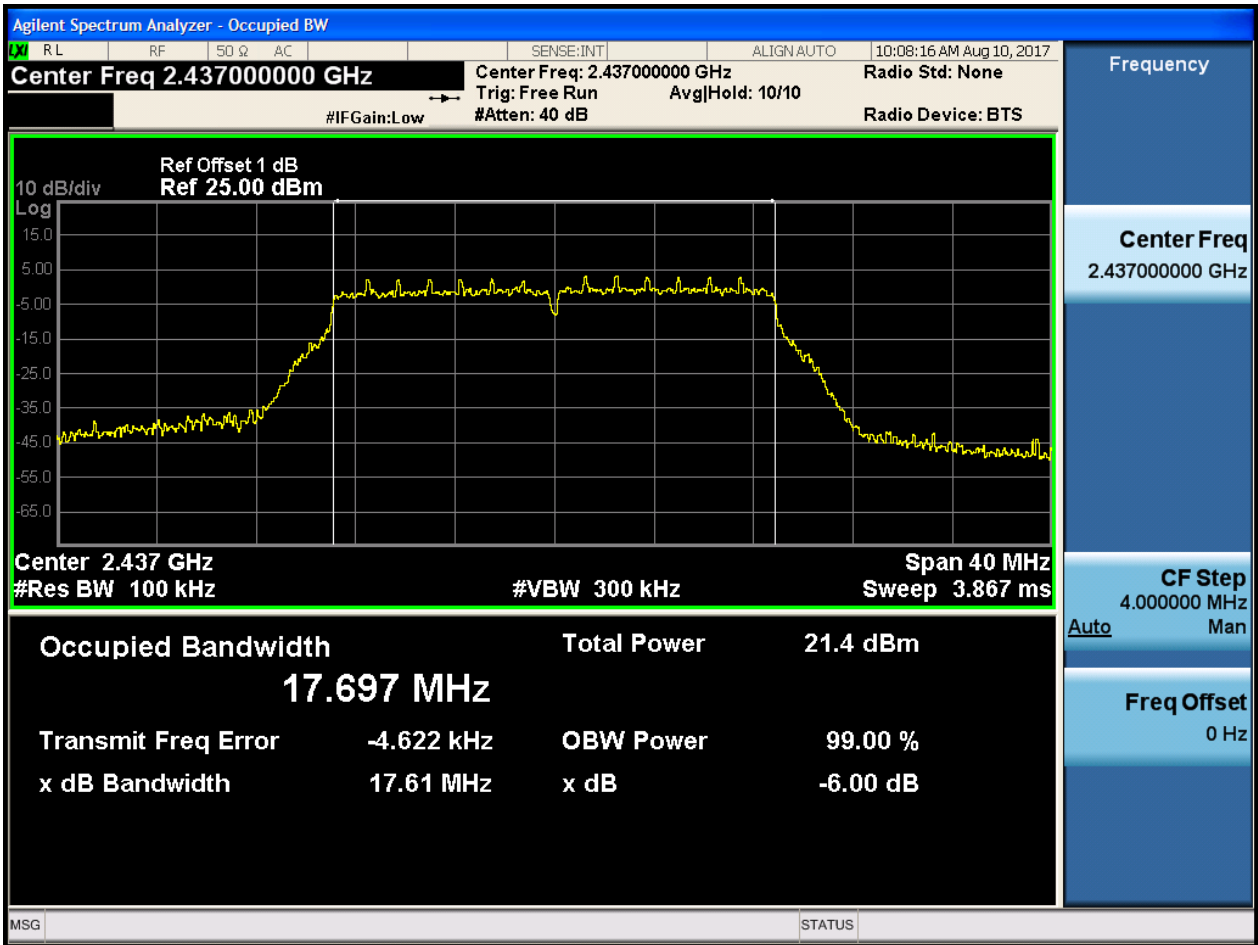


2.20 11N20m_L@Ant 2



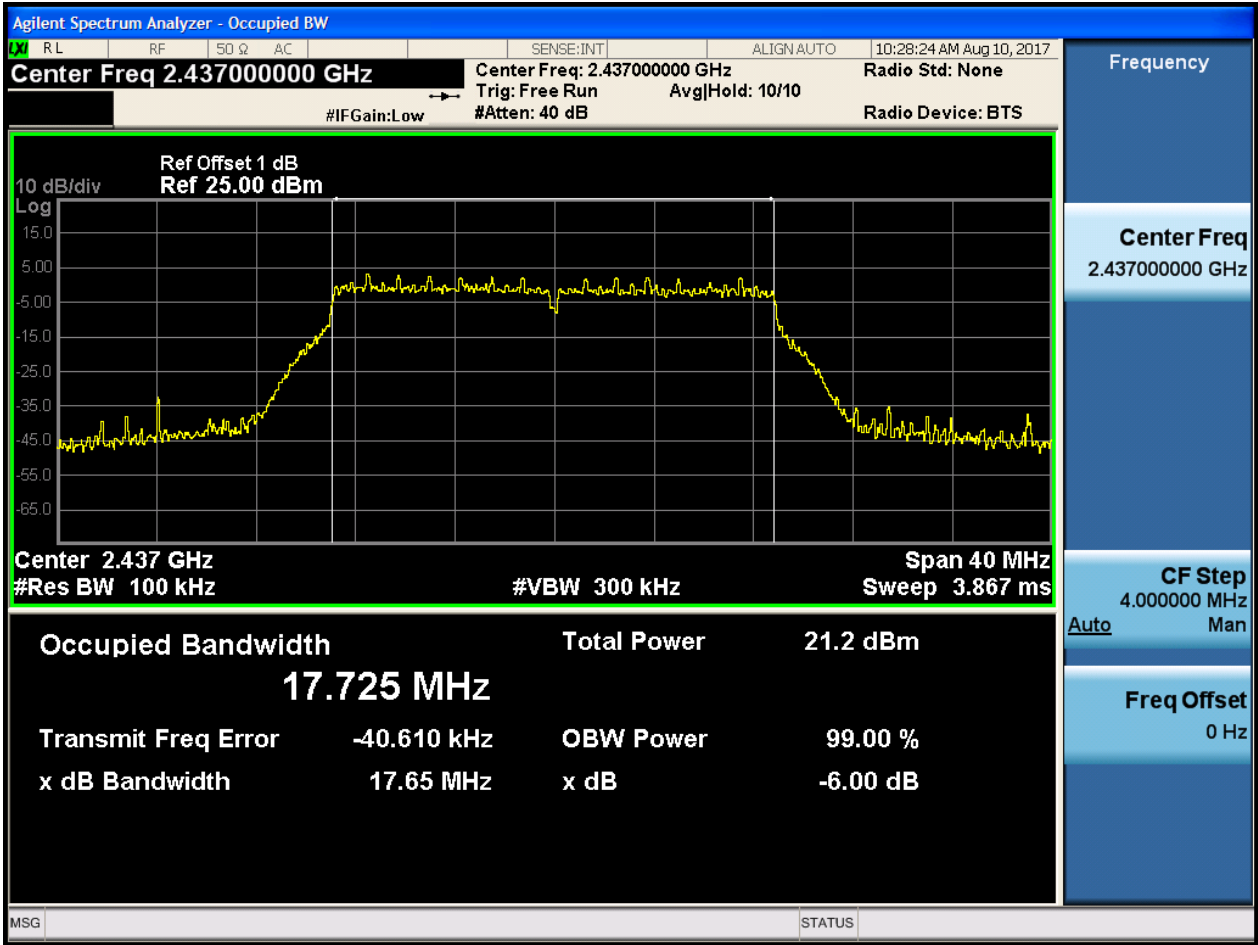


2.21 11N20m_M@Ant 1



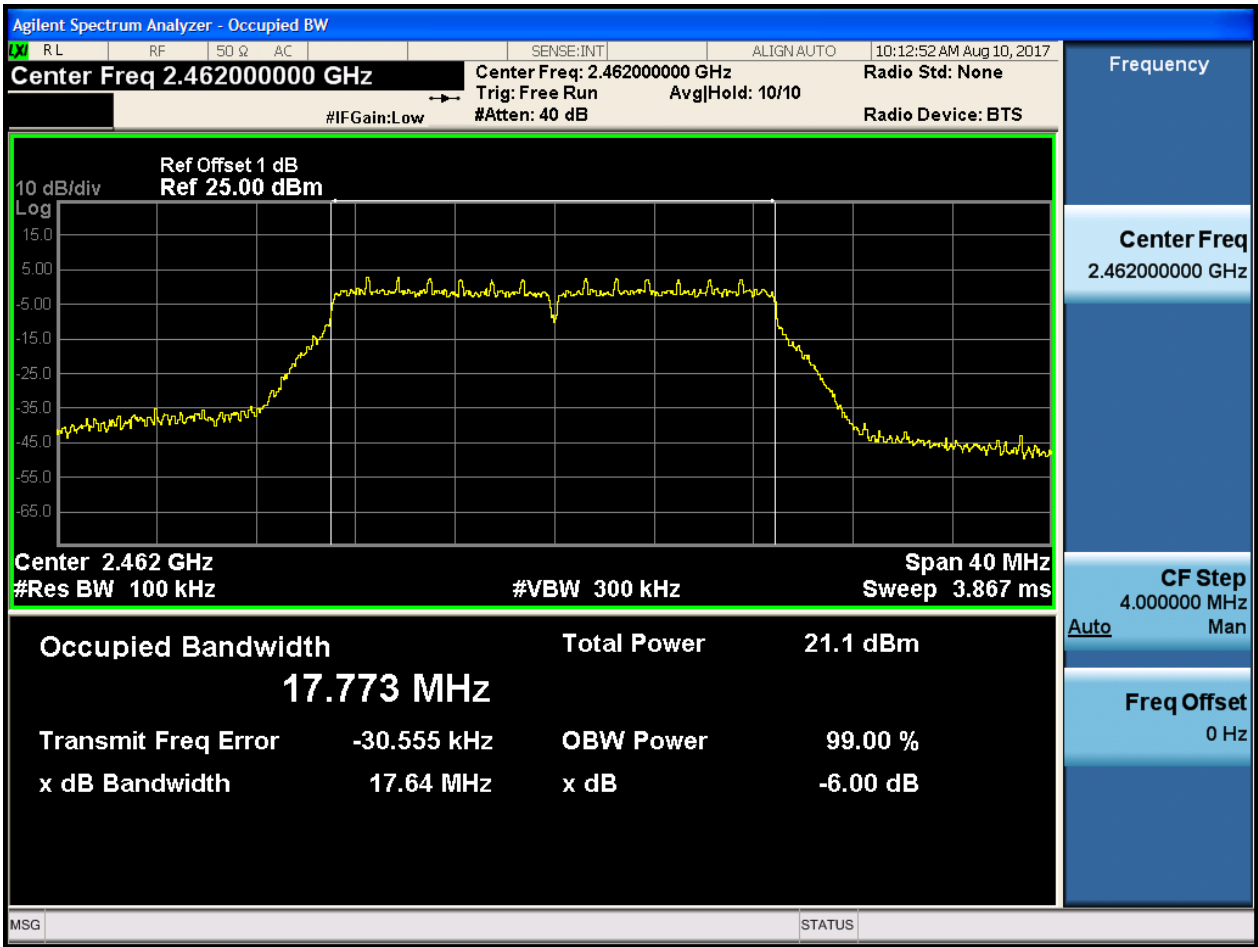


2.22 11N20m_M@Ant 2



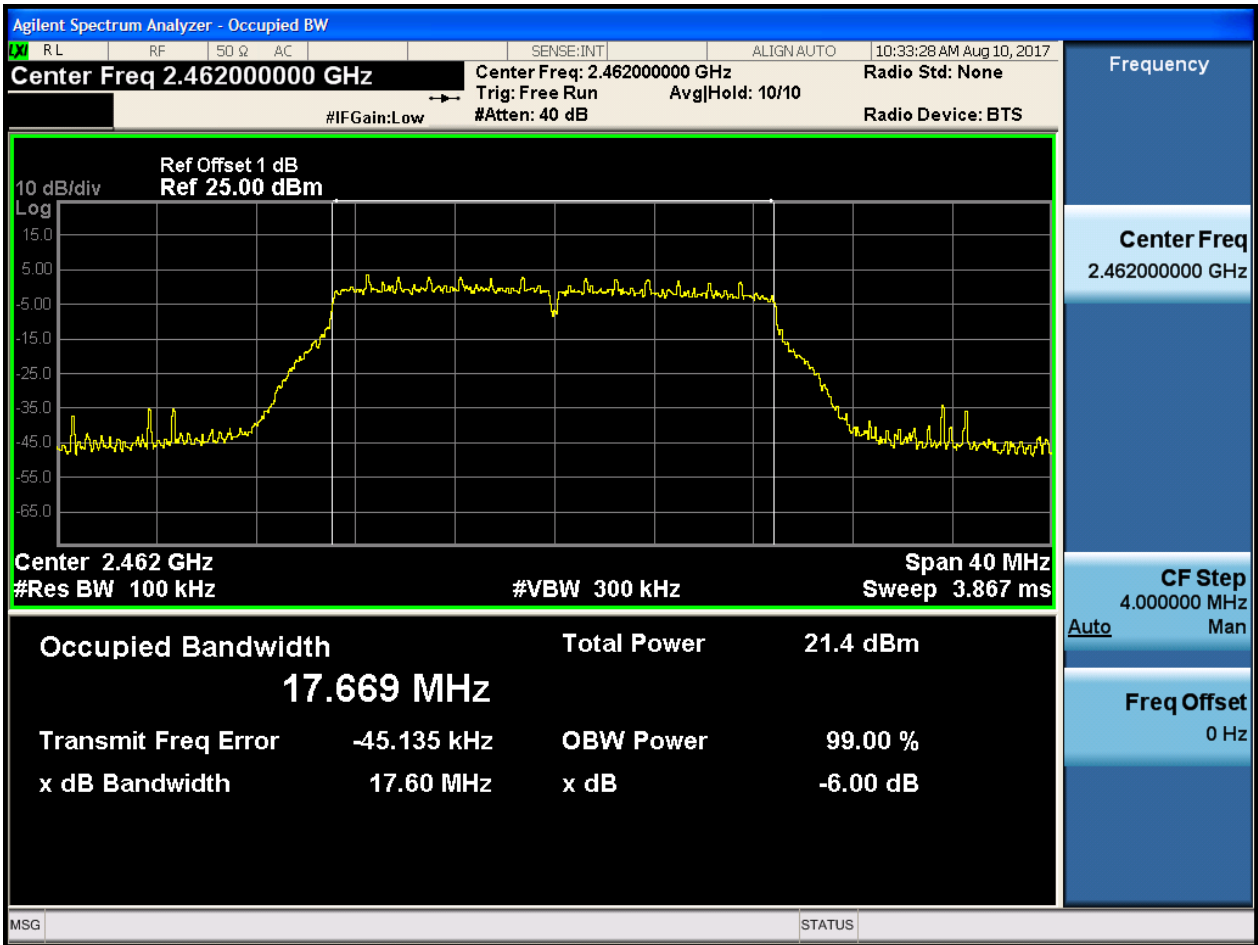


2.23 11N20m_H@Ant 1



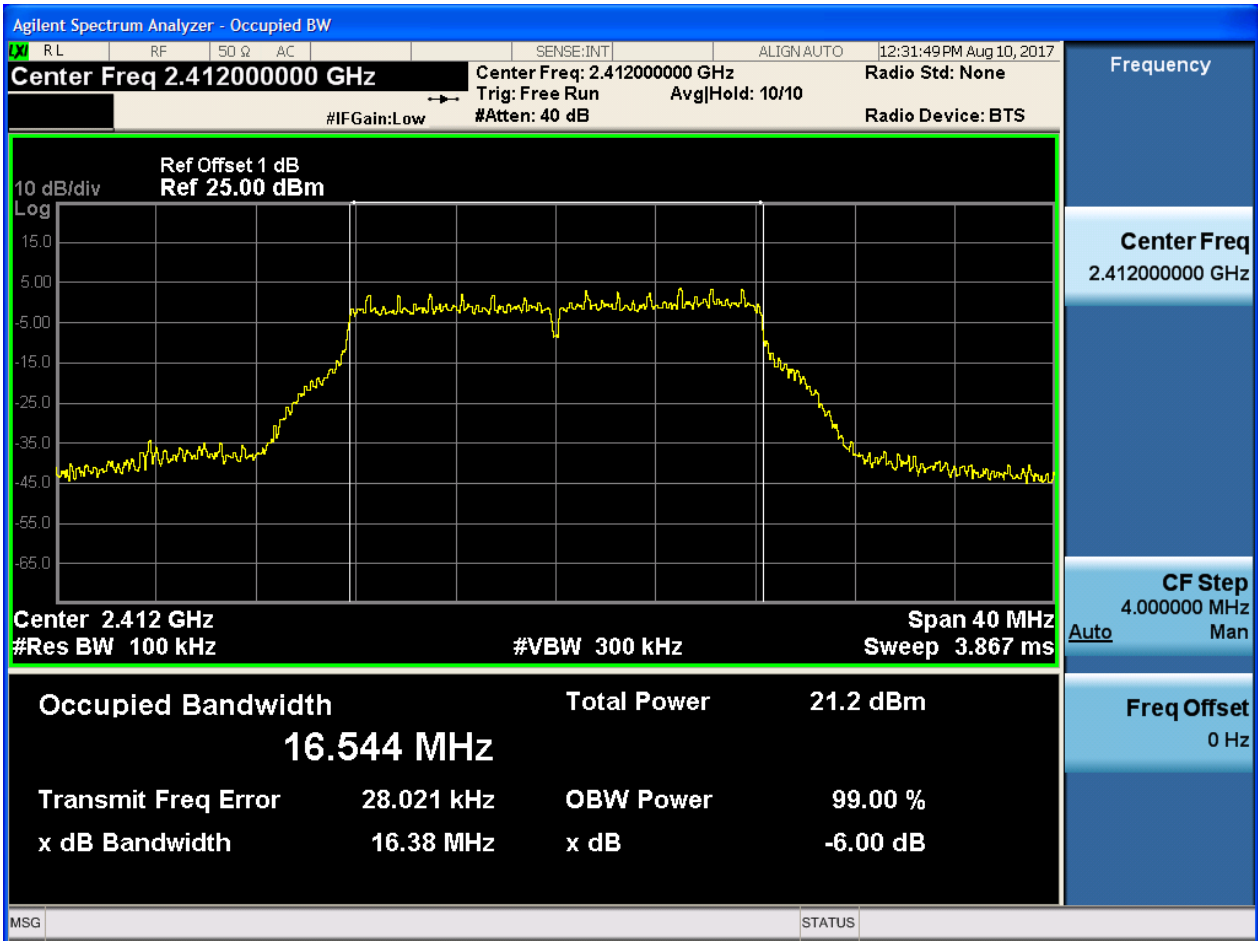


2.24 11N20m_H@Ant 2



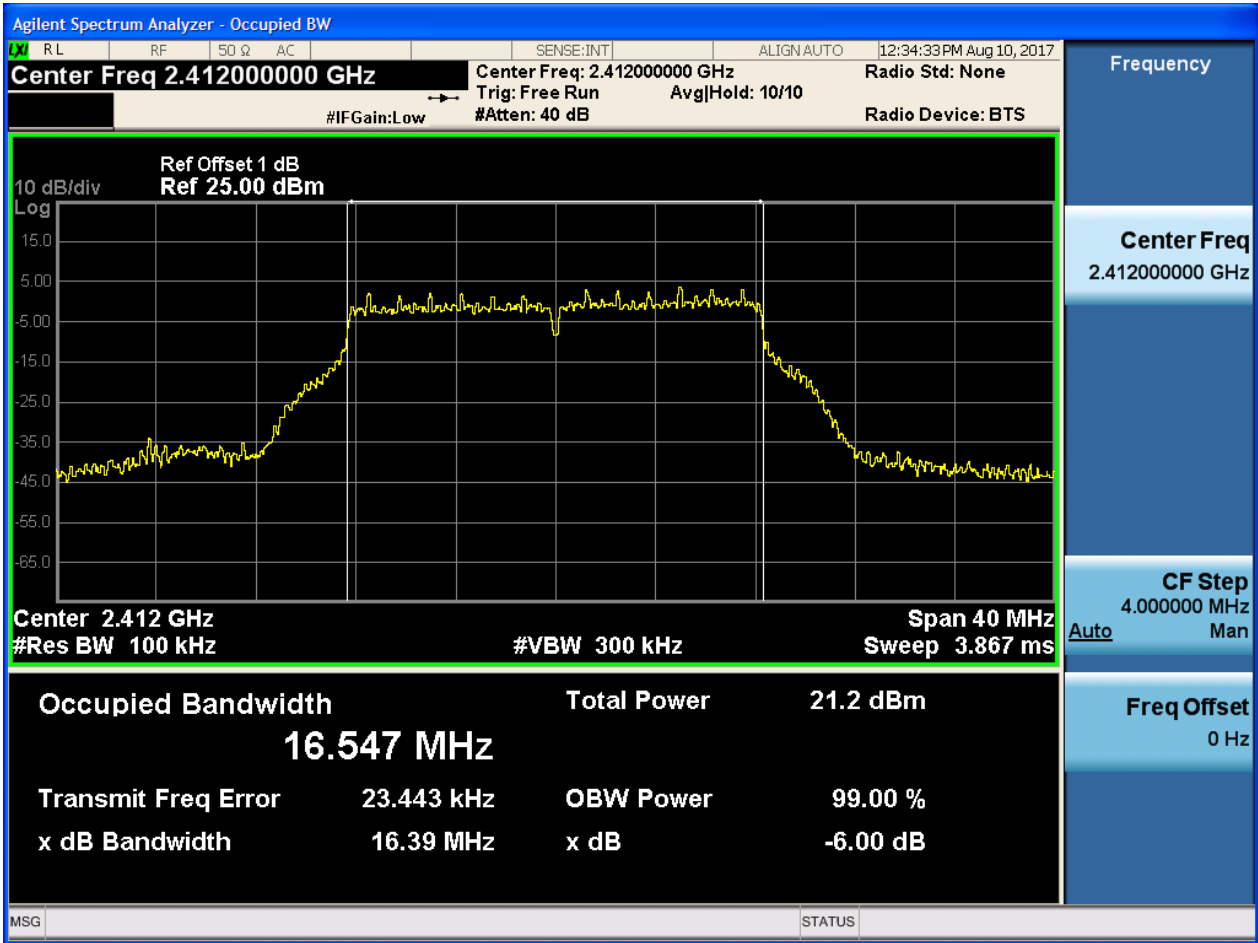


2.25 11G_CDD L@Ant 1



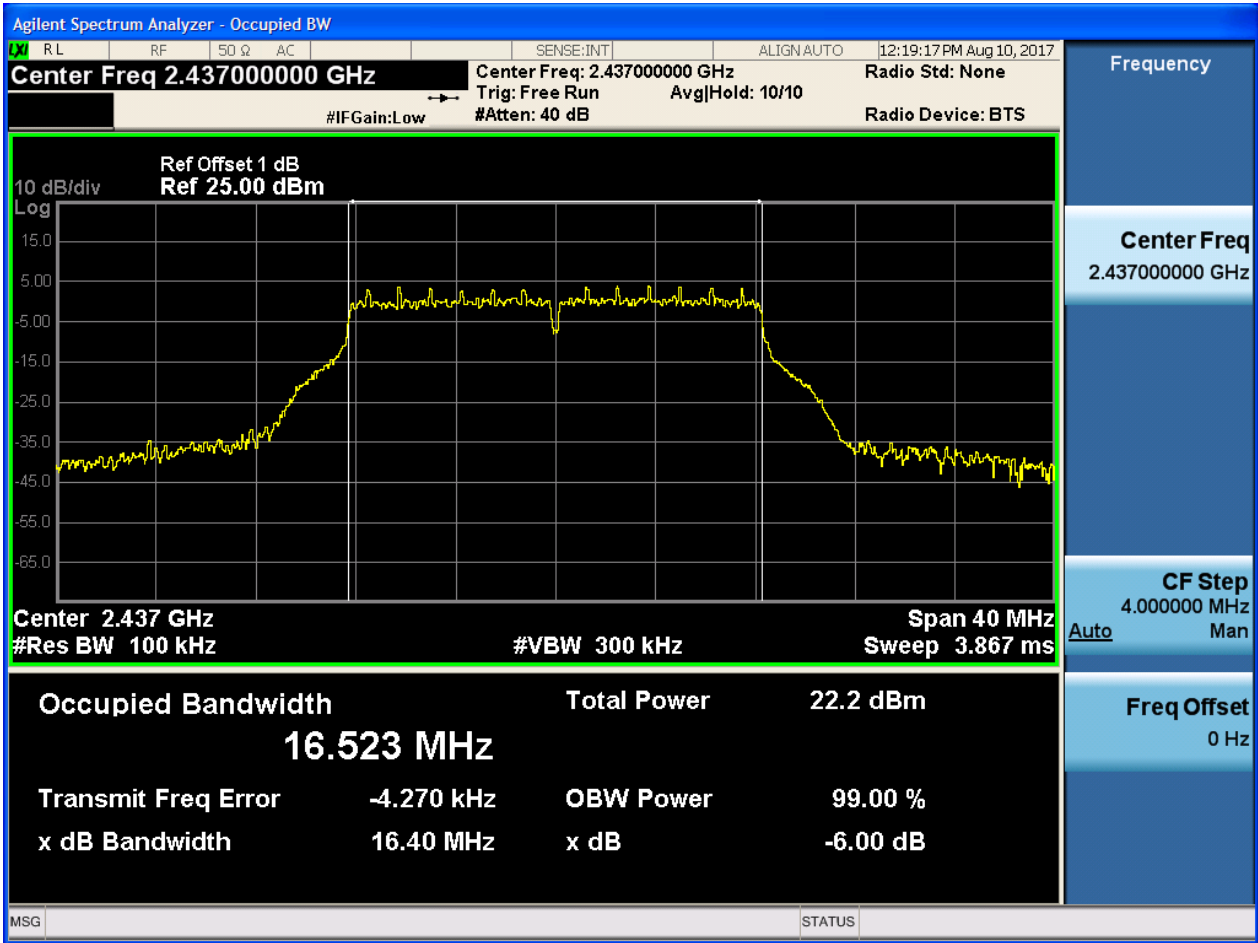


2.26 11G CDD L@Ant 2



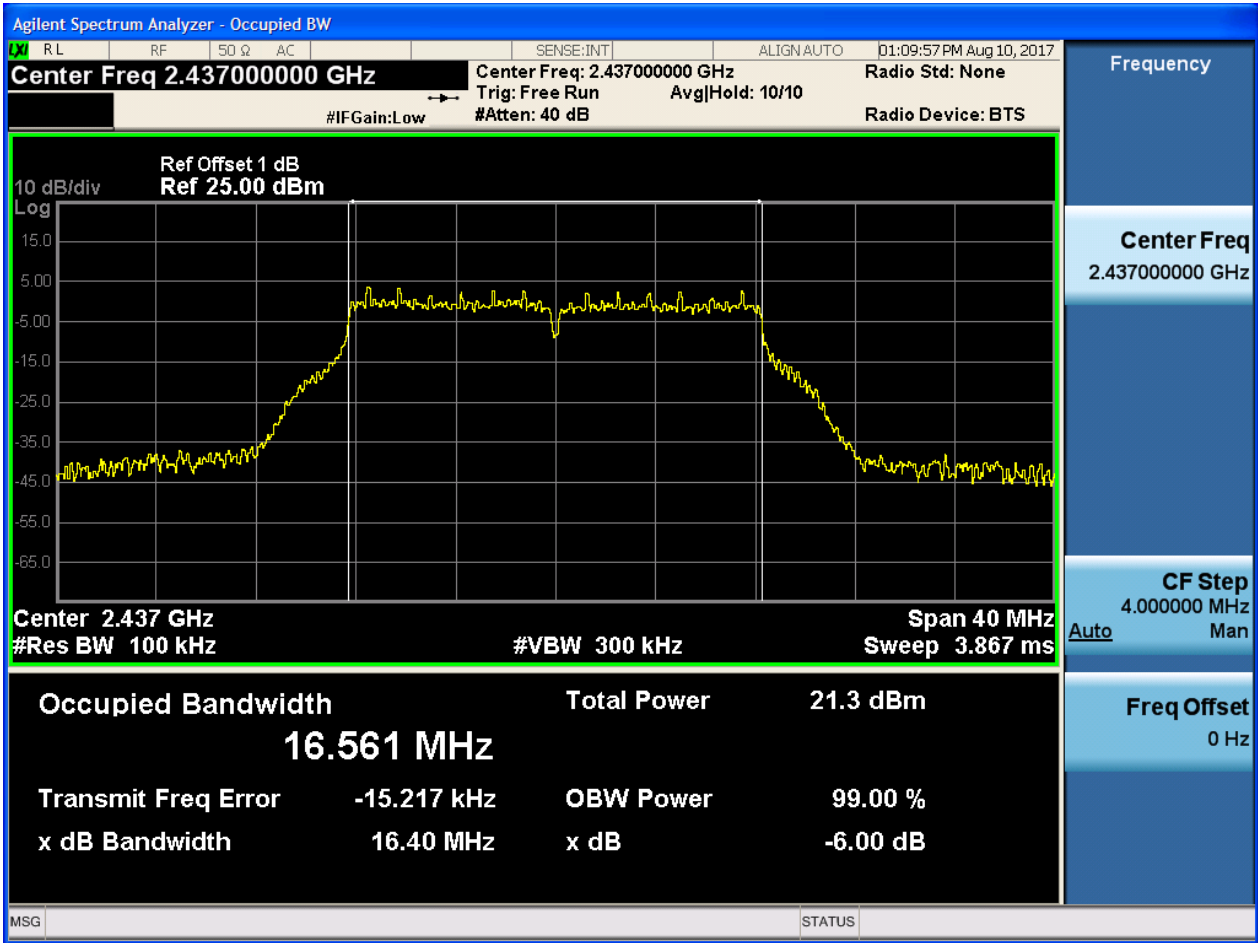


2.27 11G CDD M@Ant 1



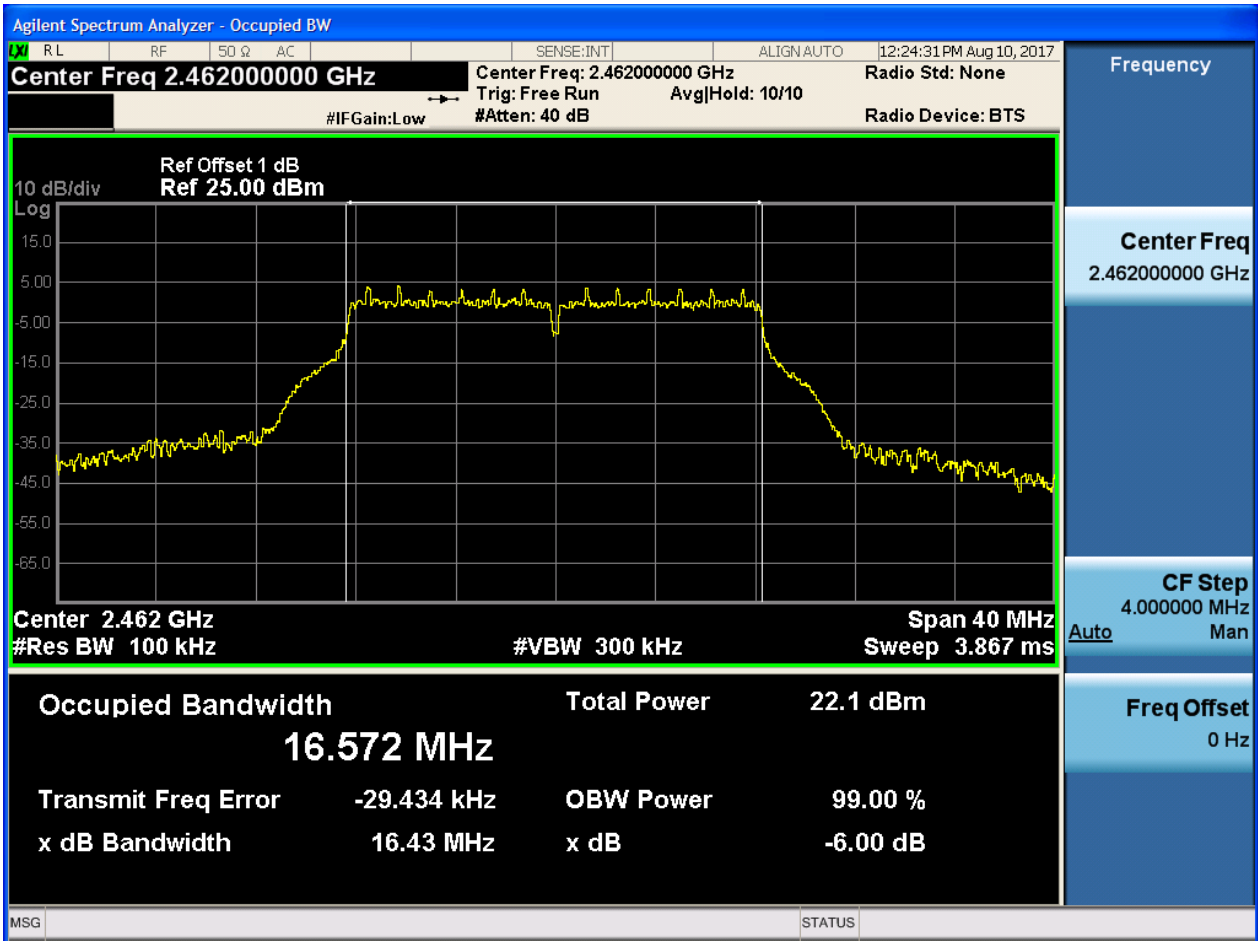


2.28 11G CDD M@Ant 2



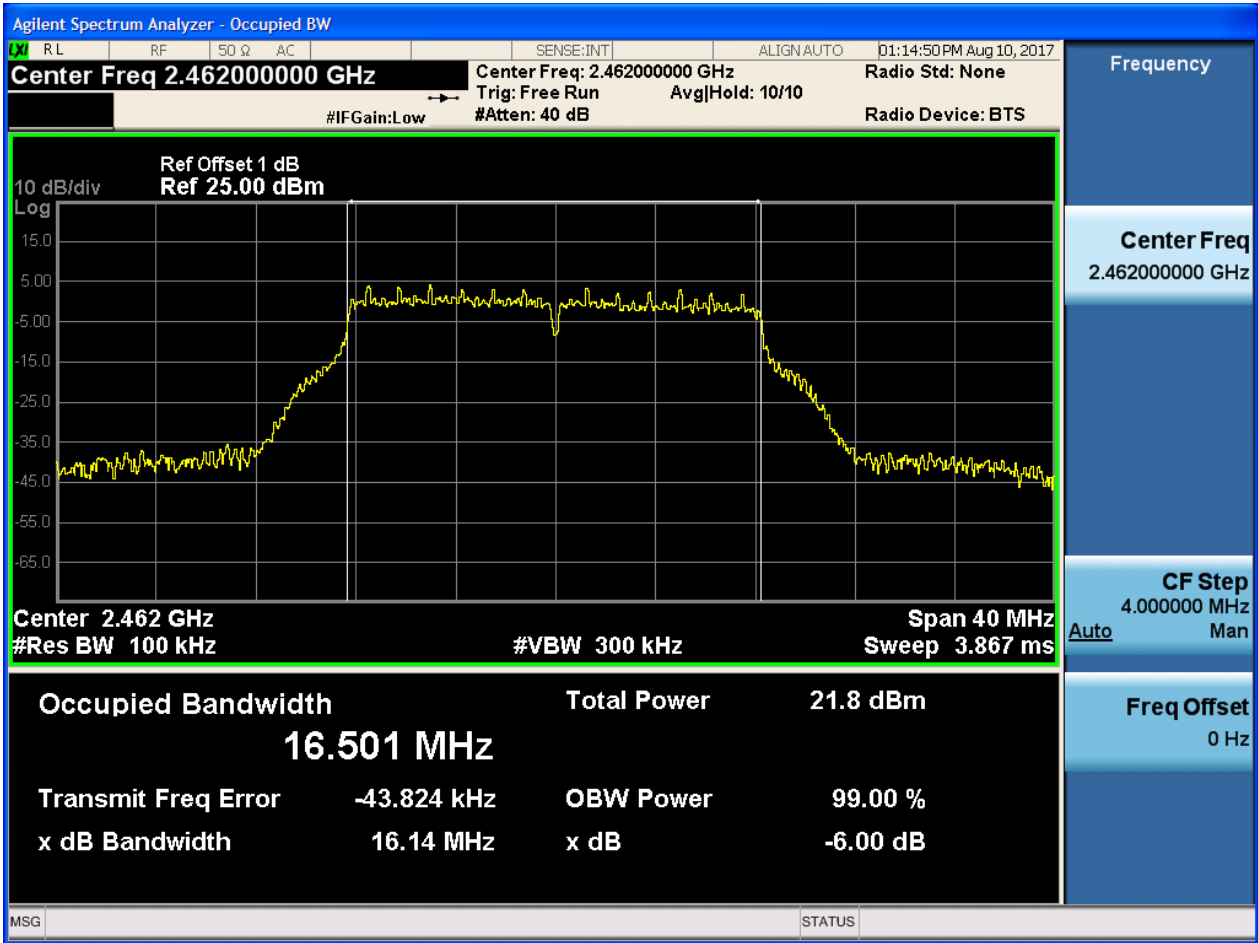


2.29 11G CDD H@Ant 1





2.30 11G CDD 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.

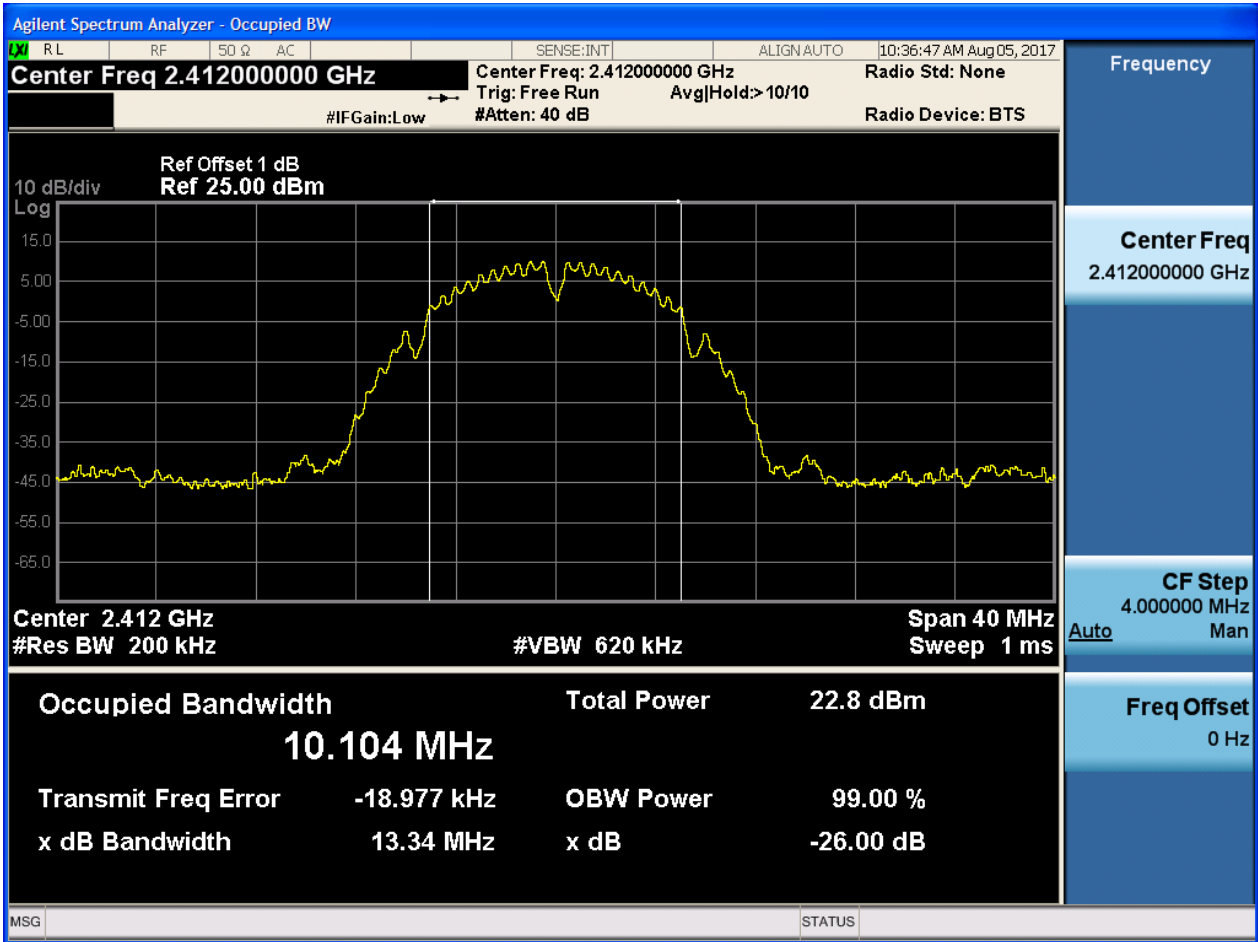
Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Ant	Occupied Bandwidth [MHz]	Verdict
11B	L	2412	Ant 1	10.10	pass
11B	L	2412	Ant 2	10.25	pass
11B	M	2437	Ant 1	10.09	pass
11B	M	2437	Ant 2	10.35	pass
11B	H	2462	Ant 1	10.15	pass
11B	H	2462	Ant 2	10.22	pass
11G	L	2412	Ant 1	16.72	pass
11G	L	2412	Ant 2	16.85	pass
11G	M	2437	Ant 1	16.72	pass
11G	M	2437	Ant 2	16.82	pass
11G	H	2462	Ant 1	16.87	pass
11G	H	2462	Ant 2	16.69	pass
11N20	L	2412	Ant 1	17.86	pass
11N20	L	2412	Ant 2	18.00	pass
11N20	M	2437	Ant 1	17.88	pass
11N20	M	2437	Ant 2	17.97	pass
11N20	H	2462	Ant 1	18.02	pass
11N20	H	2462	Ant 2	17.82	pass
11N20m	L	2412	Ant 1	17.83	pass
11N20m	L	2412	Ant 2	17.86	pass
11N20m	M	2437	Ant 1	17.88	pass
11N20m	M	2437	Ant 2	17.91	pass
11N20m	H	2462	Ant 1	17.98	pass
11N20m	H	2462	Ant 2	17.78	pass
11G CDD	L	2412	Ant 1	16.87	pass
11G CDD	L	2412	Ant 2	16.85	pass
11G CDD	M	2437	Ant 1	16.77	pass
11G CDD	M	2437	Ant 2	16.82	pass
11G CDD	H	2462	Ant 1	16.85	pass
11G CDD	H	2462	Ant 2	16.72	pass



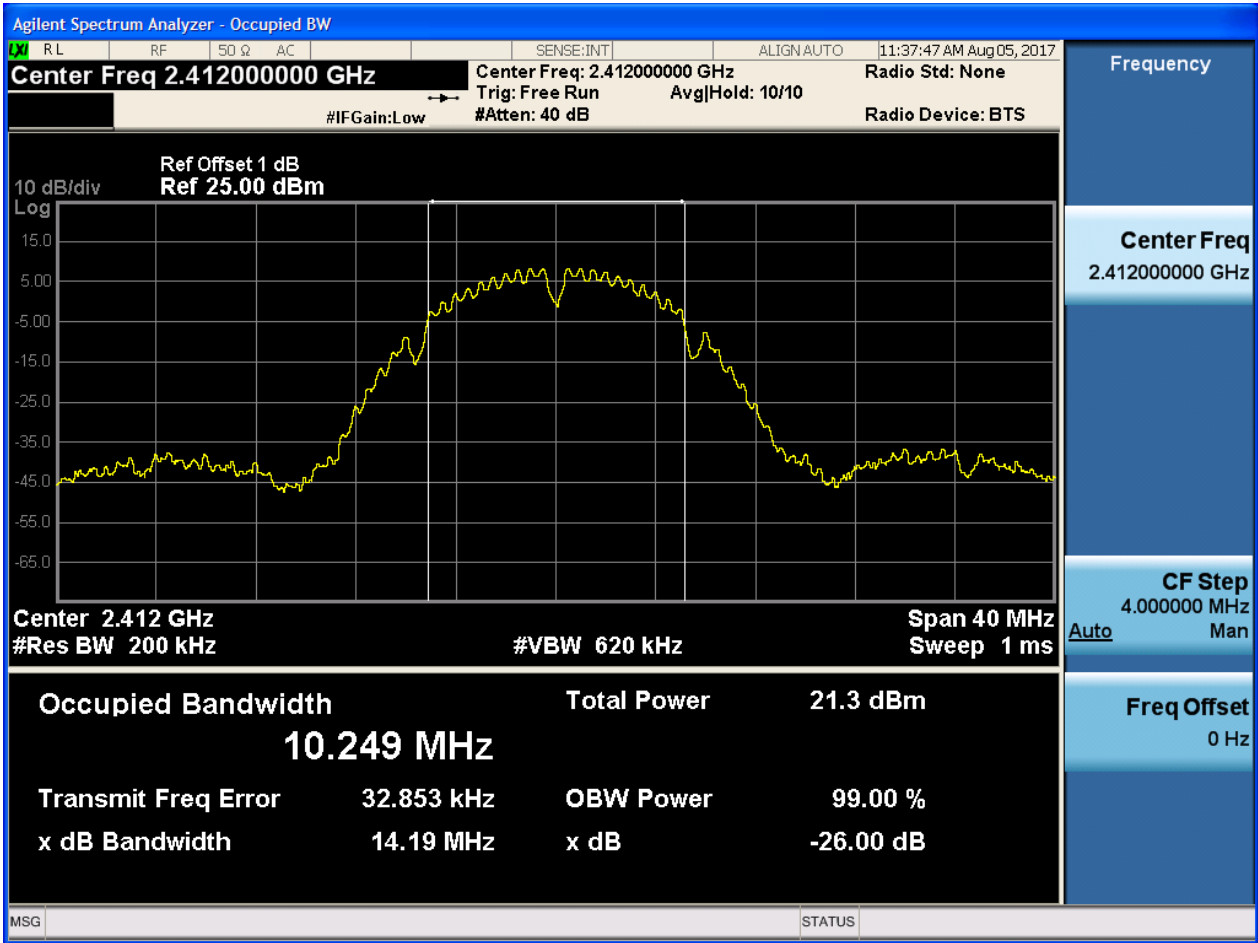
Part II - Test Plots

2.1 11B_L@Ant 1



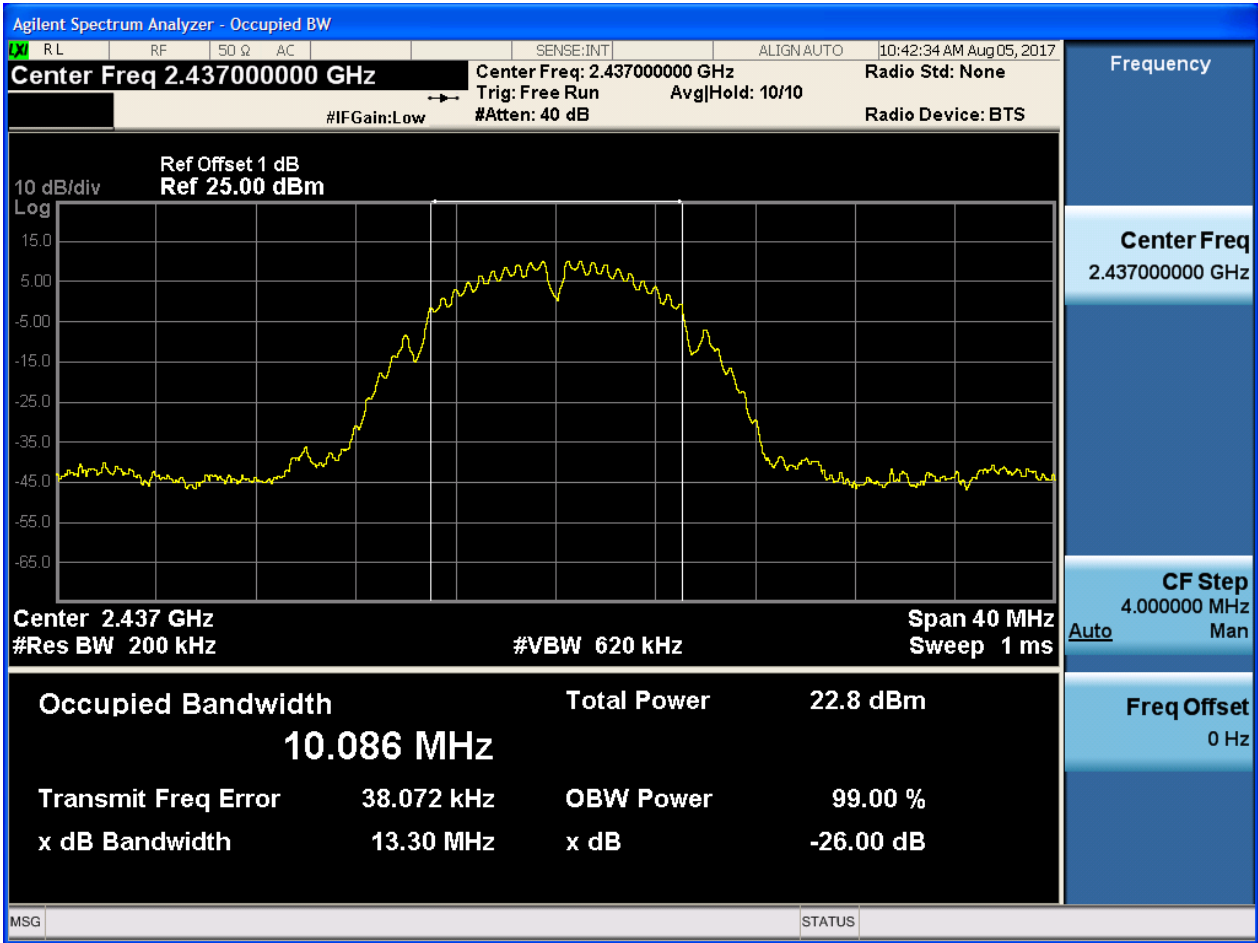


2.2 11B_L@Ant 2



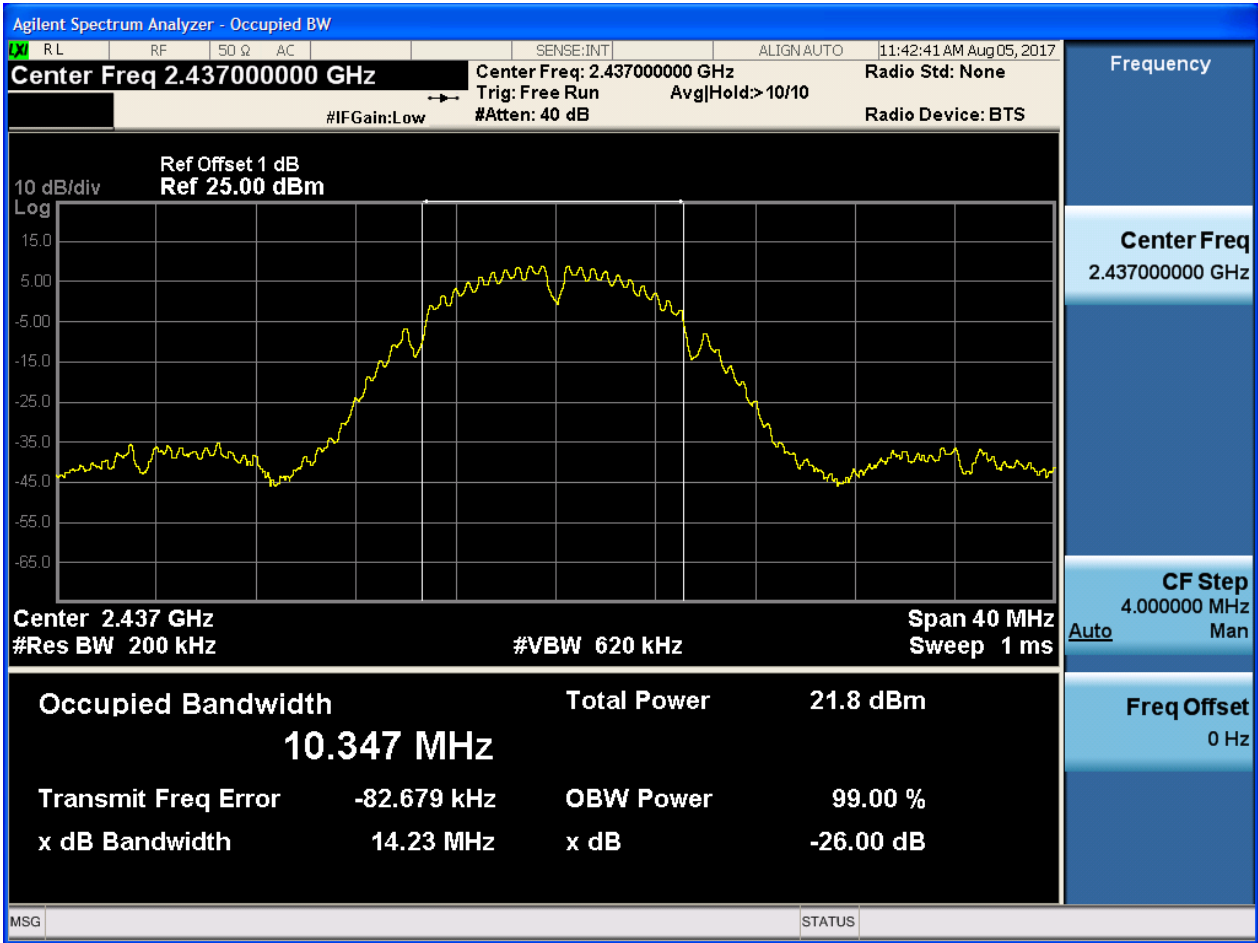


2.3 11B_M@Ant 1



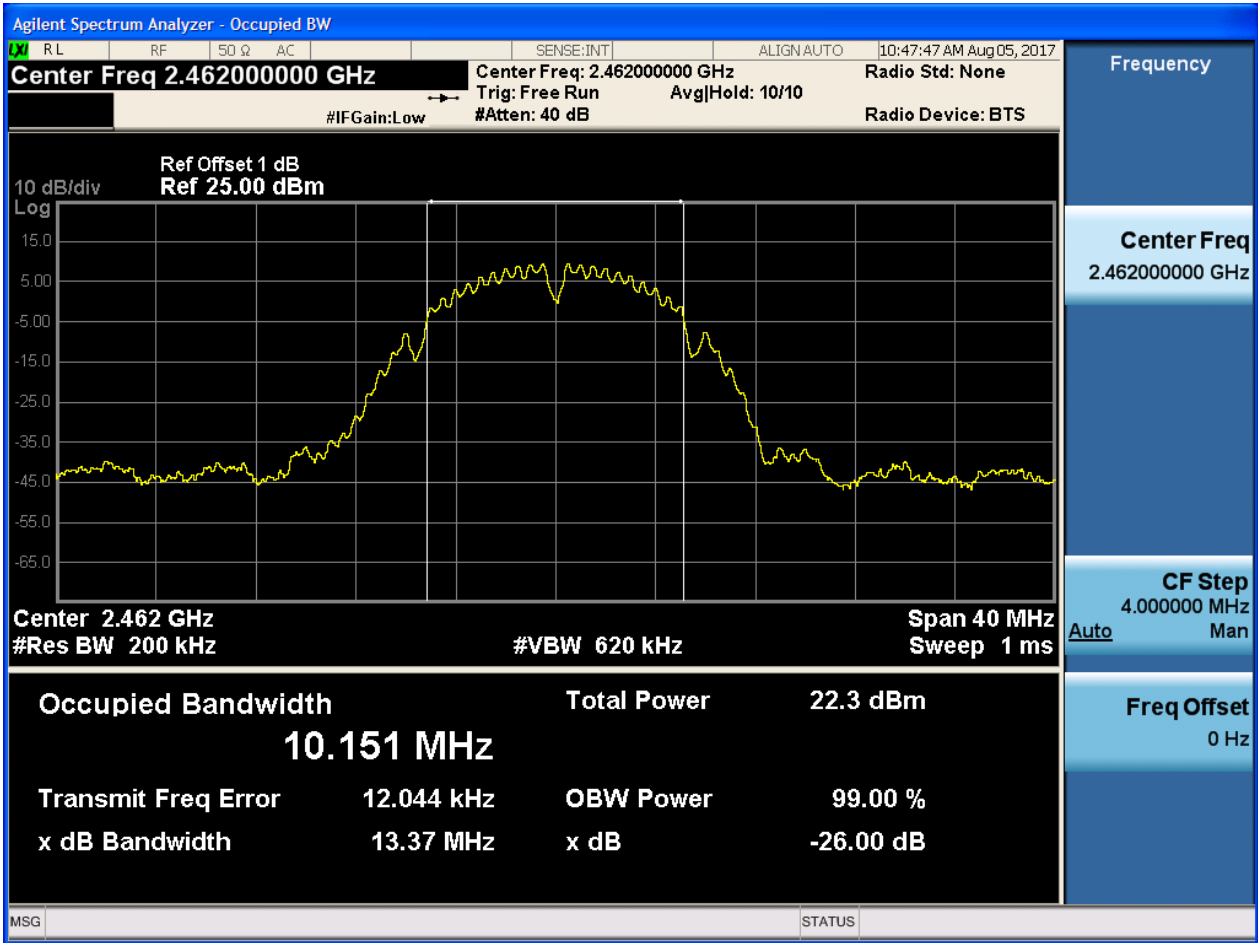


2.4 11B_M@Ant 2



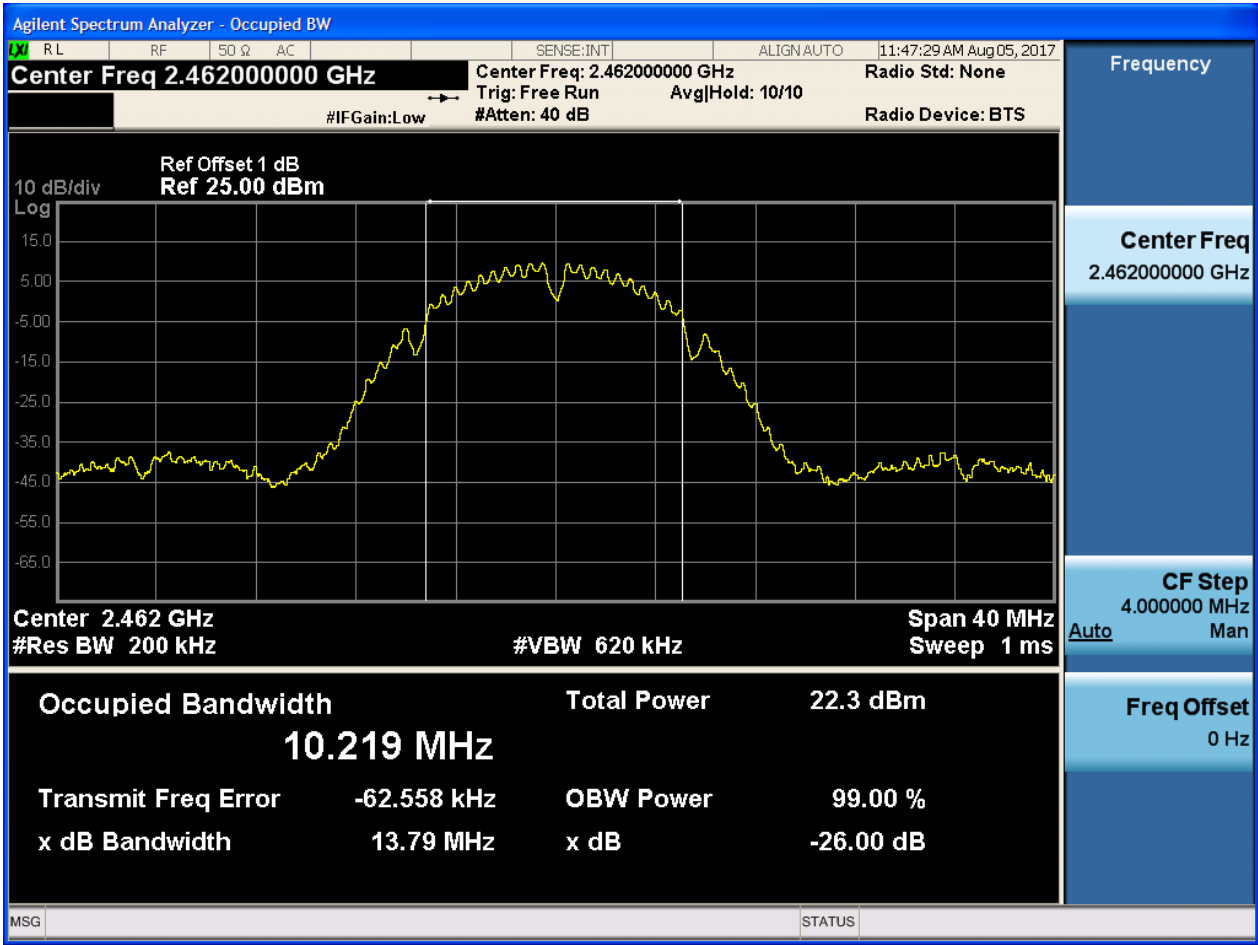


2.5 11B_H@Ant 1



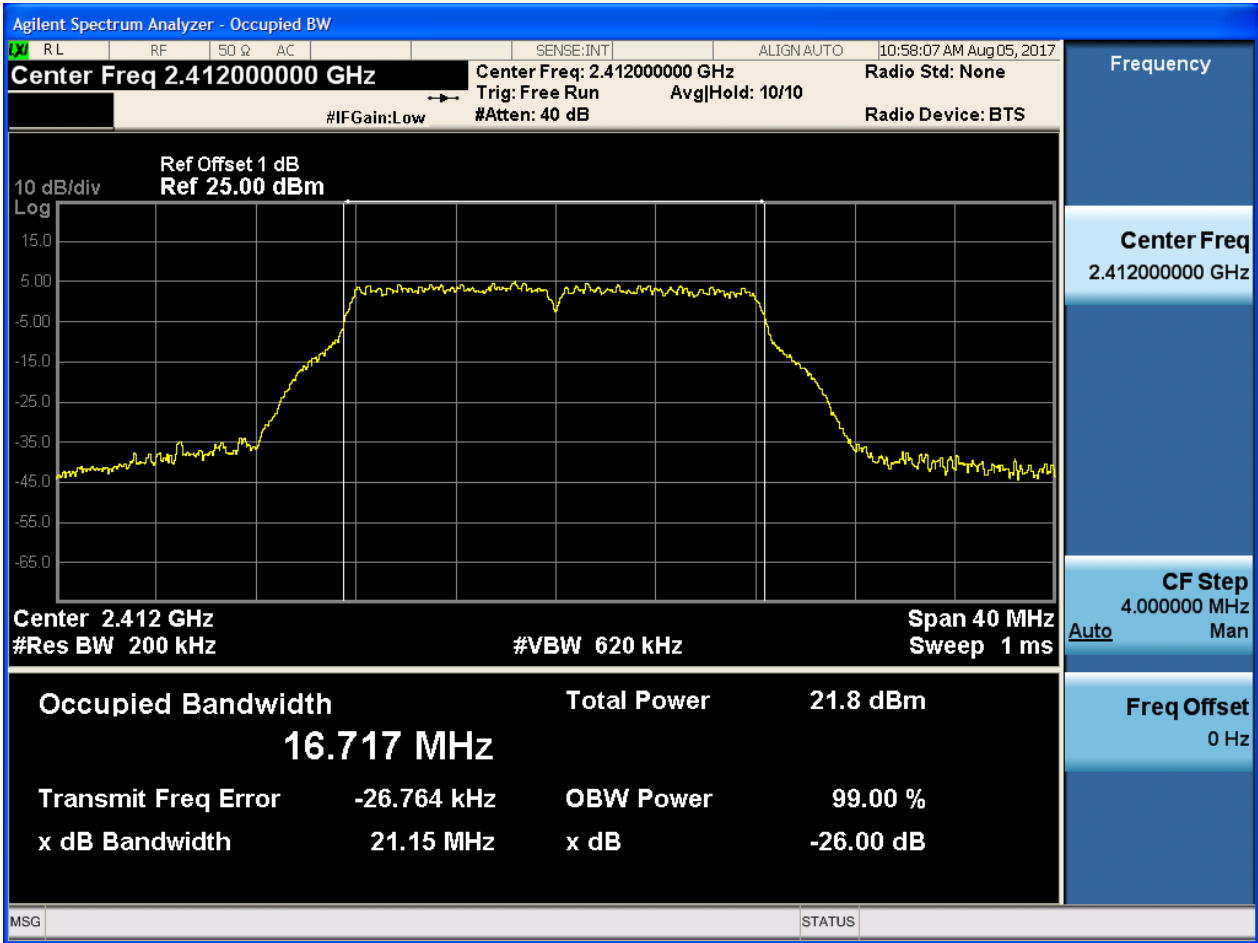


2.6 11B_H@Ant 2



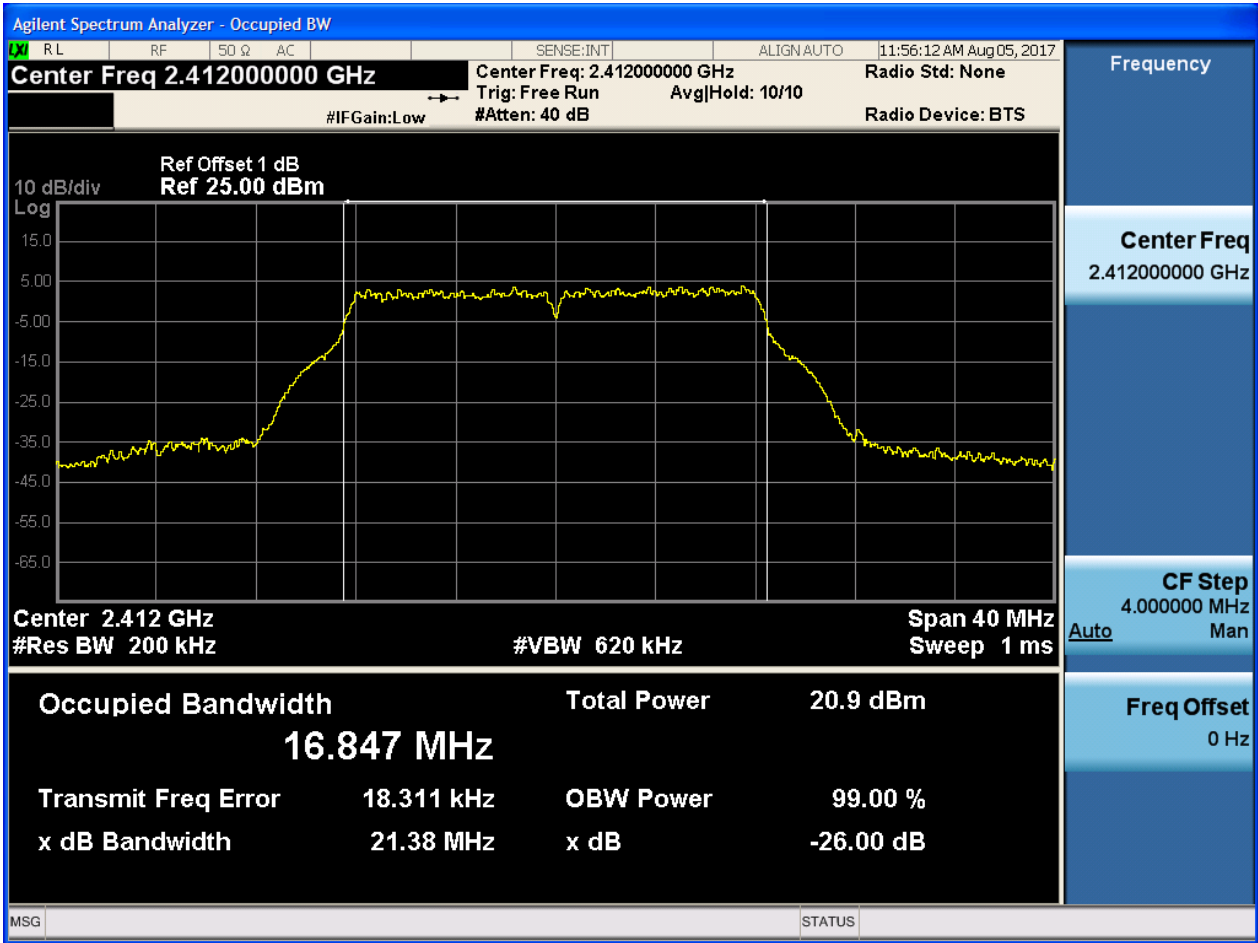


2.7 11G_L@Ant 1



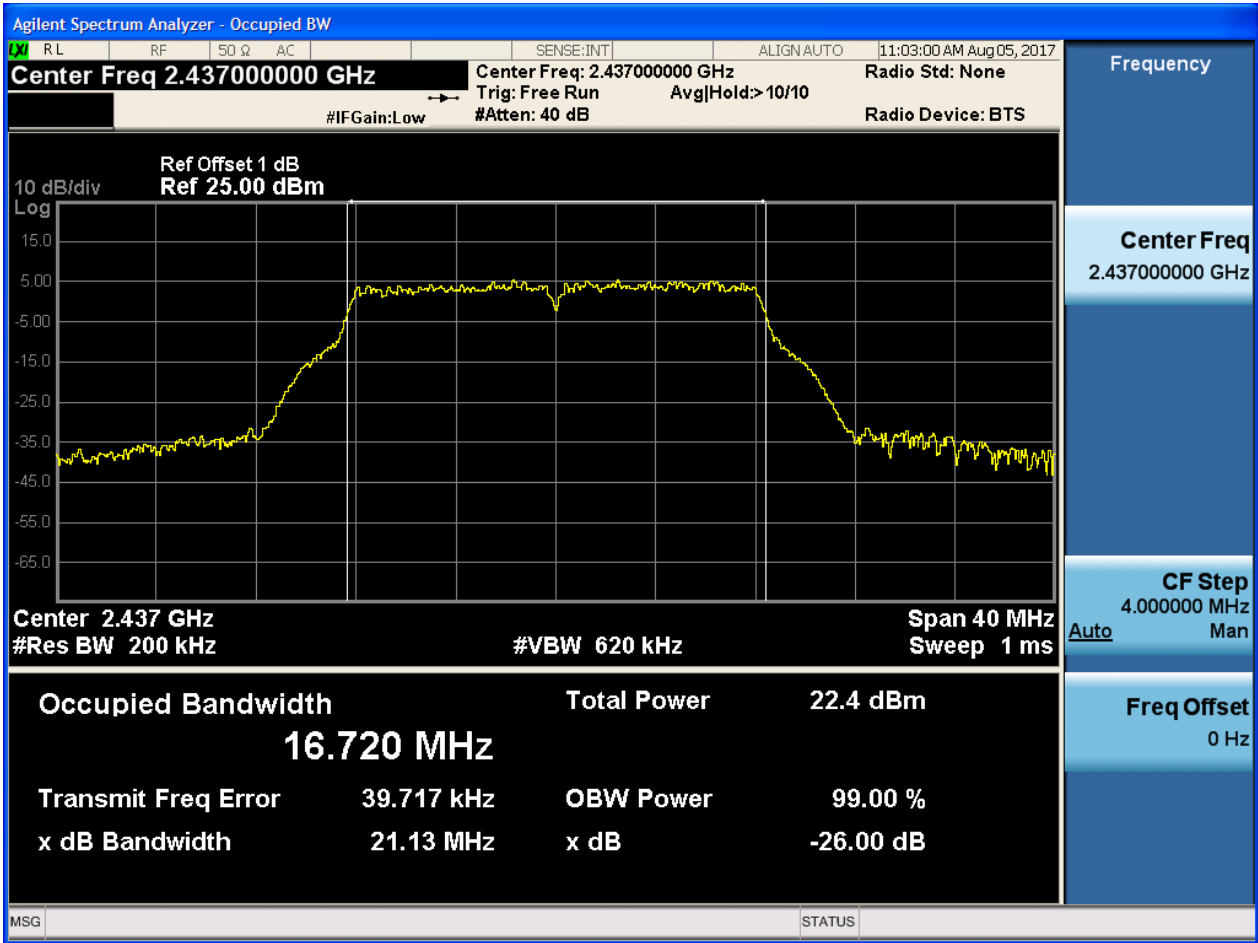


2.8 11G_L@Ant 2



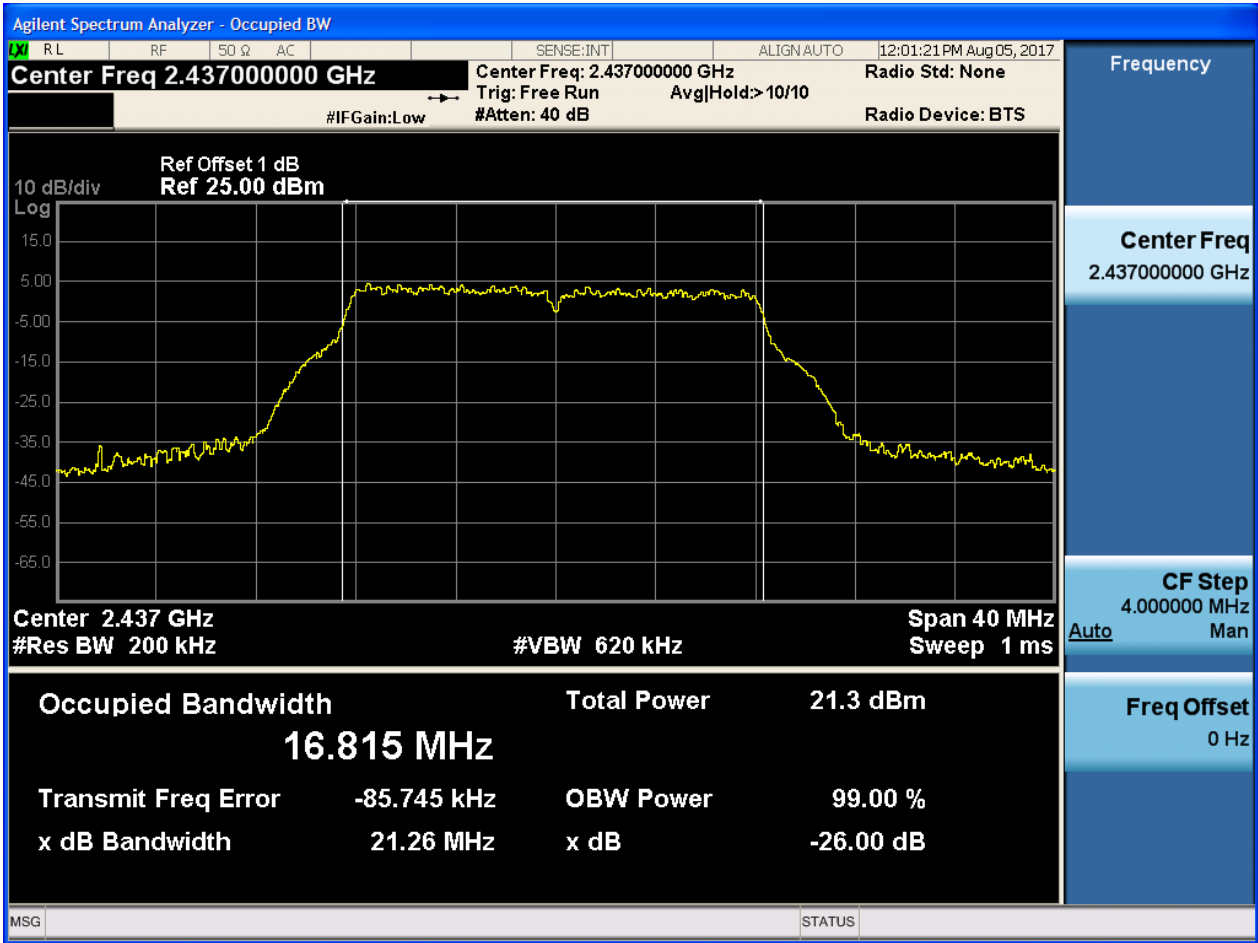


2.9 11G_M@Ant 1



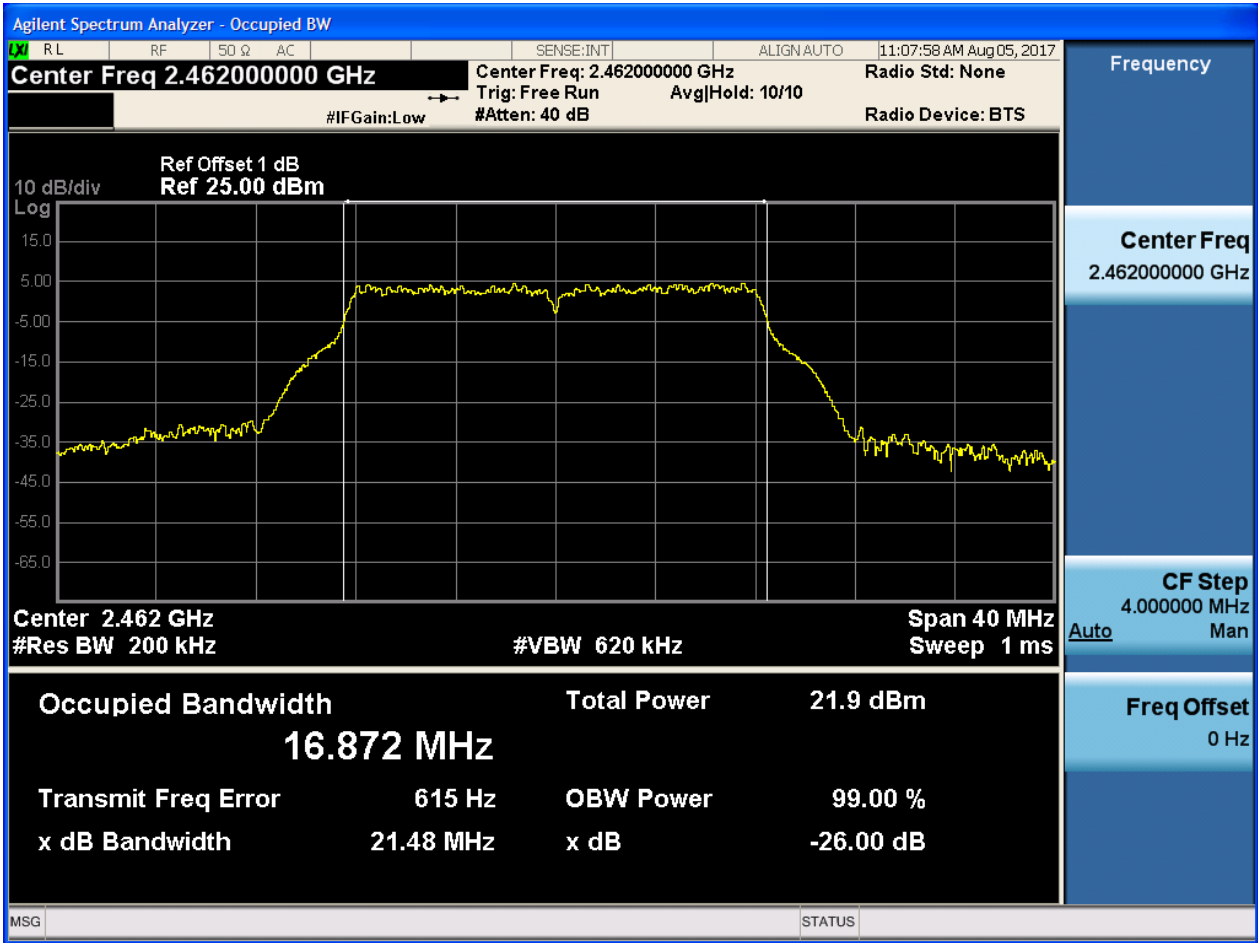


2.10 11G_M@Ant 2



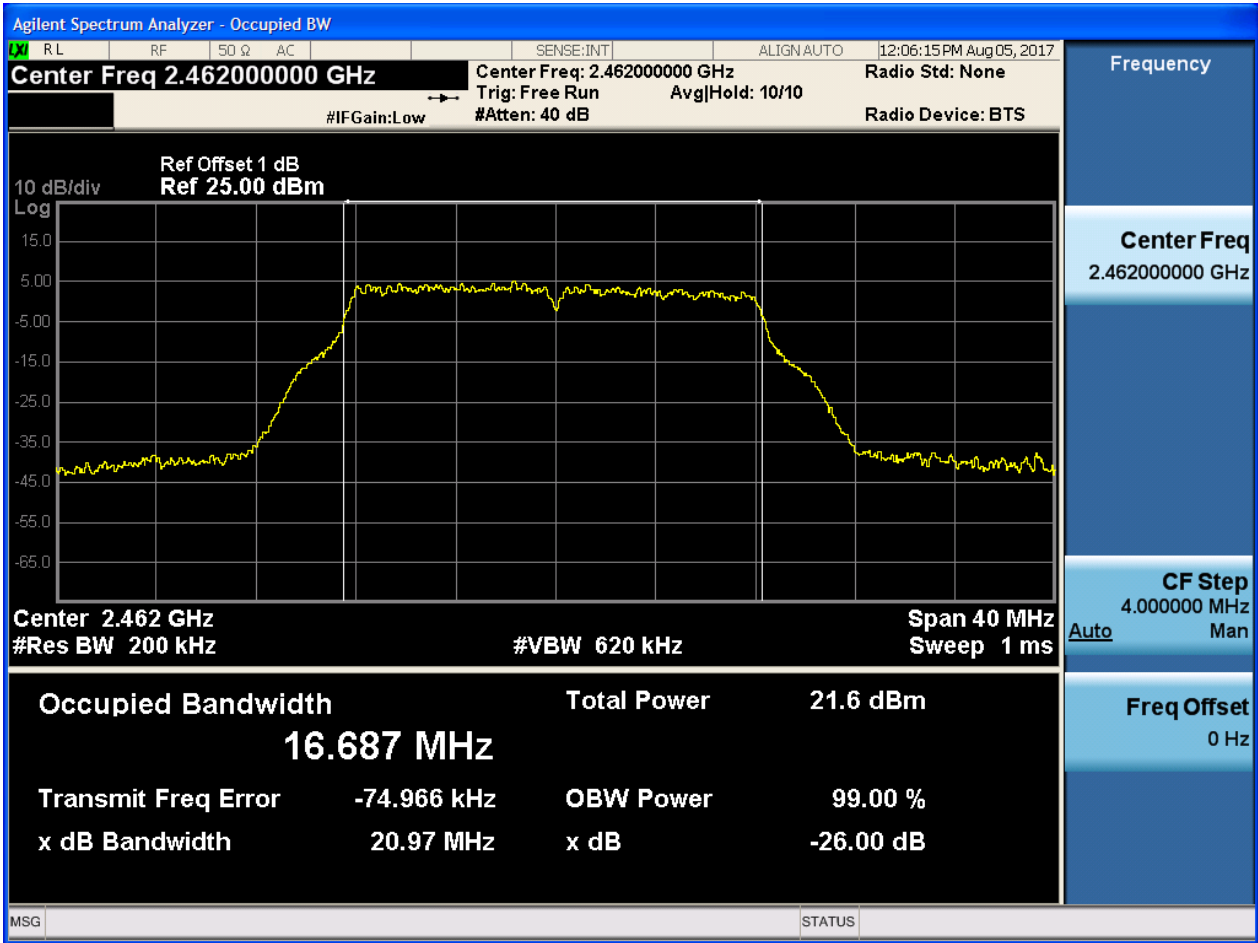


2.11 11G_H@Ant 1



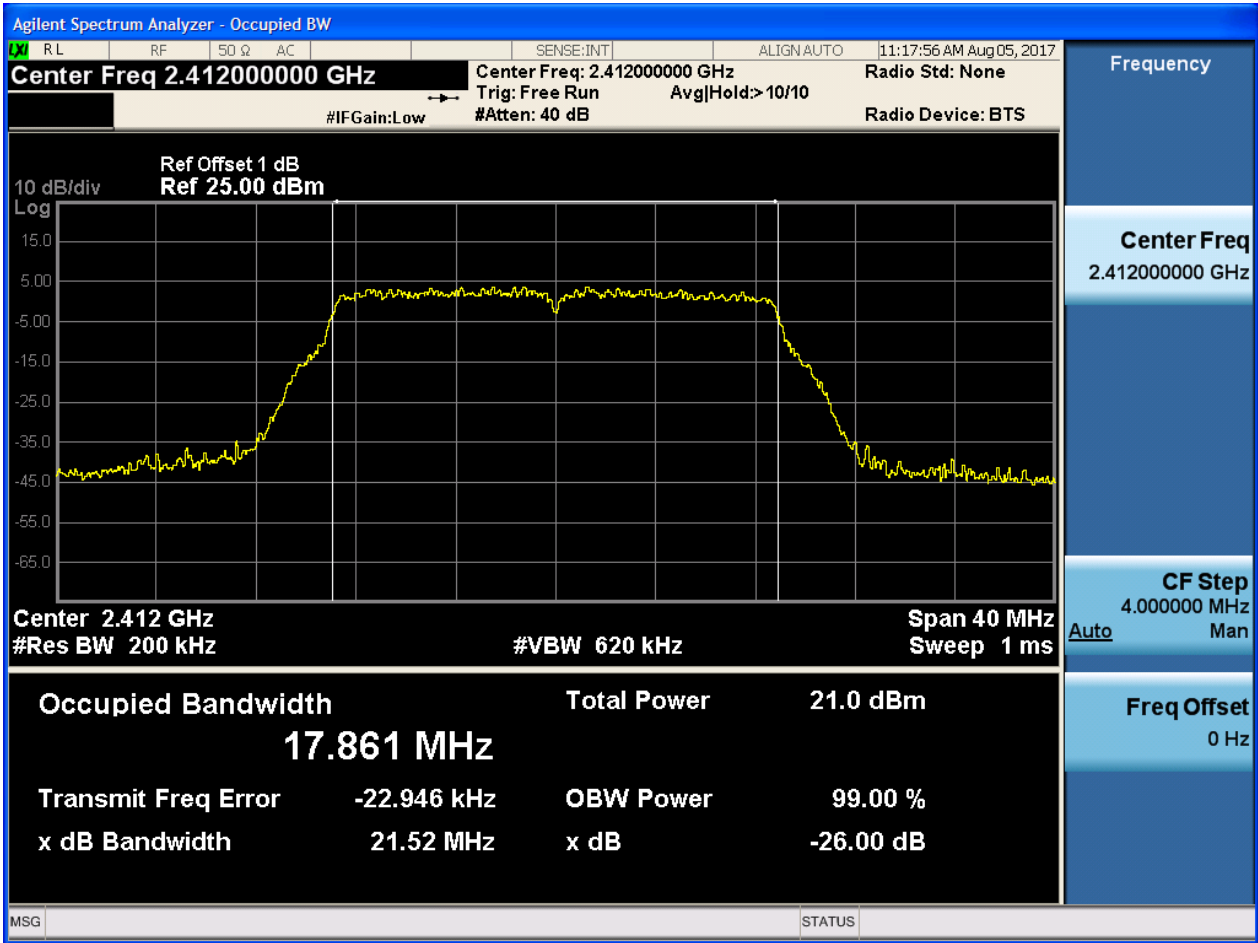


2.12 11G_H@Ant 2



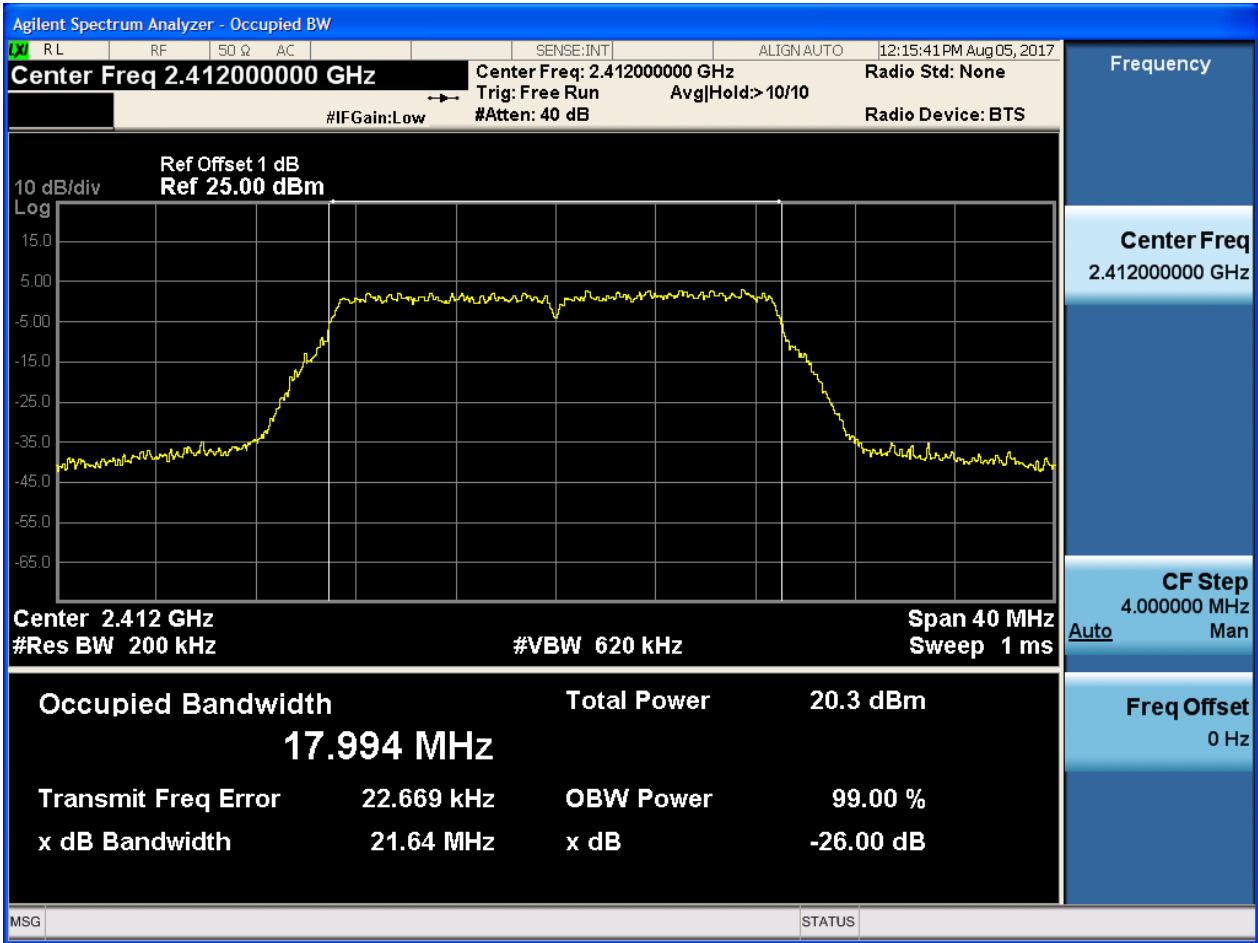


2.13 11N20_L@Ant 1



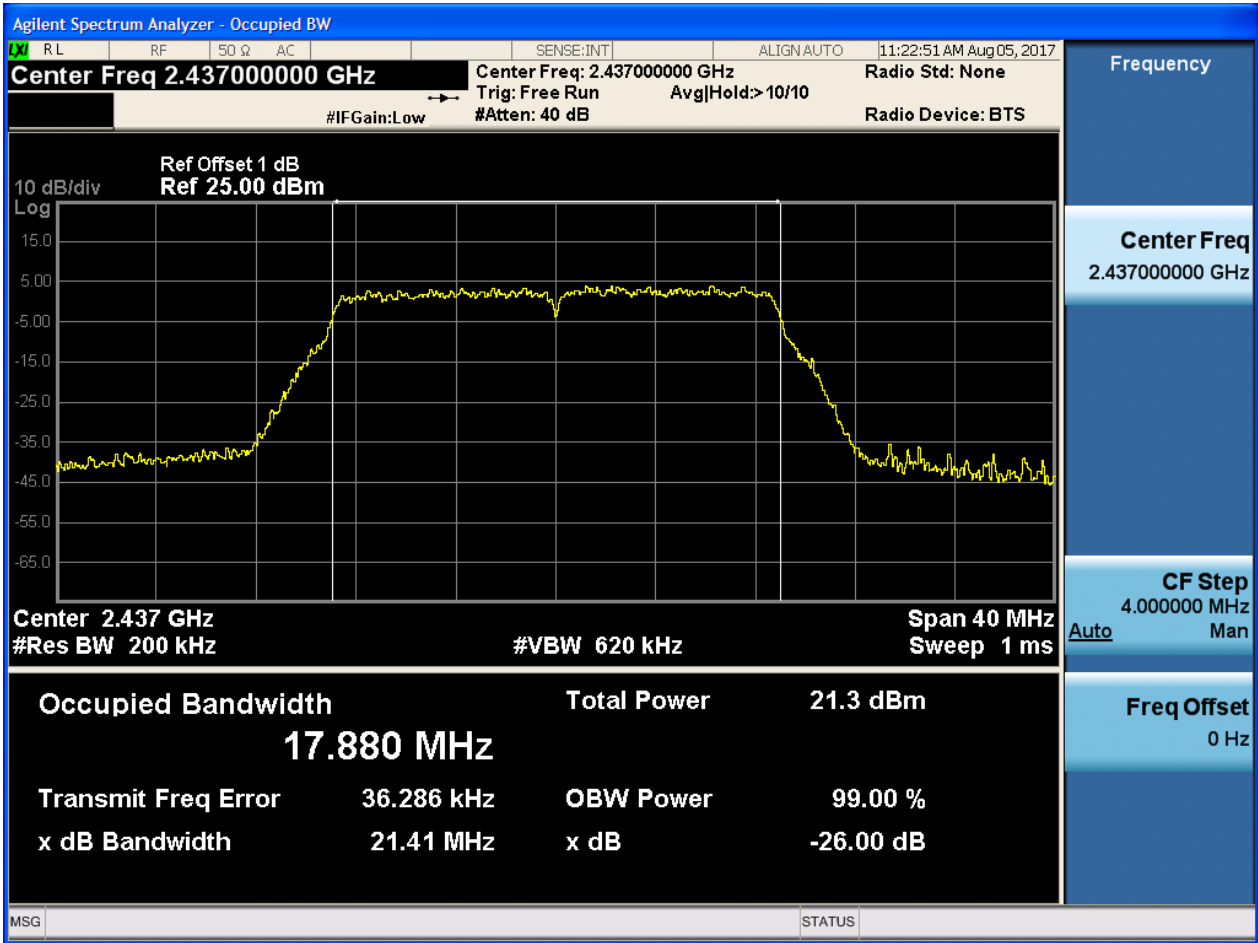


2.14 11N20_L@Ant 2



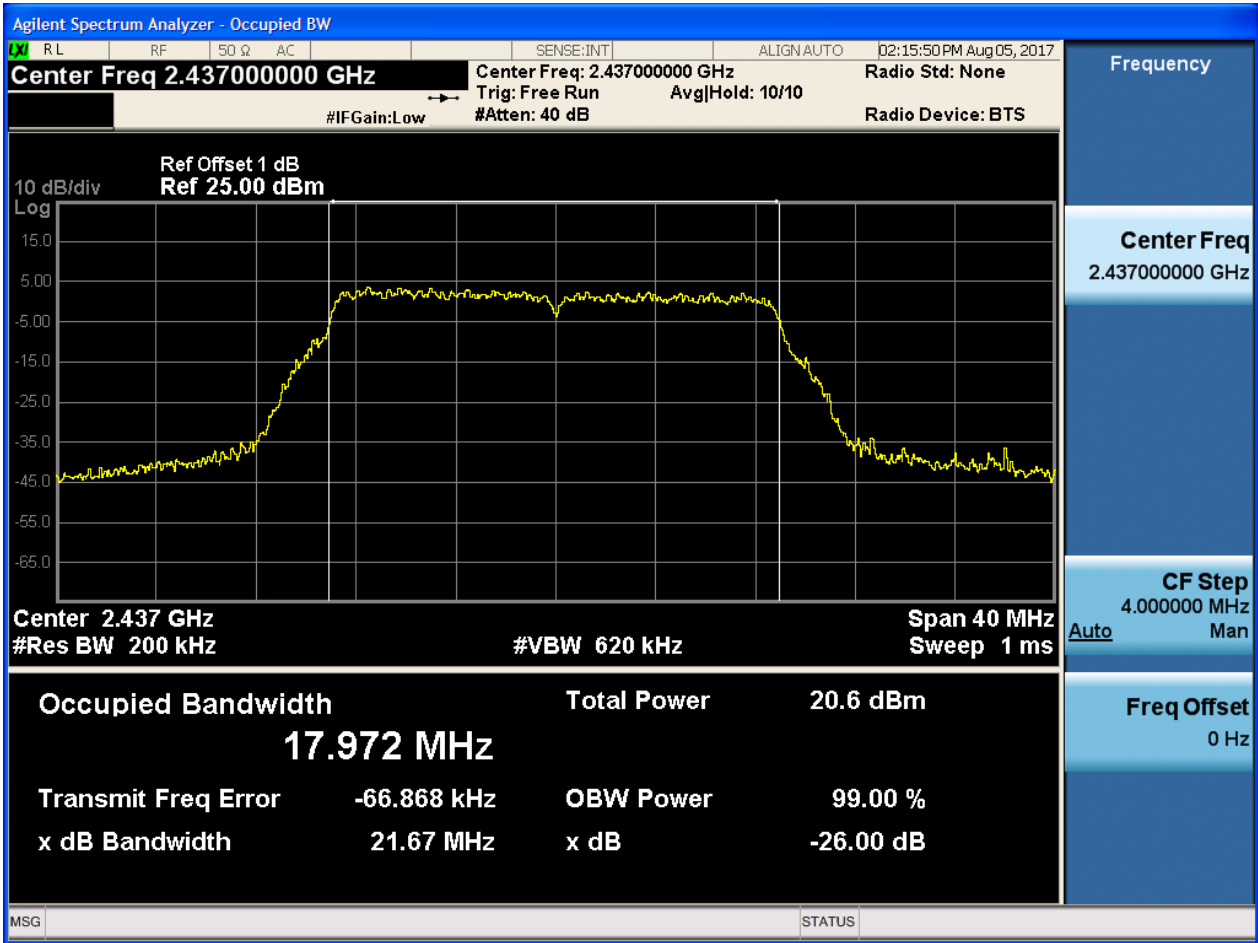


2.15 11N20_M@Ant 1



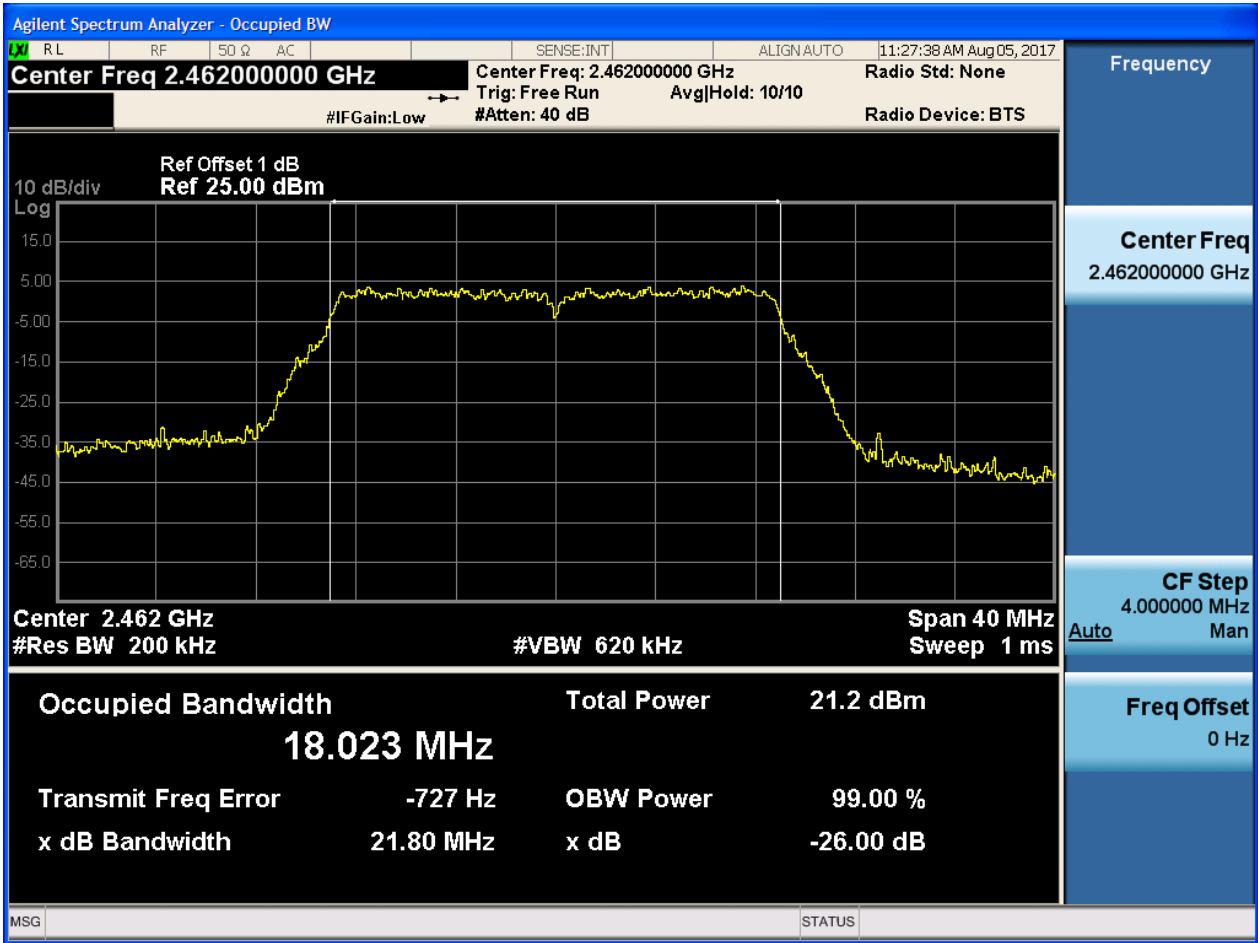


2.16 11N20_M@Ant 2



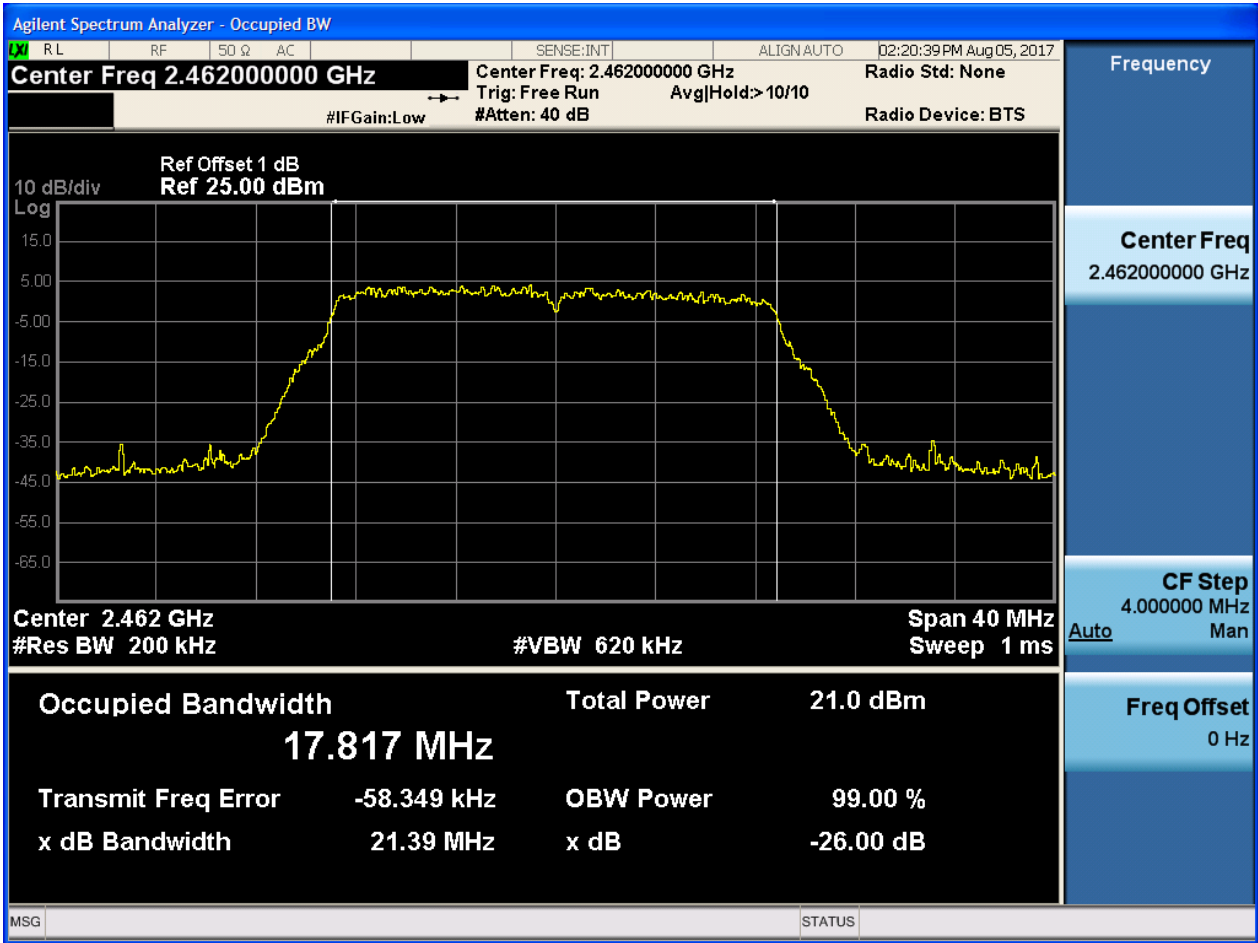


2.17 11N20_H@Ant 1



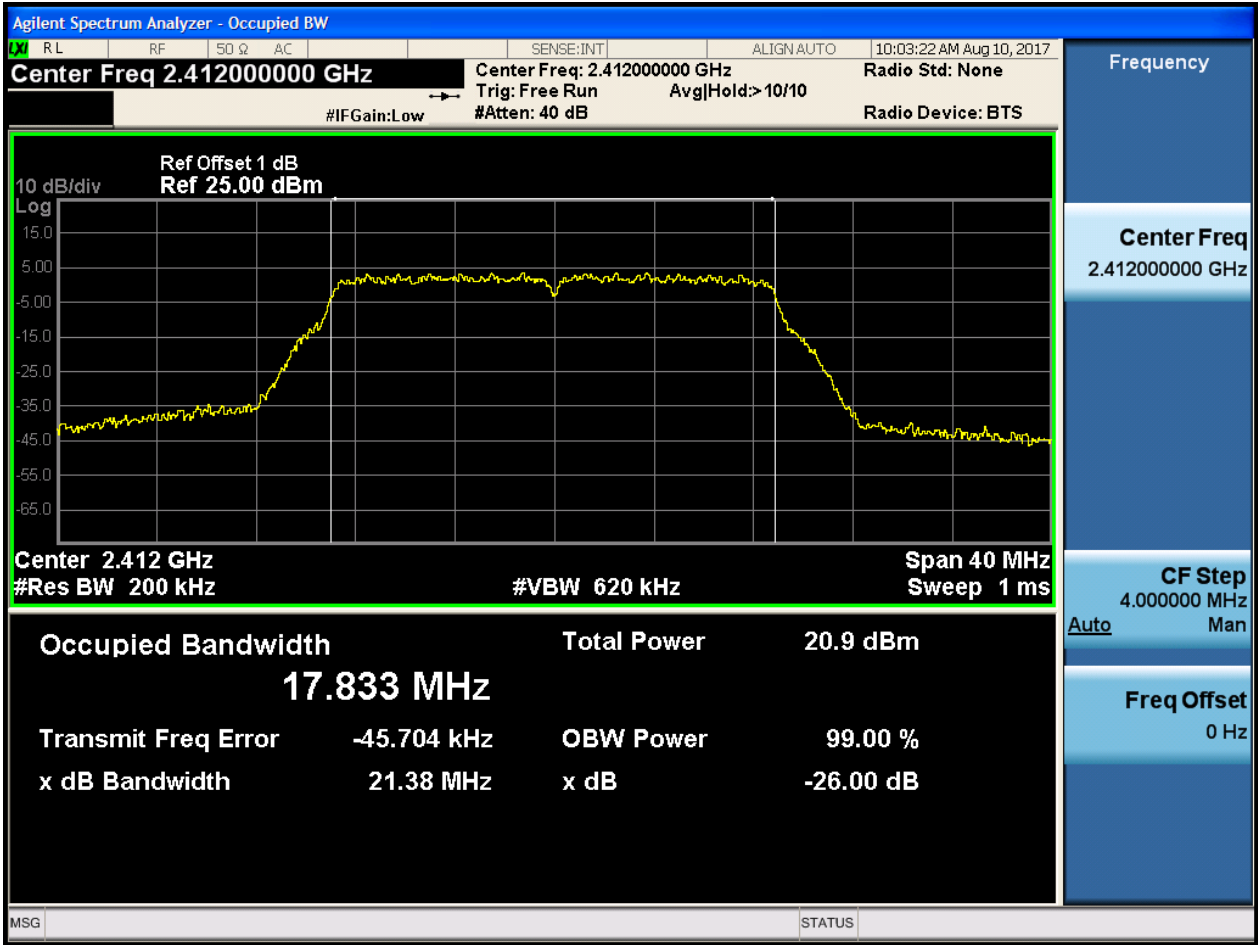


2.18 11N20_H@Ant 2



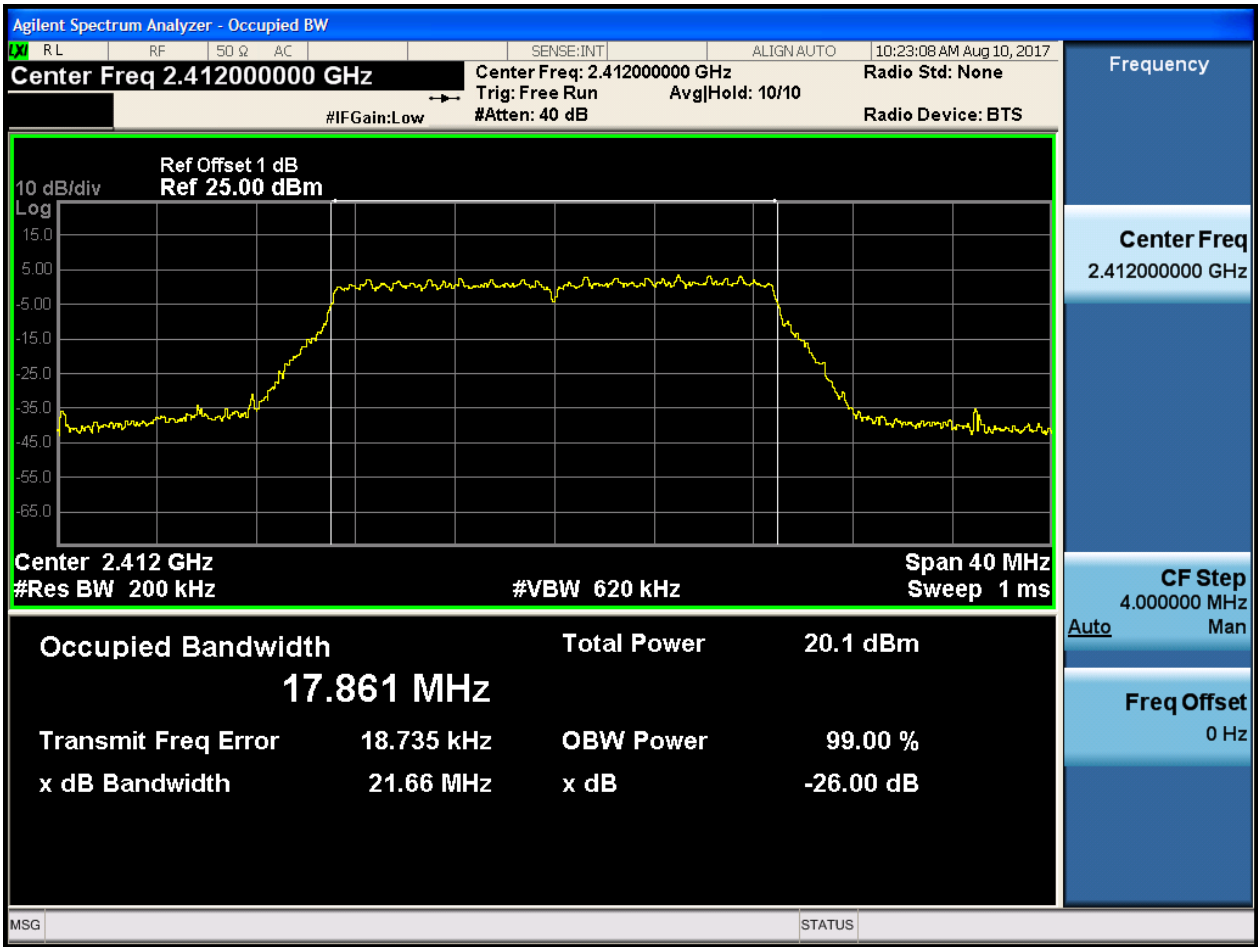


2.19 11N20m_L@Ant 1



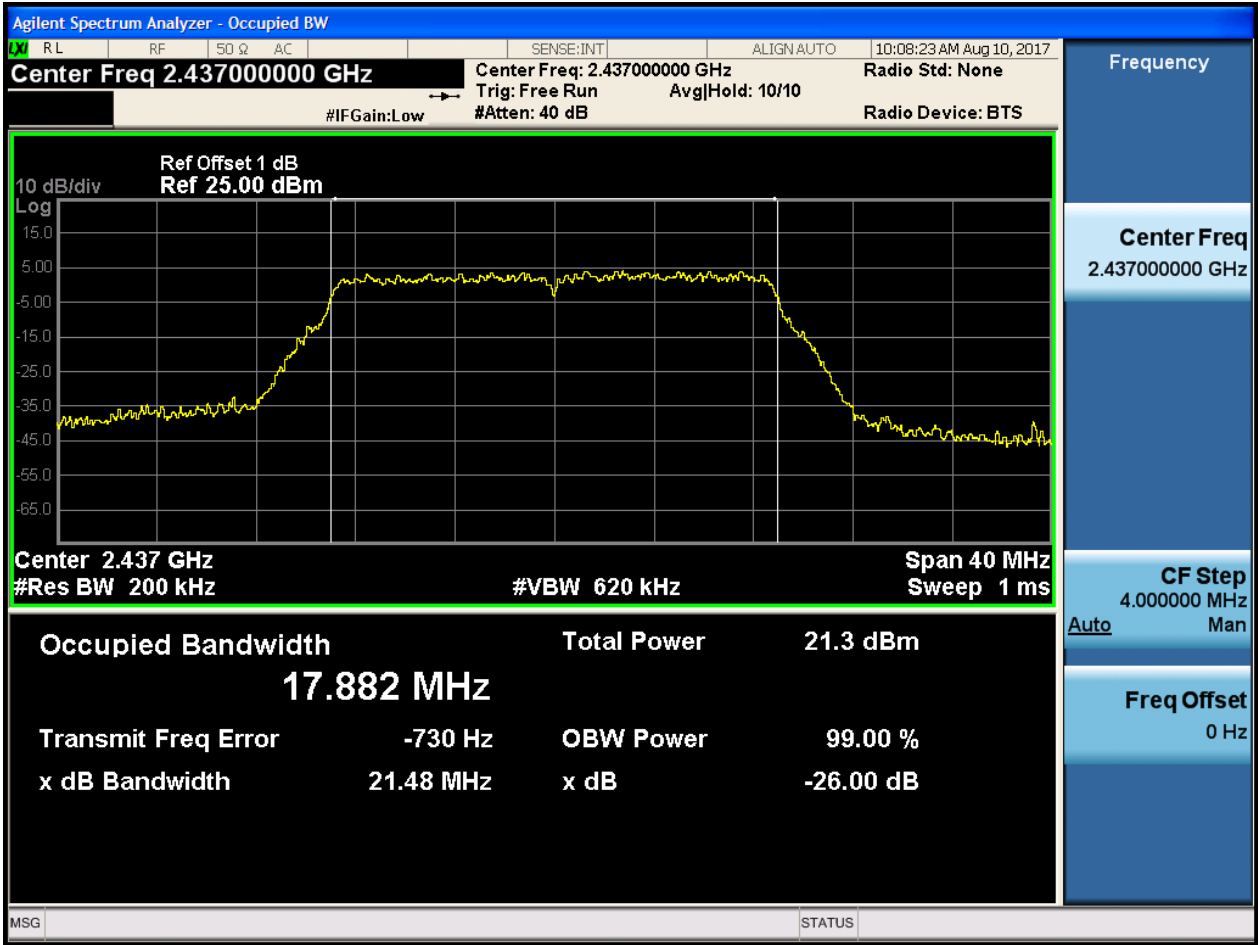


2.20 11N20m_L@Ant 2



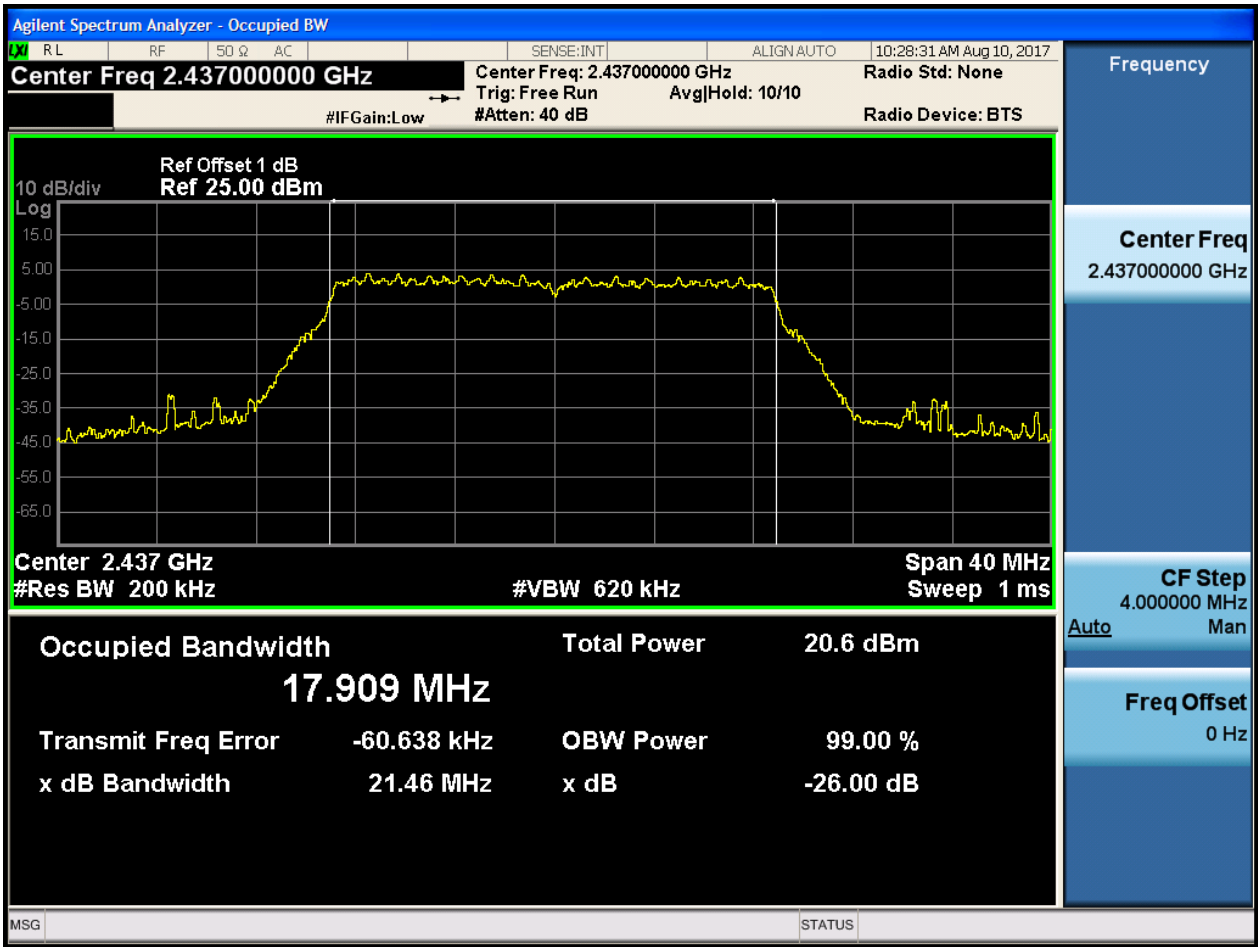


2.21 11N20m_M@Ant 1



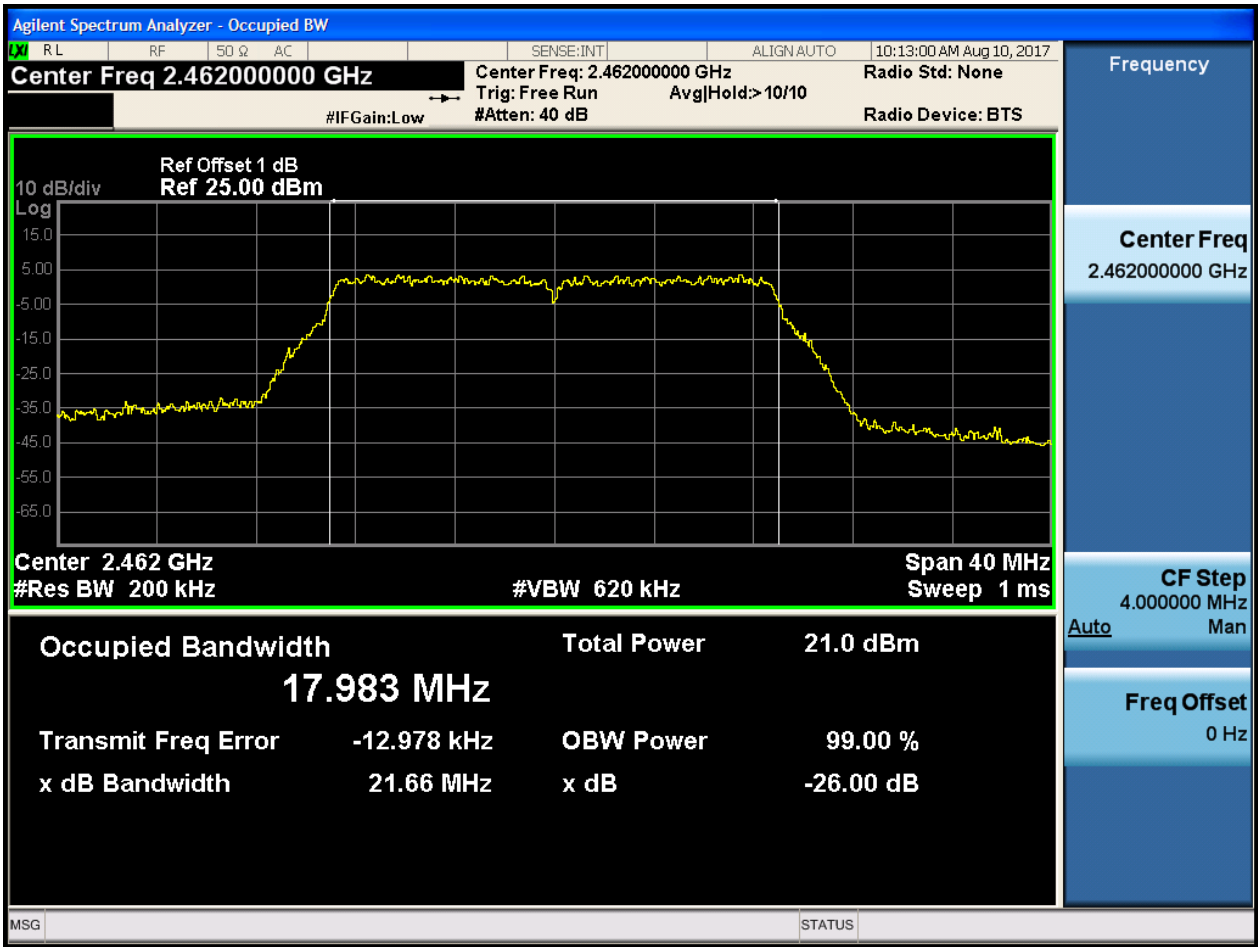


2.22 11N20m_M@Ant 2



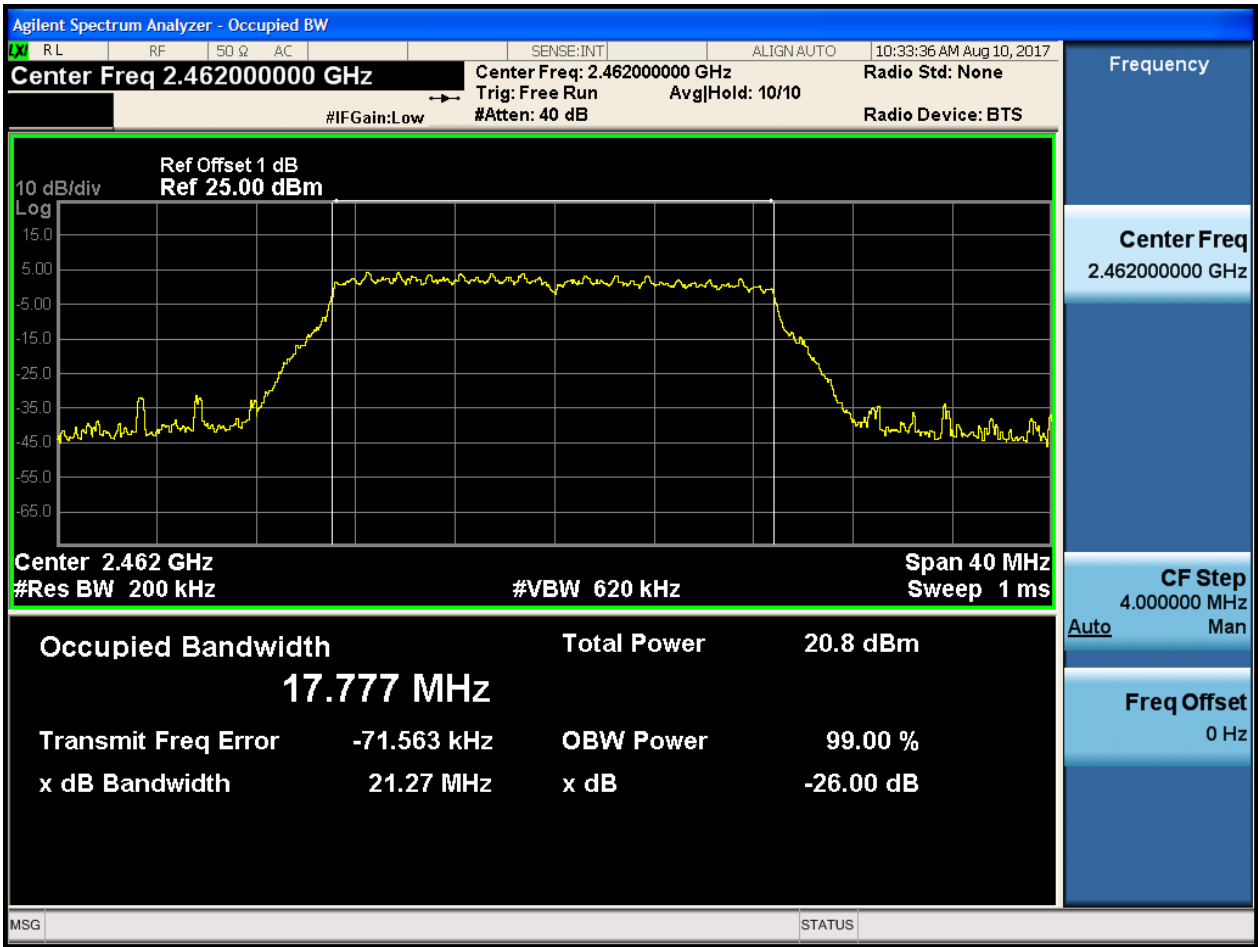


2.23 11N20m_H@Ant 1



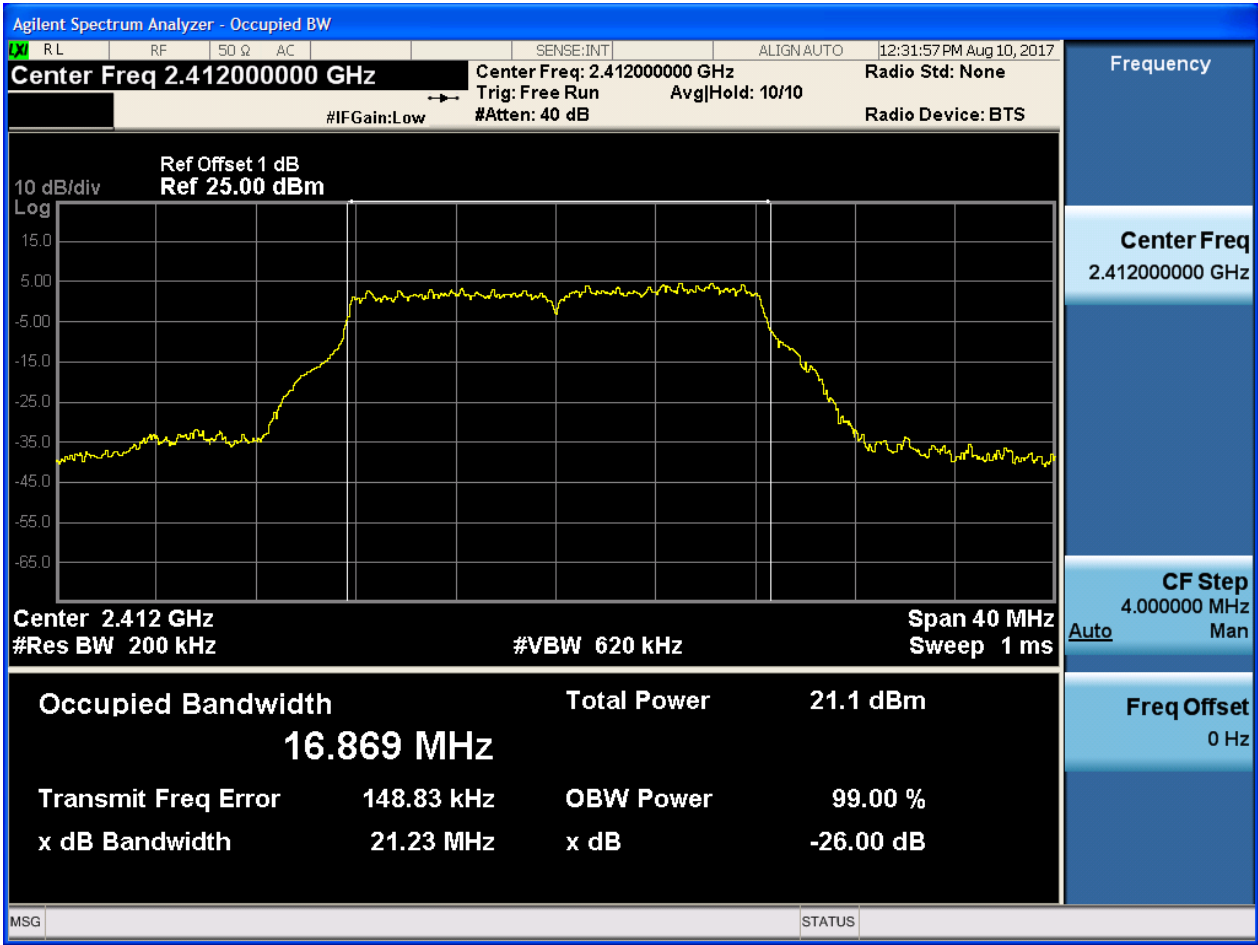


2.24 11N20m_H@Ant 2



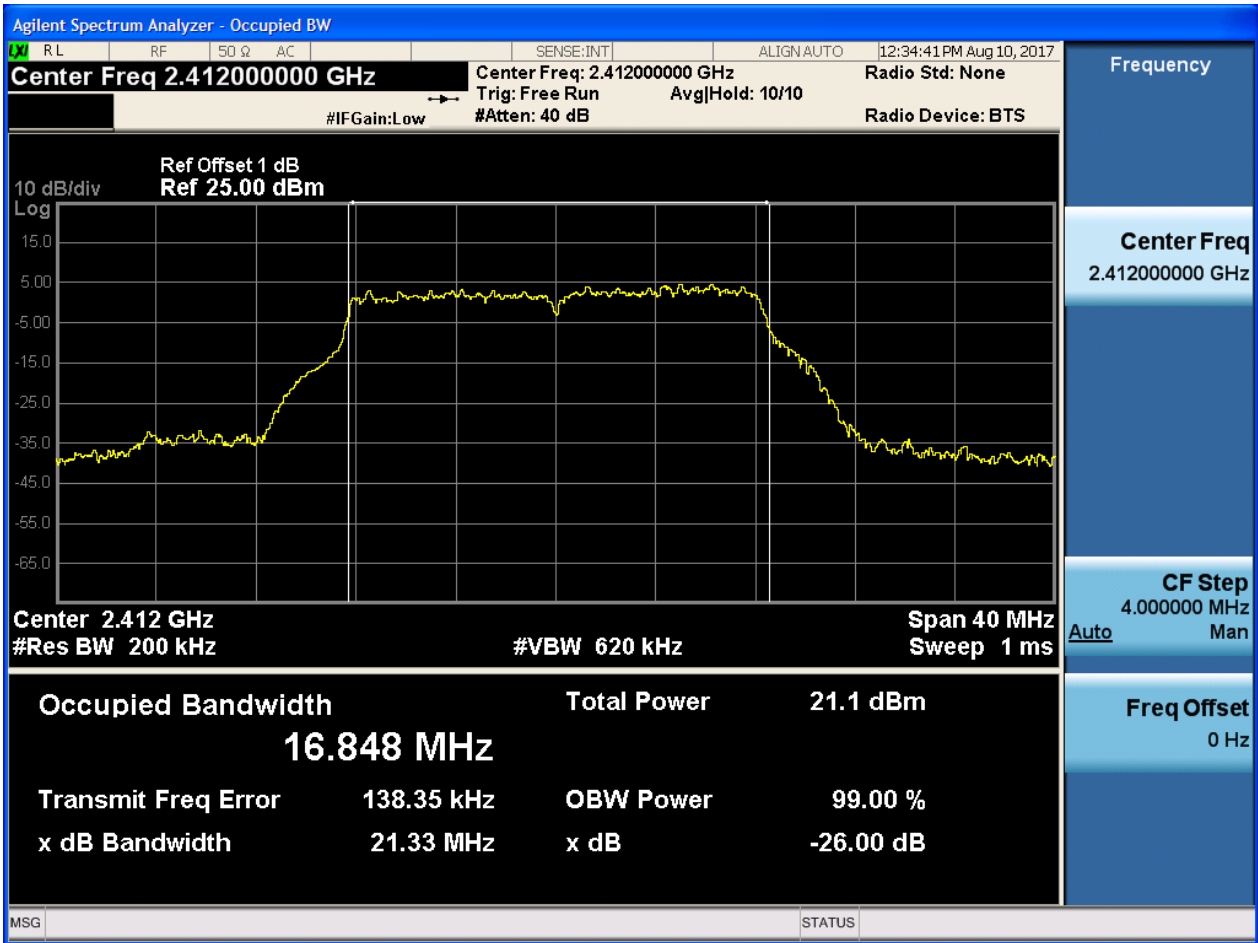


2.25 11G CDD_L@Ant 1



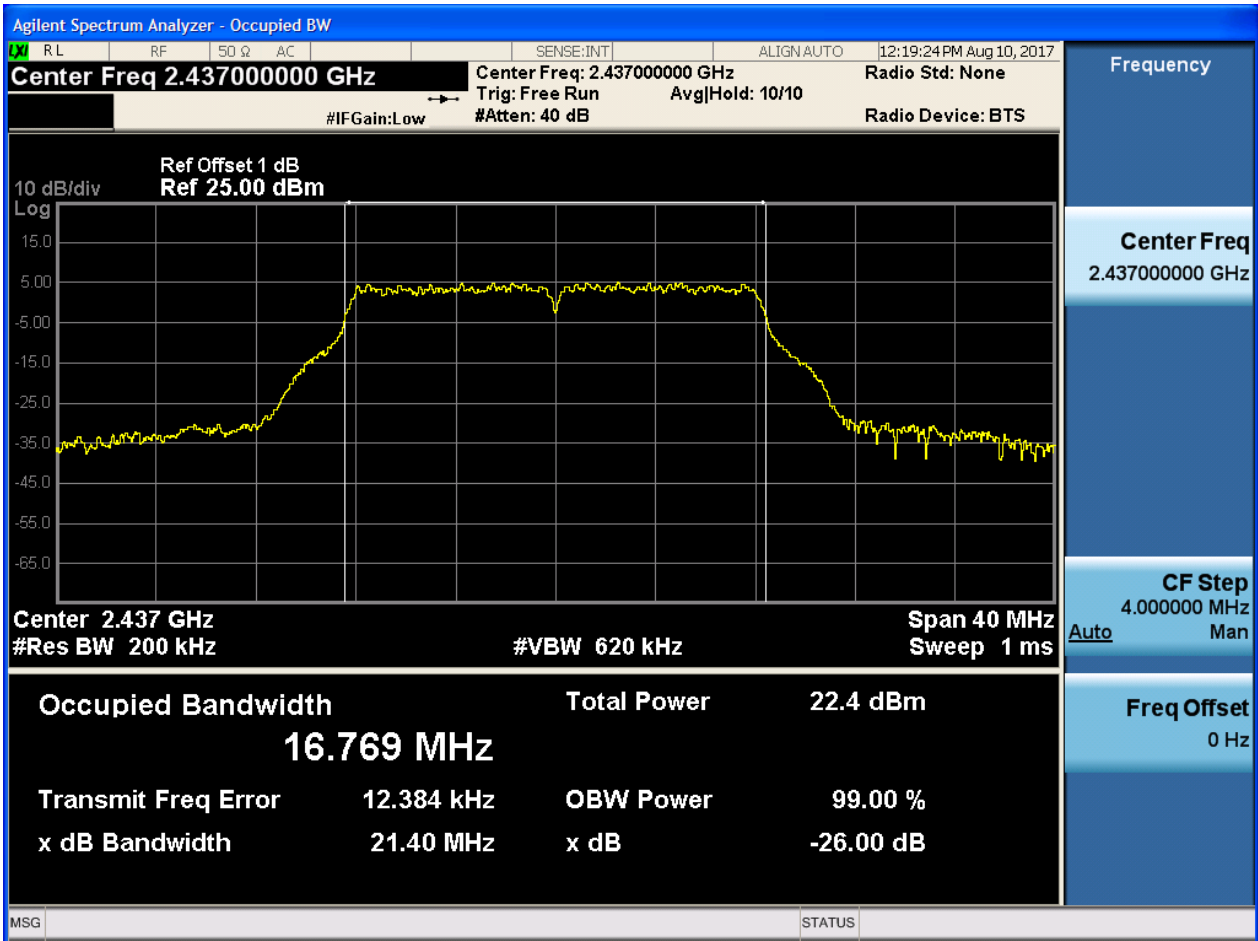


2.26 11G CDD_L@Ant 2



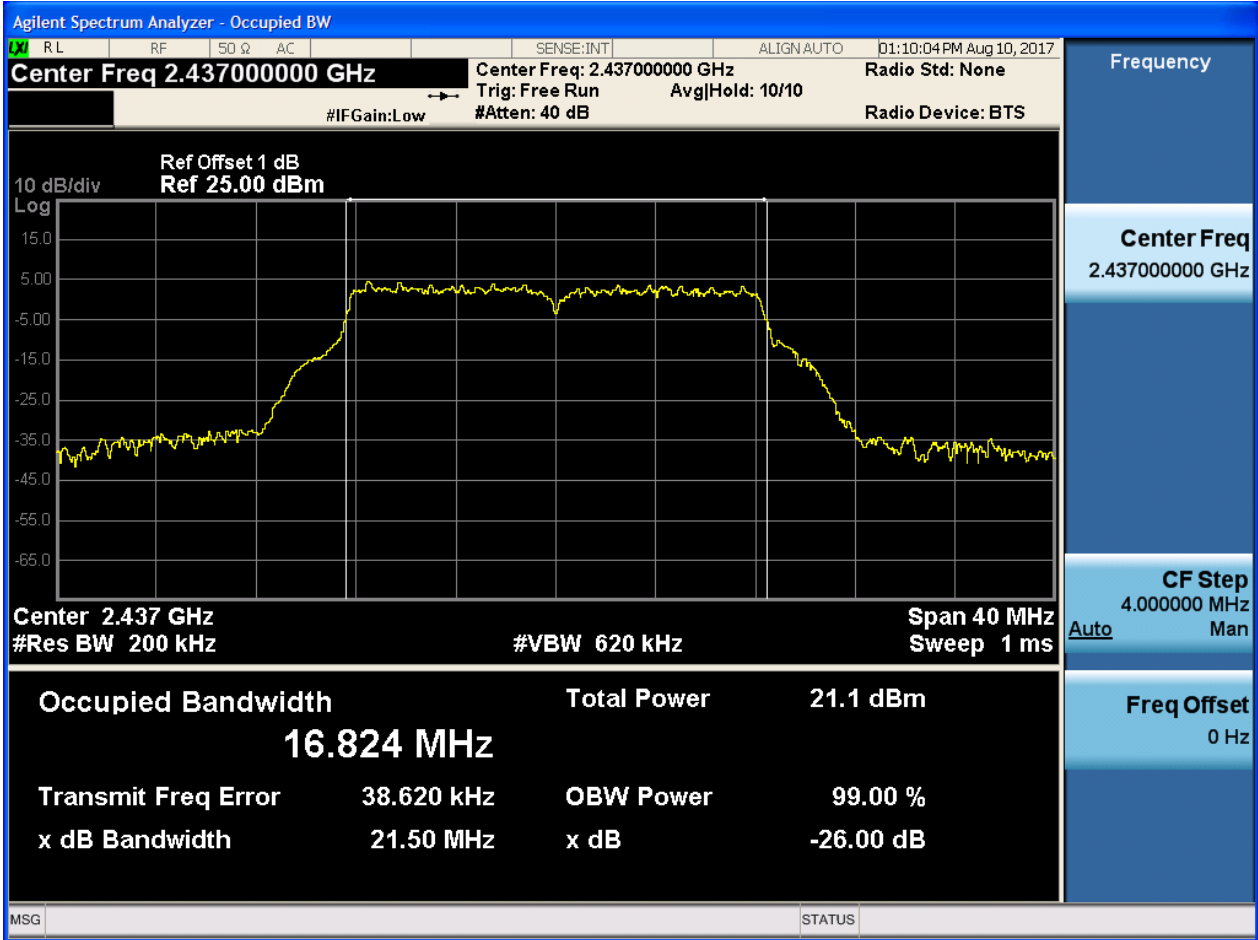


2.27 11G CDD_M@Ant 1



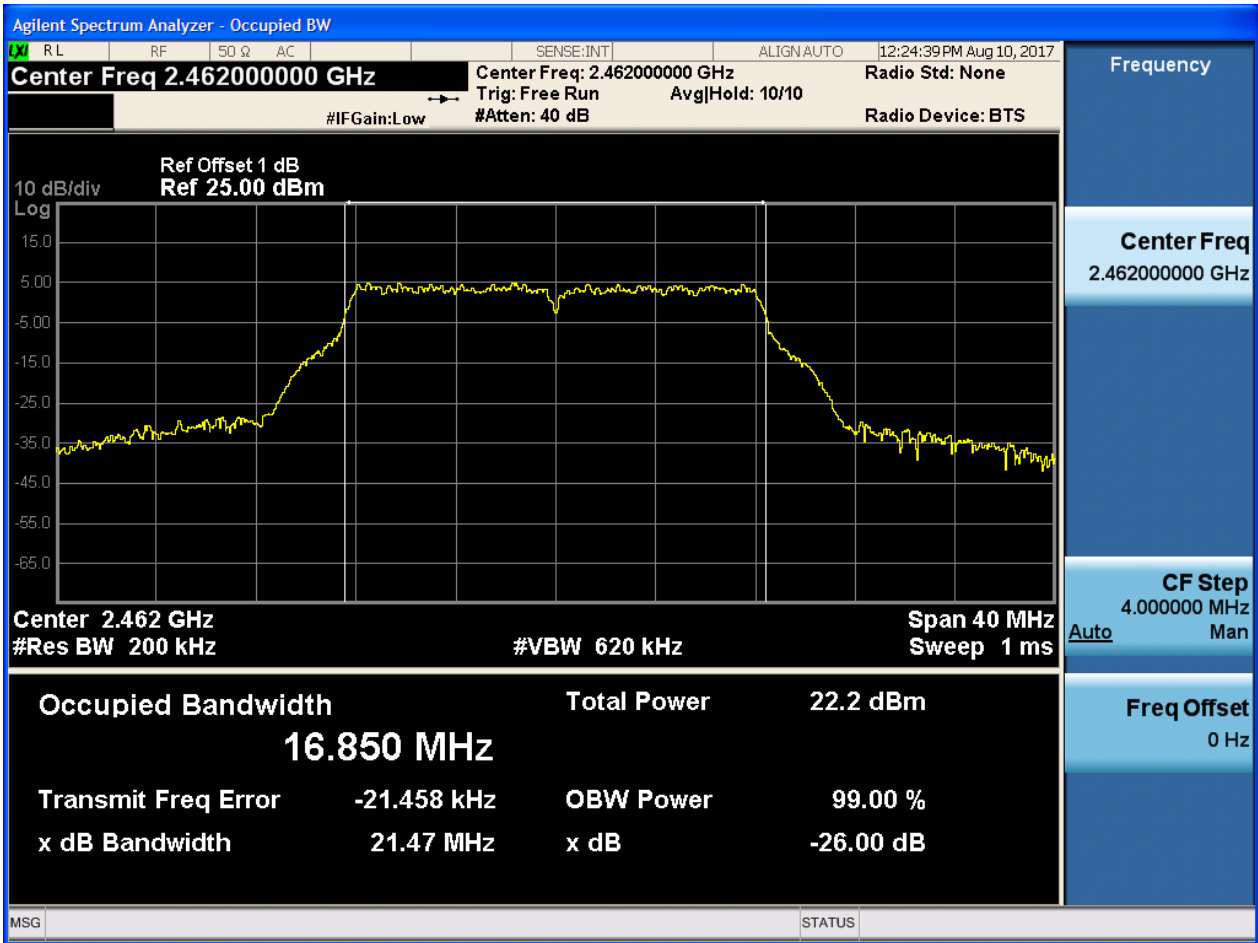


2.28 11G CDD_M@Ant 2



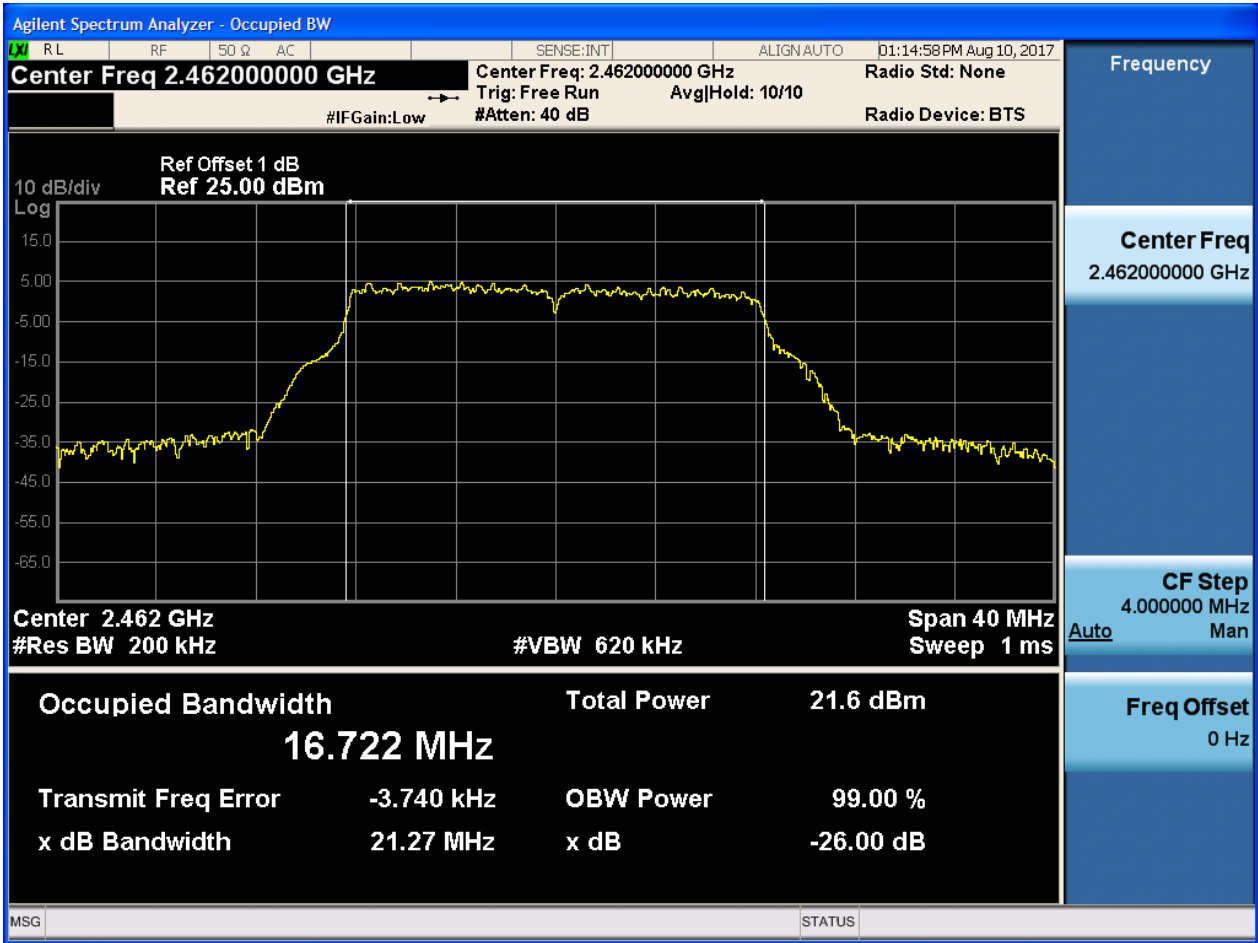


2.29 11G CDD_H@Ant 1





2.30 11G CDD_H@Ant 2



Appendix C: Duty Cycle

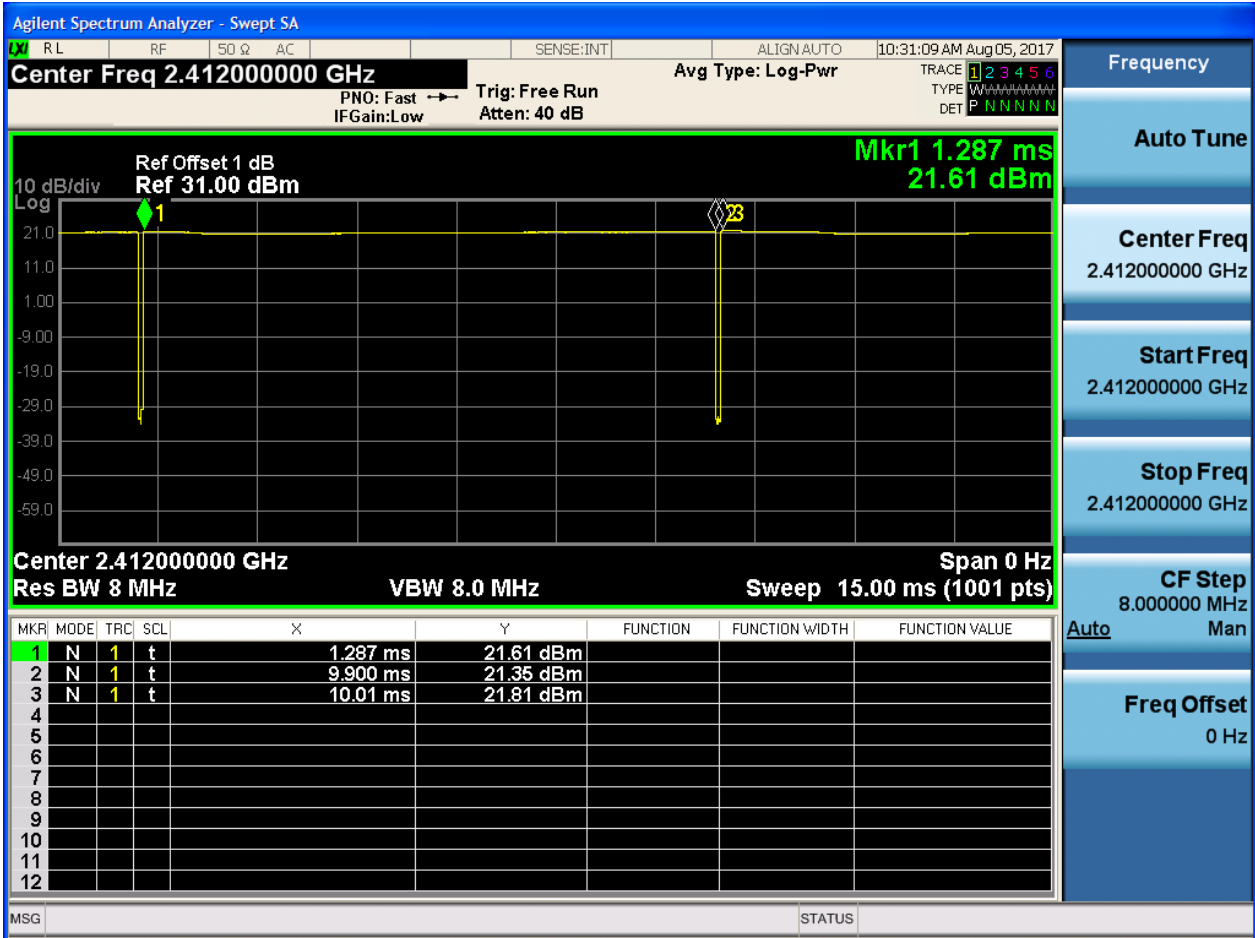
Part I - Test Results

Test Mode	TX Freq. [MHz]	Ant	Duty cycle [%]
11B	CH1,CH6,CH11	Ant 1	99
11B	CH1,CH6,CH11	Ant 2	99
11G/11G CDD	CH1,CH6,CH11	Ant 1	93
11G/11G CDD	CH1,CH6,CH11	Ant 2	93
11N20SISO	CH1,CH6,CH11	Ant 1	93
11N20SISO	CH1,CH6,CH11	Ant 2	93
11N20MIMO	CH1,CH6,CH11	Ant 1	86
11N20MIMO	CH1,CH6,CH11	Ant 2	87



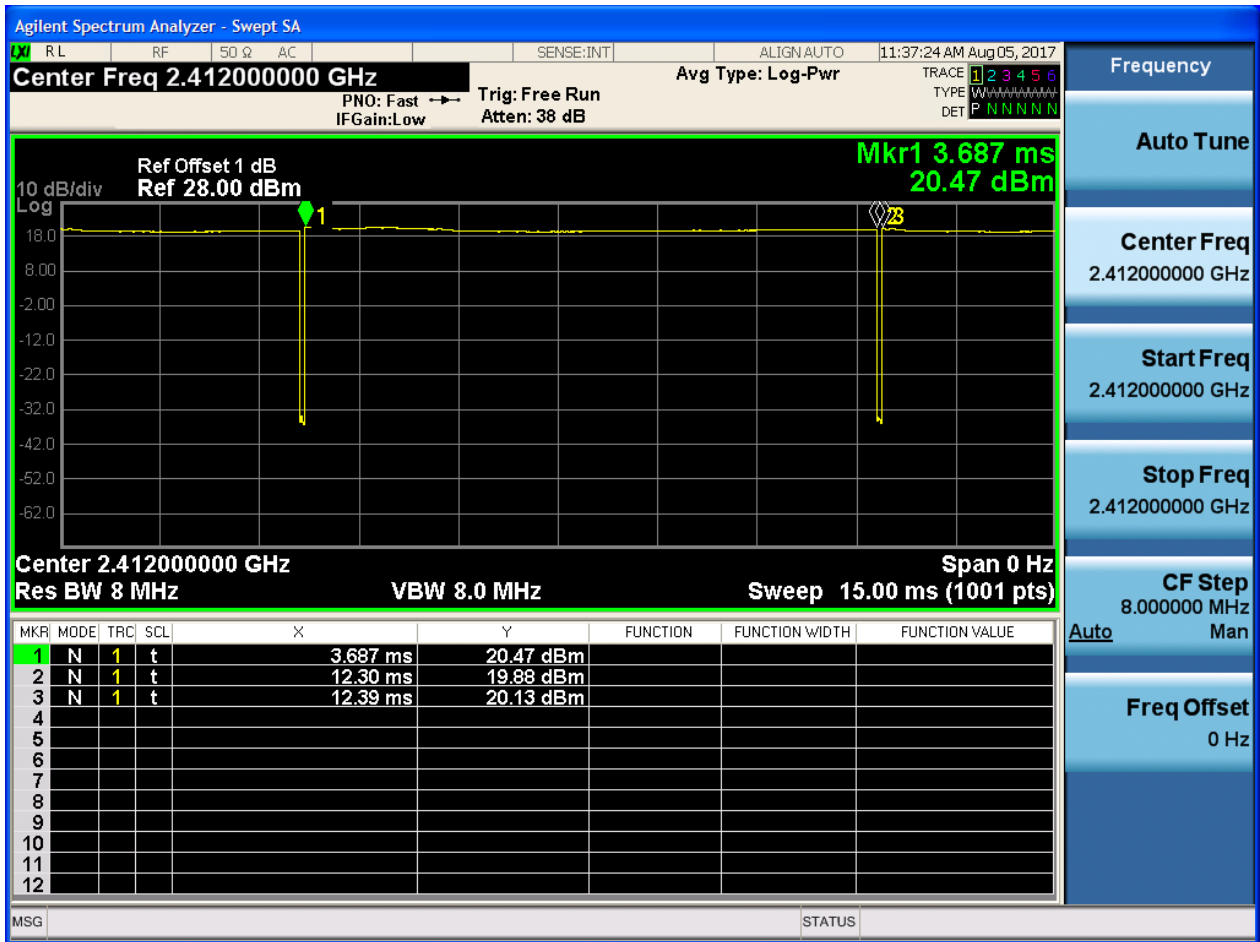
Part II - Test Plots

11B_ANT1



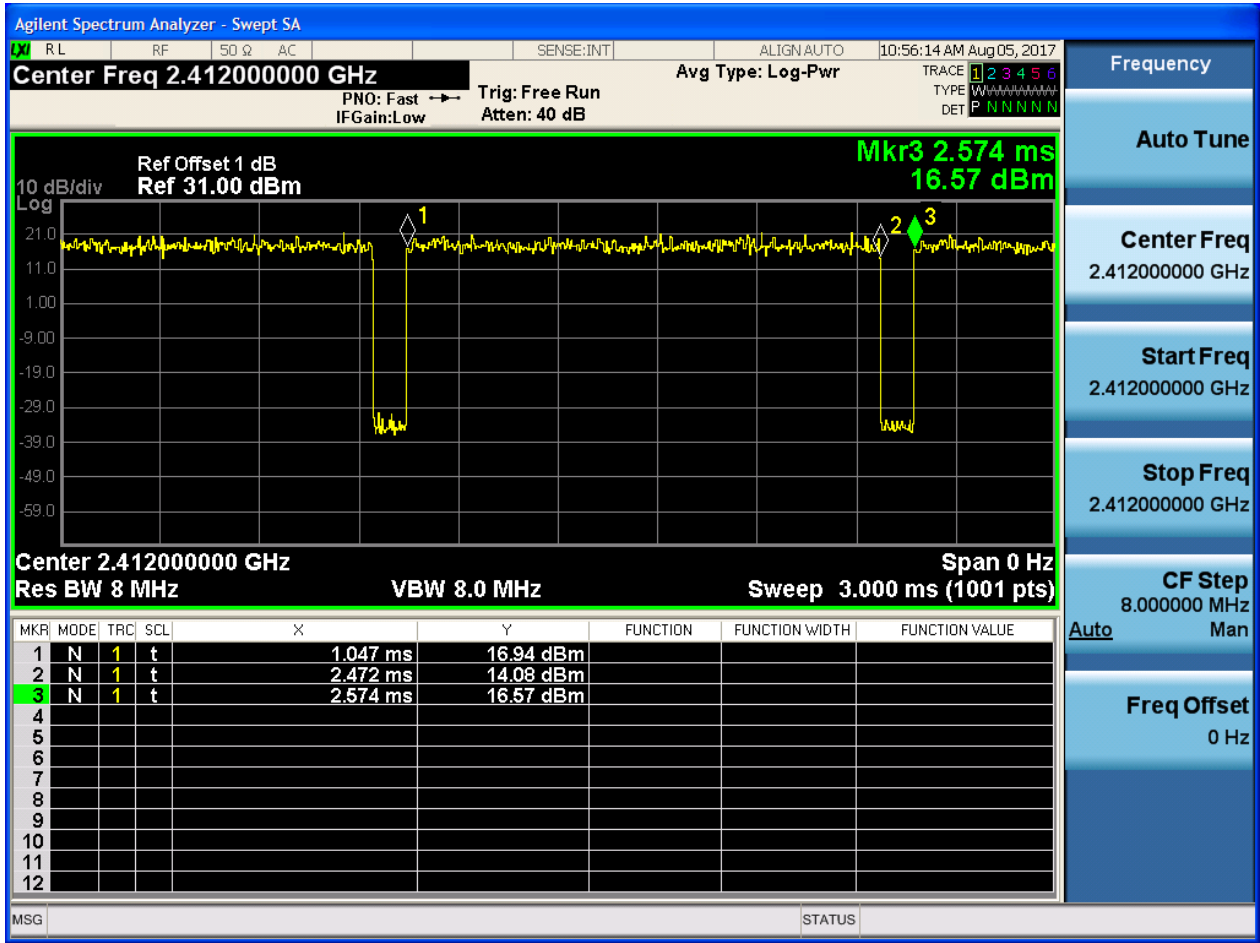


11B_ANT2



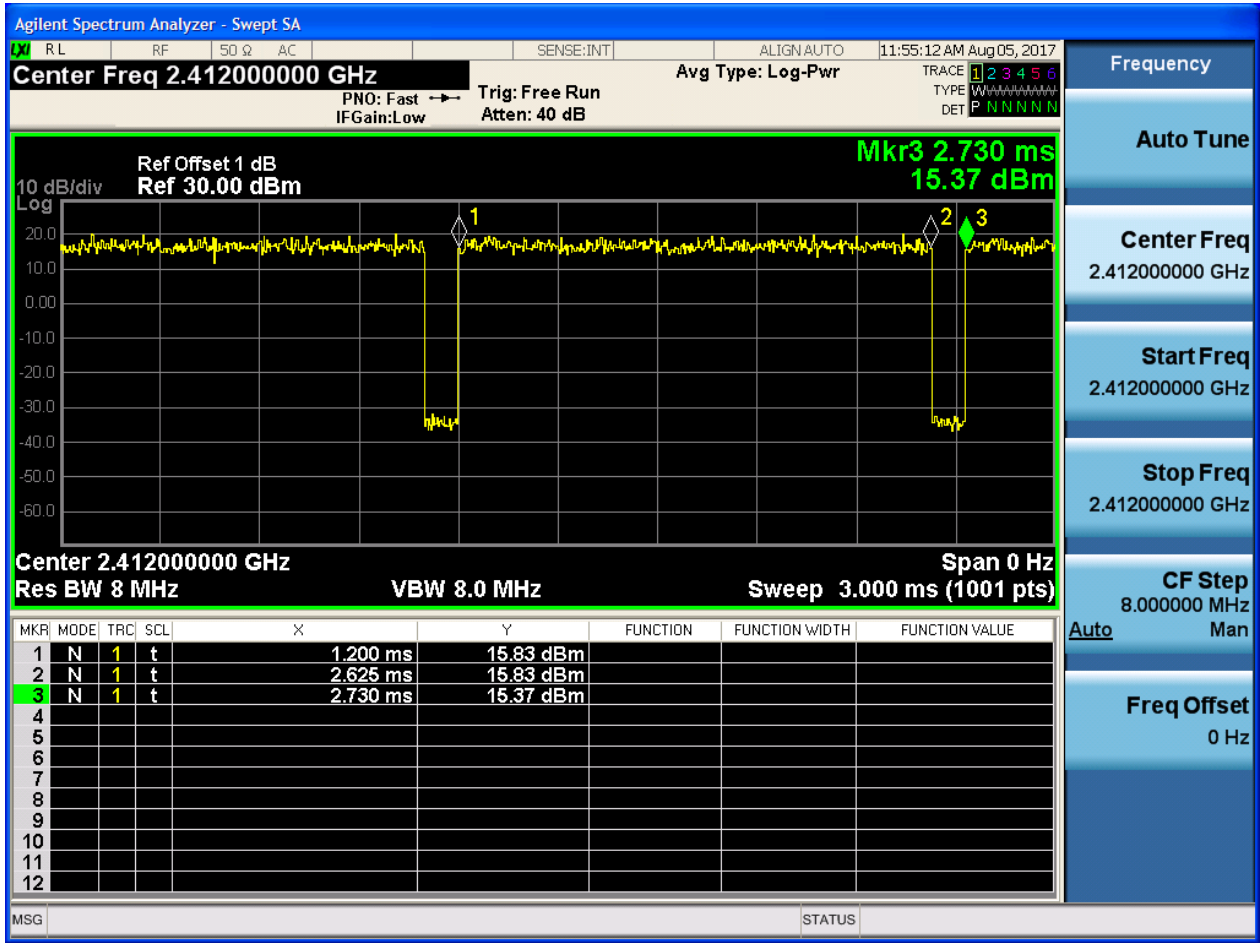


11G/11GCDD_ANT1



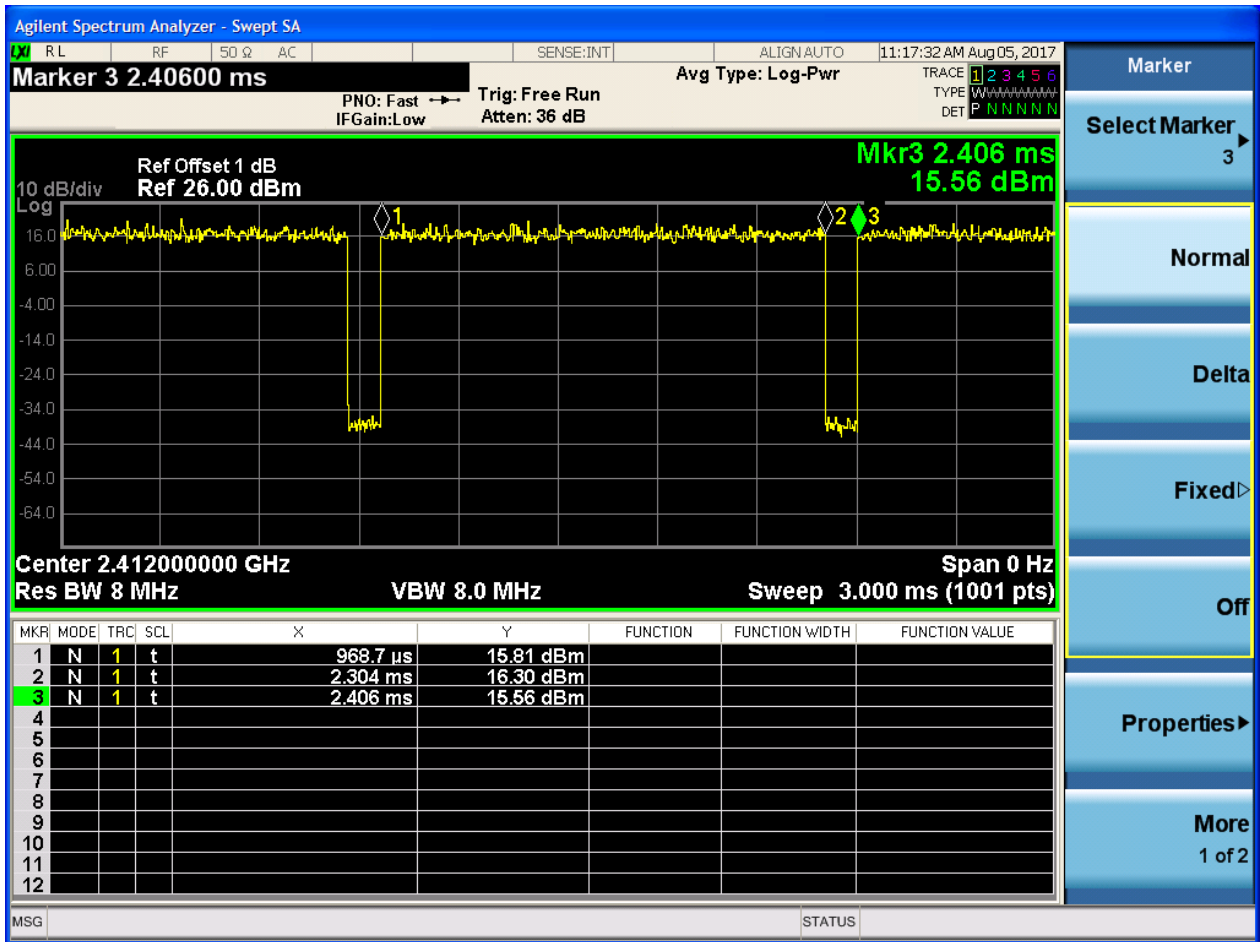


11G/11GCDD_ANT2



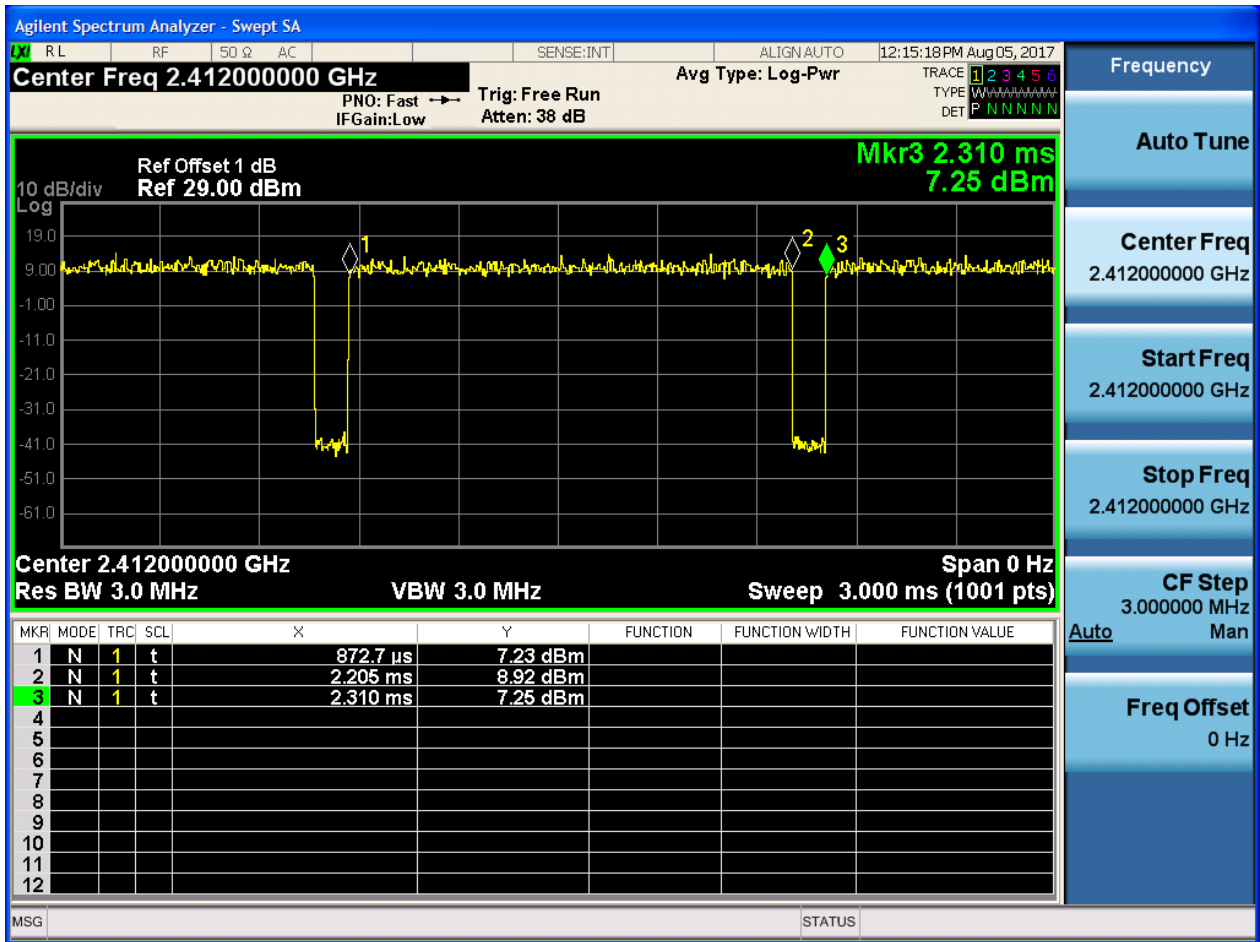


11N20SISO_ANT1





11N20SISO_ANT2





11N20MIMO_ANT1

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 10:02:10 AM Aug 10, 2017

RBW 8 MHz PNO: Fast IFGain:Low Trig: Free Run Atten: 38 dB Avg Type: Log-Pwr

TRACE 1 2 3 4 5 6
TYPE WWWWWWWW
DET P NNNNN

Ref Offset 1 dB
Ref 28.00 dB
Mkr3 1.674 ms
15.54 dBm

Center 2.41200000 GHz Res BW 8 MHz VBW 8.0 MHz Span 0 Hz Sweep 3.000 ms (1001 pts)

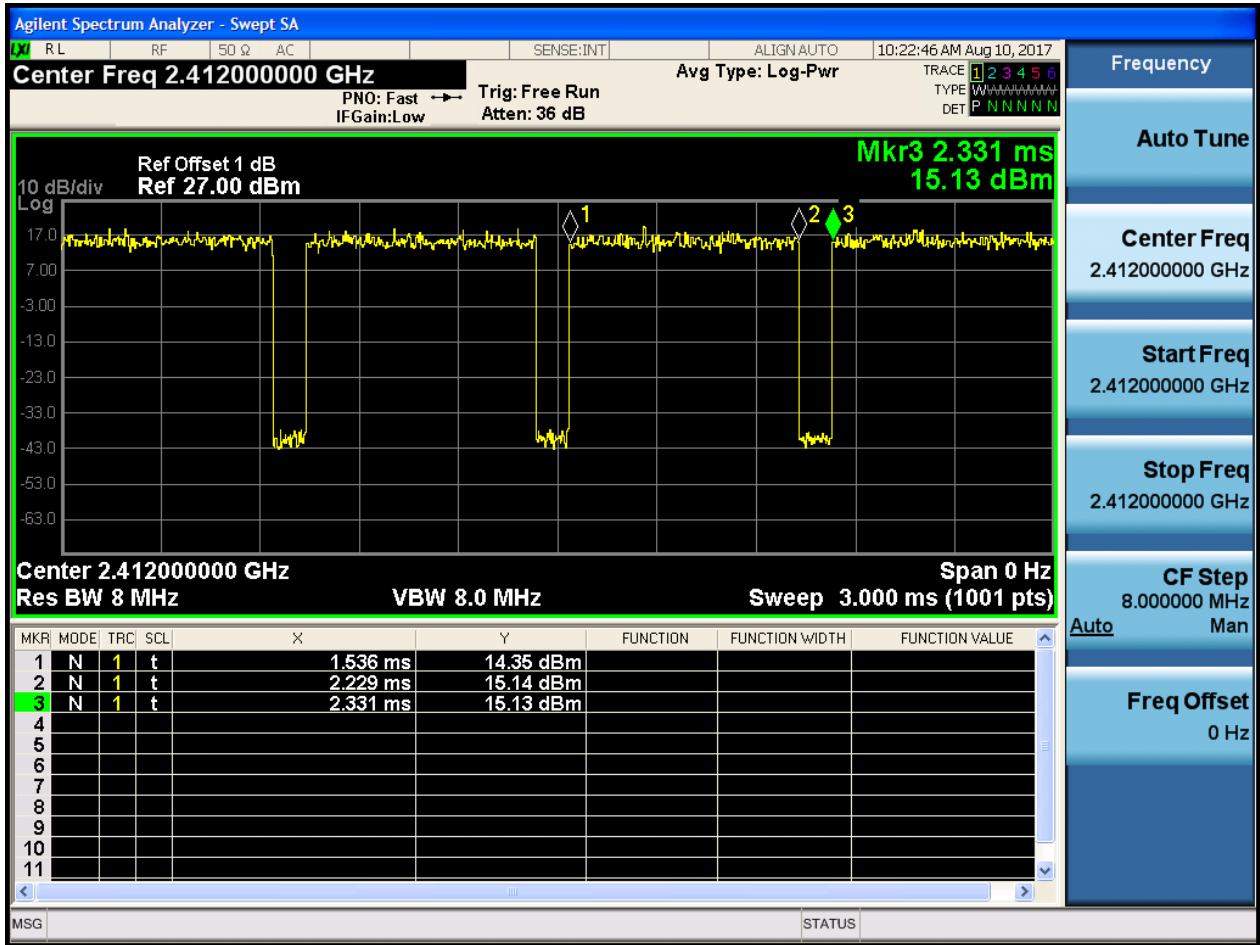
MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	878.7 us	15.58 dBm			
2	N	1	t	1.563 ms	14.08 dBm			
3	N	1	t	1.674 ms	15.54 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

BW
 Res BW 8 MHz
 Video BW 8.0 MHz
 Auto Man
 VBW:3dB RBW 1.0
 Auto Man
 Span:3dB RBW 106
 Auto Man
RBW Control
 [Gaussian,-3 dB]



11N20MIMO_ANT2





Appendix D: Maximum Conducted Average Output Power

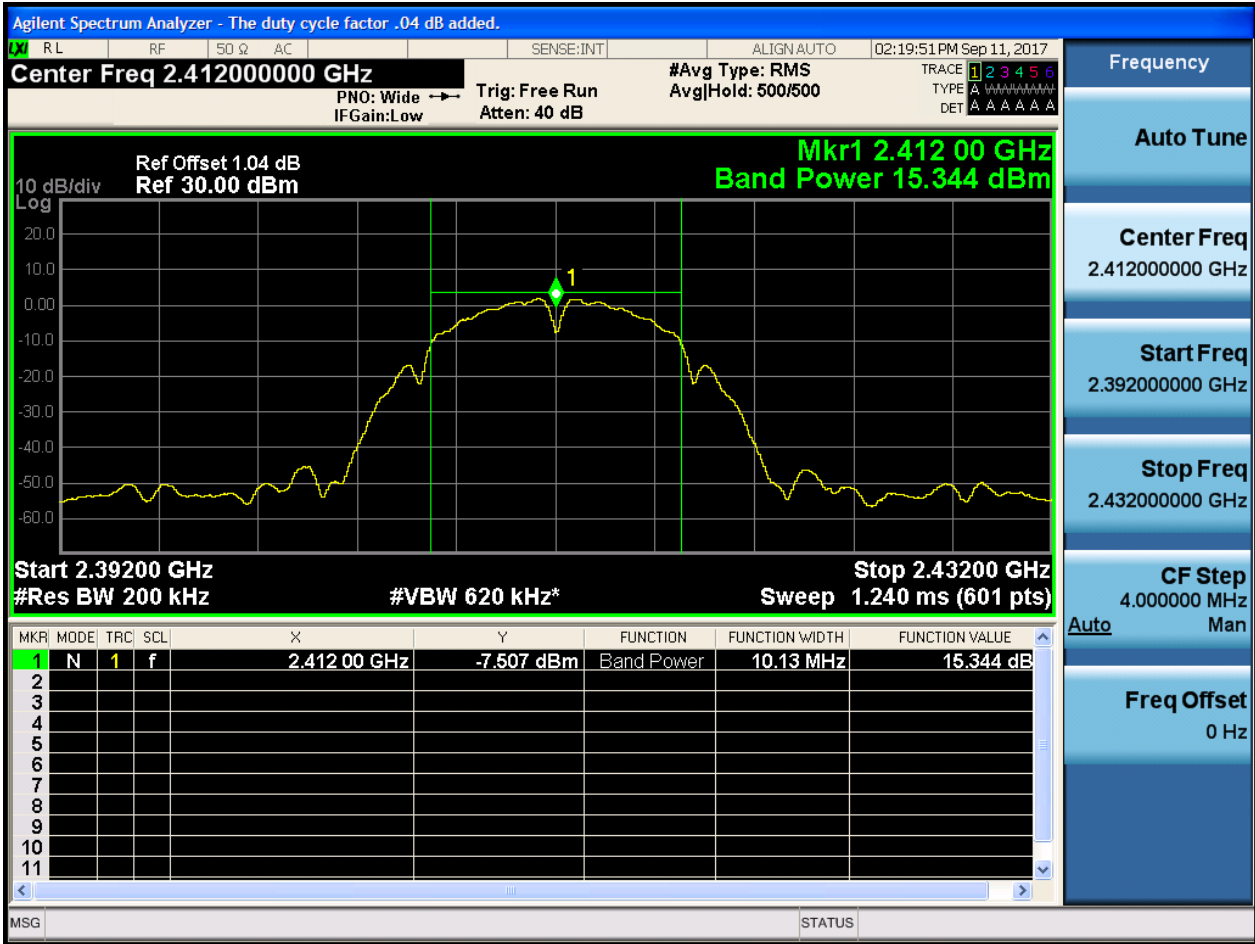
Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Ant	Power[dBm]	Verdict
11B	L	2412	Ant 1	15.34	pass
11B	L	2412	Ant 2	14.52	pass
11B	M	2437	Ant 1	15.39	pass
11B	M	2437	Ant 2	14.90	pass
11B	H	2462	Ant 1	15.12	pass
11B	H	2462	Ant 2	15.24	pass
11G	L	2412	Ant 1	14.69	pass
11G	L	2412	Ant 2	13.93	pass
11G	M	2437	Ant 1	15.20	pass
11G	M	2437	Ant 2	14.33	pass
11G	H	2462	Ant 1	14.85	pass
11G	H	2462	Ant 2	14.64	pass
11N20	L	2412	Ant 1	13.83	pass
11N20	L	2412	Ant 2	13.05	pass
11N20	M	2437	Ant 1	14.11	pass
11N20	M	2437	Ant 2	13.29	pass
11N20	H	2462	Ant 1	13.90	pass
11N20	H	2462	Ant 2	13.83	pass
11N20m	L	2412	Ant 1	13.92	pass
11N20m	L	2412	Ant 2	13.40	pass
11N20m	L	2412	SUM	16.68	pass
11N20m	M	2437	Ant 1	14.31	pass
11N20m	M	2437	Ant 2	13.90	pass
11N20m	M	2437	SUM	17.12	pass
11N20m	H	2462	Ant 1	13.99	pass
11N20m	H	2462	Ant 2	14.09	pass
11N20m	H	2462	SUM	17.05	pass
11G CDD	L	2412	Ant 1	14.28	pass
11G CDD	L	2412	Ant 2	14.25	pass
11G CDD	L	2412	SUM	17.28	pass
11G CDD	M	2437	Ant 1	15.29	pass
11G CDD	M	2437	Ant 2	14.30	pass
11G CDD	M	2437	SUM	17.83	pass
11G CDD	H	2462	Ant 1	15.14	pass
11G CDD	H	2462	Ant 2	14.84	pass
11G CDD	H	2462	SUM	18.00	pass



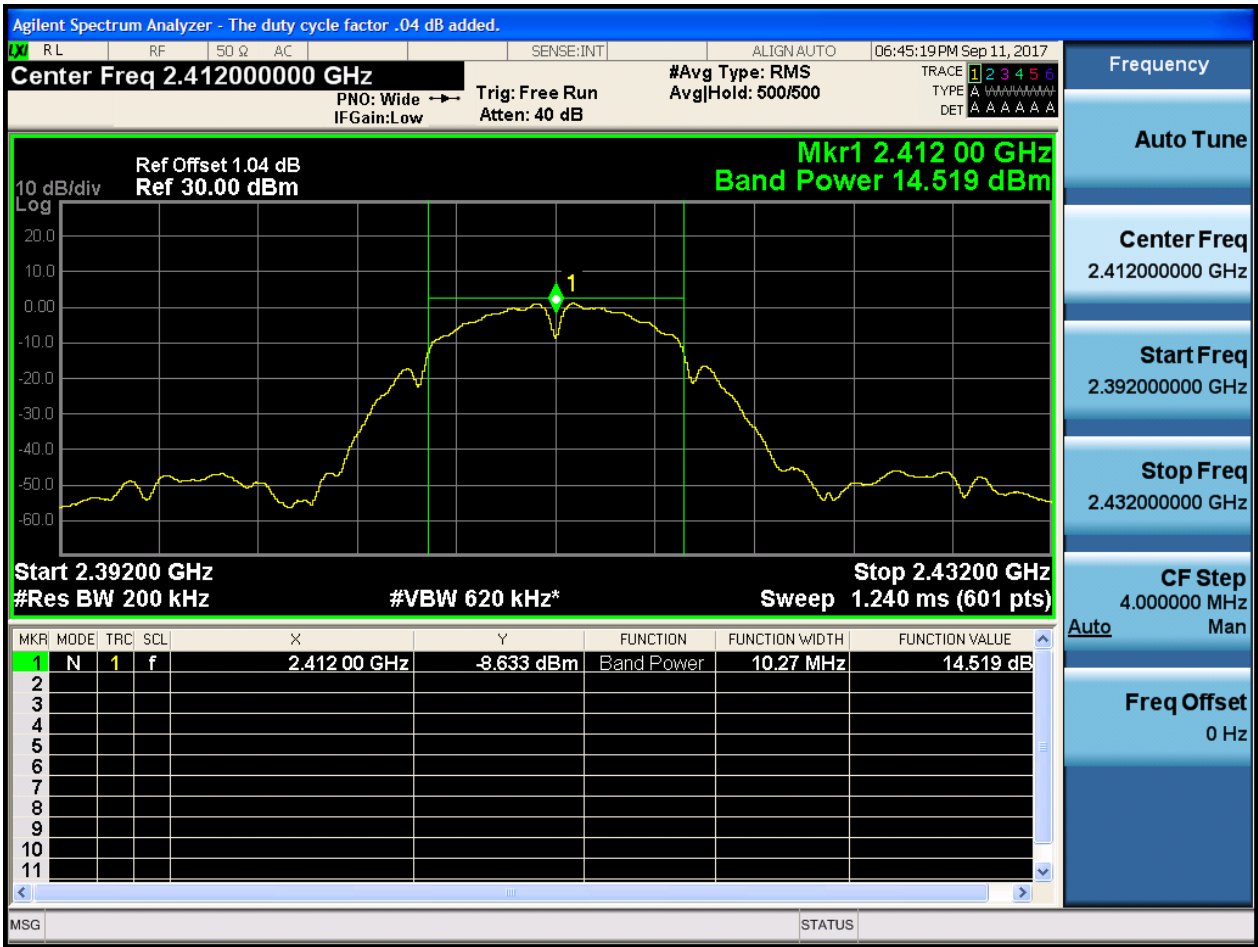
Part II - Test Plots

2.1 11B_L@Ant 1



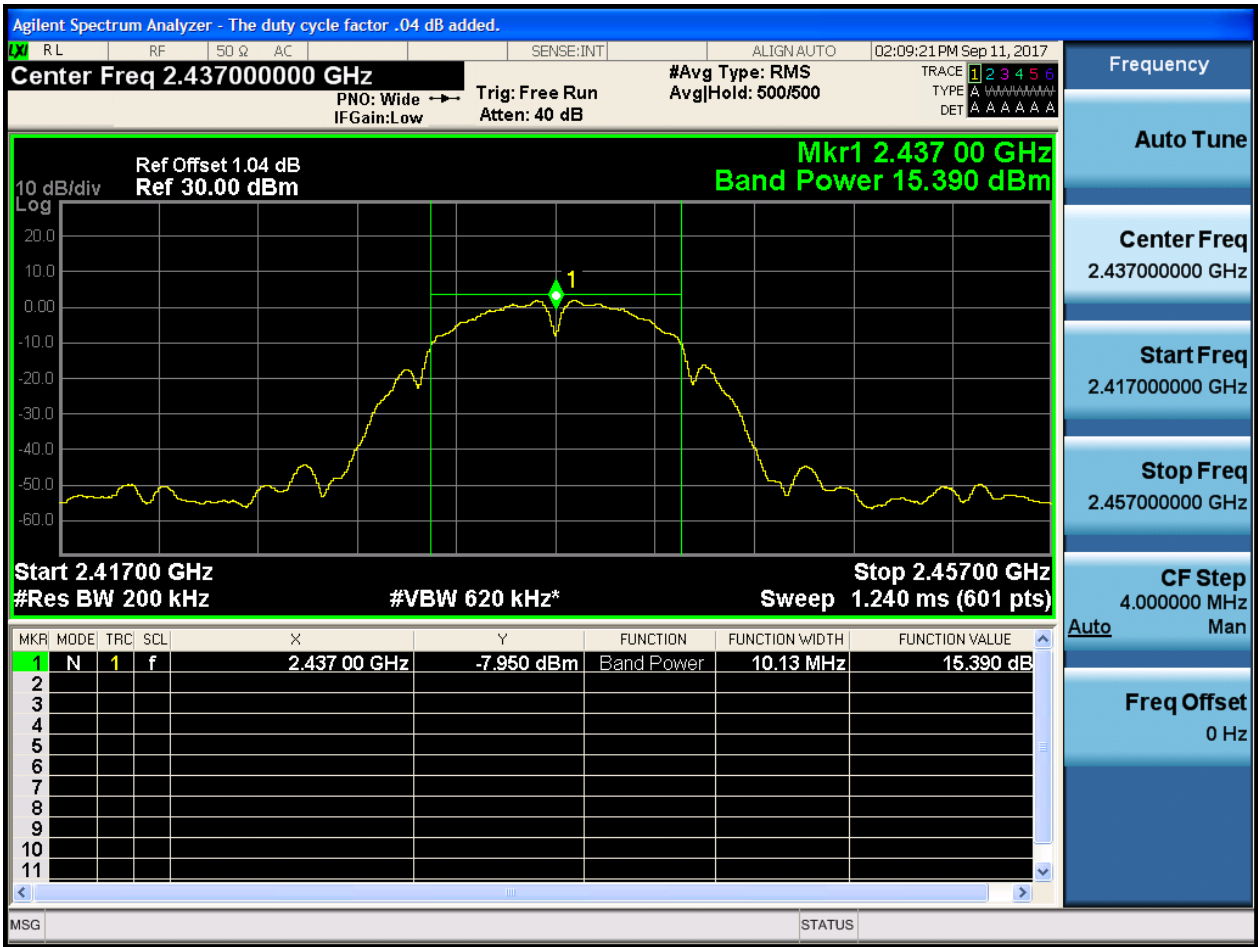


2.2 11B_L@Ant 2



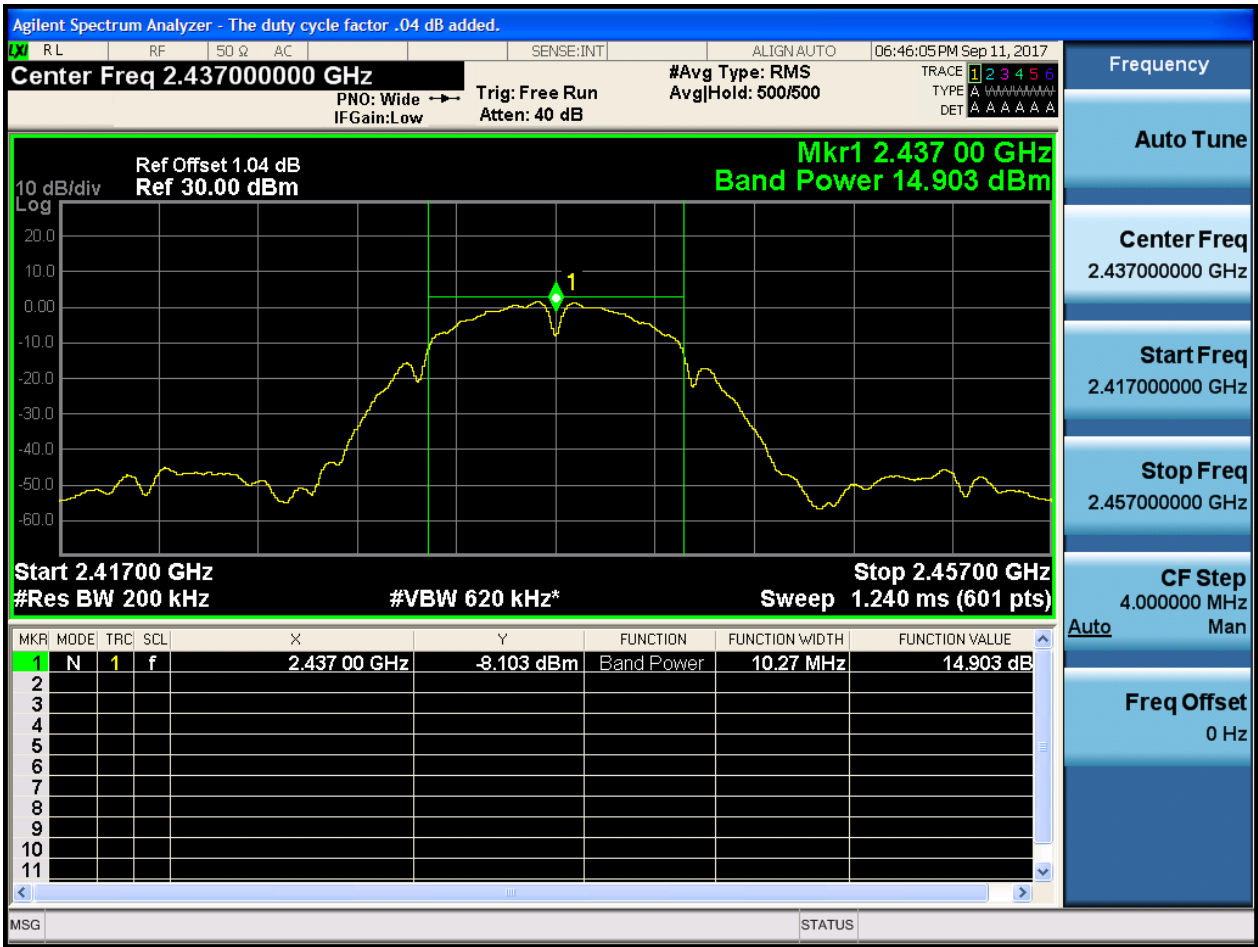


2.3 11B_M@Ant 1



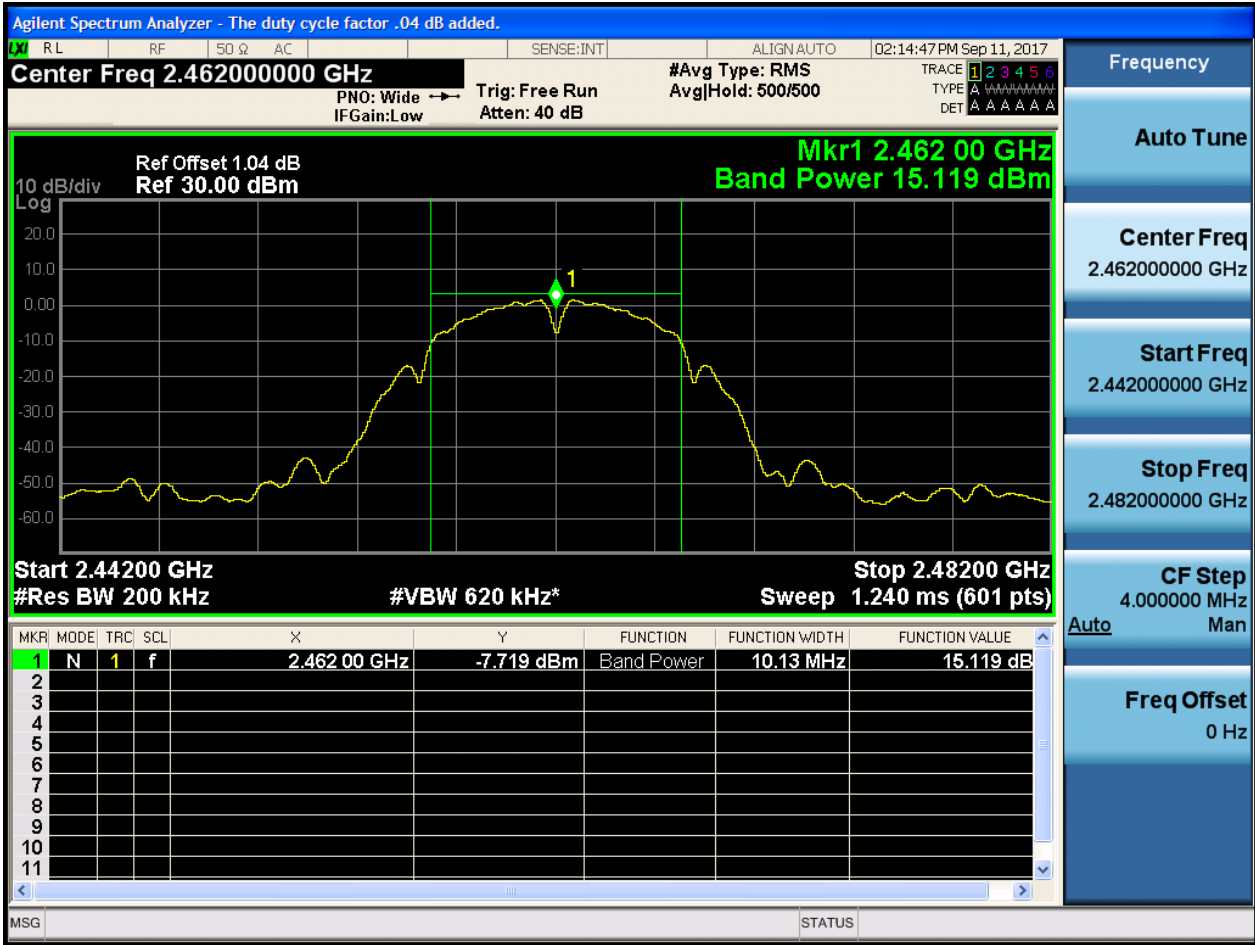


2.4 11B_M@Ant 2



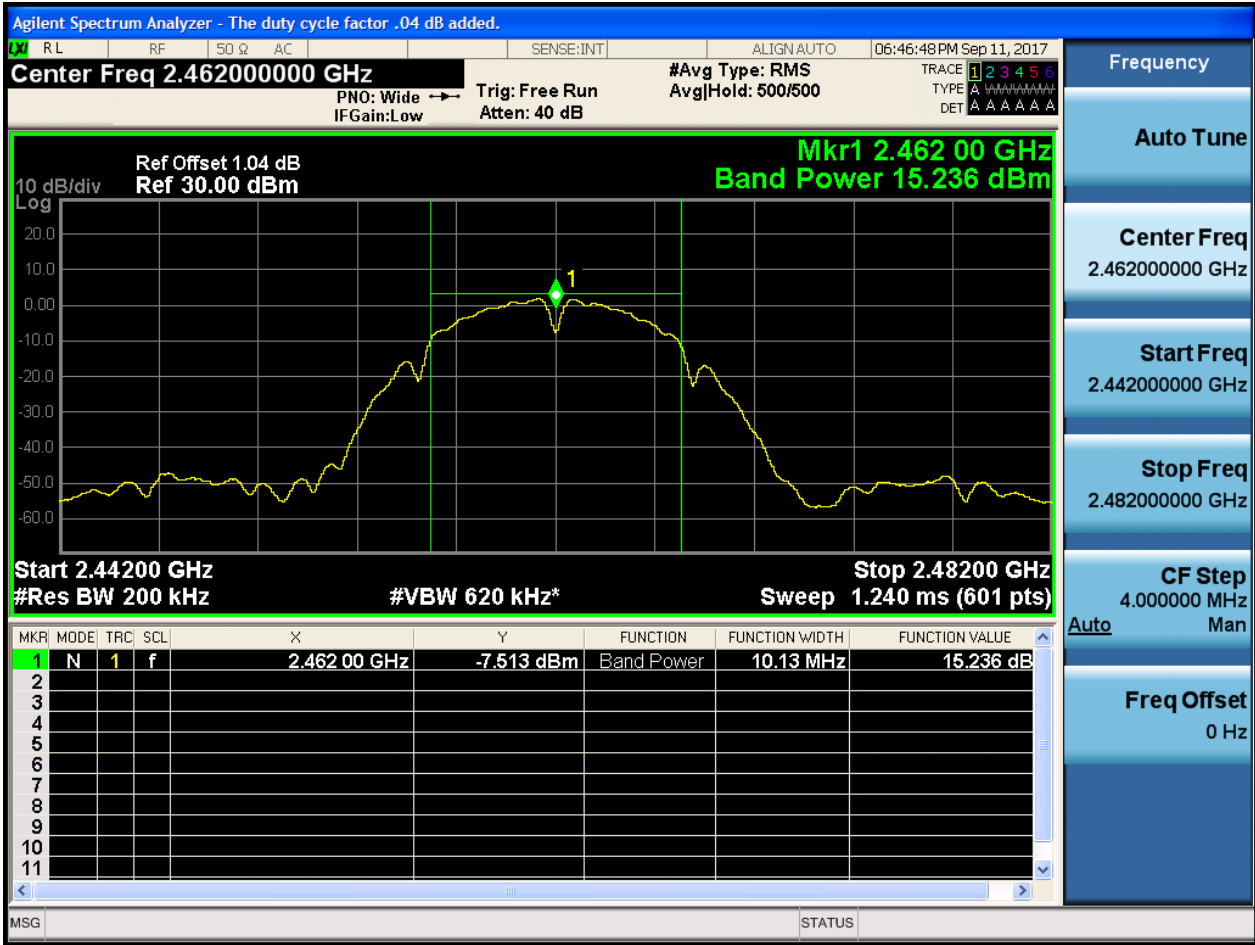


2.5 11B_H@Ant 1



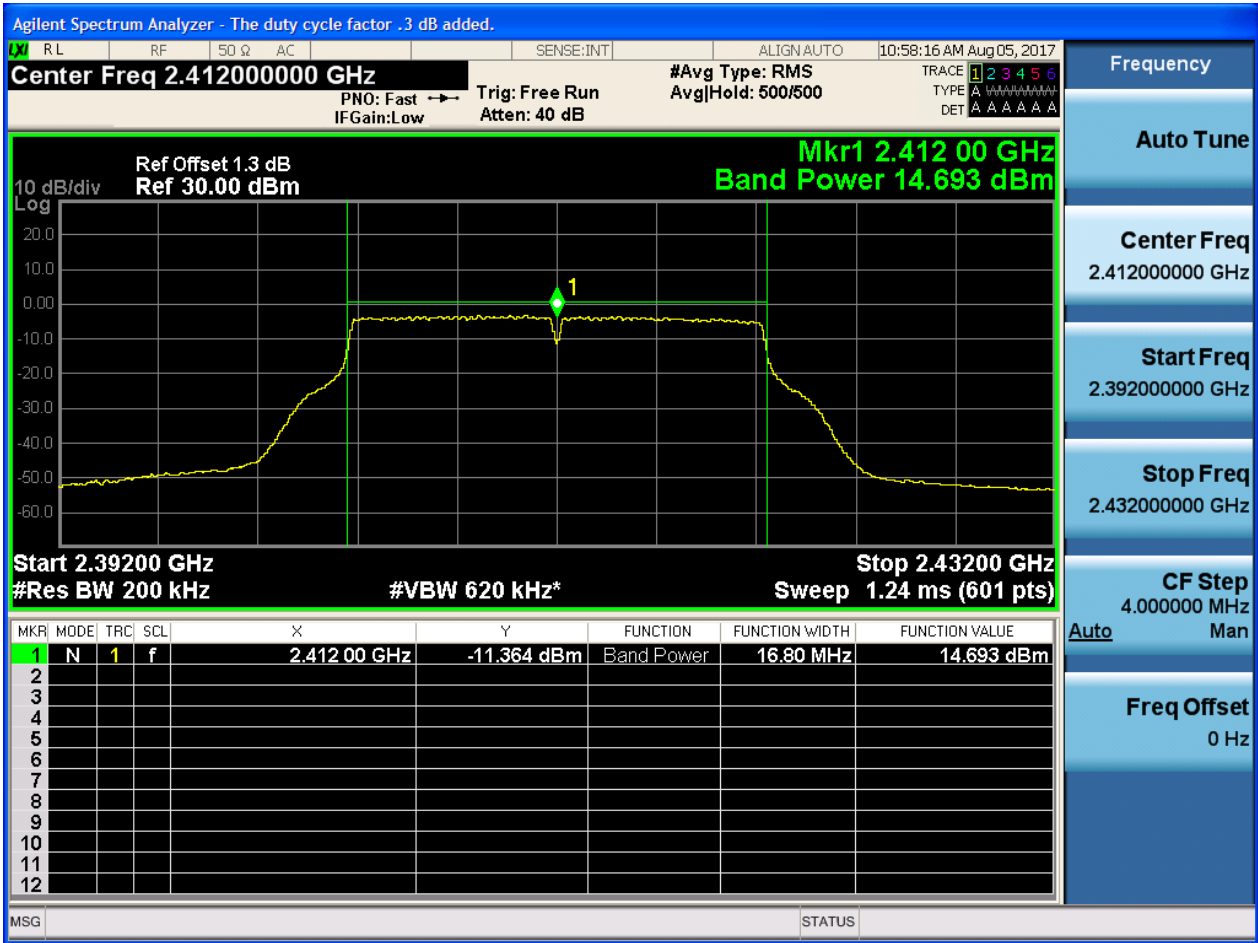


2.6 11B_H@Ant 2



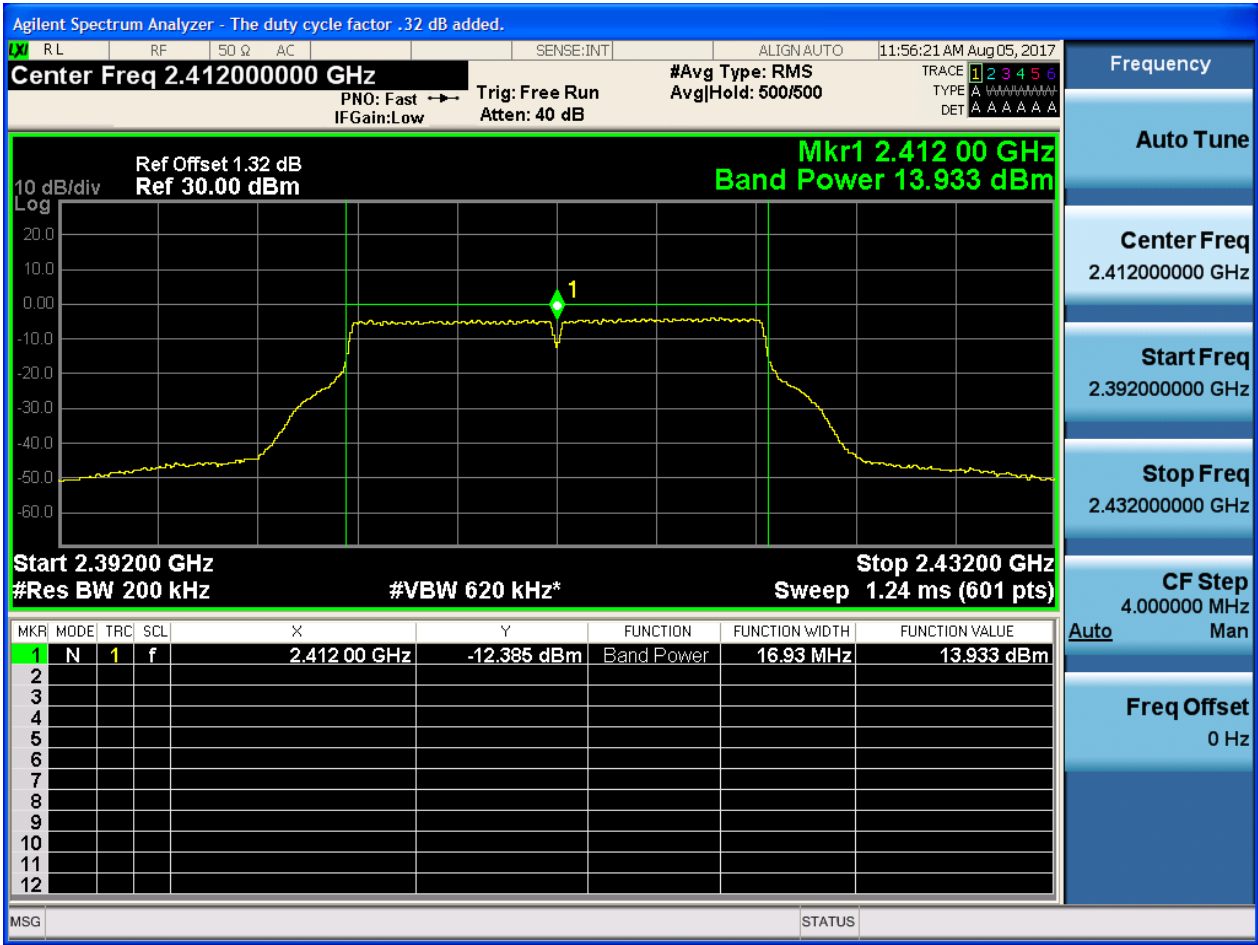


2.7 11G_L@Ant 1



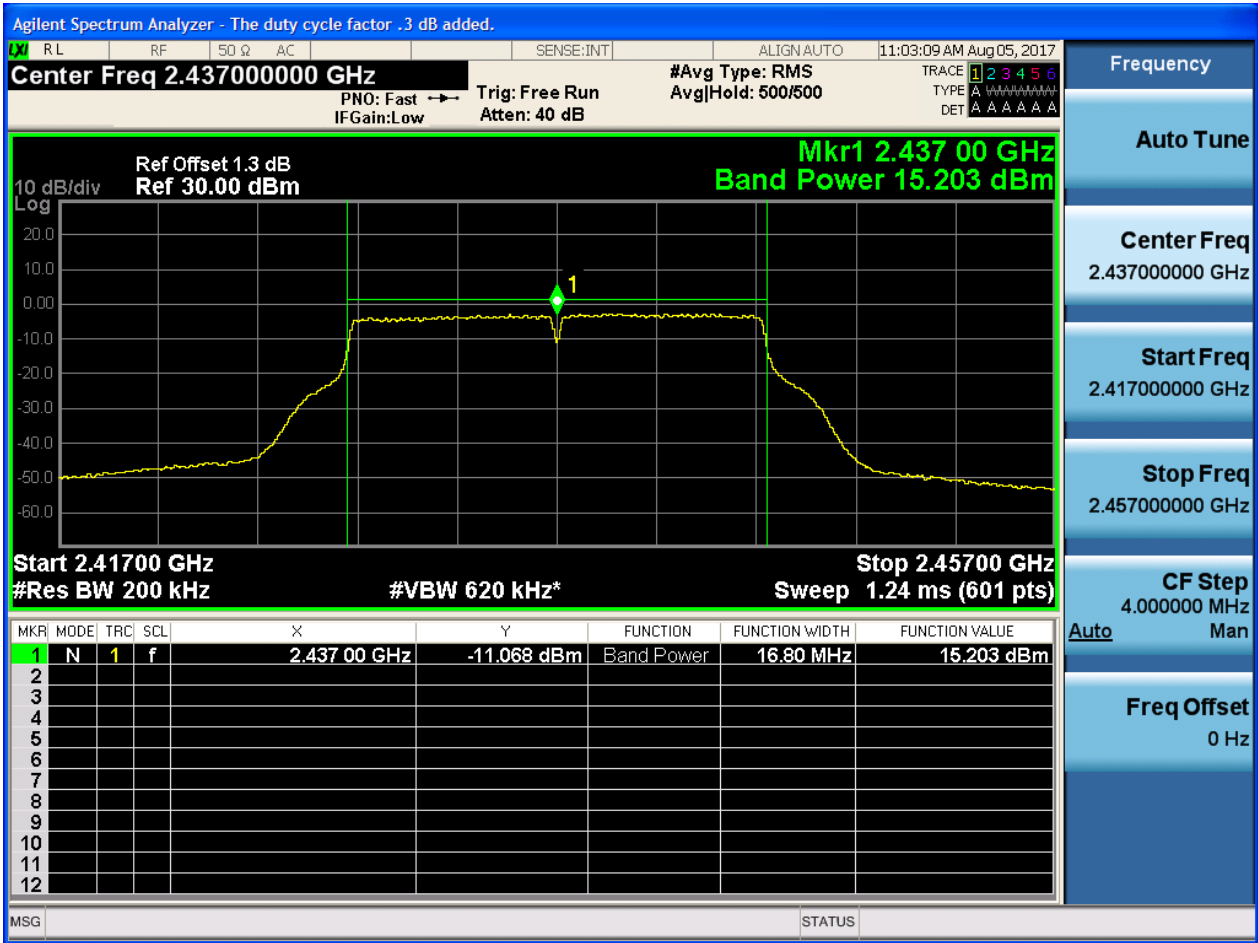


2.8 11G_L@Ant 2



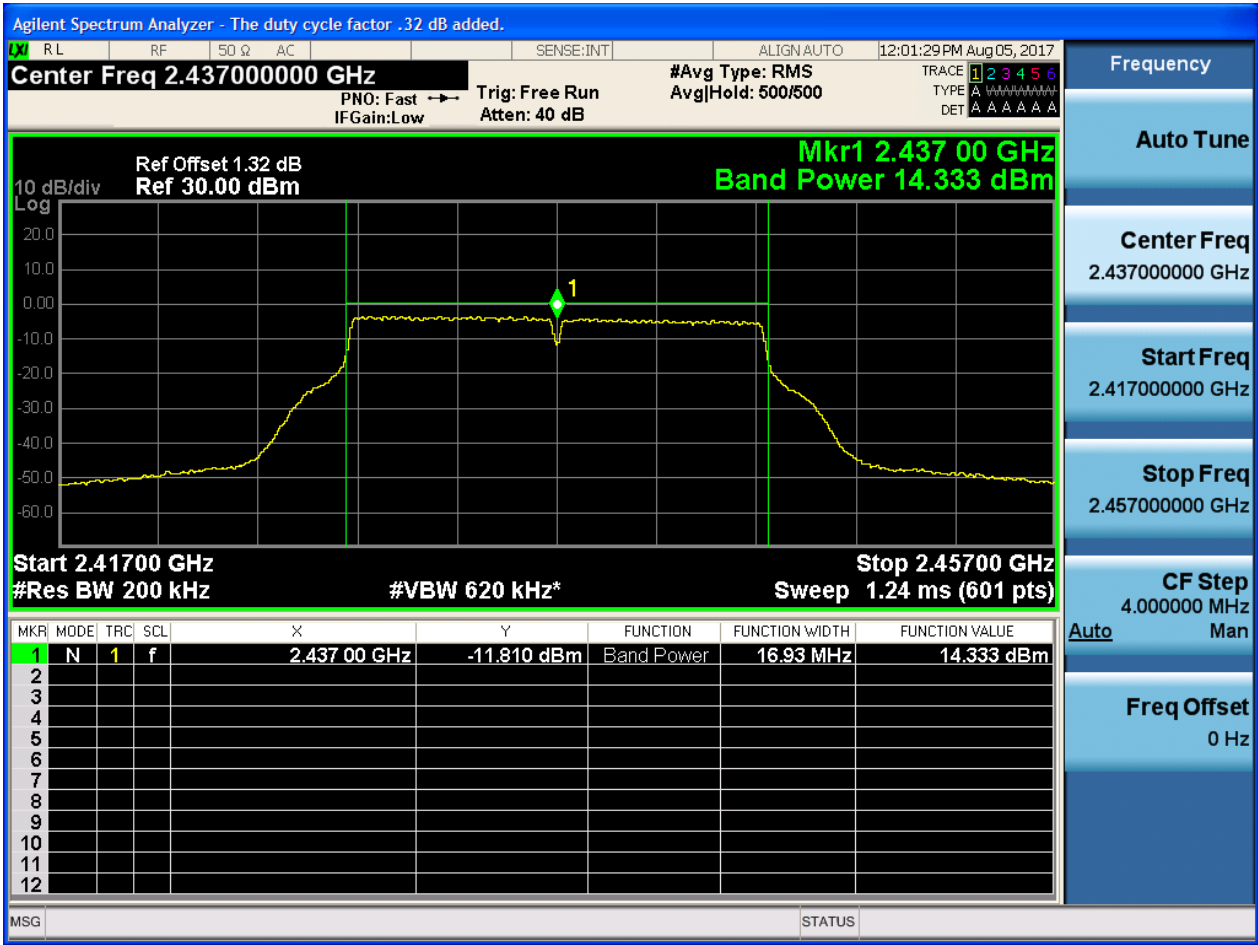


2.9 11G_M@Ant 1



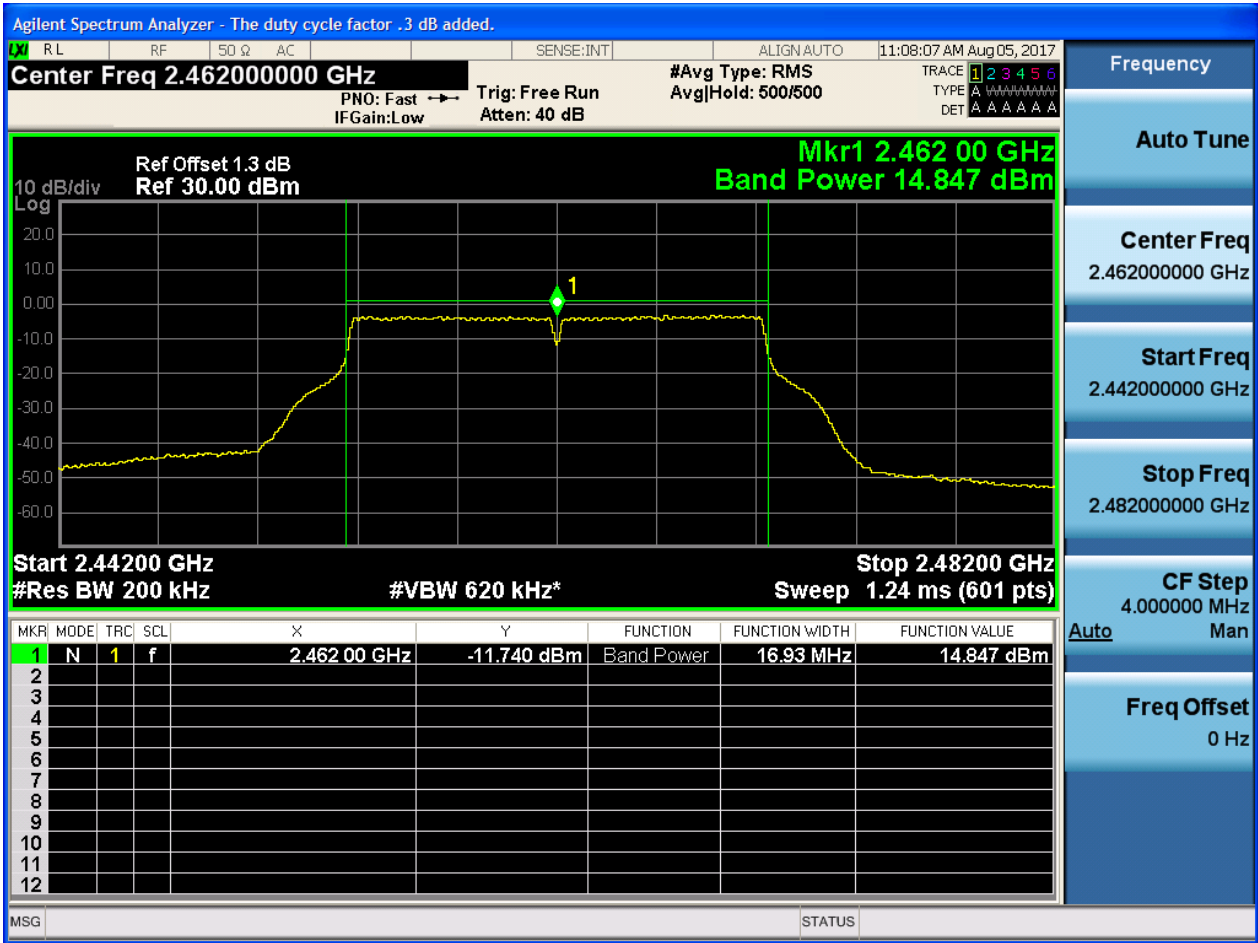


2.10 11G_M@Ant 2



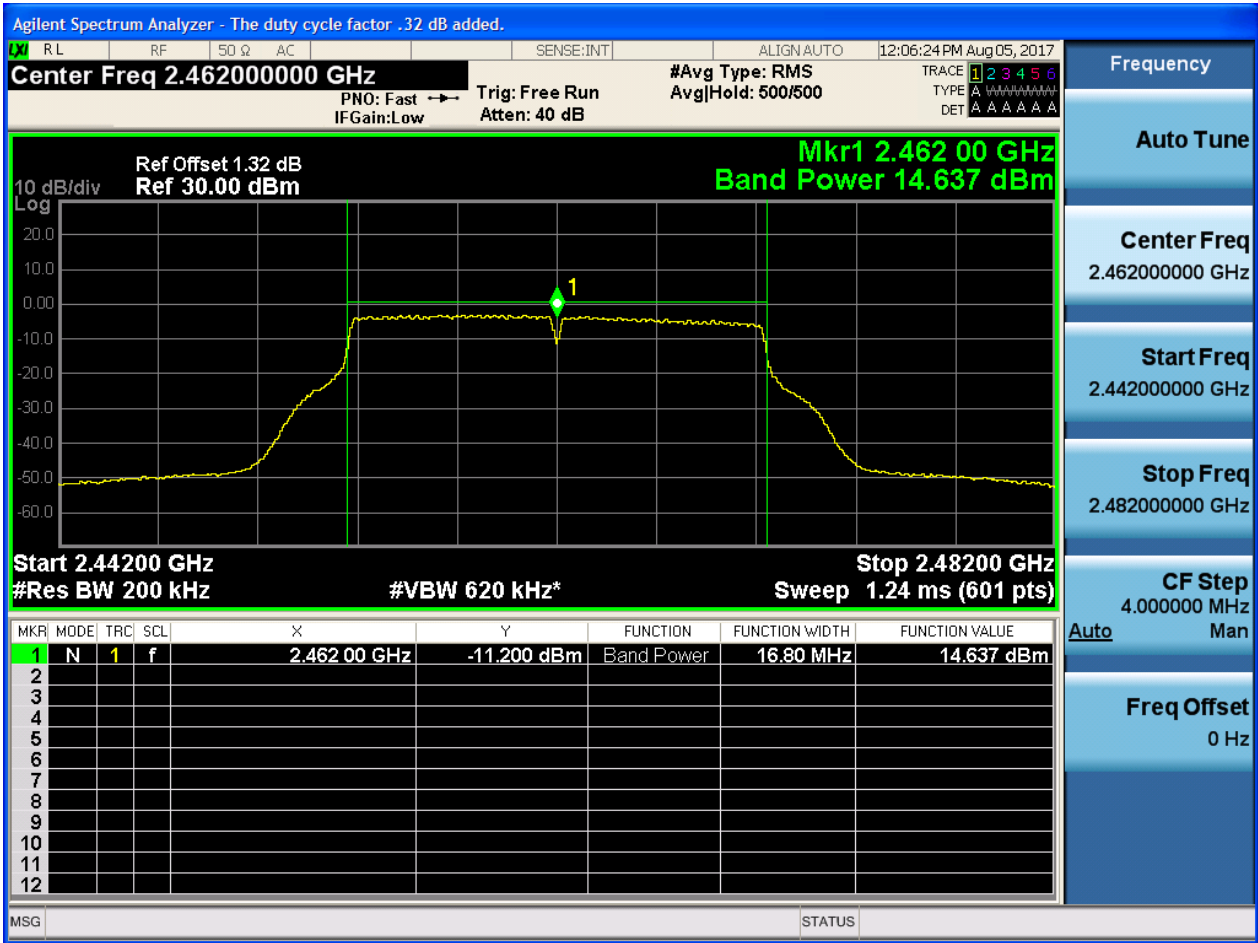


2.11 11G_H@Ant 1



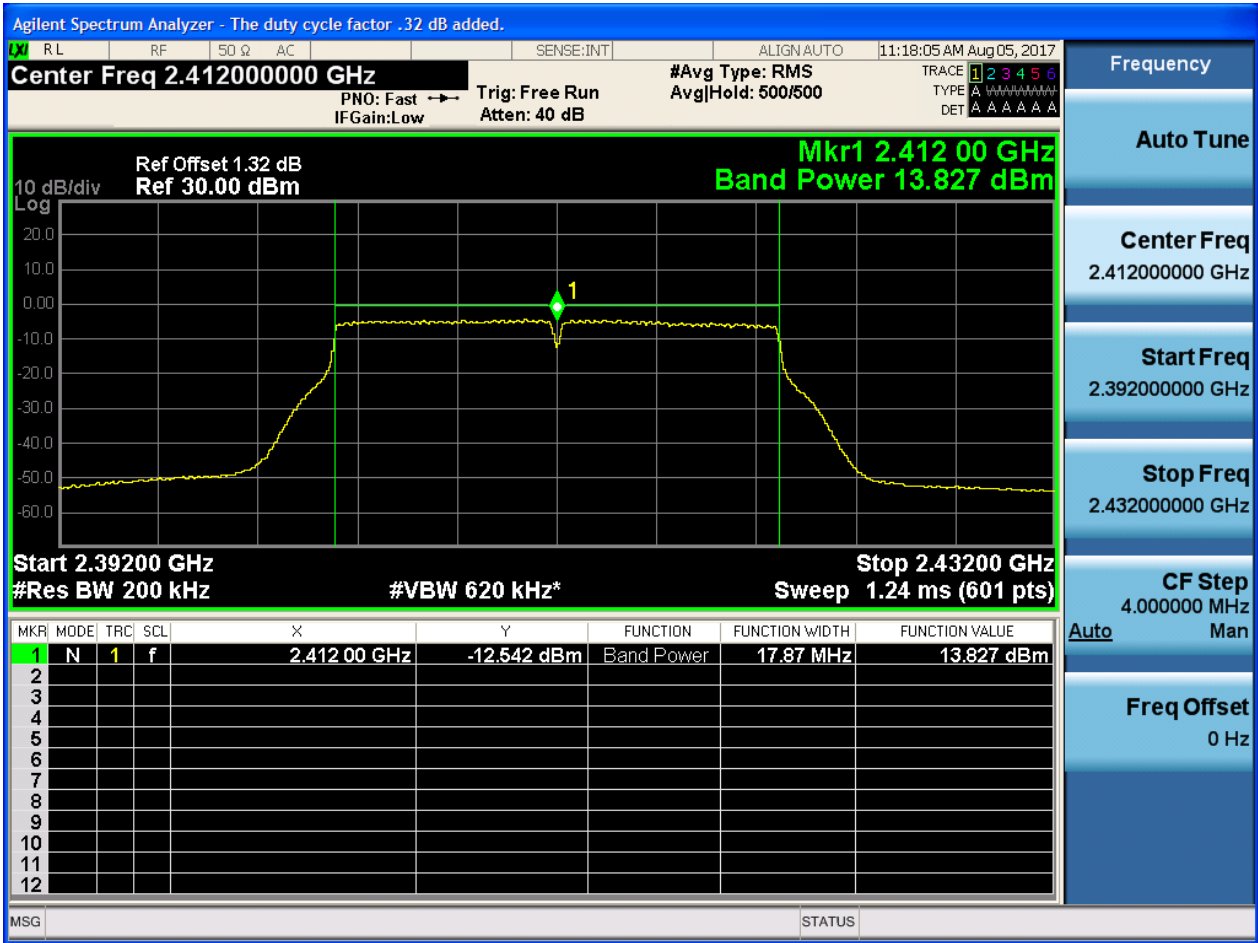


2.12 11G_H@Ant 2



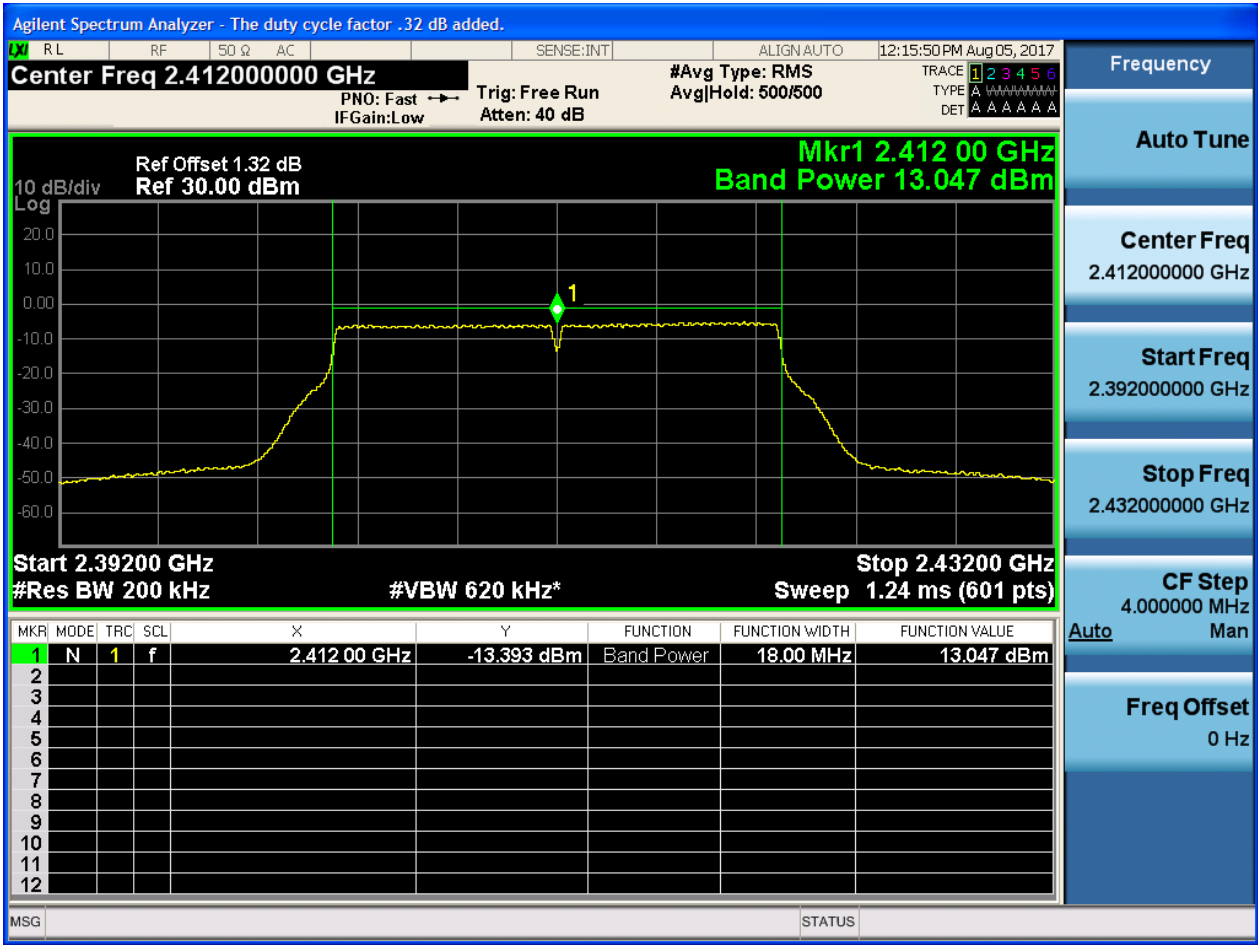


2.13 11N20_L@Ant 1



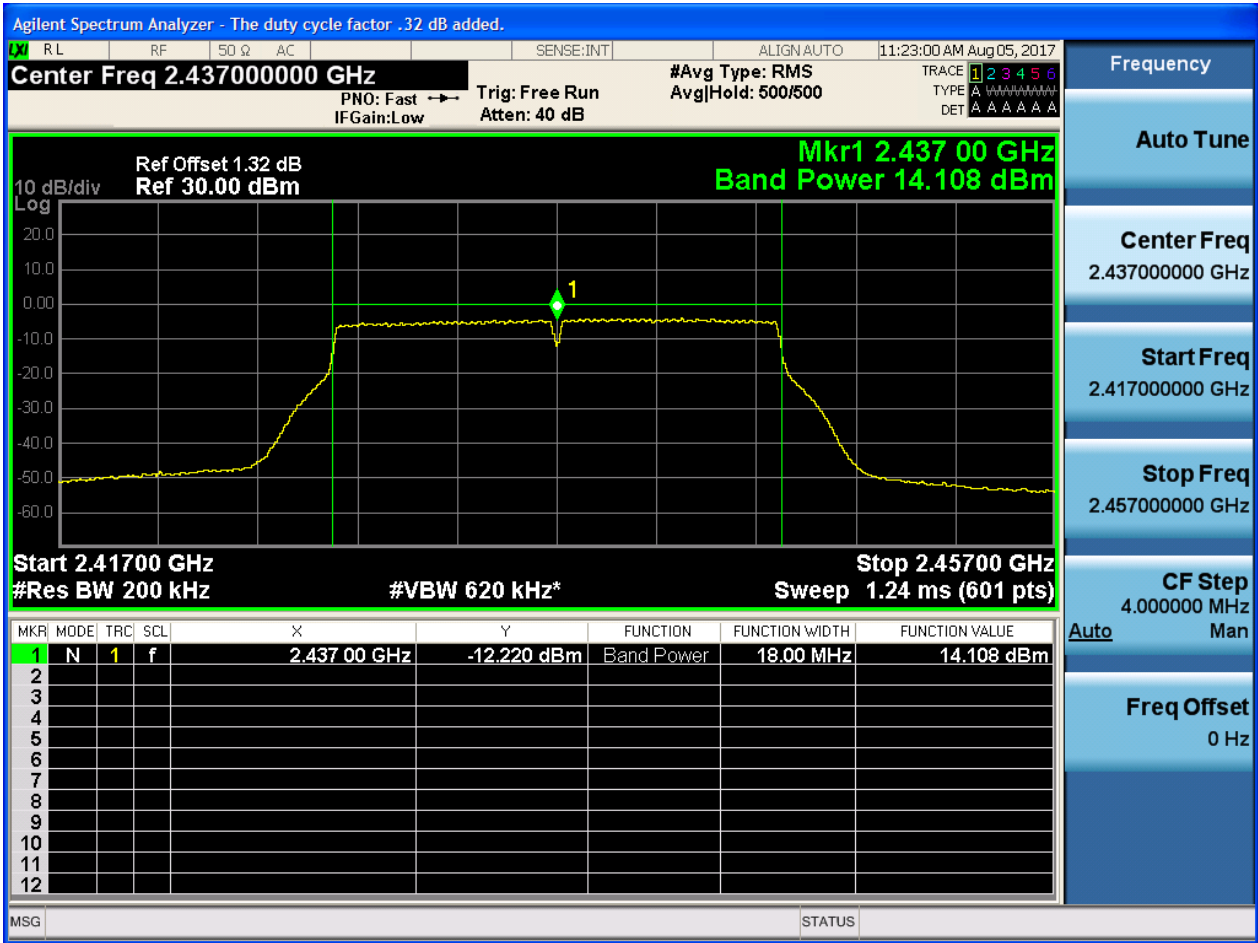


2.14 11N20_L@Ant 2



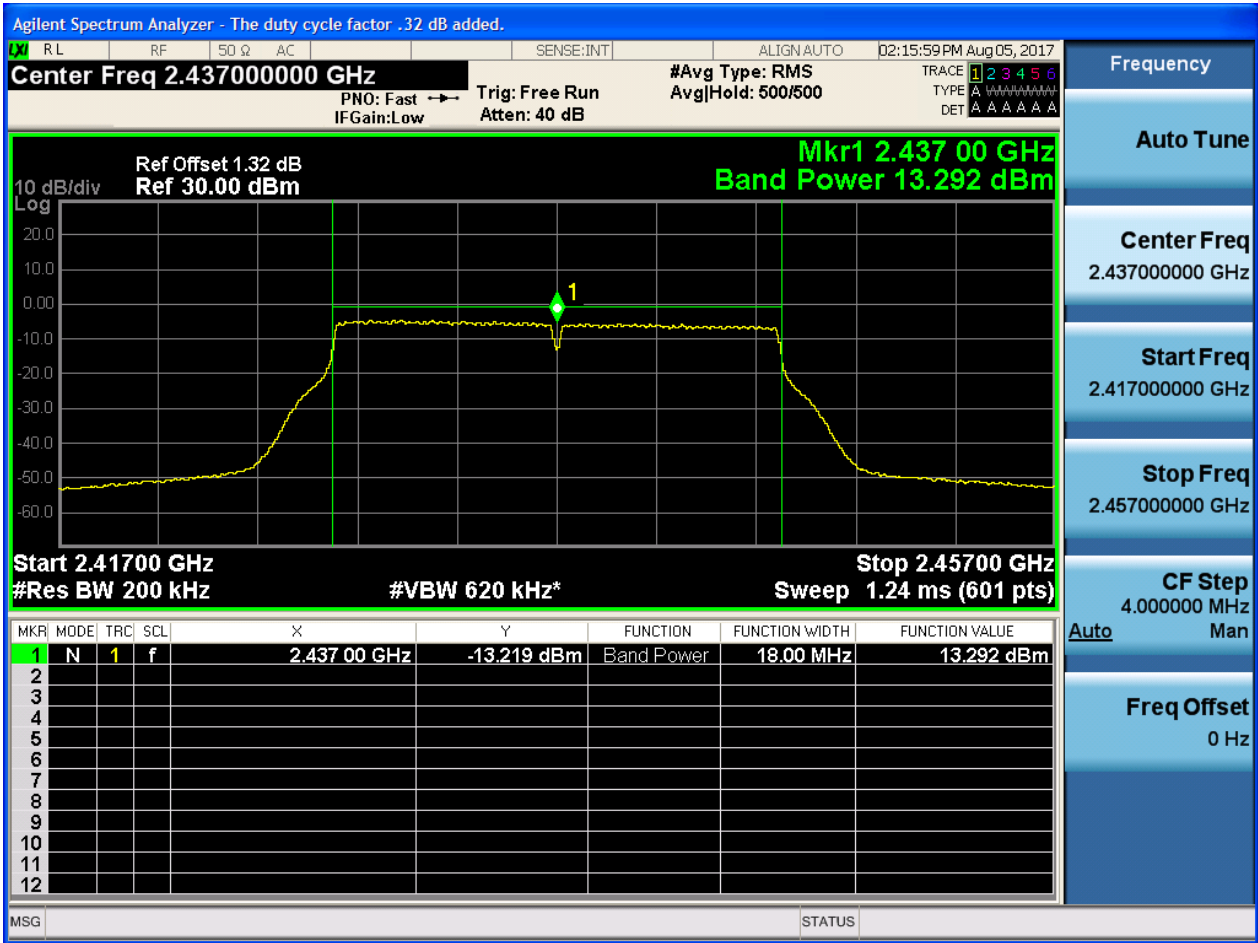


2.15 11N20_M@Ant 1



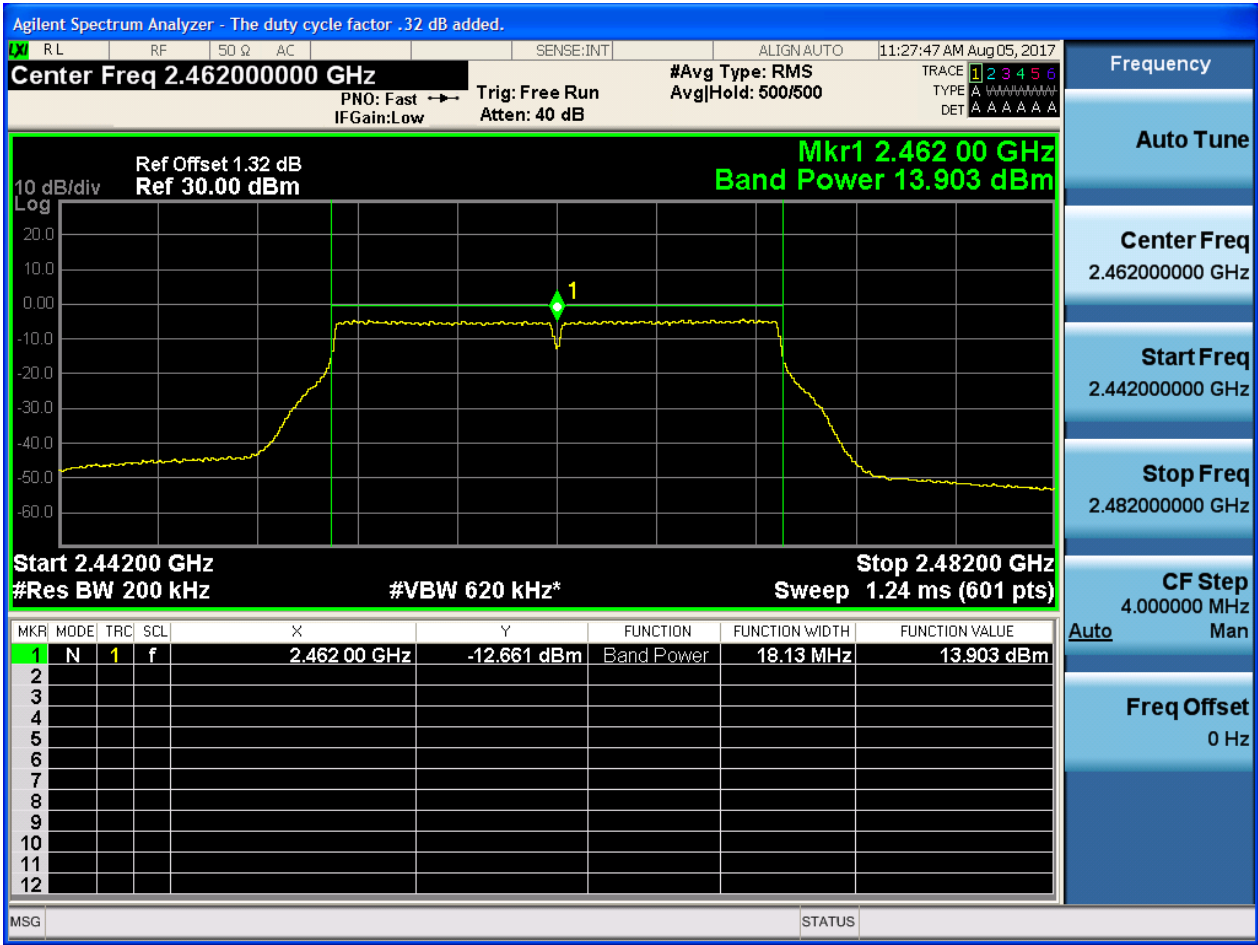


2.16 11N20_M@Ant 2



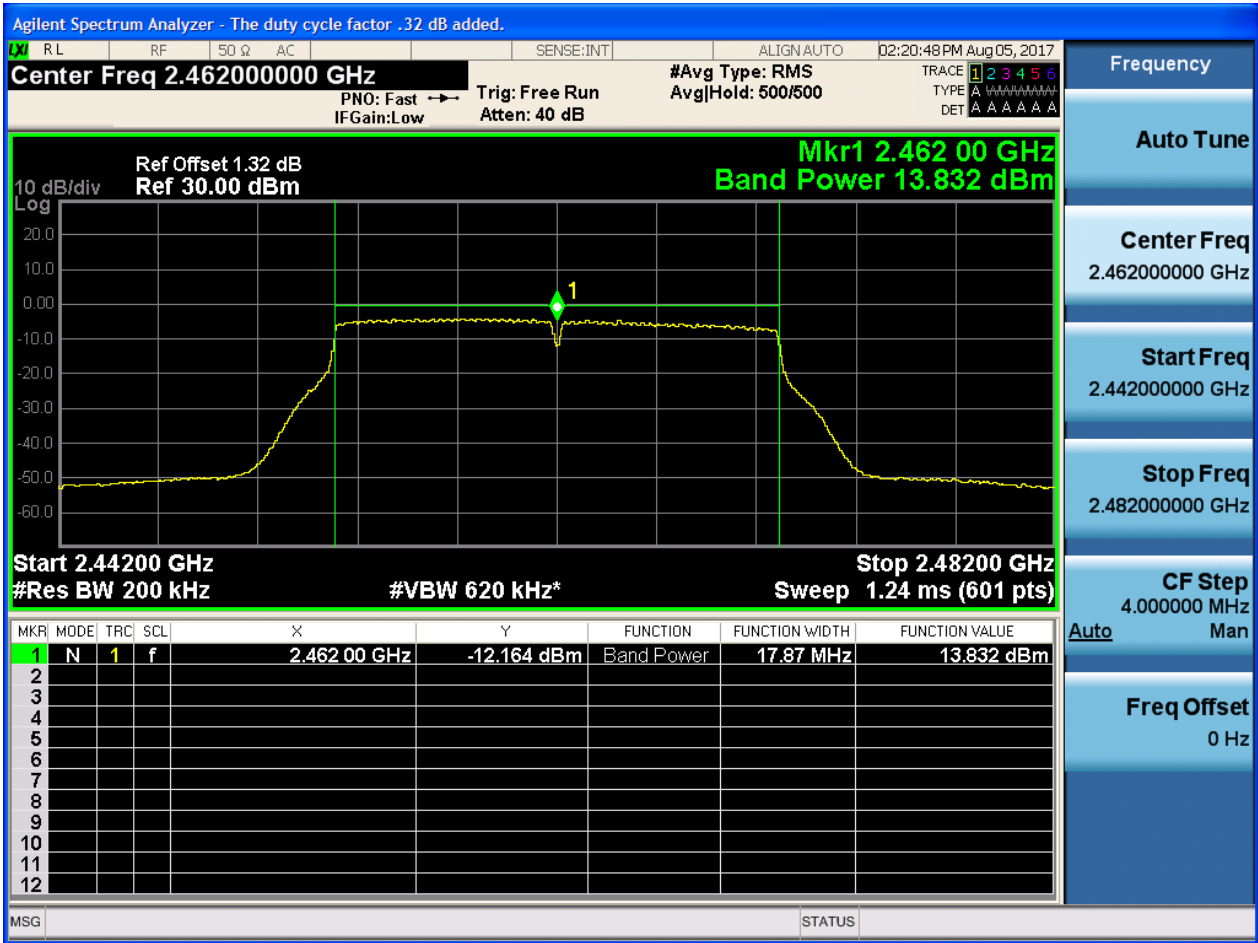


2.17 11N20_H@Ant 1



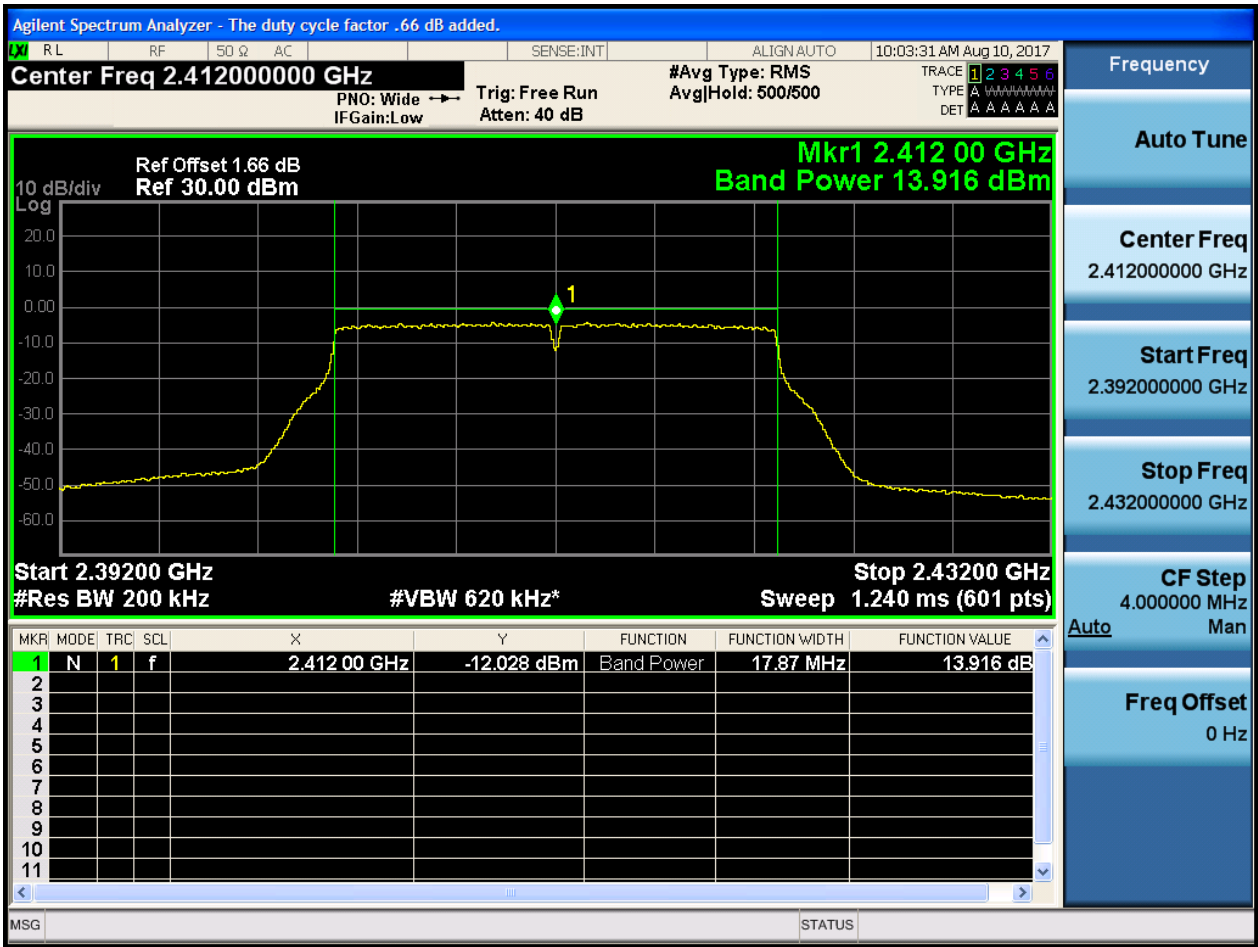


2.18 11N20_H@Ant 2



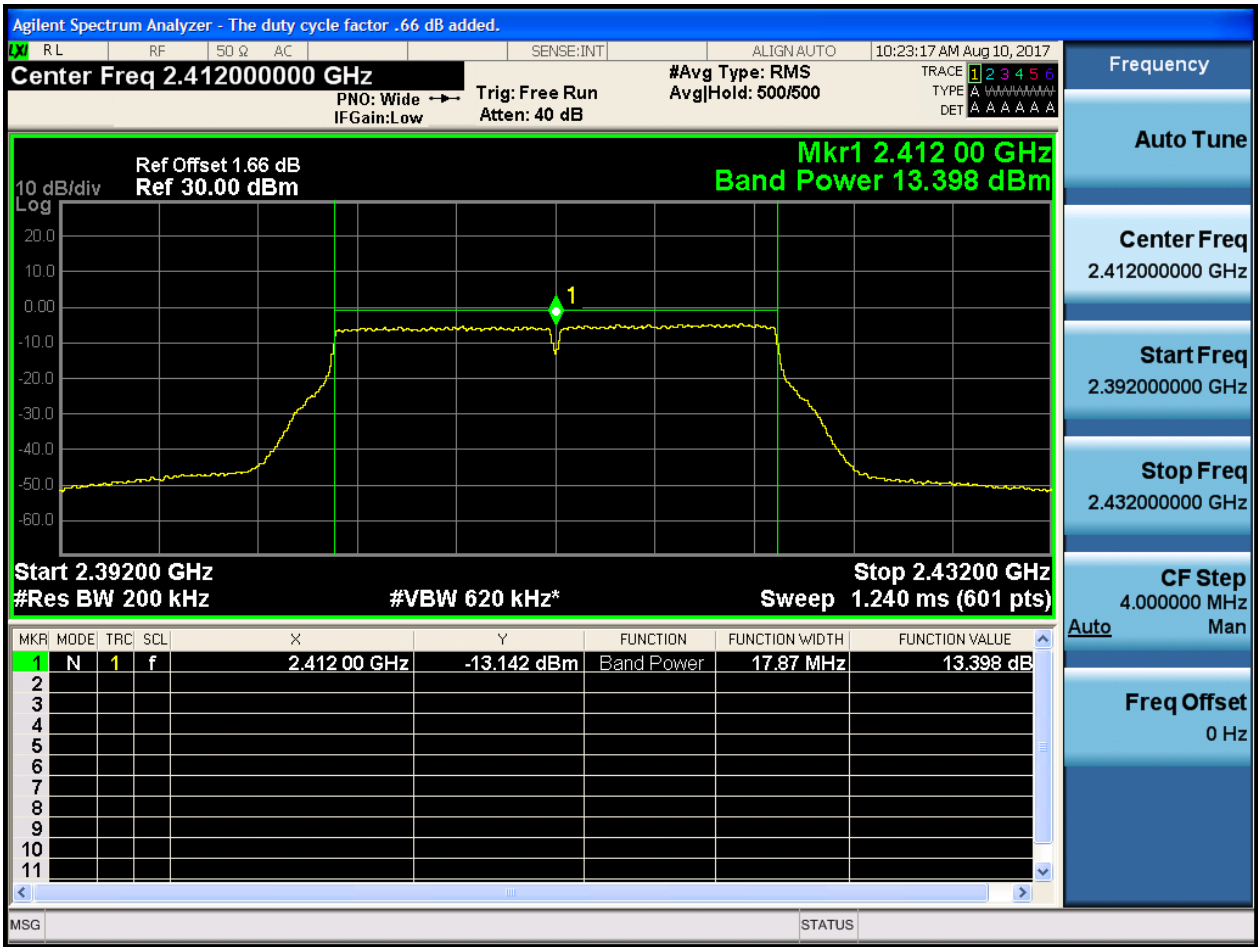


2.19 11N20m_L@Ant 1



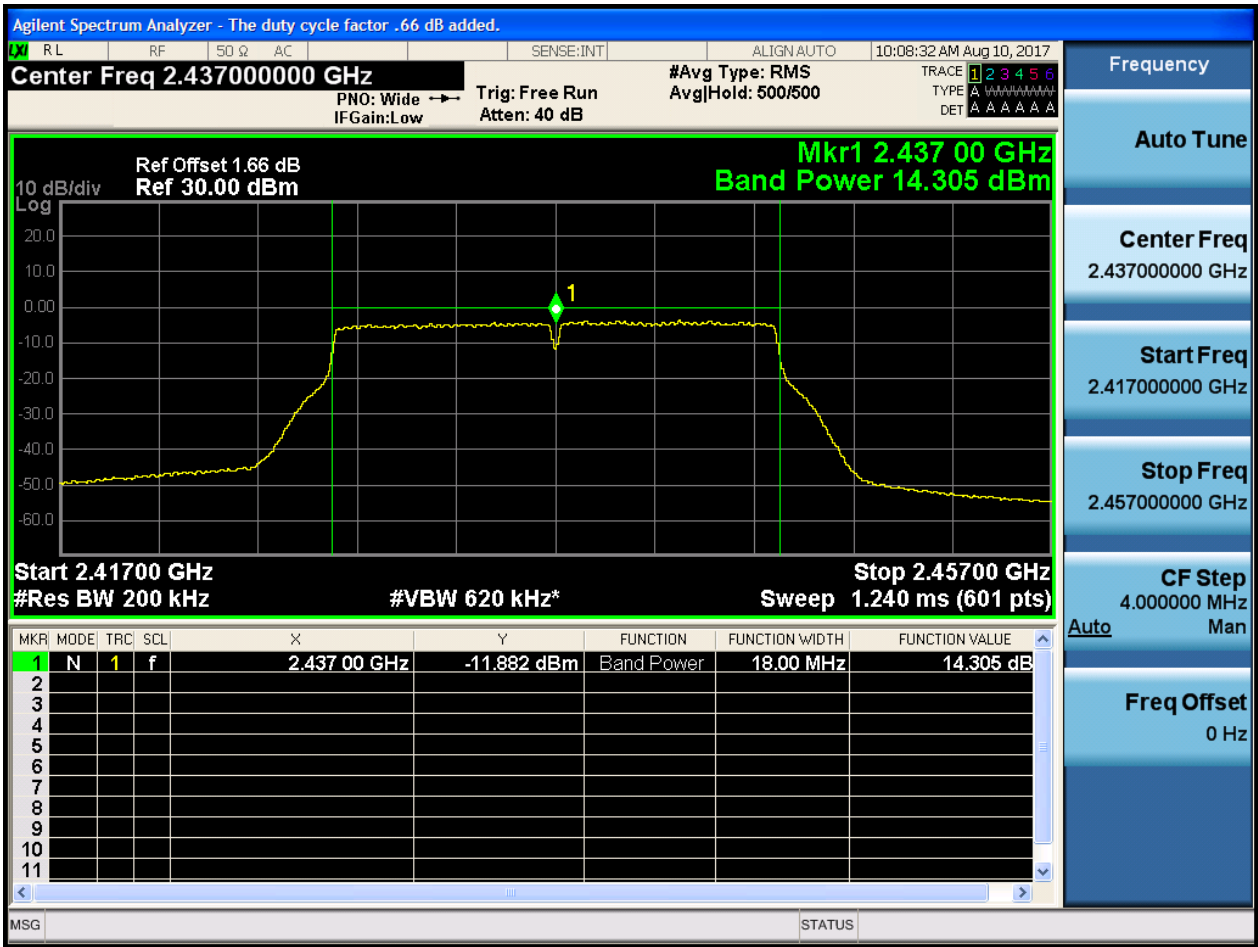


2.20 11N20m_L@Ant 2



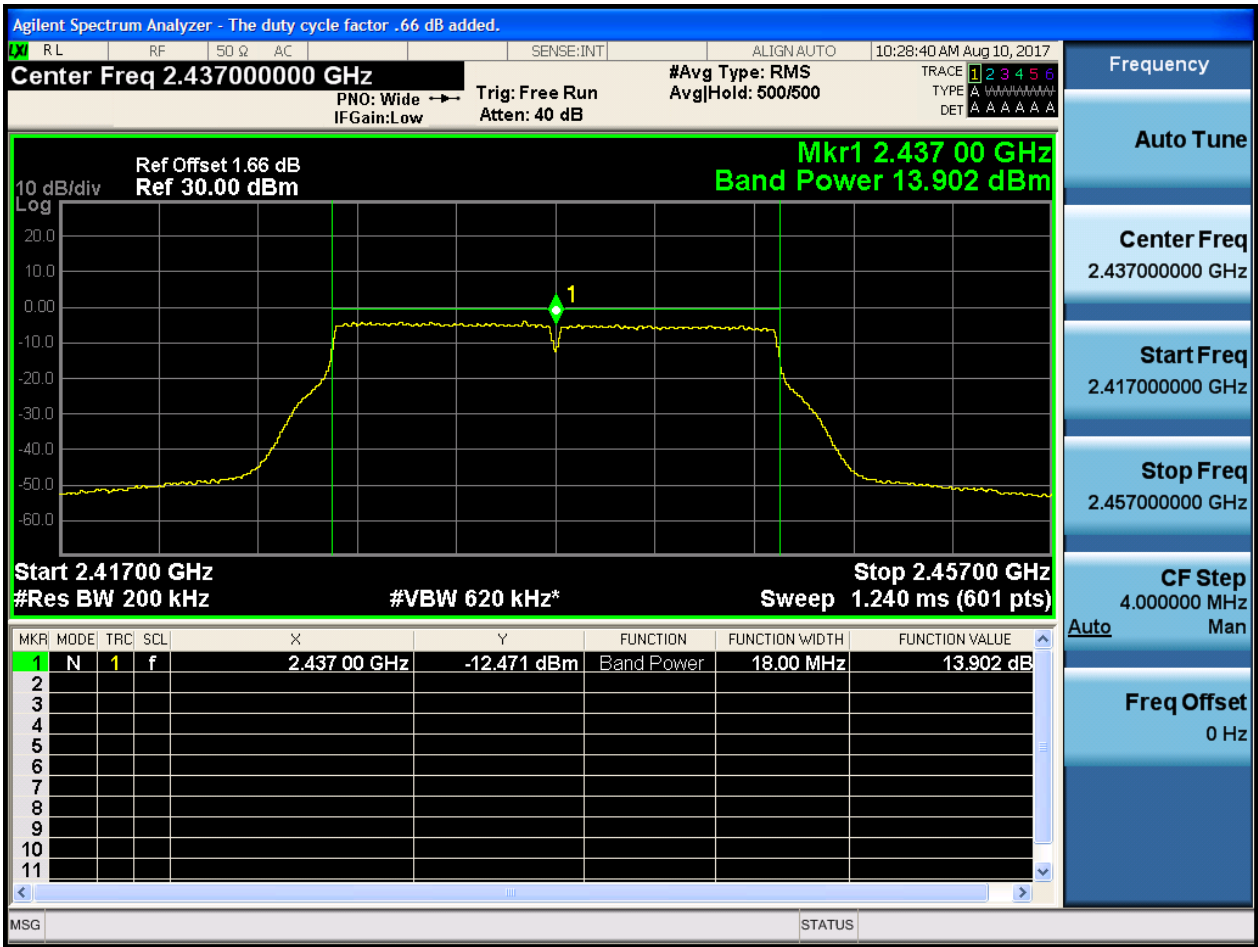


2.21 11N20m_M@Ant 1



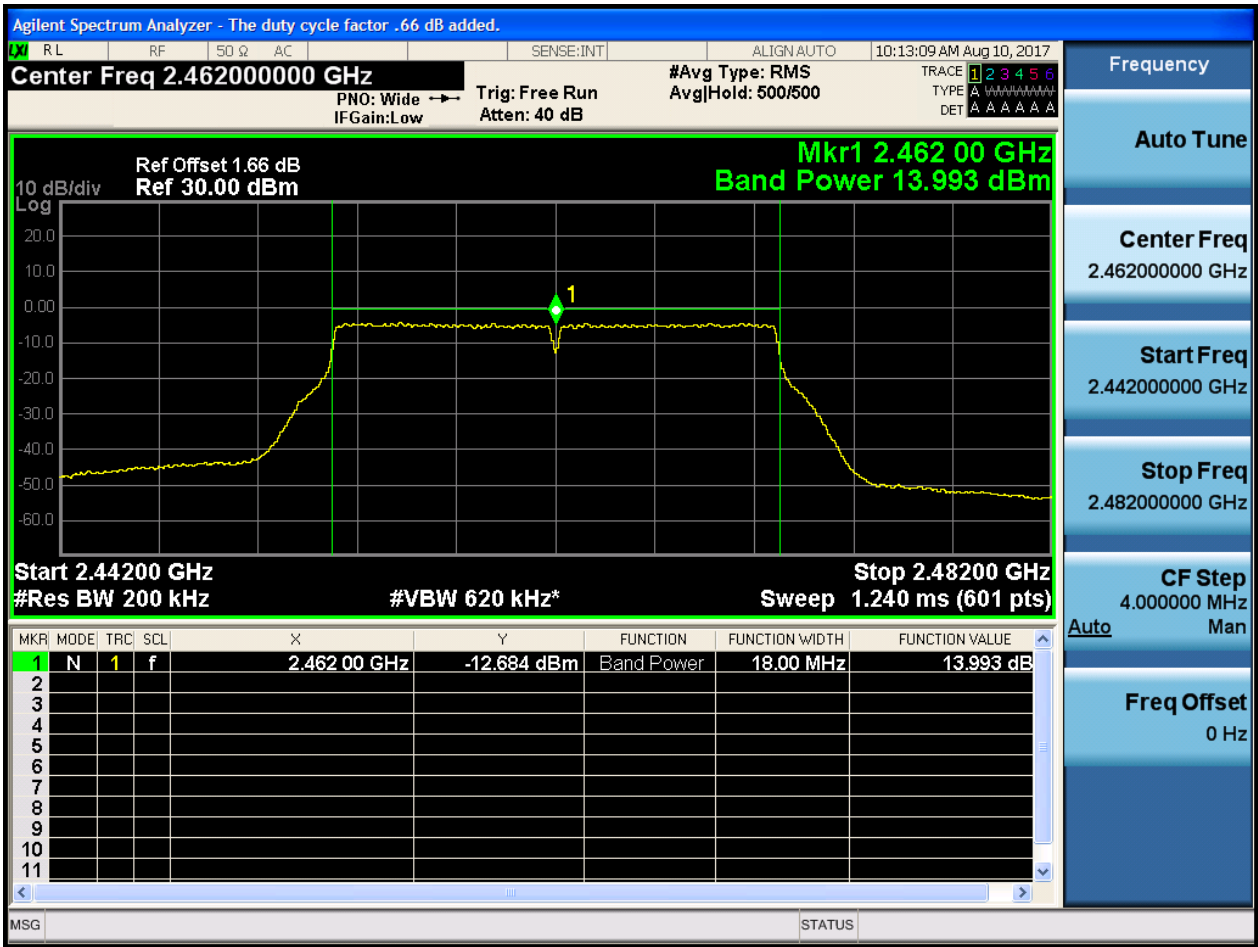


2.22 11N20m_M@Ant 2



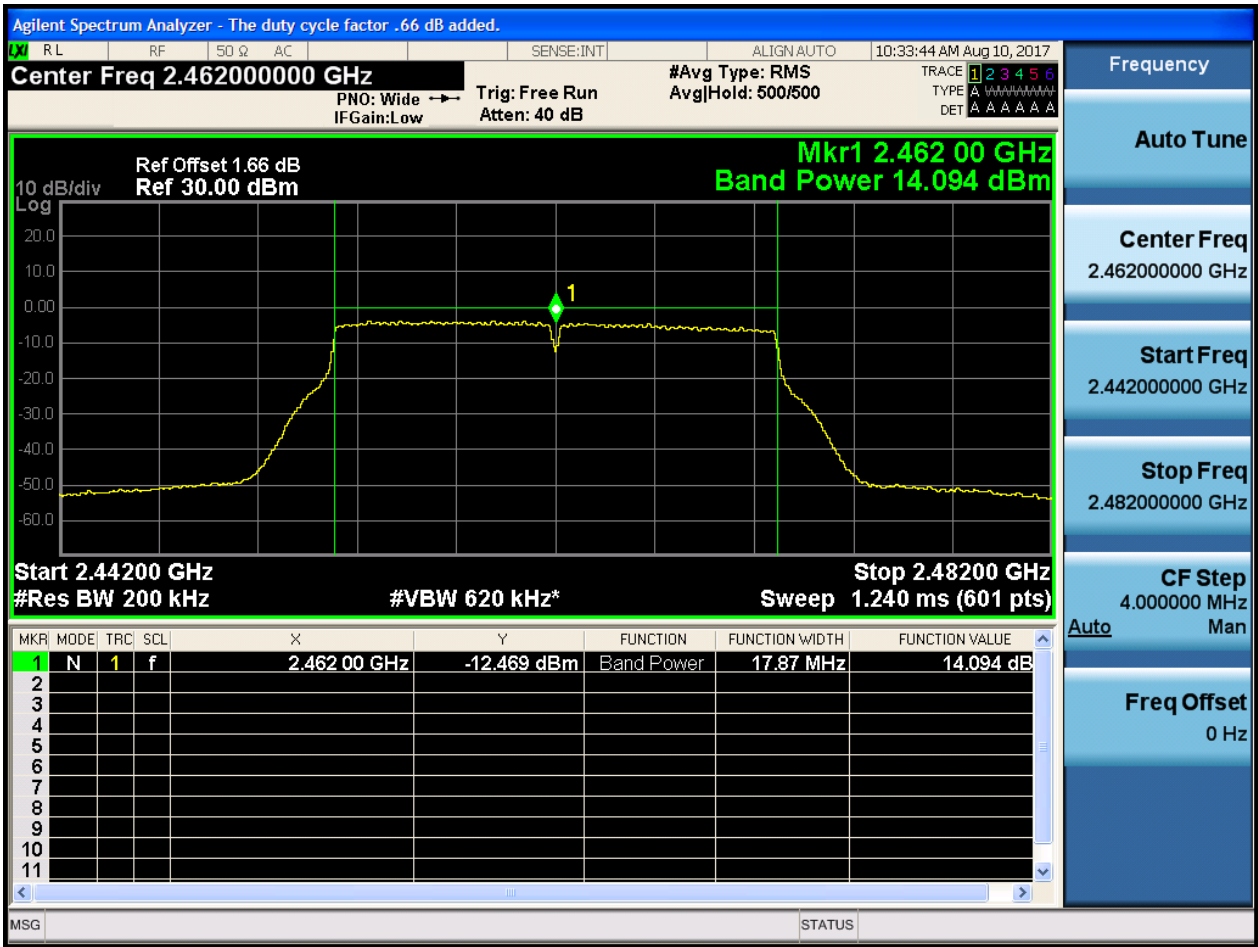


2.23 11N20m_H@Ant 1



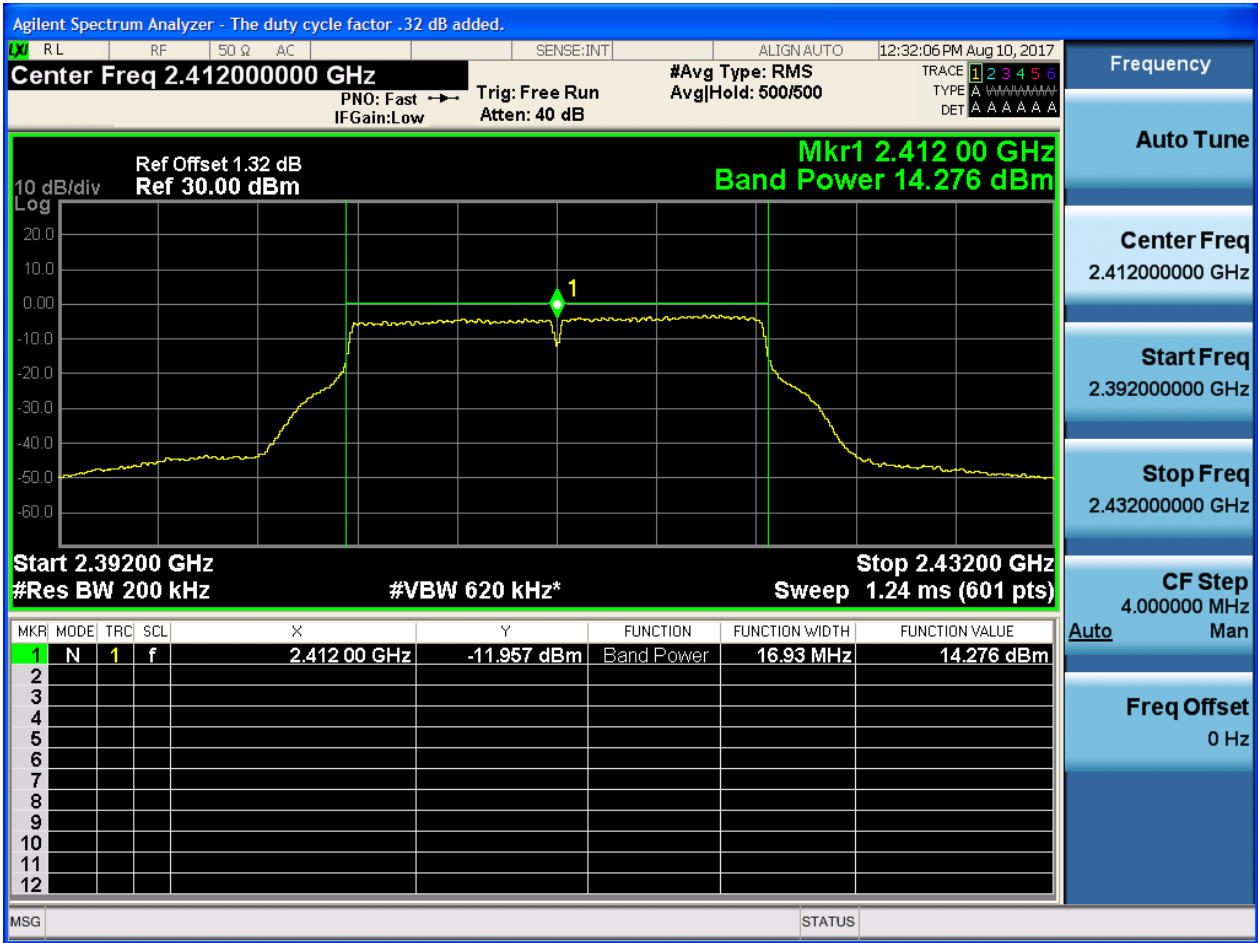


2.24 11N20m_H@Ant 2



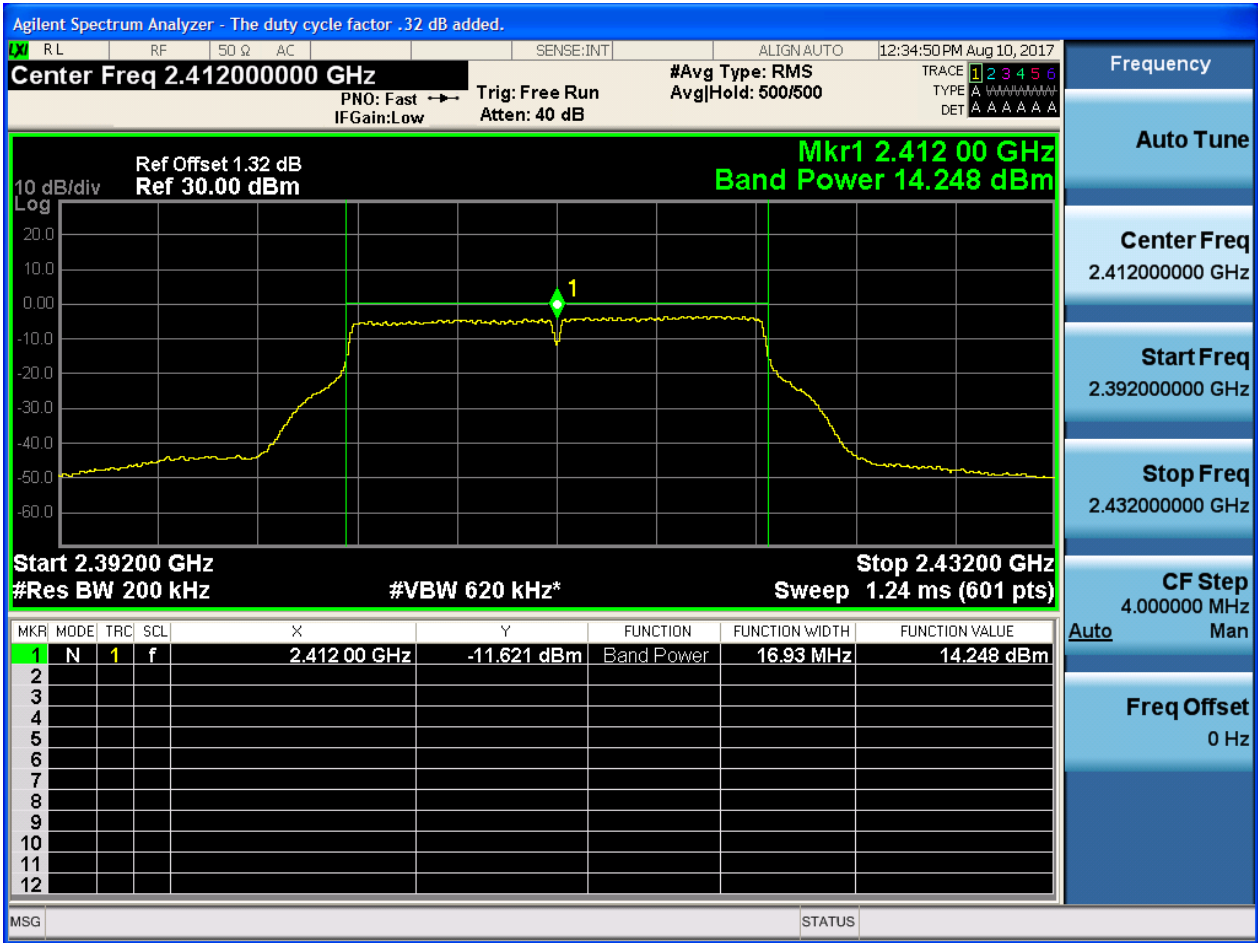


2.25 11G CDD L@Ant 1



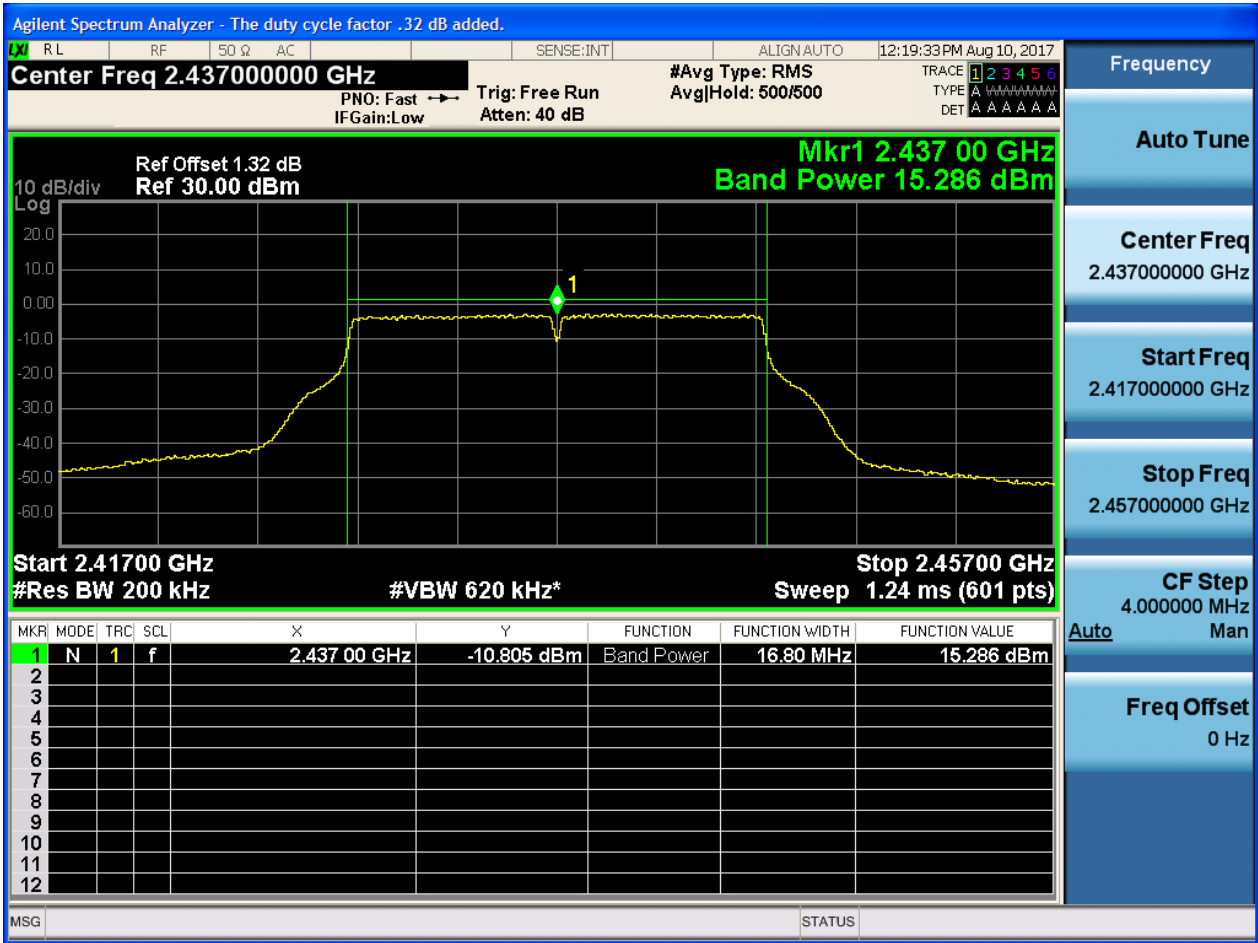


2.26 11G CDD L@Ant 2



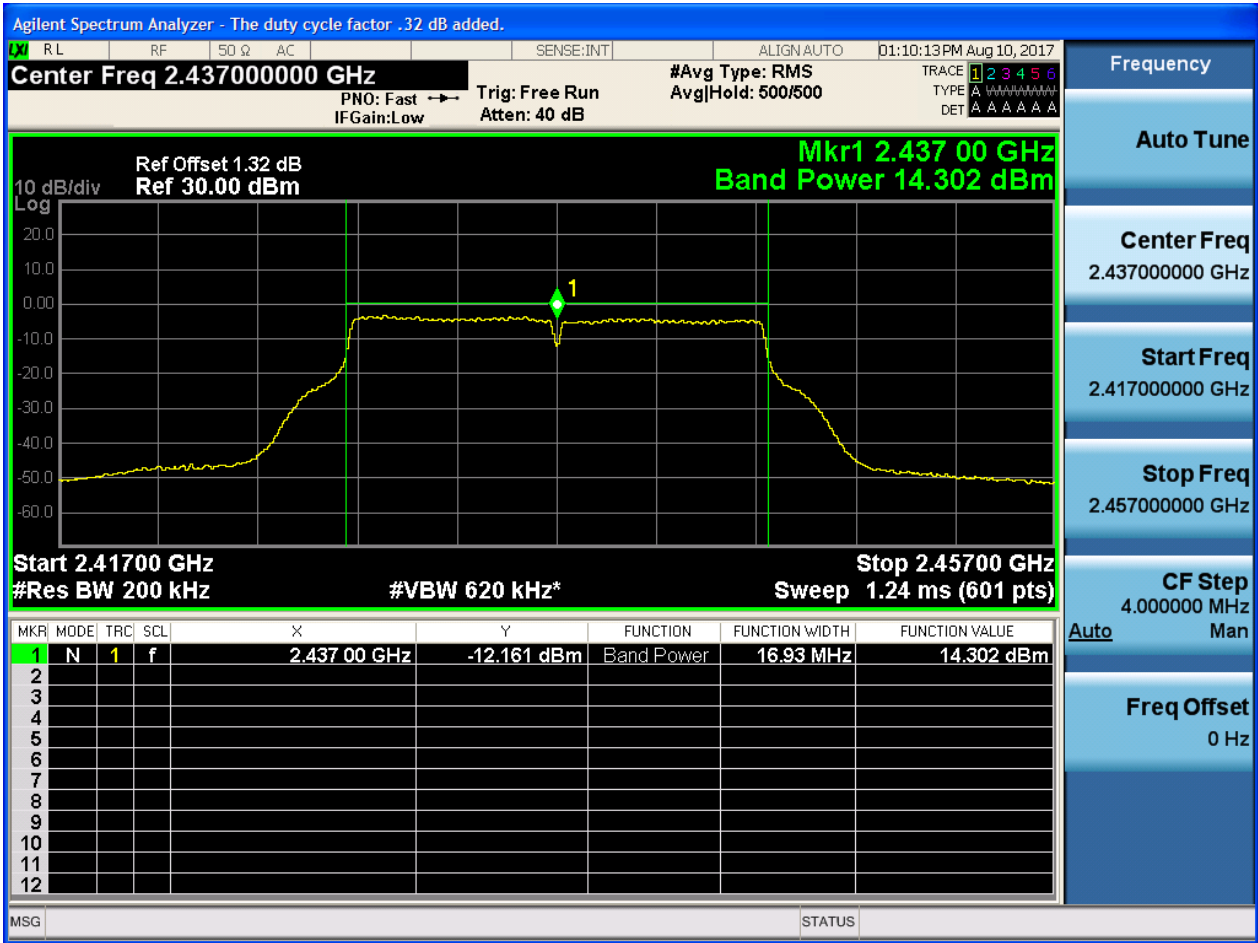


2.27 11G CDD M@Ant 1



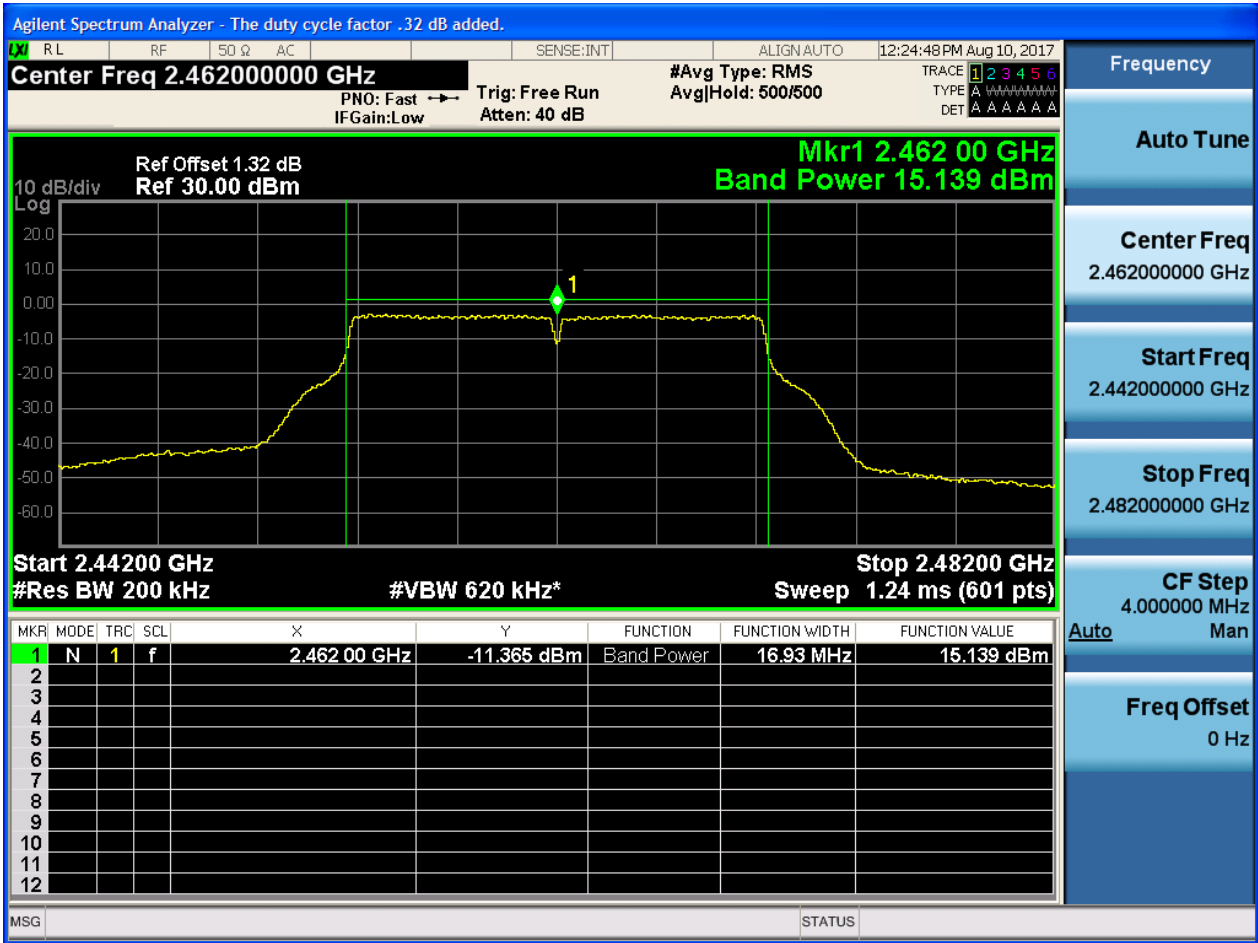


2.28 11G CDD M@Ant 2



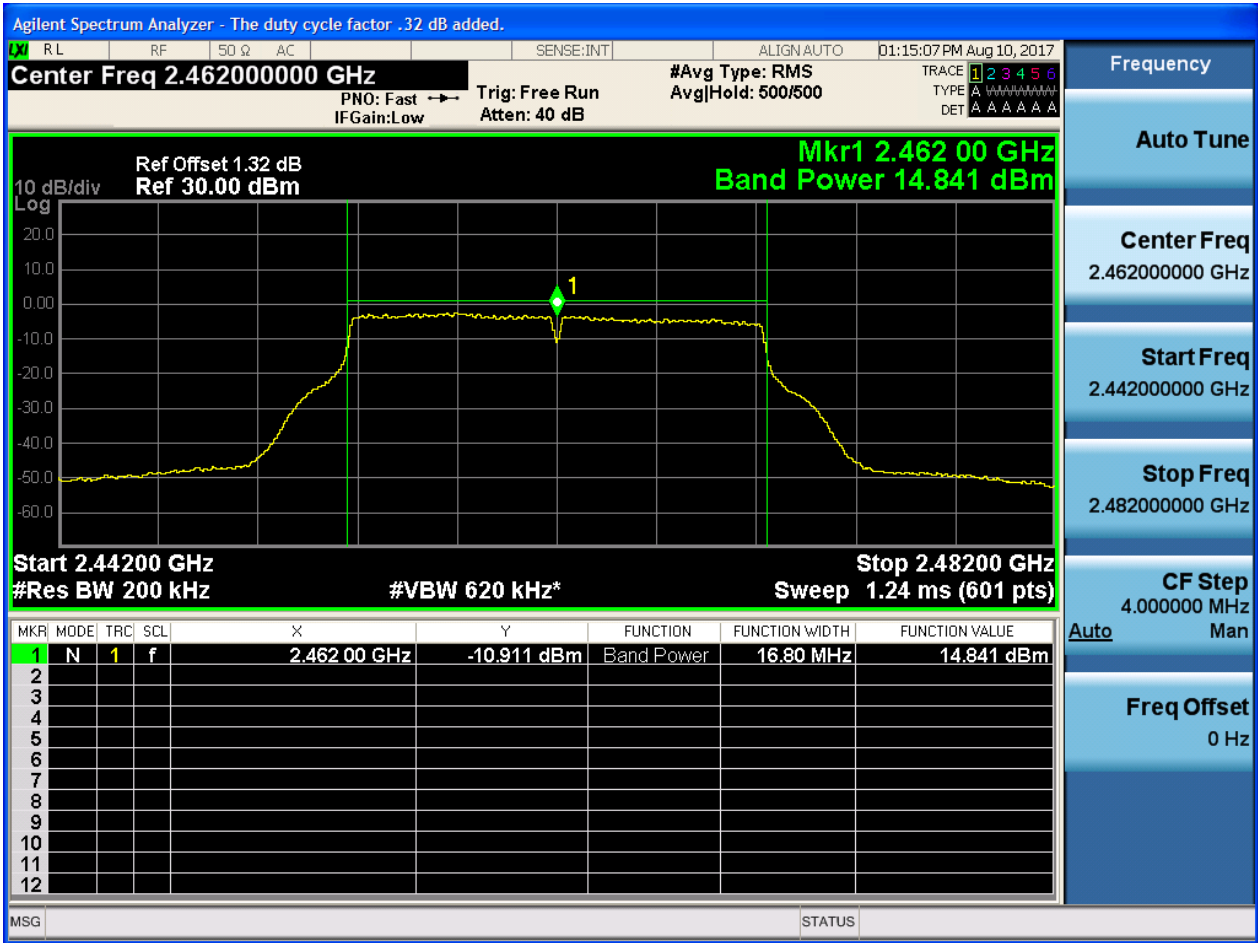


2.29 11G CDD H@Ant 1





2.30 11G CDD H@Ant 2





Appendix E: Maximum Power Spectral Density Level

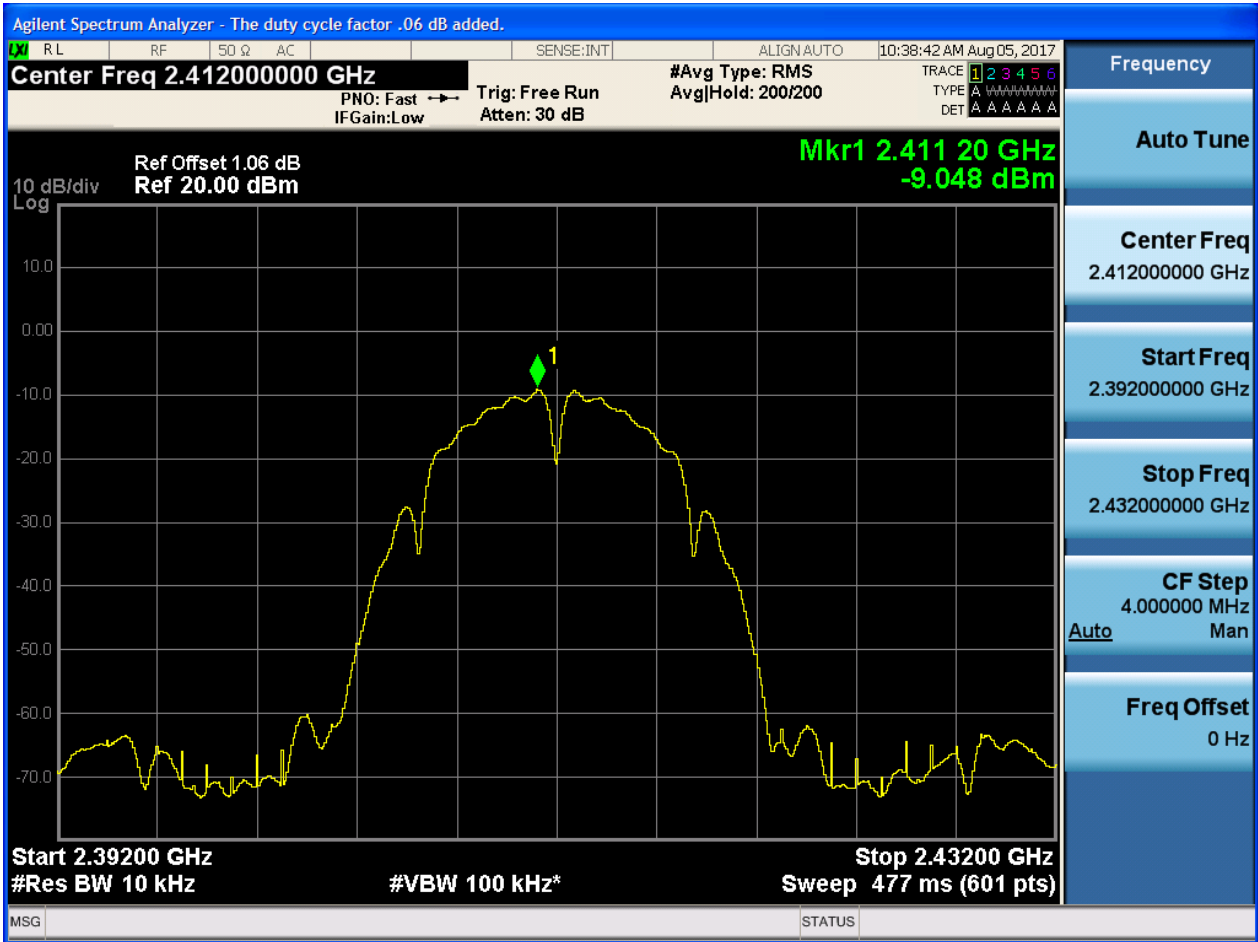
Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Ant	PD[MHz]	Verdict
11B	L	2412	Ant 1	-9.05	pass
11B	L	2412	Ant 2	-10.64	pass
11B	M	2437	Ant 1	-8.76	pass
11B	M	2437	Ant 2	-10.13	pass
11B	H	2462	Ant 1	-9.54	pass
11B	H	2462	Ant 2	-9.17	pass
11G	L	2412	Ant 1	-14.25	pass
11G	L	2412	Ant 2	-15.47	pass
11G	M	2437	Ant 1	-14.19	pass
11G	M	2437	Ant 2	-14.77	pass
11G	H	2462	Ant 1	-14.62	pass
11G	H	2462	Ant 2	-14.09	pass
11N20	L	2412	Ant 1	-16.11	pass
11N20	L	2412	Ant 2	-16.99	pass
11N20	M	2437	Ant 1	-15.67	pass
11N20	M	2437	Ant 2	-16.50	pass
11N20	H	2462	Ant 1	-15.95	pass
11N20	H	2462	Ant 2	-15.97	pass
11N20m	L	2412	Ant 1	-16.07	pass
11N20m	L	2412	Ant 2	-15.85	pass
11N20m	L	2412	SUM	-12.95	pass
11N20m	M	2437	Ant 1	-15.48	pass
11N20m	M	2437	Ant 2	-15.49	pass
11N20m	M	2437	SUM	-12.47	pass
11N20m	H	2462	Ant 1	-15.72	pass
11N20m	H	2462	Ant 2	-15.23	pass
11N20m	H	2462	SUM	-12.46	pass
11G CDD	L	2412	Ant 1	-14.31	pass
11G CDD	L	2412	Ant 2	-14.87	pass
11G CDD	L	2412	SUM	-11.57	pass
11G CDD	M	2437	Ant 1	-14.05	pass
11G CDD	M	2437	Ant 2	-15.01	pass
11G CDD	M	2437	SUM	-11.49	pass
11G CDD	H	2462	Ant 1	-14.02	pass
11G CDD	H	2462	Ant 2	-13.90	pass
11G CDD	H	2462	SUM	-10.52	pass



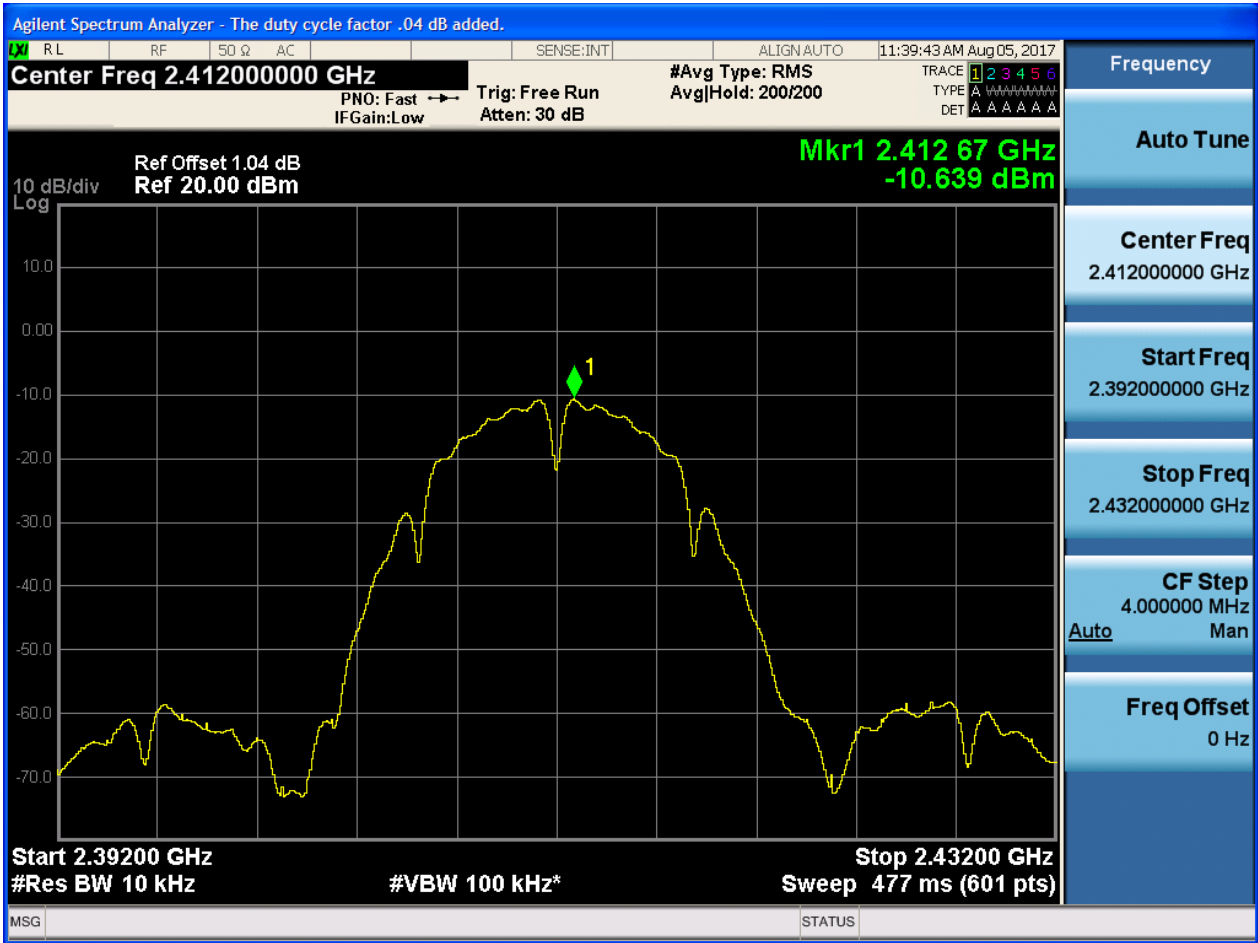
Part II - Test Plots

2.1 11B_L@Ant 1



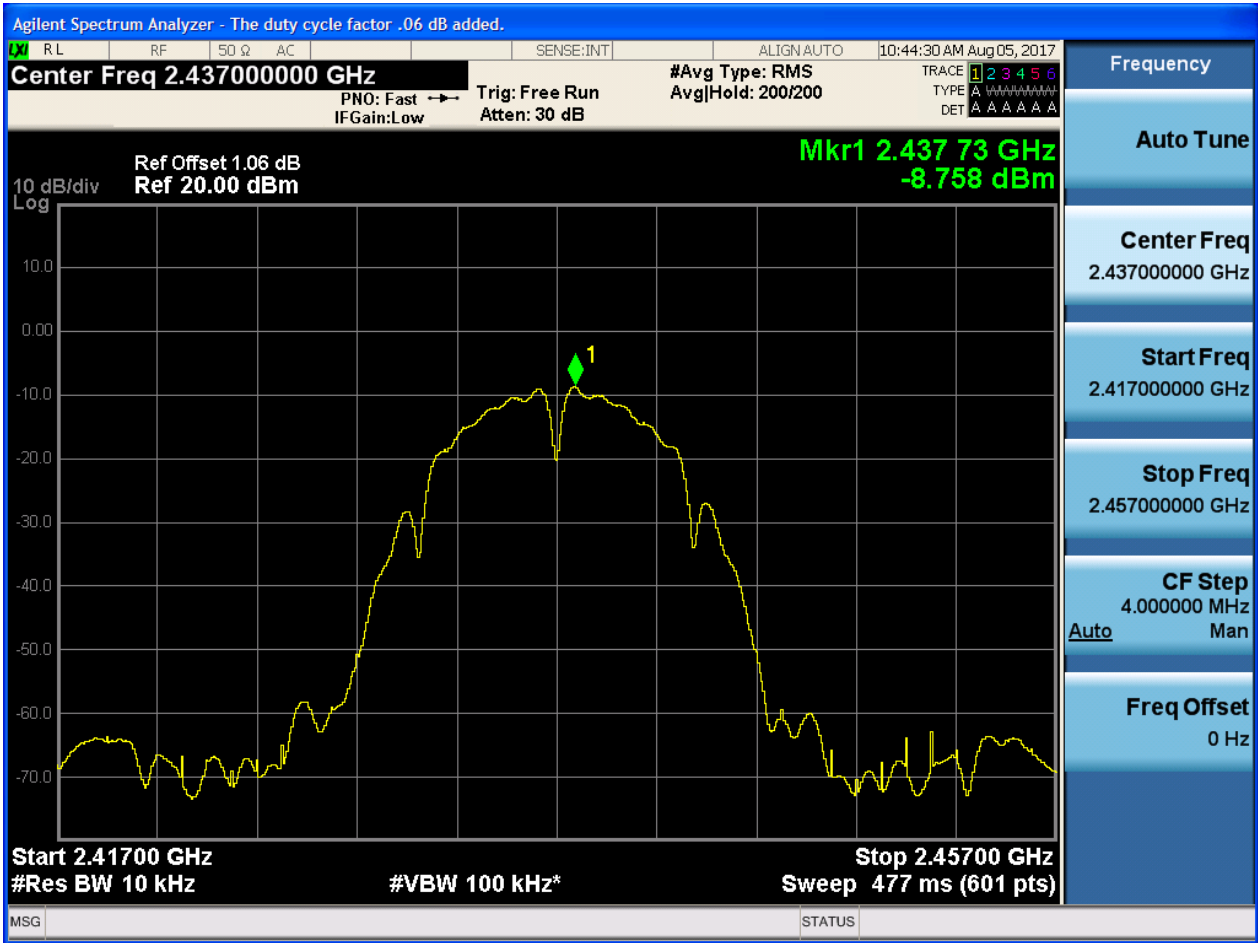


2.2 11B_L@Ant 2



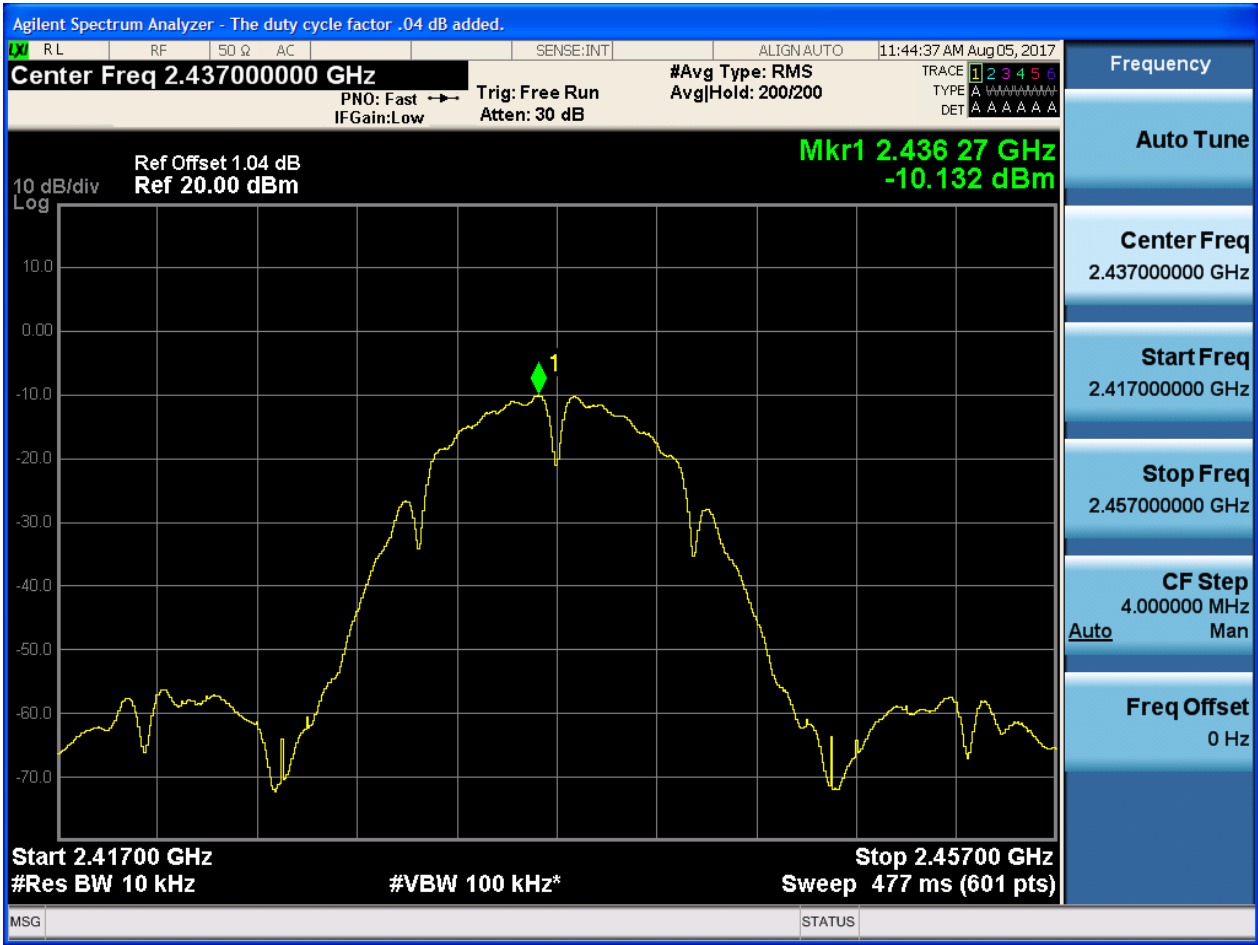


2.3 11B_M@Ant 1





2.4 11B_M@Ant 2



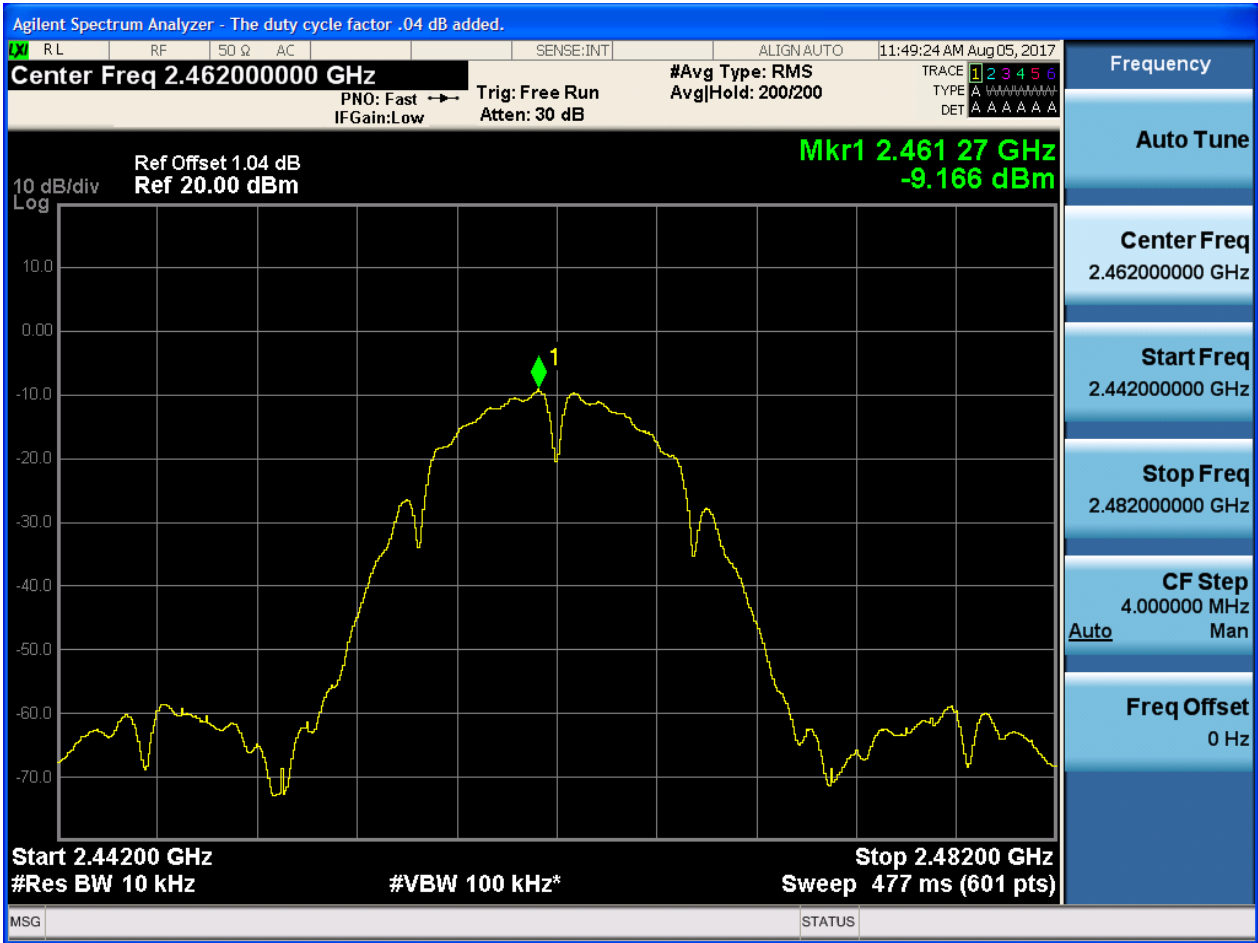


2.5 11B_H@Ant 1



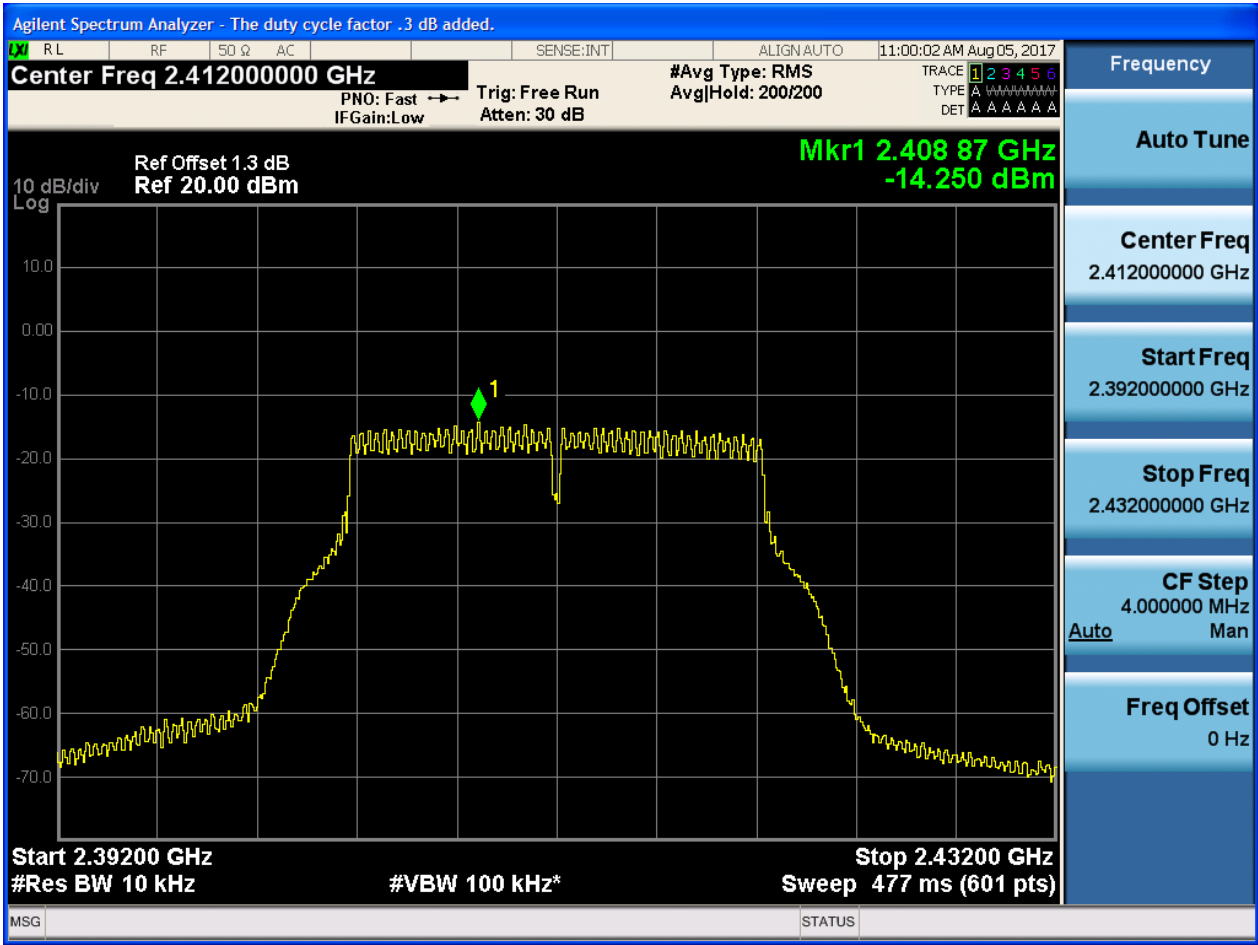


2.6 11B_H@Ant 2



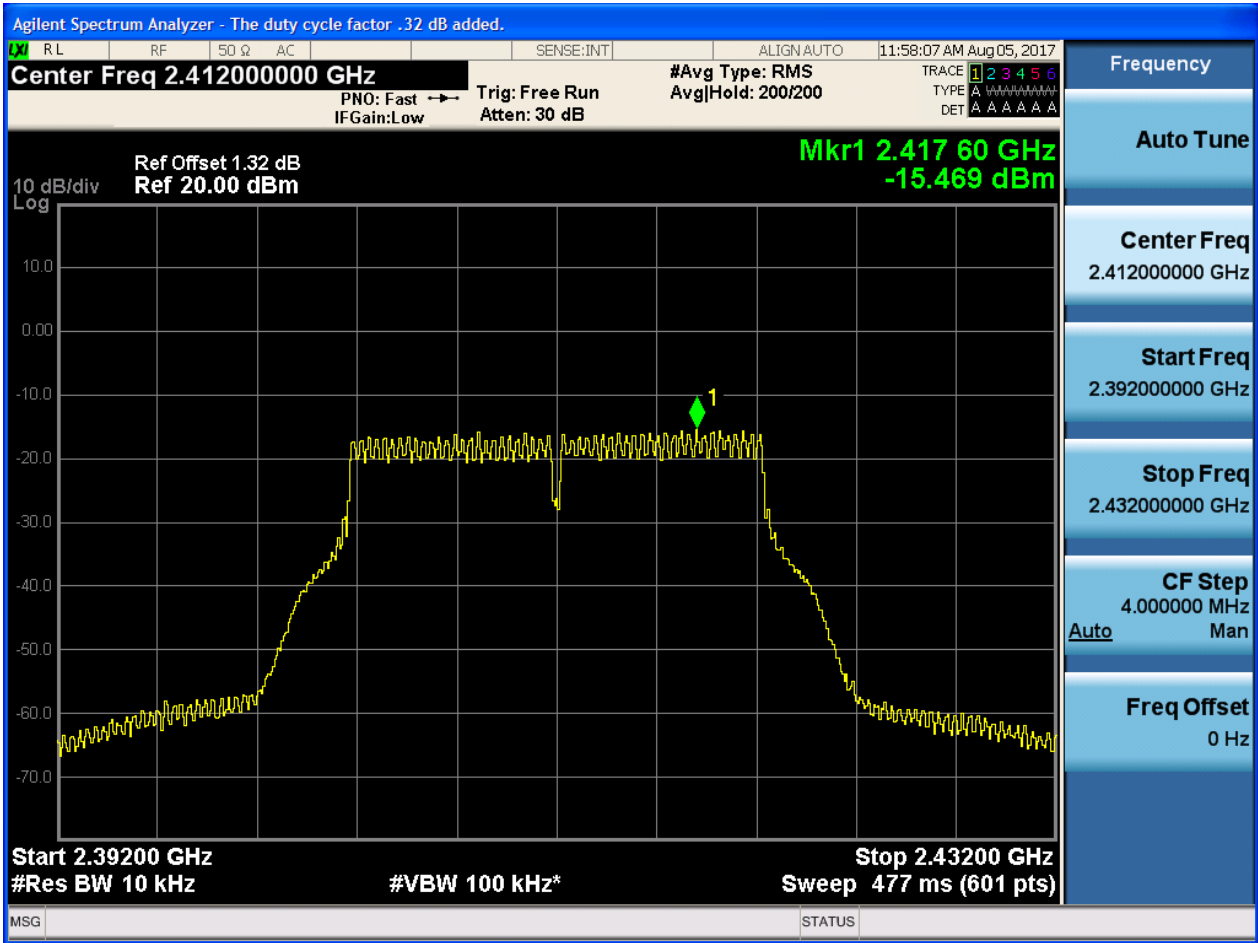


2.7 11G_L@Ant 1



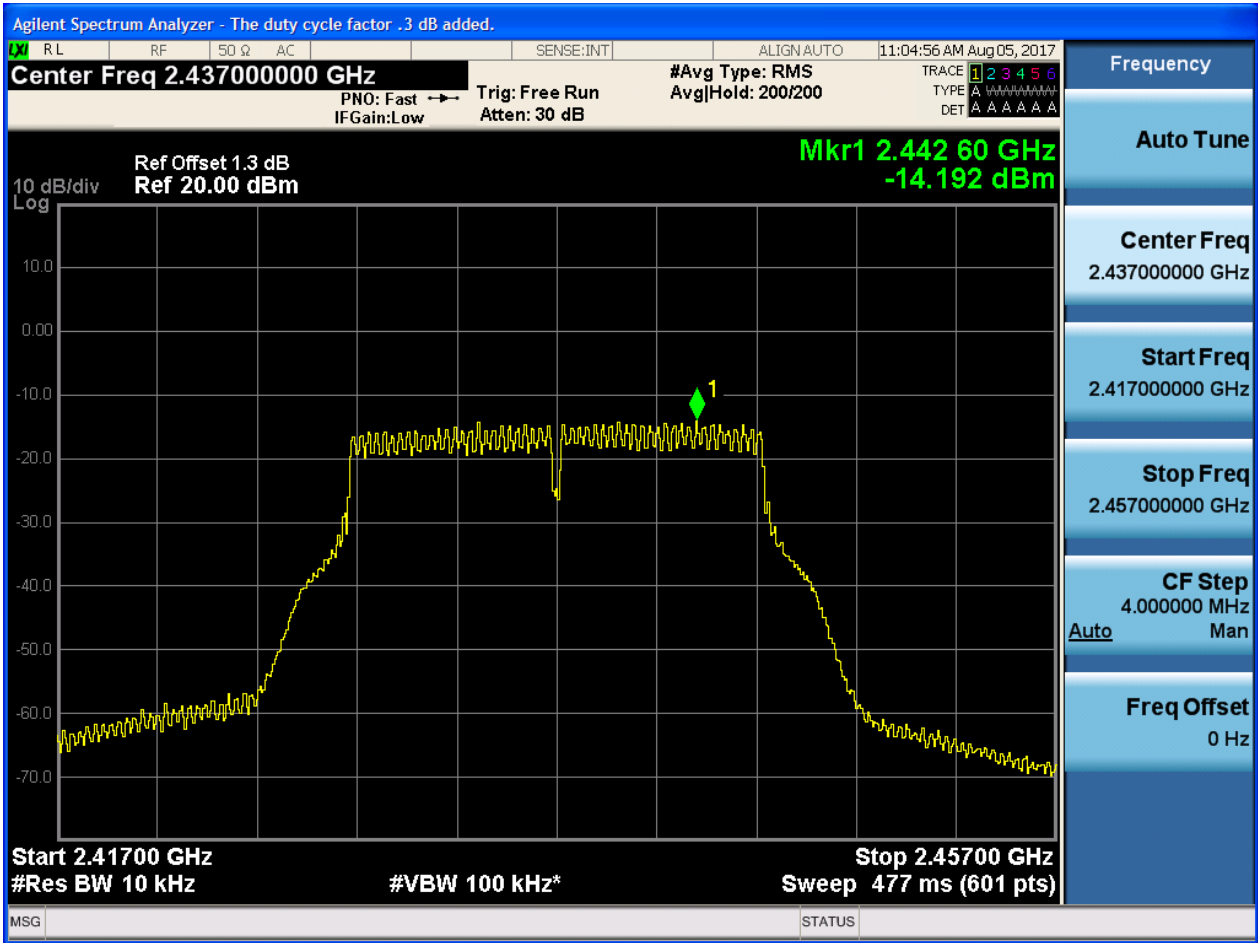


2.8 11G_L@Ant 2



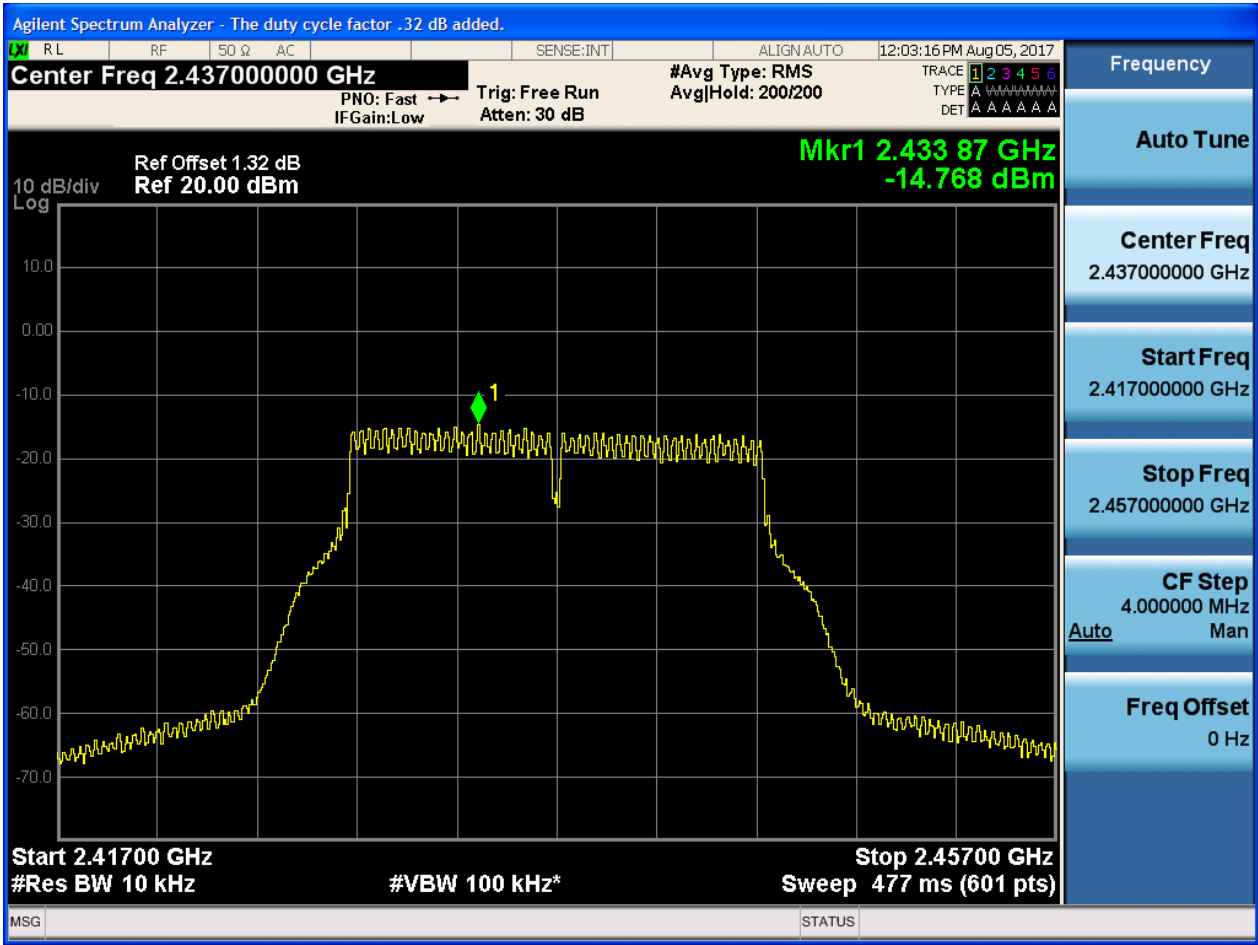


2.9 11G_M@Ant 1



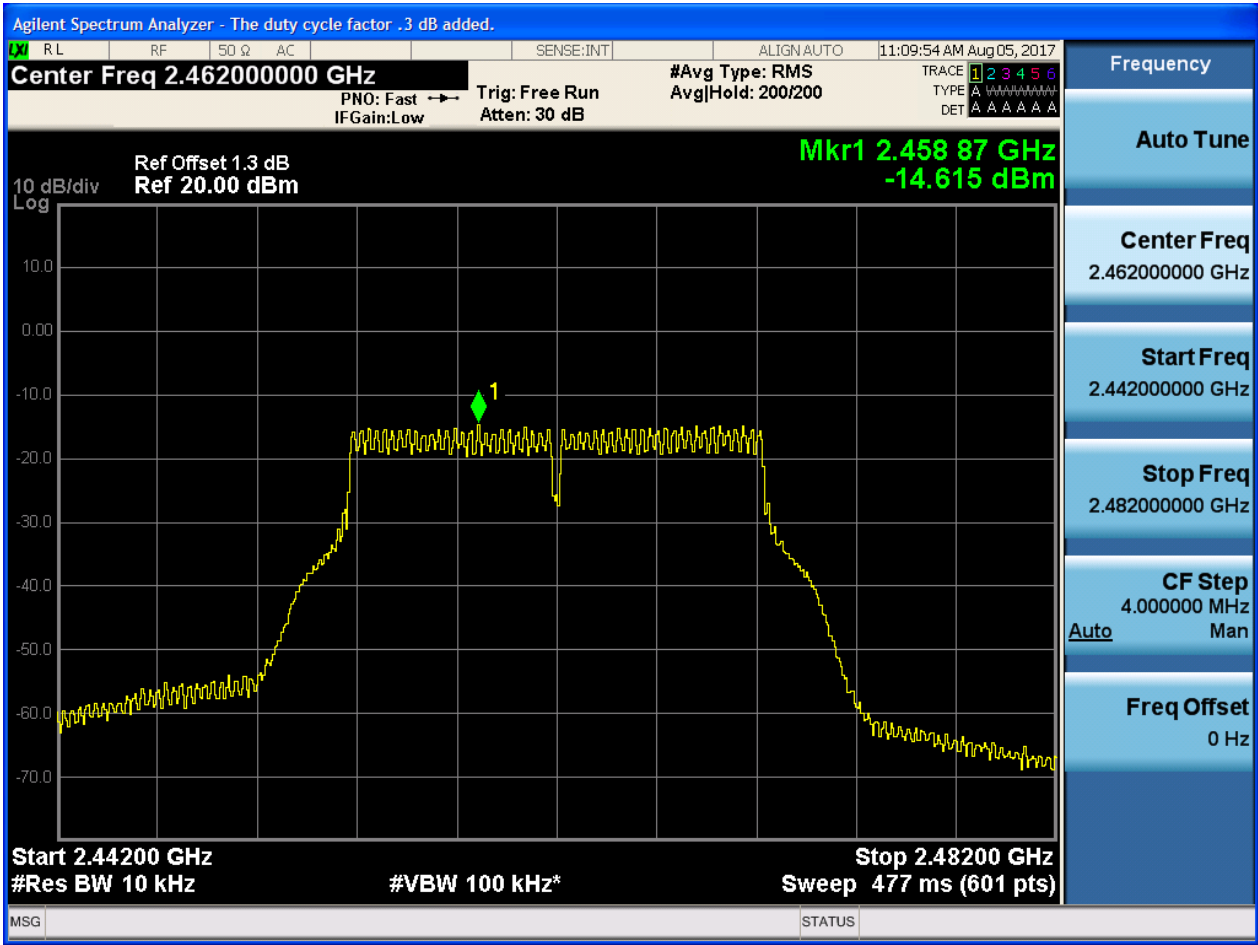


2.10 11G_M@Ant 2



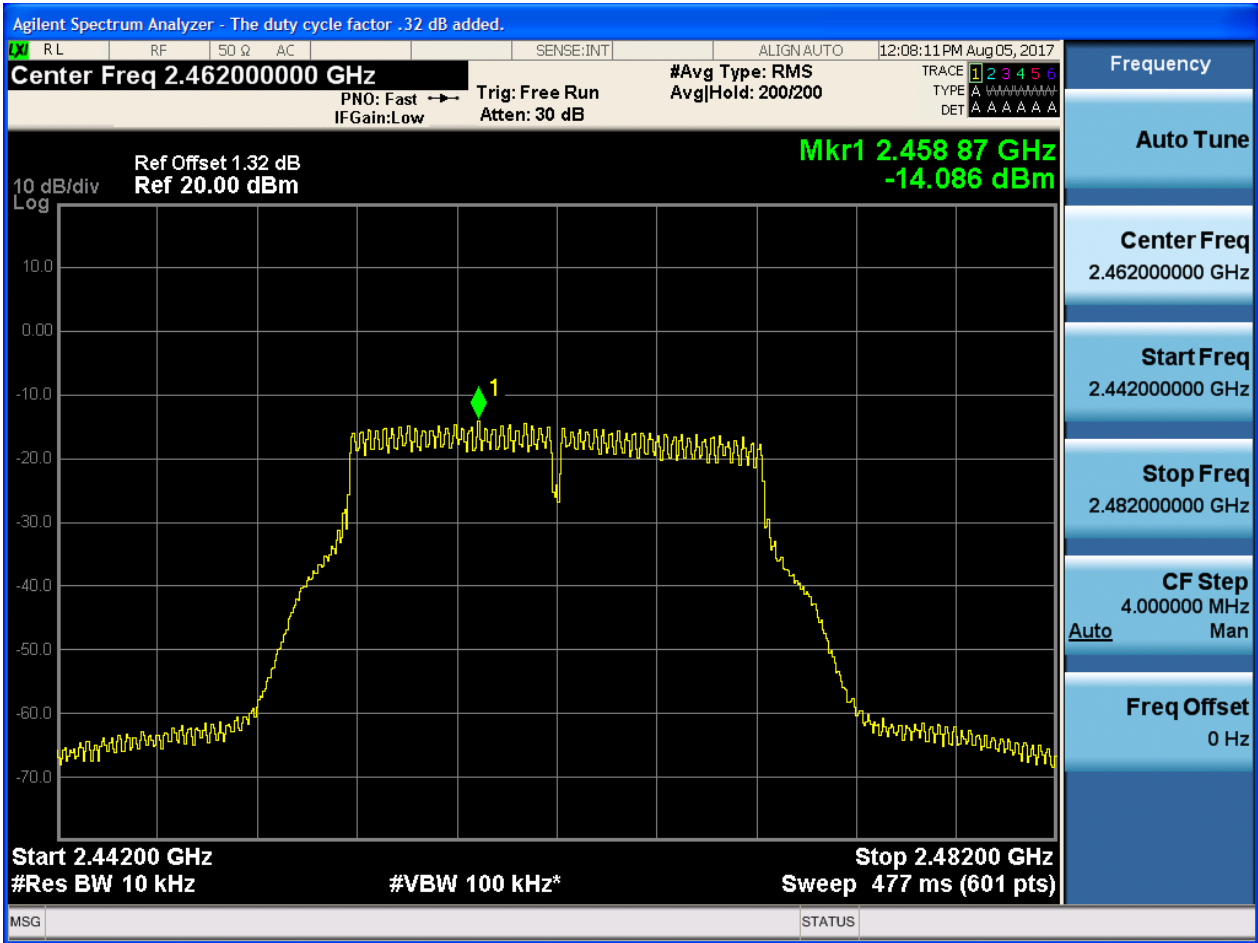


2.11 11G_H@Ant 1



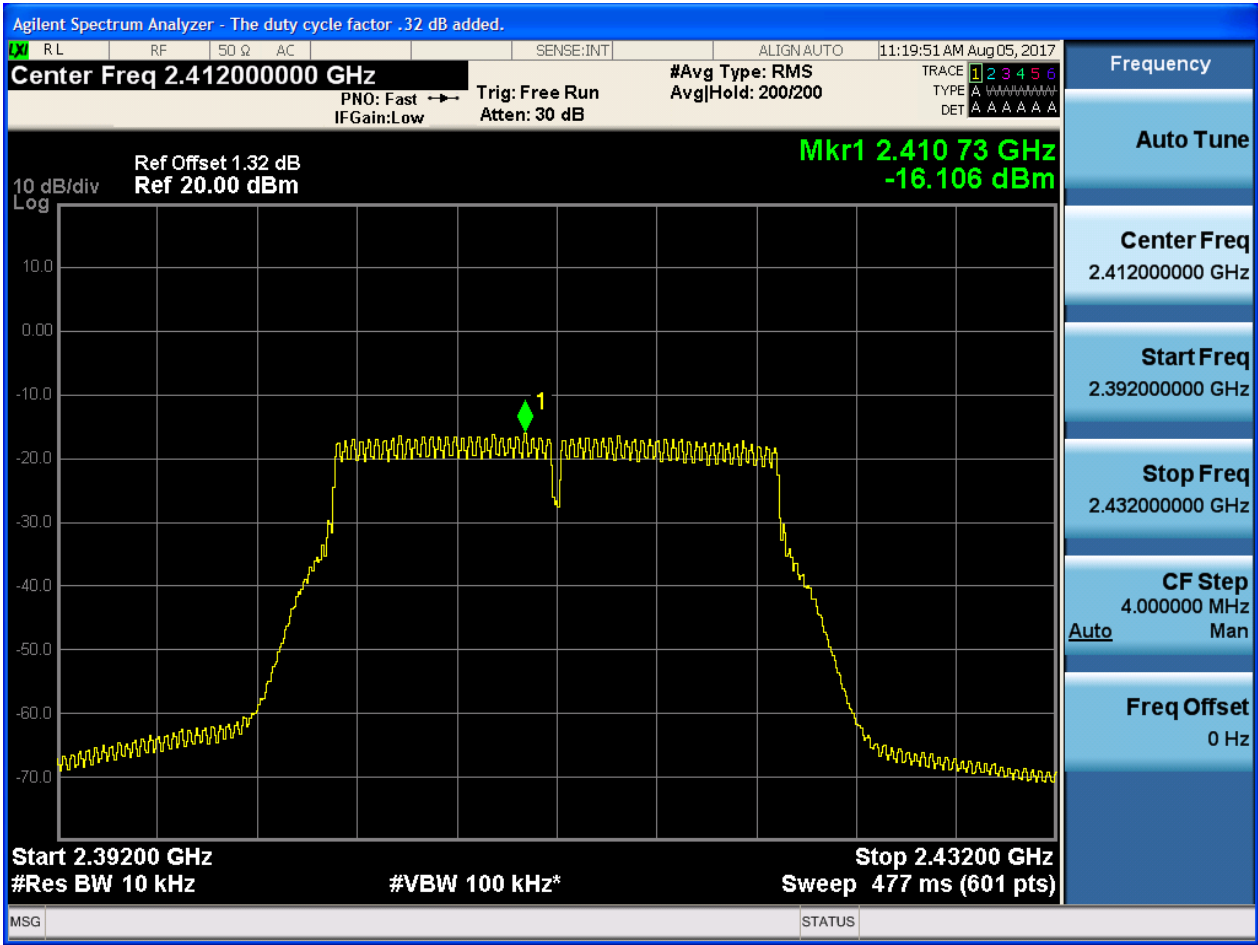


2.12 11G_H@Ant 2



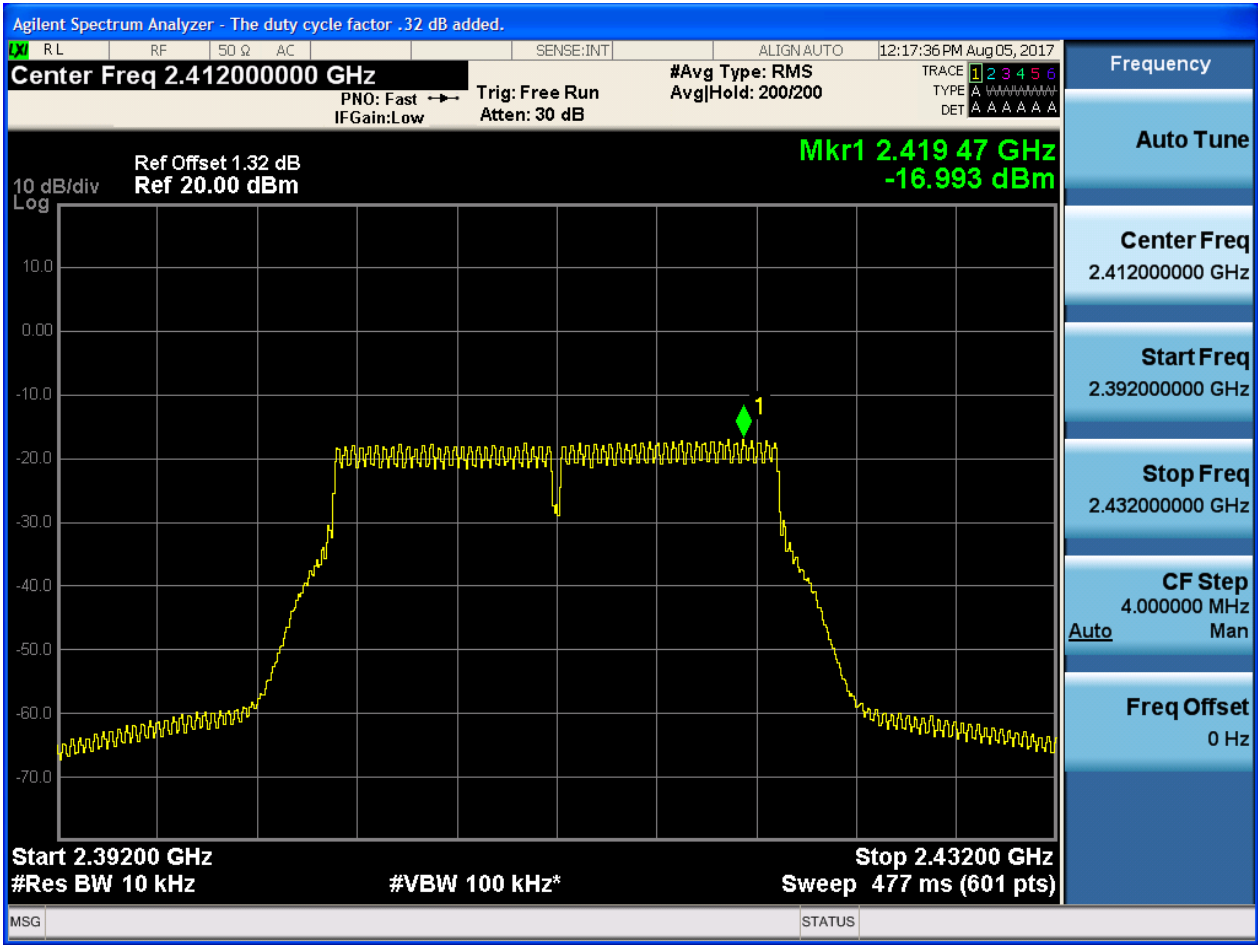


2.13 11N20_L@Ant 1



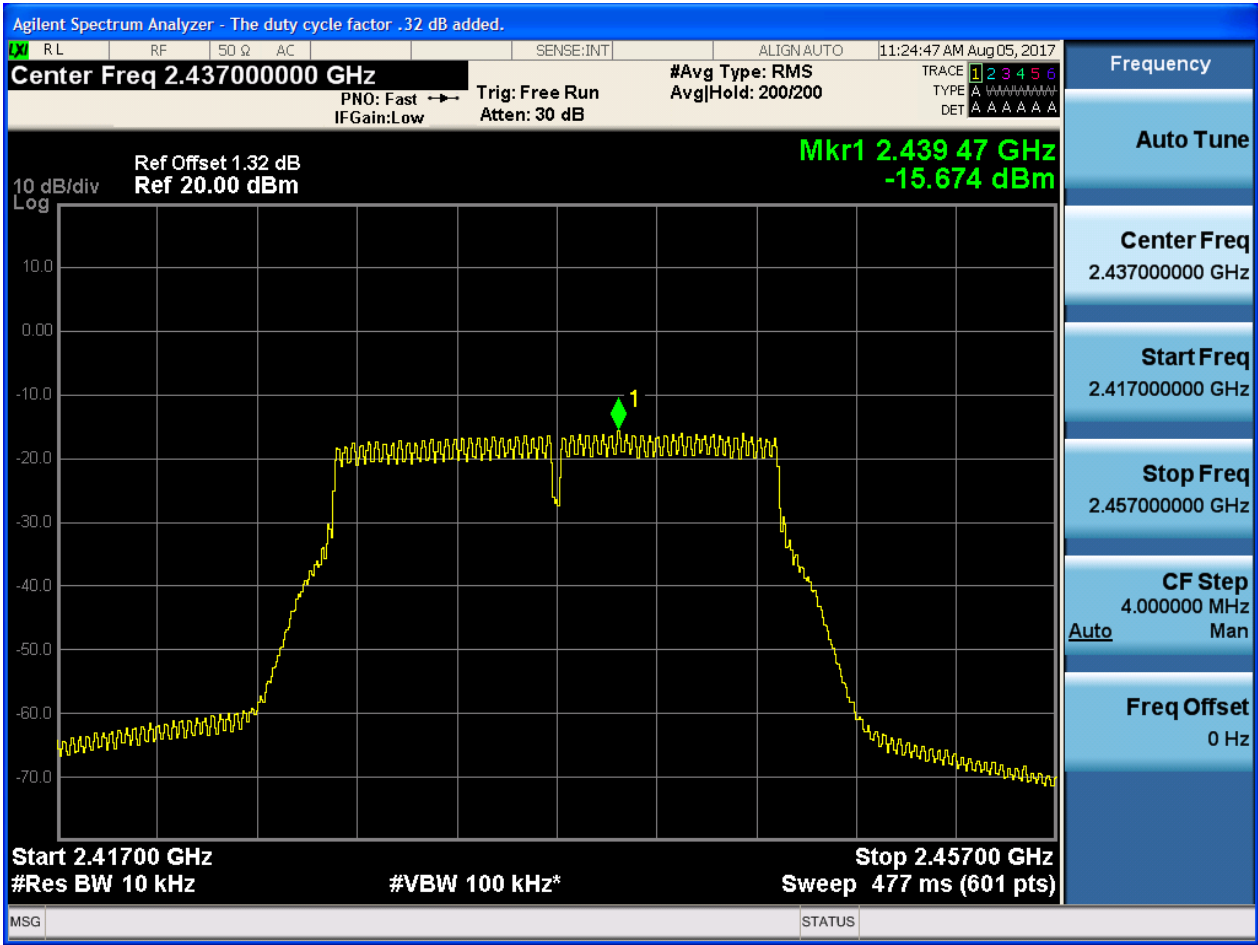


2.14 11N20_L@Ant 2



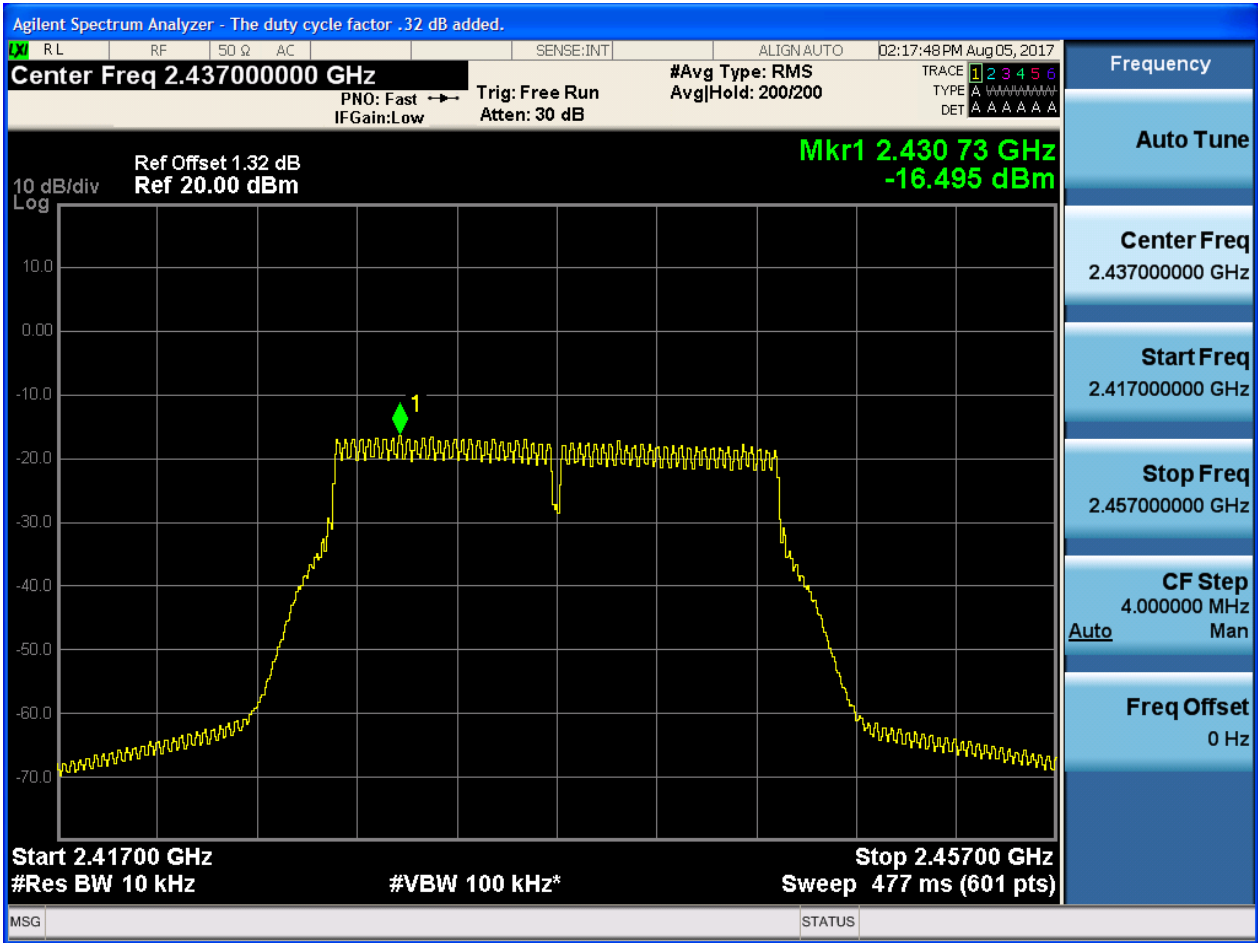


2.15 11N20_M@Ant 1



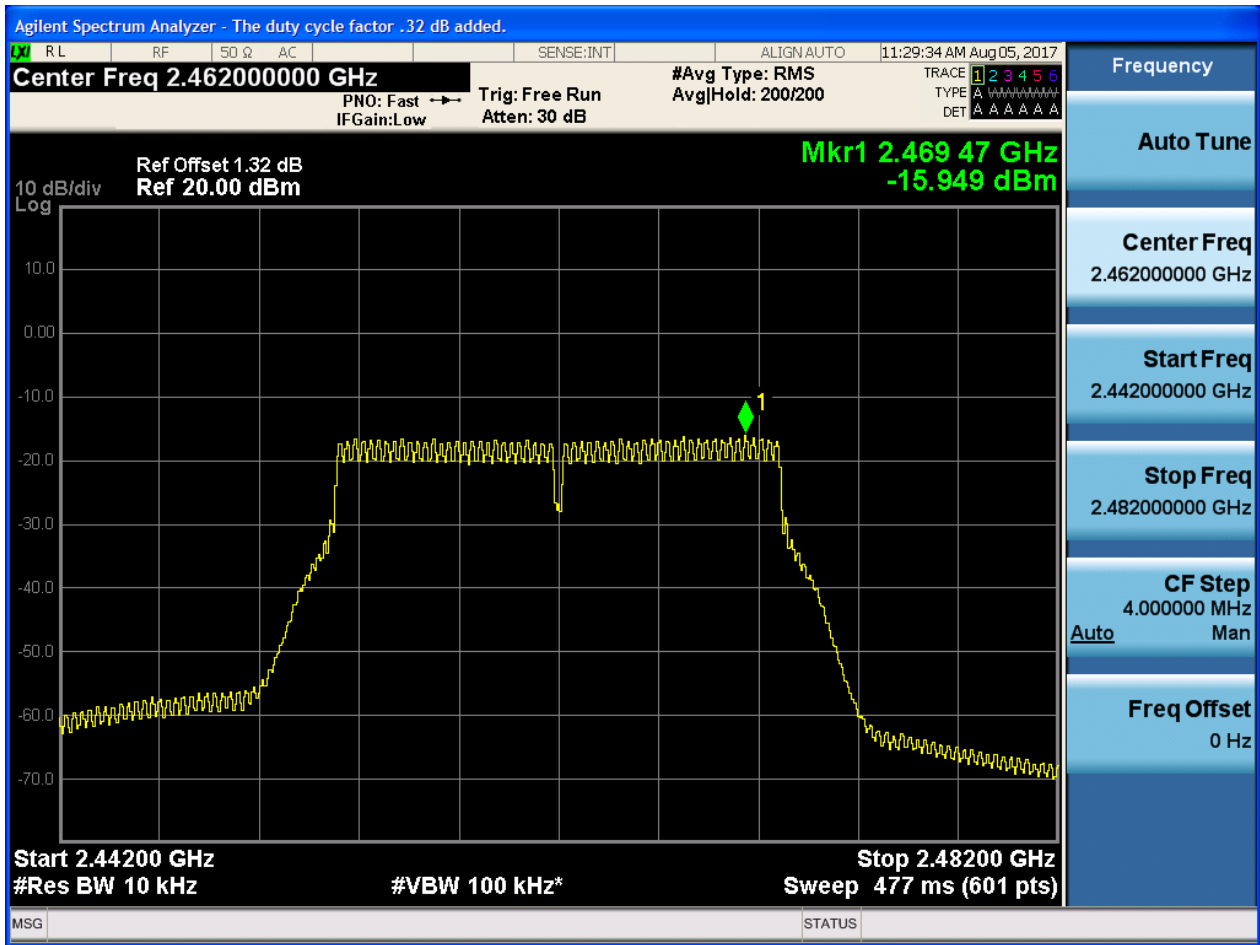


2.16 11N20_M@Ant 2



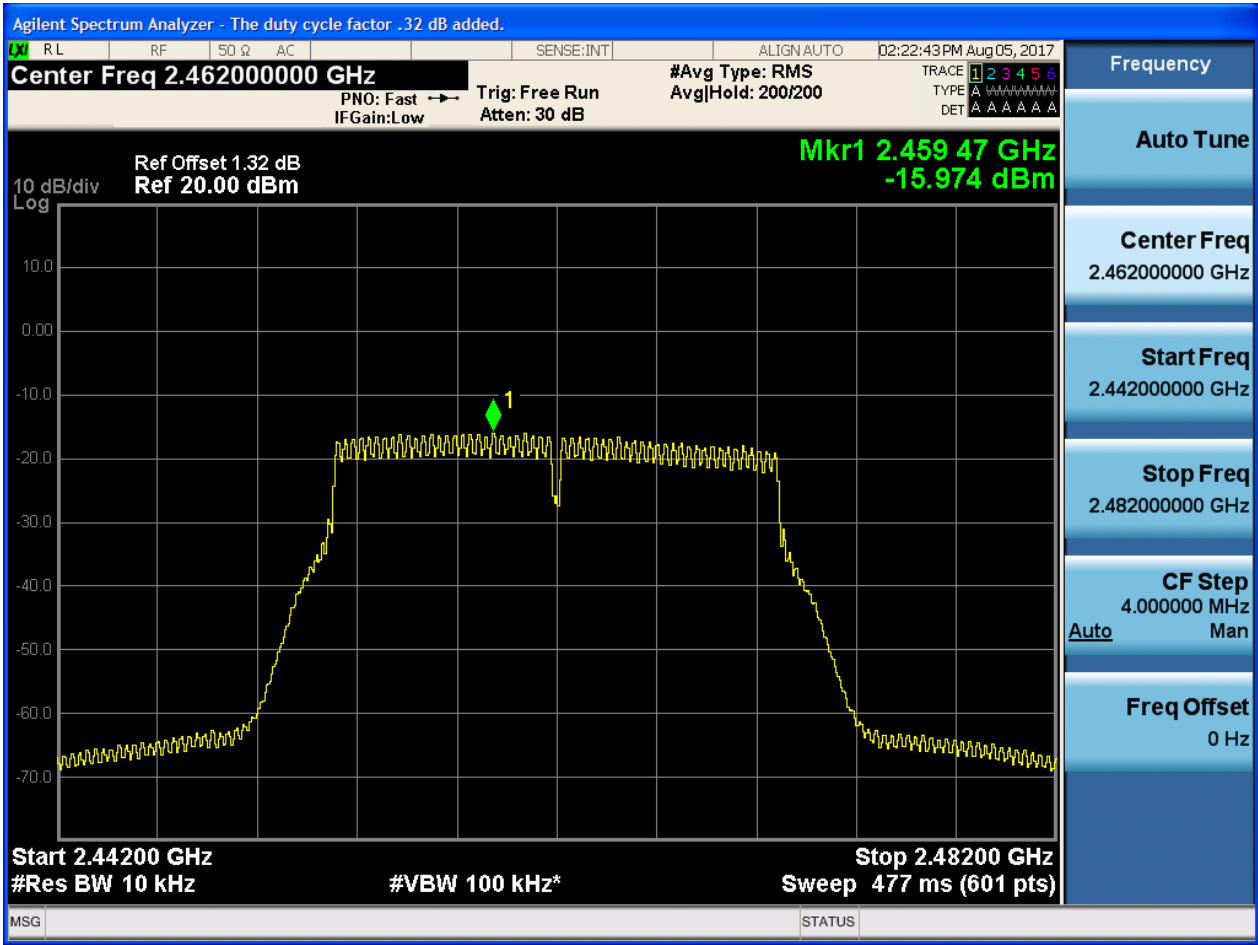


2.17 11N20_H@Ant 1



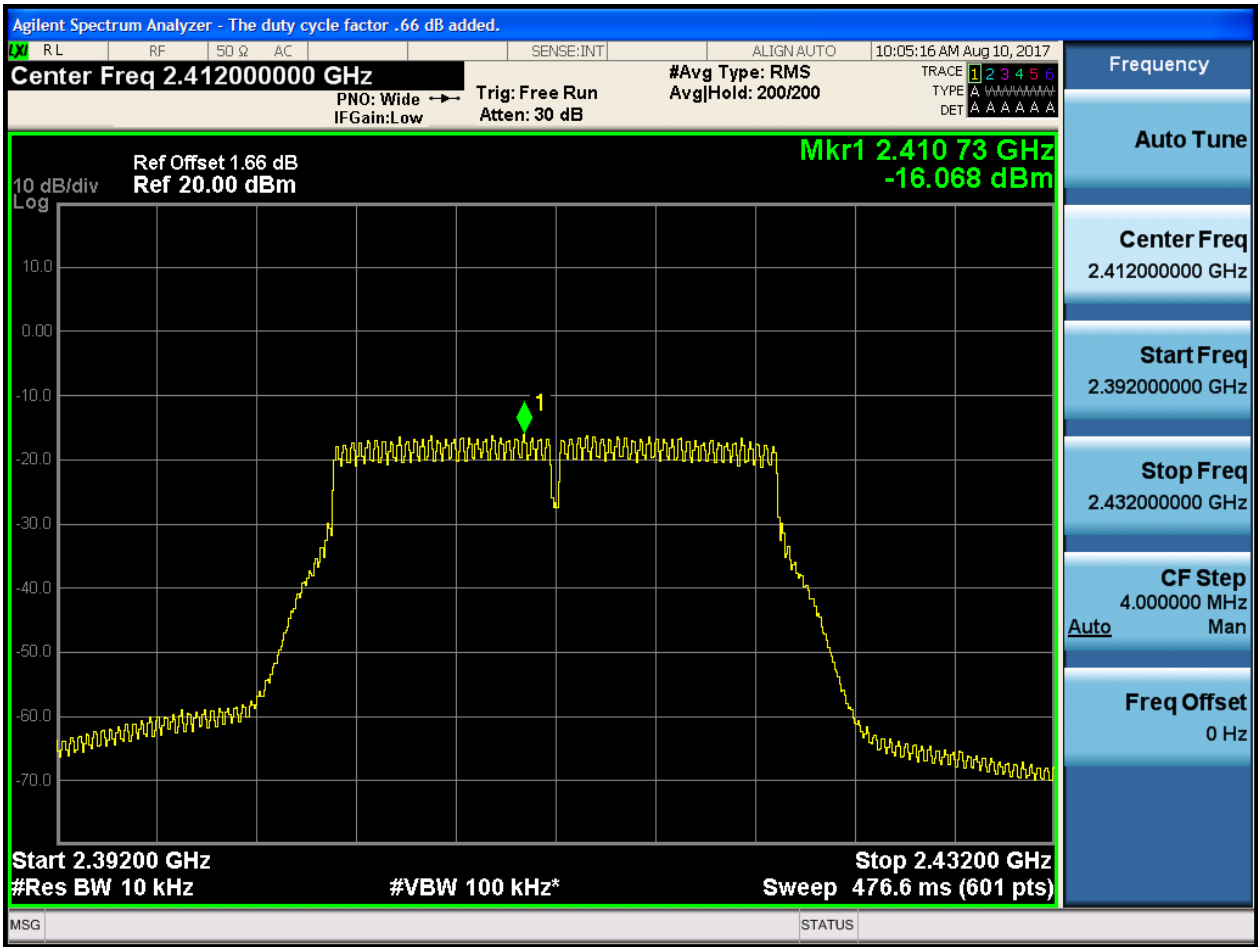


2.18 11N20_H@Ant 2



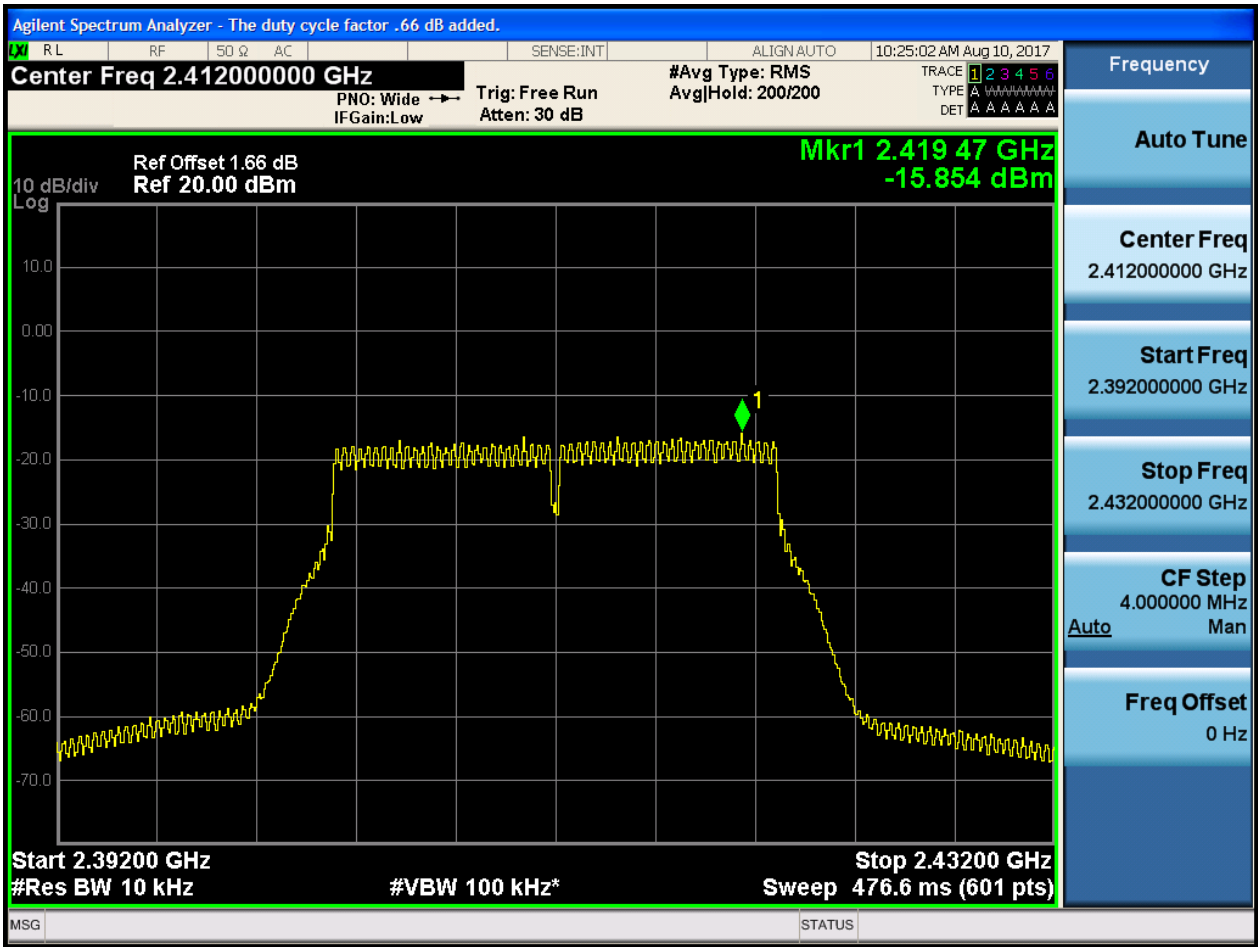


2.19 11N20m_L@Ant 1



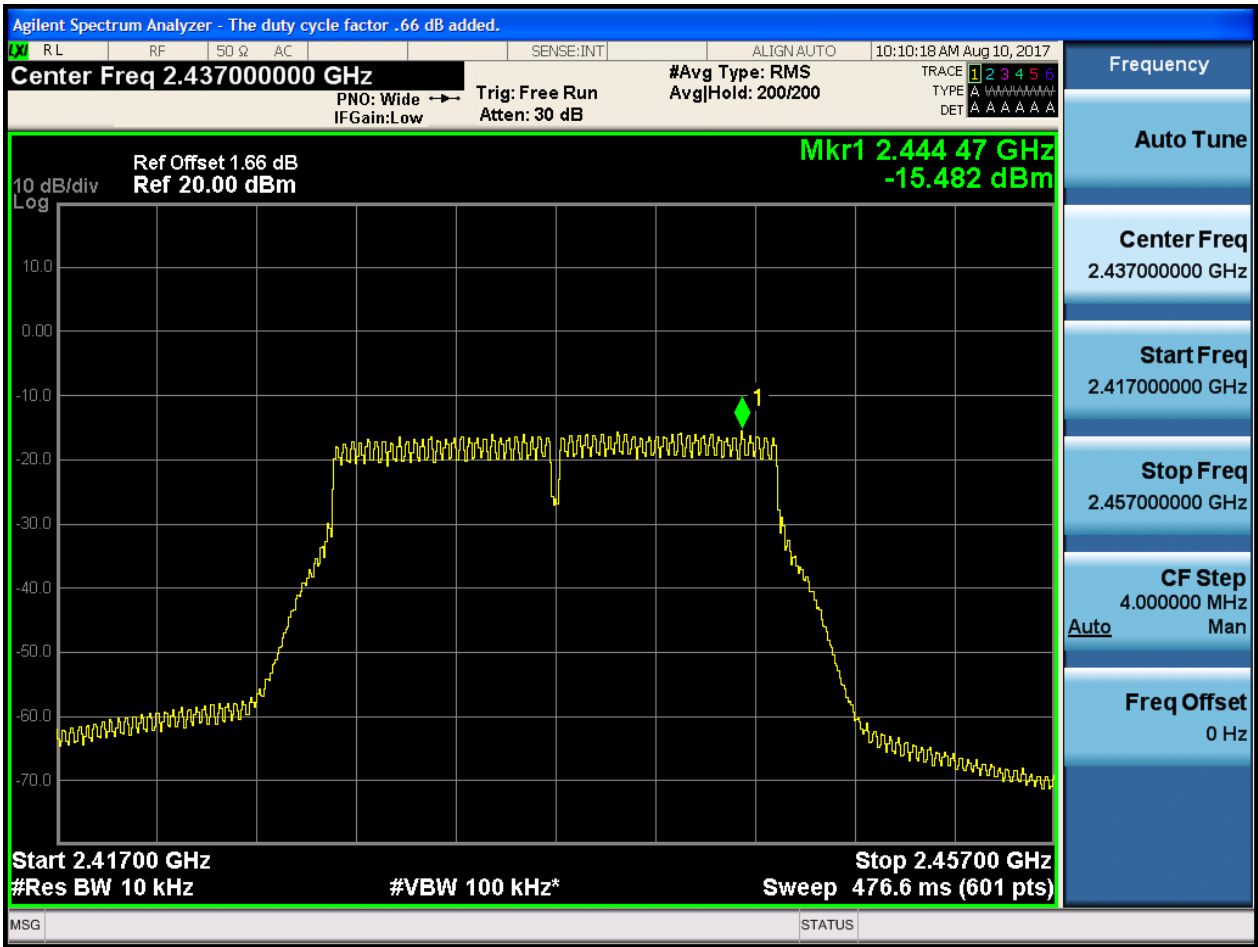


2.20 11N20m_L@Ant 2



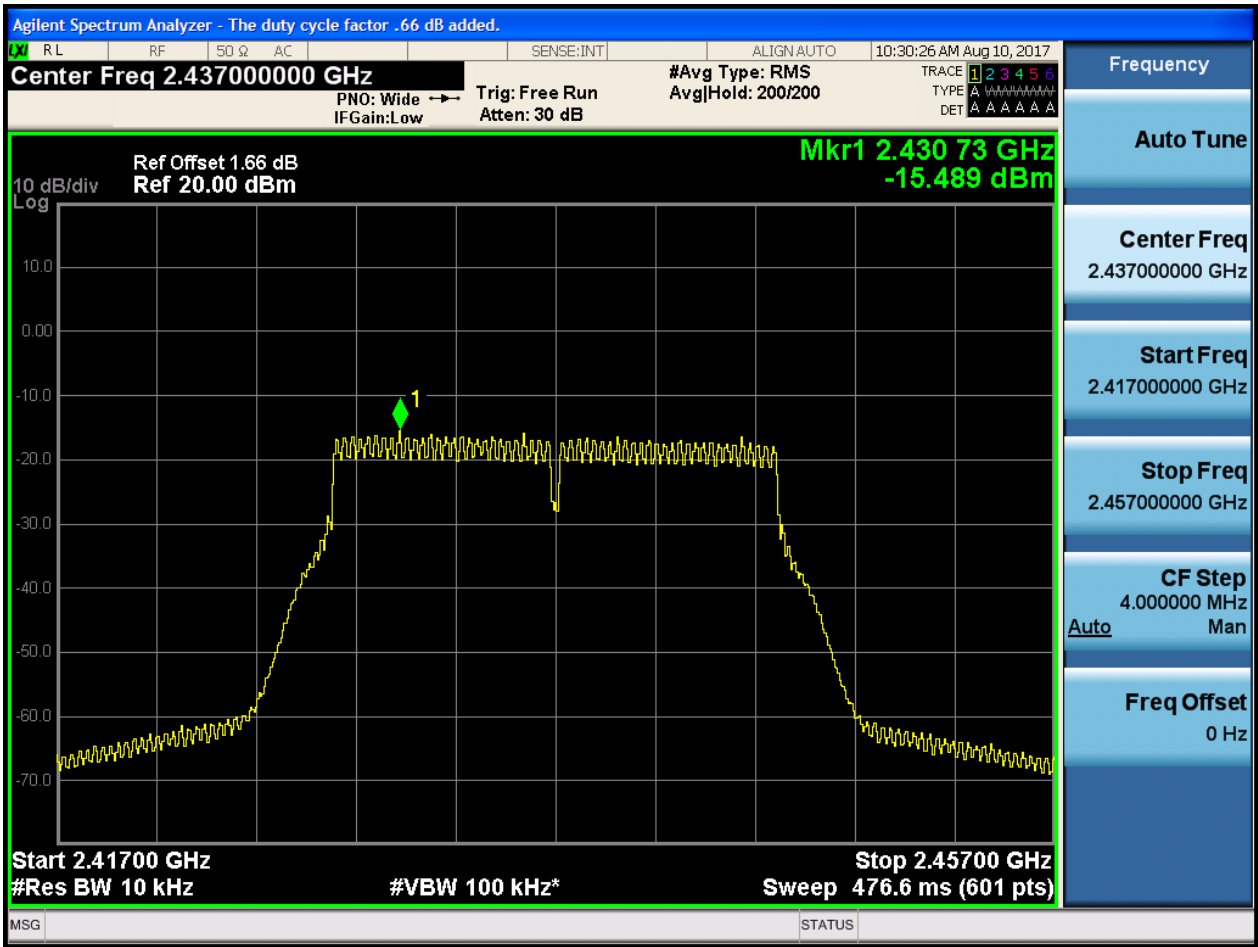


2.21 11N20m_M@Ant 1



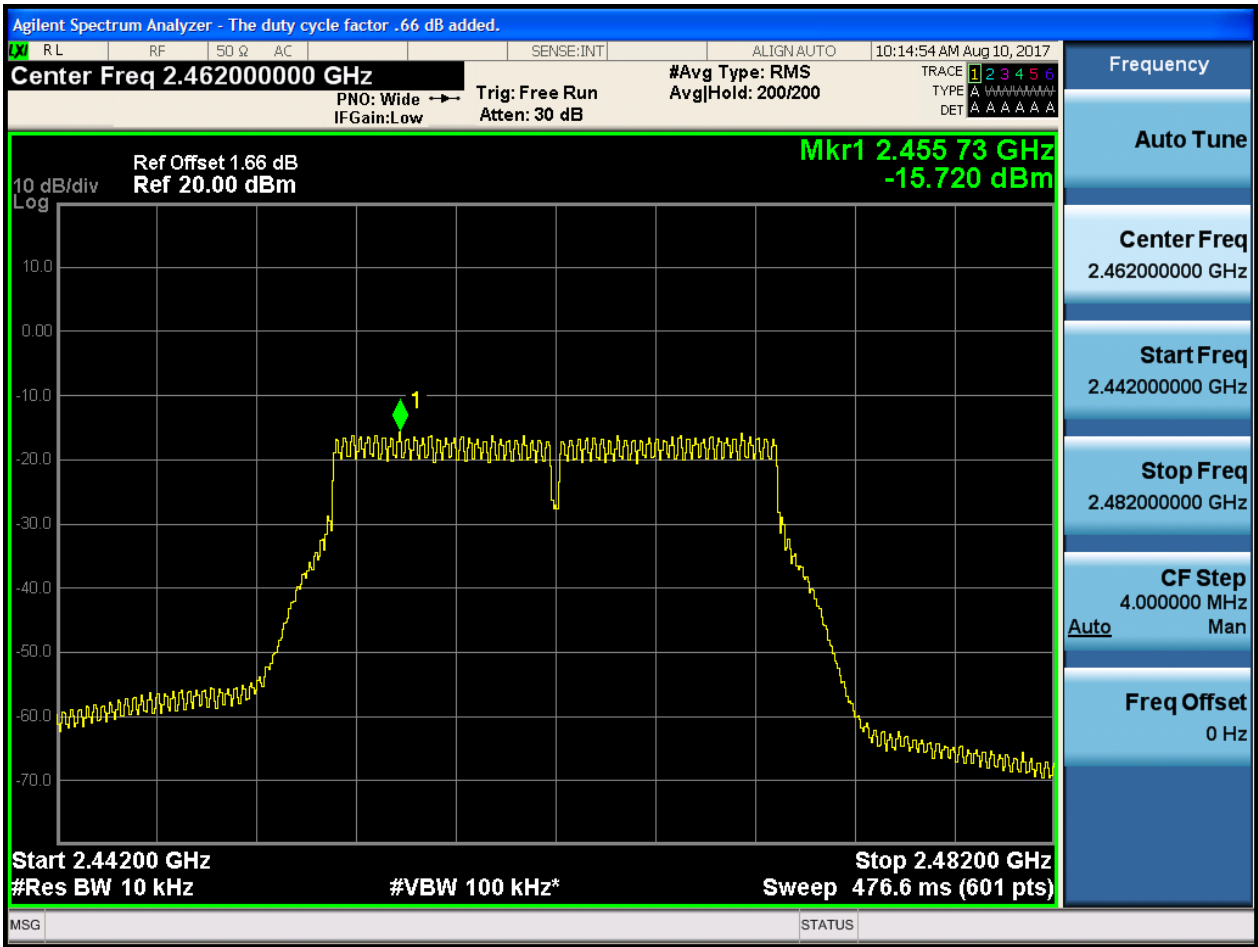


2.22 11N20m_M@Ant 2



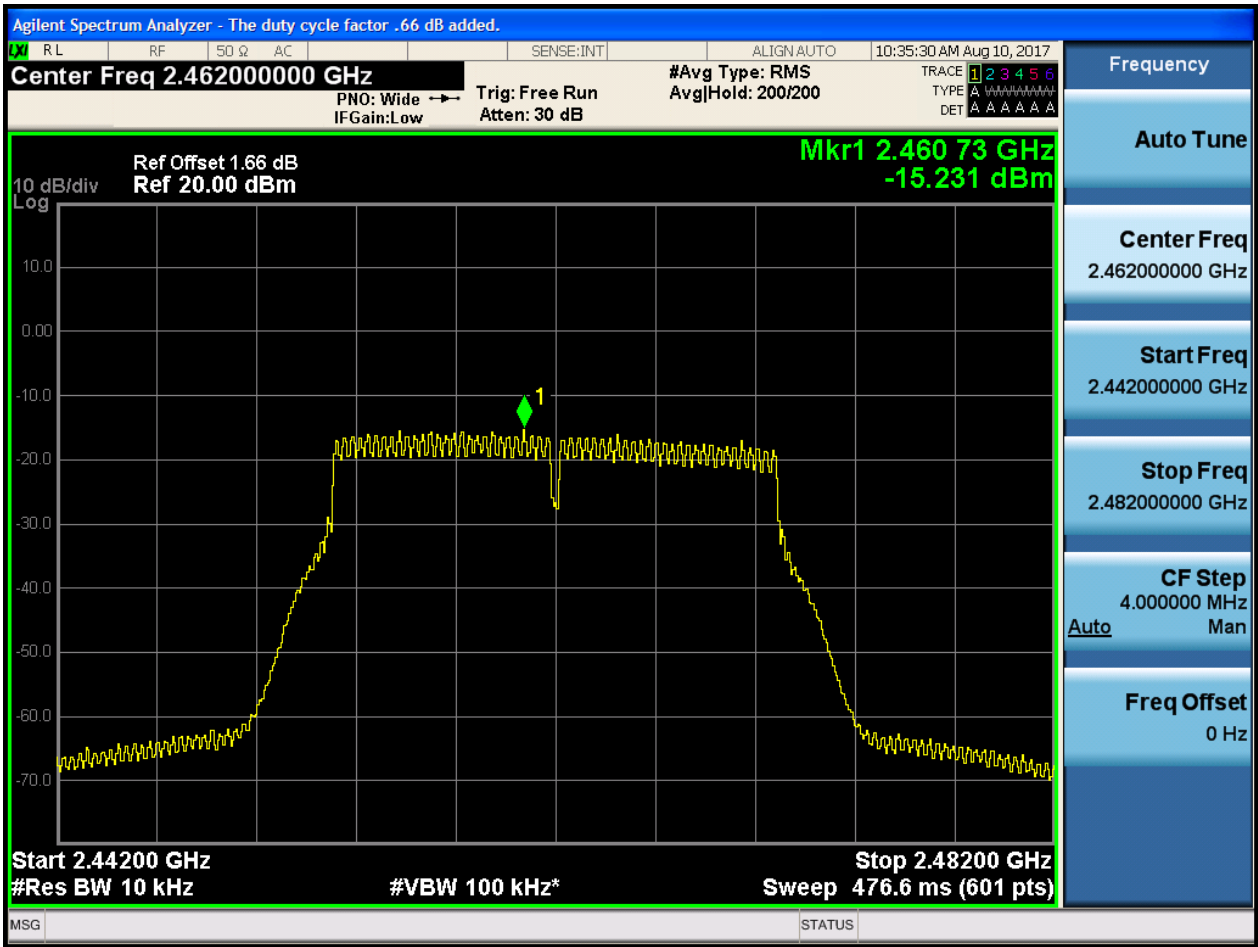


2.23 11N20m_H@Ant 1





2.24 11N20m_H@Ant 2





2.25 11G CDD L@Ant 1

