



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	8.13	pass
11B	L	2412	Ant 2	8.6	pass
11B	M	2437	Ant 1	8.14	pass
11B	M	2437	Ant 2	8.58	pass
11B	H	2462	Ant 1	8.56	pass
11B	H	2462	Ant 2	8.62	pass
11G	L	2412	Ant 1	15.39	pass
11G	L	2412	Ant 2	15.38	pass
11G	L	2417	Ant 1	15.55	pass
11G	L	2417	Ant 2	15.55	pass
11G	M	2437	Ant 1	15.81	pass
11G	M	2437	Ant 2	15.84	pass
11G	H	2457	Ant 1	15.89	pass
11G	H	2457	Ant 2	15.69	pass
11G	H	2462	Ant 1	15.5	pass
11G	H	2462	Ant 2	15.69	pass
11N20	L	2412	Ant 1	16.21	pass
11N20	L	2412	Ant 2	15.97	pass
11N20	L	2417	Ant 1	15.76	pass
11N20	L	2417	Ant 2	15.21	pass
11N20	M	2437	Ant 1	16.34	pass
11N20	M	2437	Ant 2	16.31	pass
11N20	H	2457	Ant 1	15.67	pass
11N20	H	2457	Ant 2	16.23	pass
11N20	H	2462	Ant 1	15.98	pass
11N20	H	2462	Ant 2	16.93	pass



11N20m	L	2412	Ant 1	15.98	pass
11N20m	L	2412	Ant 2	15.99	pass
11N20m	L	2417	Ant 1	16.32	pass
11N20m	L	2417	Ant 2	16.79	pass
11N20m	M	2437	Ant 1	15.75	pass
11N20m	M	2437	Ant 2	16.67	pass
11N20m	H	2457	Ant 1	16.27	pass
11N20m	H	2457	Ant 2	16.46	pass
11N20m	H	2462	Ant 1	15.66	pass
11N20m	H	2462	Ant 2	16.85	pass
11N40	L	2422	Ant 1	35.99	pass
11N40	L	2422	Ant 2	35.51	pass
11N40	L	2427	Ant 1	36.16	pass
11N40	L	2427	Ant 2	36.13	pass
11N40	M	2437	Ant 1	36.36	pass
11N40	M	2437	Ant 2	36.13	pass
11N40	H	2447	Ant 1	35.88	pass
11N40	H	2447	Ant 2	35.89	pass
11N40	H	2452	Ant 1	35.89	pass
11N40	H	2452	Ant 2	36.28	pass
11N40m	L	2422	Ant 1	35.97	pass
11N40m	L	2422	Ant 2	35.78	pass
11N40m	L	2427	Ant 1	36.35	pass
11N40m	L	2427	Ant 2	36.39	pass
11N40m	M	2437	Ant 1	35.93	pass
11N40m	M	2437	Ant 2	36.37	pass
11N40m	H	2447	Ant 1	35.76	pass
11N40m	H	2447	Ant 2	36.3	pass
11N40m	H	2452	Ant 1	35.58	pass
11N40m	H	2452	Ant 2	36.36	pass
11G CDD	L	2412	Ant 1	15.58	pass
11G CDD	L	2412	Ant 2	15.47	pass
11G CDD	L	2417	Ant 1	15.71	pass
11G CDD	L	2417	Ant 2	15.66	pass
11G CDD	M	2437	Ant 1	15.51	pass
11G CDD	M	2437	Ant 2	15.51	pass
11G CDD	H	2457	Ant 1	15.51	pass
11G CDD	H	2457	Ant 2	15.52	pass
11G CDD	H	2462	Ant 1	15.54	pass
11G CDD	H	2462	Ant 2	16.07	pass





2.2 11B_L_2412@Ant 2





2.3 11B_M_2437@Ant 1





2.4 11B_M_2437@Ant 2





2.5 11B_H_2462@Ant 1





2.6 11B_H_2462@Ant 2





2.7 11G_L_2412@Ant 1





2.8 11G_L_2412@Ant 2



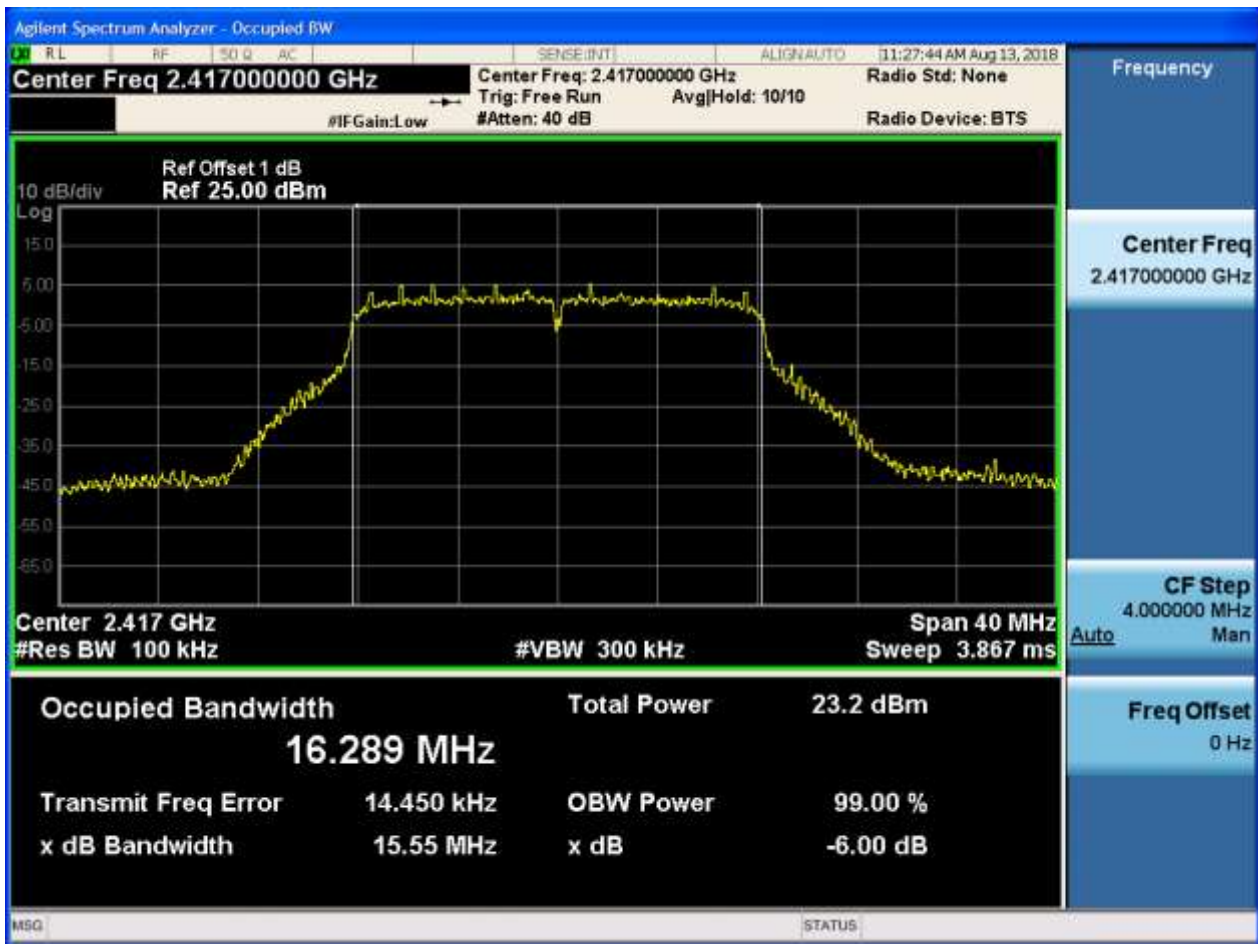


2.9 11G_L_2417@Ant 1





2.10 11G_L_2417@Ant 2





2.11 11G_M_2437@Ant 1





2.12 11G_M_2437@Ant 2





2.13 11G_H_2457@Ant 1





2.14 11G_H_2457@Ant 2





2.15 11G_H_2462@Ant 1



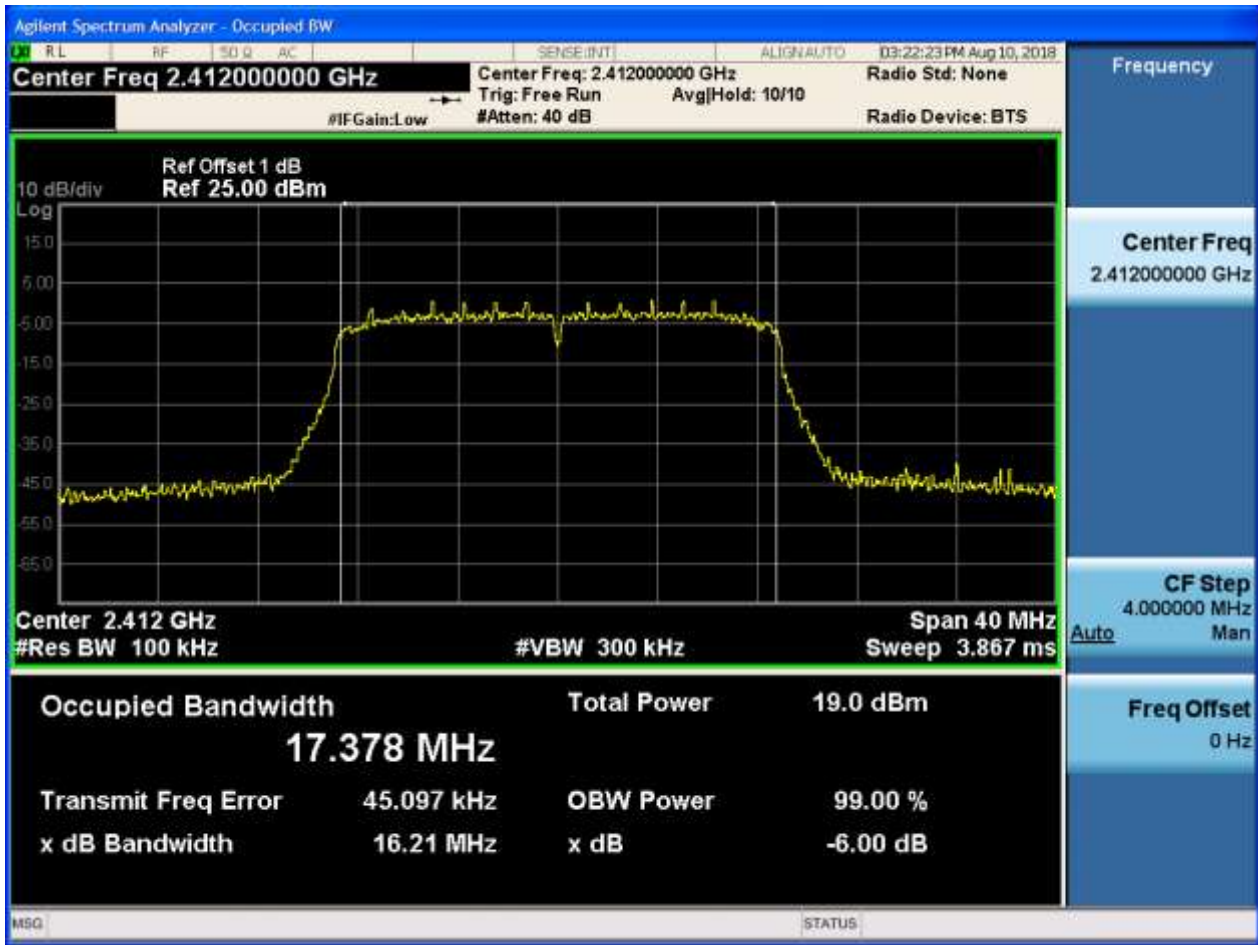


2.16 11G_H_2462@Ant 2



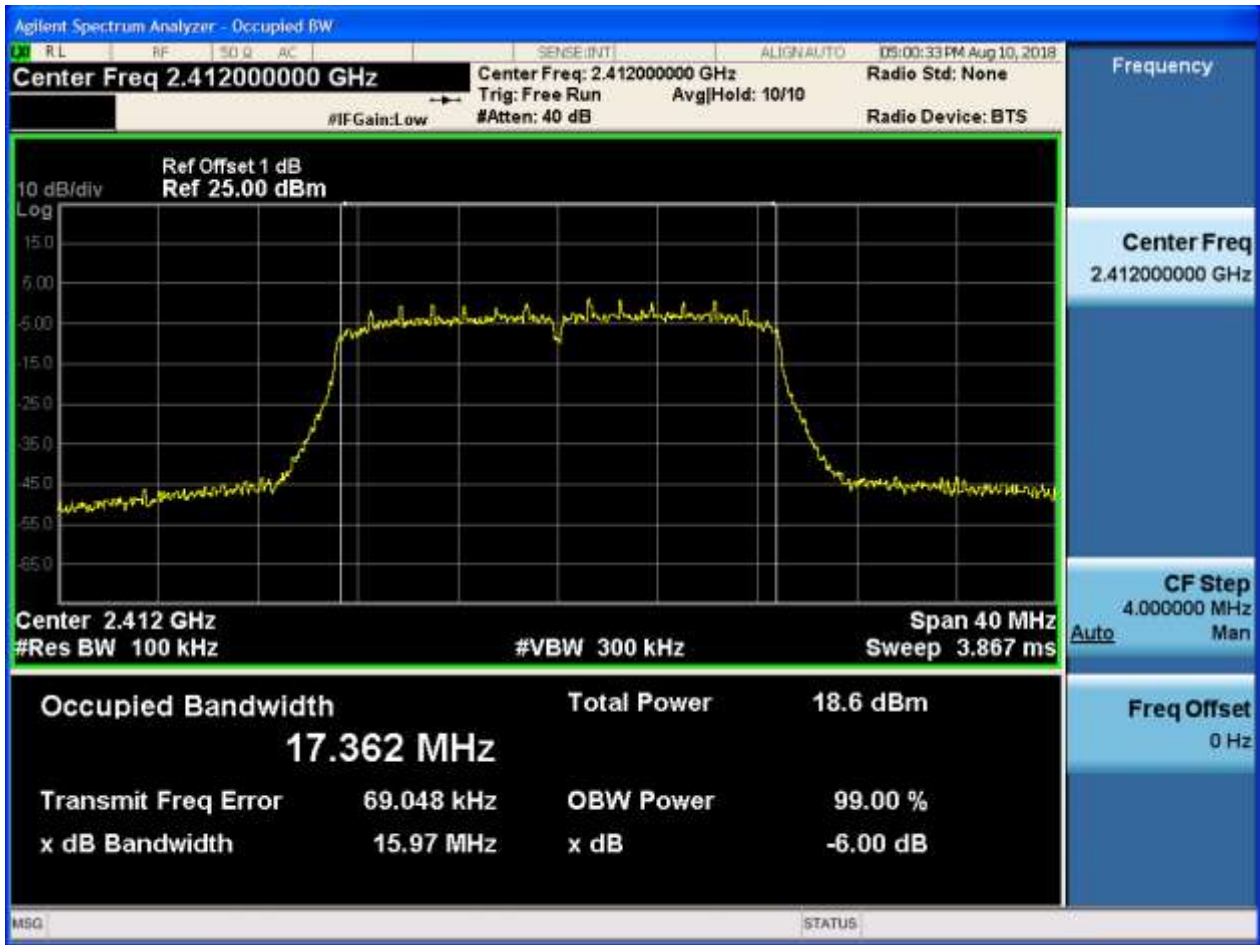


2.17 11N20_L_2412@Ant 1



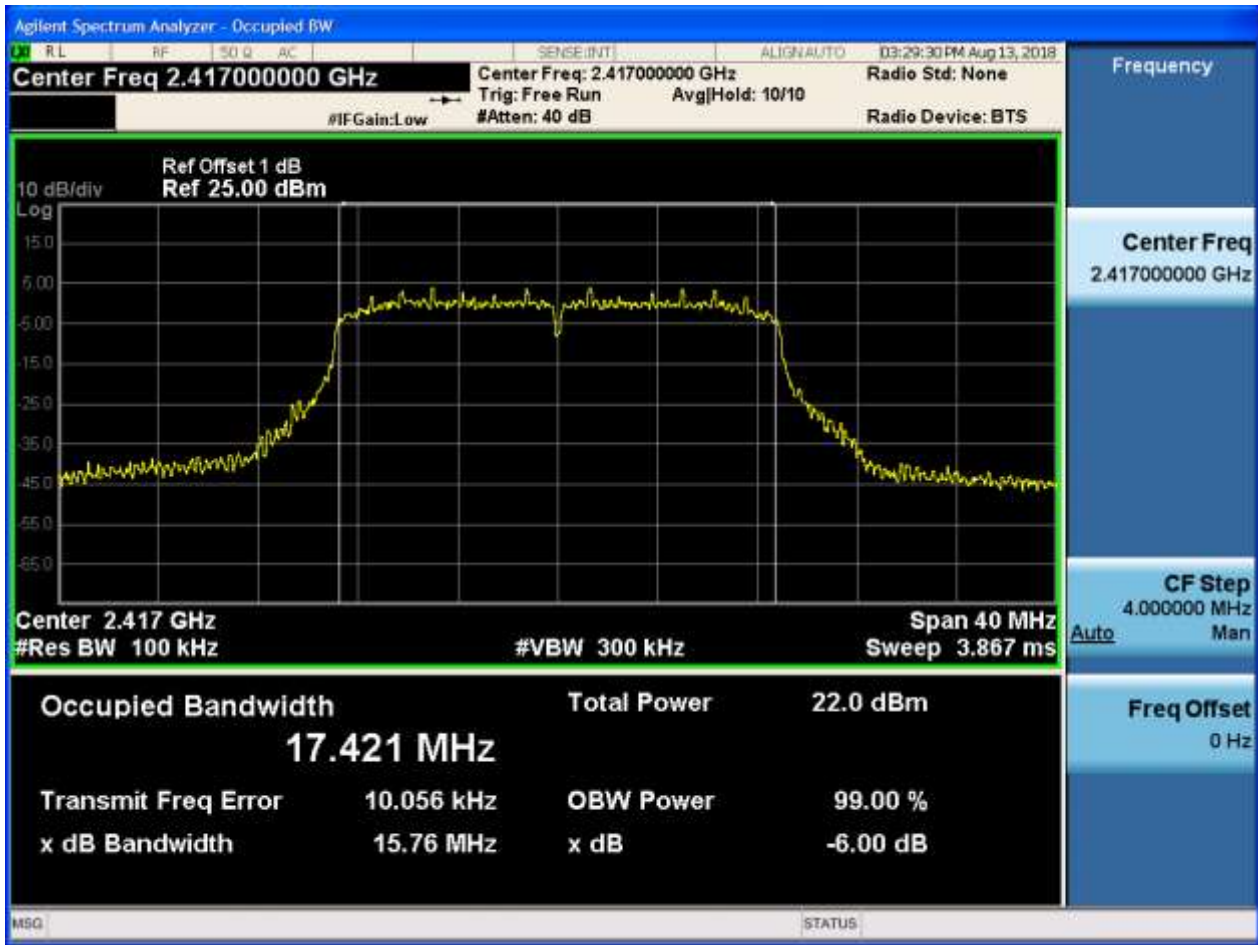


2.18 11N20_L_2412@Ant 2



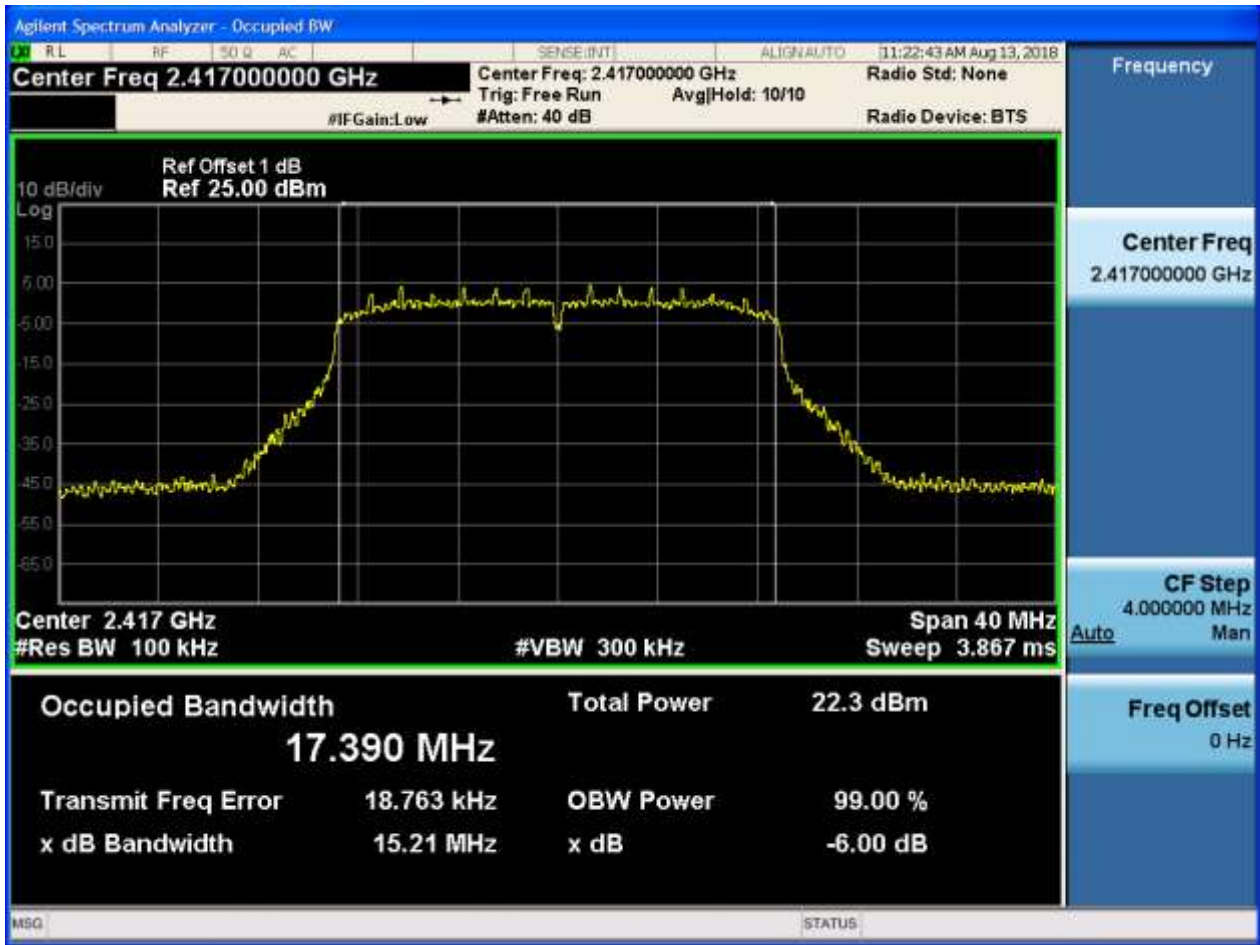


2.19 11N20_L_2417@Ant 1



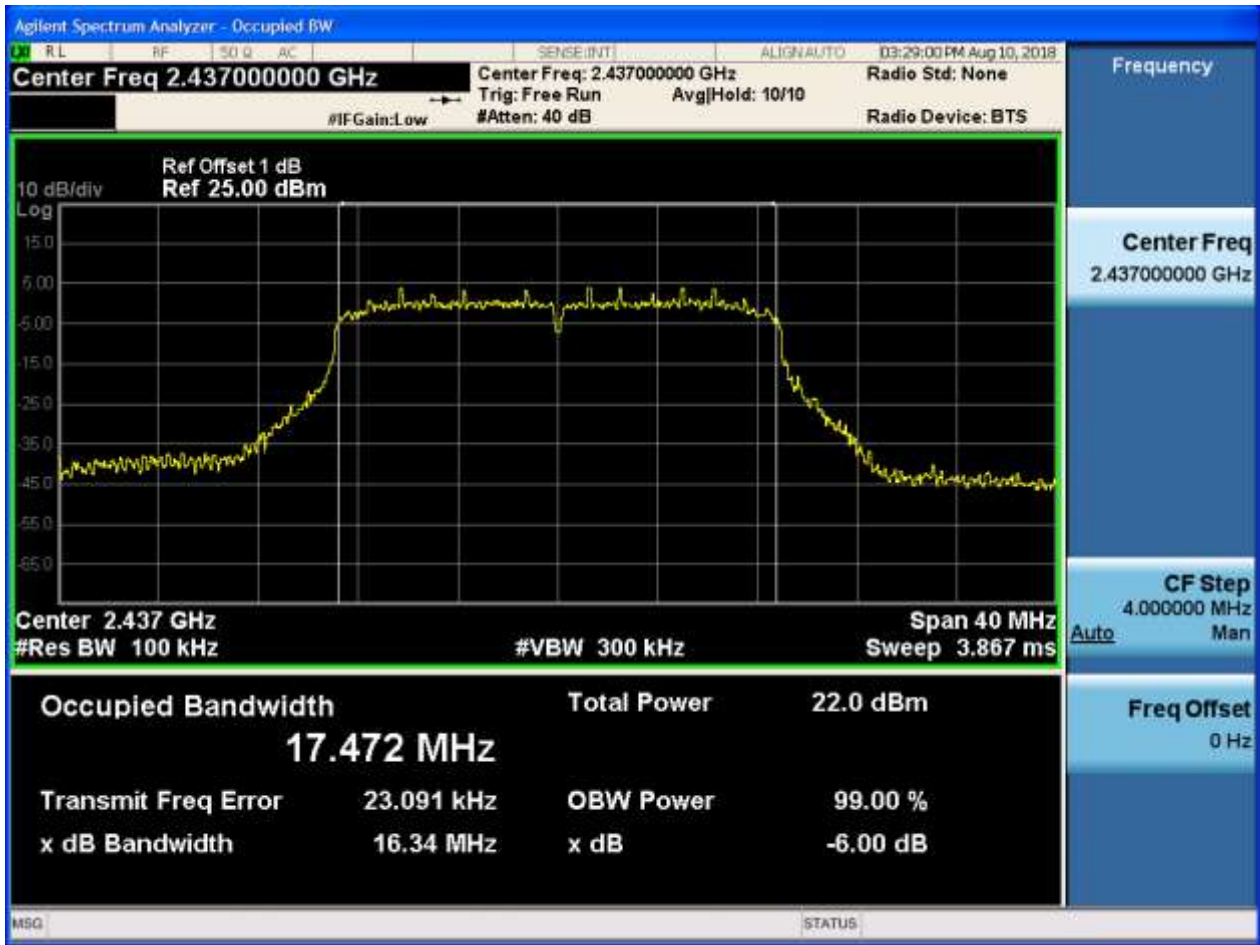


2.20 11N20_L_2417@Ant 2



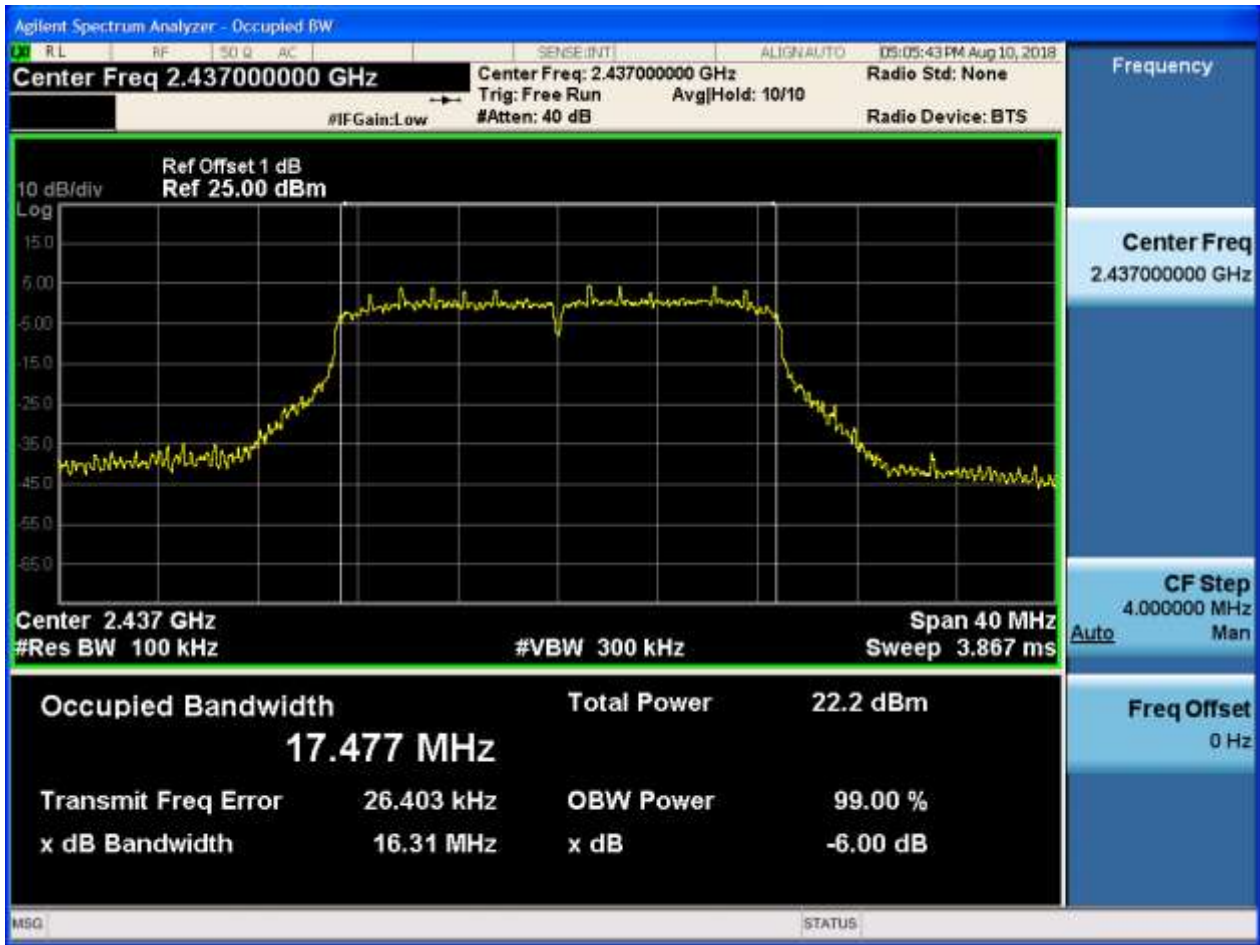


2.21 11N20_M_2437@Ant 1



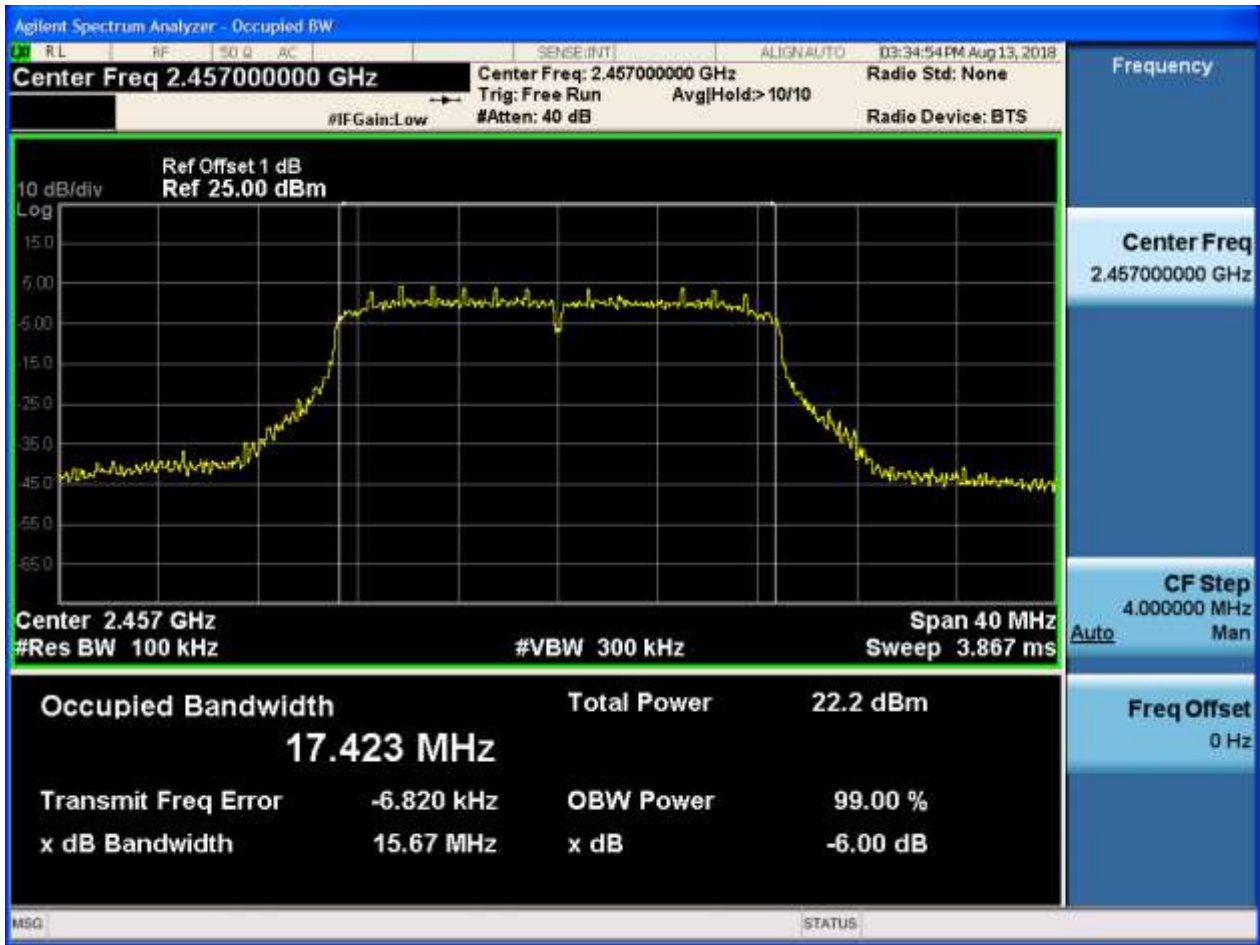


2.22 11N20_M_2437@Ant 2





2.23 11N20_H_2457@Ant 1





2.24 11N20_H_2457@Ant 2



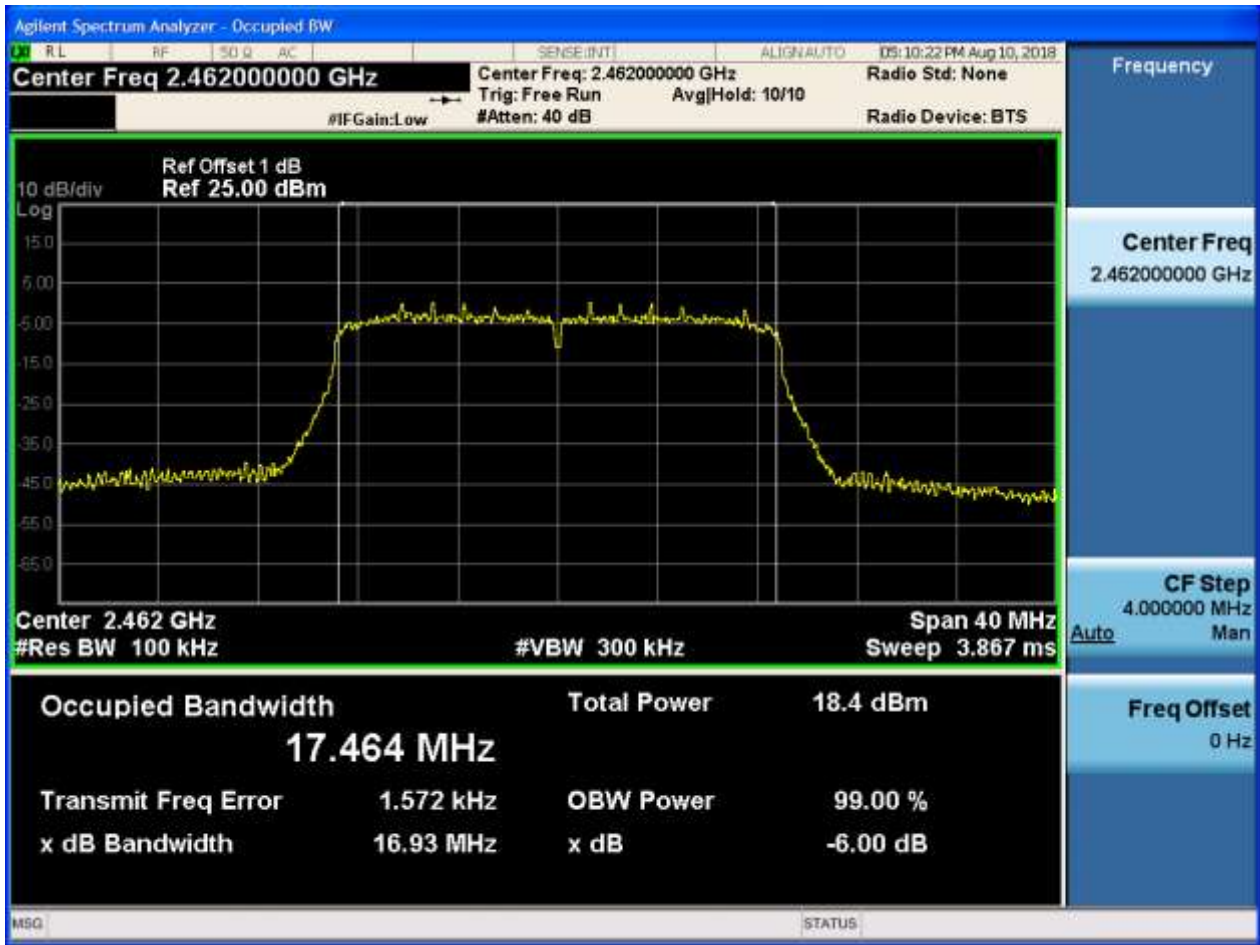


2.25 11N20_H_2462@Ant 1



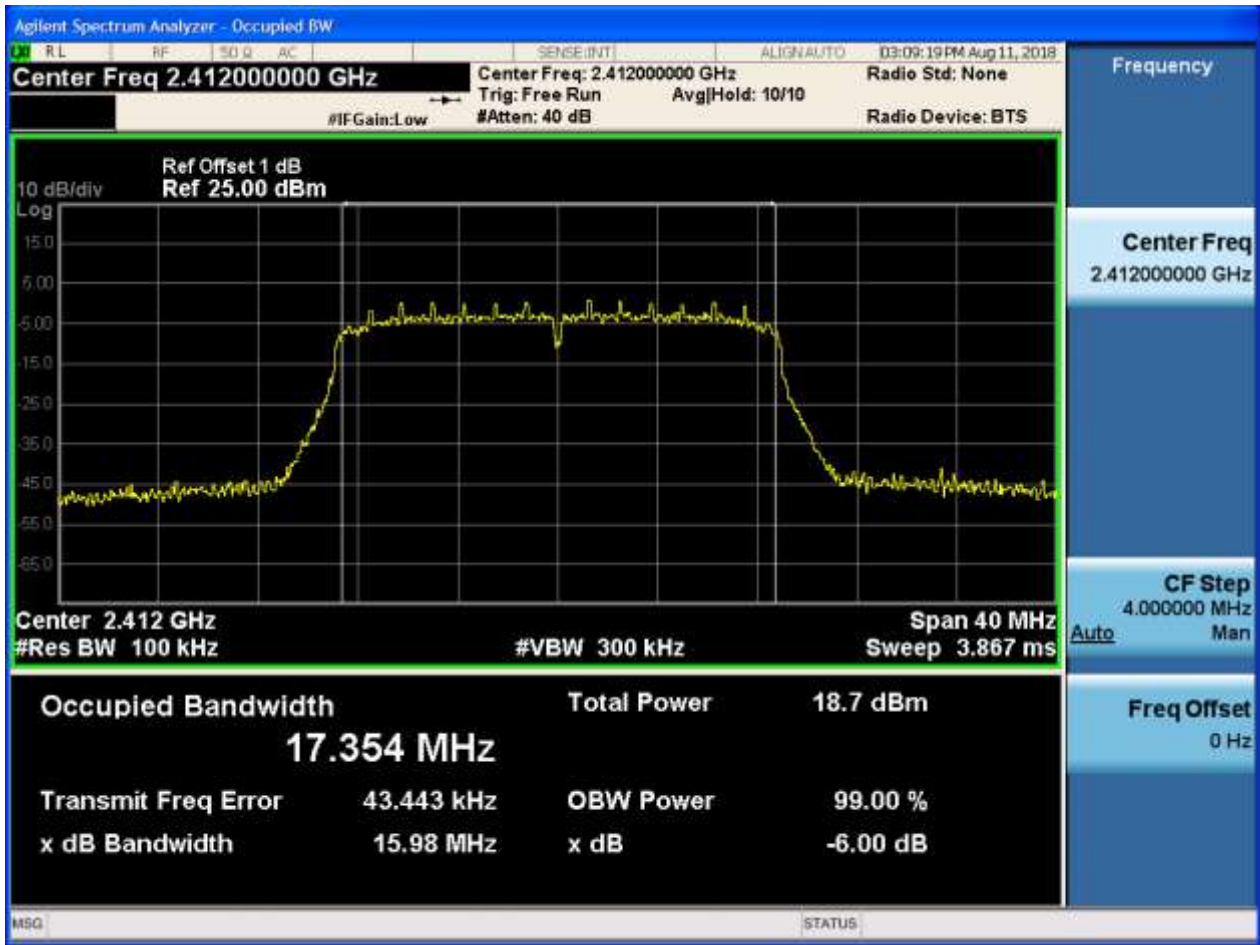


2.26 11N20_H_2462@Ant 2



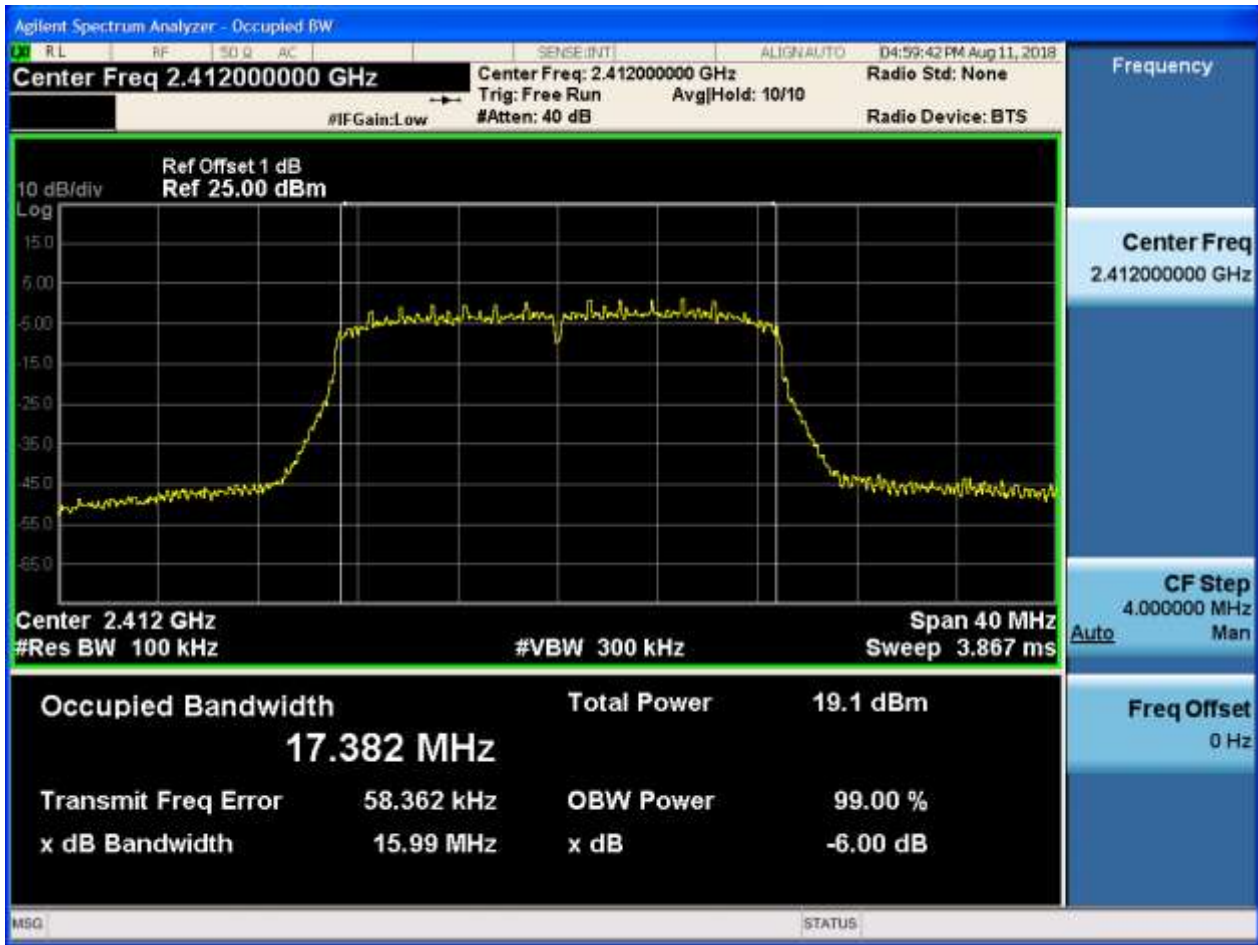


2.27 11N20m_L_2412@Ant 1



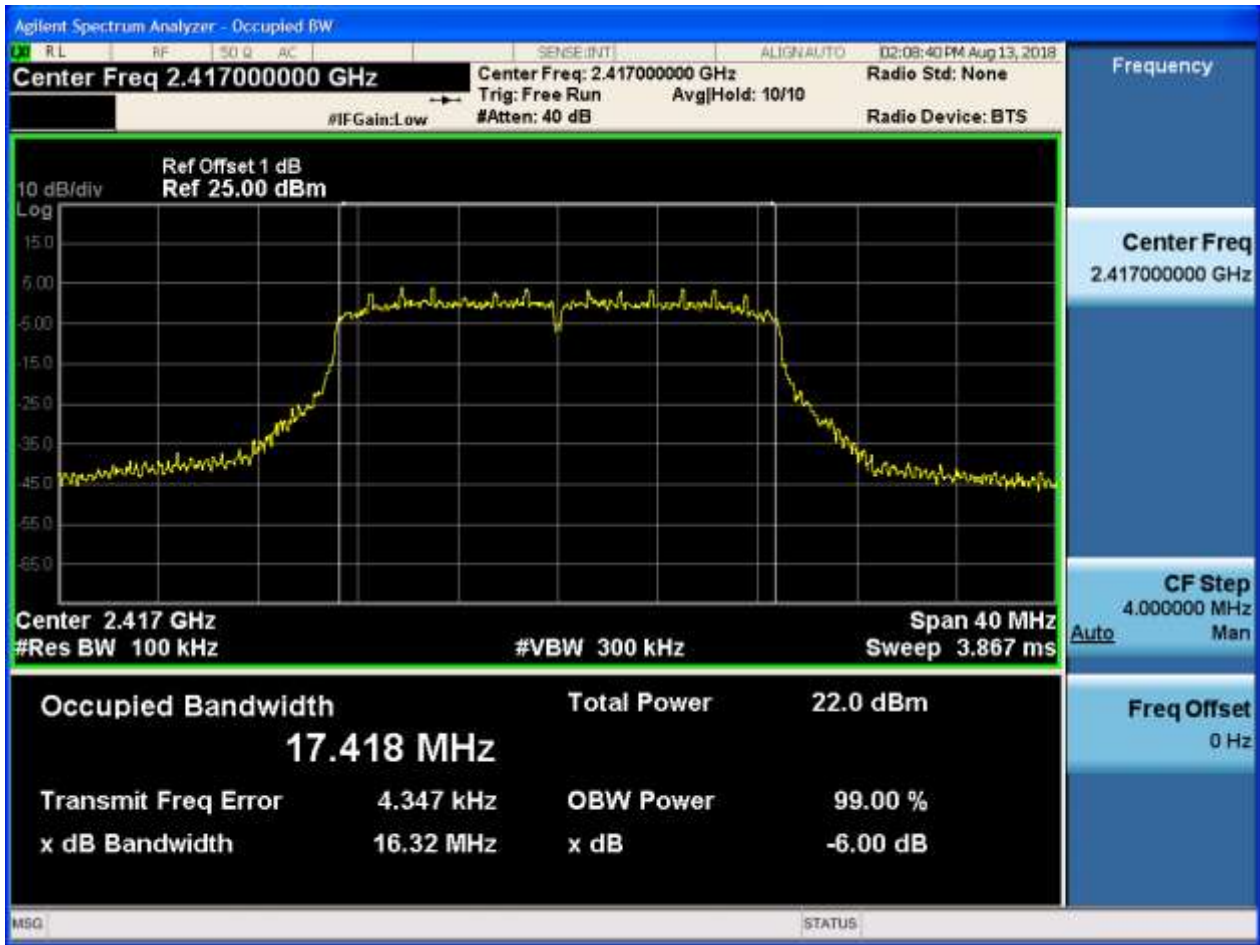


2.28 11N20m_L_2412@Ant 2



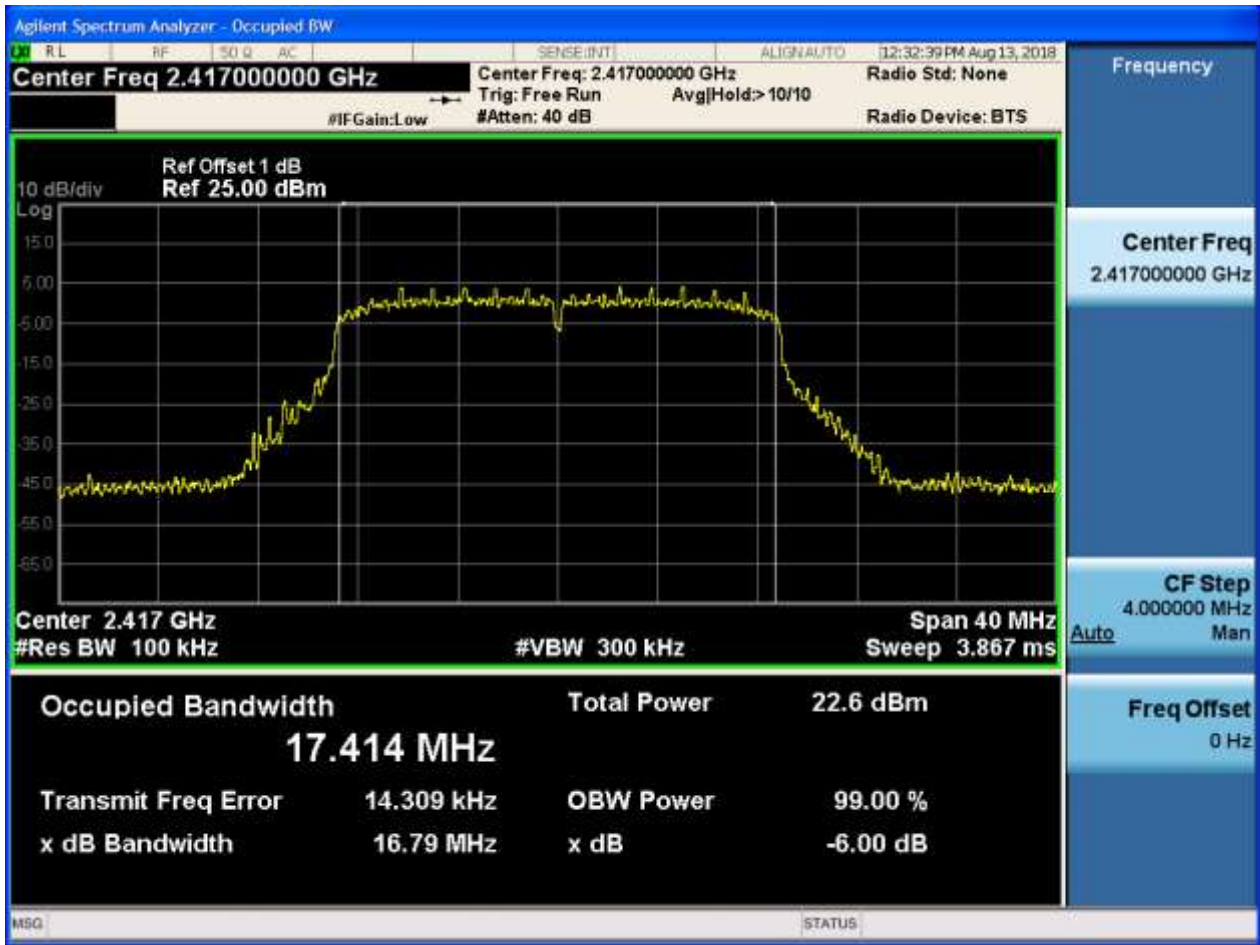


2.29 11N20m_L_2417@Ant 1



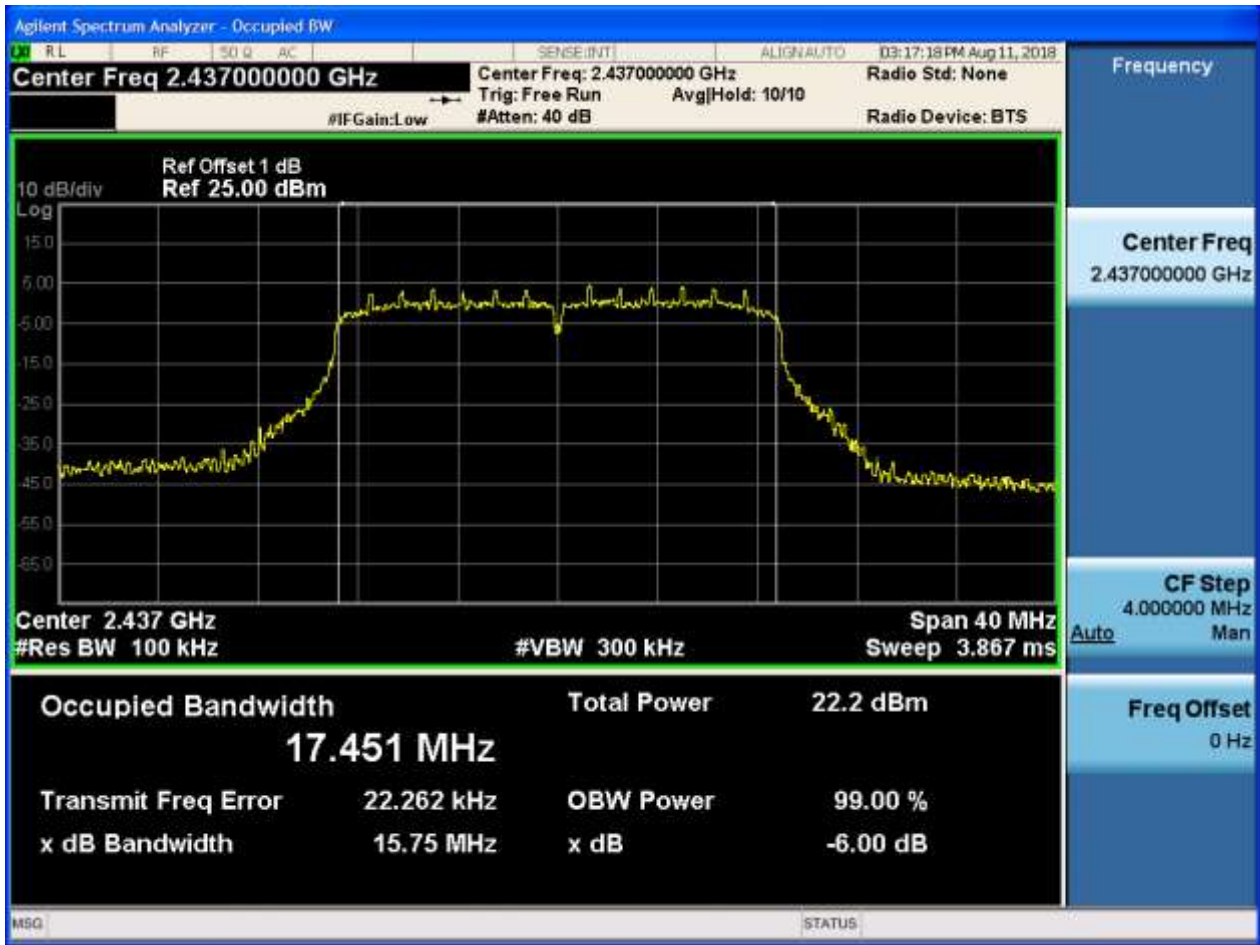


2.30 11N20m_L_2417@Ant 2





2.31 11N20m_M_2437@Ant 1



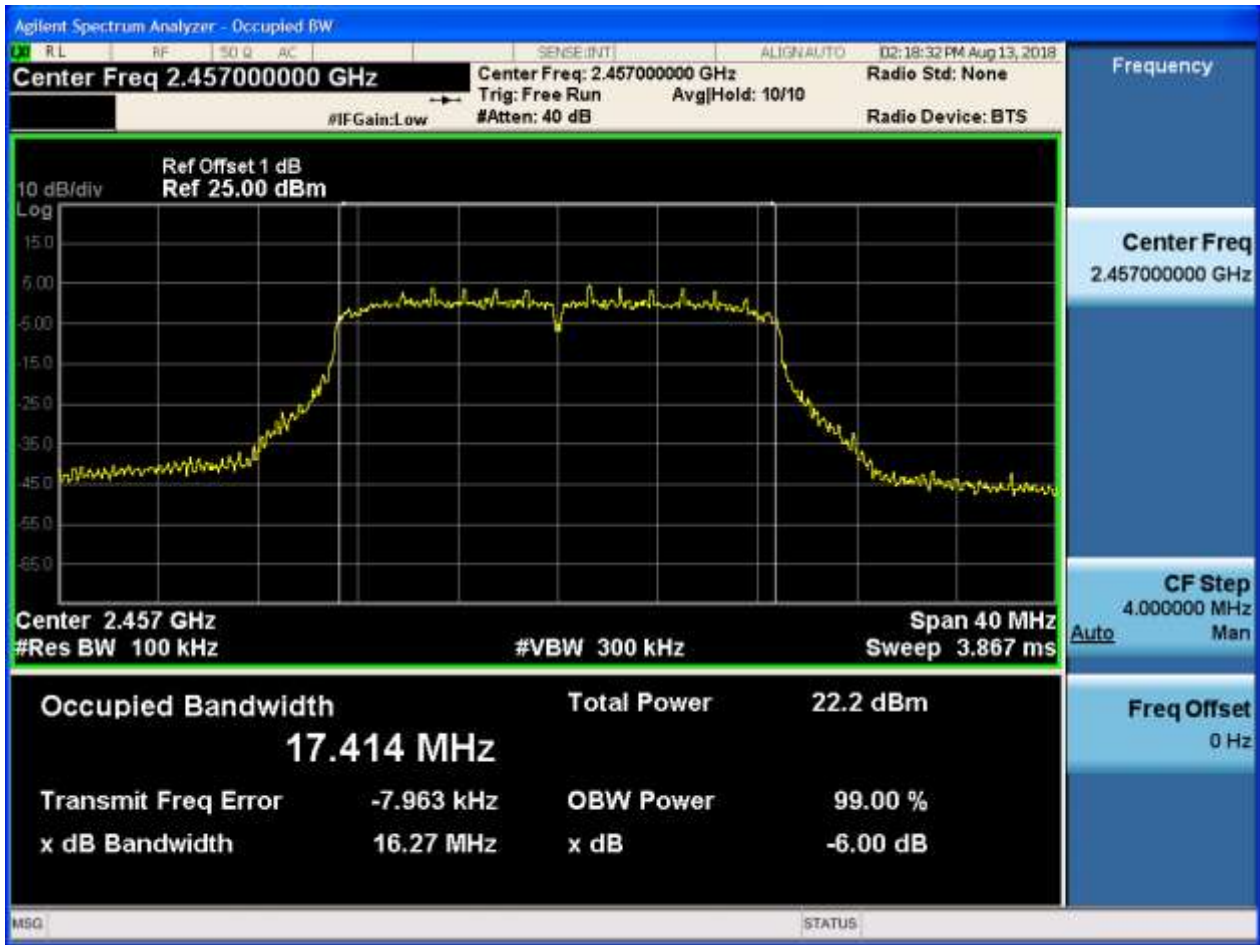


2.32 11N20m_M_2437@Ant 2





2.33 11N20m_H_2457@Ant 1



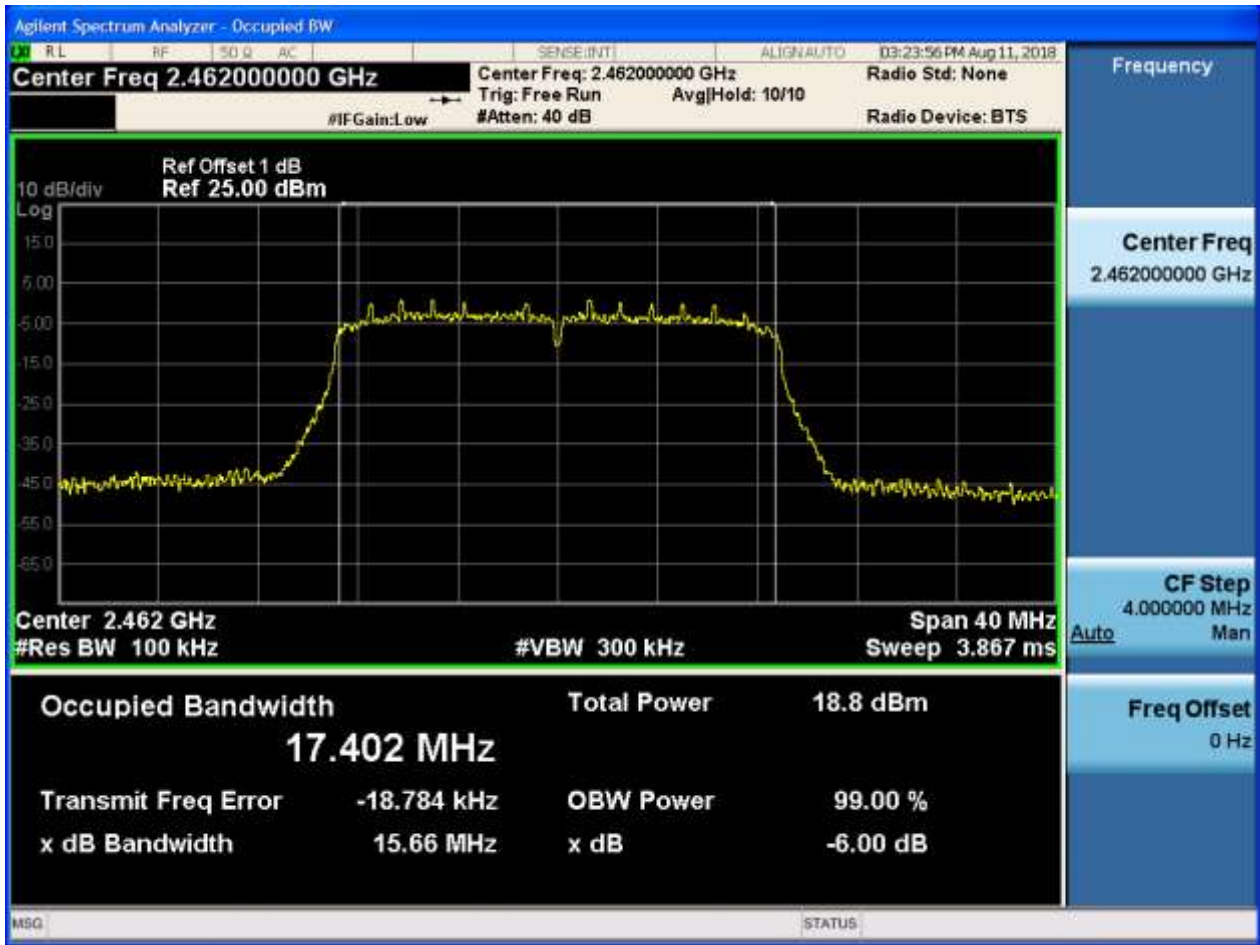


2.34 11N20m_H_2457@Ant 2



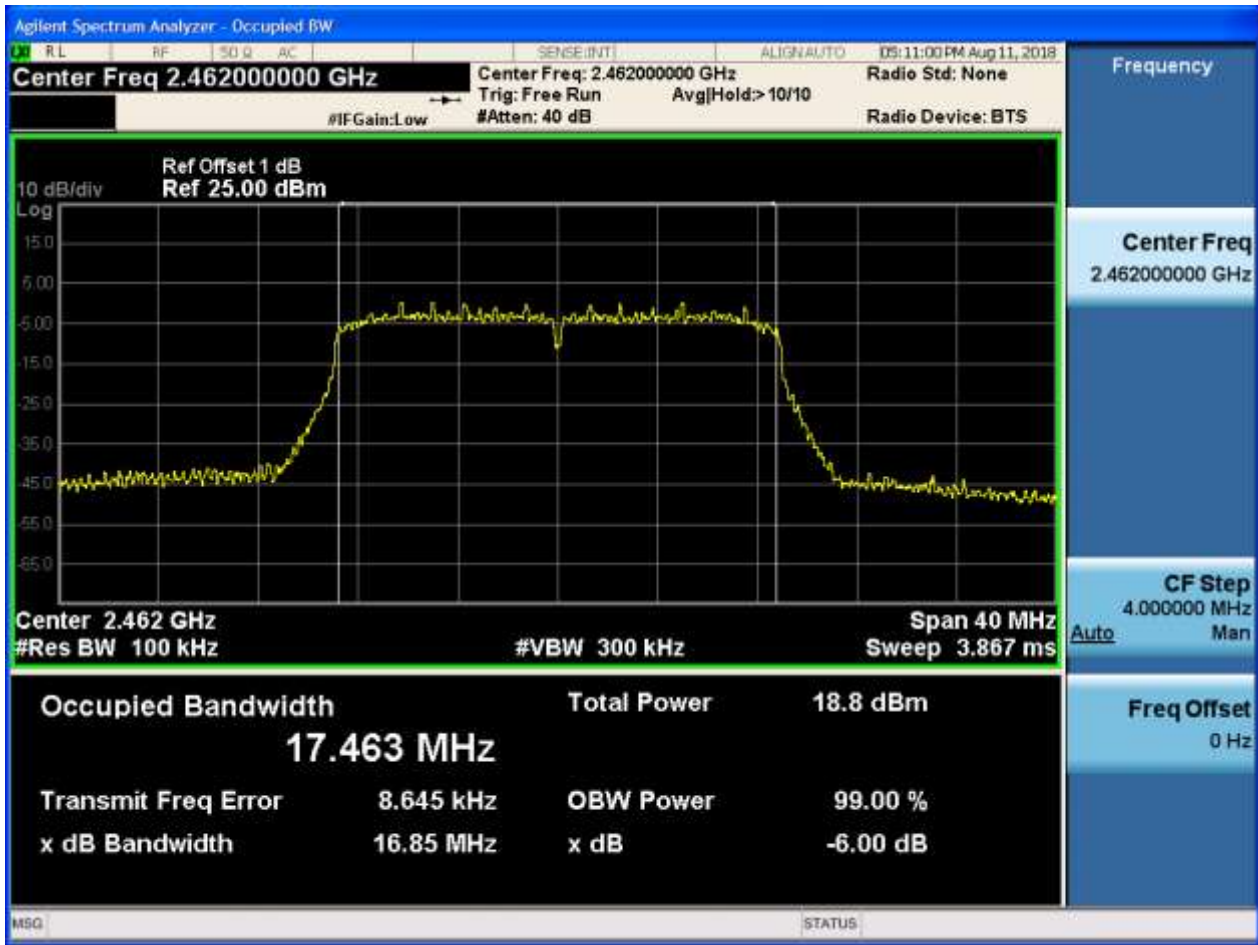


2.35 11N20m_H_2462@Ant 1



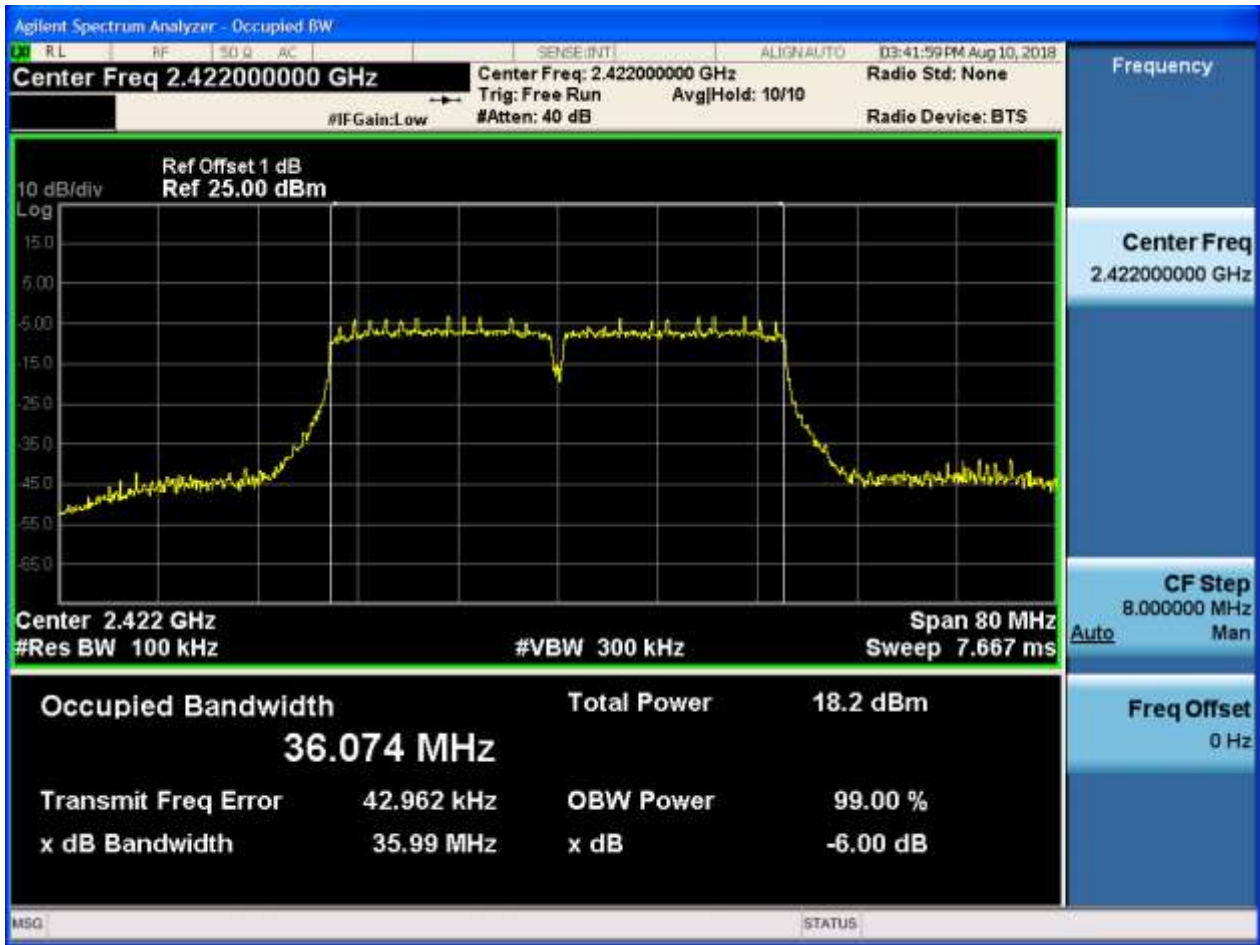


2.36 11N20m_H_2462@Ant 2



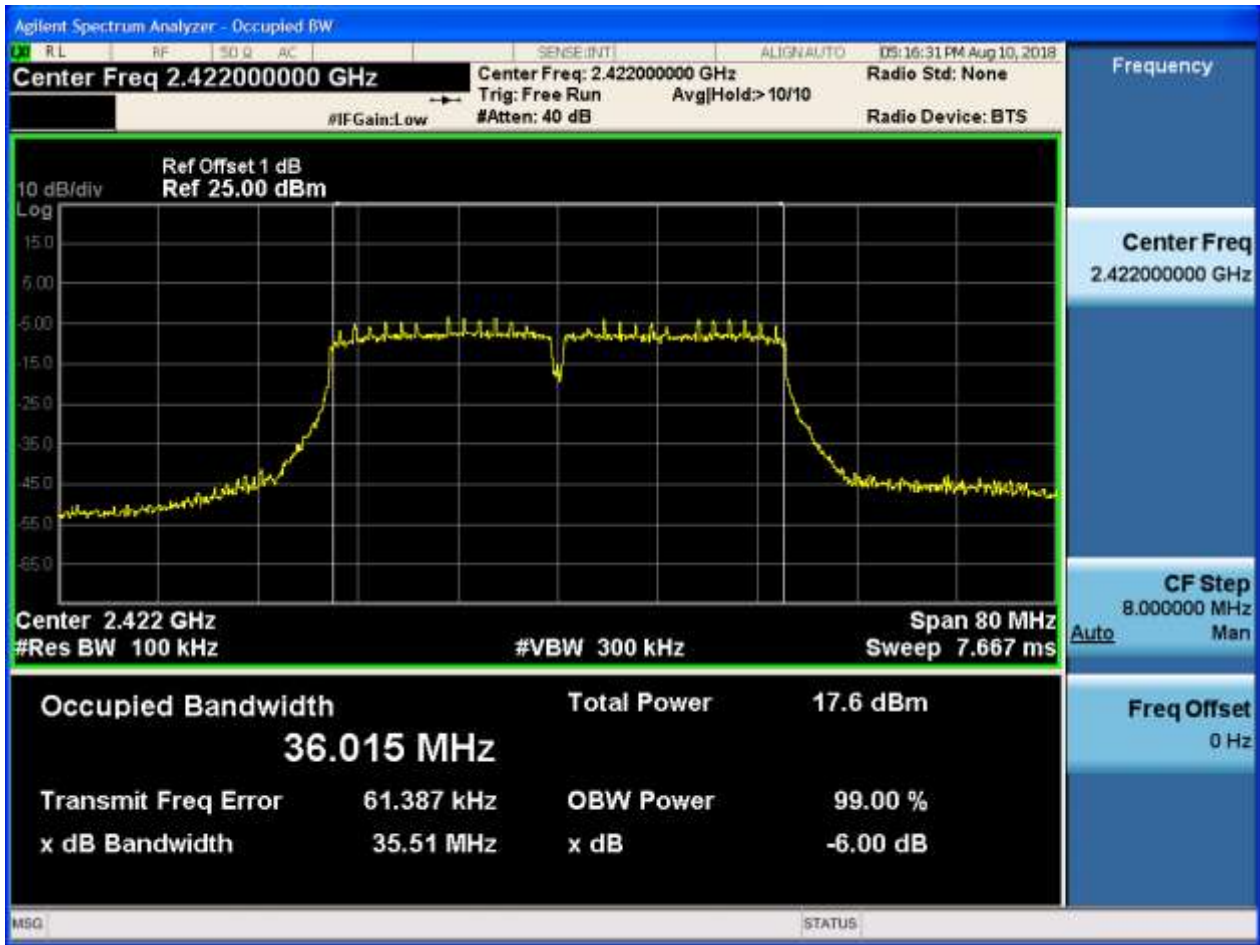


2.37 11N40_L_2422@Ant 1



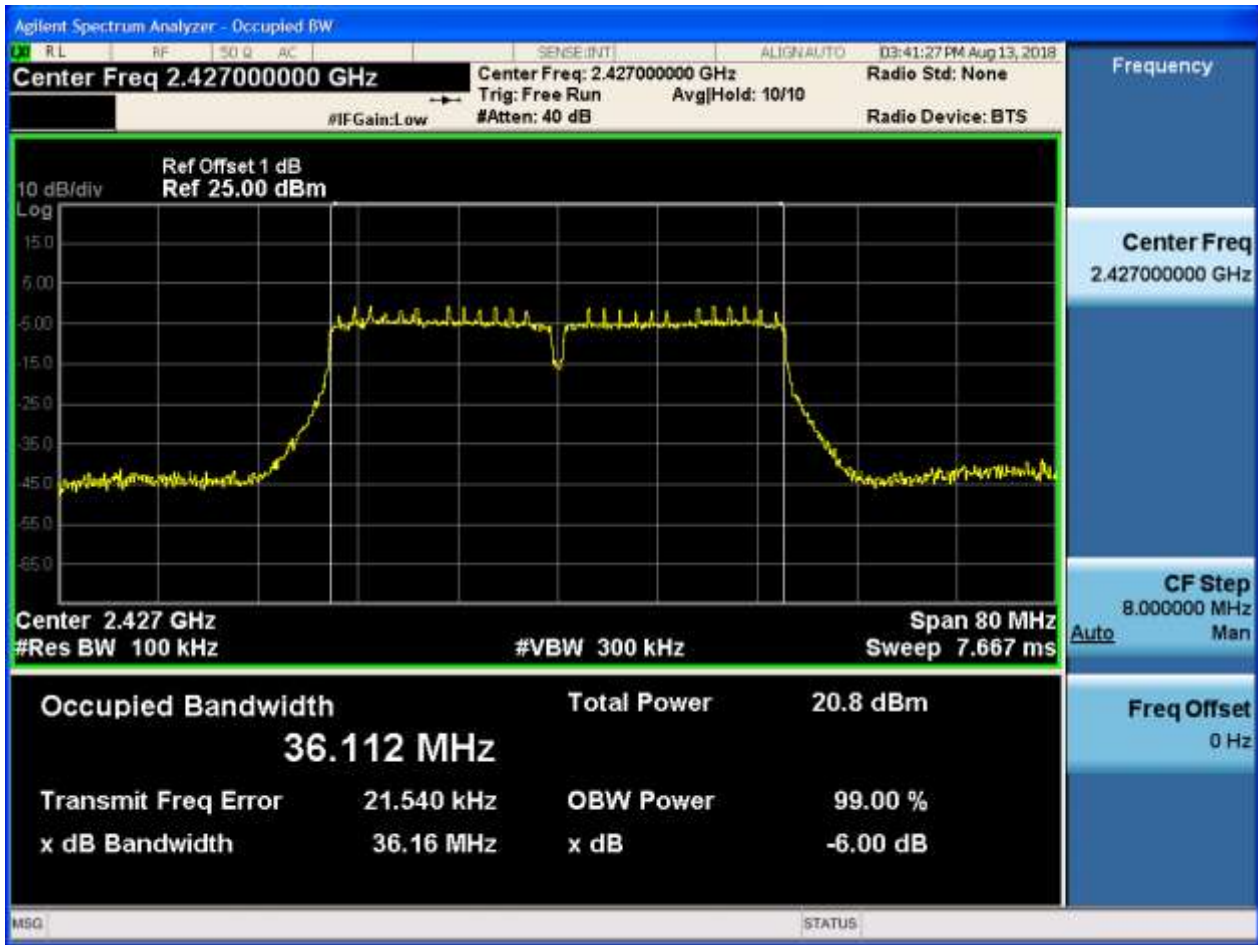


2.38 11N40_L_2422@Ant 2



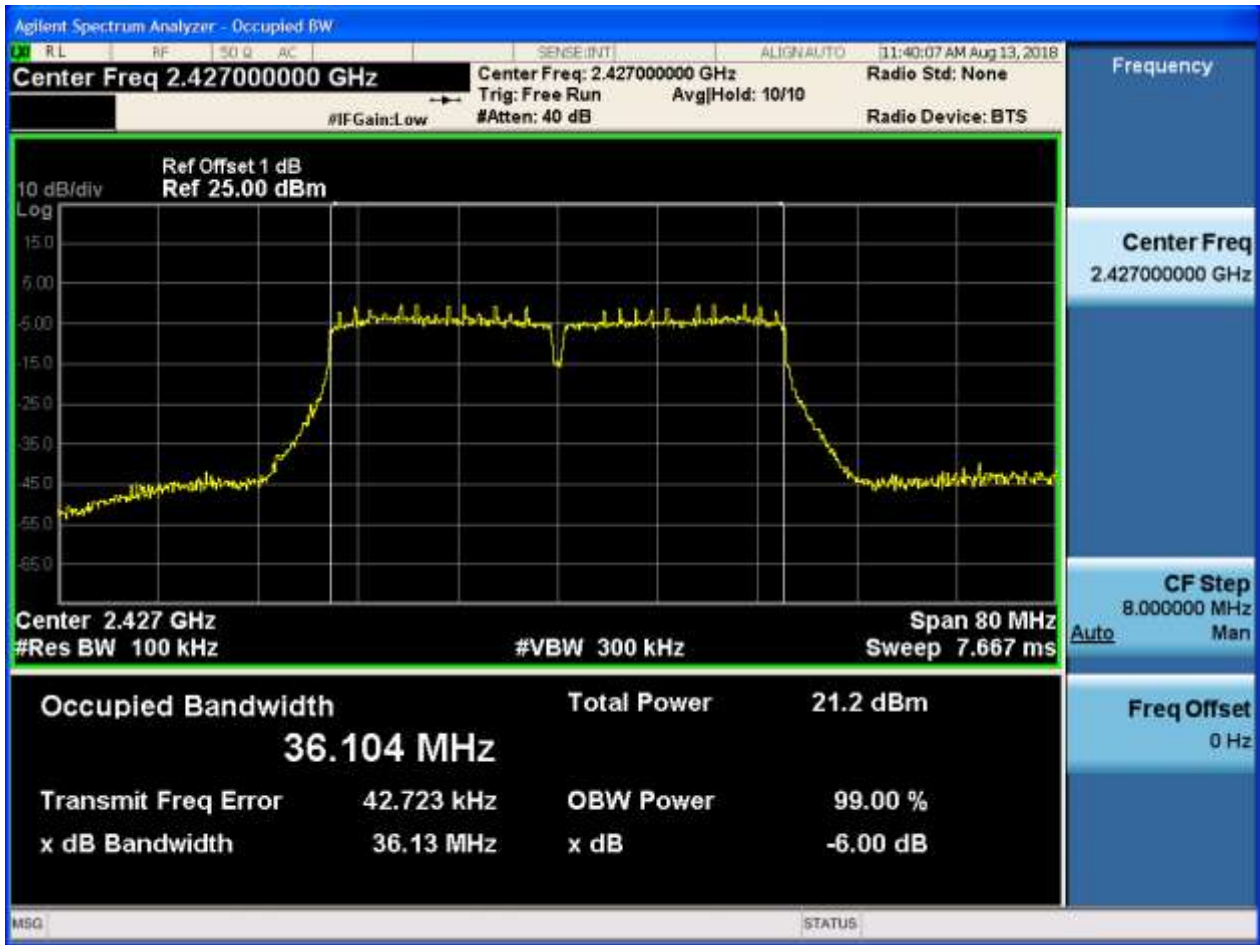


2.39 11N40_L_2427@Ant 1



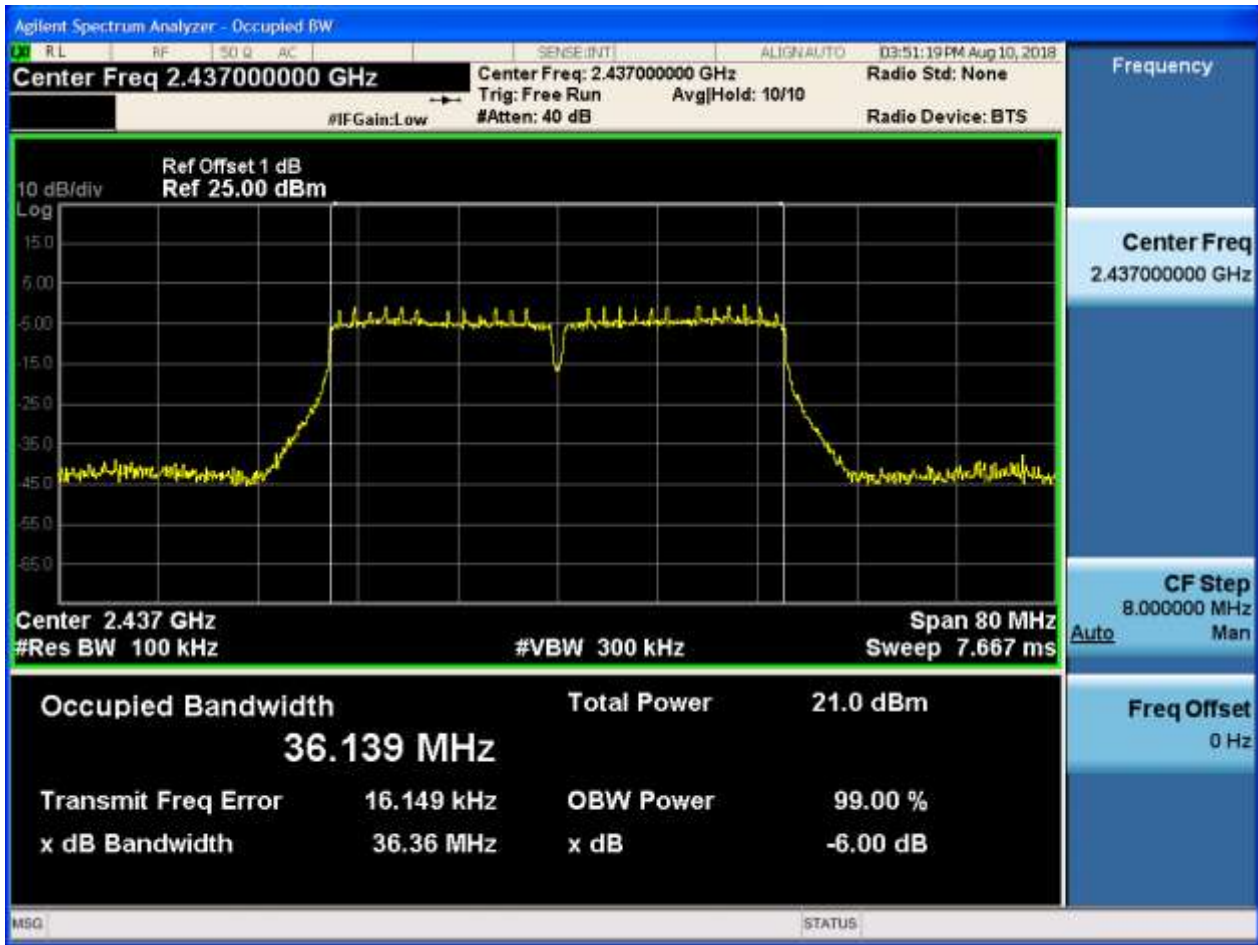


2.40 11N40_L_2427@Ant 2



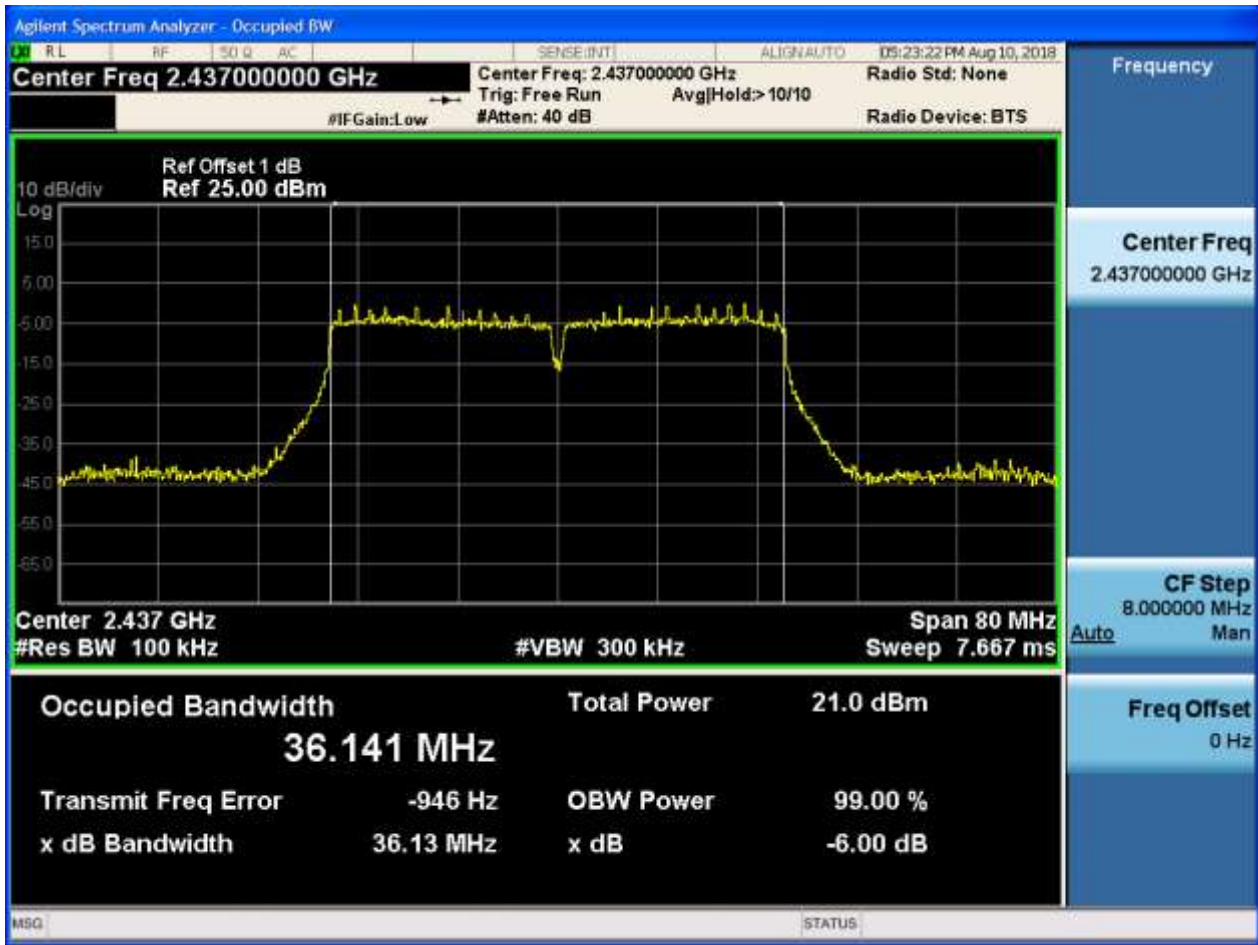


2.41 11N40_M_2437@Ant 1



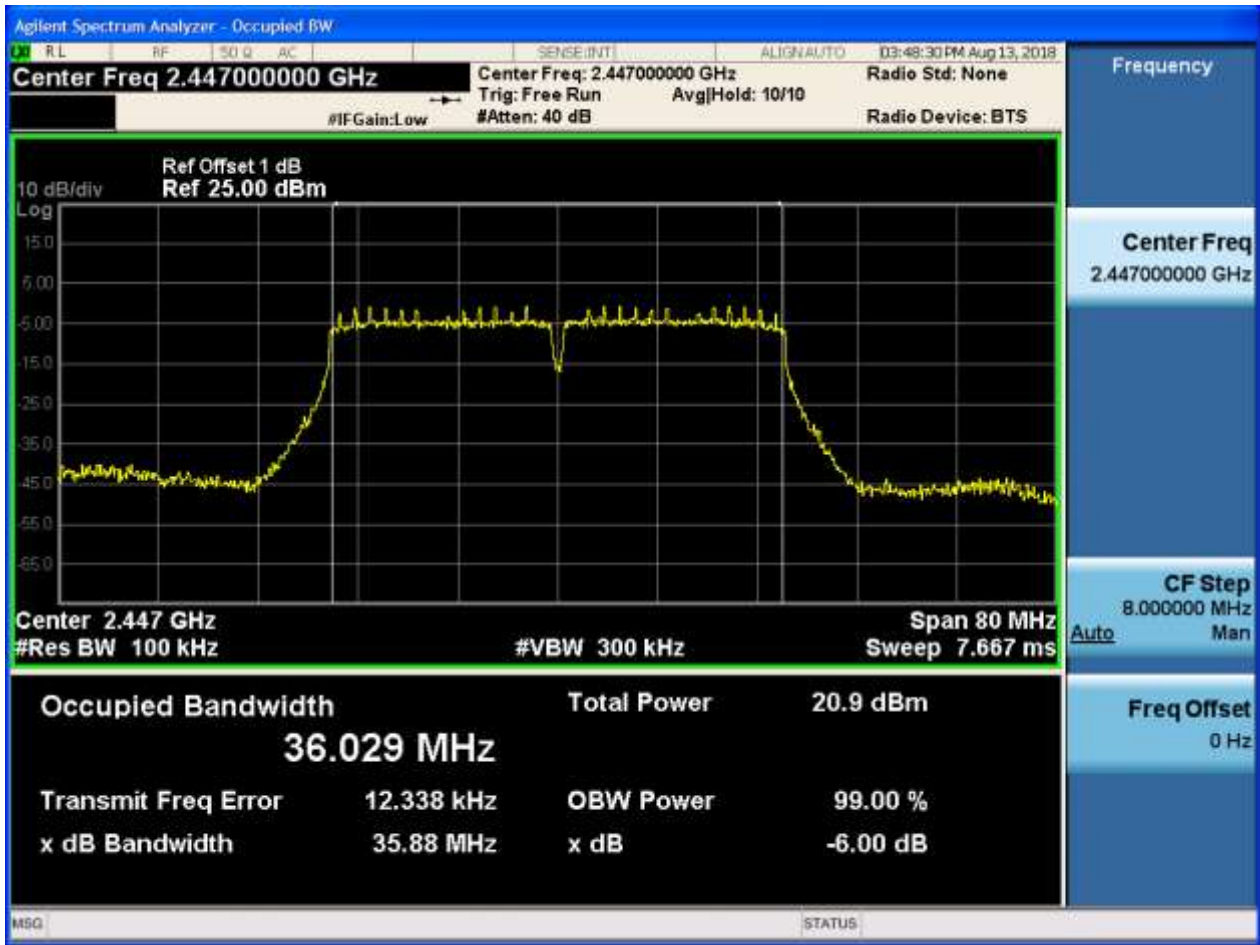


2.42 11N40_M_2437@Ant 2



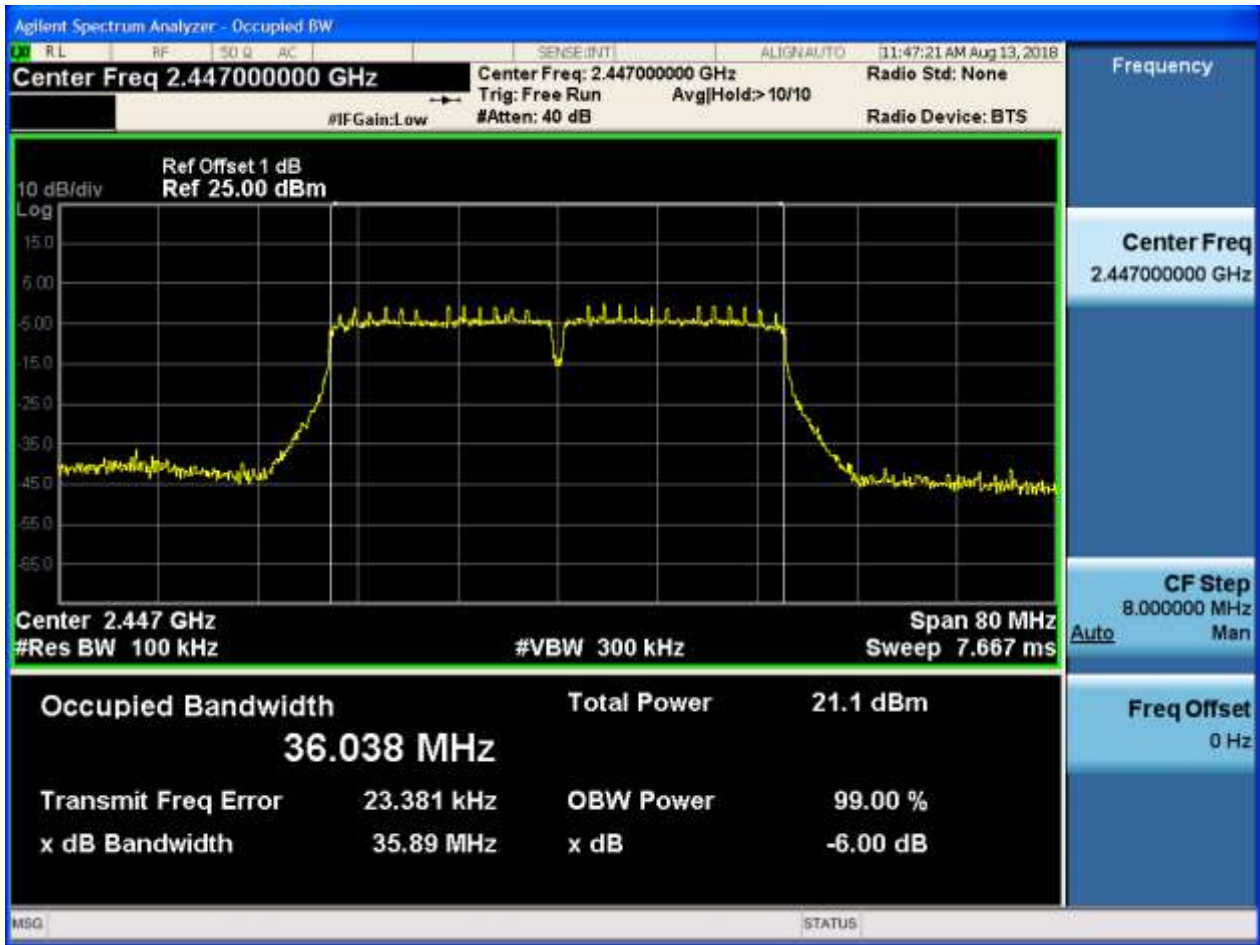


2.43 11N40_H_2447@Ant 1



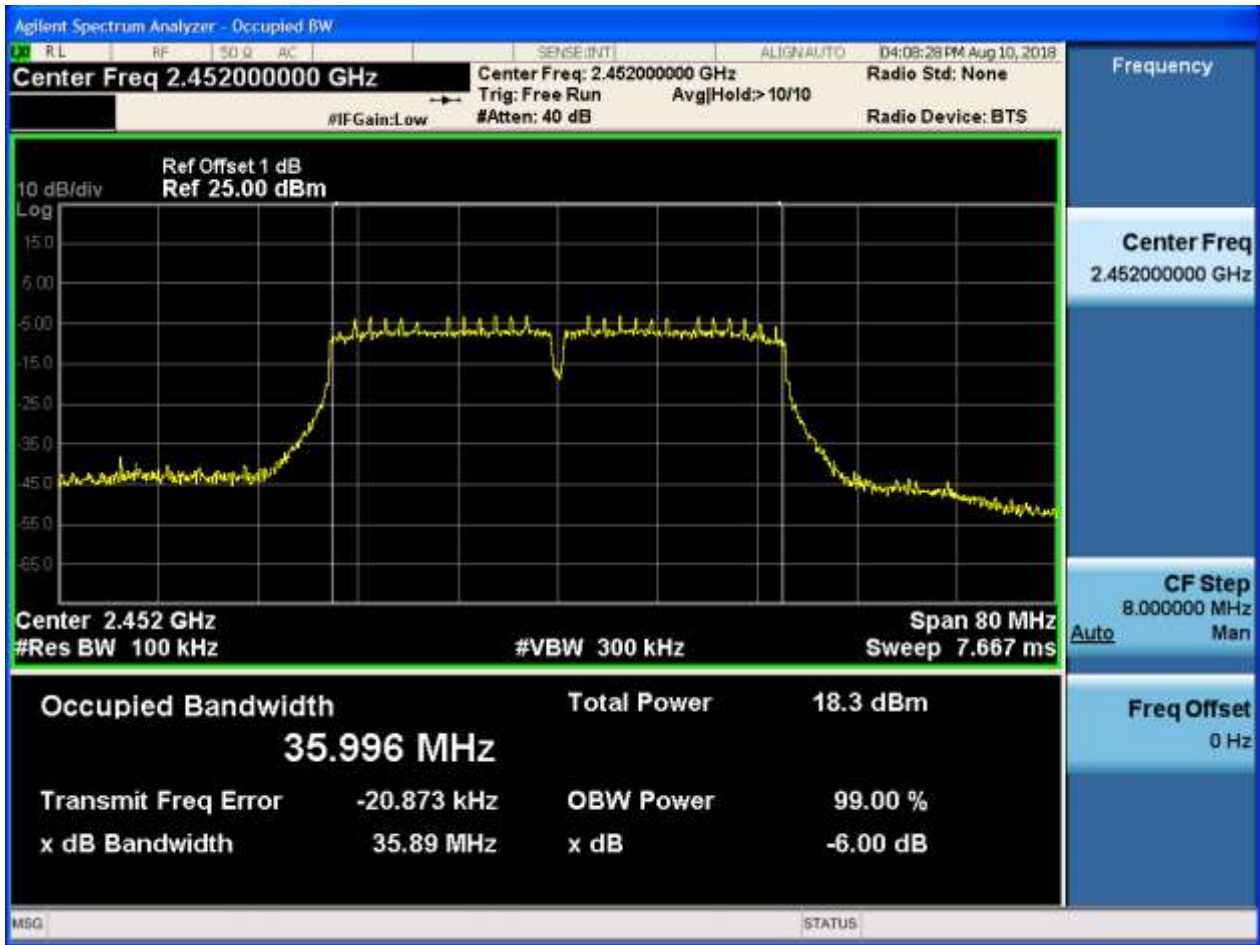


2.44 11N40_H_2447@Ant 2



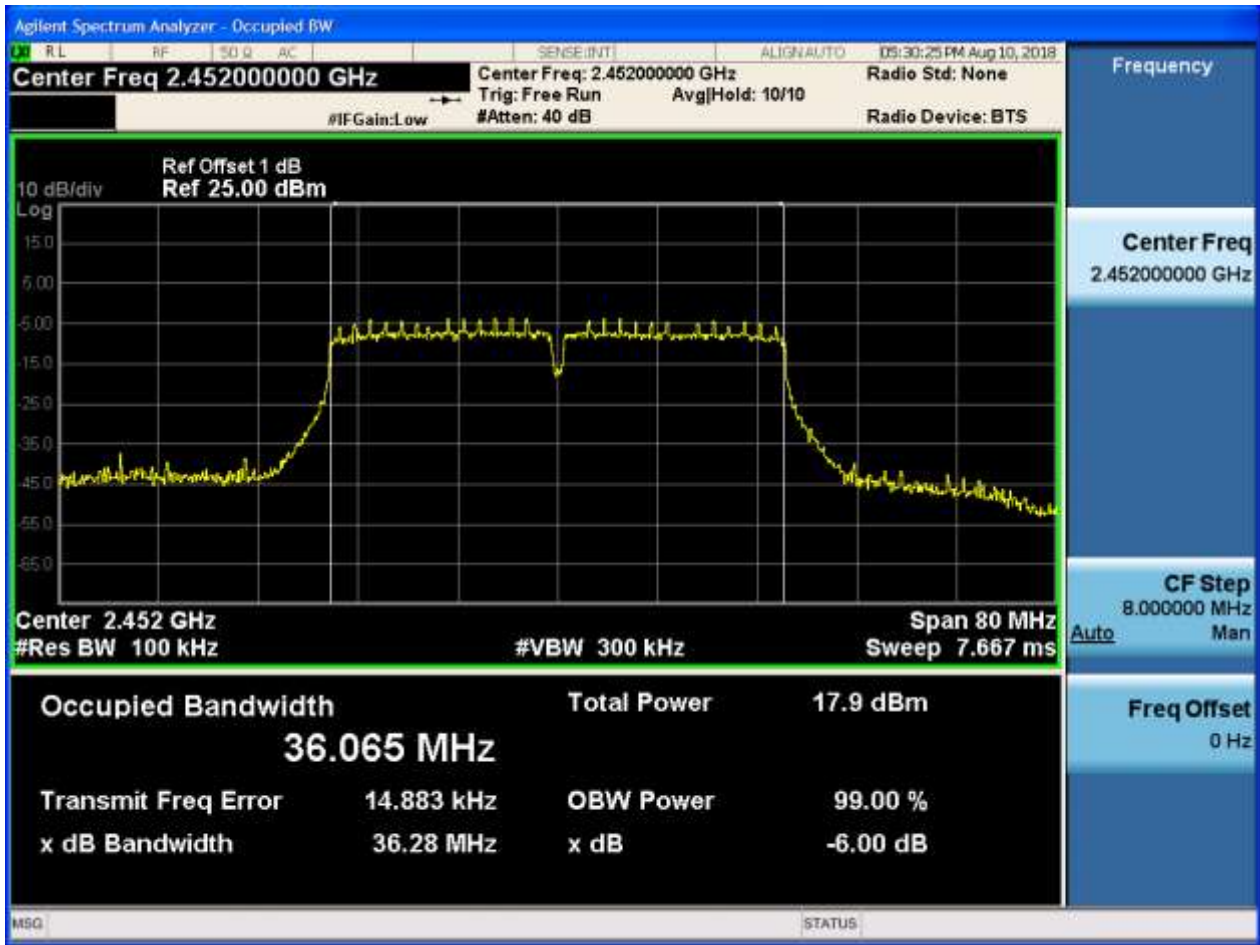


2.45 11N40_H_2452@Ant 1



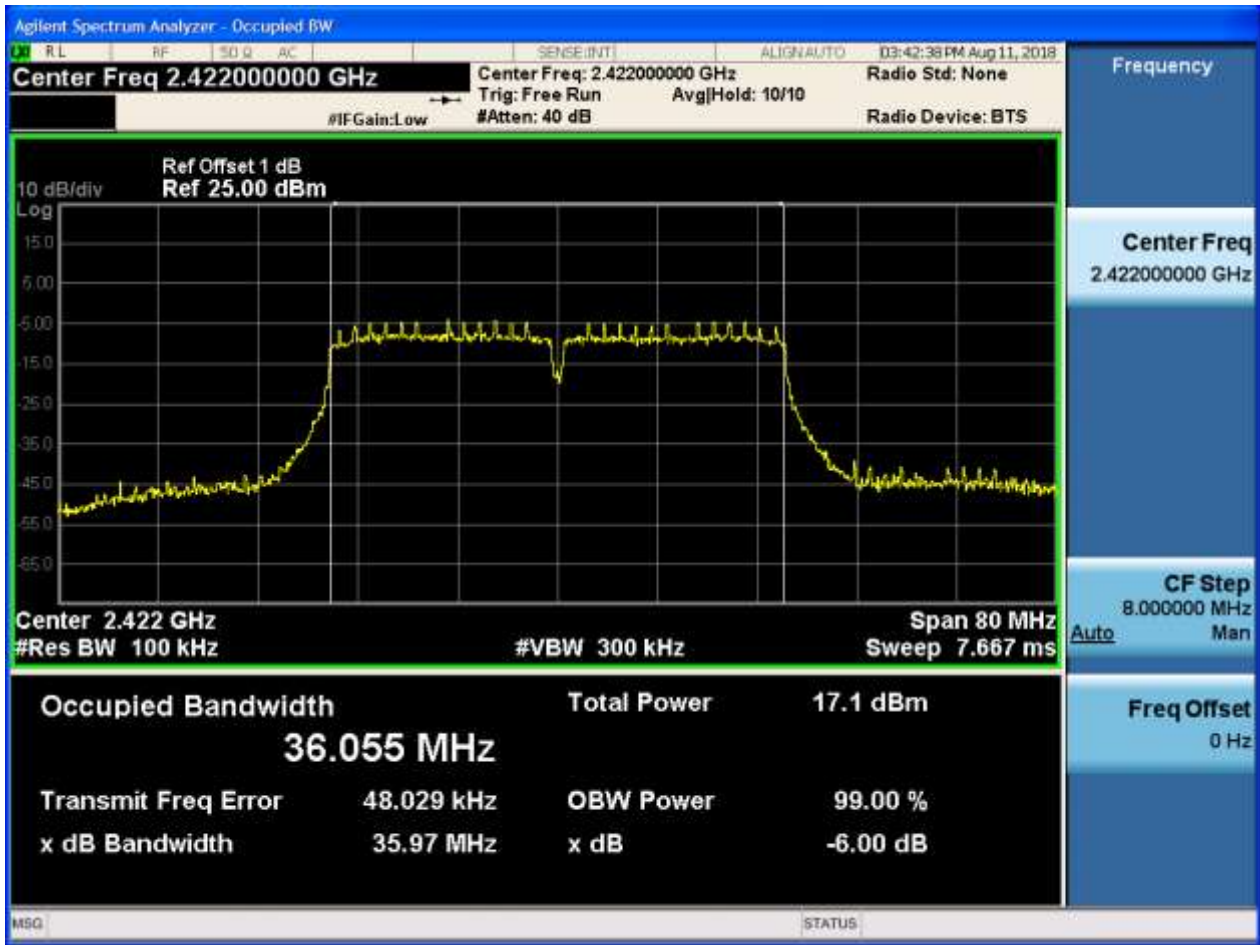


2.46 11N40_H_2452@Ant 2



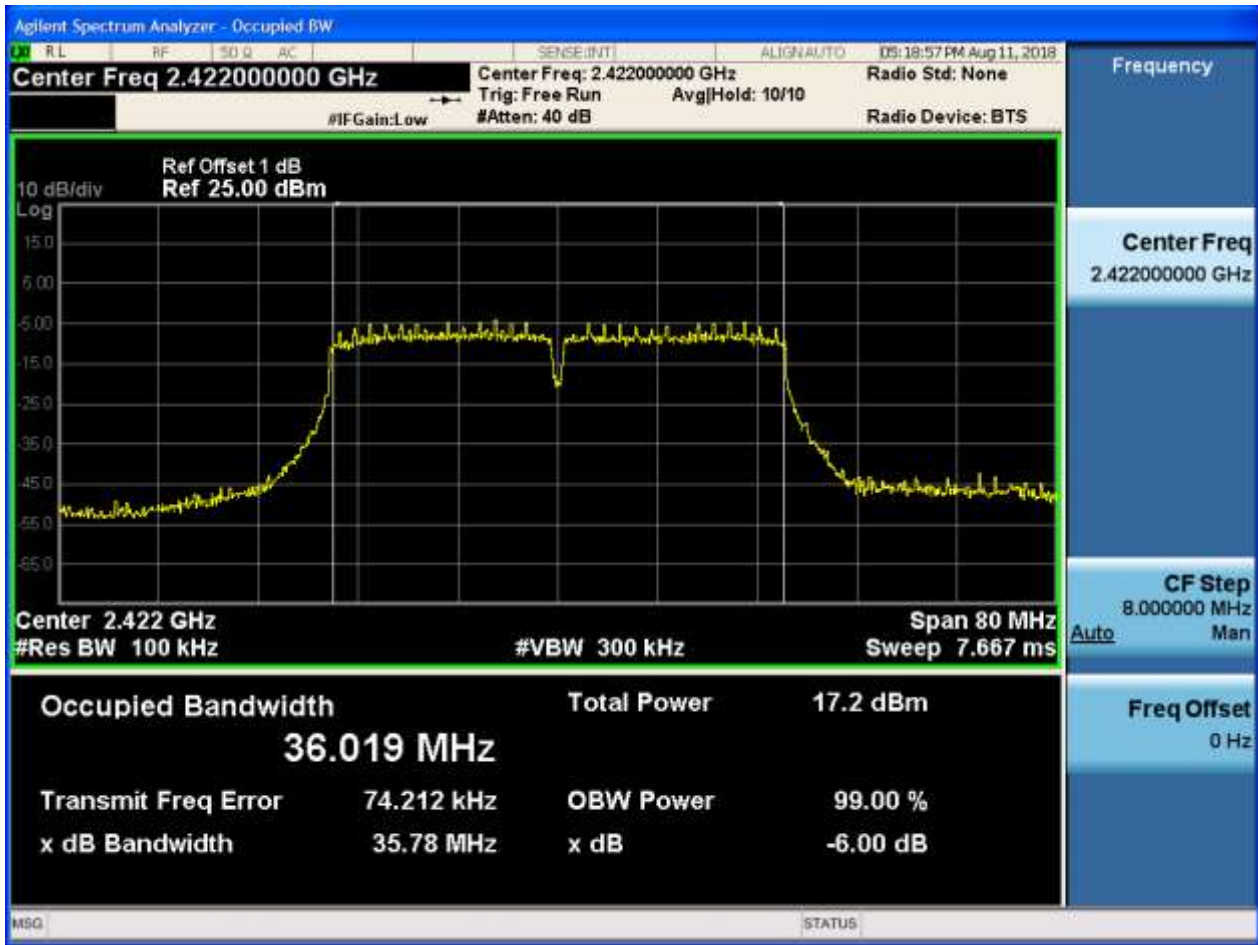


2.47 11N40m_L_2422@Ant 1



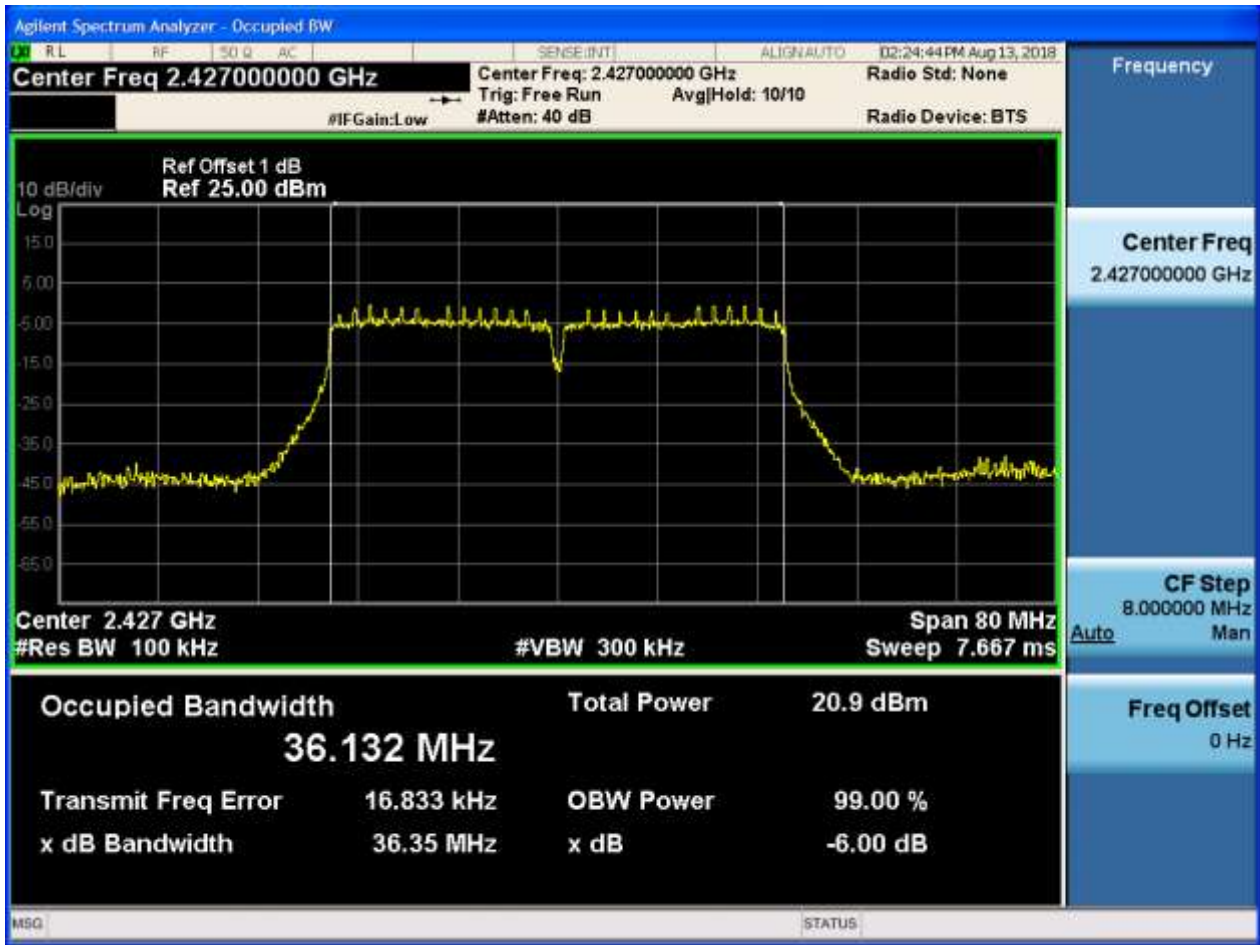


2.48 11N40m_L_2422@Ant 2



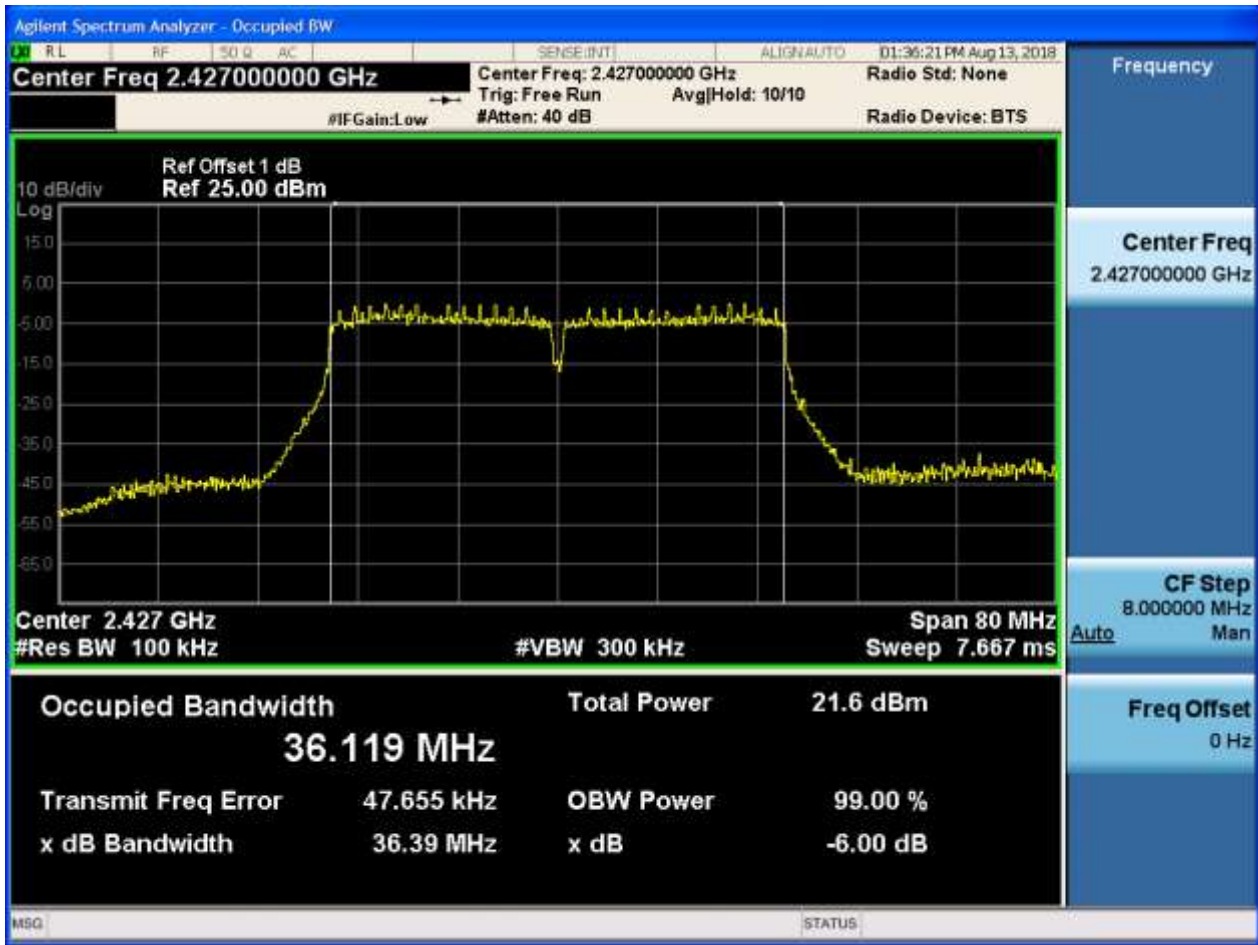


2.49 11N40m_L_2427@Ant 1



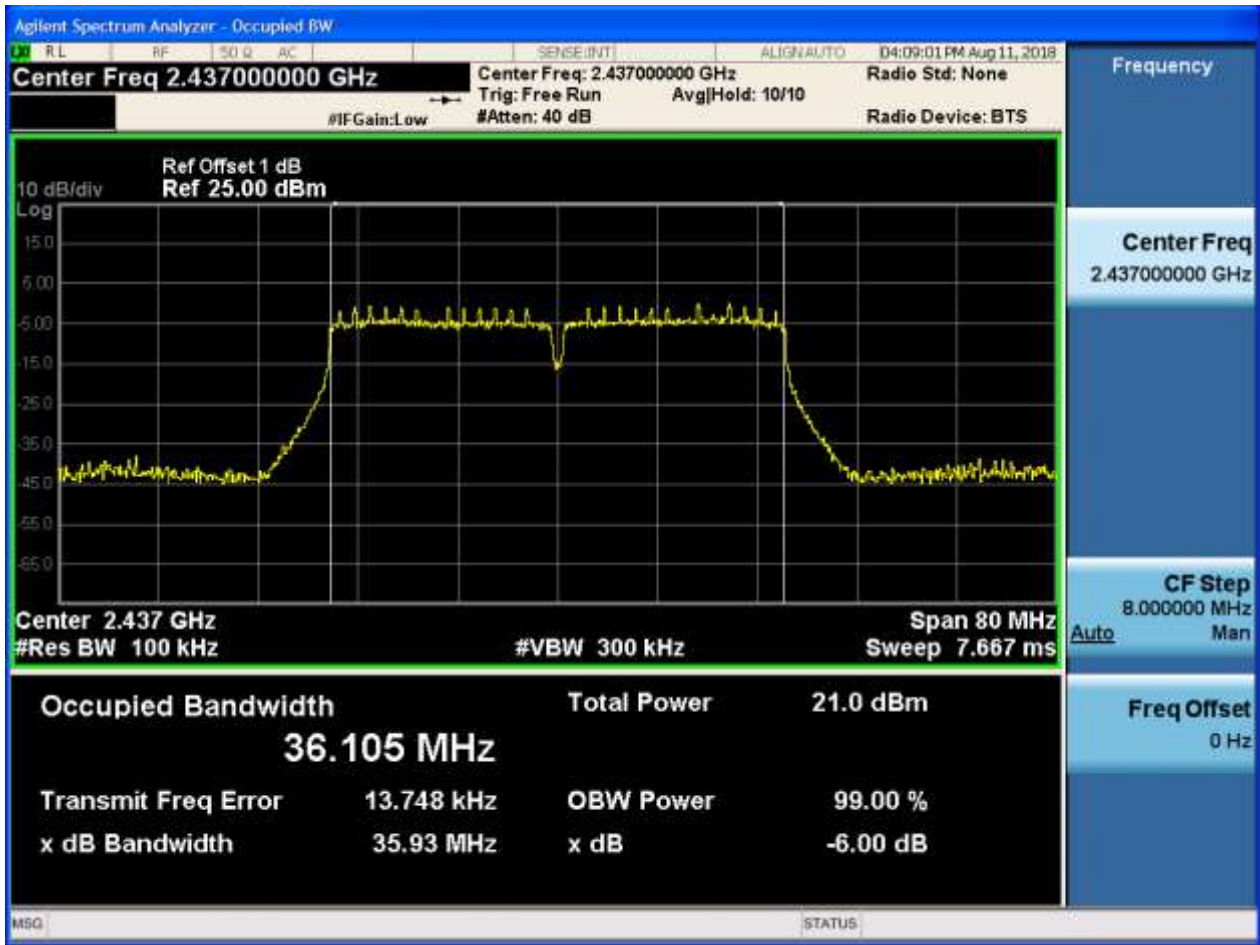


2.50 11N40m_L_2427@Ant 2





2.51 11N40m_M_2437@Ant 1





Agilent Spectrum Analyzer - Occupied BW

RL RF 50 Q AC SENSE (INT) ALIGN AUTO 09:28:14 PM Aug 11, 2018

Center Freq 2.437000000 GHz Center Freq: 2.437000000 GHz Radio Std: None
Trig: Free Run Avg|Hold: > 10/10
#IF Gain: Low #Atten: 40 dB Radio Device: BTS

Ref Offset 1 dB
Ref 25.00 dBm

10 dB/div
Log

Center 2.437 GHz Span 80 MHz
#Res BW 100 kHz #VBW 300 kHz Sweep 7.667 ms

Occupied Bandwidth		Total Power	
36.127 MHz		21.6 dBm	
Transmit Freq Error	815 Hz	OBW Power	99.00 %
x dB Bandwidth	36.37 MHz	x dB	-6.00 dB

Frequency

Center Freq
2.437000000 GHz

CF Step
8.000000 MHz
Man

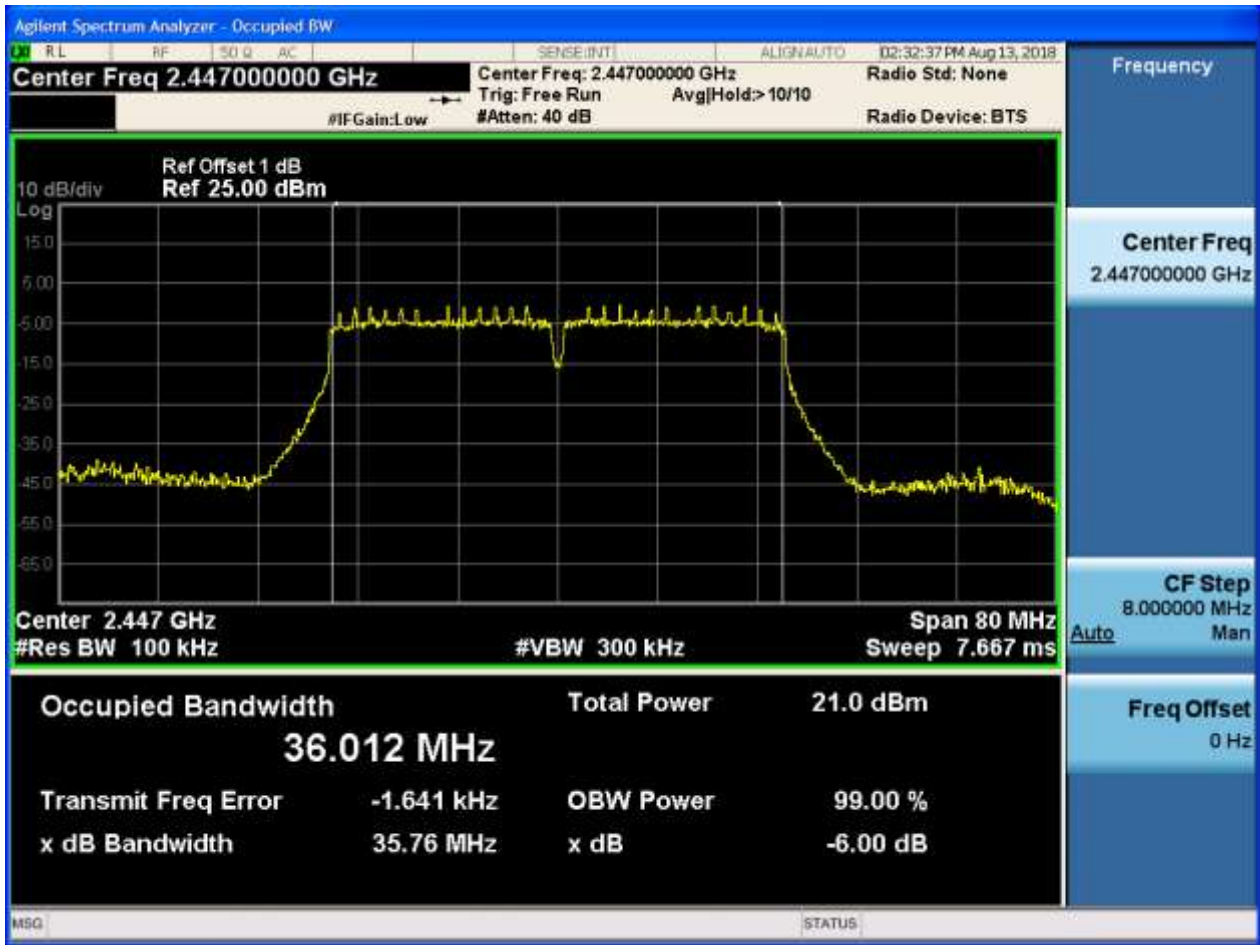
Auto

Freq Offset
0 Hz

MSG STATUS

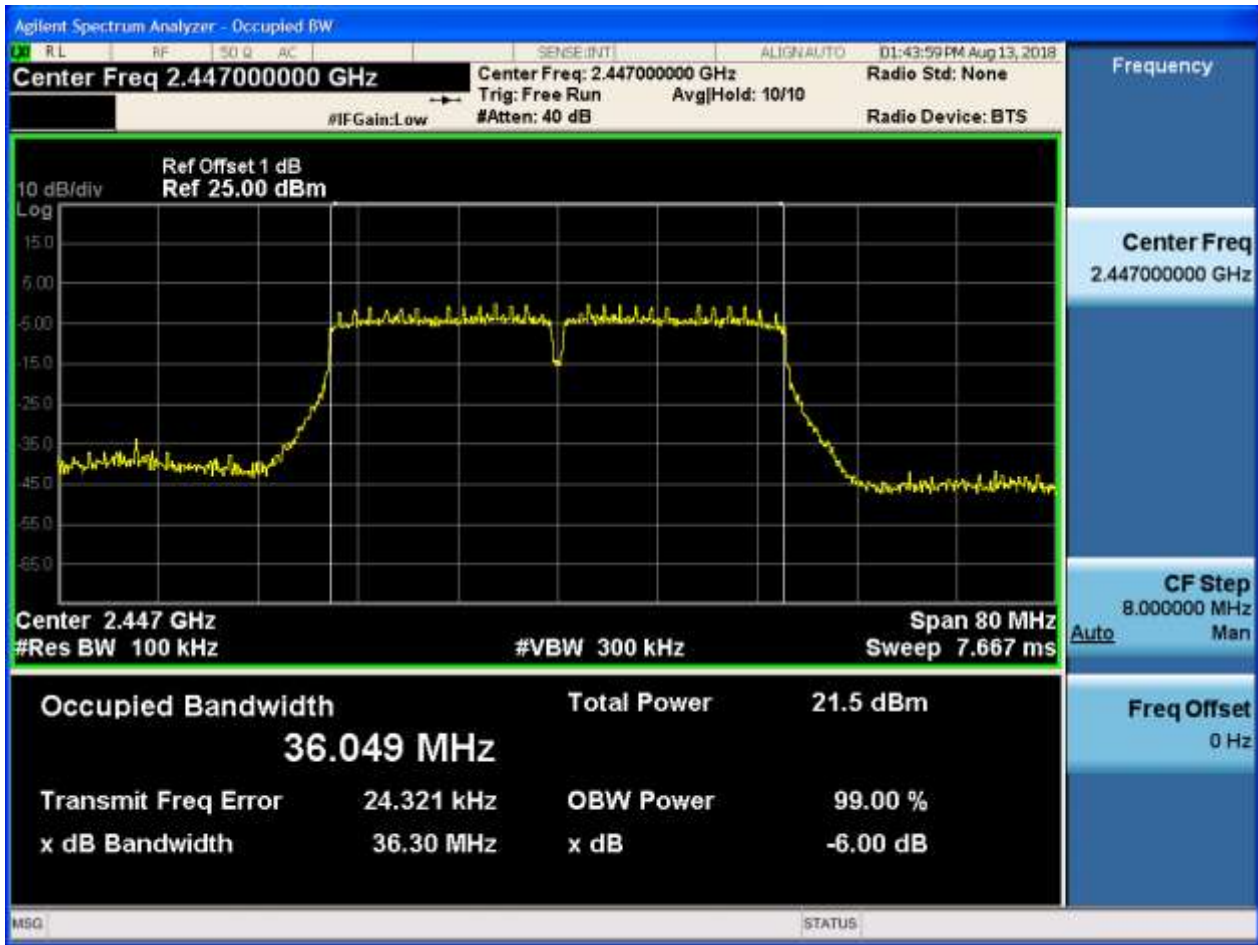


2.53 11N40m_H_2447@Ant 1



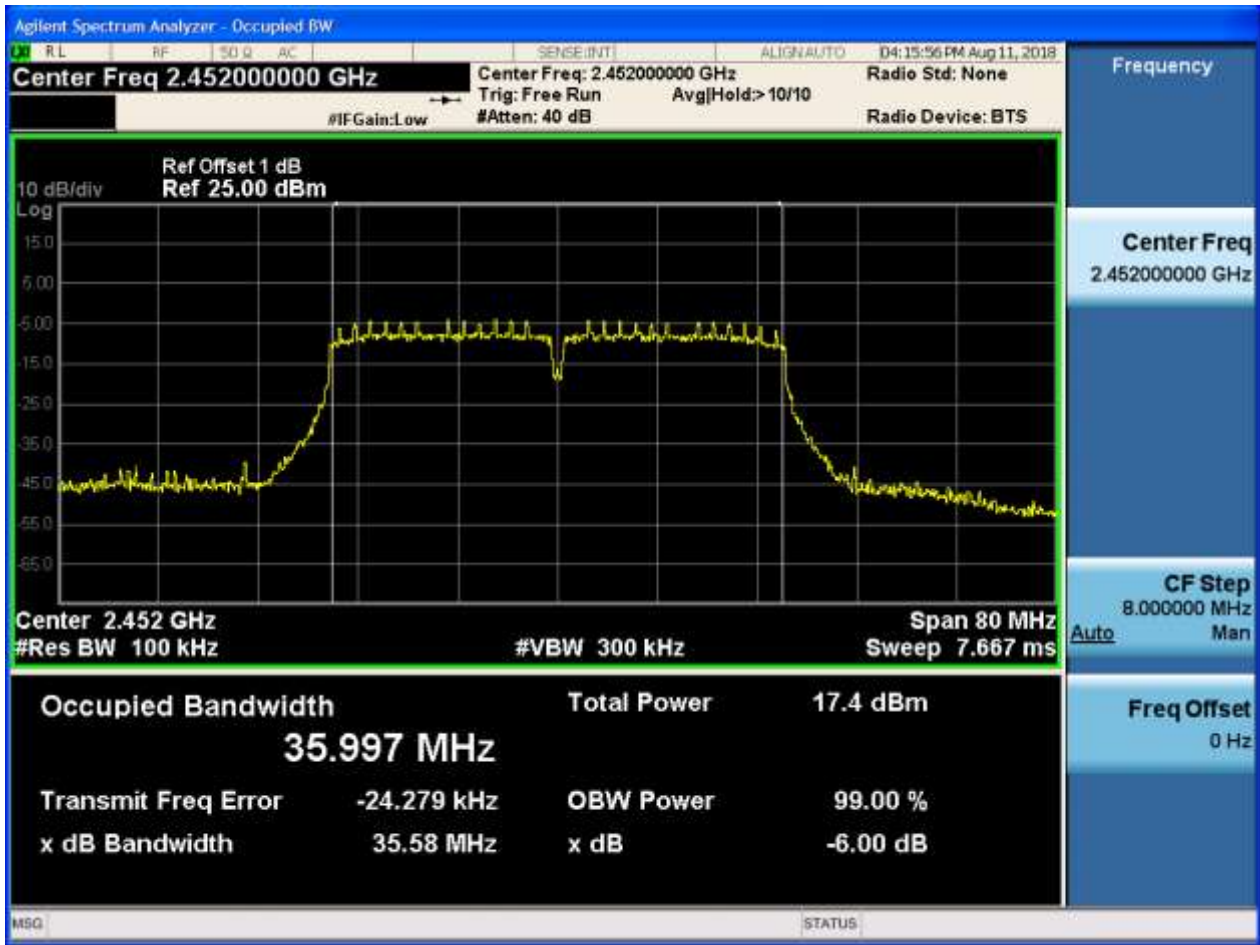


2.54 11N40m_H_2447@Ant 2



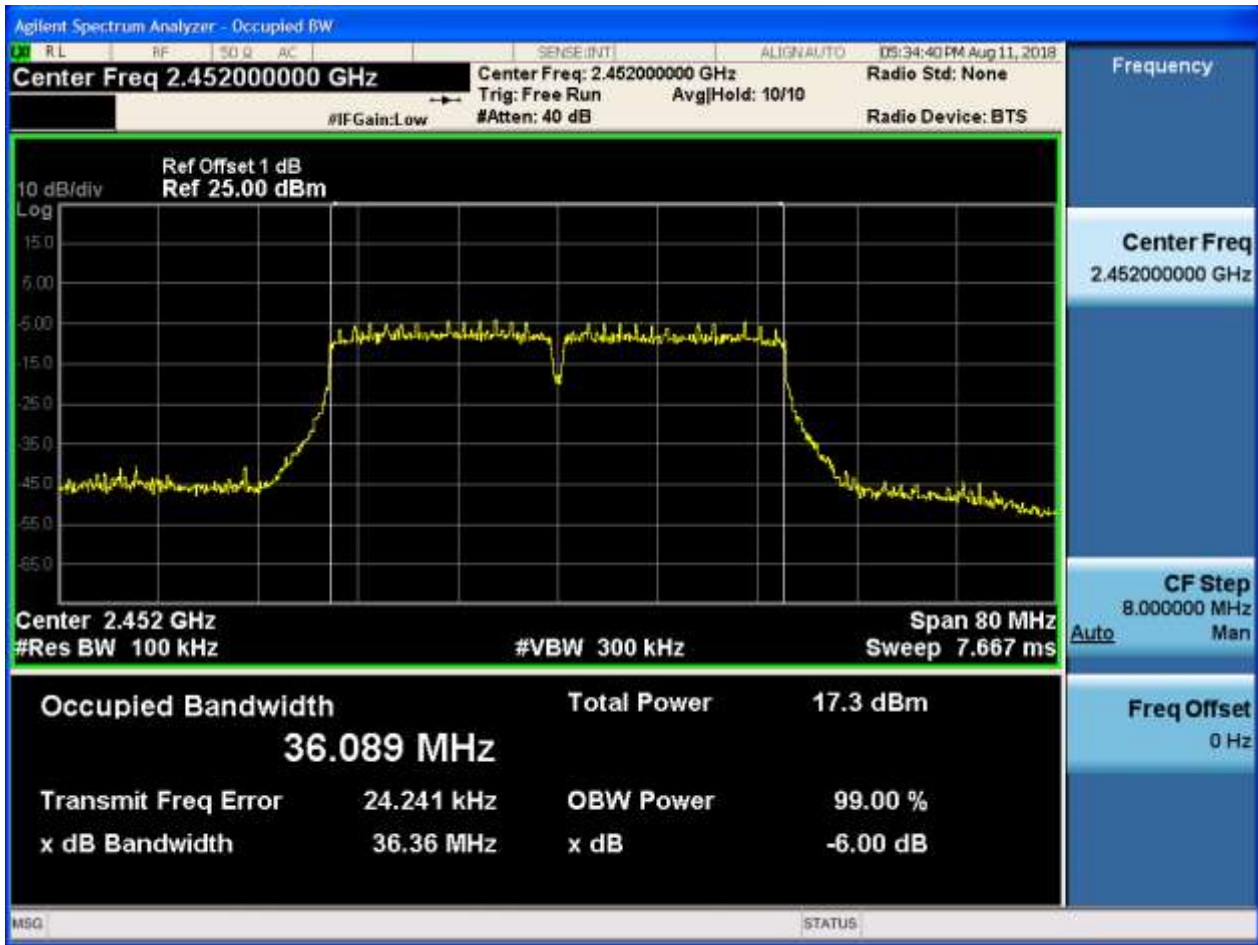


2.55 11N40m_H_2452@Ant 1



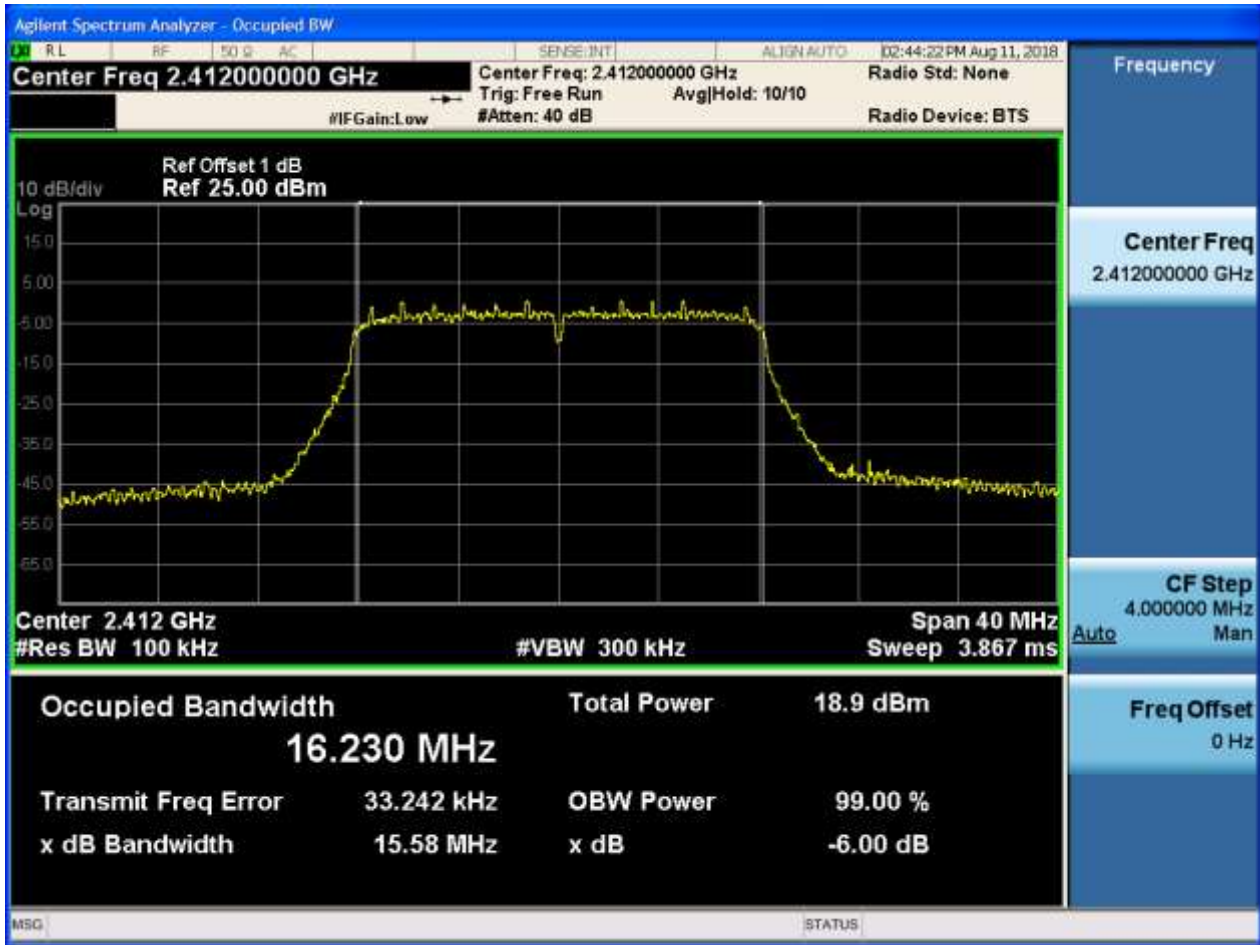


2.56 11N40m_H_2452@Ant 2



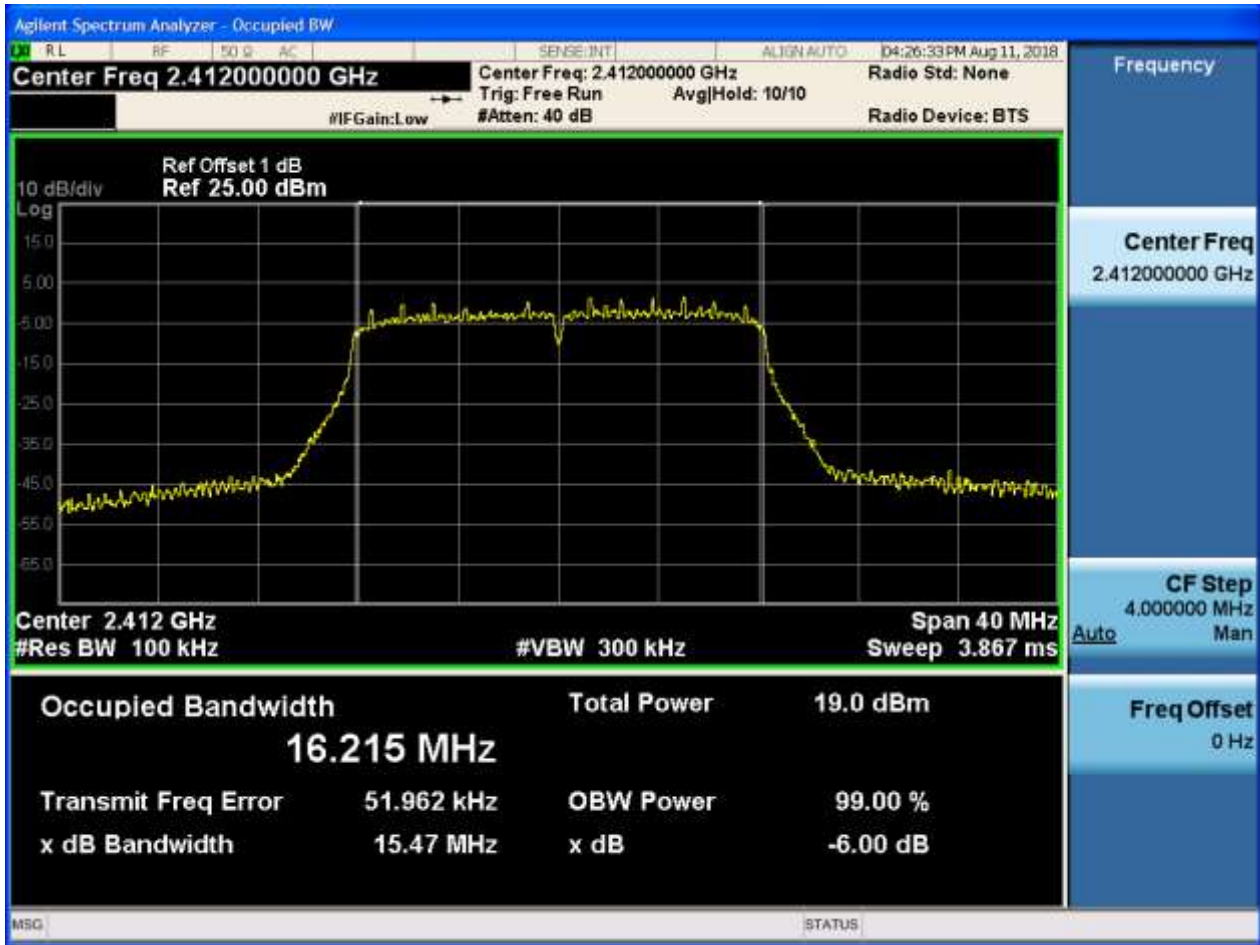


2.57 11G CDD_L_2412@Ant 1



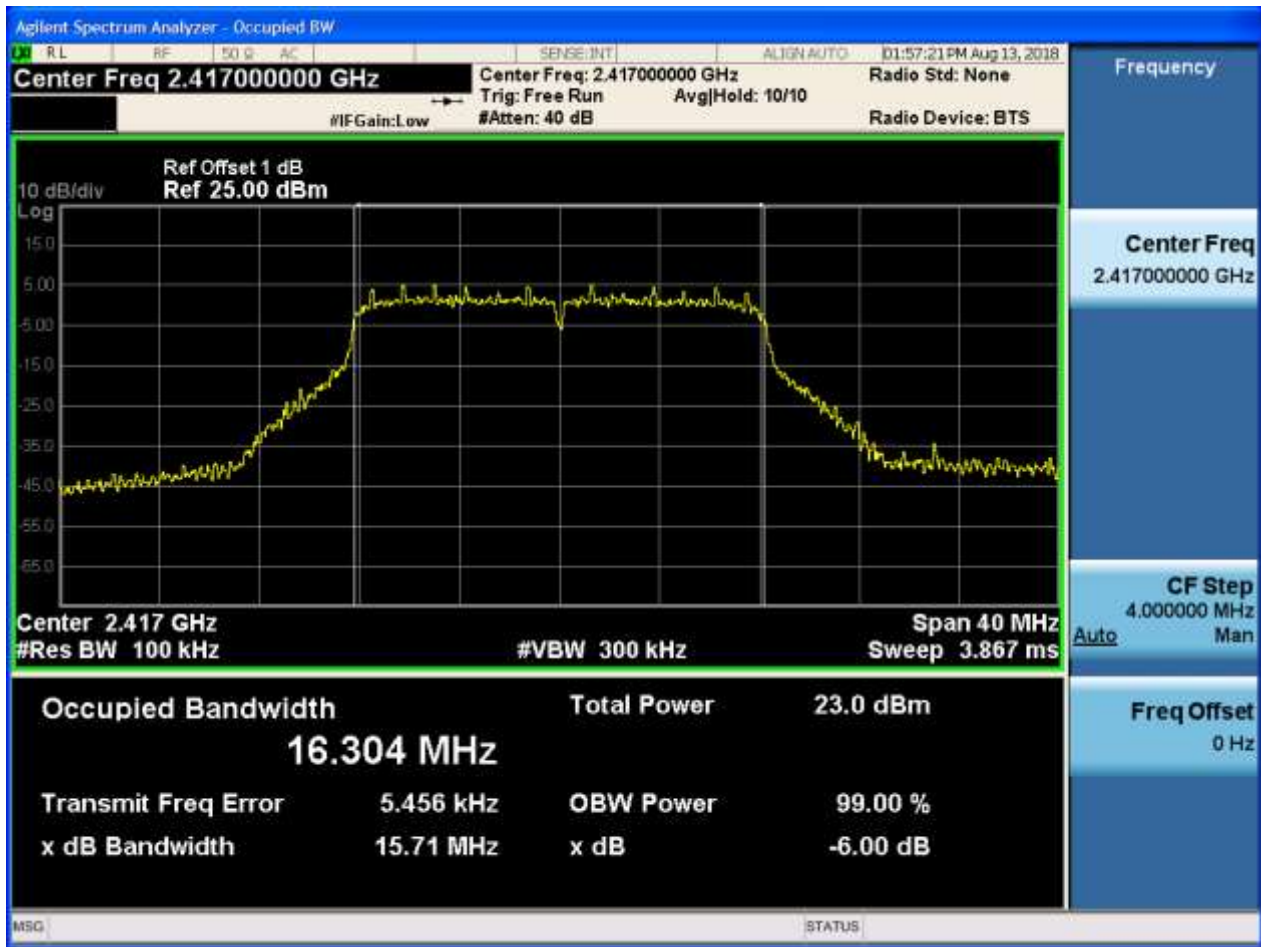


2.58 11G CDD _L_2412@Ant 2





2.59 11G CDD _L_2417@Ant 1





2.60 11G CDD _L_2417@Ant 2





2.61 11G CDD _M_2437@Ant 1



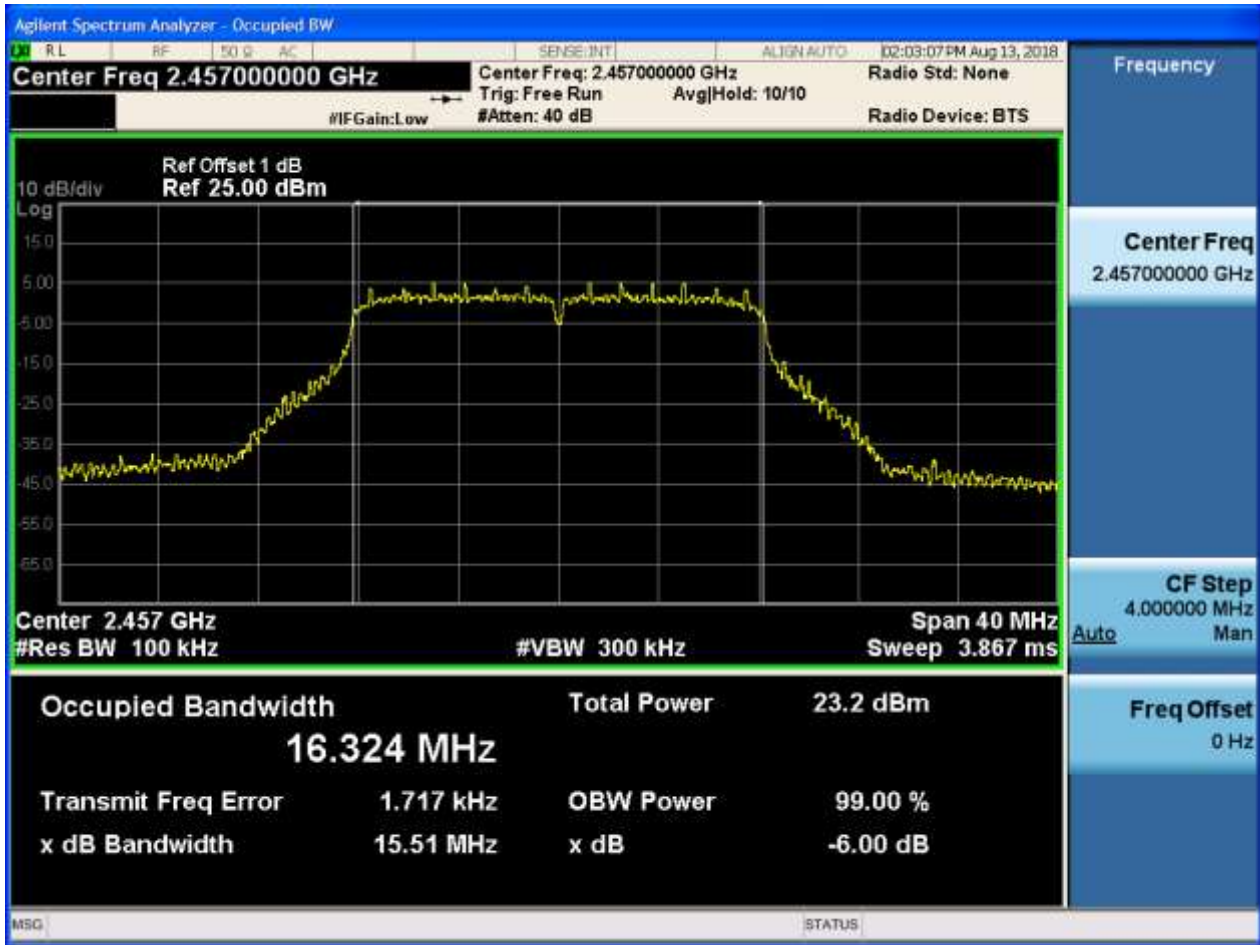


2.62 11G CDD _M_2437@Ant 2





2.63 11G CDD _H_2457@Ant 1



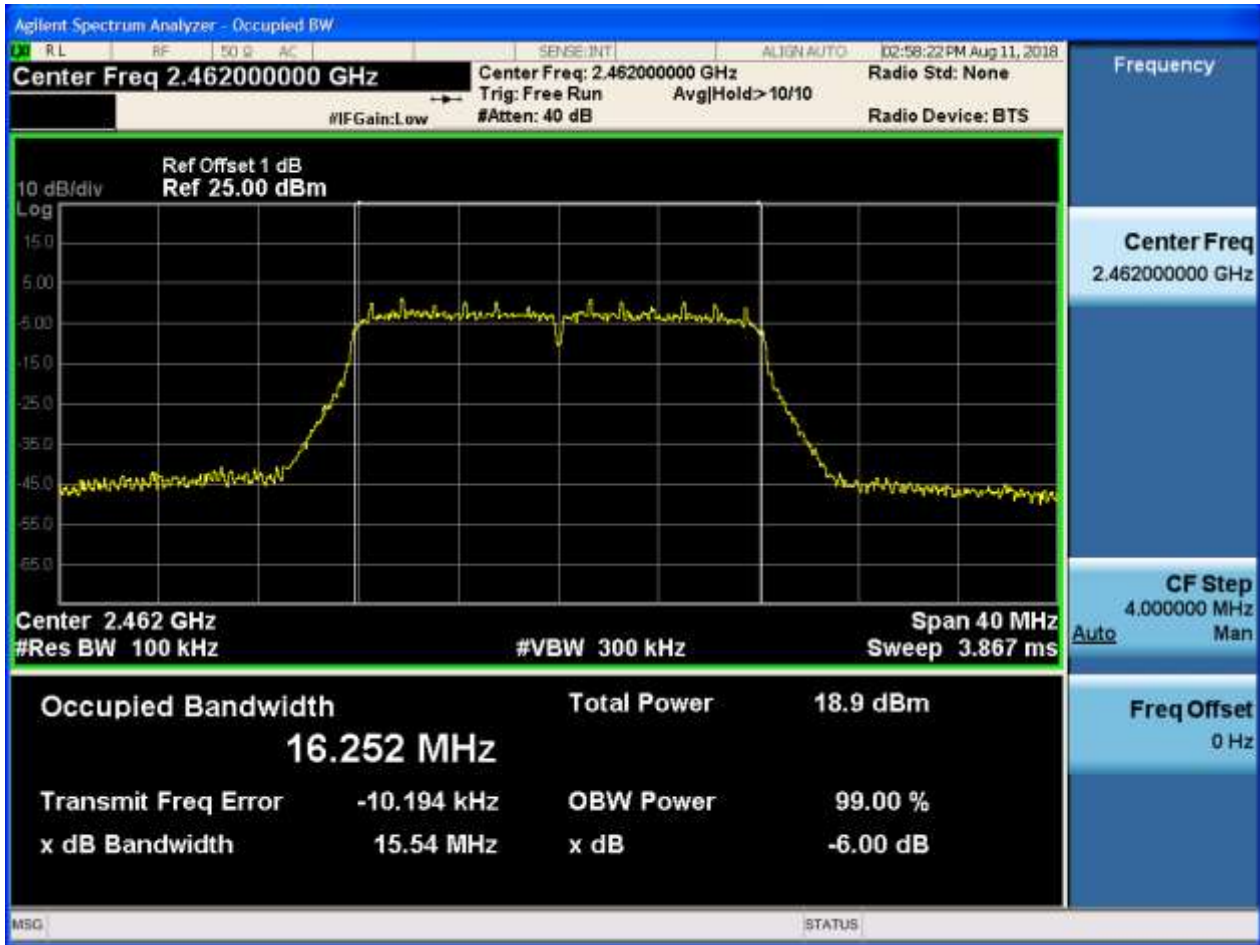


2.64 11G CDD _H_2457@Ant 2



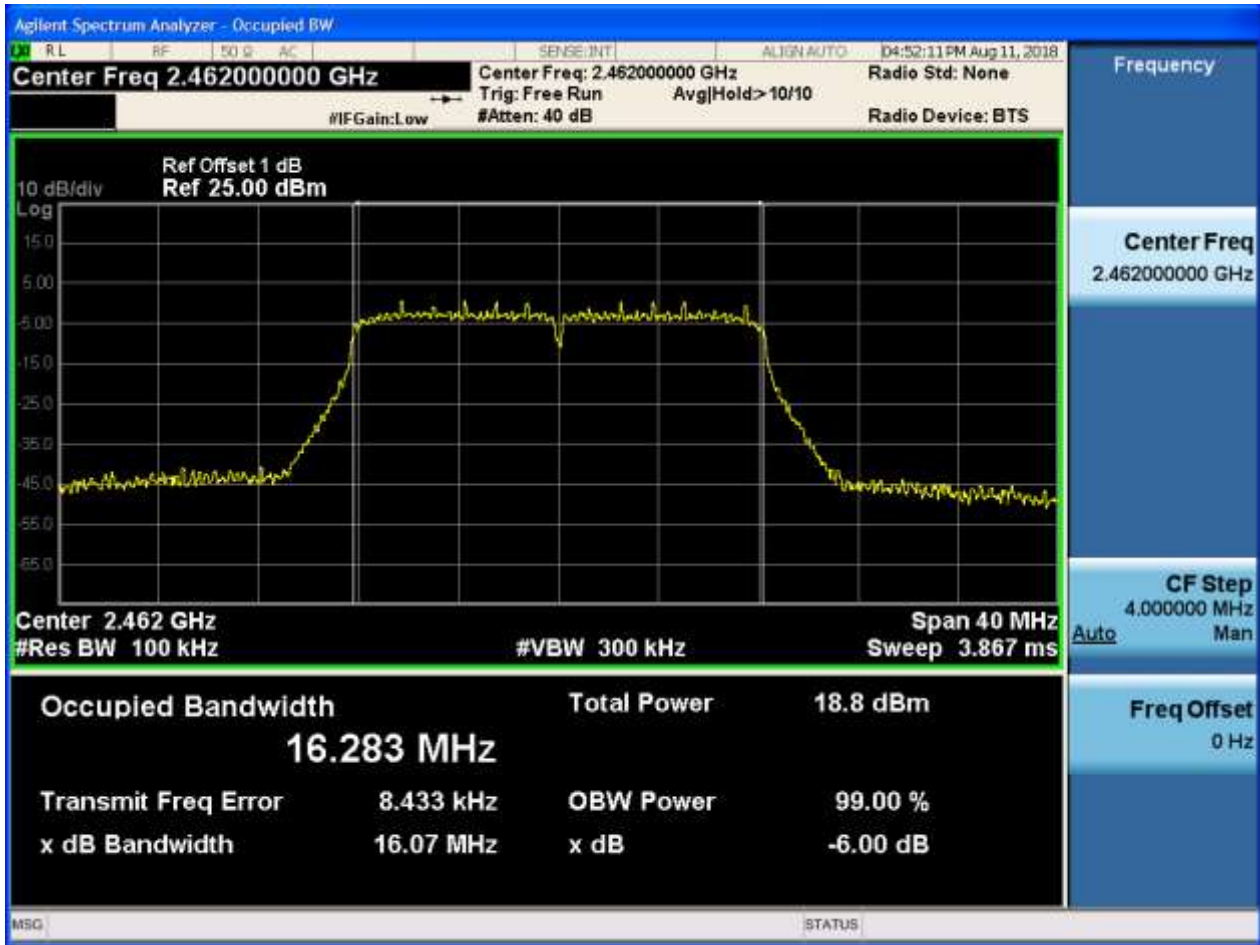


2.65 11G CDD _H_2462@Ant 1





2.66 11G CDD _H_2462@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	11.80	pass
11B	L	2412	Ant 2	11.55	pass
11B	M	2437	Ant 1	11.73	pass
11B	M	2437	Ant 2	11.76	pass
11B	H	2462	Ant 1	11.59	pass
11B	H	2462	Ant 2	11.81	pass
11G	L	2412	Ant 1	16.25	pass
11G	L	2412	Ant 2	16.21	pass
11G	L	2417	Ant 1	16.33	pass
11G	L	2417	Ant 2	16.32	pass
11G	M	2437	Ant 1	16.39	pass
11G	M	2437	Ant 2	16.38	pass
11G	H	2457	Ant 1	16.33	pass
11G	H	2457	Ant 2	16.37	pass
11G	H	2462	Ant 1	16.26	pass
11G	H	2462	Ant 2	16.28	pass
11N20	L	2412	Ant 1	17.35	pass
11N20	L	2412	Ant 2	17.34	pass
11N20	L	2417	Ant 1	17.38	pass
11N20	L	2417	Ant 2	17.34	pass
11N20	M	2437	Ant 1	17.44	pass
11N20	M	2437	Ant 2	17.47	pass
11N20	H	2457	Ant 1	17.41	pass
11N20	H	2457	Ant 2	17.41	pass
11N20	H	2462	Ant 1	17.36	pass
11N20	H	2462	Ant 2	17.43	pass
11N20m	L	2412	Ant 1	17.33	pass
11N20m	L	2412	Ant 2	17.38	pass
11N20m	L	2417	Ant 1	17.39	pass
11N20m	L	2417	Ant 2	17.41	pass
11N20m	M	2437	Ant 1	17.44	pass
11N20m	M	2437	Ant 2	17.47	pass
11N20m	H	2457	Ant 1	17.39	pass

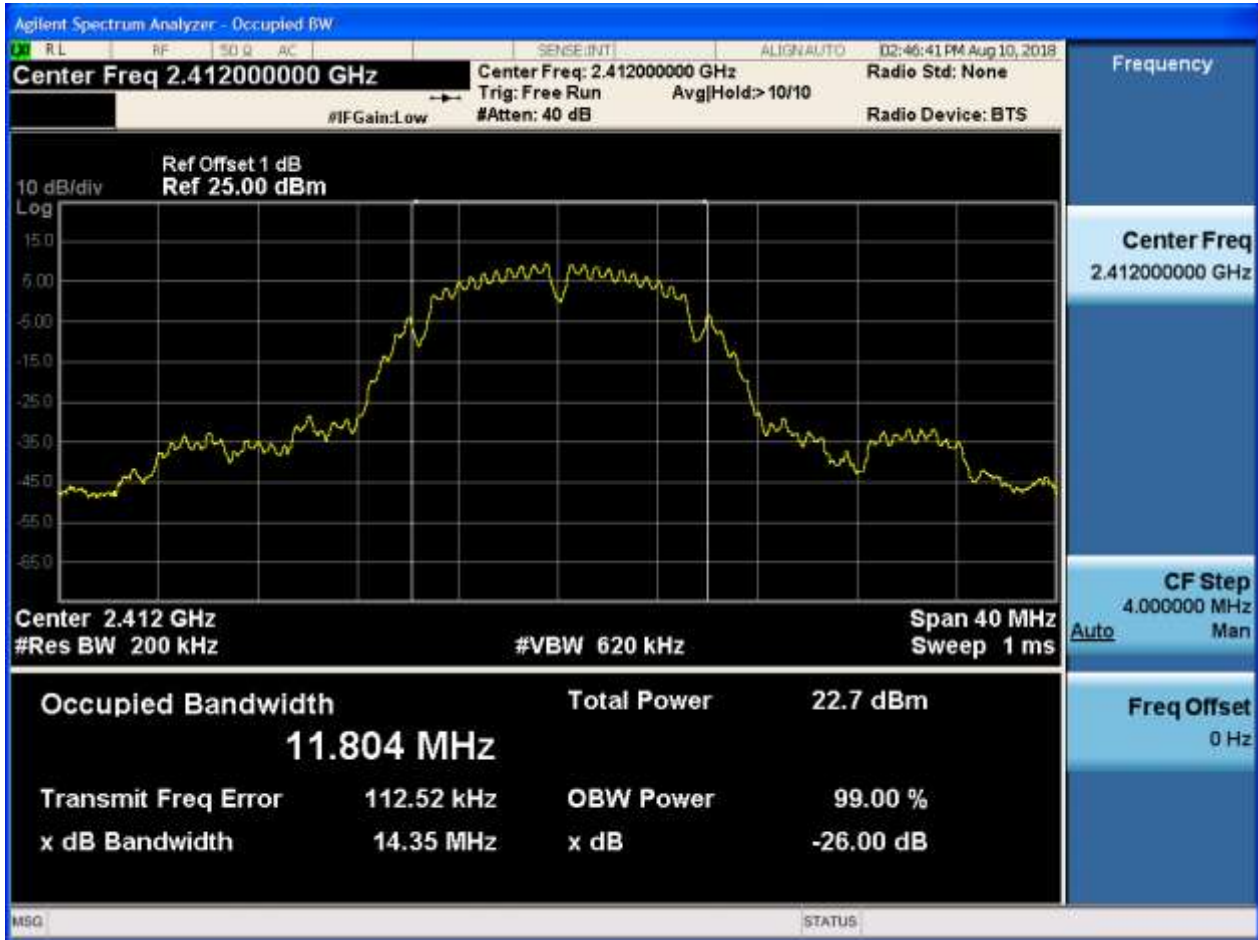


Test Mode	Test Channel	Frequency[MHz]	Ant	Occupied Bandwidth [MHz]	Verdict
11N20m	H	2457	Ant 2	17.48	pass
11N20m	H	2462	Ant 1	17.38	pass
11N20m	H	2462	Ant 2	17.46	pass
11N40	L	2422	Ant 1	36.20	pass
11N40	L	2422	Ant 2	36.17	pass
11N40	L	2427	Ant 1	36.32	pass
11N40	L	2427	Ant 2	36.26	pass
11N40	M	2437	Ant 1	36.30	pass
11N40	M	2437	Ant 2	36.31	pass
11N40	H	2447	Ant 1	36.20	pass
11N40	H	2447	Ant 2	36.21	pass
11N40	H	2452	Ant 1	36.19	pass
11N40	H	2452	Ant 2	36.23	pass
11N40m	L	2422	Ant 1	36.21	pass
11N40m	L	2422	Ant 2	36.13	pass
11N40m	L	2427	Ant 1	36.29	pass
11N40m	L	2427	Ant 2	36.21	pass
11N40m	M	2437	Ant 1	36.30	pass
11N40m	M	2437	Ant 2	36.21	pass
11N40m	H	2447	Ant 1	36.19	pass
11N40m	H	2447	Ant 2	36.12	pass
11N40m	H	2452	Ant 1	36.17	pass
11N40m	H	2452	Ant 2	36.13	pass
11G CDD	L	2412	Ant 1	16.25	pass
11G CDD	L	2412	Ant 2	16.21	pass
11G CDD	L	2417	Ant 1	16.37	pass
11G CDD	L	2417	Ant 2	16.33	pass
11G CDD	M	2437	Ant 1	16.39	pass
11G CDD	M	2437	Ant 2	16.38	pass
11G CDD	H	2457	Ant 1	16.34	pass
11G CDD	H	2457	Ant 2	16.39	pass
11G CDD	H	2462	Ant 1	16.26	pass
11G CDD	H	2462	Ant 2	16.8	pass



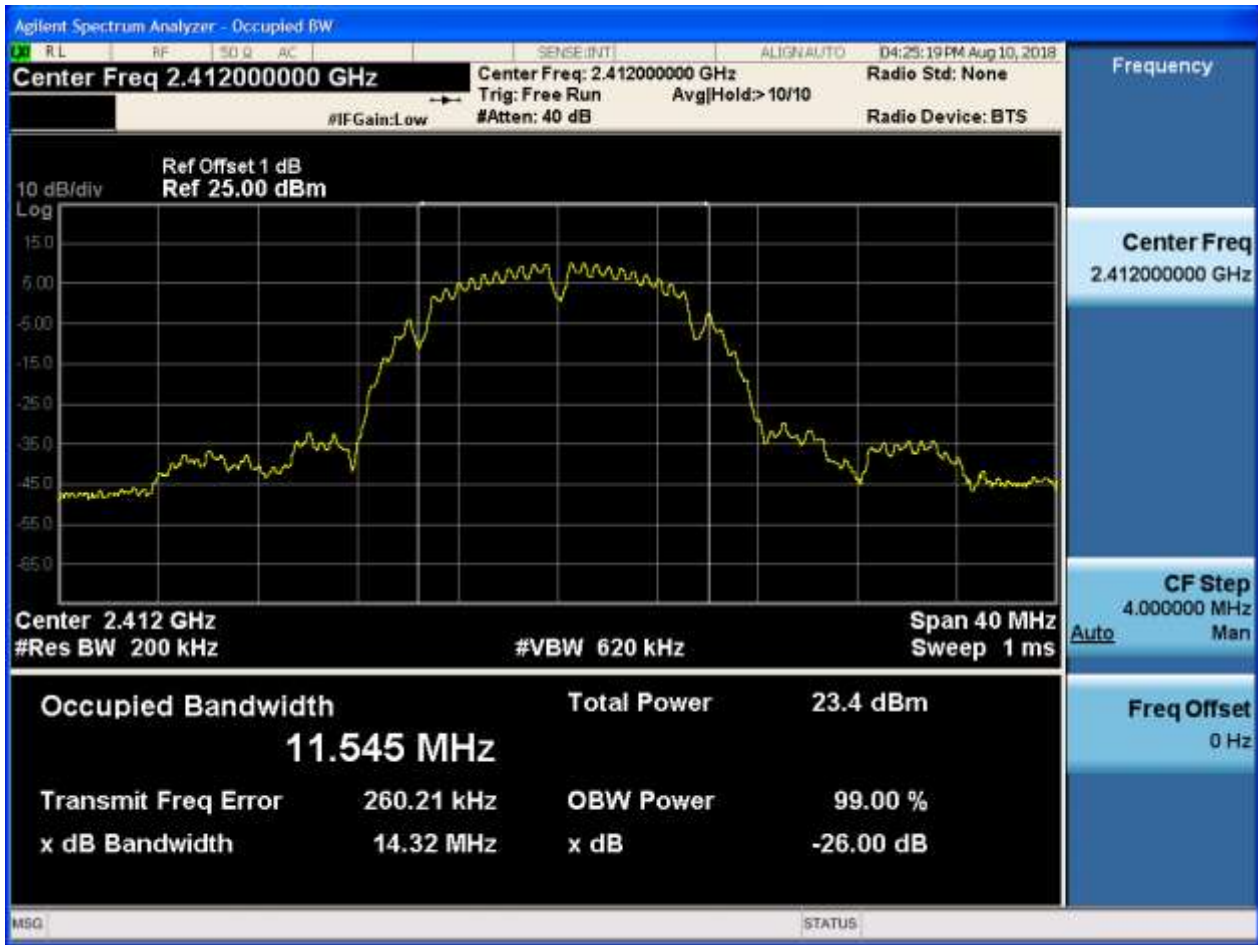
Part II - Test Plots

2.1 11B_L_2412@Ant 1



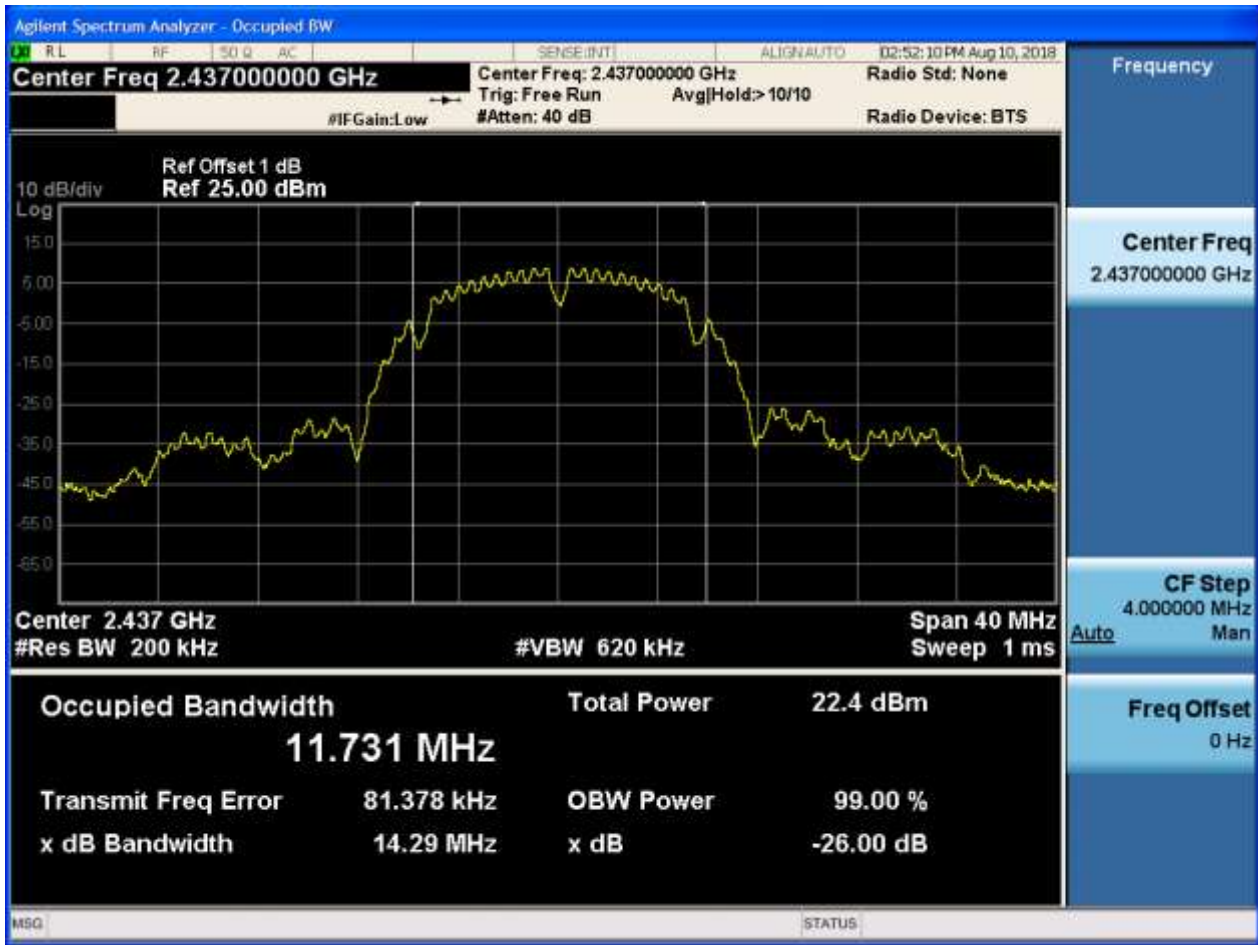


2.2 11B_L_2412@Ant 2



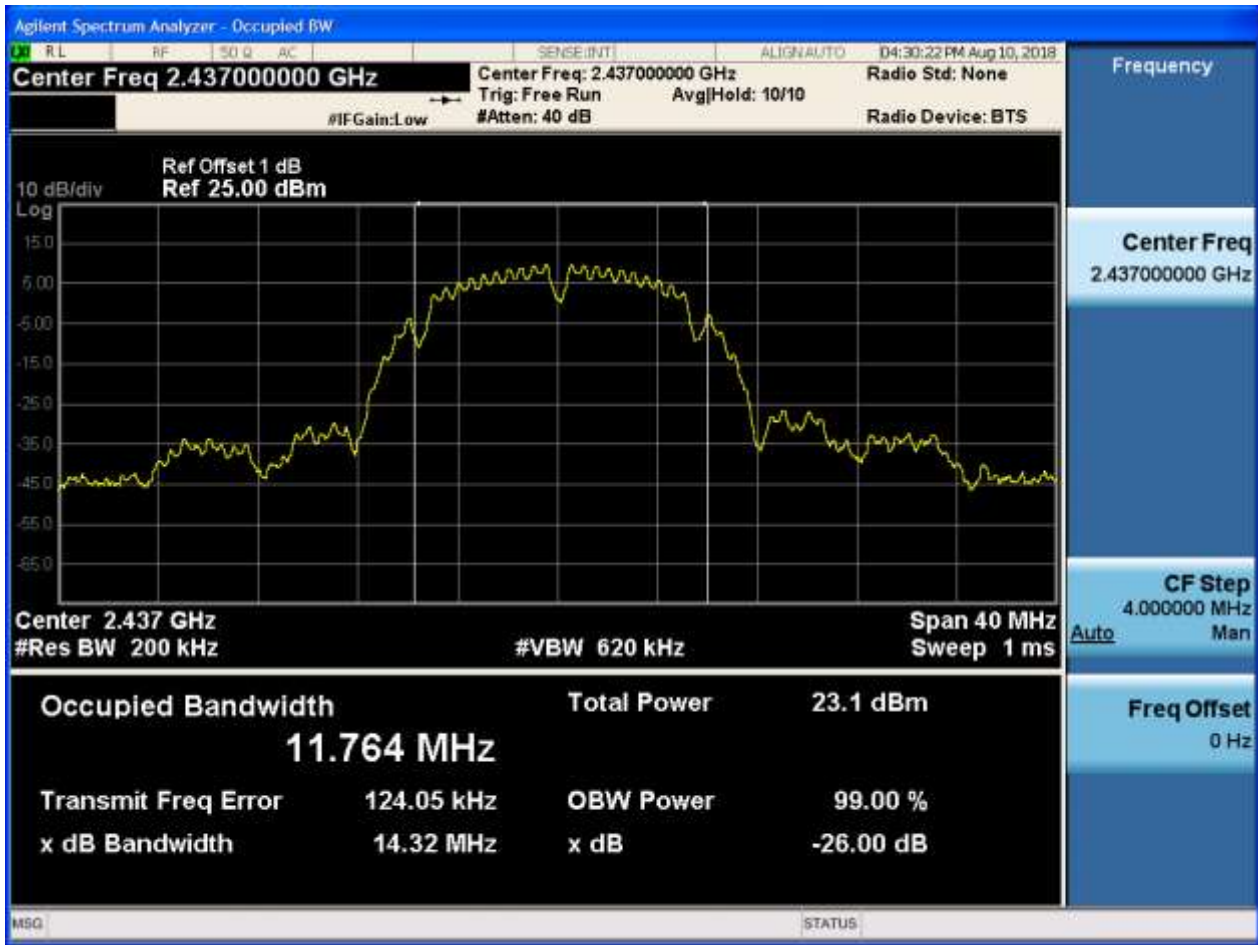


2.3 11B_M_2437@Ant 1



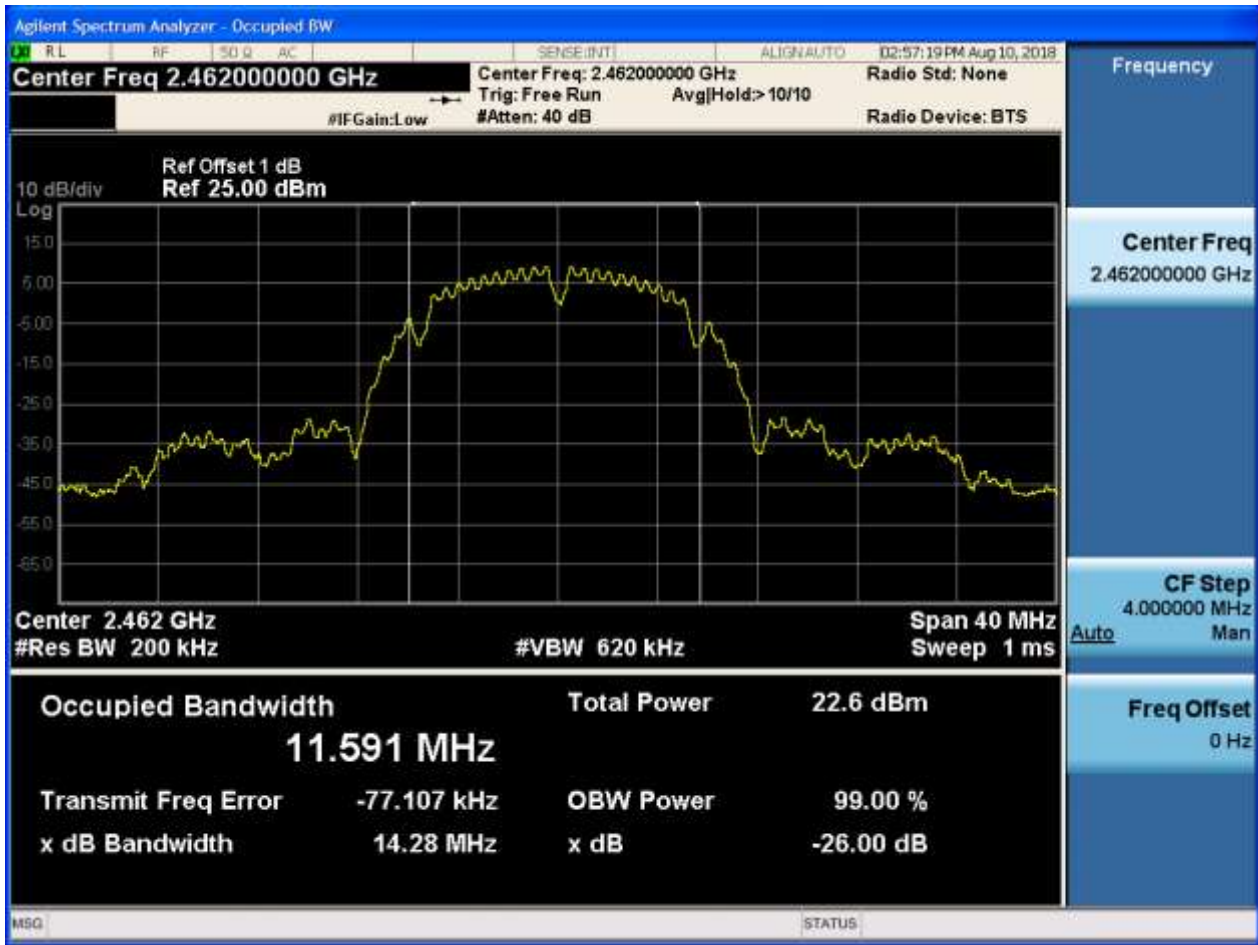


2.4 11B_M_2437@Ant 2



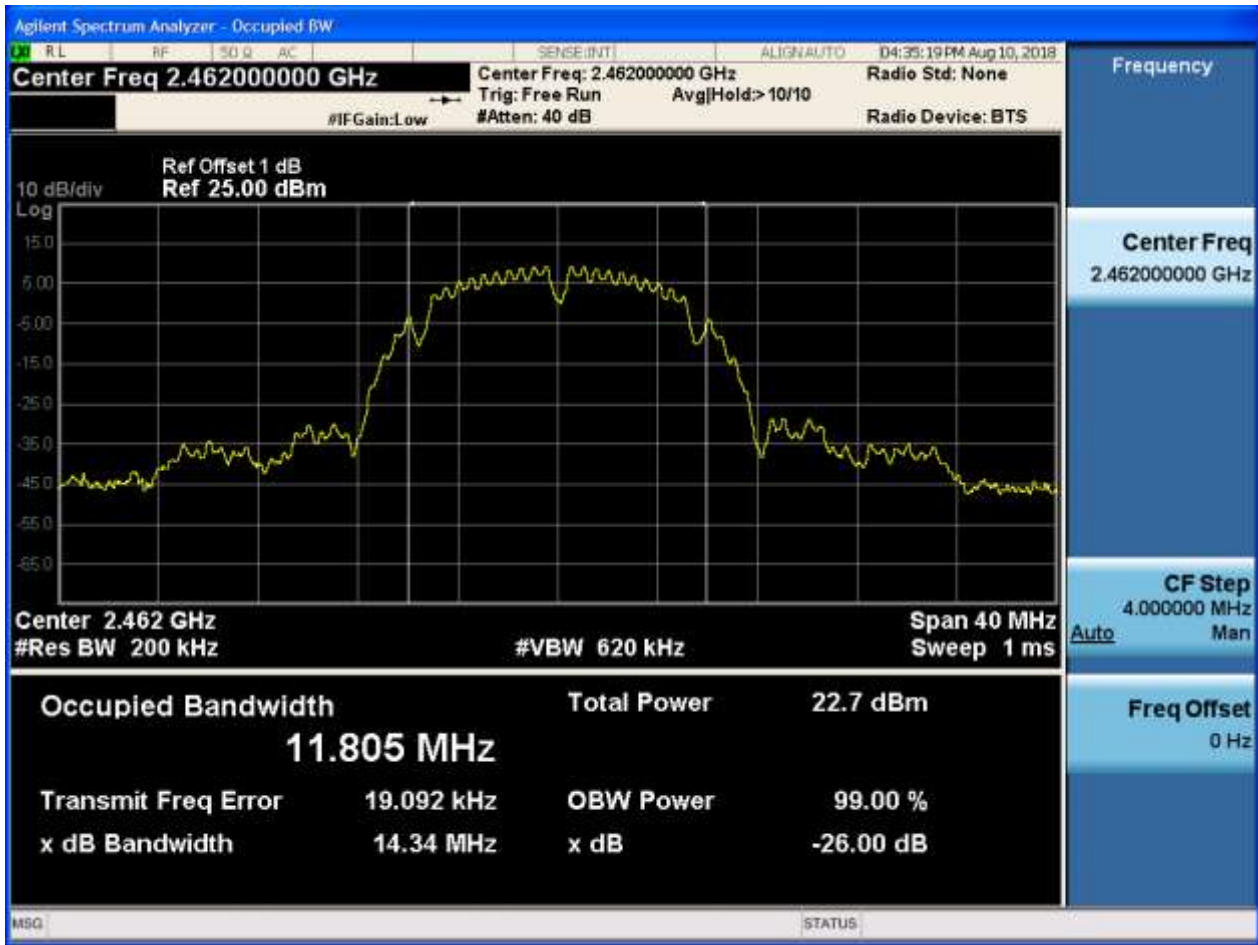


2.5 11B_H_2462@Ant 1



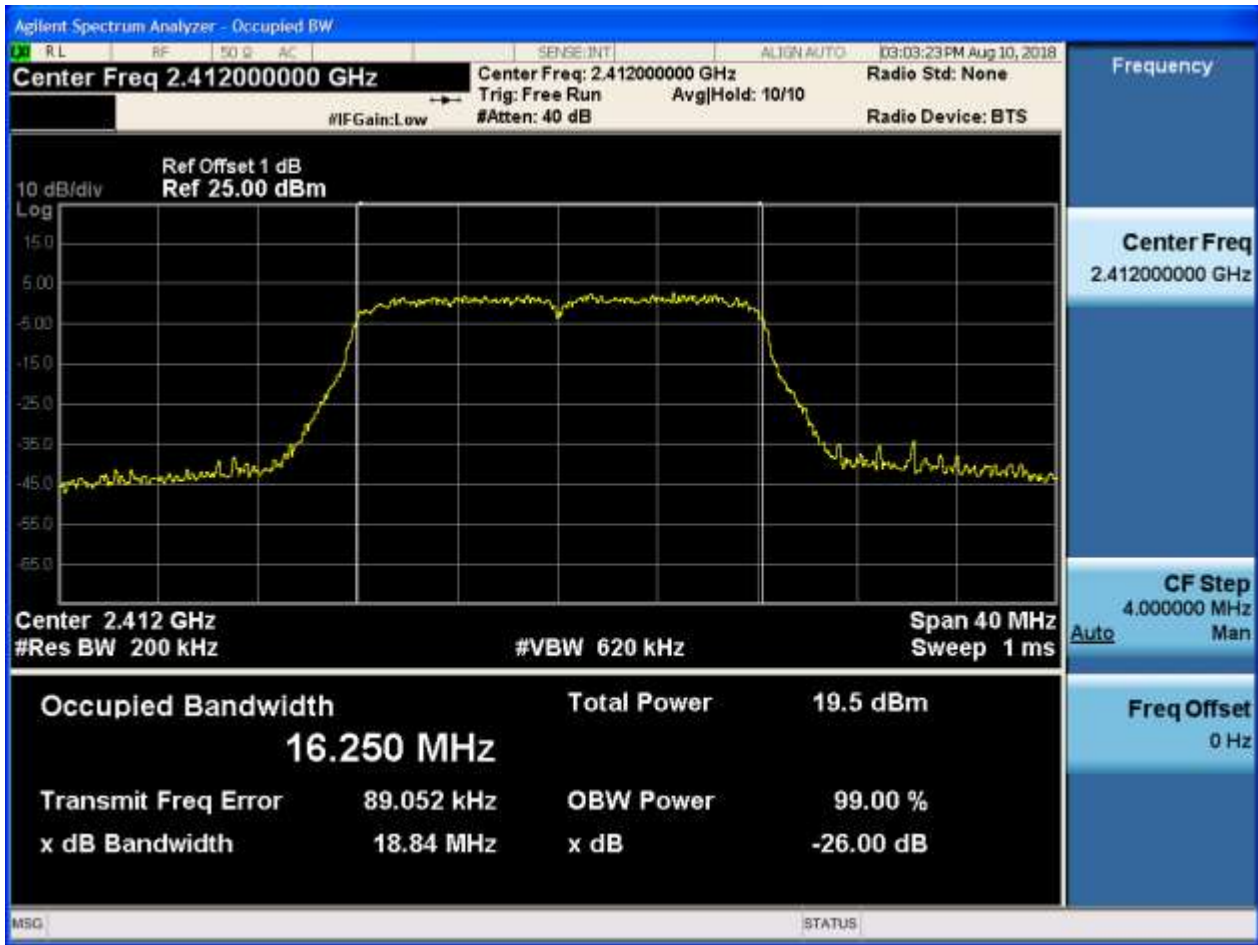


2.6 11B_H_2462@Ant 2



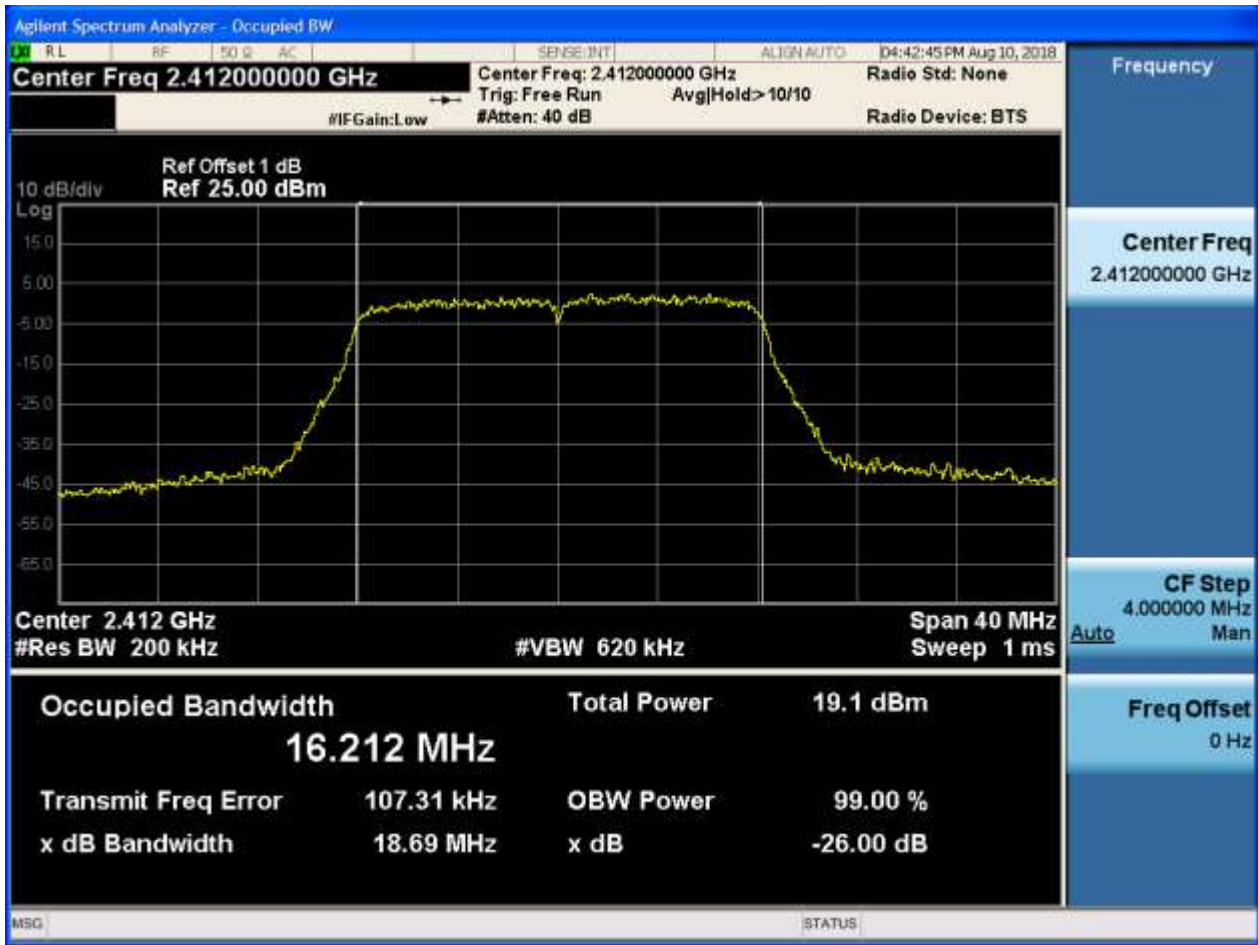


2.7 11G_L_2412@Ant 1





2.8 11G_L_2412@Ant 2



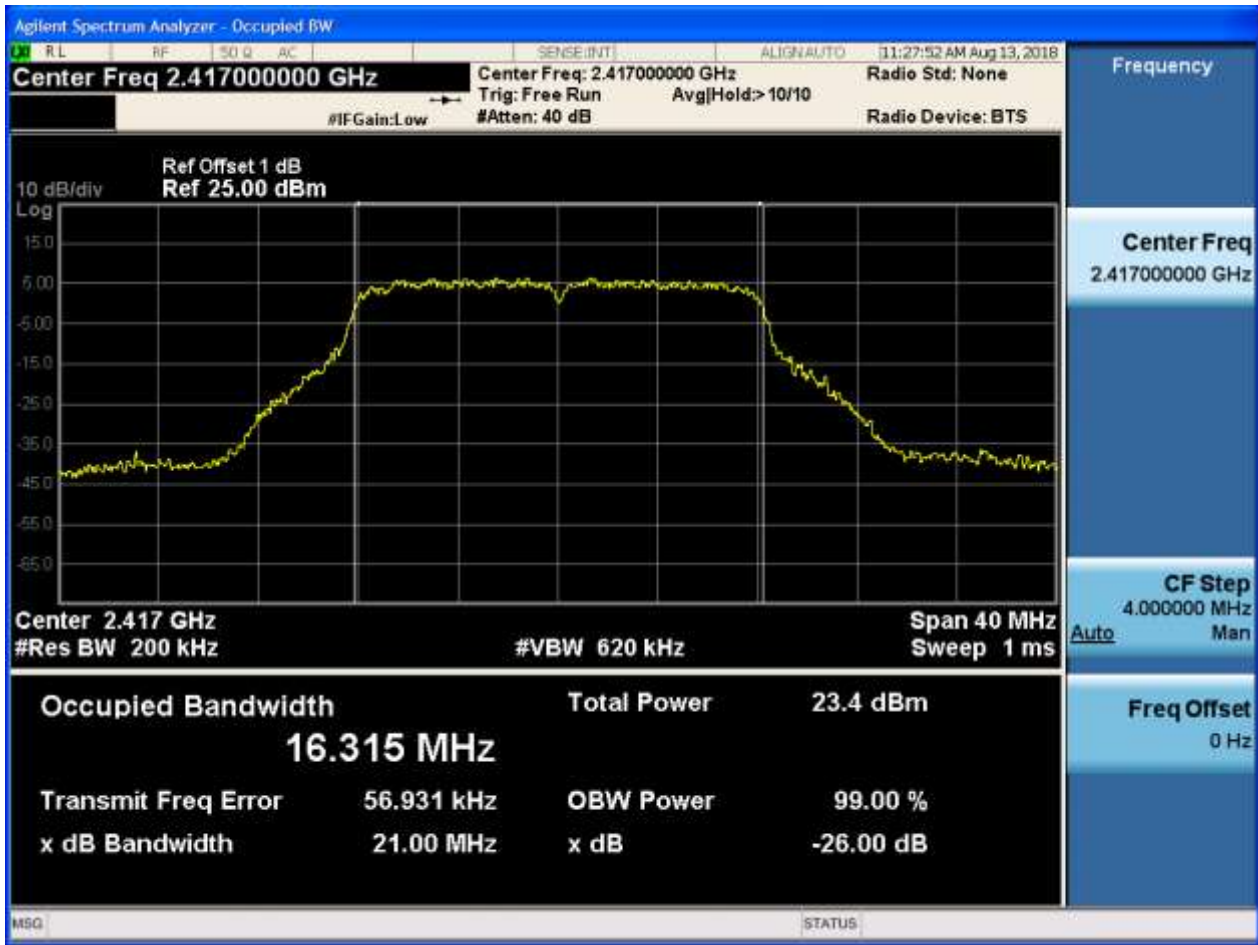


2.9 11G_L_2417@Ant 1





2.10 11G_L_2417@Ant 2



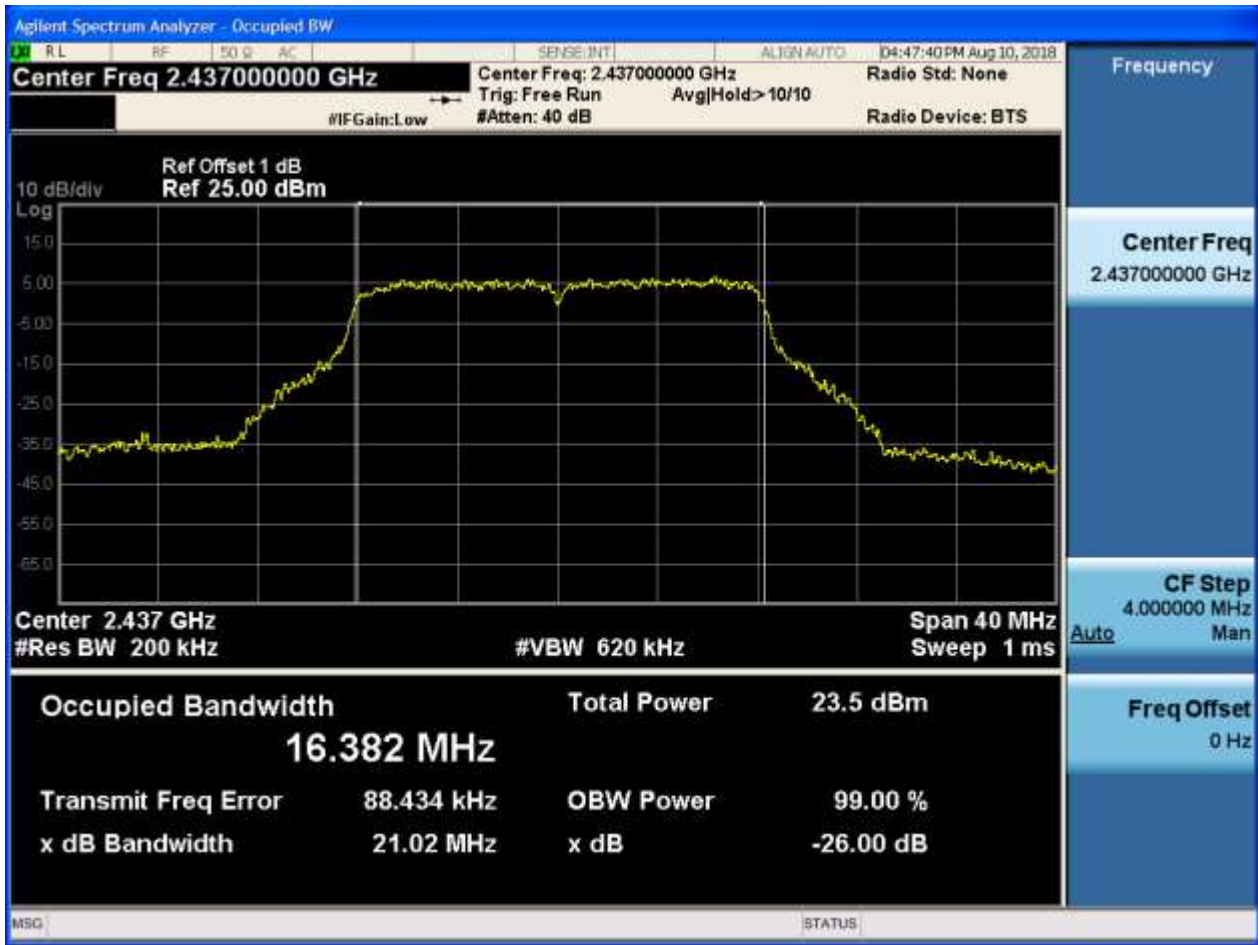


2.11 11G_M_2437@Ant 1



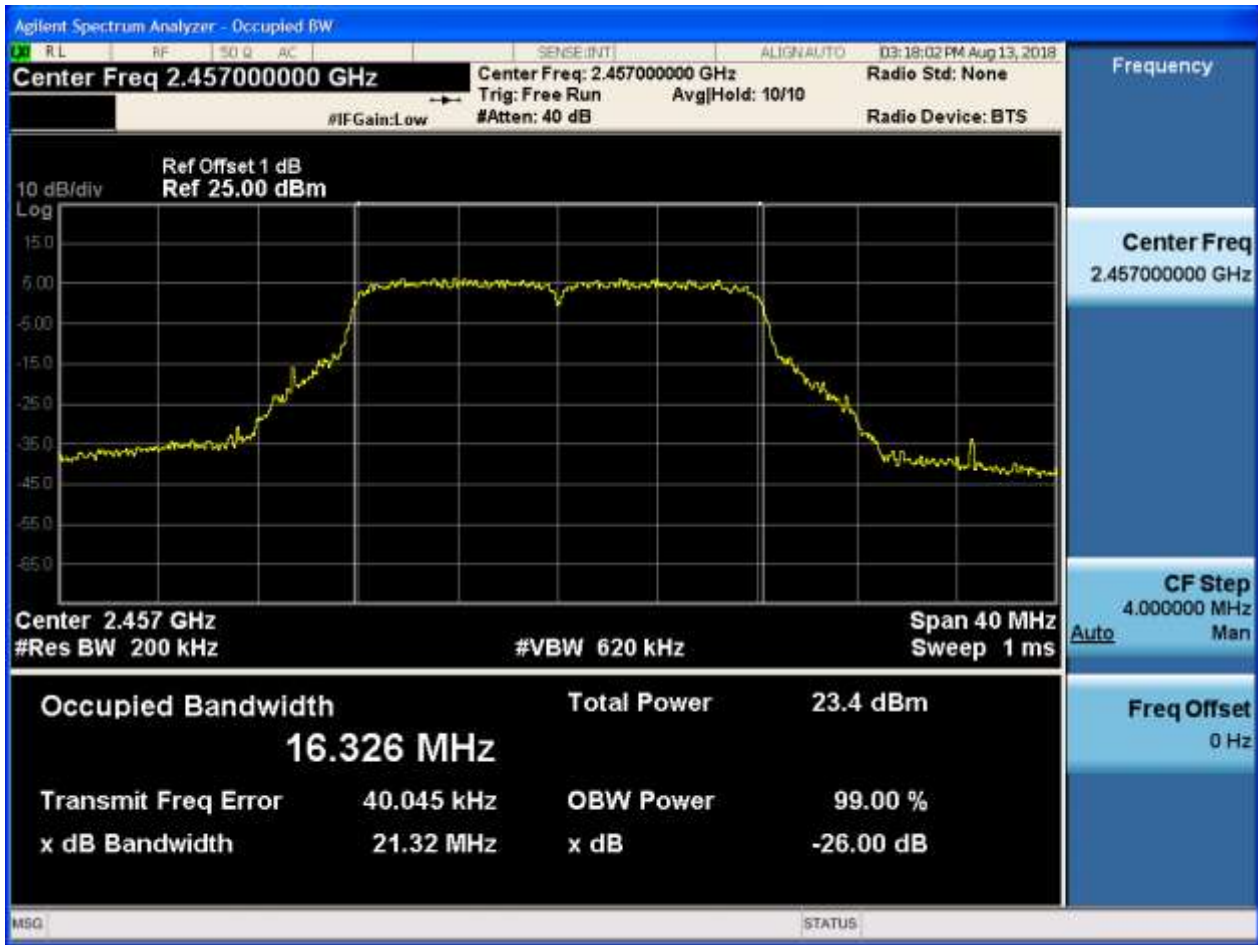


2.12 11G_M_2437@Ant 2



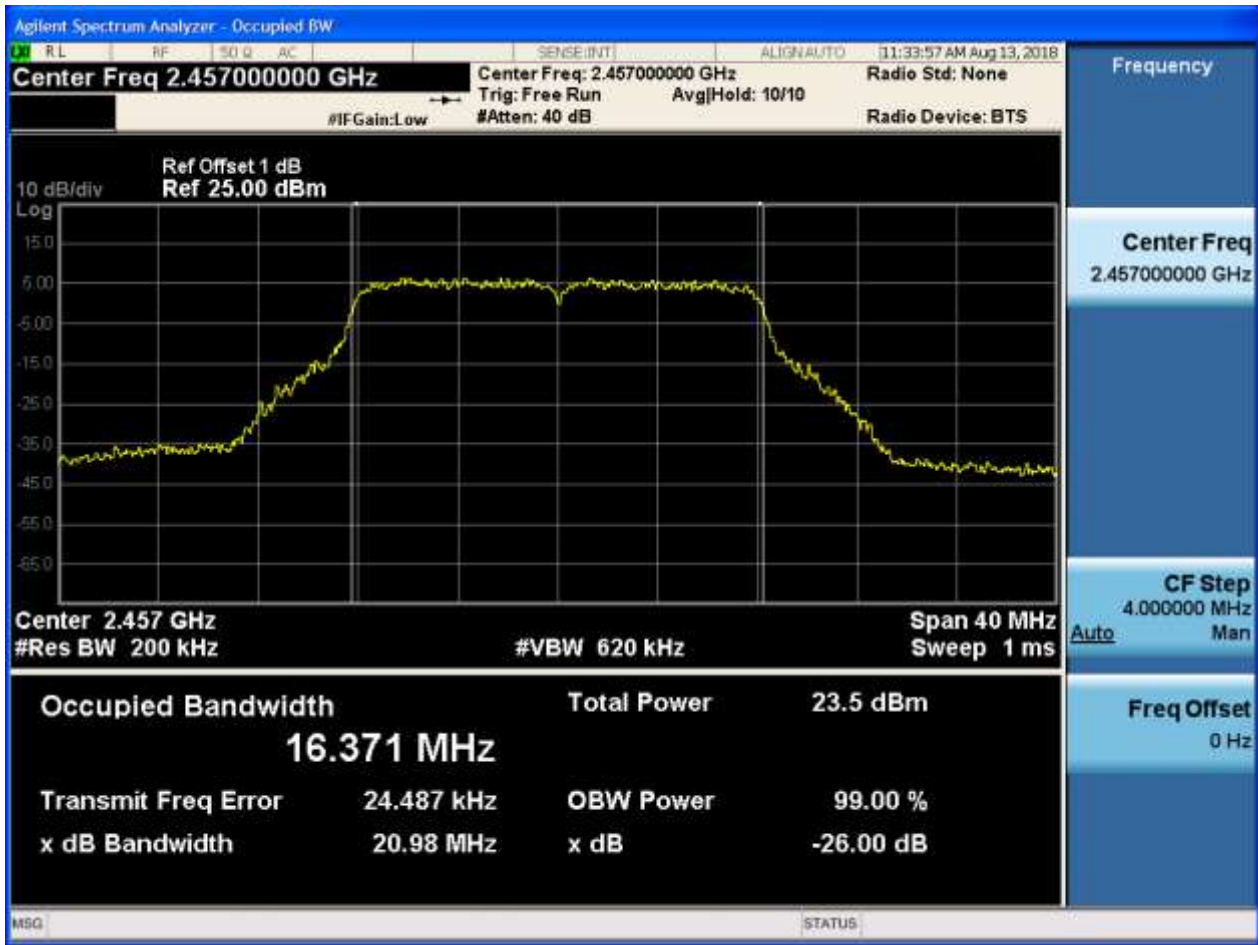


2.13 11G_H_2457@Ant 1





2.14 11G_H_2457@Ant 2



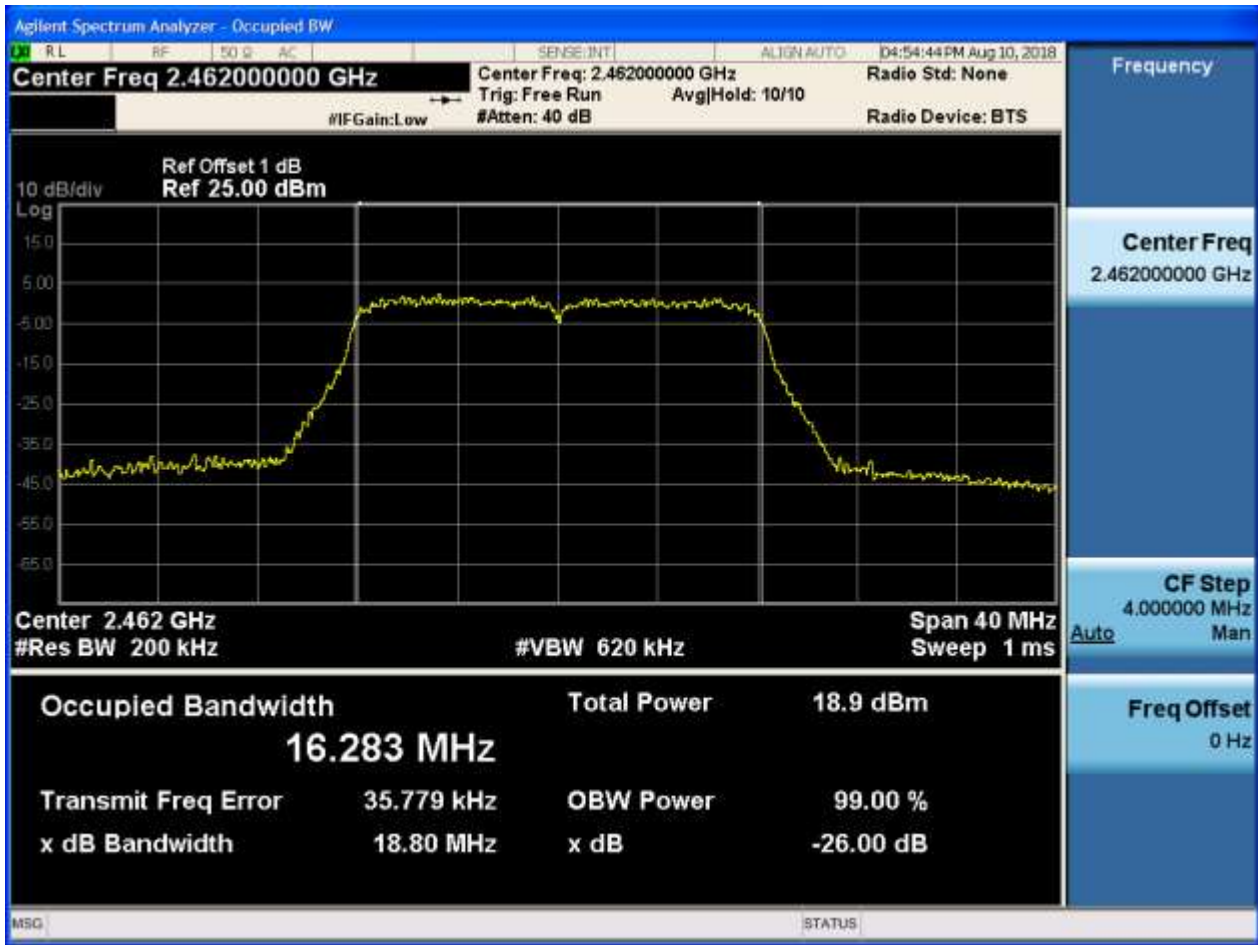


2.15 11G_H_2462@Ant 1



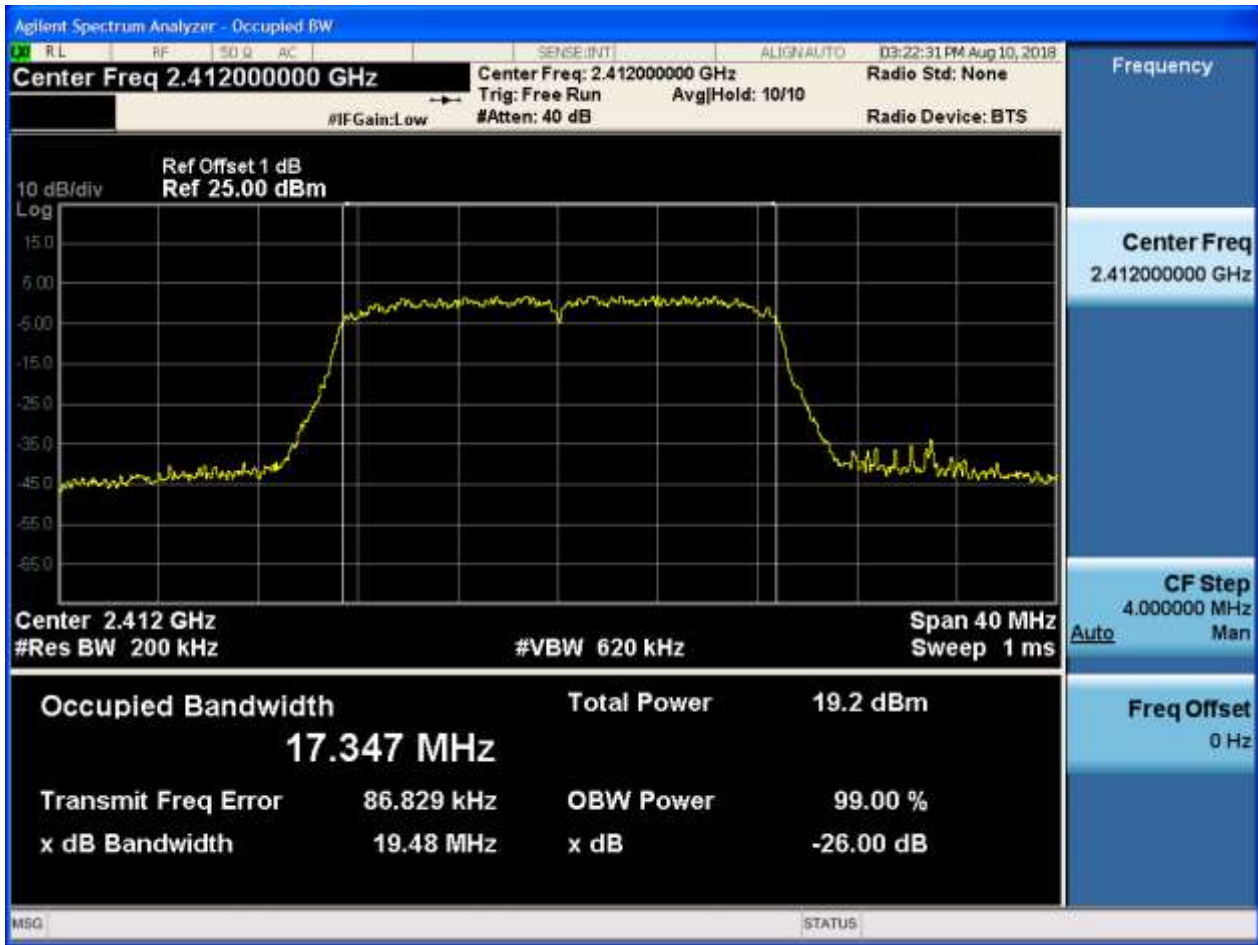


2.16 11G_H_2462@Ant 2



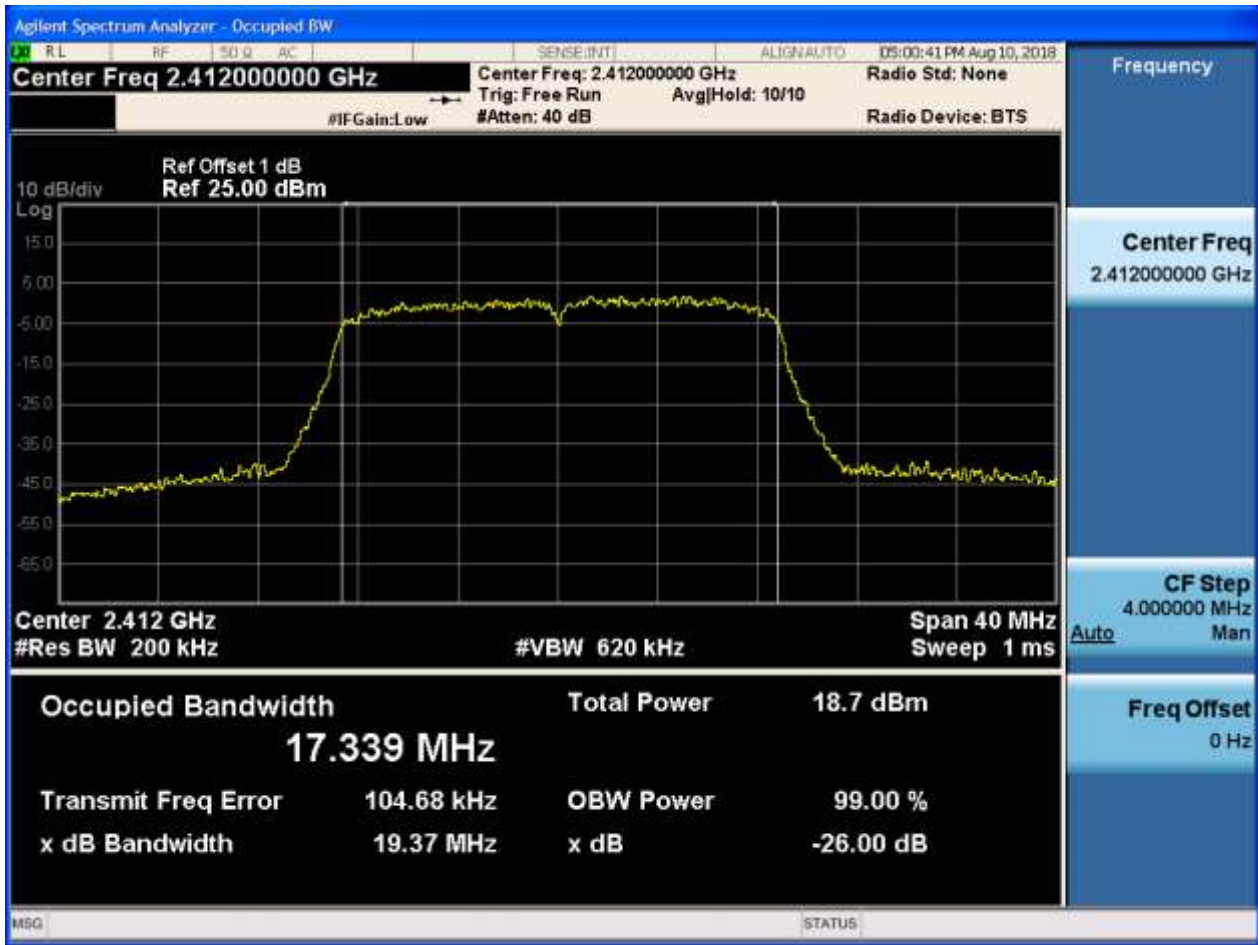


2.17 11N20_L_2412@Ant 1



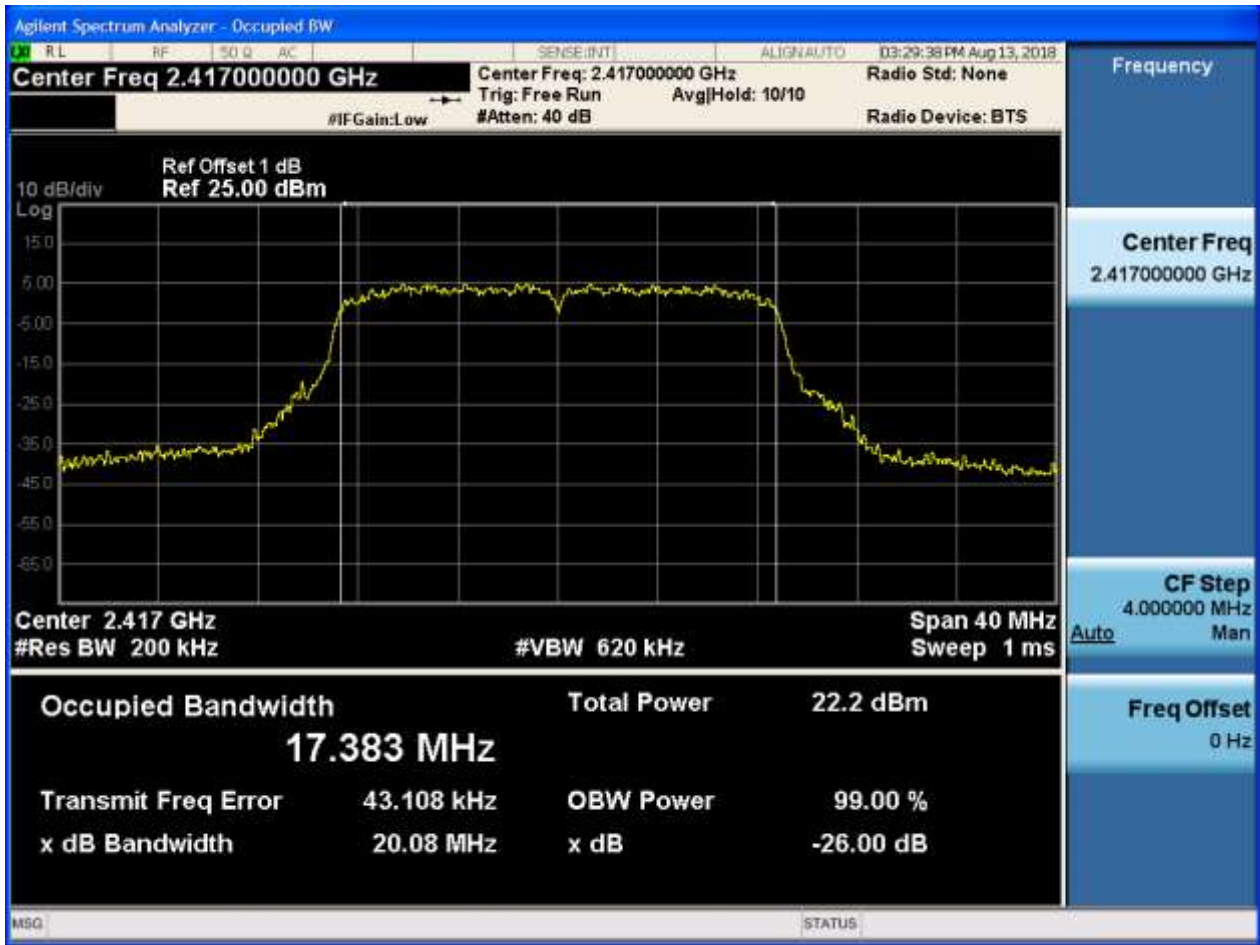


2.18 11N20_L_2412@Ant 2



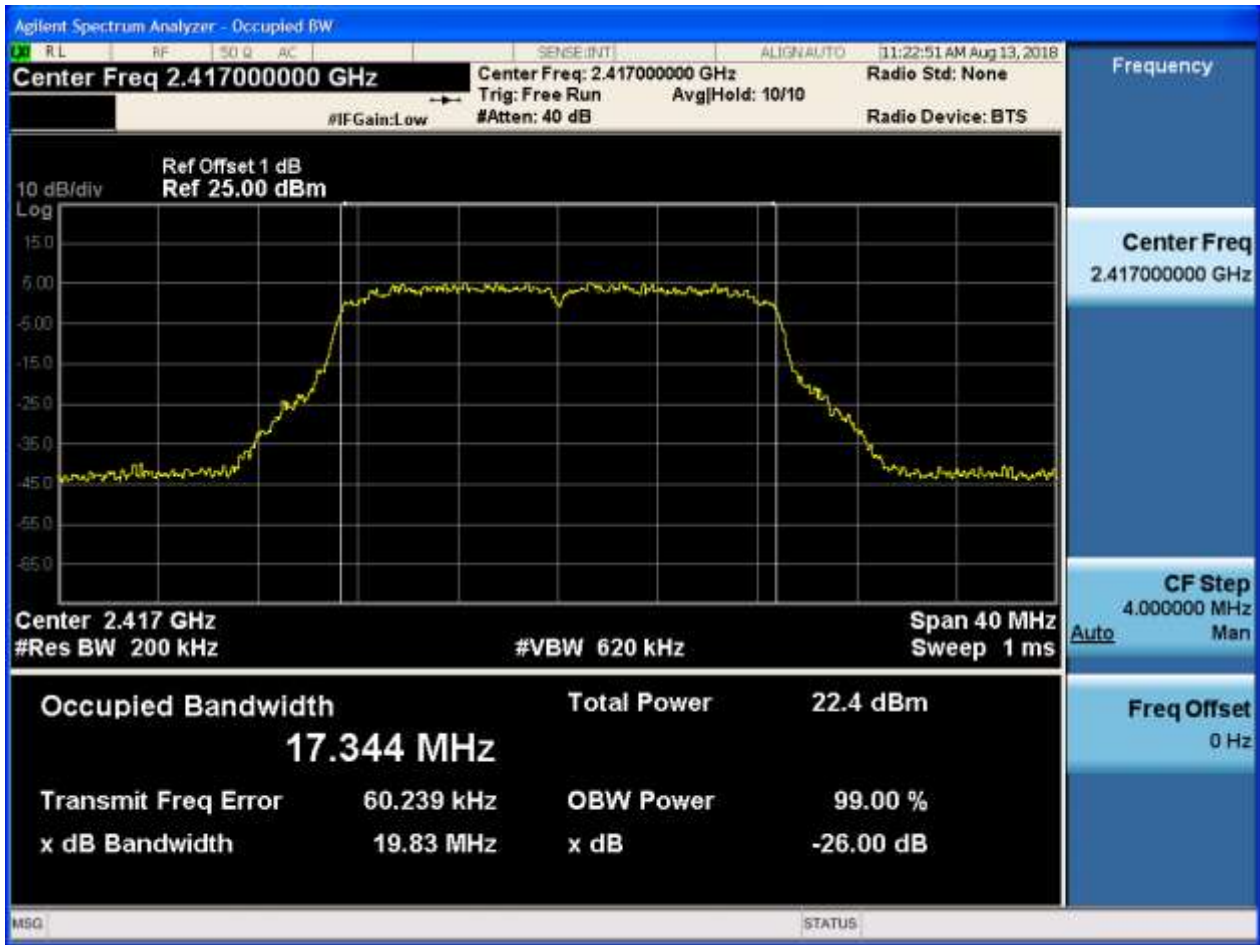


2.19 11N20_L_2417@Ant 1





2.20 11N20_L_2417@Ant 2



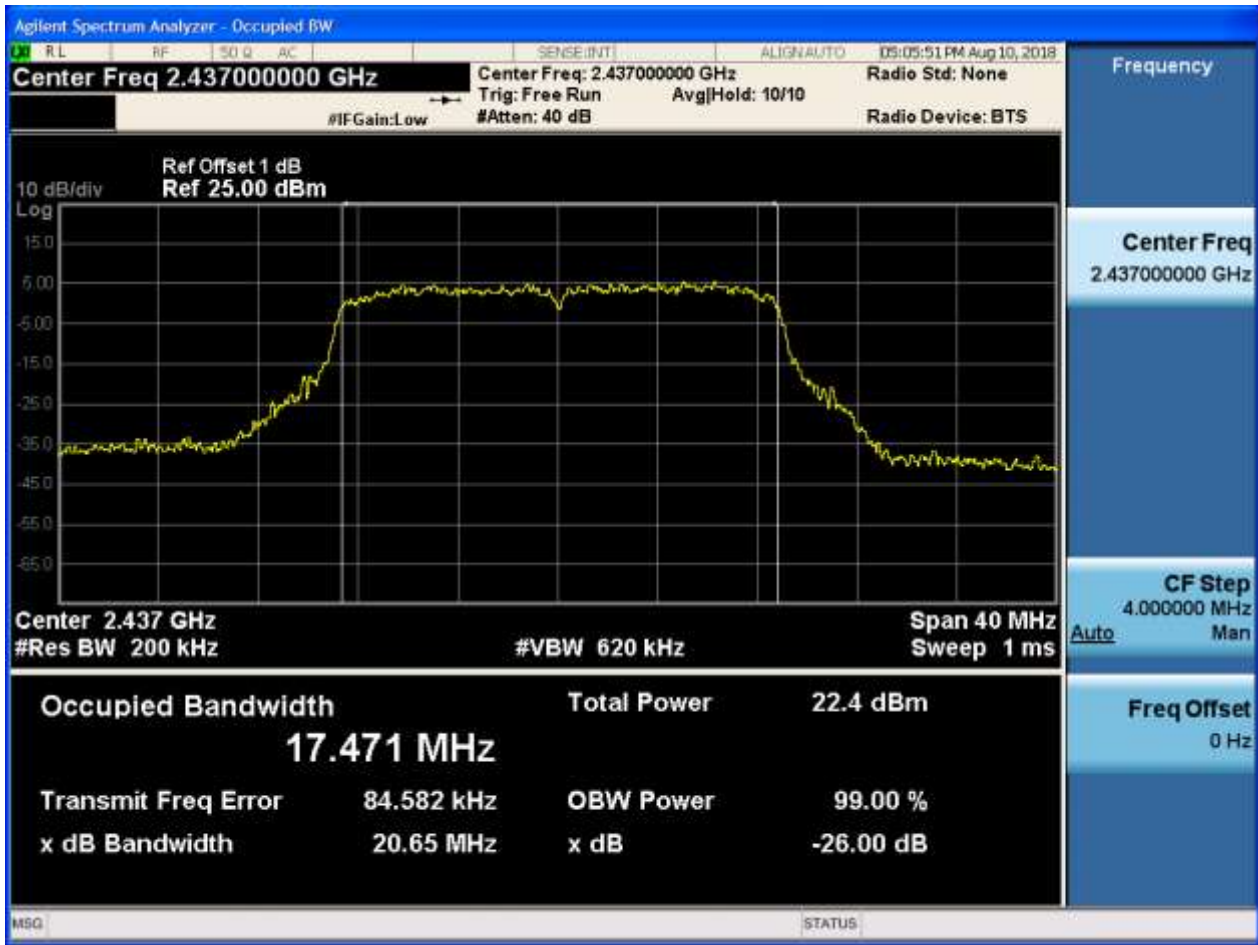


2.21 11N20_M_2437@Ant 1





2.22 11N20_M_2437@Ant 2



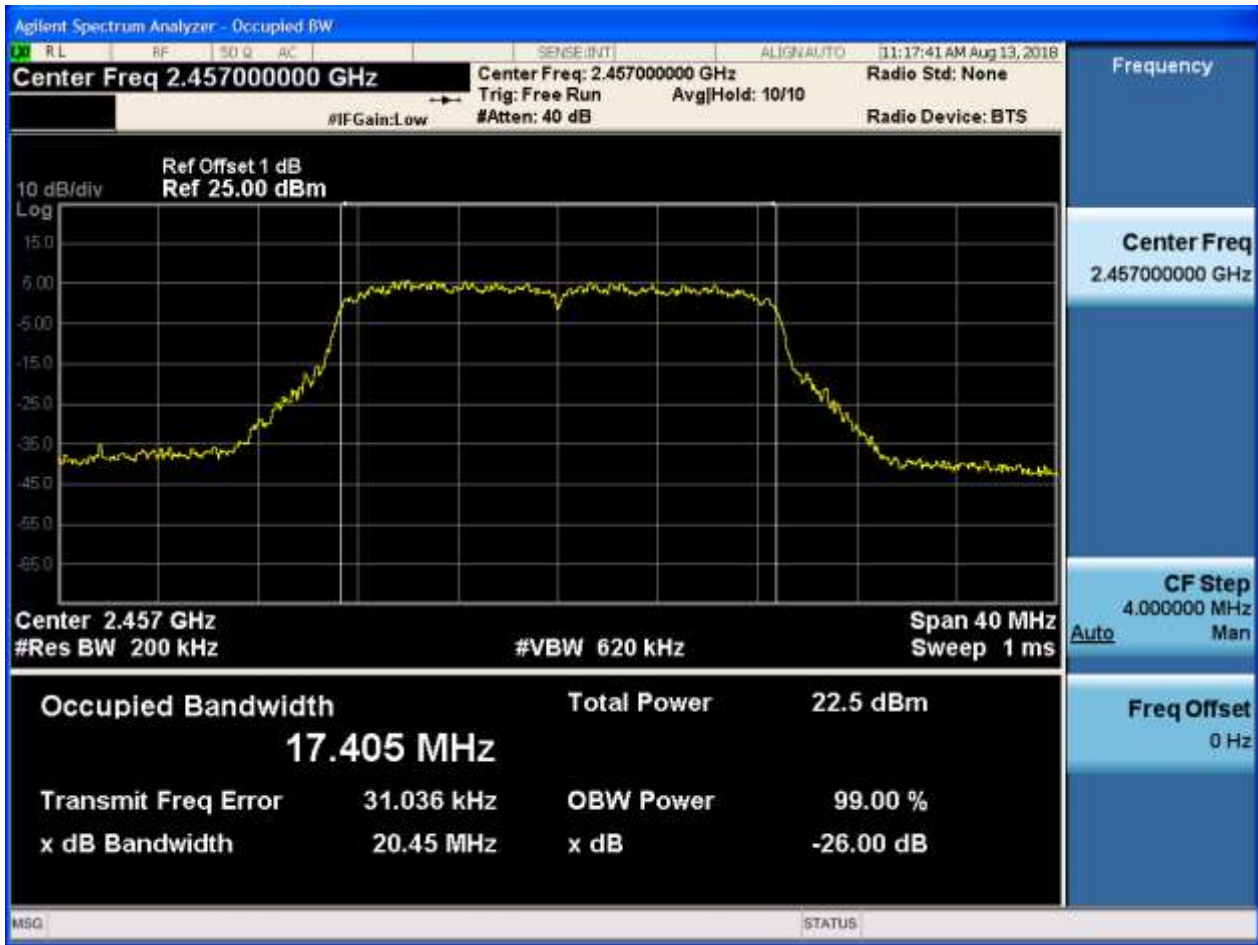


2.23 11N20_H_2457@Ant 1



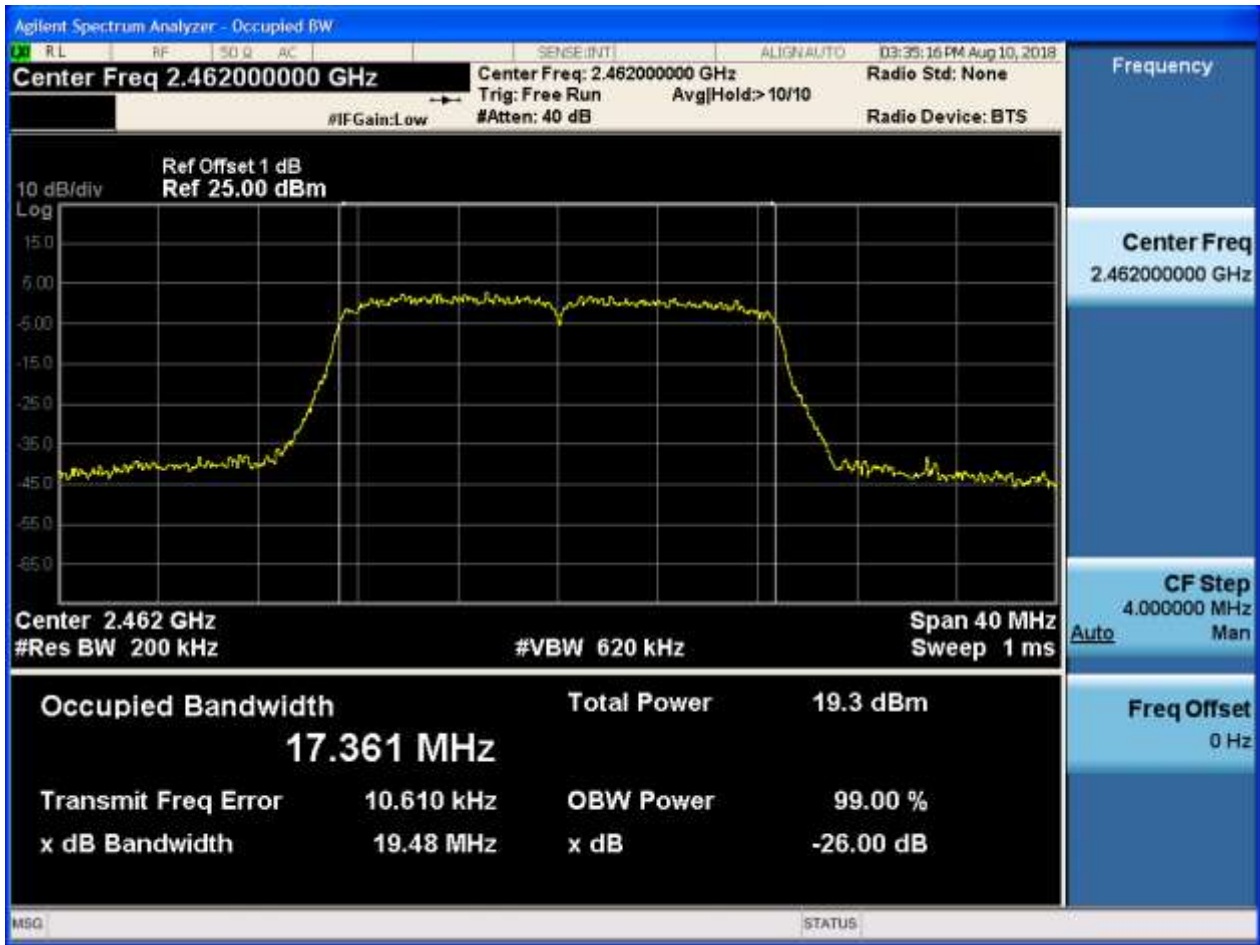


2.24 11N20_H_2457@Ant 2



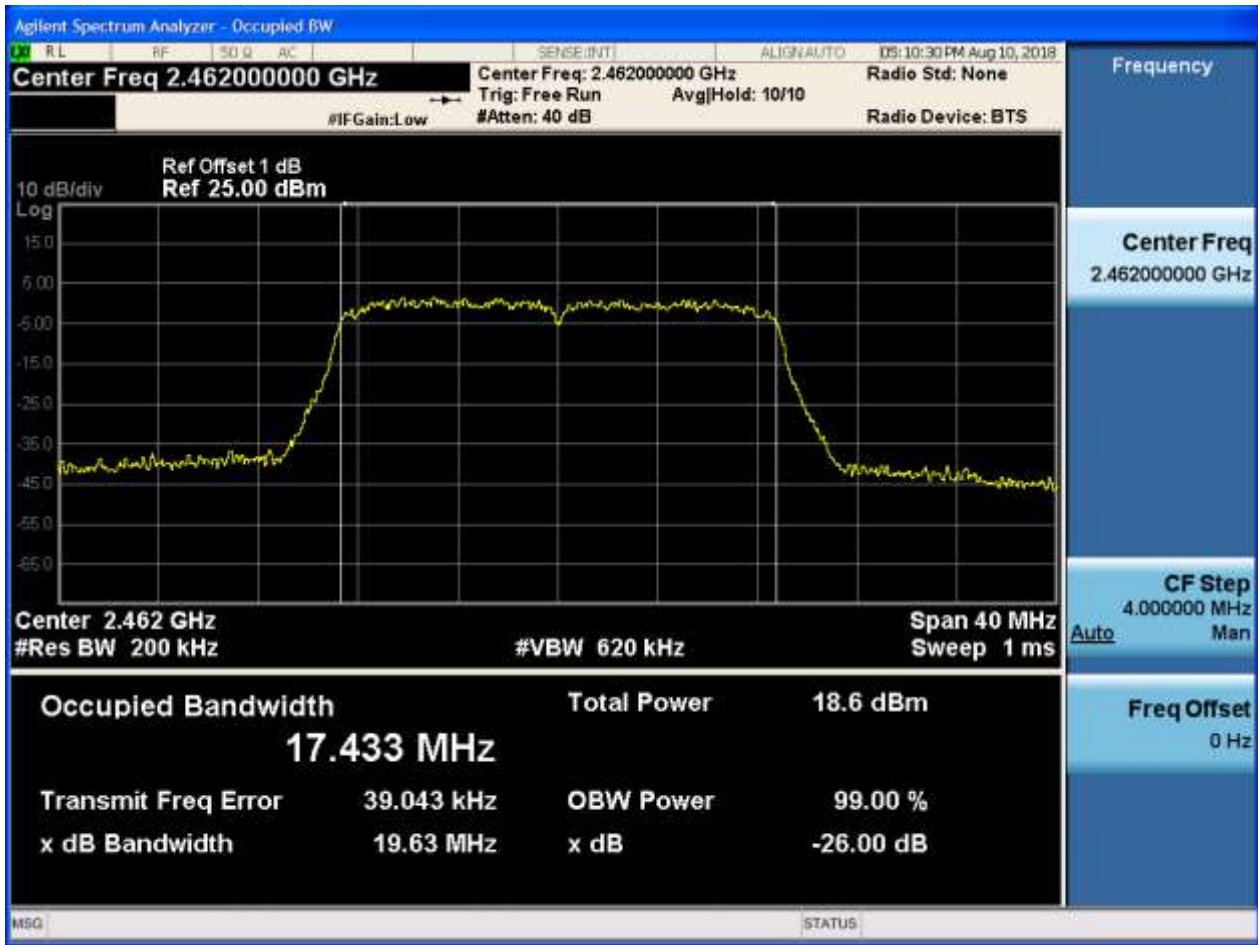


2.25 11N20_H_2462@Ant 1



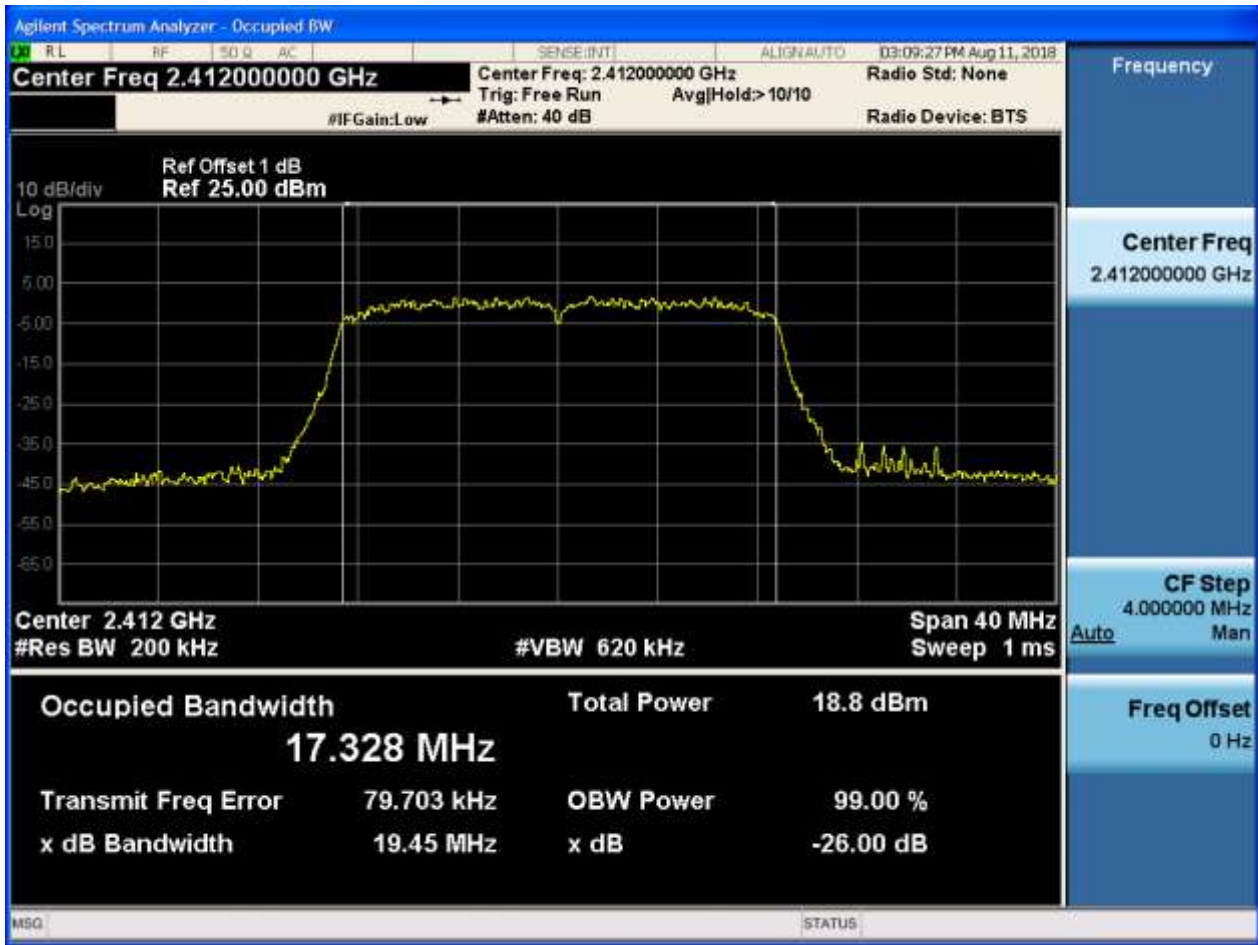


2.26 11N20_H_2462@Ant 2



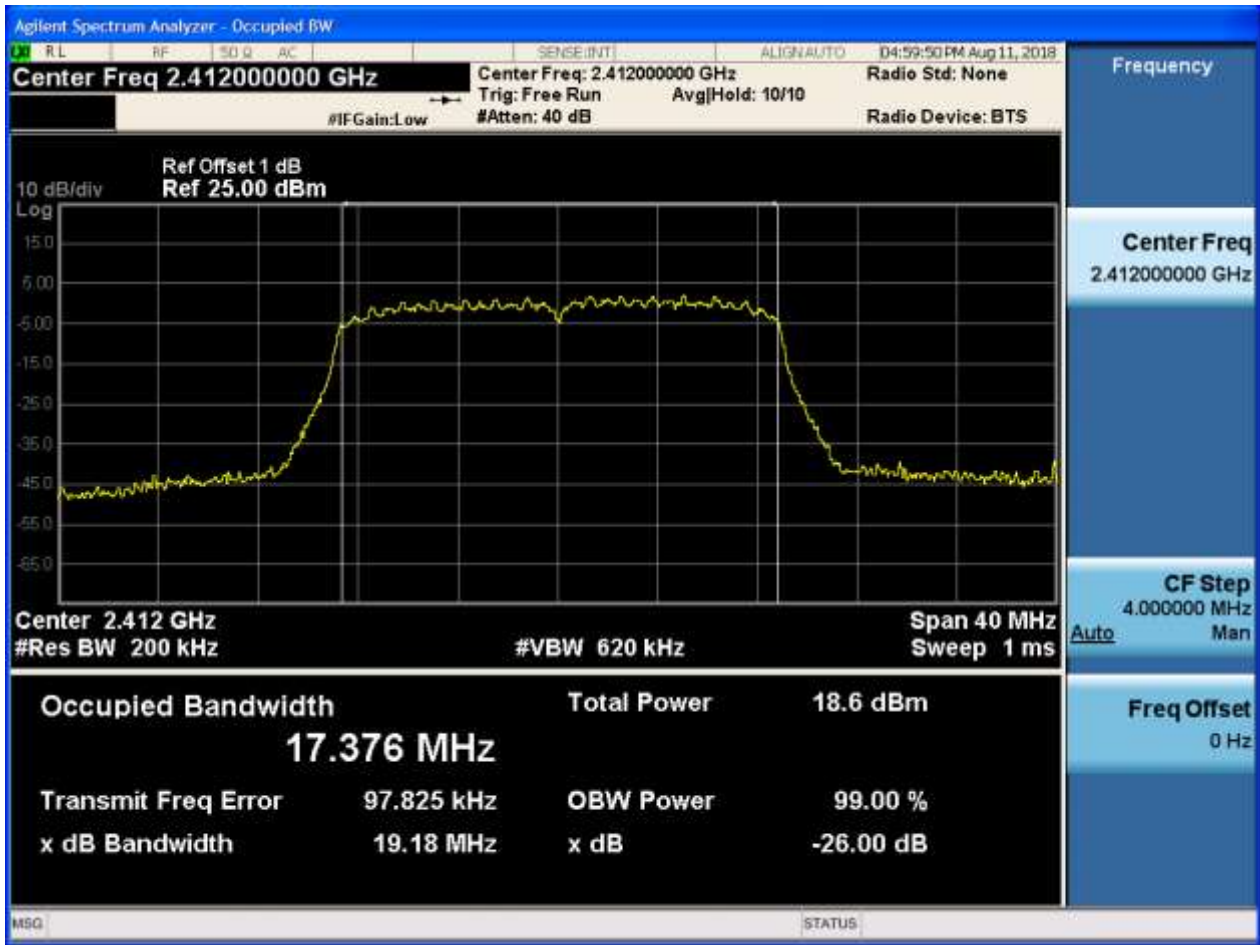


2.27 11N20m_L_2412@Ant 1



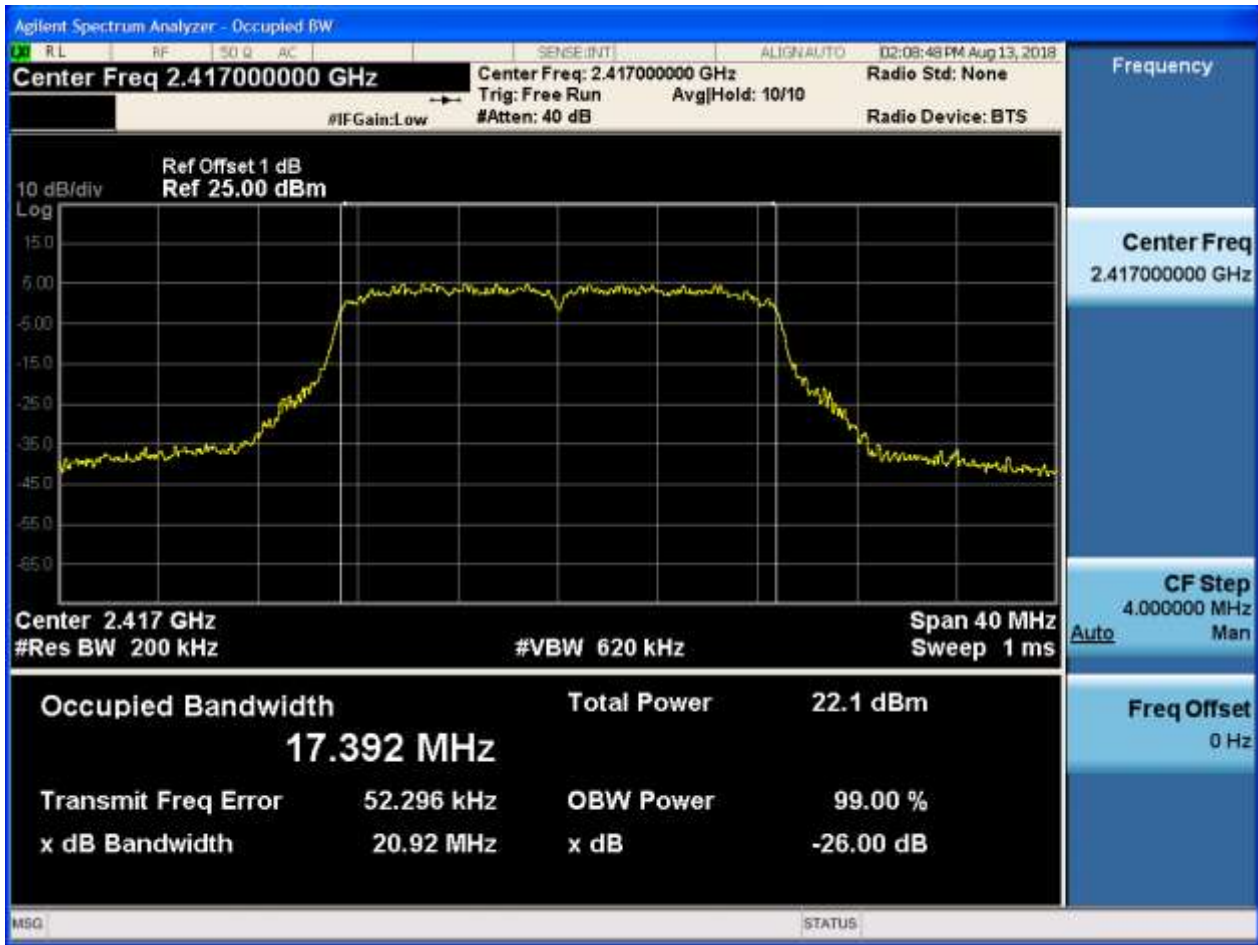


2.28 11N20m_L_2412@Ant 2



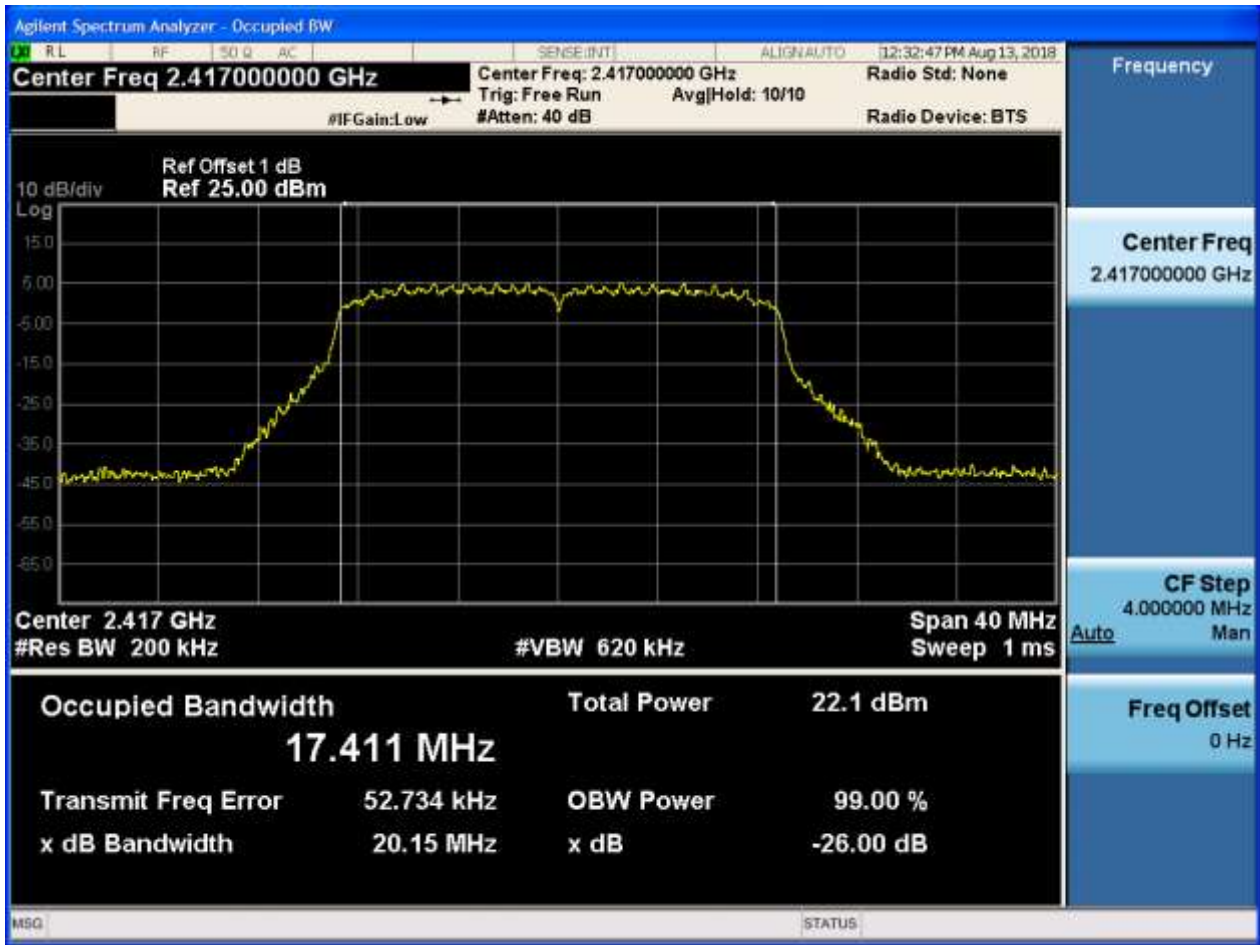


2.29 11N20m_L_2417@Ant 1





2.30 11N20m_L_2417@Ant 2



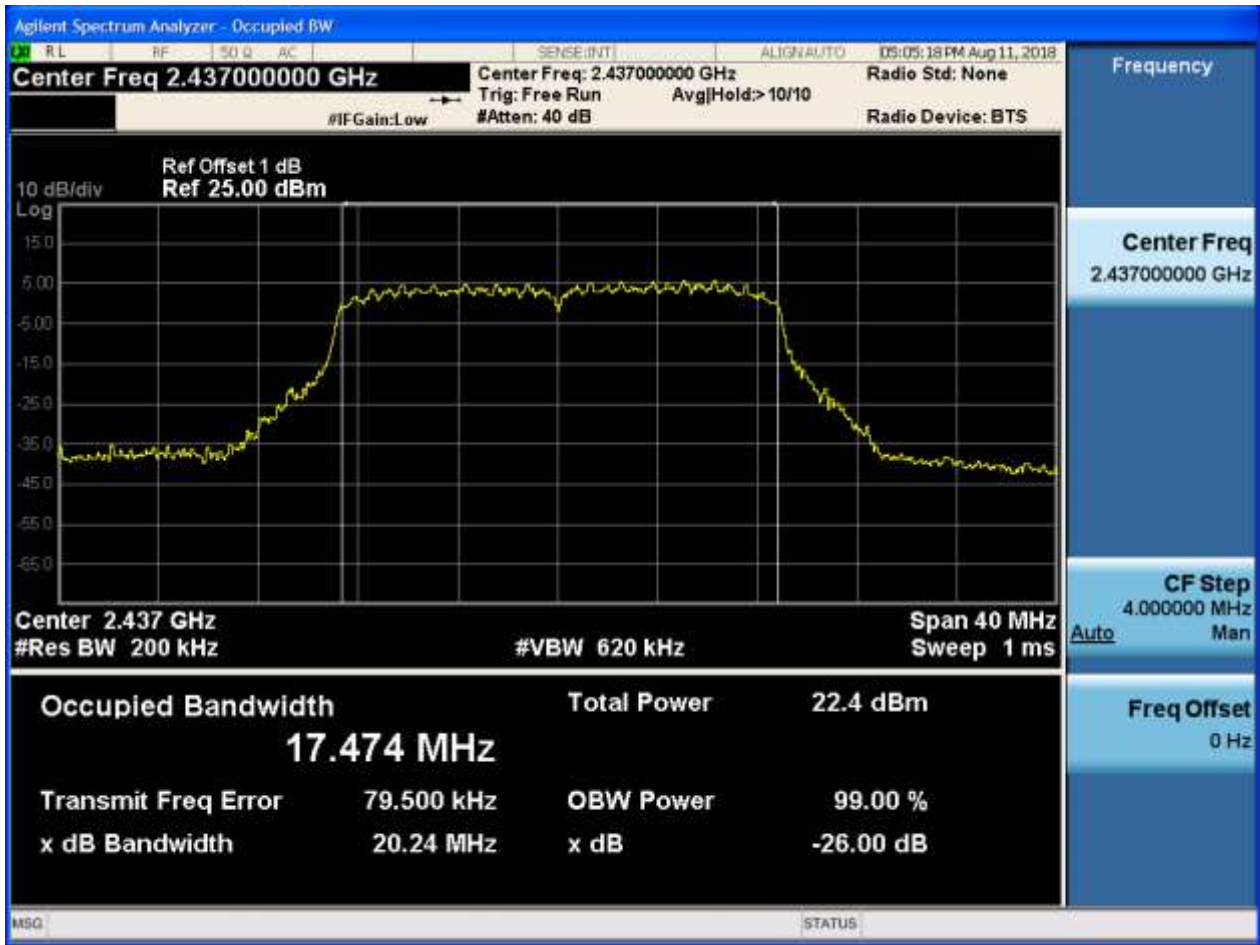


2.31 11N20m_M_2437@Ant 1



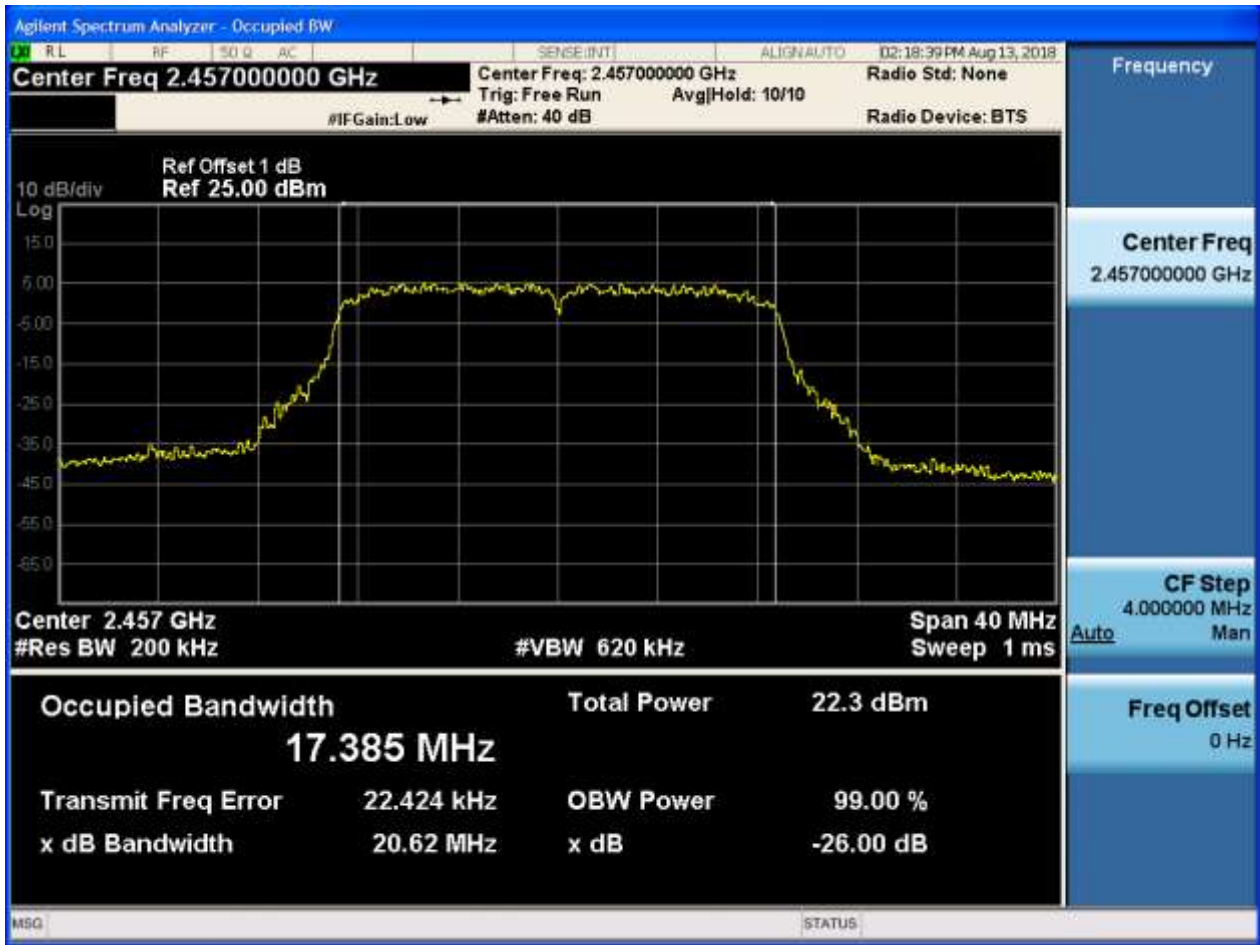


2.32 11N20m_M_2437@Ant 2



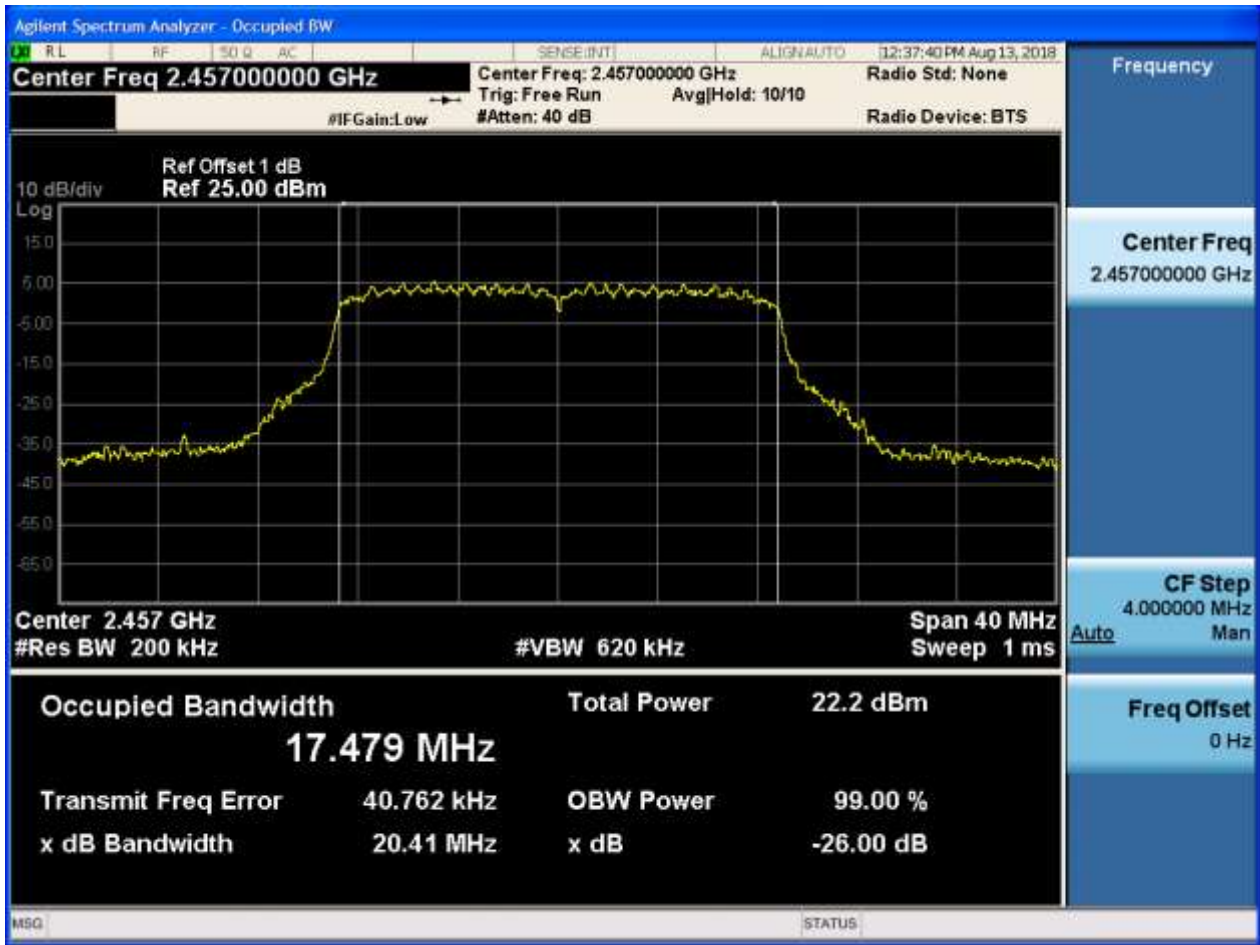


2.33 11N20m_H_2457@Ant 1



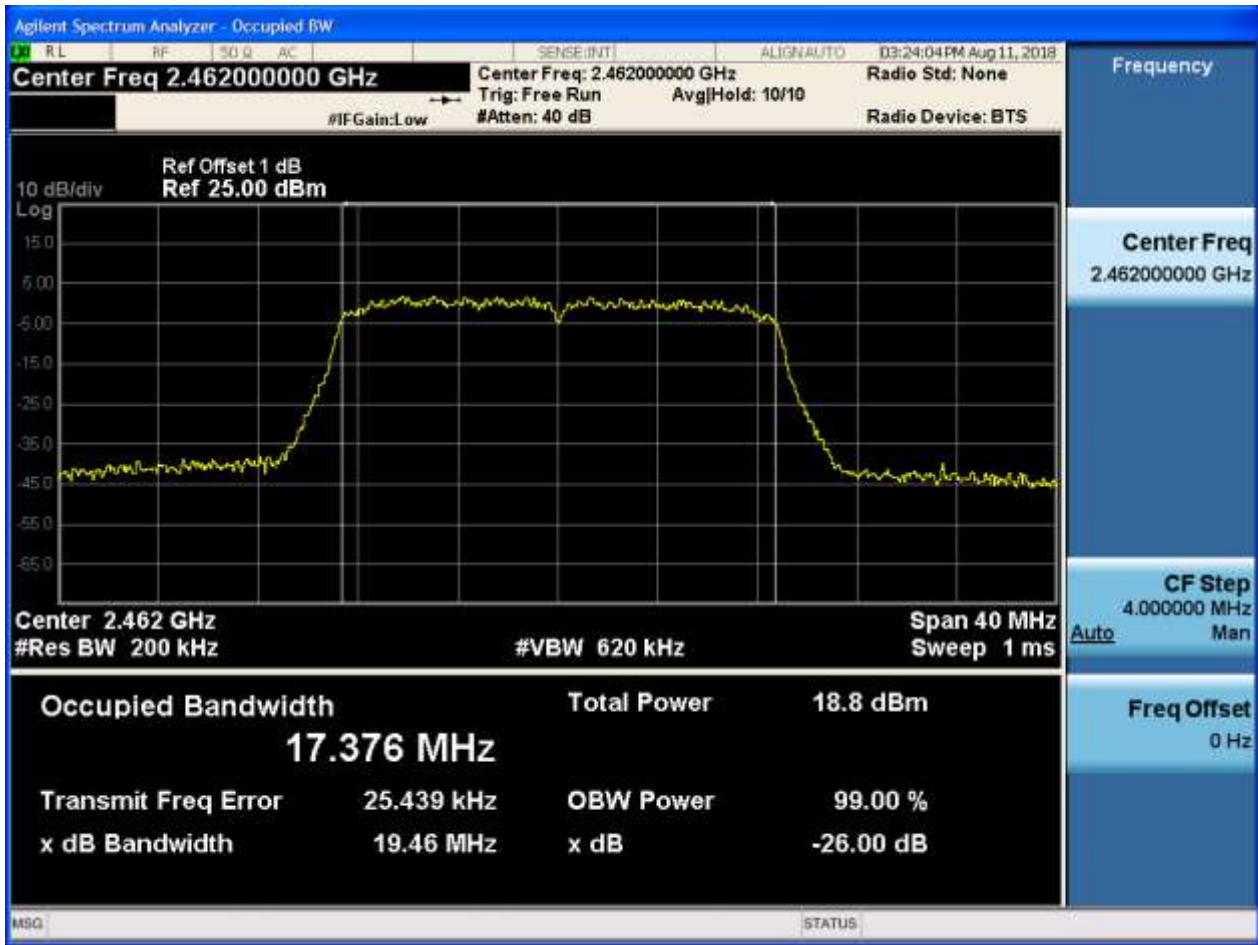


2.34 11N20m_H_2457@Ant 2



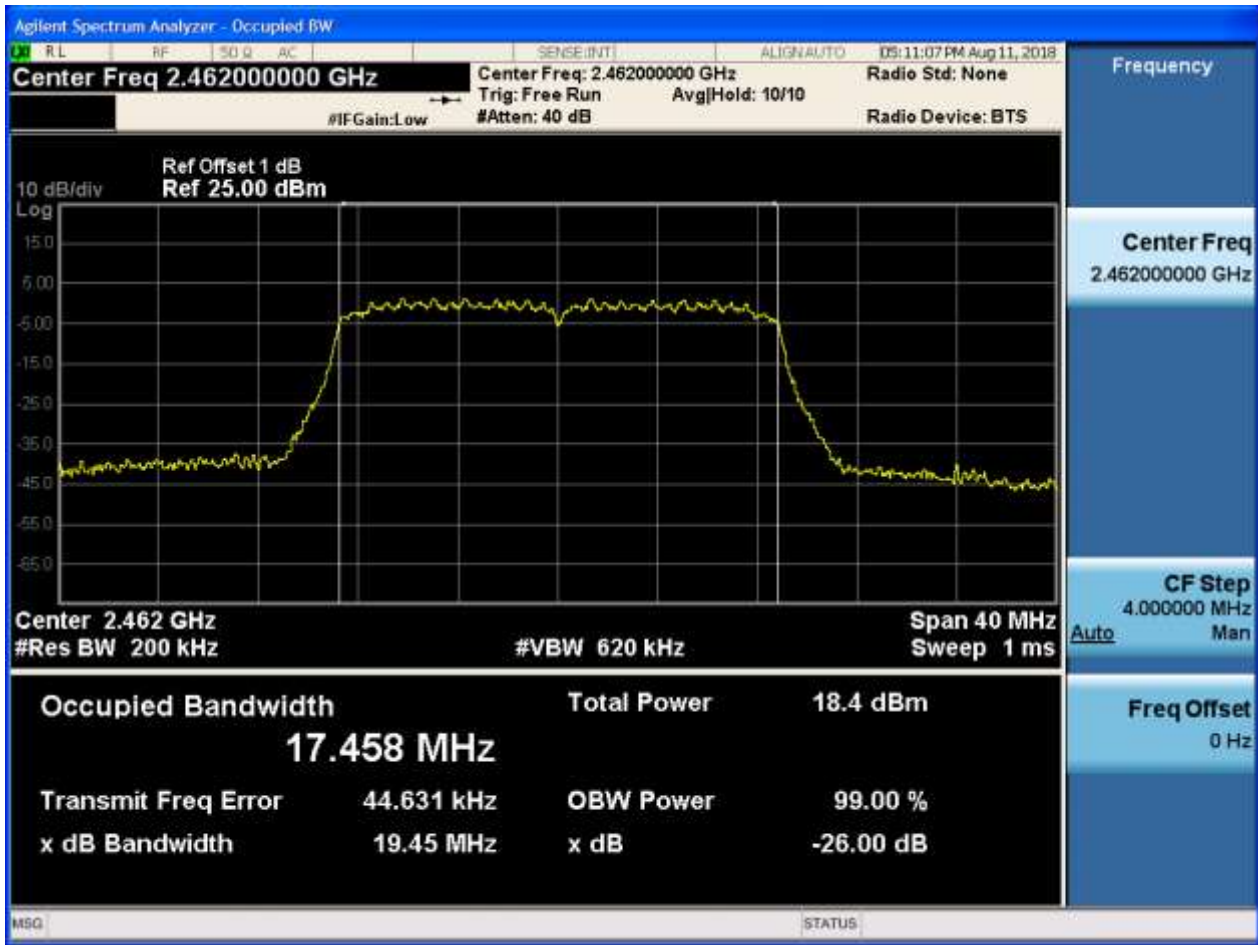


2.35 11N20m_H_2462@Ant 1





2.36 11N20m_H_2462@Ant 2



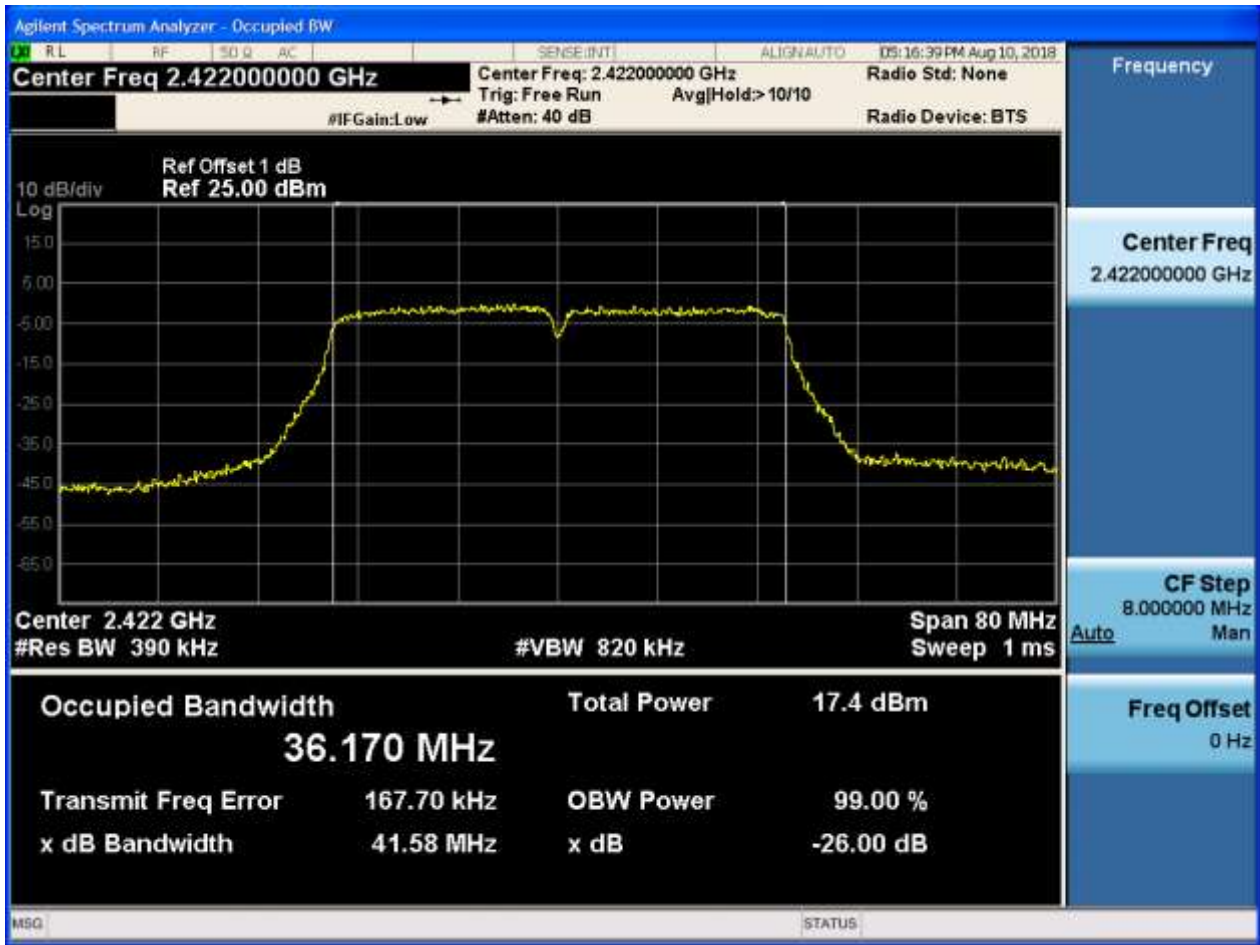


2.37 11N40_L_2422@Ant 1



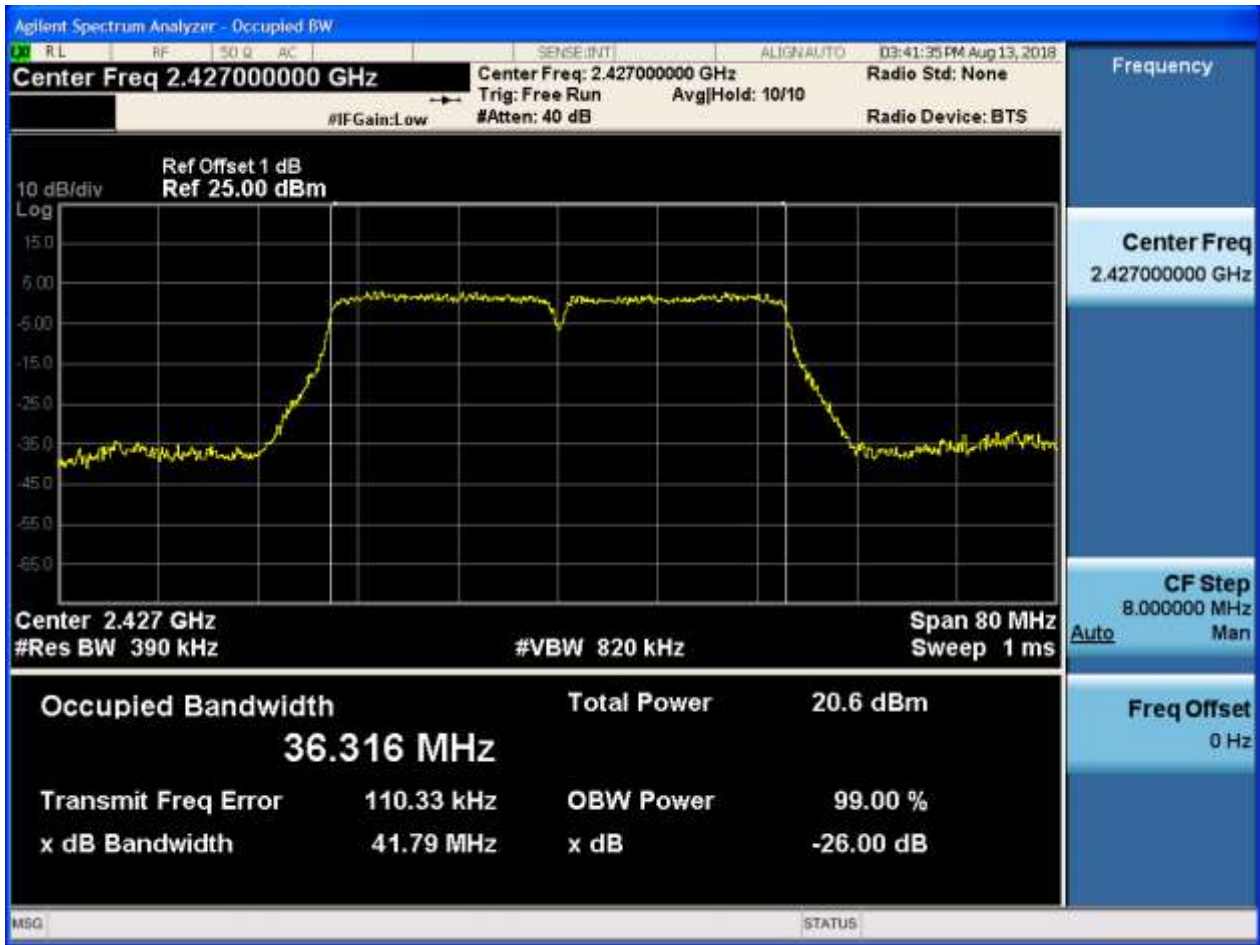


2.38 11N40_L_2422@Ant 2





2.39 11N40_L_2427@Ant 1



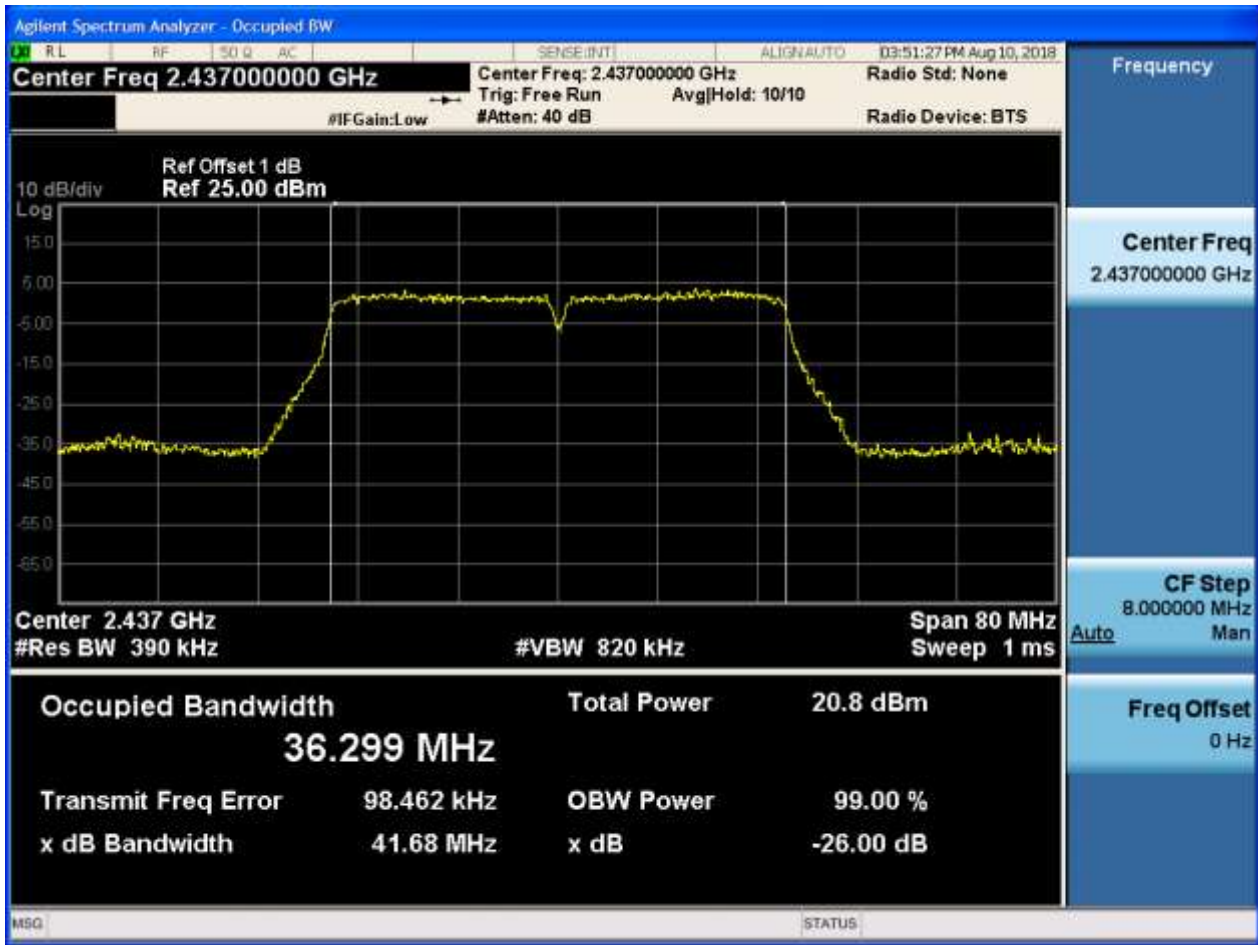


2.40 11N40_L_2427@Ant 2



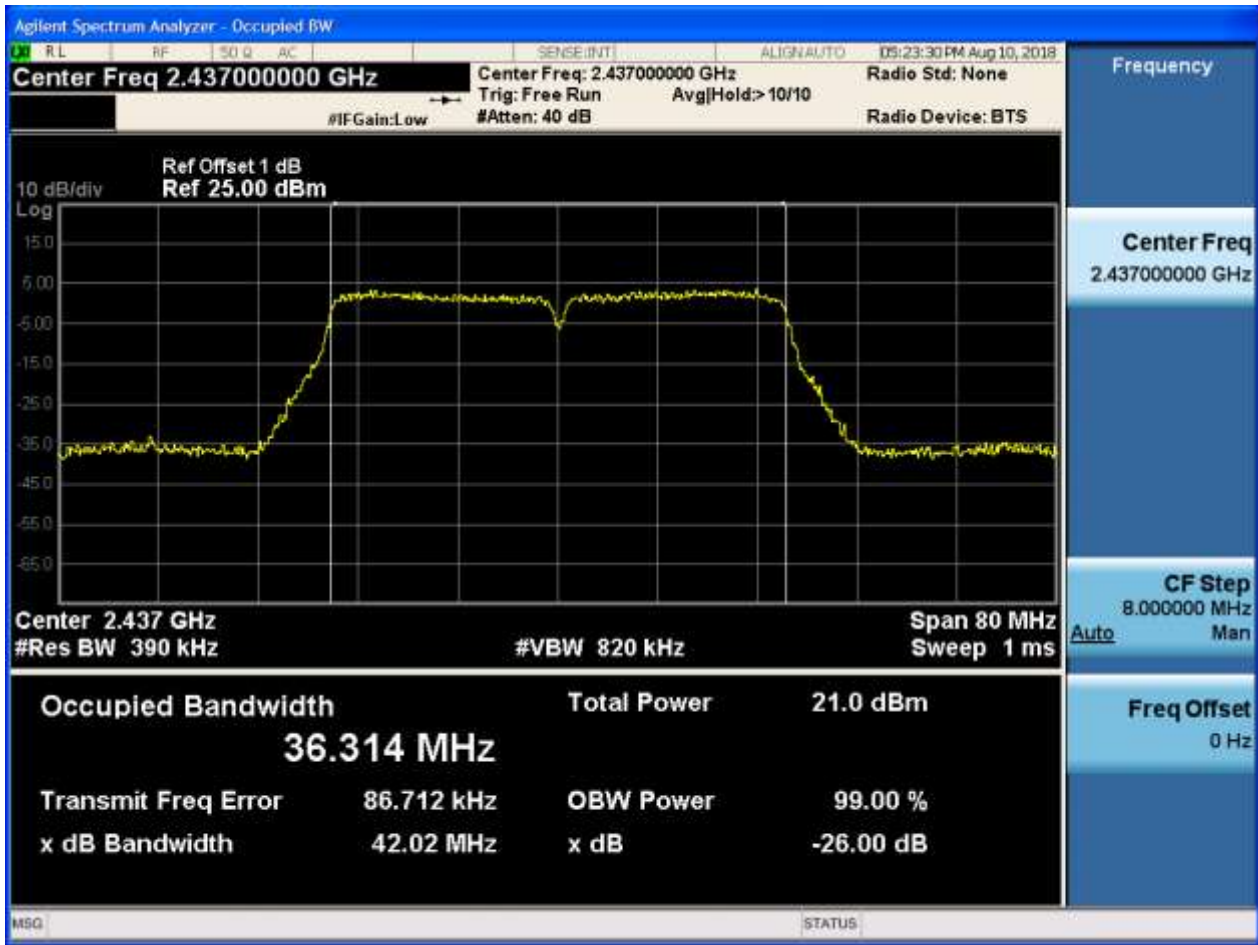


2.41 11N40_M_2437@Ant 1



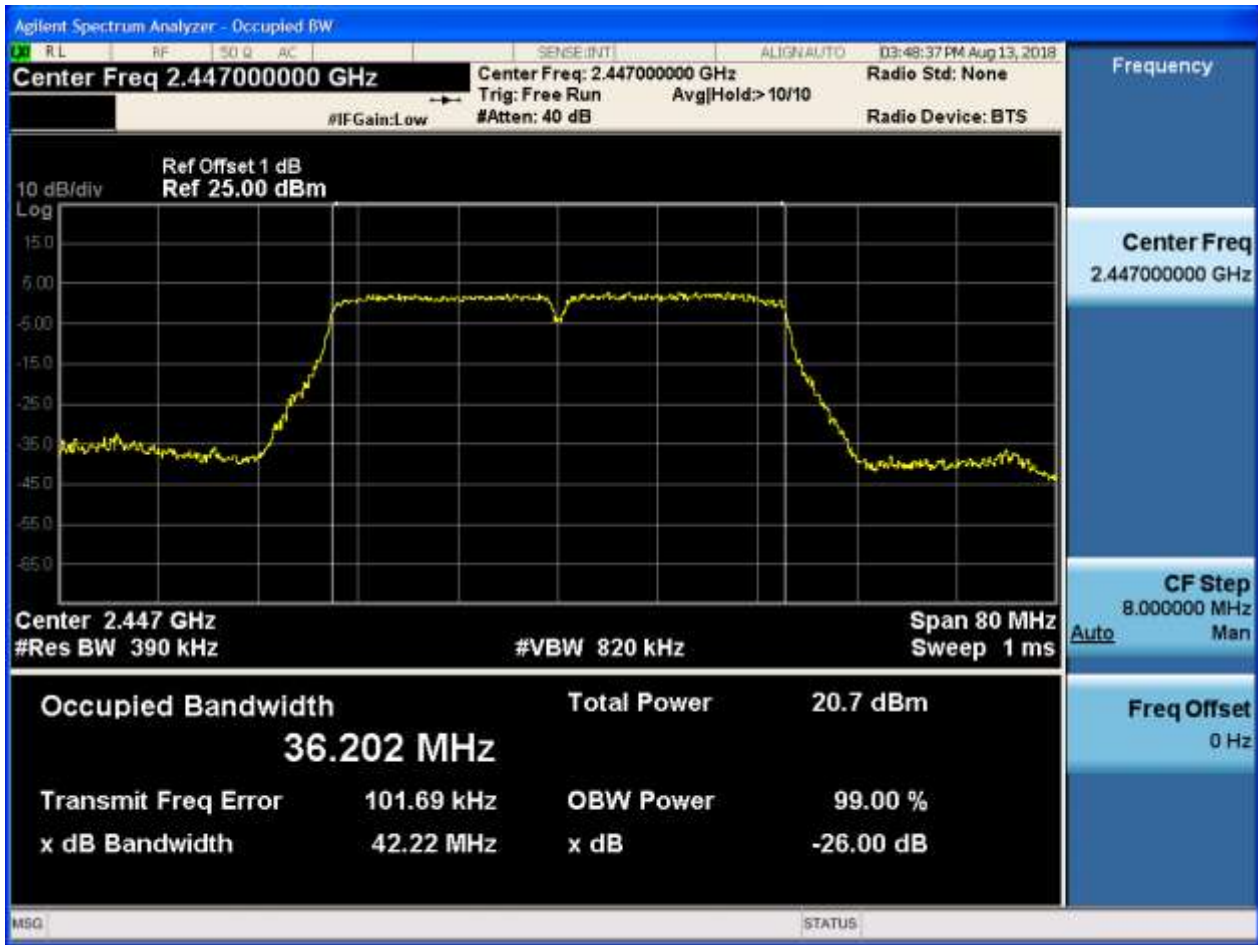


2.42 11N40_M_2437@Ant 2





2.43 11N40_H_2447@Ant 1



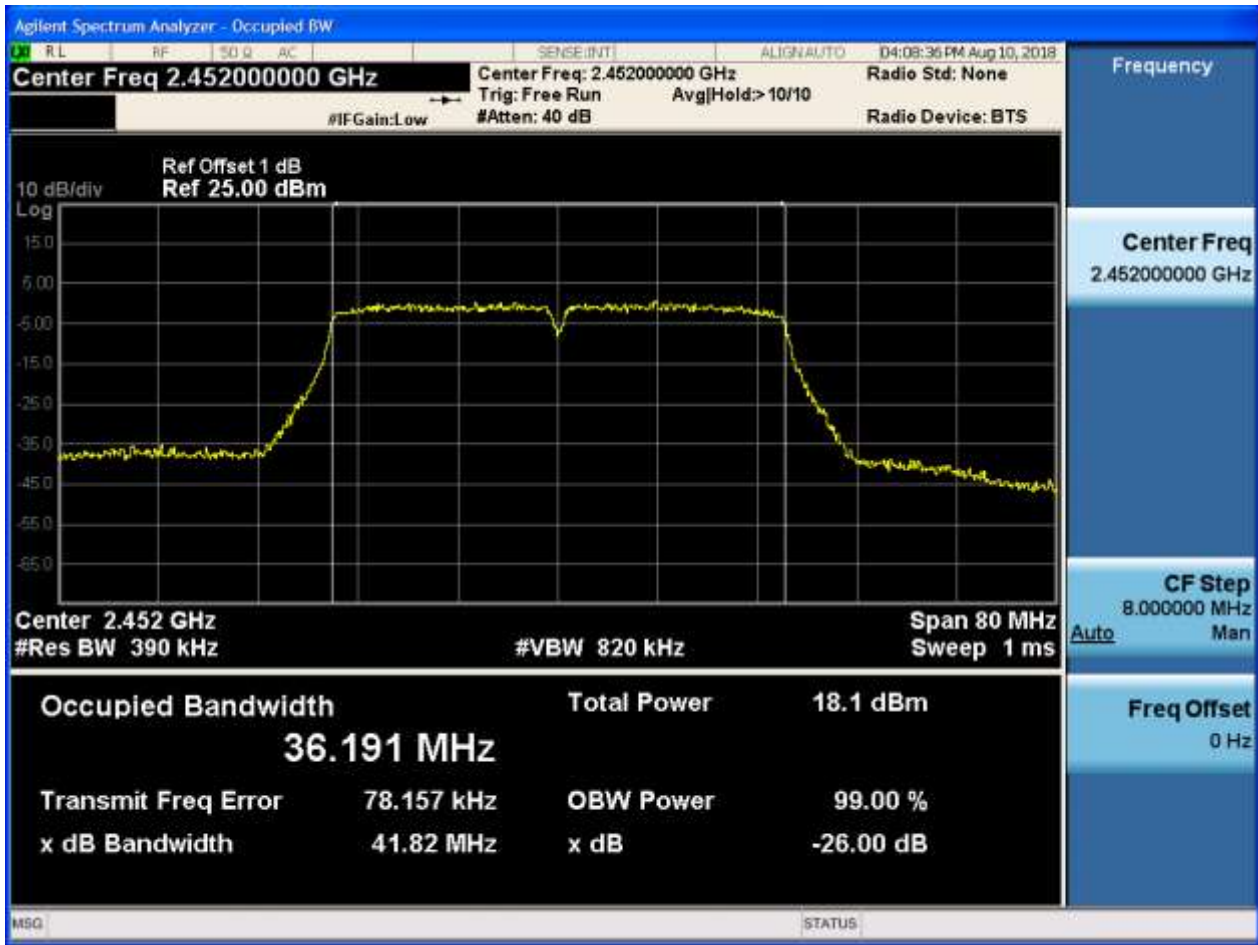


2.44 11N40_H_2447@Ant 2



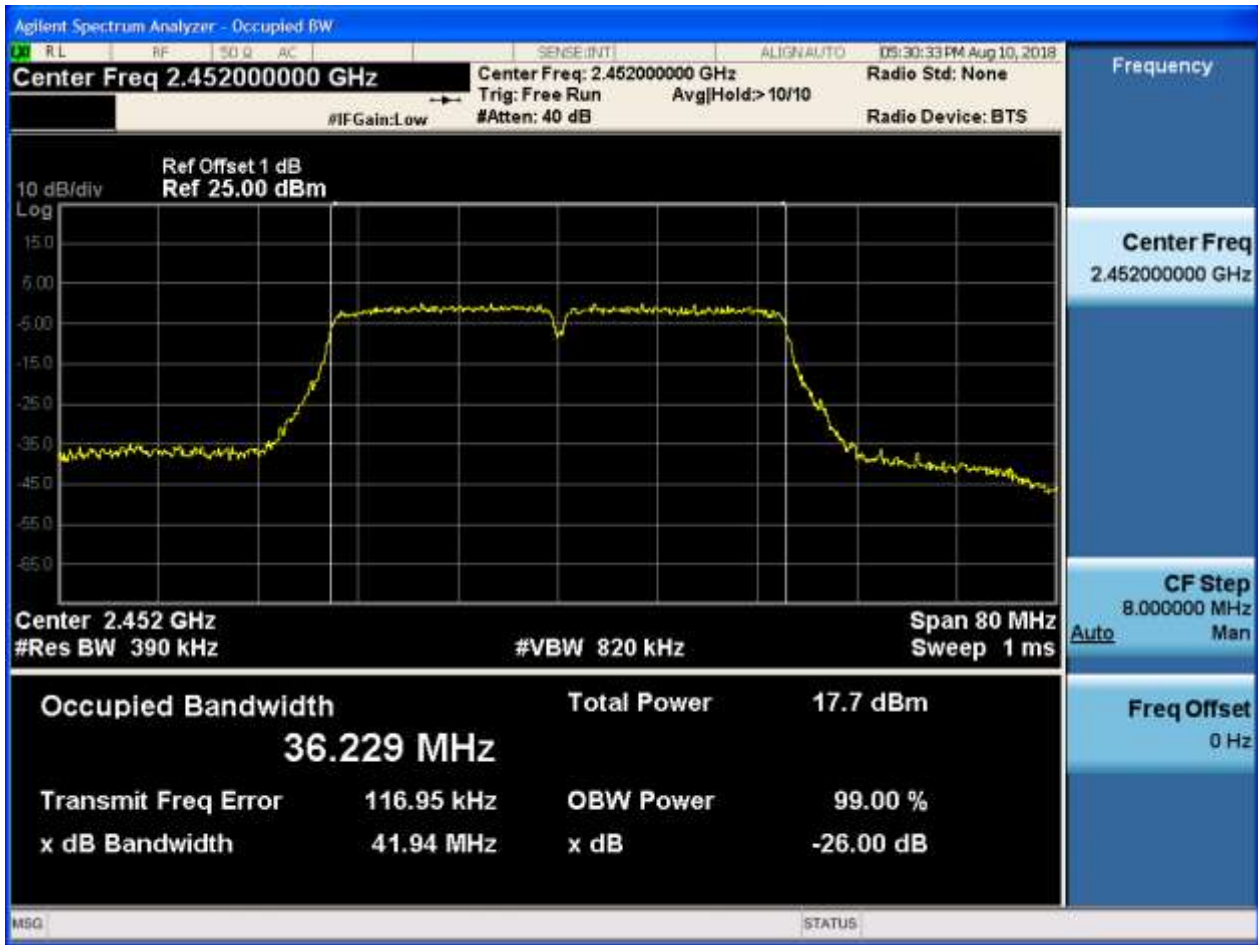


2.45 11N40_H_2452@Ant 1





2.46 11N40_H_2452@Ant 2



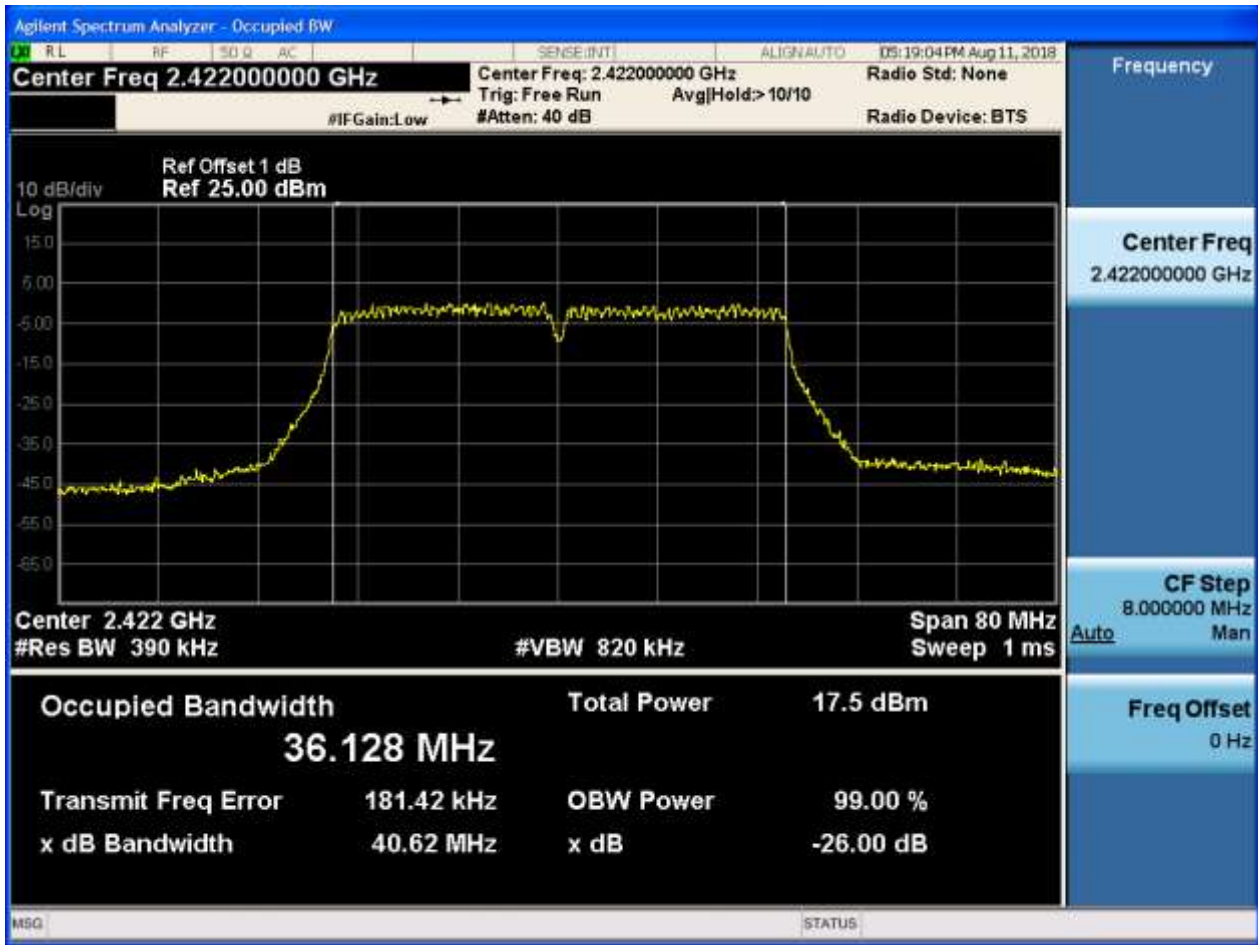


2.47 11N40m_L_2422@Ant 1



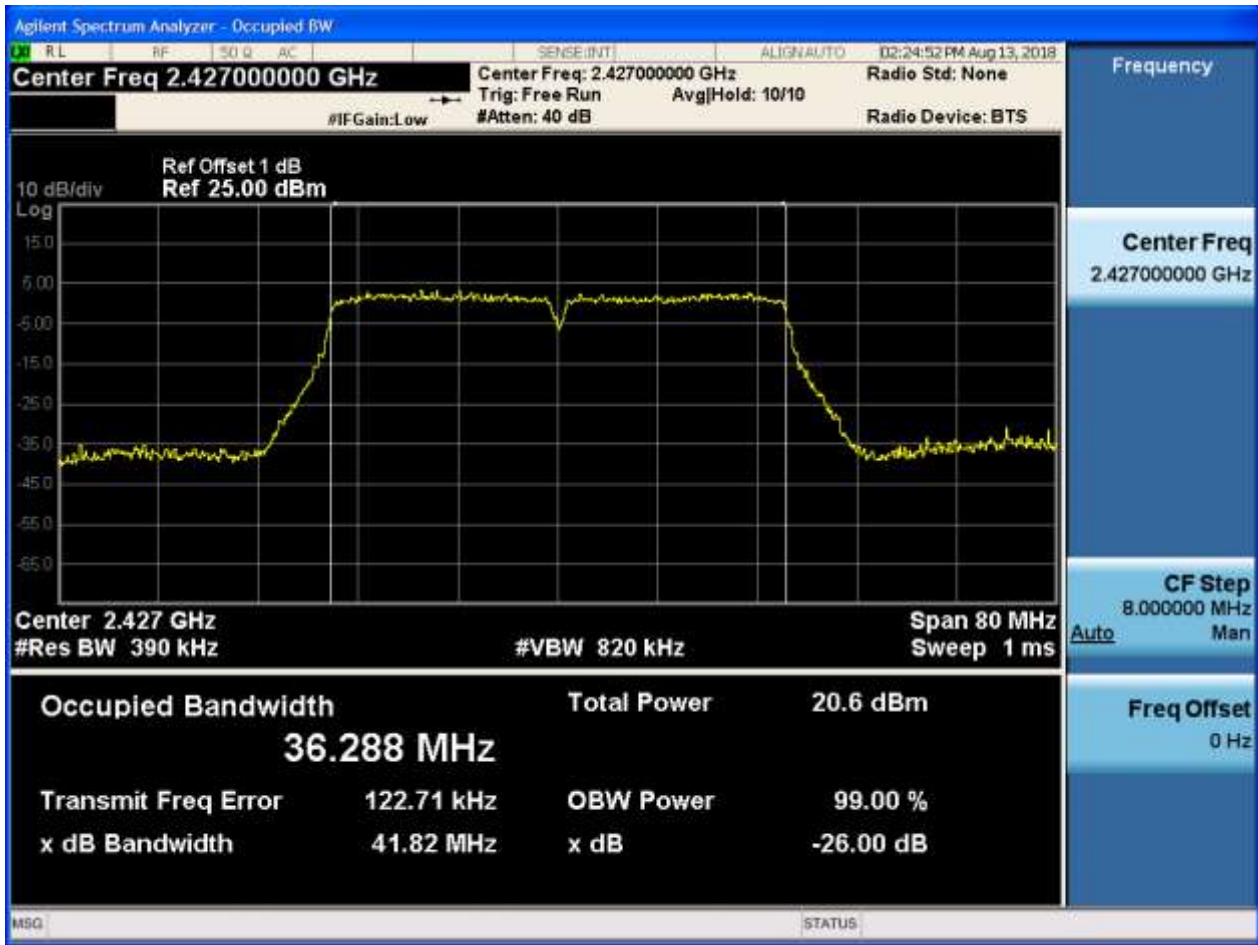


2.48 11N40m_L_2422@Ant 2



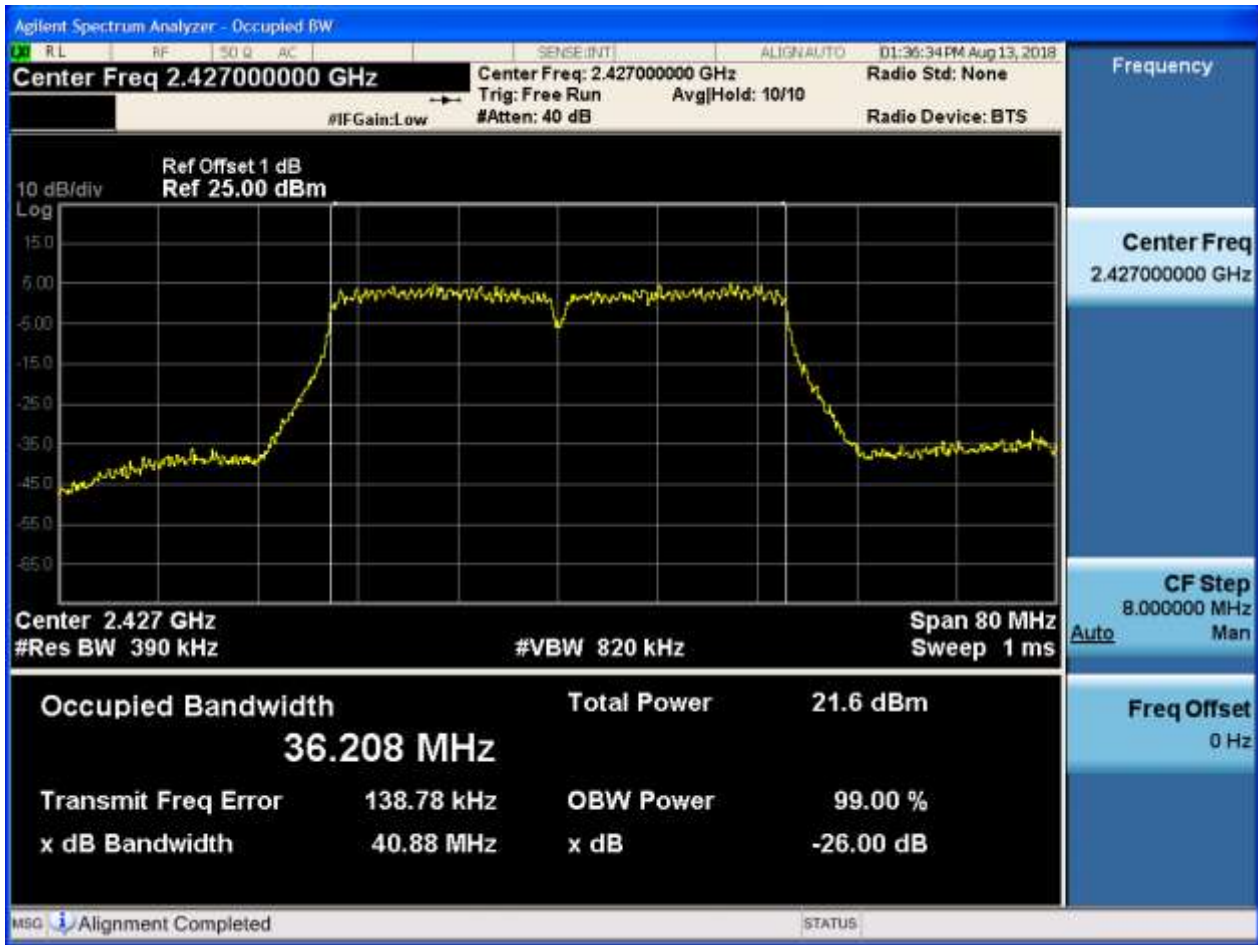


2.49 11N40m_L_2427@Ant 1





2.50 11N40m_L_2427@Ant 2



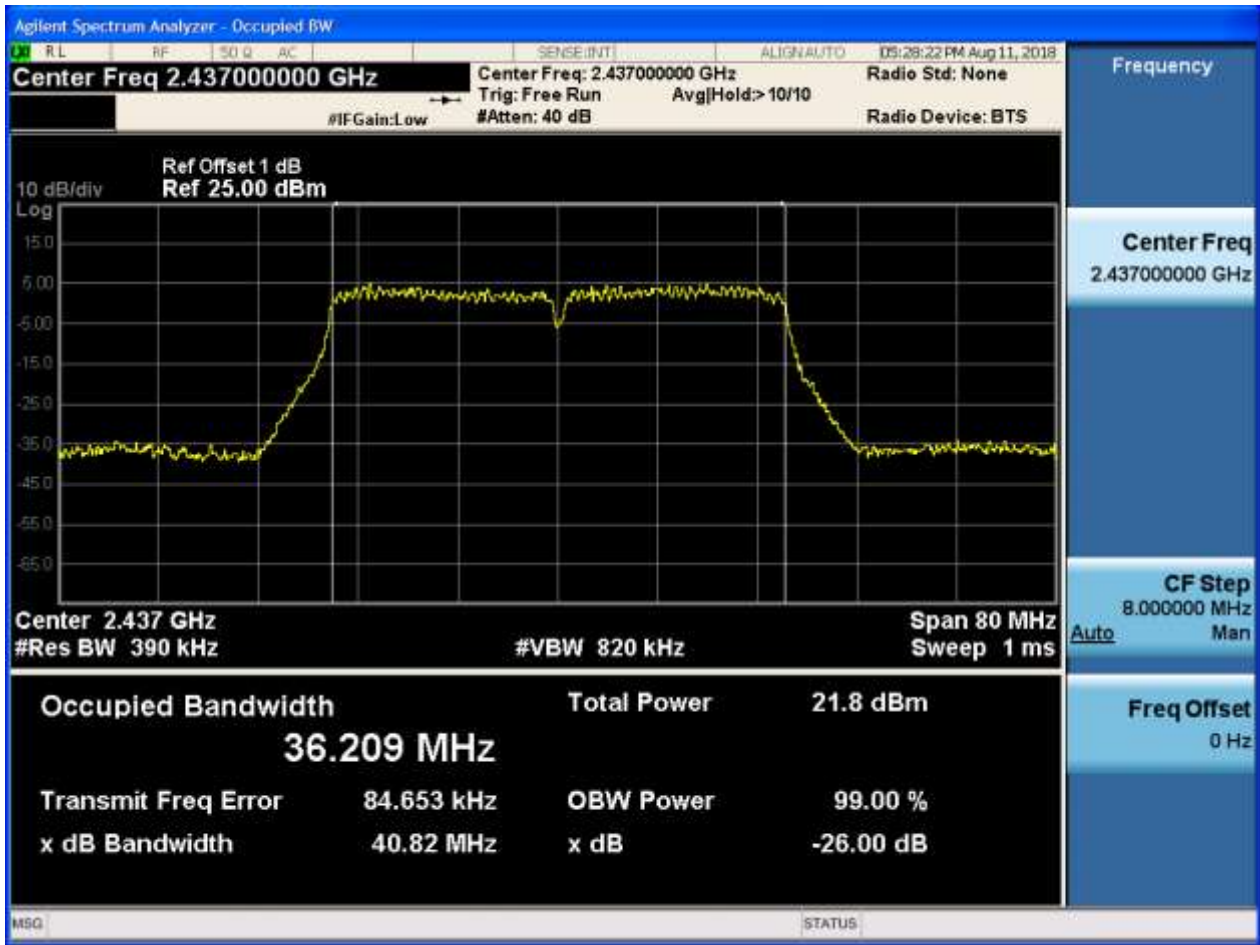


2.51 11N40m_M_2437@Ant 1





2.52 11N40m_M_2437@Ant 2



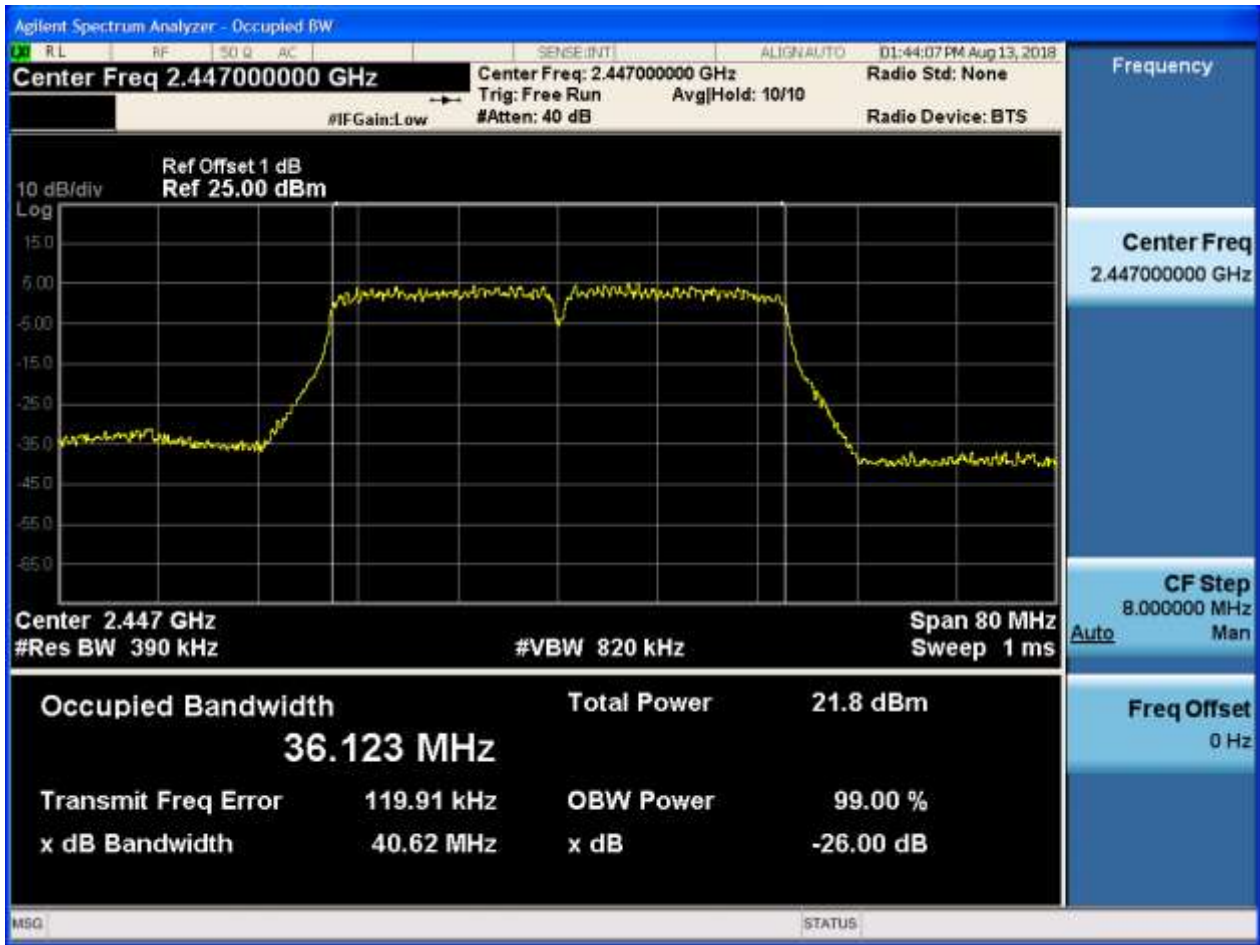


2.53 11N40m_H_2447@Ant 1



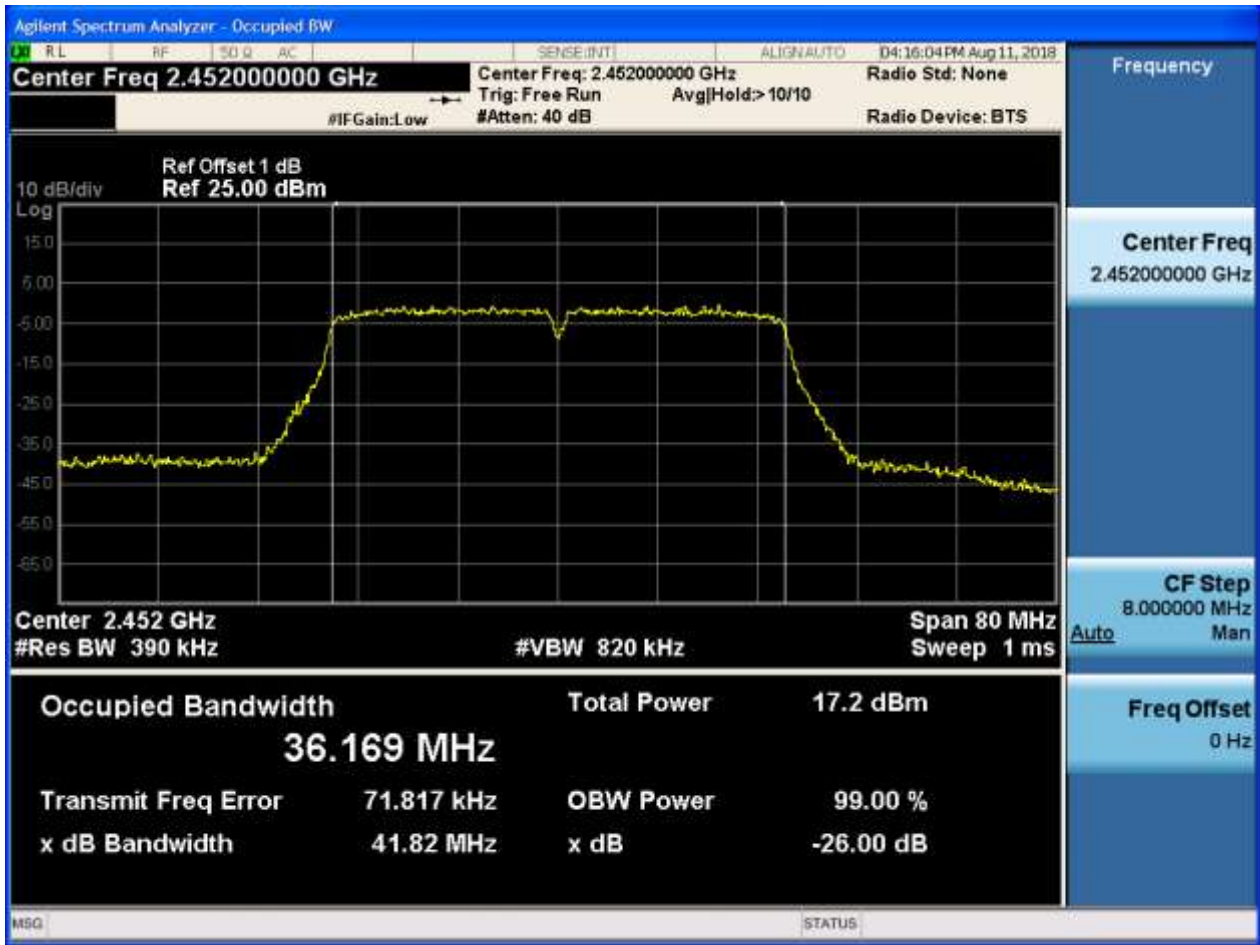


2.54 11N40m_H_2447@Ant 2



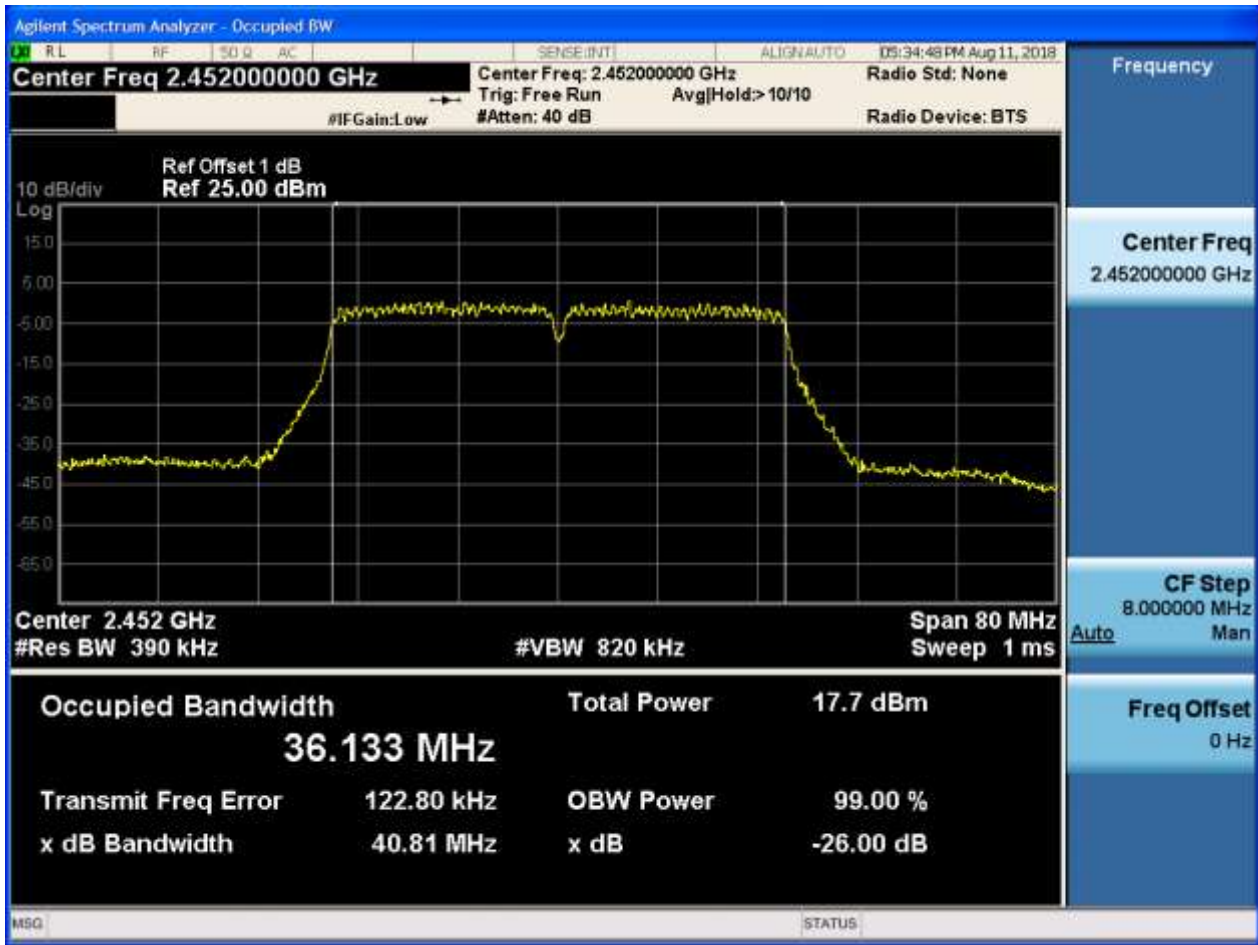


2.55 11N40m_H_2452@Ant 1



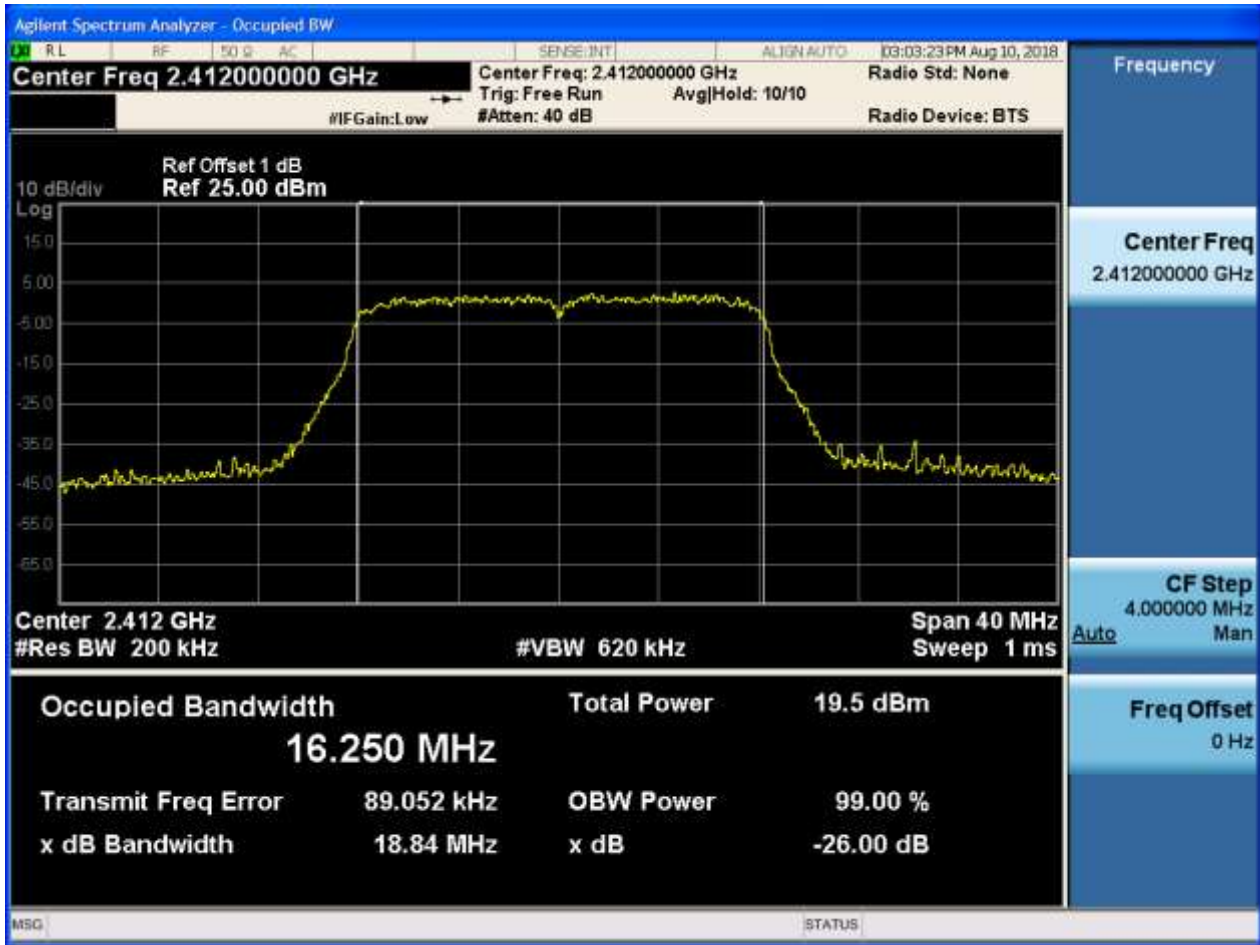


2.56 11N40m_H_2452@Ant 2



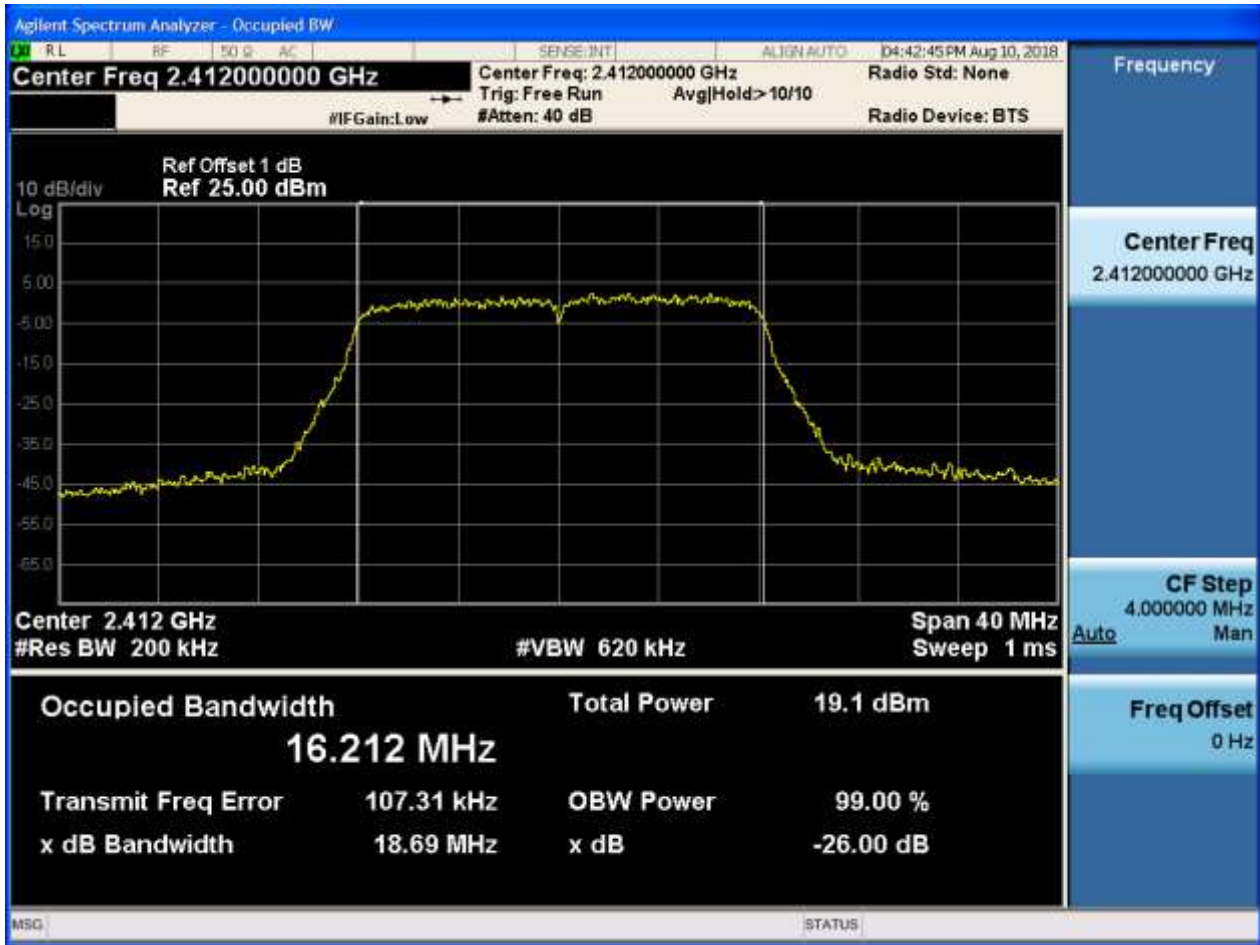


2.57 11G CDD_L_2412@Ant 1



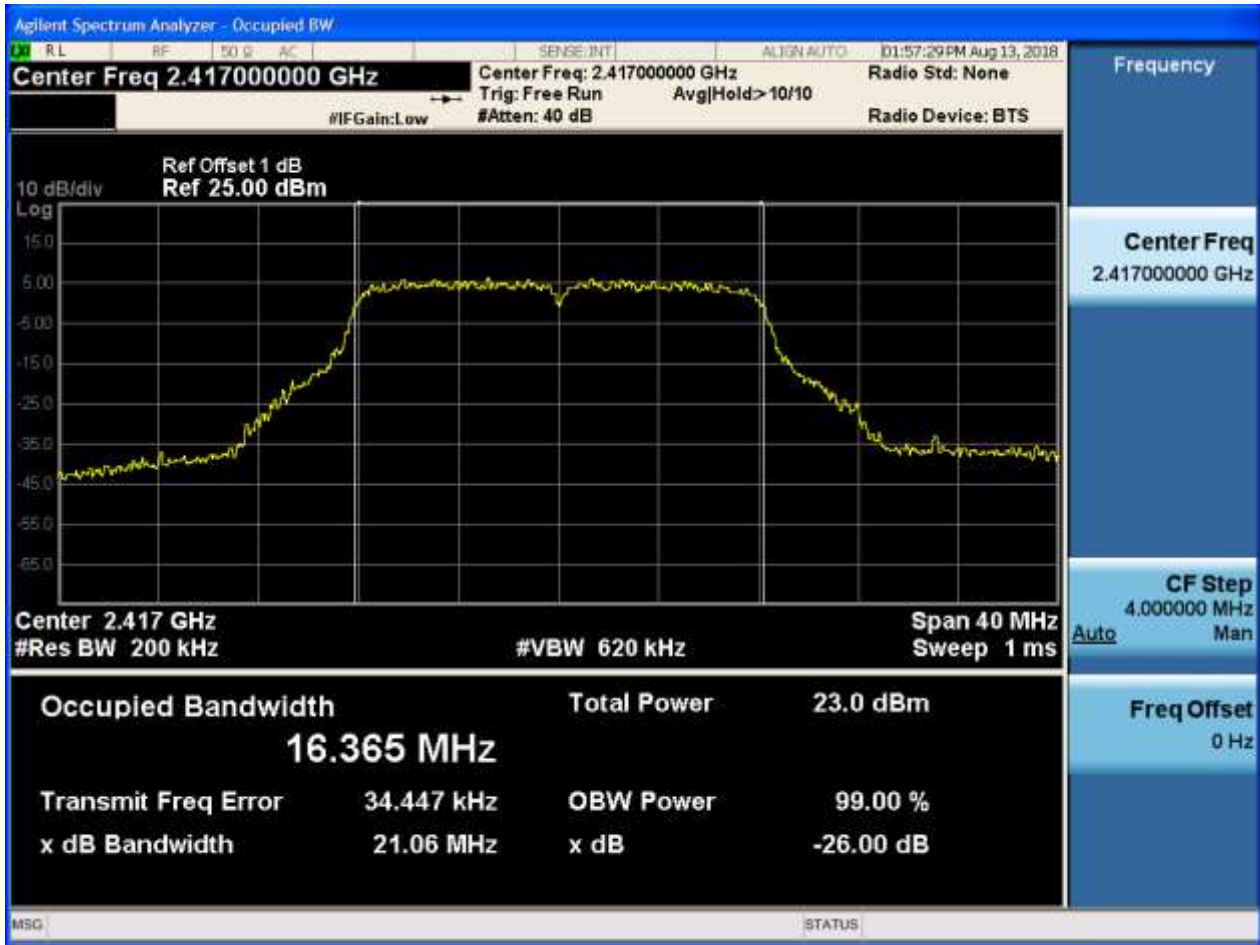


2.58 11G CDD _L_2412@Ant 2



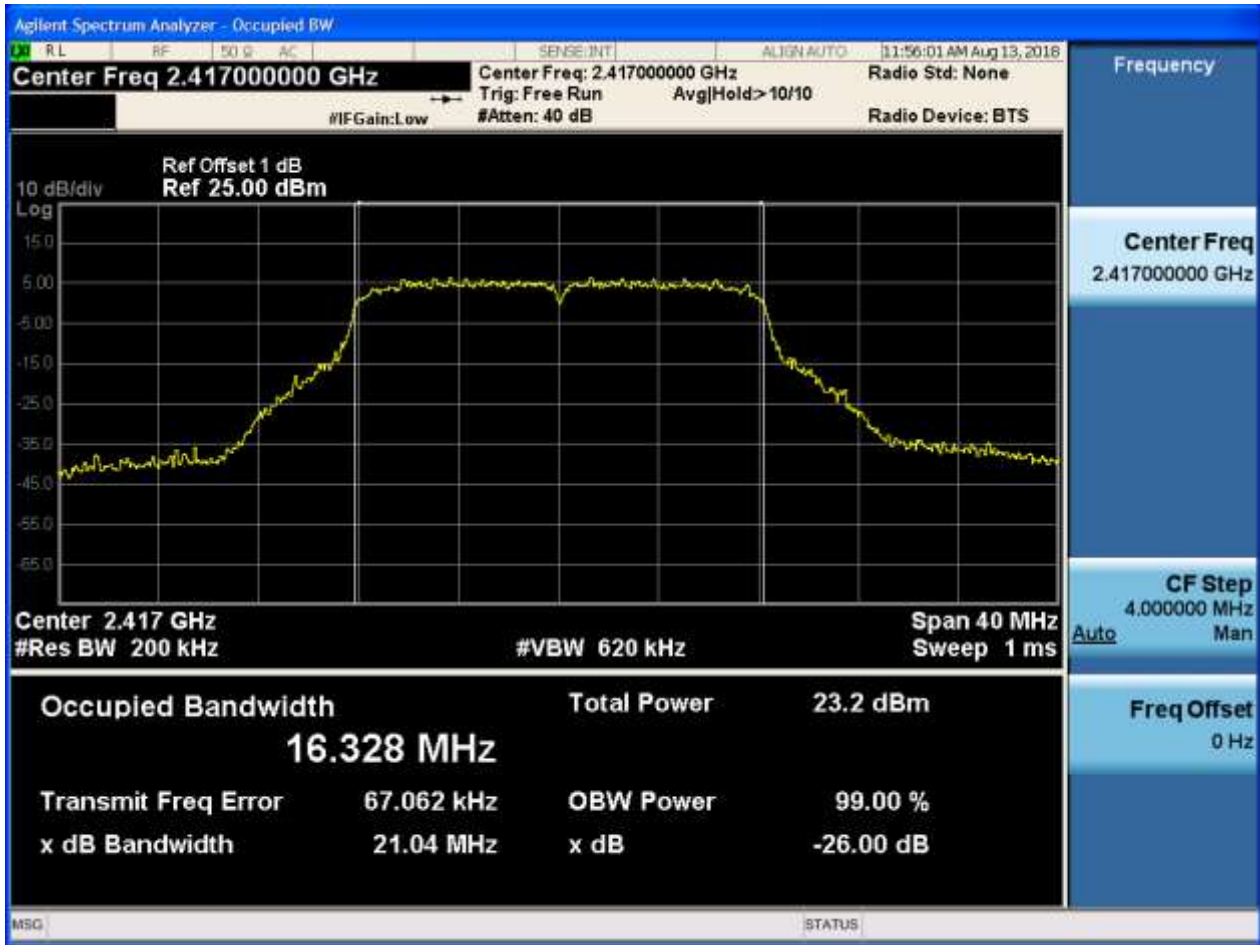


2.59 11G CDD _L_2417@Ant 1





2.60 11G CDD _L_2417@Ant 2



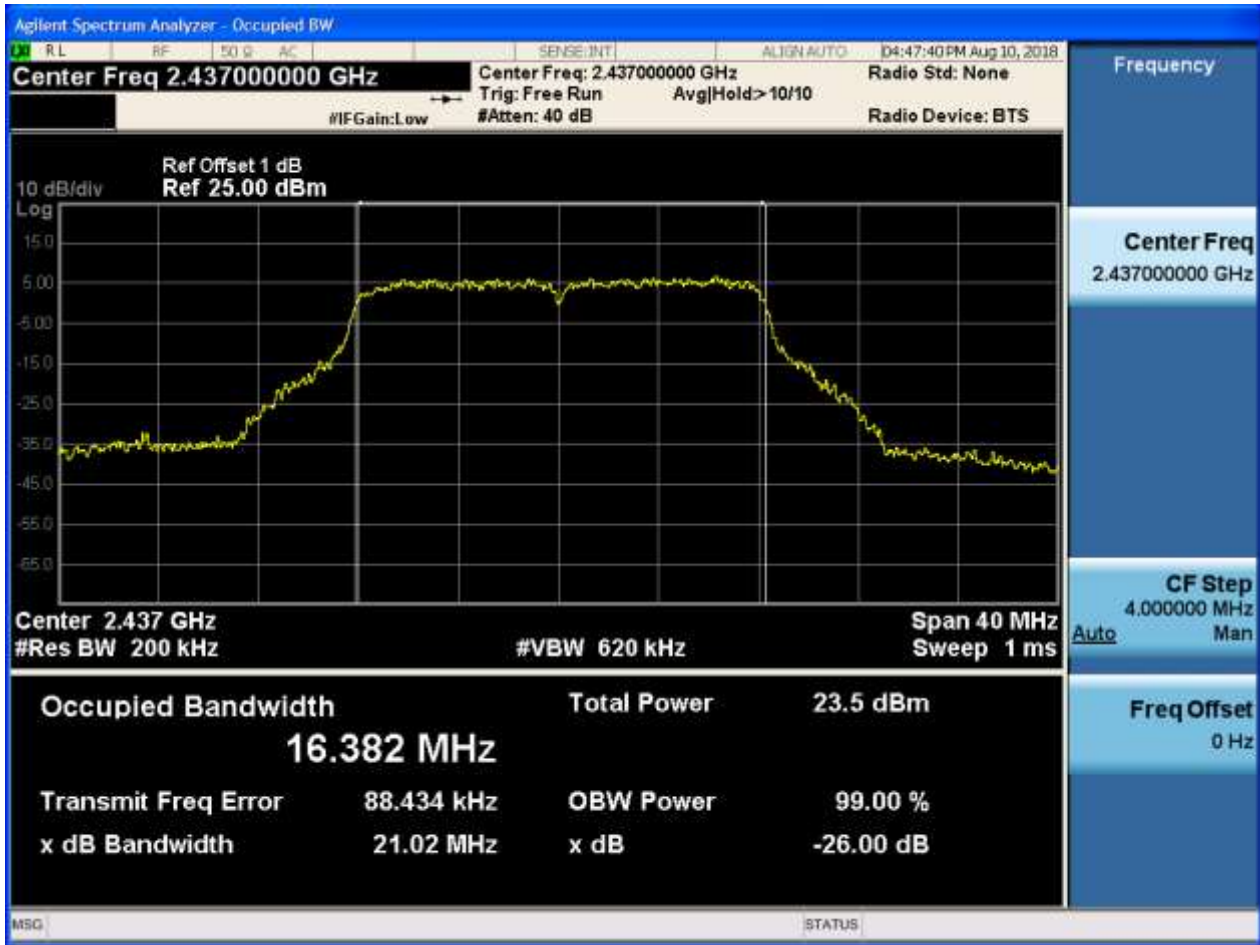


2.61 11G CDD _M_2437@Ant 1





2.62 11G CDD _M_2437@Ant 2





2.63 11G CDD _H_2457@Ant 1

