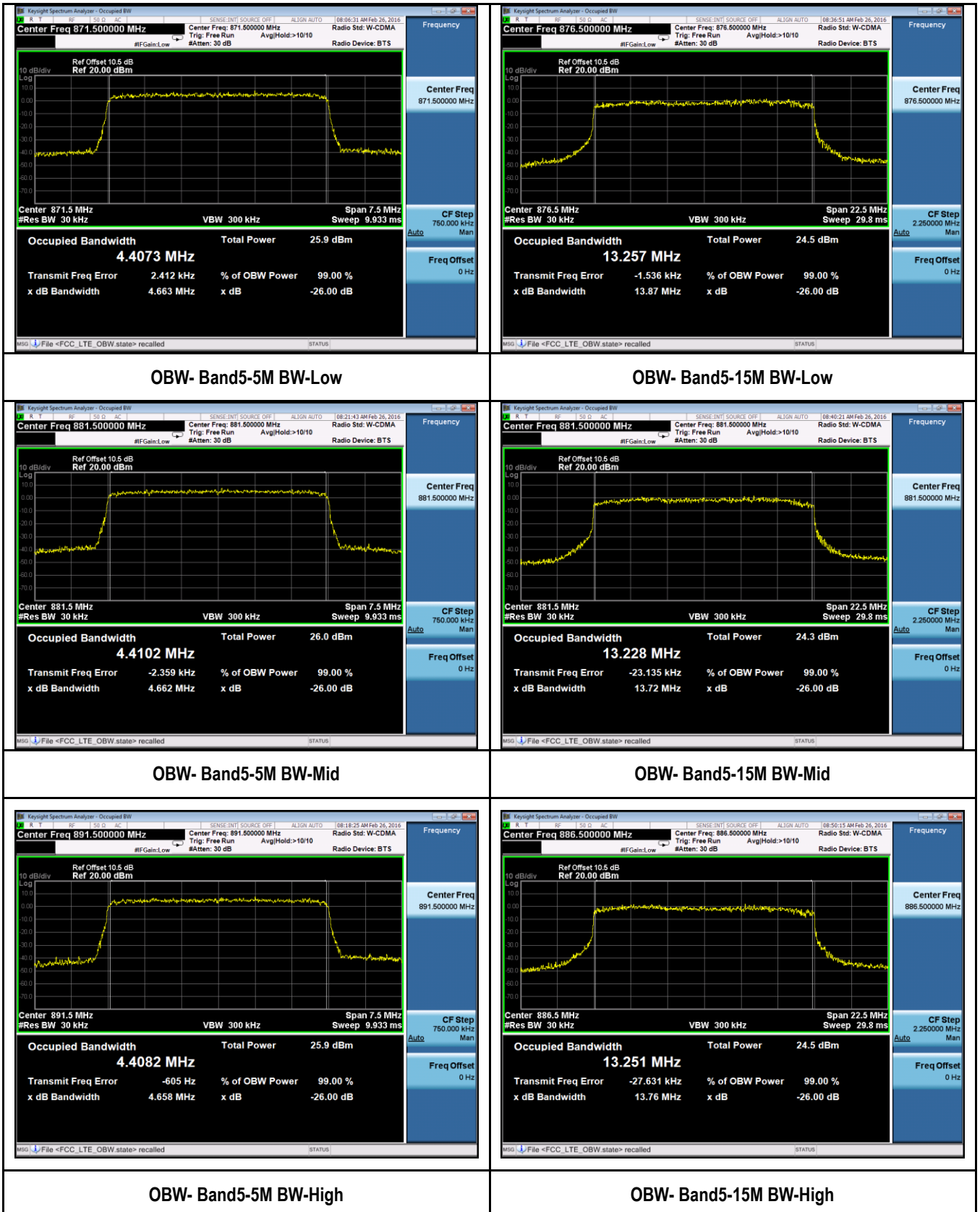
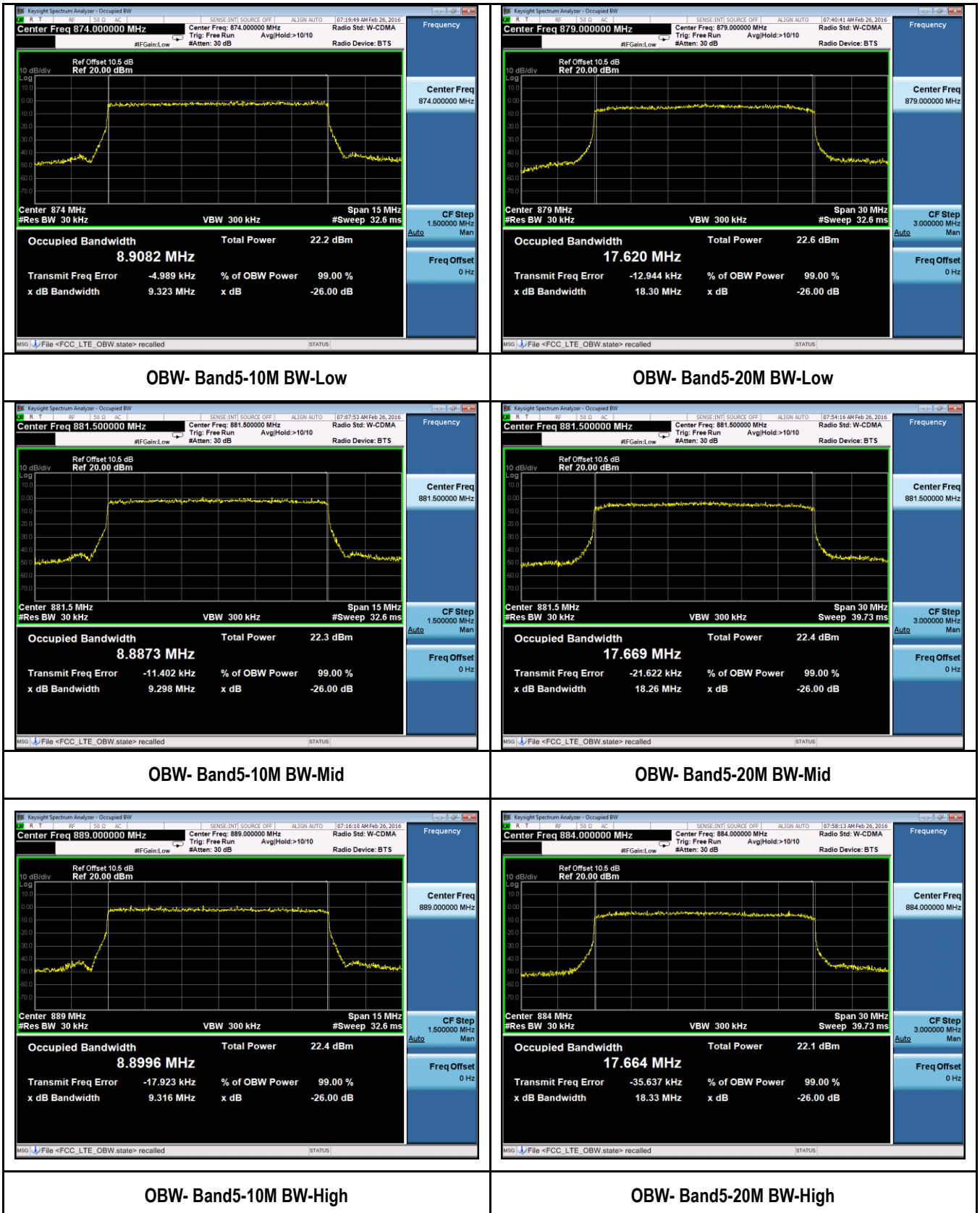


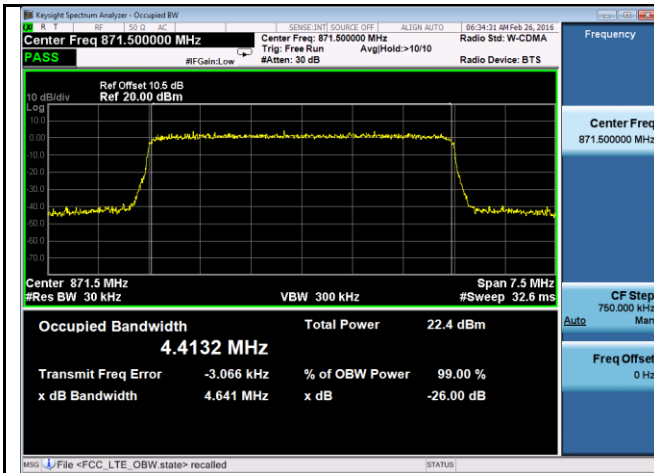
Test Plots for LTE Band 5 QPSK



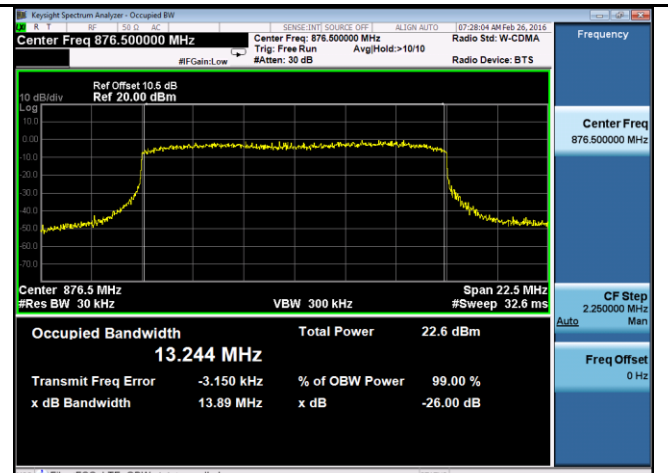
Test Plots for LTE Band 5 64QAM



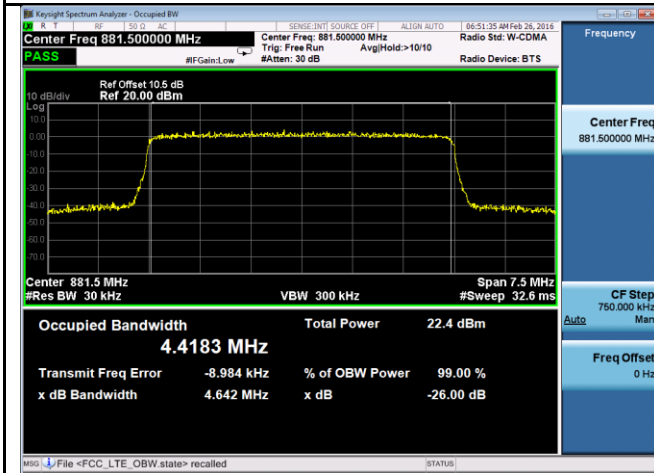
Test Plots for LTE Band 5 64QAM



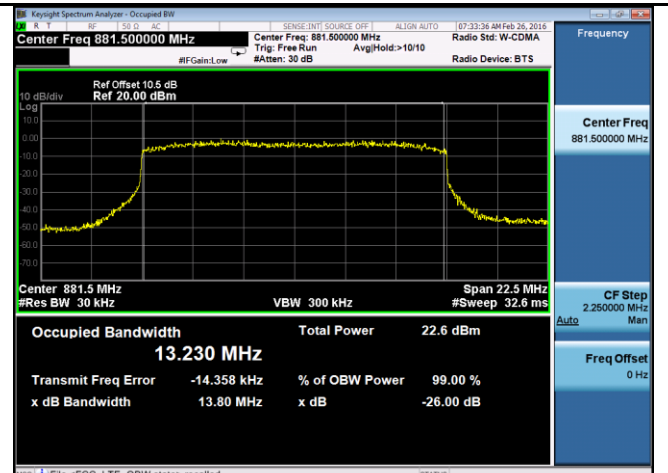
OBW- Band5-5M BW-Low



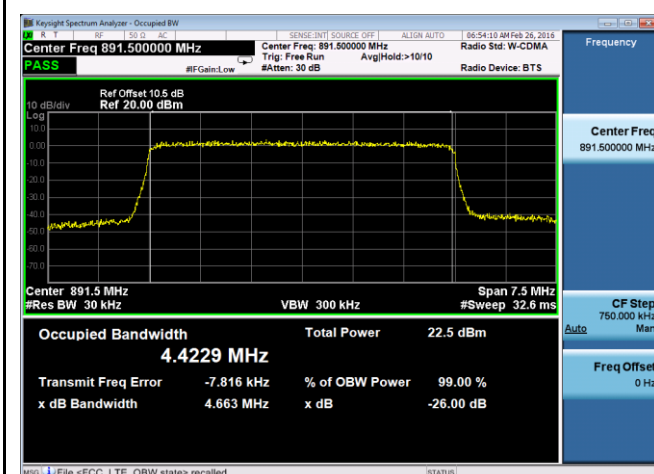
OBW- Band5-15M BW-Low



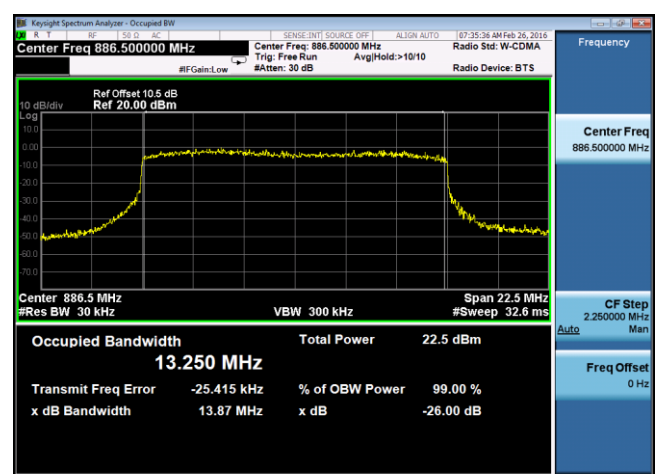
OBW- Band5-5M BW-Mid



OBW- Band5-15M BW-Mid

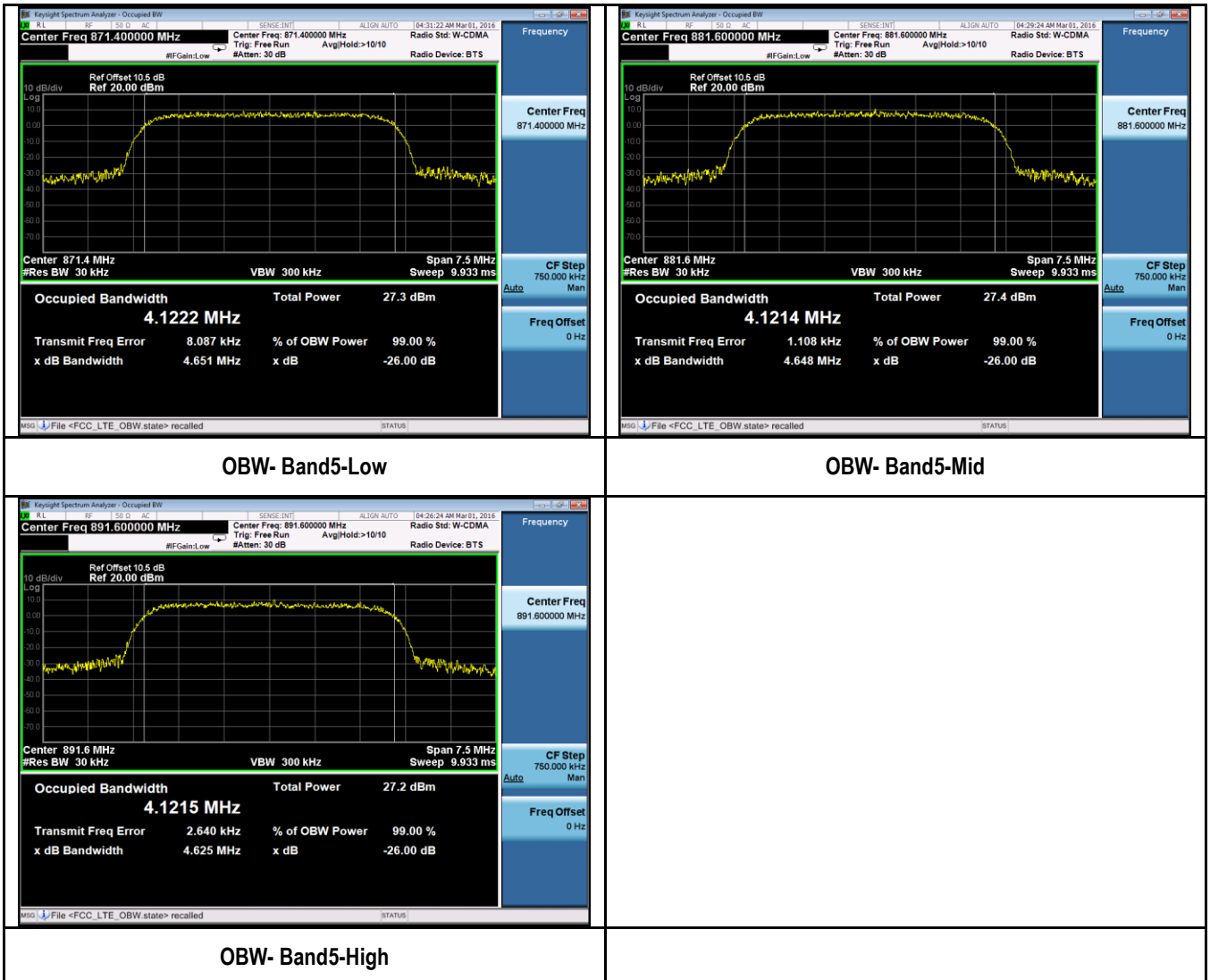


OBW- Band5-5M BW-High



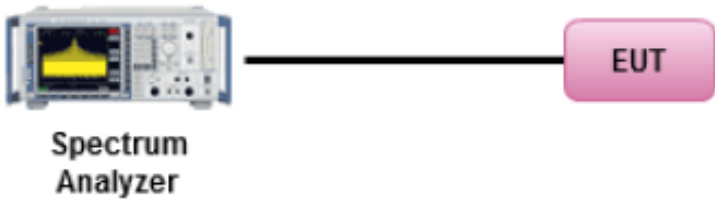
OBW- Band5-15M BW-High

Test Plots for WCDMA Band 5



10.4 Band Edge

Requirement(s):

Spec	Item	Requirement	Applicable
47CFR27.53	-	Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.	☒
47CFR22.917	-	Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.	☒
Test Setup	 The diagram illustrates the test setup. On the left is a Spectrum Analyzer with a yellow trace on its screen. A black line connects the Spectrum Analyzer to a pink rounded rectangle on the right labeled 'EUT'.		
Test Procedure	1. EUT was set for low , mid, high channel with modulated mode and highest RF output power. 2. The spectrum analyzer was connected to the antenna terminal. 3. A RBW of 1% greater than the 26 dB emission bandwidth should be used for band edge measurement or if narrower RBW is used, a correct factor calculated with formula $10 \cdot \log(EBW/BW_{meas})$ will be added to the result.		
Test Date	10/26/2015 – 11/02/2015 02/15/2016 - 02/29/2016	Environmental condition	Temperature 22°C Relative Humidity 48% Atmospheric Pressure 1008mbar
Remark	The EUT was scanned up to 25GHz. Both horizontal and vertical polarities were investigated. The results show only the worst case. Limit calculation: Emission limit = PdBm – [43+ 10 log (PW)] = 10log(1000 x PW) - 43 - 10log(PW) = 30 dBm - 43 = -13 dBm		
Result	☒ Pass ☐ Fail		

Test Data ☒ Yes (See below) ☐ N/A

Test Plot ☒ Yes (See below) ☐ N/A

Test was done by *Chen Ge* **at** *RF test site*.

Band Edge Measurement Data for LTE band 2

Type	Channel	Channel Frequency (MHz)	Measurement Band Edge (dBm)	Limit (dBm)
5MHz BW, QPSK	Low	1932.5	-38.28	-13
	High	1987.5	-51.94	-13
5MHz BW, 64QAM	Low	1932.5	-38.28	-13
	High	1987.5	-52.28	-13
10MHz BW, QPSK	Low	1935	-38.26	-13
	High	1985	-48.27	-13
10MHz BW, 64QAM	Low	1935	-37.53	-13
	High	1985	-47.39	-13
15MHz BW, QPSK	Low	1937.5	-39.98	-13
	High	1982.5	-47.55	-13
15MHz BW, 64QAM	Low	1937.5	-36.06	-13
	High	1982.5	-47.72	-13
20MHz BW, QPSK	Low	1940	-46.08	-13
	High	1980	-48.38	-13
20MHz BW, 64QAM	Low	1940	-45.63	-13
	High	1980	-47.90	-13

Band Edge Measurement Data for WCDMA band 2

Type	Channel	Channel Frequency (MHz)	Measurement Band Edge (dBm)	Limit (dBm)
3.84MHz BW, QPSK	Low	1932.5	-25.56	-13
	High	1992.5	-23.17	-13

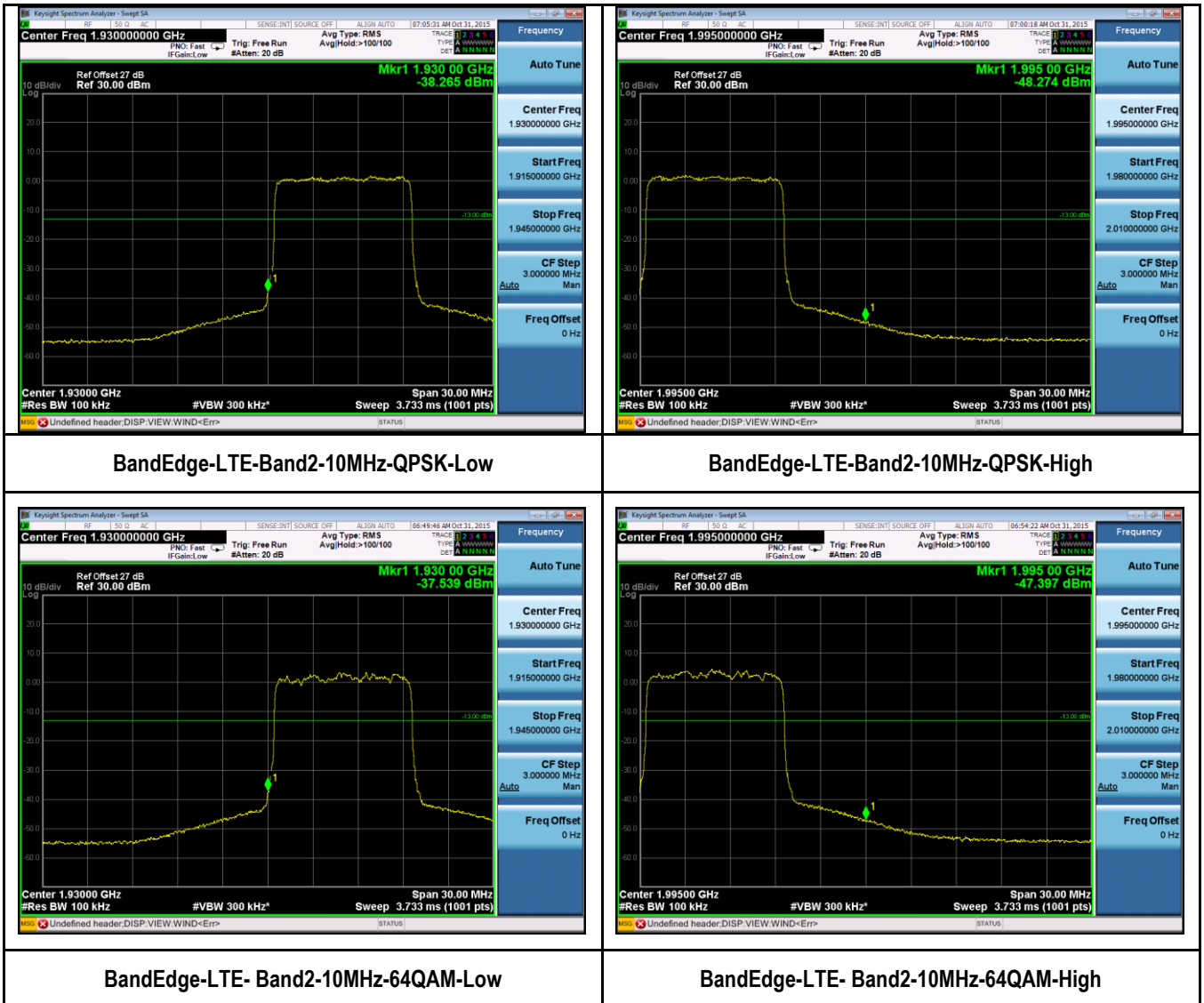
Band Edge Measurement Data for LTE band 5

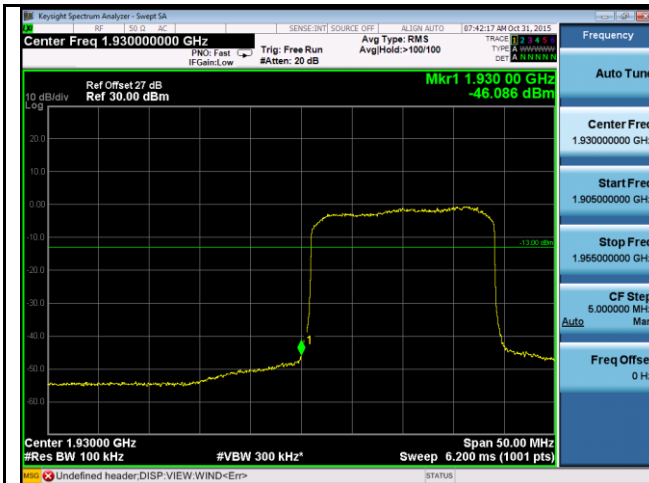
Type	Channel	Channel Frequency (MHz)	Measurement Band Edge (dBm)	Limit (dBm)
5MHz BW, QPSK	Low	871.5	-36.92	-13
	High	891.5	-35.61	-13
5MHz BW, 64QAM	Low	871.5	-36.72	-13
	High	891.5	-35.68	-13
10MHz BW, QPSK	Low	874.0	-37.36	-13
	High	889.0	-36.15	-13
10MHz BW, 64QAM	Low	874.0	-39.02	-13
	High	889.0	-38.21	-13
15MHz BW, QPSK	Low	876.5	-36.39	-13
	High	886.5	-35.16	-13
15MHz BW, 64QAM	Low	876.5	-35.31	-13
	High	886.5	-37.16	-13
20MHz BW, QPSK	Low	879.0	-42.87	-13
	High	884.0	-41.47	-13
20MHz BW, 64QAM	Low	879.0	-40.92	-13
	High	884.0	-40.18	-13

Band Edge Measurement Data for WCDMA band 5

Type	Channel	Channel Frequency (MHz)	Measurement Band Edge (dBm)	Limit (dBm)
3.84MHz BW, QPSK	Low	871.4	-21.71	-13
	High	891.6	-20.96	-13

Test Plots for LTE Band 2:





BandEdge-LTE- Band2-20MHz-QPSK-Low



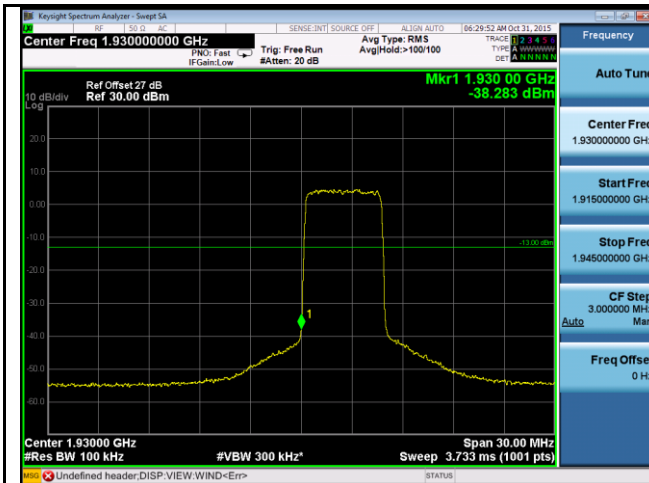
BandEdge-LTE- Band2-20MHz-QPSK-High



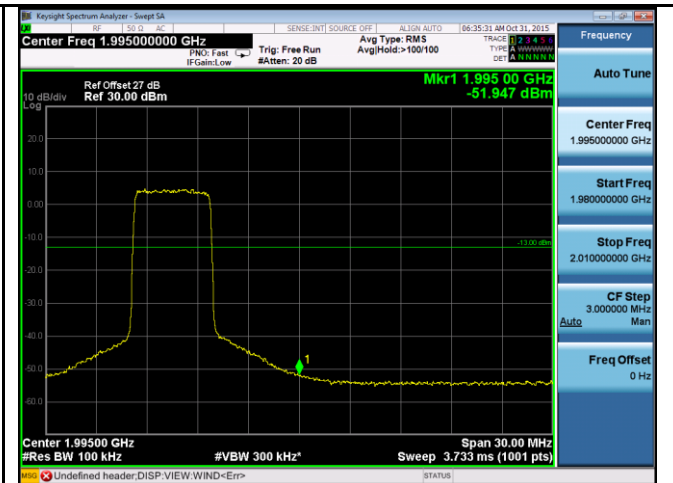
BandEdge-LTE- Band2-20MHz-64QAM-Low



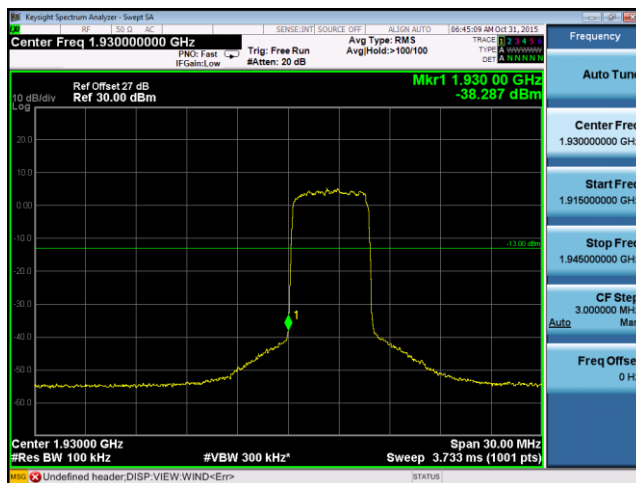
BandEdge-LTE- Band2-20MHz-64QAM-High



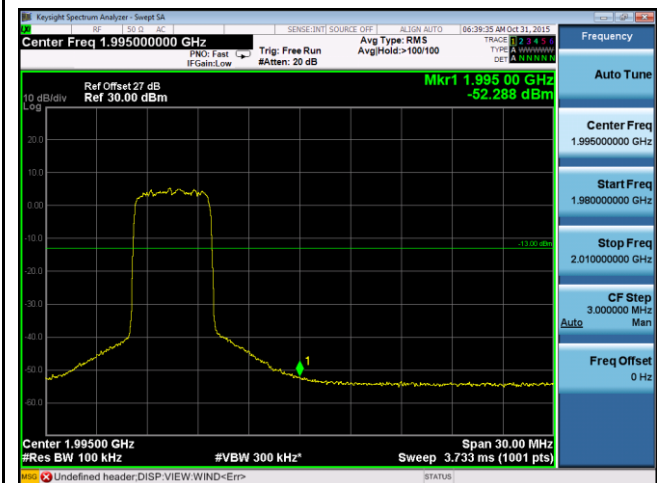
BandEdge-LTE- Band2-5MHz-QPSK-Low



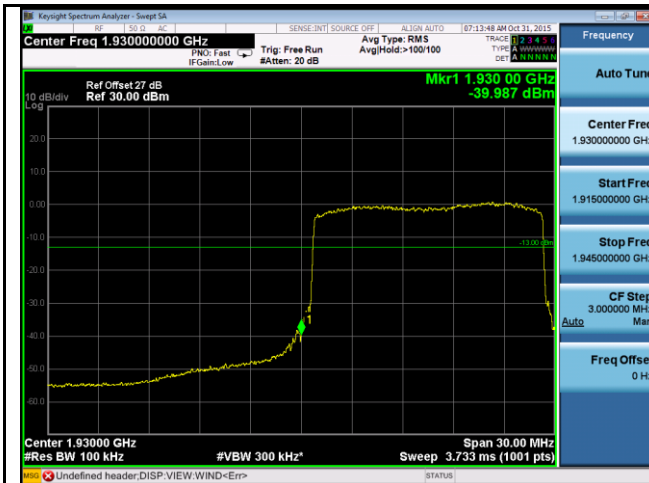
BandEdge-LTE- Band2-5MHz-QPSK-High



BandEdge-LTE- Band2-5MHz-64QAM-Low



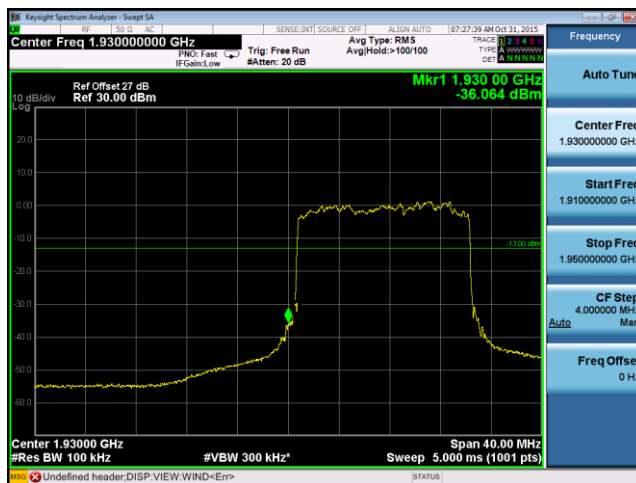
BandEdge-LTE- Band2-5MHz-64QAM-High



BandEdge-LTE- Band2-15MHz-QPSK-Low



BandEdge-LTE- Band2-15MHz-QPSK-High

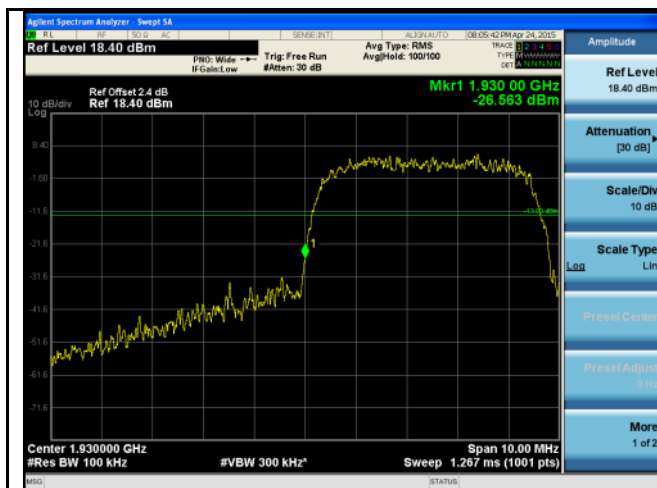


BandEdge-LTE- Band2-15MHz-64QAM-Low

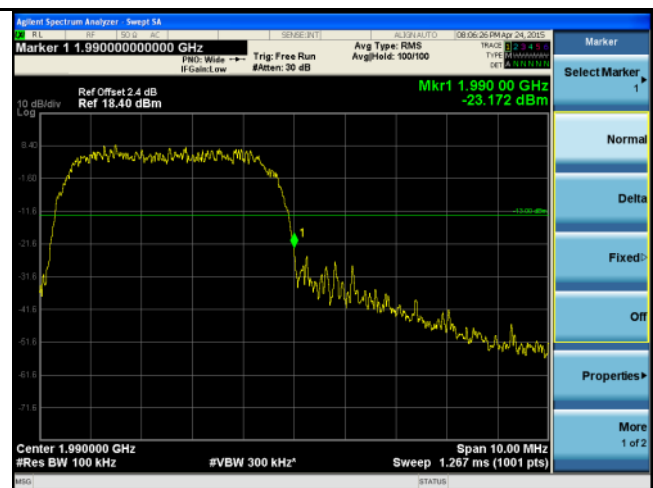


BandEdge-LTE- Band2-15MHz-64QAM-High

Test Plots for WCDMA Band 2:

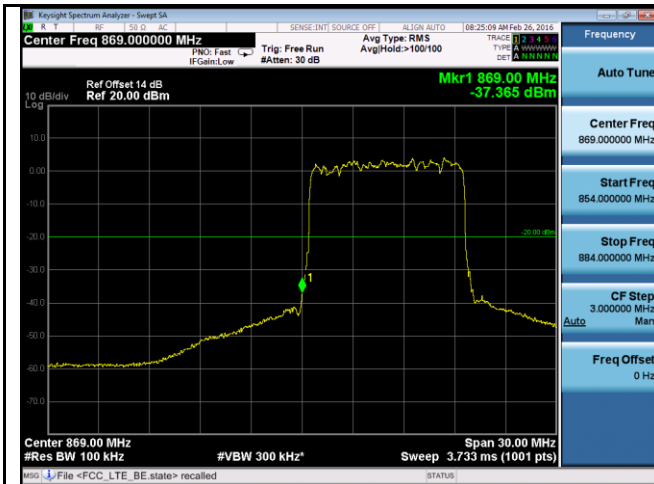


BandEdge-WCDMA-Band2-5MHz-QPSK-Low

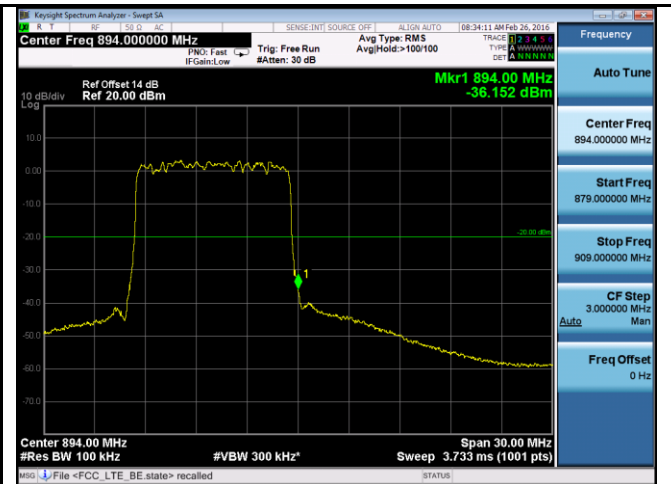


BandEdge-WCDMA-Band2-5MHz-QPSK-High

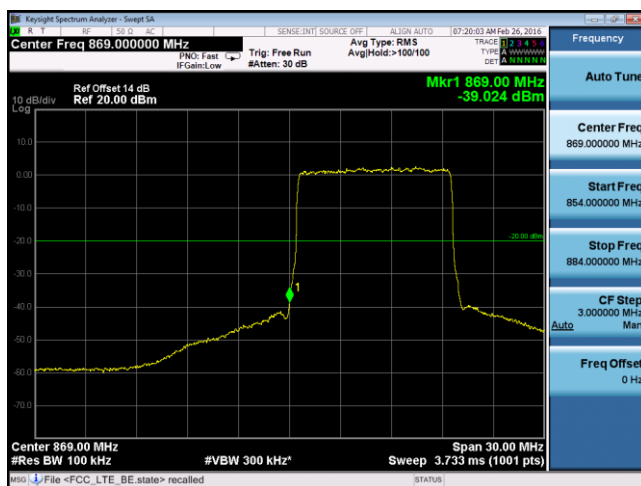
Test Plots for LTE Band 5:



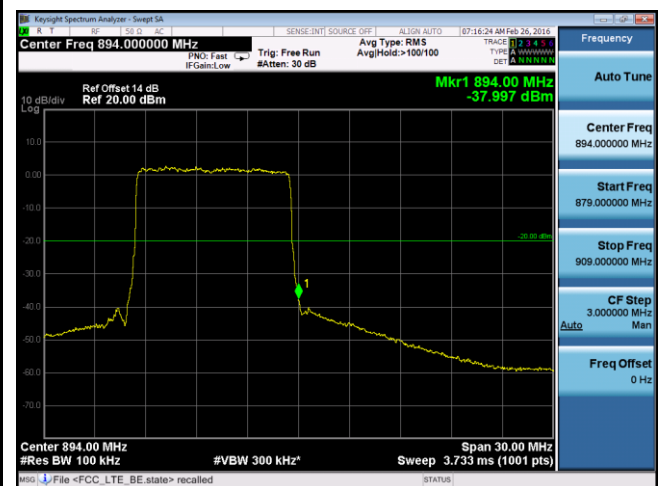
BandEdge-LTE-Band5-10MHz-QPSK-Low



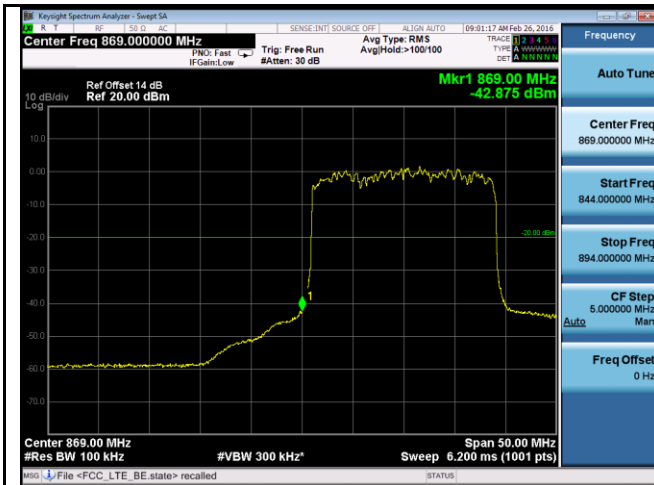
BandEdge-LTE- Band5-10MHz-QPSK-High



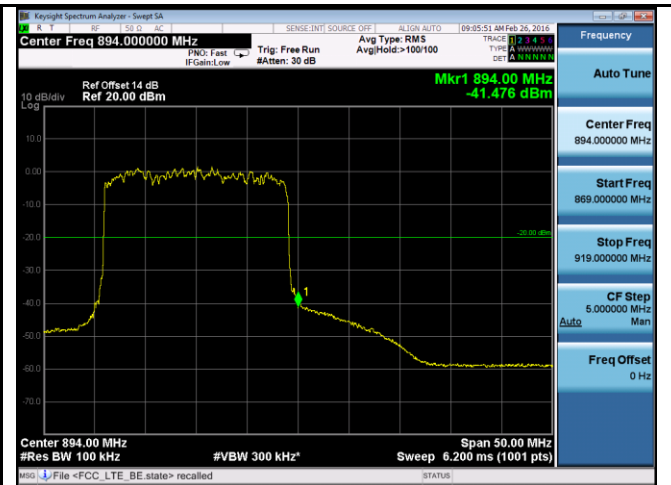
BandEdge-LTE- Band5-10MHz-64QAM-Low



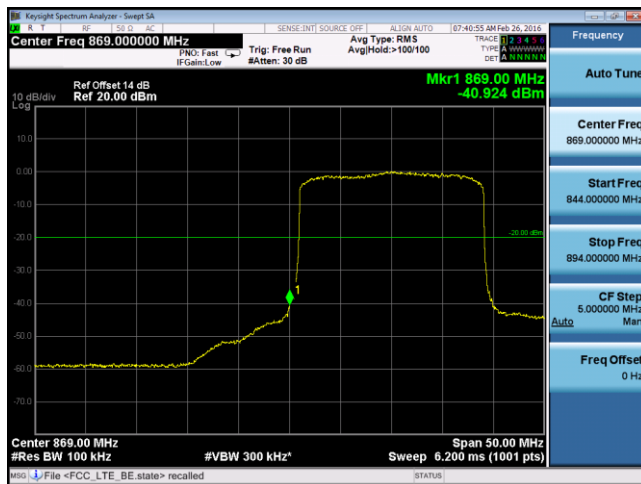
BandEdge-LTE- Band5-10MHz-64QAM-High



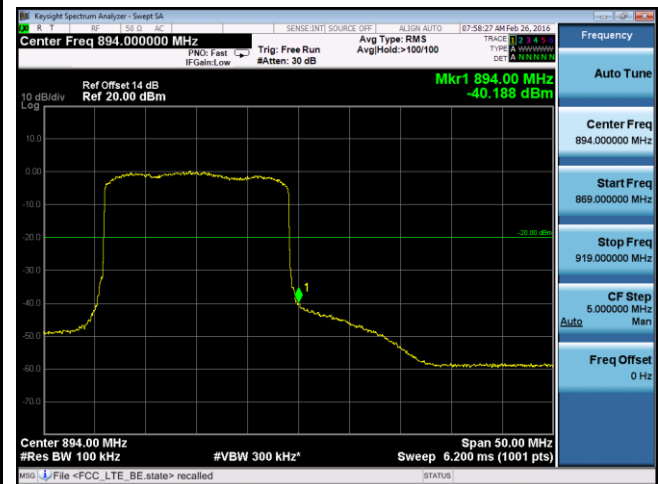
BandEdge-LTE- Band5-20MHz-QPSK-Low



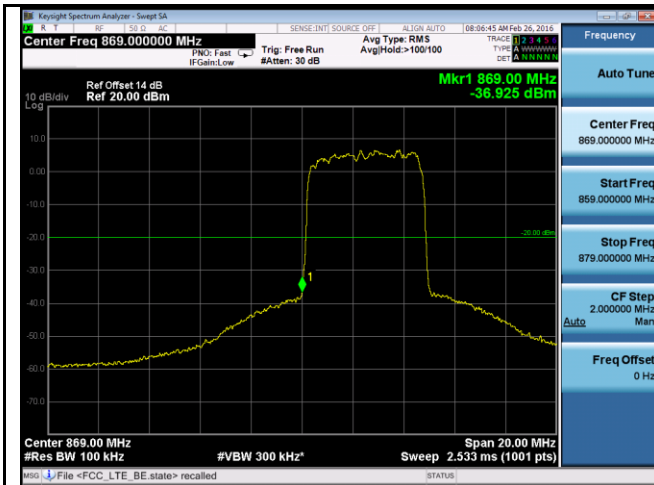
BandEdge-LTE- Band5-20MHz-QPSK-High



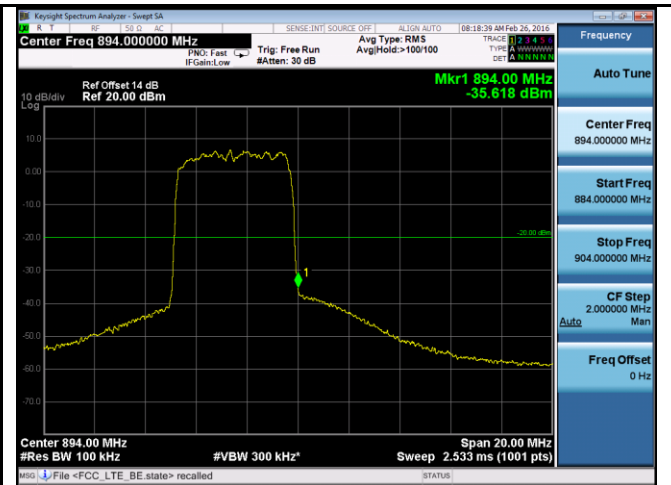
BandEdge-LTE- Band5-20MHz-64QAM-Low



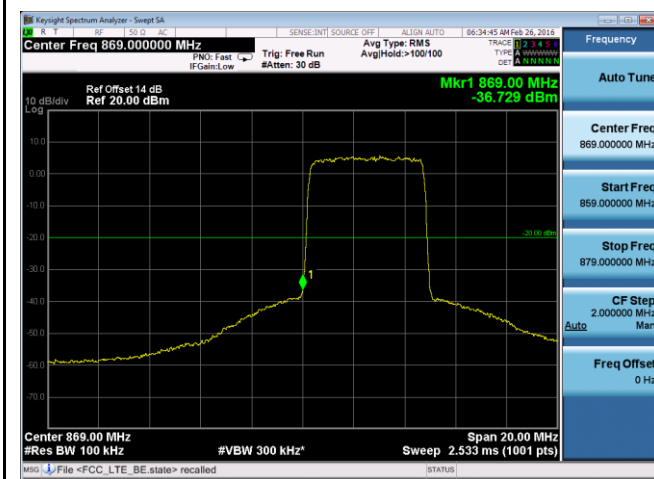
BandEdge-LTE- Band5-20MHz-64QAM-High



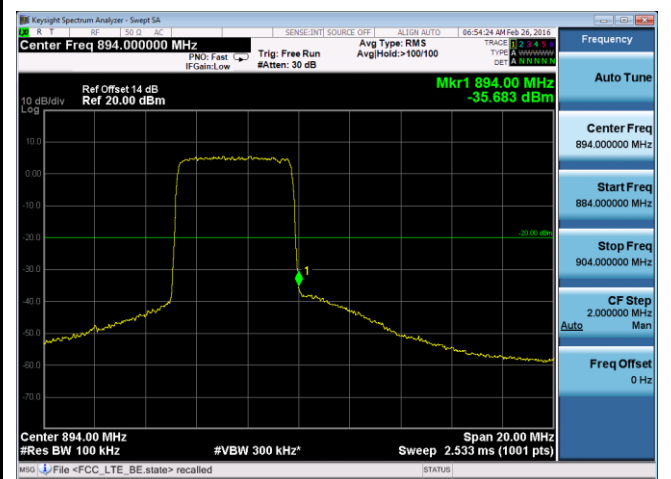
BandEdge-LTE- Band5-5MHz-QPSK-Low



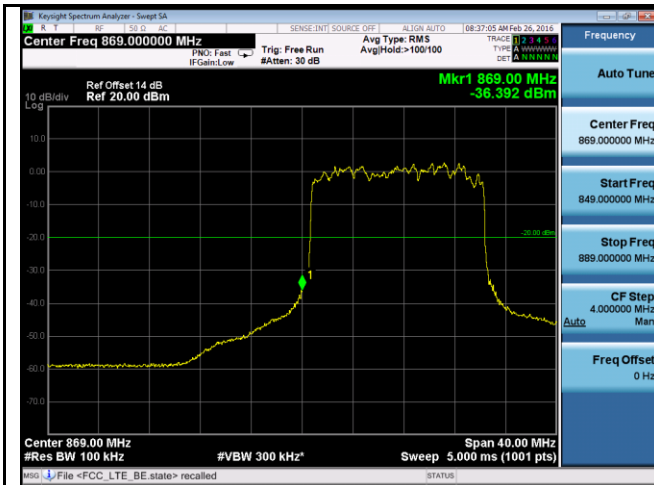
BandEdge-LTE- Band5-5MHz -QPSK-High



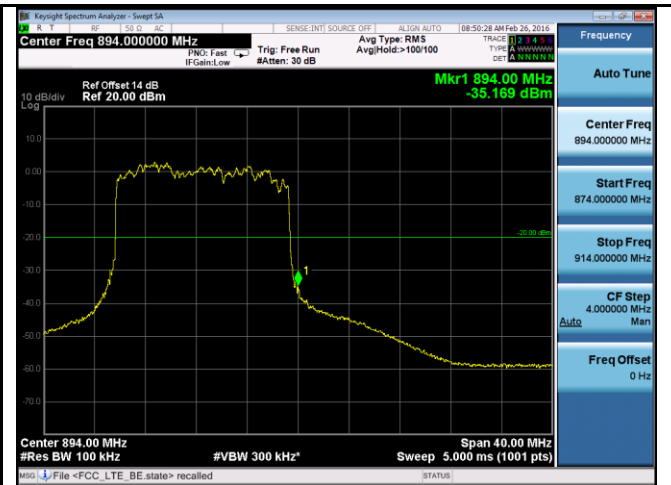
BandEdge-LTE- Band5-5MHz -64QAM-Low



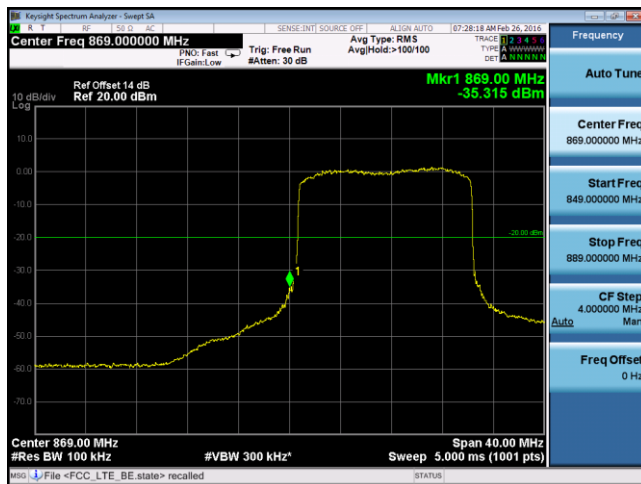
BandEdge-LTE- Band5-5MHz -64QAM-High



BandEdge-LTE- Band5-15MHz-QPSK-Low



BandEdge-LTE- Band5-15MHz -QPSK-High



BandEdge-LTE- Band5-15MHz -64QAM-Low



BandEdge-LTE- Band5-15MHz -64QAM-High