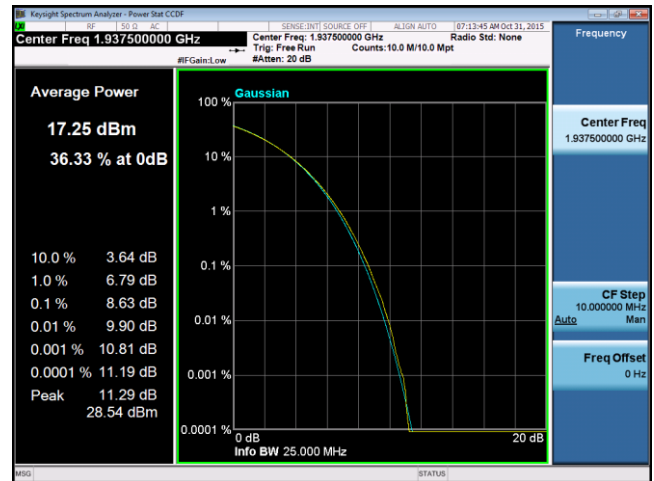
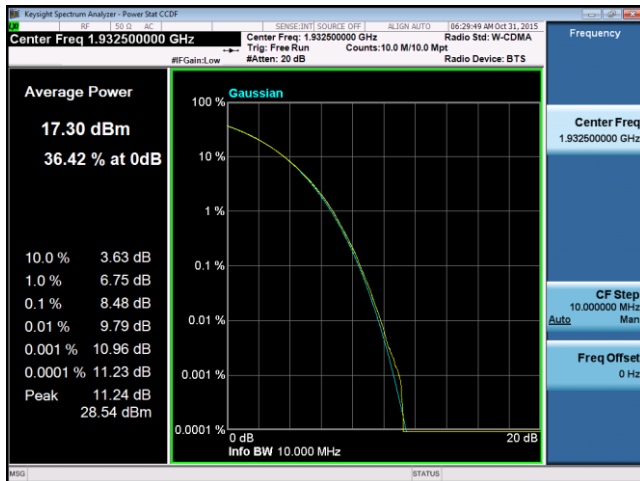
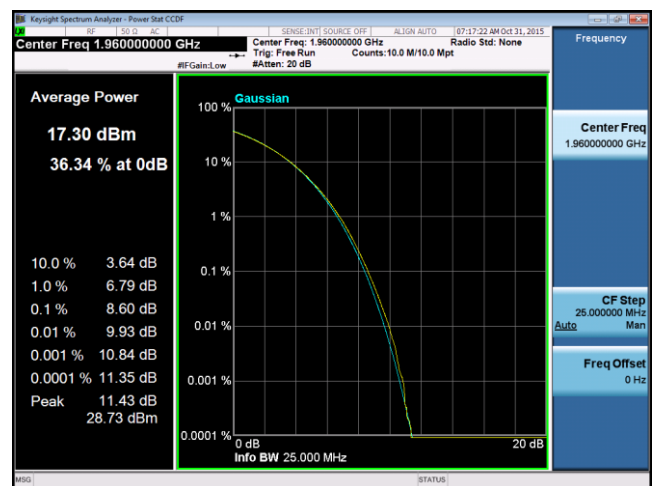
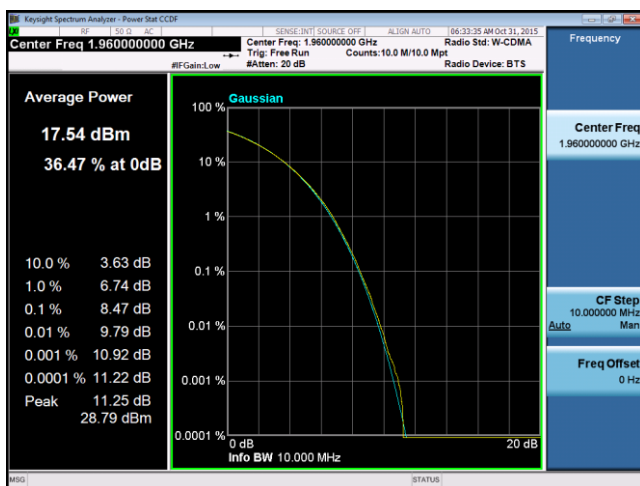




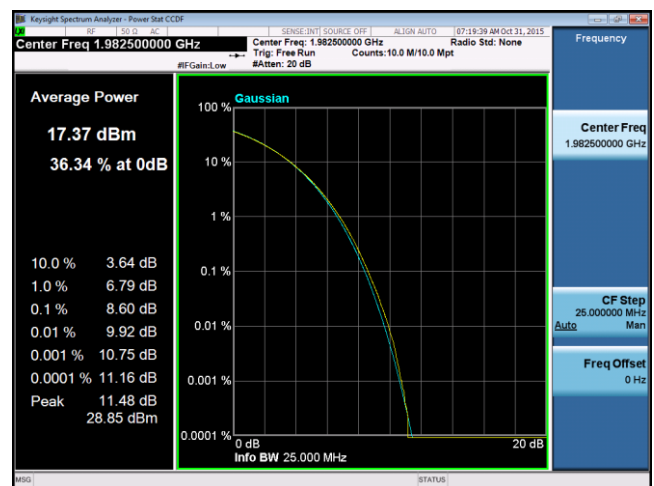
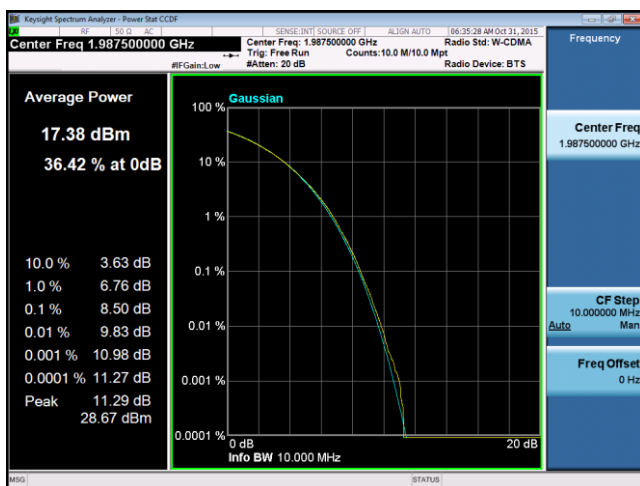
PK-AV-Ratio- Band2-QPSK-5M BW-Low

PK-AV-Ratio- Band2-QPSK-15M BW-Low



PK-AV-Ratio- Band2-QPSK-5M BW-Mid

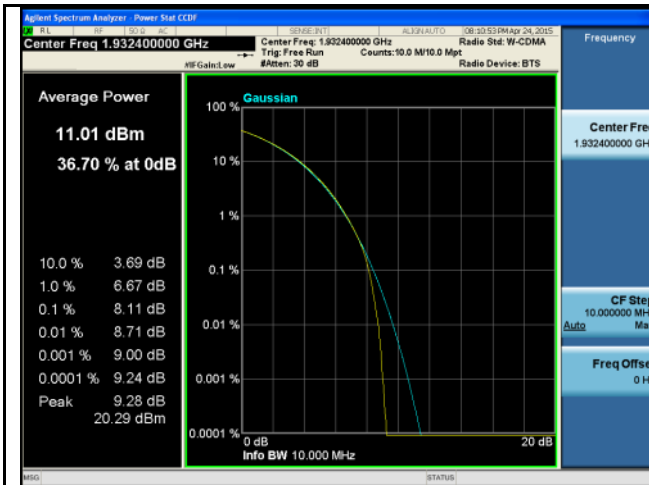
PK-AV-Ratio- Band2-QPSK-15M BW-Mid



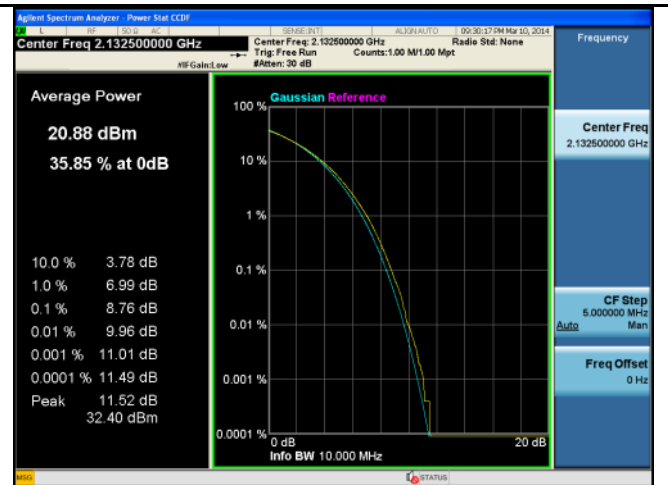
PK-AV-Ratio- Band2-QPSK-5M BW-High

PK-AV-Ratio- Band2-QPSK-15M BW-High

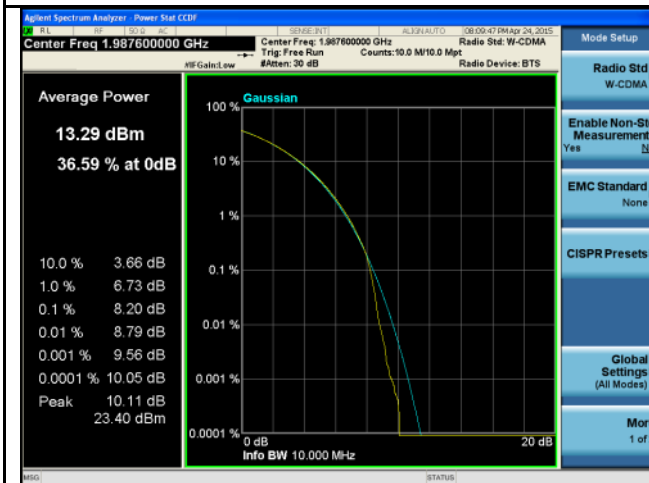
Test Plots for WCDMA Band 2:



PK-AV-Ratio-Band2-QPSK-5M BW-Low

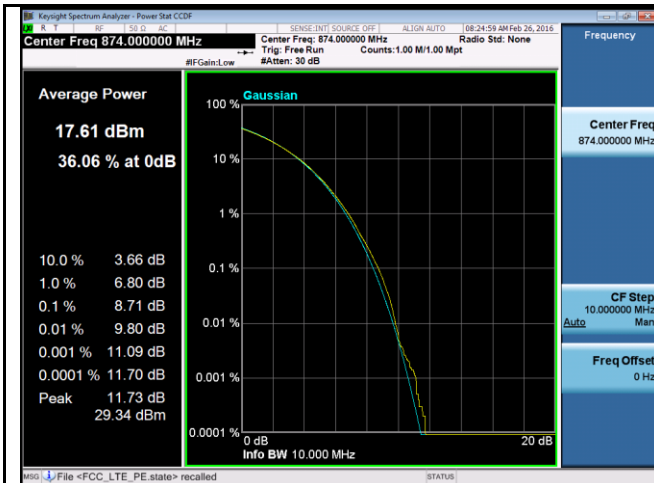


PK-AV-Ratio-Band2-QPSK-5M BW-Mid

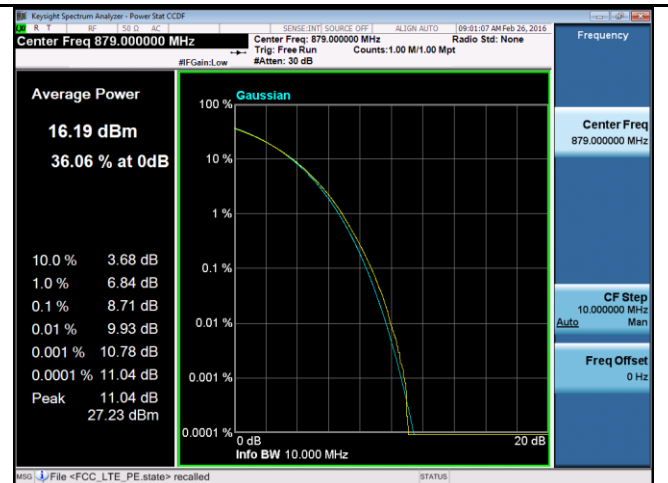


PK-AV-Ratio-Band2-QPSK-5M BW-High

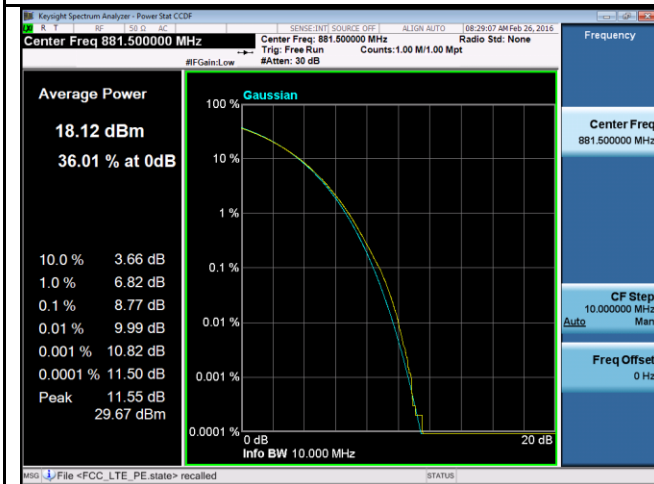
Test Plots for LTE Band 5:



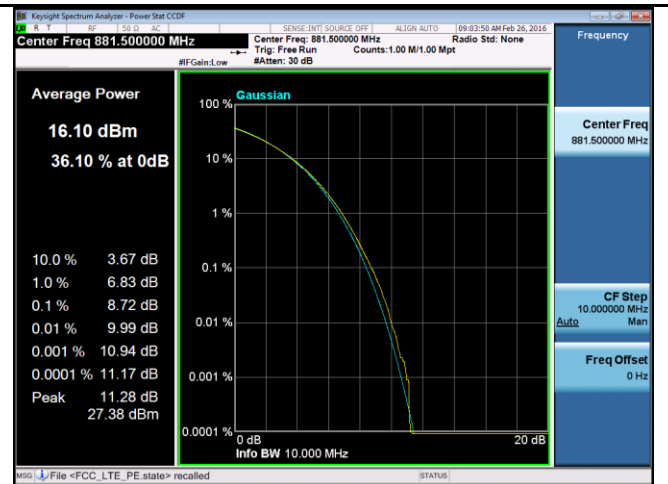
PK-AV-Ratio-Band5-QPSK-10M BW-Low



PK-AV-Ratio- Band5-QPSK-20M BW-Low



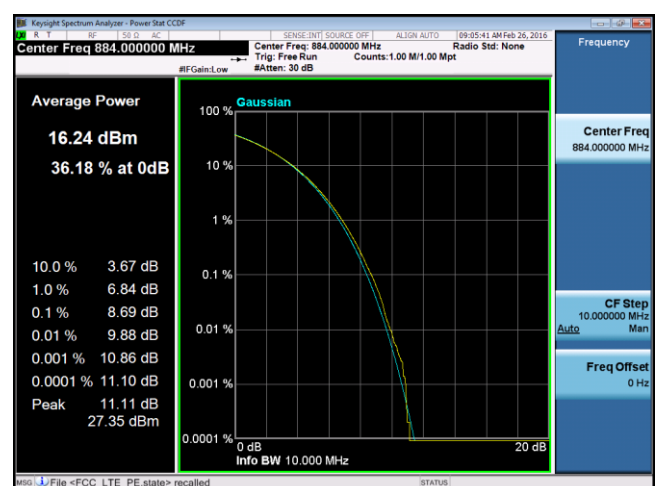
PK-AV-Ratio- Band5-QPSK-10M BW-Mid



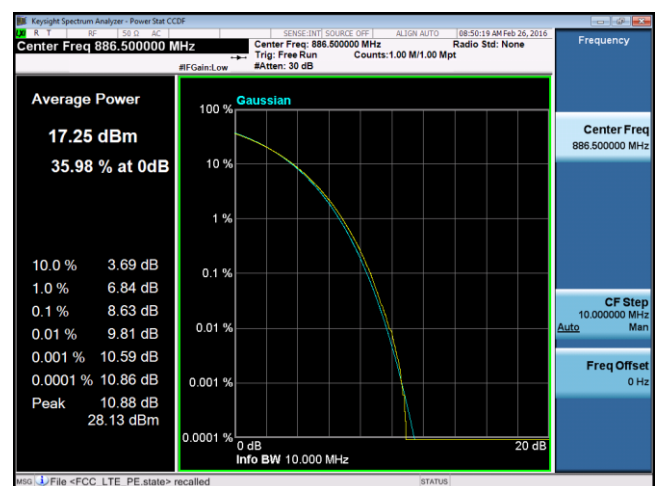
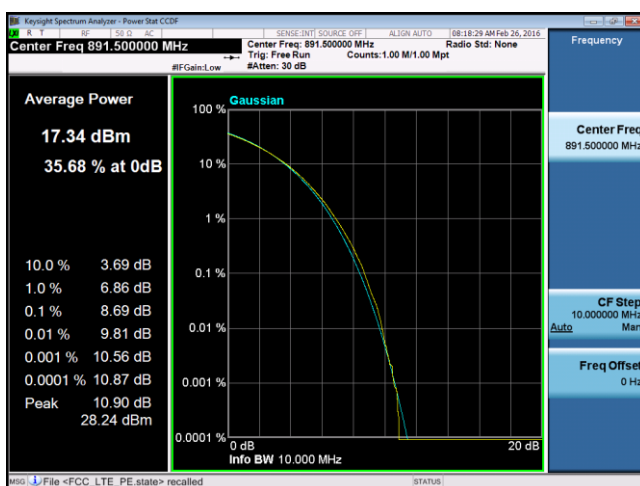
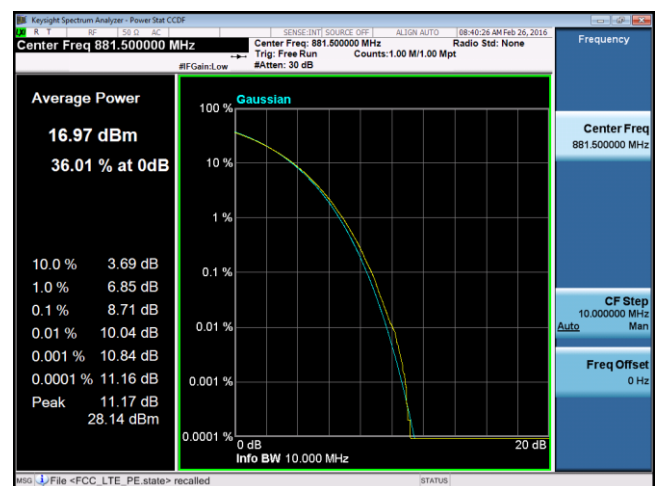
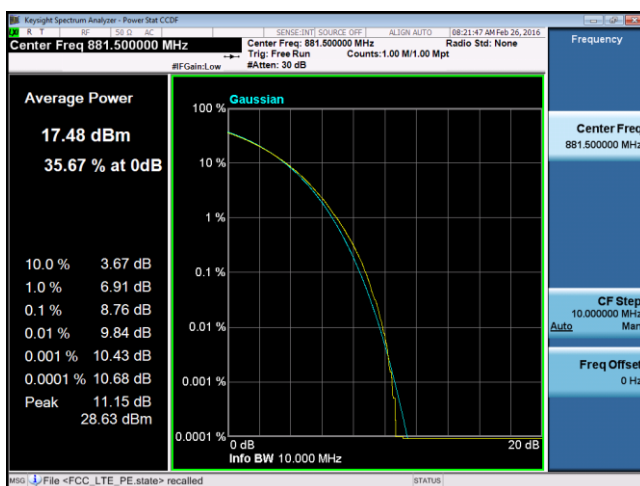
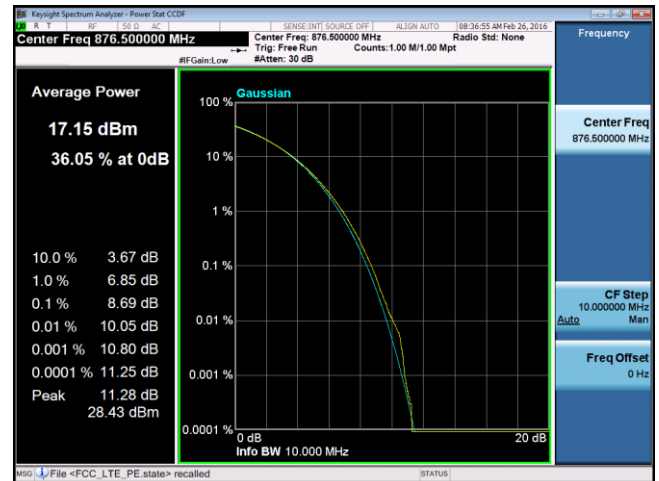
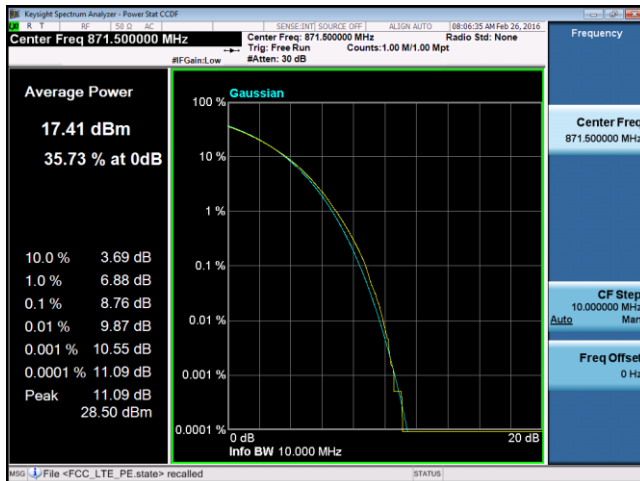
PK-AV-Ratio- Band5-QPSK-20M BW-Mid



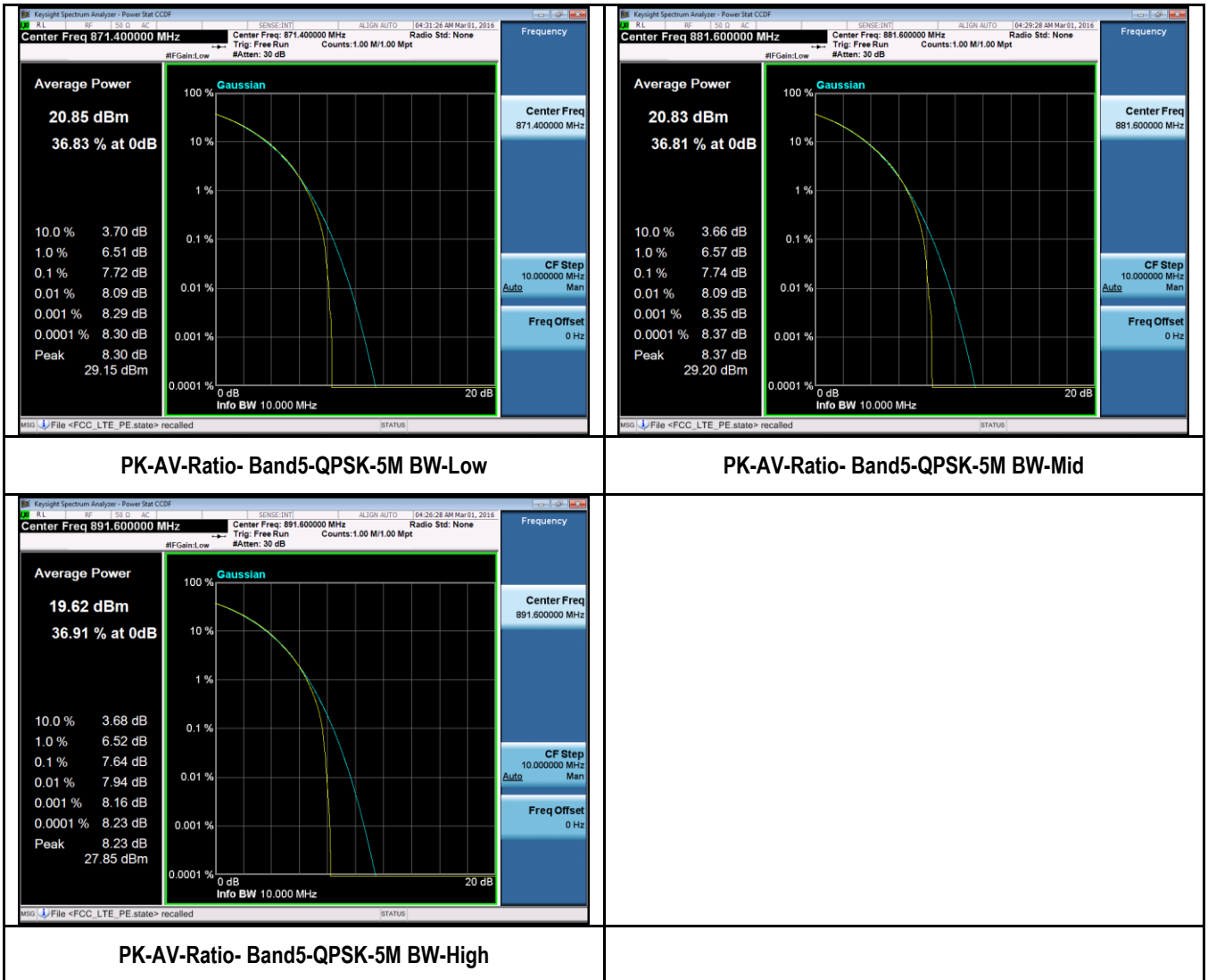
PK-AV-Ratio- Band5-QPSK-10M BW-High



PK-AV-Ratio- Band5-QPSK-20M BW-High

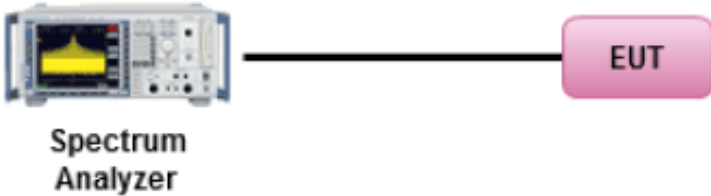


Test Plots for WCDMA Band 5:



10.3 Occupied Bandwidth

Requirement(s):

Spec	Requirement	Applicable
47 CFR §2.1049	The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured under the following conditions of § 2.1049 (a) through (i)	☒
Test Setup		
Procedure	<u>99% Occupied bandwidth measurement procedure</u> - Allow the trace to stabilize. - Use the spectrum analyzer built-in measurement function to determine the 26 dB bandwidth 99% OBW. - o Set RBW = 1% -5% of Emission Bandwidth - o Set VBW = approximately 3 x RBW - o Detector = Peak - o Trace mode = max hold - o Sweep = auto couple - Capture the plot. Repeat above steps for different test channel and other modulation type.	
Test Date	10/26/2015 – 11/02/2015 02/15/2016 - 02/29/2016	Environmental condition Temperature 23°C Relative Humidity 48% Atmospheric Pressure 1008mbar
Remark	NONE	
Result	☒ Pass ☐ Fail	

Test Data ☒ Yes ☐ N/A

Test Plot ☒ Yes (See below) ☐ N/A

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

Test Data

99% Bandwidth measurement result for LTE band 2:

Type	Channel	Channel Frequency (MHz)	99% Occupied Bandwidth (MHz)	26 dB Occupied Bandwidth (MHz)
5MHz BW, QPSK	Low	1932.5	4.41	4.63
	Mid	1960.0	4.42	4.67
	High	1987.5	4.43	4.67
5MHz BW, 64QAM	Low	1932.5	4.41	4.63
	Mid	1960.0	4.40	4.63
	High	1987.5	4.40	4.64
10MHz BW, QPSK	Low	1935.0	8.88	9.22
	Mid	1960.0	8.85	9.24
	High	1985.0	8.85	9.22
10MHz BW, 64QAM	Low	1935.0	8.88	9.22
	Mid	1960.0	8.86	9.18
	High	1985.0	8.86	9.21
15MHz BW, QPSK	Low	1937.5	13.27	13.77
	Mid	1960.0	13.27	13.88
	High	1982.5	13.26	13.70
15MHz BW, 64QAM	Low	1937.5	13.26	13.82
	Mid	1960.0	13.27	13.72
	High	1982.5	13.28	13.88
20MHz BW, QPSK	Low	1940.0	17.54	18.19
	Mid	1960.0	17.59	18.19
	High	1980.0	17.57	18.18
20MHz BW, 64QAM	Low	1940.0	17.59	18.14
	Mid	1960.0	17.49	18.14
	High	1980.0	17.46	18.15

99% Bandwidth measurement result for WCDMA band 2:

Type	Channel	Channel Frequency (MHz)	99% Occupied Bandwidth (MHz)	26 dB Occupied Bandwidth (MHz)
3.84MHz BW, QPSK	Low	1932.4	4.139	4.645
	Mid	1960.0	4.116	4.666
	High	1987.6	4.130	4.661

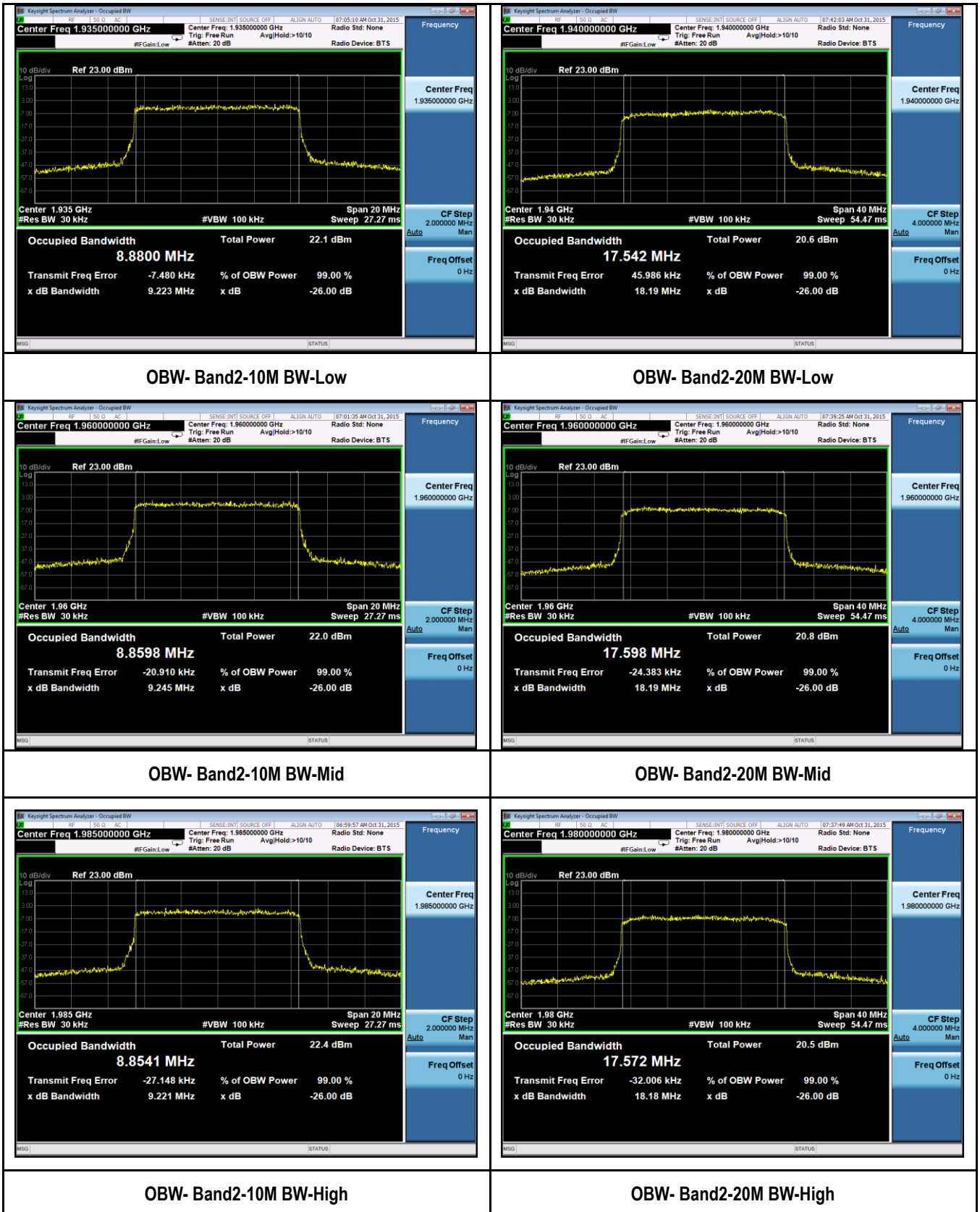
99% Bandwidth measurement result for LTE band 5:

Type	Channel	Channel Frequency (MHz)	99% Occupied Bandwidth (MHz)	26 dB Occupied Bandwidth (MHz)
5MHz BW, QPSK	Low	871.5	4.40	4.66
	Mid	881.5	4.41	4.66
	High	891.5	4.40	4.65
5MHz BW, 64QAM	Low	871.5	4.41	4.64
	Mid	881.5	4.41	4.64
	High	891.5	4.42	4.66
10MHz BW, QPSK	Low	874.0	8.90	9.34
	Mid	881.5	8.88	9.36
	High	889.0	8.89	9.34
10MHz BW, 64QAM	Low	874.0	8.90	9.32
	Mid	881.5	8.88	9.29
	High	889.0	8.89	9.31
15MHz BW, QPSK	Low	876.5	13.25	13.87
	Mid	881.5	13.22	13.72
	High	886.5	13.25	13.76
15MHz BW, 64QAM	Low	876.5	13.24	13.89
	Mid	881.5	13.23	13.80
	High	886.5	13.25	13.87
20MHz BW, QPSK	Low	879.0	17.64	18.21
	Mid	881.5	17.63	18.15
	High	884.0	17.61	18.20
20MHz BW, 64QAM	Low	879.0	17.62	18.30
	Mid	881.5	17.66	18.26
	High	884.0	17.66	18.33

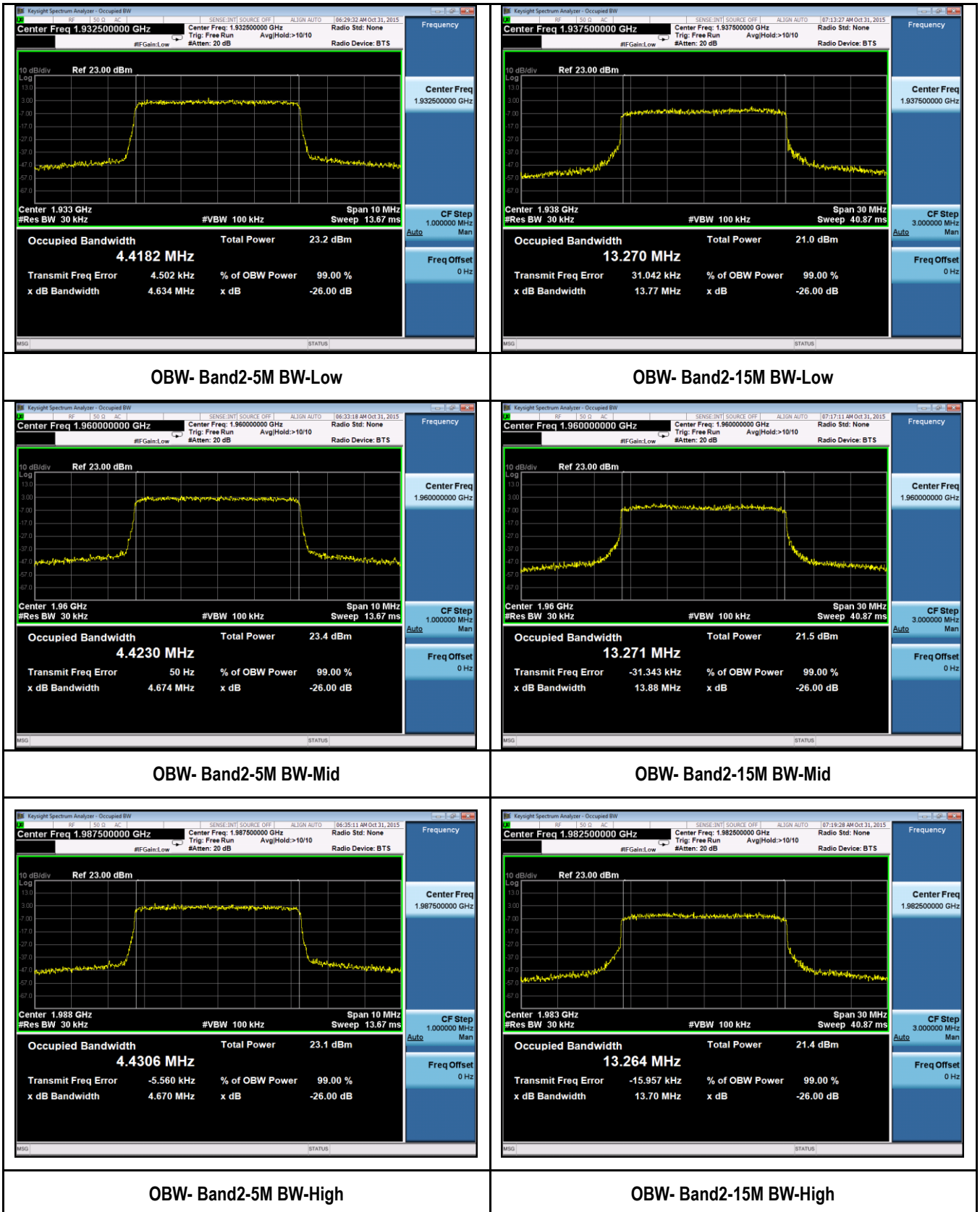
99% Bandwidth measurement result for WCDMA band 5:

Type	Channel	Channel Frequency (MHz)	99% Occupied Bandwidth (MHz)	26 dB Occupied Bandwidth (MHz)
3.84MHz BW, QPSK	Low	871.4	4.12	4.65
	Mid	881.6	4.12	4.64
	High	891.6	4.12	4.62

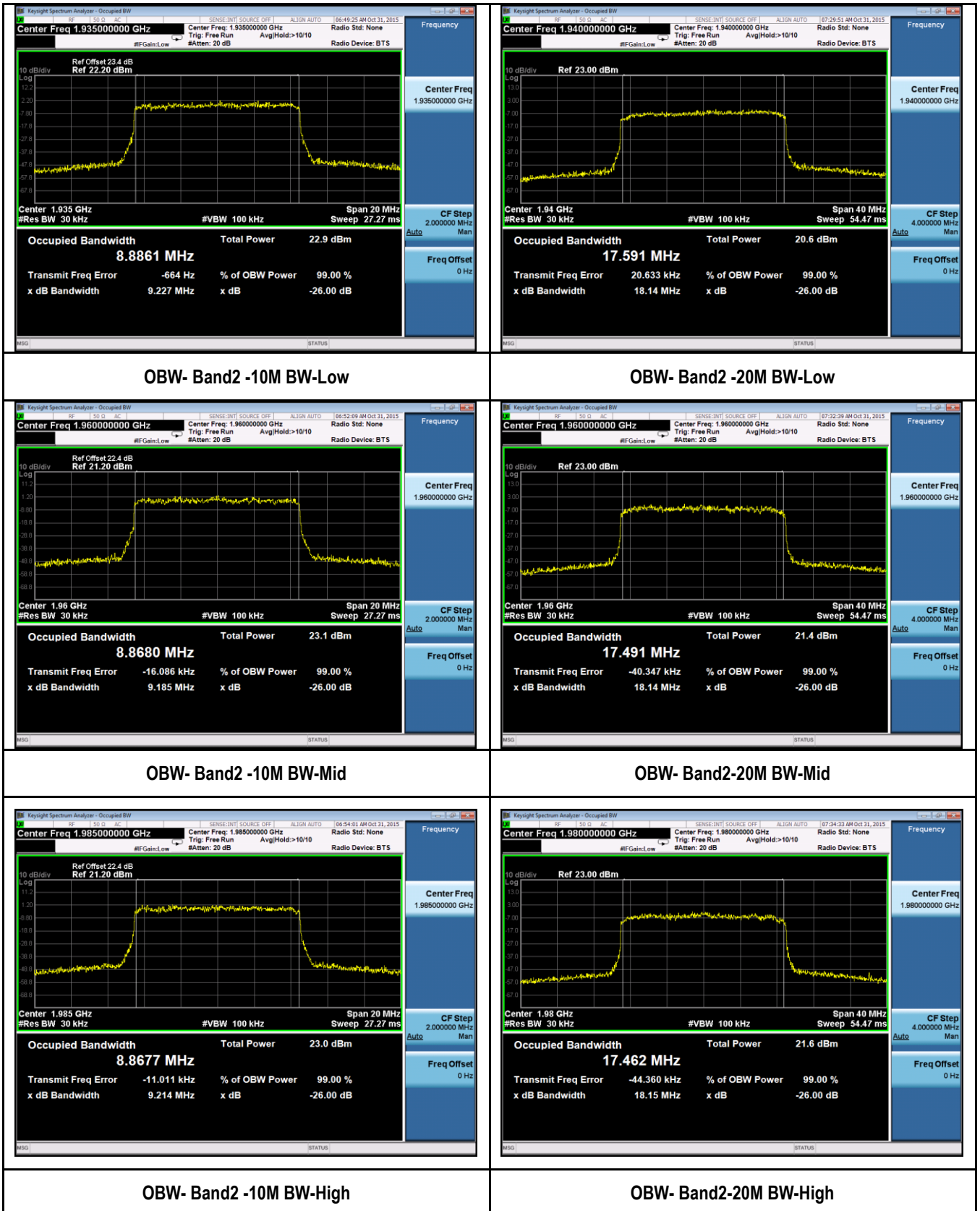
Test Plots for LTE Band2 QPSK



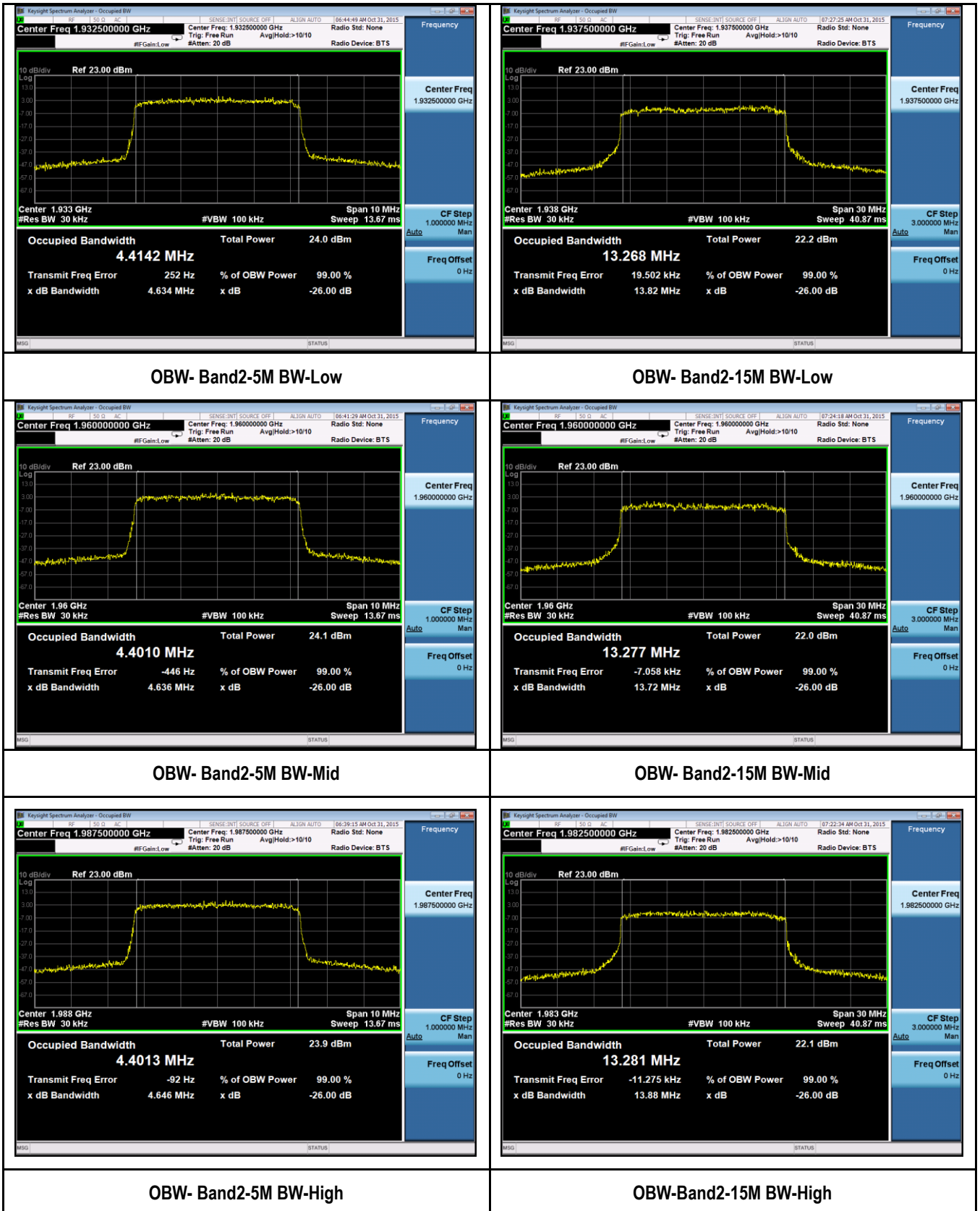
Test Plots for LTE Band2 QPSK



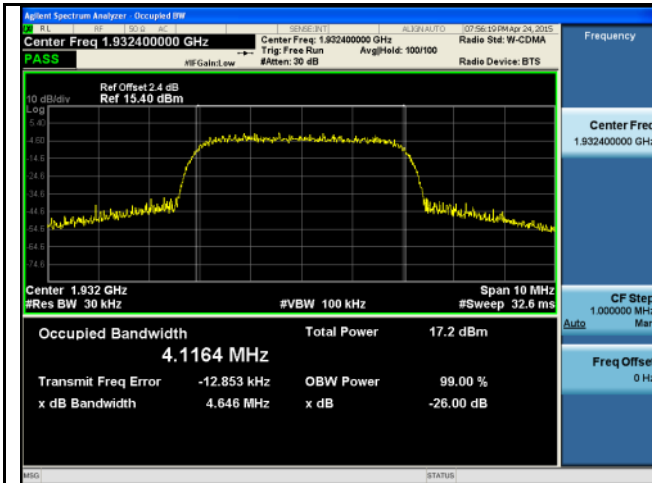
Test Plots for LTE Band2 64QAM



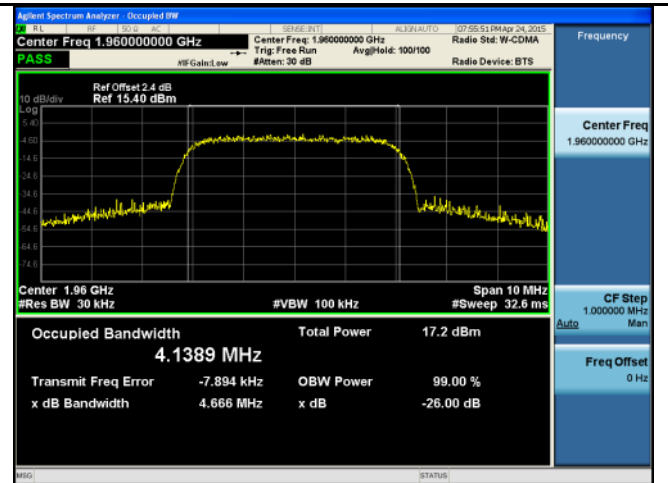
Test Plots for LTE Band2 64QAM



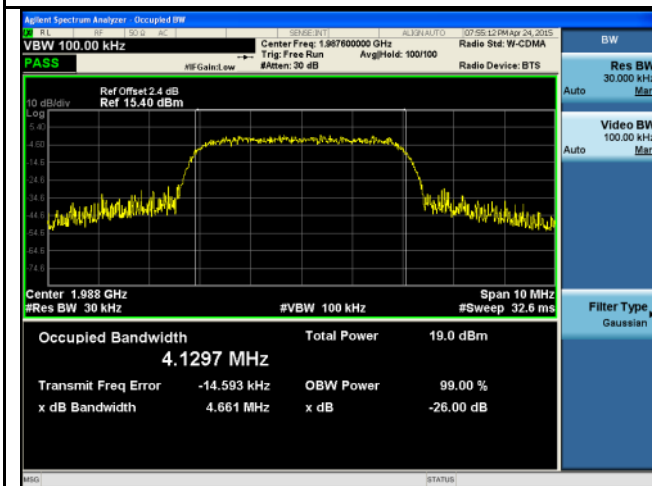
Test Plots for WCDMA Band2



OBW-Band2-Low



OBW-Band2-Mid



OBW-Band2-High

Test Plots for LTE Band 5 QPSK

