

LTE FDD Band 7-15MHz Channel Bandwidth PAPR

High Channel

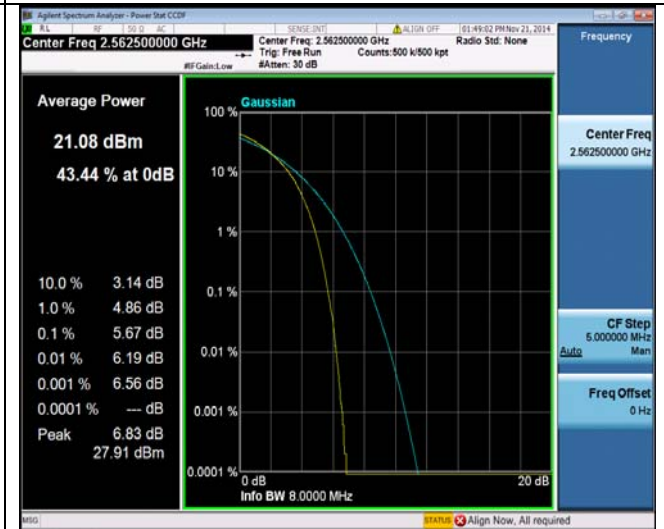
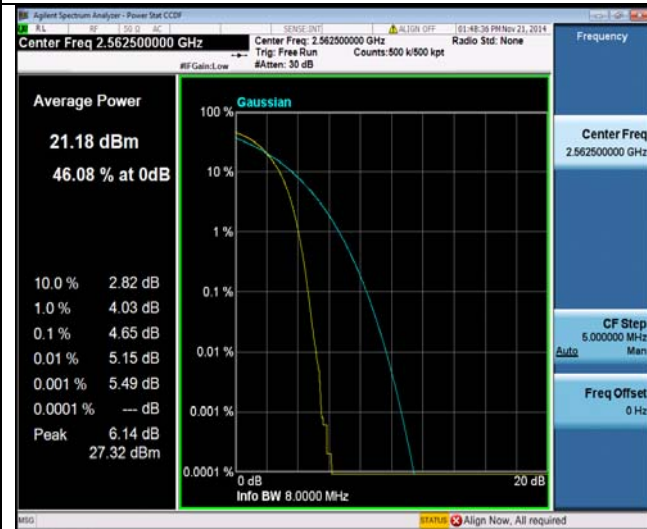
QPSK

16QAM



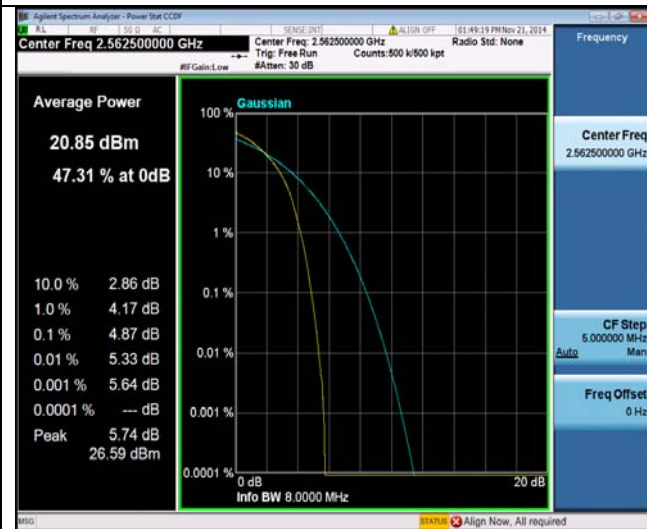
37RB#18

37RB#18



37RB#38

37RB#38



75RB#0

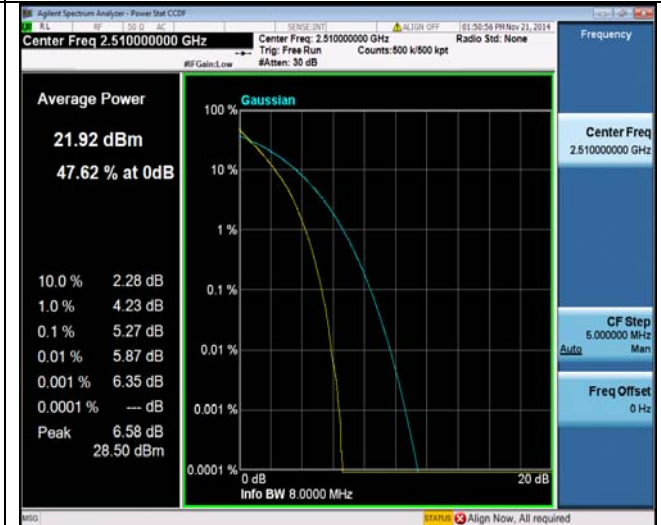
75RB#0

LTE FDD Band 7-20MHz Channel Bandwidth PAPR

Low Channel

QPSK

16QAM



1RB#0

1RB#0



1RB#49

1RB#49



1RB#99

1RB#99

LTE FDD Band 7-20MHz Channel Bandwidth PAPR

Low Channel

QPSK

16QAM



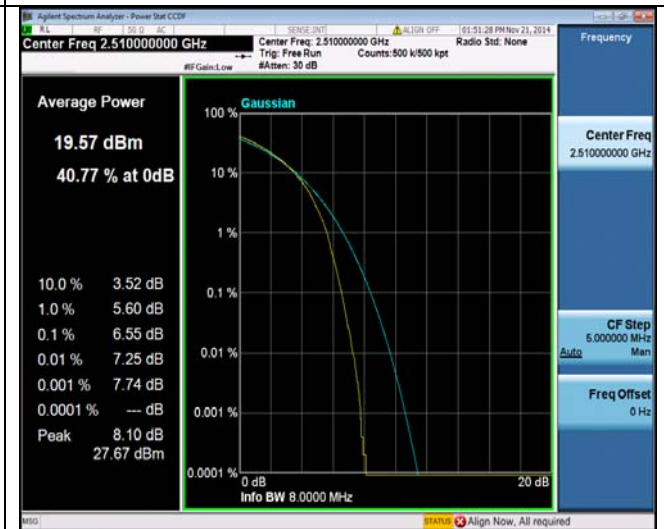
50RB#0

50RB#0



50RB#25

50RB#25



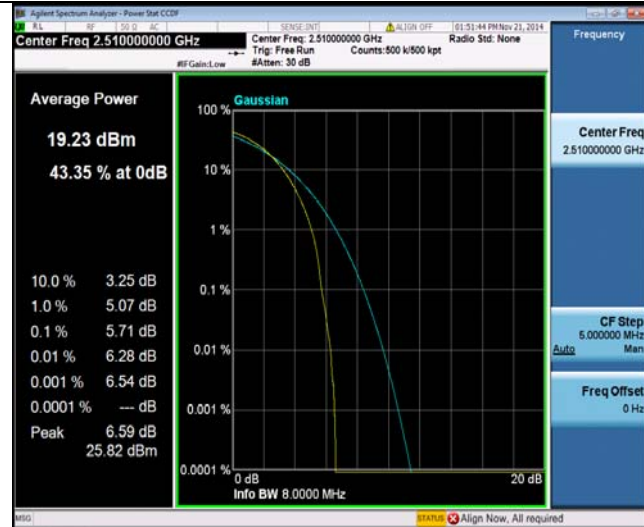
50RB#50

50RB#50

LTE FDD Band 7-20MHz Channel Bandwidth PAPR

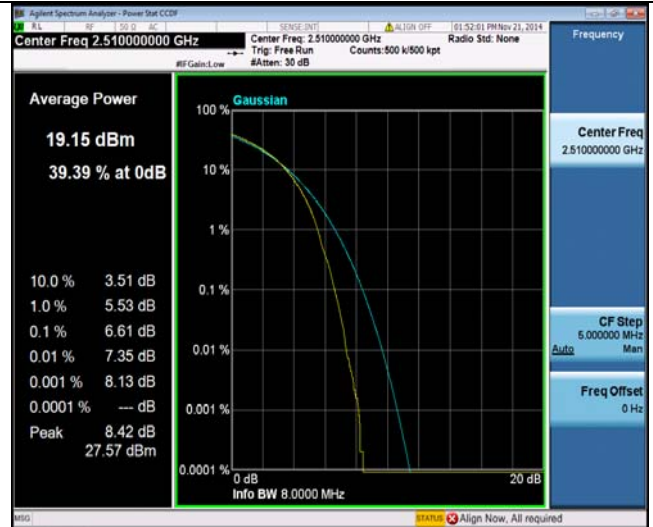
Low Channel

QPSK



100RB#0

16QAM



100RB#0

Middle Channel

QPSK



1RB#0

16QAM



1RB#0

QPSK



1RB#49

16QAM



1RB#49

LTE FDD Band 7-20MHz Channel Bandwidth PAPR

Middle Channel

QPSK

16QAM



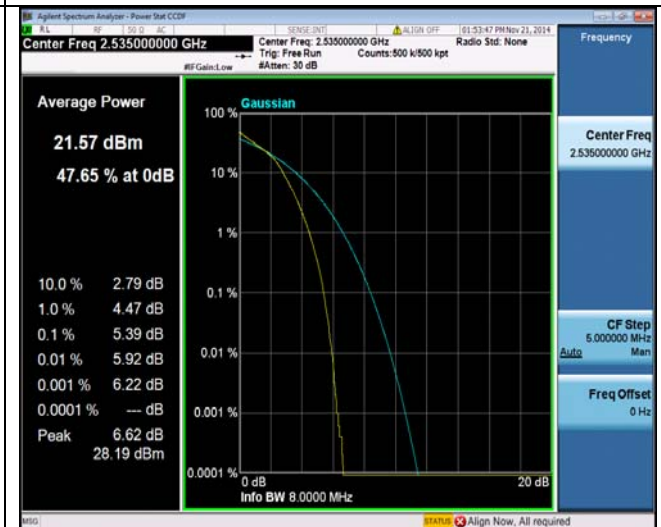
1RB#99

1RB#99



50RB#0

50RB#0



50RB#25

50RB#25

LTE FDD Band 7-20MHz Channel Bandwidth PAPR

Middle Channel

QPSK



16QAM



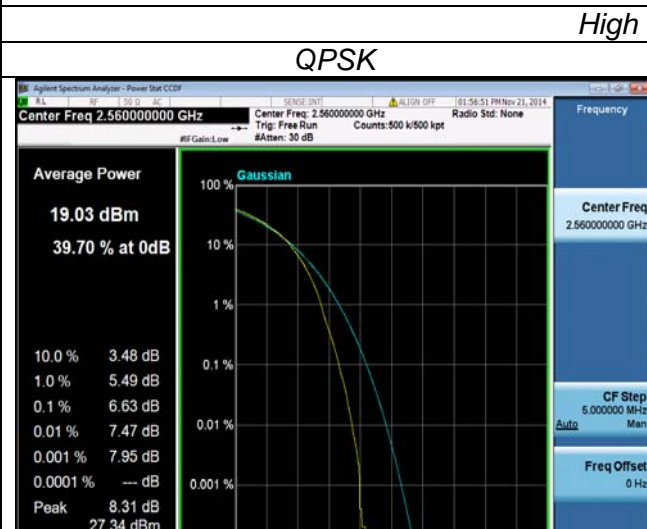
50RB#50



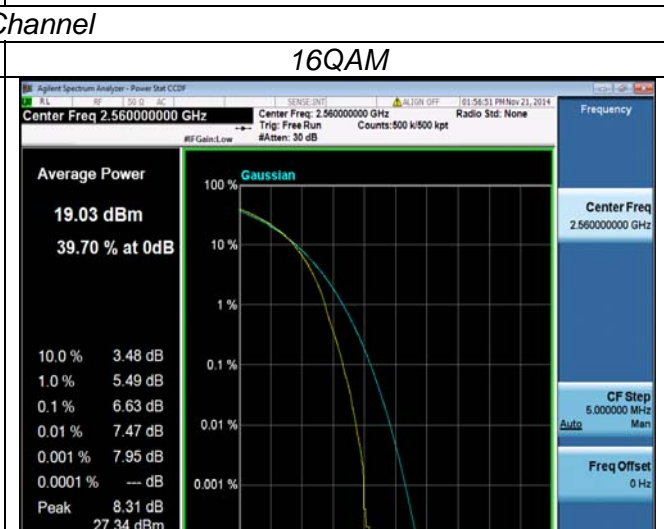
50RB#50



100RB#0



100RB#0



High Channel

QPSK



16QAM



1RB#0

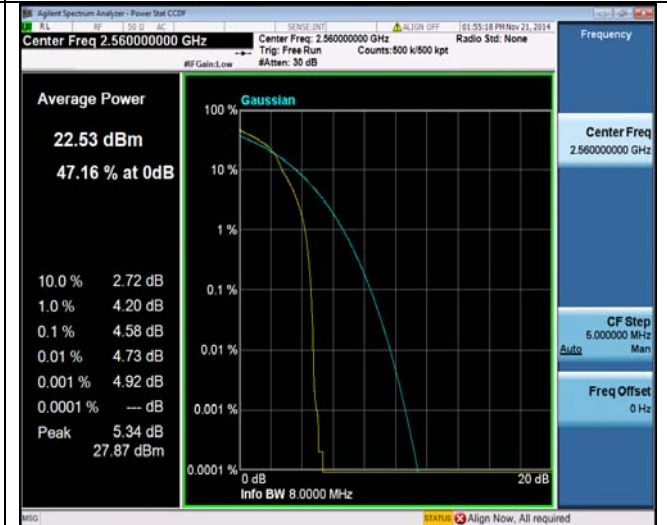
1RB#0

LTE FDD Band 7-20MHz Channel Bandwidth PAPR

High Channel

QPSK

16QAM



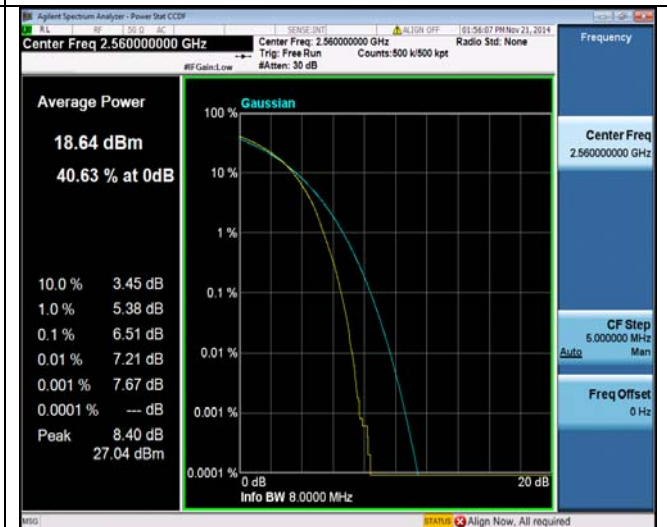
1RB#49

1RB#49



1RB#99

1RB#99



50RB#0

50RB#0

LTE FDD Band 7-20MHz Channel Bandwidth PAPR

High Channel

QPSK

16QAM



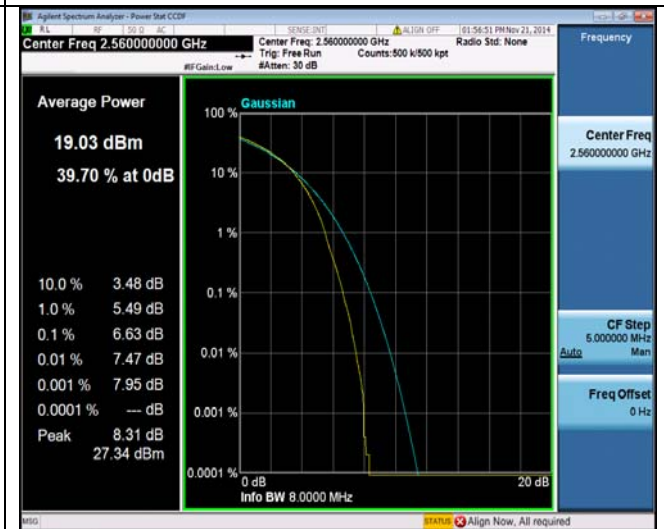
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50RB#25



50RB#50

50RB#50



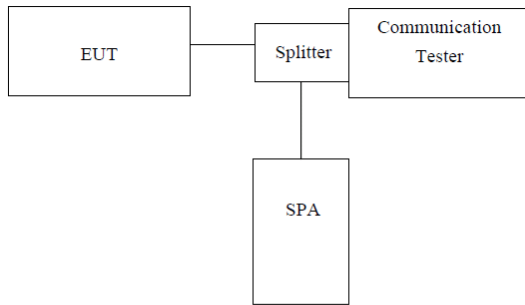
100RB#0

100RB#0



### 3.3. Occupy Bandwidth

#### TEST CONFIGURATION



Note: Measurement setup for testing on Antenna connector

#### TEST PROCEDURE

1. The EUT's output RF connector was connected with a short cable to the spectrum analyzer
2. RBW was set to about 1% of emission BW, VBW= 3 times RBW.
3. Set 99% bandwidth function for occupied bandwidth and -26dBc for Emission Bandwidth, the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace.

#### TEST RESULTS

LTE FDD Band 4							
TX Channel Bandwidth	RB Configuration		Frequency (MHz)	99% Occupy bandwidth (MHz)		-26dBc Emission bandwidth (MHz)	
	Size	Offset		QPSK	16QAM	QPSK	16QAM
1.4 MHz	6	0	1710.7	1.08306	1.08260	1.3084	1.3107
	6	0	1732.5	1.08089	1.08178	1.3352	1.3099
	6	0	1754.3	1.09402	1.08578	1.9473	1.3726
3 MHz	15	0	1711.5	2.68746	2.68516	2.9225	2.9377
	15	0	1732.5	2.68984	2.68827	2.9496	2.9452
	15	0	1753.5	2.70007	2.69161	3.3835	2.9455
5 MHz	25	0	1712.5	4.47108	4.46459	4.7678	4.8308
	25	0	1732.5	4.46867	4.47563	4.8006	4.8343
	25	0	1752.5	4.47917	4.47881	4.9812	4.8623
10 MHz	50	0	1715.0	8.91675	8.92205	9.3938	9.4628
	50	0	1732.5	8.92754	8.92894	9.6022	9.4566
	50	0	1750.0	8.93935	8.93872	9.6562	9.4794
15 MHz	75	0	1717.5	13.39424	13.38050	14.0195	13.9795
	75	0	1732.5	13.41059	13.39498	14.0375	13.9641
	75	0	1747.5	13.41144	13.37981	15.4938	14.1249
20 MHz	100	0	1720.0	17.84765	17.83857	18.6509	18.5730
	100	0	1732.5	17.86037	17.84453	18.7457	18.5947
	100	0	1745.0	17.80984	17.77674	18.6160	18.5934

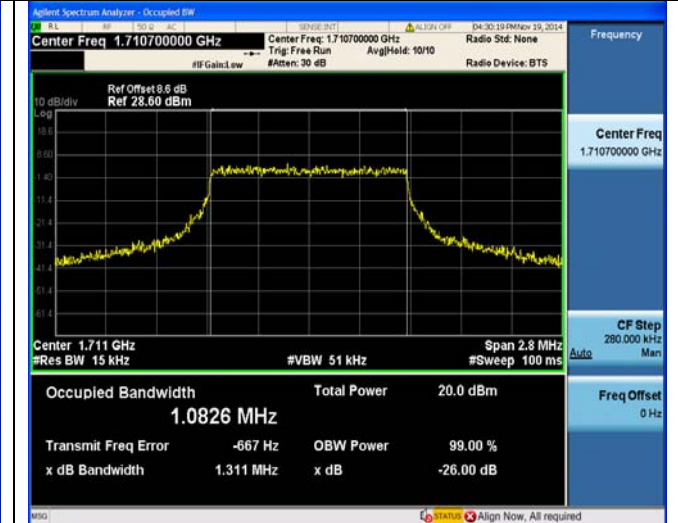
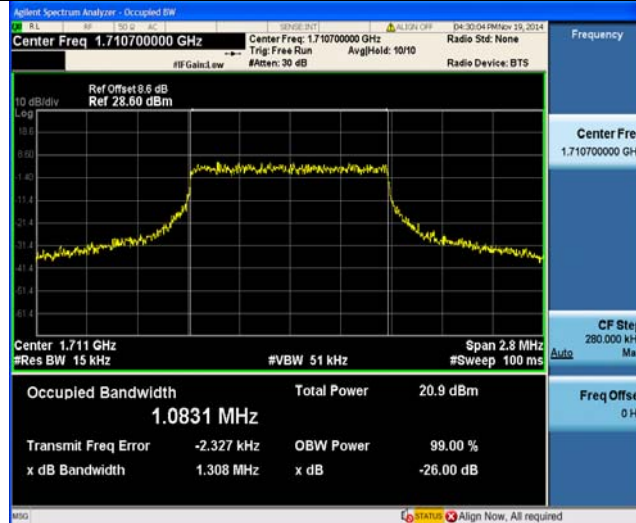
LTE FDD Band 7							
TX Channel Bandwidth	RB Configuration		Frequency (MHz)	99% Occupy bandwidth (MHz)		-26dBc Emission bandwidth (MHz)	
	Size	Offset		QPSK	16QAM	QPSK	16QAM
5 MHz	25	0	2502.5	4.46961	4.47072	4.8095	4.8261
	25	0	2535.0	4.46412	4.47594	4.8277	4.8378
	25	0	2567.5	4.46960	4.46043	4.8348	4.8100
10 MHz	50	0	2505.0	8.95143	8.94502	9.5448	9.4900
	50	0	2535.0	8.94512	8.94867	9.5427	9.5180
	50	0	2565.0	8.94017	8.94176	9.5703	9.5781
15 MHz	75	0	2507.5	13.41854	13.42063	14.2801	14.2940
	75	0	2535.0	13.40677	13.40026	14.2128	14.2232
	75	0	2562.5	13.40757	13.40694	14.2035	14.2369
20 MHz	100	0	2510.0	17.91082	17.89544	18.7750	18.8969
	100	0	2535.0	17.87114	17.85835	18.6556	18.7892
	100	0	2560.0	17.88452	17.88093	18.7918	18.8428

Test plots as follow:

LTE FDD Band 4-1.4MHz Channel Bandwidth

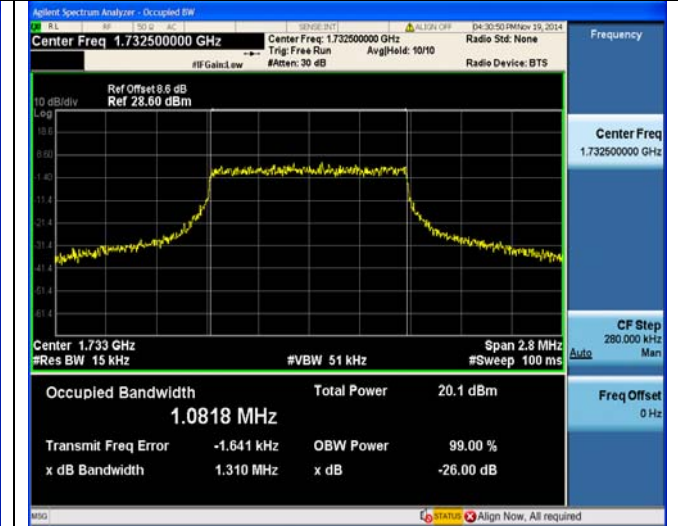
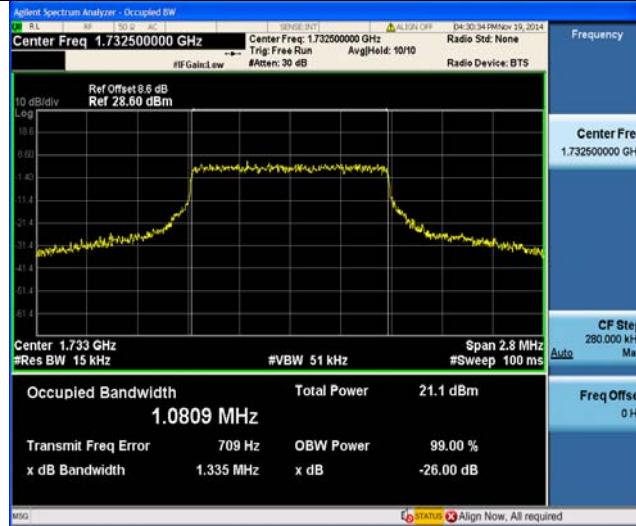
QPSK

16QAM



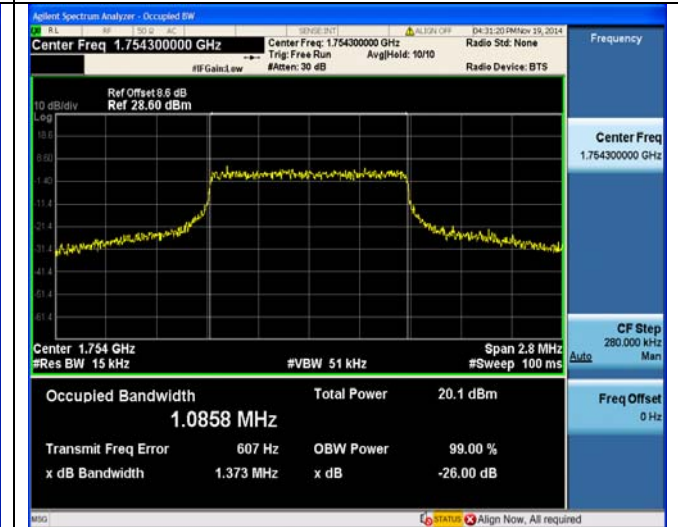
Low Channel @ 6RB#0

Low Channel @ 6RB#0



Middle Channel @ 6RB#0

Middle Channel @ 6RB#0



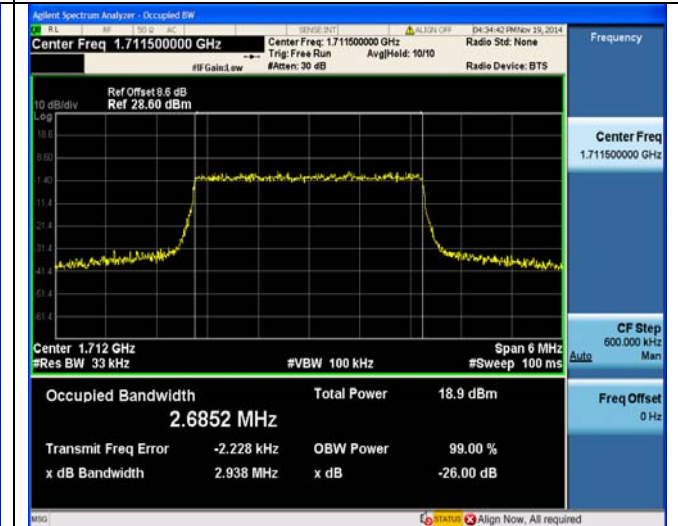
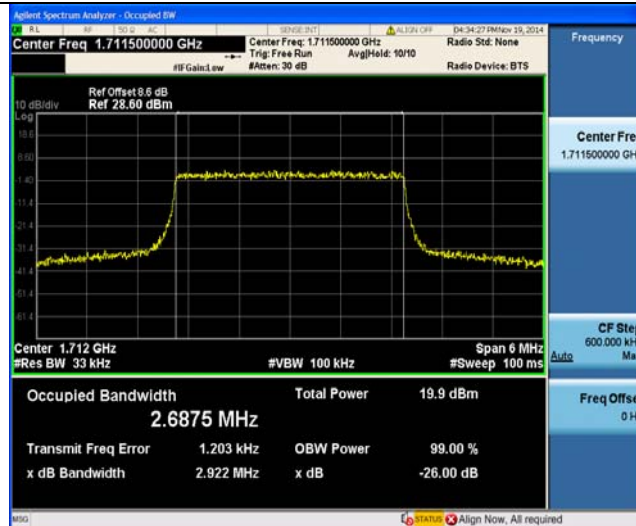
High Channel @ 6RB#0

High Channel @ 6RB#0

LTE FDD Band 4-3MHz Channel Bandwidth

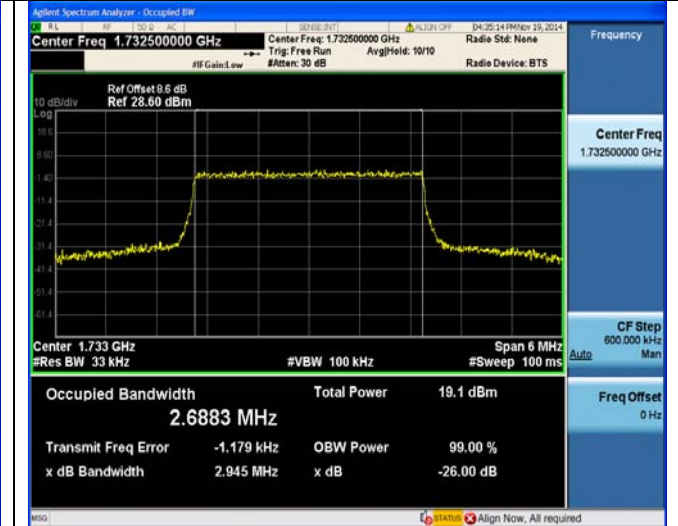
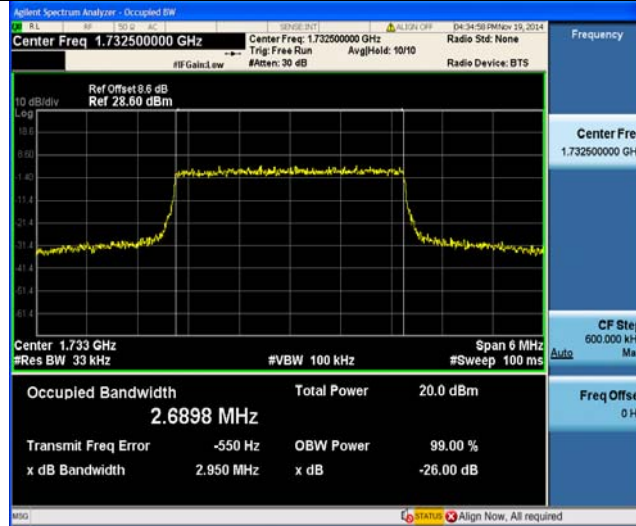
QPSK

16QAM



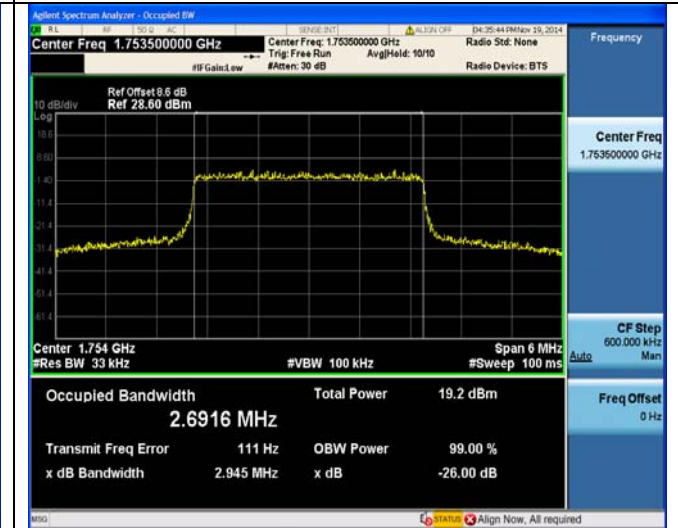
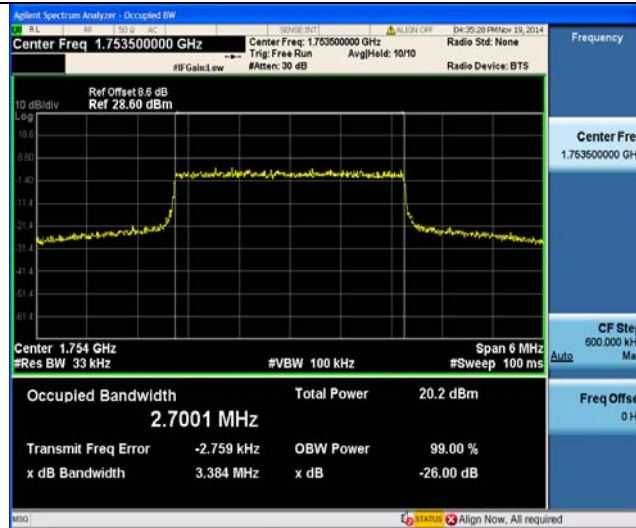
Low Channel @ 15RB#0

Low Channel @ 15RB#0



Middle Channel @ 15RB#0

Middle Channel @ 15RB#0



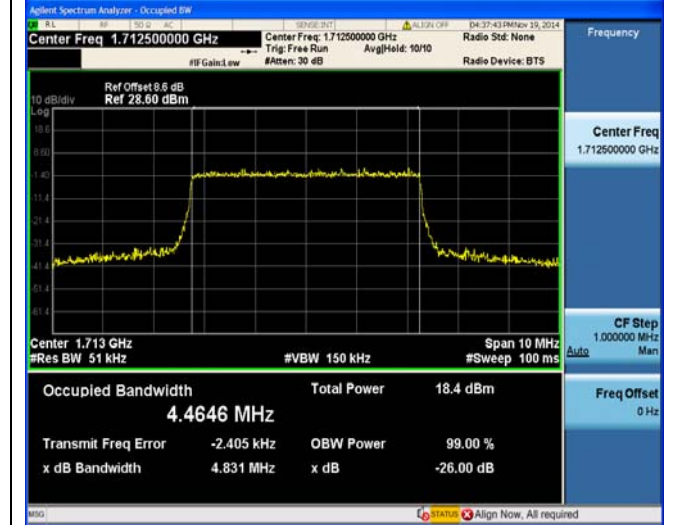
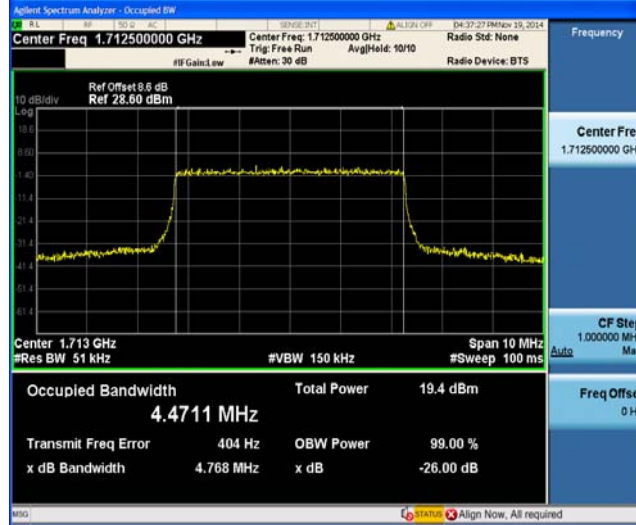
High Channel @ 15RB#0

High Channel @ 15RB#0

LTE FDD Band 4-5MHz Channel Bandwidth

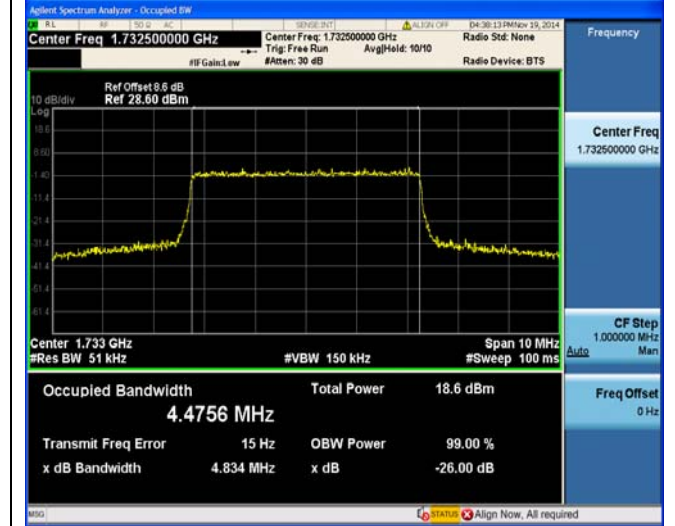
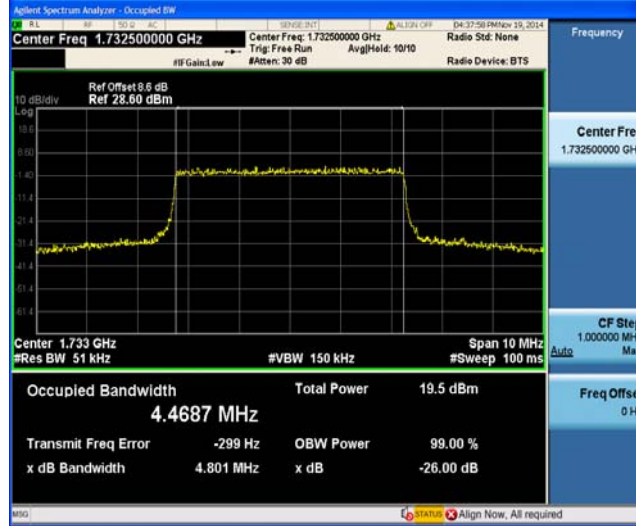
QPSK

16QAM



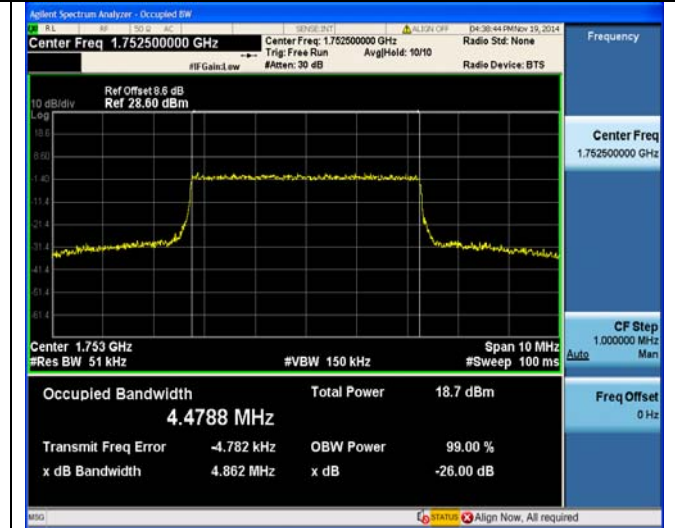
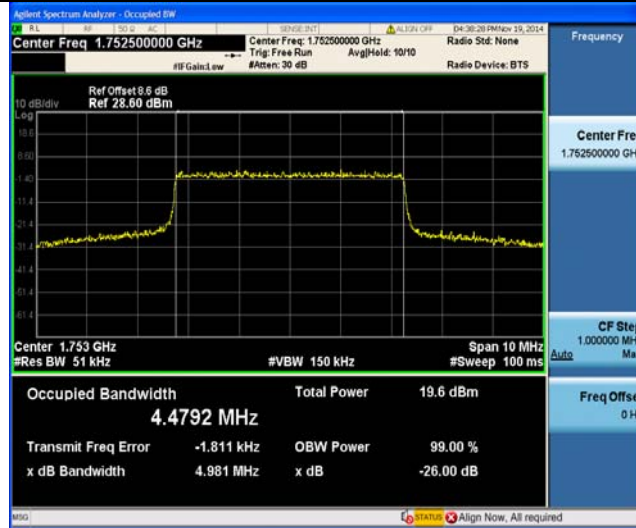
Low Channel @ 25RB#0

Low Channel @ 25RB#0



Middle Channel @ 25RB#0

Middle Channel @ 25RB#0



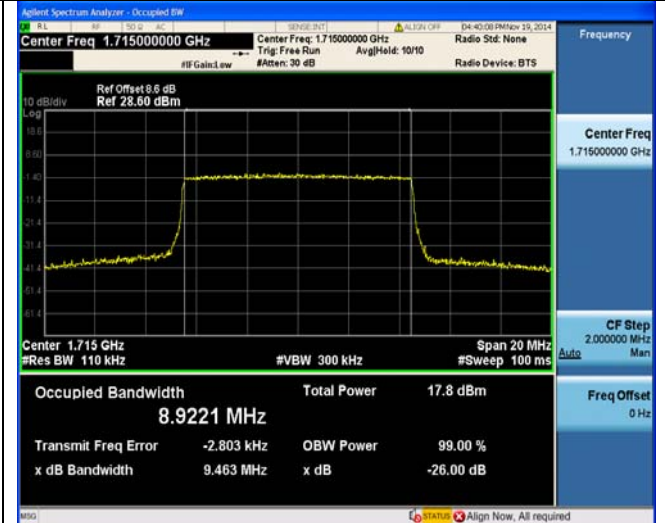
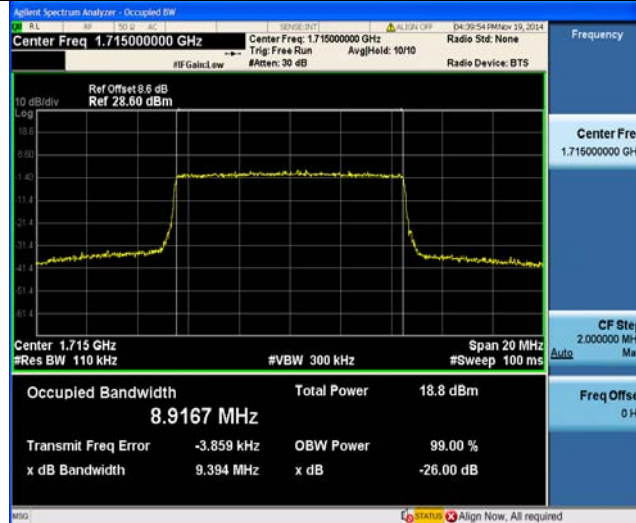
High Channel @ 25RB#0

High Channel @ 25RB#0

LTE FDD Band 4-10MHz Channel Bandwidth

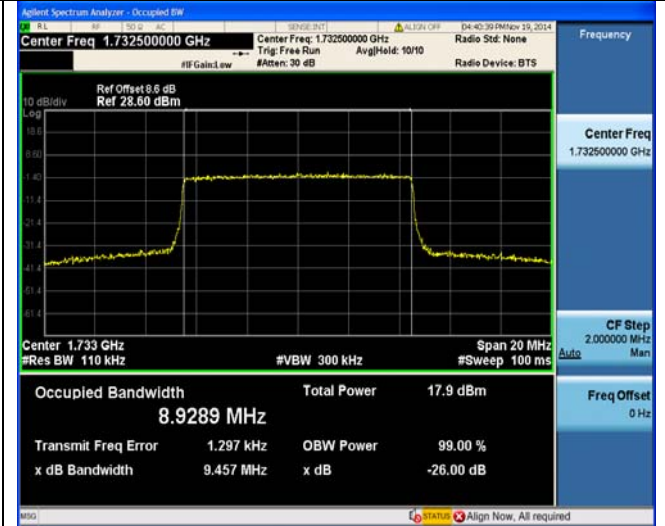
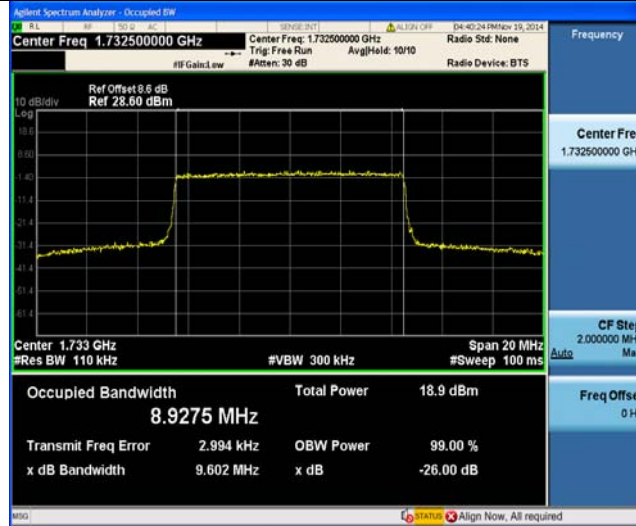
QPSK

16QAM



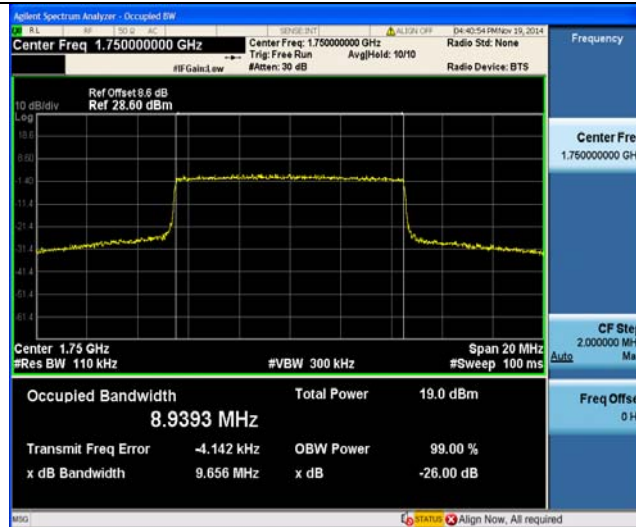
Low Channel @ 50RB#0

Low Channel @ 50RB#0



Middle Channel @ 50RB#0

Middle Channel @ 50RB#0



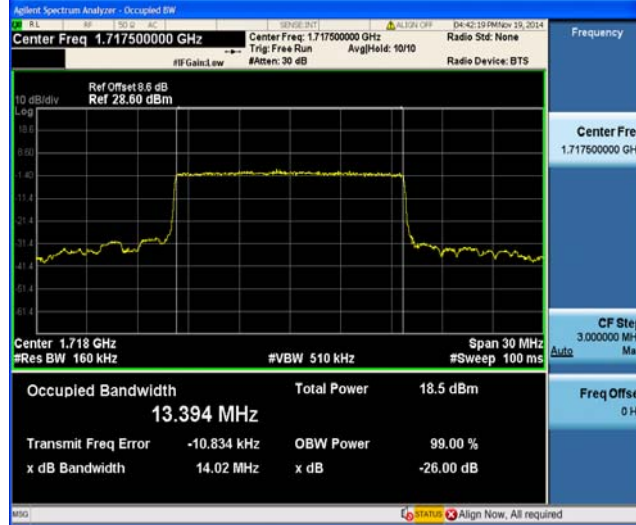
High Channel @ 50RB#0

High Channel @ 50RB#0

LTE FDD Band 4-15MHz Channel Bandwidth

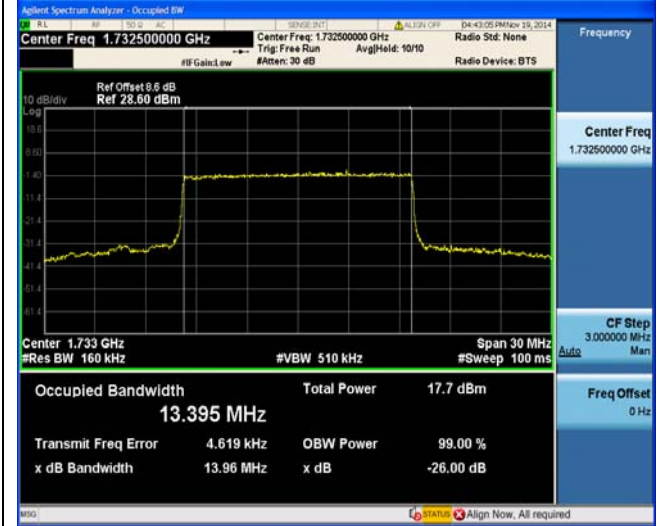
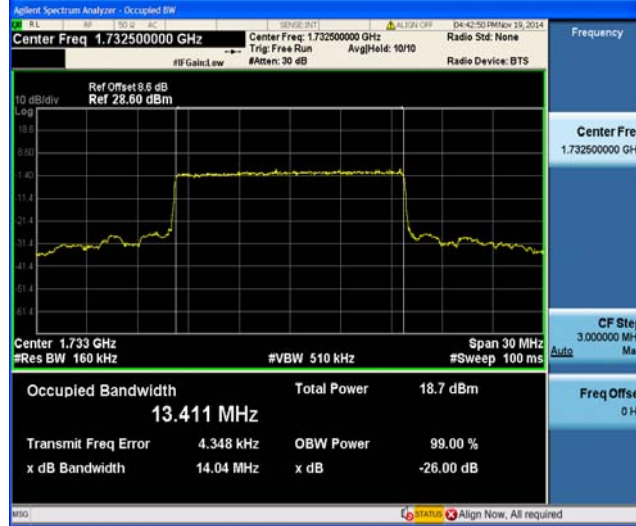
QPSK

16QAM



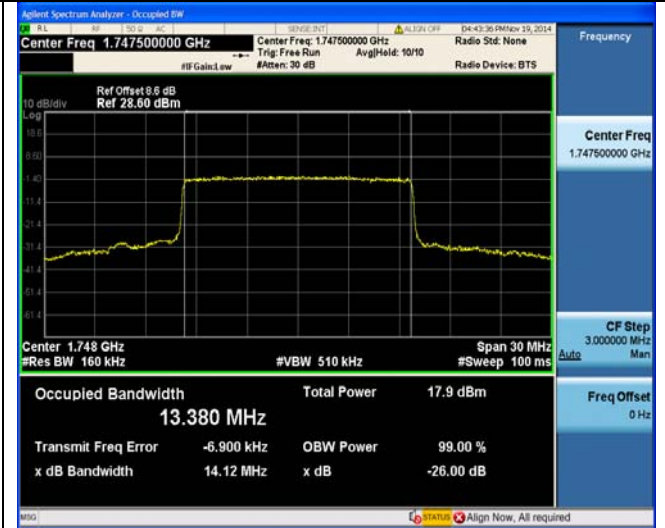
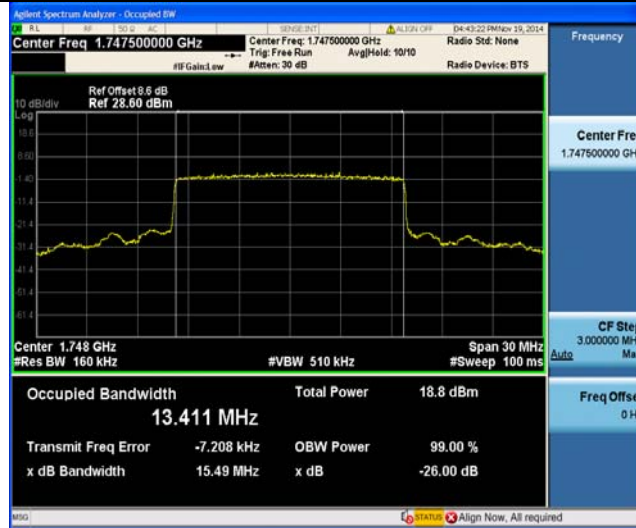
Low Channel @ 75RB#0

Low Channel @ 75RB#0



Middle Channel @ 75RB#0

Middle Channel @ 75RB#0



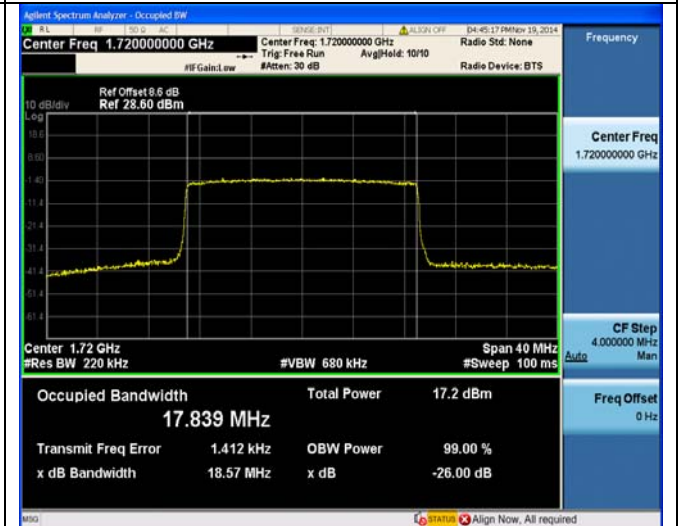
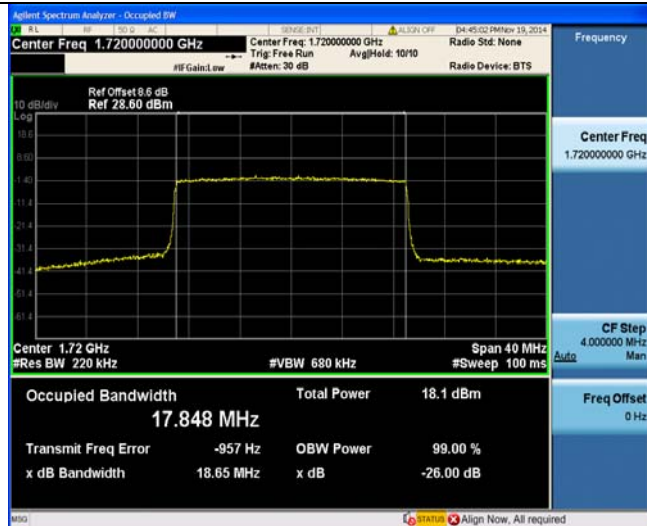
High Channel @ 75RB#0

High Channel @ 75RB#0

LTE FDD Band 4-20MHz Channel Bandwidth

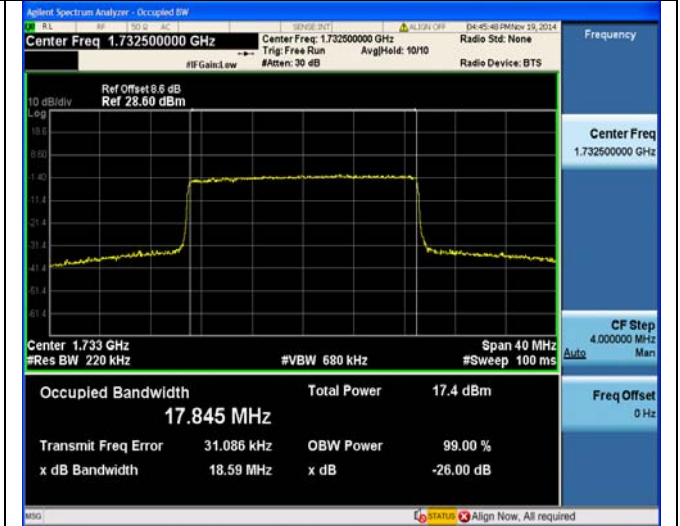
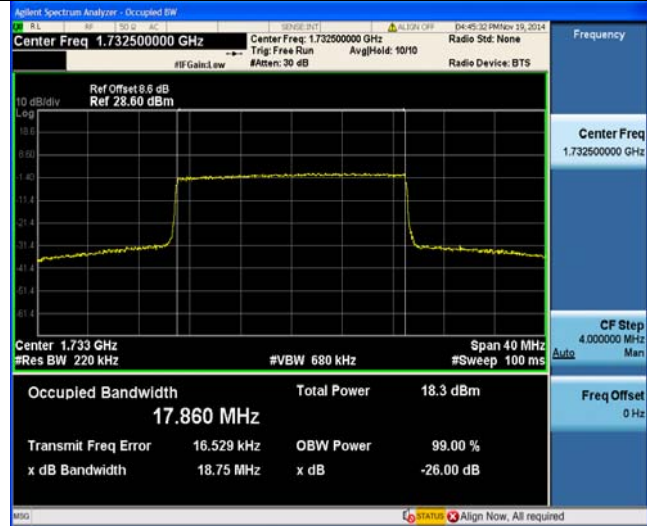
QPSK

16QAM



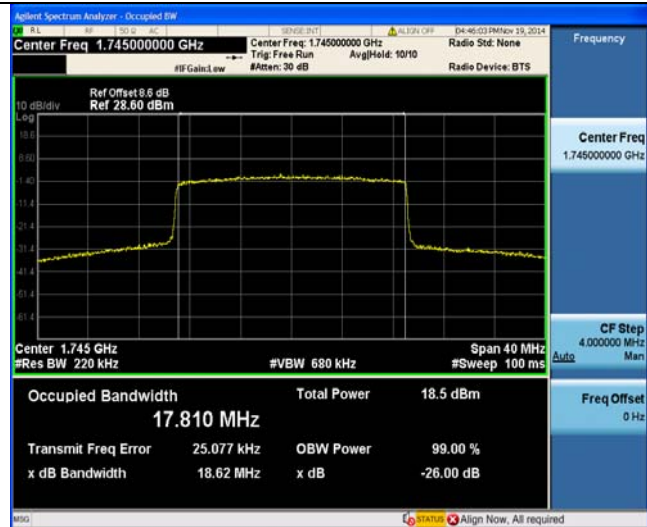
Low Channel @ 100RB#0

Low Channel @ 100RB#0



Middle Channel @ 100RB#0

Middle Channel @ 100RB#0



High Channel @ 100RB#0

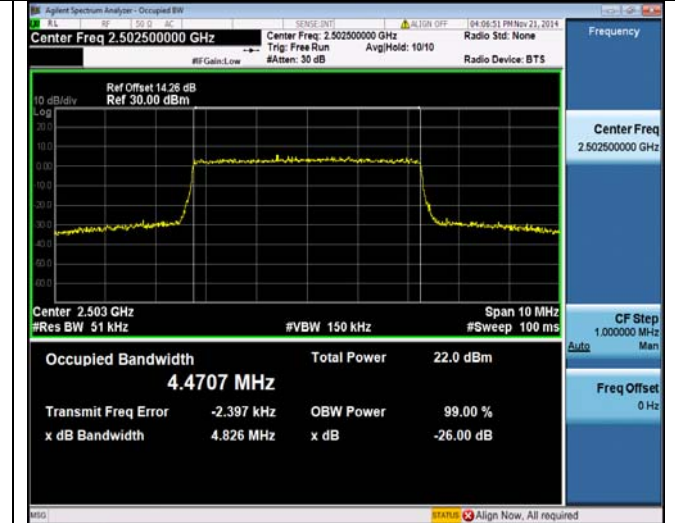
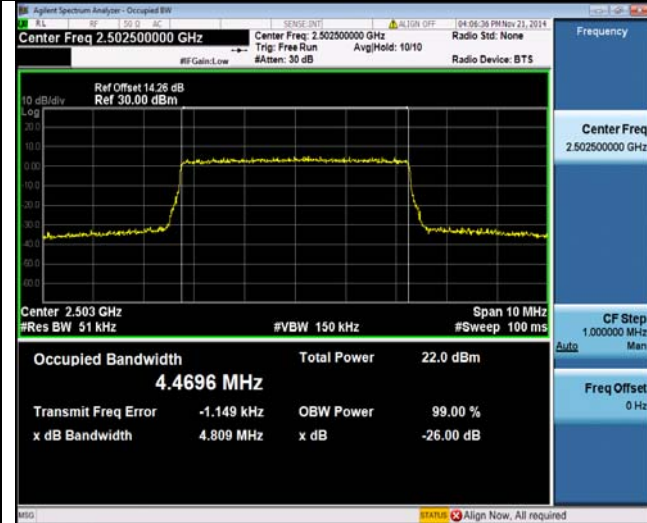
High Channel @ 100RB#0



LTE FDD Band 7-5MHz Channel Bandwidth

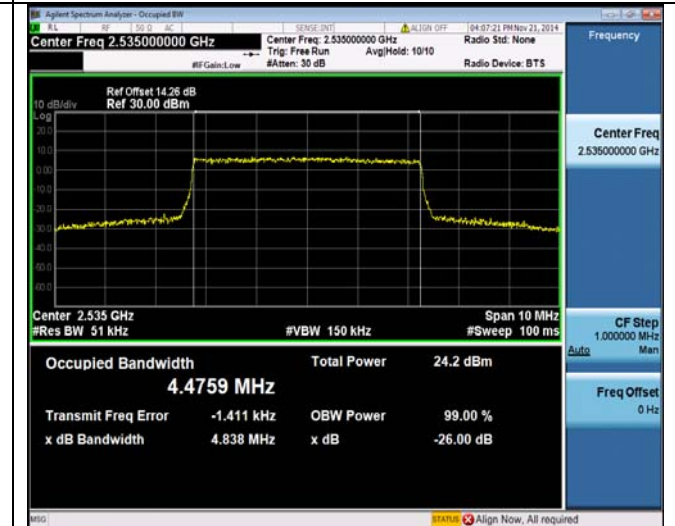
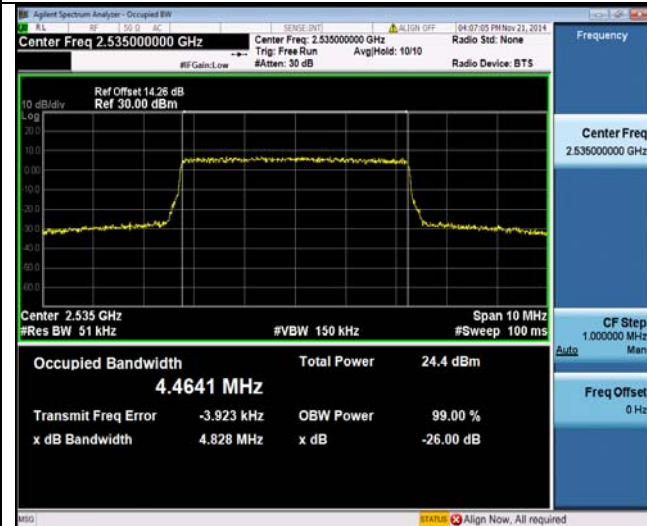
QPSK

16QAM



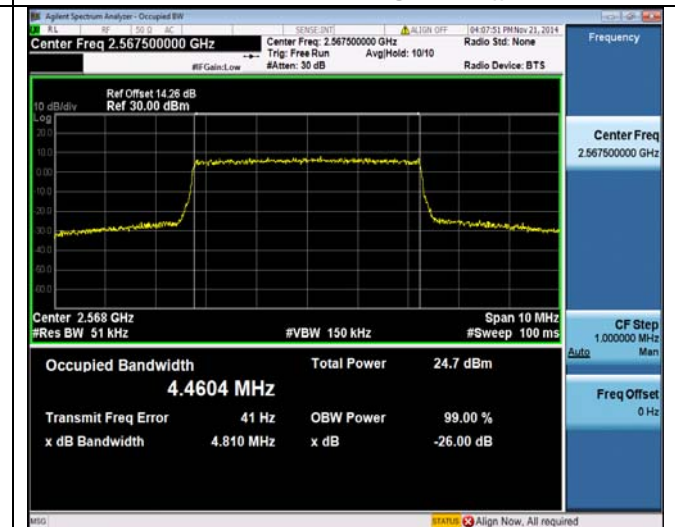
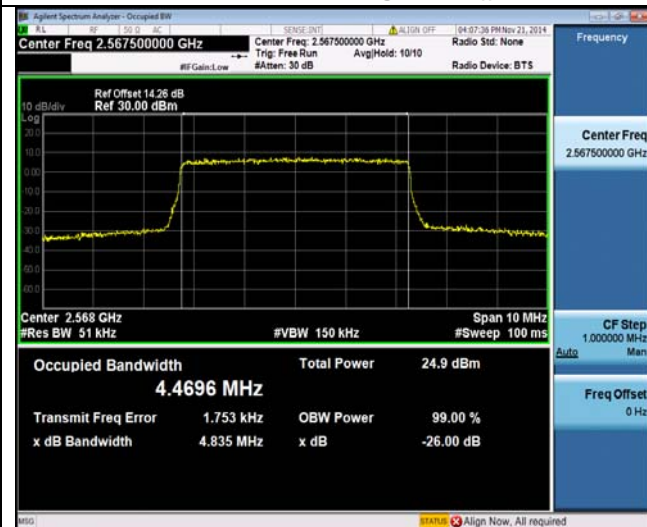
Low Channel @ 25RB#0

Low Channel @ 25RB#0



Middle Channel @ 25RB#0

Middle Channel @ 25RB#0



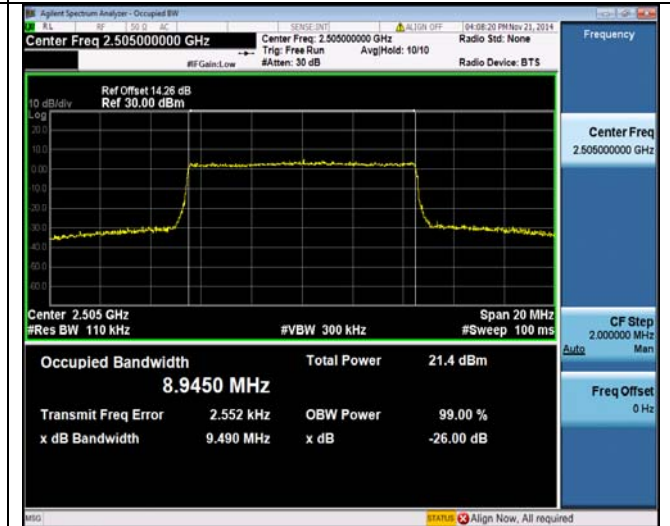
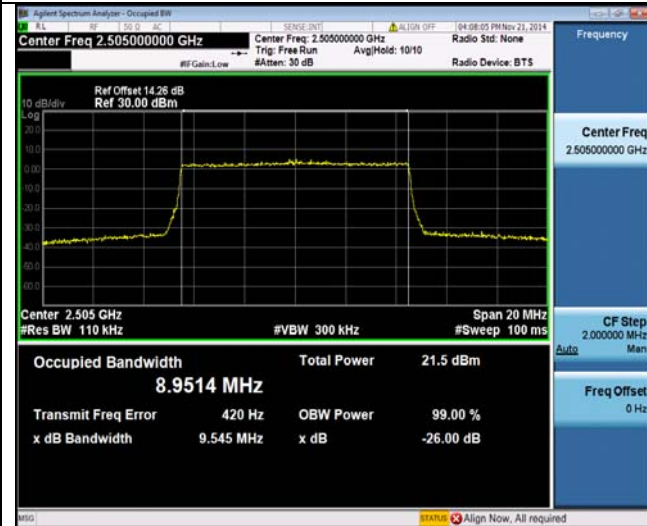
High Channel @ 25RB#0

High Channel @ 25RB#0

LTE FDD Band 7-10MHz Channel Bandwidth

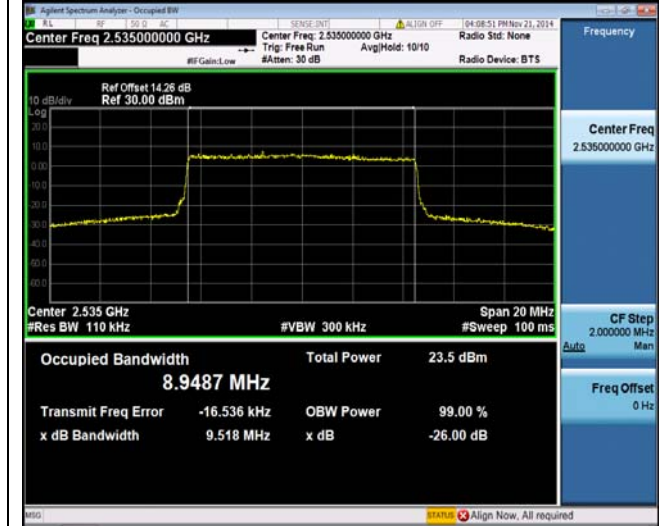
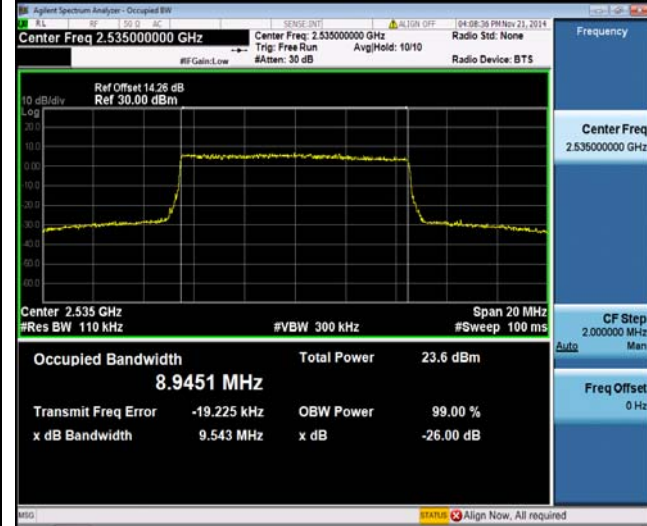
QPSK

16QAM



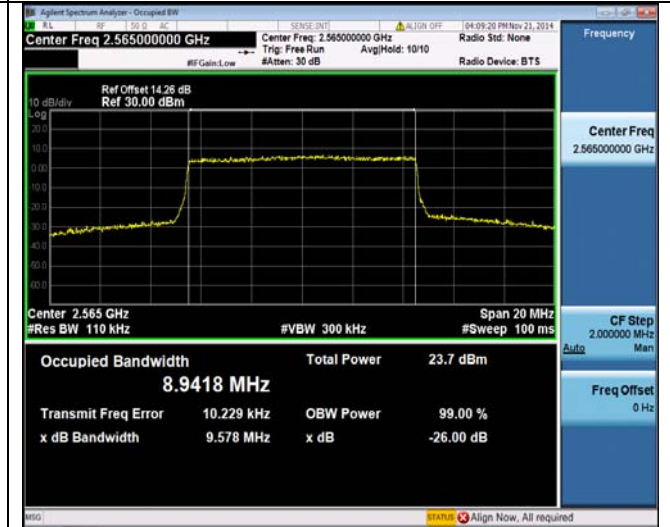
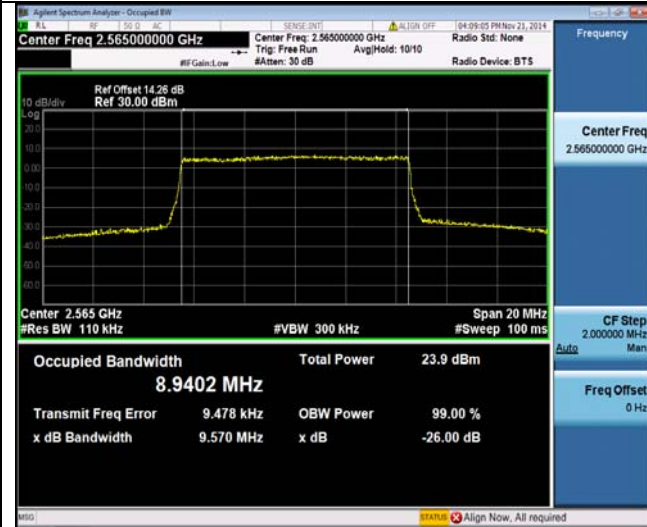
Low Channel @ 50RB#0

Low Channel @ 50RB#0



Middle Channel @ 50RB#0

Middle Channel @ 50RB#0



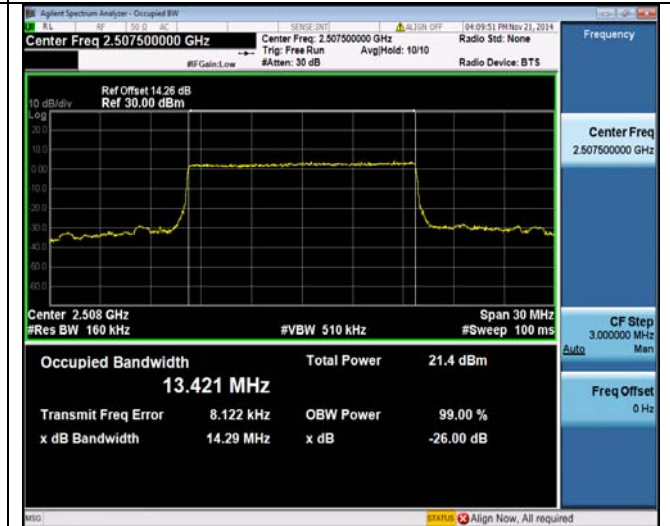
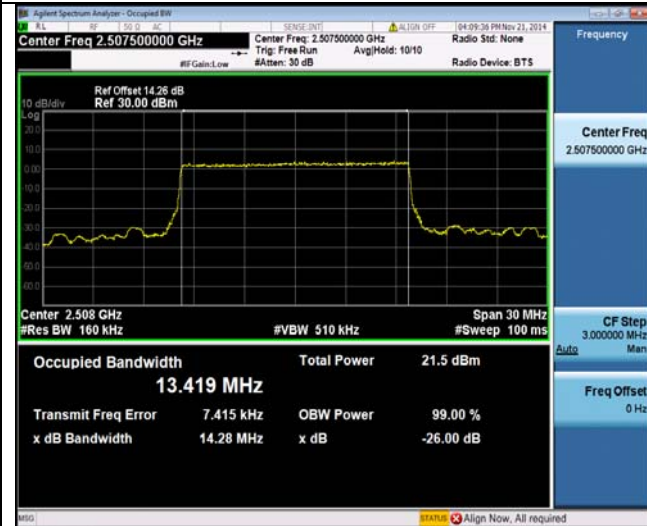
High Channel @ 50RB#0

High Channel @ 50RB#0

LTE FDD Band 7-15MHz Channel Bandwidth

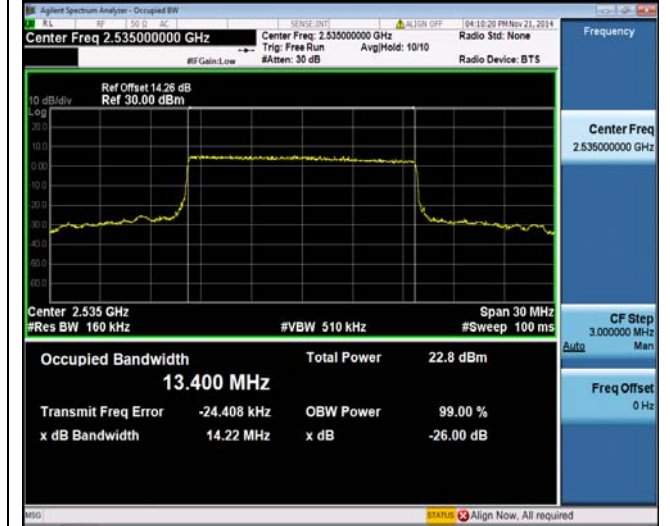
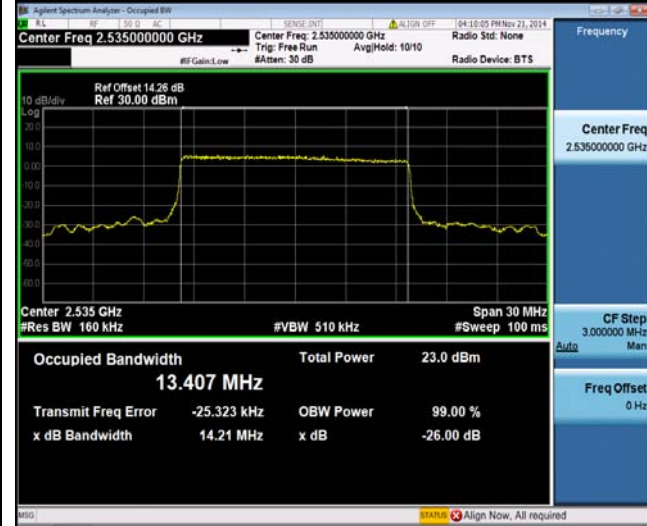
QPSK

16QAM



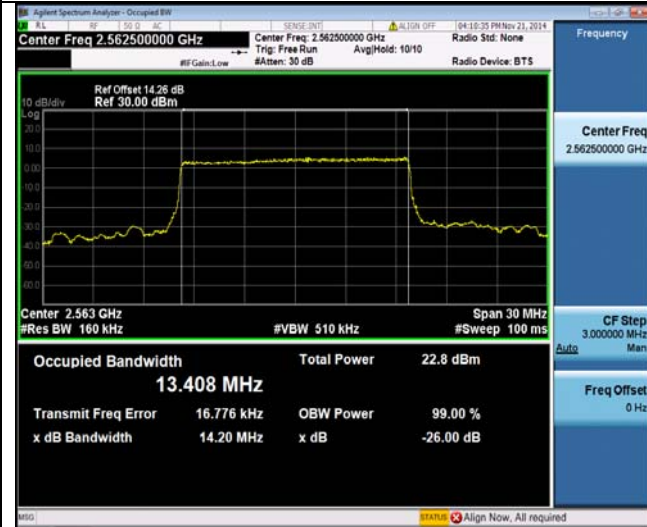
Low Channel @ 75RB#0

Low Channel @ 75RB#0



Middle Channel @ 75RB#0

Middle Channel @ 75RB#0



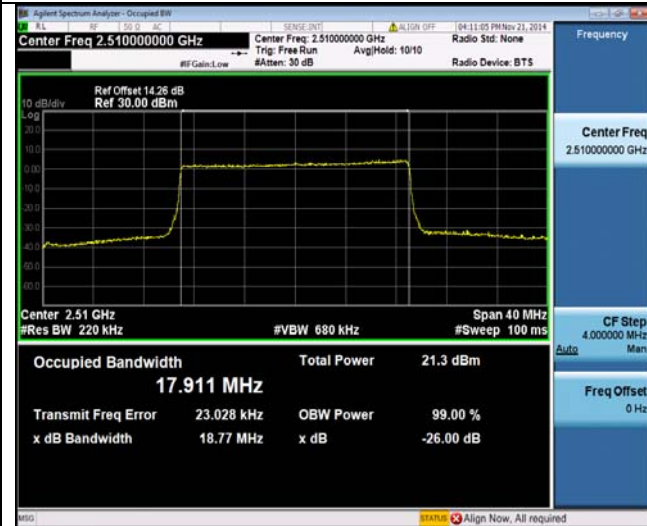
High Channel @ 75RB#0

High Channel @ 75RB#0

LTE FDD Band 7-20MHz Channel Bandwidth

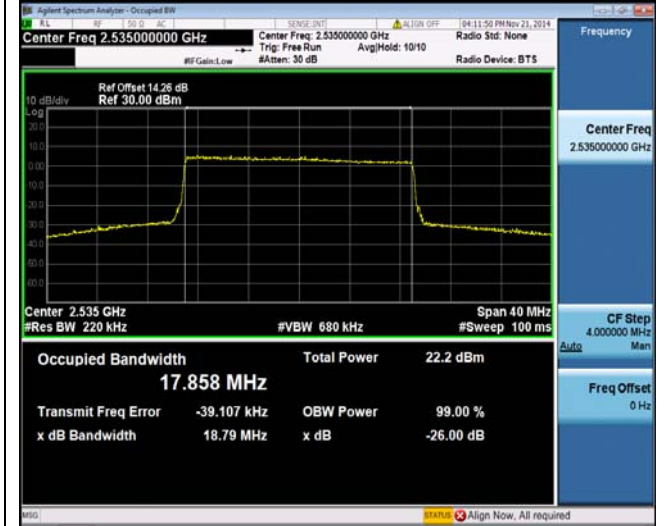
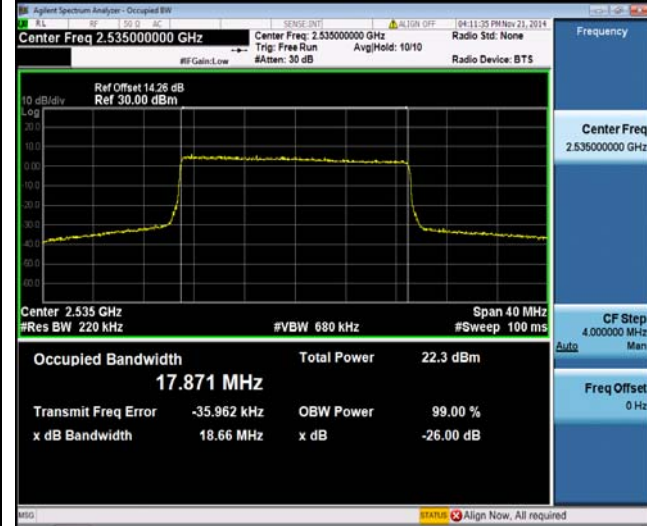
QPSK

16QAM



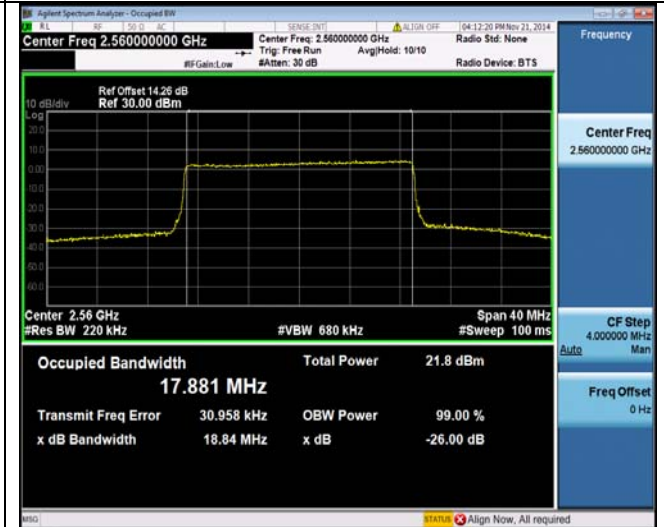
Low Channel @ 100RB#0

Low Channel @ 100RB#0



Middle Channel @ 100RB#0

Middle Channel @ 100RB#0



High Channel @ 100RB#0

High Channel @ 100RB#0