

RF TEST REPORT



Report No.: 16071314-FCC-R5-V1

Supersede Report No.: N/A

Applicant	Verykool USA Inc	
Product Name	Mobile Phone	
Model No.	SL5560	
Serial No.	N/A	
Test Standard	FCC Part 22(H):2015, FCC Part 24(E):2015, FCC Part 27: 2015; ANSI/TIA-603-D: 2010	
Test Date	November 16 to 21, 2016	
Issue Date	December 14, 2016	
Test Result	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail
Equipment complied with the specification		<input checked="" type="checkbox"/>
Equipment did not comply with the specification		<input type="checkbox"/>
Loren Luo	David Huang	
Loren Luo Test Engineer	David Huang Checked By	
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Test result presented in this test report is applicable to the tested sample only		

Issued by:

SIEMIC (SHENZHEN-CHINA) LABORATORIES

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Laboratories Introduction

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Accreditations for Conformity Assessment

Country/Region	Scope
USA	EMC, RF/Wireless, SAR, Telecom
Canada	EMC, RF/Wireless, SAR, Telecom
Taiwan	EMC, RF, Telecom, SAR, Safety
Hong Kong	RF/Wireless, SAR, Telecom
Australia	EMC, RF, Telecom, SAR, Safety
Korea	EMI, EMS, RF, SAR, Telecom, Safety
Japan	EMI, RF/Wireless, SAR, Telecom
Singapore	EMC, RF, SAR, Telecom
Europe	EMC, RF, SAR, Telecom, Safety

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1. Report Revision History

Report No.	Report Version	Description	Issue Date
16071314-FCC-R5	NONE	Original	November 22, 2016
16071314-FCC-R5-V1	V1	Updated the RF Operating frequency	December 14, 2016

2. Customer information

Applicant Name	Verykool USA Inc
Applicant Add	3636 Nobel Drive, Suite 325, San Diego, California 92122 United States
Manufacturer	VIKIN COMMUNICATION TECHNOLOGY CO.,LTD
Manufacturer Add	Room 1005, HSAE Technology Building, Hi-Tech Park, Nanshan District, Shenzhen

3. Test site information

Lab performing tests	SIEMIC (Shenzhen-China) LABORATORIES
Lab Address	Zone A, Floor 1, Building 2 Wan Ye Long Technology Park South Side of Zhoushi Road, Bao'an District, Shenzhen, Guangdong China 518108
FCC Test Site No.	718246
IC Test Site No.	4842E-1
Test Software	Radiated Emission Program-To Shenzhen v2.0

4. Equipment under Test (EUT) Information

Description of EUT:	Mobile Phone
Main Model:	SL5560
Serial Model:	N/A
Date EUT received:	November 15, 2016
Test Date(s):	November 16 to 21, 2016
Equipment Category :	PCE
Antenna Gain:	GSM850: -1.25dBi PCS1900: 1dBi UMTS-FDD Band V: -1.18dBi UMTS-FDD Band IV: 0.45dBi UMTS-FDD Band II: 1.19dBi LTE Band II: 1.17dBi LTE Band IV: 0.6dBi LTE Band V: -0.65dBi LTE Band VII: -0.72dBi LTE Band XII: -1.3dBi LTE Band XVII: -1.42dBi Bluetooth/BLE: 0.58dBi WIFI: 0.6dBi GPS: 0.71dBi
Antenna Type:	PIFA antenna
Type of Modulation:	GSM / GPRS: GMSK EGPRS: GMSK,8PSK UMTS-FDD: QPSK LTE Band: QPSK, 16QAM 802.11b/g/n: DSSS, OFDM Bluetooth: GFSK, π /4DQPSK, 8DPSK BLE: GFSK GPS:BPSK

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GSM850 TX: 824.2 ~ 848.8 MHz; RX: 869.2 ~ 893.8 MHz
PCS1900 TX: 1850.2 ~ 1909.8 MHz; RX: 1930.2 ~ 1989.8 MHz
UMTS-FDD Band V TX: 826.4 ~ 846.6 MHz; RX: 871.4 ~ 891.6 MHz
UMTS-FDD Band IV TX: 1712.4 ~ 1752.6 MHz;
RX : 2112.4 ~ 2152.6 MHz
UMTS-FDD Band II TX: 1852.4 ~ 1907.6 MHz;
RX: 1932.4 ~ 1987.6 MHz
LTE Band II TX: 1850.7 ~ 1909.3MHz; RX : 1930.7 ~ 1989.3 MHz
LTE Band IV TX: 1710.7 ~ 1754.3 MHz; RX : 2110.7~ 2154.3 MHz
LTE Band V TX: 824.7~ 848.3 MHz; RX : 869.7 ~ 893.3MHz
LTE Band VII TX: 2502.5 ~ 2567.5 MHz; RX : 2622.5 ~ 2687.5 MHz
LTE Band XII TX: 699.7 ~ 715.3 MHz; RX : 729.7~ 745.3MHz
LTE Band XVII TX: 706.5 ~ 713.5 MHz; RX : 736.5 ~ 743.5 MHz
WIFI: 802.11b/g/n(20M): 2412-2462 MHz
WIFI: 802.11n(40M): 2422-2452 MHz
Bluetooth& BLE: 2402-2480 MHz
GPS: 1575.42 MHz

RF Operating Frequency (ies):	LTE Band IV TX: 1710.7 ~ 1754.3 MHz; RX : 2110.7~ 2154.3 MHz LTE Band V TX: 824.7~ 848.3 MHz; RX : 869.7 ~ 893.3MHz LTE Band VII TX: 2502.5 ~ 2567.5 MHz; RX : 2622.5 ~ 2687.5 MHz LTE Band XII TX:699.7 ~ 715.3 MHz; RX : 729.7~ 745.3MHz LTE Band XVII TX: 706.5 ~ 713.5 MHz; RX : 736.5 ~ 743.5 MHz WIFI: 802.11b/g/n(20M): 2412-2462 MHz WIFI: 802.11n(40M): 2422-2452 MHz Bluetooth& BLE: 2402-2480 MHz GPS: 1575.42 MHz
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LTE Band I: 23.87 dBm
LTE Band IV: 24.16 dBm
LTE Band V: 23.49 dBm
LTE Band VII: 23.41 dBm
LTE Band XII: 23.35 dBm
LTE Band XVII: 23.29 dBm

Maximum Conducted AV Power to Antenna:	LTE Band V: 23.49 dBm
	LTE Band VII: 23.41 dBm
	LTE Band XII: 23.35 dBm
	LTE Band XVII: 23.29 dBm

LTE Band II: 25.01 dBm / EIRP
LTE Band IV: 24.72 dBm / EIRP
LTE Band V: 20.89 dBm / EIRP
LTE Band VII: 22.69 dBm / EIRP
LTE Band XII: 19.79 dBm / EIRP
LTE Band XVII: 19.63 dBm / ERP

ERP/EIRP:	LTE Band V: 20.89 dBm / EIRP
	LTE Band VII: 22.69 dBm / EIRP
	LTE Band XII: 19.79 dBm / EIRP
	LTE Band XVII: 19.63 dBm / ERP

Port: USB Port, Earphone Port

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Adapter:

Model: TPA-46050150UU

Input: AC100-240V~50/60Hz,0.3A

Output: DC 5.0V,1500mA

Input Power:

Battery:

Model: K456

Spec: 3.8V,3000mAh(11.4Wh)

Limited charger voltage: 4.35V

Trade Name : Verykool

FCC ID: WA6SL5560

5. Test Summary

The product was tested in accordance with the following specifications.

All testing has been performed according to below product classification:

FCC Rules	Description of Test	Result
§ 1.1307; § 2.1093	RF Exposure (SAR)	Compliance
§2.1046; § 22.913(a); § 24.232(c); § 27.50(c.10); § 27.50(d.4)	RF Output Power	Compliance
§ 24.232 (d); § 27.50(d)	Peak-Average Ratio	Compliance
§ 2.1049; § 22.905; § 22.917; § 24.238; § 27.53(a.5)	99% & -26 dB Occupied Bandwidth	Compliance
§ 2.1051; § 22.917(a); § 24.238(a); § 27.53(h)	Spurious Emissions at Antenna Terminal	Compliance
§ 2.1053; § 22.917(a); § 24.238(a); § 27.53(h)	Field Strength of Spurious Radiation	Compliance
§ 22.917(a); § 24.238(a);	Out of band emission, Band Edge	Compliance
§ 27.53(m)	Band Edge 27.53(m)	Compliance
§ 2.1055; § 22.355; § 24.235; § 27.5(h); § 27.54	Frequency stability vs. temperature Frequency stability vs. voltage	Compliance

Note: Testing was performed by configuring EUT to maximum output power status, the declared output power class for different

Measurement Uncertainty

Emissions		
Test Item	Description	Uncertainty
Band Edge and Radiated Spurious Emissions	Confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2 (for EUTs < 0.5m X 0.5m X 0.5m)	+5.6dB/-4.5dB
-	-	-

6. MEASUREMENTS, EXAMINATION AND DERIVED RESULTS

6.1 RF Exposure (SAR)

Test Result: Pass

The EUT is a portable device, thus requires SAR evaluation;

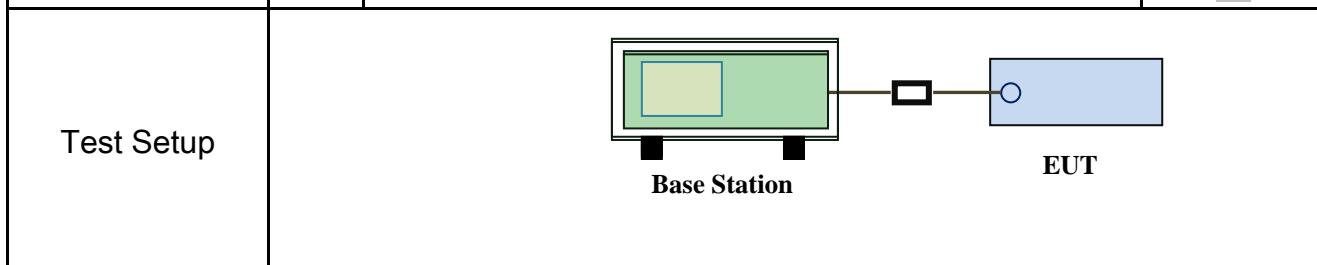
Please refer to RF Exposure Evaluation Report: 16071314-FCC-H.

6.2 RF Output Power

Temperature	23°C
Relative Humidity	51%
Atmospheric Pressure	1018mbar
Test date :	November 18, 2016
Tested By :	Loren Luo

Requirement(s):

Spec	Item	Requirement	Applicable
§22.913 (a)	a)	ERP:38.45dBm	<input checked="" type="checkbox"/>
§24.232 (c)	b)	EIRP:33dBm	<input checked="" type="checkbox"/>
§27.50 (c)	c)	EIRP: 30dBm	<input checked="" type="checkbox"/>



Test Procedure	<p>For Conducted Power:</p> <ul style="list-style-type: none"> - The transmitter output port was connected to base station. - Set EUT at maximum power through base station. - Select lowest, middle, and highest channels for each band and different test mode. <p>For ERP/EIRP:</p> <ul style="list-style-type: none"> - The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load which was also placed on the turntable. - The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis. - The frequency range up to tenth harmonic of the fundamental frequency was investigated.

	<ul style="list-style-type: none"> - Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution. - Spurious emissions in dB = $10 \log (\text{TX power in Watts}/0.001)$ – the absolute level - Spurious attenuation limit in dB = $43 + 10 \log_{10} (\text{power out in Watts})$.
Remark	
Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail

Test Data Yes N/A

Test Plot Yes (See below) N/A

Conducted Power

LTE Band II:

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
18700	1860.0	1860.0	QPSK	1	0	0	23.55	23±1
				1	49	0	23.53	23±1
				1	99	0	23.50	23±1
				50	0	1	22.49	23±1
				50	24	1	22.46	23±1
				50	49	1	22.41	23±1
				100	0	1	22.61	23±1
		1880.0	16QAM	1	0	1	22.87	22±1
				1	49	1	22.82	22±1
				1	99	1	22.81	22±1
				50	0	2	21.42	22±1
				50	24	2	21.49	22±1
				50	49	2	21.45	22±1
				100	0	2	21.57	22±1
20MHz	18900	1880.0	QPSK	1	0	0	23.72	23±1
				1	49	0	23.71	23±1
				1	99	0	23.75	23±1
				50	0	1	22.63	23±1
				50	24	1	22.61	23±1
				50	49	1	22.68	23±1
				100	0	1	22.57	23±1
		1900.0	16QAM	1	0	1	22.61	22±1
				1	49	1	22.60	22±1
				1	99	1	22.52	22±1
				50	0	2	21.72	22±1
				50	24	2	21.79	22±1
				50	49	2	21.74	22±1
				100	0	2	21.51	22±1
19100	1900.0	1900.0	QPSK	1	0	0	23.44	23±1
				1	49	0	23.42	23±1
				1	99	0	23.49	23±1
				50	0	1	22.50	23±1
				50	24	1	22.48	23±1
				50	49	1	22.51	23±1
				100	0	1	22.48	23±1
		1900.0	16QAM	1	0	1	22.72	22±1
				1	49	1	22.70	22±1
				1	99	1	22.75	22±1
				50	0	2	21.65	22±1
				50	24	2	21.68	22±1
				50	49	2	21.63	22±1
				100	0	2	21.51	22±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
15MHz	18675	1857.5	QPSK	1	0	0	23.47	23±1
				1	37	0	23.42	23±1
				1	74	0	23.45	23±1
				36	0	1	22.53	23±1
				36	16	1	22.55	23±1
				36	35	1	22.52	23±1
				75	0	1	22.58	23±1
	18900	1880.0	16QAM	1	0	1	22.95	22±1
				1	37	1	22.93	22±1
				1	74	1	22.96	22±1
				36	0	2	21.84	22±1
				36	16	2	21.82	22±1
				36	35	2	21.86	22±1
				75	0	2	21.57	22±1
	19125	1902.5	QPSK	1	0	0	23.68	23±1
				1	37	0	23.66	23±1
				1	74	0	23.70	23±1
				36	0	1	22.72	23±1
				36	16	1	22.73	23±1
				36	35	1	22.79	23±1
				75	0	1	22.77	23±1
	16QAM	16QAM	16QAM	1	0	1	22.45	22±1
				1	37	1	22.48	22±1
				1	74	1	22.46	22±1
				36	0	2	21.46	22±1
				36	16	2	21.48	22±1
				36	35	2	21.43	22±1
				75	0	2	21.64	22±1
	QPSK	QPSK	QPSK	1	0	0	23.41	23±1
				1	37	0	23.40	23±1
				1	74	0	23.38	23±1
				36	0	1	22.53	23±1
				36	16	1	22.56	23±1
				36	35	1	22.57	23±1
				75	0	1	22.54	23±1
	16QAM	16QAM	16QAM	1	0	1	22.76	22±1
				1	37	1	22.78	22±1
				1	74	1	22.73	22±1
				36	0	2	21.35	22±1
				36	16	2	21.34	22±1
				36	35	2	21.32	22±1
				75	0	2	21.48	22±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
10MHz	18650	1855	QPSK	1	0	0	23.57	23±1
				1	24	0	23.56	23±1
				1	49	0	23.59	23±1
				25	0	1	22.39	23±1
				25	12	1	22.34	23±1
				25	24	1	22.37	23±1
				50	0	1	22.41	23±1
	18900	1880.0	16QAM	1	0	1	22.28	22±1
				1	24	1	22.26	22±1
				1	49	1	22.31	22±1
				25	0	2	21.35	22±1
				25	12	2	21.37	22±1
				25	24	2	21.34	22±1
				50	0	2	21.46	22±1
19150	19150	1905	QPSK	1	0	0	23.52	23±1
				1	24	0	23.50	23±1
				1	49	0	23.56	23±1
				25	0	1	22.46	23±1
				25	12	1	22.49	23±1
				25	24	1	22.43	23±1
				50	0	1	22.46	23±1
	19150	1905	16QAM	1	0	1	23.04	22.3±1
				1	24	1	23.01	22.3±1
				1	49	1	23.06	22.3±1
				25	0	2	22.53	22.3±1
				25	12	2	22.57	22.3±1
				25	24	2	22.58	22.3±1
				50	0	2	21.54	22.3±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
5MHz	18625	1852.5	QPSK	1	0	0	23.58	23±1
				1	12	0	23.56	23±1
				1	24	0	23.54	23±1
				12	0	1	22.51	23±1
				12	6	1	22.50	23±1
				12	11	1	22.46	23±1
				25	0	1	22.43	23±1
			16QAM	1	0	1	22.44	22±1
				1	12	1	22.48	22±1
				1	24	1	22.49	22±1
				12	0	2	21.93	22±1
				12	6	2	21.91	22±1
				12	11	2	21.97	22±1
				25	0	2	21.60	22±1
5MHz	18900	1880.0	QPSK	1	0	0	23.82	23±1
				1	12	0	23.87	23±1
				1	24	0	23.86	23±1
				12	0	1	22.64	23±1
				12	6	1	22.68	23±1
				12	11	1	22.62	23±1
				25	0	1	22.59	23±1
			16QAM	1	0	1	22.60	22±1
				1	12	1	22.64	22±1
				1	24	1	22.66	22±1
				12	0	2	21.93	22±1
				12	6	2	21.94	22±1
				12	11	2	21.90	22±1
				25	0	2	21.53	22±1
5MHz	19175	1907.5	QPSK	1	0	0	23.45	23±1
				1	12	0	23.40	23±1
				1	24	0	23.46	23±1
				12	0	1	22.46	23±1
				12	6	1	22.47	23±1
				12	11	1	22.46	23±1
				25	0	1	22.39	23±1
			16QAM	1	0	1	22.69	22±1
				1	12	1	22.66	22±1
				1	24	1	22.68	22±1
				12	0	2	21.83	22±1
				12	6	2	21.86	22±1
				12	11	2	21.85	22±1
				25	0	2	21.36	22±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
3MHz	18625	1852.5	QPSK	1	0	0	23.34	23±1
				1	7	0	23.38	23±1
				1	14	0	23.35	23±1
				8	0	1	22.40	23±1
				8	4	1	22.41	23±1
				8	7	1	22.46	23±1
				15	0	1	22.44	23±1
			16QAM	1	0	1	22.85	22±1
				1	7	1	22.83	22±1
				1	14	1	22.89	22±1
				8	0	2	21.41	22±1
				8	4	2	21.47	22±1
				8	7	2	21.43	22±1
				15	0	2	21.58	22±1
	18900	1880.0	QPSK	1	0	0	23.62	23±1
				1	7	0	23.63	23±1
				1	14	0	23.66	23±1
				8	0	1	22.61	23±1
				8	4	1	22.63	23±1
				8	7	1	22.67	23±1
				15	0	1	22.60	23±1
			16QAM	1	0	1	22.34	22±1
				1	7	1	22.35	22±1
				1	14	1	22.38	22±1
				8	0	2	21.47	22±1
				8	4	2	21.49	22±1
				8	7	2	21.46	22±1
				15	0	2	21.48	22±1
	19175	1907.5	QPSK	1	0	0	23.42	23±1
				1	7	0	23.46	23±1
				1	14	0	23.48	23±1
				8	0	1	22.36	23±1
				8	4	1	22.38	23±1
				8	7	1	22.39	23±1
				15	0	1	22.38	23±1
			16QAM	1	0	1	22.33	22±1
				1	7	1	22.32	22±1
				1	14	1	22.38	22±1
				8	0	2	21.15	22±1
				8	4	2	21.13	22±1
				8	7	2	21.19	22±1
				15	0	2	21.37	22±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
1.4MHz	18607	1850.7	QPSK	1	0	0	23.40	23±1
				1	2	0	23.42	23±1
				1	5	0	23.49	23±1
				3	0	0	23.52	23±1
				3	1	0	23.50	23±1
				3	2	0	23.46	23±1
				6	0	1	22.38	23±1
			16QAM	1	0	1	22.01	22±1
				1	2	1	22.00	22±1
				1	5	1	22.06	22±1
				3	0	1	21.56	22±1
				3	1	1	21.53	22±1
				3	2	1	21.58	22±1
				6	0	2	21.30	22±1
1.4MHz	18900	1880.0	QPSK	1	0	0	23.61	23±1
				1	2	0	23.65	23±1
				1	5	0	23.68	23±1
				3	0	0	23.53	23±1
				3	1	0	23.54	23±1
				3	2	0	23.58	23±1
				6	0	1	22.59	23±1
			16QAM	1	0	1	22.46	22±1
				1	2	1	22.43	22±1
				1	5	1	22.48	22±1
				3	0	1	21.53	22±1
				3	1	1	21.59	22±1
				3	2	1	21.58	22±1
				6	0	2	21.32	22±1
1.4MHz	19193	1909.3	QPSK	1	0	0	23.34	23±1
				1	2	0	23.36	23±1
				1	5	0	23.31	23±1
				3	0	0	23.42	23±1
				3	1	0	23.41	23±1
				3	2	0	23.45	23±1
				6	0	1	22.35	23±1
			16QAM	1	0	1	21.94	22±1
				1	2	1	21.96	22±1
				1	5	1	21.92	22±1
				3	0	1	21.46	22±1
				3	1	1	21.49	22±1
				3	2	1	21.44	22±1
				6	0	2	21.21	22±1

LTE Band IV:

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
20MHz	20050	1720.0	QPSK	1	0	0	23.94	23±1
				1	49	0	23.95	23±1
				1	99	0	23.93	23±1
				50	0	1	22.96	23±1
				50	24	1	22.98	23±1
				50	49	1	22.91	23±1
				100	0	1	22.88	23±1
			16QAM	1	0	1	23.18	22.3±1
				1	49	1	23.16	22.3±1
				1	99	1	23.15	22.3±1
				50	0	2	22.06	22.3±1
				50	24	2	22.03	22.3±1
				50	49	2	22.04	22.3±1
				100	0	2	21.91	22.3±1
20300	20175	1732.5	QPSK	1	0	0	23.90	23±1
				1	49	0	23.85	23±1
				1	99	0	23.83	23±1
				50	0	1	22.81	23±1
				50	24	1	22.80	23±1
				50	49	1	22.76	23±1
				100	0	1	22.71	23±1
			16QAM	1	0	1	23.27	22.5±1
				1	49	1	23.22	22.5±1
				1	99	1	23.23	22.5±1
				50	0	2	22.53	22.5±1
				50	24	2	22.51	22.5±1
				50	49	2	22.55	22.5±1
				100	0	2	21.74	22.5±1
20300	20300	1745.0	QPSK	1	0	0	23.82	23±1
				1	49	0	23.85	23±1
				1	99	0	23.80	23±1
				50	0	1	22.59	23±1
				50	24	1	22.61	23±1
				50	49	1	22.62	23±1
				100	0	1	22.52	23±1
			16QAM	1	0	1	22.65	22±1
				1	49	1	22.63	22±1
				1	99	1	22.64	22±1
				50	0	2	21.83	22±1
				50	24	2	21.84	22±1
				50	49	2	21.88	22±1
				100	0	2	21.56	22±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
20025	1717.5	20025	QPSK	1	0	0	23.95	23±1
				1	37	0	23.86	23±1
				1	74	0	23.89	23±1
				36	0	1	23.03	23±1
				36	16	1	23.00	23±1
				36	35	1	23.01	23±1
				75	0	1	22.99	23±1
		1717.5	16QAM	1	0	1	23.51	22.7±1
				1	37	1	23.50	22.7±1
				1	74	1	23.56	22.7±1
				36	0	2	22.53	22.7±1
				36	16	2	22.54	22.7±1
				36	35	2	22.52	22.7±1
				75	0	2	22.00	22.7±1
15MHz	2017.5	2017.5	QPSK	1	0	0	23.95	23.5±1
				1	37	0	23.92	23.5±1
				1	74	0	23.90	23.5±1
				36	0	1	22.90	23.5±1
				36	16	1	22.91	23.5±1
				36	35	1	22.95	23.5±1
				75	0	1	22.83	23.5±1
		2017.5	16QAM	1	0	1	22.71	22±1
				1	37	1	22.74	22±1
				1	74	1	22.76	22±1
				36	0	2	21.64	22±1
				36	16	2	21.63	22±1
				36	35	2	21.67	22±1
				75	0	2	21.83	22±1
20325	20325	20325	QPSK	1	0	0	23.62	23±1
				1	37	0	23.61	23±1
				1	74	0	23.59	23±1
				36	0	1	22.66	23±1
				36	16	1	22.61	23±1
				36	35	1	22.68	23±1
				75	0	1	22.58	23±1
		20325	16QAM	1	0	1	22.77	22±1
				1	37	1	22.81	22±1
				1	74	1	22.73	22±1
				36	0	2	21.95	22±1
				36	16	2	21.93	22±1
				36	35	2	22.03	22±1
				75	0	2	21.53	22±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
20000	1715.0	1715.0	QPSK	1	0	0	23.93	23.5±1
				1	24	0	23.91	23.5±1
				1	49	0	23.90	23.5±1
				25	0	1	22.97	23.5±1
				25	12	1	22.93	23.5±1
				25	24	1	22.96	23.5±1
				50	0	1	22.94	23.5±1
		1732.5	16QAM	1	0	1	23.53	23±1
				1	24	1	23.51	23±1
				1	49	1	23.49	23±1
				25	0	2	22.64	23±1
				25	12	2	22.61	23±1
				25	24	2	22.60	23±1
				50	0	2	22.01	23±1
10MHz	20175	1732.5	QPSK	1	0	0	23.91	23.5±1
				1	24	0	23.90	23.5±1
				1	49	0	23.86	23.5±1
				25	0	1	22.77	23.5±1
				25	12	1	22.71	23.5±1
				25	24	1	22.63	23.5±1
				50	0	1	22.73	23.5±1
		1750.0	16QAM	1	0	1	22.66	22±1
				1	24	1	22.61	22±1
				1	49	1	22.68	22±1
				25	0	2	22.06	22±1
				25	12	2	22.03	22±1
				25	24	2	22.05	22±1
				50	0	2	21.76	22±1
20350	1750.0	1750.0	QPSK	1	0	0	23.63	23±1
				1	24	0	23.61	23±1
				1	49	0	23.62	23±1
				25	0	1	22.50	23±1
				25	12	1	22.51	23±1
				25	24	1	22.56	23±1
				50	0	1	22.47	23±1
		1750.0	16QAM	1	0	1	22.54	22±1
				1	24	1	22.48	22±1
				1	49	1	22.55	22±1
				25	0	2	21.83	22±1
				25	12	2	21.85	22±1
				25	24	2	21.82	22±1
				50	0	2	21.53	22±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
20000	1715.0	1715.0	QPSK	1	0	0	24.09	23.5±1
				1	12	0	24.05	23.5±1
				1	24	0	24.01	23.5±1
				12	0	1	23.04	23.5±1
				12	6	1	23.06	23.5±1
				12	11	1	23.08	23.5±1
				25	0	1	22.97	23.5±1
		1732.5	16QAM	1	0	1	22.98	22±1
				1	12	1	22.95	22±1
				1	24	1	22.94	22±1
				12	0	2	22.53	22±1
				12	6	2	22.57	22±1
				12	11	2	22.51	22±1
				25	0	2	22.14	22±1
5MHz	20175	1732.5	QPSK	1	0	0	23.97	23.5±1
				1	12	0	23.95	23.5±1
				1	24	0	23.91	23.5±1
				12	0	1	22.81	23.5±1
				12	6	1	22.86	23.5±1
				12	11	1	22.80	23.5±1
				25	0	1	22.72	23.5±1
		1750.0	16QAM	1	0	1	22.81	22±1
				1	12	1	22.79	22±1
				1	24	1	22.83	22±1
				12	0	2	21.63	22±1
				12	6	2	21.61	22±1
				12	11	2	21.53	22±1
				25	0	2	21.75	22±1
20350	20350	1750.0	QPSK	1	0	0	23.47	23±1
				1	12	0	23.46	23±1
				1	24	0	23.41	23±1
				12	0	1	22.50	23±1
				12	6	1	22.49	23±1
				12	11	1	22.53	23±1
				25	0	1	22.42	23±1
		1750.0	16QAM	1	0	1	22.74	22±1
				1	12	1	22.73	22±1
				1	24	1	22.79	22±1
				12	0	2	22.05	22±1
				12	6	2	22.09	22±1
				12	11	2	22.03	22±1
				25	0	2	21.45	22±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
19965	1711.5	1711.5	QPSK	1	0	0	23.84	23.5±1
				1	7	0	23.82	23.5±1
				1	14	0	23.86	23.5±1
				8	0	1	22.91	23.5±1
				8	4	1	22.95	23.5±1
				8	7	1	22.91	23.5±1
				15	0	1	23.00	23.5±1
		1732.5	16QAM	1	0	1	23.45	23±1
				1	7	1	23.46	23±1
				1	14	1	23.52	23±1
				8	0	2	22.94	23±1
				8	4	2	22.96	23±1
				8	7	2	22.99	23±1
				15	0	2	22.13	23±1
3MHz	20175	1732.5	QPSK	1	0	0	23.80	23±1
				1	7	0	23.81	23±1
				1	14	0	23.75	23±1
				8	0	1	22.69	23±1
				8	4	1	22.61	23±1
				8	7	1	22.67	23±1
				15	0	1	22.72	23±1
		1753.5	16QAM	1	0	1	22.53	22±1
				1	7	1	22.52	22±1
				1	14	1	22.59	22±1
				8	0	2	21.66	22±1
				8	4	2	21.61	22±1
				8	7	2	21.65	22±1
				15	0	2	21.69	22±1
20385	20385	1753.5	QPSK	1	0	0	23.43	23±1
				1	7	0	23.42	23±1
				1	14	0	23.49	23±1
				8	0	1	22.33	23±1
				8	4	1	22.35	23±1
				8	7	1	22.31	23±1
				15	0	1	22.44	23±1
		1753.5	16QAM	1	0	1	22.34	22±1
				1	7	1	22.31	22±1
				1	14	1	22.38	22±1
				8	0	2	21.22	22±1
				8	4	2	21.23	22±1
				8	7	2	21.26	22±1
				15	0	2	21.48	22±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
19957	1710.7		QPSK	1	0	0	23.91	23.5±1
				1	2	0	23.96	23.5±1
				1	5	0	23.90	23.5±1
				3	0	0	24.11	23.5±1
				3	1	0	24.16	23.5±1
				3	2	0	24.13	23.5±1
				6	0	1	22.92	23.5±1
		16QAM	16QAM	1	0	1	22.55	22±1
				1	2	1	22.51	22±1
				1	5	1	22.49	22±1
				3	0	1	21.80	22±1
				3	1	1	21.86	22±1
				3	2	1	21.83	22±1
				6	0	2	21.87	22±1
1.4MHz	20175		QPSK	1	0	0	23.81	23±1
				1	2	0	23.84	23±1
				1	5	0	23.89	23±1
				3	0	0	23.88	23±1
				3	1	0	23.84	23±1
				3	2	0	23.88	23±1
				6	0	1	22.68	23±1
		16QAM	16QAM	1	0	1	22.55	22±1
				1	2	1	22.57	22±1
				1	5	1	22.53	22±1
				3	0	1	22.03	22±1
				3	1	1	22.06	22±1
				3	2	1	22.04	22±1
				6	0	2	21.67	22±1
20393	1754.3		QPSK	1	0	0	23.45	23±1
				1	2	0	23.49	23±1
				1	5	0	23.46	23±1
				3	0	0	23.52	23±1
				3	1	0	23.53	23±1
				3	2	0	23.59	23±1
				6	0	1	22.36	23±1
		16QAM	16QAM	1	0	1	22.36	22±1
				1	2	1	22.34	22±1
				1	5	1	22.38	22±1
				3	0	1	21.64	22±1
				3	1	1	21.63	22±1
				3	2	1	21.66	22±1
				6	0	2	21.26	22±1

LTE Band V:

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
20450	829	20450	QPSK	1	0	0	23.32	23±1
				1	24	0	23.31	23±1
				1	49	0	23.35	23±1
				25	0	1	22.41	23±1
				25	12	1	22.45	23±1
				25	24	1	22.47	23±1
				50	0	1	22.33	23±1
		20525	16QAM	1	0	1	22.99	22±1
				1	24	1	22.96	22±1
				1	49	1	22.98	22±1
				25	0	2	21.32	22±1
				25	12	2	21.35	22±1
				25	24	2	21.38	22±1
				50	0	2	21.48	22±1
10MHz	836.5	20525	QPSK	1	0	0	23.33	23±1
				1	24	0	23.30	23±1
				1	49	0	23.29	23±1
				25	0	1	22.20	23±1
				25	12	1	22.16	23±1
				25	24	1	22.23	23±1
				50	0	1	22.16	23±1
		20600	16QAM	1	0	1	22.14	22±1
				1	24	1	22.17	22±1
				1	49	1	22.16	22±1
				25	0	2	21.92	22±1
				25	12	2	21.98	22±1
				25	24	2	21.96	22±1
				50	0	2	21.25	22±1
		20600	QPSK	1	0	0	23.10	23±1
				1	24	0	23.16	23±1
				1	49	0	23.08	23±1
				25	0	1	22.06	23±1
				25	12	1	22.03	23±1
				25	24	1	22.07	23±1
				50	0	1	22.10	23±1
		844	16QAM	1	0	1	22.07	22±1
				1	24	1	22.04	22±1
				1	49	1	22.06	22±1
				25	0	2	21.85	22±1
				25	12	2	21.89	22±1
				25	24	2	21.84	22±1
				50	0	2	21.20	22±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
5MHz	20425	826.5	QPSK	1	0	0	23.43	23±1
				1	12	0	23.42	23±1
				1	24	0	23.46	23±1
				12	0	1	22.50	23±1
				12	6	1	22.51	23±1
				12	11	1	22.46	23±1
				25	0	1	22.41	23±1
			16QAM	1	0	1	22.44	22±1
				1	12	1	22.43	22±1
				1	24	1	22.48	22±1
				12	0	2	21.92	22±1
				12	6	2	21.94	22±1
				12	11	2	21.97	22±1
				25	0	2	21.60	22±1
5MHz	20525	836.5	QPSK	1	0	0	23.29	23±1
				1	12	0	23.27	23±1
				1	24	0	23.21	23±1
				12	0	1	22.23	23±1
				12	6	1	22.26	23±1
				12	11	1	22.25	23±1
				25	0	1	22.15	23±1
			16QAM	1	0	1	22.25	22±1
				1	12	1	22.23	22±1
				1	24	1	22.28	22±1
				12	0	2	21.96	22±1
				12	6	2	21.95	22±1
				12	11	2	21.99	22±1
				25	0	2	21.18	22±1
5MHz	20625	846.5	QPSK	1	0	0	23.06	23±1
				1	12	0	23.01	23±1
				1	24	0	22.96	23±1
				12	0	1	22.18	23±1
				12	6	1	22.20	23±1
				12	11	1	22.21	23±1
				25	0	1	22.17	23±1
			16QAM	1	0	1	22.50	22±1
				1	12	1	22.51	22±1
				1	24	1	22.53	22±1
				12	0	2	21.78	22±1
				12	6	2	21.89	22±1
				12	11	2	21.79	22±1
				25	0	2	21.22	22±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
20415	825.5	20415	QPSK	1	0	0	23.21	23±1
				1	7	0	23.24	23±1
				1	14	0	23.29	23±1
				8	0	1	22.35	23±1
				8	4	1	22.31	23±1
				8	7	1	22.34	23±1
				15	0	1	22.43	23±1
		20525	16QAM	1	0	1	22.89	22±1
				1	7	1	22.87	22±1
				1	14	1	22.85	22±1
				8	0	2	21.37	22±1
				8	4	2	21.35	22±1
				8	7	2	21.36	22±1
				15	0	2	21.57	22±1
3MHz	20635	20635	QPSK	1	0	0	23.12	23±1
				1	7	0	23.18	23±1
				1	14	0	23.11	23±1
				8	0	1	22.10	23±1
				8	4	1	22.15	23±1
				8	7	1	22.05	23±1
				15	0	1	22.11	23±1
		20635	16QAM	1	0	1	21.96	22±1
				1	7	1	21.93	22±1
				1	14	1	21.94	22±1
				8	0	2	21.10	22±1
				8	4	2	21.12	22±1
				8	7	2	21.09	22±1
				15	0	2	21.13	22±1
847.5	20635	20635	QPSK	1	0	0	23.09	23±1
				1	7	0	23.06	23±1
				1	14	0	23.01	23±1
				8	0	1	22.03	23±1
				8	4	1	22.05	23±1
				8	7	1	22.01	23±1
				15	0	1	22.16	23±1
		20635	16QAM	1	0	1	22.08	21.3±1
				1	7	1	22.05	21.3±1
				1	14	1	22.01	21.3±1
				8	0	2	20.93	21.3±1
				8	4	2	20.94	21.3±1
				8	7	2	20.97	21.3±1
				15	0	2	21.22	21.3±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
20407	824.7	QPSK	1	0	0	23.28	23±1	
			1	2	0	23.26	23±1	
			1	5	0	23.25	23±1	
			3	0	0	23.49	23±1	
			3	1	0	23.48	23±1	
			3	2	0	23.41	23±1	
			6	0	1	22.53	23±1	
		16QAM	1	0	1	21.98	22±1	
			1	2	1	21.87	22±1	
			1	5	1	21.85	22±1	
			3	0	1	21.23	22±1	
			3	1	1	21.26	22±1	
			3	2	1	21.20	22±1	
			6	0	2	21.31	22±1	
1.4MHz	20525	QPSK	1	0	0	23.01	23±1	
			1	2	0	23.00	23±1	
			1	5	0	22.96	23±1	
			3	0	0	23.20	23±1	
			3	1	0	23.26	23±1	
			3	2	0	23.27	23±1	
			6	0	1	22.05	23±1	
		16QAM	1	0	1	21.72	21.3±1	
			1	2	1	21.75	21.3±1	
			1	5	1	21.69	21.3±1	
			3	0	1	20.53	21.3±1	
			3	1	1	20.59	21.3±1	
			3	2	1	20.61	21.3±1	
			6	0	2	21.02	21.3±1	
20643	848.3	QPSK	1	0	0	22.87	22.5±1	
			1	2	0	22.83	22.5±1	
			1	5	0	22.84	22.5±1	
			3	0	0	22.99	22.5±1	
			3	1	0	23.00	22.5±1	
			3	2	0	23.02	22.5±1	
			6	0	1	21.82	22.5±1	
		16QAM	1	0	1	21.72	21.3±1	
			1	2	1	21.73	21.3±1	
			1	5	1	21.79	21.3±1	
			3	0	1	20.93	21.3±1	
			3	1	1	20.99	21.3±1	
			3	2	1	21.03	21.3±1	
			6	0	2	20.82	21.3±1	

LTE Band VII:

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
20MHz	20850	2510	QPSK	1	0	0	22.68	22±1
				1	49	0	22.63	22±1
				1	99	0	22.65	22±1
				50	0	1	21.95	22±1
				50	24	1	21.94	22±1
				50	49	1	21.99	22±1
				100	0	1	21.93	22±1
			16QAM	1	0	1	22.04	21.3±1
				1	49	1	22.06.	21.3±1
				1	99	1	22.03	21.3±1
				50	0	2	21.58	21.3±1
				50	24	2	21.59	21.3±1
				50	49	2	21.52	21.3±1
				100	0	2	21.05	21.3±1
20MHz	21100	2535	QPSK	1	0	0	22.89	22±1
				1	49	0	22.81	22±1
				1	99	0	22.85	22±1
				50	0	1	22.10	22±1
				50	24	1	22.05	22±1
				50	49	1	22.08	22±1
				100	0	1	22.17	22±1
			16QAM	1	0	1	21.94	21.3±1
				1	49	1	21.95	21.3±1
				1	99	1	21.99	21.3±1
				50	0	2	21.03	21.3±1
				50	24	2	21.05	21.3±1
				50	49	2	21.06	21.3±1
				100	0	2	21.19	21.3±1
20MHz	21350	2560	QPSK	1	0	0	22.42	22±1
				1	49	0	22.45	22±1
				1	99	0	22.49	22±1
				50	0	1	21.89	22±1
				50	24	1	21.86	22±1
				50	49	1	21.84	22±1
				100	0	1	22.03	22±1
			16QAM	1	0	1	21.88	21.3±1
				1	49	1	21.84	21.3±1
				1	99	1	21.81	21.3±1
				50	0	2	20.99	21.3±1
				50	24	2	20.95	21.3±1
				50	49	2	20.98	21.3±1
				100	0	2	21.25	21.3±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
20825	1717.5	1717.5	QPSK	1	0	0	22.57	22±1
				1	37	0	22.52	22±1
				1	74	0	22.86	22±1
				36	0	1	21.95	22±1
				36	16	1	21.93	22±1
				36	35	1	21.89	22±1
				75	0	1	22.13	22±1
		1732.5	16QAM	1	0	1	22.10	22±1
				1	37	1	22.13	22±1
				1	74	1	22.06	22±1
				36	0	2	21.53	22±1
				36	16	2	21.58	22±1
				36	35	2	21.55	22±1
				75	0	2	21.11	22±1
15MHz	21100	1732.5	QPSK	1	0	0	23.04	22.5±1
				1	37	0	23.06	22.5±1
				1	74	0	23.01	22.5±1
				36	0	1	22.18	22.5±1
				36	16	1	22.19	22.5±1
				36	35	1	22.12	22.5±1
				75	0	1	22.25	22.5±1
		1747.5	16QAM	1	0	1	22.01	21.3±1
				1	37	1	22.04	21.3±1
				1	74	1	22.03	21.3±1
				36	0	2	21.13	21.3±1
				36	16	2	21.18	21.3±1
				36	35	2	21.16	21.3±1
				75	0	2	21.22	21.3±1
21375	21375	1747.5	QPSK	1	0	0	22.84	22±1
				1	37	0	22.83	22±1
				1	74	0	22.89	22±1
				36	0	1	22.27	22±1
				36	16	1	22.29	22±1
				36	35	1	22.23	22±1
				75	0	1	22.36	22±1
		1747.5	16QAM	1	0	1	22.26	22±1
				1	37	1	22.22	22±1
				1	74	1	22.25	22±1
				36	0	2	21.64	22±1
				36	16	2	21.69	22±1
				36	35	2	21.63	22±1
				75	0	2	21.32	22±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
10MHz	20800	2502	QPSK	1	0	0	22.72	22±1
				1	24	0	22.75	22±1
				1	49	0	22.73	22±1
				25	0	1	21.75	22±1
				25	12	1	21.79	22±1
				25	24	1	21.74	22±1
				50	0	1	21.96	22±1
	21100	2535	16QAM	1	0	1	21.61	21.3±1
				1	24	1	21.64	21.3±1
				1	49	1	21.67	21.3±1
				25	0	2	21.03	21.3±1
				25	12	2	21.06	21.3±1
				25	24	2	20.93	21.3±1
				50	0	2	20.95	21.3±1
	21400	2565	QPSK	1	0	0	22.86	22±1
				1	24	0	22.81	22±1
				1	49	0	22.87	22±1
				25	0	1	22.10	22±1
				25	12	1	22.14	22±1
				25	24	1	22.08	22±1
				50	0	1	22.14	22±1
			16QAM	1	0	1	21.94	22±1
				1	24	1	21.92	22±1
				1	49	1	21.99	22±1
				25	0	2	21.33	22±1
				25	12	2	21.38	22±1
				25	24	2	21.36	22±1
				50	0	2	21.17	22±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
5MHz	19975	1712.5	QPSK	1	0	0	22.68	22±1
				1	12	0	22.64	22±1
				1	24	0	22.63	22±1
				12	0	1	21.72	22±1
				12	6	1	21.70	22±1
				12	11	1	21.79	22±1
				25	0	1	21.76	22±1
			16QAM	1	0	1	21.58	21.3±1
				1	12	1	21.54	21.3±1
				1	24	1	21.55	21.3±1
				12	0	2	21.03	21.3±1
				12	6	2	21.08	21.3±1
				12	11	2	21.06	21.3±1
				25	0	2	20.86	21.3±1
5MHz	20175	1732.5	QPSK	1	0	0	23.35	22.5±1
				1	12	0	23.39	22.5±1
				1	24	0	23.34	22.5±1
				12	0	1	22.25	22.5±1
				12	6	1	22.24	22.5±1
				12	11	1	22.22	22.5±1
				25	0	1	22.17	22.5±1
			16QAM	1	0	1	22.21	22±1
				1	12	1	22.20	22±1
				1	24	1	22.23	22±1
				12	0	2	22.04	22±1
				12	6	2	22.08	22±1
				12	11	2	22.01	22±1
				25	0	2	21.17	22±1
5MHz	20375	1752.5	QPSK	1	0	0	23.41	22.5±1
				1	12	0	23.38	22.5±1
				1	24	0	23.35	22.5±1
				12	0	1	22.14	22.5±1
				12	6	1	22.16	22.5±1
				12	11	1	22.13	22.5±1
				25	0	1	21.94	22.5±1
			16QAM	1	0	1	22.61	22±1
				1	12	1	22.68	22±1
				1	24	1	22.64	22±1
				12	0	2	21.83	22±1
				12	6	2	21.84	22±1
				12	11	2	21.82	22±1
				25	0	2	21.26	22±1

LTE Band XII:

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
23060	704	QPSK	1	0	0	22.83	22±1	
			1	24	0	22.85	22±1	
			1	49	0	22.86	22±1	
			25	0	1	21.91	22±1	
			25	12	1	21.97	22±1	
			25	24	1	21.95	22±1	
			50	0	1	22.00	22±1	
		16QAM	1	0	1	22.41	22±1	
			1	24	1	22.46	22±1	
			1	49	1	22.43	22±1	
			25	0	2	21.63	22±1	
			25	12	2	21.64	22±1	
			25	24	2	21.67	22±1	
			50	0	2	21.07	22±1	
10MHz	23095	QPSK	1	0	0	22.87	22±1	
			1	24	0	22.85	22±1	
			1	49	0	22.83	22±1	
			25	0	1	22.02	22±1	
			25	12	1	22.03	22±1	
			25	24	1	22.02	22±1	
			50	0	1	22.11	22±1	
		16QAM	1	0	1	21.77	22±1	
			1	24	1	21.75	22±1	
			1	49	1	21.74	22±1	
			25	0	2	21.36	22±1	
			25	12	2	21.35	22±1	
			25	24	2	21.34	22±1	
			50	0	2	21.13	22±1	
23130	711	QPSK	1	0	0	23.05	23±1	
			1	24	0	23.08	23±1	
			1	49	0	23.01	23±1	
			25	0	1	22.15	23±1	
			25	12	1	22.19	23±1	
			25	24	1	22.13	23±1	
			50	0	1	22.22	23±1	
		16QAM	1	0	1	22.01	22±1	
			1	24	1	22.05	22±1	
			1	49	1	22.03	22±1	
			25	0	2	21.83	22±1	
			25	12	2	21.85	22±1	
			25	24	2	21.81	22±1	
			50	0	2	21.26	22±1	

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
23035	701.5	QPSK	1	0	0	22.95	22.5±1	
			1	12	0	22.93	22.5±1	
			1	24	0	22.95	22.5±1	
			12	0	1	21.95	22.5±1	
			12	6	1	21.96	22.5±1	
			12	11	1	21.99	22.5±1	
			25	0	1	21.86	22.5±1	
		16QAM	1	0	1	21.85	21.3±1	
			1	12	1	21.83	21.3±1	
			1	24	1	21.88	21.3±1	
			12	0	2	21.32	21.3±1	
			12	6	2	21.36	21.3±1	
			12	11	2	21.37	21.3±1	
			25	0	2	20.86	21.3±1	
5MHz	23095	QPSK	1	0	0	22.95	22±1	
			1	12	0	22.96	22±1	
			1	24	0	22.99	22±1	
			12	0	1	22.08	22±1	
			12	6	1	22.06	22±1	
			12	11	1	22.09	22±1	
			25	0	1	22.11	22±1	
		16QAM	1	0	1	21.93	21.3±1	
			1	12	1	21.96	21.3±1	
			1	24	1	21.98	21.3±1	
			12	0	2	21.56	21.3±1	
			12	6	2	21.54	21.3±1	
			12	11	2	21.49	21.3±1	
			25	0	2	21.24	21.3±1	
23155	713.5	QPSK	1	0	0	23.33	23±1	
			1	12	0	23.13	23±1	
			1	24	0	23.35	23±1	
			12	0	1	22.36	23±1	
			12	6	1	22.38	23±1	
			12	11	1	22.33	23±1	
			25	0	1	22.29	23±1	
		16QAM	1	0	1	22.47	22±1	
			1	12	1	22.41	22±1	
			1	24	1	22.40	22±1	
			12	0	2	21.63	22±1	
			12	6	2	21.68	22±1	
			12	11	2	21.63	22±1	
			25	0	2	21.28	22±1	

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
23025	700.5	700.5	QPSK	1	0	0	22.61	22±1
				1	7	0	22.63	22±1
				1	14	0	22.67	22±1
				8	0	1	21.77	22±1
				8	4	1	21.75	22±1
				8	7	1	21.77	22±1
				15	0	1	21.91	22±1
			16QAM	1	0	1	22.20	21.5±1
				1	7	1	22.23	21.5±1
				1	14	1	22.25	21.5±1
				8	0	2	20.73	21.5±1
				8	4	2	20.75	21.5±1
				8	7	2	20.73	21.5±1
				15	0	2	20.98	21.5±1
3MHz	23095	707.5	QPSK	1	0	0	22.97	22.5±1
				1	7	0	22.91	22.5±1
				1	14	0	22.95	22.5±1
				8	0	1	21.96	22.5±1
				8	4	1	21.93	22.5±1
				8	7	1	21.91	22.5±1
				15	0	1	22.11	22.5±1
			16QAM	1	0	1	21.84	21.3±1
				1	7	1	21.85	21.3±1
				1	14	1	21.83	21.3±1
				8	0	2	20.92	21.3±1
				8	4	2	20.93	21.3±1
				8	7	2	21.02	21.3±1
				15	0	2	21.07	21.3±1
23025	23025	714.5	QPSK	1	0	0	23.33	22.5±1
				1	7	0	23.31	22.5±1
				1	14	0	23.32	22.5±1
				8	0	1	22.24	22.5±1
				8	4	1	22.28	22.5±1
				8	7	1	22.20	22.5±1
				15	0	1	22.26	22.5±1
			16QAM	1	0	1	22.24	22±1
				1	7	1	22.23	22±1
				1	14	1	22.28	22±1
				8	0	2	21.02	22±1
				8	4	2	21.04	22±1
				8	7	2	21.08	22±1
				15	0	2	21.27	22±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
23017	699.7		QPSK	1	0	0	22.68	22±1
				1	2	0	22.62	22±1
				1	5	0	22.69	22±1
				3	0	0	22.90	22±1
				3	1	0	22.83	22±1
				3	2	0	22.89	22±1
				6	0	1	21.77	22±1
			16QAM	1	0	1	21.35	21.3±1
				1	2	1	21.39	21.3±1
				1	5	1	21.36	21.3±1
				3	0	1	20.99	21.3±1
				3	1	1	21.01	21.3±1
				3	2	1	21.05	21.3±1
				6	0	2	20.66	21.3±1
1.4MHz	23095	707.5	QPSK	1	0	0	23.06	22.5±1
				1	2	0	23.05	22.5±1
				1	5	0	23.08	22.5±1
				3	0	0	23.21	22.5±1
				3	1	0	23.20	22.5±1
				3	2	0	23.16	22.5±1
				6	0	1	22.03	22.5±1
			16QAM	1	0	1	21.91	21.3±1
				1	2	1	21.93	21.3±1
				1	5	1	21.96	21.3±1
				3	0	1	21.32	21.3±1
				3	1	1	21.36	21.3±1
				3	2	1	21.35	21.3±1
				6	0	2	20.99	21.3±1
23173	715.3	QPSK	1	0	0	23.26	23±1	
			1	2	0	23.27	23±1	
			1	5	0	23.25	23±1	
			3	0	0	23.29	23±1	
			3	1	0	23.30	23±1	
			3	2	0	23.21	23±1	
			6	0	1	22.20	23±1	
			16QAM	1	0	1	22.18	21.3±1
				1	2	1	22.13	21.3±1
				1	5	1	22.16	21.3±1
				3	0	1	21.50	21.3±1
				3	1	1	21.53	21.3±1
				3	2	1	21.54	21.3±1
				6	0	2	21.00	21.3±1

LTE Band XVII:

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
23780	709.0	QPSK	1	0	0	23.23	23±1	
			1	24	0	23.20	23±1	
			1	49	0	23.29	23±1	
			25	0	1	22.20	23±1	
			25	12	1	22.16	23±1	
			25	24	1	22.13	23±1	
			50	0	1	22.15	23±1	
		16QAM	1	0	1	22.15	22±1	
			1	24	1	22.14	22±1	
			1	49	1	22.12	22±1	
			25	0	2	21.82	22±1	
			25	12	2	21.85	22±1	
			25	24	2	21.80	22±1	
			50	0	2	21.30	22±1	
10MHz	23790	QPSK	1	0	0	23.14	23±1	
			1	24	0	23.16	23±1	
			1	49	0	23.18	23±1	
			25	0	1	22.18	23±1	
			25	12	1	22.16	23±1	
			25	24	1	22.13	23±1	
			50	0	1	22.10	23±1	
		16QAM	1	0	1	22.13	22±1	
			1	24	1	22.12	22±1	
			1	49	1	22.22	22±1	
			25	0	2	21.15	22±1	
			25	12	2	21.11	22±1	
			25	24	2	21.16	22±1	
			50	0	2	21.25	22±1	
23800	711.0	QPSK	1	0	0	23.07	23±1	
			1	24	0	23.06	23±1	
			1	49	0	23.02	23±1	
			25	0	1	22.13	23±1	
			25	12	1	22.16	23±1	
			25	24	1	22.10	23±1	
			50	0	1	22.02	23±1	
		16QAM	1	0	1	22.45	22±1	
			1	24	1	22.46	22±1	
			1	49	1	22.42	22±1	
			25	0	2	21.85	22±1	
			25	12	2	21.88	22±1	
			25	24	2	21.87	22±1	
			50	0	2	21.06	22±1	

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
23755	706.5	706.5	QPSK	1	0	0	22.99	23±1
				1	12	0	23.00	23±1
				1	24	0	23.02	23±1
				12	0	1	22.16	23±1
				12	6	1	22.13	23±1
				12	11	1	22.18	23±1
				25	0	1	22.14	23±1
			16QAM	1	0	1	22.74	22±1
				1	12	1	22.78	22±1
				1	24	1	22.71	22±1
				12	0	2	22.05	22±1
				12	6	2	22.08	22±1
				12	11	2	22.02	22±1
				25	0	2	21.20	22±1
5MHz	23790	710.0	QPSK	1	0	0	23.14	23±1
				1	12	0	23.16	23±1
				1	24	0	23.13	23±1
				12	0	1	22.13	23±1
				12	6	1	22.15	23±1
				12	11	1	22.18	23±1
				25	0	1	22.13	23±1
			16QAM	1	0	1	22.02	22±1
				1	12	1	22.05	22±1
				1	24	1	22.09	22±1
				12	0	2	21.53	22±1
				12	6	2	21.47	22±1
				12	11	2	21.57	22±1
				25	0	2	21.16	22±1
23825	23825	713.5	QPSK	1	0	0	23.12	23±1
				1	12	0	23.14	23±1
				1	24	0	23.12	23±1
				12	0	1	22.12	23±1
				12	6	1	22.11	23±1
				12	11	1	22.03	23±1
				25	0	1	22.10	23±1
			16QAM	1	0	1	22.11	22±1
				1	12	1	22.13	22±1
				1	24	1	22.15	22±1
				12	0	2	21.58	22±1
				12	6	2	21.57	22±1
				12	11	2	21.52	22±1
				25	0	2	21.13	22±1

ERP & EIRP

EIRP for LTE Band II (Part 24E)

Frequency (MHz)	BW (MHz)	Modulation	RB Size/Offset	Substituted level (dBm)	Antenna Polarization	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
1850.7	1.4	QPSK	1/0	17.62	V	7.88	0.85	24.65	33.01
1880	1.4	QPSK	1/0	17.81	V	7.88	0.85	24.84	33.01
1909.3	1.4	QPSK	1/0	17.51	V	7.88	0.85	24.54	33.01
1850.7	1.4	QPSK	1/0	16.53	H	7.88	0.85	23.56	33.01
1880	1.4	QPSK	1/0	16.72	H	7.88	0.85	23.75	33.01
1909.3	1.4	QPSK	1/0	16.45	H	7.88	0.85	23.48	33.01
1850.7	1.4	16-QAM	1/0	16.23	V	7.88	0.85	23.26	33.01
1880	1.4	16-QAM	1/0	16.54	V	7.88	0.85	23.57	33.01
1909.3	1.4	16-QAM	1/0	16.19	V	7.88	0.85	23.22	33.01
1850.7	1.4	16-QAM	1/0	15.13	H	7.88	0.85	22.16	33.01
1880	1.4	16-QAM	1/0	15.42	H	7.88	0.85	22.45	33.01
1909.3	1.4	16-QAM	1/0	15.06	H	7.88	0.85	22.09	33.01
1851.5	3	QPSK	1/0	17.64	V	7.88	0.85	24.67	33.01
1880	3	QPSK	1/0	17.89	V	7.88	0.85	24.92	33.01
1908.5	3	QPSK	1/0	17.72	V	7.88	0.85	24.75	33.01
1851.5	3	QPSK	1/0	16.51	H	7.88	0.85	23.54	33.01
1880	3	QPSK	1/0	16.75	H	7.88	0.85	23.78	33.01
1908.5	3	QPSK	1/0	16.64	H	7.88	0.85	23.67	33.01
1851.5	3	16-QAM	1/0	17.03	V	7.88	0.85	24.06	33.01
1880	3	16-QAM	1/0	16.53	V	7.88	0.85	23.56	33.01
1908.5	3	16-QAM	1/0	16.52	V	7.88	0.85	23.55	33.01
1851.5	3	16-QAM	1/0	15.98	H	7.88	0.85	23.01	33.01
1880	3	16-QAM	1/0	15.46	H	7.88	0.85	22.49	33.01
1908.5	3	16-QAM	1/0	15.45	H	7.88	0.85	22.48	33.01
1852.5	5	QPSK	1/24	17.68	V	7.88	0.85	24.71	33.01
1880	5	QPSK	1/0	17.98	V	7.88	0.85	25.01	33.01
1907.5	5	QPSK	1/24	17.61	V	7.88	0.85	24.64	33.01
1852.5	5	QPSK	1/24	16.53	H	7.88	0.85	23.56	33.01
1880	5	QPSK	1/0	16.81	H	7.88	0.85	23.84	33.01
1907.5	5	QPSK	1/24	16.48	H	7.88	0.85	23.51	33.01
1852.5	5	16-QAM	1/24	16.71	V	7.88	0.85	23.74	33.01
1880	5	16-QAM	1/0	16.82	V	7.88	0.85	23.85	33.01

1907.5	5	16-QAM	1/24	16.68	V	7.88	0.85	23.71	33.01
1852.5	5	16-QAM	1/24	15.62	H	7.88	0.85	22.65	33.01
1880	5	16-QAM	1/0	15.73	H	7.88	0.85	22.76	33.01
1907.5	5	16-QAM	1/24	15.59	H	7.88	0.85	22.62	33.01
1855	10	QPSK	1/0	17.8	V	7.88	0.85	24.83	33.01
1880	10	QPSK	1/0	17.69	V	7.88	0.85	24.72	33.01
1905	10	QPSK	1/49	17.61	V	7.88	0.85	24.64	33.01
1855	10	QPSK	1/0	16.68	H	7.88	0.85	23.71	33.01
1880	10	QPSK	1/0	16.57	H	7.88	0.85	23.60	33.01
1905	10	QPSK	1/49	16.5	H	7.88	0.85	23.53	33.01
1855	10	16-QAM	1/0	16.48	V	7.88	0.85	23.51	33.01
1880	10	16-QAM	1/0	17.16	V	7.88	0.85	24.19	33.01
1905	10	16-QAM	1/49	16.58	V	7.88	0.85	23.61	33.01
1855	10	16-QAM	1/0	15.32	H	7.88	0.85	22.35	33.01
1880	10	16-QAM	1/0	16.01	H	7.88	0.85	23.04	33.01
1905	10	16-QAM	1/49	15.42	H	7.88	0.85	22.45	33.01
1857.5	15	QPSK	1/0	17.68	V	7.88	0.85	24.71	33.01
1880	15	QPSK	1/0	17.87	V	7.88	0.85	24.90	33.01
1902.5	15	QPSK	1/0	17.56	V	7.88	0.85	24.59	33.01
1857.5	15	QPSK	1/0	16.43	H	7.88	0.85	23.46	33.01
1880	15	QPSK	1/0	16.68	H	7.88	0.85	23.71	33.01
1902.5	15	QPSK	1/0	16.32	H	7.88	0.85	23.35	33.01
1857.5	15	16-QAM	1/0	17.17	V	7.88	0.85	24.20	33.01
1880	15	16-QAM	1/0	16.54	V	7.88	0.85	23.57	33.01
1902.5	15	16-QAM	1/0	16.97	V	7.88	0.85	24.00	33.01
1857.5	15	16-QAM	1/0	16.01	H	7.88	0.85	23.04	33.01
1880	15	16-QAM	1/0	15.35	H	7.88	0.85	22.38	33.01
1902.5	15	16-QAM	1/0	15.76	H	7.88	0.85	22.79	33.01
1860	20	QPSK	1/0	17.76	V	7.88	0.85	24.79	33.01
1880	20	QPSK	1/0	17.87	V	7.88	0.85	24.90	33.01
1900	20	QPSK	1/0	17.58	V	7.88	0.85	24.61	33.01
1860	20	QPSK	1/0	16.52	H	7.88	0.85	23.55	33.01
1880	20	QPSK	1/0	16.59	H	7.88	0.85	23.62	33.01
1900	20	QPSK	1/0	16.31	H	7.88	0.85	23.34	33.01
1860	20	16-QAM	1/0	17.07	V	7.88	0.85	24.10	33.01
1880	20	16-QAM	1/0	16.75	V	7.88	0.85	23.78	33.01
1900	20	16-QAM	1/0	16.87	V	7.88	0.85	23.90	33.01
1860	20	16-QAM	1/0	15.96	H	7.88	0.85	22.99	33.01

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1880	20	16-QAM	1/0	15.48	H	7.88	0.85	22.51	33.01
1900	20	16-QAM	1/0	15.53	H	7.88	0.85	22.56	33.01

EIRP for LTE Band IV (Part 27)

Frequency (MHz)	BW (MHz)	Modulation	RB Size/Offset	Substituted level (dBm)	Antenna Polarization	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
1710.7	1.4	QPSK	1/0	17.38	V	7.95	0.79	24.54	30
1732.5	1.4	QPSK	1/0	17.28	V	7.95	0.79	24.44	30
1754.3	1.4	QPSK	1/0	16.82	V	7.95	0.79	23.98	30
1710.7	1.4	QPSK	1/0	16.12	H	7.95	0.79	23.28	30
1732.5	1.4	QPSK	1/0	16.02	H	7.95	0.79	23.18	30
1754.3	1.4	QPSK	1/0	15.65	H	7.95	0.79	22.81	30
1710.7	1.4	16-QAM	1/5	15.94	V	7.95	0.79	23.10	30
1732.5	1.4	16-QAM	1/0	16.13	V	7.95	0.79	23.29	30
1754.3	1.4	16-QAM	1/0	15.86	V	7.95	0.79	23.02	30
1710.7	1.4	16-QAM	1/5	14.75	H	7.95	0.79	21.91	30
1732.5	1.4	16-QAM	1/0	14.98	H	7.95	0.79	22.14	30
1754.3	1.4	16-QAM	1/0	14.63	H	7.95	0.79	21.79	30
1711.5	3	QPSK	1/0	17.26	V	7.95	0.79	24.42	30
1732.5	3	QPSK	1/0	17.22	V	7.95	0.79	24.38	30
1753.5	3	QPSK	1/0	16.83	V	7.95	0.79	23.99	30
1711.5	3	QPSK	1/0	16.08	H	7.95	0.79	23.24	30
1732.5	3	QPSK	1/0	16.03	H	7.95	0.79	23.19	30
1753.5	3	QPSK	1/0	15.65	H	7.95	0.79	22.81	30
1711.5	3	16-QAM	1/0	16.84	V	7.95	0.79	24.00	30
1732.5	3	16-QAM	1/0	15.98	V	7.95	0.79	23.14	30
1753.5	3	16-QAM	1/0	15.73	V	7.95	0.79	22.89	30
1711.5	3	16-QAM	1/0	15.67	H	7.95	0.79	22.83	30
1732.5	3	16-QAM	1/0	14.82	H	7.95	0.79	21.98	30
1753.5	3	16-QAM	1/0	14.59	H	7.95	0.79	21.75	30
1712.5	5	QPSK	1/0	17.56	V	7.95	0.79	24.72	30
1732.5	5	QPSK	1/0	17.53	V	7.95	0.79	24.69	30
1752.5	5	QPSK	1/24	17.05	V	7.95	0.79	24.21	30
1712.5	5	QPSK	1/0	16.38	H	7.95	0.79	23.54	30
1732.5	5	QPSK	1/0	16.36	H	7.95	0.79	23.52	30
1752.5	5	QPSK	1/24	15.89	H	7.95	0.79	23.05	30
1712.5	5	16-QAM	1/0	16.43	V	7.95	0.79	23.59	30
1732.5	5	16-QAM	1/0	16.22	V	7.95	0.79	23.38	30
1752.5	5	16-QAM	1/24	16.18	V	7.95	0.79	23.34	30
1712.5	5	16-QAM	1/0	15.21	H	7.95	0.79	22.37	30
1732.5	5	16-QAM	1/0	15.02	H	7.95	0.79	22.18	30

1752.5	5	16-QAM	1/24	14.87	H	7.95	0.79	22.03	30
1715	10	QPSK	1/0	17.38	V	7.95	0.79	24.54	30
1732.5	10	QPSK	1/49	17.32	V	7.95	0.79	24.48	30
1750	10	QPSK	1/0	17.03	V	7.95	0.79	24.19	30
1715	10	QPSK	1/0	16.11	H	7.95	0.79	23.27	30
1732.5	10	QPSK	1/49	16.03	H	7.95	0.79	23.19	30
1750	10	QPSK	1/0	15.71	H	7.95	0.79	22.87	30
1715	10	16-QAM	1/0	16.98	V	7.95	0.79	24.14	30
1732.5	10	16-QAM	1/49	16.28	V	7.95	0.79	23.44	30
1750	10	16-QAM	1/0	16.05	V	7.95	0.79	23.21	30
1715	10	16-QAM	1/0	15.73	H	7.95	0.79	22.89	30
1732.5	10	16-QAM	1/49	15.02	H	7.95	0.79	22.18	30
1750	10	16-QAM	1/0	14.84	H	7.95	0.79	22.00	30
1717.5	15	QPSK	1/0	17.28	V	7.95	0.79	24.44	30
1732.5	15	QPSK	1/74	17.18	V	7.95	0.79	24.34	30
1747.5	15	QPSK	1/0	16.85	V	7.95	0.79	24.01	30
1717.5	15	QPSK	1/0	16.01	H	7.95	0.79	23.17	30
1732.5	15	QPSK	1/74	15.93	H	7.95	0.79	23.09	30
1747.5	15	QPSK	1/0	15.67	H	7.95	0.79	22.83	30
1717.5	15	16-QAM	1/0	16.94	V	7.95	0.79	24.10	30
1732.5	15	16-QAM	1/74	16.23	V	7.95	0.79	23.39	30
1747.5	15	16-QAM	1/0	16.24	V	7.95	0.79	23.40	30
1717.5	15	16-QAM	1/0	15.73	H	7.95	0.79	22.89	30
1732.5	15	16-QAM	1/74	15.03	H	7.95	0.79	22.19	30
1747.5	15	16-QAM	1/0	15.04	H	7.95	0.79	22.20	30
1720	20	QPSK	1/99	17.32	V	7.95	0.79	24.48	30
1732.5	20	QPSK	1/99	17.24	V	7.95	0.79	24.40	30
1745	20	QPSK	1/0	17.26	V	7.95	0.79	24.42	30
1720	20	QPSK	1/99	16.11	H	7.95	0.79	23.27	30
1732.5	20	QPSK	1/99	16.05	H	7.95	0.79	23.21	30
1745	20	QPSK	1/0	16.07	H	7.95	0.79	23.23	30
1720	20	16-QAM	1/99	16.68	V	7.95	0.79	23.84	30
1732.5	20	16-QAM	1/99	16.73	V	7.95	0.79	23.89	30
1745	20	16-QAM	1/0	16.17	V	7.95	0.79	23.33	30
1720	20	16-QAM	1/99	15.46	H	7.95	0.79	22.62	30
1732.5	20	16-QAM	1/99	15.53	H	7.95	0.79	22.69	30
1745	20	16-QAM	1/0	14.86	H	7.95	0.79	22.02	30

EIRP for LTE Band V (Part 22)

Frequency (MHz)	BW (MHz)	Modulation	RB Size/Offset	Substituted level (dBm)	Antenna Polarization	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
824.7	1.4	QPSK	1/5	14.53	V	6.8	0.44	20.89	34.77
836.5	1.4	QPSK	1/5	13.84	V	6.8	0.44	20.20	34.77
848.3	1.4	QPSK	1/5	13.65	V	6.9	0.44	20.11	34.77
824.7	1.4	QPSK	1/5	13.26	H	6.8	0.44	19.62	34.77
836.5	1.4	QPSK	1/5	12.61	H	6.8	0.44	18.97	34.77
848.3	1.4	QPSK	1/5	12.49	H	6.9	0.44	18.95	34.77
824.7	1.4	16-QAM	1/5	12.68	V	6.8	0.44	19.04	34.77
836.5	1.4	16-QAM	1/5	12.43	V	6.8	0.44	18.79	34.77
848.3	1.4	16-QAM	1/5	12.67	V	6.9	0.44	19.13	34.77
824.7	1.4	16-QAM	1/5	11.45	H	6.8	0.44	17.81	34.77
836.5	1.4	16-QAM	1/5	11.26	H	6.8	0.44	17.62	34.77
848.3	1.4	16-QAM	1/5	11.44	H	6.9	0.44	17.90	34.77
825.5	3	QPSK	1/14	14.18	V	6.8	0.44	20.54	34.77
836.5	3	QPSK	1/0	14.03	V	6.8	0.44	20.39	34.77
847.5	3	QPSK	1/14	13.97	V	6.9	0.44	20.43	34.77
825.5	3	QPSK	1/14	12.95	H	6.8	0.44	19.31	34.77
836.5	3	QPSK	1/0	12.83	H	6.8	0.44	19.19	34.77
847.5	3	QPSK	1/14	12.72	H	6.9	0.44	19.18	34.77
825.5	3	16-QAM	1/14	13.67	V	6.8	0.44	20.03	34.77
836.5	3	16-QAM	1/0	12.86	V	6.8	0.44	19.22	34.77
847.5	3	16-QAM	1/14	12.89	V	6.9	0.44	19.35	34.77
825.5	3	16-QAM	1/14	12.41	H	6.8	0.44	18.77	34.77
836.5	3	16-QAM	1/0	11.67	H	6.8	0.44	18.03	34.77
847.5	3	16-QAM	1/14	11.71	H	6.9	0.44	18.17	34.77
826.5	5	QPSK	1/24	14.19	V	6.8	0.44	20.55	34.77
836.5	5	QPSK	1/24	14.15	V	6.8	0.44	20.51	34.77
846.5	5	QPSK	1/24	13.84	V	6.8	0.44	20.20	34.77
826.5	5	QPSK	1/24	12.96	H	6.8	0.44	19.32	34.77
836.5	5	QPSK	1/24	12.92	H	6.8	0.44	19.28	34.77
846.5	5	QPSK	1/24	12.69	H	6.8	0.44	19.05	34.77
826.5	5	16-QAM	1/24	13.89	V	6.8	0.44	20.25	34.77
836.5	5	16-QAM	1/24	13.12	V	6.8	0.44	19.48	34.77
846.5	5	16-QAM	1/24	13.02	V	6.8	0.44	19.38	34.77

826.5	5	16-QAM	1/24	12.75	H	6.8	0.44	19.11	34.77
836.5	5	16-QAM	1/24	11.89	H	6.8	0.44	18.25	34.77
846.5	5	16-QAM	1/24	11.73	H	6.8	0.44	18.09	34.77
829	10	QPSK	1/49	14.05	V	6.8	0.44	20.41	34.77
836.5	10	QPSK	1/49	14.06	V	6.8	0.44	20.42	34.77
844	10	QPSK	1/49	13.92	V	6.8	0.44	20.28	34.77
829	10	QPSK	1/49	12.94	H	6.8	0.44	19.30	34.77
836.5	10	QPSK	1/49	12.95	H	6.8	0.44	19.31	34.77
844	10	QPSK	1/49	12.76	H	6.8	0.44	19.12	34.77
829	10	16-QAM	1/49	13.38	V	6.8	0.44	19.74	34.77
836.5	10	16-QAM	1/49	13.24	V	6.8	0.44	19.60	34.77
844	10	16-QAM	1/49	13.36	V	6.8	0.44	19.72	34.77
829	10	16-QAM	1/49	12.11	H	6.8	0.44	18.47	34.77
836.5	10	16-QAM	1/49	12.02	H	6.8	0.44	18.38	34.77
844	10	16-QAM	1/49	12.09	H	6.8	0.44	18.45	34.77

ERP for LTE Band VII (Part 27)

Frequency (MHz)	BW (MHz)	Modulation	RB Size/Offset	Substituted level (dBm)	Antenna Polarization	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
2502.5	5	QPSK	1/0	13.94	V	8.93	0.83	22.04	30
2535	5	QPSK	1/0	14.59	V	8.93	0.83	22.69	30
2567.5	5	QPSK	1/24	14.57	V	8.93	0.83	22.67	30
2502.5	5	QPSK	1/0	12.67	H	8.93	0.83	20.77	30
2535	5	QPSK	1/0	13.25	H	8.93	0.83	21.35	30
2567.5	5	QPSK	1/24	13.23	H	8.93	0.83	21.33	30
2502.5	5	16-QAM	1/0	12.8	V	8.93	0.83	20.90	30
2535	5	16-QAM	1/0	13.41	V	8.93	0.83	21.51	30
2567.5	5	16-QAM	1/24	13.84	V	8.93	0.83	21.94	30
2502.5	5	16-QAM	1/0	11.73	H	8.93	0.83	19.83	30
2535	5	16-QAM	1/0	12.16	H	8.93	0.83	20.26	30
2567.5	5	16-QAM	1/24	12.65	H	8.93	0.83	20.75	30
2505	10	QPSK	1/0	13.89	V	8.93	0.83	21.99	30
2535	10	QPSK	1/49	12.86	V	8.93	0.83	20.96	30
2565	10	QPSK	1/0	14.05	V	8.93	0.83	22.15	30
2505	10	QPSK	1/0	12.67	H	8.93	0.83	20.77	30
2535	10	QPSK	1/49	11.59	H	8.93	0.83	19.69	30
2565	10	QPSK	1/0	12.86	H	8.93	0.83	20.96	30
2505	10	16-QAM	1/0	12.85	V	8.93	0.83	20.95	30
2535	10	16-QAM	1/49	13.21	V	8.93	0.83	21.31	30
2565	10	16-QAM	1/0	13.84	V	8.93	0.83	21.94	30
2505	10	16-QAM	1/0	11.72	H	8.93	0.83	19.82	30
2535	10	16-QAM	1/49	12.04	H	8.93	0.83	20.14	30
2565	10	16-QAM	1/0	12.65	H	8.93	0.83	20.75	30
2507.5	15	QPSK	1/0	13.82	V	8.93	0.83	21.92	30
2535	15	QPSK	1/74	14.23	V	8.93	0.83	22.33	30
2562.5	15	QPSK	1/0	14.01	V	8.93	0.83	22.11	30
2507.5	15	QPSK	1/0	12.63	H	8.93	0.83	20.73	30
2535	15	QPSK	1/74	13.04	H	8.93	0.83	21.14	30
2562.5	15	QPSK	1/0	12.94	H	8.93	0.83	21.04	30
2507.5	15	16-QAM	1/0	13.34	V	8.93	0.83	21.44	30
2535	15	16-QAM	1/74	13.22	V	8.93	0.83	21.32	30
2562.5	15	16-QAM	1/0	13.51	V	8.93	0.83	21.61	30

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2507.5	15	16-QAM	1/0	12.11	H	8.93	0.83	20.21	30
2535	15	16-QAM	1/74	12.03	H	8.93	0.83	20.13	30
2562.5	15	16-QAM	1/0	12.35	H	8.93	0.83	20.45	30
2510	20	QPSK	1/99	13.85	V	8.93	0.83	21.95	30
2535	20	QPSK	1/99	13.96	V	8.93	0.83	22.06	30
2560	20	QPSK	1/0	13.51	V	8.93	0.83	21.61	30
2510	20	QPSK	1/99	12.69	H	8.93	0.83	20.79	30
2535	20	QPSK	1/99	12.73	H	8.93	0.83	20.83	30
2560	20	QPSK	1/0	12.34	H	8.93	0.83	20.44	30
2510	20	16-QAM	1/99	13.12	V	8.93	0.83	21.22	30
2535	20	16-QAM	1/99	13.08	V	8.93	0.83	21.18	30
2560	20	16-QAM	1/0	12.97	V	8.93	0.83	21.07	30
2510	20	16-QAM	1/99	11.95	H	8.93	0.83	20.05	30
2535	20	16-QAM	1/99	11.86	H	8.93	0.83	19.96	30
2560	20	16-QAM	1/0	11.73	H	8.93	0.83	19.83	30

ERP for LTE Band XII (Part 27)

Frequency (MHz)	BW (MHz)	Modulation	RB Size/Offset	Substituted level (dBm)	Antenna Polarization	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
699.7	1.4	QPSK	1/5	12.76	V	6.9	0.42	19.24	34.77
707.5	1.4	QPSK	1/5	13.14	V	6.8	0.42	19.52	34.77
715.3	1.4	QPSK	1/5	13.38	V	6.8	0.42	19.76	34.77
699.7	1.4	QPSK	1/5	11.58	H	6.9	0.42	18.06	34.77
707.5	1.4	QPSK	1/5	11.95	H	6.8	0.42	18.33	34.77
715.3	1.4	QPSK	1/5	12.03	H	6.8	0.42	18.41	34.77
699.7	1.4	16-QAM	1/5	11.42	V	6.9	0.42	17.90	34.77
707.5	1.4	16-QAM	1/5	12.06	V	6.8	0.42	18.44	34.77
715.3	1.4	16-QAM	1/5	12.28	V	6.8	0.42	18.66	34.77
699.7	1.4	16-QAM	1/5	10.21	H	6.9	0.42	16.69	34.77
707.5	1.4	16-QAM	1/5	10.87	H	6.8	0.42	17.25	34.77
715.3	1.4	16-QAM	1/5	11.03	H	6.8	0.42	17.41	34.77
700.5	3	QPSK	1/14	12.77	V	6.9	0.42	19.25	34.77
707.5	3	QPSK	1/0	13.07	V	6.8	0.42	19.45	34.77
714.5	3	QPSK	1/14	13.35	V	6.8	0.42	19.73	34.77
700.5	3	QPSK	1/14	11.53	H	6.9	0.42	18.01	34.77
707.5	3	QPSK	1/0	11.84	H	6.8	0.42	18.22	34.77
714.5	3	QPSK	1/14	12.06	H	6.8	0.42	18.44	34.77
700.5	3	16-QAM	1/14	12.38	V	6.9	0.42	18.86	34.77
707.5	3	16-QAM	1/0	11.86	V	6.8	0.42	18.24	34.77
714.5	3	16-QAM	1/14	12.35	V	6.8	0.42	18.73	34.77
700.5	3	16-QAM	1/14	11.04	H	6.9	0.42	17.52	34.77
707.5	3	16-QAM	1/0	10.63	H	6.8	0.42	17.01	34.77
714.5	3	16-QAM	1/14	11.01	H	6.8	0.42	17.39	34.77
701.5	5	QPSK	1/24	13.06	V	6.9	0.42	19.54	34.77
707.5	5	QPSK	1/24	13.08	V	6.8	0.42	19.46	34.77
713.5	5	QPSK	1/24	13.41	V	6.8	0.42	19.79	34.77
701.5	5	QPSK	1/24	11.85	H	6.9	0.42	18.33	34.77
707.5	5	QPSK	1/24	11.87	H	6.8	0.42	18.25	34.77
713.5	5	QPSK	1/24	12.16	H	6.8	0.42	18.54	34.77
701.5	5	16-QAM	1/24	11.86	V	6.9	0.42	18.34	34.77
707.5	5	16-QAM	1/24	12.03	V	6.8	0.42	18.41	34.77
713.5	5	16-QAM	1/24	12.45	V	6.8	0.42	18.83	34.77
701.5	5	16-QAM	1/24	10.67	H	6.9	0.42	17.15	34.77

707.5	5	16-QAM	1/24	10.83	H	6.8	0.42	17.21	34.77
713.5	5	16-QAM	1/24	11.14	H	6.8	0.42	17.52	34.77
704	10	QPSK	1/49	12.89	V	6.8	0.42	19.27	34.77
707.5	10	QPSK	1/49	12.85	V	6.8	0.42	19.23	34.77
711	10	QPSK	1/49	13.07	V	6.8	0.42	19.45	34.77
704	10	QPSK	1/49	11.62	H	6.8	0.42	18.00	34.77
707.5	10	QPSK	1/49	11.58	H	6.8	0.42	17.96	34.77
711	10	QPSK	1/49	11.87	H	6.8	0.42	18.25	34.77
704	10	16-QAM	1/49	12.44	V	6.8	0.42	18.82	34.77
707.5	10	16-QAM	1/49	11.62	V	6.8	0.42	18.00	34.77
711	10	16-QAM	1/49	12.09	V	6.8	0.42	18.47	34.77
704	10	16-QAM	1/49	11.21	H	6.8	0.42	17.59	34.77
707.5	10	16-QAM	1/49	10.43	H	6.8	0.42	16.81	34.77
711	10	16-QAM	1/49	10.89	H	6.8	0.42	17.27	34.77

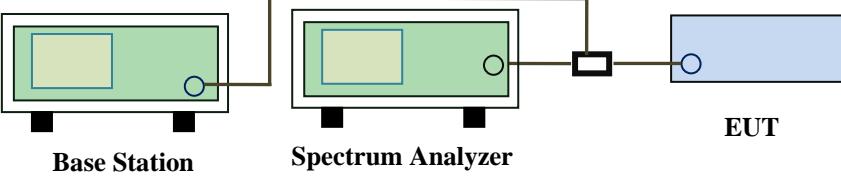
ERP for LTE Band XVII (Part 27)

Frequency (MHz)	BW (MHz)	Modulation	RB Size/Offset	Substituted level (dBm)	Antenna Polarization	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
706.5	5	QPSK	1/0	13.25	V	6.8	0.42	19.63	34.77
710	5	QPSK	1/0	13.17	V	6.8	0.42	19.55	34.77
713.5	5	QPSK	1/0	13.06	V	6.8	0.42	19.44	34.77
706.5	5	QPSK	1/0	12.01	H	6.8	0.42	18.39	34.77
710	5	QPSK	1/0	11.76	H	6.8	0.42	18.14	34.77
713.5	5	QPSK	1/0	11.64	H	6.8	0.42	18.02	34.77
706.5	5	16-QAM	1/0	12.26	V	6.8	0.42	18.64	34.77
710	5	16-QAM	1/0	12.14	V	6.8	0.42	18.52	34.77
713.5	5	16-QAM	1/0	12.55	V	6.8	0.42	18.93	34.77
706.5	5	16-QAM	1/0	11.03	H	6.8	0.42	17.41	34.77
710	5	16-QAM	1/0	10.85	H	6.8	0.42	17.23	34.77
713.5	5	16-QAM	1/0	11.14	H	6.8	0.42	17.52	34.77
709	10	QPSK	1/0	13.04	V	6.8	0.42	19.42	34.77
710	10	QPSK	1/0	13.18	V	6.8	0.42	19.56	34.77
711	10	QPSK	1/0	13.14	V	6.8	0.42	19.52	34.77
709	10	QPSK	1/0	11.86	H	6.8	0.42	18.24	34.77
710	10	QPSK	1/0	11.94	H	6.8	0.42	18.32	34.77
711	10	QPSK	1/0	11.92	H	6.8	0.42	18.30	34.77
709	10	16-QAM	1/0	12.74	V	6.8	0.42	19.12	34.77
710	10	16-QAM	1/0	12.06	V	6.8	0.42	18.44	34.77
711	10	16-QAM	1/0	13.19	V	6.8	0.42	19.57	34.77
709	10	16-QAM	1/0	11.53	H	6.8	0.42	17.91	34.77
710	10	16-QAM	1/0	10.84	H	6.8	0.42	17.22	34.77
711	10	16-QAM	1/0	11.95	H	6.8	0.42	18.33	34.77

6.3 Peak-Average Ratio

Temperature	23°C
Relative Humidity	51%
Atmospheric Pressure	1018mbar
Test date :	November 18, 2016
Tested By :	Loren Luo

Requirement(s):

Spec	Item	Requirement	Applicable
§24.232(d) § 27.50(d)	a)	The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.	<input checked="" type="checkbox"/>
Test Setup	 <p style="text-align: center;">Base Station Spectrum Analyzer EUT</p>		
Test Procedure	<p>According with KDB 971168 v02r02</p> <p>5.7.2 Alternate procedure for PAPR</p> <p>5.1.2 Peak power measurements with a peak power meter</p> <p>The total peak output power may be measured using a broadband peak RF power meter. The power meter must have a video bandwidth that is greater than or equal to the emission bandwidth and utilize a fast-responding diode detector.</p> <p>5.2.3 Average power measurement with average power meter</p> <p>As an alternative to the use of a spectrum/signal analyzer or EMI receiver to perform a measurement of the total in-band average output power, a wideband RF average power meter with a thermocouple detector or equivalent can be used under certain conditions</p> <p>If the EUT can be configured to transmit continuously (i.e., the burst duty cycle \geq 98%) and at all times the EUT is transmitting at its maximum output</p>		

	<p>power level, then a conventional wide-band RF power meter can be used. If the EUT cannot be configured to transmit continuously (i.e., the burst duty cycle < 98%), then there are two options for the use of an average power meter. First, a gated average power meter can be used to perform the measurement if the gating parameters can be adjusted such that the power is measured only over active transmission bursts at maximum output power levels. A conventional average power meter can also be used if the measured burst duty cycle is constant (i.e., duty cycle variations are less than ± 2 percent) by performing the measurement over the on/off burst cycles and then correcting (increasing) the measured level by a factor equal to $10\log(1/\text{duty cycle})$</p>
Remark	
Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail

Test Data Yes N/A

Test Plot Yes (See below) N/A

LTE Band II (part 24E)

BW(MHz)	Frequency (MHz)	Mode	Modulation	Conducted Power (dBm)		Peak-Average Ratio (PAR)
				Peak	Average	
1.4	1880	RB 1/0	QPSK	21.36	23.61	-2.25
			16QAM	25.11	22.46	2.65
3	1880	RB 1/0	QPSK	25.38	23.62	1.76
			16QAM	25.15	22.34	2.81
5	1880	RB 1/0	QPSK	25.42	23.82	1.60
			16QAM	25.03	22.6	2.43
10	1880	RB 1/0	QPSK	25.39	23.52	1.87
			16QAM	25.17	23.04	2.13
15	1880	RB 1/0	QPSK	25.38	23.68	1.70
			16QAM	25..06	22.45	2.61
20	1880	RB 1/0	QPSK	25.42	23.72.	1.70
			16QAM	25.19	22.61	2.58

LTE Band IV (part 27)

BW(MHz)	Frequency (MHz)	Mode	Modulation	Conducted Power (dBm)		Peak-Average Ratio (PAR)
				Peak	Average	
1.4	1732.5	RB 1/0	QPSK	25.29	23.81	1.48
			16QAM	24.83	22.55	2.28
3	1732.5	RB 1/0	QPSK	25.28	23.8	1.48
			16QAM	24.62	22.53	2.09
5	1732.5	RB 1/0	QPSK	25.37	23.97	1.40
			16QAM	24.13	22.81	1.32
10	1732.5	RB 1/0	QPSK	25.28	23.91	1.37
			16QAM	24.33	22.66	1.67
15	1732.5	RB 1/0	QPSK	25.16	23.95	1.21
			16QAM	24.29	22.71	1.58
20	1732.5	RB 1/0	QPSK	25.37	23.9	1.47
			16QAM	24.52	23.72	0.80

LTE Band V (part 27)

BW(MHz)	Frequency (MHz)	Mode	Modulation	Conducted Power (dBm)		Peak-Average Ratio (PAR)
				Peak	Average	
1.4	836.5	RB 1/0	QPSK	25.43	23.01	2.42
			16QAM	24.31	21.72	2.59
3	836.5	RB 1/0	QPSK	25.49	23.12	2.37
			16QAM	24.16	21.96	2.20
5	836.5	RB 1/0	QPSK	25.16	23.29	1.87
			16QAM	24.37	22.25	2.12
10	836.5	RB 1/0	QPSK	25.22	23.33	1.89
			16QAM	24.34	22.14	2.20

LTE Band VII (part 27)

BW(MHz)	Frequency (MHz)	Mode	Modulation	Conducted Power (dBm)		Peak-Average Ratio (PAR)
				Peak	Average	
5	2535	RB 1/0	QPSK	25.49	23.35	2.14
			16QAM	24.36	22.21	2.15
10	2535	RB 1/0	QPSK	25.37	22.86	2.51
			16QAM	24.06	21.94	2.12
15	2535	RB 1/0	QPSK	25.29	23.04	2.25
			16QAM	24.11	22.01	2.10
20	2535	RB 1/0	QPSK	25.37	22.89	2.48
			16QAM	24.26	21.94	2.32

LTE Band XII (part 27)

BW(MHz)	Frequency (MHz)	Mode	Modulation	Conducted Power (dBm)		Peak-Average Ratio (PAR)
				Peak	Average	
1.4	1732.5	RB 1/0	QPSK	25.26	23.06	1.82
			16QAM	24.38	21.91	1.99
3	1732.5	RB 1/0	QPSK	25.29	22.97	2.20
			16QAM	24.16	21.84	2.35
5	1732.5	RB 1/0	QPSK	25.43	22.95	2.64
			16QAM	24.11	21.93	2.81
10	1732.5	RB 1/0	QPSK	24.93	22.87	2.88
			16QAM	24.06	21.77	2.65

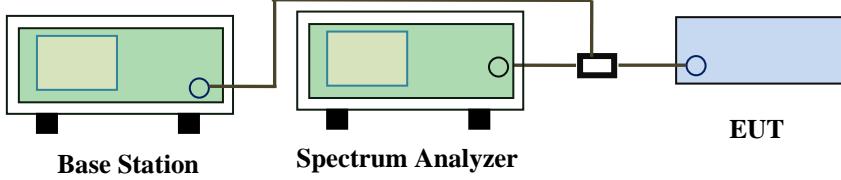
LTE Band XVII (part 27)

BW(MHz)	Frequency (MHz)	Mode	Modulation	Conducted Power (dBm)		Peak-Average Ratio (PAR)
				Peak	Average	
5	710	RB 1/0	QPSK	24.83	23.14	1.69
			16QAM	24.05	22.13	1.92
10	710	RB 1/0	QPSK	24.91	23.14	1.77
			16QAM	24.08	22.02	2.06

6.4 Occupied Bandwidth

Temperature	23°C
Relative Humidity	51%
Atmospheric Pressure	1018mbar
Test date :	November 18, 2016
Tested By :	Loren Luo

Requirement(s):

Spec	Item	Requirement	Applicable
§2.1049, §22.917, §22.905 §24.238 §27.53(a)	a)	99% Occupied Bandwidth(kHz)	<input checked="" type="checkbox"/>
	b)	26 dB Bandwidth(kHz)	<input checked="" type="checkbox"/>
Test Setup		 <p style="text-align: center;">Base Station Spectrum Analyzer EUT</p>	
Test Procedure		<ul style="list-style-type: none"> - The EUT was connected to Spectrum Analyzer and Base Station via power divider. - The 99% and 26 dB occupied bandwidth (BW) of the middle channel for the highest RF powers. 	
Remark			
Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail		

Test Data Yes N/A

Test Plot Yes (See below) N/A

LTE Band II (Part 24E)

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
1.4	18607	1851	16QAM	1.1013	1.276
			QPSK	1.1017	1.272
1.4	18900	1880	16QAM	1.0990	1.278
			QPSK	1.0973	1.284
1.4	19193	1909	16QAM	1.1102	1.278
			QPSK	1.1065	1.270
3	18615	1852	16QAM	2.7411	3.034
			QPSK	2.7507	3.066
3	18900	1880	16QAM	2.7447	3.021
			QPSK	2.7364	3.047
3	19185	1909	16QAM	2.7519	3.038
			QPSK	2.7476	3.034
5	18625	1853	16QAM	4.5371	5.006
			QPSK	4.5190	5.018
5	18900	1880	16QAM	4.5401	5.079
			QPSK	4.5474	5.024
5	19175	1908	16QAM	4.5217	5.015
			QPSK	4.5184	5.048
10	18650	1855	16QAM	9.0738	10.15
			QPSK	9.0817	10.20
10	18900	1880	16QAM	9.0476	10.09
			QPSK	9.0325	10.11
10	19150	1905	16QAM	9.0199	10.04
			QPSK	9.0407	10.15
15	18675	1858	16QAM	13.497	14.81
			QPSK	13.526	14.72
15	18900	1880	16QAM	13.487	14.73
			QPSK	13.495	14.80
15	19125	1903	16QAM	13.493	14.80
			QPSK	13.474	14.87

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20	18700	1860	16QAM	17.932	19.47
			QPSK	17.930	19.28
20	18900	1880	16QAM	17.926	19.35
			QPSK	17.935	19.41
20	19100	1900	16QAM	17.981	19.29
			QPSK	17.962	19.36

LTE Band IV (Part 27)

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
1.4	19957	1711	16QAM	1.1024	1.282
			QPSK	1.1053	1.285
1.4	20175	1733	16QAM	1.1092	1.276
			QPSK	1.1037	1.267
1.4	20393	1754	16QAM	1.0994	1.278
			QPSK	1.1016	1.271
3	19965	1712	16QAM	2.7471	3.060
			QPSK	2.7465	3.059
3	20175	1733	16QAM	2.7558	3.052
			QPSK	2.7488	3.057
3	20385	1754	16QAM	2.7425	3.039
			QPSK	2.7400	3.063
5	19975	1713	16QAM	4.5368	5.033
			QPSK	4.5381	5.015
5	20175	1733	16QAM	4.5284	5.064
			QPSK	4.5385	5.048
5	20375	1753	16QAM	4.5397	5.039
			QPSK	4.5329	5.034
10	20000	1715	16QAM	9.0560	10.18
			QPSK	9.0714	10.12
10	20175	1733	16QAM	9.0471	10.07
			QPSK	9.0565	10.05
10	20350	1750	16QAM	9.0696	10.03
			QPSK	9.0706	10.10
15	20025	1718	16QAM	13.512	14.81
			QPSK	13.516	14.85
15	20175	1733	16QAM	13.496	14.75
			QPSK	13.473	14.74
15	20325	1748	16QAM	13.492	14.94
			QPSK	13.505	14.89

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20	20050	1720	16QAM	17.988	19.37
			QPSK	17.921	19.36
20	20175	1733	16QAM	17.900	19.45
			QPSK	17.928	19.40
20	20300	1745	16QAM	17.912	19.40
			QPSK	17.952	19.37

LTE Band V (Part 22H)

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
1.4	20407	824.7	16QAM	1.0981	1.276
			QPSK	1.1014	1.280
1.4	20525	836.5	16QAM	1.1012	1.281
			QPSK	1.0997	1.280
1.4	20643	848.3	16QAM	1.1005	1.268
			QPSK	1.1014	1.264
3	20415	825.5	16QAM	2.7455	3.053
			QPSK	2.7387	3.070
3	20525	836.5	16QAM	2.7560	3.037
			QPSK	2.7471	3.040
3	20635	847.5	16QAM	2.7496	3.064
			QPSK	2.7464	3.057
5	20425	826.5	16QAM	4.5440	5.019
			QPSK	4.5326	5.045
5	20525	836.5	16QAM	4.5348	5.102
			QPSK	4.5240	5.071
5	20625	846.5	16QAM	4.5302	4.046
			QPSK	4.5342	5.026
10	20450	829	16QAM	9.0751	10.14
			QPSK	9.1011	10.15
10	20525	836.5	16QAM	9.0478	10.06
			QPSK	9.0525	10.06
10	20800	844	16QAM	9.1018	10.21
			QPSK	9.0982	10.14

LTE Band VII (Part 27) result

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
5	20775	2503	16QAM	4.5341	5.105
			QPSK	4.5327	5.088
5	21100	2535	16QAM	4.5183	5.056
			QPSK	4.5289	5.024
5	21425	2568	16QAM	4.5314	5.037
			QPSK	4.5372	5.078
10	20800	2505	16QAM	9.0587	10.06
			QPSK	9.0636	10.15
10	21100	2535	16QAM	9.0375	10.04
			QPSK	9.0295	10.03
10	21400	2565	16QAM	9.0766	10.07
			QPSK	9.0545	10.13
15	20825	2508	16QAM	13.502	14.75
			QPSK	13.499	14.78
15	21100	2535	16QAM	13.496	14.77
			QPSK	13.497	14.75
15	21400	2563	16QAM	13.494	14.82
			QPSK	13.490	14.85
20	20850	2510	16QAM	17.877	19.16
			QPSK	17.962	19.52
20	21100	2535	16QAM	17.917	19.31
			QPSK	17.904	19.33
20	21350	2560	16QAM	17.930	19.47
			QPSK	17.925	19.40

LTE Band XII (Part 27)

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
1.4	23017	699.7	16QAM	1.1082	1.288
			QPSK	1.1030	1.271
1.4	23095	707.5	16QAM	1.1054	1.281
			QPSK	1.1055	1.280
1.4	23173	715.3	16QAM	1.1107	1.269
			QPSK	1.1050	1.273
3	23025	700.5	16QAM	2.7450	3.054
			QPSK	2.7527	3.057
3	23095	707.5	16QAM	2.7467	3.023
			QPSK	2.7427	3.027
3	23165	714.5	16QAM	2.7558	3.056
			QPSK	2.7508	3.046
5	23035	701.5	16QAM	4.5305	5.017
			QPSK	4.5211	5.078
5	23095	707.5	16QAM	4.5457	5.118
			QPSK	4.5397	5.057
5	23055	713.5	16QAM	4.5263	5.022
			QPSK	4.5282	5.040
10	23060	704	16QAM	9.1030	10.13
			QPSK	9.0896	10.18
10	23095	707.5	16QAM	9.0906	10.10
			QPSK	9.0878	10.19
10	23130	711	16QAM	9.0350	10.06
			QPSK	9.0524	10.11

LTE Band XVII (Part 27)

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
5	23755	706.5	16QAM	4.5425	5.084
			QPSK	4.5376	5.062
5	23790	710	16QAM	4.5226	5.050
			QPSK	4.5330	5.060
5	23825	713.5	16QAM	4.5299	5.029
			QPSK	4.5370	5.001
10	23780	709	16QAM	9.0710	10.07
			QPSK	9.0701	10.14
10	23790	710	16QAM	9.0378	10.09
			QPSK	9.0359	10.02
10	23800	711	16QAM	9.0484	10.07
			QPSK	9.0420	10.16

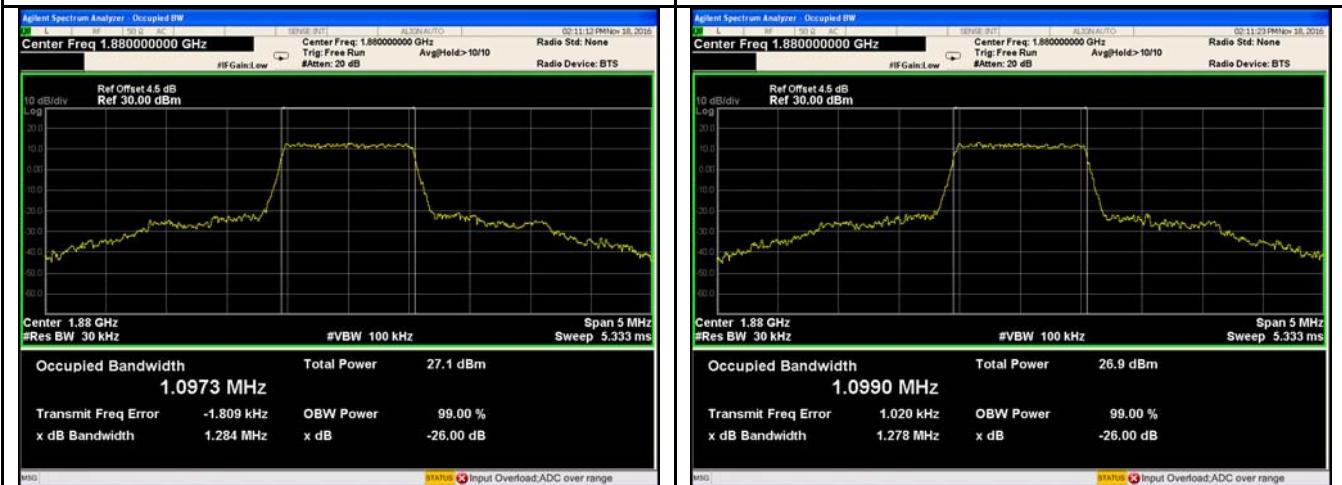
Test Plots

LTE Band II (Part 24E)



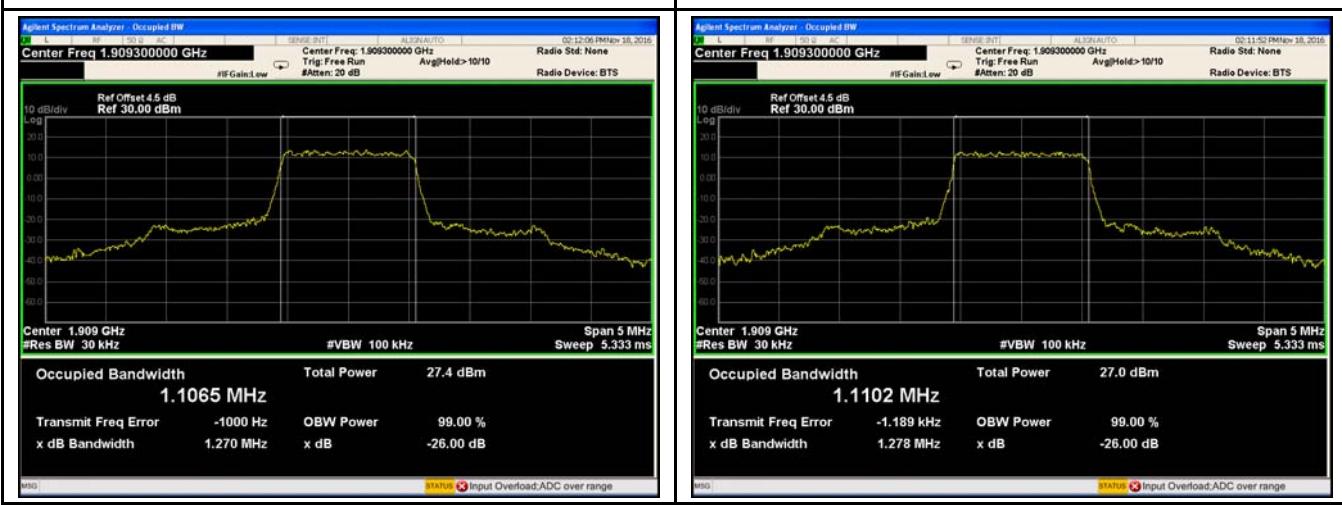
LTE Band II - Low CH QPSK-1.4

LTE Band II - Low CH 16QAM-1.4



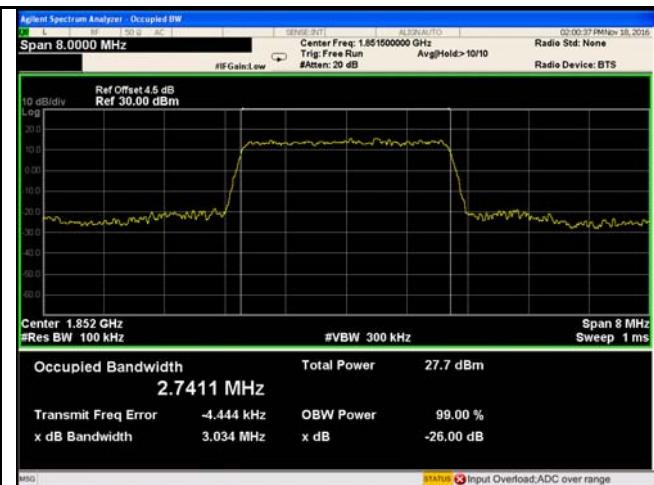
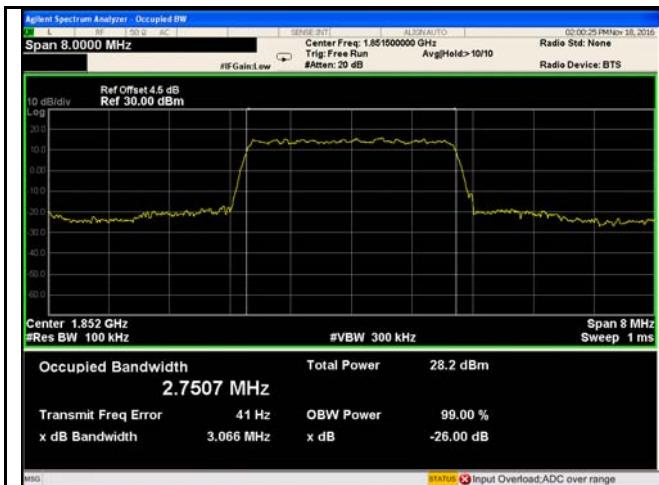
LTE Band II - Middle CH QPSK-1.4

LTE Band II - Middle CH 16QAM-1.4



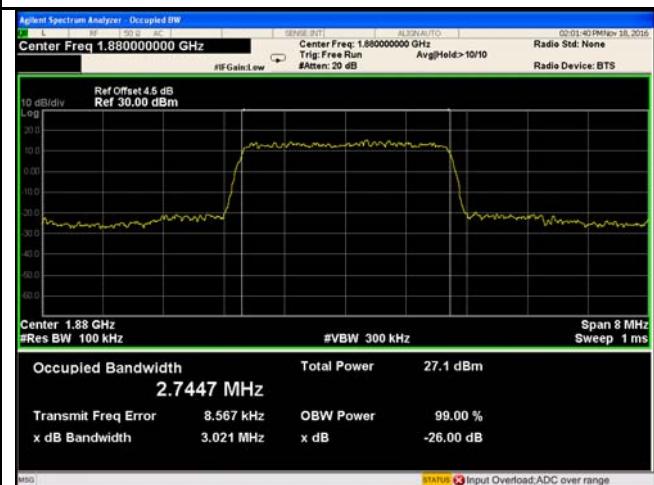
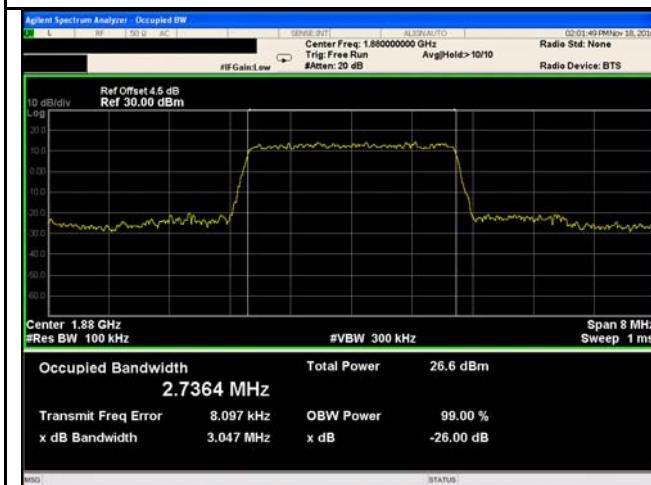
LTE Band II - High CH QPSK-1.4

LTE Band II - High CH 16QAM-1.4



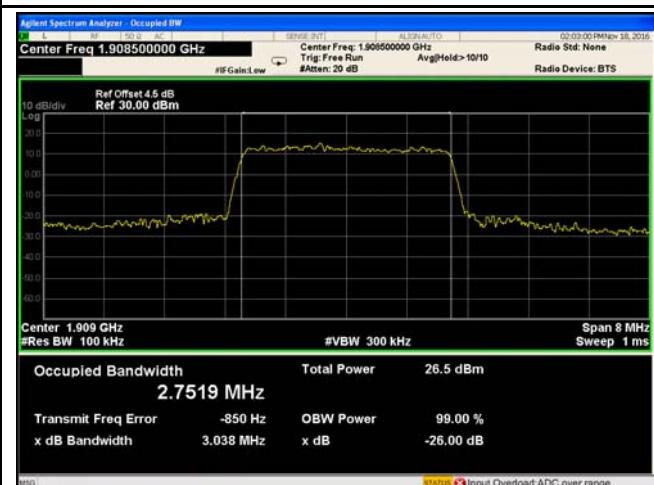
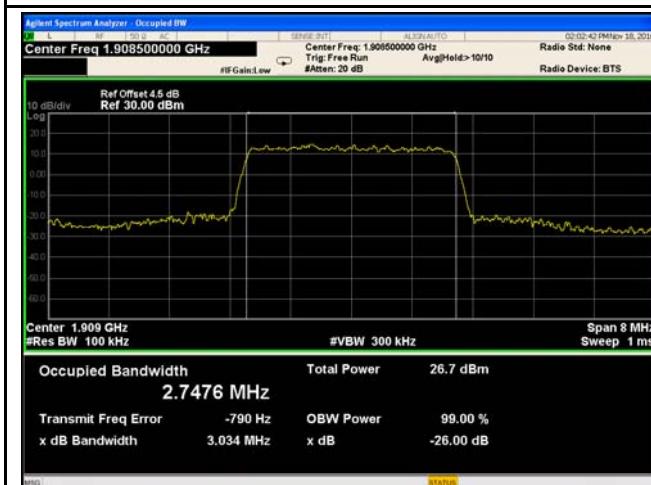
LTE Band II - Low CH QPSK-3

LTE Band II - Low CH 16QAM-3



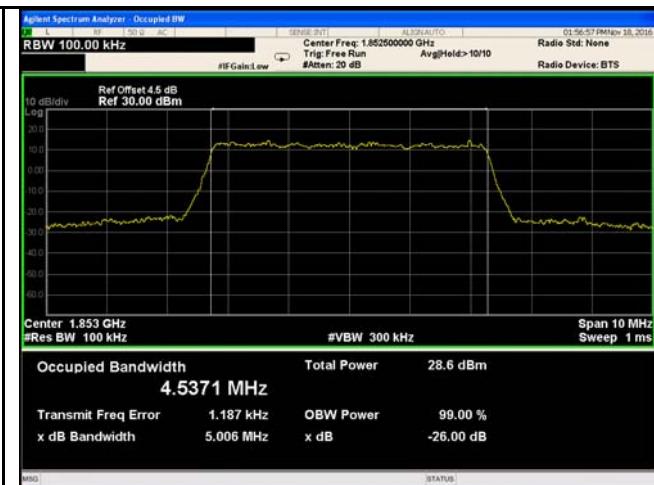
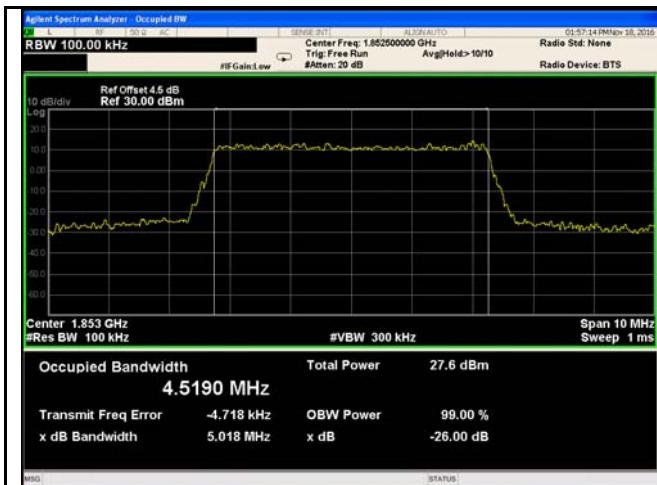
LTE Band II - Middle CH QPSK-3

LTE Band II - Middle CH 16QAM-3



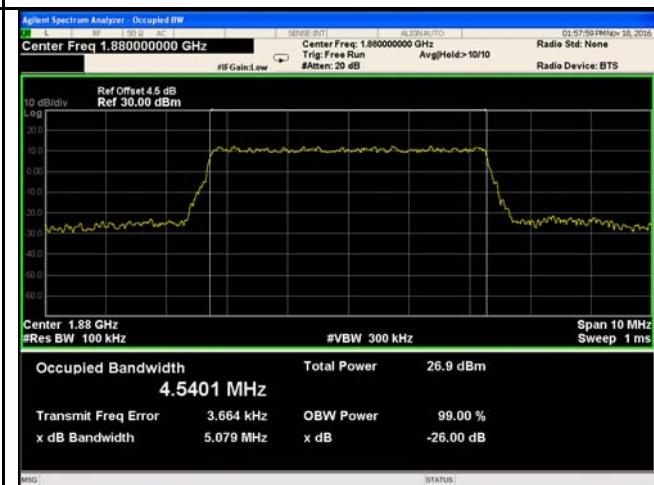
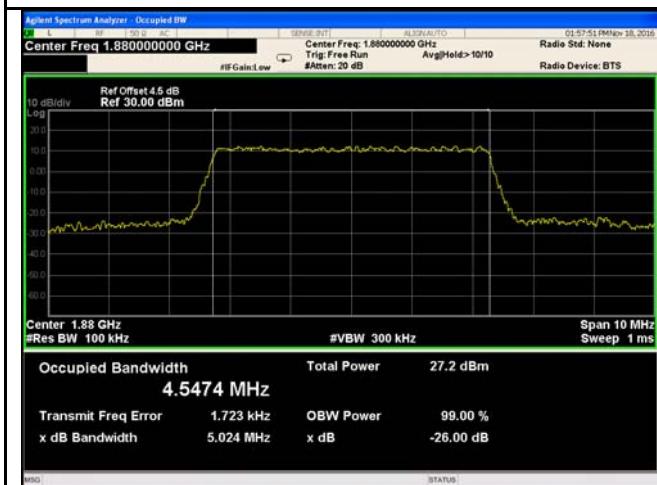
LTE Band II - High CH QPSK-3

LTE Band II - High CH 16QAM-3



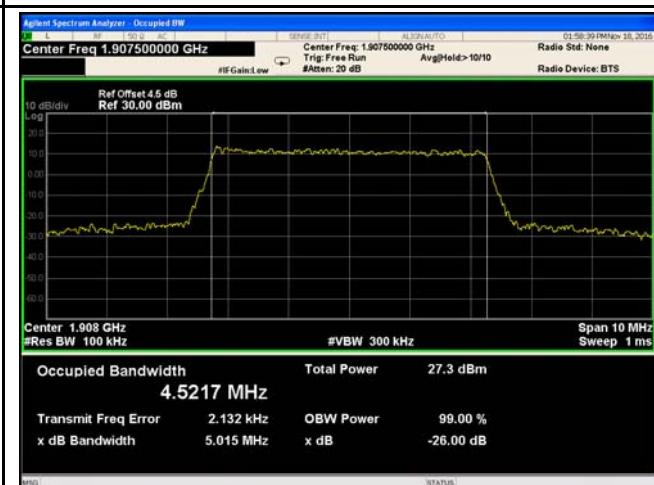
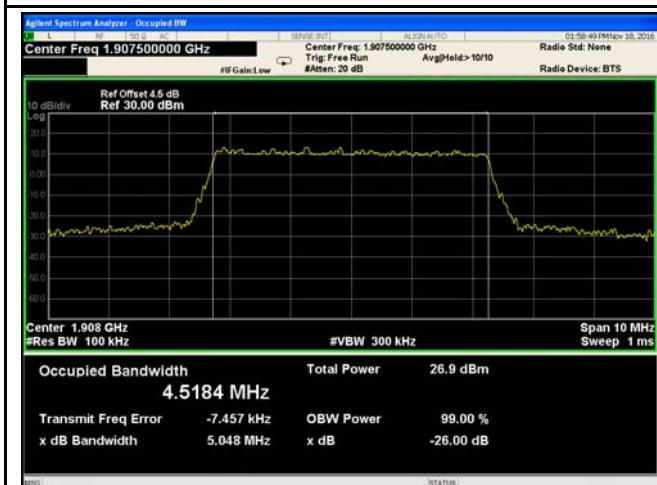
LTE Band II - Low CH QPSK-5

LTE Band II - Low CH 16QAM-5



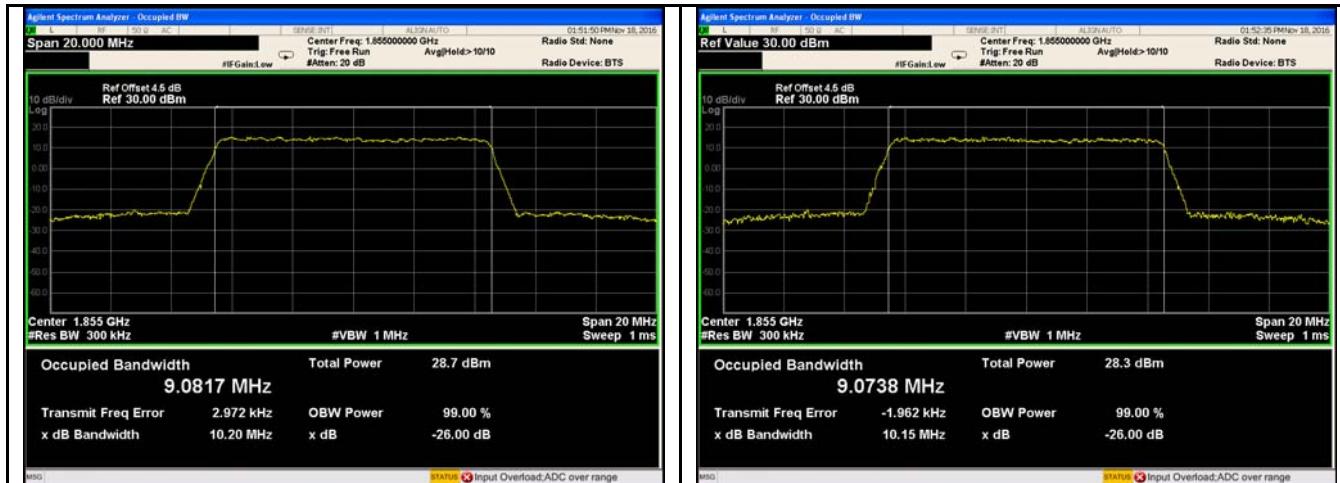
LTE Band II - Middle CH QPSK-5

LTE Band II - Middle CH 16QAM-5



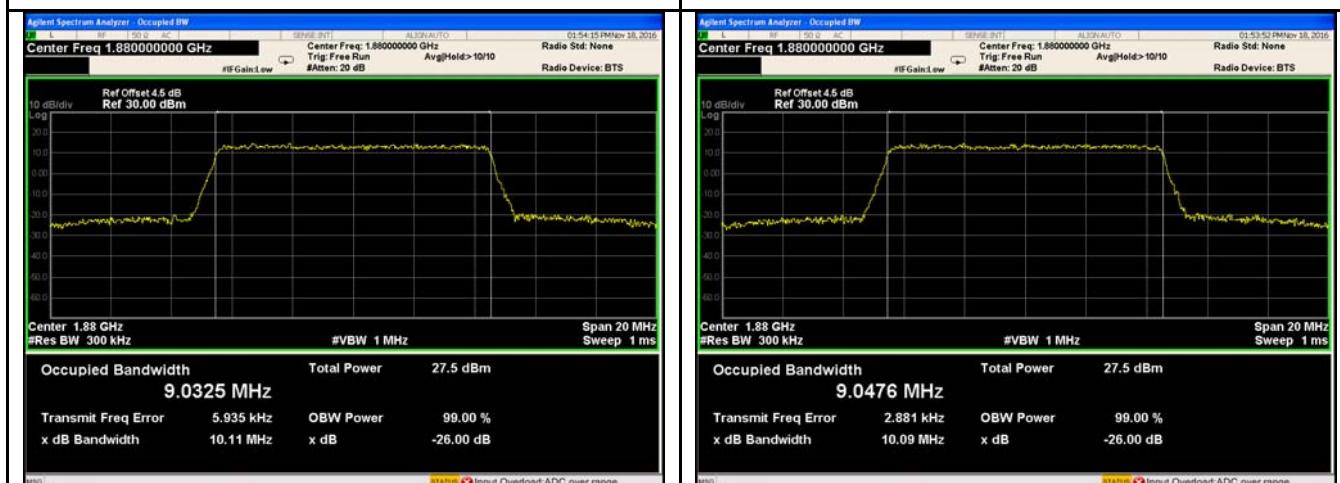
LTE Band II - High CH QPSK-5

LTE Band II - High CH 16QAM-5



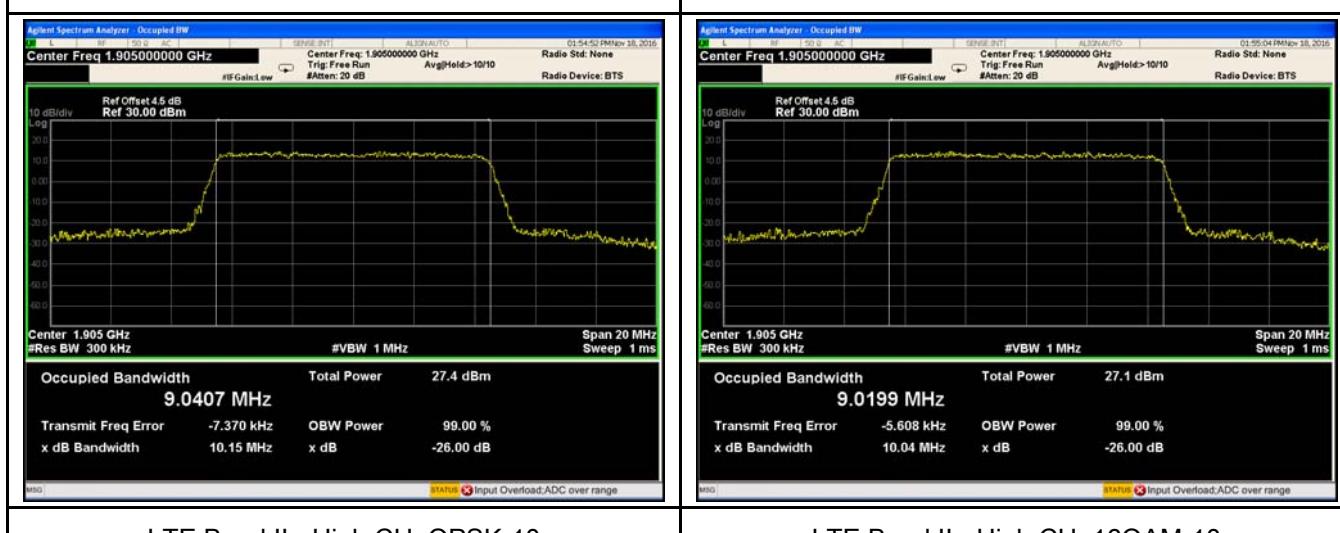
LTE Band II - Low CH QPSK-10

LTE Band II - Low CH 16QAM-10



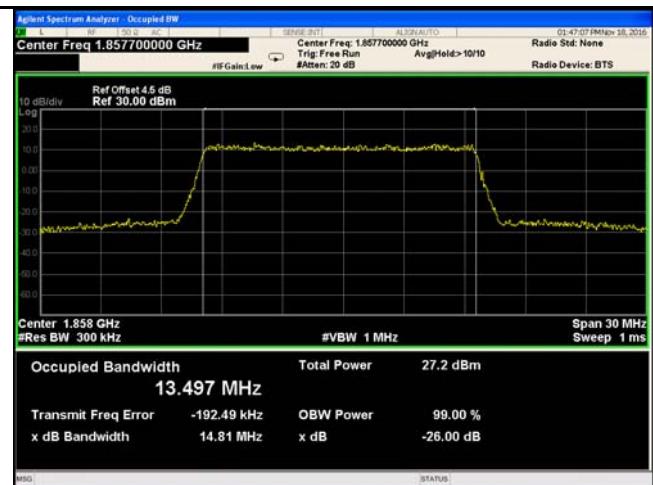
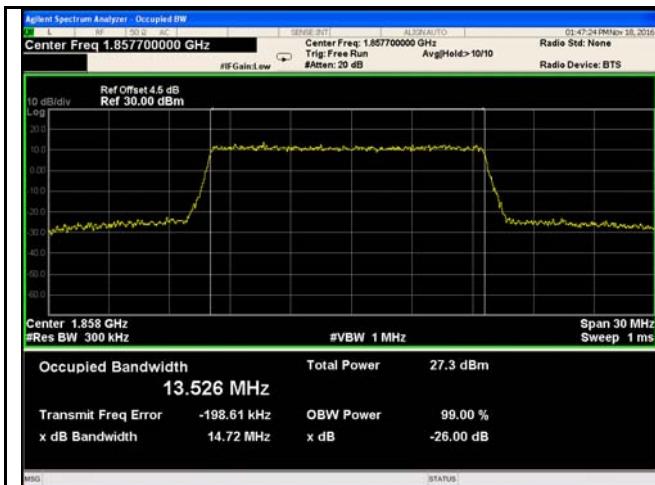
LTE Band II - Middle CH QPSK-10

LTE Band II - Middle CH 16QAM-10



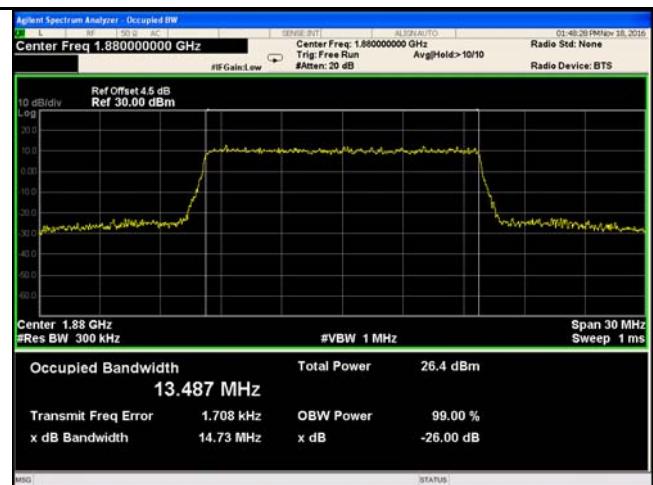
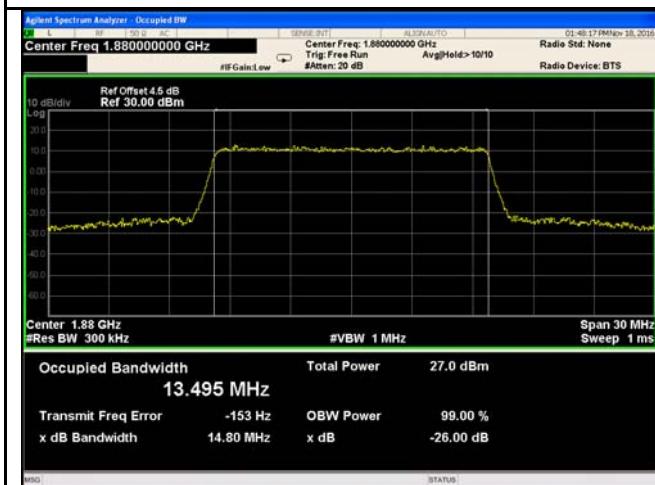
LTE Band II - High CH QPSK-10

LTE Band II - High CH 16QAM-10



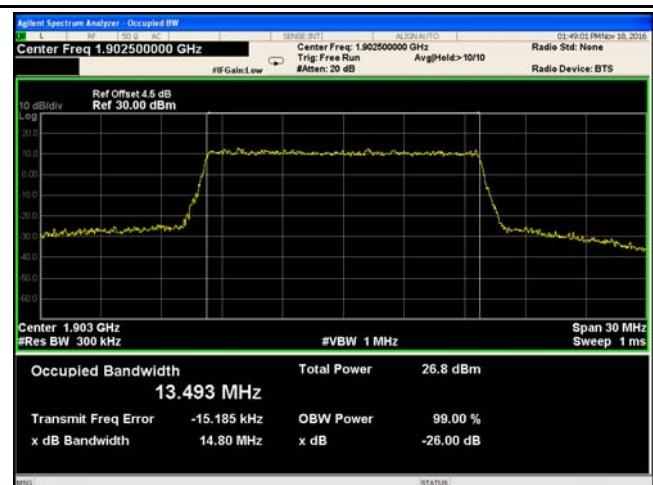
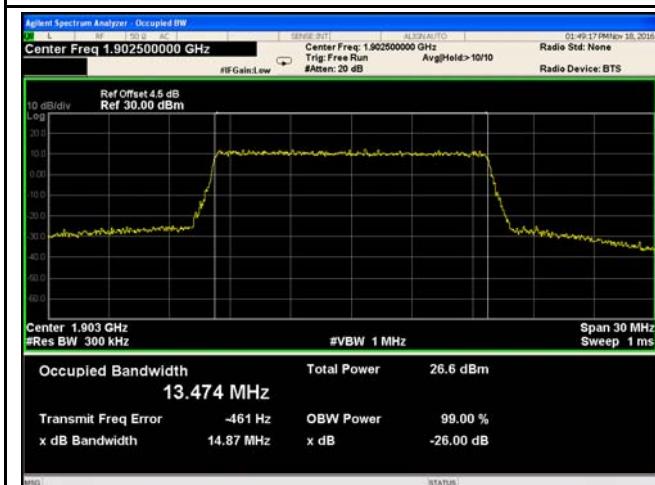
LTE Band II - Low CH QPSK-15

LTE Band II - Low CH 16QAM-15



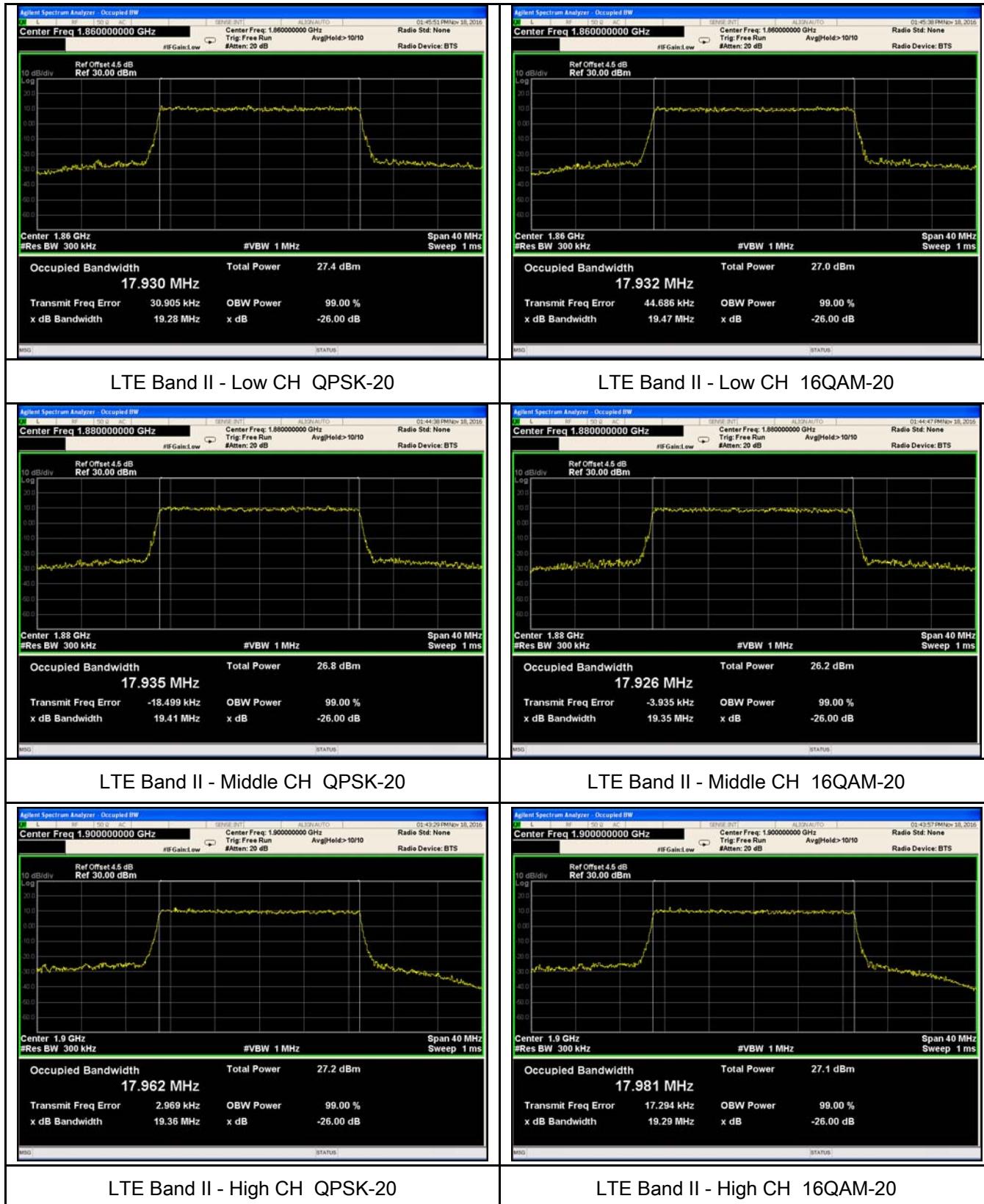
LTE Band II - Middle CH QPSK-15

LTE Band II - Middle CH 16QAM-15

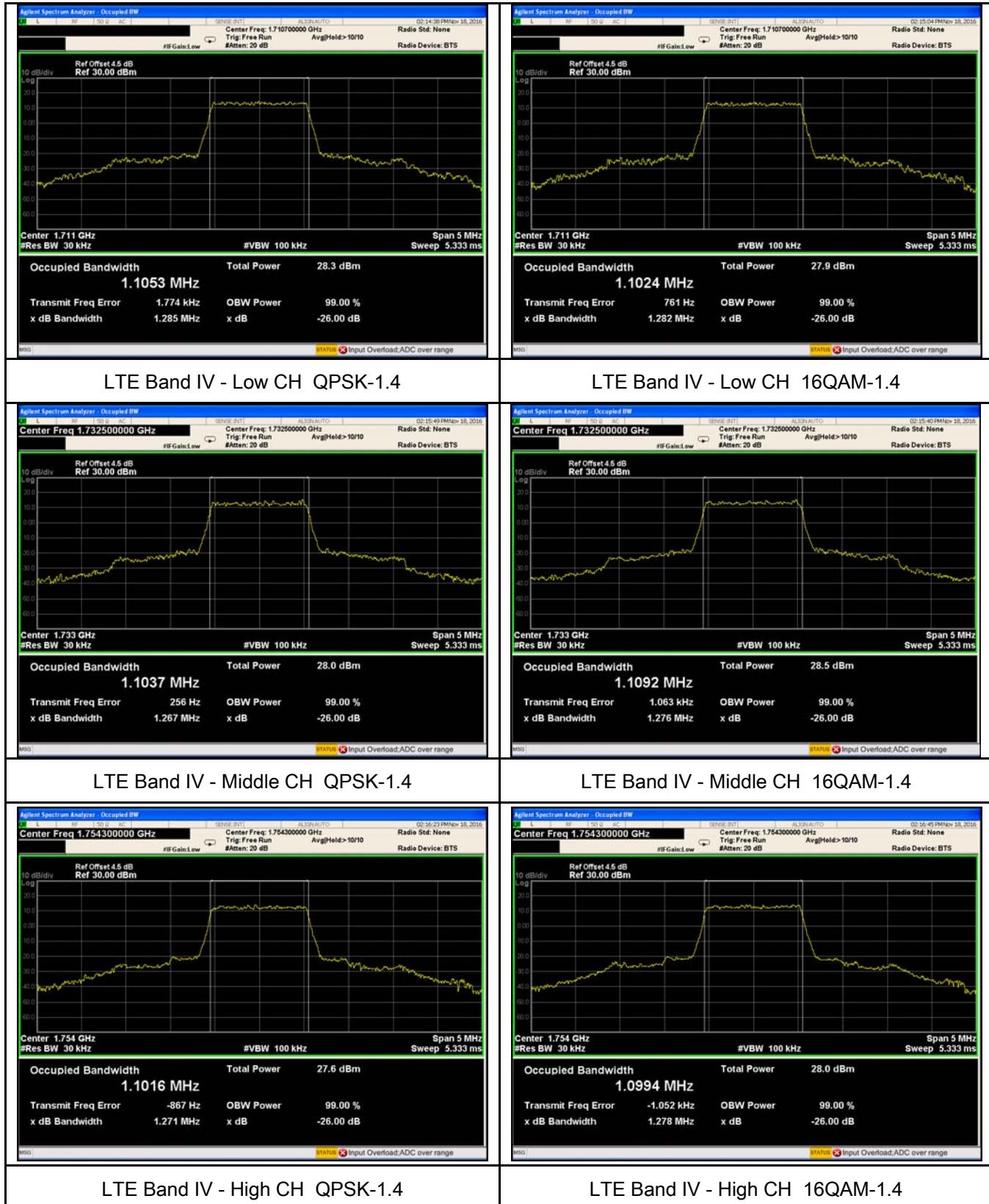


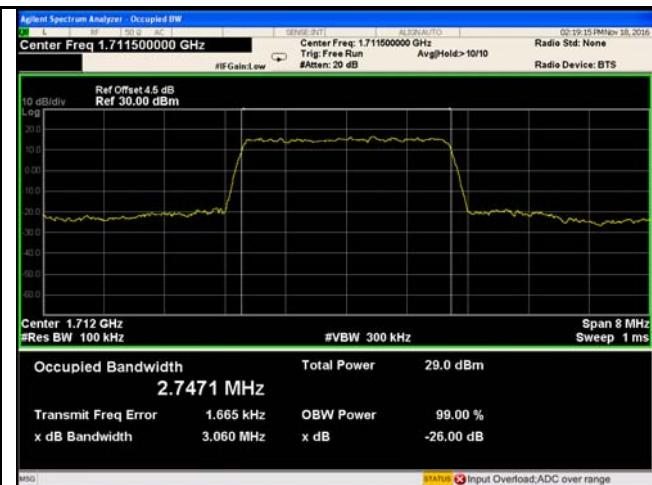
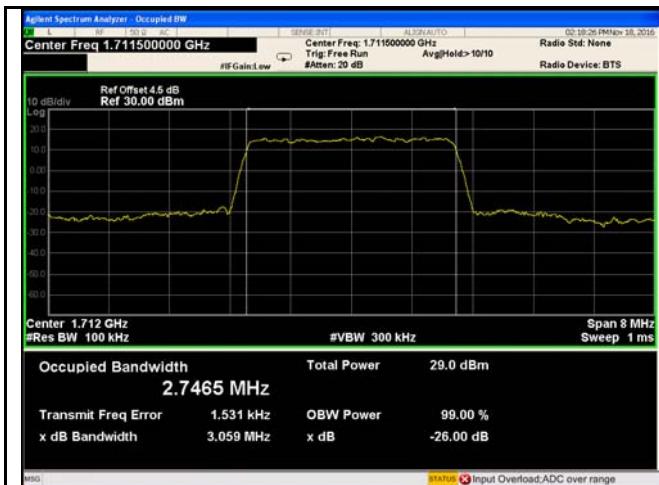
LTE Band II - High CH QPSK-15

LTE Band II - High CH 16QAM-15

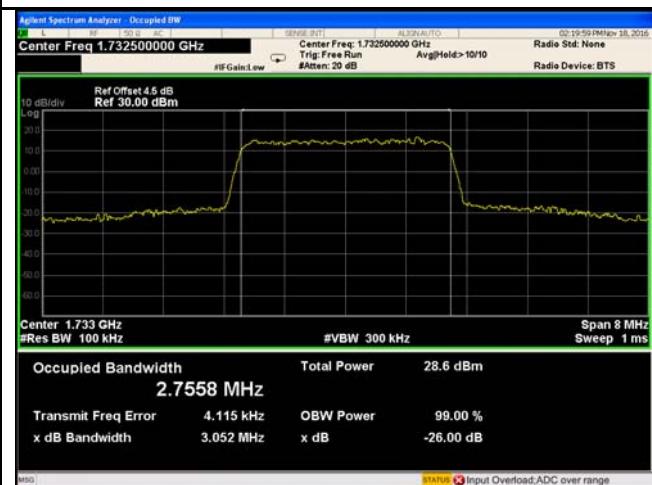
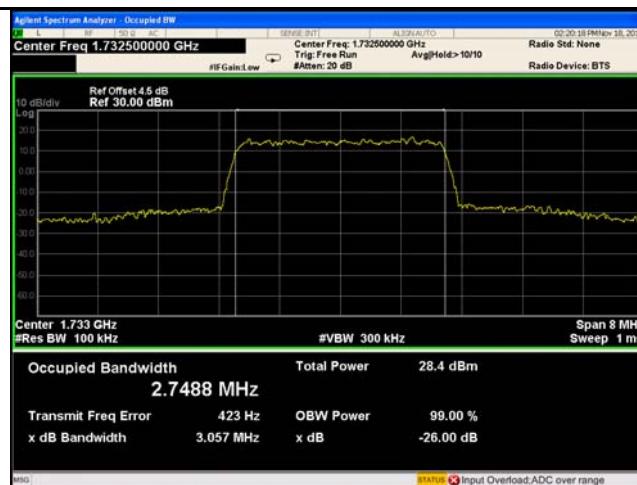


LTE Band IV (Part 27)

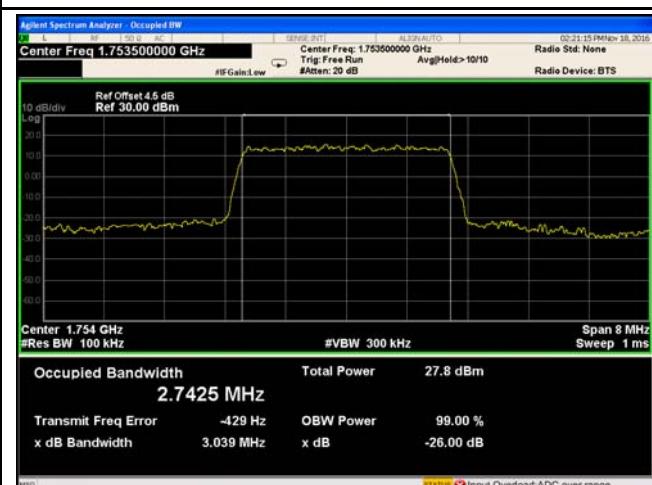
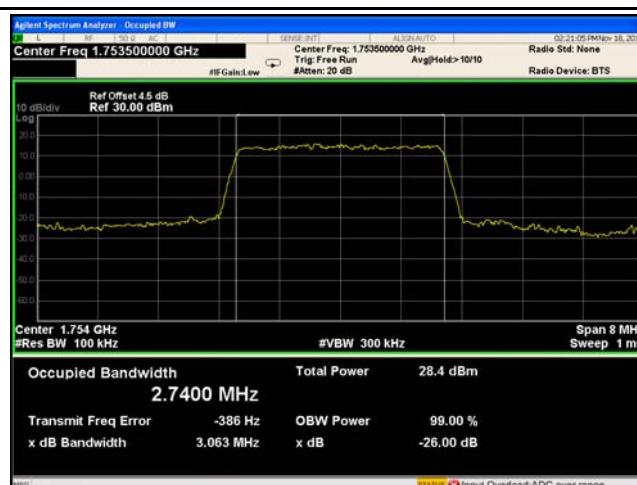




LTE Band IV - Low CH QPSK-3

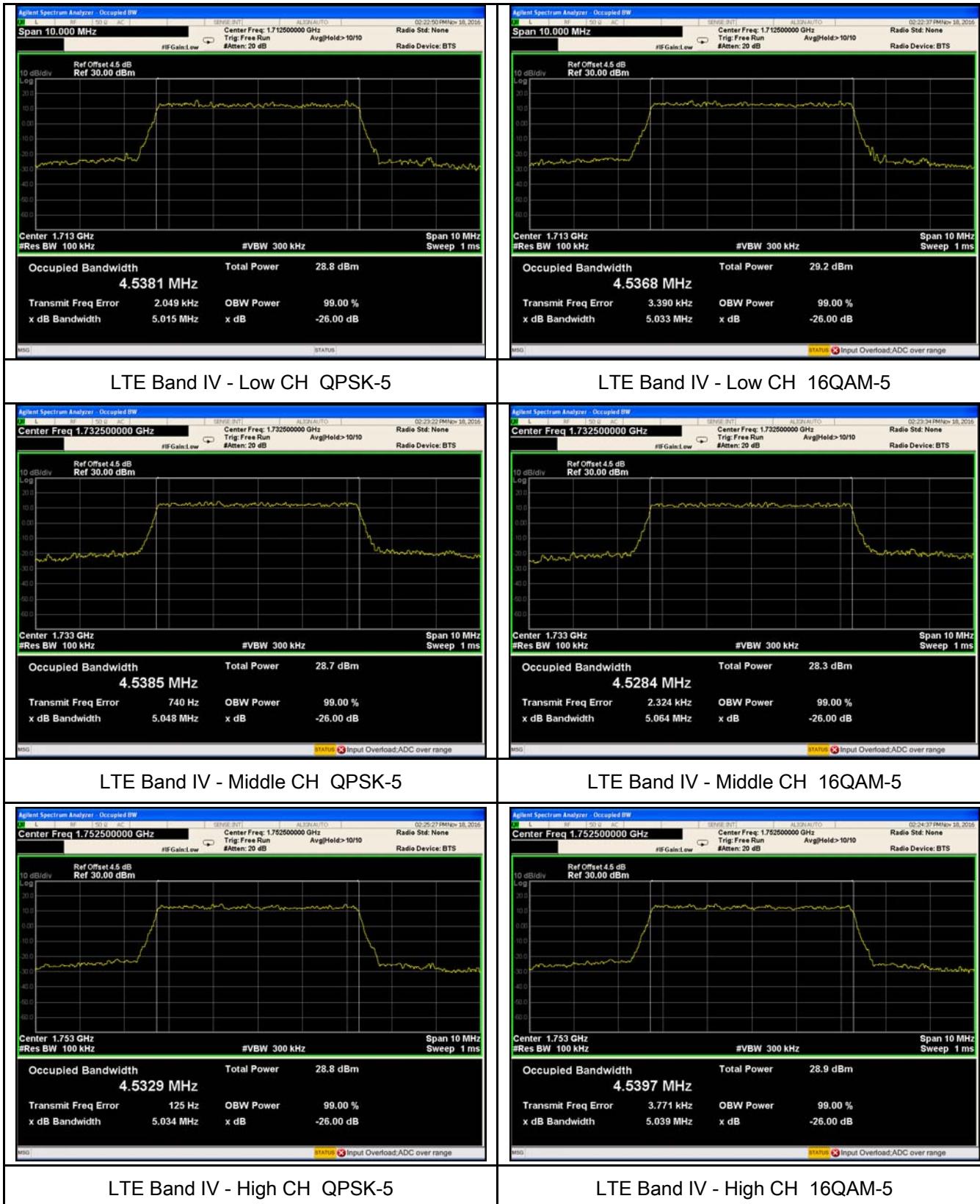


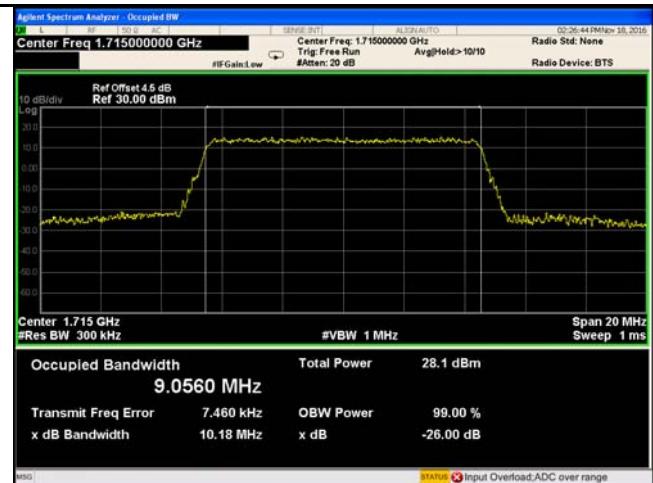
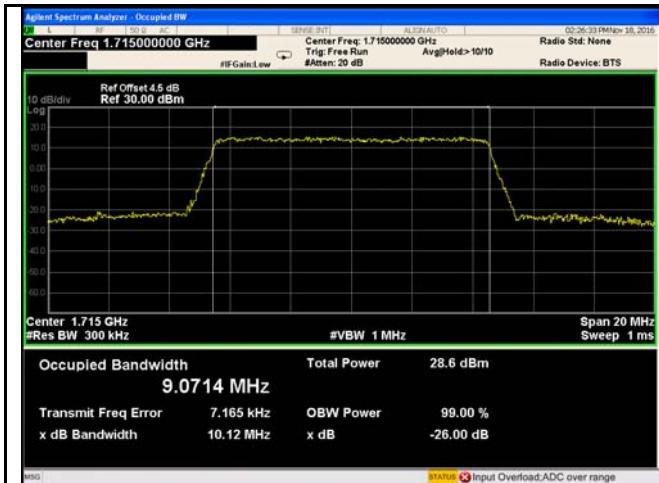
LTE Band IV - Middle CH QPSK-3



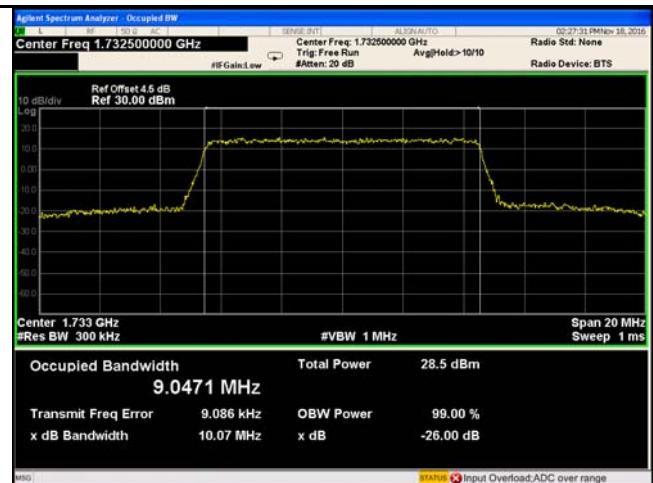
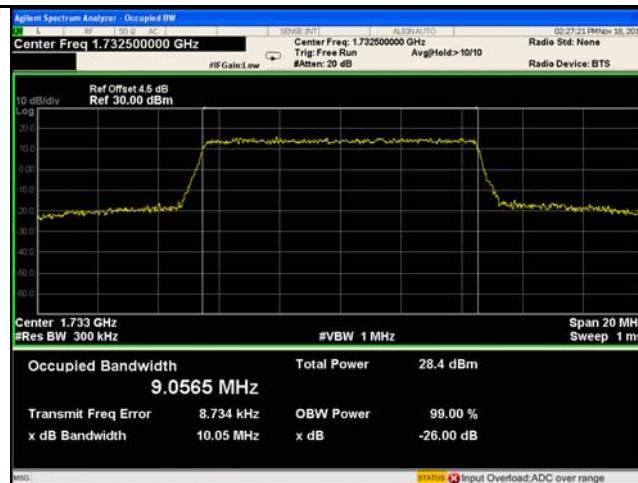
LTE Band IV - High CH QPSK-3

LTE Band IV - High CH 16QAM-3

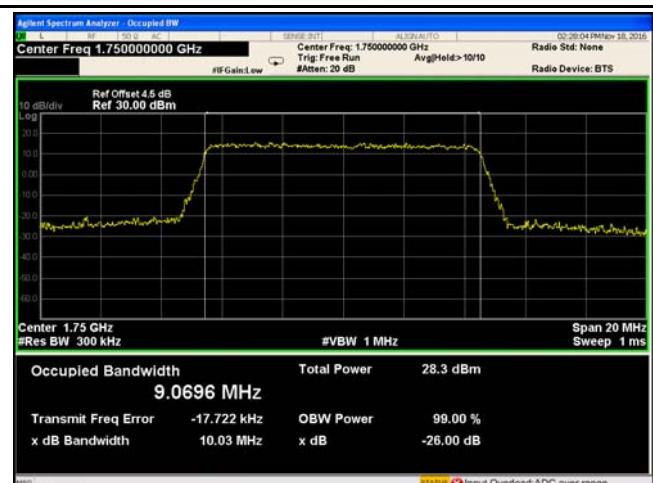
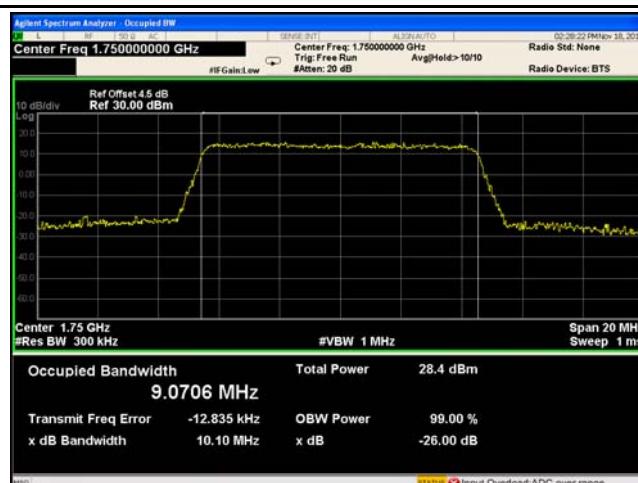




LTE Band IV - Low CH QPSK-10

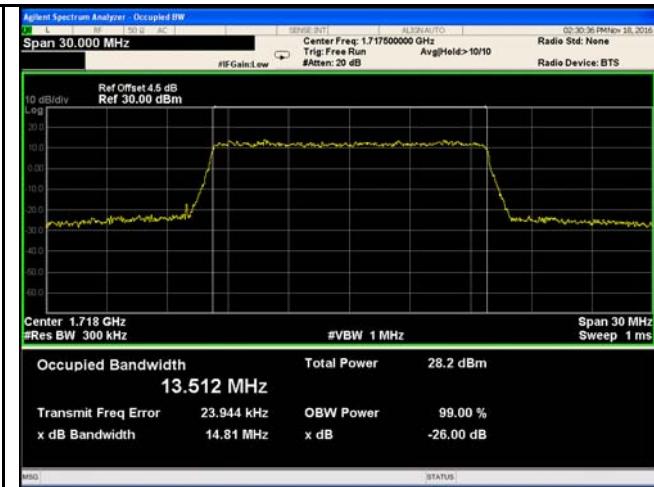
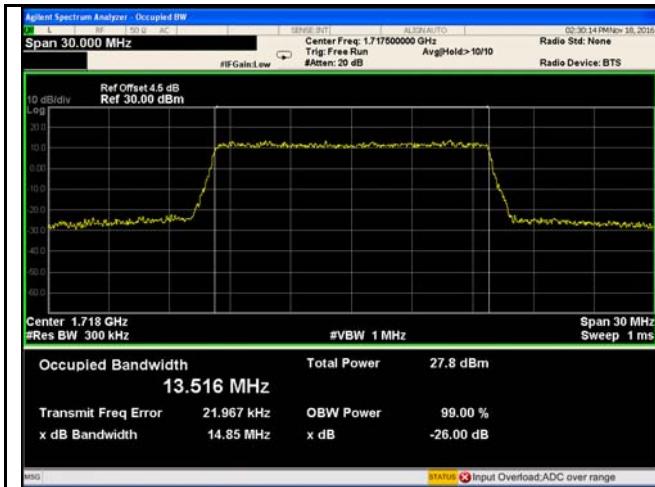


LTE Band IV - Middle CH QPSK-10



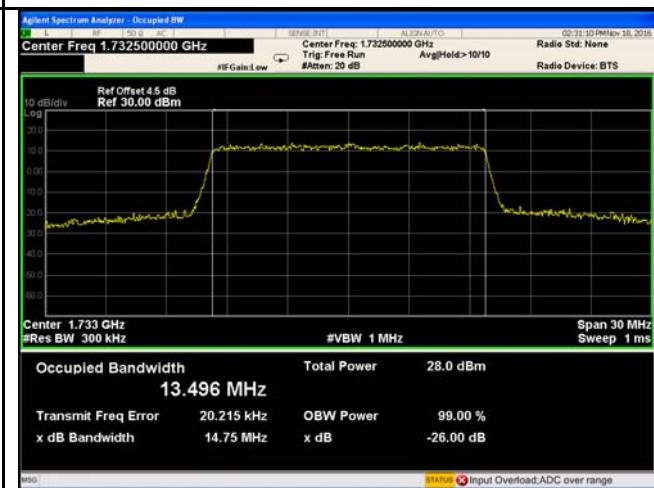
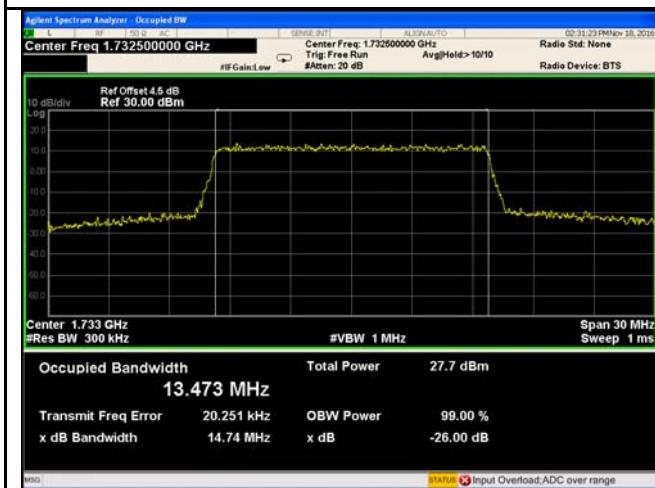
LTE Band IV - High CH QPSK-10

LTE Band IV - High CH 16QAM-10



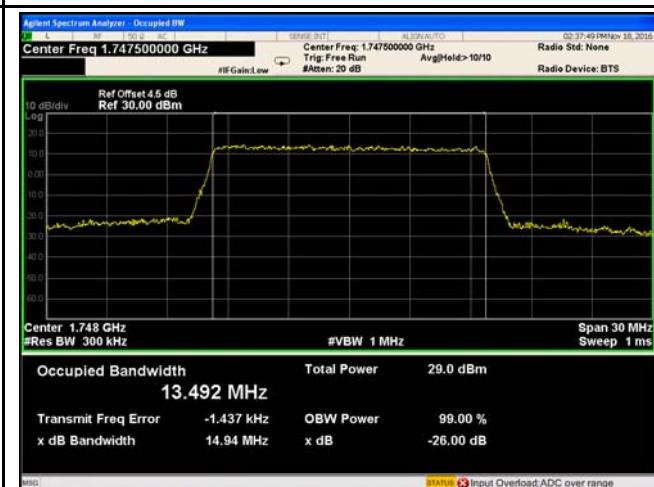
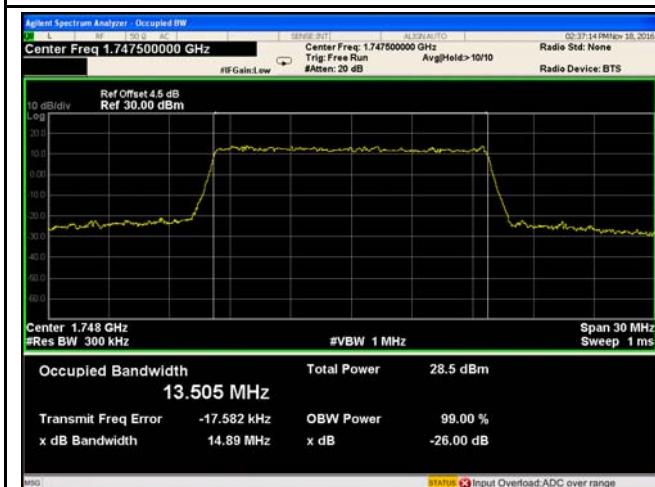
LTE Band IV - Low CH QPSK-15

LTE Band IV - Low CH 16QAM-15



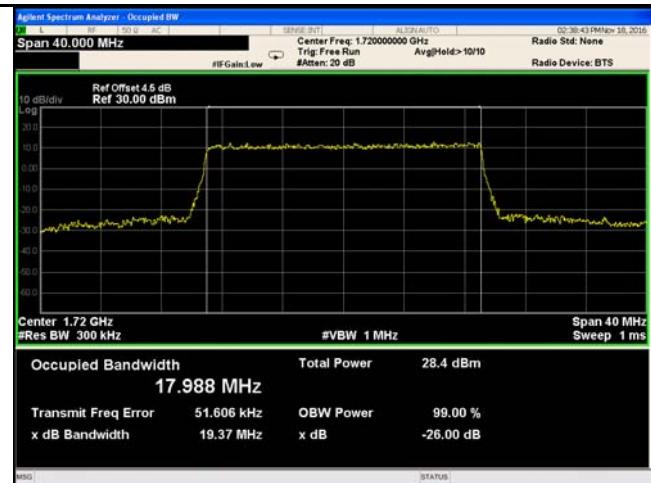
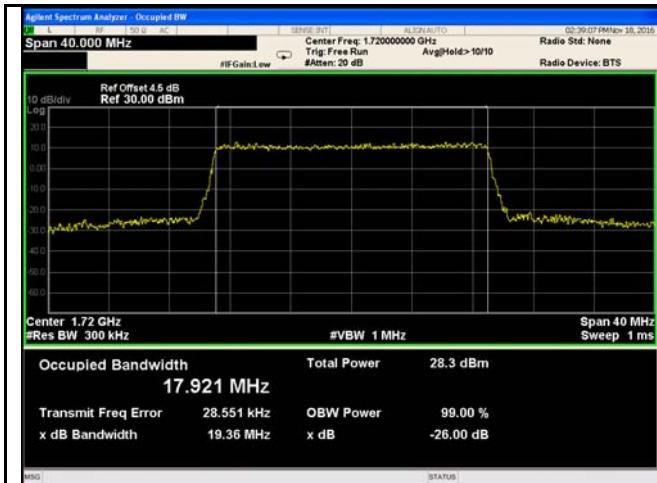
LTE Band IV - Middle CH QPSK-15

LTE Band IV - Middle CH 16QAM-15



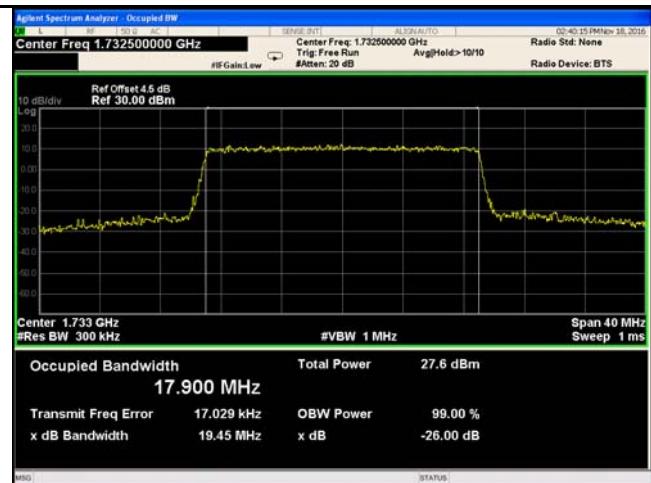
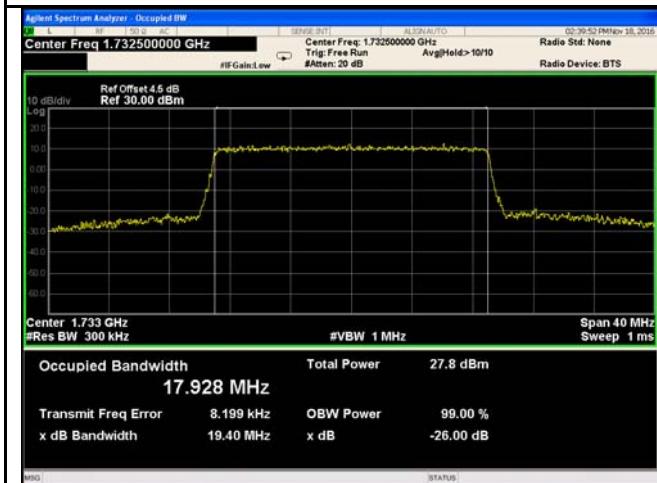
LTE Band IV - High CH QPSK-15

LTE Band IV - High CH 16QAM-15



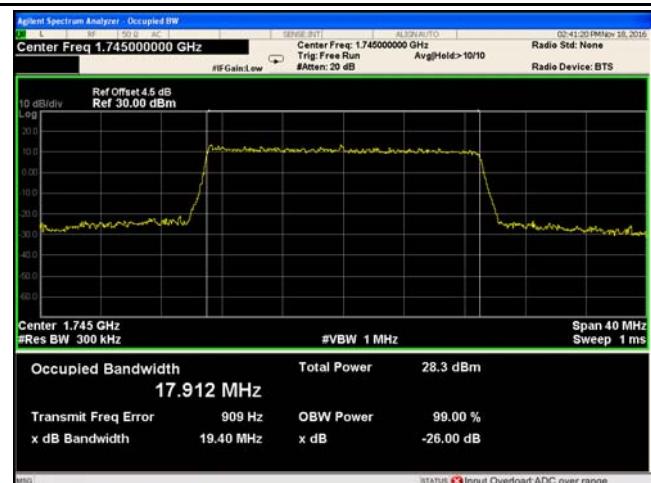
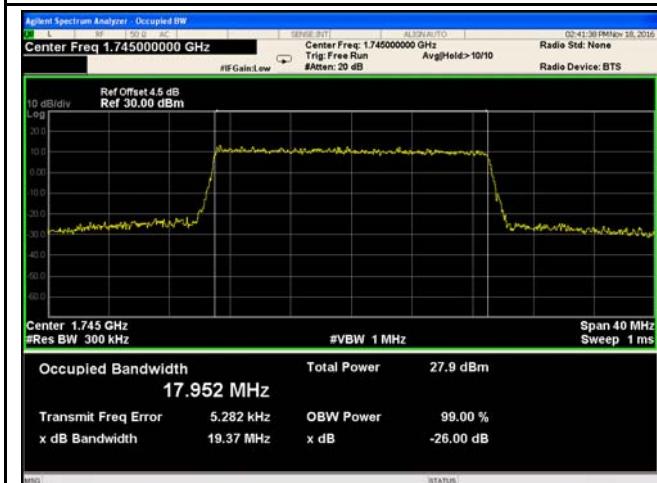
LTE Band IV - Low CH QPSK-20

LTE Band IV - Low CH 16QAM-20



LTE Band IV - Middle CH QPSK-20

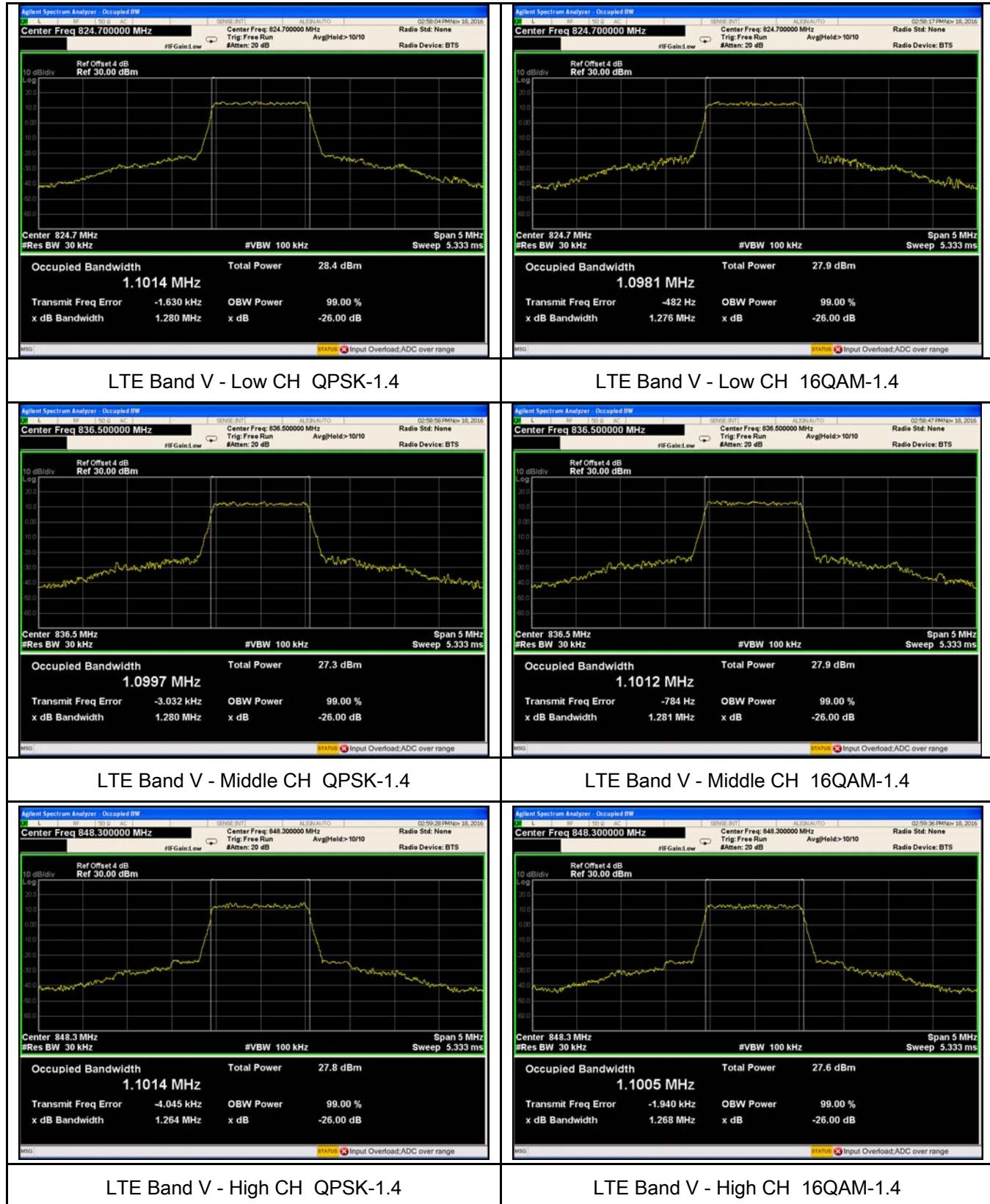
LTE Band IV - Middle CH 16QAM-20

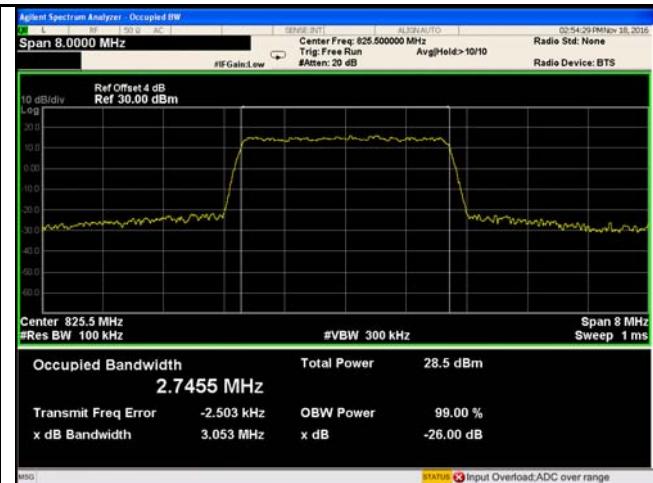
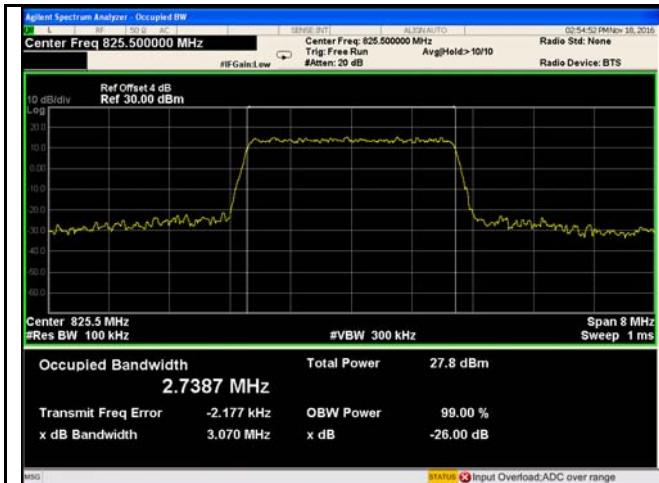


LTE Band IV - High CH QPSK-20

LTE Band IV - High CH 16QAM-20

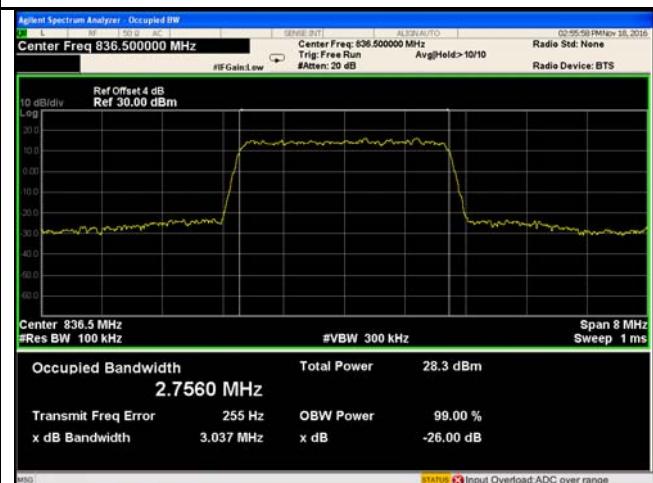
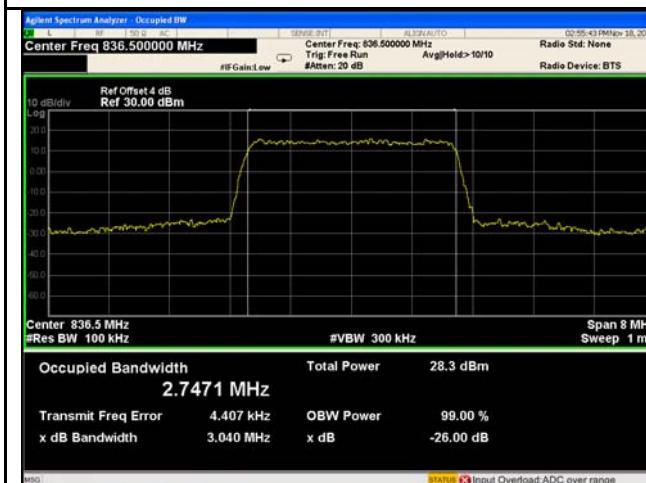
LTE Band V (Part 22H)





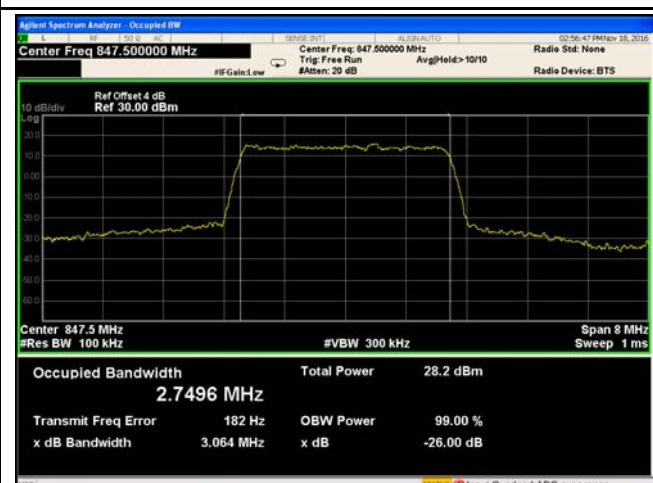
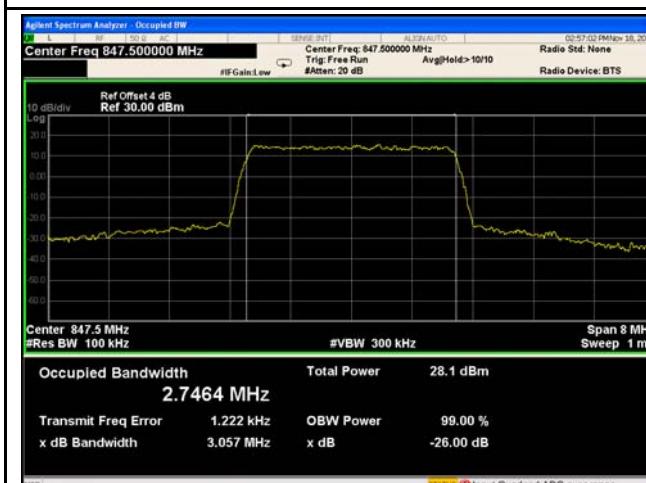
LTE Band V - Low CH QPSK-3

LTE Band V - Low CH 16QAM-3



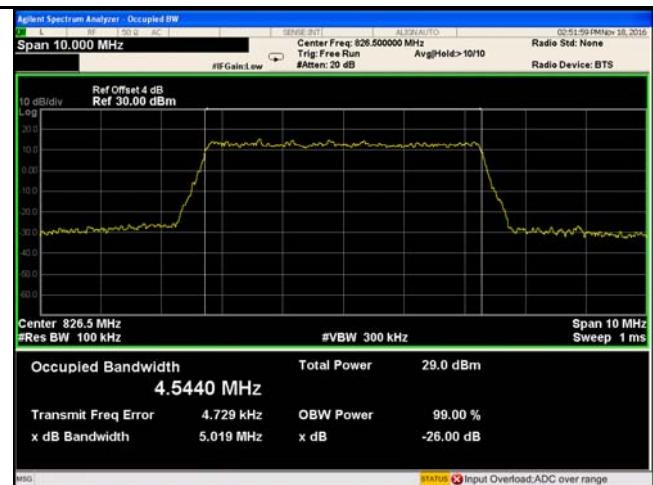
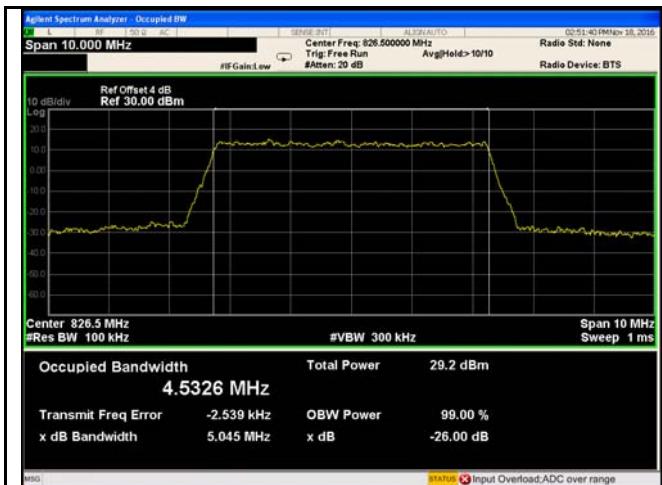
LTE Band V - Middle CH QPSK-3

LTE Band V - Middle CH 16QAM-3



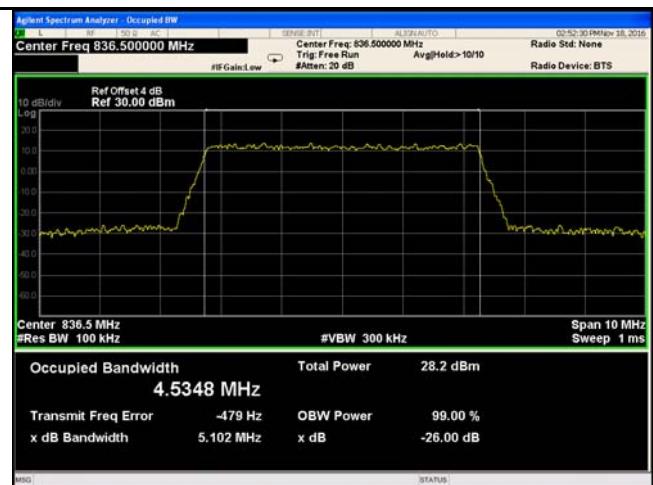
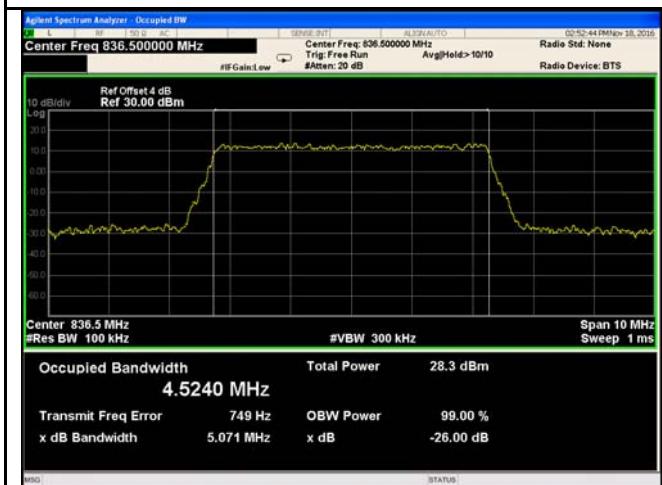
LTE Band V - High CH QPSK-3

LTE Band V - High CH 16QAM-3



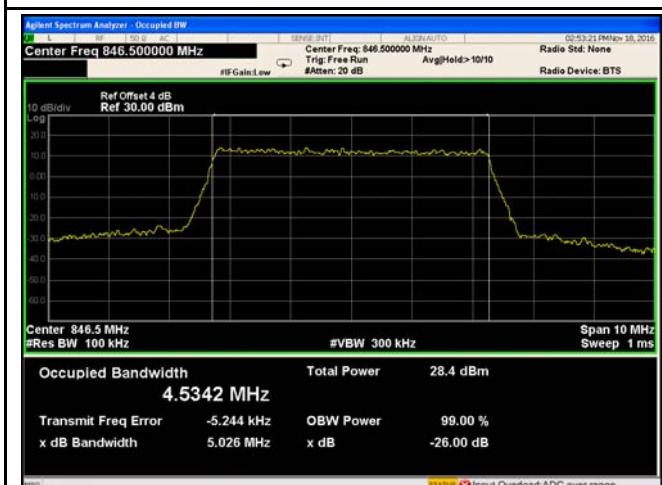
LTE Band V - Low CH QPSK-5

LTE Band V - Low CH 16QAM-5



LTE Band V - Middle CH QPSK-5

LTE Band V - Middle CH 16QAM-5



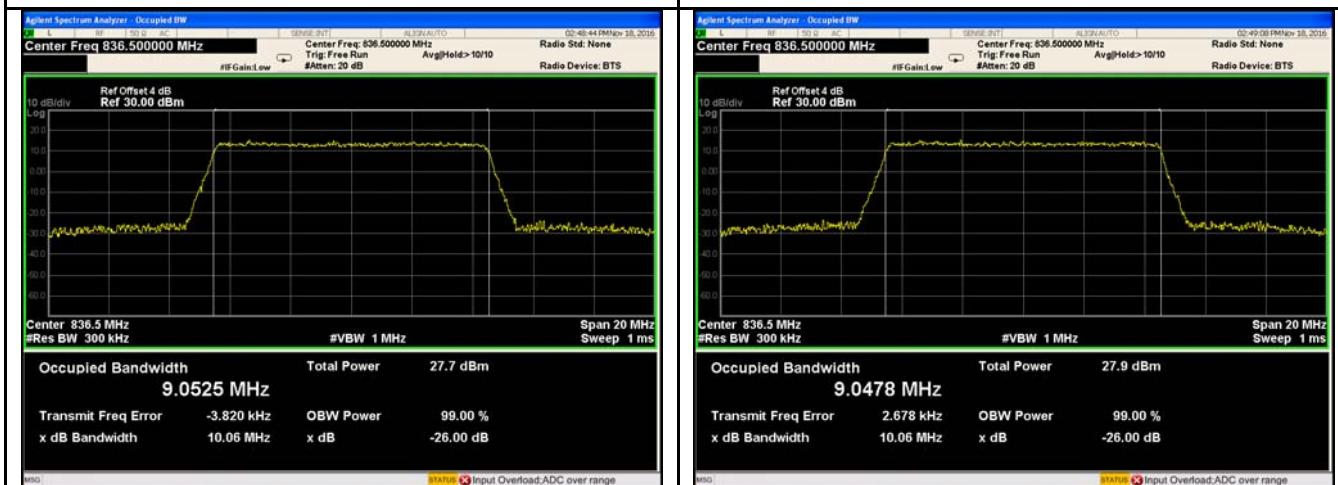
LTE Band V - High CH QPSK-5

LTE Band V - High CH 16QAM-5



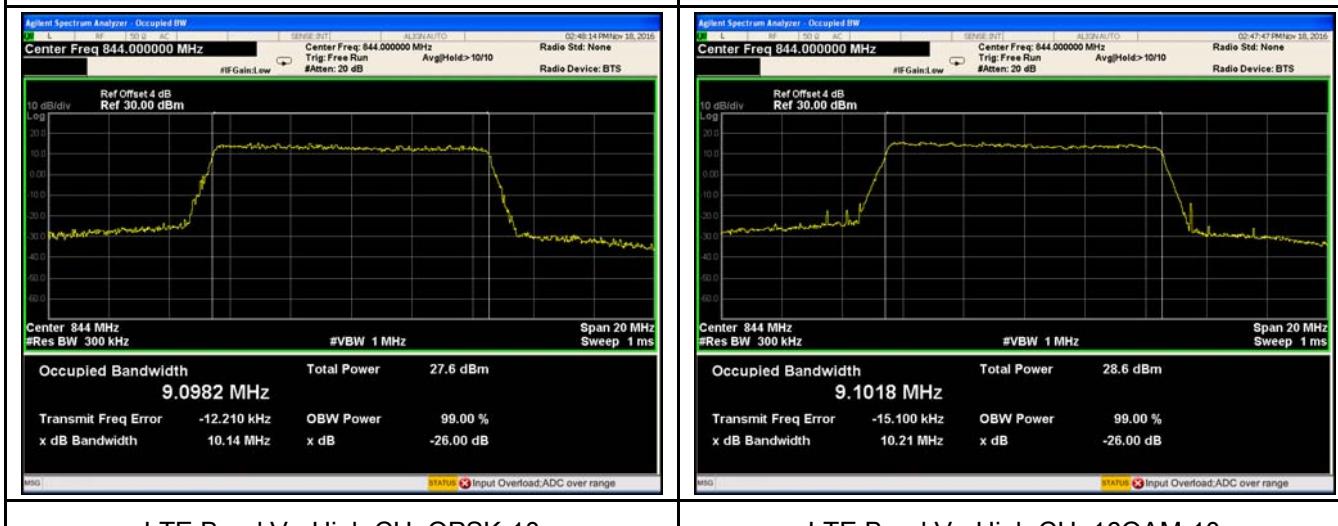
LTE Band V - Low CH QPSK-10

LTE Band V - Low CH 16QAM-10



LTE Band V - Middle CH QPSK-10

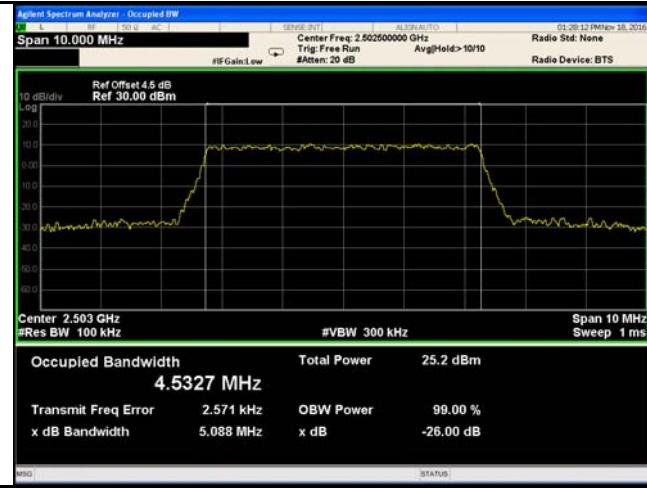
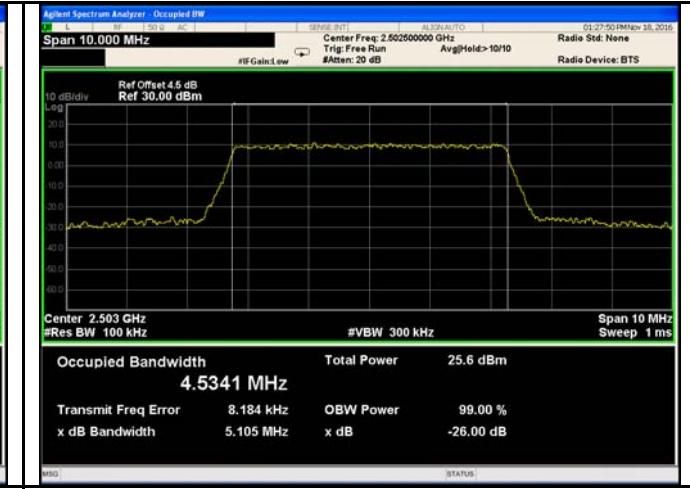
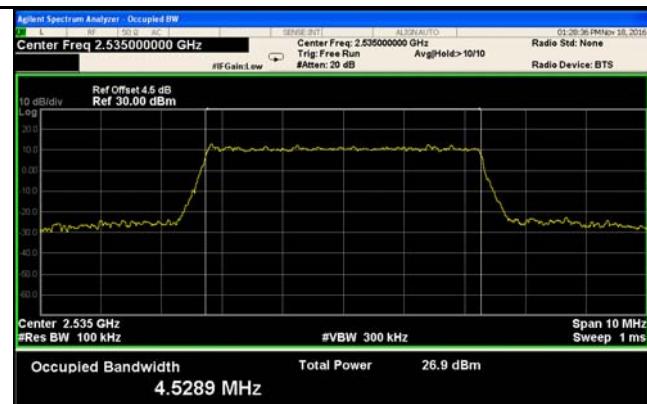
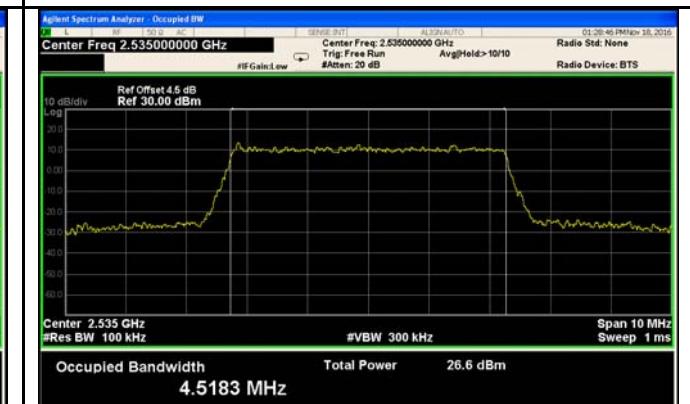
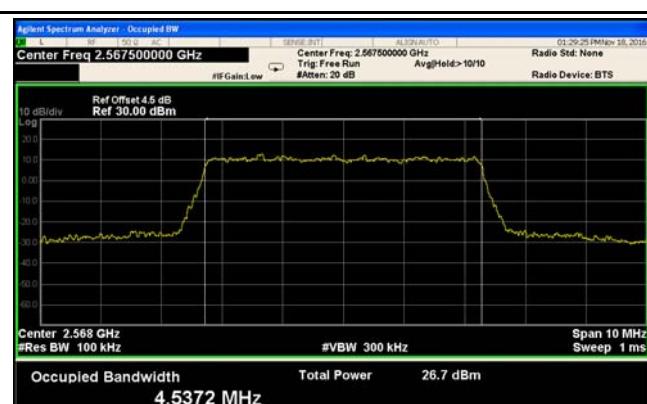
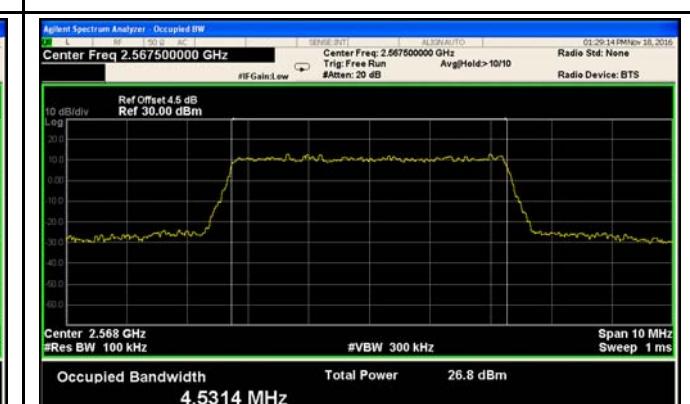
LTE Band V - Middle CH 16QAM-10

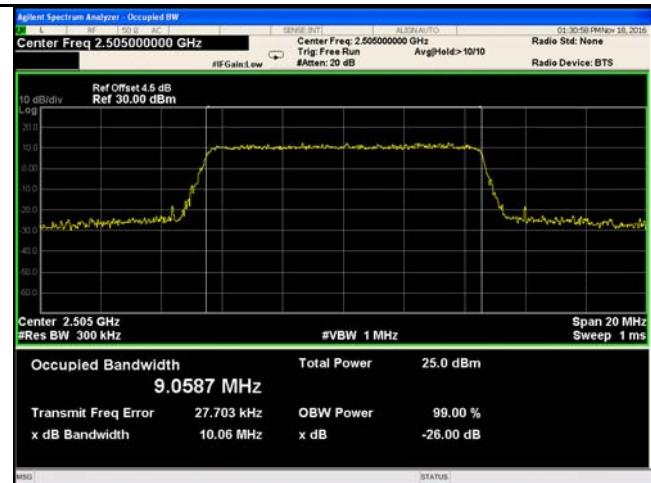
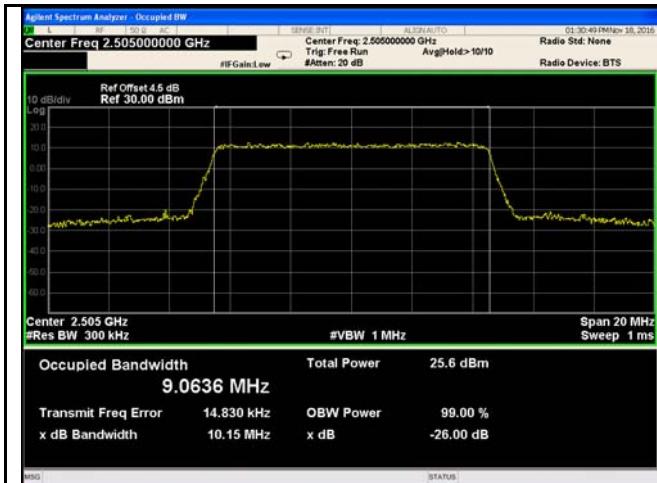


LTE Band V - High CH QPSK-10

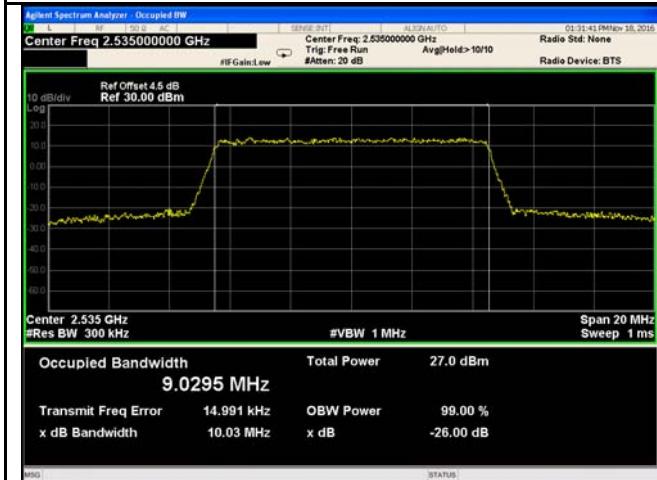
LTE Band V - High CH 16QAM-10

LTE Band VII (Part 27)

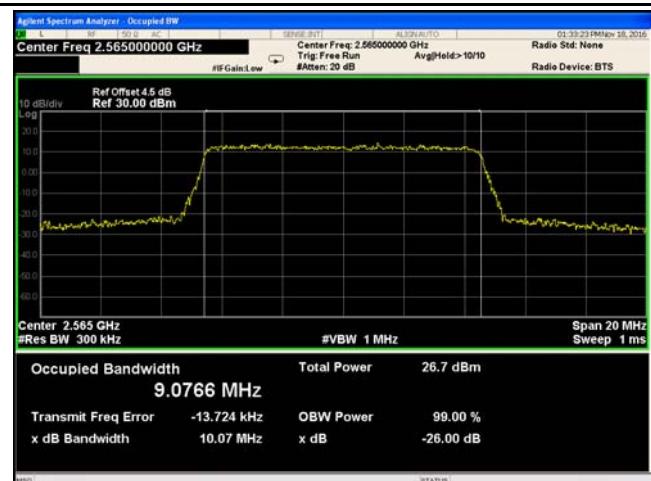
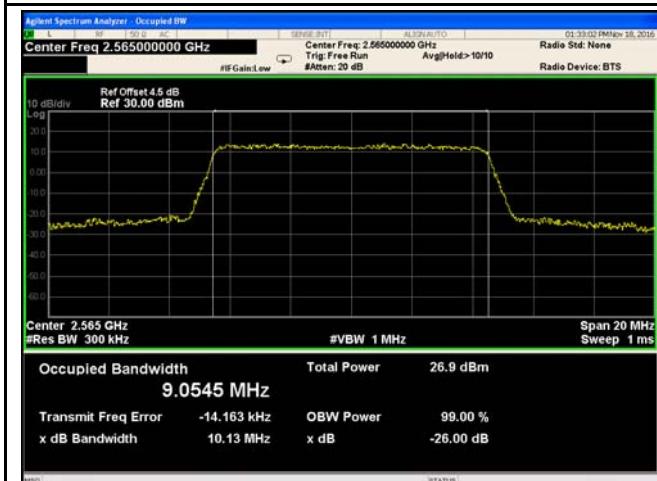
 <p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Span 10.000 MHz</p> <p>Center Freq: 2.502500000 GHz</p> <p>#IFGain:Low Trig: Free Run Avg/Hold>10/10 #Atten: 20 dB</p> <p>Ref Offset 4.5 dB Ref 30.00 dBm</p> <p>10 dB/div Log</p> <p>10.0 20.0 30.0 40.0 50.0 60.0</p> <p>Center 2.503 GHz #Res BW 100 kHz #VBW 300 kHz Span 10 MHz Sweep 1 ms</p> <table border="1"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>25.2 dBm</td> </tr> <tr> <td>4.5327 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>2.571 kHz</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>x dB Bandwidth</td> <td>5.088 MHz</td> <td>x dB</td> <td>-26.00 dB</td> </tr> </table>	Occupied Bandwidth	Total Power	25.2 dBm	4.5327 MHz			Transmit Freq Error	2.571 kHz	OBW Power	99.00 %	x dB Bandwidth	5.088 MHz	x dB	-26.00 dB	 <p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Span 10.000 MHz</p> <p>Center Freq: 2.502500000 GHz</p> <p>#IFGain:Low Trig: Free Run Avg/Hold>10/10 #Atten: 20 dB</p> <p>Ref Offset 4.5 dB Ref 30.00 dBm</p> <p>10 dB/div Log</p> <p>10.0 20.0 30.0 40.0 50.0 60.0</p> <p>Center 2.503 GHz #Res BW 100 kHz #VBW 300 kHz Span 10 MHz Sweep 1 ms</p> <table border="1"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>25.6 dBm</td> </tr> <tr> <td>4.5341 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>8.184 kHz</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>x dB Bandwidth</td> <td>5.105 MHz</td> <td>x dB</td> <td>-26.00 dB</td> </tr> </table>	Occupied Bandwidth	Total Power	25.6 dBm	4.5341 MHz			Transmit Freq Error	8.184 kHz	OBW Power	99.00 %	x dB Bandwidth	5.105 MHz	x dB	-26.00 dB
Occupied Bandwidth	Total Power	25.2 dBm																											
4.5327 MHz																													
Transmit Freq Error	2.571 kHz	OBW Power	99.00 %																										
x dB Bandwidth	5.088 MHz	x dB	-26.00 dB																										
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Transmit Freq Error	8.184 kHz	OBW Power	99.00 %																										
x dB Bandwidth	5.105 MHz	x dB	-26.00 dB																										
<h3>LTE Band VII - Low CH QPSK-5</h3>  <p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 2.535000000 GHz</p> <p>#IFGain:Low Trig: Free Run Avg/Hold>10/10 #Atten: 20 dB</p> <p>Ref Offset 4.5 dB Ref 30.00 dBm</p> <p>10 dB/div Log</p> <p>10.0 20.0 30.0 40.0 50.0 60.0</p> <p>Center 2.535 GHz #Res BW 100 kHz #VBW 300 kHz Span 10 MHz Sweep 1 ms</p> <table border="1"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>26.9 dBm</td> </tr> <tr> <td>4.5289 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>1.661 kHz</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>x dB Bandwidth</td> <td>5.024 MHz</td> <td>x dB</td> <td>-26.00 dB</td> </tr> </table>	Occupied Bandwidth	Total Power	26.9 dBm	4.5289 MHz			Transmit Freq Error	1.661 kHz	OBW Power	99.00 %	x dB Bandwidth	5.024 MHz	x dB	-26.00 dB	<h3>LTE Band VII - Low CH 16QAM-5</h3>  <p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 2.535000000 GHz</p> <p>#IFGain:Low Trig: Free Run Avg/Hold>10/10 #Atten: 20 dB</p> <p>Ref Offset 4.5 dB Ref 30.00 dBm</p> <p>10 dB/div Log</p> <p>10.0 20.0 30.0 40.0 50.0 60.0</p> <p>Center 2.535 GHz #Res BW 100 kHz #VBW 300 kHz Span 10 MHz Sweep 1 ms</p> <table border="1"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>26.6 dBm</td> </tr> <tr> <td>4.5183 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>4.220 kHz</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>x dB Bandwidth</td> <td>5.056 MHz</td> <td>x dB</td> <td>-26.00 dB</td> </tr> </table>	Occupied Bandwidth	Total Power	26.6 dBm	4.5183 MHz			Transmit Freq Error	4.220 kHz	OBW Power	99.00 %	x dB Bandwidth	5.056 MHz	x dB	-26.00 dB
Occupied Bandwidth	Total Power	26.9 dBm																											
4.5289 MHz																													
Transmit Freq Error	1.661 kHz	OBW Power	99.00 %																										
x dB Bandwidth	5.024 MHz	x dB	-26.00 dB																										
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Transmit Freq Error	4.220 kHz	OBW Power	99.00 %																										
x dB Bandwidth	5.056 MHz	x dB	-26.00 dB																										
<h3>LTE Band VII - Middle CH QPSK-5</h3>  <p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 2.567500000 GHz</p> <p>#IFGain:Low Trig: Free Run Avg/Hold>10/10 #Atten: 20 dB</p> <p>Ref Offset 4.5 dB Ref 30.00 dBm</p> <p>10 dB/div Log</p> <p>10.0 20.0 30.0 40.0 50.0 60.0</p> <p>Center 2.568 GHz #Res BW 100 kHz #VBW 300 kHz Span 10 MHz Sweep 1 ms</p> <table border="1"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>26.7 dBm</td> </tr> <tr> <td>4.5372 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>2.230 kHz</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>x dB Bandwidth</td> <td>5.078 MHz</td> <td>x dB</td> <td>-26.00 dB</td> </tr> </table>	Occupied Bandwidth	Total Power	26.7 dBm	4.5372 MHz			Transmit Freq Error	2.230 kHz	OBW Power	99.00 %	x dB Bandwidth	5.078 MHz	x dB	-26.00 dB	<h3>LTE Band VII - Middle CH 16QAM-5</h3>  <p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 2.567500000 GHz</p> <p>#IFGain:Low Trig: Free Run Avg/Hold>10/10 #Atten: 20 dB</p> <p>Ref Offset 4.5 dB Ref 30.00 dBm</p> <p>10 dB/div Log</p> <p>10.0 20.0 30.0 40.0 50.0 60.0</p> <p>Center 2.568 GHz #Res BW 100 kHz #VBW 300 kHz Span 10 MHz Sweep 1 ms</p> <table border="1"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>26.8 dBm</td> </tr> <tr> <td>4.5314 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>1.112 kHz</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>x dB Bandwidth</td> <td>5.037 MHz</td> <td>x dB</td> <td>-26.00 dB</td> </tr> </table>	Occupied Bandwidth	Total Power	26.8 dBm	4.5314 MHz			Transmit Freq Error	1.112 kHz	OBW Power	99.00 %	x dB Bandwidth	5.037 MHz	x dB	-26.00 dB
Occupied Bandwidth	Total Power	26.7 dBm																											
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Transmit Freq Error	1.112 kHz	OBW Power	99.00 %																										
x dB Bandwidth	5.037 MHz	x dB	-26.00 dB																										
<h3>LTE Band VII - High CH QPSK-5</h3>	<h3>LTE Band VII - High CH 16QAM-5</h3>																												



LTE Band VII - Low CH QPSK-10

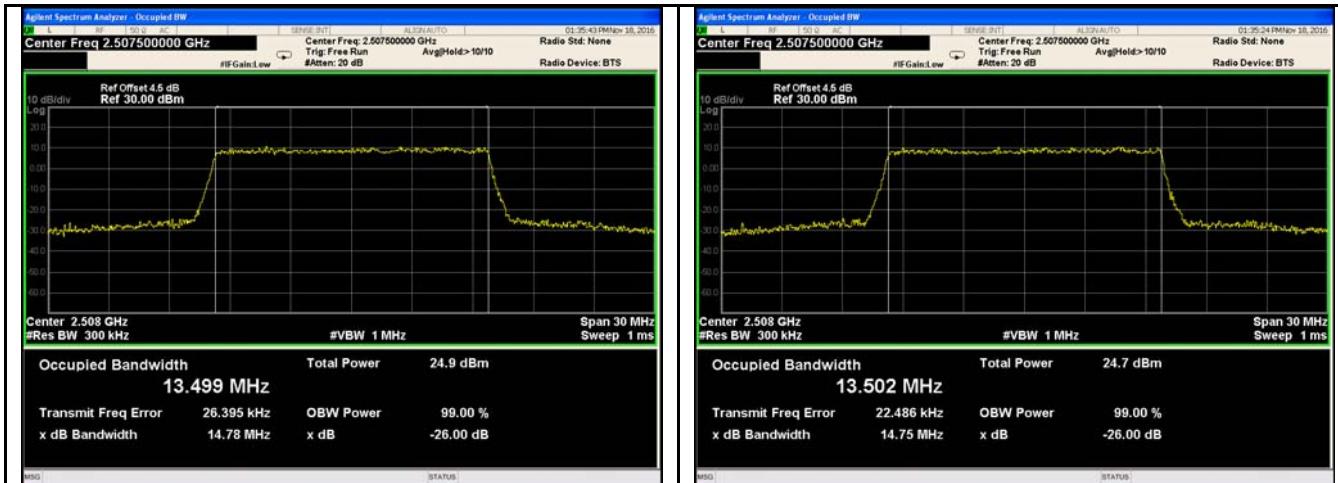


LTE Band VII - Middle CH QPSK-10



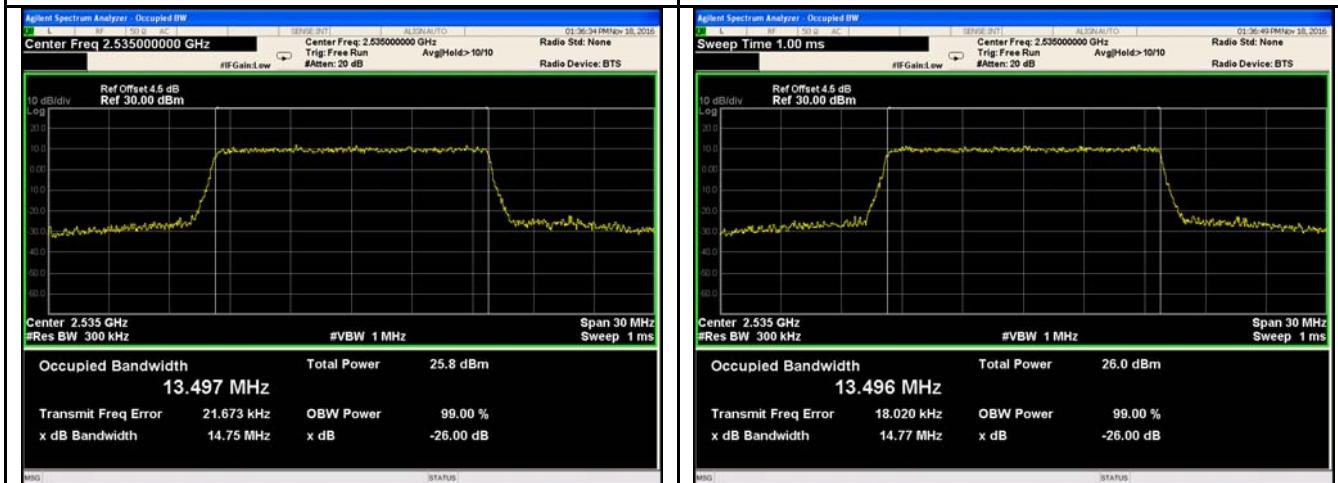
LTE Band VII - High CH QPSK-10

LTE Band VII - High CH 16QAM-10



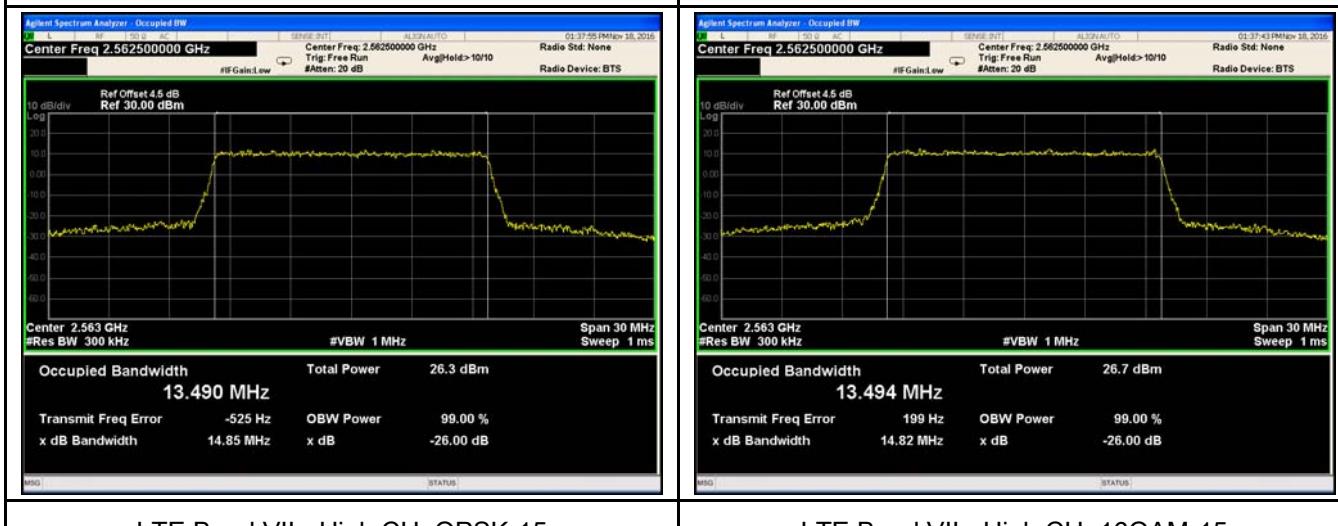
LTE Band VII - Low CH QPSK-15

LTE Band VII - Low CH 16QAM-15



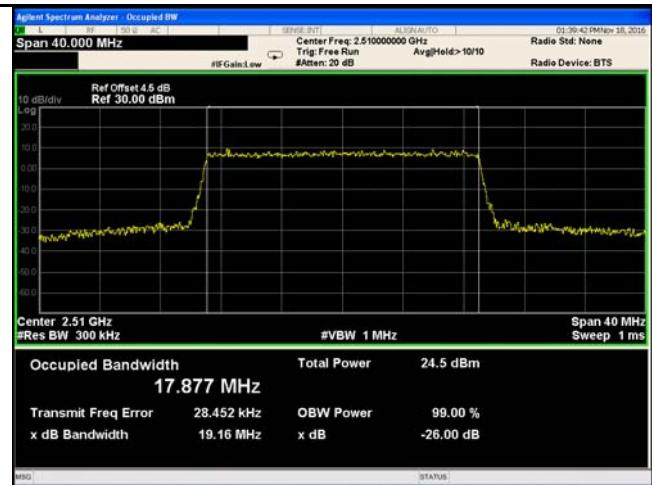
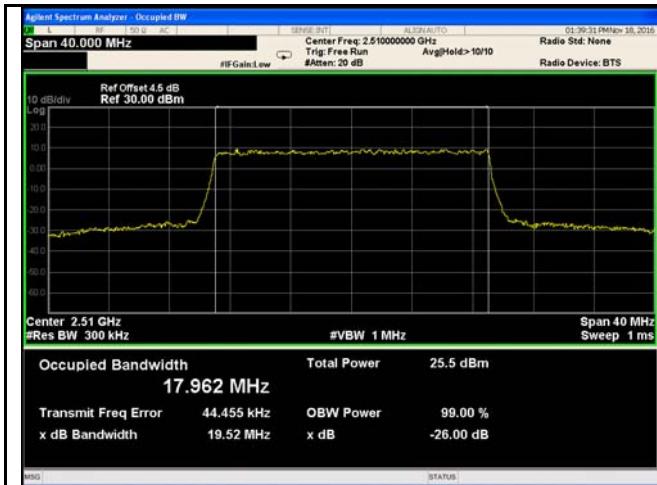
LTE Band VII - Middle CH QPSK-15

LTE Band VII - Middle CH 16QAM-15



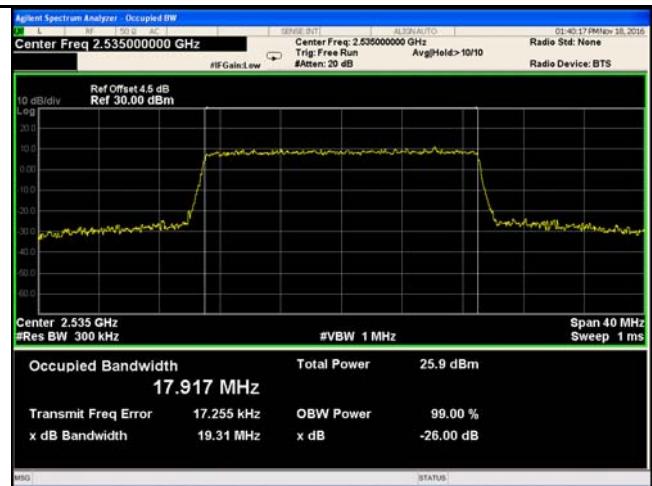
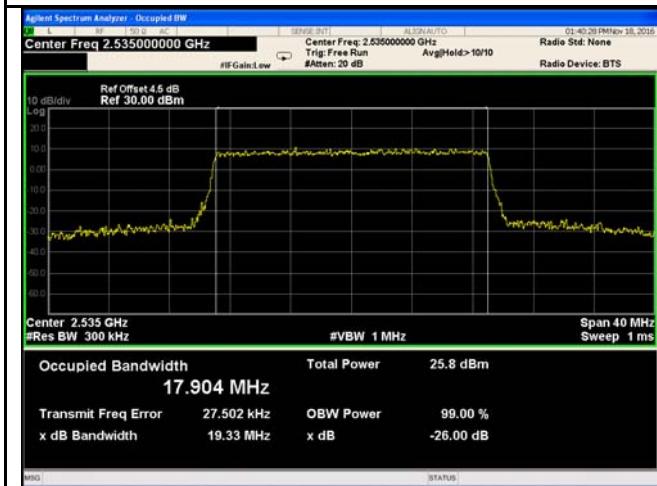
LTE Band VII - High CH QPSK-15

LTE Band VII - High CH 16QAM-15



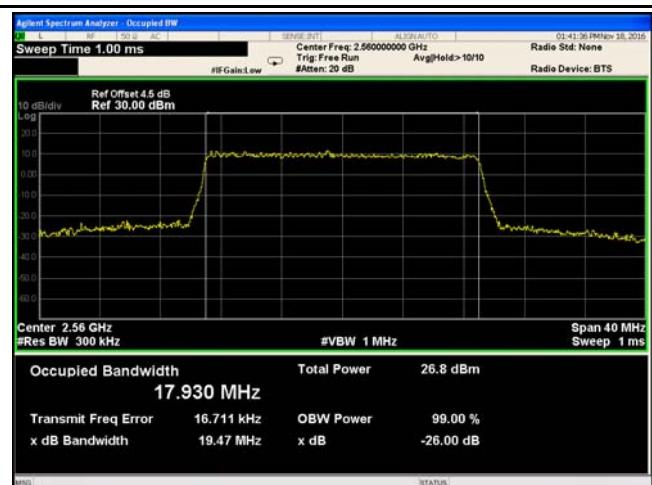
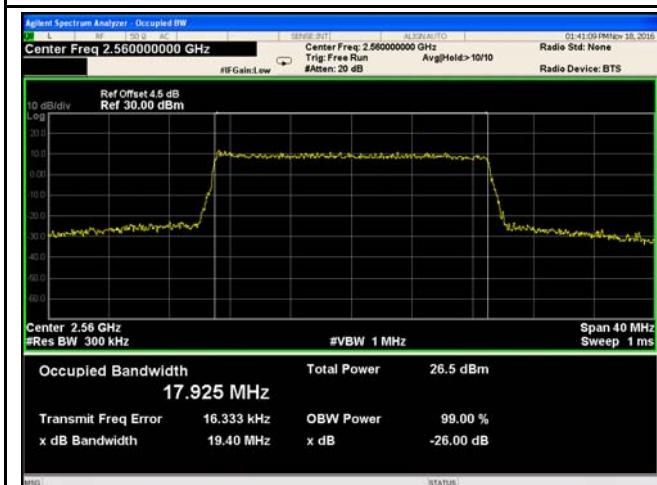
LTE Band VII - Low CH QPSK-20

LTE Band VII - Low CH 16QAM-20



LTE Band VII - Middle CH QPSK-20

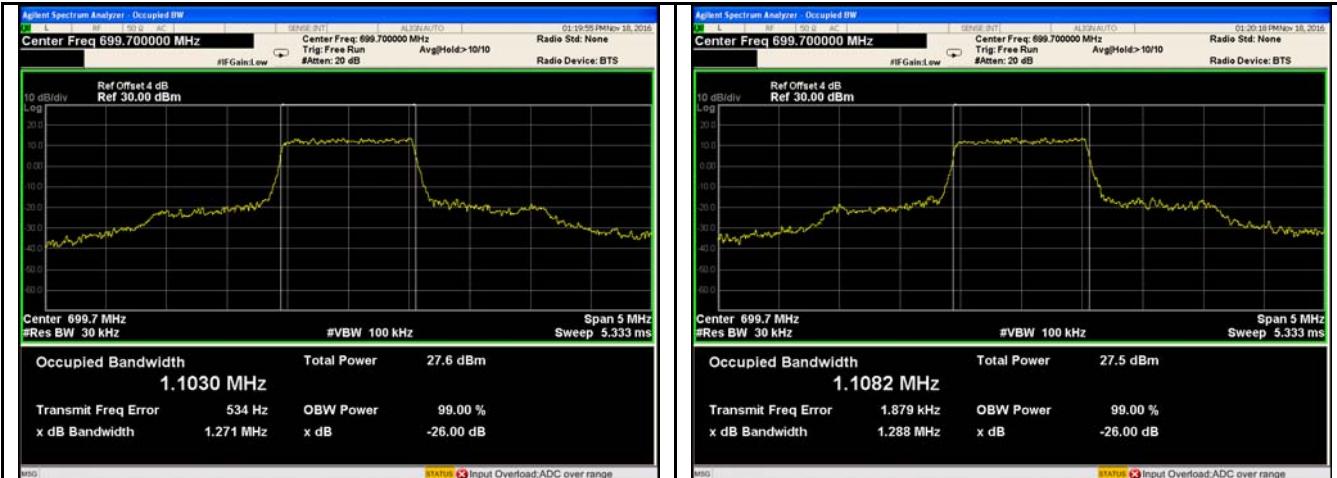
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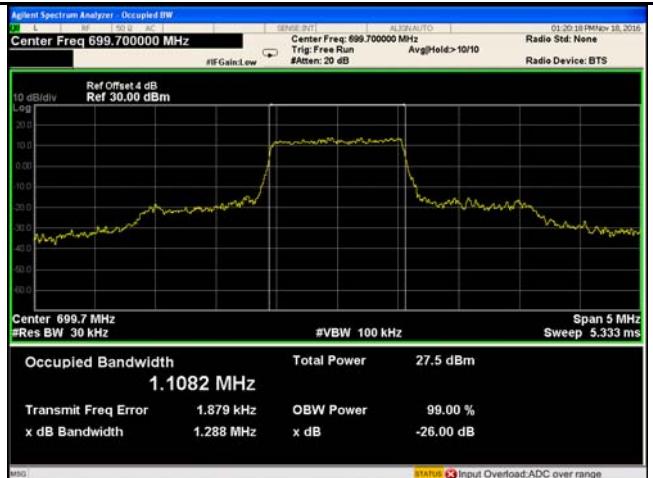
LTE Band VII - High CH QPSK-20

LTE Band VII - High CH 16QAM-20

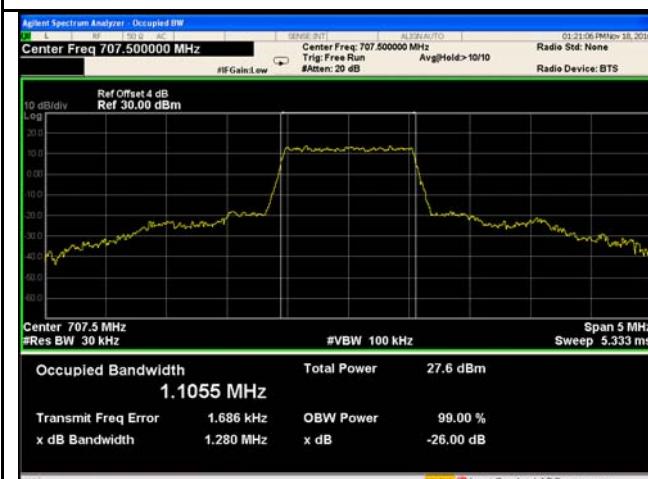
LTE Band XII (Part 27)



LTE Band XII - Low CH QPSK-1.4



LTE Band XII - Low CH 16QAM-1.4



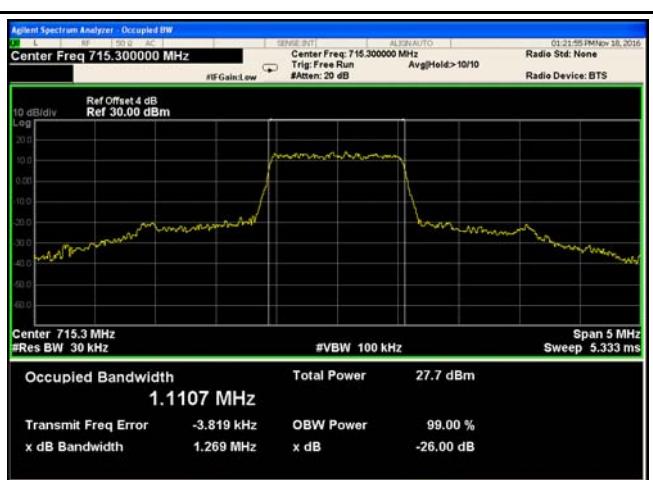
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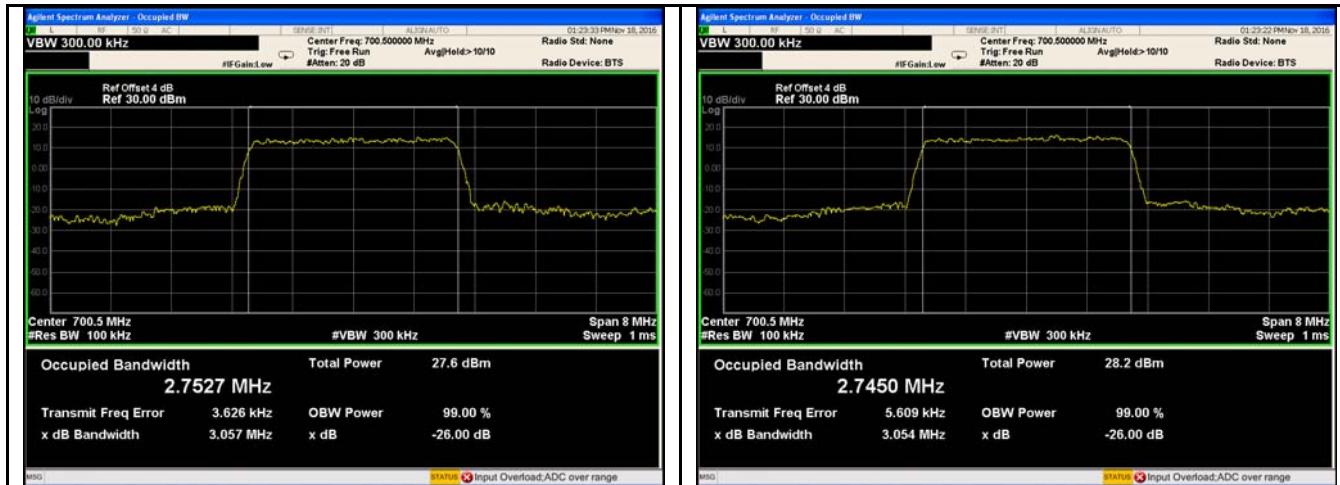
LTE Band XII - Middle CH 16QAM-1.4



LTE Band XII - High CH QPSK-1.4

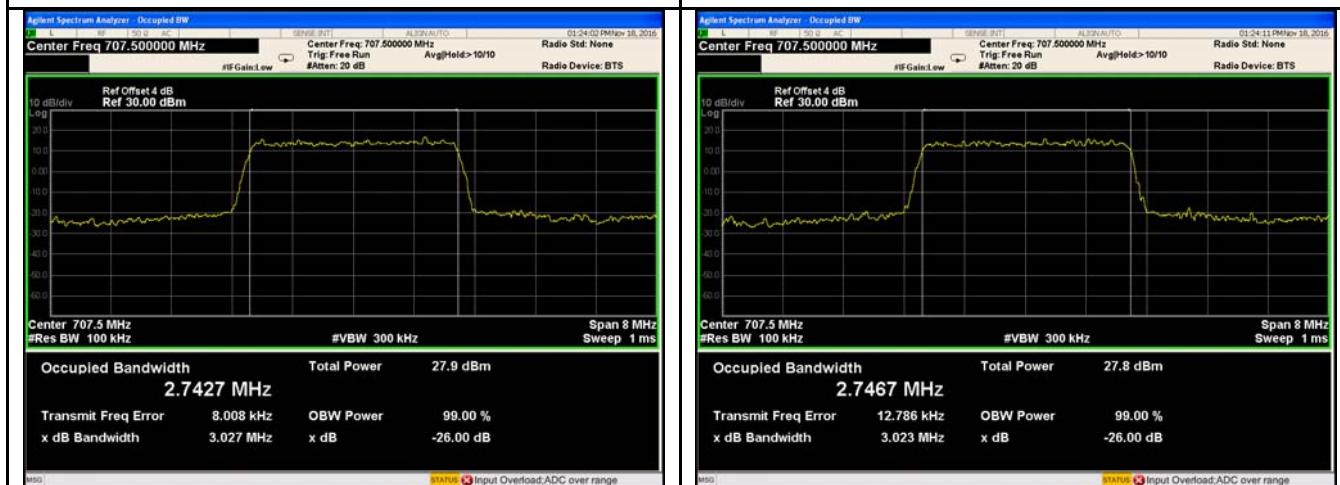


LTE Band XII - High CH 16QAM-1.4



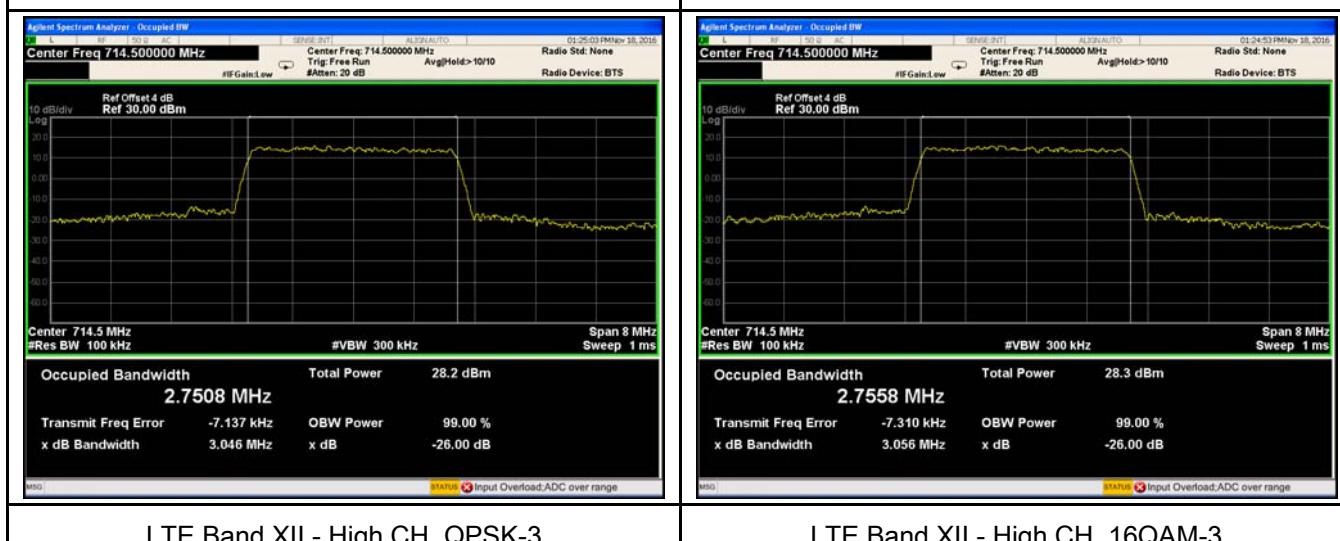
LTE Band XII - Low CH QPSK-3

LTE Band XII - Low CH 16QAM-3



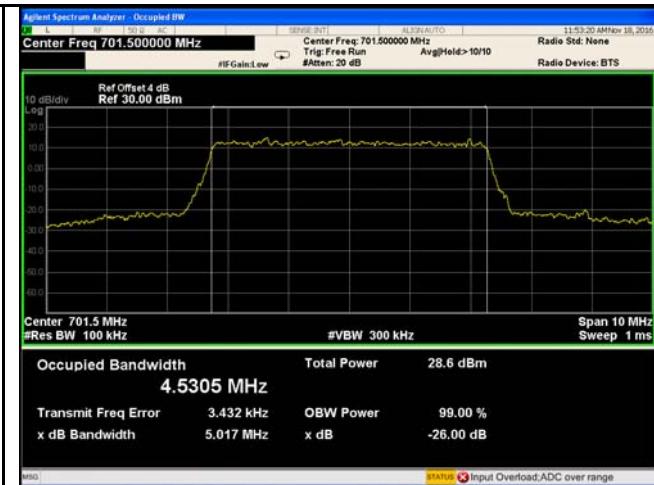
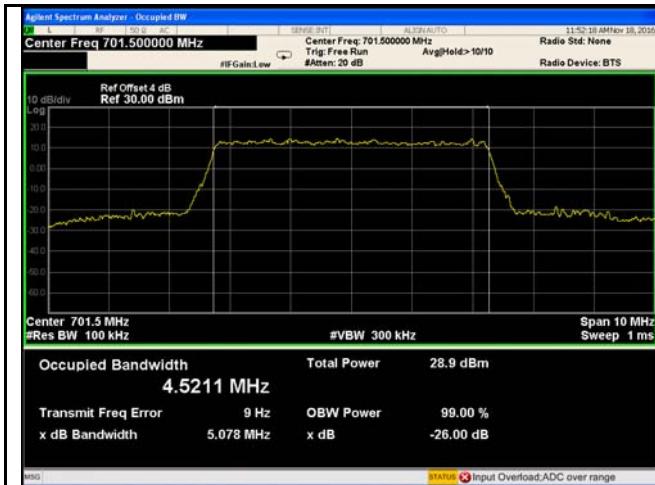
LTE Band XII - Middle CH QPSK-3

LTE Band XII - Middle CH 16QAM-3

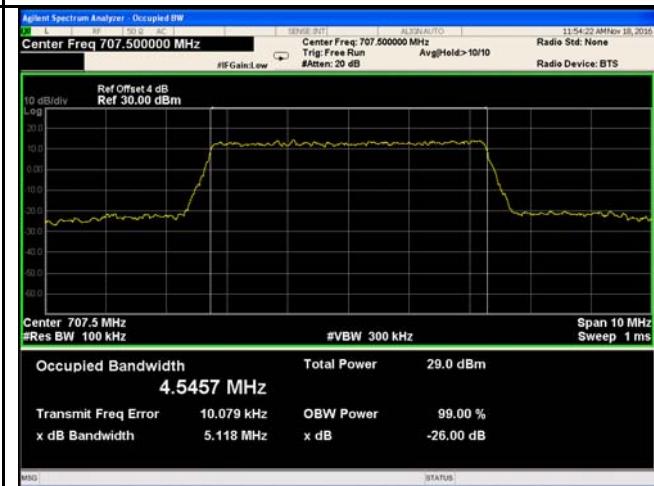
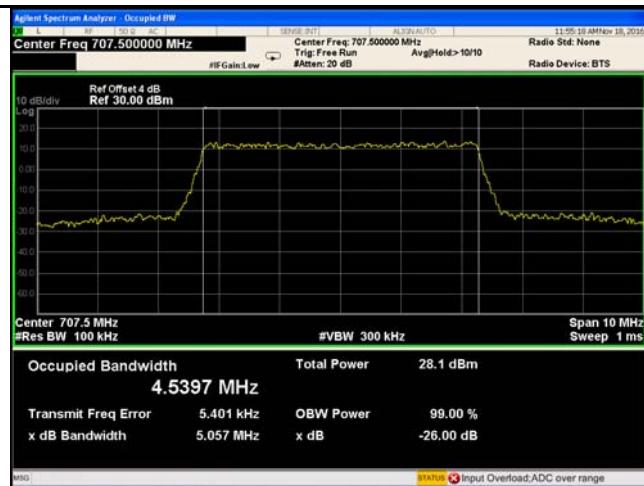


LTE Band XII - High CH QPSK-3

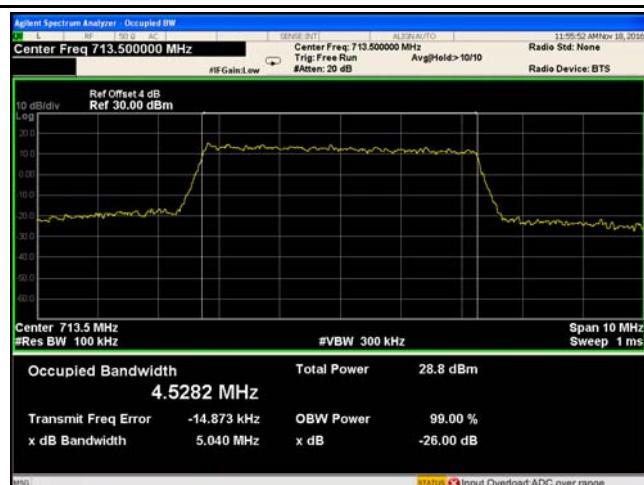
LTE Band XII - High CH 16QAM-3



LTE Band XII - Low CH QPSK-5

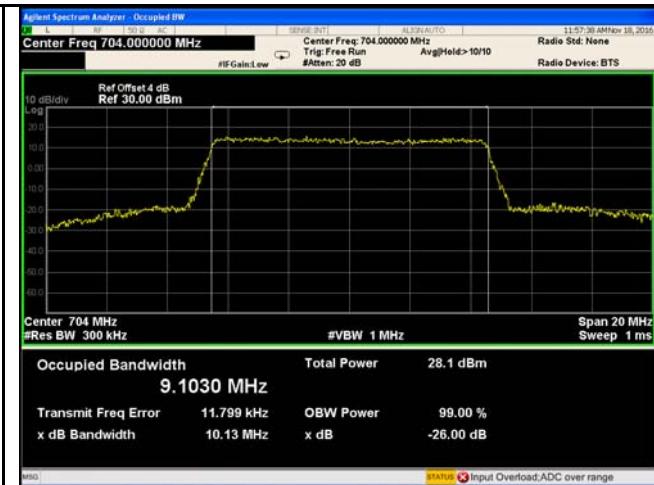
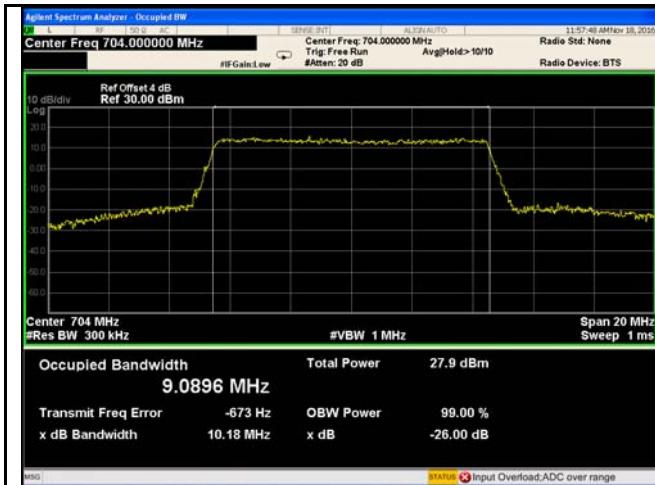


LTE Band XII - Middle CH QPSK-5

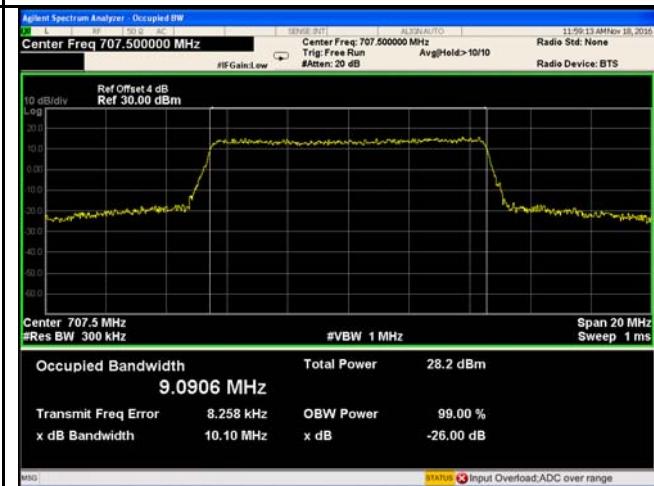
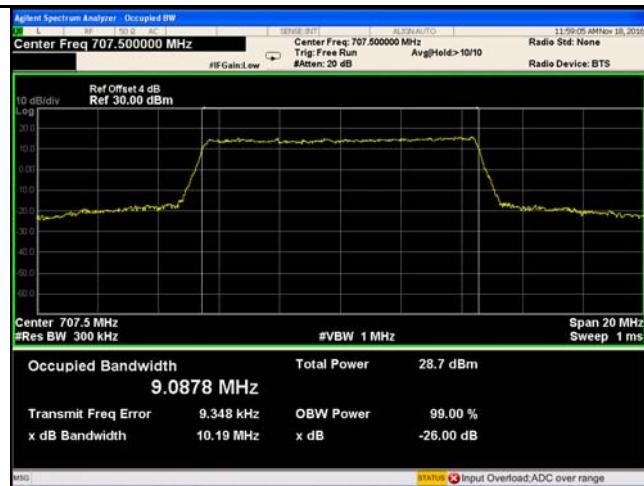


LTE Band XII - High CH QPSK-5

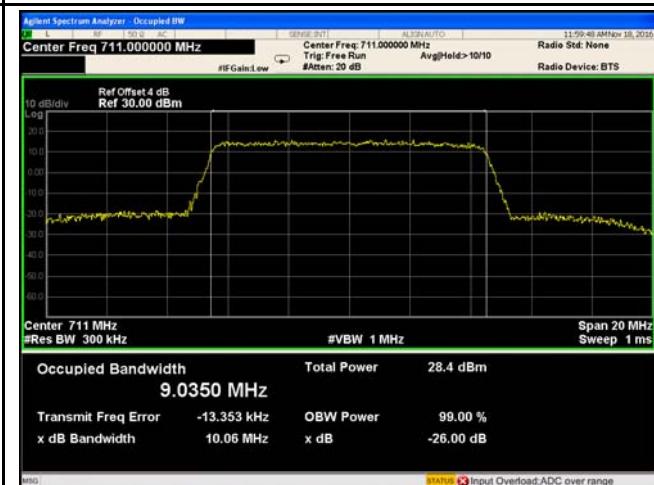
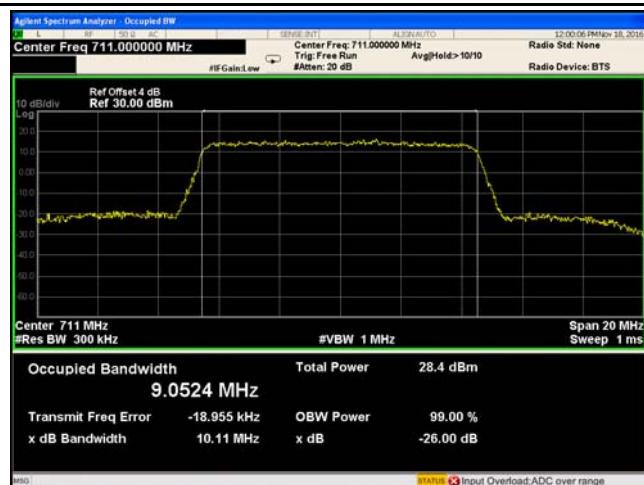
LTE Band XII - High CH 16QAM-5



LTE Band XII - Low CH QPSK-10



LTE Band XII - Middle CH QPSK-10



LTE Band XII - High CH QPSK-10

LTE Band XII - High CH 16QAM-10