

RF TEST REPORT



Report No.: 15070591-FCC-R5

Supersede Report No.: N/A

Applicant	Verykool USA Inc	
Product Name	Mobile phone	
Model No.	SL5009	
Serial No.	N/A	
Test Standard	FCC Part 22(H), FCC Part 24(E), FCC Part 27: 2014; ANSI/TIA C603 D: 2010	
Test Date	July 21 to July 31, 2015	
Issue Date	August 03, 2015	
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"/>
Winnie Zhang	David Huang	
Winnie Zhang 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
15070591-FCC-R5	NONE	Original	August 03, 2015

2. Customer information

Applicant Name	Verykool USA Inc
Applicant Add	3636 Nobel Drive, Suite 325, San Diego, CA 92122 USA
Manufacturer	Zechin Communications Co.,Ltd.
Manufacturer Add	Unit804,8th Floor Desay Tech Building Gaoxin, Road South, Nanshan District Shenzhen,China

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: SL5009

Serial Model: N/A

Date EUT received: July 20, 2015

Test Date(s): July 21 to July 31, 2015

Equipment Category : PCE

Antenna Gain:

- GSM850: 1.6 dBi
- PCS1900: 3.8 dBi
- UMTS-FDD Band V: 1.7 dBi
- UMTS-FDD Band IV: 3.7 dBi
- UMTS-FDD Band II: 3.8 dBi
- Bluetooth/BLE: 3 dBi
- WIFI: 2.9 dBi
- LTE Band 2: 3.8 dBi
- LTE Band 4: 3.8 dBi
- LTE Band 5: 3.8 dBi
- LTE Band 7: 3.8 dBi
- LTE Band 12: 3.8 dBi
- LTE Band 17: 3.8 dBi
- GPS: 1.6 dBi

Type of Modulation:

- GSM / GPRS: GMSK
- EGPRS: GMSK, 8PSK
- UMTS-FDD: QPSK, 16QAM
- 802.11b/g/n: DSSS, OFDM
- Bluetooth: GFSK, π /4DQPSK, 8DPSK
- BLE: GFSK
- LTE Band: QPSK, 16QAM
- GPS: BPSK

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;
UMTS-FDD Band II TX: 1852.4 ~ 1907.6 MHz;
RX: 1932.4 ~ 1987.6 MHz
WIFI: 802.11b/g/n(20M): 2412-2462 MHz
WIFI: 802.11n(40M): 2422-2472 MHz
Bluetooth& BLE: 2402-2480 MHz
LTE Band 2 TX: 1852.5 ~ 1907.5 MHz; RX : 1932.5 ~ 1987.5 MHz
LTE Band 4 TX: 1712.5 ~ 1752.5 MHz; RX : 2112.5 ~ 2152.5 MHz
LTE Band 5 TX: 826.5 ~ 846.5 MHz; RX : 871.5 ~ 891.5 MHz
LTE Band 7 TX: 2502.5 ~ 2567.5 MHz; RX : 2622.5 ~ 2687.5 MHz
LTE Band 12 TX: 699.7 ~ 715.3 MHz; RX : 729.7~ 745.3MHz
LTE Band 17 TX: 706.5 ~ 713.5 MHz; RX : 736.5 ~ 743.5 MHz
GPS RX: 1575.42 MHz

RF Operating Frequency (ies):

LTE Band 2: 22.69 dBm
LTE Band 4: 22.77 dBm
LTE Band 5: 22.76 dBm
LTE Band 7: 22.28 dBm
LTE Band 12: 21.65 dBm
LTE Band 17: 22.13 dBm

Maximum Conducted AV Power to Antenna

LTE Band 2: 16.97 dBm / EIRP
LTE Band 4: 17.17 dBm / EIRP
LTE Band 5: 17.18 dBm / EIRP
LTE Band 7: 16.97 dBm / EIRP
LTE Band 12: 16.24 dBm / EIRP
LTE Band 17: 18.79 dBm / ERP

ERP/EIRP:

Power Port, Earphone Port, USB Port
Battery:
Model:344482PV
Spec:3.8V,1900mAh,7.22Wh
Limited Charging Voltage: 4.35V
Adapter:
Model:SC050100-US

Input Power:

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Input: 100-240V; 50/60Hz; 0.4A

Output: DC 5.0V,1A

Trade Name : verykool

GPRS/EGPRS Multi-slot class 8/10/12

FCC ID: WA6SL5009

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
§ 2.1047	Modulation Characteristics	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;

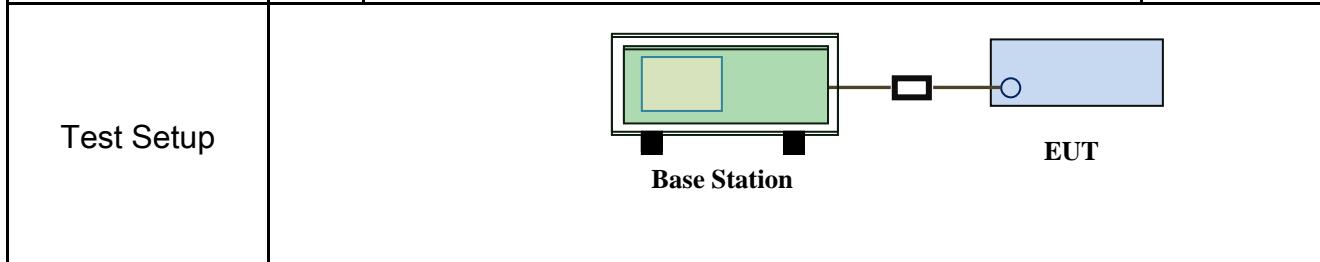
Please refer to RF Exposure Evaluation Report: 15070591-FCC-H.

6.2 RF Output Power

Temperature	22°C
Relative Humidity	57%
Atmospheric Pressure	1005mbar
Test date :	August 05, 2015
Tested By :	Winnie Zhang

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 2:

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	22.17	22±1
				1	49	0	22.30	22±1
				1	99	0	22.34	22±1
				50	0	1	21.40	22±1
				50	24	1	21.44	22±1
				50	49	1	21.39	22±1
				100	0	1	21.37	22±1
		1880.0	16QAM	1	0	1	21.77	21.3±1
				1	49	1	21.82	21.3±1
				1	99	1	21.84	21.3±1
				50	0	2	21.36	21.3±1
				50	24	2	21.43	21.3±1
				50	49	2	21.21	21.3±1
				100	0	2	20.59	21.3±1
20MHz	18900	1880.0	QPSK	1	0	0	22.41	22±1
				1	49	0	22.45	22±1
				1	99	0	22.44	22±1
				50	0	1	21.59	22±1
				50	24	1	21.57	22±1
				50	49	1	21.55	22±1
				100	0	1	21.51	22±1
		1890.0	16QAM	1	0	1	21.93	21.3±1
				1	49	1	21.97	21.3±1
				1	99	1	21.95	21.3±1
				50	0	2	21.57	21.3±1
				50	24	2	21.43	21.3±1
				50	49	2	21.56	21.3±1
				100	0	2	20.71	21.3±1
19100	1900.0	1900.0	QPSK	1	0	0	22.56	22±1
				1	49	0	22.69	22±1
				1	99	0	22.58	22±1
				50	0	1	21.58	22±1
				50	24	1	21.63	22±1
				50	49	1	21.54	22±1
				100	0	1	21.52	22±1
		1900.0	16QAM	1	0	1	21.53	21.3±1
				1	49	1	21.60	21.3±1
				1	99	1	21.50	21.3±1
				50	0	2	21.37	21.3±1
				50	24	2	21.39	21.3±1
				50	49	2	21.34	21.3±1
				100	0	2	20.57	21.3±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	22.31	22±1
				1	37	0	22.34	22±1
				1	74	0	22.37	22±1
				36	0	1	21.30	22±1
				36	16	1	21.34	22±1
				36	35	1	21.31	22±1
				75	0	1	21.27	22±1
	18900	1880.0	16QAM	1	0	1	21.86	22±1
				1	37	1	21.90	22±1
				1	74	1	21.92	22±1
				36	0	2	21.13	22±1
				36	16	2	21.09	22±1
				36	35	2	21.21	22±1
				75	0	2	21.13	22±1
	19125	1902.5	QPSK	1	0	0	22.18	22±1
				1	37	0	22.23	22±1
				1	74	0	22.24	22±1
				36	0	1	21.44	22±1
				36	16	1	21.47	22±1
				36	35	1	21.40	22±1
				75	0	1	21.41	22±1
	16QAM	16QAM	16QAM	1	0	1	22.06	21.3±1
				1	37	1	22.05	21.3±1
				1	74	1	22.06	21.3±1
				36	0	2	21.13	21.3±1
				36	16	2	21.23	21.3±1
				36	35	2	21.34	21.3±1
				75	0	2	20.71	21.3±1
	QPSK	QPSK	QPSK	1	0	0	22.42	22±1
				1	37	0	22.48	22±1
				1	74	0	22.49	22±1
				36	0	1	21.44	22±1
				36	16	1	21.48	22±1
				36	35	1	21.41	22±1
				75	0	1	21.46	22±1
	16QAM	16QAM	16QAM	1	0	1	21.38	21.3±1
				1	37	1	21.36	21.3±1
				1	74	1	21.35	21.3±1
				36	0	2	21.17	21.3±1
				36	16	2	21.24	21.3±1
				36	35	2	21.16	21.3±1
				75	0	2	20.74	21.3±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	22.26	22±1
				1	24	0	22.28	22±1
				1	49	0	22.25	22±1
				25	0	1	21.28	22±1
				25	12	1	21.26	22±1
				25	24	1	21.19	22±1
				50	0	1	21.29	22±1
	18900	1880.0	16QAM	1	0	1	21.17	21.3±1
				1	24	1	21.18	21.3±1
				1	49	1	21.15	21.3±1
				25	0	2	21.09	21.3±1
				25	12	2	21.13	21.3±1
				25	24	2	21.04	21.3±1
				50	0	2	20.81	21.3±1
	19150	1905	QPSK	1	0	0	22.27	22±1
				1	24	0	22.28	22±1
				1	49	0	22.26	22±1
				25	0	1	21.48	22±1
				25	12	1	21.51	22±1
				25	24	1	21.49	22±1
				50	0	1	21.50	22±1
			16QAM	1	0	1	22.07	21.3±1
				1	24	1	22.10	21.3±1
				1	49	1	22.07	21.3±1
				25	0	2	21.31	21.3±1
				25	12	2	21.43	21.3±1
				25	24	2	21.36	21.3±1
				50	0	2	20.91	21.3±1
			QPSK	1	0	0	22.31	22±1
				1	24	0	22.35	22±1
				1	49	0	22.31	22±1
				25	0	1	21.51	22±1
				25	12	1	21.49	22±1
				25	24	1	21.37	22±1
				50	0	1	21.55	22±1
			16QAM	1	0	1	22.08	21.3±1
				1	24	1	22.07	21.3±1
				1	49	1	21.99	21.3±1
				25	0	2	21.43	21.3±1
				25	12	2	21.37	21.3±1
				25	24	2	21.29	21.3±1
				50	0	2	20.85	21.3±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	22.45	22 ± 1
				1	12	0	22.44	22 ± 1
				1	24	0	22.40	22 ± 1
				12	0	1	21.52	22 ± 1
				12	6	1	21.56	22 ± 1
				12	11	1	21.51	22 ± 1
				25	0	1	21.46	22 ± 1
		1880.0	16QAM	1	0	1	21.48	21.3 ± 1
				1	12	1	21.49	21.3 ± 1
				1	24	1	21.44	21.3 ± 1
				12	0	2	21.37	21.3 ± 1
				12	6	2	21.42	21.3 ± 1
				12	11	2	21.33	21.3 ± 1
				25	0	2	20.74	21.3 ± 1
	19175	1907.5	QPSK	1	0	0	22.41	22 ± 1
				1	12	0	22.42	22 ± 1
				1	24	0	22.37	22 ± 1
				12	0	1	21.51	22 ± 1
				12	6	1	21.61	22 ± 1
				12	11	1	21.53	22 ± 1
				25	0	1	21.48	22 ± 1
		1907.5	16QAM	1	0	1	21.94	21.3 ± 1
				1	12	1	21.96	21.3 ± 1
				1	24	1	21.89	21.3 ± 1
				12	0	2	21.21	21.3 ± 1
				12	6	2	21.37	21.3 ± 1
				12	11	2	21.18	21.3 ± 1
				25	0	2	20.52	21.3 ± 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	22.01	22±1
				1	7	0	22.04	22±1
				1	14	0	22.01	22±1
				8	0	1	21.17	22±1
				8	4	1	21.23	22±1
				8	7	1	21.23	22±1
				15	0	1	21.24	22±1
			16QAM	1	0	1	21.77	21.3±1
				1	7	1	21.73	21.3±1
				1	14	1	21.79	21.3±1
				8	0	2	21.18	21.3±1
				8	4	2	21.16	21.3±1
				8	7	2	20.98	21.3±1
				15	0	2	20.57	21.3±1
3MHz	18900	1880.0	QPSK	1	0	0	22.35	22±1
				1	7	0	22.41	22±1
				1	14	0	22.37	22±1
				8	0	1	21.31	22±1
				8	4	1	21.37	22±1
				8	7	1	21.29	22±1
				15	0	1	21.41	22±1
			16QAM	1	0	1	21.32	21.3±1
				1	7	1	21.33	21.3±1
				1	14	1	21.29	21.3±1
				8	0	2	21.03	21.3±1
				8	4	2	21.28	21.3±1
				8	7	2	21.16	21.3±1
				15	0	2	20.54	21.3±1
3MHz	19175	1907.5	QPSK	1	0	0	22.41	22±1
				1	7	0	22.44	22±1
				1	14	0	22.42	22±1
				8	0	1	21.33	22±1
				8	4	1	21.45	22±1
				8	7	1	21.36	22±1
				15	0	1	21.48	22±1
			16QAM	1	0	1	21.45	21.3±1
				1	7	1	21.43	21.3±1
				1	14	1	21.41	21.3±1
				8	0	2	21.35	21.3±1
				8	4	2	21.16	21.3±1
				8	7	2	21.41	21.3±1
				15	0	2	20.67	21.3±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	22.08	22±1
				1	2	0	22.10	22±1
				1	5	0	22.12	22±1
				3	0	0	22.37	22±1
				3	1	0	22.39	22±1
				3	2	0	22.31	22±1
				6	0	1	21.17	22±1
			16QAM	1	0	1	20.86	21.3±1
				1	2	1	20.88	21.3±1
				1	5	1	20.89	21.3±1
				3	0	1	20.76	21.3±1
				3	1	1	20.65	21.3±1
				3	2	1	20.77	21.3±1
				6	0	2	20.61	21.3±1
1.4MHz	18900	1880.0	QPSK	1	0	0	22.40	22±1
				1	2	0	22.43	22±1
				1	5	0	22.45	22±1
				3	0	0	22.64	22±1
				3	1	0	22.62	21±1
				3	2	0	22.69	22±1
				6	0	1	21.35	22±1
			16QAM	1	0	1	21.33	21.3±1
				1	2	1	21.36	21.3±1
				1	5	1	21.35	21.3±1
				3	0	1	21.27	21.3±1
				3	1	1	21.23	21.3±1
				3	2	1	21.26	21.3±1
				6	0	2	20.48	21.3±1
1.4MHz	19193	1909.3	QPSK	1	0	0	22.44	22±1
				1	2	0	22.50	22±1
				1	5	0	22.48	22±1
				3	0	0	22.55	22±1
				3	1	0	22.64	22±1
				3	2	0	22.60	22±1
				6	0	1	21.36	21±1
			16QAM	1	0	1	21.42	21.3±1
				1	2	1	21.53	21.3±1
				1	5	1	21.47	21.3±1
				3	0	1	21.24	21.3±1
				3	1	1	21.35	21.3±1
				3	2	1	21.21	21.3±1
				6	0	2	20.34	21.3±1

LTE Band 4:

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	22.19	22±1
				1	49	0	22.21	22±1
				1	99	0	22.15	22±1
				50	0	1	21.74	22±1
				50	24	1	21.78	22±1
				50	49	1	21.75	22±1
				100	0	1	21.72	22±1
			16QAM	1	0	1	21.73	22±1
				1	49	1	21.72	22±1
				1	99	1	21.65	22±1
				50	0	2	21.47	22±1
				50	24	2	21.51	22±1
				50	49	2	21.46	22±1
				100	0	2	21.37	22±1
	20175	1732.5	QPSK	1	0	0	21.69	22±1
				1	49	0	21.65	22±1
				1	99	0	21.63	22±1
				50	0	1	22.03	22±1
				50	24	1	21.88	22±1
				50	49	1	21.69	22±1
				100	0	1	21.52	22±1
			16QAM	1	0	1	22.01	22±1
				1	49	1	21.90	22±1
				1	99	1	21.89	22±1
				50	0	2	21.56	22±1
				50	24	2	21.34	22±1
				50	49	2	21.47	22±1
				100	0	2	21.52	22±1
	20300	1745.0	QPSK	1	0	0	21.49	22±1
				1	49	0	21.46	22±1
				1	99	0	21.41	22±1
				50	0	1	21.51	22±1
				50	24	1	21.48	22±1
				50	49	1	21.53	22±1
				100	0	1	21.52	22±1
			16QAM	1	0	1	22.02	22±1
				1	49	1	21.98	22±1
				1	99	1	21.93	22±1
				50	0	2	21.36	22±1
				50	24	2	21.49	22±1
				50	49	2	21.51	22±1
				100	0	2	21.60	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	QPSK	1	0	0	21.45	22 ± 1	
			1	37	0	21.44	22 ± 1	
			1	74	0	21.42	22 ± 1	
			36	0	1	21.59	22 ± 1	
			36	16	1	21.61	22 ± 1	
			36	35	1	21.58	22 ± 1	
			75	0	1	21.60	22 ± 1	
		16QAM	1	0	1	22.19	22 ± 1	
			1	37	1	22.21	22 ± 1	
			1	74	1	22.17	22 ± 1	
			36	0	2	21.16	22 ± 1	
			36	16	2	21.34	22 ± 1	
			36	35	2	21.45	22 ± 1	
			75	0	2	21.84	22 ± 1	
15MHz	20175	QPSK	1	0	0	21.59	22 ± 1	
			1	37	0	21.56	22 ± 1	
			1	74	0	21.55	22 ± 1	
			36	0	1	21.54	22 ± 1	
			36	16	1	21.53	22 ± 1	
			36	35	1	21.56	22 ± 1	
			75	0	1	21.55	22 ± 1	
		16QAM	1	0	1	21.43	22 ± 1	
			1	37	1	21.41	22 ± 1	
			1	74	1	21.37	22 ± 1	
			36	0	2	21.48	22 ± 1	
			36	16	2	21.43	22 ± 1	
			36	35	2	21.34	22 ± 1	
			75	0	2	21.51	22 ± 1	
20325	1747.5	QPSK	1	0	0	21.36	22 ± 1	
			1	37	0	21.34	22 ± 1	
			1	74	0	21.35	22 ± 1	
			36	0	1	21.51	22 ± 1	
			36	16	1	21.47	22 ± 1	
			36	35	1	21.54	22 ± 1	
			75	0	1	21.52	22 ± 1	
		16QAM	1	0	1	22.12	22 ± 1	
			1	37	1	22.13	22 ± 1	
			1	74	1	22.14	22 ± 1	
			36	0	2	21.52	22 ± 1	
			36	16	2	21.54	22 ± 1	
			36	35	2	21.65	22 ± 1	
			75	0	2	21.77	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	22.19	22±1
				1	24	0	22.13	22±1
				1	49	0	22.08	22±1
				25	0	1	21.45	22±1
				25	12	1	21.38	22±1
				25	24	1	21.35	22±1
				50	0	1	21.23	22±1
		1732.5	16QAM	1	0	1	21.67	22±1
				1	24	1	21.73	22±1
				1	49	1	21.56	22±1
				25	0	2	21.26	22±1
				25	12	2	21.28	22±1
				25	24	2	21.31	22±1
				50	0	2	21.12	22±1
10MHz	20175	1732.5	QPSK	1	0	0	22.03	22±1
				1	24	0	22.18	22±1
				1	49	0	22.15	22±1
				25	0	1	21.34	22±1
				25	12	1	21.53	22±1
				25	24	1	21.43	22±1
				50	0	1	21.09	22±1
		1750.0	16QAM	1	0	1	21.47	22±1
				1	24	1	21.56	22±1
				1	49	1	21.34	22±1
				25	0	2	21.12	22±1
				25	12	2	21.28	22±1
				25	24	2	21.29	22±1
				50	0	2	21.15	22±1
20350	1750.0	1750.0	QPSK	1	0	0	22.06	22±1
				1	24	0	22.14	22±1
				1	49	0	22.13	22±1
				25	0	1	21.36	22±1
				25	12	1	21.29	22±1
				25	24	1	21.16	22±1
				50	0	1	21.11	22±1
		1750.0	16QAM	1	0	1	21.98	22±1
				1	24	1	21.76	22±1
				1	49	1	21.84	22±1
				25	0	2	21.23	22±1
				25	12	2	21.12	22±1
				25	24	2	21.14	22±1
				50	0	2	21.01	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	22.33	22±1
				1	12	0	22.37	22±1
				1	24	0	22.30	22±1
				12	0	1	21.22	22±1
				12	6	1	21.31	22±1
				12	11	1	21.21	22±1
				25	0	1	21.19	22±1
		1732.5	16QAM	1	0	1	21.38	21.3±1
				1	12	1	21.34	21.3±1
				1	24	1	21.29	21.3±1
				12	0	2	20.98	21.3±1
				12	6	2	21.03	21.3±1
				12	11	2	20.97	21.3±1
				25	0	2	20.34	21.3±1
5MHz	20175	1732.5	QPSK	1	0	0	22.13	22±1
				1	12	0	22.24	22±1
				1	24	0	22.31	22±1
				12	0	1	21.43	22±1
				12	6	1	21.46	22±1
				12	11	1	21.39	22±1
				25	0	1	21.14	22±1
		1750.0	16QAM	1	0	1	21.64	21.3±1
				1	12	1	21.56	21.3±1
				1	24	1	21.47	21.3±1
				12	0	2	20.98	21.3±1
				12	6	2	21.31	21.3±1
				12	11	2	20.86	21.3±1
				25	0	2	20.61	21.3±1
20350	20350	1750.0	QPSK	1	0	0	22.21	22±1
				1	12	0	22.36	22±1
				1	24	0	22.29	22±1
				12	0	1	21.34	22±1
				12	6	1	21.22	22±1
				12	11	1	21.31	22±1
				25	0	1	21.13	22±1
		1750.0	16QAM	1	0	1	21.26	21.3±1
				1	12	1	21.43	21.3±1
				1	24	1	21.37	21.3±1
				12	0	2	21.09	21.3±1
				12	6	2	20.98	21.3±1
				12	11	2	20.87	21.3±1
				25	0	2	20.57	21.3±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	22.62	22±1
				1	7	0	22.61	22±1
				1	14	0	22.58	22±1
				8	0	1	21.59	22±1
				8	4	1	21.47	22±1
				8	7	1	21.58	22±1
				15	0	1	21.46	22±1
		1732.5	16QAM	1	0	1	21.57	21.3±1
				1	7	1	21.58	21.3±1
				1	14	1	21.51	21.3±1
				8	0	2	21.47	21.3±1
				8	4	2	21.36	21.3±1
				8	7	2	21.41	21.3±1
				15	0	2	21.09	21.3±1
3MHz	20175	1732.5	QPSK	1	0	0	22.26	22±1
				1	7	0	22.36	22±1
				1	14	0	22.31	22±1
				8	0	1	21.33	22±1
				8	4	1	21.46	22±1
				8	7	1	21.30	22±1
				15	0	1	21.29	22±1
		1753.5	16QAM	1	0	1	21.23	21.3±1
				1	7	1	21.21	21.3±1
				1	14	1	21.19	21.3±1
				8	0	2	21.08	21.3±1
				8	4	2	21.11	21.3±1
				8	7	2	21.09	21.3±1
				15	0	2	20.64	21.3±1
20385	1753.5	1753.5	QPSK	1	0	0	22.43	22±1
				1	7	0	22.56	22±1
				1	14	0	22.47	22±1
				8	0	1	21.46	22±1
				8	4	1	21.51	22±1
				8	7	1	21.64	22±1
				15	0	1	21.34	22±1
		1753.5	16QAM	1	0	1	21.47	22±1
				1	7	1	21.52	22±1
				1	14	1	21.39	22±1
				8	0	2	21.23	22±1
				8	4	2	21.26	22±1
				8	7	2	21.37	22±1
				15	0	2	21.01	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	22.64	22±1
				1	2	0	22.61	22±1
				1	5	0	22.65	22±1
				3	0	0	22.71	22±1
				3	1	0	22.77	22±1
				3	2	0	22.70	22±1
				6	0	1	21.61	22±1
		16QAM	16QAM	1	0	1	21.46	21.3±1
				1	2	1	21.43	21.3±1
				1	5	1	21.48	21.3±1
				3	0	1	21.37	21.3±1
				3	1	1	21.36	21.3±1
				3	2	1	21.38	21.3±1
				6	0	2	20.98	21.3±1
1.4MHz	20175		QPSK	1	0	0	22.35	22±1
				1	2	0	22.37	22±1
				1	5	0	22.38	22±1
				3	0	0	22.46	22±1
				3	1	0	22.51	22±1
				3	2	0	22.45	22±1
				6	0	1	21.35	22±1
		16QAM	16QAM	1	0	1	21.22	21.3±1
				1	2	1	21.25	21.3±1
				1	5	1	21.24	21.3±1
				3	0	1	21.19	21.3±1
				3	1	1	21.16	21.3±1
				3	2	1	20.98	21.3±1
				6	0	2	20.57	21.3±1
20393	1754.3		QPSK	1	0	0	22.47	22±1
				1	2	0	22.45	22±1
				1	5	0	22.43	22±1
				3	0	0	22.37	22±1
				3	1	0	22.35	22±1
				3	2	0	22.38	22±1
				6	0	1	21.39	22±1
		16QAM	16QAM	1	0	1	22.44	22±1
				1	2	1	22.48	22±1
				1	5	1	22.47	22±1
				3	0	1	22.16	22±1
				3	1	1	22.23	22±1
				3	2	1	22.17	22±1
				6	0	2	21.71	22±1

LTE Band 5:

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	22.76	22 ± 1
				1	24	0	22.67	22 ± 1
				1	49	0	22.66	22 ± 1
				25	0	1	21.59	22 ± 1
				25	12	1	21.61	22 ± 1
				25	24	1	21.58	22 ± 1
				50	0	1	21.58	22 ± 1
		20525	16QAM	1	0	1	21.51	21.3 ± 1
				1	24	1	21.49	21.3 ± 1
				1	49	1	21.50	21.3 ± 1
				25	0	2	21.35	21.3 ± 1
				25	12	2	21.31	21.3 ± 1
				25	24	2	21.34	21.3 ± 1
				50	0	2	20.89	21.3 ± 1
10MHz	836.5	20525	QPSK	1	0	0	22.48	22 ± 1
				1	24	0	22.56	22 ± 1
				1	49	0	22.51	22 ± 1
				25	0	1	21.64	22 ± 1
				25	12	1	21.37	22 ± 1
				25	24	1	21.23	22 ± 1
				50	0	1	21.13	22 ± 1
		20600	16QAM	1	0	1	21.46	21.3 ± 1
				1	24	1	21.37	21.3 ± 1
				1	49	1	21.49	21.3 ± 1
				25	0	2	21.28	21.3 ± 1
				25	12	2	21.34	21.3 ± 1
				25	24	2	21.37	21.3 ± 1
				50	0	2	20.79	21.3 ± 1
		20600	QPSK	1	0	0	22.64	22 ± 1
				1	24	0	22.39	22 ± 1
				1	49	0	22.48	22 ± 1
				25	0	1	21.56	22 ± 1
				25	12	1	21.64	22 ± 1
				25	24	1	21.37	22 ± 1
				50	0	1	21.24	22 ± 1
		844	16QAM	1	0	1	21.38	21.3 ± 1
				1	24	1	21.29	21.3 ± 1
				1	49	1	21.43	21.3 ± 1
				25	0	2	21.17	21.3 ± 1
				25	12	2	21.24	21.3 ± 1
				25	24	2	21.34	21.3 ± 1
				50	0	2	20.77	21.3 ± 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	22.65	22±1
				1	12	0	22.63	22±1
				1	24	0	22.63	22±1
				12	0	1	21.68	22±1
				12	6	1	21.59	22±1
				12	11	1	21.67	22±1
				25	0	1	21.65	22±1
			16QAM	1	0	1	22.09	21.3±1
				1	12	1	22.10	21.3±1
				1	24	1	22.02	21.3±1
				12	0	2	21.51	21.3±1
				12	6	2	21.37	21.3±1
				12	11	2	21.46	21.3±1
				25	0	2	20.71	21.3±1
5MHz	20525	836.5	QPSK	1	0	0	22.48	22±1
				1	12	0	22.52	22±1
				1	24	0	22.54	22±1
				12	0	1	21.77	22±1
				12	6	1	21.91	22±1
				12	11	1	21.79	22±1
				25	0	1	21.59	22±1
			16QAM	1	0	1	22.09	21.3±1
				1	12	1	22.14	21.3±1
				1	24	1	22.07	21.3±1
				12	0	2	21.57	21.3±1
				12	6	2	21.48	21.3±1
				12	11	2	21.34	21.3±1
				25	0	2	20.87	21.3±1
5MHz	20625	846.5	QPSK	1	0	0	22.67	22±1
				1	12	0	22.71	22±1
				1	24	0	22.36	22±1
				12	0	1	21.52	22±1
				12	6	1	21.49	22±1
				12	11	1	21.39	22±1
				25	0	1	21.32	22±1
			16QAM	1	0	1	22.21	21.3±1
				1	12	1	22.36	21.3±1
				1	24	1	22.41	21.3±1
				12	0	2	21.37	21.3±1
				12	6	2	21.26	21.3±1
				12	11	2	21.34	21.3±1
				25	0	2	20.71	21.3±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	22.49	22±1
				1	7	0	22.55	22±1
				1	14	0	22.47	22±1
				8	0	1	21.63	22±1
				8	4	1	21.66	22±1
				8	7	1	21.65	22±1
				15	0	1	21.64	22±1
		20525	16QAM	1	0	1	22.18	21.3±1
				1	7	1	22.22	21.3±1
				1	14	1	22.12	21.3±1
				8	0	2	21.53	21.3±1
				8	4	2	21.58	21.3±1
				8	7	2	21.56	21.3±1
				15	0	2	20.83	21.3±1
3MHz	20635	20635	QPSK	1	0	0	22.39	22±1
				1	7	0	22.41	22±1
				1	14	0	22.35	22±1
				8	0	1	21.46	22±1
				8	4	1	21.48	22±1
				8	7	1	21.39	22±1
				15	0	1	21.16	22±1
		847.5	16QAM	1	0	1	22.13	21.3±1
				1	7	1	22.24	21.3±1
				1	14	1	22.16	21.3±1
				8	0	2	21.19	21.3±1
				8	4	2	21.17	21.3±1
				8	7	2	21.11	21.3±1
				15	0	2	20.78	21.3±1
3MHz	20635	20635	QPSK	1	0	0	22.45	22±1
				1	7	0	22.47	22±1
				1	14	0	22.44	22±1
				8	0	1	21.37	22±1
				8	4	1	21.43	22±1
				8	7	1	21.45	22±1
				15	0	1	21.11	22±1
		847.5	16QAM	1	0	1	22.19	21.3±1
				1	7	1	22.16	21.3±1
				1	14	1	22.05	21.3±1
				8	0	2	21.43	21.3±1
				8	4	2	21.38	21.3±1
				8	7	2	21.36	21.3±1
				15	0	2	20.97	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	22.43	22±1	
			1	2	0	22.45	22±1	
			1	5	0	22.48	22±1	
			3	0	0	21.57	22±1	
			3	1	0	21.61	22±1	
			3	2	0	21.52	22±1	
			6	0	1	21.45	22±1	
		16QAM	1	0	1	22.14	22±1	
			1	2	1	22.15	22±1	
			1	5	1	22.18	22±1	
			3	0	1	21.43	22±1	
			3	1	1	21.51	22±1	
			3	2	1	21.46	22±1	
			6	0	2	21.29	22±1	
1.4MHz	20525	QPSK	1	0	0	22.31	22±1	
			1	2	0	22.39	22±1	
			1	5	0	22.35	22±1	
			3	0	0	21.48	22±1	
			3	1	0	21.43	22±1	
			3	2	0	21.36	22±1	
			6	0	1	21.13	22±1	
		16QAM	1	0	1	22.09	22±1	
			1	2	1	22.12	22±1	
			1	5	1	22.07	22±1	
			3	0	1	21.37	22±1	
			3	1	1	21.29	22±1	
			3	2	1	21.18	22±1	
			6	0	2	21.09	22±1	
20643	848.3	QPSK	1	0	0	22.29	22±1	
			1	2	0	22.33	22±1	
			1	5	0	22.12	22±1	
			3	0	0	21.21	22±1	
			3	1	0	21.25	22±1	
			3	2	0	21.27	22±1	
			6	0	1	21.03	22±1	
		16QAM	1	0	1	22.18	21.3±1	
			1	2	1	22.13	21.3±1	
			1	5	1	22.21	21.3±1	
			3	0	1	21.12	21.3±1	
			3	1	1	21.23	21.3±1	
			3	2	1	21.17	21.3±1	
			6	0	2	20.71	21.3±1	

LTE Band 7:

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	21.36	21.3±1
				1	49	0	21.30	21.3±1
				1	99	0	21.26	21.3±1
				50	0	1	20.44	21.3±1
				50	24	1	20.50	21.3±1
				50	49	1	20.49	21.3±1
				100	0	1	20.46	21.3±1
			16QAM	1	0	1	21.25	21.3±1
				1	49	1	21.23	21.3±1
				1	99	1	21.22	21.3±1
				50	0	2	21.19	21.3±1
				50	24	2	21.14	21.3±1
				50	49	2	21.20	21.3±1
				100	0	2	20.75	21.3±1
21MHz	21100	2535	QPSK	1	0	0	21.68	22±1
				1	49	0	21.75	22±1
				1	99	0	21.74	22±1
				50	0	1	21.86	22±1
				50	24	1	21.72	22±1
				50	49	1	21.66	22±1
				100	0	1	21.35	22±1
			16QAM	1	0	1	21.03	21.3±1
				1	49	1	21.35	21.3±1
				1	99	1	21.34	21.3±1
				50	0	2	21.12	21.3±1
				50	24	2	21.08	21.3±1
				50	49	2	20.98	21.3±1
				100	0	2	20.56	21.3±1
22MHz	21350	2560	QPSK	1	0	0	22.26	21.3±1
				1	49	0	22.13	21.3±1
				1	99	0	21.25	21.3±1
				50	0	1	21.44	21.3±1
				50	24	1	21.43	21.3±1
				50	49	1	20.89	21.3±1
				100	0	1	20.84	21.3±1
			16QAM	1	0	1	21.36	21.3±1
				1	49	1	21.40	21.3±1
				1	99	1	20.76	21.3±1
				50	0	2	20.66	21.3±1
				50	24	2	20.82	21.3±1
				50	49	2	20.74	21.3±1
				100	0	2	20.51	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	20.68	21.3±1
				1	37	0	21.65	21.3±1
				1	74	0	21.86	21.3±1
				36	0	1	20.75	21.3±1
				36	16	1	20.81	21.3±1
				36	35	1	20.81	21.3±1
				75	0	1	20.53	21.3±1
		1732.5	16QAM	1	0	1	20.69	21.3±1
				1	37	1	20.86	21.3±1
				1	74	1	21.55	21.3±1
				36	0	2	21.14	21.3±1
				36	16	2	21.05	21.3±1
				36	35	2	21.13	21.3±1
				75	0	2	20.41	21.3±1
15MHz	21100	1732.5	QPSK	1	0	0	21.03	21.3±1
				1	37	0	21.15	21.3±1
				1	74	0	21.26	21.3±1
				36	0	1	20.43	21.3±1
				36	16	1	20.52	21.3±1
				36	35	1	20.45	21.3±1
				75	0	1	20.36	21.3±1
		1747.5	16QAM	1	0	1	21.23	21.3±1
				1	37	1	21.06	21.3±1
				1	74	1	21.14	21.3±1
				36	0	2	21.34	21.3±1
				36	16	2	21.12	21.3±1
				36	35	2	21.24	21.3±1
				75	0	2	20.43	21.3±1
21375	21375	1747.5	QPSK	1	0	0	22.28	21.3±1
				1	37	0	21.43	21.3±1
				1	74	0	21.03	21.3±1
				36	0	1	20.88	21.3±1
				36	16	1	21.23	21.3±1
				36	35	1	21.12	21.3±1
				75	0	1	20.56	21.3±1
		1747.5	16QAM	1	0	1	22.06	21.3±1
				1	37	1	21.25	21.3±1
				1	74	1	21.12	21.3±1
				36	0	2	21.35	21.3±1
				36	16	2	21.04	21.3±1
				36	35	2	21.11	21.3±1
				75	0	2	20.81	21.3±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
20800	2502	2502	QPSK	1	0	0	21.34	21.3±1
				1	24	0	21.53	21.3±1
				1	49	0	21.66	21.3±1
				25	0	1	21.23	21.3±1
				25	12	1	21.05	21.3±1
				25	24	1	21.33	21.3±1
				50	0	1	20.68	21.3±1
		2535	16QAM	1	0	1	21.12	21.3±1
				1	24	1	21.04	21.3±1
				1	49	1	21.13	21.3±1
				25	0	2	21.03	21.3±1
				25	12	2	21.06	21.3±1
				25	24	2	21.09	21.3±1
				50	0	2	20.43	21.3±1
10MHz	21100	2535	QPSK	1	0	0	21.75	21.3±1
				1	24	0	21.85	21.3±1
				1	49	0	21.26	21.3±1
				25	0	1	20.86	21.3±1
				25	12	1	20.88	21.3±1
				25	24	1	20.56	21.3±1
				50	0	1	20.34	21.3±1
		2565	16QAM	1	0	1	21.45	21.3±1
				1	24	1	21.16	21.3±1
				1	49	1	22.03	21.3±1
				25	0	2	21.53	21.3±1
				25	12	2	21.44	21.3±1
				25	24	2	21.36	21.3±1
				50	0	2	20.62	21.3±1
21400	2565	2565	QPSK	1	0	0	21.12	21.3±1
				1	24	0	21.23	21.3±1
				1	49	0	21.25	21.3±1
				25	0	1	21.04	21.3±1
				25	12	1	20.55	21.3±1
				25	24	1	21.34	21.3±1
				50	0	1	20.44	21.3±1
		2565	16QAM	1	0	1	21.35	21.3±1
				1	24	1	21.22	21.3±1
				1	49	1	21.05	21.3±1
				25	0	2	20.95	21.3±1
				25	12	2	20.86	21.3±1
				25	24	2	20.79	21.3±1
				50	0	2	20.45	21.3±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	21.53	21.3±1
				1	12	0	21.43	21.3±1
				1	24	0	21.26	21.3±1
				12	0	1	21.15	21.3±1
				12	6	1	21.07	21.3±1
				12	11	1	20.99	21.3±1
				25	0	1	20.53	21.3±1
			16QAM	1	0	1	21.12	21.3±1
				1	12	1	21.13	21.3±1
				1	24	1	21.24	21.3±1
				12	0	2	21.10	21.3±1
				12	6	2	20.86	21.3±1
				12	11	2	20.88	21.3±1
				25	0	2	20.75	21.3±1
5MHz	20175	1732.5	QPSK	1	0	0	21.56	21.3±1
				1	12	0	21.23	21.3±1
				1	24	0	21.23	21.3±1
				12	0	1	21.05	21.3±1
				12	6	1	20.86	21.3±1
				12	11	1	20.77	21.3±1
				25	0	1	20.41	21.3±1
			16QAM	1	0	1	21.06	21.3±1
				1	12	1	21.15	21.3±1
				1	24	1	21.23	21.3±1
				12	0	2	21.04	21.3±1
				12	6	2	21.06	21.3±1
				12	11	2	20.85	21.3±1
				25	0	2	20.71	21.3±1
5MHz	20375	1752.5	QPSK	1	0	0	21.46	21.3±1
				1	12	0	21.53	21.3±1
				1	24	0	21.39	21.3±1
				12	0	1	21.06	21.3±1
				12	6	1	21.01	21.3±1
				12	11	1	21.12	21.3±1
				25	0	1	20.75	21.3±1
			16QAM	1	0	1	21.43	21.3±1
				1	12	1	21.13	21.3±1
				1	24	1	21.19	21.3±1
				12	0	2	20.82	21.3±1
				12	6	2	21.12	21.3±1
				12	11	2	20.78	21.3±1
				25	0	2	20.63	21.3±1

LTE Band 12:

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	21.56	21.3±1	
			1	24	0	21.45	21.3±1	
			1	49	0	21.43	21.3±1	
			25	0	1	21.05	21.3±1	
			25	12	1	21.09	21.3±1	
			25	24	1	21.25	21.3±1	
			50	0	1	20.85	21.3±1	
		16QAM	1	0	1	21.65	21.3±1	
			1	24	1	21.26	21.3±1	
			1	49	1	21.16	21.3±1	
			25	0	2	21.34	21.3±1	
			25	12	2	21.27	21.3±1	
			25	24	2	21.15	21.3±1	
			50	0	2	20.86	21.3±1	
10MHz	23095	QPSK	1	0	0	21.85	21.3±1	
			1	24	0	21.57	21.3±1	
			1	49	0	21.34	21.3±1	
			25	0	1	21.09	21.3±1	
			25	12	1	21.25	21.3±1	
			25	24	1	21.26	21.3±1	
			50	0	1	20.91	21.3±1	
		16QAM	1	0	1	21.23	21.3±1	
			1	24	1	21.36	21.3±1	
			1	49	1	21.41	21.3±1	
			25	0	2	21.33	21.3±1	
			25	12	2	21.25	21.3±1	
			25	24	2	21.42	21.3±1	
			50	0	2	20.86	21.3±1	
23130	711	QPSK	1	0	0	21.46	21.3±1	
			1	24	0	21.53	21.3±1	
			1	49	0	21.44	21.3±1	
			25	0	1	21.26	21.3±1	
			25	12	1	21.24	21.3±1	
			25	24	1	21.22	21.3±1	
			50	0	1	20.85	21.3±1	
		16QAM	1	0	1	21.29	21.3±1	
			1	24	1	21.43	21.3±1	
			1	49	1	21.39	21.3±1	
			25	0	2	21.42	21.3±1	
			25	12	2	21.37	21.3±1	
			25	24	2	21.35	21.3±1	
			50	0	2	20.41	21.3±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	21.45	21.3±1	
			1	12	0	21.36	21.3±1	
			1	24	0	21.15	21.3±1	
			12	0	1	21.05	21.3±1	
			12	6	1	21.16	21.3±1	
			12	11	1	21.13	21.3±1	
			25	0	1	20.88	21.3±1	
		16QAM	1	0	1	21.63	21.3±1	
			1	12	1	21.43	21.3±1	
			1	24	1	21.52	21.3±1	
			12	0	2	21.24	21.3±1	
			12	6	2	21.15	21.3±1	
			12	11	2	21.18	21.3±1	
			25	0	2	20.81	21.3±1	
5MHz	23095	QPSK	1	0	0	21.45	21.3±1	
			1	12	0	21.35	21.3±1	
			1	24	0	21.52	21.3±1	
			12	0	1	21.04	21.3±1	
			12	6	1	21.25	21.3±1	
			12	11	1	21.12	21.3±1	
			25	0	1	20.94	21.3±1	
		16QAM	1	0	1	21.53	21.3±1	
			1	12	1	21.46	21.3±1	
			1	24	1	21.23	21.3±1	
			12	0	2	21.11	21.3±1	
			12	6	2	21.15	21.3±1	
			12	11	2	21.04	21.3±1	
			25	0	2	20.76	21.3±1	
23155	713.5	QPSK	1	0	0	21.35	21.3±1	
			1	12	0	21.36	21.3±1	
			1	24	0	21.35	21.3±1	
			12	0	1	21.25	21.3±1	
			12	6	1	21.26	21.3±1	
			12	11	1	21.33	21.3±1	
			25	0	1	20.95	21.3±1	
		16QAM	1	0	1	21.52	21.3±1	
			1	12	1	21.42	21.3±1	
			1	24	1	21.42	21.3±1	
			12	0	2	21.35	21.3±1	
			12	6	2	21.28	21.3±1	
			12	11	2	21.45	21.3±1	
			25	0	2	20.92	21.3±1	

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
23025	700.5	QPSK	1	0	0	21.36	22±1	
			1	7	0	21.42	22±1	
			1	14	0	21.29	22±1	
			8	0	1	21.35	22±1	
			8	4	1	21.55	22±1	
			8	7	1	21.15	22±1	
			15	0	1	21.06	22±1	
		16QAM	1	0	1	21.26	21.3±1	
			1	7	1	21.23	21.3±1	
			1	14	1	21.19	21.3±1	
			8	0	2	21.09	21.3±1	
			8	4	2	21.08	21.3±1	
			8	7	2	21.11	21.3±1	
			15	0	2	20.71	21.3±1	
3MHz	23095	QPSK	1	0	0	21.43	21.3±1	
			1	7	0	21.41	21.3±1	
			1	14	0	21.32	21.3±1	
			8	0	1	21.20	21.3±1	
			8	4	1	21.15	21.3±1	
			8	7	1	21.31	21.3±1	
			15	0	1	20.66	21.3±1	
		16QAM	1	0	1	21.24	21.3±1	
			1	7	1	21.15	21.3±1	
			1	14	1	21.15	21.3±1	
			8	0	2	21.08	21.3±1	
			8	4	2	21.24	21.3±1	
			8	7	2	21.03	21.3±1	
			15	0	2	20.78	21.3±1	
23025	714.5	QPSK	1	0	0	21.36	22±1	
			1	7	0	21.42	22±1	
			1	14	0	21.29	22±1	
			8	0	1	21.35	22±1	
			8	4	1	21.55	22±1	
			8	7	1	21.15	22±1	
			15	0	1	21.06	22±1	
		16QAM	1	0	1	21.26	21.3±1	
			1	7	1	21.23	21.3±1	
			1	14	1	21.19	21.3±1	
			8	0	2	21.09	21.3±1	
			8	4	2	21.08	21.3±1	
			8	7	2	21.11	21.3±1	
			15	0	2	20.71	21.3±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	21.53	21.3±1	
			1	2	0	21.35	21.3±1	
			1	5	0	21.42	21.3±1	
			3	0	0	21.36	21.3±1	
			3	1	0	21.24	21.3±1	
			3	2	0	21.20	21.3±1	
			6	0	1	20.68	21.3±1	
		16QAM	1	0	1	21.34	21.3±1	
			1	2	1	21.36	21.3±1	
			1	5	1	21.29	21.3±1	
			3	0	1	21.33	21.3±1	
			3	1	1	21.06	21.3±1	
			3	2	1	21.05	21.3±1	
			6	0	2	20.85	21.3±1	
1.4MHz	23095	QPSK	1	0	0	21.43	21.3±1	
			1	2	0	21.44	21.3±1	
			1	5	0	21.37	21.3±1	
			3	0	0	21.26	21.3±1	
			3	1	0	21.28	21.3±1	
			3	2	0	21.22	21.3±1	
			6	0	1	20.91	21.3±1	
		16QAM	1	0	1	21.35	21.3±1	
			1	2	1	21.42	21.3±1	
			1	5	1	21.39	21.3±1	
			3	0	1	21.15	21.3±1	
			3	1	1	21.16	21.3±1	
			3	2	1	21.08	21.3±1	
			6	0	2	20.85	21.3±1	
23173	715.3	QPSK	1	0	0	21.43	21.3±1	
			1	2	0	21.37	21.3±1	
			1	5	0	21.29	21.3±1	
			3	0	0	21.16	21.3±1	
			3	1	0	21.13	21.3±1	
			3	2	0	21.75	21.3±1	
			6	0	1	20.88	21.3±1	
		16QAM	1	0	1	21.53	21.3±1	
			1	2	1	21.41	21.3±1	
			1	5	1	21.42	21.3±1	
			3	0	1	21.35	21.3±1	
			3	1	1	21.38	21.3±1	
			3	2	1	21.36	21.3±1	
			6	0	2	20.99	21.3±1	

LTE Band 17:

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	21.51	21.3±1	
			1	24	0	21.53	21.3±1	
			1	49	0	21.51	21.3±1	
			25	0	1	21.35	21.3±1	
			25	12	1	21.26	21.3±1	
			25	24	1	21.28	21.3±1	
			50	0	1	20.81	21.3±1	
		16QAM	1	0	1	21.50	21.3±1	
			1	24	1	21.52	21.3±1	
			1	49	1	21.51	21.3±1	
			25	0	2	21.33	21.3±1	
			25	12	2	21.26	21.3±1	
			25	24	2	21.34	21.3±1	
			50	0	2	20.86	21.3±1	
10MHz	23790	QPSK	1	0	0	21.46	21.3±1	
			1	24	0	21.43	21.3±1	
			1	49	0	21.45	21.3±1	
			25	0	1	21.35	21.3±1	
			25	12	1	21.29	21.3±1	
			25	24	1	21.31	21.3±1	
			50	0	1	20.86	21.3±1	
		16QAM	1	0	1	21.51	21.3±1	
			1	24	1	21.46	21.3±1	
			1	49	1	21.45	21.3±1	
			25	0	2	21.34	21.3±1	
			25	12	2	21.33	21.3±1	
			25	24	2	21.34	21.3±1	
			50	0	2	20.88	21.3±1	
23800	711.0	QPSK	1	0	0	21.45	21.3±1	
			1	24	0	21.48	21.3±1	
			1	49	0	21.38	21.3±1	
			25	0	1	21.40	21.3±1	
			25	12	1	21.35	21.3±1	
			25	24	1	21.38	21.3±1	
			50	0	1	20.95	21.3±1	
		16QAM	1	0	1	21.53	21.3±1	
			1	24	1	21.54	21.3±1	
			1	49	1	21.45	21.3±1	
			25	0	2	21.28	21.3±1	
			25	12	2	21.27	21.3±1	
			25	24	2	21.53	21.3±1	
			50	0	2	20.80	21.3±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	22.05	22±1
				1	12	0	21.56	22±1
				1	24	0	21.49	22±1
				12	0	1	21.35	22±1
				12	6	1	21.26	22±1
				12	11	1	21.25	22±1
				25	0	1	21.16	22±1
			16QAM	1	0	1	22.13	22±1
				1	12	1	21.52	22±1
				1	24	1	21.43	22±1
				12	0	2	21.36	22±1
				12	6	2	21.29	22±1
				12	11	2	21.22	22±1
				25	0	2	21.15	22±1
5MHz	23790	710.0	QPSK	1	0	0	21.63	22±1
				1	12	0	21.53	22±1
				1	24	0	21.44	22±1
				12	0	1	21.24	22±1
				12	6	1	21.23	22±1
				12	11	1	21.33	22±1
				25	0	1	21.22	22±1
			16QAM	1	0	1	21.35	22±1
				1	12	1	21.32	22±1
				1	24	1	21.26	22±1
				12	0	2	21.29	22±1
				12	6	2	21.25	22±1
				12	11	2	21.31	22±1
				25	0	2	21.08	22±1
23825	23825	713.5	QPSK	1	0	0	22.06	21.3±1
				1	12	0	21.71	21.3±1
				1	24	0	21.61	21.3±1
				12	0	1	21.43	21.3±1
				12	6	1	21.36	21.3±1
				12	11	1	21.42	21.3±1
				25	0	1	20.91	21.3±1
			16QAM	1	0	1	21.43	21.3±1
				1	12	1	21.55	21.3±1
				1	24	1	21.46	21.3±1
				12	0	2	21.35	21.3±1
				12	6	2	21.29	21.3±1
				12	11	2	21.30	21.3±1
				25	0	2	21.01	21.3±1

ERP & EIRP

EIRP for LTE Band 2 (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	9.71	V	7.88	0.85	16.74	33.01
1880	1.4	QPSK	1/0	9.83	V	7.88	0.85	16.86	33.01
1909.3	1.4	QPSK	1/0	9.69	V	7.88	0.85	16.72	33.01
1850.7	1.4	QPSK	1/0	8.14	H	7.88	0.85	15.17	33.01
1880	1.4	QPSK	1/0	8.07	H	7.88	0.85	15.10	33.01
1909.3	1.4	QPSK	1/0	8.12	H	7.88	0.85	15.15	33.01
1850.7	1.4	16-QAM	1/0	9.28	V	7.88	0.85	16.31	33.01
1880	1.4	16-QAM	1/0	9.19	V	7.88	0.85	16.22	33.01
1909.3	1.4	16-QAM	1/0	9.24	V	7.88	0.85	16.27	33.01
1850.7	1.4	16-QAM	1/0	7.96	H	7.88	0.85	14.99	33.01
1880	1.4	16-QAM	1/0	8.01	H	7.88	0.85	15.04	33.01
1909.3	1.4	16-QAM	1/0	7.95	H	7.88	0.85	14.98	33.01
1851.5	3	QPSK	1/0	9.82	V	7.88	0.85	16.85	33.01
1880	3	QPSK	1/0	9.77	V	7.88	0.85	16.80	33.01
1908.5	3	QPSK	1/0	9.84	V	7.88	0.85	16.87	33.01
1851.5	3	QPSK	1/0	8.36	H	7.88	0.85	15.39	33.01
1880	3	QPSK	1/0	8.39	H	7.88	0.85	15.42	33.01
1908.5	3	QPSK	1/0	8.41	H	7.88	0.85	15.44	33.01
1851.5	3	16-QAM	1/0	9.38	V	7.88	0.85	16.41	33.01
1880	3	16-QAM	1/0	9.41	V	7.88	0.85	16.44	33.01
1908.5	3	16-QAM	1/0	9.38	V	7.88	0.85	16.41	33.01
1851.5	3	16-QAM	1/0	8.56	H	7.88	0.85	15.59	33.01
1880	3	16-QAM	1/0	8.63	H	7.88	0.85	15.66	33.01
1908.5	3	16-QAM	1/0	8.59	H	7.88	0.85	15.62	33.01
1852.5	5	QPSK	1/24	9.91	V	7.88	0.85	16.94	33.01
1880	5	QPSK	1/0	9.87	V	7.88	0.85	16.90	33.01
1907.5	5	QPSK	1/24	9.94	V	7.88	0.85	16.97	33.01
1852.5	5	QPSK	1/24	8.24	H	7.88	0.85	15.27	33.01
1880	5	QPSK	1/0	8.29	H	7.88	0.85	15.32	33.01
1907.5	5	QPSK	1/24	8.18	H	7.88	0.85	15.21	33.01
1852.5	5	16-QAM	1/24	9.14	V	7.88	0.85	16.17	33.01
1880	5	16-QAM	1/0	9.22	V	7.88	0.85	16.25	33.01

1907.5	5	16-QAM	1/24	9.16	V	7.88	0.85	16.19	33.01
1852.5	5	16-QAM	1/24	8.35	H	7.88	0.85	15.38	33.01
1880	5	16-QAM	1/0	8.44	H	7.88	0.85	15.47	33.01
1907.5	5	16-QAM	1/24	8.38	H	7.88	0.85	15.41	33.01
1855	10	QPSK	1/0	9.77	V	7.88	0.85	16.80	33.01
1880	10	QPSK	1/0	9.73	V	7.88	0.85	16.76	33.01
1905	10	QPSK	1/49	9.74	V	7.88	0.85	16.77	33.01
1855	10	QPSK	1/0	8.15	H	7.88	0.85	15.18	33.01
1880	10	QPSK	1/0	8.23	H	7.88	0.85	15.26	33.01
1905	10	QPSK	1/49	8.17	H	7.88	0.85	15.20	33.01
1855	10	16-QAM	1/0	9.18	V	7.88	0.85	16.21	33.01
1880	10	16-QAM	1/0	9.15	V	7.88	0.85	16.18	33.01
1905	10	16-QAM	1/49	9.24	V	7.88	0.85	16.27	33.01
1855	10	16-QAM	1/0	7.63	H	7.88	0.85	14.66	33.01
1880	10	16-QAM	1/0	7.68	H	7.88	0.85	14.71	33.01
1905	10	16-QAM	1/49	7.59	H	7.88	0.85	14.62	33.01
1857.5	15	QPSK	1/0	9.84	V	7.88	0.85	16.87	33.01
1880	15	QPSK	1/0	9.76	V	7.88	0.85	16.79	33.01
1902.5	15	QPSK	1/0	9.85	V	7.88	0.85	16.88	33.01
1857.5	15	QPSK	1/0	8.59	H	7.88	0.85	15.62	33.01
1880	15	QPSK	1/0	8.62	H	7.88	0.85	15.65	33.01
1902.5	15	QPSK	1/0	8.54	H	7.88	0.85	15.57	33.01
1857.5	15	16-QAM	1/0	9.33	V	7.88	0.85	16.36	33.01
1880	15	16-QAM	1/0	9.26	V	7.88	0.85	16.29	33.01
1902.5	15	16-QAM	1/0	9.31	V	7.88	0.85	16.34	33.01
1857.5	15	16-QAM	1/0	8.64	H	7.88	0.85	15.67	33.01
1880	15	16-QAM	1/0	8.55	H	7.88	0.85	15.58	33.01
1902.5	15	16-QAM	1/0	8.62	H	7.88	0.85	15.65	33.01
1860	20	QPSK	1/0	9.68	V	7.88	0.85	16.71	33.01
1880	20	QPSK	1/0	9.71	V	7.88	0.85	16.74	33.01
1900	20	QPSK	1/0	9.73	V	7.88	0.85	16.76	33.01
1860	20	QPSK	1/0	8.25	H	7.88	0.85	15.28	33.01
1880	20	QPSK	1/0	8.37	H	7.88	0.85	15.40	33.01
1900	20	QPSK	1/0	8.19	H	7.88	0.85	15.22	33.01
1860	20	16-QAM	1/0	9.33	V	7.88	0.85	16.36	33.01
1880	20	16-QAM	1/0	9.42	V	7.88	0.85	16.45	33.01
1900	20	16-QAM	1/0	9.38	V	7.88	0.85	16.41	33.01
1860	20	16-QAM	1/0	8.26	H	7.88	0.85	15.29	33.01

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1880	20	16-QAM	1/0	8.33	H	7.88	0.85	15.36	33.01
1900	20	16-QAM	1/0	8.28	H	7.88	0.85	15.31	33.01

EIRP for LTE Band 4 (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	10.01	V	7.95	0.79	17.17	30
1732.5	1.4	QPSK	1/0	9.96	V	7.95	0.79	17.12	30
1754.3	1.4	QPSK	1/0	9.99	V	7.95	0.79	17.15	30
1710.7	1.4	QPSK	1/0	8.83	H	7.95	0.79	15.99	30
1732.5	1.4	QPSK	1/0	8.75	H	7.95	0.79	15.91	30
1754.3	1.4	QPSK	1/0	8.82	H	7.95	0.79	15.98	30
1710.7	1.4	16-QAM	1/5	9.78	V	7.95	0.79	16.94	30
1732.5	1.4	16-QAM	1/0	9.69	V	7.95	0.79	16.85	30
1754.3	1.4	16-QAM	1/0	9.75	V	7.95	0.79	16.91	30
1710.7	1.4	16-QAM	1/5	8.37	H	7.95	0.79	15.53	30
1732.5	1.4	16-QAM	1/0	8.29	H	7.95	0.79	15.45	30
1754.3	1.4	16-QAM	1/0	8.35	H	7.95	0.79	15.51	30
1711.5	3	QPSK	1/0	9.88	V	7.95	0.79	17.04	30
1732.5	3	QPSK	1/0	9.92	V	7.95	0.79	17.08	30
1753.5	3	QPSK	1/0	9.95	V	7.95	0.79	17.11	30
1711.5	3	QPSK	1/0	8.46	H	7.95	0.79	15.62	30
1732.5	3	QPSK	1/0	8.39	H	7.95	0.79	15.55	30
1753.5	3	QPSK	1/0	8.41	H	7.95	0.79	15.57	30
1711.5	3	16-QAM	1/0	9.36	V	7.95	0.79	16.52	30
1732.5	3	16-QAM	1/0	9.44	V	7.95	0.79	16.60	30
1753.5	3	16-QAM	1/0	9.48	V	7.95	0.79	16.64	30
1711.5	3	16-QAM	1/0	8.22	H	7.95	0.79	15.38	30
1732.5	3	16-QAM	1/0	8.26	H	7.95	0.79	15.42	30
1753.5	3	16-QAM	1/0	8.31	H	7.95	0.79	15.47	30
1712.5	5	QPSK	1/0	9.78	V	7.95	0.79	16.94	30
1732.5	5	QPSK	1/0	9.71	V	7.95	0.79	16.87	30
1752.5	5	QPSK	1/24	9.65	V	7.95	0.79	16.81	30
1712.5	5	QPSK	1/0	8.36	H	7.95	0.79	15.52	30
1732.5	5	QPSK	1/0	8.44	H	7.95	0.79	15.60	30
1752.5	5	QPSK	1/24	8.32	H	7.95	0.79	15.48	30
1712.5	5	16-QAM	1/0	9.46	V	7.95	0.79	16.62	30
1732.5	5	16-QAM	1/0	9.38	V	7.95	0.79	16.54	30
1752.5	5	16-QAM	1/24	9.42	V	7.95	0.79	16.58	30

1712.5	5	16-QAM	1/0	7.99	H	7.95	0.79	15.15	30
1732.5	5	16-QAM	1/0	8.15	H	7.95	0.79	15.31	30
1752.5	5	16-QAM	1/24	8.04	H	7.95	0.79	15.20	30
1715	10	QPSK	1/0	9.66	V	7.95	0.79	16.82	30
1732.5	10	QPSK	1/49	9.58	V	7.95	0.79	16.74	30
1750	10	QPSK	1/0	9.53	V	7.95	0.79	16.69	30
1715	10	QPSK	1/0	8.27	H	7.95	0.79	15.43	30
1732.5	10	QPSK	1/49	8.33	H	7.95	0.79	15.49	30
1750	10	QPSK	1/0	8.19	H	7.95	0.79	15.35	30
1715	10	16-QAM	1/0	9.23	V	7.95	0.79	16.39	30
1732.5	10	16-QAM	1/49	9.31	V	7.95	0.79	16.47	30
1750	10	16-QAM	1/0	9.25	V	7.95	0.79	16.41	30
1715	10	16-QAM	1/0	8.09	H	7.95	0.79	15.25	30
1732.5	10	16-QAM	1/49	8.11	H	7.95	0.79	15.27	30
1750	10	16-QAM	1/0	8.17	H	7.95	0.79	15.33	30
1717.5	15	QPSK	1/0	9.52	V	7.95	0.79	16.68	30
1732.5	15	QPSK	1/74	9.47	V	7.95	0.79	16.63	30
1747.5	15	QPSK	1/0	9.53	V	7.95	0.79	16.69	30
1717.5	15	QPSK	1/0	8.33	H	7.95	0.79	15.49	30
1732.5	15	QPSK	1/74	8.26	H	7.95	0.79	15.42	30
1747.5	15	QPSK	1/0	8.31	H	7.95	0.79	15.47	30
1717.5	15	16-QAM	1/0	9.25	V	7.95	0.79	16.41	30
1732.5	15	16-QAM	1/74	9.16	V	7.95	0.79	16.32	30
1747.5	15	16-QAM	1/0	9.17	V	7.95	0.79	16.33	30
1717.5	15	16-QAM	1/0	7.85	H	7.95	0.79	15.01	30
1732.5	15	16-QAM	1/74	7.93	H	7.95	0.79	15.09	30
1747.5	15	16-QAM	1/0	7.91	H	7.95	0.79	15.07	30
1720	20	QPSK	1/99	9.64	V	7.95	0.79	16.80	30
1732.5	20	QPSK	1/99	9.57	V	7.95	0.79	16.73	30
1745	20	QPSK	1/0	9.61	V	7.95	0.79	16.77	30
1720	20	QPSK	1/99	8.83	H	7.95	0.79	15.99	30
1732.5	20	QPSK	1/99	8.75	H	7.95	0.79	15.91	30
1745	20	QPSK	1/0	8.81	H	7.95	0.79	15.97	30
1720	20	16-QAM	1/99	9.12	V	7.95	0.79	16.28	30
1732.5	20	16-QAM	1/99	9.08	V	7.95	0.79	16.24	30
1745	20	16-QAM	1/0	9.15	V	7.95	0.79	16.31	30
1720	20	16-QAM	1/99	7.96	H	7.95	0.79	15.12	30
1732.5	20	16-QAM	1/99	7.93	H	7.95	0.79	15.09	30

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1745	20	16-QAM	1/0	8.02	H	7.95	0.79	15.18	30
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EIRP for LTE Band 5 (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	9.83	V	6.8	0.44	16.19	34.77
836.5	1.4	QPSK	1/5	9.86	V	6.8	0.44	16.22	34.77
848.3	1.4	QPSK	1/5	9.78	V	6.9	0.44	16.24	34.77
824.7	1.4	QPSK	1/5	8.25	H	6.8	0.44	14.61	34.77
836.5	1.4	QPSK	1/5	8.33	H	6.8	0.44	14.69	34.77
848.3	1.4	QPSK	1/5	8.17	H	6.9	0.44	14.63	34.77
824.7	1.4	16-QAM	1/5	9.41	V	6.8	0.44	15.77	34.77
836.5	1.4	16-QAM	1/5	9.38	V	6.8	0.44	15.74	34.77
848.3	1.4	16-QAM	1/5	9.45	V	6.9	0.44	15.91	34.77
824.7	1.4	16-QAM	1/5	8.13	H	6.8	0.44	14.49	34.77
836.5	1.4	16-QAM	1/5	8.06	H	6.8	0.44	14.42	34.77
848.3	1.4	16-QAM	1/5	8.14	H	6.9	0.44	14.60	34.77
825.5	3	QPSK	1/14	10.13	V	6.8	0.44	16.49	34.77
836.5	3	QPSK	1/0	10.16	V	6.8	0.44	16.52	34.77
847.5	3	QPSK	1/14	10.08	V	6.9	0.44	16.54	34.77
825.5	3	QPSK	1/14	9.35	H	6.8	0.44	15.71	34.77
836.5	3	QPSK	1/0	9.41	H	6.8	0.44	15.77	34.77
847.5	3	QPSK	1/14	9.32	H	6.9	0.44	15.78	34.77
825.5	3	16-QAM	1/14	9.58	V	6.8	0.44	15.94	34.77
836.5	3	16-QAM	1/0	9.62	V	6.8	0.44	15.98	34.77
847.5	3	16-QAM	1/14	9.67	V	6.9	0.44	16.13	34.77
825.5	3	16-QAM	1/14	8.49	H	6.8	0.44	14.85	34.77
836.5	3	16-QAM	1/0	8.52	H	6.8	0.44	14.88	34.77
847.5	3	16-QAM	1/14	8.57	H	6.9	0.44	15.03	34.77
826.5	5	QPSK	1/24	10.19	V	6.8	0.44	16.55	34.77
836.5	5	QPSK	1/24	10.22	V	6.8	0.44	16.58	34.77
846.5	5	QPSK	1/24	10.17	V	6.8	0.44	16.53	34.77
826.5	5	QPSK	1/24	9.46	H	6.8	0.44	15.82	34.77
836.5	5	QPSK	1/24	9.55	H	6.8	0.44	15.91	34.77
846.5	5	QPSK	1/24	9.47	H	6.8	0.44	15.83	34.77
826.5	5	16-QAM	1/24	9.67	V	6.8	0.44	16.03	34.77
836.5	5	16-QAM	1/24	9.74	V	6.8	0.44	16.10	34.77
846.5	5	16-QAM	1/24	9.66	V	6.8	0.44	16.02	34.77

826.5	5	16-QAM	1/24	8.56	H	6.8	0.44	14.92	34.77
836.5	5	16-QAM	1/24	8.62	H	6.8	0.44	14.98	34.77
846.5	5	16-QAM	1/24	8.58	H	6.8	0.44	14.94	34.77
829	10	QPSK	1/49	10.75	V	6.8	0.44	17.11	34.77
836.5	10	QPSK	1/49	10.82	V	6.8	0.44	17.18	34.77
844	10	QPSK	1/49	10.71	V	6.8	0.44	17.07	34.77
829	10	QPSK	1/49	9.68	H	6.8	0.44	16.04	34.77
836.5	10	QPSK	1/49	9.54	H	6.8	0.44	15.90	34.77
844	10	QPSK	1/49	9.63	H	6.8	0.44	15.99	34.77
829	10	16-QAM	1/49	10.26	V	6.8	0.44	16.62	34.77
836.5	10	16-QAM	1/49	10.18	V	6.8	0.44	16.54	34.77
844	10	16-QAM	1/49	10.24	V	6.8	0.44	16.60	34.77
829	10	16-QAM	1/49	8.93	H	6.8	0.44	15.29	34.77
836.5	10	16-QAM	1/49	8.87	H	6.8	0.44	15.23	34.77
844	10	16-QAM	1/49	9.96	H	6.8	0.44	16.32	34.77

ERP for LTE Band 7 (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	8.66	V	8.93	0.83	16.76	30
2535	5	QPSK	1/0	8.54	V	8.93	0.83	16.64	30
2567.5	5	QPSK	1/24	8.57	V	8.93	0.83	16.67	30
2502.5	5	QPSK	1/0	7.82	H	8.93	0.83	15.92	30
2535	5	QPSK	1/0	7.89	H	8.93	0.83	15.99	30
2567.5	5	QPSK	1/24	7.91	H	8.93	0.83	16.01	30
2502.5	5	16-QAM	1/0	8.11	V	8.93	0.83	16.21	30
2535	5	16-QAM	1/0	8.15	V	8.93	0.83	16.25	30
2567.5	5	16-QAM	1/24	8.23	V	8.93	0.83	16.33	30
2502.5	5	16-QAM	1/0	7.24	H	8.93	0.83	15.34	30
2535	5	16-QAM	1/0	7.33	H	8.93	0.83	15.43	30
2567.5	5	16-QAM	1/24	7.28	H	8.93	0.83	15.38	30
2505	10	QPSK	1/0	8.62	V	8.93	0.83	16.72	30
2535	10	QPSK	1/49	8.57	V	8.93	0.83	16.67	30
2565	10	QPSK	1/0	8.52	V	8.93	0.83	16.62	30
2505	10	QPSK	1/0	8.03	H	8.93	0.83	16.13	30
2535	10	QPSK	1/49	8.14	H	8.93	0.83	16.24	30
2565	10	QPSK	1/0	8.11	H	8.93	0.83	16.21	30
2505	10	16-QAM	1/0	8.29	V	8.93	0.83	16.39	30
2535	10	16-QAM	1/49	8.35	V	8.93	0.83	16.45	30
2565	10	16-QAM	1/0	8.26	V	8.93	0.83	16.36	30
2505	10	16-QAM	1/0	7.16	H	8.93	0.83	15.26	30
2535	10	16-QAM	1/49	7.22	H	8.93	0.83	15.32	30
2565	10	16-QAM	1/0	7.14	H	8.93	0.83	15.24	30
2507.5	15	QPSK	1/0	8.74	V	8.93	0.83	16.84	30
2535	15	QPSK	1/74	8.69	V	8.93	0.83	16.79	30
2562.5	15	QPSK	1/0	8.78	V	8.93	0.83	16.88	30
2507.5	15	QPSK	1/0	8.09	H	8.93	0.83	16.19	30
2535	15	QPSK	1/74	8.12	H	8.93	0.83	16.22	30
2562.5	15	QPSK	1/0	8.21	H	8.93	0.83	16.31	30
2507.5	15	16-QAM	1/0	8.35	V	8.93	0.83	16.45	30
2535	15	16-QAM	1/74	8.41	V	8.93	0.83	16.51	30
2562.5	15	16-QAM	1/0	8.37	V	8.93	0.83	16.47	30

2507.5	15	16-QAM	1/0	7.25	H	8.93	0.83	15.35	30
2535	15	16-QAM	1/74	7.33	H	8.93	0.83	15.43	30
2562.5	15	16-QAM	1/0	7.26	H	8.93	0.83	15.36	30
2510	20	QPSK	1/99	8.84	V	8.93	0.83	16.94	30
2535	20	QPSK	1/99	8.83	V	8.93	0.83	16.93	30
2560	20	QPSK	1/0	8.87	V	8.93	0.83	16.97	30
2510	20	QPSK	1/99	8.17	H	8.93	0.83	16.27	30
2535	20	QPSK	1/99	8.21	H	8.93	0.83	16.31	30
2560	20	QPSK	1/0	8.16	H	8.93	0.83	16.26	30
2510	20	16-QAM	1/99	8.55	V	8.93	0.83	16.65	30
2535	20	16-QAM	1/99	8.47	V	8.93	0.83	16.57	30
2560	20	16-QAM	1/0	8.52	V	8.93	0.83	16.62	30
2510	20	16-QAM	1/99	7.38	H	8.93	0.83	15.48	30
2535	20	16-QAM	1/99	7.44	H	8.93	0.83	15.54	30
2560	20	16-QAM	1/0	7.46	H	8.93	0.83	15.56	30

ERP for LTE Band 12 (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	9.76	V	6.9	0.42	16.24	34.77
707.5	1.4	QPSK	1/5	9.58	V	6.8	0.42	15.96	34.77
715.3	1.4	QPSK	1/5	9.64	V	6.8	0.42	16.02	34.77
699.7	1.4	QPSK	1/5	8.65	H	6.9	0.42	15.13	34.77
707.5	1.4	QPSK	1/5	8.78	H	6.8	0.42	15.16	34.77
715.3	1.4	QPSK	1/5	8.49	H	6.8	0.42	14.87	34.77
699.7	1.4	16-QAM	1/5	8.95	V	6.9	0.42	15.43	34.77
707.5	1.4	16-QAM	1/5	8.99	V	6.8	0.42	15.37	34.77
715.3	1.4	16-QAM	1/5	9.03	V	6.8	0.42	15.41	34.77
699.7	1.4	16-QAM	1/5	7.66	H	6.9	0.42	14.14	34.77
707.5	1.4	16-QAM	1/5	7.74	H	6.8	0.42	14.12	34.77
715.3	1.4	16-QAM	1/5	7.79	H	6.8	0.42	14.17	34.77
700.5	3	QPSK	1/14	9.68	V	6.9	0.42	16.16	34.77
707.5	3	QPSK	1/0	9.63	V	6.8	0.42	16.01	34.77
714.5	3	QPSK	1/14	9.74	V	6.8	0.42	16.12	34.77
700.5	3	QPSK	1/14	8.52	H	6.9	0.42	15.00	34.77
707.5	3	QPSK	1/0	8.64	H	6.8	0.42	15.02	34.77
714.5	3	QPSK	1/14	8.57	H	6.8	0.42	14.95	34.77
700.5	3	16-QAM	1/14	9.16	V	6.9	0.42	15.64	34.77
707.5	3	16-QAM	1/0	9.24	V	6.8	0.42	15.62	34.77
714.5	3	16-QAM	1/14	9.18	V	6.8	0.42	15.56	34.77
700.5	3	16-QAM	1/14	7.62	H	6.9	0.42	14.10	34.77
707.5	3	16-QAM	1/0	7.55	H	6.8	0.42	13.93	34.77
714.5	3	16-QAM	1/14	7.64	H	6.8	0.42	14.02	34.77
701.5	5	QPSK	1/24	9.58	V	6.9	0.42	16.06	34.77
707.5	5	QPSK	1/24	9.62	V	6.8	0.42	16.00	34.77
713.5	5	QPSK	1/24	9.57	V	6.8	0.42	15.95	34.77
701.5	5	QPSK	1/24	8.53	H	6.9	0.42	15.01	34.77
707.5	5	QPSK	1/24	8.66	H	6.8	0.42	15.04	34.77
713.5	5	QPSK	1/24	8.57	H	6.8	0.42	14.95	34.77
701.5	5	16-QAM	1/24	8.96	V	6.9	0.42	15.44	34.77
707.5	5	16-QAM	1/24	8.93	V	6.8	0.42	15.31	34.77
713.5	5	16-QAM	1/24	9.07	V	6.8	0.42	15.45	34.77
701.5	5	16-QAM	1/24	7.86	H	6.9	0.42	14.34	34.77
707.5	5	16-QAM	1/24	7.92	H	6.8	0.42	14.30	34.77

713.5	5	16-QAM	1/24	7.85	H	6.8	0.42	14.23	34.77
704	10	QPSK	1/49	9.75	V	6.8	0.42	16.13	34.77
707.5	10	QPSK	1/49	9.68	V	6.8	0.42	16.06	34.77
711	10	QPSK	1/49	9.72	V	6.8	0.42	16.10	34.77
704	10	QPSK	1/49	8.83	H	6.8	0.42	15.21	34.77
707.5	10	QPSK	1/49	8.78	H	6.8	0.42	15.16	34.77
711	10	QPSK	1/49	8.81	H	6.8	0.42	15.19	34.77
704	10	16-QAM	1/49	9.13	V	6.8	0.42	15.51	34.77
707.5	10	16-QAM	1/49	9.21	V	6.8	0.42	15.59	34.77
711	10	16-QAM	1/49	9.18	V	6.8	0.42	15.56	34.77
704	10	16-QAM	1/49	7.95	H	6.8	0.42	14.33	34.77
707.5	10	16-QAM	1/49	7.86	H	6.8	0.42	14.24	34.77
711	10	16-QAM	1/49	7.94	H	6.8	0.42	14.32	34.77

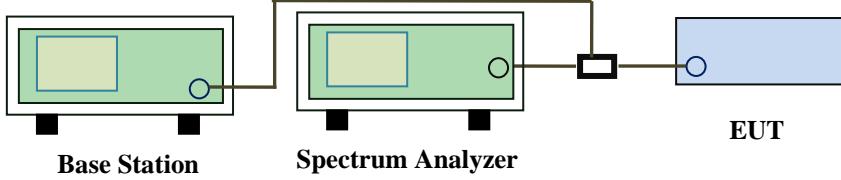
ERP for LTE Band 17 (Part 27)

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	12.35	V	6.8	0.42	18.73	34.77
710	5	QPSK	1/0	12.41	V	6.8	0.42	18.79	34.77
713.5	5	QPSK	1/0	12.39	V	6.8	0.42	18.77	34.77
706.5	5	QPSK	1/0	11.16	H	6.8	0.42	17.54	34.77
710	5	QPSK	1/0	11.24	H	6.8	0.42	17.62	34.77
713.5	5	QPSK	1/0	11.18	H	6.8	0.42	17.56	34.77
706.5	5	16-QAM	1/0	11.85	V	6.8	0.42	18.23	34.77
710	5	16-QAM	1/0	11.92	V	6.8	0.42	18.30	34.77
713.5	5	16-QAM	1/0	11.87	V	6.8	0.42	18.25	34.77
706.5	5	16-QAM	1/0	10.62	H	6.8	0.42	17.00	34.77
710	5	16-QAM	1/0	10.57	H	6.8	0.42	16.95	34.77
713.5	5	16-QAM	1/0	10.66	H	6.8	0.42	17.04	34.77
709	10	QPSK	1/0	9.85	V	6.8	0.42	16.23	34.77
710	10	QPSK	1/0	9.79	V	6.8	0.42	16.17	34.77
711	10	QPSK	1/0	9.88	V	6.8	0.42	16.26	34.77
709	10	QPSK	1/0	8.33	H	6.8	0.42	14.71	34.77
710	10	QPSK	1/0	8.41	H	6.8	0.42	14.79	34.77
711	10	QPSK	1/0	8.46	H	6.8	0.42	14.84	34.77
709	10	16-QAM	1/0	9.14	V	6.8	0.42	15.52	34.77
710	10	16-QAM	1/0	9.26	V	6.8	0.42	15.64	34.77
711	10	16-QAM	1/0	9.18	V	6.8	0.42	15.56	34.77
709	10	16-QAM	1/0	8.27	H	6.8	0.42	14.65	34.77
710	10	16-QAM	1/0	8.34	H	6.8	0.42	14.72	34.77
711	10	16-QAM	1/0	8.25	H	6.8	0.42	14.63	34.77

6.3 Peak-Average Ratio

Temperature	23°C
Relative Humidity	58%
Atmospheric Pressure	1006mbar
Test date :	August 06, 2015
Tested By :	Winnie Zhang

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</p> <ol style="list-style-type: none"> 1. The signal analyzer's CCDF measurement profile is enabled 2. Frequency = carrier center frequency 3. Measurement BW > Emission bandwidth of signal 4. The signal analyzer was set to collect one million samples to generate the CCDF curve 5. The measurement interval was set depending on the type of signal analyzed. For continuous signals (>98% duty cycle), the measurement interval was set to 1ms. For burst transmissions, the spectrum analyzer is set to use an internal "RF Burst" trigger that is synced with an incoming pulse and the measurement interval is set to less than the duration of the "on time" of one burst to ensure that energy is only captured during a time in which the transmitter is operating at maximum power 		
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 2 (part 24E)

BW(MHz)	Frequency (MHz)	Mode	Modulation	Conducted Power (dBm)		Peak-Average Ratio (PAR)
				Peak	Average	
1.4	1880	RB 1/0	QPSK	25.66	22.4	3.26
			16QAM	24.32	21.33	2.99
3	1880	RB 1/0	QPSK	25.1	22.35	2.75
			16QAM	24.26	21.32	2.94
5	1880	RB 1/0	QPSK	25.32	22.41	2.91
			16QAM	25.2	21.94	3.26
10	1880	RB 1/0	QPSK	24.31	22.27	2.04
			16QAM	24.33	22.07	2.26
15	1880	RB 1/0	QPSK	25.12	22.18	2.94
			16QAM	25.26	22.06	3.2
20	1880	RB 1/0	QPSK	25.24	22.41	2.83
			16QAM	24.68	21.93	2.75

LTE Band 4 (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	25.12	22.35	2.77
			16QAM	25.13	21.22	3.91
3	1732.5	RB 1/0	QPSK	25.21	22.26	2.95
			16QAM	24.86	21.23	3.63
5	1732.5	RB 1/0	QPSK	24.86	22.13	2.73
			16QAM	25.34	21.64	3.7
10	1732.5	RB 1/0	QPSK	25.02	22.03	2.99
			16QAM	25.16	21.47	3.69
15	1732.5	RB 1/0	QPSK	25.09	21.59	3.5
			16QAM	24.88	21.43	3.45
20	1732.5	RB 1/0	QPSK	24.56	21.69	2.87
			16QAM	24.88	22.01	2.87

LTE Band 7 (part 27)

BW(MHz)	Frequency (MHz)	Mode	Modulation	Conducted Power (dBm)		Peak-Average Ratio (PAR)
				Peak	Average	
5	1880	RB 1/0	QPSK	25.16	21.56	3.6
			16QAM	25.34	21.06	4.28
10	1880	RB 1/0	QPSK	25.33	21.75	3.58
			16QAM	25.29	21.45	3.84
15	1880	RB 1/0	QPSK	25.43	21.03	4.4
			16QAM	25.15	21.23	3.92
20	1880	RB 1/0	QPSK	25.24	21.68	3.56
			16QAM	24.76	21.03	3.73

LTE Band 12 (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	25.1	21.43	3.67
			16QAM	25.24	21.35	3.89
3	1732.5	RB 1/0	QPSK	25.34	21.43	3.91
			16QAM	24.86	21.24	3.62
5	1732.5	RB 1/0	QPSK	24.95	21.45	3.5
			16QAM	25.12	21.53	3.59
10	1732.5	RB 1/0	QPSK	25.05	21.85	3.2
			16QAM	25.07	21.23	3.84

LTE Band 17 (part 27)

BW(MHz)	Frequency (MHz)	Mode	Modulation	Conducted Power (dBm)		Peak-Average Ratio (PAR)
				Peak	Average	
5	710	RB 1/0	QPSK	25.13	21.63	3.5
			16QAM	25.29	21.35	3.94
10	710	RB 1/0	QPSK	25.43	21.46	3.97
			16QAM	25.32	21.51	3.81

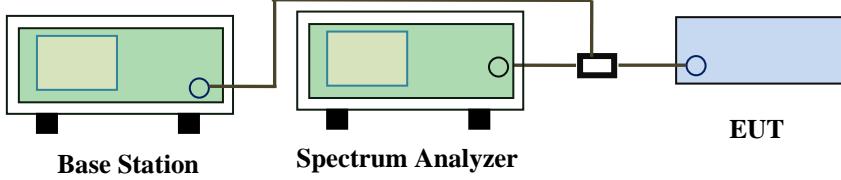
6.4 Modulation Characteristic

According to FCC § 2.1047(d), Part 22H&24E& Part 27 there is no specific requirement for digital modulation, therefore modulation characteristic is not presented.

6.5 Occupied Bandwidth

Temperature	23°C
Relative Humidity	55%
Atmospheric Pressure	1031mbar
Test date :	July 31-August 03, 2015
Tested By :	Winnie Zhang

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 2 (Part 24E)

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
1.4	18607	1850.7	16QAM	1.1073	1.302
			QPSK	1.1043	1.303
1.4	18900	1880	16QAM	1.1038	1.309
			QPSK	1.1032	1.291
1.4	19193	1909.3	16QAM	1.1031	1.312
			QPSK	1.1082	1.311
3.0463	18615	1851.5	16QAM	2.7539	3.046
			QPSK	2.7498	3.044
3	18900	1880	16QAM	2.7458	3.042
			QPSK	2.7601	3.016
3	19185	1908.5	16QAM	2.7468	3.067
			QPSK	2.7527	3.050
5	18625	1852.5	16QAM	4.5467	5.075
			QPSK	4.5345	5.076
5	18900	1880	16QAM	4.5385	5.077
			QPSK	4.5438	5.109
5	19175	1907.5	16QAM	4.5442	5.114
			QPSK	4.5453	5.084
10	18650	1855	16QAM	9.1024	10.18
			QPSK	9.0835	10.17
10	18900	1880	16QAM	9.1215	10.08
			QPSK	9.1126	10.18
10	19150	1905	16QAM	9.1320	10.17
			QPSK	9.1326	10.22
15	18675	1857.5	16QAM	13.519	14.84
			QPSK	13.509	14.86
15	18900	1880	16QAM	13.545	14.87
			QPSK	13.524	14.92
15	19125	1902.5	16QAM	13.578	14.90
			QPSK	13.531	14.81

20	18700	1860	16QAM	17.977	19.49
			QPSK	17.977	19.48
20	18900	1880	16QAM	17.898	19.16
			QPSK	17.875	19.22
20	19100	1900	16QAM	17.992	19.36
			QPSK	17.995	19.64

LTE Band 4 (Part 27)

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
1.4	19957	1710.7	16QAM	1.0933	1.263
			QPSK	1.0919	1.265
1.4	20175	1732.5	16QAM	1.0923	1.273
			QPSK	1.0997	1.278
1.4	20393	1754.3	16QAM	1.0985	1.265
			QPSK	1.1019	1.256
3	19965	1711.5	16QAM	2.7429	3.051
			QPSK	2.7329	3.029
3	20175	1732.5	16QAM	2.7360	3.031
			QPSK	2.7373	3.045
3	20385	1753.5	16QAM	2.7323	3.033
			QPSK	2.7261	3.040
5	19975	1712.5	16QAM	4.5952	6.572
			QPSK	4.5936	6.529
5	20175	1732.5	16QAM	4.5576	5.140
			QPSK	4.5598	5.132
5	20375	1752.5	16QAM	4.5478	6.255
			QPSK	4.5485	5.941
10	20000	1715	16QAM	9.1004	10.18
			QPSK	9.1047	10.07
10	20175	1732.5	16QAM	9.0303	10.03
			QPSK	9.0324	10.03
10	20350	1750	16QAM	9.0659	10.10
			QPSK	9.0718	10.01

15	20025	1717.5	16QAM	13.526	14.97
			QPSK	13.530	15.06
15	20175	1732.5	16QAM	13.442	14.80
			QPSK	13.442	14.80
15	20325	1747.5	16QAM	13.515	14.83
			QPSK	13.515	14.81
20	20050	1720	16QAM	17.961	19.46
			QPSK	17.978	19.37
20	20175	1732.5	16QAM	17.885	19.49
			QPSK	17.867	19.44
20	20300	1745	16QAM	17.941	19.09
			QPSK	17.984	19.29

LTE Band 5 (Part 22H)

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
1.4	20407	824.7	16QAM	1.0938	1.268
			QPSK	1.0936	1.268
1.4	20525	936.5	16QAM	1.0980	1.288
			QPSK	1.0927	1.261
1.4	20643	949.3	16QAM	1.1034	1.260
			QPSK	1.0987	1.253
3	20415	825.5	16QAM	2.7266	3.002
			QPSK	2.7273	3.029
3	20525	936.5	16QAM	2.7286	3.040
			QPSK	2.7354	3.048
3	20635	847.5	16QAM	2.7331	3.050
			QPSK	2.7322	3.045
5	20425	826.5	16QAM	4.5315	5.038
			QPSK	4.5298	5.036
5	20525	936.5	16QAM	4.5205	5.051
			QPSK	4.5161	5.036
5	20625	846.5	16QAM	4.5148	4.984
			QPSK	4.5213	5.022

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10	20450	829	16QAM	9.0559	10.11
			QPSK	9.0384	10.04
10	20525	936.5	16QAM	9.0602	10.08
			QPSK	9.0699	10.06
10	20800	844	16QAM	9.0656	10.03
			QPSK	9.0817	9.977

LTE Band 7 (Part 27) result

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
5	20775	2502.5	16QAM	4.5212	5.049
			QPSK	4.5095	5.057
5	21100	2535	16QAM	4.4982	4.998
			QPSK	4.5129	4.989
5	21425	2567.5	16QAM	4.5255	5.043
			QPSK	4.5306	5.080
10	20800	2505	16QAM	9.0469	10.10
			QPSK	9.0318	9.984
10	21100	2535	16QAM	9.0512	10.12
			QPSK	9.0593	10.12
10	21400	2562.5	16QAM	9.0626	10.07
			QPSK	9.0531	10.07
15	20825	2507.5	16QAM	13.480	14.72
			QPSK	13.455	14.85
15	21100	2535	16QAM	13.456	14.64
			QPSK	13.489	14.82
15	21400	2562.5	16QAM	13.475	14.60
			QPSK	13.498	14.74
20	20850	2510	16QAM	17.882	19.09
			QPSK	17.921	19.14
20	21100	2535	16QAM	17.923	19.28
			QPSK	17.915	19.34
20	21350	2560	16QAM	17.892	19.32
			QPSK	17.905	19.29

LTE Band 12 (Part 27)

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
1.4	23017	699.7	16QAM	1.0930	1.265
			QPSK	1.0937	1.273
1.4	23095	707.5	16QAM	1.0945	1.264
			QPSK	1.0973	1.272
1.4	23173	715.3	16QAM	1.0984	1.256
			QPSK	1.0982	1.261
3	23025	700.5	16QAM	2.7468	3.026
			QPSK	2.7508	3.010
3	23095	707.5	16QAM	2.7313	3.023
			QPSK	2.7353	3.046
3	23165	714.5	16QAM	2.7327	3.034
			QPSK	2.7188	3.035
5	23035	701.5	16QAM	4.5427	5.094
			QPSK	4.5281	5.049
5	23095	707.5	16QAM	4.5184	5.008
			QPSK	4.5180	5.074
5	23055	713.5	16QAM	4.5039	5.039
			QPSK	4.5161	5.058
10	23060	704	16QAM	9.0427	10.14
			QPSK	9.0444	10.04
10	23095	707.5	16QAM	9.0620	10.06
			QPSK	9.0670	10.13
10	23130	711	16QAM	9.0726	10.15
			QPSK	9.0736	10.12

LTE Band 17 (Part 27)

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
5	23755	706.5	16QAM	4.5145	5.069
			QPSK	4.5107	5.008
5	23790	710	16QAM	4.5046	5.006
			QPSK	4.5169	4.988
5	23825	713.5	16QAM	4.5318	5.017
			QPSK	4.5300	5.060
10	23780	709	16QAM	9.0632	10.10
			QPSK	9.0772	10.05
10	23790	710	16QAM	9.0657	9.999
			QPSK	9.0588	10.07
10	23800	711	16QAM	9.0645	10.01
			QPSK	9.0815	10.11

Test Plots

LTE Band 2 (Part 24E)



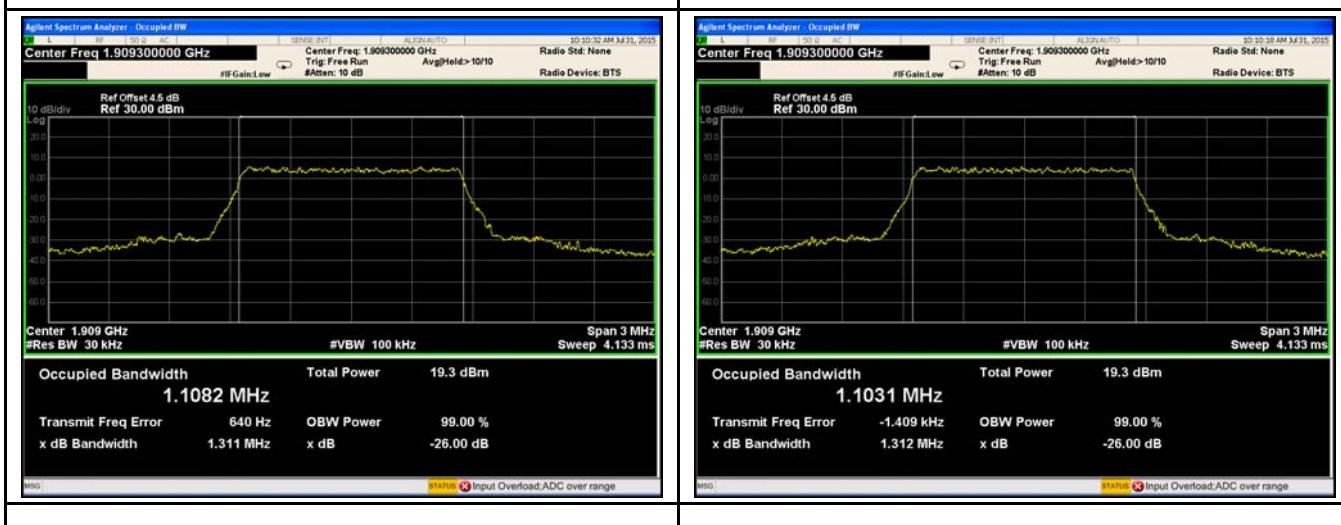
LTE band 2 - Low CH QPSK-1.4

LTE band 2 - Low CH 16QAM-1.4



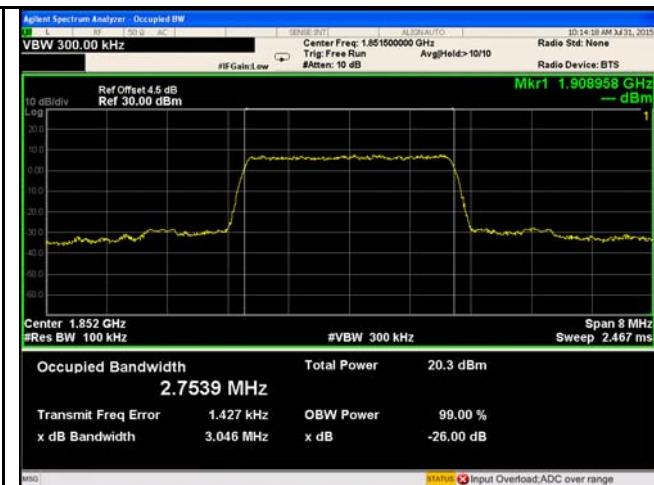
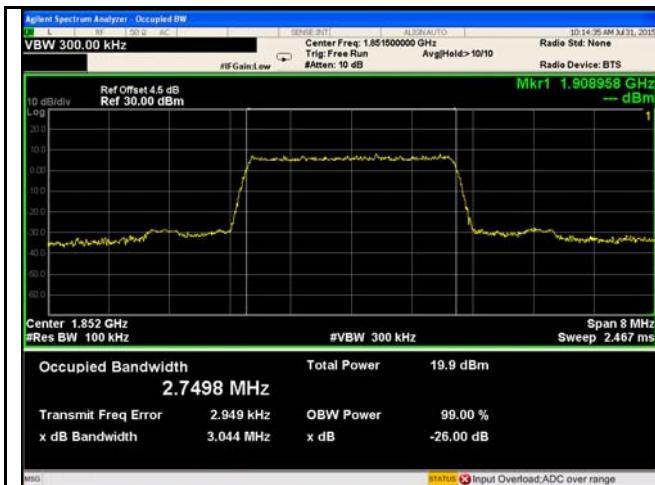
LTE band 2 - Middle CH QPSK-1.4

LTE band 2 - Middle CH 16QAM-1.4



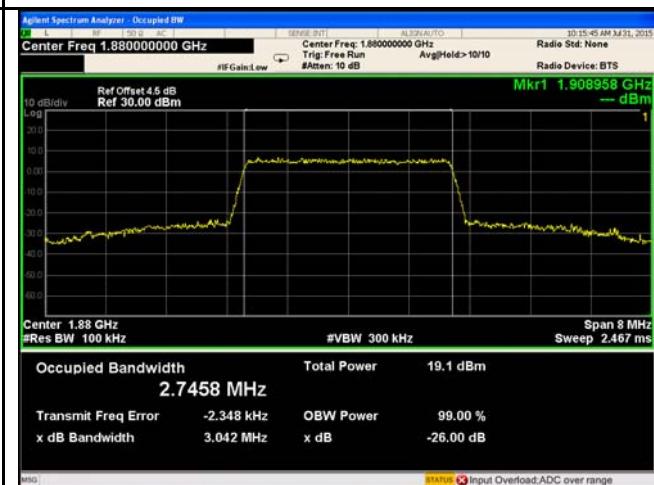
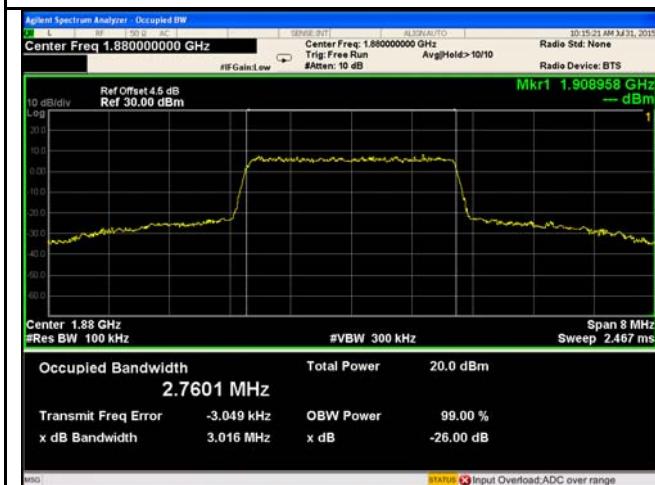
LTE band 2 - High CH QPSK-1.4

LTE band 2 - High CH 16QAM-1.4



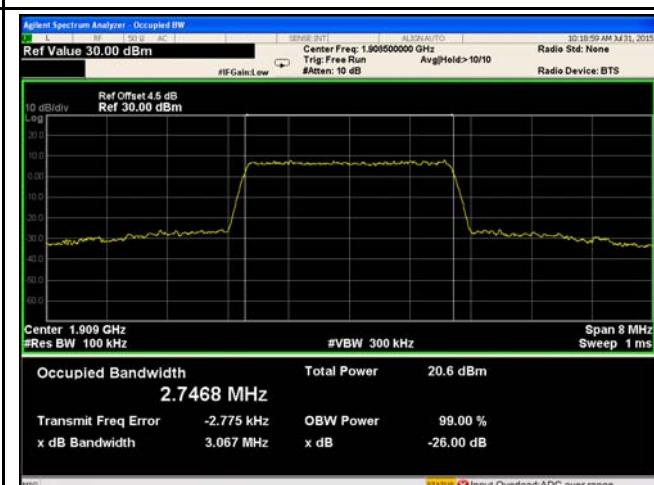
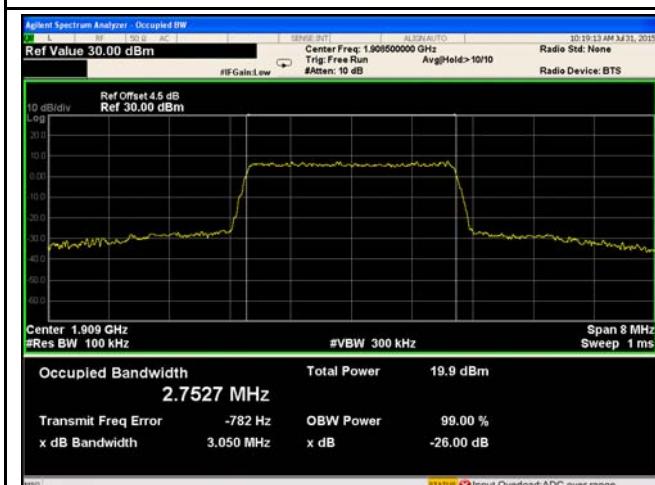
LTE band 2 - Low CH QPSK-3

LTE band 2 - Low CH 16QAM-3



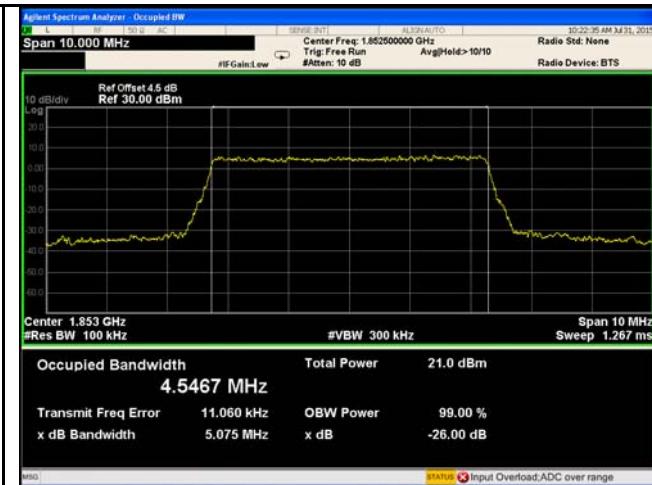
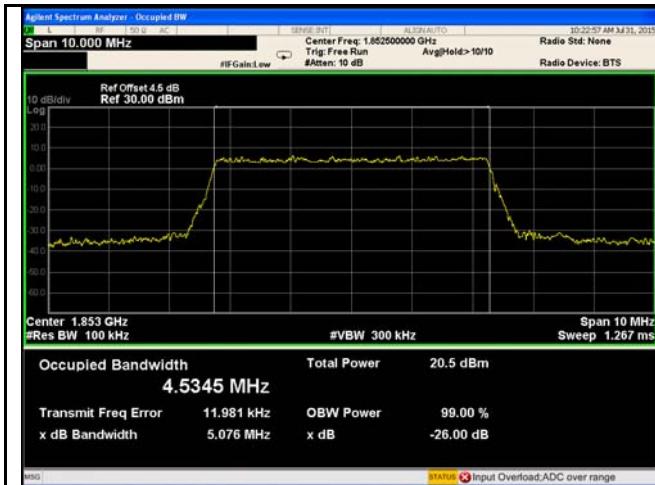
LTE band 2 - Middle CH QPSK-3

LTE band 2 - Middle CH 16QAM-3



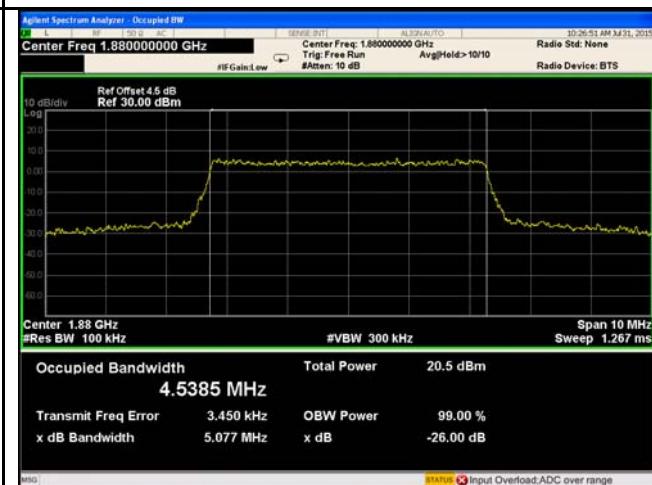
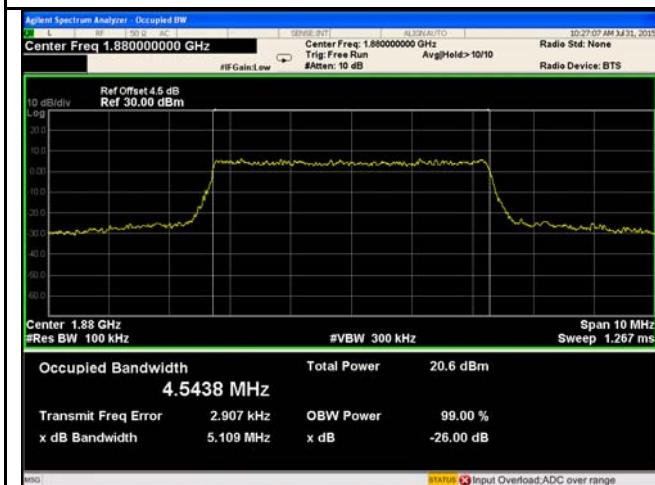
LTE band 2 - High CH QPSK-3

LTE band 2 - High CH 16QAM-3



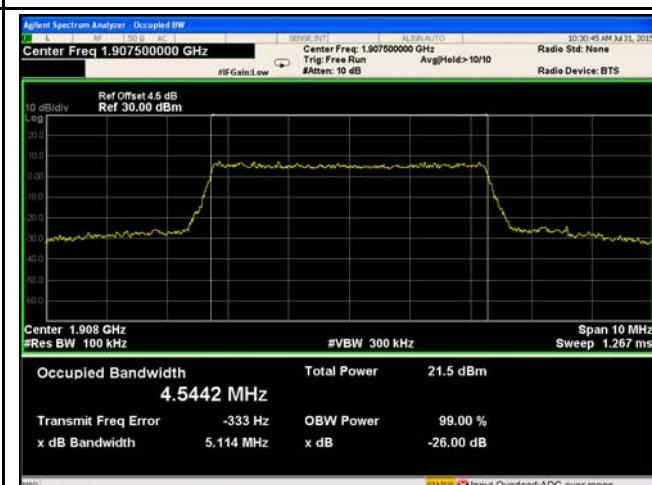
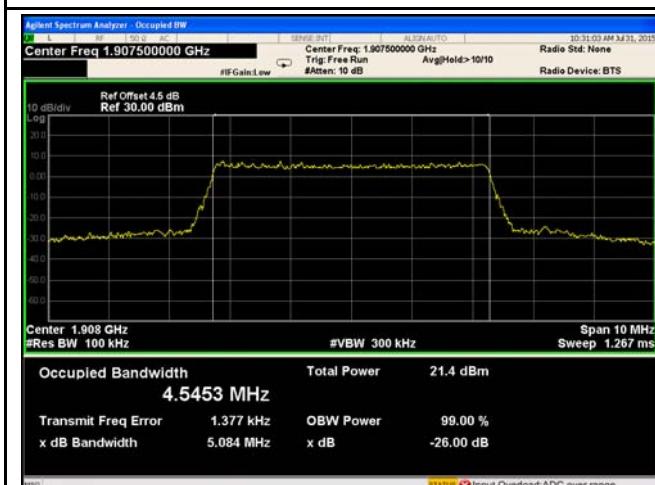
LTE band 2 - Low CH QPSK-5

LTE band 2 - Low CH 16QAM-5



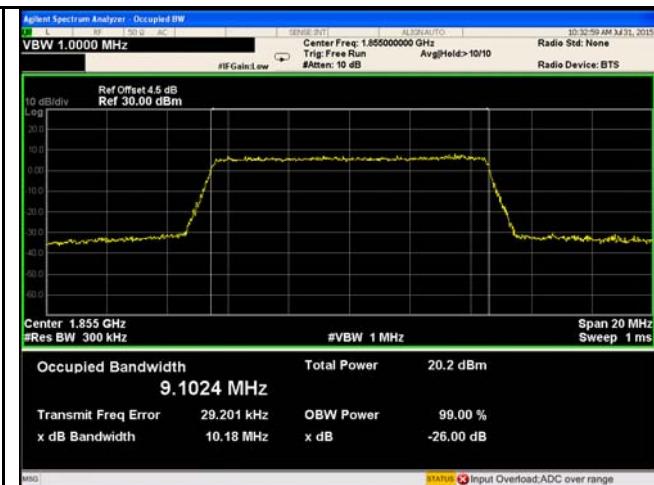
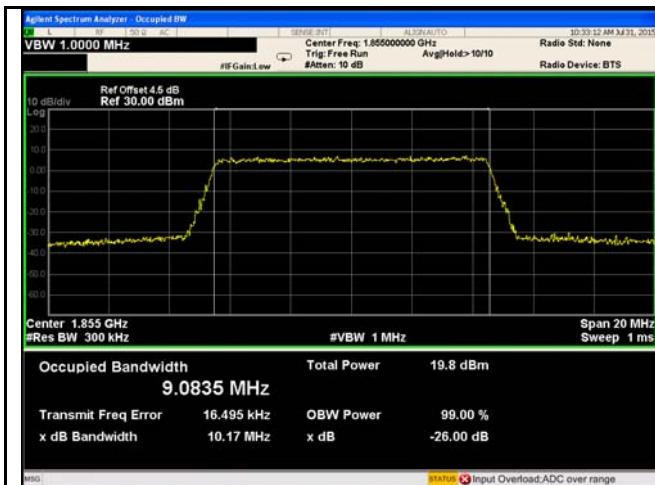
LTE band 2 - Middle CH QPSK-5

LTE band 2 - Middle CH 16QAM-5



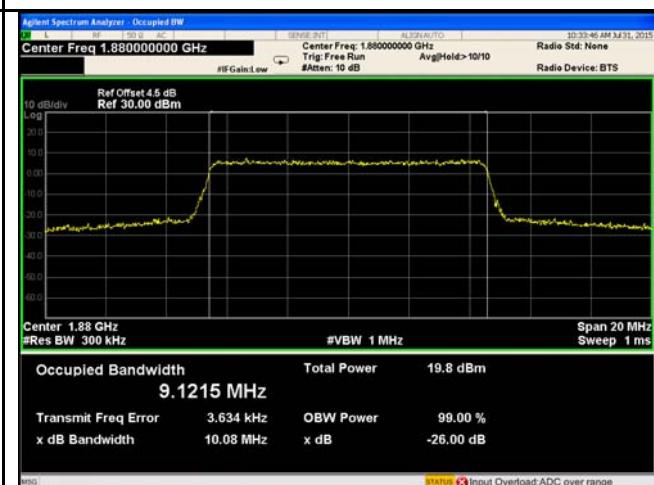
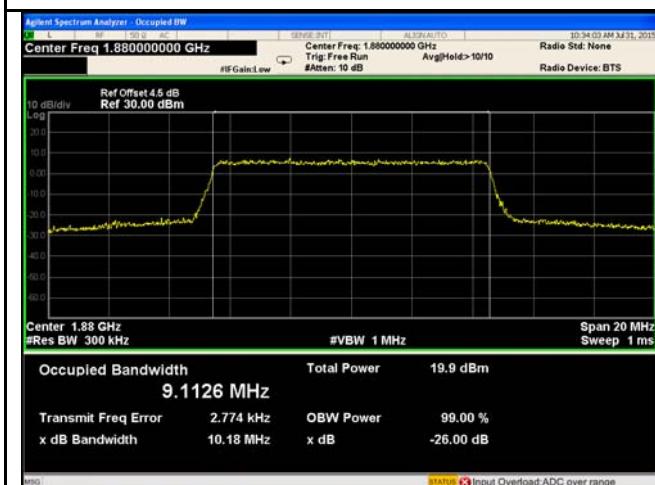
LTE band 2 - High CH QPSK-5

LTE band 2 - High CH 16QAM-5



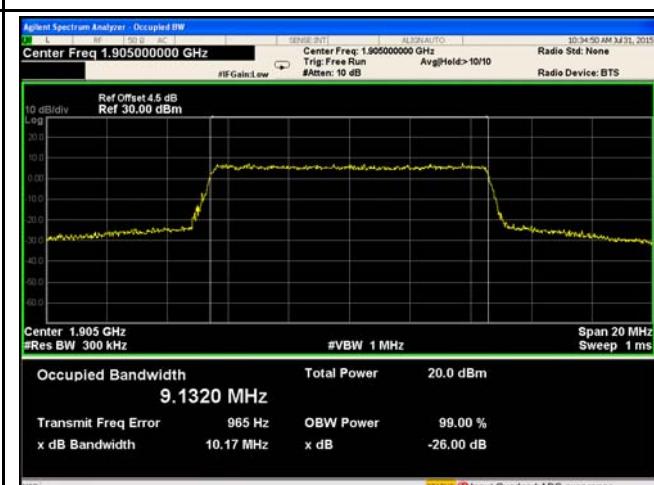
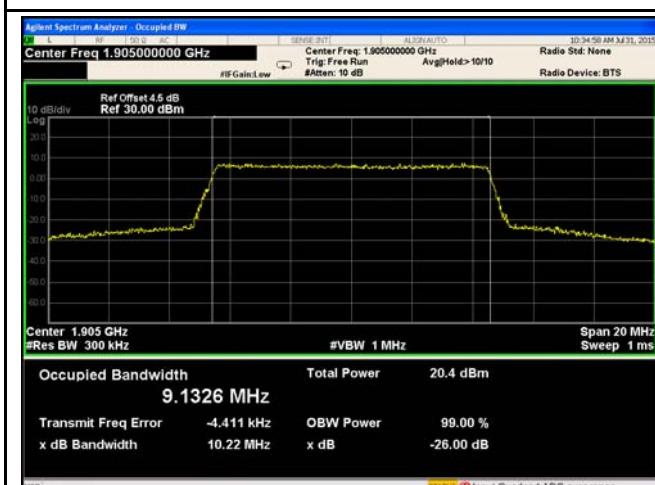
LTE band 2 - Low CH QPSK-10

LTE band 2 - Low CH 16QAM-10



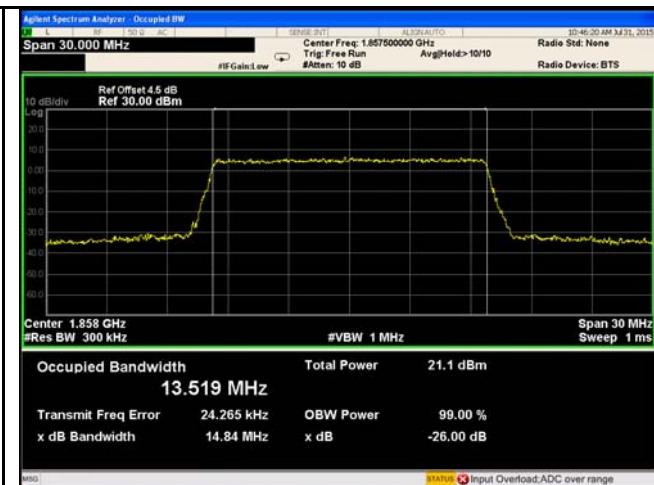
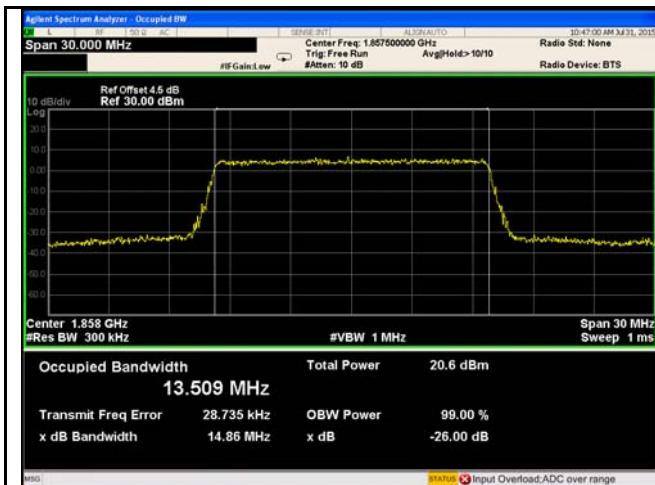
LTE band 2 - Middle CH QPSK-10

LTE band 2 - Middle CH 16QAM-10



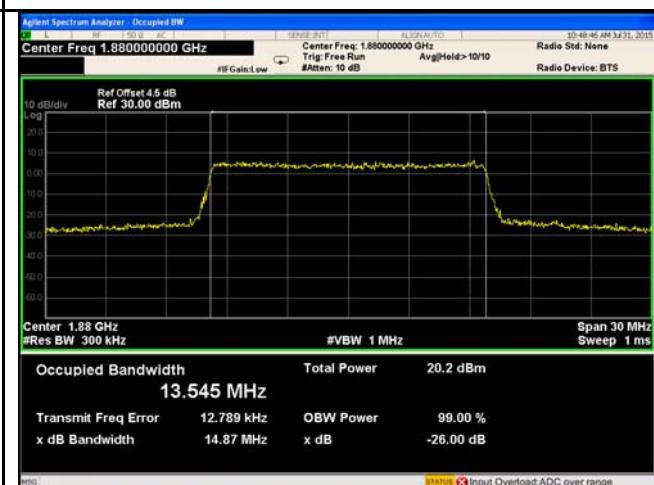
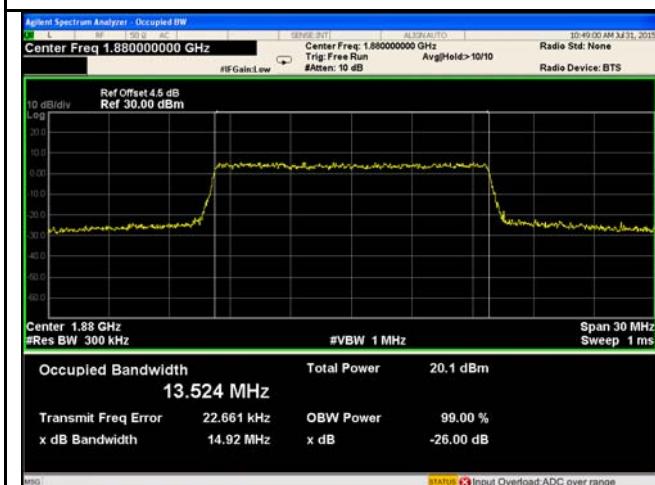
LTE band 2 - High CH QPSK-10

LTE band 2 - High CH 16QAM-10



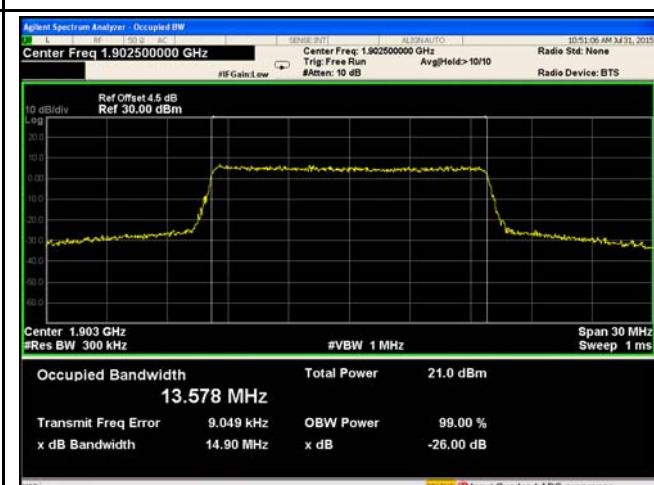
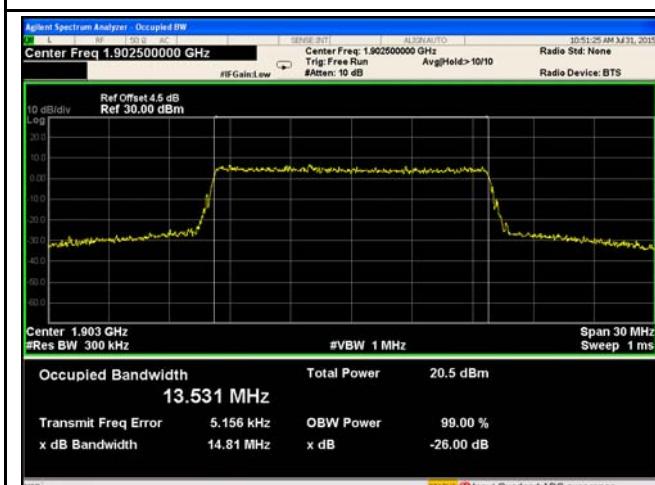
LTE band 2 - Low CH QPSK-15

LTE band 2 - Low CH 16QAM-15



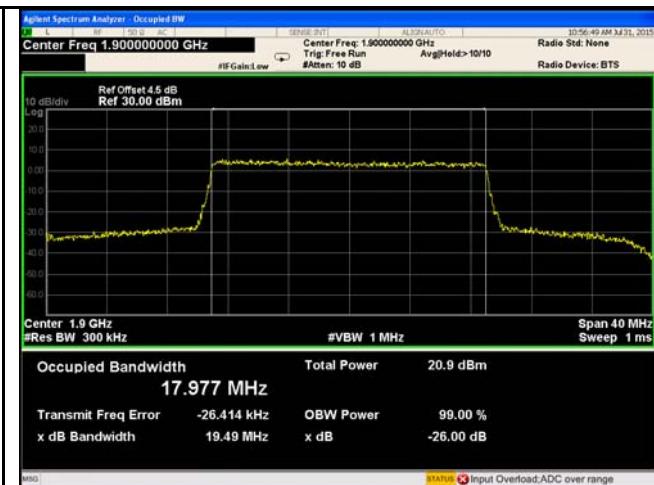
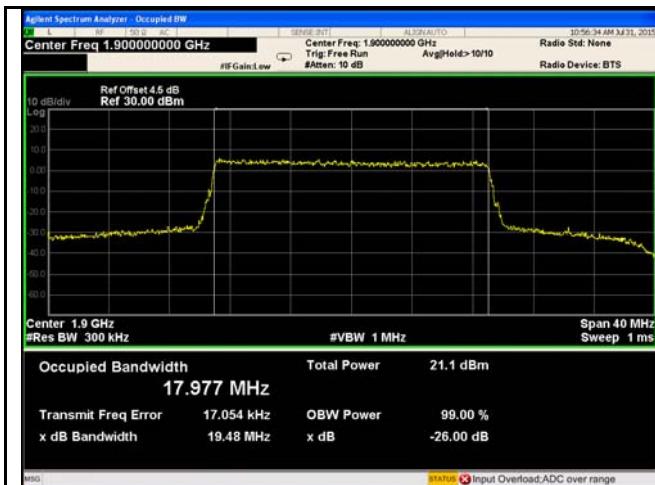
LTE band 2 - Middle CH QPSK-15

LTE band 2 - Middle CH 16QAM-15



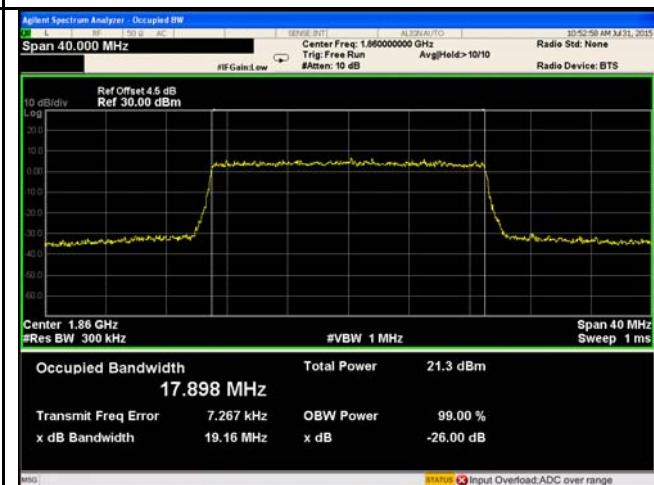
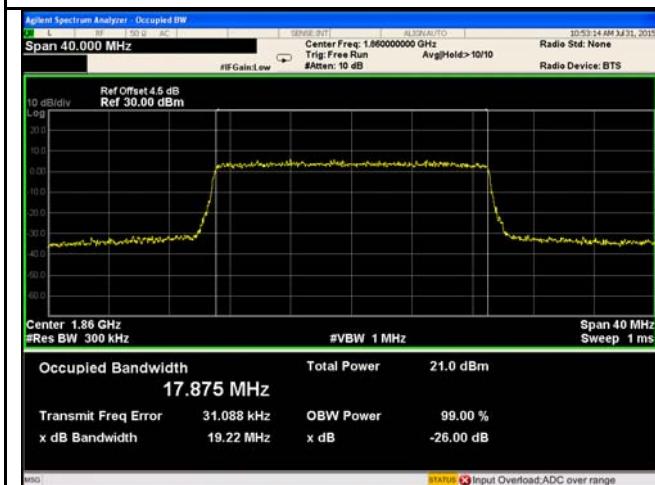
LTE band 2 - High CH QPSK-15

LTE band 2 - High CH 16QAM-15



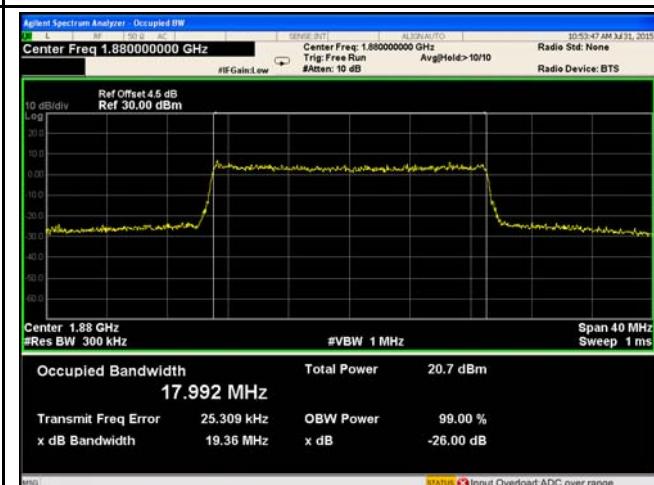
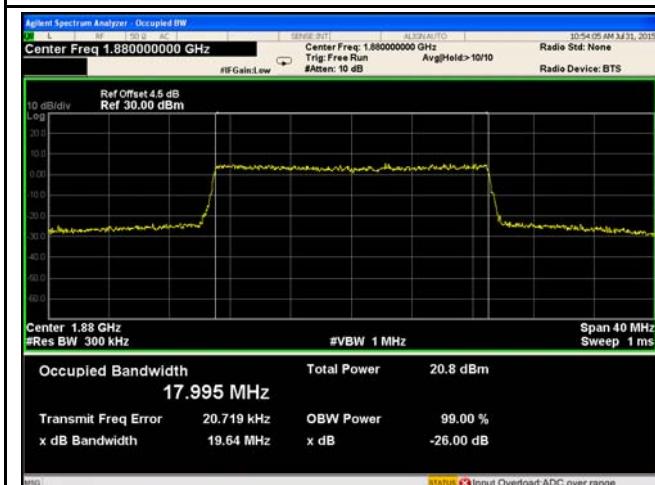
LTE band 2 - Low CH QPSK-20

LTE band 2 - Low CH 16QAM-20



LTE band 2 - Middle CH QPSK-20

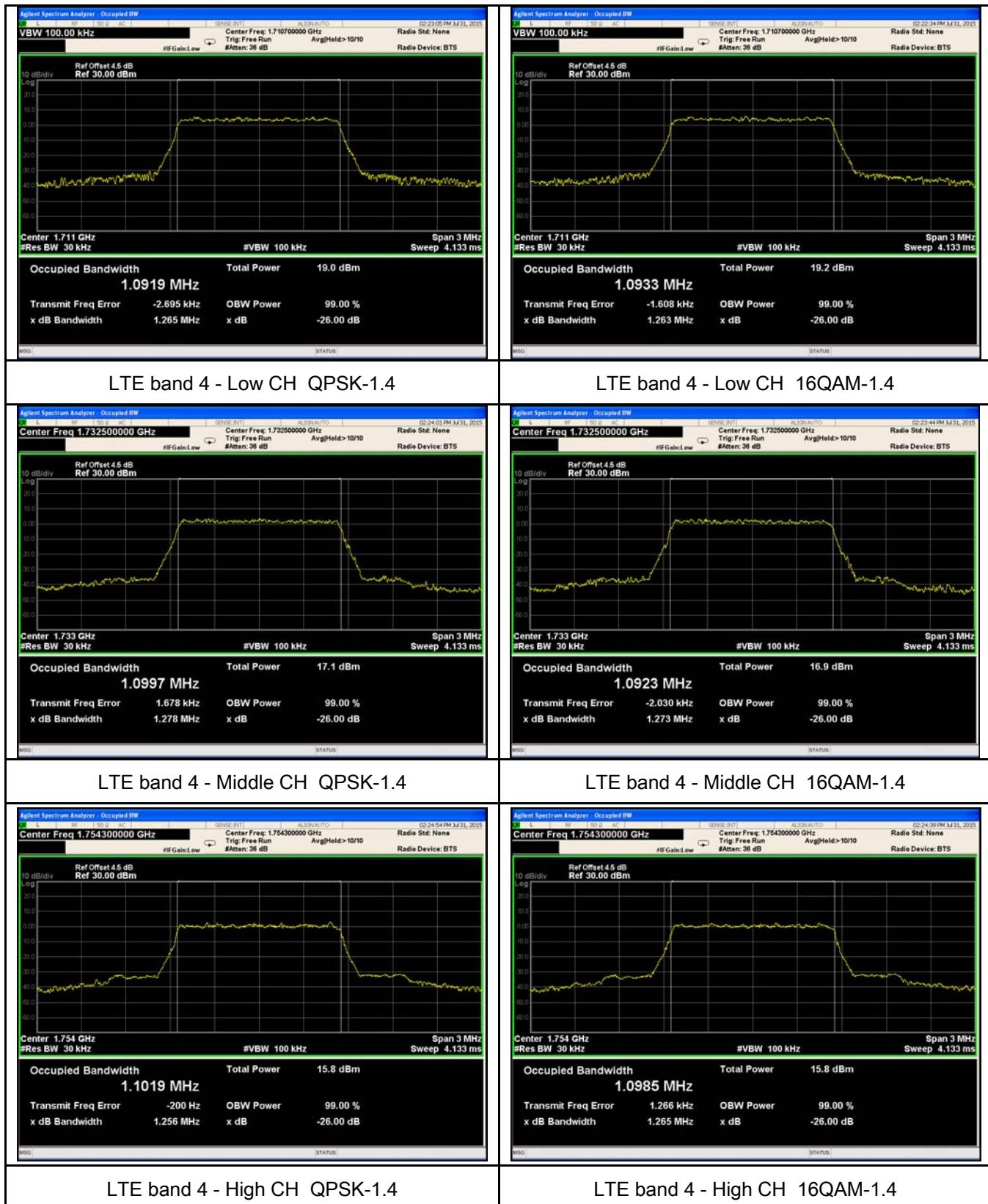
LTE band 2 - Middle CH 16QAM-20

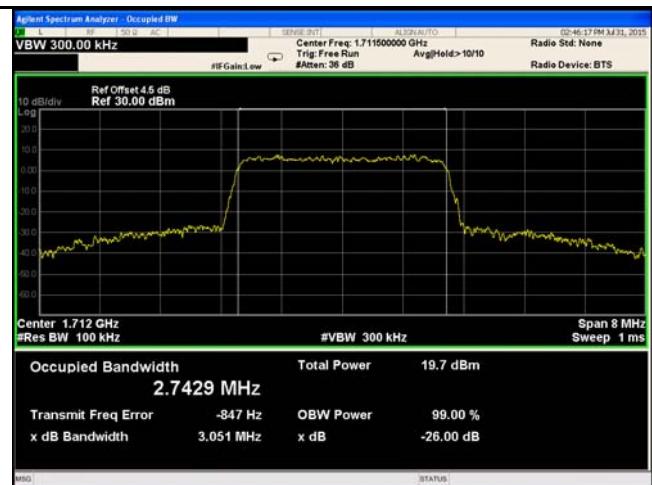
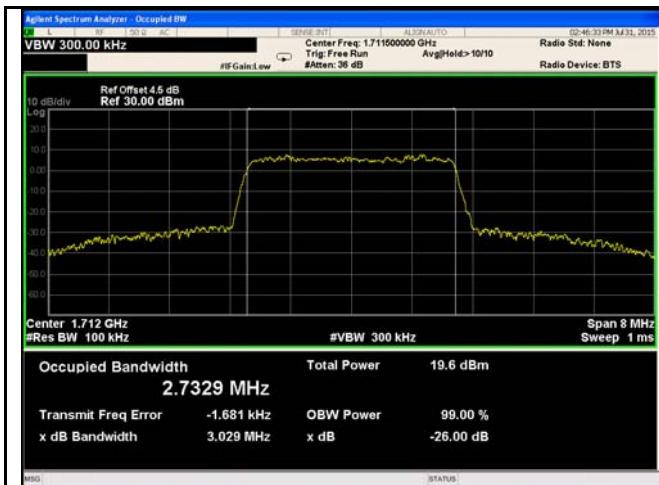


LTE band 2 - High CH QPSK-20

LTE band 2 - High CH 16QAM-20

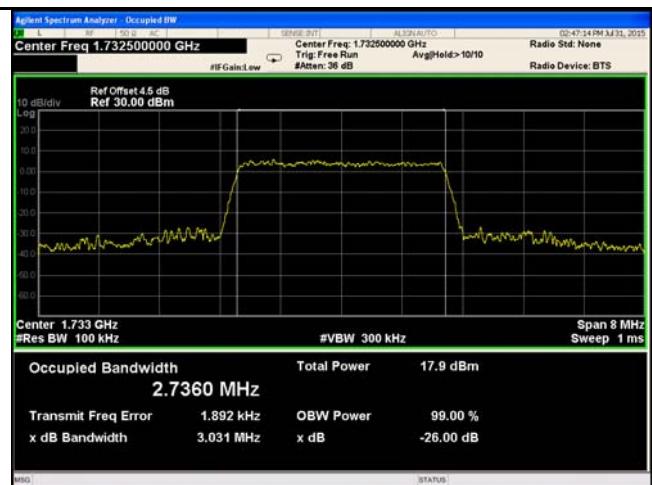
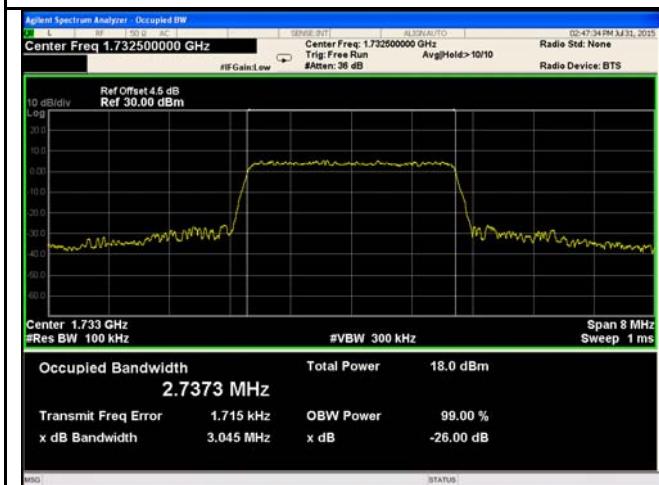
LTE Band 4 (Part 27)





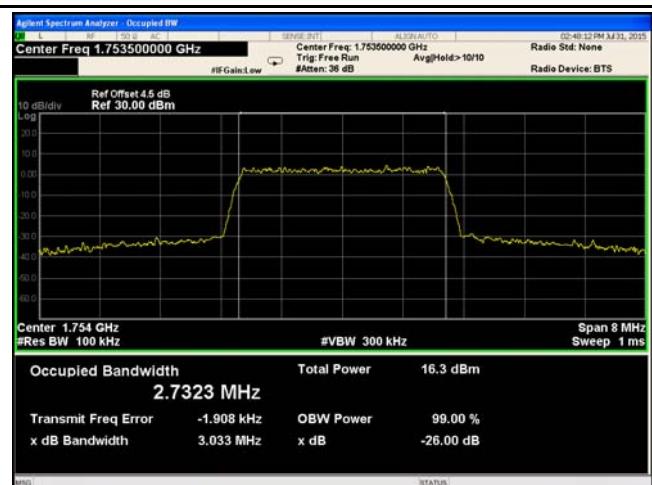
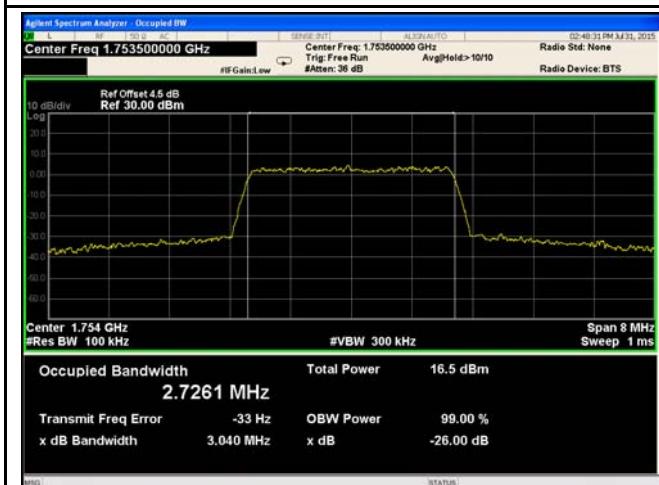
LTE band 4 - Low CH QPSK-3

LTE band 4 - Low CH 16QAM-3



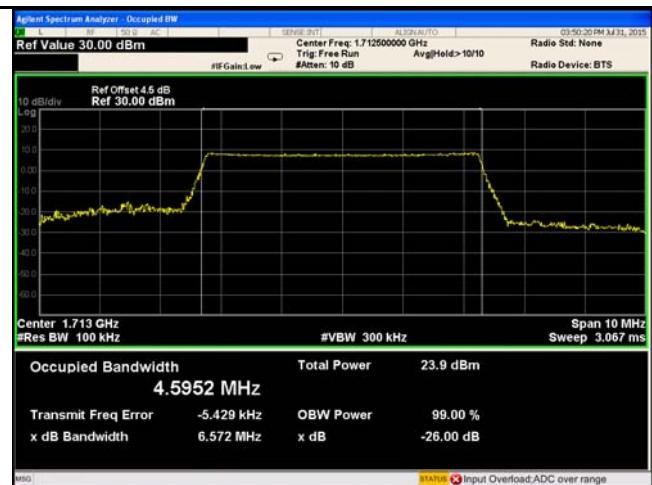
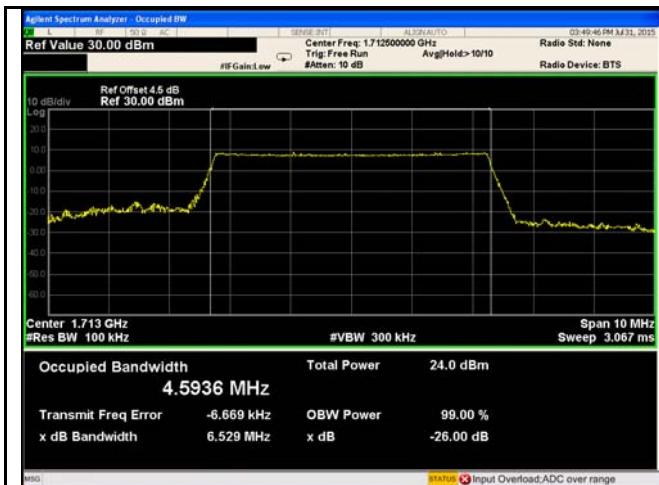
LTE band 4 - Middle CH QPSK-3

LTE band 4 - Middle CH 16QAM-3



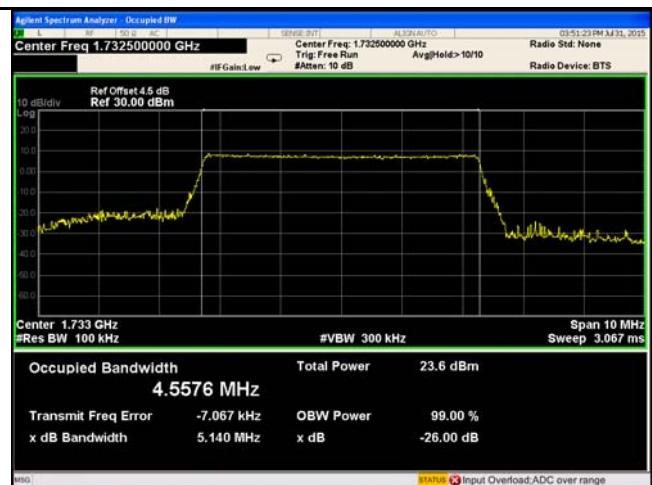
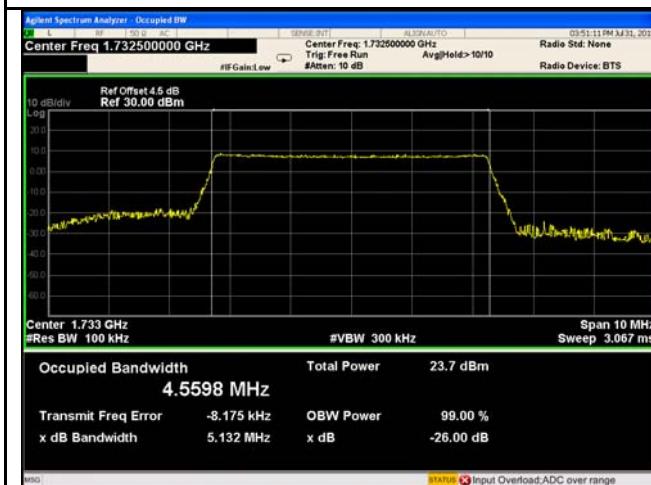
LTE band 4 - High CH QPSK-3

LTE band 4 - High CH 16QAM-3



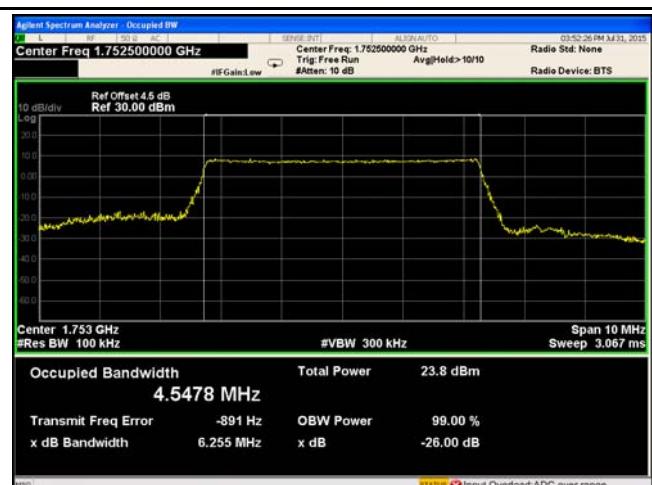
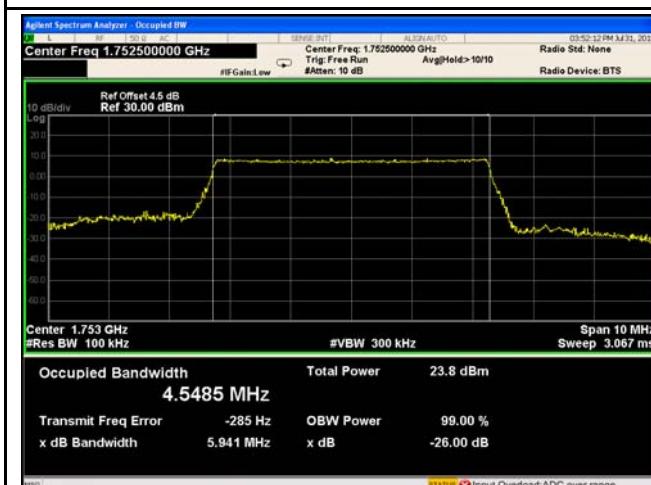
LTE band 4 - Low CH QPSK-5

LTE band 4 - Low CH 16QAM-5



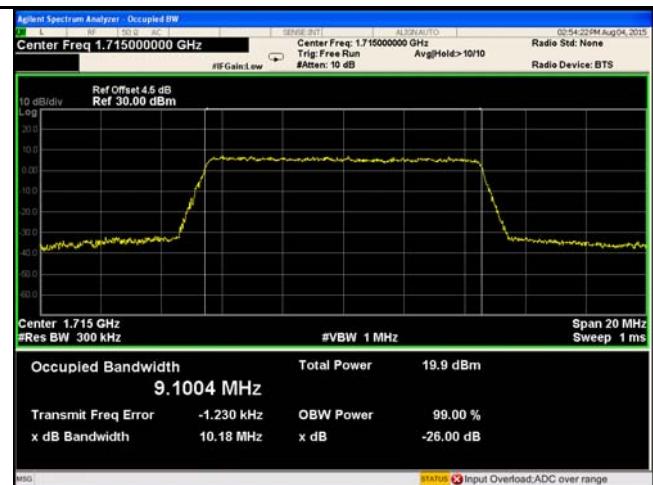
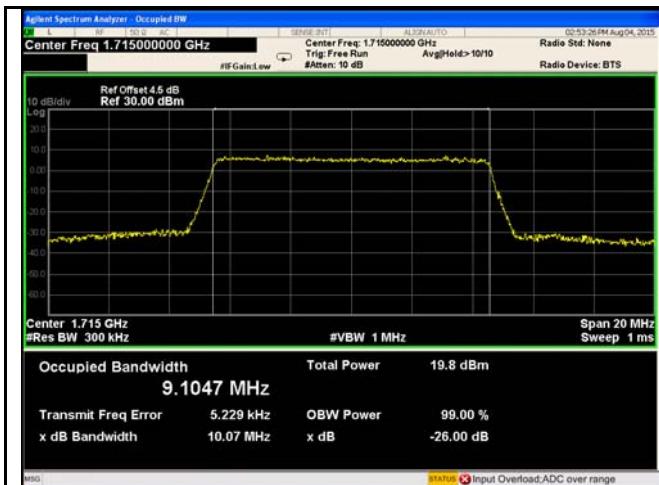
LTE band 4 - Middle CH QPSK-5

LTE band 4 - Middle CH 16QAM-5



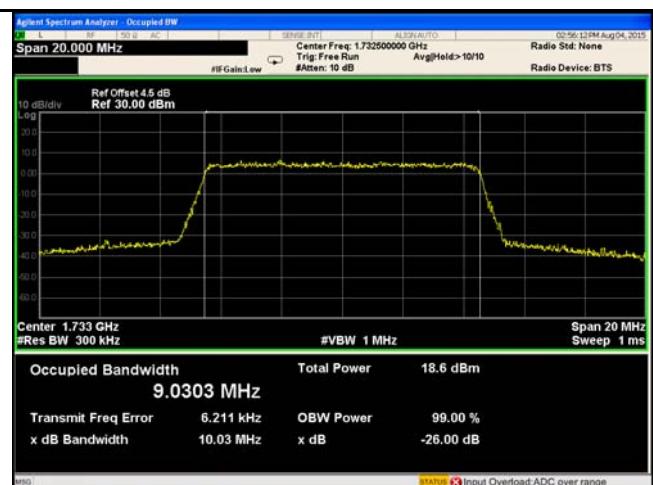
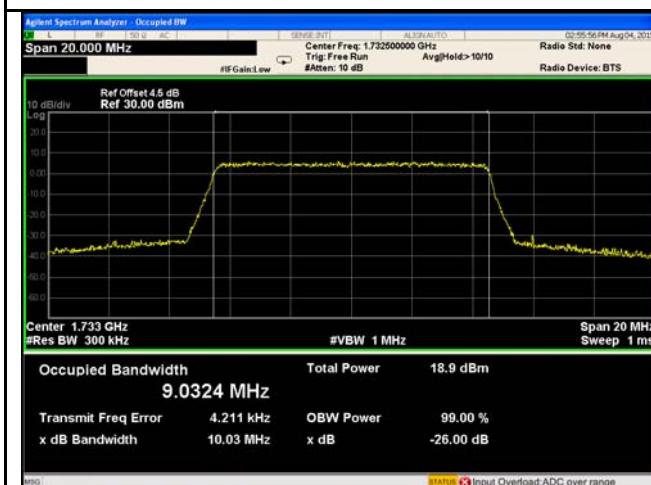
LTE band 4 - High CH QPSK-5

LTE band 4 - High CH 16QAM-5



LTE band 4 - Low CH QPSK-10

LTE band 4 - Low CH 16QAM-10



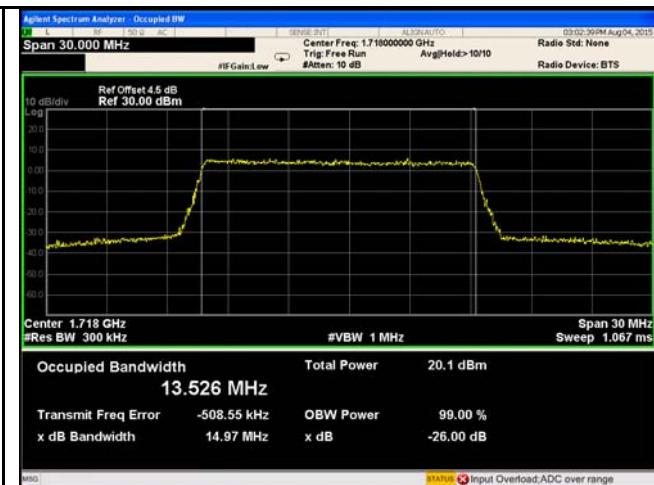
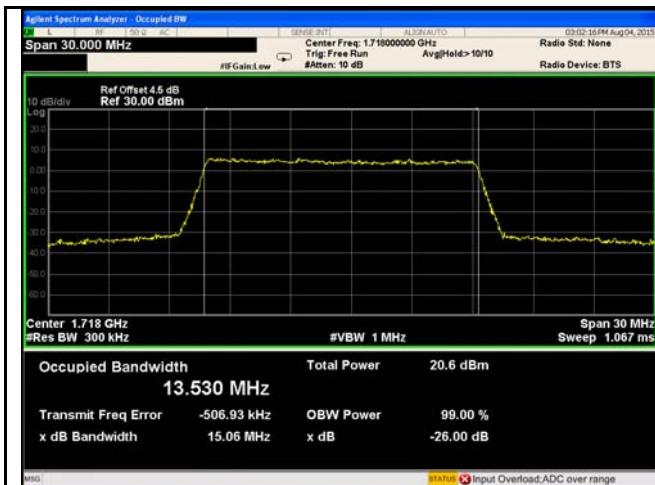
LTE band 4 - Middle CH QPSK-10

LTE band 4 - Middle CH 16QAM-10



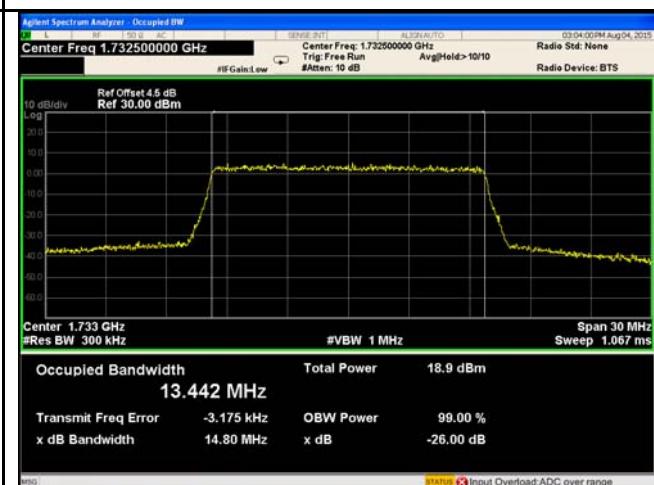
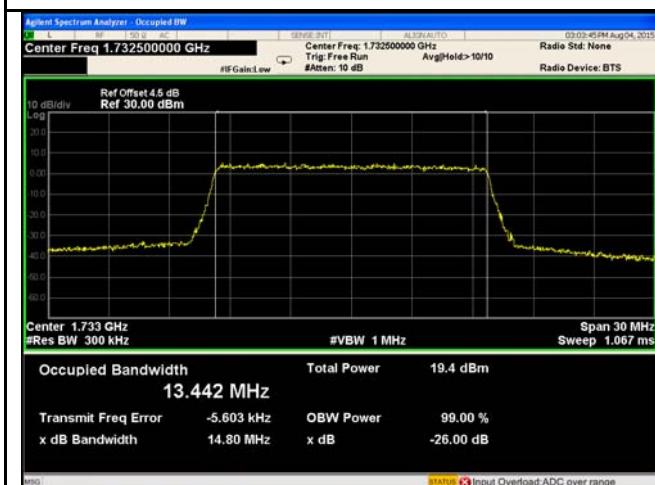
LTE band 4 - High CH QPSK-10

LTE band 4 - High CH 16QAM-10



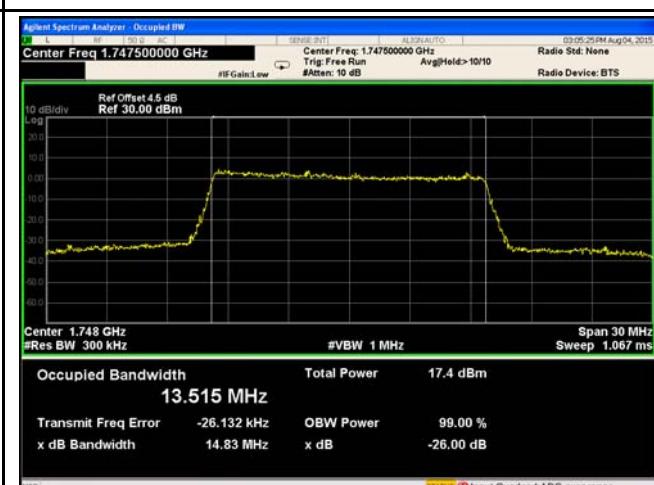
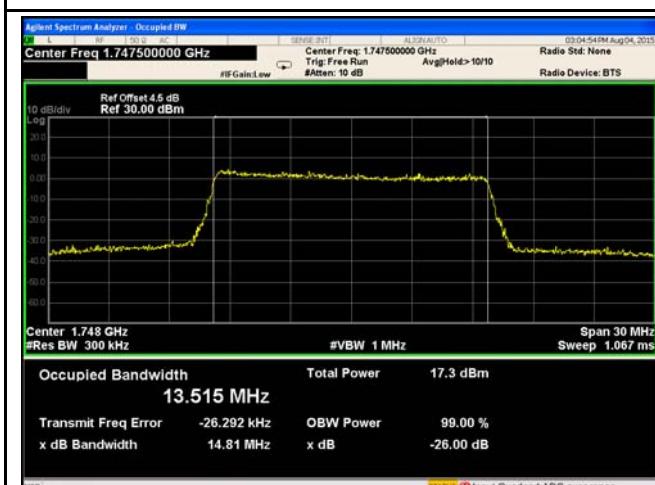
LTE band 4 - Low CH QPSK-15

LTE band 4 - Low CH 16QAM-15



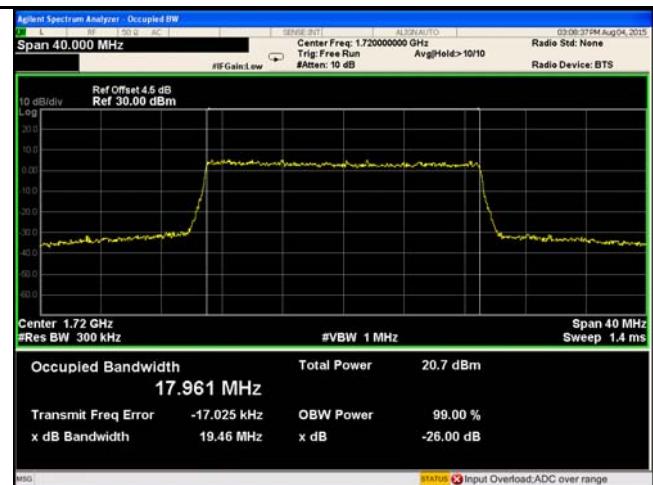
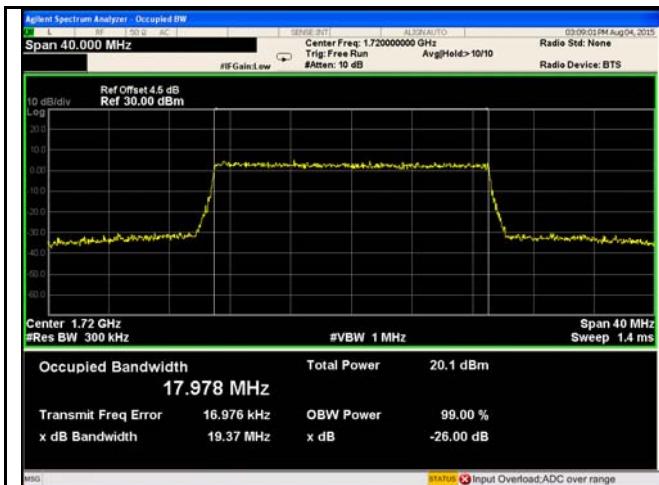
LTE band 4 - Middle CH QPSK-15

LTE band 4 - Middle CH 16QAM-15

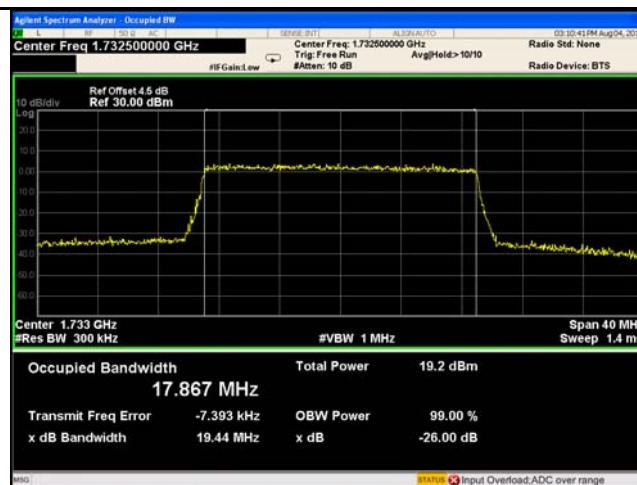


LTE band 4 - High CH QPSK-15

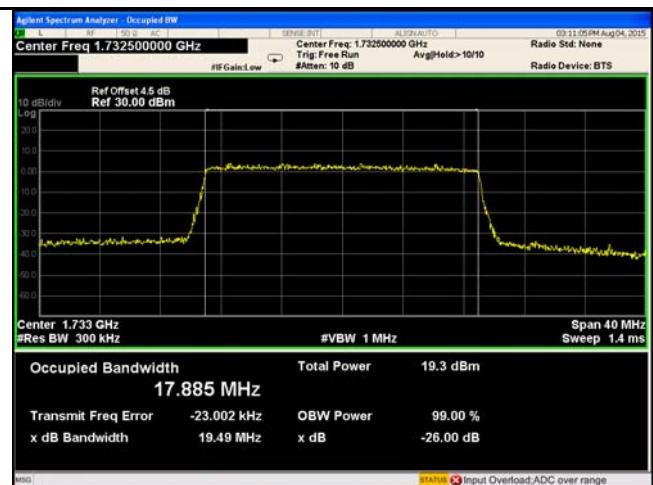
LTE band 4 - High CH 16QAM-15



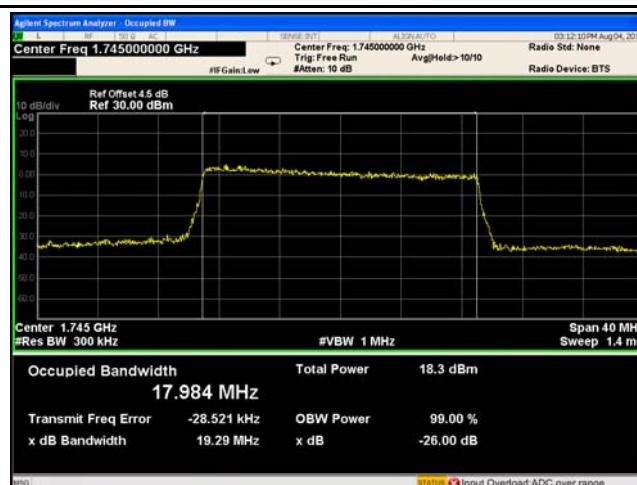
LTE band 4 - Low CH QPSK-20



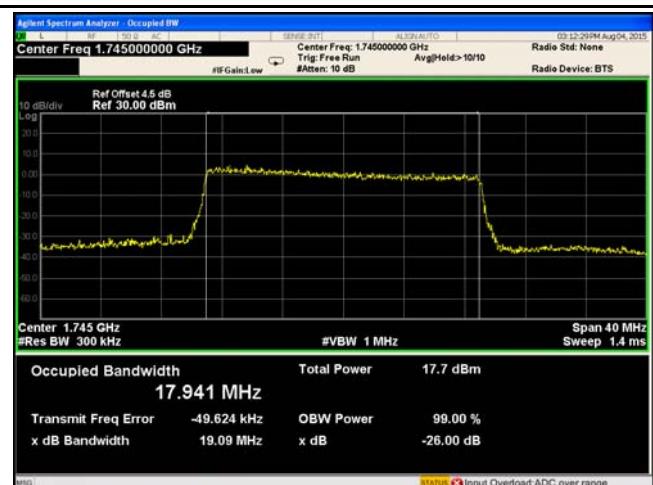
LTE band 4 - Low CH 16QAM-20



LTE band 4 - Middle CH QPSK-20



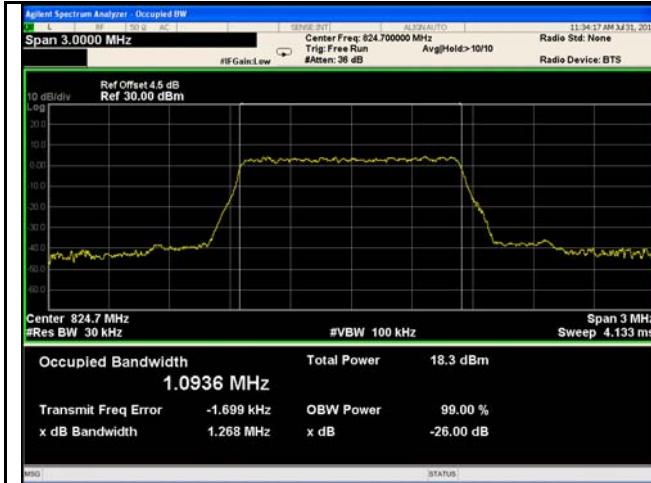
LTE band 4 - Middle CH 16QAM-20



LTE band 4 - High CH QPSK-20

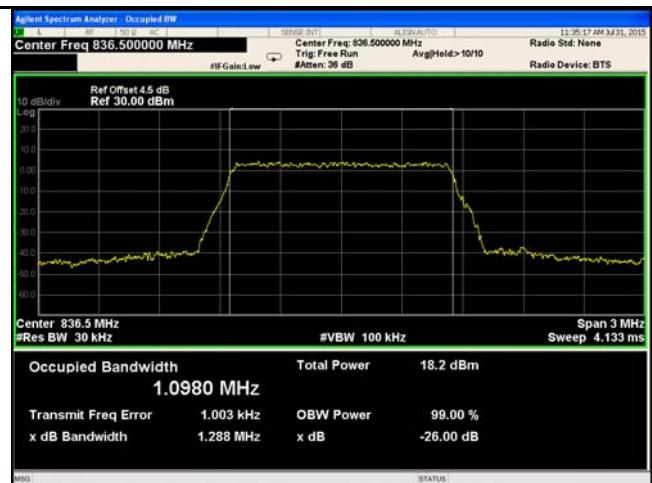
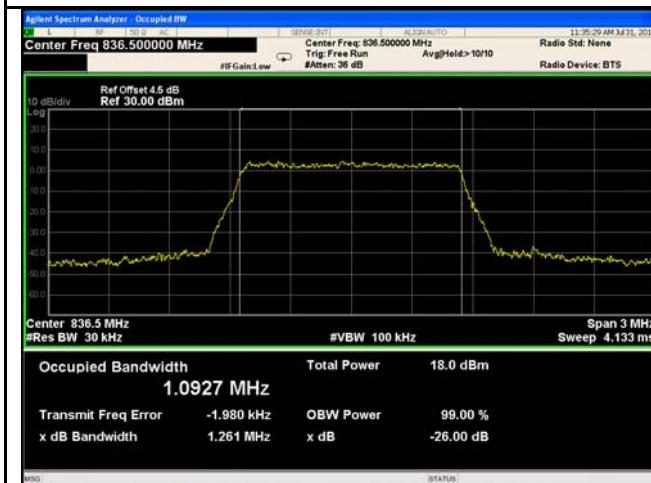
LTE band 4 - High CH 16QAM-20

LTE Band 5 (Part 22H)



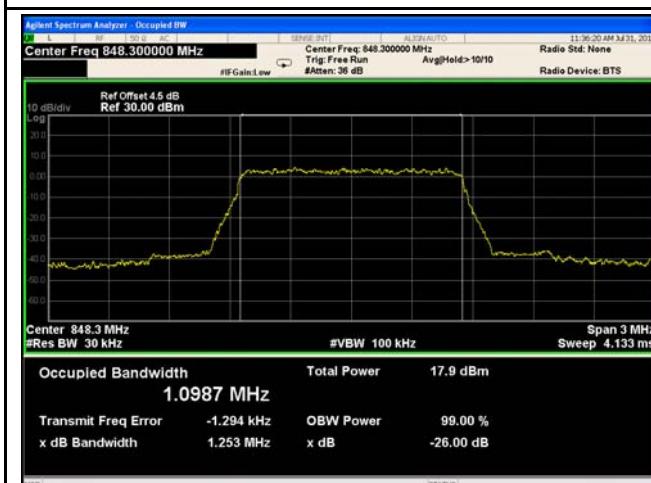
LTE band 5 - Low CH QPSK-1.4

LTE band 5 - Low CH 16QAM-1.4



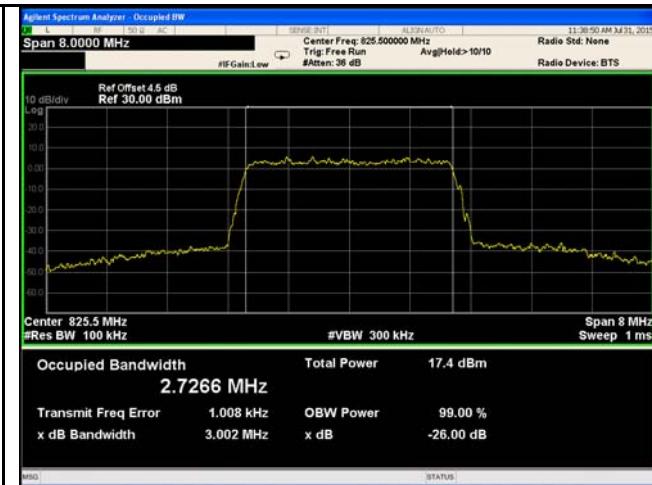
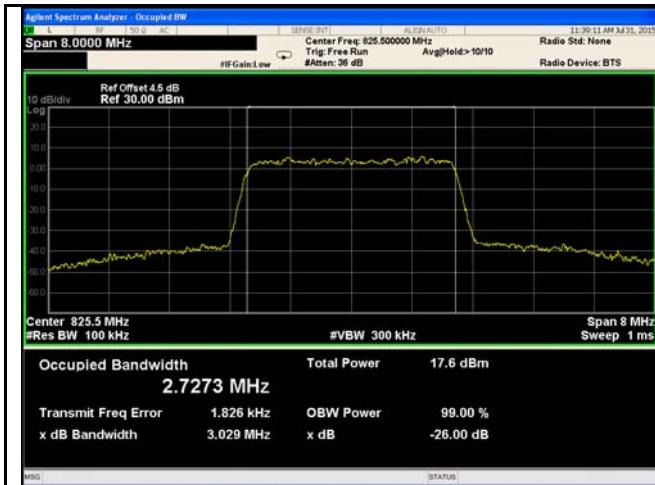
LTE band 5 - Middle CH QPSK-1.4

LTE band 5 - Middle CH 16QAM-1.4



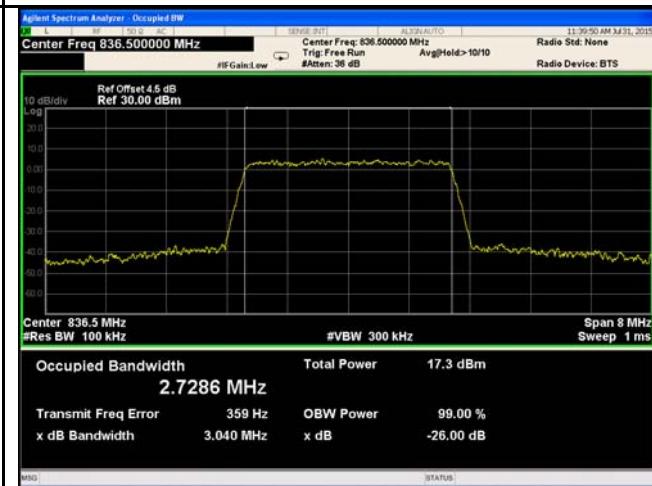
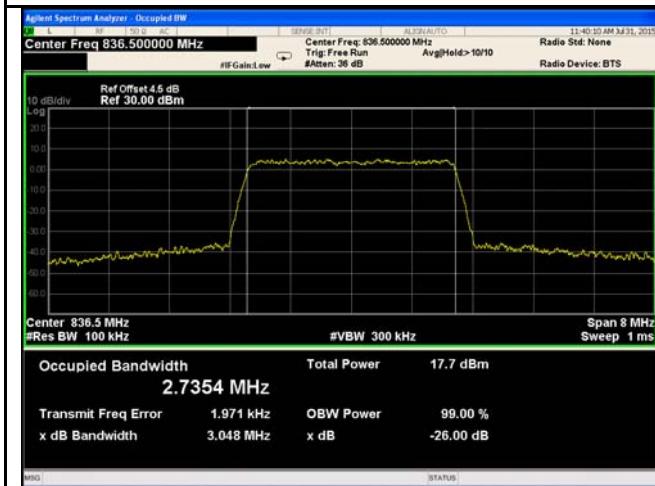
LTE band 5 - High CH OPSK-14

LTE band 5 - High CH 16QAM-1/4



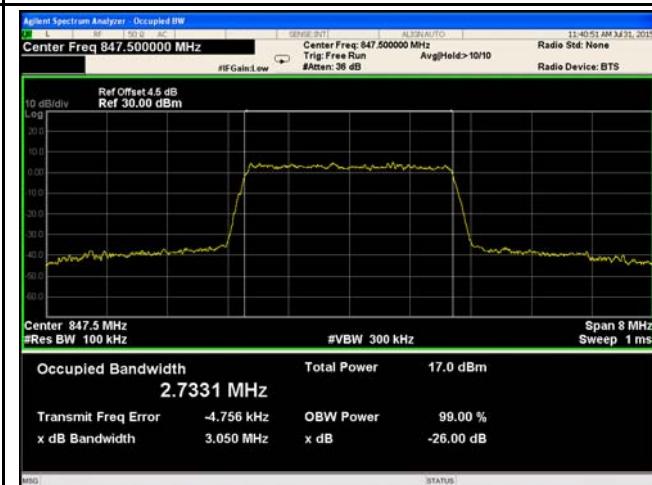
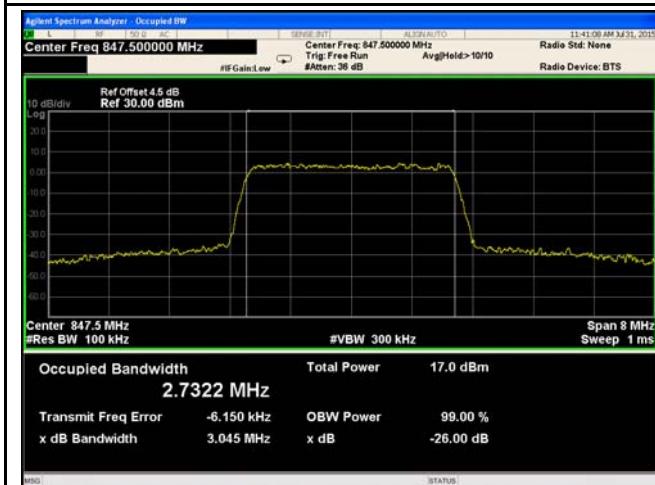
LTE band 5 - Low CH QPSK-3

LTE band 5 - Low CH 16QAM-3



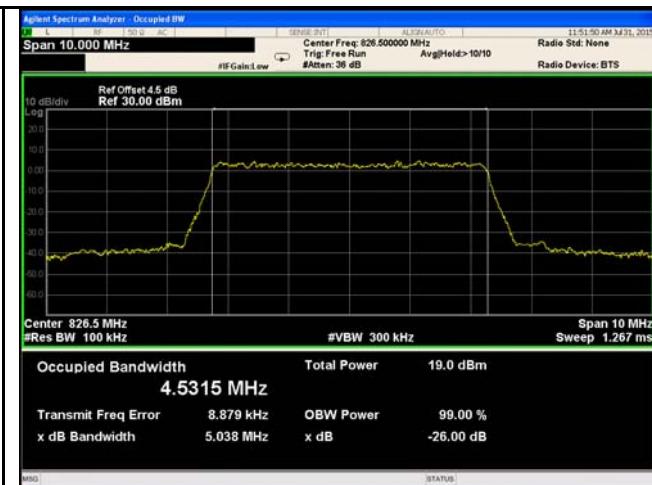
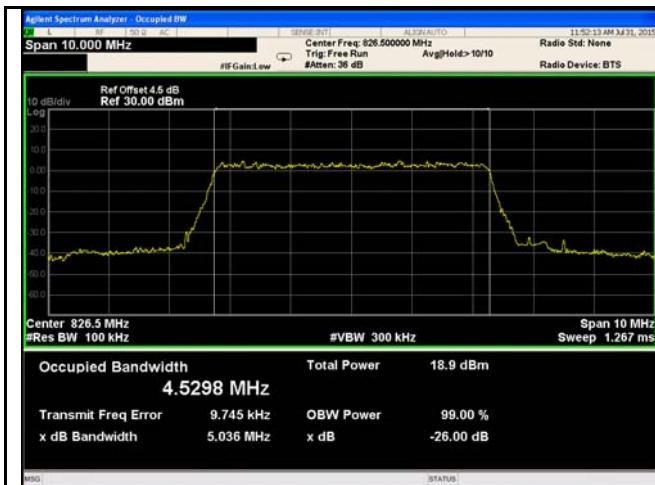
LTE band 5 - Middle CH QPSK-3

LTE band 5 - Middle CH 16QAM-3



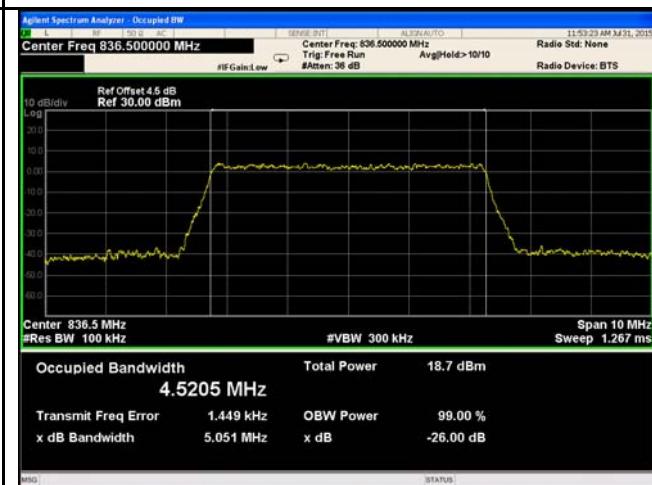
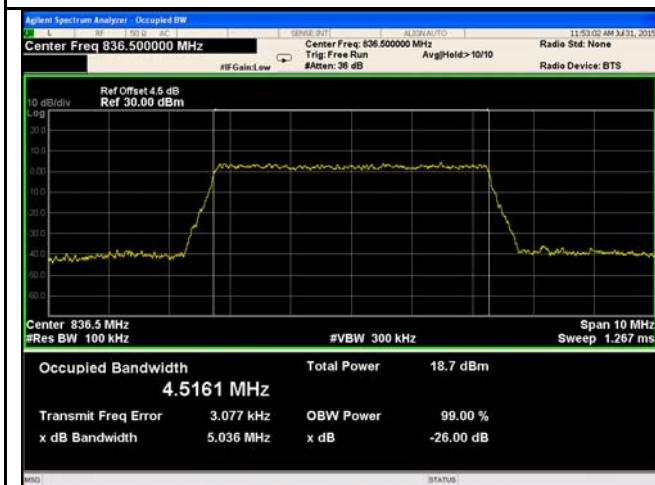
LTE band 5 - High CH QPSK-3

LTE band 5 - High CH 16QAM-3



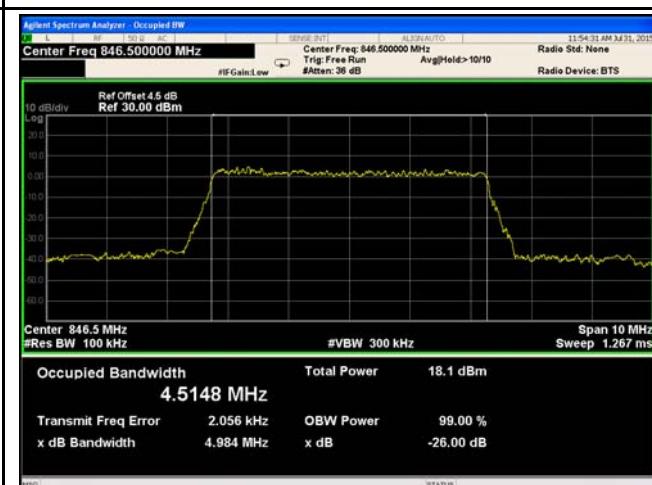
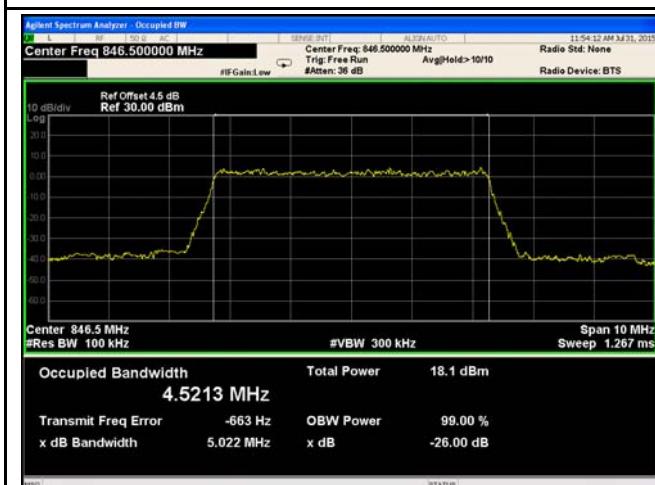
LTE band 5 - Low CH QPSK-5

LTE band 5 - Low CH 16QAM-5



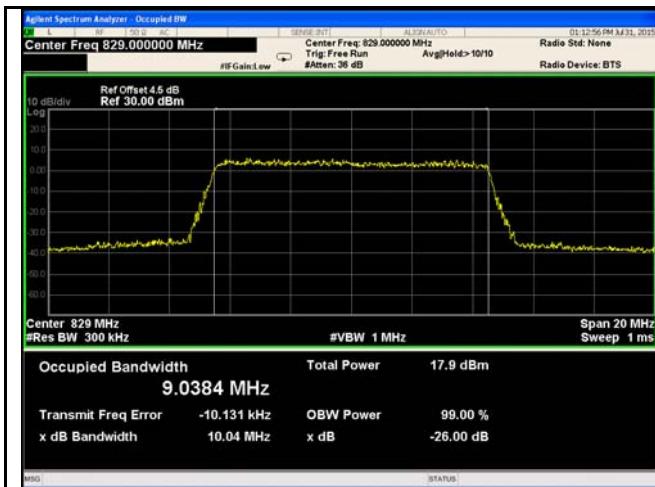
LTE band 5 - Middle CH QPSK-5

LTE band 5 - Middle CH 16QAM-5



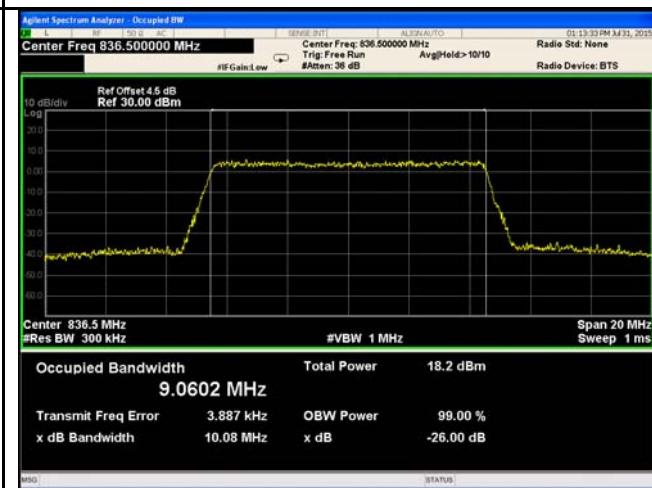
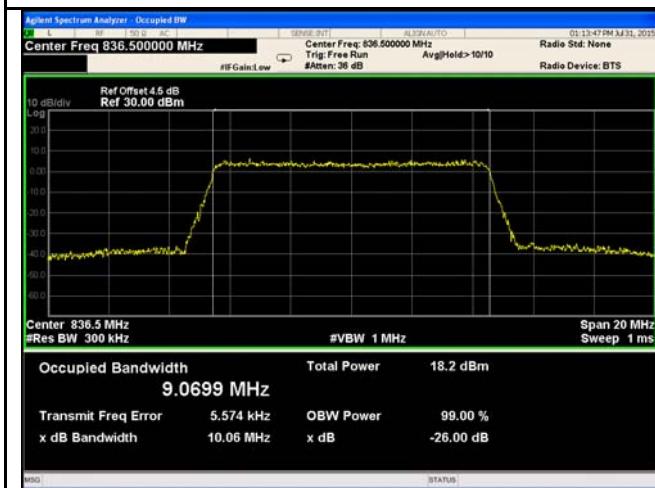
LTE band 5 - High CH QPSK-5

LTE band 5 - High CH 16QAM-5



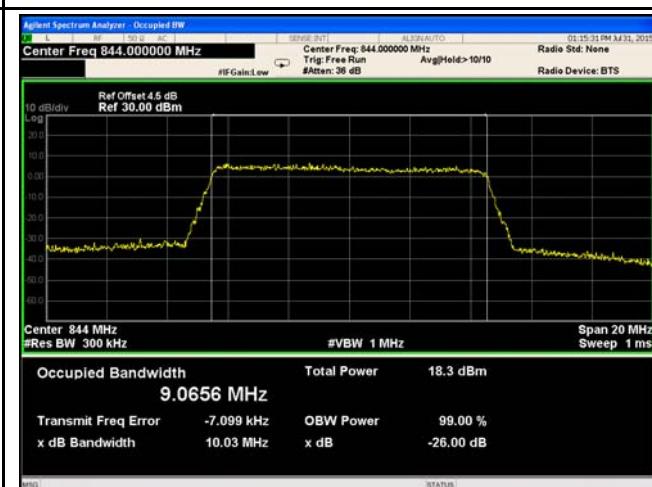
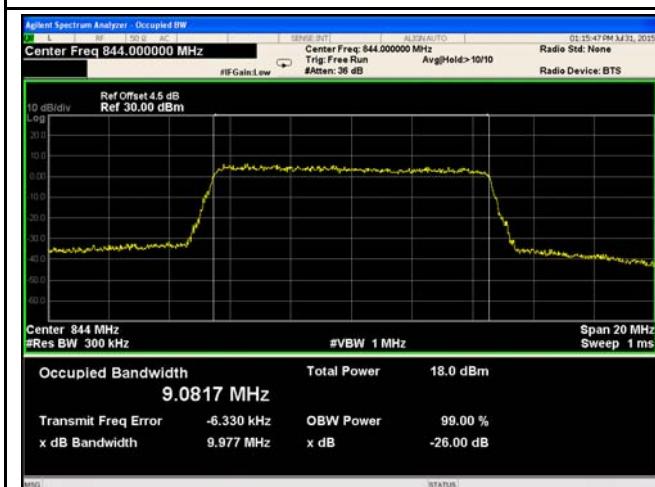
LTE band 5 - Low CH QPSK-10

LTE band 5 - Low CH 16QAM-10



LTE band 5 - Middle CH QPSK-10

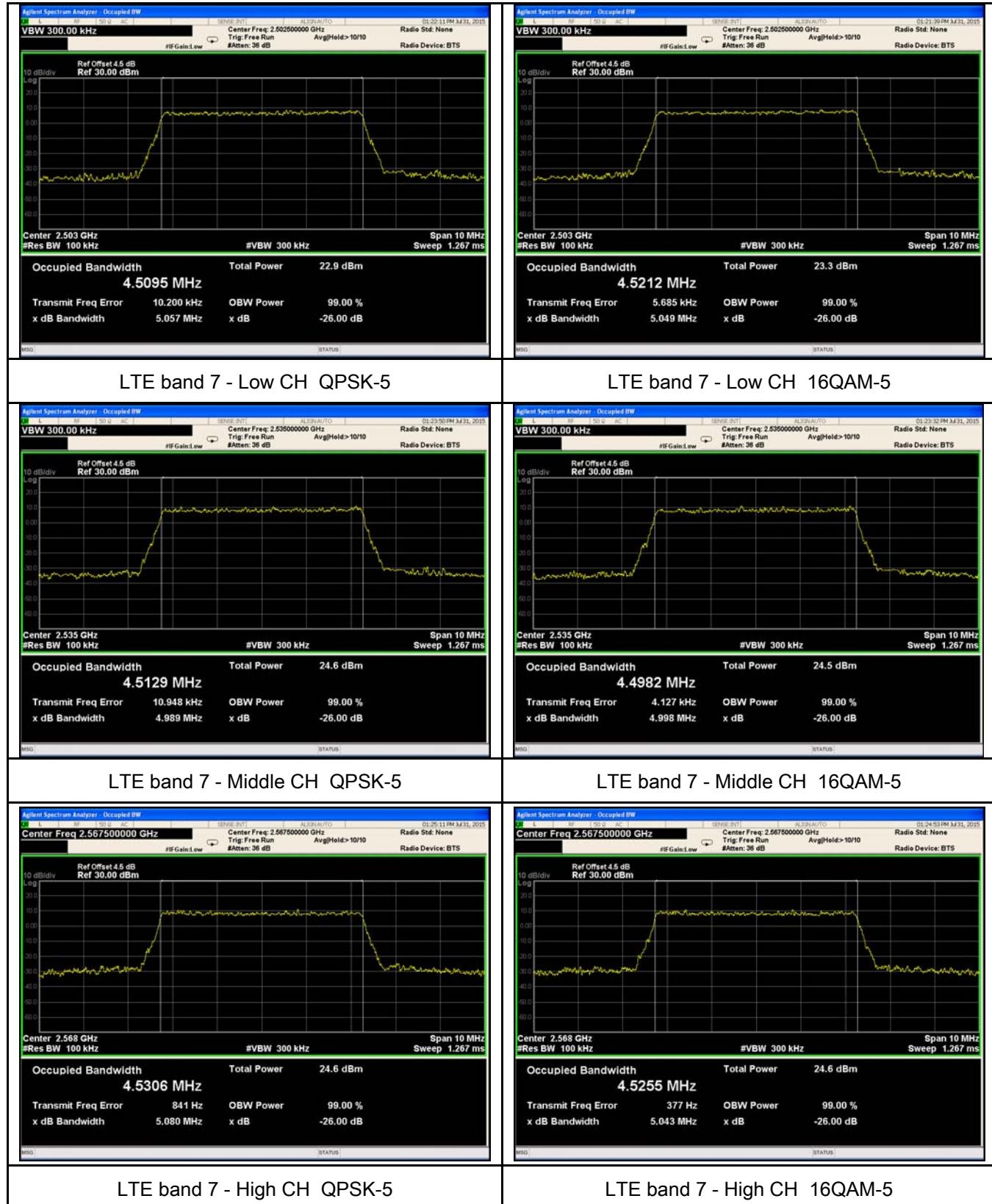
LTE band 5 - Middle CH 16QAM-10

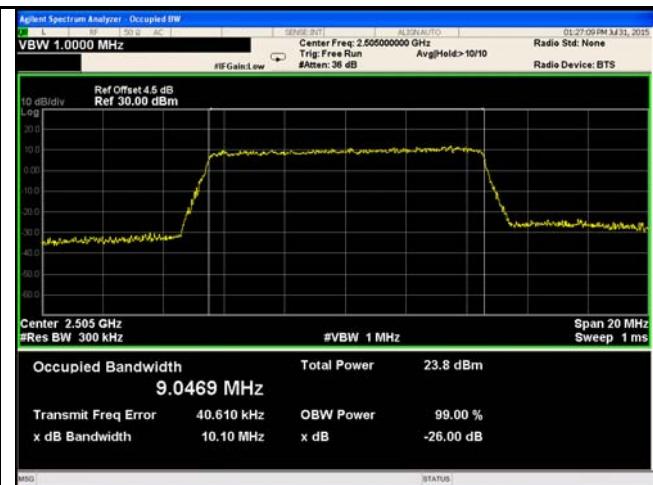
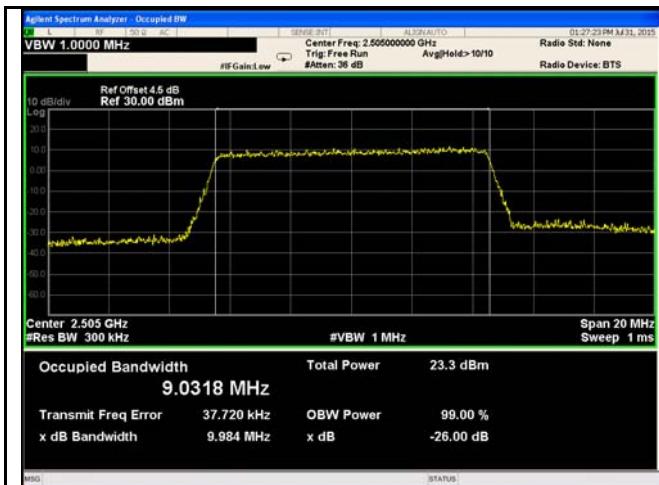


LTE band 5 - High CH QPSK-10

LTE band 5 - High CH 16QAM-10

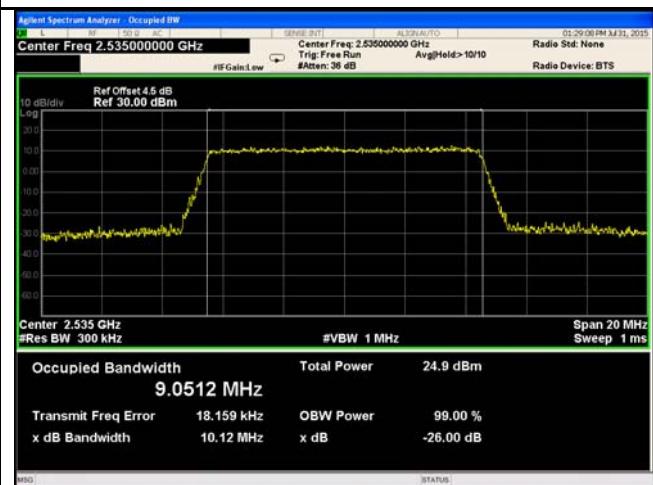
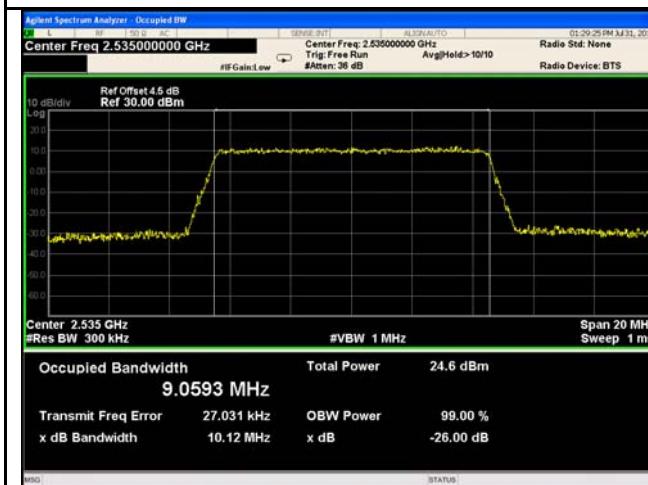
LTE Band 7 (Part 27)





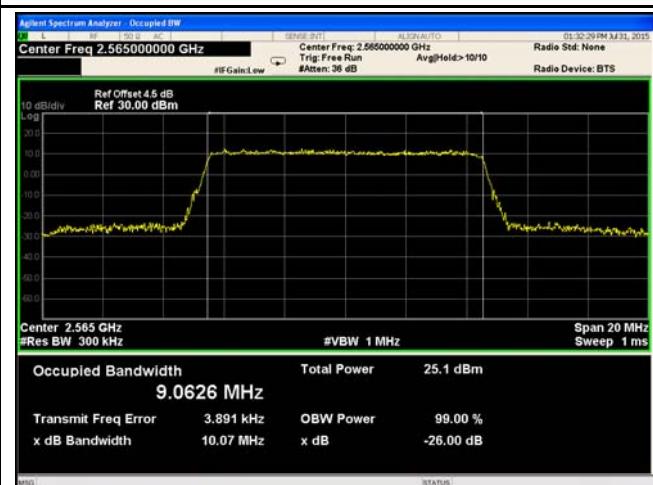
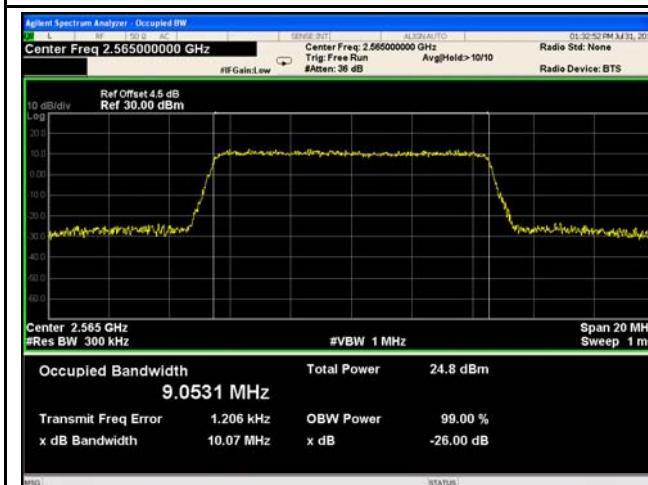
LTE band 7 - Low CH QPSK-10

LTE band 7 - Low CH 16QAM-10



LTE band 7 - Middle CH QPSK-10

LTE band 7 - Middle CH 16QAM-10



LTE band 7 - High CH QPSK-10

LTE band 7 - High CH 16QAM-10