

RF TEST REPORT



Report No.: 15070897-FCC-R5

Supersede Report No.: N/A

Applicant	Verykool USA Inc	
Product Name	Mobile phone	
Model No.	SL5550	
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	September 26 to October 15, 2015	
Issue Date	October 15, 2015	
Test Result	☒ Pass ☐ Fail	
Equipment complied with the specification ☒		
Equipment did not comply with the specification ☐		
<i>Winnie Zhang</i>	<i>David Huang</i>	
Winnie Zhang Test Engineer	David Huang Checked By	
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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
15070897-FCC-R5	NONE	Original	October 15, 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:	SL5550
Serial Model:	N/A
Date EUT received:	September 25, 2015
Test Date(s):	September 26 to October 15, 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 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
RF Operating Frequency (ies):	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
	LTE Band 2: 23.58 dBm
	LTE Band 4: 22.78 dBm
Maximum Conducted	LTE Band 5: 23.88 dBm
AV Power to Antenna:	LTE Band 7: 22.49 dBm
	LTE Band 12: 23.47 dBm
	LTE Band 17: 23.59 dBm
	LTE Band 2: 27.84 dBm / EIRP
	LTE Band 4: 27.31 dBm / EIRP
ERP/EIRP:	LTE Band 5: 28.64 dBm / EIRP
	LTE Band 7: 26.99 dBm / EIRP
	LTE Band 12: 25.88 dBm / EIRP
	LTE Band 17: 26.75 dBm / ERP
Port:	Power Port, Earphone Port, USB Port
	Battery:
	Model:355093PV
Input Power:	Spec:3.8V,2500mAh,9.5Wh
	Limited Charging Voltage: 4.35V
	Adapter:
	Model:SC050100-US

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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: WA6SL5550

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); § 27.53(m)	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

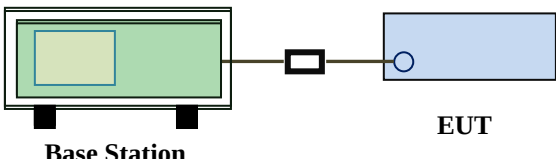
The EUT is a portable device, thus requires SAR evaluation;
Please refer to RF Exposure Evaluation Report: 15070897-FCC-H.

6.2 RF Output Power

Temperature	25°C
Relative Humidity	50%
Atmospheric Pressure	1008mbar
Test date :	October 08, 2015
Tested By :	Winnie Zhang

Requirement(s):

Spec	Item	Requirement	Applicable
§22.913 (a)	a)	ERP:38.45dBm	☒
§24.232 (c)	b)	EIRP:33dBm	☒
§27.50 (c)	c)	EIRP: 30dBm	☒

Test Setup	 The diagram illustrates the test setup. On the left, a green rectangular box represents the 'Base Station'. A cable connects the Base Station to a blue rectangular box on the right, which is labeled 'EUT' (Equipment Under Test). The connection is shown as a simple line with a small square at the Base Station end and a small circle at the EUT end.
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Test Procedure	For Conducted Power: - 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. For ERP/EIRP: - 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.
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	- 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	☒ Pass ☐ 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
20MHz	18700	1860.0	QPSK	1	0	0	22.72	22±1
				1	49	0	22.76	22±1
				1	99	0	22.73	22±1
				50	0	1	22.83	22±1
				50	24	1	22.81	22±1
				50	49	1	22.86	22±1
			16QAM	100	0	1	22.74	22±1
				1	0	1	21.85	21.3±1
				1	49	1	21.83	21.3±1
				1	99	1	21.86	21.3±1
				50	0	2	21.34	21.3±1
				50	24	2	21.32	21.3±1
				50	49	2	21.31	21.3±1
				100	0	2	20.75	21.3±1
	18900	1880.0	QPSK	1	0	0	22.43	22±1
				1	49	0	22.46	22±1
				1	99	0	22.42	22±1
				50	0	1	21.55	22±1
				50	24	1	21.58	22±1
				50	49	1	21.53	22±1
			16QAM	100	0	1	21.51	22±1
				1	0	1	21.96	21.3±1
				1	49	1	21.96	21.3±1
				1	99	1	21.98	21.3±1
				50	0	2	21.62	21.3±1
				50	24	2	21.63	21.3±1
				50	49	2	21.61	21.3±1
				100	0	2	20.73	21.3±1
	19100	1900.0	QPSK	1	0	0	22.63	22±1
				1	49	0	22.65	22±1
				1	99	0	22.68	22±1
				50	0	1	21.59	22±1
				50	24	1	21.58	22±1
				50	49	1	21.59	22±1
			16QAM	100	0	1	21.62	22±1
				1	0	1	21.63	21.3±1
				1	49	1	21.65	21.3±1
				1	99	1	21.61	21.3±1
				50	0	2	21.38	21.3±1
				50	24	2	21.36	21.3±1
				50	49	2	21.33	21.3±1
				100	0	2	20.65	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	22.35	22±1
				1	37	0	22.36	22±1
				1	74	0	22.41	22±1
				36	0	1	21.43	22±1
				36	16	1	21.41	22±1
				36	35	1	21.44	22±1
				75	0	1	21.29	22±1
			16QAM	1	0	1	21.88	22±1
				1	37	1	21.91	22±1
				1	74	1	21.93	22±1
				36	0	2	21.23	22±1
				36	16	2	21.25	22±1
				36	35	2	21.22	22±1
				75	0	2	21.16	22±1
	18900	1880.0	QPSK	1	0	0	22.23	22±1
				1	37	0	22.26	22±1
				1	74	0	22.29	22±1
				36	0	1	21.56	22±1
				36	16	1	21.59	22±1
				36	35	1	21.58	22±1
				75	0	1	21.53	22±1
			16QAM	1	0	1	22.13	21.3±1
				1	37	1	22.15	21.3±1
				1	74	1	22.16	21.3±1
				36	0	2	21.12	21.3±1
				36	16	2	21.20	21.3±1
				36	35	2	21.22	21.3±1
				75	0	2	20.92	21.3±1
	19125	1902.5	QPSK	1	0	0	22.56	22±1
				1	37	0	22.59	22±1
				1	74	0	22.54	22±1
				36	0	1	21.53	22±1
				36	16	1	21.56	22±1
				36	35	1	21.58	22±1
				75	0	1	21.49	22±1
			16QAM	1	0	1	21.43	22±1
				1	37	1	21.45	22±1
				1	74	1	21.46	22±1
				36	0	2	21.25	22±1
				36	16	2	21.23	22±1
				36	35	2	21.22	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
10MHz	18650	1855	QPSK	1	0	0	22.84	22±1
				1	24	0	22.81	22±1
				1	49	0	22.86	22±1
				25	0	1	21.95	22±1
				25	12	1	21.89	22±1
				25	24	1	21.93	22±1
				50	0	1	21.93	22±1
			16QAM	1	0	1	22.41	22±1
				1	24	1	22.45	22±1
				1	49	1	22.43	22±1
				25	0	2	21.06	22±1
				25	12	2	21.09	22±1
				25	24	2	21.10	22±1
				50	0	2	21.03	22±1
	18900	1880.0	QPSK	1	0	0	23.58	23±1
				1	24	0	23.52	23±1
				1	49	0	23.53	23±1
				25	0	1	22.61	23±1
				25	12	1	22.64	23±1
				25	24	1	22.66	23±1
				50	0	1	22.59	23±1
			16QAM	1	0	1	23.25	22.3±1
				1	24	1	23.22	22.3±1
				1	49	1	23.24	22.3±1
				25	0	2	21.31	22.3±1
				25	12	2	21.43	22.3±1
				25	24	2	21.36	22.3±1
				50	0	2	21.61	22.3±1
	19150	1905	QPSK	1	0	0	22.86	22±1
				1	24	0	22.89	22±1
				1	49	0	22.81	22±1
				25	0	1	22.03	22±1
				25	12	1	22.06	22±1
				25	24	1	21.98	22±1
				50	0	1	21.91	22±1
			16QAM	1	0	1	22.25	22±1
				1	24	1	22.24	22±1
				1	49	1	22.29	22±1
				25	0	2	21.13	22±1
				25	12	2	21.15	22±1
				25	24	2	21.13	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
5MHz	18625	1852.5	QPSK	1	0	0	22.88	22±1
				1	12	0	22.86	22±1
				1	24	0	22.83	22±1
				12	0	1	21.96	22±1
				12	6	1	21.93	22±1
				12	11	1	21.94	22±1
				25	0	1	21.87	22±1
			16QAM	1	0	1	21.86	22±1
				1	12	1	21.85	22±1
				1	24	1	21.83	22±1
				12	0	2	21.12	22±1
				12	6	2	21.16	22±1
				12	11	2	21.11	22±1
				25	0	2	21.01	22±1
	18900	1880.0	QPSK	1	0	0	22.88	22±1
				1	12	0	22.83	22±1
				1	24	0	22.86	22±1
				12	0	1	21.96	22±1
				12	6	1	21.92	22±1
				12	11	1	21.94	22±1
				25	0	1	21.90	22±1
			16QAM	1	0	1	21.86	22±1
				1	12	1	21.83	22±1
				1	24	1	21.88	22±1
				12	0	2	21.16	22±1
				12	6	2	21.13	22±1
				12	11	2	21.18	22±1
				25	0	2	21.03	22±1
	19175	1907.5	QPSK	1	0	0	22.72	22±1
				1	12	0	22.76	22±1
				1	24	0	22.71	22±1
				12	0	1	21.81	22±1
				12	6	1	21.86	22±1
				12	11	1	21.85	22±1
				25	0	1	21.80	22±1
			16QAM	1	0	1	22.04	21.3±1
				1	12	1	22.06	21.3±1
				1	24	1	22.03	21.3±1
				12	0	2	21.16	21.3±1
				12	6	2	21.19	21.3±1
				12	11	2	21.19	21.3±1
				25	0	2	20.83	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	22.53	21.7±1
				1	7	0	22.56	21.7±1
				1	14	0	22.54	21.7±1
				8	0	1	22.64	21.7±1
				8	4	1	22.67	21.7±1
				8	7	1	22.63	21.7±1
			16QAM	15	0	1	20.75	21.7±1
				1	0	1	22.20	21.3±1
				1	7	1	22.21	21.3±1
				1	14	1	22.14	21.3±1
				8	0	2	20.85	21.3±1
				8	4	2	20.86	21.3±1
				8	7	2	20.84	21.3±1
				15	0	2	21.01	21.3±1
	18900	1880.0	QPSK	1	0	0	22.47	22±1
				1	7	0	22.49	22±1
				1	14	0	22.44	22±1
				8	0	1	21.52	22±1
				8	4	1	21.54	22±1
				8	7	1	21.47	22±1
			16QAM	15	0	1	21.62	22±1
				1	0	1	21.38	21.3±1
				1	7	1	21.37	21.3±1
				1	14	1	21.34	21.3±1
				8	0	2	20.59	21.3±1
				8	4	2	20.55	21.3±1
				8	7	2	20.61	21.3±1
				15	0	2	20.65	21.3±1
	19175	1907.5	QPSK	1	0	0	22.78	22±1
				1	7	0	22.82	22±1
				1	14	0	22.78	22±1
				8	0	1	21.66	22±1
				8	4	1	21.67	22±1
				8	7	1	21.65	22±1
			16QAM	15	0	1	22.78	22±1
				1	0	1	21.73	21.3±1
				1	7	1	21.71	21.3±1
				1	14	1	21.69	21.3±1
				8	0	2	20.56	21.3±1
				8	4	2	20.55	21.3±1
				8	7	2	20.54	21.3±1
				15	0	2	20.86	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	22.72	22±1
				1	2	0	22.75	22±1
				1	5	0	22.71	22±1
				3	0	0	22.81	22±1
				3	1	0	22.83	22±1
				3	2	0	22.86	22±1
				6	0	1	21.66	22±1
			16QAM	1	0	1	21.35	21.3±1
				1	2	1	21.38	21.3±1
				1	5	1	21.32	21.3±1
				3	0	1	21.43	21.3±1
				3	1	1	21.45	21.3±1
				3	2	1	21.44	21.3±1
				6	0	2	20.58	21.3±1
	18900	1880.0	QPSK	1	0	0	22.43	22±1
				1	2	0	22.41	22±1
				1	5	0	22.46	22±1
				3	0	0	22.51	22±1
				3	1	0	22.50	22±1
				3	2	0	21.98	22±1
				6	0	1	21.46	22±1
			16QAM	1	0	1	21.23	22±1
				1	2	1	21.25	22±1
				1	5	1	21.22	22±1
				3	0	1	21.32	22±1
				3	1	1	21.31	22±1
				3	2	1	21.35	22±1
				6	0	2	21.00	22±1
	19193	1909.3	QPSK	1	0	0	22.69	22±1
				1	2	0	22.78	22±1
				1	5	0	22.72	22±1
				3	0	0	22.73	22±1
				3	1	0	22.75	22±1
				3	2	0	22.77	22±1
				6	0	1	21.66	22±1
			16QAM	1	0	1	21.69	21.3±1
				1	2	1	21.78	21.3±1
				1	5	1	21.74	21.3±1
				3	0	1	21.62	21.3±1
				3	1	1	21.64	21.3±1
				3	2	1	21.61	21.3±1
				6	0	2	20.67	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	22.36	22 ± 1
				1	49	0	22.35	22 ± 1
				1	99	0	22.41	22 ± 1
				50	0	1	22.23	22 ± 1
				50	24	1	22.26	22 ± 1
				50	49	1	22.29	22 ± 1
				100	0	1	22.06	22 ± 1
			16QAM	1	0	1	22.50	22 ± 1
				1	49	1	22.53	22 ± 1
				1	99	1	22.54	22 ± 1
				50	0	2	22.61	22 ± 1
				50	24	2	22.60	22 ± 1
				50	49	2	22.59	22 ± 1
				100	0	2	22.06	22 ± 1
	20175	1732.5	QPSK	1	0	0	22.30	22 ± 1
				1	49	0	22.31	22 ± 1
				1	99	0	22.36	22 ± 1
				50	0	1	22.16	22 ± 1
				50	24	1	22.13	22 ± 1
				50	49	1	22.19	22 ± 1
				100	0	1	22.12	22 ± 1
			16QAM	1	0	1	22.56	22 ± 1
				1	49	1	22.53	22 ± 1
				1	99	1	22.59	22 ± 1
				50	0	2	22.51	22 ± 1
				50	24	2	22.52	22 ± 1
				50	49	2	22.58	22 ± 1
				100	0	2	22.10	22 ± 1
	20300	1745.0	QPSK	1	0	0	21.63	22 ± 1
				1	49	0	21.60	22 ± 1
				1	99	0	21.61	22 ± 1
				50	0	1	21.61	22 ± 1
				50	24	1	21.62	22 ± 1
				50	49	1	21.65	22 ± 1
				100	0	1	21.28	22 ± 1
			16QAM	1	0	1	21.70	22 ± 1
				1	49	1	21.73	22 ± 1
				1	99	1	21.69	22 ± 1
				50	0	2	21.82	22 ± 1
				50	24	2	21.81	22 ± 1
				50	49	2	21.83	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	20025	1717.5	QPSK	1	0	0	21.88	22 ± 1
				1	37	0	21.86	22 ± 1
				1	74	0	21.81	22 ± 1
				36	0	1	22.03	22 ± 1
				36	16	1	22.06	22 ± 1
				36	35	1	22.10	22 ± 1
				75	0	1	22.13	22 ± 1
			16QAM	1	0	1	22.35	22 ± 1
				1	37	1	22.36	22 ± 1
				1	74	1	22.38	22 ± 1
				36	0	2	22.56	22 ± 1
				36	16	2	22.59	22 ± 1
				36	35	2	22.58	22 ± 1
				75	0	2	22.15	22 ± 1
	20175	1732.5	QPSK	1	0	0	21.65	22 ± 1
				1	37	0	21.68	22 ± 1
				1	74	0	21.67	22 ± 1
				36	0	1	21.69	22 ± 1
				36	16	1	21.63	22 ± 1
				36	35	1	21.65	22 ± 1
				75	0	1	21.77	22 ± 1
			16QAM	1	0	1	21.78	22 ± 1
				1	37	1	21.74	22 ± 1
				1	74	1	21.75	22 ± 1
				36	0	2	21.86	22 ± 1
				36	16	2	21.82	22 ± 1
				36	35	2	21.85	22 ± 1
				75	0	2	21.80	22 ± 1
	20325	1747.5	QPSK	1	0	0	21.57	22 ± 1
				1	37	0	21.56	22 ± 1
				1	74	0	21.54	22 ± 1
				36	0	1	21.66	22 ± 1
				36	16	1	21.63	22 ± 1
				36	35	1	21.69	22 ± 1
				75	0	1	21.72	22 ± 1
			16QAM	1	0	1	21.87	22 ± 1
				1	37	1	21.85	22 ± 1
				1	74	1	21.83	22 ± 1
				36	0	2	21.69	22 ± 1
				36	16	2	21.68	22 ± 1
				36	35	2	21.68	22 ± 1
				75	0	2	21.71	22 ± 1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
10MHz	20000	1715.0	QPSK	1	0	0	22.19	22±1
				1	24	0	22.13	22±1
				1	49	0	22.18	22±1
				25	0	1	22.23	22±1
				25	12	1	22.25	22±1
				25	24	1	22.24	22±1
				50	0	1	22.20	22±1
			16QAM	1	0	1	22.74	22±1
				1	24	1	22.73	22±1
				1	49	1	22.78	22±1
				25	0	2	22.43	22±1
				25	12	2	22.46	22±1
				25	24	2	22.45	22±1
				50	0	2	22.21	22±1
	20175	1732.5	QPSK	1	0	0	21.78	22±1
				1	24	0	21.76	22±1
				1	49	0	21.79	22±1
				25	0	1	21.73	22±1
				25	12	1	21.75	22±1
				25	24	1	21.81	22±1
				50	0	1	21.71	22±1
			16QAM	1	0	1	21.73	22±1
				1	24	1	21.76	22±1
				1	49	1	21.74	22±1
				25	0	2	21.72	22±1
				25	12	2	21.75	22±1
				25	24	2	21.76	22±1
				50	0	2	21.74	22±1
	20350	1750.0	QPSK	1	0	0	21.54	22±1
				1	24	0	21.56	22±1
				1	49	0	21.59	22±1
				25	0	1	21.65	22±1
				25	12	1	21.62	22±1
				25	24	1	21.68	22±1
				50	0	1	21.64	22±1
			16QAM	1	0	1	22.06	22±1
				1	24	1	22.08	22±1
				1	49	1	22.01	22±1
				25	0	2	21.76	22±1
				25	12	2	21.79	22±1
				25	24	2	21.72	22±1
				50	0	2	21.66	22±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
5MHz	20000	1715.0	QPSK	1	0	0	22.14	22±1
				1	12	0	22.13	22±1
				1	24	0	22.16	22±1
				12	0	1	22.25	22±1
				12	6	1	22.15	22±1
				12	11	1	22.23	22±1
				25	0	1	22.20	22±1
			16QAM	1	0	1	22.10	22±1
				1	12	1	22.12	22±1
				1	24	1	22.15	22±1
				12	0	2	22.16	22±1
				12	6	2	22.19	22±1
				12	11	2	22.19	22±1
				25	0	2	22.23	22±1
	20175	1732.5	QPSK	1	0	0	21.66	22±1
				1	12	0	21.64	22±1
				1	24	0	21.68	22±1
				12	0	1	21.75	22±1
				12	6	1	21.74	22±1
				12	11	1	21.78	22±1
				25	0	1	21.74	22±1
			16QAM	1	0	1	22.03	22±1
				1	12	1	22.10	22±1
				1	24	1	21.98	22±1
				12	0	2	22.02	22±1
				12	6	2	22.06	22±1
				12	11	2	22.01	22±1
				25	0	2	21.71	22±1
	20350	1750.0	QPSK	1	0	0	21.51	22±1
				1	12	0	21.53	22±1
				1	24	0	21.62	22±1
				12	0	1	21.63	22±1
				12	6	1	21.67	22±1
				12	11	1	21.66	22±1
				25	0	1	21.68	22±1
			16QAM	1	0	1	21.56	22±1
				1	12	1	21.53	22±1
				1	24	1	21.54	22±1
				12	0	2	21.75	22±1
				12	6	2	21.71	22±1
				12	11	2	21.69	22±1
				25	0	2	21.70	22±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
3MHz	19965	1711.5	QPSK	1	0	0	22.05	22±1
				1	7	0	22.03	22±1
				1	14	0	22.12	22±1
				8	0	1	22.18	22±1
				8	4	1	22.16	22±1
				8	7	1	22.09	22±1
				15	0	1	22.24	22±1
			16QAM	1	0	1	22.63	22±1
				1	7	1	22.65	22±1
				1	14	1	22.69	22±1
				8	0	2	22.17	22±1
				8	4	2	22.10	22±1
				8	7	2	22.19	22±1
				15	0	2	22.31	22±1
	20175	1732.5	QPSK	1	0	0	21.69	22±1
				1	7	0	21.66	22±1
				1	14	0	21.59	22±1
				8	0	1	21.61	22±1
				8	4	1	21.66	22±1
				8	7	1	21.71	22±1
				15	0	1	21.69	22±1
			16QAM	1	0	1	21.52	22±1
				1	7	1	21.56	22±1
				1	14	1	21.54	22±1
				8	0	2	21.61	22±1
				8	4	2	21.59	22±1
				8	7	2	21.58	22±1
				15	0	2	21.64	22±1
	20385	1753.5	QPSK	1	0	0	21.57	22±1
				1	7	0	21.54	22±1
				1	14	0	21.56	22±1
				8	0	1	21.55	22±1
				8	4	1	21.56	22±1
				8	7	1	21.52	22±1
				15	0	1	21.63	22±1
			16QAM	1	0	1	21.52	22±1
				1	7	1	21.56	22±1
				1	14	1	21.53	22±1
				8	0	2	21.40	22±1
				8	4	2	21.45	22±1
				8	7	2	21.41	22±1
				15	0	2	21.62	22±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
1.4MHz	19957	1710.7	QPSK	1	0	0	22.01	22±1
				1	2	0	22.03	22±1
				1	5	0	22.06	22±1
				3	0	0	22.26	22±1
				3	1	0	22.31	22±1
				3	2	0	22.27	22±1
				6	0	1	22.12	22±1
			16QAM	1	0	1	21.79	22±1
				1	2	1	21.77	22±1
				1	5	1	21.76	22±1
				3	0	1	21.35	22±1
				3	1	1	21.36	22±1
				3	2	1	21.38	22±1
				6	0	2	22.09	22±1
	20175	1732.5	QPSK	1	0	0	21.55	22±1
				1	2	0	21.53	22±1
				1	5	0	21.56	22±1
				3	0	0	21.96	22±1
				3	1	0	21.91	22±1
				3	2	0	21.98	22±1
				6	0	1	21.67	22±1
			16QAM	1	0	1	21.47	22±1
				1	2	1	21.45	22±1
				1	5	1	21.51	22±1
				3	0	1	21.53	22±1
				3	1	1	21.69	22±1
				3	2	1	21.65	22±1
				6	0	2	21.54	22±1
	20393	1754.3	QPSK	1	0	0	21.47	22±1
				1	2	0	21.53	22±1
				1	5	0	21.49	22±1
				3	0	0	21.62	22±1
				3	1	0	21.65	22±1
				3	2	0	21.63	22±1
				6	0	1	21.56	22±1
			16QAM	1	0	1	21.15	22±1
				1	2	1	21.13	22±1
				1	5	1	21.09	22±1
				3	0	1	21.56	22±1
				3	1	1	21.54	22±1
				3	2	1	21.55	22±1
				6	0	2	21.46	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
10MHz	20450	829	QPSK	1	0	0	23.66	23±1
				1	24	0	23.61	23±1
				1	49	0	23.65	23±1
				25	0	1	22.74	23±1
				25	12	1	22.76	23±1
				25	24	1	22.73	23±1
				50	0	1	22.71	23±1
			16QAM	1	0	1	23.26	22.3±1
				1	24	1	23.28	22.3±1
				1	49	1	23.22	22.3±1
				25	0	2	21.85	22.3±1
				25	12	2	21.86	22.3±1
				25	24	2	21.83	22.3±1
				50	0	2	21.80	22.3±1
	20525	836.5	QPSK	1	0	0	23.56	23±1
				1	24	0	23.52	23±1
				1	49	0	23.59	23±1
				25	0	1	22.63	23±1
				25	12	1	22.65	23±1
				25	24	1	22.68	23±1
				50	0	1	22.59	23±1
			16QAM	1	0	1	23.21	22.3±1
				1	24	1	23.24	22.3±1
				1	49	1	23.16	22.3±1
				25	0	2	21.68	22.3±1
				25	12	2	21.68	22.3±1
				25	24	2	21.63	22.3±1
				50	0	2	21.61	22.3±1
	20600	844	QPSK	1	0	0	23.43	23±1
				1	24	0	23.45	23±1
				1	49	0	23.44	23±1
				25	0	1	22.53	23±1
				25	12	1	22.54	23±1
				25	24	1	22.58	23±1
				50	0	1	22.53	23±1
			16QAM	1	0	1	23.00	22.3±1
				1	24	1	23.15	22.3±1
				1	49	1	23.06	22.3±1
				25	0	2	21.62	22.3±1
				25	12	2	21.60	22.3±1
				25	24	2	21.63	22.3±1
				50	0	2	21.60	22.3±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	23.63	23±1
				1	12	0	23.62	23±1
				1	24	0	23.65	23±1
				12	0	1	22.77	23±1
				12	6	1	22.75	23±1
				12	11	1	22.76	23±1
				25	0	1	22.79	23±1
			16QAM	1	0	1	23.05	22.3±1
				1	12	1	23.06	22.3±1
				1	24	1	23.08	22.3±1
				12	0	2	21.69	22.3±1
				12	6	2	21.68	22.3±1
				12	11	2	21.63	22.3±1
				25	0	2	21.65	22.3±1
	20525	836.5	QPSK	1	0	0	23.39	23±1
				1	12	0	23.36	23±1
				1	24	0	23.38	23±1
				12	0	1	22.65	23±1
				12	6	1	22.63	23±1
				12	11	1	22.61	23±1
				25	0	1	22.58	23±1
			16QAM	1	0	1	22.49	22±1
				1	12	1	22.43	22±1
				1	24	1	22.46	22±1
				12	0	2	21.65	22±1
				12	6	2	21.63	22±1
				12	11	2	21.68	22±1
				25	0	2	21.64	22±1
	20625	846.5	QPSK	1	0	0	23.50	23±1
				1	12	0	23.53	23±1
				1	24	0	23.51	23±1
				12	0	1	22.62	23±1
				12	6	1	22.60	23±1
				12	11	1	22.65	23±1
				25	0	1	22.54	23±1
			16QAM	1	0	1	22.51	22±1
				1	12	1	22.56	22±1
				1	24	1	22.56	22±1
				12	0	2	21.74	22±1
				12	6	2	21.73	22±1
				12	11	2	21.77	22±1
				25	0	2	21.64	22±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
3MHz	20415	825.5	QPSK	1	0	0	23.52	23±1
				1	7	0	23.54	23±1
				1	14	0	23.56	23±1
				8	0	1	22.69	23±1
				8	4	1	22.68	23±1
				8	7	1	22.63	23±1
				15	0	1	22.75	23±1
			16QAM	1	0	1	23.09	22.3±1
				1	7	1	23.01	22.3±1
				1	14	1	23.10	22.3±1
				8	0	2	21.71	22.3±1
				8	4	2	21.73	22.3±1
				8	7	2	21.75	22.3±1
				15	0	2	21.88	22.3±1
	20525	836.5	QPSK	1	0	0	23.46	23±1
				1	7	0	23.45	23±1
				1	14	0	23.43	23±1
				8	0	1	22.48	23±1
				8	4	1	22.42	23±1
				8	7	1	22.46	23±1
				15	0	1	22.52	23±1
			16QAM	1	0	1	22.30	22±1
				1	7	1	22.36	22±1
				1	14	1	22.39	22±1
				8	0	2	21.50	22±1
				8	4	2	21.52	22±1
				8	7	2	21.56	22±1
				15	0	2	21.53	22±1
	20635	847.5	QPSK	1	0	0	23.46	23±1
				1	7	0	23.42	23±1
				1	14	0	23.48	23±1
				8	0	1	22.47	23±1
				8	4	1	22.46	23±1
				8	7	1	22.43	23±1
				15	0	1	22.54	23±1
			16QAM	1	0	1	22.35	22±1
				1	7	1	22.39	22±1
				1	14	1	22.36	22±1
				8	0	2	21.53	22±1
				8	4	2	21.50	22±1
				8	7	2	21.54	22±1
				15	0	2	21.54	22±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
1.4MHz	20407	824.7	QPSK	1	0	0	23.76	23±1
				1	2	0	23.71	23±1
				1	5	0	23.75	23±1
				3	0	0	23.86	23±1
				3	1	0	23.88	23±1
				3	2	0	23.81	23±1
				6	0	1	22.72	23±1
			16QAM	1	0	1	22.62	22±1
				1	2	1	22.69	22±1
				1	5	1	22.65	22±1
				3	0	1	22.61	22±1
				3	1	1	22.65	22±1
				3	2	1	22.62	22±1
				6	0	2	21.70	22±1
	20525	836.5	QPSK	1	0	0	23.76	23±1
				1	2	0	23.75	23±1
				1	5	0	23.78	23±1
				3	0	0	23.86	23±1
				3	1	0	23.85	23±1
				3	2	0	23.88	23±1
				6	0	1	22.73	23±1
			16QAM	1	0	1	22.61	22±1
				1	2	1	22.68	22±1
				1	5	1	22.63	22±1
				3	0	1	22.75	22±1
				3	1	1	22.76	22±1
				3	2	1	22.73	22±1
				6	0	2	21.73	22±1
	20643	848.3	QPSK	1	0	0	23.52	23±1
				1	2	0	23.56	23±1
				1	5	0	23.54	23±1
				3	0	0	23.66	23±1
				3	1	0	23.63	23±1
				3	2	0	23.68	23±1
				6	0	1	22.50	23±1
			16QAM	1	0	1	22.38	22±1
				1	2	1	22.36	22±1
				1	5	1	22.39	22±1
				3	0	1	22.42	22±1
				3	1	1	22.43	22±1
				3	2	1	22.46	22±1
				6	0	2	21.54	22±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	21.98	21.3±1
				1	49	0	21.96	21.3±1
				1	99	0	21.99	21.3±1
				50	0	1	20.80	21.3±1
				50	24	1	20.83	21.3±1
				50	49	1	20.86	21.3±1
				100	0	1	20.82	21.3±1
			16QAM	1	0	1	21.08	21.3±1
				1	49	1	21.12	21.3±1
				1	99	1	21.13	21.3±1
				50	0	2	20.35	21.3±1
				50	24	2	20.39	21.3±1
				50	49	2	20.41	21.3±1
				100	0	2	20.33	21.3±1
	21100	2535	QPSK	1	0	0	21.75	21.3±1
				1	49	0	21.74	21.3±1
				1	99	0	21.73	21.3±1
				50	0	1	20.63	21.3±1
				50	24	1	20.65	21.3±1
				50	49	1	20.68	21.3±1
				100	0	1	20.75	21.3±1
			16QAM	1	0	1	20.69	21.3±1
				1	49	1	20.68	21.3±1
				1	99	1	20.66	21.3±1
				50	0	2	20.42	21.3±1
				50	24	2	20.41	21.3±1
				50	49	2	20.43	21.3±1
				100	0	2	20.34	21.3±1
	21350	2560	QPSK	1	0	0	22.28	21.3±1
				1	49	0	22.26	21.3±1
				1	99	0	22.31	21.3±1
				50	0	1	21.01	21.3±1
				50	24	1	21.03	21.3±1
				50	49	1	21.05	21.3±1
				100	0	1	20.66	21.3±1
			16QAM	1	0	1	21.55	21.3±1
				1	49	1	21.56	21.3±1
				1	99	1	21.59	21.3±1
				50	0	2	20.56	21.3±1
				50	24	2	20.53	21.3±1
				50	49	2	20.55	21.3±1
				100	0	2	20.35	21.3±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
15MHz	20825	1717.5	QPSK	1	0	0	22.10	21.3±1
				1	37	0	22.13	21.3±1
				1	74	0	22.16	21.3±1
				36	0	1	20.93	21.3±1
				36	16	1	20.91	21.3±1
				36	35	1	20.95	21.3±1
				75	0	1	20.88	21.3±1
			16QAM	1	0	1	21.43	21.3±1
				1	37	1	21.45	21.3±1
				1	74	1	21.42	21.3±1
				36	0	2	20.45	21.3±1
				36	16	2	20.43	21.3±1
				36	35	2	20.42	21.3±1
				75	0	2	20.33	21.3±1
	21100	1732.5	QPSK	1	0	0	22.09	21.3±1
				1	37	0	22.08	21.3±1
				1	74	0	22.03	21.3±1
				36	0	1	20.91	21.3±1
				36	16	1	20.96	21.3±1
				36	35	1	20.95	21.3±1
				75	0	1	20.81	21.3±1
			16QAM	1	0	1	21.07	21.3±1
				1	37	1	21.03	21.3±1
				1	74	1	21.06	21.3±1
				36	0	2	20.43	21.3±1
				36	16	2	20.45	21.3±1
				36	35	2	20.44	21.3±1
				75	0	2	20.32	21.3±1
	21375	1747.5	QPSK	1	0	0	21.56	21.3±1
				1	37	0	21.53	21.3±1
				1	74	0	21.59	21.3±1
				36	0	1	21.56	21.3±1
				36	16	1	20.63	21.3±1
				36	35	1	20.65	21.3±1
				75	0	1	20.67	21.3±1
			16QAM	1	0	1	20.72	21.3±1
				1	37	1	20.75	21.3±1
				1	74	1	20.73	21.3±1
				36	0	2	20.41	21.3±1
				36	16	2	20.43	21.3±1
				36	35	2	20.43	21.3±1
				75	0	2	20.31	21.3±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	22.35	22±1
				1	24	0	22.36	22±1
				1	49	0	22.39	22±1
				25	0	1	21.26	22±1
				25	12	1	21.23	22±1
				25	24	1	21.23	22±1
				50	0	1	21.24	22±1
			16QAM	1	0	1	21.69	21.3±1
				1	24	1	21.68	21.3±1
				1	49	1	21.66	21.3±1
				25	0	2	20.45	21.3±1
				25	12	2	20.46	21.3±1
				25	24	2	20.43	21.3±1
				50	0	2	20.33	21.3±1
	21100	2535	QPSK	1	0	0	21.68	21.3±1
				1	24	0	21.69	21.3±1
				1	49	0	21.66	21.3±1
				25	0	1	20.59	21.3±1
				25	12	1	20.56	21.3±1
				25	24	1	20.58	21.3±1
				50	0	1	20.65	21.3±1
			16QAM	1	0	1	20.93	21.3±1
				1	24	1	20.95	21.3±1
				1	49	1	20.93	21.3±1
				25	0	2	20.41	21.3±1
				25	12	2	20.42	21.3±1
				25	24	2	20.44	21.3±1
				50	0	2	20.34	21.3±1
	21400	2565	QPSK	1	0	0	21.94	21.3±1
				1	24	0	21.93	21.3±1
				1	49	0	21.96	21.3±1
				25	0	1	20.90	21.3±1
				25	12	1	20.93	21.3±1
				25	24	1	20.91	21.3±1
				50	0	1	20.87	21.3±1
			16QAM	1	0	1	20.70	21.3±1
				1	24	1	20.73	21.3±1
				1	49	1	20.75	21.3±1
				25	0	2	20.51	21.3±1
				25	12	2	20.53	21.3±1
				25	24	2	20.56	21.3±1
				50	0	2	20.32	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	22.31	22±1
				1	12	0	22.35	22±1
				1	24	0	22.32	22±1
				12	0	1	21.35	22±1
				12	6	1	21.34	22±1
				12	11	1	21.36	22±1
				25	0	1	21.24	22±1
			16QAM	1	0	1	21.58	21.3±1
				1	12	1	21.55	21.3±1
				1	24	1	21.56	21.3±1
				12	0	2	20.53	21.3±1
				12	6	2	20.51	21.3±1
				12	11	2	20.54	21.3±1
				25	0	2	20.36	21.3±1
	20175	1732.5	QPSK	1	0	0	22.39	22±1
				1	12	0	22.36	22±1
				1	24	0	22.34	22±1
				12	0	1	21.46	22±1
				12	6	1	21.49	22±1
				12	11	1	21.48	22±1
				25	0	1	21.42	22±1
			16QAM	1	0	1	21.35	21.3±1
				1	12	1	21.33	21.3±1
				1	24	1	21.39	21.3±1
				12	0	2	20.63	21.3±1
				12	6	2	20.52	21.3±1
				12	11	2	20.51	21.3±1
				25	0	2	20.43	21.3±1
	20375	1752.5	QPSK	1	0	0	22.49	22±1
				1	12	0	22.46	22±1
				1	24	0	22.43	22±1
				12	0	1	21.48	22±1
				12	6	1	21.45	22±1
				12	11	1	21.43	22±1
				25	0	1	21.39	22±1
			16QAM	1	0	1	21.38	21.3±1
				1	12	1	21.40	21.3±1
				1	24	1	21.35	21.3±1
				12	0	2	20.53	21.3±1
				12	6	2	20.56	21.3±1
				12	11	2	20.54	21.3±1
				25	0	2	20.40	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
10MHz	23060	704	QPSK	1	0	0	23.35	23±1
				1	24	0	23.36	23±1
				1	49	0	23.33	23±1
				25	0	1	22.34	23±1
				25	12	1	22.36	23±1
				25	24	1	22.33	23±1
				50	0	1	22.29	23±1
			16QAM	1	0	1	22.73	22±1
				1	24	1	22.76	22±1
				1	49	1	22.75	22±1
				25	0	2	21.23	22±1
				25	12	2	21.28	22±1
				25	24	2	21.29	22±1
				50	0	2	21.26	22±1
	23095	707.5	QPSK	1	0	0	23.47	23±1
				1	24	0	23.45	23±1
				1	49	0	23.43	23±1
				25	0	1	22.43	23±1
				25	12	1	22.45	23±1
				25	24	1	22.43	23±1
				50	0	1	22.39	23±1
			16QAM	1	0	1	22.59	22±1
				1	24	1	22.56	22±1
				1	49	1	22.53	22±1
				25	0	2	21.34	22±1
				25	12	2	21.32	22±1
				25	24	2	21.36	22±1
				50	0	2	21.38	22±1
	23130	711	QPSK	1	0	0	23.24	23±1
				1	24	0	23.25	23±1
				1	49	0	23.21	23±1
				25	0	1	22.42	23±1
				25	12	1	22.45	23±1
				25	24	1	22.46	23±1
				50	0	1	22.39	23±1
			16QAM	1	0	1	22.66	22±1
				1	24	1	22.63	22±1
				1	49	1	22.65	22±1
				25	0	2	21.35	22±1
				25	12	2	21.36	22±1
				25	24	2	21.39	22±1
				50	0	2	21.34	22±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
5MHz	23035	701.5	QPSK	1	0	0	23.30	23±1
				1	12	0	23.31	23±1
				1	24	0	23.35	23±1
				12	0	1	22.34	23±1
				12	6	1	22.36	23±1
				12	11	1	22.31	23±1
				25	0	1	22.26	23±1
			16QAM	1	0	1	22.19	22±1
				1	12	1	22.13	22±1
				1	24	1	22.15	22±1
				12	0	2	21.23	22±1
				12	6	2	21.26	22±1
				12	11	2	21.29	22±1
				25	0	2	21.23	22±1
	23095	707.5	QPSK	1	0	0	23.42	23±1
				1	12	0	23.45	23±1
				1	24	0	23.45	23±1
				12	0	1	22.34	23±1
				12	6	1	22.36	23±1
				12	11	1	22.33	23±1
				25	0	1	22.30	23±1
			16QAM	1	0	1	22.57	22±1
				1	12	1	22.56	22±1
				1	24	1	22.53	22±1
				12	0	2	21.34	22±1
				12	6	2	21.33	22±1
				12	11	2	21.31	22±1
				25	0	2	21.23	22±1
	23155	713.5	QPSK	1	0	0	23.36	23±1
				1	12	0	23.31	23±1
				1	24	0	23.34	23±1
				12	0	1	22.36	23±1
				12	6	1	22.35	23±1
				12	11	1	22.38	23±1
				25	0	1	22.23	23±1
			16QAM	1	0	1	22.24	22±1
				1	12	1	22.23	22±1
				1	24	1	22.25	22±1
				12	0	2	21.25	22±1
				12	6	2	21.23	22±1
				12	11	2	21.28	22±1
				25	0	2	21.15	22±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
3MHz	23025	700.5	QPSK	1	0	0	23.33	23±1
				1	7	0	23.35	23±1
				1	14	0	23.34	23±1
				8	0	1	22.42	23±1
				8	4	1	22.43	23±1
				8	7	1	22.46	23±1
				15	0	1	22.29	23±1
			16QAM	1	0	1	22.51	22±1
				1	7	1	22.53	22±1
				1	14	1	22.52	22±1
				8	0	2	21.24	22±1
				8	4	2	21.26	22±1
				8	7	2	21.23	22±1
				15	0	2	21.28	22±1
	23095	707.5	QPSK	1	0	0	23.35	23±1
				1	7	0	23.36	23±1
				1	14	0	23.34	23±1
				8	0	1	22.37	23±1
				8	4	1	22.35	23±1
				8	7	1	22.31	23±1
				15	0	1	22.31	23±1
			16QAM	1	0	1	22.11	22±1
				1	7	1	22.13	22±1
				1	14	1	22.16	22±1
				8	0	2	21.29	22±1
				8	4	2	21.28	22±1
				8	7	2	21.26	22±1
				15	0	2	21.21	22±1
	23025	714.5	QPSK	1	0	0	23.31	23±1
				1	7	0	23.35	23±1
				1	14	0	23.36	23±1
				8	0	1	22.39	23±1
				8	4	1	22.32	23±1
				8	7	1	22.36	23±1
				15	0	1	22.22	23±1
			16QAM	1	0	1	22.09	22±1
				1	7	1	22.06	22±1
				1	14	1	22.01	22±1
				8	0	2	21.05	22±1
				8	4	2	21.08	22±1
				8	7	2	21.03	22±1
				15	0	2	21.10	22±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
1.4MHz	23017	699.7	QPSK	1	0	0	23.24	23±1
				1	2	0	23.25	23±1
				1	5	0	23.26	23±1
				3	0	0	23.25	23±1
				3	1	0	23.22	23±1
				3	2	0	23.29	23±1
				6	0	1	22.33	23±1
			16QAM	1	0	1	21.83	22±1
				1	2	1	21.86	22±1
				1	5	1	21.85	22±1
				3	0	1	21.75	22±1
				3	1	1	21.77	22±1
				3	2	1	21.74	22±1
				6	0	2	21.13	22±1
	23095	707.5	QPSK	1	0	0	23.40	23±1
				1	2	0	23.42	23±1
				1	5	0	23.45	23±1
				3	0	0	23.33	23±1
				3	1	0	23.36	23±1
				3	2	0	23.31	23±1
				6	0	1	22.38	23±1
			16QAM	1	0	1	22.12	22±1
				1	2	1	22.13	22±1
				1	5	1	22.16	22±1
				3	0	1	21.22	22±1
				3	1	1	21.23	22±1
				3	2	1	21.24	22±1
				6	0	2	21.27	22±1
	23173	715.3	QPSK	1	0	0	23.21	23±1
				1	2	0	23.24	23±1
				1	5	0	23.26	23±1
				3	0	0	23.13	23±1
				3	1	0	23.16	23±1
				3	2	0	23.16	23±1
				6	0	1	22.42	23±1
			16QAM	1	0	1	22.17	22±1
				1	2	1	22.15	22±1
				1	5	1	22.13	22±1
				3	0	1	21.43	22±1
				3	1	1	21.44	22±1
				3	2	1	21.41	22±1
				6	0	2	21.09	22±1

LTE Band 17:

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
10MHz	23780	709.0	QPSK	1	0	0	22.95	22±1
				1	24	0	22.93	22±1
				1	49	0	22.96	22±1
				25	0	1	22.50	22±1
				25	12	1	22.53	22±1
				25	24	1	22.56	22±1
				50	0	1	22.48	22±1
			16QAM	1	0	1	22.69	22±1
				1	24	1	22.63	22±1
				1	49	1	22.68	22±1
				25	0	2	21.63	22±1
				25	12	2	21.62	22±1
				25	24	2	21.66	22±1
				50	0	2	21.58	22±1
	23790	701.0	QPSK	1	0	0	23.21	23±1
				1	24	0	23.22	23±1
				1	49	0	23.25	23±1
				25	0	1	22.51	23±1
				25	12	1	22.53	23±1
				25	24	1	22.56	23±1
				50	0	1	22.46	23±1
			16QAM	1	0	1	22.27	22±1
				1	24	1	22.23	22±1
				1	49	1	22.25	22±1
				25	0	2	21.45	22±1
				25	12	2	21.46	22±1
				25	24	2	21.48	22±1
				50	0	2	21.46	22±1
	23800	711.0	QPSK	1	0	0	23.39	23±1
				1	24	0	23.35	23±1
				1	49	0	23.36	23±1
				25	0	1	22.47	23±1
				25	12	1	22.45	23±1
				25	24	1	22.53	23±1
				50	0	1	22.47	23±1
			16QAM	1	0	1	22.31	22±1
				1	24	1	22.35	22±1
				1	49	1	22.36	22±1
				25	0	2	21.45	22±1
				25	12	2	21.48	22±1
				25	24	2	21.46	22±1
				50	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
5MHz	23755	706.5	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	22.56	23±1
				12	11	1	22.54	23±1
				25	0	1	22.49	23±1
			16QAM	1	0	1	22.75	22±1
				1	12	1	22.73	22±1
				1	24	1	22.71	22±1
				12	0	2	21.46	22±1
				12	6	2	21.43	22±1
				12	11	2	21.47	22±1
				25	0	2	21.45	22±1
	23790	710.0	QPSK	1	0	0	23.55	23±1
				1	12	0	23.56	23±1
				1	24	0	23.54	23±1
				12	0	1	22.57	23±1
				12	6	1	22.53	23±1
				12	11	1	22.59	23±1
				25	0	1	22.50	23±1
			16QAM	1	0	1	22.49	22±1
				1	12	1	22.46	22±1
				1	24	1	22.43	22±1
				12	0	2	21.56	22±1
				12	6	2	21.54	22±1
				12	11	2	21.57	22±1
				25	0	2	21.51	22±1
	23825	713.5	QPSK	1	0	0	23.59	23±1
				1	12	0	23.54	23±1
				1	24	0	23.53	23±1
				12	0	1	22.58	23±1
				12	6	1	22.53	23±1
				12	11	1	22.56	23±1
				25	0	1	22.44	23±1
			16QAM	1	0	1	22.39	22±1
				1	12	1	22.36	22±1
				1	24	1	22.37	22±1
				12	0	2	21.53	22±1
				12	6	2	21.52	22±1
				12	11	2	21.53	22±1
				25	0	2	21.41	22±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	19.08	V	7.88	0.85	26.11	33.01
1880	1.4	QPSK	1/0	19.52	V	7.88	0.85	26.55	33.01
1909.3	1.4	QPSK	1/0	19.42	V	7.88	0.85	26.45	33.01
1850.7	1.4	QPSK	1/0	19.09	H	7.88	0.85	26.12	33.01
1880	1.4	QPSK	1/0	18.96	H	7.88	0.85	25.99	33.01
1909.3	1.4	QPSK	1/0	19.42	H	7.88	0.85	26.45	33.01
1850.7	1.4	16-QAM	1/0	18.20	V	7.88	0.85	25.23	33.01
1880	1.4	16-QAM	1/0	18.19	V	7.88	0.85	25.22	33.01
1909.3	1.4	16-QAM	1/0	18.42	V	7.88	0.85	25.45	33.01
1850.7	1.4	16-QAM	1/0	17.95	H	7.88	0.85	24.98	33.01
1880	1.4	16-QAM	1/0	17.75	H	7.88	0.85	24.78	33.01
1909.3	1.4	16-QAM	1/0	17.63	H	7.88	0.85	24.66	33.01
1851.5	3	QPSK	1/0	19.11	V	7.88	0.85	26.14	33.01
1880	3	QPSK	1/0	19.18	V	7.88	0.85	26.21	33.01
1908.5	3	QPSK	1/0	19.39	V	7.88	0.85	26.42	33.01
1851.5	3	QPSK	1/0	19.75	H	7.88	0.85	26.78	33.01
1880	3	QPSK	1/0	19.96	H	7.88	0.85	26.99	33.01
1908.5	3	QPSK	1/0	19.84	H	7.88	0.85	26.87	33.01
1851.5	3	16-QAM	1/0	18.09	V	7.88	0.85	25.12	33.01
1880	3	16-QAM	1/0	18.19	V	7.88	0.85	25.22	33.01
1908.5	3	16-QAM	1/0	18.21	V	7.88	0.85	25.24	33.01
1851.5	3	16-QAM	1/0	18.30	H	7.88	0.85	25.33	33.01
1880	3	16-QAM	1/0	18.18	H	7.88	0.85	25.21	33.01
1908.5	3	16-QAM	1/0	18.16	H	7.88	0.85	25.19	33.01
1852.5	5	QPSK	1/24	20.44	V	7.88	0.85	27.47	33.01
1880	5	QPSK	1/0	20.11	V	7.88	0.85	27.14	33.01
1907.5	5	QPSK	1/24	20.63	V	7.88	0.85	27.66	33.01
1852.5	5	QPSK	1/24	20.42	H	7.88	0.85	27.45	33.01
1880	5	QPSK	1/0	20.30	H	7.88	0.85	27.33	33.01
1907.5	5	QPSK	1/24	20.25	H	7.88	0.85	27.28	33.01
1852.5	5	16-QAM	1/24	19.11	V	7.88	0.85	26.14	33.01
1880	5	16-QAM	1/0	19.42	V	7.88	0.85	26.45	33.01

1907.5	5	16-QAM	1/24	19.11	V	7.88	0.85	26.14	33.01
1852.5	5	16-QAM	1/24	18.96	H	7.88	0.85	25.99	33.01
1880	5	16-QAM	1/0	18.88	H	7.88	0.85	25.91	33.01
1907.5	5	16-QAM	1/24	18.69	H	7.88	0.85	25.72	33.01
1855	10	QPSK	1/0	21.44	V	7.88	0.85	28.47	33.01
1880	10	QPSK	1/0	21.07	V	7.88	0.85	28.10	33.01
1905	10	QPSK	1/49	21.19	V	7.88	0.85	28.22	33.01
1855	10	QPSK	1/0	20.81	H	7.88	0.85	27.84	33.01
1880	10	QPSK	1/0	20.63	H	7.88	0.85	27.66	33.01
1905	10	QPSK	1/49	20.71	H	7.88	0.85	27.74	33.01
1855	10	16-QAM	1/0	18.11	V	7.88	0.85	25.14	33.01
1880	10	16-QAM	1/0	19.85	V	7.88	0.85	26.88	33.01
1905	10	16-QAM	1/49	18.29	V	7.88	0.85	25.32	33.01
1855	10	16-QAM	1/0	17.96	H	7.88	0.85	24.99	33.01
1880	10	16-QAM	1/0	17.75	H	7.88	0.85	24.78	33.01
1905	10	16-QAM	1/49	18.07	H	7.88	0.85	25.10	33.01
1857.5	15	QPSK	1/0	18.85	V	7.88	0.85	25.88	33.01
1880	15	QPSK	1/0	18.95	V	7.88	0.85	25.98	33.01
1902.5	15	QPSK	1/0	18.86	V	7.88	0.85	25.89	33.01
1857.5	15	QPSK	1/0	18.52	H	7.88	0.85	25.55	33.01
1880	15	QPSK	1/0	18.42	H	7.88	0.85	25.45	33.01
1902.5	15	QPSK	1/0	18.36	H	7.88	0.85	25.39	33.01
1857.5	15	16-QAM	1/0	18.07	V	7.88	0.85	25.10	33.01
1880	15	16-QAM	1/0	18.4	V	7.88	0.85	25.43	33.01
1902.5	15	16-QAM	1/0	18.08	V	7.88	0.85	25.11	33.01
1857.5	15	16-QAM	1/0	17.96	H	7.88	0.85	24.99	33.01
1880	15	16-QAM	1/0	17.53	H	7.88	0.85	24.56	33.01
1902.5	15	16-QAM	1/0	17.75	H	7.88	0.85	24.78	33.01
1860	20	QPSK	1/0	20.11	V	7.88	0.85	27.14	33.01
1880	20	QPSK	1/0	20.09	V	7.88	0.85	27.12	33.01
1900	20	QPSK	1/0	20.21	V	7.88	0.85	27.24	33.01
1860	20	QPSK	1/0	19.85	H	7.88	0.85	26.88	33.01
1880	20	QPSK	1/0	19.96	H	7.88	0.85	26.99	33.01
1900	20	QPSK	1/0	19.75	H	7.88	0.85	26.78	33.01
1860	20	16-QAM	1/0	19.07	V	7.88	0.85	26.10	33.01
1880	20	16-QAM	1/0	19.19	V	7.88	0.85	26.22	33.01
1900	20	16-QAM	1/0	19.06	V	7.88	0.85	26.09	33.01
1860	20	16-QAM	1/0	19.31	H	7.88	0.85	26.34	33.01

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1880	20	16-QAM	1/0	19.44	H	7.88	0.85	26.47	33.01
1900	20	16-QAM	1/0	19.41	H	7.88	0.85	26.44	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	18.94	V	7.95	0.79	26.10	30
1732.5	1.4	QPSK	1/0	18.96	V	7.95	0.79	26.12	30
1754.3	1.4	QPSK	1/0	19.18	V	7.95	0.79	26.34	30
1710.7	1.4	QPSK	1/0	18.82	H	7.95	0.79	25.98	30
1732.5	1.4	QPSK	1/0	18.71	H	7.95	0.79	25.87	30
1754.3	1.4	QPSK	1/0	18.73	H	7.95	0.79	25.89	30
1710.7	1.4	16-QAM	1/5	17.94	V	7.95	0.79	25.10	30
1732.5	1.4	16-QAM	1/0	18.07	V	7.95	0.79	25.23	30
1754.3	1.4	16-QAM	1/0	18.01	V	7.95	0.79	25.17	30
1710.7	1.4	16-QAM	1/5	17.83	H	7.95	0.79	24.99	30
1732.5	1.4	16-QAM	1/0	17.71	H	7.95	0.79	24.87	30
1754.3	1.4	16-QAM	1/0	17.65	H	7.95	0.79	24.81	30
1711.5	3	QPSK	1/0	19.01	V	7.95	0.79	26.17	30
1732.5	3	QPSK	1/0	19.32	V	7.95	0.79	26.48	30
1753.5	3	QPSK	1/0	19.53	V	7.95	0.79	26.69	30
1711.5	3	QPSK	1/0	18.98	H	7.95	0.79	26.14	30
1732.5	3	QPSK	1/0	19.06	H	7.95	0.79	26.22	30
1753.5	3	QPSK	1/0	19.26	H	7.95	0.79	26.42	30
1711.5	3	16-QAM	1/0	19.97	V	7.95	0.79	27.13	30
1732.5	3	16-QAM	1/0	20.06	V	7.95	0.79	27.22	30
1753.5	3	16-QAM	1/0	20.15	V	7.95	0.79	27.31	30
1711.5	3	16-QAM	1/0	19.72	H	7.95	0.79	26.88	30
1732.5	3	16-QAM	1/0	19.58	H	7.95	0.79	26.74	30
1753.5	3	16-QAM	1/0	19.79	H	7.95	0.79	26.95	30
1712.5	5	QPSK	1/0	17.96	V	7.95	0.79	25.12	30
1732.5	5	QPSK	1/0	18.48	V	7.95	0.79	25.64	30
1752.5	5	QPSK	1/24	17.97	V	7.95	0.79	25.13	30
1712.5	5	QPSK	1/0	17.98	H	7.95	0.79	25.14	30
1732.5	5	QPSK	1/0	18.27	H	7.95	0.79	25.43	30
1752.5	5	QPSK	1/24	18.5	H	7.95	0.79	25.66	30
1712.5	5	16-QAM	1/0	17.72	V	7.95	0.79	24.88	30
1732.5	5	16-QAM	1/0	17.82	V	7.95	0.79	24.98	30
1752.5	5	16-QAM	1/24	17.49	V	7.95	0.79	24.65	30

1712.5	5	16-QAM	1/0	17.39	H	7.95	0.79	24.55	30
1732.5	5	16-QAM	1/0	17.46	H	7.95	0.79	24.62	30
1752.5	5	16-QAM	1/24	17.56	H	7.95	0.79	24.72	30
1715	10	QPSK	1/0	18.55	V	7.95	0.79	25.71	30
1732.5	10	QPSK	1/49	18.72	V	7.95	0.79	25.88	30
1750	10	QPSK	1/0	18.53	V	7.95	0.79	25.69	30
1715	10	QPSK	1/0	17.95	H	7.95	0.79	25.11	30
1732.5	10	QPSK	1/49	18.08	H	7.95	0.79	25.24	30
1750	10	QPSK	1/0	18.15	H	7.95	0.79	25.31	30
1715	10	16-QAM	1/0	17.83	V	7.95	0.79	24.99	30
1732.5	10	16-QAM	1/49	17.72	V	7.95	0.79	24.88	30
1750	10	16-QAM	1/0	17.65	V	7.95	0.79	24.81	30
1715	10	16-QAM	1/0	17.39	H	7.95	0.79	24.55	30
1732.5	10	16-QAM	1/49	17.4	H	7.95	0.79	24.56	30
1750	10	16-QAM	1/0	17.62	H	7.95	0.79	24.78	30
1717.5	15	QPSK	1/0	18.94	V	7.95	0.79	26.10	30
1732.5	15	QPSK	1/74	19.06	V	7.95	0.79	26.22	30
1747.5	15	QPSK	1/0	19.06	V	7.95	0.79	26.22	30
1717.5	15	QPSK	1/0	19.16	H	7.95	0.79	26.32	30
1732.5	15	QPSK	1/74	19.26	H	7.95	0.79	26.42	30
1747.5	15	QPSK	1/0	18.62	H	7.95	0.79	25.78	30
1717.5	15	16-QAM	1/0	18.58	V	7.95	0.79	25.74	30
1732.5	15	16-QAM	1/74	18.55	V	7.95	0.79	25.71	30
1747.5	15	16-QAM	1/0	18.26	V	7.95	0.79	25.42	30
1717.5	15	16-QAM	1/0	18.16	H	7.95	0.79	25.32	30
1732.5	15	16-QAM	1/74	18.25	H	7.95	0.79	25.41	30
1747.5	15	16-QAM	1/0	18.3	H	7.95	0.79	25.46	30
1720	20	QPSK	1/99	19.29	V	7.95	0.79	26.45	30
1732.5	20	QPSK	1/99	19.83	V	7.95	0.79	26.99	30
1745	20	QPSK	1/0	19.94	V	7.95	0.79	27.10	30
1720	20	QPSK	1/99	18.73	H	7.95	0.79	25.89	30
1732.5	20	QPSK	1/99	18.74	H	7.95	0.79	25.90	30
1745	20	QPSK	1/0	18.58	H	7.95	0.79	25.74	30
1720	20	16-QAM	1/99	19.54	V	7.95	0.79	26.70	30
1732.5	20	16-QAM	1/99	19.71	V	7.95	0.79	26.87	30
1745	20	16-QAM	1/0	19.82	V	7.95	0.79	26.98	30
1720	20	16-QAM	1/99	18.96	H	7.95	0.79	26.12	30
1732.5	20	16-QAM	1/99	19.18	H	7.95	0.79	26.34	30

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1745	20	16-QAM	1/0	19.12	H	7.95	0.79	26.28	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	21.76	V	6.8	0.44	28.12	34.77
836.5	1.4	QPSK	1/5	21.96	V	6.8	0.44	28.32	34.77
848.3	1.4	QPSK	1/5	21.98	V	6.9	0.44	28.44	34.77
824.7	1.4	QPSK	1/5	21.76	H	6.8	0.44	28.12	34.77
836.5	1.4	QPSK	1/5	22.09	H	6.8	0.44	28.45	34.77
848.3	1.4	QPSK	1/5	22.15	H	6.9	0.44	28.61	34.77
824.7	1.4	16-QAM	1/5	20.78	V	6.8	0.44	27.14	34.77
836.5	1.4	16-QAM	1/5	20.87	V	6.8	0.44	27.23	34.77
848.3	1.4	16-QAM	1/5	20.88	V	6.9	0.44	27.34	34.77
824.7	1.4	16-QAM	1/5	20.78	H	6.8	0.44	27.14	34.77
836.5	1.4	16-QAM	1/5	21.18	H	6.8	0.44	27.54	34.77
848.3	1.4	16-QAM	1/5	20.85	H	6.9	0.44	27.31	34.77
825.5	3	QPSK	1/14	22.09	V	6.8	0.44	28.45	34.77
836.5	3	QPSK	1/0	22.09	V	6.8	0.44	28.45	34.77
847.5	3	QPSK	1/14	21.68	V	6.9	0.44	28.14	34.77
825.5	3	QPSK	1/14	21.86	H	6.8	0.44	28.22	34.77
836.5	3	QPSK	1/0	21.98	H	6.8	0.44	28.34	34.77
847.5	3	QPSK	1/14	22.18	H	6.9	0.44	28.64	34.77
825.5	3	16-QAM	1/14	20.74	V	6.8	0.44	27.10	34.77
836.5	3	16-QAM	1/0	20.86	V	6.8	0.44	27.22	34.77
847.5	3	16-QAM	1/14	20.89	V	6.9	0.44	27.35	34.77
825.5	3	16-QAM	1/14	21.09	H	6.8	0.44	27.45	34.77
836.5	3	16-QAM	1/0	21.20	H	6.8	0.44	27.56	34.77
847.5	3	16-QAM	1/14	21.18	H	6.9	0.44	27.64	34.77
826.5	5	QPSK	1/24	21.63	V	6.8	0.44	27.99	34.77
836.5	5	QPSK	1/24	21.47	V	6.8	0.44	27.83	34.77
846.5	5	QPSK	1/24	21.39	V	6.8	0.44	27.75	34.77
826.5	5	QPSK	1/24	21.09	H	6.8	0.44	27.45	34.77
836.5	5	QPSK	1/24	21.05	H	6.8	0.44	27.41	34.77
846.5	5	QPSK	1/24	21.20	H	6.8	0.44	27.56	34.77
826.5	5	16-QAM	1/24	19.76	V	6.8	0.44	26.12	34.77
836.5	5	16-QAM	1/24	19.86	V	6.8	0.44	26.22	34.77
846.5	5	16-QAM	1/24	19.95	V	6.8	0.44	26.31	34.77

826.5	5	16-QAM	1/24	19.63	H	6.8	0.44	25.99	34.77
836.5	5	16-QAM	1/24	19.53	H	6.8	0.44	25.89	34.77
846.5	5	16-QAM	1/24	19.11	H	6.8	0.44	25.47	34.77
829	10	QPSK	1/49	20.77	V	6.8	0.44	27.13	34.77
836.5	10	QPSK	1/49	20.86	V	6.8	0.44	27.22	34.77
844	10	QPSK	1/49	21.09	V	6.8	0.44	27.45	34.77
829	10	QPSK	1/49	21.09	H	6.8	0.44	27.45	34.77
836.5	10	QPSK	1/49	20.99	H	6.8	0.44	27.35	34.77
844	10	QPSK	1/49	20.79	H	6.8	0.44	27.15	34.77
829	10	16-QAM	1/49	20.62	V	6.8	0.44	26.98	34.77
836.5	10	16-QAM	1/49	20.42	V	6.8	0.44	26.78	34.77
844	10	16-QAM	1/49	20.49	V	6.8	0.44	26.85	34.77
829	10	16-QAM	1/49	19.53	H	6.8	0.44	25.89	34.77
836.5	10	16-QAM	1/49	19.42	H	6.8	0.44	25.78	34.77
844	10	16-QAM	1/49	19.28	H	6.8	0.44	25.64	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	17.78	V	8.93	0.83	25.88	30
2535	5	QPSK	1/0	17.64	V	8.93	0.83	25.74	30
2567.5	5	QPSK	1/24	17.55	V	8.93	0.83	25.65	30
2502.5	5	QPSK	1/0	17.35	H	8.93	0.83	25.45	30
2535	5	QPSK	1/0	17.38	H	8.93	0.83	25.48	30
2567.5	5	QPSK	1/24	17.57	H	8.93	0.83	25.67	30
2502.5	5	16-QAM	1/0	16.05	V	8.93	0.83	24.15	30
2535	5	16-QAM	1/0	16.25	V	8.93	0.83	24.35	30
2567.5	5	16-QAM	1/24	16.75	V	8.93	0.83	24.85	30
2502.5	5	16-QAM	1/0	16.22	H	8.93	0.83	24.32	30
2535	5	16-QAM	1/0	16.05	H	8.93	0.83	24.15	30
2567.5	5	16-QAM	1/24	16.21	H	8.93	0.83	24.31	30
2505	10	QPSK	1/0	18.12	V	8.93	0.83	26.22	30
2535	10	QPSK	1/49	18.35	V	8.93	0.83	26.45	30
2565	10	QPSK	1/0	18.77	V	8.93	0.83	26.87	30
2505	10	QPSK	1/0	18.89	H	8.93	0.83	26.99	30
2535	10	QPSK	1/49	18.37	H	8.93	0.83	26.47	30
2565	10	QPSK	1/0	18.78	H	8.93	0.83	26.88	30
2505	10	16-QAM	1/0	17.89	V	8.93	0.83	25.99	30
2535	10	16-QAM	1/49	17.68	V	8.93	0.83	25.78	30
2565	10	16-QAM	1/0	17.77	V	8.93	0.83	25.87	30
2505	10	16-QAM	1/0	17.32	H	8.93	0.83	25.42	30
2535	10	16-QAM	1/49	17.23	H	8.93	0.83	25.33	30
2565	10	16-QAM	1/0	17.02	H	8.93	0.83	25.12	30
2507.5	15	QPSK	1/0	18.00	V	8.93	0.83	26.10	30
2535	15	QPSK	1/74	18.35	V	8.93	0.83	26.45	30
2562.5	15	QPSK	1/0	18.68	V	8.93	0.83	26.78	30
2507.5	15	QPSK	1/0	18.11	H	8.93	0.83	26.21	30
2535	15	QPSK	1/74	18.22	H	8.93	0.83	26.32	30
2562.5	15	QPSK	1/0	18.35	H	8.93	0.83	26.45	30
2507.5	15	16-QAM	1/0	17.02	V	8.93	0.83	25.12	30
2535	15	16-QAM	1/74	17.23	V	8.93	0.83	25.33	30
2562.5	15	16-QAM	1/0	17.02	V	8.93	0.83	25.12	30

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2507.5	15	16-QAM	1/0	17.38	H	8.93	0.83	25.48	30
2535	15	16-QAM	1/74	17.54	H	8.93	0.83	25.64	30
2562.5	15	16-QAM	1/0	17.77	H	8.93	0.83	25.87	30
2510	20	QPSK	1/99	18.02	V	8.93	0.83	26.12	30
2535	20	QPSK	1/99	18.12	V	8.93	0.83	26.22	30
2560	20	QPSK	1/0	18.35	V	8.93	0.83	26.45	30
2510	20	QPSK	1/99	18.68	H	8.93	0.83	26.78	30
2535	20	QPSK	1/99	18.35	H	8.93	0.83	26.45	30
2560	20	QPSK	1/0	18.77	H	8.93	0.83	26.87	30
2510	20	16-QAM	1/99	17.02	V	8.93	0.83	25.12	30
2535	20	16-QAM	1/99	17.22	V	8.93	0.83	25.32	30
2560	20	16-QAM	1/0	17.24	V	8.93	0.83	25.34	30
2510	20	16-QAM	1/99	17.34	H	8.93	0.83	25.44	30
2535	20	16-QAM	1/99	17.05	H	8.93	0.83	25.15	30
2560	20	16-QAM	1/0	17.68	H	8.93	0.83	25.78	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	19.03	V	6.9	0.42	25.51	34.77
707.5	1.4	QPSK	1/5	18.74	V	6.8	0.42	25.12	34.77
715.3	1.4	QPSK	1/5	18.51	V	6.8	0.42	24.89	34.77
699.7	1.4	QPSK	1/5	18.42	H	6.9	0.42	24.90	34.77
707.5	1.4	QPSK	1/5	18.19	H	6.8	0.42	24.57	34.77
715.3	1.4	QPSK	1/5	18.49	H	6.8	0.42	24.87	34.77
699.7	1.4	16-QAM	1/5	17.64	V	6.9	0.42	24.12	34.77
707.5	1.4	16-QAM	1/5	17.84	V	6.8	0.42	24.22	34.77
715.3	1.4	16-QAM	1/5	18.01	V	6.8	0.42	24.39	34.77
699.7	1.4	16-QAM	1/5	17.51	H	6.9	0.42	23.99	34.77
707.5	1.4	16-QAM	1/5	17.51	H	6.8	0.42	23.89	34.77
715.3	1.4	16-QAM	1/5	17.18	H	6.8	0.42	23.56	34.77
700.5	3	QPSK	1/14	18.64	V	6.9	0.42	25.12	34.77
707.5	3	QPSK	1/0	18.84	V	6.8	0.42	25.22	34.77
714.5	3	QPSK	1/14	18.96	V	6.8	0.42	25.34	34.77
700.5	3	QPSK	1/14	18.97	H	6.9	0.42	25.45	34.77
707.5	3	QPSK	1/0	19.23	H	6.8	0.42	25.61	34.77
714.5	3	QPSK	1/14	18.94	H	6.8	0.42	25.32	34.77
700.5	3	16-QAM	1/14	17.97	V	6.9	0.42	24.45	34.77
707.5	3	16-QAM	1/0	17.94	V	6.8	0.42	24.32	34.77
714.5	3	16-QAM	1/14	17.94	V	6.8	0.42	24.32	34.77
700.5	3	16-QAM	1/14	17.64	H	6.9	0.42	24.12	34.77
707.5	3	16-QAM	1/0	17.79	H	6.8	0.42	24.17	34.77
714.5	3	16-QAM	1/14	18.27	H	6.8	0.42	24.65	34.77
701.5	5	QPSK	1/24	19.4	V	6.9	0.42	25.88	34.77
707.5	5	QPSK	1/24	19.37	V	6.8	0.42	25.75	34.77
713.5	5	QPSK	1/24	19.26	V	6.8	0.42	25.64	34.77
701.5	5	QPSK	1/24	18.64	H	6.9	0.42	25.12	34.77
707.5	5	QPSK	1/24	19.26	H	6.8	0.42	25.64	34.77
713.5	5	QPSK	1/24	19.07	H	6.8	0.42	25.45	34.77
701.5	5	16-QAM	1/24	17.64	V	6.9	0.42	24.12	34.77
707.5	5	16-QAM	1/24	17.84	V	6.8	0.42	24.22	34.77
713.5	5	16-QAM	1/24	17.94	V	6.8	0.42	24.32	34.77
701.5	5	16-QAM	1/24	17.92	H	6.9	0.42	24.40	34.77
707.5	5	16-QAM	1/24	17.74	H	6.8	0.42	24.12	34.77

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713.5	5	16-QAM	1/24	17.94	H	6.8	0.42	24.32	34.77
704	10	QPSK	1/49	19.48	V	6.8	0.42	25.86	34.77
707.5	10	QPSK	1/49	19.40	V	6.8	0.42	25.78	34.77
711	10	QPSK	1/49	19.26	V	6.8	0.42	25.64	34.77
704	10	QPSK	1/49	19.07	H	6.8	0.42	25.45	34.77
707.5	10	QPSK	1/49	19.04	H	6.8	0.42	25.42	34.77
711	10	QPSK	1/49	18.84	H	6.8	0.42	25.22	34.77
704	10	16-QAM	1/49	17.74	V	6.8	0.42	24.12	34.77
707.5	10	16-QAM	1/49	17.75	V	6.8	0.42	24.13	34.77
711	10	16-QAM	1/49	17.77	V	6.8	0.42	24.15	34.77
704	10	16-QAM	1/49	18.50	H	6.8	0.42	24.88	34.77
707.5	10	16-QAM	1/49	18.21	H	6.8	0.42	24.59	34.77
711	10	16-QAM	1/49	18.40	H	6.8	0.42	24.78	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	19.74	V	6.8	0.42	26.12	34.77
710	5	QPSK	1/0	19.84	V	6.8	0.42	26.22	34.77
713.5	5	QPSK	1/0	19.85	V	6.8	0.42	26.23	34.77
706.5	5	QPSK	1/0	19.74	H	6.8	0.42	26.12	34.77
710	5	QPSK	1/0	20.07	H	6.8	0.42	26.45	34.77
713.5	5	QPSK	1/0	20.37	H	6.8	0.42	26.75	34.77
706.5	5	16-QAM	1/0	19.19	V	6.8	0.42	25.57	34.77
710	5	16-QAM	1/0	18.76	V	6.8	0.42	25.14	34.77
713.5	5	16-QAM	1/0	19.28	V	6.8	0.42	25.66	34.77
706.5	5	16-QAM	1/0	18.74	H	6.8	0.42	25.12	34.77
710	5	16-QAM	1/0	18.94	H	6.8	0.42	25.32	34.77
713.5	5	16-QAM	1/0	18.89	H	6.8	0.42	25.27	34.77
709	10	QPSK	1/0	18.5	V	6.8	0.42	24.88	34.77
710	10	QPSK	1/0	18.51	V	6.8	0.42	24.89	34.77
711	10	QPSK	1/0	18.60	V	6.8	0.42	24.98	34.77
709	10	QPSK	1/0	17.77	H	6.8	0.42	24.15	34.77
710	10	QPSK	1/0	18.18	H	6.8	0.42	24.56	34.77
711	10	QPSK	1/0	17.97	H	6.8	0.42	24.35	34.77
709	10	16-QAM	1/0	16.74	V	6.8	0.42	23.12	34.77
710	10	16-QAM	1/0	16.74	V	6.8	0.42	23.12	34.77
711	10	16-QAM	1/0	16.87	V	6.8	0.42	23.25	34.77
709	10	16-QAM	1/0	17.57	H	6.8	0.42	23.95	34.77
710	10	16-QAM	1/0	17.07	H	6.8	0.42	23.45	34.77
711	10	16-QAM	1/0	16.86	H	6.8	0.42	23.24	34.77

6.3 Peak-Average Ratio

Temperature	25°C
Relative Humidity	50%
Atmospheric Pressure	1008mbar
Test date :	October 08, 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.	☒
Test Setup	Base Station Spectrum Analyzer EUT		
Test Procedure	According with KDB 971168 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	☒ Pass ☐ 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	25.63	22.43	3.20
			16QAM	25.32	21.23	4.09
3	1880	RB 1/0	QPSK	25.13	22.47	2.66
			16QAM	24.86	21.38	3.48
5	1880	RB 1/0	QPSK	25.33	22.88	2.45
			16QAM	25.16	21.86	3.30
10	1880	RB 1/0	QPSK	24.63	23.58	1.05
			16QAM	24.53	23.25	1.28
15	1880	RB 1/0	QPSK	25.23	22.23	3.00
			16QAM	25.23	22.13	3.10
20	1880	RB 1/0	QPSK	25.34	22.43	2.91
			16QAM	24.86	21.96	2.90

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	25.23	21.55	3.68
			16QAM	25.26	21.47	3.79
3	1732.5	RB 1/0	QPSK	25.15	21.69	3.46
			16QAM	24.96	21.52	3.44
5	1732.5	RB 1/0	QPSK	24.86	21.66	3.20
			16QAM	25.23	22.03	3.20
10	1732.5	RB 1/0	QPSK	25.15	21.78	3.37
			16QAM	25.14	21.72	3.42
15	1732.5	RB 1/0	QPSK	25.06	21.65	3.41
			16QAM	25.11	21.78	3.33
20	1732.5	RB 1/0	QPSK	24.62	22.30	2.32
			16QAM	24.86	22.56	2.30

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	25.23	22.39	2.84
			16QAM	25.24	21.35	3.89
10	1880	RB 1/0	QPSK	25.36	21.68	3.68
			16QAM	25.21	20.93	4.28
15	1880	RB 1/0	QPSK	25.45	22.09	3.36
			16QAM	25.21	21.07	4.14
20	1880	RB 1/0	QPSK	25.29	21.75	3.54
			16QAM	24.68	20.69	3.99

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	25.23	23.40	1.83
			16QAM	25.22	22.12	3.1
3	1732.5	RB 1/0	QPSK	25.36	23.35	2.01
			16QAM	24.89	22.11	2.78
5	1732.5	RB 1/0	QPSK	24.99	23.42	1.57
			16QAM	25.21	22.57	2.64
10	1732.5	RB 1/0	QPSK	25.01	23.47	1.54
			16QAM	25.12	22.59	2.53

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	25.23	23.55	1.68
			16QAM	25.25	22.49	2.76
10	710	RB 1/0	QPSK	25.34	23.21	2.13
			16QAM	25.33	22.27	3.06

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	22°C
Relative Humidity	51%
Atmospheric Pressure	1009mbar
Test date :	October 09, 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)	☒
	b)	26 dB Bandwidth(kHz)	☒
Test Setup	Base Station Spectrum Analyzer EUT		
Test Procedure	- 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	☒ Pass ☐ 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	1.1827	2.472
			QPSK	1.1691	2.184
1.4	18900	1880	16QAM	1.1438	1.735
			QPSK	1.1401	1.890
1.4	19193	1909.3	16QAM	1.1470	2.267
			QPSK	1.1533	2.197
3	18615	1851.5	16QAM	3.3164	5.738
			QPSK	3.2185	5.678
3	18900	1880	16QAM	2.8271	5.274
			QPSK	2.8315	5.266
3	19185	1908.5	16QAM	2.8549	5.183
			QPSK	2.8342	5.160
5	18625	1852.5	16QAM	4.6336	7.435
			QPSK	4.6039	7.435
5	18900	1880	16QAM	4.5862	6.926
			QPSK	4.5934	6.908
5	19175	1907.5	16QAM	4.6401	7.407
			QPSK	4.6136	7.256
10	18650	1855	16QAM	9.2408	12.48
			QPSK	9.2358	10.45
10	18900	1880	16QAM	9.2028	10.34
			QPSK	9.2159	10.33
10	19150	1905	16QAM	9.2149	12.90
			QPSK	9.2402	12.97
15	18675	1857.5	16QAM	13.646	14.19
			QPSK	13.645	15.31
15	18900	1880	16QAM	13.624	15.10
			QPSK	13.606	15.05
15	19125	1902.5	16QAM	13.656	15.21
			QPSK	13.681	15.20

20	18700	1860	16QAM	18.070	19.70
			QPSK	18.074	19.68
20	18900	1880	16QAM	18.042	19.70
			QPSK	18.067	19.93
20	19100	1900	16QAM	18.114	20.45
			QPSK	18.116	21.13

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	1.0943	1.261
			QPSK	1.0939	1.266
1.4	20175	1732.5	16QAM	1.0974	1.278
			QPSK	1.0932	1.277
1.4	20393	1754.3	16QAM	1.1030	1.260
			QPSK	1.0933	1.258
3	19965	1711.5	16QAM	3.2187	5.976
			QPSK	3.3185	6.172
3	20175	1732.5	16QAM	2.8263	5.098
			QPSK	2.8281	5.314
3	20385	1753.5	16QAM	2.8819	5.758
			QPSK	2.8223	5.490
5	19975	1712.5	16QAM	4.5996	6.969
			QPSK	4.6001	6.399
5	20175	1732.5	16QAM	4.5984	7.568
			QPSK	4.5822	7.462
5	20375	1752.5	16QAM	4.7730	7.586
			QPSK	4.6345	7.668
10	20000	1715	16QAM	9.2505	10.55
			QPSK	9.2158	10.32
10	20175	1732.5	16QAM	9.2201	10.30
			QPSK	9.2356	10.33
10	20350	1750	16QAM	9.1711	10.33
			QPSK	9.1892	10.33

15	20025	1717.5	16QAM	13.685	15.21
			QPSK	13.639	15.14
15	20175	1732.5	16QAM	13.608	15.04
			QPSK	13.615	15.21
15	20325	1747.5	16QAM	13.613	15.11
			QPSK	13.627	15.05
20	20050	1720	16QAM	18.068	19.81
			QPSK	18.067	19.69
20	20175	1732.5	16QAM	18.003	19.56
			QPSK	18.049	19.82
20	20300	1745	16QAM	18.077	19.47
			QPSK	18.082	19.82

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	1.274
			QPSK	1.0936	1.271
1.4	20525	936.5	16QAM	1.1041	1.251
			QPSK	1.1037	1.253
1.4	20643	949.3	16QAM	1.0903	1.273
			QPSK	1.0932	1.261
3	20415	825.5	16QAM	2.7405	3.049
			QPSK	2.7577	3.023
3	20525	936.5	16QAM	2.7348	3.039
			QPSK	2.7365	3.035
3	20635	847.5	16QAM	2.7281	3.035
			QPSK	2.7318	3.044
5	20425	826.5	16QAM	4.5318	5.031
			QPSK	4.5292	5.044
5	20525	936.5	16QAM	4.5113	5.015
			QPSK	4.5197	5.018
5	20625	846.5	16QAM	4.5246	5.065
			QPSK	4.5343	5.083

10	20450	829	16QAM	9.0733	10.07
			QPSK	9.0511	10.12
10	20525	936.5	16QAM	9.3475	20.00
			QPSK	9.3649	20.00
10	20800	844	16QAM	9.0823	10.10
			QPSK	9.0914	10.07

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	4.5252	5.028
			QPSK	4.5232	5.073
5	21100	2535	16QAM	4.5142	5.076
			QPSK	4.5236	5.046
5	21425	2567.5	16QAM	4.5249	5.043
			QPSK	4.5157	5.042
10	20800	2505	16QAM	9.0648	10.18
			QPSK	9.0700	10.09
10	21100	2535	16QAM	9.0649	10.19
			QPSK	9.0694	10.26
10	21400	2562.5	16QAM	9.0471	10.14
			QPSK	9.0705	10.03
15	20825	2507.5	16QAM	13.535	14.75
			QPSK	13.498	14.90
15	21100	2535	16QAM	13.497	14.81
			QPSK	13.492	14.88
15	21400	2562.5	16QAM	13.503	14.88
			QPSK	13.489	14.83
20	20850	2510	16QAM	17.977	19.38
			QPSK	17.965	19.25
20	21100	2535	16QAM	17.948	19.23
			QPSK	17.988	19.23
20	21350	2560	16QAM	17.906	19.29
			QPSK	17.922	19.26

LTE Band 12 (Part 27)

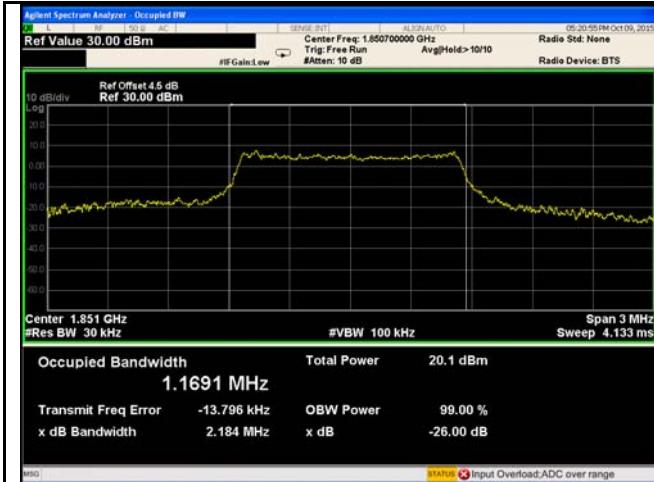
BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
1.4	23017	699.7	16QAM	1.1110	1.941
			QPSK	1.1109	1.933
1.4	23095	707.5	16QAM	1.0973	1.300
			QPSK	1.0963	1.296
1.4	23173	715.3	16QAM	1.1350	2.023
			QPSK	1.1363	2.021
3	23025	700.5	16QAM	2.7622	3.636
			QPSK	2.7594	3.830
3	23095	707.5	16QAM	2.7383	3.038
			QPSK	2.7409	3.028
3	23165	714.5	16QAM	2.8045	5.401
			QPSK	2.8005	5.660
5	23035	701.5	16QAM	4.5532	6.605
			QPSK	4.5568	6.749
5	23095	707.5	16QAM	4.5238	5.086
			QPSK	4.5348	5.107
5	23055	713.5	16QAM	4.5876	8.487
			QPSK	4.5990	7.969
10	23060	704	16QAM	9.1379	12.54
			QPSK	9.1410	12.57
10	23095	707.5	16QAM	9.0962	11.35
			QPSK	9.0835	10.35
10	23130	711	16QAM	9.0986	10.18
			QPSK	9.0825	11.62

LTE Band 17 (Part 27)

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
5	23755	706.5	16QAM	4.5254	5.039
			QPSK	4.5396	5.055
5	23790	710	16QAM	4.5159	5.025
			QPSK	4.5202	5.056
5	23825	713.5	16QAM	4.5204	5.093
			QPSK	4.5200	5.054
10	23780	709	16QAM	9.0651	10.21
			QPSK	9.0742	10.11
10	23790	710	16QAM	9.0300	10.05
			QPSK	9.0297	10.04
10	23800	711	16QAM	9.0477	10.05
			QPSK	9.0532	10.01

Test Plots

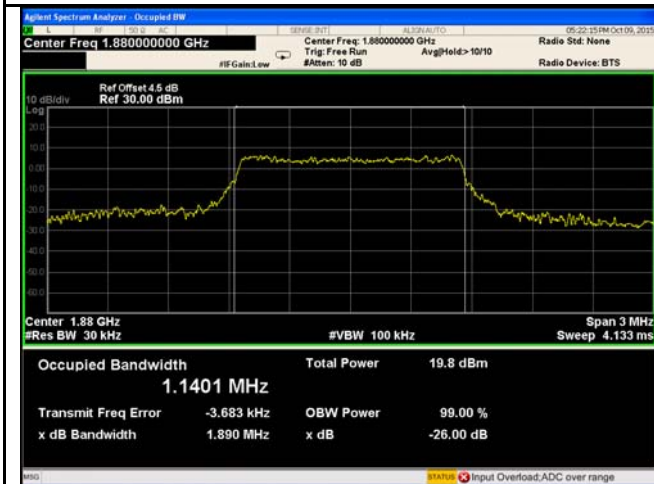
LTE Band 2 (Part 24E)



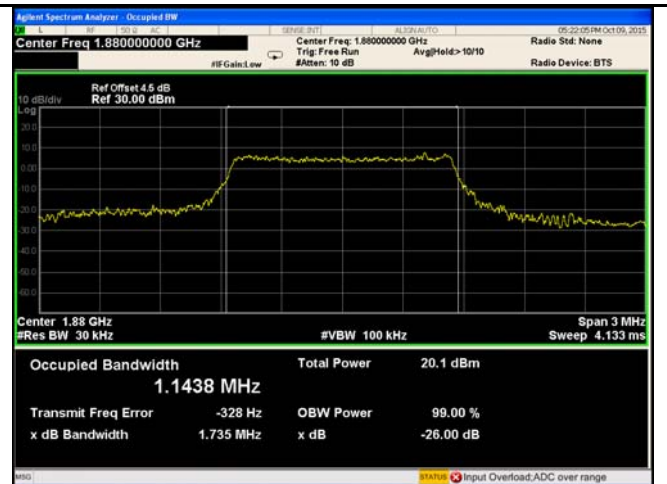
LTE band 2 - Low CH QPSK-1.4



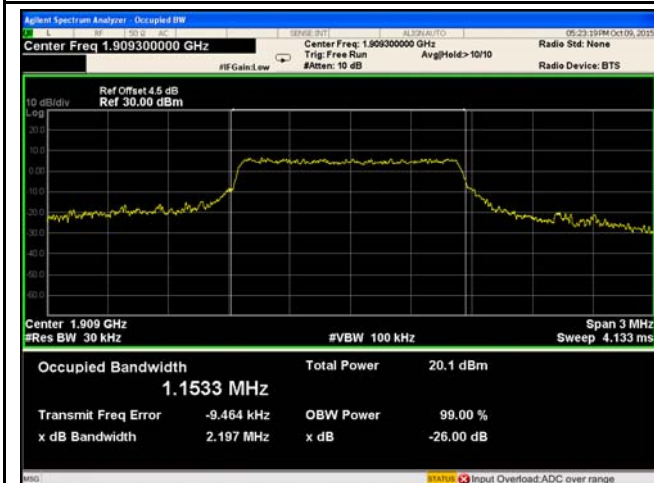
LTE band 2 - Low CH 16QAM-1.4



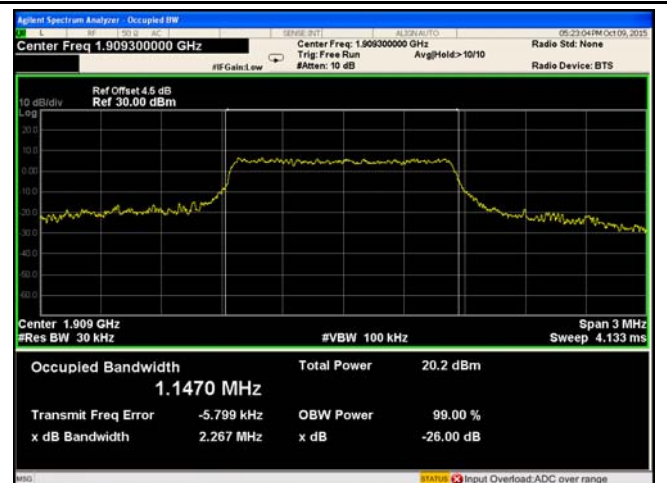
LTE band 2 - Middle CH QPSK-1.4



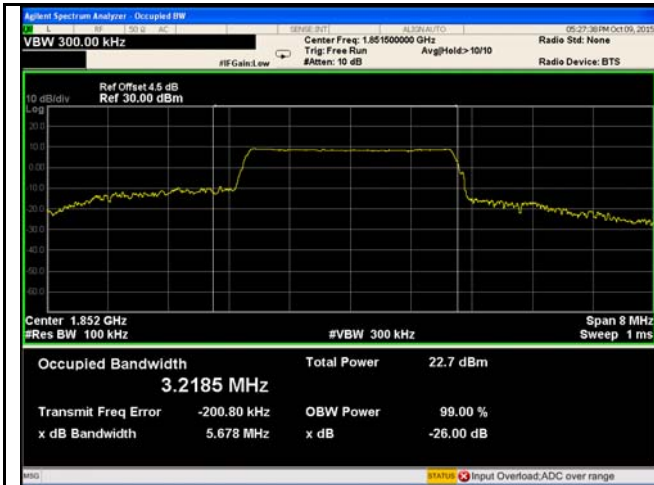
LTE band 2 - Middle CH 16QAM-1.4



LTE band 2 - High CH QPSK-1.4



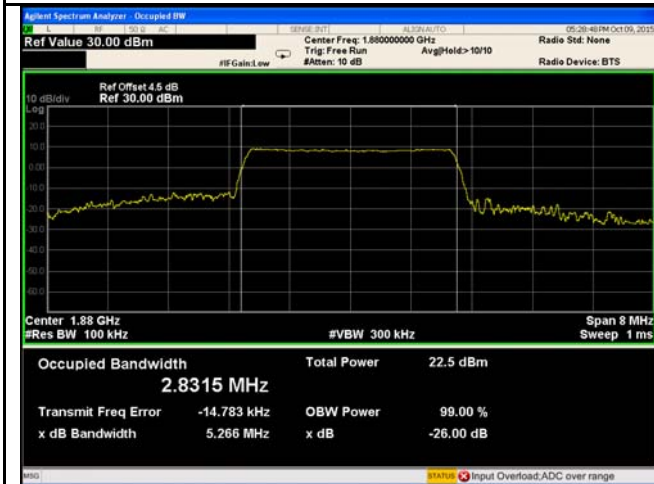
LTE band 2 - High CH 16QAM-1.4



LTE band 2 - Low CH QPSK-3



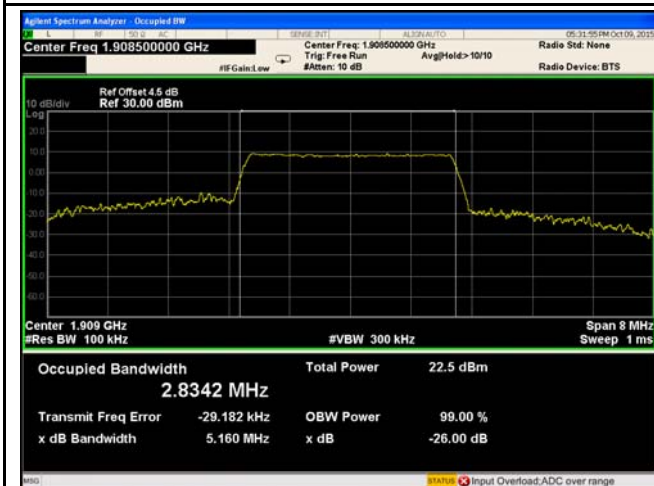
LTE band 2 - Low CH 16QAM-3



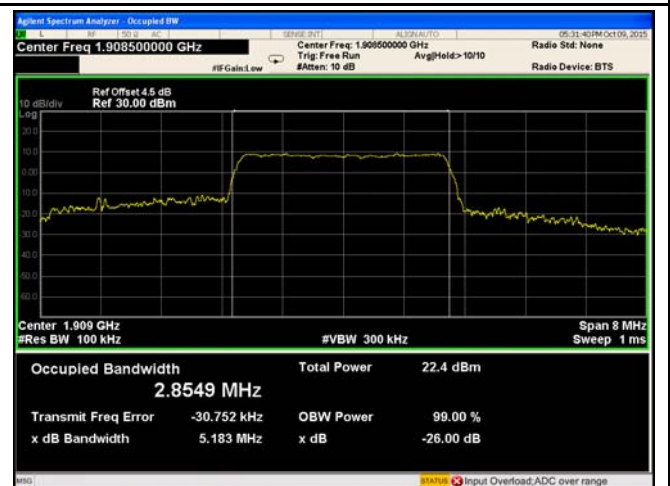
LTE band 2 - Middle CH QPSK-3



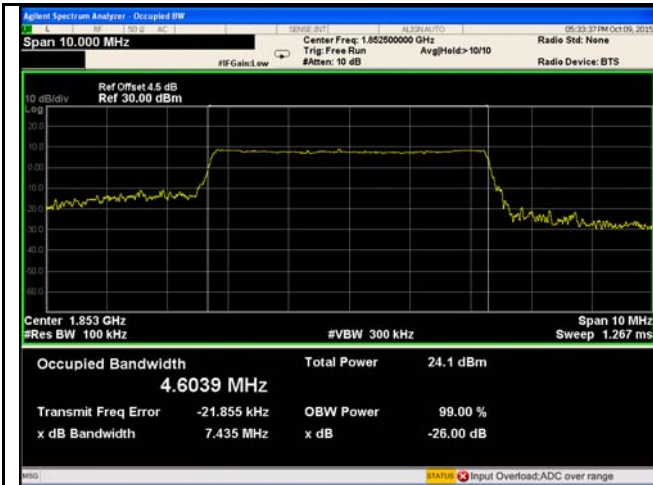
LTE band 2 - Middle CH 16QAM-3



LTE band 2 - High CH QPSK-3



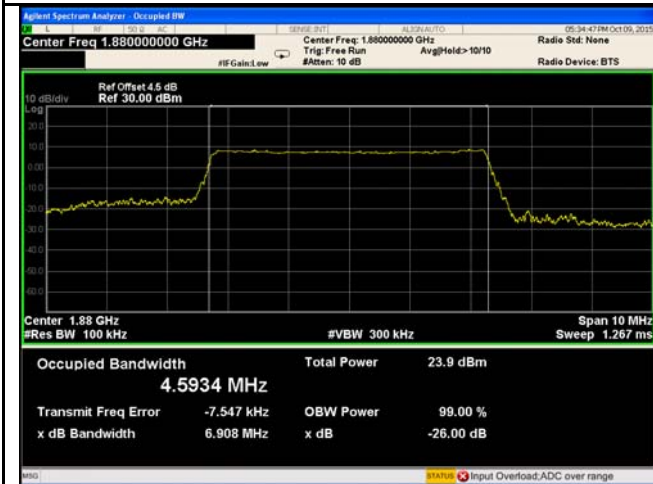
LTE band 2 - High CH 16QAM-3



LTE band 2 - Low CH QPSK-5



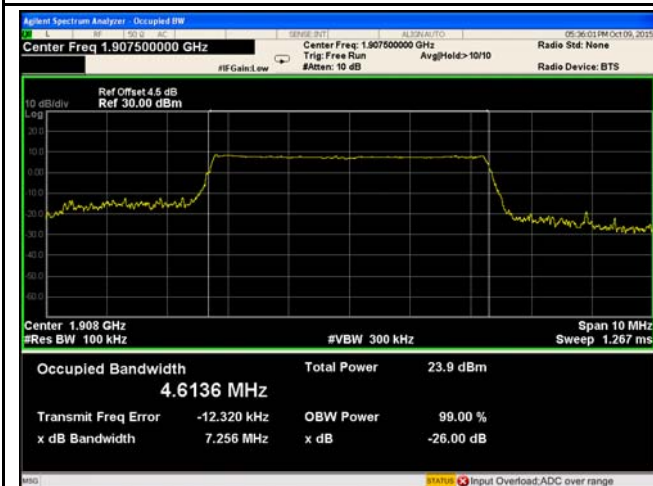
LTE band 2 - Low CH 16QAM-5



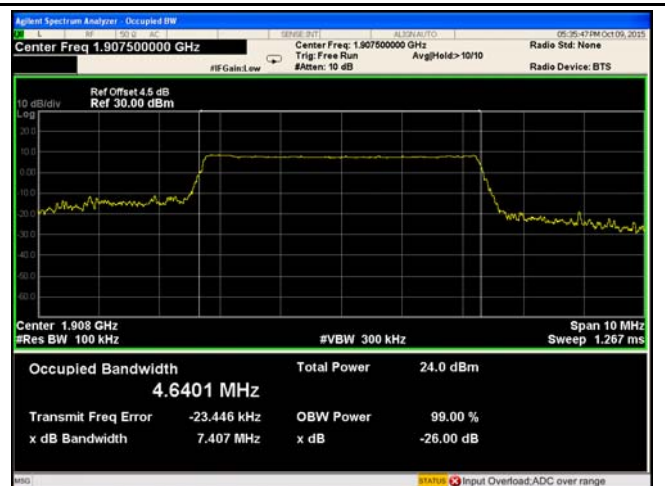
LTE band 2 - Middle CH QPSK-5



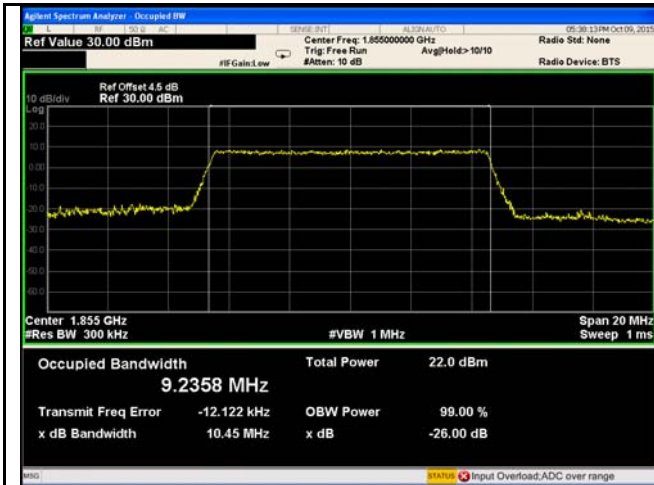
LTE band 2 - Middle CH 16QAM-5



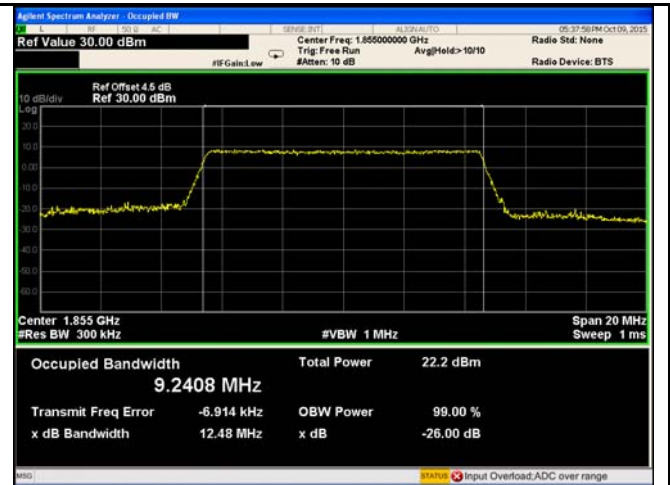
LTE band 2 - High CH QPSK-5



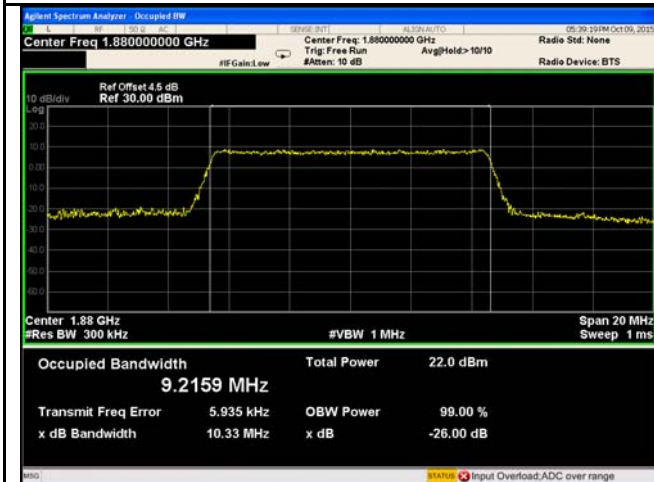
LTE band 2 - High CH 16QAM-5



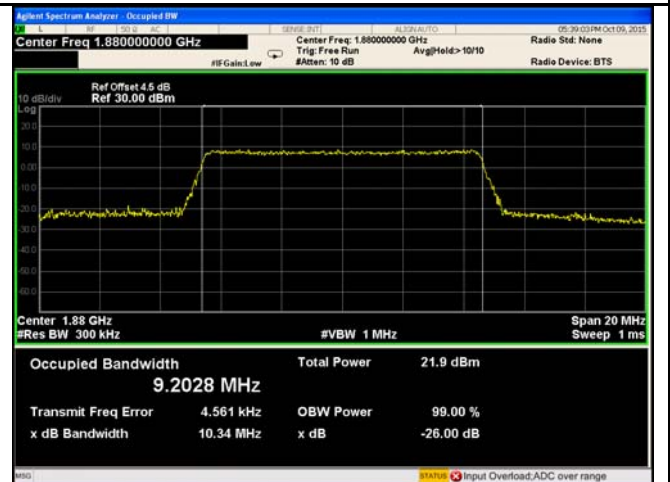
LTE band 2 - Low CH QPSK-10



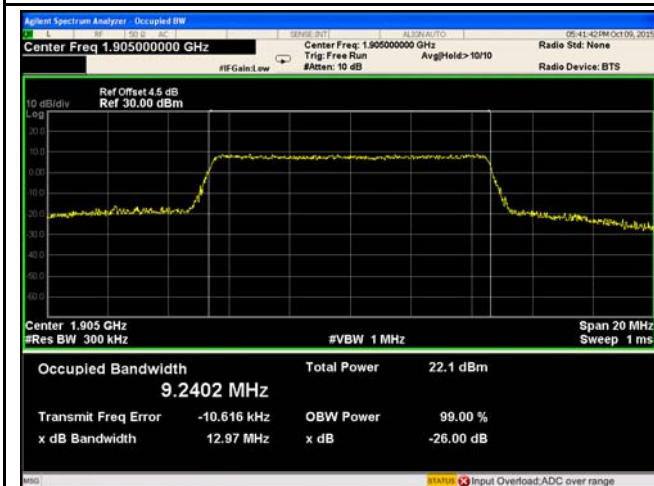
LTE band 2 - Low CH 16QAM-10



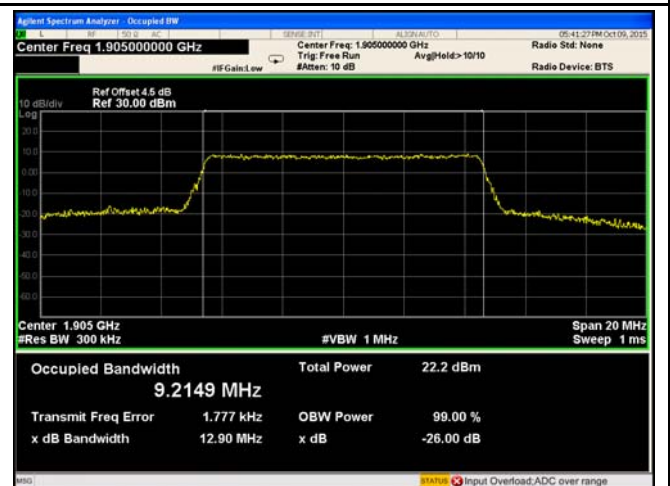
LTE band 2 - Middle CH QPSK-10



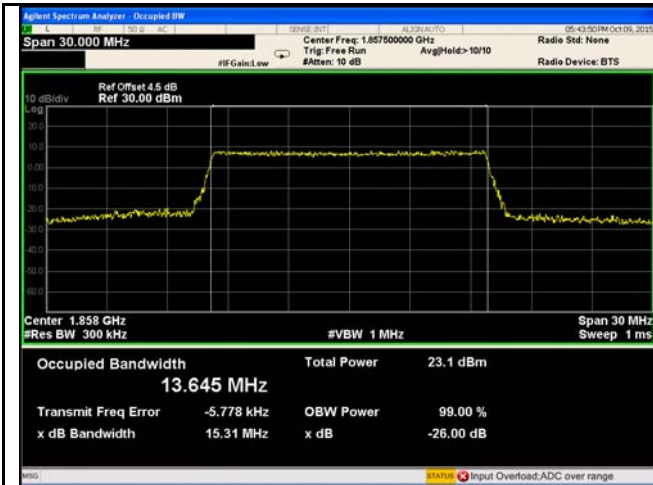
LTE band 2 - Middle CH 16QAM-10



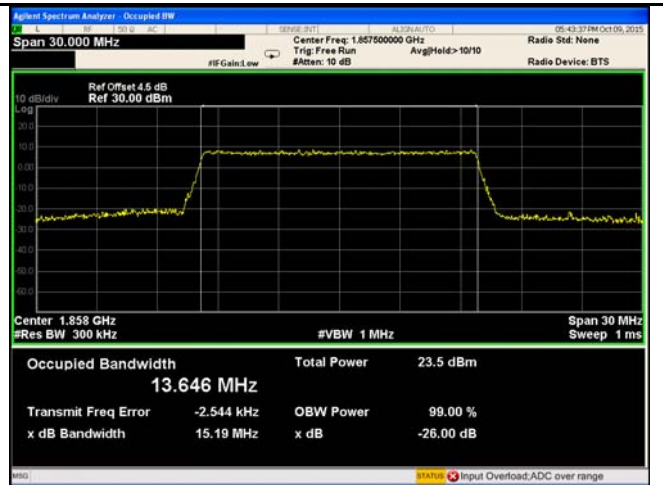
LTE band 2 - High CH QPSK-10



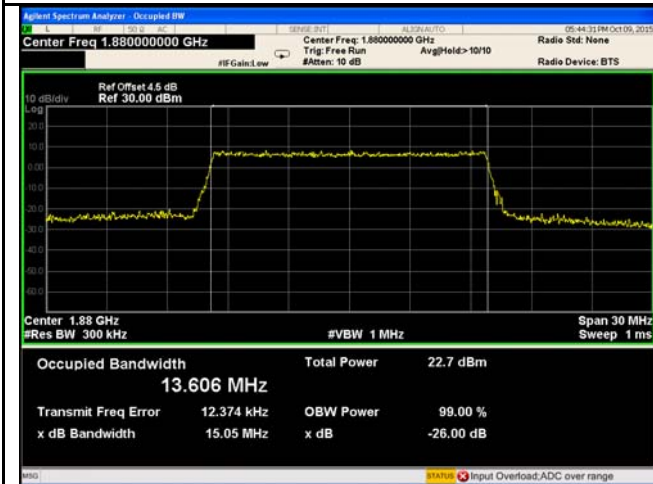
LTE band 2 - High CH 16QAM-10



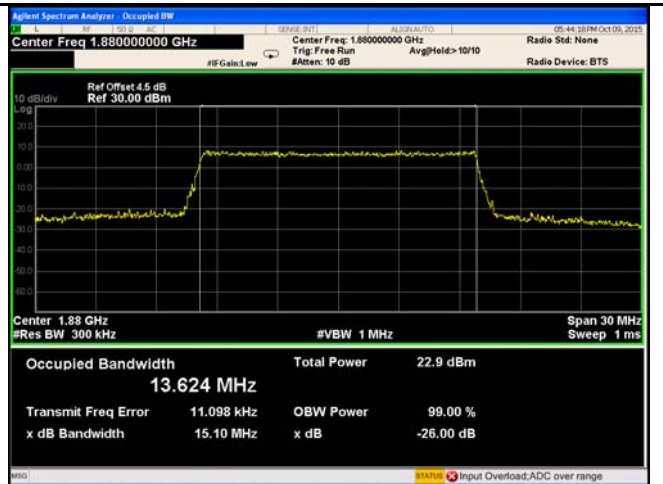
LTE band 2 - Low CH QPSK-15



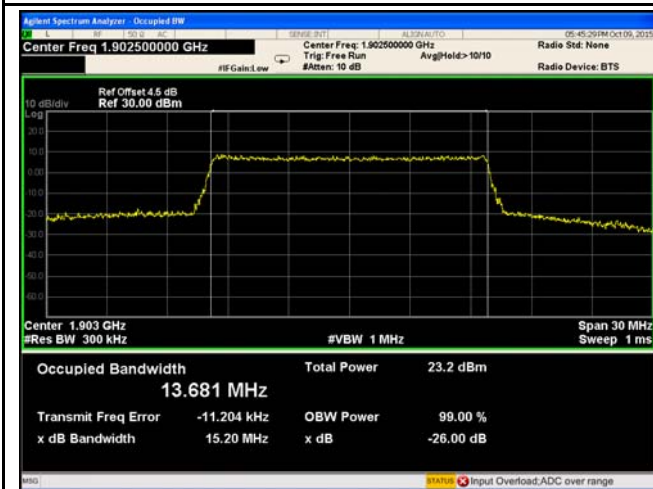
LTE band 2 - Low CH 16QAM-15



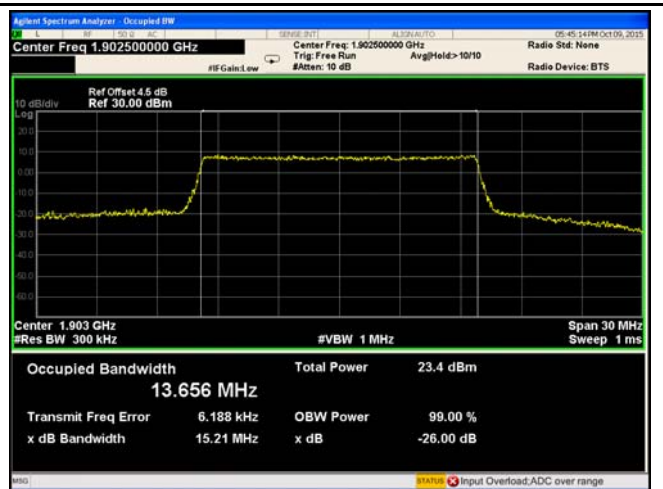
LTE band 2 - Middle CH QPSK-15



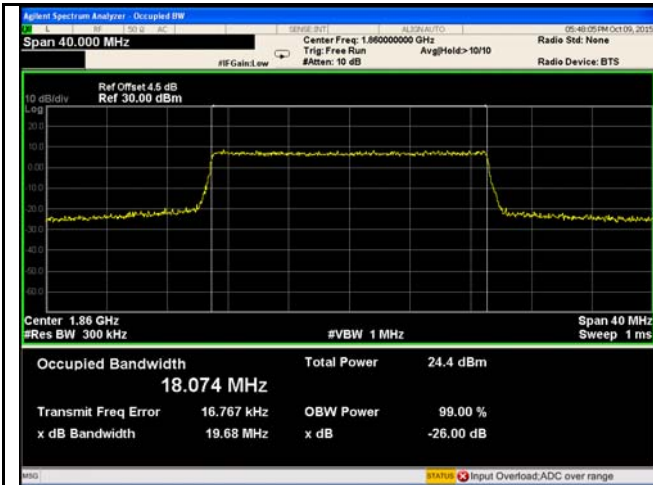
LTE band 2 - Middle CH 16QAM-15



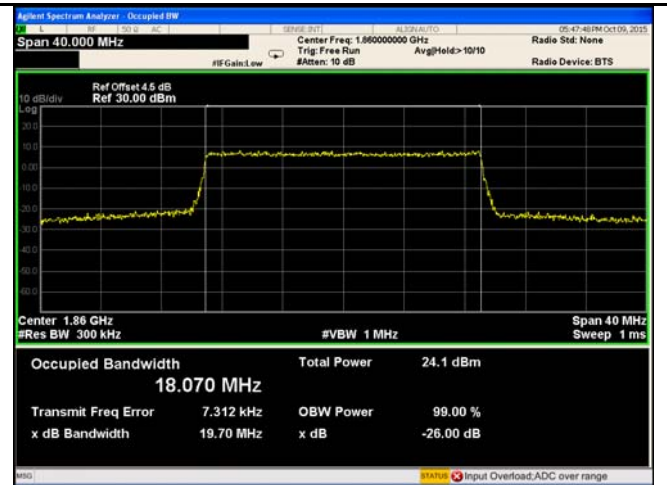
LTE band 2 - High CH QPSK-15



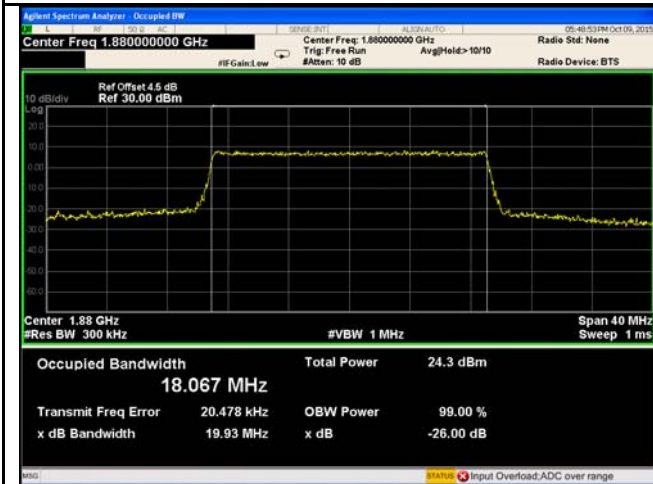
LTE band 2 - High CH 16QAM-15



LTE band 2 - Low CH QPSK-20



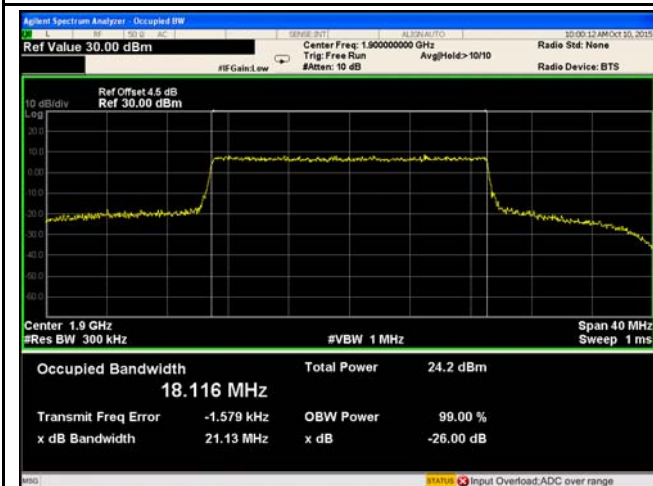
LTE band 2 - Low CH 16QAM-20



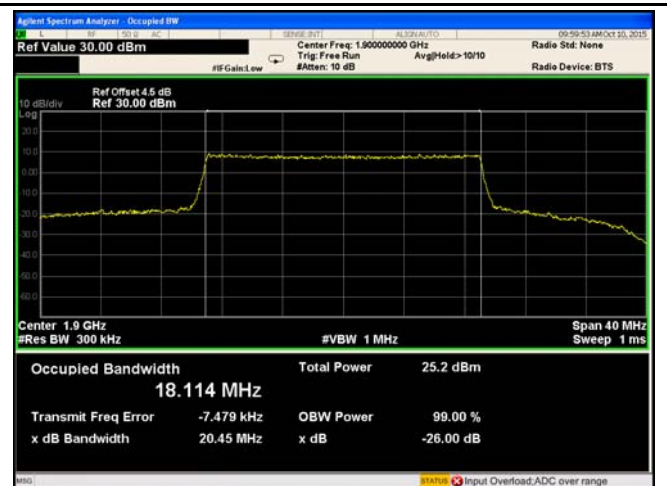
LTE band 2 - Middle CH QPSK-20



LTE band 2 - Middle CH 16QAM-20

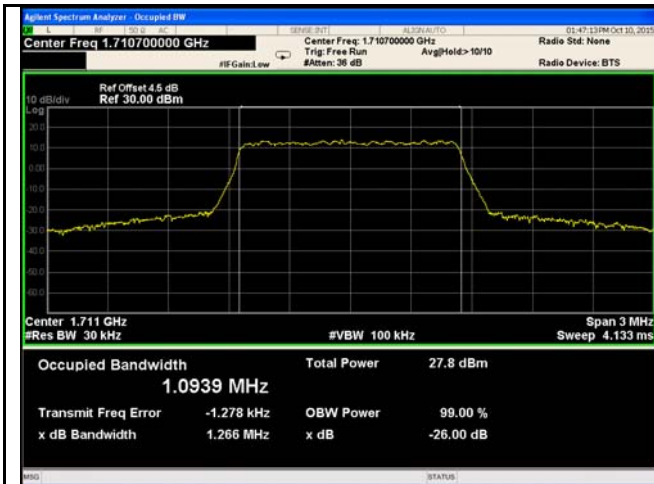


LTE band 2 - High CH QPSK-20



LTE band 2 - High CH 16QAM-20

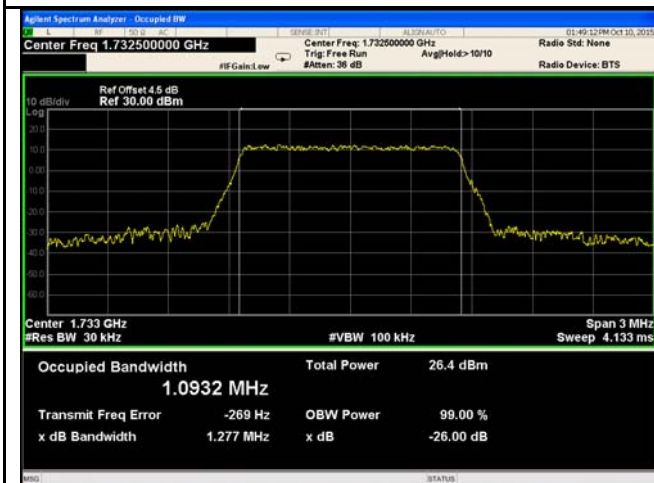
LTE Band 4 (Part 27)



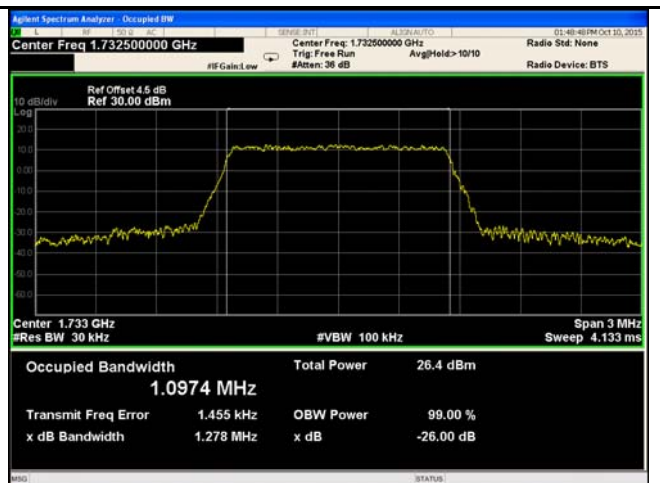
LTE band 4 - Low CH QPSK-1.4



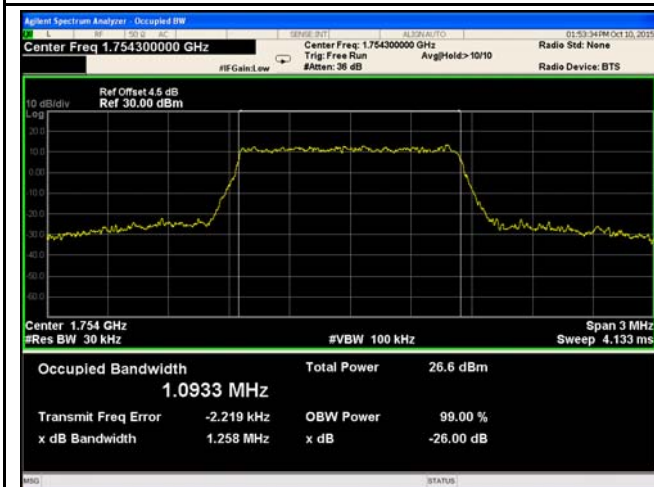
LTE band 4 - Low CH 16QAM-1.4



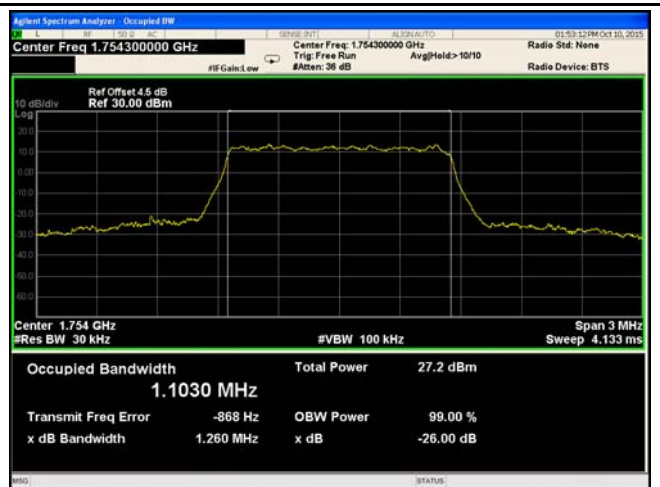
LTE band 4 - Middle CH QPSK-1.4



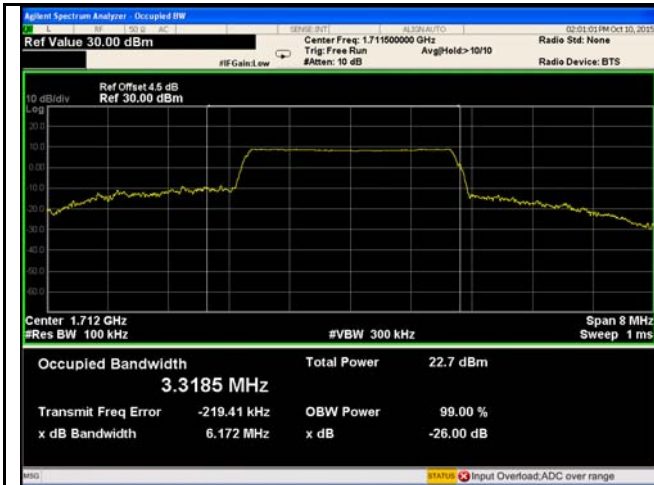
LTE band 4 - Middle CH 16QAM-1.4



LTE band 4 - High CH QPSK-1.4



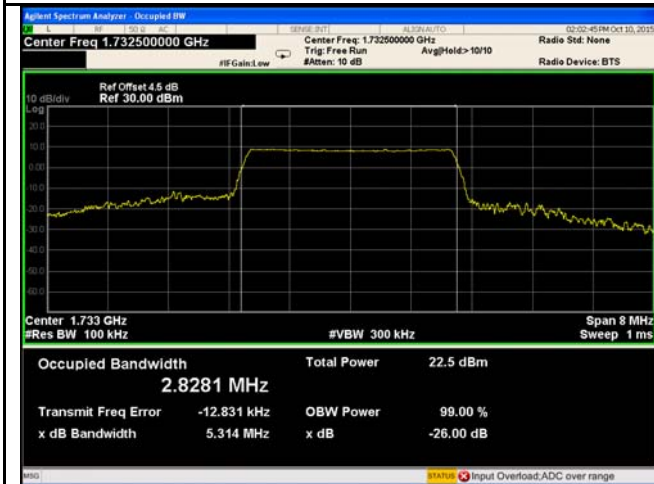
LTE band 4 - High CH 16QAM-1.4



LTE band 4 - Low CH QPSK-3



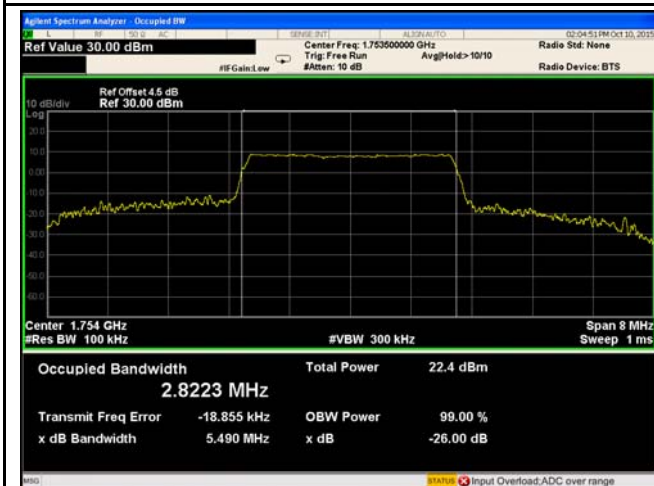
LTE band 4 - Low CH 16QAM-3



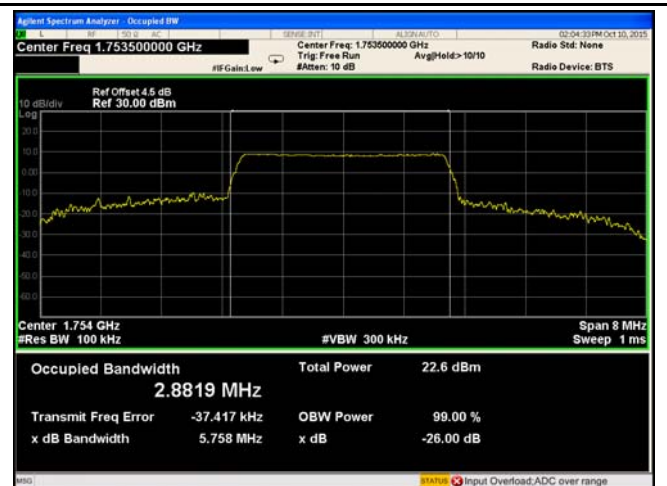
LTE band 4 - Middle CH QPSK-3



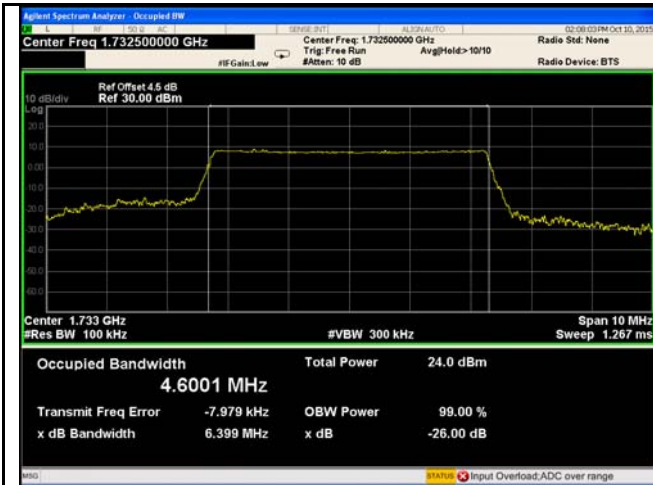
LTE band 4 - Middle CH 16QAM-3



LTE band 4 - High CH QPSK-3



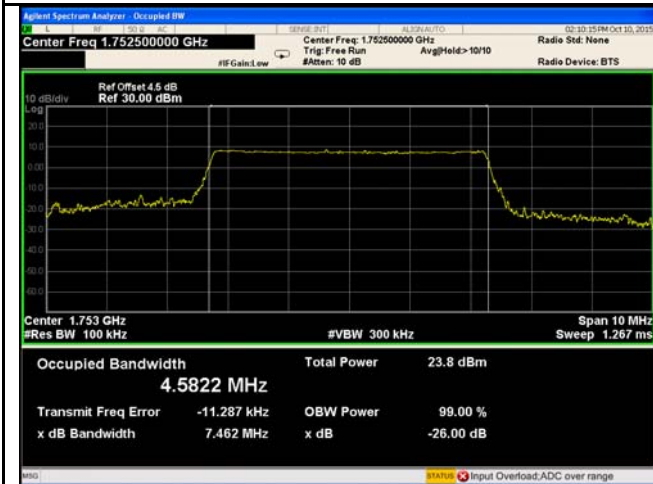
LTE band 4 - High CH 16QAM-3



LTE band 4 - Low CH QPSK-5



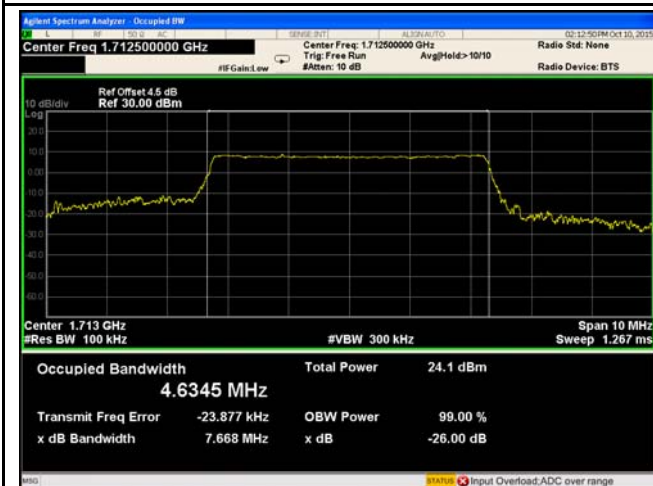
LTE band 4 - Low CH 16QAM-5



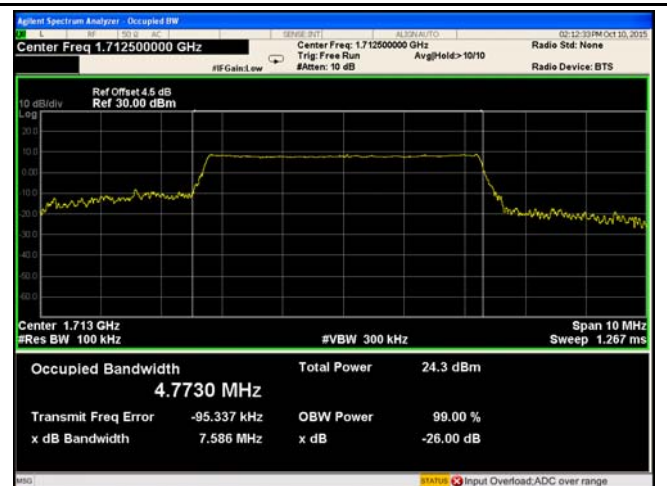
LTE band 4 - Middle CH QPSK-5



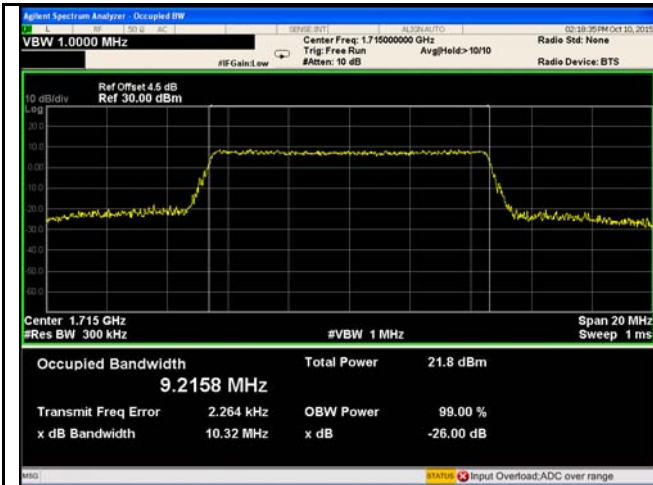
LTE band 4 - Middle CH 16QAM-5



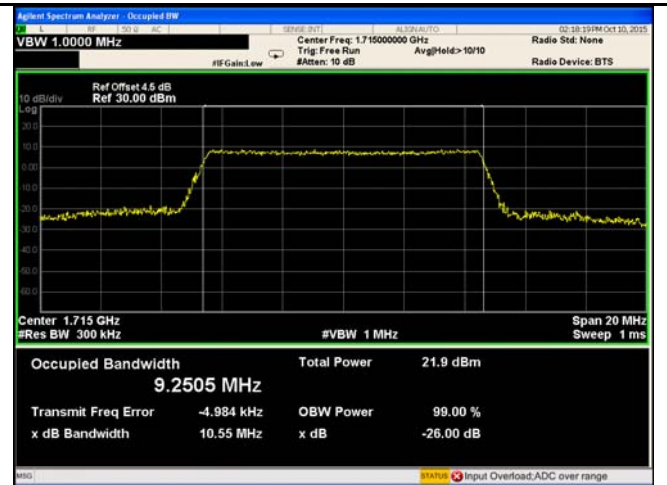
LTE band 4 - High CH QPSK-5



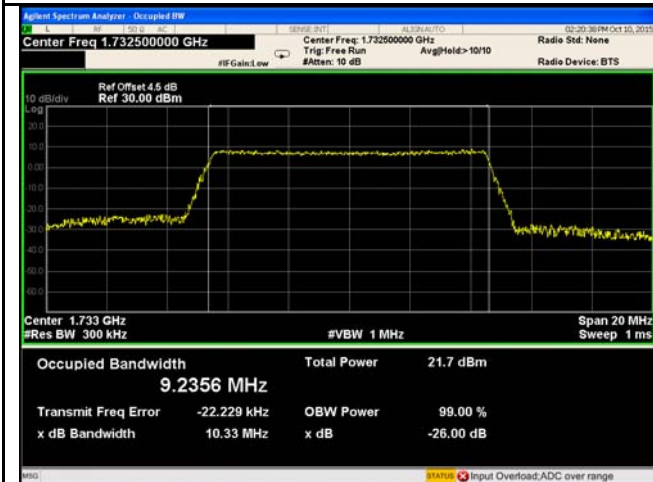
LTE band 4 - High CH 16QAM-5



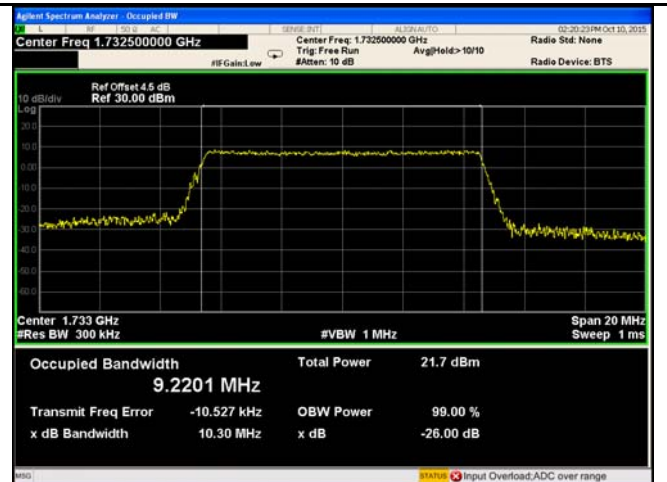
LTE band 4 - Low CH QPSK-10



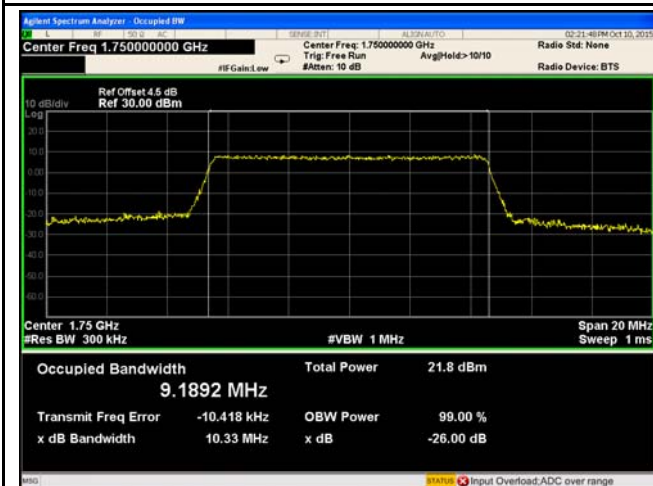
LTE band 4 - Low CH 16QAM-10



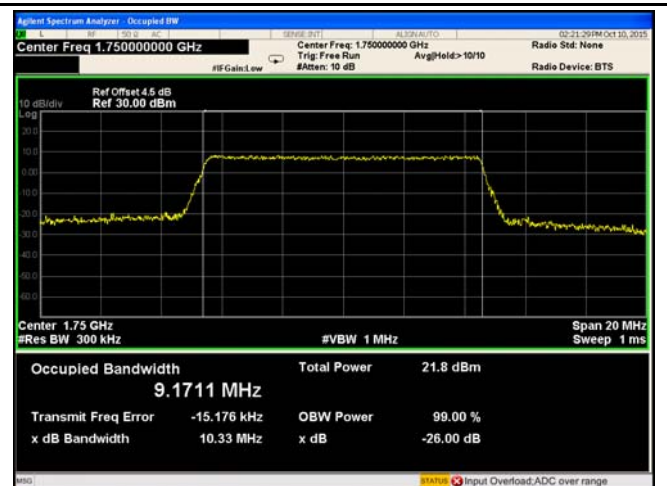
LTE band 4 - Middle CH QPSK-10



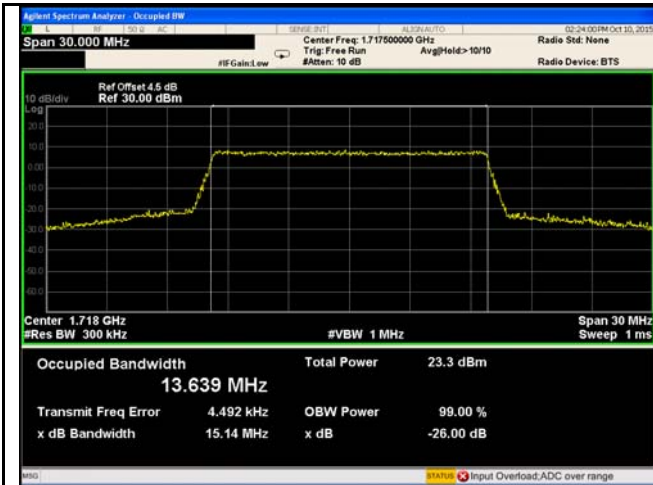
LTE band 4 - Middle CH 16QAM-10



LTE band 4 - High CH QPSK-10



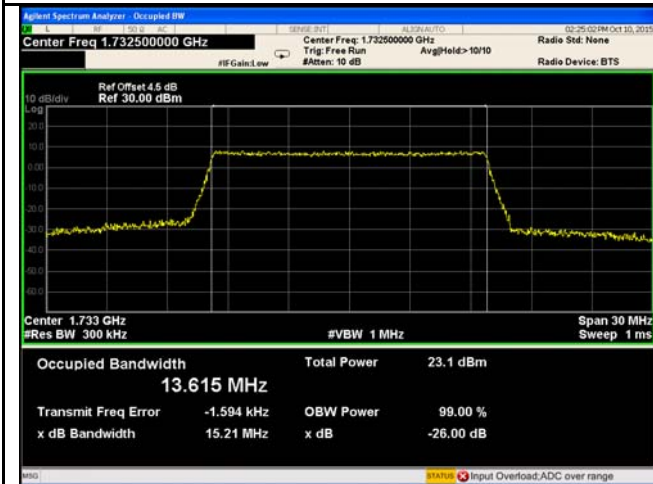
LTE band 4 - High CH 16QAM-10



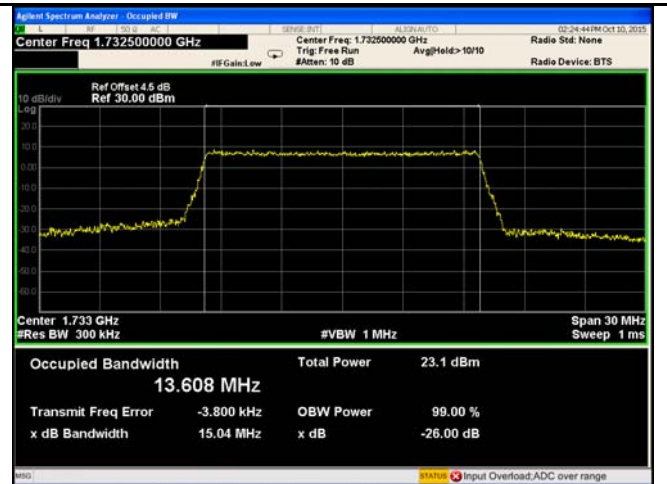
LTE band 4 - Low CH QPSK-15



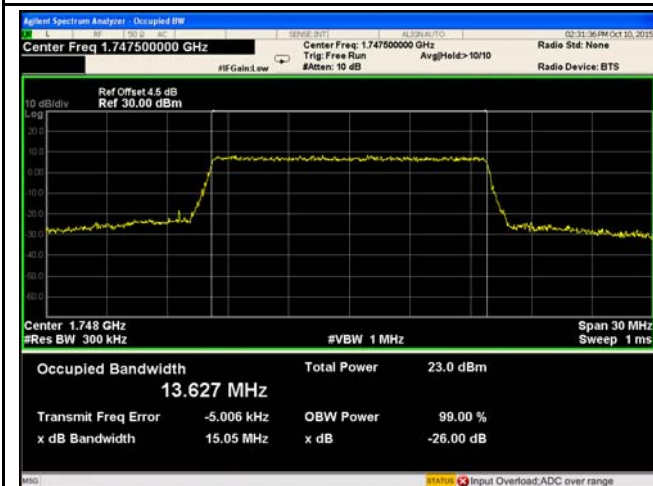
LTE band 4 - Low CH 16QAM-15



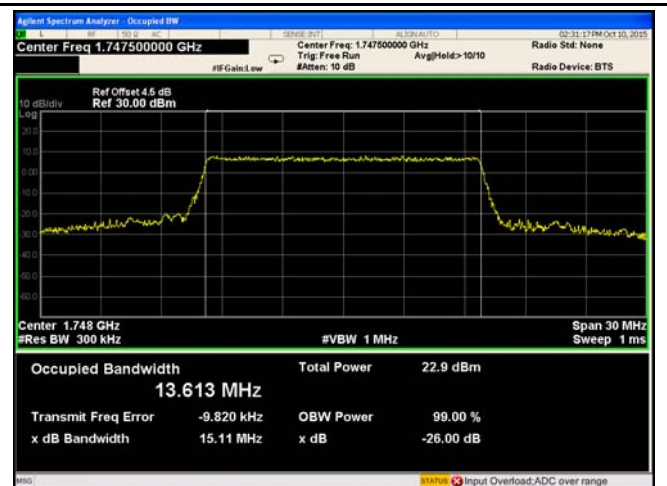
LTE band 4 - Middle CH QPSK-15



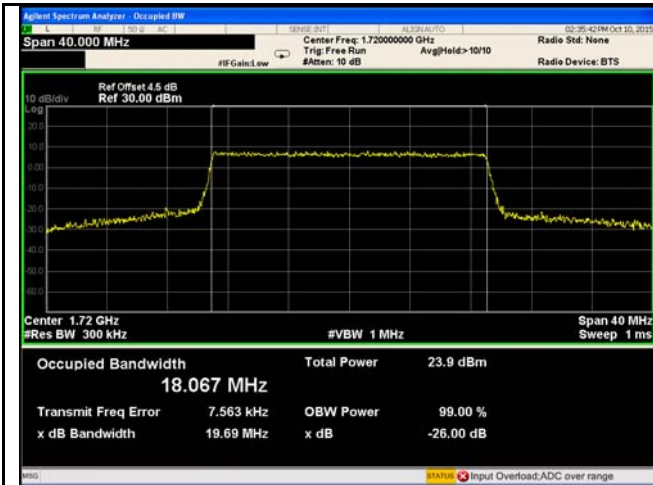
LTE band 4 - Middle CH 16QAM-15



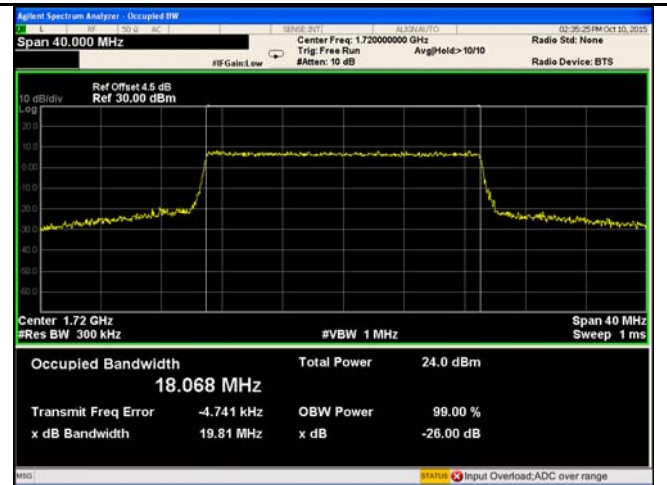
LTE band 4 - High CH QPSK-15



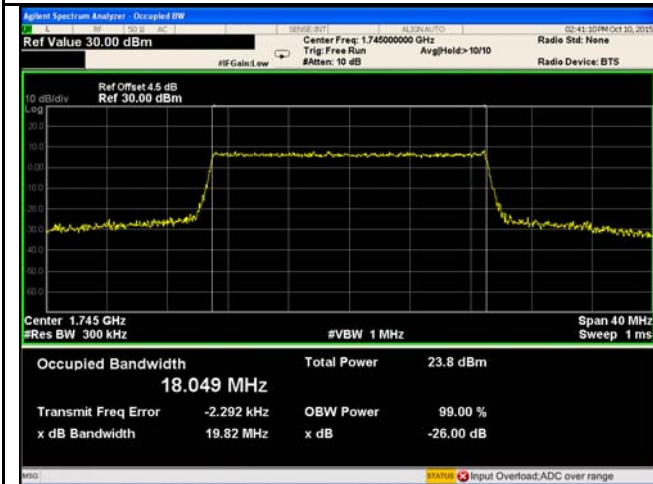
LTE band 4 - High CH 16QAM-15



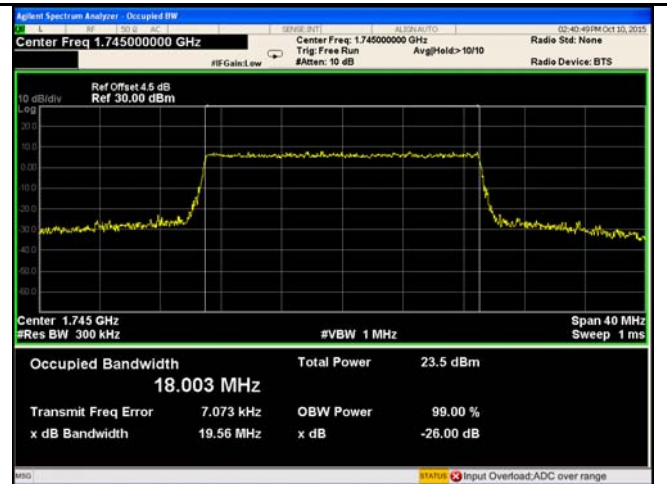
LTE band 4 - Low CH QPSK-20



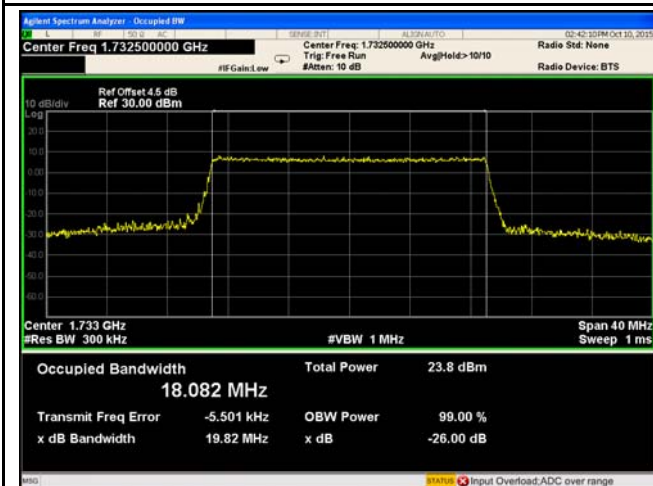
LTE band 4 - Low CH 16QAM-20



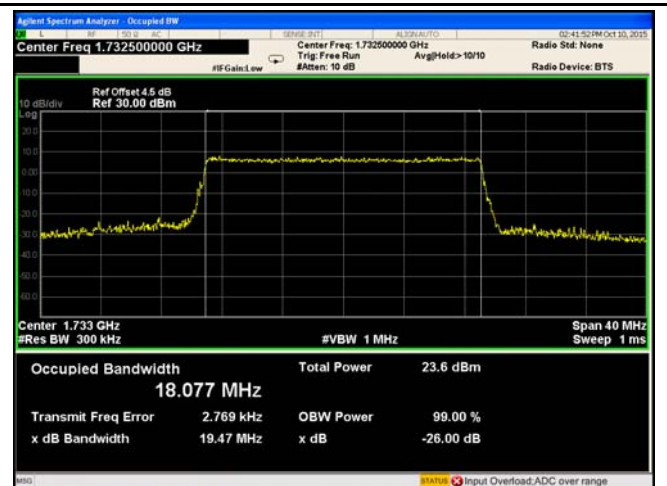
LTE band 4 - Middle CH QPSK-20



LTE band 4 - Middle CH 16QAM-20

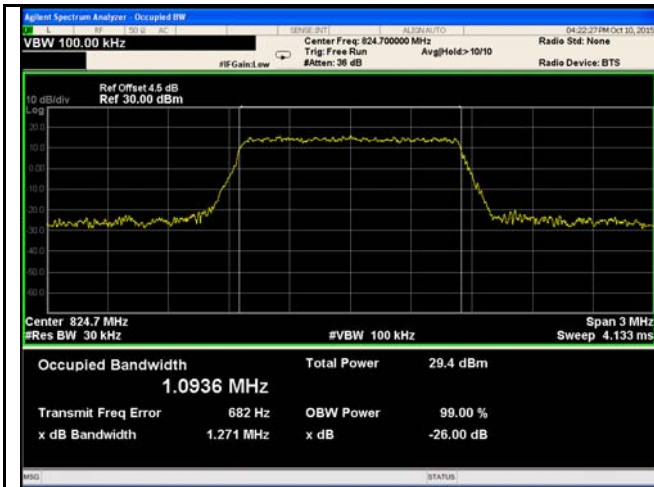


LTE band 4 - High CH QPSK-20

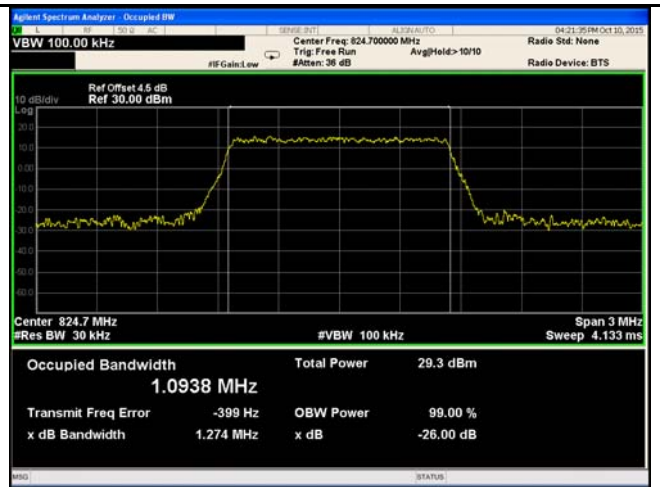


LTE band 4 - High CH 16QAM-20

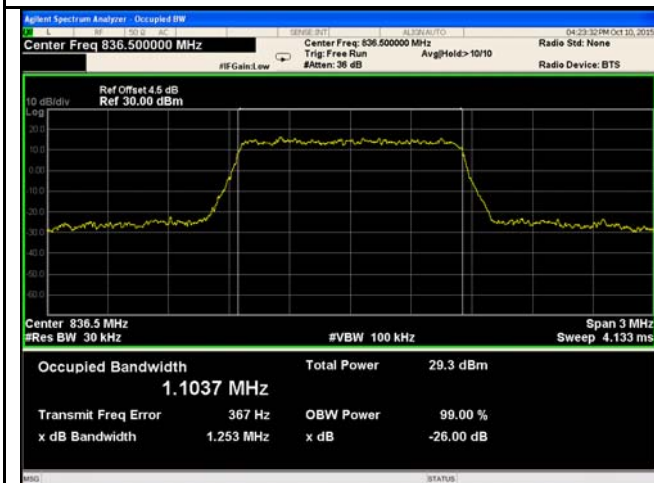
LTE Band 5 (Part 22H)



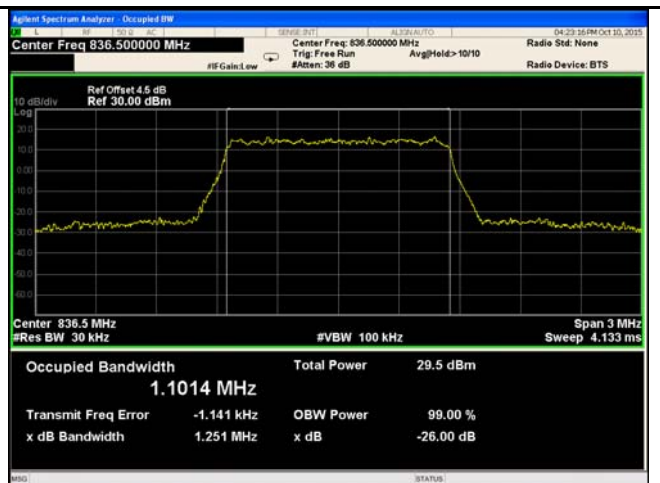
LTE band 5 - Low CH QPSK-1.4



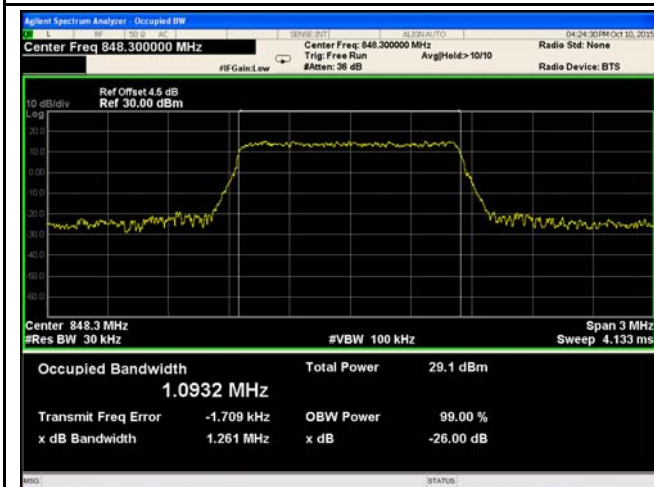
LTE band 5 - Low CH 16QAM-1.4



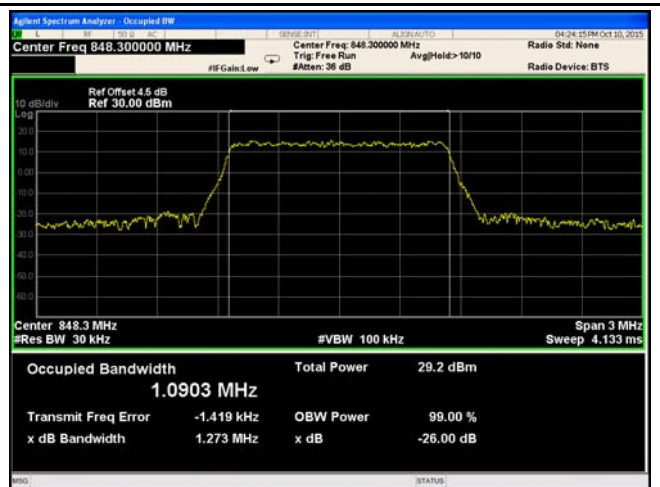
LTE band 5 - Middle CH QPSK-1.4



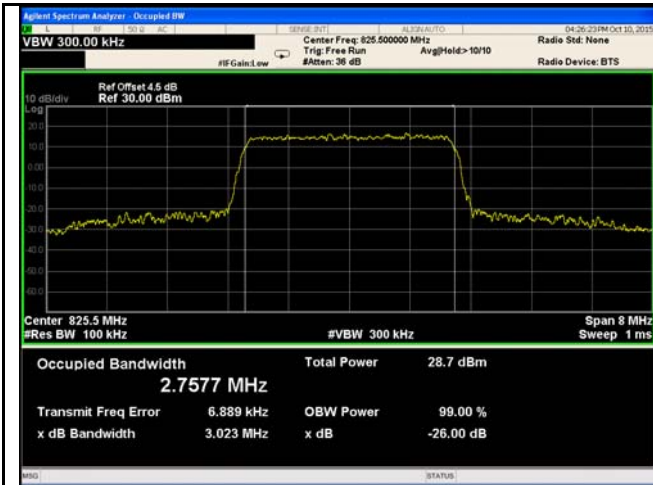
LTE band 5 - Middle CH 16QAM-1.4



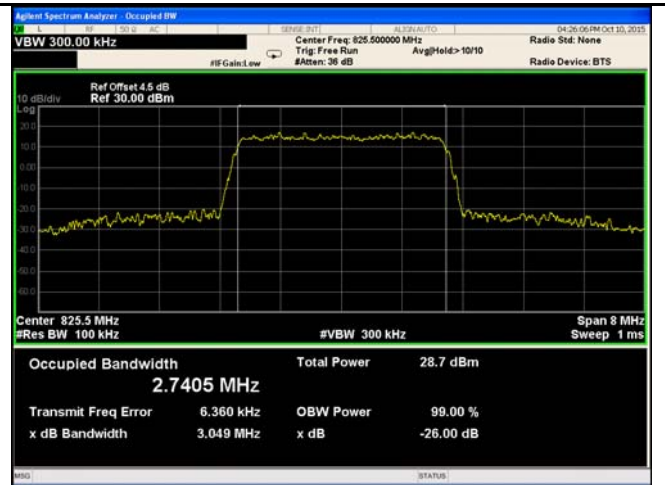
LTE band 5 - High CH QPSK-1.4



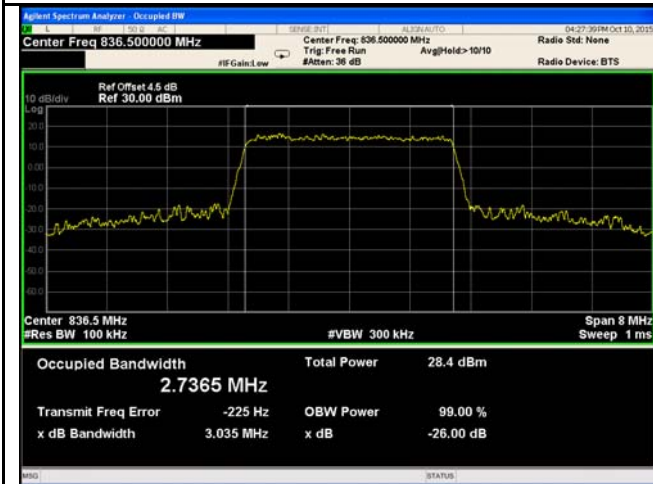
LTE band 5 - High CH 16QAM-1.4



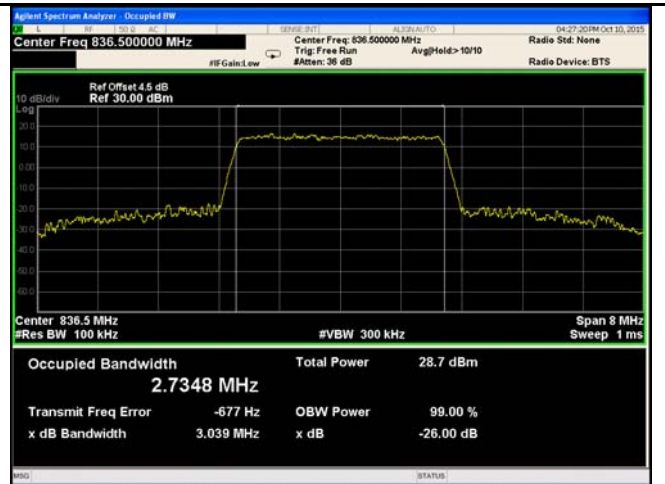
LTE band 5 - Low CH QPSK-3



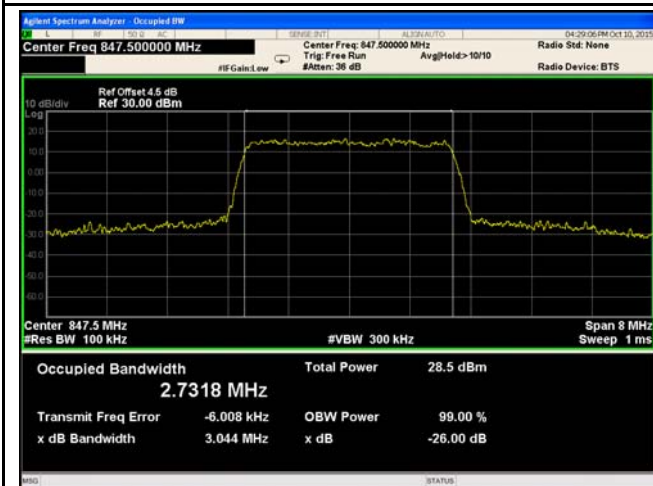
LTE band 5 - Low CH 16QAM-3



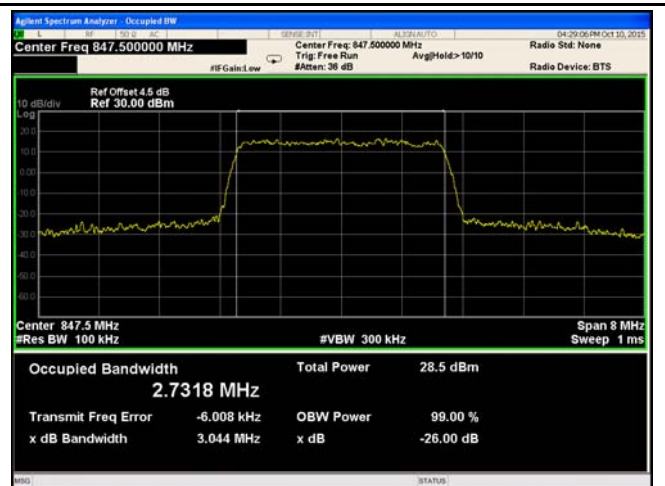
LTE band 5 - Middle CH QPSK-3



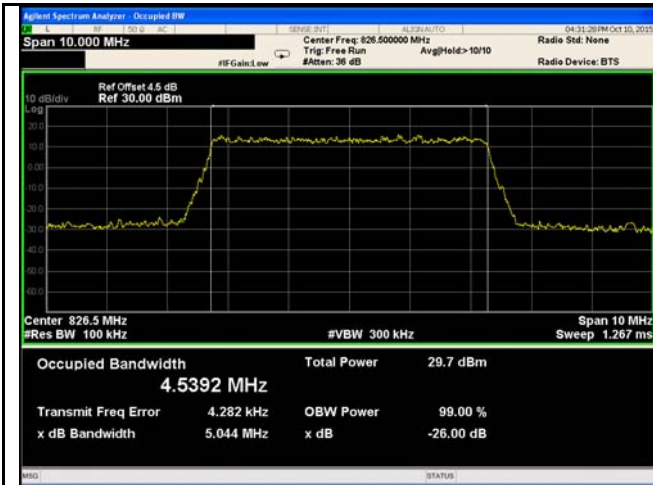
LTE band 5 - Middle CH 16QAM-3



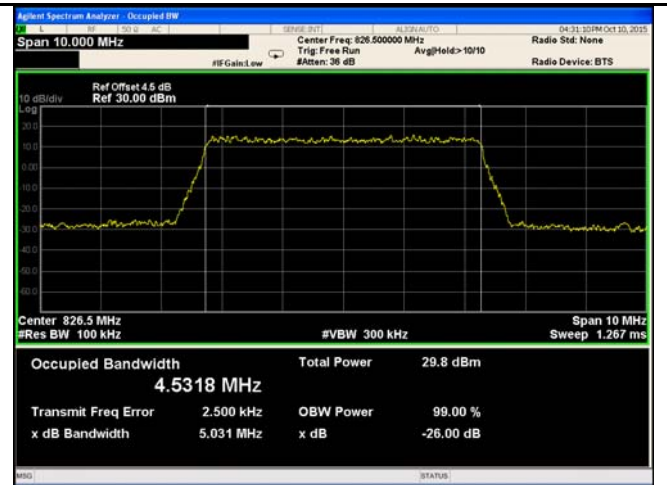
LTE band 5 - High CH QPSK-3



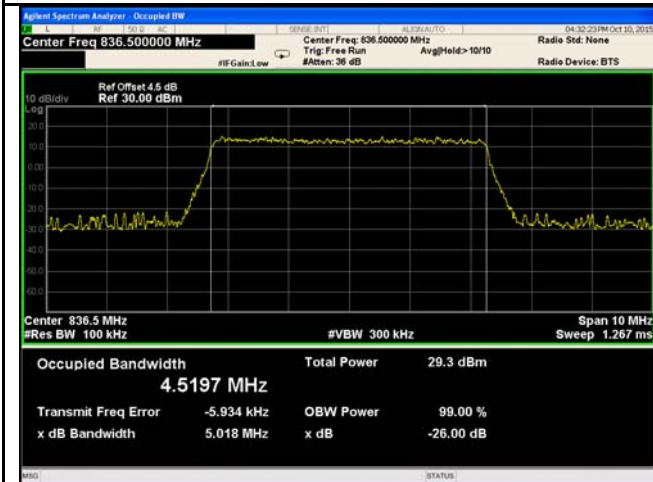
LTE band 5 - High CH 16QAM-3



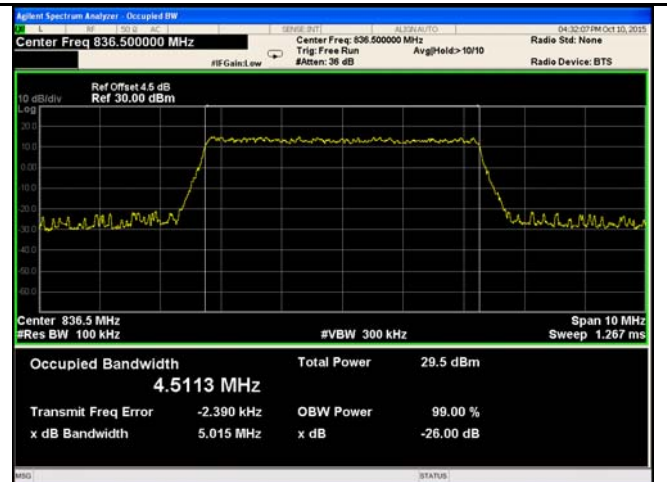
LTE band 5 - Low CH QPSK-5



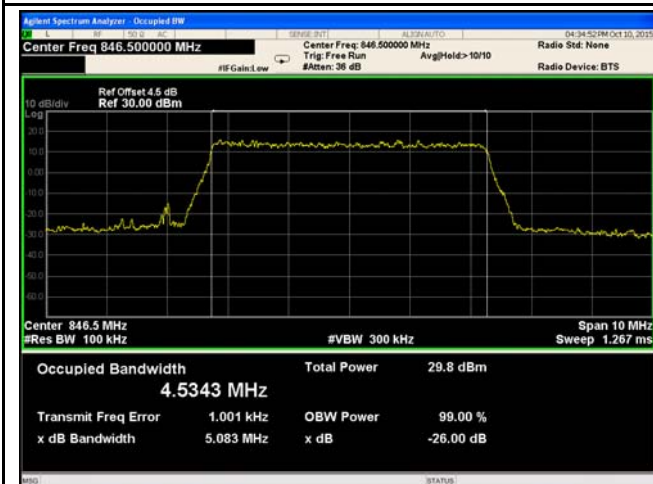
LTE band 5 - Low CH 16QAM-5



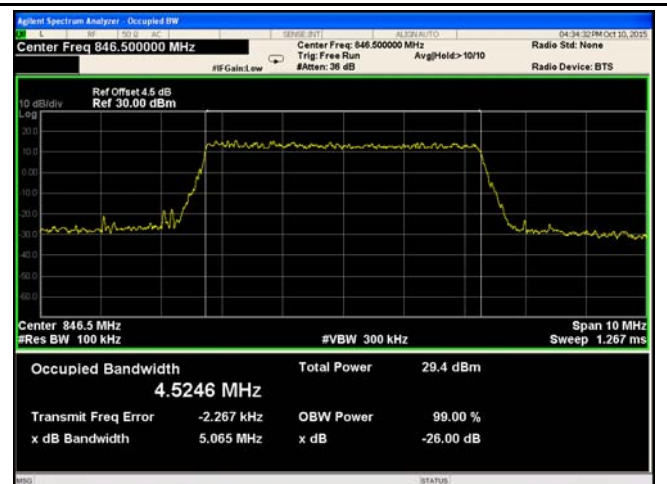
LTE band 5 - Middle CH QPSK-5



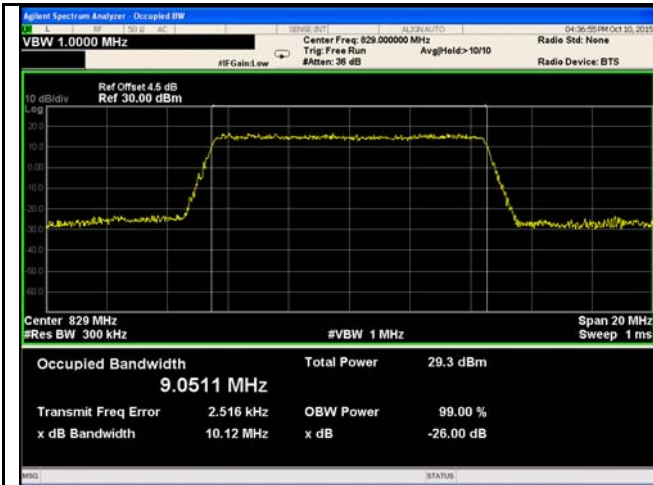
LTE band 5 - Middle CH 16QAM-5



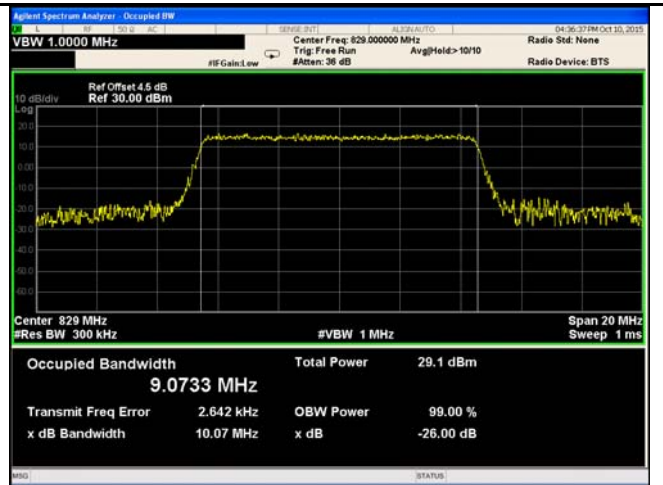
LTE band 5 - High CH QPSK-5



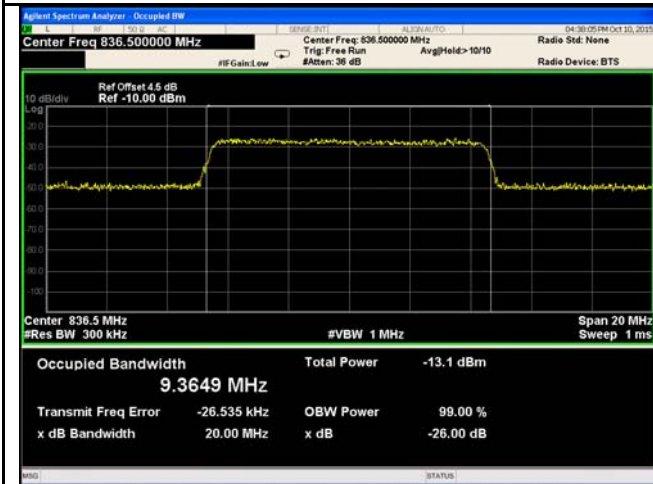
LTE band 5 - High CH 16QAM-5



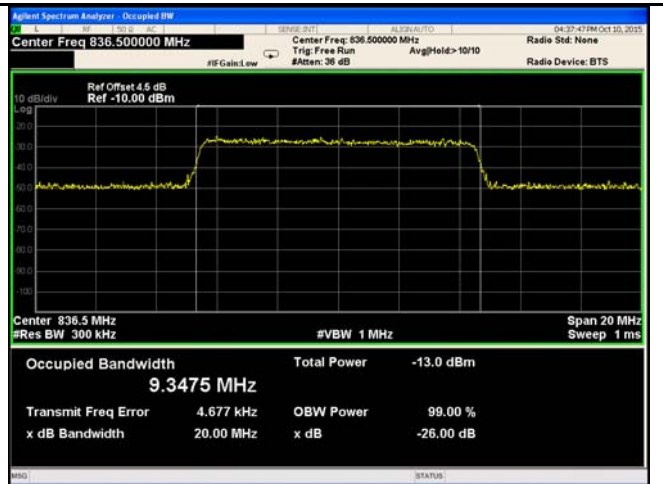
LTE band 5 - Low CH QPSK-10



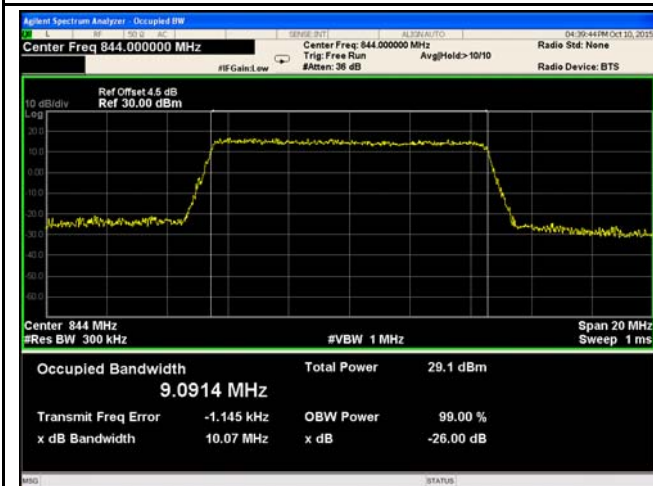
LTE band 5 - Low CH 16QAM-10



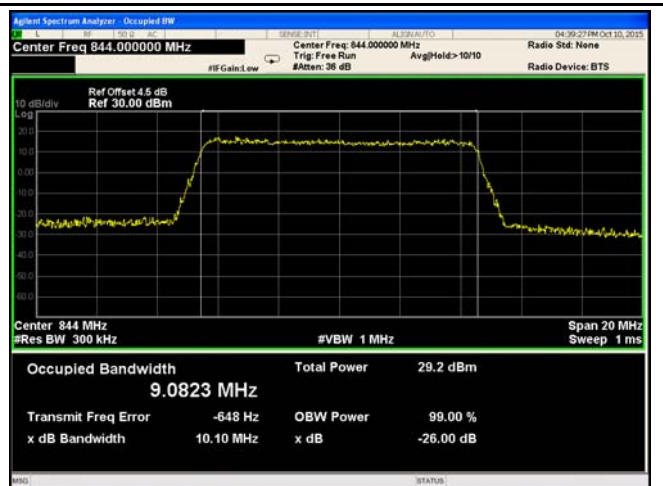
LTE band 5 - Middle CH QPSK-10



LTE band 5 - Middle CH 16QAM-10

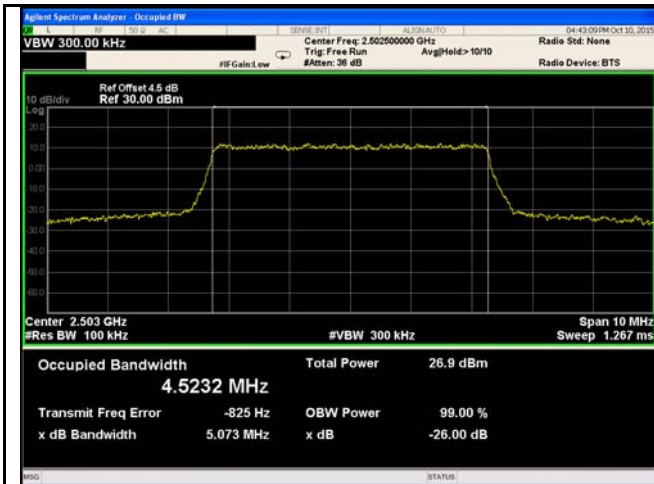


LTE band 5 - High CH QPSK-10

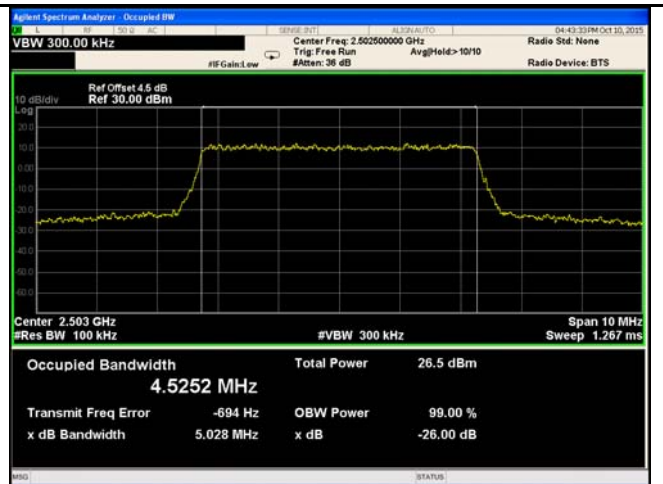


LTE band 5 - High CH 16QAM-10

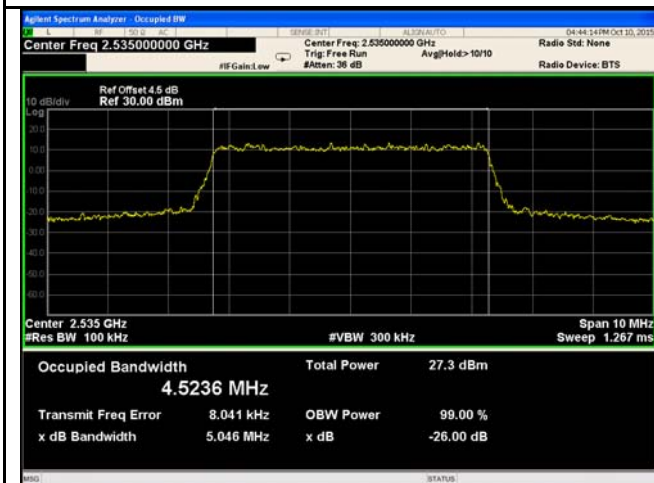
LTE Band 7 (Part 27)



LTE band 7 - Low CH QPSK-5



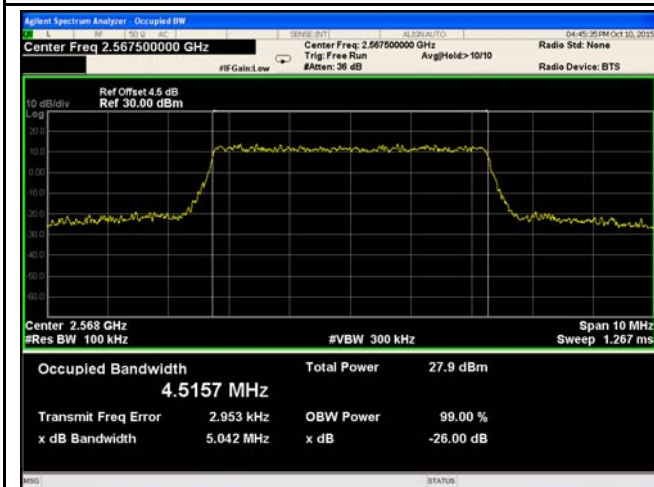
LTE band 7 - Low CH 16QAM-5



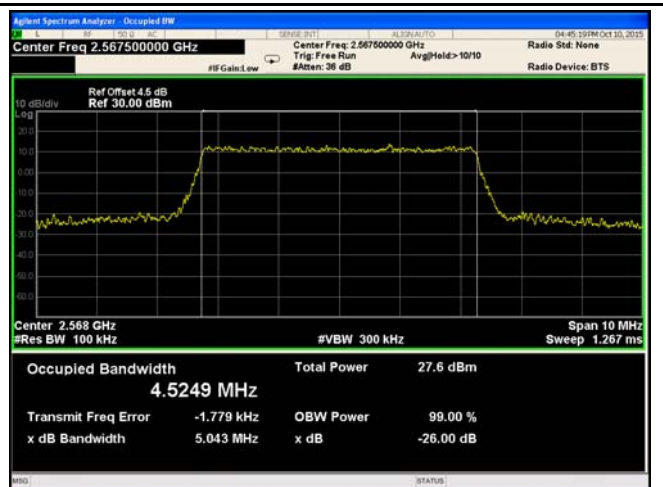
LTE band 7 - Middle CH QPSK-5



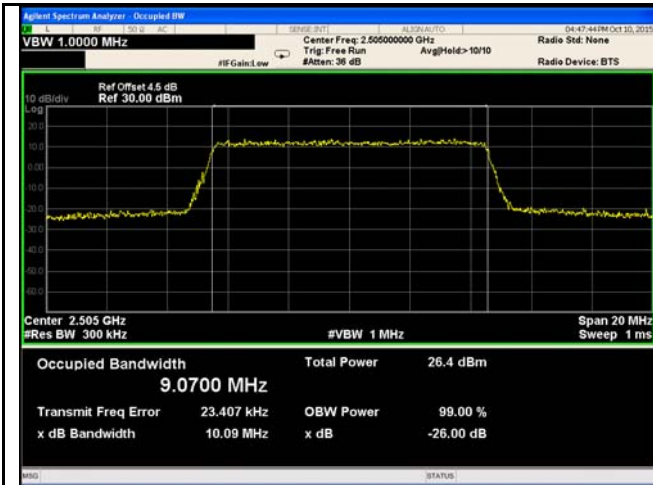
LTE band 7 - Middle CH 16QAM-5



LTE band 7 - High CH QPSK-5



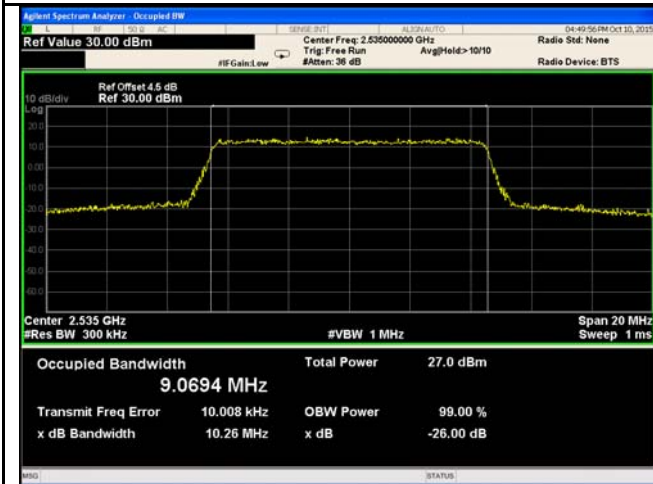
LTE band 7 - High CH 16QAM-5



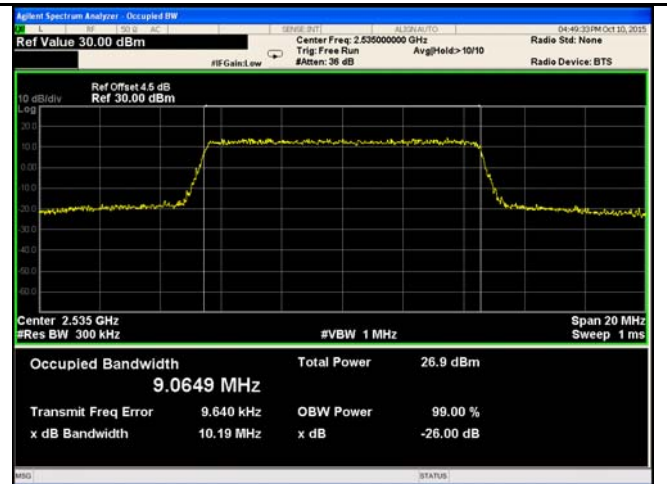
LTE band 7 - Low CH QPSK-10



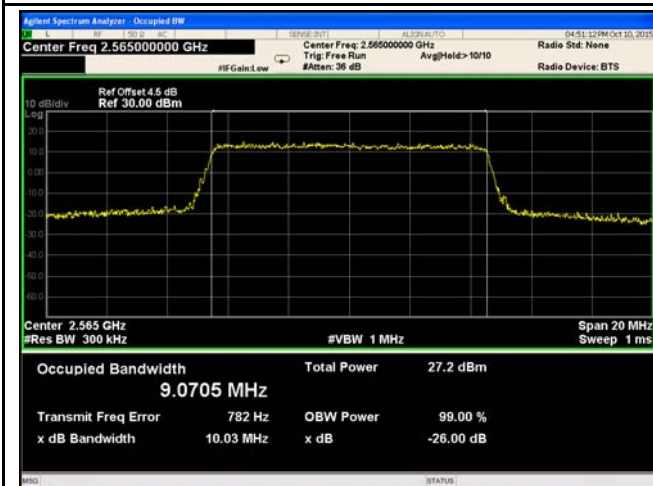
LTE band 7 - Low CH 16QAM-10



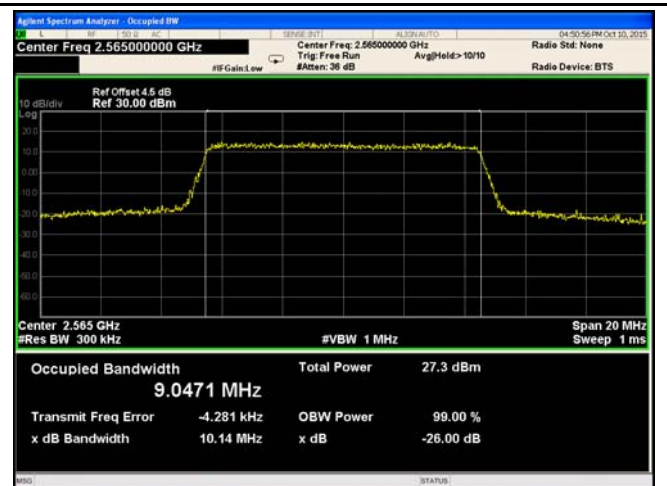
LTE band 7 - Middle CH QPSK-10



LTE band 7 - Middle CH 16QAM-10



LTE band 7 - High CH QPSK-10



LTE band 7 - High CH 16QAM-10