

# RF TEST REPORT



Report No.: 17070102-FCC-R5

Supersede Report No.: N/A

Applicant	Verykool USA Inc	
Product Name	Mobile Phone	
Model No.	SL5565	
Serial No.	N/A	
Test Standard	FCC Part 22(H):2015, FCC Part 24(E):2015, FCC Part 27: 2015; ANSI/TIA-603-D: 2010	
Test Date	May 06 to June 15, 2017	
Issue Date	June 16, 2017	
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"/>	
		
Vera Zhang Test Engineer	David Huang Checked By	
This test report may be reproduced in full only 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
17070102-FCC-R5	NONE	Original	June 16, 2017

## 2. Customer information

Applicant Name	Verykool USA Inc
Applicant Add	3636 Nobel Drive, Suite 325, San Diego, California 92122 United States
Manufacturer	TEM MOBILE LIMITED
Manufacturer Add	Room 1102, 11/F, Building B, TCL Plaza, GaoXin S. Rd. 1st, Hi-Tech industrial Park, 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:	SL5565
Serial Model:	N/A
Date EUT received:	May 05, 2017
Test Date(s):	May 06 to June 15, 2017
Equipment Category :	PCE
Antenna Gain:	GSM850: -2.1dBi PCS1900: -1.2dBi UMTS-FDD Band V: -2.1dBi UMTS-FDD Band IV: -2.2dBi UMTS-FDD Band II: -1.2dBi LTE Band II: -1.2dBi LTE Band IV: -2.2dBi LTE Band V: -2.1dBi LTE Band VII: 0.2dBi LTE Band XII: -1.7dBi LTE Band XVII: -1.8dBi Bluetooth/BLE: -0.4dBi WIFI: -0.4dBi GPS: -1.02dBi
Antenna Type:	PIFA antenna
Type of Modulation:	GSM / GPRS: GMSK EGPRS: GMSK, 8PSK UMTS-FDD: QPSK LTE Band: QPSK, 16QAM 802.11b/g/n: DSSS, OFDM Bluetooth: GFSK, $\pi$ /4DQPSK, 8DPSK BLE: GFSK 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;
	RX : 2112.4 ~ 2152.6 MHz
	UMTS-FDD Band II TX:1852.4 ~ 1907.6 MHz;
	RX: 1932.4 ~ 1987.6 MHz
	LTE Band II TX: 1850.7 ~ 1909.3MHz; RX : 1930.7 ~ 1989.3 MHz
RF Operating Frequency (ies):	LTE Band IV TX: 1710.7 ~ 1754.3 MHz; RX : 2110.7~ 2154.3 MHz
	LTE Band V TX: 824.7~ 848.3 MHz; RX : 869.7 ~ 893.3MHz
	LTE Band VII TX: 2502.5 ~ 2567.5 MHz; RX : 2622.5 ~ 2687.5 MHz
	LTE Band XII TX:699.7 ~ 715.3 MHz; RX : 729.7~ 745.3MHz
	LTE Band XVII TX: 706.5 ~ 713.5 MHz; RX : 736.5 ~ 743.5 MHz
	WIFI: 802.11b/g/n(20M): 2412-2462 MHz
	WIFI: 802.11n(40M): 2422-2452 MHz
	Bluetooth& BLE: 2402-2480 MHz
	GPS: 1575.42 MHz
	LTE Band I: 23.57 dBm
	LTE Band IV: 23.19 dBm
Maximum Conducted	LTE Band V: 22.79 dBm
AV Power to Antenna:	LTE Band VII: 23.02 dBm
	LTE Band XII: 23.90 dBm
	LTE Band XVII: 22.50 dBm
	LTE Band II: 22.38 dBm / EIRP
	LTE Band IV: 20.98 dBm / EIRP
ERP/EIRP:	LTE Band V: 18.51 dBm / EIRP
	LTE Band VII: 23.20 dBm / EIRP
	LTE Band XII: 20.07 dBm / EIRP
	LTE Band XVII: 18.54 dBm / ERP
Port:	USB Port, Earphone Port

Input Power: Adapter:  
Model: TPA-46B050100UU  
Input: AC100-240V~50/60Hz,0.2A  
Output: DC 5.0V,1000mA  
Battery:  
Spec: 3.8V,2800mAh(10.64wh)

Trade Name : verykool

FCC ID: WA6SL5565



## 5. Test Summary

The product was tested in accordance with the following specifications.

All testing has been performed according to below product classification:

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

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

### Measurement Uncertainty

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

## **6. MEASUREMENTS, EXAMINATION AND DERIVED RESULTS**

### **6.1 RF Exposure (SAR)**

Test Result: Pass

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

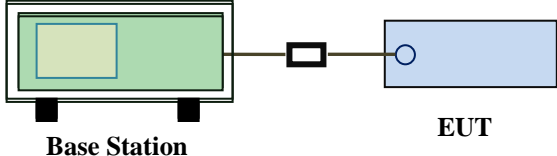
Please refer to RF Exposure Evaluation Report: 17070102-FCC-H.

## 6.2 RF Output Power

Temperature	25°C
Relative Humidity	56%
Atmospheric Pressure	1021mbar
Test date :	May 25, 2017
Tested By :	Vera 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 Setup	 <p style="text-align: center;">Base Station                      EUT</p>
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Test Procedure	<p>For Conducted Power:</p> <ul style="list-style-type: none"> <li>- The transmitter output port was connected to base station.</li> <li>- Set EUT at maximum power through base station.</li> <li>- Select lowest, middle, and highest channels for each band and different test mode.</li> </ul> <p>For ERP/EIRP:</p> <ul style="list-style-type: none"> <li>- The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load which was also placed on the turntable.</li> <li>- 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.</li> <li>- The frequency range up to tenth harmonic of the fundamental frequency was investigated.</li> </ul>
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	<ul style="list-style-type: none"> <li>- 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.</li> <li>- Spurious emissions in dB = <math>10 \log (\text{TX power in Watts}/0.001)</math> – the absolute level</li> <li>- Spurious attenuation limit in dB = <math>43 + 10 \text{ Log}_{10} (\text{power out in Watts})</math>.</li> </ul>
Remark	
Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail

Test Data ☒ Yes ☐ N/A

Test Plot ☐ Yes (See below) ☒ N/A

## Conducted Power

### LTE Band II:

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
20MHz	18700	1860.0	QPSK	1	0	0	22.72	22±1
				1	49	0	22.72	22±1
				1	99	0	22.72	22±1
				50	0	1	21.69	22±1
				50	24	1	21.68	22±1
				50	49	1	21.67	22±1
				100	0	1	21.56	22±1
			16QAM	1	0	1	22.20	21.3±1
				1	49	1	22.20	21.3±1
				1	99	1	22.23	21.3±1
				50	0	2	21.68	21.3±1
				50	24	2	21.69	21.3±1
				50	49	2	21.67	21.3±1
				100	0	2	20.58	21.3±1
	18900	1880.0	QPSK	1	0	0	22.75	22±1
				1	49	0	22.75	22±1
				1	99	0	22.75	22±1
				50	0	1	21.68	22±1
				50	24	1	21.67	22±1
				50	49	1	21.69	22±1
				100	0	1	21.58	22±1
			16QAM	1	0	1	22.20	21.3±1
				1	49	1	22.17	21.3±1
				1	99	1	22.16	21.3±1
				50	0	2	21.66	21.3±1
				50	24	2	21.63	21.3±1
				50	49	2	21.65	21.3±1
				100	0	2	20.57	21.3±1
	19100	1900.0	QPSK	1	0	0	22.65	22±1
				1	49	0	22.66	22±1
				1	99	0	22.67	22±1
				50	0	1	21.61	22±1
				50	24	1	21.61	22±1
				50	49	1	21.61	22±1
				100	0	1	21.65	22±1
			16QAM	1	0	1	21.53	21.3±1
				1	49	1	21.54	21.3±1
				1	99	1	21.51	21.3±1
				50	0	2	21.60	21.3±1
				50	24	2	21.57	21.3±1
				50	49	2	21.58	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	22.57	22±1
				1	37	0	22.59	22±1
				1	74	0	22.62	22±1
				36	0	1	21.75	22±1
				36	16	1	21.72	22±1
				36	35	1	21.69	22±1
				75	0	1	21.64	22±1
			16QAM	1	0	1	22.26	22±1
				1	37	1	22.24	22±1
				1	74	1	22.25	22±1
				36	0	2	21.76	22±1
				36	16	2	21.73	22±1
				36	35	2	21.75	22±1
				75	0	2	20.67	22±1
	18900	1880.0	QPSK	1	0	0	22.61	22±1
				1	37	0	22.62	22±1
				1	74	0	22.62	22±1
				36	0	1	21.70	22±1
				36	16	1	21.73	22±1
				36	35	1	21.73	22±1
				75	0	1	21.65	22±1
			16QAM	1	0	1	22.27	21.5±1
				1	37	1	22.29	21.5±1
				1	74	1	22.31	21.5±1
				36	0	2	21.69	21.5±1
				36	16	2	21.66	21.5±1
				36	35	2	21.65	21.5±1
				75	0	2	20.66	21.5±1
	19125	1902.5	QPSK	1	0	0	22.66	22±1
				1	37	0	22.63	22±1
				1	74	0	22.62	22±1
				36	0	1	21.74	22±1
				36	16	1	21.71	22±1
				36	35	1	21.72	22±1
				75	0	1	21.71	22±1
			16QAM	1	0	1	21.49	21.3±1
				1	37	1	21.52	21.3±1
				1	74	1	21.50	21.3±1
				36	0	2	21.77	21.3±1
				36	16	2	21.80	21.3±1
				36	35	2	21.77	21.3±1
				75	0	2	20.76	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	22.27	21.3±1
				1	24	0	22.28	21.3±1
				1	49	0	22.27	21.3±1
				25	0	1	21.44	21.3±1
				25	12	1	21.47	21.3±1
				25	24	1	21.50	21.3±1
				50	0	1	20.44	21.3±1
			16QAM	1	0	1	20.36	21.3±1
				1	24	1	20.39	21.3±1
				1	49	1	20.41	21.3±1
				25	0	2	21.45	21.3±1
				25	12	2	21.44	21.3±1
				25	24	2	21.45	21.3±1
				50	0	2	20.32	21.3±1
	18900	1880.0	QPSK	1	0	0	22.69	22±1
				1	24	0	22.69	22±1
				1	49	0	22.68	22±1
				25	0	1	21.60	22±1
				25	12	1	21.61	22±1
				25	24	1	21.63	22±1
				50	0	1	21.57	22±1
			16QAM	1	0	1	21.58	21.3±1
				1	24	1	21.61	21.3±1
				1	49	1	21.58	21.3±1
				25	0	2	21.62	21.3±1
				25	12	2	21.65	21.3±1
				25	24	2	21.65	21.3±1
				50	0	2	20.55	21.3±1
	19150	1905	QPSK	1	0	0	22.55	22±1
				1	24	0	22.55	22±1
				1	49	0	22.58	22±1
				25	0	1	21.69	22±1
				25	12	1	21.71	22±1
				25	24	1	21.70	22±1
				50	0	1	21.70	22±1
			16QAM	1	0	1	22.26	21.3±1
				1	24	1	22.27	21.3±1
				1	49	1	22.27	21.3±1
				25	0	2	21.66	21.3±1
				25	12	2	21.64	21.3±1
				25	24	2	21.65	21.3±1
				50	0	2	20.69	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	22.12	22±1
				1	12	0	22.13	22±1
				1	24	0	22.16	22±1
				12	0	1	21.72	22±1
				12	6	1	21.72	22±1
				12	11	1	21.74	22±1
				25	0	1	21.60	22±1
			16QAM	1	0	1	21.23	21.3±1
				1	12	1	21.21	21.3±1
				1	24	1	21.19	21.3±1
				12	0	2	21.73	21.3±1
				12	6	2	21.73	21.3±1
				12	11	2	21.75	21.3±1
				25	0	2	20.56	21.3±1
	18900	1880.0	QPSK	1	0	0	22.70	22±1
				1	12	0	22.71	22±1
				1	24	0	22.71	22±1
				12	0	1	21.65	22±1
				12	6	1	21.68	22±1
				12	11	1	21.67	22±1
				25	0	1	21.58	22±1
			16QAM	1	0	1	21.96	21.3±1
				1	12	1	21.99	21.3±1
				1	24	1	21.98	21.3±1
				12	0	2	21.66	21.3±1
				12	6	2	21.69	21.3±1
				12	11	2	21.70	21.3±1
				25	0	2	20.53	21.3±1
	19175	1907.5	QPSK	1	0	0	22.69	22±1
				1	12	0	22.67	22±1
				1	24	0	22.70	22±1
				12	0	1	21.74	22±1
				12	6	1	21.77	22±1
				12	11	1	21.75	22±1
				25	0	1	21.70	22±1
			16QAM	1	0	1	22.11	21.3±1
				1	12	1	22.08	21.3±1
				1	24	1	22.09	21.3±1
				12	0	2	21.75	21.3±1
				12	6	2	21.72	21.3±1
				12	11	2	21.72	21.3±1
				25	0	2	20.66	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	22.40	22±1
				1	7	0	22.40	22±1
				1	14	0	22.41	22±1
				8	0	1	21.34	22±1
				8	4	1	21.33	22±1
				8	7	1	21.33	22±1
				15	0	1	21.13	22±1
			16QAM	1	0	1	21.34	21.3±1
				1	7	1	21.37	21.3±1
				1	14	1	21.34	21.3±1
				8	0	2	20.44	21.3±1
				8	4	2	20.45	21.3±1
				8	7	2	20.46	21.3±1
				15	0	2	20.34	21.3±1
	18900	1880.0	QPSK	1	0	0	22.68	22±1
				1	7	0	22.71	22±1
				1	14	0	22.68	22±1
				8	0	1	21.59	22±1
				8	4	1	21.58	22±1
				8	7	1	21.57	22±1
				15	0	1	21.59	22±1
			16QAM	1	0	1	21.59	21.3±1
				1	7	1	21.60	21.3±1
				1	14	1	21.58	21.3±1
				8	0	2	20.41	21.3±1
				8	4	2	20.42	21.3±1
				8	7	2	20.45	21.3±1
				15	0	2	20.57	21.3±1
	19175	1907.5	QPSK	1	0	0	22.61	22±1
				1	7	0	22.63	22±1
				1	14	0	22.62	22±1
				8	0	1	21.78	22±1
				8	4	1	21.75	22±1
				8	7	1	21.76	22±1
				15	0	1	21.76	22±1
			16QAM	1	0	1	22.24	21.3±1
				1	7	1	22.22	21.3±1
				1	14	1	22.19	21.3±1
				8	0	2	20.71	21.3±1
				8	4	2	20.69	21.3±1
				8	7	2	20.72	21.3±1
				15	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
1.4MHz	18607	1850.7	QPSK	1	0	0	22.88	22 ± 1
				1	2	0	22.88	22 ± 1
				1	5	0	22.9	22 ± 1
				3	0	0	22.79	22 ± 1
				3	1	0	22.81	22 ± 1
				3	2	0	22.8	22 ± 1
				6	0	1	21.88	22 ± 1
			16QAM	1	0	1	21.87	22 ± 1
				1	2	1	21.89	22 ± 1
				1	5	1	21.86	22 ± 1
				3	0	1	22.79	22 ± 1
				3	1	1	22.77	22 ± 1
				3	2	1	22.75	22 ± 1
				6	0	2	21.23	22 ± 1
	18900	1880.0	QPSK	1	0	0	23.54	23 ± 1
				1	2	0	23.57	23 ± 1
				1	5	0	23.57	23 ± 1
				3	0	0	23.50	23 ± 1
				3	1	0	23.49	23 ± 1
				3	2	0	23.46	23 ± 1
				6	0	1	22.50	23 ± 1
			16QAM	1	0	1	22.44	22.5 ± 1
				1	2	1	22.46	22.5 ± 1
				1	5	1	22.45	22.5 ± 1
				3	0	1	23.50	22.5 ± 1
				3	1	1	23.50	22.5 ± 1
				3	2	1	23.53	22.5 ± 1
				6	0	2	21.50	22.5 ± 1
	19193	1909.3	QPSK	1	0	0	22.84	22 ± 1
				1	2	0	22.81	22 ± 1
				1	5	0	22.81	22 ± 1
				3	0	0	22.84	22 ± 1
				3	1	0	22.86	22 ± 1
				3	2	0	22.86	22 ± 1
				6	0	1	21.80	22 ± 1
			16QAM	1	0	1	21.59	22 ± 1
				1	2	1	21.61	22 ± 1
				1	5	1	21.59	22 ± 1
				3	0	1	22.82	22 ± 1
				3	1	1	22.85	22 ± 1
				3	2	1	22.88	22 ± 1
				6	0	2	21.74	22 ± 1

### LTE Band IV:

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
20MHz	20050	1720.0	QPSK	1	0	0	22.76	22 ± 1
				1	49	0	22.79	22 ± 1
				1	99	0	22.82	22 ± 1
				50	0	1	22.56	22 ± 1
				50	24	1	22.59	22 ± 1
				50	49	1	22.60	22 ± 1
				100	0	1	22.51	22 ± 1
			16QAM	1	0	1	22.64	22 ± 1
				1	49	1	22.65	22 ± 1
				1	99	1	22.63	22 ± 1
				50	0	2	22.55	22 ± 1
				50	24	2	22.54	22 ± 1
				50	49	2	22.53	22 ± 1
				100	0	2	22.48	22 ± 1
	20175	1732.5	QPSK	1	0	0	22.46	22 ± 1
				1	49	0	22.49	22 ± 1
				1	99	0	22.49	22 ± 1
				50	0	1	22.49	22 ± 1
				50	24	1	22.52	22 ± 1
				50	49	1	22.49	22 ± 1
				100	0	1	22.44	22 ± 1
			16QAM	1	0	1	22.69	22 ± 1
				1	49	1	22.66	22 ± 1
				1	99	1	22.63	22 ± 1
				50	0	2	22.50	22 ± 1
				50	24	2	22.49	22 ± 1
				50	49	2	22.49	22 ± 1
				100	0	2	22.40	22 ± 1
	20300	1745.0	QPSK	1	0	0	22.41	22 ± 1
				1	49	0	22.40	22 ± 1
				1	99	0	22.43	22 ± 1
				50	0	1	22.36	22 ± 1
				50	24	1	22.33	22 ± 1
				50	49	1	22.34	22 ± 1
				100	0	1	22.27	22 ± 1
			16QAM	1	0	1	22.85	22 ± 1
				1	49	1	22.87	22 ± 1
				1	99	1	22.87	22 ± 1
				50	0	2	22.36	22 ± 1
				50	24	2	22.37	22 ± 1
				50	49	2	22.38	22 ± 1
				100	0	2	22.25	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	22.70	22 ± 1
				1	37	0	22.73	22 ± 1
				1	74	0	22.72	22 ± 1
				36	0	1	22.63	22 ± 1
				36	16	1	22.61	22 ± 1
				36	35	1	22.62	22 ± 1
				75	0	1	22.63	22 ± 1
			16QAM	1	0	1	22.51	22 ± 1
				1	37	1	22.48	22 ± 1
				1	74	1	22.46	22 ± 1
				36	0	2	22.62	22 ± 1
				36	16	2	22.63	22 ± 1
				36	35	2	22.63	22 ± 1
				75	0	2	22.60	22 ± 1
	20175	1732.5	QPSK	1	0	0	22.48	22 ± 1
				1	37	0	22.48	22 ± 1
				1	74	0	22.46	22 ± 1
				36	0	1	22.52	22 ± 1
				36	16	1	22.53	22 ± 1
				36	35	1	22.52	22 ± 1
				75	0	1	22.43	22 ± 1
			16QAM	1	0	1	22.67	22 ± 1
				1	37	1	22.65	22 ± 1
				1	74	1	22.64	22 ± 1
				36	0	2	22.53	22 ± 1
				36	16	2	22.50	22 ± 1
				36	35	2	22.49	22 ± 1
				75	0	2	22.41	22 ± 1
	20325	1747.5	QPSK	1	0	0	22.24	22 ± 1
				1	37	0	22.21	22 ± 1
				1	74	0	22.18	22 ± 1
				36	0	1	22.32	22 ± 1
				36	16	1	22.35	22 ± 1
				36	35	1	22.36	22 ± 1
				75	0	1	22.32	22 ± 1
			16QAM	1	0	1	22.90	22 ± 1
				1	37	1	22.92	22 ± 1
				1	74	1	22.89	22 ± 1
				36	0	2	22.32	22 ± 1
				36	16	2	22.30	22 ± 1
				36	35	2	22.29	22 ± 1
				75	0	2	22.30	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	22.52	22±1
				1	24	0	22.52	22±1
				1	49	0	22.52	22±1
				25	0	1	22.57	22±1
				25	12	1	22.59	22±1
				25	24	1	22.58	22±1
				50	0	1	22.53	22±1
			16QAM	1	0	1	23.17	23±1
				1	24	1	23.18	23±1
				1	49	1	23.19	23±1
				25	0	2	22.57	23±1
				25	12	2	22.57	23±1
				25	24	2	22.54	23±1
				50	0	2	22.52	23±1
	20175	1732.5	QPSK	1	0	0	22.57	22±1
				1	24	0	22.57	22±1
				1	49	0	22.56	22±1
				25	0	1	22.46	22±1
				25	12	1	22.49	22±1
				25	24	1	22.47	22±1
				50	0	1	22.40	22±1
			16QAM	1	0	1	22.35	22±1
				1	24	1	22.34	22±1
				1	49	1	22.31	22±1
				25	0	2	22.46	22±1
				25	12	2	22.46	22±1
				25	24	2	22.44	22±1
				50	0	2	22.39	22±1
	20350	1750.0	QPSK	1	0	0	22.29	22±1
				1	24	0	22.27	22±1
				1	49	0	22.26	22±1
				25	0	1	22.19	22±1
				25	12	1	22.22	22±1
				25	24	1	22.25	22±1
				50	0	1	22.16	22±1
			16QAM	1	0	1	22.19	22±1
				1	24	1	22.19	22±1
				1	49	1	22.21	22±1
				25	0	2	22.20	22±1
				25	12	2	22.17	22±1
				25	24	2	22.18	22±1
				50	0	2	22.11	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	22.78	22 ± 1
				1	12	0	22.79	22 ± 1
				1	24	0	22.81	22 ± 1
				12	0	1	22.68	22 ± 1
				12	6	1	22.67	22 ± 1
				12	11	1	22.65	22 ± 1
				25	0	1	22.60	22 ± 1
			16QAM	1	0	1	22.75	22 ± 1
				1	12	1	22.72	22 ± 1
				1	24	1	22.70	22 ± 1
				12	0	2	22.69	22 ± 1
				12	6	2	22.71	22 ± 1
				12	11	2	22.71	22 ± 1
				25	0	2	22.57	22 ± 1
	20175	1732.5	QPSK	1	0	0	22.49	22 ± 1
				1	12	0	22.51	22 ± 1
				1	24	0	22.50	22 ± 1
				12	0	1	22.50	22 ± 1
				12	6	1	22.49	22 ± 1
				12	11	1	22.47	22 ± 1
				25	0	1	22.40	22 ± 1
			16QAM	1	0	1	22.82	22 ± 1
				1	12	1	22.80	22 ± 1
				1	24	1	22.77	22 ± 1
				12	0	2	22.51	22 ± 1
				12	6	2	22.54	22 ± 1
				12	11	2	22.51	22 ± 1
				25	0	2	22.40	22 ± 1
	20350	1750.0	QPSK	1	0	0	22.32	22 ± 1
				1	12	0	22.35	22 ± 1
				1	24	0	22.38	22 ± 1
				12	0	1	22.22	22 ± 1
				12	6	1	22.22	22 ± 1
				12	11	1	22.21	22 ± 1
				25	0	1	22.11	22 ± 1
			16QAM	1	0	1	22.18	22 ± 1
				1	12	1	22.15	22 ± 1
				1	24	1	22.14	22 ± 1
				12	0	2	22.23	22 ± 1
				12	6	2	22.24	22 ± 1
				12	11	2	22.26	22 ± 1
				25	0	2	22.11	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	22.65	22 ± 1
				1	7	0	22.68	22 ± 1
				1	14	0	22.66	22 ± 1
				8	0	1	22.60	22 ± 1
				8	4	1	22.58	22 ± 1
				8	7	1	22.55	22 ± 1
				15	0	1	22.59	22 ± 1
			16QAM	1	0	1	22.46	22 ± 1
				1	7	1	22.44	22 ± 1
				1	14	1	22.41	22 ± 1
				8	0	2	22.56	22 ± 1
				8	4	2	22.57	22 ± 1
				8	7	2	22.59	22 ± 1
				15	0	2	22.53	22 ± 1
	20175	1732.5	QPSK	1	0	0	22.45	22 ± 1
				1	7	0	22.46	22 ± 1
				1	14	0	22.43	22 ± 1
				8	0	1	22.39	22 ± 1
				8	4	1	22.36	22 ± 1
				8	7	1	22.36	22 ± 1
				15	0	1	22.40	22 ± 1
			16QAM	1	0	1	22.40	22 ± 1
				1	7	1	22.37	22 ± 1
				1	14	1	22.35	22 ± 1
				8	0	2	22.26	22 ± 1
				8	4	2	22.26	22 ± 1
				8	7	2	22.24	22 ± 1
				15	0	2	22.41	22 ± 1
	20385	1753.5	QPSK	1	0	0	22.06	22 ± 1
				1	7	0	22.07	22 ± 1
				1	14	0	22.07	22 ± 1
				8	0	1	22.22	22 ± 1
				8	4	1	22.22	22 ± 1
				8	7	1	22.22	22 ± 1
				15	0	1	22.12	22 ± 1
			16QAM	1	0	1	22.50	22 ± 1
				1	7	1	22.49	22 ± 1
				1	14	1	22.49	22 ± 1
				8	0	2	22.11	22 ± 1
				8	4	2	22.14	22 ± 1
				8	7	2	22.12	22 ± 1
				15	0	2	22.41	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	22.66	22±1
				1	2	0	22.68	22±1
				1	5	0	22.69	22±1
				3	0	0	22.73	22±1
				3	1	0	22.75	22±1
				3	2	0	22.76	22±1
			6	0	1	22.62	22±1	
			16QAM	1	0	1	22.49	22±1
				1	2	1	22.51	22±1
				1	5	1	22.50	22±1
				3	0	1	22.73	22±1
				3	1	1	22.71	22±1
	3	2		1	22.68	22±1		
	6	0	2	22.59	22±1			
	20175	1732.5	QPSK	1	0	0	22.45	22±1
				1	2	0	22.42	22±1
				1	5	0	22.45	22±1
				3	0	0	22.46	22±1
				3	1	0	22.48	22±1
				3	2	0	22.49	22±1
			6	0	1	22.41	22±1	
			16QAM	1	0	1	22.41	22±1
				1	2	1	22.44	22±1
				1	5	1	22.45	22±1
				3	0	1	22.45	22±1
				3	1	1	22.43	22±1
	3	2		1	22.45	22±1		
	6	0	2	22.26	22±1			
	20393	1754.3	QPSK	1	0	0	22.14	22±1
				1	2	0	22.12	22±1
1				5	0	22.10	22±1	
3				0	0	22.16	22±1	
3				1	0	22.19	22±1	
3				2	0	22.20	22±1	
6			0	1	22.21	22±1		
16QAM			1	0	1	21.77	22±1	
			1	2	1	21.77	22±1	
			1	5	1	21.78	22±1	
			3	0	1	22.16	22±1	
			3	1	1	22.19	22±1	
	3	2	1	22.22	22±1			
6	0	2	22.06	22±1				



### LTE Band V:

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
10MHz	20450	829	QPSK	1	0	0	22.38	22±1
				1	24	0	22.40	22±1
				1	49	0	22.40	22±1
				25	0	1	21.22	22±1
				25	12	1	21.21	22±1
				25	24	1	21.23	22±1
				50	0	1	21.15	22±1
			16QAM	1	0	1	21.24	21.3±1
				1	24	1	21.26	21.3±1
				1	49	1	21.23	21.3±1
				25	0	2	21.22	21.3±1
				25	12	2	21.20	21.3±1
				25	24	2	21.23	21.3±1
				50	0	2	20.30	21.3±1
	20525	836.5	QPSK	1	0	0	22.16	22±1
				1	24	0	22.19	22±1
				1	49	0	22.21	22±1
				25	0	1	21.17	22±1
				25	12	1	21.16	22±1
				25	24	1	21.14	22±1
				50	0	1	21.14	22±1
			16QAM	1	0	1	21.56	21.3±1
				1	24	1	21.57	21.3±1
				1	49	1	21.54	21.3±1
				25	0	2	21.17	21.3±1
				25	12	2	21.17	21.3±1
				25	24	2	21.20	21.3±1
				50	0	2	20.32	21.3±1
	20600	844	QPSK	1	0	0	22.15	21.3±1
				1	24	0	22.16	21.3±1
				1	49	0	22.17	21.3±1
				25	0	1	21.08	21.3±1
				25	12	1	21.07	21.3±1
				25	24	1	21.07	21.3±1
				50	0	1	20.99	21.3±1
			16QAM	1	0	1	21.02	21.3±1
				1	24	1	21.02	21.3±1
				1	49	1	20.99	21.3±1
				25	0	2	21.06	21.3±1
				25	12	2	21.05	21.3±1
				25	24	2	21.08	21.3±1
				50	0	2	20.33	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	22.32	22 ± 1
				1	12	0	22.29	22 ± 1
				1	24	0	22.31	22 ± 1
				12	0	1	21.15	22 ± 1
				12	6	1	21.17	22 ± 1
				12	11	1	21.18	22 ± 1
				25	0	1	21.12	22 ± 1
			16QAM	1	0	1	21.07	21.3 ± 1
				1	12	1	21.10	21.3 ± 1
				1	24	1	21.12	21.3 ± 1
				12	0	2	21.15	21.3 ± 1
				12	6	2	21.13	21.3 ± 1
				12	11	2	21.11	21.3 ± 1
				25	0	2	20.32	21.3 ± 1
	20525	836.5	QPSK	1	0	0	22.24	22 ± 1
				1	12	0	22.23	22 ± 1
				1	24	0	22.23	22 ± 1
				12	0	1	21.16	22 ± 1
				12	6	1	21.15	22 ± 1
				12	11	1	21.12	22 ± 1
				25	0	1	21.12	22 ± 1
			16QAM	1	0	1	21.16	21.3 ± 1
				1	12	1	21.17	21.3 ± 1
				1	24	1	21.18	21.3 ± 1
				12	0	2	21.15	21.3 ± 1
				12	6	2	21.15	21.3 ± 1
				12	11	2	21.18	21.3 ± 1
				25	0	2	20.32	21.3 ± 1
	20625	846.5	QPSK	1	0	0	22.14	21.3 ± 1
				1	12	0	22.15	21.3 ± 1
				1	24	0	22.16	21.3 ± 1
				12	0	1	21.04	21.3 ± 1
				12	6	1	21.07	21.3 ± 1
				12	11	1	21.06	21.3 ± 1
				25	0	1	21.01	21.3 ± 1
			16QAM	1	0	1	21.51	21.3 ± 1
				1	12	1	21.52	21.3 ± 1
				1	24	1	21.49	21.3 ± 1
				12	0	2	21.04	21.3 ± 1
				12	6	2	21.03	21.3 ± 1
				12	11	2	21.05	21.3 ± 1
				25	0	2	20.36	21.3 ± 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	22.24	22 ± 1
				1	7	0	22.23	22 ± 1
				1	14	0	22.20	22 ± 1
				8	0	1	21.23	22 ± 1
				8	4	1	21.21	22 ± 1
				8	7	1	21.20	22 ± 1
				15	0	1	21.13	22 ± 1
			16QAM	1	0	1	20.98	21.3 ± 1
				1	7	1	20.97	21.3 ± 1
				1	14	1	20.97	21.3 ± 1
				8	0	2	20.34	21.3 ± 1
				8	4	2	20.35	21.3 ± 1
				8	7	2	20.38	21.3 ± 1
				15	0	2	20.33	21.3 ± 1
	20525	836.5	QPSK	1	0	0	22.11	22 ± 1
				1	7	0	22.13	22 ± 1
				1	14	0	22.12	22 ± 1
				8	0	1	21.08	22 ± 1
				8	4	1	21.09	22 ± 1
				8	7	1	21.11	22 ± 1
				15	0	1	22.13	22 ± 1
			16QAM	1	0	1	21.09	21.3 ± 1
				1	7	1	21.08	21.3 ± 1
				1	14	1	21.05	21.3 ± 1
				8	0	2	20.35	21.3 ± 1
				8	4	2	20.38	21.3 ± 1
				8	7	2	20.35	21.3 ± 1
				15	0	2	21.10	21.3 ± 1
	20635	847.5	QPSK	1	0	0	21.93	21.3 ± 1
				1	7	0	21.96	21.3 ± 1
				1	14	0	21.98	21.3 ± 1
				8	0	1	21.05	21.3 ± 1
				8	4	1	21.02	21.3 ± 1
				8	7	1	21.04	21.3 ± 1
				15	0	1	20.99	21.3 ± 1
			16QAM	1	0	1	21.42	21.3 ± 1
				1	7	1	21.43	21.3 ± 1
				1	14	1	21.46	21.3 ± 1
				8	0	2	20.37	21.3 ± 1
				8	4	2	20.37	21.3 ± 1
				8	7	2	20.38	21.3 ± 1
				15	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
1.4MHz	20407	824.7	QPSK	1	0	0	22.76	22±1
				1	2	0	22.76	22±1
				1	5	0	22.79	22±1
				3	0	0	22.23	22±1
				3	1	0	22.20	22±1
				3	2	0	22.20	22±1
				6	0	1	21.24	22±1
			16QAM	1	0	1	21.03	21.3±1
				1	2	1	21.01	21.3±1
				1	5	1	20.99	21.3±1
				3	0	1	22.23	21.3±1
				3	1	1	22.22	21.3±1
				3	2	1	22.24	21.3±1
				6	0	2	20.31	21.3±1
	20525	836.5	QPSK	1	0	0	22.11	22±1
				1	2	0	22.09	22±1
				1	5	0	22.09	22±1
				3	0	0	22.15	22±1
				3	1	0	22.15	22±1
				3	2	0	22.17	22±1
				6	0	1	21.09	22±1
			16QAM	1	0	1	21.07	21.3±1
				1	2	1	21.04	21.3±1
				1	5	1	21.06	21.3±1
				3	0	1	22.15	21.3±1
				3	1	1	22.16	21.3±1
				3	2	1	22.18	21.3±1
				6	0	2	20.35	21.3±1
	20643	848.3	QPSK	1	0	0	21.90	21.3±1
				1	2	0	21.90	21.3±1
				1	5	0	21.89	21.3±1
				3	0	0	22.01	21.3±1
				3	1	0	21.98	21.3±1
				3	2	0	21.96	21.3±1
				6	0	1	20.97	21.3±1
			16QAM	1	0	1	20.58	21.3±1
				1	2	1	20.58	21.3±1
				1	5	1	20.56	21.3±1
				3	0	1	22.00	21.3±1
				3	1	1	21.99	21.3±1
				3	2	1	21.97	21.3±1
				6	0	2	20.36	21.3±1

### LTE Band VII:

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
20MHz	20850	2510	QPSK	1	0	0	22.99	22.3 ± 1
				1	49	0	23.00	22.3 ± 1
				1	99	0	23.02	22.3 ± 1
				50	0	1	21.82	22.3 ± 1
				50	24	1	21.81	22.3 ± 1
				50	49	1	21.80	22.3 ± 1
				100	0	1	21.78	22.3 ± 1
			16QAM	1	0	1	21.85	21.3 ± 1
				1	49	1	21.84	21.3 ± 1
				1	99	1	21.84	21.3 ± 1
				50	0	2	21.82	21.3 ± 1
				50	24	2	21.81	21.3 ± 1
				50	49	2	21.84	21.3 ± 1
				100	0	2	20.76	21.3 ± 1
	21100	2535	QPSK	1	0	0	22.88	22 ± 1
				1	49	0	22.87	22 ± 1
				1	99	0	22.84	22 ± 1
				50	0	1	22.04	22 ± 1
				50	24	1	22.03	22 ± 1
				50	49	1	22.02	22 ± 1
				100	0	1	21.79	22 ± 1
			16QAM	1	0	1	22.13	21.3 ± 1
				1	49	1	22.16	21.3 ± 1
				1	99	1	22.13	21.3 ± 1
				50	0	2	22.05	21.3 ± 1
				50	24	2	22.05	21.3 ± 1
				50	49	2	22.03	21.3 ± 1
				100	0	2	20.84	21.3 ± 1
	21350	2560	QPSK	1	0	0	22.99	22.3 ± 1
				1	49	0	23.01	22.3 ± 1
				1	99	0	23.00	22.3 ± 1
				50	0	1	22.13	22.3 ± 1
				50	24	1	22.12	22.3 ± 1
				50	49	1	22.12	22.3 ± 1
				100	0	1	22.17	22.3 ± 1
			16QAM	1	0	1	22.01	22 ± 1
				1	49	1	21.99	22 ± 1
				1	99	1	22.01	22 ± 1
				50	0	2	22.12	22 ± 1
				50	24	2	22.12	22 ± 1
				50	49	2	22.11	22 ± 1
				100	0	2	21.19	22 ± 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	22.50	22 ± 1
				1	37	0	22.51	22 ± 1
				1	74	0	22.49	22 ± 1
				36	0	1	21.79	22 ± 1
				36	16	1	21.80	22 ± 1
				36	35	1	21.78	22 ± 1
				75	0	1	21.93	22 ± 1
			16QAM	1	0	1	20.44	21.3 ± 1
				1	37	1	20.43	21.3 ± 1
				1	74	1	20.40	21.3 ± 1
				36	0	2	21.73	21.3 ± 1
				36	16	2	21.72	21.3 ± 1
				36	35	2	21.74	21.3 ± 1
				75	0	2	20.93	21.3 ± 1
	21100	1732.5	QPSK	1	0	0	22.99	22.5 ± 1
				1	37	0	23.02	22.5 ± 1
				1	74	0	23.01	22.5 ± 1
				36	0	1	22.08	22.5 ± 1
				36	16	1	22.05	22.5 ± 1
				36	35	1	22.03	22.5 ± 1
				75	0	1	22.09	22.5 ± 1
			16QAM	1	0	1	22.19	22 ± 1
				1	37	1	22.16	22 ± 1
				1	74	1	22.18	22 ± 1
				36	0	2	22.08	22 ± 1
				36	16	2	22.05	22 ± 1
				36	35	2	22.05	22 ± 1
				75	0	2	21.07	22 ± 1
	21375	1747.5	QPSK	1	0	0	22.99	22.5 ± 1
				1	37	0	22.96	22.5 ± 1
				1	74	0	22.95	22.5 ± 1
				36	0	1	22.27	22.5 ± 1
				36	16	1	22.26	22.5 ± 1
				36	35	1	22.24	22.5 ± 1
				75	0	1	22.12	22.5 ± 1
			16QAM	1	0	1	22.82	22 ± 1
				1	37	1	22.81	22 ± 1
				1	74	1	22.80	22 ± 1
				36	0	2	22.26	22 ± 1
				36	16	2	22.26	22 ± 1
				36	35	2	22.25	22 ± 1
				75	0	2	21.35	22 ± 1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
10MHz	20800	2502	QPSK	1	0	0	22.48	22 ± 1
				1	24	0	22.47	22 ± 1
				1	49	0	22.50	22 ± 1
				25	0	1	21.70	22 ± 1
				25	12	1	21.68	22 ± 1
				25	24	1	21.68	22 ± 1
				50	0	1	21.82	22 ± 1
			16QAM	1	0	1	21.82	22 ± 1
				1	24	1	21.85	22 ± 1
				1	49	1	21.83	22 ± 1
				25	0	2	21.20	22 ± 1
				25	12	2	21.18	22 ± 1
				25	24	2	21.18	22 ± 1
				50	0	2	21.69	22 ± 1
	21100	2535	QPSK	1	0	0	22.98	22.5 ± 1
				1	24	0	22.99	22.5 ± 1
				1	49	0	23.00	22.5 ± 1
				25	0	1	21.89	22.5 ± 1
				25	12	1	21.88	22.5 ± 1
				25	24	1	21.90	22.5 ± 1
				50	0	1	21.88	22.5 ± 1
			16QAM	1	0	1	21.75	21.3 ± 1
				1	24	1	21.77	21.3 ± 1
				1	49	1	21.76	21.3 ± 1
				25	0	2	21.88	21.3 ± 1
				25	12	2	21.85	21.3 ± 1
				25	24	2	21.82	21.3 ± 1
				50	0	2	20.90	21.3 ± 1
	21400	2565	QPSK	1	0	0	22.81	22 ± 1
				1	24	0	22.78	22 ± 1
				1	49	0	22.80	22 ± 1
				25	0	1	22.01	22 ± 1
				25	12	1	22.04	22 ± 1
				25	24	1	22.06	22 ± 1
				50	0	1	21.93	22 ± 1
			16QAM	1	0	1	21.91	22 ± 1
				1	24	1	21.91	22 ± 1
				1	49	1	21.91	22 ± 1
				25	0	2	22.01	22 ± 1
				25	12	2	21.99	22 ± 1
				25	24	2	22.01	22 ± 1
				50	0	2	21.13	22 ± 1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
5MHz	19975	1712.5	QPSK	1	0	0	22.21	22 ± 1
				1	12	0	22.23	22 ± 1
				1	24	0	22.20	22 ± 1
				12	0	1	21.24	22 ± 1
				12	6	1	21.26	22 ± 1
				12	11	1	21.25	22 ± 1
				25	0	1	21.73	22 ± 1
			16QAM	1	0	1	21.29	21.3 ± 1
				1	12	1	21.29	21.3 ± 1
				1	24	1	21.31	21.3 ± 1
				12	0	2	21.25	21.3 ± 1
				12	6	2	21.26	21.3 ± 1
				12	11	2	21.28	21.3 ± 1
				25	0	2	20.79	21.3 ± 1
	20175	1732.5	QPSK	1	0	0	23.00	22.5 ± 1
				1	12	0	23.00	22.5 ± 1
				1	24	0	22.99	22.5 ± 1
				12	0	1	22.01	22.5 ± 1
				12	6	1	21.99	22.5 ± 1
				12	11	1	22.00	22.5 ± 1
				25	0	1	21.92	22.5 ± 1
			16QAM	1	0	1	22.23	21.5 ± 1
				1	12	1	22.25	21.5 ± 1
				1	24	1	22.27	21.5 ± 1
				12	0	2	22.02	21.5 ± 1
				12	6	2	22.00	21.5 ± 1
				12	11	2	22.02	21.5 ± 1
				25	0	2	20.91	21.5 ± 1
	20375	1752.5	QPSK	1	0	0	22.99	22.5 ± 1
				1	12	0	23.02	22.5 ± 1
				1	24	0	22.99	22.5 ± 1
				12	0	1	21.98	22.5 ± 1
				12	6	1	22.01	22.5 ± 1
				12	11	1	21.98	22.5 ± 1
				25	0	1	21.92	22.5 ± 1
			16QAM	1	0	1	22.23	21.5 ± 1
				1	12	1	22.20	21.5 ± 1
				1	24	1	22.17	21.5 ± 1
				12	0	2	21.98	21.5 ± 1
				12	6	2	21.95	21.5 ± 1
				12	11	2	21.92	21.5 ± 1
				25	0	2	20.91	21.5 ± 1



### LTE Band XII:

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	23.20	23 ± 1
				1	24	0	23.20	23 ± 1
				1	49	0	23.19	23 ± 1
				25	0	1	23.17	23 ± 1
				25	12	1	23.16	23 ± 1
				25	24	1	23.18	23 ± 1
				50	0	1	23.20	23 ± 1
			16QAM	1	0	1	23.03	23 ± 1
				1	24	1	23.05	23 ± 1
				1	49	1	23.06	23 ± 1
				25	0	2	23.15	23 ± 1
				25	12	2	23.17	23 ± 1
				25	24	2	23.19	23 ± 1
				50	0	2	23.21	23 ± 1
	23095	707.5	QPSK	1	0	0	23.23	23 ± 1
				1	24	0	23.26	23 ± 1
				1	49	0	23.26	23 ± 1
				25	0	1	23.22	23 ± 1
				25	12	1	23.23	23 ± 1
				25	24	1	23.20	23 ± 1
				50	0	1	23.22	23 ± 1
			16QAM	1	0	1	23.19	23 ± 1
				1	24	1	23.22	23 ± 1
				1	49	1	23.23	23 ± 1
				25	0	2	23.22	23 ± 1
				25	12	2	23.20	23 ± 1
				25	24	2	23.22	23 ± 1
				50	0	2	23.21	23 ± 1
	23130	711	QPSK	1	0	0	23.19	23 ± 1
				1	24	0	23.20	23 ± 1
				1	49	0	23.22	23 ± 1
				25	0	1	23.20	23 ± 1
				25	12	1	23.18	23 ± 1
				25	24	1	23.15	23 ± 1
				50	0	1	23.19	23 ± 1
			16QAM	1	0	1	23.90	23 ± 1
				1	24	1	23.87	23 ± 1
				1	49	1	23.89	23 ± 1
				25	0	2	23.20	23 ± 1
				25	12	2	23.18	23 ± 1
				25	24	2	23.15	23 ± 1
				50	0	2	23.22	23 ± 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	23.26	23±1
				1	12	0	23.27	23±1
				1	24	0	23.29	23±1
				12	0	1	23.21	23±1
				12	6	1	23.18	23±1
				12	11	1	23.21	23±1
			16QAM	25	0	1	23.16	23±1
				1	0	1	23.25	23±1
				1	12	1	23.23	23±1
				1	24	1	23.24	23±1
				12	0	2	23.22	23±1
				12	6	2	23.24	23±1
				12	11	2	23.26	23±1
				25	0	2	23.17	23±1
	23095	707.5	QPSK	1	0	0	23.23	23±1
				1	12	0	23.22	23±1
				1	24	0	23.19	23±1
				12	0	1	23.32	23±1
				12	6	1	23.32	23±1
				12	11	1	23.35	23±1
			16QAM	25	0	1	23.24	23±1
				1	0	1	23.66	23±1
				1	12	1	23.67	23±1
				1	24	1	23.65	23±1
				12	0	2	23.33	23±1
				12	6	2	23.30	23±1
				12	11	2	23.32	23±1
				25	0	2	23.23	23±1
	23155	713.5	QPSK	1	0	0	23.23	23±1
				1	12	0	23.23	23±1
				1	24	0	23.20	23±1
				12	0	1	23.18	23±1
				12	6	1	23.19	23±1
				12	11	1	23.20	23±1
			16QAM	25	0	1	23.11	23±1
				1	0	1	23.17	23±1
				1	12	1	23.15	23±1
				1	24	1	23.12	23±1
				12	0	2	23.16	23±1
				12	6	2	23.19	23±1
				12	11	2	23.16	23±1
				25	0	2	23.22	23±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	23.12	23±1
				1	7	0	23.14	23±1
				1	14	0	23.12	23±1
				8	0	1	23.11	23±1
				8	4	1	23.08	23±1
				8	7	1	23.10	23±1
				15	0	1	23.13	23±1
			16QAM	1	0	1	22.95	23±1
				1	7	1	22.92	23±1
				1	14	1	22.90	23±1
				8	0	2	23.07	23±1
				8	4	2	23.04	23±1
				8	7	2	23.07	23±1
				15	0	2	23.09	23±1
	23095	707.5	QPSK	1	0	0	23.23	23±1
				1	7	0	23.24	23±1
				1	14	0	23.22	23±1
				8	0	1	23.18	23±1
				8	4	1	23.20	23±1
				8	7	1	23.21	23±1
				15	0	1	23.23	23±1
			16QAM	1	0	1	23.21	23±1
				1	7	1	23.22	23±1
				1	14	1	23.25	23±1
				8	0	2	23.08	23±1
				8	4	2	23.06	23±1
				8	7	2	23.05	23±1
				15	0	2	23.24	23±1
	23025	714.5	QPSK	1	0	0	23.24	23±1
				1	7	0	23.22	23±1
				1	14	0	23.21	23±1
				8	0	1	23.18	23±1
				8	4	1	23.16	23±1
				8	7	1	23.16	23±1
				15	0	1	23.23	23±1
			16QAM	1	0	1	23.22	23±1
				1	7	1	23.20	23±1
				1	14	1	23.23	23±1
				8	0	2	23.08	23±1
				8	4	2	23.07	23±1
				8	7	2	23.08	23±1
				15	0	2	23.24	23±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	23.15	23±1
				1	2	0	23.14	23±1
				1	5	0	23.14	23±1
				3	0	0	23.14	23±1
				3	1	0	23.13	23±1
				3	2	0	23.14	23±1
				6	0	1	23.12	23±1
			16QAM	1	0	1	22.97	23±1
				1	2	1	22.94	23±1
				1	5	1	22.97	23±1
				3	0	1	23.15	23±1
				3	1	1	23.18	23±1
				3	2	1	23.18	23±1
				6	0	2	23.10	23±1
	23095	707.5	QPSK	1	0	0	23.27	23±1
				1	2	0	23.27	23±1
				1	5	0	23.29	23±1
				3	0	0	23.26	23±1
				3	1	0	23.25	23±1
				3	2	0	23.25	23±1
				6	0	1	23.25	23±1
			16QAM	1	0	1	23.21	23±1
				1	2	1	23.24	23±1
				1	5	1	23.22	23±1
				3	0	1	23.22	23±1
				3	1	1	23.22	23±1
				3	2	1	23.20	23±1
				6	0	2	23.13	23±1
	23173	715.3	QPSK	1	0	0	22.96	23±1
				1	2	0	22.95	23±1
				1	5	0	22.94	23±1
				3	0	0	23.05	23±1
				3	1	0	23.06	23±1
				3	2	0	23.07	23±1
				6	0	1	22.99	23±1
			16QAM	1	0	1	22.65	23±1
				1	2	1	22.65	23±1
				1	5	1	22.62	23±1
				3	0	1	23.05	23±1
				3	1	1	23.05	23±1
				3	2	1	23.02	23±1
				6	0	2	22.96	23±1

### LTE Band XVII:

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	22.45	22 ± 1
				1	24	0	22.48	22 ± 1
				1	49	0	22.50	22 ± 1
				25	0	1	21.50	22 ± 1
				25	12	1	21.51	22 ± 1
				25	24	1	21.54	22 ± 1
				50	0	1	21.41	22 ± 1
			16QAM	1	0	1	21.50	21.3 ± 1
				1	24	1	21.49	21.3 ± 1
				1	49	1	21.50	21.3 ± 1
				25	0	2	21.41	21.3 ± 1
				25	12	2	21.38	21.3 ± 1
				25	24	2	21.37	21.3 ± 1
				50	0	2	20.34	21.3 ± 1
	23790	701.0	QPSK	1	0	0	22.37	22 ± 1
				1	24	0	22.34	22 ± 1
				1	49	0	22.32	22 ± 1
				25	0	1	21.36	22 ± 1
				25	12	1	21.35	22 ± 1
				25	24	1	21.33	22 ± 1
				50	0	1	21.34	22 ± 1
			16QAM	1	0	1	21.77	21.3 ± 1
				1	24	1	21.79	21.3 ± 1
				1	49	1	21.81	21.3 ± 1
				25	0	2	21.36	21.3 ± 1
				25	12	2	21.39	21.3 ± 1
				25	24	2	21.41	21.3 ± 1
				50	0	2	20.35	21.3 ± 1
	23800	711.0	QPSK	1	0	0	22.27	22 ± 1
				1	24	0	22.25	22 ± 1
				1	49	0	22.27	22 ± 1
				25	0	1	21.22	22 ± 1
				25	12	1	21.22	22 ± 1
				25	24	1	21.23	22 ± 1
				50	0	1	21.13	22 ± 1
			16QAM	1	0	1	21.22	21.3 ± 1
				1	24	1	21.22	21.3 ± 1
				1	49	1	21.25	21.3 ± 1
				25	0	2	21.22	21.3 ± 1
				25	12	2	21.19	21.3 ± 1
				25	24	2	21.17	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	23755	706.5	QPSK	1	0	0	22.31	22 ± 1
				1	12	0	22.31	22 ± 1
				1	24	0	22.31	22 ± 1
				12	0	1	21.35	22 ± 1
				12	6	1	21.38	22 ± 1
				12	11	1	21.39	22 ± 1
				25	0	1	21.33	22 ± 1
			16QAM	1	0	1	21.16	21.3 ± 1
				1	12	1	21.13	21.3 ± 1
				1	24	1	21.13	21.3 ± 1
				12	0	2	21.35	21.3 ± 1
				12	6	2	21.36	21.3 ± 1
				12	11	2	21.33	21.3 ± 1
				25	0	2	20.31	21.3 ± 1
	23790	710.0	QPSK	1	0	0	22.30	22 ± 1
				1	12	0	22.32	22 ± 1
				1	24	0	22.30	22 ± 1
				12	0	1	21.28	22 ± 1
				12	6	1	21.29	22 ± 1
				12	11	1	21.29	22 ± 1
				25	0	1	21.23	22 ± 1
			16QAM	1	0	1	21.26	21.3 ± 1
				1	12	1	21.26	21.3 ± 1
				1	24	1	21.26	21.3 ± 1
				12	0	2	21.28	21.3 ± 1
				12	6	2	21.26	21.3 ± 1
				12	11	2	21.28	21.3 ± 1
				25	0	2	20.32	21.3 ± 1
	23825	713.5	QPSK	1	0	0	22.19	22 ± 1
				1	12	0	22.16	22 ± 1
				1	24	0	22.18	22 ± 1
				12	0	1	21.25	22 ± 1
				12	6	1	21.27	22 ± 1
				12	11	1	21.24	22 ± 1
				25	0	1	21.22	22 ± 1
			16QAM	1	0	1	21.89	21.3 ± 1
				1	12	1	21.88	21.3 ± 1
				1	24	1	21.90	21.3 ± 1
				12	0	2	21.26	21.3 ± 1
				12	6	2	21.24	21.3 ± 1
				12	11	2	21.27	21.3 ± 1
				25	0	2	20.35	21.3 ± 1

## ERP & EIRP

### EIRP for LTE Band II (Part 24E)

Frequency (MHz)	BW (MHz)	Modulation	RB Size/Offset	Substituted level (dBm)	Antenna Polarization	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
1850.7	1.4	QPSK	1/0	14.65	V	7.88	0.85	21.68	33.01
1880	1.4	QPSK	1/0	15.35	V	7.88	0.85	22.38	33.01
1909.3	1.4	QPSK	1/0	14.63	V	7.88	0.85	21.66	33.01
1850.7	1.4	QPSK	1/0	13.48	H	7.88	0.85	20.51	33.01
1880	1.4	QPSK	1/0	14.12	H	7.88	0.85	21.15	33.01
1909.3	1.4	QPSK	1/0	13.44	H	7.88	0.85	20.47	33.01
1850.7	1.4	16-QAM	1/0	14.58	V	7.88	0.85	21.61	33.01
1880	1.4	16-QAM	1/0	15.27	V	7.88	0.85	22.30	33.01
1909.3	1.4	16-QAM	1/0	14.61	V	7.88	0.85	21.64	33.01
1850.7	1.4	16-QAM	1/0	13.5	H	7.88	0.85	20.53	33.01
1880	1.4	16-QAM	1/0	14.17	H	7.88	0.85	21.20	33.01
1909.3	1.4	16-QAM	1/0	13.52	H	7.88	0.85	20.55	33.01
1851.5	3	QPSK	1/0	14.62	V	7.88	0.85	21.65	33.01
1880	3	QPSK	1/0	14.45	V	7.88	0.85	21.48	33.01
1908.5	3	QPSK	1/0	14.38	V	7.88	0.85	21.41	33.01
1851.5	3	QPSK	1/0	13.44	H	7.88	0.85	20.47	33.01
1880	3	QPSK	1/0	13.3	H	7.88	0.85	20.33	33.01
1908.5	3	QPSK	1/0	13.23	H	7.88	0.85	20.26	33.01
1851.5	3	16-QAM	1/0	13.11	V	7.88	0.85	20.14	33.01
1880	3	16-QAM	1/0	13.36	V	7.88	0.85	20.39	33.01
1908.5	3	16-QAM	1/0	14.01	V	7.88	0.85	21.04	33.01
1851.5	3	16-QAM	1/0	11.86	H	7.88	0.85	18.89	33.01
1880	3	16-QAM	1/0	12.08	H	7.88	0.85	19.11	33.01
1908.5	3	16-QAM	1/0	12.92	H	7.88	0.85	19.95	33.01
1852.5	5	QPSK	1/24	13.36	V	7.88	0.85	20.39	33.01
1880	5	QPSK	1/0	14.53	V	7.88	0.85	21.56	33.01
1907.5	5	QPSK	1/24	14.49	V	7.88	0.85	21.52	33.01
1852.5	5	QPSK	1/24	12.2	H	7.88	0.85	19.23	33.01
1880	5	QPSK	1/0	13.31	H	7.88	0.85	20.34	33.01
1907.5	5	QPSK	1/24	13.43	H	7.88	0.85	20.46	33.01
1852.5	5	16-QAM	1/24	13.5	V	7.88	0.85	20.53	33.01
1880	5	16-QAM	1/0	13.75	V	7.88	0.85	20.78	33.01

1907.5	5	16-QAM	1/24	13.91	V	7.88	0.85	20.94	33.01
1852.5	5	16-QAM	1/24	12.41	H	7.88	0.85	19.44	33.01
1880	5	16-QAM	1/0	12.62	H	7.88	0.85	19.65	33.01
1907.5	5	16-QAM	1/24	12.84	H	7.88	0.85	19.87	33.01
1855	10	QPSK	1/0	14.04	V	7.88	0.85	21.07	33.01
1880	10	QPSK	1/0	14.46	V	7.88	0.85	21.49	33.01
1905	10	QPSK	1/49	14.32	V	7.88	0.85	21.35	33.01
1855	10	QPSK	1/0	12.93	H	7.88	0.85	19.96	33.01
1880	10	QPSK	1/0	13.28	H	7.88	0.85	20.31	33.01
1905	10	QPSK	1/49	13.22	H	7.88	0.85	20.25	33.01
1855	10	16-QAM	1/0	13.23	V	7.88	0.85	20.26	33.01
1880	10	16-QAM	1/0	13.42	V	7.88	0.85	20.45	33.01
1905	10	16-QAM	1/49	14.04	V	7.88	0.85	21.07	33.01
1855	10	16-QAM	1/0	12.03	H	7.88	0.85	19.06	33.01
1880	10	16-QAM	1/0	12.29	H	7.88	0.85	19.32	33.01
1905	10	16-QAM	1/49	12.85	H	7.88	0.85	19.88	33.01
1857.5	15	QPSK	1/0	14.39	V	7.88	0.85	21.42	33.01
1880	15	QPSK	1/0	14.38	V	7.88	0.85	21.41	33.01
1902.5	15	QPSK	1/0	14.46	V	7.88	0.85	21.49	33.01
1857.5	15	QPSK	1/0	13.32	H	7.88	0.85	20.35	33.01
1880	15	QPSK	1/0	13.24	H	7.88	0.85	20.27	33.01
1902.5	15	QPSK	1/0	13.3	H	7.88	0.85	20.33	33.01
1857.5	15	16-QAM	1/0	14.04	V	7.88	0.85	21.07	33.01
1880	15	16-QAM	1/0	14.04	V	7.88	0.85	21.07	33.01
1902.5	15	16-QAM	1/0	13.54	V	7.88	0.85	20.57	33.01
1857.5	15	16-QAM	1/0	12.91	H	7.88	0.85	19.94	33.01
1880	15	16-QAM	1/0	12.82	H	7.88	0.85	19.85	33.01
1902.5	15	16-QAM	1/0	12.46	H	7.88	0.85	19.49	33.01
1860	20	QPSK	1/0	14.49	V	7.88	0.85	21.52	33.01
1880	20	QPSK	1/0	14.52	V	7.88	0.85	21.55	33.01
1900	20	QPSK	1/0	14.44	V	7.88	0.85	21.47	33.01
1860	20	QPSK	1/0	13.41	H	7.88	0.85	20.44	33.01
1880	20	QPSK	1/0	13.35	H	7.88	0.85	20.38	33.01
1900	20	QPSK	1/0	13.38	H	7.88	0.85	20.41	33.01
1860	20	16-QAM	1/0	14.02	V	7.88	0.85	21.05	33.01
1880	20	16-QAM	1/0	13.97	V	7.88	0.85	21.00	33.01
1900	20	16-QAM	1/0	13.37	V	7.88	0.85	20.40	33.01
1860	20	16-QAM	1/0	12.93	H	7.88	0.85	19.96	33.01



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1880	20	16-QAM	1/0	12.96	H	7.88	0.85	19.99	33.01
1900	20	16-QAM	1/0	12.28	H	7.88	0.85	19.31	33.01

### EIRP for LTE Band IV (Part 27)

Frequency (MHz)	BW (MHz)	Modulation	RB Size/Offset	Substituted level (dBm)	Antenna Polarization	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
1710.7	1.4	QPSK	1/0	13.40	V	7.95	0.79	20.56	30
1732.5	1.4	QPSK	1/0	13.15	V	7.95	0.79	20.31	30
1754.3	1.4	QPSK	1/0	12.85	V	7.95	0.79	20.01	30
1710.7	1.4	QPSK	1/0	12.17	H	7.95	0.79	19.33	30
1732.5	1.4	QPSK	1/0	12.09	H	7.95	0.79	19.25	30
1754.3	1.4	QPSK	1/0	11.81	H	7.95	0.79	18.97	30
1710.7	1.4	16-QAM	1/5	13.40	V	7.95	0.79	20.56	30
1732.5	1.4	16-QAM	1/0	13.13	V	7.95	0.79	20.29	30
1754.3	1.4	16-QAM	1/0	12.81	V	7.95	0.79	19.97	30
1710.7	1.4	16-QAM	1/5	12.28	H	7.95	0.79	19.44	30
1732.5	1.4	16-QAM	1/0	12.00	H	7.95	0.79	19.16	30
1754.3	1.4	16-QAM	1/0	11.72	H	7.95	0.79	18.88	30
1711.5	3	QPSK	1/0	13.29	V	7.95	0.79	20.45	30
1732.5	3	QPSK	1/0	13.11	V	7.95	0.79	20.27	30
1753.5	3	QPSK	1/0	12.88	V	7.95	0.79	20.04	30
1711.5	3	QPSK	1/0	12.16	H	7.95	0.79	19.32	30
1732.5	3	QPSK	1/0	11.95	H	7.95	0.79	19.11	30
1753.5	3	QPSK	1/0	11.77	H	7.95	0.79	18.93	30
1711.5	3	16-QAM	1/0	13.20	V	7.95	0.79	20.36	30
1732.5	3	16-QAM	1/0	13.08	V	7.95	0.79	20.24	30
1753.5	3	16-QAM	1/0	13.16	V	7.95	0.79	20.32	30
1711.5	3	16-QAM	1/0	12.09	H	7.95	0.79	19.25	30
1732.5	3	16-QAM	1/0	12.02	H	7.95	0.79	19.18	30
1753.5	3	16-QAM	1/0	12.06	H	7.95	0.79	19.22	30
1712.5	5	QPSK	1/0	13.44	V	7.95	0.79	20.60	30
1732.5	5	QPSK	1/0	13.14	V	7.95	0.79	20.30	30
1752.5	5	QPSK	1/24	12.96	V	7.95	0.79	20.12	30
1712.5	5	QPSK	1/0	12.41	H	7.95	0.79	19.57	30
1732.5	5	QPSK	1/0	12.00	H	7.95	0.79	19.16	30
1752.5	5	QPSK	1/24	11.88	H	7.95	0.79	19.04	30
1712.5	5	16-QAM	1/0	13.39	V	7.95	0.79	20.55	30
1732.5	5	16-QAM	1/0	13.49	V	7.95	0.79	20.65	30
1752.5	5	16-QAM	1/24	12.87	V	7.95	0.79	20.03	30
1712.5	5	16-QAM	1/0	12.27	H	7.95	0.79	19.43	30
1732.5	5	16-QAM	1/0	12.40	H	7.95	0.79	19.56	30

1752.5	5	16-QAM	1/24	11.61	H	7.95	0.79	18.77	30
1715	10	QPSK	1/0	13.24	V	7.95	0.79	20.40	30
1732.5	10	QPSK	1/49	13.21	V	7.95	0.79	20.37	30
1750	10	QPSK	1/0	12.96	V	7.95	0.79	20.12	30
1715	10	QPSK	1/0	12.09	H	7.95	0.79	19.25	30
1732.5	10	QPSK	1/49	12.03	H	7.95	0.79	19.19	30
1750	10	QPSK	1/0	11.86	H	7.95	0.79	19.02	30
1715	10	16-QAM	1/0	13.82	V	7.95	0.79	20.98	30
1732.5	10	16-QAM	1/49	13.1	V	7.95	0.79	20.26	30
1750	10	16-QAM	1/0	12.84	V	7.95	0.79	20.00	30
1715	10	16-QAM	1/0	12.69	H	7.95	0.79	19.85	30
1732.5	10	16-QAM	1/49	11.77	H	7.95	0.79	18.93	30
1750	10	16-QAM	1/0	11.74	H	7.95	0.79	18.90	30
1717.5	15	QPSK	1/0	13.34	V	7.95	0.79	20.50	30
1732.5	15	QPSK	1/74	13.16	V	7.95	0.79	20.32	30
1747.5	15	QPSK	1/0	12.97	V	7.95	0.79	20.13	30
1717.5	15	QPSK	1/0	12.26	H	7.95	0.79	19.42	30
1732.5	15	QPSK	1/74	12.14	H	7.95	0.79	19.30	30
1747.5	15	QPSK	1/0	11.79	H	7.95	0.79	18.95	30
1717.5	15	16-QAM	1/0	13.26	V	7.95	0.79	20.42	30
1732.5	15	16-QAM	1/74	13.34	V	7.95	0.79	20.50	30
1747.5	15	16-QAM	1/0	13.54	V	7.95	0.79	20.70	30
1717.5	15	16-QAM	1/0	11.18	H	7.95	0.79	18.34	30
1732.5	15	16-QAM	1/74	11.13	H	7.95	0.79	18.29	30
1747.5	15	16-QAM	1/0	11.45	H	7.95	0.79	18.61	30
1720	20	QPSK	1/99	13.4	V	7.95	0.79	20.56	30
1732.5	20	QPSK	1/99	13.13	V	7.95	0.79	20.29	30
1745	20	QPSK	1/0	13.05	V	7.95	0.79	20.21	30
1720	20	QPSK	1/99	12.28	H	7.95	0.79	19.44	30
1732.5	20	QPSK	1/99	11.86	H	7.95	0.79	19.02	30
1745	20	QPSK	1/0	11.97	H	7.95	0.79	19.13	30
1720	20	16-QAM	1/99	13.29	V	7.95	0.79	20.45	30
1732.5	20	16-QAM	1/99	13.39	V	7.95	0.79	20.55	30
1745	20	16-QAM	1/0	13.54	V	7.95	0.79	20.70	30
1720	20	16-QAM	1/99	12.15	H	7.95	0.79	19.31	30
1732.5	20	16-QAM	1/99	12.32	H	7.95	0.79	19.48	30
1745	20	16-QAM	1/0	12.44	H	7.95	0.79	19.60	30

### EIRP for LTE Band V (Part 22)

Frequency (MHz)	BW (MHz)	Modulation	RB Size/Offset	Substituted level (dBm)	Antenna Polarization	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
824.7	1.4	QPSK	1/5	12.22	V	6.8	0.44	18.51	34.77
836.5	1.4	QPSK	1/5	12.35	V	6.8	0.44	17.93	34.77
848.3	1.4	QPSK	1/5	12.02	V	6.9	0.44	17.77	34.77
824.7	1.4	QPSK	1/5	10.02	H	6.8	0.44	17.30	34.77
836.5	1.4	QPSK	1/5	9.86	H	6.8	0.44	16.42	34.77
848.3	1.4	QPSK	1/5	9.77	H	6.9	0.44	16.36	34.77
824.7	1.4	16-QAM	1/5	12.19	V	6.8	0.44	17.98	34.77
836.5	1.4	16-QAM	1/5	12.05	V	6.8	0.44	17.92	34.77
848.3	1.4	16-QAM	1/5	11.96	V	6.9	0.44	17.75	34.77
824.7	1.4	16-QAM	1/5	9.89	H	6.8	0.44	16.76	34.77
836.5	1.4	16-QAM	1/5	9.79	H	6.8	0.44	16.53	34.77
848.3	1.4	16-QAM	1/5	9.85	H	6.9	0.44	16.28	34.77
825.5	3	QPSK	1/14	12.09	V	6.8	0.44	17.99	34.77
836.5	3	QPSK	1/0	12.42	V	6.8	0.44	17.89	34.77
847.5	3	QPSK	1/14	12.16	V	6.9	0.44	17.68	34.77
825.5	3	QPSK	1/14	9.99	H	6.8	0.44	16.75	34.77
836.5	3	QPSK	1/0	10.05	H	6.8	0.44	16.81	34.77
847.5	3	QPSK	1/14	10.11	H	6.9	0.44	16.43	34.77
825.5	3	16-QAM	1/14	12.14	V	6.8	0.44	16.76	34.77
836.5	3	16-QAM	1/0	12.31	V	6.8	0.44	16.88	34.77
847.5	3	16-QAM	1/14	12.06	V	6.9	0.44	17.19	34.77
825.5	3	16-QAM	1/14	9.79	H	6.8	0.44	15.35	34.77
836.5	3	16-QAM	1/0	9.68	H	6.8	0.44	15.97	34.77
847.5	3	16-QAM	1/14	9.83	H	6.9	0.44	16.01	34.77
826.5	5	QPSK	1/24	12.16	V	6.8	0.44	18.14	34.77
836.5	5	QPSK	1/24	12.28	V	6.8	0.44	17.96	34.77
846.5	5	QPSK	1/24	12.13	V	6.8	0.44	17.90	34.77
826.5	5	QPSK	1/24	10.11	H	6.8	0.44	16.98	34.77
836.5	5	QPSK	1/24	9.94	H	6.8	0.44	16.83	34.77
846.5	5	QPSK	1/24	9.82	H	6.8	0.44	16.77	34.77
826.5	5	16-QAM	1/24	12.07	V	6.8	0.44	16.99	34.77
836.5	5	16-QAM	1/24	12.26	V	6.8	0.44	17.32	34.77
846.5	5	16-QAM	1/24	12.18	V	6.8	0.44	16.82	34.77

826.5	5	16-QAM	1/24	9.79	H	6.8	0.44	15.72	34.77
836.5	5	16-QAM	1/24	9.84	H	6.8	0.44	16.11	34.77
846.5	5	16-QAM	1/24	9.69	H	6.8	0.44	15.59	34.77
829	10	QPSK	1/49	12.33	V	6.8	0.44	18.07	34.77
836.5	10	QPSK	1/49	12.26	V	6.8	0.44	18.04	34.77
844	10	QPSK	1/49	12.17	V	6.8	0.44	17.89	34.77
829	10	QPSK	1/49	9.83	H	6.8	0.44	17.00	34.77
836.5	10	QPSK	1/49	9.74	H	6.8	0.44	16.93	34.77
844	10	QPSK	1/49	9.91	H	6.8	0.44	16.65	34.77
829	10	16-QAM	1/49	12.15	V	6.8	0.44	16.93	34.77
836.5	10	16-QAM	1/49	12.36	V	6.8	0.44	16.91	34.77
844	10	16-QAM	1/49	12.18	V	6.8	0.44	17.30	34.77
829	10	16-QAM	1/49	10	H	6.8	0.44	15.75	34.77
836.5	10	16-QAM	1/49	9.76	H	6.8	0.44	15.82	34.77
844	10	16-QAM	1/49	9.82	H	6.8	0.44	15.99	34.77

### ERP for LTE Band VII (Part 27)

Frequency (MHz)	BW (MHz)	Modulation	RB Size/Offset	Substituted level (dBm)	Antenna Polarization	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
2502.5	5	QPSK	1/0	14.34	V	8.93	0.83	22.44	30
2535	5	QPSK	1/0	15.10	V	8.93	0.83	23.20	30
2567.5	5	QPSK	1/24	15.09	V	8.93	0.83	23.19	30
2502.5	5	QPSK	1/0	13.20	H	8.93	0.83	21.30	30
2535	5	QPSK	1/0	13.87	H	8.93	0.83	21.97	30
2567.5	5	QPSK	1/24	13.91	H	8.93	0.83	22.01	30
2502.5	5	16-QAM	1/0	13.39	V	8.93	0.83	21.49	30
2535	5	16-QAM	1/0	14.35	V	8.93	0.83	22.45	30
2567.5	5	16-QAM	1/24	14.36	V	8.93	0.83	22.46	30
2502.5	5	16-QAM	1/0	12.09	H	8.93	0.83	20.19	30
2535	5	16-QAM	1/0	13.05	H	8.93	0.83	21.15	30
2567.5	5	16-QAM	1/24	12.24	H	8.93	0.83	20.34	30
2505	10	QPSK	1/0	14.6	V	8.93	0.83	22.70	30
2535	10	QPSK	1/49	15.09	V	8.93	0.83	23.19	30
2565	10	QPSK	1/0	14.91	V	8.93	0.83	23.01	30
2505	10	QPSK	1/0	13.52	H	8.93	0.83	21.62	30
2535	10	QPSK	1/49	13.94	H	8.93	0.83	22.04	30
2565	10	QPSK	1/0	13.85	H	8.93	0.83	21.95	30
2505	10	16-QAM	1/0	13.98	V	8.93	0.83	22.08	30
2535	10	16-QAM	1/49	14	V	8.93	0.83	22.10	30
2565	10	16-QAM	1/0	14.15	V	8.93	0.83	22.25	30
2505	10	16-QAM	1/0	12.9	H	8.93	0.83	21.00	30
2535	10	16-QAM	1/49	12.77	H	8.93	0.83	20.87	30
2565	10	16-QAM	1/0	13.03	H	8.93	0.83	21.13	30
2507.5	15	QPSK	1/0	14.65	V	8.93	0.83	22.75	30
2535	15	QPSK	1/74	15.1	V	8.93	0.83	23.20	30
2562.5	15	QPSK	1/0	15.09	V	8.93	0.83	23.19	30
2507.5	15	QPSK	1/0	13.35	H	8.93	0.83	21.45	30
2535	15	QPSK	1/74	13.96	H	8.93	0.83	22.06	30
2562.5	15	QPSK	1/0	13.88	H	8.93	0.83	21.98	30
2507.5	15	16-QAM	1/0	13.83	V	8.93	0.83	21.93	30
2535	15	16-QAM	1/74	14.29	V	8.93	0.83	22.39	30
2562.5	15	16-QAM	1/0	14.98	V	8.93	0.83	23.08	30

2507.5	15	16-QAM	1/0	12.64	H	8.93	0.83	20.74	30
2535	15	16-QAM	1/74	12.95	H	8.93	0.83	21.05	30
2562.5	15	16-QAM	1/0	13.26	H	8.93	0.83	21.36	30
2510	20	QPSK	1/99	15.1	V	8.93	0.83	23.20	30
2535	20	QPSK	1/99	14.98	V	8.93	0.83	23.08	30
2560	20	QPSK	1/0	15.09	V	8.93	0.83	23.19	30
2510	20	QPSK	1/99	13.87	H	8.93	0.83	21.97	30
2535	20	QPSK	1/99	13.75	H	8.93	0.83	21.85	30
2560	20	QPSK	1/0	13.93	H	8.93	0.83	22.03	30
2510	20	16-QAM	1/99	13.95	V	8.93	0.83	22.05	30
2535	20	16-QAM	1/99	14.26	V	8.93	0.83	22.36	30
2560	20	16-QAM	1/0	14.19	V	8.93	0.83	22.29	30
2510	20	16-QAM	1/99	12.9	H	8.93	0.83	21.00	30
2535	20	16-QAM	1/99	13.01	H	8.93	0.83	21.11	30
2560	20	16-QAM	1/0	12.86	H	8.93	0.83	20.96	30

### ERP for LTE Band XII (Part 27)

Frequency (MHz)	BW (MHz)	Modulation	RB Size/Offset	Substituted level (dBm)	Antenna Polarization	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
699.7	1.4	QPSK	1/5	10.15	V	6.9	0.42	19.32	34.77
707.5	1.4	QPSK	1/5	9.96	V	6.8	0.42	19.43	34.77
715.3	1.4	QPSK	1/5	9.87	V	6.8	0.42	19.22	34.77
699.7	1.4	QPSK	1/5	9.93	H	6.9	0.42	17.95	34.77
707.5	1.4	QPSK	1/5	10.09	H	6.8	0.42	18.21	34.77
715.3	1.4	QPSK	1/5	9.46	H	6.8	0.42	18.00	34.77
699.7	1.4	16-QAM	1/5	9.84	V	6.9	0.42	19.31	34.77
707.5	1.4	16-QAM	1/5	9.92	V	6.8	0.42	19.38	34.77
715.3	1.4	16-QAM	1/5	9.77	V	6.8	0.42	19.20	34.77
699.7	1.4	16-QAM	1/5	9.63	H	6.9	0.42	18.16	34.77
707.5	1.4	16-QAM	1/5	9.81	H	6.8	0.42	18.22	34.77
715.3	1.4	16-QAM	1/5	9.95	H	6.8	0.42	17.98	34.77
700.5	3	QPSK	1/14	10	V	6.9	0.42	19.29	34.77
707.5	3	QPSK	1/0	9.86	V	6.8	0.42	19.43	34.77
714.5	3	QPSK	1/14	9.53	V	6.8	0.42	19.41	34.77
700.5	3	QPSK	1/14	9.71	H	6.9	0.42	18.11	34.77
707.5	3	QPSK	1/0	9.49	H	6.8	0.42	18.19	34.77
714.5	3	QPSK	1/14	9.84	H	6.8	0.42	18.24	34.77
700.5	3	16-QAM	1/14	9.65	V	6.9	0.42	19.24	34.77
707.5	3	16-QAM	1/0	9.77	V	6.8	0.42	19.39	34.77
714.5	3	16-QAM	1/14	9.83	V	6.8	0.42	19.39	34.77
700.5	3	16-QAM	1/14	10.01	H	6.9	0.42	17.90	34.77
707.5	3	16-QAM	1/0	9.82	H	6.8	0.42	18.05	34.77
714.5	3	16-QAM	1/14	10.09	H	6.8	0.42	18.10	34.77
701.5	5	QPSK	1/24	9.73	V	6.9	0.42	19.41	34.77
707.5	5	QPSK	1/24	9.84	V	6.8	0.42	19.51	34.77
713.5	5	QPSK	1/24	9.66	V	6.8	0.42	19.43	34.77
701.5	5	QPSK	1/24	9.73	H	6.9	0.42	18.30	34.77
707.5	5	QPSK	1/24	9.43	H	6.8	0.42	18.38	34.77
713.5	5	QPSK	1/24	9.57	H	6.8	0.42	18.26	34.77
701.5	5	16-QAM	1/24	9.61	V	6.9	0.42	19.41	34.77
707.5	5	16-QAM	1/24	9.49	V	6.8	0.42	19.81	34.77
713.5	5	16-QAM	1/24	9.61	V	6.8	0.42	19.37	34.77
701.5	5	16-QAM	1/24	9.37	H	6.9	0.42	18.27	34.77



707.5	5	16-QAM	1/24	9.58	H	6.8	0.42	18.63	34.77
713.5	5	16-QAM	1/24	9.62	H	6.8	0.42	18.15	34.77
704	10	QPSK	1/49	9.73	V	6.8	0.42	19.38	34.77
707.5	10	QPSK	1/49	9.59	V	6.8	0.42	19.38	34.77
711	10	QPSK	1/49	9.64	V	6.8	0.42	19.37	34.77
704	10	QPSK	1/49	9.35	H	6.8	0.42	18.22	34.77
707.5	10	QPSK	1/49	9.67	H	6.8	0.42	18.19	34.77
711	10	QPSK	1/49	9.59	H	6.8	0.42	18.03	34.77
704	10	16-QAM	1/49	9.34	V	6.8	0.42	19.36	34.77
707.5	10	16-QAM	1/49	9.61	V	6.8	0.42	19.37	34.77
711	10	16-QAM	1/49	9.56	V	6.8	0.42	20.07	34.77
704	10	16-QAM	1/49	9.73	H	6.8	0.42	18.11	34.77
707.5	10	16-QAM	1/49	9.84	H	6.8	0.42	17.92	34.77
711	10	16-QAM	1/49	9.59	H	6.8	0.42	18.74	34.77

### ERP for LTE Band XVII (Part 27)

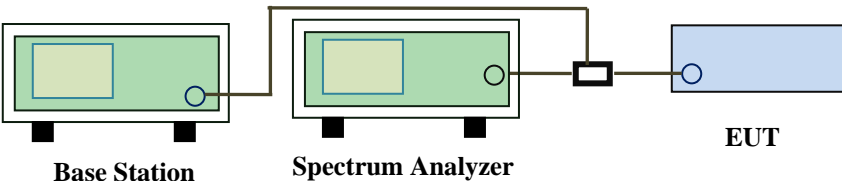
Frequency (MHz)	BW (MHz)	Modulation	RB Size/Offset	Substituted level (dBm)	Antenna Polarization	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
706.5	5	QPSK	1/0	12.16	V	6.8	0.42	18.54	34.77
710	5	QPSK	1/0	12.04	V	6.8	0.42	18.42	34.77
713.5	5	QPSK	1/0	11.94	V	6.8	0.42	18.32	34.77
706.5	5	QPSK	1/0	10.95	H	6.8	0.42	17.33	34.77
710	5	QPSK	1/0	10.88	H	6.8	0.42	17.26	34.77
713.5	5	QPSK	1/0	10.92	H	6.8	0.42	17.30	34.77
706.5	5	16-QAM	1/0	11.18	V	6.8	0.42	17.56	34.77
710	5	16-QAM	1/0	11.47	V	6.8	0.42	17.85	34.77
713.5	5	16-QAM	1/0	10.9	V	6.8	0.42	17.28	34.77
706.5	5	16-QAM	1/0	9.95	H	6.8	0.42	16.33	34.77
710	5	16-QAM	1/0	10.26	H	6.8	0.42	16.64	34.77
713.5	5	16-QAM	1/0	9.65	H	6.8	0.42	16.03	34.77
709	10	QPSK	1/0	11.99	V	6.8	0.42	18.37	34.77
710	10	QPSK	1/0	11.98	V	6.8	0.42	18.36	34.77
711	10	QPSK	1/0	11.86	V	6.8	0.42	18.24	34.77
709	10	QPSK	1/0	10.69	H	6.8	0.42	17.07	34.77
710	10	QPSK	1/0	10.75	H	6.8	0.42	17.13	34.77
711	10	QPSK	1/0	10.66	H	6.8	0.42	17.04	34.77
709	10	16-QAM	1/0	11.03	V	6.8	0.42	17.41	34.77
710	10	16-QAM	1/0	10.98	V	6.8	0.42	17.36	34.77
711	10	16-QAM	1/0	11.57	V	6.8	0.42	17.95	34.77
709	10	16-QAM	1/0	9.74	H	6.8	0.42	16.12	34.77
710	10	16-QAM	1/0	9.67	H	6.8	0.42	16.05	34.77
711	10	16-QAM	1/0	9.98	H	6.8	0.42	16.36	34.77

### 6.3 Peak-Average Ratio

Temperature	25°C
Relative Humidity	56%
Atmospheric Pressure	1021mbar
Test date :	May 25, 2017
Tested By :	Vera 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>
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Test Procedure	<p><b>According with KDB 971168 v02r02</b></p> <p><b>5.7.2 Alternate procedure for PAPR</b></p> <p><b>5.1.2 Peak power measurements with a peak power meter</b></p> <p>The total peak output power may be measured using a broadband peak RF power meter. The power meter must have a video bandwidth that is greater than or equal to the emission bandwidth and utilize a fast-responding diode detector.</p> <p><b>5.2.3 Average power measurement with average power meter</b></p> <p>As an alternative to the use of a spectrum/signal analyzer or EMI receiver to perform a measurement of the total in-band average output power, a wideband RF average power meter with a thermocouple detector or equivalent can be used under certain conditions</p> <p>If the EUT can be configured to transmit continuously (i.e., the burst duty cycle <math>\geq 98\%</math>) and at all times the EUT is transmitting at its maximum output</p>
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	<p>power level, then a conventional wide-band RF power meter can be used. If the EUT cannot be configured to transmit continuously (i.e., the burst duty cycle &lt; 98%), then there are two options for the use of an average power meter. First, a gated average power meter can be used to perform the measurement if the gating parameters can be adjusted such that the power is measured only over active transmission bursts at maximum output power levels. A conventional average power meter can also be used if the measured burst duty cycle is constant (i.e., duty cycle variations are less than <math>\pm 2</math> percent) by performing the measurement over the on/off burst cycles and then correcting (increasing) the measured level by a factor equal to <math>10\log(1/\text{duty cycle})</math></p>
Remark	
Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail

**Test Data** ☒ Yes ☐ N/A  
**Test Plot** ☐ Yes (See below) ☒ N/A

### LTE Band II (part 24E)

BW(MHz)	Frequency (MHz)	Mode	Modulation	Conducted Power (dBm)		Peak-Average Ratio (PAR)
				Peak	Average	
1.4	1880	RB 1/0	QPSK	25.26	23.54	1.72
			16QAM	25.21	22.44	2.77
3	1880	RB 1/0	QPSK	25.33	22.68	2.65
			16QAM	25.6	21.59	4.01
5	1880	RB 1/0	QPSK	25.41	22.7	2.71
			16QAM	25.12	21.96	3.16
10	1880	RB 1/0	QPSK	25.25	22.69	2.56
			16QAM	25.26	21.58	3.68
15	1880	RB 1/0	QPSK	25.24	22.61	2.63
			16QAM	25.21	22.27	2.94
20	1880	RB 1/0	QPSK	25.23	22.75	2.48
			16QAM	25.23	22.2	3.03

### LTE Band IV (part 27)

BW(MHz)	Frequency (MHz)	Mode	Modulation	Conducted Power (dBm)		Peak-Average Ratio (PAR)
				Peak	Average	
1.4	1732.5	RB 1/0	QPSK	25.36	22.45	2.91
			16QAM	25.35	22.41	2.94
3	1732.5	RB 1/0	QPSK	25.31	22.45	2.86
			16QAM	25.31	22.4	2.91
5	1732.5	RB 1/0	QPSK	25.34	22.49	2.85
			16QAM	25.33	22.82	2.51
10	1732.5	RB 1/0	QPSK	25.34	22.57	2.77
			16QAM	25.31	22.35	2.96
15	1732.5	RB 1/0	QPSK	25.34	22.48	2.86
			16QAM	25.32	22.67	2.65
20	1732.5	RB 1/0	QPSK	25.39	22.46	2.93
			16QAM	25.33	22.69	2.64

### LTE Band V (part 27)

BW(MHz)	Frequency (MHz)	Mode	Modulation	Conducted Power (dBm)		Peak-Average Ratio (PAR)
				Peak	Average	
1.4	836.5	RB 1/0	QPSK	25.62	22.11	3.51
			16QAM	25.62	21.07	4.55
3	836.5	RB 1/0	QPSK	25.59	22.11	3.48
			16QAM	25.32	21.09	4.23
5	836.5	RB 1/0	QPSK	25.46	22.16	3.30
			16QAM	25.26	21.56	3.70
10	836.5	RB 1/0	QPSK	25.34	22.24	3.10
			16QAM	25.33	21.16	4.17

### LTE Band VII (part 27)

BW(MHz)	Frequency (MHz)	Mode	Modulation	Conducted Power (dBm)		Peak-Average Ratio (PAR)
				Peak	Average	
5	2535	RB 1/0	QPSK	25.33	23.00	2.33
			16QAM	25.36	22.23	3.13
10	2535	RB 1/0	QPSK	25.62	22.98	2.64
			16QAM	25.56	21.75	3.81
15	2535	RB 1/0	QPSK	25.51	22.99	2.52
			16QAM	25.23	22.19	3.04
20	2535	RB 1/0	QPSK	25.64	22.88	2.76
			16QAM	25.46	22.13	3.33

### LTE Band XII (part 27)

BW(MHz)	Frequency (MHz)	Mode	Modulation	Conducted Power (dBm)		Peak-Average Ratio (PAR)
				Peak	Average	
1.4	1732.5	RB 1/0	QPSK	25.36	23.27	1.89
			16QAM	25.34	23.21	2.78
3	1732.5	RB 1/0	QPSK	25.34	23.23	1.91
			16QAM	25.31	23.21	2.97
5	1732.5	RB 1/0	QPSK	25.32	23.23	1.74
			16QAM	-25.33	23.66	2.32
10	1732.5	RB 1/0	QPSK	-25.39	23.23	1.74
			16QAM	-25.62	23.19	2.39

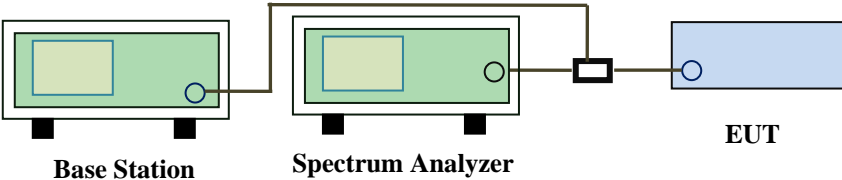
### LTE Band XVII (part 27)

BW(MHz)	Frequency (MHz)	Mode	Modulation	Conducted Power (dBm)		Peak-Average Ratio (PAR)
				Peak	Average	
5	710	RB 1/0	QPSK	25.26	22.37	2.89
			16QAM	25.34	21.77	3.57
10	710	RB 1/0	QPSK	25.15	22.3	2.85
			16QAM	25.34	21.26	4.08

## 6.4 Occupied Bandwidth

Temperature	25°C
Relative Humidity	56%
Atmospheric Pressure	1020mbar
Test date :	May 26&27, 2017
Tested By :	Vera 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			
Test Procedure	<ul style="list-style-type: none"> <li>- The EUT was connected to Spectrum Analyzer and Base Station via power divider.</li> <li>- The 99% and 26 dB occupied bandwidth (BW) of the middle channel for the highest RF powers.</li> </ul>		
Remark			
Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail		

Test Data    ☒ Yes      ☐ N/A

Test Plot    ☒ Yes (See below)      ☐ N/A



### LTE Band II (Part 24E)

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
1.4	18607	1851	16QAM	1.0988	1.261
			QPSK	1.1009	1.286
1.4	18900	1880	16QAM	1.0999	1.280
			QPSK	1.1091	1.261
1.4	19193	1909	16QAM	1.0970	1.260
			QPSK	1.0988	1.280
3	18615	1852	16QAM	2.7385	3.063
			QPSK	2.7426	3.043
3	18900	1880	16QAM	2.7294	3.059
			QPSK	2.7404	3.054
3	19185	1909	16QAM	2.7509	3.071
			QPSK	2.7427	3.069
5	18625	1853	16QAM	4.5404	5.092
			QPSK	4.5249	5.095
5	18900	1880	16QAM	4.5272	5.042
			QPSK	4.5283	5.050
5	19175	1908	16QAM	4.5281	5.071
			QPSK	4.5375	5.074
10	18650	1855	16QAM	9.0313	10.09
			QPSK	9.0367	10.14
10	18900	1880	16QAM	9.0616	10.12
			QPSK	9.0711	10.23
10	19150	1905	16QAM	9.0626	10.16
			QPSK	9.0579	10.19
15	18675	1858	16QAM	13.473	14.86
			QPSK	13.467	14.86
15	18900	1880	16QAM	13.503	14.99
			QPSK	13.489	14.87
15	19125	1903	16QAM	13.498	14.89
			QPSK	13.531	14.85

20	18700	1860	16QAM	17.928	19.39
			QPSK	17.918	19.40
20	18900	1880	16QAM	17.913	19.47
			QPSK	17.944	19.44
20	19100	1900	16QAM	17.940	19.42
			QPSK	17.969	19.41

### LTE Band IV (Part 27)

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
1.4	19957	1711	16QAM	1.1002	1.284
			QPSK	1.0997	1.282
1.4	20175	1733	16QAM	1.1069	1.268
			QPSK	1.1077	1.269
1.4	20393	1754	16QAM	1.0995	1.276
			QPSK	1.0990	1.278
3	19965	1712	16QAM	2.7534	3.031
			QPSK	2.7373	3.036
3	20175	1733	16QAM	2.7424	3.037
			QPSK	2.7359	3.043
3	20385	1754	16QAM	2.7488	3.059
			QPSK	2.7437	3.042
5	19975	1713	16QAM	4.5333	5.101
			QPSK	4.5294	5.095
5	20175	1733	16QAM	4.5307	5.046
			QPSK	4.5282	5.064
5	20375	1753	16QAM	4.5279	5.060
			QPSK	4.5327	5.058
10	20000	1715	16QAM	9.0490	10.04
			QPSK	9.0544	10.08
10	20175	1733	16QAM	9.0565	10.04
			QPSK	9.0668	10.06
10	20350	1750	16QAM	9.0363	10.07
			QPSK	9.0236	10.03
15	20025	1718	16QAM	13.512	13.464
			QPSK	13.516	13.463
15	20175	1733	16QAM	13.496	13.503
			QPSK	13.473	13.481
15	20325	1748	16QAM	13.492	13.495
			QPSK	13.505	13.499

20	20050	1720	16QAM	17.988	17.913
			QPSK	17.921	17.908
20	20175	1733	16QAM	17.900	17.972
			QPSK	17.928	17.951
20	20300	1745	16QAM	17.912	17.923
			QPSK	17.952	17.920

### LTE Band V (Part 22H)

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
1.4	20407	824.7	16QAM	1.1048	1.288
			QPSK	1.0996	1.292
1.4	20525	836.5	16QAM	1.1113	1.279
			QPSK	1.1096	1.276
1.4	20643	848.3	16QAM	1.1025	1.285
			QPSK	1.1011	1.279
3	20415	825.5	16QAM	2.7521	3.063
			QPSK	2.7506	3.060
3	20525	836.5	16QAM	2.7471	3.062
			QPSK	2.7499	3.055
3	20635	847.5	16QAM	2.7447	3.051
			QPSK	2.7413	3.058
5	20425	826.5	16QAM	4.5353	5.110
			QPSK	4.5323	5.106
5	20525	836.5	16QAM	4.5266	5.116
			QPSK	4.5256	5.070
5	20625	846.5	16QAM	4.5345	5.082
			QPSK	4.5366	5.065
10	20450	829	16QAM	9.0440	10.02
			QPSK	9.0454	10.08
10	20525	836.5	16QAM	9.0785	10.14
			QPSK	9.0744	10.15
10	20800	844	16QAM	9.0771	10.03
			QPSK	9.0761	10.08

### LTE Band VII (Part 27) result

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
5	20775	2503	16QAM	4.5380	5.082
			QPSK	4.5392	5.082
5	21100	2535	16QAM	4.5309	5.066
			QPSK	4.5330	5.084
5	21425	2568	16QAM	4.5407	5.085
			QPSK	4.5312	5.074
10	20800	2505	16QAM	9.0411	10.10
			QPSK	9.0391	10.12
10	21100	2535	16QAM	9.0825	10.18
			QPSK	9.0809	10.20
10	21400	2565	16QAM	9.0624	10.21
			QPSK	9.0695	10.20
15	20825	2508	16QAM	13.467	15.07
			QPSK	13.459	15.02
15	21100	2535	16QAM	13.521	15.05
			QPSK	13.510	15.00
15	21400	2563	16QAM	13.528	15.03
			QPSK	13.4521	15.03
20	20850	2510	16QAM	17.930	19.30
			QPSK	17.899	19.39
20	21100	2535	16QAM	17.988	19.51
			QPSK	17.925	19.53
20	21350	2560	16QAM	17.990	19.32
			QPSK	17.956	19.35

### LTE Band XII (Part 27)

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
1.4	23017	699.7	16QAM	1.1074	1.299
			QPSK	1.1077	1.296
1.4	23095	707.5	16QAM	1.1106	1.278
			QPSK	1.1053	1.283
1.4	23173	715.3	16QAM	1.1074	1.284
			QPSK	1.1058	1.290
3	23025	700.5	16QAM	2.7592	3.053
			QPSK	2.7592	3.054
3	23095	707.5	16QAM	2.7516	3.070
			QPSK	2.7517	3.052
3	23165	714.5	16QAM	2.7464	3.062
			QPSK	2.7502	3.053
5	23035	701.5	16QAM	4.5378	5.105
			QPSK	4.5382	5.107
5	23095	707.5	16QAM	4.5272	5.071
			QPSK	4.5308	5.059
5	23055	713.5	16QAM	4.5323	5.068
			QPSK	4.5387	5.065
10	23060	704	16QAM	9.0796	10.15
			QPSK	9.0688	10.16
10	23095	707.5	16QAM	9.1060	10.20
			QPSK	9.1101	10.24
10	23130	711	16QAM	9.1283	10.21
			QPSK	9.1276	10.30

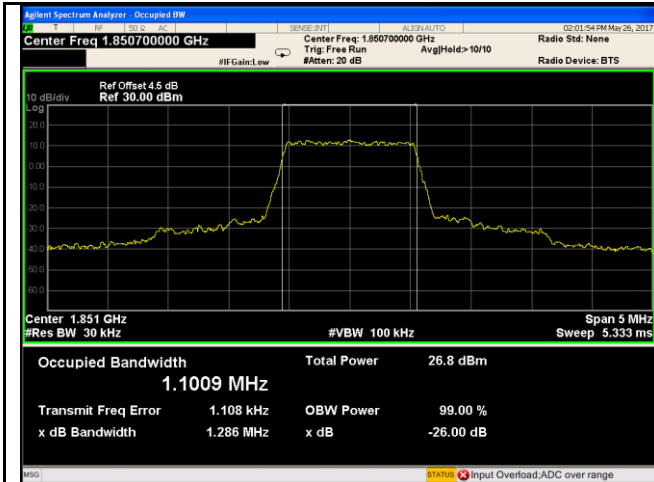
### LTE Band XVII (Part 27)

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
5	23755	706.5	16QAM	4.5394	5.089
			QPSK	4.5362	5.103
5	23790	710	16QAM	4.5419	5.081
			QPSK	4.5415	5.076
5	23825	713.5	16QAM	4.5419	5.104
			QPSK	4.5405	5.104
10	23780	709	16QAM	9.0801	10.11
			QPSK	9.0841	10.16
10	23790	710	16QAM	9.1136	10.18
			QPSK	9.1117	10.16
10	23800	711	16QAM	9.1316	10.28
			QPSK	9.1124	10.29

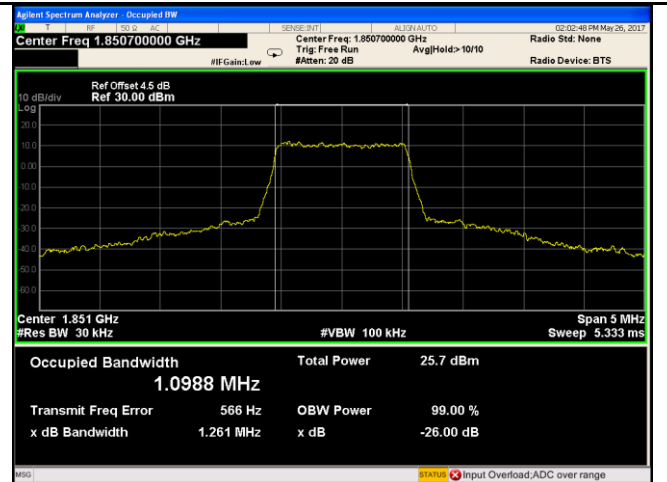


## Test Plots

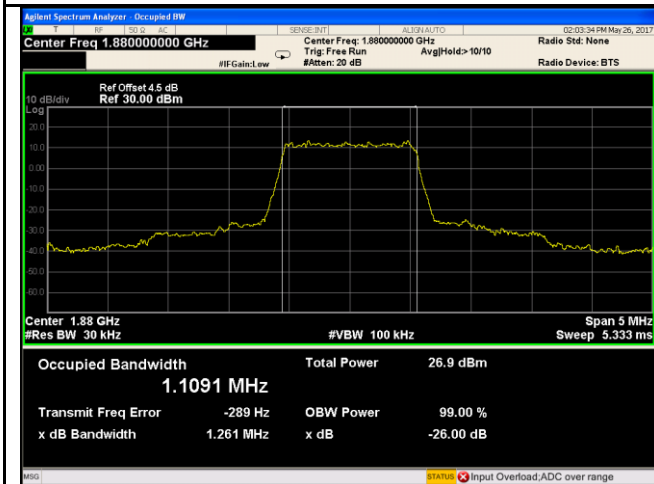
### LTE Band II (Part 24E)



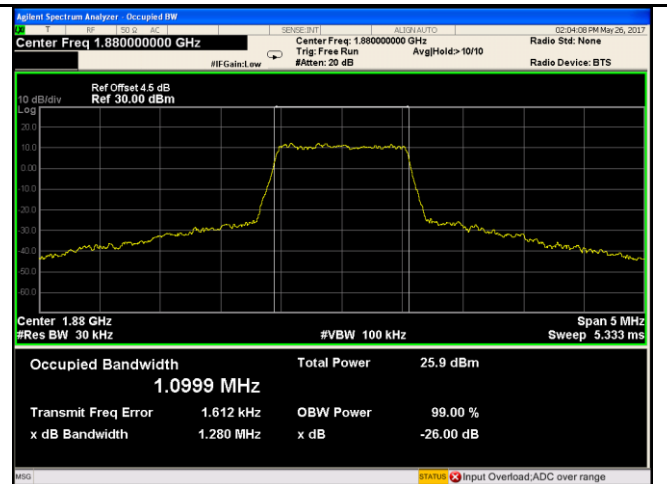
LTE Band II - Low CH QPSK-1.4



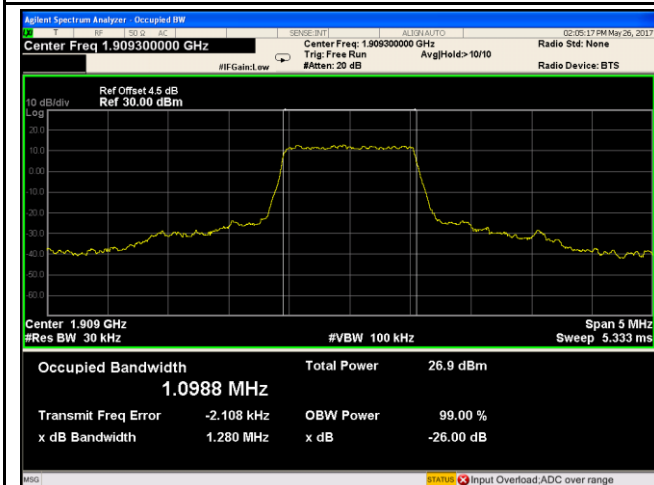
LTE Band II - Low CH 16QAM-1.4



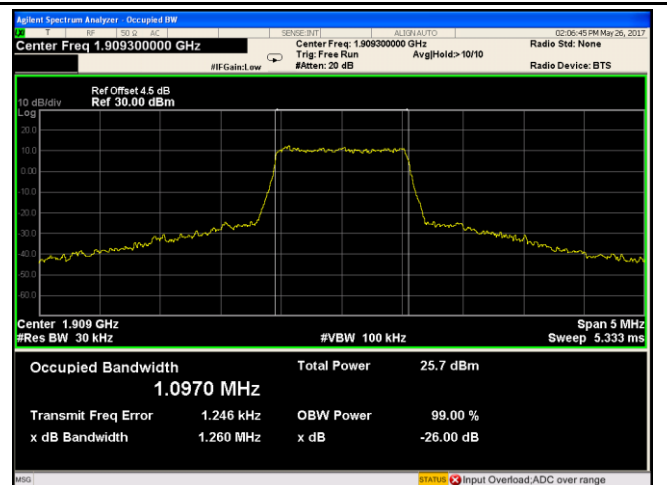
LTE Band II - Middle CH QPSK-1.4



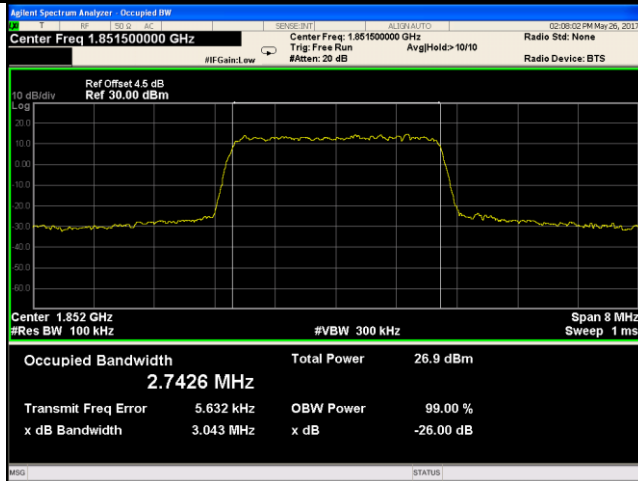
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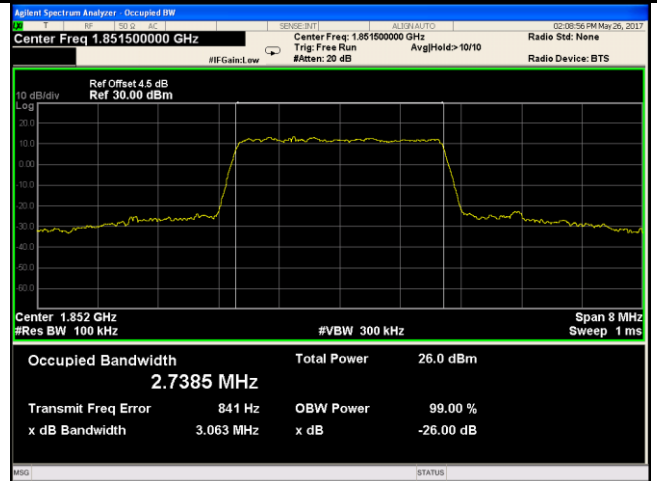
LTE Band II - High CH QPSK-1.4



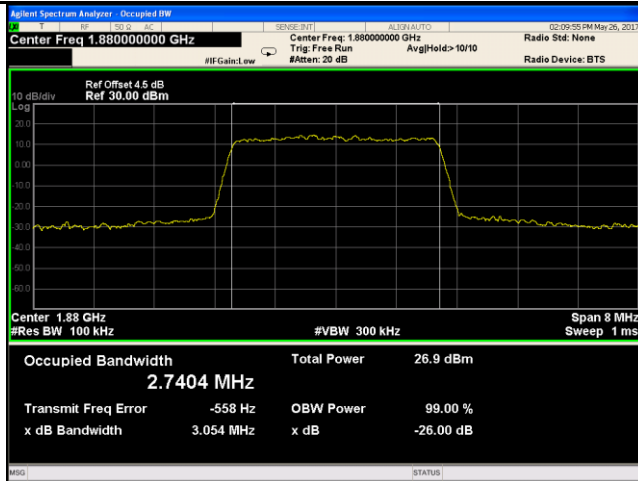
LTE Band II - High CH 16QAM-1.4



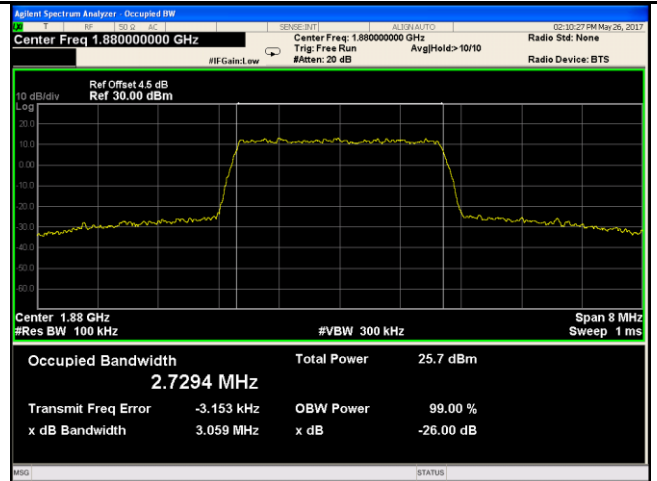
LTE Band II - Low CH QPSK-3



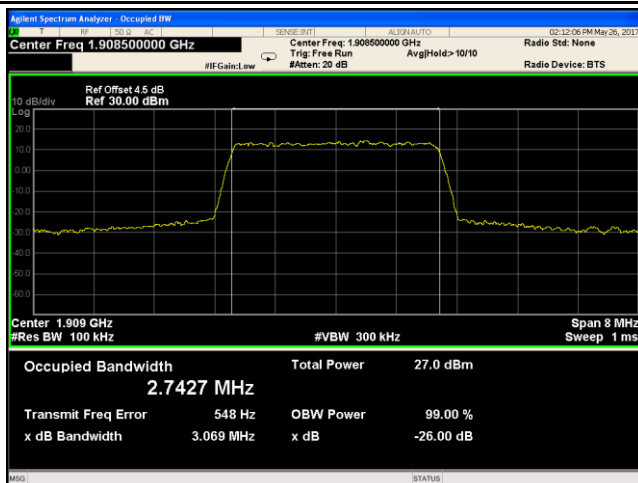
LTE Band II - Low CH 16QAM-3



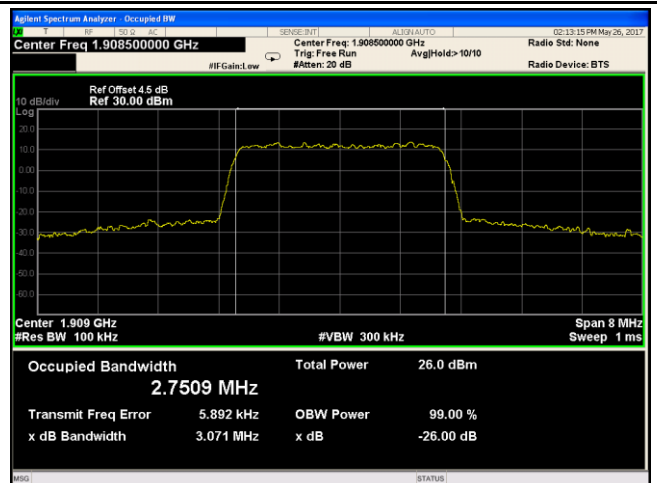
LTE Band II - Middle CH QPSK-3



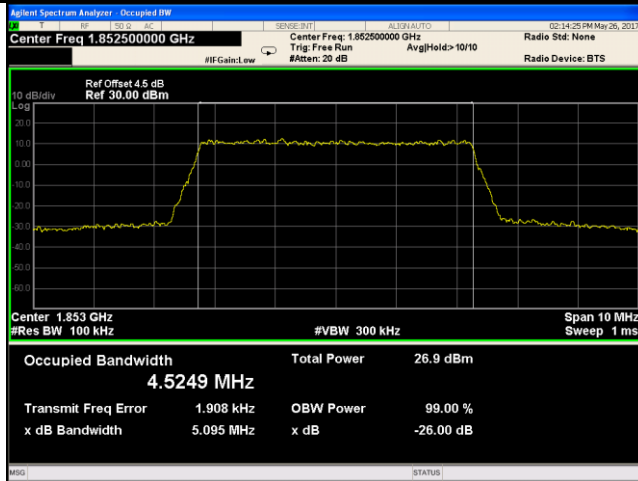
LTE Band II - Middle CH 16QAM-3



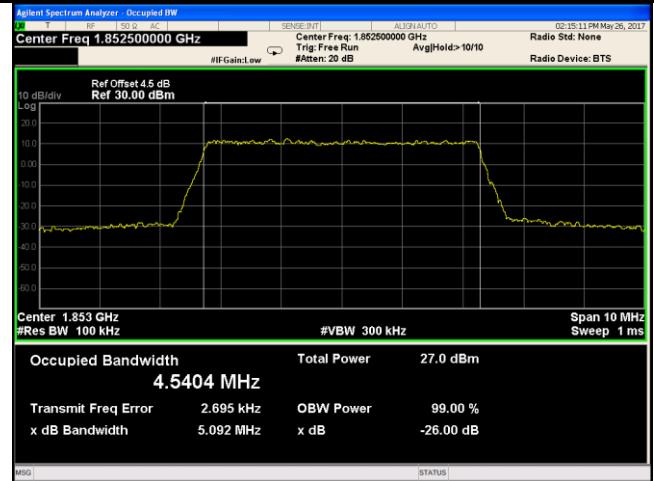
LTE Band II - High CH QPSK-3



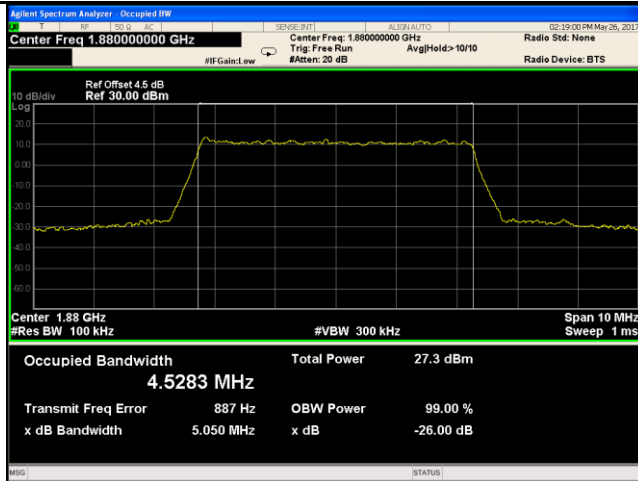
LTE Band II - High CH 16QAM-3



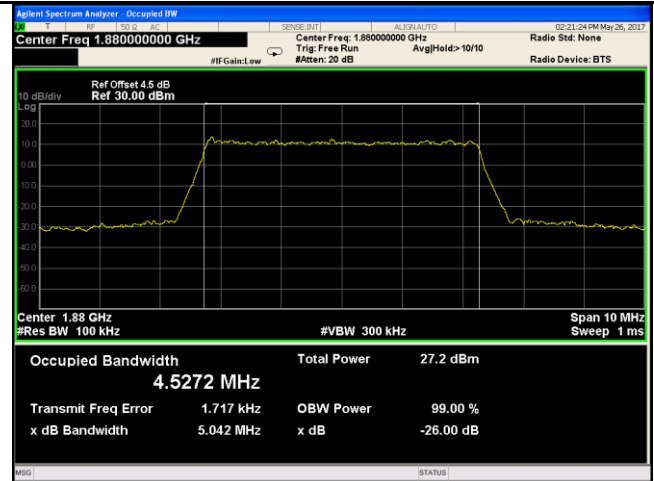
LTE Band II - Low CH QPSK-5



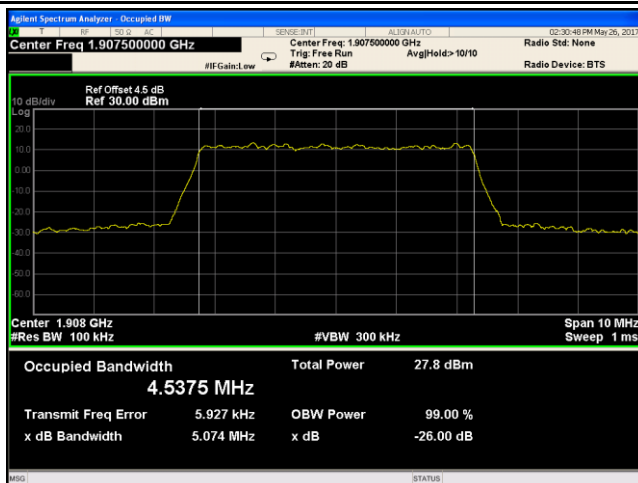
LTE Band II - Low CH 16QAM-5



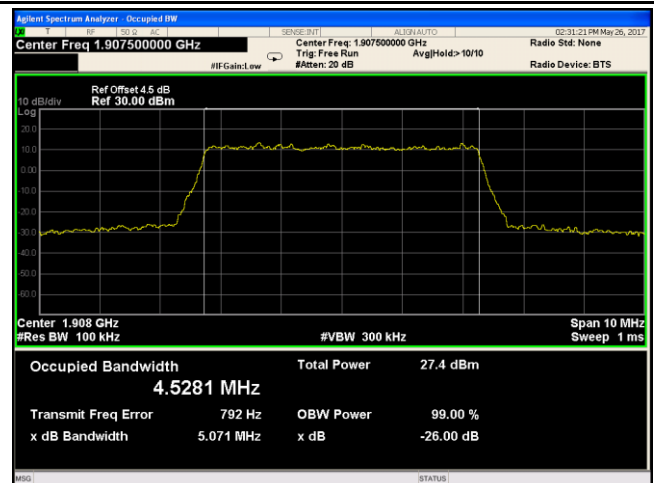
LTE Band II - Middle CH QPSK-5



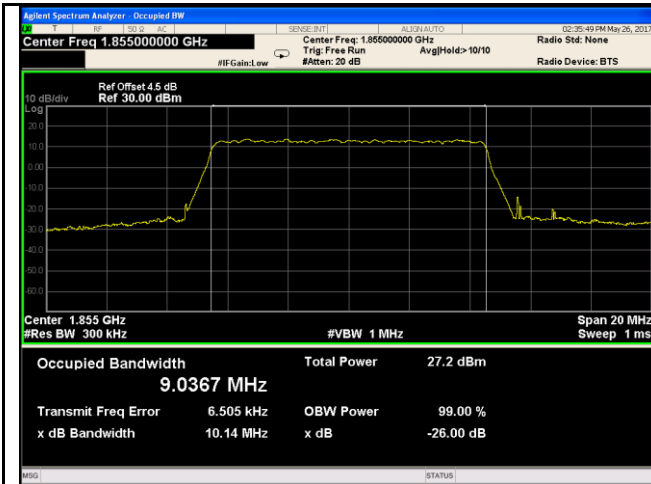
LTE Band II - Middle CH 16QAM-5



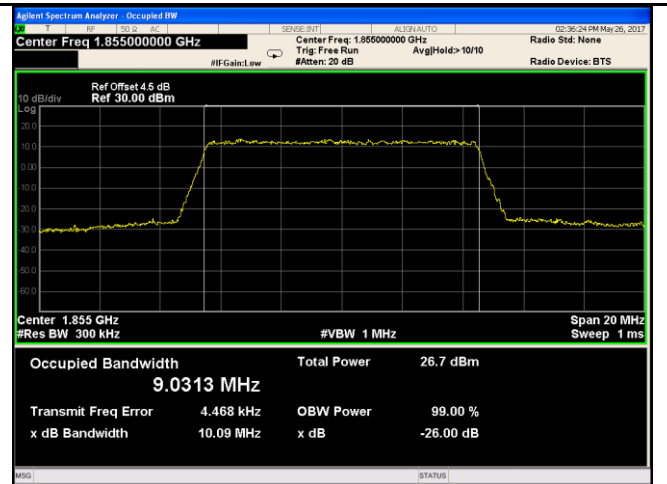
LTE Band II - High CH QPSK-5



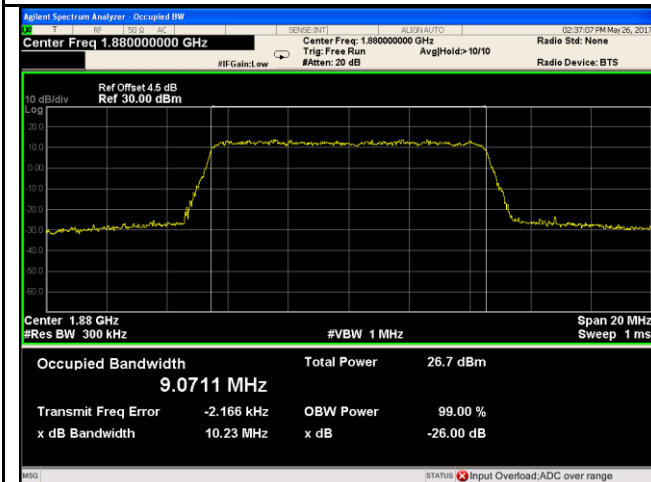
LTE Band II - High CH 16QAM-5



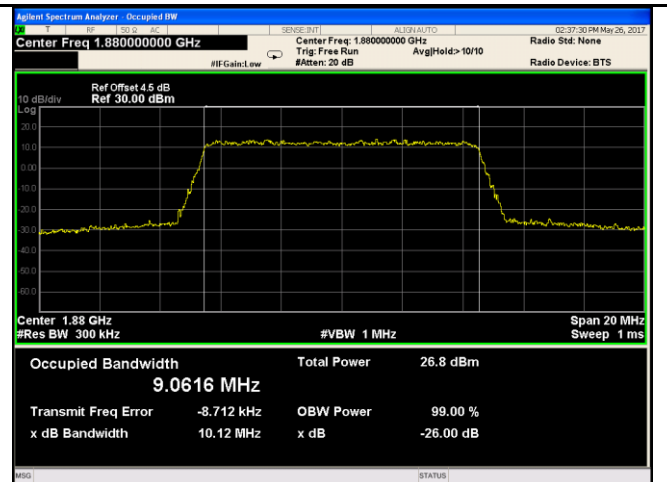
LTE Band II - Low CH QPSK-10



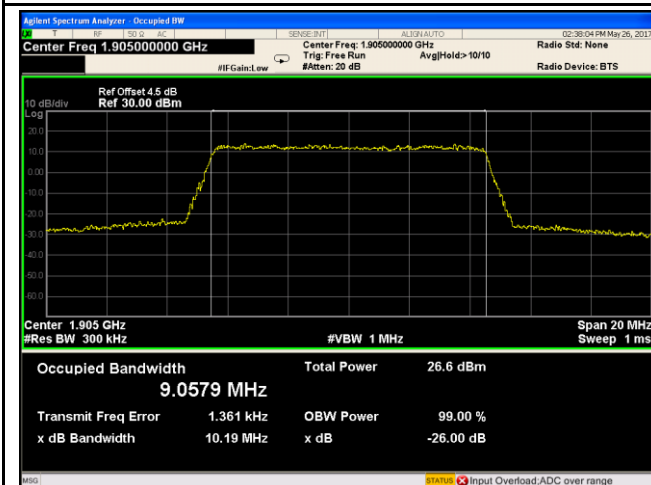
LTE Band II - Low CH 16QAM-10



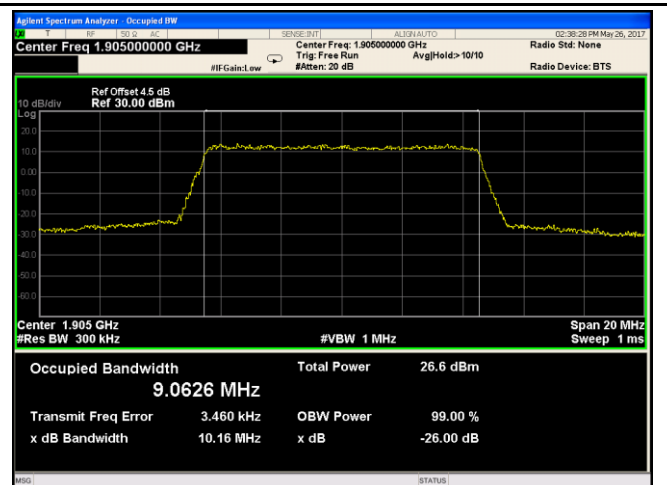
LTE Band II - Middle CH QPSK-10



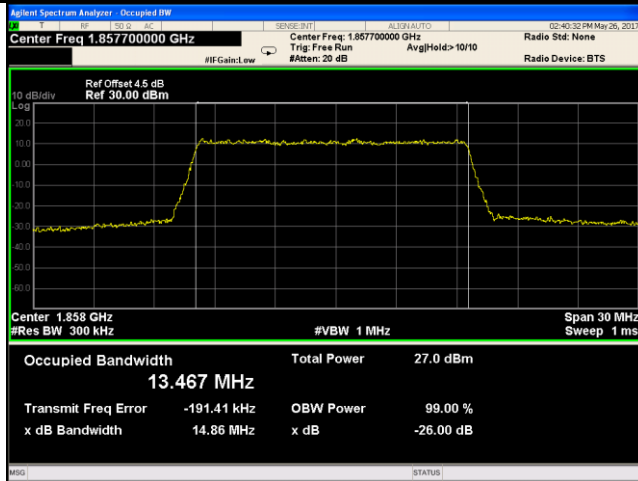
LTE Band II - Middle CH 16QAM-10



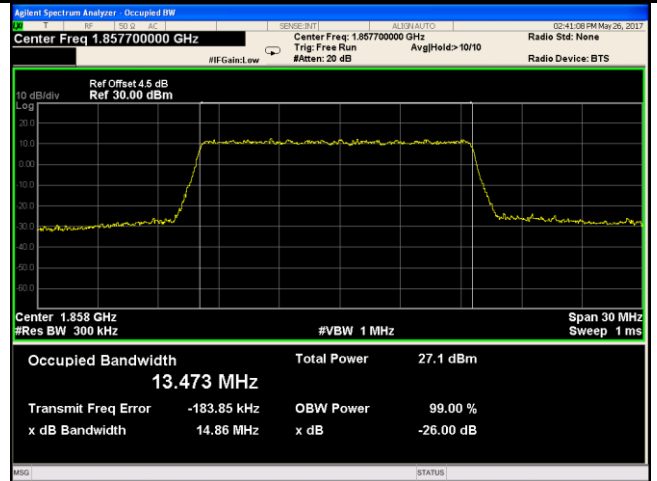
LTE Band II - High CH QPSK-10



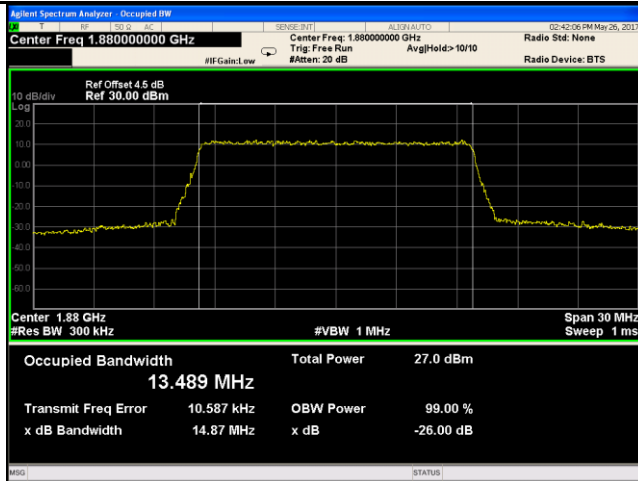
LTE Band II - High CH 16QAM-10



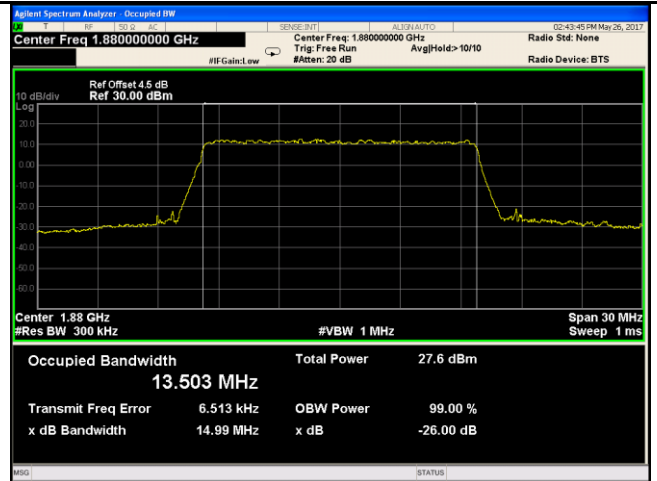
LTE Band II - Low CH QPSK-15



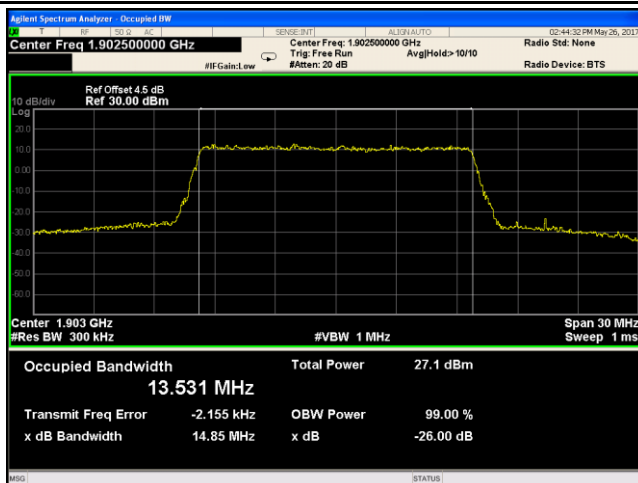
LTE Band II - Low CH 16QAM-15



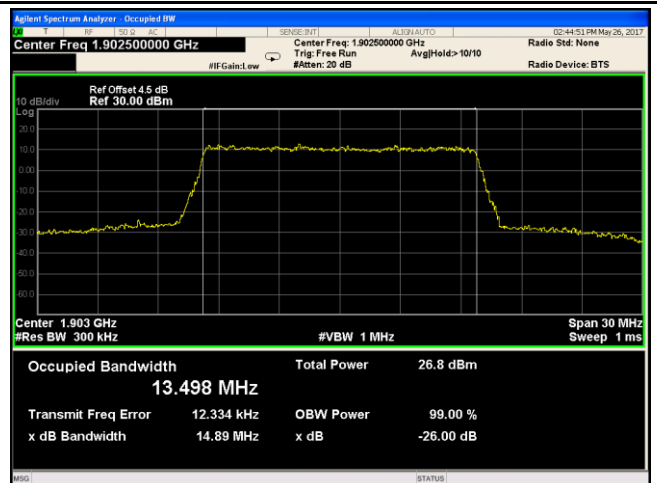
LTE Band II - Middle CH QPSK-15



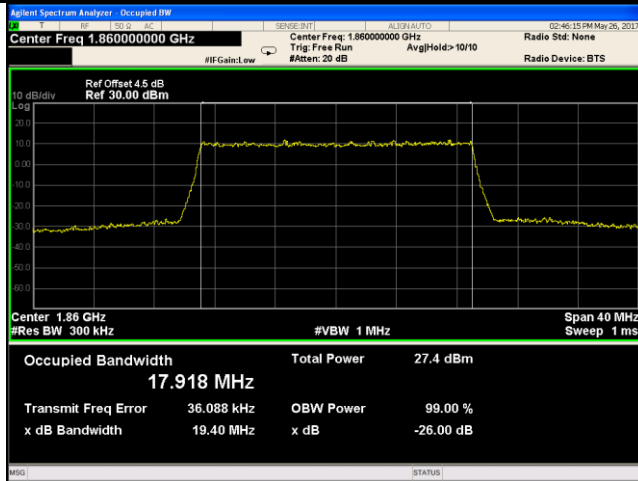
LTE Band II - Middle CH 16QAM-15



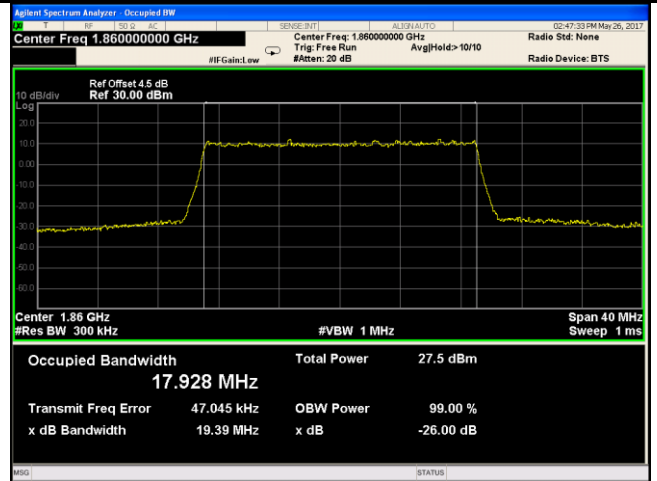
LTE Band II - High CH QPSK-15



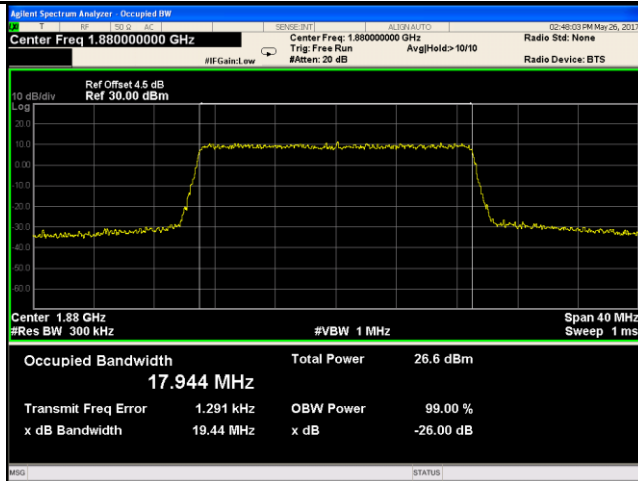
LTE Band II - High CH 16QAM-15



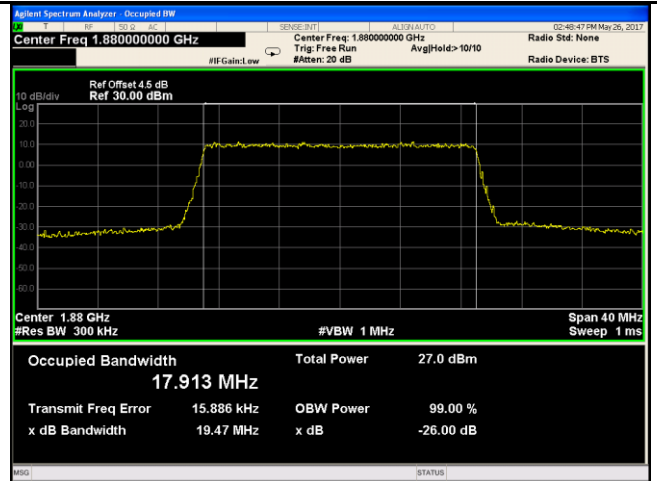
LTE Band II - Low CH QPSK-20



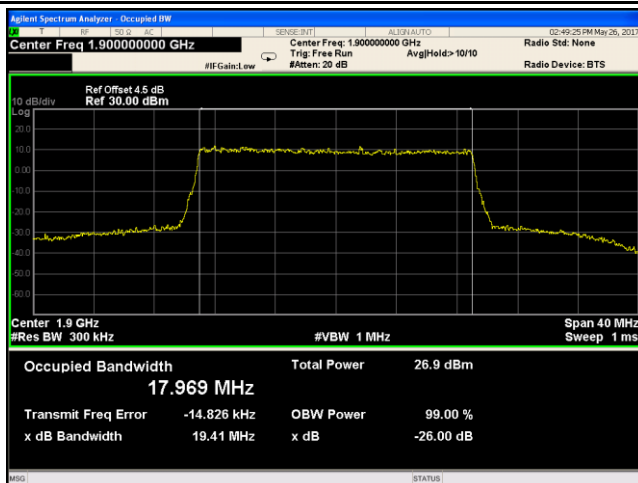
LTE Band II - Low CH 16QAM-20



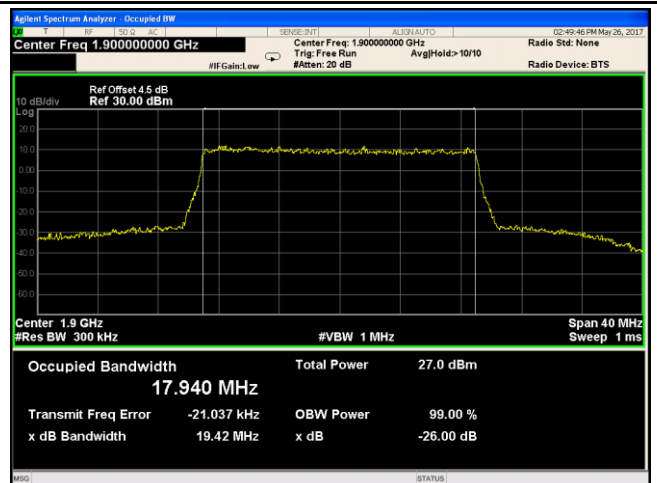
LTE Band II - Middle CH QPSK-20



LTE Band II - Middle CH 16QAM-20



LTE Band II - High CH QPSK-20



LTE Band II - High CH 16QAM-20