

# RF TEST REPORT



Report No.: 17070376-FCC-R5

Supersede Report No.: N/A

Applicant	INFINIX MOBILITY LIMITED	
Product Name	Mobile phone	
Model No.	X572	
Serial No.	N/A	
Test Standard	FCC Part 22(H):2016, FCC Part 24(E):2016, FCC Part 27: 2016; ANSI/TIA-603-D: 2010	
Test Date	May 19 to June 12, 2017	
Issue Date	June 13, 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	David Huang	
Vera Zhang Test Engineer	David Huang Checked By	
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Test result presented in this test report is applicable to the tested sample only		

Issued by:

SIEMIC (SHENZHEN-CHINA) LABORATORIES

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## Laboratories Introduction

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### Accreditations for Conformity Assessment

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

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## 1. Report Revision History

Report No.	Report Version	Description	Issue Date
17070376-FCC-R5	NONE	Original	June 13, 2017

## 2. Customer information

Applicant Name	INFINIX MOBILITY LIMITED
Applicant Add	RMS 05-15, 13A/F SOUTH TOWER WORLD FINANCE CTR HARBOUR CITY 17 CANTON RD TST KLN HONG KONG
Manufacturer	SHENZHEN TECNO TECHNOLOGY CO.,LTD.
Manufacturer Add	1-4th Floor,3rd Building,Pacific Industrial Park,No.2088,Shenyan Road,Yantian District,Shenzhen,Guangdong,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: X572

Serial Model: N/A

Date EUT received: May 18, 2017

Test Date(s): May 19 to June 12, 2017

Equipment Category : PCE

Antenna Gain:

- GSM850:-3.2dBi
- PCS1900:-0.29dBi
- UMTS-FDD Band V: -3.2dBi
- UMTS-FDD Band IV: -2.98dBi
- UMTS-FDD Band II: -0.29dBi
- LTE Band II: 1.7dBi
- LTE Band IV: -2.98dBi
- LTE Band VII: 2.5dBi
- WIFI(2.4G): 1.35dBi
- WIFI(5150-5250MHz): -2.2 dBi
- WIFI(5250-5350MHz): -2.2 dBi
- WIFI(5725-5850MHz): -2.2 dBi
- Bluetooth/BLE: 1.35dBi
- GPS: -0.29dBi

Antenna Type: PIFA antenna

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Type of Modulation:	GSM / GPRS: GMSK EGPRS: GMSK,8PSK UMTS-FDD: QPSK LTE Band: QPSK, 16QAM 802.11b: DSSS 802.11a/g/n20/n40: OFDM Bluetooth: GFSK, π /4DQPSK, 8DPSK BLE: GFSK GPS: BPSK
RF Operating Frequency (ies):	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~ 1909.3 MHz; RX : 1930.7 ~ 1989.3 MHz LTE Band IV TX: 1710.7 ~ 1754.3 MHz; RX : 2110.7 ~ 2154.3 MHz LTE Band VII TX: 2502.5 ~ 2567.5 MHz; RX : 2622.5 ~ 2687.5 MHz 802.11b/g: 2412-2462 MHz (TX/RX) 802.11n20: 2412-2462MHz ;5180-5320 MHz; 5745-5825 MHz; (TX/RX) 802.11n40: 2422-2452 MHz (TX/RX); 5190-5310 MHz; 5755-5795 MHz; ( TX/RX) 802.11 a: 5180-5320 MHz; 5745-5825 MHz (TX/RX) Bluetooth& BLE: 2402-2480 MHz GPS: 1575.42 MHz
Maximum Conducted AV Power to Antenna:	LTE band II: 22.53 dBm LTE band IV: 22.88 dBm LTE band VII: 22.58 dBm
ERP/EIRP:	LTE band II: 24.23 dBm / EIRP LTE band IV: 19.90 dBm / EIRP LTE band VII: 25.08 dBm / EIRP
Port:	USB Port, Earphone Port

GSM 850: 124CH  
PCS1900: 299CH  
UMTS-FDD Band V: 102CH  
UMTS-FDD Band IV: 202CH  
UMTS-FDD Band II: 277CH  
WIFI :802.11b/g: 11CH  
WIFI :802.11a: 24CH  
WIFI :802.11n20: 11CH(2.4GHz); 24CH(5GHz)  
WIFI :802.11n40: 9CH(2.4GHz); 12CH(5GHz)  
Bluetooth: 79CH  
BLE: 40CH  
GPS:1CH

Adapter:  
Model: CQ-18KX  
Input: AC100-240V~50/60Hz,600mA

Output: DC 5.0V-9V,2A  
DC 9V-12V,1.5A

Input Power:  
Battery :  
Model: BL-42AX  
Spec: 3.85V,4200mAh/4300mAh (min/typ)  
16.17Wh/16.55Wh (min/typ)  
Limited Charge Voltage: 4.4V

Trade Name : Infinix

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

FCC ID: 2AIZN-X572

## 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;

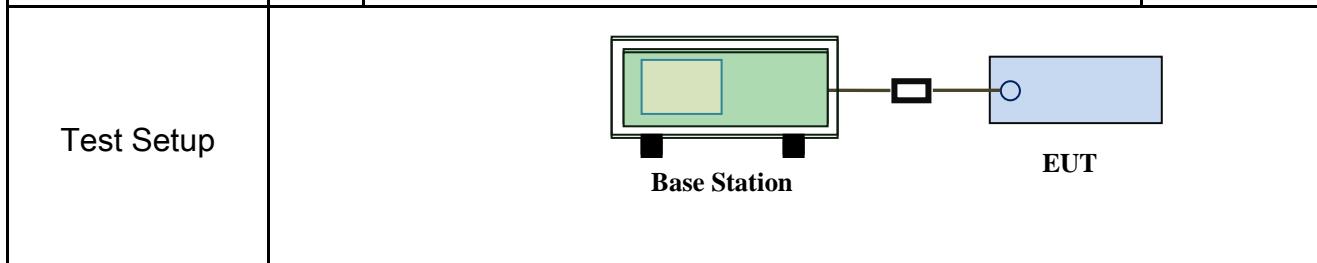
Please refer to RF Exposure Evaluation Report: 17070376-FCC-H.

## 6.2 RF Output Power

Temperature	23°C
Relative Humidity	56%
Atmospheric Pressure	1005mbar
Test date :	June 07, 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"/>



<b>Test Procedure</b>	For Conducted Power: <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> For ERP/EIRP: <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>

	<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 \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
18700	1860.0	1860.0	QPSK	1	0	0	22.48	$21.8 \pm 1$
				1	49	0	22.45	$21.8 \pm 1$
				1	99	0	22.49	$21.8 \pm 1$
				50	0	1	21.38	$21.8 \pm 1$
				50	24	1	21.39	$21.8 \pm 1$
				50	49	1	21.31	$21.8 \pm 1$
				100	0	1	21.39	$21.8 \pm 1$
		1880.0	16QAM	1	0	1	21.86	$21.3 \pm 1$
				1	49	1	21.89	$21.3 \pm 1$
				1	99	1	21.83	$21.3 \pm 1$
				50	0	2	20.56	$21.3 \pm 1$
				50	24	2	20.52	$21.3 \pm 1$
				50	49	2	20.54	$21.3 \pm 1$
				100	0	2	20.37	$21.3 \pm 1$
20MHz	18900	1880.0	QPSK	1	0	0	22.53	$21.8 \pm 1$
				1	49	0	22.52	$21.8 \pm 1$
				1	99	0	22.46	$21.8 \pm 1$
				50	0	1	21.39	$21.8 \pm 1$
				50	24	1	21.36	$21.8 \pm 1$
				50	49	1	21.34	$21.8 \pm 1$
				100	0	1	21.34	$21.8 \pm 1$
		1900.0	16QAM	1	0	1	21.40	$21.3 \pm 1$
				1	49	1	21.43	$21.3 \pm 1$
				1	99	1	21.44	$21.3 \pm 1$
				50	0	2	20.56	$21.3 \pm 1$
				50	24	2	20.51	$21.3 \pm 1$
				50	49	2	20.58	$21.3 \pm 1$
				100	0	2	20.32	$21.3 \pm 1$
19100	1900.0	1900.0	QPSK	1	0	0	22.30	$21.8 \pm 1$
				1	49	0	22.26	$21.8 \pm 1$
				1	99	0	22.22	$21.8 \pm 1$
				50	0	1	21.30	$21.8 \pm 1$
				50	24	1	21.31	$21.8 \pm 1$
				50	49	1	21.39	$21.8 \pm 1$
				100	0	1	21.29	$21.8 \pm 1$
		1900.0	16QAM	1	0	1	21.56	$21.3 \pm 1$
				1	49	1	21.51	$21.3 \pm 1$
				1	99	1	21.53	$21.3 \pm 1$
				50	0	2	20.96	$21.3 \pm 1$
				50	24	2	20.90	$21.3 \pm 1$
				50	49	2	20.94	$21.3 \pm 1$
				100	0	2	20.33	$21.3 \pm 1$

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	22.45	21.8±1
				1	37	0	22.48	21.8±1
				1	74	0	22.43	21.8±1
				36	0	1	21.48	21.8±1
				36	16	1	21.46	21.8±1
				36	35	1	21.39	21.8±1
				75	0	1	21.47	21.8±1
	18900	1880.0	16QAM	1	0	1	21.63	21.3±1
				1	37	1	21.59	21.3±1
				1	74	1	21.58	21.3±1
				36	0	2	20.82	21.3±1
				36	16	2	20.88	21.3±1
				36	35	2	20.84	21.3±1
				75	0	2	20.41	21.3±1
	19125	1902.5	QPSK	1	0	0	22.31	21.8±1
				1	37	0	22.33	21.8±1
				1	74	0	22.36	21.8±1
				36	0	1	21.46	21.8±1
				36	16	1	21.42	21.8±1
				36	35	1	21.44	21.8±1
				75	0	1	21.42	21.8±1
			16QAM	1	0	1	21.91	21.3±1
				1	37	1	21.86	21.3±1
				1	74	1	21.95	21.3±1
				36	0	2	20.55	21.3±1
				36	16	2	20.54	21.3±1
				36	35	2	20.52	21.3±1
				75	0	2	20.4	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	22.39	21.8±1
				1	24	0	22.35	21.8±1
				1	49	0	22.30	21.8±1
				25	0	1	21.38	21.8±1
				25	12	1	21.33	21.8±1
				25	24	1	21.31	21.8±1
				50	0	1	21.38	21.8±1
	18900	1880.0	16QAM	1	0	1	21.94	21.3±1
				1	24	1	21.93	21.3±1
				1	49	1	21.87	21.3±1
				25	0	2	20.62	21.3±1
				25	12	2	20.64	21.3±1
				25	24	2	20.68	21.3±1
				50	0	2	20.37	21.3±1
19150	19150	1905	QPSK	1	0	0	22.42	21.8±1
				1	24	0	22.41	21.8±1
				1	49	0	22.44	21.8±1
				25	0	1	21.36	21.8±1
				25	12	1	21.34	21.8±1
				25	24	1	21.33	21.8±1
				50	0	1	21.34	21.8±1
	19150	1905	16QAM	1	0	1	21.38	21.3±1
				1	24	1	21.34	21.3±1
				1	49	1	21.36	21.3±1
				25	0	2	20.52	21.3±1
				25	12	2	20.59	21.3±1
				25	24	2	20.50	21.3±1
				50	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
5MHz	18625	1852.5	QPSK	1	0	0	22.47	21.8±1
				1	12	0	22.42	21.8±1
				1	24	0	22.44	21.8±1
				12	0	1	21.41	21.8±1
				12	6	1	21.39	21.8±1
				12	11	1	21.43	21.8±1
				25	0	1	21.32	21.8±1
		1880.0	16QAM	1	0	1	21.39	21.3±1
				1	12	1	21.35	21.3±1
				1	24	1	21.37	21.3±1
				12	0	2	20.62	21.3±1
				12	6	2	20.53	21.3±1
				12	11	2	20.59	21.3±1
				25	0	2	20.47	21.3±1
	19175	1907.5	QPSK	1	0	0	22.48	21.8±1
				1	12	0	22.43	21.8±1
				1	24	0	22.44	21.8±1
				12	0	1	21.41	21.8±1
				12	6	1	21.44	21.8±1
				12	11	1	21.43	21.8±1
				25	0	1	21.3	21.8±1
		16QAM	16QAM	1	0	1	21.43	21.3±1
				1	12	1	21.45	21.3±1
				1	24	1	21.48	21.3±1
				12	0	2	20.59	21.3±1
				12	6	2	20.57	21.3±1
				12	11	2	20.58	21.3±1
				25	0	2	20.39	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	22.25	21.8±1
				1	7	0	22.23	21.8±1
				1	14	0	22.16	21.8±1
				8	0	1	21.36	21.8±1
				8	4	1	21.34	21.8±1
				8	7	1	21.33	21.8±1
				15	0	1	21.37	21.8±1
			16QAM	1	0	1	21.85	21.3±1
				1	7	1	21.84	21.3±1
				1	14	1	21.87	21.3±1
				8	0	2	20.36	21.3±1
				8	4	2	20.38	21.3±1
				8	7	2	20.34	21.3±1
				15	0	2	20.46	21.3±1
	3MHz	18900	QPSK	1	0	0	22.33	21.8±1
				1	7	0	22.32	21.8±1
				1	14	0	22.30	21.8±1
				8	0	1	21.33	21.8±1
				8	4	1	21.34	21.8±1
				8	7	1	21.31	21.8±1
				15	0	1	21.32	21.8±1
			16QAM	1	0	1	21.15	21.3±1
				1	7	1	21.10	21.3±1
				1	14	1	21.15	21.3±1
				8	0	2	20.36	21.3±1
				8	4	2	20.32	21.3±1
				8	7	2	20.39	21.3±1
				15	0	2	20.35	21.3±1
	3MHz	19175	QPSK	1	0	0	22.32	21.8±1
				1	7	0	22.31	21.8±1
				1	14	0	22.38	21.8±1
				8	0	1	21.27	21.8±1
				8	4	1	21.40	21.8±1
				8	7	1	21.34	21.8±1
				15	0	1	21.27	21.8±1
			16QAM	1	0	1	21.23	21.3±1
				1	7	1	21.16	21.3±1
				1	14	1	21.13	21.3±1
				8	0	2	20.32	21.3±1
				8	4	2	20.34	21.3±1
				8	7	2	20.32	21.3±1
				15	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
1.4MHz	18607	1850.7	QPSK	1	0	0	22.33	21.8±1
				1	2	0	22.26	21.8±1
				1	5	0	22.24	21.8±1
				3	0	0	22.43	21.8±1
				3	1	0	22.44	21.8±1
				3	2	0	22.41	21.8±1
				6	0	1	21.37	21.8±1
			16QAM	1	0	1	20.99	21.3±1
				1	2	1	20.96	21.3±1
				1	5	1	20.91	21.3±1
				3	0	1	20.5	21.3±1
				3	1	1	20.53	21.3±1
				3	2	1	20.58	21.3±1
				6	0	2	20.31	21.3±1
1.4MHz	18900	1880.0	QPSK	1	0	0	22.36	21.8±1
				1	2	0	22.38	21.8±1
				1	5	0	22.31	21.8±1
				3	0	0	22.39	21.8±1
				3	1	0	22.33	21.8±1
				3	2	0	22.36	21.8±1
				6	0	1	21.33	21.8±1
			16QAM	1	0	1	21.18	21.3±1
				1	2	1	21.14	21.3±1
				1	5	1	21.15	21.3±1
				3	0	1	20.62	21.3±1
				3	1	1	20.67	21.3±1
				3	2	1	20.66	21.3±1
				6	0	2	20.36	21.3±1
1.4MHz	19193	1909.3	QPSK	1	0	0	22.35	21.8±1
				1	2	0	22.4	21.8±1
				1	5	0	22.33	21.8±1
				3	0	0	22.30	21.8±1
				3	1	0	22.32	21.8±1
				3	2	0	22.34	21.8±1
				6	0	1	21.32	21.8±1
			16QAM	1	0	1	21.25	21.3±1
				1	2	1	21.23	21.3±1
				1	5	1	21.30	21.3±1
				3	0	1	20.53	21.3±1
				3	1	1	20.51	21.3±1
				3	2	1	20.55	21.3±1
				6	0	2	20.34	21.3±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	22.81	22±1
				1	49	0	22.79	22±1
				1	99	0	22.76	22±1
				50	0	1	21.74	22±1
				50	24	1	21.77	22±1
				50	49	1	21.77	22±1
				100	0	1	21.71	22±1
	20175	1732.5	16QAM	1	0	1	22.17	21.5±1
				1	49	1	22.14	21.5±1
				1	99	1	22.18	21.5±1
				50	0	2	20.85	21.5±1
				50	24	2	20.88	21.5±1
				50	49	2	20.84	21.5±1
				100	0	2	20.68	21.5±1
	20300	1745.0	QPSK	1	0	0	22.85	22.3±1
				1	49	0	22.83	22.3±1
				1	99	0	22.88	22.3±1
				50	0	1	21.71	22.3±1
				50	24	1	21.74	22.3±1
				50	49	1	21.75	22.3±1
				100	0	1	21.69	22.3±1
	16QAM		16QAM	1	0	1	21.72	21.3±1
				1	49	1	21.69	21.3±1
				1	99	1	21.65	21.3±1
				50	0	2	20.75	21.3±1
				50	24	2	20.76	21.3±1
				50	49	2	20.74	21.3±1
				100	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
20025	1717.5	QPSK	1	0	0	22.68	$22 \pm 1$	
			1	37	0	22.64	$22 \pm 1$	
			1	74	0	22.66	$22 \pm 1$	
			36	0	1	21.78	$22 \pm 1$	
			36	16	1	21.77	$22 \pm 1$	
			36	35	1	21.74	$22 \pm 1$	
			75	0	1	21.74	$22 \pm 1$	
		16QAM	1	0	1	22.29	$21.5 \pm 1$	
			1	37	1	22.22	$21.5 \pm 1$	
			1	74	1	22.30	$21.5 \pm 1$	
			36	0	2	20.62	$21.5 \pm 1$	
			36	16	2	20.68	$21.5 \pm 1$	
			36	35	2	20.61	$21.5 \pm 1$	
			75	0	2	20.74	$21.5 \pm 1$	
15MHz	2017.5	QPSK	1	0	0	22.77	$22 \pm 1$	
			1	37	0	22.78	$22 \pm 1$	
			1	74	0	22.73	$22 \pm 1$	
			36	0	1	21.71	$22 \pm 1$	
			36	16	1	21.74	$22 \pm 1$	
			36	35	1	21.75	$22 \pm 1$	
			75	0	1	21.72	$22 \pm 1$	
		16QAM	1	0	1	21.64	$21.3 \pm 1$	
			1	37	1	21.62	$21.3 \pm 1$	
			1	74	1	21.66	$21.3 \pm 1$	
			36	0	2	20.63	$21.3 \pm 1$	
			36	16	2	20.66	$21.3 \pm 1$	
			36	35	2	20.61	$21.3 \pm 1$	
			75	0	2	20.73	$21.3 \pm 1$	
20325	1747.5	QPSK	1	0	0	22.68	$22 \pm 1$	
			1	37	0	22.61	$22 \pm 1$	
			1	74	0	22.62	$22 \pm 1$	
			36	0	1	21.76	$22 \pm 1$	
			36	16	1	21.77	$22 \pm 1$	
			36	35	1	21.74	$22 \pm 1$	
			75	0	1	21.73	$22 \pm 1$	
		16QAM	1	0	1	21.96	$21.3 \pm 1$	
			1	37	1	21.92	$21.3 \pm 1$	
			1	74	1	21.93	$21.3 \pm 1$	
			36	0	2	20.53	$21.3 \pm 1$	
			36	16	2	20.58	$21.3 \pm 1$	
			36	35	2	20.55	$21.3 \pm 1$	
			75	0	2	20.67	$21.3 \pm 1$	

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
20000	1715.0	20000	QPSK	1	0	0	22.66	22±1
				1	24	0	22.62	22±1
				1	49	0	22.69	22±1
				25	0	1	21.72	22±1
				25	12	1	21.78	22±1
				25	24	1	21.73	22±1
				50	0	1	21.71	22±1
		1732.5	16QAM	1	0	1	22.30	21.5±1
				1	24	1	22.25	21.5±1
				1	49	1	22.21	21.5±1
				25	0	2	20.7	21.5±1
				25	12	2	20.71	21.5±1
				25	24	2	20.69	21.5±1
				50	0	2	20.71	21.5±1
10MHz	20350	1750.0	QPSK	1	0	0	22.76	22.3±1
				1	24	0	22.70	22.3±1
				1	49	0	22.72	22.3±1
				25	0	1	21.69	22.3±1
				25	12	1	21.63	22.3±1
				25	24	1	21.64	22.3±1
				50	0	1	21.70	22.3±1
		1732.5	16QAM	1	0	1	21.56	21.3±1
				1	24	1	21.57	21.3±1
				1	49	1	21.60	21.3±1
				25	0	2	20.70	21.3±1
				25	12	2	20.74	21.3±1
				25	24	2	20.78	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
20000	1715.0	20000	QPSK	1	0	0	22.86	22±1
				1	12	0	22.85	22±1
				1	24	0	22.82	22±1
				12	0	1	21.78	22±1
				12	6	1	21.82	22±1
				12	11	1	21.77	22±1
				25	0	1	21.72	22±1
		1732.5	16QAM	1	0	1	21.85	21.3±1
				1	12	1	21.88	21.3±1
				1	24	1	21.87	21.3±1
				12	0	2	20.56	21.3±1
				12	6	2	20.50	21.3±1
				12	11	2	20.57	21.3±1
				25	0	2	20.69	21.3±1
5MHz	20175	20175	QPSK	1	0	0	22.72	22±1
				1	12	0	22.77	22±1
				1	24	0	22.75	22±1
				12	0	1	21.74	22±1
				12	6	1	21.77	22±1
				12	11	1	21.73	22±1
				25	0	1	21.68	22±1
		1750.0	16QAM	1	0	1	21.66	21.3±1
				1	12	1	21.59	21.3±1
				1	24	1	21.62	21.3±1
				12	0	2	20.69	21.3±1
				12	6	2	20.66	21.3±1
				12	11	2	20.64	21.3±1
				25	0	2	20.79	21.3±1
20350	1750.0	20350	QPSK	1	0	0	22.67	22±1
				1	12	0	22.62	22±1
				1	24	0	22.64	22±1
				12	0	1	21.70	22±1
				12	6	1	21.72	22±1
				12	11	1	21.76	22±1
				25	0	1	21.66	22±1
		1750.0	16QAM	1	0	1	21.99	21.3±1
				1	12	1	21.91	21.3±1
				1	24	1	21.96	21.3±1
				12	0	2	20.48	21.3±1
				12	6	2	20.50	21.3±1
				12	11	2	20.47	21.3±1
				25	0	2	20.61	21.3±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
19965	1711.5	1711.5	QPSK	1	0	0	22.55	22±1
				1	7	0	22.52	22±1
				1	14	0	22.50	22±1
				8	0	1	21.72	22±1
				8	4	1	21.73	22±1
				8	7	1	21.70	22±1
				15	0	1	21.71	22±1
		1732.5	16QAM	1	0	1	22.21	21.5±1
				1	7	1	22.25	21.5±1
				1	14	1	22.23	21.5±1
				8	0	2	20.67	21.5±1
				8	4	2	20.65	21.5±1
				8	7	2	20.64	21.5±1
				15	0	2	20.78	21.5±1
3MHz	20175	1732.5	QPSK	1	0	0	22.66	22±1
				1	7	0	22.70	22±1
				1	14	0	22.62	22±1
				8	0	1	21.65	22±1
				8	4	1	21.64	22±1
				8	7	1	21.63	22±1
				15	0	1	21.65	22±1
		1753.5	16QAM	1	0	1	21.52	21.3±1
				1	7	1	21.50	21.3±1
				1	14	1	21.58	21.3±1
				8	0	2	20.60	21.3±1
				8	4	2	20.62	21.3±1
				8	7	2	20.68	21.3±1
				15	0	2	20.62	21.3±1
		1753.5	QPSK	1	0	0	22.65	21.8±1
				1	7	0	22.60	21.8±1
				1	14	0	22.62	21.8±1
				8	0	1	21.62	21.8±1
				8	4	1	21.68	21.8±1
				8	7	1	21.63	21.8±1
				15	0	1	21.03	21.8±1
		1753.5	16QAM	1	0	1	21.61	21.3±1
				1	7	1	21.65	21.3±1
				1	14	1	21.60	21.3±1
				8	0	2	20.46	21.3±1
				8	4	2	20.43	21.3±1
				8	7	2	20.42	21.3±1
				15	0	2	20.63	21.3±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
19957	1710.7		QPSK	1	0	0	22.62	$22 \pm 1$
				1	2	0	22.65	$22 \pm 1$
				1	5	0	22.64	$22 \pm 1$
				3	0	0	22.74	$22 \pm 1$
				3	1	0	22.76	$22 \pm 1$
				3	2	0	22.73	$22 \pm 1$
				6	0	1	21.69	$22 \pm 1$
			16QAM	1	0	1	21.32	$21.3 \pm 1$
				1	2	1	21.30	$21.3 \pm 1$
				1	5	1	21.32	$21.3 \pm 1$
				3	0	1	20.53	$21.3 \pm 1$
				3	1	1	20.58	$21.3 \pm 1$
				3	2	1	20.56	$21.3 \pm 1$
				6	0	2	20.61	$21.3 \pm 1$
1.4MHz	20175		QPSK	1	0	0	22.67	$22.3 \pm 1$
				1	2	0	22.62	$22.3 \pm 1$
				1	5	0	22.70	$22.3 \pm 1$
				3	0	0	22.70	$22.3 \pm 1$
				3	1	0	22.73	$22.3 \pm 1$
				3	2	0	22.74	$22.3 \pm 1$
				6	0	1	21.65	$22.3 \pm 1$
			16QAM	1	0	1	21.54	$21.3 \pm 1$
				1	2	1	21.60	$21.3 \pm 1$
				1	5	1	21.57	$21.3 \pm 1$
				3	0	1	20.68	$21.3 \pm 1$
				3	1	1	20.63	$21.3 \pm 1$
				3	2	1	20.69	$21.3 \pm 1$
				6	0	2	20.63	$21.3 \pm 1$
20393	1754.3		QPSK	1	0	0	22.65	$22 \pm 1$
				1	2	0	22.67	$22 \pm 1$
				1	5	0	22.61	$22 \pm 1$
				3	0	0	22.68	$22 \pm 1$
				3	1	0	22.69	$22 \pm 1$
				3	2	0	22.62	$22 \pm 1$
				6	0	1	21.63	$22 \pm 1$
			16QAM	1	0	1	21.59	$21.3 \pm 1$
				1	2	1	21.6	$21.3 \pm 1$
				1	5	1	21.52	$21.3 \pm 1$
				3	0	1	20.58	$21.3 \pm 1$
				3	1	1	20.5	$21.3 \pm 1$
				3	2	1	20.59	$21.3 \pm 1$
				6	0	2	20.46	$21.3 \pm 1$

**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	22.54	22±1
				1	49	0	22.58	22±1
				1	99	0	22.57	22±1
				50	0	1	21.43	22±1
				50	24	1	21.50	22±1
				50	49	1	21.44	22±1
				100	0	1	21.40	22±1
			16QAM	1	0	1	21.89	21.3±1
				1	49	1	21.85	21.3±1
				1	99	1	21.80	21.3±1
				50	0	2	20.53	21.3±1
				50	24	2	20.60	21.3±1
				50	49	2	20.55	21.3±1
				100	0	2	20.41	21.3±1
20MHz	21100	2535	QPSK	1	0	0	22.55	22±1
				1	49	0	22.53	22±1
				1	99	0	22.56	22±1
				50	0	1	21.41	22±1
				50	24	1	21.43	22±1
				50	49	1	21.46	22±1
				100	0	1	21.36	22±1
			16QAM	1	0	1	21.42	21.3±1
				1	49	1	21.47	21.3±1
				1	99	1	21.46	21.3±1
				50	0	2	21.53	21.3±1
				50	24	2	21.59	21.3±1
				50	49	2	21.54	21.3±1
				100	0	2	20.37	21.3±1
20MHz	21350	2560	QPSK	1	0	0	22.33	21.8±1
				1	49	0	22.31	21.8±1
				1	99	0	22.36	21.8±1
				50	0	1	21.35	21.8±1
				50	24	1	21.39	21.8±1
				50	49	1	21.32	21.8±1
				100	0	1	21.35	21.8±1
			16QAM	1	0	1	21.56	21.3±1
				1	49	1	21.53	21.3±1
				1	99	1	21.52	21.3±1
				50	0	2	20.88	21.3±1
				50	24	2	20.85	21.3±1
				50	49	2	20.82	21.3±1
				100	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
20825	1717.5	QPSK	1	0	0	22.41	22±1	
			1	37	0	22.46	22±1	
			1	74	0	22.43	22±1	
			36	0	1	21.46	22±1	
			36	16	1	21.44	22±1	
			36	35	1	21.45	22±1	
			75	0	1	21.46	22±1	
		16QAM	1	0	1	21.96	21.3±1	
			1	37	1	21.95	21.3±1	
			1	74	1	21.98	21.3±1	
			36	0	2	20.63	21.3±1	
			36	16	2	20.66	21.3±1	
			36	35	2	20.68	21.3±1	
			75	0	2	20.53	21.3±1	
15MHz	21100	QPSK	1	0	0	22.45	22±1	
			1	37	0	22.43	22±1	
			1	74	0	22.4	22±1	
			36	0	1	21.35	22±1	
			36	16	1	21.4	22±1	
			36	35	1	21.37	22±1	
			75	0	1	21.34	22±1	
		16QAM	1	0	1	21.24	21.3±1	
			1	37	1	21.26	21.3±1	
			1	74	1	21.23	21.3±1	
			36	0	2	20.69	21.3±1	
			36	16	2	20.65	21.3±1	
			36	35	2	20.64	21.3±1	
			75	0	2	20.35	21.3±1	
21375	1747.5	QPSK	1	0	0	22.17	21.8±1	
			1	37	0	22.13	21.8±1	
			1	74	0	22.19	21.8±1	
			36	0	1	21.35	21.8±1	
			36	16	1	21.32	21.8±1	
			36	35	1	21.29	21.8±1	
			75	0	1	21.34	21.8±1	
		16QAM	1	0	1	21.79	21.3±1	
			1	37	1	21.78	21.3±1	
			1	74	1	21.79	21.3±1	
			36	0	2	20.53	21.3±1	
			36	16	2	20.56	21.3±1	
			36	35	2	20.57	21.3±1	
			75	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
20800	2502	2502	QPSK	1	0	0	22.43	22±1
				1	24	0	22.46	22±1
				1	49	0	22.41	22±1
				25	0	1	21.44	22±1
				25	12	1	21.43	22±1
				25	24	1	21.46	22±1
				50	0	1	21.42	22±1
		16QAM	16QAM	1	0	1	21.98	21.3±1
				1	24	1	21.96	21.3±1
				1	49	1	21.95	21.3±1
				25	0	2	20.52	21.3±1
				25	12	2	20.58	21.3±1
				25	24	2	20.51	21.3±1
				50	0	2	20.40	21.3±1
10MHz	21100	2535	QPSK	1	0	0	22.18	21.8±1
				1	24	0	22.16	21.8±1
				1	49	0	22.13	21.8±1
				25	0	1	21.28	21.8±1
				25	12	1	21.16	21.8±1
				25	24	1	21.11	21.8±1
				50	0	1	21.31	21.8±1
		16QAM	16QAM	1	0	1	21.78	21.3±1
				1	24	1	21.72	21.3±1
				1	49	1	21.74	21.3±1
				25	0	2	20.41	21.3±1
				25	12	2	20.40	21.3±1
				25	24	2	20.45	21.3±1
				50	0	2	20.43	21.3±1
21400	2565	2565	QPSK	1	0	0	22.25	21.8±1
				1	24	0	22.23	21.8±1
				1	49	0	22.27	21.8±1
				25	0	1	21.27	21.8±1
				25	12	1	21.24	21.8±1
				25	24	1	21.26	21.8±1
				50	0	1	21.25	21.8±1
		16QAM	16QAM	1	0	1	21.13	21.3±1
				1	24	1	21.10	21.3±1
				1	49	1	21.12	21.3±1
				25	0	2	20.35	21.3±1
				25	12	2	20.37	21.3±1
				25	24	2	20.39	21.3±1
				50	0	2	20.37	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	22.50	22±1
				1	12	0	22.51	22±1
				1	24	0	22.49	22±1
				12	0	1	21.44	22±1
				12	6	1	21.46	22±1
				12	11	1	21.43	22±1
				25	0	1	21.37	22±1
			16QAM	1	0	1	21.38	21.3±1
				1	12	1	21.35	21.3±1
				1	24	1	21.40	21.3±1
				12	0	2	20.66	21.3±1
				12	6	2	20.67	21.3±1
				12	11	2	20.62	21.3±1
				25	0	2	20.50	21.3±1
5MHz	20175	1732.5	QPSK	1	0	0	22.46	22±1
				1	12	0	22.45	22±1
				1	24	0	22.47	22±1
				12	0	1	21.33	22±1
				12	6	1	21.32	22±1
				12	11	1	21.36	22±1
				25	0	1	21.26	22±1
			16QAM	1	0	1	21.40	21.3±1
				1	12	1	21.43	21.3±1
				1	24	1	21.48	21.3±1
				12	0	2	20.80	21.3±1
				12	6	2	20.80	21.3±1
				12	11	2	20.86	21.3±1
				25	0	2	20.39	21.3±1
5MHz	20375	1752.5	QPSK	1	0	0	22.31	21.8±1
				1	12	0	22.38	21.8±1
				1	24	0	22.36	21.8±1
				12	0	1	21.29	21.8±1
				12	6	1	21.28	21.8±1
				12	11	1	21.22	21.8±1
				25	0	1	21.24	21.8±1
			16QAM	1	0	1	21.67	21.3±1
				1	12	1	21.69	21.3±1
				1	24	1	21.67	21.3±1
				12	0	2	20.75	21.3±1
				12	6	2	20.70	21.3±1
				12	11	2	20.76	21.3±1
				25	0	2	20.36	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	17.11	V	7.88	0.85	24.14	33.01
1880	1.4	QPSK	1/0	17.06	V	7.88	0.85	24.09	33.01
1909.3	1.4	QPSK	1/0	17.07	V	7.88	0.85	24.10	33.01
1850.7	1.4	QPSK	1/0	15.9	H	7.88	0.85	22.93	33.01
1880	1.4	QPSK	1/0	15.86	H	7.88	0.85	22.89	33.01
1909.3	1.4	QPSK	1/0	15.99	H	7.88	0.85	23.02	33.01
1850.7	1.4	16-QAM	1/0	15.66	V	7.88	0.85	22.69	33.01
1880	1.4	16-QAM	1/0	15.85	V	7.88	0.85	22.88	33.01
1909.3	1.4	16-QAM	1/0	15.97	V	7.88	0.85	23.00	33.01
1850.7	1.4	16-QAM	1/0	14.49	H	7.88	0.85	21.52	33.01
1880	1.4	16-QAM	1/0	14.64	H	7.88	0.85	21.67	33.01
1909.3	1.4	16-QAM	1/0	14.92	H	7.88	0.85	21.95	33.01
1851.5	3	QPSK	1/0	16.92	V	7.88	0.85	23.95	33.01
1880	3	QPSK	1/0	17	V	7.88	0.85	24.03	33.01
1908.5	3	QPSK	1/0	17.05	V	7.88	0.85	24.08	33.01
1851.5	3	QPSK	1/0	15.73	H	7.88	0.85	22.76	33.01
1880	3	QPSK	1/0	15.9	H	7.88	0.85	22.93	33.01
1908.5	3	QPSK	1/0	15.96	H	7.88	0.85	22.99	33.01
1851.5	3	16-QAM	1/0	16.54	V	7.88	0.85	23.57	33.01
1880	3	16-QAM	1/0	15.82	V	7.88	0.85	22.85	33.01
1908.5	3	16-QAM	1/0	15.9	V	7.88	0.85	22.93	33.01
1851.5	3	16-QAM	1/0	15.32	H	7.88	0.85	22.35	33.01
1880	3	16-QAM	1/0	14.61	H	7.88	0.85	21.64	33.01
1908.5	3	16-QAM	1/0	14.74	H	7.88	0.85	21.77	33.01
1852.5	5	QPSK	1/24	17.14	V	7.88	0.85	24.17	33.01
1880	5	QPSK	1/0	17.15	V	7.88	0.85	24.18	33.01
1907.5	5	QPSK	1/24	17.03	V	7.88	0.85	24.06	33.01
1852.5	5	QPSK	1/24	16.03	H	7.88	0.85	23.06	33.01
1880	5	QPSK	1/0	16.08	H	7.88	0.85	23.11	33.01
1907.5	5	QPSK	1/24	15.94	H	7.88	0.85	22.97	33.01
1852.5	5	16-QAM	1/24	16.06	V	7.88	0.85	23.09	33.01
1880	5	16-QAM	1/0	16.15	V	7.88	0.85	23.18	33.01

1907.5	5	16-QAM	1/24	16.25	V	7.88	0.85	23.28	33.01
1852.5	5	16-QAM	1/24	14.92	H	7.88	0.85	21.95	33.01
1880	5	16-QAM	1/0	15.99	H	7.88	0.85	23.02	33.01
1907.5	5	16-QAM	1/24	16.11	H	7.88	0.85	23.14	33.01
1855	10	QPSK	1/0	17.06	V	7.88	0.85	24.09	33.01
1880	10	QPSK	1/0	17.11	V	7.88	0.85	24.14	33.01
1905	10	QPSK	1/49	17.08	V	7.88	0.85	24.11	33.01
1855	10	QPSK	1/0	15.82	H	7.88	0.85	22.85	33.01
1880	10	QPSK	1/0	15.98	H	7.88	0.85	23.01	33.01
1905	10	QPSK	1/49	14.95	H	7.88	0.85	21.98	33.01
1855	10	16-QAM	1/0	16.61	V	7.88	0.85	23.64	33.01
1880	10	16-QAM	1/0	16.05	V	7.88	0.85	23.08	33.01
1905	10	16-QAM	1/49	15.86	V	7.88	0.85	22.89	33.01
1855	10	16-QAM	1/0	15.52	H	7.88	0.85	22.55	33.01
1880	10	16-QAM	1/0	14.8	H	7.88	0.85	21.83	33.01
1905	10	16-QAM	1/49	14.69	H	7.88	0.85	21.72	33.01
1857.5	15	QPSK	1/0	17.15	V	7.88	0.85	24.18	33.01
1880	15	QPSK	1/0	17.03	V	7.88	0.85	24.06	33.01
1902.5	15	QPSK	1/0	17.11	V	7.88	0.85	24.14	33.01
1857.5	15	QPSK	1/0	16.12	H	7.88	0.85	23.15	33.01
1880	15	QPSK	1/0	15.88	H	7.88	0.85	22.91	33.01
1902.5	15	QPSK	1/0	15.9	H	7.88	0.85	22.93	33.01
1857.5	15	16-QAM	1/0	16.3	V	7.88	0.85	23.33	33.01
1880	15	16-QAM	1/0	16.62	V	7.88	0.85	23.65	33.01
1902.5	15	16-QAM	1/0	15.86	V	7.88	0.85	22.89	33.01
1857.5	15	16-QAM	1/0	15.09	H	7.88	0.85	22.12	33.01
1880	15	16-QAM	1/0	15.46	H	7.88	0.85	22.49	33.01
1902.5	15	16-QAM	1/0	14.65	H	7.88	0.85	21.68	33.01
1860	20	QPSK	1/0	17.16	V	7.88	0.85	24.19	33.01
1880	20	QPSK	1/0	17.2	V	7.88	0.85	24.23	33.01
1900	20	QPSK	1/0	16.97	V	7.88	0.85	24.00	33.01
1860	20	QPSK	1/0	16.15	H	7.88	0.85	23.18	33.01
1880	20	QPSK	1/0	16.12	H	7.88	0.85	23.15	33.01
1900	20	QPSK	1/0	15.91	H	7.88	0.85	22.94	33.01
1860	20	16-QAM	1/0	16.56	V	7.88	0.85	23.59	33.01
1880	20	16-QAM	1/0	16.11	V	7.88	0.85	23.14	33.01
1900	20	16-QAM	1/0	16.23	V	7.88	0.85	23.26	33.01
1860	20	16-QAM	1/0	15.41	H	7.88	0.85	22.44	33.01

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1880	20	16-QAM	1/0	14.97	H	7.88	0.85	22.00	33.01
1900	20	16-QAM	1/0	15.1	H	7.88	0.85	22.13	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	12.62	V	7.95	0.79	19.78	30
1732.5	1.4	QPSK	1/0	12.6	V	7.95	0.79	19.76	30
1754.3	1.4	QPSK	1/0	12.55	V	7.95	0.79	19.71	30
1710.7	1.4	QPSK	1/0	11.5	H	7.95	0.79	18.66	30
1732.5	1.4	QPSK	1/0	11.37	H	7.95	0.79	18.53	30
1754.3	1.4	QPSK	1/0	11.39	H	7.95	0.79	18.55	30
1710.7	1.4	16-QAM	1/5	11.18	V	7.95	0.79	18.34	30
1732.5	1.4	16-QAM	1/0	11.46	V	7.95	0.79	18.62	30
1754.3	1.4	16-QAM	1/0	11.46	V	7.95	0.79	18.62	30
1710.7	1.4	16-QAM	1/5	10.1	H	7.95	0.79	17.26	30
1732.5	1.4	16-QAM	1/0	10.19	H	7.95	0.79	17.35	30
1754.3	1.4	16-QAM	1/0	10.15	H	7.95	0.79	17.31	30
1711.5	3	QPSK	1/0	12.41	V	7.95	0.79	19.57	30
1732.5	3	QPSK	1/0	12.56	V	7.95	0.79	19.72	30
1753.5	3	QPSK	1/0	12.51	V	7.95	0.79	19.67	30
1711.5	3	QPSK	1/0	11.3	H	7.95	0.79	18.46	30
1732.5	3	QPSK	1/0	11.43	H	7.95	0.79	18.59	30
1753.5	3	QPSK	1/0	11.37	H	7.95	0.79	18.53	30
1711.5	3	16-QAM	1/0	12.08	V	7.95	0.79	19.24	30
1732.5	3	16-QAM	1/0	11.44	V	7.95	0.79	18.60	30
1753.5	3	16-QAM	1/0	11.51	V	7.95	0.79	18.67	30
1711.5	3	16-QAM	1/0	10.95	H	7.95	0.79	18.11	30
1732.5	3	16-QAM	1/0	11.27	H	7.95	0.79	18.43	30
1753.5	3	16-QAM	1/0	11.33	H	7.95	0.79	18.49	30
1712.5	5	QPSK	1/0	12.72	V	7.95	0.79	19.88	30
1732.5	5	QPSK	1/0	12.63	V	7.95	0.79	19.79	30
1752.5	5	QPSK	1/24	12.53	V	7.95	0.79	19.69	30
1712.5	5	QPSK	1/0	11.41	H	7.95	0.79	18.57	30
1732.5	5	QPSK	1/0	11.47	H	7.95	0.79	18.63	30
1752.5	5	QPSK	1/24	11.25	H	7.95	0.79	18.41	30
1712.5	5	16-QAM	1/0	11.74	V	7.95	0.79	18.90	30
1732.5	5	16-QAM	1/0	11.52	V	7.95	0.79	18.68	30
1752.5	5	16-QAM	1/24	11.85	V	7.95	0.79	19.01	30
1712.5	5	16-QAM	1/0	10.5	H	7.95	0.79	17.66	30
1732.5	5	16-QAM	1/0	10.43	H	7.95	0.79	17.59	30

1752.5	5	16-QAM	1/24	10.77	H	7.95	0.79	17.93	30
1715	10	QPSK	1/0	12.55	V	7.95	0.79	19.71	30
1732.5	10	QPSK	1/49	12.62	V	7.95	0.79	19.78	30
1750	10	QPSK	1/0	12.55	V	7.95	0.79	19.71	30
1715	10	QPSK	1/0	11.37	H	7.95	0.79	18.53	30
1732.5	10	QPSK	1/49	11.48	H	7.95	0.79	18.64	30
1750	10	QPSK	1/0	11.43	H	7.95	0.79	18.59	30
1715	10	16-QAM	1/0	12.16	V	7.95	0.79	19.32	30
1732.5	10	16-QAM	1/49	11.46	V	7.95	0.79	18.62	30
1750	10	16-QAM	1/0	11.54	V	7.95	0.79	18.70	30
1715	10	16-QAM	1/0	10.05	H	7.95	0.79	17.21	30
1732.5	10	16-QAM	1/49	10.3	H	7.95	0.79	17.46	30
1750	10	16-QAM	1/0	10.36	H	7.95	0.79	17.52	30
1717.5	15	QPSK	1/0	12.54	V	7.95	0.79	19.70	30
1732.5	15	QPSK	1/74	12.64	V	7.95	0.79	19.80	30
1747.5	15	QPSK	1/0	12.54	V	7.95	0.79	19.70	30
1717.5	15	QPSK	1/0	11.4	H	7.95	0.79	18.56	30
1732.5	15	QPSK	1/74	11.51	H	7.95	0.79	18.67	30
1747.5	15	QPSK	1/0	11.39	H	7.95	0.79	18.55	30
1717.5	15	16-QAM	1/0	12.16	V	7.95	0.79	19.32	30
1732.5	15	16-QAM	1/74	11.52	V	7.95	0.79	18.68	30
1747.5	15	16-QAM	1/0	11.82	V	7.95	0.79	18.98	30
1717.5	15	16-QAM	1/0	11.05	H	7.95	0.79	18.21	30
1732.5	15	16-QAM	1/74	10.57	H	7.95	0.79	17.73	30
1747.5	15	16-QAM	1/0	10.69	H	7.95	0.79	17.85	30
1720	20	QPSK	1/99	12.67	V	7.95	0.79	19.83	30
1732.5	20	QPSK	1/99	12.74	V	7.95	0.79	19.90	30
1745	20	QPSK	1/0	12.56	V	7.95	0.79	19.72	30
1720	20	QPSK	1/99	11.51	H	7.95	0.79	18.67	30
1732.5	20	QPSK	1/99	11.66	H	7.95	0.79	18.82	30
1745	20	QPSK	1/0	11.38	H	7.95	0.79	18.54	30
1720	20	16-QAM	1/99	12.04	V	7.95	0.79	19.20	30
1732.5	20	16-QAM	1/99	11.58	V	7.95	0.79	18.74	30
1745	20	16-QAM	1/0	11.83	V	7.95	0.79	18.99	30
1720	20	16-QAM	1/99	10.82	H	7.95	0.79	17.98	30
1732.5	20	16-QAM	1/99	10.4	H	7.95	0.79	17.56	30
1745	20	16-QAM	1/0	10.71	H	7.95	0.79	17.87	30

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

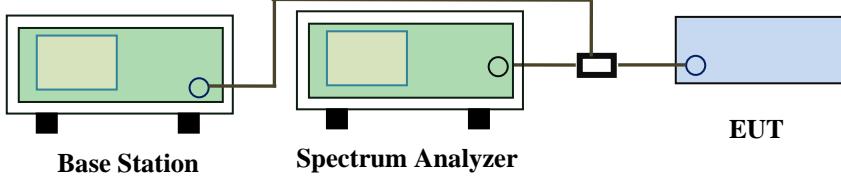
Frequency (MHz)	BW (MHz)	Modulation	RB Size/Offset	Substituted level (dBm)	Antenna Polarization	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
2502.5	5	QPSK	1/0	16.91	V	8.93	0.83	25.01	30
2535	5	QPSK	1/0	16.87	V	8.93	0.83	24.97	30
2567.5	5	QPSK	1/24	16.78	V	8.93	0.83	24.88	30
2502.5	5	QPSK	1/0	15.79	H	8.93	0.83	23.89	30
2535	5	QPSK	1/0	15.72	H	8.93	0.83	23.82	30
2567.5	5	QPSK	1/24	15.61	H	8.93	0.83	23.71	30
2502.5	5	16-QAM	1/0	15.8	V	8.93	0.83	23.90	30
2535	5	16-QAM	1/0	15.88	V	8.93	0.83	23.98	30
2567.5	5	16-QAM	1/24	16.09	V	8.93	0.83	24.19	30
2502.5	5	16-QAM	1/0	14.78	H	8.93	0.83	22.88	30
2535	5	16-QAM	1/0	14.66	H	8.93	0.83	22.76	30
2567.5	5	16-QAM	1/24	14.91	H	8.93	0.83	23.01	30
2505	10	QPSK	1/0	16.86	V	8.93	0.83	24.96	30
2535	10	QPSK	1/49	16.58	V	8.93	0.83	24.68	30
2565	10	QPSK	1/0	16.67	V	8.93	0.83	24.77	30
2505	10	QPSK	1/0	15.75	H	8.93	0.83	23.85	30
2535	10	QPSK	1/49	15.31	H	8.93	0.83	23.41	30
2565	10	QPSK	1/0	15.48	H	8.93	0.83	23.58	30
2505	10	16-QAM	1/0	16.38	V	8.93	0.83	24.48	30
2535	10	16-QAM	1/49	16.18	V	8.93	0.83	24.28	30
2565	10	16-QAM	1/0	15.53	V	8.93	0.83	23.63	30
2505	10	16-QAM	1/0	15.1	H	8.93	0.83	23.20	30
2535	10	16-QAM	1/49	15.07	H	8.93	0.83	23.17	30
2565	10	16-QAM	1/0	14.35	H	8.93	0.83	22.45	30
2507.5	15	QPSK	1/0	16.86	V	8.93	0.83	24.96	30
2535	15	QPSK	1/74	16.85	V	8.93	0.83	24.95	30
2562.5	15	QPSK	1/0	16.59	V	8.93	0.83	24.69	30
2507.5	15	QPSK	1/0	15.73	H	8.93	0.83	23.83	30
2535	15	QPSK	1/74	15.81	H	8.93	0.83	23.91	30
2562.5	15	QPSK	1/0	15.32	H	8.93	0.83	23.42	30
2507.5	15	16-QAM	1/0	16.38	V	8.93	0.83	24.48	30
2535	15	16-QAM	1/74	15.66	V	8.93	0.83	23.76	30
2562.5	15	16-QAM	1/0	16.19	V	8.93	0.83	24.29	30

2507.5	15	16-QAM	1/0	15.14	H	8.93	0.83	23.24	30
2535	15	16-QAM	1/74	14.59	H	8.93	0.83	22.69	30
2562.5	15	16-QAM	1/0	15.02	H	8.93	0.83	23.12	30
2510	20	QPSK	1/99	16.98	V	8.93	0.83	25.08	30
2535	20	QPSK	1/99	16.96	V	8.93	0.83	25.06	30
2560	20	QPSK	1/0	16.76	V	8.93	0.83	24.86	30
2510	20	QPSK	1/99	15.85	H	8.93	0.83	23.95	30
2535	20	QPSK	1/99	15.81	H	8.93	0.83	23.91	30
2560	20	QPSK	1/0	15.65	H	8.93	0.83	23.75	30
2510	20	16-QAM	1/99	16.29	V	8.93	0.83	24.39	30
2535	20	16-QAM	1/99	15.99	V	8.93	0.83	24.09	30
2560	20	16-QAM	1/0	15.96	V	8.93	0.83	24.06	30
2510	20	16-QAM	1/99	15.11	H	8.93	0.83	23.21	30
2535	20	16-QAM	1/99	14.86	H	8.93	0.83	22.96	30
2560	20	16-QAM	1/0	14.77	H	8.93	0.83	22.87	30

## 6.3 Peak-Average Ratio

Temperature	23°C
Relative Humidity	56%
Atmospheric Pressure	1005mbar
Test date :	June 07, 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		 <b>Base Station</b> <b>Spectrum Analyzer</b> <b>EUT</b>	
	According with KDB 971168 v02r02		
Test Procedure	<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</p>		

	<p>cycle <math>\geq</math> 98%) and at all times the EUT is transmitting at its maximum output 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</math> 2 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	22.69	22.36	0.33
			16QAM	21.43	21.18	0.25
3	1880	RB 1/0	QPSK	22.75	22.33	0.42
			16QAM	21.38	21.15	0.23
5	1880	RB 1/0	QPSK	22.73	22.48	0.25
			16QAM	21.72	21.43	0.29
10	1880	RB 1/0	QPSK	22.83	22.42	0.41
			16QAM	21.65	21.38	0.27
15	1880	RB 1/0	QPSK	22.75	22.31	0.44
			16QAM	22.22	21.91	0.31
20	1880	RB 1/0	QPSK	22.79	22.53	0.26
			16QAM	21.74	21.4	0.34

### 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	22.98	22.67	0.31
			16QAM	21.95	21.54	0.41
3	1732.5	RB 1/0	QPSK	22.94	22.66	0.28
			16QAM	21.86	21.52	0.34
5	1732.5	RB 1/0	QPSK	23.06	22.72	0.34
			16QAM	21.91	21.66	0.25
10	1732.5	RB 1/0	QPSK	23.08	22.76	0.32
			16QAM	21.83	21.56	0.27
15	1732.5	RB 1/0	QPSK	23.04	22.77	0.27
			16QAM	21.92	21.64	0.28
20	1732.5	RB 1/0	QPSK	23.05	22.85	0.2
			16QAM	22.13	21.72	0.41

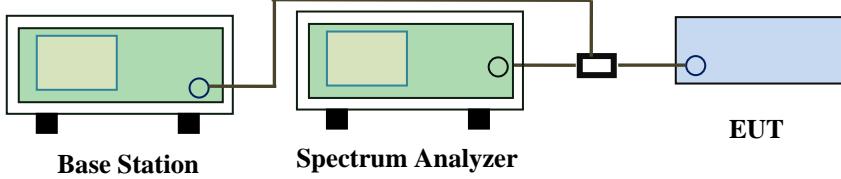
### LTE Band VII (part 27)

BW(MHz)	Frequency (MHz)	Mode	Modulation	Conducted Power (dBm)		Peak-Average Ratio (PAR)
				Peak	Average	
5	2535	RB 1/0	QPSK	22.79	22.46	0.33
			16QAM	21.83	21.4	0.43
10	2535	RB 1/0	QPSK	22.6	22.18	0.42
			16QAM	22.05	21.78	0.27
15	2535	RB 1/0	QPSK	22.73	22.45	0.28
			16QAM	21.55	21.24	0.31
20	2535	RB 1/0	QPSK	22.89	22.55	0.34
			16QAM	21.76	21.42	0.34

## 6.4 Occupied Bandwidth

Temperature	23°C
Relative Humidity	51%
Atmospheric Pressure	1002mbar
Test date :	June 01, 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		 <p style="text-align: center;">Base Station      Spectrum Analyzer      EUT</p>	
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	1850	16QAM	1.1048	1.283
			QPSK	1.1048	1.285
1.4	18900	1880	16QAM	1.0971	1.269
			QPSK	1.0979	1.273
1.4	19193	1909	16QAM	1.1004	1.270
			QPSK	1.0993	1.267
3	18615	1852	16QAM	2.7419	3.047
			QPSK	2.7425	3.062
3	18900	1880	16QAM	2.7398	3.038
			QPSK	2.7425	3.018
3	19185	1909	16QAM	2.7449	3.030
			QPSK	2.7425	3.027
5	18625	1853	16QAM	4.5325	4.999
			QPSK	4.5397	5.039
5	18900	1880	16QAM	4.5369	5.071
			QPSK	4.5284	5.101
5	19175	1908	16QAM	4.5257	5.075
			QPSK	4.5156	5.031
10	18650	1855	16QAM	9.0437	10.04
			QPSK	9.0202	10.09
10	18900	1880	16QAM	9.0179	10.12
			QPSK	9.0224	10.13
10	19150	1905	16QAM	9.0547	10.08
			QPSK	9.0653	10.11
15	18675	1858	16QAM	13.461	14.91
			QPSK	13.447	14.69
15	18900	1880	16QAM	13.464	14.78
			QPSK	13.464	14.72
15	19125	1903	16QAM	13.520	14.94
			QPSK	13.541	14.99

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20	18700	1860	16QAM	17.847	19.14
			QPSK	17.897	19.15
20	18900	1880	16QAM	17.906	19.45
			QPSK	17.900	19.31
20	19100	1900	16QAM	18.009	19.47
			QPSK	17.983	19.40

### LTE Band IV (Part 27)

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
1.4	19957	1711	16QAM	1.0994	1.277
			QPSK	1.0945	1.261
1.4	20175	1733	16QAM	1.1022	1.283
			QPSK	1.1025	1.268
1.4	20393	1754	16QAM	1.1006	1.260
			QPSK	1.1043	1.272
3	19965	1712	16QAM	2.7436	3.042
			QPSK	2.7435	3.043
3	20175	1733	16QAM	2.7426	3.039
			QPSK	2.7387	3.017
3	20385	1754	16QAM	2.7468	3.052
			QPSK	2.7457	3.055
5	19975	1713	16QAM	4.5400	4.986
			QPSK	4.5255	5.044
5	20175	1733	16QAM	4.5250	5.076
			QPSK	4.5352	5.044
5	20375	1753	16QAM	4.5289	5.032
			QPSK	4.5333	5.050
10	20000	1715	16QAM	9.0647	10.07
			QPSK	9.0588	10.05
10	20175	1733	16QAM	9.0331	10.01
			QPSK	9.0198	10.03
10	20350	1750	16QAM	9.0910	10.13
			QPSK	9.0892	10.10
15	20025	1718	16QAM	13.482	14.81
			QPSK	13.503	14.75
15	20175	1733	16QAM	13.418	14.68
			QPSK	13.427	14.69
15	20325	1748	16QAM	13.534	14.84
			QPSK	13.503	14.80

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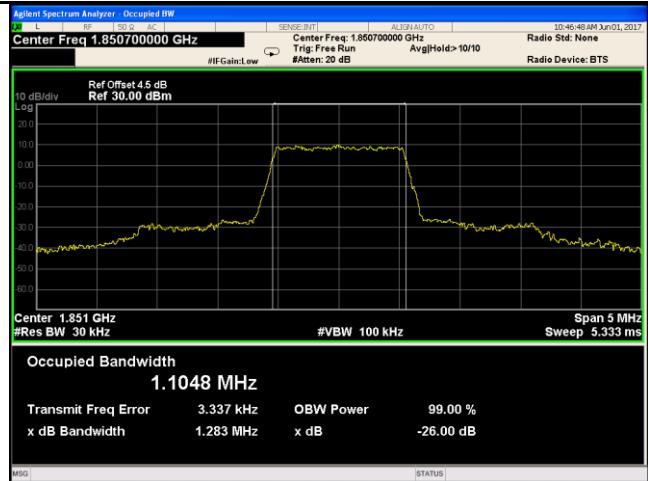
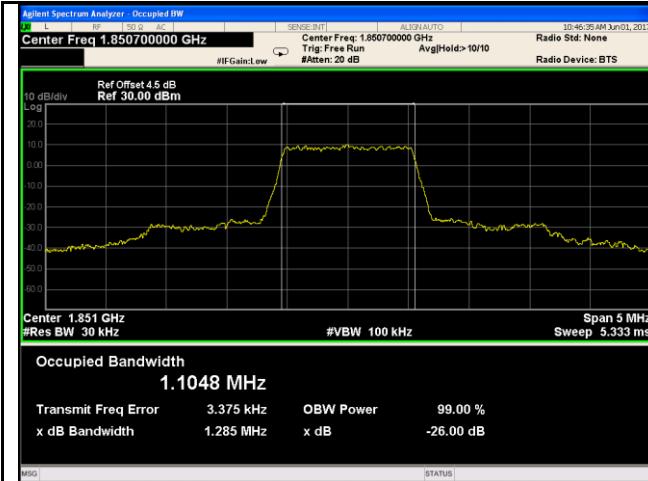
20	20050	1720	16QAM	17.983	19.46
			QPSK	17.968	19.36
20	20175	1733	16QAM	17.908	19.28
			QPSK	17.910	19.32
20	20300	1745	16QAM	17.954	19.52
			QPSK	17.965	19.41

### LTE Band VII (Part 27) result

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
5	20775	2503	16QAM	4.5353	5.034
			QPSK	4.5294	5.039
5	21100	2535	16QAM	4.5382	5.081
			QPSK	4.5343	5.072
5	21425	2568	16QAM	4.5231	5.040
			QPSK	4.5218	5.048
10	20800	2505	16QAM	9.0239	10.07
			QPSK	8.9901	10.02
10	21100	2535	16QAM	9.0581	10.17
			QPSK	9.0591	10.18
10	21400	2565	16QAM	9.0693	10.02
			QPSK	9.0546	10.10
15	20825	2508	16QAM	13.432	14.77
			QPSK	13.434	14.82
15	21100	2535	16QAM	13.445	14.72
			QPSK	13.433	14.71
15	21400	2563	16QAM	13.527	14.96
			QPSK	13.524	14.94
20	20850	2510	16QAM	17.857	19.15
			QPSK	17.888	19.21
20	21100	2535	16QAM	17.893	19.28
			QPSK	17.893	19.24
20	21350	2560	16QAM	17.970	19.45
			QPSK	18.023	19.74

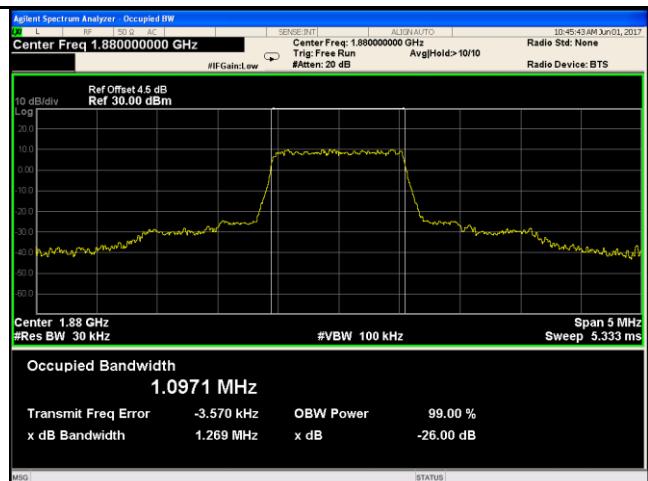
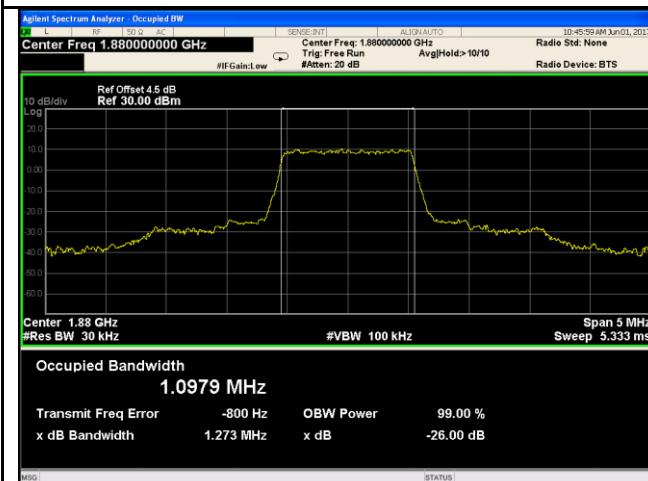
## Test Plots

### LTE Band II (Part 24E)



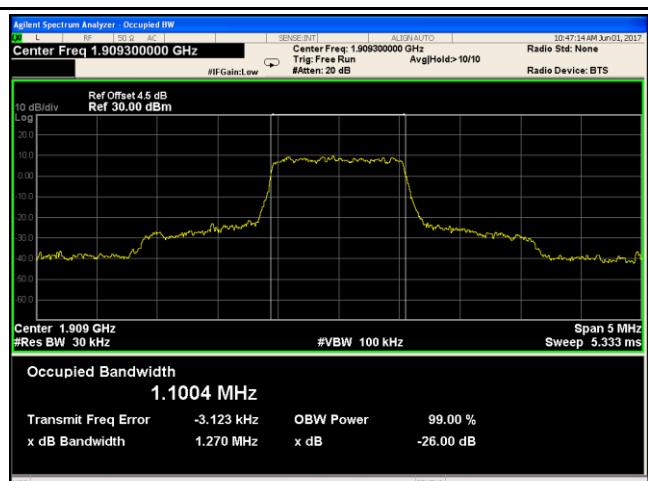
LTE band II - Low CH QPSK-1.4

LTE band II - Low CH 16QAM-1.4



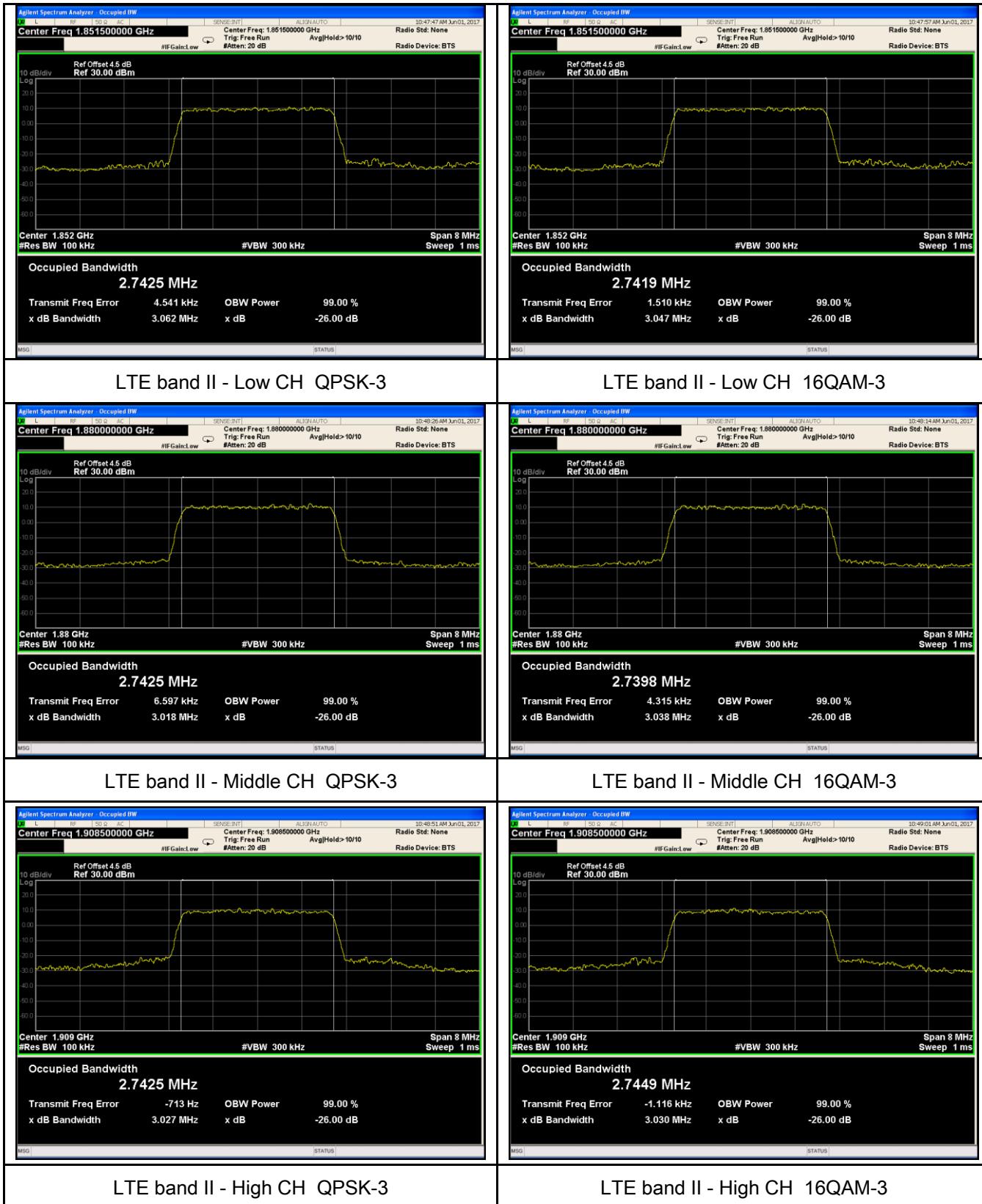
LTE band II - Middle CH QPSK-1.4

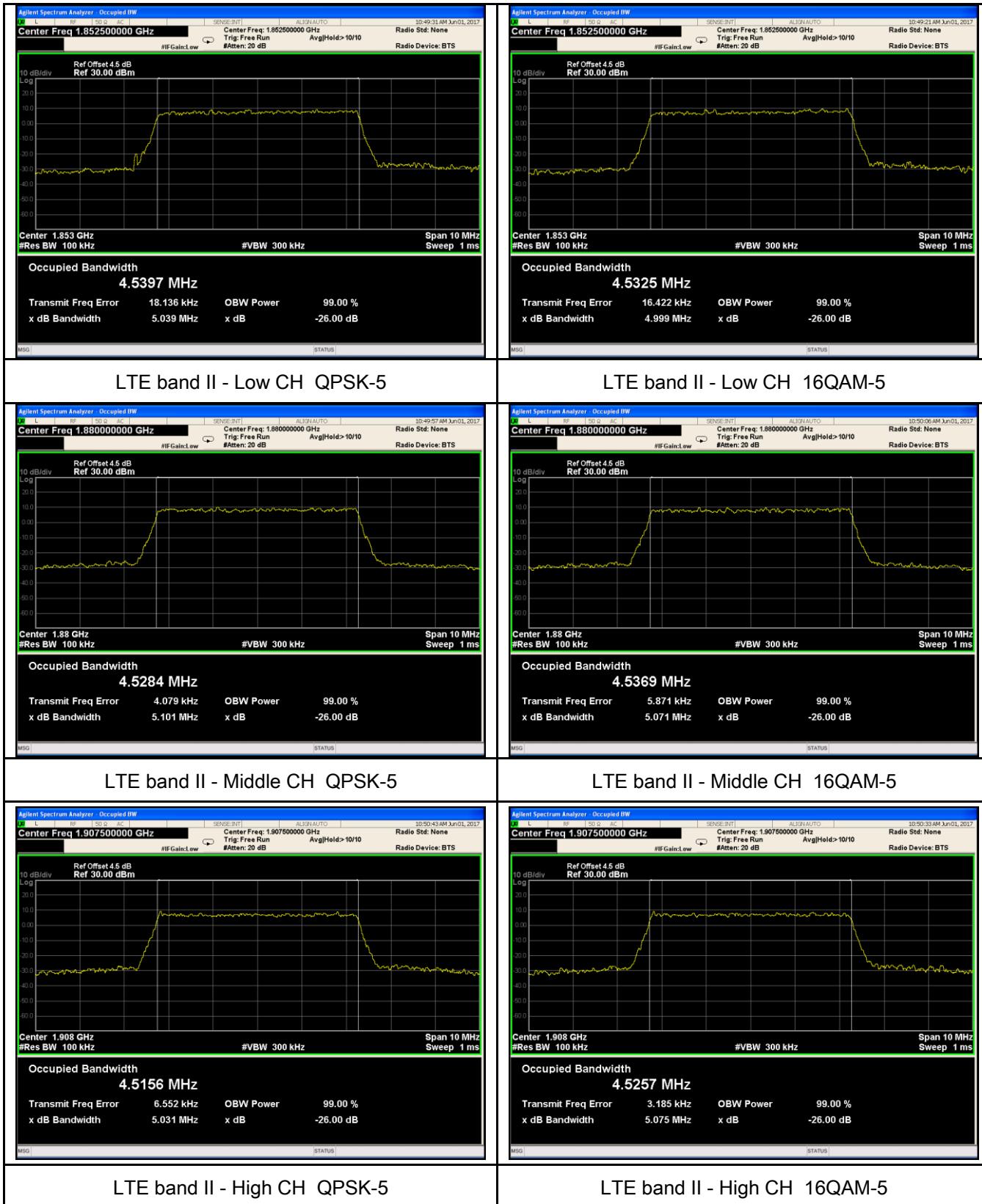
LTE band II - Middle CH 16QAM-1.4

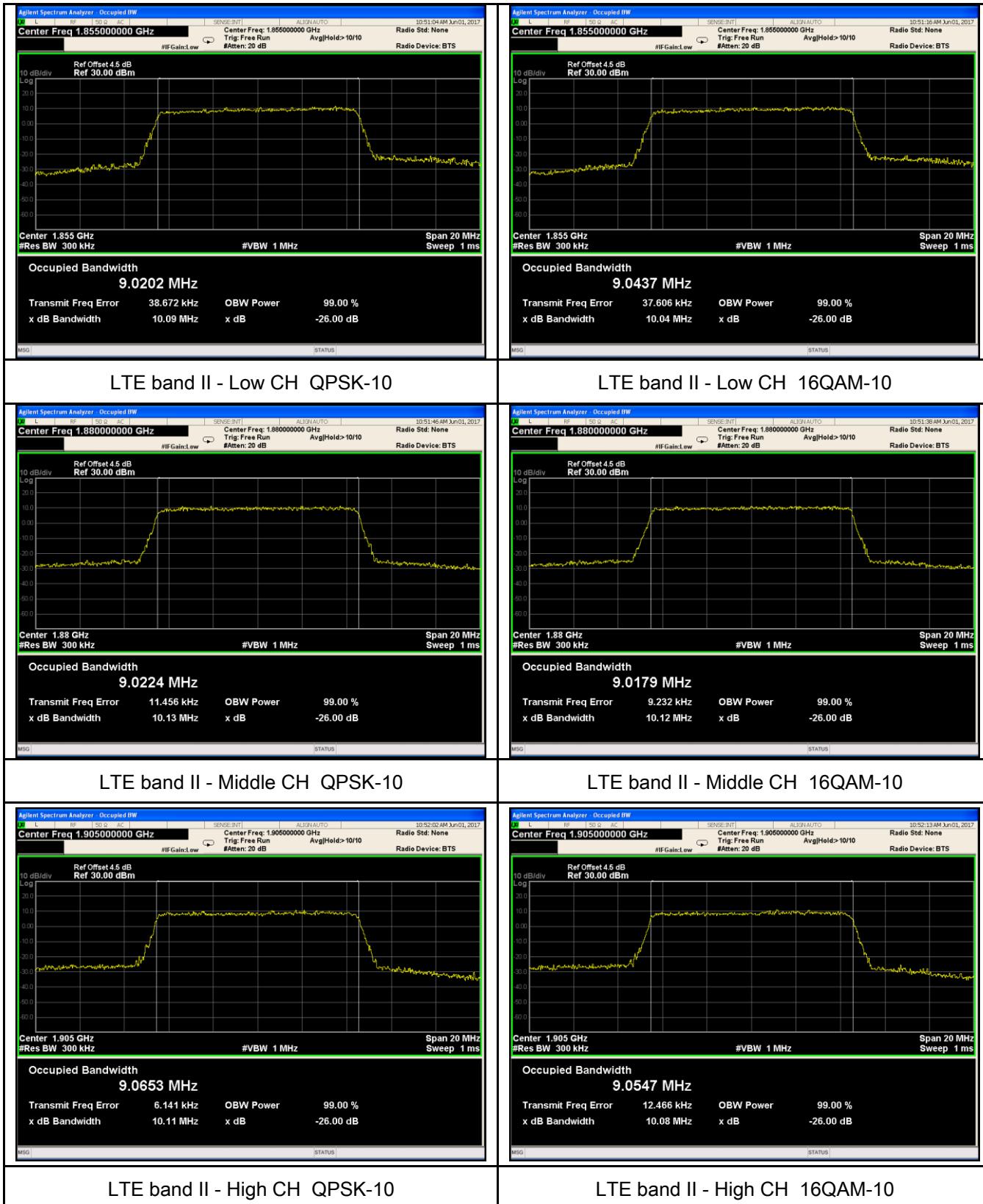


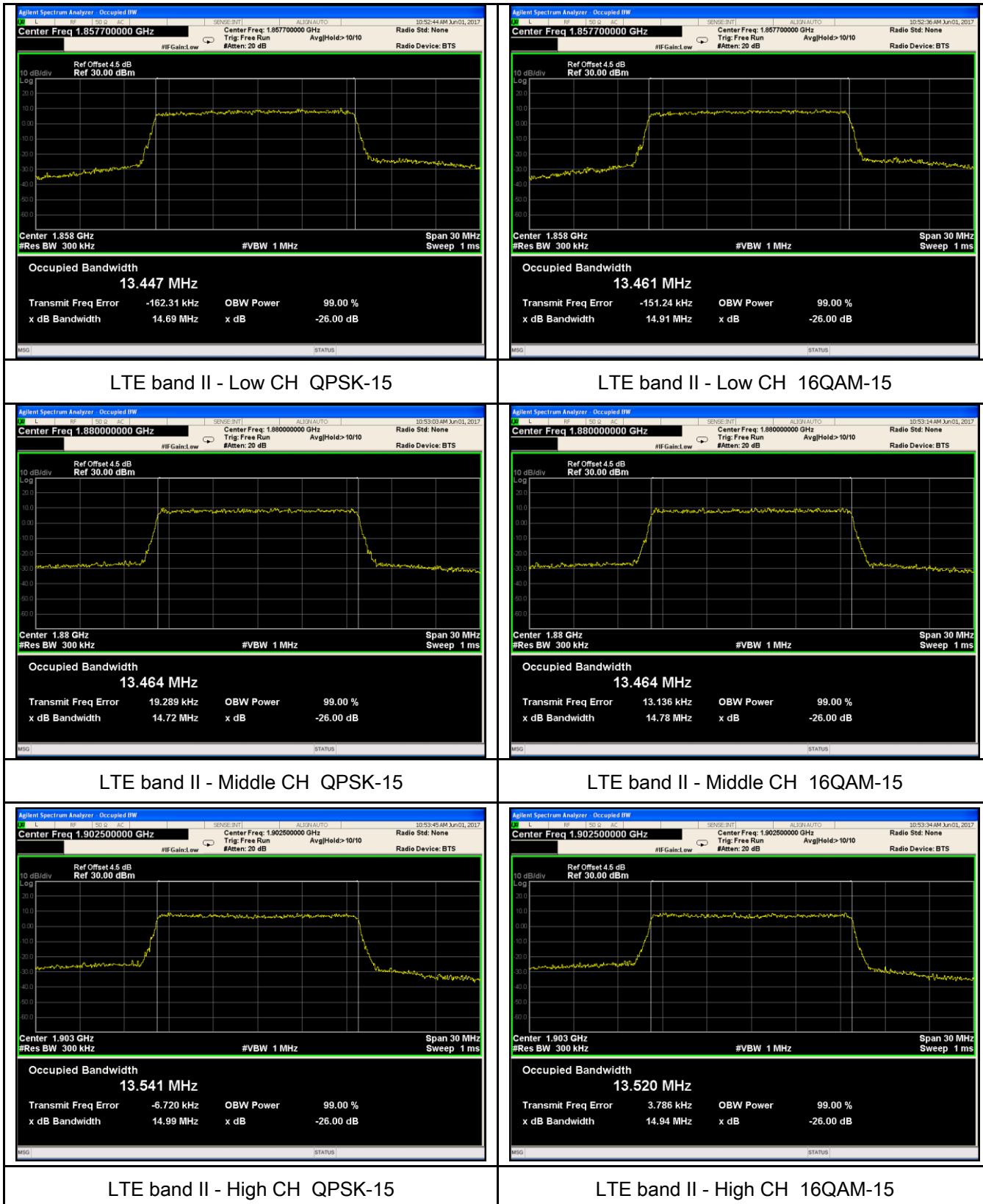
LTE band II - High CH QPSK-1.4

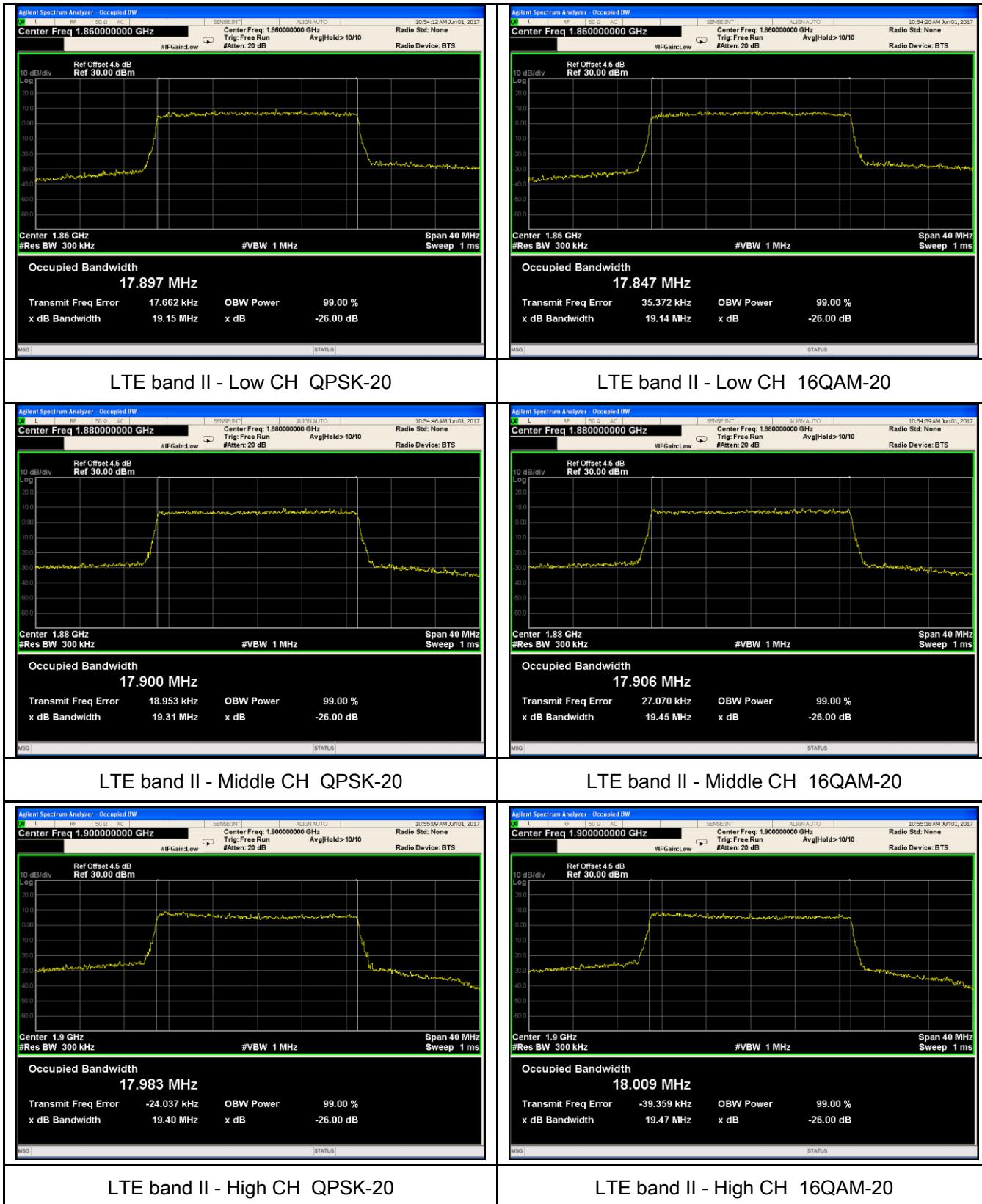
LTE band II - High CH 16QAM-1.4



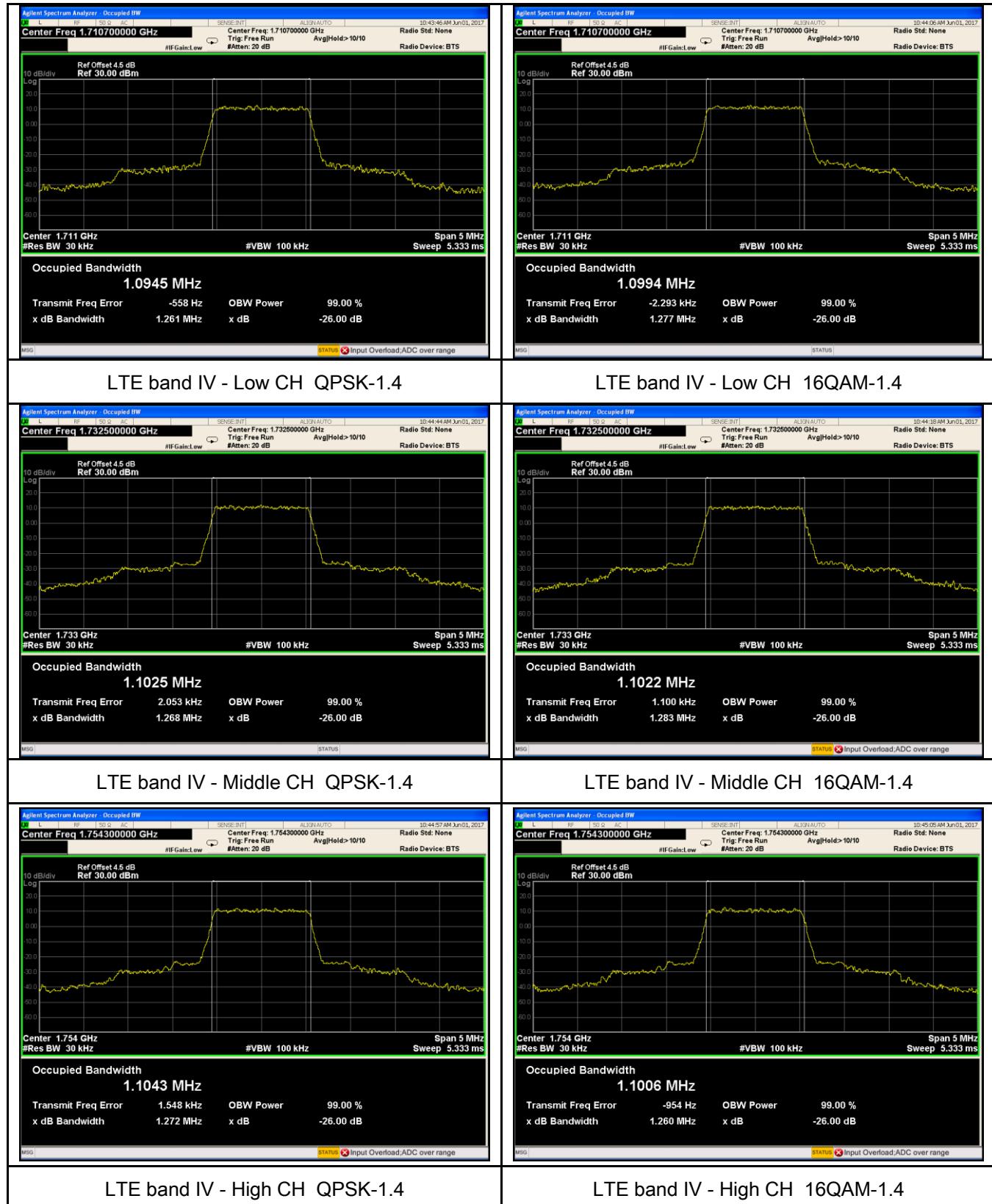


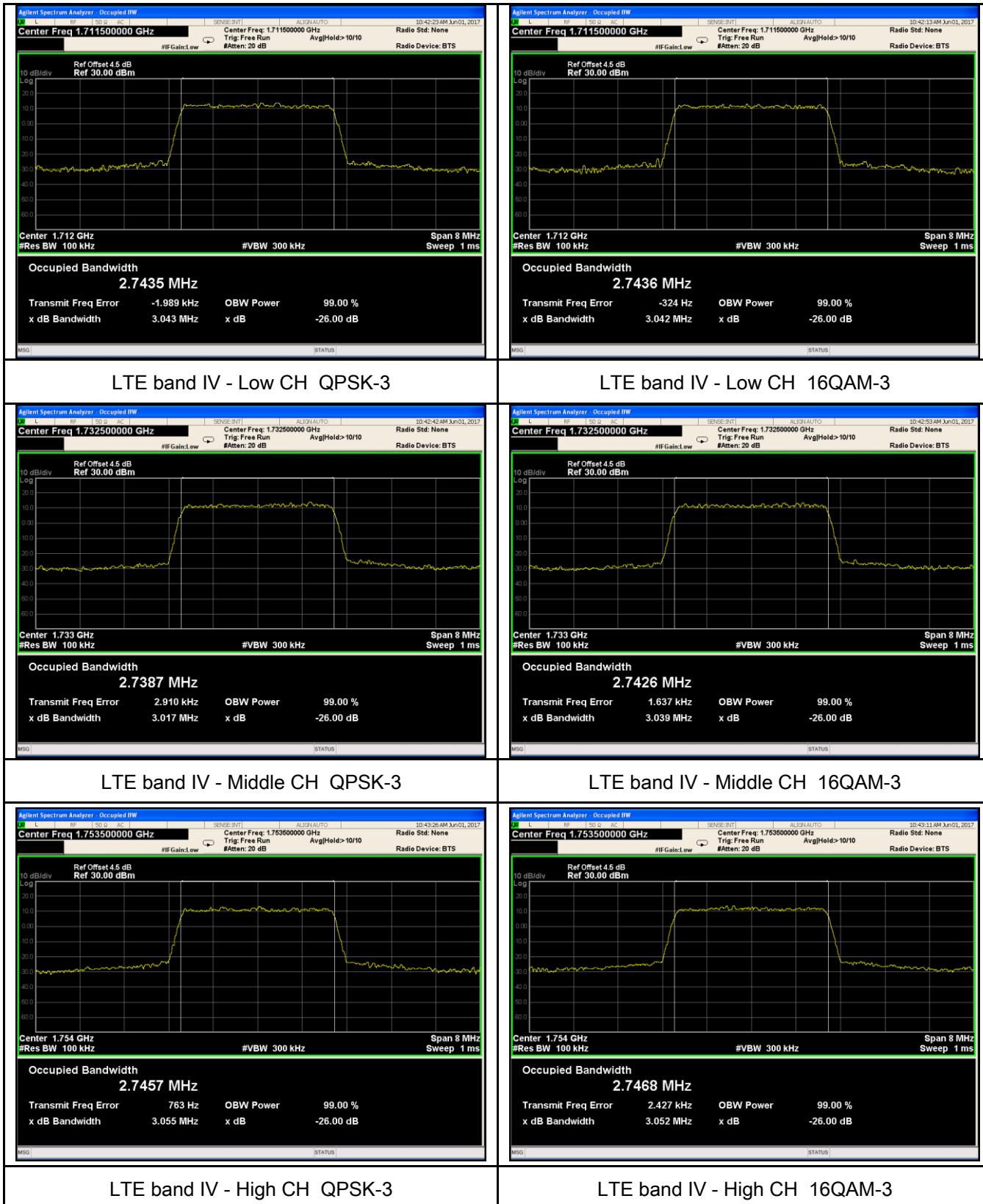


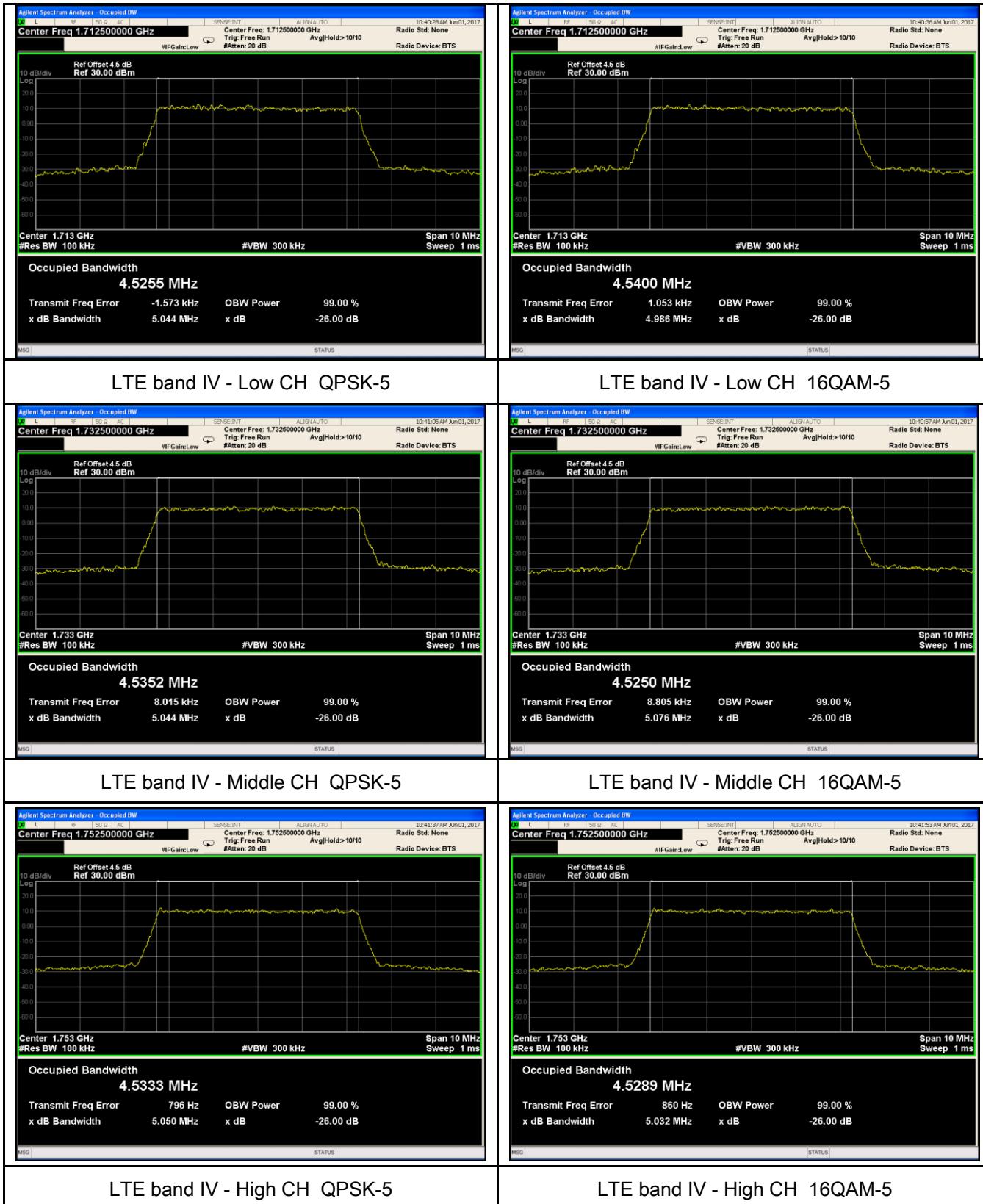


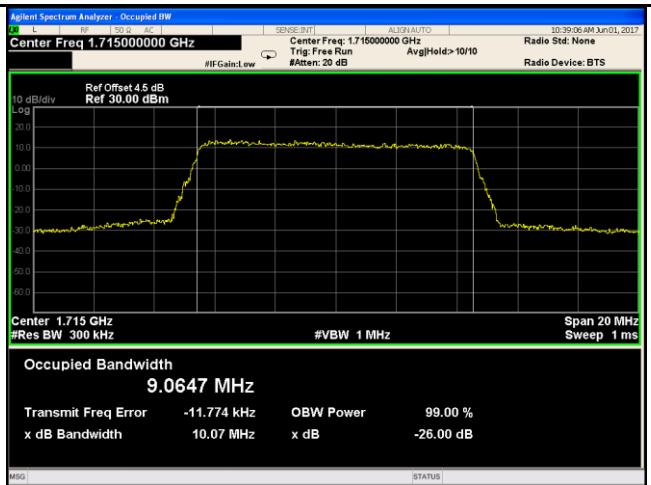
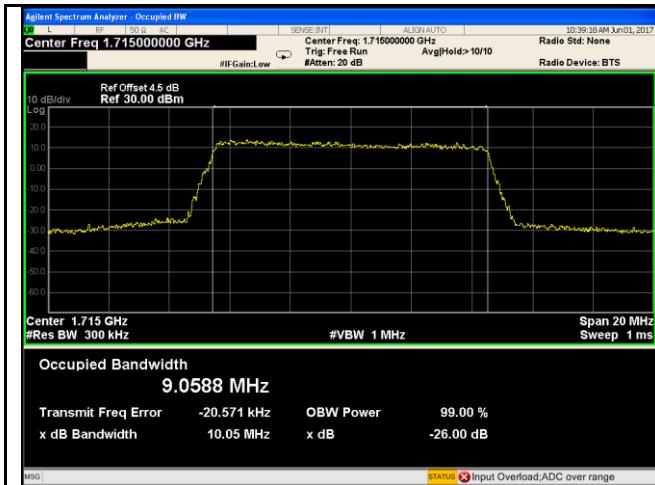


## LTE band IV (Part 27)





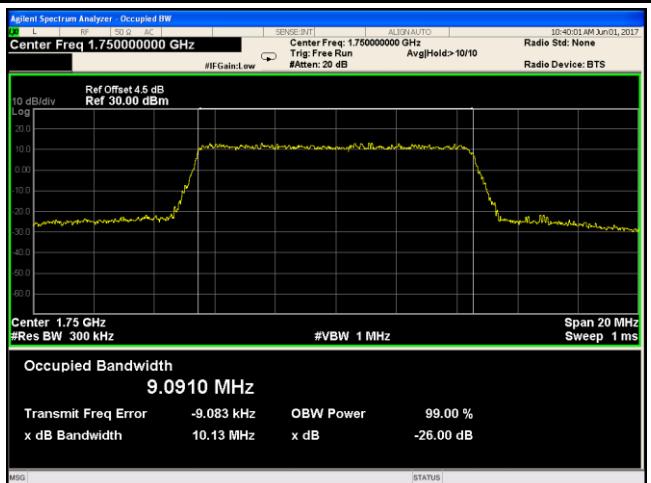
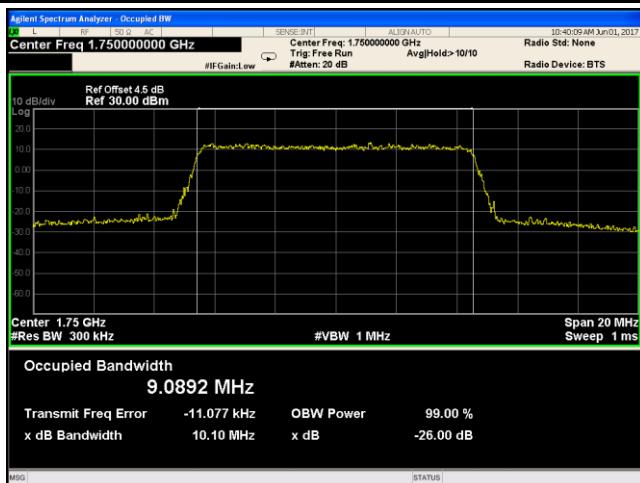




#### LTE band IV - Low CH QPSK-10



#### LTE band IV - Middle CH QPSK-10



#### LTE band IV - High CH QPSK-10

#### LTE band IV - High CH 16QAM-10