RF TEST REPORT



Report No.: 16071296-FCC-R5-V1

Supersede Report No.: N/A

Applicant	Posh Mobile Limited			
Product Name	Revel Max LTE			
Model No.	L551			
Serial No.	L551A,L55	1B,L551C		
Test Standard	FCC Part 22(H):2015, FCC Part 24(E):2015, FCC Part 27: 2015;			
rest Standard	ANSI/TIA-6	603-D: 2010		
Test Date	November 18 to December 04, 2016			
Issue Date	December 22, 2016			
Test Result	Pass Fail			
Equipment complied with the specification				
Equipment did not comply with the specification				
LOVEN LUO David Huang				
Loren Lu	Loren Luo David Huang			
Test Engir	Test Engineer Checked By			

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Test result presented in this test report is applicable to the tested sample only

Issued by:

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Test Report	16071296-FCC-R5-V1
Page	2 of 135

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



Test Report	16071296-FCC-R5-V1
Page	3 of 135

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Test Report	16071296-FCC-R5-V1
Page	4 of 135

CONTENTS

1.	REPORT REVISION HISTORY	5
2.		
3.	TEST SITE INFORMATION	5
4.	EQUIPMENT UNDER TEST (EUT) INFORMATION	6
5.	TEST SUMMARY	9
6.	MEASUREMENTS, EXAMINATION AND DERIVED RESULTS	10
6.1	RF EXPOSURE (SAR)	10
6.2	RF OUTPUT POWER	11
6.3	PEAK-AVERAGE RATIO	45
6.4	OCCUPIED BANDWIDTH	50
6.5	SPURIOUS EMISSIONS AT ANTENNA TERMINALS	80
6.6	SPURIOUS RADIATED EMISSIONS	86
6.7	BAND EDGE	93
6.8	BAND EDGE 27.53(M)	112
6.9	FREQUENCY STABILITY	118
ANI	NEX A. TEST INSTRUMENT	123
ANI	NEX B. EUT AND TEST SETUP PHOTOGRAPHS	125
ANI	NEX C. TEST SETUP AND SUPPORTING EQUIPMENT	131
ANI	NEX C.II. EUT OPERATING CONKITIONS	133
ANI	NEX D. USER MANUAL / BLOCK DIAGRAM / SCHEMATICS / PARTLIST	134
ANI	NEX E. DECLARATION OF SIMILARITY	135



Test Report	16071296-FCC-R5-V1
Page	5 of 135

1. Report Revision History

Report No.	Report Version	Description	Issue Date
16071296-FCC-R5	NONE	Original	December 05, 2016
16071296-FCC-R5-V1	V1	Updated the frequency(P26/28)	December 22, 2016

2. Customer information

Applicant Name	Posh Mobile Limited	
Applicant Add	1011A, 10/F., Harbour Centre Tower 1, No.1 Hok Cheung Street, Hung Hom,	
	Kowloon, Hong Kong	
Manufacturer	Shenzhen Posh Mobile Limited	
Manufacturer Add	Room 6H, Block C, NEO Building, Chegongmiao, Futian District, Shenzhen, P.R.	
	China	

3. Test site information

Lab performing tests	SIEMIC (Shenzhen-China) LABORATORIES		
	Zone A, Floor 1, Building 2 Wan Ye Long Technology Park		
Lab Address	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		



Test Report	16071296-FCC-R5-V1
Page	6 of 135

4. Equipment under Test (EUT) Information

Description of EUT: Revel Max LTE

Main Model: L551

Serial Model: L551A,L551B,L551C

Date EUT received: November 17, 2016

Test Date(s): November 18 to December 04, 2016

Equipment Category : PCE

GSM850: -1.27dBi PCS1900: 0.84dBi

UMTS-FDD Band V: -1.27dBi UMTS-FDD Band IV: 0.84dBi UMTS-FDD Band II: 0.84dBi

LTE Band II: 0.54dBi

Antenna Gain: LTE Band IV: 0.84dBi

LTE Band VII: 0.9dBi LTE Band XII: -2.02dBi LTE Band XVII: -2.06dBi

WIFI: 0.87dBi

Bluetooth/BLE: 0.87dBi

GPS: 0.89dBi

Antenna Type: PIFA antenna

Type of Modulation:

GSM / GPRS: GMSK EGPRS: GMSK,8PSK UMTS-FDD: QPSK

LTE Band: QPSK, 16QAM

802.11b/g/n: DSSS, OFDM

Bluetooth: GFSK, π /4DQPSK, 8DPSK

BLE: GFSK GPS:BPSK



Test Report	16071296-FCC-R5-V1
Page	7 of 135

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

RF Operating Frequency (ies):

LTE Band II TX: $1850.7 \sim 1909.3 \text{MHz}$; RX: $1930.7 \sim 1989.3 \text{ MHz}$ LTE Band IV TX: $1710.7 \sim 1754.3 \text{ MHz}$; RX: $2110.7 \sim 2154.3 \text{ MHz}$ LTE Band VII TX: $2502.5 \sim 2567.5 \text{ MHz}$; RX: $2622.5 \sim 2687.5 \text{ MHz}$

LTE Band XII TX:699.7 \sim 715.3 MHz; RX : 729.7 \sim 745.3MHz LTE Band XVII TX: 706.5 \sim 713.5 MHz; RX : 736.5 \sim 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 II: 22.58 dBm

LTE Band IV: 22.57dBm

Maximum Conducted

LTE Band VII: 22.49 dBm

AV Power to Antenna:

LTE Band XII: 22.87 dBm LTE Band XVII: 22.96 dBm

LTE Band II: 23.05 dBm / EIRP

LTE Band IV: 23.40 dBm / EIRP

ERP/EIRP: LTE Band VII: 23.37dBm / EIRP

LTE Band XII: 18.61dBm / EIRP

LTE Band XVII: 18.79 dBm / ERP

Port: USB Port, Earphone Port



Test Report	16071296-FCC-R5-V1
Page	8 of 135

Adapter:

Model: A88-501500

Input: AC100-240V~50/60Hz,0.35A

Input Power:
Output: DC 5.0V,1.5A

Battery:

Spec: 3.85V,2820mAh

Trade Name: Posh

FCC ID: 2AG8KL551



Test Report	16071296-FCC-R5-V1
Page	9 of 135

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);	DE Output Dawer	Compliance	
§ 27.50(c.10); § 27.50(d.4)	RF Output Power		
§ 24.232 (d); § 27.50(d)	Peak-Average Ratio	Compliance	
§ 2.1049; § 22.905; § 22.917;	000/ 9, 2C dD Occurried Developed	Compliance	
§ 24.238; § 27.53(a.5)	99% & -26 dB Occupied Bandwidth		
§ 2.1051; § 22.917(a);	Courieus Emissions et Antonno Torreinal	Compliance	
§ 24.238(a); § 27.53(h)	Spurious Emissions at Antenna Terminal		
§ 2.1053; § 22.917(a);	Field Chronath of Courieus Dadistics	Compliance	
§ 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;	Frequency stability vs. temperature	Compliance	
§ 27.5(h); § 27.54	Frequency stability vs. voltage		

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		
-	-	-		



Test Report	16071296-FCC-R5-V1
Page	10 of 135

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: 16071296-FCC-H.



Test Report	16071296-FCC-R5-V1
Page	11 of 135

6.2 RF Output Power

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

Requirement(s):									
Spec	Item Requirement Applicable								
§22.913 (a)	a)	a) ERP:38.45dBm							
§24.232 (c)	b)	EIRP:33dBm ✓							
§27.50 (c)	c)	EIRP: 30dBm							
Test Setup		Base Station EUT							
Test Procedure	- - -	The transmitter output port was connected to base state Set EUT at maximum power through base station. Select lowest, middle, and highest channels for each to different test mode. For ERP/EIRP: The transmitter was placed on a wooden turntable, and transmitting into a non-radiating load which was also platernated turntable. The measurement antenna was placed at a distance of from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in ord the maximum level of emissions from the EUT. The test performed by placing the EUT on 3-orthogonal axis. The frequency range up to tenth harmonic of the fundating frequency was investigated.	d it was laced on the f 3 meters ler to identify st was						



Test Report	16071296-FCC-R5-V1
Page	12 of 135

	- Remove the EUT and replace it with substitution antenna. A signal				
	generator was connected to the substitution antenna by a non-				
	radiating cable. The absolute levels of the spurious emissions				
	were measured by the substitution.				
	- Spurious emissions in dB = 10 log (TX power in Watts/0.001) –				
	the absolute level				
	- Spurious attenuation limit in dB = 43 + 10 Log10 (power out in				
	Watts.				
Remark					
Result	Pass				
Test Data Yes	N/A				
Test Plot Yes	(See below) N/A				



Test Report	16071296-FCC-R5-V1
Page	13 of 135

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
				1	0	0	22.57	22±1
				1	49	0	22.56	22±1
				1	99	0	22.51	22±1
			QPSK	50	0	1	21.45	22±1
				50	24	1	21.46	22±1
				50	49	1	21.49	22±1
				100	0	1	21.42	22±1
	18700	1860.0		1	0	1	21.45	21.3±1
				1	49	1	21.46	21.3±1
				1	99	1	21.49	21.3±1
			16QAM	50	0	2	21.45	21.3±1
			,	50	24	2	21.46	21.3±1
				50	49	2	21.47	21.3±1
				100	0	2	20.45	21.3±1
				1	0	0	22.33	22±1
				1	49	0	22.35	22±1
				1	99	0	22.36	22±1
			QPSK	50	0	1	21.39	22±1
			,	50	24	1	21.38	22±1
				50	49	1	21.40	22±1
				100	0	1	21.38	22±1
20MHz	18900	1880.0		1	0	1	21.63	21.3±1
				1	49	1	21.65	21.3±1
				1	99	1	21.64	21.3±1
			16QAM	50	0	2	21.39	21.3±1
				50	24	2	21.38	21.3±1
				50	49	2	21.36	21.3±1
				100	0	2	20.41	21.3±1
			QPSK	1	0	0	22.41	22±1
				1	49	0	22.43	22±1
				1	99	0	22.44	22±1
				50	0	1	21.37	22±1
				50	24	1	21.38	22±1
				50	49	1	21.36	22±1
	40400	4000.0		100	0	1	21.36	22±1
	19100	1900.0		1	0	1	21.76	21.3±1
				1	49	1	21.75	21.3±1
			16QAM	1	99	1	21.73	21.3±1
				50	0	2	21.37	21.3±1
				50	24	2	21.36	21.3±1
				50	49	2	21.35	21.3±1
				100	0	2	20.38	21.3±1



Test Report	16071296-FCC-R5-V1
Page	14 of 135

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
				1	0	0	22.53	22±1
				1	37	0	22.55	22±1
				1	74	0	22.54	22±1
			QPSK	36	0	1	21.41	22±1
				36	16	1	21.46	22±1
				36	35	1	21.43	22±1
	40675	4057.5		75	0	1	21.42	22±1
	18675	1857.5		1	0	1	21.31	21.3±1
				1	37	1	21.36	21.3±1
				1	74	1	21.35	21.3±1
			16QAM	36	0	2	21.41	21.3±1
				36	16	2	21.42	21.3±1
				36	35	2	21.44	21.3±1
				75	0	2	20.44	21.3±1
				1	0	0	22.36	22±1
				1	37	0	22.39	22±1
				1	74	0	22.34	22±1
			QPSK	36	0	1	21.38	22±1
		1880.0		36	16	1	21.39	22±1
				36	35	1	21.37	22±1
458411	10000			75	0	1	21.39	22±1
15MHz	18900			1	0	1	21.66	21.3±1
				1	37	1	21.62	21.3±1
				1	74	1	21.64	21.3±1
			16QAM	36	0	2	21.38	21.3±1
				36	16	2	21.39	21.3±1
				36	35	2	21.37	21.3±1
				75	0	2	20.38	21.3±1
				1	0	0	22.36	22±1
				1	37	0	22.38	22±1
				1	74	0	22.37	22±1
			QPSK	36	0	1	21.43	22±1
				36	16	1	21.45	22±1
				36	35	1	21.46	22±1
	10125	1902.5		75	0	1	21.43	22±1
	19125	1902.3		1	0	1	21.83	21.3±1
				1	37	1	21.87	21.3±1
				1	74	1	21.85	21.3±1
			16QAM	36	0	2	21.43	21.3±1
				36	16	2	21.45	21.3±1
				36	35	2	21.46	21.3±1
				75	0	2	20.45	21.3±1



Test Report	16071296-FCC-R5-V1
Page	15 of 135

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
				1	0	0	22.48	22±1
				1	24	0	22.46	22±1
				1	49	0	22.49	22±1
			QPSK	25	0	1	21.42	22±1
				25	12	1	21.45	22±1
				25	24	1	21.46	22±1
	18650	1855		50	0	1	21.40	22±1
	18050	1833		1	0	1	21.28	21.3±1
				1	24	1	21.30	21.3±1
				1	49	1	21.26	21.3 ± 1
			16QAM	25	0	2	21.42	21.3±1
				25	12	2	21.43	21.3 ± 1
				25	24	2	21.46	21.3±1
				50	0	2	21.40	21.3 ± 1
				1	0	0	22.43	22±1
		1880.0		1	24	0	22.45	22±1
				1	49	0	22.41	22±1
			QPSK	25	0	1	21.38	22±1
				25	12	1	21.39	22±1
				25	24	1	21.37	22±1
400411-	10000			50	0	1	21.40	22±1
10MHz	18900			1	0	1	21.39	21.3±1
				1	24	1	21.36	21.3±1
				1	49	1	21.37	21.3±1
			16QAM	25	0	2	21.38	21.3±1
				25	12	2	21.39	21.3±1
				25	24	2	21.36	21.3±1
				50	0	2	20.43	21.3±1
				1	0	0	22.35	22±1
				1	24	0	22.36	22±1
				1	49	0	22.34	22±1
			QPSK	25	0	1	21.38	22±1
				25	12	1	21.36	22±1
				25	24	1	21.39	22±1
	40450	400-		50	0	1	21.38	22±1
	19150	1905		1	0	1	21.82	21.3±1
				1	24	1	21.84	21.3±1
				1	49	1	21.83	21.3±1
			16QAM	25	0	2	21.38	21.3±1
				25	12	2	21.39	21.3±1
				25	24	2	21.36	21.3±1
				50	0	2	20.43	21.3±1



Test Report	16071296-FCC-R5-V1
Page	16 of 135

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
				1	0	0	22.57	22±1
				1	12	0	22.56	22±1
				1	24	0	22.58	22±1
			QPSK	12	0	1	21.48	22±1
				12	6	1	21.47	22±1
				12	11	1	21.49	22±1
	40625	4052.5		25	0	1	21.40	22±1
	18625	1852.5		1	0	1	21.52	21.3±1
				1	12	1	21.53	21.3±1
				1	24	1	21.54	21.3±1
			16QAM	12	0	2	21.48	21.3±1
				12	6	2	21.49	21.3±1
				12	11	2	21.47	21.3±1
				25	0	2	20.46	21.3±1
				1	0	0	22.37	22±1
				1	12	0	22.39	22±1
				1	24	0	22.38	22±1
			QPSK	12	0	1	21.44	22±1
		1880.0		12	6	1	21.46	22±1
				12	11	1	21.48	22±1
	40000			25	0	1	21.39	22±1
5MHz	18900			1	0	1	21.74	21.3±1
				1	12	1	21.76	21.3±1
				1	24	1	21.74	21.3±1
			16QAM	12	0	2	21.44	21.3±1
				12	6	2	21.46	21.3±1
				12	11	2	21.43	21.3±1
				25	0	2	20.41	21.3±1
				1	0	0	22.43	22±1
				1	12	0	22.45	22±1
				1	24	0	22.41	22±1
			QPSK	12	0	1	21.44	22±1
				12	6	1	21.46	22±1
				12	11	1	21.45	22±1
	10175	1007 5		25	0	1	21.39	22±1
	19175	1907.5		1	0	1	21.38	21.3±1
				1	12	1	21.38	21.3±1
				1	24	1	21.34	21.3±1
			16QAM	12	0	2	21.44	21.3±1
				12	6	2	21.46	21.3±1
				12	11	2	21.47	21.3±1
				25	0	2	20.57	21.3±1



Test Report	16071296-FCC-R5-V1
Page	17 of 135

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
				1	0	0	22.41	22±1
				1	7	0	22.46	22±1
				1	14	0	22.43	22±1
			QPSK	8	0	1	21.37	22±1
				8	4	1	21.36	22±1
				8	7	1	21.39	22±1
	40605	4050 5		15	0	1	21.38	22±1
	18625	1852.5		1	0	1	21.25	21.2±1
				1	7	1	21.26	21.2±1
				1	14	1	21.23	21.2±1
			16QAM	8	0	2	20.37	21.2±1
				8	4	2	20.39	21.2±1
				8	7	2	20.35	21.2±1
				15	0	2	20.37	21.2±1
				1	0	0	22.36	22±1
				1	7	0	22.35	22±1
				1	14	0	22.39	22±1
			QPSK	8	0	1	21.28	22±1
		1880.0		8	4	1	21.26	22±1
				8	7	1	21.27	22±1
28.41.1	40000			15	0	1	21.35	22±1
3MHz	18900			1	0	1	21.34	21.2±1
				1	7	1	21.35	21.2±1
				1	14	1	21.38	21.2±1
			16QAM	8	0	2	20.21	21.2±1
				8	4	2	20.26	21.2±1
				8	7	2	20.23	21.2±1
				15	0	2	20.41	21.2±1
				1	0	0	22.18	22±1
				1	7	0	22.19	22±1
				1	14	0	22.16	22±1
			QPSK	8	0	1	21.31	22±1
				8	4	1	21.33	22±1
				8	7	1	21.36	22±1
	19175	1007 5		15	0	1	21.36	22±1
	191/5	1907.5		1	0	1	21.81	21.3±1
				1	7	1	21.84	21.3±1
				1	14	1	21.83	21.3±1
			16QAM	8	0	2	20.36	21.3±1
				8	4	2	20.34	21.3±1
				8	7	2	20.33	21.3±1
				15	0	2	20.51	21.3±1



Test Report	16071296-FCC-R5-V1
Page	18 of 135

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
				1	0	0	22.42	22±1
				1	2	0	22.39	22±1
				1	5	0	22.45	22±1
			QPSK	3	0	0	22.52	22±1
				3	1	0	22.53	22±1
				3	2	0	22.51	22±1
	19607	1050.7		6	0	1	21.38	22±1
	18607	1850.7		1	0	1	21.25	21.3±1
				1	2	1	21.26	21.3±1
				1	5	1	21.28	21.3±1
			16QAM	3	0	1	22.54	21.3±1
				3	1	1	22.53	21.3±1
				3	2	1	22.51	21.3±1
				6	0	2	20.39	21.3±1
				1	0	0	22.35	22±1
				1	2	0	22.39	22±1
				1	5	0	22.31	22±1
			QPSK	3	0	0	22.40	22±1
				3	1	0	22.42	22±1
		1880.0		3	2	0	22.44	22±1
1 45411-	10000			6	0	1	21.31	22±1
1.4MHz	18900			1	0	1	21.32	21±1
				1	2	1	21.36	21±1
				1	5	1	21.35	21±1
			16QAM	3	0	1	22.42	21±1
				3	1	1	22.41	21±1
				3	2	1	22.43	21±1
				6	0	2	20.24	21±1
				1	0	0	22.25	22±1
				1	2	0	22.26	22±1
				1	5	0	22.28	22±1
			QPSK	3	0	0	22.46	22±1
				3	1	0	22.48	22±1
				3	2	0	22.43	22±1
	10102	1000.3		6	0	1	21.32	22±1
	19193	1909.3		1	0	1	20.96	21.3±1
				1	2	1	20.95	21.3±1
				1	5	1	21.10	21.3±1
			16QAM	3	0	1	22.46	21.3±1
				3	1	1	22.45	21.3±1
				3	2	1	22.49	21.3±1
				6	0	2	20.30	21.3±1



Test Report	16071296-FCC-R5-V1
Page	19 of 135

LTE Band IV:

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
				1	0	0	22.53	22±1
				1	49	0	22.55	22±1
				1	99	0	22.57	22±1
			QPSK	50	0	1	21.40	22±1
				50	24	1	21.44	22±1
				50	49	1	21.43	22±1
	20050	4720.0		100	0	1	21.41	22±1
	20050	1720.0		1	0	1	21.37	21.3±1
				1	49	1	21.33	21.3±1
				1	99	1	21.36	21.3±1
			16QAM	50	0	2	21.40	21.3±1
				50	24	2	21.44	21.3±1
				50	49	2	21.43	21.3±1
				100	0	2	20.44	21.3±1
				1	0	0	22.44	22±1
		1732.5	QPSK	1	49	0	22.43	22±1
				1	99	0	22.46	22±1
				50	0	1	21.42	22±1
				50	24	1	21.44	22±1
				50	49	1	21.45	22±1
201411-	20475			100	0	1	21.42	22±1
20MHz	20175			1	0	1	21.83	21.3±1
				1	49	1	21.85	21.3±1
				1	99	1	21.86	21.3±1
			16QAM	50	0	2	21.42	21.3±1
				50	24	2	21.43	21.3±1
				50	49	2	21.44	21.3±1
				100	0	2	20.47	21.3±1
				1	0	0	22.37	22±1
				1	49	0	22.36	22±1
				1	99	0	22.35	22±1
			QPSK	50	0	1	21.45	22±1
				50	24	1	21.46	22±1
				50	49	1	21.44	22±1
	20200	4745.0		100	0	1	21.40	22±1
	20300	1745.0		1	0	1	21.63	21.3±1
				1	49	1	21.66	21.3±1
				1	99	1	21.65	21.3±1
			16QAM	50	0	2	21.45	21.3±1
				50	24	2	21.43	21.3±1
				50	49	2	21.42	21.3±1
				100	0	2	20.43	21.3±1



Test Report	16071296-FCC-R5-V1
Page	20 of 135

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
				1	0	0	22.49	22±1
				1	37	0	22.48	22±1
				1	74	0	22.46	22±1
			QPSK	36	0	1	21.40	22±1
				36	16	1	21.44	22±1
				36	35	1	21.45	22±1
	20025	4747.5		75	0	1	21.42	22±1
	20025	1717.5		1	0	1	21.26	21.3±1
				1	37	1	21.25	21.3±1
				1	74	1	21.28	21.3±1
			16QAM	36	0	2	21.40	21.3±1
				36	16	2	21.42	21.3±1
				36	35	2	21.43	21.3±1
				75	0	2	20.45	21.3±1
				1	0	0	22.38	22±1
				1	37	0	22.36	22±1
				1	74	0	22.34	22±1
			QPSK	36	0	1	21.43	22±1
		1732.5		36	16	1	21.44	22±1
				36	35	1	21.45	22±1
450411-	20475			75	0	1	21.42	22±1
15MHz	20175			1	0	1	21.63	21.3±1
				1	37	1	21.66	21.3±1
				1	74	1	21.45	21.3±1
			16QAM	36	0	2	21.43	21.3±1
				36	16	2	21.45	21.3±1
				36	35	2	21.43	21.3±1
				75	0	2	20.41	21.3±1
				1	0	0	22.39	22±1
				1	37	0	22.44	22±1
				1	74	0	22.36	22±1
			QPSK	36	0	1	21.47	22±1
				36	16	1	21.46	22±1
				36	35	1	21.45	22±1
	20225	4747.5		75	0	1	21.44	22±1
	20325	1747.5		1	0	1	21.96	21.3±1
				1	37	1	21.95	21.3±1
				1	74	1	21.97	21.3±1
			16QAM	36	0	2	21.47	21.3±1
				36	16	2	21.46	21.3±1
				36	35	2	21.44	21.3±1
				75	0	2	20.45	21.3±1



Test Report	16071296-FCC-R5-V1
Page	21 of 135

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
				1	0	0	22.46	22 ± 1
				1	24	0	22.44	22±1
				1	49	0	22.41	22±1
			QPSK	25	0	1	21.37	22±1
				25	12	1	21.36	22±1
				25	24	1	21.33	22±1
	20000	1715.0		50	0	1	21.38	22±1
	20000	1/15.0		1	0	1	21.25	21.3±1
				1	24	1	21.26	21.3 ± 1
				1	49	1	21.22	21.3±1
			16QAM	25	0	2	21.37	21.3±1
				25	12	2	21.33	21.3±1
				25	24	2	21.35	21.3±1
				50	0	2	20.41	21.3±1
				1	0	0	22.41	22±1
				1	24	0	22.42	22±1
				1	49	0	22.43	22±1
		5 1732.5	QPSK	25	0	1	21.36	22±1
				25	12	1	21.35	22±1
				25	24	1	21.33	22±1
400411	20475			50	0	1	21.37	22±1
10MHz	20175			1	0	1	21.38	21.3±1
				1	24	1	21.36	21.3±1
				1	49	1	21.33	21.3±1
			16QAM	25	0	2	21.36	21.3±1
				25	12	2	21.35	21.3±1
				25	24	2	21.36	21.3±1
				50	0	2	20.44	21.3±1
				1	0	0	22.32	22±1
				1	24	0	22.35	22±1
				1	49	0	22.34	22±1
			QPSK	25	0	1	21.36	22±1
				25	12	1	21.35	22±1
				25	24	1	21.34	22±1
	20250	17500		50	0	1	21.36	22±1
	20350	1750.0		1	0	1	21.91	21.3±1
				1	24	1	21.92	21.3±1
				1	49	1	21.94	21.3±1
			16QAM	25	0	2	21.36	21.3±1
				25	12	2	21.33	21.3±1
				25	24	2	21.34	21.3±1
				50	0	2	20.41	21.3±1



Test Report	16071296-FCC-R5-V1
Page	22 of 135

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
				1	0	0	22.53	22±1
				1	12	0	22.54	22±1
				1	24	0	22.51	22±1
			QPSK	12	0	1	21.41	22±1
				12	6	1	21.46	22±1
				12	11	1	21.42	22±1
	20000	4745.0		25	0	1	21.36	22±1
	20000	1715.0		1	0	1	21.47	21.3±1
				1	12	1	21.45	21.3±1
				1	24	1	21.46	21.3±1
			16QAM	12	0	2	21.41	21.3±1
				12	6	2	21.43	21.3±1
				12	11	2	21.44	21.3±1
				25	0	2	20.38	21.3±1
				1	0	0	22.40	22±1
				1	12	0	22.41	22±1
				1	24	0	22.39	22±1
		1732.5	QPSK	12	0	1	21.43	22±1
				12	6	1	21.44	22±1
				12	11	1	21.44	22±1
5	20475			25	0	1	21.36	22±1
5MHz	20175			1	0	1	21.72	21.3±1
				1	12	1	21.74	21.3±1
				1	24	1	21.75	21.3±1
			16QAM	12	0	2	21.43	21.3±1
				12	6	2	21.43	21.3±1
				12	11	2	21.45	21.3±1
				25	0	2	20.38	21.3±1
				1	0	0	22.44	22±1
				1	12	0	22.45	22±1
				1	24	0	22.43	22±1
			QPSK	12	0	1	21.41	22±1
				12	6	1	21.43	22±1
				12	11	1	21.42	22±1
	20250	1750.0		25	0	1	21.34	22±1
	20350	1750.0		1	0	1	21.32	21.3±1
				1	12	1	21.33	21.3±1
				1	24	1	21.34	21.3±1
			16QAM	12	0	2	21.41	21.3±1
				12	6	2	21.42	21.3±1
				12	11	2	21.44	21.3±1
				25	0	2	20.48	21.3±1



Test Report	16071296-FCC-R5-V1
Page	23 of 135

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
				1	0	0	22.38	22±1
				1	7	0	22.36	22±1
				1	14	0	22.34	22±1
			QPSK	8	0	1	21.29	22±1
				8	4	1	21.26	22±1
				8	7	1	21.27	22±1
	10065	1711 5		15	0	1	21.33	22±1
	19965	1711.5		1	0	1	21.18	21±1
				1	7	1	21.19	21±1
				1	14	1	21.15	21±1
			16QAM	8	0	2	20.29	21±1
				8	4	2	20.28	21±1
				8	7	2	20.27	21±1
				15	0	2	20.30	21±1
				1	0	0	22.36	22±1
		1732.5		1	7	0	22.35	22±1
			QPSK	1	14	0	22.33	22±1
				8	0	1	21.28	22±1
				8	4	1	21.29	22±1
				8	7	1	21.25	22±1
				15	0	1	21.36	22±1
3MHz	20175			1	0	1	21.31	21±1
				1	7	1	21.33	21±1
				1	14	1	21.34	21±1
			16QAM	8	0	2	20.18	21±1
			100,111	8	4	2	20.19	21±1
				8	7	2	20.16	21±1
				15	0	2	20.40	21±1
				1	0	0	22.18	22±1
				1	7	0	22.19	22±1
				1	14	0	22.16	22±1
			QPSK	8	0	1	21.29	22±1
			4.5	8	4	1	21.26	22±1
				8	7	1	21.26	22±1
				15	0	1	21.32	22±1
	20385	1753.5		1	0	1	21.79	21.3±1
				1	7	1	21.78	21.3 ± 1
				1	14	1	21.80	21.3±1
			16QAM	8	0	2	20.30	21.3 ± 1
			100/111	8	4	2	20.31	21.3±1
				8	7	2	20.36	21.3±1
				15	0	2	20.45	21.3±1 21.3±1



Test Report	16071296-FCC-R5-V1
Page	24 of 135

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
				1	0	0	22.39	22±1
				1	2	0	22.38	22±1
				1	5	0	22.37	22±1
			QPSK	3	0	0	22.47	22±1
				3	1	0	22.46	22±1
				3	2	0	22.48	22±1
	10057	1710.7		6	0	1	21.31	22±1
	19957	1/10./		1	0	1	21.19	22±1
				1	2	1	21.21	22±1
				1	5	1	21.18	22±1
			16QAM	3	0	1	22.47	22±1
				3	1	1	22.46	22±1
				3	2	1	22.45	22±1
				6	0	2	21.31	22±1
				1	0	0	22.37	22±1
				1	2	0	22.36	22±1
		75 1732.5	QPSK 16QAM	1	5	0	22.34	22±1
				3	0	0	22.45	22±1
				3	1	0	22.46	22±1
				3	2	0	22.44	22±1
				6	0	1	21.28	22±1
1.4MHz	20175			1	0	1	21.31	21.3±1
				1	2	1	21.36	21.3±1
				1	5	1	21.35	21.3±1
				3	0	1	22.45	21.3±1
				3	1	1	22.44	21.3±1
				3	2	1	22.46	21.3±1
				6	0	2	20.19	21.3±1
				1	0	0	22.26	22±1
				1	2	0	22.29	22±1
				1	5	0	22.27	22±1
			QPSK	3	0	0	22.41	22±1
			, -	3	1	0	22.43	22±1
				3	2	0	22.42	22±1
				6	0	1	21.31	22±1
	20393	1754.3		1	0	1	20.93	21.3±1
				1	2	1	20.95	21.3±1
				1	5	1	20.94	21.3±1
			16QAM	3	0	1	22.41	21.3±1
				3	1	1	22.43	21.3 ± 1
				3	2	1	22.41	21.3 ± 1
				6	0	2	20.24	21.3±1



Test Report	16071296-FCC-R5-V1
Page	25 of 135

LTE Band VII:

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
				1	0	0	22.48	22±1
				1	49	0	22.49	22±1
				1	99	0	22.47	22±1
			QPSK	50	0	1	21.28	22±1
				50	24	1	21.26	22±1
				50	49	1	21.27	22±1
	20850	2510		100	0	1	21.34	$22\!\pm\!1$
	20630	2310		1	0	1	21.36	21±1
				1	49	1	21.35	21±1
				1	99	1	21.39	21±1
			16QAM	50	0	2	21.28	21±1
				50	24	2	21.28	21±1
				50	49	2	21.29	21±1
				100	0	2	20.27	21±1
				1	0	0	22.26	22±1
			QPSK	1	49	0	22.28	22±1
				1	99	0	22.25	22±1
		2535		50	0	1	21.30	22 ± 1
				50	24	1	21.31	22±1
				50	49	1	21.33	22±1
201411-	21100			100	0	1	21.28	22±1
20MHz	21100		16QAM	1	0	1	21.36	21.3±1
				1	49	1	21.35	21.3±1
				1	99	1	21.34	21.3±1
				50	0	2	21.30	21.3±1
				50	24	2	21.31	21.3±1
				50	49	2	21.33	21.3±1
				100	0	2	21.28	21.3±1
				1	0	0	22.15	22±1
				1	49	0	22.16	22±1
				1	99	0	22.14	22±1
			QPSK	50	0	1	21.09	22±1
				50	24	1	21.08	22±1
				50	49	1	21.10	22±1
	24250	25.00		100	0	1	21.07	22±1
	21350	2560		1	0	1	21.52	21±1
				1	49	1	21.53	21±1
				1	99	1	21.51	21±1
			16QAM	50	0	2	21.09	21±1
				50	24	2	21.08	21±1
				50	49	2	21.09	21±1
				100	0	2	20.11	21±1



Test Report	16071296-FCC-R5-V1
Page	26 of 135

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
				1	0	0	22.43	22±1
				1	37	0	22.42	22±1
				1	74	0	22.41	22±1
			QPSK	36	0	1	21.30	22±1
				36	16	1	21.31	22±1
				36	35	1	21.33	22±1
	20825	2507.5		75	0	1	21.36	22±1
	20023	2307.3		1	0	1	21.20	21±1
				1	37	1	21.21	21±1
				1	74	1	21.22	21±1
			16QAM	36	0	2	21.30	21±1
				36	16	2	21.33	21±1
				36	35	2	21.32	21±1
				75	0	2	20.30	21±1
				1	0	0	21.53	22±1
				1	37	0	21.52	22±1
				1	74	0	21.55	22±1
			QPSK	36	0	1	21.28	22±1
		2535		36	16	1	21.27	22±1
				36	35	1	21.26	22±1
458411-	24400			75	0	1	21.31	22±1
15MHz	21100			1	0	1	22.04	21.3±1
				1	37	1	22.06	21.3±1
				1	74	1	22.05	21.3±1
			16QAM	36	0	2	21.09	21.3±1
				36	16	2	21.08	21.3±1
				36	35	2	21.12	21.3±1
				75	0	2	21.07	21.3±1
				1	0	0	21.62	21.3±1
				1	37	0	21.63	21.3±1
				1	74	0	21.63	21.3±1
			QPSK	36	0	1	21.09	21.3±1
				36	16	1	21.10	21.3±1
				36	35	1	21.08	21.3±1
	246==	2562 -		75	0	1	21.07	21.3±1
	21375	2562.5		1	0	1	21.63	21±1
				1	37	1	21.60	21±1
				1	74	1	22.52	21±1
			16QAM	36	0	2	21.09	21±1
				36	16	2	21.10	21±1
				36	35	2	21.11	21±1
				75	0	2	20.11	21±1



Test Report	16071296-FCC-R5-V1
Page	27 of 135

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
				1	0	0	22.36	22±1
				1	24	0	22.35	22±1
				1	49	0	22.34	22±1
			QPSK	25	0	1	21.30	22±1
				25	12	1	21.33	22±1
				25	24	1	21.32	22±1
	20000	2505		50	0	1	21.27	22±1
	20800	2505		1	0	1	21.15	21±1
				1	24	1	21.16	21±1
				1	49	1	21.14	21±1
			16QAM	25	0	2	21.30	21±1
				25	12	2	21.33	21±1
				25	24	2	21.31	21±1
				50	0	2	20.21	21±1
				1	0	0	22.30	22±1
				1	24	0	22.31	22±1
				1	49	0	22.32	22±1
		2535	QPSK	25	0	1	21.19	22 ± 1
				25	12	1	21.18	22±1
				25	24	1	21.17	22±1
10MHz	21100			50	0	1	21.25	22±1
TOIVITZ	21100			1	0	1	21.26	21±1
				1	24	1	21.22	21±1
				1	49	1	21.24	21±1
			16QAM	25	0	2	21.19	21±1
				25	12	2	21.18	21±1
				25	24	2	21.17	21±1
				50	0	2	20.20	21±1
				1	0	0	21.99	22±1
				1	24	0	21.95	22±1
				1	49	0	21.96	22±1
			QPSK	25	0	1	21.01	22±1
				25	12	1	21.03	22±1
				25	24	1	21.04	22±1
	21400	2565		50	0	1	21.03	22±1
	21400	2303		1	0	1	21.54	21±1
				1	24	1	21.53	21±1
				1	49	1	21.55	21±1
			16QAM	25	0	2	21.01	21±1
				25	12	2	21.02	21±1
				25	24	2	21.01	21±1
				50	0	2	20.07	21±1



Test Report	16071296-FCC-R5-V1
Page	28 of 135

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
				1	0	0	22.45	22±1
				1	12	0	22.46	22±1
				1	24	0	22.41	22±1
			QPSK	12	0	1	21.35	22±1
			—	12	6	1	21.36	22±1
				12	11	1	21.34	22±1
				25	0	1	21.28	22±1
	20775	2502.5		1	0	1	21.36	21.3±1
				1	12	1	21.35	21.3±1
				1	24	1	21.34	21.3±1
			16QAM	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
				1	0	0	22.26	22±1
				1	12	0	22.25	22±1
				1	24	0	22.24	22±1
		2535	QPSK	12	0	1	21.27	22±1
				12	6	1	21.26	22±1
				12	11	1	21.29	22±1
				25	0	1	21.24	22±1
5MHz	21100			1	0	1	21.49	21.3±1
				1	12	1	21.45	21.3±1
				1	24	1	21.46	21.3±1
			16QAM	12	0	2	21.27	21.3±1
				12	6	2	21.26	21.3±1
				12	11	2	21.22	21.3±1
				25	0	2	20.35	21.3±1
				1	0	0	22.07	22±1
				1	12	0	22.05	22±1
				1	24	0	22.06	22±1
			QPSK	12	0	1	21.06	22±1
				12	6	1	21.05	22±1
				12	11	1	21.03	22±1
	24.425	25.5		25	0	1	21.04	22±1
	21425	2567.5		1	0	1	21.01	21.3±1
				1	12	1	21.02	21.3±1
				1	24	1	21.03	21.3±1
			16QAM	12	0	2	21.06	21.3±1
				12	6	2	21.05	21.3±1
				12	11	2	21.04	21.3±1
				25	0	2	20.37	21.3±1



Test Report	16071296-FCC-R5-V1
Page	29 of 135

LTE Band XII:

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
				1	0	0	22.81	22±1
				1	24	0	22.83	22±1
				1	49	0	22.81	22±1
			QPSK	25	0	1	21.79	22±1
				25	12	1	21.80	22±1
				25	24	1	21.79	22±1
	23060	704		50	0	1	21.77	22±1
	23000	704		1	0	1	21.64	21.3±1
				1	24	1	21.66	21.3±1
				1	49	1	21.65	21.3±1
			16QAM	25	0	2	21.79	21.3±1
				25	12	2	21.77	21.3±1
				25	24	2	21.76	21.3±1
				50	0	2	20.70	21.3±1
				1	0	0	22.77	22 ± 1
				1	24	0	22.76	22±1
				1	49	0	22.74	22±1
			QPSK	25	0	1	21.73	22±1
				25	12	1	21.75	22±1
				25	24	1	21.74	22±1
10MHz	23095	707.5		50	0	1	21.74	22±1
ΙΟΙΝΙΠΖ	23093			1	0	1	21.71	22±1
				1	24	1	21.74	22±1
				1	49	1	21.73	22±1
			16QAM	25	0	2	21.73	22±1
				25	12	2	21.72	22±1
				25	24	2	21.74	22±1
				50	0	2	21.74	22±1
				1	0	0	22.61	22±1
				1	24	0	22.62	22±1
				1	49	0	22.61	22±1
			QPSK	25	0	1	21.75	22±1
				25	12	1	21.74	22±1
				25	24	1	21.76	22±1
	22420	714		50	0	1	21.72	22±1
	23130	711		1	0	1	22.22	21.5±1
				1	24	1	22.23	21.5±1
				1	49	1	22.21	21.5±1
			16QAM	25	0	2	21.75	21.5±1
				25	12	2	21.73	21.5±1
				25	24	2	21.74	21.5±1
				50	0	2	20.71	21.5±1



Test Report	16071296-FCC-R5-V1
Page	30 of 135

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
				1	0	0	22.86	22.5±1
				1	12	0	22.87	22.5±1
				1	24	0	22.85	22.5±1
			QPSK	12	0	1	21.81	22.5±1
				12	6	1	21.83	22.5±1
				12	11	1	21.82	22.5±1
	22025	704 5		25	0	1	21.75	22.5±1
	23035	701.5		1	0	1	21.84	21.3±1
				1	12	1	21.86	21.3±1
				1	24	1	21.85	21.3±1
			16QAM	12	0	2	21.81	21.3±1
				12	6	2	21.82	21.3 ± 1
				12	11	2	21.83	21.3±1
				25	0	2	20.71	21.3 ± 1
				1	0	0	22.68	22±1
				1	12	0	22.69	22±1
				1	24	0	22.67	22±1
			QPSK 07.5	12	0	1	21.76	22±1
				12	6	1	21.75	22±1
				12	11	1	21.74	22±1
5MHz	23095	707.5		25	0	1	21.72	22±1
SIVITZ	23093			1	0	1	21.96	21.3 ± 1
				1	12	1	21.94	21.3 ± 1
				1	24	1	21.92	21.3±1
			16QAM	12	0	2	21.76	21.3 ± 1
				12	6	2	21.75	21.3 ± 1
				12	11	2	21.74	21.3±1
				25	0	2	20.68	21.3 ± 1
				1	0	0	22.81	22±1
				1	12	0	22.83	22±1
				1	24	0	22.84	22±1
			QPSK	12	0	1	21.79	22±1
				12	6	1	21.80	22±1
				12	11	1	21.81	22±1
	23155	713.5		25	0	1	21.74	22±1
	23133	, 13.3		1	0	1	21.81	21.3±1
				1	12	1	21.82	21.3±1
				1	24	1	21.83	21.3±1
			16QAM	12	0	2	21.79	21.3±1
				12	6	2	21.78	21.3±1
				12	11	2	21.74	21.3±1
				25	0	2	20.80	21.3±1



Test Report	16071296-FCC-R5-V1
Page	31 of 135

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
				1	0	0	22.70	22±1
				1	7	0	22.71	22±1
				1	14	0	22.73	22±1
			QPSK	8	0	1	21.67	22±1
				8	4	1	21.66	22±1
				8	7	1	21.65	22±1
	23025	700.5		15	0	1	21.73	22±1
	23023	700.3		1	0	1	21.57	21.3 ± 1
				1	7	1	21.56	21.3 ± 1
				1	14	1	21.55	21.3 ± 1
			16QAM	8	0	2	20.62	21.3 ± 1
				8	4	2	20.63	21.3 ± 1
				8	7	2	20.61	21.3±1
				15	0	2	20.64	21.3 ± 1
				1	0	0	22.65	22±1
			QPSK 07.5	1	7	0	22.67	22±1
				1	14	0	22.63	22±1
				8	0	1	21.60	22±1
				8	4	1	21.62	22±1
				8	7	1	21.61	22±1
20411-	22005	707.5		15	0	1	21.70	22±1
3MHz	23095	707.5		1	0	1	21.63	21.3 ± 1
				1	7	1	21.62	21.3±1
				1	14	1	21.64	21.3 ± 1
			16QAM	8	0	2	20.46	21.3±1
				8	4	2	20.45	21.3±1
				8	7	2	20.43	21.3±1
				15	0	2	20.69	21.3±1
				1	0	0	22.49	22±1
				1	7	0	22.45	22±1
				1	14	0	22.47	22±1
			QPSK	8	0	1	21.61	22±1
				8	4	1	21.62	22±1
				8	7	1	21.61	22±1
	22025	7445		15	0	1	21.62	22±1
	23025	714.5		1	0	1	22.05	22±1
				1	7	1	22.06	22±1
				1	14	1	22.04	22±1
			16QAM	8	0	2	21.53	22±1
				8	4	2	21.54	22±1
				8	7	2	21.55	22±1
				15	0	2	21.66	22±1



Test Report	16071296-FCC-R5-V1
Page	32 of 135

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
				1	0	0	22.72	22±1
				1	2	0	22.73	22±1
				1	5	0	22.74	22±1
			QPSK	3	0	0	22.83	22±1
	23017			3	1	0	22.81	22±1
				3	2	0	22.85	22±1
		699.7		6	0	1	21.66	22±1
	23017	033.7		1	0	1	21.58	21.3 ± 1
				1	2	1	21.56	21.3 ± 1
				1	5	1	21.57	21.3 ± 1
			16QAM	3	0	1	22.83	21.3 ± 1
				3	1	1	22.85	21.3 ± 1
				3	2	1	22.84	21.3±1
				6	0	2	20.60	21.3 ± 1
				1	0	0	22.66	22±1
				1	2	0	22.67	22±1
				1	5	0	22.68	22±1
		707.5	QPSK	3	0	0	22.73	22±1
				3	1	0	22.74	22±1
				3	2	0	22.73	22±1
1 45411-	22005			6	0	1	21.62	22±1
1.4MHz	23095	707.5		1	0	1	21.64	21.3 ± 1
				1	2	1	21.66	21.3±1
				1	5	1	21.65	21.3 ± 1
			16QAM	3	0	1	22.73	21.3±1
				3	1	1	22.74	21.3±1
				3	2	1	22.73	21.3±1
				6	0	2	20.47	21.3±1
				1	0	0	22.52	22±1
				1	2	0	22.54	22±1
				1	5	0	22.53	22±1
			QPSK	3	0	0	22.64	22±1
				3	1	0	22.65	22±1
				3	2	0	22.61	22±1
	22472	7450		6	0	1	21.59	22±1
	23173	715.3		1	0	1	21.19	22±1
				1	2	1	21.20	22±1
				1	5	1	21.18	22±1
			16QAM	3	0	1	22.64	22±1
				3	1	1	22.63	22±1
				3	2	1	22.65	22±1
				6	0	2	21.59	22±1



Test Report	16071296-FCC-R5-V1
Page	33 of 135

LTE Band XVII:

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
				1	0	0	22.96	22±1
				1	24	0	22.95	22±1
				1	49	0	22.93	22±1
			QPSK	25	0	1	21.91	22±1
	23780			25	12	1	21.92	22±1
				25	24	1	21.93	22±1
		709.0		50	0	1	21.84	22±1
		709.0		1	0	1	22.01	21.3±1
				1	24	1	22.03	21.3±1
				1	49	1	22.01	21.3±1
			16QAM	25	0	2	21.91	21.3±1
				25	12	2	21.92	21.3±1
				25	24	2	21.93	21.3±1
				50	0	2	20.84	21.3±1
				1	0	0	22.73	22±1
				1	24	0	22.75	22±1
				1	49	0	22.74	22±1
		0 701.0	QPSK	25	0	1	21.85	22±1
				25	12	1	21.86	22±1
				25	24	1	21.84	22±1
10MHz	23790			50	0	1	21.79	22±1
ΙΟΙΝΙΠΖ	23/90	701.0		1	0	1	22.23	22±1
				1	24	1	22.24	22±1
				1	49	1	22.22	22±1
			16QAM	25	0	2	21.80	22±1
				25	12	2	21.81	22±1
				25	24	2	21.82	22±1
				50	0	2	21.75	22±1
				1	0	0	22.80	22±1
				1	24	0	22.79	22±1
				1	49	0	22.81	22±1
			QPSK	25	0	1	21.80	22±1
				25	12	1	21.81	22±1
				25	24	1	21.80	22±1
	22000	711.0		50	0	1	21.77	22±1
	23800	711.0		1	0	1	21.81	21.3±1
				1	24	1	21.82	21.3±1
				1	49	1	21.80	21.3±1
			16QAM	25	0	2	21.80	21.3±1
				25	12	2	21.80	21.3±1
				25	24	2	21.81	21.3±1
				50	0	2	20.86	21.3±1



Test Report	16071296-FCC-R5-V1
Page	34 of 135

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
				1	0	0	22.86	22±1
	23755			1	12	0	22.85	22±1
				1	24	0	22.86	22±1
			QPSK	12	0	1	21.82	22±1
				12	6	1	21.83	22±1
				12	11	1	21.84	22±1
		706.5		25	0	1	21.82	22±1
	23/33	706.5		1	0	1	21.75	21.3±1
				1	12	1	21.76	21.3±1
				1	24	1	21.74	21.3 ± 1
			16QAM	12	0	2	21.82	21.3±1
				12	6	2	21.83	21.3±1
				12	11	2	21.81	21.3±1
				25	0	2	20.81	21.3±1
				1	0	0	22.82	22±1
				1	12	0	22.83	22±1
			QPSK	1	24	0	22.81	22±1
				12	0	1	21.81	22±1
				12	6	1	21.82	22±1
				12	11	1	21.81	22±1
		710.0		25	0	1	21.82	22±1
5MHz	23790			1	0	1	21.83	21.3±1
				1	12	1	21.80	21.3±1
				1	24	1	21.81	21.3±1
			16QAM	12	0	2	21.81	21.3±1
				12	6	2	21.82	21.3±1
				12	11	2	21.81	21.3±1
				25	0	2	20.80	21.3±1
				1	0	0	22.64	22±1
				1	12	0	22.65	22±1
				1	24	0	22.63	22±1
			QPSK	12	0	1	21.82	22±1
				12	6	1	21.83	22±1
				12	11	1	21.84	22±1
				25	0	1	21.80	22±1
	23825	713.5		1	0	1	22.42	22±1
				1	12	1	22.43	22±1
				1	24	1	22.41	22±1
			16QAM	12	0	2	21.82	22±1
				12	6	2	21.83	22±1
				12	11	2	21.84	22±1
				25	0	2	21.81	22±1



Test Report	16071296-FCC-R5-V1
Page	35 of 135

ERP & EIRP

EIRP for LTE Band II (Part 24E)

EIRP for LTE Band II (Part 24E)										
Frequency (MHz)	BW (MHz)	Modulation	RB Size/Offset	Substitut ed level (dBm)	Antenna Polarizati on	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)	
1850.7	1.4	QPSK	1/0	15.90	V	7.88	0.85	22.93	33.01	
1880	1.4	QPSK	1/0	15.85	V	7.88	0.85	22.88	33.01	
1909.3	1.4	QPSK	1/0	15.75	V	7.88	0.85	22.78	33.01	
1850.7	1.4	QPSK	1/0	15.04	Н	7.88	0.85	22.07	33.01	
1880	1.4	QPSK	1/0	14.99	Н	7.88	0.85	22.02	33.01	
1909.3	1.4	QPSK	1/0	14.89	Н	7.88	0.85	21.92	33.01	
1850.7	1.4	16-QAM	1/0	14.83	٧	7.88	0.85	21.86	33.01	
1880	1.4	16-QAM	1/0	14.9	V	7.88	0.85	21.93	33.01	
1909.3	1.4	16-QAM	1/0	14.47	V	7.88	0.85	21.50	33.01	
1850.7	1.4	16-QAM	1/0	13.95	Н	7.88	0.85	20.98	33.01	
1880	1.4	16-QAM	1/0	14.02	Н	7.88	0.85	21.05	33.01	
1909.3	1.4	16-QAM	1/0	13.58	Н	7.88	0.85	20.61	33.01	
1851.5	3	QPSK	1/0	15.87	V	7.88	0.85	22.90	33.01	
1880	3	QPSK	1/0	15.82	V	7.88	0.85	22.85	33.01	
1908.5	3	QPSK	1/0	15.59	٧	7.88	0.85	22.62	33.01	
1851.5	3	QPSK	1/0	14.96	Н	7.88	0.85	21.99	33.01	
1880	3	QPSK	1/0	14.89	Н	7.88	0.85	21.92	33.01	
1908.5	3	QPSK	1/0	14.68	Н	7.88	0.85	21.71	33.01	
1851.5	3	16-QAM	1/0	14.76	V	7.88	0.85	21.79	33.01	
1880	3	16-QAM	1/0	14.86	V	7.88	0.85	21.89	33.01	
1908.5	3	16-QAM	1/0	15.28	V	7.88	0.85	22.31	33.01	
1851.5	3	16-QAM	1/0	13.89	Н	7.88	0.85	20.92	33.01	
1880	3	16-QAM	1/0	13.94	Н	7.88	0.85	20.97	33.01	
1908.5	3	16-QAM	1/0	14.38	Н	7.88	0.85	21.41	33.01	
1852.5	5	QPSK	1/24	15.97	V	7.88	0.85	23.00	33.01	
1880	5	QPSK	1/0	15.87	V	7.88	0.85	22.90	33.01	
1907.5	5	QPSK	1/24	15.94	V	7.88	0.85	22.97	33.01	
1852.5	5	QPSK	1/24	15.05	Н	7.88	0.85	22.08	33.01	
1880	5	QPSK	1/0	14.97	Н	7.88	0.85	22.00	33.01	
1907.5	5	QPSK	1/24	15.02	Н	7.88	0.85	22.05	33.01	
1852.5	5	16-QAM	1/24	15.03	V	7.88	0.85	22.06	33.01	
1880	5	16-QAM	1/0	15.24	V	7.88	0.85	22.27	33.01	



Test Report	16071296-FCC-R5-V1
Page	36 of 135

1907.5	5	16-QAM	1/24	14.86	٧	7.88	0.85	21.89	33.01
1852.5	5	16-QAM	1/24	14.13	Н	7.88	0.85	21.16	33.01
1880	5	16-QAM	1/0	14.35	Н	7.88	0.85	21.38	33.01
1907.5	5	16-QAM	1/24	13.92	Н	7.88	0.85	20.95	33.01
1855	10	QPSK	1/0	15.9	V	7.88	0.85	22.93	33.01
1880	10	QPSK	1/0	15.81	V	7.88	0.85	22.84	33.01
1905	10	QPSK	1/49	15.73	V	7.88	0.85	22.76	33.01
1855	10	QPSK	1/0	15.03	Н	7.88	0.85	22.06	33.01
1880	10	QPSK	1/0	14.95	Н	7.88	0.85	21.98	33.01
1905	10	QPSK	1/49	14.84	Н	7.88	0.85	21.87	33.01
1855	10	16-QAM	1/0	14.75	V	7.88	0.85	21.78	33.01
1880	10	16-QAM	1/0	14.86	V	7.88	0.85	21.89	33.01
1905	10	16-QAM	1/49	15.42	V	7.88	0.85	22.45	33.01
1855	10	16-QAM	1/0	13.84	Н	7.88	0.85	20.87	33.01
1880	10	16-QAM	1/0	13.96	Н	7.88	0.85	20.99	33.01
1905	10	16-QAM	1/49	14.56	Н	7.88	0.85	21.59	33.01
1857.5	15	QPSK	1/0	15.98	V	7.88	0.85	23.01	33.01
1880	15	QPSK	1/0	15.84	V	7.88	0.85	22.87	33.01
1902.5	15	QPSK	1/0	15.83	V	7.88	0.85	22.86	33.01
1857.5	15	QPSK	1/0	15.03	Н	7.88	0.85	22.06	33.01
1880	15	QPSK	1/0	14.96	Н	7.88	0.85	21.99	33.01
1902.5	15	QPSK	1/0	14.95	Н	7.88	0.85	21.98	33.01
1857.5	15	16-QAM	1/0	14.84	V	7.88	0.85	21.87	33.01
1880	15	16-QAM	1/0	15.2	V	7.88	0.85	22.23	33.01
1902.5	15	16-QAM	1/0	15.31	V	7.88	0.85	22.34	33.01
1857.5	15	16-QAM	1/0	13.92	Н	7.88	0.85	20.95	33.01
1880	15	16-QAM	1/0	14.35	Н	7.88	0.85	21.38	33.01
1902.5	15	16-QAM	1/0	14.43	Н	7.88	0.85	21.46	33.01
1860	20	QPSK	1/0	16.02	V	7.88	0.85	23.05	33.01
1880	20	QPSK	1/0	15.83	V	7.88	0.85	22.86	33.01
1900	20	QPSK	1/0	15.89	V	7.88	0.85	22.92	33.01
1860	20	QPSK	1/0	15.13	Н	7.88	0.85	22.16	33.01
1880	20	QPSK	1/0	14.92	Н	7.88	0.85	21.95	33.01
1900	20	QPSK	1/0	14.98	Н	7.88	0.85	22.01	33.01
1860	20	16-QAM	1/0	15.01	V	7.88	0.85	22.04	33.01
1880	20	16-QAM	1/0	15.17	V	7.88	0.85	22.20	33.01
1900	20	16-QAM	1/0	15.29	V	7.88	0.85	22.32	33.01
1860	20	16-QAM	1/0	14.16	Н	7.88	0.85	21.19	33.01



Test Report	16071296-FCC-R5-V1
Page	37 of 135

1880	20	16-QAM	1/0	14.28	Н	7.88	0.85	21.31	33.01
1900	20	16-QAM	1/0	14.37	Н	7.88	0.85	21.40	33.01



Test Report	16071296-FCC-R5-V1
Page	38 of 135

EIRP for LTE Band IV (Part 27)

Frequency (MHz)	BW (MHz)	Modulation	RB Size/Offset	Substitut ed level (dBm)	Antenna Polarizati on	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
1710.7	1.4	QPSK	1/0	16.08	V	7.95	0.79	23.24	30
1732.5	1.4	QPSK	1/0	16.06	V	7.95	0.79	23.22	30
1754.3	1.4	QPSK	1/0	15.95	V	7.95	0.79	23.11	30
1710.7	1.4	QPSK	1/0	15.13	Н	7.95	0.79	22.29	30
1732.5	1.4	QPSK	1/0	15.11	Н	7.95	0.79	22.27	30
1754.3	1.4	QPSK	1/0	15.04	Н	7.95	0.79	22.20	30
1710.7	1.4	16-QAM	1/5	14.88	V	7.95	0.79	22.04	30
1732.5	1.4	16-QAM	1/0	15.02	V	7.95	0.79	22.18	30
1754.3	1.4	16-QAM	1/0	14.65	V	7.95	0.79	21.81	30
1710.7	1.4	16-QAM	1/5	13.97	Н	7.95	0.79	21.13	30
1732.5	1.4	16-QAM	1/0	14.16	Н	7.95	0.79	21.32	30
1754.3	1.4	16-QAM	1/0	13.75	Н	7.95	0.79	20.91	30
1711.5	3	QPSK	1/0	16.07	V	7.95	0.79	23.23	30
1732.5	3	QPSK	1/0	16.05	V	7.95	0.79	23.21	30
1753.5	3	QPSK	1/0	15.87	V	7.95	0.79	23.03	30
1711.5	3	QPSK	1/0	15.13	Н	7.95	0.79	22.29	30
1732.5	3	QPSK	1/0	15.11	Н	7.95	0.79	22.27	30
1753.5	3	QPSK	1/0	14.93	Н	7.95	0.79	22.09	30
1711.5	3	16-QAM	1/0	14.87	V	7.95	0.79	22.03	30
1732.5	3	16-QAM	1/0	14.98	V	7.95	0.79	22.14	30
1753.5	3	16-QAM	1/0	15.46	V	7.95	0.79	22.62	30
1711.5	3	16-QAM	1/0	13.95	Н	7.95	0.79	21.11	30
1732.5	3	16-QAM	1/0	14.07	Н	7.95	0.79	21.23	30
1753.5	3	16-QAM	1/0	14.59	Н	7.95	0.79	21.75	30
1712.5	5	QPSK	1/0	16.16	V	7.95	0.79	23.32	30
1732.5	5	QPSK	1/0	16.03	V	7.95	0.79	23.19	30
1752.5	5	QPSK	1/24	16.06	V	7.95	0.79	23.22	30
1712.5	5	QPSK	1/0	15.28	Н	7.95	0.79	22.44	30
1732.5	5	QPSK	1/0	15.17	Н	7.95	0.79	22.33	30
1752.5	5	QPSK	1/24	15.2	Н	7.95	0.79	22.36	30
1712.5	5	16-QAM	1/0	15.1	V	7.95	0.79	22.26	30
1732.5	5	16-QAM	1/0	15.33	V	7.95	0.79	22.49	30
1752.5	5	16-QAM	1/24	14.97	V	7.95	0.79	22.13	30
1712.5	5	16-QAM	1/0	14.23	Н	7.95	0.79	21.39	30
1732.5	5	16-QAM	1/0	14.47	Н	7.95	0.79	21.63	30



Test Report	16071296-FCC-R5-V1
Page	39 of 135

1752.5	5	16-QAM	1/24	14.06	Н	7.95	0.79	21.22	30
1715	10	QPSK	1/0	16.15	V	7.95	0.79	23.31	30
1732.5	10	QPSK	1/49	16.13	V	7.95	0.79	23.29	30
1750	10	QPSK	1/0	16.02	V	7.95	0.79	23.18	30
1715	10	QPSK	1/0	15.24	Н	7.95	0.79	22.40	30
1732.5	10	QPSK	1/49	15.22	Н	7.95	0.79	22.38	30
1750	10	QPSK	1/0	15.13	Н	7.95	0.79	22.29	30
1715	10	16-QAM	1/0	14.94	V	7.95	0.79	22.10	30
1732.5	10	16-QAM	1/49	15.03	V	7.95	0.79	22.19	30
1750	10	16-QAM	1/0	15.62	V	7.95	0.79	22.78	30
1715	10	16-QAM	1/0	14.09	Н	7.95	0.79	21.25	30
1732.5	10	16-QAM	1/49	14.18	Н	7.95	0.79	21.34	30
1750	10	16-QAM	1/0	14.75	Н	7.95	0.79	21.91	30
1717.5	15	QPSK	1/0	16.18	V	7.95	0.79	23.34	30
1732.5	15	QPSK	1/74	16.07	V	7.95	0.79	23.23	30
1747.5	15	QPSK	1/0	16.08	V	7.95	0.79	23.24	30
1717.5	15	QPSK	1/0	15.27	Н	7.95	0.79	22.43	30
1732.5	15	QPSK	1/74	15.16	Н	7.95	0.79	22.32	30
1747.5	15	QPSK	1/0	15.17	Н	7.95	0.79	22.33	30
1717.5	15	16-QAM	1/0	14.98	V	7.95	0.79	22.14	30
1732.5	15	16-QAM	1/74	15.17	V	7.95	0.79	22.33	30
1747.5	15	16-QAM	1/0	15.68	V	7.95	0.79	22.84	30
1717.5	15	16-QAM	1/0	14.06	Н	7.95	0.79	21.22	30
1732.5	15	16-QAM	1/74	14.27	Н	7.95	0.79	21.43	30
1747.5	15	16-QAM	1/0	14.78	Н	7.95	0.79	21.94	30
1720	20	QPSK	1/99	16.24	V	7.95	0.79	23.40	30
1732.5	20	QPSK	1/99	16.13	V	7.95	0.79	23.29	30
1745	20	QPSK	1/0	16.04	V	7.95	0.79	23.20	30
1720	20	QPSK	1/99	15.37	Н	7.95	0.79	22.53	30
1732.5	20	QPSK	1/99	15.28	Н	7.95	0.79	22.44	30
1745	20	QPSK	1/0	15.11	Н	7.95	0.79	22.27	30
1720	20	16-QAM	1/99	15.14	V	7.95	0.79	22.30	30
1732.5	20	16-QAM	1/99	15.53	V	7.95	0.79	22.69	30
1745	20	16-QAM	1/0	15.34	V	7.95	0.79	22.50	30
1720	20	16-QAM	1/99	14.28	Н	7.95	0.79	21.44	30
1732.5	20	16-QAM	1/99	14.67	Н	7.95	0.79	21.83	30
1745	20	16-QAM	1/0	14.46	Н	7.95	0.79	21.62	30



Test Report	16071296-FCC-R5-V1
Page	40 of 135

ERP for LTE Band VII (Part 27)

Frequency (MHz)	BW (MHz)	Modulation	RB Size/Offset	Substitut ed level (dBm)	Antenna Polarizati on	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
2502.5	5	QPSK	1/0	15.25	V	8.93	0.83	23.35	30
2535	5	QPSK	1/0	15.06	٧	8.93	0.83	23.16	30
2567.5	5	QPSK	1/24	14.86	V	8.93	0.83	22.96	30
2502.5	5	QPSK	1/0	14.33	Н	8.93	0.83	22.43	30
2535	5	QPSK	1/0	14.17	Н	8.93	0.83	22.27	30
2567.5	5	QPSK	1/24	13.95	Н	8.93	0.83	22.05	30
2502.5	5	16-QAM	1/0	14.15	V	8.93	0.83	22.25	30
2535	5	16-QAM	1/0	14.26	V	8.93	0.83	22.36	30
2567.5	5	16-QAM	1/24	13.83	V	8.93	0.83	21.93	30
2502.5	5	16-QAM	1/0	13.27	Н	8.93	0.83	21.37	30
2535	5	16-QAM	1/0	13.38	Н	8.93	0.83	21.48	30
2567.5	5	16-QAM	1/24	12.97	Н	8.93	0.83	21.07	30
2505	10	QPSK	1/0	15.16	V	8.93	0.83	23.26	30
2535	10	QPSK	1/49	15.12	V	8.93	0.83	23.22	30
2565	10	QPSK	1/0	14.81	V	8.93	0.83	22.91	30
2505	10	QPSK	1/0	14.25	Н	8.93	0.83	22.35	30
2535	10	QPSK	1/49	14.23	Н	8.93	0.83	22.33	30
2565	10	QPSK	1/0	13.96	Н	8.93	0.83	22.06	30
2505	10	16-QAM	1/0	13.94	V	8.93	0.83	22.04	30
2535	10	16-QAM	1/49	14.03	٧	8.93	0.83	22.13	30
2565	10	16-QAM	1/0	14.41	٧	8.93	0.83	22.51	30
2505	10	16-QAM	1/0	13.07	Н	8.93	0.83	21.17	30
2535	10	16-QAM	1/49	13.14	Н	8.93	0.83	21.24	30
2565	10	16-QAM	1/0	13.56	Н	8.93	0.83	21.66	30
2507.5	15	QPSK	1/0	15.23	V	8.93	0.83	23.33	30
2535	15	QPSK	1/74	14.35	V	8.93	0.83	22.45	30
2562.5	15	QPSK	1/0	14.43	V	8.93	0.83	22.53	30
2507.5	15	QPSK	1/0	14.37	Н	8.93	0.83	22.47	30
2535	15	QPSK	1/74	13.48	Н	8.93	0.83	21.58	30
2562.5	15	QPSK	1/0	13.54	Н	8.93	0.83	21.64	30
2507.5	15	16-QAM	1/0	14.02	V	8.93	0.83	22.12	30
2535	15	16-QAM	1/74	14.85	V	8.93	0.83	22.95	30
2562.5	15	16-QAM	1/0	14.44	V	8.93	0.83	22.54	30



Test Report	16071296-FCC-R5-V1
Page	41 of 135

2507.5	15	16-QAM	1/0	13.15	Н	8.93	0.83	21.25	30
2535	15	16-QAM	1/74	13.96	Н	8.93	0.83	22.06	30
2562.5	15	16-QAM	1/0	13.52	Н	8.93	0.83	21.62	30
2510	20	QPSK	1/99	15.27	٧	8.93	0.83	23.37	30
2535	20	QPSK	1/99	15.02	٧	8.93	0.83	23.12	30
2560	20	QPSK	1/0	14.93	٧	8.93	0.83	23.03	30
2510	20	QPSK	1/99	14.36	Н	8.93	0.83	22.46	30
2535	20	QPSK	1/99	14.17	Н	8.93	0.83	22.27	30
2560	20	QPSK	1/0	14.05	Н	8.93	0.83	22.15	30
2510	20	16-QAM	1/99	14.23	٧	8.93	0.83	22.33	30
2535	20	16-QAM	1/99	14.13	٧	8.93	0.83	22.23	30
2560	20	16-QAM	1/0	14.31	٧	8.93	0.83	22.41	30
2510	20	16-QAM	1/99	13.35	Н	8.93	0.83	21.45	30
2535	20	16-QAM	1/99	13.26	Н	8.93	0.83	21.36	30
2560	20	16-QAM	1/0	13.42	Н	8.93	0.83	21.52	30



Test Report	16071296-FCC-R5-V1
Page	42 of 135

ERP for LTE Band XII (Part 27)

Frequency (MHz)	BW (MHz)	Modulation	RB Size/Offset	Substitut ed level (dBm)	Antenna Polarizati on	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
699.7	1.4	QPSK	1/5	12.06	V	6.9	0.42	18.54	34.77
707.5	1.4	QPSK	1/5	11.99	V	6.8	0.42	18.37	34.77
715.3	1.4	QPSK	1/5	11.85	V	6.8	0.42	18.23	34.77
699.7	1.4	QPSK	1/5	11.18	Н	6.9	0.42	17.66	34.77
707.5	1.4	QPSK	1/5	11.07	Н	6.8	0.42	17.45	34.77
715.3	1.4	QPSK	1/5	10.96	Н	6.8	0.42	17.34	34.77
699.7	1.4	16-QAM	1/5	10.84	٧	6.9	0.42	17.32	34.77
707.5	1.4	16-QAM	1/5	10.98	V	6.8	0.42	17.36	34.77
715.3	1.4	16-QAM	1/5	10.55	V	6.8	0.42	16.93	34.77
699.7	1.4	16-QAM	1/5	9.95	Н	6.9	0.42	16.43	34.77
707.5	1.4	16-QAM	1/5	10.07	Н	6.8	0.42	16.45	34.77
715.3	1.4	16-QAM	1/5	9.64	Н	6.8	0.42	16.02	34.77
700.5	3	QPSK	1/14	12.05	V	6.9	0.42	18.53	34.77
707.5	3	QPSK	1/0	11.97	٧	6.8	0.42	18.35	34.77
714.5	3	QPSK	1/14	11.65	٧	6.8	0.42	18.03	34.77
700.5	3	QPSK	1/14	11.17	Н	6.9	0.42	17.65	34.77
707.5	3	QPSK	1/0	11.08	Н	6.8	0.42	17.46	34.77
714.5	3	QPSK	1/14	10.76	Н	6.8	0.42	17.14	34.77
700.5	3	16-QAM	1/14	10.76	٧	6.9	0.42	17.24	34.77
707.5	3	16-QAM	1/0	10.95	٧	6.8	0.42	17.33	34.77
714.5	3	16-QAM	1/14	11.24	٧	6.8	0.42	17.62	34.77
700.5	3	16-QAM	1/14	9.86	Н	6.9	0.42	16.34	34.77
707.5	3	16-QAM	1/0	10.03	Н	6.8	0.42	16.41	34.77
714.5	3	16-QAM	1/14	10.32	Н	6.8	0.42	16.70	34.77
701.5	5	QPSK	1/24	12.13	٧	6.9	0.42	18.61	34.77
707.5	5	QPSK	1/24	11.96	V	6.8	0.42	18.34	34.77
713.5	5	QPSK	1/24	12.12	٧	6.8	0.42	18.50	34.77
701.5	5	QPSK	1/24	11.25	Н	6.9	0.42	17.73	34.77
707.5	5	QPSK	1/24	11.07	Н	6.8	0.42	17.45	34.77
713.5	5	QPSK	1/24	11.24	Н	6.8	0.42	17.62	34.77
701.5	5	16-QAM	1/24	11.13	V	6.9	0.42	17.61	34.77
707.5	5	16-QAM	1/24	11.26	V	6.8	0.42	17.64	34.77
713.5	5	16-QAM	1/24	11.12	V	6.8	0.42	17.50	34.77
701.5	5	16-QAM	1/24	10.23	Н	6.9	0.42	16.71	34.77



Test Report	16071296-FCC-R5-V1
Page	43 of 135

707.5	5	16-QAM	1/24	10.34	Н	6.8	0.42	16.72	34.77
713.5	5	16-QAM	1/24	10.22	Н	6.8	0.42	16.60	34.77
704	10	QPSK	1/49	12.09	٧	6.8	0.42	18.47	34.77
707.5	10	QPSK	1/49	12.03	٧	6.8	0.42	18.41	34.77
711	10	QPSK	1/49	11.92	٧	6.8	0.42	18.30	34.77
704	10	QPSK	1/49	11.18	Н	6.8	0.42	17.56	34.77
707.5	10	QPSK	1/49	11.12	Н	6.8	0.42	17.50	34.77
711	10	QPSK	1/49	11.04	Н	6.8	0.42	17.42	34.77
704	10	16-QAM	1/49	10.83	V	6.8	0.42	17.21	34.77
707.5	10	16-QAM	1/49	11.01	V	6.8	0.42	17.39	34.77
711	10	16-QAM	1/49	11.52	٧	6.8	0.42	17.90	34.77
704	10	16-QAM	1/49	9.94	Н	6.8	0.42	16.32	34.77
707.5	10	16-QAM	1/49	10.12	Н	6.8	0.42	16.50	34.77
711	10	16-QAM	1/49	10.67	Н	6.8	0.42	17.05	34.77



Test Report	16071296-FCC-R5-V1
Page	44 of 135

ERP for LTE Band XVII (Part 27)

Frequency (MHz)	BW (MHz)	Modulation	RB Size/Offset	Substitut ed level (dBm)	Antenna Polarizati on	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
706.5	5	QPSK	1/0	12.34	٧	6.8	0.42	18.72	34.77
710	5	QPSK	1/0	12.30	V	6.8	0.42	18.68	34.77
713.5	5	QPSK	1/0	12.08	٧	6.8	0.42	18.46	34.77
706.5	5	QPSK	1/0	11.43	Н	6.8	0.42	17.81	34.77
710	5	QPSK	1/0	11.41	Н	6.8	0.42	17.79	34.77
713.5	5	QPSK	1/0	11.17	Н	6.8	0.42	17.55	34.77
706.5	5	16-QAM	1/0	11.23	V	6.8	0.42	17.61	34.77
710	5	16-QAM	1/0	11.29	V	6.8	0.42	17.67	34.77
713.5	5	16-QAM	1/0	11.81	V	6.8	0.42	18.19	34.77
706.5	5	16-QAM	1/0	10.34	Н	6.8	0.42	16.72	34.77
710	5	16-QAM	1/0	10.38	Н	6.8	0.42	16.76	34.77
713.5	5	16-QAM	1/0	10.93	Н	6.8	0.42	17.31	34.77
709	10	QPSK	1/0	12.41	V	6.8	0.42	18.79	34.77
710	10	QPSK	1/0	12.19	٧	6.8	0.42	18.57	34.77
711	10	QPSK	1/0	12.17	٧	6.8	0.42	18.55	34.77
709	10	QPSK	1/0	11.54	Н	6.8	0.42	17.92	34.77
710	10	QPSK	1/0	11.28	Н	6.8	0.42	17.66	34.77
711	10	QPSK	1/0	11.26	Н	6.8	0.42	17.64	34.77
709	10	16-QAM	1/0	11.52	V	6.8	0.42	17.90	34.77
710	10	16-QAM	1/0	11.68	V	6.8	0.42	18.06	34.77
711	10	16-QAM	1/0	11.18	V	6.8	0.42	17.56	34.77
709	10	16-QAM	1/0	10.67	Н	6.8	0.42	17.05	34.77
710	10	16-QAM	1/0	10.75	Н	6.8	0.42	17.13	34.77
711	10	16-QAM	1/0	10.24	Н	6.8	0.42	16.62	34.77

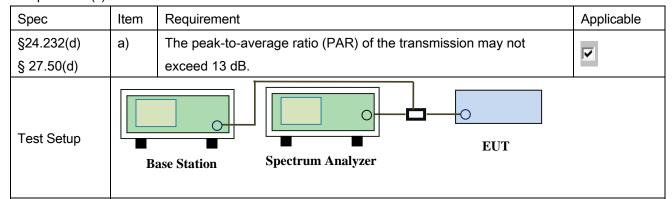


Test Report	16071296-FCC-R5-V1
Page	45 of 135

6.3 Peak-Average Ratio

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

Requirement(s):



According with KDB 971168 v02r02

5.7.2 Alternate procedure for PAPR

5.1.2 Peak power measurements with a peak power meter

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.

Test Procedure

5.2.3 Average power measurement with average power meter

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

If the EUT can be configured to transmit continuously (i.e., the burst duty cycle ≥ 98%) and at all times the EUT is transmitting at is maximum output



Test Report	16071296-FCC-R5-V1
Page	46 of 135

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

Test Data	Yes	□ _{N/A}
Test Plot	Yes (See below)	✓ _{N/A}



Test Report	16071296-FCC-R5-V1
Page	47 of 135

LTE Band II (part 24E)

DIA//AIII-)	PM/MHz) Fraguency (MHz)		Modulation	Conducted P	ower (dBm)	Peak-Average
BW(MHz)	Frequency (MHz)	Mode	ie Modulation	Peak	Average	Ratio (PAR)
4.4	4000	DD 4/0	QPSK	25.19	22.35	2.84
1.4	1880	RB 1/0	16QAM	25.16	21.32	3.84
	4000	DD 4/0	QPSK	25.16	22.36	2.80
3	1880	RB 1/0	16QAM	25.19	21.34	3.85
	4000	DD 4/0	QPSK	25.46	22.37	3.09
5	1880	RB 1/0	16QAM	25.46	21.74	3.72
40	4000	DD 4/0	QPSK	25.43	22.43	3.00
10	1880	RB 1/0	16QAM	25.16	21.39	3.77
45	4000	DD 4/0	QPSK	25.15	22.36	2.79
15	1880	RB 1/0	16QAM	25.49	21.66	3.83
20	4000	DD 4/0	QPSK	25.34	22.33	3.01
20	1880	RB 1/0	16QAM	25.2	21.63	3.57

LTE Band IV (part 27)

DM/MH=) Frequency /MH=		Mada	Modulation	Conducted P	Peak-Average	
BW(MHz)	Frequency (MHz)	Mode	Modulation	Peak	Average	Ratio (PAR)
	4722.5	DB 1/0	QPSK	25.5	22.37	3.13
1.4	1732.5	RB 1/0 QPSK 16QAM QPSK 16QAM 16QAM QPSK 16QAM QPSK 16QAM QPSK 16QAM QPSK 16QAM QPSK QPSK QPSK	25.51	21.31	4.2	
3	4722.5	DB 1/0	QPSK	25.23	22.36	2.87
3	1732.5	KD 1/0	16QAM	25.21	21.31	3.9
_	4722 E	DD 4/0	QPSK	25.21	22.4	2.81
5	1732.5	KD 1/0	16QAM	25.5 22.37 25.51 21.31 25.23 22.36 25.21 21.31	21.72	3.44
10	4722.5	DD 4/0	QPSK	25.16	22.41	2.75
10	1732.5	KD 1/0	16QAM	25.35	21.32	4.03
15	4722.5	RB 1/0	QPSK	25.33	22.38	2.95
15	1732.5		16QAM	25.31	21.63	3.68
20	4722.5	DB 1/0	QPSK	25.31	22.44	2.87
20	1732.5	RB 1/0	16QAM	25.12	21.83	3.29



Test Report	16071296-FCC-R5-V1
Page	48 of 135

LTE Band VII (part 27)

D\A//A4LI=\	DW/MU=) Frequency (MU=)		NA a destation	Conducted P	Peak-Average			
BW(MHz)	Frequency (MHz)	Mode	Modulation	Peak	Average	Ratio (PAR)		
5	2525	DD 4/0	QPSK	25.36	22.26	3.10		
5	2535	RB 1/0	16QAM	25.44	21.49	3.95		
40	10 2535		QPSK	24.74	22.3	2.44		
10		RB 1/0	16QAM	24.26	21.24	3.02		
45	15 2535	0505	15 2525	RB 1/0	QPSK	25.36	22.28	3.08
15		RB 1/0	16QAM	24.33	21.53	2.80		
20	0525	DD 4/0	QPSK	24.91	22.26	2.65		
20 2535	RB 1/0	16QAM	24.26	21.55	2.71			



Test Report	16071296-FCC-R5-V1
Page	49 of 135

LTE Band XII (part 27)

D\A//A4LI=\	BW(MHz) Frequency (MHz)		Modulation	Conducted Po		Peak-Average		
DVV(IVITZ)			Modulation	Peak	Average	Ratio (PAR)		
1.4	1732.5	RB 1/0	QPSK	24.65	22.66	1.99		
1.4	1732.3	KD 1/0	16QAM	24.39	21.64	2.75		
2	3 1732.5	5 RB 1/0	QPSK	24.36	22.65	1.71		
3			16QAM	24.35	21.63	2.72		
5	1732.5	1732.5	1732.5 RB 1/0	DD 1/0	QPSK	24.62	22.68	1.94
5				16QAM	25.61	21.96	3.65	
10	1722 5	1732.5 RB 1/0 QPSK 16QAM	QPSK	25.12	22.77	2.35		
10	10 1732.5		16QAM	25.16	21.71	3.45		

LTE Band XVII (part 27)

D\A//\A41.I=\	DIA//AII I=) Fragues ou (AII I=)		Madulatian	Conducted P	Peak-Average		
BW(MHz)	Frequency (MHz)	Mode	Mode Modulation	Peak	Average	Ratio (PAR)	
5	710	740	RB 1/0	QPSK	25.32	22.73	2.59
5		KB I/U	IXB 170	16QAM	25.32	22.23	3.09
10	740	10 710 PP 1/0	QPSK	25.14	22.82	2.32	
10 710	710	710 RB 1/0	16QAM	25.34	21.83	3.51	



Test Report	16071296-FCC-R5-V1
Page	50 of 135

6.4 Occupied Bandwidth

Temperature	22°C
Relative Humidity	58%
Atmospheric Pressure	1025mbar
Test date :	November 25&26, 2016
Tested By:	Loren Luo

Requirement(s):

Spec	Item	Requirement	Applicable
§2.1049, §22.917,	a)	99% Occupied Bandwidth(kHz)	V
§22.905 §24.238 §27.53(a)	b)	26 dB Bandwidth(kHz)	V
Test Setup	B	EUT Spectrum Analyzer	
Test Procedure	 The EUT was connected to Spectrum Analyzer and Base Station via power divider. The 99% and 26 dB occupied bandwidth (BW) of the middle channel for the highest RF powers. 		
Remark			
Result	☑ Pa	ss Fail	

Test Data	Yes	□ _{N/A}
Test Plot	Yes (See below)	□ _{N/A}



Test Report	16071296-FCC-R5-V1
Page	51 of 135

LTE Band II (Part 24E)

		Frequency		99% Occupied	26 dB Bandwidth		
BW(MHz)	Channel	(MHz)	Modulation	Bandwidth (MHz)	(MHz)		
			16QAM	1.1002	1.275		
1.4	18607	1851	QPSK	1.0920	1.273		
			16QAM	1.1026	1.287		
1.4	18900	1880	QPSK	1.1040	1.262		
	10.100	4000	16QAM	1.1091	1.274		
1.4	19193	1909	QPSK	1.0966	1.256		
0	40045	4054	16QAM	2.7389	3.084		
3	18615	1851	QPSK	2.7511	3.094		
0	40000	4000	16QAM	2.7536	3.089		
3	18900	1880	QPSK	2.7514	3.071		
0	40405	4000	16QAM	2.7464	3.089		
3	19185 1909 QPSK	QPSK	2.7345	3.095			
-	40005	4050	16QAM	4.5369	5.109		
5	18625	18625	18625	1853	QPSK	4.5300	5.122
-	40000	4000	16QAM	4.5315	5.096		
5	18900	1880	QPSK	4.5243	5.055		
E	19175	4000	16QAM	4.5346	5.077		
5		1908	QPSK	4.5327	5.053		
40	40050	4055	16QAM	9.0411	10.272		
10	18650	1855	QPSK	9.0439	10.202		
40	40000	4000	16QAM	9.0875	10.266		
10	18900	1880	QPSK	9.0696	10.185		
10	10150	1005	16QAM	9.0832	10.433		
10	19150	1905	QPSK	9.0737	10.360		
45	40675	4050	16QAM	13.4878	14.989		
15	18675	1858	QPSK	13.4749	14.978		
15	19000	1880	16QAM	13.5060	15.138		
15	18900	1000	QPSK	13.4971	15.002		
15	10125	4002	16QAM	13.5137	15.009		
15	19125	1903	QPSK	13.5345	14.970		



Test Report	16071296-FCC-R5-V1
Page	52 of 135

20 40700	19700	1960	16QAM	17.9337	19.522
20 18700		1860	QPSK 17.9079		19.644
20	18900	1880	16QAM	17.8788	19.606
20			QPSK	17.8521	19.640
20 40400		4000	16QAM	17.9243	19.557
20	19100	1900	QPSK	17.9799	19.418



Test Report	16071296-FCC-R5-V1
Page	53 of 135

LTE Band IV (Part 27)

	Dana IV (I a	Frequency		99% Occupied	26 dB Bandwidth
BW(MHz)	Channel	(MHz)	Modulation	Bandwidth (MHz)	(MHz)
40057	40057	4744	16QAM	1.1018	1.270
1.4	19957	1711	QPSK	1.1050	1.296
4.4	00475	4700	16QAM	1.1042	1.287
1.4	20175	1732	QPSK	1.1031	1.276
4.4	00000	4754	16QAM	1.1003	1.276
1.4	20393	1754	QPSK	1.0973	1.270
2	40005	4740	16QAM	2.7467 3.090	3.090
3	19965	1712	QPSK	2.7366	3.107
	00475	4700	16QAM	2.7538	3.089
3	20175	1732	QPSK	2.7484	3.081
	00005	4754	16QAM	2.7432	3.121
3	20385	1754	QPSK	2.7457	3.114
	40075	4740	16QAM	4.5338	5.107
5	19975	1712	QPSK	4.5234	5.096
_	00475	4700	16QAM	4.5318	5.061
5	20175	1732		4.5276	5.084
_			16QAM	4.5246	5.078
5	20375	1752	QPSK	4.5385	5.049
40	10 20000	4745	16QAM	9.0472	10.277
10		1715	QPSK	9.0741	10.270
40	00475	4700	16QAM	9.0793	10.279
10	20175	1732	QPSK	9.0663	10.300
40	00050	16QAM	9.0830	10.372	
10	20350	1750	QPSK	9.0793	10.306
45	00005	4740	16QAM	13.4772	14.999
15	20025	1718	QPSK	13.5046	15.011
45	00475	4700	16QAM	13.4997	14.930
15	20175	20175 1732	QPSK	13.5103	15.044
45	00005	4740	16QAM	13.4777	15.013
15	15 20325	1748	QPSK	13.4579	14.974



Test Report	16071296-FCC-R5-V1
Page	54 of 135

20	00050	4700	16QAM	17.9031	19.601
20 20050		1720	QPSK 17.9633		19.572
00	00475	20175 1732 16QAM 17.9735 QPSK 17.9515	16QAM	17.9735	19.904
20	20175		19.568		
20	20300	00000 4745	16QAM	17.9442	19.389
		20300 1745	QPSK	17.8983	19.369



Test Report	16071296-FCC-R5-V1
Page	55 of 135

LTE Band VII (Part 27) result

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)	
_			16QAM	4.5363	5.101	
5	20775	2502	QPSK	4.5427	5.112	
-	04400	0505	16QAM	4.5265	5.067	
5	21100	2535	QPSK	4.5233	5.101	
5	21425	2567	16QAM	4.5354	5.100	
5	21425	2507	QPSK	4.5280	5.087	
10	20200	2505	16QAM	9.0557	10.268	
10	20800	2505	QPSK	4.5233 5.101 4.5354 5.100 4.5280 5.087 9.0557 10.268 9.0564 10.286 9.0979 10.408 9.0923 10.332 9.1032 10.316 9.0829 10.363 13.5033 14.976 13.5092 14.965 13.4968 14.966 13.5047 15.015 13.5147 15.076		
10	24400	2525	16QAM	9.0979	10.408	
10	21100	2535	QPSK	9.0923 10.332	10.332	
10	04400	04400	0505	16QAM	9.1032	10.316
10	21400	21400 2565	QPSK	9.0829	10.363	
15	20025	2507	16QAM	13.5033 14.976	14.976	
15	15 20825	2507	QPSK	13.5092	14.965	
15	15 21100	21100 2535	16QAM	13.4968	14.966	
15			13.5047	15.015		
45	04400	2562	16QAM	13.5147	15.076	
15	21400	2562	QPSK	SK 13.5236 15.016	15.016	
20	20050	2510	16QAM	17.8671	19.619	
20	20850	2510	QPSK	17.8780	19.592	
20	04400	24400	16QAM	17.9237	19.620	
20	21100	2535	QPSK	17.9260	19.531	
20	04050	2560	16QAM	17.9380	19.554	
20	21350	2560	QPSK	17.9430	19.460	



Test Report	16071296-FCC-R5-V1
Page	56 of 135

LTE Band XII (Part 27)

BW(MHz)	Channel	Frequency	Modulation	99% Occupied	26 dB Bandwidth
()		(MHz)		Bandwidth (MHz)	(MHz)
1.4	23017	699.7	16QAM	1.1018	1.288
1.4	20017	039.1	QPSK	1.1031	1.271
1.4	23095	707.5	16QAM	1.1078	1.285
1.4	23093	707.5	QPSK	1.1048	1.285
1.4	23173	715.3	16QAM	1.0971	1.275
1.4	23173	113.3	QPSK	1.1000	1.259
3	23025	700.5	16QAM	2.7297	3.080
3	23025	700.5	QPSK	2.7335	3.072
2	23095	707.5	16QAM	2.7452	3.129
3	23095	707.5	QPSK	1 2.7452 3.129 2.7521 3.095 1 2.7628 3.120 2.7517 3.109	3.095
3	22465	714 5	16QAM	2.7628	3.120
3	23105	23165 714.5	QPSK	2.7517	3.109
E	02025	704 5	16QAM		5.082
5	5 23035	701.5	QPSK		5.087
E	5 23095	707.5	16QAM	4.5267	5.090
5		707.5	QPSK	4.5388	5.059
	02055	740 5	16QAM	4.5309	5.011
5	23055	713.5	QPSK	4.5247	5.001
40	02060	23060 704	16QAM	9.0656	10.241
10	∠3060		QPSK	9.0747	10.178
40	02005	23095 707.5	16QAM	9.1029	10.360
10	∠3095		QPSK	9.1149	10.370
40	02420	744	16QAM	9.0788	10.277
10	23130 711	<i>I</i> 11	QPSK	9.0888	10.330



Test Report	16071296-FCC-R5-V1
Page	57 of 135

LTE Band XVII (Part 27)

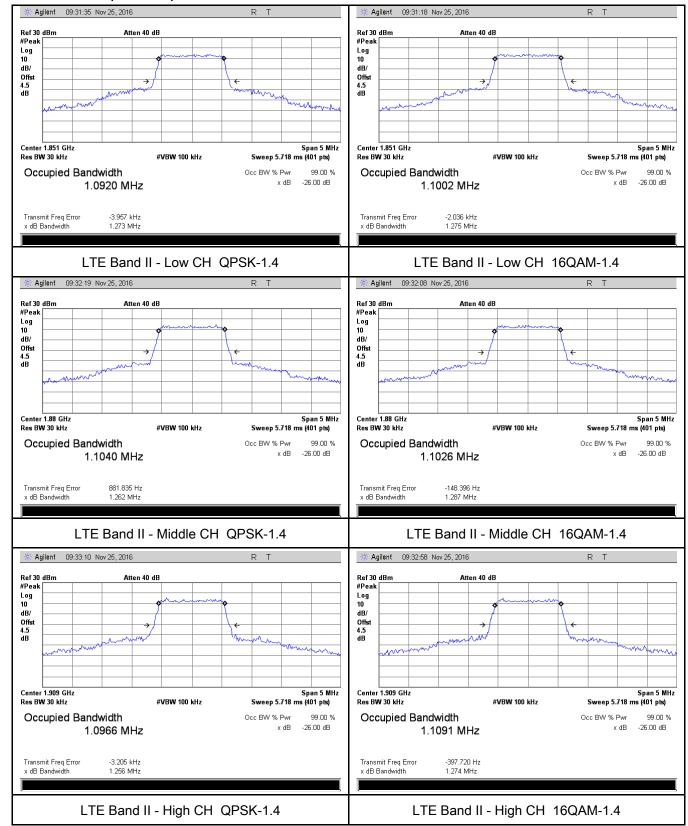
BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
5	00755	700.5	16QAM	4.5446	5.111
5	23755	706.5	QPSK 4.5359	5.103	
5	02700	740	16QAM	4.5227	5.060
o L	23790	710	QPSK	4.5209	5.063
5	00005	742 5	16QAM	4.5340	5.043
5	23825	25 713.5	QPSK	4.5321	5.061
10 23780	22700	700	16QAM	9.0653	10.259
	23780 709	QPSK	9.0575	10.151	
40	00700	740	16QAM	9.0765	10.294
10	23790	710	QPSK	9.0705	10.292
40	22200	744	16QAM	9.0822	10.346
10	23800	711	QPSK	9.0709	10.161



Test Report	16071296-FCC-R5-V1
Page	58 of 135

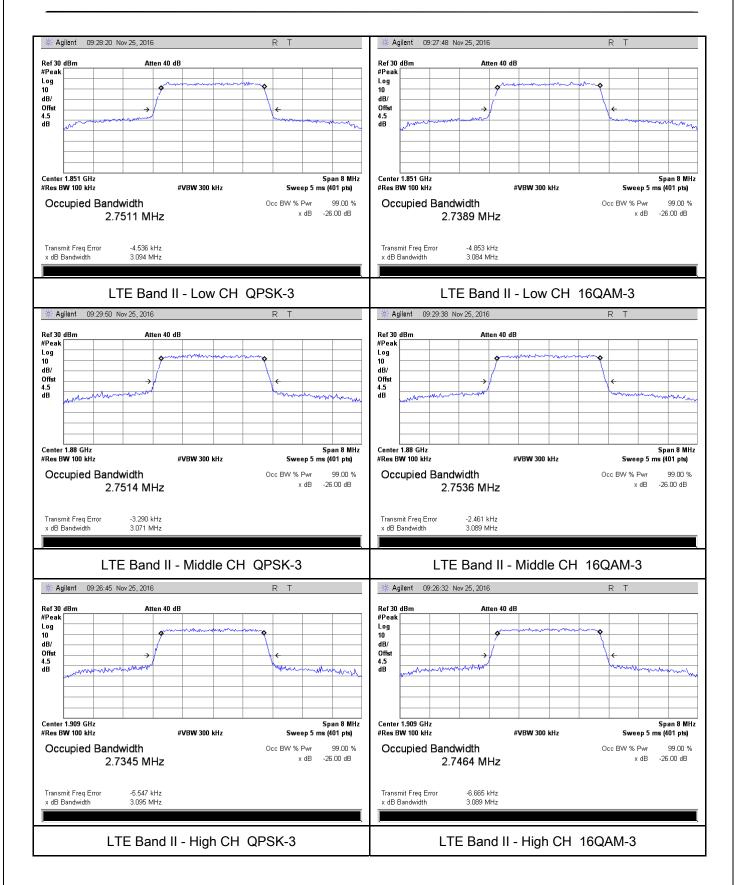
Test Plots

LTE Band II (Part 24E)



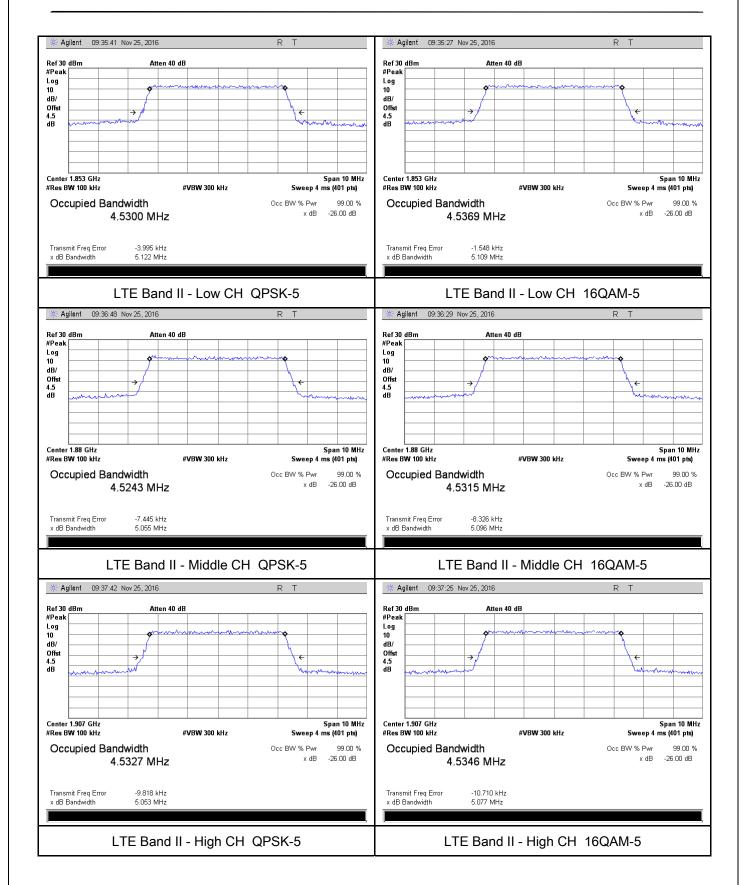


Test Report	16071296-FCC-R5-V1
Page	59 of 135



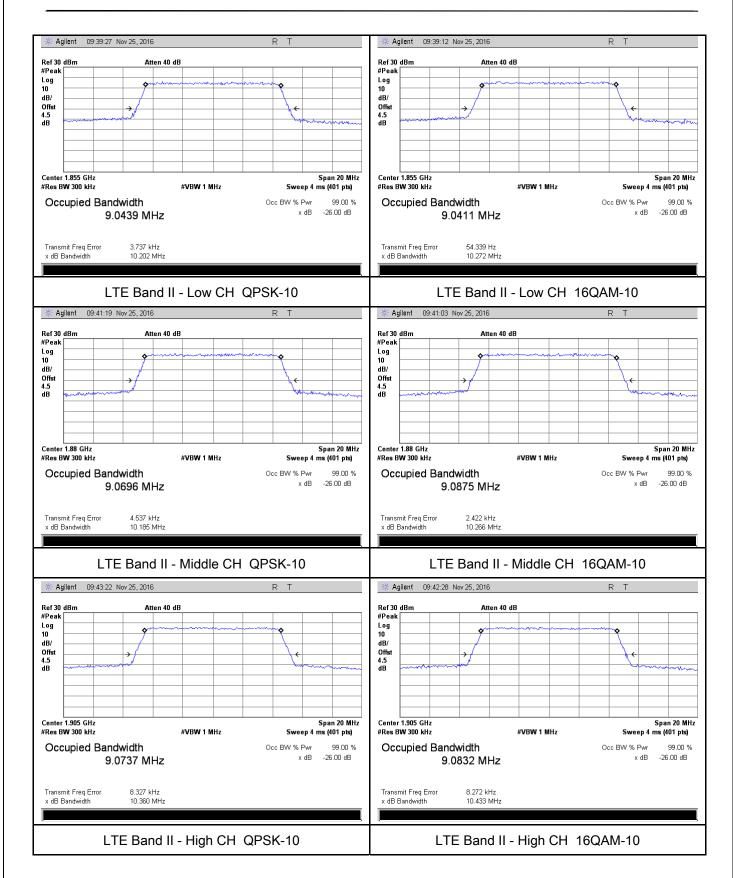


Test Report	16071296-FCC-R5-V1
Page	60 of 135



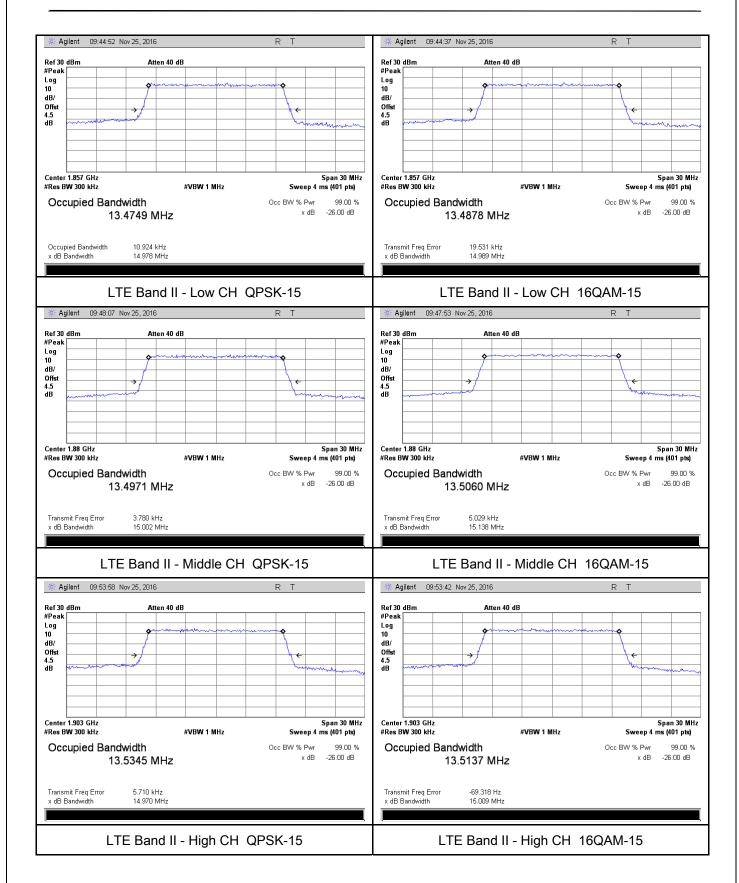


Test Report	16071296-FCC-R5-V1
Page	61 of 135



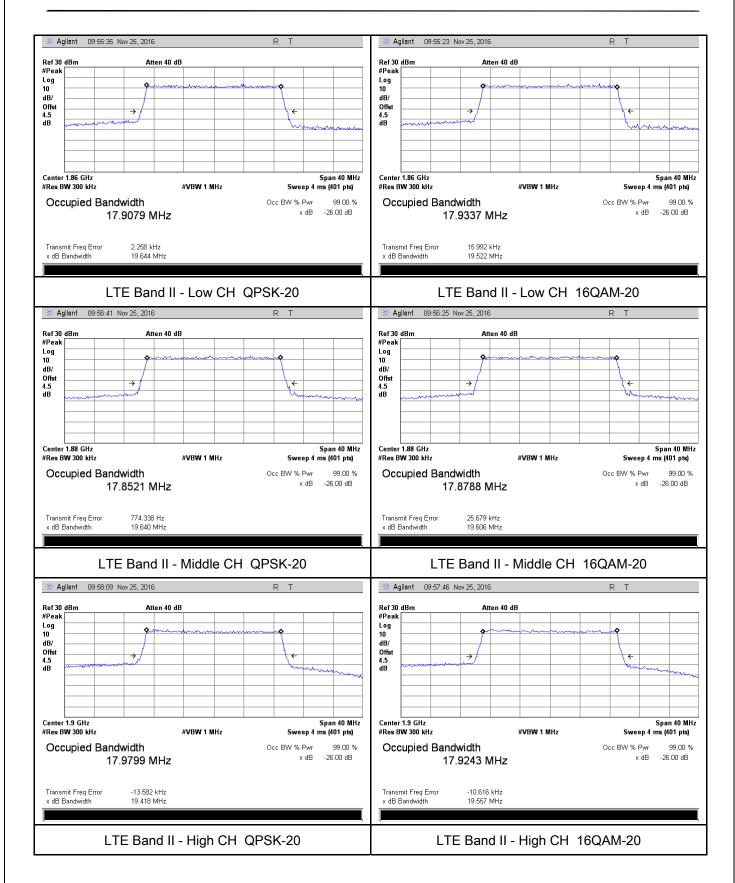


Test Report	16071296-FCC-R5-V1
Page	62 of 135





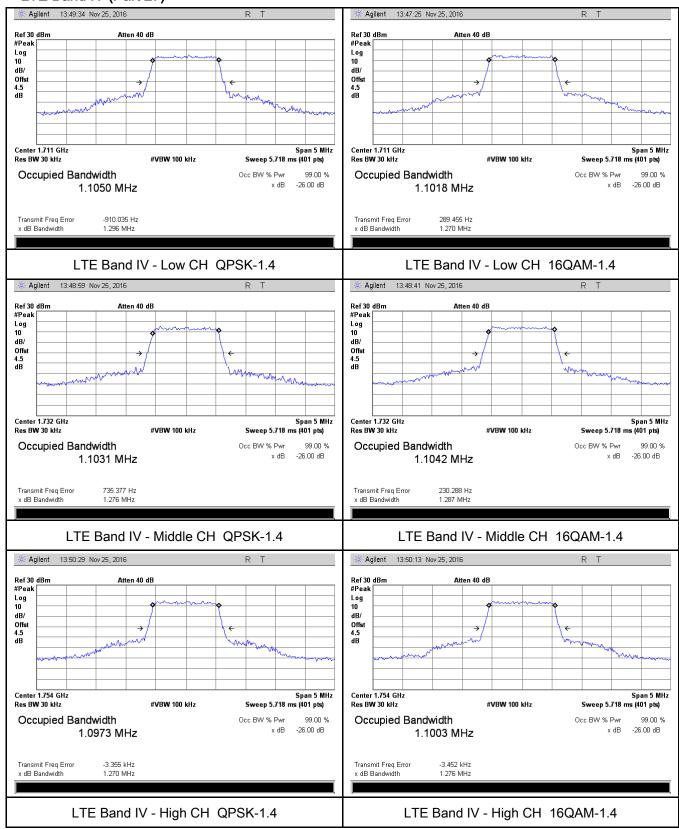
Test Report	16071296-FCC-R5-V1
Page	63 of 135





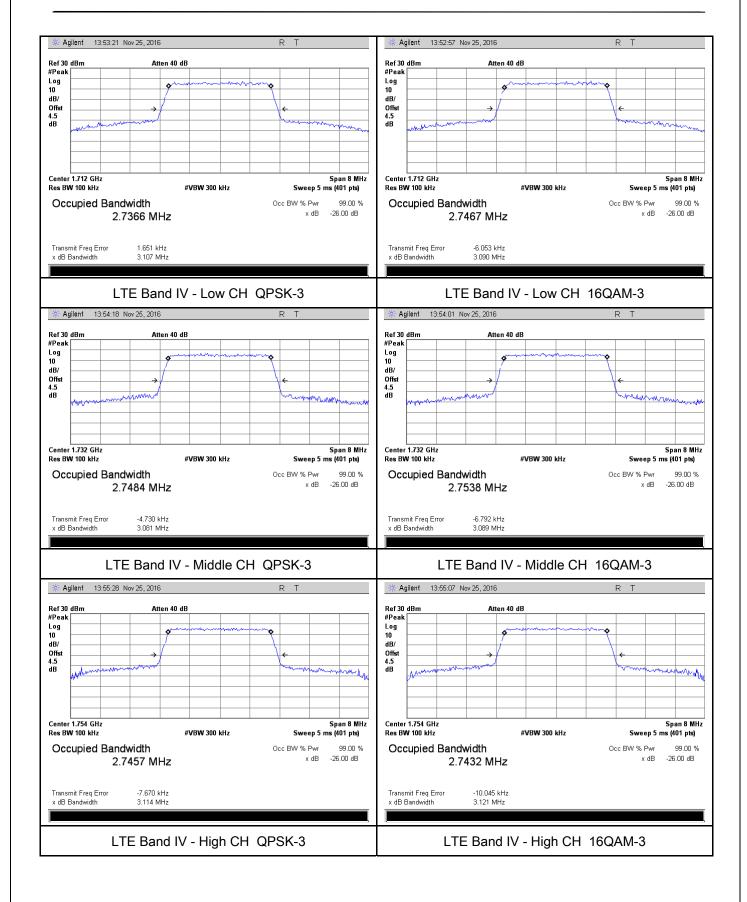
Test Report	16071296-FCC-R5-V1
Page	64 of 135

LTE Band IV (Part 27)



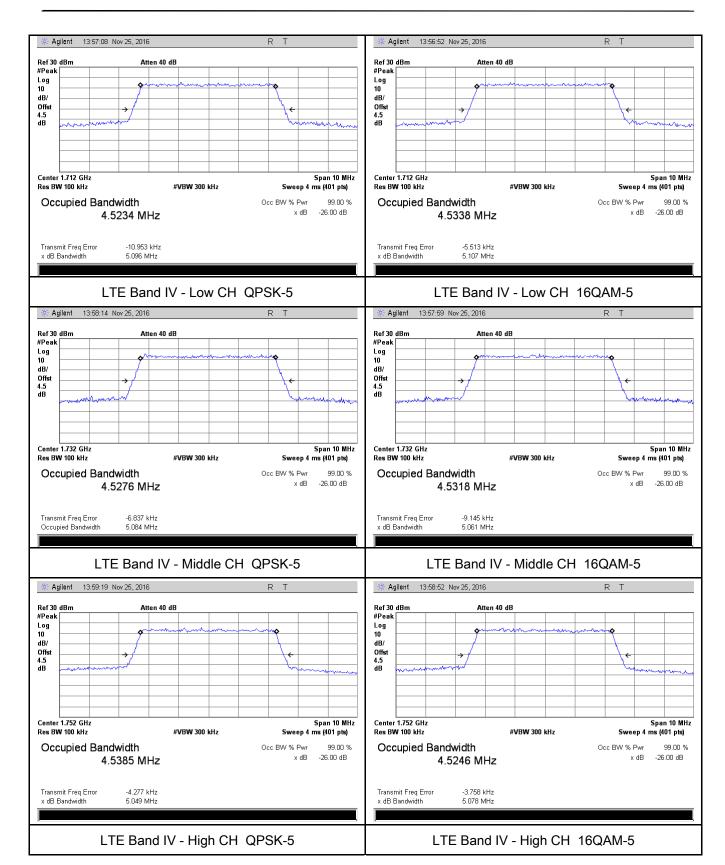


Test Report	16071296-FCC-R5-V1
Page	65 of 135



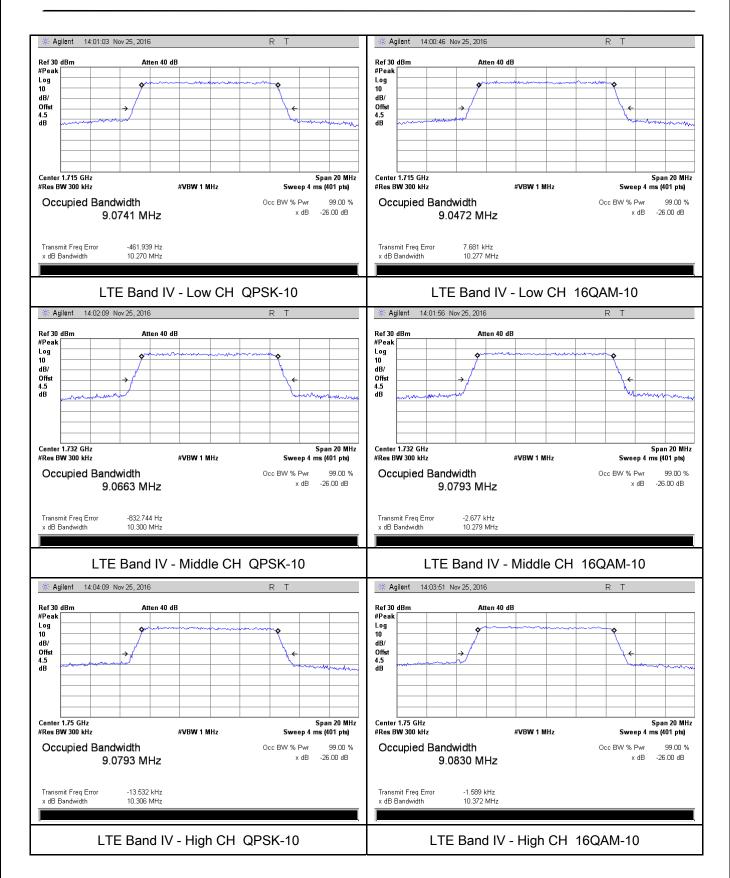


Test Report	16071296-FCC-R5-V1
Page	66 of 135



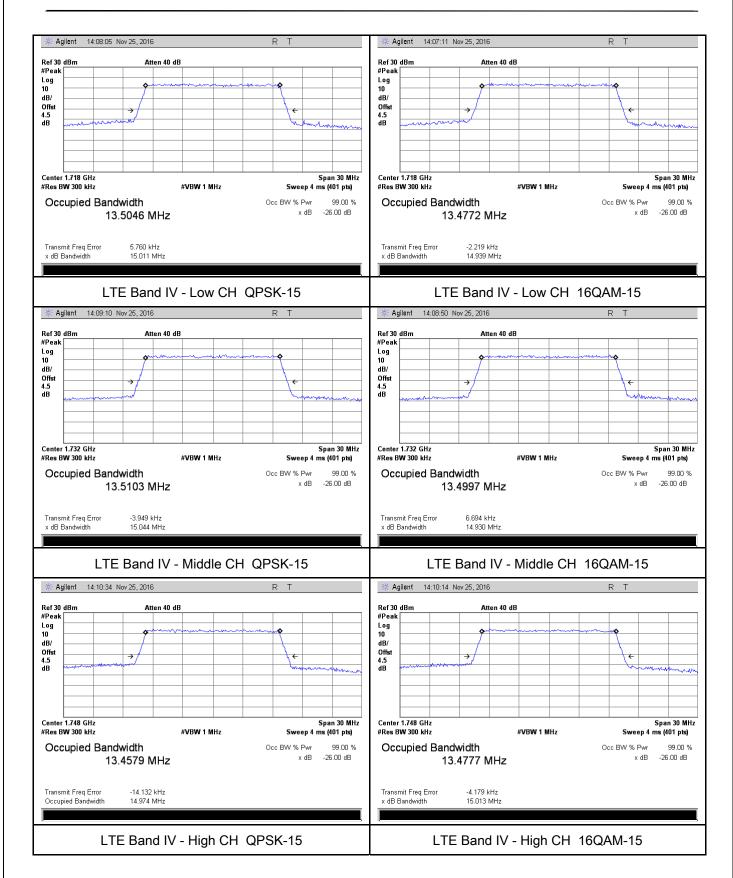


Test Report	16071296-FCC-R5-V1
Page	67 of 135



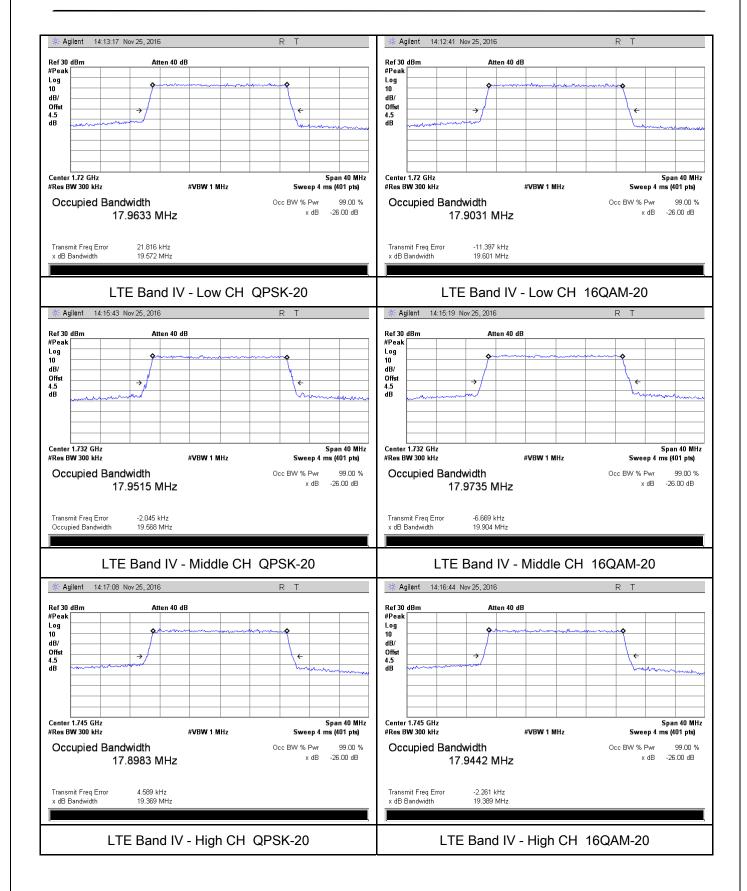


Test Report	16071296-FCC-R5-V1
Page	68 of 135





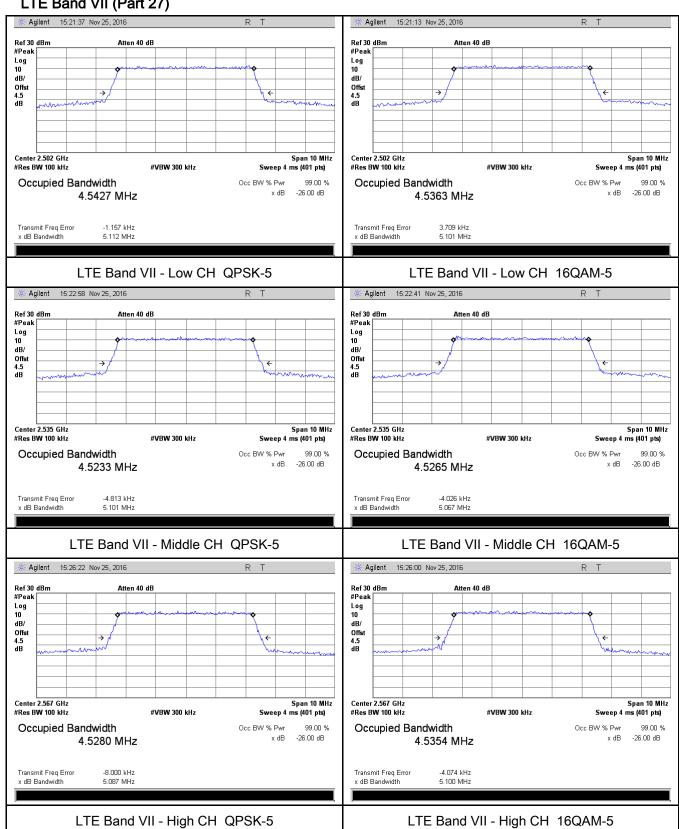
Test Report	16071296-FCC-R5-V1
Page	69 of 135





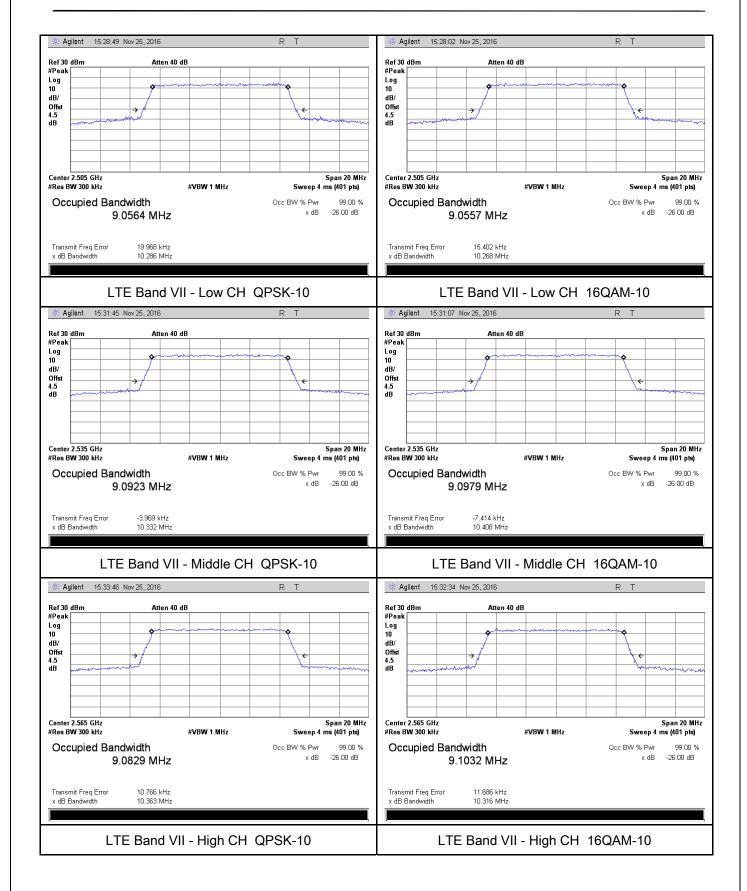
Test Report	16071296-FCC-R5-V1
Page	70 of 135

LTE Band VII (Part 27)



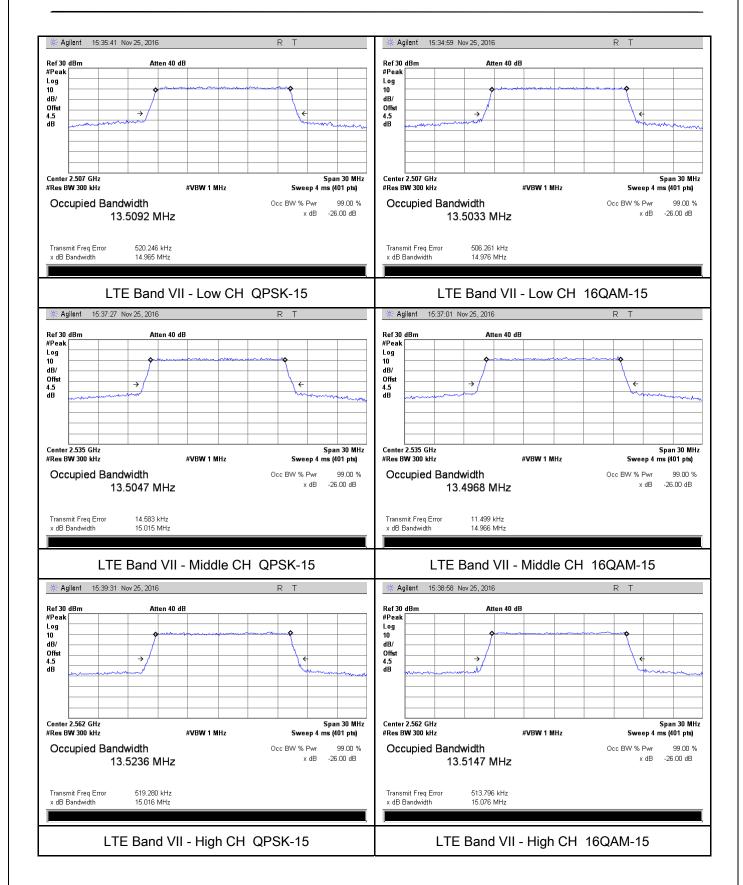


Test Report	16071296-FCC-R5-V1
Page	71 of 135



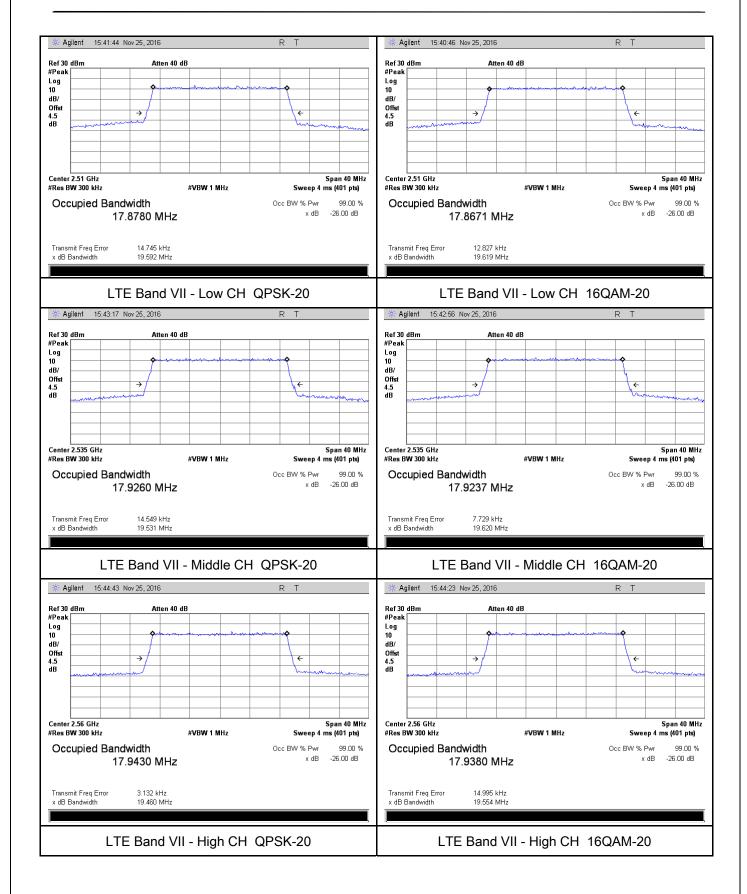


Test Report	16071296-FCC-R5-V1
Page	72 of 135





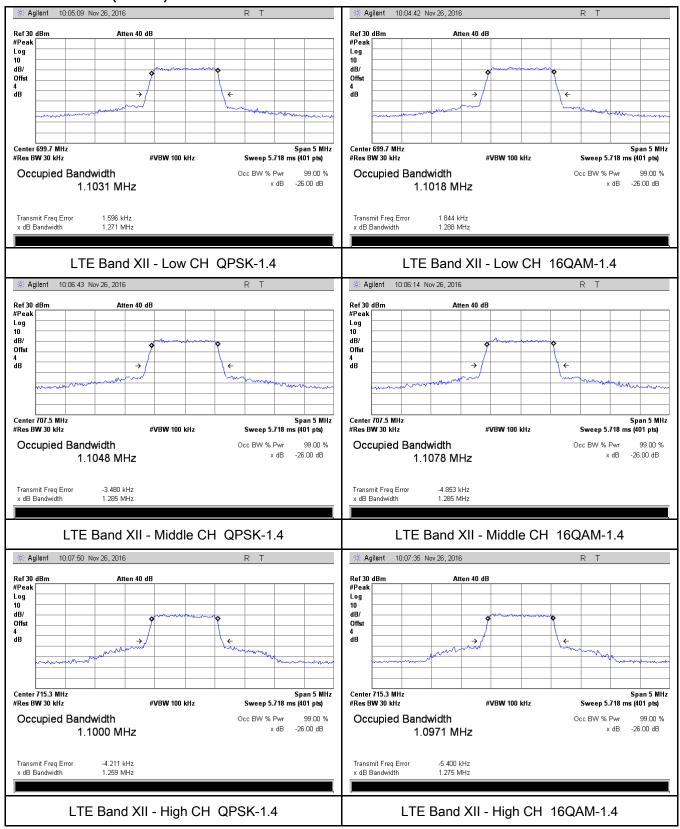
Test Report	16071296-FCC-R5-V1
Page	73 of 135





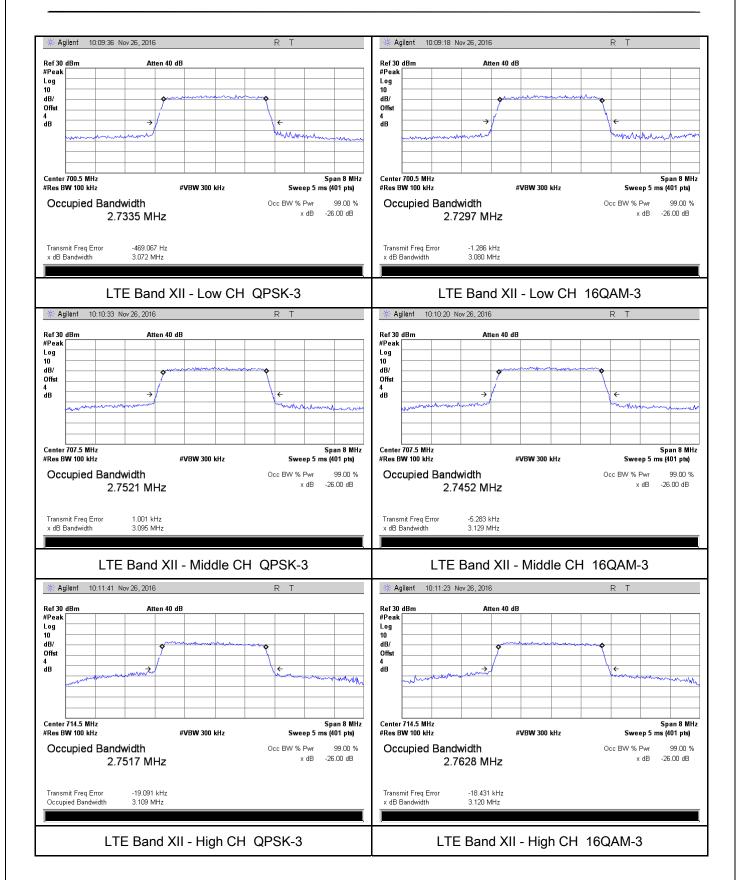
Test Report	16071296-FCC-R5-V1
Page	74 of 135

LTE Band XII (Part 27)



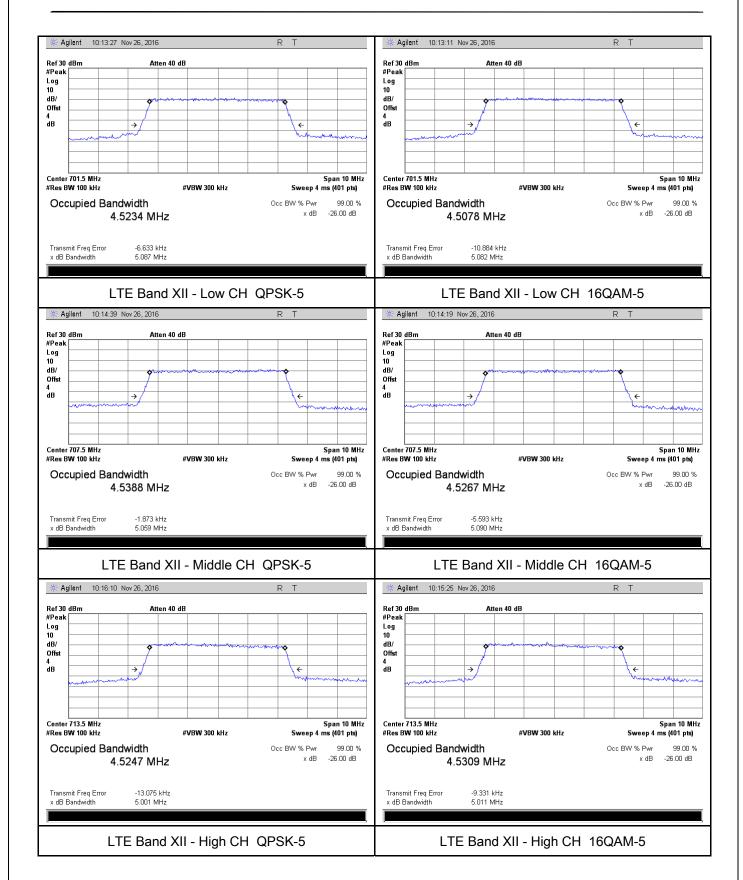


Test Report	16071296-FCC-R5-V1
Page	75 of 135



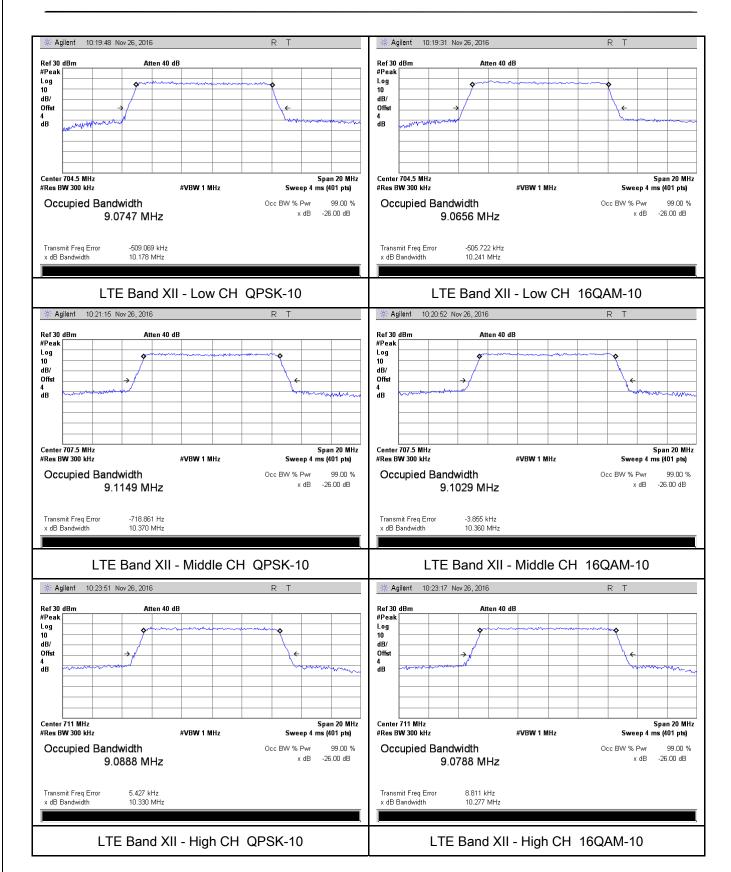


Test Report	16071296-FCC-R5-V1
Page	76 of 135





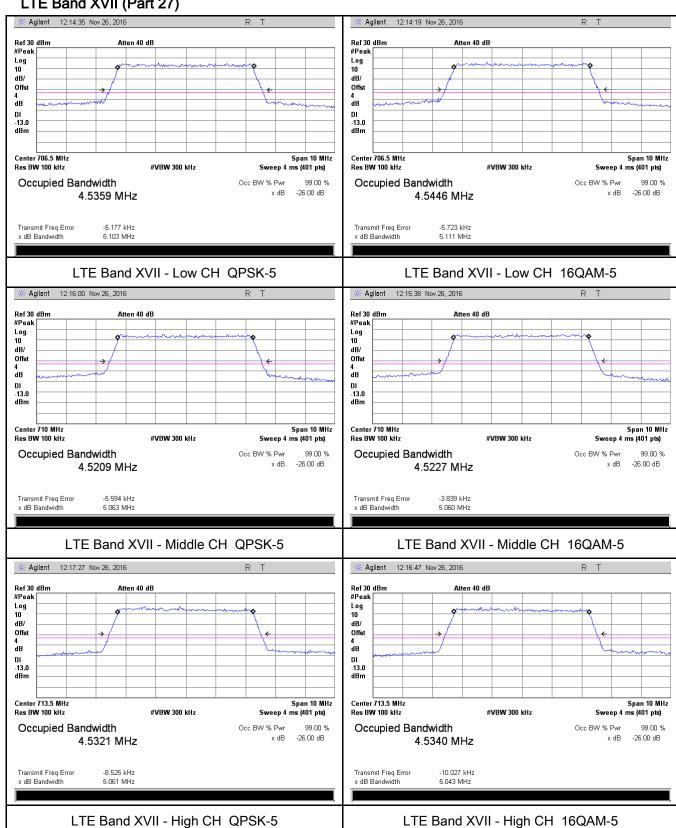
Test Report	16071296-FCC-R5-V1
Page	77 of 135





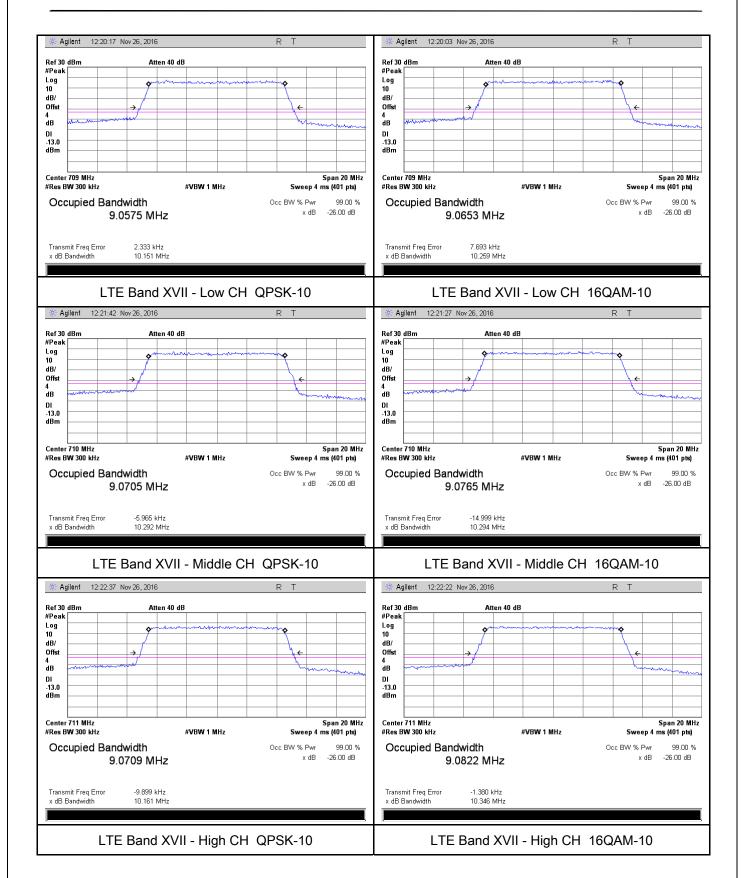
Test Report	16071296-FCC-R5-V1
Page	78 of 135

LTE Band XVII (Part 27)





Test Report	16071296-FCC-R5-V1
Page	79 of 135





Test Report	16071296-FCC-R5-V1
Page	80 of 135

6.5 Spurious Emissions at Antenna Terminals

Temperature	22°C
Relative Humidity	58%
Atmospheric Pressure	1025mbar
Test date :	November 25&26, 2016
Tested By :	Loren Luo

Requirement(s):

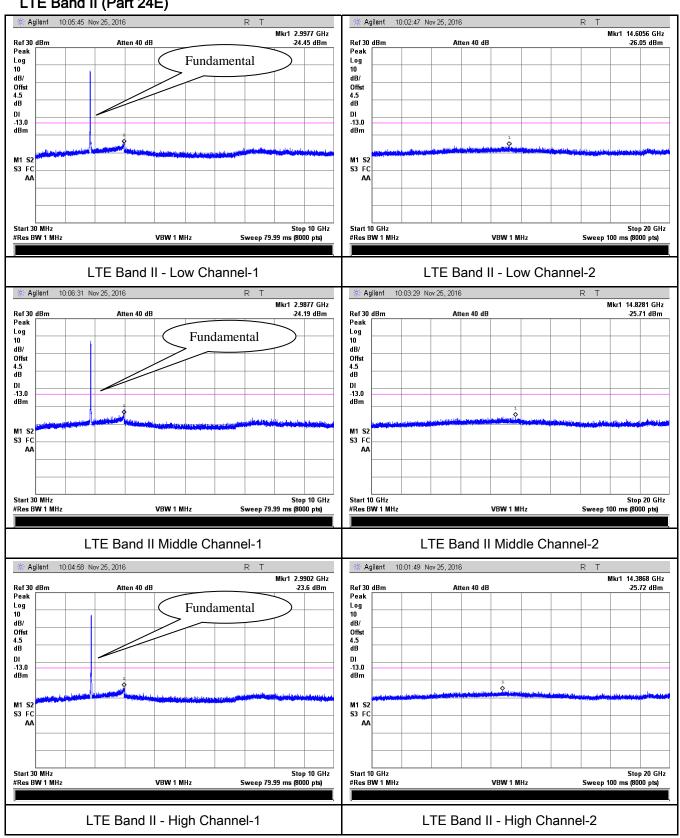
Spec	Item	Requirement	Applicable
§2.1051, §22.917(a)& §24.238(a) § 27.53(h)	a)	The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB	>
Test Setup	■ Ba	EUT Spectrum Analyzer	
Test Procedure	 The EUT was connected to Spectrum Analyzer and Base Station via power divider. The Band Edges of low and high channels for the highest RF powers were measured. Setting RBW as roughly BW/100. 		
Remark			
Result	☑ Pa	ss Fail	

Test Data	Yes	□ _{N/A}
Test Plot	Yes (See below)	$\square_{N/A}$



Test Report	16071296-FCC-R5-V1
Page	81 of 135

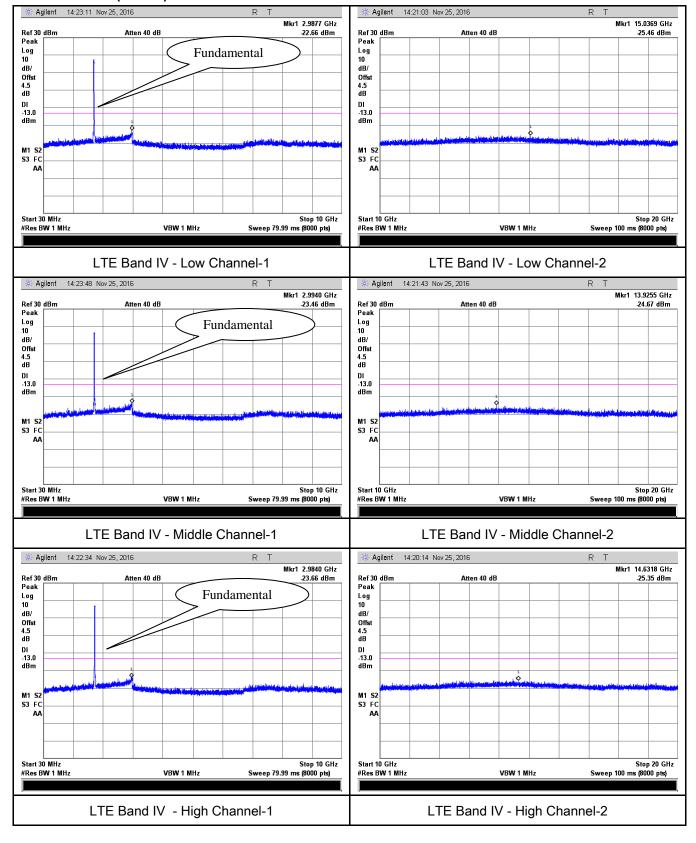
Test Plots 30MHz-5GHz LTE Band II (Part 24E)





Test Report	16071296-FCC-R5-V1
Page	82 of 135

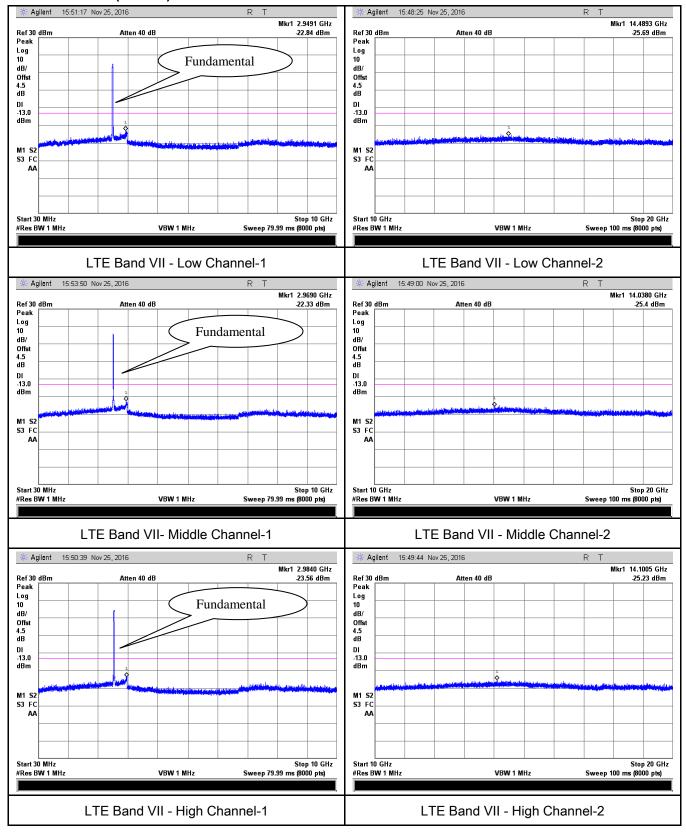
LTE Band IV (Part27) result





Test Report	16071296-FCC-R5-V1
Page	83 of 135

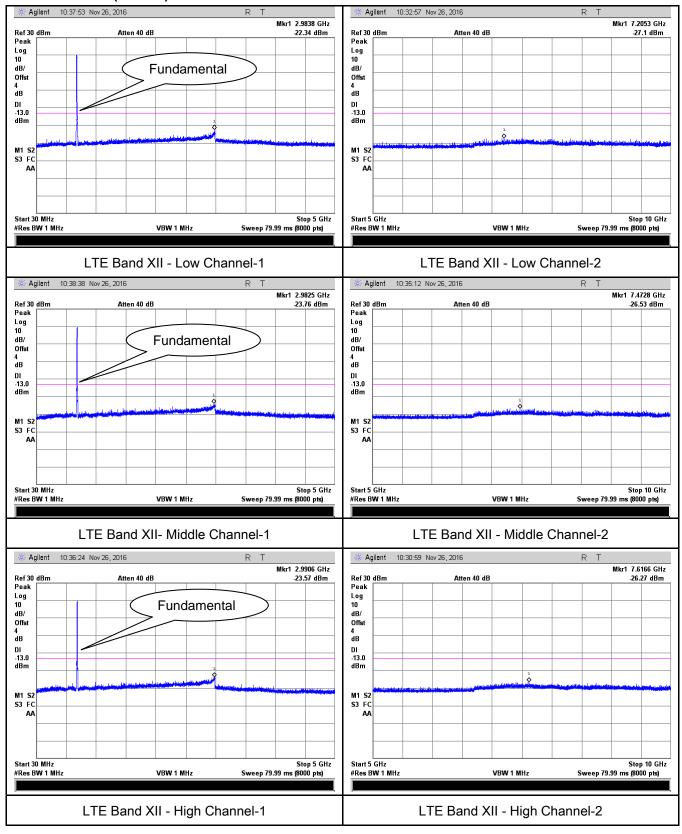
LTE Band VII (Part 27)





Test Report	16071296-FCC-R5-V1
Page	84 of 135

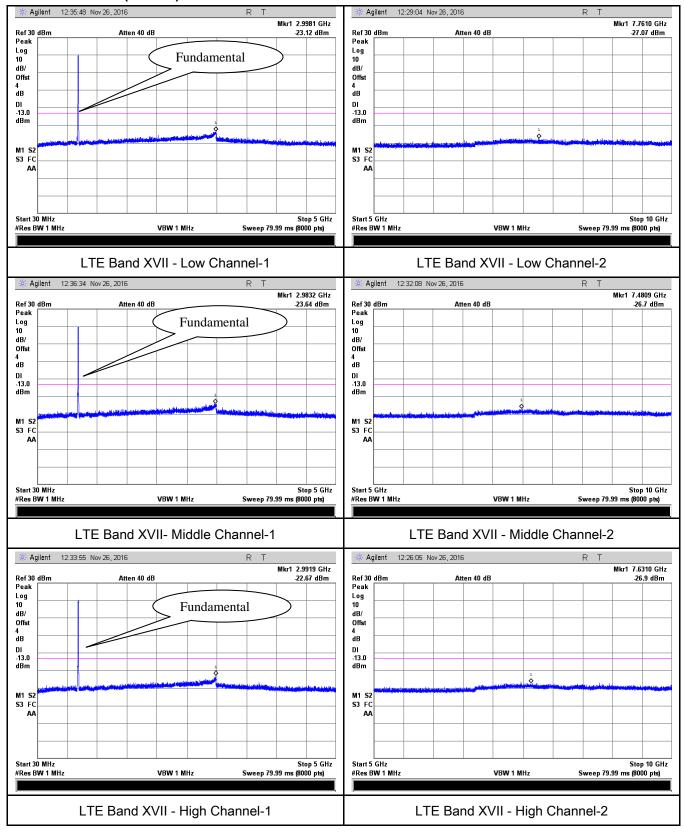
LTE Band XII (Part 27)





Test Report	16071296-FCC-R5-V1
Page	85 of 135

LTE Band XVII (Part 27)





Test Report	16071296-FCC-R5-V1
Page	86 of 135

6.6 Spurious Radiated Emissions

Temperature	22°C
Relative Humidity	58%
Atmospheric Pressure	1025mbar
Test date :	November 25, 2016
Tested By:	Loren Luo

Requirement(s):							
Spec	Item	Requirement	Applicable				
§2.1053, §22.917 & §24.238 § 27.53(h)	a)	<u> </u>					
Test setup	including its 10th harmonic. Ant. Tower Support Units Ground Plane Test Receiver						
Test Procedure	 The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load which was also placed on the turntable. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis. 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. Sample Calculation: EUT Field Strength = Raw Amplitude (dBμV/m) – Amplifier Gain (dB) + Antenna Factor (dB) + Cable Loss (dB) + Filter Attenuation (dB, if used) 						



Test Report	16071296-FCC-R5-V1
Page	87 of 135

Remark		
Result	Pass	Fail
Test Data	Yes	□ _{N/A}
Test Plot	Yes (See below)	N/A



Test Report	16071296-FCC-R5-V1
Page	88 of 135

LTE Band II (Part 24E) result

Low channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
3720	-46.45	V	10.25	2.73	-38.93	-13	-25.93
3720	-47.23	Н	10.25	2.73	-39.71	-13	-26.71
50.7	-45.34	V	-4.2	0.11	-49.65	-13	-36.65
204.6	-48.67	Н	4.6	0.18	-44.25	-13	-31.25

Middle channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
3760	-46.59	V	10.25	2.73	-39.07	-13	-26.07
3760	-47.25	Н	10.25	2.73	-39.73	-13	-26.73
51.3	-45.31	V	-4.2	0.11	-49.62	-13	-36.62
205.6	-48.51	Н	4.6	0.18	-44.09	-13	-31.09

High channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
3800	-46.21	V	10.36	2.73	-38.58	-13	-25.58
3800	-47.13	Н	10.36	2.73	-39.5	-13	-26.50
50.7	-45.24	V	-4.2	0.11	-49.55	-13	-36.55
202.3	-47.16	Н	4.6	0.18	-42.74	-13	-29.74

- 1, The testing has been conformed to 10*1907.5MHz=19,075MHz
- 2, All other emissions more than 30 dB below the limit
- 3, X-Axis, Y-Axis and Z-Axis were investigated. The results above show only the worst case.



Test Report	16071296-FCC-R5-V1
Page	89 of 135

LTE Band IV (Part27) result

Low channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
3440	-46.15	V	10.06	2.52	-38.61	-13	-25.61
3440	-47.35	Н	10.06	2.52	-39.81	-13	-26.81
50.5	-45.67	V	-4.2	0.11	-49.98	-13	-36.98
204.3	-48.49	Н	4.6	0.18	-44.07	-13	-31.07

Middle channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
3465	-46.28	V	10.09	2.52	-38.71	-13	-25.71
3465	-47.52	Н	10.09	2.52	-39.95	-13	-26.95
51.2	-46.49	V	-4.2	0.11	-50.8	-13	-37.80
204.7	-49.28	Н	4.6	0.18	-44.86	-13	-31.86

High channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
3490	-46.27	V	10.09	2.52	-38.7	-13	-25.70
3490	-47.35	Н	10.09	2.52	-39.78	-13	-26.78
49.8	-46.49	٧	-4.2	0.11	-50.8	-13	-37.80
202.5	-49.27	Н	4.6	0.18	-44.85	-13	-31.85

- 1, The testing has been conformed to 10*1752.5MHz=17,525MHz
- 2, All other emissions more than 30 dB below the limit
- 3, X-Axis, Y-Axis and Z-Axis were investigated. The results above show only the worst case.



Test Report	16071296-FCC-R5-V1
Page	90 of 135

LTE Band VII (Part27) result

Low channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
5020	-48.16	V	10.29	0.98	-38.85	-13	-25.85
5020	-48.27	Н	10.29	0.98	-38.96	-13	-25.96
50.4	-46.38	V	-4.2	0.11	-50.69	-13	-37.69
205.7	-48.17	Н	4.6	0.18	-43.75	-13	-30.75

Middle channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
5070	-48.22	V	10.3	0.99	-38.91	-13	-25.91
5070	-48.15	Н	10.3	0.99	-38.84	-13	-25.84
50.8	-46.34	V	-4.2	0.11	-50.65	-13	-37.65
201.6	-48.39	Н	4.6	0.18	-43.97	-13	-30.97

High channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
5120	-48.25	V	10.32	1	-38.93	-13	-25.93
5120	-48.26	Н	10.32	1	-38.94	-13	-25.94
49.6	-46.27	V	-4.2	0.11	-50.58	-13	-37.58
202.5	-47.31	Н	4.6	0.18	-42.89	-13	-29.89

- 1, The testing has been conformed to 10*2567.5MHz=25,675MHz
- $2, All \ other \ emissions \ more \ than \ 30 \ dB \ below \ the \ limit$
- 3, X-Axis, Y-Axis and Z-Axis were investigated. The results above show only the worst case.



Test Report	16071296-FCC-R5-V1
Page	91 of 135

LTE Band XII (Part27) result

Low channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
1408	-48.11	V	7.65	0.75	-41.21	-13	-28.21
1408	-47.28	Н	7.65	0.75	-40.38	-13	-27.38
578.2	-56.49	V	6.5	0.36	-50.35	-13	-37.35
846.7	-50.82	Н	6.8	0.44	-44.46	-13	-31.46

Middle channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
1415	-47.73	V	7.65	0.75	-40.83	-13	-27.83
1415	-47.39	Η	7.65	0.75	-40.49	-13	-27.49
563.5	-56.24	V	6.5	0.36	-50.1	-13	-37.10
847.9	-50.28	Н	6.8	0.44	-43.92	-13	-30.92

High channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
1422	-47.22	V	7.65	0.75	-40.32	-13	-27.32
1422	-48.31	Η	7.65	0.75	-41.41	-13	-28.41
571.4	-57.62	V	6.5	0.36	-51.48	-13	-38.48
852.9	-50.23	Н	6.8	0.44	-43.87	-13	-30.87

- 1, The testing has been conformed to 10*715.3MHz=7,153MHz
- 2, All other emissions more than 30 dB below the limit
- $\it 3, X-Axis, Y-Axis \ and \ Z-Axis \ were \ investigated.$ The results above show only the worst case.



Test Report	16071296-FCC-R5-V1
Page	92 of 135

LTE Band XVII (Part27) result

Low channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
1418	-43.57	V	7.65	0.75	-36.67	-13	-23.67
1418	-44.68	Н	7.65	0.75	-37.78	-13	-24.78
51.4	-50.24	V	-4.2	0.11	-54.55	-13	-41.55
206.8	-49.23	Н	4.6	0.18	-44.81	-13	-31.81

Middle channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
1420	-43.57	V	7.65	0.75	-36.67	-13	-23.67
1420	-44.92	Η	7.65	0.75	-38.02	-13	-25.02
50.3	-45.86	V	-4.2	0.11	-50.17	-13	-37.17
204.7	-49.5	Н	4.6	0.18	-45.08	-13	-32.08

High channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
1422	-44.23	V	7.65	0.75	-37.33	-13	-24.33
1422	-45.13	Η	7.65	0.75	-38.23	-13	-25.23
49.9	-45.27	V	-4.2	0.11	-49.58	-13	-36.58
204.5	-49.23	Н	4.6	0.18	-44.81	-13	-31.81

- 1, The testing has been conformed to 10*713.5MHz=7,135MHz
- 2, All other emissions more than 30 dB below the limit
- 3, X-Axis, Y-Axis and Z-Axis were investigated. The results above show only the worst case.



Test Report	16071296-FCC-R5-V1
Page	93 of 135

6.7 Band Edge

Temperature	22°C
Relative Humidity	58%
Atmospheric Pressure	1025mbar
Test date :	November 25&26, 2016
Tested By:	Loren Luo

Requirement(s):

Spec	Item	Requirement	Applicable
§22.917(a) §24.238(a) § 27.53(h)	a)	The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.	<
Test setup	Ba	EUT Spectrum Analyzer	
Procedure	-	The EUT was connected to Spectrum Analyzer and Base S power divider. The Band Edges of low and high channels for the highest R were measured. Setting RBW as roughly BW/100.	
Remark			
Result	Pa	ss Fail	

Test Data

Yes

Yes

N/A

Test Plot

Yes (See below)



Test Report	16071296-FCC-R5-V1
Page	94 of 135

LTE Band II (Part 24E) result

BW(MHz)	Channel	Frequency (MHz)	Mode	Emission (dBm)	Limit (dBm)
4.4	40007	4050	QPSK	-21.99	-13
1.4	18607	1850	16QAM	-21.75	-13
1.4	1.4 18900	1910	QPSK	-25.53	-13
1.4		1910	16QAM	-25.98	-13
3	18615	1850	QPSK	-18.63	-13
3	10015	1650	16QAM	-16.99	-13
3	19185	1910	QPSK	-20.72	-13
3	19100	1910	16QAM	-20.46	-13
5	40005	1950	QPSK	-17.19	-13
5	18625	1850	16QAM	-17.27	-13
5	19175	1910	QPSK	-17.94	-13
5			16QAM	-17.70	-13
10	40050	18650 1850	QPSK	-16.26	-13
10	10050		16QAM	-18.19	-13
10	19150	1910	QPSK	-19.11	-13
10	19150	1910	16QAM	-18.61	-13
15	10675	1850	QPSK	-20.10	-13
15	18675	1650	16QAM	-18.07	-13
15	19125	1910	QPSK	-19.49	-13
15	19125	1910	16QAM	-19.64	-13
20	19700	1850	QPSK	-21.74	-13
20	18700	1650	16QAM	-21.86	-13
20	19100	1910	QPSK	-21.90	-13
20	19100	1910	16QAM	-22.05	-13



Test Report	16071296-FCC-R5-V1
Page	95 of 135

LTE Band IV (Part 27) result

BW(MHz)	Channel	Frequency (MHz)	Mode	Emission (dBm)	Limit (dBm)
4.4	40057	4700.0	QPSK	-24.41	-13
1.4	19957	1709.9	16QAM	-24.26	-13
4.4	20202	4755	QPSK	-27.46	-13
1.4	1.4 20393	1755	16QAM	-27.07	-13
	40005	4700.0	QPSK	-18.65	-13
3	19965	1709.9	16QAM	-21.75	-13
	00005	4755	QPSK	-22.59	-13
3	20385	1755	16QAM	-21.34	-13
	40075	4700.0	QPSK	-17.40	-13
5	19975	1709.9	16QAM	-17.16	-13
	20375	1755	QPSK	-17.28	-13
5			16QAM	-18.11	-13
40		00000	QPSK	-18.64	-13
10	20000	1709.9	16QAM	-18.64	-13
40	20250	4755	QPSK	-19.70	-13
10	20350	1755	16QAM	-20.62	-13
45	20025	4740	QPSK	-20.77	-13
15	20025	1710	16QAM	-21.32	-13
45	20225	4755	QPSK	-23.47	-13
15	20325	1755	16QAM	-20.60	-13
20	20050	4740	QPSK	-21.42	-13
20	20050	1710	16QAM	-23.02	-13
20	20200	1755	QPSK	-23.74	-13
20	20300	1755	16QAM	-22.30	-13



Test Report	16071296-FCC-R5-V1
Page	96 of 135

LTE Band XII (Part 27) result

BW(MHz)	Channel	Frequency (MHz)	Mode	Emission (dBm)	Limit (dBm)
00017	22047	600	QPSK	-27.94	-27.94 -13
1.4	23017	699	16QAM	-27.21	-13
1.4	02472	716	QPSK -23.68	-13	
1.4	23173	716	16QAM	-22.67	-13
3	23025	699	QPSK	-19.01	-13
3	23025	699	16QAM	-18.71	-13
3	23165	716	QPSK	-20.01	-13
3	23100	716	16QAM	-19.72	-13
5 00005	699	QPSK	PSK -14.90 -13	-13	
5	5 23035	099	16QAM	-15.66	-13
5 23155	716	QPSK	-19.28	-13	
	23133	716	16QAM	-18.19	-13 -13 -13 -13 -13 -13 -13 -13 -13
10 23060	22060	600	QPSK	-17.10	-13
	23000	698	16QAM	-18.75	-13
10	22120	740	QPSK	-20.35	-13
10	23130	716	16QAM	-18.12	-13

LTE Band XVII (Part 27) result

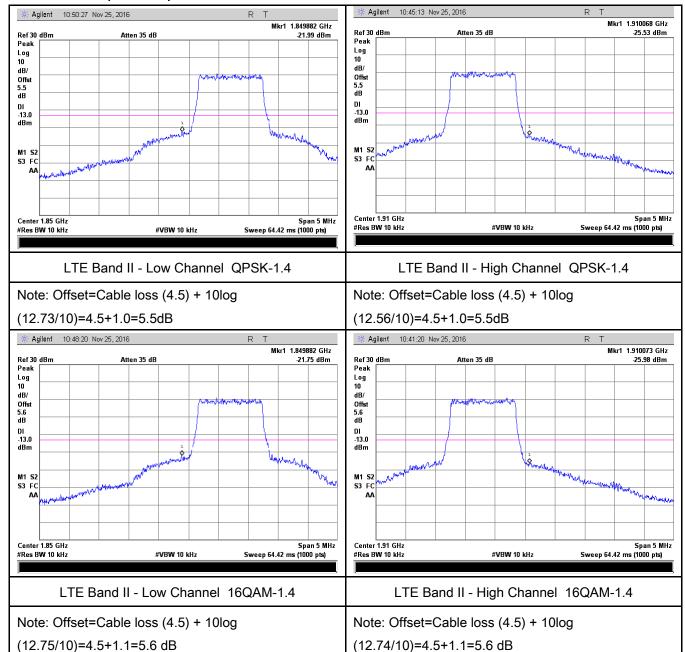
BW(MHz)	Channel	Frequency (MHz)	Mode	Emission (dBm)	Limit (dBm)
-	22755	704	QPSK	-13.72	-13
5	23755	704	16QAM	16QAM -14.52 -13 QPSK -18.04 -13	-13
5	_	746	QPSK	-18.04	-13
5 23825	23825	716	16QAM	-18.42	-13
10 23780	704	QPSK	-16.17	-13	
	23780	704	16QAM	-14.57	-13
10	23800 716	710	QPSK	-18.38	-13
		/16	16QAM	-16.74	-13



Test Report	16071296-FCC-R5-V1
Page	97 of 135

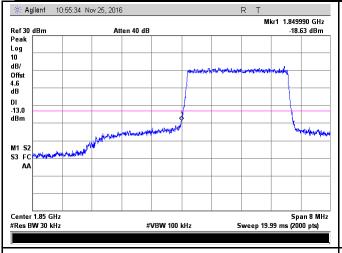
Test Plots

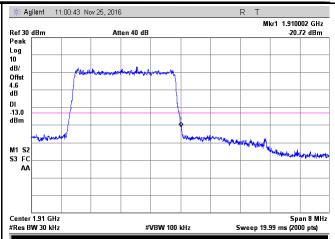
LTE Band II (Part 24E)





Test Report	16071296-FCC-R5-V1
Page	98 of 135



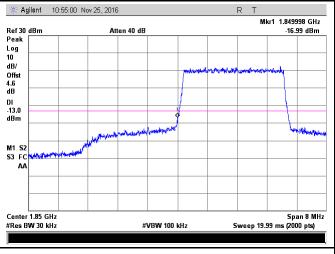


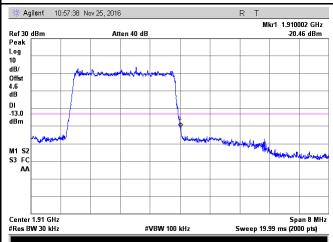
LTE Band II - Low Channel QPSK-3

LTE Band II - High Channel QPSK-3

Note: Offset=Cable loss (4.5) + 10log (30.94/30)=4.5+0.1=4.6 dB

Note: Offset=Cable loss (4.5) + 10log (30.95/30)=4.5+0.1=4.6 dB



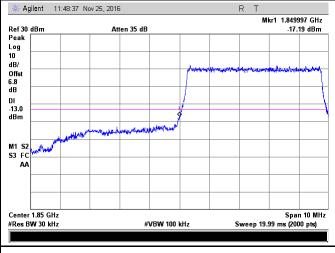


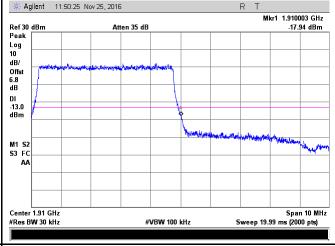
LTE Band II - Low Channel 16QAM-3

LTE Band II - High Channel 16QAM-3

Note: Offset=Cable loss (4.5) + 10log (30.84/30)=4.5+0.1=4.6 dB

Note: Offset=Cable loss (4.5) + 10log (30.89/30)=4.5+0.1=4.6 dB



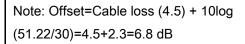


LTE Band II - Low Channel QPSK-5

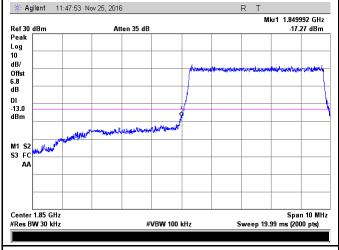
LTE Band II - High Channel QPSK-5

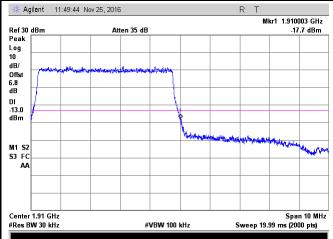


Test Report	16071296-FCC-R5-V1
Page	99 of 135



Note: Offset=Cable loss (4.5) + 10log (50.53/30)=4.5+2.3=6.8 dB



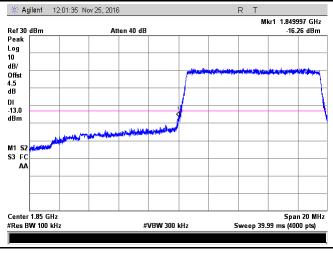


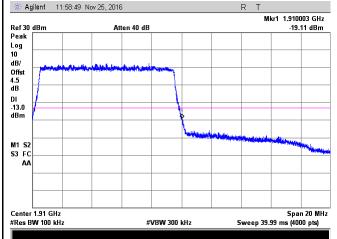
LTE Band II - Low Channel 16QAM-5

LTE Band II - High Channel 16QAM-5

Note: Offset=Cable loss (4.5) + 10log (51.09/30)=4.5+2.3=6.8 dB

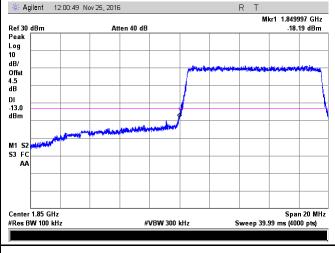
Note: Offset=Cable loss (4.5) + 10log (50.77/30)=4.5+2.3=6.8 dB

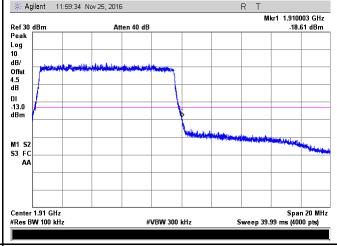




LTE Band II - Low Channel QPSK-10

LTE Band II - High Channel QPSK-10





LTE Band II - Low Channel 16QAM-10

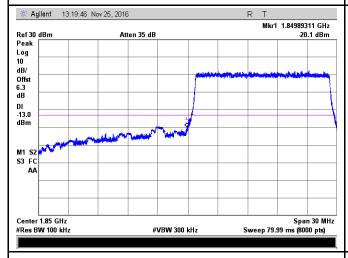
LTE Band II - High Channel 16QAM-10

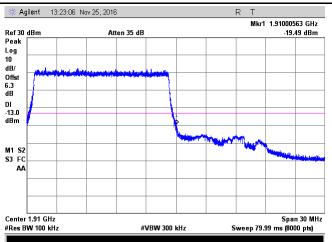


Test Report	16071296-FCC-R5-V1
Page	100 of 135

Note: Offset=Cable loss (4.5) + 10log (102.7/100)=4.5+0.0=4.5 dB

Note: Offset=Cable loss (4.5) + 10log (104.3/100)=4.5+0.0=4.5 dB



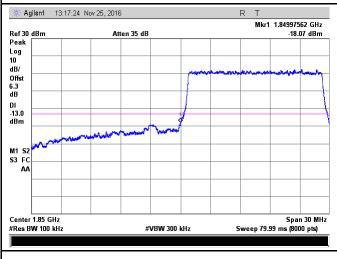


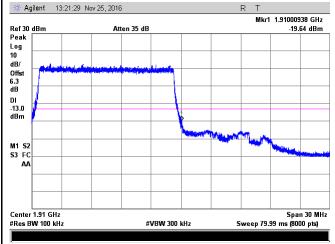
LTE Band II - Low Channel QPSK-15

LTE Band II - High Channel QPSK-15

Note: Offset=Cable loss (4.5) + 10log (149.8/100)=4.5+1.8=6.3 dB

Note: Offset=Cable loss (4.5) + 10log (149.7/100)=4.5+1.8=6.3 dB





LTE Band II - Low Channel 16QAM-15

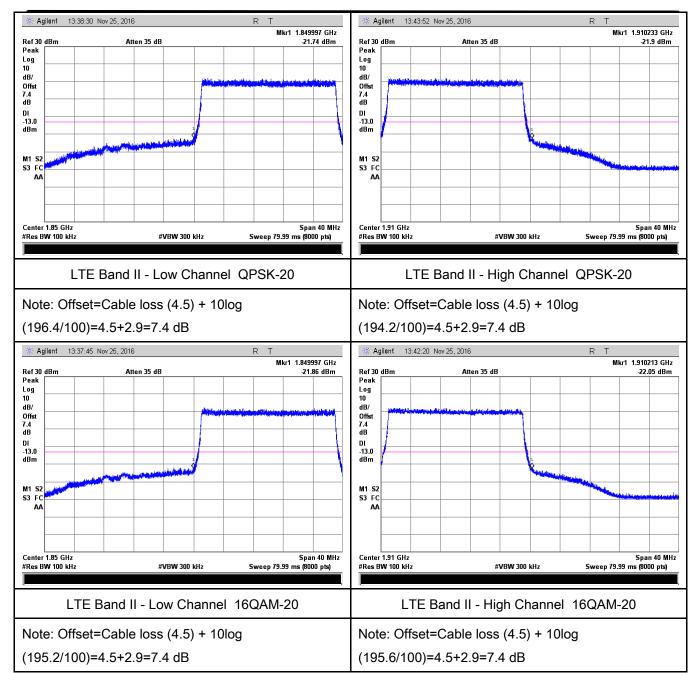
LTE Band II - High Channel 16QAM-15

Note: Offset=Cable loss (4.5) + 10log (149.9/100)=4.5+1.8=6.3 dB

Note: Offset=Cable loss (4.5) + 10log (150.1/100)=4.5+1.8=6.3 dB



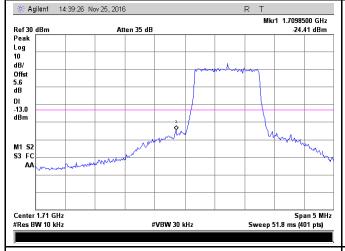
Test Report	16071296-FCC-R5-V1
Page	101 of 135

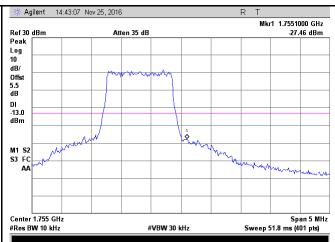




Test Report	16071296-FCC-R5-V1
Page	102 of 135

LTE Band IV (Part 27)



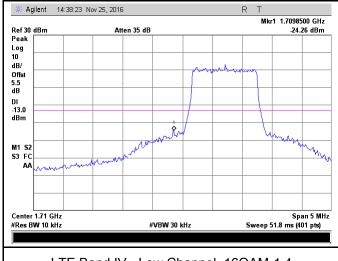


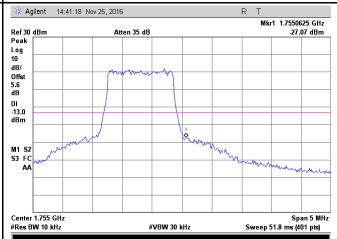
LTE Band IV - Low Channel QPSK-1.4

LTE Band IV - High Channel QPSK-1.4

Note: Offset=Cable loss (4.5) + 10log (12.96/10)=4.5+1.1=5.6 dB

Note: Offset=Cable loss (4.5) + 10log (12.70/10)=4.5+1.0=5.5 dB





LTE Band IV - Low Channel 16QAM-1.4

LTE Band IV - High Channel 16QAM-1.4

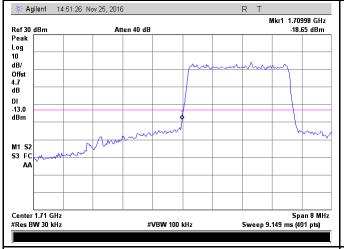
Note: Offset=Cable loss (4.5) + 10log (12.70/10)=4.5+1.0=5.5 dB

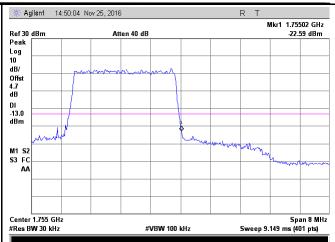
Note: Offset=Cable loss (4.5) + 10log

((12.76/10)=4.5+1.1=5.6 dB



Test Report	16071296-FCC-R5-V1
Page	103 of 135



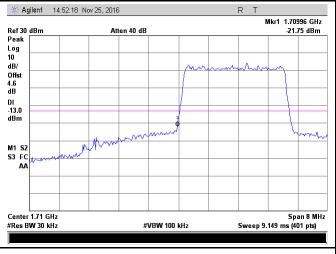


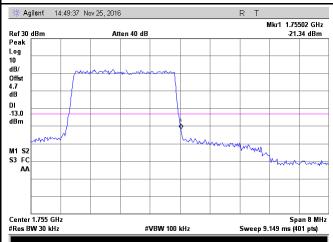
LTE Band IV - Low Channel QPSK-3

LTE Band IV - High Channel QPSK-3

Note: Offset=Cable loss (4.5) + 10log (31.07/30)=4.5+0.2=4.7 dB

Note: Offset=Cable loss (4.5) + 10log (31.14/30)=4.5+0.2=4.7 dB



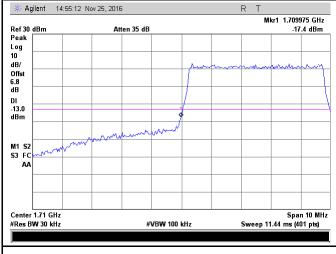


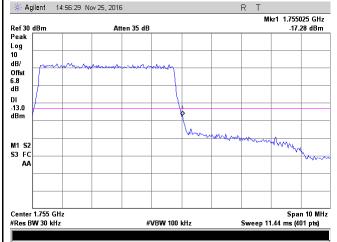
LTE Band IV - Low Channel 16QAM-3

LTE Band IV - High Channel 16QAM-3

Note: Offset=Cable loss (4.5) + 10log (30.9/30)=4.5+0.1=4.6 dB

Note: Offset=Cable loss (4.5) + 10log (31.21/30)=4.5+0.2=4.7 dB





LTE Band IV - Low Channel QPSK-5

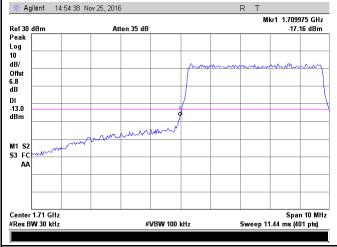
LTE Band IV - High Channel QPSK-5



Test Report	16071296-FCC-R5-V1
Page	104 of 135

Note: Offset=Cable loss (4.5) + 10log (50.96/30)=4.5+2.3=6.8 dB

Note: Offset=Cable loss (4.5) + 10log (50.49/30)=4.5+2.3=6.8 dB



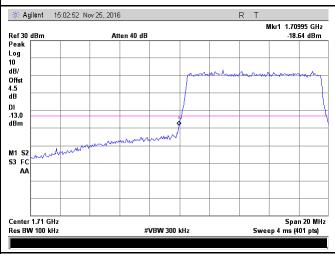


LTE Band IV - Low Channel 16QAM-5

LTE Band IV - High Channel 16QAM-5

Note: Offset=Cable loss (4.5) + 10log (51.07/30)=4.5+2.3=6.8 dB

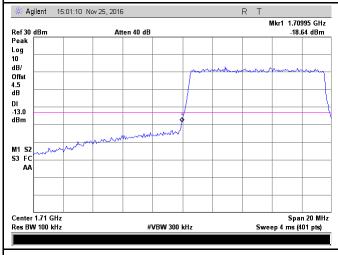
Note: Offset=Cable loss (4.5) + 10log (50.78/30)=4.5+2.3=6.8 dB

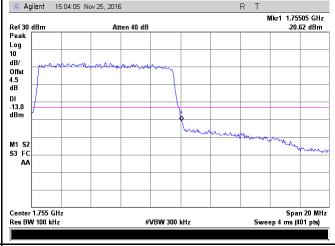




LTE Band IV - Low Channel QPSK-10

LTE Band IV - High Channel QPSK-10



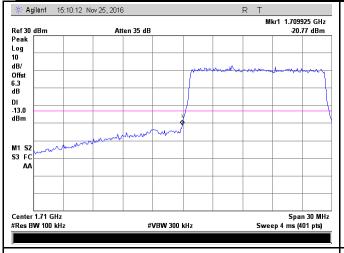


LTE Band IV - Low Channel 16QAM-10

LTE Band IV - High Channel 16QAM-10



Test Report	16071296-FCC-R5-V1
Page	105 of 135



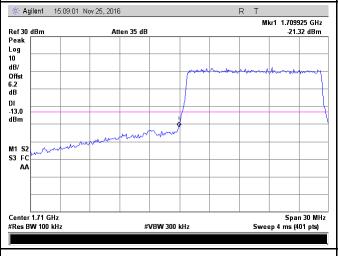


LTE Band IV - Low Channel QPSK-15

LTE Band IV - High Channel QPSK-15

Note: Offset=Cable loss (4.5) + 10log (150.1/100)=4.5+1.8=6.3 dB

Note: Offset=Cable loss (4.5) + 10log (149.7/100)=4.5+1.8=6.3 dB



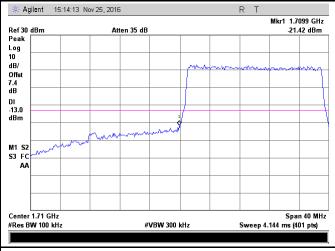


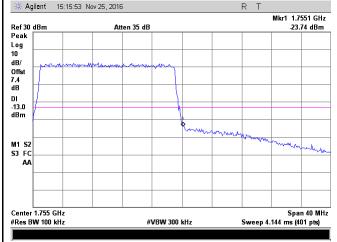
LTE Band IV - Low Channel 16QAM-15

LTE Band IV - High Channel 16QAM-15

Note: Offset=Cable loss (4.5) + 10log (150/100)=4.5+1.8=6.3 dB

Note: Offset=Cable loss (4.5) + 10log (150/100)=4.5+1.8=6.3 dB





LTE Band IV - Low Channel QPSK-20

LTE Band IV - High Channel QPSK-20

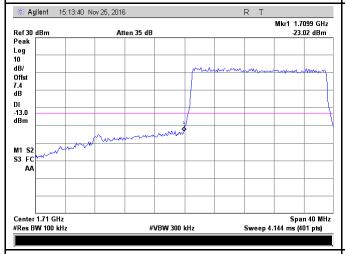


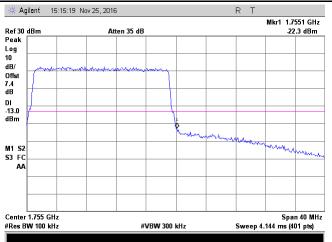
Test Report	16071296-FCC-R5-V1
Page	106 of 135

Note: Offset=Cable loss (4.5) + 10log

(195.7/100)=4.5+2.9=7.4 dB

Note: Offset=Cable loss (4.5) + 10log (193.7/100)=4.5+2.9=7.4 dB





LTE Band IV - Low Channel 16QAM-20

Note: Offset=Cable loss (4.5) + 10log

(196.0/100)=4.5+2.9=7.4dB

LTE Band IV - High Channel 16QAM-20

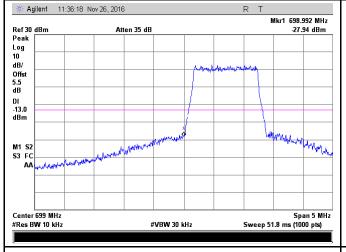
Note: Offset=Cable loss (4.5) + 10log

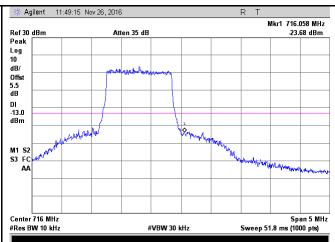
(193.9/100)=4.5+2.9=7.4 dB



Test Report	16071296-FCC-R5-V1
Page	107 of 135

LTE Band XII (Part 27)



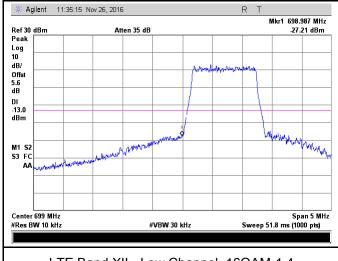


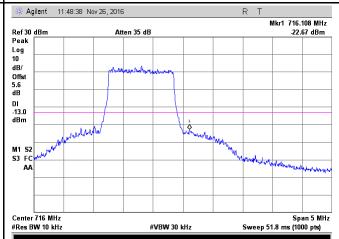
LTE Band XII - Low Channel QPSK-1.4

LTE Band XII - High Channel QPSK-1.4

Note: Offset=Cable loss (4.5) + 10log (12.71/10)=4.5+1.0=5.5 dB

Note: Offset=Cable loss (4.5) + 10log (12.59/10)=4.5+1.0=5.5 dB





LTE Band XII - Low Channel 16QAM-1.4

LTE Band XII - High Channel 16QAM-1.4

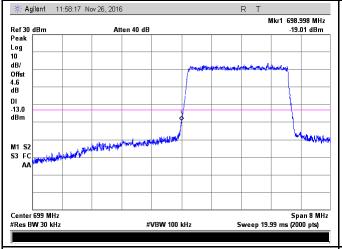
Note: Offset=Cable loss (4.5) + 10log (12.88/10)=4.5+1.1=5.6 dB

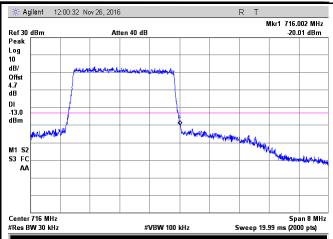
Note: Offset=Cable loss (4.5) + 10log

(12.75/10)=4.5+1.1=5.6 dB



Test Report	16071296-FCC-R5-V1
Page	108 of 135



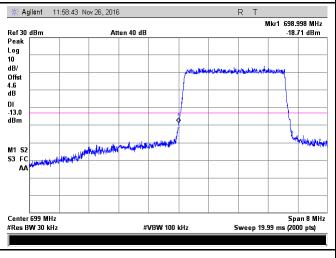


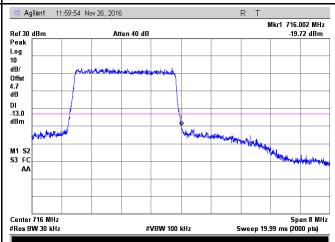
LTE Band XII - Low Channel QPSK-3

LTE Band XII - High Channel QPSK-3

Note: Offset=Cable loss (4.5) + 10log (30.72/30)=4.5+0.1=4.6 dB

Note: Offset=Cable loss (4.5) + 10log (31.09/30)=4.5+0.2=4.7 dB



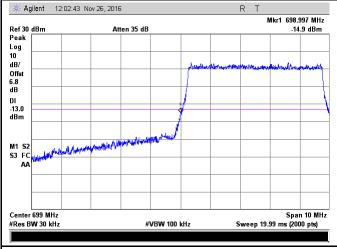


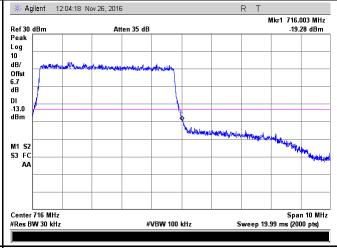
LTE Band XII - Low Channel 16QAM-3

LTE Band XII - High Channel 16QAM-3

Note: Offset=Cable loss (4.5) + 10log (30.8/30)=4.5+0.1=4.6 dB

Note: Offset=Cable loss (4.5) + 10log (31.2/30)=4.5+0.2=4.7 dB





LTE Band XII - Low Channel QPSK-5

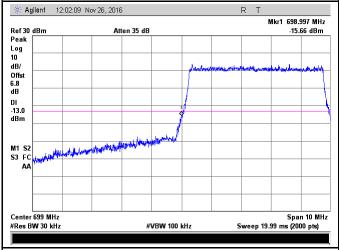
LTE Band XII - High Channel QPSK-5

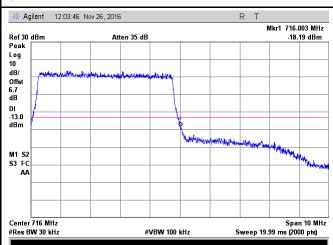


Test Report	16071296-FCC-R5-V1
Page	109 of 135

Note: Offset=Cable loss (4.5) + 10log (50.87/30)=4.5+2.3=6.8 dB

Note: Offset=Cable loss (4.5) + 10log (50.01/30)=4.5+2.2=6.7 dB



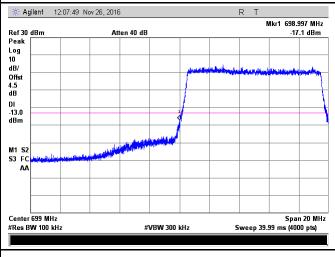


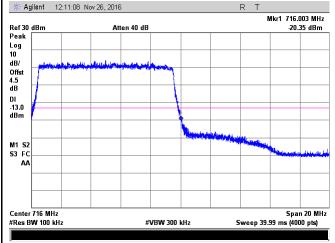
LTE Band XII - Low Channel 16QAM-5

LTE Band XII - High Channel 16QAM-5

Note: Offset=Cable loss (4.5) + 10log (50.82/30)=4.5+2.3=6.8 dB

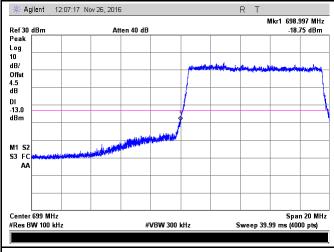
Note: Offset=Cable loss (4.5) + 10log (50.11/30)=4.5+2.2=6.7 dB

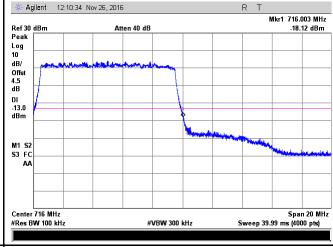




LTE Band XII - Low Channel QPSK-10

LTE Band XII - High Channel QPSK-10





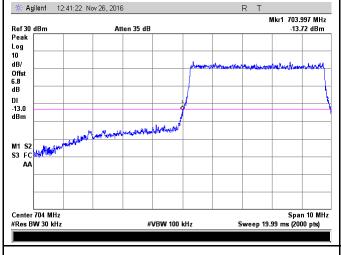
LTE Band XII - Low Channel 16QAM-10

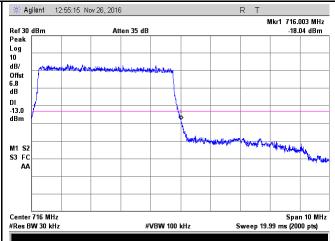
LTE Band XII - High Channel 16QAM-10



Test Report	16071296-FCC-R5-V1
Page	110 of 135

LTE Band XVII (Part 27)



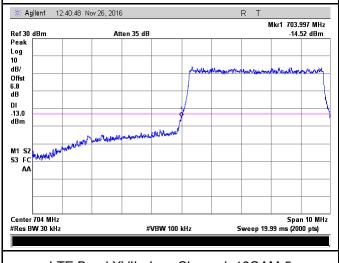


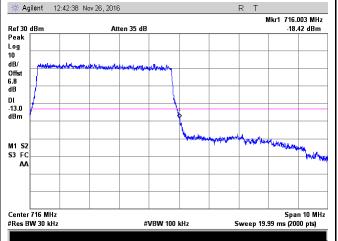
LTE Band XVII - Low Channel QPSK-5

LTE Band XVII - High Channel QPSK-5

Note: Offset=Cable loss (4.0) + 10log (51.03/30)=4.5+2.3=6.8 dB

Note: Offset=Cable loss (4.0) + 10log (50.61/30)=4.5+2.2=6.8 dB





LTE Band XVII - Low Channel 16QAM-5

LTE Band XVII - High Channel 16QAM-5

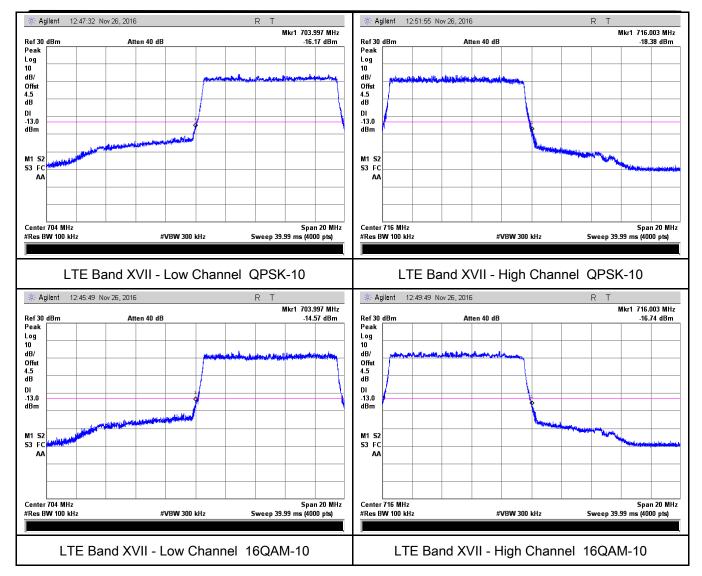
Note: Offset=Cable loss (4.0) + 10log (50.11/30)=4.5+2.3=6.8 dB

Note: Offset=Cable loss (4.0) + 10log

(50.43/30)=4.5+2.3=6.8 dB



Test Report	16071296-FCC-R5-V1
Page	111 of 135





Test Report	16071296-FCC-R5-V1
Page	112 of 135

6.8 Band Edge 27.53(m)

Temperature	23°C
Relative Humidity	59%
Atmospheric Pressure	1026mbar
Test date :	November 26, 2016
Tested By :	Loren Luo

Requirement(s):

Spec	Requirement	Applicable
§27.53(m)	According to FCC 27.53(m)(4) specified that power of any emmission ouutside of the channel edge must be attenuated below the transmitting power(P) by a factor shall be not less than 43+10log (P)dB at the channel edge, the limit of emission equal to -13dBm. And 55+10log (P)dB at 5.5MHz from the channel edges, the limit of emission equal to -25dBm. In the 1MHz bands immediately outside and adjacent to the frenqency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.	
Test Setup	Base Station Spectrum Analyzer EUT	
Test Procedure	 The EUT was connected to Spectrum Analyzer and Base Station divider. The 99% and 26 dB occupied bandwidth (BW) of the middle change of the highest RF powers. 	·
Remark		
Result	Pass Fail	

Test Data	Yes	□ _{N/A}
Test Plot	Yes (See below)	



Test Report	16071296-FCC-R5-V1
Page	113 of 135

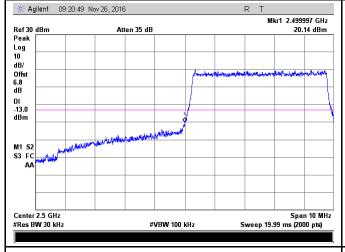
LTE Band VII (Part 27) result

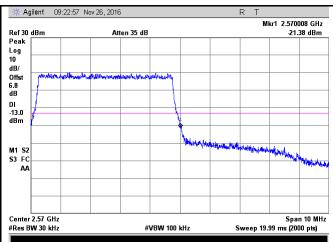
BW(MHz)	Channel	Frequency (MHz)	Mode	Emission (dBm)	Limit (dBm)
	20775	0500	QPSK	-20.14	-13
5	20775	2500	16QAM	-20.30	-13
5	21425	0570	QPSK	-21.38	-13
5	21425	2570	16QAM	-19.12	-13
10	20800	2500	QPSK	-19.74	-13
10	20000	2500	16QAM	-19.32	-13
10	21400	2570	QPSK	-21.47	-13
10	21400		16QAM	-23.13	-13
16	15 20825	2500	QPSK	-22.52	-13
15			16QAM	-22.73	-13
15	21400	21400 2570	QPSK	-26.37	-13
15 2	21400		16QAM	-22.87	-13
20	20850	20850 2500	QPSK	-21.68	-13
20			16QAM	-22.29	-13
20	21350	50 2571	QPSK	-30.90	-13
20			16QAM	-30.87	-13



Test Report	16071296-FCC-R5-V1
Page	114 of 135

LTE Band VII (Part 27)





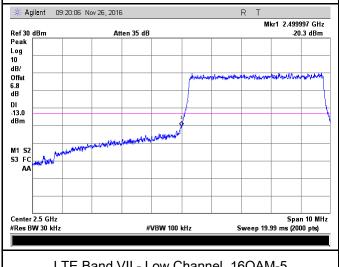
LTE Band VII - Low Channel QPSK-5

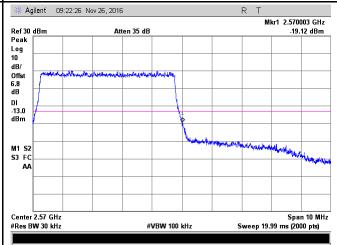
LTE Band VII - High Channel QPSK-5

Note: Offset=Cable loss (4.5) + 10log

Note: Offset=Cable loss (4.5) + 10log (50.87/30)=4.5+2.3=6.8 dB

(51.12/30)=4.5+2.3=6.8 dB





LTE Band VII - Low Channel 16QAM-5

LTE Band VII - High Channel 16QAM-5

Note: Offset=Cable loss (4.5) + 10log

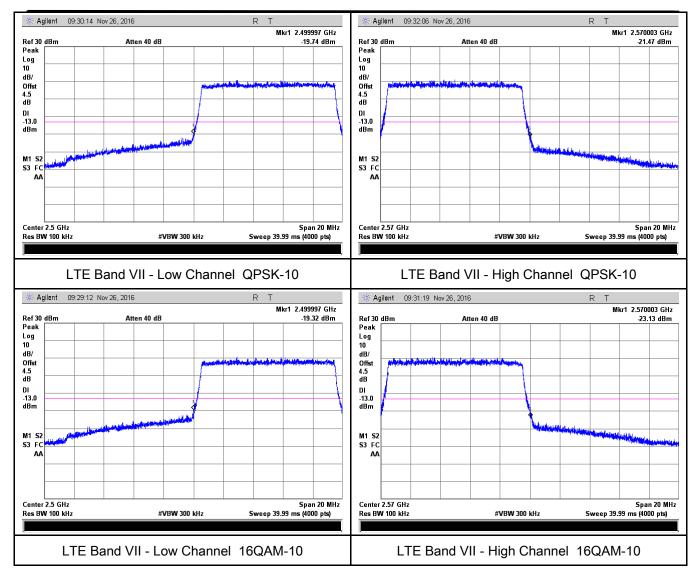
Note: Offset=Cable loss (4.5) + 10log

(51.01/30)=4.5+2.3=6.8 dB

(51/30)=4.5+2.3=6.8 dB

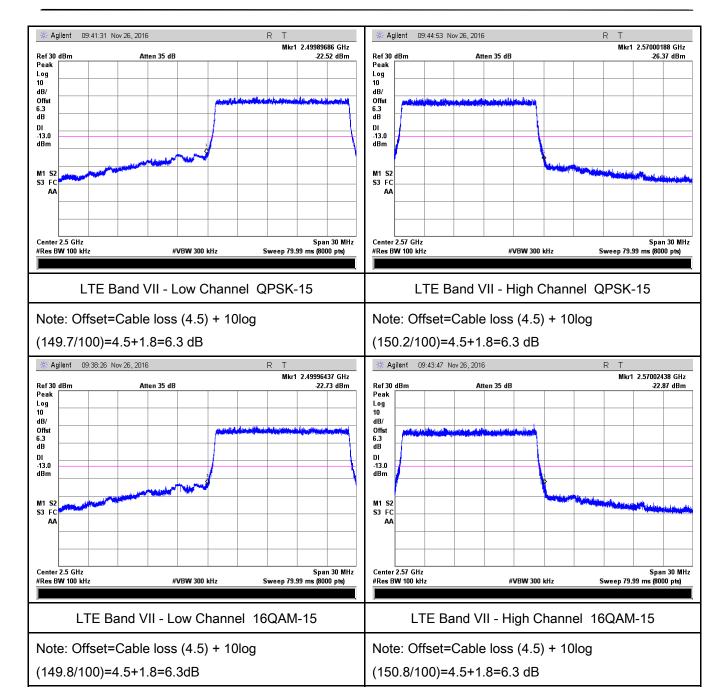


Test Report	16071296-FCC-R5-V1
Page	115 of 135



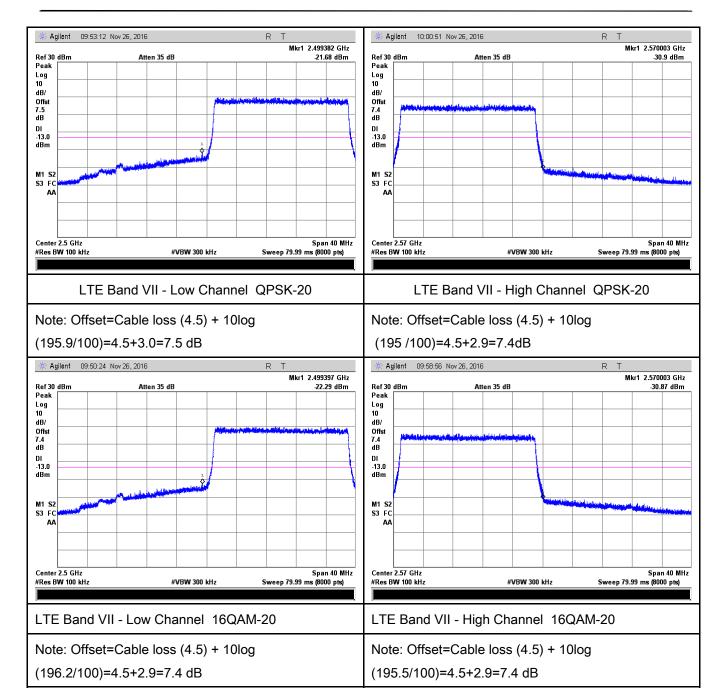


Test Report	16071296-FCC-R5-V1
Page	116 of 135





Test Report	16071296-FCC-R5-V1
Page	117 of 135





Test Report	16071296-FCC-R5-V1
Page	118 of 135

6.9 Frequency Stability

Temperature	22°C
Relative Humidity	58%
Atmospheric Pressure	1025mbar
Test date :	November 25, 2016
Tested By :	Loren Luo

Requirement(s):

Requirement(s):						
Spec	Item	Requirement				Applicable
		According to §22.355, the carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances given in Table below: Frequency Tolerance for Transmitters in the Public Mobile Services				
		Frequency	Base,	Mobile ≤ 3	Mobile ≤ 3	
		Range	fixed	watts	watts	
\$2.4055		(MHz)	(ppm)	(ppm)	(ppm)	
§2.1055,		25 to 50	20.0	20.0	50.0	
§22.355 &		to 450	5.0	5.0	50.0	
§24.235	(a)	450 to 512	2.5	5.0	5 0	~
§ 27.5(h);		821 to 896	1.5	2.5	2.5	
§ 27.54		928 to 929.	5.0	N/A	N/A	
		929 to 960.	1.5	N/A	N/A	
		2110 to 2220	10.0	N/A	N/A	
		According to §24.2	35, the frequ	ency stability sha	Il be sufficient to	
		ensure that the fundamental emissions stay within the authorized frequency block.				
	According to §27.54, The frequency stability shall be sufficient to					
		ensure that the fundamental emissions stay within the authorized bands of operation.				



Test Report	16071296-FCC-R5-V1
Page	119 of 135

Test setup	Base Station EUT Thermal Chamber			
Procedure	A communication link was established between EUT and base station. The frequency error was monitored and measured by base station under variation of ambient temperature and variation of primary supply voltage. Limit: The frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5ppm) of the center frequency.			
Remark	Frequency Stability versus Temperature: The Frequency tolerance of the carrier signal shall be maintained within 2.5ppm of the operating frequency over a temperature variation of -10°C to +55°C at normal supply voltage.			
Result	Pass Fail			

Test Data	Yes	□ _{N/A}
Test Plot	Yes (See below)	✓ _{N/A}



Test Report	16071296-FCC-R5-V1
Page	120 of 135

LTE Band II (Part 24E) result

Middle Channel, f _o = 1880 MHz					
Temperature (°C)	Power Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)	
-10		-8	0.0043	2.5	
0		-9	0.0048	2.5	
10	3.7	-9	0.0048	2.5	
20		-14	0.0074	2.5	
30		-6	0.0032	2.5	
40		-5	0.0027	2.5	
50		-14	0.0074	2.5	
55		-15	0.0080	2.5	
25	4.2	-9	0.0048	2.5	
	3.5	-11	0.0059	2.5	

LTE Band IV (Part 27) result

	17 (1 411 27) 10041				
Middle Channel, f _o = 1732.5 MHz					
Temperature (°C)	Power Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)	
-10		-11	0.0063	2.5	
0		-14	0.0081	2.5	
10		-12	0.0069	2.5	
20		-9	0.0052	2.5	
30	3.7	-8	0.0046	2.5	
40		-10	0.0058	2.5	
50		-11	0.0063	2.5	
55		-15	0.0087	2.5	
25	4.2	-7	0.0040	2.5	
	3.5	-12	0.0069	2.5	



Test Report	16071296-FCC-R5-V1
Page	121 of 135

LTE Band VII (Part 27) result

Middle Channel, f₀ = 2535 MHz					
Temperature (°C)	Power Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)	
-10		-12	0.0047	2.5	
0	3.7	-13	0.0051	2.5	
10		-14	0.0055	2.5	
20		-9	0.0036	2.5	
30		-9	0.0036	2.5	
40		-10	0.0039	2.5	
50		-6	0.0024	2.5	
55		-15	0.0059	2.5	
25	4.2	-2	0.0008	2.5	
25	3.5	-6	0.0024	2.5	



Test Report	16071296-FCC-R5-V1
Page	122 of 135

LTE Band XII (Part 27) result

	Middle Channel, f₀ = 707.5MHz			
Temperature (°C)	Power Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-10		-9	0.0027	2.5
0	3.7	-8	0.0059	2.5
10		-8	0.0037	2.5
20		-4	0.0053	2.5
30		-5	0.0064	2.5
40		-8	0.0048	2.5
50		-8	0.0064	2.5
55		-10	0.0032	2.5
25	4.2	-6	0.0059	2.5
25	3.5	-9	0.0053	2.5

LTE Band XVII (Part 27) result

	2.2 Bana XVII (Fait 27) 198ait			
Middle Channel, $f_0 = 710 \text{ MHz}$				
Temperature (°C)	Power Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-10		-8	0.0113	2.5
0	3.7	-6	0.0085	2.5
10		-6	0.0085	2.5
20		-4	0.0056	2.5
30		-9	0.0127	2.5
40		-10	0.0141	2.5
50		-5	0.0070	2.5
55		-6	0.0085	2.5
25	4.2	-10	0.0141	2.5
25	3.5	-8	0.0113	2.5



Test Report	16071296-FCC-R5-V1
Page	123 of 135

Annex A. TEST INSTRUMENT

Instrument	Model	Serial #	Cal Date	Cal Due	In use
RF Conducted Test					
Agilent ESA-E SERIES SPECTRUM ANALYZER	E4407B	MY45108319	09/15/2016	09/14/2017	<u><</u>
Power Splitter	1#	1#	08/31/2016	08/30/2017	~
Universal Radio Communication Tester	CMU200	121393	09/24/2016	09/23/2017	V
Wideband Radio Communication Tester	CMW500	120906	03/27/2016	03/26/2017	V
Temperature/Humidity Chamber	UHL-270	001	10/08/2016	10/07/2017	S
DC Power Supply	E3640A	MY40004013	09/16/2016	09/15/2017	~
RF Power Sensor	Dare RPR3006C/P/W	AY554013	09/16/2016	09/15/2017	V
Radiated Emissions					
EMI test receiver	ESL6	100262	09/16/2016	09/15/2017	<u><</u>
OPT 010 AMPLIFIER (0.1-1300MHz)	8447E	2727A02430	08/31/2016	08/30/2017	V
Microwave Preamplifier (0.5 ~ 18GHz)	PAM-118	443008	08/31/2016	08/30/2017	V
Bilog Antenna (30MHz~6GHz)	JB6	A110712	09/20/2016	09/19/2017	V
Bilog Antenna (30MHz~2GHz)	JB1	A112017	09/20/2016	09/19/2017	V
Double Ridge Horn Antenna (1 ~18GHz)	AH-118	71259	09/23/2016	09/22/2017	V
Double Ridge Horn Antenna (1 ~18GHz)	AH-118	71283	09/23/2016	09/22/2017	V
SYNTHESIZED SIGNAL GENERATOR	8665B	3744A01293	09/16/2016	09/15/2017	V
Tunable Notch Filter	3NF-800/1000- S	AA4	08/31/2016	08/30/2017	V



Test Report	16071296-FCC-R5-V1
Page	124 of 135

Tunable Notch Filter 3NF- A	M 4 08/31/2016	08/30/2017	✓
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Test Report	16071296-FCC-R5-V1
Page	125 of 135

Annex B. EUT And Test Setup Photographs

Annex B.i. Photograph: EUT External Photo

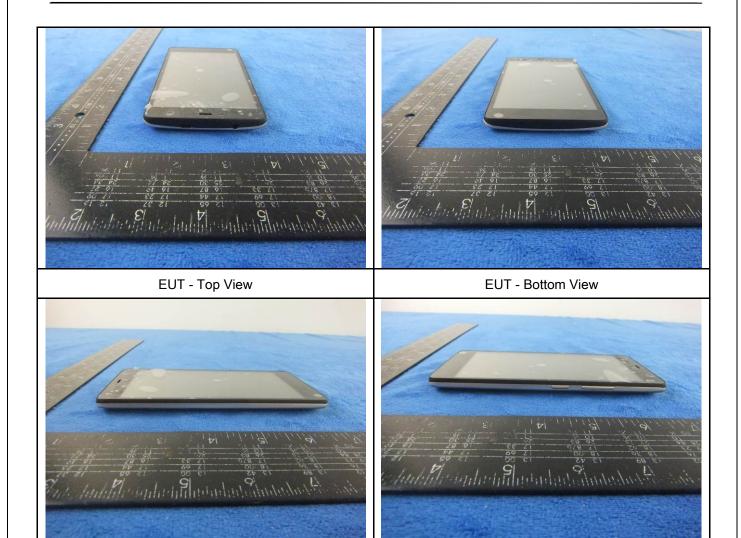




EUT - Left View

Test Report	16071296-FCC-R5-V1
Page	126 of 135

EUT - Right View





Test Report	16071296-FCC-R5-V1
Page	127 of 135

Annex B.ii. Photograph: EUT Internal Photo



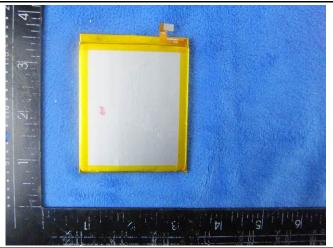
Cover Off - Top View 1



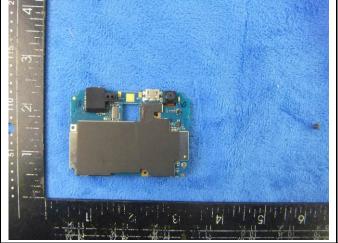
Cover Off - Top View 2



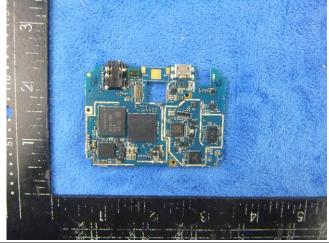
Battery - Front View



Battery - Rear View



Mainboard with Shielding - Front View



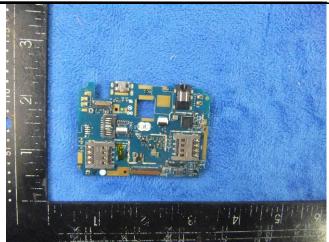
Mainboard without Shielding - Front View



Test Report	16071296-FCC-R5-V1
Page	128 of 135



Mainboard with Shielding - Rear View



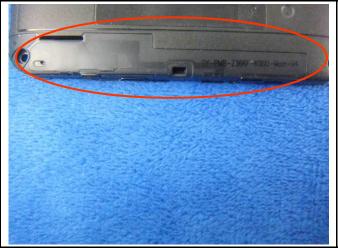
Mainboard without Shielding - Rear View



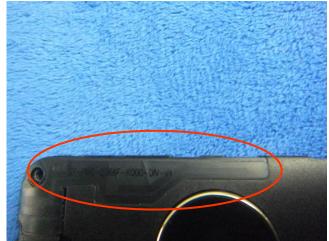
LCD - Front View



LCD - Rear View



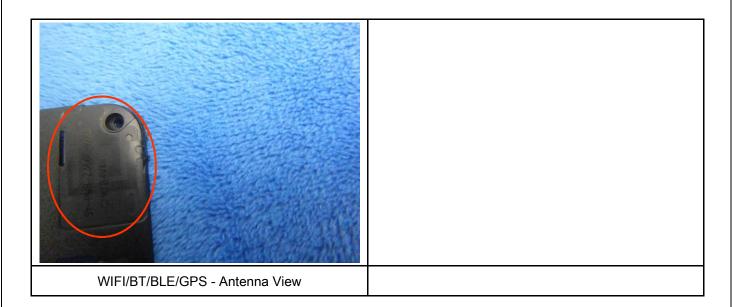
GSM/PCS/UMTS-FDD Antenna View



LTE - Antenna View



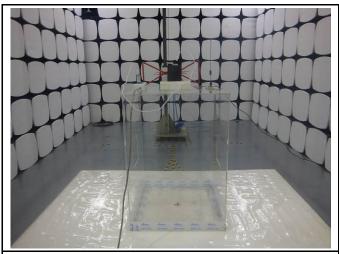
Test Report	16071296-FCC-R5-V1
Page	129 of 135



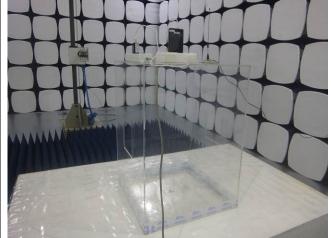


Test Report	16071296-FCC-R5-V1	
Page	130 of 135	

Annex B.iii. Photograph: Test Setup Photo







Radiated Spurious Emissions Test Setup Above 1GHz

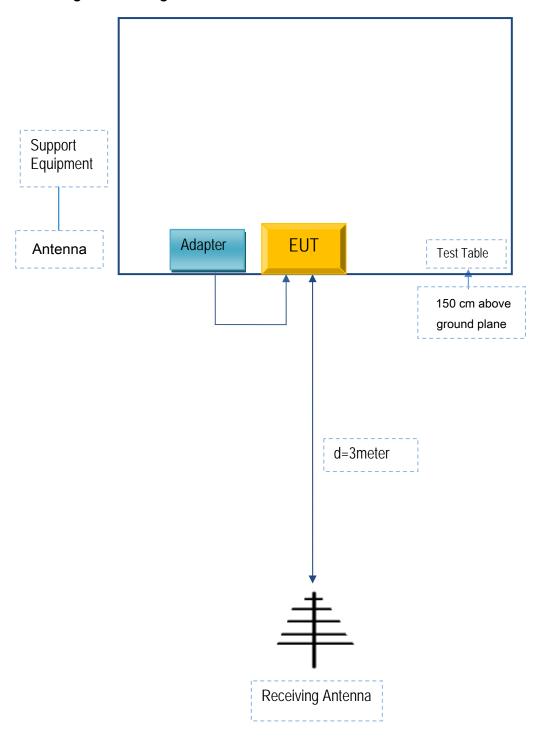


Test Report	16071296-FCC-R5-V1	
Page	131 of 135	

Annex C. TEST SETUP AND SUPPORTING EQUIPMENT

Annex C.ii. TEST SET UP BLOCK

Block Configuration Diagram for Radiated Emissions





Test Report	16071296-FCC-R5-V1	
Page	132 of 135	

Annex C. il. SUPPORTING EQUIPMENT DESCRIPTION

The following is a description of supporting equipment and details of cables used with the EUT.

Supporting Equipment:

Manufacturer	Equipment Description	Model	Serial No
Posh Mobile Limited	Adapter	A88-501500	S0523DF2

Supporting Cable:

Cable type	Shield Type	Ferrite Core	Length	Serial No
USB Cable	Un-shielding	No	0.8m	S0523DF2



Test Report	16071296-FCC-R5-V1	
Page	133 of 135	

Annex C.ii. EUT OPERATING CONKITIONS

N/A



Test Report	16071296-FCC-R5-V1	
Page	134 of 135	

Annex D. User Manual / Block Diagram / Schematics / Partlist

Please see the attachment



Test Report	16071296-FCC-R5-V1	
Page	135 of 135	

Annex E. DECLARATION OF SIMILARITY

Posh Mobile Limited

To: SIEMIC,775 Montague Expressway, Milpitas, CA95035, USA

Declaration Letter

Dear Sir,

For our business issue and marketing requirement, we would like to list 4 model numbers on the FCC certificates and reports, as following:

Model No.: L551 L551A L551B L551C

We declare that, all the model PCB, Antenna and Appearance shape, accessories are the same.

The difference of these is listed as below:

Main Model No.	Serial Model No.	Difference Different model name and color
L551	L551A L551B L551C	

Thank you!

Signature:

Printed name/title: Warren Chan

Address: 1011A, 10/F., Harbour Centre Tower 1 No.1 Hok Cheung St., Hung Hom, Kowloon, Hong Kong