

# TEST REPORT

**Reference No.**..... : WTS17S0888240-4E V3  
**FCC ID** ..... : 2AC88-G1701  
**Applicant**..... : HONGKONG UCLOUDLINK NETWORK TECHNOLOGY LIMITED  
**Address**..... : Suite 603, 6/F, Laws Commercial Plaza, 788 Cheung Sha Wan Road,  
Kowloon, HongKong  
**Manufacturer** ..... : Shenzhen uCloudlink Network Technology, Co., Ltd  
**Address**..... : 3rd Floor, A Part of Building 1, Shenzhen Software Industry Base,  
nanshan district xuefu Road Post Code 518057, Shenzhen City,  
Guangdong Province, P.R.China  
**Product**..... : Smart Phone  
**Model(s)** ..... : G1701  
**Brand Name**..... : GlocalMe  
**Standards**..... : FCC CFR47 Part 22 Subpart H: 2016  
FCC CFR47 Part 24 Subpart E: 2016  
FCC CFR47 Part 27: 2016  
FCC CFR47 Part 90: 2016  
**Date of Receipt sample** .... : 2017-08-23  
**Date of Test** ..... : 2017-08-24 to 2018-01-16  
**Date of Issue**..... : 2018-01-16  
**Test Result**..... : **Pass**

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

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## 2 Laboratories Introduction

**Waltek Services Test Group Ltd.** is one of the largest and the most comprehensive third party testing organizations in China, our headquarter located in Shenzhen (CNAS Registration No. L3110, A2LA Certificate Number: 4243.01) and have branches in Foshan (CNAS Registration No. L6478), Dongguan (CNAS Registration No. L9950), Zhongshan, Suzhou (CNAS Registration No. L7754), Ningbo and Hong Kong, Our test capability covered four large fields: safety test. Electronic Magnetic Compatibility(EMC), reliability and energy performance, Chemical test. Meanwhile, Waltek has got recognition as registration and accreditation laboratory from EMSD (Electrical and Mechanical Services Department), and American Energy star, FCC(The Federal Communications Commission), CPSC(Consumer Product Safety Commission), CEC(California energy efficiency), IC(Industry Canada) and ELI(Efficient Lighting Initiative). It's the strategic partner and data recognition laboratory of international authoritative organizations, such as UL, Intertek(ETL-SEMKO), CSA, TÜV Rheinland, TÜV SÜD, etc. As a professional, comprehensive, justice international test organization, we still keep the scientific and rigorous work attitude to help each client satisfy the international standards and assist their product enter into globe market smoothly.

### Waltek Services (Shenzhen) Co., Ltd.

#### A. Accreditations for Conformity Assessment (International)

Country/Region	Accreditation Body	Scope	Note
USA	<b>CNAS</b> (Registration No.: L3110) <b>A2LA</b> (Certificate No.: 4243.01)	FCC ID \ DOC \ VOC	1
Canada		IC ID \ VOC	2
Japan		MIC-T \ MIC-R	-
Europe		EMCD \ RED	-
Taiwan		NCC	-
Hong Kong		OFCA	-
Australia		RCM	-
India	<b>International Services</b>	WPC	-
Thailand		NTC	-
Singapore		IDA	-
Note:			
1. FCC Designation No.: CN1201. Test Firm Registration No.: 523476.			
2. IC Canada Registration No.: 7760A			

#### B. TCBs and Notify Bodies Recognized Testing Laboratory.

Recognized Testing Laboratory of ...	Notify body number
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TUV Rheinland	Optional.
Intertek	
TUV SUD	
SGS	
Phoenix Testlab GmbH	0700
Element Materials Technology Warwick Ltd	0891
Timco Engineering, Inc.	1177
Eurofins Product Service GmbH	0681

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#### 4 Revision History

Test report No.	Date of Receipt sample	Date of Test	Date of Issue	Purpose	Comment	Approved
WTS17S08882 40-4E	2017-08-23	2017-08-24 to 2017-11-30	2017-12-12	original	-	Replaced
WTS17S08882 40-4E V1	2017-08-23	2017-08-24 to 2017-11-30	2018-01-12	Version 1	Updated	Replaced
WTS17S08882 40-4E V2	2017-08-23	2017-08-24 to 2017-11-30	2018-01-13	Version 2	Updated	Replaced
WTS17S08882 40-4E V3	2017-08-23	2017-08-24 to 2018-01-16	2018-01-16	Version 3	Updated	Valid

## 5 General Information

### 5.1 General Description of E.U.T.

Product:	Smart Phone
Model(s):	G1701
Model Description:	N/A
GSM Band(s):	GSM 850/900/1800/1900MHz
GPRS/EGPRS Class:	12
WCDMA Band(s):	FDD Band I/II/IV/V
LTE Band(s):	FDD Band 2/4/5/7/12/13/17/25/26 TDD Band 41
Wi-Fi Specification:	2.4G-802.11b/g/n HT20 5G-802.11a/n HT20
Bluetooth Version:	Bluetooth v4.0 with BLE
GPS:	Support
NFC:	Support
Hardware Version:	G1701_VER_B
Software Version:	S1_C00_TSV1.0.001.008.171030 user dev-keys
Highest frequency (Exclude Radio):	1.25GHz
Storage Location:	Internal Storage

Note: This EUT has two SIM card slots, and use same one RF module. We found that RF parameters are the same, when we insert the card 1 and card 2. So we usually performed the test under main card slot 1.

### 5.2 Details of E.U.T.

Operation Frequency:	GSM/GPRS/EDGE 850: 824~849MHz PCS/GPRS/EDGE 1900: 1850~1910MHz WCDMA Band II: 1850~1910MHz WCDMA Band V: 824~849MHz WCDMA Band IV: 1710~1755MHz LTE Band 2: 1850~1910MHz LTE Band 4: 1710~1755MHz LTE Band 5: 824~849MHz LTE Band 7: 2500~2570MHz LTE Band 12: 699~716MHz LTE Band 13: 777~787MHz LTE Band 17: 704~716MHz LTE Band 25 1850~1915MHz LTE Band 26(Part 90): 814~824MHz LTE Band 26(Part 22): 824~849MHz
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	LTE Band 41: 2496~2690MHz
	WiFi:
	802.11b/g/n HT20: 2412~2462MHz
	802.11a/ n(HT20): 5150MHz~5250MHz
	5725MHz~5850MHz
	Bluetooth: 2402~2480MHz
	NFC:13.56MHz
Max. RF output power:	GSM 850: 32.82dBm
	PCS1900: 29.98dBm
	WCDMA Band II: 22.81dBm
	WCDMA Band V: 22.70dBm
	WCDMA Band IV: 22.81dBm
	LTE Band 2: 23.90dBm
	LTE Band 4: 22.89dBm
	LTE Band 5: 22.95dBm
	LTE Band 7: 21.97dBm
	LTE Band 12: 23.88dBm
	LTE Band 13: 23.73dBm
	LTE Band 17: 22.93dBm
	LTE Band 25: 22.95dBm
	LTE Band 26 (Part 90): 22.91dBm
	LTE Band 26 (Part 22): 22.98dBm
	LTE Band 41: 22.95dBm
	WiFi(2.4G): 9.49dBm
	WiFi(5G) Band I: 9.52dBm
	WiFi(5G)Band IV: 7.44dBm
	Bluetooth: 2.13dBm
Type of Modulation:	GSM,GPRS: GMSK
	EDGE: GMSK, 8PSK
	WCDMA: BPSK, 16QAM
	LTE: QPSK, 16QAM
	WiFi: CCK, OFDM
	Bluetooth: GFSK, Pi/4 DQPSK, 8DPSK
	NFC: ASK, 2ASK
Antenna installation:	GSM/WCDMA/LTE: internal permanent antenna
	WiFi/Bluetooth: internal permanent antenna
	NFC: Loop antenna
Antenna Gain:	GSM 850: -1.56dBi
	PCS1900: 1.79dBi
	WCDMA Band II: 1.79dBi
	WCDMA Band V: -1.56dBi



	WCDMA Band IV: -0.12dBi
	LTE Band 2: 1.79dBi
	LTE Band 4: -0.12dBi
	LTE Band 5: -1.56dBi
	LTE Band 7: 3.01dBi
	LTE Band 12: -2.76dBi
	LTE Band 13: -1.28dBi
	LTE Band 17: -2.76dBi
	LTE Band 25: 1.79dBi
	LTE Band 26 -1.56dBi
	LTE Band 41 3.62dBi
	WiFi(2.4G): 2.47dBi
	WiFi(5G): 2.47dBi
	Bluetooth: 2.47dBi
Ratings:	Battery DC 3.85V, 2900mAh
	DC 5V, 2.0A; 9V, 2.0A; 12V, 1.5A charging from adapter 1 (Adapter Input: 100-240V~50/60Hz 0.6A)
	DC 5V, 2.0A charging from adapter 2 (Adapter Input: 100-240V~50/60Hz MAX 0.3A)
Adapter1:	Manufacture: ShenZhen HuaJin Electronics CO.,LTD Model No.: HJ-FC010K7-US
Adapter2:	Manufacture: SHENZHEN HONOR ELECTRONIC CO.,LTD Model No.: ADS-12DA-05 05010E
Type of Emission:	LTE Band 2 1.4MHz: 1M09G7D(QPSK), 1M09W7D(16QAM) LTE Band 2 3MHz: 2M72G7D(QPSK), 2M72W7D(16QAM) LTE Band 2 5MHz: 4M50G7D(QPSK), 4M50W7D(16QAM) LTE Band 2 10 MHz: 8M92G7D(QPSK), 8M92W7D(16QAM) LTE Band 2 15MHz: 13M5G7D(QPSK), 13M5W7D(16QAM) LTE Band 2 20MHz: 17M9G7D(QPSK), 17M9W7D(16QAM) LTE Band 4 1.4MHz: 1M08G7D(QPSK), 1M08W7D(16QAM) LTE Band 4 3MHz: 2M73G7D(QPSK), 2M73W7D(16QAM) LTE Band 4 5MHz: 4M50G7D(QPSK), 4M50W7D(16QAM) LTE Band 4 10 MHz: 8M92G7D(QPSK), 8M92W7D(16QAM) LTE Band 4 15MHz: 13M5G7D(QPSK), 13M5W7D(16QAM) LTE Band 4 20MHz: 17M9G7D(QPSK), 17M9W7D(16QAM) LTE Band 5 1.4MHz: 1M11G7D(QPSK), 1M10W7D(16QAM) LTE Band 5 3MHz: 2M80G7D(QPSK), 2M76W7D(16QAM) LTE Band 5 5MHz: 4M50G7D(QPSK), 4M50W7D(16QAM) LTE Band 5 10 MHz: 8M91G7D(QPSK), 8M90W7D(16QAM) LTE Band 7 5MHz: 4M50G7D(QPSK), 4M50W7D(16QAM)

LTE Band 7 10 MHz: 8M94G7D(QPSK), 8M93W7D(16QAM)  
LTE Band 7 15MHz: 13M5G7D(QPSK), 13M5W7D(16QAM)  
LTE Band 7 20MHz: 17M9G7D(QPSK), 17M9W7D(16QAM)  
LTE Band 12 1.4MHz: 1M09G7D(QPSK), 1M08W7D(16QAM)  
LTE Band 12 3MHz: 2M72G7D(QPSK), 2M72W7D(16QAM)  
LTE Band 12 5MHz: 4M45G7D(QPSK), 4M46W7D(16QAM)  
LTE Band 12 10MHz: 8M94G7D(QPSK), 8M95W7D(16QAM)  
LTE Band 13 5MHz: 4M50G7D(QPSK), 4M50W7D(16QAM)  
LTE Band 13 10 MHz: 8M91G7D(QPSK), 8M91W7D(16QAM)  
LTE Band 17 5MHz: 4M51G7D(QPSK), 4M50W7D(16QAM)  
LTE Band 17 10 MHz: 8M94G7D(QPSK), 8M94W7D(16QAM)  
LTE Band 25 1.4MHz: 1M11G7D(QPSK), 1M10W7D(16QAM)  
LTE Band 25 3MHz: 2M75G7D(QPSK), 2M74W7D(16QAM)  
LTE Band 25 5MHz: 4M50G7D(QPSK), 4M51W7D(16QAM)  
LTE Band 25 10 MHz: 8M96G7D(QPSK), 8M95W7D(16QAM)  
LTE Band 25 15MHz: 13M4G7D(QPSK), 13M4W7D(16QAM)  
LTE Band 25 20MHz: 17M9G7D(QPSK), 17M9W7D(16QAM)  
LTE Band 26-Part 90 1.4MHz: 1M09G7D(QPSK), 1M09W7D(16QAM)  
LTE Band 26-Part 90 3MHz: 2M72G7D(QPSK), 2M72W7D(16QAM)  
LTE Band 26-Part 90 5MHz: 4M50G7D(QPSK), 4M48W7D(16QAM)  
LTE Band 26-Part 90 10 MHz: 8M91G7D(QPSK), 8M90W7D(16QAM)  
LTE Band 26-Part 22 1.4MHz: 1M09G7D(QPSK), 1M09W7D(16QAM)  
LTE Band 26-Part 22 3MHz: 2M72G7D(QPSK), 2M72W7D(16QAM)  
LTE Band 26-Part 22 5MHz: 4M50G7D(QPSK), 4M49W7D(16QAM)  
LTE Band 26-Part 22 10 MHz: 8M90G7D(QPSK), 8M90W7D(16QAM)  
LTE Band 26-Part 22 15MHz: 13M5G7D(QPSK), 13M5W7D(16QAM)  
LTE Band 41 5MHz: 4M48G7D(QPSK), 4M48W7D(16QAM)  
LTE Band 41 10 MHz: 8M91G7D(QPSK), 8M91W7D(16QAM)  
LTE Band 41 15 MHz: 13M4G7D(QPSK), 13M4W7D(16QAM)  
LTE Band 41 20 MHz: 17M85G7D(QPSK), 17M85W7D(16QAM)

### 5.3 Test Mode

All test mode(s) and condition(s) mentioned were considered and evaluated respectively by performing full tests, the worst data were recorded and reported.

Support Band	Test Mode BW(MHz)	Channel Frequency	Channel Number
LTE Band 2	1.4	1850.7 MHz	18607
		1880.0 MHz	18900
		1909.3 MHz	19193
	3	1851.5 MHz	18615
		1880.0 MHz	18900
		1908.5 MHz	19185
	5	1852.5 MHz	18625
		1880.0 MHz	18900
		1907.5 MHz	19175
	10	1855.0 MHz	18650
		1880.0 MHz	18900
		1905.0 MHz	19150
	15	1857.5 MHz	18675
		1880.0 MHz	18900
		1902.5 MHz	19125
20	1860.0 MHz	18700	
	1880.0 MHz	18900	
	1900.0 MHz	19100	
LTE Band 4	1.4	1710.7 MHz	19957
		1732.5 MHz	20175
		1754.3 MHz	20393
	3	1711.5 MHz	19965
		1732.5 MHz	20175
		1753.5 MHz	20385
	5	1712.5 MHz	19975
		1732.5 MHz	20175
		1752.5 MHz	20375
	10	1715.0 MHz	20000
		1732.5 MHz	20175
		1750.0 MHz	20350
	15	1717.5 MHz	20025
		1732.5 MHz	20175
		1747.5 MHz	20325
20	1720.0 MHz	20050	
	1732.5 MHz	20175	
	1745.0 MHz	20300	
LTE Band 5	1.4	824.7 MHz	20407
		836.5 MHz	20525
		848.3 MHz	20643

	3	825.5 MHz	20415
		836.5 MHz	20525
		847.5 MHz	20635
	5	826.5 MHz	20425
		836.5 MHz	20525
		846.5 MHz	20625
	10	829.0 MHz	20450
		836.5 MHz	20525
		844.0 MHz	20600
LTE Band 7	5	2502.5 MHz	20775
		2535.0 MHz	21100
		2567.5 MHz	21425
	10	2505.0 MHz	20800
		2535.0 MHz	21100
		2565.0 MHz	21400
	15	2507.5 MHz	20825
		2535.0 MHz	21100
		2562.5 MHz	21375
20	2510.0 MHz	20850	
	2535.0 MHz	21100	
	2560.0 MHz	21350	
LTE Band 12	1.4	699.7 MHz	23017
		707.5 MHz	23095
		715.3 MHz	23173
	3	700.5 MHz	23025
		707.5 MHz	23095
		714.5 MHz	23165
	5	701.5 MHz	23035
		707.5 MHz	23095
		713.5 MHz	23155
10	704.0 MHz	23060	
	707.5 MHz	23095	
	711.0 MHz	23130	
LTE Band 13	5	779.5 MHz	23205
		782.0 MHz	23230
		784.5 MHz	23255
10	782.0 MHz	23230	
LTE Band 17	5	706.5 MHz	23755
		710.0 MHz	23790
		713.5 MHz	23825
	10	709.0 MHz	23780
		710.0 MHz	23790
711.0 MHz		23800	
LTE Band 25	1.4	1850.7 MHz	26047
		1882.5 MHz	26365

	3	1914.3 MHz	26683
		1851.5 MHz	26055
		1882.5 MHz	26365
		1913.5 MHz	26675
	5	1852.5 MHz	26065
		1882.5 MHz	26365
		1912.5 MHz	26665
	10	1855.0 MHz	26090
		1882.5 MHz	26365
		1910.0 MHz	26640
	15	1857.5 MHz	26155
		1882.5 MHz	26365
1907.5 MHz		26615	
20	1860.0 MHz	26140	
	1882.5 MHz	26365	
	1905.0 MHz	26590	
LTE Band 26 Part 90S UL: 814-824MHz	1.4	814.7 MHz	26697
		823.3 MHz	26783
	3	815.5 MHz	26705
		822.5 MHz	26775
5	816.5 MHz	26715	
	821.5 MHz	26765	
10	819.0 MHz	26740	
LTE Band 26 Part 22H UL: 824-849MHz	1.4	824.7 MHz	26797
		836.5 MHz	26915
		848.3 MHz	27033
	3	825.5 MHz	26805
		836.5 MHz	26915
		847.5 MHz	27025
	5	826.5 MHz	26815
		836.5 MHz	26915
		846.5 MHz	27015
	10	829.0 MHz	26840
		836.5 MHz	26915
		844.0 MHz	26990
15	831.5 MHz	26865	
	836.5 MHz	26915	
	841.5 MHz	26965	
LTE Band 41	5	2498.5 MHz	39675
		2593.0 MHz	40620
		2687.5MHz	41565
	10	2501.0 MHz	39700
		2593.0 MHz	40620
	15	2685.0 MHz	41540
2503.5 MHz		39725	
		2593.0 MHz	40620

		2682.5 MHz	41515
		2687.5 MHz	39750
	20	2593.0 MHz	40620
		2680.0 MHz	41490
Remark: All mode(s) were tested and the worst data was recorded.			

## 6 Test Summary

Test Items	Test Requirement	Result
RF Output Power	2.1046 22.913 (a) 24.232 (c) 27.50(h.2) 27.50(d.4) 90.635	PASS
Peak-to-Average Ratio	24.232 (d) 27.50(d)	PASS
Bandwidth	2.1049 22.905 22.917 24.238 27.53(a) 90.691	PASS
Spurious Emissions at Antenna Terminal	2.1051 22.917 (a) 24.238 (a) 27.53(h) 27.53(m)(4) 90.691	PASS
Field Strength of Spurious Radiation	2.1053 22.917 (a) 24.238 (a) 27.53(h) 27.53(m)(4) 90.691	PASS
Out of band emission	22.917 (a) 24.238 (a) 27.53(h) 27.53(m)(4) 90.691	PASS
Frequency Stability	2.1055 22.355 24.235 27.5(h) 27.54 90.231	PASS
Maximum Permissible Exposure (SAR)	1.1307 2.1093	PASS

## 7 Equipment Used during Test

### 7.1 Equipments List

Conducted Emissions Test Site 1#						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1.	EMI Test Receiver	R&S	ESCI	100947	2017-09-12	2018-09-11
2.	LISN	R&S	ENV216	101215	2017-09-12	2018-09-11
3.	Cable	Top	TYPE16(3.5M)	-	2017-09-12	2018-09-11
Conducted Emissions Test Site 2#						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1.	EMI Test Receiver	R&S	ESCI	101155	2017-09-12	2018-09-11
2.	LISN	SCHWARZBECK	NSLK 8128	8128-289	2017-09-12	2018-09-11
3.	Limitter	York	MTS-IMP-136	261115-001-0024	2017-09-12	2018-09-11
4.	Cable	LARGE	RF300	-	2017-09-12	2018-09-11
3m Semi-anechoic Chamber for Radiation Emissions Test site 1#						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1	Spectrum Analyzer	R&S	FSP	100091	2017-04-29	2018-04-28
2	Active Loop Antenna	Beijing Dazhi	ZN30900A	-	2017-04-09	2018-04-08
3	Trilog Broadband Antenna	SCHWARZBECK	VULB9163	336	2017-04-09	2018-04-08
4	Coaxial Cable (below 1GHz)	Top	TYPE16(13M)	-	2017-09-12	2018-09-11
5	Broad-band Horn Antenna	SCHWARZBECK	BBHA 9120 D	667	2017-04-09	2018-04-08
6	Broad-band Horn Antenna	SCHWARZBECK	BBHA 9170	335	2017-04-09	2018-04-08
7	Broadband Preamplifier	COMPLIANCE DIRECTION	PAP-1G18	2004	2017-04-13	2018-04-12
8	Coaxial Cable (above 1GHz)	Top	1GHz-25GHz	EW02014-7	2017-04-13	2018-04-12
9	Signal Generator	R&S	SMR20	100046	2017-09-12	2018-09-11
10	Smart Antenna	SCHWARZBECK	HA08	-	2017-04-09	2018-04-08
3m Semi-anechoic Chamber for Radiation Emissions Test site 2#						
Item	Equipment	Manufacturer	Model No.	Serial No	Last Calibration Date	Calibration Due Date
1	Test Receiver	R&S	ESCI	101296	2017-04-13	2018-04-12
2	Trilog Broadband Antenna	SCHWARZBECK	VULB9160	9160-3325	2017-04-09	2018-04-08



3	Amplifier	Compliance pirection systems inc	PAP-0203	22024	2017-04-13	2018-04-12
4	Cable	HUBER+SUHNER	CBL2	525178	2017-04-13	2018-04-12
<b>RF Conducted Testing</b>						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1.	EMC Analyzer (9k~26.5GHz)	Agilent	E7405A	MY45114943	2017-09-12	2018-09-11
2.	Spectrum Analyzer	Agilent	N9020A	MY49100060	2017-09-12	2018-09-11
3.	Universal Radio Communication Tester	R&S	CMW 500	127818	2017-04-13	2018-04-12
4	Signal Analyzer (9k~26.5GHz)	Agilent	N9010A	MY50520207	2017-09-12	2018-09-11

## 7.2 Measurement Uncertainty

Parameter	Uncertainty
Conducted Emission	± 3.64 dB(AC mains 150KHz~30MHz)
Radiated Spurious Emissions	± 5.08 dB (Bilog antenna 30M~1000MHz)
	± 5.47 dB (Horn antenna 1000M~25000MHz)
Radio Frequency	± 1 x 10 <sup>-7</sup> Hz
RF Power	± 0.42 dB
RF Power Density	± 0.7dB
Conducted Spurious Emissions	± 2.76 dB (9kHz~26500MHz)
Confidence interval: 95%. Confidence factor:k=2	

## 7.3 Test Equipment Calibration

All the test equipments used are valid and calibrated by CEPREI Certification Body that address is No.110 Dongguan Zhuang RD. Guangzhou, P.R.China.

## 8 RF OUTPUT POWER

Test Requirement:	FCC Part 2.1046, 22.913 (a), 24.232 (c), 27.50(h.2); 27.50(d.4); 90.635
Test Method:	TIA/EIA-603-D:2010 KDB 971168 D01 Power Meas License Digital Systems v03
Test Mode:	TX transmitting

### 8.1 EUT Operation

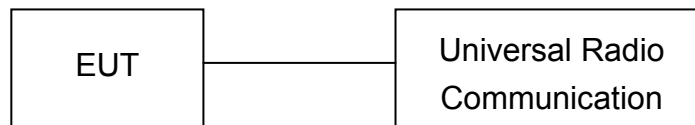
Operating Environment :

Temperature:	22.5 °C
Humidity:	52.1 % RH
Atmospheric Pressure:	101.2kPa

### 8.2 Test Procedure

Conducted method:

The RF output of the transmitter was connected to the wireless test set and the spectrum analyzer through sufficient attenuation.



Radiated method:

1. The setup of EUT is according with per TIA/EIA Standard 603D:2010.
2. 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.
3. The frequency range up to tenth harmonic of the fundamental frequency was investigated.
4. 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.

## 8.3 Test Result

## Conducted Power

## LTE Band 2:

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
1.4MHz	18607	1850.7	QPSK	1	0	23.42	23.0±1	/
				1	2	23.47	23.0±1	/
				1	5	23.41	23.0±1	/
				3	0	23.39	23.0±1	/
				3	1	23.42	23.0±1	/
				3	2	23.4	23.0±1	/
			16QAM	6	0	22.47	22.0±1	1.0
				1	0	22.59	22.0±1	1.0
				1	2	22.6	22.0±1	1.0
				1	5	22.41	22.0±1	1.0
				3	0	22.53	22.0±1	1.0
				3	1	22.53	22.0±1	1.0
	18900	1880	QPSK	3	2	22.57	22.0±1	1.0
				6	0	21.7	22.0±1	1.0
				1	0	23.18	23.0±1	/
				1	2	23.28	23.0±1	/
				1	5	23.23	23.0±1	/
				3	0	23.25	23.0±1	/
			16QAM	3	1	23.34	23.0±1	/
				3	2	23.26	23.0±1	/
				6	0	22.42	22.0±1	1.0
				1	0	22.43	22.0±1	1.0
				1	2	22.57	22.0±1	1.0
				1	5	22.45	22.0±1	1.0
	19193	1909.3	QPSK	3	0	22.68	22.0±1	1.0
				3	1	22.58	22.0±1	1.0
				3	2	22.59	22.0±1	1.0
6				0	21.4	22.0±1	1.0	
1				0	23.48	23.0±1	/	
1				2	23.33	23.0±1	/	
16QAM			1	5	23.38	23.0±1	/	
			3	0	23.52	23.0±1	/	
			3	1	23.39	23.0±1	/	
			3	2	23.26	23.0±1	/	
			6	0	22.38	22.0±1	1.0	
			1	0	22.46	22.0±1	1.0	
16QAM	1	2	22.54	22.0±1	1.0			
	1	5	22.47	22.0±1	1.0			
	3	0	22.76	22.0±1	1.0			
	3	1	22.63	22.0±1	1.0			
	3	2	22.44	22.0±1	1.0			
	6	0	21.52	22.0±1	1.0			

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
3MHz	18615	1851.5	QPSK	1	0	23.27	23.0±1	/
				1	8	23.56	23.0±1	/
				1	14	23.45	23.0±1	/
				6	0	22.56	22.0±1	1.0
				6	4	22.53	22.0±1	1.0
				6	9	22.56	22.0±1	1.0
				15	0	22.54	22.0±1	1.0
			16QAM	1	0	22.71	22.0±1	1.0
				1	8	22.82	22.0±1	1.0
				1	14	22.64	22.0±1	1.0
				6	0	21.86	22.0±1	1.0
				6	4	21.7	22.0±1	1.0
				6	9	21.32	22.0±1	1.0
				15	0	21.72	22.0±1	1.0
				18900	1880	QPSK	1	0
	1	8	23.43				23.0±1	/
	1	14	23.59				23.0±1	/
	6	0	22.36				22.0±1	1.0
	6	4	22.45				22.0±1	1.0
	6	9	22.4				22.0±1	1.0
	15	0	22.38				22.0±1	1.0
	16QAM	1	0			22.27	22.0±1	1.0
		1	8			22.45	22.0±1	1.0
		1	14			22.76	22.0±1	1.0
		6	0			21.44	22.0±1	1.0
		6	4			21.53	22.0±1	1.0
		6	9			21.53	22.0±1	1.0
		15	0			21.35	22.0±1	1.0
		19185	1908.5			QPSK	1	0
	1			8	23.76		23.0±1	/
1	14			23.13	23.0±1		/	
6	0			22.44	22.0±1		1.0	
6	4			22.51	22.0±1		1.0	
6	9			22.42	22.0±1		1.0	
15	0			22.49	22.0±1		1.0	
16QAM	1			0	22.8	22.0±1	1.0	
	1			8	22.26	22.0±1	1.0	
	1			14	22.08	22.0±1	1.0	
	6			0	21.59	22.0±1	1.0	
	6			4	21.32	22.0±1	1.0	
	6			9	21.61	22.0±1	1.0	
	15			0	21.82	22.0±1	1.0	

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
5MHz	18625	1852.5	QPSK	1	0	23.44	23.0±1	/
				1	12	23.53	23.0±1	/
				1	24	23.37	23.0±1	/
				12	0	22.51	22.0±1	1.0
				12	6	22.52	22.0±1	1.0
				12	11	22.29	22.0±1	1.0
				25	0	22.44	22.0±1	1.0
			16QAM	1	0	22.21	22.0±1	1.0
				1	12	22.11	22.0±1	1.0
				1	24	22.17	22.0±1	1.0
				12	0	21.49	22.0±1	1.0
				12	6	21.38	22.0±1	1.0
				12	11	21.42	22.0±1	1.0
				25	0	21.45	22.0±1	1.0
	18900	1880	QPSK	1	0	23.05	23.0±1	/
				1	12	23.4	23.0±1	/
				1	24	23.42	23.0±1	/
				12	0	22.46	22.0±1	1.0
				12	6	22.47	22.0±1	1.0
				12	11	22.51	22.0±1	1.0
				25	0	22.48	22.0±1	1.0
			16QAM	1	0	21.92	22.0±1	1.0
				1	12	21.92	22.0±1	1.0
				1	24	21.8	22.0±1	1.0
				12	0	21.3	22.0±1	1.0
				12	6	21.26	22.0±1	1.0
				12	11	21.53	22.0±1	1.0
				25	0	21.49	22.0±1	1.0
	19175	1907.5	QPSK	1	0	22.89	23.0±1	/
				1	12	23.24	23.0±1	/
1				24	22.86	23.0±1	/	
12				0	22.34	22.0±1	1.0	
12				6	22.53	22.0±1	1.0	
12				11	22.45	22.0±1	1.0	
25				0	22.49	22.0±1	1.0	
16QAM			1	0	21.86	22.0±1	1.0	
			1	12	21.86	22.0±1	1.0	
			1	24	21.92	22.0±1	1.0	
			12	0	21.42	22.0±1	1.0	
			12	6	21.46	22.0±1	1.0	
			12	11	21.3	22.0±1	1.0	
			25	0	21.73	22.0±1	1.0	

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
10MHz	18650	1855	QPSK	1	0	23.36	23.0±1	/
				1	24	23.75	23.0±1	/
				1	49	23.25	23.0±1	/
				25	0	22.61	22.0±1	1.0
				25	12	22.62	22.0±1	1.0
				25	24	22.51	22.0±1	1.0
				50	0	22.71	22.0±1	1.0
			16QAM	1	0	22.16	22.0±1	1.0
				1	24	22.93	22.0±1	1.0
				1	49	22.11	22.0±1	1.0
				25	0	21.46	22.0±1	1.0
				25	12	21.7	22.0±1	1.0
				25	24	21.54	22.0±1	1.0
				50	0	21.6	22.0±1	1.0
	18900	1880	QPSK	1	0	23.08	23.0±1	/
				1	24	23.57	23.0±1	/
				1	49	23.8	23.0±1	/
				25	0	22.48	22.0±1	1.0
				25	12	22.48	22.0±1	1.0
				25	24	22.41	22.0±1	1.0
				50	0	22.47	22.0±1	1.0
			16QAM	1	0	22.29	22.0±1	1.0
				1	24	22.68	22.0±1	1.0
				1	49	22.93	22.0±1	1.0
				25	0	21.5	22.0±1	1.0
				25	12	21.48	22.0±1	1.0
				25	24	21.43	22.0±1	1.0
				50	0	21.42	22.0±1	1.0
	19150	1905	QPSK	1	0	23.17	23.0±1	/
				1	24	23.11	23.0±1	/
1				49	22.88	23.0±1	/	
25				0	22.33	22.0±1	1.0	
25				12	22.33	22.0±1	1.0	
25				24	22.47	22.0±1	1.0	
50				0	22.4	22.0±1	1.0	
16QAM			1	0	22.44	22.0±1	1.0	
			1	24	22.37	22.0±1	1.0	
			1	49	22.05	22.0±1	1.0	
			25	0	21.59	22.0±1	1.0	
			25	12	21.28	22.0±1	1.0	
			25	24	21.57	22.0±1	1.0	
			50	0	21.29	22.0±1	1.0	

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
15MHz	18675	1857.5	QPSK	1	0	22.89	23.0±1	/
				1	37	23.42	23.0±1	/
				1	74	23.31	23.0±1	/
				36	0	22.52	22.0±1	1.0
				36	16	22.53	22.0±1	1.0
				36	35	22.52	22.0±1	1.0
				75	0	22.48	22.0±1	1.0
			16QAM	1	0	21.7	22.0±1	1.0
				1	37	22.12	22.0±1	1.0
				1	74	22.28	22.0±1	1.0
				36	0	21.4	22.0±1	1.0
				36	16	21.56	22.0±1	1.0
				36	35	21.45	22.0±1	1.0
				75	0	21.49	22.0±1	1.0
	18900	1880	QPSK	1	0	23.18	23.0±1	/
				1	37	23.3	23.0±1	/
				1	74	23.07	23.0±1	/
				36	0	22.47	22.0±1	1.0
				36	16	22.47	22.0±1	1.0
				36	35	22.58	22.0±1	1.0
				75	0	22.53	22.0±1	1.0
			16QAM	1	0	22.9	22.0±1	1.0
				1	37	22.98	22.0±1	1.0
				1	74	22.52	22.0±1	1.0
				36	0	21.52	22.0±1	1.0
				36	16	21.56	22.0±1	1.0
				36	35	21.53	22.0±1	1.0
75				0	21.44	22.0±1	1.0	
19125	1902.5	QPSK	1	0	23.83	23.0±1	/	
			1	37	22.98	23.0±1	/	
			1	74	22.27	23.0±1	/	
			36	0	22.43	22.0±1	1.0	
			36	16	22.33	22.0±1	1.0	
			36	35	22.38	22.0±1	1.0	
			75	0	22.33	22.0±1	1.0	
		16QAM	1	0	22.38	22.0±1	1.0	
			1	37	22.12	22.0±1	1.0	
			1	74	21.42	22.0±1	1.0	
			36	0	21.43	22.0±1	1.0	
			36	16	21.26	22.0±1	1.0	
			36	35	21.44	22.0±1	1.0	
			75	0	21.39	22.0±1	1.0	

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
20MHz	18700	1860	QPSK	1	0	22.93	23.0±1	/
				1	49	23.63	23.0±1	/
				1	99	23.31	23.0±1	/
				50	0	22.45	22.0±1	1.0
				50	24	22.4	22.0±1	1.0
				50	49	22.45	22.0±1	1.0
				100	0	22.51	22.0±1	1.0
			16QAM	1	0	22.3	22.0±1	1.0
				1	49	22.71	22.0±1	1.0
				1	99	22.39	22.0±1	1.0
				50	0	21.58	22.0±1	1.0
				50	24	21.4	22.0±1	1.0
				50	49	21.34	22.0±1	1.0
				100	0	21.45	22.0±1	1.0
	18900	1880	QPSK	1	0	23.36	23.0±1	/
				1	49	23.90	23.0±1	/
				1	99	23.66	23.0±1	/
				50	0	22.4	22.0±1	1.0
				50	24	22.85	22.0±1	1.0
				50	49	22.54	22.0±1	1.0
				100	0	22.43	22.0±1	1.0
			16QAM	1	0	22.6	22.0±1	1.0
				1	49	22.63	22.0±1	1.0
				1	99	22.55	22.0±1	1.0
				50	0	21.29	22.0±1	1.0
				50	24	21.4	22.0±1	1.0
				50	49	21.62	22.0±1	1.0
				100	0	21.43	22.0±1	1.0
	19100	1900	QPSK	1	0	22.82	23.0±1	/
				1	49	23.73	23.0±1	/
1				99	22.5	23.0±1	/	
50				0	22.46	22.0±1	1.0	
50				24	22.41	22.0±1	1.0	
50				49	22.3	22.0±1	1.0	
100				0	22.44	22.0±1	1.0	
16QAM			1	0	22.34	22.0±1	1.0	
			1	49	22.68	22.0±1	1.0	
			1	99	22.05	22.0±1	1.0	
			50	0	21.51	22.0±1	1.0	
			50	24	21.28	22.0±1	1.0	
			50	49	21.32	22.0±1	1.0	
			100	0	21.39	22.0±1	1.0	



**LTE Band 4:**

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
1.4MHz	19957	1710.7	QPSK	1	0	22.41	22.0±1	/
				1	2	22.52	22.0±1	/
				1	5	22.44	22.0±1	/
				3	0	22.31	22.0±1	/
				3	1	22.37	22.0±1	/
				3	2	22.36	22.0±1	/
			16QAM	6	0	21.21	21.0±1	1.0
				1	0	21.03	21.0±1	1.0
				1	2	21.09	21.0±1	1.0
				1	5	21.08	21.0±1	1.0
				3	0	21.52	21.0±1	1.0
				3	1	21.57	21.0±1	1.0
	20175	1732.5	QPSK	3	2	21.57	21.0±1	1.0
				6	0	21.42	21.0±1	1.0
				1	0	22.13	22.0±1	/
				1	2	22.11	22.0±1	/
				1	5	22.13	22.0±1	/
				3	0	22.26	22.0±1	/
			16QAM	3	1	22.16	22.0±1	/
				3	2	22.12	22.0±1	/
				6	0	21.25	21.0±1	1.0
				1	0	21.74	21.0±1	1.0
				1	2	21.77	21.0±1	1.0
				1	5	21.53	21.0±1	1.0
	20393	1754.3	QPSK	3	0	21.21	21.0±1	1.0
				3	1	21.22	21.0±1	1.0
				3	2	21.04	21.0±1	1.0
				6	0	20.9	21.0±1	1.0
				1	0	22	22.0±1	/
				1	2	22.25	22.0±1	/
16QAM			1	5	22.08	22.0±1	/	
			3	0	22.07	22.0±1	/	
			3	1	22.15	22.0±1	/	
			3	2	22.13	22.0±1	/	
			6	0	20.83	21.0±1	1.0	
			1	0	21.1	21.0±1	1.0	
16QAM	1	2	21.15	21.0±1	1.0			
	1	5	21.14	21.0±1	1.0			
	3	0	21.04	21.0±1	1.0			
	3	1	20.85	21.0±1	1.0			
	3	2	20.63	21.0±1	1.0			
	6	0	20.91	21.0±1	1.0			

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
3MHz	19965	1711.5	QPSK	1	0	22.5	22.0±1	/
				1	8	22.23	22.0±1	/
				1	14	22.35	22.0±1	/
				6	0	21.32	21.0±1	1.0
				6	4	21.35	21.0±1	1.0
				6	9	21.38	21.0±1	1.0
				15	0	21.35	21.0±1	1.0
			16QAM	1	0	21.75	21.0±1	1.0
				1	8	21.59	21.0±1	1.0
				1	14	21.72	21.0±1	1.0
				8	0	20.1	21.0±1	1.0
				8	4	20.31	21.0±1	1.0
				8	9	20.18	21.0±1	1.0
				15	0	20.41	21.0±1	1.0
				20175	1732.5	QPSK	1	0
	1	8	22.08				22.0±1	/
	1	14	22.04				22.0±1	/
	6	0	21.28				21.0±1	1.0
	6	4	21.13				21.0±1	1.0
	6	9	21.21				21.0±1	1.0
	15	0	21.25				21.0±1	1.0
	16QAM	1	0			21.59	21.0±1	1.0
		1	8			21.37	21.0±1	1.0
		1	14			21.25	21.0±1	1.0
		6	0			20.31	21.0±1	1.0
		6	4			20.27	21.0±1	1.0
		6	9			20.23	21.0±1	1.0
		15	0			20.24	21.0±1	1.0
		20385	1753.5			QPSK	1	0
	1			8	22.08		22.0±1	/
1	14			22.14	22.0±1		/	
6	0			20.95	21.0±1		1.0	
6	4			21.07	21.0±1		1.0	
6	9			20.94	21.0±1		1.0	
15	0			20.9	21.0±1		1.0	
16QAM	1			0	21.22	21.0±1	1.0	
	1			8	21.05	21.0±1	1.0	
	1			14	21.2	21.0±1	1.0	
	8			0	20	21.0±1	1.0	
	8			4	20.94	21.0±1	1.0	
	8			9	20	21.0±1	1.0	
	15			0	20.87	21.0±1	1.0	

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
5MHz	19975	1712.5	QPSK	1	0	22.31	22.0±1	/
				1	49	22.17	22.0±1	/
				1	99	22.55	22.0±1	/
				12	0	21.36	21.0±1	1.0
				12	24	21.16	21.0±1	1.0
				12	49	21.32	21.0±1	1.0
				25	0	21.24	21.0±1	1.0
			16QAM	1	0	20.79	21.0±1	1.0
				1	49	20.69	21.0±1	1.0
				1	99	21.19	21.0±1	1.0
				12	0	20.14	21.0±1	1.0
				12	24	20.06	21.0±1	1.0
				12	49	20.13	21.0±1	1.0
				25	0	20.29	21.0±1	1.0
	20175	1732.5	QPSK	1	0	22.19	22.0±1	/
				1	49	22.04	22.0±1	/
				1	99	21.97	22.0±1	/
				12	0	21.35	21.0±1	1.0
				12	24	21.12	21.0±1	1.0
				12	49	21.11	21.0±1	1.0
				25	0	21.19	21.0±1	1.0
			16QAM	1	0	21.19	21.0±1	1.0
				1	49	20.78	21.0±1	1.0
				1	99	20.73	21.0±1	1.0
				12	0	20.14	21.0±1	1.0
				12	24	20.02	21.0±1	1.0
				12	49	20.93	21.0±1	1.0
				25	0	20.09	21.0±1	1.0
	20375	1752.5	QPSK	1	0	21.85	22.0±1	/
				1	49	21.87	22.0±1	/
1				99	22.26	22.0±1	/	
12				0	20.94	21.0±1	1.0	
12				24	21.01	21.0±1	1.0	
12				49	20.95	21.0±1	1.0	
25				0	20.87	21.0±1	1.0	
16QAM			1	0	20.95	21.0±1	1.0	
			1	49	20.8	21.0±1	1.0	
			1	99	21.2	21.0±1	1.0	
			12	0	20.86	21.0±1	1.0	
			12	24	20.94	21.0±1	1.0	
			12	49	20.99	21.0±1	1.0	
			25	0	20.81	21.0±1	1.0	

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
10MHz	20000	1715	QPSK	1	0	22.42	22.0±1	/
				1	49	22.61	22.0±1	/
				1	99	22.41	22.0±1	/
				25	0	21.25	21.0±1	1.0
				25	24	21.4	21.0±1	1.0
				25	49	21.39	21.0±1	1.0
				50	0	21.31	21.0±1	1.0
			16QAM	1	0	21.38	21.0±1	1.0
				1	49	21.94	21.0±1	1.0
				1	99	21.37	21.0±1	1.0
				25	0	20.12	21.0±1	1.0
				25	24	20.28	21.0±1	1.0
				25	49	20.31	21.0±1	1.0
				50	0	20.27	21.0±1	1.0
	20175	1732.5	QPSK	1	0	22.24	22.0±1	/
				1	49	22.3	22.0±1	/
				1	99	21.95	22.0±1	/
				25	0	21.34	21.0±1	1.0
				25	24	21.13	21.0±1	1.0
				25	49	20.93	21.0±1	1.0
				50	0	21.19	21.0±1	1.0
			16QAM	1	0	21.56	21.0±1	1.0
				1	49	21.57	21.0±1	1.0
				1	99	21.5	21.0±1	1.0
				25	0	20.39	21.0±1	1.0
				25	24	20.09	21.0±1	1.0
				25	49	20.91	21.0±1	1.0
				50	0	20.15	21.0±1	1.0
	20350	1750	QPSK	1	0	22.01	22.0±1	/
				1	49	22.03	22.0±1	/
1				99	22.05	22.0±1	/	
25				0	20.94	21.0±1	1.0	
25				24	21	21.0±1	1.0	
25				49	20.98	21.0±1	1.0	
50				0	20.95	21.0±1	1.0	
16QAM			1	0	21.29	21.0±1	1.0	
			1	49	21.32	21.0±1	1.0	
			1	99	21.15	21.0±1	1.0	
			25	0	20.92	21.0±1	1.0	
			25	24	20.26	21.0±1	1.0	
			25	49	20.08	21.0±1	1.0	
			50	0	20.02	21.0±1	1.0	

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
15MHz	20025	1717.5	QPSK	1	0	22.35	22.0±1	/
				1	49	22.59	22.0±1	/
				1	99	22.43	22.0±1	/
				36	0	21.23	21.0±1	1.0
				36	24	21.36	21.0±1	1.0
				36	49	21.36	21.0±1	1.0
				75	0	21.27	21.0±1	1.0
			16QAM	1	0	21.25	21.0±1	1.0
				1	49	21.67	21.0±1	1.0
				1	99	21.96	21.0±1	1.0
				36	0	20.3	21.0±1	1.0
				36	24	20.45	21.0±1	1.0
				36	49	20.35	21.0±1	1.0
				75	0	20.2	21.0±1	1.0
	20175	1732.5	QPSK	1	0	22.44	22.0±1	/
				1	49	22.11	22.0±1	/
				1	99	22.03	22.0±1	/
				36	0	21.27	21.0±1	1.0
				36	24	21.1	21.0±1	1.0
				36	49	20.89	21.0±1	1.0
				75	0	21.13	21.0±1	1.0
			16QAM	1	0	21.82	21.0±1	1.0
				1	49	21.47	21.0±1	1.0
				1	99	21.25	21.0±1	1.0
				36	0	20.35	21.0±1	1.0
				36	24	20.08	21.0±1	1.0
				36	49	20.97	21.0±1	1.0
				75	0	20.09	21.0±1	1.0
	20325	1747.5	QPSK	1	0	22.06	22.0±1	/
				1	49	21.91	22.0±1	/
1				99	21.91	22.0±1	/	
36				0	21	21.0±1	1.0	
36				24	20.99	21.0±1	1.0	
36				49	21.01	21.0±1	1.0	
75				0	20.92	21.0±1	1.0	
16QAM			1	0	21.7	21.0±1	1.0	
			1	49	21.44	21.0±1	1.0	
			1	99	21.93	21.0±1	1.0	
			36	0	20.97	21.0±1	1.0	
			36	24	20.1	21.0±1	1.0	
			36	49	20.11	21.0±1	1.0	
			75	0	20.93	21.0±1	1.0	

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
20MHz	20050	1720	QPSK	1	0	22.21	22.0±1	/
				1	49	22.35	22.0±1	/
				1	99	22	22.0±1	/
				50	0	21.36	21.0±1	1.0
				50	24	21.47	21.0±1	1.0
				50	49	21.25	21.0±1	1.0
				100	0	21.32	21.0±1	1.0
			16QAM	1	0	21.45	21.0±1	1.0
				1	49	21.2	21.0±1	1.0
				1	99	21.1	21.0±1	1.0
				50	0	20.31	21.0±1	1.0
				50	24	20.31	21.0±1	1.0
				50	49	20.27	21.0±1	1.0
				100	0	20.27	21.0±1	1.0
	20175	1732.5	QPSK	1	0	22.71	22.0±1	/
				1	49	22.89	22.0±1	/
				1	99	21.95	22.0±1	/
				50	0	21.38	21.0±1	1.0
				50	24	21.91	21.0±1	1.0
				50	49	20.93	21.0±1	1.0
				100	0	21.21	21.0±1	1.0
			16QAM	1	0	21.53	21.0±1	1.0
				1	49	21.32	21.0±1	1.0
				1	99	21.06	21.0±1	1.0
				50	0	20.49	21.0±1	1.0
				50	24	20.15	21.0±1	1.0
				50	49	20.96	21.0±1	1.0
				100	0	20.24	21.0±1	1.0
	20300	1745	QPSK	1	0	21.93	22.0±1	/
				1	49	21.88	22.0±1	/
1				99	21.86	22.0±1	/	
50				0	21.06	21.0±1	1.0	
50				24	20.89	21.0±1	1.0	
50				49	20.95	21.0±1	1.0	
100				0	20.98	21.0±1	1.0	
16QAM			1	0	21.35	21.0±1	1.0	
			1	49	21.15	21.0±1	1.0	
			1	99	21.33	21.0±1	1.0	
			50	0	20.86	21.0±1	1.0	
			50	24	20.7	21.0±1	1.0	
			50	49	20.95	21.0±1	1.0	
			100	0	20.92	21.0±1	1.0	

## LTE Band 5:

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
1.4MHz	20407	824.7	QPSK	1	0	22.72	22.0±1	/
				1	2	22.76	22.0±1	/
				1	5	22.3	22.0±1	/
				3	0	22.64	22.0±1	/
				3	1	22.02	22.0±1	/
				3	2	22.88	22.0±1	/
			16QAM	6	0	21.79	21.0±1	1.0
				1	0	21.31	21.0±1	1.0
				1	2	21.41	21.0±1	1.0
				1	5	21.35	21.0±1	1.0
				3	0	21.38	21.0±1	1.0
				3	1	21.23	21.0±1	1.0
	20525	836.5	QPSK	3	2	21.16	21.0±1	1.0
				6	0	21.12	21.0±1	1.0
				1	0	22.81	22.0±1	/
				1	2	22.27	22.0±1	/
				1	5	22.8	22.0±1	/
				3	0	22.85	22.0±1	/
			16QAM	3	1	22.89	22.0±1	/
				3	2	22.78	22.0±1	/
				6	0	21.79	21.0±1	1.0
				1	0	21.83	21.0±1	1.0
				1	2	21.75	21.0±1	1.0
				1	5	21.63	21.0±1	1.0
	20634	848.3	QPSK	3	0	21.94	21.0±1	1.0
				3	1	21.02	21.0±1	1.0
				3	2	21.98	21.0±1	1.0
				6	0	21.02	21.0±1	1.0
				1	0	22.85	22.0±1	/
				1	2	22.85	22.0±1	/
16QAM			1	5	22.76	22.0±1	/	
			3	0	22.81	22.0±1	/	
			3	1	22.90	22.0±1	/	
			3	2	22.90	22.0±1	/	
			6	0	21.91	21.0±1	1.0	
			1	0	22.16	21.0±1	1.0	
				1	2	21.49	21.0±1	1.0
				1	5	21.99	21.0±1	1.0
				3	0	21.07	21.0±1	1.0
				3	1	21.26	21.0±1	1.0
				3	2	21.26	21.0±1	1.0
				6	0	20.74	21.0±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)		
3MHz	20415	825.5	QPSK	1	0	22.12	22.0±1	/		
				1	8	22.77	22.0±1	/		
				1	14	22.11	22.0±1	/		
				6	0	21.85	21.0±1	1.0		
				6	4	21.88	21.0±1	1.0		
				6	9	21.05	21.0±1	1.0		
			16QAM	15	0	21.9	21.0±1	1.0		
				1	0	21.12	21.0±1	1.0		
				1	8	21.53	21.0±1	1.0		
				1	14	21.16	21.0±1	1.0		
				8	0	21.05	21.0±1	1.0		
				8	4	21.4	21.0±1	1.0		
			20525	836.5	QPSK	8	9	21.52	21.0±1	1.0
						15	0	21.16	21.0±1	1.0
						1	0	22.91	22.0±1	/
	1	8				22.64	22.0±1	/		
	1	14				22.91	22.0±1	/		
	6	0				21.99	21.0±1	1.0		
	16QAM	6			4	21.03	21.0±1	1.0		
		6			9	21.06	21.0±1	1.0		
		15			0	21.9	21.0±1	1.0		
		1			0	21.2	21.0±1	1.0		
		1			8	21.62	21.0±1	1.0		
		1			14	21.2	21.0±1	1.0		
	20635	847.5			QPSK	6	0	20.81	21.0±1	1.0
						6	4	20.86	21.0±1	1.0
						6	9	20.82	21.0±1	1.0
			15	0		21.04	21.0±1	1.0		
			1	0		22.07	22.0±1	/		
			1	8		22.92	22.0±1	/		
16QAM			1	14	22.65	22.0±1	/			
			6	0	21.03	21.0±1	1.0			
			6	4	21.92	21.0±1	1.0			
			6	9	21.86	21.0±1	1.0			
			15	0	21.93	21.0±1	1.0			
			1	0	21.38	21.0±1	1.0			
16QAM			1	8	21.73	21.0±1	1.0			
			1	14	21.59	21.0±1	1.0			
			8	0	21.32	21.0±1	1.0			
	8	4	20.79	21.0±1	1.0					
	8	9	21.04	21.0±1	1.0					
	15	0	20.78	21.0±1	1.0					



BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
5MHz	20425	826.5	QPSK	1	0	22.83	22.0±1	/
				1	49	22.08	22.0±1	/
				1	99	22.95	22.0±1	/
				12	0	21.13	21.0±1	1.0
				12	24	21.15	21.0±1	1.0
				12	49	21.09	21.0±1	1.0
				25	0	21.04	21.0±1	1.0
			16QAM	1	0	21.5	21.0±1	1.0
				1	49	21.87	21.0±1	1.0
				1	99	21.49	21.0±1	1.0
				12	0	20.74	21.0±1	1.0
				12	24	20.82	21.0±1	1.0
				12	49	20.85	21.0±1	1.0
				25	0	21.26	21.0±1	1.0
	20525	836.5	QPSK	1	0	22.95	22.0±1	/
				1	49	22.63	22.0±1	/
				1	99	22.14	22.0±1	/
				12	0	21.96	21.0±1	1.0
				12	24	21.1	21.0±1	1.0
				12	49	21.04	21.0±1	1.0
				25	0	21.97	21.0±1	1.0
			16QAM	1	0	21.79	21.0±1	1.0
				1	49	21.52	21.0±1	1.0
				1	99	21.42	21.0±1	1.0
				12	0	20.84	21.0±1	1.0
				12	24	20.83	21.0±1	1.0
				12	49	21.05	21.0±1	1.0
25				0	20.88	21.0±1	1.0	
20625	846.5	QPSK	1	0	22.7	22.0±1	/	
			1	49	22.87	22.0±1	/	
			1	99	22.46	22.0±1	/	
			12	0	21.86	21.0±1	1.0	
			12	24	21.95	21.0±1	1.0	
			12	49	21.83	21.0±1	1.0	
			25	0	21.92	21.0±1	1.0	
		16QAM	1	0	21.18	21.0±1	1.0	
			1	49	21.48	21.0±1	1.0	
			1	99	21.33	21.0±1	1.0	
			12	0	20.96	21.0±1	1.0	
			12	24	20.91	21.0±1	1.0	
			12	49	20.94	21.0±1	1.0	
			25	0	21.01	21.0±1	1.0	

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
10MHz	20450	829	QPSK	1	0	23221	22.0±1	/
				1	49	22.84	22.0±1	/
				1	99	22.83	22.0±1	/
				25	0	21.12	21.0±1	1.0
				25	24	21.15	21.0±1	1.0
				25	49	21.07	21.0±1	1.0
				50	0	21.01	21.0±1	1.0
			16QAM	1	0	21.01	21.0±1	1.0
				1	49	21.94	21.0±1	1.0
				1	99	21.88	21.0±1	1.0
				25	0	21.34	21.0±1	1.0
				25	24	21.05	21.0±1	1.0
				25	49	21.15	21.0±1	1.0
				50	0	20.85	21.0±1	1.0
	20525	836.5	QPSK	1	0	22.86	22.0±1	/
				1	49	22.95	22.0±1	/
				1	99	22.83	22.0±1	/
				25	0	21.77	21.0±1	1.0
				25	24	21.94	21.0±1	1.0
				25	49	21	21.0±1	1.0
				50	0	21.04	21.0±1	1.0
			16QAM	1	0	21.23	21.0±1	1.0
				1	49	21.58	21.0±1	1.0
				1	99	21.91	21.0±1	1.0
				25	0	21.19	21.0±1	1.0
				25	24	21.03	21.0±1	1.0
				25	49	21.02	21.0±1	1.0
				50	0	21.02	21.0±1	1.0
	20600	844	QPSK	1	0	22.31	22.0±1	/
				1	49	22.26	22.0±1	/
1				99	22.14	22.0±1	/	
25				0	21.93	21.0±1	1.0	
25				24	21.9	21.0±1	1.0	
25				49	21.91	21.0±1	1.0	
50				0	21.9	21.0±1	1.0	
16QAM			1	0	21.33	21.0±1	1.0	
			1	49	21.87	21.0±1	1.0	
			1	99	21.66	21.0±1	1.0	
			25	0	21.16	21.0±1	1.0	
			25	24	21.04	21.0±1	1.0	
			25	49	21.25	21.0±1	1.0	
			50	0	21	21.0±1	1.0	

## LTE Band 7:

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
5MHz	20775	2502.5	QPSK	1	0	21.55	21.0±1	/
				1	49	21.04	21.0±1	/
				1	99	21.4	21.0±1	/
				12	0	20.09	20.0±1	1.0
				12	24	20.05	20.0±1	1.0
				12	49	20.18	20.0±1	1.0
				25	0	20.02	20.0±1	1.0
			16QAM	1	0	20.58	20.0±1	1.0
				1	49	20.19	20.0±1	1.0
				1	99	20.72	20.0±1	1.0
				12	0	19.91	20.0±1	1.0
				12	24	19.7	20.0±1	1.0
				12	49	20.79	20.0±1	1.0
				25	0	20.58	20.0±1	1.0
	21100	2535	QPSK	1	0	21.72	21.0±1	/
				1	49	21.17	21.0±1	/
				1	99	21.49	21.0±1	/
				12	0	20.42	20.0±1	1.0
				12	24	20.45	20.0±1	1.0
				12	49	20.75	20.0±1	1.0
				25	0	20.7	20.0±1	1.0
			16QAM	1	0	20.06	20.0±1	1.0
				1	49	20.57	20.0±1	1.0
				1	99	20.94	20.0±1	1.0
				12	0	19.66	20.0±1	1.0
				12	24	19.55	20.0±1	1.0
				12	49	19.67	20.0±1	1.0
25				0	19.53	20.0±1	1.0	
21425	2567.5	QPSK	1	0	21.59	21.0±1	/	
			1	49	21.72	21.0±1	/	
			1	99	20.88	21.0±1	/	
			12	0	20.13	20.0±1	1.0	
			12	24	19.81	20.0±1	1.0	
			12	49	19.79	20.0±1	1.0	
			25	0	19.88	20.0±1	1.0	
		16QAM	1	0	20.61	20.0±1	1.0	
			1	49	19.86	20.0±1	1.0	
			1	99	19.95	20.0±1	1.0	
			12	0	19.07	20.0±1	1.0	
			12	24	19.8	20.0±1	1.0	
			12	49	19.79	20.0±1	1.0	
			25	0	19.83	20.0±1	1.0	

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
10MHz	20800	2505	QPSK	1	0	21.35	21.0±1	/
				1	49	21.42	21.0±1	/
				1	99	21.64	21.0±1	/
				25	0	20.6	20.0±1	1.0
				25	24	20.78	20.0±1	1.0
				25	49	20.95	20.0±1	1.0
				50	0	20.73	20.0±1	1.0
			16QAM	1	0	20.08	20.0±1	1.0
				1	49	20.4	20.0±1	1.0
				1	99	20.57	20.0±1	1.0
				25	0	19.61	20.0±1	1.0
				25	24	19.92	20.0±1	1.0
				25	49	20.13	20.0±1	1.0
				50	0	19.86	20.0±1	1.0
	21100	2535	QPSK	1	0	21.68	21.0±1	/
				1	49	21.33	21.0±1	/
				1	99	21.44	21.0±1	/
				25	0	20.52	20.0±1	1.0
				25	24	20.45	20.0±1	1.0
				25	49	20.53	20.0±1	1.0
				50	0	20.49	20.0±1	1.0
			16QAM	1	0	20.81	20.0±1	1.0
				1	49	20.58	20.0±1	1.0
				1	99	20.68	20.0±1	1.0
				25	0	19.58	20.0±1	1.0
				25	24	19.55	20.0±1	1.0
				25	49	19.66	20.0±1	1.0
50				0	19.61	20.0±1	1.0	
21400	2565	QPSK	1	0	21.74	21.0±1	/	
			1	49	21.05	21.0±1	/	
			1	99	21.33	21.0±1	/	
			25	0	20.48	20.0±1	1.0	
			25	24	20.17	20.0±1	1.0	
			25	49	19.8	20.0±1	1.0	
			50	0	20.18	20.0±1	1.0	
		16QAM	1	0	20.6	20.0±1	1.0	
			1	49	20.12	20.0±1	1.0	
			1	99	19.31	20.0±1	1.0	
			25	0	19.62	20.0±1	1.0	
			25	24	19.27	20.0±1	1.0	
			25	49	18.96	20.0±1	1.0	
			50	0	19.29	20.0±1	1.0	

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
15MHz	20825	2507.5	QPSK	1	0	21.48	21.0±1	/
				1	49	21.7	21.0±1	/
				1	99	21.45	21.0±1	/
				36	0	20.73	20.0±1	1.0
				36	24	21.03	20.0±1	1.0
				36	49	21.45	20.0±1	1.0
				75	0	21.05	20.0±1	1.0
			16QAM	1	0	20.22	20.0±1	1.0
				1	49	20.6	20.0±1	1.0
				1	99	20.4	20.0±1	1.0
				36	0	19.86	20.0±1	1.0
				36	24	20.2	20.0±1	1.0
				36	49	20.64	20.0±1	1.0
				75	0	20.26	20.0±1	1.0
	21100	2535	QPSK	1	0	21.83	21.0±1	/
				1	49	21.15	21.0±1	/
				1	99	21.58	21.0±1	/
				36	0	20.43	20.0±1	1.0
				36	24	20.3	20.0±1	1.0
				36	49	20.51	20.0±1	1.0
				75	0	20.42	20.0±1	1.0
			16QAM	1	0	20.99	20.0±1	1.0
				1	49	20.44	20.0±1	1.0
				1	99	20.94	20.0±1	1.0
				36	0	19.54	20.0±1	1.0
				36	24	19.44	20.0±1	1.0
				36	49	19.7	20.0±1	1.0
				75	0	19.59	20.0±1	1.0
	21375	2562.5	QPSK	1	0	21.66	21.0±1	/
				1	49	20.95	21.0±1	/
1				99	21.12	21.0±1	/	
36				0	20.65	20.0±1	1.0	
36				24	20.13	20.0±1	1.0	
36				49	19.69	20.0±1	1.0	
75				0	20.19	20.0±1	1.0	
16QAM			1	0	20.9	20.0±1	1.0	
			1	49	20.41	20.0±1	1.0	
			1	99	19.67	20.0±1	1.0	
			36	0	19.62	20.0±1	1.0	
			36	24	19.13	20.0±1	1.0	
			36	49	19.71	20.0±1	1.0	
			75	0	19.22	20.0±1	1.0	

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
20MHz	20850	2510	QPSK	1	0	21.53	21.0±1	/
				1	49	21.85	21.0±1	/
				1	99	21.82	21.0±1	/
				50	0	20.92	20.0±1	1.0
				50	24	20.34	20.0±1	1.0
				50	49	20.84	20.0±1	1.0
				100	0	20.38	20.0±1	1.0
			16QAM	1	0	20.86	20.0±1	1.0
				1	49	20.38	20.0±1	1.0
				1	99	20.25	20.0±1	1.0
				50	0	20.11	20.0±1	1.0
				50	24	20.56	20.0±1	1.0
				50	49	20.06	20.0±1	1.0
				100	0	20.62	20.0±1	1.0
	21100	2535	QPSK	1	0	21.91	21.0±1	/
				1	49	21.97	21.0±1	/
				1	99	21.39	21.0±1	/
				50	0	20.14	20.0±1	1.0
				50	24	20.96	20.0±1	1.0
				50	49	20.25	20.0±1	1.0
				100	0	20.16	20.0±1	1.0
			16QAM	1	0	20.13	20.0±1	1.0
				1	49	20.21	20.0±1	1.0
				1	99	20.75	20.0±1	1.0
				50	0	19.17	20.0±1	1.0
				50	24	19.05	20.0±1	1.0
				50	49	19.43	20.0±1	1.0
				100	0	19.32	20.0±1	1.0
	21350	2560	QPSK	1	0	21.38	21.0±1	/
				1	49	21.2	21.0±1	/
1				99	20.12	21.0±1	/	
50				0	20.68	20.0±1	1.0	
50				24	20.46	20.0±1	1.0	
50				49	19.88	20.0±1	1.0	
100				0	20.31	20.0±1	1.0	
16QAM			1	0	20.73	20.0±1	1.0	
			1	49	20.66	20.0±1	1.0	
			1	99	19.5	20.0±1	1.0	
			50	0	19.8	20.0±1	1.0	
			50	24	19.43	20.0±1	1.0	
			50	49	19.91	20.0±1	1.0	
			100	0	19.42	20.0±1	1.0	

## LTE Band 12:

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
1.4MHz	23017	699.7	QPSK	1	0	23.65	23.0±1	/
				1	2	23.62	23.0±1	/
				1	5	23.68	23.0±1	/
				3	0	23.32	23.0±1	/
				3	1	23.56	23.0±1	/
				3	2	23.54	23.0±1	/
			16QAM	6	0	22.44	22.0±1	1.0
				1	0	22.32	22.0±1	1.0
				1	2	22.38	22.0±1	1.0
				1	5	22.55	22.0±1	1.0
				3	0	22.2	22.0±1	1.0
				3	1	22.65	22.0±1	1.0
	23095	707.5	QPSK	3	2	22.71	22.0±1	1.0
				6	0	21.61	22.0±1	1.0
				1	0	23.76	23.0±1	/
				1	2	23.81	23.0±1	/
				1	5	23.85	23.0±1	/
				3	0	23.54	23.0±1	/
			16QAM	3	1	23.46	23.0±1	/
				3	2	23.4	23.0±1	/
				6	0	22.54	22.0±1	1.0
				1	0	22.35	22.0±1	1.0
				1	2	22.41	22.0±1	1.0
				1	5	22.38	22.0±1	1.0
	23173	715.3	QPSK	3	0	22.73	22.0±1	1.0
				3	1	22.68	22.0±1	1.0
				3	2	22.37	22.0±1	1.0
				6	0	21.53	22.0±1	1.0
				1	0	23.18	23.0±1	/
				1	2	23.09	23.0±1	/
			16QAM	1	5	23.05	23.0±1	/
				3	0	23.33	23.0±1	/
				3	1	23.33	23.0±1	/
				3	2	23.26	23.0±1	/
				6	0	22.44	22.0±1	1.0
				1	0	22.24	22.0±1	1.0
16QAM	1	2	22.12	22.0±1	1.0			
	1	5	22.2	22.0±1	1.0			
	3	0	22.82	22.0±1	1.0			
	3	1	22.81	22.0±1	1.0			
	3	2	22.45	22.0±1	1.0			
	6	0	21.24	22.0±1	1.0			

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
3MHz	23025	700.5	QPSK	1	0	23.34	23.0±1	/
				1	8	23.38	23.0±1	/
				1	14	23.25	23.0±1	/
				8	0	22.48	22.0±1	1.0
				8	4	22.57	22.0±1	1.0
				8	9	22.48	22.0±1	1.0
				15	0	22.46	22.0±1	1.0
			16QAM	1	0	21.87	22.0±1	1.0
				1	8	22	22.0±1	1.0
				1	14	22.73	22.0±1	1.0
				8	0	21.25	22.0±1	1.0
				8	4	21.89	22.0±1	1.0
				8	9	21.85	22.0±1	1.0
				15	0	21.38	22.0±1	1.0
				23095	707.5	QPSK	1	0
	1	8	23.44				23.0±1	/
	1	14	23.47				23.0±1	/
	8	0	22.58				22.0±1	1.0
	8	4	22.56				22.0±1	1.0
	8	9	22.59				22.0±1	1.0
	15	0	22.55				22.0±1	1.0
	16QAM	1	0			22.28	22.0±1	1.0
		1	8			22.26	22.0±1	1.0
		1	14			22.24	22.0±1	1.0
		8	0			21.61	22.0±1	1.0
		8	4			21.61	22.0±1	1.0
		8	9			21.64	22.0±1	1.0
		15	0			21.62	22.0±1	1.0
		23165	714.5			QPSK	1	0
	1			8	22.96		23.0±1	/
1	14			23.11	23.0±1		/	
8	0			22.47	22.0±1		1.0	
8	4			22.42	22.0±1		1.0	
8	9			22.35	22.0±1		1.0	
15	0			22.33	22.0±1		1.0	
16QAM	1			0	22.39	22.0±1	1.0	
	1			8	22.2	22.0±1	1.0	
	1			14	22.21	22.0±1	1.0	
	8			0	21.66	22.0±1	1.0	
	8			4	21.19	22.0±1	1.0	
	8			9	21.1	22.0±1	1.0	
	15			0	21.37	22.0±1	1.0	



BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
5MHz	23035	701.5	QPSK	1	0	23.32	23.0±1	/
				1	49	23.45	23.0±1	/
				1	99	23.44	23.0±1	/
				12	0	22.4	22.0±1	1.0
				12	24	22.53	22.0±1	1.0
				12	49	22.49	22.0±1	1.0
				25	0	22.5	22.0±1	1.0
			16QAM	1	0	21.5	22.0±1	1.0
				1	49	22.1	22.0±1	1.0
				1	99	22.01	22.0±1	1.0
				12	0	21.43	22.0±1	1.0
				12	24	21.45	22.0±1	1.0
				12	49	21.16	22.0±1	1.0
				25	0	21.57	22.0±1	1.0
	23095	707.5	QPSK	1	0	23.3	23.0±1	/
				1	49	23.58	23.0±1	/
				1	99	23.34	23.0±1	/
				12	0	22.59	22.0±1	1.0
				12	24	22.57	22.0±1	1.0
				12	49	22.46	22.0±1	1.0
				25	0	22.54	22.0±1	1.0
			16QAM	1	0	22.21	22.0±1	1.0
				1	49	22.14	22.0±1	1.0
				1	99	21.97	22.0±1	1.0
				12	0	21.33	22.0±1	1.0
				12	24	21.31	22.0±1	1.0
				12	49	21.26	22.0±1	1.0
25				0	21.67	22.0±1	1.0	
23155	713.5	QPSK	1	0	23.18	23.0±1	/	
			1	49	23.35	23.0±1	/	
			1	99	23.12	23.0±1	/	
			12	0	22.31	22.0±1	1.0	
			12	24	22.45	22.0±1	1.0	
			12	49	22.27	22.0±1	1.0	
			25	0	22.36	22.0±1	1.0	
		16QAM	1	0	22.16	22.0±1	1.0	
			1	49	22.18	22.0±1	1.0	
			1	99	21.63	22.0±1	1.0	
			12	0	21.34	22.0±1	1.0	
			12	24	21.14	22.0±1	1.0	
			12	49	21.23	22.0±1	1.0	
			25	0	21.52	22.0±1	1.0	

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
10MHz	23060	704	QPSK	1	0	23.31	23.0±1	/
				1	49	23.74	23.0±1	/
				1	99	23.56	23.0±1	/
				25	0	22.36	22.0±1	1.0
				25	24	22.56	22.0±1	1.0
				25	49	22.54	22.0±1	1.0
				50	0	22.52	22.0±1	1.0
			16QAM	1	0	22.25	22.0±1	1.0
				1	49	22.57	22.0±1	1.0
				1	99	22.36	22.0±1	1.0
				25	0	21.43	22.0±1	1.0
				25	24	21.47	22.0±1	1.0
				25	49	21.47	22.0±1	1.0
				50	0	21.46	22.0±1	1.0
	23095	707.5	QPSK	1	0	23.28	23.0±1	/
				1	49	23.88	23.0±1	/
				1	99	23.42	23.0±1	/
				25	0	22.46	22.0±1	1.0
				25	24	22.82	22.0±1	1.0
				25	49	22.49	22.0±1	1.0
				50	0	22.48	22.0±1	1.0
			16QAM	1	0	22.24	22.0±1	1.0
				1	49	22.3	22.0±1	1.0
				1	99	22.36	22.0±1	1.0
				25	0	21.41	22.0±1	1.0
				25	24	21.39	22.0±1	1.0
				25	49	21.67	22.0±1	1.0
				50	0	21.33	22.0±1	1.0
	23130	711	QPSK	1	0	23.65	23.0±1	/
				1	49	23.62	23.0±1	/
1				99	23.1	23.0±1	/	
25				0	22.55	22.0±1	1.0	
25				24	22.42	22.0±1	1.0	
25				49	22.42	22.0±1	1.0	
50				0	22.53	22.0±1	1.0	
16QAM			1	0	22.36	22.0±1	1.0	
			1	49	22.54	22.0±1	1.0	
			1	99	22.31	22.0±1	1.0	
			25	0	21.46	22.0±1	1.0	
			25	24	21.7	22.0±1	1.0	
			25	49	21.6	22.0±1	1.0	
			50	0	21.42	22.0±1	1.0	

## LTE Band 13:

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
5MHz	23205	779.5	QPSK	1	0	23	23.0±1	/
				1	49	23.26	23.0±1	/
				1	99	23.33	23.0±1	/
				12	0	22.25	22.0±1	1.0
				12	24	22.41	22.0±1	1.0
				12	49	22.39	22.0±1	1.0
				25	0	22.18	22.0±1	1.0
			16QAM	1	0	21.89	22.0±1	1.0
				1	49	21.98	22.0±1	1.0
				1	99	21.87	22.0±1	1.0
				12	0	21.27	22.0±1	1.0
				12	24	21.36	22.0±1	1.0
				12	49	21.12	22.0±1	1.0
				25	0	21.5	22.0±1	1.0
	23230	782.0	QPSK	1	0	23.19	23.0±1	/
				1	49	23.3	23.0±1	/
				1	99	23.23	23.0±1	/
				12	0	22.34	22.0±1	1.0
				12	24	22.47	22.0±1	1.0
				12	49	22.41	22.0±1	1.0
				25	0	22.5	22.0±1	1.0
			16QAM	1	0	21.91	22.0±1	1.0
				1	49	21.5	22.0±1	1.0
				1	99	21.73	22.0±1	1.0
				12	0	21.35	22.0±1	1.0
				12	24	21.52	22.0±1	1.0
				12	49	21.22	22.0±1	1.0
25				0	21.6	22.0±1	1.0	
23255	784.5	QPSK	1	0	23.26	23.0±1	/	
			1	49	23.36	23.0±1	/	
			1	99	23.16	23.0±1	/	
			12	0	22.36	22.0±1	1.0	
			12	24	22.26	22.0±1	1.0	
			12	49	22.24	22.0±1	1.0	
			25	0	22.46	22.0±1	1.0	
		16QAM	1	0	22.08	22.0±1	1.0	
			1	49	21.92	22.0±1	1.0	
			1	99	21.95	22.0±1	1.0	
			12	0	21.23	22.0±1	1.0	
			12	24	21.49	22.0±1	1.0	
			12	49	21.48	22.0±1	1.0	
			25	0	21.55	22.0±1	1.0	

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
10MHz	23230	782.0	QPSK	1	0	23.29	23.0±1	/
				1	49	23.73	23.0±1	/
				1	99	23.12	23.0±1	/
				25	0	22.31	22.0±1	1.0
				25	24	22.75	22.0±1	1.0
				25	49	22.46	22.0±1	1.0
				50	0	22.39	22.0±1	1.0
			16QAM	1	0	22.09	22.0±1	1.0
				1	49	22.41	22.0±1	1.0
				1	99	21.99	22.0±1	1.0
				25	0	21.48	22.0±1	1.0
				25	24	21.37	22.0±1	1.0
				25	49	21.38	22.0±1	1.0
				50	0	21.4	22.0±1	1.0

## LTE Band 17:

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
5MHz	23755	706.5	QPSK	1	0	22.78	22.0±1	/
				1	49	22.79	22.0±1	/
				1	99	22.76	22.0±1	/
				12	0	21.83	21.0±1	1.0
				12	24	21.84	21.0±1	1.0
				12	49	21.86	21.0±1	1.0
				25	0	21.83	21.0±1	1.0
			16QAM	1	0	21.36	21.0±1	1.0
				1	49	21.35	21.0±1	1.0
				1	99	21.33	21.0±1	1.0
				12	0	21.05	21.0±1	1.0
				12	24	21.07	21.0±1	1.0
				12	49	21.05	21.0±1	1.0
				25	0	20.94	21.0±1	1.0
	23790	710	QPSK	1	0	22.81	22.0±1	/
				1	49	22.84	22.0±1	/
				1	99	22.85	22.0±1	/
				12	0	21.93	21.0±1	1.0
				12	24	21.93	21.0±1	1.0
				12	49	21.9	21.0±1	1.0
				25	0	21.88	21.0±1	1.0
			16QAM	1	0	21.98	21.0±1	1.0
				1	49	21.97	21.0±1	1.0
				1	99	21.87	21.0±1	1.0
				12	0	21	21.0±1	1.0
				12	24	20.99	21.0±1	1.0
				12	49	20.99	21.0±1	1.0
25				0	20.85	21.0±1	1.0	
23825	713.5	QPSK	1	0	22.84	22.0±1	/	
			1	49	22.86	22.0±1	/	
			1	99	22.73	22.0±1	/	
			12	0	21.88	21.0±1	1.0	
			12	24	21.82	21.0±1	1.0	
			12	49	21.82	21.0±1	1.0	
			25	0	21.78	21.0±1	1.0	
		16QAM	1	0	21.01	21.0±1	1.0	
			1	49	21.94	21.0±1	1.0	
			1	99	21.8	21.0±1	1.0	
			12	0	20.99	21.0±1	1.0	
			12	24	20.94	21.0±1	1.0	
			12	49	20.91	21.0±1	1.0	
			25	0	20.86	21.0±1	1.0	

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
10MHz	23780	709	QPSK	1	0	22.9	22.0±1	/
				1	49	22.91	22.0±1	/
				1	99	22.92	22.0±1	/
				25	0	21.94	21.0±1	1.0
				25	24	21.94	21.0±1	1.0
				25	49	21.91	21.0±1	1.0
				50	0	21.96	21.0±1	1.0
			16QAM	1	0	21.82	21.0±1	1.0
				1	49	21.83	21.0±1	1.0
				1	99	21.71	21.0±1	1.0
				25	0	20.98	21.0±1	1.0
				25	24	21	21.0±1	1.0
				25	49	20.98	21.0±1	1.0
				50	0	20.96	21.0±1	1.0
	23790	710	QPSK	1	0	22.91	22.0±1	/
				1	49	<b>22.93</b>	22.0±1	/
				1	99	22.9	22.0±1	/
				25	0	21.90	21.0±1	1.0
				25	24	21.93	21.0±1	1.0
				25	49	21.91	21.0±1	1.0
				50	0	21.96	21.0±1	1.0
			16QAM	1	0	21.28	21.0±1	1.0
				1	49	21.26	21.0±1	1.0
				1	99	21.1	21.0±1	1.0
				25	0	21	21.0±1	1.0
				25	24	20.99	21.0±1	1.0
				25	49	20.95	21.0±1	1.0
				50	0	21	21.0±1	1.0
	23800	711	QPSK	1	0	22.84	22.0±1	/
				1	49	22.88	22.0±1	/
1				99	22.75	22.0±1	/	
25				0	21.97	21.0±1	1.0	
25				24	21.94	21.0±1	1.0	
25				49	21.91	21.0±1	1.0	
50				0	21.96	21.0±1	1.0	
16QAM			1	0	21.97	21.0±1	1.0	
			1	49	21.92	21.0±1	1.0	
			1	99	21.72	21.0±1	1.0	
			25	0	21.09	21.0±1	1.0	
			25	24	21.06	21.0±1	1.0	
			25	49	21.01	21.0±1	1.0	
			50	0	21.01	21.0±1	1.0	

## LTE Band 25:

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
1.4MHz	26047	1850.7	QPSK	1	0	22	22.0±1	/
				1	2	22.53	22.0±1	/
				1	5	22.72	22.0±1	/
				3	0	22.8	22.0±1	/
				3	1	22.83	22.0±1	/
				3	2	22.74	22.0±1	/
			16QAM	6	0	21.83	21.0±1	1.0
				1	0	21.82	21.0±1	1.0
				1	2	21.88	21.0±1	1.0
				1	5	21.82	21.0±1	1.0
				3	0	21.91	21.0±1	1.0
				3	1	21.91	21.0±1	1.0
	26365	1882.5	QPSK	3	2	21.8	21.0±1	1.0
				6	0	21.05	21.0±1	1.0
				1	0	22.63	22.0±1	/
				1	2	22.83	22.0±1	/
				1	5	22.67	22.0±1	/
				3	0	22.58	22.0±1	/
			16QAM	3	1	22.72	22.0±1	/
				3	2	22.76	22.0±1	/
				6	0	21.66	21.0±1	1.0
				1	0	21.67	21.0±1	1.0
				1	2	21.66	21.0±1	1.0
				1	5	21.75	21.0±1	1.0
	26683	1914.3	QPSK	3	0	21.85	21.0±1	1.0
				3	1	21.7	21.0±1	1.0
				3	2	21.68	21.0±1	1.0
				6	0	20.84	21.0±1	1.0
				1	0	22.88	22.0±1	/
				1	2	22.87	22.0±1	/
16QAM			1	5	22.85	22.0±1	/	
			3	0	22.56	22.0±1	/	
			3	1	22.69	22.0±1	/	
			3	2	22.73	22.0±1	/	
			6	0	21.57	21.0±1	1.0	
			1	0	21.66	21.0±1	1.0	
16QAM	1	2	21.75	21.0±1	1.0			
	1	5	21.51	21.0±1	1.0			
	3	0	21.59	21.0±1	1.0			
	3	1	21.85	21.0±1	1.0			
	3	2	21.85	21.0±1	1.0			
	6	0	20.91	21.0±1	1.0			

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
3MHz	26055	1851.5	QPSK	1	0	22.91	22.0±1	/
				1	8	22.69	22.0±1	/
				1	14	22.61	22.0±1	/
				6	0	21.8	21.0±1	1.0
				6	4	21.74	21.0±1	1.0
				6	9	21.76	21.0±1	1.0
				15	0	21.75	21.0±1	1.0
			16QAM	1	0	21.1	21.0±1	1.0
				1	8	21.05	21.0±1	1.0
				1	14	21.96	21.0±1	1.0
				8	0	20.81	21.0±1	1.0
				8	4	20.57	21.0±1	1.0
				8	9	20.99	21.0±1	1.0
				15	0	20.99	21.0±1	1.0
				26365	1882.5	QPSK	1	0
	1	8	22.74				22.0±1	/
	1	14	22.85				22.0±1	/
	6	0	21.73				21.0±1	1.0
	6	4	21.69				21.0±1	1.0
	6	9	21.71				21.0±1	1.0
	15	0	21.71				21.0±1	1.0
	16QAM	1	0			21.83	21.0±1	1.0
		1	8			21.76	21.0±1	1.0
		1	14			21.43	21.0±1	1.0
		6	0			20.41	21.0±1	1.0
		6	4			20.78	21.0±1	1.0
		6	9			20.82	21.0±1	1.0
		15	0			20.72	21.0±1	1.0
		26675	1913.5			QPSK	1	0
	1			8	21.72		22.0±1	/
1	14			21.6	22.0±1		/	
6	0			21.68	21.0±1		1.0	
6	4			21.75	21.0±1		1.0	
6	9			21.73	21.0±1		1.0	
15	0			21.71	21.0±1		1.0	
16QAM	1			0	21.71	21.0±1	1.0	
	1			8	21.75	21.0±1	1.0	
	1			14	21.66	21.0±1	1.0	
	8			0	21.58	21.0±1	1.0	
	8			4	21.54	21.0±1	1.0	
	8			9	21.53	21.0±1	1.0	
	15			0	21.62	21.0±1	1.0	



BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
5MHz	26065	1852.5	QPSK	1	0	22.81	22.0±1	/
				1	49	22.79	22.0±1	/
				1	99	22.7	22.0±1	/
				12	0	21.72	21.0±1	1.0
				12	24	21.8	21.0±1	1.0
				12	49	21.84	21.0±1	1.0
				25	0	21.84	21.0±1	1.0
			16QAM	1	0	21	21.0±1	1.0
				1	49	21.1	21.0±1	1.0
				1	99	21.04	21.0±1	1.0
				12	0	20.65	21.0±1	1.0
				12	24	20.6	21.0±1	1.0
				12	49	20.79	21.0±1	1.0
				25	0	20.82	21.0±1	1.0
	26365	1882.5	QPSK	1	0	22.6	22.0±1	/
				1	49	22.55	22.0±1	/
				1	99	22.68	22.0±1	/
				12	0	21.67	21.0±1	1.0
				12	24	21.64	21.0±1	1.0
				12	49	21.8	21.0±1	1.0
				25	0	21.62	21.0±1	1.0
			16QAM	1	0	20.82	21.0±1	1.0
				1	49	20.99	21.0±1	1.0
				1	99	21.06	21.0±1	1.0
				12	0	20.6	21.0±1	1.0
				12	24	20.72	21.0±1	1.0
				12	49	20.82	21.0±1	1.0
				25	0	20.84	21.0±1	1.0
	26665	1912.5	QPSK	1	0	22.59	22.0±1	/
				1	49	22.65	22.0±1	/
1				99	22.6	22.0±1	/	
12				0	21.65	21.0±1	1.0	
12				24	21.54	21.0±1	1.0	
12				49	21.63	21.0±1	1.0	
25				0	21.63	21.0±1	1.0	
16QAM			1	0	21.22	21.0±1	1.0	
			1	49	21.18	21.0±1	1.0	
			1	99	21.28	21.0±1	1.0	
			12	0	20.54	21.0±1	1.0	
			12	24	20.58	21.0±1	1.0	
			12	49	20.75	21.0±1	1.0	
			25	0	20.89	21.0±1	1.0	

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
10MHz	26090	1855	QPSK	1	0	22.14	22.0±1	/
				1	49	22.07	22.0±1	/
				1	99	22.74	22.0±1	/
				25	0	21.7	21.0±1	1.0
				25	24	21.81	21.0±1	1.0
				25	49	21.8	21.0±1	1.0
				50	0	21.77	21.0±1	1.0
			16QAM	1	0	21.74	21.0±1	1.0
				1	49	21.77	21.0±1	1.0
				1	99	21.68	21.0±1	1.0
				25	0	20.91	21.0±1	1.0
				25	24	20.91	21.0±1	1.0
				25	49	20.94	21.0±1	1.0
				50	0	20.9	21.0±1	1.0
	26365	1882.5	QPSK	1	0	22.87	22.0±1	/
				1	49	22.75	22.0±1	/
				1	99	22.78	22.0±1	/
				25	0	21.65	21.0±1	1.0
				25	24	21.76	21.0±1	1.0
				25	49	21.88	21.0±1	1.0
				50	0	21.75	21.0±1	1.0
			16QAM	1	0	21.47	21.0±1	1.0
				1	49	21.17	21.0±1	1.0
				1	99	21.46	21.0±1	1.0
				25	0	20.76	21.0±1	1.0
				25	24	20.73	21.0±1	1.0
				25	49	20.93	21.0±1	1.0
				50	0	20.75	21.0±1	1.0
	26640	1910	QPSK	1	0	22.95	22.0±1	/
				1	49	22.8	22.0±1	/
1				99	22.75	22.0±1	/	
25				0	21.63	21.0±1	1.0	
25				24	21.63	21.0±1	1.0	
25				49	21.63	21.0±1	1.0	
50				0	21.44	21.0±1	1.0	
16QAM			1	0	21.73	21.0±1	1.0	
			1	49	21.08	21.0±1	1.0	
			1	99	21.7	21.0±1	1.0	
			25	0	21	21.0±1	1.0	
			25	24	20.68	21.0±1	1.0	
			25	49	20.84	21.0±1	1.0	
			50	0	20.66	21.0±1	1.0	

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
15MHz	26115	1857.5	QPSK	1	0	22.81	22.0±1	/
				1	49	22.64	22.0±1	/
				1	99	22.92	22.0±1	/
				36	0	21.88	21.0±1	1.0
				36	24	21.84	21.0±1	1.0
				36	49	21.78	21.0±1	1.0
				75	0	21.73	21.0±1	1.0
			16QAM	1	0	21.81	21.0±1	1.0
				1	49	21.24	21.0±1	1.0
				1	99	21.71	21.0±1	1.0
				36	0	20.86	21.0±1	1.0
				36	24	20.72	21.0±1	1.0
				36	49	20.68	21.0±1	1.0
				75	0	20.8	21.0±1	1.0
	26365	1882.5	QPSK	1	0	22.59	22.0±1	/
				1	49	22.66	22.0±1	/
				1	99	22.78	22.0±1	/
				36	0	21.6	21.0±1	1.0
				36	24	21.82	21.0±1	1.0
				36	49	21.83	21.0±1	1.0
				75	0	21.63	21.0±1	1.0
			16QAM	1	0	22.06	21.0±1	1.0
				1	49	22.22	21.0±1	1.0
				1	99	22.3	21.0±1	1.0
				36	0	20.6	21.0±1	1.0
				36	24	20.77	21.0±1	1.0
				36	49	20.79	21.0±1	1.0
				75	0	20.79	21.0±1	1.0
	26615	1907.5	QPSK	1	0	22.71	22.0±1	/
				1	49	22.78	22.0±1	/
1				99	22.45	22.0±1	/	
36				0	21.87	21.0±1	1.0	
36				24	21.83	21.0±1	1.0	
36				49	21.65	21.0±1	1.0	
75				0	21.73	21.0±1	1.0	
16QAM			1	0	21.71	21.0±1	1.0	
			1	49	21.74	21.0±1	1.0	
			1	99	21.29	21.0±1	1.0	
			36	0	20.78	21.0±1	1.0	
			36	24	20.68	21.0±1	1.0	
			36	49	20.67	21.0±1	1.0	
			75	0	20.72	21.0±1	1.0	

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
20MHz	26140	1860	QPSK	1	0	22.64	22.0±1	/
				1	49	22.94	22.0±1	/
				1	99	22.41	22.0±1	/
				50	0	21.76	21.0±1	1.0
				50	24	21.79	21.0±1	1.0
				50	49	21.61	21.0±1	1.0
				100	0	21.77	21.0±1	1.0
			16QAM	1	0	21.94	21.0±1	1.0
				1	49	21.9	21.0±1	1.0
				1	99	21.28	21.0±1	1.0
				50	0	20.93	21.0±1	1.0
				50	24	20.95	21.0±1	1.0
				50	49	20.63	21.0±1	1.0
				100	0	20.76	21.0±1	1.0
	26365	1882.5	QPSK	1	0	22.76	22.0±1	/
				1	49	22.95	22.0±1	/
				1	99	22.88	22.0±1	/
				50	0	21.69	21.0±1	1.0
				50	24	21.97	21.0±1	1.0
				50	49	21.9	21.0±1	1.0
				100	0	21.71	21.0±1	1.0
			16QAM	1	0	21.33	21.0±1	1.0
				1	49	21.51	21.0±1	1.0
				1	99	21.55	21.0±1	1.0
				50	0	20.72	21.0±1	1.0
				50	24	20.83	21.0±1	1.0
				50	49	20.78	21.0±1	1.0
				100	0	20.75	21.0±1	1.0
	26590	1905.0	QPSK	1	0	22.91	22.0±1	/
				1	49	22.94	22.0±1	/
1				99	22.87	22.0±1	/	
50				0	21.78	21.0±1	1.0	
50				24	21.68	21.0±1	1.0	
50				49	21.66	21.0±1	1.0	
100				0	21.77	21.0±1	1.0	
16QAM			1	0	21.56	21.0±1	1.0	
			1	49	21.21	21.0±1	1.0	
			1	99	21.29	21.0±1	1.0	
			50	0	20.91	21.0±1	1.0	
			50	24	20.74	21.0±1	1.0	
			50	49	20.63	21.0±1	1.0	
			100	0	20.74	21.0±1	1.0	

**LTE Band 26:****(Uplink: 814-824MHz is for FCC Part 90; 824-849MHz is for FCC Part 22)****Part 90:**

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
1.4MHz	26697	814.7	QPSK	1	0	22.82	22.0±1	/
				1	2	22.80	22.0±1	/
				1	5	22.75	22.0±1	/
				3	0	21.67	22.0±1	/
				3	1	21.82	22.0±1	/
				3	2	21.73	22.0±1	/
			16QAM	6	0	20.99	21.0±1	1.0
				1	0	20.84	21.0±1	1.0
				1	2	20.97	21.0±1	1.0
				1	5	20.96	21.0±1	1.0
				3	0	21.22	21.0±1	1.0
				3	1	21.29	21.0±1	1.0
	26783	823.3	QPSK	3	2	21.22	21.0±1	1.0
				6	0	20.37	21.0±1	1.0
				1	0	21.92	22.0±1	/
				1	2	21.95	22.0±1	/
				1	5	21.83	22.0±1	/
				3	0	21.94	22.0±1	/
			16QAM	3	1	21.95	22.0±1	/
				3	2	21.93	22.0±1	/
				6	0	20.83	21.0±1	1.0
				1	0	20.86	21.0±1	1.0
				1	2	20.87	21.0±1	1.0
				1	5	20.78	21.0±1	1.0
			16QAM	3	0	20.92	21.0±1	1.0
				3	1	21.02	21.0±1	1.0
				3	2	20.82	21.0±1	1.0
				6	0	20.16	21.0±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
3MHz	26705	815.5	QPSK	1	0	22.35	22.0±1	/
				1	8	22.05	22.0±1	/
				1	14	21.81	22.0±1	/
				6	0	21	21.0±1	1.0
				6	4	21.08	21.0±1	1.0
				6	9	21.23	21.0±1	1.0
			15	0	21.13	21.0±1	1.0	
			16QAM	1	0	21.05	21.0±1	1.0
				1	8	20.83	21.0±1	1.0
				1	14	20.79	21.0±1	1.0
				8	0	20.52	21.0±1	1.0
				8	4	20.45	21.0±1	1.0
	8	9		20.43	21.0±1	1.0		
	15	0	20.21	21.0±1	1.0			
	26775	822.5	QPSK	1	0	22.44	22.0±1	/
				1	8	22.01	22.0±1	/
				1	14	22.37	22.0±1	/
				6	0	20.96	21.0±1	1.0
				6	4	20.89	21.0±1	1.0
				6	9	21.14	21.0±1	1.0
			15	0	21.09	21.0±1	1.0	
			16QAM	1	0	20.88	21.0±1	1.0
				1	8	20.84	21.0±1	1.0
				1	14	20.35	21.0±1	1.0
8				0	20.12	21.0±1	1.0	
8				4	20.08	21.0±1	1.0	
8	9	20.32		21.0±1	1.0			
15	0	20.23	21.0±1	1.0				

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
5MHz	26715	816.5	QPSK	1	0	22.05	22.0±1	/
				1	49	21.74	22.0±1	/
				1	99	21.66	22.0±1	/
				12	0	20.86	21.0±1	1.0
				12	24	21.02	21.0±1	1.0
				12	49	20.84	21.0±1	1.0
				25	0	20.96	21.0±1	1.0
			16QAM	1	0	20.58	21.0±1	1.0
				1	49	20.74	21.0±1	1.0
				1	99	20.48	21.0±1	1.0
				12	0	20.05	21.0±1	1.0
				12	24	20.17	21.0±1	1.0
				12	49	20.92	21.0±1	1.0
				25	0	20.14	21.0±1	1.0
	26765	821.5	QPSK	1	0	22.22	22.0±1	/
				1	49	21.89	22.0±1	/
				1	99	22.09	22.0±1	/
				12	0	21.06	21.0±1	1.0
				12	24	21.05	21.0±1	1.0
				12	49	21.05	21.0±1	1.0
				25	0	21.08	21.0±1	1.0
			16QAM	1	0	20.82	21.0±1	1.0
				1	49	20.74	21.0±1	1.0
				1	99	20.65	21.0±1	1.0
12				0	20.19	21.0±1	1.0	
12				24	20.14	21.0±1	1.0	
12				49	20.94	21.0±1	1.0	
25				0	20.35	21.0±1	1.0	

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
10MHz	26740	819.0	QPSK	1	0	22.09	22.0±1	/
				1	49	<b>22.91</b>	22.0±1	/
				1	99	22.02	22.0±1	/
				25	0	21.93	21.0±1	1.0
				25	24	21.95	21.0±1	1.0
				25	49	21.76	21.0±1	1.0
				50	0	20.99	21.0±1	1.0
			16QAM	1	0	21.05	21.0±1	1.0
				1	49	21.07	21.0±1	1.0
				1	99	21.06	21.0±1	1.0
				25	0	20.12	21.0±1	1.0
				25	24	20.09	21.0±1	1.0
				25	49	20.14	21.0±1	1.0
				50	0	20.11	21.0±1	1.0



**LTE Band 26(Part 22H):**

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
1.4MHz	26797	824.7	QPSK	1	0	22.19	22.0±1	/
				1	2	21.93	22.0±1	/
				1	5	22.18	22.0±1	/
				3	0	21.86	22.0±1	/
				3	1	21.81	22.0±1	/
				3	2	21.88	22.0±1	/
			6	0	21.14	21.0±1	1.0	
			16QAM	1	0	20.72	21.0±1	1.0
				1	2	20.56	21.0±1	1.0
				1	5	20.45	21.0±1	1.0
				3	0	20.38	21.0±1	1.0
				3	1	20.77	21.0±1	1.0
	3	2		20.75	21.0±1	1.0		
	26915	836.5	QPSK	1	0	22.5	22.0±1	/
				1	2	21.77	22.0±1	/
				1	5	22.54	22.0±1	/
				3	0	21.88	22.0±1	/
				3	1	21.74	22.0±1	/
				3	2	21.77	22.0±1	/
			6	0	20.87	21.0±1	1.0	
			16QAM	1	0	20.86	21.0±1	1.0
				1	2	20.86	21.0±1	1.0
				1	5	20.89	21.0±1	1.0
				3	0	20.68	21.0±1	1.0
				3	1	20.54	21.0±1	1.0
	3	2		20.55	21.0±1	1.0		
	27033	848.3	QPSK	1	0	21.93	22.0±1	/
				1	2	22.05	22.0±1	/
				1	5	21.64	22.0±1	/
				3	0	21.95	22.0±1	/
3				1	21.85	22.0±1	/	
3				2	21.74	22.0±1	/	
6			0	20.73	21.0±1	1.0		
16QAM			1	0	20.93	21.0±1	1.0	
			1	2	20.89	21.0±1	1.0	
			1	5	20.87	21.0±1	1.0	
			3	0	21.08	21.0±1	1.0	
			3	1	21.03	21.0±1	1.0	
	3	2	20.75	21.0±1	1.0			
6	0	20.83	21.0±1	1.0				

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
3MHz	26805	825.5	QPSK	1	0	21.94	22.0±1	/
				1	8	21.85	22.0±1	/
				1	14	22.1	22.0±1	/
				6	0	21.08	21.0±1	1.0
				6	4	20.93	21.0±1	1.0
				6	9	21.01	21.0±1	1.0
				15	0	20.85	21.0±1	1.0
			16QAM	1	0	21.09	21.0±1	1.0
				1	8	20.6	21.0±1	1.0
				1	14	20.88	21.0±1	1.0
				8	0	20.07	21.0±1	1.0
				8	4	20.05	21.0±1	1.0
				8	9	20.22	21.0±1	1.0
				15	0	20.82	21.0±1	1.0
				26915	836.5	QPSK	1	0
	1	8	21.58				22.0±1	/
	1	14	21.63				22.0±1	/
	6	0	20.98				21.0±1	1.0
	6	4	20.91				21.0±1	1.0
	6	9	20.9				21.0±1	1.0
	15	0	20.92				21.0±1	1.0
	16QAM	1	0			20.9	21.0±1	1.0
		1	8			20.22	21.0±1	1.0
		1	14			20.22	21.0±1	1.0
		6	0			20.05	21.0±1	1.0
		6	4			20.96	21.0±1	1.0
		6	9			20.85	21.0±1	1.0
		15	0			20.06	21.0±1	1.0
		27025	847.5			QPSK	1	0
	1			8	21.88		22.0±1	/
1	14			21.76	22.0±1		/	
6	0			20.78	21.0±1		1.0	
6	4			20.86	21.0±1		1.0	
6	9			20.84	21.0±1		1.0	
15	0			20.96	21.0±1		1.0	
16QAM	1			0	20.99	21.0±1	1.0	
	1			8	20.32	21.0±1	1.0	
	1			14	20.84	21.0±1	1.0	
	8			0	20.97	21.0±1	1.0	
	8			4	20.83	21.0±1	1.0	
	8			9	20.86	21.0±1	1.0	
	15			0	20.92	21.0±1	1.0	

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
5MHz	26815	826.5	QPSK	1	0	21.92	22.0±1	/
				1	49	21.84	22.0±1	/
				1	99	21.78	22.0±1	/
				12	0	20.88	21.0±1	1.0
				12	24	20.87	21.0±1	1.0
				12	49	20.85	21.0±1	1.0
				25	0	20.89	21.0±1	1.0
			16QAM	1	0	20.54	21.0±1	1.0
				1	49	20.51	21.0±1	1.0
				1	99	20.45	21.0±1	1.0
				12	0	20.16	21.0±1	1.0
				12	24	20.96	21.0±1	1.0
				12	49	20.94	21.0±1	1.0
				25	0	20.14	21.0±1	1.0
	26915	836.5	QPSK	1	0	21.75	22.0±1	/
				1	49	21.77	22.0±1	/
				1	99	21.76	22.0±1	/
				12	0	21.01	21.0±1	1.0
				12	24	20.88	21.0±1	1.0
				12	49	20.85	21.0±1	1.0
				25	0	20.97	21.0±1	1.0
			16QAM	1	0	20.82	21.0±1	1.0
				1	49	20.74	21.0±1	1.0
				1	99	20.59	21.0±1	1.0
				12	0	20.96	21.0±1	1.0
				12	24	20.87	21.0±1	1.0
				12	49	20.89	21.0±1	1.0
				25	0	20.98	21.0±1	1.0
	27015	846.5	QPSK	1	0	21.98	22.0±1	/
				1	49	21.56	22.0±1	/
1				99	21.89	22.0±1	/	
12				0	20.89	21.0±1	1.0	
12				24	20.79	21.0±1	1.0	
12				49	20.74	21.0±1	1.0	
25				0	20.93	21.0±1	1.0	
16QAM			1	0	20.36	21.0±1	1.0	
			1	49	20.66	21.0±1	1.0	
			1	99	20.16	21.0±1	1.0	
			12	0	20.12	21.0±1	1.0	
			12	24	20.89	21.0±1	1.0	
			12	49	20.87	21.0±1	1.0	
			25	0	20.93	21.0±1	1.0	

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
10MHz	26840	829.0	QPSK	1	0	22.03	22.0±1	/
				1	49	21.89	22.0±1	/
				1	99	21.99	22.0±1	/
				25	0	21	21.0±1	1.0
				25	24	21.04	21.0±1	1.0
				25	49	20.9	21.0±1	1.0
				50	0	20.92	21.0±1	1.0
			16QAM	1	0	21	21.0±1	1.0
				1	49	21.28	21.0±1	1.0
				1	99	21.66	21.0±1	1.0
				25	0	20.99	21.0±1	1.0
				25	24	20.14	21.0±1	1.0
				25	49	20.98	21.0±1	1.0
				50	0	20.87	21.0±1	1.0
	26915	836..5	QPSK	1	0	21.74	22.0±1	/
				1	49	21.88	22.0±1	/
				1	99	22.17	22.0±1	/
				25	0	21.13	21.0±1	1.0
				25	24	21.03	21.0±1	1.0
				25	49	20.97	21.0±1	1.0
				50	0	20.91	21.0±1	1.0
			16QAM	1	0	20.86	21.0±1	1.0
				1	49	20.4	21.0±1	1.0
				1	99	20.25	21.0±1	1.0
				25	0	20.26	21.0±1	1.0
				25	24	20.09	21.0±1	1.0
				25	49	20.25	21.0±1	1.0
				50	0	20.04	21.0±1	1.0
	26990	844.0	QPSK	1	0	21.71	22.0±1	/
				1	49	22.2	22.0±1	/
1				99	21.94	22.0±1	/	
25				0	20.92	21.0±1	1.0	
25				24	20.92	21.0±1	1.0	
25				49	21.03	21.0±1	1.0	
50				0	20.91	21.0±1	1.0	
16QAM			1	0	21.13	21.0±1	1.0	
			1	49	20.83	21.0±1	1.0	
			1	99	21.09	21.0±1	1.0	
			25	0	20.98	21.0±1	1.0	
			25	24	20.29	21.0±1	1.0	
			25	49	20.04	21.0±1	1.0	
			50	0	20.06	21.0±1	1.0	

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
15MHz	26865	831.5	QPSK	1	0	22.88	22.0±1	/
				1	49	21.84	22.0±1	/
				1	99	21.85	22.0±1	/
				36	0	20.89	21.0±1	1.0
				36	24	20.99	21.0±1	1.0
				36	49	21.01	21.0±1	1.0
				75	0	20.91	21.0±1	1.0
			16QAM	1	0	20.98	21.0±1	1.0
				1	49	21.55	21.0±1	1.0
				1	99	20.92	21.0±1	1.0
				36	0	20.78	21.0±1	1.0
				36	24	20.99	21.0±1	1.0
				36	49	20.93	21.0±1	1.0
				75	0	20.92	21.0±1	1.0
	26915	836.5	QPSK	1	0	22.83	22.0±1	/
				1	49	<b>22.98</b>	22.0±1	/
				1	99	21.99	22.0±1	/
				36	0	21.09	21.0±1	1.0
				36	24	21.96	21.0±1	1.0
				36	49	21.95	21.0±1	1.0
				75	0	21.07	21.0±1	1.0
			16QAM	1	0	21.01	21.0±1	1.0
				1	49	20.91	21.0±1	1.0
				1	99	20.48	21.0±1	1.0
				36	0	20.15	21.0±1	1.0
				36	24	20	21.0±1	1.0
				36	49	20.94	21.0±1	1.0
				75	0	20.11	21.0±1	1.0
	26965	841.5	QPSK	1	0	21.97	22.0±1	/
				1	49	22.07	22.0±1	/
1				99	22	22.0±1	/	
36				0	20.98	21.0±1	1.0	
36				24	20.98	21.0±1	1.0	
36				49	21.03	21.0±1	1.0	
75				0	20.91	21.0±1	1.0	
16QAM			1	0	21.5	21.0±1	1.0	
			1	49	21.46	21.0±1	1.0	
			1	99	21.13	21.0±1	1.0	
			36	0	20.98	21.0±1	1.0	
			36	24	20.96	21.0±1	1.0	
			36	49	20.08	21.0±1	1.0	
			75	0	20.07	21.0±1	1.0	

**LTE Band 41:**

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
5MHz	40265	2557.5	QPSK	1	0	22.46	22.0±1	/
				1	12	22.52	22.0±1	/
				1	24	22.47	22.0±1	/
				12	0	21.52	21.0±1	1.0
				12	6	21.57	21.0±1	1.0
				12	11	21.54	21.0±1	1.0
				25	0	21.67	21.0±1	1.0
			16QAM	1	0	20.96	21.0±1	1.0
				1	12	21.04	21.0±1	1.0
				1	24	21.08	21.0±1	1.0
				12	0	20.65	21.0±1	1.0
				12	6	20.37	21.0±1	1.0
				12	11	20.35	21.0±1	1.0
				25	0	20.66	21.0±1	1.0
	40740	2605.0	QPSK	1	0	22.65	22.0±1	/
				1	12	22.66	22.0±1	/
				1	24	22.57	22.0±1	/
				12	0	21.65	21.0±1	1.0
				12	6	21.76	21.0±1	1.0
				12	11	21.69	21.0±1	1.0
				25	0	21.7	21.0±1	1.0
			16QAM	1	0	21.22	21.0±1	1.0
				1	12	21.18	21.0±1	1.0
				1	24	21.23	21.0±1	1.0
				12	0	20.49	21.0±1	1.0
				12	6	20.57	21.0±1	1.0
				12	11	20.53	21.0±1	1.0
25				0	20.85	21.0±1	1.0	
41215	2652.5	QPSK	1	0	22.38	22.0±1	/	
			1	12	22.38	22.0±1	/	
			1	24	22.41	22.0±1	/	
			12	0	21.49	21.0±1	1.0	
			12	6	21.43	21.0±1	1.0	
			12	11	21.46	21.0±1	1.0	
			25	0	21.47	21.0±1	1.0	
		16QAM	1	0	21.34	21.0±1	1.0	
			1	12	21.23	21.0±1	1.0	
			1	24	21.24	21.0±1	1.0	
			12	0	20.73	21.0±1	1.0	
			12	6	20.58	21.0±1	1.0	
			12	11	20.63	21.0±1	1.0	
			25	0	20.48	21.0±1	1.0	

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
10MHz	40290	2560.0	QPSK	1	0	22.56	22.0±1	/
				1	24	22.65	22.0±1	/
				1	49	22.52	22.0±1	/
				25	0	21.69	21.0±1	1.0
				25	12	21.73	21.0±1	1.0
				25	24	21.63	21.0±1	1.0
				50	0	21.76	21.0±1	1.0
			16QAM	1	0	21.06	21.0±1	1.0
				1	24	21.28	21.0±1	1.0
				1	49	21.07	21.0±1	1.0
				25	0	20.77	21.0±1	1.0
				25	12	20.79	21.0±1	1.0
				25	24	20.7	21.0±1	1.0
				50	0	20.48	21.0±1	1.0
	40740	2605.0	QPSK	1	0	22.82	22.0±1	/
				1	24	22.68	22.0±1	/
				1	49	22.71	22.0±1	/
				25	0	21.94	21.0±1	1.0
				25	12	21.83	21.0±1	1.0
				25	24	21.87	21.0±1	1.0
				50	0	21.97	21.0±1	1.0
			16QAM	1	0	21.11	21.0±1	1.0
				1	24	21.45	21.0±1	1.0
				1	49	21.23	21.0±1	1.0
				25	0	20.92	21.0±1	1.0
				25	12	20.79	21.0±1	1.0
				25	24	20.87	21.0±1	1.0
50				0	20.58	21.0±1	1.0	
41190	2650.0	QPSK	1	0	22.48	22.0±1	/	
			1	24	22.52	22.0±1	/	
			1	49	22.52	22.0±1	/	
			25	0	21.56	21.0±1	1.0	
			25	12	21.57	21.0±1	1.0	
			25	24	21.53	21.0±1	1.0	
			50	0	21.53	21.0±1	1.0	
		16QAM	1	0	21.42	21.0±1	1.0	
			1	24	21.71	21.0±1	1.0	
			1	49	21.38	21.0±1	1.0	
			25	0	20.63	21.0±1	1.0	
			25	12	20.65	21.0±1	1.0	
			25	24	20.63	21.0±1	1.0	
			50	0	20.64	21.0±1	1.0	

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
15MHz	40315	2562.5	QPSK	1	0	22.51	22.0±1	/
				1	37	22.43	22.0±1	/
				1	74	22.53	22.0±1	/
				36	0	21.74	21.0±1	1.0
				36	16	21.42	21.0±1	1.0
				36	35	21.7	21.0±1	1.0
				75	0	21.76	21.0±1	1.0
			16QAM	1	0	21.16	21.0±1	1.0
				1	37	21.1	21.0±1	1.0
				1	74	21.08	21.0±1	1.0
				36	0	20.48	21.0±1	1.0
				36	16	20.35	21.0±1	1.0
				36	35	20.44	21.0±1	1.0
				75	0	20.56	21.0±1	1.0
	40740	2605.0	QPSK	1	0	22.76	22.0±1	/
				1	37	22.73	22.0±1	/
				1	74	22.74	22.0±1	/
				36	0	21.88	21.0±1	1.0
				36	16	21.79	21.0±1	1.0
				36	35	21.8	21.0±1	1.0
				75	0	21.76	21.0±1	1.0
			16QAM	1	0	21.33	21.0±1	1.0
				1	37	21.25	21.0±1	1.0
				1	74	21.32	21.0±1	1.0
				36	0	20.95	21.0±1	1.0
				36	16	20.86	21.0±1	1.0
				36	35	20.88	21.0±1	1.0
75				0	20.81	21.0±1	1.0	
41165	2647.5	QPSK	1	0	22.64	22.0±1	/	
			1	37	22.49	22.0±1	/	
			1	74	22.42	22.0±1	/	
			36	0	21.69	21.0±1	1.0	
			36	16	21.6	21.0±1	1.0	
			36	35	21.66	21.0±1	1.0	
			75	0	21.59	21.0±1	1.0	
		16QAM	1	0	21.94	21.0±1	1.0	
			1	37	21.83	21.0±1	1.0	
			1	74	21.75	21.0±1	1.0	
			36	0	20.72	21.0±1	1.0	
			36	16	20.62	21.0±1	1.0	
			36	35	20.67	21.0±1	1.0	
			75	0	20.71	21.0±1	1.0	



BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
20MHz	40340	2565.0	QPSK	1	0	22.37	22.0±1	/
				1	49	22.82	22.0±1	/
				1	99	22.63	22.0±1	/
				50	0	21.77	21.0±1	1.0
				50	24	21.68	21.0±1	1.0
				50	49	21.61	21.0±1	1.0
				100	0	21.6	21.0±1	1.0
			16QAM	1	0	21.54	21.0±1	1.0
				1	49	21.86	21.0±1	1.0
				1	99	21.31	21.0±1	1.0
				50	0	20.82	21.0±1	1.0
				50	24	20.6	21.0±1	1.0
				50	49	20.72	21.0±1	1.0
				100	0	20.72	21.0±1	1.0
	40740	2605.0	QPSK	1	0	22.95	22.0±1	/
				1	49	22.95	22.0±1	/
				1	99	22.84	22.0±1	/
				50	0	21.87	21.0±1	1.0
				50	24	21.92	21.0±1	1.0
				50	49	21.85	21.0±1	1.0
				100	0	21.82	21.0±1	1.0
			16QAM	1	0	21.08	21.0±1	1.0
				1	49	20.95	21.0±1	1.0
				1	99	20.92	21.0±1	1.0
				50	0	20.86	21.0±1	1.0
				50	24	20.82	21.0±1	1.0
				50	49	20.86	21.0±1	1.0
				100	0	20.76	21.0±1	1.0
	41140	2645.0	QPSK	1	0	22.46	22.0±1	/
				1	49	22.43	22.0±1	/
1				99	22.3	22.0±1	/	
50				0	21.7	21.0±1	1.0	
50				24	21.53	21.0±1	1.0	
50				49	21.6	21.0±1	1.0	
100				0	21.55	21.0±1	1.0	
16QAM			1	0	21.7	21.0±1	1.0	
			1	49	21.52	21.0±1	1.0	
			1	99	21.52	21.0±1	1.0	
			50	0	20.79	21.0±1	1.0	
			50	24	20.67	21.0±1	1.0	
			50	49	20.66	21.0±1	1.0	
			100	0	20.61	21.0±1	1.0	

## ERP and EIRP

## LTE Band 2

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	RX Antenna		Substituted			Absolute Level (dBm)	Part 24E	
			Height (m)	Polar (H/V)	SG Level (dBm)	Cable (dB)	Antenna Gain (dB)		Limit (dBm)	Margin (dB)
LTE Band 2 Channel 18607 – 1.4MHz – QPSK										
1850.70	76.36	10	1.3	H	2.39	0.31	10.40	12.48	33	-20.52
1850.70	84.03	352	1.1	V	10.75	0.31	10.40	20.84	33	-12.16
LTE Band 2 Channel 18900 – 1.4MHz – QPSK										
1880.00	77.00	99	2.5	H	3.15	0.31	10.40	13.24	33	-19.76
1880.00	84.20	236	1.1	V	11.08	0.31	10.40	21.17	33	-11.83
LTE Band 2 Channel 19193 – 1.4MHz – QPSK										
1909.30	78.27	192	2.0	H	4.54	0.32	10.40	14.62	33	-18.38
1909.30	84.63	40	2.1	V	11.67	0.32	10.40	21.75	33	-11.25
LTE Band 2 Channel 18607 – 1.4MHz – 16QAM										
1850.70	78.05	77	2.1	H	4.08	0.31	10.40	14.17	33	-18.83
1850.70	84.85	1	1.6	V	11.57	0.31	10.40	21.66	33	-11.34
LTE Band 2 Channel 18900 – 1.4MHz – 16QAM										
1880.00	79.22	52	1.6	H	5.37	0.31	10.40	15.46	33	-17.54
1880.00	84.36	163	1.3	V	11.24	0.31	10.40	21.33	33	-11.67
LTE Band 2 Channel 19193 – 1.4MHz – 16QAM										
1909.30	77.77	51	1.9	H	4.04	0.32	10.40	14.12	33	-18.88
1909.30	84.75	266	2.1	V	11.79	0.32	10.40	21.87	33	-11.13
LTE Band 2 Channel 18615 – 3MHz – QPSK										
1851.50	76.72	237	2.1	H	2.75	0.31	10.40	12.84	33	-20.16
1851.50	84.98	9	2.1	V	11.70	0.31	10.40	21.79	33	-11.21
LTE Band 2 Channel 18900 – 3MHz – QPSK										
1880.00	79.57	111	1.4	H	5.72	0.31	10.40	15.81	33	-17.19
1880.00	84.42	55	1.0	V	11.30	0.31	10.40	21.39	33	-11.61
LTE Band 2 Channel 19185 – 3MHz – QPSK										
1908.50	79.31	64	2.1	H	5.58	0.32	10.40	15.66	33	-17.34
1908.50	84.46	201	1.9	V	11.50	0.32	10.40	21.58	33	-11.42
LTE Band 2 Channel 18615 – 3MHz – 16QAM										
1851.50	76.42	336	2.3	H	2.45	0.31	10.40	12.54	33	-20.46
1851.50	84.17	52	2.2	V	10.89	0.31	10.40	20.98	33	-12.02
LTE Band 2 Channel 18900 – 3MHz – 16QAM										
1880.00	77.10	116	2.5	H	3.25	0.31	10.40	13.34	33	-19.66
1880.00	84.97	15	1.1	V	11.85	0.31	10.40	21.94	33	-11.06
LTE Band 2 Channel 19185 – 3MHz – 16QAM										
1908.50	78.16	193	2.4	H	4.43	0.32	10.40	14.51	33	-18.49
1908.50	84.57	285	1.9	V	11.61	0.32	10.40	21.69	33	-11.31
LTE Band 2 Channel 18625 – 5MHz – QPSK										
1852.50	76.69	132	2.0	H	2.72	0.31	10.40	12.81	33	-20.19
1852.50	84.55	86	1.1	V	11.27	0.31	10.40	21.36	33	-11.64
LTE Band 2 Channel 18900 – 5MHz – QPSK										
1880.00	78.73	283	1.5	H	4.88	0.31	10.40	14.97	33	-18.03

1880.00	84.29	73	1.8	V	11.17	0.31	10.40	21.26	33	-11.74
LTE Band 2 Channel 19175 – 5MHz – QPSK										
1907.50	76.28	222	1.9	H	2.55	0.32	10.40	12.63	33	-20.37
1907.50	84.14	2	1.3	V	11.18	0.32	10.40	21.26	33	-11.74
LTE Band 2 Channel 18625 – 5MHz – 16QAM										
1852.50	78.59	266	2.2	H	4.62	0.31	10.40	14.71	33	-18.29
1852.50	84.40	97	1.2	V	11.12	0.31	10.40	21.21	33	-11.79
LTE Band 2 Channel 18900 – 5MHz – 16QAM										
1880.00	76.86	281	2.0	H	3.01	0.31	10.40	13.10	33	-19.90
1880.00	84.12	33	1.2	V	11.00	0.31	10.40	21.09	33	-11.91
LTE Band 2 Channel 19175 – 5MHz – 16QAM										
1907.50	77.01	52	1.1	H	3.28	0.32	10.40	13.36	33	-19.64
1907.50	84.55	200	2.1	V	11.59	0.32	10.40	21.67	33	-11.33
LTE Band 2 Channel 18650 – 10MHz – QPSK										
1855.00	77.25	72	1.1	H	3.28	0.31	10.40	13.37	33	-19.63
1855.00	84.88	330	2.3	V	11.60	0.31	10.40	21.69	33	-11.31
LTE Band 2 Channel 18900 – 10MHz – QPSK										
1880.00	77.48	89	2.2	H	3.63	0.31	10.40	13.72	33	-19.28
1880.00	84.15	269	1.9	V	11.03	0.31	10.40	21.12	33	-11.88
LTE Band 2 Channel 19150 – 10MHz – QPSK										
1905.00	77.84	258	1.9	H	4.11	0.32	10.40	14.19	33	-18.81
1905.00	84.34	27	1.9	V	11.38	0.32	10.40	21.46	33	-11.54
LTE Band 2 Channel 18650 – 10MHz – 16QAM										
1855.00	76.70	303	1.5	H	2.73	0.31	10.40	12.82	33	-20.18
1855.00	84.50	211	1.7	V	11.22	0.31	10.40	21.31	33	-11.69
LTE Band 2 Channel 18900 – 10MHz – 16QAM										
1880.00	78.30	8	1.3	H	4.45	0.31	10.40	14.54	33	-18.46
1880.00	84.06	49	2.4	V	10.94	0.31	10.40	21.03	33	-11.97
LTE Band 2 Channel 19150 – 10MHz – 16QAM										
1905.00	79.19	156	2.3	H	5.46	0.32	10.40	15.54	33	-17.46
1905.00	84.44	234	1.7	V	11.48	0.32	10.40	21.56	33	-11.44
LTE Band 2 Channel 18675 – 15MHz – QPSK										
1857.50	77.76	213	1.5	H	3.79	0.31	10.40	13.88	33	-19.12
1857.50	84.29	42	1.2	V	11.01	0.31	10.40	21.10	33	-11.90
LTE Band 2 Channel 18900 – 15MHz – QPSK										
1880.00	76.46	228	1.3	H	2.61	0.31	10.40	12.70	33	-20.30
1880.00	84.14	266	1.6	V	11.02	0.31	10.40	21.11	33	-11.89
LTE Band 2 Channel 19125 – 15MHz – QPSK										
1902.50	78.85	278	1.7	H	5.12	0.32	10.40	15.20	33	-17.80
1902.50	84.51	314	2.4	V	11.55	0.32	10.40	21.63	33	-11.37
LTE Band 2 Channel 18675 – 15MHz – 16QAM										
1857.50	76.19	278	2.1	H	2.22	0.31	10.40	12.31	33	-20.69
1857.50	84.11	289	1.3	V	10.83	0.31	10.40	20.92	33	-12.08
LTE Band 2 Channel 18900 – 15MHz – 16QAM										
1880.00	78.58	218	1.0	H	4.73	0.31	10.40	14.82	33	-18.18
1880.00	84.32	100	2.4	V	11.20	0.31	10.40	21.29	33	-11.71
LTE Band 2 Channel 19125 – 15MHz – 16QAM										

1902.50	77.40	162	1.3	H	3.67	0.32	10.40	13.75	33	-19.25
1902.50	84.30	141	1.9	V	11.34	0.32	10.40	21.42	33	-11.58
LTE Band 2 Channel 18700 – 20MHz – QPSK										
1860.00	78.14	330	1.1	H	4.17	0.31	10.40	14.26	33	-18.74
1860.00	84.36	185	2.3	V	11.08	0.31	10.40	21.17	33	-11.83
LTE Band 2 Channel 18900 – 20MHz – QPSK										
1880.00	76.33	261	1.3	H	2.48	0.31	10.40	12.57	33	-20.43
1880.00	84.84	118	1.0	V	11.72	0.31	10.40	21.81	33	-11.19
LTE Band 2 Channel 19100 – 20MHz – QPSK										
1900.00	77.87	215	1.8	H	4.14	0.32	10.40	14.22	33	-18.78
1900.00	84.95	279	2.4	V	11.99	0.32	10.40	22.07	33	-10.93
LTE Band 2 Channel 18670 – 20MHz – 16QAM										
1860.00	78.50	80	1.6	H	4.53	0.31	10.40	14.62	33	-18.38
1860.00	84.05	341	1.8	V	10.77	0.31	10.40	20.86	33	-12.14
LTE Band 2 Channel 18900 – 20MHz – 16QAM										
1880.00	78.65	260	1.7	H	4.80	0.31	10.40	14.89	33	-18.11
1880.00	84.39	168	1.1	V	11.27	0.31	10.40	21.36	33	-11.64
LTE Band 2 Channel 19100 – 20MHz – 16QAM										
1900.00	78.63	72	1.4	H	4.90	0.32	10.40	14.98	33	-18.02
1900.00	84.58	89	2.1	V	11.62	0.32	10.40	21.70	33	-11.30

## LTE Band 4

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	RX Antenna		Substituted			Absolute Level (dBm)	Part 27	
			Height (m)	Polar (H/V)	SG Level (dBm)	Cable (dB)	Antenna Gain (dB)		Limit (dBm)	Margin (dB)
LTE Band 4 Channel 19957 – 1.4MHz – QPSK										
1710.70	78.97	323	1.3	H	4.86	0.30	9.40	13.96	30	-16.04
1710.70	84.08	76	1.4	V	10.55	0.30	9.40	19.65	30	-10.35
LTE Band 4 Channel 20175 – 1.4MHz – QPSK										
1732.50	78.92	209	1.4	H	4.81	0.30	9.40	13.91	30	-16.09
1732.50	84.89	244	2.0	V	11.36	0.30	9.40	20.46	30	-9.54
LTE Band 4 Channel 20393 – 1.4MHz – QPSK										
1754.30	76.58	150	2.1	H	2.47	0.30	9.40	11.57	30	-18.43
1754.30	84.99	359	1.6	V	11.46	0.30	9.40	20.56	30	-9.44
LTE Band 4 Channel 19957 – 1.4MHz – 16QAM										
1710.70	79.03	328	2.1	H	4.92	0.30	9.40	14.02	30	-15.98
1710.70	84.99	158	1.4	V	11.46	0.30	9.40	20.56	30	-9.44
LTE Band 4 Channel 20175 – 1.4MHz – 16QAM										
1732.50	79.37	316	1.6	H	5.26	0.30	9.40	14.36	30	-15.64
1732.50	84.05	338	1.6	V	10.52	0.30	9.40	19.62	30	-10.38
LTE Band 4 Channel 20393 – 1.4MHz – 16QAM										
1754.30	78.40	292	1.6	H	4.29	0.30	9.40	13.39	30	-16.61
1754.30	84.53	277	1.7	V	11.00	0.30	9.40	20.10	30	-9.90
LTE Band 4 Channel 19965 – 3MHz – QPSK										
1711.50	78.96	32	1.4	H	4.85	0.30	9.40	13.95	30	-16.05
1711.50	84.70	186	1.6	V	11.17	0.30	9.40	20.27	30	-9.73
LTE Band 4 Channel 20175 – 3MHz – QPSK										
1732.50	78.61	155	2.1	H	4.50	0.30	9.40	13.60	30	-16.40
1732.50	84.96	343	1.1	V	11.43	0.30	9.40	20.53	30	-9.47
LTE Band 4 Channel 20385 – 3MHz – QPSK										
1753.50	78.69	155	1.4	H	4.58	0.30	9.40	13.68	30	-16.32
1753.50	84.87	142	1.1	V	11.34	0.30	9.40	20.44	30	-9.56
LTE Band 4 Channel 19965 – 3MHz – 16QAM										
1711.50	79.59	82	1.2	H	5.48	0.30	9.40	14.58	30	-15.42
1711.50	84.87	254	1.7	V	11.34	0.30	9.40	20.44	30	-9.56
LTE Band 4 Channel 20175 – 3MHz – 16QAM										
1732.50	79.17	335	1.2	H	5.06	0.30	9.40	14.16	30	-15.84
1732.50	84.63	181	1.4	V	11.10	0.30	9.40	20.20	30	-9.80
LTE Band 4 Channel 20385 – 3MHz – 16QAM										
1753.50	79.44	51	1.9	H	5.33	0.30	9.40	14.43	30	-15.57
1753.50	84.49	137	1.7	V	10.96	0.30	9.40	20.06	30	-9.94
LTE Band 4 Channel 19975 – 5MHz – QPSK										
1712.50	76.63	104	2.2	H	2.52	0.30	9.40	11.62	30	-18.38
1712.50	84.39	92	1.5	V	10.86	0.30	9.40	19.96	30	-10.04
LTE Band 4 Channel 20175 – 5MHz – QPSK										
1732.50	76.29	82	2.4	H	2.18	0.30	9.40	11.28	30	-18.72

1732.50	84.50	324	1.9	V	10.97	0.30	9.40	20.07	30	-9.93
LTE Band 4 Channel 20375 – 5MHz – QPSK										
1752.50	77.82	143	1.5	H	3.71	0.30	9.40	12.81	30	-17.19
1752.50	84.66	41	2.2	V	11.13	0.30	9.40	20.23	30	-9.77
LTE Band 4 Channel 19975 – 5MHz – 16QAM										
1712.50	77.15	112	2.1	H	3.04	0.30	9.40	12.14	30	-17.86
1712.50	84.33	257	1.4	V	10.80	0.30	9.40	19.90	30	-10.10
LTE Band 4 Channel 20175 – 5MHz – 16QAM										
1732.50	77.65	78	1.6	H	3.54	0.30	9.40	12.64	30	-17.36
1732.50	84.69	45	2.0	V	11.16	0.30	9.40	20.26	30	-9.74
LTE Band 4 Channel 20375 – 5MHz – 16QAM										
1752.50	79.91	234	1.5	H	5.80	0.30	9.40	14.90	30	-15.10
1752.50	84.16	38	1.4	V	10.63	0.30	9.40	19.73	30	-10.27
LTE Band 4 Channel 20000 – 10MHz – QPSK										
1715.00	77.84	167	1.0	H	3.73	0.30	9.40	12.83	30	-17.17
1715.00	84.41	120	1.3	V	10.88	0.30	9.40	19.98	30	-10.02
LTE Band 4 Channel 20175 – 10MHz – QPSK										
1732.50	76.32	141	1.9	H	2.21	0.30	9.40	11.31	30	-18.69
1732.50	84.99	126	1.2	V	11.46	0.30	9.40	20.56	30	-9.44
LTE Band 4 Channel 20350 – 10MHz – QPSK										
1750.00	78.76	318	2.3	H	4.65	0.30	9.40	13.75	30	-16.25
1750.00	84.80	350	1.5	V	11.27	0.30	9.40	20.37	30	-9.63
LTE Band 4 Channel 20000 – 10MHz – 16QAM										
1715.00	77.80	110	2.4	H	3.69	0.30	9.40	12.79	30	-17.21
1715.00	84.28	322	2.3	V	10.75	0.30	9.40	19.85	30	-10.15
LTE Band 4 Channel 20175 – 10MHz – 16QAM										
1732.50	78.82	159	1.2	H	4.71	0.30	9.40	13.81	30	-16.19
1732.50	84.09	65	2.1	V	10.56	0.30	9.40	19.66	30	-10.34
LTE Band 4 Channel 20350 – 10MHz – 16QAM										
1750.00	79.24	110	1.8	H	5.13	0.30	9.40	14.23	30	-15.77
1750.00	84.07	197	2.3	V	10.54	0.30	9.40	19.64	30	-10.36
LTE Band 4 Channel 20025 – 15MHz – QPSK										
1717.50	79.53	305	1.8	H	5.42	0.30	9.40	14.52	30	-15.48
1717.50	84.75	213	1.4	V	11.22	0.30	9.40	20.32	30	-9.68
LTE Band 4 Channel 20175 – 15MHz – QPSK										
1732.50	77.58	255	2.3	H	3.47	0.30	9.40	12.57	30	-17.43
1732.50	84.88	337	1.8	V	11.35	0.30	9.40	20.45	30	-9.55
LTE Band 4 Channel 20325 – 15MHz – QPSK										
1747.50	79.54	3	1.1	H	5.43	0.30	9.40	14.53	30	-15.47
1747.50	84.79	217	2.1	V	11.26	0.30	9.40	20.36	30	-9.64
LTE Band 4 Channel 20025 – 15MHz – 16QAM										
1717.50	78.26	348	1.4	H	4.15	0.30	9.40	13.25	30	-16.75
1717.50	84.86	3	1.0	V	11.33	0.30	9.40	20.43	30	-9.57
LTE Band 4 Channel 20175 – 15MHz – 16QAM										
1732.50	79.77	209	1.2	H	5.66	0.30	9.40	14.76	30	-15.24
1732.50	84.77	173	2.2	V	11.24	0.30	9.40	20.34	30	-9.66
LTE Band 4 Channel 20325 – 15MHz – 16QAM										

1747.50	79.00	67	1.1	H	4.89	0.30	9.40	13.99	30	-16.01
1747.50	84.58	5	1.4	V	11.05	0.30	9.40	20.15	30	-9.85
LTE Band 4 Channel 20050 – 20MHz – QPSK										
1720.00	78.07	130	1.1	H	3.96	0.30	9.40	13.06	30	-16.94
1720.00	84.23	277	1.5	V	10.70	0.30	9.40	19.80	30	-10.20
LTE Band 4 Channel 20175 – 20MHz – QPSK										
1732.50	77.93	195	1.3	H	3.82	0.30	9.40	12.92	30	-17.08
1732.50	84.67	41	1.7	V	11.14	0.30	9.40	20.24	30	-9.76
LTE Band 4 Channel 20300 – 20MHz – QPSK										
1745.00	79.38	55	2.2	H	5.27	0.30	9.40	14.37	30	-15.63
1745.00	84.43	236	1.1	V	10.90	0.30	9.40	20.00	30	-10.00
LTE Band 4 Channel 20050 – 20MHz – 16QAM										
1720.00	77.44	10	1.1	H	3.33	0.30	9.40	12.43	30	-17.57
1720.00	84.55	67	1.3	V	11.02	0.30	9.40	20.12	30	-9.88
LTE Band 4 Channel 20175 – 20MHz – 16QAM										
1732.50	77.96	244	2.3	H	3.85	0.30	9.40	12.95	30	-17.05
1732.50	84.56	196	1.6	V	11.03	0.30	9.40	20.13	30	-9.87
LTE Band 4 Channel 20300 – 20MHz – 16QAM										
1745.00	77.66	109	2.3	H	3.55	0.30	9.40	12.65	30	-17.35
1745.00	84.74	280	2.4	V	11.21	0.30	9.40	20.31	30	-9.69

## LTE Band 5

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	RX Antenna		Substituted			Absolute Level (dBm)	Part 22H	
			Height (m)	Polar (H/V)	SG Level (dBm)	Cable (dB)	Antenna Gain (dB)		Limit (dBm)	Margin (dB)
LTE Band 5 Channel 20407 – 1.4MHz – QPSK										
824.70	75.15	78	2.1	H	8.04	0.30	9.40	17.14	38.45	-21.31
824.70	79.17	170	2.0	V	11.64	0.30	9.40	20.74	38.45	-17.71
LTE Band 5 Channel 20525 – 1.4MHz – QPSK										
836.50	74.84	166	2.3	H	7.73	0.30	9.40	16.83	38.45	-21.62
836.50	79.48	6	1.3	V	11.95	0.30	9.40	21.05	38.45	-17.40
LTE Band 5 Channel 20643 – 1.4MHz – QPSK										
848.30	76.79	195	2.3	H	9.68	0.30	9.40	18.78	38.45	-19.67
848.30	79.96	320	1.9	V	12.43	0.30	9.40	21.53	38.45	-16.92
LTE Band 5 Channel 20407 – 1.4MHz – 16QAM										
824.70	75.83	72	1.8	H	8.72	0.30	9.40	17.82	38.45	-20.63
824.70	79.09	350	1.9	V	11.56	0.30	9.40	20.66	38.45	-17.79
LTE Band 5 Channel 20525 – 1.4MHz – 16QAM										
836.50	74.61	288	1.5	H	7.50	0.30	9.40	16.60	38.45	-21.85
836.50	79.38	291	2.5	V	11.85	0.30	9.40	20.95	38.45	-17.50
LTE Band 5 Channel 20643 – 1.4MHz – 16QAM										
848.30	72.42	119	1.5	H	5.31	0.30	9.40	14.41	38.45	-24.04
848.30	79.77	203	1.3	V	12.24	0.30	9.40	21.34	38.45	-17.11
LTE Band 5 Channel 20415 – 3MHz – QPSK										
825.50	75.95	230	1.4	H	8.84	0.30	9.40	17.94	38.45	-20.51
825.50	79.65	260	1.9	V	12.12	0.30	9.40	21.22	38.45	-17.23
LTE Band 5 Channel 20525 – 3MHz – QPSK										
836.50	74.73	327	2.5	H	7.62	0.30	9.40	16.72	38.45	-21.73
836.50	79.42	349	2.4	V	11.89	0.30	9.40	20.99	38.45	-17.46
LTE Band 5 Channel 20635 – 3MHz – QPSK										
847.50	72.84	338	1.4	H	5.73	0.30	9.40	14.83	38.45	-23.62
847.50	79.04	299	2.0	V	11.51	0.30	9.40	20.61	38.45	-17.84
LTE Band 5 Channel 20415 – 3MHz – 16QAM										
825.50	72.80	63	1.4	H	5.69	0.30	9.40	14.79	38.45	-23.66
825.50	79.35	53	1.5	V	11.82	0.30	9.40	20.92	38.45	-17.53
LTE Band 5 Channel 20525 – 3MHz – 16QAM										
836.50	75.34	217	1.9	H	8.23	0.30	9.40	17.33	38.45	-21.12
836.50	79.66	110	1.3	V	12.13	0.30	9.40	21.23	38.45	-17.22
LTE Band 5 Channel 20635 – 3MHz – 16QAM										
847.50	72.07	266	1.7	H	4.96	0.30	9.40	14.06	38.45	-24.39
847.50	79.62	327	1.8	V	12.09	0.30	9.40	21.19	38.45	-17.26
LTE Band 5 Channel 20425 – 5MHz – QPSK										
826.50	75.95	79	1.5	H	8.84	0.30	9.40	17.94	38.45	-20.51
826.50	79.18	197	1.5	V	11.65	0.30	9.40	20.75	38.45	-17.70
LTE Band 5 Channel 20525 – 5MHz – QPSK										
836.50	74.92	95	2.1	H	7.81	0.30	9.40	16.91	38.45	-21.54



836.50	79.18	0	2.5	V	11.65	0.30	9.40	20.75	38.45	-17.70
LTE Band 5 Channel 20625 – 5MHz – QPSK										
846.50	74.02	274	1.3	H	6.91	0.30	9.40	16.01	38.45	-22.44
846.50	79.64	98	2.4	V	12.11	0.30	9.40	21.21	38.45	-17.24
LTE Band 5 Channel 20425 – 5MHz – 16QAM										
826.50	73.15	152	1.1	H	6.04	0.30	9.40	15.14	38.45	-23.31
826.50	79.18	320	1.7	V	11.65	0.30	9.40	20.75	38.45	-17.70
LTE Band 5 Channel 20525 – 5MHz – 16QAM										
836.50	75.41	331	2.3	H	8.30	0.30	9.40	17.40	38.45	-21.05
836.50	79.70	329	1.6	V	12.17	0.30	9.40	21.27	38.45	-17.18
LTE Band 5 Channel 20625 – 5MHz – 16QAM										
846.50	74.18	173	1.9	H	7.07	0.30	9.40	16.17	38.45	-22.28
846.50	79.84	46	2.3	V	12.31	0.30	9.40	21.41	38.45	-17.04
LTE Band 5 Channel 20450 – 10MHz – QPSK										
829.00	75.11	129	2.1	H	8.00	0.30	9.40	17.10	38.45	-21.35
829.00	79.27	140	1.3	V	11.74	0.30	9.40	20.84	38.45	-17.61
LTE Band 5 Channel 20525 – 10MHz – QPSK										
836.50	75.10	195	1.1	H	7.99	0.30	9.40	17.09	38.45	-21.36
836.50	79.18	107	2.3	V	11.65	0.30	9.40	20.75	38.45	-17.70
LTE Band 5 Channel 20600 – 10MHz – QPSK										
844.00	73.27	331	2.1	H	6.16	0.30	9.40	15.26	38.45	-23.19
844.00	79.51	166	1.1	V	11.98	0.30	9.40	21.08	38.45	-17.37
LTE Band 5 Channel 20450 – 10MHz – 16QAM										
829.00	72.71	138	1.2	H	5.60	0.30	9.40	14.70	38.45	-23.75
829.00	79.61	91	1.0	V	12.08	0.30	9.40	21.18	38.45	-17.27
LTE Band 5 Channel 20525 – 10MHz – 16QAM										
836.50	74.10	312	2.1	H	6.99	0.30	9.40	16.09	38.45	-22.36
836.50	79.70	337	1.6	V	12.17	0.30	9.40	21.27	38.45	-17.18
LTE Band 5 Channel 20600 – 10MHz – 16QAM										
844.00	74.76	50	1.1	H	7.65	0.30	9.40	16.75	38.45	-21.70
844.00	79.51	92	1.1	V	11.98	0.30	9.40	21.08	38.45	-17.37

## LTE Band 7

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	RX Antenna		Substituted			Absolute Level (dBm)	Part 27	
			Height (m)	Polar (H/V)	SG Level (dBm)	Cable (dB)	Antenna Gain (dB)		Limit (dBm)	Margin (dB)
LTE Band 7 Channel 20775 – 5MHz – QPSK										
2502.50	77.81	100	1.4	H	3.81	0.43	10.60	13.98	33	-19.02
2502.50	81.08	221	1.3	V	10.80	0.43	10.60	20.97	33	-12.03
LTE Band 7 Channel 21100 – 5MHz – QPSK										
2535.00	77.22	359	1.7	H	3.22	0.43	10.60	13.39	33	-19.61
2535.00	81.23	304	1.4	V	10.95	0.43	10.60	21.12	33	-11.88
LTE Band 7 Channel 21425 – 5MHz – QPSK										
2567.50	76.72	291	1.2	H	2.61	0.43	10.60	12.78	33	-20.22
2567.50	81.68	40	1.7	V	11.49	0.43	10.60	21.66	33	-11.34
LTE Band 7 Channel 20775 – 5MHz – 16QAM										
2502.50	78.17	351	1.6	H	4.17	0.43	10.60	14.34	33	-18.66
2502.50	81.52	141	1.9	V	11.24	0.43	10.60	21.41	33	-11.59
LTE Band 7 Channel 21100 – 5MHz – 16QAM										
2535.00	78.09	145	1.2	H	4.09	0.43	10.60	14.26	33	-18.74
2535.00	81.82	90	1.9	V	11.54	0.43	10.60	21.71	33	-11.29
LTE Band 7 Channel 21425 – 5MHz – 16QAM										
2567.50	76.56	252	1.8	H	2.45	0.43	10.60	12.62	33	-20.38
2567.50	81.84	5	1.1	V	11.65	0.43	10.60	21.82	33	-11.18
LTE Band 7 Channel 20800 – 10MHz – QPSK										
2505.00	76.75	347	2.3	H	2.75	0.43	10.60	12.92	33	-20.08
2505.00	81.17	183	2.3	V	10.89	0.43	10.60	21.06	33	-11.94
LTE Band 7 Channel 21100 – 10MHz – QPSK										
2535.00	78.02	157	1.9	H	4.02	0.43	10.60	14.19	33	-18.81
2535.00	81.16	14	2.5	V	10.88	0.43	10.60	21.05	33	-11.95
LTE Band 7 Channel 21400 – 10MHz – QPSK										
2565.00	78.13	98	1.2	H	4.02	0.43	10.60	14.19	33	-18.81
2565.00	81.22	336	2.2	V	11.03	0.43	10.60	21.20	33	-11.80
LTE Band 7 Channel 20800 – 10MHz – 16QAM										
2505.00	77.27	166	1.3	H	3.27	0.43	10.60	13.44	33	-19.56
2505.00	81.89	247	1.4	V	11.61	0.43	10.60	21.78	33	-11.22
LTE Band 7 Channel 21100 – 10MHz – 16QAM										
2535.00	79.21	212	1.8	H	5.21	0.43	10.60	15.38	33	-17.62
2535.00	81.87	106	1.3	V	11.59	0.43	10.60	21.76	33	-11.24
LTE Band 7 Channel 21400 – 10MHz – 16QAM										
2565.00	77.96	50	1.1	H	3.85	0.43	10.60	14.02	33	-18.98
2565.00	81.55	154	2.1	V	11.36	0.43	10.60	21.53	33	-11.47
LTE Band 7 Channel 20825 – 15MHz – QPSK										
2507.50	79.95	69	2.0	H	5.95	0.43	10.60	16.12	33	-16.88
2507.50	81.16	258	2.5	V	10.88	0.43	10.60	21.05	33	-11.95
LTE Band 7 Channel 21100 – 15MHz – QPSK										
2535.00	79.48	154	1.0	H	5.48	0.43	10.60	15.65	33	-17.35

2535.00	81.35	336	1.7	V	11.07	0.43	10.60	21.24	33	-11.76
LTE Band 7 Channel 21375 – 15MHz – QPSK										
2562.50	76.92	34	1.3	H	2.81	0.43	10.60	12.98	33	-20.02
2562.50	81.31	9	2.3	V	11.12	0.43	10.60	21.29	33	-11.71
LTE Band 7 Channel 20825 – 15MHz – 16QAM										
2507.50	77.77	219	1.9	H	3.77	0.43	10.60	13.94	33	-19.06
2507.50	81.77	41	1.4	V	11.49	0.43	10.60	21.66	33	-11.34
LTE Band 7 Channel 21100 – 15MHz – 16QAM										
2535.00	76.37	135	1.2	H	2.37	0.43	10.60	12.54	33	-20.46
2535.00	81.17	187	1.6	V	10.89	0.43	10.60	21.06	33	-11.94
LTE Band 7 Channel 21375 – 15MHz – 16QAM										
2562.50	79.45	130	1.5	H	5.34	0.43	10.60	15.51	33	-17.49
2562.50	81.62	99	1.5	V	11.43	0.43	10.60	21.60	33	-11.40
LTE Band 7 Channel 20850 – 20MHz – QPSK										
2510.00	78.18	79	1.1	H	4.18	0.43	10.60	14.35	33	-18.65
2510.00	81.76	73	2.5	V	11.48	0.43	10.60	21.65	33	-11.35
LTE Band 7 Channel 21100 – 20MHz – QPSK										
2535.00	78.08	231	2.1	H	4.08	0.43	10.60	14.25	33	-18.75
2535.00	81.88	37	1.4	V	11.60	0.43	10.60	21.77	33	-11.23
LTE Band 7 Channel 21350 – 20MHz – QPSK										
2560.00	78.07	332	1.3	H	3.96	0.43	10.60	14.13	33	-18.87
2560.00	81.11	249	1.5	V	10.92	0.43	10.60	21.09	33	-11.91
LTE Band 7 Channel 20850 – 20MHz – 16QAM										
2510.00	78.75	270	1.3	H	4.75	0.43	10.60	14.92	33	-18.08
2510.00	81.35	225	1.7	V	11.07	0.43	10.60	21.24	33	-11.76
LTE Band 7 Channel 21100 – 20MHz – 16QAM										
2535.00	78.18	11	1.0	H	4.18	0.43	10.60	14.35	33	-18.65
2535.00	81.73	250	1.4	V	11.45	0.43	10.60	21.62	33	-11.38
LTE Band 7 Channel 21350 – 20MHz – 16QAM										
2560.00	77.35	259	1.7	H	3.24	0.43	10.60	13.41	33	-19.59
2560.00	81.37	215	1.4	V	11.18	0.43	10.60	21.35	33	-11.65

## LTE Band 12

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	RX Antenna		Substituted			Absolute Level (dBm)	Part 27	
			Height (m)	Polar (H/V)	SG Level (dBm)	Cable (dB)	Antenna Gain (dB)		Limit (dBm)	Margin (dB)
LTE Band 12 Channel 23017 – 1.4MHz – QPSK										
699.70	84.39	238	1.4	H	13.39	0.20	0.00	13.19	34.77	-21.58
699.70	92.30	52	2.1	V	20.02	0.20	0.00	19.82	34.77	-14.95
LTE Band 12 Channel 23095 – 1.4MHz – QPSK										
707.50	84.63	65	1.7	H	13.63	0.20	0.00	13.43	34.77	-21.34
707.50	92.02	81	2.5	V	19.74	0.20	0.00	19.54	34.77	-15.23
LTE Band 12 Channel 23173 – 1.4MHz – QPSK										
715.30	86.29	7	2.3	H	15.29	0.20	0.00	15.09	34.77	-19.68
715.30	92.29	59	1.8	V	20.01	0.20	0.00	19.81	34.77	-14.96
LTE Band 12 Channel 23017 – 1.4MHz – 16QAM										
699.70	84.92	104	2.4	H	13.92	0.20	0.00	13.72	34.77	-21.05
699.70	92.46	331	2.3	V	20.18	0.20	0.00	19.98	34.77	-14.79
LTE Band 12 Channel 23095 – 1.4MHz – 16QAM										
707.50	84.87	33	1.8	H	13.87	0.20	0.00	13.67	34.77	-21.10
707.50	92.47	162	1.5	V	20.19	0.20	0.00	19.99	34.77	-14.78
LTE Band 12 Channel 23173 – 1.4MHz – 16QAM										
715.30	87.68	308	2.3	H	16.68	0.20	0.00	16.48	34.77	-18.29
715.30	92.99	293	2.1	V	20.71	0.20	0.00	20.51	34.77	-14.26
LTE Band 12 Channel 23025 – 3MHz – QPSK										
700.50	87.07	41	2.4	H	16.07	0.20	0.00	15.87	34.77	-18.90
700.50	92.56	146	1.6	V	20.28	0.20	0.00	20.08	34.77	-14.69
LTE Band 12 Channel 23095 – 3MHz – QPSK										
707.50	86.90	58	2.2	H	15.90	0.20	0.00	15.70	34.77	-19.07
707.50	92.44	291	1.4	V	20.16	0.20	0.00	19.96	34.77	-14.81
LTE Band 12 Channel 23165 – 3MHz – QPSK										
714.50	86.59	53	2.5	H	15.59	0.20	0.00	15.39	34.77	-19.38
714.50	92.70	281	1.8	V	20.42	0.20	0.00	20.22	34.77	-14.55
LTE Band 12 Channel 23025 – 3MHz – 16QAM										
700.50	85.98	87	1.1	H	14.98	0.20	0.00	14.78	34.77	-19.99
700.50	92.76	283	1.1	V	20.48	0.20	0.00	20.28	34.77	-14.49
LTE Band 12 Channel 23095 – 3MHz – 16QAM										
707.50	87.67	151	1.1	H	16.67	0.20	0.00	16.47	34.77	-18.30
707.50	93.99	65	1.1	V	21.71	0.20	0.00	21.51	34.77	-13.26
LTE Band 12 Channel 23165 – 3MHz – 16QAM										
714.50	85.30	131	1.0	H	14.30	0.20	0.00	14.10	34.77	-20.67
714.50	93.36	167	1.2	V	21.08	0.20	0.00	20.88	34.77	-13.89
LTE Band 12 Channel 23035 – 5MHz – QPSK										
701.50	86.30	63	1.7	H	15.30	0.20	0.00	15.10	34.77	-19.67
701.50	92.19	332	1.0	V	19.91	0.20	0.00	19.71	34.77	-15.06
LTE Band 12 Channel 23095 – 5MHz – QPSK										
707.50	87.49	51	2.2	H	16.49	0.20	0.00	16.29	34.77	-18.48

707.50	92.36	333	1.4	V	20.08	0.20	0.00	19.88	34.77	-14.89
LTE Band 12 Channel 23155 – 5MHz – QPSK										
713.50	84.17	12	1.7	H	13.17	0.20	0.00	12.97	34.77	-21.80
713.50	92.51	199	1.3	V	20.23	0.20	0.00	20.03	34.77	-14.74
LTE Band 12 Channel 23035 – 5MHz – 16QAM										
701.50	84.39	215	1.8	H	13.39	0.20	0.00	13.19	34.77	-21.58
701.50	92.76	148	1.2	V	20.48	0.20	0.00	20.28	34.77	-14.49
LTE Band 12 Channel 23095 – 5MHz – 16QAM										
707.50	87.83	189	1.3	H	16.83	0.20	0.00	16.63	34.77	-18.14
707.50	92.54	139	1.1	V	20.26	0.20	0.00	20.06	34.77	-14.71
LTE Band 12 Channel 23155 – 5MHz – 16QAM										
713.50	84.10	256	2.3	H	13.10	0.20	0.00	12.90	34.77	-21.87
713.50	92.26	48	1.6	V	19.98	0.20	0.00	19.78	34.77	-14.99
LTE Band 12 Channel 23060 – 10MHz – QPSK										
704.00	86.39	87	1.6	H	15.39	0.20	0.00	15.19	34.77	-19.58
704.00	92.27	316	2.3	V	19.99	0.20	0.00	19.79	34.77	-14.98
LTE Band 12 Channel 23095 – 10MHz – QPSK										
707.50	86.30	50	1.4	H	15.30	0.20	0.00	15.10	34.77	-19.67
707.50	92.49	86	1.8	V	20.21	0.20	0.00	20.01	34.77	-14.76
LTE Band 12 Channel 23130 – 10MHz – QPSK										
711.00	85.10	56	1.7	H	14.10	0.20	0.00	13.90	34.77	-20.87
711.00	92.17	165	1.8	V	19.89	0.20	0.00	19.69	34.77	-15.08
LTE Band 12 Channel 23060 – 10MHz – 16QAM										
704.00	86.58	322	1.8	H	15.58	0.20	0.00	15.38	34.77	-19.39
704.00	92.57	235	1.6	V	20.29	0.20	0.00	20.09	34.77	-14.68
LTE Band 12 Channel 23095 – 10MHz – 16QAM										
707.50	84.81	239	1.5	H	13.81	0.20	0.00	13.61	34.77	-21.16
707.50	93.41	312	2.5	V	21.13	0.20	0.00	20.93	34.77	-13.84
LTE Band 12 Channel 23130 – 10MHz – 16QAM										
711.00	85.87	135	2.2	H	14.87	0.20	0.00	14.67	34.77	-20.10
711.00	93.35	246	2.3	V	21.07	0.20	0.00	20.87	34.77	-13.90

**LTE Band 13**

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	RX Antenna		Substituted			Absolute Level (dBm)	Part 27	
			Height (m)	Polar (H/V)	SG Level (dBm)	Cable (dB)	Antenna Gain (dB)		Limit (dBm)	Margin (dB)
LTE Band 13 Channel 23205 – 5MHz – QPSK										
779.50	87.09	302	2.4	H	16.09	0.20	0.00	15.89	34.77	-18.88
779.50	92.20	54	1.9	V	19.92	0.20	0.00	19.72	34.77	-15.05
LTE Band 13 Channel 23230 – 5MHz – QPSK										
782.00	85.10	110	1.2	H	14.10	0.20	0.00	13.90	34.77	-20.87
782.00	92.41	187	1.6	V	20.13	0.20	0.00	19.93	34.77	-14.84
LTE Band 13 Channel 23255 – 5MHz – QPSK										
784.50	84.37	190	2.5	H	13.37	0.20	0.00	13.17	34.77	-21.60
784.50	92.51	112	1.7	V	20.23	0.20	0.00	20.03	34.77	-14.74
LTE Band 13 Channel 23205 – 5MHz – 16QAM										
779.50	84.12	250	2.4	H	13.12	0.20	0.00	12.92	34.77	-21.85
779.50	92.80	265	1.6	V	20.52	0.20	0.00	20.32	34.77	-14.45
LTE Band 13 Channel 23230 – 5MHz – 16QAM										
782.00	87.13	305	1.8	H	16.13	0.20	0.00	15.93	34.77	-18.84
782.00	92.78	198	1.2	V	20.50	0.20	0.00	20.30	34.77	-14.47
LTE Band 13 Channel 23255 – 5MHz – 16QAM										
784.50	87.73	287	1.4	H	16.73	0.20	0.00	16.53	34.77	-18.24
784.50	92.93	270	1.2	V	20.65	0.20	0.00	20.45	34.77	-14.32
LTE Band 13 Channel 23230 – 10MHz – QPSK										
782.00	86.58	116	1.2	H	15.58	0.20	0.00	15.38	34.77	-19.39
782.00	92.63	28	1.4	V	20.35	0.20	0.00	20.15	34.77	-14.62
LTE Band 13 Channel 23230 – 10MHz – 16QAM										
782.00	86.61	124	2.3	H	15.61	0.20	0.00	15.41	34.77	-19.36
782.00	92.94	240	2.2	V	20.66	0.20	0.00	20.46	34.77	-14.31

## LTE Band 17

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	RX Antenna		Substituted			Absolute Level (dBm)	Part 27	
			Height (m)	Polar (H/V)	SG Level (dBm)	Cable (dB)	Antenna Gain (dB)		Limit (dBm)	Margin (dB)
LTE Band 17 Channel 23755 – 5MHz – QPSK										
706.50	87.77	332	2.2	H	16.77	0.20	0.00	16.57	34.77	-18.20
706.50	92.94	98	1.6	V	20.66	0.20	0.00	20.46	34.77	-14.31
LTE Band 17 Channel 23790 – 5MHz – QPSK										
710.00	86.86	305	2.1	H	15.86	0.20	0.00	15.66	34.77	-19.11
710.00	92.24	187	1.7	V	19.96	0.20	0.00	19.76	34.77	-15.01
LTE Band 17 Channel 23825 – 5MHz – QPSK										
713.50	87.01	114	2.0	H	16.01	0.20	0.00	15.81	34.77	-18.96
713.50	92.34	164	2.1	V	20.06	0.20	0.00	19.86	34.77	-14.91
LTE Band 17 Channel 23755 – 5MHz – 16QAM										
706.50	86.90	67	1.6	H	15.90	0.20	0.00	15.70	34.77	-19.07
706.50	92.50	355	2.4	V	20.22	0.20	0.00	20.02	34.77	-14.75
LTE Band 17 Channel 23790 – 5MHz – 16QAM										
710.00	86.74	319	2.2	H	15.74	0.20	0.00	15.54	34.77	-19.23
710.00	92.33	343	1.4	V	20.05	0.20	0.00	19.85	34.77	-14.92
LTE Band 17 Channel 23825 – 5MHz – 16QAM										
713.50	86.52	228	2.3	H	15.52	0.20	0.00	15.32	34.77	-19.45
713.50	92.61	339	2.1	V	20.33	0.20	0.00	20.13	34.77	-14.64
LTE Band 17 Channel 23780 – 10MHz – QPSK										
709.00	87.56	196	2.3	H	16.56	0.20	0.00	16.36	34.77	-18.41
709.00	92.04	170	1.2	V	19.76	0.20	0.00	19.56	34.77	-15.21
LTE Band 17 Channel 23790 – 10MHz – QPSK										
710.00	85.73	69	1.8	H	14.73	0.20	0.00	14.53	34.77	-20.24
710.00	92.16	139	2.2	V	19.88	0.20	0.00	19.68	34.77	-15.09
LTE Band 17 Channel 23800 – 10MHz – QPSK										
711.00	87.71	280	2.0	H	16.71	0.20	0.00	16.51	34.77	-18.26
711.00	92.94	261	1.9	V	20.66	0.20	0.00	20.46	34.77	-14.31
LTE Band 17 Channel 23780 – 10MHz – 16QAM										
709.00	84.83	336	1.8	H	13.83	0.20	0.00	13.63	34.77	-21.14
709.00	92.52	124	1.1	V	20.24	0.20	0.00	20.04	34.77	-14.73
LTE Band 17 Channel 23790 – 10MHz – 16QAM										
710.00	86.30	109	2.0	H	15.30	0.20	0.00	15.10	34.77	-19.67
710.00	93.33	295	1.7	V	21.05	0.20	0.00	20.85	34.77	-13.92
LTE Band 17 Channel 23800 – 10MHz – 16QAM										
711.00	87.81	11	1.1	H	16.81	0.20	0.00	16.61	34.77	-18.16
711.00	93.82	191	1.4	V	21.54	0.20	0.00	21.34	34.77	-13.43

## LTE Band 25

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	RX Antenna		Substituted			Absolute Level (dBm)	Part 27	
			Height (m)	Polar (H/V)	SG Level (dBm)	Cable (dB)	Antenna Gain (dB)		Limit (dBm)	Margin (dB)
LTE Band 25 Channel 26047 – 1.4MHz – QPSK										
1850.70	76.88	248	1.2	H	2.91	0.31	10.40	13.00	33	-20.00
1850.70	84.61	127	1.1	V	11.33	0.31	10.40	21.42	33	-11.58
LTE Band 25 Channel 26365 – 1.4MHz – QPSK										
1882.50	76.69	15	1.4	H	2.84	0.31	10.40	12.93	33	-20.07
1882.50	84.72	50	2.1	V	11.60	0.31	10.40	21.69	33	-11.31
LTE Band 25 Channel 26683 – 1.4MHz – QPSK										
1914.30	77.59	170	2.0	H	3.86	0.32	10.40	13.94	33	-19.06
1914.30	84.44	63	1.4	V	11.48	0.32	10.40	21.56	33	-11.44
LTE Band 25 Channel 26047 – 1.4MHz – 16QAM										
1850.70	78.85	44	2.4	H	4.88	0.31	10.40	14.97	33	-18.03
1850.70	84.49	141	1.2	V	11.21	0.31	10.40	21.30	33	-11.70
LTE Band 25 Channel 26365 – 1.4MHz – 16QAM										
1882.50	78.26	298	1.1	H	4.41	0.31	10.40	14.50	33	-18.50
1882.50	84.07	6	2.1	V	10.95	0.31	10.40	21.04	33	-11.96
LTE Band 25 Channel 26683 – 1.4MHz – 16QAM										
1914.30	77.07	80	1.6	H	3.34	0.32	10.40	13.42	33	-19.58
1914.30	84.01	259	1.4	V	11.05	0.32	10.40	21.13	33	-11.87
LTE Band 25 Channel 26055 – 3MHz – QPSK										
1851.50	78.89	182	2.2	H	4.92	0.31	10.40	15.01	33	-17.99
1851.50	84.92	15	1.1	V	11.64	0.31	10.40	21.73	33	-11.27
LTE Band 25 Channel 26365 – 3MHz – QPSK										
1882.50	79.31	275	1.2	H	5.46	0.31	10.40	15.55	33	-17.45
1882.50	85.00	169	1.6	V	11.88	0.31	10.40	21.97	33	-11.03
LTE Band 25 Channel 26675 – 3MHz – QPSK										
1913.50	79.53	75	1.3	H	5.80	0.32	10.40	15.88	33	-17.12
1913.50	84.69	23	1.9	V	11.73	0.32	10.40	21.81	33	-11.19
LTE Band 25 Channel 26055 – 3MHz – 16QAM										
1851.50	78.17	284	1.2	H	4.20	0.31	10.40	14.29	33	-18.71
1851.50	84.64	323	1.1	V	11.36	0.31	10.40	21.45	33	-11.55
LTE Band 25 Channel 26365 – 3MHz – 16QAM										
1882.50	77.51	5	2.0	H	3.66	0.31	10.40	13.75	33	-19.25
1882.50	84.81	319	2.1	V	11.69	0.31	10.40	21.78	33	-11.22
LTE Band 25 Channel 26675 – 3MHz – 16QAM										
1913.50	77.97	323	2.1	H	4.24	0.32	10.40	14.32	33	-18.68
1913.50	84.15	50	1.3	V	11.19	0.32	10.40	21.27	33	-11.73
LTE Band 25 Channel 26065 – 5MHz – QPSK										
1852.50	78.21	101	2.5	H	4.24	0.31	10.40	14.33	33	-18.67
1852.50	84.92	177	1.7	V	11.64	0.31	10.40	21.73	33	-11.27
LTE Band 25 Channel 26365 – 5MHz – QPSK										
1882.50	79.83	41	2.0	H	5.98	0.31	10.40	16.07	33	-16.93



1882.50	84.72	319	2.1	V	11.60	0.31	10.40	21.69	33	-11.31
LTE Band 25 Channel 26665 – 5MHz – QPSK										
1912.50	76.93	26	1.2	H	3.20	0.32	10.40	13.28	33	-19.72
1912.50	84.96	187	1.5	V	12.00	0.32	10.40	22.08	33	-10.92
LTE Band 25 Channel 26065 – 5MHz – 16QAM										
1852.50	76.21	357	1.8	H	2.24	0.31	10.40	12.33	33	-20.67
1852.50	84.15	204	2.0	V	10.87	0.31	10.40	20.96	33	-12.04
LTE Band 25 Channel 26365 – 5MHz – 16QAM										
1882.50	76.70	6	1.9	H	2.85	0.31	10.40	12.94	33	-20.06
1882.50	84.52	140	1.6	V	11.40	0.31	10.40	21.49	33	-11.51
LTE Band 25 Channel 26665 – 5MHz – 16QAM										
1912.50	78.72	136	1.8	H	4.99	0.32	10.40	15.07	33	-17.93
1912.50	84.84	80	1.4	V	11.88	0.32	10.40	21.96	33	-11.04
LTE Band 25 Channel 26090 – 10MHz – QPSK										
1855.00	77.93	115	1.1	H	3.96	0.31	10.40	14.05	33	-18.95
1855.00	84.80	103	2.3	V	11.52	0.31	10.40	21.61	33	-11.39
LTE Band 25 Channel 26365 – 10MHz – QPSK										
1882.50	79.19	326	2.3	H	5.34	0.31	10.40	15.43	33	-17.57
1882.50	84.74	349	1.8	V	11.62	0.31	10.40	21.71	33	-11.29
LTE Band 25 Channel 26640 – 10MHz – QPSK										
1910.00	77.02	107	2.1	H	3.29	0.32	10.40	13.37	33	-19.63
1910.00	84.56	316	1.5	V	11.60	0.32	10.40	21.68	33	-11.32
LTE Band 25 Channel 26090 – 10MHz – 16QAM										
1855.00	79.24	278	1.1	H	5.27	0.31	10.40	15.36	33	-17.64
1855.00	84.64	357	1.1	V	11.36	0.31	10.40	21.45	33	-11.55
LTE Band 25 Channel 26365 – 10MHz – 16QAM										
1882.50	76.50	257	1.3	H	2.65	0.31	10.40	12.74	33	-20.26
1882.50	84.80	120	1.6	V	11.68	0.31	10.40	21.77	33	-11.23
LTE Band 25 Channel 26640 – 10MHz – 16QAM										
1910.00	76.30	296	1.6	H	2.57	0.32	10.40	12.65	33	-20.35
1910.00	84.14	155	1.9	V	11.18	0.32	10.40	21.26	33	-11.74
LTE Band 25 Channel 26115 – 15MHz – QPSK										
1857.50	76.08	13	1.0	H	2.11	0.31	10.40	12.20	33	-20.80
1857.50	84.28	121	1.8	V	11.00	0.31	10.40	21.09	33	-11.91
LTE Band 25 Channel 26365 – 15MHz – QPSK										
1882.50	78.22	281	1.9	H	4.37	0.31	10.40	14.46	33	-18.54
1882.50	84.12	193	2.4	V	11.00	0.31	10.40	21.09	33	-11.91
LTE Band 25 Channel 26615 – 15MHz – QPSK										
1907.50	77.52	234	1.2	H	3.79	0.32	10.40	13.87	33	-19.13
1907.50	84.48	20	1.3	V	11.52	0.32	10.40	21.60	33	-11.40
LTE Band 25 Channel 26115 – 15MHz – 16QAM										
1857.50	77.33	319	2.3	H	3.36	0.31	10.40	13.45	33	-19.55
1857.50	84.04	231	2.2	V	10.76	0.31	10.40	20.85	33	-12.15
LTE Band 25 Channel 26365 – 15MHz – 16QAM										
1882.50	78.39	278	1.8	H	4.54	0.31	10.40	14.63	33	-18.37
1882.50	84.47	96	2.2	V	11.35	0.31	10.40	21.44	33	-11.56
LTE Band 25 Channel 26615 – 15MHz – 16QAM										

1907.50	78.05	41	1.2	H	4.32	0.32	10.40	14.40	33	-18.60
1907.50	84.30	27	1.3	V	11.34	0.32	10.40	21.42	33	-11.58
LTE Band 25 Channel 26140 – 20MHz – QPSK										
1860.00	78.26	14	1.4	H	4.29	0.31	10.40	14.38	33	-18.62
1860.00	84.48	223	1.2	V	11.20	0.31	10.40	21.29	33	-11.71
LTE Band 25 Channel 26365 – 20MHz – QPSK										
1882.50	78.46	353	1.8	H	4.61	0.31	10.40	14.70	33	-18.30
1882.50	84.37	21	1.2	V	11.25	0.31	10.40	21.34	33	-11.66
LTE Band 25 Channel 26590 – 20MHz – QPSK										
1905.00	79.94	139	1.6	H	6.21	0.32	10.40	16.29	33	-16.71
1905.00	84.79	97	1.9	V	11.83	0.32	10.40	21.91	33	-11.09
LTE Band 25 Channel 26140 – 20MHz – 16QAM										
1860.00	77.42	331	1.2	H	3.45	0.31	10.40	13.54	33	-19.46
1860.00	84.04	149	2.2	V	10.76	0.31	10.40	20.85	33	-12.15
LTE Band 25 Channel 263655 – 20MHz – 16QAM										
1882.50	77.13	304	1.9	H	3.28	0.31	10.40	13.37	33	-19.63
1882.50	84.68	335	1.2	V	11.56	0.31	10.40	21.65	33	-11.35
LTE Band 25 Channel 26590 – 20MHz – 16QAM										
1905.00	79.31	292	1.2	H	5.58	0.32	10.40	15.66	33	-17.34
1905.00	84.34	124	1.6	V	11.38	0.32	10.40	21.46	33	-11.54

## LTE Band 26

Remark: (Uplink: 814-824MHz is for FCC Part 90; 824-849MHz is for FCC Part 22)  
Part 90:

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	RX Antenna		Substituted			Absolute Level (dBm)	Result	
			Height (m)	Polar (H/V)	SG Level (dBm)	Cable (dB)	Antenna Gain (dB)		Limit (dBm)	Margin (dB)
LTE Band 26 Channel 26697 – 1.4MHz – QPSK										
814.70	73.45	281	1.7	H	6.34	0.30	9.40	15.44	38.45	-23.01
814.70	79.79	112	1.3	V	12.26	0.30	9.40	21.36	38.45	-17.09
LTE Band 26 Channel 26783 – 1.4MHz – QPSK										
823.30	74.99	167	1.0	H	7.88	0.30	9.40	16.98	38.45	-21.47
823.30	79.29	40	2.1	V	11.76	0.30	9.40	20.86	38.45	-17.59
LTE Band 26 Channel 26697 – 1.4MHz – 16QAM										
814.70	72.27	222	1.6	H	5.16	0.30	9.40	14.26	38.45	-24.19
814.70	79.04	273	1.5	V	11.51	0.30	9.40	20.61	38.45	-17.84
LTE Band 26 Channel 26783 – 1.4MHz – 16QAM										
823.30	75.46	7	1.3	H	8.35	0.30	9.40	17.45	38.45	-21.00
823.30	79.25	40	1.8	V	11.72	0.30	9.40	20.82	38.45	-17.63
LTE Band 26 Channel 26705 – 3MHz – QPSK										
815.50	74.17	347	2.4	H	7.06	0.30	9.40	16.16	38.45	-22.29
815.50	79.98	49	1.5	V	12.45	0.30	9.40	<b>21.55</b>	38.45	-16.90
LTE Band 26 Channel 26775 – 3MHz – QPSK										
822.50	75.21	1	1.5	H	8.10	0.30	9.40	17.20	38.45	-21.25
822.50	79.36	214	2.1	V	11.83	0.30	9.40	20.93	38.45	-17.52
LTE Band 26 Channel 26705 – 3MHz – 16QAM										
815.50	73.01	46	2.2	H	5.90	0.30	9.40	15.00	38.45	-23.45
815.50	79.18	110	1.9	V	11.65	0.30	9.40	20.75	38.45	-17.70
LTE Band 26 Channel 26775 – 3MHz – 16QAM										
822.50	74.58	26	2.4	H	7.47	0.30	9.40	16.57	38.45	-21.88
822.50	79.67	157	1.3	V	12.14	0.30	9.40	21.24	38.45	-17.21
LTE Band 26 Channel 26715 – 5MHz – QPSK										
816.50	74.60	28	2.4	H	7.49	0.30	9.40	16.59	38.45	-21.86
816.50	79.73	36	1.1	V	12.20	0.30	9.40	21.30	38.45	-17.15
LTE Band 26 Channel 26765 – 5MHz – QPSK										
821.50	75.72	156	2.4	H	8.61	0.30	9.40	17.71	38.45	-20.74
821.50	79.07	159	1.6	V	11.54	0.30	9.40	20.64	38.45	-17.81
LTE Band 26 Channel 26715 – 5MHz – 16QAM										
816.50	75.18	332	1.6	H	8.07	0.30	9.40	17.17	38.45	-21.28
816.50	79.91	352	2.1	V	12.38	0.30	9.40	<b>21.48</b>	38.45	-16.97
LTE Band 26 Channel 26765 – 5MHz – 16QAM										
821.50	72.66	14	1.8	H	5.55	0.30	9.40	14.65	38.45	-23.80
821.50	79.89	12	2.2	V	12.36	0.30	9.40	21.46	38.45	-16.99
LTE Band 26 Channel 26740 – 10MHz – QPSK										
819.00	72.42	162	1.3	H	5.31	0.30	9.40	14.41	38.45	-24.04
819.00	79.53	49	1.8	V	12.00	0.30	9.40	21.10	38.45	-17.35
LTE Band 26 Channel 26740 – 10MHz – 16QAM										

819.00	74.07	320	1.3	H	6.96	0.30	9.40	16.06	38.45	-22.39
819.00	79.55	212	2.3	V	12.02	0.30	9.40	21.12	38.45	-17.33

**Part 22:**

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	RX Antenna		Substituted			Absolute Level (dBm)	Result	
			Height (m)	Polar (H/V)	SG Level (dBm)	Cable (dB)	Antenna Gain (dB)		Limit (dBm)	Margin (dB)
LTE Band 26 Channel 26797 – 1.4MHz – QPSK										
824.70	74.99	138	1.6	H	7.88	0.30	9.40	16.98	38.45	-21.47
824.70	79.48	40	1.3	V	11.95	0.30	9.40	21.05	38.45	-17.40
LTE Band 26 Channel 26915 – 1.4MHz – QPSK										
836.50	74.42	221	1.5	H	7.31	0.30	9.40	16.41	38.45	-22.04
836.50	79.54	349	2.0	V	12.01	0.30	9.40	21.11	38.45	-17.34
LTE Band 26 Channel 27033 – 1.4MHz – QPSK										
848.30	76.22	187	2.4	H	9.11	0.30	9.40	18.21	38.45	-20.24
848.30	79.01	269	2.5	V	11.48	0.30	9.40	20.58	38.45	-17.87
LTE Band 26 Channel 26797 – 1.4MHz – 16QAM										
824.70	74.98	22	1.9	H	7.87	0.30	9.40	16.97	38.45	-21.48
824.70	79.51	269	1.6	V	11.98	0.30	9.40	21.08	38.45	-17.37
LTE Band 26 Channel 26915 – 1.4MHz – 16QAM										
836.50	74.64	184	1.7	H	7.53	0.30	9.40	16.63	38.45	-21.82
836.50	79.70	210	1.9	V	12.17	0.30	9.40	21.27	38.45	-17.18
LTE Band 26 Channel 27033 – 1.4MHz – 16QAM										
848.30	73.59	46	1.6	H	6.48	0.30	9.40	15.58	38.45	-22.87
848.30	79.51	268	1.3	V	11.98	0.30	9.40	21.08	38.45	-17.37
LTE Band 26 Channel 26805 – 3MHz – QPSK										
825.50	75.28	246	1.2	H	8.17	0.30	9.40	17.27	38.45	-21.18
825.50	79.46	128	2.2	V	11.93	0.30	9.40	21.03	38.45	-17.42
LTE Band 26 Channel 26915 – 3MHz – QPSK										
836.50	73.92	146	2.2	H	6.81	0.30	9.40	15.91	38.45	-22.54
836.50	79.50	314	1.4	V	11.97	0.30	9.40	21.07	38.45	-17.38
LTE Band 26 Channel 27025 – 3MHz – QPSK										
847.50	73.84	310	1.9	H	6.73	0.30	9.40	15.83	38.45	-22.62
847.50	79.48	272	2.1	V	11.95	0.30	9.40	21.05	38.45	-17.40
LTE Band 26 Channel 26805 – 3MHz – 16QAM										
825.50	73.12	135	1.3	H	6.01	0.30	9.40	15.11	38.45	-23.34
825.50	79.52	193	1.9	V	11.99	0.30	9.40	21.09	38.45	-17.36
LTE Band 26 Channel 26915 – 3MHz – 16QAM										
836.50	75.02	313	2.5	H	7.91	0.30	9.40	17.01	38.45	-21.44
836.50	79.91	143	2.2	V	12.38	0.30	9.40	21.48	38.45	-16.97
LTE Band 26 Channel 27025 – 3MHz – 16QAM										
847.50	73.69	319	2.5	H	6.58	0.30	9.40	15.68	38.45	-22.77
847.50	79.25	125	1.1	V	11.72	0.30	9.40	20.82	38.45	-17.63
LTE Band 26 Channel 26815 – 5MHz – QPSK										
826.50	75.37	85	1.1	H	8.26	0.30	9.40	17.36	38.45	-21.09
826.50	79.42	59	1.6	V	11.89	0.30	9.40	20.99	38.45	-17.46

LTE Band 26 Channel 26915 – 5MHz – QPSK										
836.50	75.91	126	2.2	H	8.80	0.30	9.40	17.90	38.45	-20.55
836.50	79.81	48	1.6	V	12.28	0.30	9.40	21.38	38.45	-17.07
LTE Band 26 Channel 27015 – 5MHz – QPSK										
846.50	72.41	171	1.1	H	5.30	0.30	9.40	14.40	38.45	-24.05
846.50	79.27	332	2.4	V	11.74	0.30	9.40	20.84	38.45	-17.61
LTE Band 26 Channel 26815 – 5MHz – 16QAM										
826.50	73.48	267	1.3	H	6.37	0.30	9.40	15.47	38.45	-22.98
826.50	79.77	46	1.6	V	12.24	0.30	9.40	21.34	38.45	-17.11
LTE Band 26 Channel 26915 – 5MHz – 16QAM										
836.50	74.42	72	2.5	H	7.31	0.30	9.40	16.41	38.45	-22.04
836.50	79.43	360	2.3	V	11.90	0.30	9.40	21.00	38.45	-17.45
LTE Band 26 Channel 27015 – 5MHz – 16QAM										
846.50	73.44	42	2.3	H	6.33	0.30	9.40	15.43	38.45	-23.02
846.50	79.08	286	2.3	V	11.55	0.30	9.40	20.65	38.45	-17.80
LTE Band 26 Channel 26840 – 10MHz – QPSK										
829.00	73.72	102	1.7	H	6.61	0.30	9.40	15.71	38.45	-22.74
829.00	79.85	341	1.4	V	12.32	0.30	9.40	21.42	38.45	-17.03
LTE Band 26 Channel 26915 – 10MHz – QPSK										
836.50	72.14	344	1.8	H	5.03	0.30	9.40	14.13	38.45	-24.32
836.50	79.59	349	2.1	V	12.06	0.30	9.40	21.16	38.45	-17.29
LTE Band 26 Channel 26990 – 10MHz – QPSK										
844.00	75.70	236	1.2	H	8.59	0.30	9.40	17.69	38.45	-20.76
844.00	79.73	111	1.6	V	12.20	0.30	9.40	21.30	38.45	-17.15
LTE Band 26 Channel 26840 – 10MHz – 16QAM										
829.00	73.82	9	2.2	H	6.71	0.30	9.40	15.81	38.45	-22.64
829.00	79.04	181	1.7	V	11.51	0.30	9.40	20.61	38.45	-17.84
LTE Band 26 Channel 26915 – 10MHz – 16QAM										
836.50	72.36	121	1.4	H	5.25	0.30	9.40	14.35	38.45	-24.10
836.50	79.83	229	1.8	V	12.30	0.30	9.40	21.40	38.45	-17.05
LTE Band 26 Channel 26990 – 10MHz – 16QAM										
844.00	74.84	72	1.5	H	7.73	0.30	9.40	16.83	38.45	-21.62
844.00	79.12	354	1.1	V	11.59	0.30	9.40	20.69	38.45	-17.76
LTE Band 26 Channel 26865 – 15MHz – QPSK										
831.50	75.79	52	1.9	H	8.68	0.30	9.40	17.78	38.45	-20.67
831.50	79.95	225	1.2	V	12.42	0.30	9.40	<b>21.52</b>	38.45	-16.93
LTE Band 26 Channel 26915 – 15MHz – QPSK										
836.50	75.61	81	2.2	H	8.50	0.30	9.40	17.60	38.45	-20.85
836.50	79.88	109	1.8	V	12.35	0.30	9.40	21.45	38.45	-17.00
LTE Band 26 Channel 26965 – 15MHz – QPSK										
841.50	72.82	81	2.2	H	5.71	0.30	9.40	14.81	38.45	-23.64
841.50	79.64	209	1.1	V	12.11	0.30	9.40	21.21	38.45	-17.24
LTE Band 26 Channel 26865 – 15MHz – 16QAM										
831.50	73.62	226	1.6	H	6.51	0.30	9.40	15.61	38.45	-22.84
831.50	79.92	146	1.8	V	12.39	0.30	9.40	<b>21.49</b>	38.45	-16.96
LTE Band 26 Channel 26915 – 15MHz – 16QAM										
836.50	73.81	254	1.1	H	6.70	0.30	9.40	15.80	38.45	-22.65

836.50	79.26	270	1.8	V	11.73	0.30	9.40	20.83	38.45	-17.62
LTE Band 26 Channel 26965 – 15MHz – 16QAM										
841.50	72.36	324	1.3	H	5.25	0.30	9.40	14.35	38.45	-24.10
841.50	79.87	344	1.4	V	12.34	0.30	9.40	21.44	38.45	-17.01

### LTE Band 41

Frequency (MHz)	Receiver Reading (dBμV)	Turn table Angle Degree	RX Antenna		Substituted			Absolute Level (dBm)	Part 27	
			Height (m)	Polar (H/V)	SG Level (dBm)	Cable (dB)	Antenna Gain (dB)		Limit (dBm)	Margin (dB)
LTE Band 41 Channel 39675 – 5MHz – QPSK										
2498.50	76.71	271	2.3	H	2.71	0.43	10.60	12.88	33	-20.12
2498.50	84.19	157	1.1	V	8.91	0.43	10.60	19.08	33	-13.92
LTE Band 41 Channel 40620 – 5MHz – QPSK										
2593.00	76.76	264	2.1	H	2.76	0.43	10.60	12.93	33	-20.07
2593.00	84.35	343	2.2	V	9.07	0.43	10.60	19.24	33	-13.76
LTE Band 41 Channel 41565 – 5MHz – QPSK										
2687.50	76.29	45	2.3	H	2.18	0.43	10.60	12.35	33	-20.65
2687.50	84.42	46	2.3	V	9.23	0.43	10.60	19.40	33	-13.60
LTE Band 41 Channel 39675 – 5MHz – 16QAM										
2498.50	78.01	289	1.9	H	4.01	0.43	10.60	14.18	33	-18.82
2498.50	84.45	29	2.0	V	9.17	0.43	10.60	19.34	33	-13.66
LTE Band 41 Channel 40620 – 5MHz – 16QA										
2593.00	76.40	141	1.2	H	2.40	0.43	10.60	12.57	33	-20.43
2593.00	84.95	92	2.1	V	9.67	0.43	10.60	19.84	33	-13.16
LTE Band 41 Channel 41565 – 5MHz – 16QAM										
2687.50	76.05	192	2.4	H	1.94	0.43	10.60	12.11	33	-20.89
2687.50	84.51	31	2.2	V	9.32	0.43	10.60	19.49	33	-13.51
LTE Band 41 Channel 39700 – 10MHz – QPSK										
2501.00	76.37	73	2.2	H	2.37	0.43	10.60	12.54	33	-20.46
2501.00	84.01	282	2.2	V	8.73	0.43	10.60	18.90	33	-14.10
LTE Band 41 Channel 40620 – 10MHz – QPSK										
2593.00	79.75	132	1.9	H	5.75	0.43	10.60	15.92	33	-17.08
2593.00	84.69	353	1.3	V	9.41	0.43	10.60	19.58	33	-13.42
LTE Band 41 Channel 41540 – 10MHz – QPSK										
2685.00	76.61	237	1.2	H	2.50	0.43	10.60	12.67	33	-20.33
2685.00	84.47	24	1.9	V	9.28	0.43	10.60	19.45	33	-13.55
LTE Band 41 Channel 39700 – 10MHz – 16QAM										
2501.00	79.51	267	1.5	H	5.51	0.43	10.60	15.68	33	-17.32
2501.00	84.45	260	2.4	V	9.17	0.43	10.60	19.34	33	-13.66
LTE Band 41 Channel 40620 – 10MHz – 16QAM										
2593.00	78.42	2	2.2	H	4.42	0.43	10.60	14.59	33	-18.41
2593.00	84.70	162	2.1	V	9.42	0.43	10.60	19.59	33	-13.41
LTE Band 41 Channel 41540 – 10MHz – 16QAM										
2685.00	76.94	149	1.9	H	2.83	0.43	10.60	13.00	33	-20.00
2685.00	84.82	245	1.6	V	9.63	0.43	10.60	19.80	33	-13.20
LTE Band 41 Channel 39725 – 15MHz – QPSK										

2503.50	77.21	317	1.4	H	3.21	0.43	10.60	13.38	33	-19.62
2503.50	84.14	191	1.9	V	8.86	0.43	10.60	19.03	33	-13.97
LTE Band 41 Channel 40620 – 15MHz – QPSK										
2593.00	76.11	145	2.3	H	2.11	0.43	10.60	12.28	33	-20.72
2593.00	84.61	330	2.5	V	9.33	0.43	10.60	19.50	33	-13.50
LTE Band 41 Channel 41515 – 15MHz – QPSK										
2682.50	78.40	293	1.8	H	4.29	0.43	10.60	14.46	33	-18.54
2682.50	84.81	247	1.2	V	9.62	0.43	10.60	19.79	33	-13.21
LTE Band 41 Channel 39725 – 15MHz – 16QAM										
2503.50	78.97	304	1.9	H	4.97	0.43	10.60	15.14	33	-17.86
2503.50	84.18	118	2.4	V	8.90	0.43	10.60	19.07	33	-13.93
LTE Band 41 Channel 40620 – 15MHz – 16QAM										
2593.00	78.70	4	1.9	H	4.70	0.43	10.60	14.87	33	-18.13
2593.00	84.88	93	1.9	V	9.60	0.43	10.60	19.77	33	-13.23
LTE Band 41 Channel 41515 – 15MHz – 16QAM										
2682.50	77.35	319	2.3	H	3.24	0.43	10.60	13.41	33	-19.59
2682.50	84.38	234	1.3	V	9.19	0.43	10.60	19.36	33	-13.64
LTE Band 41 Channel 39750 – 20MHz – QPSK										
2506.00	76.08	191	1.7	H	2.08	0.43	10.60	12.25	33	-20.75
2506.00	84.80	18	1.8	V	9.52	0.43	10.60	19.69	33	-13.31
LTE Band 41 Channel 40620 – 20MHz – QPSK										
2593.00	77.40	129	2.0	H	3.40	0.43	10.60	13.57	33	-19.43
2593.00	84.24	301	2.3	V	8.96	0.43	10.60	19.13	33	-13.87
LTE Band 41 Channel 41490 – 20MHz – QPSK										
2680.00	76.65	321	2.3	H	2.54	0.43	10.60	12.71	33	-20.29
2680.00	84.45	119	1.9	V	9.26	0.43	10.60	19.43	33	-13.57
LTE Band 41 Channel 39750 – 20MHz – 16QAM										
2506.00	79.28	353	1.1	H	5.28	0.43	10.60	15.45	33	-17.55
2506.00	84.29	199	1.2	V	9.01	0.43	10.60	19.18	33	-13.82
LTE Band 41 Channel 40620 – 20MHz – 16QAM										
2593.00	79.54	328	1.0	H	5.54	0.43	10.60	15.71	33	-17.29
2593.00	84.72	348	1.8	V	9.44	0.43	10.60	19.61	33	-13.39
LTE Band 41 Channel 41490 – 20MHz – 16QAM										
2680.00	79.46	134	2.0	H	5.35	0.43	10.60	15.52	33	-17.48
2680.00	84.76	117	1.4	V	9.57	0.43	10.60	19.74	33	-13.26

## 9 Peak-to-Average Ratio

Test Requirement:	24.232 (d), 27.50(d)
Test Method:	N/A
Test Mode:	TX transmitting

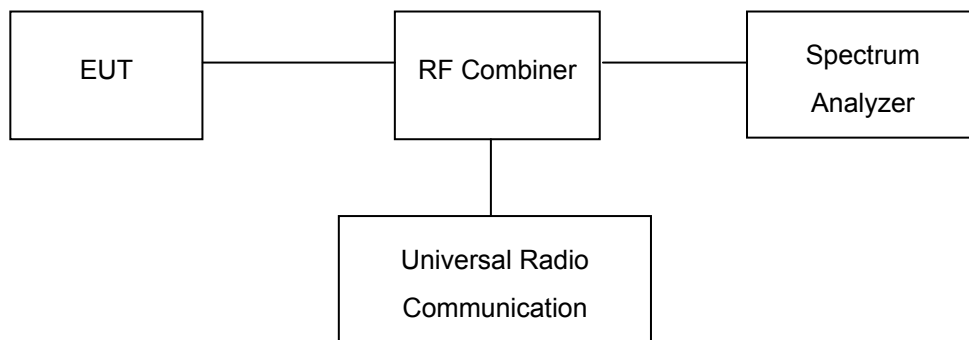
### 9.1 EUT Operation

Operating Environment :

Temperature:	22.5 °C
Humidity:	52.3% RH
Atmospheric Pressure:	101.2kPa

### 9.2 Test Procedure

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. Set EUT to transmit at maximum output power.
3. When the duty cycle is less than 98%, then signal gating will be implemented on the spectrum analyzer by triggering from the system simulator.
4. Set the CCDF (Complementary Cumulative Distribution Function) option of the spectrum analyzer. Record the maximum PAPR level associated with a probability of 0.1%.



### 9.3 Test Result

PASS

#### LTE Band

Please refer to the Appendix Band 2/4/5/12/13/17/25/26/41 LTE Peak to Average Ratio.



## 10 BANDWIDTH

Test Requirement:	FCC Part 2.1049, 22.917, 22.905, 24.238, 27.53(a); 90.691
Test Method:	TIA/EIA-603-D:2010 KDB 971168 D01 Power Meas License Digital Systems v03
Test Mode:	TX transmitting

### 10.1 EUT Operation

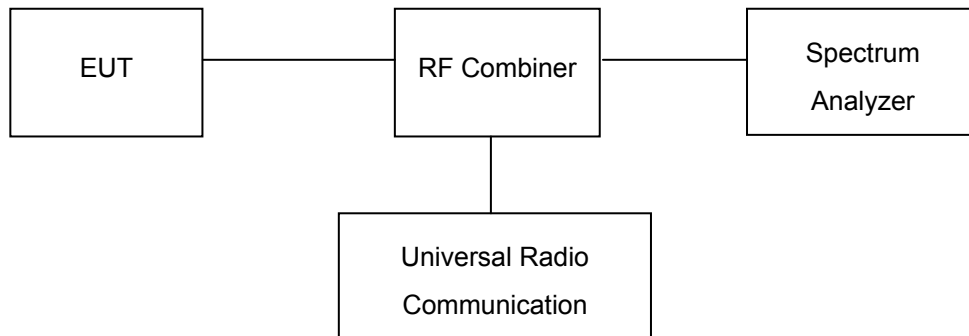
Operating Environment :

Temperature:	22.5 °C
Humidity:	52.3% RH
Atmospheric Pressure:	101.2kPa

### 10.2 Test Procedure

The RF output of the transmitter was connected to the wireless test set and the spectrum analyzer through sufficient attenuation.

The resolution bandwidth of the spectrum analyzer was set in the range of 1 to 5 % of the anticipated OBW and the 26 dB & 99%bandwidth was recorded.



### 10.3 Test Result

#### LTE Band 2 (Part 24E):

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
1.4	18607	1850.7	QPSK	1.09	1.23
			16QAM	1.09	1.24
1.4	18900	1880	QPSK	1.09	1.24
			16QAM	1.09	1.23
1.4	19193	1909.3	QPSK	1.09	1.26
			16QAM	1.09	1.25
3	18615	1851.5	QPSK	2.72	2.96
			16QAM	2.72	2.96
3	18900	1880	QPSK	2.72	2.95
			16QAM	2.72	2.96
3	19185	1908.5	QPSK	2.72	2.97
			16QAM	2.72	2.96
5	18625	1852.5	QPSK	4.5	4.85
			16QAM	4.5	4.82
5	18900	1880	QPSK	4.5	4.85
			16QAM	4.5	4.84
5	19175	1907.5	QPSK	4.48	4.84
			16QAM	4.49	4.85
10	18650	1855	QPSK	8.92	9.38
			16QAM	8.92	9.36
10	18900	1880	QPSK	8.91	9.34
			16QAM	8.91	9.33
10	19150	1905	QPSK	8.9	9.32
			16QAM	8.9	9.33
15	18675	1857.5	QPSK	13.46	14.24
			16QAM	13.46	14.24
15	18900	1880	QPSK	13.45	14.24
			16QAM	13.43	14.23
15	19125	1902.5	QPSK	13.45	14.24
			16QAM	13.46	14.23
20	18700	1860	QPSK	17.91	18.74

			16QAM	17.9	18.74
20	18900	1880	QPSK	17.85	18.74
			16QAM	17.84	18.73
20	19100	1900	QPSK	17.93	18.78
			16QAM	17.94	18.79

**LTE Band 4 (Part 27):**

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
1.4	19957	1710.7	QPSK	1.08	1.26
			16QAM	1.07	1.26
1.4	2.175	1732.5	QPSK	1.07	1.24
			16QAM	1.07	1.23
1.4	20393	1754.3	QPSK	1.08	1.24
			16QAM	1.08	1.25
3	19965	1711.5	QPSK	2.72	2.98
			16QAM	2.72	2.97
3	2.175	1732.5	QPSK	2.73	2.97
			16QAM	2.73	2.97
3	2.385	1753.5	QPSK	2.73	2.98
			16QAM	2.72	2.99
5	19975	1712.5	QPSK	4.5	4.89
			16QAM	4.5	4.86
5	20175	1732.5	QPSK	4.49	4.84
			16QAM	4.49	4.84
5	20375	1752.5	QPSK	4.49	4.86
			16QAM	4.5	4.87
10	2000	1715	QPSK	8.92	9.4
			16QAM	8.92	9.44
10	20175	1732.5	QPSK	8.91	9.4
			16QAM	8.91	9.35
10	20350	1750	QPSK	8.93	9.42
			16QAM	8.92	9.43
15	20025	1717.5	QPSK	13.47	14.29
			16QAM	13.46	14.27
15	20175	1732.5	QPSK	13.45	14.26
			16QAM	13.44	14.26

15	20325	1747.5	QPSK	13.48	14.32
			16QAM	13.48	14.3
20	20050	1720	QPSK	17.87	18.77
			16QAM	17.87	18.77
20	20175	1732.5	QPSK	17.85	18.75
			16QAM	17.85	18.76
20	20300	1745	QPSK	17.91	18.85
			16QAM	17.92	18.82

**LTE Band 5 (Part 22H):**

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
1.4	20407	824.7	QPSK	1.09	1.27
			16QAM	1.09	1.27
1.4	20525	836.5	QPSK	1.09	1.32
			16QAM	1.09	1.31
1.4	20643	848.3	QPSK	1.11	1.29
			16QAM	1.1	1.26
3	20415	825.5	QPSK	2.72	2.99
			16QAM	2.72	2.96
3	20525	836.5	QPSK	2.72	2.03
			16QAM	2.72	2
3	20635	847.5	QPSK	2.8	2.12
			16QAM	2.76	2.56
5	20425	826.5	QPSK	4.49	4.85
			16QAM	4.49	4.81
5	20525	836.5	QPSK	4.48	5
			16QAM	4.48	4.92
5	20625	846.5	QPSK	4.48	4.84
			16QAM	4.47	4.3
10	20450	829.0	QPSK	8.89	9.31
			16QAM	8.9	9.29
10	20525	836.5	QPSK	8.91	9.6
			16QAM	8.89	9.33
10	20600	844.0	QPSK	8.89	9.35
			16QAM	8.89	9.31

**LTE Band 7 (Part 27):**

<b>BW(MHz)</b>	<b>Channel</b>	<b>Frequency (MHz)</b>	<b>Modulation</b>	<b>99% Occupied Bandwidth (MHz)</b>	<b>26 dB Bandwidth (MHz)</b>
5	20775	2502.5	QPSK	4.5	4.96
			16QAM	4.5	4.93
5	21100	2535	QPSK	4.5	4.89
			16QAM	4.5	4.87
5	21425	2567.5	QPSK	4.49	4.87
			16QAM	4.5	4.86
10	20850	2510	QPSK	8.94	9.66
			16QAM	8.93	9.6
10	21100	2535	QPSK	8.92	9.39
			16QAM	8.92	9.38
10	21400	2565	QPSK	8.92	9.36
			16QAM	8.92	9.38
15	20800	2505	QPSK	13.51	13.88
			16QAM	13.5	13.62
15	21100	2535	QPSK	13.48	14.27
			16QAM	13.46	14.27
15	21375	2562.5	QPSK	13.46	14.31
			16QAM	13.46	14.25
20	20825	2507.5	QPSK	17.91	19.09
			16QAM	17.9	18.86
20	21100	2535	QPSK	17.92	18.79
			16QAM	17.91	18.78
20	21350	2560	QPSK	17.9	19.26
			16QAM	17.89	18.85

**LTE Band 12 (Part 27):**

<b>BW(MHz)</b>	<b>Channel</b>	<b>Frequency (MHz)</b>	<b>Modulation</b>	<b>99% Occupied Bandwidth (MHz)</b>	<b>26 dB Bandwidth (MHz)</b>
1.4	23017	699.7	QPSK	1.08	1.23
			16QAM	1.08	1.24
1.4	23095	707.5	QPSK	1.08	1.24
			16QAM	1.09	1.24
1.4	23173	715.3	QPSK	1.08	1.22
			16QAM	1.08	1.26
3	23025	700.5	QPSK	2.7	2.94
			16QAM	2.71	2.94
3	23095	707.5	QPSK	2.72	2.95
			16QAM	2.72	2.97
3	23165	714.5	QPSK	2.72	2.95
			16QAM	2.71	2.95
5	23035	701.5	QPSK	4.45	4.75
			16QAM	4.45	4.74
5	23095	707.5	QPSK	4.49	4.79
			16QAM	4.49	4.82
5	23155	713.5	QPSK	4.45	4.73
			16QAM	4.46	4.76
10	23060	704	QPSK	8.89	9.3
			16QAM	8.89	9.26
10	23095	707.5	QPSK	8.94	9.32
			16QAM	8.95	9.36
10	23130	711	QPSK	8.85	9.24
			16QAM	8.86	9.25

**LTE Band 13 (Part 27)**

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
5	23205	779.5	QPSK	4.44	4.73
			16QAM	4.44	4.74
5	23230	782.0	QPSK	4.49	4.83
			16QAM	4.49	4.83
5	23255	784.5	QPSK	4.47	4.76
			16QAM	4.48	4.77
10	23230	782.0	QPSK	8.91	9.31
			16QAM	8.91	9.32

**LTE Band 17 (Part 27)**

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
5	23755	706.5	QPSK	4.51	4.8
			16QAM	4.5	4.81
5	23790	710	QPSK	4.49	4.81
			16QAM	4.5	4.79
5	23825	713.5	QPSK	4.47	4.78
			16QAM	4.47	4.82
10	23780	709	QPSK	8.94	9.31
			16QAM	8.94	9.35
10	23790	710	QPSK	8.92	9.29
			16QAM	8.92	9.29
10	23800	711	QPSK	8.9	9.27
			16QAM	8.9	9.28

**LTE Band 25 (Part 27)**

<b>BW(MHz)</b>	<b>Channel</b>	<b>Frequency (MHz)</b>	<b>Modulation</b>	<b>99% Occupied Bandwidth (MHz)</b>	<b>26 dB Bandwidth (MHz)</b>
1.4	26047	1850.7	QPSK	1.09	1.29
			16QAM	1.09	1.28
1.4	26365	1882.5	QPSK	1.09	1.27
			16QAM	1.09	1.25
1.4	26683	1914.3	QPSK	1.11	1.23
			16QAM	1.1	1.26
3	26055	1851.5	QPSK	2.72	2.98
			16QAM	2.72	2.98
3	26365	1882.5	QPSK	2.73	2.97
			16QAM	2.72	2.97
3	26675	1913.5	QPSK	2.75	2.95
			16QAM	2.74	2.94
5	26065	1852.5	QPSK	4.49	4.9
			16QAM	4.49	4.84
5	26365	1882.5	QPSK	4.49	4.82
			16QAM	4.48	4.83
5	26665	1912.5	QPSK	4.5	4.77
			16QAM	4.51	4.75
10	26090	1855	QPSK	8.93	9.58
			16QAM	8.92	9.42
10	26365	1882.5	QPSK	8.91	9.38
			16QAM	8.9	9.34
10	26640	1910	QPSK	8.96	9.44
			16QAM	8.95	9.61
15	26115	1857.5	QPSK	13.44	14.36
			16QAM	13.44	14.25
15	26365	1882.5	QPSK	13.42	14.22
			16QAM	13.41	14.21
15	26615	1907.5	QPSK	13.47	14.31
			16QAM	13.47	14.24
20	26140	1860	QPSK	17.86	18.76
			16QAM	17.85	18.77
20	26365	1882.5	QPSK	17.86	18.75



			16QAM	17.86	18.75
20	26590	1905.0	QPSK	17.81	18.71
			16QAM	17.81	18.7

**LTE Band 26**

(Remark: Uplink: 814-824MHz is for FCC Part 90; 824-849MHz is for FCC Part 22.)

**Part 90:**

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
1.4	26697	814.7	QPSK	1.09	1.34
			16QAM	1.09	1.36
1.4	26783	823.3	QPSK	1.09	1.26
			16QAM	1.09	1.25
3	26705	815.5	QPSK	2.72	2.98
			16QAM	2.72	2.97
3	26775	822.5	QPSK	2.72	2.97
			16QAM	2.72	2.97
5	26715	816.5	QPSK	4.50	4.90
			16QAM	4.48	4.95
5	26865	821.5	QPSK	4.48	4.82
			16QAM	4.48	4.82
10	26765	820.0	QPSK	8.91	9.66
			16QAM	8.90	9.52

**Part 22:**

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
1.4	26797	824.7	QPSK	1.09	1.27
			16QAM	1.09	1.26
1.4	26915	836.5	QPSK	1.09	1.36
			16QAM	1.09	1.30
1.4	27033	848.3	QPSK	1.09	1.24
			16QAM	1.08	1.25
3	26805	825.5	QPSK	2.72	2.97
			16QAM	2.72	2.98
3	26915	836.5	QPSK	2.72	2.95

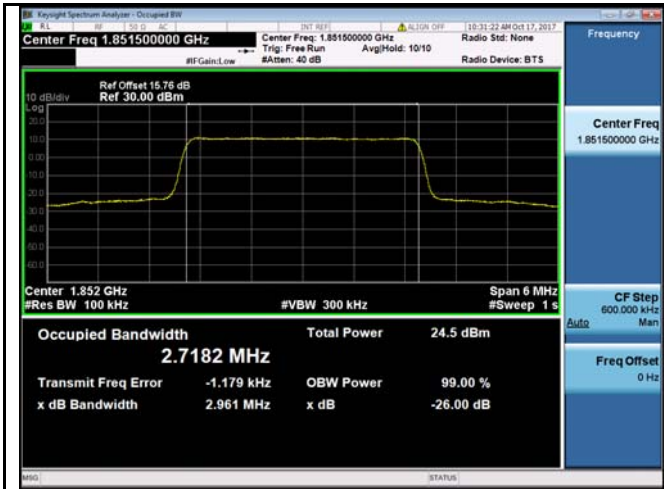
			16QAM	2.72	2.95
3	27025	847.5	QPSK	2.72	2.95
			16QAM	2.72	2.94
5	26815	826.5	QPSK	4.49	4.85
			16QAM	4.49	4.81
5	26915	836.5	QPSK	4.50	4.82
			16QAM	4.48	4.86
5	27015	846.5	QPSK	4.49	4.84
			16QAM	4.49	4.82
10	26840	829.0	QPSK	8.90	9.35
			16QAM	8.90	9.31
10	26915	836.5	QPSK	8.90	9.76
			16QAM	8.89	9.36
10	26990	844.0	QPSK	8.89	9.40
			16QAM	8.90	9.32
15	26865	831.5	QPSK	13.27	14.14
			16QAM	13.27	14.13
15	26915	836.5	QPSK	13.38	14.17
			16QAM	13.36	14.18
15	26965	841.5	QPSK	13.46	14.24
			16QAM	13.46	14.23

**LTE Band 41 (Part 27)**

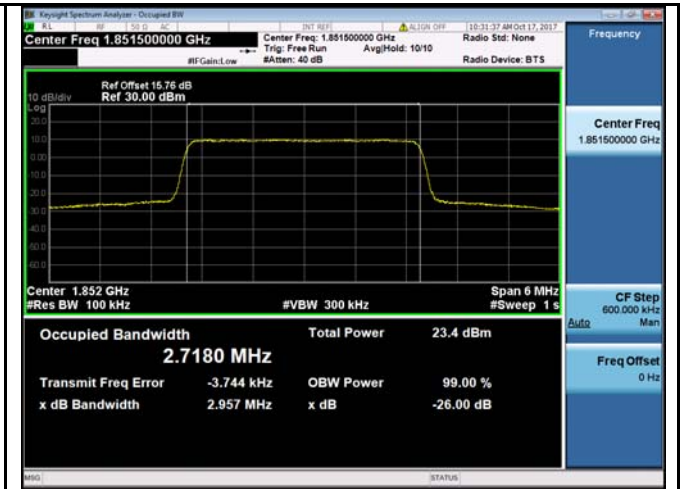
<b>BW(MHz)</b>	<b>Channel</b>	<b>Frequency (MHz)</b>	<b>Modulation</b>	<b>99% Occupied Bandwidth (MHz)</b>	<b>26 dB Bandwidth (MHz)</b>
5	40265	2557.5	QPSK	4.48	4.81
			16QAM	4.48	4.78
5	40740	2605.0	QPSK	4.48	4.77
			16QAM	4.47	4.81
5	41215	2652.5	QPSK	4.47	4.78
			16QAM	4.48	4.79
10	40290	2560.0	QPSK	8.9	9.34
			16QAM	8.91	9.31
10	40740	2605.0	QPSK	8.9	9.34
			16QAM	8.9	9.32
10	41190	2650.0	QPSK	8.91	9.29
			16QAM	8.91	9.33
15	40315	2562.5	QPSK	13.4	14.21
			16QAM	13.4	14.2
15	40740	2605.0	QPSK	13.4	14.21
			16QAM	13.4	14.22
15	41165	2647.5	QPSK	13.4	14.22
			16QAM	13.4	14.19
20	40340	2565.0	QPSK	17.83	18.71
			16QAM	17.83	18.71
20	40740	2605.0	QPSK	17.82	18.72
			16QAM	17.83	18.72
20	41140	2645.0	QPSK	17.85	18.73
			16QAM	17.85	18.73

**Test Plots**  
**LTE Band 2 (Part 24E)**

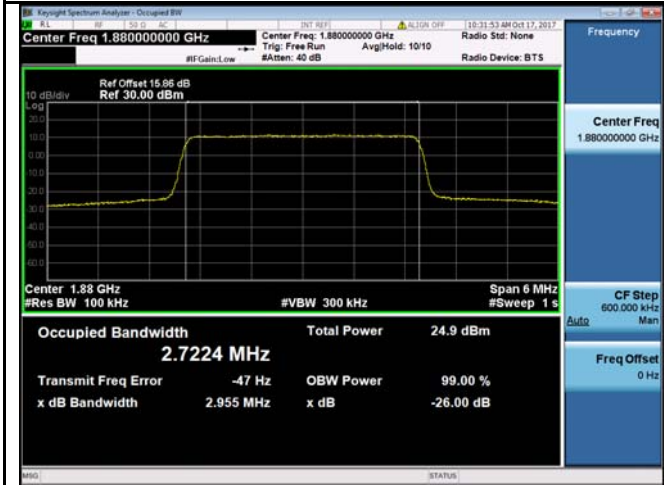




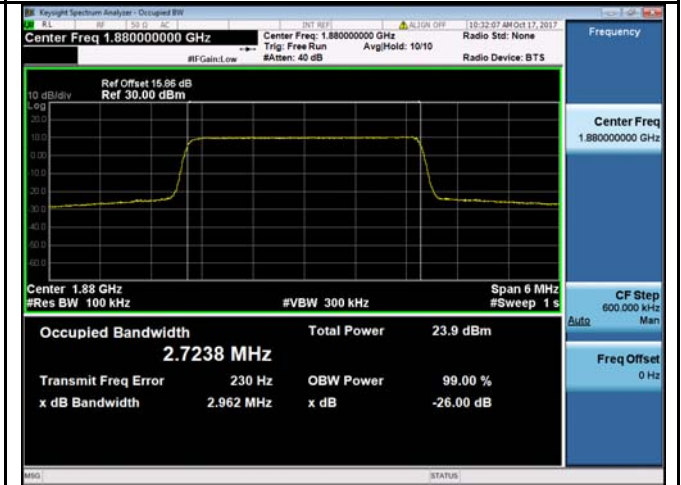
LTE band 2 - Low CH QPSK-3



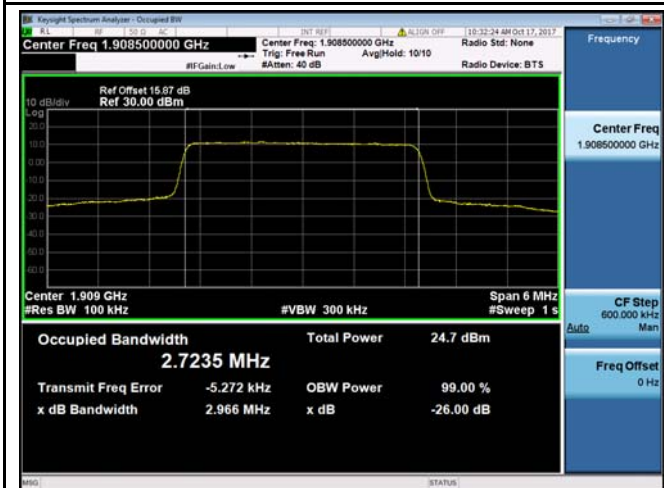
LTE band 2 - Low CH 16QAM-3



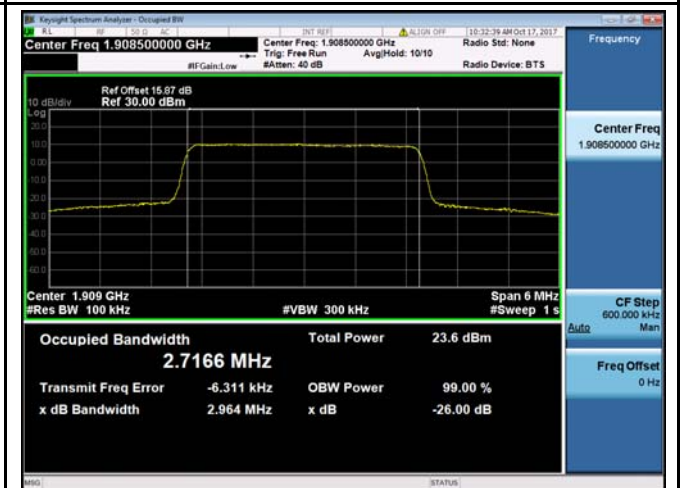
LTE band 2 - Middle CH QPSK-3



LTE band 2 - Middle CH 16QAM-3



LTE band 2 - High CH QPSK-3



LTE band 2 - High CH 16QAM-3





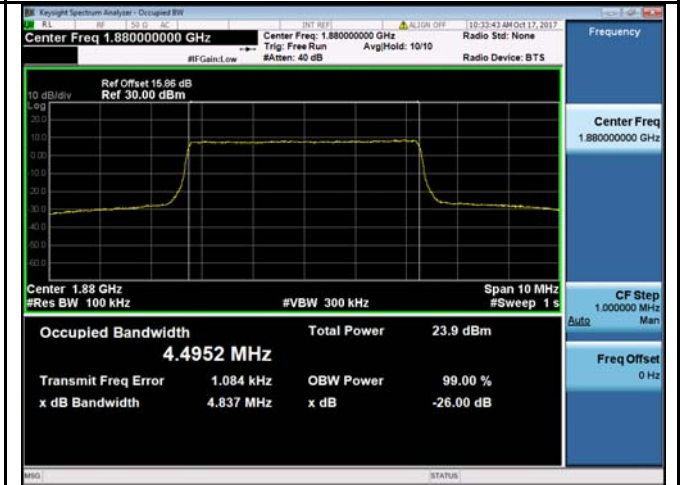
LTE band 2 - Low CH QPSK-5



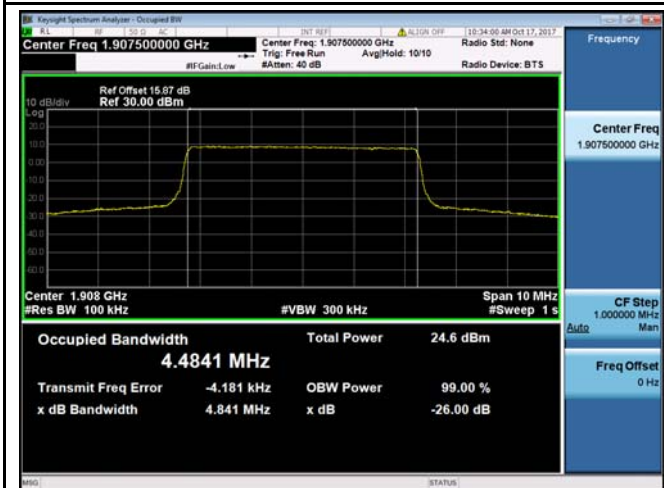
LTE band 2 - Low CH 16QAM-5



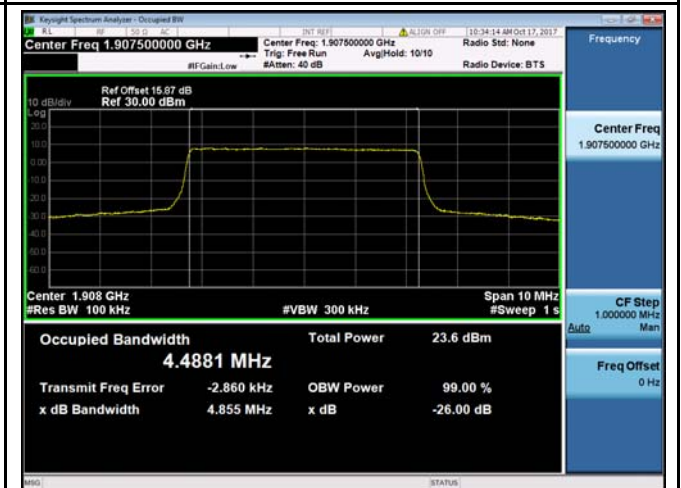
LTE band 2 - Middle CH QPSK-5



LTE band 2 - Middle CH 16QAM-5



LTE band 2 - High CH QPSK-5



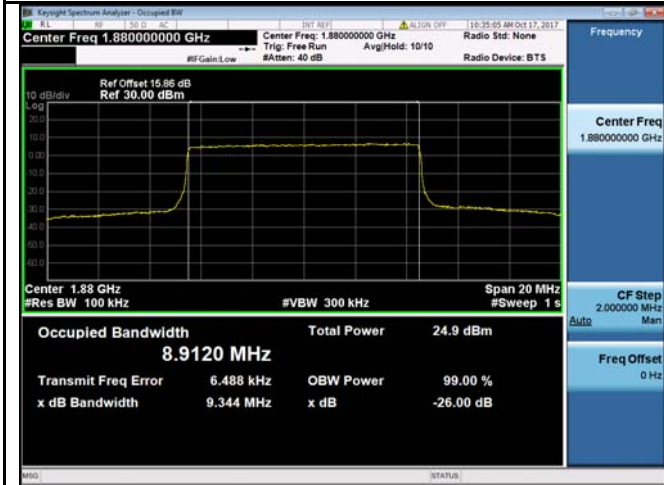
LTE band 2 - High CH 16QAM-5



LTE band 2 - Low CH QPSK-10



LTE band 2 - Low CH 16QAM-10



LTE band 2 - Middle CH QPSK-10



LTE band 2 - Middle CH 16QAM-10



LTE band 2 - High CH QPSK-10

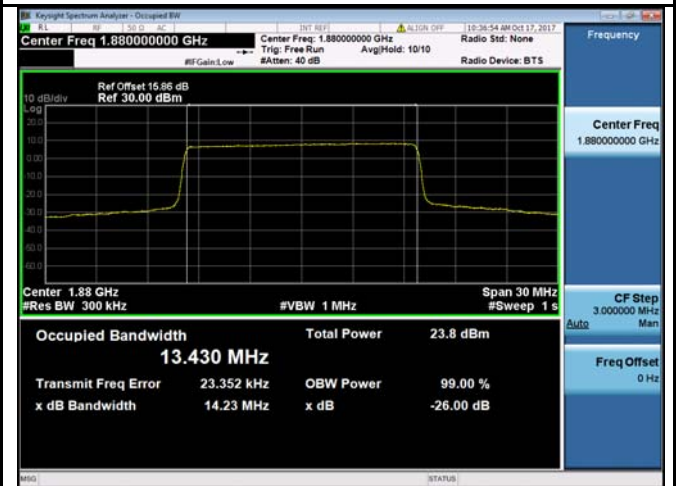
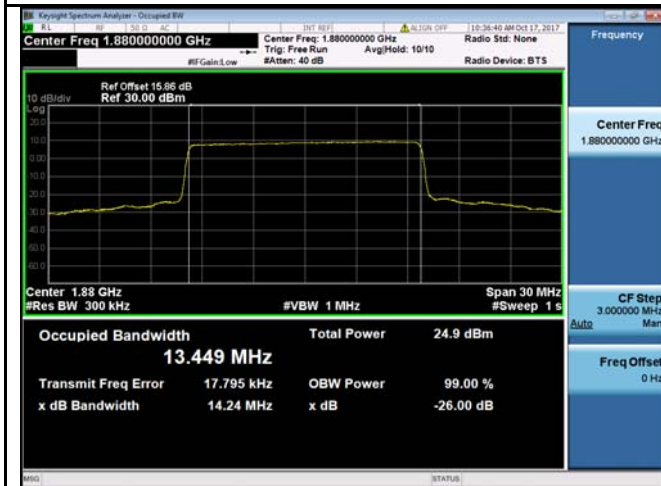


LTE band 2 - High CH 16QAM-10



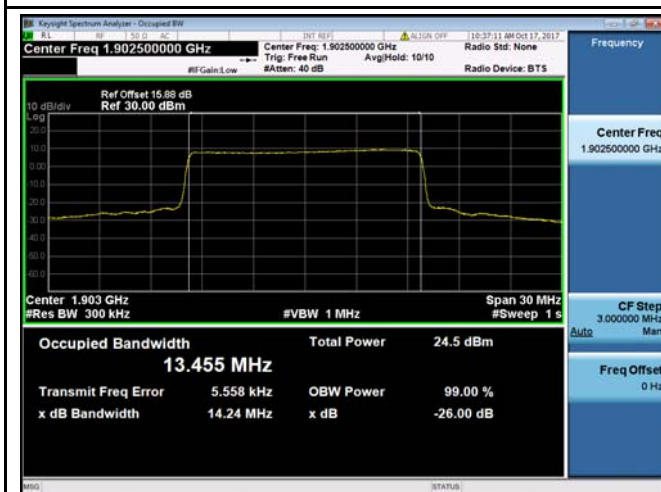
LTE band 2 - Low CH QPSK-15

LTE band 2 - Low CH 16QAM-15



LTE band 2 - Middle CH QPSK-15

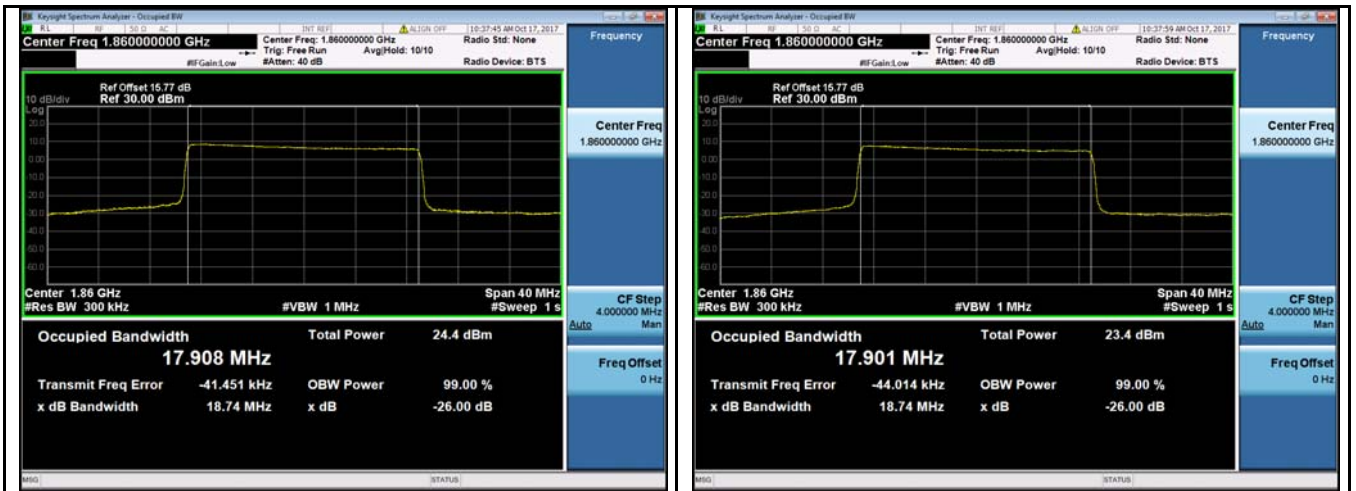
LTE band 2 - Middle CH 16QAM-15



LTE band 2 - High CH QPSK-15

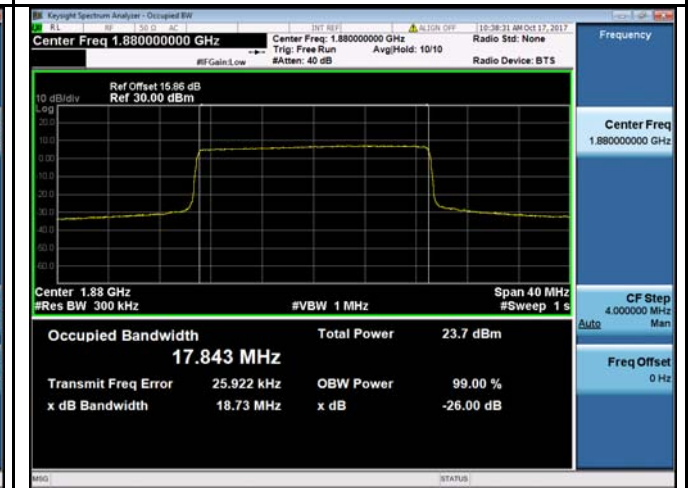
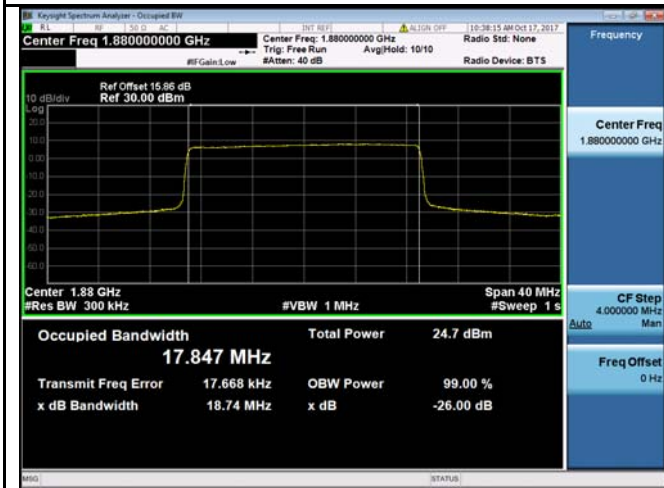
LTE band 2 - High CH 16QAM-15





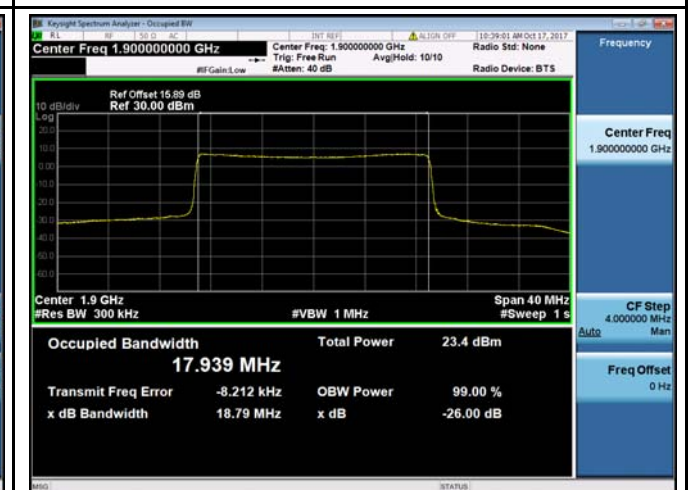
LTE band 2 - Low CH QPSK-20

LTE band 2 - Low CH 16QAM-20



LTE band 2 - Middle CH QPSK-20

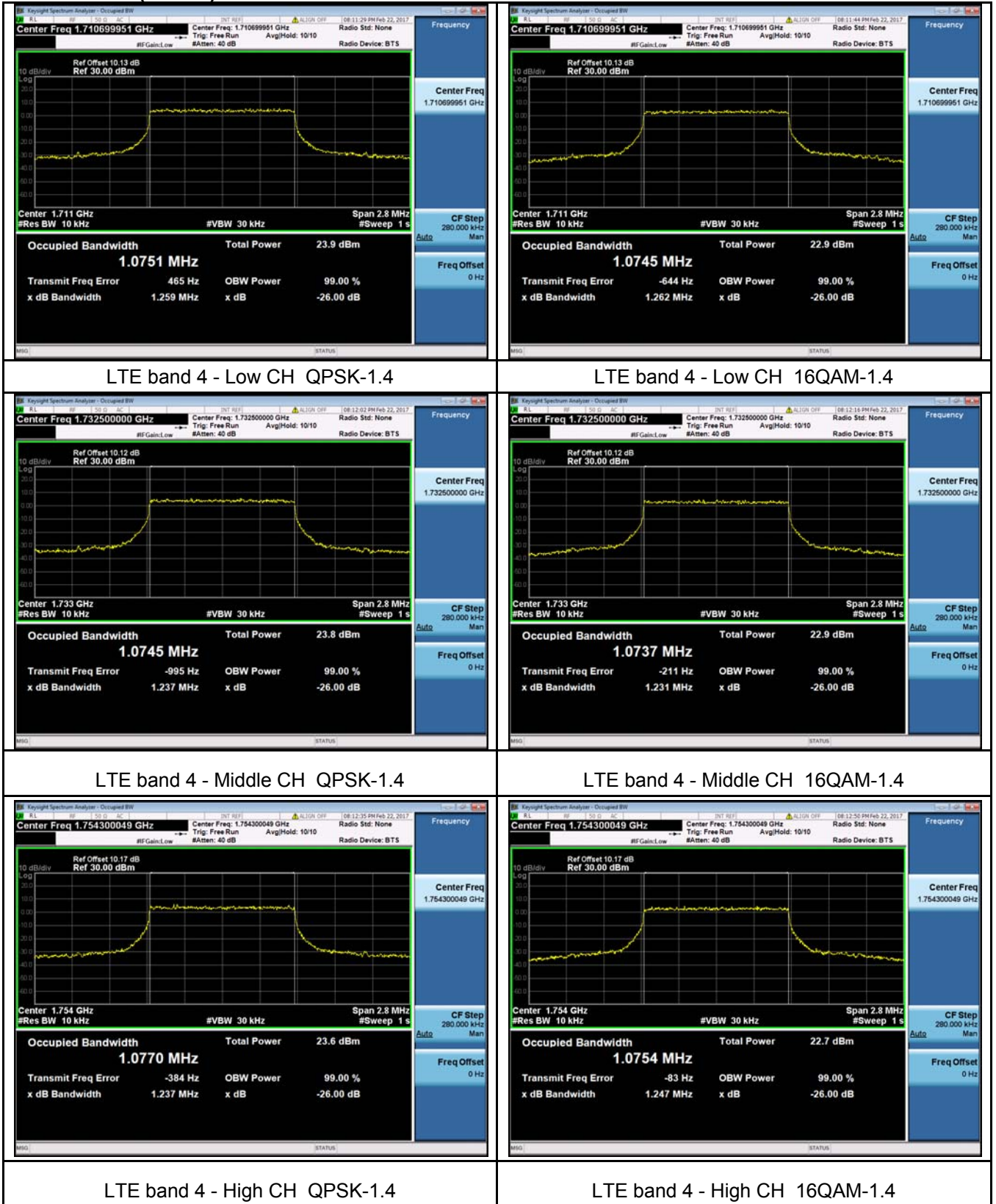
LTE band 2 - Middle CH 16QAM-20



LTE band 2 - High CH QPSK-20

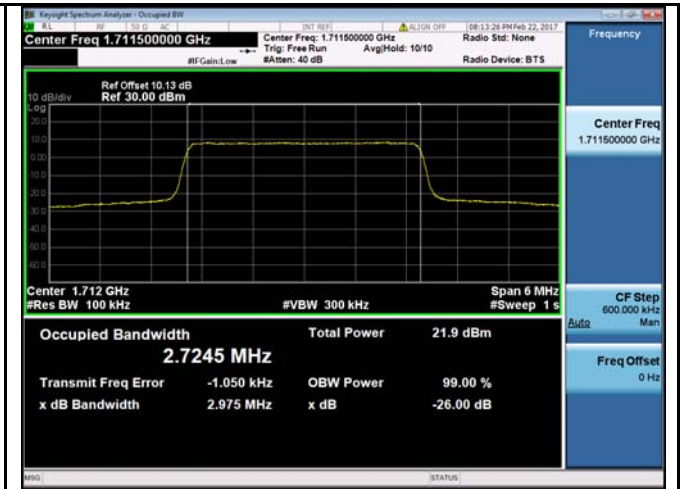
LTE band 2 - High CH 16QAM-20

LTE Band 4 (Part 27)

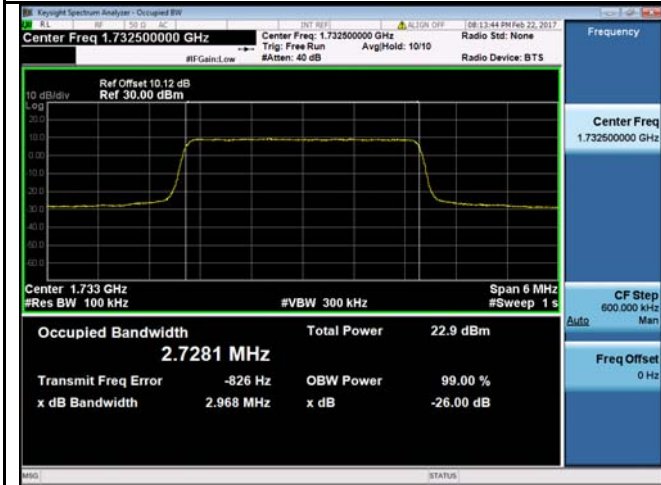




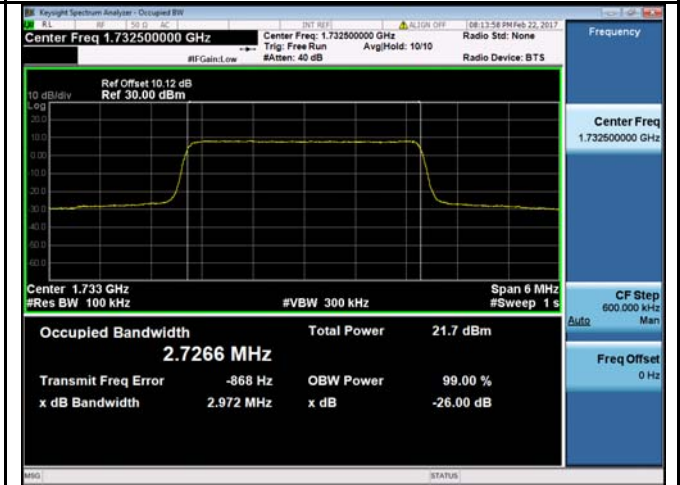
LTE band 4 - Low CH QPSK-3



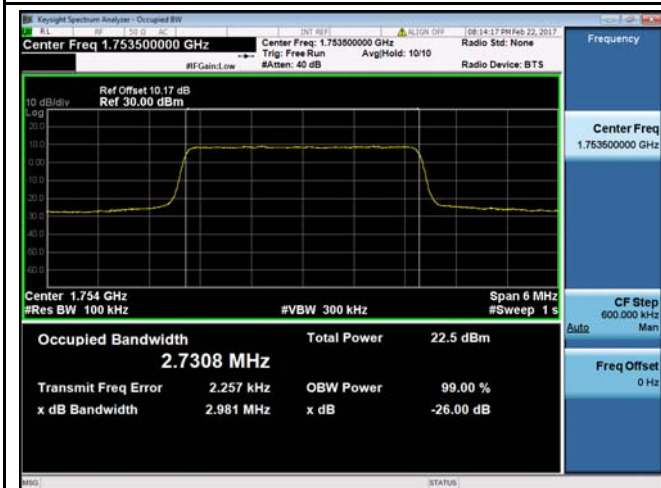
LTE band 4 - Low CH 16QAM-3



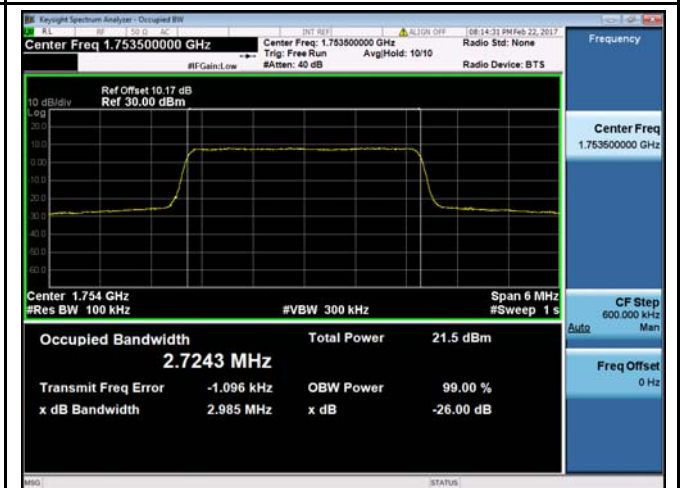
LTE band 4 - Middle CH QPSK-3



LTE band 4 - Middle CH 16QAM-3



LTE band 4 - High CH QPSK-3



LTE band 4 - High CH 16QAM-3

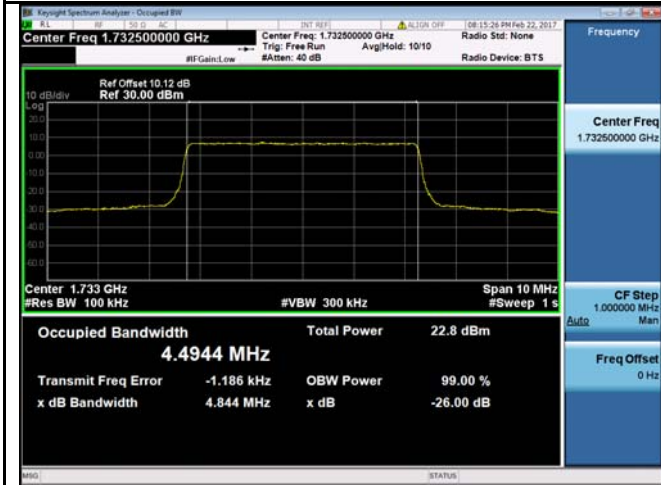




LTE band 4 - Low CH QPSK-5



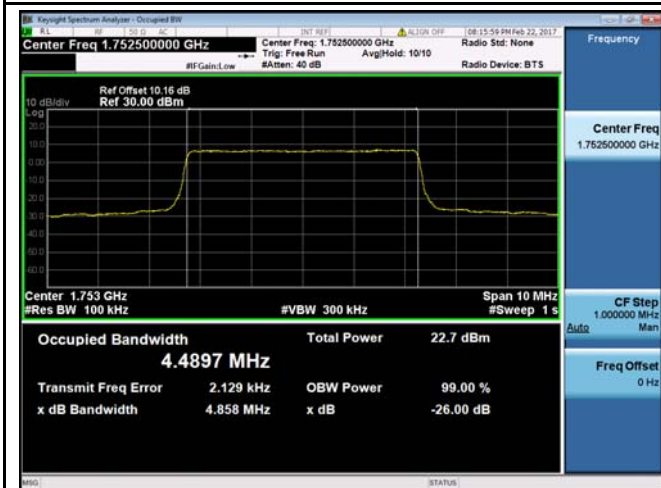
LTE band 4 - Low CH 16QAM-5



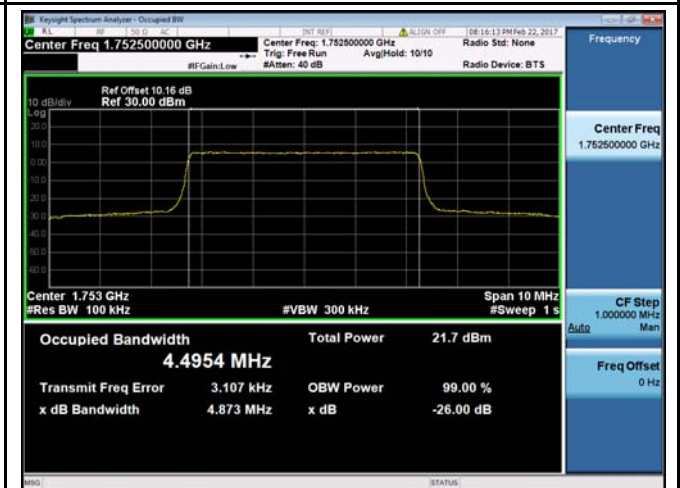
LTE band 4 - Middle CH QPSK-5



LTE band 4 - Middle CH 16QAM-5

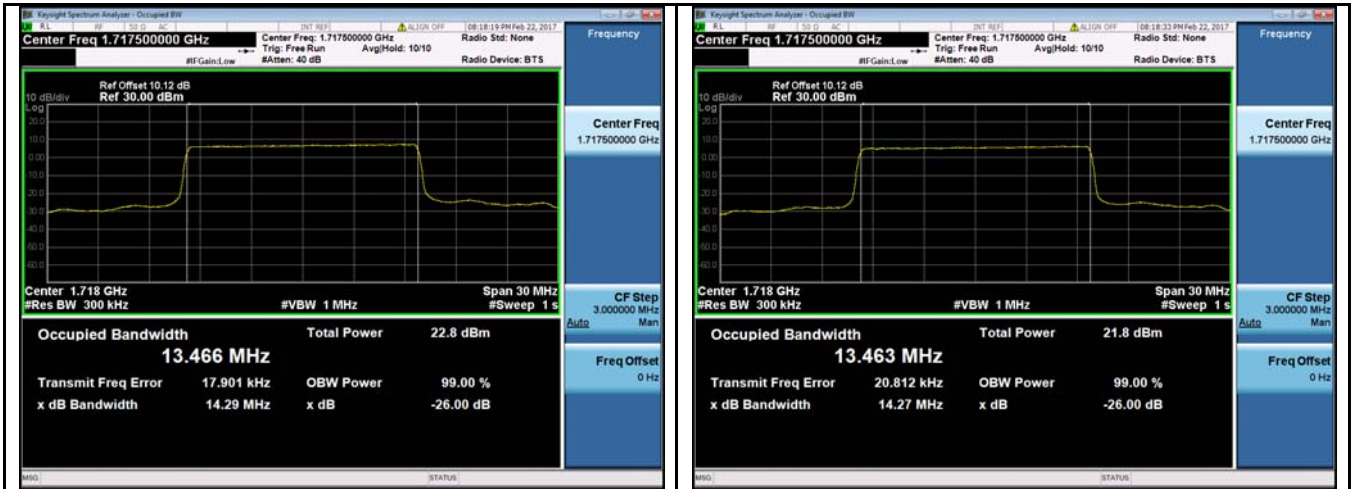


LTE band 4 - High CH QPSK-5



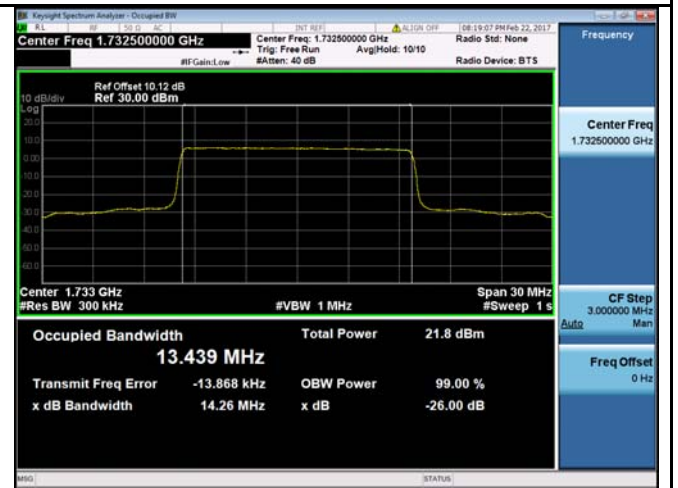
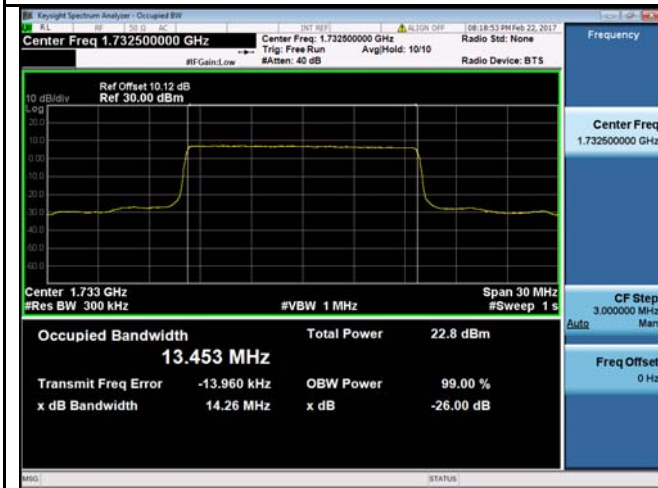
LTE band 4 - High CH 16QAM-5





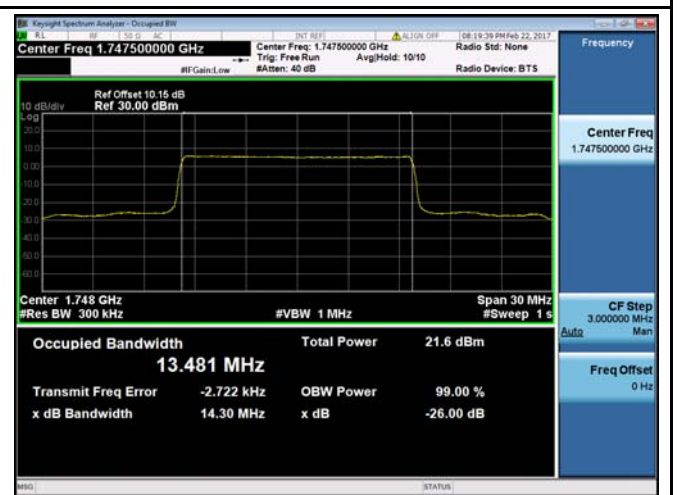
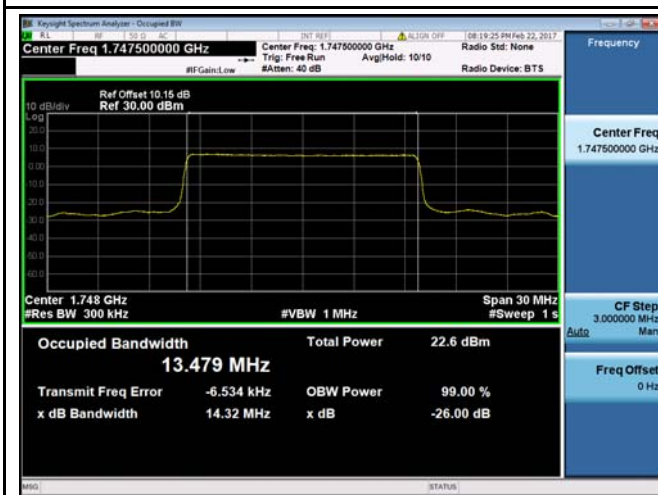
LTE band 4 - Low CH QPSK-15

LTE band 4 - Low CH 16QAM-15



LTE band 4 - Middle CH QPSK-15

LTE band 4 - Middle CH 16QAM-15



LTE band 4 - High CH QPSK-15

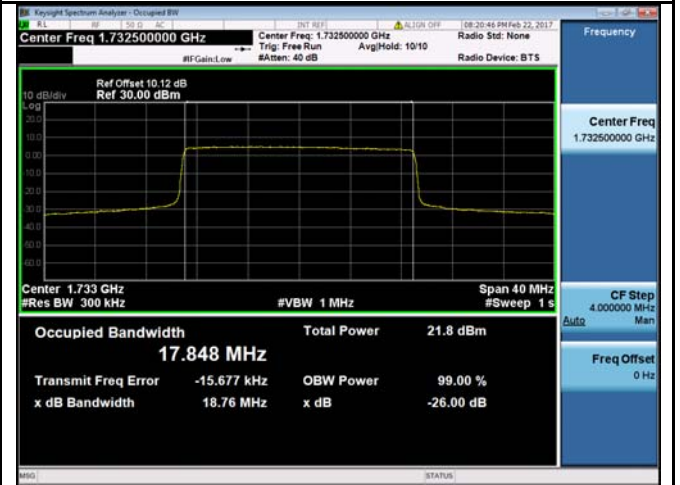
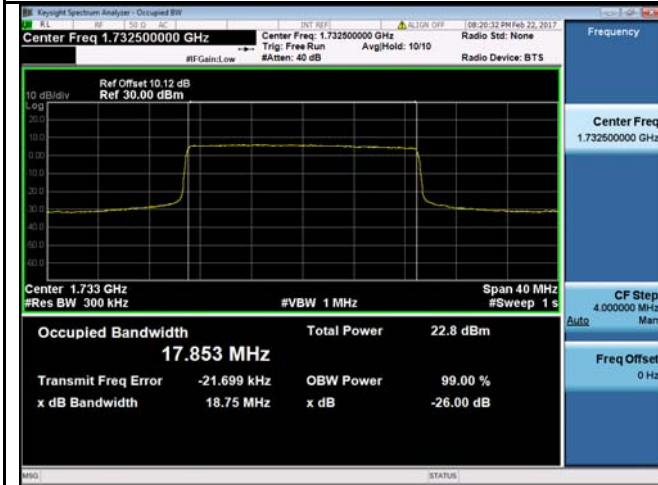
LTE band 4 - High CH 16QAM-15





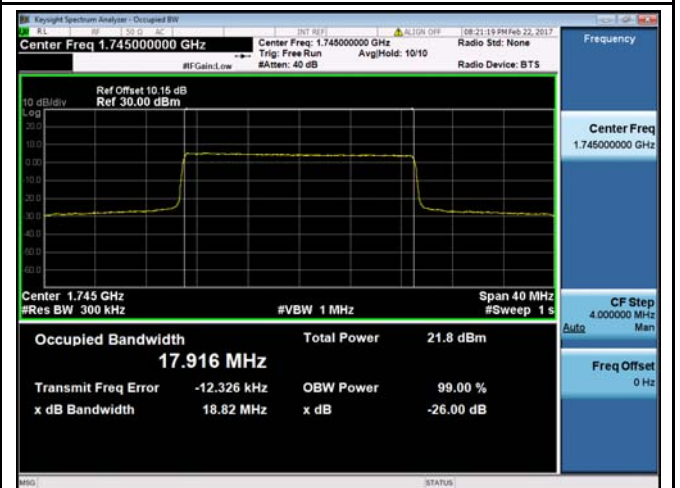
LTE band 4 - Low CH QPSK-20

LTE band 4 - Low CH 16QAM-20



LTE band 4 - Middle CH QPSK-20

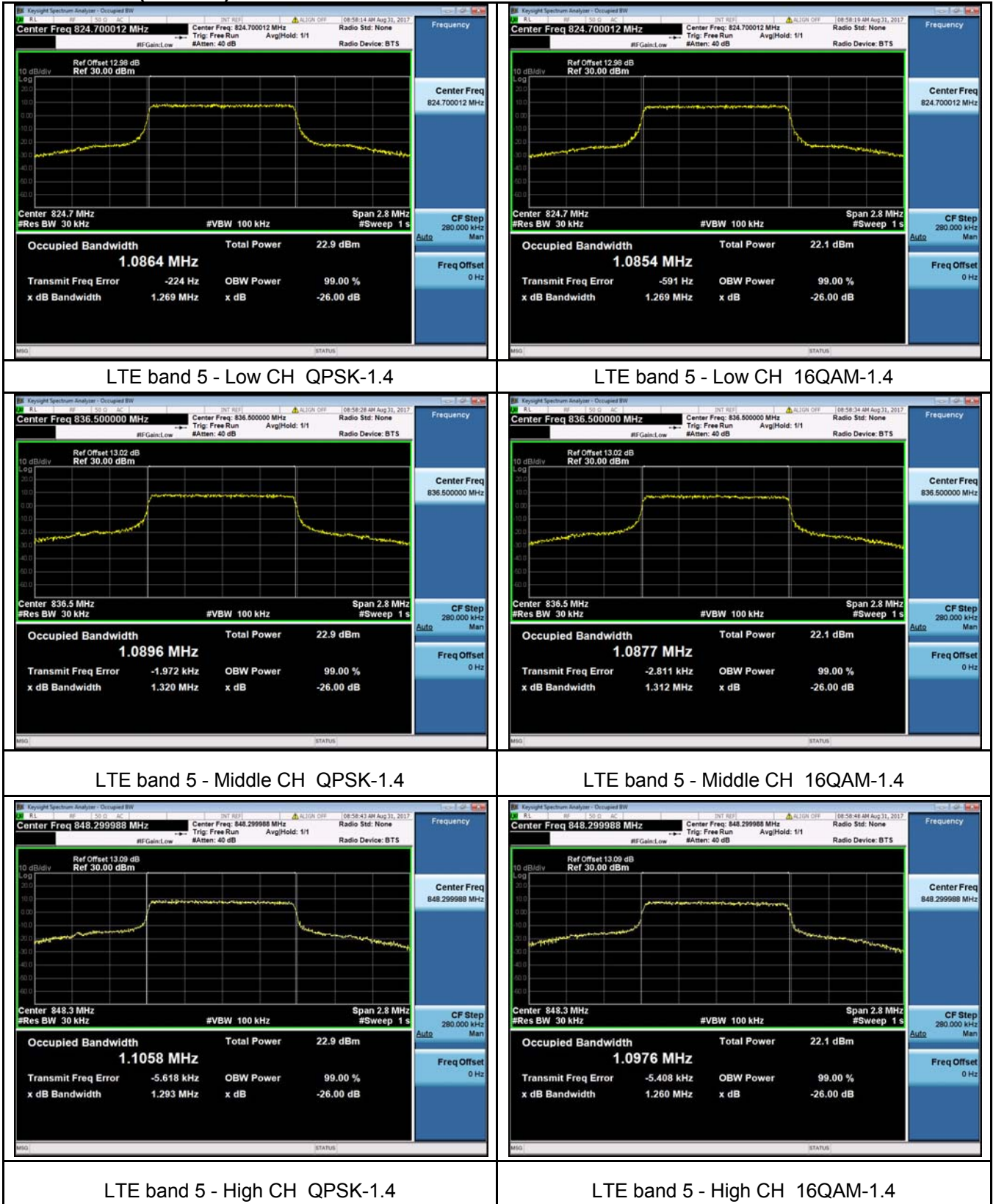
LTE band 4 - Middle CH 16QAM-20



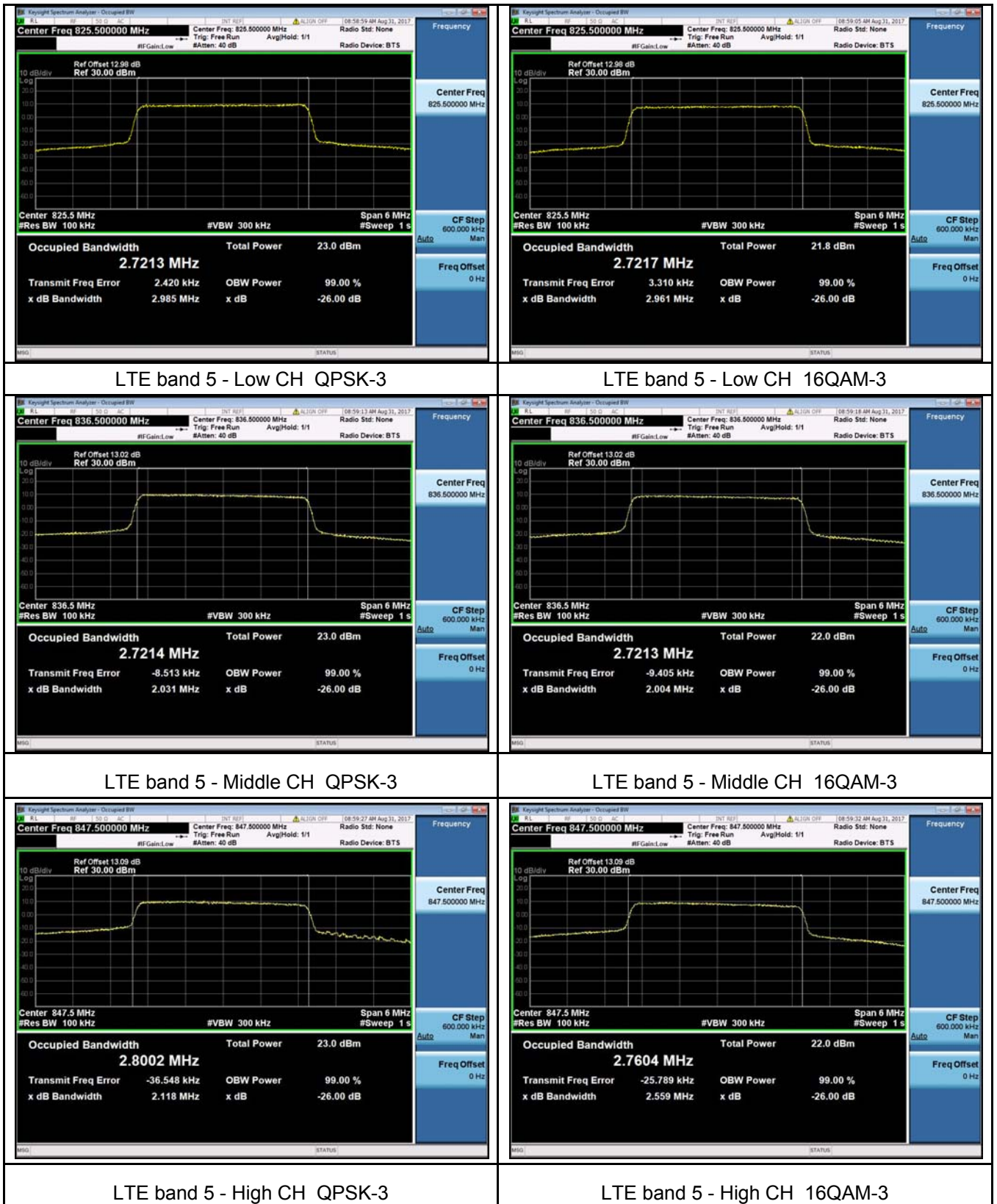
LTE band 4 - High CH QPSK-20

LTE band 4 - High CH 16QAM-20

LTE Band 5 (Part 22H)



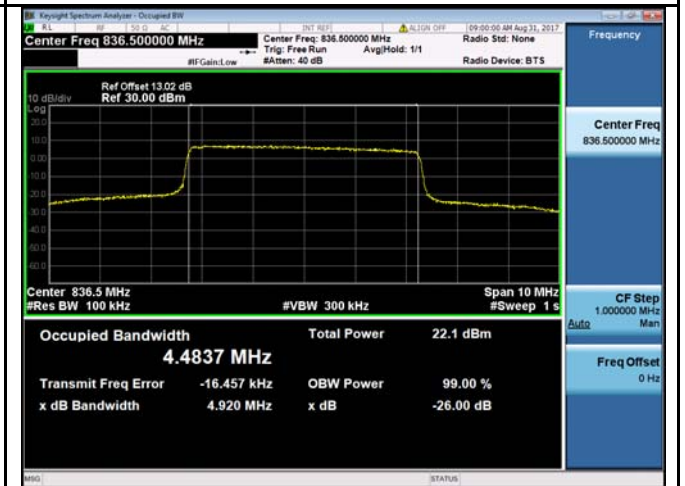
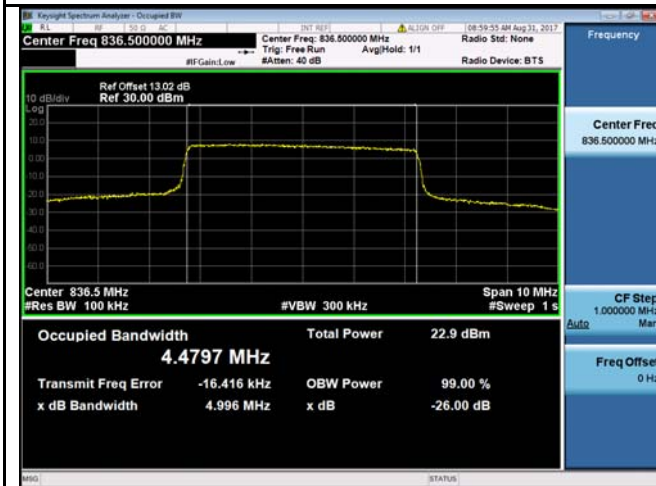






LTE band 5 - Low CH QPSK-5

LTE band 5 - Low CH 16QAM-5



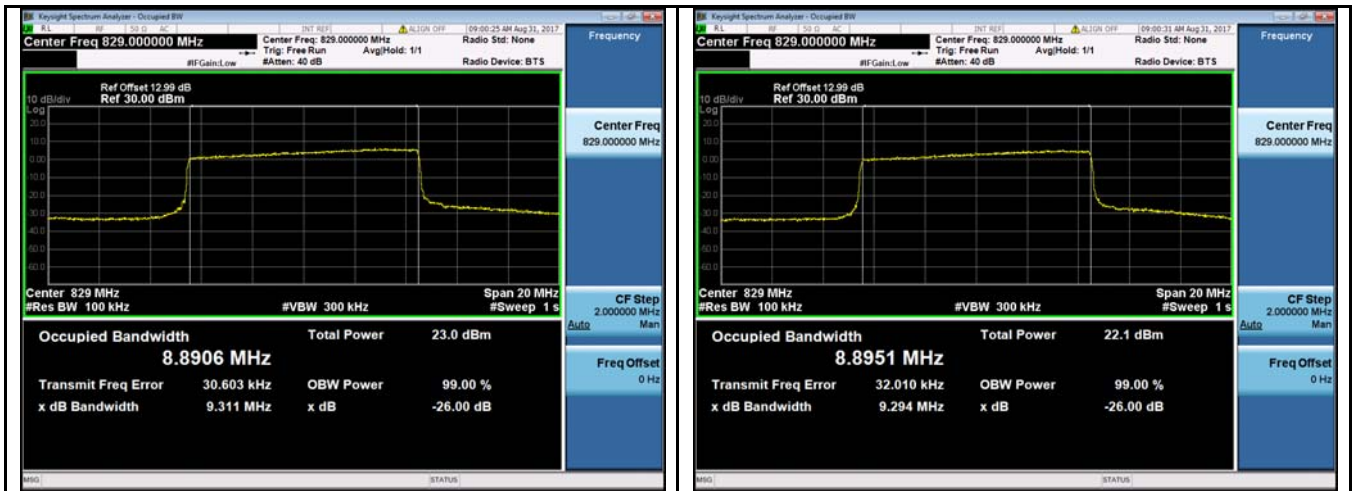
LTE band 5 - Middle CH QPSK-5

LTE band 5 - Middle CH 16QAM-5



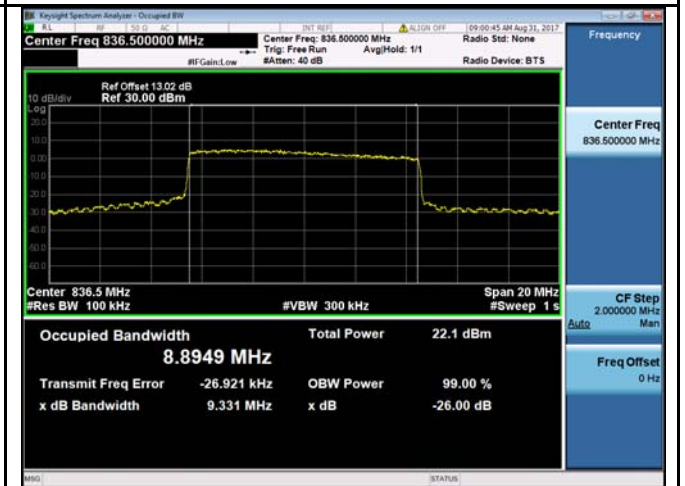
LTE band 5 - High CH QPSK-5

LTE band 5 - High CH 16QAM-5



LTE band 5 - Low CH QPSK-10

LTE band 5 - Low CH 16QAM-10



LTE band 5 - Middle CH QPSK-10

LTE band 5 - Middle CH 16QAM-10



LTE band 5 - High CH QPSK-10

LTE band 5 - High CH 16QAM-10

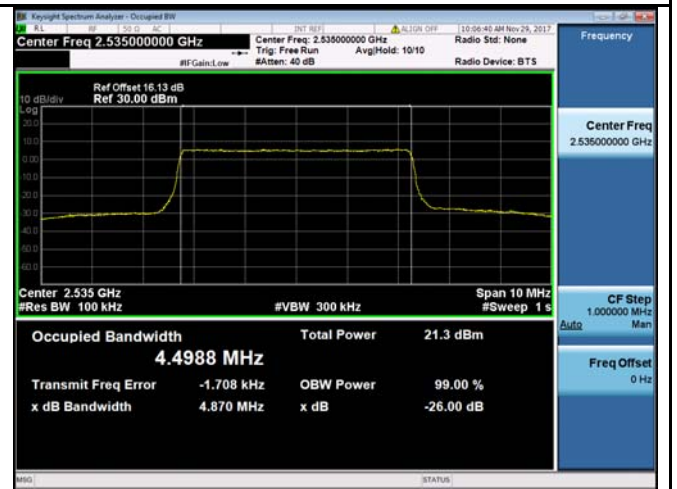
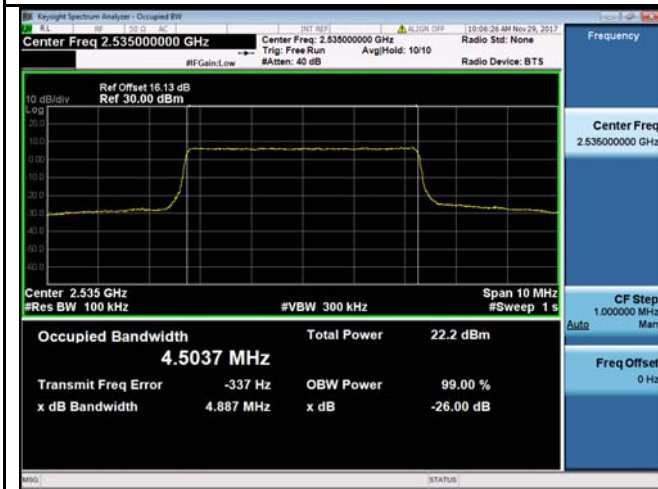


LTE Band 7 (Part 27)



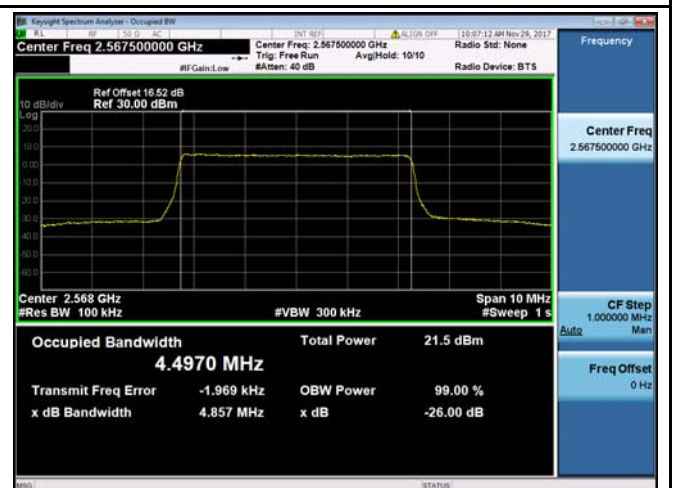
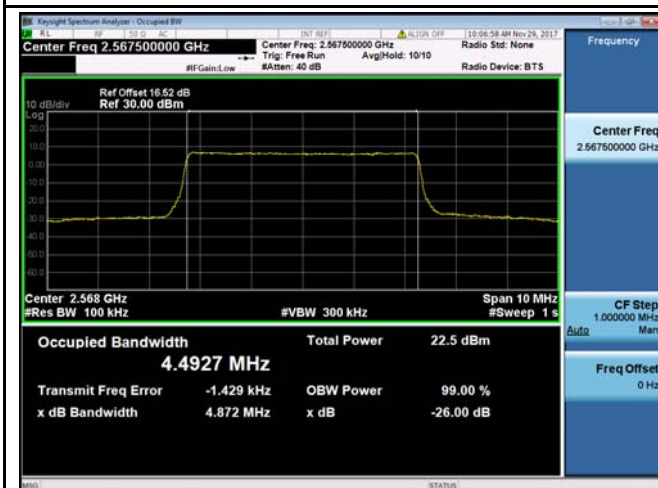
LTE band 7 - Low CH QPSK-5

LTE band 7 - Low CH 16QAM-5



LTE band 7 - Middle CH QPSK-5

LTE band 7 - Middle CH 16QAM-5



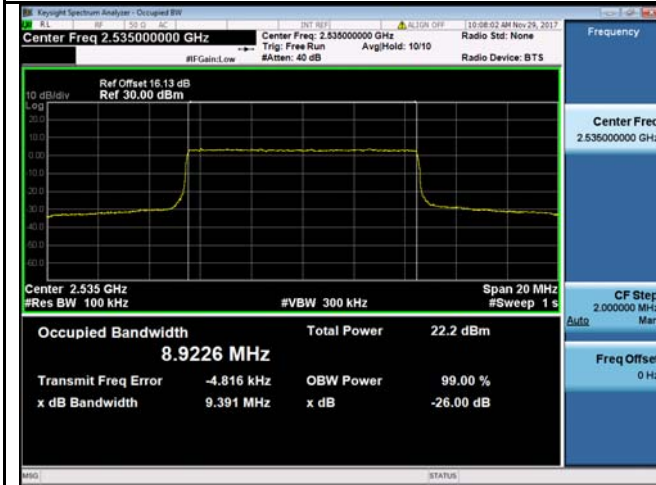
LTE band 7 - High CH QPSK-5

LTE band 7 - High CH 16QAM-5



LTE band 7 - Low CH QPSK-10

LTE band 7 - Low CH 16QAM-10



LTE band 7 - Middle CH QPSK-10

LTE band 7 - Middle CH 16QAM-10



LTE band 7 - High CH QPSK-10

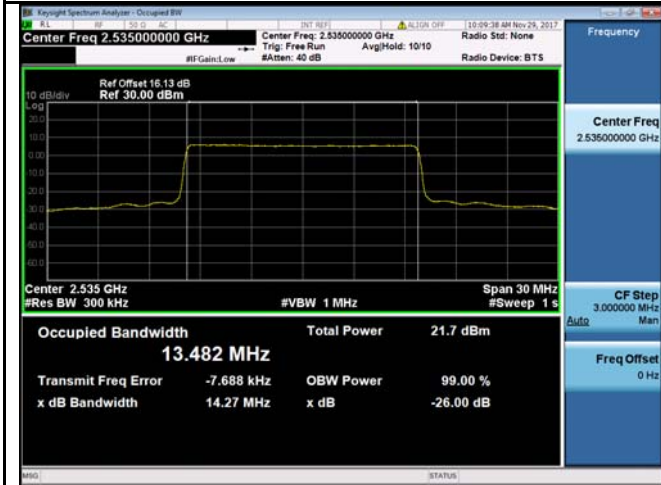
LTE band 7 - High CH 16QAM-10



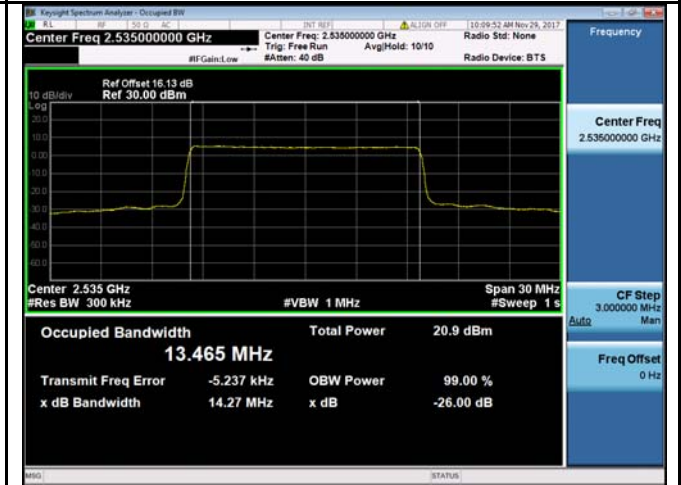
LTE band 7 - Low CH QPSK-15



LTE band 7 - Low CH 16QAM-15



LTE band 7 - Middle CH QPSK-15



LTE band 7 - Middle CH 16QAM-15



LTE band 7 - High CH QPSK-15

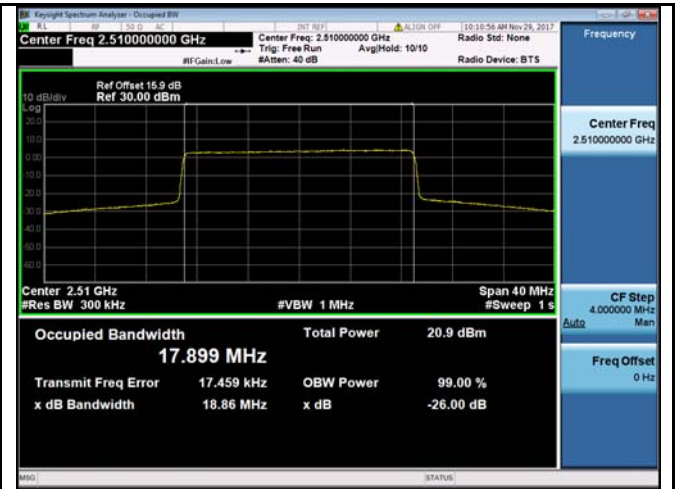


LTE band 7 - High CH 16QAM-15





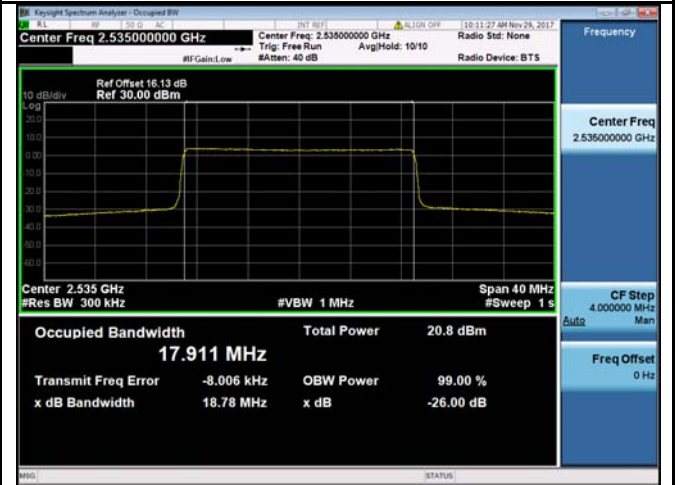
LTE band 7 - Low CH QPSK-20



LTE band 7 - Low CH 16QAM-20



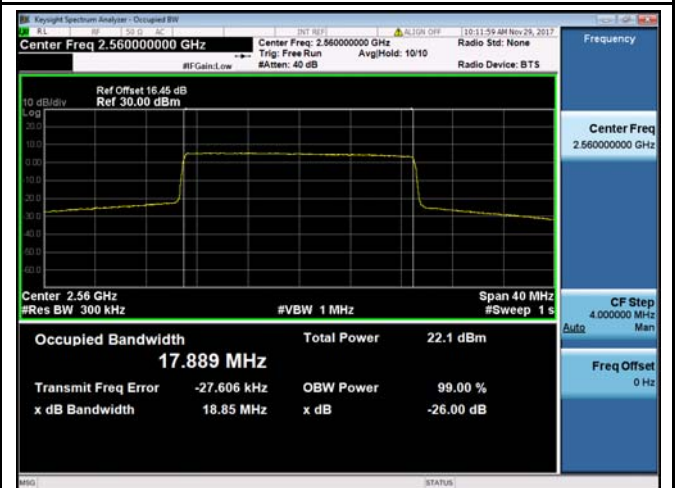
LTE band 7 - Middle CH QPSK-20



LTE band 7 - Middle CH 16QAM-20



LTE band 7 - High CH QPSK-20



LTE band 7 - High CH 16QAM-20

LTE Band 12 (Part 27)

