FCC TEST REPORT

(PART 27)

Applicant:	Xiaomi Communications Co., Ltd.
Address:	The Rainbow City of China Resources,NO.68,Qinghe Middle Street,Haidian District,Beijing,China

Manufacturer or Supplier:	Xiaomi Communications Co., Ltd.
Address:	The Rainbow City of China Resources,NO.68,Qinghe Middle Street,Haidian District,Beijing,China
Product:	Mobile Phone
Brand Name:	XIAOMI
Model Name:	M1904F3BG
FCC ID:	2AFZZF3BG
Date of tests:	Jul 13, 2019 ~ Aug 07, 2019

The tests have been carried out according to the requirements of the following standard:

☒ **FCC Part 27, Subpart C, M** ☒ **ANSI/TIA/EIA-603-D**
☒ **FCC Part 2** ☒ **ANSI/TIA/EIA-603-E** ☒ **ANSI C63.26-2015**

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Prepared by Alex Chen Engineer / Mobile Department	Approved by Luke Lu Manager / Mobile Department
Alex Date: Aug 13, 2019	Luke Lu Date: Aug 13, 2019

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF190712W002-6	Original release	Aug 13, 2019

1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 27 & Part 2			
STANDARD SECTION	**TEST TYPE AND LIMIT**	**RESULT**	**REMARK**
2.1046 27.50(h)(2)	Equivalent Isotropically Radiated Power	PASS	Meet the requirement of limit.
2.1055 27.54	Frequency Stability	PASS	Meet the requirement of limit.
2.1049 27.53(m)(6)	Occupied Bandwidth	PASS	Meet the requirement of limit.
2.1051 27.53(m)(4)(6)	Band Edge Measurements	PASS	Meet the requirement of limit.
2.1051 27.53(m)(4)(6)	Conducted Spurious Emissions	PASS	Meet the requirement of limit.
2.1053 27.53(m)(4)(6)	Radiated Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -10.82 dB at 46.310MHz.

1.1 MEASREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

MEASUREMENT	UNCERTAINTY
Frequency Stability	±76.97Hz
Radiated emissions & Radiated Power (30MHz~1GMHz)	±4.98dB
Radiated emissions & Radiated Power (1GMHz ~6GMHz)	±4.70dB
Radiated emissions (6GMHz ~18GMHz)	±4.60dB
Radiated emissions (18GMHz ~40GMHz)	±4.12dB
Conducted emissions	±4.01dB
Occupied Channel Bandwidth	±43.58KHz
Conducted Output power	±2.06dB
Band Edge Measurements	±4.70dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

1.2 TEST SITE AND INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Feb. 26,19	Feb. 25,20
EXA Signal Analyzer	KEYSIGHT	N9010A-526	MY54510322	Feb. 26,19	Feb. 25,20
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Feb. 26,19	Feb. 25,20
Horn Antenna (1GHz-18GHz)	ETS-LINDGREN	3117	00168692	Nov. 30, 18	Nov. 29, 19
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40-K-SG/QMS-00361	15433	Nov. 21, 18	Nov. 20, 19
Radio Communication Analyzer	ANRITSU	MT8820C	6201465426	Feb. 26,19	Feb. 25,20
Radio Communication Analyzer	Rohde&Schwarz	CMW500	131349	Feb. 26,19	Feb. 25,20
Signal Pre-Amplifier	EMSI	EMC 9135	980249	Jun. 24,19	Jun. 23,20
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	Jun. 24,19	Jun. 23,20
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Jun. 24,19	Jun. 23,20
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	Euroshieldpn-CT0001143-1216	Feb. 26,19	Feb. 25,20
Test Software	E3	V 9.160323	N/A	N/A	N/A
Test Software	ADT	ADT_Radiated_V7.6.15.9.2	N/A	N/A	N/A
10dB Attenuator	JFW/USA	50HF-010-SMA	1505	Jun. 24,19	Jun. 23,20
Power Meter	Anritsu	ML2495A	1506002	Feb. 26,19	Feb. 25,20
Power Sensor	Anritsu	MA2411B	1339352	Feb. 26,19	Feb. 25,20
Humid & Temp Programmable Tester	Juyi	ITH-120-45-CP-AR	IAA1504-001	Jun. 24,19	Jun. 23,20
MXG Analog Microvave Signal Generator	KEYSIGHT	N5183A	MY50143024	Feb. 26,19	Feb. 25,20
Power Divider	MCLI/USA	PS2-15	24880	Jul. 09,19	Jul. 08,20

NOTE: 1. The calibration interval of the above test instruments is 12 months or 24 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

2. The test was performed in 3m Semi-anechoic Chamber and RF Oven Room.

3. The horn antenna is used only for the measurement of emission frequency above 1GHz if tested.

4. The FCC Site Registration No. is 525120; The Designation No. is CN1171.

2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Mobile Phone	
BRAND NAME	XIAOMI	
MODEL NAME	M1904F3BG	
POWER SUPPLY	5V/9V/12Vdc (adapter or host equipment) 3.85Vdc (Li-ion, battery) V_{min}=3.6V, V_{nor}=3.85V,V_{max}=4.4V	
MODULATION TECHNOLOGY	**LTE**	QPSK, 16QAM, 64QAM
FREQUENCY RANGE	**LTE Band 7 Channel Bandwidth: 5MHz**	2502.5MHz ~ 2567.5MHz
	LTE Band 7 Channel Bandwidth: 10MHz	2505MHz ~ 2565MHz
	LTE Band 7 Channel Bandwidth: 15MHz	2507.5MHz ~ 2562.5MHz
	LTE Band 7 Channel Bandwidth: 20MHz	2510MHz ~ 2560MHz
	LTE Band 38 Channel Bandwidth: 5MHz	2572.5MHz ~ 2617.5MHz
	LTE Band 38 Channel Bandwidth: 10MHz	2575MHz ~ 2615MHz
	LTE Band 38 Channel Bandwidth: 15MHz	2577.5MHz ~ 2612.5MHz
	LTE Band 38 Channel Bandwidth: 20MHz	2580MHz ~ 2610MHz
	LTE Band CA_7C Channel Bandwidth: 10MHz+20MHz	2505.5MHz ~ 2545.6MHz
	LTE Band CA_7C Channel Bandwidth: 15MHz+10MHz	2507.5MHz ~ 2552.7MHz
	LTE Band CA_7C Channel Bandwidth: 15MHz+15MHz	2507.5MHz ~ 2547.5MHz
	LTE Band CA_7C Channel Bandwidth: 15MHz+20MHz	2507.8MHz ~ 2542.9MHz
	LTE Band CA_7C Channel Bandwidth: 20MHz+10MHz	2510MHz ~ 2550.1MHz
	LTE Band CA_7C Channel Bandwidth: 20MHz+15MHz	2510MHz ~ 2545.1MHz

	LTE Band CA_7C Channel Bandwidth: 20MHz+20MHz	2510MHz ~ 2540.2MHz
	LTE Band CA_38C Channel Bandwidth: 15MHz+15MHz	2577.5MHz ~ 2597.5MHz
	LTE Band CA_38C Channel Bandwidth: 20MHz+20MHz	2580MHz ~ 2590.2MHz
EMISSION DESIGNATOR	**LTE Band 7 Channel Bandwidth: 5MHz**	QPSK: 4M48G7D
		16QAM: 4M48W7D
		64QAM: 4M49W7D
	LTE Band 7 Channel Bandwidth: 10MHz	QPSK: 8M95G7D
		16QAM: 8M94W7D
		64QAM: 8M93W7D
	LTE Band 7 Channel Bandwidth: 15MHz	QPSK: 13M4G7D
		16QAM: 13M4W7D
		64QAM: 13M4W7D
	LTE Band 7 Channel Bandwidth: 20MHz	QPSK: 17M9G7D
		16QAM: 17M9W7D
		64QAM: 17M9W7D
EMISSION DESIGNATOR	**LTE Band CA_7C Channel Bandwidth: 10MHz+20MHz**	QPSK: 28M11G7D
		16QAM: 28M14W7D
		64QAM: 28M14W7D
	LTE Band CA_7C Channel Bandwidth: 15MHz +10MHz	QPSK: 23M65G7D
		16QAM: 23M66W7D
		64QAM: 23M66W7D
	LTE Band CA_7C Channel Bandwidth: 15MHz +15MHz	QPSK: 28M8G7D
		16QAM: 28M8W7D
		64QAM: 28M8W7D
	LTE Band CA_7C Channel Bandwidth: 15MHz +20MHz	QPSK: 33M0G7D
		16QAM: 33M0W7D
		64QAM: 33M0W7D
	LTE Band CA_7C Channel Bandwidth: 20MHz +10MHz	QPSK: 28M2G7D
		16QAM: 28M2W7D
		64QAM: 28M2W7D
	LTE Band CA_7C Channel Bandwidth: 20MHz +15MHz	QPSK: 33M0G7D
		16QAM: 33M1W7D
		64QAM: 32M9W7D
	LTE Band CA_7C Channel Bandwidth: 20MHz +20MHz	QPSK: 37M9G7D
		16QAM: 37M9W7D
		64QAM: 37M8W7D
	LTE Band 38 Channel Bandwidth: 5MHz	QPSK: 4M48G7D
		16QAM: 4M47W7D

		64QAM: 4M49W7D
	LTE Band 38 Channel Bandwidth: 10MHz	QPSK: 8M94G7D
		16QAM: 8M92W7D
		64QAM: 8M94W7D
	LTE Band 38 Channel Bandwidth: 15MHz	QPSK: 14M4G7D
		16QAM: 13M4W7D
		64QAM: 13M4W7D
	LTE Band 38 Channel Bandwidth: 20MHz	QPSK: 17M9G7D
		16QAM: 17M9W7D
		64QAM: 17M9W7D
	LTE Band CA_38C Channel Bandwidth: 15MHz+15MHz	QPSK: 28M4G7D
		16QAM: 28M5W7D
		64QAM: 28M5W7D
	LTE Band CA_38C Channel Bandwidth: 20MHz+20MHz	QPSK: 37M5G7D
		16QAM: 37M5W7D
		64QAM: 37M5W7D
MAX. EIRP POWER	**LTE Band 7 Channel Bandwidth: 5MHz**	WWAN-ANT-0: 169mW WWAN-ANT-1: 339mW
	LTE Band 7 Channel Bandwidth: 10MHz	WWAN-ANT-0: 177mW WWAN-ANT-1: 367mW
	LTE Band 7 Channel Bandwidth: 15MHz	WWAN-ANT-0: 182mW WWAN-ANT-1: 385mW
	LTE Band 7 Channel Bandwidth: 20MHz	WWAN-ANT-0: 153mW WWAN-ANT-1: 162mW
	LTE Band CA_7C Channel Bandwidth: 10MHz+20MHz	WWAN-ANT-0: 188mW WWAN-ANT-1: 223mW
	LTE Band CA_7C Channel Bandwidth: 15MHz+10MHz	WWAN-ANT-0: 202mW WWAN-ANT-1: 222mW
	LTE Band CA_7C Channel Bandwidth: 15MHz+15MHz	WWAN-ANT-0: 199mW WWAN-ANT-1: 220mW
	LTE Band CA_7C Channel Bandwidth: 15MHz+20MHz	WWAN-ANT-0: 218mW WWAN-ANT-1: 223mW
	LTE Band CA_7C Channel Bandwidth: 20MHz+10MHz	WWAN-ANT-0: 214mW WWAN-ANT-1: 220mW
	LTE Band CA_7C Channel Bandwidth: 20MHz+15MHz	WWAN-ANT-0: 229mW WWAN-ANT-1: 219mW
	LTE Band CA_7C Channel Bandwidth: 20MHz+20MHz	WWAN-ANT-0: 192mW WWAN-ANT-1: 198mW

	LTE Band 38 Channel Bandwidth: 5MHz	WWAN-ANT-0: 175mW WWAN-ANT-1: 316mW
	LTE Band 38 Channel Bandwidth: 10MHz	WWAN-ANT-0: 178mW WWAN-ANT-1: 322mW
	LTE Band 38 Channel Bandwidth: 15MHz	WWAN-ANT-0: 173mW WWAN-ANT-1: 314mW
	LTE Band 38 Channel Bandwidth: 20MHz	WWAN-ANT-0: 155mW WWAN-ANT-1: 152mW
	LTE Band CA_38C Channel Bandwidth: 15MHz+15MHz	WWAN-ANT-0: 217mW WWAN-ANT-1: 283mW
	LTE Band CA_38C Channel Bandwidth: 20MHz+20MHz	WWAN-ANT-0: 188mW WWAN-ANT-1: 250mW
ANTENNA TYPE	Main Antenna(ANT 0): Fixed Internal Antenna with 0.8dBi gain for LTE Band 7 Fixed Internal Antenna with 0.33dBi gain for LTE Band 38 Diversity Antenna(ANT 1): Fixed Internal Antenna with 0.45dBi gain for LTE Band 7/LTE Band 38	
HW VERSION	P1	
SW VERSION	MIUI 10	
I/O PORTS	Refer to user's manual	
DATA CABLE	USB cable: non-shielded, detachable, 1m Earphone cable: non-shielded, detachable, 1.25m	

NOTE:

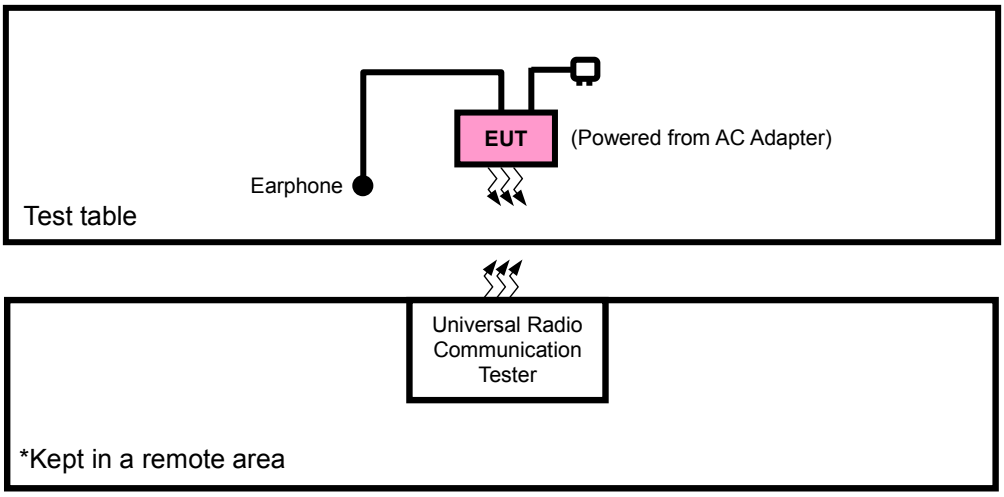
1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.

List of Accessories:

ACCESSORIES	BRAND	MODEL	MANUFACTURER	SPECIFICATION
Battery	MI	BM4F	Sunwoda Electronic Co., Ltd	Rating: 3.85Vdc, 4030mAh
AC Adapter	MI	MDY-10-ED	Jiansu Chenyang Electron Co., Ltd	I/P: 100 - 240 Vac, 0.5 A O/P: 5 Vdc, 3A or 9 Vdc, 2 A or 12 Vdc, 1.5A
USB Cable 1	MI	K23312	Suzhou Keli Science&Technology Development Co., Ltd	1.0m non-shielded cable, with w/o ferrite core
Earphone	MI	EM023	One More Acoustics Technology Co., Ltd	1.25m non-shielded cable, with w/o ferrite core

2.2 CONFIGURATION OF SYSTEM UNDER TEST

FOR RADIATION EMISSION TEST



2.3 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	DC source	LONG WEI	PS-6403D	010934269	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	DC Line: Unshielded, Detachable 1.8m

2.4 TEST ITEM AND TEST CONFIGURATION

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports The worst case was found when positioned on Y-plane for EIRP and X-axis for radiated emission. Following channel(s) was (were) selected for the final test as listed below:

EUT CONFIGURE MODE	DESCRIPTION
A	**EUT + Adapter + USB Cable + Earphone with LTE link**
B	EUT + Battery with **LTE link**

LTE BAND 7 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
B	EIRP	20775 to 21425	20775, 21100, 21425	5MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		20800 to 21400	20800, 21100, 21400	10MHz	QPSK, 16QAM, 64QAM	1 RB / 0RB Offset
		20825 to 21375	20825, 21100, 21375	15MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		20850 to 21350	20850, 21100, 21350	20MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
B	FREQUENCY STABILITY	20775 to 21425	20775, 21425	5MHz	QPSK	1 RB / 0 RB Offset
		20800 to 21400	20800, 21400	10MHz	QPSK	1 RB / 0RB Offset
		20825 to 21375	20825, 21375	15MHz	QPSK	1 RB / 0 RB Offset
		20850 to 21350	20850, 21350	20MHz	QPSK	1 RB / 0 RB Offset
B	OCCUPIED BANDWIDTH	20775 to 21425	20775, 21100, 21425	5MHz	QPSK, 16QAM, 64QAM	25 RB / 0 RB Offset
		20800 to 21400	20800, 21100, 21400	10MHz	QPSK, 16QAM, 64QAM	50 RB / 0 RB Offset
		20825 to 21375	20825, 21100, 21375	15MHz	QPSK, 16QAM, 64QAM	75 RB / 0 RB Offset
		20850 to 21350	20850, 21100, 21350	20MHz	QPSK, 16QAM, 64QAM	100 RB / 0 RB Offset
B	BAND EDGE	20775 to 21425	20775	5MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
						25 RB / 0 RB Offset
			21425	5MHz	QPSK, 16QAM, 64QAM	1 RB / 24 RB Offset
						25 RB / 0 RB Offset
		20800 to 21400	20800	10MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
						50 RB / 0 RB Offset
			21400	10MHz	QPSK, 16QAM, 64QAM	1 RB / 49 RB Offset
						50 RB / 0 RB Offset
		20825 to 21375	20825	15MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
						75 RB / 0 RB Offset
			21375	15MHz	QPSK, 16QAM, 64QAM	1 RB / 74 RB Offset
						75 RB / 0 RB Offset
		20850 to 21350	20850	20MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
						100 RB / 0 RB Offset
			21350	20MHz	QPSK, 16QAM, 64QAM	1 RB / 99 RB Offset
						100 RB / 0 RB Offset
B	CONDCUDETED EMISSION	20775 to 21425	20775, 21100, 21425	5MHz	QPSK	1 RB / 0 RB Offset
		20800 to 21400	20800, 21100, 21400	10MHz	QPSK	1 RB / 0RB Offset
		20825 to 21375	20825, 21100, 21375	15MHz	QPSK	1 RB / 0 RB Offset
		20850 to 21350	20850, 21100, 21350	20MHz	QPSK	1 RB / 0 RB Offset
A	RADIATED EMISSION	20775 to 21425	21100	5MHz	QPSK	1 RB / 0 RB Offset
		20800 to 21400	20800, 21100, 21400	10MHz	QPSK	1 RB / 0RB Offset
		20825 to 21375	21100	15MHz	QPSK	1 RB / 0 RB Offset
		20850 to 21350	21100	20MHz	QPSK	1 RB / 0 RB Offset

Note: This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

LTE BAND 38 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
B	EIRP	37775 to 38225	37775, 38000, 38225	5MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		37800 to 38200	37800, 38000, 38200	10MHz	QPSK, 16QAM, 64QAM	1 RB / 0RB Offset
		37825 to 38175	37825, 38000, 38175	15MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		37850 to38150	37850, 38000, 38150	20MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
B	FREQUENCY STABILITY	37775 to 38225	37775, 38225	5MHz	QPSK	1 RB / 0 RB Offset
		37800 to 38200	37800, 38200	10MHz	QPSK	1 RB / 0RB Offset
		37825 to 38175	37825, 38175	15MHz	QPSK	1 RB / 0 RB Offset
		37850 to38150	37850, 38150	20MHz	QPSK	1 RB / 0 RB Offset
B	OCCUPIED BANDWIDTH	37775 to 38225	37775, 38000, 38225	5MHz	QPSK, 16QAM, 64QAM	25 RB / 0 RB Offset
		37800 to 38200	37800, 38000, 38200	10MHz	QPSK, 16QAM, 64QAM	50 RB / 0 RB Offset
		37825 to 38175	37825, 38000, 38175	15MHz	QPSK, 16QAM, 64QAM	75 RB / 0 RB Offset
		37850 to38150	37850, 38000, 38150	20MHz	QPSK, 16QAM, 64QAM	100 RB / 0 RB Offset
B	BAND EDGE	37775 to 38225	37775	5MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
						25 RB / 0 RB Offset
			38825	5MHz	QPSK, 16QAM, 64QAM	1 RB / 24 RB Offset
						25 RB / 0 RB Offset
		37800 to 38200	37800	10MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
						50 RB / 0 RB Offset
			38200	10MHz	QPSK, 16QAM, 64QAM	1 RB / 49 RB Offset
						50 RB / 0 RB Offset
		37825 to 38175	37825	15MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
						75 RB / 0 RB Offset
			38175	15MHz	QPSK, 16QAM, 64QAM	1 RB / 74 RB Offset
						75 RB / 0 RB Offset
		37850 to38150	37850	20MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
						100 RB / 0 RB Offset
			38150	20MHz	QPSK, 16QAM, 64QAM	1 RB / 99 RB Offset
						100 RB / 0 RB Offset
B	CONDCUDETED EMISSION	37775 to 38225	37775, 38000, 38225	5MHz	QPSK	1 RB / 0 RB Offset
		37800 to 38200	37800, 38000, 38200	10MHz	QPSK	1 RB / 0RB Offset
		37825 to 38175	37825, 38000, 38175	15MHz	QPSK	1 RB / 0 RB Offset
		37850 to38150	37850, 38000, 38150	20MHz	QPSK	1 RB / 0 RB Offset
A	RADIATED EMISSION	37775 to 38225	38000	5MHz	QPSK	1 RB / 0 RB Offset
		37800 to 38200	37800, 38000, 38200	10MHz	QPSK	1 RB / 0RB Offset
		37825 to 38175	38000	15MHz	QPSK	1 RB / 0 RB Offset
		37850 to38150	38000	20MHz	QPSK	1 RB / 0 RB Offset

Note: This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

LTE BAND CA_7C MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE PCC CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
B	EIRP	20805 to 21206	Low, Middle, High	10MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 49RB&1RB/ 0RB Offset
		20825 to 21277	Low, Middle, High	15MHz+10MHz	QPSK, 16QAM, 64QAM	1RB/ 74RB&1RB/ 0RB Offset
		20825 to 21225	Low, Middle, High	15MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 74RB&1RB/ 0RB Offset
		20828 to 21179	Low, Middle, High	15MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 74RB&1RB/ 0RB Offset
		20850 to 21251	Low, Middle, High	20MHz+10MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB&1RB/ 0RB Offset
		20850 to 21201	Low, Middle, High	20MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB&1RB/ 0RB Offset
		20850 to 21152	Low, Middle, High	20MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB&1RB/ 0RB Offset
B	OCCUPIED BANDWIDTH	20805 to 21206	Low, Middle, High	10MHz+20MHz	QPSK, 16QAM, 64QAM	50RB/ 0RB&100RB/ 0RB Offset
		20825 to 21277	Low, Middle, High	15MHz+10MHz	QPSK, 16QAM, 64QAM	75RB/ 0RB&50RB/ 0RB Offset
		20825 to 21225	Low, Middle, High	15MHz+15MHz	QPSK, 16QAM, 64QAM	75RB/ 0RB&75RB/ 0RB Offset
		20828 to 21179	Low, Middle, High	15MHz+20MHz	QPSK, 16QAM, 64QAM	75RB/ 0RB&100RB/ 0RB Offset
		20850 to 21251	Low, Middle, High	20MHz+10MHz	QPSK, 16QAM, 64QAM	100RB/ 0RB&50RB/ 0RB Offset
		20850 to 21201	Low, Middle, High	20MHz+15MHz	QPSK, 16QAM, 64QAM	100RB/ 0RB&75RB/ 0RB Offset
		20850 to 21152	Low, Middle, High	20MHz+20MHz	QPSK, 16QAM, 64QAM	100RB/ 0RB&100RB/ 0RB Offset
B	BAND EDGE	20805 to 21206	Low	10MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB&1RB/ 99RB Offset
						1RB/ 49RB&1RB/ 0RB Offset
						50RB/ 0RB&100RB/ 0RB Offset
			High	10MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB&1RB/ 99RB Offset
						1RB/ 49RB&1RB/ 0RB Offset
						50RB/ 0RB&100RB/ 0RB Offset
		20825 to 21277	Low	15MHz+10MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB&1RB/ 49RB Offset
						1RB/ 74RB&1RB/ 0RB Offset
						75RB/ 0RB&50RB/ 0RB Offset
			High	15MHz+10MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB&1RB/ 49RB Offset
						1RB/ 74RB&1RB/ 0RB Offset
						75RB/ 0RB&50RB/ 0RB Offset
		20825 to 21225	Low	15MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB&1RB/ 74RB Offset
						1RB/ 74RB&1RB/ 0RB Offset
						75RB/ 0RB&75RB/ 0RB Offset
			High	15MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB&1RB/ 74RB Offset
						1RB/ 74RB&1RB/ 0RB Offset
						75RB/ 0RB&75RB/ 0RB Offset
		20828 to 21179	Low	15MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB&1RB/ 99RB Offset
						1RB/ 74RB&1RB/ 0RB Offset
						75RB/ 0RB&100RB/ 0RB Offset
			High	15MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB&1RB/ 99RB Offset
						1RB/ 74RB&1RB/ 0RB Offset
						75RB/ 0RB&100RB/ 0RB Offset
		20850 to 21251	Low	20MHz+10MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB&1RB/ 49RB Offset
						1RB/ 99RB&1RB/ 0RB Offset
						100RB/ 0RB&50RB/ 0RB Offset
			High	20MHz+10MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB&1RB/ 49RB Offset
						1RB/ 99RB&1RB/ 0RB Offset
						100RB/ 0RB&50RB/ 0RB Offset
		20850 to 21201	Low	20MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB&1RB/ 74RB Offset
						1RB/ 99RB&1RB/ 0RB Offset

						100RB/ 0RB&75RB/ 0RB Offset
			High	20MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB&1RB/ 74RB Offset
						1RB/ 99RB&1RB/ 0RB Offset
						100RB/ 0RB&75RB/ 0RB Offset
		20850 to 21152	Low	20MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB&1RB/ 99RB Offset
						1RB/ 99RB&1RB/ 0RB Offset
						100RB/ 0RB&100RB/ 0RB Offset
			High	20MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB&1RB/ 99RB Offset
						1RB/ 99RB&1RB/ 0RB Offset
						100RB/ 0RB&100RB/ 0RB Offset
B	CONDCUDETED EMISSION	20805 to 21206	Low, Middle, High	10MHz+20MHz	QPSK	1RB/ 0RB&1RB/ 99RB Offset
						1RB/ 49RB&1RB/ 0RB Offset
						50RB/ 0RB&100RB/ 0RB Offset
		20825 to 21277	Low, Middle, High	15MHz+10MHz	QPSK	1RB/ 0RB&1RB/ 49RB Offset
						1RB/ 74RB&1RB/ 0RB Offset
						75RB/ 0RB&50RB/ 0RB Offset
		20825 to 21225	Low, Middle, High	15MHz+15MHz	QPSK	1RB/ 0RB&1RB/ 74RB Offset
						1RB/ 74RB&1RB/ 0RB Offset
						75RB/ 0RB&75RB/ 0RB Offset
		20828 to 21179	Low, Middle, High	15MHz+20MHz	QPSK	1RB/ 0RB&1RB/ 99RB Offset
						1RB/ 74RB&1RB/ 0RB Offset
						75RB/ 0RB&100RB/ 0RB Offset
		20850 to 21251	Low, Middle, High	20MHz+10MHz	QPSK	1RB/ 0RB&1RB/ 49RB Offset
						1RB/ 99RB&1RB/ 0RB Offset
						100RB/ 0RB&50RB/ 0RB Offset
		20850 to 21201	Low, Middle, High	20MHz+15MHz	QPSK	1RB/ 0RB&1RB/ 74RB Offset
						1RB/ 99RB&1RB/ 0RB Offset
						100RB/ 0RB&75RB/ 0RB Offset
		20850 to 21152	Low, Middle, High	20MHz+20MHz	QPSK	1RB/ 0RB&1RB/ 99RB Offset
						1RB/ 99RB&1RB/ 0RB Offset
						100RB/ 0RB&100RB/ 0RB Offset
A	RADIATED EMISSION	20805 to 21206	Low, Middle, High	10MHz+20MHz	QPSK	1RB/ 49RB&1RB/ 0RB Offset
		20825 to 21277	Low, Middle, High	15MHz+10MHz	QPSK	1RB/ 74RB&1RB/ 0RB Offset
		20825 to 21225	Low, Middle, High	15MHz+15MHz	QPSK	1RB/ 74RB&1RB/ 0RB Offset
		20828 to 21179	Low, Middle, High	15MHz+20MHz	QPSK	1RB/ 74RB&1RB/ 0RB Offset
		20850 to 21251	Low, Middle, High	20MHz+10MHz	QPSK	1RB/ 99RB&1RB/ 0RB Offset
		20850 to 21201	Low, Middle, High	20MHz+15MHz	QPSK	1RB/ 99RB&1RB/ 0RB Offset
		20850 to 21152	Low, Middle, High	20MHz+20MHz	QPSK	1RB/ 99RB&1RB/ 0RB Offset

Note: This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

LTE BAND CA_38C MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
B	EIRP	37825 to 38025	Low, Middle, High	15MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 74RB&1RB/ 0RB Offset
		37850 to 37952	Low, Middle, High	20MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB&1RB/ 0RB Offset
B	OCCUPIED BANDWIDTH	37825 to 38025	Low, Middle, High	15MHz+15MHz	QPSK, 16QAM, 64QAM	75RB/ 0RB&75RB/ 0RB Offset
		37850 to 37952	Low, Middle, High	20MHz+20MHz	QPSK, 16QAM, 64QAM	100RB/ 0RB&100RB/ 0RB Offset
B	BAND EDGE	37825 to 38025	Low	15MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB&1RB/ 74RB Offset
						1RB/ 74RB&1RB/ 0RB Offset
						75RB/ 0RB&75RB/ 0RB Offset
			High	15MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB&1RB/ 74RB Offset
						1RB/ 74RB&1RB/ 0RB Offset
						75RB/ 0RB&75RB/ 0RB Offset
		37850 to 37952	Low	20MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB&1RB/ 99RB Offset
						1RB/ 99RB&1RB/ 0RB Offset
						100RB/ 0RB&100RB/ 0RB Offset
			High	20MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB&1RB/ 99RB Offset
						1RB/ 99RB&1RB/ 0RB Offset
						100RB/ 0RB&100RB/ 0RB Offset
B	CONDCUDETED EMISSION	37825 to 38025	Low, Middle, High	15MHz+15MHz	QPSK	1RB/ 0RB&1RB/ 99RB Offset
						1RB/ 99RB&1RB/ 0RB Offset
						100RB/ 0RB&100RB/ 0RB Offset
		37850 to 37952	Low, Middle, High	20MHz+20MHz	QPSK	1RB/ 0RB&1RB/ 99RB Offset
						1RB/ 99RB&1RB/ 0RB Offset
						100RB/ 0RB&100RB/ 0RB Offset
A	RADIATED EMISSION	37825 to 38025	Low, Middle, High	15MHz+15MHz	QPSK	1RB/ 74RB&1RB/ 0RB Offset
		37850 to 37952	Low, Middle, High	20MHz+20MHz	QPSK	1RB/ 99RB&1RB/ 0RB Offset

Note: This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

TEST CONDITION:

TEST ITEM	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
EIRP	24deg. C, 60%RH	3.85Vdc from Battery	Star Le & Tony Xiong
FREQUENCY STABILITY	24deg. C, 61%RH	DC 3.6V/3.85V/4.4V	Walker Ye
OCCUPIED BANDWIDTH	24deg. C, 61%RH	3.85Vdc from Battery	Walker Ye
BAND EDGE	24deg. C, 61%RH	3.85Vdc from Battery	Walker Ye
CONDCUDETED EMISSION	24deg. C, 61%RH	3.85Vdc from Battery	Walker Ye
RADIATED EMISSION	23deg. C, 70%RH	DC 5V/9V/12V from adaptor	Star Le & Tony Xiong

2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC 47 CFR Part 2

FCC 47 CFR Part 27

KDB 971168 D01 Power Meas License Digital Systems v03r01

ANSI/TIA/EIA-603-D

ANSI/TIA/EIA-603-E

ANSI C63.26-2015

NOTE: All test items have been performed and recorded as per the above standards.

3 TEST TYPES AND RESULTS

3.1 OUTPUT POWER MEASUREMENT

3.1.1 LIMITS OF OUTPUT POWER MEASUREMENT

The radiated peak output power shall be according to the specific rule Part 27.50(h)(2) that “User stations are limited to 2 watts” and 27.50(i) specific that “Peak transmit power must be measure over any interval of continuous transmission using instrumentation calibration in terms of rms-equivalent voltage.”

3.1.2 TEST PROCEDURES

EIRP MEASUREMENT:

a. All measurements were done at low, middle and high operational frequency range. RBW and VBW is 10MHz for LTE mode.
b. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
c. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a tx cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to “Read Value” of step b. Record the power level of S.G.
d. EIRP = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.

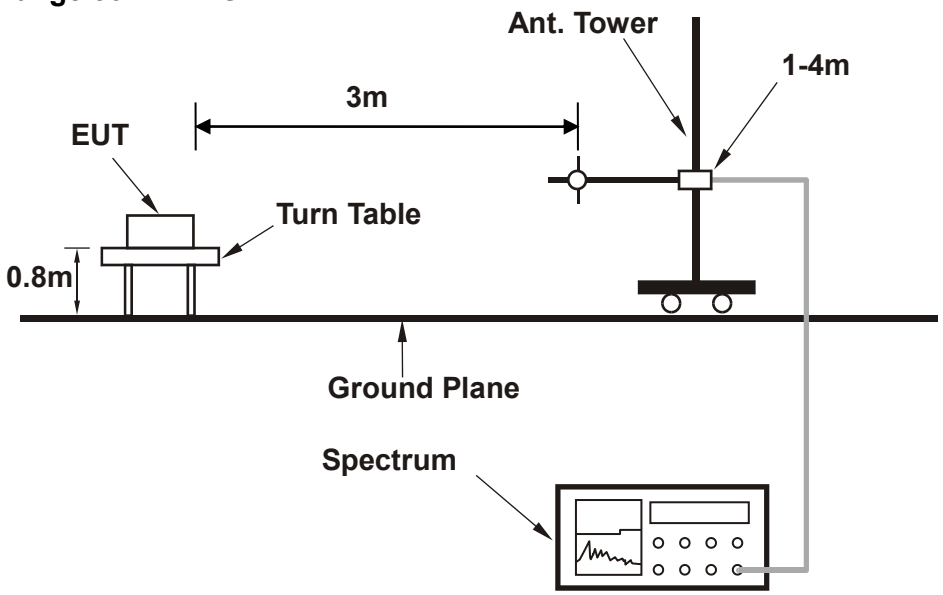
CONDUCTED POWER MEASUREMENT:

a. The EUT was set up for the maximum power with LTE link data modulation and link up with simulator.
b. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

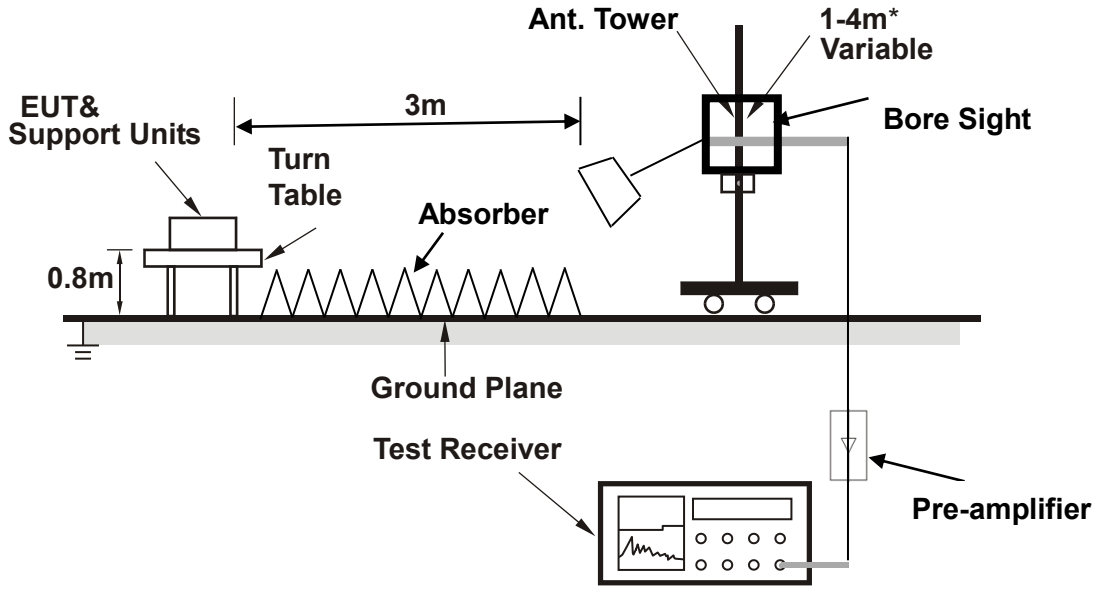
3.1.3 TEST SETUP

EIRP MEASUREMENT:

< Frequency Range 30MHz~1GHz >



<Frequency Range above 1GHz>

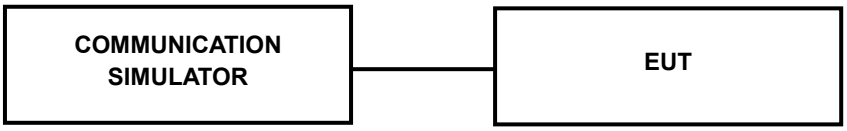


Note: Above 1G is a directional antenna

depends on the EUT height and the antenna 3dB beamwidth both, refer to section 7.3 of CISPR 16-2-3.

For the actual test configuration, please refer to the attached file (Test Setup Photo).

CONDUCTED POWER MEASUREMENT:



For the actual test configuration, please refer to the attached file (Test Setup Photo).

3.1.4 TEST RESULTS

AVERAGE CONDUCTED OUTPUT POWER (dBm)

LTE Band 7							
BW	Modulation	RB Size	RB Offset	Low CH 20775 Frequency 2502.5 MHz	Mid CH 21100 Frequency 2535 MHz	High CH 21425 Frequency 2567.5 MHz	3GPP MPR (dB)
5MHz	QPSK	1	0	22.19	22.29	22.20	0
		1	12	22.27	22.33	22.28	0
		1	24	22.11	22.20	22.16	0
		12	0	21.17	21.28	21.17	1
		12	6	21.15	21.34	21.19	1
		12	13	21.21	21.32	21.25	1
		25	0	21.19	21.35	21.21	1
	16QAM	1	0	21.46	21.60	21.52	1
		1	12	21.40	21.58	21.44	1
		1	24	21.45	21.51	21.46	1
		12	0	20.12	20.26	20.13	2
		12	6	20.17	20.33	20.18	2
		12	13	20.16	20.30	20.22	2
		25	0	20.16	20.27	20.18	2
	64QAM	1	0	20.16	20.30	20.22	2
		1	12	20.18	20.36	20.21	2
		1	24	20.12	20.31	20.19	2
		12	0	19.29	19.40	19.26	3
		12	6	19.28	19.47	19.35	3
		12	13	19.28	19.39	19.25	3
		25	0	19.32	19.48	19.36	3

LTE Band 7							
BW	Modulation	RB Size	RB Offset	Low CH 20800	Mid CH 21100	High CH 21400	3GPP MPR (dB)
				Frequency 2505 MHz	Frequency 2535 MHz	Frequency 2565 MHz	
10MHz	QPSK	1	0	22.16	22.32	22.20	0
		1	24	22.27	22.33	22.29	0
		1	49	22.08	22.24	22.12	0
		25	0	21.18	21.27	21.20	1
		25	12	21.21	21.28	21.19	1
		25	25	21.19	21.29	21.24	1
		50	0	21.24	21.35	21.18	1
	16QAM	1	0	21.46	21.57	21.48	1
		1	24	21.45	21.54	21.47	1
		1	49	21.45	21.52	21.43	1
		25	0	20.14	20.24	20.19	2
		25	12	20.21	20.27	20.23	2
		25	25	20.15	20.31	20.19	2
		50	0	20.20	20.26	20.22	2
	64QAM	1	0	20.15	20.31	20.19	2
		1	24	20.23	20.32	20.25	2
		1	49	20.18	20.25	20.16	2
		25	0	19.27	19.37	19.32	3
		25	12	19.35	19.46	19.29	3
		25	25	19.27	19.36	19.27	3
		50	0	19.37	19.44	19.37	3

LTE Band 7							
BW	Modulation	RB Size	RB Offset	Low CH 20825	Mid CH 21100	High CH 21375	3GPP MPR (dB)
				Frequency 2507.5 MHz	Frequency 2535 MHz	Frequency 2562.5 MHz	
15MHz	QPSK	1	0	22.23	22.32	22.17	0
		1	37	22.25	22.38	22.24	0
		1	74	22.14	22.27	22.13	0
		36	0	21.15	21.28	21.21	1
		36	19	21.22	21.33	21.19	1
		36	39	21.17	21.30	21.24	1
		75	0	21.24	21.33	21.23	1
	16QAM	1	0	21.50	21.64	21.48	1
		1	37	21.44	21.55	21.47	1
		1	74	21.41	21.57	21.45	1
		36	0	20.18	20.24	20.20	2
		36	19	20.15	20.31	20.19	2
		36	39	20.20	20.29	20.22	2
		75	0	20.21	20.29	20.15	2
	64QAM	1	0	20.17	20.32	20.20	2
		1	37	20.24	20.31	20.22	2
		1	74	20.14	20.24	20.19	2
		36	0	19.32	19.43	19.26	3
		36	19	19.29	19.40	19.31	3
		36	39	19.30	19.43	19.29	3
		75	0	19.36	19.42	19.38	3

LTE Band 7							
BW	Modulation	RB Size	RB Offset	Low CH 20850	Mid CH 21100	High CH 21350	3GPP MPR (dB)
				Frequency 2510 MHz	Frequency 2535 MHz	Frequency 2560 MHz	
20MHz	QPSK	1	0	22.24	22.36	22.25	0
		1	50	22.29	**22.41**	22.30	0
		1	99	22.16	22.28	22.17	0
		50	0	21.21	21.33	21.22	1
		50	25	21.23	21.35	21.24	1
		50	50	21.25	21.37	21.26	1
		100	0	21.25	21.37	21.26	1
	16QAM	1	0	21.53	21.65	21.54	1
		1	50	21.48	21.60	21.49	1
		1	99	21.47	21.59	21.48	1
		50	0	20.20	20.32	20.21	2
		50	25	20.23	20.35	20.24	2
		50	50	20.23	20.35	20.24	2
		100	0	20.22	20.34	20.23	2
	64QAM	1	0	20.23	20.35	20.24	2
		1	50	20.26	20.38	20.27	2
		1	99	20.20	20.32	20.21	2
		50	0	19.33	19.45	19.34	3
		50	25	19.36	19.48	19.37	3
		50	50	19.32	19.44	19.33	3
		100	0	19.38	19.50	19.39	3

LTE Band 38							
BW	Modulation	RB Size	RB Offset	Low CH 37775 Frequency 2572.5 MHz	Mid CH 38000 Frequency 2595 MHz	High CH 38225 Frequency 2617.5MHz	3GPP MPR (dB)
5MHz	QPSK	1	0	22.57	22.38	22.51	0
		1	12	22.48	22.25	22.42	0
		1	24	22.44	22.24	22.42	0
		12	0	21.46	21.28	21.39	1
		12	6	21.46	21.36	21.43	1
		12	13	21.47	21.29	21.44	1
		25	0	21.48	21.35	21.43	1
	16QAM	1	0	21.49	21.34	21.48	1
		1	12	21.42	21.31	21.39	1
		1	24	21.46	21.23	21.40	1
		12	0	20.47	20.32	20.41	2
		12	6	20.48	20.35	20.42	2
		12	13	20.43	20.28	20.42	2
		25	0	20.45	20.27	20.40	2
	64QAM	1	0	20.52	20.37	20.51	2
		1	12	20.46	20.35	20.42	2
		1	24	20.52	20.42	20.52	2
		12	0	19.51	19.33	19.41	3
		12	6	19.44	19.34	19.44	3
		12	13	19.52	19.34	19.42	3
		25	0	19.52	19.39	19.49	3

LTE Band 38							
BW	Modulation	RB Size	RB Offset	Low CH 37800 Frequency 2575 MHz	Mid CH 38000 Frequency 2595 MHz	High CH 38200 Frequency 2615 MHz	3GPP MPR (dB)
10MHz	QPSK	1	0	22.54	22.41	22.51	0
		1	24	22.48	22.25	22.43	0
		1	49	22.41	22.28	22.38	0
		25	0	21.47	21.27	21.42	1
		25	12	21.52	21.30	21.43	1
		25	25	21.45	21.26	21.43	1
		50	0	21.53	21.35	21.40	1
	16QAM	1	0	21.49	21.31	21.44	1
		1	24	21.47	21.27	21.42	1
		1	49	21.46	21.24	21.37	1
		25	0	20.49	20.30	20.47	2
		25	12	20.52	20.29	20.47	2
		25	25	20.42	20.29	20.39	2
		50	0	20.49	20.26	20.44	2
	64QAM	1	0	20.51	20.38	20.48	2
		1	24	20.51	20.31	20.46	2
		1	49	20.58	20.36	20.49	2
		25	0	19.49	19.30	19.47	3
		25	12	19.51	19.33	19.38	3
		25	25	19.51	19.31	19.44	3
		50	0	19.57	19.35	19.50	3

LTE Band 38							
BW	Modulation	RB Size	RB Offset	Low CH 37825	Mid CH 38000	High CH 38175	3GPP MPR (dB)
				Frequency 2577.5 MHz	Frequency 2595 MHz	Frequency 2612.5MHz	
15MHz	QPSK	1	0	22.61	22.41	22.48	0
		1	37	22.46	22.30	22.38	0
		1	74	22.47	22.31	22.39	0
		36	0	21.44	21.28	21.43	1
		36	19	21.53	21.35	21.43	1
		36	39	21.43	21.27	21.43	1
		75	0	21.53	21.33	21.45	1
	16QAM	1	0	21.53	21.38	21.44	1
		1	37	21.46	21.28	21.42	1
		1	74	21.42	21.29	21.39	1
		36	0	20.53	20.30	20.48	2
		36	19	20.46	20.33	20.43	2
		36	39	20.47	20.27	20.42	2
		75	0	20.50	20.29	20.37	2
	64QAM	1	0	20.53	20.39	20.49	2
		1	37	20.52	20.30	20.43	2
		1	74	20.54	20.35	20.52	2
		36	0	19.54	19.36	19.41	3
		36	19	19.45	19.27	19.40	3
		36	39	19.54	19.38	19.46	3
		75	0	19.56	19.33	19.51	3

LTE Band 38							
BW	Modulation	RB Size	RB Offset	Low CH 37850	Mid CH 38000	High CH 38150	3GPP MPR (dB)
				Frequency 2580 MHz	Frequency 2595 MHz	Frequency 2610 MHz	
20MHz	QPSK	1	0	**22.62**	22.45	22.56	0
		1	50	22.50	22.33	22.44	0
		1	99	22.49	22.32	22.43	0
		50	0	21.50	21.33	21.44	1
		50	25	21.54	21.37	21.48	1
		50	50	21.51	21.34	21.45	1
		100	0	21.54	21.37	21.48	1
	16QAM	1	0	21.56	21.39	21.50	1
		1	50	21.50	21.33	21.44	1
		1	99	21.48	21.31	21.42	1
		50	0	20.55	20.38	20.49	2
		50	25	20.54	20.37	20.48	2
		50	50	20.50	20.33	20.44	2
		100	0	20.51	20.34	20.45	2
	64QAM	1	0	20.59	20.42	20.53	2
		1	50	20.54	20.37	20.48	2
		1	99	20.60	20.43	20.54	2
		50	0	19.55	19.38	19.49	3
		50	25	19.52	19.35	19.46	3
		50	50	19.56	19.39	19.50	3
		100	0	19.58	19.41	19.52	3

CA_7C								
Combination 10MHz+20MHz (50RB+100RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
20805	20949	QPSK	1	49	1	0	2	22.15
		16QAM	1	49	1	0	2	21.35
		64QAM	1	49	1	0	2	20.21
21006	21150	QPSK	1	49	1	0	2	22.06
		16QAM	1	49	1	0	2	21.45
		64QAM	1	49	1	0	2	20.30
21206	21350	QPSK	1	49	1	0	2	22.16
		16QAM	1	49	1	0	2	21.48
		64QAM	1	49	1	0	2	20.36
Combination 15MHz+10MHz (75RB+50RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
20825	20975	QPSK	1	74	1	0	2	22.15
		16QAM	1	74	1	0	2	21.33
		64QAM	1	74	1	0	2	20.17
21051	21171	QPSK	1	74	1	0	2	22.02
		16QAM	1	74	1	0	2	21.47
		64QAM	1	74	1	0	2	20.23
21277	21397	QPSK	1	74	1	0	2	22.10
		16QAM	1	74	1	0	2	21.52
		64QAM	1	74	1	0	2	20.39

CA_7C								
Combination 15MHz+15MHz (75RB+75RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
20825	20975	QPSK	1	74	1	0	2	22.17
		16QAM	1	74	1	0	2	21.36
		64QAM	1	74	1	0	2	20.20
21025	21175	QPSK	1	74	1	0	2	22.01
		16QAM	1	74	1	0	2	21.45
		64QAM	1	74	1	0	2	20.21
21225	21375	QPSK	1	74	1	0	2	22.16
		16QAM	1	74	1	0	2	21.55
		64QAM	1	74	1	0	2	20.35
Combination 15MHz+20MHz (75RB+100RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
20828	20999	QPSK	1	74	1	0	2	22.21
		16QAM	1	74	1	0	2	21.48
		64QAM	1	74	1	0	2	20.34
21003	21174	QPSK	1	74	1	0	2	22.15
		16QAM	1	74	1	0	2	21.49
		64QAM	1	74	1	0	2	20.47
21179	21350	QPSK	1	74	1	0	2	22.18
		16QAM	1	74	1	0	2	21.29
		64QAM	1	74	1	0	2	20.42

CA_7C								
Combination 20MHz+10MHz (100RB+50RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
20850	20994	QPSK	1	99	1	0	2	22.19
		16QAM	1	99	1	0	2	21.43
		64QAM	1	99	1	0	2	20.24
21051	21195	QPSK	1	99	1	0	2	22.07
		16QAM	1	99	1	0	2	21.51
		64QAM	1	99	1	0	2	20.31
21251	21395	QPSK	1	99	1	0	2	22.17
		16QAM	1	99	1	0	2	21.57
		64QAM	1	99	1	0	2	20.38
Combination 20MHz+15MHz (100RB+75RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
20850	21021	QPSK	1	99	1	0	2	22.09
		16QAM	1	99	1	0	2	21.52
		64QAM	1	99	1	0	2	20.37
21026	21197	QPSK	1	99	1	0	2	22.15
		16QAM	1	99	1	0	2	21.47
		64QAM	1	99	1	0	2	20.56
21201	21372	QPSK	1	99	1	0	2	22.11
		16QAM	1	99	1	0	2	21.32
		64QAM	1	99	1	0	2	20.41

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation					Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	0	0	1	99	1	22.10
			1	0	0	0	1	22.12
			1	99	1	0	2	22.15
		16QAM	0	0	1	99	1	21.60
			1	0	0	0	1	21.58
			1	99	1	0	2	21.51
		64QAM	0	0	1	99	1	20.32
			1	0	0	0	1	20.31
			1	99	1	0	2	20.24
21001	21199	QPSK	0	0	1	99	1	22.20
			1	0	0	0	1	22.21
			1	99	1	0	2	22.27
		16QAM	0	0	1	99	1	21.57
			1	0	0	0	1	21.54
			1	99	1	0	2	21.52
		64QAM	0	0	1	99	1	20.31
			1	0	0	0	1	20.32
			1	99	1	0	2	20.25
21152	21350	QPSK	0	0	1	99	1	22.11
			1	0	0	0	1	22.11
			1	99	1	0	2	22.15
		16QAM	0	0	1	99	1	21.60
			1	0	0	0	1	21.58
			1	99	1	0	2	21.51
		64QAM	0	0	1	99	1	20.30
			1	0	0	0	1	20.36
			1	99	1	0	2	20.31

CA_38C								
Combination 15MHz+15MHz (75RB+75RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
37825	37975	QPSK	1	74	1	0	2	22.39
		16QAM	1	74	1	0	2	21.37
		64QAM	1	74	1	0	2	20.35
37925	38075	QPSK	1	74	1	0	2	22.37
		16QAM	1	74	1	0	2	21.36
		64QAM	1	74	1	0	2	20.36
38025	38175	QPSK	1	74	1	0	2	22.37
		16QAM	1	74	1	0	2	21.33
		64QAM	1	74	1	0	2	20.39

CA_38C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	0	0	1	99	1	22.45
			1	0	0	0	1	22.33
			1	99	1	0	2	22.48
		16QAM	0	0	1	99	1	21.39
			1	0	0	0	1	21.33
			1	99	1	0	2	21.31
		64QAM	0	0	1	99	1	20.42
			1	0	0	0	1	20.37
			1	99	1	0	2	20.43
37901	38099	QPSK	0	0	1	99	1	22.28
			1	0	0	0	1	22.30
			1	99	1	0	2	22.31
		16QAM	0	0	1	99	1	21.44
			1	0	0	0	1	21.42
			1	99	1	0	2	21.39
		64QAM	0	0	1	99	1	20.49
			1	0	0	0	1	20.43
			1	99	1	0	2	20.52
37952	38150	QPSK	0	0	1	99	1	22.33
			1	0	0	0	1	22.32
			1	99	1	0	2	22.41
		16QAM	0	0	1	99	1	21.56
			1	0	0	0	1	21.50
			1	99	1	0	2	21.48
		64QAM	0	0	1	99	1	20.55
			1	0	0	0	1	20.54
			1	99	1	0	2	20.50

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EIRP

LTE BAND 7

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
20775	2502.5	-27.13	45.65	18.52	71.09	H	2
21100	2535.0	-26.96	46.04	19.08	80.82	H	2
21425	2567.5	-26.02	45.87	19.85	96.52	H	2
20775	2502.5	-24.96	47.03	22.07	160.99	V	2
21100	2535.0	-24.56	46.57	22.01	158.85	V	2
21425	2567.5	-24.71	46.98	22.27	**168.66**	V	2

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
20775	2502.5	-27.96	45.65	17.69	58.72	H	2
21100	2535.0	-27.98	46.04	18.06	63.90	H	2
21425	2567.5	-27.12	45.87	18.75	74.92	H	2
20775	2502.5	-25.79	47.03	21.24	132.98	V	2
21100	2535.0	-25.58	46.57	20.99	125.60	V	2
21425	2567.5	-25.81	46.98	21.17	130.92	V	2

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
20775	2502.5	-29.96	45.65	15.69	37.05	H	2
21100	2535.0	-29.96	46.04	16.08	40.50	H	2
21425	2567.5	-29.12	45.87	16.75	47.27	H	2
20775	2502.5	-27.85	47.03	19.18	82.76	V	2
21100	2535.0	-27.62	46.57	18.95	78.52	V	2
21425	2567.5	-27.83	46.98	19.15	82.22	V	2

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
20800	2505.0	-26.94	45.65	18.71	74.28	H	2
21100	2535.0	-26.90	46.04	19.14	81.94	H	2
21400	2565.0	-25.89	46.07	20.18	104.11	H	2
20800	2505.0	-24.77	47.18	22.41	174.02	V	2
21100	2535.0	-24.50	46.57	22.07	161.06	V	2
21400	2565.0	-24.58	47.06	22.48	**177.17**	V	2

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
20800	2505.0	-28.09	45.65	17.56	57.00	H	2
21100	2535.0	-28.00	46.04	18.04	63.61	H	2
21400	2565.0	-27.05	46.07	19.02	79.71	H	2
20800	2505.0	-25.92	47.18	21.26	133.54	V	2
21100	2535.0	-25.60	46.57	20.97	125.03	V	2
21400	2565.0	-25.74	47.06	21.32	135.64	V	2

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
20800	2505.0	-30.19	45.65	15.46	35.15	H	2
21100	2535.0	-29.96	46.04	16.08	40.50	H	2
21400	2565.0	-29.14	46.07	16.93	49.26	H	2
20800	2505.0	-28.05	47.18	19.13	81.77	V	2
21100	2535.0	-27.56	46.57	19.01	79.62	V	2
21400	2565.0	-27.77	47.06	19.29	85.00	V	2

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
20825	2507.5	-26.95	45.63	18.68	73.84	H	2
21100	2535.0	-26.97	46.04	19.07	80.63	H	2
21375	2562.5	-25.96	45.94	19.98	99.49	H	2
20825	2507.5	-24.78	47.39	22.61	**182.35**	V	2
21100	2535.0	-24.57	46.57	22.00	158.49	V	2
21375	2562.5	-24.65	47.00	22.35	171.75	V	2

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
20825	2507.5	-27.81	45.63	17.82	60.58	H	2
21100	2535.0	-27.84	46.04	18.20	65.99	H	2
21375	2562.5	-26.81	45.94	19.13	81.81	H	2
20825	2507.5	-25.64	47.39	21.75	149.59	V	2
21100	2535.0	-25.44	46.57	21.13	129.72	V	2
21375	2562.5	-25.50	47.00	21.50	141.22	V	2

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
20825	2507.5	-29.86	45.63	15.77	37.78	H	2
21100	2535.0	-27.89	46.04	18.15	65.24	H	2
21375	2562.5	-28.90	45.94	17.04	50.56	H	2
20825	2507.5	-27.67	47.39	19.72	93.73	V	2
21100	2535.0	-27.50	46.57	19.07	80.72	V	2
21375	2562.5	-27.58	47.00	19.42	87.48	V	2

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
20850	2510.0	-27.53	45.80	18.27	67.13	H	2
21100	2535.0	-27.42	46.04	18.62	72.69	H	2
21350	2560.0	-26.54	45.83	19.29	84.98	H	2
20850	2510.0	-25.36	47.21	21.85	**153.11**	V	2
21100	2535.0	-25.02	46.57	21.55	142.76	V	2
21350	2560.0	-25.23	47.07	21.84	152.72	V	2

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
20850	2510.0	-28.46	45.80	17.34	54.19	H	2
21100	2535.0	-28.49	46.04	17.55	56.82	H	2
21350	2560.0	-27.37	45.83	18.46	70.19	H	2
20850	2510.0	-26.29	47.21	20.92	123.59	V	2
21100	2535.0	-26.09	46.57	20.48	111.58	V	2
21350	2560.0	-26.06	47.07	21.01	126.15	V	2

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
20850	2510.0	-30.54	45.80	15.26	33.57	H	2
21100	2535.0	-30.59	46.04	15.45	35.03	H	2
21350	2560.0	-29.72	45.83	16.11	40.86	H	2
20850	2510.0	-28.36	47.21	18.85	76.74	V	2
21100	2535.0	-28.17	46.57	18.40	69.12	V	2
21350	2560.0	-28.17	47.07	18.90	77.61	V	2

REMARKS: 1. EIRP Output Power (dBm) = SPA LVL (dBm) + Correction Factor (dB).
2. Correction factor (dB) = Free Space Loss + Antenna Factor + Cable Loss

LTE BAND 38

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
37775	2572.5	-26.31	45.91	19.60	91.20	H	2
38000	2595.0	-25.79	46.04	20.25	105.93	H	2
38225	2617.5	-26.94	46.23	19.29	84.92	H	2
37775	2572.5	-25.16	46.92	21.76	149.97	V	2
38000	2595.0	-24.75	47.10	22.35	171.79	V	2
38225	2617.5	-24.84	47.26	22.42	**174.58**	V	2

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
37775	2572.5	-27.14	45.91	18.77	75.34	H	2
38000	2595.0	-26.81	46.04	19.23	83.75	H	2
38225	2617.5	-28.04	46.23	18.19	65.92	H	2
37775	2572.5	-25.99	46.92	20.93	123.88	V	2
38000	2595.0	-25.77	47.10	21.33	135.83	V	2
38225	2617.5	-25.94	47.26	21.32	135.52	V	2

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
37775	2572.5	-29.23	45.91	16.68	46.56	H	2
38000	2595.0	-28.85	46.04	17.19	52.36	H	2
38225	2617.5	-30.14	46.23	16.09	40.64	H	2
37775	2572.5	-28.08	46.92	18.84	76.56	V	2
38000	2595.0	-27.80	47.10	19.30	85.11	V	2
38225	2617.5	-27.99	47.26	19.27	84.53	V	2

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
37800	2575.0	-26.12	45.96	19.84	96.38	H	2
38000	2595.0	-25.73	46.04	20.31	107.40	H	2
38200	2615.0	-26.81	46.18	19.37	86.50	H	2
37800	2575.0	-24.97	46.99	22.02	159.22	V	2
38000	2595.0	-24.69	47.10	22.41	174.18	V	2
38200	2615.0	-24.71	47.21	22.50	**177.83**	V	2

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
37800	2575.0	-27.27	45.96	18.69	73.96	H	2
38000	2595.0	-26.83	46.04	19.21	83.37	H	2
38200	2615.0	-27.97	46.18	18.21	66.22	H	2
37800	2575.0	-26.12	46.99	20.87	122.18	V	2
38000	2595.0	-25.79	47.10	21.31	135.21	V	2
38200	2615.0	-25.87	47.21	21.34	136.14	V	2

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
37800	2575.0	-29.37	45.96	16.59	45.60	H	2
38000	2595.0	-28.83	46.04	17.21	52.60	H	2
38200	2615.0	-29.99	46.18	16.19	41.59	H	2
37800	2575.0	-28.14	46.99	18.85	76.74	V	2
38000	2595.0	-27.81	47.10	19.29	84.92	V	2
38200	2615.0	-27.93	47.21	19.28	84.72	V	2

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
37825	2577.5	-26.13	46.01	19.88	97.27	H	2
38000	2595.0	-25.80	46.04	20.24	105.68	H	2
38175	2612.5	-26.88	46.14	19.26	84.33	H	2
37825	2577.5	-24.98	47.03	22.05	160.32	V	2
38000	2595.0	-24.76	47.10	22.34	171.40	V	2
38175	2612.5	-24.78	47.17	22.39	**173.38**	V	2

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
37825	2577.5	-26.99	46.01	19.02	79.80	H	2
38000	2595.0	-26.67	46.04	19.37	86.50	H	2
38175	2612.5	-27.73	46.14	18.41	69.34	H	2
37825	2577.5	-25.84	47.03	21.19	131.52	V	2
38000	2595.0	-25.63	47.10	21.47	140.28	V	2
38175	2612.5	-25.63	47.17	21.54	142.56	V	2

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
37825	2577.5	-26.89	46.01	19.12	81.66	H	2
38000	2595.0	-28.77	46.04	17.27	53.33	H	2
38175	2612.5	-29.76	46.14	16.38	43.45	H	2
37825	2577.5	-27.85	47.03	19.18	82.79	V	2
38000	2595.0	-28.13	47.10	18.97	78.89	V	2
38175	2612.5	-28.62	47.17	18.55	71.61	V	2

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
37850	2580.0	-26.71	46.05	19.34	85.90	H	2
38000	2595.0	-26.25	46.04	19.79	95.28	H	2
38150	2610.0	-27.46	46.11	18.65	73.28	H	2
37850	2580.0	-25.56	47.07	21.51	141.58	V	2
38000	2595.0	-25.21	47.10	21.89	**154.53**	V	2
38150	2610.0	-25.36	47.13	21.77	150.31	V	2

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
37850	2580.0	-27.64	46.05	18.41	69.34	H	2
38000	2595.0	-27.32	46.04	18.72	74.47	H	2
38150	2610.0	-28.29	46.11	17.82	60.53	H	2
37850	2580.0	-26.49	47.07	20.58	114.29	V	2
38000	2595.0	-26.28	47.10	20.82	120.78	V	2
38150	2610.0	-26.19	47.13	20.94	124.17	V	2

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
37850	2580.0	-29.71	46.05	16.34	43.05	H	2
38000	2595.0	-29.33	46.04	16.71	46.88	H	2
38150	2610.0	-30.33	46.11	15.78	37.84	H	2
37850	2580.0	-28.54	47.07	18.53	71.29	V	2
38000	2595.0	-28.44	47.10	18.66	73.45	V	2
38150	2610.0	-28.32	47.13	18.81	76.03	V	2

LTE BAND CA_7C

CHANNEL BANDWIDTH: 10MHz+20MHz QPSK

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20805	2505.5	20949	2519.9	-26.08	45.65	19.57	90.53	H	2
21006	2525.6	21150	2540.0	-26.25	46.04	19.79	95.17	H	2
21206	2545.6	21350	2560.0	-27.13	45.87	18.74	74.75	H	2
20805	2505.5	20949	2519.9	-24.28	47.03	22.75	**188.28**	V	2
21006	2525.6	21150	2540.0	-24.95	46.57	21.62	145.21	V	2
21206	2545.6	21350	2560.0	-26.20	46.98	20.78	119.67	V	2

CHANNEL BANDWIDTH: 10MHz+20MHz 16QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20805	2505.5	20949	2519.9	-26.99	45.65	18.66	73.42	H	2
21006	2525.6	21150	2540.0	-27.16	46.04	18.88	77.18	H	2
21206	2545.6	21350	2560.0	-28.04	45.87	17.83	60.62	H	2
20805	2505.5	20949	2519.9	-25.19	47.03	21.84	152.69	V	2
21006	2525.6	21150	2540.0	-25.86	46.57	20.71	117.76	V	2
21206	2545.6	21350	2560.0	-27.11	46.98	19.87	97.05	V	2

CHANNEL BANDWIDTH: 10MHz+20MHz 64QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20805	2505.5	20949	2519.9	-27.27	45.65	18.38	68.83	H	2
21006	2525.6	21150	2540.0	-27.47	46.04	18.57	71.86	H	2
21206	2545.6	21350	2560.0	-28.49	45.87	17.38	54.65	H	2
20805	2505.5	20949	2519.9	-25.48	47.03	21.55	142.82	V	2
21006	2525.6	21150	2540.0	-26.18	46.57	20.39	109.40	V	2
21206	2545.6	21350	2560.0	-27.57	46.98	19.41	87.30	V	2

CHANNEL BANDWIDTH: 15MHz+10MHz QPSK

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20825	2507.5	20945	2519.5	-25.78	45.65	19.87	97.01	H	2
21051	2530.1	21171	2542.1	-25.95	46.04	20.09	101.98	H	2
21277	2552.7	21397	2564.7	-26.83	45.87	19.04	80.09	H	2
20825	2507.5	20945	2519.5	-23.98	47.03	23.05	**201.74**	V	2
21051	2530.1	21171	2542.1	-24.65	46.57	21.92	155.60	V	2
21277	2552.7	21397	2564.7	-25.90	46.98	21.08	128.23	V	2

CHANNEL BANDWIDTH: 15MHz+10MHz 16QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20825	2507.5	20945	2519.5	-26.94	45.65	18.71	74.27	H	2
21051	2530.1	21171	2542.1	-27.11	46.04	18.93	78.07	H	2
21277	2552.7	21397	2564.7	-27.99	45.87	17.88	61.32	H	2
20825	2507.5	20945	2519.5	-25.14	47.03	21.89	154.45	V	2
21051	2530.1	21171	2542.1	-25.81	46.57	20.76	119.12	V	2
21277	2552.7	21397	2564.7	-27.06	46.98	19.92	98.17	V	2

CHANNEL BANDWIDTH: 15MHz+10MHz 64QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20825	2507.5	20945	2519.5	-27.33	45.65	18.32	67.89	H	2
21051	2530.1	21171	2542.1	-27.50	46.04	18.54	71.37	H	2
21277	2552.7	21397	2564.7	-28.55	45.87	17.32	53.90	H	2
20825	2507.5	20945	2519.5	-25.52	47.03	21.51	141.51	V	2
21051	2530.1	21171	2542.1	-26.18	46.57	20.39	109.40	V	2
21277	2552.7	21397	2564.7	-27.61	46.98	19.37	86.50	V	2

CHANNEL BANDWIDTH: 15MHz+15MHz QPSK

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20825	2507.5	20975	2522.5	-25.84	45.65	19.81	95.68	H	2
21025	2527.5	21175	2542.5	-26.01	46.04	20.03	100.58	H	2
21225	2547.5	21375	2562.5	-26.89	45.87	18.98	79.00	H	2
20825	2507.5	20975	2522.5	-24.04	47.03	22.99	**198.98**	V	2
21025	2527.5	21175	2542.5	-24.71	46.57	21.86	153.46	V	2
21225	2547.5	21375	2562.5	-25.96	46.98	21.02	126.47	V	2

CHANNEL BANDWIDTH: 15MHz+15MHz 16QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20825	2507.5	20975	2522.5	-26.61	45.65	19.04	80.13	H	2
21025	2527.5	21175	2542.5	-26.97	46.04	19.07	80.63	H	2
21225	2547.5	21375	2562.5	-27.93	45.87	17.94	62.17	H	2
20825	2507.5	20975	2522.5	-24.81	47.03	22.22	166.65	V	2
21025	2527.5	21175	2542.5	-25.67	46.57	20.90	123.03	V	2
21225	2547.5	21375	2562.5	-27.00	46.98	19.98	99.54	V	2

CHANNEL BANDWIDTH: 15MHz+15MHz 64QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20825	2507.5	20975	2522.5	-27.39	45.65	18.26	66.96	H	2
21025	2527.5	21175	2542.5	-27.75	46.04	18.29	67.38	H	2
21225	2547.5	21375	2562.5	-28.70	45.87	17.17	52.07	H	2
20825	2507.5	20975	2522.5	-25.66	47.03	21.37	137.03	V	2
21025	2527.5	21175	2542.5	-26.43	46.57	20.14	103.28	V	2
21225	2547.5	21375	2562.5	-27.83	46.98	19.15	82.22	V	2

CHANNEL BANDWIDTH: 15MHz+20MHz QPSK

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20828	2507.8	20999	2524.9	-25.59	45.65	20.06	101.37	H	2
21003	2525.3	21174	2542.4	-25.89	46.04	20.15	103.40	H	2
21179	2542.9	21350	2560.0	-26.70	46.07	19.37	86.40	H	2
20828	2507.8	20999	2524.9	-23.79	47.18	23.39	**218.07**	V	2
21003	2525.3	21174	2542.4	-24.59	46.57	21.98	157.76	V	2
21179	2542.9	21350	2560.0	-25.77	47.06	21.29	134.71	V	2

CHANNEL BANDWIDTH: 15MHz+20MHz 16QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20828	2507.8	20999	2524.9	-26.74	45.65	18.91	77.79	H	2
21003	2525.3	21174	2542.4	-26.99	46.04	19.05	80.26	H	2
21179	2542.9	21350	2560.0	-27.86	46.07	18.21	66.15	H	2
20828	2507.8	20999	2524.9	-24.94	47.18	22.24	167.34	V	2
21003	2525.3	21174	2542.4	-25.69	46.57	20.88	122.46	V	2
21179	2542.9	21350	2560.0	-26.93	47.06	20.13	103.13	V	2

CHANNEL BANDWIDTH: 15MHz+20MHz 64QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20828	2507.8	20999	2524.9	-27.35	45.65	18.30	67.59	H	2
21003	2525.3	21174	2542.4	-27.59	46.04	18.45	69.90	H	2
21179	2542.9	21350	2560.0	-28.52	46.07	17.55	56.82	H	2
20828	2507.8	20999	2524.9	-25.46	47.18	21.72	148.46	V	2
21003	2525.3	21174	2542.4	-26.27	46.57	20.30	107.15	V	2
21179	2542.9	21350	2560.0	-27.59	47.06	19.47	88.59	V	2

CHANNEL BANDWIDTH: 20MHz+10MHz QPSK

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20850	2510.0	20994	2524.9	-25.53	45.65	20.12	102.75	H	2
21051	2530.1	21195	2544.5	-25.70	46.04	20.34	108.02	H	2
21251	2550.1	21395	2564.5	-26.58	45.87	19.29	84.84	H	2
20850	2510.0	20994	2524.9	-23.73	47.03	23.30	**213.70**	V	2
21051	2530.1	21195	2544.5	-24.40	46.57	22.17	164.82	V	2
21251	2550.1	21395	2564.5	-25.65	46.98	21.33	135.83	V	2

CHANNEL BANDWIDTH: 20MHz+10MHz 16QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20850	2510.0	20994	2524.9	-26.87	45.65	18.78	75.47	H	2
21051	2530.1	21195	2544.5	-27.04	46.04	19.00	79.34	H	2
21251	2550.1	21395	2564.5	-27.92	45.87	17.95	62.32	H	2
20850	2510.0	20994	2524.9	-25.07	47.03	21.96	156.96	V	2
21051	2530.1	21195	2544.5	-25.74	46.57	20.83	121.06	V	2
21251	2550.1	21395	2564.5	-26.99	46.98	19.99	99.77	V	2

CHANNEL BANDWIDTH: 20MHz+10MHz 64QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20850	2510.0	20994	2524.9	-27.35	45.65	18.30	67.58	H	2
21051	2530.1	21195	2544.5	-27.53	46.04	18.51	70.88	H	2
21251	2550.1	21395	2564.5	-28.53	45.87	17.34	54.15	H	2
20850	2510.0	20994	2524.9	-25.40	47.03	21.63	145.48	V	2
21051	2530.1	21195	2544.5	-26.09	46.57	20.48	111.69	V	2
21251	2550.1	21395	2564.5	-27.46	46.98	19.52	89.54	V	2

CHANNEL BANDWIDTH: 20MHz+15MHz QPSK

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20850	2510.0	21021	2527.1	-25.60	45.63	20.03	100.76	H	2
21051	2530.1	21197	2544.7	-25.96	46.04	20.08	101.74	H	2
21251	2550.1	21372	2562.2	-26.77	45.94	19.17	82.57	H	2
20850	2510.0	21021	2527.1	-23.80	47.39	23.59	**228.51**	V	2
21051	2530.1	21197	2544.7	-24.66	46.57	21.91	155.24	V	2
21251	2550.1	21372	2562.2	-25.84	47.00	21.16	130.59	V	2

CHANNEL BANDWIDTH: 20MHz+15MHz 16QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20850	2510.0	21021	2527.1	-26.46	45.63	19.17	82.66	H	2
21051	2530.1	21197	2544.7	-26.83	46.04	19.21	83.27	H	2
21251	2550.1	21372	2562.2	-27.62	45.94	18.32	67.89	H	2
20850	2510.0	21021	2527.1	-24.66	47.39	22.73	187.46	V	2
21051	2530.1	21197	2544.7	-25.53	46.57	21.04	127.06	V	2
21251	2550.1	21372	2562.2	-26.69	47.00	20.31	107.37	V	2

CHANNEL BANDWIDTH: 20MHz+15MHz 64QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20850	2510.0	21021	2527.1	-27.33	45.63	18.30	67.66	H	2
21051	2530.1	21197	2544.7	-27.63	46.04	18.41	69.26	H	2
21251	2550.1	21372	2562.2	-28.56	45.94	17.38	54.68	H	2
20850	2510.0	21021	2527.1	-25.44	47.39	21.95	156.64	V	2
21051	2530.1	21197	2544.7	-26.26	46.57	20.31	107.40	V	2
21251	2550.1	21372	2562.2	-27.59	47.00	19.41	87.28	V	2

CHANNEL BANDWIDTH: 20MHz+20MHz QPSK

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20850	2510.0	21048	2529.8	-26.18	45.80	19.62	91.60	H	2
21001	2525.1	21199	2544.9	-26.41	46.04	19.63	91.73	H	2
21152	2540.2	21350	2560.0	-27.35	45.83	18.48	70.52	H	2
20850	2510.0	21048	2529.8	-24.38	47.21	22.83	**191.87**	V	2
21001	2525.1	21199	2544.9	-25.11	46.57	21.46	139.83	V	2
21152	2540.2	21350	2560.0	-26.42	47.07	20.65	116.12	V	2

CHANNEL BANDWIDTH: 20MHz+20MHz 16QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20850	2510.0	21048	2529.8	-27.11	45.80	18.69	73.94	H	2
21001	2525.1	21199	2544.9	-27.48	46.04	18.56	71.70	H	2
21152	2540.2	21350	2560.0	-28.18	45.83	17.65	58.25	H	2
20850	2510.0	21048	2529.8	-25.31	47.21	21.90	154.88	V	2
21001	2525.1	21199	2544.9	-26.18	46.57	20.39	109.29	V	2
21152	2540.2	21350	2560.0	-27.25	47.07	19.82	95.92	V	2

CHANNEL BANDWIDTH: 20MHz+20MHz 64QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20850	2510.0	21048	2529.8	-27.23	45.80	18.57	71.93	H	2
21001	2525.1	21199	2544.9	-27.44	46.04	18.60	72.36	H	2
21152	2540.2	21350	2560.0	-28.46	45.83	17.37	54.61	H	2
20850	2510.0	21048	2529.8	-25.47	47.21	21.74	149.28	V	2
21001	2525.1	21199	2544.9	-26.26	46.57	20.31	107.30	V	2
21152	2540.2	21350	2560.0	-27.57	47.07	19.50	89.10	V	2

LTE BAND CA_38C

CHANNEL BANDWIDTH: 15MHz+15MHz QPSK

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
37825	2577.5	37975.0	2592.5	-25.20	46.01	20.81	120.61	H	2
37925	2587.5	38075.0	2602.5	-25.23	46.04	20.82	120.64	H	2
38025	2597.5	38175.0	2612.5	-25.39	46.14	20.75	118.93	H	2
37825	2577.5	37975.0	2592.5	-24.50	47.03	22.53	179.02	V	2
37925	2587.5	38075.0	2602.5	-24.24	47.10	22.86	193.02	V	2
38025	2597.5	38175.0	2612.5	-23.80	47.17	23.37	**217.37**	V	2

CHANNEL BANDWIDTH: 15MHz+15MHz 16QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
37825	2577.5	37975.0	2592.5	-26.06	46.01	19.95	98.95	H	2
37925	2587.5	38075.0	2602.5	-26.10	46.04	19.95	98.74	H	2
38025	2597.5	38175.0	2612.5	-26.24	46.14	19.90	97.79	H	2
37825	2577.5	37975.0	2592.5	-25.36	47.03	21.67	146.86	V	2
37925	2587.5	38075.0	2602.5	-25.11	47.10	21.99	157.98	V	2
38025	2597.5	38175.0	2612.5	-24.65	47.17	22.52	178.73	V	2

CHANNEL BANDWIDTH: 15MHz+15MHz 64QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
37825	2577.5	37975.0	2592.5	-27.14	46.01	18.87	77.16	H	2
37925	2587.5	38075.0	2602.5	-27.01	46.04	19.04	80.08	H	2
38025	2597.5	38175.0	2612.5	-27.28	46.14	18.86	76.97	H	2
37825	2577.5	37975.0	2592.5	-26.39	47.03	20.64	115.85	V	2
37925	2587.5	38075.0	2602.5	-26.00	47.10	21.10	128.71	V	2
38025	2597.5	38175.0	2612.5	-25.62	47.17	21.55	142.96	V	2

CHANNEL BANDWIDTH: 20MHz+20MHz QPSK

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
37850	2580.0	38048.0	2599.8	-25.78	46.05	20.27	106.51	H	2
37901	2585.1	38099.0	2604.9	-25.68	46.04	20.37	108.77	H	2
37952	2590.2	38150.0	2610.0	-25.97	46.11	20.14	103.35	H	2
37825	2577.5	37975.0	2592.5	-25.08	47.07	21.99	158.09	V	2
37925	2587.5	38075.0	2602.5	-24.69	47.10	22.41	174.02	V	2
38025	2597.5	38175.0	2612.5	-24.38	47.13	22.75	**188.45**	V	2

CHANNEL BANDWIDTH: 20MHz+20MHz 16QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
37850	2580.0	38048.0	2599.8	-26.71	46.05	19.34	85.98	H	2
37901	2585.1	38099.0	2604.9	-26.75	46.04	19.30	85.02	H	2
37952	2590.2	38150.0	2610.0	-26.80	46.11	19.31	85.37	H	2
37825	2577.5	37975.0	2592.5	-26.01	47.07	21.06	127.61	V	2
37925	2587.5	38075.0	2602.5	-25.76	47.10	21.34	136.02	V	2
38025	2597.5	38175.0	2612.5	-25.21	47.13	21.92	155.67	V	2

CHANNEL BANDWIDTH: 20MHz+20MHz 64QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
37850	2580.0	38048.0	2599.8	-27.14	46.05	18.91	77.88	H	2
37901	2585.1	38099.0	2604.9	-27.00	46.04	19.05	80.26	H	2
37952	2590.2	38150.0	2610.0	-27.26	46.11	18.85	76.79	H	2
37825	2577.5	37975.0	2592.5	-26.45	47.07	20.62	115.32	V	2
37925	2587.5	38075.0	2602.5	-26.07	47.10	21.03	126.65	V	2
38025	2597.5	38175.0	2612.5	-25.70	47.13	21.43	139.06	V	2

REMARKS: 1. EIRP Output Power (dBm) = SPA LVL (dBm) + Correction Factor (dB).
2. Correction factor (dB) = Free Space Loss + Antenna Factor + Cable Loss

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EIRP

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CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
20775	2502.5	-27.46	45.65	18.19	65.89	H	2
21100	2535.0	-28.06	46.04	17.98	62.73	H	2
21425	2567.5	-27.16	45.87	18.71	74.23	H	2
20775	2502.5	-21.72	47.03	25.31	**339.47**	V	2
21100	2535.0	-23.39	46.57	23.18	207.97	V	2
21425	2567.5	-23.05	46.98	23.93	247.17	V	2

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
20775	2502.5	-28.29	45.65	17.36	54.43	H	2
21100	2535.0	-29.08	46.04	16.96	49.60	H	2
21425	2567.5	-28.26	45.87	17.61	57.62	H	2
20775	2502.5	-25.55	47.03	21.48	140.54	V	2
21100	2535.0	-26.41	46.57	20.16	103.75	V	2
21425	2567.5	-26.15	46.98	20.83	121.06	V	2

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
20775	2502.5	-30.29	45.65	15.36	34.34	H	2
21100	2535.0	-31.06	46.04	14.98	31.44	H	2
21425	2567.5	-30.26	45.87	15.61	36.36	H	2
20775	2502.5	-27.61	47.03	19.42	87.46	V	2
21100	2535.0	-28.45	46.57	18.12	64.86	V	2
21425	2567.5	-28.17	46.98	18.81	76.03	V	2

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
20800	2505.0	-27.27	45.65	18.38	68.85	H	2
21100	2535.0	-28.00	46.04	18.04	63.61	H	2
21400	2565.0	-27.03	46.07	19.04	80.08	H	2
20800	2505.0	-21.53	47.18	25.65	**366.94**	V	2
21100	2535.0	-23.33	46.57	23.24	210.86	V	2
21400	2565.0	-22.92	47.06	24.14	259.66	V	2

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
20800	2505.0	-28.42	45.65	17.23	52.83	H	2
21100	2535.0	-29.10	46.04	16.94	49.37	H	2
21400	2565.0	-28.19	46.07	17.88	61.31	H	2
20800	2505.0	-25.68	47.18	21.50	141.12	V	2
21100	2535.0	-26.43	46.57	20.14	103.28	V	2
21400	2565.0	-26.08	47.06	20.98	125.43	V	2

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
20800	2505.0	-30.52	45.65	15.13	32.58	H	2
21100	2535.0	-31.06	46.04	14.98	31.44	H	2
21400	2565.0	-30.28	46.07	15.79	37.89	H	2
20800	2505.0	-27.81	47.18	19.37	86.42	V	2
21100	2535.0	-28.39	46.57	18.18	65.77	V	2
21400	2565.0	-28.11	47.06	18.95	78.60	V	2

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
20825	2507.5	-27.28	45.63	18.35	68.44	H	2
21100	2535.0	-28.07	46.04	17.97	62.59	H	2
21375	2562.5	-27.10	45.94	18.84	76.52	H	2
20825	2507.5	-21.54	47.39	25.85	**384.50**	V	2
21100	2535.0	-23.40	46.57	23.17	207.49	V	2
21375	2562.5	-22.99	47.00	24.01	251.71	V	2

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
20825	2507.5	-28.14	45.63	17.49	56.14	H	2
21100	2535.0	-28.94	46.04	17.10	51.23	H	2
21375	2562.5	-27.95	45.94	17.99	62.92	H	2
20825	2507.5	-25.40	47.39	21.99	158.09	V	2
21100	2535.0	-26.27	46.57	20.30	107.15	V	2
21375	2562.5	-25.84	47.00	21.16	130.59	V	2

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
20825	2507.5	-30.19	45.63	15.44	35.02	H	2
21100	2535.0	-28.99	46.04	17.05	50.64	H	2
21375	2562.5	-30.04	45.94	15.90	38.89	H	2
20825	2507.5	-27.43	47.39	19.96	99.06	V	2
21100	2535.0	-28.33	46.57	18.24	66.68	V	2
21375	2562.5	-27.92	47.00	19.08	80.89	V	2

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
20850	2510.0	-27.86	45.80	17.94	62.22	H	2
21100	2535.0	-28.52	46.04	17.52	56.43	H	2
21350	2560.0	-27.68	45.83	18.15	65.36	H	2
20850	2510.0	-25.12	47.21	22.09	**161.81**	V	2
21100	2535.0	-25.85	46.57	20.72	117.92	V	2
21350	2560.0	-25.57	47.07	21.50	141.22	V	2

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
20850	2510.0	-28.79	45.80	17.01	50.22	H	2
21100	2535.0	-29.59	46.04	16.45	44.11	H	2
21350	2560.0	-28.51	45.83	17.32	53.99	H	2
20850	2510.0	-26.05	47.21	21.16	130.62	V	2
21100	2535.0	-26.92	46.57	19.65	92.17	V	2
21350	2560.0	-26.40	47.07	20.67	116.65	V	2

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
20850	2510.0	-30.87	45.80	14.93	31.11	H	2
21100	2535.0	-31.69	46.04	14.35	27.20	H	2
21350	2560.0	-30.86	45.83	14.97	31.43	H	2
20850	2510.0	-28.12	47.21	19.09	81.10	V	2
21100	2535.0	-29.00	46.57	17.57	57.10	V	2
21350	2560.0	-28.51	47.07	18.56	71.76	V	2

REMARKS: 1. EIRP Output Power (dBm) = SPA LVL (dBm) + Correction Factor (dB).
2. Correction factor (dB) = Free Space Loss + Antenna Factor + Cable Loss

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CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
37775	2572.5	-27.01	45.91	18.90	77.62	H	2
38000	2595.0	-26.43	46.04	19.61	91.41	H	2
38225	2617.5	-26.23	46.23	20.00	100.00	H	2
37775	2572.5	-22.84	46.92	24.08	255.86	V	2
38000	2595.0	-23.16	47.10	23.94	247.74	V	2
38225	2617.5	-22.26	47.26	25.00	**316.23**	V	2

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
37775	2572.5	-27.84	45.91	18.07	64.12	H	2
38000	2595.0	-27.45	46.04	18.59	72.28	H	2
38225	2617.5	-27.33	46.23	18.90	77.62	H	2
37775	2572.5	-25.67	46.92	21.25	133.35	V	2
38000	2595.0	-26.18	47.10	20.92	123.59	V	2
38225	2617.5	-26.36	47.26	20.90	123.03	V	2

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
37775	2572.5	-29.93	45.91	15.98	39.63	H	2
38000	2595.0	-29.49	46.04	16.55	45.19	H	2
38225	2617.5	-29.43	46.23	16.80	47.86	H	2
37775	2572.5	-27.76	46.92	19.16	82.41	V	2
38000	2595.0	-28.21	47.10	18.89	77.45	V	2
38225	2617.5	-28.41	47.26	18.85	76.74	V	2

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
37800	2575.0	-26.82	45.96	19.14	82.04	H	2
38000	2595.0	-26.37	46.04	19.67	92.68	H	2
38200	2615.0	-26.10	46.18	20.08	101.86	H	2
37800	2575.0	-22.65	46.99	24.34	271.64	V	2
38000	2595.0	-23.10	47.10	24.00	251.19	V	2
38200	2615.0	-22.13	47.21	25.08	**322.11**	V	2

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
37800	2575.0	-27.97	45.96	17.99	62.95	H	2
38000	2595.0	-27.47	46.04	18.57	71.94	H	2
38200	2615.0	-27.26	46.18	18.92	77.98	H	2
37800	2575.0	-25.80	46.99	21.19	131.52	V	2
38000	2595.0	-26.20	47.10	20.90	123.03	V	2
38200	2615.0	-26.29	47.21	20.92	123.59	V	2

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
37800	2575.0	-30.07	45.96	15.89	38.82	H	2
38000	2595.0	-29.47	46.04	16.57	45.39	H	2
38200	2615.0	-29.28	46.18	16.90	48.98	H	2
37800	2575.0	-27.82	46.99	19.17	82.60	V	2
38000	2595.0	-28.22	47.10	18.88	77.27	V	2
38200	2615.0	-28.35	47.21	18.86	76.91	V	2

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
37825	2577.5	-26.83	46.01	19.18	82.79	H	2
38000	2595.0	-26.44	46.04	19.60	91.20	H	2
38175	2612.5	-26.17	46.14	19.97	99.31	H	2
37825	2577.5	-22.66	47.03	24.37	273.53	V	2
38000	2595.0	-23.17	47.10	23.93	247.17	V	2
38175	2612.5	-22.20	47.17	24.97	**314.05**	V	2

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
37825	2577.5	-27.69	46.01	18.32	67.92	H	2
38000	2595.0	-27.31	46.04	18.73	74.64	H	2
38175	2612.5	-27.02	46.14	19.12	81.66	H	2
37825	2577.5	-25.52	47.03	21.51	141.58	V	2
38000	2595.0	-26.04	47.10	21.06	127.64	V	2
38175	2612.5	-26.05	47.17	21.12	129.42	V	2

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
37825	2577.5	-27.59	46.01	18.42	69.50	H	2
38000	2595.0	-29.41	46.04	16.63	46.03	H	2
38175	2612.5	-29.05	46.14	17.09	51.17	H	2
37825	2577.5	-27.53	47.03	19.50	89.13	V	2
38000	2595.0	-28.54	47.10	18.56	71.78	V	2
38175	2612.5	-29.04	47.17	18.13	65.01	V	2

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
37850	2580.0	-27.41	46.05	18.64	73.11	H	2
38000	2595.0	-26.89	46.04	19.15	82.22	H	2
38150	2610.0	-26.75	46.11	19.36	86.30	H	2
37850	2580.0	-25.24	47.07	21.83	**152.41**	V	2
38000	2595.0	-25.62	47.10	21.48	140.60	V	2
38150	2610.0	-25.78	47.13	21.35	136.46	V	2

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
37850	2580.0	-28.34	46.05	17.71	59.02	H	2
38000	2595.0	-27.96	46.04	18.08	64.27	H	2
38150	2610.0	-27.58	46.11	18.53	71.29	H	2
37850	2580.0	-26.17	47.07	20.90	123.03	V	2
38000	2595.0	-26.69	47.10	20.41	109.90	V	2
38150	2610.0	-26.61	47.13	20.52	112.72	V	2

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)	Polarization (H/V)	Limit (W)
37850	2580.0	-30.41	46.05	15.64	36.64	H	2
38000	2595.0	-29.97	46.04	16.07	40.46	H	2
38150	2610.0	-29.62	46.11	16.49	44.57	H	2
37850	2580.0	-28.22	47.07	18.85	76.74	V	2
38000	2595.0	-28.85	47.10	18.25	66.83	V	2
38150	2610.0	-28.74	47.13	18.39	69.02	V	2

LTE BAND CA_7C

CHANNEL BANDWIDTH: 10MHz+20MHz QPSK

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20805	2505.5	20949	2519.9	-25.33	45.65	20.32	107.60	H	2
21006	2525.6	21150	2540.0	-25.51	46.04	20.53	112.85	H	2
21206	2545.6	21350	2560.0	-25.35	45.87	20.52	112.62	H	2
20805	2505.5	20949	2519.9	-24.61	47.03	22.42	174.50	V	2
21006	2525.6	21150	2540.0	-23.09	46.57	23.48	**222.84**	V	2
21206	2545.6	21350	2560.0	-24.39	46.98	22.59	181.55	V	2

CHANNEL BANDWIDTH: 10MHz+20MHz 16QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20805	2505.5	20949	2519.9	-26.40	45.65	19.25	84.10	H	2
21006	2525.6	21150	2540.0	-26.57	46.04	19.47	88.41	H	2
21206	2545.6	21350	2560.0	-26.45	45.87	19.42	87.42	H	2
20805	2505.5	20949	2519.9	-25.60	47.03	21.43	138.93	V	2
21006	2525.6	21150	2540.0	-24.27	46.57	22.30	169.82	V	2
21206	2545.6	21350	2560.0	-25.52	46.98	21.46	139.96	V	2

CHANNEL BANDWIDTH: 10MHz+20MHz 64QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20805	2505.5	20949	2519.9	-26.77	45.65	18.88	77.23	H	2
21006	2525.6	21150	2540.0	-26.97	46.04	19.07	80.63	H	2
21206	2545.6	21350	2560.0	-26.99	45.87	18.88	77.20	H	2
20805	2505.5	20949	2519.9	-25.98	47.03	21.05	127.29	V	2
21006	2525.6	21150	2540.0	-24.68	46.57	21.89	154.53	V	2
21206	2545.6	21350	2560.0	-26.07	46.98	20.91	123.31	V	2

CHANNEL BANDWIDTH: 15MHz+10MHz QPSK

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20825	2507.5	20945	2519.5	-25.26	45.65	20.39	109.35	H	2
21025	2527.5	21171	2542.1	-25.48	46.04	20.56	113.63	H	2
21225	2547.5	21397	2564.7	-25.31	45.87	20.56	113.66	H	2
20825	2507.5	20945	2519.5	-24.45	47.03	22.58	181.05	V	2
21025	2527.5	21171	2542.1	-23.11	46.57	23.46	**221.82**	V	2
21225	2547.5	21397	2564.7	-24.31	46.98	22.67	184.93	V	2

CHANNEL BANDWIDTH: 15MHz+10MHz 16QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20825	2507.5	20945	2519.5	-26.38	45.65	19.27	84.49	H	2
21025	2527.5	21171	2542.1	-26.55	46.04	19.49	88.82	H	2
21225	2547.5	21397	2564.7	-26.43	45.87	19.44	87.82	H	2
20825	2507.5	20945	2519.5	-25.58	47.03	21.45	139.57	V	2
21025	2527.5	21171	2542.1	-24.25	46.57	22.32	170.61	V	2
21225	2547.5	21397	2564.7	-25.50	46.98	21.48	140.60	V	2

CHANNEL BANDWIDTH: 15MHz+10MHz 64QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20825	2507.5	20945	2519.5	-26.83	45.65	18.82	76.17	H	2
21025	2527.5	21171	2542.1	-27.00	46.04	19.04	80.08	H	2
21225	2547.5	21397	2564.7	-27.05	45.87	18.82	76.14	H	2
20825	2507.5	20945	2519.5	-26.02	47.03	21.01	126.12	V	2
21025	2527.5	21171	2542.1	-24.68	46.57	21.89	154.53	V	2
21225	2547.5	21397	2564.7	-26.11	46.98	20.87	122.18	V	2

CHANNEL BANDWIDTH: 15MHz+15MHz QPSK

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20825	2507.5	20975	2522.5	-25.28	45.65	20.37	108.84	H	2
21025	2527.5	21175	2542.5	-25.45	46.04	20.59	114.42	H	2
21225	2547.5	21375	2562.5	-25.33	45.87	20.54	113.14	H	2
20825	2507.5	20975	2522.5	-24.48	47.03	22.55	179.80	V	2
21025	2527.5	21175	2542.5	-23.15	46.57	23.42	**219.79**	V	2
21225	2547.5	21375	2562.5	-24.40	46.98	22.58	181.13	V	2

CHANNEL BANDWIDTH: 15MHz+15MHz 16QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20825	2507.5	20975	2522.5	-26.11	45.65	19.54	89.91	H	2
21025	2527.5	21175	2542.5	-26.47	46.04	19.57	90.47	H	2
21225	2547.5	21375	2562.5	-26.43	45.87	19.44	87.82	H	2
20825	2507.5	20975	2522.5	-25.31	47.03	21.72	148.53	V	2
21025	2527.5	21175	2542.5	-24.17	46.57	22.40	173.78	V	2
21225	2547.5	21375	2562.5	-25.50	46.98	21.48	140.60	V	2

CHANNEL BANDWIDTH: 15MHz+15MHz 64QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20825	2507.5	20975	2522.5	-26.89	45.65	18.76	75.13	H	2
21025	2527.5	21175	2542.5	-27.25	46.04	18.79	75.60	H	2
21225	2547.5	21375	2562.5	-27.20	45.87	18.67	73.55	H	2
20825	2507.5	20975	2522.5	-26.16	47.03	20.87	122.12	V	2
21025	2527.5	21175	2542.5	-24.93	46.57	21.64	145.88	V	2
21225	2547.5	21375	2562.5	-26.33	46.98	20.65	116.14	V	2

CHANNEL BANDWIDTH: 15MHz+20MHz QPSK

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20828	2507.8	20999	2524.9	-25.09	45.65	20.56	113.74	H	2
21003	2525.3	21174	2542.4	-25.39	46.04	20.65	116.01	H	2
21179	2542.9	21350	2560.0	-25.20	46.07	20.87	122.04	H	2
20828	2507.8	20999	2524.9	-24.29	47.18	22.89	194.36	V	2
21003	2525.3	21174	2542.4	-23.09	46.57	23.48	**222.84**	V	2
21179	2542.9	21350	2560.0	-24.27	47.06	22.79	190.28	V	2

CHANNEL BANDWIDTH: 15MHz+20MHz 16QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20828	2507.8	20999	2524.9	-26.24	45.65	19.41	87.28	H	2
21003	2525.3	21174	2542.4	-26.49	46.04	19.55	90.05	H	2
21179	2542.9	21350	2560.0	-26.36	46.07	19.71	93.43	H	2
20828	2507.8	20999	2524.9	-25.44	47.18	21.74	149.14	V	2
21003	2525.3	21174	2542.4	-24.19	46.57	22.38	172.98	V	2
21179	2542.9	21350	2560.0	-25.43	47.06	21.63	145.68	V	2

CHANNEL BANDWIDTH: 15MHz+20MHz 64QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20828	2507.8	20999	2524.9	-26.85	45.65	18.80	75.84	H	2
21003	2525.3	21174	2542.4	-27.09	46.04	18.95	78.43	H	2
21179	2542.9	21350	2560.0	-27.02	46.07	19.05	80.26	H	2
20828	2507.8	20999	2524.9	-25.96	47.18	21.22	132.31	V	2
21003	2525.3	21174	2542.4	-24.77	46.57	21.80	151.36	V	2
21179	2542.9	21350	2560.0	-26.09	47.06	20.97	125.14	V	2

CHANNEL BANDWIDTH: 20MHz+10MHz QPSK

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20850	2510.0	20994	2524.9	-25.22	45.65	20.43	110.36	H	2
21051	2530.1	21195	2544.5	-25.43	46.04	20.61	114.95	H	2
21251	2550.1	21395	2564.5	-25.30	45.87	20.57	113.92	H	2
20850	2510.0	20994	2524.9	-24.44	47.03	22.59	181.47	V	2
21051	2530.1	21195	2544.5	-23.14	46.57	23.43	**220.29**	V	2
21251	2550.1	21395	2564.5	-24.40	46.98	22.58	181.13	V	2

CHANNEL BANDWIDTH: 20MHz+10MHz 16QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20850	2510.0	20994	2524.9	-26.34	45.65	19.31	85.27	H	2
21051	2530.1	21195	2544.5	-26.51	46.04	19.53	89.64	H	2
21251	2550.1	21395	2564.5	-26.39	45.87	19.48	88.63	H	2
20850	2510.0	20994	2524.9	-25.54	47.03	21.49	140.86	V	2
21051	2530.1	21195	2544.5	-24.21	46.57	22.36	172.19	V	2
21251	2550.1	21395	2564.5	-25.46	46.98	21.52	141.91	V	2

CHANNEL BANDWIDTH: 20MHz+10MHz 64QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20850	2510.0	20994	2524.9	-26.85	45.65	18.80	75.82	H	2
21051	2530.1	21195	2544.5	-27.03	46.04	19.01	79.52	H	2
21251	2550.1	21395	2564.5	-27.03	45.87	18.84	76.49	H	2
20850	2510.0	20994	2524.9	-25.90	47.03	21.13	129.66	V	2
21051	2530.1	21195	2544.5	-24.59	46.57	21.98	157.76	V	2
21251	2550.1	21395	2564.5	-25.96	46.98	21.02	126.47	V	2

CHANNEL BANDWIDTH: 20MHz+15MHz QPSK

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20850	2510.0	21021	2527.1	-25.10	45.63	20.53	113.06	H	2
21051	2530.1	21197	2544.7	-25.46	46.04	20.58	114.16	H	2
21251	2550.1	21372	2562.2	-25.27	45.94	20.67	116.63	H	2
20850	2510.0	21021	2527.1	-24.30	47.39	23.09	203.66	V	2
21051	2530.1	21197	2544.7	-23.16	46.57	23.41	**219.28**	V	2
21251	2550.1	21372	2562.2	-24.34	47.00	22.66	184.46	V	2

CHANNEL BANDWIDTH: 20MHz+15MHz 16QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20850	2510.0	21021	2527.1	-25.96	45.63	19.67	92.75	H	2
21051	2530.1	21197	2544.7	-26.33	46.04	19.71	93.43	H	2
21251	2550.1	21372	2562.2	-26.12	45.94	19.82	95.90	H	2
20850	2510.0	21021	2527.1	-25.16	47.39	22.23	167.07	V	2
21051	2530.1	21197	2544.7	-24.03	46.57	22.54	179.47	V	2
21251	2550.1	21372	2562.2	-25.19	47.00	21.81	151.67	V	2

CHANNEL BANDWIDTH: 20MHz+15MHz 64QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20850	2510.0	21021	2527.1	-26.83	45.63	18.80	75.91	H	2
21051	2530.1	21197	2544.7	-27.13	46.04	18.91	77.71	H	2
21251	2550.1	21372	2562.2	-27.06	45.94	18.88	77.23	H	2
20850	2510.0	21021	2527.1	-25.94	47.39	21.45	139.60	V	2
21051	2530.1	21197	2544.7	-24.76	46.57	21.81	151.71	V	2
21251	2550.1	21372	2562.2	-26.09	47.00	20.91	123.28	V	2

CHANNEL BANDWIDTH: 20MHz+20MHz QPSK

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20850	2510.0	21048	2529.8	-25.68	45.80	20.12	102.78	H	2
21001	2525.1	21199	2544.9	-25.91	46.04	20.13	102.92	H	2
21152	2540.2	21350	2560.0	-25.85	45.83	19.98	99.61	H	2
20850	2510.0	21048	2529.8	-24.88	47.21	22.33	171.00	V	2
21001	2525.1	21199	2544.9	-23.61	46.57	22.96	**197.51**	V	2
21152	2540.2	21350	2560.0	-24.92	47.07	22.15	164.02	V	2

CHANNEL BANDWIDTH: 20MHz+20MHz 16QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20850	2510.0	21048	2529.8	-26.61	45.80	19.19	82.97	H	2
21001	2525.1	21199	2544.9	-26.98	46.04	19.06	80.45	H	2
21152	2540.2	21350	2560.0	-26.68	45.83	19.15	82.28	H	2
20850	2510.0	21048	2529.8	-25.81	47.21	21.40	138.04	V	2
21001	2525.1	21199	2544.9	-24.68	46.57	21.89	154.38	V	2
21152	2540.2	21350	2560.0	-25.75	47.07	21.32	135.49	V	2

CHANNEL BANDWIDTH: 20MHz+20MHz 64QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
20850	2510.0	21048	2529.8	-26.73	45.80	19.07	80.70	H	2
21001	2525.1	21199	2544.9	-26.94	46.04	19.10	81.19	H	2
21152	2540.2	21350	2560.0	-26.96	45.83	18.87	77.14	H	2
20850	2510.0	21048	2529.8	-25.97	47.21	21.24	133.05	V	2
21001	2525.1	21199	2544.9	-24.76	46.57	21.81	151.57	V	2
21152	2540.2	21350	2560.0	-26.07	47.07	21.00	125.86	V	2

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CHANNEL BANDWIDTH: 15MHz+15MHz QPSK

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
37825	2577.5	37975.0	2592.5	-23.66	46.01	22.35	171.79	H	2
37925	2587.5	38075.0	2602.5	-24.17	46.04	21.87	153.82	H	2
38025	2597.5	38175.0	2612.5	-24.00	46.14	22.14	163.68	H	2
37825	2577.5	37975.0	2592.5	-22.51	47.03	24.52	**283.14**	V	2
37925	2587.5	38075.0	2602.5	-23.21	47.10	23.89	244.91	V	2
38025	2597.5	38175.0	2612.5	-22.83	47.17	24.34	271.64	V	2

CHANNEL BANDWIDTH: 15MHz+15MHz 16QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
37825	2577.5	37975.0	2592.5	-24.52	46.01	21.49	140.93	H	2
37925	2587.5	38075.0	2602.5	-25.04	46.04	21.00	125.89	H	2
38025	2597.5	38175.0	2612.5	-24.85	46.14	21.29	134.59	H	2
37825	2577.5	37975.0	2592.5	-23.37	47.03	23.66	232.27	V	2
37925	2587.5	38075.0	2602.5	-24.08	47.10	23.02	200.45	V	2
38025	2597.5	38175.0	2612.5	-23.68	47.17	23.49	223.36	V	2

CHANNEL BANDWIDTH: 15MHz+15MHz 64QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
37825	2577.5	37975.0	2592.5	-25.60	46.01	20.41	109.90	H	2
37925	2587.5	38075.0	2602.5	-25.95	46.04	20.09	102.09	H	2
38025	2597.5	38175.0	2612.5	-25.89	46.14	20.25	105.93	H	2
37825	2577.5	37975.0	2592.5	-24.40	47.03	22.63	183.23	V	2
37925	2587.5	38075.0	2602.5	-24.97	47.10	22.13	163.31	V	2
38025	2597.5	38175.0	2612.5	-24.65	47.17	22.52	178.65	V	2

CHANNEL BANDWIDTH: 20MHz+20MHz QPSK

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
37850	2580.0	38048.0	2599.8	-24.24	46.05	21.81	151.71	H	2
37901	2585.1	38099.0	2604.9	-24.62	46.04	21.42	138.68	H	2
37952	2590.2	38150.0	2610.0	-24.58	46.11	21.53	142.23	H	2
37825	2577.5	37975.0	2592.5	-23.09	47.07	23.98	**250.03**	V	2
37925	2587.5	38075.0	2602.5	-23.66	47.10	23.44	220.80	V	2
38025	2597.5	38175.0	2612.5	-23.41	47.13	23.72	235.50	V	2

CHANNEL BANDWIDTH: 20MHz+20MHz 16QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
37850	2580.0	38048.0	2599.8	-25.17	46.05	20.88	122.46	H	2
37901	2585.1	38099.0	2604.9	-25.69	46.04	20.35	108.39	H	2
37952	2590.2	38150.0	2610.0	-25.41	46.11	20.70	117.49	H	2
37825	2577.5	37975.0	2592.5	-24.02	47.07	23.05	201.84	V	2
37925	2587.5	38075.0	2602.5	-24.73	47.10	22.37	172.58	V	2
38025	2597.5	38175.0	2612.5	-24.24	47.13	22.89	194.54	V	2

CHANNEL BANDWIDTH: 20MHz+20MHz 64QAM

Channel (PCC)	Frequency (MHz)	Channel (SCC)	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)	Limit (W)
37850	2580.0	38048.0	2599.8	-25.60	46.05	20.45	110.92	H	2
37901	2585.1	38099.0	2604.9	-25.94	46.04	20.10	102.33	H	2
37952	2590.2	38150.0	2610.0	-25.87	46.11	20.24	105.68	H	2
37825	2577.5	37975.0	2592.5	-24.46	47.07	22.61	182.39	V	2
37925	2587.5	38075.0	2602.5	-25.04	47.10	22.06	160.69	V	2
38025	2597.5	38175.0	2612.5	-24.73	47.13	22.40	173.78	V	2

REMARKS: 1. EIRP Output Power (dBm) = SPA LVL (dBm) + Correction Factor (dB).
2. Correction factor (dB) = Free Space Loss + Antenna Factor + Cable Loss

3.2 FREQUENCY STABILITY MEASUREMENT

3.2.1 LIMITS OF FREQUENCY STABILIITY MEASUREMENT

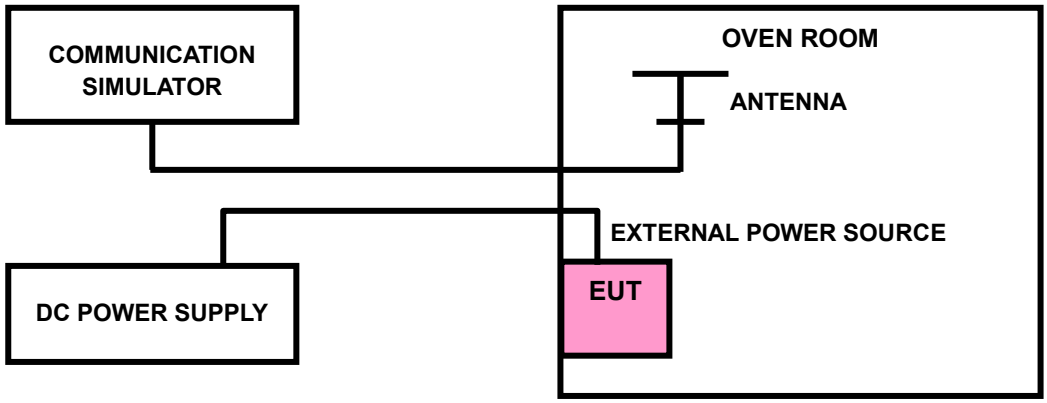
The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

3.2.2 TEST PROCEDURE

a. Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
b. EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
c. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the ±0.5℃ during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

NOTE: The frequency error was recorded frequency error from the communication simulator.

3.2.3 TEST SETUP



3.2.4 TEST RESULTS

LTE BAND 7

FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	5MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
V_{nor}	0.0005	0.0005	2.5
V_{min}	-0.0007	-0.0006	2.5
V_{max}	0.0005	0.0005	2.5

NOTE: The applicant defined the normal working voltage of the battery is from V_{min} Vdc to V_{max} Vdc.

FREQUENCY ERROR vs. TEMPERATURE.

TEMP. (℃)	5MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
-30	-0.0037	-0.0038	2.5
-20	-0.0033	-0.0033	2.5
-10	-0.0029	-0.0029	2.5
0	-0.0025	-0.0025	2.5
10	-0.0021	-0.0021	2.5
20	-0.0017	-0.0017	2.5
30	-0.0013	-0.0013	2.5
40	-0.0007	-0.0007	2.5
50	-0.0002	-0.0002	2.5

FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	10MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
V_{nor}	0.0006	0.0006	2.5
V_{min}	-0.0006	-0.0007	2.5
V_{max}	0.0007	0.0005	2.5

NOTE: The applicant defined the normal working voltage of the battery is from V_{min} Vdc to V_{max} Vdc.

FREQUENCY ERROR vs. TEMPERATURE.

TEMP. (℃)	10MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
-30	-0.0039	-0.0040	2.5
-20	-0.0035	-0.0035	2.5
-10	-0.0027	-0.0027	2.5
0	-0.0021	-0.0021	2.5
10	-0.0018	-0.0018	2.5
20	-0.0015	-0.0015	2.5
30	-0.0009	-0.0009	2.5
40	-0.0007	-0.0007	2.5
50	-0.0003	-0.0003	2.5

FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	15MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
V_{nor}	0.0006	0.0005	2.5
V_{min}	-0.0007	-0.0006	2.5
V_{max}	0.0005	0.0005	2.5

NOTE: The applicant defined the normal working voltage of the battery is from V_{min} Vdc to V_{max} Vdc.

FREQUENCY ERROR vs. TEMPERATURE.

TEMP. (℃)	15MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
-30	-0.0041	-0.0041	2.5
-20	-0.0039	-0.0039	2.5
-10	-0.0030	-0.0030	2.5
0	-0.0027	-0.0027	2.5
10	-0.0021	-0.0021	2.5
20	-0.0016	-0.0017	2.5
30	-0.0009	-0.0009	2.5
40	-0.0005	-0.0005	2.5
50	-0.0002	-0.0002	2.5

FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	20MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
V_{nor}	0.0005	0.0006	2.5
V_{min}	-0.0005	-0.0007	2.5
V_{max}	0.0004	0.0005	2.5

NOTE: The applicant defined the normal working voltage of the battery is from V_{min} Vdc to V_{max} Vdc.

FREQUENCY ERROR vs. TEMPERATURE.

TEMP. (℃)	20MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
-30	-0.0041	-0.0041	2.5
-20	-0.0039	-0.0040	2.5
-10	-0.0035	-0.0035	2.5
0	-0.0030	-0.0030	2.5
10	-0.0021	-0.0021	2.5
20	-0.0018	-0.0018	2.5
30	-0.0014	-0.0014	2.5
40	-0.0009	-0.0009	2.5
50	-0.0002	-0.0002	2.5

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FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	5MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
V_{nor}	0.0005	0.0005	2.5
V_{min}	-0.0007	-0.0006	2.5
V_{max}	0.0005	0.0005	2.5

NOTE: The applicant defined the normal working voltage of the battery is from 3.6Vdc to 4.4Vdc.

FREQUENCY ERROR vs. TEMPERATURE.

TEMP. (℃)	5MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
-30	-0.0037	-0.0037	2.5
-20	-0.0032	-0.0032	2.5
-10	-0.0029	2.0000	2.5
0	-0.0025	-0.0025	2.5
10	-0.0020	-0.0020	2.5
20	-0.0017	-0.0016	2.5
30	-0.0012	-0.0013	2.5
40	-0.0007	-0.0007	2.5
50	-0.0002	-0.0002	2.5

FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	10MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
V_{nor}	0.0006	0.0007	2.5
V_{min}	-0.0006	-0.0007	2.5
V_{max}	0.0006	0.0005	2.5

NOTE: The applicant defined the normal working voltage of the battery is from V_{min} Vdc to V_{max} Vdc.

FREQUENCY ERROR vs. TEMPERATURE.

TEMP. (℃)	10MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
-30	-0.0039	-0.0039	2.5
-20	-0.0033	-0.0034	2.5
-10	-0.0026	-0.0026	2.5
0	-0.0021	-0.0022	2.5
10	-0.0018	-0.0018	2.5
20	-0.0014	-0.0014	2.5
30	-0.0009	-0.0009	2.5
40	-0.0007	-0.0007	2.5
50	-0.0004	-0.0004	2.5

FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	15MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
V_{nor}	0.0006	0.0006	2.5
V_{min}	-0.0007	-0.0006	2.5
V_{max}	0.0005	0.0005	2.5

NOTE: The applicant defined the normal working voltage of the battery is from V_{min} Vdc to V_{max} Vdc.

FREQUENCY ERROR vs. TEMPERATURE.

TEMP. (℃)	15MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
-30	-0.0039	-0.0040	2.5
-20	-0.0036	-0.0037	2.5
-10	-0.0029	-0.0030	2.5
0	-0.0025	-0.0025	2.5
10	-0.0021	-0.0021	2.5
20	-0.0016	-0.0016	2.5
30	-0.0011	-0.0011	2.5
40	-0.0006	-0.0006	2.5
50	-0.0001	-0.0002	2.5

FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	20MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
V_{nor}	0.0005	0.0006	2.5
V_{min}	-0.0005	-0.0007	2.5
V_{max}	0.0004	0.0005	2.5

NOTE: The applicant defined the normal working voltage of the battery is from V_{min} Vdc to V_{max} Vdc.

FREQUENCY ERROR vs. TEMPERATURE.

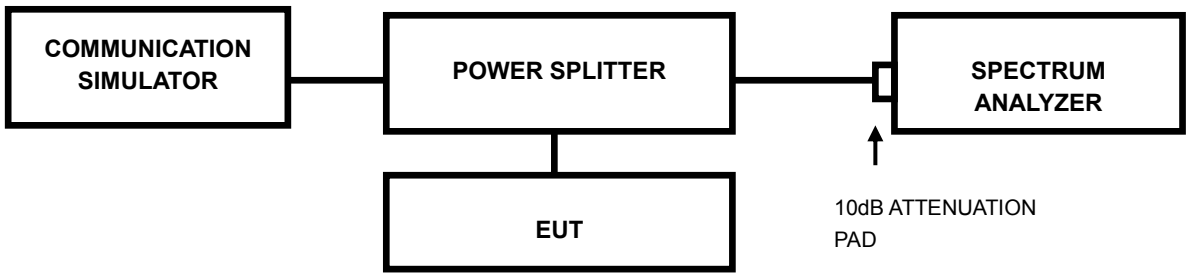
TEMP. (℃)	20MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
-30	-0.0041	-0.0041	2.5
-20	-0.0038	-0.0039	2.5
-10	-0.0033	-0.0034	2.5
0	-0.0030	-0.0030	2.5
10	-0.0012	-0.0022	2.5
20	-0.0016	-0.0017	2.5
30	-0.0012	-0.0012	2.5
40	-0.0009	-0.0009	2.5
50	-0.0003	-0.0003	2.5

3.3 OCCUPIED BANDWIDTH MEASUREMENT

3.3.1 LIMITS OF OCCUPIED BANDWIDTH MEASUREMENT

The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 %of the total mean power of a given emission.

3.3.2 TEST SETUP



3.3.3 TEST PROCEDURES

a. The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
b. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.

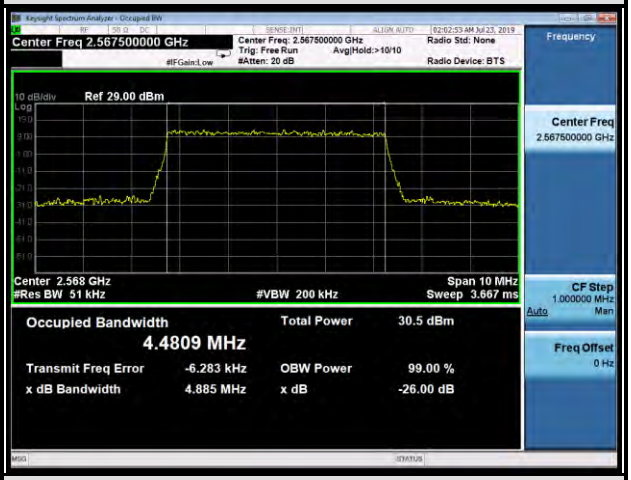
3.3.4 TEST RESULTS

LTE BAND 7				
CHANNEL BANDWIDTH: 5MHz				
CHANNEL	FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH (MHz)		
		QPSK	16QAM	64QAM
20775	2502.5	4.48	4.47	4.49
21100	2535	4.48	4.47	4.49
21425	2567.5	4.47	4.48	4.49
CHANNEL	FREQUENCY (MHz)	26dB BANDWIDTH (MHz)		
		QPSK	16QAM	64QAM
20775	2502.5	4.86	4.87	4.89
21100	2535	4.49	4.89	4.49
21425	2567.5	4.90	4.89	4.86

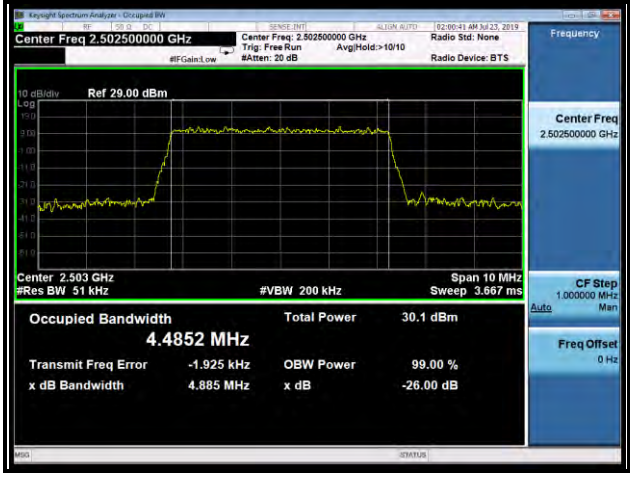
SPECTRUM PLOT OF WORST VALUE

5MHz / QPSK

5MHz / 16QAM



5MHz / 64QAM

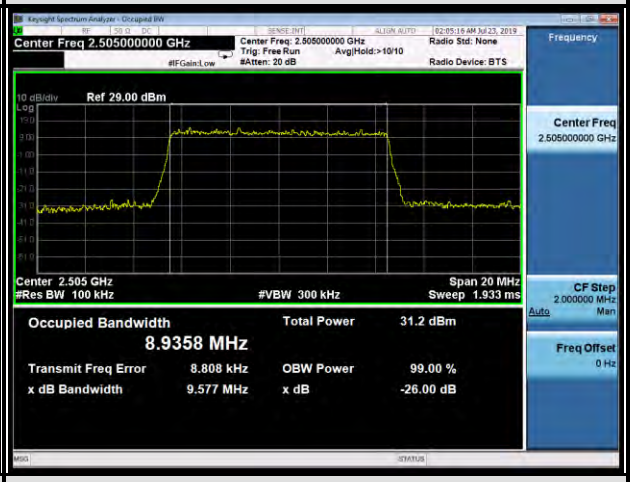


LTE BAND 7				
CHANNEL BANDWIDTH: 10MHz				
CHANNEL	FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH (MHz)		
		QPSK	16QAM	64QAM
20800	2505	8.95	8.94	8.94
21100	2535	8.95	8.93	8.94
21400	2565	8.94	8.91	8.93
CHANNEL	FREQUENCY (MHz)	26dB BANDWIDTH (MHz)		
		QPSK	16QAM	64QAM
20800	2505	9.60	9.58	9.62
21100	2535	9.68	9.53	9.68
21400	2565	9.65	9.56	9.63

SPECTRUM PLOT OF WORST VALUE

10MHz / QPSK

10MHz / 16QAM

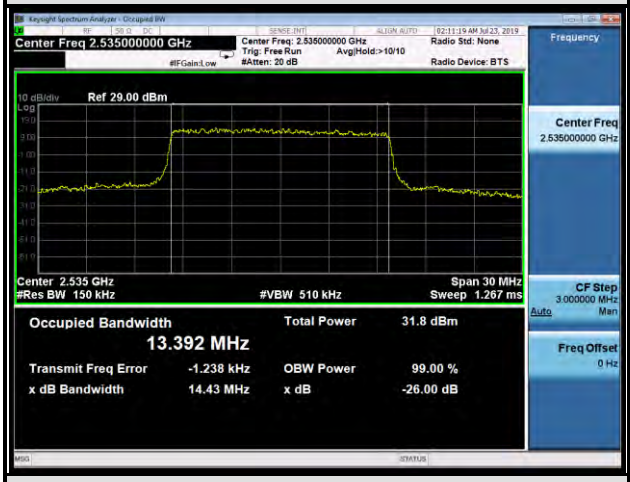


10MHz / 64QAM

LTE BAND 7				
CHANNEL BANDWIDTH: 15MHz				
CHANNEL	FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH (MHz)		
		QPSK	16QAM	64QAM
20825	2507.5	13.39	13.41	13.41
21100	2535	13.39	13.40	13.39
21375	2562.5	13.36	13.38	13.36
CHANNEL	FREQUENCY (MHz)	26dB BANDWIDTH (MHz)		
		QPSK	16QAM	64QAM
20825	2507.5	14.34	14.43	14.45
21100	2535	14.43	14.36	14.47
21375	2562.5	14.30	14.37	14.48

SPECTRUM PLOT OF WORST VALUE

15MHz / QPSK



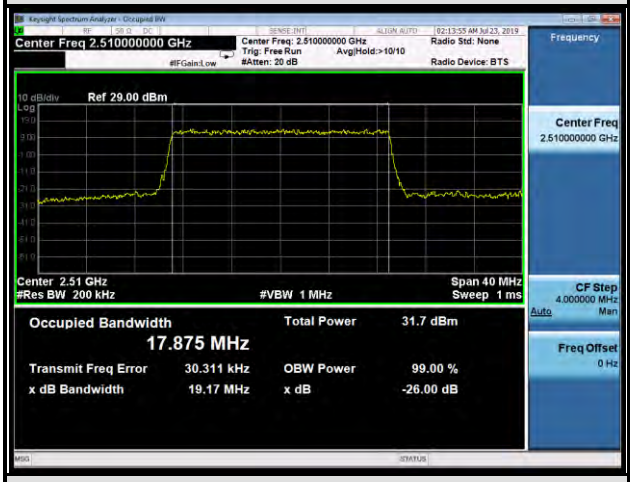
15MHz / 16QAM

15MHz / 64QAM

LTE BAND 7				
CHANNEL BANDWIDTH: 20MHz				
CHANNEL	FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH (MHz)		
		QPSK	16QAM	64QAM
20850	2510	17.88	17.85	17.89
21100	2535	17.87	17.82	17.87
21350	2560	17.80	17.84	17.82
CHANNEL	FREQUENCY (MHz)	26dB BANDWIDTH (MHz)		
		QPSK	16QAM	64QAM
20850	2510	19.17	19.21	19.20
21100	2535	19.37	18.80	18.99
21350	2560	19.08	18.99	19.19

SPECTRUM PLOT OF WORST VALUE

20MHz / QPSK



20MHz / 16QAM

20MHz / 64QAM

LTE BAND 7 CA				
CHANNEL BANDWIDTH: 10MHz+20MHz				
CHANNEL		99% OCCUPIED BANDWIDTH (MHz)		
PCC	SCC	QPSK	16QAM	64QAM
20805	20949	28.12	28.15	28.14
21006	21150	28.04	27.99	27.76
21206	21350	28.08	28.06	28.03
CHANNEL	CHANNEL	26dB BANDWIDTH (MHz)		
PCC	SCC	QPSK	16QAM	64QAM
20805	20949	30.06	30.07	30.09
21006	21150	30.01	29.96	29.82
21206	21350	30.07	30.01	30.03

SPECTRUM PLOT OF WORST VALUE

10MHz+20MHz / QPSK

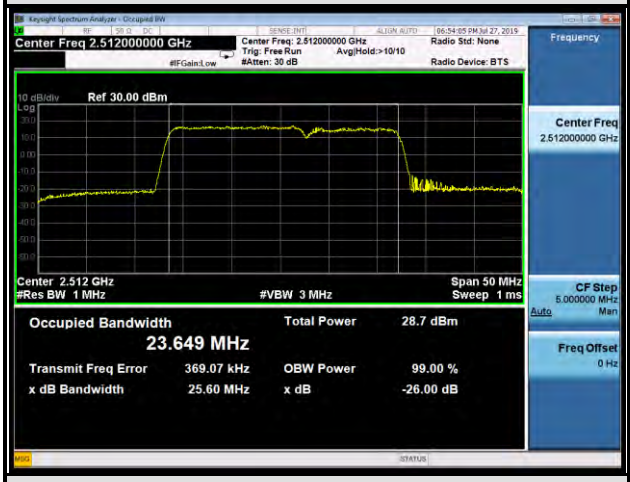
10MHz+20MHz / 16QAM

10MHz+20MHz / 64QA

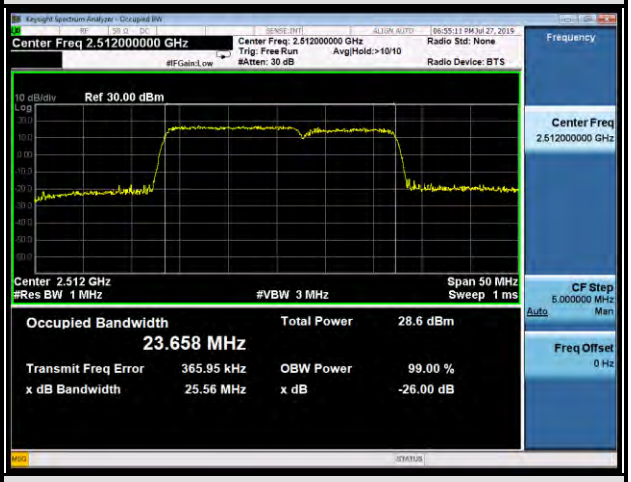
LTE BAND 7 CA				
CHANNEL BANDWIDTH: 15MHz +10MHz				
CHANNEL	CHANNEL	99% OCCUPIED BANDWIDTH (MHz)		
PCC	SCC	QPSK	16QAM	64QAM
20825	20975	23.65	23.66	23.66
21051	21171	23.56	23.53	23.54
21277	21397	23.55	23.48	23.48
CHANNEL	CHANNEL	26dB BANDWIDTH (MHz)		
PCC	SCC	QPSK	16QAM	64QAM
20825	20975	25.60	25.56	25.57
21051	21171	25.57	25.52	25.54
21277	21397	25.57	25.43	25.41

SPECTRUM PLOT OF WORST VALUE

15MHz +10MHz / QPSK



15MHz +10MHz / 16QAM

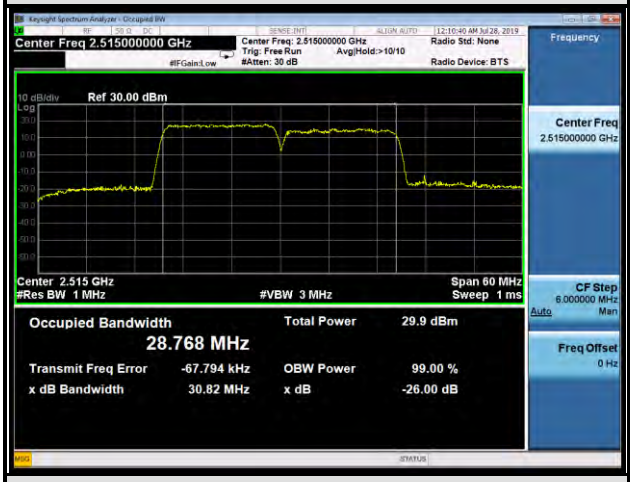


15MHz +10MHz / 64QAM

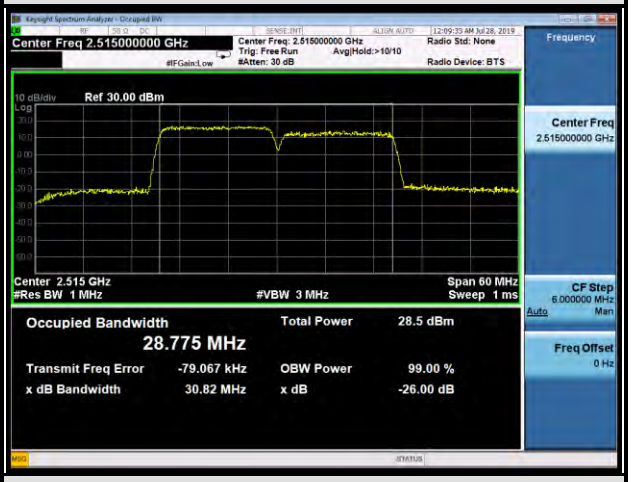
LTE BAND 7 CA				
CHANNEL BANDWIDTH: 15MHz +15MHz				
CHANNEL	CHANNEL	99% OCCUPIED BANDWIDTH (MHz)		
PCC	SCC	QPSK	16QAM	64QAM
20825	20975	28.77	28.78	28.76
21025	21175	28.70	28.70	28.74
21225	21375	28.74	28.69	28.64
CHANNEL	CHANNEL	26dB BANDWIDTH (MHz)		
PCC	SCC	QPSK	16QAM	64QAM
20825	20975	30.82	30.82	30.87
21025	21175	30.75	28.70	30.69
21225	21375	30.83	30.81	30.71

SPECTRUM PLOT OF WORST VALUE

15MHz +15MHz / QPSK



15MHz +15MHz / 16QAM

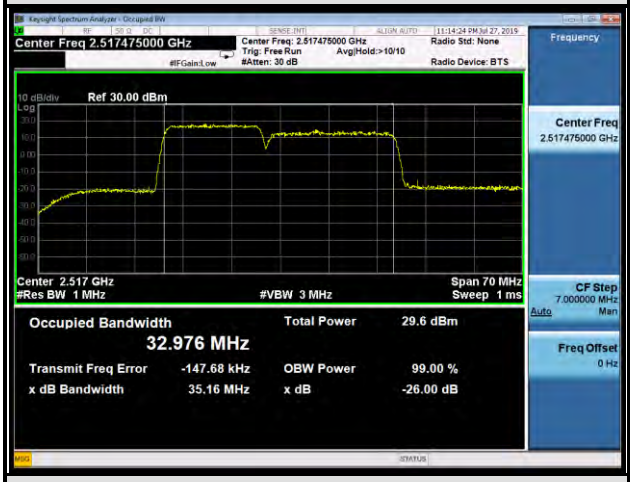


15MHz +15MHz / 64QAM

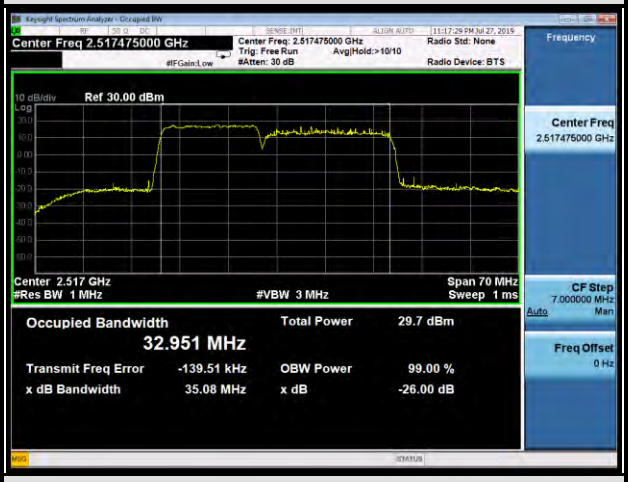
LTE BAND 7 CA				
CHANNEL BANDWIDTH: 15MHz +20MHz				
CHANNEL	CHANNEL	99% OCCUPIED BANDWIDTH (MHz)		
PCC	SCC	QPSK	16QAM	64QAM
20828	20999	32.98	32.95	32.96
21003	21174	32.86	32.87	32.88
21179	21350	32.92	32.94	32.97
CHANNEL	CHANNEL	26dB BANDWIDTH (MHz)		
PCC	SCC	QPSK	16QAM	64QAM
20828	20999	35.16	35.08	35.08
21003	21174	35.15	35.01	34.99
21179	21350	35.20	35.07	35.04

SPECTRUM PLOT OF WORST VALUE

15MHz +20MHz / QPSK



15MHz +20MHz / 16QAM



15MHz +20MHz / 64QAM

LTE BAND 7 CA				
CHANNEL BANDWIDTH: 20MHz +10MHz				
CHANNEL	CHANNEL	99% OCCUPIED BANDWIDTH (MHz)		
PCC	SCC	QPSK	16QAM	64QAM
20850	20994	28.20	28.14	28.15
21051	21195	28.20	28.20	28.20
21251	21395	28.09	28.12	28.15
CHANNEL	CHANNEL	26dB BANDWIDTH (MHz)		
PCC	SCC	QPSK	16QAM	64QAM
20850	20994	31.21	30.19	31.07
21051	21195	30.26	30.16	30.25
21251	21395	30.36	30.14	29.98

SPECTRUM PLOT OF WORST VALUE

20MHz +10MHz / QPSK

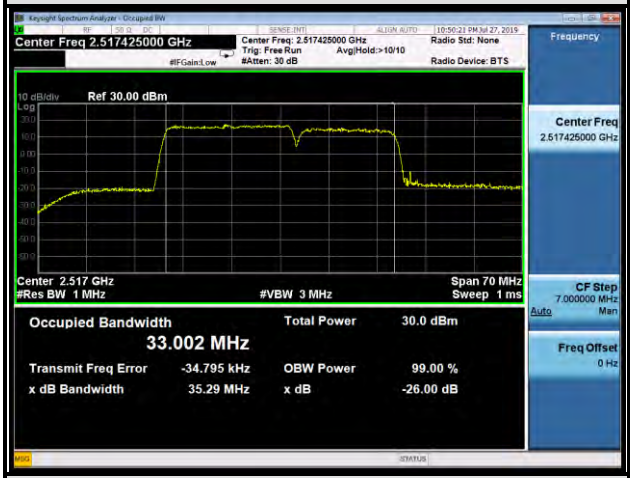
20MHz +10MHz / 16QAM

20MHz +10MHz / 64QAM

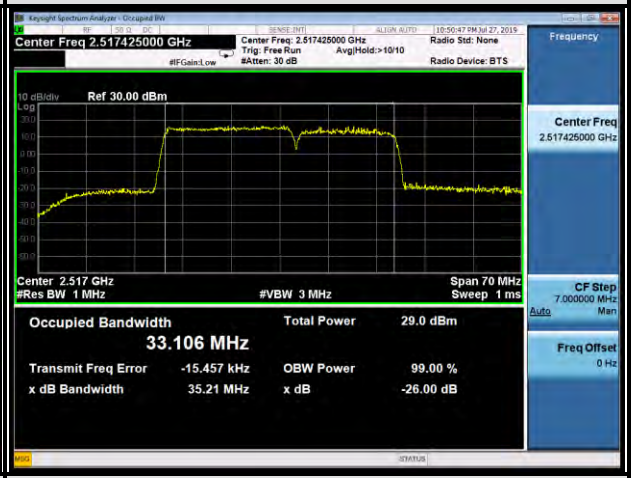
LTE BAND 7 CA				
CHANNEL BANDWIDTH: 20MHz +15MHz				
CHANNEL	CHANNEL	99% OCCUPIED BANDWIDTH (MHz)		
PCC	SCC	QPSK	16QAM	64QAM
20850	21021	33.00	33.11	32.95
21026	21197	32.96	32.90	32.91
21201	21372	32.89	32.94	32.89
CHANNEL	CHANNEL	26dB BANDWIDTH (MHz)		
PCC	SCC	QPSK	16QAM	64QAM
20850	21021	35.29	35.21	35.10
21026	21197	35.17	35.21	35.15
21201	21372	35.09	35.31	35.13

SPECTRUM PLOT OF WORST VALUE

20MHz +15MHz / QPSK



20MHz +15MHz / 16QAM



20MHz +15MHz / 64QAM

LTE BAND 7 CA				
CHANNEL BANDWIDTH: 20MHz +20MHz				
CHANNEL	CHANNEL	99% OCCUPIED BANDWIDTH (MHz)		
PCC	SCC	QPSK	16QAM	64QAM
20850	21048	37.81	37.72	37.78
21001	21199	37.76	37.71	37.69
21152	21350	37.87	37.87	37.80
CHANNEL	CHANNEL	26dB BANDWIDTH (MHz)		
PCC	SCC	QPSK	16QAM	64QAM
20850	21048	40.04	39.96	40.06
21001	21199	40.01	40.02	39.86
21152	21350	40.05	40.09	40.02

SPECTRUM PLOT OF WORST VALUE

20MHz +20MHz / QPSK

20MHz +20MHz / 16QAM

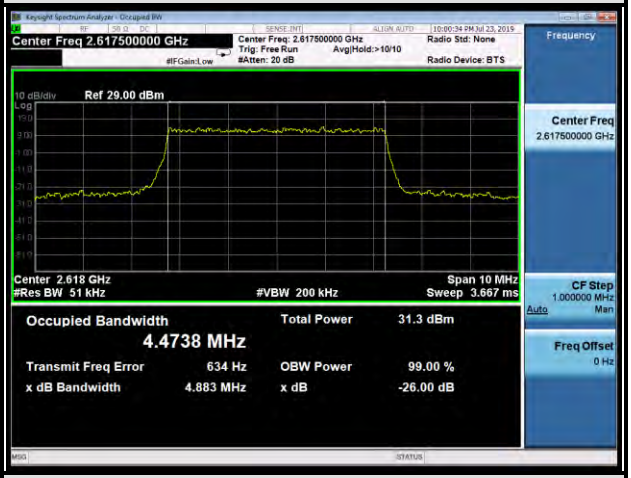
20MHz +20MHz / 64QAM

LTE BAND 38				
CHANNEL BANDWIDTH:5MHz				
CHANNEL	FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH (MHz)		
		QPSK	16QAM	64QAM
37775	2572.5	4.48	4.47	4.49
38000	2595	4.48	4.47	4.49
38225	2617.5	4.48	4.47	4.49
CHANNEL	FREQUENCY (MHz)	26dB BANDWIDTH (MHz)		
		QPSK	16QAM	64QAM
37775	2572.5	4.91	4.88	4.85
38000	2595	4.92	4.88	4.85
38225	2617.5	4.91	4.88	4.85

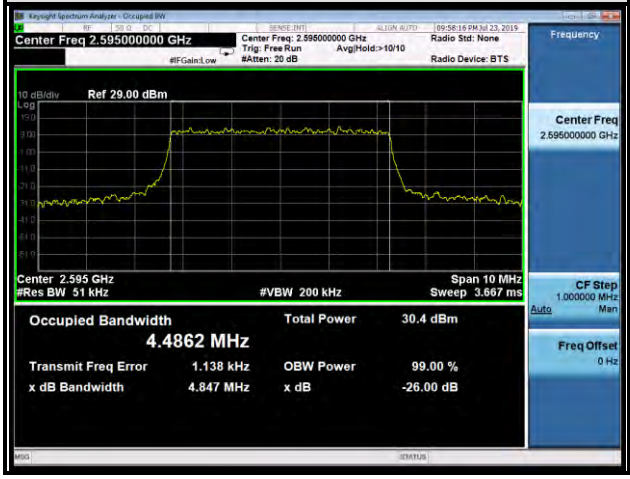
SPECTRUM PLOT OF WORST VALUE

5MHz / QPSK

5MHz / 16QAM



5MHz / 64QAM

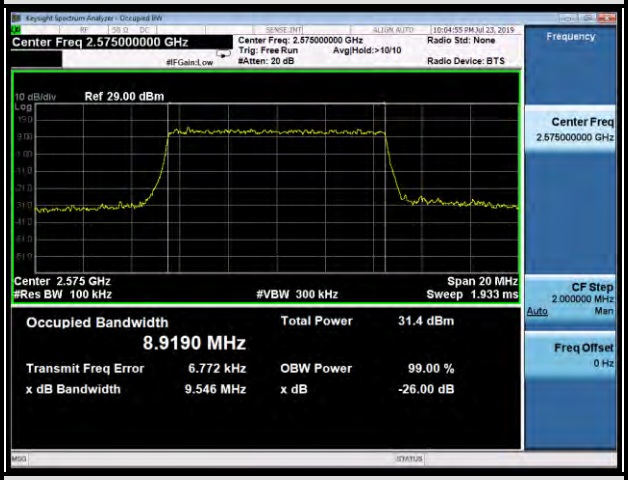


LTE BAND 38				
CHANNEL BANDWIDTH:10MHz				
CHANNEL	FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH (MHz)		
		QPSK	16QAM	64QAM
37800	2575	8.94	8.92	8.94
38000	2595	8.94	8.92	8.94
38200	2615	8.93	8.92	8.94
CHANNEL	FREQUENCY (MHz)	26dB BANDWIDTH (MHz)		
		QPSK	16QAM	64QAM
37800	2575	9.59	9.55	9.66
38000	2595	9.61	9.53	9.70
38200	2615	9.59	9.55	9.69

SPECTRUM PLOT OF WORST VALUE

10MHz / QPSK

10MHz / 16QAM

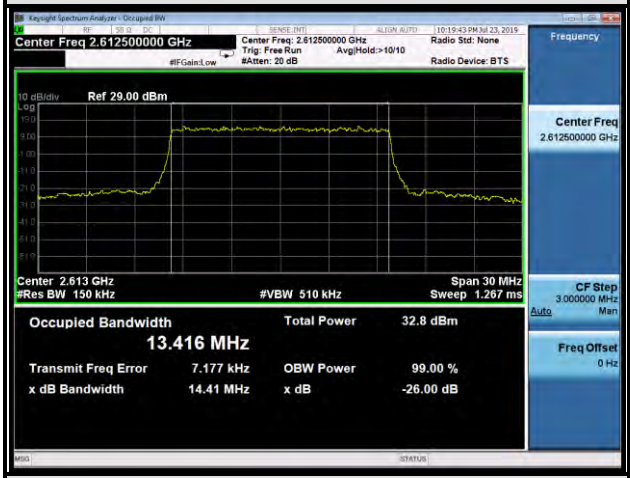


10MHz / 64QAM

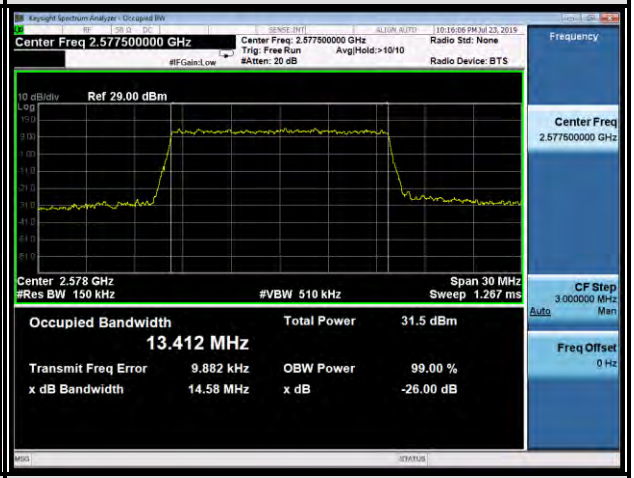
LTE BAND 38				
CHANNEL BANDWIDTH:15MHz				
CHANNEL	FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH (MHz)		
		QPSK	16QAM	64QAM
37825	2577.5	13.41	13.41	13.39
38000	2595	13.41	13.41	13.39
38175	2612.5	13.42	13.41	13.38
CHANNEL	FREQUENCY (MHz)	26dB BANDWIDTH (MHz)		
		QPSK	16QAM	64QAM
37825	2577.5	14.36	14.58	14.46
38000	2595	14.41	14.55	14.46
38175	2612.5	14.41	14.51	14.47

SPECTRUM PLOT OF WORST VALUE

15MHz / QPSK



15MHz / 16QAM

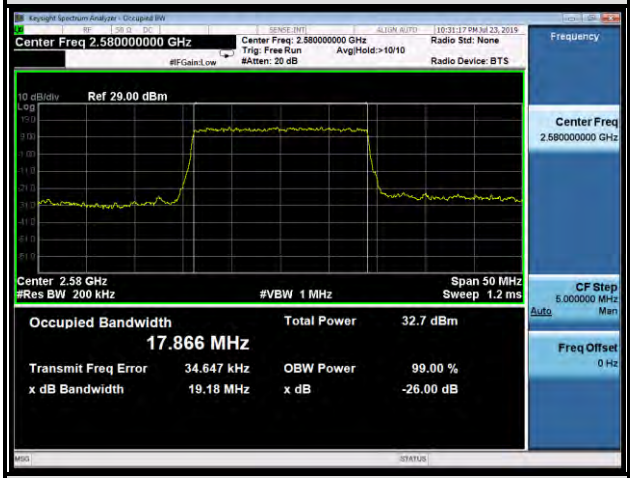


15MHz / 64QAM

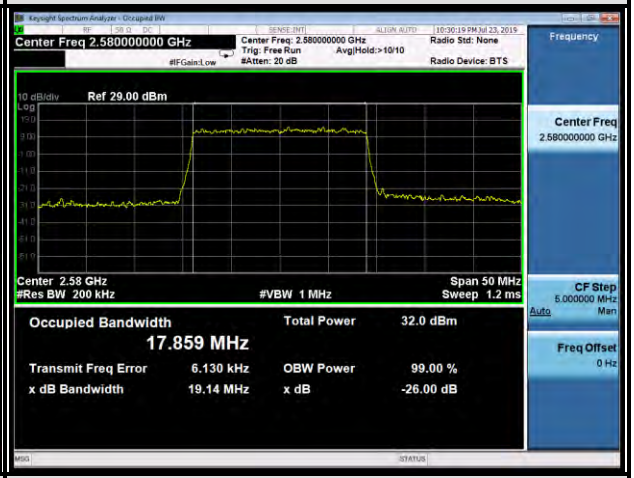
LTE BAND 38				
CHANNEL BANDWIDTH:20MHz				
CHANNEL	FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH (MHz)		
		QPSK	16QAM	64QAM
37850	2580	17.87	17.86	17.88
38000	2595	17.86	17.85	17.87
38150	2610	17.86	17.85	17.84
CHANNEL	FREQUENCY (MHz)	26dB BANDWIDTH (MHz)		
		QPSK	16QAM	64QAM
37850	2580	19.18	19.14	19.22
38000	2595	19.19	19.10	19.26
38150	2610	19.25	19.14	19.15

SPECTRUM PLOT OF WORST VALUE

20MHz / QPSK



20MHz / 16QAM

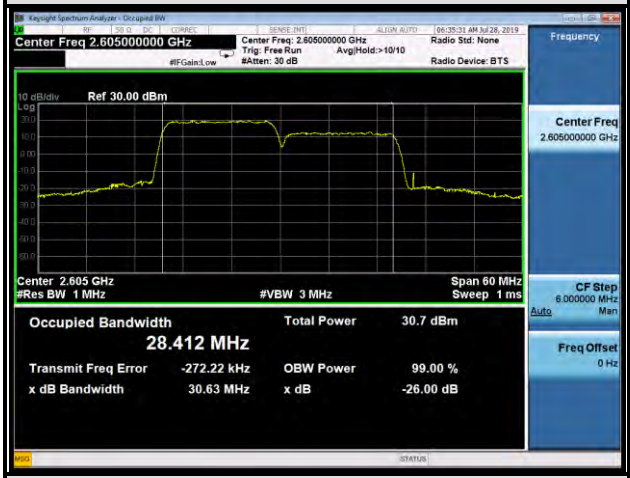


20MHz / 64QAM

LTE BAND CA_38C				
CHANNEL BANDWIDTH: 15MHz+15MHz				
CHANNEL	CHANNEL	99% OCCUPIED BANDWIDTH (MHz)		
PCC	SCC	QPSK	16QAM	64QAM
37825	37975	28.35	28.48	28.47
37925	38075	28.39	28.44	28.42
38025	38175	28.41	28.41	28.45
CHANNEL	CHANNEL	26dB BANDWIDTH (MHz)		
PCC	SCC	QPSK	16QAM	64QAM
37825	37975	30.55	30.55	30.61
37925	38075	30.55	30.58	30.52
38025	38175	30.63	30.64	30.59

SPECTRUM PLOT OF WORST VALUE

15MHz+15MHz / QPSK



15MHz+15MHz / 16QAM

15MHz+15MHz / 64QAM

LTE BAND CA_38C				
CHANNEL BANDWIDTH: 20MHz+20MHz				
CHANNEL	CHANNEL	99% OCCUPIED BANDWIDTH (MHz)		
PCC	SCC	QPSK	16QAM	64QAM
37850	38048	37.47	37.37	37.45
37901	38099	37.46	37.39	37.30
37952	38150	37.44	37.52	37.39
CHANNEL	CHANNEL	26dB BANDWIDTH (MHz)		
PCC	SCC	QPSK	16QAM	64QAM
37850	38048	39.91	39.79	39.85
37901	38099	39.85	41.68	39.81
37952	38150	39.82	39.94	39.77

SPECTRUM PLOT OF WORST VALUE

20MHz+20MHz / QPSK

20MHz+20MHz / 16QAM

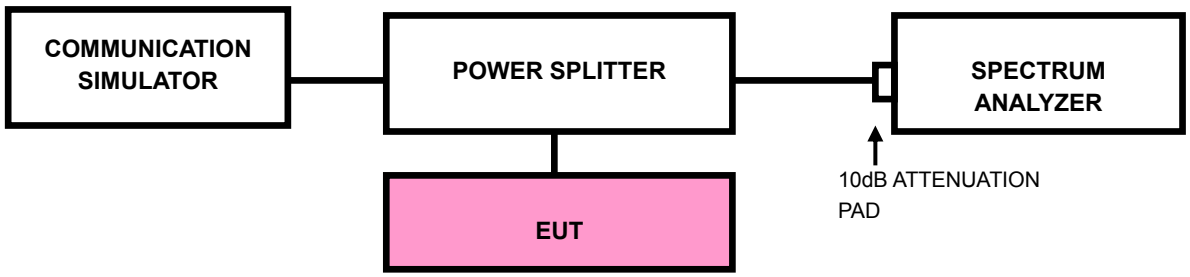
20MHz+20MHz / 64QAM

3.5 BAND EDGE MEASUREMENT

3.5.1 LIMITS OF BAND EDGE MEASUREMENT

According to FCC 27.53(m)(4) specified that For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees. For mobile digital stations, in the 1 megahertz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least two percent may be employed.

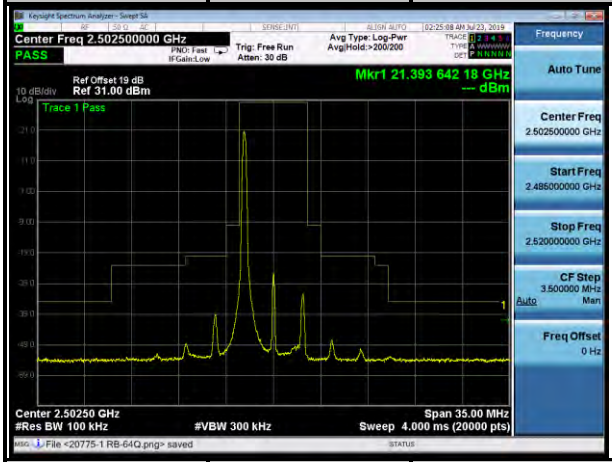
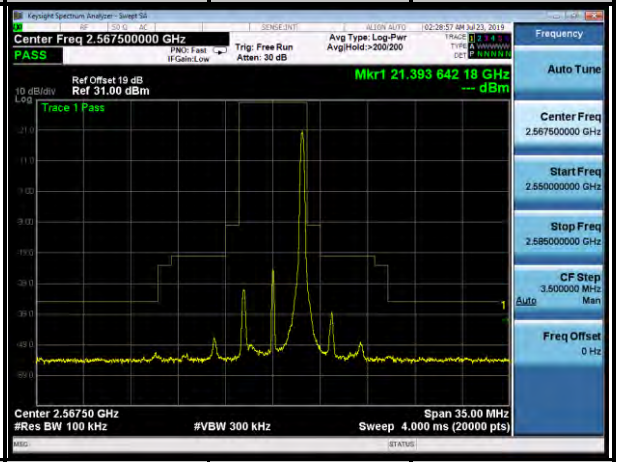
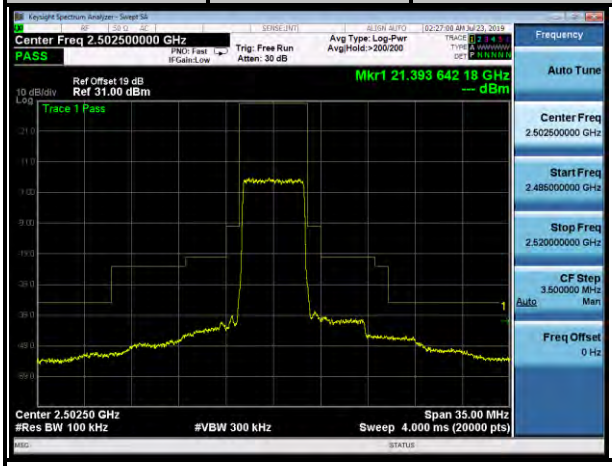
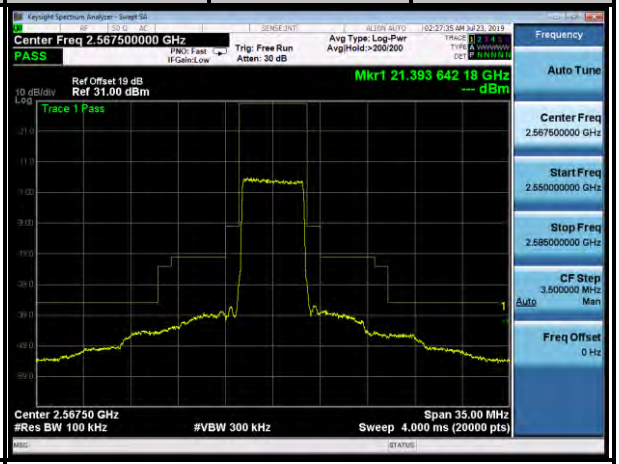
3.5.2 TEST SETUP

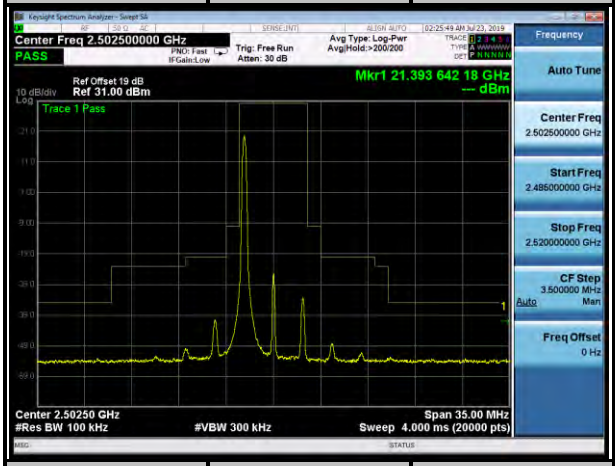
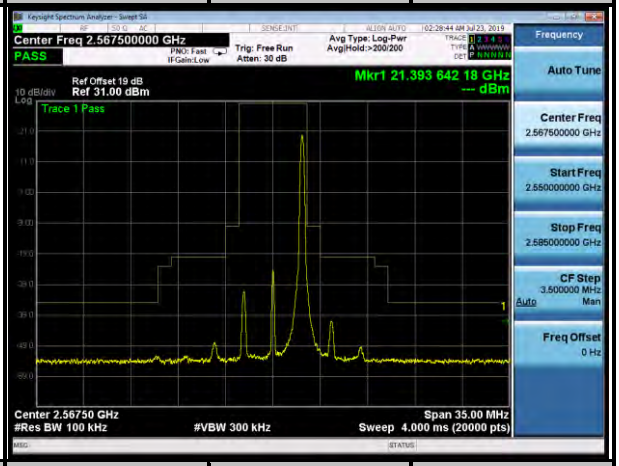
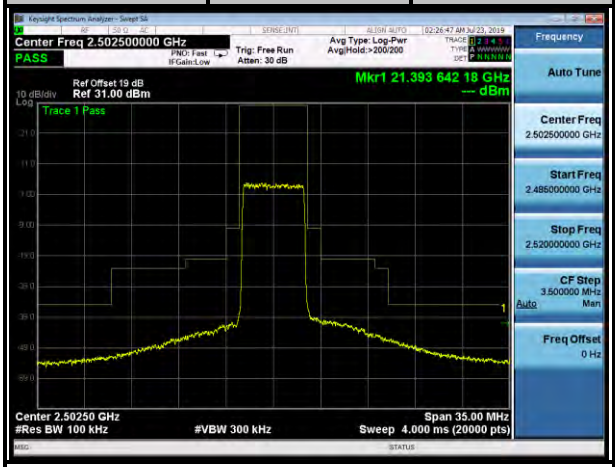
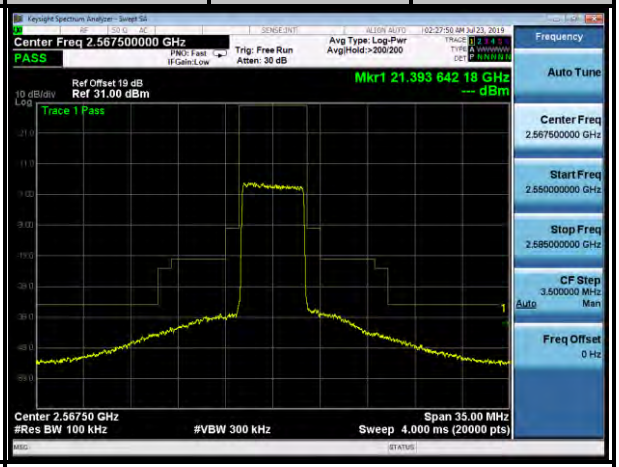


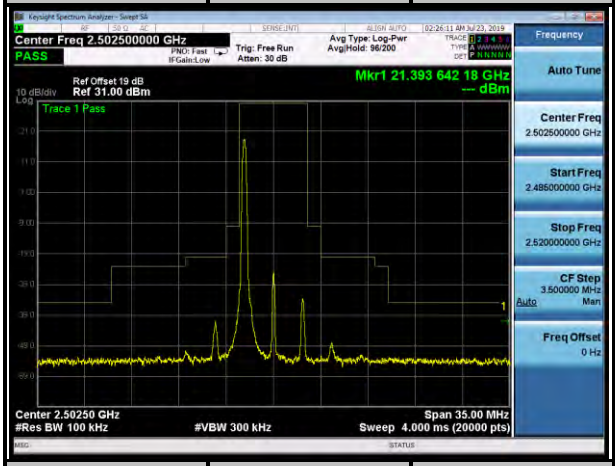
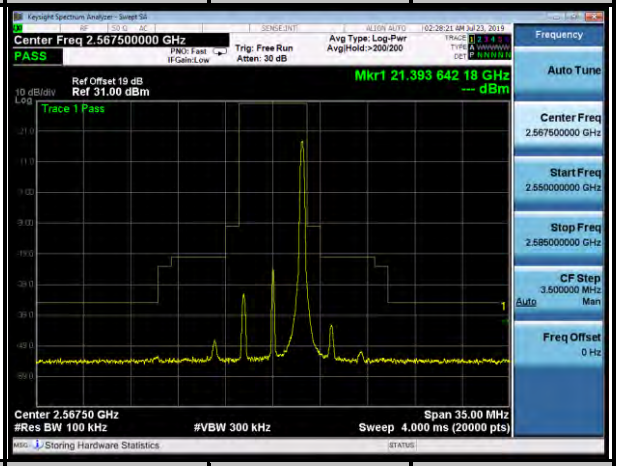
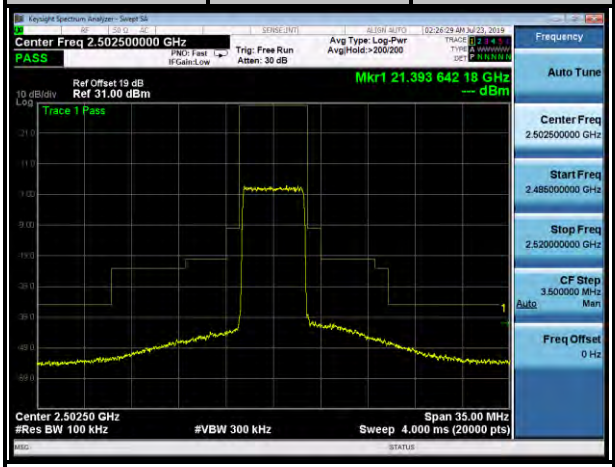
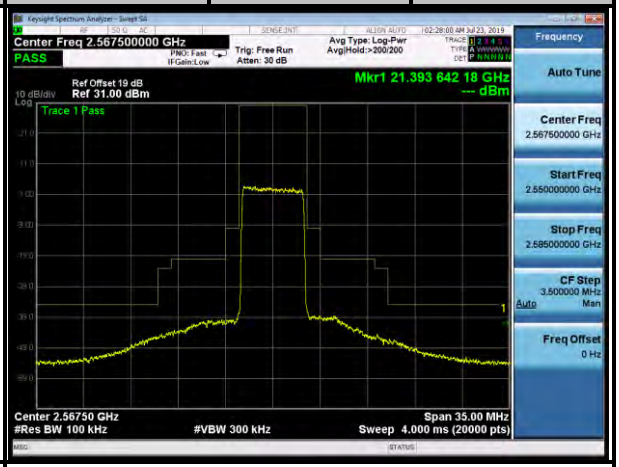
3.5.3 TEST PROCEDURES

a. The EUT was set up for the maximum peak power with LTE link data modulation. The power was measured with R&S Spectrum Analyzer. All measurements were done at 2 channels (low and high operational frequency range.).
b. The band edge measurement used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
c. The center frequency of spectrum is the band edge frequency and span is 35MHz. RBW of the spectrum is 100kHz and VBW of the spectrum is 300kHz (Channel bandwidth 5MHz).
d. The center frequency of spectrum is the band edge frequency and span is 50MHz. RBW of the spectrum is 200kHz and VBW of the spectrum is 1MHz (Channel bandwidth 10MHz).
e. The center frequency of spectrum is the band edge frequency and span is 60MHz. RBW of the spectrum is 300kHz and VBW of the spectrum is 1MHz (Channel bandwidth 15MHz).
f. The center frequency of spectrum is the band edge frequency and span is 80MHz. RBW of the spectrum is 500kHz and VBW of the spectrum is 2MHz (Channel bandwidth 20MHz).
g. Record the max trace plot into the test report.

3.5.4 TEST RESULTS

LTE BAND 7					
Channel Bandwidth: 5MHz / QPSK					
CHANNEL	20775	1 RB	CHANNEL	21425	1 RB
					
CHANNEL	20775	Full RB	CHANNEL	21425	Full RB
					
Note: Limit has been adjusted by 10*log(RBW) to reflect a 1MHz measurement bandwidth.			**Note:** Limit has been adjusted by 10*log(RBW) to reflect a 1MHz measurement bandwidth.		

LTE BAND 7					
Channel Bandwidth: 5MHz / 16QAM					
CHANNEL	20775	1 RB	CHANNEL	21425	1 RB
					
CHANNEL	20775	Full RB	CHANNEL	21425	Full RB
					
Note: Limit has been adjusted by 10*log(RBW) to reflect a 1MHz measurement bandwidth.			**Note:** Limit has been adjusted by 10*log(RBW) to reflect a 1MHz measurement bandwidth.		

LTE BAND 7					
Channel Bandwidth: 5MHz / 64QAM					
CHANNEL	20775	1 RB	CHANNEL	21425	1 RB
					
CHANNEL	20775	Full RB	CHANNEL	21425	Full RB
					
Note: Limit has been adjusted by 10*log(RBW) to reflect a 1MHz measurement bandwidth.			**Note:** Limit has been adjusted by 10*log(RBW) to reflect a 1MHz measurement bandwidth.		