ACCREDITED
Certificate # 3939.01

FCC TEST REPORT

(PART 27)

Applicant:	Honeywell International Inc Honeywell Safety and Productivity Solutions
Address:	9680 Old Bailes Road, Fort Mill, SC 29707 United States

Manufacturer or Supplier:	Honeywell International Inc Honeywell Safety and Productivity Solutions
Address:	9680 Old Bailes Road, Fort Mill, SC 29707 United States
Product:	Mobile Computer
Brand Name:	Honeywell
Model Name:	CT45P-L1N-2
FCC ID:	HD5-CT45PL1N2
Date of tests:	May. 08, 2021 ~ Aug. 31, 2021

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 Simon Wang Engineer / Mobile Department	Approved by Luke Lu Manager / Mobile Department
Simon Date: Sep. 01, 2021	Luke Lu Date: Sep. 01, 2021

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-P21080006RF17	Original release	Sep. 01, 2021

1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 27 & PART 2		
STANDARD SECTION	**1.1.1.1.1.1TEST TYPE AND LIMIT**	**RESULT**
2.1046 27.50(h)(2)	Equivalent Isotropically Radiated Power	Compliance
2.1055 27.54	Frequency Stability	Compliance
2.1049 27.53(m)(6)	Occupied Bandwidth	Compliance
2.1051 27.53(m)(4)(6)	Band Edge Measurements	Compliance
2.1051 27.53(m)(4)(6)	Conducted Spurious Emissions	Compliance
2.1053 27.53(m)(4)(6)	Radiated Spurious Emissions	Compliance

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	Apr. 22,21	Apr. 21,22
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	Jun. 04,20	Jun. 03,21
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	Jun. 03,21	Jun. 02,22
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Mar. 05,21	Mar. 04,22
Horn Antenna	ETS-LINDGREN	3117	00168728	Apr. 02,21	Apr. 01,22
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40-K-SG/QMS-00361	15433	Aug. 26, 20	Aug. 25, 21
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40-K-SG/QMS-00361	15433	Aug. 25, 21	Aug. 24, 22
Radio Communication Analyzer	ANRITSU	MT8820C	6201465426	Feb. 25,21	Feb. 24,22
Signal Pre-Amplifier	EMSI	EMC 9135	980249	Jun. 03,20	Jun. 02,21
Signal Pre-Amplifier	EMSI	EMC 9135	980249	Jun. 02,21	Jun. 01,22
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	Jun. 04,20	Jun. 03,21
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	Jun. 03,21	Jun. 02,22
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Apr. 22,21	Apr. 21,22
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	Euroshieldpn-CT0001143-1216	May. 19,20	May. 18,23
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. 04,20	Jun. 03,21
10dB Attenuator	JFW/USA	50HF-010-SMA	1505	Jun. 03,21	Jun. 02,22
Power Meter	Anritsu	ML2495A	1506002	Apr. 07,21	Apr. 06,22
Power Sensor	Anritsu	MA2411B	1339352	May. 07,21	May. 06,22
Temperature Chamber	ESPEC	SH-242	93000855	Jun. 03,20	Jun. 02,21
Temperature Chamber	ESPEC	SH-242	93000855	Jun. 02,21	Jun. 01,22
MXG Analog Microvave Signal Generator	KEYSIGHT	N5183A	MY50143024	Mar. 05,21	Mar. 04,22
Power Divider	MCLI/USA	PS2-15	24880	N/A	N/A

NOTE: 1. The calibration interval of the above test instruments is 12 months or 36 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 Computer	
BRAND NAME	Honeywell	
MODEL NAME	CT45P-L1N-2	
NOMINAL VOLTAGE	3.85Vdc (Lithium-ion cell, battery)	
MODULATION TECHNOLOGY	**WCDMA IV**	HSDPA, HSUPA, DC-HSDPA
	LTE	QPSK, 16QAM, 64QAM
FREQUENCY RANGE	**WCDMA IV**	1712.4MHz ~ 1752.6MHz
	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 CA_7C Channel Bandwidth: 10MHz+20MHz	2505.5MHz ~ 2560MHz
	LTE Band CA_7C Channel Bandwidth: 15MHz+10MHz	2507.5MHz ~ 2564.7MHz
	LTE Band CA_7C Channel Bandwidth: 15MHz+15MHz	2507.5MHz ~ 2562.5MHz
	LTE Band CA_7C Channel Bandwidth: 15MHz+20MHz	2507.8MHz ~ 2560MHz
	LTE Band CA_7C Channel Bandwidth: 20MHz+10MHz	2510MHz ~ 2564.5MHz
	LTE Band CA_7C Channel Bandwidth: 20MHz+15MHz	2510MHz ~ 2562.5MHz
	LTE Band CA_7C Channel Bandwidth: 20MHz+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 41 Channel Bandwidth: 5MHz	2498.5MHz ~ 2687.5MHz
	LTE Band 41 Channel Bandwidth: 10MHz	2501MHz ~ 2685MHz
	LTE Band 41 Channel Bandwidth: 15MHz	2503.5MHz ~ 2682.5MHz
	LTE Band 41 Channel Bandwidth: 20MHz	2506MHz ~ 2680MHz
EMISSION DESIGNATOR	**WCDMA IV**	4M16F9W
	LTE Band 7 Channel Bandwidth: 5MHz	QPSK: 4M49G7D
		16QAM: 4M48W7D
		64QAM: 4M49W7D
	LTE Band 7 Channel Bandwidth: 10MHz	QPSK:9M01G7D
		16QAM: 8M97W7D
		64QAM: 8M99W7D
	LTE Band 7 Channel Bandwidth: 15MHz	QPSK: 13M6G7D
		16QAM: 13M5W7D
		64QAM: 13M5W7D
	LTE Band 7 Channel Bandwidth: 20MHz	QPSK: 18M0G7D
		16QAM: 18M0W7D
		64QAM: 18M0W7D
	LTE Band CA_7C Channel Bandwidth: 10MHz+20MHz	QPSK: 28M2G7D
		16QAM: 28M1W7D
		64QAM: 28M0W7D
	LTE Band CA_7C Channel Bandwidth: 15MHz +10MHz	QPSK: 23M6G7D
		16QAM: 23M6W7D
		64QAM: 23M6W7D
	LTE Band CA_7C Channel Bandwidth: 15MHz +15MHz	QPSK: 28M7G7D
		16QAM: 28M7W7D
		64QAM: 28M7W7D
	LTE Band CA_7C Channel Bandwidth: 15MHz +20MHz	QPSK: 32M9G7D
		16QAM: 32M9W7D
		64QAM: 32M8W7D
	LTE Band CA_7C Channel Bandwidth: 20MHz +10MHz	QPSK: 28M1G7D
		16QAM: 28M0W7D
		64QAM: 28M0W7D
	LTE Band CA_7C Channel Bandwidth: 20MHz +15MHz	QPSK: 32M8G7D
		16QAM: 32M8W7D
		64QAM: 32M8W7D
	LTE Band CA_7C	QPSK: 37M6G7D

	Channel Bandwidth: 20MHz +20MHz	16QAM: 37M6W7D
		64QAM: 37M6W7D
	LTE Band 38 Channel Bandwidth: 5MHz	QPSK: 4M48G7D
		16QAM: 4M47W7D
		64QAM: 4M47W7D
	LTE Band 38 Channel Bandwidth: 10MHz	QPSK: 8M97G7D
		16QAM: 8M96W7D
		64QAM: 8M96W7D
	LTE Band 38 Channel Bandwidth: 15MHz	QPSK: 13M4G7D
		16QAM: 13M5W7D
		64QAM: 13M5W7D
	LTE Band 38 Channel Bandwidth: 20MHz	QPSK: 17M9G7D
		64QAM: 17M9W7D
		16QAM: 17M9W7D
	LTE Band 41 Channel Bandwidth: 5MHz	QPSK: 4M48G7D
		16QAM: 4M48W7D
		64QAM: 4M47W7D
	LTE Band 41 Channel Bandwidth: 10MHz	QPSK: 8M97G7D
		16QAM: 8M96W7D
		64QAM: 8M96W7D
	LTE Band 41 Channel Bandwidth: 15MHz	QPSK: 13M5G7D
		16QAM: 13M5W7D
		64QAM: 13M4W7D
	LTE Band 41 Channel Bandwidth: 20MHz	QPSK: 17M9G7D
		16QAM: 17M9W7D
		64QAM: 17M9W7D
MAX. EIRP POWER	**WCDMA IV**	148.94mW
	LTE Band 7 Channel Bandwidth: 5MHz	229.09mW
	LTE Band 7 Channel Bandwidth: 10MHz	230.67mW
	LTE Band 7 Channel Bandwidth: 15MHz	230.67mW
	LTE Band 7 Channel Bandwidth: 20MHz	232.81mW
	LTE Band CA_7C Channel Bandwidth: 10MHz+20MHz	230.14mW
	LTE Band CA_7C Channel Bandwidth: 15MHz+10MHz	225.4mW
	LTE Band CA_7C Channel Bandwidth: 15MHz+15MHz	221.82mW

	LTE Band CA_7C Channel Bandwidth: 15MHz+20MHz	221.31mW
	LTE Band CA_7C Channel Bandwidth: 20MHz+10MHz	221.82mW
	LTE Band CA_7C Channel Bandwidth: 20MHz+15MHz	224.91mW
	LTE Band CA_7C Channel Bandwidth: 20MHz+20MHz	232.27mW
	LTE Band 38 Channel Bandwidth: 5MHz	219.79mW
	LTE Band 38 Channel Bandwidth: 10MHz	220.29mW
	LTE Band 38 Channel Bandwidth: 15MHz	221.82mW
	LTE Band 38 Channel Bandwidth: 20MHz	222.33mW
	LTE Band 41 Channel Bandwidth: 5MHz	261.82mW
	LTE Band 41 Channel Bandwidth: 10MHz	261.82mW
	LTE Band 41 Channel Bandwidth: 15MHz	263.03mW
	LTE Band 41 Channel Bandwidth: 20MHz	264.85mW
ANTENNA TYPE	PIFA Antenna with 2.55 dBi gain for WCDMA IV PIFA Antenna with 2.02 dBi gain for LTE7/ LTE7C PIFA Antenna with 1.73 dBi gain for LTE38 PIFA Antenna with 2.02 dBi gain for LTE41	
HW VERSION	V1.0	
SW VERSION	OS.11.002-HON.11.002	
I/O PORTS	Refer to user's manual	
CABLE SUPPLIED	USB cable: unshielded without ferrite, 1.25 meter Earphone cable: unshielded without ferrite, 1.27 meter	
EXTREME TEMPERATURE	-10-55 ℃	
EXTREME VOLTAGE	3.4V- 4.4V	

NOTE:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. This product includes the following three SKU which hardware is exactly same, the difference is described as following, Sample 1 was full test, sample 2 verify the worst case,check worst case Radiated emission:

SAMPLE	EUT CONFIGURATION INFORMATION
1	SKU ID:CT45-L1N-37D120G ,Assembled Scanner Imager: 7-S0703
2	SKU ID:CT45-L1N-38D120G ,Assembled Scanner Imager: 8 - N6803/S0803
3	SKU ID: CT45-L1N-37D220G , Assembled with Scanner: 7-S0703 for China Only with Android non-GMS

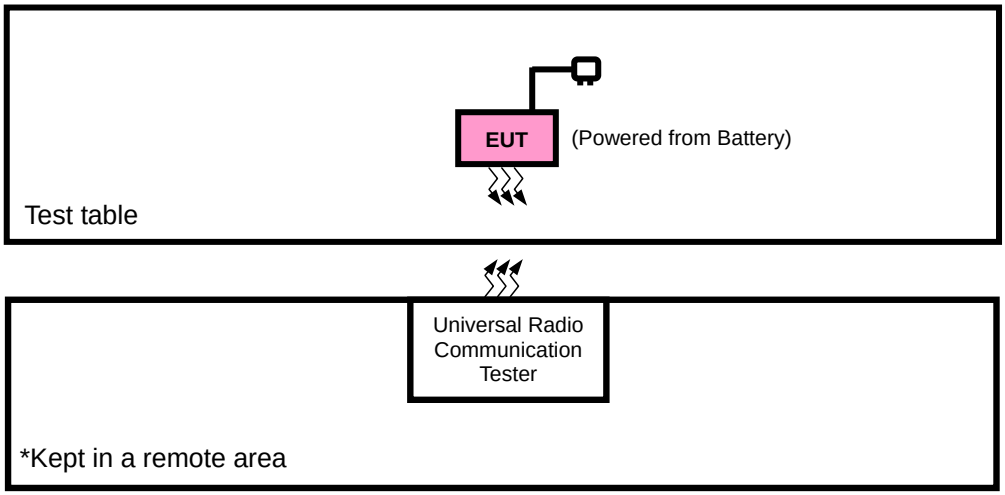
3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.

List of Accessory:

ACCESSORIES	BRAND	MODEL	SPECIFICATION
Battery	Honeywell	CT50-BTSC	Capacity：3.85vdc 4020mAh
AC Adapter	HONOR	ADS-12B-06 05010E	I/P:100-240Vac, 0.3A O/P: 5Vdc, 2A
USB Cable	Honeywell	CT40-SN	Shielded, 1.25meter
Earphone	VIVO	N/A	Shielded, 1.27meter
LCD Panel	CASIL	CTM10801920T01	5.0" FHD(1928*1080)

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	1.1.1.1.1.2DESCRIPTION
A	**EUT + Adapter + USB Cable with LTE link**
B	EUT + Battery with **LTE link**

WCDMA MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	MODE
B	EIRP	1312 to 1513	1312, 1413, 1513	WCDMA
B	FREQUENCY STABILITY	1312 to 1513	1312, 1513	WCDMA
B	OCCUPIED BANDWIDTH	1312 to 1513	1312, 1413, 1513	WCDMA
B	BAND EDGE	1312 to 1513	1312, 1513	WCDMA
B	PEAK TO AVERAGE RATIO	1312 to 1513	1312, 1413, 1513	WCDMA
B	CONDCUDETED EMISSION	1312 to 1513	1312, 1413, 1513	WCDMA
A	RADIATED EMISSION	1312 to 1513	1312, 1413, 1513	WCDMA

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	20775, 21100, 21425	5MHz	QPSK	1 RB / 0 RB Offset
		20800 to 21400	21100	10MHz	QPSK	1 RB / 0 RB 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 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	CONDCUDE TED 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 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	CONDCUDE TED 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 41 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
EIRP	39675 to 41565	39675, 40620, 41565	5MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
	39700 to 41540	39700, 40620, 41540	10MHz	QPSK, 16QAM, 64QAM	1 RB / 0RB Offset
	39725 to 41515	39725, 40620, 41515	15MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
	39750 to 41490	39750, 40620, 41490	20MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
FREQUENCY STABILITY	39675 to 41565	39675, 41565	5MHz	QPSK	1 RB / 0 RB Offset
	39700 to 41540	39700, 41540	10MHz	QPSK	1 RB / 0RB Offset
	39725 to 41515	39725, 41515	15MHz	QPSK	1 RB / 0 RB Offset
	39750 to 41490	39750, 41490	20MHz	QPSK	1 RB / 0 RB Offset
OCCUPIED BANDWIDTH	39675 to 41565	39675, 40620, 41565	5MHz	QPSK, 16QAM, 64QAM	25 RB / 0 RB Offset
	39700 to 41540	39700, 40620, 41540	10MHz	QPSK, 16QAM, 64QAM	50 RB / 0 RB Offset
	39725 to 41515	39725, 40620, 41515	15MHz	QPSK, 16QAM, 64QAM	75 RB / 0 RB Offset
	39750 to 41490	39750, 40620, 41490	20MHz	QPSK, 16QAM, 64QAM	100 RB / 0 RB Offset
BAND EDGE	39675 to 41565	39675	5MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
					25 RB / 0 RB Offset
		41565	5MHz	QPSK, 16QAM, 64QAM	1 RB / 24 RB Offset
					25 RB / 0 RB Offset
	39700 to 41540	39700	10MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
					50 RB / 0 RB Offset
		41540	10MHz	QPSK, 16QAM, 64QAM	1 RB / 49 RB Offset
					50 RB / 0 RB Offset
	39725 to 41515	39725	15MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
					75 RB / 0 RB Offset
		41515	15MHz	QPSK, 16QAM, 64QAM	1 RB / 74 RB Offset
					75 RB / 0 RB Offset
	39750 to 41490	39750	20MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
					100 RB / 0 RB Offset
		41490	20MHz	QPSK, 16QAM, 64QAM	1 RB / 99 RB Offset
					100 RB / 0 RB Offset
CONDCUDETED EMISSION	39675 to 41565	39675, 40620, 41565	5MHz	QPSK	1 RB / 0 RB Offset
	39700 to 41540	39700, 40620, 41540	10MHz	QPSK	1 RB / 0RB Offset
	39725 to 41515	39725, 40620, 41515	15MHz	QPSK	1 RB / 0 RB Offset
	39750 to 41490	39750, 40620, 41490	20MHz	QPSK	1 RB / 0 RB Offset
RADIATED EMISSION	39675 to 41565	40620	5MHz	QPSK	1 RB / 0 RB Offset
	39700 to 41540	39700, 40620, 41540	10MHz	QPSK	1 RB / 0RB Offset
	39725 to 41515	40620	15MHz	QPSK	1 RB / 0 RB Offset
	39750 to 41490	40620	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.

TEST CONDITION:

TEST ITEM	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
ERP	23deg. C, 70%RH	DC 3.85V By Battery	Jace Hu
FREQUENCY STABILITY	23deg. C, 70%RH	DC 3.85V By Battery	Chase Zhou
OCCUPIED BANDWIDTH	23deg. C, 70%RH	DC 3.85V By Battery	Chase Zhou
BAND EDGE	23deg. C, 70%RH	DC 3.85V By Battery	Chase Zhou
CONDCUDETED EMISSION	23deg. C, 70%RH	DC 3.85V By Battery	Chase Zhou
RADIATED EMISSION	23deg. C, 70%RH	DC 3.85V By Battery	Jace Hu

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.”

Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP

3.1.2 TEST PROCEDURES

EIRP MEASUREMENT:

Per KDB 971168 D01 Power Meas License Digital Systems v03r01 or subclause 5.2.5.5 of ANSI C63.26-2015, the relevant equation for determing the ERP or EIRP from the conducted RF output power measured using the guidance provided above is:

ERP or EIRP = $P_{Meas} + G_T – L_C$

Where:

ERP or EIRP = effective radiated power or equivalent isotropically radiated power, respectively

(expressed in the same units as P_{Meas}, typically dBW or dBm);

P_{Meas} = measured transmitter output power or PSD, in dBm or dBW;

G_T = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);

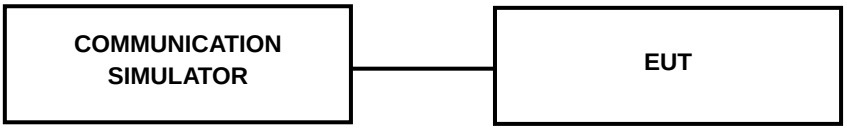
L_C = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

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

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)

Band	WCDMA IV		
Channel	1312	1413	1513
Frequency (MHz)	1712.4	1732.6	1752.6
RMC 12.2K	21.22	**21.33**	21.19
HSDPA Subtest-1	20.32	20.38	20.23
HSDPA Subtest-2	20.25	20.34	20.20
HSDPA Subtest-3	19.72	19.91	19.72
HSDPA Subtest-4	19.76	19.87	19.68
DC-HSDPA Subtest-1	20.26	20.43	20.29
DC-HSDPA Subtest-2	20.34	20.38	20.19
DC-HSDPA Subtest-3	19.70	19.95	19.80
DC-HSDPA Subtest-4	19.73	19.83	19.78
HSUPA Subtest-1	20.33	20.35	20.25
HSUPA Subtest-2	18.21	18.32	20.16
HSUPA Subtest-3	18.74	18.96	19.73
HSUPA Subtest-4	17.74	17.83	19.78
HSUPA Subtest-5	20.33	20.44	20.25

LTE Band 7

Band/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	MPR
7/ 5	QPSK	1	0	21.52	21.58	21.42	0
		1	12	21.45	21.51	21.40	0
		1	24	21.39	21.48	21.38	0
		12	0	20.20	20.31	20.21	1
		12	6	20.20	20.37	20.16	1
		12	13	20.17	20.38	20.23	1
		25	0	20.19	20.31	20.15	1
	16QAM	1	0	20.62	20.77	20.61	1
		1	12	20.56	20.72	20.58	1
		1	24	20.46	20.55	20.46	1
		12	0	19.30	19.37	19.28	2
		12	6	19.31	19.50	19.31	2
		12	13	19.37	19.47	19.40	2
		25	0	19.18	19.24	19.09	2
	64QAM	1	0	19.36	19.52	19.40	2
		1	12	19.39	19.51	19.35	2
		1	24	19.33	19.49	19.40	2
		12	0	18.41	18.50	18.27	3
		12	6	18.29	18.46	18.33	3
		12	13	18.32	18.43	18.23	3
		25	0	18.36	18.45	18.37	3

Band/BW	Modulation	RB Size	RB Offset	Low CH 20800	Mid CH 21100	High CH 21400	MPR
				Frequency 2505 MHz	Frequency 2535 MHz	Frequency 2565 MHz	
7/ 10	QPSK	1	0	21.49	21.61	21.42	0
		1	24	21.45	21.51	21.41	0
		1	49	21.36	21.52	21.34	0
		25	0	20.21	20.30	20.24	1
		25	12	20.26	20.31	20.16	1
		25	25	20.15	20.35	20.22	1
		50	0	20.24	20.31	20.12	1
	16QAM	1	0	20.62	20.74	20.57	1
		1	24	20.61	20.68	20.61	1
		1	49	20.46	20.56	20.43	1
		25	0	19.32	19.35	19.34	2
		25	12	19.35	19.44	19.36	2
		25	25	19.36	19.48	19.37	2
		50	0	19.22	19.23	19.13	2
	64QAM	1	0	19.35	19.53	19.37	2
		1	24	19.44	19.47	19.39	2
		1	49	19.39	19.43	19.37	2
		25	0	18.39	18.47	18.33	3
		25	12	18.36	18.45	18.27	3
		25	25	18.31	18.40	18.25	3
		50	0	18.41	18.41	18.38	3

Band/BW	Modulation	RB Size	RB Offset	Low CH 20825	Mid CH 21100	High CH 21375	MPR
				Frequency 2507.5 MHz	Frequency 2535 MHz	Frequency 2562.5 MHz	
7/ 15	QPSK	1	0	21.56	21.61	21.39	0
		1	37	21.43	21.56	21.36	0
		1	74	21.42	21.55	21.35	0
		36	0	20.18	20.31	20.25	1
		36	19	20.27	20.36	20.16	1
		36	39	20.13	20.36	20.22	1
		75	0	20.24	20.29	20.17	1
	16QAM	1	0	20.66	20.81	20.57	1
		1	37	20.60	20.69	20.61	1
		1	74	20.42	20.61	20.45	1
		36	0	19.36	19.35	19.35	2
		36	19	19.29	19.48	19.32	2
		36	39	19.41	19.46	19.40	2
		75	0	19.23	19.26	19.06	2
	64QAM	1	0	19.37	19.54	19.38	2
		1	37	19.45	19.46	19.36	2
		1	74	19.35	19.42	19.40	2
		36	0	18.44	18.53	18.27	3
		36	19	18.30	18.39	18.29	3
		36	39	18.34	18.47	18.27	3
		75	0	18.40	18.39	18.39	3

Band/BW	Modulation	RB Size	RB Offset	Low CH 20850 Frequency 2510 MHz	Mid CH 21100 Frequency 2535 MHz	High CH 21350 Frequency 2560 MHz	MPR
7/ 20	QPSK	1	0	21.57	**21.65**	21.47	0
		1	50	21.47	21.59	21.42	0
		1	99	21.44	21.56	21.39	0
		50	0	20.24	20.36	20.26	1
		50	25	20.28	20.38	20.21	1
		50	50	20.21	20.43	20.24	1
		100	0	20.25	20.33	20.20	1
	16QAM	1	0	20.69	20.82	20.63	1
		1	50	20.64	20.74	20.63	1
		1	99	20.48	20.63	20.48	1
		50	0	19.38	19.43	19.36	2
		50	25	19.37	19.52	19.37	2
		50	50	19.44	19.52	19.42	2
		100	0	19.24	19.31	19.14	2
	64QAM	1	0	19.43	19.57	19.42	2
		1	50	19.47	19.53	19.41	2
		1	99	19.41	19.50	19.42	2
		50	0	18.45	18.55	18.35	3
		50	25	18.37	18.47	18.35	3
		50	50	18.36	18.48	18.31	3
		100	0	18.42	18.47	18.40	3

LTE Band CA_7C

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	99	1	0	2	20.91
		16QAM	1	99	1	0	2	20.70
		64QAM	1	99	1	0	2	19.74
21006	21150	QPSK	1	99	1	0	2	21.18
		16QAM	1	99	1	0	2	20.81
		64QAM	1	99	1	0	2	19.84
21206	21350	QPSK	1	99	1	0	2	21.44
		16QAM	1	99	1	0	2	20.98
		64QAM	1	99	1	0	2	19.72
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	21.41
		16QAM	1	74	1	0	2	20.57
		64QAM	1	74	1	0	2	19.69
21051	21171	QPSK	1	74	1	0	2	21.23
		16QAM	1	74	1	0	2	20.34
		64QAM	1	74	1	0	2	19.42
21277	21397	QPSK	1	74	1	0	2	21.51
		16QAM	1	74	1	0	2	20.87
		64QAM	1	74	1	0	2	19.84

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	20.97
		16QAM	1	74	1	0	2	20.85
		64QAM	1	74	1	0	2	19.62
21025	21175	QPSK	1	74	1	0	2	20.70
		16QAM	1	74	1	0	2	20.55
		64QAM	1	74	1	0	2	19.23
21225	21375	QPSK	1	74	1	0	2	21.44
		16QAM	1	74	1	0	2	20.62
		64QAM	1	74	1	0	2	19.95
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	21.43
		16QAM	1	74	1	0	2	20.86
		64QAM	1	74	1	0	2	19.74
21003	21174	QPSK	1	74	1	0	2	21.20
		16QAM	1	74	1	0	2	20.82
		64QAM	1	74	1	0	2	19.48
21179	21350	QPSK	1	74	1	0	2	21.11
		16QAM	1	74	1	0	2	20.93
		64QAM	1	74	1	0	2	19.55

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	20.91
		16QAM	1	99	1	0	2	20.70
		64QAM	1	99	1	0	2	19.74
21051	21195	QPSK	1	99	1	0	2	21.18
		16QAM	1	99	1	0	2	20.81
		64QAM	1	99	1	0	2	19.84
21251	21395	QPSK	1	99	1	0	2	21.44
		16QAM	1	99	1	0	2	20.98
		64QAM	1	99	1	0	2	19.72
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	20.79
		16QAM	1	99	1	0	2	20.42
		64QAM	1	99	1	0	2	19.74
21026	21197	QPSK	1	99	1	0	2	21.12
		16QAM	1	99	1	0	2	20.86
		64QAM	1	99	1	0	2	19.63
21201	21372	QPSK	1	99	1	0	2	21.50
		16QAM	1	99	1	0	2	20.91
		64QAM	1	99	1	0	2	19.77

CA_7C								
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		
20850	21048	QPSK	1	0	1	99	1	11.61
			1	0	0	0	1	19.28
			1	99	1	0	2	21.45
		16QAM	1	0	1	99	1	11.34
			1	0	0	0	1	18.73
			1	99	1	0	2	20.76
		64QAM	1	0	1	99	1	11.02
			1	0	0	0	1	18.47
			1	99	1	0	2	19.79
21001	21199	QPSK	1	0	1	99	1	11.63
			1	0	0	0	1	19.17
			1	99	1	0	2	21.07
		16QAM	1	0	1	99	1	11.21
			1	0	0	0	1	18.52
			1	99	1	0	2	20.60
		64QAM	1	0	1	99	1	10.83
			1	0	0	0	1	18.17
			1	99	1	0	2	19.51
21152	21350	QPSK	1	0	1	99	1	11.68
			1	0	0	0	1	19.21
			1	99	1	0	2	21.64
		16QAM	1	0	1	99	1	11.44
			1	0	0	0	1	18.52
			1	99	1	0	2	20.92
		64QAM	1	0	1	99	1	10.98
			1	0	0	0	1	18.03
			1	99	1	0	2	19.87

LTE Band 38

Band/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	MPR
38/ 5	QPSK	1	0	21.52	21.62	21.59	0
		1	12	21.50	21.60	21.62	0
		1	24	21.53	21.66	21.69	0
		12	0	20.33	20.48	20.51	1
		12	6	20.53	20.74	20.66	1
		12	13	20.33	20.48	20.56	1
		25	0	20.41	20.57	20.54	1
	16QAM	1	0	20.71	20.90	20.87	1
		1	12	20.82	21.02	21.01	1
		1	24	20.83	20.96	21.00	1
		12	0	19.46	19.57	19.61	2
		12	6	19.45	19.68	19.62	2
		12	13	19.39	19.53	19.59	2
		25	0	19.43	19.53	19.51	2
	64QAM	1	0	19.60	19.80	19.81	2
		1	12	19.60	19.76	19.73	2
		1	24	19.60	19.80	19.84	2
		12	0	18.75	18.88	18.78	3
		12	6	18.62	18.83	18.83	3
		12	13	18.75	18.90	18.83	3
		25	0	18.67	18.80	18.85	3

Band/BW	Modulation	RB Size	RB Offset	Low CH 37800 Frequency 2575 MHz	Mid CH 38000 Frequency 2595 MHz	High CH 38200 Frequency 2615 MHz	MPR
38/ 10	QPSK	1	0	21.49	21.65	21.59	0
		1	24	21.50	21.60	21.63	0
		1	49	21.50	21.70	21.65	0
		25	0	20.34	20.47	20.54	1
		25	12	20.59	20.68	20.66	1
		25	25	20.31	20.45	20.55	1
		50	0	20.46	20.57	20.51	1
	16QAM	1	0	20.71	20.87	20.83	1
		1	24	20.87	20.98	21.04	1
		1	49	20.83	20.97	20.97	1
		25	0	19.48	19.55	19.67	2
		25	12	19.49	19.62	19.67	2
		25	25	19.38	19.54	19.56	2
		50	0	19.47	19.52	19.55	2
	64QAM	1	0	19.59	19.81	19.78	2
		1	24	19.65	19.72	19.77	2
		1	49	19.66	19.74	19.81	2
		25	0	18.73	18.85	18.84	3
		25	12	18.69	18.82	18.77	3
		25	25	18.74	18.87	18.85	3
		50	0	18.72	18.76	18.86	3

Band/BW	Modulation	RB Size	RB Offset	Low CH 37825	Mid CH 38000	High CH 38175	MPR
				Frequency 2577.5 MHz	Frequency 2595 MHz	Frequency 2612.5MHz	
38/ 15	QPSK	1	0	21.56	21.65	21.56	0
		1	37	21.48	21.65	21.58	0
		1	74	21.56	21.73	21.66	0
		36	0	20.31	20.48	20.55	1
		36	19	20.60	20.73	20.66	1
		36	39	20.29	20.46	20.55	1
		75	0	20.46	20.55	20.56	1
	16QAM	1	0	20.75	20.94	20.83	1
		1	37	20.86	20.99	21.04	1
		1	74	20.79	21.02	20.99	1
		36	0	19.52	19.55	19.68	2
		36	19	19.43	19.66	19.63	2
		36	39	19.43	19.52	19.59	2
		75	0	19.48	19.55	19.48	2
	64QAM	1	0	19.61	19.82	19.79	2
		1	37	19.66	19.71	19.74	2
		1	74	19.62	19.73	19.84	2
		36	0	18.78	18.91	18.78	3
		36	19	18.63	18.76	18.79	3
		36	39	18.77	18.94	18.87	3
		75	0	18.71	18.74	18.87	3

Band/BW	Modulation	RB Size	RB Offset	Low CH 37850 Frequency 2580 MHz	Mid CH 38000 Frequency 2595 MHz	High CH 38150 Frequency 2610 MHz	MPR
38/ 20	QPSK	1	0	21.57	21.69	21.64	0
		1	50	21.52	21.68	21.64	0
		1	99	21.58	**21.74**	21.70	0
		50	0	20.37	20.53	20.56	1
		50	25	20.61	20.75	20.71	1
		50	50	20.37	20.53	20.57	1
		100	0	20.47	20.59	20.59	1
	16QAM	1	0	20.78	20.95	20.89	1
		1	50	20.90	21.04	21.06	1
		1	99	20.85	21.04	21.02	1
		50	0	19.54	19.63	19.69	2
		50	25	19.51	19.70	19.68	2
		50	50	19.46	19.58	19.61	2
		100	0	19.49	19.60	19.56	2
	64QAM	1	0	19.67	19.85	19.83	2
		1	50	19.68	19.78	19.79	2
		1	99	19.68	19.81	19.86	2
		50	0	18.79	18.93	18.86	3
		50	25	18.70	18.84	18.85	3
		50	50	18.79	18.95	18.91	3
		100	0	18.73	18.82	18.88	3

LTE Band 41

Band/BW	Modulation	RB Size	RB Offset	Low CH (39675) Frequency (2498.5)MHz	Mid CH (40620) Frequency (2593)MHz	High CH (41565) Frequency (2687.5)MHz	MPR
41/ 5	QPSK	1	0	22.14	22.16	21.94	0
		1	12	21.98	22.05	21.81	0
		1	24	21.69	21.80	21.50	0
		12	0	20.86	20.99	20.74	1
		12	6	20.84	20.92	20.64	1
		12	13	20.72	20.90	20.62	1
		25	0	20.94	21.02	20.80	1
	16QAM	1	0	20.83	20.94	20.72	1
		1	12	21.12	21.26	21.02	1
		1	24	20.75	20.87	20.60	1
		12	0	19.95	20.05	19.88	2
		12	6	19.85	19.97	19.75	2
		12	13	19.72	19.87	19.64	2
		25	0	19.86	19.89	19.72	2
	64QAM	1	0	19.97	20.13	19.90	2
		1	12	19.96	20.04	19.79	2
		1	24	19.93	20.12	19.91	2
		12	0	19.07	19.05	18.93	3
		12	6	18.91	19.07	18.83	3
		12	13	19.07	19.10	18.93	3
		25	0	19.01	19.14	18.84	3

Band/BW	Modulation	RB Size	RB Offset	Low CH (39700) Frequency (2501)MHz	Mid CH (40620) Frequency (2593)MHz	High CH (41540) Frequency (2685)MHz	MPR
41/ 10	QPSK	1	0	22.11	22.16	21.92	0
		1	24	21.98	22.06	21.86	0
		1	49	21.66	21.76	21.48	0
		25	0	20.87	21.02	20.78	1
		25	12	20.90	20.92	20.70	1
		25	25	20.70	20.89	20.63	1
		50	0	20.99	20.99	20.80	1
	16QAM	1	0	20.83	20.90	20.72	1
		1	24	21.17	21.29	21.01	1
		1	49	20.75	20.84	20.57	1
		25	0	19.97	20.11	19.84	2
		25	12	19.89	20.02	19.74	2
		25	25	19.71	19.84	19.59	2
		50	0	19.90	19.93	19.65	2
	64QAM	1	0	19.96	20.10	19.93	2
		1	24	20.01	20.08	19.76	2
		1	49	19.99	20.09	19.86	2
		25	0	19.05	19.11	18.88	3
		25	12	18.98	19.01	18.85	3
		25	25	19.06	19.12	18.95	3
		50	0	19.06	19.15	18.86	3

Band/BW	Modulation	RB Size	RB Offset	Low CH (39725) Frequency (2503.5)MHz	Mid CH (40620) Frequency (2593)MHz	High CH (41515) Frequency (2682.5)MHz	MPR
41/ 15	QPSK	1	0	22.18	22.13	21.94	0
		1	37	21.96	22.01	21.86	0
		1	74	21.72	21.77	21.50	0
		36	0	20.84	21.03	20.80	1
		36	19	20.91	20.92	20.65	1
		36	39	20.68	20.89	20.66	1
		75	0	20.99	21.04	20.77	1
	16QAM	1	0	20.87	20.90	20.75	1
		1	37	21.16	21.29	20.96	1
		1	74	20.71	20.86	20.61	1
		36	0	20.01	20.12	19.89	2
		36	19	19.83	19.98	19.75	2
		36	39	19.76	19.87	19.64	2
		75	0	19.91	19.86	19.67	2
	64QAM	1	0	19.98	20.11	19.94	2
		1	37	20.02	20.05	19.76	2
		1	74	19.95	20.12	19.91	2
		36	0	19.10	19.05	18.92	3
		36	19	18.92	19.03	18.84	3
		36	39	19.09	19.14	18.95	3
		75	0	19.05	19.16	18.89	3

Band/BW	Modulation	RB Size	RB Offset	Low CH (39750) Frequency (2506)MHz	Mid CH (40620) Frequency (2593)MHz	High CH (41490) Frequency (2680)MHz	MPR
41/ 20	QPSK	1	0	22.19	22.21	22.00	0
		1	50	22.00	22.07	21.88	0
		1	99	21.74	21.81	21.56	0
		50	0	20.90	21.04	20.81	1
		50	25	20.92	20.97	20.72	1
		50	50	20.76	20.91	20.68	1
		100	0	21.00	21.07	20.82	1
	16QAM	1	0	20.90	20.96	20.77	1
		1	50	21.20	21.31	21.03	1
		1	99	20.77	20.89	20.65	1
		50	0	20.03	20.13	19.90	2
		50	25	19.91	20.03	19.80	2
		50	50	19.79	19.89	19.66	2
		100	0	19.92	19.94	19.73	2
	64QAM	1	0	20.04	20.15	19.95	2
		1	50	20.04	20.10	19.84	2
		1	99	20.01	20.14	19.92	2
		50	0	19.11	19.13	18.95	3
		50	25	18.99	19.09	18.88	3
		50	50	19.11	19.18	18.97	3
		100	0	19.07	19.17	18.92	3

EIRP

WCDMA IV

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
1312	1712.4	21.22	2.55	21.62	145.21	1
1413	1732.6	21.33	2.55	21.73	**148.94**	1
1513	1752.6	21.19	2.55	21.59	144.21	1

LTE BAND 7

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20775	2502.5	21.52	2.02	23.54	225.94	2
21100	2535.0	21.58	2.02	23.60	**229.09**	2
21425	2567.5	21.42	2.02	23.44	220.80	2

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20775	2502.5	20.62	2.02	22.64	183.65	2
21100	2535.0	20.77	2.02	22.79	190.11	2
21425	2567.5	20.61	2.02	22.63	183.23	2

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20775	2502.5	19.39	2.02	21.41	138.36	2
21100	2535	19.52	2.02	21.54	142.56	2
21425	2567.5	19.40	2.02	21.42	138.68	2

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20800	2505.0	21.49	2.02	23.51	224.39	2
21100	2535.0	21.61	2.02	23.63	**230.67**	2
21400	2565.0	21.42	2.02	23.44	220.80	2

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20800	2505.0	20.62	2.02	22.64	183.65	2
21100	2535.0	20.74	2.02	22.76	188.80	2
21400	2565.0	20.61	2.02	22.63	183.23	2

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20800	2505	19.44	2.02	21.46	139.96	2
21100	2535	19.53	2.02	21.55	142.89	2
21400	2565	19.39	2.02	21.41	138.36	2

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	21.56	2.02	23.58	228.03	2
21100	2535.0	21.61	2.02	23.63	**230.67**	2
21375	2562.5	21.39	2.02	23.41	219.28	2

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	20.66	2.02	22.68	185.35	2
21100	2535.0	20.81	2.02	22.83	191.87	2
21375	2562.5	20.61	2.02	22.63	183.23	2

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	19.45	2.02	21.47	140.28	2
21100	2535	19.54	2.02	21.56	143.22	2
21375	2562.5	19.40	2.02	21.42	138.68	2

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	21.57	2.02	23.59	228.56	2
21100	2535.0	21.65	2.02	23.67	**232.81**	2
21350	2560.0	21.47	2.02	23.49	223.36	2

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	20.69	2.02	22.71	186.64	2
21100	2535.0	20.82	2.02	22.84	192.31	2
21350	2560.0	20.63	2.02	22.65	184.08	2

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510	19.47	2.02	21.49	140.93	2
21100	2535	19.57	2.02	21.59	144.21	2
21350	2560	19.42	2.02	21.44	139.32	2

REMARKS: ERP Output Power (dBm) = EIRP (dBm) -2.15(dB).

LTE BAND CA_7C

CHANNEL BANDWIDTH: 10MHz+20MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20805	2505.5	20949	2519.9	21.15	2.02	23.17	207.49	2
21006	2525.6	21150	2540.0	21.04	2.02	23.06	202.3	2
21206	2545.6	21350	2560.0	21.6	2.02	23.62	**230.14**	2

CHANNEL BANDWIDTH: 10MHz+20MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20805	2505.5	20949	2519.9	20.97	2.02	22.99	199.07	2
21006	2525.6	21150	2540.0	20.65	2.02	22.67	184.93	2
21206	2545.6	21350	2560.0	20.93	2.02	22.95	197.24	2

CHANNEL BANDWIDTH: 10MHz+20MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20805	2505.5	20949	2519.9	19.59	2.02	21.61	144.88	2
21006	2525.6	21150	2540.0	19.68	2.02	21.7	147.91	2
21206	2545.6	21350	2560.0	19.73	2.02	21.75	149.62	2

CHANNEL BANDWIDTH: 15MHz+10MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	20945	2519.5	21.41	2.02	23.43	220.29	2
21051	2530.1	21171	2542.1	21.23	2.02	23.25	211.35	2
21227	2552.7	21397	2564.7	21.51	2.02	23.53	**225.42**	2

CHANNEL BANDWIDTH: 15MHz+10MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	20945	2519.5	20.57	2.02	22.59	181.55	2
21051	2530.1	21171	2542.1	20.34	2.02	22.36	172.19	2
21227	2552.7	21397	2564.7	20.87	2.02	22.89	194.54	2

CHANNEL BANDWIDTH: 15MHz+10MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	20945	2519.5	19.69	2.02	21.71	148.25	2
21051	2530.1	21171	2542.1	19.42	2.02	21.44	139.32	2
21227	2552.7	21397	2564.7	19.84	2.02	21.86	153.46	2

CHANNEL BANDWIDTH: 15MHz+15MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	2522.5	2502.5	20.97	2.02	22.99	199.07	2
21025	2527.5	2542.5	2535.0	20.7	2.02	22.72	187.07	2
21225	2547.5	2562.5	2567.5	21.44	2.02	23.46	**221.82**	2

CHANNEL BANDWIDTH: 15MHz+15MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	2522.5	2502.5	20.85	2.02	22.87	193.64	2
21025	2527.5	2542.5	2535.0	20.55	2.02	22.57	180.72	2
21225	2547.5	2562.5	2567.5	20.62	2.02	22.64	183.65	2

CHANNEL BANDWIDTH: 15MHz+15MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	2522.5	2502.5	19.62	2.02	21.64	145.88	2
21025	2527.5	2542.5	2535.0	19.23	2.02	21.25	133.35	2
21225	2547.5	2562.5	2567.5	19.95	2.02	21.97	157.4	2

CHANNEL BANDWIDTH: 15MHz+20MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20828	2507.8	20975	2522.5	21.43	2.02	23.45	**221.31**	2
21003	2525.3	21175	2542.5	21.2	2.02	23.22	209.89	2
21179	2542.9	21375	2562.5	21.11	2.02	23.13	205.59	2

CHANNEL BANDWIDTH: 15MHz+20MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20828	2507.8	20975	2522.5	20.86	2.02	22.88	194.09	2
21003	2525.3	21175	2542.5	20.82	2.02	22.84	192.31	2
21179	2542.9	21375	2562.5	20.93	2.02	22.95	197.24	2

CHANNEL BANDWIDTH: 15MHz+20MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20828	2507.8	20975	2522.5	19.74	2.02	21.76	149.97	2
21003	2525.3	21175	2542.5	19.48	2.02	21.5	141.25	2
21179	2542.9	21375	2562.5	19.55	2.02	21.57	143.55	2

CHANNEL BANDWIDTH: 20MHz+10MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	20994	2524.4	20.91	2.02	22.93	196.34	2
21051	2530.1	21195	2544.5	21.18	2.02	23.2	208.93	2
21251	2550.1	21395	2564.5	21.44	2.02	23.46	**221.82**	2

CHANNEL BANDWIDTH: 20MHz+10MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	20994	2524.4	20.7	2.02	22.72	187.07	2
21051	2530.1	21195	2544.5	20.81	2.02	22.83	191.87	2
21251	2550.1	21395	2564.5	20.98	2.02	23	199.53	2

CHANNEL BANDWIDTH: 20MHz+10MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	20994	2524.4	19.74	2.02	21.76	149.97	2
21051	2530.1	21195	2544.5	19.84	2.02	21.86	153.46	2
21251	2550.1	21395	2564.5	19.72	2.02	21.74	149.28	2

CHANNEL BANDWIDTH: 20MHz+15MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	21021	2527.1	20.79	2.02	22.81	190.99	2
21026	2527.6	21197	2544.7	21.12	2.02	23.14	206.06	2
21201	2545.1	21372	2562.2	21.5	2.02	23.52	**224.91**	2

CHANNEL BANDWIDTH: 20MHz+15MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	21021	2527.1	20.42	2.02	22.44	175.39	2
21026	2527.6	21197	2544.7	20.86	2.02	22.88	194.09	2
21201	2545.1	21372	2562.2	20.91	2.02	22.93	196.34	2

CHANNEL BANDWIDTH: 20MHz+15MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	21021	2527.1	19.74	2.02	21.76	149.97	2
21026	2527.6	21197	2544.7	19.63	2.02	21.65	146.22	2
21201	2545.1	21372	2562.2	19.77	2.02	21.79	151.01	2

CHANNEL BANDWIDTH: 20MHz+20MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	21048	2529.8	21.45	2.02	23.47	222.33	2
21001	2525.1	21199	2544.9	21.07	2.02	23.09	203.7	2
21206	2540.2	21350	2560.0	21.64	2.02	23.66	**232.27**	2

CHANNEL BANDWIDTH: 20MHz+20MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	21048	2529.8	20.76	2.02	22.78	189.67	2
21001	2525.1	21199	2544.9	20.6	2.02	22.62	182.81	2
21206	2540.2	21350	2560.0	20.92	2.02	22.94	196.79	2

CHANNEL BANDWIDTH: 20MHz+20MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	21048	2529.8	19.79	2.02	21.81	151.71	2
21001	2525.1	21199	2544.9	19.51	2.02	21.53	142.23	2
21206	2540.2	21350	2560.0	19.87	2.02	21.89	154.53	2

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CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37775	2572.5	21.53	1.73	23.26	211.84	2
38000	2595.0	21.66	1.73	23.39	218.27	2
38225	2617.5	21.69	1.73	23.42	**219.79**	2

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37775	2572.5	20.83	1.73	22.56	180.30	2
38000	2595.0	21.02	1.73	22.75	188.36	2
38225	2617.5	21.01	1.73	22.74	187.93	2

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37775	2572.5	19.60	1.73	21.33	135.83	2
38000	2595	19.80	1.73	21.53	142.23	2
38225	2617.5	19.84	1.73	21.57	143.55	2

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37800	2575.0	21.50	1.73	23.23	210.38	2
38000	2595.0	21.70	1.73	23.43	**220.29**	2
38200	2615.0	21.65	1.73	23.38	217.77	2

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37800	2575.0	20.87	1.73	22.60	181.97	2
38000	2595.0	20.98	1.73	22.71	186.64	2
38200	2615.0	21.04	1.73	22.77	189.23	2

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37800	2575	19.66	1.73	21.39	137.72	2
38000	2595	19.81	1.73	21.54	142.56	2
38200	2615	19.81	1.73	21.54	142.56	2

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	21.56	1.73	23.29	213.30	2
38000	2595.0	21.73	1.73	23.46	**221.82**	2
38175	2612.5	21.66	1.73	23.39	218.27	2

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	20.86	1.73	22.59	181.55	2
38000	2595.0	21.02	1.73	22.75	188.36	2
38175	2612.5	21.04	1.73	22.77	189.23	2

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	19.66	1.73	21.39	137.72	2
38000	2595	19.82	1.73	21.55	142.89	2
38175	2612.5	19.84	1.73	21.57	143.55	2

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580.0	21.58	1.73	23.31	214.29	2
38000	2595.0	21.74	1.73	23.47	**222.33**	2
38150	2610.0	21.70	1.73	23.43	220.29	2

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580.0	20.90	1.73	22.63	183.23	2
38000	2595.0	21.04	1.73	22.77	189.23	2
38150	2610.0	21.06	1.73	22.79	190.11	2

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580	19.68	1.73	21.41	138.36	2
38000	2595	19.85	1.73	21.58	143.88	2
38150	2610	19.86	1.73	21.59	144.21	2

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CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39675	2498.5	22.14	2.02	24.16	260.62	2
40620	2593.0	22.16	2.02	24.18	**261.82**	2
41565	2687.5	21.94	2.02	23.96	248.89	2

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39675	2498.5	21.13	2.02	23.15	206.54	2
40620	2593.0	21.26	2.02	23.28	212.81	2
41565	2687.5	21.02	2.02	23.04	201.37	2

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39675	2502.5	19.98	2.02	22.00	158.49	2
40620	2593.0	20.13	2.02	22.15	164.06	2
41565	2687.5	19.91	2.02	21.93	155.96	2

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39700	2501.0	22.11	2.02	24.13	258.82	2
40620	2593.0	22.16	2.02	24.18	**261.82**	2
41540	2685.0	21.92	2.02	23.94	247.74	2

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39700	2501.0	21.17	2.02	23.19	208.45	2
40620	2593.0	21.29	2.02	23.31	214.29	2
41540	2685.0	21.01	2.02	23.03	200.91	2

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39700	2501.0	20.01	2.02	22.03	159.59	2
40620	2593.0	20.10	2.02	22.12	162.93	2
41540	2685.0	19.93	2.02	21.95	156.68	2

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39725	2503.5.0	22.18	2.02	24.2	**263.03**	2
40620	2593.0	22.13	2.02	24.15	260.02	2
41515	2682.5.0	21.94	2.02	23.96	248.89	2

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39725	2503.5	21.16	2.02	23.18	207.97	2
40620	2593.0	21.29	2.02	23.31	214.29	2
41515	2682.5	20.96	2.02	22.98	198.61	2

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39725	2503.5	20.02	2.02	22.04	159.96	2
40620	2593.0	20.12	2.02	22.14	163.68	2
41515	2682.5	19.94	2.02	21.96	157.04	2

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39750	2506.0	22.19	2.02	24.21	263.63	2
40620	2593.0	22.21	2.02	24.23	**264.85**	2
41490	2680.0	22.00	2.02	24.02	252.35	2

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39750	2506.0	21.20	2.02	23.22	209.89	2
40620	2593.0	21.31	2.02	23.33	215.28	2
41490	2680.0	21.03	2.02	23.05	201.84	2

CHANNEL BANDWIDTH: 20 MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39750	2506.0	20.04	2.02	22.06	160.69	2
40620	2593.0	20.15	2.02	22.17	164.82	2
41490	2680.0	19.95	2.02	21.97	157.4	2

3.2 FREQUENCY STABILITY MEASUREMENT

3.2.1 LIMITS OF FREQUENCY STABILIITY MEASUREMENT

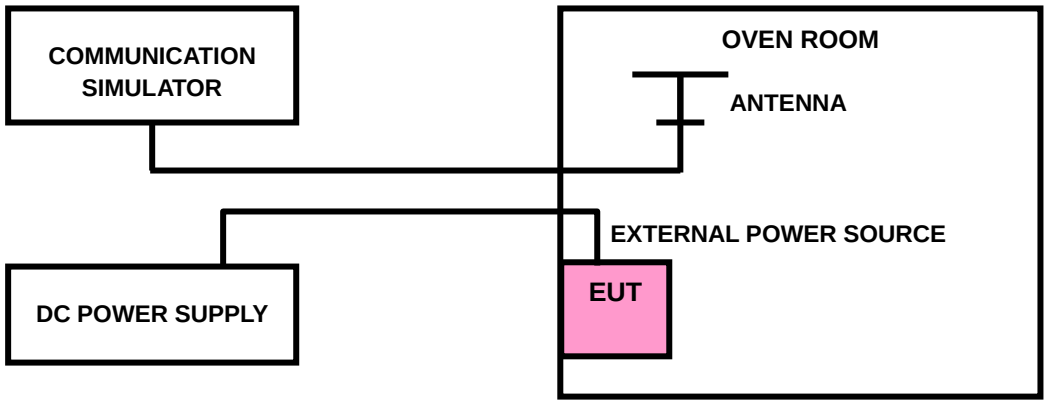
The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

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

WCDMA BAND IV

FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	FREQUENCY ERROR (ppm)		LIMIT (ppm)
	Low Channel	High Channel	
V_{nor}	0.0019	0.0016	2.5
V_{min}	-0.0022	0.0021	2.5
V_{max}	0.0020	0.0032	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. (℃)	FREQUENCY ERROR (ppm)		LIMIT (ppm)
	Low Channel	High Channel	
-10	-0.0110	-0.0026	2.5
0	-0.0096	-0.0011	2.5
10	-0.0075	0.0005	2.5
20	-0.0064	0.0011	2.5
30	-0.0057	0.0021	2.5
40	-0.0052	0.0026	2.5
55	-0.0007	0.0042	2.5

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FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	5MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
V_{nor}	0.0021	0.0025	2.5
V_{min}	-0.0023	-0.003	2.5
V_{max}	0.0021	0.0021	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	
-10	-0.0084	-0.0084	2.5
0	-0.0075	-0.0074	2.5
10	-0.0052	-0.0051	2.5
20	-0.0042	-0.0042	2.5
30	-0.0032	-0.0042	2.5
40	-0.0023	-0.0018	2.5
55	-0.0006	-0.0005	2.5

FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	10MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
V_{nor}	0.0025	0.0025	2.5
V_{min}	-0.0031	-0.003	2.5
V_{max}	0.0024	0.0025	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	
-10	-0.0081	-0.008	2.5
0	-0.0077	-0.0076	2.5
10	-0.0045	-0.005	2.5
20	-0.004	-0.0038	2.5
30	-0.003	-0.003	2.5
40	-0.0023	-0.0017	2.5
55	-0.0005	-0.0004	2.5

FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	15MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
V_{nor}	0.0025	0.0026	2.5
V_{min}	-0.0031	-0.003	2.5
V_{max}	0.0025	0.0026	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	
-10	-0.0083	-0.0084	2.5
0	-0.0077	-0.0075	2.5
10	-0.005	-0.0053	2.5
20	-0.0043	-0.0041	2.5
30	-0.0036	-0.0028	2.5
40	-0.0019	-0.0022	2.5
55	-0.0006	-0.0003	2.5

FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	20MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
V_{nor}	0.0025	0.0025	2.5
V_{min}	-0.0031	-0.003	2.5
V_{max}	0.0026	0.0026	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	
-10	-0.0084	-0.0083	2.5
0	-0.0074	-0.0073	2.5
10	-0.0046	-0.0046	2.5
20	-0.0038	-0.0039	2.5
30	-0.0036	-0.0039	2.5
40	-0.0021	-0.0015	2.5
55	-0.0002	-0.0004	2.5

LTE BAND CA_7C

LTE BAND CA_7C channel and Frequency List					
BW(MHz)	Channel/Frequcncy(MHz)		Lowest	Middle	Highest
10+20	PCC	channel	20805	21006	21206
		Frequcncy	2505.5	2525.6	2545.6
	SCC	channel	20949	21150	21350
		Frequcncy	2519.9	2540	2560
15+10	PCC	channel	20825	21051	21277
		Frequcncy	2507.5	2530.1	2552.7
	SCC	channel	20945	21171	21397
		Frequcncy	2519.5	2542.1	2564.7
15+15	PCC	channel	20825	21025	21225
		Frequcncy	2507.5	2527.5	2547.5
	SCC	channel	20975	21175	21375
		Frequcncy	2522.5	2542.5	2562.5
15+20	PCC	channel	20828	21003	21179
		Frequcncy	2507.8	2525.3	2542.9
	SCC	channel	20999	21174	21350
		Frequcncy	2524.9	2542.4	2560
20+10	PCC	channel	20850	21051	21251
		Frequcncy	2510	2530.1	2550.1
	SCC	channel	20994	21195	21395
		Frequcncy	2524.4	2544.5	2564.5
20+15	PCC	channel	20850	21026	21201
		Frequcncy	2510	2527.6	2545.1
	SCC	channel	21021	21197	21372
		Frequcncy	2527.1	2544.7	2562.2
20+20	PCC	channel	20850	21001	21152
		Frequcncy	2510	2525.1	2540.2
	SCC	channel	21048	21199	21350
		Frequcncy	2529.8	2544.9	2560

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FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	5MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
V_{nor}	0.0022	0.0024	2.5
V_{min}	-0.0023	-0.003	2.5
V_{max}	0.0021	0.002	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	
-10	-0.0084	-0.0079	2.5
0	-0.0074	-0.0072	2.5
10	-0.0054	-0.0047	2.5
20	-0.004	-0.0041	2.5
30	-0.0028	-0.0029	2.5
40	-0.0023	-0.002	2.5
55	-0.0006	-0.0004	2.5

FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	10MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
V_{nor}	0.0025	0.0024	2.5
V_{min}	-0.0031	-0.0031	2.5
V_{max}	0.0025	0.0024	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	
-10	-0.0081	-0.0084	2.5
0	-0.0074	-0.0074	2.5
10	-0.0056	-0.0044	2.5
20	-0.0039	-0.0037	2.5
30	-0.0038	-0.0038	2.5
40	-0.0023	-0.0015	2.5
55	-0.0003	-0.0005	2.5

FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	15MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
V_{nor}	0.0026	0.0026	2.5
V_{min}	-0.003	-0.003	2.5
V_{max}	0.0026	0.0026	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	
-10	-0.0082	-0.0083	2.5
0	-0.0074	-0.0073	2.5
10	-0.0047	-0.0054	2.5
20	-0.0041	-0.0039	2.5
30	-0.0031	-0.0032	2.5
40	-0.0021	-0.0021	2.5
55	-0.0005	-0.0002	2.5

FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	20MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
V_{nor}	0.0024	0.0023	2.5
V_{min}	-0.003	-0.003	2.5
V_{max}	0.0024	0.0024	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	
-10	-0.0082	-0.0084	2.5
0	-0.0077	-0.0075	2.5
10	-0.0056	-0.0052	2.5
20	-0.004	-0.0044	2.5
30	-0.0043	-0.003	2.5
40	-0.0022	-0.0016	2.5
55	-0.0004	-0.0006	2.5

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FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	5MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
V_{nor}	0.0021	0.0026	2.5
V_{min}	-0.0023	-0.003	2.5
V_{max}	0.0021	0.0021	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	
-10	-0.0086	-0.0082	2.5
0	-0.0077	-0.0073	2.5
10	-0.0047	-0.0046	2.5
20	-0.0038	-0.0043	2.5
30	-0.0043	-0.0034	2.5
40	-0.0018	-0.0019	2.5
55	-0.0003	-0.0005	2.5

FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	10MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
V_{nor}	0.0027	0.0026	2.5
V_{min}	-0.0031	-0.003	2.5
V_{max}	0.0024	0.0024	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	
-10	-0.0085	-0.0084	2.5
0	-0.0076	-0.0075	2.5
10	-0.0053	-0.0051	2.5
20	-0.0042	-0.0043	2.5
30	-0.0032	-0.0026	2.5
40	-0.0019	-0.002	2.5
55	-0.0005	-0.0004	2.5

FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	15MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
V_{nor}	-0.0015	0.0025	2.5
V_{min}	-0.003	-0.003	2.5
V_{max}	0.0025	0.0024	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	
-10	-0.0082	-0.0082	2.5
0	-0.0077	-0.0073	2.5
10	-0.0055	-0.0051	2.5
20	-0.0039	-0.0041	2.5
30	-0.0041	-0.0034	2.5
40	-0.0016	-0.0022	2.5
55	-0.0002	-0.0002	2.5

FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	20MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
V_{nor}	0.0025	0.0025	2.5
V_{min}	-0.003	-0.003	2.5
V_{max}	0.0024	0.0024	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.

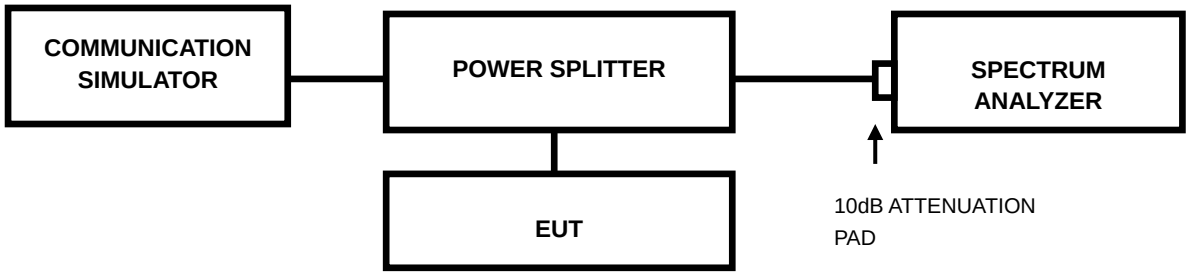
TEMP. (℃)	20MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
-10	-0.0085	-0.0084	2.5
0	-0.0076	-0.0074	2.5
10	-0.0051	-0.0055	2.5
20	-0.0039	-0.0038	2.5
30	-0.0034	-0.0037	2.5
40	-0.0022	-0.0017	2.5
55	-0.0004	-0.0002	2.5

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

WCDMA BAND IV

Channel	FREQ. (MHz)	99% Occupied Bandwidth (MHz)	Channel	FREQ. (MHz)	26dB Bandwidth (MHz)
		WCDMA			WCDMA
1312	1712.40	4.16	1312	1712.40	4.749
1413	1732.60	4.15	1413	1732.60	4.750
1513	1752.60	4.14	1513	1752.60	4.747

SPECTRUM PLOT OF WORST VALUE	
99% Occupied Bandwidth	26dB Bandwidth