



Test Report No.: W7L-P20210616-3RF03



FCC TEST REPORT (PART 27)

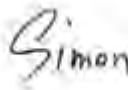

Applicant:	Continental Automotive Systems, Inc.
Address:	21440 W Lake Cook Rd., Deer Park, IL 60010, USA

Manufacturer or Supplier:	Continental Automotive Systems, Inc.
Address:	21440 W Lake Cook Rd., Deer Park, IL 60010, USA
Product:	FE5NA0020
Brand Name:	Continental
Model Name:	FE5NA0020
FCC ID:	LHJ-FE5NA0020
Date of tests:	Jun. 16, 2021 ~ Nov. 03, 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
 Date: Nov. 04, 2021	 Date: Nov. 04, 2021

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-P20210616-3RF03	Original release	Nov. 04, 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	TEST TYPE	RESULT
§2.1046	Coducted Output Power	Compliance
§27.50(b)(10) §27.50(c)(10)	Equivalent Radiated Power (Band12) (Band13) (Band17) (Band71)	Compliance
§27.50(d)(4) §27.50(h)(2)	Equivalent Isotropically Radiated Power (Band4) (Band7) (Band41) (Band66)	Compliance
§2.1055 §27.54	Frequency Stability	Compliance
§2.1049	Occupied Bandwidth	Compliance
§2.1051 §27.53(c)(2)(4) §27.53(g) §27.53(h) §27.53(m)(4)(6)	Band Edge Measurements	Compliance
§2.1051 §27.53(c)(2)(4) §27.53(g) §27.53(h) §27.53(m)(4)(6)	Conducted Spurious Emissions	Compliance
§2.1053 §27.53(c)(2)(4) §27.53(g) §27.53(h) §27.53(m)(4)(6)	Radiated Spurious Emissions	Compliance
NA	Peak to average ratio	Compliance



1.1 MEASUREMENT 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. 03,21	Jun. 02,22
Loop Antenna	Schwarzbeck	FMZB 1519B	1519B-051	Feb. 14,20	Feb. 13,23
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Mar. 05,21	Mar. 04,22
Horn Antenna	ETS-LINDGREN	3117	00168692	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. 02,21	Jun. 01,22
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_V 7.6.15.9.2	N/A	N/A	N/A
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



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Temperature Chamber	ESPEC	SH-242	93000855	Jun. 02,21	Jun. 01,22
MXG Analog Microwave 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	FE5NA0020	
BRAND NAME	Continental	
MODEL NAME	FE5NA0020	
NOMINAL VOLTAGE	EUT 4.0V	
MODULATION TECHNOLOGY	WCDMA IV	QPSK
	LTE	QPSK, 16QAM, 64QAM
FREQUENCY RANGE	WCDMA IV	1712.4MHz ~ 1752.6MHz
	LTE Band 4 Channel Bandwidth: 1.4MHz	1710.7MHz ~ 1754.3MHz
	LTE Band 4 Channel Bandwidth: 3MHz	1711.5MHz ~ 1753.5MHz
	LTE Band 4 Channel Bandwidth: 5MHz	1712.5MHz ~ 1752.5MHz
	LTE Band 4 Channel Bandwidth: 10MHz	1715MHz ~ 1750MHz
	LTE Band 4 Channel Bandwidth: 15MHz	1717.5MHz ~ 1747.5 MHz
	LTE Band 4 Channel Bandwidth: 20MHz	1720MHz ~ 1745MHz
	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 12 Channel Bandwidth: 3MHz	700.5MHz ~ 714.5MHz
	LTE Band 12 Channel Bandwidth: 5MHz	701.5MHz ~ 713.5MHz
	LTE Band 12 Channel Bandwidth: 10MHz	704MHz ~ 711MHz
	LTE Band 13 Channel Bandwidth: 5MHz	779.5MHz ~ 784.5MHz
	LTE Band 13 Channel Bandwidth: 10MHz	782MHz
	LTE Band 17 Channel Bandwidth: 5MHz	706.5MHz ~ 713.5MHz
	LTE Band 17 Channel Bandwidth: 10MHz	709MHz ~ 711 MHz



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FREQUENCY RANGE	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
	LTE Band 41-HPUE Channel Bandwidth: 5MHz	2498.5MHz ~ 2687.5MHz
	LTE Band 41-HPUE Channel Bandwidth: 10MHz	2501MHz ~ 2685MHz
	LTE Band 41-HPUE Channel Bandwidth: 15MHz	2503.5MHz ~ 2682.5MHz
	LTE Band 41-HPUE Channel Bandwidth: 20MHz	2506MHz ~ 2680MHz
	LTE Band 66 Channel Bandwidth: 1.4MHz	1710.7MHz ~ 1779.3MHz
	LTE Band 66 Channel Bandwidth: 3MHz	1711.5MHz ~ 1778.5MHz
	LTE Band 66 Channel Bandwidth: 5MHz	1712.5MHz ~ 1777.5MHz
	LTE Band 66 Channel Bandwidth: 10MHz	1715MHz ~ 1775MHz
	LTE Band 66 Channel Bandwidth: 15MHz	1717.5MHz ~ 1772.5MHz
	LTE Band 66 Channel Bandwidth: 20MHz	1720MHz ~ 1770MHz
	LTE Band CA_66C Channel Bandwidth: 5MHz+20MHz	1713.3MHz ~ 1758.3MHz
	LTE Band CA_66C Channel Bandwidth: 10MHz+15MHz	1715.3MHz ~ 1760.5MHz
	LTE Band CA_66C Channel Bandwidth: 10MHz+20MHz	1715.5MHz ~ 1755.6MHz
	LTE Band CA_66C Channel Bandwidth: 15MHz+10MHz	1717.5MHz ~ 1762.7MHz
	LTE Band CA_66C Channel Bandwidth: 15MHz+15MHz	1717.5MHz ~ 1757.5MHz
	LTE Band CA_66C Channel Bandwidth: 15MHz+20MHz	1717.8MHz ~ 1752.9MHz
	LTE Band CA_66C Channel Bandwidth: 20MHz+5MHz	1720MHz ~ 1765MHz



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FREQUENCY RANGE	LTE Band CA_66C Channel Bandwidth: 20MHz+10MHz	1720MHz ~ 1760.1MHz
	LTE Band CA_66C Channel Bandwidth: 20MHz+15MHz	1720MHz ~ 1755.1MHz
	LTE Band CA_66C Channel Bandwidth: 20MHz+20MHz	1720MHz ~ 1750.2MHz
	LTE Band 71 Channel Bandwidth: 5MHz	665.5MHz ~ 695.5MHz
	LTE Band 71 Channel Bandwidth: 10MHz	668MHz ~ 693MHz
	LTE Band 71 Channel Bandwidth: 15MHz	670.5MHz ~ 690.5MHz
	LTE Band 71 Channel Bandwidth: 20MHz	673MHz ~ 688MHz
	EMISSION DESIGNATOR	WCDMA IV
LTE Band 4 Channel Bandwidth: 1.4MHz		QPSK: 1M12G7D
		16QAM: 1M11W7D
		64QAM: 1M11W7D
LTE Band 4 Channel Bandwidth: 3MHz		QPSK: 2M74G7D
		16QAM: 2M74W7D
		64QAM: 2M74W7D
LTE Band 4 Channel Bandwidth: 5MHz		QPSK: 4M56G7D
		16QAM: 4M57W7D
		64QAM: 4M55W7D
LTE Band 4 Channel Bandwidth: 10MHz		QPSK: 9M07G7D
		16QAM: 9M05W7D
		64QAM: 9M08W7D
LTE Band 4 Channel Bandwidth: 15MHz		QPSK: 13M6G7D
		16QAM: 13M6W7D
		64QAM: 13M6W7D
LTE Band 4 Channel Bandwidth: 20MHz		QPSK: 18M1G7D
		16QAM: 18M1W7D
		64QAM: 18M1W7D
LTE Band 7 Channel Bandwidth: 5MHz		QPSK: 4M56G7D
	16QAM: 4M56W7D	
	64QAM: 4M56W7D	
LTE Band 7 Channel Bandwidth: 10MHz	QPSK: 9M05G7D	
	16QAM: 9M04W7D	
	64QAM: 9M06W7D	
LTE Band 7 Channel Bandwidth: 15MHz	QPSK: 13M6G7D	
	16QAM: 13M6W7D	



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EMISSION DESIGNATOR		64QAM: 13M6W7D
	LTE Band 7 Channel Bandwidth: 20MHz	QPSK: 18M1G7D
		16QAM: 18M1W7D
		64QAM: 18M1W7D
	LTE Band 12 Channel Bandwidth: 1.4MHz	QPSK: 1M11G7D
		16QAM: 1M11W7D
		64QAM: 1M11W7D
	LTE Band 12 Channel Bandwidth: 3MHz	QPSK: 2M75G7D
		16QAM: 2M74W7D
		64QAM: 2M74W7D
	LTE Band 12 Channel Bandwidth: 5MHz	QPSK: 4M57G7D
		16QAM: 4M57W7D
		64QAM: 4M56W7D
	LTE Band 12 Channel Bandwidth: 10MHz	QPSK: 9M06G7D
		16QAM: 9M06W7D
		64QAM: 9M06W7D
	LTE Band 13 Channel Bandwidth: 5MHz	QPSK: 4M57G7D
		16QAM: 4M56W7D
		64QAM: 4M57W7D
	LTE Band 13 Channel Bandwidth: 10MHz	QPSK: 8M99G7D
		16QAM: 9M02W7D
		64QAM: 9M02W7D
	LTE Band 17 Channel Bandwidth: 5MHz	QPSK: 4M55G7D
		16QAM: 4M57W7D
		64QAM: 4M57W7D
	LTE Band 17 Channel Bandwidth: 10MHz	QPSK: 9M03G7D
		16QAM: 9M05W7D
		64QAM: 9M04W7D
LTE Band 41-HPUE Channel Bandwidth: 5MHz	QPSK: 4M55G7D	
	16QAM: 4M55W7D	
	64QAM: 4M54W7D	
LTE Band 41-HPUE Channel Bandwidth: 10MHz	QPSK: 9M08G7D	
	16QAM: 9M06W7D	
	64QAM: 9M05W7D	
LTE Band 41-HPUE Channel Bandwidth: 15MHz	QPSK: 13M6G7D	
	16QAM: 13M6W7D	
	64QAM: 13M6W7D	
LTE Band 41-HPUE Channel Bandwidth: 20MHz	QPSK: 18M1G7D	
	16QAM: 18M1W7D	
	64QAM: 18M1W7D	
LTE Band 66 Channel Bandwidth: 1.4MHz	QPSK: 1M11G7D	
	16QAM: 1M11W7D	



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EMISSION DESIGNATOR		64QAM: 1M11W7D
	LTE Band 66 Channel Bandwidth: 3MHz	QPSK: 2M74G7D
		16QAM: 2M74W7D
		64QAM: 2M74W7D
	LTE Band 66 Channel Bandwidth: 5MHz	QPSK: 4M57G7D
		16QAM: 4M57W7D
		64QAM: 4M57W7D
	LTE Band 66 Channel Bandwidth: 10MHz	QPSK: 9M05G7D
		16QAM: 9M04W7D
		64QAM: 9M05W7D
	LTE Band 66 Channel Bandwidth: 15MHz	QPSK: 13M6G7D
		16QAM: 13M6W7D
		64QAM: 13M6W7D
	LTE Band 66 Channel Bandwidth: 20MHz	QPSK: 18M1G7D
16QAM: 18M1W7D		
64QAM: 18M1W7D		
LTE Band CA_66C Channel Bandwidth: 5MHz+20MHz	QPSK: 23M4G7D	
	16QAM: 23M3W7D	
	64QAM: 23M3W7D	
LTE Band CA_66C Channel Bandwidth: 10MHz+15MHz	QPSK: 23M5G7D	
	16QAM: 23M5W7D	
	64QAM: 23M5W7D	
LTE Band CA_66C Channel Bandwidth: 10MHz+20MHz	QPSK: 28M0G7D	
	16QAM: 28M0W7D	
	64QAM: 27M9W7D	
LTE Band CA_66C Channel Bandwidth: 15MHz+10MHz	QPSK: 23M6G7D	
	16QAM: 23M5W7D	
	64QAM: 23M5W7D	
LTE Band CA_66C Channel Bandwidth: 15MHz+15MHz	QPSK: 28M6G7D	
	16QAM: 28M6W7D	
	64QAM: 28M6W7D	
EMISSION DESIGNATOR	LTE Band CA_66C Channel Bandwidth: 15MHz+20MHz	QPSK: 32M8G7D
		16QAM: 32M7W7D
		64QAM: 32M8W7D
	LTE Band CA_66C Channel Bandwidth: 20MHz+5MHz	QPSK: 23M4G7D
		16QAM: 23M3W7D
		64QAM: 23M3W7D
	LTE Band CA_66C Channel Bandwidth: 20MHz+10MHz	QPSK: 28M0G7D
		16QAM: 28M1W7D
		64QAM: 28M0W7D
	LTE Band CA_66C Channel Bandwidth: 20MHz+15MHz	QPSK: 32M9G7D
		16QAM: 32M8W7D
		64QAM: 32M9W7D



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	LTE Band CA_66C Channel Bandwidth: 20MHz+20MHz	QPSK: 37M7G7D
		16QAM: 37M6W7D
		64QAM: 37M7W7D
	LTE Band 71 Channel Bandwidth: 5MHz	QPSK: 4M56G7D
		16QAM: 4M56W7D
		64QAM: 4M56W7D
	LTE Band 71 Channel Bandwidth: 10MHz	QPSK: 9M07G7D
		16QAM: 9M06W7D
		64QAM: 9M07W7D
	LTE Band 71 Channel Bandwidth: 15MHz	QPSK: 13M6G7D
		16QAM: 13M6W7D
		64QAM: 14M5W7D
	CLTE Band 71 Channel Bandwidth: 20MHz	QPSK: 18M1G7D
		16QAM: 18M1W7D
		64QAM: 18M1W7D
MAX. EIRP POWER	WCDMA IV	233.35mW
	LTE Band 4 Channel Bandwidth: 1.4MHz	352.37mW
	LTE Band 4 Channel Bandwidth: 3MHz	349.14mW
	LTE Band 4 Channel Bandwidth: 5MHz	349.14mW
	LTE Band 4 Channel Bandwidth: 10MHz	349.14mW
	LTE Band 4 Channel Bandwidth: 15MHz	350.75mW
	LTE Band 4 Channel Bandwidth: 20MHz	353.18mW
	LTE Band 7 Channel Bandwidth: 5MHz	241.55mW
	LTE Band 7 Channel Bandwidth: 10MHz	241.55mW
	LTE Band 7 Channel Bandwidth: 15MHz	243.22mW
	LTE Band 7 Channel Bandwidth: 20MHz	244.34mW
	LTE Band 12 Channel Bandwidth: 1.4MHz	71.94mW
	LTE Band 12 Channel Bandwidth: 3MHz	71.94mW
	LTE Band 12 Channel Bandwidth: 5MHz	72.61mW
	LTE Band 12 Channel Bandwidth: 10MHz	72.78mW



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MAX. EIRP POWER	LTE Band 13 Channel Bandwidth: 5MHz	71.45mW
	LTE Band 13 Channel Bandwidth: 10MHz	72.28mW
	LTE Band 17 Channel Bandwidth: 5MHz	71.61mW
	LTE Band 17 Channel Bandwidth: 10MHz	71.78mW
	LTE Band 41 Channel Bandwidth: 5MHz	260.02mW
	LTE Band 41 Channel Bandwidth: 10MHz	258.23mW
	LTE Band 41 Channel Bandwidth: 15MHz	262.42mW
	LTE Band 41 Channel Bandwidth: 20MHz	263.03mW
	LTE Band 41-HPUE Channel Bandwidth: 5MHz	506.99mW
	LTE Band 41-HPUE Channel Bandwidth: 10MHz	505.82mW
	LTE Band 41-HPUE Channel Bandwidth: 15MHz	511.68mW
	LTE Band 41-HPUE Channel Bandwidth: 20MHz	512.86mW
	LTE Band 66 Channel Bandwidth: 1.4MHz	336.51mW
	LTE Band 66 Channel Bandwidth: 3MHz	330.37mW
	LTE Band 66 Channel Bandwidth: 5MHz	328.85mW
	LTE Band 66 Channel Bandwidth: 10MHz	328.85mW
	LTE Band 66 Channel Bandwidth: 15MHz	331.89mW
	LTE Band 66 Channel Bandwidth: 20MHz	332.66mW
	LTE Band CA_66C Channel Bandwidth: 5MHz+20MHz	328.85mW
	LTE Band CA_66C Channel Bandwidth: 10MHz+15MHz	328.10mW
	LTE Band CA_66C Channel Bandwidth: 10MHz+20MHz	328.10mW
	LTE Band CA_66C Channel Bandwidth: 15MHz+10MHz	329.61mW



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MAX. EIRP POWER	LTE Band CA_66C Channel Bandwidth: 15MHz+15MHz	326.59mW
	LTE Band CA_66C Channel Bandwidth: 15MHz+20MHz	328.10mW
	LTE Band CA_66C Channel Bandwidth: 20MHz+5MHz	328.85mW
	LTE Band CA_66C Channel Bandwidth: 20MHz+10MHz	328.85mW
	LTE Band CA_66C Channel Bandwidth: 20MHz+15MHz	328.85mW
	LTE Band CA_66C Channel Bandwidth: 20MHz+20MHz	330.37mW
	LTE Band 71 Channel Bandwidth: 5MHz	103.28mW
	LTE Band 71 Channel Bandwidth: 10MHz	102.09mW
	LTE Band 71 Channel Bandwidth: 15MHz	101.86mW
	LTE Band 71 Channel Bandwidth: 20MHz	102.09mW
	ANTENNA TYPE	Monopole Antenna with 3.09 dBi gain for WCDMA IV Monopole Antenna with 3.09 dBi gain for LTE4 Monopole Antenna with 1.69 dBi gain for LTE7 Monopole Antenna with -1.88 dBi gain for LTE12 Monopole Antenna with -1.88 dBi gain for LTE13 Monopole Antenna with -1.88 dBi gain for LTE17 Monopole Antenna with 1.69 dBi gain for LTE41/ LTE41-HPUE Monopole Antenna with 3.09 dBi gain for LTE66/LTE66C Monopole Antenna with 0.14 dBi gain for LTE71
HW VERSION	P4.1	
SW VERSION	MODEMSA515M_01.15.62	
I/O PORTS	Refer to user's manual	
CABLE SUPPLIED	N/A	
EXTREME TEMPERATURE	-40-85 °C	
EXTREME VOLTAGE	EUT 3.8V - EUT 4.2V	



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NOTE:

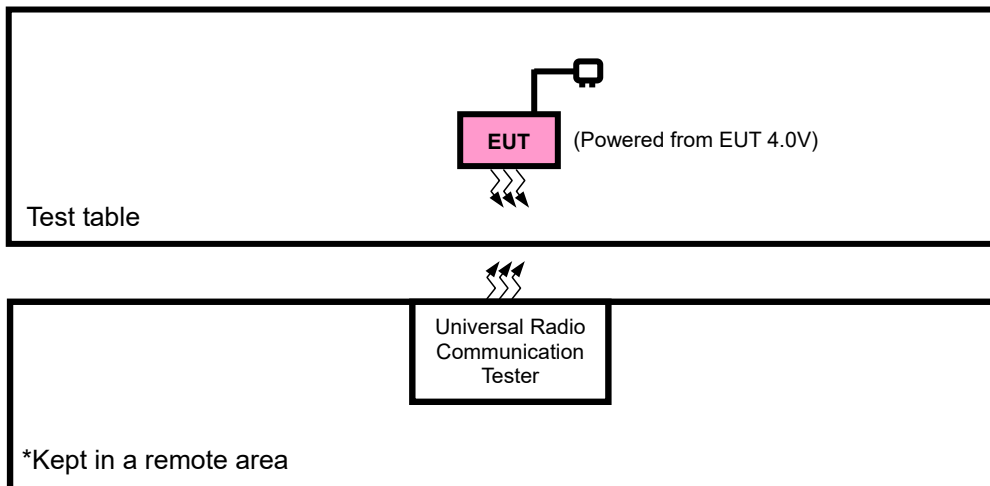
1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. The EUT incorporates a SISO function. Physically, the EUT provides one completed transmitter and one receiver.

MODULATION MODE	TX FUNCTION
GSM/GPRS/EDGE	1TX/2RX
WCDMA	1TX/2RX
LTE	1TX/4RX

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

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 + DC Source with WCDMA or LTE link

WCDMA MODE

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

LTE BAND 4 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE	
A	EIRP	19957 to 20393	19957, 20175, 20393	1.4MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset	
		19965 to 20385	19965, 20175, 20385	3MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset	
		19975 to 20375	19975, 20175, 20375	5MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset	
		20000 to 20350	20000, 20175, 20350	10MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset	
		20025 to 20325	20025, 20175, 20325	15MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset	
		20050 to 20300	20050, 20175, 20300	20MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset	
A	FREQUENCY STABILITY	19957 to 20393	19957, 20175, 20393	1.4MHz	QPSK, 16QAM, 64QAM	6 RB / 0 RB Offset	
		19965 to 20385	19965, 20175, 20385	3MHz	QPSK, 16QAM, 64QAM	15 RB / 0 RB Offset	
		19975 to 20375	19975, 20175, 20375	5MHz	QPSK, 16QAM, 64QAM	25 RB / 0 RB Offset	
		20000 to 20350	20000, 20175, 20350	10MHz	QPSK, 16QAM, 64QAM	50 RB / 0 RB Offset	
		20025 to 20325	20025, 20175, 20325	15MHz	QPSK, 16QAM, 64QAM	75 RB / 0 RB Offset	
		20050 to 20300	20050, 20175, 20300	20MHz	QPSK, 16QAM, 64QAM	100 RB / 0 RB Offset	
A	OCCUPIED BANDWIDTH	19957 to 20393	19957, 20175, 20393	1.4MHz	QPSK, 16QAM, 64QAM	6 RB / 0 RB Offset	
		19965 to 20385	19965, 20175, 20385	3MHz	QPSK, 16QAM, 64QAM	15 RB / 0 RB Offset	
		19975 to 20375	19975, 20175, 20375	5MHz	QPSK, 16QAM, 64QAM	25 RB / 0 RB Offset	
		20000 to 20350	20000, 20175, 20350	10MHz	QPSK, 16QAM, 64QAM	50 RB / 0 RB Offset	
		20025 to 20325	20025, 20175, 20325	15MHz	QPSK, 16QAM, 64QAM	75 RB / 0 RB Offset	
		20050 to 20300	20050, 20175, 20300	20MHz	QPSK, 16QAM, 64QAM	100 RB / 0 RB Offset	
A	PEAK TO AVERAGE RATIO	19957 to 20393	19957, 20175, 20393	1.4MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset	
		19965 to 20385	19965, 20175, 20385	3MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset	
		19975 to 20375	19975, 20175, 20375	5MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset	
		20000 to 20350	20000, 20175, 20350	10MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset	
		20025 to 20325	20025, 20175, 20325	15MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset	
		20050 to 20300	20050, 20175, 20300	20MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset	
A	BAND EDGE	19957 to 20393	19957	1.4MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset	
			20393	1.4MHz	QPSK, 16QAM, 64QAM	6 RB / 0 RB Offset	
		19965 to 20385	19965	3MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset	
			20385	3MHz	QPSK, 16QAM, 64QAM	15 RB / 0 RB Offset	
		19975 to 20375	19975	5MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset	
			20375	5MHz	QPSK, 16QAM, 64QAM	25 RB / 0 RB Offset	
		20000 to 20350	20000	10MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset	
			20350	10MHz	QPSK, 16QAM, 64QAM	50 RB / 0 RB Offset	
							1 RB / 24 RB Offset
							25 RB / 0 RB Offset
							1 RB / 49 RB Offset
							50 RB / 0 RB Offset

A	BAND EDGE	20025 to 20325	20025	15MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
						75 RB / 0 RB Offset
		20050 to 20300	20325	15MHz	QPSK, 16QAM, 64QAM	1 RB / 74 RB Offset
						75 RB / 0 RB Offset
			20050	20MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
						100 RB / 0 RB Offset
	20300	20MHz	QPSK, 16QAM, 64QAM	1 RB / 99 RB Offset		
				100 RB / 0 RB Offset		
A	CONDUCTED EMISSION	19957 to 20393	19957, 20175, 20393	1.4MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		19965 to 20385	19965, 20175, 20385	3MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		19975 to 20375	19975, 20175, 20375	5MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		20000 to 20350	20000, 20175, 20350	10MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		20025 to 20325	20025, 20175, 20325	15MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		20050 to 20300	20050, 20175, 20300	20MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
A	RADIATED EMISSION	19957 to 20393	19957, 20175, 20393	1.4MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		19965 to 20385	20175	3MHz	QPSK	1 RB / 0 RB Offset
		19975 to 20375	20175	5MHz	QPSK	1 RB / 0 RB Offset
		20000 to 20350	20175	10MHz	QPSK	1 RB / 0 RB Offset
		20025 to 20325	20175	15MHz	QPSK	1 RB / 0 RB Offset
		20050 to 20300	20175	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 7 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDT H	MODULATION	MODE		
A	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		
A	FREQUENCY STABILITY	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		
A	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		
A	BAND EDGE	20775 to 21425	20775	5MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset		
			21425	5MHz	QPSK, 16QAM, 64QAM	25 RB / 0 RB Offset		
		20800 to 21400	20800	10MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset		
			21400	10MHz	QPSK, 16QAM, 64QAM	50 RB / 0 RB Offset		
		20825 to 21375	20825	15MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset		
			21375	15MHz	QPSK, 16QAM, 64QAM	75 RB / 0 RB Offset		
		20850 to 21350	20850	20MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset		
			21350	20MHz	QPSK, 16QAM, 64QAM	100 RB / 0 RB Offset		
		A	CONDCUDE TED EMISSION	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
A	RADIATED EMISSION	20775 to 21425	20775, 21100, 21425	5MHz	QPSK, 16QAM, 64QAM	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 12 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE		
A	ERP	23017 to 23173	23017, 23095 , 23173	1.4MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset		
		23025 to 23165	23025, 23095 ,23165	3MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset		
		23035 to 23155	23035, 23095 ,23155	5MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset		
		23060 to 23130	23060, 23095 ,23130	10MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset		
A	FREQUENCY STABILITY	23017 to 23173	23017, 23095 , 23173	1.4MHz	QPSK, 16QAM, 64QAM	6 RB / 0 RB Offset		
		23025 to 23165	23025, 23095 ,23165	3MHz	QPSK, 16QAM, 64QAM	15 RB / 0 RB Offset		
		23035 to 23155	23035, 23095 ,23155	5MHz	QPSK, 16QAM, 64QAM	25 RB / 0 RB Offset		
		23060 to 23130	23060, 23095 ,23130	10MHz	QPSK, 16QAM, 64QAM	50 RB / 0 RB Offset		
A	OCCUPIED BANDWIDTH	23017 to 23173	23017, 23095 , 23173	1.4MHz	QPSK, 16QAM, 64QAM	6 RB / 0 RB Offset		
		23025 to 23165	23025, 23095 ,23165	3MHz	QPSK, 16QAM, 64QAM	15 RB / 0 RB Offset		
		23035 to 23155	23035, 23095 ,23155	5MHz	QPSK, 16QAM, 64QAM	25 RB / 0 RB Offset		
		23060 to 23130	23060, 23095 ,23130	10MHz	QPSK, 16QAM, 64QAM	50 RB / 0 RB Offset		
A	PEAK TO AVERAGE RATIO	23017 to 23173	23017, 23095 , 23173	1.4MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset		
		23025 to 23165	23025, 23095 ,23165	3MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset		
		23035 to 23155	23035, 23095 ,23155	5MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset		
		23060 to 23130	23060, 23095 ,23130	10MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset		
A	BAND EDGE	23017 to 23173	23017	1.4MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset		
			23173	1.4MHz	QPSK, 16QAM, 64QAM	6 RB / 0 RB Offset		
		23025 to 23165	23025	3MHz	QPSK, 16QAM, 64QAM	1 RB / 5 RB Offset		
			23165	3MHz	QPSK, 16QAM, 64QAM	6 RB / 0 RB Offset		
		23035 to 23155	23035	5MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset		
			23155	5MHz	QPSK, 16QAM, 64QAM	15 RB / 0 RB Offset		
		23060 to 23130	23060	10MHz	QPSK, 16QAM, 64QAM	1 RB / 14 RB Offset		
			23130	10MHz	QPSK, 16QAM, 64QAM	15 RB / 0 RB Offset		
		A	CONDUCTED EMISSION	23017 to 23173	23017, 23095 , 23173	1.4MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
				23025 to 23165	23025, 23095 ,23165	3MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
				23035 to 23155	23035, 23095 ,23155	5MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
				23060 to 23130	23060, 23095 ,23130	10MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
A	RADIATED EMISSION	23017 to 23173	23095	1.4MHz	QPSK	1 RB / 0 RB Offset		
		23025 to 23165	23095	3MHz	QPSK	1 RB / 0 RB Offset		
		23035 to 23155	23095	5MHz	QPSK	1 RB / 0 RB Offset		
		23060 to 23130	23060, 23095 ,23130	10MHz	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 13 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	ERP	23205 to 23255	20025, 20175, 20325	5MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
		23230	23230	10MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
A	FREQUENCY STABILITY	23205 to 23255	20025, 20175, 20325	1.4MHz	QPSK,16QAM,64QAM	25 RB / 0 RB Offset
		23230	23230	10MHz	QPSK,16QAM,64QAM	50 RB / 0 RB Offset
A	OCCUPIED BANDWIDTH	23205 to 23255	20025, 20175, 20325	5MHz	QPSK,16QAM,64QAM	25 RB / 0 RB Offset
		23230	23230	10MHz	QPSK,16QAM,64QAM	50 RB / 0 RB Offset
A	BAND EDGE	23205 to 23255	23250	5MHz	QPSK,16QAM, 64QAM	1 RB / 0 RB Offset
			23255	5MHz	QPSK,16QAM, 64QAM	25 RB / 0 RB Offset
		23230	23230	10MHz	QPSK,16QAM, 64QAM	1 RB / 24 RB Offset
						25 RB / 0 RB Offset
						1 RB / 0 RB Offset
						50 RB / 0 RB Offset
				1 RB / 49 RB Offset		
				/		
A	CONDUCTED EMISSION	23205 to 23255	20025, 20175, 20325	5MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
		23230	23230	10MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
A	RADIATED EMISSION	23205 to 23255	20025, 20175, 20325	5MHz	QPSK	1 RB / 0 RB Offset
		23230	23230	10MHz	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.



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LTE BAND 17 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	ERP	23755 to 23825	23755, 23790, 23825	5MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
		23780 to 23800	23780, 23790, 23800	10MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
A	FREQUENCY STABILITY	23755 to 23825	23755, 23790, 23825	5MHz	QPSK,16QAM,64QAM	25 RB / 0 RB Offset
		23780 to 23800	23780, 23790, 23800	10MHz	QPSK,16QAM,64QAM	50 RB / 0 RB Offset
A	OCCUPIED BANDWIDTH	23755 to 23825	23755, 23790, 23825	5MHz	QPSK,16QAM,64QAM	25 RB / 0 RB Offset
		23780 to 23800	23780, 23790, 23800	10MHz	QPSK,16QAM,64QAM	50 RB / 0 RB Offset
A	BAND EDGE	23755 to 23825	23755	5MHz	QPSK,16QAM, 64QAM	1 RB / 0 RB Offset
			23825	5MHz	QPSK,16QAM, 64QAM	25 RB / 0 RB Offset
		23780 to 23800	23780	10MHz	QPSK,16QAM, 64QAM	1 RB / 0 RB Offset
			23800	10MHz	QPSK,16QAM, 64QAM	50 RB / 0 RB Offset
						1 RB / 49 RB Offset
						50 RB / 0 RB Offset
A	CONDUCTED EMISSION	23755 to 23825	23755, 23790, 23825	5MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
		23780 to 23800	23780, 23790, 23800	10MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
A	RADIATED EMISSION	23755 to 23825	23790	5MHz	QPSK	1 RB / 0 RB Offset
		23780 to 23800	23780, 23790, 23800	10MHz	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

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	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
A	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.

LTE BAND 41-HPUE 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, 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
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
	39700 to 41540				25 RB / 0 RB Offset
		39700	10MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		41540	10MHz	QPSK, 16QAM, 64QAM	50 RB / 0 RB Offset
	39725 to 41515				1 RB / 49 RB Offset
		39725	15MHz	QPSK, 16QAM, 64QAM	50 RB / 0 RB Offset
		41515	15MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
	39750 to 41490				1 RB / 74 RB Offset
		39750	20MHz	QPSK, 16QAM, 64QAM	75 RB / 0 RB Offset
		41490	20MHz	QPSK, 16QAM, 64QAM	1 RB / 99 RB Offset
				100 RB / 0 RB Offset	
	39675 to 41565	39675, 40620, 41565	5MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset



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

2. The Band 41-HPUE included Band 41.



LTE BAND 66 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	EIRP	131979 to 132665	131979,132322,132665	1.4MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
		131987 to 132657	131987,132322,132657	3MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
		131997 to 132647	131997,132322,132647	5MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
		132022 to 132622	132022,132322,132622	10MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
		132047 to 132597	132047,132322,132597	15MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
		132072 to 132572	132072,132322,132572	20MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
A	FREQUENCY STABILITY	131979 to 132665	131979,132322,132665	1.4MHz	QPSK,16QAM,64QAM	6 RB / 0 RB Offset
		131987 to 132657	131987,132322,132657	3MHz	QPSK,16QAM,64QAM	15 RB / 0 RB Offset
		131997 to 132647	131997,132322,132647	5MHz	QPSK,16QAM,64QAM	25 RB / 0 RB Offset
		132022 to 132622	132022,132322,132622	10MHz	QPSK,16QAM,64QAM	50 RB / 0 RB Offset
		132047 to 132597	132047,132322,132597	15MHz	QPSK,16QAM,64QAM	75 RB / 0 RB Offset
		132072 to 132572	132072,132322,132572	20MHz	QPSK,16QAM,64QAM	100 RB / 0 RB Offset
A	OCCUPIED BANDWIDTH	131979 to 132665	131979,132322,132665	1.4MHz	QPSK,16QAM,64QAM	6 RB / 0 RB Offset
		131987 to 132657	131987,132322,132657	3MHz	QPSK,16QAM,64QAM	15 RB / 0 RB Offset
		131997 to 132647	131997,132322,132647	5MHz	QPSK,16QAM,64QAM	25 RB / 0 RB Offset
		132022 to 132622	132022,132322,132622	10MHz	QPSK,16QAM,64QAM	50 RB / 0 RB Offset
		132047 to 132597	132047,132322,132597	15MHz	QPSK,16QAM,64QAM	75 RB / 0 RB Offset
		132072 to 132572	132072,132322,132572	20MHz	QPSK,16QAM,64QAM	100 RB / 0 RB Offset
A	BAND EDGE	131979 to 132322	131979	1.4MHz	QPSK,16QAM, 64QAM	1 RB / 0 RB Offset 6 RB / 0 RB Offset
			132322	1.4MHz	QPSK,16QAM, 64QAM	1 RB / 5 RB Offset 6 RB / 0 RB Offset
		131987 to 132657	131987	3MHz	QPSK,16QAM, 64QAM	1 RB / 0 RB Offset 15 RB / 0 RB Offset
			132657	3MHz	QPSK,16QAM, 64QAM	1 RB / 14 RB Offset 15 RB / 0 RB Offset
		131987 to 132657	131987	5MHz	QPSK,16QAM, 64QAM	1 RB / 0 RB Offset 25 RB / 0 RB Offset
			132657	5MHz	QPSK,16QAM, 64QAM	1 RB / 24 RB Offset 25 RB / 0 RB Offset
		131997 to 132647	131997	10MHz	QPSK,16QAM, 64QAM	1 RB / 0 RB Offset 50 RB / 0 RB Offset
			132647	10MHz	QPSK,16QAM, 64QAM	1 RB / 49 RB Offset 50 RB / 0 RB Offset
		132047 to 132597	132047	15MHz	QPSK,16QAM, 64QAM	1 RB / 0 RB Offset 75 RB / 0 RB Offset
			132597	15MHz	QPSK,16QAM, 64QAM	1 RB / 74 RB Offset 75 RB / 0 RB Offset
		132072 to 132572	132072	20MHz	QPSK,16QAM, 64QAM	1 RB / 0 RB Offset 100 RB / 0 RB Offset



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			132572	20MHz	QPSK,16QAM, 64QAM	1 RB / 99 RB Offset 100 RB / 0 RB Offset
A	CONDUCTED EMISSION	131979 to 132665	131979,132322,132665	1.4MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
		131987 to 132657	131987,132322,132657	3MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
		131997 to 132647	131997,132322,132647	5MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
		132022 to 132622	132022,132322,132622	10MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
		132047 to 132597	132047,132322,132597	15MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
		132072 to 132572	132072,132322,132572	20MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
A	RADIATED EMISSION	131979 to 132665	132322	1.4MHz	QPSK	1 RB / 0 RB Offset
		131987 to 132657	132322	3MHz	QPSK	1 RB / 0 RB Offset
		131997 to 132647	131997,132322,132647	5MHz	QPSK	1 RB / 0 RB Offset
		132022 to 132622	132322	10MHz	QPSK	1 RB / 0 RB Offset
		132047 to 132597	132322	15MHz	QPSK	1 RB / 0 RB Offset
		132072 to 132572	132322	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_66C MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILAB LE PCC CHANNE L	AVAILAB LE SCC CHANNE L	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(PCC)	MODE(SCC)
A	EIRP	132005 to 132455	132122 to 132572	Low, Middle, High	5MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 24RB Offset	1RB/ 0RB Offset
		132025 to 132477	132145 to 132597	Low, Middle, High	10MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 49RB Offset	1RB/ 0RB Offset
		132027 to 132428	132171 to 132572	Low, Middle, High	10MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 49RB Offset	1RB/ 0RB Offset
		132047 to 132499	132167 to 132619	Low, Middle, High	15MHz+10MHz	QPSK, 16QAM, 64QAM	1RB/ 74RB Offset	1RB/ 0RB Offset
		132047 to 132447	132197 to 132597	Low, Middle, High	15MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 74RB Offset	1RB/ 0RB Offset
		132050 to 132401	132221 to 132572	Low, Middle, High	15MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 74RB Offset	1RB/ 0RB Offset
		132072 to 132522	132189 to 132639	Low, Middle, High	20MHz+5MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
		132072 to 132473	132216 to 132617	Low, Middle, High	20MHz+10MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
		132072 to 132423	132243 to 132594	Low, Middle, High	20MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
		132072 to 132374	132270 to 132572	Low, Middle, High	20MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB Offset	1RB/ 99RB&0RB/ 0RB&1RB/ 0RB Offset
A	OCCUPIED BANDWID TH	132005 to 132455	132122 to 132572	Low, Middle, High	5MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 24RB Offset	1RB/ 0RB Offset
		132025 to 132477	132145 to 132597	Low, Middle, High	10MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 49RB Offset	1RB/ 0RB Offset
		132027 to 132428	132171 to 132572	Low, Middle, High	10MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 49RB Offset	1RB/ 0RB Offset
		132047 to 132499	132167 to 132619	Low, Middle, High	15MHz+10MHz	QPSK, 16QAM, 64QAM	1RB/ 74RB Offset	1RB/ 0RB Offset
		132047 to 132447	132197 to 132597	Low, Middle, High	15MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 74RB Offset	1RB/ 0RB Offset
		132050 to 132401	132221 to 132572	Low, Middle, High	15MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 74RB Offset	1RB/ 0RB Offset
		132072 to 132522	132189 to 132639	Low, Middle, High	20MHz+5MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
		132072 to 132473	132216 to 132617	Low, Middle, High	20MHz+10MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
		132072 to 132423	132243 to 132594	Low, Middle, High	20MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
		132072 to 132374	132270 to 132572	Low, Middle, High	20MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB Offset	1RB/ 99RB&0RB/ 0RB&1RB/ 0RB Offset
A	BAND EDGE	132005 to 132455	132122 to 132572	Low	5MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB Offset	1RB/ 99RB Offset
				High	5MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 24RB Offset	1RB/ 0RB Offset
		132005 to 132455	132122 to 132572	Low	5MHz+20MHz	QPSK, 16QAM, 64QAM	25RB/ 0RB Offset	100RB/ 0RB Offset
				High	5MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB Offset	1RB/ 99RB Offset



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A	BAND EDGE	132025 to 132477	132145 to 132597	Low	10MHz+15MHz	QPSK, 16QAM, 64QAM	25RB/ 0RB Offset	100RB/ 0RB Offset				
							1RB/ 0RB Offset	1RB/ 74RB Offset				
							1RB/ 49RB Offset	1RB/ 0RB Offset				
											50RB/ 0RB Offset	75RB/ 0RB Offset
				High	10MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB Offset	1RB/ 74RB Offset				
							1RB/ 49RB Offset	1RB/ 0RB Offset				
		50RB/ 0RB Offset	75RB/ 0RB Offset									
		132027 to 132428	132171 to 132572	Low	10MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB Offset	1RB/ 99RB Offset				
							1RB/ 49RB Offset	1RB/ 0RB Offset				
							50RB/ 0RB Offset	100RB/ 0RB Offset				
				High	10MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB Offset	1RB/ 99RB Offset				
							1RB/ 49RB Offset	1RB/ 0RB Offset				
							50RB/ 0RB Offset	100RB/ 0RB Offset				
		132047 to 132499	132167 to 132619	Low	15MHz+10MH	QPSK, 16QAM, 64QAM	1RB/ 0RB Offset	1RB/ 49RB Offset				
							1RB/ 74RB Offset	1RB/ 0RB Offset				
							75RB/ 0RB Offset	50RB/ 0RB Offset				
				High	15MHz+10MH	QPSK, 16QAM, 64QAM	1RB/ 0RB Offset	1RB/ 49RB Offset				
							1RB/ 74RB Offset	1RB/ 0RB Offset				
							75RB/ 0RB Offset	50RB/ 0RB Offset				
		132047 to 132447	132197 to 132597	Low	15MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB Offset	1RB/ 74RB Offset				
							1RB/ 74RB Offset	1RB/ 0RB Offset				
							75RB/ 0RB Offset	75RB/ 0RB Offset				
				High	15MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB Offset	1RB/ 74RB Offset				
							1RB/ 74RB Offset	1RB/ 0RB Offset				
75RB/ 0RB Offset	75RB/ 0RB Offset											
132050 to 132401	132221 to 132572	Low	15MHz+20MH	QPSK, 16QAM, 64QAM	1RB/ 0RB Offset	1RB/ 99RB Offset						
					1RB/ 74RB Offset	1RB/ 0RB Offset						
					75RB/ 0RB Offset	100RB/ 0RB Offset						
		High	15MHz+20MH	QPSK, 16QAM, 64QAM	1RB/ 0RB Offset	1RB/ 99RB Offset						



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A	BAND EDGE	132072 to 132522	132189 to 132639	Low	20MHz+5MHz	QPSK, 16QAM, 64QAM	1RB/ 74RB Offset	1RB/ 0RB Offset
							75RB/ 0RB Offset	100RB/ 0RB Offset
							1RB/ 0RB Offset	1RB/ 24RB Offset
				High	20MHz+5MHz	QPSK, 16QAM, 64QAM	1RB/ 99RB Offset	1RB/ 0RB Offset
							100RB/ 0RB Offset	25RB/ 0RB Offset
							1RB/ 0RB Offset	1RB/ 24RB Offset
		132072 to 132473	132216 to 132617	Low	20MHz+10MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB Offset	1RB/ 49RB Offset
							1RB/ 99RB Offset	1RB/ 0RB Offset
							100RB/ 0RB Offset	50RB/ 0RB Offset
				High	20MHz+10MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB Offset	1RB/ 49RB Offset
							1RB/ 99RB Offset	1RB/ 0RB Offset
							100RB/ 0RB Offset	50RB/ 0RB Offset
		132072 to 132423	132243 to 132594	Low	20MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB Offset	1RB/ 74RB Offset
							1RB/ 99RB Offset	1RB/ 0RB Offset
							100RB/ 0RB Offset	75RB/ 0RB Offset
				High	20MHz+15MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB Offset	1RB/ 74RB Offset
							1RB/ 99RB Offset	1RB/ 0RB Offset
							100RB/ 0RB Offset	75RB/ 0RB Offset
		132072 to 132374	132270 to 132572	Low	20MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB Offset	1RB/ 99RB Offset
							1RB/ 99RB Offset	1RB/ 0RB Offset
							100RB/ 0RB Offset	100RB/ 0RB Offset
				High	20MHz+20MHz	QPSK, 16QAM, 64QAM	1RB/ 0RB Offset	1RB/ 99RB Offset
							1RB/ 99RB Offset	1RB/ 0RB Offset
							100RB/ 0RB Offset	100RB/ 0RB Offset
A	CONDCUD ETED EMISSION	132005 to 132455	132122 to 132572	Low, Middle, High	5MHz+20MHz	QPSK	1RB/ 24RB Offset	1RB/ 0RB Offset
		132025 to 132477	132145 to 132597	Low, Middle, High	10MHz+15MHz	QPSK	1RB/ 49RB Offset	1RB/ 0RB Offset



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		132027 to 132428	132171 to 132572	Low, Middle, High	10MHz+20MHz	QPSK	1RB/ 49RB Offset	1RB/ 0RB Offset
		132047 to 132499	132167 to 132619	Low, Middle, High	15MHz+10MHz	QPSK	1RB/ 74RB Offset	1RB/ 0RB Offset
		132047 to 132447	132197 to 132597	Low, Middle, High	15MHz+15MHz	QPSK	1RB/ 74RB Offset	1RB/ 0RB Offset
		132050 to 132401	132221 to 132572	Low, Middle, High	15MHz+20MHz	QPSK	1RB/ 74RB Offset	1RB/ 0RB Offset
		132072 to 132522	132189 to 132639	Low, Middle, High	20MHz+5MHz	QPSK	1RB/ 99RB Offset	1RB/ 0RB Offset
		132072 to 132473	132216 to 132617	Low, Middle, High	20MHz+10MHz	QPSK	1RB/ 99RB Offset	1RB/ 0RB Offset
		132072 to 132423	132243 to 132594	Low, Middle, High	20MHz+15MHz	QPSK	1RB/ 99RB Offset	1RB/ 0RB Offset
A	CONDUCTED EMISSION	132072 to 132374	132270 to 132572	Low, Middle, High	20MHz+20MHz	QPSK	1RB/ 0RB&1RB/ 99RB Offset	1RB/ 99RB&0RB/ 0RB&1RB/ 0RB Offset
A	RADIATED EMISSION	132005 to 132455	132122 to 132572	Low, Middle, High	5MHz+20MHz	QPSK	1RB/ 24RB Offset	1RB/ 0RB Offset
		132025 to 132477	132145 to 132597	Low, Middle, High	10MHz+15MHz	QPSK	1RB/ 49RB Offset	1RB/ 0RB Offset
		132027 to 132428	132171 to 132572	Low, Middle, High	10MHz+20MHz	QPSK	1RB/ 49RB Offset	1RB/ 0RB Offset
		132047 to 132499	132167 to 132619	Low, Middle, High	15MHz+10MHz	QPSK	1RB/ 74RB Offset	1RB/ 0RB Offset
		132047 to 132447	132197 to 132597	Low, Middle, High	15MHz+15MHz	QPSK	1RB/ 74RB Offset	1RB/ 0RB Offset
		132050 to 132401	132221 to 132572	Low, Middle, High	15MHz+20MHz	QPSK	1RB/ 74RB Offset	1RB/ 0RB Offset
		132072 to 132522	132189 to 132639	Low, Middle, High	20MHz+5MHz	QPSK	1RB/ 99RB Offset	1RB/ 0RB Offset
		132072 to 132473	132216 to 132617	Low, Middle, High	20MHz+10MHz	QPSK	1RB/ 99RB Offset	1RB/ 0RB Offset
		132072 to 132423	132243 to 132594	Low, Middle, High	20MHz+15MHz	QPSK	1RB/ 99RB Offset	1RB/ 0RB Offset
		132072 to 132374	132270 to 132572	Low, Middle, High	20MHz+20MHz	QPSK	1RB/ 0RB&1RB/ 99RB Offset	1RB/ 99RB&0RB/ 0RB&1RB/ 0RB Offset

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



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LTE BAND 71 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE		
A	ERP	133147 to 133447	133147, 133247, 133447	5MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset		
		133172 to 133172	133172, 133272, 133172	10MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset		
		133197 to 133397	133197, 133297, 133397	15MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset		
		133222 to 133372	133222, 133322, 133372	20MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset		
A	FREQUENCY STABILITY	133147 to 133447	133147, 133247, 133447	5MHz	QPSK,16QAM,64QAM	25 RB / 0 RB Offset		
		133172 to 133172	133172, 133272, 133172	10MHz	QPSK,16QAM,64QAM	50 RB / 0 RB Offset		
		133197 to 133397	133197, 133297, 133397	15MHz	QPSK,16QAM,64QAM	75 RB / 0 RB Offset		
		133222 to 133372	133222, 133322, 133372	20MHz	QPSK,16QAM,64QAM	100 RB / 0 RB Offset		
A	OCCUPIED BANDWIDTH	133147 to 133447	133147, 133247, 133447	5MHz	QPSK,16QAM,64QAM	25 RB / 0 RB Offset		
		133172 to 133172	133172, 133272, 133172	10MHz	QPSK,16QAM,64QAM	50 RB / 0 RB Offset		
		133197 to 133397	133197, 133297, 133397	15MHz	QPSK,16QAM,64QAM	75 RB / 0 RB Offset		
		133222 to 133372	133222, 133322, 133372	20MHz	QPSK,16QAM,64QAM	100 RB / 0 RB Offset		
A	BAND EDGE	133147 to 133447	133147	5MHz	QPSK,16QAM, 64QAM	1 RB / 0 RB Offset 25 RB / 0 RB Offset		
			133447	5MHz	QPSK,16QAM, 64QAM	1 RB / 24 RB Offset 25 RB / 0 RB Offset		
		133172 to 133172	133172	10MHz	QPSK,16QAM, 64QAM	1 RB / 0 RB Offset 50 RB / 0 RB Offset		
			133172	10MHz	QPSK,16QAM, 64QAM	1 RB / 49 RB Offset 50 RB / 0 RB Offset		
		133197 to 133397	133197	15MHz	QPSK,16QAM, 64QAM	1 RB / 0 RB Offset 75 RB / 0 RB Offset		
			133397	15MHz	QPSK,16QAM, 64QAM	1 RB / 74 RB Offset 75 RB / 0 RB Offset		
		133222 to 133372	133222	20MHz	QPSK,16QAM, 64QAM	1 RB / 0 RB Offset 100 RB / 0 RB Offset		
			133372	20MHz	QPSK,16QAM, 64QAM	1 RB / 99 RB Offset 100 RB / 0 RB Offset		
		A	CONDUCTED EMISSION	133147 to 133447	133147, 133247, 133447	5MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset



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		133172 to 133172	133172, 133272, 133172	10MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
		133197 to 133397	133197, 133297, 133397	15MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
		133222 to 133372	133222, 133322, 133372	20MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
A	RADIATED EMISSION	133147 to 133447	133247	5MHz	QPSK	1 RB / 0 RB Offset
		133172 to 133172	133272	10MHz	QPSK	1 RB / 0 RB Offset
		133197 to 133397	133297	15MHz	QPSK	1 RB / 0 RB Offset
		133222 to 133372	133222, 133322, 133372	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.



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TEST CONDITION:

TEST ITEM	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
ERP	23deg. C, 70%RH	EUT 4.0V	Jace Hu
FREQUENCY STABILITY	23deg. C, 70%RH	EUT 4.0V	James Fu
OCCUPIED BANDWIDTH	23deg. C, 70%RH	EUT 4.0V	James Fu
BAND EDGE	23deg. C, 70%RH	EUT 4.0V	James Fu
CONDUCTED EMISSION	23deg. C, 70%RH	EUT 4.0V	James Fu
RADIATED EMISSION	23deg. C, 70%RH	EUT 4.0V	Jace Hu
PEAK TO AVERAGE RATIO	23deg. C, 70%RH	EUT 4.0V	James Fu



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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

According to the specific rule Part 27.50(b)(10) and 27.50(c)(10) Fixed, mobile, and Portable stations (hand-held devices) transmitting in the 698-746 MHz, 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP.

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 determining the ERP or EIRP from the conducted RF output power measured using the guidance provided above is:

$$\text{ERP or EIRP} = P_{\text{Meas}} + G_{\text{T}} - L_{\text{C}}$$

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:

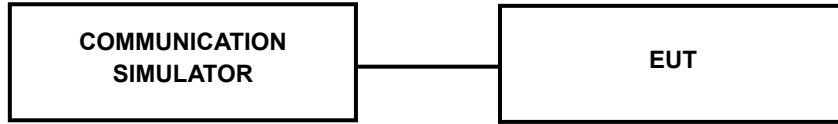
- a. The EUT was set up for the maximum power with LTE link data modulation and link up with simulator.
- b. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.



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3.1.3 TEST SETUP

CONDUCTED POWER MEASUREMENT:



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



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3.1.4 TEST RESULTS

AVERAGE CONDUCTED OUTPUT POWER (dBm)

Band	WCDMA IV		
	1312	1413	1513
Channel	1712.4	1732.6	1752.6
Frequency (MHz)	1712.4	1732.6	1752.6
RMC 12.2K	22.74	22.69	22.62
HSDPA Subtest-1	21.66	21.58	21.54
HSDPA Subtest-2	21.59	21.55	21.52
HSDPA Subtest-3	21.19	21.15	21.08
HSDPA Subtest-4	21.10	21.06	21.06
DC-HSDPA Subtest-1	21.63	21.57	21.53
DC-HSDPA Subtest-2	21.52	21.54	21.51
DC-HSDPA Subtest-3	21.17	21.09	21.06
DC-HSDPA Subtest-4	21.12	21.09	21.04
HSUPA Subtest-1	21.61	21.55	21.54
HSUPA Subtest-2	19.70	19.69	19.64
HSUPA Subtest-3	20.81	20.70	20.73
HSUPA Subtest-4	19.63	19.62	19.57
HSUPA Subtest-5	21.57	21.53	21.55



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LTE Band 4

Band/BW	Modulation	RB Size	RB Offset	Low CH 19957	Mid CH 20175	High CH 20393	MPR
				Frequency 1710.7 MHz	Frequency 1732.5 MHz	Frequency 1754.3 MHz	
4/ 1.4	QPSK	1	0	22.09	22.12	22.01	0
		1	2	22.33	22.33	22.28	0
		1	5	22.06	22.04	22.06	0
		3	0	22.22	22.23	22.27	0
		3	1	22.38	22.38	22.23	0
		3	3	22.25	22.25	22.26	0
		6	0	21.31	21.25	21.24	1
	16QAM	1	0	21.39	21.41	21.32	1
		1	2	21.60	21.55	21.58	1
		1	5	21.24	21.27	21.27	1
		3	0	21.31	21.26	21.27	1
		3	1	21.26	21.39	21.28	1
		3	3	21.31	21.29	21.31	1
		6	0	20.26	20.28	20.16	2
	64QAM	1	0	20.22	20.29	20.25	2
		1	2	20.49	20.52	20.45	2
		1	5	20.16	20.10	20.16	2
		3	0	20.31	20.34	20.20	2
		3	1	20.32	20.37	20.29	2
		3	3	20.36	20.36	20.34	2
		6	0	19.29	19.24	19.25	3



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Band/BW	Modulation	RB Size	RB Offset	Low CH 19965	Mid CH 20175	High CH 20385	MPR
				Frequency 1711.5 MHz	Frequency 1732.5 MHz	Frequency 1753.5 MHz	
4/3	QPSK	1	0	22.11	22.14	22.07	0
		1	7	22.29	22.34	22.28	0
		1	14	22.02	22.04	22.03	0
		8	0	21.21	21.26	21.27	1
		8	3	21.31	21.38	21.25	1
		8	7	21.22	21.32	21.30	1
		15	0	21.28	21.26	21.18	1
	16QAM	1	0	21.36	21.47	21.35	1
		1	7	21.57	21.58	21.56	1
		1	14	21.27	21.27	21.27	1
		8	0	20.27	20.27	20.27	2
		8	3	20.31	20.34	20.31	2
		8	7	20.33	20.27	20.27	2
		15	0	20.26	20.22	20.19	2
	64QAM	1	0	20.28	20.32	20.19	2
		1	7	20.52	20.46	20.44	2
		1	14	20.17	20.12	20.16	2
		8	0	19.34	19.38	19.21	3
		8	3	19.36	19.31	19.34	3
		8	7	19.33	19.40	19.30	3
		15	0	19.31	19.21	19.29	3

Band/BW	Modulation	RB Size	RB Offset	Low CH 19975	Mid CH 20175	High CH 20375	MPR
				Frequency 1712.5 MHz	Frequency 1732.5 MHz	Frequency 1752.5 MHz	
4/ 5	QPSK	1	0	22.12	22.09	22.01	0
		1	12	22.34	22.31	22.28	0
		1	24	22.03	22.03	22.01	0
		12	0	21.24	21.26	21.24	1
		12	6	21.31	21.39	21.26	1
		12	13	21.26	21.28	21.31	1
		25	0	21.26	21.29	21.21	1
	16QAM	1	0	21.37	21.43	21.35	1
		1	12	21.54	21.61	21.55	1
		1	24	21.27	21.27	21.26	1
		12	0	20.27	20.25	20.24	2
		12	6	20.28	20.38	20.27	2
		12	13	20.28	20.29	20.30	2
		25	0	20.26	20.23	20.16	2
	64QAM	1	0	20.22	20.29	20.25	2
		1	12	20.49	20.52	20.44	2
		1	24	20.10	20.17	20.16	2
		12	0	19.35	19.35	19.20	3
		12	6	19.30	19.38	19.33	3
		12	13	19.37	19.39	19.27	3
		25	0	19.27	19.27	19.27	3

Band/BW	Modulation	RB Size	RB Offset	Low CH 20000	Mid CH 20175	High CH 20350	MPR
				Frequency 1715 MHz	Frequency 1732.5 MHz	Frequency 1750 MHz	
4/ 10	QPSK	1	0	22.09	22.12	22.01	0
		1	24	22.34	22.31	22.29	0
		1	49	22.03	22.07	22.05	0
		25	0	21.25	21.25	21.27	1
		25	12	21.37	21.33	21.26	1
		25	25	21.24	21.25	21.30	1
		50	0	21.31	21.29	21.18	1
	16QAM	1	0	21.37	21.40	21.31	1
		1	24	21.59	21.57	21.58	1
		1	49	21.27	21.28	21.23	1
		25	0	20.29	20.23	20.30	2
		25	12	20.32	20.32	20.32	2
		25	25	20.27	20.30	20.27	2
		50	0	20.30	20.22	20.20	2
	64QAM	1	0	20.21	20.30	20.22	2
		1	24	20.54	20.48	20.48	2
		1	49	20.16	20.11	20.13	2
		25	0	19.33	19.32	19.26	3
		25	12	19.37	19.37	19.27	3
		25	25	19.36	19.36	19.29	3
		50	0	19.32	19.23	19.28	3

Band/BW	Modulation	RB Size	RB Offset	Low CH 20025	Mid CH 20175	High CH 20325	MPR
				Frequency 1717.5 MHz	Frequency 1732.5 MHz	Frequency 1747.5 MHz	
4/ 15	QPSK	1	0	22.16	22.12	22.06	0
		1	37	22.32	22.36	22.24	0
		1	74	22.06	22.10	22.04	0
		36	0	21.22	21.26	21.28	1
		36	19	21.38	21.38	21.26	1
		36	39	21.22	21.26	21.30	1
		75	0	21.31	21.27	21.23	1
	16QAM	1	0	21.41	21.47	21.31	1
		1	37	21.58	21.58	21.58	1
		1	74	21.23	21.33	21.25	1
		36	0	20.33	20.23	20.31	2
		36	19	20.26	20.36	20.28	2
		36	39	20.32	20.28	20.30	2
		75	0	20.31	20.25	20.13	2
	64QAM	1	0	20.23	20.31	20.23	2
		1	37	20.55	20.47	20.45	2
		1	74	20.12	20.10	20.16	2
		36	0	19.38	19.38	19.20	3
		36	19	19.31	19.31	19.29	3
		36	39	19.39	19.43	19.31	3
		75	0	19.31	19.21	19.29	3

Band/BW	Modulation	RB Size	RB Offset	Low CH 20050	Mid CH 20175	High CH 20300	MPR
				Frequency 1720 MHz	Frequency 1732.5 MHz	Frequency 1745 MHz	
4/ 20	QPSK	1	0	22.17	22.16	22.06	0
		1	50	22.36	22.39	22.30	0
		1	99	22.08	22.11	22.02	0
		50	0	21.28	21.31	21.29	1
		50	25	21.39	21.40	21.31	1
		50	50	21.30	21.33	21.32	1
		100	0	21.32	21.31	21.26	1
	16QAM	1	0	21.44	21.48	21.37	1
		1	50	21.62	21.63	21.60	1
		1	99	21.29	21.35	21.28	1
		50	0	20.35	20.31	20.32	2
		50	25	20.34	20.40	20.33	2
		50	50	20.35	20.34	20.32	2
		100	0	20.32	20.30	20.21	2
	64QAM	1	0	20.29	20.34	20.27	2
		1	50	20.57	20.54	20.50	2
		1	99	20.18	20.18	20.18	2
		50	0	19.39	19.40	19.28	3
		50	25	19.38	19.39	19.35	3
		50	50	19.41	19.44	19.35	3
		100	0	19.33	19.29	19.30	3

LTE Band 7

Band/BW	Modulation	RB Size	RB Offset	Low CH 20775	Mid CH 21100	High CH 21425	MPR
				Frequency 2502.5 MHz	Frequency 2535 MHz	Frequency 2567.5 MHz	
7/5	QPSK	1	0	22.05	22.03	22.05	0
		1	12	22.09	22.02	22.03	0
		1	24	22.14	22.10	22.12	0
		12	0	21.02	21.03	21.02	1
		12	6	21.25	21.29	21.20	1
		12	13	21.06	21.04	21.11	1
		25	0	21.15	21.14	21.10	1
	16QAM	1	0	21.25	21.27	21.23	1
		1	12	21.32	21.35	21.33	1
		1	24	21.40	21.36	21.39	1
		12	0	20.08	20.02	20.05	2
		12	6	20.11	20.17	20.10	2
		12	13	20.12	20.09	20.14	2
		25	0	20.09	20.02	20.02	2
	64QAM	1	0	20.02	20.05	20.05	2
		1	12	20.25	20.24	20.20	2
		1	24	20.27	20.30	20.33	2
		12	0	19.17	19.13	19.02	3
		12	6	19.11	19.15	19.14	3
		12	13	19.18	19.16	19.08	3
		25	0	19.18	19.14	19.18	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	22.02	22.01	22.05	0
		1	24	22.09	22.02	22.04	0
		1	49	22.11	22.14	22.08	0
		25	0	21.03	21.02	21.05	1
		25	12	21.31	21.23	21.20	1
		25	25	21.04	21.01	21.10	1
		50	0	21.20	21.14	21.07	1
	16QAM	1	0	21.25	21.24	21.19	1
		1	24	21.37	21.31	21.36	1
		1	49	21.40	21.37	21.36	1
		25	0	20.12	20.07	20.13	2
		25	12	20.15	20.11	20.15	2
		25	25	20.11	20.10	20.11	2
		50	0	20.13	20.01	20.03	2
	64QAM	1	0	20.01	20.06	20.02	2
		1	24	20.30	20.20	20.24	2
		1	49	20.33	20.24	20.30	2
		25	0	19.09	19.04	19.02	3
		25	12	19.18	19.14	19.08	3
		25	25	19.17	19.13	19.10	3
		50	0	19.23	19.10	19.19	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	22.09	22.01	22.02	0
		1	37	22.07	22.07	22.07	0
		1	74	22.17	22.17	22.09	0
		36	0	21.04	21.02	21.06	1
		36	19	21.32	21.28	21.20	1
		36	39	21.02	21.02	21.10	1
		75	0	21.20	21.12	21.12	1
	16QAM	1	0	21.29	21.31	21.19	1
		1	37	21.36	21.32	21.36	1
		1	74	21.36	21.42	21.38	1
		36	0	20.19	20.05	20.17	2
		36	19	20.09	20.15	20.11	2
		36	39	20.16	20.08	20.14	2
		75	0	20.14	20.04	20.04	2
	64QAM	1	0	20.03	20.07	20.03	2
		1	37	20.31	20.19	20.21	2
		1	74	20.29	20.23	20.33	2
		36	0	19.02	19.04	19.02	3
		36	19	19.12	19.08	19.10	3
		36	39	19.20	19.20	19.12	3
		75	0	19.22	19.08	19.20	3

Band/BW	Modulation	RB Size	RB Offset	Low CH 20850	Mid CH 21100	High CH 21350	MPR
				Frequency 2510 MHz	Frequency 2535 MHz	Frequency 2560 MHz	
7/20	QPSK	1	0	22.10	22.05	22.02	0
		1	50	22.11	22.10	22.05	0
		1	99	22.19	22.18	22.13	0
		50	0	21.06	21.05	21.07	1
		50	25	21.33	21.30	21.25	1
		50	50	21.10	21.09	21.12	1
		100	0	21.21	21.16	21.15	1
	16QAM	1	0	21.32	21.32	21.25	1
		1	50	21.40	21.37	21.38	1
		1	99	21.42	21.44	21.41	1
		50	0	20.01	20.03	20.08	2
		50	25	20.17	20.19	20.16	2
		50	50	20.19	20.14	20.16	2
		100	0	20.15	20.09	20.04	2
	64QAM	1	0	20.09	20.10	20.07	2
		1	50	20.33	20.26	20.26	2
		1	99	20.35	20.31	20.35	2
		50	0	19.03	19.05	19.03	3
		50	25	19.19	19.16	19.16	3
		50	50	19.22	19.21	19.16	3
		100	0	19.24	19.16	19.21	3



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LTE Band 12

Band/BW	Modulation	RB Size	RB Offset	Low CH 23017	Mid CH 23095	High CH 23173	MPR
				Frequency 699.7 MHz	Frequency 707.5 MHz	Frequency 715.3 MHz	
12/ 1.4	QPSK	1	0	22.02	22.13	22.21	0
		1	2	22.30	22.30	22.47	0
		1	5	22.43	22.44	22.60	0
		3	0	22.13	22.19	22.32	0
		3	1	22.35	22.50	22.47	0
		3	3	22.38	22.43	22.56	0
		6	0	21.28	21.36	21.44	1
	16QAM	1	0	21.41	21.50	21.62	1
		1	2	21.59	21.68	21.78	1
		1	5	21.80	21.80	22.00	1
		3	0	21.15	21.25	21.30	1
		3	1	21.31	21.51	21.50	1
		3	3	21.32	21.42	21.56	1
		6	0	20.23	20.35	20.41	2
	64QAM	1	0	20.27	20.40	20.53	2
		1	2	20.32	20.53	20.53	2
		1	5	20.70	20.80	20.92	2
		3	0	20.16	20.26	20.28	2
		3	1	20.32	20.52	20.54	2
		3	3	20.42	20.47	20.58	2
		6	0	19.26	19.38	19.44	3



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Band/BW	Modulation	RB Size	RB Offset	Low CH 23025	Mid CH 23095	High CH 23165	MPR
				Frequency 700.5 MHz	Frequency 707.5 MHz	Frequency 714.5 MHz	
12/ 3	QPSK	1	0	22.04	22.15	22.20	0
		1	7	22.26	22.31	22.47	0
		1	14	22.39	22.44	22.60	0
		8	0	21.12	21.22	21.32	1
		8	3	21.28	21.50	21.49	1
		8	7	21.35	21.50	21.60	1
		15	0	21.25	21.37	21.38	1
	16QAM	1	0	21.38	21.56	21.65	1
		1	7	21.56	21.71	21.76	1
		1	14	21.83	21.80	22.00	1
		8	0	20.11	20.26	20.30	2
		8	3	20.36	20.46	20.53	2
		8	7	20.34	20.40	20.52	2
		15	0	20.23	20.29	20.44	2
	64QAM	1	0	20.33	20.43	20.47	2
		1	7	20.35	20.47	20.52	2
		1	14	20.71	20.82	20.92	2
		8	0	19.19	19.30	19.29	3
		8	3	19.36	19.46	19.59	3
		8	7	19.39	19.51	19.54	3
		15	0	19.28	19.35	19.48	3

Band/BW	Modulation	RB Size	RB Offset	Low CH 23035	Mid CH 23095	High CH 23155	MPR
				Frequency 701.5 MHz	Frequency 707.5 MHz	Frequency 713.5 MHz	
12/ 5	QPSK	1	0	22.05	22.10	22.21	0
		1	12	22.31	22.28	22.47	0
		1	24	22.40	22.43	22.64	0
		12	0	21.15	21.22	21.29	1
		12	6	21.28	21.51	21.50	1
		12	13	21.39	21.46	21.61	1
		25	0	21.23	21.40	21.41	1
	16QAM	1	0	21.39	21.52	21.65	1
		1	12	21.53	21.74	21.75	1
		1	24	21.83	21.80	21.99	1
		12	0	20.11	20.24	20.27	2
		12	6	20.33	20.50	20.49	2
		12	13	20.29	20.42	20.55	2
		25	0	20.23	20.30	20.41	2
	64QAM	1	0	20.27	20.40	20.53	2
		1	12	20.32	20.53	20.52	2
		1	24	20.64	20.87	20.92	2
		12	0	19.20	19.27	19.28	3
		12	6	19.30	19.53	19.58	3
		12	13	19.43	19.50	19.51	3
		25	0	19.24	19.41	19.46	3

Band/BW	Modulation	RB Size	RB Offset	Low CH 23060	Mid CH 23095	High CH 23130	MPR
				Frequency 704 MHz	Frequency 707.5 MHz	Frequency 711 MHz	
12/ 10	QPSK	1	0	22.10	22.17	22.26	0
		1	24	22.33	22.36	22.49	0
		1	49	22.45	22.51	22.65	0
		25	0	21.19	21.27	21.34	1
		25	12	21.36	21.52	21.55	1
		25	25	21.43	21.51	21.62	1
		50	0	21.29	21.42	21.46	1
	16QAM	1	0	21.46	21.57	21.67	1
		1	24	21.61	21.76	21.80	1
		1	49	21.85	21.88	22.01	1
		25	0	20.19	20.30	20.35	2
		25	12	20.39	20.52	20.55	2
		25	25	20.36	20.47	20.57	2
		50	0	20.29	20.37	20.46	2
	64QAM	1	0	20.34	20.45	20.55	2
		1	24	20.40	20.55	20.58	2
		1	49	20.72	20.88	20.94	2
		25	0	19.24	19.32	19.36	3
		25	12	19.38	19.54	19.60	3
		25	25	19.47	19.55	19.59	3
		50	0	19.30	19.43	19.49	3



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LTE Band 13

Band/BW	Modulation	RB Size	RB Offset	Low CH 23205	Mid CH 23230	High CH 23255	MPR
				Frequency 779.5 MHz	Frequency 782.0 MHz	Frequency 784.5 MHz	
13/ 5	QPSK	1	0	22.57	22.55	22.57	0
		1	12	22.53	22.47	22.53	0
		1	24	22.44	22.41	22.48	0
		12	0	21.57	21.56	21.56	1
		12	6	21.47	21.54	21.50	1
		12	13	21.43	21.42	21.46	1
		25	0	21.45	21.49	21.46	1
	16QAM	1	0	21.89	21.91	21.94	1
		1	12	21.84	21.90	21.87	1
		1	24	21.77	21.71	21.77	1
		12	0	20.47	20.49	20.47	2
		12	6	20.53	20.57	20.53	2
		12	13	20.42	20.44	20.47	2
		25	0	20.40	20.39	20.41	2
	64QAM	1	0	20.74	20.76	20.79	2
		1	12	20.69	20.75	20.71	2
		1	24	20.54	20.61	20.60	2
		12	0	19.58	19.57	19.54	3
		12	6	19.49	19.56	19.55	3
		12	13	19.46	19.45	19.42	3
		25	0	19.49	19.53	19.52	3



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Band/BW	Modulation	RB Size	RB Offset	/	Mid CH 23230	/	MPR
				/	Frequency 782.0 MHz	/	
13/ 10	QPSK	1	0	/	22.62	/	0
		1	24	/	22.55	/	0
		1	49	/	22.49	/	0
		25	0	/	21.61	/	1
		25	12	/	21.55	/	1
		25	25	/	21.47	/	1
		50	0	/	21.51	/	1
	16QAM	1	0	/	21.96	/	1
		1	24	/	21.92	/	1
		1	49	/	21.79	/	1
		25	0	/	20.55	/	2
		25	12	/	20.59	/	2
		25	25	/	20.49	/	2
		50	0	/	20.46	/	2
	64QAM	1	0	/	20.81	/	2
		1	24	/	20.77	/	2
		1	49	/	20.62	/	2
		25	0	/	19.62	/	3
		25	12	/	19.57	/	3
		25	25	/	19.50	/	3
		50	0	/	19.55	/	3



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Test Report No.: W7L-P20210616-3RF03

LTE Band 17

Band/BW	Modulation	RB Size	RB Offset	Low CH 23755	Mid CH 23790	High CH 23825	MPR
				Frequency 706.5 MHz	Frequency 710 MHz	Frequency 713.5 MHz	
17/ 5	QPSK	1	0	22.13	22.18	22.24	0
		1	12	22.26	22.23	22.37	0
		1	24	22.39	22.42	22.58	0
		12	0	21.31	21.38	21.40	1
		12	6	21.30	21.53	21.47	1
		12	13	21.46	21.53	21.63	1
		25	0	21.32	21.49	21.45	1
	16QAM	1	0	21.41	21.54	21.62	1
		1	12	21.57	21.78	21.74	1
		1	24	21.79	21.76	21.90	1
		12	0	20.24	20.37	20.35	2
		12	6	20.35	20.52	20.46	2
		12	13	20.44	20.57	20.65	2
		25	0	20.33	20.40	20.46	2
	64QAM	1	0	20.32	20.45	20.53	2
		1	12	20.38	20.59	20.53	2
		1	24	20.59	20.82	20.82	2
		12	0	19.37	19.44	19.40	3
		12	6	19.35	19.58	19.58	3
		12	13	19.52	19.59	19.55	3
		25	0	19.34	19.51	19.51	3

Band/BW	Modulation	RB Size	RB Offset	Low CH 23780	Mid CH 23790	High CH 23800	MPR
				Frequency 709 MHz	Frequency 710 MHz	Frequency 711 MHz	
17/ 10	QPSK	1	0	22.18	22.25	22.29	0
		1	24	22.28	22.31	22.39	0
		1	49	22.44	22.50	22.59	0
		25	0	21.35	21.43	21.45	1
		25	12	21.38	21.54	21.52	1
		25	25	21.50	21.58	21.64	1
		50	0	21.38	21.51	21.50	1
	16QAM	1	0	21.48	21.59	21.64	1
		1	24	21.65	21.80	21.79	1
		1	49	21.81	21.84	21.92	1
		25	0	20.32	20.43	20.43	2
		25	12	20.41	20.54	20.52	2
		25	25	20.51	20.62	20.67	2
		50	0	20.39	20.47	20.51	2
	64QAM	1	0	20.39	20.50	20.55	2
		1	24	20.46	20.61	20.59	2
		1	49	20.67	20.83	20.84	2
		25	0	19.41	19.49	19.48	3
		25	12	19.43	19.59	19.60	3
		25	25	19.56	19.64	19.63	3
		50	0	19.40	19.53	19.54	3



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Test Report No.: W7L-P20210616-3RF03

LTE Band 41

Band/BW	Modulation	RB Size	RB Offset	Low CH (39675)	Mid CH (40620)	High CH (41565)	MPR
				Frequency (2498.5)MHz	Frequency (2593)MHz	Frequency (2687.5)MHz	
41/ 5	QPSK	1	0	22.46	22.08	22.18	0
		1	12	22.36	22.06	22.14	0
		1	24	22.28	22.03	22.09	0
		12	0	21.17	21.04	21.06	1
		12	6	21.36	21.09	21.14	1
		12	13	21.26	21.03	21.14	1
		25	0	21.32	21.05	21.10	1
	16QAM	1	0	21.34	21.05	21.15	1
		1	12	21.35	21.07	21.19	1
		1	24	21.35	21.05	21.17	1
		12	0	20.23	20.06	20.03	2
		12	6	20.35	20.10	20.17	2
		12	13	20.32	20.04	20.17	2
		25	0	20.33	20.05	20.06	2
	64QAM	1	0	20.04	20.06	20.04	2
		1	12	20.10	20.04	20.06	2
		1	24	20.17	20.09	20.06	2
		12	0	19.27	19.12	19.08	3
		12	6	19.34	19.07	19.20	3
		12	13	19.35	19.02	19.08	3
		25	0	19.35	19.09	19.18	3

Band/BW	Modulation	RB Size	RB Offset	Low CH (39700)	Mid CH (40620)	High CH (41540)	MPR
				Frequency (2501)MHz	Frequency (2593)MHz	Frequency (2685)MHz	
41/ 10	QPSK	1	0	22.43	22.11	22.18	0
		1	24	22.36	22.06	22.15	0
		1	49	22.25	22.08	22.05	0
		25	0	21.18	21.05	21.03	1
		25	12	21.42	21.03	21.14	1
		25	25	21.24	21.07	21.13	1
		50	0	21.37	21.04	21.07	1
	16QAM	1	0	21.34	21.02	21.11	1
		1	24	21.40	21.03	21.22	1
		1	49	21.35	21.01	21.14	1
		25	0	20.25	20.04	20.09	2
		25	12	20.39	20.04	20.22	2
		25	25	20.31	20.09	20.14	2
		50	0	20.37	20.05	20.10	2
	64QAM	1	0	20.03	20.07	20.04	2
		1	24	20.15	20.04	20.02	2
		1	49	20.23	20.03	20.03	2
		25	0	19.25	19.09	19.01	3
		25	12	19.41	19.06	19.14	3
		25	25	19.34	19.09	19.10	3
		50	0	19.40	19.06	19.19	3

Band/BW	Modulation	RB Size	RB Offset	Low CH (39725)	Mid CH (40620)	High CH (41515)	MPR
				Frequency (2503.5)MHz	Frequency (2593)MHz	Frequency (2682.5)MHz	
41/ 15	QPSK	1	0	22.50	22.11	22.15	0
		1	37	22.34	22.01	22.10	0
		1	74	22.31	22.03	22.06	0
		36	0	21.15	21.05	21.04	1
		36	19	21.43	21.08	21.14	1
		36	39	21.22	21.07	21.13	1
		75	0	21.37	21.06	21.12	1
	16QAM	1	0	21.38	21.09	21.11	1
		1	37	21.39	21.04	21.22	1
		1	74	21.31	21.06	21.16	1
		36	0	20.29	20.06	20.10	2
		36	19	20.33	20.08	20.18	2
		36	39	20.36	20.07	20.17	2
		75	0	20.38	20.07	20.03	2
	64QAM	1	0	20.05	20.05	20.15	2
		1	37	20.16	20.02	20.16	2
		1	74	20.19	20.09	20.06	2
		36	0	19.30	19.22	19.22	3
		36	19	19.35	19.00	19.16	3
		36	39	19.37	19.06	19.12	3
		75	0	19.39	19.14	19.20	3



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Band/BW	Modulation	RB Size	RB Offset	Low CH (39750)	Mid CH (40620)	High CH (41490)	MPR
				Frequency (2506)MHz	Frequency (2593)MHz	Frequency (2680)MHz	
41/ 20	QPSK	1	0	22.51	22.15	22.23	0
		1	50	22.38	22.04	22.16	0
		1	99	22.33	22.01	22.10	0
		50	0	21.21	21.09	21.05	1
		50	25	21.44	21.10	21.19	1
		50	50	21.30	21.06	21.15	1
		100	0	21.38	21.02	21.15	1
	16QAM	1	0	21.41	21.10	21.17	1
		1	50	21.43	21.09	21.24	1
		1	99	21.37	21.08	21.19	1
		50	0	20.31	20.04	20.11	2
		50	25	20.41	20.12	20.23	2
		50	50	20.39	20.03	20.19	2
		100	0	20.39	20.02	20.11	2
	64QAM	1	0	20.11	20.03	20.07	2
		1	50	20.18	20.08	20.04	2
		1	99	20.25	20.05	20.08	2
		50	0	19.31	19.07	19.03	3
		50	25	19.42	19.08	19.22	3
		50	50	19.39	19.07	19.16	3
		100	0	19.41	19.02	19.21	3



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LTE Band 41-HPUE

Band/BW	Modulation	RB Size	RB Offset	Low CH (39675)	Mid CH (40620)	High CH (41565)	MPR
				Frequency (2498.5)MHz	Frequency (2593)MHz	Frequency (2687.5)MHz	
41/ 5	QPSK	1	0	25.36	25.15	25.35	0
		1	12	25.21	25.02	25.25	0
		1	24	25.26	25.08	25.34	0
		12	0	24.35	24.19	24.45	1
		12	6	24.41	24.31	24.46	1
		12	13	24.36	24.20	24.51	1
		25	0	24.44	24.29	24.49	1
	16QAM	1	0	24.62	24.50	24.70	1
		1	12	24.49	24.38	24.60	1
		1	24	24.58	24.40	24.67	1
		12	0	23.37	23.17	23.44	2
		12	6	23.40	23.32	23.49	2
		12	13	23.41	23.24	23.53	2
		25	0	23.48	23.27	23.48	2
	64QAM	1	0	23.60	23.49	23.73	2
		1	12	23.49	23.34	23.54	2
		1	24	22.97	22.86	23.13	2
		12	0	22.46	22.28	22.41	3
		12	6	22.31	22.21	22.44	3
		12	13	22.09	21.93	22.09	3
		25	0	22.22	22.04	22.32	3

Band/BW	Modulation	RB Size	RB Offset	Low CH (39700)	Mid CH (40620)	High CH (41540)	MPR
				Frequency (2501)MHz	Frequency (2593)MHz	Frequency (2685)MHz	
41/ 10	QPSK	1	0	25.33	25.18	25.35	0
		1	24	25.21	25.03	25.26	0
		1	49	25.23	25.12	25.30	0
		25	0	24.36	24.18	24.48	1
		25	12	24.47	24.25	24.46	1
		25	25	24.34	24.17	24.50	1
		50	0	24.49	24.29	24.46	1
	16QAM	1	0	24.62	24.47	24.66	1
		1	24	24.54	24.34	24.63	1
		1	49	24.58	24.41	24.64	1
		25	0	23.39	23.15	23.50	2
		25	12	23.44	23.26	23.54	2
		25	25	23.40	23.25	23.50	2
		50	0	23.52	23.26	23.52	2
	64QAM	1	0	23.59	23.50	23.70	2
		1	24	23.54	23.30	23.58	2
		1	49	23.03	22.80	23.10	2
		25	0	22.44	22.25	22.47	3
		25	12	22.38	22.20	22.38	3
		25	25	22.08	21.90	22.11	3
		50	0	22.27	22.00	22.33	3

Band/BW	Modulation	RB Size	RB Offset	Low CH (39725)	Mid CH (40620)	High CH (41515)	MPR
				Frequency (2503.5)MHz	Frequency (2593)MHz	Frequency (2682.5)MHz	
41/ 15	QPSK	1	0	25.40	25.18	25.32	0
		1	37	25.19	25.05	25.21	0
		1	74	25.29	25.15	25.31	0
		36	0	24.33	24.19	24.49	1
		36	19	24.48	24.30	24.46	1
		36	39	24.32	24.18	24.50	1
		75	0	24.49	24.27	24.51	1
	16QAM	1	0	24.66	24.54	24.66	1
		1	37	24.53	24.35	24.63	1
		1	74	24.54	24.46	24.66	1
		36	0	23.43	23.15	23.51	2
		36	19	23.38	23.30	23.50	2
		36	39	23.45	23.23	23.53	2
		75	0	23.53	23.29	23.45	2
	64QAM	1	0	23.61	23.51	23.71	2
		1	37	23.55	23.29	23.55	2
		1	74	22.99	22.79	23.13	2
		36	0	22.49	22.31	22.41	3
		36	19	22.32	22.14	22.40	3
		36	39	22.11	21.97	22.13	3
		75	0	22.26	21.98	22.34	3

Band/BW	Modulation	RB Size	RB Offset	Low CH (39750)	Mid CH (40620)	High CH (41490)	MPR
				Frequency (2506)MHz	Frequency (2593)MHz	Frequency (2680)MHz	
41/ 20	QPSK	1	0	25.41	25.22	25.40	0
		1	50	25.23	25.08	25.27	0
		1	99	25.31	25.16	25.35	0
		50	0	24.39	24.24	24.50	1
		50	25	24.49	24.32	24.51	1
		50	50	24.40	24.25	24.52	1
		100	0	24.50	24.31	24.54	1
	16QAM	1	0	24.69	24.55	24.72	1
		1	50	24.57	24.40	24.65	1
		1	99	24.60	24.48	24.69	1
		50	0	23.45	23.23	23.52	2
		50	25	23.46	23.34	23.55	2
		50	50	23.48	23.29	23.55	2
		100	0	23.54	23.34	23.53	2
	64QAM	1	0	23.67	23.54	23.75	2
		1	50	23.57	23.36	23.60	2
		1	99	23.05	22.87	23.15	2
		50	0	22.50	22.33	22.49	3
		50	25	22.39	22.22	22.46	3
		50	50	22.13	21.98	22.17	3
		100	0	22.28	22.06	22.35	3

LTE Band 66

Band/BW	Modulation	RB Size	RB Offset	Low CH 131979	Mid CH 132322	High CH 132665	MPR
				Frequency 1710.7MHz	Frequency 1745MHz	Frequency 1779.3MHz	
66/ 1.4	QPSK	1	0	22.05	22.08	22.07	0
		1	2	22.03	22.03	22.04	0
		1	5	22.02	22.07	22.06	0
		3	0	22.03	22.04	22.18	0
		3	1	22.11	22.11	22.06	0
		3	3	22.05	22.07	22.08	0
		6	0	21.04	21.08	21.07	1
	16QAM	1	0	21.48	21.50	21.51	1
		1	2	21.30	21.25	21.38	1
		1	5	21.17	21.20	21.30	1
		3	0	21.09	21.04	21.15	1
		3	1	21.02	21.13	21.12	1
		3	3	21.03	21.01	21.13	1
		6	0	20.02	20.04	20.02	2
	64QAM	1	0	20.28	20.35	20.41	2
		1	2	20.20	20.23	20.26	2
		1	5	20.16	20.10	20.26	2
		3	0	20.09	20.12	20.08	2
		3	1	20.03	20.08	20.10	2
		3	3	20.04	20.04	20.12	2
		6	0	19.03	19.05	19.09	3



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Band/BW	Modulation	RB Size	RB Offset	Low CH 131987	Mid CH 132322	High CH 132657	MPR
				Frequency 1711.5MHz	Frequency 1745MHz	Frequency 1778.5MHz	
66/ 3	QPSK	1	0	22.07	22.10	22.06	0
		1	7	22.05	22.02	22.04	0
		1	14	22.02	22.05	22.03	0
		8	0	21.02	21.07	21.18	1
		8	3	21.04	21.11	21.08	1
		8	7	21.07	21.04	21.12	1
		15	0	21.01	21.06	21.01	1
	16QAM	1	0	21.45	21.56	21.54	1
		1	7	21.27	21.28	21.36	1
		1	14	21.20	21.20	21.30	1
		8	0	20.05	20.05	20.15	2
		8	3	20.05	20.08	20.15	2
		8	7	20.05	20.06	20.09	2
		15	0	20.02	20.04	20.05	2
	64QAM	1	0	20.34	20.38	20.35	2
		1	7	20.23	20.17	20.25	2
		1	14	20.17	20.12	20.26	2
		8	0	19.12	19.16	19.09	3
		8	3	19.07	19.02	19.15	3
		8	7	19.01	19.08	19.08	3
		15	0	19.05	19.07	19.13	3



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Band/BW	Modulation	RB Size	RB Offset	Low CH 131997	Mid CH 132322	High CH 132647	MPR
				Frequency 1712.5MHz	Frequency 1745MHz	Frequency 1777.5MHz	
66/ 5	QPSK	1	0	22.08	22.05	22.07	0
		1	12	22.05	22.03	22.04	0
		1	24	22.02	22.03	22.04	0
		12	0	21.05	21.07	21.15	1
		12	6	21.04	21.12	21.09	1
		12	13	21.04	21.05	21.13	1
		25	0	21.06	21.02	21.04	1
	16QAM	1	0	21.46	21.52	21.54	1
		1	12	21.24	21.31	21.35	1
		1	24	21.20	21.20	21.29	1
		12	0	20.05	20.03	20.12	2
		12	6	20.02	20.12	20.11	2
		12	13	20.05	20.01	20.12	2
		25	0	20.02	20.04	20.02	2
	64QAM	1	0	20.28	20.35	20.41	2
		1	12	20.20	20.23	20.25	2
		1	24	20.10	20.17	20.26	2
		12	0	19.13	19.13	19.08	3
		12	6	19.01	19.09	19.14	3
		12	13	19.05	19.07	19.05	3
		25	0	19.01	19.01	19.11	3



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Band/BW	Modulation	RB Size	RB Offset	Low CH 132022	Mid CH 132322	High CH 132622	MPR
				Frequency 1715MHz	Frequency 1745MHz	Frequency 1775MHz	
66/ 10	QPSK	1	0	22.05	22.08	22.07	0
		1	24	22.05	22.06	22.05	0
		1	49	22.03	22.05	22.03	0
		25	0	21.06	21.06	21.18	1
		25	12	21.10	21.06	21.09	1
		25	25	21.06	21.07	21.12	1
		50	0	21.04	21.02	21.01	1
	16QAM	1	0	21.46	21.49	21.50	1
		1	24	21.29	21.27	21.38	1
		1	49	21.20	21.21	21.26	1
		25	0	20.07	20.01	20.18	2
		25	12	20.06	20.06	20.16	2
		25	25	20.04	20.02	20.09	2
		50	0	20.06	20.08	20.06	2
	64QAM	1	0	20.27	20.36	20.38	2
		1	24	20.25	20.19	20.29	2
		1	49	20.16	20.11	20.23	2
		25	0	19.11	19.10	19.14	3
		25	12	19.08	19.08	19.08	3
		25	25	19.04	19.04	19.07	3
		50	0	19.06	19.03	19.12	3

Band/BW	Modulation	RB Size	RB Offset	Low CH 132072	Mid CH 132322	High CH 132572	MPR
				Frequency 1720MHz	Frequency 1745MHz	Frequency 1770MHz	
66/ 15	QPSK	1	0	22.12	22.08	22.04	0
		1	37	22.04	22.08	22.06	0
		1	74	22.02	22.03	22.01	0
		36	0	21.03	21.07	21.19	1
		36	19	21.11	21.11	21.09	1
		36	39	21.05	21.08	21.12	1
		75	0	21.04	21.06	21.06	1
	16QAM	1	0	21.50	21.56	21.50	1
		1	37	21.28	21.28	21.38	1
		1	74	21.16	21.26	21.28	1
		36	0	20.11	20.01	20.19	2
		36	19	20.03	20.10	20.12	2
		36	39	20.04	20.08	20.12	2
		75	0	20.07	20.01	20.03	2
	64QAM	1	0	20.29	20.37	20.39	2
		1	37	20.26	20.18	20.26	2
		1	74	20.12	20.10	20.26	2
		36	0	19.16	19.16	19.08	3
		36	19	19.02	19.02	19.10	3
		36	39	19.07	19.11	19.09	3
		75	0	19.05	19.02	19.13	3

Band/BW	Modulation	RB Size	RB Offset	Low CH 132072	Mid CH 132322	High CH 132572	MPR
				Frequency 1720MHz	Frequency 1745MHz	Frequency 1770MHz	
66/ 20	QPSK	1	0	22.13	22.12	22.12	0
		1	50	22.02	22.05	22.06	0
		1	99	22.01	22.04	22.05	0
		50	0	21.09	21.12	21.20	1
		50	25	21.12	21.13	21.14	1
		50	50	21.02	21.05	21.14	1
		100	0	21.05	21.04	21.09	1
	16QAM	1	0	21.53	21.57	21.56	1
		1	50	21.32	21.33	21.40	1
		1	99	21.22	21.28	21.31	1
		50	0	20.13	20.09	20.20	2
		50	25	20.08	20.14	20.17	2
		50	50	20.07	20.06	20.14	2
		100	0	20.08	20.06	20.07	2
	64QAM	1	0	20.35	20.40	20.43	2
		1	50	20.28	20.25	20.31	2
		1	99	20.18	20.18	20.28	2
		50	0	19.17	19.18	19.16	3
		50	25	19.09	19.10	19.16	3
		50	50	19.09	19.12	19.13	3
		100	0	19.07	19.03	19.14	3



Test Report No.: W7L-P20210616-3RF03

LTE Band CA_66C

CA_66C								
Combination 5MHz+20MHz (25RB+100RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
132005	132122	QPSK	1	24	1	0	2	22.08
		16QAM	1	24	1	0	2	21.23
		64QAM	1	24	1	0	2	20.69
132330	132447	QPSK	1	24	1	0	2	22.04
		16QAM	1	24	1	0	2	21.26
		64QAM	1	24	1	0	2	20.73
132455	132572	QPSK	1	24	1	0	2	22.06
		16QAM	1	24	1	0	2	21.21
		64QAM	1	24	1	0	2	20.69
Combination 10MHz+15MHz (50RB+75RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
132025	132145	QPSK	1	49	1	0	2	22.07
		16QAM	1	49	1	0	2	21.33
		64QAM	1	49	1	0	2	20.68
132351	132471	QPSK	1	49	1	0	2	22.06
		16QAM	1	49	1	0	2	21.38
		64QAM	1	49	1	0	2	20.70
132477	132597	QPSK	1	49	1	0	2	22.07
		16QAM	1	49	1	0	2	21.39
		64QAM	1	49	1	0	2	20.73

CA_66C								
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		
132027	132171	QPSK	1	49	1	0	2	22.02
		16QAM	1	49	1	0	2	21.30
		64QAM	1	49	1	0	2	20.69
132328	132472	QPSK	1	49	1	0	2	22.07
		16QAM	1	49	1	0	2	21.28
		64QAM	1	49	1	0	2	20.66
132428	132572	QPSK	1	49	1	0	2	22.05
		16QAM	1	49	1	0	2	21.32
		64QAM	1	49	1	0	2	20.73
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		
132047	132167	QPSK	1	74	1	0	2	22.07
		16QAM	1	74	1	0	2	21.35
		64QAM	1	74	1	0	2	20.79
132373	132493	QPSK	1	74	1	0	2	22.09
		16QAM	1	74	1	0	2	21.44
		64QAM	1	74	1	0	2	20.84
132499	132619	QPSK	1	74	1	0	2	22.06
		16QAM	1	74	1	0	2	21.67
		64QAM	1	74	1	0	2	20.73



Test Report No.: W7L-P20210616-3RF03

CA_66C								
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		
132047	132197	QPSK	1	74	1	0	2	22.02
		16QAM	1	74	1	0	2	21.30
		64QAM	1	74	1	0	2	20.77
132347	132497	QPSK	1	74	1	0	2	22.05
		16QAM	1	74	1	0	2	21.31
		64QAM	1	74	1	0	2	20.79
132447	132597	QPSK	1	74	1	0	2	22.03
		16QAM	1	74	1	0	2	21.37
		64QAM	1	74	1	0	2	20.82
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		
132050	132221	QPSK	1	74	1	0	2	22.07
		16QAM	1	74	1	0	2	21.40
		64QAM	1	74	1	0	2	20.88
132325	132496	QPSK	1	74	1	0	2	22.06
		16QAM	1	74	1	0	2	21.33
		64QAM	1	74	1	0	2	20.83
132401	132572	QPSK	1	74	1	0	2	22.07
		16QAM	1	74	1	0	2	21.38
		64QAM	1	74	1	0	2	20.86



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CA_66C								
Combination 20MHz+5MHz (100RB+25RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
132072	132189	QPSK	1	99	1	0	2	22.03
		16QAM	1	99	1	0	2	21.33
		64QAM	1	99	1	0	2	20.76
132397	132514	QPSK	1	99	1	0	2	22.05
		16QAM	1	99	1	0	2	21.31
		64QAM	1	99	1	0	2	20.72
132522	132639	QPSK	1	99	1	0	2	22.08
		16QAM	1	99	1	0	2	21.39
		64QAM	1	99	1	0	2	20.77
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		
132072	132216	QPSK	1	99	1	0	2	22.05
		16QAM	1	99	1	0	2	21.41
		64QAM	1	99	1	0	2	20.77
132373	132517	QPSK	1	99	1	0	2	22.08
		16QAM	1	99	1	0	2	21.35
		64QAM	1	99	1	0	2	20.69
132473	132617	QPSK	1	99	1	0	2	22.06
		16QAM	1	99	1	0	2	21.36
		64QAM	1	99	1	0	2	20.72



Test Report No.: W7L-P20210616-3RF03

CA_66C								
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		
132072	132243	QPSK	1	99	1	0	2	22.05
		16QAM	1	99	1	0	2	21.52
		64QAM	1	99	1	0	2	20.97
132348	132519	QPSK	1	99	1	0	2	22.08
		16QAM	1	99	1	0	2	21.79
		64QAM	1	99	1	0	2	21.07
132423	132594	QPSK	1	99	1	0	2	22.01
		16QAM	1	99	1	0	2	21.75
		64QAM	1	99	1	0	2	21.03



Test Report No.: W7L-P20210616-3RF03

CA_66C								
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		
132072	132270	QPSK	1	0	1	99	1	12.97
			1	0	0	0	1	20.97
			1	99	1	0	2	22.10
		16QAM	1	0	1	99	1	12.48
			1	0	0	0	1	20.43
			1	99	1	0	2	21.36
		64QAM	1	0	1	99	1	12.02
			1	0	0	0	1	20.04
			1	99	1	0	2	20.87
132323	132521	QPSK	1	0	1	99	1	13.00
			1	0	0	0	1	21.23
			1	99	1	0	2	22.06
		16QAM	1	0	1	99	1	12.44
			1	0	0	0	1	20.77
			1	99	1	0	2	21.49
		64QAM	1	0	1	99	1	11.88
			1	0	0	0	1	20.26
			1	99	1	0	2	20.90
132374	132572	QPSK	1	0	1	99	1	13.02
			1	0	0	0	1	21.20
			1	99	1	0	2	22.10
		16QAM	1	0	1	99	1	12.47
			1	0	0	0	1	20.84
			1	99	1	0	2	21.31
		64QAM	1	0	1	99	1	11.92
			1	0	0	0	1	20.33
			1	99	1	0	2	20.85

LTE Band 71

Band/BW	Modulation	RB Size	RB Offset	Low CH 133147	Mid CH 133247	High CH 133447	MPR
				Frequency 665.5MHz	Frequency 675.5MHz	Frequency 695.5MHz	
71/ 5	QPSK	1	0	22.03	22.06	22.01	0
		1	12	22.01	22.12	22.15	0
		1	24	22.05	22.01	22.07	0
		12	0	21.07	21.23	21.09	1
		12	6	21.05	21.09	21.04	1
		12	13	21.11	21.07	21.08	1
		25	0	21.12	21.05	21.10	1
	16QAM	1	0	21.25	21.27	21.27	1
		1	12	21.16	21.19	21.21	1
		1	24	21.31	21.27	21.34	1
		12	0	20.08	20.02	20.09	2
		12	6	20.03	20.04	20.01	2
		12	13	20.05	20.04	20.03	2
		25	0	20.05	20.02	20.02	2
	64QAM	1	0	20.21	20.24	20.28	2
		1	12	20.17	20.16	20.16	2
		1	24	20.22	20.25	20.32	2
		12	0	19.01	19.07	19.05	3
		12	6	19.06	19.10	19.13	3
		12	13	19.12	19.10	19.06	3
		25	0	19.04	19.05	19.08	3



Test Report No.: W7L-P20210616-3RF03

Band/BW	Modulation	RB Size	RB Offset	Low CH 133172	Mid CH 133272	High CH 133172	MPR
				Frequency 668MHz	Frequency 678MHz	Frequency 693MHz	
71/ 10	QPSK	1	0	22.10	22.09	22.06	0
		1	24	22.01	22.04	22.10	0
		1	49	22.02	22.05	22.03	0
		25	0	21.07	21.03	21.13	1
		25	12	21.11	21.03	21.04	1
		25	25	21.08	21.05	21.07	1
		50	0	21.03	21.05	21.03	1
	16QAM	1	0	21.25	21.24	21.23	1
		1	24	21.21	21.15	21.24	1
		1	49	21.31	21.28	21.31	1
		25	0	20.01	20.03	20.06	2
		25	12	20.02	20.08	20.06	2
		25	25	20.04	20.05	20.08	2
		50	0	20.02	20.02	20.06	2
	64QAM	1	0	20.20	20.25	20.25	2
		1	24	20.22	20.12	20.20	2
		1	49	20.28	20.19	20.29	2
		25	0	19.09	19.04	19.06	3
		25	12	19.13	19.09	19.07	3
		25	25	19.11	19.07	19.08	3
		50	0	19.09	19.06	19.09	3

Band/BW	Modulation	RB Size	RB Offset	Low CH 133197	Mid CH 133297	High CH 133397	MPR
				Frequency 670.5MHz	Frequency 680.5MHz	Frequency 690.5MHz	
71/ 15	QPSK	1	0	22.07	22.09	22.03	0
		1	37	22.04	22.09	22.05	0
		1	74	22.08	22.08	22.04	0
		36	0	21.04	21.04	21.14	1
		36	19	21.12	21.08	21.04	1
		36	39	21.03	21.06	21.07	1
		75	0	21.03	21.03	21.02	1
	16QAM	1	0	21.29	21.31	21.23	1
		1	37	21.20	21.16	21.24	1
		1	74	21.27	21.33	21.33	1
		36	0	20.05	20.02	20.03	2
		36	19	20.06	20.02	20.02	2
		36	39	20.01	20.04	20.03	2
		75	0	20.03	20.06	20.02	2
	64QAM	1	0	20.22	20.26	20.26	2
		1	37	20.23	20.11	20.17	2
		1	74	20.24	20.18	20.32	2
		36	0	19.04	19.02	19.02	3
		36	19	19.07	19.03	19.09	3
		36	39	19.14	19.14	19.10	3
		75	0	19.08	19.04	19.10	3



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Band/BW	Modulation	RB Size	RB Offset	Low CH 133222	Mid CH 133322	High CH 133372	MPR
				Frequency 673MHz	Frequency 683MHz	Frequency 688MHz	
71/ 20	QPSK	1	0	22.08	22.03	22.01	0
		1	50	22.03	22.02	22.01	0
		1	99	22.10	22.09	22.08	0
		50	0	21.11	21.10	21.16	1
		50	25	21.13	21.10	21.09	1
		50	50	21.03	21.02	21.09	1
		100	0	21.04	21.03	21.02	1
	16QAM	1	0	21.32	21.32	21.29	1
		1	50	21.24	21.21	21.26	1
		1	99	21.33	21.35	21.36	1
		50	0	20.09	20.01	20.10	2
		50	25	20.04	20.06	20.07	2
		50	50	20.04	20.03	20.05	2
		100	0	20.04	20.05	20.03	2
	64QAM	1	0	20.28	20.29	20.30	2
		1	50	20.25	20.18	20.22	2
		1	99	20.30	20.26	20.34	2
		50	0	19.05	19.02	19.04	3
		50	25	19.14	19.11	19.15	3
		50	50	19.16	19.15	19.14	3
		100	0	19.10	19.02	19.11	3



**BUREAU
VERITAS**

Test Report No.: W7L-P20210616-3RF03

EIRP

WCDMA IV

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
1312	1712.4	22.74	3.09	23.68	233.35	1
1413	1732.6	22.69	3.09	23.63	230.67	1
1513	1752.6	22.62	3.09	23.56	226.99	1

LTE BAND 4

CHANNEL BANDWIDTH: 1.4MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19957	1710.7	22.38	3.09	25.47	352.37	1
20175	1732.5	22.38	3.09	25.47	352.37	1
20393	1754.3	22.28	3.09	25.37	344.35	1

CHANNEL BANDWIDTH: 1.4MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19957	1710.7	21.6	3.09	24.69	294.44	1
20175	1732.5	21.55	3.09	24.64	291.07	1
20393	1754.3	21.58	3.09	24.67	293.09	1

CHANNEL BANDWIDTH: 1.4MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19957	1710.7	20.49	3.09	23.58	228.03	1
20175	1732.5	20.52	3.09	23.61	229.61	1
20393	1754.3	20.45	3.09	23.54	225.94	1

CHANNEL BANDWIDTH: 3MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19965	1711.5	22.29	3.09	25.38	345.14	1
20175	1732.5	22.34	3.09	25.43	349.14	1
20385	1753.5	22.28	3.09	25.37	344.35	1

CHANNEL BANDWIDTH: 3MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19965	1711.5	21.57	3.09	24.66	292.42	1
20175	1732.5	21.58	3.09	24.67	293.09	1
20385	1753.5	20.19	3.09	23.28	212.81	1

CHANNEL BANDWIDTH: 3MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19965	1711.5	20.52	3.09	23.61	229.61	1
20175	1732.5	20.46	3.09	23.55	226.46	1
20385	1753.5	20.44	3.09	23.53	225.42	1

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19975	1712.5	22.34	3.09	25.43	349.14	1
20175	1732.5	22.31	3.09	25.4	346.74	1
20375	1752.5	22.28	3.09	25.37	344.35	1

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19975	1712.5	21.54	3.09	24.63	290.4	1
20175	1732.5	21.61	3.09	24.7	295.12	1
20375	1752.5	21.55	3.09	24.64	291.07	1

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19975	1712.5	20.49	3.09	23.58	228.03	1
20175	1732.5	20.52	3.09	23.61	229.61	1
20375	1752.5	20.44	3.09	23.53	225.42	1

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	22.34	3.09	25.43	349.14	1
20175	1732.5	22.31	3.09	25.4	346.74	1
20350	1750	22.29	3.09	25.38	345.14	1

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	21.59	3.09	24.68	293.76	1
20175	1732.5	21.57	3.09	24.66	292.42	1
20350	1750	21.58	3.09	24.67	293.09	1

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	20.54	3.09	23.63	230.67	1
20175	1732.5	20.48	3.09	23.57	227.51	1
20350	1750	20.48	3.09	23.57	227.51	1

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20025	1717.5	22.32	3.09	25.41	347.54	1
20175	1732.5	22.36	3.09	25.45	350.75	1
20325	1747.5	22.24	3.09	25.33	341.19	1

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20025	1717.5	21.58	3.09	24.67	293.09	1
20175	1732.5	21.58	3.09	24.67	293.09	1
20325	1747.5	21.58	3.09	24.67	293.09	1

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20025	1717.5	20.55	3.09	23.64	231.21	1
20175	1732.5	20.47	3.09	23.56	226.99	1
20325	1747.5	20.45	3.09	23.54	225.94	1

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	22.36	3.09	25.45	350.75	1
20175	1732.5	22.39	3.09	25.48	353.18	1
20300	1745	22.3	3.09	25.39	345.94	1

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	21.62	3.09	24.71	295.8	1
20175	1732.5	21.63	3.09	24.72	296.48	1
20300	1745	21.6	3.09	24.69	294.44	1

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	20.57	3.09	23.66	232.27	1
20175	1732.5	20.54	3.09	23.63	230.67	1
20300	1745	20.5	3.09	23.59	228.56	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	22.14	1.69	23.83	241.55	2
21100	2535.0	22.1	1.69	23.79	239.33	2
21425	2567.5	22.12	1.69	23.81	240.44	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	21.4	1.69	23.09	203.7	2
21100	2535.0	21.36	1.69	23.05	201.84	2
21425	2567.5	21.39	1.69	23.08	203.24	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	20.27	1.69	21.96	157.04	2
21100	2535	20.3	1.69	21.99	158.12	2
21425	2567.5	20.33	1.69	22.02	159.22	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	22.11	1.69	23.8	239.88	2
21100	2535.0	22.14	1.69	23.83	241.55	2
21400	2565.0	22.08	1.69	23.77	238.23	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	21.4	1.69	23.09	203.7	2
21100	2535.0	21.37	1.69	23.06	202.3	2
21400	2565.0	21.36	1.69	23.05	201.84	2

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20800	2505	20.33	1.69	22.02	159.22	2
21100	2535	20.24	1.69	21.93	155.96	2
21400	2565	20.3	1.69	21.99	158.12	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	22.17	1.69	23.86	243.22	2
21100	2535.0	22.17	1.69	23.86	243.22	2
21375	2562.5	22.09	1.69	23.78	238.78	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	21.36	1.69	23.05	201.84	2
21100	2535.0	21.42	1.69	23.11	204.64	2
21375	2562.5	21.38	1.69	23.07	202.77	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	20.31	1.69	22	158.49	2
21100	2535	20.23	1.69	21.92	155.6	2
21375	2562.5	20.33	1.69	22.02	159.22	2



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CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	22.19	1.69	23.88	244.34	2
21100	2535.0	22.18	1.69	23.87	243.78	2
21350	2560.0	22.13	1.69	23.82	240.99	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	21.42	1.69	23.11	204.64	2
21100	2535.0	21.44	1.69	23.13	205.59	2
21350	2560.0	21.41	1.69	23.1	204.17	2

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510	20.35	1.69	22.04	159.96	2
21100	2535	20.31	1.69	22	158.49	2
21350	2560	20.35	1.69	22.04	159.96	2



BUREAU
VERITAS

Test Report No.: W7L-P20210616-3RF03

LTE BAND 12

CHANNEL BANDWIDTH: 1.4MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23017	699.7	22.43	-1.88	18.4	69.18	3
23095	707.5	22.5	-1.88	18.47	70.31	3
23173	715.3	22.6	-1.88	18.57	71.94	3

CHANNEL BANDWIDTH: 1.4MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23017	699.7	21.8	-1.88	17.77	59.84	3
23095	707.5	21.8	-1.88	17.77	59.84	3
23173	715.3	22	-1.88	17.97	62.66	3

CHANNEL BANDWIDTH: 1.4MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23017	699.7	20.7	-1.88	16.67	46.45	3
23095	707.5	20.8	-1.88	16.77	47.53	3
23173	715.3	20.92	-1.88	16.89	48.87	3

CHANNEL BANDWIDTH: 3MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23025	700.5	22.39	-1.88	18.36	68.55	3
23095	707.5	22.44	-1.88	18.41	69.34	3
23165	714.5	22.6	-1.88	18.57	71.94	3

CHANNEL BANDWIDTH: 3MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23025	700.5	21.83	-1.88	17.8	60.26	3
23095	707.5	21.8	-1.88	17.77	59.84	3
23165	714.5	22	-1.88	17.97	62.66	3

CHANNEL BANDWIDTH: 3MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23025	700.5	20.71	-1.88	16.68	46.56	3
23095	707.5	20.82	-1.88	16.79	47.75	3
23165	714.5	20.92	-1.88	16.89	48.87	3

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23035	701.5	22.4	-1.88	18.37	68.71	3
23095	707.5	22.43	-1.88	18.4	69.18	3
23155	713.5	22.64	-1.88	18.61	72.61	3

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23035	701.5	21.83	-1.88	17.8	60.26	3
23095	707.5	21.8	-1.88	17.77	59.84	3
23155	713.5	21.99	-1.88	17.96	62.52	3

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23035	701.5	20.64	-1.88	16.61	45.81	3
23095	707.5	20.87	-1.88	16.84	48.31	3
23155	713.5	20.92	-1.88	16.89	48.87	3

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23060	704	22.45	-1.88	18.42	69.50	3
23095	707.5	22.51	-1.88	18.48	70.47	3
23130	711	22.65	-1.88	18.62	72.78	3

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23060	704	21.85	-1.88	17.82	60.53	3
23095	707.5	21.88	-1.88	17.85	60.95	3
23130	711	22.01	-1.88	17.98	62.81	3

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23060	704	20.72	-1.88	16.69	46.67	3
23095	707.5	20.88	-1.88	16.85	48.42	3
23130	711	20.94	-1.88	16.91	49.09	3

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



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LTE BAND 13

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23205	779.5	22.57	-1.88	18.54	71.45	3
23230	782	22.55	-1.88	18.52	71.12	3
23255	784.5	22.57	-1.88	18.54	71.45	3

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23205	779.5	21.89	-1.88	17.86	61.09	3
23230	782	21.91	-1.88	17.88	61.38	3
23255	784.5	21.94	-1.88	17.91	61.8	3

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23205	779.5	20.74	-1.88	16.71	46.88	3
23230	782	20.76	-1.88	16.73	47.1	3
23255	784.5	20.79	-1.88	16.76	47.42	3

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
-	-	-	-	-	-	-
23230	782	22.62	-1.88	18.59	72.28	3
-	-	-	-	-	-	-

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
-	-	-	-	-	-	-
23230	782	21.96	-1.88	17.93	62.09	3
-	-	-	-	-	-	-

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
-	-	-	-	-	-	-
23230	782	20.81	-1.88	16.78	47.64	3
-	-	-	-	-	-	-

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

LTE BAND 17

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23755	706.5	22.39	-1.88	18.36	68.55	3
23790	710	22.42	-1.88	18.39	69.02	3
23825	713.5	22.58	-1.88	18.55	71.61	3

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23755	706.5	21.79	-1.88	17.76	59.7	3
23790	710	21.78	-1.88	17.75	59.57	3
23825	713.5	21.9	-1.88	17.87	61.24	3

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23755	706.5	20.59	-1.88	16.56	45.29	3
23790	710	20.82	-1.88	16.79	47.75	3
23825	713.5	20.82	-1.88	16.79	47.75	3

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23780	709	22.44	-1.88	18.41	69.34	3
23790	710	22.5	-1.88	18.47	70.31	3
23800	711	22.59	-1.88	18.56	71.78	3

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23780	709	21.81	-1.88	17.78	59.98	3
23790	710	21.84	-1.88	17.81	60.39	3
23800	711	21.92	-1.88	17.89	61.52	3



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CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23780	709	20.67	-1.88	16.64	46.13	3
23790	710	20.83	-1.88	16.8	47.86	3
23800	711	20.84	-1.88	16.81	47.97	3

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



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LTE BAND 41

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39675	2498.5	22.46	1.69	24.15	260.02	2
40620	2593.0	22.08	1.69	23.77	238.23	2
41565	2687.5	22.18	1.69	23.87	243.78	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	21.35	1.69	23.04	201.37	2
40620	2593.0	21.07	1.69	22.76	188.8	2
41565	2687.5	21.19	1.69	22.88	194.09	2

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39675	2498.5	20.17	1.69	21.86	153.46	2
40620	2593.0	20.09	1.69	21.78	150.66	2
41565	2687.5	20.06	1.69	21.75	149.62	2



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Test Report No.: W7L-P20210616-3RF03

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39700	2501.0	22.43	1.69	24.12	258.23	2
40620	2593.0	22.11	1.69	23.8	239.88	2
41540	2685.0	22.18	1.69	23.87	243.78	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	21.4	1.69	23.09	203.7	2
40620	2593.0	21.03	1.69	22.72	187.07	2
41540	2685.0	21.22	1.69	22.91	195.43	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	20.23	1.69	21.92	155.6	2
40620	2593.0	20.07	1.69	21.76	149.97	2
41540	2685.0	20.04	1.69	21.73	148.94	2



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Test Report No.: W7L-P20210616-3RF03

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39725	2503.5	22.5	1.69	24.19	262.42	2
40620	2593.0	22.11	1.69	23.8	239.88	2
41515	2682.5	22.15	1.69	23.84	242.10	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	21.39	1.69	23.08	203.24	2
40620	2593.0	21.09	1.69	22.78	189.67	2
41515	2682.5	21.22	1.69	22.91	195.43	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	20.19	1.69	21.88	154.17	2
40620	2593.0	20.09	1.69	21.78	150.66	2
41515	2682.5	20.16	1.69	21.85	153.11	2



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CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39750	2506.0	22.51	1.69	24.2	263.03	2
40620	2593.0	22.15	1.69	23.84	242.10	2
41490	2680.0	22.23	1.69	23.92	246.60	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	21.43	1.69	23.12	205.12	2
40620	2593.0	21.1	1.69	22.79	190.11	2
41490	2680.0	21.24	1.69	22.93	196.34	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	20.25	1.69	21.94	156.31	2
40620	2593.0	20.08	1.69	21.77	150.31	2
41490	2680.0	20.08	1.69	21.77	150.31	2



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Test Report No.: W7L-P20210616-3RF03

LTE BAND 41-HPUE

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39675	2498.5	25.36	1.69	27.05	506.99	2
40620	2593.0	25.15	1.69	26.84	483.06	2
41565	2687.5	25.35	1.69	27.04	505.82	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	24.62	1.69	26.31	427.56	2
40620	2593.0	24.5	1.69	26.19	415.91	2
41565	2687.5	24.7	1.69	26.39	435.51	2

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39675	2498.5	23.6	1.69	25.29	338.06	2
40620	2593.0	23.49	1.69	25.18	329.61	2
41565	2687.5	23.73	1.69	25.42	348.34	2



**BUREAU
VERITAS**

Test Report No.: W7L-P20210616-3RF03

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39700	2501.0	25.33	1.69	27.02	503.50	2
40620	2593.0	25.18	1.69	26.87	486.41	2
41540	2685.0	25.35	1.69	27.04	505.82	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	24.62	1.69	26.31	427.56	2
40620	2593.0	24.47	1.69	26.16	413.05	2
41540	2685.0	24.66	1.69	26.35	431.52	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	23.59	1.69	25.28	337.29	2
40620	2593.0	23.5	1.69	25.19	330.37	2
41540	2685.0	23.7	1.69	25.39	345.94	2



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Test Report No.: W7L-P20210616-3RF03

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39725	2503.5	25.4	1.69	27.09	511.68	2
40620	2593.0	25.18	1.69	26.87	486.41	2
41515	2682.5	25.32	1.69	27.01	502.34	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	24.66	1.69	26.35	431.52	2
40620	2593.0	24.54	1.69	26.23	419.76	2
41515	2682.5	24.66	1.69	26.35	431.52	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	23.61	1.69	25.3	338.84	2
40620	2593.0	23.51	1.69	25.2	331.13	2
41515	2682.5	23.71	1.69	25.4	346.74	2



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VERITAS**

Test Report No.: W7L-P20210616-3RF03

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39750	2506.0	25.41	1.69	27.1	512.86	2
40620	2593.0	25.22	1.69	26.91	490.91	2
41490	2680.0	25.4	1.69	27.09	511.68	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	24.69	1.69	26.38	434.51	2
40620	2593.0	24.55	1.69	26.24	420.73	2
41490	2680.0	24.72	1.69	26.41	437.52	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	23.67	1.69	25.36	343.56	2
40620	2593.0	23.54	1.69	25.23	333.43	2
41490	2680.0	23.75	1.69	25.44	349.95	2



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VERITAS

Test Report No.: W7L-P20210616-3RF03

LTE BAND 66

CHANNEL BANDWIDTH: 1.4MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131979	1710.7	22.11	3.09	25.2	331.13	1
132322	1745	22.11	3.09	25.2	331.13	1
132665	1779.3	22.18	3.09	25.27	336.51	1

CHANNEL BANDWIDTH: 1.4MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131979	1710.7	21.48	3.09	24.57	286.42	1
132322	1745	21.5	3.09	24.59	287.74	1
132665	1779.3	21.51	3.09	24.6	288.4	1

CHANNEL BANDWIDTH: 1.4MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131979	1710.7	20.28	3.09	23.37	217.27	1
132322	1745	20.35	3.09	23.44	220.8	1
132665	1779.3	20.41	3.09	23.5	223.87	1

CHANNEL BANDWIDTH: 3MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131987	1711.5	22.07	3.09	25.16	328.10	1
132322	1745	22.1	3.09	25.19	330.37	1
132657	1778.5	22.06	3.09	25.15	327.34	1

CHANNEL BANDWIDTH: 3MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131987	1711.5	21.45	3.09	24.54	284.45	1
132322	1745	21.56	3.09	24.65	291.74	1
132657	1778.5	21.54	3.09	24.63	290.4	1

CHANNEL BANDWIDTH: 3MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131987	1711.5	20.34	3.09	23.43	220.29	1
132322	1745	20.38	3.09	23.47	222.33	1
132657	1778.5	20.35	3.09	23.44	220.8	1

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131997	1712.5	22.08	3.09	25.17	328.85	1
132322	1745	22.05	3.09	25.14	326.59	1
132647	1777.5	22.07	3.09	25.16	328.1	1

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
C	1712.5	21.46	3.09	24.55	285.1	1
132322	1745	21.52	3.09	24.61	289.07	1
132647	1777.5	21.54	3.09	24.63	290.4	1

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
C	1712.5	20.28	3.09	23.37	217.27	1
132322	1745	20.35	3.09	23.44	220.8	1
132647	1777.5	20.41	3.09	23.5	223.87	1

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132022	1715	22.05	3.09	25.14	326.59	1
132322	1745	22.08	3.09	25.17	328.85	1
132622	1775	22.07	3.09	25.16	328.1	1

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132022	1715	21.46	3.09	24.55	285.1	1
132322	1745	21.49	3.09	24.58	287.08	1
132622	1775	21.5	3.09	24.59	287.74	1

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132022	1715	20.27	3.09	23.36	216.77	1
132322	1745	20.36	3.09	23.45	221.31	1
132622	1775	20.38	3.09	23.47	222.33	1

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1717.5	22.12	3.09	25.21	331.89	1
132322	1745	22.08	3.09	25.17	328.85	1
132597	1772.5	22.06	3.09	25.15	327.34	1

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1715	21.5	3.09	24.59	287.74	1
132322	1745	21.56	3.09	24.65	291.74	1
132622	1775	21.5	3.09	24.59	287.74	1

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1715	20.29	3.09	23.38	217.77	1
132322	1745	20.37	3.09	23.46	221.82	1
132622	1775	20.39	3.09	23.48	222.84	1



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CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	22.13	3.09	25.22	332.66	1
132322	1745	22.12	3.09	25.21	331.89	1
132572	1770	22.12	3.09	25.21	331.89	1

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	21.53	3.09	24.62	289.73	1
132322	1745	21.57	3.09	24.66	292.42	1
132572	1770	21.56	3.09	24.65	291.74	1

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	20.35	3.09	23.44	220.8	1
132322	1745	20.4	3.09	23.49	223.36	1
132572	1770	20.43	3.09	23.52	224.91	1



Test Report No.: W7L-P20210616-3RF03

LTE BAND CA_66C

CHANNEL BANDWIDTH: 5MHz+20MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132005	1713.3	132122	1725	22.08	3.09	25.17	328.85	1
132330	1745.8	132447	1757.5	22.04	3.09	25.13	325.84	1
132455	1758.3	132572	1770	22.06	3.09	25.15	327.34	1

CHANNEL BANDWIDTH: 5MHz+20MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132005	1713.3	132122	1725	21.23	3.09	24.32	270.4	1
132330	1745.8	132447	1757.5	21.26	3.09	24.35	272.27	1
132455	1758.3	132572	1770	21.21	3.09	24.3	269.15	1

CHANNEL BANDWIDTH: 5MHz+20MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132005	1713.3	132122	1725	20.69	3.09	23.78	238.78	1
132330	1745.8	132447	1757.5	20.73	3.09	23.82	240.99	1
132455	1758.3	132572	1770	20.69	3.09	23.78	238.78	1



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Test Report No.: W7L-P20210616-3RF03

CHANNEL BANDWIDTH: 10MHz+15MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132025	1715.3	132145	1727.3	22.07	3.09	25.16	328.10	1
132351	1747.9	132471	1759.9	22.06	3.09	25.15	327.34	1
132477	1760.5	132597	1772.5	22.07	3.09	25.16	328.10	1

CHANNEL BANDWIDTH: 10MHz+15MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132025	1715.3	132145	1727.3	21.33	3.09	24.42	276.69	1
132351	1747.9	132471	1759.9	21.38	3.09	24.47	279.9	1
132477	1760.5	132597	1772.5	21.39	3.09	24.48	280.54	1

CHANNEL BANDWIDTH: 10MHz+15MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132025	1715.3	132145	1727.3	20.68	3.09	23.77	238.23	1
132351	1747.9	132471	1759.9	20.7	3.09	23.79	239.33	1
132477	1760.5	132597	1772.5	20.73	3.09	23.82	240.99	1



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Test Report No.: W7L-P20210616-3RF03

CHANNEL BANDWIDTH: 10MHz+20MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132027	1715.5	132171	1729.9	22.02	3.09	25.11	324.34	1
132328	1745.6	132472	1760	22.07	3.09	25.16	328.10	1
132428	1755.6	132572	1770	22.05	3.09	25.14	326.59	1

CHANNEL BANDWIDTH: 10MHz+20MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132027	1715.5	132171	1729.9	21.3	3.09	24.39	274.79	1
132328	1745.6	132472	1760	21.28	3.09	24.37	273.53	1
132428	1755.6	132572	1770	21.32	3.09	24.41	276.06	1

CHANNEL BANDWIDTH: 10MHz+20MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132027	1715.5	132171	1729.9	20.69	3.09	23.78	238.78	1
132328	1745.6	132472	1760	20.66	3.09	23.75	237.14	1
132428	1755.6	132572	1770	20.73	3.09	23.82	240.99	1



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Test Report No.: W7L-P20210616-3RF03

CHANNEL BANDWIDTH: 15MHz+10MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1717.5	132167	1729.5	22.07	3.09	25.16	328.1	1
132373	1750.1	132493	1762.1	22.09	3.09	25.18	329.61	1
132499	1762.7	132619	1774.7	22.06	3.09	25.15	327.34	1

CHANNEL BANDWIDTH: 15MHz+10MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1717.5	132167	1729.5	21.35	3.09	24.44	277.97	1
132373	1750.1	132493	1762.1	21.44	3.09	24.53	283.79	1
132499	1762.7	132619	1774.7	21.67	3.09	24.76	299.23	1

CHANNEL BANDWIDTH: 15MHz+10MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1717.5	132167	1729.5	20.79	3.09	23.88	244.34	1
132373	1750.1	132493	1762.1	20.84	3.09	23.93	247.17	1
132499	1762.7	132619	1774.7	20.73	3.09	23.82	240.99	1



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Test Report No.: W7L-P20210616-3RF03

CHANNEL BANDWIDTH: 15MHz+15MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1717.5	132197	1732.5	22.02	3.09	25.11	324.34	1
132347	1747.5	132497	1762.5	22.05	3.09	25.14	326.59	1
132447	1757.5	132597	1772.5	22.03	3.09	25.12	325.09	1

CHANNEL BANDWIDTH: 15MHz+15MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1717.5	132197	1732.5	21.3	3.09	24.39	274.79	1
132347	1747.5	132497	1762.5	21.31	3.09	24.4	275.42	1
132447	1757.5	132597	1772.5	21.37	3.09	24.46	279.25	1

CHANNEL BANDWIDTH: 15MHz+15MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1717.5	132197	1732.5	20.77	3.09	23.86	243.22	1
132347	1747.5	132497	1762.5	20.79	3.09	23.88	244.34	1
132447	1757.5	132597	1772.5	20.82	3.09	23.91	246.04	1



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Test Report No.: W7L-P20210616-3RF03

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)
132050	1717.8	132221	1734.9	22.07	3.09	25.16	328.10	1
132325	1745.3	132496	1762.4	22.06	3.09	25.15	327.34	1
132401	1752.9	132572	1770	22.07	3.09	25.16	328.10	1

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)
132050	1717.8	132221	1734.9	21.4	3.09	24.49	281.19	1
132325	1745.3	132496	1762.4	21.33	3.09	24.42	276.69	1
132401	1752.9	132572	1770	21.38	3.09	24.47	279.9	1

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)
132050	1717.8	132221	1734.9	20.88	3.09	23.97	249.46	1
132325	1745.3	132496	1762.4	20.83	3.09	23.92	246.6	1
132401	1752.9	132572	1770	20.86	3.09	23.95	248.31	1



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Test Report No.: W7L-P20210616-3RF03

CHANNEL BANDWIDTH: 20MHz+5MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	132189	1731.7	22.03	3.09	25.12	325.09	1
132397	1752.5	132514	1764.2	22.05	3.09	25.14	326.59	1
132522	1765	132639	1776.7	22.08	3.09	25.17	328.85	1

CHANNEL BANDWIDTH: 20MHz+5MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	132189	1731.7	21.33	3.09	24.42	276.69	1
132397	1752.5	132514	1764.2	21.31	3.09	24.4	275.42	1
132522	1765	132639	1776.7	21.39	3.09	24.48	280.54	1

CHANNEL BANDWIDTH: 20MHz+5MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	132189	1731.7	20.76	3.09	23.85	242.66	1
132397	1752.5	132514	1764.2	20.72	3.09	23.81	240.44	1
132522	1765	132639	1776.7	20.77	3.09	23.86	243.22	1



Test Report No.: W7L-P20210616-3RF03

CHANNEL BANDWIDTH: 20MHz+10MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	132216	1734.4	22.05	3.09	25.14	326.59	1
132373	1750.1	132517	1764.5	22.08	3.09	25.17	328.85	1
132473	1760.1	132617	1774.5	22.06	3.09	25.15	327.34	1

CHANNEL BANDWIDTH: 20MHz+10MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	132216	1734.4	21.41	3.09	24.5	281.84	1
132373	1750.1	132517	1764.5	21.35	3.09	24.44	277.97	1
132473	1760.1	132617	1774.5	21.36	3.09	24.45	278.61	1

CHANNEL BANDWIDTH: 20MHz+10MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	132216	1734.4	20.77	3.09	23.86	243.22	1
132373	1750.1	132517	1764.5	20.69	3.09	23.78	238.78	1
132473	1760.1	132617	1774.5	20.72	3.09	23.81	240.44	1



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VERITAS**

Test Report No.: W7L-P20210616-3RF03

CHANNEL BANDWIDTH: 20MHz+15MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	132243	1737.1	22.05	3.09	25.14	326.59	1
132348	1747.6	132519	1764.7	22.08	3.09	25.17	328.85	1
132423	1755.1	132594	1772.2	22.01	3.09	25.1	323.59	1

CHANNEL BANDWIDTH: 20MHz+15MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	132243	1737.1	21.52	3.09	24.61	289.07	1
132348	1747.6	132519	1764.7	21.79	3.09	24.88	307.61	1
132423	1755.1	132594	1772.2	21.75	3.09	24.84	304.79	1

CHANNEL BANDWIDTH: 20MHz+15MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	132243	1737.1	20.97	3.09	24.06	254.68	1
132348	1747.6	132519	1764.7	21.07	3.09	24.16	260.62	1
132423	1755.1	132594	1772.2	21.03	3.09	24.12	258.23	1



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CHANNEL BANDWIDTH: 20MHz+20MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	132270	1739.8	22.1	3.09	25.19	330.37	1
132323	1745.1	132494	1764.9	22.06	3.09	25.15	327.34	1
132374	1750.2	132545	1770	22.1	3.09	25.19	330.37	1

CHANNEL BANDWIDTH: 20MHz+20MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	132270	1739.8	21.36	3.09	24.45	278.61	1
132323	1745.1	132494	1764.9	21.49	3.09	24.58	287.08	1
132374	1750.2	132545	1770	21.31	3.09	24.4	275.42	1

CHANNEL BANDWIDTH: 20MHz+20MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	132270	1739.8	20.87	3.09	23.96	248.89	1
132323	1745.1	132494	1764.9	20.9	3.09	23.99	250.61	1
132374	1750.2	132545	1770	20.85	3.09	23.94	247.74	1



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LTE BAND 71

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
133147	665.5	22.05	0.14	20.04	100.93	1
133247	675.5	22.12	0.14	20.11	102.57	1
133447	695.5	22.15	0.14	20.14	103.28	1

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
133147	665.5	21.31	0.14	19.3	85.11	1
133247	675.5	21.27	0.14	19.26	84.33	1
133447	695.5	21.34	0.14	19.33	85.7	1

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
133147	665.5	20.22	0.14	18.21	66.22	1
133247	675.5	20.25	0.14	18.24	66.68	1
133447	695.5	20.32	0.14	18.31	67.76	1

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
133172	668	22.1	0.14	20.09	102.09	1
133272	678	22.09	0.14	20.08	101.86	1
133422	693	22.1	0.14	20.09	102.09	1

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
133172	668	21.31	0.14	19.3	85.11	1
133272	678	21.28	0.14	19.27	84.53	1
133422	693	21.31	0.14	19.3	85.11	1

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
133172	668	20.28	0.14	18.27	67.14	1
133272	678	20.25	0.14	18.24	66.68	1
133422	693	20.29	0.14	18.28	67.3	1



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CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
133197	670.5	22.08	0.14	20.07	101.62	1
133297	680.5	22.09	0.14	20.08	101.86	1
133397	690.5	22.05	0.14	20.04	100.93	1

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
133197	670.5	21.29	0.14	19.28	84.72	1
133297	680.5	21.33	0.14	19.32	85.51	1
133397	690.5	21.33	0.14	19.32	85.51	1

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
133197	670.5	20.24	0.14	18.23	66.53	1
133297	680.5	20.26	0.14	18.25	66.83	1
133397	690.5	20.32	0.14	18.31	67.76	1



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CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
133222	673	22.1	0.14	20.09	102.09	1
133322	683	22.09	0.14	20.08	101.86	1
133372	688	22.08	0.14	20.07	101.62	1

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
133222	673	21.33	0.14	19.32	85.51	1
133322	683	21.35	0.14	19.34	85.9	1
133372	688	21.36	0.14	19.35	86.1	1

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
133222	673	20.3	0.14	18.29	67.45	1
133322	683	20.29	0.14	18.28	67.3	1
133372	688	20.34	0.14	18.33	68.08	1

3.2 FREQUENCY STABILITY MEASUREMENT

3.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

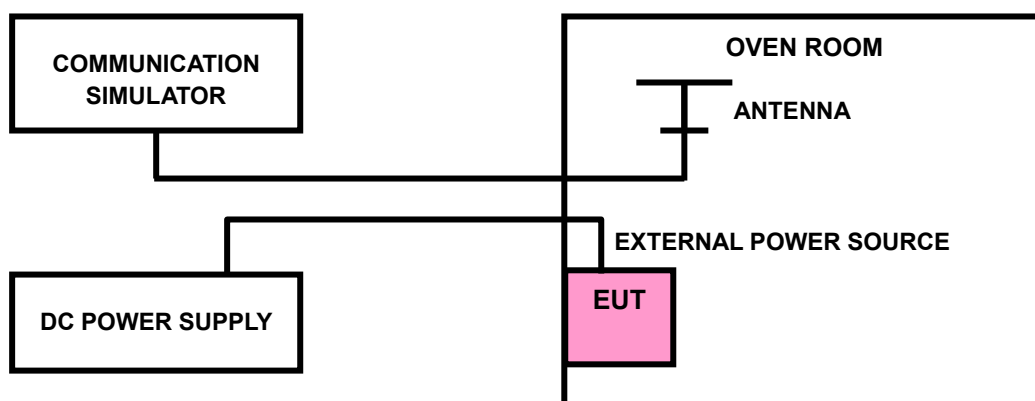
The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

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 $\pm 0.5^{\circ}\text{C}$ 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

Please Refer to Appendix C Of this test report.

LTE BAND CA_66C

LTE BAND CA_66C channel and Frequency List					
BW(MHz)	Channel/Frequncy(MHz)		Lowest	Middle	Highest
5+20	PCC	channel	132005	132330	132455
		Frequncy	1713.3	1745.8	1758.3
	SCC	channel	132122	132447	132572
		Frequncy	1725	1757.5	1770
10+15	PCC	channel	132025	132351	132477
		Frequncy	1715.3	1747.9	1760.5
	SCC	channel	132145	132471	132597
		Frequncy	1727.3	1759.9	1772.5
10+20	PCC	channel	132027	132328	132428
		Frequncy	1715.5	1745.6	1755.6
	SCC	channel	132171	132472	132572
		Frequncy	1729.9	1760	1770
15+10	PCC	channel	132047	132373	132499
		Frequncy	1717.5	1750.1	1762.7
	SCC	channel	132167	132493	132619
		Frequncy	1729.5	1762.1	1774.7
15+15	PCC	channel	132047	132347	132447
		Frequncy	1717.5	1747.5	1757.5
	SCC	channel	132197	132497	132597
		Frequncy	1732.5	1762.5	1772.5
15+20	PCC	channel	132050	132325	132401
		Frequncy	1717.8	1745.3	1752.9
	SCC	channel	132221	132496	132572
		Frequncy	1734.9	1762.4	1770
20+5	PCC	channel	132072	132397	132522
		Frequncy	1720	1752.5	1765



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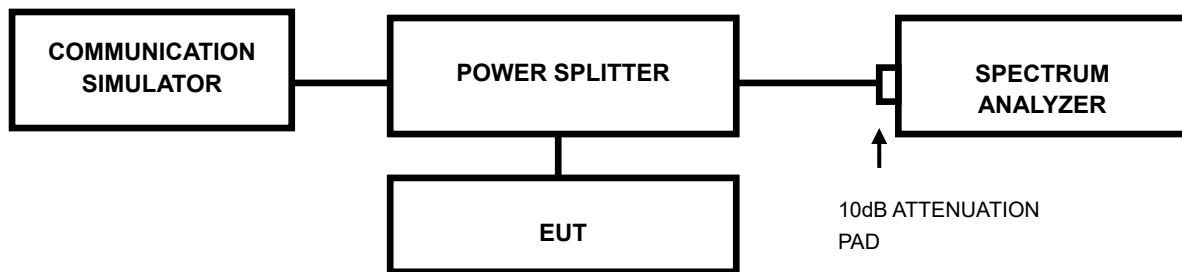
	SCC	channel	132189	132514	132639
		Frequncy	1731.7	1764.2	1776.7
20+10	PCC	channel	132072	132373	132473
		Frequncy	1720	1750.1	1760.1
	SCC	channel	132216	132517	132617
		Frequncy	1734.4	1764.5	1774.5
20+15	PCC	channel	132072	132348	132423
		Frequncy	1720	1747.6	1755.1
	SCC	channel	132243	132519	132594
		Frequncy	1737.1	1764.7	1772.2
20+20	PCC	channel	132072	132323	132374
		Frequncy	1720	1745.1	1750.2
	SCC	channel	132270	132521	132572
		Frequncy	1739.8	1764.9	1770

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

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



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3.3.4 TEST RESULTS

Please Refer to Appendix C Of this test report.



3.4 BAND EDGE MEASUREMENT

3.4.1 LIMITS OF BAND EDGE MEASUREMENT

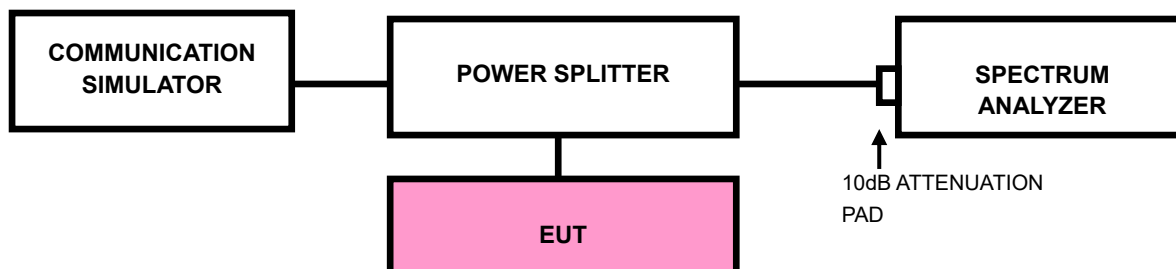
According to FCC 27.53(c) specified that For operations in the 746-758 MHz band and the 776-788 MHz band , the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log (P)$ dB. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed. In addition, the power of any unwanted emission in an 6.25kHz bandwidth for all frequencies between 763-775 MHz and 793-806 MHz shall be attenuated below the transmitter power, P(dBW), by at least $65 + 10 \log 10p(P)$, dB, for mobile and portable equipment.

According to FCC 27.53(g) specified that For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log (P)$ dB. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

According to FCC 27.53(h) specified that For operations in the 1710-1755 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log (P)$ dB. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

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.

3.4.2 TEST SETUP



3.4.3 TEST PROCEDURES

- a. All measurements were done at low and high operational frequency range.
- b. The center frequency of spectrum is the band edge frequency and span is 1~5 MHz.
RBW of the spectrum is 10kHz and VBW of the spectrum is 30kHz (LTE bandwidth for (1.4M/3M/5M/10M/15M/20M)1RB/0RB&1RB/MAXRB).
- c. The center frequency of spectrum is the band edge frequency and span is 10MHz.
RBW of the spectrum is 100kHz and VBW of the spectrum is 300kHz (WCDMA).
- d. The center frequency of spectrum is the band edge frequency and span is 1~5 MHz.
RBW of the spectrum is $\geq 1\% \cdot \text{EBW}$ kHz and VBW of the spectrum is $3 \cdot \text{RBW}$ kHz.
(LTE bandwidth 1.4M/3M/5M/10M/15M/20MHz).
- e. Record the max trace plot into the test report.



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3.4.4 TEST RESULTS

Please Refer to Appendix C Of this test report.

3.5 CONDUCTED SPURIOUS EMISSIONS

3.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13dBm .

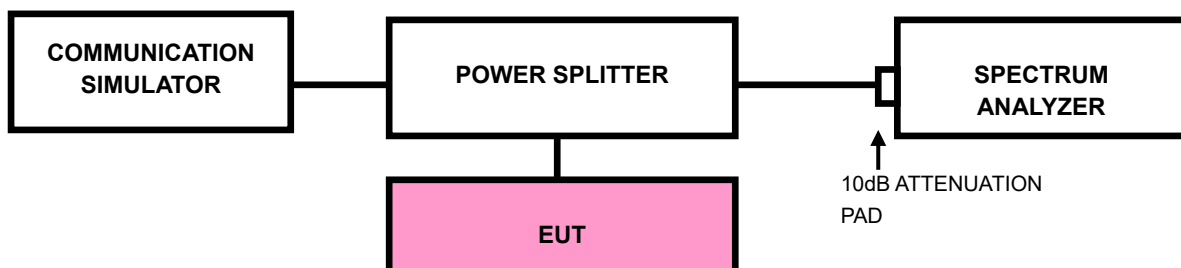
For:LTE Band7&Band41

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $55 + 10 \log_{10}(P)$ dB. The limit of emission is equal to -25dBm .

3.5.2 TEST PROCEDURE

- a. The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.
- b. Measuring frequency range is from 30MHz up to a frequency including its 10th harmonic. 10dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz is used for conducted emission measurement.

3.5.3 TEST SETUP





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3.5.4 TEST RESULTS

NOTE : The 9K~30MHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

Please Refer to Appendix C Of this test report.



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3.6 RADIATED EMISSION MEASUREMENT

3.6.1 LIMITS OF RADIATED EMISSION MEASUREMENT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13dBm .

For: LTE Band7&Band41

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $55 + 10 \log_{10}(P)$ dB. The limit of emission is equal to -25dBm .

3.6.2 TEST PROCEDURES

- a. 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.
- b. 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 a. Record the power level of S.G.
- c. $\text{EIRP} = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$.
- d. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, $\text{E.R.P power} = \text{E.I.P.R power} - 2.15\text{dBi}$.

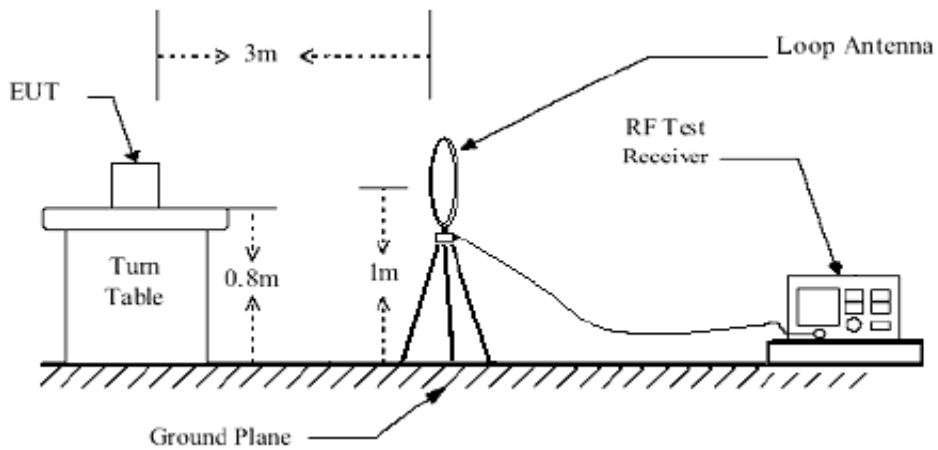
NOTE: The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

3.6.3 DEVIATION FROM TEST STANDARD

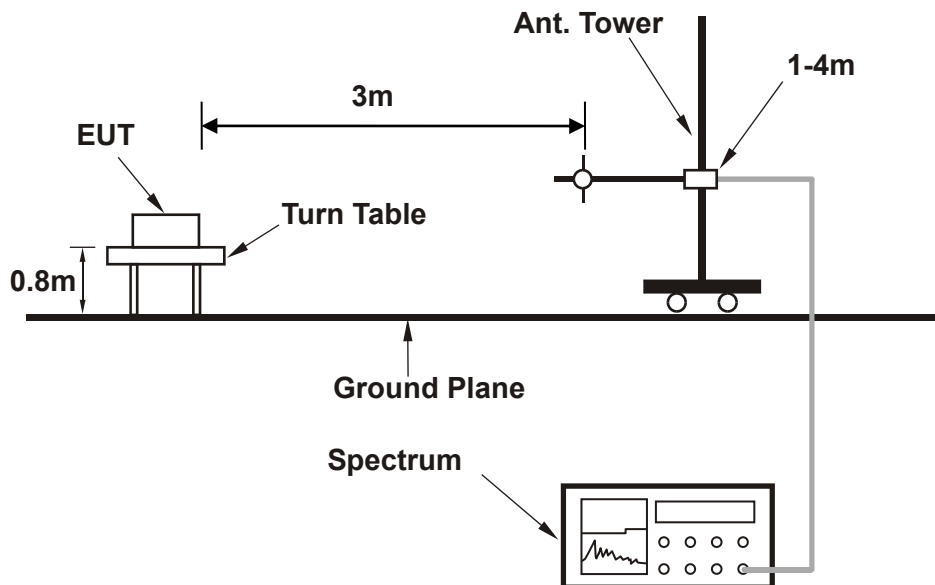
No deviation

3.6.4 TEST SETUP

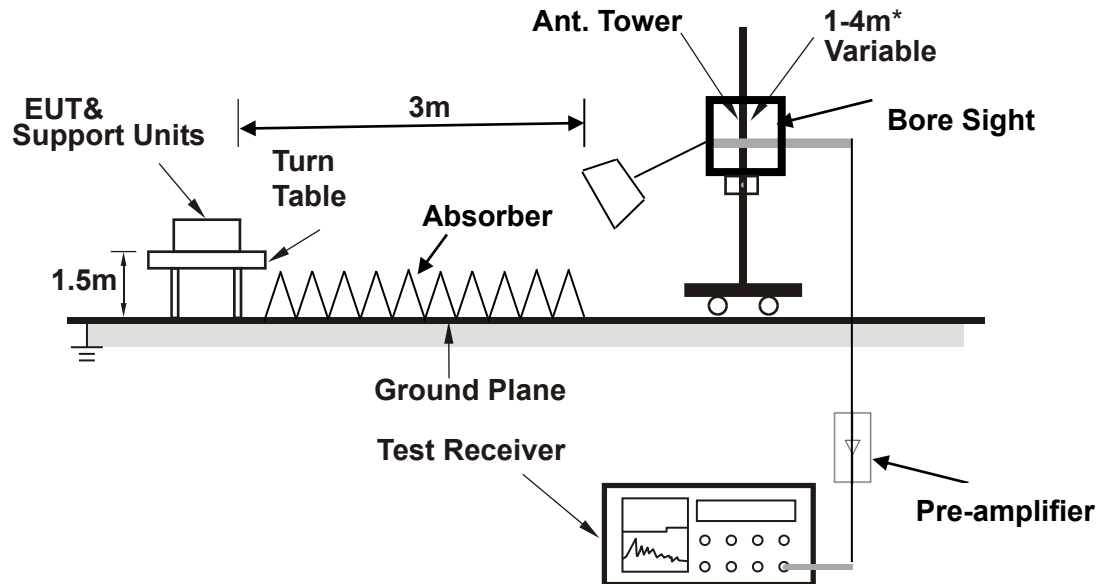
< Frequency Range below 30MHz >



< 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).



3.6.5 TEST RESULTS

NOTE : The 9K~30MHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

BELOW 1GHz WORST-CASE DATA

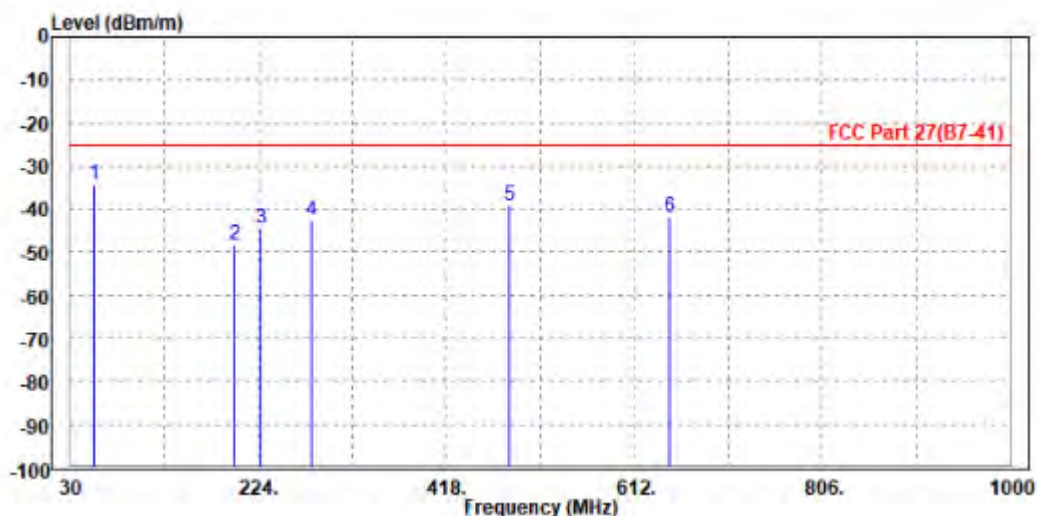
30 MHz – 1GHz data:

LTE Band 41

CHANNEL BANDWIDTH: 10MHz / QPSK

MODE	TX channel 41540	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	EUT 4.0V
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	55.220	-34.13	-42.21	-25.00	-9.13	8.08 Peak	Horizontal
2		198.780	-48.22	-59.17	-25.00	-23.22	10.95 Peak	Horizontal
3		225.940	-44.59	-56.73	-25.00	-19.59	12.14 Peak	Horizontal
4		279.290	-42.64	-56.31	-25.00	-17.64	13.67 Peak	Horizontal
5		482.990	-39.23	-57.62	-25.00	-14.23	18.39 Peak	Horizontal
6		648.860	-42.00	-63.68	-25.00	-17.00	21.68 Peak	Horizontal

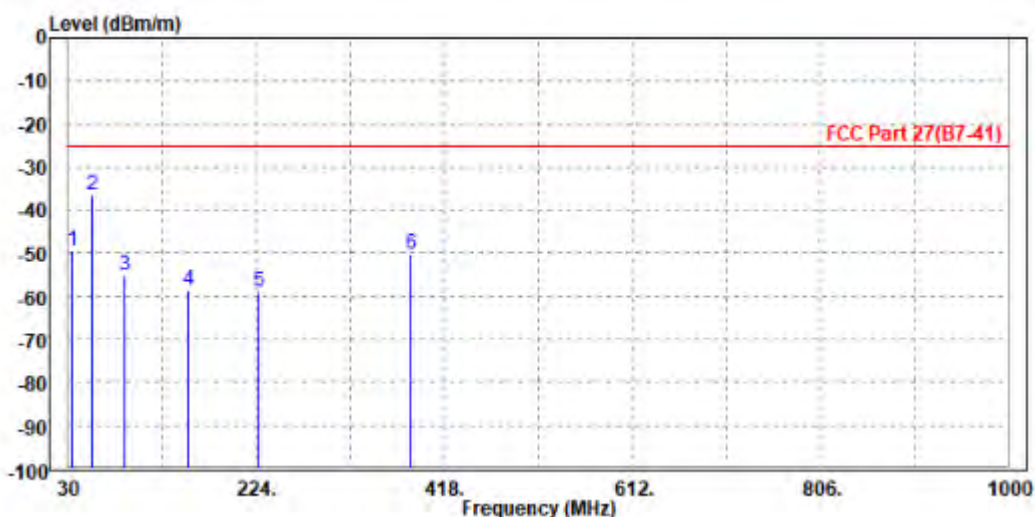




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MODE	TX channel 41540	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	EUT 4.0V
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	34.850	-49.57	-67.64	-25.00	-24.57	18.07	Peak	Vertical
2 PP	54.250	-36.49	-45.02	-25.00	-11.49	8.53	Peak	Vertical
3	88.200	-55.06	-63.52	-25.00	-30.06	8.46	Peak	Vertical
4	154.160	-58.37	-68.99	-25.00	-33.37	10.62	Peak	Vertical
5	226.910	-59.04	-71.78	-25.00	-34.04	12.74	Peak	Vertical
6	383.080	-50.25	-67.08	-25.00	-25.25	16.83	Peak	Vertical





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ABOVE 1GHz

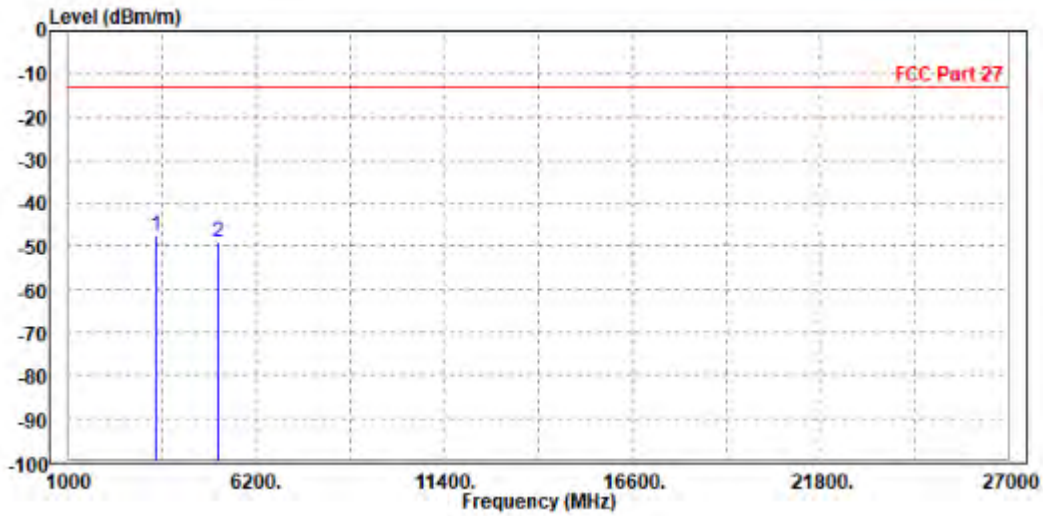
Note: For higher frequency, the emission is too low to be detected.

WCDMA Band IV:

CH 1312

MODE	TX channel 1312	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	EUT 4.0V
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP 3418.000	-47.58	-56.17	-13.00	-34.58	8.59	Peak	Horizontal
2	5137.200	-49.08	-58.02	-13.00	-36.08	8.94	Peak	Horizontal

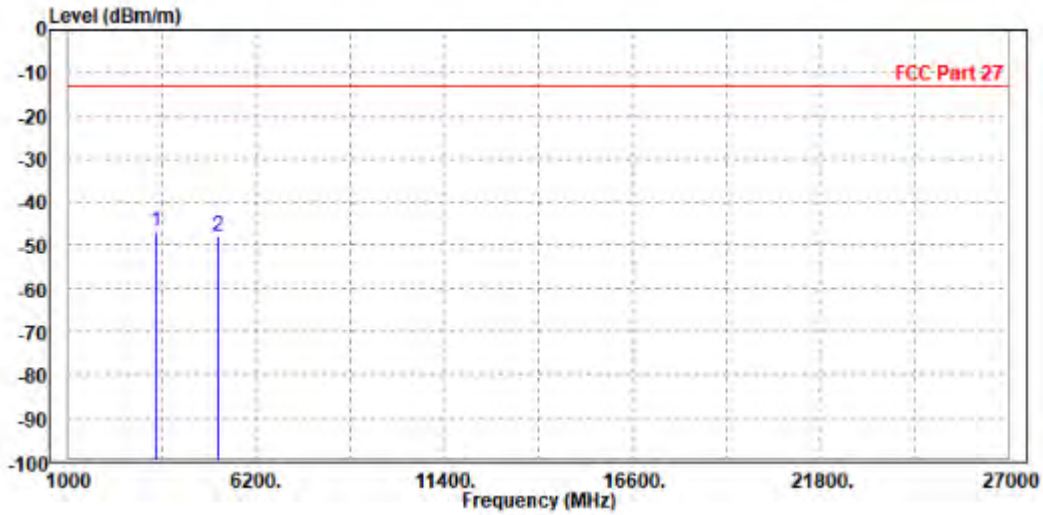




Test Report No.: W7L-P20210616-3RF03

MODE	TX channel 1312	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	EUT 4.0V
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP 3418.000	-46.66	-55.77	-13.00	-33.66	9.11	Peak	Vertical
2	5137.200	-47.90	-57.75	-13.00	-34.90	9.85	Peak	Vertical



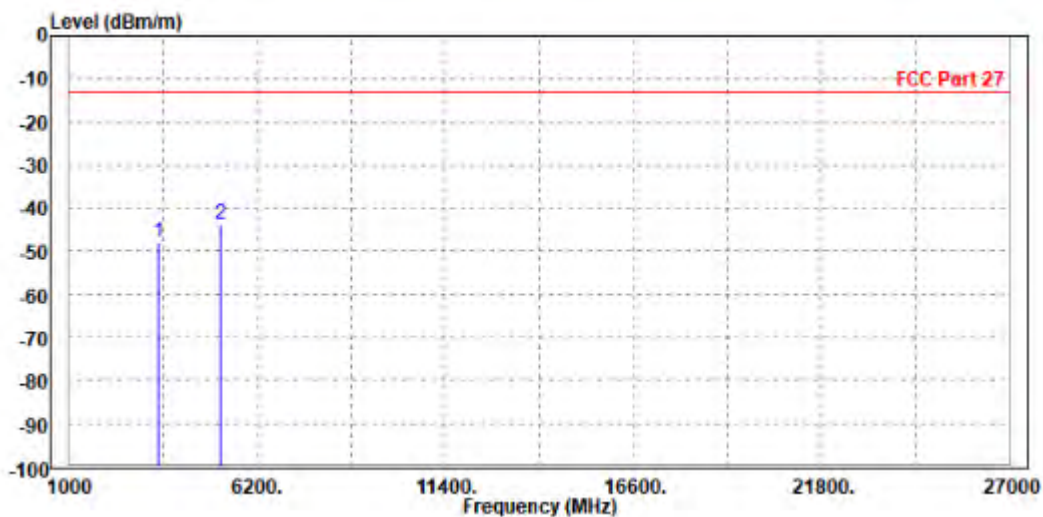


Test Report No.: W7L-P20210616-3RF03

CH 1413

MODE	TX channel 1413	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	EUT 4.0V
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3470.000	-47.72	-56.30	-13.00	-34.72	8.58	Peak	Horizontal
2 PP	5197.800	-43.58	-52.70	-13.00	-30.58	9.12	Peak	Horizontal





Test Report No.: W7L-P20210616-3RF03

MODE	TX channel 1413	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	EUT 4.0V
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3470.000	-47.66	-56.82	-13.00	-34.66	9.16	Peak	Vertical
2 PP	5197.800	-41.05	-50.87	-13.00	-28.05	9.82	Peak	Vertical

