



Test Report No.: W7L-P21080006RF18



FCC TEST REPORT (PART 27)

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

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

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

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

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

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

This report is governed by, and incorporates by reference, CPS Conditions of Service as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



TABLE OF CONTENTS

RELEASE CONTROL RECORD	4
1 SUMMARY OF TEST RESULTS	5
1.1 MEASUREMENT UNCERTAINTY	5
1.2 TEST SITE AND INSTRUMENTS	6
2 GENERAL INFORMATION	7
2.1 GENERAL DESCRIPTION OF EUT	7
2.2 CONFIGURATION OF SYSTEM UNDER TEST	13
2.3 DESCRIPTION OF SUPPORT UNITS	14
2.4 TEST ITEM AND TEST CONFIGURATION	14
2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS	25
3 TEST TYPES AND RESULTS	26
3.1 OUTPUT POWER MEASUREMENT	26
3.1.1 LIMITS OF OUTPUT POWER MEASUREMENT	26
3.1.2 TEST PROCEDURES	26
3.1.3 TEST SETUP	27
3.1.4 TEST RESULTS	28
3.2 FREQUENCY STABILITY MEASUREMENT	78
3.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT	78
3.2.2 TEST PROCEDURE	78
3.2.3 TEST SETUP	78
3.2.4 TEST RESULTS	79
3.3 OCCUPIED BANDWIDTH MEASUREMENT	107
3.3.1 LIMITS OF OCCUPIED BANDWIDTH MEASUREMENT	107
3.3.2 TEST SETUP	107
3.3.3 TEST PROCEDURES	107
3.3.4 TEST RESULTS	108
3.4 BAND EDGE MEASUREMENT	136
3.4.1 LIMITS OF BAND EDGE MEASUREMENT	136
3.4.2 TEST SETUP	136
3.4.3 TEST PROCEDURES	137
3.4.4 TEST RESULTS	138
3.5 CONDUCTED SPURIOUS EMISSIONS	220
3.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT	220
3.5.2 TEST PROCEDURE	220
3.5.3 TEST SETUP	220
3.5.4 TEST RESULTS	221
3.6 RADIATED EMISSION MEASUREMENT	249
3.6.1 LIMITS OF RADIATED EMISSION MEASUREMENT	249
3.6.2 TEST PROCEDURES	249
3.6.3 DEVIATION FROM TEST STANDARD	249
3.6.4 TEST SETUP	250
3.6.5 TEST RESULTS	251
3.7 PEAK TO AVERAGE RATIO	341
3.7.1 LIMITS OF PEAK TO AVERAGE RATIO MEASUREMENT	341
3.7.2 TEST SETUP	341
3.7.3 TEST PROCEDURES	341
3.7.4 TEST RESULTS	342



**BUREAU
VERITAS**

Test Report No.: W7L-P21080006RF18

4 INFORMATION ON THE TESTING LABORATORIES	370
5 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB	371



Test Report No.: W7L-P21080006RF18

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-P21080006RF18	Original release	Sep. 01, 2021

1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 27 & Part 2		
STANDARD SECTION	1.1.1.1.1 TEST TYPE AND LIMIT	RESULT
2.1046 27.50(h)(2)	Equivalent Isotropically Radiated Power	Compliance
2.1055 27.54	Frequency Stability	Compliance
2.1049 27.53(m)(6)	Occupied Bandwidth	Compliance
2.1051 27.53(m)(4)(6)	Band Edge Measurements	Compliance
2.1051 27.53(m)(4)(6)	Conducted Spurious Emissions	Compliance
2.1053 27.53(m)(4)(6)	Radiated Spurious Emissions	Compliance

1.1 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	$\pm 76.97\text{Hz}$
Radiated emissions & Radiated Power (30MHz~1GMHz)	$\pm 4.98\text{dB}$
Radiated emissions & Radiated Power (1GMHz ~6GMHz)	$\pm 4.70\text{dB}$
Radiated emissions (6GMHz ~18GMHz)	$\pm 4.60\text{dB}$
Radiated emissions (18GMHz ~40GMHz)	$\pm 4.12\text{dB}$
Conducted emissions	$\pm 4.01\text{dB}$
Occupied Channel Bandwidth	$\pm 43.58\text{KHz}$
Conducted Output power	$\pm 2.06\text{dB}$
Band Edge Measurements	$\pm 4.70\text{dB}$

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



1.2 TEST SITE AND INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Apr. 22,21	Apr. 21,22
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	Jun. 04,20	Jun. 03,21
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	Jun. 03,21	Jun. 02,22
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Mar. 05,21	Mar. 04,22
Horn Antenna	ETS-LINDGREN	3117	00168728	Apr. 02,21	Apr. 01,22
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40-K-SG/QMS-00361	15433	Aug. 26, 20	Aug. 25, 21
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40-K-SG/QMS-00361	15433	Aug. 25, 21	Aug. 24, 22
Radio Communication Analyzer	ANRITSU	MT8820C	6201465426	Feb. 25,21	Feb. 24,22
Signal Pre-Amplifier	EMSI	EMC 9135	980249	Jun. 03,20	Jun. 02,21
Signal Pre-Amplifier	EMSI	EMC 9135	980249	Jun. 02,21	Jun. 01,22
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	Jun. 04,20	Jun. 03,21
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	Jun. 03,21	Jun. 02,22
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Apr. 22,21	Apr. 21,22
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	Euroshieldpn-CT0001143-1216	May. 19,20	May. 18,23
Test Software	E3	V 9.160323	N/A	N/A	N/A
Test Software	ADT	ADT_Radiated_V 7.6.15.9.2	N/A	N/A	N/A
10dB Attenuator	JFW/USA	50HF-010-SMA	1505	Jun. 04,20	Jun. 03,21
10dB Attenuator	JFW/USA	50HF-010-SMA	1505	Jun. 03,21	Jun. 02,22
Power Meter	Anritsu	ML2495A	1506002	Apr. 07,21	Apr. 06,22
Power Sensor	Anritsu	MA2411B	1339352	May. 07,21	May. 06,22
Temperature Chamber	ESPEC	SH-242	93000855	Jun. 03,20	Jun. 02,21
Temperature Chamber	ESPEC	SH-242	93000855	Jun. 02,21	Jun. 01,22
MXG Analog 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	Mobile Computer	
BRAND NAME	Honeywell	
MODEL NAME	CT45P-L1N-2	
NOMINAL VOLTAGE	3.85Vdc (Lithium-ion cell, battery)	
MODULATION TECHNOLOGY	LTE	QPSK, 16QAM, 64QAM
FREQUENCY RANGE	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 12 Channel Bandwidth: 1.4MHz	699.7MHz ~ 715.3MHz
	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 14 Channel Bandwidth: 5MHz	790.5MHz ~ 795.5MHz
	LTE Band 14 Channel Bandwidth: 10MHz	793MHz
	LTE Band 17 Channel Bandwidth: 5MHz	706.5MHz ~ 713.5MHz
	LTE Band 17 Channel Bandwidth: 10MHz	709MHz ~ 711 MHz



Test Report No.: W7L-P21080006RF18

	LTE Band 30 Channel Bandwidth: 5MHz	2307.5MHz ~ 2312.5MHz	
	LTE Band 30 Channel Bandwidth: 10MHz	2310MHz	
	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 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	LTE Band 4 Channel Bandwidth: 1.4MHz	QPSK: 1M95G7D
			16QAM: 1M10W7D
64QAM: 1M10W7D			
LTE Band 4 Channel Bandwidth: 3MHz		QPSK: 2M71G7D	
		16QAM: 2M69W7D	
		64QAM: 2M69W7D	
LTE Band 4 Channel Bandwidth: 5MHz		QPSK: 4M49G7D	
		16QAM: 4M48W7D	
		64QAM: 4M49W7D	
LTE Band 4 Channel Bandwidth: 10MHz		QPSK: 9M00G7D	
		16QAM: 8M99W7D	
		64QAM: 8M98W7D	
LTE Band 4 Channel Bandwidth: 15MHz		QPSK: 13M4G7D	
		16QAM: 13M4W7D	
		64QAM: 13M4W7D	
LTE Band 4 Channel Bandwidth: 20MHz	QPSK: 17M9G7D		
	16QAM: 17M9W7D		
	64QAM: 17M9W7D		
LTE Band 12 Channel Bandwidth: 1.4MHz	QPSK: 1M09G7D		
	16QAM: 1M09W7D		
	64QAM: 1M09W7D		



**BUREAU
VERITAS**

Test Report No.: W7L-P21080006RF18

EMISSION DESIGNATOR	LTE Band 12 Channel Bandwidth: 3MHz	QPSK: 2M69G7D
		16QAM: 2M69W7D
		64QAM: 2M69W7D
	LTE Band 12 Channel Bandwidth: 5MHz	QPSK: 4M48G7D
		16QAM: 4M49W7D
		64QAM: 4M48W7D
	LTE Band 12 Channel Bandwidth: 10MHz	QPSK: 9M03G7D
		16QAM: 9M01W7D
		64QAM: 9M03W7D
	LTE Band 13 Channel Bandwidth: 5MHz	QPSK: 4M49G7D
		16QAM: 4M48W7D
		64QAM: 4M48W7D
	LTE Band 13 Channel Bandwidth: 10MHz	QPSK: 8M93G7D
		16QAM: 8M93W7D
		64QAM: 8M94W7D
	LTE Band 14 Channel Bandwidth: 5MHz	QPSK: 4M48G7D
		16QAM: 4M48W7D
		64QAM: 4M47W7D
	LTE Band 14 Channel Bandwidth: 10MHz	QPSK: 8M94G7D
		16QAM: 8M93W7D
		64QAM: 8M92W7D
	LTE Band 17 Channel Bandwidth: 5MHz	QPSK: 4M48G7D
		16QAM: 4M48W7D
		64QAM: 4M48W7D
	LTE Band 17 Channel Bandwidth: 10MHz	QPSK: 8M87G7D
		16QAM: 8M85W7D
		64QAM: 8M87W7D
LTE Band 30 Channel Bandwidth: 5MHz	QPSK: 4M49G7D	
	16QAM: 4M47W7D	
	64QAM: 4M48W7D	
LTE Band 30 Channel Bandwidth: 10MHz	QPSK: 8M96G7D	
	16QAM: 8M94W7D	
	64QAM: 8M95W7D	
LTE Band 66 Channel Bandwidth: 1.4MHz	QPSK: 1M11G7D	
	16QAM: 1M11W7D	
	64QAM: 1M69W7D	
LTE Band 66 Channel Bandwidth: 3MHz	QPSK: 2M70G7D	
	16QAM: 2M69W7D	
	64QAM: 2M69W7D	
LTE Band 66 Channel Bandwidth: 5MHz	QPSK: 4M50G7D	
	16QAM: 4M49W7D	
	64QAM: 4M49W7D	



**BUREAU
VERITAS**

Test Report No.: W7L-P21080006RF18

	LTE Band 66 Channel Bandwidth: 10MHz	QPSK: 8M98G7D
		16QAM: 8M97W7D
		64QAM: 8M97W7D
	LTE Band 66 Channel Bandwidth: 15MHz	QPSK: 13M5G7D
		16QAM: 13M5W7D
		64QAM: 13M4W7D
	LTE Band 66 Channel Bandwidth: 20MHz	QPSK: 18M0G7D
		16QAM: 18M0W7D
		64QAM: 18M0W7D
	LTE Band 71 Channel Bandwidth: 5MHz	QPSK: 4M47G7D
		16QAM: 4M47W7D
		64QAM: 4M48W7D
	LTE Band 71 Channel Bandwidth: 10MHz	QPSK: 8M93G7D
		16QAM: 8M95W7D
		64QAM: 8M94W7D
	LTE Band 71 Channel Bandwidth: 15MHz	QPSK: 13M5G7D
		16QAM: 13M5W7D
		64QAM: 13M5W7D
	CLTE Band 71 Channel Bandwidth: 20MHz	QPSK: 18M0G7D
		16QAM: 17M9W7D
		64QAM: 18M0W7D
MAX. EIRP POWER	LTE Band 4 Channel Bandwidth: 1.4MHz	207.49mW
	LTE Band 4 Channel Bandwidth: 3MHz	204.17mW
	LTE Band 4 Channel Bandwidth: 5MHz	205.12mW
	LTE Band 4 Channel Bandwidth: 10MHz	205.12mW
	LTE Band 4 Channel Bandwidth: 15MHz	206.54mW
	LTE Band 4 Channel Bandwidth: 20MHz	207.97mW
	LTE Band 12 Channel Bandwidth: 1.4MHz	145.55mW
	LTE Band 12 Channel Bandwidth: 3MHz	144.21mW
	LTE Band 12 Channel Bandwidth: 5MHz	144.54mW
	LTE Band 12 Channel Bandwidth: 10MHz	146.22mW
	LTE Band 13 Channel Bandwidth: 5MHz	151.71mW
	LTE Band 13 Channel Bandwidth: 10MHz	153.46mW



BUREAU
VERITAS

Test Report No.: W7L-P21080006RF18

	LTE Band 14 Channel Bandwidth: 5MHz	163.68mW
	LTE Band 14 Channel Bandwidth: 10MHz	165.58mW
	LTE Band 17 Channel Bandwidth: 5MHz	148.25mW
	LTE Band 17 Channel Bandwidth: 10MHz	149.97mW
	LTE Band 30 Channel Bandwidth: 5MHz	277.33mW
	LTE Band 30 Channel Bandwidth: 10MHz	280.54mW
	LTE Band 66 Channel Bandwidth: 1.4MHz	222.33mW
	LTE Band 66 Channel Bandwidth: 3MHz	222.33mW
	LTE Band 66 Channel Bandwidth: 5MHz	221.82mW
	LTE Band 66 Channel Bandwidth: 10MHz	223.87mW
	LTE Band 66 Channel Bandwidth: 15MHz	225.42mW
	LTE Band 66 Channel Bandwidth: 20MHz	226.99mW
	LTE Band 71 Channel Bandwidth: 5MHz	124.45mW
	LTE Band 71 Channel Bandwidth: 10MHz	124.45mW
	LTE Band 71 Channel Bandwidth: 15MHz	125.03mW
	LTE Band 71 Channel Bandwidth: 20MHz	125.89mW
ANTENNA TYPE	PIFA Antenna with 2.55dBi gain for LTE B4 PIFA Antenna with 1.11dBi gain for LTE B12/B17 PIFA Antenna with 0.86dBi gain for LTE B13 PIFA Antenna with 1dBi gain for LTE B14/B71 PIFA Antenna with 1.17dBi gain for LTE B30 PIFA Antenna with 2.91dBi gain for LTE B66	
HW VERSION	V1.0	
SW VERSION	OS.11.002-HON.11.002	
I/O PORTS	Refer to user's manual	
CABLE SUPPLIED	USB cable: unshielded without ferrite, 1.25 meter Earphone cable: unshielded without ferrite, 1.27 meter	
EXTREME TEMPERATURE	-10-55 °C	
EXTREME VOLTAGE	3.4V- 4.4V	



**BUREAU
VERITAS**

Test Report No.: W7L-P21080006RF18

NOTE:

1. For a more detailed features description, please refer to the manufacturer’s specifications or the user's manual.
2. This product includes the following three SKU which hardware is exactly same, the difference is described as following, Sample 1 was full test, sample 2 verify the worst case,check worst case Radiated emission:

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

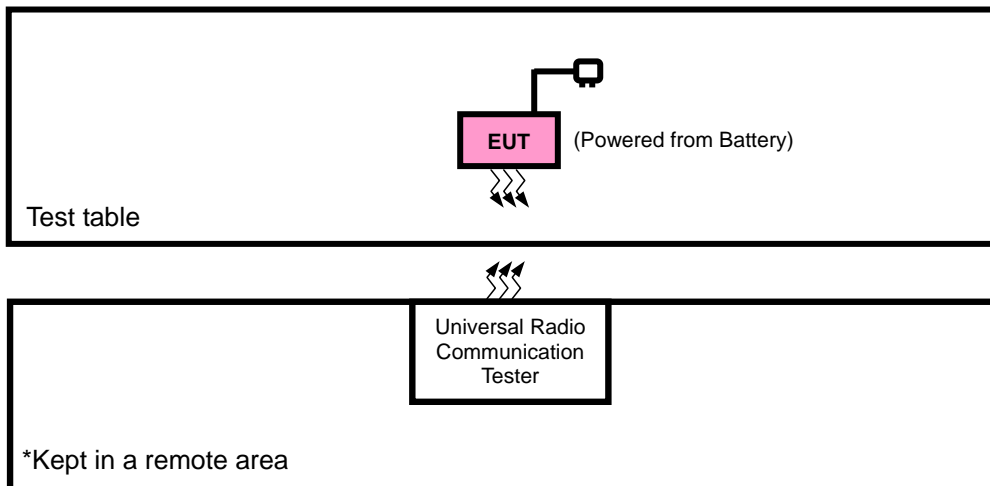
3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.

List of Accessory:

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

2.2 CONFIGURATION OF SYSTEM UNDER TEST

FOR RADIATION EMISSION TEST





2.3 DESCRIPTION OF SUPPORT UNITS

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

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

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	DC Line: Unshielded, Detachable 1.0m

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 GSM or WCDMA or LTE link

LTE BAND 4

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
B	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
B	FREQUENCY STABILITY	19957 to 20393	19957, 20393	1.4MHz	QPSK	1 RB / 0 RB Offset
		19965 to 20385	19965, 20385	3MHz	QPSK	1 RB / 0 RB Offset
		19975 to 20375	19975, 20375	5MHz	QPSK	1 RB / 0 RB Offset
		20000 to 20350	20000, 20350	10MHz	QPSK	1 RB / 0 RB Offset
		20025 to 20325	20025, 20325	15MHz	QPSK	1 RB / 0 RB Offset
		20050 to 20300	20050, 20300	20MHz	QPSK	1 RB / 0 RB Offset
B	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
B	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
B	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 / 5 RB Offset
			20385	3MHz	QPSK, 16QAM, 64QAM	6 RB / 0 RB Offset
		19975 to 20375	19975	5MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
			20375	5MHz	QPSK, 16QAM, 64QAM	15 RB / 0 RB Offset
		20000 to 20350	19975	5MHz	QPSK, 16QAM, 64QAM	1 RB / 14 RB Offset
			20375	5MHz	QPSK, 16QAM, 64QAM	15 RB / 0 RB Offset
		20000 to 20350	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 / 24 RB Offset
			20350	10MHz	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		
20000 to 20350	20000	10MHz	QPSK, 16QAM, 64QAM	1 RB / 49 RB Offset		
	20350	10MHz	QPSK, 16QAM, 64QAM	50 RB / 0 RB Offset		

B	BAND EDGE	20025 to 20325	20025	15MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset		
			20325	15MHz	QPSK, 16QAM, 64QAM	75 RB / 0 RB Offset		
		20050 to 20300	20050	20MHz	QPSK, 16QAM, 64QAM	1 RB / 74 RB Offset		
			20300	20MHz	QPSK, 16QAM, 64QAM	75 RB / 0 RB Offset		
		B	CONDCUDETED EMISSION	19957 to 20393	19957, 20175, 20393	1.4MHz	QPSK	1 RB / 0 RB Offset
				19965 to 20385	19965, 20175, 20385	3MHz	QPSK	1 RB / 0 RB Offset
19975 to 20375	19975, 20175, 20375			5MHz	QPSK	1 RB / 0 RB Offset		
20000 to 20350	20000, 20175, 20350			10MHz	QPSK	1 RB / 0 RB Offset		
20025 to 20325	20025, 20175, 20325			15MHz	QPSK	1 RB / 0 RB Offset		
20050 to 20300	20050, 20175, 20300			20MHz	QPSK	1 RB / 0 RB Offset		
A	RADIATED EMISSION	19957 to 20393	19957, 20175, 20393	1.4MHz	QPSK	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 12

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE		
B	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		
B	FREQUENCY STABILITY	23017 to 23173	23017, 23173	1.4MHz	QPSK	1 RB / 0 RB Offset		
		23025 to 23165	23025, 23165	3MHz	QPSK	1 RB / 0 RB Offset		
		23035 to 23155	23035, 23155	5MHz	QPSK	1 RB / 0 RB Offset		
		23060 to 23130	23060, 23130	10MHz	QPSK	1 RB / 0 RB Offset		
B	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		
B	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		
B	BAND EDGE	23017 to 23173	23017	1.4MHz	QPSK	1 RB / 0 RB Offset 6 RB / 0 RB Offset		
			23173	1.4MHz	QPSK	1 RB / 5 RB Offset 6 RB / 0 RB Offset		
		23025 to 23165	23025	3MHz	QPSK	1 RB / 0 RB Offset 15 RB / 0 RB Offset		
			23165	3MHz	QPSK	1 RB / 14 RB Offset 15 RB / 0 RB Offset		
		23035 to 23155	23035	5MHz	QPSK	1 RB / 0 RB Offset 25 RB / 0 RB Offset		
			23155	5MHz	QPSK	1 RB / 24 RB Offset 25 RB / 0 RB Offset		
		23060 to 23130	23060	10MHz	QPSK	1 RB / 0 RB Offset 50 RB / 0 RB Offset		
			23130	10MHz	QPSK	1 RB / 49 RB Offset 50 RB / 0 RB Offset		
		B	CONDCUETED EMISSION	23017 to 23173	23017, 23095 , 23173	1.4MHz	QPSK	1 RB / 0 RB Offset
				23025 to 23165	23025, 23095 ,23165	3MHz	QPSK	1 RB / 0 RB Offset
				23035 to 23155	23035, 23095 ,23155	5MHz	QPSK	1 RB / 0 RB Offset
				23060 to 23130	23060, 23095 ,23130	10MHz	QPSK	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

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
B	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
B	FREQUENCY STABILITY	23205 to 23255	20025, 20325	1.4MHz	QPSK	1 RB / 0 RB Offset
		23230	23230	10MHz	QPSK	1 RB / 0 RB Offset
B	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
B	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
			/	10MHz	QPSK,16QAM, 64QAM	25 RB / 0 RB Offset
			/	10MHz	QPSK,16QAM, 64QAM	1 RB / 0 RB Offset
			/	10MHz	QPSK,16QAM, 64QAM	50 RB / 0 RB Offset
B	CONDCUDED EMISSION	23205 to 23255	20025, 20175, 20325	5MHz	QPSK	1 RB / 0 RB Offset
		23230	23230	10MHz	QPSK	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.



LTE BAND 14

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
B	ERP	23305 to 23355	23305, 23330, 23355	5MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
		23330	23330	10MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
B	FREQUENCY STABILITY	23305 to 23355	23305, 23355	5MHz	QPSK	1 RB / 0 RB Offset
		23330	23330	10MHz	QPSK	1 RB / 0 RB Offset
B	OCCUPIED BANDWIDTH	23305 to 23355	23305, 23330, 23355	5MHz	QPSK,16QAM,64QAM	25 RB / 0 RB Offset
		23330	23330	10MHz	QPSK,16QAM,64QAM	50 RB / 0 RB Offset
B	BAND EDGE	23305 to 23355	23305	5MHz	QPSK,16QAM, 64QAM	1 RB / 0 RB Offset
			23355	5MHz	QPSK,16QAM, 64QAM	25 RB / 0 RB Offset
		23300	23330	10MHz	QPSK,16QAM, 64QAM	1 RB / 0 RB Offset
			/	10MHz	QPSK,16QAM, 64QAM	50 RB / 0 RB Offset
						1 RB / 24 RB Offset
						25 RB / 0 RB Offset
B	CONDCUETED EMISSION	23305 to 23355	23305, 23330, 23355	5MHz	QPSK	1 RB / 0 RB Offset
		23330	23330	10MHz	QPSK	1 RB / 0 RB Offset
A	RADIATED EMISSION	23305 to 23355	23305, 23330, 23355	5MHz	QPSK	1 RB / 0 RB Offset
		23330	23330	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 17

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
B	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
B	FREQUENCY STABILITY	23755 to 23825	23755, 23825	5MHz	QPSK	1 RB / 0 RB Offset
		23780 to 23800	23780, 23800	10MHz	QPSK	1 RB / 0 RB Offset
B	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
B	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 / 24 RB Offset
						25 RB / 0 RB Offset
B	CONDCUETED EMISSION	23755 to 23825	23755, 23790, 23825	5MHz	QPSK	1 RB / 0 RB Offset
		23780 to 23800	23780, 23790, 23800	10MHz	QPSK	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



**BUREAU
VERITAS**

Test Report No.: W7L-P21080006RF18

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

LTE BAND 30

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE		
B	ERP	27685 to 27735	27685, 27710, 27735	5MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset		
		27710	27710	10MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset		
B	FREQUENCY STABILITY	27685 to 27735	27685, 27735	5MHz	QPSK	1 RB / 0 RB Offset		
		27710	27710	10MHz	QPSK	1 RB / 0 RB Offset		
B	OCCUPIED BANDWIDTH	27685 to 27735	27685, 27710, 27735	5MHz	QPSK,16QAM,64QAM	25 RB / 0 RB Offset		
		27710	27710	10MHz	QPSK,16QAM,64QAM	50 RB / 0 RB Offset		
B	BAND EDGE	27685 to 27735	27685	5MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset 25 RB / 0 RB Offset		
			27735	5MHz	QPSK,16QAM,64QAM	1 RB / 24 RB Offset 25 RB / 0 RB Offset		
		27710	27710	10MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset 50 RB / 0 RB Offset		
			/	10MHz	QPSK,16QAM,64QAM	1 RB / 49 RB Offset 50 RB / 0 RB Offset		
		B	CONDCUDED EMISSION	27685 to 27735	27685, 27710, 27735	5MHz	QPSK	1 RB / 0 RB Offset
				27710	27710	10MHz	QPSK	1 RB / 0 RB Offset
A	RADIATED EMISSION	27685 to 27735	27685, 27710, 27735	5MHz	QPSK	1 RB / 0 RB Offset		
		27710	27710	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 66

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
B	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
B	FREQUENCY STABILITY	131979 to 132665	131979,132665	1.4MHz	QPSK	1 RB / 0 RB Offset
		131987 to 132657	131987,132657	3MHz	QPSK	1 RB / 0 RB Offset
		131997 to 132647	131997,132647	5MHz	QPSK	1 RB / 0 RB Offset
		132022 to 132622	132022,132622	10MHz	QPSK	1 RB / 0 RB Offset
		132047 to 132597	132047,132597	15MHz	QPSK	1 RB / 0 RB Offset
		132072 to 132572	132072,132572	20MHz	QPSK	1 RB / 0 RB Offset
B	OCCUPIED	131979 to 132665	131979,132322,132665	1.4MHz	QPSK,16QAM,64QAM	6 RB / 0 RB Offset



BUREAU
VERITAS

Test Report No.: W7L-P21080006RF18

	BANDWIDTH	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		
B	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		
			132572	20MHz	QPSK,16QAM, 64QAM	1 RB / 99 RB Offset 100 RB / 0 RB Offset		
		B	CONDCUETED EMISSION	131979 to 132665	131979,132322,132665	1.4MHz	QPSK	1 RB / 0 RB Offset
				131987 to 132657	131987,132322,132657	3MHz	QPSK	1 RB / 0 RB Offset
				131997 to 132647	131997,132322,132647	5MHz	QPSK	1 RB / 0 RB Offset
				132022 to 132622	132022,132322,132622	10MHz	QPSK	1 RB / 0 RB Offset
132047 to 132597	132047,132322,132597			15MHz	QPSK	1 RB / 0 RB Offset		
132072 to 132572	132072,132322,132572			20MHz	QPSK	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.



Test Report No.: W7L-P21080006RF18

LTE BAND 71

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE		
B	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		
B	FREQUENCY STABILITY	133147 to 133447	133147, 133447	5MHz	QPSK	1 RB / 0 RB Offset		
		133172 to 133172	133172, 133172	10MHz	QPSK	1 RB / 0 RB Offset		
		133197 to 133397	133197, 133397	15MHz	QPSK	1 RB / 0 RB Offset		
		133222 to 133372	133222, 133372	20MHz	QPSK	1 RB / 0 RB Offset		
B	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		
B	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		
		B	CONDCUEDTED EMISSION	133147 to 133447	133147, 133247, 133447	5MHz	QPSK	1 RB / 0 RB Offset
				133172 to 133172	133172, 133272, 133172	10MHz	QPSK	1 RB / 0 RB Offset
				133197 to 133397	133197, 133297, 133397	15MHz	QPSK	1 RB / 0 RB Offset
				133222 to 133372	133222, 133322, 133372	20MHz	QPSK	1 RB / 0 RB Offset



BUREAU
VERITAS

Test Report No.: W7L-P21080006RF18

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.



Test Report No.: W7L-P21080006RF18

TEST CONDITION:

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



Test Report No.: W7L-P21080006RF18

2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC 47 CFR Part 2

FCC 47 CFR Part 27

KDB 971168 D01 Power Meas License Digital Systems v03r01

ANSI/TIA/EIA-603-D

ANSI/TIA/EIA-603-E

ANSI C63.26-2015

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



3 TEST TYPES AND RESULTS

3.1 OUTPUT POWER MEASUREMENT

3.1.1 LIMITS OF OUTPUT POWER MEASUREMENT

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

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

3.1.2 TEST PROCEDURES

EIRP MEASUREMENT:

Per KDB 971168 D01 Power Meas License Digital Systems v03r01 or subclause 5.2.5.5 of ANSI C63.26-2015, the relevant equation for 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:

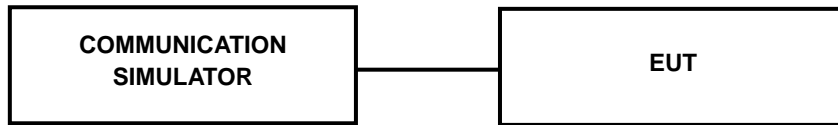
- a. The EUT was set up for the maximum power with LTE link data modulation and link up with simulator.
- b. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.



Test Report No.: W7L-P21080006RF18

3.1.3 TEST SETUP

CONDUCTED POWER MEASUREMENT:



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

3.1.4 TEST RESULTS

AVERAGE CONDUCTED OUTPUT POWER (dBm)

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	20.53	20.40	20.36	0
		1	2	20.56	20.40	20.42	0
		1	5	20.50	20.32	20.36	0
		3	0	20.61	20.46	20.54	0
		3	1	20.58	20.62	20.54	0
		3	3	20.54	20.38	20.46	0
		6	0	19.67	19.45	19.51	1
	16QAM	1	0	19.73	19.59	19.57	1
		1	2	19.94	19.73	19.83	1
		1	5	19.78	19.65	19.72	1
		3	0	19.69	19.48	19.56	1
		3	1	19.68	19.65	19.61	1
		3	3	19.59	19.41	19.50	1
		6	0	18.65	18.51	18.46	2
	64QAM	1	0	18.64	18.55	18.58	2
		1	2	18.95	18.82	18.82	2
		1	5	18.60	18.38	18.51	2
		3	0	18.64	17.51	17.44	2
		3	1	18.67	17.56	17.55	2
		3	3	18.58	17.42	17.47	2
		6	0	17.70	17.49	17.57	3

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	20.55	20.42	20.35	0
		1	7	20.52	20.41	20.42	0
		1	14	20.46	20.32	20.36	0
		8	0	19.60	19.49	19.57	1
		8	3	19.71	19.62	19.56	1
		8	7	19.51	19.45	19.50	1
		15	0	19.64	19.46	19.45	1
	16QAM	1	0	19.70	19.65	19.60	1
		1	7	19.91	19.76	19.81	1
		1	14	19.81	19.65	19.72	1
		8	0	18.65	18.49	18.56	2
		8	3	18.73	18.60	18.64	2
		8	7	18.61	18.39	18.46	2
		15	0	18.65	18.45	18.49	2
	64QAM	1	0	18.70	18.58	18.52	2
		1	7	18.98	18.76	18.81	2
		1	14	18.61	18.40	18.51	2
		8	0	17.67	17.55	17.45	3
		8	3	17.71	17.50	17.60	3
		8	7	17.55	17.46	17.43	3
		15	0	17.72	17.46	17.61	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	20.56	20.37	20.36	0
		1	12	20.57	20.38	20.42	0
		1	24	20.47	20.31	20.40	0
		12	0	19.63	19.49	19.54	1
		12	6	19.71	19.63	19.57	1
		12	13	19.55	19.41	19.51	1
		25	0	19.62	19.49	19.48	1
	16QAM	1	0	19.71	19.61	19.60	1
		1	12	19.88	19.79	19.80	1
		1	24	19.81	19.65	19.71	1
		12	0	18.65	18.47	18.53	2
		12	6	18.70	18.64	18.60	2
		12	13	18.56	18.41	18.49	2
		25	0	18.65	18.46	18.46	2
	64QAM	1	0	18.64	18.55	18.58	2
		1	12	18.95	18.82	18.81	2
		1	24	18.54	18.45	18.51	2
		12	0	17.68	17.52	17.44	3
		12	6	17.65	17.57	17.59	3
		12	13	17.59	17.45	17.40	3
		25	0	17.68	17.52	17.59	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	20.53	20.40	20.36	0
		1	24	20.57	20.38	20.43	0
		1	49	20.44	20.35	20.36	0
		25	0	19.64	19.48	19.57	1
		25	12	19.77	19.57	19.57	1
		25	25	19.53	19.38	19.50	1
		50	0	19.67	19.49	19.45	1
	16QAM	1	0	19.71	19.58	19.56	1
		1	24	19.93	19.75	19.83	1
		1	49	19.81	19.66	19.68	1
		25	0	18.67	18.45	18.59	2
		25	12	18.74	18.58	18.65	2
		25	25	18.55	18.42	18.46	2
		50	0	18.69	18.45	18.50	2
	64QAM	1	0	18.63	18.56	18.55	2
		1	24	19.00	18.78	18.85	2
		1	49	18.60	18.39	18.48	2
		25	0	17.66	17.49	17.50	3
		25	12	17.72	17.56	17.53	3
		25	25	17.58	17.42	17.42	3
		50	0	17.73	17.48	17.60	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	20.60	20.40	20.33	0
		1	37	20.55	20.43	20.38	0
		1	74	20.50	20.38	20.37	0
		36	0	19.61	19.49	19.58	1
		36	19	19.78	19.62	19.57	1
		36	39	19.51	19.39	19.50	1
		75	0	19.67	19.47	19.50	1
	16QAM	1	0	19.75	19.65	19.56	1
		1	37	19.92	19.76	19.83	1
		1	74	19.77	19.71	19.70	1
		36	0	18.71	18.45	18.60	2
		36	19	18.68	18.62	18.61	2
		36	39	18.60	18.40	18.49	2
		75	0	18.70	18.48	18.43	2
	64QAM	1	0	18.65	18.57	18.56	2
		1	37	19.01	18.77	18.82	2
		1	74	18.56	18.38	18.51	2
		36	0	17.71	17.55	17.44	3
		36	19	17.66	17.50	17.55	3
		36	39	17.61	17.49	17.44	3
		75	0	17.72	17.46	17.61	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	20.63	20.44	20.41	0
		1	50	20.59	20.46	20.44	0
		1	99	20.52	20.39	20.41	0
		50	0	19.67	19.54	19.59	1
		50	25	19.79	19.64	19.62	1
		50	50	19.59	19.46	19.52	1
		100	0	19.68	19.51	19.53	1
	16QAM	1	0	19.78	19.66	19.62	1
		1	50	19.96	19.81	19.85	1
		1	99	19.83	19.73	19.73	1
		50	0	18.73	18.53	18.61	2
		50	25	18.76	18.66	18.66	2
		50	50	18.63	18.46	18.51	2
		100	0	18.71	18.53	18.51	2
	64QAM	1	0	18.71	18.60	18.60	2
		1	50	19.03	18.84	18.87	2
		1	99	18.62	18.46	18.53	2
		50	0	17.72	17.57	17.52	3
		50	25	17.73	17.58	17.61	3
		50	50	17.63	17.50	17.48	3
		100	0	17.74	17.54	17.62	3



**BUREAU
VERITAS**

Test Report No.: W7L-P21080006RF18

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	22.61	22.54	22.61	0
		1	2	22.38	22.24	22.36	0
		1	5	22.64	22.48	22.58	0
		3	0	22.37	22.24	22.38	0
		3	1	22.37	22.25	22.27	0
		3	3	22.67	22.58	22.68	0
		6	0	21.53	21.37	21.49	1
	16QAM	1	0	21.79	21.66	21.76	1
		1	2	21.50	21.33	21.47	1
		1	5	21.83	21.69	21.84	1
		3	0	21.50	21.38	21.46	1
		3	1	21.31	21.27	21.31	1
		3	3	21.59	21.47	21.59	1
		6	0	20.44	20.37	20.42	2
	64QAM	1	0	20.72	20.63	20.74	2
		1	2	20.34	20.29	20.34	2
		1	5	20.82	20.65	20.79	2
		3	0	20.47	20.38	20.44	2
		3	1	20.32	20.25	20.29	2
		3	3	20.48	20.34	20.49	2
		6	0	19.46	19.34	19.42	3

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	22.63	22.56	22.60	0
		1	7	22.34	22.25	22.36	0
		1	14	22.60	22.48	22.58	0
		8	0	21.36	21.27	21.38	1
		8	3	21.30	21.25	21.29	1
		8	7	21.69	21.65	21.72	1
		15	0	21.50	21.38	21.43	1
	16QAM	1	0	21.76	21.72	21.79	1
		1	7	21.47	21.36	21.45	1
		1	14	21.86	21.69	21.84	1
		8	0	20.46	20.39	20.46	2
		8	3	20.36	20.22	20.34	2
		8	7	20.61	20.45	20.55	2
		15	0	20.44	20.31	20.45	2
	64QAM	1	0	20.78	20.66	20.68	2
		1	7	20.37	20.23	20.33	2
		1	14	20.83	20.67	20.79	2
		8	0	19.50	19.42	19.45	3
		8	3	19.36	19.19	19.34	3
		8	7	19.45	19.38	19.45	3
		15	0	19.48	19.31	19.46	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	22.64	22.51	22.61	0
		1	12	22.39	22.22	22.36	0
		1	24	22.61	22.47	22.62	0
		12	0	21.39	21.27	21.35	1
		12	6	21.30	21.26	21.30	1
		12	13	21.73	21.61	21.73	1
		25	0	21.48	21.41	21.46	1
	16QAM	1	0	21.77	21.68	21.79	1
		1	12	21.44	21.39	21.44	1
		1	24	21.86	21.69	21.83	1
		12	0	20.46	20.37	20.43	2
		12	6	20.33	20.26	20.30	2
		12	13	20.56	20.47	20.58	2
		25	0	20.44	20.32	20.42	2
	64QAM	1	0	20.72	20.63	20.74	2
		1	12	20.34	20.29	20.33	2
		1	24	20.76	20.72	20.79	2
		12	0	19.51	19.39	19.44	3
		12	6	19.30	19.26	19.33	3
		12	13	19.49	19.37	19.42	3
		25	0	19.44	19.37	19.44	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	22.69	22.58	22.66	0
		1	24	22.41	22.30	22.38	0
		1	49	22.66	22.55	22.63	0
		25	0	21.43	21.32	21.40	1
		25	12	21.38	21.27	21.35	1
		25	25	21.77	21.66	21.74	1
		50	0	21.54	21.43	21.51	1
	16QAM	1	0	21.84	21.73	21.81	1
		1	24	21.52	21.41	21.49	1
		1	49	21.88	21.77	21.85	1
		25	0	20.54	20.43	20.51	2
		25	12	20.39	20.28	20.36	2
		25	25	20.63	20.52	20.60	2
		50	0	20.50	20.39	20.47	2
	64QAM	1	0	20.79	20.68	20.76	2
		1	24	20.42	20.31	20.39	2
		1	49	20.84	20.73	20.81	2
		25	0	19.55	19.44	19.52	3
		25	12	19.38	19.27	19.35	3
		25	25	19.53	19.42	19.50	3
		50	0	19.50	19.39	19.47	3



**BUREAU
VERITAS**

Test Report No.: W7L-P21080006RF18

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	23.10	23.08	23.10	0
		1	12	22.96	22.90	22.96	0
		1	24	22.88	22.85	22.92	0
		12	0	22.05	22.04	22.04	1
		12	6	21.90	21.97	21.93	1
		12	13	22.01	22.00	22.04	1
		25	0	22.01	22.05	22.02	1
	16QAM	1	0	22.26	22.28	22.31	1
		1	12	22.01	22.07	22.04	1
		1	24	22.13	22.07	22.13	1
		12	0	21.01	21.03	21.01	2
		12	6	20.96	21.00	20.96	2
		12	13	20.89	20.91	20.94	2
		25	0	21.07	21.06	21.08	2
	64QAM	1	0	21.38	21.40	21.43	2
		1	12	21.02	21.08	21.04	2
		1	24	21.04	21.11	21.10	2
		12	0	20.07	20.06	20.03	3
		12	6	19.97	20.04	20.03	3
		12	13	20.03	20.02	19.99	3
		25	0	20.04	20.08	20.07	3



Test Report No.: W7L-P21080006RF18

Band/BW	Modulation	RB Size	RB Offset	/	Mid CH 23230	/	MPR
				/	Frequency 782.0 MHz	/	
13/ 10	QPSK	1	0	/	23.15	/	0
		1	24	/	22.98	/	0
		1	49	/	22.93	/	0
		25	0	/	22.09	/	1
		25	12	/	21.98	/	1
		25	25	/	22.05	/	1
		50	0	/	22.07	/	1
	16QAM	1	0	/	22.33	/	1
		1	24	/	22.09	/	1
		1	49	/	22.15	/	1
		25	0	/	21.09	/	2
		25	12	/	21.02	/	2
		25	25	/	20.96	/	2
		50	0	/	21.13	/	2
	64QAM	1	0	/	21.45	/	2
		1	24	/	21.10	/	2
		1	49	/	21.12	/	2
		25	0	/	20.11	/	3
		25	12	/	20.05	/	3
		25	25	/	20.07	/	3
		50	0	/	20.10	/	3



**BUREAU
VERITAS**

Test Report No.: W7L-P21080006RF18

LTE Band 14

Band/BW	Modulation	RB Size	RB Offset	Low CH 23305	Mid CH 23330	High CH 23355	MPR
				Frequency 790.5 MHz	Frequency 793 MHz	Frequency 795.5 MHz	
14/ 5	QPSK	1	0	23.29	23.27	23.29	0
		1	12	23.00	22.94	23.00	0
		1	24	23.14	23.11	23.18	0
		12	0	22.31	22.30	22.30	1
		12	6	22.03	22.10	22.06	1
		12	13	21.93	21.92	21.96	1
		25	0	22.04	22.08	22.05	1
	16QAM	1	0	22.57	22.59	22.62	1
		1	12	22.23	22.29	22.26	1
		1	24	22.40	22.34	22.40	1
		12	0	21.16	21.18	21.16	2
		12	6	21.02	21.06	21.02	2
		12	13	20.97	20.99	21.02	2
		25	0	21.07	21.06	21.08	2
	64QAM	1	0	21.43	21.45	21.48	2
		1	12	21.11	21.17	21.13	2
		1	24	21.19	21.26	21.25	2
		12	0	20.18	20.17	20.14	3
		12	6	20.00	20.07	20.06	3
		12	13	20.09	20.08	20.05	3
		25	0	20.04	20.08	20.07	3



Test Report No.: W7L-P21080006RF18

Band/BW	Modulation	RB Size	RB Offset	/	Mid CH 23330	/	MPR
				/	Frequency 793 MHz	/	
14/ 10	QPSK	1	0	/	23.34	/	0
		1	24	/	23.02	/	0
		1	49	/	23.19	/	0
		25	0	/	22.35	/	1
		25	12	/	22.11	/	1
		25	25	/	21.97	/	1
		50	0	/	22.10	/	1
	16QAM	1	0	/	22.64	/	1
		1	24	/	22.31	/	1
		1	49	/	22.42	/	1
		25	0	/	21.24	/	2
		25	12	/	21.08	/	2
		25	25	/	21.04	/	2
		50	0	/	21.13	/	2
	64QAM	1	0	/	21.50	/	2
		1	24	/	21.19	/	2
		1	49	/	21.27	/	2
		25	0	/	20.22	/	3
		25	12	/	20.08	/	3
		25	25	/	20.13	/	3
		50	0	/	20.10	/	3



**BUREAU
VERITAS**

Test Report No.: W7L-P21080006RF18

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	22.16	22.32	22.75	0
		1	12	21.93	22.05	22.52	0
		1	24	21.79	21.94	22.42	0
		12	0	21.02	21.19	21.60	1
		12	6	20.90	21.15	21.52	1
		12	13	20.89	21.06	21.51	1
		25	0	21.03	21.25	21.63	1
	16QAM	1	0	21.36	21.56	22.00	1
		1	12	21.16	21.40	21.78	1
		1	24	21.10	21.22	21.69	1
		12	0	19.96	20.16	20.55	2
		12	6	20.07	20.29	20.66	2
		12	13	20.00	20.20	20.64	2
		25	0	19.87	20.04	20.47	2
	64QAM	1	0	20.32	20.52	20.96	2
		1	12	20.05	20.29	20.66	2
		1	24	19.96	20.21	20.61	2
		12	0	18.95	19.12	19.50	3
		12	6	19.09	19.34	19.74	3
		12	13	19.08	19.25	19.63	3
		25	0	18.97	19.19	19.59	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	22.21	22.39	22.80	0
		1	24	21.95	22.13	22.54	0
		1	49	21.84	22.02	22.43	0
		25	0	21.06	21.24	21.65	1
		25	12	20.98	21.16	21.57	1
		25	25	20.93	21.11	21.52	1
		50	0	21.09	21.27	21.68	1
	16QAM	1	0	21.43	21.61	22.02	1
		1	24	21.24	21.42	21.83	1
		1	49	21.12	21.30	21.71	1
		25	0	20.04	20.22	20.63	2
		25	12	20.13	20.31	20.72	2
		25	25	20.07	20.25	20.66	2
		50	0	19.93	20.11	20.52	2
	64QAM	1	0	20.39	20.57	20.98	2
		1	24	20.13	20.31	20.72	2
		1	49	20.04	20.22	20.63	2
		25	0	18.99	19.17	19.58	3
		25	12	19.17	19.35	19.76	3
		25	25	19.12	19.30	19.71	3
		50	0	19.03	19.21	19.62	3

LTE Band 30

Band/BW	Modulation	RB Size	RB Offset	Low CH 27685	Mid CH 27710	High CH 27735	MPR
				2307.5 MHz	2310.0 MHz	2312.5 MHz	
30/ 5	QPSK	1	0	23.26	23.24	23.26	0
		1	12	23.02	22.96	23.02	0
		1	24	23.15	23.12	23.19	0
		12	0	22.15	22.14	22.14	1
		12	6	22.00	22.07	22.03	1
		12	13	22.10	22.09	22.13	1
		25	0	22.10	22.14	22.11	1
	16QAM	1	0	22.31	22.33	22.36	1
		1	12	22.08	22.14	22.11	1
		1	24	22.28	22.22	22.28	1
		12	0	21.18	21.20	21.18	2
		12	6	21.05	21.09	21.05	2
		12	13	21.13	21.15	21.18	2
		25	0	21.16	21.15	21.17	2
	64QAM	1	0	21.35	21.37	21.40	2
		1	12	21.12	21.18	21.14	2
		1	24	21.31	21.38	21.37	2
		12	0	20.17	20.16	20.13	3
		12	6	20.00	20.07	20.06	3
		12	13	20.21	20.20	20.17	3
		25	0	20.10	20.14	20.13	3

Band/BW	Modulation	RB Size	RB Offset	/	Mid CH 27710	/	MPR
				/	2310.0 MHz	/	
30/ 10	QPSK	1	0	/	23.31	/	0
		1	24	/	23.04	/	0
		1	49	/	23.20	/	0
		25	0	/	22.19	/	1
		25	12	/	22.08	/	1
		25	25	/	22.14	/	1
		50	0	/	22.16	/	1
	16QAM	1	0	/	22.38	/	1
		1	24	/	22.16	/	1
		1	49	/	22.30	/	1
		25	0	/	21.26	/	2
		25	12	/	21.11	/	2
		25	25	/	21.20	/	2
		50	0	/	21.22	/	2
	64QAM	1	0	/	21.42	/	2
		1	24	/	21.20	/	2
		1	49	/	21.39	/	2
		25	0	/	20.21	/	3
		25	12	/	20.08	/	3
		25	25	/	20.25	/	3
		50	0	/	20.16	/	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	20.35	20.50	20.37	0
		1	2	20.42	20.39	20.44	0
		1	5	20.51	20.56	20.49	0
		3	0	20.15	20.27	20.27	0
		3	1	20.23	20.30	20.15	0
		3	3	20.12	20.19	20.20	0
		6	0	19.20	19.21	19.20	1
	16QAM	1	0	19.21	19.30	19.21	1
		1	2	19.42	19.44	19.47	1
		1	5	19.69	19.79	19.79	1
		3	0	19.18	19.20	19.21	1
		3	1	19.09	19.29	19.18	1
		3	3	19.21	19.26	19.28	1
		6	0	18.15	18.24	18.12	2
	64QAM	1	0	18.33	18.47	18.43	2
		1	2	18.25	18.35	18.28	2
		1	5	18.62	18.63	18.69	2
		3	0	18.13	18.23	18.09	2
		3	1	18.14	18.26	18.18	2
		3	3	18.18	18.25	18.23	2
		6	0	17.22	17.24	17.25	3

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	20.37	20.52	20.36	0
		1	7	20.38	20.40	20.44	0
		1	14	20.47	20.56	20.49	0
		8	0	19.14	19.30	19.27	1
		8	3	19.16	19.30	19.17	1
		8	7	19.09	19.26	19.24	1
		15	0	19.17	19.22	19.14	1
	16QAM	1	0	19.18	19.36	19.24	1
		1	7	19.39	19.47	19.45	1
		1	14	19.72	19.79	19.79	1
		8	0	18.14	18.21	18.21	2
		8	3	18.14	18.24	18.21	2
		8	7	18.23	18.24	18.24	2
		15	0	18.15	18.18	18.15	2
	64QAM	1	0	18.39	18.50	18.37	2
		1	7	18.28	18.29	18.27	2
		1	14	18.63	18.65	18.69	2
		8	0	17.16	17.27	17.10	3
		8	3	17.18	17.20	17.23	3
		8	7	17.15	17.29	17.19	3
		15	0	17.24	17.21	17.29	3

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	20.38	20.47	20.37	0
		1	12	20.43	20.37	20.44	0
		1	24	20.48	20.55	20.53	0
		12	0	19.17	19.30	19.24	1
		12	6	19.16	19.31	19.18	1
		12	13	19.13	19.22	19.25	1
		25	0	19.15	19.25	19.17	1
	16QAM	1	0	19.19	19.32	19.24	1
		1	12	19.36	19.50	19.44	1
		1	24	19.72	19.79	19.78	1
		12	0	18.14	18.19	18.18	2
		12	6	18.11	18.28	18.17	2
		12	13	18.18	18.26	18.27	2
		25	0	18.15	18.19	18.12	2
	64QAM	1	0	18.33	18.47	18.43	2
		1	12	18.25	18.35	18.27	2
		1	24	18.56	18.70	18.69	2
		12	0	17.17	17.24	17.09	3
		12	6	17.12	17.27	17.22	3
		12	13	17.19	17.28	17.16	3
		25	0	17.20	17.27	17.27	3

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	20.35	20.50	20.37	0
		1	24	20.43	20.37	20.45	0
		1	49	20.45	20.59	20.49	0
		25	0	19.18	19.29	19.27	1
		25	12	19.22	19.25	19.18	1
		25	25	19.11	19.19	19.24	1
		50	0	19.20	19.25	19.14	1
	16QAM	1	0	19.19	19.29	19.20	1
		1	24	19.41	19.46	19.47	1
		1	49	19.72	19.80	19.75	1
		25	0	18.16	18.17	18.24	2
		25	12	18.15	18.22	18.22	2
		25	25	18.17	18.27	18.24	2
		50	0	18.19	18.18	18.16	2
	64QAM	1	0	18.32	18.48	18.40	2
		1	24	18.30	18.31	18.31	2
		1	49	18.62	18.64	18.66	2
		25	0	17.15	17.21	17.15	3
		25	12	17.19	17.26	17.16	3
		25	25	17.18	17.25	17.18	3
		50	0	17.25	17.23	17.28	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	20.42	20.50	20.34	0
		1	37	20.41	20.42	20.40	0
		1	74	20.51	20.62	20.50	0
		36	0	19.15	19.30	19.28	1
		36	19	19.23	19.30	19.18	1
		36	39	19.09	19.20	19.24	1
		75	0	19.20	19.23	19.19	1
	16QAM	1	0	19.23	19.36	19.20	1
		1	37	19.40	19.47	19.47	1
		1	74	19.68	19.85	19.77	1
		36	0	18.20	18.17	18.25	2
		36	19	18.09	18.26	18.18	2
		36	39	18.22	18.25	18.27	2
		75	0	18.20	18.21	18.09	2
	64QAM	1	0	18.34	18.49	18.41	2
		1	37	18.31	18.30	18.28	2
		1	74	18.58	18.63	18.69	2
		36	0	17.20	17.27	17.09	3
		36	19	17.13	17.20	17.18	3
		36	39	17.21	17.32	17.20	3
		75	0	17.24	17.21	17.29	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	20.43	20.54	20.42	0
		1	50	20.45	20.65	20.46	0
		1	99	20.53	20.63	20.54	0
		50	0	19.21	19.35	19.29	1
		50	25	19.24	19.32	19.23	1
		50	50	19.17	19.27	19.26	1
		100	0	19.21	19.27	19.22	1
	16QAM	1	0	19.26	19.37	19.26	1
		1	50	19.44	19.52	19.49	1
		1	99	19.74	19.87	19.80	1
		50	0	18.22	18.25	18.26	2
		50	25	18.17	18.30	18.23	2
		50	50	18.25	18.31	18.29	2
		100	0	18.21	18.26	18.17	2
	64QAM	1	0	18.40	18.52	18.45	2
		1	50	18.33	18.37	18.33	2
		1	99	18.64	18.71	18.71	2
		50	0	17.21	17.29	17.17	3
		50	25	17.20	17.28	17.24	3
		50	50	17.23	17.33	17.24	3
		100	0	17.26	17.29	17.30	3

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	21.46	21.47	21.43	0
		1	12	22.10	22.07	22.07	0
		1	24	21.94	21.94	21.95	0
		12	0	20.74	20.76	20.70	1
		12	6	21.05	21.15	21.05	1
		12	13	21.00	21.02	21.00	1
		25	0	21.10	21.17	21.08	1
	16QAM	1	0	20.82	20.87	20.84	1
		1	12	21.24	21.33	21.24	1
		1	24	21.22	21.19	21.19	1
		12	0	19.72	19.77	19.69	2
		12	6	20.08	20.15	20.05	2
		12	13	20.00	20.05	20.02	2
		25	0	20.20	20.22	20.18	2
	64QAM	1	0	19.85	19.90	19.87	2
		1	12	20.26	20.35	20.25	2
		1	24	20.04	20.14	20.07	2
		12	0	18.72	18.74	18.65	3
		12	6	19.06	19.16	19.09	3
		12	13	19.01	19.03	18.94	3
		25	0	19.05	19.12	19.05	3

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	21.43	21.50	21.43	0
		1	24	22.10	22.07	22.08	0
		1	49	21.91	21.98	21.91	0
		25	0	20.75	20.75	20.73	1
		25	12	21.11	21.09	21.05	1
		25	25	20.98	20.99	20.99	1
		50	0	21.15	21.17	21.05	1
	16QAM	1	0	20.82	20.84	20.80	1
		1	24	21.29	21.29	21.27	1
		1	49	21.22	21.20	21.16	1
		25	0	19.74	19.75	19.75	2
		25	12	20.12	20.09	20.10	2
		25	25	19.99	20.06	19.99	2
		50	0	20.24	20.21	20.22	2
	64QAM	1	0	19.84	19.91	19.84	2
		1	24	20.31	20.31	20.29	2
		1	49	20.10	20.08	20.04	2
		25	0	18.70	18.71	18.71	3
		25	12	19.13	19.15	19.03	3
		25	25	19.00	19.00	18.96	3
		50	0	19.10	19.08	19.06	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	21.50	21.50	21.40	0
		1	37	22.08	22.12	22.03	0
		1	74	21.97	22.01	21.92	0
		36	0	20.72	20.76	20.74	1
		36	19	21.12	21.14	21.05	1
		36	39	20.96	21.00	20.99	1
		75	0	21.15	21.15	21.10	1
	16QAM	1	0	20.86	20.91	20.80	1
		1	37	21.28	21.30	21.27	1
		1	74	21.18	21.25	21.18	1
		36	0	19.78	19.75	19.76	2
		36	19	20.06	20.13	20.06	2
		36	39	20.04	20.04	20.02	2
		75	0	20.25	20.24	20.15	2
	64QAM	1	0	19.86	19.92	19.85	2
		1	37	20.32	20.30	20.26	2
		1	74	20.06	20.07	20.07	2
		36	0	18.75	18.77	18.65	3
		36	19	19.07	19.09	19.05	3
		36	39	19.03	19.07	18.98	3
		75	0	19.09	19.06	19.07	3

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	21.51	21.54	21.48	0
		1	50	22.12	22.15	22.09	0
		1	99	21.99	22.02	21.96	0
		50	0	20.78	20.81	20.75	1
		50	25	21.13	21.16	21.10	1
		50	50	21.04	21.07	21.01	1
		100	0	21.16	21.19	21.13	1
	16QAM	1	0	20.89	20.92	20.86	1
		1	50	21.32	21.35	21.29	1
		1	99	21.24	21.27	21.21	1
		50	0	19.80	19.83	19.77	2
		50	25	20.14	20.17	20.11	2
		50	50	20.07	20.10	20.04	2
		100	0	20.26	20.29	20.23	2
	64QAM	1	0	19.92	19.95	19.89	2
		1	50	20.34	20.37	20.31	2
		1	99	20.12	20.15	20.09	2
		50	0	18.76	18.79	18.73	3
		50	25	19.14	19.17	19.11	3
		50	50	19.05	19.08	19.02	3
		100	0	19.11	19.14	19.08	3



Test Report No.: W7L-P21080006RF18

EIRP

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	20.61	2.55	23.16	207.01	1
20175	1732.5	20.62	2.55	23.17	207.49	1
20393	1754.3	20.54	2.55	23.09	203.70	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	19.94	2.55	22.49	177.42	1
20175	1732.5	19.73	2.55	22.28	169.04	1
20393	1754.3	19.83	2.55	22.38	172.98	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	18.95	2.55	21.5	141.25	1
20175	1732.5	18.82	2.55	21.37	137.09	1
20393	1754.3	18.82	2.55	21.37	137.09	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	20.55	2.55	23.1	204.17	1
20175	1732.5	20.42	2.55	22.97	198.15	1
20385	1753.5	20.42	2.55	22.97	198.15	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	19.91	2.55	22.46	176.2	1
20175	1732.5	19.76	2.55	22.31	170.22	1
20385	1753.5	18.46	2.55	21.01	126.18	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	18.98	2.55	21.53	142.23	1
20175	1732.5	18.76	2.55	21.31	135.21	1
20385	1753.5	18.81	2.55	21.36	136.77	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	20.57	2.55	23.12	205.12	1
20175	1732.5	20.38	2.55	22.93	196.34	1
20375	1752.5	20.42	2.55	22.97	198.15	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	19.88	2.55	22.43	174.98	1
20175	1732.5	19.79	2.55	22.34	171.4	1
20375	1752.5	19.80	2.55	22.35	171.79	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	18.95	2.55	21.50	141.25	1
20175	1732.5	18.82	2.55	21.37	137.09	1
20375	1752.5	18.81	2.55	21.36	136.77	1

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	20.57	2.55	23.12	205.12	1
20175	1732.5	20.40	2.55	22.95	197.24	1
20350	1750	20.43	2.55	22.98	198.61	1

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	19.93	2.55	22.48	177.01	1
20175	1732.5	19.75	2.55	22.30	169.82	1
20350	1750	19.83	2.55	22.38	172.98	1

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	19.00	2.55	21.55	142.89	1
20175	1732.5	18.78	2.55	21.33	135.83	1
20350	1750	18.85	2.55	21.40	138.04	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	20.60	2.55	23.15	206.54	1
20175	1732.5	20.43	2.55	22.98	198.61	1
20325	1747.5	20.38	2.55	22.93	196.34	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	19.92	2.55	22.47	176.6	1
20175	1732.5	19.76	2.55	22.31	170.22	1
20325	1747.5	19.83	2.55	22.38	172.98	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	19.01	2.55	21.56	143.22	1
20175	1732.5	18.77	2.55	21.32	135.52	1
20325	1747.5	18.82	2.55	21.37	137.09	1

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	20.63	2.55	23.18	207.97	1
20175	1732.5	20.46	2.55	23.01	199.99	1
20300	1745	20.44	2.55	22.99	199.07	1

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	19.96	2.55	22.51	178.24	1
20175	1732.5	19.81	2.55	22.36	172.19	1
20300	1745	19.85	2.55	22.40	173.78	1

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	19.03	2.55	21.58	143.88	1
20175	1732.5	18.84	2.55	21.39	137.72	1
20300	1745	18.87	2.55	21.42	138.68	1

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

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	22.67	1.11	21.63	145.55	3
23095	707.5	22.58	1.11	21.54	142.56	3
23173	715.3	22.68	1.11	21.64	145.88	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	21.83	1.11	20.79	119.95	3
23095	707.5	21.69	1.11	20.65	116.14	3
23173	715.3	21.84	1.11	20.80	120.23	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	20.82	1.11	19.78	95.06	3
23095	707.5	20.65	1.11	19.61	91.41	3
23173	715.3	20.79	1.11	19.75	94.41	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	22.63	1.11	21.59	144.21	3
23095	707.5	22.56	1.11	21.52	141.91	3
23165	714.5	22.60	1.11	21.56	143.22	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	21.86	1.11	20.82	120.78	3
23095	707.5	21.72	1.11	20.68	116.95	3
23165	714.5	21.84	1.11	20.80	120.23	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	20.83	1.11	19.79	95.28	3
23095	707.5	20.67	1.11	19.63	91.83	3
23165	714.5	20.79	1.11	19.75	94.41	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	22.64	1.11	21.6	144.54	3
23095	707.5	22.51	1.11	21.47	140.28	3
23155	713.5	22.62	1.11	21.58	143.88	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	21.86	1.11	20.82	120.78	3
23095	707.5	21.69	1.11	20.65	116.14	3
23155	713.5	21.83	1.11	20.79	119.95	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	20.76	1.11	19.72	93.76	3
23095	707.5	20.72	1.11	19.68	92.90	3
23155	713.5	20.79	1.11	19.75	94.41	3

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23060	704	22.69	1.11	21.65	146.22	3
23095	707.5	22.58	1.11	21.54	142.56	3
23130	711	22.66	1.11	21.62	145.21	3

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23060	704	21.88	1.11	20.84	121.34	3
23095	707.5	21.77	1.11	20.73	118.30	3
23130	711	21.85	1.11	20.81	120.50	3

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23060	704	20.84	1.11	19.80	95.50	3
23095	707.5	20.73	1.11	19.69	93.11	3
23130	711	20.81	1.11	19.77	94.84	3

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



BUREAU
VERITAS

Test Report No.: W7L-P21080006RF18

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	23.1	0.86	21.81	151.71	3
23230	782	23.08	0.86	21.79	151.01	3
23255	784.5	23.10	0.86	21.81	151.71	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	22.26	0.86	20.97	125.03	3
23230	782	22.28	0.86	20.99	125.60	3
23255	784.5	22.31	0.86	21.02	126.47	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	21.38	0.86	20.09	102.09	3
23230	782	21.40	0.86	20.11	102.57	3
23255	784.5	21.43	0.86	20.14	103.28	3

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
-	-	-	-	-	-	-
23230	782	23.15	0.86	21.86	153.46	3
-	-	-	-	-	-	-

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
-	-	-	-	-	-	-
23230	782	22.33	0.86	21.04	127.06	3
-	-	-	-	-	-	-



Test Report No.: W7L-P21080006RF18

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
-	-	-	-	-	-	-
23230	782	21.45	0.86	20.16	103.75	3
-	-	-	-	-	-	-

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



BUREAU
VERITAS

Test Report No.: W7L-P21080006RF18

LTE BAND 14

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23305	790.5	23.29	1	22.14	163.68	3
23330	793	23.27	1	22.12	162.93	3
23355	795.5	23.29	1	22.14	163.68	3

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23305	790.5	22.57	1	21.42	138.68	3
23330	793	22.59	1	21.44	139.32	3
23355	795.5	22.62	1	21.47	140.28	3

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23305	790.5	21.43	1	20.28	106.66	3
23330	793	21.45	1	20.30	107.15	3
23355	795.5	21.48	1	20.33	107.89	3

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
-	-	-	-	-	-	-
23330	793	23.34	1	22.19	165.58	3
-	-	-	-	-	-	-

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
-	-	-	-	-	-	-
23330	793	22.64	1	21.49	140.93	3
-	-	-	-	-	-	-



Test Report No.: W7L-P21080006RF18

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
-	-	-	-	-	-	-
23330	793	21.50	1	20.35	108.39	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	22.16	1.11	21.12	129.42	3
23790	710	22.32	1.11	21.28	134.28	3
23825	713.5	22.75	1.11	21.71	148.25	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	21.36	1.11	20.32	107.65	3
23790	710	21.56	1.11	20.52	112.72	3
23825	713.5	22.00	1.11	20.96	124.74	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	20.32	1.11	19.28	84.72	3
23790	710	20.52	1.11	19.48	88.72	3
23825	713.5	20.96	1.11	19.92	98.17	3

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23780	709	22.21	1.11	21.17	130.92	3
23790	710	22.39	1.11	21.35	136.46	3
23800	711	22.80	1.11	21.76	149.97	3

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23780	709	21.43	1.11	20.39	109.4	3
23790	710	21.61	1.11	20.57	114.02	3
23800	711	22.02	1.11	20.98	125.31	3



Test Report No.: W7L-P21080006RF18

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
23780	709	20.39	1.11	19.35	86.1	3
23790	710	20.57	1.11	19.53	89.74	3
23800	711	20.98	1.11	19.94	98.63	3

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

LTE BAND 30

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
27685	2307.5	23.26	1.17	24.43	277.33	0.25
27710	2310	23.24	1.17	24.41	276.06	0.25
27735	2312.5	23.26	1.17	24.43	277.33	0.25

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
27685	2307.5	22.31	1.17	23.48	222.84	0.25
27710	2310	22.33	1.17	23.50	223.87	0.25
27735	2312.5	22.36	1.17	23.53	225.42	0.25

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
27685	2307.5	21.35	1.17	22.52	178.65	0.25
27710	2310	21.38	1.17	22.55	179.89	0.25
27735	2312.5	21.40	1.17	22.57	180.72	0.25

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
-	-	-	-	-	-	-
27710	2310	23.31	1.17	24.48	280.54	0.25
-	-	-	-	-	-	-

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
-	-	-	-	-	-	-
27710	2310	22.38	1.17	23.55	226.46	0.25
-	-	-	-	-	-	-