



Test Report No.: W7L-P23020004RF05



VARIANT FCC TEST REPORT (PART 27)

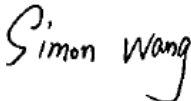

Applicant:	Xiaomi Communications Co., Ltd.
Address:	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

Manufacturer or Supplier:	Xiaomi Communications Co., Ltd.
Address:	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085
Product:	Mobile Phone
Brand Name:	Redmi
Model Name:	2303CRA44A
FCC ID:	2AFZZRA44A
Date of tests:	Feb. 07, 2023 ~ Feb. 20, 2023

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: Feb. 20, 2023	Date: Feb. 20, 2023

This report is governed by, and incorporates by reference, the Conditions of Testing 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. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. 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.



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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-P21100026RF15	Original release	Nov. 29, 2021
W7L-P23020004RF05	Based on the original product changing the model name and FCC ID, software version and hardware version, add adapter (MDY-14-EL, MDY-14-EK), remove adapter(MDY-11-EZ) and frequency band (WCDMA B4,LTE B4), replace USB Cable(B23230, H23230), change Rear Camera, The new only verify RSE worst case and conducted power, So this report only replaces conducted Power and the RSE data of LTE Band 7.	Feb. 20, 2023



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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(h)(2)	Equivalent Isotropically Radiated Power (Band7/7C) (Band38/38C) (Band41)	Compliance
§2.1055 §27.54	Frequency Stability	See Note
§2.1049	Occupied Bandwidth	See Note
§2.1051 §27.53(m)(4)(6)	Band Edge Measurements	See Note
§2.1051 §27.53(m)(4)(6)	Conducted Spurious Emissions	See Note
§2.1053 §27.53(m)(4)(6)	Radiated Spurious Emissions	Compliance
NA	Peak to average ratio	See Note

NOTE: Please refer to the original report W7L-P21100026RF15, FCC ID: 2AFZZ117SG.

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 (9KHz~30MHz)	$\pm 2.68\text{dB}$
Radiated emissions & Radiated Power (30MHz~1GHz)	$\pm 4.98\text{dB}$
Radiated emissions & Radiated Power (1GHz ~6GHz)	$\pm 4.70\text{dB}$
Radiated emissions (6GHz ~18GHz)	$\pm 4.60\text{dB}$
Radiated emissions (18GHz ~40GHz)	$\pm 4.12\text{dB}$
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	Feb. 21,22	Feb. 20,23
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	May.15,22	May.14,23
Loop Antenna	Schwarzbeck	FMZB 1519B	00173	Sep.04,22	Sep.03,23
Bilog Antenna	ETS-LINDGRE N	3143B	00161965	Mar. 06,22	Mar. 05,23
Horn Antenna	ETS-LINDGRE N	3117	00168692	Mar. 06,22	Mar. 05,23
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40-K- SG/QMS-00361	15433	Aug. 24, 22	Aug. 23, 23
Radio Communication Analyzer	ANRITSU	MT8820C	6201465426	Feb. 15,22	Feb. 14,23
Radio Communication Analyzer	ANRITSU	MT8820C	6201465426	Feb. 14,23	Feb. 13,24
Signal Pre-Amplifier	EMSI	EMC 9135	980249	May.12,22	May.11,23
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	May.12,22	May.11,23
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Feb. 21,22	Feb.20,23
3m Semi-anechoic Chamber	ETS-LINDGRE N	9m*6m*6m	Euroshieldpn- CT0001143-121 6	May. 19,20	May. 18,23
Test Software	E3	V 9.160323	N/A	N/A	N/A
Test Software	JS1120	3.1.36	N/A	N/A	N/A
10dB Attenuator	JFW/USA	50HF-010-SMA	1505	May. 07,22	May. 06,23
Power Meter	Anritsu	ML2495A	1506002	Feb. 22,22	Feb. 21,23
Power Sensor	Anritsu	MA2411B	1339352	May. 07,22	May. 06,23
Temperature Chamber	ESPEC	SH-242	93000855	May. 12,22	May. 11,23
MXG Analog Microwave Signal Generator	KEYSIGHT	N5183A	MY50143024	Feb. 18,22	Feb. 17,23
MXG Analog Microwave Signal Generator	KEYSIGHT	N5183A	MY50143024	Feb. 17,23	Feb. 16,24
Base station R&S CMW500	Rohde&Schwa rz	CMW500	153085	May.12,22	May.11,23
DC Source	Kikusui/JP	PMX18-5A	0000001	Aug. 24,22	Aug. 23,23

- 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 Phone	
BRAND NAME	Redmi	
MODEL NAME	2303CRA44A	
NOMINAL VOLTAGE	5.0V/9.0V/11.0V/12.0V/20.0Vdc(adapter or host equipment) 3.87Vdc (Li-ion, battery)	
MODULATION TECHNOLOGY	LTE	QPSK, 16QAM, 64QAM
FREQUENCY RANGE	LTE Band 7 Channel Bandwidth: 5MHz	2502.5MHz ~ 2567.5MHz
	LTE Band 7 Channel Bandwidth: 10MHz	2505MHz ~ 2565MHz
	LTE Band 7 Channel Bandwidth: 15MHz	2507.5MHz ~ 2562.5MHz
	LTE Band 7 Channel Bandwidth: 20MHz	2510MHz ~ 2560MHz
	LTE Band CA_7C Channel Bandwidth: 10MHz+20MHz	2505.5MHz ~ 2560MHz
	LTE Band CA_7C Channel Bandwidth: 15MHz+10MHz	2507.5MHz ~ 2564.7MHz
	LTE Band CA_7C Channel Bandwidth: 15MHz+15MHz	2507.5MHz ~ 2562.5MHz
	LTE Band CA_7C Channel Bandwidth: 15MHz+20MHz	2507.8MHz ~ 2560MHz
	LTE Band CA_7C Channel Bandwidth: 20MHz+10MHz	2510MHz ~ 2564.5MHz
	LTE Band CA_7C Channel Bandwidth: 20MHz+15MHz	2510MHz ~ 2562.5MHz
	LTE Band CA_7C Channel Bandwidth: 20MHz+20MHz	2510MHz ~ 2560MHz
	LTE Band 38 Channel Bandwidth: 5MHz	2572.5MHz ~ 2617.5MHz
	LTE Band 38 Channel Bandwidth: 10MHz	2575MHz ~ 2615MHz



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	LTE Band 38 Channel Bandwidth: 15MHz	2577.5MHz ~ 2612.5MHz	
	LTE Band 38 Channel Bandwidth: 20MHz	2580MHz ~ 2610MHz	
	LTE Band CA_38C Channel Bandwidth: 15MHz+15MHz	2580.0MHz ~ 2590.2MHz	
	LTE Band CA_38C Channel Bandwidth: 20MHz+20MHz	2577.5MHz ~ 2597.5MHz	
	LTE Band 41 Channel Bandwidth: 5MHz	2537.5MHz ~ 2652.5MHz	
	LTE Band 41 Channel Bandwidth: 10MHz	2540MHz ~ 2650MHz	
	LTE Band 41 Channel Bandwidth: 15MHz	2542.5MHz ~ 2647.5MHz	
	LTE Band 41 Channel Bandwidth: 20MHz	2545MHz ~ 2645MHz	
	EMISSION DESIGNATOR	LTE Band 7 Channel Bandwidth: 5MHz	QPSK: 4M55G7D
			16QAM: 4M56W7D
64QAM: 4M55W7D			
LTE Band 7 Channel Bandwidth: 10MHz		QPSK:9M08G7D	
		16QAM: 9M06W7D	
		64QAM: 9M04W7D	
LTE Band 7 Channel Bandwidth: 15MHz		QPSK: 13M6G7D	
		16QAM: 13M6W7D	
		64QAM: 13M6W7D	
LTE Band 7 Channel Bandwidth: 20MHz		QPSK: 18M1G7D	
		16QAM: 18M1W7D	
		64QAM: 18M1W7D	
LTE Band CA_7C Channel Bandwidth: 10MHz+20MHz		QPSK: 28M1G7D	
		16QAM: 28M1W7D	
		64QAM: 28M1W7D	
LTE Band CA_7C Channel Bandwidth: 15MHz +10MHz		QPSK: 23M7G7D	
		16QAM: 23M6W7D	
		64QAM: 23M6W7D	
LTE Band CA_7C Channel Bandwidth: 15MHz +15MHz		QPSK: 28M7G7D	
		16QAM: 28M7W7D	
	64QAM: 28M7W7D		
LTE Band CA_7C Channel Bandwidth: 15MHz +20MHz	QPSK: 33M0G7D		
	16QAM: 32M9W7D		
	64QAM: 32M9W7D		
LTE Band CA_7C Channel Bandwidth: 20MHz +10MHz	QPSK: 28M2G7D		
	16QAM: 28M1W7D		
	64QAM: 28M1W7D		

EMISSION DESIGNATOR	LTE Band CA_7C Channel Bandwidth: 20MHz +15MHz	QPSK: 32M9G7D
		16QAM: 33M0W7D
		64QAM: 33M0W7D
	LTE Band CA_7C Channel Bandwidth: 20MHz +20MHz	QPSK: 37M7G7D
		16QAM: 37M7W7D
		64QAM: 37M7W7D
	LTE Band 38 Channel Bandwidth: 5MHz	QPSK: 4M55G7D
		16QAM: 4M54W7D
		64QAM: 4M55W7D
	LTE Band 38 Channel Bandwidth: 10MHz	QPSK: 9M06G7D
		16QAM: 9M03W7D
		64QAM: 9M05W7D
	LTE Band 38 Channel Bandwidth: 15MHz	QPSK: 13M6G7D
		16QAM: 13M6W7D
		64QAM: 13M6W7D
	LTE Band 38 Channel Bandwidth: 20MHz	QPSK: 18M1G7D
		64QAM: 18M1W7D
		16QAM: 18M1W7D
MAX. EIRP POWER	LTE Band CA_38C Channel Bandwidth: 15MHz +15MHz	QPSK: 28M7G7D
		16QAM: 28M7W7D
		64QAM: 28M7W7D
	LTE Band CA_38C Channel Bandwidth: 20MHz +20MHz	QPSK: 37M9G7D
		16QAM: 37M9W7D
		64QAM: 37M9W7D
	LTE Band 41 Channel Bandwidth: 5MHz	QPSK: 4M56G7D
		16QAM: 4M55W7D
		64QAM: 4M56W7D
	LTE Band 41 Channel Bandwidth: 10MHz	QPSK: 9M06G7D
		16QAM: 9M05W7D
		64QAM: 9M07W7D
	LTE Band 41 Channel Bandwidth: 15MHz	QPSK: 13M6G7D
		16QAM: 13M6W7D
		64QAM: 13M6W7D
	QPSK: 18M1G7D	
	16QAM: 18M1W7D	
	64QAM: 18M1W7D	
	LTE Band 7 Channel Bandwidth: 5MHz	202.3mW
	LTE Band 7 Channel Bandwidth: 10MHz	203.24mW
	LTE Band 7 Channel Bandwidth: 15MHz	201.84mW



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MAX. EIRP POWER	LTE Band 7 Channel Bandwidth: 20MHz	203.7mW
	LTE Band CA_7C Channel Bandwidth: 10MHz+20MHz	194.98mW
	LTE Band CA_7C Channel Bandwidth: 15MHz+10MHz	192.75mW
	LTE Band CA_7C Channel Bandwidth: 15MHz+15MHz	195.43mW
	LTE Band CA_7C Channel Bandwidth: 15MHz+20MHz	193.20mW
	LTE Band CA_7C Channel Bandwidth: 20MHz+10MHz	195.43mW
	LTE Band CA_7C Channel Bandwidth: 20MHz+15MHz	194.98mW
	LTE Band CA_7C Channel Bandwidth: 20MHz+20MHz	194.98mW
	LTE Band 38 Channel Bandwidth: 5MHz	215.77mW
	LTE Band 38 Channel Bandwidth: 10MHz	214.78mW
	LTE Band 38 Channel Bandwidth: 15MHz	216.77mW
	LTE Band 38 Channel Bandwidth: 20MHz	217.77mW
	LTE Band CA_38C Channel Bandwidth: 15MHz+15MHz	205.59mW
	LTE Band CA_38C Channel Bandwidth: 20MHz+20MHz	215.28mW
	LTE Band 41 Channel Bandwidth: 5MHz	214.78mW
	LTE Band 41 Channel Bandwidth: 10MHz	217.77mW
	LTE Band 41 Channel Bandwidth: 15MHz	217.27mW
	LTE Band 41 Channel Bandwidth: 20MHz	218.78mW



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ANTENNA TYPE	Ant0:PIFA Antenna with -0.9 dBi gain for LTE7/7C Ant1:Fixed Internal Antenna -0.7 dBi gain for LTE7/7C Ant0:PIFA Antenna with -0.8 dBi gain for LTE38/38C Ant1:Fixed Internal Antenna -0.7 dBi gain for LTE38/38C Ant0:PIFA Antenna with -0.5 dBi gain for LTE41 Ant1:Fixed Internal Antenna -0.7 dBi gain for LTE41
HW VERSION	P1
SW VERSION	MIUI14
IMEI	8666988060013488
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	USB1 cable: unshielded without ferrite, 1.0meter USB2 cable: unshielded without ferrite, 1.0meter
EXTREME TEMPERATURE	0-40 °C
EXTREME VOLTAGE	EUT 3.6V - EUT 4.2V

NOTE:

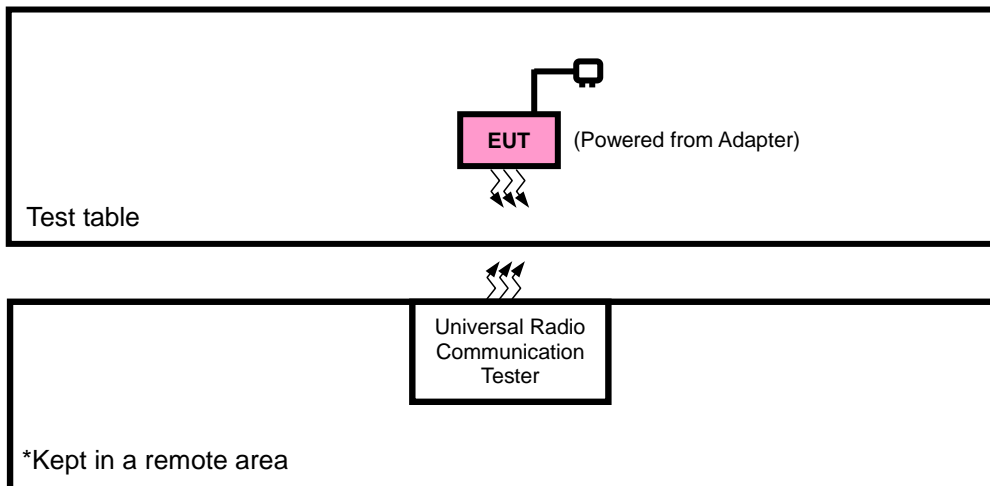
1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. The EUT incorporates a SISO function. Physically, the EUT provides one completed transmitter and one receiver.

MODULATION MODE	TX FUNCTION
LTE	1TX/1RX

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 + Adapter with LTE link

LTE BAND 7 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	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	RADIATED EMISSION	20775 to 21425	21100	5MHz	QPSK	1 RB / 0 RB Offset
		20800 to 21400	20800, 21100, 21400	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.



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TEST CONDITION:

TEST ITEM	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
EIRP	23deg. C, 70%RH	DC 5/9/12/20/11V By Adapter	Jace Hu
RADIATED EMISSION	23deg. C, 70%RH	DC 5/9/12/20/11V By Adapter	Jace Hu



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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.”

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:

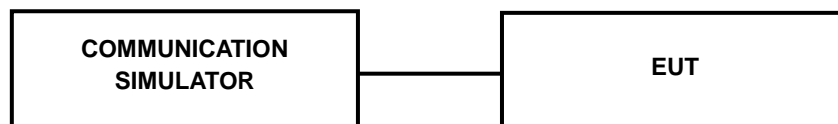
- a. The EUT was set up for the maximum power with LTE link data modulation and link up with simulator.
- b. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.



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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).

3.1.4 TEST RESULTS

AVERAGE CONDUCTED OUTPUT POWER (dBm)

Ant0:

LTE Band 7

Band/BW	Modulation	RB Size	RB Offset	Low CH 20775	Mid CH 21100	High CH 21425
				Frequency 2502.5 MHz	Frequency 2535 MHz	Frequency 2567.5 MHz
7/5	QPSK	1	0	23.76	23.71	23.71
		1	12	23.87	23.90	23.94
		1	24	23.89	23.82	23.96
		12	0	22.94	22.90	22.95
		12	6	22.96	22.93	23.08
		12	13	22.90	22.87	22.97
		25	0	22.88	22.83	22.94
	16QAM	1	0	22.93	22.86	22.97
		1	12	23.15	23.20	23.21
		1	24	23.08	23.04	23.17
		12	0	21.94	21.85	21.95
		12	6	21.97	21.94	22.09
		12	13	21.88	21.90	21.86
		25	0	21.86	21.87	21.94
	64QAM	1	0	21.99	21.90	21.97
		1	12	22.11	22.10	22.17
		1	24	22.05	21.99	22.08
		12	0	20.95	20.95	20.94
		12	6	20.96	20.99	21.06
		12	13	20.95	20.92	20.92
		25	0	20.90	20.85	20.97



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Band/BW	Modulation	RB Size	RB Offset	Low CH 20800	Mid CH 21100	High CH 21400
				Frequency 2505 MHz	Frequency 2535 MHz	Frequency 2565 MHz
7/ 10	QPSK	1	0	23.74	23.68	23.74
		1	24	23.93	23.83	23.98
		1	49	23.85	23.83	23.92
		25	0	22.98	22.84	22.99
		25	12	22.95	22.94	23.05
		25	25	22.95	22.83	23.00
		50	0	22.88	22.84	22.91
	16QAM	1	0	22.95	22.84	23.03
		1	24	23.20	23.20	23.19
		1	49	23.10	23.01	23.13
		25	0	21.99	21.86	21.98
		25	12	22.02	21.91	22.10
		25	25	21.88	21.88	21.87
		50	0	21.92	21.80	21.95
	64QAM	1	0	21.95	21.91	22.00
		1	24	22.16	22.05	22.17
		1	49	22.07	21.97	22.11
		25	0	20.95	20.89	20.95
		25	12	21.03	20.98	21.00
		25	25	20.94	20.89	20.94
		50	0	20.95	20.81	20.98

Band/BW	Modulation	RB Size	RB Offset	Low CH 20825	Mid CH 21100	High CH 21375
				Frequency 2507.5 MHz	Frequency 2535 MHz	Frequency 2562.5 MHz
7/ 15	QPSK	1	0	23.79	23.74	23.68
		1	37	23.88	23.83	23.93
		1	74	23.90	23.81	23.95
		36	0	22.98	22.85	22.95
		36	19	22.97	22.90	23.08
		36	39	22.96	22.81	23.01
		75	0	22.82	22.87	22.91
	16QAM	1	0	22.99	22.84	23.04
		1	37	23.13	23.18	23.22
		1	74	23.12	23.03	23.17
		36	0	21.98	21.85	21.95
		36	19	21.98	21.91	22.09
		36	39	21.95	21.90	21.84
		75	0	21.89	21.80	21.90
	64QAM	1	0	22.02	21.89	22.03
		1	37	22.17	22.04	22.14
		1	74	22.03	21.96	22.14
		36	0	21.00	20.95	20.89
		36	19	20.97	20.92	21.02
		36	39	20.97	20.96	20.96
		75	0	20.94	20.79	20.99

Band/BW	Modulation	RB Size	RB Offset	Low CH 20850	Mid CH 21100	High CH 21350
				Frequency 2510 MHz	Frequency 2535 MHz	Frequency 2560 MHz
7/20	QPSK	1	0	23.80	23.76	23.76
		1	50	23.95	23.91	23.99
		1	99	23.93	23.87	23.97
		50	0	23.00	22.92	23.00
		50	25	23.03	22.98	23.10
		50	50	22.98	22.89	23.02
		100	0	22.90	22.91	22.96
	16QAM	1	0	23.01	22.92	23.05
		1	50	23.21	23.22	23.27
		1	99	23.15	23.09	23.19
		50	0	22.00	21.92	22.00
		50	25	22.04	21.99	22.11
		50	50	21.96	21.92	21.92
		100	0	21.94	21.88	21.96
	64QAM	1	0	22.03	21.95	22.05
		1	50	22.19	22.11	22.19
		1	99	22.09	22.04	22.16
		50	0	21.01	20.97	20.97
		50	25	21.04	21.00	21.08
		50	50	20.99	20.97	21.00
		100	0	20.96	20.87	21.00



**BUREAU
VERITAS**

Test Report No.: W7L-P23020004RF05

LTE Band CA_7C

CA_7C								
Combination 10MHz+20MHz (50RB+100RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
20805	20949	QPSK	1	24	0	0	1	23.80
		16QAM	1	24	0	0	1	23.29
		64QAM	1	24	0	0	1	22.18
21006	21150	QPSK	1	24	0	0	1	23.70
		16QAM	1	24	0	0	1	23.19
		64QAM	1	24	0	0	1	22.19
21206	21350	QPSK	1	24	0	0	1	23.76
		16QAM	1	24	0	0	1	23.11
		64QAM	1	24	0	0	1	22.12
Combination 15MHz+15MHz (75RB+75RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
20825	20975	QPSK	1	37	0	0	1	23.81
		16QAM	1	37	0	0	1	23.31
		64QAM	1	37	0	0	1	22.20
21025	21175	QPSK	1	37	0	0	1	23.73
		16QAM	1	37	0	0	1	23.18
		64QAM	1	37	0	0	1	22.15
21225	21375	QPSK	1	37	0	0	1	23.73
		16QAM	1	37	0	0	1	23.09
		64QAM	1	37	0	0	1	22.07

CA_7C								
Combination 15MHz+10MHz (75RB+50RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
20825	20945	QPSK	1	37	0	0	1	23.75
		16QAM	1	37	0	0	1	23.30
		64QAM	1	37	0	0	1	22.16
21051	21171	QPSK	1	37	0	0	1	23.70
		16QAM	1	37	0	0	1	23.16
		64QAM	1	37	0	0	1	22.15
21277	21397	QPSK	1	37	0	0	1	23.71
		16QAM	1	37	0	0	1	23.06
		64QAM	1	37	0	0	1	22.14
Combination 15MHz+20MHz (75RB+100RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
20828	20999	QPSK	1	37	0	0	1	23.76
		16QAM	1	37	0	0	1	23.27
		64QAM	1	37	0	0	1	22.23
21003	21174	QPSK	1	37	0	0	1	23.74
		16QAM	1	37	0	0	1	23.2
		64QAM	1	37	0	0	1	22.15
21179	21350	QPSK	1	37	0	0	1	23.67
		16QAM	1	37	0	0	1	23.15
		64QAM	1	37	0	0	1	22.12

CA_7C								
Combination 20MHz+10MHz (100RB+50RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
20850	20994	QPSK	1	50	0	0	1	23.81
		16QAM	1	50	0	0	1	23.35
		64QAM	1	50	0	0	1	22.20
21051	21195	QPSK	1	50	0	0	1	23.67
		16QAM	1	50	0	0	1	23.19
		64QAM	1	50	0	0	1	22.13
21251	21395	QPSK	1	50	0	0	1	23.76
		16QAM	1	50	0	0	1	23.10
		64QAM	1	50	0	0	1	22.15
Combination 20MHz+15MHz (100RB+75RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
20850	21021	QPSK	1	50	0	0	1	23.80
		16QAM	1	50	0	0	1	23.38
		64QAM	1	50	0	0	1	22.25
21026	21197	QPSK	1	50	0	0	1	23.77
		16QAM	1	50	0	0	1	23.22
		64QAM	1	50	0	0	1	22.21
21201	21372	QPSK	1	50	0	0	1	23.72
		16QAM	1	50	0	0	1	23.12
		64QAM	1	50	0	0	1	22.22



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VERITAS

Test Report No.: W7L-P23020004RF05

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	50	0	0	1	23.80
		16QAM	1	50	0	0	1	23.18
		64QAM	1	50	0	0	1	22.33
21001	21199	QPSK	1	50	0	0	1	23.76
		16QAM	1	50	0	0	1	23.45
		64QAM	1	50	0	0	1	22.42
21152	21350	QPSK	1	50	0	0	1	23.83
		16QAM	1	50	0	0	1	23.21
		64QAM	1	50	0	0	1	22.39



**BUREAU
VERITAS**

Test Report No.: W7L-P23020004RF05

LTE Band 38

Band/BW	Modulation	RB Size	RB Offset	Low CH 37775	Mid CH 38000	High CH 38225
				Frequency 2572.5 MHz	Frequency 2595 MHz	Frequency 2617.5MHz
38/ 5	QPSK	1	0	23.60	23.48	23.62
		1	12	23.80	23.68	23.73
		1	24	23.51	23.50	23.55
		12	0	22.65	22.57	22.58
		12	6	22.69	22.66	22.68
		12	13	22.67	22.60	22.70
		25	0	22.72	22.67	22.69
	16QAM	1	0	22.68	22.54	22.69
		1	12	22.84	22.74	22.82
		1	24	22.64	22.66	22.64
		12	0	21.70	21.60	21.73
		12	6	21.77	21.74	21.78
		12	13	21.77	21.70	21.80
		25	0	21.73	21.68	21.69
	64QAM	1	0	21.40	21.39	21.47
		1	12	21.64	21.56	21.50
		1	24	21.38	21.36	21.40
		12	0	20.81	20.69	20.73
		12	6	20.92	20.89	20.85
		12	13	20.85	20.85	20.81
		25	0	20.77	20.68	20.76

Band/BW	Modulation	RB Size	RB Offset	Low CH 37800	Mid CH 38000	High CH 38200
				Frequency 2575 MHz	Frequency 2595 MHz	Frequency 2615 MHz
38/ 10	QPSK	1	0	23.61	23.51	23.62
		1	12	23.78	23.71	23.73
		1	24	23.52	23.46	23.58
		12	0	22.61	22.60	22.54
		12	6	22.73	22.60	22.71
		12	13	22.66	22.59	22.64
		25	0	22.74	22.67	22.68
	16QAM	1	0	22.63	22.57	22.69
		1	12	22.86	22.73	22.85
		1	24	22.63	22.63	22.68
		12	0	21.69	21.63	21.69
		12	6	21.75	21.80	21.81
		12	13	21.80	21.70	21.74
		25	0	21.73	21.69	21.73
	64QAM	1	0	21.44	21.35	21.41
		1	12	21.62	21.59	21.55
		1	24	21.38	21.36	21.40
		12	0	20.78	20.69	20.79
		12	6	20.90	20.89	20.83
		12	13	20.91	20.78	20.81
		25	0	20.78	20.71	20.75



Test Report No.: W7L-P23020004RF05

Band/BW	Modulation	RB Size	RB Offset	Low CH 37825	Mid CH 38000	High CH 38175
				Frequency 2577.5 MHz	Frequency 2595 MHz	Frequency 2612.5MHz
38/ 15	QPSK	1	0	23.62	23.50	23.61
		1	12	23.82	23.66	23.73
		1	24	23.53	23.43	23.58
		12	0	22.68	22.60	22.51
		12	6	22.68	22.60	22.67
		12	13	22.71	22.59	22.70
		25	0	22.78	22.62	22.69
	16QAM	1	0	22.64	22.54	22.69
		1	12	22.90	22.72	22.89
		1	24	22.62	22.64	22.65
		12	0	21.75	21.57	21.74
		12	6	21.75	21.77	21.78
		12	13	21.81	21.69	21.80
		25	0	21.79	21.63	21.70
	64QAM	1	0	21.42	21.32	21.47
		1	12	21.67	21.59	21.50
		1	24	21.41	21.29	21.36
		12	0	20.84	20.68	20.79
		12	6	20.97	20.89	20.80
		12	13	20.92	20.84	20.75
		25	0	20.82	20.66	20.73

Band/BW	Modulation	RB Size	RB Offset	Low CH 37850	Mid CH 38000	High CH 38150
				Frequency 2580 MHz	Frequency 2595 MHz	Frequency 2610 MHz
38/ 20	QPSK	1	0	23.65	23.56	23.63
		1	12	23.84	23.73	23.78
		1	24	23.59	23.51	23.60
		12	0	22.69	22.62	22.59
		12	6	22.75	22.68	22.73
		12	13	22.74	22.65	22.72
		25	0	22.80	22.69	22.74
	16QAM	1	0	22.70	22.62	22.71
		1	12	22.92	22.80	22.90
		1	24	22.70	22.68	22.70
		12	0	21.77	21.65	21.75
		12	6	21.83	21.81	21.83
		12	13	21.84	21.75	21.82
		25	0	21.81	21.70	21.75
	64QAM	1	0	21.48	21.40	21.49
		1	12	21.68	21.61	21.58
		1	24	21.46	21.37	21.42
		12	0	20.85	20.74	20.81
		12	6	20.98	20.91	20.88
		12	13	20.93	20.86	20.83
		25	0	20.84	20.73	20.78



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VERITAS

Test Report No.: W7L-P23020004RF05

LTE Band CA_38C

CA_38C								
Combination 15MHz+15MHz (75RB+75RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
37825	37975	QPSK	1	50	0	0	1	23.29
		16QAM	1	50	0	0	1	22.61
		64QAM	1	50	0	0	1	21.89
37925	38075	QPSK	1	50	0	0	1	23.61
		16QAM	1	50	0	0	1	22.94
		64QAM	1	50	0	0	1	22.02
38025	38175	QPSK	1	50	0	0	1	23.51
		16QAM	1	50	0	0	1	22.74
		64QAM	1	50	0	0	1	21.98
Combination 20MHz+20MHz (100RB+100RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	37	0	0	1	23.38
		16QAM	1	37	0	0	1	22.78
		64QAM	1	37	0	0	1	21.90
37901	38099	QPSK	1	37	0	0	1	23.81
		16QAM	1	37	0	0	1	22.85
		64QAM	1	37	0	0	1	21.94
37952	38150	QPSK	1	37	0	0	1	23.57
		16QAM	1	37	0	0	1	22.70
		64QAM	1	37	0	0	1	21.88



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VERITAS

Test Report No.: W7L-P23020004RF05

LTE Band 41

Band/BW	Modulation	RB Size	RB Offset	Low CH (40065)	Mid CH (40640)	High CH (41215)
				Frequency (2537.5)MHz	Frequency (2595)MHz	Frequency (2652.5)MHz
41/ 5	QPSK	1	0	23.62	23.56	23.52
		1	12	23.82	23.77	23.74
		1	24	23.72	23.57	23.60
		12	0	22.77	22.70	22.67
		12	6	22.84	22.76	22.73
		12	13	22.66	22.62	22.58
		25	0	22.86	22.68	22.75
	16QAM	1	0	22.74	22.62	22.59
		1	12	22.90	22.83	22.82
		1	24	22.80	22.67	22.74
		12	0	21.84	21.78	21.76
		12	6	21.93	21.80	21.87
		12	13	21.78	21.79	21.71
		25	0	21.84	21.79	21.79
	64QAM	1	0	21.53	21.38	21.34
		1	12	21.68	21.64	21.66
		1	24	21.61	21.50	21.38
		12	0	20.89	20.81	20.79
		12	6	20.99	20.79	20.86
		12	13	20.91	20.82	20.73
		25	0	20.85	20.76	20.76

Band/BW	Modulation	RB Size	RB Offset	Low CH (40090)	Mid CH (40640)	High CH (41190)
				Frequency (2540)MHz	Frequency (2595)MHz	Frequency (2650)MHz
41/ 10	QPSK	1	0	23.63	23.55	23.55
		1	24	23.88	23.71	23.74
		1	49	23.70	23.54	23.59
		25	0	22.82	22.70	22.64
		25	12	22.84	22.73	22.69
		25	25	22.71	22.58	22.61
		50	0	22.86	22.69	22.72
	16QAM	1	0	22.76	22.60	22.65
		1	24	22.94	22.77	22.87
		1	49	22.79	22.68	22.71
		25	0	21.88	21.77	21.80
		25	12	21.92	21.81	21.84
		25	25	21.83	21.75	21.75
		50	0	21.90	21.73	21.76
	64QAM	1	0	21.51	21.35	21.40
		1	24	21.75	21.63	21.60
		1	49	21.60	21.47	21.40
		25	0	20.94	20.77	20.80
		25	12	21.00	20.85	20.80
		25	25	20.93	20.79	20.80
		50	0	20.85	20.74	20.77

Band/BW	Modulation	RB Size	RB Offset	Low CH (40115)	Mid CH (40640)	High CH (41165)
				Frequency (2542.5)MHz	Frequency (2595)MHz	Frequency (2647.5)MHz
41/ 15	QPSK	1	0	23.58	23.57	23.52
		1	37	23.87	23.72	23.77
		1	74	23.74	23.55	23.56
		36	0	22.77	22.64	22.70
		36	19	22.90	22.79	22.67
		36	39	22.67	22.56	22.57
		75	0	22.85	22.70	22.75
	16QAM	1	0	22.80	22.61	22.62
		1	37	22.90	22.77	22.86
		1	74	22.85	22.64	22.75
		36	0	21.82	21.81	21.76
		36	19	21.98	21.77	21.88
		36	39	21.78	21.77	21.72
		75	0	21.89	21.74	21.79
	64QAM	1	0	21.55	21.36	21.37
		1	37	21.70	21.57	21.66
		1	74	21.64	21.53	21.38
		36	0	20.90	20.75	20.76
		36	19	21.00	20.81	20.86
		36	39	20.93	20.86	20.77
		75	0	20.91	20.70	20.81

Band/BW	Modulation	RB Size	RB Offset	Low CH (40140)	Mid CH (40640)	High CH (41140)
				Frequency (2545)MHz	Frequency (2595)MHz	Frequency (2645)MHz
41/ 20	QPSK	1	0	23.66	23.61	23.57
		1	50	23.90	23.78	23.79
		1	99	23.76	23.62	23.61
		50	0	22.83	22.72	22.72
		50	25	22.91	22.81	22.75
		50	50	22.74	22.64	22.63
		100	0	22.88	22.76	22.77
	16QAM	1	0	22.82	22.68	22.67
		1	50	22.96	22.85	22.88
		1	99	22.87	22.72	22.76
		50	0	21.90	21.85	21.81
		50	25	22.00	21.85	21.89
		50	50	21.86	21.81	21.77
		100	0	21.92	21.80	21.81
	64QAM	1	0	21.57	21.43	21.42
		1	50	21.76	21.65	21.68
		1	99	21.65	21.55	21.46
		50	0	20.95	20.83	20.82
		50	25	21.01	20.87	20.88
		50	50	20.95	20.87	20.81
		100	0	20.93	20.78	20.82



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VERITAS

Test Report No.: W7L-P23020004RF05

Ant1:

LTE Band 7

Band/BW	Modulation	RB Size	RB Offset	Low CH 20775	Mid CH 21100	High CH 21425
				Frequency 2502.5 MHz	Frequency 2535 MHz	Frequency 2567.5 MHz
7/5	QPSK	1	0	22.52	22.44	22.46
		1	12	22.71	22.71	22.77
		1	24	22.70	22.60	22.76
		12	0	22.50	22.43	22.50
		12	6	22.49	22.43	22.60
		12	13	22.44	22.38	22.50
		25	0	22.43	22.35	22.48
	16QAM	1	0	22.27	22.17	22.30
		1	12	22.45	22.47	22.50
		1	24	22.46	22.39	22.54
		12	0	22.00	21.88	22.00
		12	6	21.98	21.92	22.09
		12	13	21.96	21.95	21.93
		25	0	21.89	21.87	21.96
	64QAM	1	0	21.94	21.82	21.91
		1	12	22.19	22.15	22.24
		1	24	22.08	21.99	22.10
		12	0	21.02	20.99	21.00
		12	6	21.00	21.00	21.09
		12	13	20.98	20.92	20.94
		25	0	20.98	20.90	21.04

Band/BW	Modulation	RB Size	RB Offset	Low CH 20800	Mid CH 21100	High CH 21400
				Frequency 2505 MHz	Frequency 2535 MHz	Frequency 2565 MHz
7/ 10	QPSK	1	0	22.50	22.41	22.49
		1	24	22.77	22.64	22.81
		1	49	22.66	22.61	22.72
		25	0	22.54	22.37	22.54
		25	12	22.48	22.44	22.57
		25	25	22.49	22.34	22.53
		50	0	22.43	22.36	22.45
	16QAM	1	0	22.29	22.15	22.36
		1	24	22.50	22.47	22.48
		1	49	22.48	22.36	22.50
		25	0	22.05	21.89	22.03
		25	12	22.03	21.89	22.10
		25	25	21.96	21.93	21.94
		50	0	21.95	21.80	21.97
	64QAM	1	0	21.90	21.83	21.94
		1	24	22.24	22.10	22.24
		1	49	22.10	21.97	22.13
		25	0	21.02	20.93	21.01
		25	12	21.07	20.99	21.03
		25	25	20.97	20.89	20.96
		50	0	21.03	20.86	21.05

Band/BW	Modulation	RB Size	RB Offset	Low CH 20825	Mid CH 21100	High CH 21375
				Frequency 2507.5 MHz	Frequency 2535 MHz	Frequency 2562.5 MHz
7/ 15	QPSK	1	0	22.55	22.47	22.43
		1	37	22.72	22.64	22.76
		1	74	22.71	22.59	22.75
		36	0	22.54	22.38	22.50
		36	19	22.50	22.40	22.60
		36	39	22.50	22.32	22.54
		75	0	22.37	22.39	22.45
	16QAM	1	0	22.33	22.15	22.37
		1	37	22.43	22.45	22.51
		1	74	22.50	22.38	22.54
		36	0	22.04	21.88	22.00
		36	19	21.99	21.89	22.09
		36	39	22.03	21.95	21.91
		75	0	21.92	21.80	21.92
	64QAM	1	0	21.97	21.81	21.97
		1	37	22.25	22.09	22.21
		1	74	22.06	21.96	22.16
		36	0	21.07	20.99	20.95
		36	19	21.01	20.93	21.05
		36	39	21.00	20.96	20.98
		75	0	21.02	20.84	21.06

Band/BW	Modulation	RB Size	RB Offset	Low CH 20850	Mid CH 21100	High CH 21350
				Frequency 2510 MHz	Frequency 2535 MHz	Frequency 2560 MHz
7/20	QPSK	1	0	22.56	22.49	22.51
		1	50	22.79	22.72	22.82
		1	99	22.74	22.65	22.77
		50	0	22.56	22.45	22.55
		50	25	22.56	22.48	22.62
		50	50	22.52	22.40	22.55
		100	0	22.45	22.43	22.50
	16QAM	1	0	22.35	22.23	22.38
		1	50	22.51	22.49	22.56
		1	99	22.53	22.44	22.56
		50	0	22.06	21.95	22.05
		50	25	22.05	21.97	22.11
		50	50	22.04	21.97	21.99
		100	0	21.97	21.88	21.98
	64QAM	1	0	21.98	21.87	21.99
		1	50	22.27	22.16	22.26
		1	99	22.12	22.04	22.18
		50	0	21.08	21.01	21.03
		50	25	21.08	21.01	21.11
		50	50	21.02	20.97	21.02
		100	0	21.04	20.92	21.07



**BUREAU
VERITAS**

Test Report No.: W7L-P23020004RF05

LTE Band CA_7C

CA_7C								
Combination 10MHz+20MHz (50RB+100RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
20805	20949	QPSK	1	24	0	0	1	22.47
		16QAM	1	24	0	0	1	21.91
		64QAM	1	24	0	0	1	20.70
21006	21150	QPSK	1	24	0	0	1	22.44
		16QAM	1	24	0	0	1	22.03
		64QAM	1	24	0	0	1	20.81
21206	21350	QPSK	1	24	0	0	1	22.42
		16QAM	1	24	0	0	1	21.63
		64QAM	1	24	0	0	1	20.57
Combination 15MHz+15MHz (75RB+75RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
20825	20975	QPSK	1	37	0	0	1	22.46
		16QAM	1	37	0	0	1	21.93
		64QAM	1	37	0	0	1	20.74
21025	21175	QPSK	1	37	0	0	1	22.46
		16QAM	1	37	0	0	1	22.04
		64QAM	1	37	0	0	1	20.78
21225	21375	QPSK	1	37	0	0	1	22.40
		16QAM	1	37	0	0	1	21.58
		64QAM	1	37	0	0	1	20.57

CA_7C								
Combination 15MHz+10MHz (75RB+50RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
20825	20945	QPSK	1	37	0	0	1	22.44
		16QAM	1	37	0	0	1	21.90
		64QAM	1	37	0	0	1	20.72
21051	21171	QPSK	1	37	0	0	1	22.43
		16QAM	1	37	0	0	1	22.07
		64QAM	1	37	0	0	1	20.83
21277	21397	QPSK	1	37	0	0	1	22.40
		16QAM	1	37	0	0	1	21.59
		64QAM	1	37	0	0	1	20.63
Combination 15MHz+20MHz (75RB+100RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
20828	20999	QPSK	1	37	0	0	1	22.50
		16QAM	1	37	0	0	1	21.94
		64QAM	1	37	0	0	1	20.75
21003	21174	QPSK	1	37	0	0	1	22.52
		16QAM	1	37	0	0	1	22.04
		64QAM	1	37	0	0	1	20.79
21179	21350	QPSK	1	37	0	0	1	22.39
		16QAM	1	37	0	0	1	21.67
		64QAM	1	37	0	0	1	20.57

CA_7C								
Combination 20MHz+10MHz (100RB+50RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
20850	20994	QPSK	1	50	0	0	1	22.48
		16QAM	1	50	0	0	1	21.98
		64QAM	1	50	0	0	1	20.71
21051	21195	QPSK	1	50	0	0	1	22.50
		16QAM	1	50	0	0	1	22.07
		64QAM	1	50	0	0	1	20.84
21251	21395	QPSK	1	50	0	0	1	22.44
		16QAM	1	50	0	0	1	21.60
		64QAM	1	50	0	0	1	20.58
Combination 20MHz+15MHz (100RB+75RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
20850	21021	QPSK	1	50	0	0	1	22.52
		16QAM	1	50	0	0	1	21.92
		64QAM	1	50	0	0	1	20.78
21026	21197	QPSK	1	50	0	0	1	22.52
		16QAM	1	50	0	0	1	22.06
		64QAM	1	50	0	0	1	20.84
21201	21372	QPSK	1	50	0	0	1	22.41
		16QAM	1	50	0	0	1	21.71
		64QAM	1	50	0	0	1	20.61



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VERITAS

Test Report No.: W7L-P23020004RF05

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	50	0	0	1	22.64
		16QAM	1	50	0	0	1	22.01
		64QAM	1	50	0	0	1	21.14
21001	21199	QPSK	1	50	0	0	1	22.55
		16QAM	1	50	0	0	1	21.98
		64QAM	1	50	0	0	1	21.12
21152	21350	QPSK	1	50	0	0	1	22.44
		16QAM	1	50	0	0	1	21.88
		64QAM	1	50	0	0	1	21.07



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VERITAS

Test Report No.: W7L-P23020004RF05

LTE Band 38

Band/BW	Modulation	RB Size	RB Offset	Low CH 37775	Mid CH 38000	High CH 38225
				Frequency 2572.5 MHz	Frequency 2595 MHz	Frequency 2617.5MHz
38/ 5	QPSK	1	0	23.84	23.73	23.87
		1	12	24.04	23.93	23.98
		1	24	23.81	23.81	23.86
		12	0	22.89	22.82	22.83
		12	6	22.94	22.92	22.94
		12	13	22.94	22.88	22.98
		25	0	22.98	22.94	22.96
	16QAM	1	0	22.92	22.79	22.94
		1	12	23.08	22.99	23.07
		1	24	22.92	22.95	22.93
		12	0	21.93	21.84	21.97
		12	6	22.02	22.00	22.04
		12	13	22.07	22.01	22.11
		25	0	21.99	21.95	21.96
	64QAM	1	0	21.60	21.60	21.68
		1	12	21.87	21.80	21.74
		1	24	21.67	21.66	21.70
		12	0	21.03	20.92	20.96
		12	6	21.17	21.15	21.11
		12	13	21.11	21.12	21.08
		25	0	21.03	20.95	21.03



Test Report No.: W7L-P23020004RF05

Band/BW	Modulation	RB Size	RB Offset	Low CH 37800	Mid CH 38000	High CH 38200
				Frequency 2575 MHz	Frequency 2595 MHz	Frequency 2615 MHz
38/ 10	QPSK	1	0	23.85	23.76	23.87
		1	12	24.02	23.96	23.98
		1	24	23.82	23.77	23.89
		12	0	22.85	22.85	22.79
		12	6	22.98	22.86	22.97
		12	13	22.93	22.87	22.92
		25	0	23.00	22.94	22.95
	16QAM	1	0	22.87	22.82	22.94
		1	12	23.10	22.98	23.10
		1	24	22.91	22.92	22.97
		12	0	21.92	21.87	21.93
		12	6	22.00	22.06	22.07
		12	13	22.10	22.01	22.05
		25	0	21.99	21.96	22.00
	64QAM	1	0	21.64	21.56	21.62
		1	12	21.85	21.83	21.79
		1	24	21.67	21.66	21.70
		12	0	21.00	20.92	21.02
		12	6	21.15	21.15	21.09
		12	13	21.17	21.05	21.08
		25	0	21.04	20.98	21.02



Test Report No.: W7L-P23020004RF05

Band/BW	Modulation	RB Size	RB Offset	Low CH 37825	Mid CH 38000	High CH 38175
				Frequency 2577.5 MHz	Frequency 2595 MHz	Frequency 2612.5MHz
38/ 15	QPSK	1	0	23.86	23.75	23.86
		1	12	24.06	23.91	23.98
		1	24	23.83	23.74	23.89
		12	0	22.92	22.85	22.76
		12	6	22.93	22.86	22.93
		12	13	22.98	22.87	22.98
		25	0	23.04	22.89	22.96
	16QAM	1	0	22.88	22.79	22.94
		1	12	23.14	22.97	23.14
		1	24	22.90	22.93	22.94
		12	0	21.98	21.81	21.98
		12	6	22.00	22.03	22.04
		12	13	22.11	22.00	22.11
		25	0	22.05	21.90	21.97
	64QAM	1	0	21.62	21.53	21.68
		1	12	21.90	21.83	21.74
		1	24	21.70	21.59	21.66
		12	0	21.06	20.91	21.02
		12	6	21.22	21.15	21.06
		12	13	21.18	21.11	21.02
		25	0	21.08	20.93	21.00



Test Report No.: W7L-P23020004RF05

Band/BW	Modulation	RB Size	RB Offset	Low CH 37850	Mid CH 38000	High CH 38150
				Frequency 2580 MHz	Frequency 2595 MHz	Frequency 2610 MHz
38/ 20	QPSK	1	0	23.89	23.81	23.88
		1	12	24.08	23.98	24.03
		1	24	23.89	23.82	23.91
		12	0	22.93	22.87	22.84
		12	6	23.00	22.94	22.99
		12	13	23.01	22.93	23.00
		25	0	23.06	22.96	23.01
	16QAM	1	0	22.94	22.87	22.96
		1	12	23.16	23.05	23.15
		1	24	22.98	22.97	22.99
		12	0	22.00	21.89	21.99
		12	6	22.08	22.07	22.09
		12	13	22.14	22.06	22.13
		25	0	22.07	21.97	22.02
	64QAM	1	0	21.68	21.61	21.70
		1	12	21.91	21.85	21.82
		1	24	21.75	21.67	21.72
		12	0	21.07	20.97	21.04
		12	6	21.23	21.17	21.14
		12	13	21.19	21.13	21.10
		25	0	21.10	21.00	21.05



**BUREAU
VERITAS**

Test Report No.: W7L-P23020004RF05

LTE Band CA_38C

CA_38C								
Combination 15MHz+15MHz (75RB+75RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
37825	37975	QPSK	1	37	0	0	1	23.61
		16QAM	1	37	0	0	1	23.02
		64QAM	1	37	0	0	1	22.02
37925	38075	QPSK	1	37	0	0	1	23.70
		16QAM	1	37	0	0	1	22.84
		64QAM	1	37	0	0	1	21.81
38025	38175	QPSK	1	37	0	0	1	23.83
		16QAM	1	37	0	0	1	22.85
		64QAM	1	37	0	0	1	21.85
Combination 20MHz+20MHz (100RB+100RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	50	0	0	1	23.86
		16QAM	1	50	0	0	1	23.10
		64QAM	1	50	0	0	1	21.93
37901	38099	QPSK	1	50	0	0	1	23.86
		16QAM	1	50	0	0	1	22.80
		64QAM	1	50	0	0	1	21.91
37952	38150	QPSK	1	50	0	0	1	24.03
		16QAM	1	50	0	0	1	22.82
		64QAM	1	50	0	0	1	21.73



BUREAU
VERITAS

Test Report No.: W7L-P23020004RF05

LTE Band 41

Band/BW	Modulation	RB Size	RB Offset	Low CH (40065)	Mid CH (40640)	High CH (41215)
				Frequency (2537.5)MHz	Frequency (2595)MHz	Frequency (2652.5)MHz
41/ 5	QPSK	1	0	23.68	23.69	23.65
		1	12	23.84	23.86	23.83
		1	24	23.77	23.69	23.72
		12	0	22.81	22.81	22.81
		12	6	22.87	22.86	22.80
		12	13	22.71	22.74	22.70
		25	0	22.93	22.82	22.89
	16QAM	1	0	22.75	22.70	22.67
		1	12	22.91	22.91	22.90
		1	24	22.83	22.77	22.84
		12	0	21.87	21.88	21.86
		12	6	21.94	21.88	21.95
		12	13	21.79	21.87	21.79
		25	0	21.88	21.90	21.90
	64QAM	1	0	21.55	21.47	21.43
		1	12	21.66	21.69	21.71
		1	24	21.62	21.58	21.46
		12	0	20.90	20.89	20.87
		12	6	21.04	20.91	20.98
		12	13	20.95	20.93	20.84
		25	0	20.90	20.88	20.88

Band/BW	Modulation	RB Size	RB Offset	Low CH (40090)	Mid CH (40640)	High CH (41190)
				Frequency (2540)MHz	Frequency (2595)MHz	Frequency (2650)MHz
41/ 10	QPSK	1	0	23.69	23.68	23.68
		1	24	23.90	23.80	23.83
		1	49	23.75	23.66	23.71
		25	0	22.86	22.81	22.78
		25	12	22.87	22.83	22.76
		25	25	22.76	22.70	22.73
		50	0	22.93	22.83	22.86
	16QAM	1	0	22.77	22.68	22.73
		1	24	22.95	22.85	22.95
		1	49	22.82	22.78	22.81
		25	0	21.91	21.87	21.90
		25	12	21.93	21.89	21.92
		25	25	21.84	21.83	21.83
		50	0	21.94	21.84	21.87
	64QAM	1	0	21.53	21.44	21.49
		1	24	21.73	21.68	21.65
		1	49	21.61	21.55	21.48
		25	0	20.95	20.85	20.88
		25	12	21.05	20.97	20.92
		25	25	20.97	20.90	20.91
		50	0	20.90	20.86	20.89

Band/BW	Modulation	RB Size	RB Offset	Low CH (40115)	Mid CH (40640)	High CH (41165)
				Frequency (2542.5)MHz	Frequency (2595)MHz	Frequency (2647.5)MHz
41/ 15	QPSK	1	0	23.64	23.70	23.65
		1	37	23.89	23.81	23.86
		1	74	23.79	23.67	23.68
		36	0	22.81	22.75	22.84
		36	19	22.93	22.89	22.74
		36	39	22.72	22.68	22.69
		75	0	22.92	22.84	22.89
	16QAM	1	0	22.81	22.69	22.70
		1	37	22.91	22.85	22.94
		1	74	22.88	22.74	22.85
		36	0	21.85	21.91	21.86
		36	19	21.99	21.85	21.96
		36	39	21.79	21.85	21.80
		75	0	21.93	21.85	21.90
	64QAM	1	0	21.57	21.45	21.46
		1	37	21.68	21.62	21.71
		1	74	21.65	21.61	21.46
		36	0	20.91	20.83	20.84
		36	19	21.05	20.93	20.98
		36	39	20.97	20.97	20.88
		75	0	20.96	20.82	20.93

Band/BW	Modulation	RB Size	RB Offset	Low CH (40140)	Mid CH (40640)	High CH (41140)
				Frequency (2545)MHz	Frequency (2595)MHz	Frequency (2645)MHz
41/ 20	QPSK	1	0	23.72	23.74	23.70
		1	50	23.92	23.87	23.88
		1	99	23.81	23.74	23.73
		50	0	22.87	22.83	22.86
		50	25	22.94	22.91	22.82
		50	50	22.79	22.76	22.75
		100	0	22.95	22.90	22.91
	16QAM	1	0	22.83	22.76	22.75
		1	50	22.97	22.93	22.96
		1	99	22.90	22.82	22.86
		50	0	21.93	21.95	21.91
		50	25	22.01	21.93	21.97
		50	50	21.87	21.89	21.85
		100	0	21.96	21.91	21.92
	64QAM	1	0	21.59	21.52	21.51
		1	50	21.74	21.70	21.73
		1	99	21.66	21.63	21.54
		50	0	20.96	20.91	20.90
		50	25	21.06	20.99	21.00
		50	50	20.99	20.98	20.92
		100	0	20.98	20.90	20.94



**BUREAU
VERITAS**

Test Report No.: W7L-P23020004RF05

EIRP
Ant0:

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	23.89	-0.9	22.99	199.07	2
21100	2535.0	23.9	-0.9	23	199.53	2
21425	2567.5	23.96	-0.9	23.06	202.3	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	23.15	-0.9	22.25	167.88	2
21100	2535.0	23.2	-0.9	22.3	169.82	2
21425	2567.5	23.21	-0.9	22.31	170.22	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	22.11	-0.9	21.21	132.13	2
21100	2535	22.1	-0.9	21.2	131.83	2
21425	2567.5	22.17	-0.9	21.27	133.97	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	23.93	-0.9	23.03	200.91	2
21100	2535.0	23.83	-0.9	22.93	196.34	2
21400	2565.0	23.98	-0.9	23.08	203.24	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	23.2	-0.9	22.3	169.82	2
21100	2535.0	23.2	-0.9	22.3	169.82	2
21400	2565.0	23.19	-0.9	22.29	169.43	2

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20800	2505	22.16	-0.9	21.26	133.66	2
21100	2535	22.05	-0.9	21.15	130.32	2
21400	2565	22.17	-0.9	21.27	133.97	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	23.9	-0.9	23	199.53	2
21100	2535.0	23.83	-0.9	22.93	196.34	2
21375	2562.5	23.95	-0.9	23.05	201.84	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	23.13	-0.9	22.23	167.11	2
21100	2535.0	23.18	-0.9	22.28	169.04	2
21375	2562.5	23.22	-0.9	22.32	170.61	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	22.17	-0.9	21.27	133.97	2
21100	2535	22.04	-0.9	21.14	130.02	2
21375	2562.5	22.14	-0.9	21.24	133.05	2



BUREAU
VERITAS

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	23.95	-0.9	23.05	201.84	2
21100	2535.0	23.91	-0.9	23.01	199.99	2
21350	2560.0	23.99	-0.9	23.09	203.7	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	23.21	-0.9	22.31	170.22	2
21100	2535.0	23.22	-0.9	22.32	170.61	2
21350	2560.0	23.27	-0.9	22.37	172.58	2

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510	22.19	-0.9	21.29	134.59	2
21100	2535	22.11	-0.9	21.21	132.13	2
21350	2560	22.19	-0.9	21.29	134.59	2



**BUREAU
VERITAS**

Test Report No.: W7L-P23020004RF05

LTE BAND CA_7C

CHANNEL BANDWIDTH: 10MHz+20MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-LC} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20805	2505.5	20949	2519.9	23.8	-0.9	22.90	194.98	2
21006	2525.6	21150	2540.0	23.7	-0.9	22.80	190.55	2
21206	2545.6	21350	2560.0	23.76	-0.9	22.86	193.20	2

CHANNEL BANDWIDTH: 10MHz+20MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-LC} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20805	2505.5	20949	2519.9	23.29	-0.9	22.39	173.38	2
21006	2525.6	21150	2540.0	23.19	-0.9	22.29	169.43	2
21206	2545.6	21350	2560.0	23.11	-0.9	22.21	166.34	2

CHANNEL BANDWIDTH: 10MHz+20MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-LC} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20805	2505.5	20949	2519.9	22.18	-0.9	21.28	134.28	2
21006	2525.6	21150	2540.0	22.19	-0.9	21.29	134.59	2
21206	2545.6	21350	2560.0	22.12	-0.9	21.22	132.43	2



BUREAU
VERITAS

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 15MHz+10MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	20945	2519.5	23.75	-0.9	22.85	192.75	2
21051	2530.1	21171	2542.1	23.7	-0.9	22.80	190.55	2
21227	2552.7	21397	2564.7	23.71	-0.9	22.81	190.99	2

CHANNEL BANDWIDTH: 15MHz+10MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	20945	2519.5	23.3	-0.9	22.40	173.78	2
21051	2530.1	21171	2542.1	23.16	-0.9	22.26	168.27	2
21227	2552.7	21397	2564.7	23.06	-0.9	22.16	164.44	2

CHANNEL BANDWIDTH: 15MHz+10MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	20945	2519.5	22.16	-0.9	21.26	133.66	2
21051	2530.1	21171	2542.1	22.15	-0.9	21.25	133.35	2
21227	2552.7	21397	2564.7	22.14	-0.9	21.24	133.05	2



BUREAU
VERITAS

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 15MHz+15MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	2522.5	2502.5	23.81	-0.9	22.91	195.43	2
21025	2527.5	2542.5	2535.0	23.73	-0.9	22.83	191.87	2
21225	2547.5	2562.5	2567.5	23.73	-0.9	22.83	191.87	2

CHANNEL BANDWIDTH: 15MHz+15MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	2522.5	2502.5	23.31	-0.9	22.41	174.18	2
21025	2527.5	2542.5	2535.0	23.18	-0.9	22.28	169.04	2
21225	2547.5	2562.5	2567.5	23.09	-0.9	22.19	165.58	2

CHANNEL BANDWIDTH: 15MHz+15MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	2522.5	2502.5	22.2	-0.9	21.30	134.90	2
21025	2527.5	2542.5	2535.0	22.15	-0.9	21.25	133.35	2
21225	2547.5	2562.5	2567.5	22.07	-0.9	21.17	130.92	2



**BUREAU
VERITAS**

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 15MHz+20MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20828	2507.8	20975	2522.5	23.76	-0.9	22.86	193.20	2
21003	2525.3	21175	2542.5	23.74	-0.9	22.84	192.31	2
21179	2542.9	21375	2562.5	23.67	-0.9	22.77	189.23	2

CHANNEL BANDWIDTH: 15MHz+20MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20828	2507.8	20975	2522.5	23.27	-0.9	22.37	172.58	2
21003	2525.3	21175	2542.5	23.2	-0.9	22.30	169.82	2
21179	2542.9	21375	2562.5	23.15	-0.9	22.25	167.88	2

CHANNEL BANDWIDTH: 15MHz+20MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20828	2507.8	20975	2522.5	22.23	-0.9	21.33	135.83	2
21003	2525.3	21175	2542.5	22.15	-0.9	21.25	133.35	2
21179	2542.9	21375	2562.5	22.12	-0.9	21.22	132.43	2



**BUREAU
VERITAS**

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 20MHz+10MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	20994	2524.4	23.81	-0.9	22.91	195.43	2
21051	2530.1	21195	2544.5	23.67	-0.9	22.77	189.23	2
21251	2550.1	21395	2564.5	23.76	-0.9	22.86	193.20	2

CHANNEL BANDWIDTH: 20MHz+10MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	20994	2524.4	23.35	-0.9	22.45	175.79	2
21051	2530.1	21195	2544.5	23.19	-0.9	22.29	169.43	2
21251	2550.1	21395	2564.5	23.1	-0.9	22.20	165.96	2

CHANNEL BANDWIDTH: 20MHz+10MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	20994	2524.4	22.2	-0.9	21.30	134.90	2
21051	2530.1	21195	2544.5	22.13	-0.9	21.23	132.74	2
21251	2550.1	21395	2564.5	22.15	-0.9	21.25	133.35	2



BUREAU
VERITAS

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 20MHz+15MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	21021	2527.1	23.8	-0.9	22.90	194.98	2
21026	2527.6	21197	2544.7	23.77	-0.9	22.87	193.64	2
21201	2545.1	21372	2562.2	23.72	-0.9	22.82	191.43	2

CHANNEL BANDWIDTH: 20MHz+15MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	21021	2527.1	23.38	-0.9	22.48	177.01	2
21026	2527.6	21197	2544.7	23.22	-0.9	22.32	170.61	2
21201	2545.1	21372	2562.2	23.12	-0.9	22.22	166.72	2

CHANNEL BANDWIDTH: 20MHz+15MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	21021	2527.1	22.25	-0.9	21.35	136.46	2
21026	2527.6	21197	2544.7	22.21	-0.9	21.31	135.21	2
21201	2545.1	21372	2562.2	22.22	-0.9	21.32	135.52	2



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VERITAS**

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 20MHz+20MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	21048	2529.8	23.8	-0.9	22.90	194.98	2
21001	2525.1	21199	2544.9	23.76	-0.9	22.86	193.20	2
21206	2540.2	21350	2560.0	23.83	-0.9	22.93	196.34	2

CHANNEL BANDWIDTH: 20MHz+20MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	21048	2529.8	23.18	-0.9	22.28	169.04	2
21001	2525.1	21199	2544.9	23.45	-0.9	22.55	179.89	2
21206	2540.2	21350	2560.0	23.21	-0.9	22.31	170.22	2

CHANNEL BANDWIDTH: 20MHz+20MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	21048	2529.8	22.33	-0.9	21.43	139.00	2
21001	2525.1	21199	2544.9	22.42	-0.9	21.52	141.91	2
21206	2540.2	21350	2560.0	22.39	-0.9	21.49	140.93	2



**BUREAU
VERITAS**

Test Report No.: W7L-P23020004RF05

LTE BAND 38

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37775	2572.5	23.8	-0.8	23	199.53	2
38000	2595.0	23.68	-0.8	22.88	194.09	2
38225	2617.5	23.73	-0.8	22.93	196.34	2

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37775	2572.5	22.84	-0.8	22.04	159.96	2
38000	2595.0	22.74	-0.8	21.94	156.31	2
38225	2617.5	22.82	-0.8	22.02	159.22	2

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37775	2572.5	21.64	-0.8	20.84	121.34	2
38000	2595	21.56	-0.8	20.76	119.12	2
38225	2617.5	21.5	-0.8	20.7	117.49	2



**BUREAU
VERITAS**

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37800	2575.0	23.78	-0.8	22.98	198.61	2
38000	2595.0	23.71	-0.8	22.91	195.43	2
38200	2615.0	23.73	-0.8	22.93	196.34	2

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37800	2575.0	22.86	-0.8	22.06	160.69	2
38000	2595.0	22.73	-0.8	21.93	155.96	2
38200	2615.0	22.85	-0.8	22.05	160.32	2

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37800	2575	21.62	-0.8	20.82	120.78	2
38000	2595	21.59	-0.8	20.79	119.95	2
38200	2615	21.55	-0.8	20.75	118.85	2



**BUREAU
VERITAS**

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	23.82	-0.8	23.02	200.45	2
38000	2595.0	23.66	-0.8	22.86	193.2	2
38175	2612.5	23.73	-0.8	22.93	196.34	2

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	22.9	-0.8	22.1	162.18	2
38000	2595.0	22.72	-0.8	21.92	155.6	2
38175	2612.5	22.89	-0.8	22.09	161.81	2

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	21.67	-0.8	20.87	122.18	2
38000	2595	21.59	-0.8	20.79	119.95	2
38175	2612.5	21.5	-0.8	20.7	117.49	2



**BUREAU
VERITAS**

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580.0	23.84	-0.8	23.04	201.37	2
38000	2595.0	23.73	-0.8	22.93	196.34	2
38150	2610.0	23.78	-0.8	22.98	198.61	2

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580.0	22.92	-0.8	22.12	162.93	2
38000	2595.0	22.8	-0.8	22	158.49	2
38150	2610.0	22.9	-0.8	22.1	162.18	2

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580	21.68	-0.8	20.88	122.46	2
38000	2595	21.61	-0.8	20.81	120.5	2
38150	2610	21.58	-0.8	20.78	119.67	2



**BUREAU
VERITAS**

Test Report No.: W7L-P23020004RF05

LTE BAND CA_38C

CHANNEL BANDWIDTH: 15MHz+15MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580.0	38048	2599.8	23.29	-0.8	22.49	177.42	2
37901	2585.1	38048	2604.9	23.61	-0.8	22.81	190.99	2
37952	2590.2	38150	2610	23.51	-0.8	22.71	186.64	2

CHANNEL BANDWIDTH: 15MHz+15MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580.0	38048	2599.8	22.61	-0.8	21.81	151.71	2
37901	2585.1	38099	2604.9	22.94	-0.8	22.14	163.68	2
37952	2590.2	38150	2610	22.74	-0.8	21.94	156.31	2

CHANNEL BANDWIDTH: 15MHz+15MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580.0	38048	2599.8	21.89	-0.8	21.09	128.53	2
37901	2585.1	38099	2604.9	22.02	-0.8	21.22	132.43	2
37952	2590.2	38150	2610	21.98	-0.8	21.18	131.22	2



**BUREAU
VERITAS**

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 20MHz+20MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	37975	2592.5	23.38	-0.8	22.58	181.13	2
37925	2587.5	38075	2602.5	23.81	-0.8	23.01	199.99	2
38025	2597.5	38175	2612.5	23.57	-0.8	22.77	189.23	2

CHANNEL BANDWIDTH: 20MHz+20MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	37975	2592.5	22.78	-0.8	21.98	157.76	2
37925	2587.5	38075	2602.5	22.85	-0.8	22.05	160.32	2
38025	2597.5	38175	2612.5	22.7	-0.8	21.90	154.88	2

CHANNEL BANDWIDTH: 20MHz+20MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	37975	2592.5	21.9	-0.8	21.10	128.82	2
37925	2587.5	38075	2602.5	21.94	-0.8	21.14	130.02	2
38025	2597.5	38175	2612.5	21.88	-0.8	21.08	128.23	2



**BUREAU
VERITAS**

Test Report No.: W7L-P23020004RF05

LTE BAND 41

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
40065	2537.5	23.82	-0.5	23.32	214.78	2
40640	2595.0	23.77	-0.5	23.27	212.32	2
41215	2652.5	23.74	-0.5	23.24	210.86	2

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
40065	2537.5	22.9	-0.5	22.4	173.78	2
40640	2595.0	22.83	-0.5	22.33	171	2
41215	2652.5	22.82	-0.5	22.32	170.61	2

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
40065	2537.5	21.68	-0.5	21.18	131.22	2
40640	2595.0	21.64	-0.5	21.14	130.02	2
41215	2652.5	21.66	-0.5	21.16	130.62	2



**BUREAU
VERITAS**

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
40090	2540.0	23.88	-0.5	23.38	217.77	2
40640	2595.0	23.71	-0.5	23.21	209.41	2
41190	2650.0	23.74	-0.5	23.24	210.86	2

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
40090	2540.0	22.94	-0.5	22.44	175.39	2
40640	2595.0	22.77	-0.5	22.27	168.66	2
41190	2650.0	22.87	-0.5	22.37	172.58	2

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
40090	2540.0	21.75	-0.5	21.25	133.35	2
40640	2595.0	21.63	-0.5	21.13	129.72	2
41190	2650.0	21.6	-0.5	21.1	128.82	2



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VERITAS**

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
40115	2542.5	23.87	-0.5	23.37	217.27	2
40640	2595.0	23.72	-0.5	23.22	209.89	2
41165	2647.5	23.77	-0.5	23.27	212.32	2

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
40115	2542.5	22.9	-0.5	22.4	173.78	2
40640	2595.0	22.77	-0.5	22.27	168.66	2
41165	2647.5	22.86	-0.5	22.36	172.19	2

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
40115	2542.5	21.7	-0.5	21.2	131.83	2
40640	2595.0	21.57	-0.5	21.07	127.94	2
41165	2647.5	21.66	-0.5	21.16	130.62	2



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VERITAS**

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
40140	2545.0	23.9	-0.5	23.4	218.78	2
40640	2595.0	23.78	-0.5	23.28	212.81	2
41140	2645.0	23.79	-0.5	23.29	213.3	2

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
40140	2545.0	22.96	-0.5	22.46	176.2	2
40640	2595.0	22.85	-0.5	22.35	171.79	2
41140	2645.0	22.88	-0.5	22.38	172.98	2

CHANNEL BANDWIDTH: 20 MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
40140	2545.0	21.76	-0.5	21.26	133.66	2
40640	2595.0	21.65	-0.5	21.15	130.32	2
41140	2645.0	21.68	-0.5	21.18	131.22	2



**BUREAU
VERITAS**

Test Report No.: W7L-P23020004RF05

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CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20775	2502.5	22.71	-0.7	22.01	158.85	2
21100	2535.0	22.71	-0.7	22.01	158.85	2
21425	2567.5	22.77	-0.7	22.07	161.06	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	22.46	-0.7	21.76	149.97	2
21100	2535.0	22.47	-0.7	21.77	150.31	2
21425	2567.5	22.54	-0.7	21.84	152.76	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	22.19	-0.7	21.49	140.93	2
21100	2535	22.15	-0.7	21.45	139.64	2
21425	2567.5	22.24	-0.7	21.54	142.56	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	22.77	-0.7	22.07	161.06	2
21100	2535.0	22.64	-0.7	21.94	156.31	2
21400	2565.0	22.81	-0.7	22.11	162.55	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	22.5	-0.7	21.8	151.36	2
21100	2535.0	22.47	-0.7	21.77	150.31	2
21400	2565.0	22.5	-0.7	21.8	151.36	2

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20800	2505	22.24	-0.7	21.54	142.56	2
21100	2535	22.1	-0.7	21.4	138.04	2
21400	2565	22.24	-0.7	21.54	142.56	2

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	22.72	-0.7	22.02	159.22	2
21100	2535.0	22.64	-0.7	21.94	156.31	2
21375	2562.5	22.76	-0.7	22.06	160.69	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	22.5	-0.7	21.8	151.36	2
21100	2535.0	22.45	-0.7	21.75	149.62	2
21375	2562.5	22.54	-0.7	21.84	152.76	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	22.25	-0.7	21.55	142.89	2
21100	2535	22.09	-0.7	21.39	137.72	2
21375	2562.5	22.21	-0.7	21.51	141.58	2



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VERITAS**

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	22.79	-0.7	22.09	161.81	2
21100	2535.0	22.72	-0.7	22.02	159.22	2
21350	2560.0	22.82	-0.7	22.12	162.93	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	22.53	-0.7	21.83	152.41	2
21100	2535.0	22.49	-0.7	21.79	151.01	2
21350	2560.0	22.56	-0.7	21.86	153.46	2

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510	22.27	-0.7	21.57	143.55	2
21100	2535	22.16	-0.7	21.46	139.96	2
21350	2560	22.26	-0.7	21.56	143.22	2



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VERITAS

Test Report No.: W7L-P23020004RF05

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CHANNEL BANDWIDTH: 10MHz+20MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20805	2505.5	20949	2519.9	22.47	-0.7	21.77	150.31	2
21006	2525.6	21150	2540.0	22.44	-0.7	21.77	150.31	2
21206	2545.6	21350	2560.0	22.42	-0.7	21.72	148.59	2

CHANNEL BANDWIDTH: 10MHz+20MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20805	2505.5	20949	2519.9	21.91	-0.7	21.21	132.13	2
21006	2525.6	21150	2540.0	22.03	-0.7	21.33	135.83	2
21206	2545.6	21350	2560.0	21.63	-0.7	20.93	123.88	2

CHANNEL BANDWIDTH: 10MHz+20MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20805	2505.5	20949	2519.9	20.7	-0.7	20.00	100.00	2
21006	2525.6	21150	2540.0	20.81	-0.7	20.11	102.57	2
21206	2545.6	21350	2560.0	20.57	-0.7	19.87	97.05	2



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VERITAS

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 15MHz+10MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	20945	2519.5	22.44	-0.7	21.74	149.28	2
21051	2530.1	21171	2542.1	22.43	-0.7	21.73	148.94	2
21227	2552.7	21397	2564.7	22.4	-0.7	21.70	147.91	2

CHANNEL BANDWIDTH: 15MHz+10MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	20945	2519.5	21.9	-0.7	21.20	131.83	2
21051	2530.1	21171	2542.1	22.07	-0.7	21.37	137.09	2
21227	2552.7	21397	2564.7	21.59	-0.7	20.89	122.74	2

CHANNEL BANDWIDTH: 15MHz+10MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	20945	2519.5	20.72	-0.7	20.02	100.46	2
21051	2530.1	21171	2542.1	20.83	-0.7	20.13	103.04	2
21227	2552.7	21397	2564.7	20.63	-0.7	19.93	98.40	2



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VERITAS

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 15MHz+15MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	2522.5	2502.5	22.46	-0.7	21.76	149.97	2
21025	2527.5	2542.5	2535.0	22.46	-0.7	21.76	149.97	2
21225	2547.5	2562.5	2567.5	22.4	-0.7	21.70	147.91	2

CHANNEL BANDWIDTH: 15MHz+15MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	2522.5	2502.5	21.93	-0.7	21.23	132.74	2
21025	2527.5	2542.5	2535.0	22.04	-0.7	21.34	136.14	2
21225	2547.5	2562.5	2567.5	21.58	-0.7	20.88	122.46	2

CHANNEL BANDWIDTH: 15MHz+15MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _{T-Lc} (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	2522.5	2502.5	20.74	-0.7	20.04	100.93	2
21025	2527.5	2542.5	2535.0	20.78	-0.7	20.08	101.86	2
21225	2547.5	2562.5	2567.5	20.57	-0.7	19.87	97.05	2



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VERITAS

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 15MHz+20MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20828	2507.8	20975	2522.5	22.5	-0.7	21.80	151.36	2
21003	2525.3	21175	2542.5	22.52	-0.7	21.82	152.05	2
21179	2542.9	21375	2562.5	22.39	-0.7	21.69	147.57	2

CHANNEL BANDWIDTH: 15MHz+20MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20828	2507.8	20975	2522.5	21.94	-0.7	21.24	133.05	2
21003	2525.3	21175	2542.5	22.04	-0.7	21.34	136.14	2
21179	2542.9	21375	2562.5	21.67	-0.7	20.97	125.03	2

CHANNEL BANDWIDTH: 15MHz+20MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20828	2507.8	20975	2522.5	20.75	-0.7	20.05	101.16	2
21003	2525.3	21175	2542.5	20.79	-0.7	20.09	102.09	2
21179	2542.9	21375	2562.5	20.57	-0.7	19.87	97.05	2



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VERITAS

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 20MHz+10MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	20994	2524.4	22.48	-0.7	21.78	150.66	2
21051	2530.1	21195	2544.5	22.5	-0.7	21.80	151.36	2
21251	2550.1	21395	2564.5	22.44	-0.7	21.74	149.28	2

CHANNEL BANDWIDTH: 20MHz+10MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	20994	2524.4	21.98	-0.7	21.28	134.28	2
21051	2530.1	21195	2544.5	22.07	-0.7	21.37	137.09	2
21251	2550.1	21395	2564.5	21.6	-0.7	20.90	123.03	2

CHANNEL BANDWIDTH: 20MHz+10MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	20994	2524.4	20.71	-0.7	20.01	100.23	2
21051	2530.1	21195	2544.5	20.84	-0.7	20.14	103.28	2
21251	2550.1	21395	2564.5	20.58	-0.7	19.88	97.27	2



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VERITAS**

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 20MHz+15MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	21021	2527.1	22.52	-0.7	21.82	152.05	2
21026	2527.6	21197	2544.7	22.52	-0.7	21.82	152.05	2
21201	2545.1	21372	2562.2	22.41	-0.7	21.71	148.25	2

CHANNEL BANDWIDTH: 20MHz+15MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	21021	2527.1	21.92	-0.7	21.22	132.43	2
21026	2527.6	21197	2544.7	22.06	-0.7	21.36	136.77	2
21201	2545.1	21372	2562.2	21.71	-0.7	21.01	126.18	2

CHANNEL BANDWIDTH: 20MHz+15MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	21021	2527.1	20.78	-0.7	20.08	101.86	2
21026	2527.6	21197	2544.7	20.84	-0.7	20.14	103.28	2
21201	2545.1	21372	2562.2	20.61	-0.7	19.91	97.95	2



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Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 20MHz+20MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	21048	2529.8	22.64	-0.7	21.94	156.31	2
21001	2525.1	21199	2544.9	22.55	-0.7	21.85	153.11	2
21206	2540.2	21350	2560.0	22.44	-0.7	21.74	149.28	2

CHANNEL BANDWIDTH: 20MHz+20MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	21048	2529.8	22.01	-0.7	21.31	135.21	2
21001	2525.1	21199	2544.9	21.98	-0.7	21.28	134.28	2
21206	2540.2	21350	2560.0	21.88	-0.7	21.18	131.22	2

CHANNEL BANDWIDTH: 20MHz+20MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510.0	21048	2529.8	21.14	-0.7	20.44	110.66	2
21001	2525.1	21199	2544.9	21.12	-0.7	20.42	110.15	2
21206	2540.2	21350	2560.0	21.07	-0.7	20.37	108.89	2



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VERITAS**

Test Report No.: W7L-P23020004RF05

LTE BAND 38

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37775	2572.5	24.04	-0.7	23.34	215.77	2
38000	2595.0	23.93	-0.7	23.23	210.38	2
38225	2617.5	23.98	-0.7	23.28	212.81	2

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37775	2572.5	23.08	-0.7	22.38	172.98	2
38000	2595.0	22.99	-0.7	22.29	169.43	2
38225	2617.5	23.07	-0.7	22.37	172.58	2

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37775	2572.5	21.87	-0.7	21.17	130.92	2
38000	2595	21.8	-0.7	21.1	128.82	2
38225	2617.5	21.74	-0.7	21.04	127.06	2



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VERITAS**

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37800	2575.0	24.02	-0.7	23.32	214.78	2
38000	2595.0	23.96	-0.7	23.26	211.84	2
38200	2615.0	23.98	-0.7	23.28	212.81	2

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37800	2575.0	23.1	-0.7	22.4	173.78	2
38000	2595.0	22.98	-0.7	22.28	169.04	2
38200	2615.0	23.1	-0.7	22.4	173.78	2

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37800	2575	21.85	-0.7	21.15	130.32	2
38000	2595	21.83	-0.7	21.13	129.72	2
38200	2615	21.79	-0.7	21.09	128.53	2



**BUREAU
VERITAS**

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	24.06	-0.7	23.36	216.77	2
38000	2595.0	23.91	-0.7	23.21	209.41	2
38175	2612.5	23.98	-0.7	23.28	212.81	2

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	23.14	-0.7	22.44	175.39	2
38000	2595.0	22.97	-0.7	22.27	168.66	2
38175	2612.5	23.14	-0.7	22.44	175.39	2

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	21.9	-0.7	21.2	131.83	2
38000	2595	21.83	-0.7	21.13	129.72	2
38175	2612.5	21.74	-0.7	21.04	127.06	2



**BUREAU
VERITAS**

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580.0	24.08	-0.7	23.38	217.77	2
38000	2595.0	23.98	-0.7	23.28	212.81	2
38150	2610.0	24.03	-0.7	23.33	215.28	2

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580.0	23.16	-0.7	22.46	176.2	2
38000	2595.0	23.05	-0.7	22.35	171.79	2
38150	2610.0	23.15	-0.7	22.45	175.79	2

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580	21.91	-0.7	21.21	132.13	2
38000	2595	21.85	-0.7	21.15	130.32	2
38150	2610	21.82	-0.7	21.12	129.42	2



**BUREAU
VERITAS**

Test Report No.: W7L-P23020004RF05

LTE BAND CA_38C

CHANNEL BANDWIDTH: 15MHz+15MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580.0	38048	2599.8	23.61	-0.7	22.91	195.43	2
37901	2585.1	38048	2604.9	23.7	-0.7	23.00	199.53	2
37952	2590.2	38150	2610	23.83	-0.7	23.13	205.59	2

CHANNEL BANDWIDTH: 15MHz+15MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580.0	38048	2599.8	23.02	-0.7	22.32	170.61	2
37901	2585.1	38099	2604.9	22.84	-0.7	22.14	163.68	2
37952	2590.2	38150	2610	22.85	-0.7	22.15	164.06	2

CHANNEL BANDWIDTH: 15MHz+15MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580.0	38048	2599.8	22.02	-0.7	21.32	135.52	2
37901	2585.1	38099	2604.9	21.81	-0.7	21.11	129.12	2
37952	2590.2	38150	2610	21.85	-0.7	21.15	130.32	2



BUREAU
VERITAS

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 20MHz+20MHz QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	37975	2592.5	23.86	-0.7	23.16	207.01	2
37925	2587.5	38075	2602.5	23.86	-0.7	23.16	207.01	2
38025	2597.5	38175	2612.5	24.03	-0.7	23.33	215.28	2

CHANNEL BANDWIDTH: 20MHz+20MHz 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	37975	2592.5	23.1	-0.7	22.40	173.78	2
37925	2587.5	38075	2602.5	22.8	-0.7	22.10	162.18	2
38025	2597.5	38175	2612.5	22.82	-0.7	22.12	162.93	2

CHANNEL BANDWIDTH: 20MHz+20MHz 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	37975	2592.5	21.93	-0.7	21.23	132.74	2
37925	2587.5	38075	2602.5	21.91	-0.7	21.21	132.13	2
38025	2597.5	38175	2612.5	21.73	-0.7	21.03	126.77	2



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VERITAS**

Test Report No.: W7L-P23020004RF05

LTE BAND 41

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
40065	2537.5	23.84	-0.7	23.14	206.06	2
40640	2595.0	23.86	-0.7	23.16	207.01	2
41215	2652.5	23.83	-0.7	23.13	205.59	2

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
40065	2537.5	22.91	-0.7	22.21	166.34	2
40640	2595.0	22.91	-0.7	22.21	166.34	2
41215	2652.5	22.9	-0.7	22.2	165.96	2

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
40065	2537.5	21.66	-0.7	20.96	124.74	2
40640	2595.0	21.69	-0.7	20.99	125.6	2
41215	2652.5	21.71	-0.7	21.01	126.18	2



BUREAU
VERITAS

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
40090	2540.0	23.9	-0.7	23.2	208.93	2
40640	2595.0	23.8	-0.7	23.1	204.17	2
41190	2650.0	23.83	-0.7	23.13	205.59	2

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
40090	2540.0	22.95	-0.7	22.25	167.88	2
40640	2595.0	22.85	-0.7	22.15	164.06	2
41190	2650.0	22.95	-0.7	22.25	167.88	2

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
40090	2540.0	21.73	-0.7	21.03	126.77	2
40640	2595.0	21.68	-0.7	20.98	125.31	2
41190	2650.0	21.65	-0.7	20.95	124.45	2



**BUREAU
VERITAS**

Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
40115	2542.5	23.89	-0.7	23.19	208.45	2
40640	2595.0	23.81	-0.7	23.11	204.64	2
41165	2647.5	23.86	-0.7	23.16	207.01	2

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
40115	2542.5	22.91	-0.7	22.21	166.34	2
40640	2595.0	22.85	-0.7	22.15	164.06	2
41165	2647.5	22.94	-0.7	22.24	167.49	2

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
40115	2542.5	21.68	-0.7	20.98	125.31	2
40640	2595.0	21.62	-0.7	20.92	123.59	2
41165	2647.5	21.71	-0.7	21.01	126.18	2



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Test Report No.: W7L-P23020004RF05

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
40140	2545.0	23.92	-0.7	23.22	209.89	2
40640	2595.0	23.87	-0.7	23.17	207.49	2
41140	2645.0	23.88	-0.7	23.18	207.97	2

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
40140	2545.0	22.97	-0.7	22.27	168.66	2
40640	2595.0	22.93	-0.7	22.23	167.11	2
41140	2645.0	22.96	-0.7	22.26	168.27	2

CHANNEL BANDWIDTH: 20 MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
40140	2545.0	21.74	-0.7	21.04	127.06	2
40640	2595.0	21.7	-0.7	21	125.89	2
41140	2645.0	21.73	-0.7	21.03	126.77	2



3.2 RADIATED EMISSION MEASUREMENT

3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

For: LTE Band7&Band38&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.

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

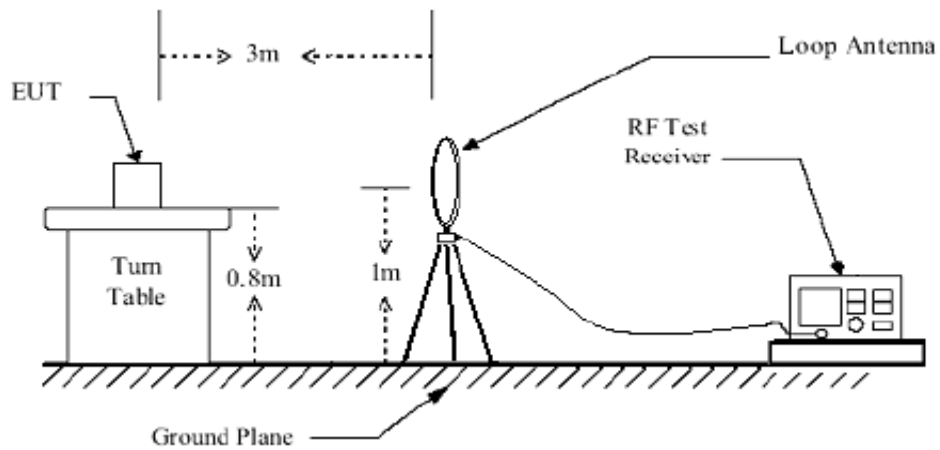
NOTE: The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

3.2.3 DEVIATION FROM TEST STANDARD

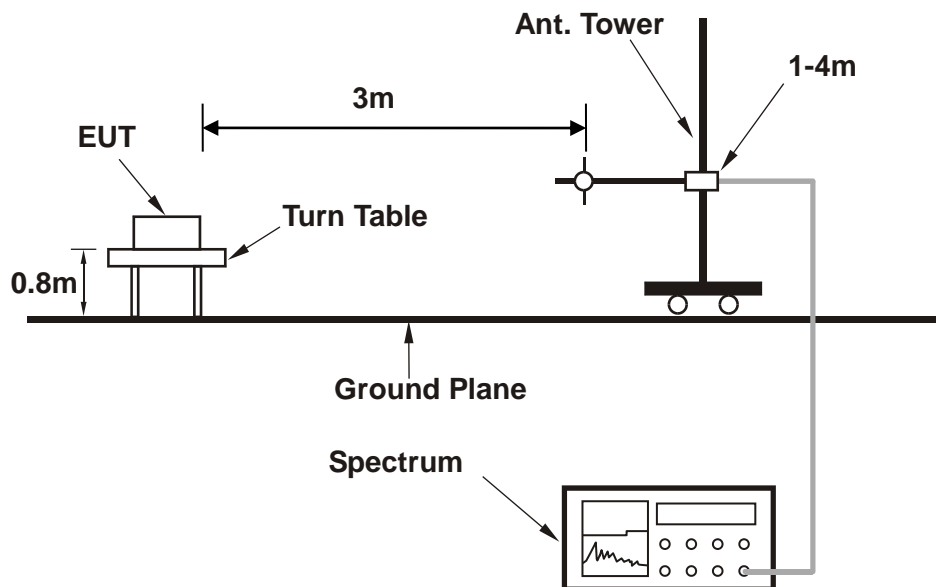
No deviation

3.2.4 TEST SETUP

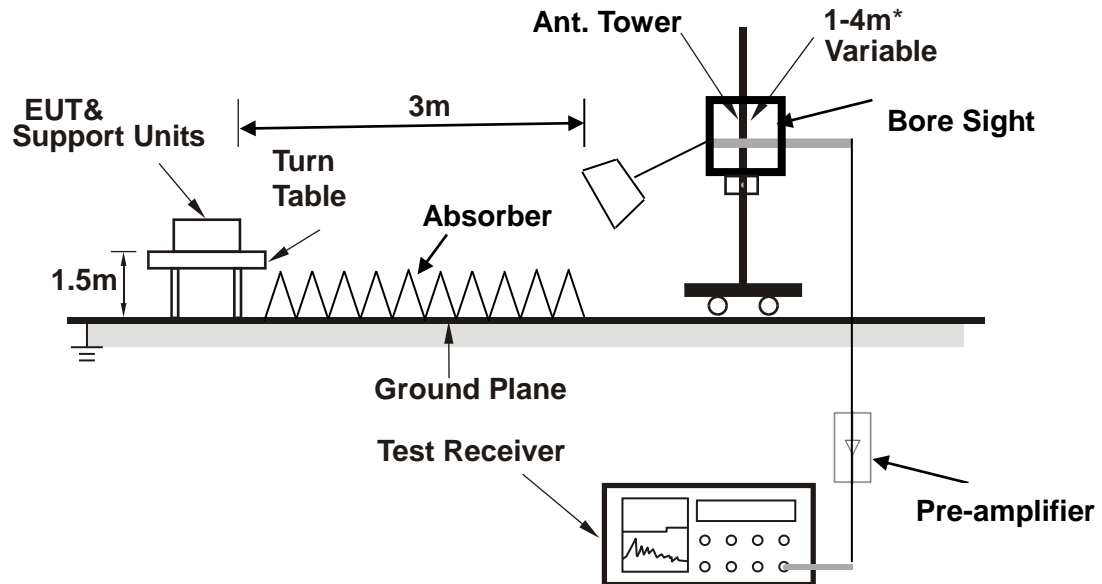
< Frequency Range below 30MHz >



< 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).



3.2.5 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

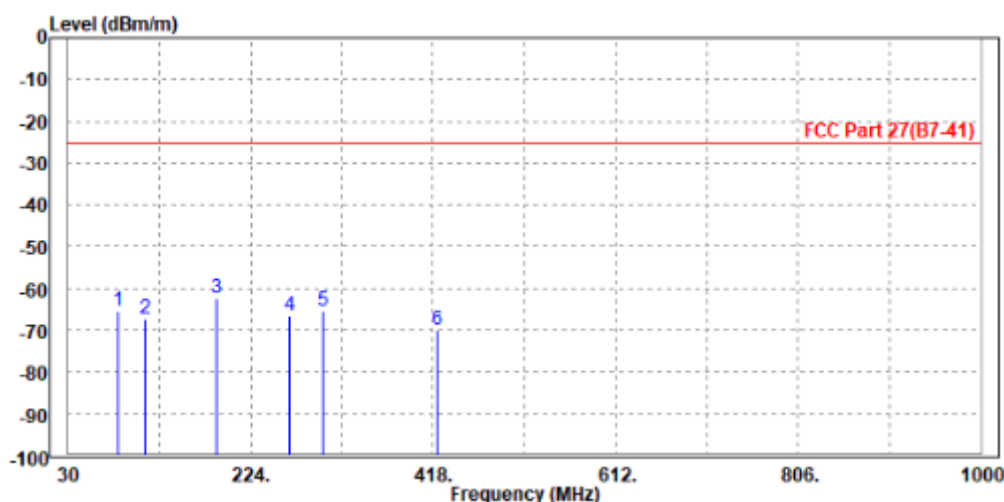
30 MHz – 1GHz data:

LTE Band 7(Ant0)

CHANNEL BANDWIDTH: 10MHz / QPSK

MODE	TX channel 20800	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
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	83.350	-65.43	-44.07	-25.00	-40.43	-21.36	Peak	Horizontal
2	111.480	-67.30	-46.17	-25.00	-42.30	-21.13	Peak	Horizontal
3 PP	187.140	-62.47	-43.90	-25.00	-37.47	-18.57	Peak	Horizontal
4	264.740	-66.59	-54.84	-25.00	-41.59	-11.75	Peak	Horizontal
5	300.630	-65.36	-52.91	-25.00	-40.36	-12.45	Peak	Horizontal
6	422.850	-70.06	-60.44	-25.00	-45.06	-9.62	Peak	Horizontal

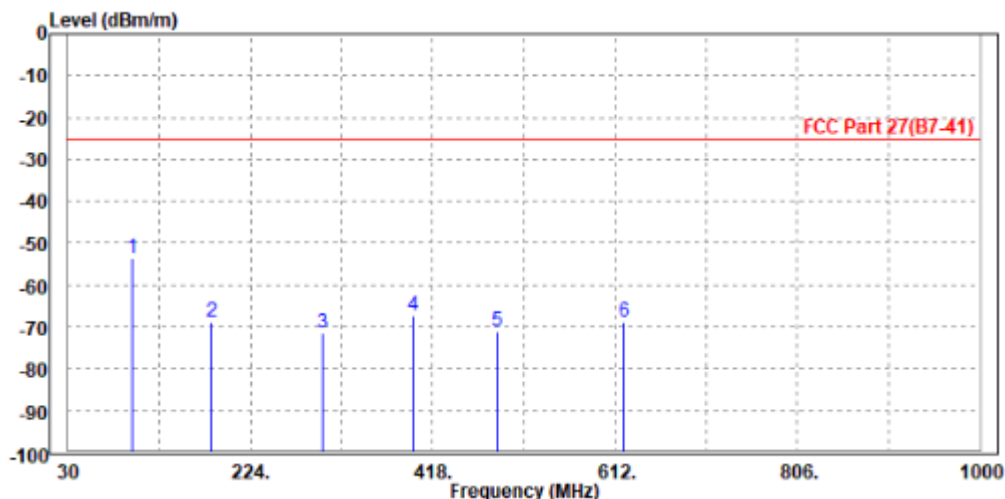




Test Report No.: W7L-P23020004RF05

MODE	TX channel 20800	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
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	98.870	-53.53	-46.11	-25.00	-28.53	-7.42	Peak	Vertical
2	182.290	-69.01	-50.26	-25.00	-44.01	-18.75	Peak	Vertical
3	300.630	-71.53	-60.73	-25.00	-46.53	-10.80	Peak	Vertical
4	397.630	-67.30	-58.26	-25.00	-42.30	-9.04	Peak	Vertical
5	486.870	-70.94	-62.74	-25.00	-45.94	-8.20	Peak	Vertical
6	621.700	-68.95	-62.99	-25.00	-43.95	-5.96	Peak	Vertical





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ABOVE 1GHz

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

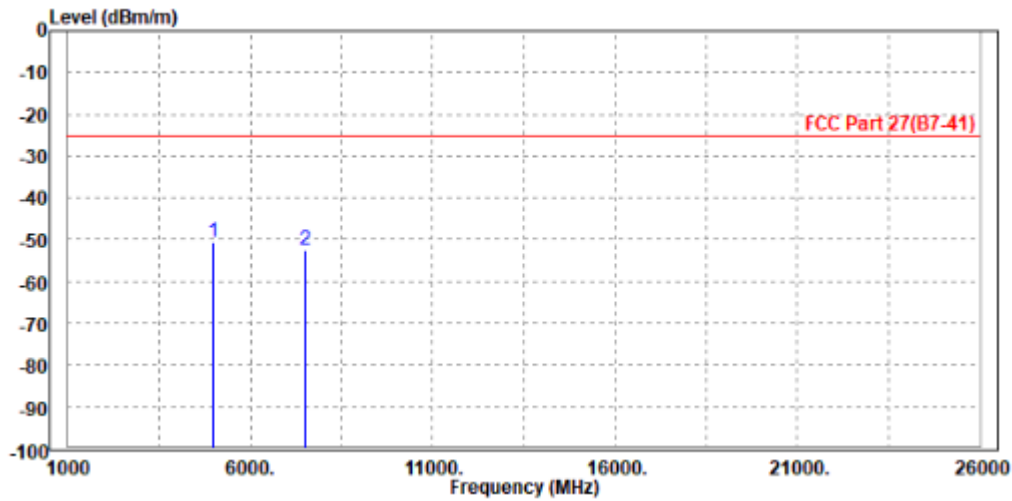
LTE Band 7 (Ant0)

CHANNEL BANDWIDTH: 10MHz / QPSK

CH 20800

MODE	TX channel 20800	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
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 5000.000	-50.58	-60.27	-25.00	-25.58	9.69	Peak	Horizontal
2	7515.000	-52.29	-63.82	-25.00	-27.29	11.53	Peak	Horizontal

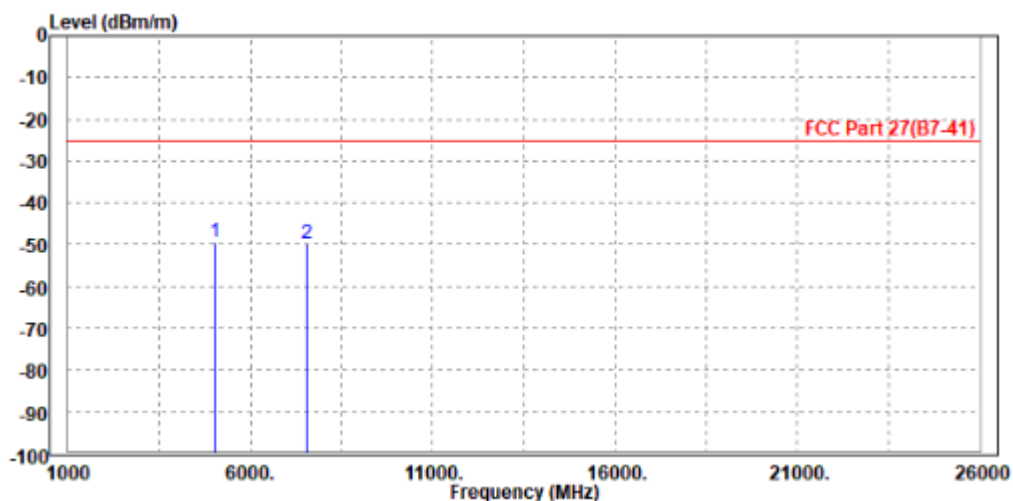




Test Report No.: W7L-P23020004RF05

MODE	TX channel 20800	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
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 5010.000	-49.46	-59.74	-25.00	-24.46	10.28	Peak	Vertical
2	7525.000	-49.87	-64.60	-25.00	-24.87	14.73	Peak	Vertical





Test Report No.: W7L-P23020004RF05

4 INFORMATION ON THE TESTING LABORATORIES

We, BV 7LAYERS COMMUNICATIONS TECHNOLOGY (SHENZHEN) CO. LTD., were founded in 2015 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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Tel: +86-755-88696566

Fax: +86-755-88696577

Email: customerservice.sw@bureauveritas.com

Web Site: www.adt.com.tw

The address and road map of all our labs can be found in our web site also.



Test Report No.: W7L-P23020004RF05

5 MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications are made to the EUT by the lab during the test.

---END---



Test Report No.: W7L-P23020004RF05