

FCC Test Report (Part 27)

Report No.: RFBBQZ-WTW-P20120412-2

Contain module FCC ID: PY320300503

Test Model: LM1200

Received Date: Sep. 25, 2020

Test Date: Dec. 05 ~ Dec. 10, 2020

Issued Date: Dec. 15, 2020

Applicant: NETGEAR INC.

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lin Kou Laboratories

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FCC Registration / 788550 / TW0003

Designation Number:



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Release Control Record

Issue No.	Description	Date Issued
RFBBQZ-WTW-P20120412-2	Original release	Dec. 15, 2020

1 Certificate of Conformity

Product: LTE modem

Brand: Netgear

Test Model: LM1200

Sample Status: Engineering Sample

Applicant: NETGEAR INC.

Test Date: Dec. 05 ~ Dec. 10, 2020

Standards: FCC Part 27, Subpart C, D, F, H, L, N

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by : Pettie Chen, **Date:** Dec. 15, 2020
Pettie Chen / Senior Specialist

Approved by : Bruce Chen, **Date:** Dec. 15, 2020
Bruce Chen / Senior Project Engineer

2 Summary of Test Results

Applied Standard: FCC Part 27 & Part 2						
FCC Clause				Test Item	Result	Remarks
WCDMA B4 / LTE B4	LTE B12 / LTE B71	LTE B13	LTE B66			
2.1046 27.50 (d)(4)	2.1046 27.50 (c)	2.1046 27.50 (b)	2.1046 27.50 (d)(4)	Equivalent Isotropically Radiated Power / Equivalent Radiated Power	Pass	Meet the requirement of limit.
2.1053 27.53(h)	2.1053 27.53(g)	2.1053 27.53(c)(f)	2.1053 27.53(h)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -12.8dB at 1564.00MHz.

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 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	Frequency	Expanded Uncertainty (k=2) ($\pm$)
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.04 dB
	30MHz ~ 200MHz	3.59 dB
	200MHz ~ 1000MHz	3.60 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Test Site and Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver KEYSIGHT	N9038A	MY55420137	Apr. 16, 2020	Apr. 15, 2021
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Jun. 12, 2020	Jun. 11, 2021
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	Nov. 06, 2020	Nov. 05, 2021
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-1169	Nov. 22, 2020	Nov. 21, 2021
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Nov. 22, 2020	Nov. 21, 2021
Preamplifier Agilent (Below 1GHz)	8447D	2944A10638	Jun. 08, 2020	Jun. 07, 2021
Preamplifier Agilent (Above 1GHz)	8449B	3008A02367	Feb. 18, 2020	Feb. 17, 2021
RF signal cable HUBER+SUHNER&EMCI	SUCOFLEX 104 & EMC104-SM-SM80 00	CABLE-CH9-02 (248780+171006)	Jan. 18, 2020	Jan. 17, 2021
RF signal cable HUBER+SUHNER	SUCOFLEX 104	CABLE-CH9-(250795/4)	Jan. 18, 2020	Jan. 17, 2021
RF signal cable Woken	8D-FB	Cable-CH9-01	Jun. 08, 2020	Jun. 07, 2021
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	NA	NA	NA
Antenna Tower EMCO	2070/2080	512.835.4684	NA	NA
Turn Table EMCO	2087-2.03	NA	NA	NA
Antenna Tower & Turn BV ADT	AT100	AT93021705	NA	NA
Turn Table BV ADT	TT100	TT93021705	NA	NA
Turn Table Controller BV ADT	SC100	SC93021705	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 01, 2020	May 31, 2021
JFW 20dB attenuation	50HF-020-SMA	NA	NA	NA
True RMS Clamp Meter Fluke	325	31130711WS	Jun. 06, 2020	Jun. 05, 2021
DC power supply	U8002A	MY56330015	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa Chamber 9.

3 General Information

3.1 General Description of EUT

Product	LTE modem		
Brand	Netgear		
Test Model	LM1200		
Status of EUT	Engineering Sample		
Power Supply Rating	5 Vdc (Adapter)		
Modulation Type	WCDMA: BPSK, QPSK HSDPA: BPSK HSUPA: QPSK LTE: QPSK, 16QAM		
Operating Frequency	WCDMA Band 4		1712.4MHz ~ 1752.6MHz
	LTE Band 4	Channel Bandwidth 1.4MHz	1710.7MHz ~ 1754.3MHz
		Channel Bandwidth 3MHz	1711.5MHz ~ 1753.5MHz
		Channel Bandwidth 5MHz	1712.5MHz ~ 1752.5MHz
		Channel Bandwidth 10MHz	1715.0MHz ~ 1750.0MHz
		Channel Bandwidth 15MHz	1717.5MHz ~ 1747.5MHz
		Channel Bandwidth 20MHz	1720.0MHz ~ 1745.0MHz
	LTE Band 12	Channel Bandwidth 1.4MHz	699.7MHz ~ 715.3MHz
		Channel Bandwidth 3MHz	700.5MHz ~ 714.5MHz
		Channel Bandwidth 5MHz	701.5MHz ~ 713.5MHz
		Channel Bandwidth 10MHz	704.0MHz ~ 711.0MHz
	LTE Band 13	Channel Bandwidth 5MHz	779.5MHz ~ 784.5MHz
		Channel Bandwidth 10MHz	782.0MHz
Operating Frequency	LTE Band 66	Channel Bandwidth 1.4MHz	1710.7MHz ~ 1779.3MHz
		Channel Bandwidth 3MHz	1711.5MHz ~ 1778.5MHz
		Channel Bandwidth 5MHz	1712.5MHz ~ 1777.5MHz
		Channel Bandwidth 10MHz	1715.0MHz ~ 1775.0MHz
		Channel Bandwidth 15MHz	1717.5MHz ~ 1772.5MHz
		Channel Bandwidth 20MHz	1720.0MHz ~ 1770.0MHz
	LTE Band 71	Channel Bandwidth 5MHz	665.5MHz ~ 695.5MHz
		Channel Bandwidth 10MHz	668.0MHz ~ 693.0MHz
		Channel Bandwidth 15MHz	670.5MHz ~ 690.5MHz
		Channel Bandwidth 20MHz	673.0MHz ~ 688.0MHz

Max. EIRP Power	WCDMA Band 4		229.087mW (23.6dBm)	
			QPSK	16QAM
	LTE Band 4	Channel Bandwidth 1.4MHz	194.984mW (22.9dBm)	154.882mW (21.9dBm)
		Channel Bandwidth 3MHz	186.209mW (22.7dBm)	147.911mW (21.7dBm)
		Channel Bandwidth 5MHz	190.546mW (22.8dBm)	190.546mW (22.8dBm)
		Channel Bandwidth 10MHz	199.526mW (23.0dBm)	158.489mW (22.0dBm)
		Channel Bandwidth 15MHz	204.174mW (23.1dBm)	158.489mW (22.0dBm)
		Channel Bandwidth 20MHz	208.930mW (23.2dBm)	162.181mW (22.1dBm)
	LTE Band 66	Channel Bandwidth 1.4MHz	177.828mW (22.5dBm)	141.254mW (21.5dBm)
		Channel Bandwidth 3MHz	186.209mW (22.7dBm)	147.911mW (21.7dBm)
		Channel Bandwidth 5MHz	194.984mW (22.9dBm)	154.882mW (21.9dBm)
		Channel Bandwidth 10MHz	204.174mW (23.1dBm)	162.181mW (22.1dBm)
		Channel Bandwidth 15MHz	208.930mW (23.2dBm)	165.959mW (22.2dBm)
		Channel Bandwidth 20MHz	218.776mW (23.4dBm)	173.780mW (22.4dBm)
Max. ERP Power			QPSK	16QAM
	LTE Band 12	Channel Bandwidth 1.4MHz	83.176mW (19.2dBm)	66.069mW (18.2dBm)
		Channel Bandwidth 3MHz	85.114mW (19.3dBm)	67.608mW (18.3dBm)
		Channel Bandwidth 5MHz	91.201mW (19.6dBm)	72.444mW (18.6dBm)
		Channel Bandwidth 10MHz	93.325mW (19.7dBm)	74.131mW (18.7dBm)
	LTE Band 13	Channel Bandwidth 5MHz	138.038mW (21.4dBm)	87.096mW (19.4dBm)
		Channel Bandwidth 10MHz	141.254mW (21.5dBm)	109.648mW (20.4dBm)
	LTE Band 71	Channel Bandwidth 5MHz	58.884mW (17.7dBm)	46.774mW (16.7dBm)
		Channel Bandwidth 10MHz	58.884mW (17.7dBm)	46.774mW (16.7dBm)
		Channel Bandwidth 15MHz	60.256mW (17.8dBm)	47.863mW (16.8dBm)
		Channel Bandwidth 20MHz	63.096mW (18.0dBm)	50.119mW (17.0dBm)
Antenna Type	Refer to Note			
Antenna Connector	Refer to Note			
Accessory Device	Refer to Note			
Cable Supplied	Refer to Note			

Note:

- This report is prepared for FCC class II permissive change. The difference compared with the original report (BV CPS report no.: RFBBQZ-WTW-P20090593-2) is adding a WWAN antenna. Only Equivalent Isotropically Radiated Power / Equivalent Radiated Power and Radiated Spurious Emissions were verified and recorded in this report. Other testing data please refer to the original TA Technology (Shanghai) Co., Ltd. report no.: R1806A0301-R3V1 (LTE Module, Brand: Quectel, Model: EC25-AF, FCC ID: XMR201808EC25AF).
- The following antennas were provided to the EUT.

Antenna Type	Monopole	
Antenna Connector	TS-9 plugs	
Antenna Gain (dBi)	LTE Band 4	0.48
	LTE Band 12	0.54
	LTE Band 13	0.54
	LTE Band 66	0.48
	LTE Band 71	0.54

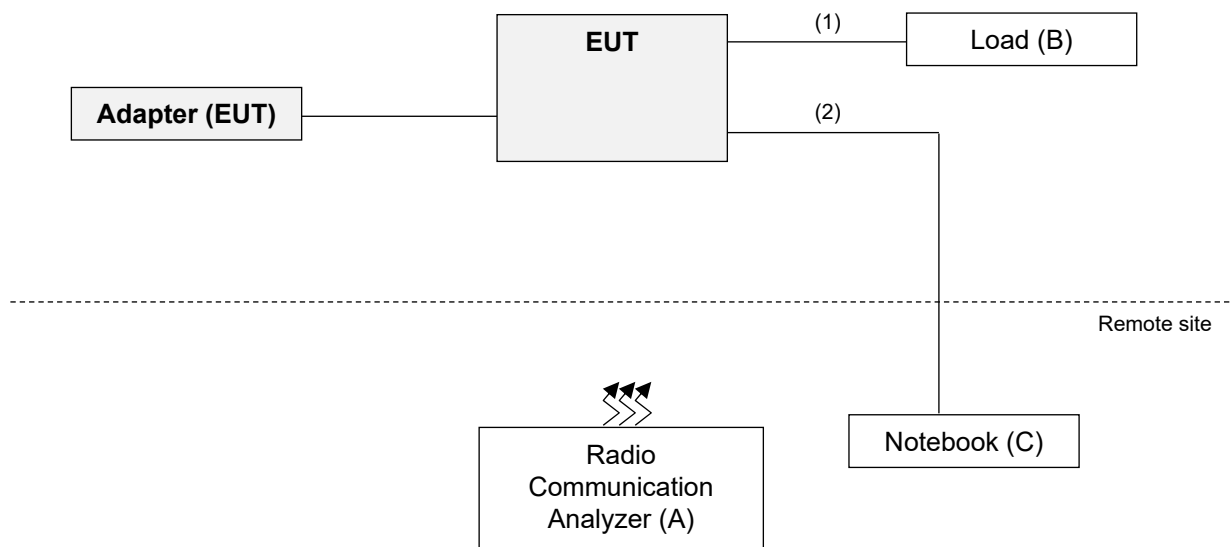
* The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

3. The EUT contains following accessory devices.

Adapter	
Brand	Netgear
Model	AD2037320
Input Power	100-240Vac~50/60Hz, 0.3A
Output Power	5.0Vdc, 2.0A

Cable	Brand	Model	Information
USB cable	HOTRON PRECISION	D0017100R20HR	1.0m shielded cable without core
RJ45 Cable 1	EKSON	HS01-C442	1.5m non-shielded cable without core
RJ45 Cable 2	EKSON	HS01-C445	1.5m non-shielded cable without core

3.2 Configuration of System under Test



3.2.1 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.

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Radio Communication Analyzer	Anritsu	MT8821C	6261806803	NA	-
B.	Load	NA	NA	NA	NA	-
C.	Notebook	DELL	E5410	1HC2XM1	FCC Doc Approved	-

Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Item A, C acted as a communication partner to transfer data.

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	LAN cable	1	1.5	N	0	RJ45, Accessory
2.	LAN cable	1	10	N	0	RJ45, Provided by lab

3.3 Test Mode Applicability and Tested Channel Detail

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 WCDMA Band 4, LTE Band 4, 66) and X-plane (For LTE Band 12, 13, 71). Following channel(s) was (were) selected for the final test as listed below.

WCDMA Band 4

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Mode
-	EIRP	1312 to 1513	1312(1712.4MHz), 1413(1732.6MHz), 1513(1752.6MHz)	WCDMA
-	Radiated Emission Below 1GHz	1312 to 1513	1312(1712.4MHz)	WCDMA
-	Radiated Emission Above 1GHz	1312 to 1513	1312(1712.4MHz), 1413(1732.6MHz), 1513(1752.6MHz)	WCDMA

LTE Band 4

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	EIRP	19957 to 20393	19957(1710.7MHz), 20175(1732.5MHz), 20393(1754.3MHz)	1.4MHz	QPSK / 16QAM	1 RB / 0 RB Offset 1 RB / 2 RB Offset 1 RB / 5 RB Offset 3 RB / 0 RB Offset 3 RB / 1 RB Offset 3 RB / 3 RB Offset 6 RB / 0 RB Offset
		19965 to 20385	19965(1711.5MHz), 20175(1732.5MHz), 20385(1753.5MHz)	3MHz	QPSK / 16QAM	1 RB / 0 RB Offset 1 RB / 7 RB Offset 1 RB / 14 RB Offset 8 RB / 0 RB Offset 8 RB / 3 RB Offset 8 RB / 7 RB Offset 15 RB / 0 RB Offset
		19975 to 20375	19975(1712.5MHz), 20175(1732.5MHz), 20375(1752.5MHz)	5MHz	QPSK / 16QAM	1 RB / 0 RB Offset 1 RB / 12 RB Offset 1 RB / 24 RB Offset 12 RB / 0 RB Offset 12 RB / 6 RB Offset 12 RB / 13 RB Offset 25 RB / 0 RB Offset
		20000 to 20350	20000(1715.0MHz), 20175(1732.5MHz), 20350(1750.0MHz)	10MHz	QPSK / 16QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 49 RB Offset 25 RB / 0 RB Offset 25 RB / 12 RB Offset 25 RB / 25 RB Offset 50 RB / 0 RB Offset
		20025 to 20325	20025(1717.5MHz), 20175(1732.5MHz), 20325(1747.5MHz)	15MHz	QPSK / 16QAM	1 RB / 0 RB Offset 1 RB / 37 RB Offset 1 RB / 74 RB Offset 36 RB / 0 RB Offset 36 RB / 19 RB Offset 36 RB / 39 RB Offset 75 RB / 0 RB Offset
		20050 to 20300	20050(1720.0MHz), 20175(1732.5MHz), 20300(1745.0MHz)	20MHz	QPSK / 16QAM	1 RB / 0 RB Offset 1 RB / 50 RB Offset 1 RB / 99 RB Offset 50 RB / 0 RB Offset 50 RB / 25 RB Offset 50 RB / 50 RB Offset 100 RB / 0 RB Offset
-	Radiated Emission Below 1GHz	20050 to 20300	20175(1732.5MHz)	20MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	19957 to 20393	19957(1710.7MHz), 20175(1732.5MHz), 20393(1754.3MHz)	1.4MHz	QPSK	1 RB / 0 RB Offset
		19975 to 20375	19975(1712.5MHz), 20175(1732.5MHz), 20375(1752.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		20050 to 20300	20050(1720.0MHz), 20175(1732.5MHz), 20300(1745.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset

LTE Band 12

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	ERP	23017 to 23173	23017(699.7MHz), 23095(707.5MHz), 23173(715.3MHz)	1.4MHz	QPSK / 16QAM	1 RB / 0 RB Offset 1 RB / 2 RB Offset 1 RB / 5 RB Offset 3 RB / 0 RB Offset 3 RB / 1 RB Offset 3 RB / 3 RB Offset 6 RB / 0 RB Offset
		23025 to 23165	23025(700.5MHz), 23095(707.5MHz), 23165(714.5MHz)	3MHz	QPSK / 16QAM	1 RB / 0 RB Offset 1 RB / 7 RB Offset 1 RB / 14 RB Offset 8 RB / 0 RB Offset 8 RB / 3 RB Offset 8 RB / 7 RB Offset 15 RB / 0 RB Offset
		23035 to 23155	23035(701.5MHz), 23095(707.5MHz), 23155(713.5MHz)	5MHz	QPSK / 16QAM	1 RB / 0 RB Offset 1 RB / 12 RB Offset 1 RB / 24 RB Offset 12 RB / 0 RB Offset 12 RB / 6 RB Offset 12 RB / 13 RB Offset 25 RB / 0 RB Offset
		23060 to 23130	23060(704.0MHz), 23095(707.5 MHz), 23130(711.0 MHz)	10MHz	QPSK / 16QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 49 RB Offset 25 RB / 0 RB Offset 25 RB / 12 RB Offset 25 RB / 25 RB Offset 50 RB / 0 RB Offset
-	Radiated Emission Below 1GHz	23060 to 23130	23095(707.5 MHz)	10MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	23017 to 23173	23017(699.7MHz), 23095(707.5MHz), 23173(715.3MHz)	1.4MHz	QPSK	1 RB / 0 RB Offset
		23035 to 23155	23035(701.5MHz), 23095(707.5MHz), 23155(713.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		23060 to 23130	23060(704.0MHz), 23095(707.5 MHz), 23130(711.0 MHz)	10MHz	QPSK	1 RB / 0 RB Offset

LTE Band 13

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	ERP	23205 to 23255	23205(779.5MHz), 23230(782.0MHz), 23255(784.5MHz)	5MHz	QPSK / 16QAM	1 RB / 0 RB Offset 1 RB / 12 RB Offset 1 RB / 24 RB Offset 12 RB / 0 RB Offset 12 RB / 6 RB Offset 12 RB / 13 RB Offset 25 RB / 0 RB Offset
		23230	23230(782.0MHz)	10MHz	QPSK / 16QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 49 RB Offset 25 RB / 0 RB Offset 25 RB / 12 RB Offset 25 RB / 25 RB Offset 50 RB / 0 RB Offset
-	Radiated Emission Below 1GHz	23230	23230(782.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	23205 to 23255	23205(779.5MHz), 23230(782.0MHz), 23255(784.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		23230	23230(782.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset

LTE Band 66

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	EIRP	131979 to 132665	131979 (1710.7MHz), 132322 (1745.0MHz), 132665 (1779.3MHz)	1.4MHz	QPSK / 16QAM	1 RB / 0 RB Offset 1 RB / 2 RB Offset 1 RB / 5 RB Offset 3 RB / 0 RB Offset 3 RB / 1 RB Offset 3 RB / 3 RB Offset 6 RB / 0 RB Offset
		131987 to 132657	131987 (1711.5MHz), 132322 (1745.0MHz), 132657 (1778.5MHz)	3MHz	QPSK / 16QAM	1 RB / 0 RB Offset 1 RB / 7 RB Offset 1 RB / 14 RB Offset 8 RB / 0 RB Offset 8 RB / 3 RB Offset 8 RB / 7 RB Offset 15 RB / 0 RB Offset
		131997 to 132647	131997 (1712.5MHz), 132322 (1745.0MHz), 132647 (1777.5MHz)	5MHz	QPSK / 16QAM	1 RB / 0 RB Offset 1 RB / 12 RB Offset 1 RB / 24 RB Offset 12 RB / 0 RB Offset 12 RB / 6 RB Offset 12 RB / 13 RB Offset 25 RB / 0 RB Offset
		132022 to 132622	132022 (1715.0MHz), 132322 (1745.0MHz), 132622 (1775.0MHz)	10MHz	QPSK / 16QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 49 RB Offset 25 RB / 0 RB Offset 25 RB / 12 RB Offset 25 RB / 25 RB Offset 50 RB / 0 RB Offset
		132047 to 132597	132047 (1717.5MHz), 132322 (1745.0MHz), 132597 (1772.5MHz)	15MHz	QPSK / 16QAM	1 RB / 0 RB Offset 1 RB / 37 RB Offset 1 RB / 74 RB Offset 36 RB / 0 RB Offset 36 RB / 19 RB Offset 36 RB / 39 RB Offset 75 RB / 0 RB Offset
		132072 to 132572	132072 (1720.0MHz), 132322 (1745.0MHz), 132572 (1770.0MHz)	20MHz	QPSK / 16QAM	1 RB / 0 RB Offset 1 RB / 50 RB Offset 1 RB / 99 RB Offset 50 RB / 0 RB Offset 50 RB / 25 RB Offset 50 RB / 50 RB Offset 100 RB / 0 RB Offset
-	Radiated Emission Below 1GHz	132072 to 132572	132322 (1745.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	131979 to 132665	131979 (1710.7MHz), 132322 (1745.0MHz), 132665 (1779.3MHz)	1.4MHz	QPSK	1 RB / 0 RB Offset
		131997 to 132647	131997 (1712.5MHz), 132322 (1745.0MHz), 132647 (1777.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		132072 to 132572	132072 (1720.0MHz), 132322 (1745.0MHz), 132572 (1770.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset

LTE Band 71

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	ERP	133147 to 133447	133147 (665.5MHz), 133297 (680.5MHz), 133447 (695.5MHz)	5 MHz	QPSK / 16QAM	1 RB / 0 RB Offset 1 RB / 12 RB Offset 1 RB / 24 RB Offset 12 RB / 0 RB Offset 12 RB / 6 RB Offset 12 RB / 13 RB Offset 25 RB / 0 RB Offset
		133172 to 133422	133172 (668.0MHz), 133297 (680.5MHz), 133422 (693.0MHz)	10 MHz	QPSK / 16QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 49 RB Offset 25 RB / 0 RB Offset 25 RB / 12 RB Offset 25 RB / 25 RB Offset 50 RB / 0 RB Offset
		133197 to 133397	133197 (670.5MHz), 133297 (680.5MHz), 133397 (690.5MHz)	15 MHz	QPSK / 16QAM	1 RB / 0 RB Offset 1 RB / 37 RB Offset 1 RB / 74 RB Offset 36 RB / 0 RB Offset 36 RB / 19 RB Offset 36 RB / 39 RB Offset 75 RB / 0 RB Offset
		133222 to 133372	133222 (673.0MHz), 133297 (680.5MHz), 133372 (688.0MHz)	20 MHz	QPSK / 16QAM	1 RB / 0 RB Offset 1 RB / 50 RB Offset 1 RB / 99 RB Offset 50 RB / 0 RB Offset 50 RB / 25 RB Offset 50 RB / 50 RB Offset 100 RB / 0 RB Offset
-	Radiated Emission Below 1GHz	133222 to 133372	133297 (680.5MHz)	20 MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	133147 to 133447	133147 (665.5MHz), 133297 (680.5MHz), 133447 (695.5MHz)	5 MHz	QPSK	1 RB / 0 RB Offset
		133222 to 133372	133222 (673.0MHz), 133297 (680.5MHz), 133372 (688.0MHz)	20 MHz	QPSK	1 RB / 0 RB Offset

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
EIRP / ERP	23deg. C, 70%RH	120Vac, 60Hz	Willy Cheng
Radiated Emission	23deg. C, 70%RH	120Vac, 60Hz	Willy Cheng

3.4 EUT Operating Conditions

The EUT makes a call to the communication simulator. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency

3.5 General Description of Applied Standards and References

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

Test Standard:

FCC 47 CFR Part 2

FCC 47 CFR Part 27

ANSI/TIA/EIA-603-E 2016

ANSI 63.26-2015

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

References Test Guidance:

KDB 971168 D01 Power Meas License Digital Systems v03r01

All test items have been performed as a reference to the above KDB test guidance.

4 Test Types and Results

4.1 Output Power Measurement

4.1.1 Limits of Output Power Measurement

WCDMA, LTE Band 4, LTE Band 66:

Mobile / Portable station are limited to 1 watts e.i.r.p.

LTE Band 12, LTE Band 13, LTE Band 71:

Control and mobile stations in the 698-746 MHz, 746-757 MHz, 787-788 MHz and 805-806 MHz band are limited to 30 watts ERP.

Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink, 746-757 MHz, 787-788 MHz and 805-806 MHz band are limited to 3 watts ERP.

4.1.2 Test Procedures

Maximum EIRP

- a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m(below or equal 1GHz) and/or 1.5m(above 1GHz) 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 height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- c. Perform a field strength measurement and record the worse read value, is the field strength value via a spectrum reading obtained corrected for antenna factor, cable loss and pre-amplifier factor and then mathematically convert the measured field strength level to EIRP/ERP level.
- d. Following C63.26 section 5.2.7

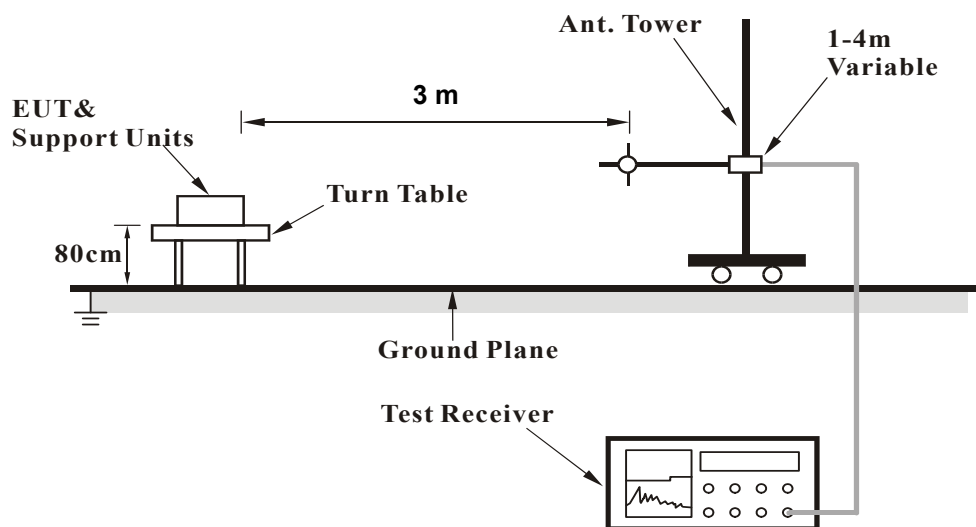
$EIRP (dBm) = E (dB\mu V/m) + 20\log(D) - 104.8$; where D is the measurement distance (in the far field region) in m.

$ERP (dBm) = E (dB\mu V/m) + 20\log(D) - 104.8 - 2.15$; where D is the measurement distance (in the far field region) in m.

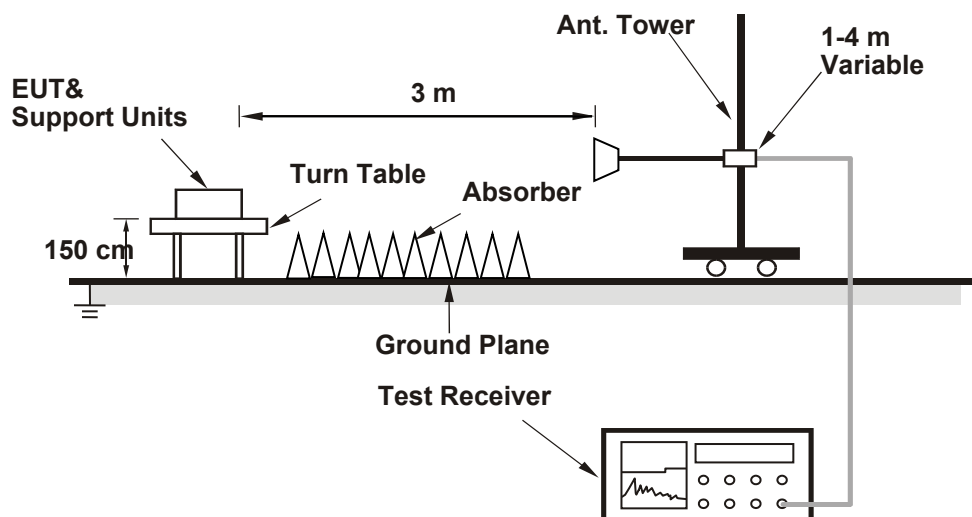
4.1.3 Test Setup

EIRP Measurement:

<Radiated Emission below or equal 1 GHz>



<Radiated Emission above 1 GHz>



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

4.1.4 Test Results

EIRP Power(dBm)

WCDMA Band 4

Mode		TX channel 1312, 1413, 1513						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1712.40	13.0	30.0	-17.0	1.06 H	80	77.1	-64.1
2	1732.60	13.2	30.0	-16.8	1.06 H	78	77.1	-63.9
3	1752.60	13.1	30.0	-16.9	1.05 H	78	76.8	-63.7
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1712.40	23.4	30.0	-6.6	1.05 V	96	87.5	-64.1
2	1732.60	23.6	30.0	-6.4	1.04 V	94	87.5	-63.9
3	1752.60	23.5	30.0	-6.5	1.05 V	92	87.2	-63.7

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$

Modulation Type: QPSK

LTE Band 4, Channel Bandwidth: 1.4MHz

Mode		TX channel 19957, 20175, 20393						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1710.70	13.0	30.0	-17.0	1.23 H	67	77.1	-64.1
2	1732.50	13.2	30.0	-16.8	1.25 H	72	77.1	-63.9
3	1754.30	12.9	30.0	-17.1	1.20 H	75	76.6	-63.7
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1710.70	22.9	30.0	-7.1	1.15 V	95	87.0	-64.1
2	1732.50	22.8	30.0	-7.2	1.13 V	94	86.7	-63.9
3	1754.30	22.5	30.0	-7.5	1.05 V	89	86.2	-63.7

LTE Band 4, Channel Bandwidth: 3MHz

Mode		TX channel 19965, 20175, 20385						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1711.50	12.9	30.0	-17.1	1.22 H	69	77.0	-64.1
2	1732.50	13.3	30.0	-16.7	1.29 H	75	77.2	-63.9
3	1753.50	13.0	30.0	-17.0	1.29 H	75	76.7	-63.7
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1711.50	22.7	30.0	-7.3	1.13 V	97	86.8	-64.1
2	1732.50	22.5	30.0	-7.5	1.11 V	93	86.4	-63.9
3	1753.50	22.4	30.0	-7.6	1.03 V	82	86.1	-63.7

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$

LTE Band 4, Channel Bandwidth: 5MHz

Mode		TX channel 19975, 20175, 20375						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1712.50	13.0	30.0	-17.0	1.20 H	70	77.1	-64.1
2	1732.50	13.5	30.0	-16.5	1.19 H	79	77.4	-63.9
3	1752.50	13.2	30.0	-16.8	1.19 H	79	76.9	-63.7
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1712.50	22.8	30.0	-7.2	1.11 V	100	86.9	-64.1
2	1732.50	22.8	30.0	-7.2	1.09 V	90	86.7	-63.9
3	1752.50	22.6	30.0	-7.4	1.02 V	80	86.3	-63.7

LTE Band 4, Channel Bandwidth: 10MHz

Mode		TX channel 20000, 20175, 20350						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1715.00	13.2	30.0	-16.8	1.15 H	71	77.3	-64.1
2	1732.50	13.5	30.0	-16.5	1.14 H	75	77.4	-63.9
3	1750.00	13.1	30.0	-16.9	1.11 H	81	76.8	-63.7
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1715.00	22.6	30.0	-7.4	1.09 V	99	86.7	-64.1
2	1732.50	23.0	30.0	-7.0	1.06 V	90	86.9	-63.9
3	1750.00	22.9	30.0	-7.1	1.00 V	88	86.6	-63.7

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$

LTE Band 4, Channel Bandwidth: 15MHz

Mode		TX channel 20025, 20175, 20325						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1717.50	13.3	30.0	-16.7	1.13 H	70	77.3	-64.0
2	1732.50	13.6	30.0	-16.4	1.14 H	77	77.5	-63.9
3	1745.00	13.0	30.0	-17.0	1.11 H	80	76.8	-63.8
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1717.50	22.8	30.0	-7.2	1.10 V	96	86.8	-64.0
2	1732.50	23.1	30.0	-6.9	1.09 V	93	87.0	-63.9
3	1747.50	23.0	30.0	-7.0	1.01 V	88	86.7	-63.7

LTE Band 4, Channel Bandwidth: 20MHz

Mode		TX channel 20050, 20175, 20300						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1720.00	13.5	30.0	-16.5	1.11 H	72	77.5	-64.0
2	1732.50	13.7	30.0	-16.3	1.13 H	79	77.6	-63.9
3	1745.00	13.5	30.0	-16.5	1.10 H	79	77.3	-63.8
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1720.00	23.0	30.0	-7.0	1.05 V	99	87.0	-64.0
2	1732.50	23.2	30.0	-6.8	1.08 V	96	87.1	-63.9
3	1745.00	22.9	30.0	-7.1	1.00 V	86	86.7	-63.8

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$

LTE Band 66, Channel Bandwidth: 1.4MHz

Mode		TX channel 131979, 132322, 132665						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1710.70	12.6	30.0	-17.4	1.00 H	80	76.7	-64.1
2	1745.00	12.6	30.0	-17.4	1.14 H	80	76.4	-63.8
3	1779.30	12.7	30.0	-17.3	1.10 H	99	76.0	-63.3
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1710.70	22.2	30.0	-7.8	1.22 V	113	86.3	-64.1
2	1745.00	22.5	30.0	-7.5	1.19 V	99	86.3	-63.8
3	1779.30	22.5	30.0	-7.5	1.22 V	109	85.8	-63.3

LTE Band 66, Channel Bandwidth: 3MHz

Mode		TX channel 131987, 132322, 132657						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1711.50	12.4	30.0	-17.6	1.00 H	82	76.5	-64.1
2	1745.00	12.9	30.0	-17.1	1.12 H	89	76.7	-63.8
3	1778.50	13.0	30.0	-17.0	1.07 H	90	76.3	-63.3
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1711.50	22.6	30.0	-7.4	1.20 V	111	86.7	-64.1
2	1745.00	22.7	30.0	-7.3	1.15 V	99	86.5	-63.8
3	1778.50	22.6	30.0	-7.4	1.20 V	105	85.9	-63.3

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$

LTE Band 66, Channel Bandwidth: 5MHz

Mode		TX channel 131997, 132322, 132647						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1712.50	12.5	30.0	-17.5	1.00 H	85	76.6	-64.1
2	1745.00	13.0	30.0	-17.0	1.11 H	90	76.8	-63.8
3	1777.50	13.0	30.0	-17.0	1.05 H	90	76.4	-63.4
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1712.50	22.6	30.0	-7.4	1.19 V	110	86.7	-64.1
2	1745.00	22.9	30.0	-7.1	1.13 V	98	86.7	-63.8
3	1777.50	22.9	30.0	-7.1	1.20 V	102	86.3	-63.4

LTE Band 66, Channel Bandwidth: 10MHz

Mode		TX channel 132022, 132322, 132622						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1715.00	12.7	30.0	-17.3	1.03 H	94	76.8	-64.1
2	1745.00	13.2	30.0	-16.8	1.11 H	92	77.0	-63.8
3	1775.00	12.7	30.0	-17.3	1.07 H	90	76.1	-63.4
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1715.00	22.8	30.0	-7.2	1.17 V	109	86.9	-64.1
2	1745.00	23.0	30.0	-7.0	1.11 V	100	86.8	-63.8
3	1775.00	23.1	30.0	-6.9	1.19 V	102	86.5	-63.4

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$

LTE Band 66, Channel Bandwidth: 15MHz

Mode		TX channel 132047, 132322, 132597						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1717.50	13.0	30.0	-17.0	1.06 H	89	77.0	-64.0
2	1745.00	13.3	30.0	-16.7	1.08 H	90	77.1	-63.8
3	1772.50	12.9	30.0	-17.1	1.07 H	89	76.3	-63.4
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1717.50	23.0	30.0	-7.0	1.15 V	105	87.0	-64.0
2	1745.00	23.2	30.0	-6.8	1.10 V	99	87.0	-63.8
3	1772.50	23.2	30.0	-6.8	1.14 V	101	86.6	-63.4

LTE Band 66, Channel Bandwidth: 20MHz

Mode		TX channel 132072, 132322, 132575						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1720.00	13.2	30.0	-16.8	1.05 H	88	77.2	-64.0
2	1745.00	13.4	30.0	-16.6	1.04 H	80	77.2	-63.8
3	1770.00	13.0	30.0	-17.0	1.07 H	87	76.5	-63.5
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1720.00	23.2	30.0	-6.8	1.11 V	100	87.2	-64.0
2	1745.00	23.4	30.0	-6.6	1.08 V	94	87.2	-63.8
3	1770.00	23.3	30.0	-6.7	1.12 V	101	86.8	-63.5

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$

Modulation Type: 16QAM

LTE Band 4, Channel Bandwidth: 1.4MHz

Mode		TX channel 19957, 20175, 20393						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1710.70	12.0	30.0	-18.0	1.23 H	67	76.1	-64.1
2	1732.50	12.2	30.0	-17.8	1.25 H	72	76.1	-63.9
3	1754.30	11.9	30.0	-18.1	1.20 H	75	75.6	-63.7
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1710.70	21.9	30.0	-8.1	1.15 V	95	86.0	-64.1
2	1732.50	21.8	30.0	-8.2	1.13 V	94	85.7	-63.9
3	1754.30	21.5	30.0	-8.5	1.05 V	89	85.2	-63.7

LTE Band 4, Channel Bandwidth: 3MHz

Mode		TX channel 19965, 20175, 20385						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1711.50	11.9	30.0	-18.1	1.22 H	69	76.0	-64.1
2	1732.50	12.3	30.0	-17.7	1.29 H	75	76.2	-63.9
3	1753.50	12.0	30.0	-18.0	1.29 H	75	75.7	-63.7
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1711.50	21.7	30.0	-8.3	1.13 V	97	85.8	-64.1
2	1732.50	21.5	30.0	-8.5	1.11 V	93	85.4	-63.9
3	1753.50	21.4	30.0	-8.6	1.03 V	82	85.1	-63.7

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$

LTE Band 4, Channel Bandwidth: 5MHz

Mode		TX channel 19975, 20175, 20375						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1712.50	12.0	30.0	-18.0	1.20 H	70	76.1	-64.1
2	1732.50	12.5	30.0	-17.5	1.19 H	79	76.4	-63.9
3	1752.50	12.2	30.0	-17.8	1.19 H	79	75.9	-63.7
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1712.50	22.8	30.0	-7.2	1.11 V	100	86.9	-64.1
2	1732.50	22.8	30.0	-7.2	1.09 V	90	86.7	-63.9
3	1752.50	22.6	30.0	-7.4	1.02 V	80	86.3	-63.7

LTE Band 4, Channel Bandwidth: 10MHz

Mode		TX channel 20000, 20175, 20350						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1715.00	12.2	30.0	-17.8	1.15 H	71	76.3	-64.1
2	1732.50	12.5	30.0	-17.5	1.14 H	75	76.4	-63.9
3	1750.00	12.1	30.0	-17.9	1.11 H	81	75.8	-63.7
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1715.00	21.4	30.0	-8.6	1.09 V	99	85.5	-64.1
2	1732.50	22.0	30.0	-8.0	1.06 V	90	85.9	-63.9
3	1750.00	21.7	30.0	-8.3	1.00 V	88	85.4	-63.7

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$

LTE Band 4, Channel Bandwidth: 15MHz

Mode		TX channel 20025, 20175, 20325						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1715.00	12.2	30.0	-17.8	1.15 H	71	76.3	-64.1
2	1732.50	12.5	30.0	-17.5	1.14 H	75	76.4	-63.9
3	1750.00	12.1	30.0	-17.9	1.11 H	81	75.8	-63.7
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1715.00	21.4	30.0	-8.6	1.09 V	99	85.5	-64.1
2	1732.50	22.0	30.0	-8.0	1.06 V	90	85.9	-63.9
3	1750.00	21.7	30.0	-8.3	1.00 V	88	85.4	-63.7

LTE Band 4, Channel Bandwidth: 20MHz

Mode		TX channel 20050, 20175, 20300						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1717.50	13.3	30.0	-16.7	1.13 H	70	77.3	-64.0
2	1732.50	13.6	30.0	-16.4	1.14 H	77	77.5	-63.9
3	1745.00	13.0	30.0	-17.0	1.11 H	80	76.8	-63.8
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1717.50	21.8	30.0	-8.2	1.10 V	96	85.8	-64.0
2	1732.50	22.1	30.0	-7.9	1.09 V	93	86.0	-63.9
3	1747.50	22.0	30.0	-8.0	1.01 V	88	85.7	-63.7

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$

LTE Band 66, Channel Bandwidth: 1.4MHz

Mode		TX channel 131979, 132322, 132665						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1710.70	11.6	30.0	-18.4	1.00 H	80	75.7	-64.1
2	1745.00	11.6	30.0	-18.4	1.14 H	80	75.4	-63.8
3	1779.30	11.7	30.0	-18.3	1.10 H	99	75.0	-63.3
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1710.70	21.2	30.0	-8.8	1.22 V	113	85.3	-64.1
2	1745.00	21.5	30.0	-8.5	1.19 V	99	85.3	-63.8
3	1779.30	21.5	30.0	-8.5	1.22 V	109	84.8	-63.3

LTE Band 66, Channel Bandwidth: 3MHz

Mode		TX channel 131987, 132322, 132657						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1711.50	11.4	30.0	-18.6	1.00 H	82	75.5	-64.1
2	1745.00	11.9	30.0	-18.1	1.12 H	89	75.7	-63.8
3	1778.50	12.0	30.0	-18.0	1.07 H	90	75.3	-63.3
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1711.50	21.6	30.0	-8.4	1.20 V	111	85.7	-64.1
2	1745.00	21.7	30.0	-8.3	1.15 V	99	85.5	-63.8
3	1778.50	21.6	30.0	-8.4	1.20 V	105	84.9	-63.3

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$

LTE Band 66, Channel Bandwidth: 5MHz

Mode		TX channel 131997, 132322, 132647						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1712.50	11.5	30.0	-18.5	1.00 H	85	75.6	-64.1
2	1745.00	12.0	30.0	-18.0	1.11 H	90	75.8	-63.8
3	1777.50	12.0	30.0	-18.0	1.05 H	90	75.4	-63.4
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1712.50	21.6	30.0	-8.4	1.19 V	110	85.7	-64.1
2	1745.00	21.9	30.0	-8.1	1.13 V	98	85.7	-63.8
3	1777.50	21.9	30.0	-8.1	1.20 V	102	85.3	-63.4

LTE Band 66, Channel Bandwidth: 10MHz

Mode		TX channel 132022, 132322, 132622						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1715.00	11.7	30.0	-18.3	1.03 H	94	75.8	-64.1
2	1745.00	12.2	30.0	-17.8	1.11 H	92	76.0	-63.8
3	1775.00	11.7	30.0	-18.3	1.07 H	90	75.1	-63.4
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1715.00	21.8	30.0	-8.2	1.17 V	109	85.9	-64.1
2	1745.00	22.0	30.0	-8.0	1.11 V	100	85.8	-63.8
3	1775.00	22.1	30.0	-7.9	1.19 V	102	85.5	-63.4

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$

LTE Band 66, Channel Bandwidth: 15MHz

Mode		TX channel 132047, 132322, 132597						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1717.50	12.0	30.0	-18.0	1.06 H	89	76.0	-64.0
2	1745.00	12.3	30.0	-17.7	1.08 H	90	76.1	-63.8
3	1772.50	12.9	30.0	-17.1	1.07 H	89	76.3	-63.4
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1717.50	22.0	30.0	-8.0	1.15 V	105	86.0	-64.0
2	1745.00	22.2	30.0	-7.8	1.10 V	99	86.0	-63.8
3	1772.50	22.2	30.0	-7.8	1.14 V	101	85.6	-63.4

LTE Band 66, Channel Bandwidth: 20MHz

Mode		TX channel 132072, 132322, 132575						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1720.00	12.2	30.0	-17.8	1.05 H	88	76.2	-64.0
2	1745.00	12.4	30.0	-17.6	1.04 H	80	76.2	-63.8
3	1770.00	12.0	30.0	-18.0	1.07 H	87	75.5	-63.5
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1720.00	22.2	30.0	-7.8	1.11 V	100	86.2	-64.0
2	1745.00	22.4	30.0	-7.6	1.08 V	94	86.2	-63.8
3	1770.00	22.3	30.0	-7.7	1.12 V	101	85.8	-63.5

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$

ERP Power (dBm)
Modulation Type: QPSK

LTE Band 12, Channel Bandwidth: 1.4MHz

Mode		TX channel 23017, 23095, 23173						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	699.70	19.1	34.8	-15.7	1.00 H	348	86.7	-67.5
2	707.50	19.2	34.8	-15.6	1.02 H	343	86.8	-67.5
3	715.30	19.1	34.8	-15.7	1.00 H	336	86.4	-67.3
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	699.70	18.5	34.8	-16.3	1.24 V	106	86.0	-67.5
2	707.50	18.6	34.8	-16.2	1.24 V	98	86.2	-67.5
3	715.30	18.6	34.8	-16.2	1.22 V	93	85.9	-67.3

LTE Band 12, Channel Bandwidth: 3MHz

Mode		TX channel 23025, 23095, 23165						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	700.50	19.0	34.8	-15.8	1.02 H	344	86.5	-67.5
2	707.50	19.3	34.8	-15.5	1.02 H	345	86.8	-67.5
3	714.50	19.2	34.8	-15.6	1.00 H	333	86.5	-67.3
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	700.50	18.5	34.8	-16.3	1.30 V	103	86.0	-67.5
2	707.50	18.5	34.8	-16.3	1.26 V	100	86.0	-67.5
3	714.50	18.8	34.8	-16.0	1.20 V	100	86.1	-67.3

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$

LTE Band 12, Channel Bandwidth: 5MHz

Mode		TX channel 23035, 23095, 23155						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	701.50	19.3	34.8	-15.5	1.06 H	341	86.8	-67.5
2	707.50	19.6	34.8	-15.2	1.03 H	342	87.2	-67.5
3	713.50	19.5	34.8	-15.3	1.00 H	339	86.8	-67.3
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	701.50	18.6	34.8	-16.2	1.29 V	101	86.2	-67.5
2	707.50	18.7	34.8	-16.1	1.27 V	103	86.2	-67.5
3	713.50	18.7	34.8	-16.1	1.22 V	98	86.0	-67.3

LTE Band 12, Channel Bandwidth: 10MHz

Mode		TX channel 23060, 23095, 23130						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	704.00	19.5	34.8	-15.3	1.05 H	344	87.0	-67.5
2	707.50	19.7	34.8	-15.1	1.03 H	341	87.2	-67.5
3	711.00	19.6	34.8	-15.2	1.00 H	340	87.0	-67.4
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	704.00	18.8	34.8	-16.0	1.26 V	100	86.3	-67.5
2	707.50	19.0	34.8	-15.8	1.27 V	101	86.5	-67.5
3	711.00	18.9	34.8	-15.9	1.23 V	99	86.3	-67.4

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$

LTE Band 13, Channel Bandwidth: 5MHz

Mode		TX channel 23205, 23230, 23255						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	779.50	20.2	34.8	-14.6	1.00 H	359	86.2	-66.0
2	782.00	20.4	34.8	-14.4	1.00 H	358	86.4	-66.0
3	784.50	20.3	34.8	-14.5	1.00 H	0	86.3	-66.0
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	779.50	21.1	34.8	-13.7	1.20 V	111	87.2	-66.0
2	782.00	21.4	34.8	-13.4	1.13 V	108	87.4	-66.0
3	784.50	21.1	34.8	-13.7	1.15 V	110	87.2	-66.0

LTE Band 13, Channel Bandwidth: 10MHz

Mode		TX channel 23230						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	782.00	20.4	34.8	-14.4	1.00 H	358	86.4	-66.0
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	782.00	21.5	34.8	-13.3	1.13 V	108	87.5	-66.0

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$

LTE Band 71, Channel Bandwidth: 5MHz

Mode		TX channel 133147, 133297, 133447						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	665.50	15.5	34.8	-19.3	1.15 H	16	83.6	-68.1
2	680.50	15.5	34.8	-19.3	1.15 H	29	83.2	-67.8
3	695.50	15.6	34.8	-19.2	1.12 H	24	83.2	-67.7
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	665.50	17.7	34.8	-17.1	1.26 V	150	85.8	-68.1
2	680.50	17.5	34.8	-17.3	1.25 V	164	85.2	-67.8
3	695.50	17.4	34.8	-17.4	1.32 V	172	85.1	-67.7

LTE Band 71, Channel Bandwidth: 10MHz

Mode		TX channel 133172, 133297, 133422						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	668.00	15.6	34.8	-19.2	1.13 H	17	83.7	-68.1
2	680.50	15.7	34.8	-19.1	1.13 H	29	83.5	-67.8
3	693.00	15.8	34.8	-19.0	1.11 H	22	83.5	-67.7
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	668.00	17.7	34.8	-17.1	1.28 V	153	85.8	-68.1
2	680.50	17.6	34.8	-17.2	1.25 V	165	85.3	-67.8
3	693.00	17.5	34.8	-17.3	1.30 V	170	85.2	-67.7

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$

LTE Band 71, Channel Bandwidth: 15MHz

Mode		TX channel 133197, 133297, 133397						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	670.50	16.0	34.8	-18.8	1.11 H	19	84.1	-68.1
2	680.50	16.4	34.8	-18.4	1.10 H	28	84.2	-67.8
3	690.50	16.0	34.8	-18.8	1.11 H	21	83.8	-67.8
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	670.50	17.6	34.8	-17.2	1.27 V	155	85.7	-68.1
2	680.50	17.8	34.8	-17.0	1.24 V	167	85.5	-67.8
3	690.50	17.7	34.8	-17.1	1.28 V	170	85.5	-67.8

LTE Band 71, Channel Bandwidth: 20MHz

Mode		TX channel 133222, 133297, 133372						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	673.00	16.3	34.8	-18.5	1.10 H	23	84.2	-68.0
2	680.50	16.5	34.8	-18.3	1.07 H	26	84.2	-67.8
3	688.00	16.2	34.8	-18.6	1.10 H	22	84.0	-67.8
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	673.00	17.5	34.8	-17.3	1.28 V	156	85.5	-68.0
2	680.50	18.0	34.8	-16.8	1.26 V	166	85.8	-67.8
3	688.00	17.9	34.8	-16.9	1.27 V	169	85.7	-67.8

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$

Modulation Type: 16QAM

LTE Band 12, Channel Bandwidth: 1.4MHz

Mode		TX channel 23017, 23095, 23173						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	699.70	18.1	34.8	-16.7	1.00 H	348	85.7	-67.5
2	707.50	18.2	34.8	-16.6	1.02 H	343	85.8	-67.5
3	715.30	18.1	34.8	-16.7	1.00 H	336	85.4	-67.3
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	699.70	17.5	34.8	-17.3	1.24 V	106	85.0	-67.5
2	707.50	17.6	34.8	-17.2	1.24 V	98	85.2	-67.5
3	715.30	17.6	34.8	-17.2	1.22 V	93	84.9	-67.3

LTE Band 12, Channel Bandwidth: 3MHz

Mode		TX channel 23025, 23095, 23165						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	700.50	18.0	34.8	-16.8	1.02 H	344	85.5	-67.5
2	707.50	18.3	34.8	-16.5	1.02 H	345	85.8	-67.5
3	714.50	18.2	34.8	-16.6	1.00 H	333	85.5	-67.3
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	700.50	17.5	34.8	-17.3	1.30 V	103	85.0	-67.5
2	707.50	17.5	34.8	-17.3	1.26 V	100	85.0	-67.5
3	714.50	17.8	34.8	-17.0	1.20 V	100	85.1	-67.3

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$

LTE Band 12, Channel Bandwidth: 5MHz

Mode		TX channel 23035, 23095, 23155						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	701.50	18.3	34.8	-16.5	1.06 H	341	85.8	-67.5
2	707.50	18.6	34.8	-16.2	1.03 H	342	86.2	-67.5
3	713.50	18.5	34.8	-16.3	1.00 H	339	85.8	-67.3
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	701.50	17.6	34.8	-17.2	1.29 V	101	85.2	-67.5
2	707.50	17.7	34.8	-17.1	1.27 V	103	85.2	-67.5
3	713.50	17.7	34.8	-17.1	1.22 V	98	85.0	-67.3

LTE Band 12, Channel Bandwidth: 10MHz

Mode		TX channel 23060, 23095, 23130						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	704.00	18.5	34.8	-16.3	1.05 H	344	86.0	-67.5
2	707.50	18.7	34.8	-16.1	1.03 H	341	86.2	-67.5
3	711.00	18.6	34.8	-16.2	1.00 H	340	86.0	-67.4
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	704.00	17.8	34.8	-17.0	1.26 V	100	85.3	-67.5
2	707.50	18.0	34.8	-16.8	1.27 V	101	85.5	-67.5
3	711.00	17.9	34.8	-16.9	1.23 V	99	85.3	-67.4

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$

LTE Band 13, Channel Bandwidth: 5MHz

Mode		TX channel 23205, 23230, 23255						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	779.50	19.2	34.8	-15.6	1.00 H	359	85.2	-66.0
2	782.00	19.4	34.8	-15.4	1.00 H	358	85.4	-66.0
3	784.50	19.3	34.8	-15.5	1.00 H	0	85.3	-66.0
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	779.50	20.1	34.8	-14.7	1.20 V	111	86.2	-66.0
2	782.00	20.4	34.8	-14.4	1.13 V	108	86.4	-66.0
3	784.50	20.1	34.8	-14.7	1.15 V	110	86.2	-66.0

LTE Band 13, Channel Bandwidth: 10MHz

Mode		TX channel 23230						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	782.00	19.2	34.8	-15.6	1.00 H	358	85.2	-66.0
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	782.00	20.4	34.8	-14.4	1.13 V	108	86.4	-66.0

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$

LTE Band 71, Channel Bandwidth: 5MHz

Mode		TX channel 133147, 133297, 133447						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	665.50	14.5	34.8	-20.3	1.15 H	16	82.6	-68.1
2	680.50	14.5	34.8	-20.3	1.15 H	29	82.2	-67.8
3	695.50	14.6	34.8	-20.2	1.12 H	24	82.2	-67.7
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	665.50	16.7	34.8	-18.1	1.26 V	150	84.8	-68.1
2	680.50	16.5	34.8	-18.3	1.25 V	164	84.2	-67.8
3	695.50	16.4	34.8	-18.4	1.32 V	172	84.1	-67.7

LTE Band 71, Channel Bandwidth: 10MHz

Mode		TX channel 133172, 133297, 133422						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	668.00	14.6	34.8	-20.2	1.13 H	17	82.7	-68.1
2	680.50	14.7	34.8	-20.1	1.13 H	29	82.5	-67.8
3	693.00	14.8	34.8	-20.0	1.11 H	22	82.5	-67.7
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	668.00	16.7	34.8	-18.1	1.28 V	153	84.8	-68.1
2	680.50	16.6	34.8	-18.2	1.25 V	165	84.3	-67.8
3	693.00	16.5	34.8	-18.3	1.30 V	170	84.2	-67.7

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$

LTE Band 71, Channel Bandwidth: 15MHz

Mode		TX channel 133197, 133297, 133397						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	670.50	15.0	34.8	-19.8	1.11 H	19	83.1	-68.1
2	680.50	15.4	34.8	-19.4	1.10 H	28	83.2	-67.8
3	690.50	15.0	34.8	-19.8	1.11 H	21	82.8	-67.8
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	670.50	16.6	34.8	-18.2	1.27 V	155	84.7	-68.1
2	680.50	16.8	34.8	-18.0	1.24 V	167	84.5	-67.8
3	690.50	16.7	34.8	-18.1	1.28 V	170	84.5	-67.8

LTE Band 71, Channel Bandwidth: 20MHz

Mode		TX channel 133222, 133297, 133372						
Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	673.00	15.3	34.8	-19.5	1.10 H	23	83.2	-68.0
2	680.50	15.5	34.8	-19.3	1.07 H	26	83.2	-67.8
3	688.00	15.2	34.8	-19.6	1.10 H	22	83.0	-67.8
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	673.00	16.5	34.8	-18.3	1.28 V	156	84.5	-68.0
2	680.50	17.0	34.8	-17.8	1.26 V	166	84.8	-67.8
3	688.00	16.9	34.8	-17.9	1.27 V	169	84.7	-67.8

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$

4.2 Radiated Emission Measurement

4.2.1 Limits of Radiated Emission Measurement

For WCDMA Band 4, LTE Band 4, 66

According to FCC 27.53(h) for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log (P)$ dB.

For LTE Band 12, 71

According to FCC 27.53(g) for operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log (P)$ dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater.

For LTE Band 13

According to FCC 27.53(c)(2) for on any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log (P)$ dB.

According to FCC 27.53(f) for operations in the 775-788 MHz, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz. The limit of emissions is equal to -40 dBm

4.2.2 Test Procedure

- a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m(below or equal 1GHz) and/or 1.5m(above 1GHz) 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 height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- c. Perform a field strength measurement and record the worse read value, is the field strength value via a spectrum reading obtained corrected for antenna factor, cable loss and pre-amplifier factor and then mathematically convert the measured field strength level to EIRP/ERP level.
- d. Following C63.26 section 5.5
$$\text{EIRP (dBm)} = E (\text{dB}\mu\text{V/m}) + 20\log(D) - 104.8; \text{ where } D \text{ is the measurement distance (in the far field region) in m.}$$
$$\text{ERP (dBm)} = E (\text{dB}\mu\text{V/m}) + 20\log(D) - 104.8 - 2.15; \text{ where } D \text{ is the measurement distance (in the far field region) in m.}$$

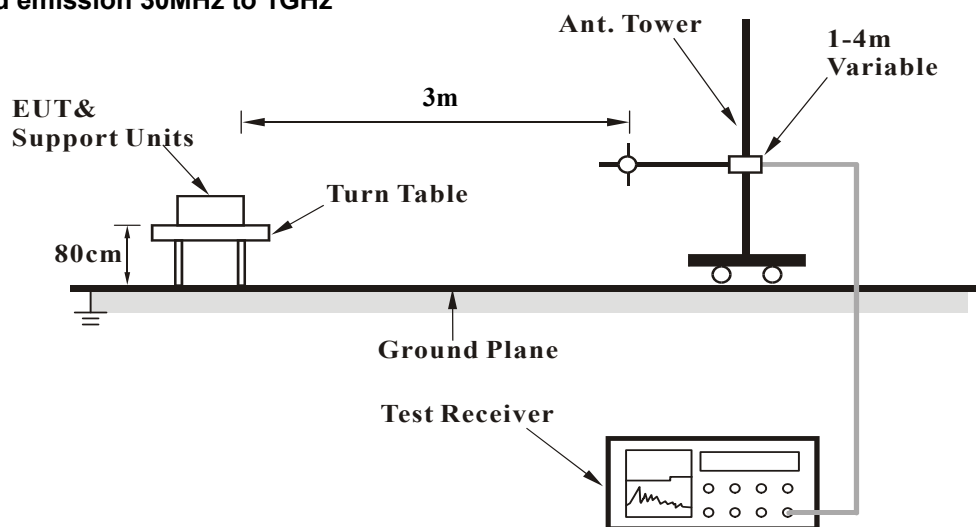
NOTE: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.

4.2.3 Deviation from Test Standard

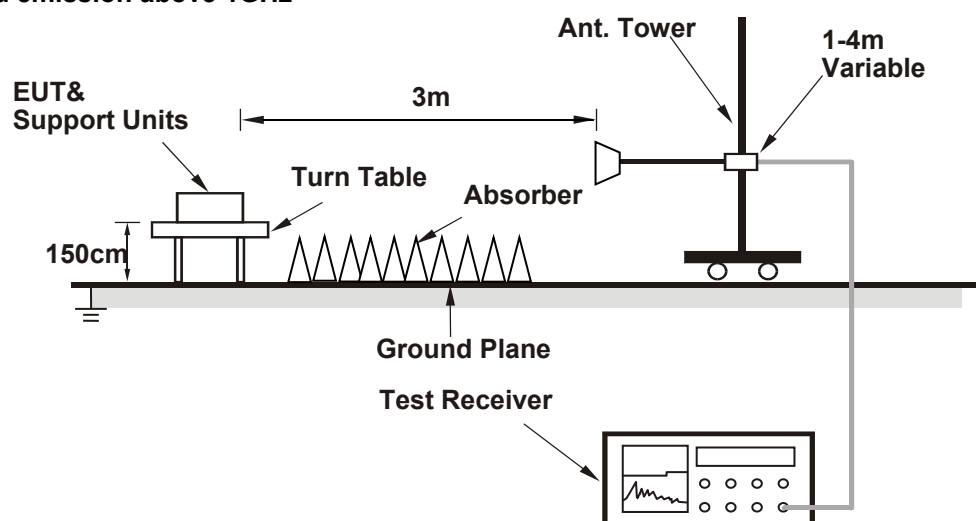
No deviation.

4.2.4 Test Setup

For radiated emission 30MHz to 1GHz



For radiated emission above 1GHz



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

4.2.5 Test Results

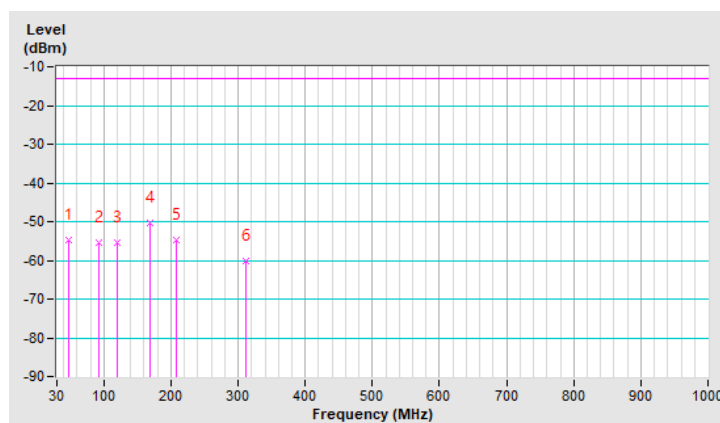
Below 1GHz
WCDMA Band 4

Mode	TX channel 1312 (1712.4MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	48.28	-54.8	-13.0	-41.8	1.00 H	140	49.6	-104.4
2	91.86	-55.5	-13.0	-42.5	1.00 H	209	54.0	-109.5
3	119.97	-55.4	-13.0	-42.4	1.50 H	159	50.8	-106.2
4	169.17	-50.5	-13.0	-37.5	2.00 H	240	53.5	-104.0
5	207.13	-54.7	-13.0	-41.7	1.00 H	226	51.6	-106.3
6	311.16	-60.0	-13.0	-47.0	1.50 H	105	41.6	-101.6

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

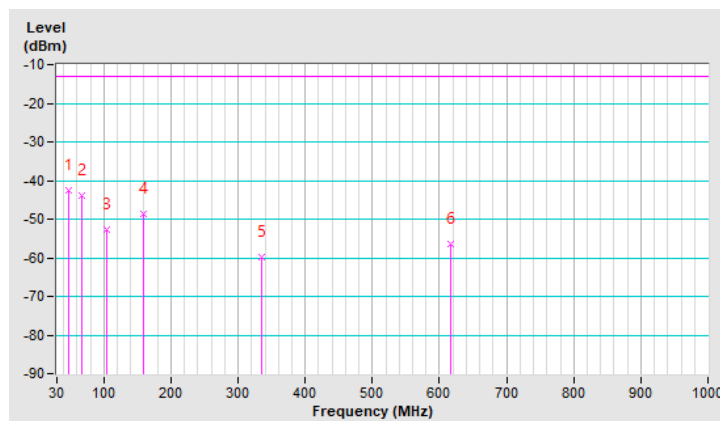


Mode	TX channel 1312 (1712.4MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	46.87	-42.6	-13.0	-29.6	2.00 V	7	61.9	-104.5
2	66.55	-43.8	-13.0	-30.8	1.50 V	7	61.8	-105.6
3	104.51	-52.8	-13.0	-39.8	1.00 V	144	55.0	-107.8
4	159.33	-48.8	-13.0	-35.8	1.50 V	153	54.8	-103.6
5	335.06	-59.7	-13.0	-46.7	1.50 V	8	41.3	-101.0
6	616.22	-56.4	-13.0	-43.4	2.00 V	7	38.1	-94.5

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.



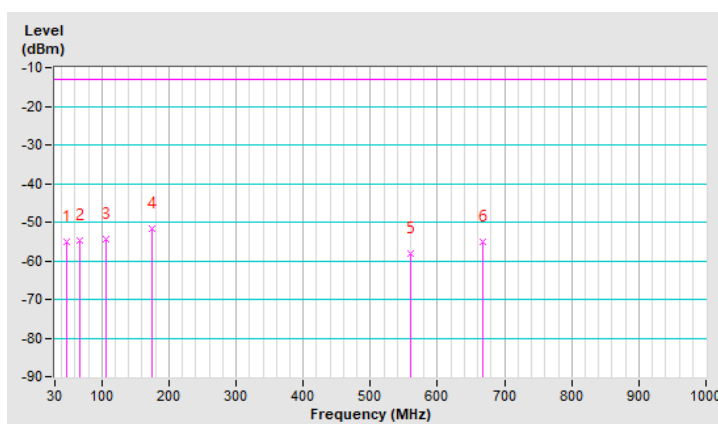
LTE Band 4, Channel Bandwidth: 20MHz

Mode	TX channel 20175 (1732.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	46.87	-55.0	-13.0	-42.0	1.50 H	154	49.5	-104.5
2	66.55	-54.6	-13.0	-41.6	1.00 H	180	51.0	-105.6
3	105.91	-54.3	-13.0	-41.3	2.00 H	5	53.4	-107.7
4	174.80	-51.7	-13.0	-38.7	1.00 H	254	52.8	-104.5
5	559.99	-58.3	-13.0	-45.3	1.50 H	218	38.1	-96.4
6	668.23	-55.2	-13.0	-42.2	2.00 H	5	38.6	-93.8

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

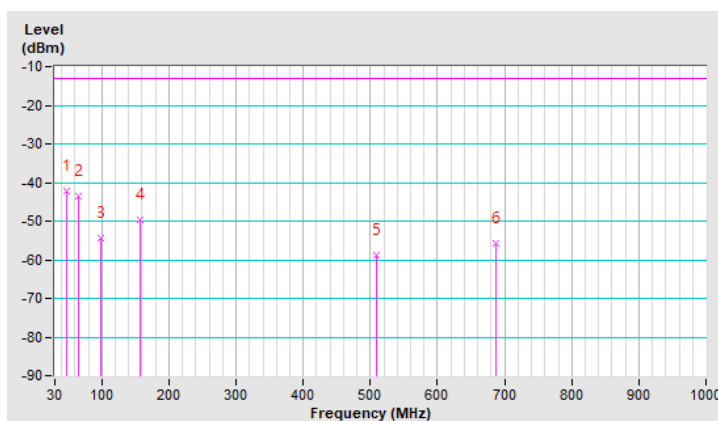


Mode	TX channel 20175 (1732.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	46.87	-42.3	-13.0	-29.3	1.50 V	359	62.2	-104.5
2	65.14	-43.5	-13.0	-30.5	1.00 V	21	62.0	-105.5
3	98.88	-54.3	-13.0	-41.3	1.50 V	190	54.5	-108.8
4	157.93	-49.7	-13.0	-36.7	2.00 V	123	54.0	-103.7
5	509.38	-58.9	-13.0	-45.9	1.00 V	6	38.6	-97.5
6	687.91	-55.6	-13.0	-42.6	1.50 V	277	37.9	-93.5

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.



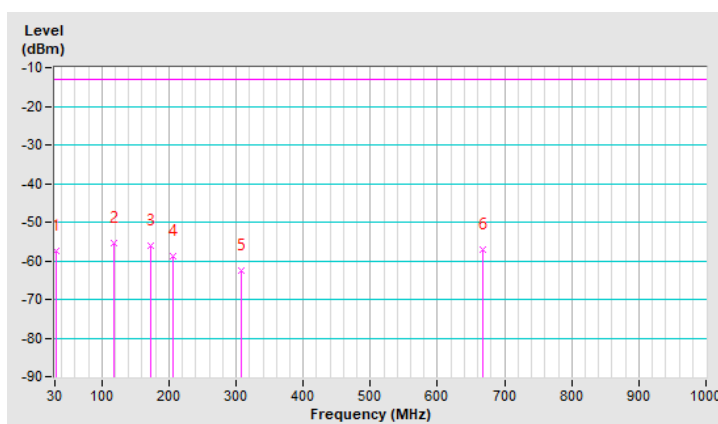
LTE Band 12, Channel Bandwidth: 10MHz

Mode	TX channel 23095 (707.5 MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	32.81	-57.4	-13.0	-44.4	1.50 H	315	51.0	-108.4
2	117.16	-55.3	-13.0	-42.3	2.00 H	48	53.4	-108.7
3	173.39	-56.2	-13.0	-43.2	1.00 H	240	50.4	-106.6
4	205.72	-58.9	-13.0	-45.9	1.50 H	259	49.6	-108.5
5	306.94	-62.4	-13.0	-49.4	1.50 H	104	41.5	-103.9
6	668.23	-57.2	-13.0	-44.2	2.00 H	251	38.8	-96.0

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$
4. The other ERP levels were very low against the limit.

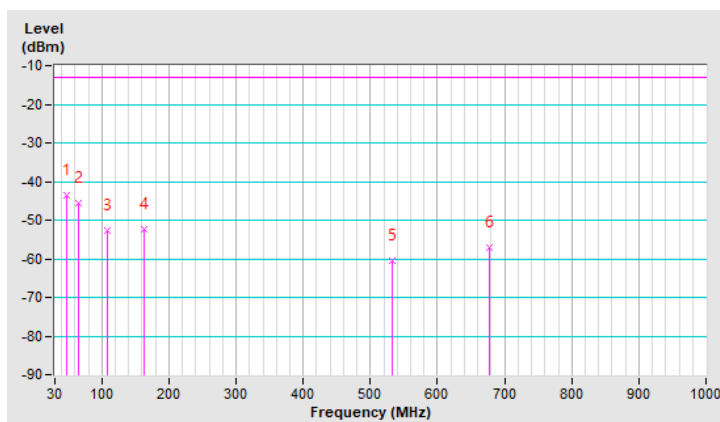


Mode	TX channel 23095 (707.5 MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	48.28	-43.7	-13.0	-30.7	1.50 V	34	62.8	-106.5
2	65.14	-45.7	-13.0	-32.7	1.00 V	3	62.0	-107.7
3	107.32	-52.6	-13.0	-39.6	2.00 V	271	57.1	-109.7
4	163.55	-52.5	-13.0	-39.5	1.00 V	172	53.4	-105.9
5	531.87	-60.5	-13.0	-47.5	1.50 V	313	38.5	-99.0
6	678.07	-57.2	-13.0	-44.2	2.00 V	3	38.5	-95.8

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$
4. The other ERP levels were very low against the limit.



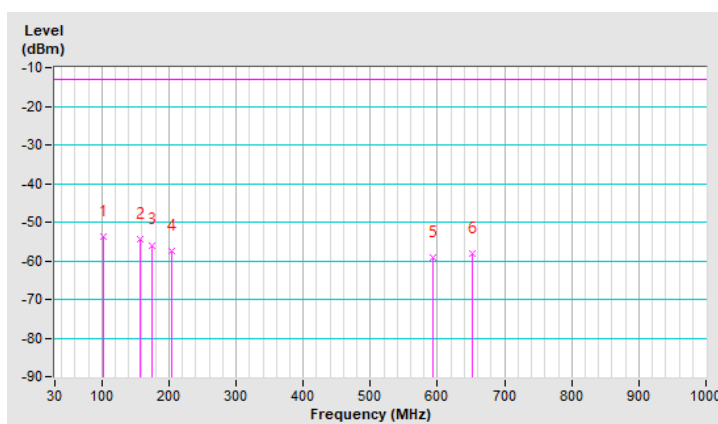
LTE Band 13, Channel Bandwidth: 10MHz

Mode	TX channel 23230 (782.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	101.70	-53.8	-13.0	-40.8	1.00 H	4	56.7	-110.5
2	157.93	-54.5	-13.0	-41.5	1.50 H	245	51.3	-105.8
3	174.80	-55.9	-13.0	-42.9	1.00 H	239	50.8	-106.7
4	204.32	-57.6	-13.0	-44.6	2.00 H	220	51.1	-108.7
5	593.72	-59.3	-13.0	-46.3	1.50 H	33	38.0	-97.2
6	651.36	-58.0	-13.0	-45.0	1.50 H	336	38.3	-96.3

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

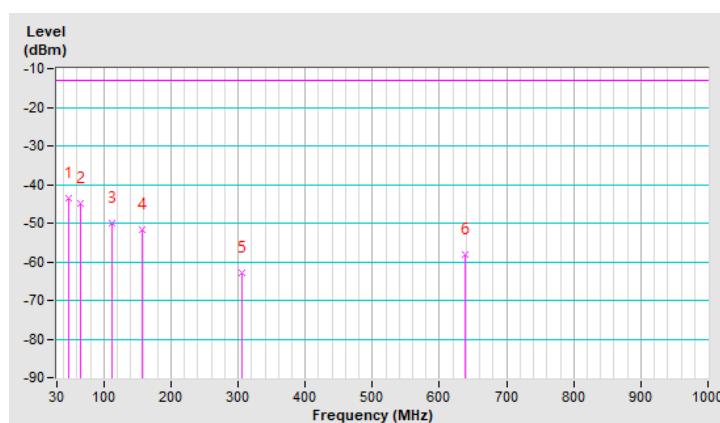


Mode	TX channel 23230 (782.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	48.28	-43.6	-13.0	-30.6	1.50 V	7	62.9	-106.5
2	65.14	-45.0	-13.0	-32.0	1.50 V	10	62.7	-107.7
3	111.54	-50.0	-13.0	-37.0	1.00 V	227	59.2	-109.2
4	157.93	-51.7	-13.0	-38.7	1.00 V	165	54.1	-105.8
5	305.54	-62.8	-13.0	-49.8	1.00 V	1	41.1	-103.9
6	638.71	-58.3	-13.0	-45.3	2.00 V	323	38.1	-96.4

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.



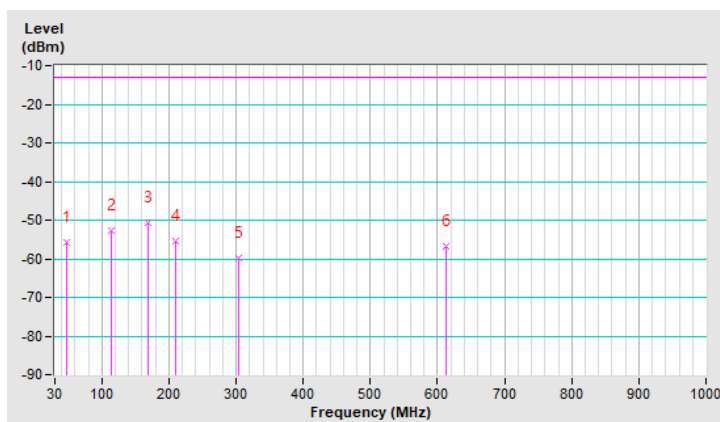
LTE Band 66, Channel Bandwidth: 20MHz

Mode	TX channel 132322 (1745.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	48.28	-55.6	-13.0	-42.6	1.50 H	128	48.8	-104.4
2	114.35	-52.7	-13.0	-39.7	1.00 H	18	54.2	-106.9
3	169.17	-50.7	-13.0	-37.7	2.00 H	246	53.3	-104.0
4	209.94	-55.4	-13.0	-42.4	1.50 H	250	50.9	-106.3
5	304.13	-59.9	-13.0	-46.9	1.00 H	105	41.9	-101.8
6	613.41	-56.9	-13.0	-43.9	1.50 H	73	37.6	-94.5

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

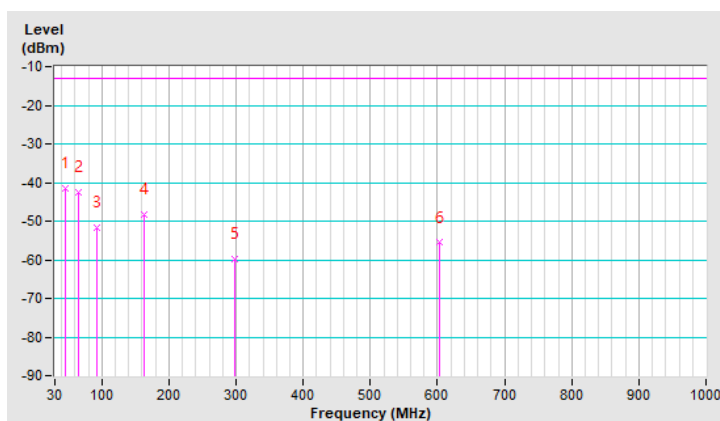


Mode	TX channel 132322 (1745.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	45.46	-41.5	-13.0	-28.5	1.50 V	22	62.9	-104.4
2	65.14	-42.7	-13.0	-29.7	1.00 V	4	62.8	-105.5
3	91.86	-51.7	-13.0	-38.7	2.00 V	85	57.8	-109.5
4	163.55	-48.2	-13.0	-35.2	1.00 V	296	55.6	-103.8
5	297.10	-59.9	-13.0	-46.9	2.00 V	186	42.0	-101.9
6	602.16	-55.6	-13.0	-42.6	1.00 V	228	39.4	-95.0

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit.



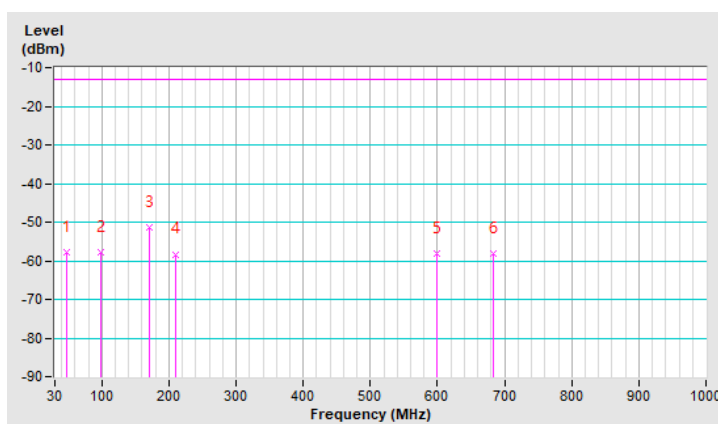
LTE Band 71, Channel Bandwidth: 20MHz

Mode	TX channel 133297 (680.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	48.28	-57.9	-13.0	-44.9	1.00 H	104	48.6	-106.5
2	97.48	-57.9	-13.0	-44.9	1.50 H	140	53.3	-111.2
3	170.58	-51.5	-13.0	-38.5	2.00 H	244	54.8	-106.2
4	209.94	-58.3	-13.0	-45.3	1.00 H	236	50.2	-108.5
5	599.35	-58.3	-13.0	-45.3	2.00 H	61	38.9	-97.2
6	682.29	-58.3	-13.0	-45.3	1.50 H	198	37.2	-95.5

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

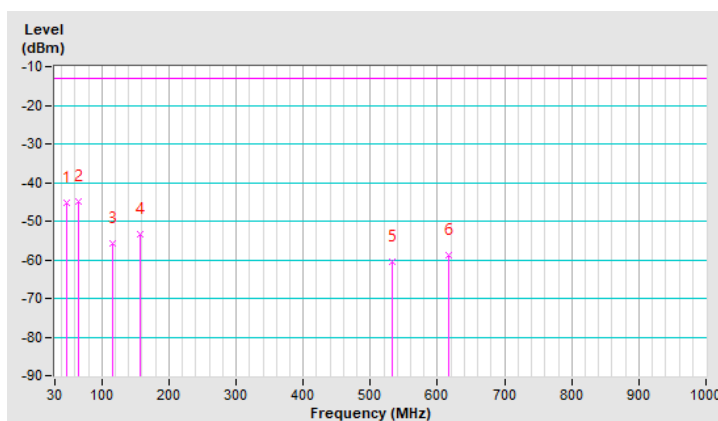


Mode	TX channel 133297 (680.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	46.87	-45.1	-13.0	-32.1	1.00 V	349	61.6	-106.7
2	65.14	-45.0	-13.0	-32.0	2.00 V	6	62.7	-107.7
3	115.75	-55.7	-13.0	-42.7	1.00 V	49	53.2	-108.9
4	156.52	-53.3	-13.0	-40.3	1.50 V	164	52.6	-105.9
5	531.87	-60.6	-13.0	-47.6	2.00 V	282	38.4	-99.0
6	617.62	-58.9	-13.0	-45.9	1.00 V	231	37.9	-96.8

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$
4. The other ERP levels were very low against the limit.



Above 1GHz
WCDMA Band 4

Mode	TX channel 1312 (1712.4MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3424.80	-51.6	-13.0	-38.6	1.90 H	179	43.5	-95.1
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3424.80	-50.1	-13.0	-37.1	1.38 V	195	45.0	-95.1

Mode	TX channel 1413 (1732.6MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3465.20	-51.0	-13.0	-38.0	1.89 H	177	43.7	-94.7
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3465.20	-50.3	-13.0	-37.3	1.36 V	197	44.4	-94.7

Mode	TX channel 1513 (1752.6MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3505.20	-51.3	-13.0	-38.3	1.89 H	175	42.8	-94.1
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3505.20	-50.5	-13.0	-37.5	1.40 V	199	43.6	-94.1

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit.

LTE Band 4, Channel Bandwidth: 1.4MHz

Mode	TX channel 19957 (1710.7MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M

No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3421.40	-51.3	-13.0	-38.3	2.00 H	180	43.9	-95.2

Antenna Polarity & Test Distance: Vertical at 3 M

No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3421.40	-50.4	-13.0	-37.4	1.37 V	216	44.8	-95.2

Mode	TX channel 20175 (1732.5MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M

No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3465.00	-51.0	-13.0	-38.0	2.00 H	184	43.7	-94.7

Antenna Polarity & Test Distance: Vertical at 3 M

No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3465.00	-50.2	-13.0	-37.2	1.39 V	211	44.5	-94.7

Mode	TX channel 20393 (1754.3MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3508.60	-51.3	-13.0	-38.3	2.03 H	194	42.8	-94.1
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3508.60	-50.0	-13.0	-37.0	1.44 V	222	44.1	-94.1

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit.

LTE Band 4, Channel Bandwidth: 5MHz

Mode	TX channel 19975 (1712.5MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M

No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3425.00	-51.1	-13.0	-38.1	1.99 H	179	44.0	-95.1

Antenna Polarity & Test Distance: Vertical at 3 M

No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3425.00	-50.1	-13.0	-37.1	1.35 V	209	45.0	-95.1

Mode	TX channel 20175 (1732.5MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M

No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3465.00	-50.8	-13.0	-37.8	1.93 H	171	43.9	-94.7

Antenna Polarity & Test Distance: Vertical at 3 M

No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3465.00	-50.1	-13.0	-37.1	1.40 V	202	44.6	-94.7

Mode	TX channel 20375 (1752.5MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3505.00	-51.0	-13.0	-38.0	1.92 H	169	43.1	-94.1
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3505.00	-50.3	-13.0	-37.3	1.33 V	205	43.8	-94.1

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit.

LTE Band 4, Channel Bandwidth: 20MHz

Mode	TX channel 20050 (1720.0MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M

No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3440.00	-50.5	-13.0	-37.5	1.90 H	166	44.5	-95.0

Antenna Polarity & Test Distance: Vertical at 3 M

No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3440.00	-49.7	-13.0	-36.7	1.35 V	197	45.3	-95.0

Mode	TX channel 20175 (1732.5MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M

No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3465.00	-50.3	-13.0	-37.3	1.89 H	164	44.4	-94.7

Antenna Polarity & Test Distance: Vertical at 3 M

No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3465.00	-49.5	-13.0	-36.5	1.34 V	196	45.2	-94.7

Mode	TX channel 20300 (1745.0MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3490.00	-50.9	-13.0	-37.9	1.90 H	169	43.4	-94.3
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3490.00	-49.9	-13.0	-36.9	1.39 V	199	44.4	-94.3

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit.

LTE Band 12, Channel Bandwidth: 1.4MHz

Mode	TX channel 23017 (699.7MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M

No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1399.40	-57.2	-13.0	-44.2	2.79 H	190	44.9	-102.1

Antenna Polarity & Test Distance: Vertical at 3 M

No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1399.40	-55.6	-13.0	-42.6	1.61 V	70	46.5	-102.1

Mode	TX channel 23095 (707.5MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M

No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1415.00	-57.4	-13.0	-44.4	2.75 H	192	44.9	-102.2

Antenna Polarity & Test Distance: Vertical at 3 M

No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1415.00	-55.2	-13.0	-42.2	1.61 V	80	47.0	-102.2

Mode	TX channel 23173 (715.3MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1430.60	-57.3	-13.0	-44.3	2.89 H	191	44.9	-102.2
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1430.60	-55.5	-13.0	-42.5	1.63 V	79	46.7	-102.2

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$
4. The other ERP levels were very low against the limit.

LTE Band 12, Channel Bandwidth: 5MHz

Mode	TX channel 23035 (701.5MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M

No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1403.00	-57.3	-13.0	-44.3	2.70 H	190	44.8	-102.1

Antenna Polarity & Test Distance: Vertical at 3 M

No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1403.00	-55.2	-13.0	-42.2	1.52 V	74	46.9	-102.1

Mode	TX channel 23095 (707.5MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M

No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1415.00	-57.0	-13.0	-44.0	2.69 H	196	45.2	-102.2

Antenna Polarity & Test Distance: Vertical at 3 M

No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1415.00	-55.0	-13.0	-42.0	1.50 V	72	47.2	-102.2

Mode	TX channel 23155 (713.5MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1427.00	-57.5	-13.0	-44.5	2.72 H	195	44.7	-102.2
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1427.00	-55.4	-13.0	-42.4	1.59 V	77	46.8	-102.2

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB)$
 $+ 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$
4. The other ERP levels were very low against the limit.

LTE Band 12, Channel Bandwidth: 10MHz

Mode	TX channel 23060 (704.0MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1408.00	-56.9	-13.0	-43.9	2.60 H	181	45.2	-102.1
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1408.00	-54.9	-13.0	-41.9	1.55 V	80	47.2	-102.1

Mode	TX channel 23095 (707.5MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1415.00	-56.6	-13.0	-43.6	2.58 H	179	45.6	-102.2
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1415.00	-54.7	-13.0	-41.7	1.56 V	84	47.5	-102.2

Mode	TX channel 23130 (711.0 MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1422.00	-57.0	-13.0	-44.0	2.66 H	186	45.2	-102.2
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1422.00	-55.0	-13.0	-42.0	1.55 V	82	47.2	-102.2

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

LTE Band 13, Channel Bandwidth: 5MHz

Mode	TX channel 23205 (779.5MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1559.00	-55.5	-40.0	-15.5	2.55 H	166	46.0	-101.5
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1559.00	-53.3	-40.0	-13.3	1.39 V	109	48.2	-101.5

Mode	TX channel 23230 (782.0MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1564.00	-55.6	-40.0	-15.6	2.55 H	161	45.9	-101.5
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1564.00	-53.0	-40.0	-13.0	1.36 V	105	48.5	-101.5

Mode	TX channel 23255 (784.5MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1569.00	-55.8	-40.0	-15.8	2.59 H	169	45.7	-101.5
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1569.00	-53.5	-40.0	-13.5	1.40 V	119	48.0	-101.5

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit.

LTE Band 13, Channel Bandwidth: 10MHz

Mode	TX channel 23230 (782.0MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1564.00	-55.4	-40.0	-15.4	2.53 H	159	46.1	-101.5
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1564.00	-52.8	-40.0	-12.8	1.36 V	103	48.7	-101.5

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

LTE Band 66, Channel Bandwidth: 1.4MHz

Mode	TX channel 131979 (1710.7MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M

No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3421.40	-51.4	-13.0	-38.4	2.25 H	179	43.8	-95.2

Antenna Polarity & Test Distance: Vertical at 3 M

No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3421.40	-48.2	-13.0	-35.2	1.28 V	154	47.0	-95.2

Mode	TX channel 132322 (1745.0MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M

No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3490.00	-51.1	-13.0	-38.1	2.22 H	180	43.2	-94.3

Antenna Polarity & Test Distance: Vertical at 3 M

No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3490.00	-48.0	-13.0	-35.0	1.23 V	150	46.3	-94.3

Mode	TX channel 132665 (1779.3MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3558.60	-51.5	-13.0	-38.5	2.25 H	177	42.4	-93.9
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3558.60	-48.3	-13.0	-35.3	1.20 V	144	45.6	-93.9

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit.

LTE Band 66, Channel Bandwidth: 5MHz

Mode	TX channel 131997 (1712.5MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M

No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3425.00	-51.3	-13.0	-38.3	2.21 H	189	43.8	-95.1

Antenna Polarity & Test Distance: Vertical at 3 M

No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3425.00	-47.9	-13.0	-34.9	1.11 V	152	47.2	-95.1

Mode	TX channel 132322 (1745.0MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M

No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3490.00	-51.0	-13.0	-38.0	2.11 H	190	43.3	-94.3

Antenna Polarity & Test Distance: Vertical at 3 M

No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3490.00	-47.7	-13.0	-34.7	1.10 V	150	46.6	-94.3

Mode	TX channel 132647 (1777.5MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3555.00	-51.1	-13.0	-38.1	2.22 H	187	42.8	-93.9
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3555.00	-47.7	-13.0	-34.7	1.13 V	154	46.2	-93.9

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit.

LTE Band 66, Channel Bandwidth: 20MHz

Mode	TX channel 132072 (1720.0MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3440.00	-50.7	-13.0	-37.7	2.10 H	195	44.3	-95.0
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3440.00	-47.5	-13.0	-34.5	1.05 V	148	47.5	-95.0

Mode	TX channel 132322 (1745.0MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3490.00	-50.5	-13.0	-37.5	2.12 H	195	43.8	-94.3
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3490.00	-47.3	-13.0	-34.3	1.04 V	147	47.0	-94.3

Mode	TX channel 132572 (1770.0MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3540.00	-50.9	-13.0	-37.9	2.09 H	193	43.0	-93.9
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3540.00	-47.7	-13.0	-34.7	1.09 V	149	46.2	-93.9

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit.

LTE Band 71, Channel Bandwidth: 5MHz

Mode	TX channel 133147 (665.5MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M

No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1331.00	-54.9	-13.0	-41.9	2.65 H	179	47.4	-102.3

Antenna Polarity & Test Distance: Vertical at 3 M

No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1331.00	-51.5	-13.0	-38.5	1.72 V	100	50.8	-102.3

Mode	TX channel 133297 (680.5MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M

No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1361.00	-54.3	-13.0	-41.3	2.70 H	179	48.0	-102.2

Antenna Polarity & Test Distance: Vertical at 3 M

No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1361.00	-51.6	-13.0	-38.6	1.70 V	99	50.6	-102.2

Mode	TX channel 133447 (695.5MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1391.00	-54.8	-13.0	-41.8	2.67 H	180	47.5	-102.2
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1391.00	-51.9	-13.0	-38.9	1.76 V	100	50.4	-102.2

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB)$
 $+ 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$
4. The other ERP levels were very low against the limit.

LTE Band 71, Channel Bandwidth: 20MHz

Mode	TX channel 133222 (673.0MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1346.00	-54.2	-13.0	-41.2	2.88 H	180	48.1	-102.3
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1346.00	-51.1	-13.0	-38.1	1.69 V	95	51.2	-102.3

Mode	TX channel 133297 (680.5MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1361.00	-54.0	-13.0	-41.0	2.85 H	181	48.2	-102.2
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1361.00	-51.0	-13.0	-38.0	1.67 V	95	51.2	-102.2

Mode	TX channel 133372 (688.0MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Willy Cheng		

Antenna Polarity & Test Distance: Horizontal at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1376.00	-54.4	-13.0	-41.4	2.90 H	189	47.9	-102.2
Antenna Polarity & Test Distance: Vertical at 3 M								
No.	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1376.00	-51.1	-13.0	-38.1	1.69 V	96	51.1	-102.2

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV/m) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$
4. The other ERP levels were very low against the limit.

5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

Appendix – Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited and approved according to ISO/IEC 17025.

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

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