FCC Test Report (PART 27)

Report No.:	RF170428E06-2
FCC ID:	MCLT77W676
Test Model:	T77W676
Received Date:	Apr. 28, 2017
Test Date:	June 15 to July 12, 2017
Issued Date:	July 27, 2017
Applicant:	HON HAI PRECISION IND. CO., LTD.
Address:	5F-1,5 Hsin-An Road Hsinchu, Science-Based Industrial Park Taiwan, R.O.C.
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
Lab Address:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.
Test Lab (A):	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
Test Location:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.
Test Lab (B):	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories
Test Location:	No.19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)

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Release Control Record

Issue No.	Description	Date Issued
RF170428E06-2	Original release.	July 27, 2017

1 Certificate of Conformity

Product:	LTE Cat9 PCI Express M.2 Module
Brand:	FOXCONN
Test Model:	T77W676
Sample Status:	ENGINEERING SAMPLE
Applicant:	HON HAI PRECISION IND. CO., LTD.
Test Date:	June 15 to July 12, 2017
Standards:	FCC Part 27 FCC Part 2

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 EMC characteristics under the conditions specified in this report. This report contains all test data (Except Radiated Power and Radiated Spurious Emissions) that was produced under subcontract by Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories.

Prepared by : _____ , **Date:** July 27, 2017

Claire Kuan / Specialist

Approved by : _____ , **Date:** July 27, 2017

May Chen / Manager

2 Summary of Test Results

Applied Standard: FCC Part 27 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50	Radiated Power	PASS	Meet the requirement of limit.
2.1055 27.54	Frequency Stability Stay with the authorized bands of operation	PASS	Meet the requirement of limit.
2.1049 27.53	Occupied Bandwidth	PASS	Meet the requirement of limit.
27.53	Band Edge Measurements	PASS	Meet the requirement of limit.
---	Peak To Average Ratio	PASS	Meet the requirement of limit.
2.1051 27.53	Conducted Spurious Emissions	PASS	Meet the requirement of limit.
2.1053 27.53	Radiated Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -10.26dB at 7605MHz.

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) (±)
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	5.32 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz	5.14 dB
	6GHz ~ 18GHz	5.04 dB
	18GHz ~ 40GHz	5.25 dB

2.2 Test Site and Instruments

For radiated spurious emissions test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY50010156	Aug. 18, 2016	Aug. 17, 2017
Pre-Amplifier(*) EMCI	EMC001340	980142	Jan. 20, 2016	Jan. 19, 2018
Loop Antenna(*) Electro-Metrics	EM-6879	264	Dec. 16, 2016	Dec. 15, 2018
RF Cable	NA	LOOPCAB-001 LOOPCAB-002	Jan. 17, 2017	Jan. 16, 2018
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-05	May 06, 2017	May 05, 2018
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-361	Dec. 29, 2016	Dec. 28, 2017
RF Cable	8D	966-3-1 966-3-2 966-3-3	Apr. 01, 2017	Mar. 31, 2018
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-3-01	Oct. 05, 2016	Oct. 04, 2017
Horn_Antenna SCHWARZBECK	BBHA9120-D	9120D-406	Dec. 28, 2016	Dec. 27, 2017
Pre-Amplifier EMCI	EMC12630SE	980384	Feb. 02, 2017	Feb. 01, 2018
RF Cable	EMC104-SM-SM-1200 EMC104-SM-SM-2000 EMC104-SM-SM-5000	160922 150317 150322	Feb. 02, 2017 Mar. 29, 2017 Mar. 29, 2017	Feb. 01, 2018 Mar. 28, 2018 Mar. 28, 2018
Spectrum Analyzer Keysight	N9030A	MY54490520	July 29, 2016	July 28, 2017
Pre-Amplifier EMCI	EMC184045SE	980386	Feb. 02, 2017	Feb. 01, 2018
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170608	Dec. 15, 2016	Dec. 14, 2017
RF Cable	SUCOFLEX 102	36432/2 36433/2	Jan. 15, 2017	Jan. 14, 2018
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	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 calibration interval of the above test instruments is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. The test was performed in 966 Chamber No. 3.
4. The FCC Site Registration No. is 147459
5. The CANADA Site Registration No. is 20331-1
6. Tested Date: June 15 to 30, 2017

For Radiated power test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer R&S	FSV40	100964	June 28, 2016	June 27, 2017
Spectrum Analyzer Keysight	N9030A	MY54490570	July 06, 2016	July 05, 2017
AC Power Source Extech Electronics	6502	1140503	NA	NA
Temperature & Humidity Chamber TERCHY	MHU-225AU	911033	Dec. 02, 2016	Dec. 01, 2017
DC Power Supply GOOD WILL INSTRUMENT CO., LTD.	GPC - 3030D	7700087	NA	NA
ESG Vector signal generator Agilent	E4438C	Y45094468/005 506 602 UK6 UNJ	Nov. 25, 2016	Nov. 24, 2017
Power meter Anritsu	ML2495A	0824006	June 26, 2017	June 25, 2018
Power sensor Anritsu	MA2411B	0738172	June 26, 2017	June 25, 2018
Software	ADT_RF Test Software V6.6.5.4	NA	NA	NA
Digital Multimeter FLUKE	87III	73680266	Nov. 10, 2016	Nov. 09, 2017

NOTE: 1. The test was performed in Oven room 1.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. Tested Date: June 26, 2017

For other test items:

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESIB7	100187	May 02, 2017	May 01, 2018
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100041	Nov. 16, 2016	Nov. 15, 2017
BILOG Antenna SCHWARZBECK	VULB9168	9168-171	Dec. 28, 2016	Dec. 27, 2017
HORN Antenna SCHWARZBECK	9120D	209	Dec. 27, 2016	Dec. 26, 2017
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Dec. 14, 2016	Dec. 13, 2017
Preamplifier Agilent	8447D	2944A10738	Oct.18, 2015	Oct. 17, 2016
Preamplifier Agilent	8449B	3008A01963	Aug. 22, 2016	Aug. 21, 2017
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH3-03 (214378)	Aug. 22, 2016	Aug. 21, 2017
RF signal cable HUBER+SUHNER	SUCOFLEX 106	Cable-CH3-03 (309224+12738)	Aug. 22, 2016	Aug. 21, 2017
Software BV ADT	ADT_Radiated_ V7.6.15.9.4	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021702	NA	NA
Turn Table BV ADT	TT100	TT93021702	NA	NA
Turn Table Controller BV ADT	SC100	SC93021702	NA	NA
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 07, 2017	Jun. 06, 2018
Mini-Circuits Power Splitter	ZN2PD-9G	NA	Aug. 11, 2016	Aug. 10, 2017
JFW 20dB attenuation	50HF-020-SMA	NA	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 3.
3. The FCC Site Registration No. is 988962.
4. The IC Site Registration No. is IC 7450F-3.
5. Tested Date: June 23 to July 12, 2017

3 General Information

3.1 General Description of EUT

Product	LTE Cat9 PCI Express M.2 Module	
Brand	FOXCONN	
Test Model	T77W676	
Status of EUT	ENGINEERING SAMPLE	
Power Supply Rating	DC 5V from host equipment	
Modulation Type	WCDMA, HSDPA, HSUPA	BPSK
	LTE	QPSK, 16QAM
Operating Frequency	WCDMA Band 4	1712.4 ~ 1752.6 MHz
	LTE Band 4	1710.7 ~ 1754.3 MHz
	LTE Band 7	2502.5 ~ 2567.5 MHz
	LTE Band 12	699.7 ~ 715.3 MHz
	LTE Band 13	779.5 ~ 784.5 MHz
	LTE Band 17	706.5 ~ 713.5 MHz
	LTE Band 30	2307.5MHz ~ 2312.5MHz
	LTE Band 38	2572.5MHz ~ 2617.5MHz
	LTE Band 41	2498.5MHz ~ 2687.5MHz
	LTE Band 66	1710.7MHz ~ 1779.3MHz
Max. EIRP Power	WCDMA Band 4	722.77mW(28.59dBm)
	LTE Band 4 (Channel Bandwidth 1.4MHz)	582.1mW(27.65dBm)
	LTE Band 4 (Channel Bandwidth 3MHz)	557.19mW(27.46dBm)
	LTE Band 4 (Channel Bandwidth 5MHz)	592.93mW(27.73dBm)
	LTE Band 4 (Channel Bandwidth 10MHz)	594.29mW(27.74dBm)
	LTE Band 4 (Channel Bandwidth 15MHz)	576.77mW(27.61dBm)
	LTE Band 4 (Channel Bandwidth 20MHz)	613.76mW(27.88dBm)
	LTE Band 7 (Channel Bandwidth 5MHz)	566.24mW(27.53dBm)
	LTE Band 7 (Channel Bandwidth 10MHz)	592.93mW(27.73dBm)
	LTE Band 7 (Channel Bandwidth 15MHz)	576.77mW(27.61dBm)
	LTE Band 7 (Channel Bandwidth 20MHz)	628.06mW(27.98dBm)

Max. EIRP Power	LTE Band 38 (Channel Bandwidth 5MHz)	816.58mW(29.12dBm)
	LTE Band 38 (Channel Bandwidth 10MHz)	751.62mW(28.76dBm)
	LTE Band 38 (Channel Bandwidth 15MHz)	726.11mW(28.61dBm)
	LTE Band 38 (Channel Bandwidth 20MHz)	743.02mW(28.71dBm)
	LTE Band 41 (Channel Bandwidth 5MHz)	695.02mW(28.42dBm)
	LTE Band 41 (Channel Ban1dwidth 10MHz)	704.69mW(28.48dBm)
	LTE Band 41 (Channel Bandwidth 15MHz)	653.13mW(28.15dBm)
	LTE Band 41 (Channel Bandwidth 20MHz)	695.02mW(28.42dBm)
	LTE Band 66 (Channel Bandwidth 1.4MHz)	597.04mW(27.76dBm)
	LTE Band 66 (Channel Bandwidth 3MHz)	582.1mW(27.65dBm)
	LTE Band 66 (Channel Bandwidth 5MHz)	597.04mW(27.76dBm)
	LTE Band 66 (Channel Bandwidth 10MHz)	586.14mW(27.68dBm)
	LTE Band 66 (Channel Bandwidth 15MHz)	613.76mW(27.88dBm)
	LTE Band 66 (Channel Bandwidth 20MHz)	572.8mW(27.58dBm)

Max. ERP Power	LTE Band 12 (Channel Bandwidth 1.4MHz)	247.74mW(23.94dBm)
	LTE Band 12 (Channel Bandwidth 3MHz)	255.27mW(24.07dBm)
	LTE Band 12 (Channel Bandwidth 5MHz)	261.22mW(24.17dBm)
	LTE Band 12 (Channel Bandwidth 10MHz)	273.53mW(24.37dBm)
	LTE Band 13 (Channel Bandwidth 5MHz)	247.74mW(23.94dBm)
	LTE Band 13 (Channel Bandwidth 10MHz)	237.68mW(23.76dBm)
	LTE Band 17 (Channel Bandwidth 5MHz)	351.56mW(25.46dBm)
	LTE Band 17 (Channel Bandwidth 10MHz)	351.56mW(25.46dBm)
Max. EIRP Power Density	LTE Band 30 (Channel Bandwidth 5MHz)	98.62mW/5MHz (19.94dBm/5MHz)
	LTE Band 30 (Channel Bandwidth 10MHz)	47.09mW/5MHz (16.73dBm/5MHz)

Emission Designator	WCDMA Band 4	4M27F9W
	LTE Band 4 (Channel Bandwidth 1.4MHz)	QPSK: 1M11G7D
		16QAM: 1M11D7W
	LTE Band 4 (Channel Bandwidth 3MHz)	QPSK: 2M74G7D
		16QAM: 2M74D7W
	LTE Band 4 (Channel Bandwidth 5MHz)	QPSK: 4M56G7D
		16QAM: 4M54D7W
	LTE Band 4 (Channel Bandwidth 10MHz)	QPSK: 9M19G7D
		16QAM: 9M05D7W
	LTE Band 4 (Channel Bandwidth 15MHz)	QPSK: 13M6G7D
		16QAM: 13M6D7W
	LTE Band 4 (Channel Bandwidth 20MHz)	QPSK: 18M2G7D
		16QAM: 18M2D7W
	LTE Band 7 (Channel Bandwidth 5MHz)	QPSK: 4M49G7D
		16QAM: 4M49D7W
	LTE Band 7 (Channel Bandwidth 10MHz)	QPSK: 8M97G7D
		16QAM: 8M97D7W
	LTE Band 7 (Channel Bandwidth 15MHz)	QPSK: 13M5G7D
		16QAM: 13M5D7W
	LTE Band 7 (Channel Bandwidth 20MHz)	QPSK: 18M0G7D
		16QAM: 18M0D7W
	LTE Band 12 (Channel Bandwidth 1.4MHz)	QPSK: 1M09G7D
		16QAM: 1M09D7W
	LTE Band 12 (Channel Bandwidth 3MHz)	QPSK: 2M71G7D
		16QAM: 2M70D7W
	LTE Band 12 (Channel Bandwidth 5MHz)	QPSK: 4M50G7D
		16QAM: 4M50D7W
	LTE Band 12 (Channel Bandwidth 10MHz)	QPSK: 8M98G7D
		16QAM: 8M99D7W
	LTE Band 13 (Channel Bandwidth 5MHz)	QPSK: 4M49G7D
		16QAM: 4M49D7W
	LTE Band 13 (Channel Bandwidth 10MHz)	QPSK: 8M95G7D
		16QAM: 8M96D7W

Emission Designator	LTE Band 17 (Channel Bandwidth 5MHz)	QPSK: 4M50G7D
		16QAM: 4M50D7W
	LTE Band 17 (Channel Bandwidth 10MHz)	QPSK: 8M99G7D
		16QAM: 8M98D7W
	LTE Band 30 (Channel Bandwidth 5MHz)	QPSK: 4M49G7D
		16QAM: 4M49D7W
	LTE Band 30 (Channel Bandwidth 10MHz)	QPSK: 8M96G7D
		16QAM: 8M97D7W
	LTE Band 38 (Channel Bandwidth 5MHz)	QPSK: 4M49G7D
		16QAM: 4M49D7W
	LTE Band 38 (Channel Bandwidth 10MHz)	QPSK: 8M96G7D
		16QAM: 8M97D7W
	LTE Band 38 (Channel Bandwidth 15MHz)	QPSK: 13M5G7D
		16QAM: 13M5D7W
	LTE Band 38 (Channel Bandwidth 20MHz)	QPSK: 18M0G7D
		16QAM: 17M9D7W
	LTE Band 41 (Channel Bandwidth 5MHz)	QPSK: 4M49G7D
		16QAM: 4M49D7W
	LTE Band 41 (Channel Bandwidth 10MHz)	QPSK: 8M96G7D
		16QAM: 8M97D7W
	LTE Band 41 (Channel Bandwidth 15MHz)	QPSK: 13M5G7D
		16QAM: 13M5D7W
	LTE Band 41 (Channel Bandwidth 20MHz)	QPSK: 18M0G7D
		16QAM: 18M0D7W
	LTE Band 66 (Channel Bandwidth 1.4MHz)	QPSK: 1M09G7D
		16QAM: 1M09D7W
	LTE Band 66 (Channel Bandwidth 3MHz)	QPSK: 2M70G7D
		16QAM: 2M70D7W
	LTE Band 66 (Channel Bandwidth 5MHz)	QPSK: 4M50G7D
		16QAM: 4M50D7W
	LTE Band 66 (Channel Bandwidth 10MHz)	QPSK: 9M00G7D
		16QAM: 8M99D7W
	LTE Band 66 (Channel Bandwidth 15MHz)	QPSK: 13M5G7D
		16QAM: 13M5D7W
	LTE Band 66 (Channel Bandwidth 20MHz)	QPSK: 18M1G7D
		16QAM: 18M1D7W
Antenna Type	Refer to note as below	
Antenna Connector	Refer to user's manual	
Accessory Device	NA	
Data Cable Supplied	NA	

Note:

1. The EUT is a WWAN device.
2. The antennas provided to the EUT, please refer to the following table:

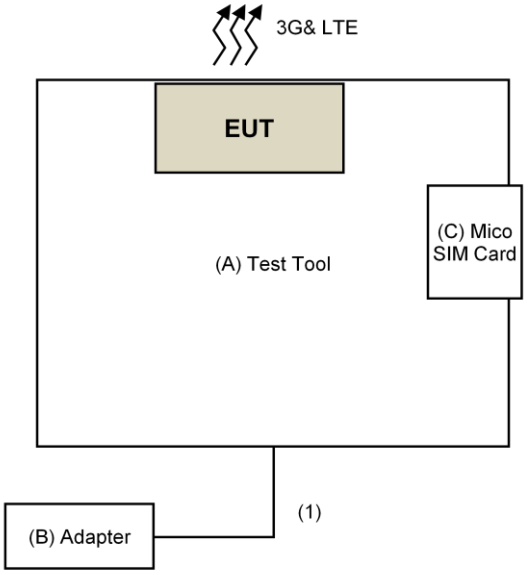
Antenna NO.	Brand	Model	Gain(dBi) Including cable loss	Frequency range	Antenna Type	Connecter Type	Cable Length
1	TongDa	T-543-8201115-2	3.08 4.74	791~960MHz 1447.9~1606MHz	PIFA	I-PEX MHF IV	100mm
2	TongDa	T-543-8201115-1	4.17	698~803MHz	PIFA	I-PEX MHF IV	100mm
3	TongDa	T-543-8201115-3	5.99	1710~2700MHz	PIFA	I-PEX MHF IV	100mm
4	HongBo	260-23671	-1.33	703-748MHz	PIFA	I-PEX MHF IV	315mm
			-3.23	815-830MHz			
			-3.37	832-862MHz			
			-2.27	824-849MHz			
			-3.11	880-915MHz			
			-4.15	1448-1463MHz			
			-0.64	1710-1785MHz			
			0.18	1850-1915MHz			
			0.57	1920-1980MHz			
	HongBo	260-23672	-3.71	758-803MHz	PIFA	I-PEX MHF IV	439mm
			-0.95	860-875MHz			
			-3.07	791-821MHz			
			-0.97	869-894MHz			
			-3.5	925-960MHz			
			-5.32	1496-1511MHz			
			-0.09	1805-1880MHz			
			0.16	1930-1995MHz			
			-0.8	2110-2170MHz			

Antenna NO.	Brand	Model	Gain(dBi) Including cable loss	Frequency range	Antenna Type	Connecter Type	Cable Length
5	SPEED	F.0G.UH-6010-003-00	-2.81	703-748MHz	PIFA	I-PEX MHF IV	315mm
			-1.53	815-830MHz			
			-1.96	832-862MHz			
			-2.59	880-915MHz			
			-4.19	1448-1463MHz			
			1.23	1710-1785MHz			
			0.26	1850-1883MHz			
			1.16	1915-1980MHz			
	SPEED	F.0G.UH-6010-004-00	-2.67	758-803MHz	PIFA	I-PEX MHF IV	439mm
			-2.42	791-821MHz			
			-2.33	860-894MHz			
			-0.58	925-960MHz			
			-0.17	1496-1511MHz			
			0.83	1805-1880MHz			
			-2.72	1930-1995MHz			
			-1.67	2110-2170MHz			
6	HongBo	260-23675	-2.68	703-748MHz	PIFA	I-PEX MHF IV	363mm
			-0.88	815-830MHz			
			-1.66	832-862MHz			
			-1.23	824-849MHz			
			1.35	880-915MHz			
			0.8	1448-1463MHz			
			2.03	1710-1785MHz			
			2.02	1850-1915MHz			
			0.57	1920-1980MHz			
	HongBo	260-23676	-2.86	758-803MHz	PIFA	I-PEX MHF IV	522mm
			0.51	860-875MHz			
			-1.19	791-821MHz			
			0.48	869-894MHz			
			-2.29	925-960MHz			
			-4.52	1496-1511MHz			
			-0.09	1805-1880MHz			
			-0.22	1930-1995MHz			
			-0.42	2110-2170MHz			

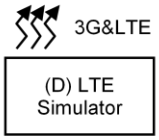
Antenna NO.	Brand	Model	Gain(dBi) Including cable loss	Frequency range	Antenna Type	Connecter Type	Cable Length
7	SPEED	F.0G.UH-6011-003-00	-3.21	703-748MHz	PIFA	I-PEX MHF IV	363mm
			-2.73	815-830MHz			
			-2.48	832-862MHz			
			-3.32	880-915MHz			
			-1.86	1448-1463MHz			
			-0.57	1710-1785MHz			
			-0.63	1850-1883MHz			
			0.44	1915-1980MHz			
	SPEED	F.0G.UH-6011-004-00	-4	758-803MHz	PIFA	I-PEX MHF IV	522mm
			-3.43	791-821MHz			
			-1.22	860-894MHz			
			-2.06	925-960MHz			
			-1.83	1496-1511MHz			
			0.48	1805-1880MHz			
			-0.2	1930-1995MHz			
			-2.87	2110-2170MHz			
Set 1~3 were chosen for final test.							

3. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 Configuration of System under Test



Remote Site



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.	Test Tool	Foxconn	NA	NA	NA	Supplied by client
B.	USB Adapter	ASUS	EXA1205UA	NA	NA	Provided by Lab
C.	Mico SIM Card	NA	NA	NA	NA	Provided by Lab
D.	LTE Simulator	KeysSight	E7515-10910	NA	NA	Provided by Lab

Note:

1. All power cords of the above support units are non-shielded (1.8m).

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	USB Cable	1	1	Yes	0	Supplied by client

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 X-plane. Following channel(s) was (were) selected for the final test as listed below:

WCDMA B4

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	MODE
EIRP	1312 to 1513	1312, 1413, 1513	WCDMA
Frequency Stability	1312 to 1513	1413	WCDMA
Occupied Bandwidth	1312 to 1513	1312, 1413, 1513	WCDMA
Peak to Average Ratio	1312 to 1513	1312, 1413, 1513	WCDMA
Band Edge	1312 to 1513	1312, 1513	WCDMA
Condcudeted Emission	1312 to 1513	1413	WCDMA
Radiated Emission	1312 to 1513	1413	WCDMA

LTE Band 4

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
EIRP	19957 to 20393	19957, 20175, 20393	1.4MHz	QPSK	1RB / 0 RB offset
	19965 to 20385	19965, 20175, 20385	3MHz	QPSK	1RB / 0 RB offset
	19975 to 20375	19975, 20175, 20375	5MHz	QPSK	1RB / 0 RB offset
	20000 to 20350	20000, 20175, 20350	10MHz	QPSK	1RB / 0 RB offset
	20025 to 20325	20025, 20175, 20325	15MHz	QPSK	1RB / 0 RB offset
	20050 to 20300	20050, 20175, 20300	20MHz	QPSK	1RB / 0 RB offset
Frequency Stability	19957 to 20393	20175	1.4MHz	QPSK	-
	19965 to 20385	20175	3MHz	QPSK	-
	19975 to 20375	20175	5MHz	QPSK	-
	20000 to 20350	20175	10MHz	QPSK	-
	20025 to 20325	20175	15MHz	QPSK	-
	20050 to 20300	20175	20MHz	QPSK	-
Occupied Bandwidth	19957 to 20393	19957, 20175, 20393	1.4MHz	QPSK / 16QAM	Full RB
	19965 to 20385	19965, 20175, 20385	3MHz	QPSK / 16QAM	Full RB
	19975 to 20375	19975, 20175, 20375	5MHz	QPSK / 16QAM	Full RB
	20000 to 20350	20000, 20175, 20350	10MHz	QPSK / 16QAM	Full RB
	20025 to 20325	20025, 20175, 20325	15MHz	QPSK / 16QAM	Full RB
	20050 to 20300	20050, 20175, 20300	20MHz	QPSK / 16QAM	Full RB
Peak to Average Ratio	19957 to 20393	19957, 20175, 20393	1.4MHz	QPSK / 16QAM	Full RB
	19965 to 20385	19965, 20175, 20385	3MHz	QPSK / 16QAM	Full RB
	19975 to 20375	19975, 20175, 20375	5MHz	QPSK / 16QAM	Full RB
	20000 to 20350	20000, 20175, 20350	10MHz	QPSK / 16QAM	Full RB
	20025 to 20325	20025, 20175, 20325	15MHz	QPSK / 16QAM	Full RB
	20050 to 20300	20050, 20175, 20300	20MHz	QPSK / 16QAM	Full RB
Band Edge	19957 to 20393	19957	1.4MHz	QPSK	1 RB / 0 RB Offset
		20393			1 RB / 5 RB Offset
		19957, 20393			6 RB / 0 RB Offset
	19965 to 20385	19965	3MHz	QPSK	1 RB / 0 RB Offset
		20385			1 RB / 14 RB Offset
		19965 , 20385			15 RB / 0 RB Offset
	19975 to 20375	19975	5MHz	QPSK	1 RB / 0 RB Offset
		20375			1 RB / 24 RB Offset
		19975, 20375			25 RB / 0 RB Offset
	20000 to 20350	20000	10MHz	QPSK	1 RB / 0 RB Offset
		20350			1 RB / 49 RB Offset
		20000, 20350			50 RB / 0 RB Offset
	20025 to 20325	20025	15MHz	QPSK	1 RB / 0 RB Offset
		20325			1 RB / 74 RB Offset
		20025, 20325			75 RB / 0 RB Offset
	20050 to 20300	20050	20MHz	QPSK	1 RB / 0 RB Offset
		20300			1 RB / 99 RB Offset
		20050, 20300			100 RB / 0 RB Offset

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
Condcudeted Emission	19957 to 20393	20175	1.4MHz	QPSK	1 RB / 0 RB Offset
	19965 to 20385	20175	3MHz	QPSK	1 RB / 0 RB Offset
	19975 to 20375	20175	5MHz	QPSK	1 RB / 0 RB Offset
	20000 to 20350	20175	10MHz	QPSK	1 RB / 0 RB Offset
	20025 to 20325	20175	15MHz	QPSK	1 RB / 0 RB Offset
	20050 to 20300	20175	20MHz	QPSK	1 RB / 0 RB Offset
Radiated Emission	19957 to 20393	20175	1.4MHz	QPSK	1 RB / 0 RB Offset
	19965 to 20385	20175	3MHz	QPSK	1 RB / 0 RB Offset
	19975 to 20375	20175	5MHz	QPSK	1 RB / 0 RB Offset
	20000 to 20350	20175	10MHz	QPSK	1 RB / 0 RB Offset
	20025 to 20325	20175	15MHz	QPSK	1 RB / 0 RB Offset
	20050 to 20300	20175	20MHz	QPSK	1 RB / 0 RB Offset

LTE Band 7

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
EIRP	20775 to 21425	20775, 21100, 21425	5MHz	QPSK	1RB / 0 RB offset
	20800 to 21400	20800, 21100, 21400	10MHz	QPSK	1RB / 0 RB offset
	20825 to 31375	20825, 21100, 31375	15MHz	QPSK	1RB / 0 RB offset
	20850 to 21350	20850, 21100, 21350	20MHz	QPSK	1RB / 0 RB offset
Frequency Stability	20775 to 21425	21100	5MHz	QPSK	-
	20800 to 21400	21100	10MHz	QPSK	-
	20825 to 31375	21100	15MHz	QPSK	-
	20850 to 21350	21100	20MHz	QPSK	-
Occupied Bandwidth	20775 to 21425	20775, 21100, 21425	5MHz	QPSK / 16QAM	Full RB
	20800 to 21400	20800, 21100, 21400	10MHz	QPSK / 16QAM	Full RB
	20825 to 31375	20825, 21100, 31375	15MHz	QPSK / 16QAM	Full RB
	20850 to 21350	20850, 21100, 21350	20MHz	QPSK / 16QAM	Full RB
Peak to Average Ratio	20775 to 21425	20775, 21100, 21425	5MHz	QPSK / 16QAM	Full RB
	20800 to 21400	20800, 21100, 21400	10MHz	QPSK / 16QAM	Full RB
	20825 to 31375	20825, 21100, 31375	15MHz	QPSK / 16QAM	Full RB
	20850 to 21350	20850, 21100, 21350	20MHz	QPSK / 16QAM	Full RB
Band Edge	20775 to 21425	20775	5MHz	QPSK	1 RB / 0 RB Offset
		21425			1 RB / 24 RB Offset
		20775, 21425			25 RB / 0 RB Offset
	20800 to 21400	20800	10MHz	QPSK	1 RB / 0 RB Offset
		21400			1 RB / 49 RB Offset
		20800, 21400			50 RB / 0 RB Offset
	20825 to 31375	20825	15MHz	QPSK	1 RB / 0 RB Offset
		31375			1 RB / 74 RB Offset
		20825, 31375			75 RB / 0 RB Offset
	20850 to 21350	20850	20MHz	QPSK	1 RB / 0 RB Offset
		21350			1 RB / 99 RB Offset
		20850, 21350			100 RB / 0 RB Offset
Condcudeted Emission	20775 to 21425	21100	5MHz	QPSK	1 RB / 0 RB Offset
	20800 to 21400	21100	10MHz	QPSK	1 RB / 0 RB Offset
	20825 to 31375	21100	15MHz	QPSK	1 RB / 0 RB Offset
	20850 to 21350	21100	20MHz	QPSK	1 RB / 0 RB Offset
Radiated Emission	20775 to 21425	21100	5MHz	QPSK	1 RB / 0 RB Offset
	20800 to 21400	21100	10MHz	QPSK	1 RB / 0 RB Offset
	20825 to 31375	21100	15MHz	QPSK	1 RB / 0 RB Offset
	20850 to 21350	21100	20MHz	QPSK	1 RB / 0 RB Offset

LTE Band 12

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
ERP	23017 to 23173	23017, 23095, 23173	1.4MHz	QPSK	1RB / 0 RB offset
	23025 to 23165	23025, 23095, 23165	3MHz	QPSK	1RB / 0 RB offset
	23035 to 23155	23035, 23095, 23155	5MHz	QPSK	1RB / 0 RB offset
	23060 to 23130	23060, 23095, 23130	10MHz	QPSK	1RB / 0 RB offset
Frequency Stability	23017 to 23173	23095	1.4MHz	QPSK	-
	23025 to 23165	23095	3MHz	QPSK	-
	23035 to 23155	23095	5MHz	QPSK	-
	23060 to 23130	23095	10MHz	QPSK	-
Occupied Bandwidth	23017 to 23173	23017, 23095, 23173	1.4MHz	QPSK, 16QAM	Full RB
	23025 to 23165	23025, 23095, 23165	3MHz	QPSK, 16QAM	Full RB
	23035 to 23155	23035, 23095, 23155	5MHz	QPSK, 16QAM	Full RB
	23060 to 23130	23060, 23095, 23130	10MHz	QPSK, 16QAM	Full RB
Peak to Average Ratio	23017 to 23173	23017, 23095, 23173	1.4MHz	QPSK, 16QAM	Full RB
	23025 to 23165	23025, 23095, 23165	3MHz	QPSK, 16QAM	Full RB
	23035 to 23155	23035, 23095, 23155	5MHz	QPSK, 16QAM	Full RB
	23060 to 23130	23060, 23095, 23130	10MHz	QPSK, 16QAM	Full RB
Band Edge	23017 to 23173	23017	1.4MHz	QPSK	1 RB / 0 RB Offset
		23173			1 RB / 5 RB Offset
		23017, 23173			6 RB / 0 RB Offset
	23025 to 23165	23025	3MHz	QPSK	1 RB / 0 RB Offset
		23165			1 RB / 14 RB Offset
		23025, 23165			15 RB / 0 RB Offset
	23035 to 23155	23035	5MHz	QPSK	1 RB / 0 RB Offset
		23155			1 RB / 24 RB Offset
		23035, 23155			25 RB / 0 RB Offset
	23060 to 23130	23060	10MHz	QPSK	1 RB / 0 RB Offset
		23155			1 RB / 49 RB Offset
		23060, 23155			50 RB / 0 RB Offset
Condcudeted Emission	23017 to 23173	23095	1.4MHz	QPSK	1RB / 0 RB offset
	23025 to 23165	23095	3MHz	QPSK	1RB / 0 RB offset
	23035 to 23155	23095	5MHz	QPSK	1RB / 0 RB offset
	23060 to 23130	23095	10MHz	QPSK	1RB / 0 RB offset
Radiated Emission	23017 to 23173	23095	1.4MHz	QPSK	1RB / 0 RB offset
	23025 to 23165	23095	3MHz	QPSK	1RB / 0 RB offset
	23035 to 23155	23095	5MHz	QPSK	1RB / 0 RB offset
	23060 to 23130	23095	10MHz	QPSK	1RB / 0 RB offset

LTE Band 13

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
ERP	23205 to 23255	23205, 23230, 23255	5MHz	QPSK	1RB / 0 RB offset
	23230	23230	10MHz	QPSK	1RB / 0 RB offset
Frequency Stability	23205 to 23255	23230	5MHz	QPSK	-
	23230	23230	10MHz	QPSK	-
Occupied Bandwidth	23205 to 23255	23205, 23230, 23255	5MHz	QPSK/16QAM	Full RB
	23230	23230	10MHz	QPSK/16QAM	Full RB
Peak to Average Ratio	23205 to 23255	23205, 23230, 23255	5MHz	QPSK/16QAM	Full RB
	23230	23230	10MHz	QPSK/16QAM	Full RB
Band Edge	23205 to 23255	23205	5MHz	QPSK	1 RB / 0 RB Offset
		23255			1 RB / 24 RB Offset
		23205, 23255			25 RB / 0 RB Offset
	23230	23230	10MHz	QPSK	1 RB / 0 RB Offset
					1 RB / 49 RB Offset
					50 RB / 0 RB Offset
Condcudeted Emission	23205 to 23255	23230	5MHz	QPSK	1RB / 0 RB offset
	23230	23230	10MHz	QPSK	1RB / 0 RB offset
Radiated Emission	23205 to 23255	23230	5MHz	QPSK	1RB / 0 RB offset
	23230	23230	10MHz	QPSK	1RB / 0 RB offset

LTE Band 17

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
ERP	23755 to 23825	23755, 23790, 23825	5MHz	QPSK	1RB / 0 RB offset
	23780 to 23800	23780, 23790, 23800	10MHz	QPSK	1RB / 0 RB offset
Frequency Stability	23755 to 23825	23790	5MHz	QPSK	-
	23780 to 23800	23790	10MHz	QPSK	-
Occupied Bandwidth	23755 to 23825	23755, 23790, 23825	5MHz	QPSK/16QAM	25 RB / 0 RB Offset
	23780 to 23800	23780, 23790, 23800	10MHz	QPSK/16QAM	50 RB / 0 RB Offset
Peak to Average Ratio	23755 to 23825	23755, 23790, 23825	5MHz	QPSK/16QAM	25 RB / 0 RB Offset
	23780 to 23800	23780, 23790, 23800	10MHz	QPSK/16QAM	50 RB / 0 RB Offset
Band Edge	23755 to 23825	23755	5MHz	QPSK	1 RB / 0 RB Offset
		23825			1 RB / 24 RB Offset
		23755, 23825			25 RB / 0 RB Offset
	23780 to 23800	23780	10MHz	QPSK	1 RB / 0 RB Offset
		23825			1 RB / 49 RB Offset
		23755, 23825			50 RB / 0 RB Offset
Condcudeted Emission	23755 to 23825	23790	5MHz	QPSK	1RB / 0 RB offset
	23780 to 23800	23790	10MHz	QPSK	1RB / 0 RB offset
Radiated Emission	23755 to 23825	23790	5MHz	QPSK	1RB / 0 RB offset
	23780 to 23800	23790	10MHz	QPSK	1RB / 0 RB offset

LTE Band 30

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
EIRP	27685 to 27735	27685, 27710, 27735	5MHz	QPSK	1RB / 0 RB offset
	27710 to 27710	27710	10MHz	QPSK	1RB / 0 RB offset
Frequency Stability	27685 to 27735	27710	5MHz	QPSK	-
	27710 to 27710	27710	10MHz	QPSK	-
Occupied Bandwidth	27685 to 27735	27685, 27710, 27735	5MHz	QPSK/16QAM	25 RB / 0 RB Offset
	27710 to 27710	27710	10MHz	QPSK/16QAM	50 RB / 0 RB Offset
Peak to Average Ratio	27685 to 27735	27685, 27710, 27735	5MHz	QPSK/16QAM	25 RB / 0 RB Offset
	27710 to 27710	27710	10MHz	QPSK/16QAM	50 RB / 0 RB Offset
Band Edge	27685 to 27735	27685	5MHz	QPSK	1 RB / 0 RB Offset
		27735			1 RB / 24 RB Offset
		27685, 27735			25 RB / 0 RB Offset
	27710 to 27710	27710	10MHz	QPSK	1 RB / 0 RB Offset
					1 RB / 49 RB Offset
					50 RB / 0 RB Offset
Condcudeted Emission	27685 to 27735	27710	5MHz	QPSK	1RB / 0 RB offset
	27710 to 27710	27710	10MHz	QPSK	1RB / 0 RB offset
Radiated Emission	27685 to 27735	27710	5MHz	QPSK	1RB / 0 RB offset
	27710 to 27710	27710	10MHz	QPSK	1RB / 0 RB offset

LTE Band 38

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
EIRP	37775 to 38225	37775, 38000, 38225	5MHz	QPSK	1RB / 0 RB offset
	37800 to 38200	37800, 38000, 38200	10MHz	QPSK	1RB / 0 RB offset
	37825 to 38175	37825, 38000, 38175	15MHz	QPSK	1RB / 0 RB offset
	37850 to 38150	37850, 38000, 38150	20MHz	QPSK	1RB / 0 RB offset
Frequency Stability	37775 to 38225	38000	5MHz	QPSK	-
	37800 to 38200	38000	10MHz	QPSK	-
	37825 to 38175	38000	15MHz	QPSK	-
	37850 to 38150	38000	20MHz	QPSK	-
Occupied Bandwidth	37775 to 38225	37775, 38000, 38225	5MHz	QPSK / 16QAM	Full RB
	37800 to 38200	37800, 38000, 38200	10MHz	QPSK / 16QAM	Full RB
	37825 to 38175	37825, 38000, 38175	15MHz	QPSK / 16QAM	Full RB
	37850 to 38150	37850, 38000, 38150	20MHz	QPSK / 16QAM	Full RB
Peak to Average Ratio	37775 to 38225	37775, 38000, 38225	5MHz	QPSK / 16QAM	Full RB
	37800 to 38200	37800, 38000, 38200	10MHz	QPSK / 16QAM	Full RB
	37825 to 38175	37825, 38000, 38175	15MHz	QPSK / 16QAM	Full RB
	37850 to 38150	37850, 38000, 38150	20MHz	QPSK / 16QAM	Full RB
Band Edge	37775 to 38225	37775	5MHz	QPSK	1 RB / 0 RB Offset
		38225			1 RB / 24 RB Offset
		37775, 38225			25 RB / 0 RB Offset
	37800 to 38200	37800	10MHz	QPSK	1 RB / 0 RB Offset
		38200			1 RB / 49 RB Offset
		37800, 38200			50 RB / 0 RB Offset
	37825 to 38175	37825	15MHz	QPSK	1 RB / 0 RB Offset
		38175			1 RB / 74 RB Offset
		37825, 38175			75 RB / 0 RB Offset
	37850 to 38150	37850	20MHz	QPSK	1 RB / 0 RB Offset
		38150			1 RB / 99 RB Offset
		37850, 38150			100 RB / 0 RB Offset
Condcudeted Emission	37775 to 38225	38000	5MHz	QPSK	1 RB / 0 RB Offset
	37800 to 38200	38000	10MHz	QPSK	1 RB / 0 RB Offset
	37825 to 38175	38000	15MHz	QPSK	1 RB / 0 RB Offset
	37850 to 38150	38000	20MHz	QPSK	1 RB / 0 RB Offset
Radiated Emission	37775 to 38225	38000	5MHz	QPSK	1 RB / 0 RB Offset
	37800 to 38200	38000	10MHz	QPSK	1 RB / 0 RB Offset
	37825 to 38175	38000	15MHz	QPSK	1 RB / 0 RB Offset
	37850 to 38150	38000	20MHz	QPSK	1 RB / 0 RB Offset

LTE Band 41

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
EIRP	39675 to 41565	39675, 40620, 41565	5MHz	QPSK	1RB / 0 RB offset
	39700 to 41540	39700, 40620, 41540	10MHz	QPSK	1RB / 0 RB offset
	39725 to 41515	39725, 40620, 41515	15MHz	QPSK	1RB / 0 RB offset
	39750 to 41490	39750, 40620, 41490	20MHz	QPSK	1RB / 0 RB offset
Frequency Stability	39675 to 41565	40620	5MHz	QPSK	-
	39700 to 41540	40620	10MHz	QPSK	-
	39725 to 41515	40620	15MHz	QPSK	-
	39750 to 41490	40620	20MHz	QPSK	-
Occupied Bandwidth	39675 to 41565	39675, 40620, 41565	5MHz	QPSK / 16QAM	Full RB
	39700 to 41540	39700, 40620, 41540	10MHz	QPSK / 16QAM	Full RB
	39725 to 41515	39725, 40620, 41515	15MHz	QPSK / 16QAM	Full RB
	39750 to 41490	39750, 40620, 41490	20MHz	QPSK / 16QAM	Full RB
Peak to Average Ratio	39675 to 41565	39675, 40620, 41565	5MHz	QPSK / 16QAM	Full RB
	39700 to 41540	39700, 40620, 41540	10MHz	QPSK / 16QAM	Full RB
	39725 to 41515	39725, 40620, 41515	15MHz	QPSK / 16QAM	Full RB
	39750 to 41490	39750, 40620, 41490	20MHz	QPSK / 16QAM	Full RB
Band Edge	39675 to 41565	39675	5MHz	QPSK	1 RB / 0 RB Offset
		41565			1 RB / 24 RB Offset
		39675, 41565			25 RB / 0 RB Offset
	39700 to 41540	39700	10MHz	QPSK	1 RB / 0 RB Offset
		41540			1 RB / 49 RB Offset
		39700, 41540			50 RB / 0 RB Offset
	39725 to 41515	39725	15MHz	QPSK	1 RB / 0 RB Offset
		41515			1 RB / 74 RB Offset
		39725, 41515			75 RB / 0 RB Offset
	39750 to 41490	39750	20MHz	QPSK	1 RB / 0 RB Offset
		41490			1 RB / 99 RB Offset
		39750, 41490			100 RB / 0 RB Offset
Condcudeted Emission	39675 to 41565	40620	5MHz	QPSK	1 RB / 0 RB Offset
	39700 to 41540	40620	10MHz	QPSK	1 RB / 0 RB Offset
	39725 to 41515	40620	15MHz	QPSK	1 RB / 0 RB Offset
	39750 to 41490	40620	20MHz	QPSK	1 RB / 0 RB Offset
Radiated Emission	39675 to 41565	40620	5MHz	QPSK	1 RB / 0 RB Offset
	39700 to 41540	40620	10MHz	QPSK	1 RB / 0 RB Offset
	39725 to 41515	40620	15MHz	QPSK	1 RB / 0 RB Offset
	39750 to 41490	40620	20MHz	QPSK	1 RB / 0 RB Offset

LTE Band 66

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
EIRP	131979 to 132665	131979, 132322, 132665	1.4MHz	QPSK	1RB / 0 RB offset
	131986 to 132658	131986, 132322, 132658	3MHz	QPSK	1RB / 0 RB offset
	131996 to 132648	131996, 132322, 132648	5MHz	QPSK	1RB / 0 RB offset
	132021 to 132623	132021, 132322, 132623	10MHz	QPSK	1RB / 0 RB offset
	132046 to 132598	132046, 132322, 132598	15MHz	QPSK	1RB / 0 RB offset
	132071 to 132573	132071, 132322, 132573	20MHz	QPSK	1RB / 0 RB offset
Frequency Stability	131979 to 132665	132322	1.4MHz	QPSK	-
	131986 to 132658	132322	3MHz	QPSK	-
	131996 to 132648	132322	5MHz	QPSK	-
	132021 to 132623	132322	10MHz	QPSK	-
	132046 to 132598	132322	15MHz	QPSK	-
	132071 to 132573	132322	20MHz	QPSK	-
Occupied Bandwidth	131979 to 132665	131979, 132322, 132665	1.4MHz	QPSK / 16QAM	Full RB
	131986 to 132658	131986, 132322, 132658	3MHz	QPSK / 16QAM	Full RB
	131996 to 132648	131996, 132322, 132648	5MHz	QPSK / 16QAM	Full RB
	132021 to 132623	132021, 132322, 132623	10MHz	QPSK / 16QAM	Full RB
	132046 to 132598	132046, 132322, 132598	15MHz	QPSK / 16QAM	Full RB
	132071 to 132573	132071, 132322, 132573	20MHz	QPSK / 16QAM	Full RB
Peak to Average Ratio	131979 to 132665	131979, 132322, 132665	1.4MHz	QPSK / 16QAM	Full RB
	131986 to 132658	131986, 132322, 132658	3MHz	QPSK / 16QAM	Full RB
	131996 to 132648	131996, 132322, 132648	5MHz	QPSK / 16QAM	Full RB
	132021 to 132623	132021, 132322, 132623	10MHz	QPSK / 16QAM	Full RB
	132046 to 132598	132046, 132322, 132598	15MHz	QPSK / 16QAM	Full RB
	132071 to 132573	132071, 132322, 132573	20MHz	QPSK / 16QAM	Full RB
Band Edge	131979 to 132665	131979	1.4MHz	QPSK	1 RB / 0 RB Offset
		132665			1 RB / 5 RB Offset
		131979, 132665			6 RB / 0 RB Offset
	131986 to 132658	131986	3MHz	QPSK	1 RB / 0 RB Offset
		132658			1 RB / 14 RB Offset
		131986 , 132658			15 RB / 0 RB Offset
	131996 to 132648	131996	5MHz	QPSK	1 RB / 0 RB Offset
		132648			1 RB / 24 RB Offset
		131996, 132648			25 RB / 0 RB Offset
	132021 to 132623	132021	10MHz	QPSK	1 RB / 0 RB Offset
		132623			1 RB / 49 RB Offset
		132021, 132623			50 RB / 0 RB Offset
	132046 to 132598	132046	15MHz	QPSK	1 RB / 0 RB Offset
		132598			1 RB / 74 RB Offset
		132046, 132598			75 RB / 0 RB Offset
	132071 to 132573	132071	20MHz	QPSK	1 RB / 0 RB Offset
		132573			1 RB / 99 RB Offset
		132071, 132573			100 RB / 0 RB Offset

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
Condcudeted Emission	131979 to 132665	132322	1.4MHz	QPSK	1 RB / 0 RB Offset
	131986 to 132658	132322	3MHz	QPSK	1 RB / 0 RB Offset
	131996 to 132648	132322	5MHz	QPSK	1 RB / 0 RB Offset
	132021 to 132623	132322	10MHz	QPSK	1 RB / 0 RB Offset
	132046 to 132598	132322	15MHz	QPSK	1 RB / 0 RB Offset
	132071 to 132573	132322	20MHz	QPSK	1 RB / 0 RB Offset
Radiated Emission	131979 to 132665	132322	1.4MHz	QPSK	1 RB / 0 RB Offset
	131986 to 132658	132322	3MHz	QPSK	1 RB / 0 RB Offset
	131996 to 132648	132322	5MHz	QPSK	1 RB / 0 RB Offset
	132021 to 132623	132322	10MHz	QPSK	1 RB / 0 RB Offset
	132046 to 132598	132322	15MHz	QPSK	1 RB / 0 RB Offset
	132071 to 132573	132322	20MHz	QPSK	1 RB / 0 RB Offset

NOTE:
All supported modulation types were evaluated.The Worst case of QPSK was selected. Therefore, the Output power, Frequency Stability, Band Edge, Condcudeted Emission and Radiated Emission were presented under QPSK mode only.

Test Condition:

Test Item	Environmental Conditions	Input Power (System)	Tested By
EIRP	25deg. C, 63%RH	120Vac, 60Hz	Weiwei Lo
Frequency Stability	23deg. C, 68%RH	120Vac, 60Hz	Anson Lin
Occupied Bandwidth	23deg. C, 68%RH	120Vac, 60Hz	Anson Lin
Band Edge	23deg. C, 68%RH	120Vac, 60Hz	Anson Lin
Peak to Average Ratio	23deg. C, 68%RH	120Vac, 60Hz	Anson Lin
Condcudeted Emission	23deg. C, 68%RH	120Vac, 60Hz	Anson Lin
Radiated Emission Below 1GHz	25deg. C, 66%RH	120Vac, 60Hz	Weiwei Lo
Radiated Emission Above 1GHz	23deg. C, 68%RH	120Vac, 60Hz	Weiwei Lo

3.4 EUT Operating Conditions

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

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

FCC 47 CFR Part 2

FCC 47 CFR Part 27

KDB 971168 D01 Power Meas License Digital Systems v02r02

ANSI/TIA/EIA-603-D 2010

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

4 Test Types and Results

4.1 Output Power Measurement

4.1.1 Limits of Output Power Measurement

Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP. In the BRS and EBS Band, Mobile and other user stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power. For mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band, the average EIRP must not exceed 50 milliwatts within any 1 megahertz of authorized bandwidth, except that for mobile and portable stations compliant with 3GPP LTE standards or another advanced mobile broadband protocol that avoids concentrating energy at the edge of the operating band the average EIRP must not exceed 250 milliwatts within any 5 megahertz of authorized bandwidth but may exceed 50 milliwatts within any 1 megahertz of authorized bandwidth. For mobile and portable stations using time division duplexing (TDD) technology, the duty cycle must not exceed 38 percent in the 2305-2315 MHz and 2350-2360 MHz bands. Mobile and portable stations using FDD technology are restricted to transmitting in the 2305-2315 MHz band. Power averaging shall not include intervals in which the transmitter is off.

4.1.2 Test Procedures

Conducted Power Measurement:

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

EIRP / ERP Measurement:

a. All measurements were done at low, middle and high operational frequency range. RBW ≥OBW and VBW≥3xRBW.
b. Substitution method is used for EIRP measurement. In the semi-anechoic chamber, EUT placed on the 0.8m/1.5m 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.
c. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a tx cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to “Read Value“ of step b. Record the power level of S.G
d. EIRP = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.
e. ERP power can be calculated form EIRP power by subtracting the gain of dipole, ERP power = EIPR power - 2.15dBi.

EIRP Power Density Measurement (For LTE Band 30):

The testing follows FCC KDB 971168 v02r02 Section 5.3.

a. Set the analyzer center frequency to the OBW center frequency.
b. Set the span to 1.5 times the OBW bandwidth.
c. Set the RBW to the specified reference bandwidth (5 MHz).
d. Set the VBW ≥ 3 × RBW.
e. Set the number of points in sweep ≥ span / RBW.
f. Detector = peak.
g. Sweep time = auto couple.
h. Trace mode = max hold.
i. Allow trace to fully stabilize.
j. Use the peak marker function to determine the maximum amplitude level within the specified reference bandwidth (PSD).

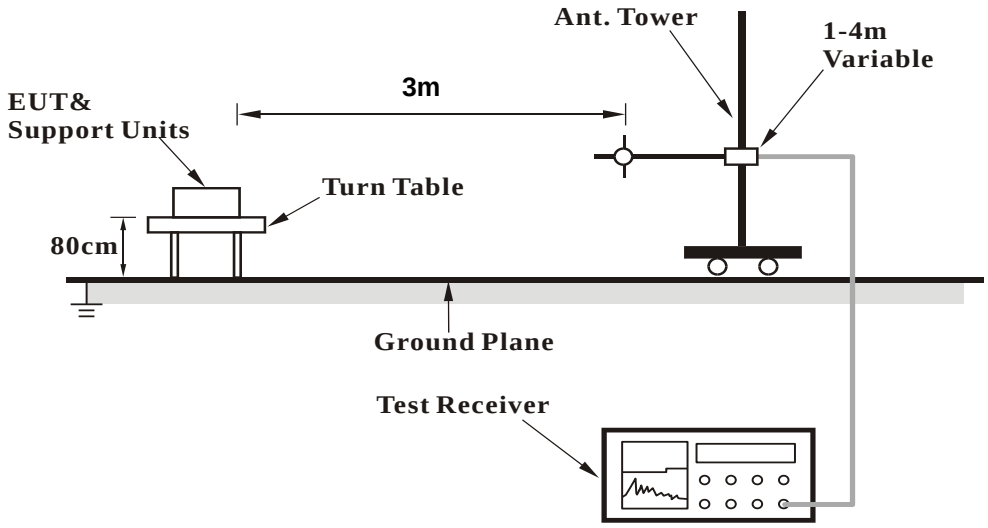
Note: The worst case vertical or horizontal polarization have been investigated and reported in this report

4.1.3 Test Setup

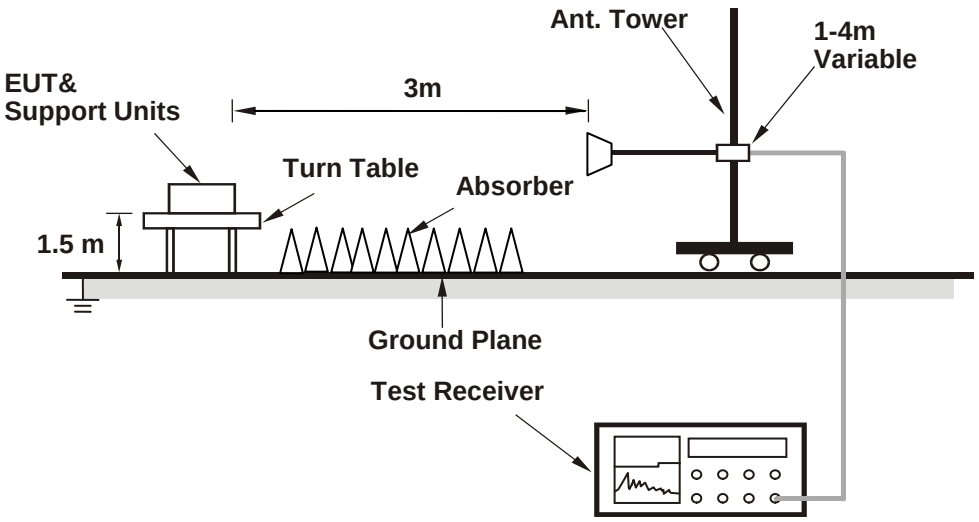
CONDUCTED POWER MEASUREMENT:

ERP/EIRP MEASUREMENT:

For ERP/EIRP below 1GHz



For ERP/EIRP above 1GHz



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

4.1.4 Test Results

CONDUCTED OUTPUT POWER (dBm)

(Subcontract Item)

Band	WCDMA B4		
Channel	1312	1413	1513
Frequency (MHz)	1712.4	1732.6	1752.6
RMC	24.64	24.67	24.49
HSDPA Subtest-1	23.74	23.76	23.60
HSDPA Subtest-2	23.69	23.73	23.51
HSDPA Subtest-3	23.27	23.29	23.18
HSDPA Subtest-4	23.20	23.27	23.09
HSUPA Subtest-1	23.68	23.72	23.46
HSUPA Subtest-2	21.80	21.85	21.68
HSUPA Subtest-3	22.75	22.80	22.69
HSUPA Subtest-4	21.77	21.80	21.63
HSUPA Subtest-5	23.77	23.80	23.69

LTE Band 4

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			19957	20175	20393		19957	20175	20393	
			1710.7	1732.5	1754.3		1710.7	1732.5	1754.3	
			MHz	MHz	MHz		MHz	MHz	MHz	
4 / 1.4M	1	0	24.07	24.28	24.07	0	23.12	23.34	23.12	1
	1	2	23.77	24.02	23.77	0	22.77	23.03	22.77	1
	1	5	23.60	23.88	23.60	0	22.59	22.92	22.59	1
	3	0	23.96	24.23	23.96	0	22.90	23.22	22.90	1
	3	1	23.65	24.00	23.65	0	22.60	22.97	22.60	1
	3	3	23.44	23.73	23.44	0	22.41	22.69	22.41	1
	6	0	22.94	23.18	22.85	1	21.99	22.15	21.91	2

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			19965	20175	20385		19965	20175	20385	
			1711.5	1732.5	1753.5		1711.5	1732.5	1753.5	
			MHz	MHz	MHz		MHz	MHz	MHz	
4 / 3M	1	0	24.10	24.33	24.10	0	23.15	23.39	23.15	1
	1	7	23.79	24.05	23.79	0	22.85	23.10	22.85	1
	1	14	23.66	23.93	23.66	0	22.67	22.99	22.67	1
	8	0	23.05	23.31	23.05	1	22.04	22.34	22.04	2
	8	3	22.75	23.09	22.75	1	21.72	22.07	21.72	2
	8	7	22.57	22.82	22.57	1	21.54	21.83	21.54	2
	15	0	22.98	23.28	22.90	1	21.87	22.28	22.13	2

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			19975	20175	20375		19975	20175	20375	
			1712.5	1732.5	1752.5		1712.5	1732.5	1752.5	
			MHz	MHz	MHz		MHz	MHz	MHz	
4 / 5M	1	0	24.15	24.37	24.15	0	23.21	23.44	23.21	1
	1	12	23.83	24.07	23.83	0	22.89	23.13	22.89	1
	1	24	23.70	23.95	23.70	0	22.74	23.01	22.74	1
	12	0	23.14	23.37	23.14	1	22.12	22.39	22.12	2
	12	6	22.88	23.16	22.88	1	21.86	22.16	21.86	2
	12	13	22.72	22.95	22.72	1	21.69	21.95	21.69	2
	25	0	23.02	23.33	23.07	1	21.95	22.34	22.16	2

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			20000	20175	20350		20000	20175	20350	
			1715	1732.5	1750		1715	1732.5	1750	
			MHz	MHz	MHz		MHz	MHz	MHz	
4 / 10M	1	0	24.23	24.44	24.23	0	23.25	23.48	23.25	1
	1	24	23.96	24.19	23.96	0	22.94	23.18	22.94	1
	1	49	23.85	24.09	23.85	0	22.84	23.06	22.84	1
	25	0	23.27	23.53	23.27	1	22.25	22.49	22.25	2
	25	12	23.03	23.29	23.03	1	21.97	22.28	21.97	2
	25	25	22.86	23.11	22.86	1	21.80	22.04	21.80	2
	50	0	23.32	23.49	23.19	1	22.09	22.45	22.14	2

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			20425	20525	20625		20425	20525	20625	
			826.5	836.5	846.5		826.5	836.5	846.5	
			MHz	MHz	MHz		MHz	MHz	MHz	
4 / 15M	1	0	24.27	24.49	24.27	0	23.32	23.54	23.32	1
	1	37	24.02	24.24	24.02	0	23.05	23.28	23.05	1
	1	74	23.91	24.13	23.91	0	22.95	23.17	22.95	1
	36	0	23.38	23.60	23.38	1	22.38	22.62	22.38	2
	36	19	23.17	23.40	23.17	1	22.13	22.40	22.13	2
	36	39	23.01	23.24	23.01	1	21.97	22.20	21.97	2
	75	0	23.33	23.57	23.44	1	22.43	22.57	22.26	2

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			20450	20525	20600		20450	20525	20600	
			829	836.5	844		829	836.5	844	
			MHz	MHz	MHz		MHz	MHz	MHz	
4 / 20M	1	0	24.33	24.54	24.33	0	23.37	23.59	23.37	1
	1	50	24.10	24.31	24.10	0	23.14	23.35	23.14	1
	1	99	24.00	24.21	24.00	0	23.03	23.25	23.03	1
	50	0	23.48	23.69	23.48	1	22.49	22.71	22.49	2
	50	25	23.29	23.50	23.29	1	22.27	22.51	22.27	2
	50	50	23.15	23.36	23.15	1	22.12	22.35	22.12	2
	100	0	23.38	23.66	23.40	1	22.36	22.67	22.44	2

LTE Band 7

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			20775	21100	21425		20775	21100	21425	
			2502.5	2535	2567.5		2502.5	2535	2567.5	
			MHz	MHz	MHz		MHz	MHz	MHz	
7 / 5M	1	0	23.89	24.12	24.07	0	22.91	23.17	23.09	1
	1	12	23.55	23.83	23.78	0	22.58	22.83	22.78	1
	1	24	23.44	23.72	23.67	0	22.52	22.71	22.60	1
	12	0	22.55	22.94	22.89	1	21.64	21.92	21.82	2
	12	6	22.47	22.80	22.74	1	21.48	21.76	21.70	2
	12	13	22.35	22.60	22.51	1	21.32	21.54	21.45	2
	25	0	22.60	22.82	22.66	1	21.45	21.79	21.65	2

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			20800	21100	21400		20800	21100	21400	
			2505	2535	2565		2505	2535	2565	
			MHz	MHz	MHz		MHz	MHz	MHz	
7 / 10M	1	0	23.97	24.17	24.14	0	22.99	23.22	23.18	1
	1	24	23.62	23.89	23.84	0	22.73	22.92	22.87	1
	1	49	23.57	23.80	23.72	0	22.49	22.82	22.76	1
	25	0	22.85	23.01	22.93	1	21.73	22.03	21.96	2
	25	12	22.59	22.88	22.81	1	21.61	21.88	21.80	2
	25	25	22.51	22.72	22.63	1	21.48	21.68	21.55	2
	50	0	22.74	22.91	22.85	1	21.64	21.90	21.78	2

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			20825	21100	21375		20825	21100	21375	
			2507.5	2535	2562.5		2507.5	2535	2562.5	
			MHz	MHz	MHz		MHz	MHz	MHz	
7 / 15M	1	0	24.01	24.22	24.19	0	23.05	23.27	23.24	1
	1	37	23.73	23.95	23.92	0	22.73	22.99	22.97	1
	1	74	23.65	23.88	23.83	0	22.62	22.92	22.86	1
	36	0	22.87	23.11	23.05	1	21.86	22.15	22.05	2
	36	19	22.78	23.00	22.90	1	21.65	22.01	21.89	2
	36	39	22.68	22.85	22.78	1	21.62	21.80	21.74	2
	75	0	22.73	23.02	22.92	1	21.86	22.03	21.99	2

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			20850	21100	21350		20850	21100	21350	
			2510	2535	2560		2510	2535	2560	
			MHz	MHz	MHz		MHz	MHz	MHz	
7 / 20M	1	0	24.07	24.27	24.24	0	23.12	23.32	23.29	1
	1	50	23.85	24.01	23.99	0	22.81	23.03	22.99	1
	1	99	23.70	23.95	23.91	0	22.75	22.97	22.89	1
	50	0	23.06	23.21	23.18	1	21.95	22.20	22.17	2
	50	25	22.88	23.11	23.02	1	21.81	22.08	22.01	2
	50	50	22.78	22.98	22.93	1	21.76	21.94	21.83	2
	100	0	22.91	23.12	23.05	1	21.81	22.09	22.00	2

LTE Band 12

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			23017	23095	23173		23017	23095	23173	
			699.7	707.5	715.3		699.7	707.5	715.3	
			MHz	MHz	MHz		MHz	MHz	MHz	
12 / 1.4M	1	0	23.67	23.81	23.56	0	22.71	22.88	22.57	1
	1	2	23.46	23.64	23.36	0	22.46	22.65	22.37	1
	1	5	23.40	23.58	23.27	0	22.39	22.60	22.23	1
	3	0	23.56	23.73	23.40	0	22.60	22.74	22.38	1
	3	1	23.46	23.69	23.34	0	22.42	22.67	22.32	1
	3	3	23.34	23.52	23.18	0	22.24	22.49	22.14	1
	6	0	22.51	22.73	22.29	1	21.60	21.74	21.27	2

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			23025	23095	23165		23025	23095	23165	
			700.5	707.5	714.5		700.5	707.5	714.5	
			MHz	MHz	MHz		MHz	MHz	MHz	
12 / 3M	1	0	23.73	23.87	23.64	0	22.77	22.93	22.67	1
	1	7	23.52	23.70	23.46	0	22.55	22.73	22.46	1
	1	14	23.44	23.65	23.35	0	22.43	22.68	22.35	1
	8	0	22.70	22.82	22.57	1	21.66	21.81	21.50	2
	8	3	22.60	22.77	22.48	1	21.53	21.74	21.37	2
	8	7	22.40	22.64	22.34	1	21.37	21.58	21.31	2
	15	0	22.67	22.82	22.48	1	21.65	21.81	21.47	2

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			23035	23095	23155		23035	23095	23155	
			701.5	707.5	713.5		701.5	707.5	713.5	
			MHz	MHz	MHz		MHz	MHz	MHz	
12 / 5M	1	0	23.79	23.93	23.68	0	22.81	22.97	22.73	1
	1	12	23.61	23.75	23.48	0	22.68	22.78	22.53	1
	1	24	23.54	23.70	23.37	0	22.57	22.74	22.46	1
	12	0	22.77	22.90	22.67	1	21.72	21.91	21.63	2
	12	6	22.69	22.86	22.59	1	21.67	21.86	21.52	2
	12	13	22.56	22.73	22.48	1	21.52	21.72	21.44	2
	25	0	22.74	22.90	22.66	1	21.80	21.91	21.60	2

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			23060	23095	23130		23060	23095	23130	
			704	707.5	711		704	707.5	711	
			MHz	MHz	MHz		MHz	MHz	MHz	
12 / 10M	1	0	23.84	23.98	23.76	0	22.88	22.97	22.79	1
	1	24	23.71	23.81	23.60	0	22.74	22.85	22.62	1
	1	49	23.62	23.77	23.51	0	22.63	22.81	22.48	1
	25	0	22.93	23.00	22.78	1	21.84	22.00	21.77	2
	25	12	22.80	22.97	22.72	1	21.79	21.97	21.68	2
	25	25	22.73	22.85	22.63	1	21.63	21.84	21.58	2
	50	0	22.90	23.00	22.75	1	21.85	22.00	21.77	2

LTE Band 13

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			23205	23230	23255		23205	23230	23255	
			779.5	782	784.5		779.5	782	784.5	
			MHz	MHz	MHz		MHz	MHz	MHz	
13 / 5M	1	0	23.43	23.66	23.44	0	22.47	22.71	22.48	1
	1	12	23.39	23.59	23.40	0	22.42	22.60	22.43	1
	1	24	23.21	23.40	23.29	0	22.23	22.39	22.31	1
	12	0	22.59	22.91	22.64	1	21.57	21.89	21.58	2
	12	6	22.52	22.77	22.53	1	21.48	21.76	21.49	2
	12	13	22.49	22.73	22.50	1	21.44	21.63	21.46	2
	25	0	22.54	22.77	22.55	1	21.50	21.76	21.53	2

Band / BW	RB Size	RB Offset	QPSK	3GPP MPR (dB)	16QAM	3GPP MPR (dB)
			Mid CH		Mid CH	
			23230		23230	
			782		782	
			MHz		MHz	
13 / 10M	1	0	23.82	0	22.87	1
	1	24	23.45	0	22.50	1
	1	49	23.12	0	22.16	1
	25	0	22.58	1	21.61	2
	25	12	22.45	1	21.48	2
	25	25	22.33	1	21.34	2
	50	0	22.17	1	21.17	2

LTE Band 17

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			23755	23790	23825		23755	23790	23825	
			706.5	710	713.5		706.5	710	713.5	
			MHz	MHz	MHz		MHz	MHz	MHz	
17 / 5M	1	0	23.05	23.33	23.22	0	22.04	22.38	22.23	1
	1	12	22.92	23.24	23.16	0	21.91	22.27	22.09	1
	1	24	22.89	23.16	22.99	0	21.82	22.17	21.95	1
	12	0	22.14	22.38	22.28	1	21.05	21.35	21.26	2
	12	6	22.05	22.35	22.22	1	20.97	21.32	21.17	2
	12	13	22.02	22.32	22.16	1	20.96	21.27	21.07	2
	25	0	22.16	22.39	22.24	1	21.09	21.37	21.24	2

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			23780	23790	23800		23780	23790	23800	
			709	710	711		709	710	711	
			MHz	MHz	MHz		MHz	MHz	MHz	
17 / 10M	1	0	23.11	23.38	23.27	0	22.13	22.43	22.31	1
	1	24	23.03	23.29	23.17	0	22.01	22.34	22.25	1
	1	49	22.97	23.21	23.04	0	21.94	22.24	22.14	1
	25	0	22.21	22.47	22.39	1	21.19	21.47	21.37	2
	25	12	22.18	22.45	22.33	1	21.14	21.44	21.31	2
	25	25	22.15	22.42	22.30	1	21.11	21.40	21.21	2
	50	0	22.24	22.48	22.36	1	21.23	21.49	21.37	2

LTE Band 30

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			27685	27710	27735		27685	27710	27735	
			2307.5	2310	2312.5		2307.5	2310	2312.5	
			MHz	MHz	MHz		MHz	MHz	MHz	
30 / 5M	1	0	24.88	24.80	24.81	0	23.92	23.84	23.85	1
	1	12	24.53	24.38	24.39	0	23.53	23.40	23.45	1
	1	24	24.08	24.00	24.03	0	23.15	23.00	23.03	1
	12	0	23.92	23.98	23.99	1	22.97	22.96	22.98	2
	12	6	23.95	23.87	23.90	1	22.96	22.83	22.86	2
	12	13	23.73	23.64	23.67	1	22.74	22.59	22.62	2
	25	0	23.97	23.90	23.93	1	22.92	22.86	22.89	2

Band / BW	RB Size	RB Offset	QPSK	3GPP MPR (dB)	16QAM	3GPP MPR (dB)
			Mid CH		Mid CH	
			27710		27710	
			2310		2310	
			MHz		MHz	
30 / 10M	1	0	24.98	0	24.03	1
	1	24	24.78	0	23.82	1
	1	49	24.65	0	23.67	1
	25	0	23.90	1	22.91	2
	25	12	23.88	1	22.88	2
	25	25	23.72	1	22.70	2
	50	0	23.69	1	22.66	2

LTE Band 38

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			37775	38000	38225		37775	38000	38225	
			2572.5	2595	2617.5		2572.5	2595	2617.5	
			MHz	MHz	MHz		MHz	MHz	MHz	
38 / 5M	1	0	24.59	24.74	24.55	23.64	23.79	23.59	1	0
	1	12	24.50	24.66	24.42	23.54	23.71	23.44	1	12
	1	24	24.18	24.29	24.04	23.18	23.29	23.04	1	24
	12	0	23.62	23.73	23.51	22.60	22.72	22.49	12	0
	12	6	23.48	23.67	23.39	22.46	22.66	22.36	12	6
	12	13	23.32	23.57	23.28	22.28	22.55	22.23	12	13
	25	0	23.42	23.62	23.36	22.39	22.60	22.33	25	0

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			37800	38000	38200		37800	38000	38200	
			2575	2595	2615		2575	2595	2615	
			MHz	MHz	MHz		MHz	MHz	MHz	
38 / 10M	1	0	23.73	23.87	23.64	0	22.77	22.93	22.67	1
	1	7	23.52	23.70	23.46	0	22.55	22.73	22.46	1
	1	14	23.44	23.65	23.35	0	22.43	22.68	22.35	1
	8	0	22.70	22.82	22.57	1	21.66	21.81	21.50	2
	8	3	22.60	22.77	22.48	1	21.53	21.74	21.37	2
	8	7	22.40	22.64	22.34	1	21.37	21.58	21.31	2
	15	0	22.67	22.82	22.48	1	21.65	21.81	21.47	2

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			37825	38000	38175		37825	38000	38175	
			2577.5	2595	2612.5		2577.5	2595	2612.5	
			MHz	MHz	MHz		MHz	MHz	MHz	
38 / 15M	1	0	24.72	24.84	24.68	23.74	23.89	23.69	1	0
	1	37	24.65	24.76	24.51	23.66	23.78	23.51	1	37
	1	74	24.36	24.45	24.26	23.36	23.45	23.25	1	74
	36	0	23.74	23.90	23.69	22.70	22.88	22.65	36	0
	36	19	23.72	23.85	23.63	22.68	22.82	22.59	36	19
	36	39	23.62	23.79	23.58	22.58	22.76	22.53	36	39
	75	0	23.69	23.82	23.60	22.65	22.79	22.55	75	0

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			37850	38000	38150		37850	38000	38150	
			2580	2595	2610		2580	2595	2610	
			MHz	MHz	MHz		MHz	MHz	MHz	
38 / 20M	1	0	24.77	24.89	24.73	23.82	23.94	23.78	1	0
	1	50	24.71	24.81	24.60	23.76	23.86	23.64	1	50
	1	99	24.44	24.51	24.33	23.48	23.55	23.37	1	99
	50	0	23.90	23.98	23.82	22.91	23.02	22.82	50	0
	50	25	23.81	23.94	23.76	22.80	22.97	22.73	50	25
	50	50	23.76	23.88	23.73	22.73	22.88	22.68	50	50
	100	0	23.78	23.91	23.74	22.76	22.93	22.71	100	0

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Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			39675	40620	41565		39675	40620	41565	
			2498.5	2593	2687.5		2498.5	2593	2687.5	
			MHz	MHz	MHz		MHz	MHz	MHz	
41/ 5M	1	0	23.93	24.64	24.36	0	22.97	23.69	23.40	1
	1	12	23.50	24.27	24.01	0	22.48	23.31	22.99	1
	1	24	23.26	24.09	23.75	0	22.40	23.10	22.81	1
	12	0	22.73	23.52	23.23	1	21.76	22.54	22.22	2
	12	6	22.66	23.47	23.16	1	21.63	22.50	22.14	2
	12	13	22.37	23.10	22.81	1	21.35	22.04	21.74	2
	25	0	22.49	23.31	22.95	1	21.40	22.29	21.88	2

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			39700	40620	41540		39700	40620	41540	
			2501	2593	2685		2501	2593	2685	
			MHz	MHz	MHz		MHz	MHz	MHz	
41/ 10M	1	0	24.01	24.69	24.41	0	23.03	23.74	23.46	1
	1	24	23.58	24.32	24.00	0	22.71	23.37	23.08	1
	1	49	23.43	24.14	23.90	0	22.39	23.19	22.86	1
	25	0	22.89	23.62	23.32	1	21.84	22.63	22.33	2
	25	12	22.75	23.56	23.25	1	21.70	22.59	22.22	2
	25	25	22.53	23.21	22.93	1	21.43	22.21	21.87	2
	50	0	22.63	23.40	23.10	1	21.63	22.40	22.07	2

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			39725	40620	41515		39725	40620	41515	
			2503.5	2593	2682.5		2503.5	2593	2682.5	
			MHz	MHz	MHz		MHz	MHz	MHz	
41/ 15M	1	0	24.05	24.74	24.45	0	23.09	23.79	23.51	1
	1	37	23.63	24.35	24.13	0	22.63	23.41	23.14	1
	1	74	23.51	24.19	23.90	0	22.54	23.23	22.95	1
	36	0	23.02	23.68	23.43	1	22.04	22.71	22.42	2
	36	19	22.96	23.64	23.37	1	21.92	22.67	22.32	2
	36	39	22.71	23.32	23.06	1	21.62	22.30	22.00	2
	75	0	22.88	23.48	23.25	1	21.80	22.47	22.17	2

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			39750	40620	41490		39750	40620	41490	
			2506	2593	2680		2506	2593	2680	
			MHz	MHz	MHz		MHz	MHz	MHz	
41/ 20M	1	0	24.14	24.79	24.52	0	23.16	23.84	23.57	1
	1	50	23.77	24.43	24.21	0	22.87	23.47	23.18	1
	1	99	23.69	24.27	24.03	0	22.68	23.30	23.07	1
	50	0	23.21	23.78	23.51	1	22.18	22.79	22.49	2
	50	25	23.06	23.75	23.45	1	22.00	22.76	22.47	2
	50	50	22.79	23.43	23.12	1	21.78	22.42	22.12	2
	100	0	22.96	23.59	23.34	1	21.83	22.59	22.35	2

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Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			131979	132322	132665		131979	132322	132665	
			1710.7	1745	1779.3		1710.7	1745	1779.3	
			MHz	MHz	MHz		MHz	MHz	MHz	
66 / 1.4M	1	0	24.63	24.75	24.57	0	23.68	23.80	23.63	1
	1	2	24.18	24.28	24.01	0	23.24	23.33	23.07	1
	1	5	23.42	23.51	23.29	0	22.45	22.52	22.28	1
	3	0	24.48	24.57	24.29	0	23.47	23.56	23.27	1
	3	1	23.92	24.06	23.85	0	22.92	23.08	22.84	1
	3	3	23.89	24.03	23.83	0	22.81	22.99	22.77	1
	6	0	22.77	22.88	22.69	1	21.69	21.86	21.53	2

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			131987	132322	132657		131987	132322	132657	
			1711.5	1745	1778.5		1711.5	1745	1778.5	
			MHz	MHz	MHz		MHz	MHz	MHz	
66 / 3M	1	0	24.69	24.78	24.63	0	23.73	23.84	23.69	1
	1	7	24.24	24.34	24.21	0	23.32	23.40	23.15	1
	1	14	23.49	23.60	23.38	0	22.57	22.66	22.39	1
	8	0	23.09	23.17	22.89	1	22.07	22.18	21.95	2
	8	3	22.62	22.71	22.56	1	21.56	21.70	21.52	2
	8	7	22.50	22.67	22.47	1	21.52	21.61	21.43	2
	15	0	22.88	23.00	22.80	1	21.88	21.98	21.73	2

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			131997	132322	132647		131997	132322	132647	
			1712.5	1745	1777.5		1712.5	1745	1777.5	
			MHz	MHz	MHz		MHz	MHz	MHz	
66 / 5M	1	0	24.75	24.85	24.70	0	23.79	23.89	23.74	1
	1	12	24.33	24.42	24.25	0	23.33	23.46	23.24	1
	1	24	23.56	23.69	23.44	0	22.57	22.69	22.44	1
	12	0	23.18	23.26	23.07	1	22.13	22.24	22.06	2
	12	6	22.72	22.89	22.69	1	21.66	21.79	21.63	2
	12	13	22.65	22.79	22.62	1	21.59	21.73	21.56	2
	25	0	23.04	23.10	22.82	1	21.92	22.02	21.79	2

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			132022	132322	132622		132022	132322	132622	
			1715	1745	1775		1715	1745	1775	
			MHz	MHz	MHz		MHz	MHz	MHz	
66 / 10M	1	0	24.81	24.90	24.77	0	23.84	23.95	23.79	1
	1	24	24.42	24.49	24.33	0	23.45	23.52	23.40	1
	1	49	23.67	23.76	23.60	0	22.69	22.80	22.64	1
	25	0	23.24	23.35	23.17	1	22.30	22.37	22.07	2
	25	12	22.88	22.98	22.79	1	21.82	21.92	21.75	2
	25	25	22.81	22.93	22.78	1	21.73	21.89	21.72	2
	50	0	23.07	23.19	22.96	1	22.11	22.18	22.01	2

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			132047	132322	132597		132047	132322	132597	
			1717.5	1745	1772.5		1717.5	1745	1772.5	
			MHz	MHz	MHz		MHz	MHz	MHz	
66 / 15M	1	0	24.84	24.93	24.80	0	23.91	24.00	23.88	1
	1	37	24.48	24.53	24.32	0	23.49	23.60	23.44	1
	1	74	23.75	23.82	23.58	0	22.81	22.87	22.74	1
	36	0	23.31	23.41	23.24	1	22.37	22.45	22.30	2
	36	19	23.01	23.06	22.95	1	21.93	22.07	21.89	2
	36	39	22.95	23.03	22.91	1	21.89	22.02	21.86	2
	75	0	23.18	23.27	23.08	1	22.21	22.28	22.11	2

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			132072	132322	132572		132072	132322	132572	
			1720	1745	1770		1720	1745	1770	
			MHz	MHz	MHz		MHz	MHz	MHz	
66 / 20M	1	0	24.91	25.00	24.88	0	23.96	24.05	23.92	1
	1	50	24.53	24.61	24.48	0	23.58	23.65	23.52	1
	1	99	23.83	23.92	23.81	0	22.86	22.96	22.82	1
	50	0	23.44	23.54	23.38	1	22.51	22.56	22.36	2
	50	25	23.14	23.21	23.08	1	22.09	22.21	22.04	2
	50	50	23.08	23.18	23.07	1	22.03	22.16	22.02	2
	100	0	23.35	23.40	23.24	1	22.32	22.41	22.18	2

EIRP / ERP POWER

WCDMA

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)
1312	1712.4	H	22.14	6.38	28.52	711.21
1413	1732.6	H	22.17	6.42	28.59	722.77
1513	1752.6	H	22.08	6.45	28.53	712.85

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 4 / 1.4M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)
19957	1710.7	H	21.13	6.38	27.51	563.64
20175	1732.5	H	21.23	6.42	27.65	582.10
20393	1754.3	H	20.89	6.45	27.34	542.00

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 4 / 3M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)
19965	1711.5	H	21.06	6.36	27.42	552.08
20175	1732.5	H	21.04	6.42	27.46	557.19
20385	1753.5	H	20.98	6.42	27.40	549.54

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 4 / 5M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)
19975	1712.5	H	21.25	6.38	27.63	579.43
20175	1732.5	H	21.31	6.42	27.73	592.93
20375	1752.5	H	20.83	6.45	27.28	534.56

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 4 / 10M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)
20000	1715	H	21.21	6.38	27.59	574.12
20175	1732.5	H	21.32	6.42	27.74	594.29
20393	1754.3	H	20.97	6.45	27.42	552.08

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 4 / 15M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)
20025	1717.5	H	21.17	6.39	27.56	570.16
20175	1732.5	H	21.19	6.42	27.61	576.77
20325	1747.5	H	21.08	6.44	27.52	564.94

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 4 / 20M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)
20050	1720	H	21.37	6.39	27.76	597.04
20175	1732.5	H	21.46	6.42	27.88	613.76
20300	1745	H	21.29	6.44	27.73	592.93

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 7 / 5M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)
20775	2502.5	H	20.63	6.65	27.28	534.56
21100	2535	H	20.85	6.68	27.53	566.24
21425	2567.5	H	20.51	6.71	27.22	527.23

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 7 / 10M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)
20800	2505	H	20.83	6.65	27.48	559.76
21100	2535	H	21.05	6.68	27.73	592.93
21400	2565	H	20.88	6.71	27.59	574.12

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 7 / 15M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)
20825	2507.5	H	20.76	6.66	27.42	552.08
21100	2535	H	20.93	6.68	27.61	576.77
21375	2562.5	H	20.81	6.71	27.52	564.94

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 7 / 20M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)
20850	2510	H	21.07	6.66	27.73	592.93
21100	2535	H	21.30	6.68	27.98	628.06
21350	2560	H	21.17	6.71	27.88	613.76

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 12 / 1.4M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	ERP(dBm)	ERP(mW)
23017	699.7	H	22.10	1.62	23.72	235.50
23095	707.5	H	22.44	1.50	23.94	247.74
23173	715.3	H	22.45	1.37	23.82	240.99

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 12 / 3M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	ERP(dBm)	ERP(mW)
23025	700.5	H	22.22	1.61	23.83	241.55
23095	707.5	H	22.57	1.50	24.07	255.27
23165	714.5	H	22.65	1.39	24.04	253.51

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 12 / 5M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	ERP(dBm)	ERP(mW)
23035	701.5	H	22.54	1.59	24.13	258.82
23095	707.5	H	22.67	1.50	24.17	261.22
23155	713.5	H	22.61	1.40	24.01	251.77

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 12 / 10M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	ERP(dBm)	ERP(mW)
23060	704	H	22.49	1.55	24.04	253.51
23095	707.5	H	22.87	1.50	24.37	273.53
23130	711	H	22.79	1.44	24.23	264.85

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 13 / 5M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	ERP(dBm)	ERP(mW)
23205	779.5	H	22.48	1.25	23.73	236.05
23230	782	H	22.65	1.29	23.94	247.74
23255	784.5	H	22.32	1.32	23.64	231.21

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 13 / 10M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	ERP(dBm)	ERP(mW)
23230	782	H	22.47	1.29	23.76	237.68

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 17 / 5M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	ERP(dBm)	ERP(mW)
23755	706.5	H	22.85	1.51	24.36	272.90
23790	710	H	24.00	1.46	25.46	351.56
23825	713.5	H	22.78	1.40	24.18	261.82

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 17 / 10M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	ERP(dBm)	ERP(mW)
23780	709	H	22.96	1.47	24.43	277.33
23790	710	H	24.00	1.46	25.46	351.56
23800	711	H	22.82	1.44	24.26	266.69

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 38 / 5M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)
37775	2572.5	H	21.79	6.72	28.51	709.58
38000	2595	H	22.38	6.74	29.12	816.58
38225	2617.5	H	22.33	6.76	29.09	810.96

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 38 / 10M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)
37800	2575	H	21.90	6.72	28.62	727.78
38000	2595	H	22.02	6.74	28.76	751.62
38200	2615	H	21.97	6.76	28.73	746.45

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 38 / 15M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)
37825	2577.5	H	21.39	6.72	28.11	647.14
38000	2595	H	21.87	6.74	28.61	726.11
38175	2612.5	H	21.76	6.76	28.52	710.72

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 38 / 20M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)
37850	2580	H	21.46	6.73	28.19	659.17
38000	2595	H	21.97	6.74	28.71	743.02
38150	2610	H	21.86	6.76	28.62	727.78

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 41 / 5M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)
39675	2498.5	H	20.83	6.65	27.48	559.76
40620	2593	H	21.68	6.74	28.42	695.02
41565	2687.5	H	21.48	6.83	28.31	677.64

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 41 / 10M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)
39700	2501	H	20.77	6.65	27.42	552.08
40620	2593	H	21.74	6.74	28.48	704.69
41540	2685	H	21.56	6.83	28.39	690.24

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 41 / 15M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)
39725	2503.5	H	20.77	6.65	27.42	552.08
40620	2593	H	21.41	6.74	28.15	653.13
41515	2682.5	H	21.05	6.83	27.88	613.76

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 41 / 20M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)
39750	2506	H	21.02	6.66	27.68	586.14
40620	2593	H	21.68	6.74	28.42	695.02
41490	2680	H	21.57	6.82	28.39	690.24

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 66 / 1.4M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)
131979	1710.7	H	21.18	6.38	27.56	570.16
132322	1745	H	21.32	6.44	27.76	597.04
132665	1779.3	H	21.23	6.50	27.73	592.93

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 66 / 3M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)
131986	1711.4	H	21.20	6.38	27.58	572.80
132322	1745	H	21.21	6.44	27.65	582.10
132658	1778.6	H	21.11	6.50	27.61	576.77

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 66 / 5M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)
131996	1712.4	H	21.31	6.38	27.69	587.49
132322	1745	H	21.32	6.44	27.76	597.04
132648	1777.6	H	21.23	6.50	27.73	592.93

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 66 / 10M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)
132021	1714.9	H	21.28	6.38	27.66	583.45
132322	1745	H	21.24	6.44	27.68	586.14
132623	1775.1	H	21.15	6.49	27.64	580.76

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 66 / 15M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)
132046	1717.4	H	21.01	6.39	27.40	549.54
132322	1745	H	21.44	6.44	27.88	613.76
132598	1772.6	H	21.30	6.49	27.79	601.17

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 66 / 20M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(mW)
132071	1719.9	H	21.15	6.39	27.54	567.54
132322	1745	H	21.14	6.44	27.58	572.80
132573	1770.1	H	21.08	6.48	27.56	570.16

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

EIRP Power Density

LTE Band 30 / 5M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm/5MHz)	Correction Factor(dB)	EIRP Power Density (dBm/5MHz)	EIRP Power Density (mW /5MHz)
27685	2307.5	H	12.98	6.75	19.73	93.97
27710	2310	H	13.20	6.74	19.94	98.62
27735	2312.5	H	13.33	6.74	19.07	80.72

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.

LTE Band 30 / 10M

Channel	Frequency (MHz)	Antenna Polarization	LVL (dBm/5MHz)	Correction Factor(dB)	EIRP Power Density (dBm/5MHz)	EIRP Power Density (mW /5MHz)
27710	2310	H	9.99	6.74	16.73	47.09

Note: The worst case vertical or horizontal polarization have been investigated and find the worst is horizontal.