FCC Test Report
(Spot Check: Part 27)

Report No.:	RF200109E02E-2
FCC ID:	2AQ68T99W175M
Original FCC ID:	2AQ68T99W175
Test Model:	T99W175M
Received Date:	May 29, 2020
Test Date:	Jul. 03 ~ Aug. 02, 2020
Issued Date:	Aug. 10, 2020
Applicant:	Hon Lin Technology Co., Ltd.
Address:	11F, No. 32, Jihu Rd., Neihu Dist., Taipei City 114, Taiwan R.O.C.
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location:	No.19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, Taiwan
FCC Registration / Designation Number:	788550 / TW0003

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Release Control Record

Issue No.	Description	Date Issued
RF200109E02E-2	Original release	Aug. 10, 2020

1 Certificate of Conformity

Product:	5G WWAN Module
Brand:	Foxconn
Test Model:	T99W175M
Sample Status:	Engineering Sample
Applicant:	Hon Lin Technology Co., Ltd.
Test Date:	Jul. 03 ~ Aug. 02, 2020
Standards:	FCC Part 27, Subpart C, D, F, L, M, 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:** Aug. 10, 2020

Pettie Chen / Senior Specialist

Approved by : Bruce Chen , **Date:** Aug. 10, 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 B17	LTE B7 / LTE B38 / LTE B41	LTE B30	LTE B66			
2.1046 27.50 (d)(4)	2.1046 27.50 (c)	2.1046 27.50 (b)	2.1046 27.50 (c)	2.1046 27.50 (h)(2)	2.1046 27.50 (a)(3)	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(g)	2.1053 27.53 (m)(4)(6)	2.1053 27.53 (a)(4)	2.1053 27.53(h)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -1.7dB at 91.86MHz.

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) (±)
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.04 dB
	30MHz ~ 200MHz	3.63 dB
	200MHz ~1000MHz	3.64 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. 07, 2019	Nov. 06, 2020
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-1169	Nov. 24, 2019	Nov. 23, 2020
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Nov. 24, 2019	Nov. 23, 2020
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-SM8000	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	5G WWAN Module		
Brand	Foxconn		
Test Model	T99W175M		
Status of EUT	Engineering Sample		
Power Supply Rating	5 Vdc (Host equipment) 3.135Vdc~3.63Vdc (Module)		
Modulation Type	WCDMA: BPSK, QPSK HSDPA: BPSK HSUPA: QPSK LTE: QPSK, 16QAM, 64QAM, 256QAM		
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 7	Channel Bandwidth 5MHz	2502.5MHz ~ 2567.5MHz
		Channel Bandwidth 10MHz	2505.0MHz ~ 2565.0MHz
		Channel Bandwidth 15MHz	2507.5MHz ~ 2562.5MHz
		Channel Bandwidth 20MHz	2510.0MHz ~ 2560.0MHz
	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
	LTE Band 17	Channel Bandwidth 5MHz	706.5MHz ~ 713.5MHz
		Channel Bandwidth 10MHz	709.0MHz ~ 711.0MHz
	LTE Band 30	Channel Bandwidth 5MHz	2307.5MHz ~ 2312.5MHz
		Channel Bandwidth 10MHz	2310.0MHz
	LTE Band 38	Channel Bandwidth 5MHz	2572.5MHz ~ 2617.5MHz
		Channel Bandwidth 10MHz	2575.0MHz ~ 2615.0MHz
		Channel Bandwidth 15MHz	2577.5MHz ~ 2612.5MHz
		Channel Bandwidth 20MHz	2580.0MHz ~ 2610.0MHz
	LTE Band 41	Channel Bandwidth 5MHz	2498.5MHz ~ 2687.5 MHz
		Channel Bandwidth 10MHz	2501.0MHz ~ 2685.0 MHz
		Channel Bandwidth 15MHz	2503.5MHz ~ 2682.5 MHz
		Channel Bandwidth 20MHz	2506.0MHz ~ 2680.0 MHz

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		574.116mW (27.59dBm)			
			QPSK	16QAM	64QAM	256QAM
	LTE Band 4	Channel Bandwidth 1.4MHz	610.942mW (27.86dBm)	509.331mW (27.07dBm)	387.258mW (25.88dBm)	337.287mW (25.28dBm)
		Channel Bandwidth 3MHz	606.736mW (27.83dBm)	544.503mW (27.36dBm)	385.478mW (25.86dBm)	334.965mW (25.25dBm)
		Channel Bandwidth 5MHz	615.177mW (27.89dBm)	519.996mW (27.16dBm)	389.045mW (25.90dBm)	341.193mW (25.33dBm)
		Channel Bandwidth 10MHz	598.412mW (27.77dBm)	555.904mW (27.45dBm)	408.319mW (26.11dBm)	335.738mW (25.26dBm)
		Channel Bandwidth 15MHz	587.489mW (27.69dBm)	512.861mW (27.10dBm)	400.867mW (26.03dBm)	342.768mW (25.35dBm)
		Channel Bandwidth 20MHz	590.201mW (27.71dBm)	526.017mW (27.21dBm)	401.791mW (26.04dBm)	334.965mW (25.25dBm)
	LTE Band 7	Channel Bandwidth 5MHz	666.807mW (28.24dBm)	575.440mW (27.60dBm)	505.825mW (27.04dBm)	435.512mW (26.39dBm)
		Channel Bandwidth 10MHz	695.024mW (28.42dBm)	557.186mW (27.46dBm)	506.991mW (27.05dBm)	435.512mW (26.39dBm)
		Channel Bandwidth 15MHz	690.240mW (28.39dBm)	619.441mW (27.92dBm)	494.311mW (26.94dBm)	441.570mW (26.45dBm)
		Channel Bandwidth 20MHz	677.642mW (28.31dBm)	580.764mW (27.64dBm)	503.501mW (27.02dBm)	429.536mW (26.33dBm)
	LTE Band 30	Channel Bandwidth 5MHz	208.930 mW/ 5MHz (23.2dBm/ 5MHz)	158.489 mW/ 5MHz (22.0dBm/ 5MHz)	125.893 mW/ 5MHz (21.0dBm/ 5MHz)	109.648 mW/ 5MHz (20.4dBm/ 5MHz)
		Channel Bandwidth 10MHz	199.526 mW/5MHz (23.0dBm/ 5MHz)	151.356 mW/5MHz (21.8dBm/ 5MHz)	128.825 mW/5MHz (21.1dBm/ 5MHz)	120.226 mW/5MHz (20.8dBm/ 5MHz)
	LTE Band 38	Channel Bandwidth 5MHz	711.214mW (28.52dBm)	615.177mW (27.89dBm)	495.450mW (26.95dBm)	393.550mW (25.95dBm)
		Channel Bandwidth 10MHz	714.496mW (28.54dBm)	628.058mW (27.98dBm)	523.600mW (27.19dBm)	414.000mW (26.17dBm)
		Channel Bandwidth 15MHz	719.449mW (28.57dBm)	623.735mW (27.95dBm)	506.991mW (27.05dBm)	411.150mW (26.14dBm)
		Channel Bandwidth 20MHz	732.825mW (28.65dBm)	651.628mW (28.14dBm)	524.807mW (27.20dBm)	404.576mW (26.07dBm)
	LTE Band 41	Channel Bandwidth 5MHz	1489.361mW (31.73dBm)	1273.503mW (31.05dBm)	1086.426mW (30.36dBm)	941.890mW (29.74dBm)
		Channel Bandwidth 10MHz	1475.707mW (31.69dBm)	1282.331mW (31.08dBm)	1205.036mW (30.81dBm)	984.011mW (29.93dBm)
		Channel Bandwidth 15MHz	1520.548mW (31.82dBm)	1261.828mW (31.01dBm)	1238.797mW (30.93dBm)	990.832mW (29.96dBm)
		Channel Bandwidth 20MHz	1531.087mW (31.85dBm)	1300.170mW (31.14dBm)	1342.765mW (31.28dBm)	1035.142mW (30.15dBm)

			QPSK	16QAM	64QAM	256QAM
Max. EIRP Power	LTE Band 66	Channel Bandwidth 1.4MHz	547.016mW (27.38dBm)	489.779mW (26.90dBm)	397.192mW (25.99dBm)	317.687mW (25.02dBm)
		Channel Bandwidth 3MHz	570.164mW (27.56dBm)	494.311mW (26.94dBm)	391.742mW (25.93dBm)	334.195mW (25.24dBm)
		Channel Bandwidth 5MHz	586.138mW (27.68dBm)	480.839mW (26.82dBm)	395.367mW (25.97dBm)	331.131mW (25.20dBm)
		Channel Bandwidth 10MHz	557.186mW (27.46dBm)	514.044mW (27.11dBm)	399.945mW (26.02dBm)	325.087mW (25.12dBm)
		Channel Bandwidth 15MHz	584.790mW (27.67dBm)	509.331mW (27.07dBm)	414.954mW (26.18dBm)	313.329mW (24.96dBm)
		Channel Bandwidth 20MHz	587.489mW (27.69dBm)	515.229mW (27.12dBm)	381.066mW (25.81dBm)	313.329mW (24.96dBm)
Max. ERP Power			QPSK	16QAM	64QAM	256QAM
	LTE Band 12	Channel Bandwidth 1.4MHz	386.367mW (25.87dBm)	338.065mW (25.29dBm)	244.906mW (23.89dBm)	209.894mW (23.22dBm)
		Channel Bandwidth 3MHz	387.258mW (25.88dBm)	316.957mW (25.01dBm)	250.035mW (23.98dBm)	220.800mW (23.44dBm)
		Channel Bandwidth 5MHz	385.478mW (25.86dBm)	355.631mW (25.51dBm)	244.906mW (23.89dBm)	208.449mW (23.19dBm)
		Channel Bandwidth 10MHz	403.645mW (26.06dBm)	330.370mW (25.19dBm)	260.016mW (24.15dBm)	217.270mW (23.37dBm)
	LTE Band 13	Channel Bandwidth 5MHz	414.954mW (26.18dBm)	356.451mW (25.52dBm)	251.768mW (24.01dBm)	213.304mW (23.29dBm)
		Channel Bandwidth 10MHz	412.098mW (26.15dBm)	374.111mW (25.73dBm)	249.459mW (23.97dBm)	221.309mW (23.45dBm)
	LTE Band 17	Channel Bandwidth 5MHz	397.192mW (25.99dBm)	358.096mW (25.54dBm)	242.661mW (23.85dBm)	204.644mW (23.11dBm)
		Channel Bandwidth 10MHz	400.867mW (26.03dBm)	332.660mW (25.22dBm)	241.546mW (23.83dBm)	206.538mW (23.15dBm)
	LTE Band 71	Channel Bandwidth 5MHz	346.737mW (25.40dBm)	311.172mW (24.93dBm)	248.886mW (23.96dBm)	205.589mW (23.13dBm)
		Channel Bandwidth 10MHz	349.945mW (25.44dBm)	334.965mW (25.25dBm)	250.035mW (23.98dBm)	207.014mW (23.16dBm)
		Channel Bandwidth 15MHz	379.315mW (25.79dBm)	334.965mW (25.25dBm)	257.040mW (24.10dBm)	198.609mW (22.98dBm)
		Channel Bandwidth 20MHz	370.681mW (25.69dBm)	309.742mW (24.91dBm)	244.906mW (23.89dBm)	196.789mW (22.94dBm)

Emission Designator	WCDMA Band 4		4M16F9W			
			QPSK	16QAM	64QAM	256QAM
	LTE Band 4	Channel Bandwidth 1.4MHz	1M09G7D	1M09D7W	1M09D7W	1M09D7W
		Channel Bandwidth 3MHz	2M70G7D	2M70D7W	2M70D7W	2M70D7W
		Channel Bandwidth 5MHz	4M49G7D	4M49D7W	4M49D7W	4M49D7W
		Channel Bandwidth 10MHz	8M96G7D	8M97D7W	8M96D7W	8M98D7W
		Channel Bandwidth 15MHz	13M5G7D	13M5D7W	13M4D7W	13M5D7W
		Channel Bandwidth 20MHz	17M9G7D	18M0D7W	18M0D7W	18M0D7W
	LTE Band 7	Channel Bandwidth 5MHz	4M49G7D	4M49D7W	4M49D7W	4M49D7W
		Channel Bandwidth 10MHz	8M96G7D	8M96D7W	8M95D7W	8M97D7W
		Channel Bandwidth 15MHz	13M5G7D	13M4D7W	13M4D7W	13M5D7W
		Channel Bandwidth 20MHz	17M9G7D	17M9D7W	17M9D7W	17M9D7W
	LTE Band 12	Channel Bandwidth 1.4MHz	1M09G7D	1M09D7W	1M09D7W	1M09D7W
		Channel Bandwidth 3MHz	2M70G7D	2M69D7W	2M70D7W	2M70D7W
		Channel Bandwidth 5MHz	4M49G7D	4M49D7W	4M49D7W	4M49D7W
		Channel Bandwidth 10MHz	8M96G7D	8M96D7W	8M95D7W	8M98D7W
	LTE Band 13	Channel Bandwidth 5MHz	4M49G7D	4M50D7W	4M50D7W	4M51D7W
		Channel Bandwidth 10MHz	8M97G7D	8M94D7W	8M94D7W	8M98D7W
	LTE Band 17	Channel Bandwidth 5MHz	4M49G7D	4M49D7W	4M49D7W	4M48D7W
		Channel Bandwidth 10MHz	8M95G7D	8M95D7W	8M94D7W	8M95D7W
	LTE Band 30	Channel Bandwidth 5MHz	4M49G7D	4M49D7W	4M49D7W	4M49D7W
		Channel Bandwidth 10MHz	8M96G7D	8M96D7W	8M95D7W	8M97D7W
	LTE Band 38	Channel Bandwidth 5MHz	4M49G7D	4M49D7W	4M49D7W	4M49D7W
		Channel Bandwidth 10MHz	8M96G7D	8M96D7W	8M97D7W	8M96D7W
		Channel Bandwidth 15MHz	13M5G7D	13M4D7W	13M4D7W	13M4D7W
		Channel Bandwidth 20MHz	17M9G7D	17M9D7W	17M9D7W	17M9D7W
	LTE Band 41	Channel Bandwidth 5MHz	4M49G7D	4M49D7W	4M49D7W	4M49D7W
		Channel Bandwidth 10MHz	8M96G7D	8M97D7W	8M96D7W	8M96D7W
		Channel Bandwidth 15MHz	13M5G7D	13M4D7W	13M4D7W	13M4D7W
		Channel Bandwidth 20MHz	17M9G7D	17M9D7W	17M9D7W	17M9D7W
	LTE Band 66	Channel Bandwidth 1.4MHz	1M09G7D	1M09D7W	1M09D7W	1M09D7W
		Channel Bandwidth 3MHz	2M70G7D	2M70D7W	2M70D7W	2M70D7W
		Channel Bandwidth 5MHz	4M49G7D	4M49D7W	4M49D7W	4M49D7W
		Channel Bandwidth 10MHz	8M96G7D	8M96D7W	8M95D7W	8M98D7W
		Channel Bandwidth 15MHz	13M5G7D	13M5D7W	13M5D7W	13M5D7W
		Channel Bandwidth 20MHz	18M0G7D	18M0D7W	18M0D7W	18M0D7W
	LTE Band 71	Channel Bandwidth 5MHz	4M49G7D	4M49D7W	4M50D7W	4M49D7W
		Channel Bandwidth 10MHz	8M97G7D	8M97D7W	8M97D7W	8M98D7W
		Channel Bandwidth 15MHz	13M5G7D	13M5D7W	13M4D7W	13M5D7W
		Channel Bandwidth 20MHz	17M9G7D	17M9D7W	17M9D7W	17M9D7W
Antenna Type	Refer to Note as below					
Antenna Connector	Refer to Note as below					
Accessory Device	NA					
Cable Supplied	NA					

Note:

1. This report is a supplementary report to the original BV CPS report no.: RF200109E02B-2. The difference compared with original report is only adding mmWave hardware, mmWave function is disabled by software. Exhibit prepared for FCC Spot Check Verification report, the format, test items and amount of spot-check test data are decided by applicant's engineering judgment, for more details please refer to declaration letter exhibit. Radiated emission and output power verification worst test refer to original report.
2. There are four Difference HW of T99W175M.

Brand	Model	HW
Foxconn	T99W175M	1. 3G+LTE+Sub6+mmWave+eSIM
		2. 3G+LTE+Sub6+mmWave+w/o eSIM
		3. 3G+LTE+Sub6+mmWave+eSIM+GNSS connector
		4. 3G+LTE+Sub6+mmWave+w/o eSIM+GNSS connector

*After pre-testing, “HW: 1. 3G+LTE+Sub6+mmWave+eSIM” is the worst for the final tests.

3. The following antennas were provided to the EUT.

Antenna No.	RF Chain No.	Brand	Model	Antenna Net Gain(dBi)	Frequency range (MHz)	Antenna Type	Connector Type
1		WHA YU	C107-511720-A	4.41	660~803	PCB	I-PEX
2		WHA YU	C107-511721-A	3.81 4.03	791~960 1447.9~1606	PCB	I-PEX
3		WHA YU	C107-511722-A	4.27 5.31	1710~2170 2500~2690	PCB	I-PEX
4		WHA YU	C107-511723-A	2.99 0.92	2300~2400 3500~3700	PCB	I-PEX
5		WHA YU	C107-511724-A	6.45	5150~5925	PCB	I-PEX
6		WHA YU	C107-511725-A	4.89	3400~3700	PCB	I-PEX
7		AVX	5000106-R1-X01	2.91	699~803	Monopole	I-PEX
8		AVX	5000107-R1-X01	2.59	791~960	Monopole	I-PEX
9		AVX	5000108-R1-X01	2.85	1427~1610	Monopole	I-PEX
10		AVX	5000109-R1-X01	2.23 2.94	1710~2200 5150~5925	Monopole	I-PEX
11		AVX	5000110-R1-X01	0.9	2300~2690	Monopole	I-PEX
12		AVX	5000111-R1-X01	0.87	3300~5000	Monopole	I-PEX

Antenna No.	RF Chain No.	Brand	Model	Antenna Net Gain(dBi)	Frequency range (MHz)	Antenna Type	Connector Type
13	Tx1/ Rx1	Ethertronics	5003806	0.4 -1.61 0.39 2.95 1.98 0.38 0.83 2.31	698-821 824-960 1425-1515 1710-2200 2300-2690 3300-4200 4400-5000 5150-5925	PIFA	I-PEX
	Rx2	Ethertronics	5003807	-2.24 -4.52 2.87 2.99 2.93 2.91 2.23 -0.85 -3.04	716-821 824-960 1425-1515 1557-1610 1805-2200 2300-2690 3300-4200 4400-5000 5150-5925	PIFA	I-PEX
	Tx2/ Rx3	Ethertronics	5003806	2.21 2.25 -0.45 2.6	1710-2200 2300-2690 3300-4200 4400-5000	PIFA	I-PEX
	Rx4	Ethertronics	5003700	1.38 2.87 0.6 -2.09	1805-2200 2300-2690 3300-4200 4400-5000	PIFA	I-PEX
14	Ant. 0 (TX/RX)	Master Wave	NA	2.4 2.2 2.9 2.9 2.9 NA	880~960 1020~2170 2545~2595 3565~3600 3900~4000 GPS	PCB	I-PEX
	Ant. 2 (TX/RX)	Master Wave	NA	NA 2.2 2.8 2.9 2.8 NA	880~960 1020~2170 2545~2595 3565~3600 3900~4000 GPS	PCB	I-PEX
	Ant. 1 (RX)	Master Wave	NA	NA 5.3 5.1 4.3 4.5 NA	880~960 1020~2170 2545~2595 3565~3600 3900~4000 GPS	PCB	I-PEX
	Ant. 3 (RX)	Master Wave	NA	1.3 6.8 3.7 6.4 6.2 3.7	880~960 1020~2170 2545~2595 3565~3600 3900~4000 GPS	PCB	I-PEX

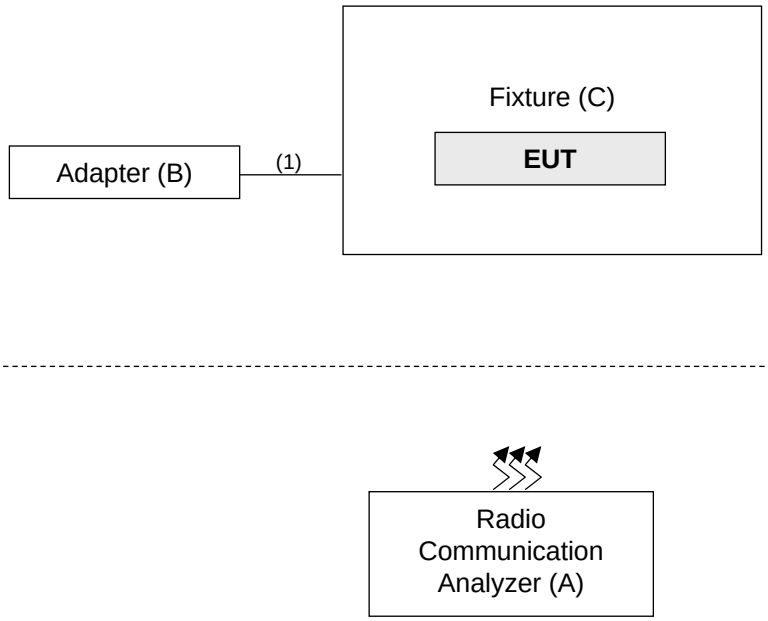
*The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

*The antenna for the final tests as following table.

	Band	Antenna
WCDMA	2	Antenna 3
	4	Antenna 3
	5	Antenna 2
LTE	2	Antenna 3
	4	Antenna 3
	5	Antenna 2
	7	Antenna 3
	12	Antenna 1
	13	Antenna 1
	14	Antenna 1
	17	Antenna 1
	25	Antenna 3
	26	Antenna 2
	30	Antenna 4
	66	Antenna 3
	71	Antenna 1
	38	Antenna 3
	41	Antenna 3
	42	Antenna 4
	48	Antenna 4

*The max. gain of each band is chosen for the final tests. Only the antenna no. 4 is for band 30 requested by client.

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.	Adapter	LITEON	PA-1050-39	NA	NA	-
C.	Fixture	NA	NA	NA	NA	Provided by client.

Note:

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

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	USB cable	1	1.5	Y	0	-

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 Z-plane. 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	1513(1752.6MHz)	WCDMA
-	Radiated Emission Above 1GHz	1312 to 1513	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 / 64QAM / 256QAM	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 / 64QAM / 256QAM	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 / 64QAM / 256QAM	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 / 64QAM / 256QAM	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 / 64QAM / 256QAM	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 / 64QAM / 256QAM	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	19975 to 20375	19975(1712.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	19975 to 20375	19975(1712.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset

LTE Band 7

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	EIRP	20775 to 21425	20775 (2502.5MHz), 21100 (2535.0MHz), 21425 (2567.5MHz)	5 MHz	QPSK / 16QAM / 64QAM / 256QAM	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
		20800 to 21400	20800 (2505.0MHz), 21100 (2535.0MHz), 21400 (2565.0MHz)	10 MHz	QPSK / 16QAM / 64QAM / 256QAM	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
		20825 to 21375	20825 (2507.5MHz), 21100 (2535.0MHz), 21375 (2562.5MHz)	15 MHz	QPSK / 16QAM / 64QAM / 256QAM	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
		20850 to 21350	20850 (2510.0MHz), 21100 (2535.0MHz), 21350 (2560.0MHz)	20 MHz	QPSK / 16QAM / 64QAM / 256QAM	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	20800 to 21400	21400 (2565.0MHz)	10 MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	20800 to 21400	21400 (2565.0MHz)	10 MHz	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 / 64QAM / 256QAM	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 / 64QAM / 256QAM	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 / 64QAM / 256QAM	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 / 64QAM / 256QAM	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	23060(704.0MHz)	10MHz	QPSK	1 RB / 49 RB Offset
-	Radiated Emission Above 1GHz	23060 to 23130	23060(704.0MHz)	10MHz	QPSK	1 RB / 49 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 / 64QAM / 256QAM	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 / 64QAM / 256QAM	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	23205 to 23255	23230(782.0MHz)	5MHz	QPSK	1 RB / 24 RB Offset
-	Radiated Emission Above 1GHz	23205 to 23255	23230(782.0MHz)	5MHz	QPSK	1 RB / 24 RB Offset

LTE Band 17

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	ERP	23755 to 23825	23755(706.5MHz), 23790(710.0MHz), 23825(713.5MHz)	5MHz	QPSK / 16QAM / 64QAM / 256QAM	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
		23780 to 23800	23780(709.0MHz), 23790(710.0MHz), 23800(711.0MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM	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	23780 to 23800	23800(711.0MHz)	10MHz	QPSK	1 RB / 49 RB Offset
-	Radiated Emission Above 1GHz	23780 to 23800	23800(711.0MHz)	10MHz	QPSK	1 RB / 49 RB Offset

LTE Band 30

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	EIRP	27685 to 27735	27685 (2307.5MHz), 27710 (2310.0MHz), 27735 (2312.5MHz)	5MHz	QPSK / 16QAM / 64QAM / 256QAM	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
		27710	27710 (2310.0MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM	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	27685 to 27735	27710 (2310.0MHz)	5MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	27685 to 27735	27710 (2310.0MHz)	5MHz	QPSK	1 RB / 0 RB Offset

LTE Band 38

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	EIRP	37775 to 38225	37775(2572.5MHz), 38000(2595.0MHz), 38225(2617.5MHz)	5MHz	QPSK / 16QAM / 64QAM / 256QAM	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
		37800 to 38200	37800(2575.0MHz), 38000(2595.0MHz), 38200(2615.0MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM	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
		37825 to 38175	37825(2577.5MHz), 38000(2595.0MHz), 38175(2612.5MHz)	15MHz	QPSK / 16QAM / 64QAM / 256QAM	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
		37850 to 38150	37850(2580.0MHz), 38000(2595.0MHz), 38150(2610.0MHz)	20MHz	QPSK / 16QAM / 64QAM / 256QAM	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	37850 to 38150	38000(2595.0MHz)	20MHz	QPSK	1 RB / 99 RB Offse
-	Radiated Emission Above 1GHz	37850 to 38150	38000(2595.0MHz)	20MHz	QPSK	1 RB / 99 RB Offse

LTE Band 41

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	EIRP	39675 to 41565	39675 (2498.5MHz), 40620 (2593.0MHz), 41565 (2687.5MHz)	5MHz	QPSK / 16QAM / 64QAM / 256QAM	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
		39700 to 41540	39700 (2501.0MHz), 40620 (2593.0MHz), 41540 (2685.0MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM	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
		39725 to 41515	39725 (2503.5MHz), 40620 (2593.0MHz), 41515 (2682.5MHz)	15MHz	QPSK / 16QAM / 64QAM / 256QAM	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
		39750 to 41490	39750 (2506.0MHz), 40620 (2593.0MHz), 41490 (2680.0MHz)	20MHz	QPSK / 16QAM / 64QAM / 256QAM	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	39750 to 41490	40620 (2593.0MHz)	20MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	39750 to 41490	40620 (2593.0MHz)	20MHz	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 / 64QAM / 256QAM	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 / 64QAM / 256QAM	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 / 64QAM / 256QAM	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 / 64QAM / 256QAM	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 / 64QAM / 256QAM	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 / 64QAM / 256QAM	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	132072 to 132572	132322 (1745.0MHz)	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 / 64QAM / 256QAM	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 / 64QAM / 256QAM	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 / 64QAM / 256QAM	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 / 64QAM / 256QAM	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	133197 to 133397	133297 (680.5MHz)	15 MHz	QPSK	1 RB / 74 RB Offset
-	Radiated Emission Above 1GHz	133197 to 133397	133297 (680.5MHz)	15 MHz	QPSK	1 RB / 74 RB Offset

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
EIRP / ERP	25deg. C, 70%RH	5Vdc	James Yang
Radiated Emission	22deg. C, 66%RH	120Vac, 60Hz	Greg Lin

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 17, 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.

LTE Band 30:
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.

LTE Band 7, LTE Band 38, LTE Band 41:
Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

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.

Maximum EIRP

For all bands except LTE Band 30:

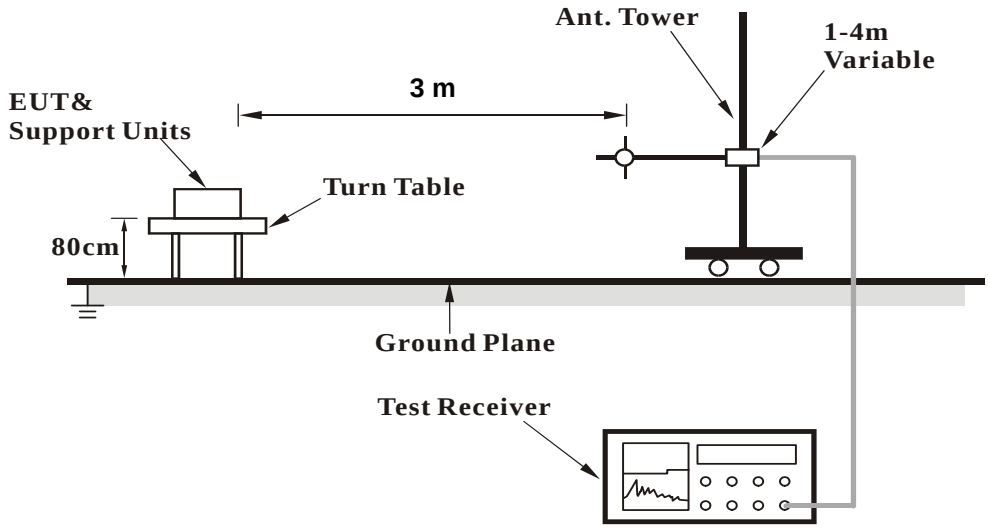
The relevant equation for determining the maximum ERP or EIRP from the measured RF output power is given in Equation as follows:
ERP or EIRP = $P_{Meas} + G_T$
where
ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively
(expressed in the same units as P_{Meas}, e.g., dBm or dBW)
P_{Meas} measured transmitter output power or PSD, in dBm or dBW
G_T gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP)

EIRP Measurement for LTE Band 30:

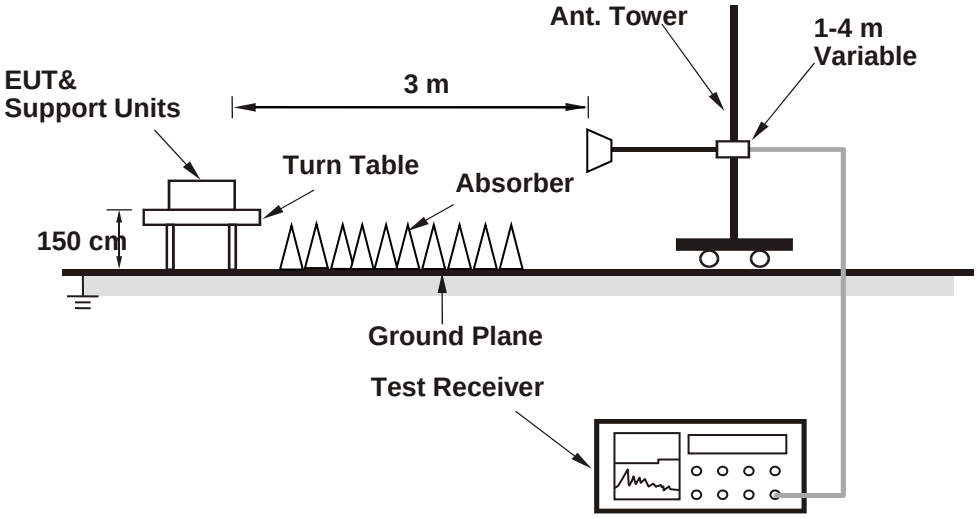
a. All measurements were done at low, middle and high operational frequency range. RBW and VBW= 5MHz for LTE mode.
b. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m (below or equal 1 GHz) and/or 1.5 m (above 1 GHz) height of Turn Table, rotated 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 1 m to 4 m 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.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, E.R.P power = E.I.R.P power - 2.15 dB.

4.1.3 Test Setup

EIRP Measurement for LTE Band 30:
<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).

Conducted Power Measurement:

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

4.1.4 Test Results

Conducted Output Power (dBm)

Band	WCDMA IV		
Channel	1312	1413	1513
Frequency	1712.4	1732.6	1752.6
RMC 12.2K	23.08	23.05	**23.32**
HSDPA Subtest-1	22.03	21.96	21.89
HSDPA Subtest-2	21.78	21.98	21.98
HSDPA Subtest-3	21.88	22.02	21.92
HSDPA Subtest-4	21.76	21.83	21.82
HSUPA Subtest-1	21.20	21.04	21.04
HSUPA Subtest-2	20.89	20.97	21.14
HSUPA Subtest-3	21.00	20.99	20.96
HSUPA Subtest-4	20.95	20.91	21.16

LTE Band 4						
BW	MCS Index	Channel		19957	20175	20393
		Frequency (MHz)		1710.7	1732.5	1754.3
1.4M	QPSK	1	0	23.36	23.37	23.04
		1	2	**23.59**	23.44	23.12
		1	5	23.34	23.45	23.19
		3	0	23.52	23.40	23.16
		3	1	23.49	23.48	23.35
		3	3	23.57	23.30	23.11
		6	0	22.59	22.34	22.26
	16QAM	1	0	22.52	22.79	22.73
		1	2	22.65	**22.80**	22.19
		1	5	22.62	22.68	22.09
		3	0	22.59	22.29	22.44
		3	1	22.43	22.36	22.43
		3	3	22.50	22.36	22.23
		6	0	21.55	21.47	21.19
	64QAM	1	0	21.23	21.20	21.46
		1	2	21.24	21.20	21.45
		1	5	21.17	21.25	**21.61**
		3	0	21.19	21.22	20.99
		3	1	21.23	21.26	20.94
		3	3	21.15	21.27	20.99
		6	0	19.96	20.24	19.98
	256QAM	1	0	20.77	20.73	20.88
		1	2	20.94	20.78	20.76
		1	5	20.74	**21.01**	20.68
		3	0	20.51	20.63	20.47
		3	1	20.62	20.45	20.76
		3	3	20.82	21.00	20.51
		6	0	20.69	20.48	20.58

LTE Band 4						
BW	MCS Index	Channel		19965	20175	20385
		Frequency (MHz)		1711.5	1732.5	1753.5
3M	QPSK	1	0	23.51	23.47	23.35
		1	7	23.44	23.47	**23.56**
		1	14	23.54	23.53	23.38
		8	0	22.75	22.49	22.33
		8	3	22.64	22.52	22.27
		8	7	22.65	22.41	22.30
		15	0	22.60	22.59	22.45
	16QAM	1	0	22.85	23.08	22.33
		1	7	22.87	22.94	22.27
		1	14	22.93	**23.09**	22.21
		8	0	21.70	21.60	21.44
		8	3	21.75	21.60	21.58
		8	7	21.72	21.60	21.48
		15	0	21.63	21.71	21.40
	64QAM	1	0	21.28	21.16	**21.59**
		1	7	21.26	21.16	21.56
		1	14	21.32	21.31	21.55
		8	0	20.34	20.07	20.23
		8	3	20.34	20.23	20.02
		8	7	20.22	20.12	20.11
		15	0	20.07	20.16	20.01
	256QAM	1	0	20.72	20.41	20.53
		1	7	20.58	20.42	20.63
		1	14	20.96	20.81	20.68
		8	0	20.76	20.90	20.62
		8	3	20.57	20.79	20.73
		8	7	**20.98**	20.43	20.57
		15	0	20.67	20.40	20.59

LTE Band 4						
BW	MCS Index	Channel		19975	20175	20375
		Frequency (MHz)		1712.5	1732.5	1752.5
5M	QPSK	1	0	23.56	23.43	23.06
		1	12	**23.62**	23.48	23.37
		1	24	23.52	23.52	23.27
		12	0	22.63	22.48	22.31
		12	6	22.48	22.49	22.27
		12	13	22.49	22.56	22.28
		25	0	22.59	22.34	22.32
	16QAM	1	0	22.53	22.45	22.75
		1	12	22.68	22.37	22.75
		1	24	22.53	22.45	**22.89**
		12	0	21.65	21.36	21.26
		12	6	21.54	21.51	21.34
		12	13	21.55	21.56	21.27
		25	0	21.57	21.38	21.37
	64QAM	1	0	21.15	21.16	21.57
		1	12	21.05	21.29	**21.63**
		1	24	21.21	21.23	21.60
		12	0	20.15	20.12	19.95
		12	6	20.07	20.17	20.04
		12	13	20.18	20.27	20.12
		25	0	20.13	20.23	20.07
	256QAM	1	0	20.65	20.86	20.60
		1	12	20.52	20.73	20.83
		1	24	20.54	**21.06**	20.70
		12	0	20.69	20.96	20.36
		12	6	20.67	20.98	20.50
		12	13	20.85	21.04	20.74
		25	0	20.81	20.72	20.58

LTE Band 4						
BW	MCS Index	Channel		20000	20175	20350
		Frequency (MHz)		1715	1732.5	1750
10M	QPSK	1	0	23.44	23.32	23.34
		1	24	**23.50**	23.16	23.38
		1	49	23.45	23.26	23.21
		25	0	22.56	22.35	22.24
		25	12	22.49	22.62	22.41
		25	25	22.56	22.44	22.41
		50	0	22.53	22.41	22.40
	16QAM	1	0	23.14	22.67	22.77
		1	24	23.09	22.77	22.75
		1	49	**23.18**	22.51	22.89
		25	0	21.59	21.59	21.34
		25	12	21.55	21.46	21.19
		25	25	21.66	21.29	21.40
		50	0	21.74	21.42	21.19
	64QAM	1	0	21.25	21.58	21.70
		1	24	**21.84**	21.45	21.38
		1	49	21.32	21.27	21.24
		25	0	20.20	20.10	19.90
		25	12	20.16	20.25	20.11
		25	25	20.03	20.37	19.98
		50	0	20.11	20.20	20.18
	256QAM	1	0	20.76	20.94	20.65
		1	24	20.62	20.60	20.72
		1	49	20.51	20.42	20.46
		25	0	**20.99**	20.70	20.63
		25	12	20.75	20.44	20.52
		25	25	20.98	20.62	20.55
		50	0	20.73	20.61	20.92

LTE Band 4						
BW	MCS Index	Channel		20025	20175	20325
		Frequency (MHz)		1717.5	1732.5	1747.5
15M	QPSK	1	0	23.32	23.31	22.73
		1	37	23.32	**23.42**	23.18
		1	74	23.34	23.25	23.32
		36	0	22.44	22.45	22.35
		36	19	22.59	22.49	22.35
		36	39	22.40	22.48	22.37
		75	0	22.33	22.46	22.25
	16QAM	1	0	22.59	**22.83**	21.88
		1	37	22.50	22.65	22.24
		1	74	22.37	22.78	22.00
		36	0	21.42	21.37	21.11
		36	19	21.38	21.48	21.23
		36	39	21.53	21.35	21.48
		75	0	21.42	21.39	21.41
	64QAM	1	0	21.40	21.40	**21.76**
		1	37	21.25	21.45	21.44
		1	74	**21.76**	21.59	21.66
		36	0	20.43	20.28	20.19
		36	19	20.41	20.39	20.18
		36	39	20.28	20.37	20.30
		75	0	20.43	20.45	20.40
	256QAM	1	0	20.92	**21.08**	20.80
		1	37	20.71	20.58	20.74
		1	74	20.61	20.88	20.72
		36	0	20.78	20.98	20.81
		36	19	20.73	20.90	20.64
		36	39	20.75	20.42	20.89
		75	0	20.73	20.41	20.86

LTE Band 4						
BW	MCS Index	Channel		20050	20175	20300
		Frequency (MHz)		1720	1732.5	1745
20M	QPSK	1	0	23.31	23.23	**23.44**
		1	50	22.91	23.32	23.21
		1	99	23.20	23.16	23.31
		50	0	22.30	22.32	22.30
		50	25	22.43	22.48	22.28
		50	50	22.51	22.33	22.53
		100	0	22.41	22.35	22.15
	16QAM	1	0	22.76	22.61	22.50
		1	50	22.91	22.63	22.24
		1	99	**22.94**	22.51	22.34
		50	0	21.37	21.45	21.26
		50	25	21.35	21.32	21.12
		50	50	21.35	21.43	21.38
		100	0	21.47	21.37	21.36
	64QAM	1	0	21.60	21.30	**21.77**
		1	50	21.20	21.35	21.72
		1	99	21.40	21.21	21.72
		50	0	20.15	20.31	19.86
		50	25	20.29	20.26	20.21
		50	50	20.32	20.50	20.36
		100	0	20.38	20.30	20.12
	256QAM	1	0	20.62	20.59	20.61
		1	50	20.73	20.77	20.59
		1	99	20.52	20.77	20.78
		50	0	20.48	20.83	20.45
		50	25	20.61	20.63	20.59
		50	50	**20.98**	20.66	20.63
		100	0	20.86	20.45	20.59

LTE Band 7						
BW	MCS Index	Channel		20775	21100	21425
		Frequency (MHz)		2502.5	2535	2567.5
5M	QPSK	1	0	22.38	22.42	**22.93**
		1	12	22.38	22.59	22.81
		1	24	22.48	22.64	22.46
		12	0	21.49	21.67	22.00
		12	6	21.50	21.59	22.00
		12	13	21.36	21.83	21.71
		25	0	21.40	21.88	21.67
	16QAM	1	0	21.56	21.96	22.14
		1	12	21.63	22.12	22.11
		1	24	21.76	**22.29**	21.62
		12	0	20.53	20.73	21.16
		12	6	20.61	20.85	21.00
		12	13	20.43	20.87	20.81
		25	0	20.50	20.87	20.96
	64QAM	1	0	21.31	21.35	21.34
		1	12	21.68	**21.73**	21.41
		1	24	21.41	21.37	21.64
		12	0	20.22	20.17	19.89
		12	6	20.17	20.20	19.95
		12	13	20.16	20.23	20.13
		25	0	20.02	20.12	20.11
	256QAM	1	0	**21.08**	20.39	20.27
		1	12	20.65	20.71	20.51
		1	24	20.35	20.54	20.93
		12	0	20.53	20.31	20.55
		12	6	20.50	21.03	20.79
		12	13	20.90	20.80	20.48
		25	0	20.73	20.52	20.57

LTE Band 7						
BW	MCS Index	Channel		20800	21100	21400
		Frequency (MHz)		2505	2535	2565
10M	QPSK	1	0	22.17	22.43	**23.11**
		1	24	22.38	22.62	22.97
		1	49	22.26	22.70	23.00
		25	0	21.36	21.89	22.03
		25	12	21.48	21.91	22.09
		25	25	21.56	21.64	22.11
		50	0	21.55	21.71	22.13
	16QAM	1	0	21.83	21.58	22.10
		1	24	21.81	**22.15**	21.94
		1	49	21.91	21.76	22.08
		25	0	20.27	20.66	21.01
		25	12	20.51	20.97	21.09
		25	25	20.55	20.88	20.98
		50	0	20.42	20.90	20.95
	64QAM	1	0	21.46	21.32	21.20
		1	24	**21.74**	**21.74**	21.32
		1	49	21.45	21.44	21.66
		25	0	20.24	20.05	19.91
		25	12	19.92	20.23	20.05
		25	25	20.14	20.12	20.09
		50	0	20.18	20.06	20.14
	256QAM	1	0	21.04	20.49	20.20
		1	24	20.60	20.55	20.67
		1	49	20.39	20.70	20.89
		25	0	**21.08**	20.47	20.87
		25	12	20.58	20.56	20.82
		25	25	20.87	20.46	20.96
		50	0	20.87	20.58	20.74

LTE Band 7						
BW	MCS Index	Channel		20825	21100	21375
		Frequency (MHz)		2507.5	2535	2562.5
15M	QPSK	1	0	22.10	22.83	23.03
		1	37	22.52	22.86	**23.08**
		1	74	22.59	23.01	22.74
		36	0	21.44	21.85	21.83
		36	19	21.68	21.98	22.11
		36	39	21.43	22.08	22.01
		75	0	21.19	21.92	21.96
	16QAM	1	0	21.54	21.68	22.23
		1	37	22.18	21.76	22.31
		1	74	22.14	22.20	**22.61**
		36	0	20.43	20.89	20.85
		36	19	20.59	20.97	21.15
		36	39	20.56	21.14	21.12
		75	0	20.39	20.96	20.98
	64QAM	1	0	21.41	21.37	21.36
		1	37	21.19	21.27	21.18
		1	74	21.20	21.46	**21.63**
		36	0	20.31	20.35	20.10
		36	19	20.31	20.40	20.26
		36	39	20.28	20.44	20.40
		75	0	20.32	20.27	19.93
	256QAM	1	0	20.67	20.38	20.78
		1	37	20.57	20.56	20.72
		1	74	20.55	20.90	20.51
		36	0	20.96	20.81	20.68
		36	19	21.11	20.75	20.47
		36	39	20.63	20.39	20.57
		75	0	20.89	20.59	**21.14**

LTE Band 7						
BW	MCS Index	Channel		20850	21100	21350
		Frequency (MHz)		2510	2535	2560
20M	QPSK	1	0	22.50	22.44	**23.00**
		1	50	22.52	22.81	22.89
		1	99	22.68	22.94	22.94
		50	0	22.27	21.74	21.74
		50	25	22.29	21.86	22.12
		50	50	22.59	21.99	21.69
		100	0	21.65	21.79	21.74
	16QAM	1	0	22.15	21.89	22.23
		1	50	22.05	22.11	22.23
		1	99	22.18	**22.33**	21.63
		50	0	20.65	20.75	21.03
		50	25	20.82	20.93	20.99
		50	50	20.81	21.17	20.35
		100	0	20.67	20.97	20.66
	64QAM	1	0	21.42	21.48	21.16
		1	50	21.25	21.09	21.31
		1	99	21.33	21.45	**21.71**
		50	0	20.38	20.46	20.07
		50	25	20.27	20.27	20.26
		50	50	20.37	20.46	20.30
		100	0	20.24	20.23	19.83
	256QAM	1	0	20.69	20.66	20.25
		1	50	21.01	20.40	20.36
		1	99	20.95	20.74	20.76
		50	0	20.85	20.35	20.90
		50	25	20.82	**21.02**	20.25
		50	50	20.50	20.56	20.64
		100	0	20.53	20.82	20.90

LTE Band 12						
BW	MCS Index	Channel		23017	23095	23173
		Frequency (MHz)		699.7	707.5	715.3
1.4M	QPSK	1	0	22.93	23.41	23.34
		1	2	22.75	**23.61**	23.22
		1	5	23.07	23.29	23.03
		3	0	23.01	23.25	23.27
		3	1	22.98	23.39	22.98
		3	3	23.05	23.35	23.02
		6	0	21.88	22.61	22.22
	16QAM	1	0	22.16	22.91	22.03
		1	2	22.40	22.99	22.23
		1	5	22.37	**23.03**	22.13
		3	0	22.18	22.37	22.23
		3	1	22.04	22.45	22.27
		3	3	22.12	22.50	22.13
		6	0	21.33	21.53	21.18
	64QAM	1	0	21.54	21.38	21.30
		1	2	21.06	21.49	21.30
		1	5	**21.63**	21.39	21.13
		3	0	20.08	20.12	19.99
		3	1	20.22	20.19	19.87
		3	3	20.23	20.13	20.08
		6	0	20.19	20.19	20.14
	256QAM	1	0	20.57	20.92	20.41
		1	2	20.42	20.68	20.58
		1	5	20.81	20.68	20.62
		3	0	20.73	20.54	20.49
		3	1	20.68	20.93	20.36
		3	3	20.74	20.64	20.82
		6	0	20.51	**20.96**	20.32

LTE Band 12						
BW	MCS Index	Channel		23025	23095	23165
		Frequency (MHz)		700.5	707.5	714.5
3M	QPSK	1	0	23.29	23.54	23.58
		1	7	23.16	**23.62**	23.30
		1	14	23.04	23.59	23.10
		8	0	22.20	22.59	22.20
		8	3	22.40	22.53	22.29
		8	7	22.26	22.59	22.35
		15	0	22.50	22.61	22.25
	16QAM	1	0	22.60	22.63	22.55
		1	7	22.65	22.43	**22.75**
		1	14	22.26	22.58	22.43
		8	0	21.49	21.63	21.26
		8	3	21.46	21.54	21.50
		8	7	21.37	21.75	21.23
		15	0	21.37	21.66	21.46
	64QAM	1	0	21.71	21.26	21.20
		1	7	21.01	21.36	21.46
		1	14	**21.72**	21.49	20.91
		8	0	20.17	20.07	20.13
		8	3	20.37	20.16	19.88
		8	7	20.13	20.08	20.06
		15	0	20.10	20.15	20.03
	256QAM	1	0	20.88	20.51	**21.18**
		1	7	20.84	21.16	20.42
		1	14	20.83	20.89	20.34
		8	0	20.83	20.79	21.03
		8	3	20.55	20.93	20.75
		8	7	20.84	20.82	20.49
		15	0	20.64	20.52	20.64

LTE Band 12						
BW	MCS Index	Channel		23035	23095	23155
		Frequency (MHz)		701.5	707.5	713.5
5M	QPSK	1	0	22.98	**23.60**	23.40
		1	12	22.98	23.54	23.47
		1	24	22.62	**23.60**	22.87
		12	0	21.95	22.46	22.25
		12	6	22.06	22.51	22.50
		12	13	22.12	22.69	22.11
		25	0	22.17	22.52	22.32
	16QAM	1	0	22.09	22.64	22.96
		1	12	22.39	22.74	**23.25**
		1	24	22.54	22.75	22.68
		12	0	21.12	21.63	21.32
		12	6	20.98	21.62	21.47
		12	13	21.10	21.75	21.35
		25	0	21.32	21.65	21.37
	64QAM	1	0	21.22	**21.63**	21.08
		1	12	21.38	21.59	20.96
		1	24	21.36	21.61	21.13
		12	0	20.05	20.02	20.02
		12	6	20.08	20.16	20.07
		12	13	20.15	20.23	20.00
		25	0	20.15	20.03	20.14
	256QAM	1	0	20.64	**20.93**	20.51
		1	12	20.56	20.76	20.42
		1	24	20.63	20.61	20.57
		12	0	20.91	20.54	20.38
		12	6	20.57	20.67	20.39
		12	13	20.57	20.89	20.51
		25	0	20.43	20.46	20.75

LTE Band 12						
BW	MCS Index	Channel		23060	23095	23130
		Frequency (MHz)		704	707.5	711
10M	QPSK	1	0	23.48	23.51	23.48
		1	24	23.09	23.37	23.63
		1	49	**23.80**	23.62	23.52
		25	0	22.42	22.59	22.67
		25	12	22.48	22.72	22.53
		25	25	22.51	22.53	22.64
		50	0	22.68	22.60	22.67
	16QAM	1	0	22.85	22.74	22.71
		1	24	22.59	22.77	22.62
		1	49	**22.93**	22.83	22.73
		25	0	21.48	21.61	21.65
		25	12	21.61	21.69	21.82
		25	25	21.49	21.85	21.73
		50	0	21.48	21.69	21.60
	64QAM	1	0	21.61	21.56	21.61
		1	24	21.85	21.23	21.40
		1	49	**21.89**	21.43	21.39
		25	0	20.26	20.31	20.23
		25	12	20.40	20.44	20.24
		25	25	20.33	20.52	20.35
		50	0	20.29	20.30	20.18
	256QAM	1	0	20.87	20.50	20.68
		1	24	20.61	20.99	20.66
		1	49	20.70	20.71	20.60
		25	0	20.80	**21.11**	20.44
		25	12	20.39	20.82	20.31
		25	25	20.88	20.87	20.96
		50	0	21.10	20.47	20.83

LTE Band 13						
BW	MCS Index	Channel		23205	23230	23255
		Frequency (MHz)		779.5	782	784.5
5M	QPSK	1	0	23.75	23.83	23.89
		1	12	23.84	23.78	23.73
		1	24	23.90	**23.92**	23.85
		12	0	23.01	22.99	22.92
		12	6	22.98	22.97	22.83
		12	13	22.95	23.03	23.11
		25	0	22.98	22.79	22.79
	16QAM	1	0	23.10	23.22	22.81
		1	12	23.07	**23.26**	22.67
		1	24	23.19	23.10	22.88
		12	0	21.83	21.99	21.93
		12	6	21.85	22.09	22.00
		12	13	21.82	22.01	21.89
		25	0	21.99	21.96	21.90
	64QAM	1	0	21.43	21.45	20.85
		1	12	21.32	**21.75**	21.09
		1	24	21.23	21.60	21.03
		12	0	19.93	20.18	20.08
		12	6	19.96	20.22	20.07
		12	13	20.15	20.16	20.05
		25	0	20.24	20.00	20.20
	256QAM	1	0	20.98	20.64	20.34
		1	12	20.81	21.00	20.55
		1	24	20.56	20.91	20.59
		12	0	20.68	**21.03**	20.43
		12	6	20.93	20.80	20.63
		12	13	20.51	20.57	20.55
		25	0	20.42	20.50	20.70

LTE Band 13				
BW	MCS Index	Channel		23230
		Frequency (MHz)		782
10M	QPSK	1	0	23.59
		1	24	**23.89**
		1	49	23.72
		25	0	22.97
		25	12	22.89
		25	25	22.80
		50	0	22.95
	16QAM	1	0	23.04
		1	24	**23.47**
		1	49	23.17
		25	0	21.93
		25	12	21.97
		25	25	21.90
		50	0	21.83
	64QAM	1	0	21.19
		1	24	**21.71**
		1	49	21.48
		25	0	19.84
		25	12	20.08
		25	25	20.00
		50	0	20.02
	256QAM	1	0	20.49
		1	24	20.62
		1	49	21.19
		25	0	20.88
		25	12	20.92
		25	25	21.02
		50	0	21.07

LTE Band 17						
BW	MCS Index	Channel		23755	23790	23825
		Frequency (MHz)		706.5	710	713.5
5M	QPSK	1	0	23.42	23.56	23.33
		1	12	23.57	23.50	23.34
		1	24	23.59	**23.73**	23.31
		12	0	22.60	22.69	22.48
		12	6	22.66	22.62	22.32
		12	13	22.64	22.62	22.23
		25	0	22.74	22.67	22.15
	16QAM	1	0	22.66	23.13	22.79
		1	12	22.75	23.10	22.94
		1	24	22.80	**23.28**	22.33
		12	0	21.50	21.66	21.44
		12	6	21.85	21.77	21.52
		12	13	21.76	21.67	21.09
		25	0	21.69	21.51	21.26
	64QAM	1	0	20.94	21.17	21.16
		1	12	21.04	21.34	21.46
		1	24	21.11	**21.59**	21.21
		12	0	20.19	20.12	20.08
		12	6	20.10	20.11	19.98
		12	13	20.09	20.26	20.06
		25	0	20.17	20.18	20.10
	256QAM	1	0	20.66	20.00	20.14
		1	12	20.37	20.00	20.14
		1	24	**20.85**	20.06	20.39
		12	0	20.63	20.09	20.22
		12	6	20.52	20.06	20.35
		12	13	20.71	20.15	20.18
		25	0	20.60	20.01	20.21

LTE Band 17						
BW	MCS Index	Channel		23780	23790	23800
		Frequency (MHz)		709	710	711
10M	QPSK	1	0	23.41	23.45	23.36
		1	24	23.15	23.28	23.58
		1	49	23.53	23.66	**23.77**
		25	0	22.51	22.43	22.41
		25	12	22.61	22.66	22.56
		25	25	22.58	22.74	22.65
		50	0	22.70	22.68	22.65
	16QAM	1	0	22.90	22.73	22.73
		1	24	**22.96**	22.85	22.84
		1	49	22.85	22.87	22.82
		25	0	21.37	21.66	21.49
		25	12	21.54	21.79	21.64
		25	25	21.62	21.85	21.54
		50	0	21.67	21.44	21.66
	64QAM	1	0	21.38	21.38	21.40
		1	24	**21.57**	21.18	20.93
		1	49	21.28	21.35	21.49
		25	0	20.13	20.08	19.99
		25	12	20.27	20.15	20.20
		25	25	20.12	20.19	20.21
		50	0	20.24	20.08	19.91
	256QAM	1	0	20.80	20.00	20.31
		1	24	20.38	20.08	20.11
		1	49	20.85	20.02	20.36
		25	0	20.55	20.12	20.34
		25	12	**20.89**	19.98	20.08
		25	25	20.54	19.93	20.05
		50	0	20.35	20.15	20.05

LTE Band 30						
BW	MCS Index	Channel		27685	27710	27735
		Frequency (MHz)		2307.5	2310	2312.5
5M	QPSK	1	0	21.42	**21.59**	21.42
		1	12	21.27	21.39	21.38
		1	24	21.38	21.47	21.44
		12	0	20.50	20.58	20.59
		12	6	20.63	20.54	20.43
		12	13	20.60	20.53	20.56
		25	0	20.54	20.49	20.54
	16QAM	1	0	20.93	20.86	**20.95**
		1	12	20.84	20.78	20.93
		1	24	20.67	20.74	20.80
		12	0	19.50	19.56	19.55
		12	6	19.45	19.47	19.52
		12	13	19.70	19.57	19.47
		25	0	19.60	19.51	19.55
	64QAM	1	0	19.78	19.86	19.95
		1	12	19.64	19.76	19.94
		1	24	19.49	19.68	**20.03**
		12	0	18.76	18.69	18.73
		12	6	18.75	18.50	18.60
		12	13	18.68	18.65	18.53
		25	0	18.65	18.62	18.66
	256QAM	1	0	18.78	19.17	19.08
		1	12	19.37	19.09	19.05
		1	24	18.94	19.27	19.08
		12	0	18.91	19.14	19.03
		12	6	18.83	18.97	19.32
		12	13	19.00	18.92	18.94
		25	0	19.19	19.09	19.21

Note: LTE Band 30 measurement results are in dBm/5MHz.

LTE Band 30				
BW	MCS Index	Channel		27710
		Frequency (MHz)		2310
10M	QPSK	1	0	**21.41**
		1	24	21.38
		1	49	21.36
		25	0	20.53
		25	12	20.52
		25	25	20.56
		50	0	20.44
	16QAM	1	0	20.94
		1	24	20.86
		1	49	**20.97**
		25	0	19.60
		25	12	19.39
		25	25	19.64
		50	0	19.41
	64QAM	1	0	**19.92**
		1	24	19.86
		1	49	19.74
		25	0	18.78
		25	12	18.71
		25	25	18.67
		50	0	18.65
	256QAM	1	0	19.35
		1	24	19.29
		1	49	19.19
		25	0	18.43
		25	12	18.95
		25	25	18.64
		50	0	18.38

Note: LTE Band 30 measurement results are in dBm/5MHz.

LTE Band 38						
BW	MCS Index	Channel		37775	38000	38225
		Frequency (MHz)		2572.5	2595	2617.5
5M	QPSK	1	0	22.95	**23.21**	22.96
		1	12	22.85	23.06	22.90
		1	24	23.10	23.07	23.13
		12	0	22.23	22.38	22.29
		12	6	22.13	22.38	22.16
		12	13	22.07	22.48	22.27
		25	0	22.09	22.27	22.08
	16QAM	1	0	22.33	22.39	22.48
		1	12	22.33	22.53	22.38
		1	24	22.25	**22.58**	22.43
		12	0	21.02	21.24	21.29
		12	6	21.03	21.30	21.45
		12	13	21.18	21.51	21.34
		25	0	21.02	21.27	21.37
	64QAM	1	0	**21.64**	21.04	21.20
		1	12	21.46	21.13	21.23
		1	24	21.17	21.07	21.19
		12	0	20.23	19.91	20.01
		12	6	20.25	20.13	19.98
		12	13	20.16	20.05	20.00
		25	0	20.19	20.10	20.03
	256QAM	1	0	19.87	**20.64**	20.34
		1	12	20.24	20.36	20.33
		1	24	19.77	20.29	19.99
		12	0	20.53	20.26	20.01
		12	6	19.91	20.25	20.31
		12	13	19.97	20.04	20.15
		25	0	19.98	20.23	20.57

LTE Band 38						
BW	MCS Index	Channel		37800	38000	38200
		Frequency (MHz)		2575	2595	2615
10M	QPSK	1	0	22.99	22.98	23.04
		1	24	22.85	23.05	23.19
		1	49	22.99	**23.23**	23.09
		25	0	22.05	22.25	22.30
		25	12	22.04	22.29	22.35
		25	25	22.03	22.35	22.27
		50	0	22.10	22.31	22.30
	16QAM	1	0	22.17	22.57	22.49
		1	24	22.21	22.57	22.65
		1	49	22.36	**22.67**	22.53
		25	0	21.14	21.42	21.16
		25	12	21.02	21.24	21.36
		25	25	21.21	21.39	21.24
		50	0	21.23	21.40	21.27
	64QAM	1	0	21.52	**21.88**	21.13
		1	24	21.13	21.27	21.59
		1	49	21.57	21.67	21.18
		25	0	20.27	20.12	20.14
		25	12	20.20	20.12	20.12
		25	25	20.25	20.40	20.08
		50	0	20.14	20.16	20.15
	256QAM	1	0	20.13	20.65	20.70
		1	24	**20.86**	20.13	20.39
		1	49	20.80	20.63	20.51
		25	0	20.77	20.30	20.23
		25	12	20.21	20.61	20.60
		25	25	20.02	20.46	20.71
		50	0	20.83	20.43	20.57

LTE Band 38						
BW	MCS Index	Channel		37825	38000	38175
		Frequency (MHz)		2577.5	2595	2612.5
15M	QPSK	1	0	23.11	23.23	22.99
		1	37	23.06	23.20	23.16
		1	74	**23.26**	23.16	22.95
		36	0	22.08	22.47	22.48
		36	19	22.41	22.43	22.17
		36	39	22.38	22.37	22.26
		75	0	22.35	22.51	22.47
	16QAM	1	0	22.32	22.48	22.32
		1	37	22.33	22.63	22.42
		1	74	22.49	**22.64**	22.41
		36	0	21.20	21.43	21.54
		36	19	21.27	21.46	21.35
		36	39	21.44	21.47	21.55
		75	0	21.33	21.55	21.44
	64QAM	1	0	21.62	**21.74**	21.48
		1	37	21.63	21.24	21.42
		1	74	21.51	21.35	21.06
		36	0	20.30	20.37	20.36
		36	19	20.30	20.29	20.17
		36	39	20.44	20.46	20.38
		75	0	20.30	20.44	20.13
	256QAM	1	0	20.14	20.42	20.51
		1	37	20.01	20.31	20.31
		1	74	20.52	20.11	20.46
		36	0	20.46	**20.83**	20.24
		36	19	20.12	20.07	20.49
		36	39	20.10	20.19	20.32
		75	0	20.39	20.31	20.46

LTE Band 38						
BW	MCS Index	Channel		37850	38000	38150
		Frequency (MHz)		2580	2595	2610
20M	QPSK	1	0	23.15	23.27	23.17
		1	50	23.11	23.12	23.20
		1	99	23.23	**23.34**	23.21
		50	0	22.21	22.59	22.41
		50	25	22.37	22.55	22.32
		50	50	22.45	22.54	22.35
		100	0	22.47	22.41	22.41
	16QAM	1	0	22.46	22.71	**22.83**
		1	50	22.34	22.70	22.60
		1	99	22.49	22.57	22.65
		50	0	21.46	21.49	21.48
		50	25	21.53	21.60	21.40
		50	50	21.41	21.53	21.50
		100	0	21.53	21.54	21.49
	64QAM	1	0	21.80	21.40	21.57
		1	50	**21.89**	21.76	20.95
		1	99	21.88	21.34	21.57
		50	0	20.32	20.29	20.00
		50	25	20.41	20.32	20.24
		50	50	20.26	20.48	20.36
		100	0	20.26	20.35	20.24
	256QAM	1	0	20.46	20.68	20.18
		1	50	20.50	20.25	20.47
		1	99	20.32	20.21	20.32
		50	0	20.15	20.28	**20.76**
		50	25	20.53	20.18	20.46
		50	50	20.05	20.02	20.11
		100	0	20.62	20.45	20.38

LTE Band 41						
BW	MCS Index	Channel		39675	40620	41565
		Frequency (MHz)		2498.5	2593	2687.5
5M	QPSK	1	0	26.34	26.19	26.11
		1	12	26.19	26.23	25.77
		1	24	**26.42**	26.33	26.01
		12	0	25.65	25.40	25.13
		12	6	25.65	25.41	25.14
		12	13	25.38	25.57	25.13
		25	0	25.61	25.54	25.11
	16QAM	1	0	25.70	25.55	25.37
		1	12	**25.74**	25.50	25.44
		1	24	25.64	25.67	25.25
		12	0	24.61	24.42	24.09
		12	6	24.45	24.61	24.10
		12	13	24.53	24.51	24.21
		25	0	24.50	24.47	24.38
	64QAM	1	0	24.91	24.39	25.01
		1	12	25.00	24.58	24.76
		1	24	**25.05**	24.63	25.02
		12	0	24.20	23.30	23.52
		12	6	24.19	23.45	23.40
		12	13	24.09	23.63	23.53
		25	0	24.11	23.45	23.41
	256QAM	1	0	24.28	23.92	24.13
		1	12	24.42	24.12	24.07
		1	24	23.83	24.00	24.11
		12	0	24.14	23.64	23.98
		12	6	**24.43**	24.27	23.88
		12	13	23.95	24.03	23.97
		25	0	24.20	23.93	24.16

LTE Band 41						
BW	MCS Index	Channel		39700	40620	41540
		Frequency (MHz)		2501	2593	2685
10M	QPSK	1	0	25.98	**26.38**	25.99
		1	24	25.97	26.35	26.08
		1	49	26.14	26.36	26.06
		25	0	25.12	25.56	25.46
		25	12	25.14	25.46	25.19
		25	25	25.21	25.68	25.17
		50	0	25.25	25.55	25.32
	16QAM	1	0	25.19	25.60	25.39
		1	24	25.49	25.64	25.71
		1	49	25.43	**25.77**	25.24
		25	0	24.22	24.31	24.28
		25	12	24.24	24.64	24.25
		25	25	24.24	24.68	24.15
		50	0	24.11	24.54	24.33
	64QAM	1	0	**25.50**	24.91	24.84
		1	24	24.68	24.48	24.99
		1	49	25.27	24.66	24.70
		25	0	23.79	23.49	23.60
		25	12	23.73	23.44	23.57
		25	25	23.92	23.35	23.70
		50	0	23.79	23.60	23.45
	256QAM	1	0	24.59	24.35	24.09
		1	24	24.61	24.23	24.34
		1	49	24.39	24.27	24.10
		25	0	**24.62**	24.57	24.55
		25	12	24.47	24.32	24.39
		25	25	24.46	24.37	24.56
		50	0	24.50	24.47	24.18

LTE Band 41						
BW	MCS Index	Channel		39725	40620	41515
		Frequency (MHz)		2503.5	2593	2682.5
15M	QPSK	1	0	26.46	**26.51**	26.20
		1	37	26.29	26.36	26.06
		1	74	26.34	**26.51**	26.19
		36	0	25.46	25.37	25.28
		36	19	25.40	25.38	25.14
		36	39	25.59	25.48	25.19
		75	0	25.50	25.59	25.29
	16QAM	1	0	**25.70**	25.49	25.40
		1	37	25.41	25.56	25.30
		1	74	25.51	**25.70**	25.28
		36	0	24.34	24.43	24.50
		36	19	24.55	24.39	24.37
		36	39	24.55	24.39	24.12
		75	0	24.44	24.47	24.18
	64QAM	1	0	25.24	24.78	24.17
		1	37	**25.62**	25.01	24.28
		1	74	25.03	24.68	24.74
		36	0	24.00	23.61	23.22
		36	19	24.17	23.50	23.42
		36	39	24.17	23.63	23.64
		75	0	24.10	23.44	23.23
	256QAM	1	0	24.52	24.54	24.26
		1	37	24.27	**24.65**	24.18
		1	74	24.62	24.22	24.37
		36	0	24.46	24.32	24.23
		36	19	24.29	24.50	24.33
		36	39	24.56	24.18	24.53
		75	0	24.40	24.42	24.58

LTE Band 41						
BW	MCS Index	Channel		39750	40620	41490
		Frequency (MHz)		2506	2593	2680
20M	QPSK	1	0	26.16	**26.54**	26.04
		1	50	26.14	26.35	25.79
		1	99	26.23	26.20	25.86
		50	0	25.24	25.39	25.08
		50	25	25.56	25.60	24.92
		50	50	25.39	25.71	25.02
		100	0	25.39	25.61	25.06
	16QAM	1	0	25.62	25.81	25.27
		1	50	25.35	25.60	25.16
		1	99	25.76	**25.83**	25.20
		50	0	24.26	24.44	24.08
		50	25	24.59	24.70	24.13
		50	50	24.46	24.59	23.90
		100	0	24.43	24.58	23.87
	64QAM	1	0	25.86	24.53	24.66
		1	50	**25.97**	24.75	24.24
		1	99	25.02	24.42	24.59
		50	0	24.10	23.49	22.76
		50	25	24.14	23.60	23.26
		50	50	24.05	23.56	23.04
		100	0	24.23	23.54	23.29
	256QAM	1	0	24.30	24.61	24.80
		1	50	24.63	24.43	24.77
		1	99	24.63	24.68	24.10
		50	0	24.76	24.22	24.54
		50	25	24.77	24.14	24.70
		50	50	24.68	24.22	24.17
		100	0	24.80	24.62	**24.84**

LTE Band 66						
BW	MCS Index	Channel		131979	132322	132665
		Frequency (MHz)		1710.7	1745	1779.3
1.4M	QPSK	1	0	22.99	23.03	22.95
		1	2	23.05	23.09	22.98
		1	5	22.91	23.00	22.87
		3	0	23.06	22.96	22.87
		3	1	23.10	22.94	22.87
		3	3	**23.11**	22.98	22.87
		6	0	22.11	22.16	22.06
	16QAM	1	0	**22.63**	22.24	22.33
		1	2	22.52	22.23	22.34
		1	5	22.48	22.21	22.28
		3	0	22.11	22.12	21.95
		3	1	22.33	22.05	22.08
		3	3	22.09	22.16	22.00
		6	0	21.37	21.13	21.14
	64QAM	1	0	21.54	21.13	21.29
		1	2	21.51	21.24	21.57
		1	5	**21.72**	21.40	21.47
		3	0	20.08	20.16	20.02
		3	1	20.14	20.20	20.00
		3	3	20.21	20.15	19.98
		6	0	20.11	20.26	19.98
	256QAM	1	0	19.94	20.68	20.22
		1	2	20.68	20.60	19.92
		1	5	20.11	20.20	20.36
		3	0	19.97	19.82	20.39
		3	1	20.62	20.22	**20.75**
		3	3	20.20	20.59	20.52
		6	0	19.91	20.19	20.38

LTE Band 66						
BW	MCS Index	Channel		131987	132322	132657
		Frequency (MHz)		1711.5	1745	1778.5
3M	QPSK	1	0	23.19	23.06	22.88
		1	7	**23.29**	23.03	23.05
		1	14	22.92	23.15	22.92
		8	0	22.22	22.08	22.11
		8	3	22.31	22.24	22.22
		8	7	22.20	22.10	22.06
		15	0	22.12	21.99	22.04
	16QAM	1	0	22.35	**22.67**	22.29
		1	7	22.16	22.54	22.27
		1	14	22.64	22.59	22.37
		8	0	21.15	21.08	21.16
		8	3	21.26	21.21	20.98
		8	7	21.10	21.25	21.10
		15	0	21.08	21.18	20.95
	64QAM	1	0	21.55	21.29	21.26
		1	7	**21.66**	21.29	21.34
		1	14	21.63	21.38	21.26
		8	0	20.32	20.07	20.20
		8	3	20.23	20.22	20.18
		8	7	20.24	20.28	20.22
		15	0	20.24	20.08	20.00
	256QAM	1	0	19.90	20.54	19.92
		1	7	20.32	19.83	20.17
		1	14	19.98	**20.97**	20.77
		8	0	20.61	20.89	20.30
		8	3	20.88	20.02	20.24
		8	7	20.94	20.44	20.37
		15	0	20.19	20.77	20.50

LTE Band 66						
BW	MCS Index	Channel		131997	132322	132647
		Frequency (MHz)		1712.5	1745	1777.5
5M	QPSK	1	0	22.99	23.09	22.98
		1	12	22.89	23.18	23.05
		1	24	22.93	**23.41**	23.00
		12	0	22.12	22.18	22.04
		12	6	22.28	22.30	22.19
		12	13	22.28	22.23	22.16
		25	0	22.28	22.20	22.05
	16QAM	1	0	22.32	22.32	21.91
		1	12	22.47	22.37	22.01
		1	24	**22.55**	22.36	22.22
		12	0	21.19	21.37	21.08
		12	6	21.18	21.20	21.06
		12	13	21.20	21.40	21.13
		25	0	21.11	21.29	21.10
	64QAM	1	0	21.62	20.82	21.02
		1	12	21.65	20.94	21.19
		1	24	**21.70**	21.17	21.21
		12	0	19.99	20.07	20.02
		12	6	20.14	20.06	20.06
		12	13	20.24	20.27	20.00
		25	0	20.26	20.14	19.99
	256QAM	1	0	20.56	20.39	20.83
		1	12	20.56	**20.93**	20.09
		1	24	20.23	20.77	20.77
		12	0	20.01	20.51	20.04
		12	6	20.03	20.35	19.92
		12	13	20.06	20.81	20.61
		25	0	19.95	20.83	20.28

LTE Band 66						
BW	MCS Index	Channel		132022	132322	132622
		Frequency (MHz)		1715	1745	1775
10M	QPSK	1	0	23.11	23.00	22.82
		1	24	22.84	23.02	22.89
		1	49	23.04	**23.19**	23.00
		25	0	22.12	22.14	21.99
		25	12	22.32	22.23	22.05
		25	25	22.15	22.24	22.12
		50	0	22.18	22.00	22.04
	16QAM	1	0	**22.84**	22.43	22.48
		1	24	22.70	22.39	22.47
		1	49	22.62	22.57	22.54
		25	0	21.23	21.38	20.84
		25	12	21.39	21.31	21.16
		25	25	21.09	21.25	21.23
		50	0	21.21	21.24	21.10
	64QAM	1	0	21.72	**21.75**	20.99
		1	24	21.30	21.43	21.74
		1	49	21.70	21.59	21.19
		25	0	20.01	20.03	20.05
		25	12	20.00	20.13	20.17
		25	25	20.21	20.22	20.26
		50	0	20.13	20.11	20.05
	256QAM	1	0	20.40	20.64	20.11
		1	24	**20.85**	20.67	20.50
		1	49	20.61	20.39	20.69
		25	0	20.23	20.24	20.58
		25	12	20.83	20.23	20.61
		25	25	20.63	20.14	20.27
		50	0	20.75	20.23	20.52

LTE Band 66						
BW	MCS Index	Channel		132047	132322	132597
		Frequency (MHz)		1717.5	1745	1772.5
15M	QPSK	1	0	23.30	**23.40**	23.00
		1	37	23.13	23.32	23.18
		1	74	23.21	23.29	23.17
		36	0	22.48	22.45	22.18
		36	19	22.47	22.36	22.42
		36	39	22.50	22.47	22.42
		75	0	22.53	22.36	22.34
	16QAM	1	0	22.59	22.73	22.37
		1	37	22.56	22.76	22.41
		1	74	22.62	**22.80**	22.43
		36	0	21.29	21.50	21.31
		36	19	21.46	21.37	21.29
		36	39	21.49	21.44	21.52
		75	0	21.38	21.40	21.21
	64QAM	1	0	21.37	21.27	20.76
		1	37	21.14	**21.91**	21.55
		1	74	21.38	21.77	21.73
		36	0	20.12	20.19	19.83
		36	19	20.38	20.31	20.08
		36	39	20.14	20.37	20.16
		75	0	20.33	20.36	20.02
	256QAM	1	0	20.12	**20.69**	20.00
		1	37	20.23	20.05	20.31
		1	74	20.06	19.89	19.87
		36	0	20.02	20.23	20.39
		36	19	20.62	19.94	19.86
		36	39	20.39	19.91	20.20
		75	0	19.93	20.24	20.34

LTE Band 66						
BW	MCS Index	Channel		132072	132322	132575
		Frequency (MHz)		1720	1745	1770
20M	QPSK	1	0	23.30	**23.42**	23.20
		1	50	23.40	23.25	22.62
		1	99	23.27	23.36	23.09
		50	0	22.46	22.39	21.81
		50	25	22.54	22.33	21.79
		50	50	22.30	22.57	22.08
		100	0	22.54	22.32	22.08
	16QAM	1	0	22.71	22.68	22.22
		1	50	22.49	**22.85**	21.98
		1	99	22.57	22.46	22.08
		50	0	21.33	21.37	20.58
		50	25	21.38	21.43	21.01
		50	50	21.47	21.67	21.24
		100	0	21.53	21.16	21.16
	64QAM	1	0	21.24	21.31	21.40
		1	50	21.19	**21.54**	21.00
		1	99	21.37	21.45	21.38
		50	0	20.29	20.45	20.23
		50	25	20.30	20.36	20.09
		50	50	20.39	20.38	20.38
		100	0	20.34	20.20	19.93
	256QAM	1	0	20.44	20.31	20.23
		1	50	20.09	20.04	20.34
		1	99	20.01	20.43	20.46
		50	0	19.88	20.00	20.14
		50	25	20.31	19.76	20.38
		50	50	**20.69**	20.27	20.30
		100	0	20.05	20.36	19.80

LTE Band 71						
BW	MCS Index	Channel		133147	133297	133447
		Frequency (MHz)		665.5	680.5	695.5
5M	QPSK	1	0	23.06	22.82	22.90
		1	12	23.07	23.07	23.06
		1	24	23.06	**23.14**	23.02
		12	0	22.17	22.12	22.08
		12	6	22.20	22.07	22.15
		12	13	22.07	22.19	22.08
		25	0	22.07	22.01	22.18
	16QAM	1	0	**22.67**	22.28	22.15
		1	12	22.64	22.25	22.16
		1	24	22.31	22.26	22.31
		12	0	21.21	20.94	21.14
		12	6	21.12	21.14	21.23
		12	13	21.27	21.31	21.07
		25	0	21.27	21.10	21.09
	64QAM	1	0	21.68	21.03	21.50
		1	12	**21.70**	21.10	21.49
		1	24	21.63	21.15	21.49
		12	0	20.04	20.11	20.19
		12	6	20.20	20.09	20.14
		12	13	20.22	20.24	19.96
		25	0	20.13	20.03	19.96
	256QAM	1	0	20.80	20.83	20.65
		1	12	20.04	20.74	20.44
		1	24	20.31	20.31	20.66
		12	0	20.15	20.29	20.26
		12	6	20.80	20.21	19.90
		12	13	20.28	20.01	19.95
		25	0	20.37	**20.87**	20.63

LTE Band 71						
BW	MCS Index	Channel		133172	133297	133422
		Frequency (MHz)		668	680.5	693
10M	QPSK	1	0	23.05	23.11	**23.18**
		1	24	23.02	23.08	23.14
		1	49	22.96	22.90	23.05
		25	0	22.24	22.02	22.07
		25	12	22.14	22.17	22.05
		25	25	22.17	22.14	22.09
		50	0	22.17	22.07	22.18
	16QAM	1	0	22.24	**22.99**	22.45
		1	24	22.35	22.81	22.23
		1	49	22.38	22.80	22.23
		25	0	21.15	20.93	21.01
		25	12	21.12	21.07	21.18
		25	25	21.16	21.13	21.01
		50	0	21.09	21.09	21.16
	64QAM	1	0	21.62	21.57	21.58
		1	24	21.07	21.33	21.25
		1	49	**21.72**	21.41	20.95
		25	0	20.17	20.10	19.94
		25	12	20.08	20.15	20.09
		25	25	20.22	20.21	20.10
		50	0	20.09	20.11	20.13
	256QAM	1	0	20.73	19.87	20.35
		1	24	20.32	20.13	20.63
		1	49	20.39	**20.90**	20.76
		25	0	20.04	20.72	19.87
		25	12	20.52	19.97	20.27
		25	25	20.42	20.69	20.15
		50	0	20.77	20.49	20.13

LTE Band 71						
BW	MCS Index	Channel		133197	133297	133397
		Frequency (MHz)		670.5	680.5	690.5
15M	QPSK	1	0	23.26	23.27	23.04
		1	37	23.17	23.39	23.28
		1	74	23.20	**23.53**	23.21
		36	0	22.31	22.29	22.14
		36	19	22.38	22.49	22.21
		36	39	22.49	22.55	22.35
		75	0	22.61	22.33	22.19
	16QAM	1	0	**22.99**	22.63	22.45
		1	37	22.90	22.54	22.74
		1	74	22.77	22.59	22.83
		36	0	21.33	21.31	20.83
		36	19	21.49	21.40	21.30
		36	39	21.43	21.39	21.46
		75	0	21.31	21.56	21.25
	64QAM	1	0	21.76	21.46	21.48
		1	37	21.52	**21.84**	21.34
		1	74	21.42	21.44	21.66
		36	0	20.16	20.17	20.01
		36	19	20.31	20.27	20.04
		36	39	20.17	20.43	20.34
		75	0	20.26	20.20	20.21
	256QAM	1	0	**20.72**	19.82	20.17
		1	37	20.12	20.24	19.95
		1	74	20.25	20.35	19.76
		36	0	20.45	19.94	19.96
		36	19	20.47	20.57	20.05
		36	39	20.41	20.32	20.00
		75	0	20.05	20.04	20.30

LTE Band 71						
BW	MCS Index	Channel		133222	133297	133372
		Frequency (MHz)		673	680.5	688
20M	QPSK	1	0	**23.43**	23.19	23.33
		1	50	23.19	23.17	22.89
		1	99	23.36	23.23	23.09
		50	0	22.48	22.53	22.22
		50	25	22.35	22.43	22.27
		50	50	22.48	22.37	22.37
		100	0	22.59	22.38	22.23
	16QAM	1	0	22.31	22.48	22.57
		1	50	22.34	22.62	22.31
		1	99	22.42	22.52	**22.65**
		50	0	21.38	21.48	21.16
		50	25	21.49	21.37	21.37
		50	50	21.42	21.55	21.31
		100	0	21.38	21.51	21.23
	64QAM	1	0	21.22	21.28	21.62
		1	50	21.05	21.29	21.09
		1	99	21.36	21.55	**21.63**
		50	0	20.43	20.17	19.93
		50	25	20.39	20.26	20.39
		50	50	20.37	20.41	20.38
		100	0	20.40	20.14	20.19
	256QAM	1	0	**20.68**	20.48	20.46
		1	50	20.29	20.10	20.42
		1	99	20.61	20.45	20.42
		50	0	20.33	20.03	20.37
		50	25	20.67	20.20	20.54
		50	50	20.42	19.91	20.32
		100	0	20.56	20.31	20.48

EIRP Power(dBm)

Band	WCDMA IV		
Channel	1312	1413	1513
Frequency	1712.4	1732.6	1752.6
RMC 12.2K	27.35	27.32	**27.59**
HSDPA Subtest-1	26.30	26.23	26.16
HSDPA Subtest-2	26.05	26.25	26.25
HSDPA Subtest-3	26.15	26.29	26.19
HSDPA Subtest-4	26.03	26.10	26.09
HSUPA Subtest-1	25.47	25.31	25.31
HSUPA Subtest-2	25.16	25.24	25.41
HSUPA Subtest-3	25.27	25.26	25.23
HSUPA Subtest-4	25.22	25.18	25.43

*EIRP = Conducted + antenna gain (4.27dBi)

LTE Band 4						
BW	MCS Index	Channel		19957	20175	20393
		Frequency (MHz)		1710.7	1732.5	1754.3
1.4M	QPSK	1	0	27.63	27.64	27.31
		1	2	**27.86**	27.71	27.39
		1	5	27.61	27.72	27.46
		3	0	27.79	27.67	27.43
		3	1	27.76	27.75	27.62
		3	3	27.84	27.57	27.38
		6	0	26.86	26.61	26.53
	16QAM	1	0	26.79	27.06	27.00
		1	2	26.92	**27.07**	26.46
		1	5	26.89	26.95	26.36
		3	0	26.86	26.56	26.71
		3	1	26.70	26.63	26.70
		3	3	26.77	26.63	26.50
		6	0	25.82	25.74	25.46
	64QAM	1	0	25.50	25.47	25.73
		1	2	25.51	25.47	25.72
		1	5	25.44	25.52	**25.88**
		3	0	25.46	25.49	25.26
		3	1	25.50	25.53	25.21
		3	3	25.42	25.54	25.26
		6	0	24.23	24.51	24.25
	256QAM	1	0	25.04	25.00	25.15
		1	2	25.21	25.05	25.03
		1	5	25.01	**25.28**	24.95
		3	0	24.78	24.90	24.74
		3	1	24.89	24.72	25.03
		3	3	25.09	25.27	24.78
		6	0	24.96	24.75	24.85

*EIRP = Conducted + antenna gain (4.27dBi)

LTE Band 4						
BW	MCS Index	Channel		19965	20175	20385
		Frequency (MHz)		1711.5	1732.5	1753.5
3M	QPSK	1	0	27.78	27.74	27.62
		1	7	27.71	27.74	**27.83**
		1	14	27.81	27.80	27.65
		8	0	27.02	26.76	26.60
		8	3	26.91	26.79	26.54
		8	7	26.92	26.68	26.57
		15	0	26.87	26.86	26.72
	16QAM	1	0	27.12	27.35	26.60
		1	7	27.14	27.21	26.54
		1	14	27.20	**27.36**	26.48
		8	0	25.97	25.87	25.71
		8	3	26.02	25.87	25.85
		8	7	25.99	25.87	25.75
		15	0	25.90	25.98	25.67
	64QAM	1	0	25.55	25.43	**25.86**
		1	7	25.53	25.43	25.83
		1	14	25.59	25.58	25.82
		8	0	24.61	24.34	24.50
		8	3	24.61	24.50	24.29
		8	7	24.49	24.39	24.38
		15	0	24.34	24.43	24.28
	256QAM	1	0	24.99	24.68	24.80
		1	7	24.85	24.69	24.90
		1	14	25.23	25.08	24.95
		8	0	25.03	25.17	24.89
		8	3	24.84	25.06	25.00
		8	7	**25.25**	24.70	24.84
		15	0	24.94	24.67	24.86

*EIRP = Conducted + antenna gain (4.27dBi)

LTE Band 4						
BW	MCS Index	Channel		19975	20175	20375
		Frequency (MHz)		1712.5	1732.5	1752.5
5M	QPSK	1	0	27.83	27.70	27.33
		1	12	**27.89**	27.75	27.64
		1	24	27.79	27.79	27.54
		12	0	26.90	26.75	26.58
		12	6	26.75	26.76	26.54
		12	13	26.76	26.83	26.55
		25	0	26.86	26.61	26.59
	16QAM	1	0	26.80	26.72	27.02
		1	12	26.95	26.64	27.02
		1	24	26.80	26.72	**27.16**
		12	0	25.92	25.63	25.53
		12	6	25.81	25.78	25.61
		12	13	25.82	25.83	25.54
		25	0	25.84	25.65	25.64
	64QAM	1	0	25.42	25.43	25.84
		1	12	25.32	25.56	**25.90**
		1	24	25.48	25.50	25.87
		12	0	24.42	24.39	24.22
		12	6	24.34	24.44	24.31
		12	13	24.45	24.54	24.39
		25	0	24.40	24.50	24.34
	256QAM	1	0	24.92	25.13	24.87
		1	12	24.79	25.00	25.10
		1	24	24.81	**25.33**	24.97
		12	0	24.96	25.23	24.63
		12	6	24.94	25.25	24.77
		12	13	25.12	25.31	25.01
		25	0	25.08	24.99	24.85

*EIRP = Conducted + antenna gain (4.27dBi)

LTE Band 4						
BW	MCS Index	Channel		20000	20175	20350
		Frequency (MHz)		1715	1732.5	1750
10M	QPSK	1	0	27.71	27.59	27.61
		1	24	**27.77**	27.43	27.65
		1	49	27.72	27.53	27.48
		25	0	26.83	26.62	26.51
		25	12	26.76	26.89	26.68
		25	25	26.83	26.71	26.68
		50	0	26.80	26.68	26.67
	16QAM	1	0	27.41	26.94	27.04
		1	24	27.36	27.04	27.02
		1	49	**27.45**	26.78	27.16
		25	0	25.86	25.86	25.61
		25	12	25.82	25.73	25.46
		25	25	25.93	25.56	25.67
		50	0	26.01	25.69	25.46
	64QAM	1	0	25.52	25.85	25.97
		1	24	**26.11**	25.72	25.65
		1	49	25.59	25.54	25.51
		25	0	24.47	24.37	24.17
		25	12	24.43	24.52	24.38
		25	25	24.30	24.64	24.25
		50	0	24.38	24.47	24.45
	256QAM	1	0	25.03	25.21	24.92
		1	24	24.89	24.87	24.99
		1	49	24.78	24.69	24.73
		25	0	**25.26**	24.97	24.90
		25	12	25.02	24.71	24.79
		25	25	25.25	24.89	24.82
		50	0	25.00	24.88	25.19

*EIRP = Conducted + antenna gain (4.27dBi)

LTE Band 4						
BW	MCS Index	Channel		20025	20175	20325
		Frequency (MHz)		1717.5	1732.5	1747.5
15M	QPSK	1	0	27.59	27.58	27.00
		1	37	27.59	**27.69**	27.45
		1	74	27.61	27.52	27.59
		36	0	26.71	26.72	26.62
		36	19	26.86	26.76	26.62
		36	39	26.67	26.75	26.64
		75	0	26.60	26.73	26.52
	16QAM	1	0	26.86	**27.10**	26.15
		1	37	26.77	26.92	26.51
		1	74	26.64	27.05	26.27
		36	0	25.69	25.64	25.38
		36	19	25.65	25.75	25.50
		36	39	25.80	25.62	25.75
		75	0	25.69	25.66	25.68
	64QAM	1	0	25.67	25.67	**26.03**
		1	37	25.52	25.72	25.71
		1	74	**26.03**	25.86	25.93
		36	0	24.70	24.55	24.46
		36	19	24.68	24.66	24.45
		36	39	24.55	24.64	24.57
		75	0	24.70	24.72	24.67
	256QAM	1	0	25.19	**25.35**	25.07
		1	37	24.98	24.85	25.01
		1	74	24.88	25.15	24.99
		36	0	25.05	25.25	25.08
		36	19	25.00	25.17	24.91
		36	39	25.02	24.69	25.16
		75	0	25.00	24.68	25.13

*EIRP = Conducted + antenna gain (4.27dBi)

LTE Band 4						
BW	MCS Index	Channel		20050	20175	20300
		Frequency (MHz)		1720	1732.5	1745
20M	QPSK	1	0	27.58	27.50	**27.71**
		1	50	27.18	27.59	27.48
		1	99	27.47	27.43	27.58
		50	0	26.57	26.59	26.57
		50	25	26.70	26.75	26.55
		50	50	26.78	26.60	26.80
		100	0	26.68	26.62	26.42
	16QAM	1	0	27.03	26.88	26.77
		1	50	27.18	26.90	26.51
		1	99	**27.21**	26.78	26.61
		50	0	25.64	25.72	25.53
		50	25	25.62	25.59	25.39
		50	50	25.62	25.70	25.65
		100	0	25.74	25.64	25.63
	64QAM	1	0	25.87	25.57	**26.04**
		1	50	25.47	25.62	25.99
		1	99	25.67	25.48	25.99
		50	0	24.42	24.58	24.13
		50	25	24.56	24.53	24.48
		50	50	24.59	24.77	24.63
		100	0	24.65	24.57	24.39
	256QAM	1	0	24.89	24.86	24.88
		1	50	25.00	25.04	24.86
		1	99	24.79	25.04	25.05
		50	0	24.75	25.10	24.72
		50	25	24.88	24.90	24.86
		50	50	**25.25**	24.93	24.90
		100	0	25.13	24.72	24.86

*EIRP = Conducted + antenna gain (4.27dBi)

LTE Band 7						
BW	MCS Index	Channel		20775	21100	21425
		Frequency (MHz)		2502.5	2535	2567.5
5M	QPSK	1	0	27.69	27.73	**28.24**
		1	12	27.69	27.90	28.12
		1	24	27.79	27.95	27.77
		12	0	26.80	26.98	27.31
		12	6	26.81	26.90	27.31
		12	13	26.67	27.14	27.02
		25	0	26.71	27.19	26.98
	16QAM	1	0	26.87	27.27	27.45
		1	12	26.94	27.43	27.42
		1	24	27.07	**27.60**	26.93
		12	0	25.84	26.04	26.47
		12	6	25.92	26.16	26.31
		12	13	25.74	26.18	26.12
		25	0	25.81	26.18	26.27
	64QAM	1	0	26.62	26.66	26.65
		1	12	26.99	**27.04**	26.72
		1	24	26.72	26.68	26.95
		12	0	25.53	25.48	25.20
		12	6	25.48	25.51	25.26
		12	13	25.47	25.54	25.44
		25	0	25.33	25.43	25.42
	256QAM	1	0	**26.39**	25.70	25.58
		1	12	25.96	26.02	25.82
		1	24	25.66	25.85	26.24
		12	0	25.84	25.62	25.86
		12	6	25.81	26.34	26.10
		12	13	26.21	26.11	25.79
		25	0	26.04	25.83	25.88

*EIRP = Conducted + antenna gain (5.31dBi)

LTE Band 7						
BW	MCS Index	Channel		20800	21100	21400
		Frequency (MHz)		2505	2535	2565
10M	QPSK	1	0	27.48	27.74	**28.42**
		1	24	27.69	27.93	28.28
		1	49	27.57	28.01	28.31
		25	0	26.67	27.20	27.34
		25	12	26.79	27.22	27.40
		25	25	26.87	26.95	27.42
		50	0	26.86	27.02	27.44
	16QAM	1	0	27.14	26.89	27.41
		1	24	27.12	**27.46**	27.25
		1	49	27.22	27.07	27.39
		25	0	25.58	25.97	26.32
		25	12	25.82	26.28	26.40
		25	25	25.86	26.19	26.29
		50	0	25.73	26.21	26.26
	64QAM	1	0	26.77	26.63	26.51
		1	24	**27.05**	**27.05**	26.63
		1	49	26.76	26.75	26.97
		25	0	25.55	25.36	25.22
		25	12	25.23	25.54	25.36
		25	25	25.45	25.43	25.40
		50	0	25.49	25.37	25.45
	256QAM	1	0	26.35	25.80	25.51
		1	24	25.91	25.86	25.98
		1	49	25.70	26.01	26.20
		25	0	**26.39**	25.78	26.18
		25	12	25.89	25.87	26.13
		25	25	26.18	25.77	26.27
		50	0	26.18	25.89	26.05

*EIRP = Conducted + antenna gain (5.31dBi)

LTE Band 7						
BW	MCS Index	Channel		20825	21100	21375
		Frequency (MHz)		2507.5	2535	2562.5
15M	QPSK	1	0	27.41	28.14	28.34
		1	37	27.83	28.17	**28.39**
		1	74	27.90	28.32	28.05
		36	0	26.75	27.16	27.14
		36	19	26.99	27.29	27.42
		36	39	26.74	27.39	27.32
		75	0	26.50	27.23	27.27
	16QAM	1	0	26.85	26.99	27.54
		1	37	27.49	27.07	27.62
		1	74	27.45	27.51	**27.92**
		36	0	25.74	26.20	26.16
		36	19	25.90	26.28	26.46
		36	39	25.87	26.45	26.43
		75	0	25.70	26.27	26.29
	64QAM	1	0	26.72	26.68	26.67
		1	37	26.50	26.58	26.49
		1	74	26.51	26.77	**26.94**
		36	0	25.62	25.66	25.41
		36	19	25.62	25.71	25.57
		36	39	25.59	25.75	25.71
		75	0	25.63	25.58	25.24
	256QAM	1	0	25.98	25.69	26.09
		1	37	25.88	25.87	26.03
		1	74	25.86	26.21	25.82
		36	0	26.27	26.12	25.99
		36	19	26.42	26.06	25.78
		36	39	25.94	25.70	25.88
		75	0	26.20	25.90	**26.45**

*EIRP = Conducted + antenna gain (5.31dBi)

LTE Band 7						
BW	MCS Index	Channel		20850	21100	21350
		Frequency (MHz)		2510	2535	2560
20M	QPSK	1	0	27.81	27.75	**28.31**
		1	50	27.83	28.12	28.20
		1	99	27.99	28.25	28.25
		50	0	27.58	27.05	27.05
		50	25	27.60	27.17	27.43
		50	50	27.90	27.30	27.00
		100	0	26.96	27.10	27.05
	16QAM	1	0	27.46	27.20	27.54
		1	50	27.36	27.42	27.54
		1	99	27.49	**27.64**	26.94
		50	0	25.96	26.06	26.34
		50	25	26.13	26.24	26.30
		50	50	26.12	26.48	25.66
		100	0	25.98	26.28	25.97
	64QAM	1	0	26.73	26.79	26.47
		1	50	26.56	26.40	26.62
		1	99	26.64	26.76	**27.02**
		50	0	25.69	25.77	25.38
		50	25	25.58	25.58	25.57
		50	50	25.68	25.77	25.61
		100	0	25.55	25.54	25.14
	256QAM	1	0	26.00	25.97	25.56
		1	50	26.32	25.71	25.67
		1	99	26.26	26.05	26.07
		50	0	26.16	25.66	26.21
		50	25	26.13	**26.33**	25.56
		50	50	25.81	25.87	25.95
		100	0	25.84	26.13	26.21

*EIRP = Conducted + antenna gain (5.31dBi)

LTE Band 38						
BW	MCS Index	Channel		37775	38000	38225
		Frequency (MHz)		2572.5	2595	2617.5
5M	QPSK	1	0	28.26	**28.52**	28.27
		1	12	28.16	28.37	28.21
		1	24	28.41	28.38	28.44
		12	0	27.54	27.69	27.60
		12	6	27.44	27.69	27.47
		12	13	27.38	27.79	27.58
		25	0	27.40	27.58	27.39
	16QAM	1	0	27.64	27.70	27.79
		1	12	27.64	27.84	27.69
		1	24	27.56	**27.89**	27.74
		12	0	26.33	26.55	26.60
		12	6	26.34	26.61	26.76
		12	13	26.49	26.82	26.65
		25	0	26.33	26.58	26.68
	64QAM	1	0	**26.95**	26.35	26.51
		1	12	26.77	26.44	26.54
		1	24	26.48	26.38	26.50
		12	0	25.54	25.22	25.32
		12	6	25.56	25.44	25.29
		12	13	25.47	25.36	25.31
		25	0	25.50	25.41	25.34
	256QAM	1	0	25.18	**25.95**	25.65
		1	12	25.55	25.67	25.64
		1	24	25.08	25.60	25.30
		12	0	25.84	25.57	25.32
		12	6	25.22	25.56	25.62
		12	13	25.28	25.35	25.46
		25	0	25.29	25.54	25.88

*EIRP = Conducted + antenna gain (5.31dBi)

LTE Band 38						
BW	MCS Index	Channel		37800	38000	38200
		Frequency (MHz)		2575	2595	2615
10M	QPSK	1	0	28.30	28.29	28.35
		1	24	28.16	28.36	28.50
		1	49	28.30	**28.54**	28.40
		25	0	27.36	27.56	27.61
		25	12	27.35	27.60	27.66
		25	25	27.34	27.66	27.58
		50	0	27.41	27.62	27.61
	16QAM	1	0	27.48	27.88	27.80
		1	24	27.52	27.88	27.96
		1	49	27.67	**27.98**	27.84
		25	0	26.45	26.73	26.47
		25	12	26.33	26.55	26.67
		25	25	26.52	26.70	26.55
		50	0	26.54	26.71	26.58
	64QAM	1	0	26.83	**27.19**	26.44
		1	24	26.44	26.58	26.90
		1	49	26.88	26.98	26.49
		25	0	25.58	25.43	25.45
		25	12	25.51	25.43	25.43
		25	25	25.56	25.71	25.39
		50	0	25.45	25.47	25.46
	256QAM	1	0	25.44	25.96	26.01
		1	24	**26.17**	25.44	25.70
		1	49	26.11	25.94	25.82
		25	0	26.08	25.61	25.54
		25	12	25.52	25.92	25.91
		25	25	25.33	25.77	26.02
		50	0	26.14	25.74	25.88

*EIRP = Conducted + antenna gain (5.31dBi)

LTE Band 38						
BW	MCS Index	Channel		37825	38000	38175
		Frequency (MHz)		2577.5	2595	2612.5
15M	QPSK	1	0	28.42	28.54	28.30
		1	37	28.37	28.51	28.47
		1	74	**28.57**	28.47	28.26
		36	0	27.39	27.78	27.79
		36	19	27.72	27.74	27.48
		36	39	27.69	27.68	27.57
		75	0	27.66	27.82	27.78
	16QAM	1	0	27.63	27.79	27.63
		1	37	27.64	27.94	27.73
		1	74	27.80	**27.95**	27.72
		36	0	26.51	26.74	26.85
		36	19	26.58	26.77	26.66
		36	39	26.75	26.78	26.86
		75	0	26.64	26.86	26.75
	64QAM	1	0	26.93	**27.05**	26.79
		1	37	26.94	26.55	26.73
		1	74	26.82	26.66	26.37
		36	0	25.61	25.68	25.67
		36	19	25.61	25.60	25.48
		36	39	25.75	25.77	25.69
		75	0	25.61	25.75	25.44
	256QAM	1	0	25.45	25.73	25.82
		1	37	25.32	25.62	25.62
		1	74	25.83	25.42	25.77
		36	0	25.77	**26.14**	25.55
		36	19	25.43	25.38	25.80
		36	39	25.41	25.50	25.63
		75	0	25.70	25.62	25.77

*EIRP = Conducted + antenna gain (5.31dBi)

LTE Band 38						
BW	MCS Index	Channel		37850	38000	38150
		Frequency (MHz)		2580	2595	2610
20M	QPSK	1	0	28.46	28.58	28.48
		1	50	28.42	28.43	28.51
		1	99	28.54	**28.65**	28.52
		50	0	27.52	27.90	27.72
		50	25	27.68	27.86	27.63
		50	50	27.76	27.85	27.66
		100	0	27.78	27.72	27.72
	16QAM	1	0	27.77	28.02	**28.14**
		1	50	27.65	28.01	27.91
		1	99	27.80	27.88	27.96
		50	0	26.77	26.80	26.79
		50	25	26.84	26.91	26.71
		50	50	26.72	26.84	26.81
		100	0	26.84	26.85	26.80
	64QAM	1	0	27.11	26.71	26.88
		1	50	**27.20**	27.07	26.26
		1	99	27.19	26.65	26.88
		50	0	25.63	25.60	25.31
		50	25	25.72	25.63	25.55
		50	50	25.57	25.79	25.67
		100	0	25.57	25.66	25.55
	256QAM	1	0	25.77	25.99	25.49
		1	50	25.81	25.56	25.78
		1	99	25.63	25.52	25.63
		50	0	25.46	25.59	**26.07**
		50	25	25.84	25.49	25.77
		50	50	25.36	25.33	25.42
		100	0	25.93	25.76	25.69

*EIRP = Conducted + antenna gain (5.31dBi)

LTE Band 41						
BW	MCS Index	Channel		39675	40620	41565
		Frequency (MHz)		2498.5	2593	2687.5
5M	QPSK	1	0	31.65	31.50	31.42
		1	12	31.50	31.54	31.08
		1	24	**31.73**	31.64	31.32
		12	0	30.96	30.71	30.44
		12	6	30.96	30.72	30.45
		12	13	30.69	30.88	30.44
		25	0	30.92	30.85	30.42
	16QAM	1	0	31.01	30.86	30.68
		1	12	**31.05**	30.81	30.75
		1	24	30.95	30.98	30.56
		12	0	29.92	29.73	29.40
		12	6	29.76	29.92	29.41
		12	13	29.84	29.82	29.52
		25	0	29.81	29.78	29.69
	64QAM	1	0	30.22	29.70	30.32
		1	12	30.31	29.89	30.07
		1	24	**30.36**	29.94	30.33
		12	0	29.51	28.61	28.83
		12	6	29.50	28.76	28.71
		12	13	29.40	28.94	28.84
		25	0	29.42	28.76	28.72
	256QAM	1	0	29.59	29.23	29.44
		1	12	29.73	29.43	29.38
		1	24	29.14	29.31	29.42
		12	0	29.45	28.95	29.29
		12	6	**29.74**	29.58	29.19
		12	13	29.26	29.34	29.28
		25	0	29.51	29.24	29.47

*EIRP = Conducted + antenna gain (5.31dBi)

LTE Band 41						
BW	MCS Index	Channel		39700	40620	41540
		Frequency (MHz)		2501	2593	2685
10M	QPSK	1	0	31.29	**31.69**	31.30
		1	24	31.28	31.66	31.39
		1	49	31.45	31.67	31.37
		25	0	30.43	30.87	30.77
		25	12	30.45	30.77	30.50
		25	25	30.52	30.99	30.48
		50	0	30.56	30.86	30.63
	16QAM	1	0	30.50	30.91	30.70
		1	24	30.80	30.95	31.02
		1	49	30.74	**31.08**	30.55
		25	0	29.53	29.62	29.59
		25	12	29.55	29.95	29.56
		25	25	29.55	29.99	29.46
		50	0	29.42	29.85	29.64
	64QAM	1	0	**30.81**	30.22	30.15
		1	24	29.99	29.79	30.30
		1	49	30.58	29.97	30.01
		25	0	29.10	28.80	28.91
		25	12	29.04	28.75	28.88
		25	25	29.23	28.66	29.01
		50	0	29.10	28.91	28.76
	256QAM	1	0	29.90	29.66	29.40
		1	24	29.92	29.54	29.65
		1	49	29.70	29.58	29.41
		25	0	**29.93**	29.88	29.86
		25	12	29.78	29.63	29.70
		25	25	29.77	29.68	29.87
		50	0	29.81	29.78	29.49

*EIRP = Conducted + antenna gain (5.31dBi)

LTE Band 41						
BW	MCS Index	Channel		39725	40620	41515
		Frequency (MHz)		2503.5	2593	2682.5
15M	QPSK	1	0	31.77	**31.82**	31.51
		1	37	31.60	31.67	31.37
		1	74	31.65	**31.82**	31.50
		36	0	30.77	30.68	30.59
		36	19	30.71	30.69	30.45
		36	39	30.90	30.79	30.50
		75	0	30.81	30.90	30.60
	16QAM	1	0	**31.01**	30.80	30.71
		1	37	30.72	30.87	30.61
		1	74	30.82	**31.01**	30.59
		36	0	29.65	29.74	29.81
		36	19	29.86	29.70	29.68
		36	39	29.86	29.70	29.43
		75	0	29.75	29.78	29.49
	64QAM	1	0	30.55	30.09	29.48
		1	37	**30.93**	30.32	29.59
		1	74	30.34	29.99	30.05
		36	0	29.31	28.92	28.53
		36	19	29.48	28.81	28.73
		36	39	29.48	28.94	28.95
		75	0	29.41	28.75	28.54
	256QAM	1	0	29.83	29.85	29.57
		1	37	29.58	**29.96**	29.49
		1	74	29.93	29.53	29.68
		36	0	29.77	29.63	29.54
		36	19	29.60	29.81	29.64
		36	39	29.87	29.49	29.84
		75	0	29.71	29.73	29.89

*EIRP = Conducted + antenna gain (5.31dBi)

LTE Band 41						
BW	MCS Index	Channel		39750	40620	41490
		Frequency (MHz)		2506	2593	2680
20M	QPSK	1	0	31.47	**31.85**	31.35
		1	50	31.45	31.66	31.10
		1	99	31.54	31.51	31.17
		50	0	30.55	30.70	30.39
		50	25	30.87	30.91	30.23
		50	50	30.70	31.02	30.33
		100	0	30.70	30.92	30.37
	16QAM	1	0	30.93	31.12	30.58
		1	50	30.66	30.91	30.47
		1	99	31.07	**31.14**	30.51
		50	0	29.57	29.75	29.39
		50	25	29.90	30.01	29.44
		50	50	29.77	29.90	29.21
		100	0	29.74	29.89	29.18
	64QAM	1	0	31.17	29.84	29.97
		1	50	**31.28**	30.06	29.55
		1	99	30.33	29.73	29.90
		50	0	29.41	28.80	28.07
		50	25	29.45	28.91	28.57
		50	50	29.36	28.87	28.35
		100	0	29.54	28.85	28.60
	256QAM	1	0	29.61	29.92	30.11
		1	50	29.94	29.74	30.08
		1	99	29.94	29.99	29.41
		50	0	30.07	29.53	29.85
		50	25	30.08	29.45	30.01
		50	50	29.99	29.53	29.48
		100	0	30.11	29.93	**30.15**

*EIRP = Conducted + antenna gain (5.31dBi)

LTE Band 66						
BW	MCS Index	Channel		131979	132322	132665
		Frequency (MHz)		1710.7	1745	1779.3
1.4M	QPSK	1	0	27.26	27.30	27.22
		1	2	27.32	27.36	27.25
		1	5	27.18	27.27	27.14
		3	0	27.33	27.23	27.14
		3	1	27.37	27.21	27.14
		3	3	**27.38**	27.25	27.14
		6	0	26.38	26.43	26.33
	16QAM	1	0	**26.90**	26.51	26.60
		1	2	26.79	26.50	26.61
		1	5	26.75	26.48	26.55
		3	0	26.38	26.39	26.22
		3	1	26.60	26.32	26.35
		3	3	26.36	26.43	26.27
		6	0	25.64	25.40	25.41
	64QAM	1	0	25.81	25.40	25.56
		1	2	25.78	25.51	25.84
		1	5	**25.99**	25.67	25.74
		3	0	24.35	24.43	24.29
		3	1	24.41	24.47	24.27
		3	3	24.48	24.42	24.25
		6	0	24.38	24.53	24.25
	256QAM	1	0	24.21	24.95	24.49
		1	2	24.95	24.87	24.19
		1	5	24.38	24.47	24.63
		3	0	24.24	24.09	24.66
		3	1	24.89	24.49	**25.02**
		3	3	24.47	24.86	24.79
		6	0	24.18	24.46	24.65

*EIRP = Conducted + antenna gain (4.27dBi)

LTE Band 66						
BW	MCS Index	Channel		131987	132322	132657
		Frequency (MHz)		1711.5	1745	1778.5
3M	QPSK	1	0	27.46	27.33	27.15
		1	7	**27.56**	27.30	27.32
		1	14	27.19	27.42	27.19
		8	0	26.49	26.35	26.38
		8	3	26.58	26.51	26.49
		8	7	26.47	26.37	26.33
		15	0	26.39	26.26	26.31
	16QAM	1	0	26.62	**26.94**	26.56
		1	7	26.43	26.81	26.54
		1	14	26.91	26.86	26.64
		8	0	25.42	25.35	25.43
		8	3	25.53	25.48	25.25
		8	7	25.37	25.52	25.37
		15	0	25.35	25.45	25.22
	64QAM	1	0	25.82	25.56	25.53
		1	7	**25.93**	25.56	25.61
		1	14	25.90	25.65	25.53
		8	0	24.59	24.34	24.47
		8	3	24.50	24.49	24.45
		8	7	24.51	24.55	24.49
		15	0	24.51	24.35	24.27
	256QAM	1	0	24.17	24.81	24.19
		1	7	24.59	24.10	24.44
		1	14	24.25	**25.24**	25.04
		8	0	24.88	25.16	24.57
		8	3	25.15	24.29	24.51
		8	7	25.21	24.71	24.64
		15	0	24.46	25.04	24.77

*EIRP = Conducted + antenna gain (4.27dBi)

LTE Band 66						
BW	MCS Index	Channel		131997	132322	132647
		Frequency (MHz)		1712.5	1745	1777.5
5M	QPSK	1	0	27.26	27.36	27.25
		1	12	27.16	27.45	27.32
		1	24	27.20	**27.68**	27.27
		12	0	26.39	26.45	26.31
		12	6	26.55	26.57	26.46
		12	13	26.55	26.50	26.43
		25	0	26.55	26.47	26.32
	16QAM	1	0	26.59	26.59	26.18
		1	12	26.74	26.64	26.28
		1	24	**26.82**	26.63	26.49
		12	0	25.46	25.64	25.35
		12	6	25.45	25.47	25.33
		12	13	25.47	25.67	25.40
		25	0	25.38	25.56	25.37
	64QAM	1	0	25.89	25.09	25.29
		1	12	25.92	25.21	25.46
		1	24	**25.97**	25.44	25.48
		12	0	24.26	24.34	24.29
		12	6	24.41	24.33	24.33
		12	13	24.51	24.54	24.27
		25	0	24.53	24.41	24.26
	256QAM	1	0	24.83	24.66	25.10
		1	12	24.83	**25.20**	24.36
		1	24	24.50	25.04	25.04
		12	0	24.28	24.78	24.31
		12	6	24.30	24.62	24.19
		12	13	24.33	25.08	24.88
		25	0	24.22	25.10	24.55

*EIRP = Conducted + antenna gain (4.27dBi)

LTE Band 66						
BW	MCS Index	Channel		132022	132322	132622
		Frequency (MHz)		1715	1745	1775
10M	QPSK	1	0	27.38	27.27	27.09
		1	24	27.11	27.29	27.16
		1	49	27.31	**27.46**	27.27
		25	0	26.39	26.41	26.26
		25	12	26.59	26.50	26.32
		25	25	26.42	26.51	26.39
		50	0	26.45	26.27	26.31
	16QAM	1	0	**27.11**	26.70	26.75
		1	24	26.97	26.66	26.74
		1	49	26.89	26.84	26.81
		25	0	25.50	25.65	25.11
		25	12	25.66	25.58	25.43
		25	25	25.36	25.52	25.50
		50	0	25.48	25.51	25.37
	64QAM	1	0	25.99	**26.02**	25.26
		1	24	25.57	25.70	26.01
		1	49	25.97	25.86	25.46
		25	0	24.28	24.30	24.32
		25	12	24.27	24.40	24.44
		25	25	24.48	24.49	24.53
		50	0	24.40	24.38	24.32
	256QAM	1	0	24.67	24.91	24.38
		1	24	**25.12**	24.94	24.77
		1	49	24.88	24.66	24.96
		25	0	24.50	24.51	24.85
		25	12	25.10	24.50	24.88
		25	25	24.90	24.41	24.54
		50	0	25.02	24.50	24.79

*EIRP = Conducted + antenna gain (4.27dBi)

LTE Band 66						
BW	MCS Index	Channel		132047	132322	132597
		Frequency (MHz)		1717.5	1745	1772.5
15M	QPSK	1	0	27.57	**27.67**	27.27
		1	37	27.40	27.59	27.45
		1	74	27.48	27.56	27.44
		36	0	26.75	26.72	26.45
		36	19	26.74	26.63	26.69
		36	39	26.77	26.74	26.69
		75	0	26.80	26.63	26.61
	16QAM	1	0	26.86	27.00	26.64
		1	37	26.83	27.03	26.68
		1	74	26.89	**27.07**	26.70
		36	0	25.56	25.77	25.58
		36	19	25.73	25.64	25.56
		36	39	25.76	25.71	25.79
		75	0	25.65	25.67	25.48
	64QAM	1	0	25.64	25.54	25.03
		1	37	25.41	**26.18**	25.82
		1	74	25.65	26.04	26.00
		36	0	24.39	24.46	24.10
		36	19	24.65	24.58	24.35
		36	39	24.41	24.64	24.43
		75	0	24.60	24.63	24.29
	256QAM	1	0	24.39	**24.96**	24.27
		1	37	24.50	24.32	24.58
		1	74	24.33	24.16	24.14
		36	0	24.29	24.50	24.66
		36	19	24.89	24.21	24.13
		36	39	24.66	24.18	24.47
		75	0	24.20	24.51	24.61

*EIRP = Conducted + antenna gain (4.27dBi)

LTE Band 66						
BW	MCS Index	Channel		132072	132322	132575
		Frequency (MHz)		1720	1745	1770
20M	QPSK	1	0	27.57	**27.69**	27.47
		1	50	27.67	27.52	26.89
		1	99	27.54	27.63	27.36
		50	0	26.73	26.66	26.08
		50	25	26.81	26.60	26.06
		50	50	26.57	26.84	26.35
		100	0	26.81	26.59	26.35
	16QAM	1	0	26.98	26.95	26.49
		1	50	26.76	**27.12**	26.25
		1	99	26.84	26.73	26.35
		50	0	25.60	25.64	24.85
		50	25	25.65	25.70	25.28
		50	50	25.74	25.94	25.51
		100	0	25.80	25.43	25.43
	64QAM	1	0	25.51	25.58	25.67
		1	50	25.46	**25.81**	25.27
		1	99	25.64	25.72	25.65
		50	0	24.56	24.72	24.50
		50	25	24.57	24.63	24.36
		50	50	24.66	24.65	24.65
		100	0	24.61	24.47	24.20
	256QAM	1	0	24.71	24.58	24.50
		1	50	24.36	24.31	24.61
		1	99	24.28	24.70	24.73
		50	0	24.15	24.27	24.41
		50	25	24.58	24.03	24.65
		50	50	**24.96**	24.54	24.57
		100	0	24.32	24.63	24.07

*EIRP = Conducted + antenna gain (4.27dBi)

ERP Power (dBm)

LTE Band 12						
BW	MCS Index	Channel		23017	23095	23173
		Frequency (MHz)		699.7	707.5	715.3
1.4M	QPSK	1	0	25.19	25.67	25.60
		1	2	25.01	**25.87**	25.48
		1	5	25.33	25.55	25.29
		3	0	25.27	25.51	25.53
		3	1	25.24	25.65	25.24
		3	3	25.31	25.61	25.28
		6	0	24.14	24.87	24.48
	16QAM	1	0	24.42	25.17	24.29
		1	2	24.66	25.25	24.49
		1	5	24.63	**25.29**	24.39
		3	0	24.44	24.63	24.49
		3	1	24.30	24.71	24.53
		3	3	24.38	24.76	24.39
		6	0	23.59	23.79	23.44
	64QAM	1	0	23.80	23.64	23.56
		1	2	23.32	23.75	23.56
		1	5	**23.89**	23.65	23.39
		3	0	22.34	22.38	22.25
		3	1	22.48	22.45	22.13
		3	3	22.49	22.39	22.34
		6	0	22.45	22.45	22.40
	256QAM	1	0	22.83	23.18	22.67
		1	2	22.68	22.94	22.84
		1	5	23.07	22.94	22.88
		3	0	22.99	22.80	22.75
		3	1	22.94	23.19	22.62
		3	3	23.00	22.90	23.08
		6	0	22.77	**23.22**	22.58

*ERP = Conducted + antenna gain (4.41dBi)-2.15

LTE Band 12						
BW	MCS Index	Channel		23025	23095	23165
		Frequency (MHz)		700.5	707.5	714.5
3M	QPSK	1	0	25.55	25.80	25.84
		1	7	25.42	**25.88**	25.56
		1	14	25.30	25.85	25.36
		8	0	24.46	24.85	24.46
		8	3	24.66	24.79	24.55
		8	7	24.52	24.85	24.61
		15	0	24.76	24.87	24.51
	16QAM	1	0	24.86	24.89	24.81
		1	7	24.91	24.69	**25.01**
		1	14	24.52	24.84	24.69
		8	0	23.75	23.89	23.52
		8	3	23.72	23.80	23.76
		8	7	23.63	24.01	23.49
		15	0	23.63	23.92	23.72
	64QAM	1	0	23.97	23.52	23.46
		1	7	23.27	23.62	23.72
		1	14	**23.98**	23.75	23.17
		8	0	22.43	22.33	22.39
		8	3	22.63	22.42	22.14
		8	7	22.39	22.34	22.32
		15	0	22.36	22.41	22.29
	256QAM	1	0	23.14	22.77	**23.44**
		1	7	23.10	23.42	22.68
		1	14	23.09	23.15	22.60
		8	0	23.09	23.05	23.29
		8	3	22.81	23.19	23.01
		8	7	23.10	23.08	22.75
		15	0	22.90	22.78	22.90

*ERP = Conducted + antenna gain (4.41dBi)-2.15

LTE Band 12						
BW	MCS Index	Channel		23035	23095	23155
		Frequency (MHz)		701.5	707.5	713.5
5M	QPSK	1	0	25.24	**25.86**	25.66
		1	12	25.24	25.80	25.73
		1	24	24.88	**25.86**	25.13
		12	0	24.21	24.72	24.51
		12	6	24.32	24.77	24.76
		12	13	24.38	24.95	24.37
		25	0	24.43	24.78	24.58
	16QAM	1	0	24.35	24.90	25.22
		1	12	24.65	25.00	**25.51**
		1	24	24.80	25.01	24.94
		12	0	23.38	23.89	23.58
		12	6	23.24	23.88	23.73
		12	13	23.36	24.01	23.61
		25	0	23.58	23.91	23.63
	64QAM	1	0	23.48	**23.89**	23.34
		1	12	23.64	23.85	23.22
		1	24	23.62	23.87	23.39
		12	0	22.31	22.28	22.28
		12	6	22.34	22.42	22.33
		12	13	22.41	22.49	22.26
		25	0	22.41	22.29	22.40
	256QAM	1	0	22.90	**23.19**	22.77
		1	12	22.82	23.02	22.68
		1	24	22.89	22.87	22.83
		12	0	23.17	22.80	22.64
		12	6	22.83	22.93	22.65
		12	13	22.83	23.15	22.77
		25	0	22.69	22.72	23.01

*ERP = Conducted + antenna gain (4.41dBi)-2.15

LTE Band 12						
BW	MCS Index	Channel		23060	23095	23130
		Frequency (MHz)		704	707.5	711
10M	QPSK	1	0	25.74	25.77	25.74
		1	24	25.35	25.63	25.89
		1	49	**26.06**	25.88	25.78
		25	0	24.68	24.85	24.93
		25	12	24.74	24.98	24.79
		25	25	24.77	24.79	24.90
		50	0	24.94	24.86	24.93
	16QAM	1	0	25.11	25.00	24.97
		1	24	24.85	25.03	24.88
		1	49	**25.19**	25.09	24.99
		25	0	23.74	23.87	23.91
		25	12	23.87	23.95	24.08
		25	25	23.75	24.11	23.99
		50	0	23.74	23.95	23.86
	64QAM	1	0	23.87	23.82	23.87
		1	24	24.11	23.49	23.66
		1	49	**24.15**	23.69	23.65
		25	0	22.52	22.57	22.49
		25	12	22.66	22.70	22.50
		25	25	22.59	22.78	22.61
		50	0	22.55	22.56	22.44
	256QAM	1	0	23.13	22.76	22.94
		1	24	22.87	23.25	22.92
		1	49	22.96	22.97	22.86
		25	0	23.06	**23.37**	22.70
		25	12	22.65	23.08	22.57
		25	25	23.14	23.13	23.22
		50	0	23.36	22.73	23.09

*ERP = Conducted + antenna gain (4.41dBi)-2.15

LTE Band 13						
BW	MCS Index	Channel		23205	23230	23255
		Frequency (MHz)		779.5	782	784.5
5M	QPSK	1	0	26.01	26.09	26.15
		1	12	26.10	26.04	25.99
		1	24	26.16	**26.18**	26.11
		12	0	25.27	25.25	25.18
		12	6	25.24	25.23	25.09
		12	13	25.21	25.29	25.37
		25	0	25.24	25.05	25.05
	16QAM	1	0	25.36	25.48	25.07
		1	12	25.33	**25.52**	24.93
		1	24	25.45	25.36	25.14
		12	0	24.09	24.25	24.19
		12	6	24.11	24.35	24.26
		12	13	24.08	24.27	24.15
		25	0	24.25	24.22	24.16
	64QAM	1	0	23.69	23.71	23.11
		1	12	23.58	**24.01**	23.35
		1	24	23.49	23.86	23.29
		12	0	22.19	22.44	22.34
		12	6	22.22	22.48	22.33
		12	13	22.41	22.42	22.31
		25	0	22.50	22.26	22.46
	256QAM	1	0	23.24	22.90	22.60
		1	12	23.07	23.26	22.81
		1	24	22.82	23.17	22.85
		12	0	22.94	**23.29**	22.69
		12	6	23.19	23.06	22.89
		12	13	22.77	22.83	22.81
		25	0	22.68	22.76	22.96

*ERP = Conducted + antenna gain (4.41dBi)-2.15

LTE Band 13				
BW	MCS Index	Channel		23230
		Frequency (MHz)		782
10M	QPSK	1	0	25.85
		1	24	**26.15**
		1	49	25.98
		25	0	25.23
		25	12	25.15
		25	25	25.06
		50	0	25.21
	16QAM	1	0	25.30
		1	24	**25.73**
		1	49	25.43
		25	0	24.19
		25	12	24.23
		25	25	24.16
		50	0	24.09
	64QAM	1	0	23.45
		1	24	**23.97**
		1	49	23.74
		25	0	22.10
		25	12	22.34
		25	25	22.26
		50	0	22.28
	256QAM	1	0	22.75
		1	24	22.88
		1	49	**23.45**
		25	0	23.14
		25	12	23.18
		25	25	23.28
		50	0	23.33

*ERP = Conducted + antenna gain (4.41dBi)-2.15

LTE Band 17						
BW	MCS Index	Channel		23755	23790	23825
		Frequency (MHz)		706.5	710	713.5
5M	QPSK	1	0	25.68	25.82	25.59
		1	12	25.83	25.76	25.60
		1	24	25.85	**25.99**	25.57
		12	0	24.86	24.95	24.74
		12	6	24.92	24.88	24.58
		12	13	24.90	24.88	24.49
		25	0	25.00	24.93	24.41
	16QAM	1	0	24.92	25.39	25.05
		1	12	25.01	25.36	25.20
		1	24	25.06	**25.54**	24.59
		12	0	23.76	23.92	23.70
		12	6	24.11	24.03	23.78
		12	13	24.02	23.93	23.35
		25	0	23.95	23.77	23.52
	64QAM	1	0	23.20	23.43	23.42
		1	12	23.30	23.60	23.72
		1	24	23.37	**23.85**	23.47
		12	0	22.45	22.38	22.34
		12	6	22.36	22.37	22.24
		12	13	22.35	22.52	22.32
		25	0	22.43	22.44	22.36
	256QAM	1	0	22.92	22.26	22.40
		1	12	22.63	22.26	22.40
		1	24	**23.11**	22.32	22.65
		12	0	22.89	22.35	22.48
		12	6	22.78	22.32	22.61
		12	13	22.97	22.41	22.44
		25	0	22.86	22.27	22.47

*ERP = Conducted + antenna gain (4.41dBi)-2.15

LTE Band 17						
BW	MCS Index	Channel		23780	23790	23800
		Frequency (MHz)		709	710	711
10M	QPSK	1	0	25.67	25.71	25.62
		1	24	25.41	25.54	25.84
		1	49	25.79	25.92	**26.03**
		25	0	24.77	24.69	24.67
		25	12	24.87	24.92	24.82
		25	25	24.84	25.00	24.91
		50	0	24.96	24.94	24.91
	16QAM	1	0	25.16	24.99	24.99
		1	24	**25.22**	25.11	25.10
		1	49	25.11	25.13	25.08
		25	0	23.63	23.92	23.75
		25	12	23.80	24.05	23.90
		25	25	23.88	24.11	23.80
		50	0	23.93	23.70	23.92
	64QAM	1	0	23.64	23.64	23.66
		1	24	**23.83**	23.44	23.19
		1	49	23.54	23.61	23.75
		25	0	22.39	22.34	22.25
		25	12	22.53	22.41	22.46
		25	25	22.38	22.45	22.47
		50	0	22.50	22.34	22.17
	256QAM	1	0	23.06	22.26	22.57
		1	24	22.64	22.34	22.37
		1	49	23.11	22.28	22.62
		25	0	22.81	22.38	22.60
		25	12	**23.15**	22.24	22.34
		25	25	22.80	22.19	22.31
		50	0	22.61	22.41	22.31

*ERP = Conducted + antenna gain (4.41dBi)-2.15

LTE Band 71						
BW	MCS Index	Channel		133147	133297	133447
		Frequency (MHz)		665.5	680.5	695.5
5M	QPSK	1	0	25.32	25.08	25.16
		1	12	25.33	25.33	25.32
		1	24	25.32	**25.40**	25.28
		12	0	24.43	24.38	24.34
		12	6	24.46	24.33	24.41
		12	13	24.33	24.45	24.34
		25	0	24.33	24.27	24.44
	16QAM	1	0	**24.93**	24.54	24.41
		1	12	24.90	24.51	24.42
		1	24	24.57	24.52	24.57
		12	0	23.47	23.20	23.40
		12	6	23.38	23.40	23.49
		12	13	23.53	23.57	23.33
		25	0	23.53	23.36	23.35
	64QAM	1	0	23.94	23.29	23.76
		1	12	**23.96**	23.36	23.75
		1	24	23.89	23.41	23.75
		12	0	22.30	22.37	22.45
		12	6	22.46	22.35	22.40
		12	13	22.48	22.50	22.22
		25	0	22.39	22.29	22.22
	256QAM	1	0	23.06	23.09	22.91
		1	12	22.30	23.00	22.70
		1	24	22.57	22.57	22.92
		12	0	22.41	22.55	22.52
		12	6	23.06	22.47	22.16
		12	13	22.54	22.27	22.21
		25	0	22.63	**23.13**	22.89

*ERP = Conducted + antenna gain (4.41dBi)-2.15

LTE Band 71						
BW	MCS Index	Channel		133172	133297	133422
		Frequency (MHz)		668	680.5	693
10M	QPSK	1	0	25.31	25.37	**25.44**
		1	24	25.28	25.34	25.40
		1	49	25.22	25.16	25.31
		25	0	24.50	24.28	24.33
		25	12	24.40	24.43	24.31
		25	25	24.43	24.40	24.35
		50	0	24.43	24.33	24.44
	16QAM	1	0	24.50	**25.25**	24.71
		1	24	24.61	25.07	24.49
		1	49	24.64	25.06	24.49
		25	0	23.41	23.19	23.27
		25	12	23.38	23.33	23.44
		25	25	23.42	23.39	23.27
		50	0	23.35	23.35	23.42
	64QAM	1	0	23.88	23.83	23.84
		1	24	23.33	23.59	23.51
		1	49	**23.98**	23.67	23.21
		25	0	22.43	22.36	22.20
		25	12	22.34	22.41	22.35
		25	25	22.48	22.47	22.36
		50	0	22.35	22.37	22.39
	256QAM	1	0	22.99	22.13	22.61
		1	24	22.58	22.39	22.89
		1	49	22.65	**23.16**	23.02
		25	0	22.30	22.98	22.13
		25	12	22.78	22.23	22.53
		25	25	22.68	22.95	22.41
		50	0	23.03	22.75	22.39

*ERP = Conducted + antenna gain (4.41dBi)-2.15

LTE Band 71						
BW	MCS Index	Channel		133197	133297	133397
		Frequency (MHz)		670.5	680.5	690.5
15M	QPSK	1	0	25.52	25.53	25.30
		1	37	25.43	25.65	25.54
		1	74	25.46	**25.79**	25.47
		36	0	24.57	24.55	24.40
		36	19	24.64	24.75	24.47
		36	39	24.75	24.81	24.61
		75	0	24.87	24.59	24.45
	16QAM	1	0	**25.25**	24.89	24.71
		1	37	25.16	24.80	25.00
		1	74	25.03	24.85	25.09
		36	0	23.59	23.57	23.09
		36	19	23.75	23.66	23.56
		36	39	23.69	23.65	23.72
		75	0	23.57	23.82	23.51
	64QAM	1	0	24.02	23.72	23.74
		1	37	23.78	**24.10**	23.60
		1	74	23.68	23.70	23.92
		36	0	22.42	22.43	22.27
		36	19	22.57	22.53	22.30
		36	39	22.43	22.69	22.60
		75	0	22.52	22.46	22.47
	256QAM	1	0	**22.98**	22.08	22.43
		1	37	22.38	22.50	22.21
		1	74	22.51	22.61	22.02
		36	0	22.71	22.20	22.22
		36	19	22.73	22.83	22.31
		36	39	22.67	22.58	22.26
		75	0	22.31	22.30	22.56

*ERP = Conducted + antenna gain (4.41dBi)-2.15

LTE Band 71						
BW	MCS Index	Channel		133222	133297	133372
		Frequency (MHz)		673	680.5	688
20M	QPSK	1	0	**25.69**	25.45	25.59
		1	50	25.45	25.43	25.15
		1	99	25.62	25.49	25.35
		50	0	24.74	24.79	24.48
		50	25	24.61	24.69	24.53
		50	50	24.74	24.63	24.63
		100	0	24.85	24.64	24.49
	16QAM	1	0	24.57	24.74	24.83
		1	50	24.60	24.88	24.57
		1	99	24.68	24.78	**24.91**
		50	0	23.64	23.74	23.42
		50	25	23.75	23.63	23.63
		50	50	23.68	23.81	23.57
		100	0	23.64	23.77	23.49
	64QAM	1	0	23.48	23.54	23.88
		1	50	23.31	23.55	23.35
		1	99	23.62	23.81	**23.89**
		50	0	22.69	22.43	22.19
		50	25	22.65	22.52	22.65
		50	50	22.63	22.67	22.64
		100	0	22.66	22.40	22.45
	256QAM	1	0	**22.94**	22.74	22.72
		1	50	22.55	22.36	22.68
		1	99	22.87	22.71	22.68
		50	0	22.59	22.29	22.63
		50	25	22.93	22.46	22.80
		50	50	22.68	22.17	22.58
		100	0	22.82	22.57	22.74

*ERP = Conducted + antenna gain (4.41dBi)-2.15

Modulation Type: QPSK

LTE Band 30, Channel Bandwidth: 5MHz

Mode	TX channel 27685, 27710, 27735						
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm/5MHz)	Limit (dBm/5MHz)	Margin (dB)
1	2307.50	-18.9	22.5	-0.1	22.4	23.9	-1.5
2	2310.00	-18.8	22.6	-0.1	22.5	23.9	-1.4
3	2312.50	-19.0	22.4	-0.1	22.3	23.9	-1.6
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm/5MHz)	Limit (dBm/5MHz)	Margin (dB)
1	2307.50	-20.0	23.1	-0.1	23.0	23.9	-0.9
2	2310.00	-19.8	23.3	-0.1	23.2	23.9	-0.7
3	2312.50	-19.9	23.2	-0.1	23.1	23.9	-0.8

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 30, Channel Bandwidth: 10MHz

Mode	TX channel 27710						
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm/5MHz)	Limit (dBm/5MHz)	Margin (dB)
1	2310.00	-19.1	22.3	-0.1	22.2	23.9	-1.7
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm/5MHz)	Limit (dBm/5MHz)	Margin (dB)
1	2310.00	-20.0	23.1	-0.1	23.0	23.9	-0.9

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Modulation Type: 16QAM

LTE Band 30, Channel Bandwidth: 5MHz

Mode	TX channel 27685, 27710, 27735						
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm/5MHz)	Limit (dBm/5MHz)	Margin (dB)
1	2307.50	-20.3	21.1	-0.1	21.0	23.9	-2.9
2	2310.00	-20.5	20.9	-0.1	20.8	23.9	-3.1
3	2312.50	-20.2	21.2	-0.1	21.1	23.9	-2.8
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm/5MHz)	Limit (dBm/5MHz)	Margin (dB)
1	2307.50	-21.1	22.0	-0.1	21.9	23.9	-2.0
2	2310.00	-21.0	22.1	-0.1	22.0	23.9	-1.9
3	2312.50	-20.8	22.3	-0.1	22.2	23.9	-1.7

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 30, Channel Bandwidth: 10MHz

Mode	TX channel 27710						
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm/5MHz)	Limit (dBm/5MHz)	Margin (dB)
1	2310.00	-20.1	21.3	-0.1	21.2	23.9	-2.7
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm/5MHz)	Limit (dBm/5MHz)	Margin (dB)
1	2310.00	-21.2	21.9	-0.1	21.8	23.9	-2.1

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Modulation Type: 64QAM

LTE Band 30, Channel Bandwidth: 5MHz

Mode	TX channel 27685, 27710, 27735						
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm/5MHz)	Limit (dBm/5MHz)	Margin (dB)
1	2307.50	-21.3	20.1	-0.1	20.0	23.9	-3.9
2	2310.00	-21.4	20.0	-0.1	19.9	23.9	-4.0
3	2312.50	-21.2	20.2	-0.1	20.1	23.9	-3.8
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm/5MHz)	Limit (dBm/5MHz)	Margin (dB)
1	2307.50	-22.3	20.8	-0.1	20.7	23.9	-3.2
2	2310.00	-22.2	20.9	-0.1	20.8	23.9	-3.1
3	2312.50	-22.0	21.1	-0.1	21.0	23.9	-2.9

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 30, Channel Bandwidth: 10MHz

Mode	TX channel 27710						
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm/5MHz)	Limit (dBm/5MHz)	Margin (dB)
1	2310.00	-20.6	20.8	-0.1	20.7	23.9	-3.2
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm/5MHz)	Limit (dBm/5MHz)	Margin (dB)
1	2310.00	-21.9	21.2	-0.1	21.1	23.9	-2.8

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Modulation Type: 256QAM

LTE Band 30, Channel Bandwidth: 5MHz

Mode	TX channel 27685, 27710, 27735						
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm/5MHz)	Limit (dBm/5MHz)	Margin (dB)
1	2307.50	-21.8	19.6	-0.1	19.5	23.9	-4.4
2	2310.00	-21.8	19.6	-0.1	19.5	23.9	-4.4
3	2312.50	-21.7	19.7	-0.1	19.6	23.9	-4.3
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm/5MHz)	Limit (dBm/5MHz)	Margin (dB)
1	2307.50	-22.7	20.4	-0.1	20.3	23.9	-3.6
2	2310.00	-22.6	20.5	-0.1	20.4	23.9	-3.5
3	2312.50	-22.8	20.3	-0.1	20.2	23.9	-3.7

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 30, Channel Bandwidth: 10MHz

Mode	TX channel 27710						
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm/5MHz)	Limit (dBm/5MHz)	Margin (dB)
1	2310.00	-21.3	20.1	-0.1	20.0	23.9	-3.9
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm/5MHz)	Limit (dBm/5MHz)	Margin (dB)
1	2310.00	-22.2	20.9	-0.1	20.8	23.9	-3.1

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

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 7, 38, 41
In the FCC 27.53(m)(4),On any frequency outside a licensee's frequency block, The power of any emission shall be attenuated below the transmitter power (P) by at least 55 + 10 log (P) dB. The emission limit equal to –25dBm.

For LTE Band 12, 17, 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

For LTE Band 30
In the FCC 27.53(a)(4)(iii), the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least 70 +10 log (P) dB. The limit of emission is equal to -40 dBm.

4.2.2 Test Procedure

a. The power was measured with R&S Spectrum Analyzer. All measurements were done at 3 channels (low, middle and high channel of operational frequency range.)

b. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m (below or equal 1 GHz) and/or 1.5 m (above 1 GHz) 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 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 antenna.

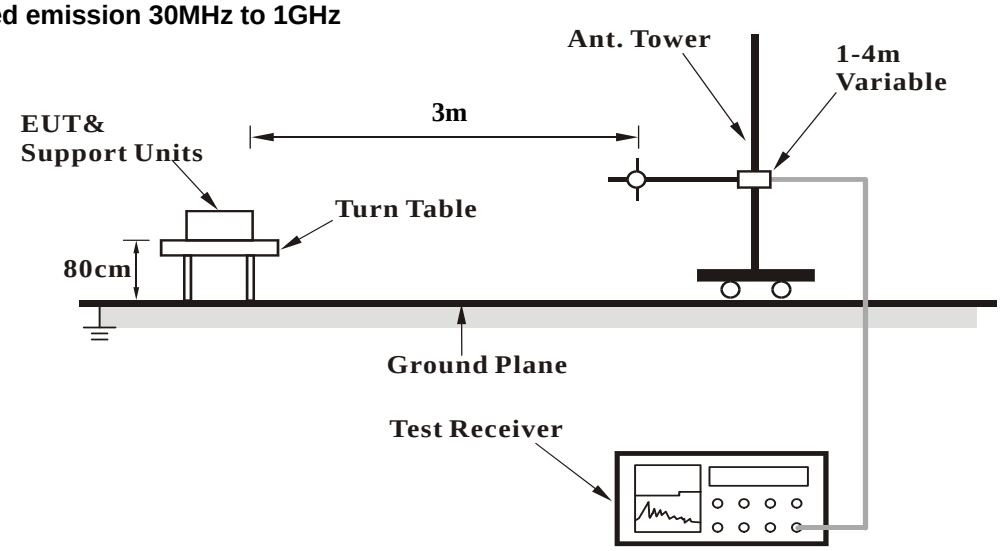
Note: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.

4.2.3 Deviation from Test Standard

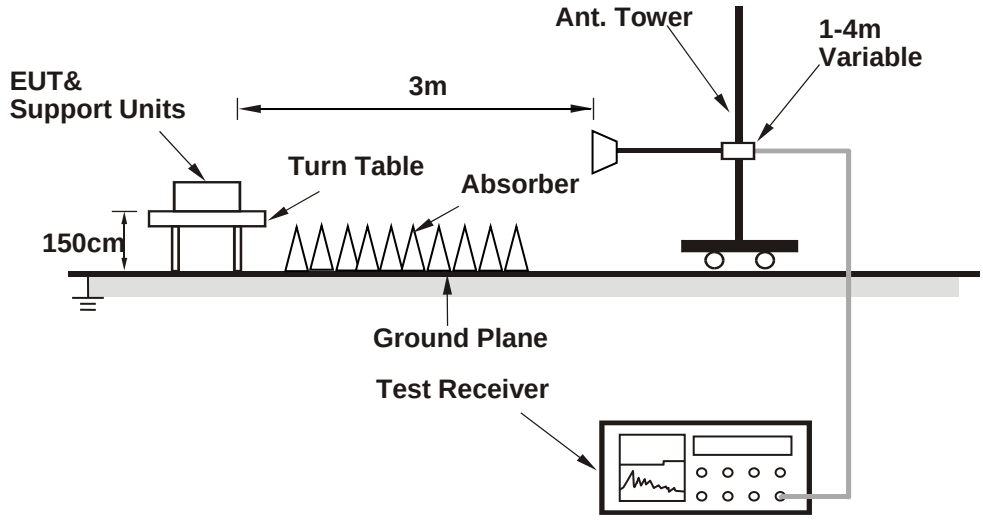
No deviation.

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).

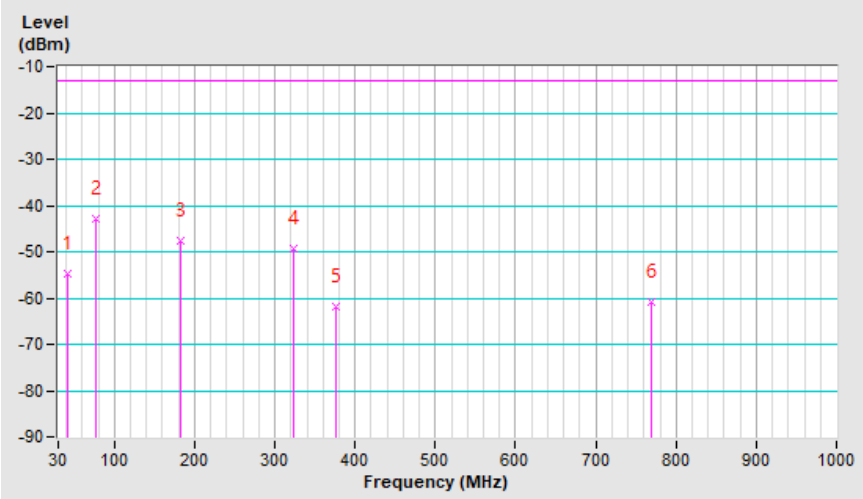
4.2.5 Test Results

Below 1GHz
WCDMA Band 4

Mode	TX channel 1513 (1752.6MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	41.25	-58.1	-44.2	-10.7	-54.9	-13.0	-41.9
2	77.80	-37.1	-40.7	-2.3	-43.0	-13.0	-30.0
3	183.23	-39.1	-50.9	3.3	-47.6	-13.0	-34.6
4	323.81	-45.7	-54.6	5.2	-49.4	-13.0	-36.4
5	375.83	-59.9	-67.1	5.3	-61.8	-13.0	-48.8
6	769.45	-66.0	-65.2	4.3	-60.9	-13.0	-47.9

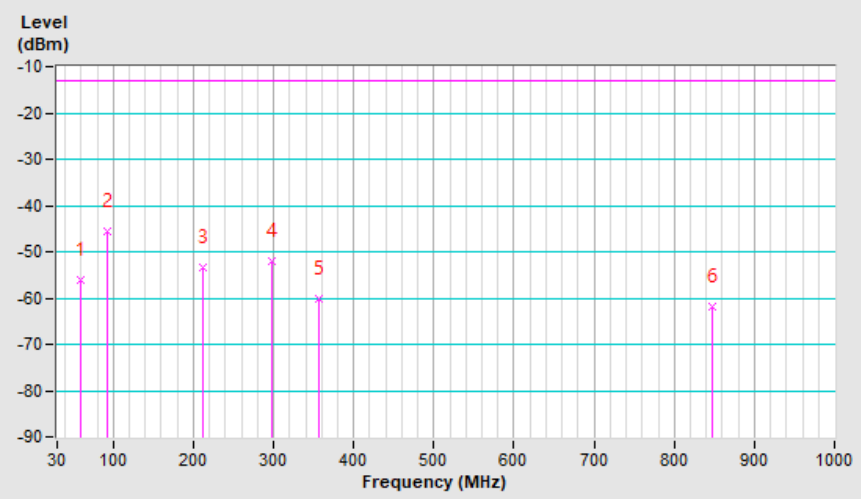
Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB).



Mode	TX channel 1513 (1752.6MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	59.52	-49.2	-48.5	-7.7	-56.2	-13.0	-43.2
2	91.86	-39.1	-46.7	1.1	-45.6	-13.0	-32.6
3	211.35	-51.3	-58.7	5.4	-53.3	-13.0	-40.3
4	298.51	-52.7	-57.0	5.1	-51.9	-13.0	-38.9
5	356.14	-59.7	-65.4	5.2	-60.2	-13.0	-47.2
6	846.77	-70.1	-66.0	4.0	-62.0	-13.0	-49.0

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB).

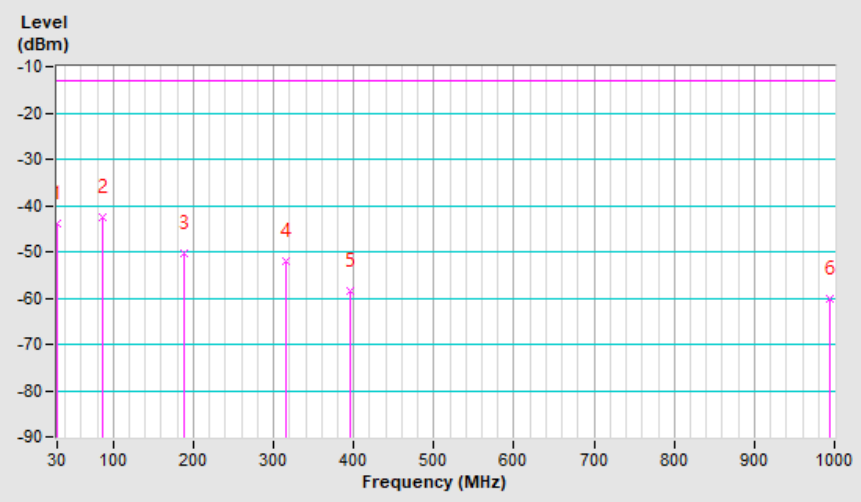


LTE Band 4, Channel Bandwidth: 5MHz

Mode	TX channel 19975 (1712.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	30.00	-47.0	-31.8	-12.2	-44.0	-13.0	-31.0
2	86.23	-35.2	-42.7	0.1	-42.6	-13.0	-29.6
3	187.45	-41.8	-54.2	3.9	-50.3	-13.0	-37.3
4	315.38	-48.3	-57.4	5.2	-52.2	-13.0	-39.2
5	395.51	-58.2	-63.8	5.2	-58.6	-13.0	-45.6
6	994.38	-69.9	-64.1	4.0	-60.1	-13.0	-47.1

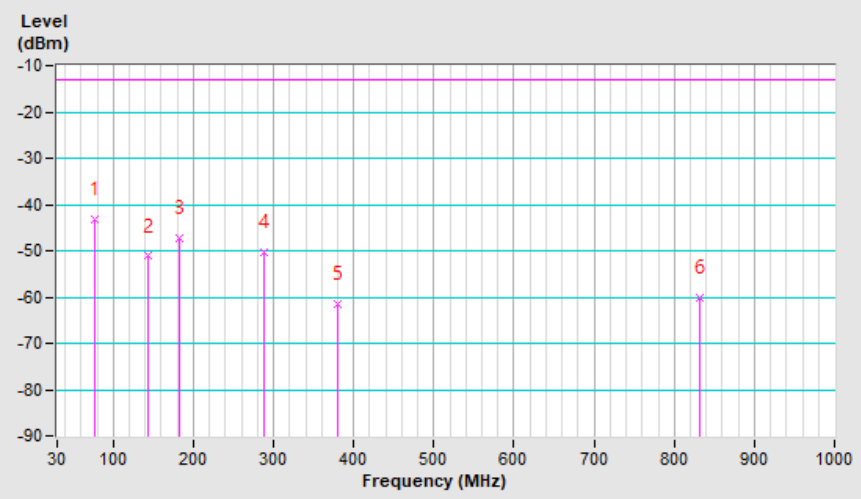
Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB).



Mode	TX channel 19975 (1712.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	76.39	-37.5	-40.4	-2.8	-43.2	-13.0	-30.2
2	142.46	-48.4	-50.9	-0.3	-51.2	-13.0	-38.2
3	183.23	-43.9	-50.5	3.3	-47.2	-13.0	-34.2
4	287.26	-51.8	-55.6	5.2	-50.4	-13.0	-37.4
5	380.04	-61.5	-66.7	5.3	-61.4	-13.0	-48.4
6	832.71	-68.4	-64.1	4.0	-60.1	-13.0	-47.1

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB).

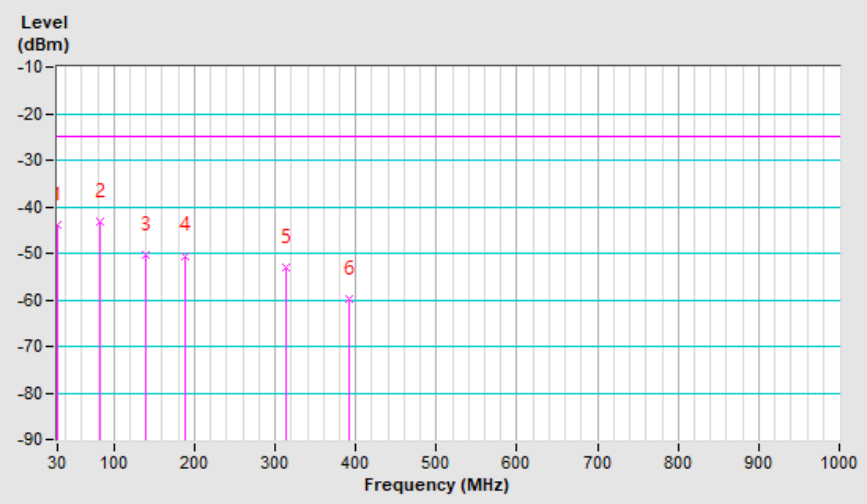


LTE Band 7, Channel Bandwidth: 10MHz

Mode	TX channel 21400 (2565.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	30.00	-46.8	-31.6	-12.2	-43.8	-25.0	-18.8
2	82.01	-37.3	-42.2	-1.1	-43.3	-25.0	-18.3
3	139.65	-44.4	-49.9	-0.3	-50.2	-25.0	-25.2
4	187.45	-42.0	-54.4	3.9	-50.5	-25.0	-25.5
5	313.97	-49.0	-58.1	5.2	-52.9	-25.0	-27.9
6	391.29	-59.1	-65.1	5.2	-59.9	-25.0	-34.9

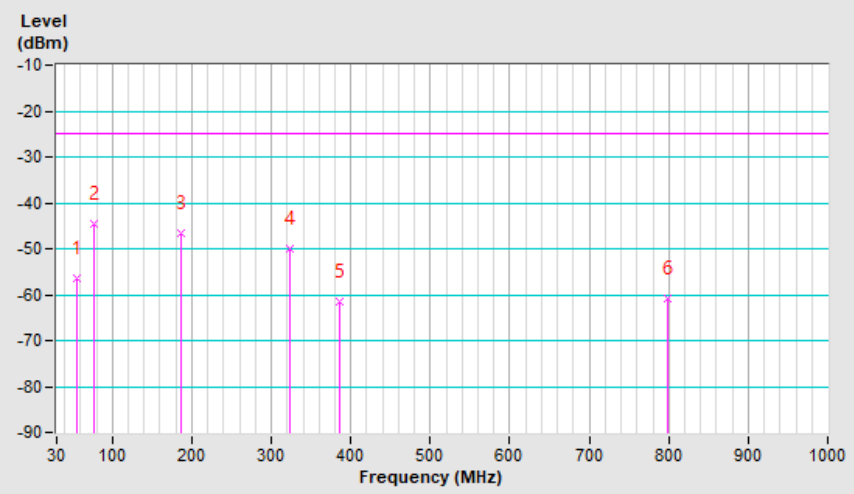
Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB).



Mode	TX channel 21400 (2565.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	55.30	-49.4	-47.6	-8.7	-56.3	-25.0	-31.3
2	77.80	-39.3	-42.2	-2.3	-44.5	-25.0	-19.5
3	186.04	-43.6	-50.3	3.7	-46.6	-25.0	-21.6
4	322.41	-50.0	-55.1	5.2	-49.9	-25.0	-24.9
5	385.67	-61.4	-66.6	5.2	-61.4	-25.0	-36.4
6	798.97	-69.1	-64.9	4.0	-60.9	-25.0	-35.9

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB).

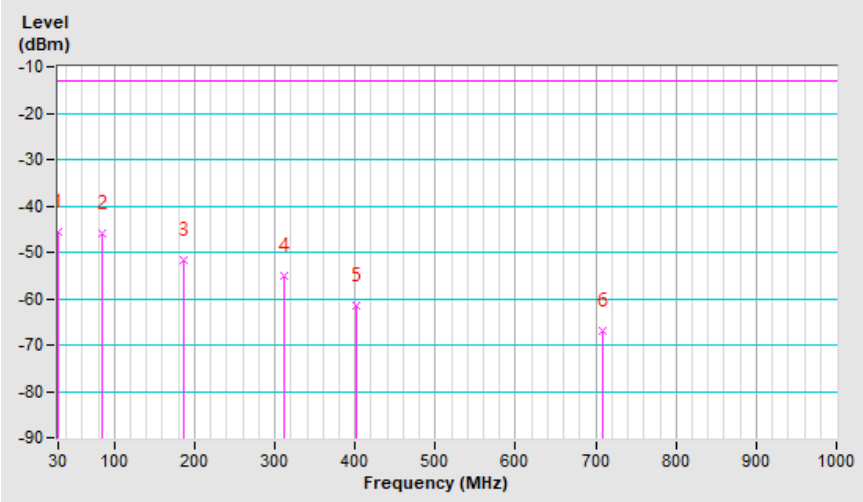


LTE Band 12, Channel Bandwidth: 10MHz

Mode	TX channel 23060 (704.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)
1	30.00	-46.4	-33.3	-12.2	-45.5	-13.0	-32.5
2	84.83	-37.2	-45.8	-0.3	-46.1	-13.0	-33.1
3	186.04	-41.2	-55.4	3.7	-51.7	-13.0	-38.7
4	312.57	-49.0	-60.1	5.1	-55.0	-13.0	-42.0
5	402.54	-59.1	-66.8	5.2	-61.6	-13.0	-48.6
6	709.00	-68.0	-71.9	5.1	-66.8	-13.0	-53.8

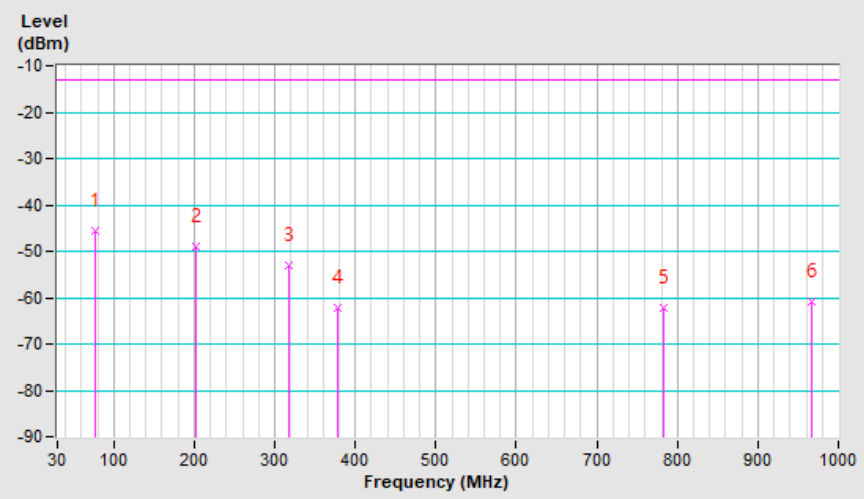
Remarks:
1. ERP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB) + 2.15dB.



Mode	TX channel 23060 (704.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)
1	76.39	-37.9	-42.9	-2.8	-45.7	-13.0	-32.7
2	201.51	-45.6	-54.5	5.4	-49.1	-13.0	-36.1
3	318.19	-51.2	-58.4	5.2	-53.2	-13.0	-40.2
4	378.64	-60.2	-67.5	5.3	-62.2	-13.0	-49.2
5	783.51	-68.3	-66.5	4.2	-62.3	-13.0	-49.3
6	966.26	-68.5	-64.7	3.9	-60.8	-13.0	-47.8

Remarks:
1. ERP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB) + 2.15dB.

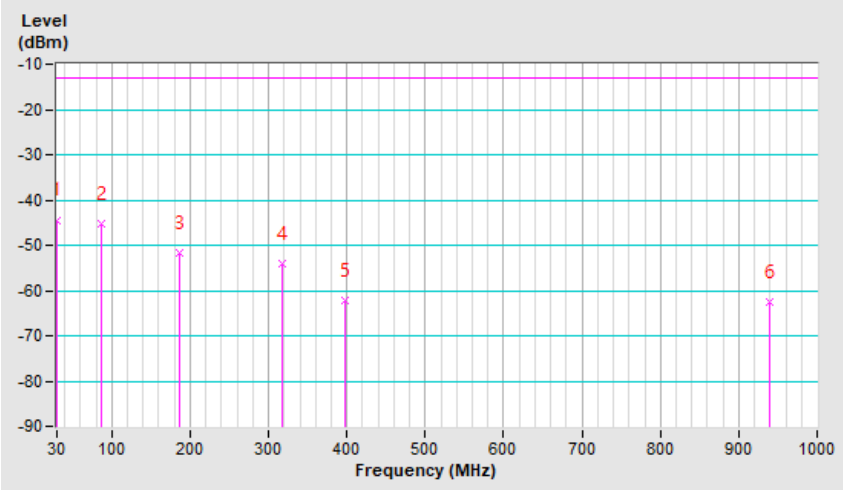


LTE Band 13, Channel Bandwidth: 5MHz

Mode	TX channel 23230 (782.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)
1	30.00	-45.2	-32.2	-12.2	-44.4	-13.0	-31.4
2	86.23	-35.5	-45.2	0.1	-45.1	-13.0	-32.1
3	186.04	-41.3	-55.5	3.7	-51.8	-13.0	-38.8
4	316.78	-48.0	-59.1	5.2	-53.9	-13.0	-40.9
5	396.91	-59.6	-67.3	5.2	-62.1	-13.0	-49.1
6	939.55	-69.0	-66.3	3.9	-62.4	-13.0	-49.4

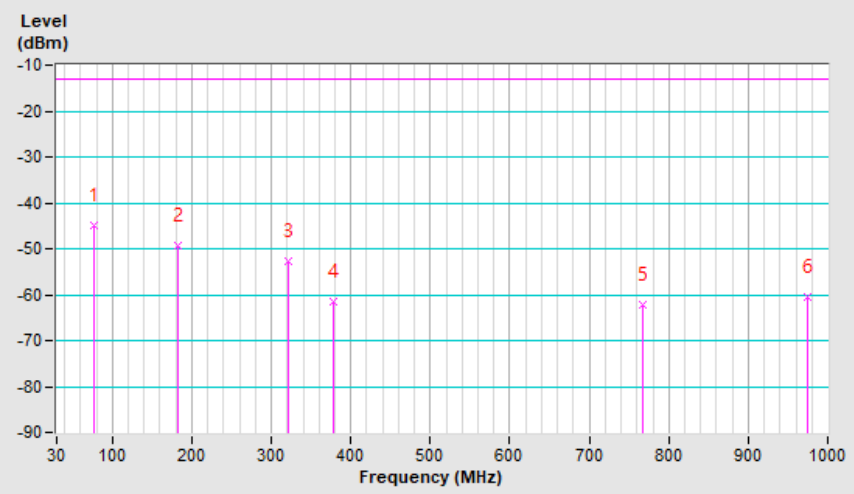
Remarks:
1. ERP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB) + 2.15dB.



Mode	TX channel 23230 (782.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)
1	76.39	-37.1	-42.2	-2.8	-45.0	-13.0	-32.0
2	183.23	-43.8	-52.5	3.3	-49.2	-13.0	-36.2
3	321.00	-50.6	-57.8	5.2	-52.6	-13.0	-39.6
4	377.23	-59.5	-66.9	5.3	-61.6	-13.0	-48.6
5	768.04	-68.0	-66.6	4.4	-62.2	-13.0	-49.2
6	974.70	-68.8	-64.5	3.9	-60.6	-13.0	-47.6

Remarks:
1. ERP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB) + 2.15dB.

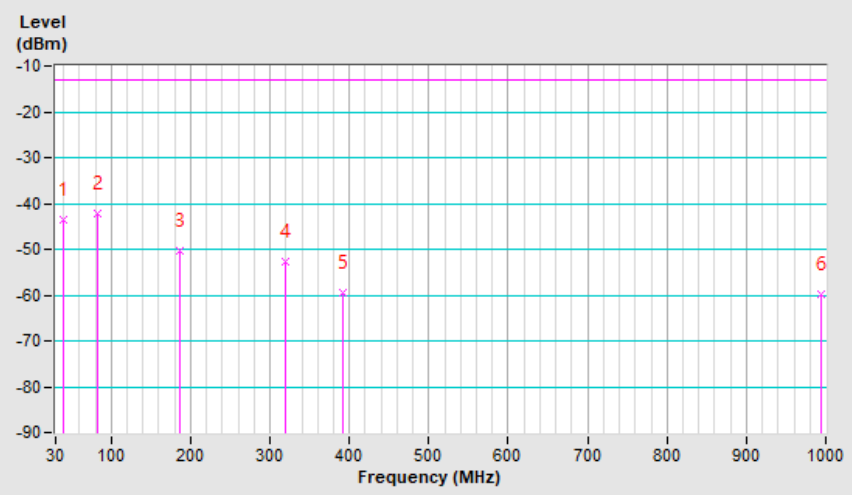


LTE Band 17, Channel Bandwidth: 10MHz

Mode	TX channel 23800 (711.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)
1	39.84	-43.2	-32.6	-10.9	-43.5	-13.0	-30.5
2	83.42	-33.7	-41.4	-0.7	-42.1	-13.0	-29.1
3	186.04	-39.8	-53.9	3.7	-50.2	-13.0	-37.2
4	319.59	-46.8	-58.0	5.2	-52.8	-13.0	-39.8
5	392.70	-56.8	-64.7	5.2	-59.5	-13.0	-46.5
6	994.38	-67.4	-63.7	4.0	-59.7	-13.0	-46.7

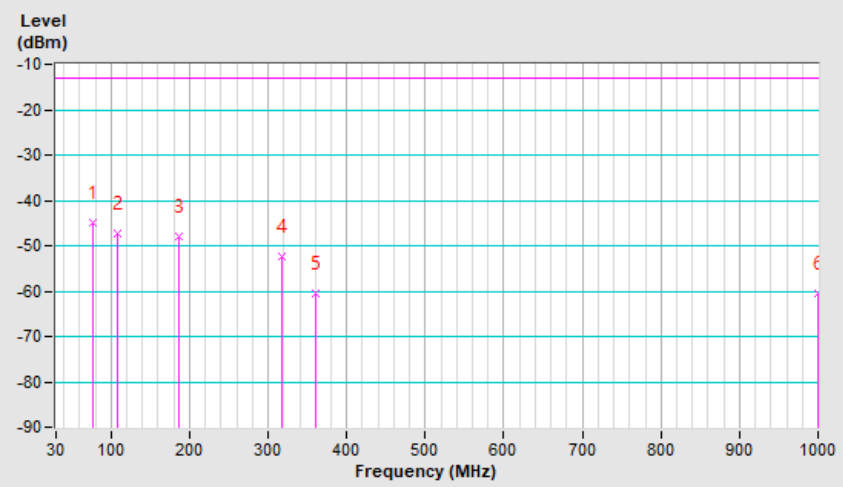
Remarks:
1. ERP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB) + 2.15dB.



Mode	TX channel 23800 (711.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)
1	77.80	-37.6	-42.7	-2.3	-45.0	-13.0	-32.0
2	108.72	-37.2	-47.7	0.5	-47.2	-13.0	-34.2
3	186.04	-43.0	-51.8	3.7	-48.1	-13.0	-35.1
4	318.19	-50.4	-57.6	5.2	-52.4	-13.0	-39.4
5	360.36	-57.8	-65.6	5.2	-60.4	-13.0	-47.4
6	1000.00	-69.2	-64.5	4.0	-60.5	-13.0	-47.5

Remarks:
1. ERP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB) + 2.15dB.

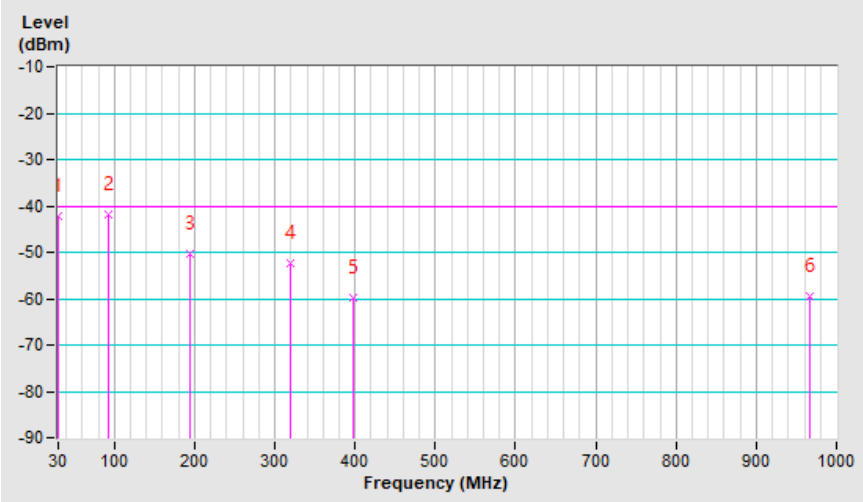


LTE Band 30, Channel Bandwidth: 5MHz

Mode	TX channel 27710 (2310.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	30.00	-45.3	-30.1	-12.2	-42.3	-40.0	-2.3
2	**91.86**	**-32.9**	**-42.8**	**1.1**	**-41.7**	**-40.0**	**-1.7**
3	194.48	-41.8	-55.2	4.8	-50.4	-40.0	-10.4
4	319.59	-48.6	-57.7	5.2	-52.5	-40.0	-12.5
5	396.91	-59.6	-65.1	5.2	-59.9	-40.0	-19.9
6	967.67	-68.8	-63.4	3.9	-59.5	-40.0	-19.5

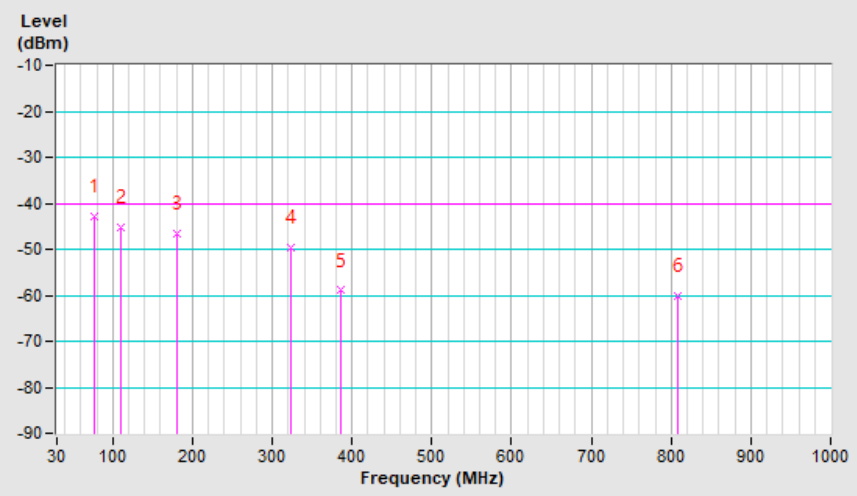
Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB).



Mode	TX channel 27710 (2310.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	76.39	-37.3	-40.2	-2.8	-43.0	-40.0	-3.0
2	110.13	-37.2	-45.6	0.4	-45.2	-40.0	-5.2
3	180.42	-43.2	-49.5	3.0	-46.5	-40.0	-6.5
4	322.41	-49.7	-54.8	5.2	-49.6	-40.0	-9.6
5	385.67	-59.0	-64.2	5.2	-59.0	-40.0	-19.0
6	807.41	-68.1	-64.1	4.0	-60.1	-40.0	-20.1

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB).

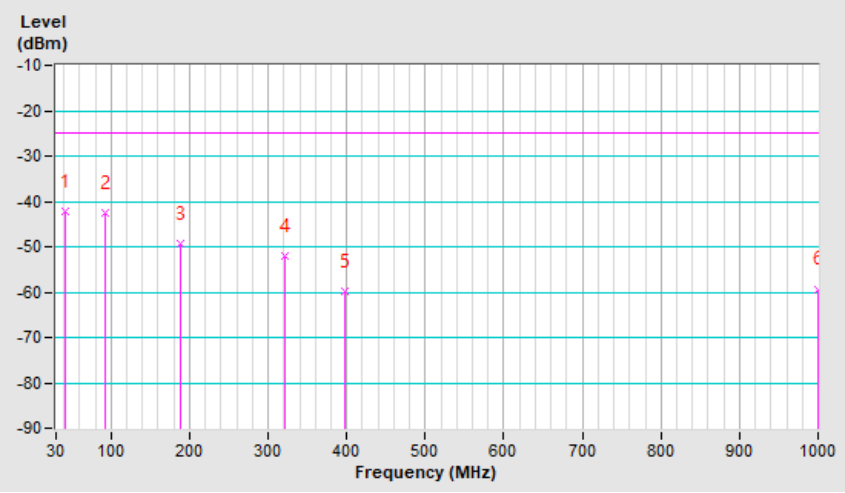


LTE Band 38, Channel Bandwidth: 20MHz

Mode	TX channel 38000 (2595.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	41.25	-45.4	-31.5	-10.7	-42.2	-25.0	-17.2
2	93.26	-33.8	-43.8	1.1	-42.7	-25.0	-17.7
3	187.45	-40.8	-53.2	3.9	-49.3	-25.0	-24.3
4	321.00	-48.3	-57.3	5.2	-52.1	-25.0	-27.1
5	396.91	-59.6	-65.1	5.2	-59.9	-25.0	-34.9
6	1000.00	-69.0	-63.3	4.0	-59.3	-25.0	-34.3

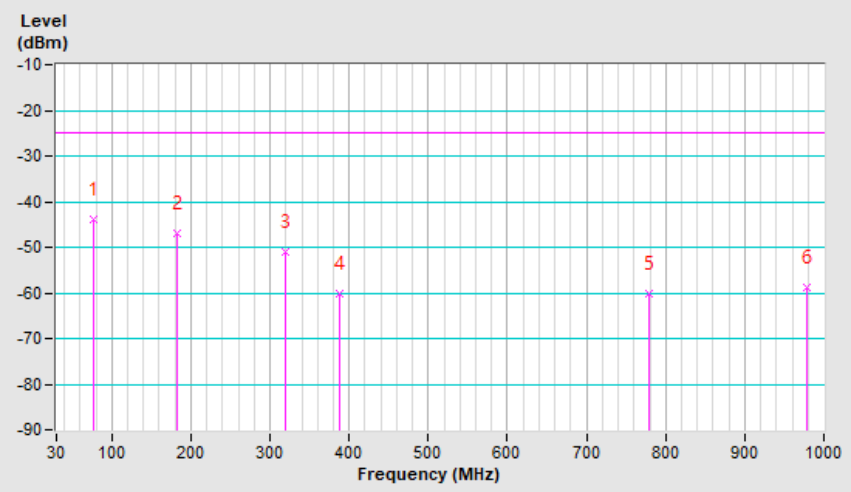
Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB).



Mode	TX channel 38000 (2595.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	77.80	-38.6	-41.5	-2.3	-43.8	-25.0	-18.8
2	181.83	-43.4	-49.9	3.1	-46.8	-25.0	-21.8
3	319.59	-51.2	-56.3	5.2	-51.1	-25.0	-26.1
4	388.48	-60.0	-65.3	5.2	-60.1	-25.0	-35.1
5	779.29	-68.7	-64.5	4.2	-60.3	-25.0	-35.3
6	978.91	-69.0	-62.6	3.9	-58.7	-25.0	-33.7

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB).

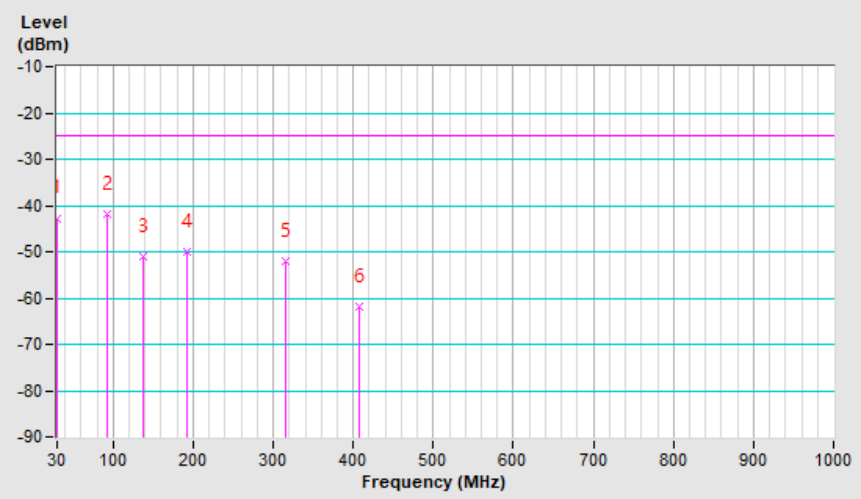


LTE Band 41, Channel Bandwidth: 20MHz

Mode	TX channel 40620 (2593.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	30.00	-45.7	-30.5	-12.2	-42.7	-25.0	-17.7
2	93.26	-32.9	-42.9	1.1	-41.8	-25.0	-16.8
3	138.25	-44.9	-50.6	-0.3	-50.9	-25.0	-25.9
4	191.67	-41.7	-54.4	4.4	-50.0	-25.0	-25.0
5	315.38	-48.3	-57.4	5.2	-52.2	-25.0	-27.2
6	406.75	-61.4	-67.0	5.2	-61.8	-25.0	-36.8

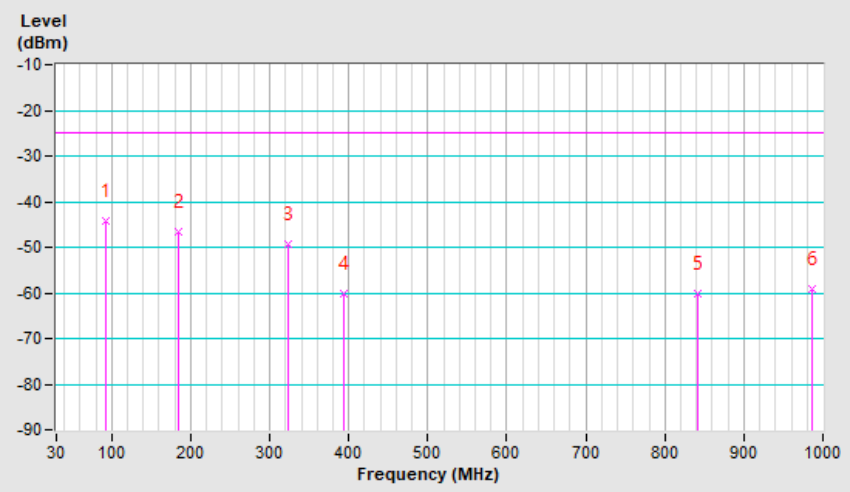
Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB).



Mode	TX channel 40620 (2593.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	91.86	-37.7	-45.3	1.1	-44.2	-25.0	-19.2
2	184.64	-43.4	-50.1	3.5	-46.6	-25.0	-21.6
3	323.81	-49.5	-54.6	5.2	-49.4	-25.0	-24.4
4	394.10	-60.0	-65.3	5.2	-60.1	-25.0	-35.1
5	842.55	-68.6	-64.3	4.0	-60.3	-25.0	-35.3
6	985.94	-69.8	-63.0	3.9	-59.1	-25.0	-34.1

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB).

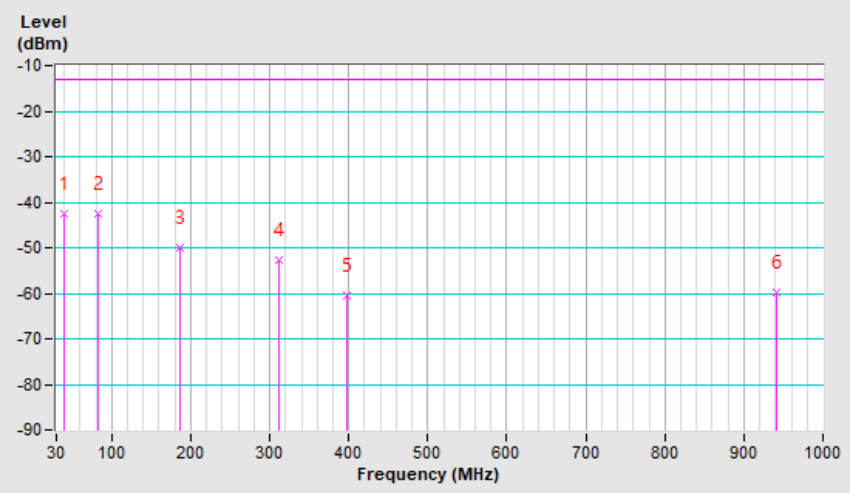


LTE Band 66, Channel Bandwidth: 20MHz

Mode	TX channel 132322 (1745.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	39.84	-44.6	-31.8	-10.9	-42.7	-13.0	-29.7
2	83.42	-36.3	-41.9	-0.7	-42.6	-13.0	-29.6
3	186.04	-41.7	-53.7	3.7	-50.0	-13.0	-37.0
4	312.57	-48.8	-57.7	5.1	-52.6	-13.0	-39.6
5	396.91	-60.1	-65.6	5.2	-60.4	-13.0	-47.4
6	940.96	-68.7	-63.8	3.9	-59.9	-13.0	-46.9

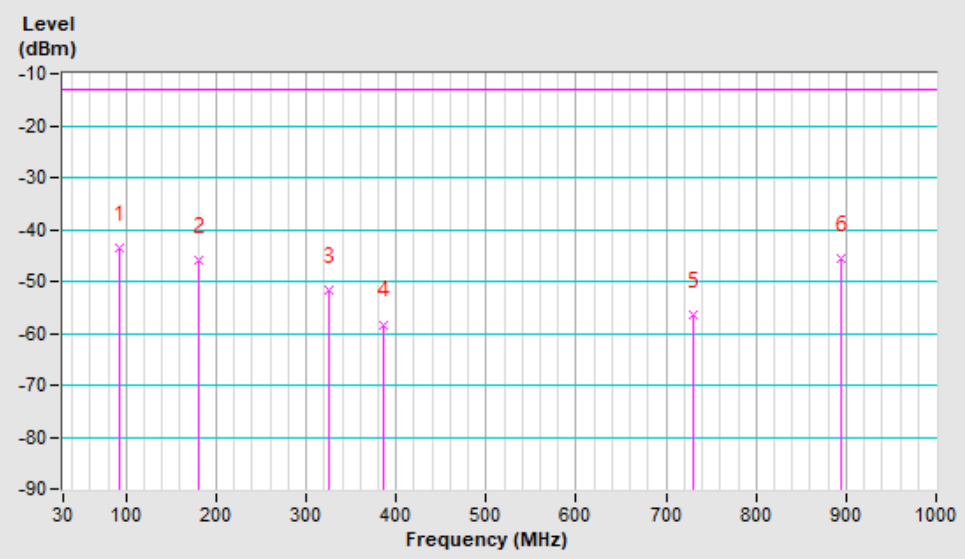
Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB).



Mode	TX channel 132322 (1745.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	91.86	-37.1	-44.7	1.1	-43.6	-13.0	-30.6
2	180.42	-42.7	-49.0	3.0	-46.0	-13.0	-33.0
3	325.22	-51.9	-57.0	5.2	-51.8	-13.0	-38.8
4	385.67	-58.3	-63.5	5.2	-58.3	-13.0	-45.3
5	730.09	-63.2	-61.4	4.9	-56.5	-13.0	-43.5
6	894.57	-54.2	-49.4	3.9	-45.5	-13.0	-32.5

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB).

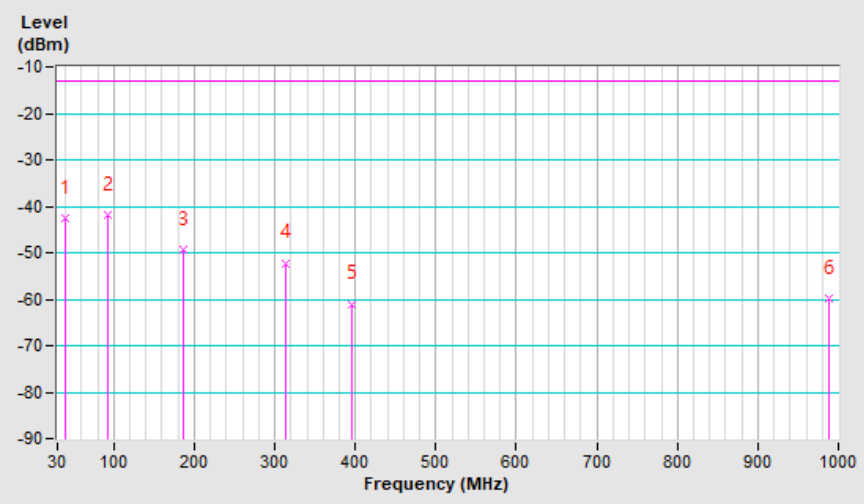


LTE Band 71, Channel Bandwidth: 15MHz

Mode	TX channel 133297 (680.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	39.84	-44.6	-31.8	-10.9	-42.7	-13.0	-29.7
2	93.26	-33.0	-43.0	1.1	-41.9	-13.0	-28.9
3	186.04	-40.9	-52.9	3.7	-49.2	-13.0	-36.2
4	313.97	-48.3	-57.4	5.2	-52.2	-13.0	-39.2
5	395.51	-60.6	-66.2	5.2	-61.0	-13.0	-48.0
6	988.75	-69.3	-63.6	3.9	-59.7	-13.0	-46.7

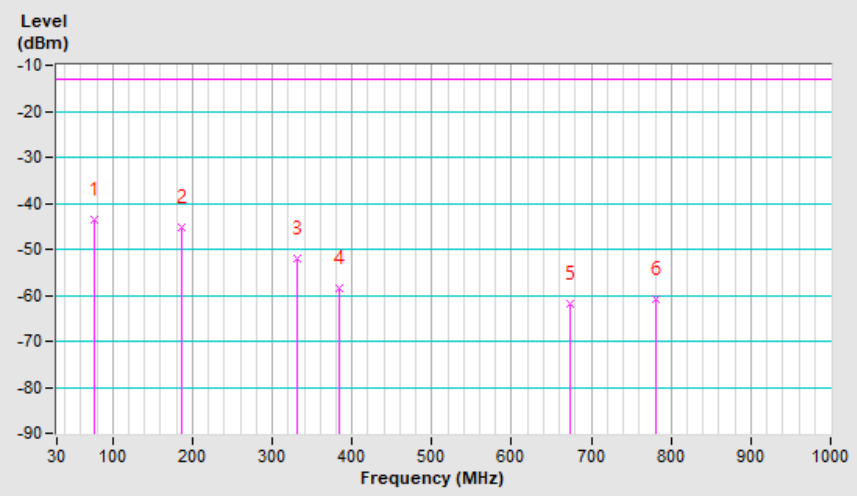
Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB).



Mode	TX channel 133297 (680.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	77.80	-38.2	-41.1	-2.3	-43.4	-13.0	-30.4
2	186.04	-42.2	-48.9	3.7	-45.2	-13.0	-32.2
3	330.84	-52.0	-57.3	5.2	-52.1	-13.0	-39.1
4	384.26	-58.7	-63.9	5.3	-58.6	-13.0	-45.6
5	672.45	-68.0	-66.9	5.0	-61.9	-13.0	-48.9
6	780.70	-69.0	-64.9	4.2	-60.7	-13.0	-47.7

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB).



Above 1GHz
WCDMA Band 4

Mode	TX channel 1513 (1752.6MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	22deg. C, 68%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3505.20	-57.2	-49.0	1.5	-47.5	-13.0	-34.5
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3505.20	-52.4	-44.8	1.5	-43.3	-13.0	-30.3

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB).

LTE Band 4, Channel Bandwidth: 5MHz

Mode	TX channel 19975 (1712.5MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3425.00	-64.8	-56.2	1.3	-54.9	-13.0	-41.9
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3425.00	-63.4	-55.3	1.3	-54.0	-13.0	-41.0

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB).

LTE Band 7, Channel Bandwidth: 10MHz

Mode	TX channel 21400 (2565.0MHz)	Frequency Range	1GHz ~ 27GHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5130.00	-63.0	-50.8	1.4	-49.4	-25.0	-24.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5130.00	-59.2	-47.4	1.4	-46.0	-25.0	-21.0

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB).

LTE Band 12, Channel Bandwidth: 10MHz

Mode	TX channel 23060 (704MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)
1	1408.00	-64.2	-57.8	0.9	-56.9	-13.0	-43.9
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)
1	1408.00	-61.1	-55.9	0.9	-55.0	-13.0	-42.0

Remarks:
1. ERP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB) + 2.15dB.

LTE Band 13, Channel Bandwidth: 5MHz

Mode	TX channel 23230 (782.0MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1564.00	-65.2	-55.2	1.2	-54.0	-40.0	-14.0
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1564.00	-62.8	-53.7	1.2	-52.5	-40.0	-12.5

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB).

LTE Band 17, Channel Bandwidth: 10MHz

Mode	TX channel 23800 (711.0MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1422.00	-65.2	-56.5	1.0	-55.5	-13.0	-42.5
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1422.00	-62.6	-55.0	1.0	-54.0	-13.0	-41.0

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB).

LTE Band 30, Channel Bandwidth: 5MHz

Mode	TX channel 27710 (2310.0MHz)	Frequency Range	1GHz ~ 25GHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	4620.00	-59.9	-49.5	1.0	-48.5	-40.0	-8.5
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	4620.00	-56.7	-46.4	1.0	-45.4	-40.0	-5.4

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB).

LTE Band 38, Channel Bandwidth: 20MHz

Mode	TX channel 38000 (2595.0MHz)	Frequency Range	1GHz ~ 27GHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5190.00	-61.5	-49.8	1.4	-48.4	-25.0	-23.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5190.00	-58.6	-46.4	1.4	-45.0	-25.0	-20.0

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB).

LTE Band 41, Channel Bandwidth: 20MHz

Mode	TX channel 40620 (2593.0MHz)	Frequency Range	1GHz ~ 27GHz
Environmental Conditions	22deg. C, 68%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5186.00	-62.9	-51.2	1.4	-49.8	-25.0	-24.8
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	5186.00	-57.6	-45.4	1.4	-44.0	-25.0	-19.0

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB).

LTE Band 66, Channel Bandwidth: 20MHz

Mode	TX channel 132322 (1745.0MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3490.00	-64.2	-56.0	1.5	-54.5	-13.0	-41.5
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3490.00	-62.4	-54.8	1.5	-53.3	-13.0	-40.3

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB).

LTE Band 71, Channel Bandwidth: 15MHz

Mode	TX channel 133297 (680.5MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	22deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Greg Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)
1	1361.00	-61.4	-55.6	0.6	-55.0	-13.0	-42.0
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)
1	1361.00	-58.5	-53.7	0.6	-53.1	-13.0	-40.1

Remarks:
1. ERP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) - Cable Loss (dB) + 2.15dB.

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.

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

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Web Site: www.bureauveritas-adt.com

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

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