FCC Test Report

(Spot Check: Part 27 – WCDMA B4, LTE B4/B7/B12/B13/B17/B38/B41)

Report No.:	RFBGTL-WTW-P22020477-8
FCC ID:	APYHRO00315
Received Date:	Feb. 19, 2022
Test Date:	May 04 ~ May 11, 2022
Issued Date:	May 30, 2022
Applicant:	SHARP Corporation Mobile Communication BU
Address:	2-13-1 Iida Hachihonmatsu Higashi-hiroshima City, Hiroshima 730-0192, Japan
Manufacturer:	Sharp Corporation
Address:	1 Takumi-cho, Sakai-ku, Sakai City, Osaka 590-8522, Japan
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 (1):	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN
FCC Registration / Designation Number:	788550 / TW0003
Test Location (2):	No. 70, Wenming Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)
FCC Registration / Designation Number:	281270 / TW0032

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Release Control Record

Issue No.	Description	Date Issued
RFBGTL-WTW-P22020477-8	Original release	May 30, 2022

1 Certificate of Conformity

Product:	Smart Phone
Brand:	SHARP
Sample Status:	Engineering sample
Applicant:	SHARP Corporation Mobile Communication BU
Manufacturer:	Sharp Corporation
Test Date:	May 04 ~ May 11, 2022
Standards:	FCC Part 27, Subpart C, H, L, M

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 : Celine Chou , **Date:** May 30, 2022

Celine Chou / Senior Specialist

Approved by : Jeremy Lin , **Date:** May 30, 2022

Jeremy Lin / Project Engineer

2 Summary of Test Results

For WCDMA Band 4, LTE Band 4

Applied Standard: FCC Part 27 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50 (d)	Equivalent Isotropically radiated power	Pass	Meet the requirement of limit.
2.1053 27.53 (h)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -35.50dB at 32.91MHz.

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

For LTE Band 7, LTE Band 38, LTE Band 41

Applied Standard: FCC Part 27 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50 (h)(2)	Equivalent Isotropically radiated power	Pass	Meet the requirement of limit.
2.1053 27.53 (m)(4)(6)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -20.00dB at 5186.00MHz.

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

For LTE Band 12, LTE Band 17

Applied Standard: FCC Part 27 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50 (c)	Equivalent radiated power	Pass	Meet the requirement of limit.
2.1053 27.53 (g)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -41.30dB at 38.73MHz.

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

For LTE Band 13

Applied Standard: FCC Part 27 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50(b)	Equivalent radiated power	Pass	Meet the requirement of limit.
2.1053 27.53(c)(f))	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -15.10dB at 1564.00MHz.

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

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.00 dB
	30MHz ~ 200MHz	2.91 dB
	200MHz ~1000MHz	2.93 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	1.76 dB
	18GHz ~ 40GHz	1.77 dB

2.2 Test Site and Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver KEYSIGHT	N9038B	MY60180018	Feb. 18, 2022	Feb. 17, 2023
Spectrum Analyzer KEYSIGHT	N9020B	MY60110513	Dec. 24, 2021	Dec. 23, 2022
BILOG Antenna SCHWARZBECK	VULB9168	9168-1214	Oct. 27, 2021	Oct. 26, 2022
HORN Antenna RF SPIN	DRH18-E	210101A18E	Nov. 14, 2021	Nov. 13, 2022
HORN Antenna SCHWARZBECK	BBHA 9170	9170-1049	Nov. 14, 2021	Nov. 13, 2022
Loop Antenna EMCI	EM-6879	269	Sep. 16, 2021	Sep. 15, 2022
Loop Antenna TESEQ	HLA 6121	45745	Jul. 21, 2021	Jul. 20, 2022
Preamplifier EMCI	EMC330N	980798	Jan. 17, 2022	Jan. 16, 2023
Preamplifier EMCI	EMC118A45SE	980809	Dec. 30, 2021	Dec. 29, 2022
Preamplifier EMCI	EMC184045SE	980786	Jan. 17, 2022	Jan. 16, 2023
RF signal cable EMCI	EMC104-SM-SM-(9000+3000+1000)	201244+ 201232+ 210103	Jan. 17, 2022	Jan. 16, 2023
RF signal cable EMCI	EMCCFD400-NM-NM-(9000+3000+500)	201251+ 201249+ 201248	Jan. 17, 2022	Jan. 16, 2023
RF signal cable EMCI	EMC101G-KM-KM-(5000+3000+2000)	201261+201258+201255	Jan. 17, 2022	Jan. 16, 2023
Software BV ADT	ADT_Radiated_V7.6.15.9.5	NA	NA	NA
Antenna Tower Max-Full	MFA-515BSN	NA	NA	NA
Turn Table Max-Full	MFT-201SS	NA	NA	NA
Turn Table Controller Max-Full	MF-7802BS	MF780208676	NA	NA
Temperature & Humidity Chamber TERCHY	HRM-120RF	931022	Jan. 03, 2022	Jan. 02, 2023
True RMS Clamp Meter Fluke	325	31130711WS	Jun. 02, 2021	Jun. 01, 2022
DC power supply Keysight	U8002A	MY56330015	NA	NA
Radio Communication Analyzer Anritsu	MT8821C	6261806803	Feb. 16, 2022	Feb. 15, 2023

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 WM Chamber 9.

3 General Information

3.1 General Description of EUT

Product	Smart Phone	
Brand	SHARP	
Sample Status	Engineering sample	
Power Supply Rating	3.87Vdc (Battery) 5Vdc (Adapter)	
Modulation Type	WCDMA: BPSK, QPSK HSDPA: BPSK HSUPA: QPSK LTE: QPSK, 16QAM, 64QAM	
Operating Frequency	WCDMA Band 4	1712.4MHz ~ 1752.6MHz
	LTE Band 4 (Channel Bandwidth 1.4MHz)	1710.7MHz ~ 1754.3MHz
	LTE Band 4 (Channel Bandwidth 3MHz)	1711.5MHz ~ 1753.5MHz
	LTE Band 4 (Channel Bandwidth 5MHz)	1712.5MHz ~ 1752.5MHz
	LTE Band 4 (Channel Bandwidth 10MHz)	1715.0MHz ~ 1750.0MHz
	LTE Band 4 (Channel Bandwidth 15MHz)	1717.5MHz ~ 1747.5MHz
	LTE Band 4 (Channel Bandwidth 20MHz)	1720.0MHz ~ 1745.0MHz
	LTE Band 7 (Channel Bandwidth 5MHz)	2502.5MHz ~ 2567.5MHz
	LTE Band 7 (Channel Bandwidth 10MHz)	2505.0MHz ~ 2565.0MHz
	LTE Band 7 (Channel Bandwidth 15MHz)	2507.5MHz ~ 2562.5MHz
	LTE Band 7 (Channel Bandwidth 20MHz)	2510.0MHz ~ 2560.0MHz
	LTE Band 12 (Channel Bandwidth 1.4MHz)	699.7MHz ~ 715.3MHz
	LTE Band 12 (Channel Bandwidth 3MHz)	700.5MHz ~ 714.5MHz
	LTE Band 12 (Channel Bandwidth 5MHz)	701.5MHz ~ 713.5MHz
	LTE Band 12 (Channel Bandwidth 10MHz)	704.0MHz ~ 711.0MHz
	LTE Band 13 (Channel Bandwidth 5MHz)	779.5MHz ~ 784.5MHz
	LTE Band 13 (Channel Bandwidth 10MHz)	782.0MHz
	LTE Band 17 (Channel Bandwidth 5MHz)	706.5MHz ~ 713.5MHz
	LTE Band 17 (Channel Bandwidth 10MHz)	709.0MHz ~ 711.0MHz
	LTE Band 38 (Channel Bandwidth 5MHz)	2572.5MHz ~ 2617.5MHz
	LTE Band 38 (Channel Bandwidth 10MHz)	2575.0MHz ~ 2615.0MHz
	LTE Band 38 (Channel Bandwidth 15MHz)	2577.5MHz ~ 2612.5MHz
	LTE Band 38 (Channel Bandwidth 20MHz)	2580.0MHz ~ 2610.0MHz
	LTE Band 41 (Channel Bandwidth 5MHz)	2498.5MHz ~ 2687.5MHz
	LTE Band 41 (Channel Bandwidth 10MHz)	2501.0MHz ~ 2685.0 MHz
	LTE Band 41 (Channel Bandwidth 15MHz)	2503.5MHz ~ 2682.5MHz
	LTE Band 41 (Channel Bandwidth 20MHz)	2506.0MHz ~ 2680.0 MHz

Max. EIRP Power	WCDMA Band 4	63.241mW (18.01dBm)		
		QPSK	16QAM	64QAM
	LTE Band 4 (Channel Bandwidth 1.4MHz)	46.989mW (16.72dBm)	38.548mW (15.86dBm)	29.648mW (14.72dBm)
	LTE Band 4 (Channel Bandwidth 3MHz)	46.452mW (16.67dBm)	38.107mW (15.81dBm)	30.061mW (14.78dBm)
	LTE Band 4 (Channel Bandwidth 5MHz)	45.814mW (16.61dBm)	38.637mW (15.87dBm)	29.992mW (14.77dBm)
	LTE Band 4 (Channel Bandwidth 10MHz)	46.345mW (16.66dBm)	37.584mW (15.75dBm)	29.717mW (14.73dBm)
	LTE Band 4 (Channel Bandwidth 15MHz)	45.920mW (16.62dBm)	37.068mW (15.69dBm)	29.717mW (14.73dBm)
	LTE Band 4 (Channel Bandwidth 20MHz)	61.944mW (17.92dBm)	50.933mW (17.07dBm)	40.272mW (16.05dBm)
	LTE Band 7 (Channel Bandwidth 5MHz)	98.175mW (19.92dBm)	84.140mW (19.25dBm)	62.951mW (17.99dBm)
	LTE Band 7 (Channel Bandwidth 10MHz)	97.724mW (19.90dBm)	82.985mW (19.19dBm)	63.680mW (18.04dBm)
	LTE Band 7 (Channel Bandwidth 15MHz)	100.231mW (20.01dBm)	83.946mW (19.24dBm)	64.565mW (18.10dBm)
	LTE Band 7 (Channel Bandwidth 20MHz)	132.130mW (21.21dBm)	108.143mW (20.34dBm)	84.528mW (19.27dBm)
	LTE Band 38 (Channel Bandwidth 5MHz)	106.660mW (20.28dBm)	89.743mW (19.53dBm)	65.163mW (18.14dBm)
	LTE Band 38 (Channel Bandwidth 10MHz)	108.143mW (20.34dBm)	90.991mW (19.59dBm)	66.222mW (18.21dBm)
	LTE Band 38 (Channel Bandwidth 15MHz)	107.152mW (20.30dBm)	91.201mW (19.60dBm)	67.920mW (18.32dBm)
	LTE Band 38 (Channel Bandwidth 20MHz)	142.561mW (21.54dBm)	121.060mW (20.83dBm)	89.950mW (19.54dBm)
	LTE Band 41 (Channel Bandwidth 5MHz)	118.850mW (20.75dBm)	93.541mW (19.71dBm)	73.961mW (18.69dBm)
	LTE Band 41 (Channel Bandwidth 10MHz)	119.399mW (20.77dBm)	95.280mW (19.79dBm)	74.989mW (18.75dBm)
	LTE Band 41 (Channel Bandwidth 15MHz)	118.032mW (20.72dBm)	99.770mW (19.99dBm)	79.433mW (19.00dBm)
	LTE Band 41 (Channel Bandwidth 20MHz)	154.525mW (21.89dBm)	130.017mW (21.14dBm)	104.472mW (20.19dBm)

Max. ERP Power		QPSK	16QAM	64QAM
	LTE Band 12 (Channel Bandwidth 1.4MHz)	30.339mW (14.82dBm)	26.122mW (14.17dBm)	20.230mW (13.06dBm)
	LTE Band 12 (Channel Bandwidth 3MHz)	29.717mW (14.73dBm)	26.424mW (14.22dBm)	20.324mW (13.08dBm)
	LTE Band 12 (Channel Bandwidth 5MHz)	29.923mW (14.76dBm)	26.122mW (14.17dBm)	20.417mW (13.10dBm)
	LTE Band 12 (Channel Bandwidth 10MHz)	36.058mW (15.57dBm)	31.842mW (15.03dBm)	24.491mW (13.89dBm)
	LTE Band 13 (Channel Bandwidth 5MHz)	32.137mW (15.07dBm)	28.840mW (14.60dBm)	22.029mW (13.43dBm)
	LTE Band 13 (Channel Bandwidth 10MHz)	38.194mW (15.82dBm)	34.914mW (15.43dBm)	26.424mW (14.22dBm)
	LTE Band 17 (Channel Bandwidth 5MHz)	30.549mW (14.85dBm)	27.542mW (14.40dBm)	21.979mW (13.42dBm)
	LTE Band 17 (Channel Bandwidth 10MHz)	36.813mW (15.66dBm)	32.810mW (15.16dBm)	26.363mW (14.21dBm)
Antenna Type	Refer to note			
Antenna Connector	Refer to note			
Accessory Device	NA			
Cable Supplied	NA			

Note:

1. This report is a supplementary report to the original BV CPS report no.: RFBGTL-WTW-P22020475-8. 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 differences between FCC ID: APYHRO00314 & FCC ID: APYHRO00315:

FCC ID	APYHRO00314	APYHRO00315
FM Radio	Supports	Doesn’t support

3. The EUT uses following devices.

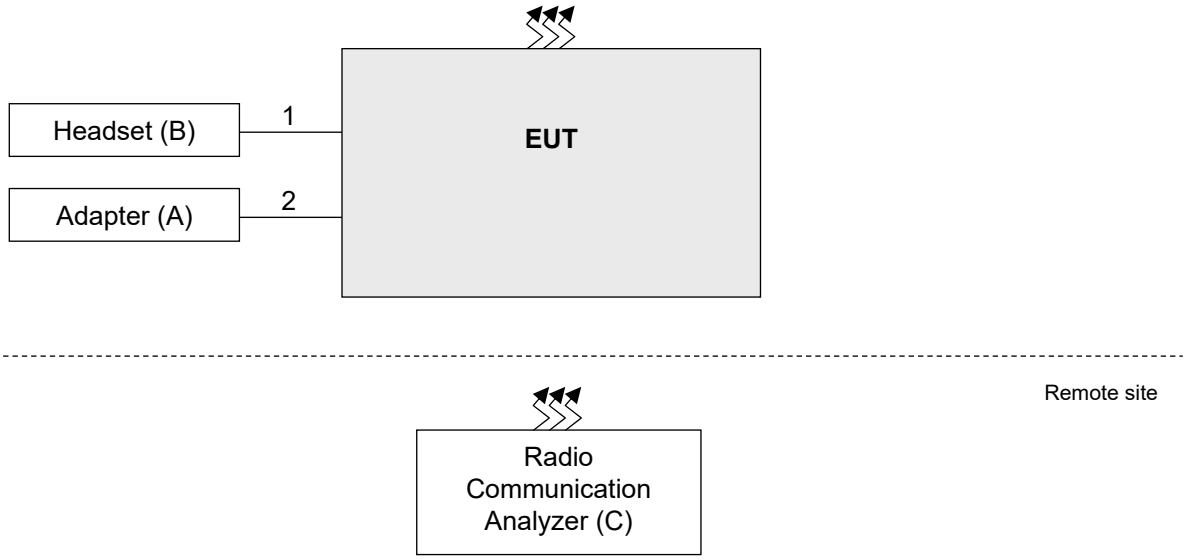
Product	Brand	Model	Description
Adapter (Support unit)	Salom	XN-2QC25	Input: 100-240Vac, 50/60Hz, 0.2A Output: 5.0Vdc, 800mA
Battery	-	-	3.87Vdc, Rated 4870mAh (18.9Wh), Typ. 5000mAh (19.4Wh)
Headset (Support unit)	Ambibio	AB-HI02JS	-
USB cable (Support unit)	Luxshare-ICT	L6KU2007-CS-H	0.95m shielded cable without core

4. The antenna information is listed as below.

Ant. No.	Type	Connector	Gain (dBi)										
			GSM 850	GSM 1900	WCDMA B2 / LTE B2	WCDMA B4 / LTE B4	WCDMA B5 / LTE B5	LTE B7	LTE B12	LTE B13	LTE B17	LTE B38	LTE B41
1	PIFA	IPEX	-	-2.9	-2.9	-4.9	-	-1.8	-	-	-	-1.9	-1.9
3	PIFA	IPEX	-4.8	-	-	-	-4.8	-	-5.6	-5.3	-5.6	-	-

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

3.2 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.	Adapter	Salom	XN-2QC25	N/A	N/A	Provided by client
B.	Headset	Ambibio	AB-HI02JS	N/A	N/A	Provided by client
C.	Radio Communication Analyzer	Anritsu	MT8821C	6261806803	NA	-

Note:

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

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	Earphone Cable	1	1.1	N	0	Provided by client
2.	USB Cable	1	1	Y	0	Provided by client

3.3 Test Mode Applicability and Tested Channel Detail

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports. The worst case was found when positioned as the table below. Following channel(s) was (were) selected for the final test as listed below:

Band	Radiated Emission
WCDMA Band 4	Z-plane
LTE Band 4	Z-plane
LTE Band 7	Z-plane
LTE Band 12	Z-plane
LTE Band 13	Z-plane
LTE Band 17	Z-plane
LTE Band 38	Z-plane
LTE Band 41	Z-plane

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, HSDPA, HSUPA
-	Radiated Emission	1312 to 1513	1413 (1732.6MHz)	WCDMA

LTE Band 4

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	RB #
-	EIRP	19957 to 20393	19957 (1710.7MHz), 20175 (1732.5MHz), 20393 (1754.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM	1 Half Full
		19965 to 20385	19965 (1711.5MHz), 20175 (1732.5MHz), 20385 (1753.5MHz)	3MHz	QPSK / 16QAM / 64QAM	1 Half Full
		19975 to 20375	19975 (1712.5MHz), 20175 (1732.5MHz), 20375 (1752.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 Half Full
		20000 to 20350	20000 (1715.0MHz), 20175 (1732.5MHz), 20350 (1750.0MHz)	10MHz	QPSK / 16QAM / 64QAM	1 Half Full
		20025 to 20325	20025 (1717.5MHz), 20175 (1732.5MHz), 20325 (1747.5MHz)	15MHz	QPSK / 16QAM / 64QAM	1 Half Full
		20050 to 20300	20050 (1720.0MHz), 20175 (1732.5MHz), 20300 (1745.0MHz)	20MHz	QPSK / 16QAM / 64QAM	1 Half Full
-	Radiated Emission	20050 to 20300	20175 (1732.5MHz)	20MHz	QPSK	1

LTE Band 7

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	RB #
-	EIRP	20775 to 21425	20775 (2502.5MHz), 21100 (2535.0MHz), 21425 (2567.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 Half Full
		20800 to 21400	20800 (2505.0MHz), 21100 (2535.0MHz), 21400 (2565.0MHz)	10MHz	QPSK / 16QAM / 64QAM	1 Half Full
		20825 to 21375	20825 (2507.5MHz), 21100 (2535.0MHz), 21375 (2562.5MHz)	15MHz	QPSK / 16QAM / 64QAM	1 Half Full
		20850 to 21350	20850 (2510.0MHz), 21100 (2535.0MHz), 21350 (2560.0MHz)	20MHz	QPSK / 16QAM / 64QAM	1 Half Full
-	Radiated Emission	20850 to 21350	21100 (2535.0MHz)	20MHz	QPSK	1

LTE Band 12

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	RB #
-	ERP	23017 to 23173	23017 (699.7MHz), 23095 (707.5MHz), 23173 (715.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM	1 Half Full
		23025 to 23165	23025 (700.5MHz), 23095 (707.5MHz), 23165 (714.5MHz)	3MHz	QPSK / 16QAM / 64QAM	1 Half Full
		23035 to 23155	23035 (701.5MHz), 23095 (707.5MHz), 23155 (713.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 Half Full
		23060 to 23130	23060 (704.0MHz), 23095 (707.5MHz), 23130 (711.0 MHz)	10MHz	QPSK / 16QAM / 64QAM	1 Half Full
-	Radiated Emission	23060 to 23130	23095 (707.5MHz)	10MHz	QPSK	1

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	1 Half Full
		23230	23230 (782.0MHz)	10MHz	QPSK / 16QAM / 64QAM	1 Half Full
-	Radiated Emission	23230	23230 (782.0MHz)	10MHz	QPSK	1

LTE Band 17

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

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	1 Half Full
		37800 to 38200	37800 (2575.0MHz), 38000 (2595.0MHz), 38200 (2615.0MHz)	10MHz	QPSK / 16QAM / 64QAM	1 Half Full
		37825 to 38175	37825 (2577.5MHz), 38000 (2595.0MHz), 38175 (2612.5MHz)	15MHz	QPSK / 16QAM / 64QAM	1 Half Full
		37850 to 38150	37850 (2580.0MHz), 38000 (2595.0MHz), 38150 (2610.0MHz)	20MHz	QPSK / 16QAM / 64QAM	1 Half Full
-	Radiated Emission	37850 to 38150	38000 (2595.0MHz)	20MHz	QPSK	1

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	1 Half Full
		39700 to 41540	39700 (2501.0MHz), 40620 (2593.0MHz), 41540 (2685.0MHz)	10MHz	QPSK / 16QAM / 64QAM	1 Half Full
		39725 to 41515	39725 (2503.5MHz), 40620 (2593.0MHz), 41515 (2682.5MHz)	15MHz	QPSK / 16QAM / 64QAM	1 Half Full
		39750 to 41490	39750 (2506.0MHz), 40620 (2593.0MHz), 41490 (2680.0MHz)	20MHz	QPSK / 16QAM / 64QAM	1 Half Full
-	Radiated Emission	39750 to 41490	40620 (2593.0MHz)	20MHz	QPSK	1

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
EIRP / ERP	25deg. C, 60%RH	3.87Vdc	Willy Cheng
Radiated Emission	27deg. C, 66%RH	120Vac, 60Hz	Tim Chen

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

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

For WCMDA Band 4, LTE Band 4:
Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

For 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.

For LTE Band 12, LTE Band 17:
Control and mobile stations in the 698-746 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 band are limited to 3 watts ERP.

For LTE Band 13:
Control stations and mobile stations in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands and fixed stations transmitting in the 787-788 MHz and 805-806 MHz bands are limited to 30 watts ERP.
Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP.

4.1.2 Test Procedures

Conducted Power Measurement:

The EUT was set up for the maximum power with WCDMA and 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 / ERP

The relevant equation for determining the maximum ERP or EIRP from the measured RF output power is given in Equation as follows:

$EIRP = P_{Meas} + G_T$

$ERP = P_{Meas} + G_T - 2.15$

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)

4.1.3 Test Setup

Conducted Power Measurement:

4.1.4 Test Results

Conducted Output Power (dBm)

Band	WCDMA IV		
TX Channel	1312	1413	1513
Rx Channel	1537	1638	1738
Frequency	1712.4	1732.6	1752.6
RMC 12.2K	22.83	22.91	22.87
HSDPA Subtest-1	22.13	22.24	22.07
HSDPA Subtest-2	21.60	21.69	21.52
HSDPA Subtest-3	21.67	21.71	21.61
HSDPA Subtest-4	21.60	21.69	21.51
HSUPA Subtest-1	22.00	22.09	21.90
HSUPA Subtest-2	20.05	20.13	20.05
HSUPA Subtest-3	21.02	21.04	20.97
HSUPA Subtest-4	19.99	20.08	19.89
HSUPA Subtest-5	21.93	21.97	21.80

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20050	20175	20300
		Frequency (MHz)		1720	1732.5	1745
20M	QPSK	1	0	22.68	**22.82**	22.64
		1	50	22.64	22.77	22.56
		1	99	22.69	22.75	22.62
		50	0	21.30	**21.31**	21.16
		50	25	21.19	21.28	21.13
		50	50	21.22	21.26	21.07
		100	0	21.14	**21.24**	20.99
20M	16QAM	1	0	21.87	21.97	21.77
		1	50	21.84	21.92	21.72
		1	99	21.71	21.81	21.60
		50	0	20.31	20.33	20.25
		50	25	20.20	20.29	20.13
		50	50	20.25	20.27	20.11
		100	0	20.18	20.25	20.03
20M	64QAM	1	0	20.93	20.95	20.85
		1	50	20.68	20.75	20.56
		1	99	20.52	20.61	20.38
		50	0	19.39	19.39	19.27
		50	25	19.30	19.33	19.16
		50	50	19.29	19.31	19.23
		100	0	19.23	19.29	19.17

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20025	20175	20325
		Frequency (MHz)		1717.5	1732.5	1747.5
15M	QPSK	1	0	21.40	21.52	21.42
		1	37	21.15	21.34	21.13
		1	74	21.18	21.32	21.15
		36	0	19.77	19.90	19.76
		36	19	19.75	19.93	19.70
		36	39	19.74	19.82	19.60
		75	0	19.63	19.90	19.64
15M	16QAM	1	0	20.45	20.59	20.35
		1	37	20.31	20.49	20.25
		1	74	20.21	20.34	20.17
		36	0	18.78	18.95	18.85
		36	19	18.70	18.90	18.73
		36	39	18.76	18.88	18.71
		75	0	18.70	18.90	18.63
15M	64QAM	1	0	19.49	19.63	19.33
		1	37	19.24	19.33	19.12
		1	74	18.93	19.21	18.93
		36	0	17.90	18.05	17.80
		36	19	17.77	17.94	17.72
		36	39	17.81	17.88	17.78
		75	0	17.71	17.87	17.77

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20000	20175	20350
		Frequency (MHz)		1715	1732.5	1750
10M	QPSK	1	0	21.41	21.56	21.39
		1	24	21.32	21.38	21.20
		1	49	21.27	21.44	21.20
		25	0	19.88	20.06	19.80
		25	12	19.79	19.91	19.85
		25	25	19.85	20.00	19.78
		50	0	19.61	20.01	19.56
10M	16QAM	1	0	20.46	20.65	20.47
		1	24	20.44	20.64	20.33
		1	49	20.30	20.64	20.18
		25	0	18.94	19.00	18.87
		25	12	18.91	19.01	18.73
		25	25	18.89	18.87	18.80
		50	0	18.76	18.86	18.72
10M	64QAM	1	0	19.46	**19.63**	19.32
		1	24	19.30	19.43	19.17
		1	49	19.13	19.28	19.03
		25	0	17.92	18.17	17.90
		25	12	17.86	18.08	17.77
		25	25	17.90	17.90	17.78
		50	0	17.83	18.00	17.83

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		19975	20175	20375
		Frequency (MHz)		1712.5	1732.5	1752.5
5M	QPSK	1	0	21.43	21.51	21.35
		1	12	21.27	21.40	21.03
		1	24	21.23	21.38	21.15
		12	0	19.80	19.99	19.77
		12	6	19.76	19.80	19.69
		12	13	19.79	19.95	19.67
		25	0	19.73	20.02	19.46
5M	16QAM	1	0	20.39	20.77	20.32
		1	12	20.36	20.68	20.31
		1	24	20.41	20.42	20.16
		12	0	18.84	19.11	18.87
		12	6	18.82	18.97	18.65
		12	13	18.91	19.03	18.85
		25	0	18.75	18.98	18.62
5M	64QAM	1	0	19.44	**19.67**	19.37
		1	12	19.27	19.35	19.27
		1	24	19.13	19.32	18.90
		12	0	18.09	18.07	17.85
		12	6	17.79	17.97	17.70
		12	13	17.90	17.93	17.90
		25	0	17.89	17.97	17.74

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		19965	20175	20385
		Frequency (MHz)		1711.5	1732.5	1753.5
3M	QPSK	1	0	21.26	21.57	21.37
		1	7	21.05	21.51	21.21
		1	14	21.17	21.46	21.17
		8	0	19.75	20.19	19.80
		8	3	19.61	20.02	19.69
		8	7	19.62	20.10	19.68
		15	0	19.55	19.91	19.58
3M	16QAM	1	0	20.25	20.67	20.37
		1	7	20.33	20.71	20.28
		1	14	20.30	20.62	20.26
		8	0	18.69	19.08	18.92
		8	3	18.61	18.96	18.82
		8	7	18.74	18.88	18.79
		15	0	18.58	19.04	18.65
3M	64QAM	1	0	19.28	19.68	19.40
		1	7	19.01	19.54	19.07
		1	14	18.98	19.50	19.13
		8	0	17.84	18.24	18.01
		8	3	17.69	18.18	17.75
		8	7	17.78	18.02	17.96
		15	0	17.73	18.00	17.73

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		19957	20175	20393
		Frequency (MHz)		1710.7	1732.5	1754.3
1.4M	QPSK	1	0	21.31	21.54	21.28
		1	2	21.34	21.62	21.09
		1	5	21.17	21.53	21.17
		3	0	20.82	20.97	20.72
		3	1	20.52	20.98	20.77
		3	3	20.77	20.92	20.44
		6	0	19.72	19.83	19.45
1.4M	16QAM	1	0	20.28	20.76	20.32
		1	2	20.31	20.65	20.25
		1	5	20.18	20.53	20.05
		3	0	19.81	20.11	19.86
		3	1	19.69	20.07	19.68
		3	3	19.69	20.07	19.73
		6	0	18.54	18.94	18.41
1.4M	64QAM	1	0	19.50	**19.62**	19.40
		1	2	19.13	19.59	19.13
		1	5	19.06	19.24	18.92
		3	0	18.79	19.16	18.93
		3	1	18.75	19.17	18.62
		3	3	18.84	18.93	18.71
		6	0	17.81	18.02	17.66

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20850	21100	21350
		Frequency (MHz)		2510	2535	2560
20M	QPSK	1	0	22.84	**23.01**	22.97
		1	50	22.89	22.99	22.86
		1	99	22.91	22.92	22.83
		50	0	21.53	**21.56**	21.53
		50	25	21.49	21.51	21.40
		50	50	21.48	21.48	21.39
		100	0	21.41	**21.47**	21.45
20M	16QAM	1	0	22.09	22.14	22.03
		1	50	22.10	22.11	22.01
		1	99	22.02	22.04	22.02
		50	0	20.54	20.58	20.49
		50	25	20.53	20.55	20.45
		50	50	20.53	20.54	20.44
		100	0	20.50	20.52	20.50
20M	64QAM	1	0	20.97	21.07	20.89
		1	50	20.87	20.97	20.85
		1	99	20.83	20.88	20.83
		50	0	19.49	19.59	19.41
		50	25	19.49	19.57	19.42
		50	50	19.55	19.56	19.52
		100	0	19.44	19.47	19.34

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20825	21100	21375
		Frequency (MHz)		2507.5	2535	2562.5
15M	QPSK	1	0	21.45	21.81	21.34
		1	37	21.33	21.78	21.25
		1	74	21.41	21.70	21.23
		36	0	20.05	20.40	19.83
		36	19	19.92	20.33	19.72
		36	39	19.93	20.34	19.73
		75	0	19.96	20.38	19.84
15M	16QAM	1	0	20.59	21.04	20.40
		1	37	20.50	21.02	20.38
		1	74	20.50	20.86	20.38
		36	0	19.02	19.34	18.93
		36	19	18.95	19.42	18.81
		36	39	18.96	19.45	18.84
		75	0	18.93	19.42	18.87
15M	64QAM	1	0	19.39	19.86	19.30
		1	37	19.42	19.90	19.22
		1	74	19.35	19.70	19.27
		36	0	18.01	18.47	17.85
		36	19	17.99	18.40	17.80
		36	39	18.02	18.42	17.90
		75	0	17.88	18.32	17.74

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20800	21100	21400
		Frequency (MHz)		2505	2535	2565
10M	QPSK	1	0	21.37	21.70	21.31
		1	24	21.31	21.69	21.27
		1	49	21.35	21.67	21.32
		25	0	19.95	20.41	19.91
		25	12	19.94	20.26	19.82
		25	25	19.84	20.19	19.76
		50	0	19.95	20.29	19.78
10M	16QAM	1	0	20.54	20.99	20.43
		1	24	20.48	20.91	20.39
		1	49	20.42	20.79	20.35
		25	0	19.06	19.41	19.00
		25	12	18.88	19.31	18.81
		25	25	19.01	19.42	18.88
		50	0	19.00	19.37	18.94
10M	64QAM	1	0	19.42	19.84	19.29
		1	24	19.40	19.73	19.11
		1	49	19.21	19.65	19.23
		25	0	17.96	18.40	17.85
		25	12	17.88	18.38	17.74
		25	25	18.02	18.23	17.92
		50	0	17.97	18.29	17.69

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20775	21100	21425
		Frequency (MHz)		2502.5	2535	2567.5
5M	QPSK	1	0	21.43	21.70	21.39
		1	12	21.28	21.72	21.22
		1	24	21.49	21.67	21.32
		12	0	19.98	20.35	19.92
		12	6	19.92	20.22	19.81
		12	13	19.90	20.36	19.84
		25	0	19.92	20.30	19.79
5M	16QAM	1	0	20.50	21.05	20.53
		1	12	20.46	20.93	20.47
		1	24	20.49	20.79	20.55
		12	0	19.06	19.36	19.03
		12	6	18.94	19.40	18.93
		12	13	18.94	19.37	18.94
		25	0	18.97	19.35	19.02
5M	64QAM	1	0	19.41	19.79	19.45
		1	12	19.43	19.72	19.25
		1	24	19.32	19.56	19.37
		12	0	17.96	18.46	17.91
		12	6	18.06	18.38	17.82
		12	13	18.04	18.19	18.08
		25	0	18.04	18.23	17.78

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23060	23095	23130
		Frequency (MHz)		704	707.5	711
10M	QPSK	1	0	23.21	**23.32**	23.13
		1	24	23.11	23.21	23.09
		1	49	23.10	23.16	23.04
		25	0	22.13	**22.21**	22.08
		25	12	22.07	22.17	22.00
		25	25	22.10	22.16	22.06
		50	0	22.08	**22.12**	21.98
10M	16QAM	1	0	22.69	22.78	22.61
		1	24	22.65	22.68	22.56
		1	49	22.49	22.53	22.47
		25	0	21.15	21.21	21.15
		25	12	21.09	21.18	21.02
		25	25	21.06	21.16	21.00
		50	0	21.11	21.17	21.02
10M	64QAM	1	0	21.61	21.64	21.53
		1	24	21.51	21.57	21.42
		1	49	21.45	21.46	21.40
		25	0	20.23	20.29	20.19
		25	12	20.19	20.26	20.17
		25	25	20.16	20.21	20.09
		50	0	20.04	20.14	20.03

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23035	23095	23155
		Frequency (MHz)		701.5	707.5	713.5
5M	QPSK	1	0	22.44	22.51	22.35
		1	12	22.40	22.33	22.36
		1	24	22.22	22.39	22.10
		12	0	21.34	21.41	21.19
		12	6	21.27	21.37	21.09
		12	13	21.28	21.29	21.16
		25	0	21.37	21.27	21.05
5M	16QAM	1	0	21.88	21.92	21.82
		1	12	21.84	21.83	21.75
		1	24	21.66	21.68	21.68
		12	0	20.38	20.35	20.36
		12	6	20.36	20.30	20.08
		12	13	20.16	20.39	20.17
		25	0	20.31	20.44	20.30
5M	64QAM	1	0	20.79	20.85	20.73
		1	12	20.58	20.76	20.61
		1	24	20.62	20.66	20.66
		12	0	19.37	19.39	19.44
		12	6	19.36	19.41	19.36
		12	13	19.28	19.34	19.25
		25	0	19.32	19.35	19.25

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23025	23095	23165
		Frequency (MHz)		700.5	707.5	714.5
3M	QPSK	1	0	22.48	22.43	22.25
		1	7	22.38	22.37	22.30
		1	14	22.36	22.32	22.28
		8	0	21.40	21.39	21.21
		8	3	21.21	21.30	21.15
		8	7	21.25	21.32	21.22
		15	0	21.28	21.22	21.17
3M	16QAM	1	0	21.81	21.97	21.72
		1	7	21.85	21.83	21.71
		1	14	21.67	21.73	21.65
		8	0	20.26	20.47	20.33
		8	3	20.33	20.32	20.11
		8	7	20.19	20.36	20.12
		15	0	20.35	20.43	20.30
3M	64QAM	1	0	20.70	20.83	20.62
		1	7	20.59	20.78	20.50
		1	14	20.74	20.69	20.70
		8	0	19.36	19.50	19.43
		8	3	19.36	19.40	19.34
		8	7	19.38	19.41	19.34
		15	0	19.33	19.29	19.27

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23017	23095	23173
		Frequency (MHz)		699.7	707.5	715.3
1.4M	QPSK	1	0	22.41	22.57	22.28
		1	2	22.28	22.45	22.31
		1	5	22.29	22.32	22.23
		3	0	22.34	22.34	22.19
		3	1	22.20	22.38	22.16
		3	3	22.17	22.36	22.20
		6	0	21.34	21.26	21.17
1.4M	16QAM	1	0	21.82	21.92	21.76
		1	2	21.87	21.85	21.81
		1	5	21.63	21.62	21.69
		3	0	21.32	21.47	21.36
		3	1	21.31	21.36	21.22
		3	3	21.18	21.31	21.12
		6	0	20.33	20.40	20.21
1.4M	64QAM	1	0	20.80	20.77	20.66
		1	2	20.68	20.81	20.51
		1	5	20.68	20.64	20.59
		3	0	20.39	20.40	20.32
		3	1	20.47	20.35	20.44
		3	3	20.37	20.47	20.34
		6	0	19.26	19.26	19.23

LTE Band 13				
BW	MCS Index	RB Size	RB Offset	Low
		Channel		23230
		Frequency (MHz)		782
10M	QPSK	1	0	**23.27**
		1	24	23.21
		1	49	23.17
		25	0	**22.21**
		25	12	22.17
		25	25	22.14
		50	0	**22.07**
10M	16QAM	1	0	22.88
		1	24	22.81
		1	49	22.79
		25	0	21.27
		25	12	21.25
		25	25	21.21
		50	0	21.17
10M	64QAM	1	0	21.67
		1	24	21.64
		1	49	21.61
		25	0	20.25
		25	12	20.22
		25	25	20.21
		50	0	20.19

LTE Band 13						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23205	23230	23255
		Frequency (MHz)		779.5	782	784.5
5M	QPSK	1	0	22.41	22.52	22.25
		1	12	22.28	22.42	22.30
		1	24	22.26	22.23	22.25
		12	0	21.27	21.34	21.36
		12	6	21.31	21.30	21.20
		12	13	21.38	21.35	21.24
		25	0	21.19	21.29	21.13
5M	16QAM	1	0	21.96	22.05	21.99
		1	12	21.84	21.92	22.05
		1	24	21.93	21.99	21.91
		12	0	20.45	20.55	20.46
		12	6	20.34	20.51	20.46
		12	13	20.37	20.38	20.41
		25	0	20.26	20.30	20.22
5M	64QAM	1	0	20.84	20.78	20.80
		1	12	20.73	20.88	20.81
		1	24	20.68	20.77	20.85
		12	0	19.35	19.35	19.37
		12	6	19.38	19.37	19.46
		12	13	19.34	19.46	19.30
		25	0	19.29	19.28	19.34

LTE Band 17						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23780	23790	23800
		Frequency (MHz)		709	710	711
10M	QPSK	1	0	**23.37**	23.41	23.24
		1	24	23.28	23.35	23.26
		1	49	23.11	23.27	23.12
		25	0	22.07	**22.24**	22.14
		25	12	22.09	22.21	22.18
		25	25	22.07	22.19	22.04
		50	0	22.11	**22.14**	22.04
10M	16QAM	1	0	22.78	22.91	22.75
		1	24	22.86	22.89	22.78
		1	49	22.74	22.77	22.64
		25	0	21.20	21.29	21.27
		25	12	21.18	21.25	21.12
		25	25	21.07	21.18	21.01
		50	0	21.14	21.17	21.07
10M	64QAM	1	0	21.79	21.96	21.80
		1	24	21.75	21.83	21.77
		1	49	21.53	21.66	21.55
		25	0	20.21	20.25	20.15
		25	12	20.10	20.21	20.09
		25	25	20.03	20.17	20.07
		50	0	20.08	20.14	20.05

LTE Band 17						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23755	23790	23825
		Frequency (MHz)		706.5	710	713.5
5M	QPSK	1	0	22.60	22.58	22.33
		1	12	22.54	22.56	22.41
		1	24	22.39	22.54	22.25
		12	0	21.28	21.47	21.32
		12	6	21.29	21.30	21.33
		12	13	21.35	21.43	21.23
		25	0	21.28	21.26	21.04
5M	16QAM	1	0	22.04	22.12	21.99
		1	12	22.15	22.00	22.00
		1	24	22.01	22.00	21.87
		12	0	20.46	20.53	20.50
		12	6	20.37	20.34	20.34
		12	13	20.31	20.36	20.27
		25	0	20.19	20.34	20.27
5M	64QAM	1	0	21.09	21.17	21.03
		1	12	20.99	21.13	21.07
		1	24	20.80	20.83	20.80
		12	0	19.42	19.43	19.33
		12	6	19.27	19.39	19.24
		12	13	19.21	19.29	19.29
		25	0	19.26	19.27	19.25

LTE Band 38						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		37850	38000	38150
		Frequency (MHz)		2580	2595	2610
20M	QPSK	1	0	23.38	23.44	23.43
		1	50	23.07	23.19	23.08
		1	99	22.99	23.09	22.85
		50	0	22.13	**22.29**	22.09
		50	25	22.15	22.27	22.11
		50	50	22.14	22.25	22.13
		100	0	22.12	**22.23**	22.10
20M	16QAM	1	0	22.65	22.73	22.52
		1	50	22.61	22.67	22.62
		1	99	22.32	22.43	22.32
		50	0	21.08	21.26	21.17
		50	25	21.14	21.19	21.05
		50	50	21.11	21.16	20.99
		100	0	21.00	21.11	20.93
20M	64QAM	1	0	21.24	21.44	21.14
		1	50	21.24	21.36	21.20
		1	99	21.11	21.23	21.10
		50	0	20.28	20.33	20.18
		50	25	20.13	20.29	20.13
		50	50	20.17	20.28	20.11
		100	0	20.15	20.24	20.06

LTE Band 38						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		37825	38000	38175
		Frequency (MHz)		2577.5	2595	2612.5
15M	QPSK	1	0	21.98	22.20	22.20
		1	37	21.68	21.97	21.83
		1	74	21.47	21.86	21.69
		36	0	20.75	21.06	20.85
		36	19	20.82	21.00	20.99
		36	39	20.72	21.02	21.01
		75	0	20.73	21.02	20.86
15M	16QAM	1	0	21.28	21.42	21.34
		1	37	21.11	21.50	21.43
		1	74	20.94	21.19	21.11
		36	0	19.68	20.03	19.95
		36	19	19.71	19.93	19.91
		36	39	19.64	19.93	19.87
		75	0	19.60	19.84	19.78
15M	64QAM	1	0	19.96	20.22	19.97
		1	37	19.79	20.09	20.02
		1	74	19.78	20.01	19.91
		36	0	18.86	19.09	19.08
		36	19	18.79	19.14	18.94
		36	39	18.73	19.04	18.91
		75	0	18.65	18.97	18.92

LTE Band 38						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		37800	38000	38200
		Frequency (MHz)		2575	2595	2615
10M	QPSK	1	0	21.94	22.16	22.24
		1	24	21.61	21.75	21.76
		1	49	21.34	21.77	21.66
		25	0	20.63	21.02	20.76
		25	12	20.62	20.81	20.84
		25	25	20.72	20.98	20.99
		50	0	20.52	20.82	20.83
10M	16QAM	1	0	21.13	21.49	21.30
		1	24	21.00	21.34	21.38
		1	49	20.77	21.16	20.99
		25	0	19.66	20.03	19.88
		25	12	19.71	19.86	19.77
		25	25	19.56	19.74	19.78
		50	0	19.50	19.80	19.82
10M	64QAM	1	0	19.79	20.11	20.06
		1	24	19.75	20.00	19.96
		1	49	19.59	19.94	19.95
		25	0	18.70	18.97	19.07
		25	12	18.62	18.95	18.80
		25	25	18.70	18.91	18.88
		50	0	18.54	18.91	18.81

LTE Band 38						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		37775	38000	38225
		Frequency (MHz)		2572.5	2595	2617.5
5M	QPSK	1	0	21.92	22.01	22.18
		1	12	21.52	21.77	21.73
		1	24	21.37	21.77	21.63
		12	0	20.70	20.93	20.71
		12	6	20.57	20.88	20.87
		12	13	20.65	20.76	20.75
		25	0	20.51	20.88	20.67
5M	16QAM	1	0	21.08	21.22	21.43
		1	12	21.13	21.10	21.31
		1	24	20.91	20.99	21.08
		12	0	19.63	19.93	19.90
		12	6	19.59	19.76	19.90
		12	13	19.68	19.69	19.85
		25	0	19.52	19.58	19.69
5M	64QAM	1	0	19.71	19.98	19.94
		1	12	19.74	19.90	20.04
		1	24	19.72	19.84	19.92
		12	0	18.84	18.94	18.95
		12	6	18.74	18.90	18.89
		12	13	18.67	18.77	18.80
		25	0	18.61	18.75	18.79

LTE Band 41						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39750	40620	41490
		Frequency (MHz)		2506	2593	2680
20M	QPSK	1	0	23.69	23.79	23.77
		1	50	23.60	23.75	23.58
		1	99	23.63	23.71	23.55
		50	0	22.40	**22.63**	22.41
		50	25	22.34	22.57	22.39
		50	50	22.43	22.55	22.30
		100	0	22.38	**22.54**	22.27
20M	16QAM	1	0	22.90	23.04	22.75
		1	50	22.93	23.01	22.57
		1	99	22.80	22.97	22.52
		50	0	21.76	21.91	21.67
		50	25	21.80	21.87	21.70
		50	50	21.61	21.85	21.57
		100	0	21.60	21.84	21.58
20M	64QAM	1	0	21.91	22.09	21.70
		1	50	22.00	22.05	21.58
		1	99	21.71	21.91	21.47
		50	0	20.90	20.96	20.68
		50	25	20.83	20.94	20.63
		50	50	20.82	20.93	20.63
		100	0	20.76	20.89	20.54

LTE Band 41						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39725	40620	41515
		Frequency (MHz)		2503.5	2593	2682.5
15M	QPSK	1	0	22.60	22.43	22.46
		1	37	22.50	22.32	22.30
		1	74	22.62	22.22	22.05
		36	0	21.65	21.48	21.28
		36	19	21.62	21.35	21.38
		36	39	21.70	21.40	21.21
		75	0	21.60	21.29	21.16
15M	16QAM	1	0	21.89	21.58	21.26
		1	37	21.79	21.52	21.30
		1	74	21.67	21.49	21.17
		36	0	20.65	20.38	20.34
		36	19	20.68	20.38	20.39
		36	39	20.56	20.44	20.18
		75	0	20.49	20.48	20.08
15M	64QAM	1	0	20.90	20.58	20.25
		1	37	20.83	20.59	20.22
		1	74	20.68	20.48	20.15
		36	0	19.85	19.56	19.30
		36	19	19.63	19.55	19.27
		36	39	19.66	19.51	19.25
		75	0	19.70	19.51	19.08

LTE Band 41						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39700	40620	41540
		Frequency (MHz)		2501	2593	2685
10M	QPSK	1	0	22.60	22.34	22.41
		1	24	22.67	22.26	22.27
		1	49	22.52	22.18	22.12
		25	0	21.58	21.39	21.25
		25	12	21.59	21.28	21.39
		25	25	21.75	21.37	21.20
		50	0	21.52	21.33	21.13
10M	16QAM	1	0	21.69	21.33	21.29
		1	24	21.58	21.22	21.34
		1	49	21.56	21.14	21.03
		25	0	20.63	20.40	20.29
		25	12	20.66	20.29	20.26
		25	25	20.69	20.38	20.18
		50	0	20.63	20.27	20.15
10M	64QAM	1	0	20.61	20.30	20.27
		1	24	20.58	20.24	20.21
		1	49	20.65	20.15	20.09
		25	0	19.56	19.41	19.28
		25	12	19.64	19.30	19.35
		25	25	19.70	19.39	19.23
		50	0	19.56	19.30	19.18

LTE Band 41						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39675	40620	41565
		Frequency (MHz)		2498.5	2593	2687.5
5M	QPSK	1	0	22.65	22.40	22.43
		1	12	22.59	22.33	22.20
		1	24	22.56	22.17	22.13
		12	0	21.55	21.38	21.17
		12	6	21.62	21.33	21.28
		12	13	21.69	21.40	21.24
		25	0	21.61	21.32	21.09
5M	16QAM	1	0	21.57	21.35	21.31
		1	12	21.61	21.28	21.25
		1	24	21.59	21.27	20.98
		12	0	20.71	20.40	20.27
		12	6	20.63	20.27	20.25
		12	13	20.65	20.38	20.25
		25	0	20.53	20.28	20.18
5M	64QAM	1	0	20.59	20.31	20.30
		1	12	20.52	20.19	20.16
		1	24	20.53	20.22	20.01
		12	0	19.65	19.36	19.33
		12	6	19.66	19.25	19.31
		12	13	19.72	19.41	19.15
		25	0	19.55	19.37	19.23

EIRP / ERP Power (dBm)

Band	WCDMA IV		
TX Channel	1312	1413	1513
Rx Channel	1537	1638	1738
Frequency	1712.4	1732.6	1752.6
RMC 12.2K	17.93	18.01	17.97
HSDPA Subtest-1	17.23	17.34	17.17
HSDPA Subtest-2	16.70	16.79	16.62
HSDPA Subtest-3	16.77	16.81	16.71
HSDPA Subtest-4	16.70	16.79	16.61
HSUPA Subtest-1	17.10	17.19	17.00
HSUPA Subtest-2	15.15	15.23	15.15
HSUPA Subtest-3	16.12	16.14	16.07
HSUPA Subtest-4	15.09	15.18	14.99
HSUPA Subtest-5	17.03	17.07	16.90

*EIRP = Conducted + antenna gain (-4.90dBi)

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20050	20175	20300
		Frequency (MHz)		1720	1732.5	1745
20M	QPSK	1	0	17.78	17.92	17.74
		1	50	17.74	17.87	17.66
		1	99	17.79	17.85	17.72
		50	0	16.40	16.41	16.26
		50	25	16.29	16.38	16.23
		50	50	16.32	16.36	16.17
		100	0	16.24	16.34	16.09
20M	16QAM	1	0	16.97	17.07	16.87
		1	50	16.94	17.02	16.82
		1	99	16.81	16.91	16.70
		50	0	15.41	15.43	15.35
		50	25	15.30	15.39	15.23
		50	50	15.35	15.37	15.21
		100	0	15.28	15.35	15.13
20M	64QAM	1	0	16.03	16.05	15.95
		1	50	15.78	15.85	15.66
		1	99	15.62	15.71	15.48
		50	0	14.49	14.49	14.37
		50	25	14.40	14.43	14.26
		50	50	14.39	14.41	14.33
		100	0	14.33	14.39	14.27

*EIRP = Conducted + antenna gain (-4.90dBi)

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20025	20175	20325
		Frequency (MHz)		1717.5	1732.5	1747.5
15M	QPSK	1	0	16.50	16.62	16.52
		1	37	16.25	16.44	16.23
		1	74	16.28	16.42	16.25
		36	0	14.87	15.00	14.86
		36	19	14.85	15.03	14.80
		36	39	14.84	14.92	14.70
		75	0	14.73	15.00	14.74
15M	16QAM	1	0	15.55	15.69	15.45
		1	37	15.41	15.59	15.35
		1	74	15.31	15.44	15.27
		36	0	13.88	14.05	13.95
		36	19	13.80	14.00	13.83
		36	39	13.86	13.98	13.81
		75	0	13.80	14.00	13.73
15M	64QAM	1	0	14.59	14.73	14.43
		1	37	14.34	14.43	14.22
		1	74	14.03	14.31	14.03
		36	0	13.00	13.15	12.90
		36	19	12.87	13.04	12.82
		36	39	12.91	12.98	12.88
		75	0	12.81	12.97	12.87

*EIRP = Conducted + antenna gain (-4.90dBi)

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20000	20175	20350
		Frequency (MHz)		1715	1732.5	1750
10M	QPSK	1	0	16.51	16.66	16.49
		1	24	16.42	16.48	16.30
		1	49	16.37	16.54	16.30
		25	0	14.98	15.16	14.90
		25	12	14.89	15.01	14.95
		25	25	14.95	15.10	14.88
		50	0	14.71	15.11	14.66
10M	16QAM	1	0	15.56	15.75	15.57
		1	24	15.54	15.74	15.43
		1	49	15.40	15.74	15.28
		25	0	14.04	14.10	13.97
		25	12	14.01	14.11	13.83
		25	25	13.99	13.97	13.90
		50	0	13.86	13.96	13.82
10M	64QAM	1	0	14.56	14.73	14.42
		1	24	14.40	14.53	14.27
		1	49	14.23	14.38	14.13
		25	0	13.02	13.27	13.00
		25	12	12.96	13.18	12.87
		25	25	13.00	13.00	12.88
		50	0	12.93	13.10	12.93

*EIRP = Conducted + antenna gain (-4.90dBi)

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		19975	20175	20375
		Frequency (MHz)		1712.5	1732.5	1752.5
5M	QPSK	1	0	16.53	16.61	16.45
		1	12	16.37	16.50	16.13
		1	24	16.33	16.48	16.25
		12	0	14.90	15.09	14.87
		12	6	14.86	14.90	14.79
		12	13	14.89	15.05	14.77
		25	0	14.83	15.12	14.56
5M	16QAM	1	0	15.49	15.87	15.42
		1	12	15.46	15.78	15.41
		1	24	15.51	15.52	15.26
		12	0	13.94	14.21	13.97
		12	6	13.92	14.07	13.75
		12	13	14.01	14.13	13.95
		25	0	13.85	14.08	13.72
5M	64QAM	1	0	14.54	14.77	14.47
		1	12	14.37	14.45	14.37
		1	24	14.23	14.42	14.00
		12	0	13.19	13.17	12.95
		12	6	12.89	13.07	12.80
		12	13	13.00	13.03	13.00
		25	0	12.99	13.07	12.84

*EIRP = Conducted + antenna gain (-4.90dBi)

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		19965	20175	20385
		Frequency (MHz)		1711.5	1732.5	1753.5
3M	QPSK	1	0	16.36	16.67	16.47
		1	7	16.15	16.61	16.31
		1	14	16.27	16.56	16.27
		8	0	14.85	15.29	14.90
		8	3	14.71	15.12	14.79
		8	7	14.72	15.20	14.78
		15	0	14.65	15.01	14.68
3M	16QAM	1	0	15.35	15.77	15.47
		1	7	15.43	15.81	15.38
		1	14	15.40	15.72	15.36
		8	0	13.79	14.18	14.02
		8	3	13.71	14.06	13.92
		8	7	13.84	13.98	13.89
		15	0	13.68	14.14	13.75
3M	64QAM	1	0	14.38	14.78	14.50
		1	7	14.11	14.64	14.17
		1	14	14.08	14.60	14.23
		8	0	12.94	13.34	13.11
		8	3	12.79	13.28	12.85
		8	7	12.88	13.12	13.06
		15	0	12.83	13.10	12.83

*EIRP = Conducted + antenna gain (-4.90dBi)

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		19957	20175	20393
		Frequency (MHz)		1710.7	1732.5	1754.3
1.4M	QPSK	1	0	16.41	16.64	16.38
		1	2	16.44	16.72	16.19
		1	5	16.27	16.63	16.27
		3	0	15.92	16.07	15.82
		3	1	15.62	16.08	15.87
		3	3	15.87	16.02	15.54
		6	0	14.82	14.93	14.55
1.4M	16QAM	1	0	15.38	15.86	15.42
		1	2	15.41	15.75	15.35
		1	5	15.28	15.63	15.15
		3	0	14.91	15.21	14.96
		3	1	14.79	15.17	14.78
		3	3	14.79	15.17	14.83
		6	0	13.64	14.04	13.51
1.4M	64QAM	1	0	14.60	14.72	14.50
		1	2	14.23	14.69	14.23
		1	5	14.16	14.34	14.02
		3	0	13.89	14.26	14.03
		3	1	13.85	14.27	13.72
		3	3	13.94	14.03	13.81
		6	0	12.91	13.12	12.76

*EIRP = Conducted + antenna gain (-4.90dBi)

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20850	21100	21350
		Frequency (MHz)		2510	2535	2560
20M	QPSK	1	0	21.04	21.21	21.17
		1	50	21.09	21.19	21.06
		1	99	21.11	21.12	21.03
		50	0	19.73	19.76	19.73
		50	25	19.69	19.71	19.60
		50	50	19.68	19.68	19.59
		100	0	19.61	19.67	19.65
20M	16QAM	1	0	20.29	20.34	20.23
		1	50	20.30	20.31	20.21
		1	99	20.22	20.24	20.22
		50	0	18.74	18.78	18.69
		50	25	18.73	18.75	18.65
		50	50	18.73	18.74	18.64
		100	0	18.70	18.72	18.70
20M	64QAM	1	0	19.17	19.27	19.09
		1	50	19.07	19.17	19.05
		1	99	19.03	19.08	19.03
		50	0	17.69	17.79	17.61
		50	25	17.69	17.77	17.62
		50	50	17.75	17.76	17.72
		100	0	17.64	17.67	17.54

*EIRP = Conducted + antenna gain (-1.80dBi)

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20825	21100	21375
		Frequency (MHz)		2507.5	2535	2562.5
15M	QPSK	1	0	19.65	20.01	19.54
		1	37	19.53	19.98	19.45
		1	74	19.61	19.90	19.43
		36	0	18.25	18.60	18.03
		36	19	18.12	18.53	17.92
		36	39	18.13	18.54	17.93
		75	0	18.16	18.58	18.04
15M	16QAM	1	0	18.79	19.24	18.60
		1	37	18.70	19.22	18.58
		1	74	18.70	19.06	18.58
		36	0	17.22	17.54	17.13
		36	19	17.15	17.62	17.01
		36	39	17.16	17.65	17.04
		75	0	17.13	17.62	17.07
15M	64QAM	1	0	17.59	18.06	17.50
		1	37	17.62	18.10	17.42
		1	74	17.55	17.90	17.47
		36	0	16.21	16.67	16.05
		36	19	16.19	16.60	16.00
		36	39	16.22	16.62	16.10
		75	0	16.08	16.52	15.94

*EIRP = Conducted + antenna gain (-1.80dBi)

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20800	21100	21400
		Frequency (MHz)		2505	2535	2565
10M	QPSK	1	0	19.57	19.90	19.51
		1	24	19.51	19.89	19.47
		1	49	19.55	19.87	19.52
		25	0	18.15	18.61	18.11
		25	12	18.14	18.46	18.02
		25	25	18.04	18.39	17.96
		50	0	18.15	18.49	17.98
10M	16QAM	1	0	18.74	19.19	18.63
		1	24	18.68	19.11	18.59
		1	49	18.62	18.99	18.55
		25	0	17.26	17.61	17.20
		25	12	17.08	17.51	17.01
		25	25	17.21	17.62	17.08
		50	0	17.20	17.57	17.14
10M	64QAM	1	0	17.62	18.04	17.49
		1	24	17.60	17.93	17.31
		1	49	17.41	17.85	17.43
		25	0	16.16	16.60	16.05
		25	12	16.08	16.58	15.94
		25	25	16.22	16.43	16.12
		50	0	16.17	16.49	15.89

*EIRP = Conducted + antenna gain (-1.80dBi)

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20775	21100	21425
		Frequency (MHz)		2502.5	2535	2567.5
5M	QPSK	1	0	19.63	19.90	19.59
		1	12	19.48	19.92	19.42
		1	24	19.69	19.87	19.52
		12	0	18.18	18.55	18.12
		12	6	18.12	18.42	18.01
		12	13	18.10	18.56	18.04
		25	0	18.12	18.50	17.99
5M	16QAM	1	0	18.70	19.25	18.73
		1	12	18.66	19.13	18.67
		1	24	18.69	18.99	18.75
		12	0	17.26	17.56	17.23
		12	6	17.14	17.60	17.13
		12	13	17.14	17.57	17.14
		25	0	17.17	17.55	17.22
5M	64QAM	1	0	17.61	17.99	17.65
		1	12	17.63	17.92	17.45
		1	24	17.52	17.76	17.57
		12	0	16.16	16.66	16.11
		12	6	16.26	16.58	16.02
		12	13	16.24	16.39	16.28
		25	0	16.24	16.43	15.98

*EIRP = Conducted + antenna gain (-1.80dBi)

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23060	23095	23130
		Frequency (MHz)		704	707.5	711
10M	QPSK	1	0	15.46	15.57	15.38
		1	24	15.36	15.46	15.34
		1	49	15.35	15.41	15.29
		25	0	14.38	14.46	14.33
		25	12	14.32	14.42	14.25
		25	25	14.35	14.41	14.31
		50	0	14.33	14.37	14.23
10M	16QAM	1	0	14.94	15.03	14.86
		1	24	14.90	14.93	14.81
		1	49	14.74	14.78	14.72
		25	0	13.40	13.46	13.40
		25	12	13.34	13.43	13.27
		25	25	13.31	13.41	13.25
		50	0	13.36	13.42	13.27
10M	64QAM	1	0	13.86	13.89	13.78
		1	24	13.76	13.82	13.67
		1	49	13.70	13.71	13.65
		25	0	12.48	12.54	12.44
		25	12	12.44	12.51	12.42
		25	25	12.41	12.46	12.34
		50	0	12.29	12.39	12.28

*ERP = Conducted + antenna gain (-5.60dBi) - 2.15

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23035	23095	23155
		Frequency (MHz)		701.5	707.5	713.5
5M	QPSK	1	0	14.69	14.76	14.60
		1	12	14.65	14.58	14.61
		1	24	14.47	14.64	14.35
		12	0	13.59	13.66	13.44
		12	6	13.52	13.62	13.34
		12	13	13.53	13.54	13.41
		25	0	13.62	13.52	13.30
5M	16QAM	1	0	14.13	14.17	14.07
		1	12	14.09	14.08	14.00
		1	24	13.91	13.93	13.93
		12	0	12.63	12.60	12.61
		12	6	12.61	12.55	12.33
		12	13	12.41	12.64	12.42
		25	0	12.56	12.69	12.55
5M	64QAM	1	0	13.04	13.10	12.98
		1	12	12.83	13.01	12.86
		1	24	12.87	12.91	12.91
		12	0	11.62	11.64	11.69
		12	6	11.61	11.66	11.61
		12	13	11.53	11.59	11.50
		25	0	11.57	11.60	11.50

*ERP = Conducted + antenna gain (-5.60dBi) - 2.15

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23025	23095	23165
		Frequency (MHz)		700.5	707.5	714.5
3M	QPSK	1	0	14.73	14.68	14.50
		1	7	14.63	14.62	14.55
		1	14	14.61	14.57	14.53
		8	0	13.65	13.64	13.46
		8	3	13.46	13.55	13.40
		8	7	13.50	13.57	13.47
		15	0	13.53	13.47	13.42
3M	16QAM	1	0	14.06	14.22	13.97
		1	7	14.10	14.08	13.96
		1	14	13.92	13.98	13.90
		8	0	12.51	12.72	12.58
		8	3	12.58	12.57	12.36
		8	7	12.44	12.61	12.37
		15	0	12.60	12.68	12.55
3M	64QAM	1	0	12.95	13.08	12.87
		1	7	12.84	13.03	12.75
		1	14	12.99	12.94	12.95
		8	0	11.61	11.75	11.68
		8	3	11.61	11.65	11.59
		8	7	11.63	11.66	11.59
		15	0	11.58	11.54	11.52

*ERP = Conducted + antenna gain (-5.60dBi) - 2.15

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23017	23095	23173
		Frequency (MHz)		699.7	707.5	715.3
1.4M	QPSK	1	0	14.66	14.82	14.53
		1	2	14.53	14.70	14.56
		1	5	14.54	14.57	14.48
		3	0	14.59	14.59	14.44
		3	1	14.45	14.63	14.41
		3	3	14.42	14.61	14.45
		6	0	13.59	13.51	13.42
1.4M	16QAM	1	0	14.07	14.17	14.01
		1	2	14.12	14.10	14.06
		1	5	13.88	13.87	13.94
		3	0	13.57	13.72	13.61
		3	1	13.56	13.61	13.47
		3	3	13.43	13.56	13.37
		6	0	12.58	12.65	12.46
1.4M	64QAM	1	0	13.05	13.02	12.91
		1	2	12.93	13.06	12.76
		1	5	12.93	12.89	12.84
		3	0	12.64	12.65	12.57
		3	1	12.72	12.60	12.69
		3	3	12.62	12.72	12.59
		6	0	11.51	11.51	11.48

*ERP = Conducted + antenna gain (-5.60dBi) - 2.15

LTE Band 13				
BW	MCS Index	RB Size	RB Offset	Low
		Channel		23230
		Frequency (MHz)		782
10M	QPSK	1	0	15.82
		1	24	15.76
		1	49	15.72
		25	0	14.76
		25	12	14.72
		25	25	14.69
		50	0	14.62
10M	16QAM	1	0	15.43
		1	24	15.36
		1	49	15.34
		25	0	13.82
		25	12	13.80
		25	25	13.76
		50	0	13.72
10M	64QAM	1	0	14.22
		1	24	14.19
		1	49	14.16
		25	0	12.80
		25	12	12.77
		25	25	12.76
		50	0	12.74

*ERP = Conducted + antenna gain (-5.30dBi) - 2.15

LTE Band 13						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23205	23230	23255
		Frequency (MHz)		779.5	782	784.5
5M	QPSK	1	0	14.96	15.07	14.80
		1	12	14.83	14.97	14.85
		1	24	14.81	14.78	14.80
		12	0	13.82	13.89	13.91
		12	6	13.86	13.85	13.75
		12	13	13.93	13.90	13.79
		25	0	13.74	13.84	13.68
5M	16QAM	1	0	14.51	14.60	14.54
		1	12	14.39	14.47	14.60
		1	24	14.48	14.54	14.46
		12	0	13.00	13.10	13.01
		12	6	12.89	13.06	13.01
		12	13	12.92	12.93	12.96
		25	0	12.81	12.85	12.77
5M	64QAM	1	0	13.39	13.33	13.35
		1	12	13.28	13.43	13.36
		1	24	13.23	13.32	13.40
		12	0	11.90	11.90	11.92
		12	6	11.93	11.92	12.01
		12	13	11.89	12.01	11.85
		25	0	11.84	11.83	11.89

*ERP = Conducted + antenna gain (-5.30dBi) - 2.15

LTE Band 17						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23780	23790	23800
		Frequency (MHz)		709	710	711
10M	QPSK	1	0	15.62	15.66	15.49
		1	24	15.53	15.60	15.51
		1	49	15.36	15.52	15.37
		25	0	14.32	14.49	14.39
		25	12	14.34	14.46	14.43
		25	25	14.32	14.44	14.29
		50	0	14.36	14.39	14.29
10M	16QAM	1	0	15.03	15.16	15.00
		1	24	15.11	15.14	15.03
		1	49	14.99	15.02	14.89
		25	0	13.45	13.54	13.52
		25	12	13.43	13.50	13.37
		25	25	13.32	13.43	13.26
		50	0	13.39	13.42	13.32
10M	64QAM	1	0	14.04	14.21	14.05
		1	24	14.00	14.08	14.02
		1	49	13.78	13.91	13.80
		25	0	12.46	12.50	12.40
		25	12	12.35	12.46	12.34
		25	25	12.28	12.42	12.32
		50	0	12.33	12.39	12.30

*ERP = Conducted + antenna gain (-5.60dBi) - 2.15

LTE Band 17						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23755	23790	23825
		Frequency (MHz)		706.5	710	713.5
5M	QPSK	1	0	14.85	14.83	14.58
		1	12	14.79	14.81	14.66
		1	24	14.64	14.79	14.50
		12	0	13.53	13.72	13.57
		12	6	13.54	13.55	13.58
		12	13	13.60	13.68	13.48
		25	0	13.53	13.51	13.29
5M	16QAM	1	0	14.29	14.37	14.24
		1	12	14.40	14.25	14.25
		1	24	14.26	14.25	14.12
		12	0	12.71	12.78	12.75
		12	6	12.62	12.59	12.59
		12	13	12.56	12.61	12.52
		25	0	12.44	12.59	12.52
5M	64QAM	1	0	13.34	13.42	13.28
		1	12	13.24	13.38	13.32
		1	24	13.05	13.08	13.05
		12	0	11.67	11.68	11.58
		12	6	11.52	11.64	11.49
		12	13	11.46	11.54	11.54
		25	0	11.51	11.52	11.50

*ERP = Conducted + antenna gain (-5.60dBi) - 2.15

LTE Band 38						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		37850	38000	38150
		Frequency (MHz)		2580	2595	2610
20M	QPSK	1	0	21.48	21.54	21.53
		1	50	21.17	21.29	21.18
		1	99	21.09	21.19	20.95
		50	0	20.23	20.39	20.19
		50	25	20.25	20.37	20.21
		50	50	20.24	20.35	20.23
		100	0	20.22	20.33	20.20
20M	16QAM	1	0	20.75	20.83	20.62
		1	50	20.71	20.77	20.72
		1	99	20.42	20.53	20.42
		50	0	19.18	19.36	19.27
		50	25	19.24	19.29	19.15
		50	50	19.21	19.26	19.09
		100	0	19.10	19.21	19.03
20M	64QAM	1	0	19.34	19.54	19.24
		1	50	19.34	19.46	19.30
		1	99	19.21	19.33	19.20
		50	0	18.38	18.43	18.28
		50	25	18.23	18.39	18.23
		50	50	18.27	18.38	18.21
		100	0	18.25	18.34	18.16

*EIRP = Conducted + antenna gain (-1.90dBi)

LTE Band 38						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		37825	38000	38175
		Frequency (MHz)		2577.5	2595	2612.5
15M	QPSK	1	0	20.08	20.30	20.30
		1	37	19.78	20.07	19.93
		1	74	19.57	19.96	19.79
		36	0	18.85	19.16	18.95
		36	19	18.92	19.10	19.09
		36	39	18.82	19.12	19.11
		75	0	18.83	19.12	18.96
15M	16QAM	1	0	19.38	19.52	19.44
		1	37	19.21	19.60	19.53
		1	74	19.04	19.29	19.21
		36	0	17.78	18.13	18.05
		36	19	17.81	18.03	18.01
		36	39	17.74	18.03	17.97
		75	0	17.70	17.94	17.88
15M	64QAM	1	0	18.06	18.32	18.07
		1	37	17.89	18.19	18.12
		1	74	17.88	18.11	18.01
		36	0	16.96	17.19	17.18
		36	19	16.89	17.24	17.04
		36	39	16.83	17.14	17.01
		75	0	16.75	17.07	17.02

*EIRP = Conducted + antenna gain (-1.90dBi)

LTE Band 38						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		37800	38000	38200
		Frequency (MHz)		2575	2595	2615
10M	QPSK	1	0	20.04	20.26	20.34
		1	24	19.71	19.85	19.86
		1	49	19.44	19.87	19.76
		25	0	18.73	19.12	18.86
		25	12	18.72	18.91	18.94
		25	25	18.82	19.08	19.09
		50	0	18.62	18.92	18.93
10M	16QAM	1	0	19.23	19.59	19.40
		1	24	19.10	19.44	19.48
		1	49	18.87	19.26	19.09
		25	0	17.76	18.13	17.98
		25	12	17.81	17.96	17.87
		25	25	17.66	17.84	17.88
		50	0	17.60	17.90	17.92
10M	64QAM	1	0	17.89	18.21	18.16
		1	24	17.85	18.10	18.06
		1	49	17.69	18.04	18.05
		25	0	16.80	17.07	17.17
		25	12	16.72	17.05	16.90
		25	25	16.80	17.01	16.98
		50	0	16.64	17.01	16.91

*EIRP = Conducted + antenna gain (-1.90dBi)

LTE Band 38						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		37775	38000	38225
		Frequency (MHz)		2572.5	2595	2617.5
5M	QPSK	1	0	20.02	20.11	20.28
		1	12	19.62	19.87	19.83
		1	24	19.47	19.87	19.73
		12	0	18.80	19.03	18.81
		12	6	18.67	18.98	18.97
		12	13	18.75	18.86	18.85
		25	0	18.61	18.98	18.77
5M	16QAM	1	0	19.18	19.32	19.53
		1	12	19.23	19.20	19.41
		1	24	19.01	19.09	19.18
		12	0	17.73	18.03	18.00
		12	6	17.69	17.86	18.00
		12	13	17.78	17.79	17.95
		25	0	17.62	17.68	17.79
5M	64QAM	1	0	17.81	18.08	18.04
		1	12	17.84	18.00	18.14
		1	24	17.82	17.94	18.02
		12	0	16.94	17.04	17.05
		12	6	16.84	17.00	16.99
		12	13	16.77	16.87	16.90
		25	0	16.71	16.85	16.89

*EIRP = Conducted + antenna gain (-1.90dBi)

LTE Band 41						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39750	40620	41490
		Frequency (MHz)		2506	2593	2680
20M	QPSK	1	0	21.79	21.89	21.87
		1	50	21.70	21.85	21.68
		1	99	21.73	21.81	21.65
		50	0	20.50	20.73	20.51
		50	25	20.44	20.67	20.49
		50	50	20.53	20.65	20.40
		100	0	20.48	20.64	20.37
20M	16QAM	1	0	21.00	21.14	20.85
		1	50	21.03	21.11	20.67
		1	99	20.90	21.07	20.62
		50	0	19.86	20.01	19.77
		50	25	19.90	19.97	19.80
		50	50	19.71	19.95	19.67
		100	0	19.70	19.94	19.68
20M	64QAM	1	0	20.01	20.19	19.80
		1	50	20.10	20.15	19.68
		1	99	19.81	20.01	19.57
		50	0	19.00	19.06	18.78
		50	25	18.93	19.04	18.73
		50	50	18.92	19.03	18.73
		100	0	18.86	18.99	18.64

*EIRP = Conducted + antenna gain (-1.90dBi)

LTE Band 41						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39725	40620	41515
		Frequency (MHz)		2503.5	2593	2682.5
15M	QPSK	1	0	20.70	20.53	20.56
		1	37	20.60	20.42	20.40
		1	74	20.72	20.32	20.15
		36	0	19.75	19.58	19.38
		36	19	19.72	19.45	19.48
		36	39	19.80	19.50	19.31
		75	0	19.70	19.39	19.26
15M	16QAM	1	0	19.99	19.68	19.36
		1	37	19.89	19.62	19.40
		1	74	19.77	19.59	19.27
		36	0	18.75	18.48	18.44
		36	19	18.78	18.48	18.49
		36	39	18.66	18.54	18.28
		75	0	18.59	18.58	18.18
15M	64QAM	1	0	19.00	18.68	18.35
		1	37	18.93	18.69	18.32
		1	74	18.78	18.58	18.25
		36	0	17.95	17.66	17.40
		36	19	17.73	17.65	17.37
		36	39	17.76	17.61	17.35
		75	0	17.80	17.61	17.18

*EIRP = Conducted + antenna gain (-1.90dBi)

LTE Band 41						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39700	40620	41540
		Frequency (MHz)		2501	2593	2685
10M	QPSK	1	0	20.70	20.44	20.51
		1	24	20.77	20.36	20.37
		1	49	20.62	20.28	20.22
		25	0	19.68	19.49	19.35
		25	12	19.69	19.38	19.49
		25	25	19.85	19.47	19.30
		50	0	19.62	19.43	19.23
10M	16QAM	1	0	19.79	19.43	19.39
		1	24	19.68	19.32	19.44
		1	49	19.66	19.24	19.13
		25	0	18.73	18.50	18.39
		25	12	18.76	18.39	18.36
		25	25	18.79	18.48	18.28
		50	0	18.73	18.37	18.25
10M	64QAM	1	0	18.71	18.40	18.37
		1	24	18.68	18.34	18.31
		1	49	18.75	18.25	18.19
		25	0	17.66	17.51	17.38
		25	12	17.74	17.40	17.45
		25	25	17.80	17.49	17.33
		50	0	17.66	17.40	17.28

*EIRP = Conducted + antenna gain (-1.90dBi)

LTE Band 41						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39675	40620	41565
		Frequency (MHz)		2498.5	2593	2687.5
5M	QPSK	1	0	20.75	20.50	20.53
		1	12	20.69	20.43	20.30
		1	24	20.66	20.27	20.23
		12	0	19.65	19.48	19.27
		12	6	19.72	19.43	19.38
		12	13	19.79	19.50	19.34
		25	0	19.71	19.42	19.19
5M	16QAM	1	0	19.67	19.45	19.41
		1	12	19.71	19.38	19.35
		1	24	19.69	19.37	19.08
		12	0	18.81	18.50	18.37
		12	6	18.73	18.37	18.35
		12	13	18.75	18.48	18.35
		25	0	18.63	18.38	18.28
5M	64QAM	1	0	18.69	18.41	18.40
		1	12	18.62	18.29	18.26
		1	24	18.63	18.32	18.11
		12	0	17.75	17.46	17.43
		12	6	17.76	17.35	17.41
		12	13	17.82	17.51	17.25
		25	0	17.65	17.47	17.33

*EIRP = Conducted + antenna gain (-1.90dBi)

4.2 Radiated Emission Measurement

4.2.1 Limits of Radiated Emission Measurement

For WCDMA Band 4, LTE Band 4:
According to FCC 27.53(h), for operations in the 1695-1710MHz, 1710-1755MHz, 1755-1780 MHz 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, LTE Band 38, LTE Band 41:
According to 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, LTE Band 17:
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. The limit of emissions is equal to -13 dBm.

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. The limit of emissions is equal to -13 dBm.

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

4.2.2 Test Procedure

a. In the semi-anechoic chamber, EUT placed on the 0.8m (below or equal 1GHz) and/or 1.5m (above 1GHz) height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
b. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
c. Perform a field strength measurement and record the worse read value, is the field strength value via a spectrum reading obtained corrected for antenna factor, cable loss and pre-amplifier factor and then mathematically convert the measured field strength level to EIRP/ERP level.
d. Following C63.26 section 5.5 and 5.2.7
   - EIRP (dBm) = E (dBμV/m) + 20log(D) - 104.8; where D is the measurement distance (in the far field region) in m.
   - ERP (dBm) = E (dBμV/m) + 20log(D) - 104.8 - 2.15; where D is the measurement distance (in the far field region) in m.

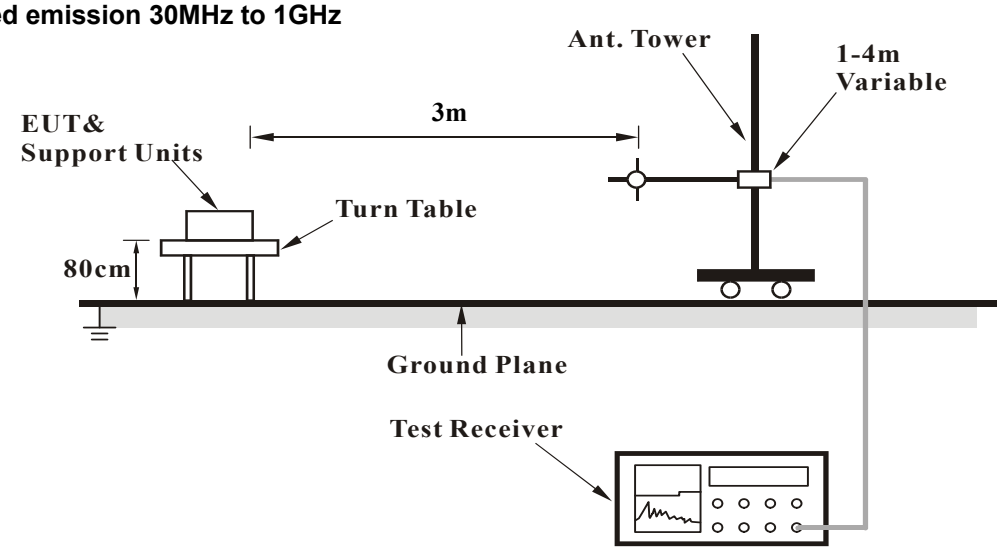
Note:
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.
2. The emission levels were against the limit of frequency range 9 kHz ~ 30 MHz:
   The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

4.2.3 Deviation from Test Standard

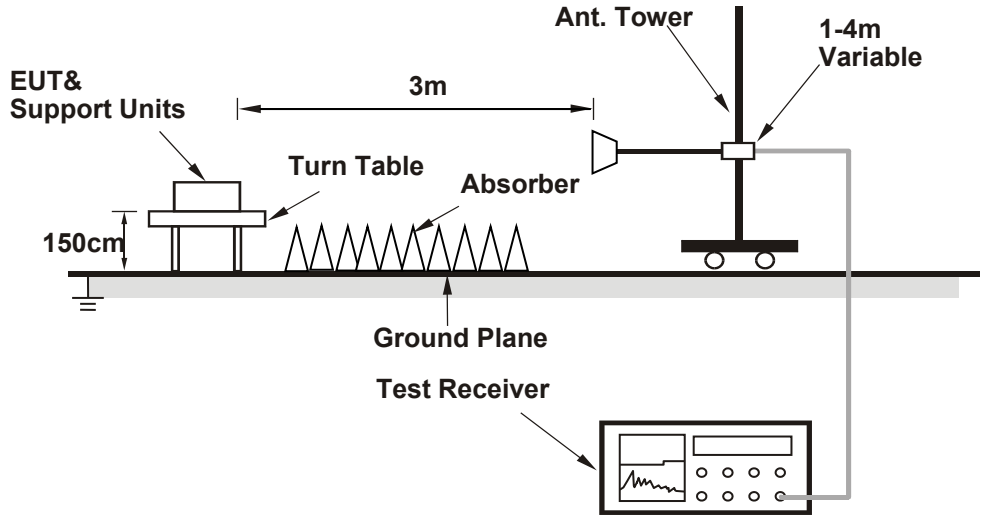
No deviation.

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

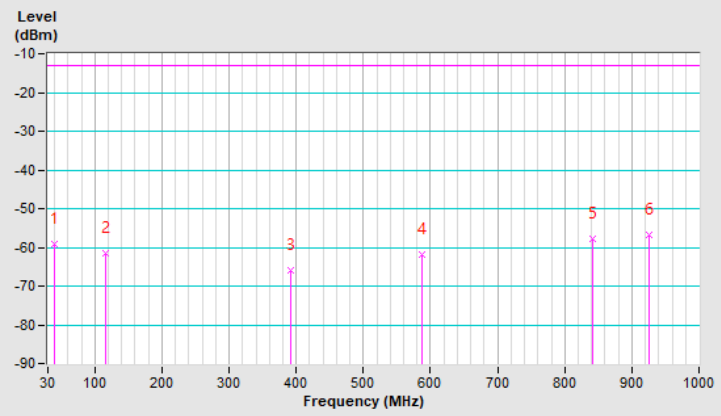
WCDMA Band 4

Mode	TX channel 1413 (1732.6MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	27deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Tim Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	39.70	-59.20	-13.00	-46.20	2.49 H	96	49.80	-109.00
2	115.36	-61.40	-13.00	-48.40	1.50 H	263	49.70	-111.10
3	391.81	-66.00	-13.00	-53.00	2.49 H	168	39.50	-105.50
4	586.78	-61.80	-13.00	-48.80	1.50 H	277	39.20	-101.00
5	840.92	-57.80	-13.00	-44.80	2.49 H	21	39.50	-97.30
6	926.28	-56.90	-13.00	-43.90	2.49 H	136	39.20	-96.10

Remarks:

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

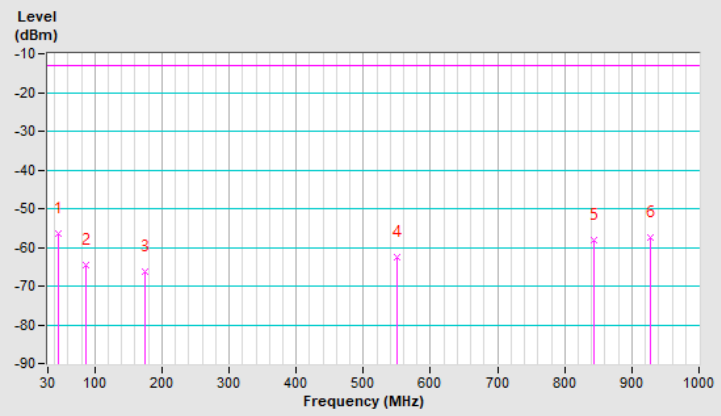


Mode	TX channel 1413 (1732.6MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	27deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Tim Chen		

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	46.49	-56.50	-13.00	-43.50	2.50 V	319	51.90	-108.40
2	86.26	-64.50	-13.00	-51.50	2.50 V	291	49.70	-114.20
3	174.53	-66.40	-13.00	-53.40	1.51 V	180	42.80	-109.20
4	549.92	-62.40	-13.00	-49.40	1.51 V	27	39.90	-102.30
5	843.83	-58.00	-13.00	-45.00	2.50 V	122	39.40	-97.40
6	927.25	-57.40	-13.00	-44.40	1.51 V	18	38.70	-96.10

Remarks:

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



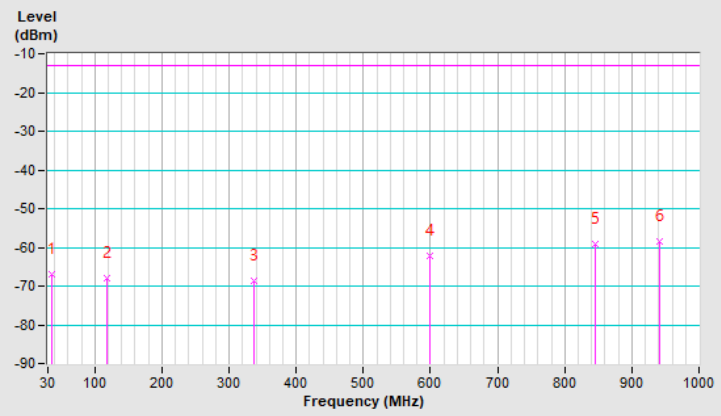
LTE Band 4 (Channel Bandwidth 20MHz)

Mode	TX channel 20175 (1732.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	27deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Tim Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	36.79	-66.80	-13.00	-53.80	2.49 H	64	42.40	-109.20
2	118.27	-68.10	-13.00	-55.10	1.50 H	141	42.60	-110.70
3	337.49	-68.50	-13.00	-55.50	1.50 H	328	38.10	-106.60
4	598.42	-62.30	-13.00	-49.30	2.49 H	308	38.30	-100.60
5	844.80	-59.00	-13.00	-46.00	2.49 H	134	38.40	-97.40
6	941.80	-58.40	-13.00	-45.40	2.49 H	142	37.40	-95.80

Remarks:

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

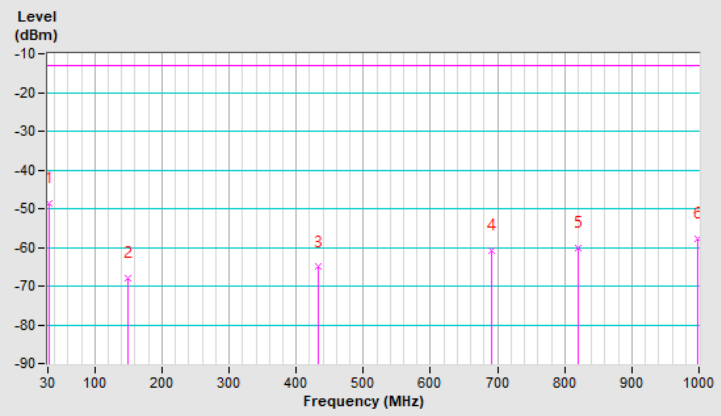


Mode	TX channel 20175 (1732.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	27deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Tim Chen		

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	**32.91**	**-48.50**	**-13.00**	**-35.50**	**1.51 V**	**158**	**61.30**	**-109.80**
2	149.31	-68.00	-13.00	-55.00	2.50 V	22	40.40	-108.40
3	433.52	-65.10	-13.00	-52.10	1.51 V	7	39.30	-104.40
4	691.54	-61.00	-13.00	-48.00	2.50 V	225	38.40	-99.40
5	820.55	-60.30	-13.00	-47.30	1.51 V	88	37.40	-97.70
6	998.06	-57.80	-13.00	-44.80	1.51 V	18	37.70	-95.50

Remarks:

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



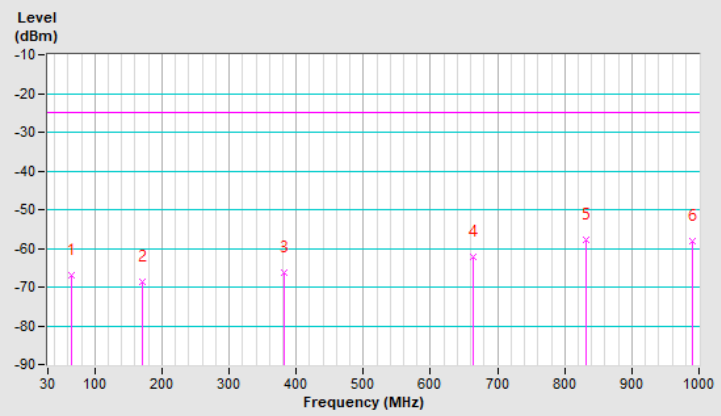
LTE Band 7 (Channel Bandwidth 20MHz)

Mode	TX channel 21100 (2535.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	27deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Tim Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	65.89	-66.80	-25.00	-41.80	2.49 H	22	43.20	-110.00
2	171.62	-68.70	-25.00	-43.70	2.49 H	324	40.20	-108.90
3	381.14	-66.20	-25.00	-41.20	1.50 H	224	39.50	-105.70
4	664.38	-62.30	-25.00	-37.30	2.49 H	139	37.60	-99.90
5	832.19	-57.70	-25.00	-32.70	1.50 H	289	39.70	-97.40
6	989.33	-58.20	-25.00	-33.20	1.50 H	103	37.30	-95.50

Remarks:

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

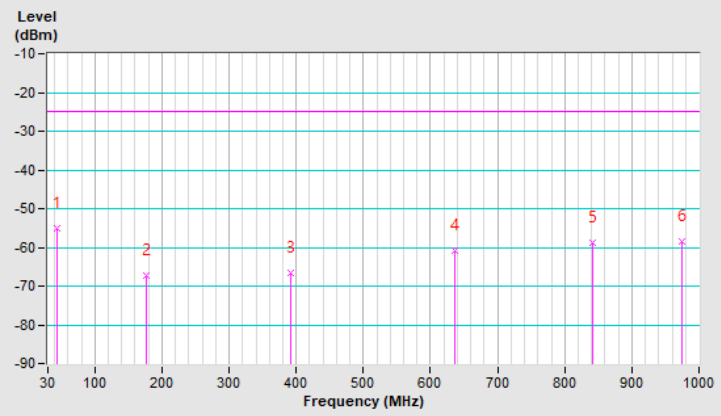


Mode	TX channel 21100 (2535.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	27deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Tim Chen		

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	43.58	-55.20	-25.00	-30.20	1.51 V	157	53.40	-108.60
2	177.44	-67.20	-25.00	-42.20	1.51 V	112	42.30	-109.50
3	391.81	-66.70	-25.00	-41.70	1.51 V	18	38.80	-105.50
4	635.28	-61.00	-25.00	-36.00	2.50 V	48	39.20	-100.20
5	840.92	-58.90	-25.00	-33.90	1.51 V	162	38.40	-97.30
6	973.81	-58.50	-25.00	-33.50	1.51 V	37	37.10	-95.60

Remarks:

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



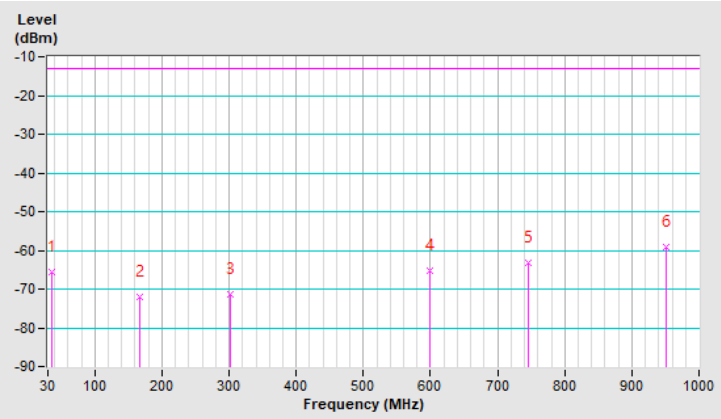
LTE Band 12 (Channel Bandwidth 10MHz)

Mode	TX channel 23095 (707.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	27deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Tim Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	35.82	-65.60	-13.00	-52.60	2.49 H	84	46.10	-111.70
2	166.77	-71.90	-13.00	-58.90	2.49 H	1	38.90	-110.80
3	302.57	-71.30	-13.00	-58.30	2.49 H	18	38.50	-109.80
4	598.42	-65.20	-13.00	-52.20	1.50 H	130	37.60	-102.80
5	744.89	-63.30	-13.00	-50.30	2.49 H	312	37.40	-100.70
6	950.53	-59.20	-13.00	-46.20	2.49 H	152	38.80	-98.00

Remarks:

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

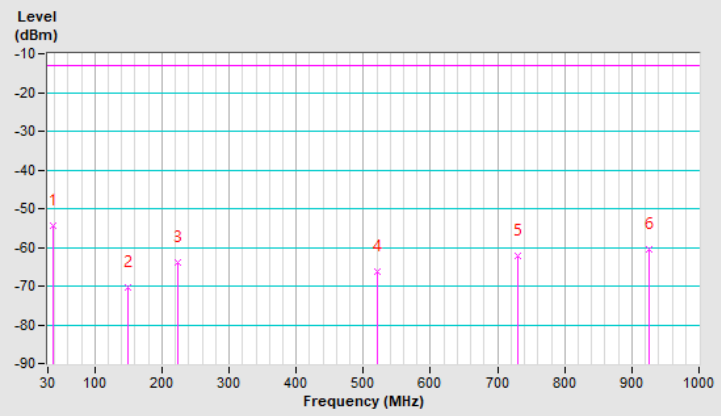


Mode	TX channel 23095 (707.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	27deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Tim Chen		

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	**38.73**	**-54.30**	**-13.00**	**-41.30**	**1.51 V**	**181**	**56.90**	**-111.20**
2	148.34	-70.30	-13.00	-57.30	1.51 V	253	40.40	-110.70
3	223.03	-63.90	-13.00	-50.90	1.51 V	178	50.00	-113.90
4	520.82	-66.40	-13.00	-53.40	1.51 V	249	38.40	-104.80
5	729.37	-62.20	-13.00	-49.20	1.51 V	149	38.90	-101.10
6	925.31	-60.40	-13.00	-47.40	2.50 V	103	37.80	-98.20

Remarks:

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



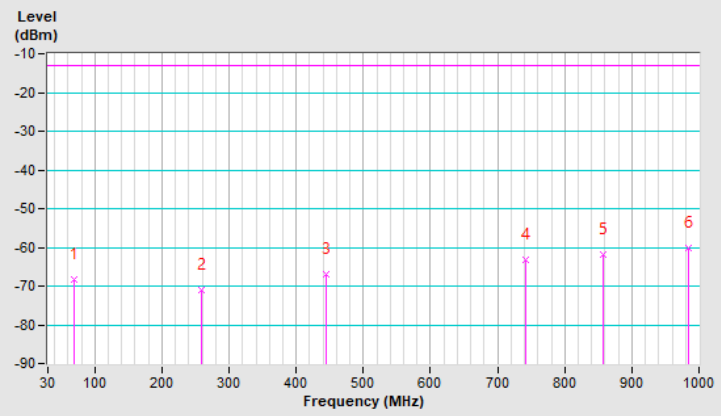
LTE Band 13 (Channel Bandwidth 10MHz)

Mode	TX channel 23230 (782.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	27deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Tim Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	68.80	-68.30	-13.00	-55.30	2.49 H	18	44.40	-112.70
2	257.95	-71.00	-13.00	-58.00	1.50 H	244	40.40	-111.40
3	445.16	-67.10	-13.00	-54.10	1.50 H	3	39.10	-106.20
4	741.98	-63.30	-13.00	-50.30	2.49 H	92	37.60	-100.90
5	856.44	-61.70	-13.00	-48.70	2.49 H	10	37.80	-99.50
6	984.48	-60.20	-13.00	-47.20	1.50 H	187	37.50	-97.70

Remarks:

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

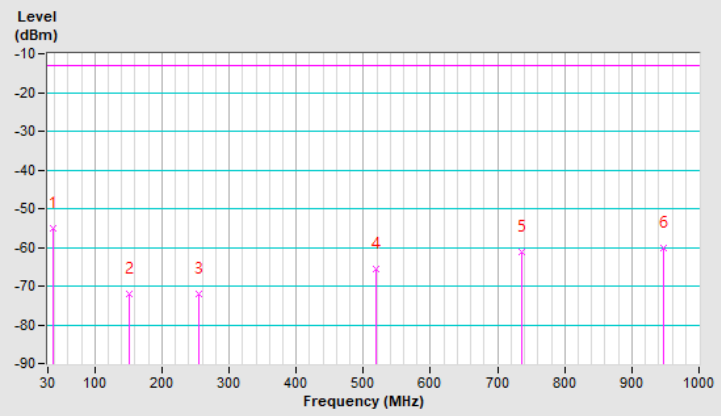


Mode	TX channel 23230 (782.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	27deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Tim Chen		

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	38.73	-55.00	-13.00	-42.00	1.51 V	173	56.20	-111.20
2	151.25	-72.10	-13.00	-59.10	1.51 V	18	38.30	-110.40
3	255.04	-72.10	-13.00	-59.10	2.50 V	168	39.40	-111.50
4	519.85	-65.50	-13.00	-52.50	2.50 V	86	39.30	-104.80
5	736.16	-61.20	-13.00	-48.20	2.50 V	34	39.70	-100.90
6	946.65	-60.00	-13.00	-47.00	2.50 V	37	37.90	-97.90

Remarks:

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



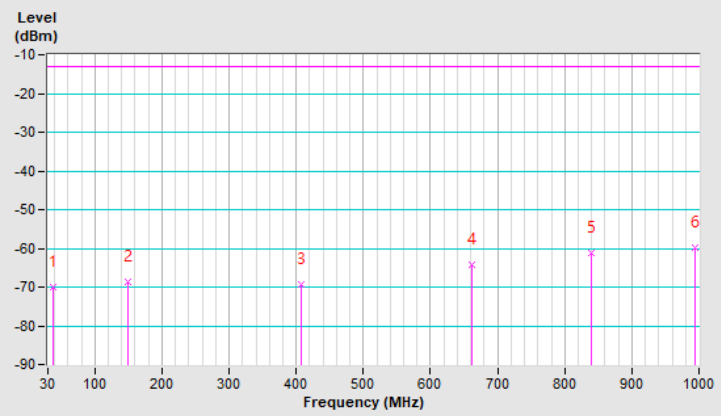
LTE Band 17 (Channel Bandwidth 10MHz)

Mode	TX channel 23790 (710.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	27deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Tim Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	37.76	-70.10	-13.00	-57.10	1.50 H	114	41.10	-111.20
2	148.34	-68.50	-13.00	-55.50	2.49 H	270	42.20	-110.70
3	408.30	-69.30	-13.00	-56.30	1.50 H	111	38.00	-107.30
4	662.44	-64.30	-13.00	-51.30	1.50 H	260	37.70	-102.00
5	839.95	-61.10	-13.00	-48.10	1.50 H	147	38.40	-99.50
6	994.18	-59.80	-13.00	-46.80	1.50 H	258	37.90	-97.70

Remarks:

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

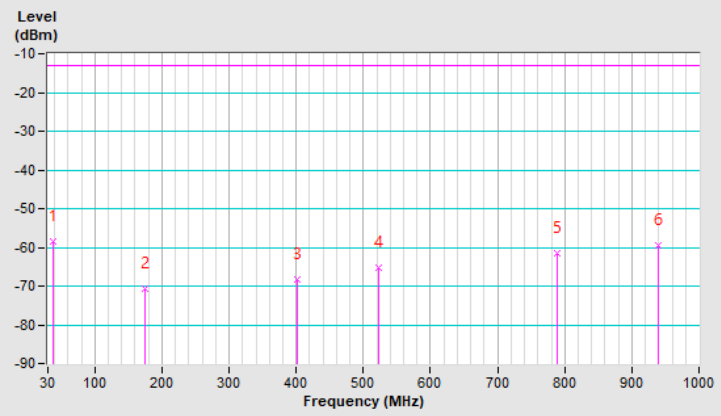


Mode	TX channel 23790 (710.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	27deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Tim Chen		

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	37.76	-58.60	-13.00	-45.60	1.51 V	164	52.60	-111.20
2	174.53	-70.60	-13.00	-57.60	1.51 V	58	40.70	-111.30
3	401.51	-68.30	-13.00	-55.30	2.50 V	201	39.20	-107.50
4	522.76	-65.20	-13.00	-52.20	2.50 V	358	39.60	-104.80
5	788.54	-61.50	-13.00	-48.50	1.51 V	18	38.90	-100.40
6	939.86	-59.60	-13.00	-46.60	1.51 V	172	38.50	-98.10

Remarks:

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



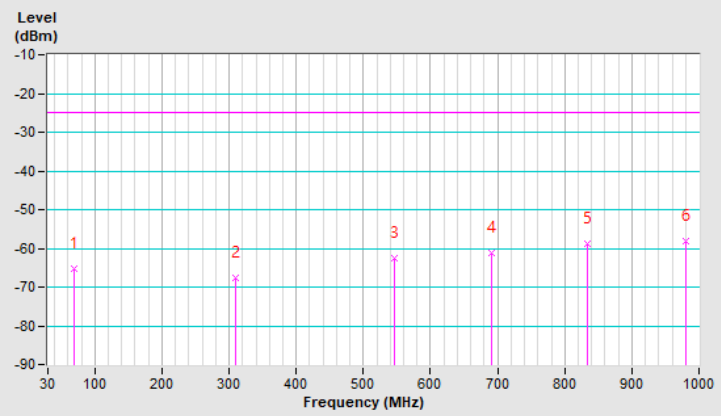
LTE Band 38 (Channel Bandwidth 20MHz)

Mode	TX channel 38000 (2595.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	27deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Tim Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	68.80	-65.30	-25.00	-40.30	2.49 H	358	45.20	-110.50
2	310.33	-67.70	-25.00	-42.70	2.49 H	32	39.80	-107.50
3	546.04	-62.50	-25.00	-37.50	1.50 H	326	39.90	-102.40
4	691.54	-61.30	-25.00	-36.30	2.49 H	142	38.10	-99.40
5	834.13	-58.90	-25.00	-33.90	2.49 H	233	38.40	-97.30
6	979.63	-58.00	-25.00	-33.00	1.50 H	201	37.60	-95.60

Remarks:

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

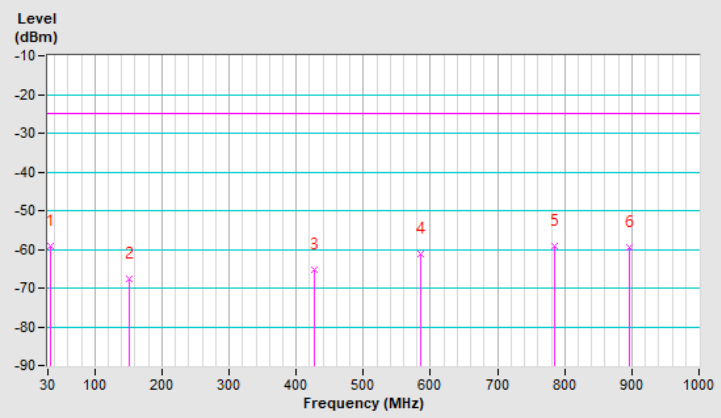


Mode	TX channel 38000 (2595.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	27deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Tim Chen		

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	34.85	-59.20	-25.00	-34.20	2.49 V	114	50.20	-109.40
2	151.25	-67.70	-25.00	-42.70	1.50 V	214	40.60	-108.30
3	427.70	-65.30	-25.00	-40.30	2.49 V	252	39.30	-104.60
4	584.84	-61.20	-25.00	-36.20	1.50 V	170	39.90	-101.10
5	784.66	-59.10	-25.00	-34.10	1.50 V	352	39.20	-98.30
6	896.21	-59.50	-25.00	-34.50	2.49 V	17	37.50	-97.00

Remarks:

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



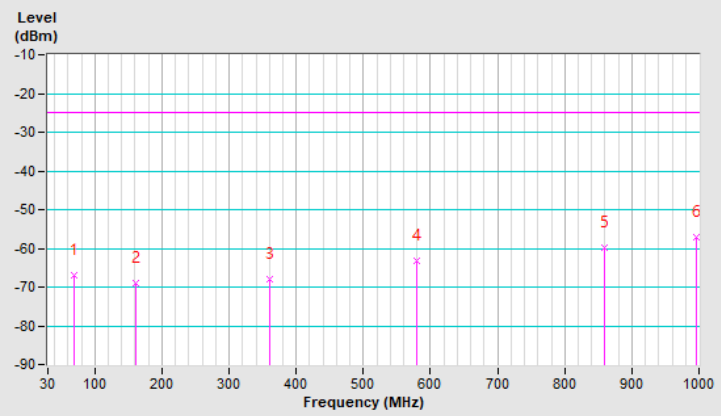
LTE Band 41 (Channel Bandwidth 20MHz)

Mode	TX channel 40620 (2593.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	27deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Tim Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
	68.80	-67.00	-25.00	-42.00	2.49 H	28	43.50	-110.50
2	160.95	-69.10	-25.00	-44.10	2.49 H	129	39.30	-108.40
3	359.80	-68.00	-25.00	-43.00	1.50 H	2	38.50	-106.50
4	579.99	-63.20	-25.00	-38.20	2.49 H	280	38.20	-101.40
5	858.38	-59.80	-25.00	-34.80	1.50 H	330	37.50	-97.30
6	996.12	-57.10	-25.00	-32.10	1.50 H	203	38.50	-95.60

Remarks:

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

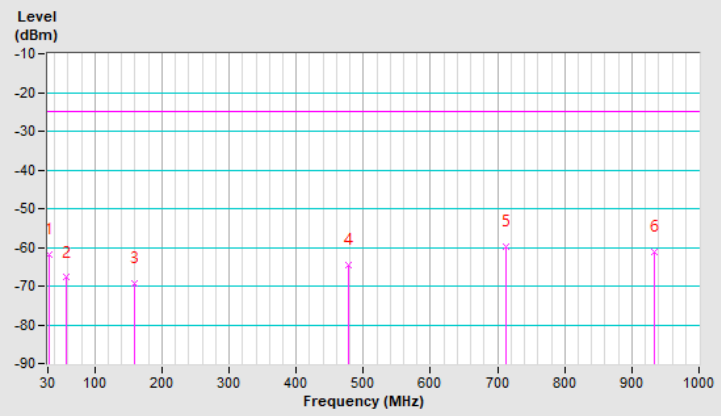


Mode	TX channel 40620 (2593.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	27deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Tim Chen		

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	32.91	-61.80	-25.00	-36.80	1.50 V	110	48.00	-109.80
2	58.13	-67.80	-25.00	-42.80	1.50 V	2	41.10	-108.90
3	159.01	-69.40	-25.00	-44.40	1.50 V	2	38.90	-108.30
4	478.14	-64.50	-25.00	-39.50	2.49 V	102	38.90	-103.40
5	712.88	-59.90	-25.00	-34.90	2.49 V	69	39.20	-99.10
6	934.04	-61.10	-25.00	-36.10	1.50 V	63	34.80	-95.90

Remarks:

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



Above 1GHz

WCDMA Band 4

Mode	TX channel 1413 (1732.6MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	27deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Tim Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3465.20	-50.50	-13.00	-37.50	1.93 H	258	46.20	-96.70
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3465.20	-49.60	-13.00	-36.60	1.52 V	166	47.10	-96.70

Remarks:

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

LTE Band 4 (Channel Bandwidth 20MHz)

Mode	TX channel 20175 (1732.5MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	27deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Tim Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3465.00	-51.90	-13.00	-38.90	1.68 H	234	44.80	-96.70
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3465.00	-50.30	-13.00	-37.30	1.51 V	344	46.40	-96.70

Remarks:

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

LTE Band 7 (Channel Bandwidth 20MHz)

Mode	TX channel 21100 (2535.0MHz)	Frequency Range	1GHz ~ 26GHz
Environmental Conditions	27deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Tim Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5070.00	-48.00	-25.00	-23.00	1.76 H	241	44.70	-92.70
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5070.00	-46.60	-25.00	-21.60	1.37 V	124	46.10	-92.70

Remarks:

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

LTE Band 12 (Channel Bandwidth 10MHz)

Mode	TX channel 23095 (707.5MHz)	Frequency Range	1GHz ~ 9GHz
Environmental Conditions	27deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Tim Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1415.00	-58.00	-13.00	-45.00	1.66 H	201	46.30	-104.30
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1415.00	-59.50	-13.00	-46.50	1.52 V	49	44.80	-104.30

Remarks:

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

LTE Band 13, Channel Bandwidth 10MHz

Mode	TX channel 23230 (782.0MHz)	Frequency Range	1GHz ~ 8GHz
Environmental Conditions	27deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Tim Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1564.00	-56.70	-40.00	-16.70	1.34 H	21	45.30	-102.00
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	**1564.00**	**-55.10**	**-40.00**	**-15.10**	**1.13 V**	**305**	**46.90**	**-102.00**

Remarks:

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

LTE Band 17 (Channel Bandwidth 10MHz)

Mode	TX channel 23790 (710.0MHz)	Frequency Range	1GHz ~ 8GHz
Environmental Conditions	27deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Tim Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1420.00	-59.00	-13.00	-46.00	1.34 H	102	45.30	-104.30
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1420.00	-58.30	-13.00	-45.30	1.11 V	203	46.00	-104.30

Remarks:

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

LTE Band 38, Channel Bandwidth 20MHz

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5190.00	-46.10	-25.00	-21.10	1.05 H	172	46.40	-92.50
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5190.00	-45.30	-25.00	-20.30	1.89 V	204	47.20	-92.50

Remarks:

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

LTE Band 41, Channel Bandwidth 20MHz

Mode	TX channel 40620 (2593.0MHz)	Frequency Range	1GHz ~ 27GHz
Environmental Conditions	27deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Tim Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5186.00	-46.20	-25.00	-21.20	1.67 H	221	46.30	-92.50
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	**5186.00**	**-45.00**	**-25.00**	**-20.00**	**1.24 V**	**134**	**47.50**	**-92.50**

Remarks:

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

5 Pictures of Test Arrangements

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

Appendix – Information of the Testing Laboratories

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

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

Lin Kou EMC/RF Lab
Tel: 886-2-26052180
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Email: service.adt@tw.bureauveritas.com
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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