



## **FCC TEST REPORT and IC TEST REPORT**

**For**

**Tablet Computer**

**FCC Model: TP00064A  
IC Model: TP00064AUC**

**Trade Name: Lenovo**

*Issued to*

**Compal Electronics Inc  
No.581, Ruiguang Rd., Neihu District, Taipei, 11492 Taiwan**

*Issued by*

**Compliance Certification Services Inc.  
No.11, Wugong 6th Rd., Wugu Dist.,  
New Taipei City 24891, Taiwan. (R.O.C.)  
<http://www.ccsrf.com>  
[service@ccsrf.com](mailto:service@ccsrf.com)  
Issued Date: April 28, 2014**



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**Revision History**

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	April 28, 2014	Initial Issue	ALL	Angel Cheng



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## 1. TEST RESULT CERTIFICATION

**Applicant:** Compal Electronics Inc  
No.581, Ruiguang Rd., Neihu District, Taipei, 11492 Taiwan

**Equipment Under Test:** Tablet Computer

**Trade Name:** Lenovo

**FCC Model:** TP00064A

**IC Model:** TP00064AUC

**Date of Test:** March 23, 2014



FCC PART 27, SUBPART C, L, FCC PART 2	
OPERATING BAND: 704 - 716 MHz	
Standard	TEST TYPE AND LIMIT
2.1046 27.50(B)(10) & RSS-130 Issue 1 October 2013 4.4	Maximum Peak Output Power Limit: max. 3 watts e.r.p peak power
2.1055 27.54 & RSS-130 Issue 1 October 2013 4.3	Frequency Stability
2.1049 27.53(g) & RSS-130 Issue 1 October 2013 4.3	Occupied Bandwidth
27.50(d)(5)	Peak to average ratio
27.53(g)	Band Edge Measurements
2.1051 27.53(g) & RSS-130 Issue 1 October 2013 4.6	Conducted Spurious Emissions
2.1053 27.53(g) & RSS-130 Issue 1 October 2013 4.6	Radiated Spurious Emissions

OPERATING BAND: 2500 - 2570 MHz	
Standard	TEST TYPE AND LIMIT
2.1046 27.50(d)(4) & RSS-199 Issue 1 January 2010 4.4	Maximum Peak Output Power Limit: max. 1 watts e.i.r.p peak power
2.1055 27.54 & RSS-199 Issue 1 January 2010 4.3	Frequency Stability
2.1049 27.53(h) & RSS-199 Issue 1 January 2010 4.5	Occupied Bandwidth
27.50(d)(5)	Peak to average ratio
27.53(h)	Band Edge Measurements
2.1051 27.53(h) & RSS-199 Issue 1 January 2010 4.5	Conducted Spurious Emissions
2.1053 27.53(h) & RSS-199 Issue 1 January 2010 4.6	Radiated Spurious Emissions

- Note: 1. The test result judgment is decided by the limit of test standard  
2. The information of measurement uncertainty is available upon the customer's request.



<b>Deviation from Applicable Standard</b>
None

The above equipment has been tested by Compliance Certification Services Inc., and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

*Approved by*

*Reviewed by*

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Miller Lee  
Section Manager  
Compliance Certification Services Inc.

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Angel Cheng  
Section Manager  
Compliance Certification Services Inc.



## 2. EUT DESCRIPTION

<b>Product</b>	Tablet Computer	
<b>FCC Model Number</b>	TP00064A	
<b>IC Model Number</b>	TP00064AUC	
<b>Model Discrepancy</b>	N/A	
<b>Trade</b>	Lenovo	
<b>Received Date</b>	March 31, 2014	
<b>Power Supply</b>	<p>1. Power Adapter Lenovo / ADLX36NCt2B I/P: 100-240V 1.5A 50-60Hz O/P: 12V 3A</p> <p>2. a). Trade: SIMPLO TECHNOLOGY (CHANGSHU) INC, SIMPLO TECHNOLOGY (CHONG QING) INC Model: 45N1728 Rating: 8800mAh, 33Wh, 3.75V</p> <p>b). Trade: SIMPLO TECHNOLOGY (CHANGSHU) INC, SIMPLO TECHNOLOGY (CHONG QING) INC Model: 45N1732 (for NEC) Rating: 8800mAh, 33Wh, 3.75V</p> <p>c). Trade: LG Chem (Nanjing) Model: 45N1730 (for NEC) Rating: 8920mAh, 33Wh, 3.7V</p> <p>d). Trade: LG Chem (Nanjing) Model: 45N1726 Rating: 8920mAh, 33Wh, 3.7V</p>	
<b>Modulation Technology</b>	LTE Band 17	QPSK, 16QAM
	LTE Band 7	QPSK, 16QAM
<b>Frequency Range</b>	LTE Band 17 Channel Bandwidth: 5MHz	706.5MHz ~ 713.5MHz
	LTE Band 17 Channel Bandwidth: 10MHz	709MHz ~ 711MHz
	LTE Band 7 Channel Bandwidth: 5MHz	2502.5MHz ~ 2567.5MHz
	LTE Band 7 Channel Bandwidth: 10MHz	2505MHz ~ 2560MHz
	LTE Band 7 Channel Bandwidth: 20MHz	2510MHz ~ 2560MHz



<b>Maximum ERP Power</b>	LTE Band 17 Channel Bandwidth: 5MHz	QPSK: 22.96dBm 16QAM: 23.16dBm
	LTE Band 17 Channel Bandwidth: 10MHz	QPSK : 21.31dBm 16QAM: 22.33dBm
<b>Maximum EIRP Power</b>	LTE Band 7 Channel Bandwidth: 5MHz	QPSK: 17.73dBm 16QAM: 17.95dBm
	LTE Band 7 Channel Bandwidth: 10MHz	QPSK: 15.92dBm 16QAM: 16.86dBm
	LTE Band 7 Channel Bandwidth: 20MHz	QPSK: 16.30dBm 16QAM: 15.37dBm
<b>Category</b>	LTE: 3	
<b>Antenna Specification</b>	LTE Band 7: PIFA Antenna / Gain: -2.42dBi LTE Band 17: PIFA Antenna / Gain: -1.31dBi	

*Note: 1. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.*





### 3. TEST METHODOLOGY

#### 3.1 DESCRIPTION OF TEST TYPE

The EUT (FCC model: TP00064A & IC Model: TP00064AUC) had been tested under operating condition.

Software used to control the EUT for staying in continuous transmitting mode was programmed.

#### LTE Band 17: 704 MHz ~ 716 MHz

Three channels had been tested for each channel bandwidth.

Channel Bandwidth	5MHz		10MHz	
	Channel	Frequency(MHz)	Channel	Frequency(MHz)
Low channel (L)	23755	706.5	23780	709.0
Middle channel (M)	23790	710.0	23790	710.0
High channel (H)	23825	713.5	23800	711.0

#### LTE Band 7: 2500 MHz ~ 2570 MHz

Three channels had been tested for each channel bandwidth.

Channel Bandwidth	5MHz		10MHz		20MHz	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
Low channel (L)	20775	2502.5	20800	2505	20850	2510
Middle channel (M)	21100	2535	21100	2535	21100	2535
High channel (H)	21425	2567.5	21350	2560	21350	2560

The field strength of spurious emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in lie-down position (X axis) and the worst case was recorded.

Test items for conducted and radiated emission were performed for report. Other testing data please refer to module (Brand: Sierra, Model: EM7345, FCC ID: N7NEM7345 and IC: 2417C-EM7345)



## 4. INSTRUMENT CALIBRATION

### 4.1 MEASURING INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

### 4.2 MEASUREMENT EQUIPMENT USED

#### Equipment Used for Emissions Measurement

*Remark: Each piece of equipment is scheduled for calibration once a year.*

Conducted Emissions Test Site				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY43360131	03/19/2015
Power Meter	Anritsu	ML2495A	1012009	06/04/2014
Power Sensor	Anritsu	MA2411A	0917072	06/04/2014

3M Semi Anechoic Chamber				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	US42510268	11/05/2014
EMI Test Receiver	R&S	ESCI	100064	02/16/2015
Pre-Amplifier	Mini-Circuits	ZFL-1000LN	SF350700823	01/11/2015
Bilog Antenna	Sunol Sciences	JB3	A030105	02/16/2015
Bilog Antenna	Sunol Sciences	JB3	A030205	10/01/2014
Horn Antenna	EMCO	3117	00055165	02/16/2015
Horn Antenna	EMCO	3117	00055167	01/27/2015
Horn Antenna	EMCO	3116	26370	01/06/2015
Loop Antenna	EMCO	6502	8905/2356	06/12/2014
Turn Table	CCS	CC-T-1F	N/A	N.C.R
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R
Site NSA	CCS	N/A	N/A	12/21/2014
Test S/W	EZ-EMC (CCS-3A1RE)			



### 4.3 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
3M Semi Anechoic Chamber / 30M~200M	+/- 4.0138
3M Semi Anechoic Chamber / 200M~1000M	+/- 3.9483
3M Semi Anechoic Chamber / 1G~8G	+/- 2.5975
3M Semi Anechoic Chamber / 8G~18G	+/- 2.6112
3M Semi Anechoic Chamber / 18G~26G	+/- 2.7389
3M Semi Anechoic Chamber / 26G~40G	+/- 2.9683

**Remark:** This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k=2$ .



## **5. FACILITIES AND ACCREDITATIONS**

### **5.1 FACILITIES**

All measurement facilities used to collect the measurement data are located at

No.199, Chunghsen Road, Hsintien City, Taipei Hsien, Taiwan, R.O.C.  
Tel: 886-2-2217-0894 / Fax: 886-2-2217-1029

No.11, Wugong 6th Rd., Wugu Dist., New Taipei City 24891, Taiwan. (R.O.C.)  
Tel: 886-2-2299-9720 / Fax: 886-2-2298-4045

No.81-1, Lane 210, Bade 2nd Rd., Luchu Hsiang, Taoyuan Hsien 338, Taiwan  
Tel: 886-3-324-0332 / Fax: 886-3-324-5235

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.

### **5.2 EQUIPMENT**

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, biconical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.




Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."



### 5.3 TABLE OF ACCREDITATIONS AND LISTINGS

Country	Agency	Scope of Accreditation	Logo
USA	FCC	3M Semi Anechoic Chamber (FCC MRA: TW1039) to perform FCC Part 15 measurements	 FCC MRA: TW1039
Taiwan	TAF	LP0002, RTTE01, FCC Method-47 CFR Part 15 Subpart C, D, E, RSS-210, RSS-310 IDA TS SRD, AS/NZS 4268, AS/NZS 4771, TS 12.1 & 12.2, ETSI EN 300 440-1, ETSI EN 300 440-2, ETSI EN 300 328, ETSI EN 300 220-1, ETSI EN 300 220-2, ETSI EN 301 893, ETSI EN 301 489-1/3/7/17 FCC OET Bulletin 65 + Supplement C, EN 50360, EN 50361, EN 50371, RSS 102, EN 50383, EN 50385, EN 50392, IEC 62209, CNS 14958-1, CNS 14959 FCC Method -47 CFR Part 15 Subpart B IEC / EN 61000-3-2, IEC / EN 61000-3-3, IEC / EN 61000-4-2/3/4/5/6/8/11	
Canada	Industry Canada	3M Semi Anechoic Chamber (IC 2324G-1 / IC 2324G-2) to perform	 IC 2324G-1 IC 2324G-2

\* No part of this report may be used to claim or imply product endorsement by A2LA or any agency of the US Government.



## 6. SETUP OF EQUIPMENT UNDER TEST

### 6.1 SETUP CONFIGURATION OF EUT

See test photographs attached in Appendix I for the actual connections between EUT and support equipment.

### 6.2 SUPPORT EQUIPMENT

No.	Device Type	Brand	Model	Series No.	FCC ID	Data Cable	Power Cord
	N/A						

**Remark:**

1. *All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.*
2. *Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.*



## **7. TEST PROCEDURE AND RESULT**

### **7.1 OUTPUT POWER MEASUREMENT**

#### **LIMITS**

Fixed, mobile, and portable (hand-held) stations operating in the 1710–1755 MHz band are limited to 1 watt EIRP.

Portable stations (hand-held devices) operating in the 698–746 MHz band are limited to 3 watts ERP

#### **TEST PROCEDURES**

##### **EIRP / ERP MEASUREMENT:**

1. The EUT was set up for the maximum power with LTE link data modulation. The power was measured with Spectrum Analyzer. All measurements were done at 3 channels (low, middle and high operational frequency range). RWB and VBW is 10MHz for LTE.
2. E.I.R.P power measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
3. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to “Read Value” of step a. Record the power level of S.G d.  $EIRP = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$
4.  $E.R.P = E.I.R.P - 2.15 \text{ dB}$

##### **CONDUCTED POWER MEASUREMENT:**

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



## TEST RESULTS

### ERP POWER

#### LTE Band 17

#### Channel Bandwidth: 5MHz / QPSK

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
23755	708.0500	V	19.79	3.14	6.31	<b>22.96</b>	38.45	-15.49
	708.0500	H	14.33	3.14	6.31	17.50	38.45	-20.95
23790	711.3500	V	18.82	3.15	6.34	22.01	38.45	-16.44
	711.6500	H	13.87	3.15	6.34	17.06	38.45	-21.39
23825	711.9500	V	19.72	3.15	6.35	22.92	38.45	-15.53
	711.6500	H	14.1	3.15	6.34	17.29	38.45	-21.16

#### Channel Bandwidth: 5MHz / 16QAM

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
23755	707.6000	V	19.99	3.14	6.31	<b>23.16</b>	38.45	-15.29
	707.7500	H	14.79	3.14	6.31	17.96	38.45	-20.49
23790	711.5000	V	19.48	3.15	6.34	22.67	38.45	-15.78
	711.8000	H	15.21	3.15	6.35	18.41	38.45	-20.04
23825	711.2000	V	19.59	3.15	6.34	22.78	38.45	-15.67
	712.2500	H	16.81	3.15	6.35	20.01	38.45	-18.44

**Remark:**

1. Output Power (dBm) = Raw Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = S.G Level + Gain of Substitution horn + TX cable loss.
3. The value in bold is the worst.





### Channel Bandwidth: 10MHz / QPSK

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
23780	711.8000	V	18.06	3.15	6.35	21.26	38.45	-17.19
	710.4500	H	14.57	3.14	6.32	17.75	38.45	-20.70
23790	710.0000	V	18.13	3.14	6.32	<b>21.31</b>	38.45	-17.14
	714.0500	H	12.88	3.15	6.38	16.11	38.45	-22.34
23800	708.3500	V	18.08	3.14	6.31	21.25	38.45	-17.20
	707.7500	H	15.2	3.14	6.31	18.37	38.45	-20.08

### Channel Bandwidth: 10MHz / 16QAM

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
23780	710.3000	V	18.98	3.14	6.32	22.16	38.45	-16.29
	711.0500	H	14.16	3.15	6.33	17.34	38.45	-21.11
23790	709.8500	V	19.16	3.14	6.31	<b>22.33</b>	38.45	-16.12
	706.7000	H	15.17	3.13	6.32	18.36	38.45	-20.09
23800	710.0000	V	19.09	3.14	6.32	22.27	38.45	-16.18
	709.8500	H	13.68	3.14	6.31	16.85	38.45	-21.60

**Remark:**

1. Output Power (dBm) = Raw Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = S.G Level + Gain of Substitution horn + TX cable loss.
3. The value in bold is the worst.



## EIRP POWER

### LTE Band 7

#### Channel Bandwidth: 5MHz / QPSK

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
20775	2501.300	V	6.95	6.35	6.1	6.70	33.00	-26.30
	2501.100	H	17.98	6.35	6.1	<b>17.73</b>	33.00	-15.27
21100	2533.500	V	8.08	6.4	6.19	7.87	33.00	-25.13
	2533.800	H	17.42	6.4	6.19	17.21	33.00	-15.79
21425	2569.040	V	8.31	6.45	6.28	8.14	33.00	-24.86
	2569.040	H	17.28	6.45	6.28	17.11	33.00	-15.89

#### Channel Bandwidth: 5MHz / 16QAM

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
20775	2502.680	V	7.65	6.35	6.11	7.41	33.00	-25.59
	2501.360	H	18.2	6.35	6.1	<b>17.95</b>	33.00	-15.05
21100	2536.640	V	7.65	6.4	6.2	7.45	33.00	-25.55
	2536.280	H	17.77	6.4	6.19	17.56	33.00	-15.44
21425	2568.080	V	6.77	6.45	6.28	6.60	33.00	-26.40
	2568.920	H	17.93	6.45	6.28	17.76	33.00	-15.24



### Channel Bandwidth: 10MHz / QPSK

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
20800	2501.600	V	6.58	6.35	6.1	6.33	33.00	-26.67
	2501.600	H	16.67	6.35	6.1	16.42	33.00	-16.58
21100	2532.560	V	6.59	6.4	6.18	6.37	33.00	-26.63
	2531.360	H	16.13	6.39	6.18	<b>15.92</b>	33.00	-17.08
21400	2568.800	V	6.97	6.45	6.28	6.80	33.00	-26.20
	2567.960	H	16.46	6.45	6.28	16.29	33.00	-16.71

### Channel Bandwidth: 10MHz / 16QAM

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
20800	2502.560	V	6.57	6.35	6.11	6.33	33.00	-26.67
	2501.120	H	17.02	6.35	6.1	16.77	33.00	-16.23
21100	2532.080	V	6.81	6.39	6.18	6.60	33.00	-26.40
	2532.200	H	16.65	6.4	6.18	16.43	33.00	-16.57
21400	2568.200	V	5.54	6.45	6.28	5.37	33.00	-27.63
	2567.720	H	17.02	6.44	6.28	<b>16.86</b>	33.00	-16.14



### Channel Bandwidth: 20MHz / QPSK

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
20850	2517.800	V	5.68	6.37	6.15	5.46	33.00	-27.54
	2517.200	H	16.53	6.37	6.14	<b>16.30</b>	33.00	-16.70
21100	2534.840	V	5.95	6.4	6.19	5.74	33.00	-27.26
	2528.720	H	15.61	6.39	6.17	15.39	33.00	-17.61
21350	2567.240	V	6.95	6.44	6.27	6.78	33.00	-26.22
	2566.880	H	15.6	6.44	6.27	15.43	33.00	-17.57

### Channel Bandwidth: 20MHz / 16QAM

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
20850	2516.600	V	5.1	6.37	6.14	4.87	33.00	-28.13
	2516.000	H	15.51	6.37	6.14	15.28	33.00	-17.72
21100	2534.360	V	5.64	6.4	6.19	5.43	33.00	-27.57
	2534.480	H	15.58	6.4	6.19	<b>15.37</b>	33.00	-17.63
21350	2535.320	V	5.41	6.4	6.19	5.20	33.00	-27.80
	2532.320	H	15.49	6.4	6.18	15.27	33.00	-17.73

**Remark:**

1. Output Power (dBm) = Raw Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = S.G Level + Gain of Substitution horn + TX cable loss.
3. The value in bold is the worst.



## 7.2 RADIATED EMISSION MEASUREMENT

### LIMITS

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least  $43 + 10 \log_{10}(P)$  dB. The limit of emission equal to  $-13$  dBm

So the limit of emission is the same absolute specified line.

Limits	EQUIVALENT FIELD STRENGTH AT 3m (dBuV/m) (NOTE)
-13	82.22

**NOTE:** The following formula is used to convert the equipment radiated power to field strength.

$$E = [1000000\sqrt{(30P)}] / 3 \text{ uV/m, where P is Watts}$$

### TEST PROCEDURES

1. The EUT was placed on the top of a rotating table 0.8 meters above the ground. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the receiving antenna, which was mounted on antenna tower and its position at 0.8 m above the ground.
3. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading and recorded the value.
4. Repeat step 1 ~ 3 for horizontal polarization.

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



## TEST RESULTS

### Below 1GHz

### **LTE Band 17 / CHANNEL BANDWIDTH: 5MHz / QPSK**

**Operation Mode:** Tx / Low channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
42.6100	-57.31	0.74	-10.34	-68.39	-13.00	-55.39	V
89.1700	-69.84	1.1	0.96	-69.98	-13.00	-56.98	V
149.3100	-66.99	1.42	0.62	-67.79	-13.00	-54.79	V
188.1100	-70.74	1.62	3.92	-68.44	-13.00	-55.44	V
244.3700	-65.95	1.82	5.47	-62.30	-13.00	-49.30	V
401.5100	-72.45	2.4	5.98	-68.87	-13.00	-55.87	V
41.6400	-50.84	0.74	-11.1	-62.68	-13.00	-49.68	H
122.1500	-63.67	1.29	-1.93	-66.89	-13.00	-53.89	H
174.5300	-68.37	1.59	3	-66.96	-13.00	-53.96	H
243.4000	-62.68	1.82	5.43	-59.07	-13.00	-46.07	H
253.1000	-63.91	1.86	5.67	-60.10	-13.00	-47.10	H
403.4500	-66.86	2.41	5.96	-63.31	-13.00	-50.31	H

### **Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / Middle channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
40.6700	-56.05	0.73	-11.85	-68.63	-13.00	-55.63	V
89.1700	-69.63	1.1	0.96	-69.77	-13.00	-56.77	V
125.0600	-68.15	1.31	-1.75	-71.21	-13.00	-58.21	V
148.3400	-67.58	1.42	0.53	-68.47	-13.00	-55.47	V
243.4000	-67.09	1.82	5.43	-63.48	-13.00	-50.48	V
255.0400	-67.67	1.87	5.65	-63.89	-13.00	-50.89	V
48.4300	-58.63	0.79	-5.83	-65.25	-13.00	-52.25	H
118.2700	-64.83	1.26	-2.03	-68.12	-13.00	-55.12	H
151.2500	-65.72	1.43	0.8	-66.35	-13.00	-53.35	H
243.4000	-60.32	1.82	5.43	-56.71	-13.00	-43.71	H
253.1000	-60.75	1.86	5.67	-56.94	-13.00	-43.94	H
402.4800	-64.48	2.41	5.97	-60.92	-13.00	-47.92	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / High channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
41.6400	-56.25	0.74	-11.1	-68.09	-13.00	-55.09	V
89.1700	-70.24	1.1	0.96	-70.38	-13.00	-57.38	V
148.3400	-67.73	1.42	0.53	-68.62	-13.00	-55.62	V
187.1400	-71.61	1.62	3.89	-69.34	-13.00	-56.34	V
241.4600	-67.57	1.81	5.36	-64.02	-13.00	-51.02	V
253.1000	-68.74	1.86	5.67	-64.93	-13.00	-51.93	V
43.5800	-54.56	0.75	-9.59	-64.90	-13.00	-51.90	H
125.0600	-64.4	1.31	-1.75	-67.46	-13.00	-54.46	H
148.3400	-65.46	1.42	0.53	-66.35	-13.00	-53.35	H
184.2300	-67.71	1.61	3.77	-65.55	-13.00	-52.55	H
241.4600	-60.55	1.81	5.36	-57.00	-13.00	-44.00	H
249.2200	-61.74	1.84	5.65	-57.93	-13.00	-44.93	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.





**LTE Band 17 / CHANNEL BANDWIDTH: 10MHz / QPSK**

**Operation Mode:** Tx / Low channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
43.5800	-58.32	0.75	-9.59	-68.66	-13.00	-55.66	V
62.9800	-68.8	0.9	-2.06	-71.76	-13.00	-58.76	V
149.3100	-66.9	1.42	0.62	-67.70	-13.00	-54.70	V
157.0700	-68.07	1.47	1.22	-68.32	-13.00	-55.32	V
243.4000	-67.41	1.82	5.43	-63.80	-13.00	-50.80	V
255.0400	-68.66	1.87	5.65	-64.88	-13.00	-51.88	V
48.4300	-58.52	0.79	-5.83	-65.14	-13.00	-52.14	H
127.9700	-64.27	1.33	-1.56	-67.16	-13.00	-54.16	H
163.8600	-65.44	1.51	1.83	-65.12	-13.00	-52.12	H
244.3700	-61.07	1.82	5.47	-57.42	-13.00	-44.42	H
255.0400	-62.23	1.87	5.65	-58.45	-13.00	-45.45	H
390.8400	-64.74	2.32	6	-61.06	-13.00	-48.06	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / Middle channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
41.6400	-55.99	0.74	-11.1	-67.83	-13.00	-54.83	V
89.1700	-71.01	1.1	0.96	-71.15	-13.00	-58.15	V
142.5200	-69.51	1.4	-0.01	-70.92	-13.00	-57.92	V
201.6900	-73.28	1.64	3.44	-71.48	-13.00	-58.48	V
234.6700	-69.07	1.8	5.38	-65.49	-13.00	-52.49	V
241.4600	-67.88	1.81	5.36	-64.33	-13.00	-51.33	V
43.5800	-53.7	0.75	-9.59	-64.04	-13.00	-51.04	H
119.2400	-64.43	1.27	-2.07	-67.77	-13.00	-54.77	H
162.8900	-66.54	1.51	1.72	-66.33	-13.00	-53.33	H
244.3700	-61.31	1.82	5.47	-57.66	-13.00	-44.66	H
385.0200	-66.14	2.31	5.99	-62.46	-13.00	-49.46	H
400.5400	-65.73	2.4	5.98	-62.15	-13.00	-49.15	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / High channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
42.6100	-56.82	0.74	-10.34	-67.90	-13.00	-54.90	V
65.8900	-69.41	0.93	-1.93	-72.27	-13.00	-59.27	V
94.9900	-72.11	1.13	0.42	-72.82	-13.00	-59.82	V
124.0900	-67.74	1.3	-1.81	-70.85	-13.00	-57.85	V
157.0700	-67.41	1.47	1.22	-67.66	-13.00	-54.66	V
243.4000	-67.75	1.82	5.43	-64.14	-13.00	-51.14	V
41.6400	-52.89	0.74	-11.1	-64.73	-13.00	-51.73	H
127.0000	-63.49	1.32	-1.63	-66.44	-13.00	-53.44	H
163.8600	-65.79	1.51	1.83	-65.47	-13.00	-52.47	H
238.5500	-60.02	1.81	5.35	-56.48	-13.00	-43.48	H
253.1000	-60.49	1.86	5.67	-56.68	-13.00	-43.68	H
388.9000	-66.63	2.32	6	-62.95	-13.00	-49.95	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**LTE Band 17 / CHANNEL BANDWIDTH: 5MHz / 16QAM**

**Operation Mode:** Tx / Low channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
42.6100	-57.3	0.74	-10.34	-68.38	-13.00	-55.38	V
74.6200	-68.96	1	-1.11	-71.07	-13.00	-58.07	V
89.1700	-69.18	1.1	0.96	-69.32	-13.00	-56.32	V
155.1300	-67.83	1.45	1.08	-68.20	-13.00	-55.20	V
191.0200	-71.81	1.62	3.89	-69.54	-13.00	-56.54	V
243.4000	-67.65	1.82	5.43	-64.04	-13.00	-51.04	V
42.6100	-53.57	0.74	-10.34	-64.65	-13.00	-51.65	H
123.1200	-62.88	1.29	-1.87	-66.04	-13.00	-53.04	H
165.8000	-65.53	1.53	2.05	-65.01	-13.00	-52.01	H
243.4000	-60.29	1.82	5.43	-56.68	-13.00	-43.68	H
390.8400	-64.91	2.32	6	-61.23	-13.00	-48.23	H
400.5400	-64.87	2.4	5.98	-61.29	-13.00	-48.29	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / Middle channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
41.6400	-56.83	0.74	-11.1	-68.67	-13.00	-55.67	V
133.7900	-67.82	1.36	-0.95	-70.13	-13.00	-57.13	V
151.2500	-68.13	1.43	0.8	-68.76	-13.00	-55.76	V
187.1400	-70.58	1.62	3.89	-68.31	-13.00	-55.31	V
235.6400	-67.4	1.8	5.37	-63.83	-13.00	-50.83	V
390.8400	-72.76	2.32	6	-69.08	-13.00	-56.08	V
42.6100	-54.13	0.74	-10.34	-65.21	-13.00	-52.21	H
123.1200	-62.8	1.29	-1.87	-65.96	-13.00	-52.96	H
241.4600	-60.65	1.81	5.36	-57.10	-13.00	-44.10	H
253.1000	-61.03	1.86	5.67	-57.22	-13.00	-44.22	H
391.8100	-64.59	2.32	6	-60.91	-13.00	-47.91	H
461.6500	-67.01	2.6	5.86	-63.75	-13.00	-50.75	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / High channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
41.6400	-56.17	0.74	-11.1	-68.01	-13.00	-55.01	V
66.8600	-63.9	0.93	-1.89	-66.72	-13.00	-53.72	V
149.3100	-67.9	1.42	0.62	-68.70	-13.00	-55.70	V
187.1400	-71.08	1.62	3.89	-68.81	-13.00	-55.81	V
241.4600	-67.83	1.81	5.36	-64.28	-13.00	-51.28	V
253.1000	-69.27	1.86	5.67	-65.46	-13.00	-52.46	V
49.4000	-59.33	0.8	-5.08	-65.21	-13.00	-52.21	H
160.9500	-66.66	1.49	1.5	-66.65	-13.00	-53.65	H
187.1400	-68.22	1.62	3.89	-65.95	-13.00	-52.95	H
241.4600	-61.19	1.81	5.36	-57.64	-13.00	-44.64	H
256.0100	-61.57	1.88	5.63	-57.82	-13.00	-44.82	H
402.4800	-64.39	2.41	5.97	-60.83	-13.00	-47.83	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**LTE Band 17 / CHANNEL BANDWIDTH: 10MHz / 16QAM**

**Operation Mode:** Tx / Low channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
40.6700	-56.26	0.73	-11.85	-68.84	-13.00	-55.84	V
92.0800	-72.69	1.12	0.89	-72.92	-13.00	-59.92	V
127.9700	-67.27	1.33	-1.56	-70.16	-13.00	-57.16	V
157.0700	-68.98	1.47	1.22	-69.23	-13.00	-56.23	V
240.4900	-67.78	1.81	5.34	-64.25	-13.00	-51.25	V
255.0400	-69.91	1.87	5.65	-66.13	-13.00	-53.13	V
44.5500	-54.61	0.76	-8.84	-64.21	-13.00	-51.21	H
113.4200	-65.18	1.23	-1.84	-68.25	-13.00	-55.25	H
123.1200	-63.75	1.29	-1.87	-66.91	-13.00	-53.91	H
160.9500	-66.63	1.49	1.5	-66.62	-13.00	-53.62	H
243.4000	-60.58	1.82	5.43	-56.97	-13.00	-43.97	H
258.9200	-63.52	1.9	5.6	-59.82	-13.00	-46.82	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / Middle channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
39.7000	-54.94	0.72	-12.6	-68.26	-13.00	-55.26	V
73.6500	-69.87	0.99	-1.28	-72.14	-13.00	-59.14	V
89.1700	-72.17	1.1	0.96	-72.31	-13.00	-59.31	V
146.4000	-67.93	1.41	0.35	-68.99	-13.00	-55.99	V
241.4600	-67.56	1.81	5.36	-64.01	-13.00	-51.01	V
249.2200	-69.05	1.84	5.65	-65.24	-13.00	-52.24	V
40.6700	-52.4	0.73	-11.85	-64.98	-13.00	-51.98	H
125.0600	-63.92	1.31	-1.75	-66.98	-13.00	-53.98	H
163.8600	-65.28	1.51	1.83	-64.96	-13.00	-51.96	H
244.3700	-60.93	1.82	5.47	-57.28	-13.00	-44.28	H
253.1000	-62.19	1.86	5.67	-58.38	-13.00	-45.38	H
400.5400	-65.21	2.4	5.98	-61.63	-13.00	-48.63	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*





**Operation Mode:** Tx / High channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
42.6100	-57.75	0.74	-10.34	-68.83	-13.00	-55.83	V
127.0000	-68.3	1.32	-1.63	-71.25	-13.00	-58.25	V
157.0700	-68.38	1.47	1.22	-68.63	-13.00	-55.63	V
185.2000	-71.43	1.61	3.81	-69.23	-13.00	-56.23	V
243.4000	-68.08	1.82	5.43	-64.47	-13.00	-51.47	V
375.3200	-72.89	2.31	5.91	-69.29	-13.00	-56.29	V
42.6100	-54.05	0.74	-10.34	-65.13	-13.00	-52.13	H
123.1200	-62.65	1.29	-1.87	-65.81	-13.00	-52.81	H
149.3100	-64.13	1.42	0.62	-64.93	-13.00	-51.93	H
163.8600	-64.11	1.51	1.83	-63.79	-13.00	-50.79	H
243.4000	-60.09	1.82	5.43	-56.48	-13.00	-43.48	H
392.7800	-64.78	2.33	5.99	-61.12	-13.00	-48.12	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**LTE Band 7 / CHANNEL BANDWIDTH: 5MHz / QPSK**

**Operation Mode:** Tx / Low channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
52.3100	-68.06	0.82	-4.22	-73.10	-13.00	-60.10	V
176.4700	-74.06	1.59	3.21	-72.44	-13.00	-59.44	V
248.2500	-67.76	1.83	5.61	-63.98	-13.00	-50.98	V
375.3200	-74.47	2.31	5.91	-70.87	-13.00	-57.87	V
649.8300	-81.74	3.03	6.28	-78.49	-13.00	-65.49	V
933.0700	-78.99	3.6	6.41	-76.18	-13.00	-63.18	V
47.4600	-64.57	0.78	-6.58	-71.93	-13.00	-58.93	H
123.1200	-68.57	1.29	-1.87	-71.73	-13.00	-58.73	H
248.2500	-64.45	1.83	5.61	-60.67	-13.00	-47.67	H
391.8100	-71.21	2.32	6	-67.53	-13.00	-54.53	H
525.6700	-79.4	2.73	6.04	-76.09	-13.00	-63.09	H
735.1900	-76.27	3.19	6.25	-73.21	-13.00	-60.21	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / Middle channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
51.3400	-66.61	0.81	-4.51	-71.93	-13.00	-58.93	V
177.4400	-74.84	1.6	3.31	-73.13	-13.00	-60.13	V
247.2800	-68.3	1.83	5.57	-64.56	-13.00	-51.56	V
377.2600	-74.16	2.31	5.94	-70.53	-13.00	-57.53	V
520.8200	-79.42	2.71	6.09	-76.04	-13.00	-63.04	V
821.5200	-80.81	3.39	6.21	-77.99	-13.00	-64.99	V
47.4600	-63.45	0.78	-6.58	-70.81	-13.00	-57.81	H
119.2400	-69.23	1.27	-2.07	-72.57	-13.00	-59.57	H
251.1600	-65.58	1.84	5.69	-61.73	-13.00	-48.73	H
390.8400	-71.42	2.32	6	-67.74	-13.00	-54.74	H
517.9100	-78.18	2.7	6.08	-74.80	-13.00	-61.80	H
878.7500	-76.61	3.46	6.66	-73.41	-13.00	-60.41	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the ackground noise floor.*



**Operation Mode:** Tx / High channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
52.3100	-67.59	0.82	-4.22	-72.63	-13.00	-59.63	V
176.4700	-73.88	1.59	3.21	-72.26	-13.00	-59.26	V
249.2200	-68.44	1.84	5.65	-64.63	-13.00	-51.63	V
377.2600	-74.78	2.31	5.94	-71.15	-13.00	-58.15	V
563.5000	-81.71	2.85	6.02	-78.54	-13.00	-65.54	V
763.3200	-80.6	3.24	6.33	-77.51	-13.00	-64.51	V
48.4300	-67.11	0.79	-5.83	-73.73	-13.00	-60.73	H
130.8800	-70.2	1.35	-1.3	-72.85	-13.00	-59.85	H
248.2500	-64.93	1.83	5.61	-61.15	-13.00	-48.15	H
382.1100	-71.17	2.31	5.99	-67.49	-13.00	-54.49	H
522.7600	-79.43	2.71	6.07	-76.07	-13.00	-63.07	H
656.6200	-78.73	3.05	6.3	-75.48	-13.00	-62.48	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



### LTE Band 7 / CHANNEL BANDWIDTH: 10MHz / QPSK

**Operation Mode:** Tx / Low channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
43.5800	-62.09	0.75	-9.59	-72.43	-13.00	-59.43	V
174.5300	-73.38	1.59	3	-71.97	-13.00	-58.97	V
248.2500	-67.87	1.83	5.61	-64.09	-13.00	-51.09	V
389.8700	-75.04	2.32	6	-71.36	-13.00	-58.36	V
524.7000	-79.63	2.73	6.05	-76.31	-13.00	-63.31	V
818.6100	-80.57	3.38	6.2	-77.75	-13.00	-64.75	V
47.4600	-64.72	0.78	-6.58	-72.08	-13.00	-59.08	H
123.1200	-69.02	1.29	-1.87	-72.18	-13.00	-59.18	H
249.2200	-65.29	1.84	5.65	-61.48	-13.00	-48.48	H
381.1400	-71.05	2.31	5.98	-67.38	-13.00	-54.38	H
554.7700	-78.78	2.82	6.11	-75.49	-13.00	-62.49	H
770.1100	-76.83	3.27	6.38	-73.72	-13.00	-60.72	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / Middle channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
52.3100	-66.35	0.82	-4.22	-71.39	-13.00	-58.39	V
174.5300	-74.46	1.59	3	-73.05	-13.00	-60.05	V
247.2800	-68.34	1.83	5.57	-64.60	-13.00	-51.60	V
378.2300	-74.91	2.31	5.96	-71.26	-13.00	-58.26	V
519.8500	-78.97	2.7	6.1	-75.57	-13.00	-62.57	V
732.2800	-81.7	3.18	6.34	-78.54	-13.00	-65.54	V
47.4600	-62.53	0.78	-6.58	-69.89	-13.00	-56.89	H
123.1200	-69.59	1.29	-1.87	-72.75	-13.00	-59.75	H
251.1600	-65.65	1.84	5.69	-61.80	-13.00	-48.80	H
392.7800	-71.15	2.33	5.99	-67.49	-13.00	-54.49	H
554.7700	-78.73	2.82	6.11	-75.44	-13.00	-62.44	H
749.7400	-75.49	3.2	6.1	-72.59	-13.00	-59.59	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / High channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
52.3100	-67.56	0.82	-4.22	-72.60	-13.00	-59.60	V
174.5300	-74.16	1.59	3	-72.75	-13.00	-59.75	V
243.4000	-68.07	1.82	5.43	-64.46	-13.00	-51.46	V
377.2600	-73.89	2.31	5.94	-70.26	-13.00	-57.26	V
519.8500	-80.26	2.7	6.1	-76.86	-13.00	-63.86	V
733.2500	-81.33	3.19	6.31	-78.21	-13.00	-65.21	V
47.4600	-65.54	0.78	-6.58	-72.90	-13.00	-59.90	H
131.8500	-69.96	1.35	-1.18	-72.49	-13.00	-59.49	H
248.2500	-65.07	1.83	5.61	-61.29	-13.00	-48.29	H
350.1000	-74.37	2.23	5.8	-70.80	-13.00	-57.80	H
395.6900	-71.21	2.36	5.99	-67.58	-13.00	-54.58	H
749.7400	-75.23	3.2	6.1	-72.33	-13.00	-59.33	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**LTE Band 7 / CHANNEL BANDWIDTH: 20MHz / QPSK**

**Operation Mode:** Tx / Low channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 60% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
52.3100	-66.37	0.82	-4.22	-71.41	-13.00	-58.41	V
176.4700	-74.58	1.59	3.21	-72.96	-13.00	-59.96	V
248.2500	-68.8	1.83	5.61	-65.02	-13.00	-52.02	V
382.1100	-74.67	2.31	5.99	-70.99	-13.00	-57.99	V
549.9200	-79.55	2.81	6.18	-76.18	-13.00	-63.18	V
804.0600	-80.99	3.33	6.45	-77.87	-13.00	-64.87	V
47.4600	-64.93	0.78	-6.58	-72.29	-13.00	-59.29	H
123.1200	-69.11	1.29	-1.87	-72.27	-13.00	-59.27	H
260.8600	-64.55	1.91	5.56	-60.90	-13.00	-47.90	H
438.3700	-75.78	2.52	5.89	-72.41	-13.00	-59.41	H
622.6700	-78.65	2.95	6.14	-75.46	-13.00	-62.46	H
818.6100	-77.18	3.38	6.2	-74.36	-13.00	-61.36	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*





**Operation Mode:** Tx / Middle channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 60% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
52.3100	-66.03	0.82	-4.22	-71.07	-13.00	-58.07	V
176.4700	-75.05	1.59	3.21	-73.43	-13.00	-60.43	V
252.1300	-68.31	1.85	5.68	-64.48	-13.00	-51.48	V
377.2600	-75.41	2.31	5.94	-71.78	-13.00	-58.78	V
523.7300	-77.78	2.72	6.06	-74.44	-13.00	-61.44	V
806.0000	-80.76	3.33	6.38	-77.71	-13.00	-64.71	V
47.4600	-64.09	0.78	-6.58	-71.45	-13.00	-58.45	H
123.1200	-69.48	1.29	-1.87	-72.64	-13.00	-59.64	H
251.1600	-65.25	1.84	5.69	-61.40	-13.00	-48.40	H
395.6900	-71.1	2.36	5.99	-67.47	-13.00	-54.47	H
554.7700	-77.9	2.82	6.11	-74.61	-13.00	-61.61	H
878.7500	-76.99	3.46	6.66	-73.79	-13.00	-60.79	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / High channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 60% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
52.3100	-67.27	0.82	-4.22	-72.31	-13.00	-59.31	V
175.5000	-74.73	1.59	3.1	-73.22	-13.00	-60.22	V
252.1300	-69.13	1.85	5.68	-65.30	-13.00	-52.30	V
389.8700	-74.22	2.32	6	-70.54	-13.00	-57.54	V
658.5600	-81.94	3.05	6.3	-78.69	-13.00	-65.69	V
822.4900	-80.73	3.39	6.22	-77.90	-13.00	-64.90	V
47.4600	-64.65	0.78	-6.58	-72.01	-13.00	-59.01	H
111.4800	-69.37	1.22	-1.76	-72.35	-13.00	-59.35	H
248.2500	-65.6	1.83	5.61	-61.82	-13.00	-48.82	H
386.9600	-71.46	2.32	6	-67.78	-13.00	-54.78	H
554.7700	-78.61	2.82	6.11	-75.32	-13.00	-62.32	H
813.7600	-76.62	3.35	6.2	-73.77	-13.00	-60.77	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**LTE Band 7 / CHANNEL BANDWIDTH: 5MHz / 16QAM**

**Operation Mode:** Tx / Low channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
52.3100	-67.36	0.82	-4.22	-72.40	-13.00	-59.40	V
176.4700	-74.76	1.59	3.21	-73.14	-13.00	-60.14	V
248.2500	-67.47	1.83	5.61	-63.69	-13.00	-50.69	V
375.3200	-74.35	2.31	5.91	-70.75	-13.00	-57.75	V
499.4800	-78.4	2.7	5.89	-75.21	-13.00	-62.21	V
791.4500	-80.11	3.33	6.27	-77.17	-13.00	-64.17	V
47.4600	-64.7	0.78	-6.58	-72.06	-13.00	-59.06	H
123.1200	-69.55	1.29	-1.87	-72.71	-13.00	-59.71	H
263.7700	-65.19	1.93	5.41	-61.71	-13.00	-48.71	H
400.5400	-71.36	2.4	5.98	-67.78	-13.00	-54.78	H
549.9200	-78.1	2.81	6.18	-74.73	-13.00	-61.73	H
760.4100	-74.85	3.22	6.3	-71.77	-13.00	-58.77	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / Middle channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
52.3100	-66.37	0.82	-4.22	-71.41	-13.00	-58.41	V
176.4700	-75.86	1.59	3.21	-74.24	-13.00	-61.24	V
251.1600	-68.55	1.84	5.69	-64.70	-13.00	-51.70	V
375.3200	-75.27	2.31	5.91	-71.67	-13.00	-58.67	V
549.9200	-79.14	2.81	6.18	-75.77	-13.00	-62.77	V
735.1900	-81.03	3.19	6.25	-77.97	-13.00	-64.97	V
48.4300	-64.3	0.79	-5.83	-70.92	-13.00	-57.92	H
168.7100	-72.77	1.55	2.37	-71.95	-13.00	-58.95	H
251.1600	-64.84	1.84	5.69	-60.99	-13.00	-47.99	H
391.8100	-70.49	2.32	6	-66.81	-13.00	-53.81	H
597.4500	-79.14	2.9	6.35	-75.69	-13.00	-62.69	H
800.1800	-75.22	3.33	6.52	-72.03	-13.00	-59.03	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the ackground noise floor.*



**Operation Mode:** Tx / High channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
52.3100	-66.83	0.82	-4.22	-71.87	-13.00	-58.87	V
174.5300	-74.94	1.59	3	-73.53	-13.00	-60.53	V
249.2200	-68.69	1.84	5.65	-64.88	-13.00	-51.88	V
382.1100	-73.9	2.31	5.99	-70.22	-13.00	-57.22	V
549.9200	-79.8	2.81	6.18	-76.43	-13.00	-63.43	V
772.0500	-81.17	3.28	6.32	-78.13	-13.00	-65.13	V
47.4600	-65.72	0.78	-6.58	-73.08	-13.00	-60.08	H
123.1200	-69.08	1.29	-1.87	-72.24	-13.00	-59.24	H
249.2200	-65.24	1.84	5.65	-61.43	-13.00	-48.43	H
391.8100	-70.85	2.32	6	-67.17	-13.00	-54.17	H
524.7000	-79.48	2.73	6.05	-76.16	-13.00	-63.16	H
808.9100	-76.41	3.34	6.27	-73.48	-13.00	-60.48	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**LTE Band 7 / CHANNEL BANDWIDTH: 10MHz / 16QAM**

**Operation Mode:** Tx / Low channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
52.3100	-67.33	0.82	-4.22	-72.37	-13.00	-59.37	V
176.4700	-74.94	1.59	3.21	-73.32	-13.00	-60.32	V
248.2500	-68.23	1.83	5.61	-64.45	-13.00	-51.45	V
377.2600	-74.37	2.31	5.94	-70.74	-13.00	-57.74	V
549.9200	-80.05	2.81	6.18	-76.68	-13.00	-63.68	V
758.4700	-81.57	3.22	6.27	-78.52	-13.00	-65.52	V
47.4600	-65.3	0.78	-6.58	-72.66	-13.00	-59.66	H
131.8500	-70.14	1.35	-1.18	-72.67	-13.00	-59.67	H
248.2500	-64.92	1.83	5.61	-61.14	-13.00	-48.14	H
392.7800	-70.08	2.33	5.99	-66.42	-13.00	-53.42	H
554.7700	-78.4	2.82	6.11	-75.11	-13.00	-62.11	H
771.0800	-76.12	3.27	6.35	-73.04	-13.00	-60.04	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / Middle channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
52.3100	-66.75	0.82	-4.22	-71.79	-13.00	-58.79	V
174.5300	-73.25	1.59	3	-71.84	-13.00	-58.84	V
247.2800	-68.17	1.83	5.57	-64.43	-13.00	-51.43	V
335.5500	-76.66	2.17	5.75	-73.08	-13.00	-60.08	V
440.3100	-76.98	2.53	5.89	-73.62	-13.00	-60.62	V
737.1300	-81.71	3.2	6.2	-78.71	-13.00	-65.71	V
47.4600	-63.12	0.78	-6.58	-70.48	-13.00	-57.48	H
123.1200	-68.42	1.29	-1.87	-71.58	-13.00	-58.58	H
250.1900	-64.91	1.84	5.68	-61.07	-13.00	-48.07	H
391.8100	-70.33	2.32	6	-66.65	-13.00	-53.65	H
611.0300	-79.45	2.94	6.27	-76.12	-13.00	-63.12	H
747.8000	-75.79	3.2	6.1	-72.89	-13.00	-59.89	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / High channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
52.3100	-67.28	0.82	-4.22	-72.32	-13.00	-59.32	V
176.4700	-74.44	1.59	3.21	-72.82	-13.00	-59.82	V
252.1300	-68.3	1.85	5.68	-64.47	-13.00	-51.47	V
377.2600	-74.76	2.31	5.94	-71.13	-13.00	-58.13	V
567.3800	-81.43	2.86	6.07	-78.22	-13.00	-65.22	V
773.0200	-80.9	3.28	6.29	-77.89	-13.00	-64.89	V
47.4600	-64.3	0.78	-6.58	-71.66	-13.00	-58.66	H
130.8800	-69.53	1.35	-1.3	-72.18	-13.00	-59.18	H
248.2500	-64.62	1.83	5.61	-60.84	-13.00	-47.84	H
400.5400	-70.33	2.4	5.98	-66.75	-13.00	-53.75	H
554.7700	-76.56	2.82	6.11	-73.27	-13.00	-60.27	H
772.0500	-75.14	3.28	6.32	-72.10	-13.00	-59.10	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*





**LTE Band 7 / CHANNEL BANDWIDTH: 20MHz / 16QAM**

**Operation Mode:** Tx / Low channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 60% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
44.5500	-63.11	0.76	-8.84	-72.71	-13.00	-59.71	V
176.4700	-74.77	1.59	3.21	-73.15	-13.00	-60.15	V
248.2500	-68.52	1.83	5.61	-64.74	-13.00	-51.74	V
385.0200	-73.96	2.31	5.99	-70.28	-13.00	-57.28	V
541.1900	-78.86	2.78	6.25	-75.39	-13.00	-62.39	V
848.6800	-80.15	3.4	6.4	-77.15	-13.00	-64.15	V
48.4300	-66.38	0.79	-5.83	-73.00	-13.00	-60.00	H
123.1200	-68.97	1.29	-1.87	-72.13	-13.00	-59.13	H
248.2500	-64.98	1.83	5.61	-61.20	-13.00	-48.20	H
391.8100	-71.15	2.32	6	-67.47	-13.00	-54.47	H
529.5500	-79.1	2.75	6	-75.85	-13.00	-62.85	H
740.0400	-76.29	3.21	6.11	-73.39	-13.00	-60.39	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / Middle channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 60% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
52.3100	-66.51	0.82	-4.22	-71.55	-13.00	-58.55	V
174.5300	-74.1	1.59	3	-72.69	-13.00	-59.69	V
251.1600	-67.86	1.84	5.69	-64.01	-13.00	-51.01	V
404.4200	-74.93	2.42	5.95	-71.40	-13.00	-58.40	V
521.7900	-78.97	2.71	6.08	-75.60	-13.00	-62.60	V
917.5500	-79.57	3.58	6.6	-76.55	-13.00	-63.55	V
47.4600	-63.86	0.78	-6.58	-71.22	-13.00	-58.22	H
123.1200	-68.87	1.29	-1.87	-72.03	-13.00	-59.03	H
251.1600	-65.73	1.84	5.69	-61.88	-13.00	-48.88	H
390.8400	-71.48	2.32	6	-67.80	-13.00	-54.80	H
525.6700	-78.26	2.73	6.04	-74.95	-13.00	-61.95	H
771.0800	-75.62	3.27	6.35	-72.54	-13.00	-59.54	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / High channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 60% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
43.5800	-62.8	0.75	-9.59	-73.14	-13.00	-60.14	V
176.4700	-74.21	1.59	3.21	-72.59	-13.00	-59.59	V
248.2500	-68.13	1.83	5.61	-64.35	-13.00	-51.35	V
389.8700	-74.85	2.32	6	-71.17	-13.00	-58.17	V
649.8300	-82.02	3.03	6.28	-78.77	-13.00	-65.77	V
798.2400	-80.55	3.33	6.47	-77.41	-13.00	-64.41	V
47.4600	-64.54	0.78	-6.58	-71.90	-13.00	-58.90	H
123.1200	-69	1.29	-1.87	-72.16	-13.00	-59.16	H
248.2500	-65.17	1.83	5.61	-61.39	-13.00	-48.39	H
391.8100	-71.62	2.32	6	-67.94	-13.00	-54.94	H
554.7700	-76.98	2.82	6.11	-73.69	-13.00	-60.69	H
653.7100	-78.73	3.04	6.3	-75.47	-13.00	-62.47	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Above 1GHz**

**LTE Band 17 / CHANNEL BANDWIDTH: 5MHz / QPSK**

**Operation Mode:** Tx / Low channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1413.000	-56.36	4.67	5.67	-55.36	-13.00	-42.36	V
2120.000	-54.13	5.81	5.57	-54.37	-13.00	-41.37	V
4976.000	-49.03	9.37	10.56	-47.84	-13.00	-34.84	V
N/A							
1413.000	-56.42	4.67	5.67	-55.42	-13.00	-42.42	H
2064.000	-52.91	5.76	5.49	-53.18	-13.00	-40.18	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / Middle channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1427.000	-54.35	4.7	5.77	-53.28	-13.00	-40.28	V
4997.000	-49.04	9.41	10.6	-47.85	-13.00	-34.85	V
N/A							
1427.000	-57.17	4.7	5.77	-56.10	-13.00	-43.10	H
2134.000	-53.07	5.84	5.59	-53.32	-13.00	-40.32	H
5172.000	-51.95	9.53	10.67	-50.81	-13.00	-37.81	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / High channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1427.000	-52.58	4.7	5.77	-51.51	-13.00	-38.51	V
2141.000	-52.47	5.85	5.6	-52.72	-13.00	-39.72	V
4983.000	-49.95	9.38	10.57	-48.76	-13.00	-35.76	V
N/A							
1427.000	-52.22	4.7	5.77	-51.15	-13.00	-38.15	H
2141.000	-51.14	5.85	5.6	-51.39	-13.00	-38.39	H
2855.000	-54.09	7	7.02	-54.07	-13.00	-41.07	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**LTE Band 17 / CHANNEL BANDWIDTH: 10MHz / QPSK**

**Operation Mode:** Tx / Low channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1413.000	-55.35	4.67	5.67	-54.35	-13.00	-41.35	V
4983.000	-50.39	9.38	10.57	-49.20	-13.00	-36.20	V
N/A							
1427.000	-55.63	4.7	5.77	-54.56	-13.00	-41.56	H
2435.000	-54.58	6.24	6.01	-54.81	-13.00	-41.81	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / Middle channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1427.000	-57.94	4.68	5.72	-56.95	-13.00	-43.95	V
2127.000	-48.17	5.83	5.58	-48.45	-13.00	-35.45	V
N/A							
1420.000	-57.94	4.68	5.72	-56.90	-13.00	-43.90	H
2127.000	-48.17	5.83	5.58	-48.42	-13.00	-35.42	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.





**Operation Mode:** Tx / High channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1427.000	-56.34	4.7	5.77	-55.27	-13.00	-42.27	V
2120.000	-46.85	5.81	5.57	-47.09	-13.00	-34.09	V
N/A							
1427.000	-56.08	4.7	5.77	-55.01	-13.00	-42.01	H
2120.000	-40.95	5.81	5.57	-41.19	-13.00	-28.19	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**LTE Band 17 / CHANNEL BANDWIDTH: 5MHz / 16QAM**

**Operation Mode:** Tx / Low channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1413.000	-54.29	4.67	5.67	-53.29	-13.00	-40.29	V
2120.000	-54.17	5.81	5.57	-54.41	-13.00	-41.41	V
4990.000	-49.94	9.39	10.58	-48.75	-13.00	-35.75	V
4937.500	-48.18	9.32	10.5	-47.00	-13.00	-34.00	V
N/A							
1413.000	-54.2	4.67	5.67	-53.20	-13.00	-40.20	H
2113.000	-51.7	5.8	5.56	-51.94	-13.00	-38.94	H
2820.000	-49.42	6.88	6.93	-49.37	-13.00	-36.37	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / Middle channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1427.000	-56.03	4.7	5.77	-54.96	-13.00	-41.96	V
1966.000	-55.27	5.63	5.46	-55.44	-13.00	-42.44	V
4997.000	-48.92	9.41	10.6	-47.73	-13.00	-34.73	V
N/A							
1427.000	-56.45	4.7	5.77	-55.38	-13.00	-42.38	H
2127.000	-51.82	5.83	5.58	-52.07	-13.00	-39.07	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / High channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1427.000	-49.55	4.7	5.77	-48.48	-13.00	-35.48	V
2141.000	-48.78	5.85	5.6	-49.03	-13.00	-36.03	V
4997.000	-49.07	9.41	10.6	-47.88	-13.00	-34.88	V
N/A							
1427.000	-50.61	4.7	5.77	-49.54	-13.00	-36.54	H
2148.000	-45.2	5.86	5.61	-45.45	-13.00	-32.45	H
2862.000	-55.24	7.02	7.04	-55.22	-13.00	-42.22	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**LTE Band 17 / CHANNEL BANDWIDTH: 10MHz / 16QAM**

**Operation Mode:** Tx / Low channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1427.000	-55.71	4.7	5.77	-54.64	-13.00	-41.64	V
2127.000	-54.87	5.83	5.58	-55.12	-13.00	-42.12	V
4990.000	-49.28	9.39	10.58	-48.09	-13.00	-35.09	V
N/A							
1413.000	-57.65	4.67	5.67	-56.65	-13.00	-37.70	H
2057.000	-51.3	5.75	5.48	-51.57	-13.00	-37.83	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



**Operation Mode:** Tx / Middle channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1427.000	-55.68	4.7	5.77	-54.61	-13.00	-41.61	V
2134.000	-51.51	5.84	5.59	-51.76	-13.00	-38.76	V
N/A							
1427.000	-56.62	4.7	5.77	-55.55	-13.00	-42.55	H
2127.000	-47.77	5.83	5.58	-48.02	-13.00	-35.02	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / High channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1427.000	-53.49	4.7	5.77	-52.42	-13.00	-39.42	V
2134.000	-48.05	5.84	5.59	-48.30	-13.00	-35.30	V
N/A							
1427.000	-55.75	4.7	5.77	-54.68	-13.00	-41.68	H
2120.000	-44.77	5.81	5.57	-45.01	-13.00	-32.01	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**LTE Band 7 / CHANNEL BANDWIDTH: 5MHz / QPSK**

**Operation Mode:** Tx / Low channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1945.000	-47.76	5.57	5.5	-47.83	-13.00	-34.83	V
4997.000	-39.32	9.41	10.6	-38.13	-13.00	-25.13	V
7517.000	-41.06	12.24	12.72	-40.58	-13.00	-27.58	V
N/A							
1665.000	-57.55	5.06	6	-56.61	-13.00	-43.61	H
5004.000	-35.1	9.41	10.6	-33.91	-13.00	-20.91	H
7517.000	-42.03	12.24	12.72	-41.55	-13.00	-28.55	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*





**Operation Mode:** Tx / Middle channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1945.000	-56	5.57	5.5	-56.07	-13.00	-43.07	V
5067.000	-41.68	9.44	10.63	-40.49	-13.00	-27.49	V
N/A							
1665.000	-57.64	5.06	6	-56.70	-13.00	-43.70	H
5067.000	-41.71	9.44	10.63	-40.52	-13.00	-27.52	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / High channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1952.000	-50.77	5.59	5.49	-50.87	-13.00	-37.87	V
5137.000	-42.31	9.49	10.65	-41.15	-13.00	-28.15	V
N/A							
1665.000	-57.24	5.06	6	-56.30	-13.00	-43.30	H
5130.000	-42.29	9.48	10.65	-41.12	-13.00	-28.12	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**LTE Band 7 / CHANNEL BANDWIDTH: 10MHz / QPSK**

**Operation Mode:** Tx / Low channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
5011.000	-40.05	9.41	10.6	-38.86	-13.00	-25.86	V
7517.000	-40.79	12.24	12.72	-40.31	-13.00	-27.31	V
N/A							
5011.000	-36.76	9.41	10.6	-35.57	-13.00	-22.57	H
7524.000	-42.31	12.23	12.72	-41.82	-13.00	-28.82	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / Middle channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1945.000	-54.09	5.57	5.5	-54.16	-13.00	-41.16	V
5067.000	-42.24	9.44	10.63	-41.05	-13.00	-28.05	V
7601.000	-43.37	12.12	12.8	-42.69	-13.00	-29.69	V
N/A							
1665.000	-57.5	5.06	6	-56.56	-13.00	-43.56	H
5067.000	-41.2	9.44	10.63	-40.01	-13.00	-27.01	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / High channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1952.000	-51.74	5.59	5.49	-51.84	-13.00	-38.84	V
5130.000	-44.34	9.48	10.65	-43.17	-13.00	-30.17	V
N/A							
1945.000	-46.8	5.57	5.5	-46.87	-13.00	-33.87	H
5130.000	-44.41	9.48	10.65	-43.24	-13.00	-30.24	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**LTE Band 7 / CHANNEL BANDWIDTH: 20MHz / QPSK**

**Operation Mode:** Tx / Low channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 60% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1945.000	-46.67	5.57	5.5	-46.74	-13.00	-33.74	V
5018.000	-41.94	9.42	10.61	-40.75	-13.00	-27.75	V
7524.000	-40.12	12.23	12.72	-39.63	-13.00	-26.63	V
N/A							
1945.000	-46.79	5.57	5.5	-46.86	-13.00	-33.86	H
5018.000	-36.16	9.42	10.61	-34.97	-13.00	-21.97	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / Middle channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 60% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
2351.000	-58.04	6.13	5.89	-58.28	-13.00	-45.28	V
5067.000	-41.61	9.44	10.63	-40.42	-13.00	-27.42	V
N/A							
2218.000	-56.4	5.97	5.71	-56.66	-13.00	-43.66	H
5067.000	-41.48	9.44	10.63	-40.29	-13.00	-27.29	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / High channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 60% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1959.000	-48.91	5.61	5.47	-49.05	-13.00	-36.05	V
5123.000	-40.55	9.48	10.65	-39.38	-13.00	-26.38	V
7678.000	-42.26	12.38	12.88	-41.76	-13.00	-28.76	V
N/A							
1756.000	-48.94	5.21	5.84	-48.31	-13.00	-35.31	H
5123.000	-39.8	9.48	10.65	-38.63	-13.00	-25.63	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*





**LTE Band 7 / CHANNEL BANDWIDTH: 5MHz / 16QAM**

**Operation Mode:** Tx / Low channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1952.000	-51.82	5.59	5.49	-51.92	-13.00	-38.92	V
5004.000	-40.41	9.41	10.6	-39.22	-13.00	-26.22	V
7510.000	-40.47	12.25	12.71	-40.01	-13.00	-27.01	V
N/A							
1665.000	-57.73	5.06	6	-56.79	-13.00	-43.79	H
4997.000	-34.09	9.41	10.6	-32.90	-13.00	-19.90	H
7503.000	-39.97	12.27	12.7	-39.54	-13.00	-26.54	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



**Operation Mode:** Tx / Middle channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1945.000	-49.98	5.57	5.5	-50.05	-13.00	-37.05	V
5074.000	-42.39	9.44	10.63	-41.20	-13.00	-28.20	V
7601.000	-43.14	12.12	12.8	-42.46	-13.00	-29.46	V
N/A							
1665.000	-56.73	5.06	6	-55.79	-13.00	-42.79	H
5067.000	-42.42	9.44	10.63	-41.23	-13.00	-28.23	H
7601.000	-43.98	12.12	12.8	-43.30	-13.00	-30.30	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / High channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 45% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1952.000	-50.52	5.59	5.49	-50.62	-13.00	-37.62	V
5130.000	-41.47	9.48	10.65	-40.30	-13.00	-27.30	V
N/A							
1665.000	-56.83	5.06	6	-55.89	-13.00	-42.89	H
5137.000	-42.37	9.49	10.65	-41.21	-13.00	-28.21	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**LTE Band 7 / CHANNEL BANDWIDTH: 10MHz / 16QAM**

**Operation Mode:** Tx / Low channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 60% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
2218.000	-58.33	5.97	5.71	-58.59	-13.00	-45.59	V
5067.000	-41.14	9.44	10.63	-39.95	-13.00	-26.95	V
N/A							
1665.000	-57.34	5.06	6	-56.40	-13.00	-43.40	H
5067.000	-41.04	9.44	10.63	-39.85	-13.00	-26.85	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / Middle channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 60% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3107.000	-57.02	7.18	7.72	-56.48	-13.00	-43.48	V
5130.000	-43.77	9.48	10.65	-42.60	-13.00	-29.60	V
N/A							
2463.000	-57.12	6.29	6.05	-57.36	-13.00	-44.36	H
5130.000	-43.73	9.48	10.65	-42.56	-13.00	-29.56	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / High channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 60% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
5011.000	-39.55	9.41	10.6	-38.36	-13.00	-25.36	V
7524.000	-41.55	12.23	12.72	-41.06	-13.00	-28.06	V
N/A							
1945.000	-55.07	5.57	5.5	-55.14	-13.00	-42.14	H
5011.000	-35.43	9.41	10.6	-34.24	-13.00	-21.24	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**LTE Band 7 / CHANNEL BANDWIDTH: 20MHz / 16QAM**

**Operation Mode:** Tx / Low channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 60% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1959.000	-44.31	5.61	5.47	-44.45	-13.00	-31.45	V
5018.000	-40.21	9.42	10.61	-39.02	-13.00	-26.02	V
7531.000	-39.33	12.22	12.73	-38.82	-13.00	-25.82	V
N/A							
5018.000	-35.48	9.42	10.61	-34.29	-13.00	-21.29	H
7531.000	-39.41	12.22	12.73	-38.90	-13.00	-25.90	H
5147.500	-49.27	9.5	10.66	-48.11	-13.00	-35.11	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / Middle channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 60% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1945.000	-55.66	5.57	5.5	-55.73	-13.00	-42.73	V
5067.000	-42.26	9.44	10.63	-41.07	-13.00	-28.07	V
N/A							
1665.000	-57.49	5.06	6	-56.55	-13.00	-43.55	H
5067.000	-42.46	9.44	10.63	-41.27	-13.00	-28.27	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.*





**Operation Mode:** Tx / High channel      **Test Date:** March 23, 2014  
**Temperature:** 25°C      **Tested by:** David Shu  
**Humidity:** 60% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1945.000	-53.33	5.57	5.5	-53.40	-13.00	-40.40	V
5116.000	-39.28	9.47	10.65	-38.10	-13.00	-25.10	V
7671.000	-43.07	12.35	12.87	-42.55	-13.00	-29.55	V
N/A							
1665.000	-58.42	5.06	6	-57.48	-13.00	-44.48	H
5123.000	-41.01	9.48	10.65	-39.84	-13.00	-26.84	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*