

RADIO TEST REPORT

Report No: STS1707114W07

Issued for

Beijing ULINK Technology Co., Ltd.

East Area of 5F, No.16 Wangjing North Rd., Chaoyang District, Beijing, China

Product Name:	4G LTE Mobile Router
Brand Name:	macaroon
Model Name:	macaroon M1
Series Model:	N/A
FCC ID:	2AMIWM1
Test Standard:	FCC Part 27

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BZT Testing Technology Co., Ltd

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TEST RESULT CERTIFICATION

Applicant's name: Beijing ULINK Technology Co., Ltd.

Address: East Area of 5F, No.16 Wangjing North Rd., Chaoyang District, Beijing, China

Manufacture's Name: Beijing ULINK Technology Co., Ltd.

Address: East Area of 5F, No.16 Wangjing North Rd., Chaoyang District, Beijing, China

Product name: 4G LTE Mobile Router

Brand name: macaroon

Model and/or type reference ..: macaroon M1

Standards: FCC Part 27

Test procedure: ANSI/TIA 603-D (2010)

This device described above has been tested by BZT and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test

Date of performance of tests: 19 Jun. 2017~23 Jun. 2017

Date of Issue: 24 Jun. 2017

Test Result.....: **Pass**

Testing Engineer :



(Sean she)

Technical Manager :



(Hakim.hou)

Authorized Signatory :



(Vita Li)

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Revision History

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	24 Jun. 2017	STS1707114W07	ALL	Initial Issue

SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

The radiated emission testing was performed according to the procedures of ANSI/TIA-603-D: 2010, KDB 971168 D01 v02r02 and KDB 648474 D03 v01r04

FCC Rules	Test Description	Test Limit	Test Result	Reference
2.1046	Conducted Output Power	Reporting Only	PASS	
2.0146 27.50	Peak-to-Average Ratio	< 13 dB	PASS	
2.1046 27.50	Effective Radiated Power/Equivalent Isotropic Radiated Power	< 1 Watts max. EIRP(Part 27)	PASS	
2.1049	Occupied Bandwidth	Reporting Only	PASS	
2.1055 27.54	Frequency Stability	Emission must remain in band (Part 27)	PASS	
2.1051 27.53	Spurious Emission at Antenna Terminals	< $43+10\log_{10}(P[\text{Watts}])$	PASS	
2.1053 27.53	Field Strength of Spurious Radiation	< $43+10\log_{10}(P[\text{Watts}])$	PASS	
2.1051 27.53	Band Edge	< $43+10\log_{10}(P[\text{Watts}])$	PASS	

1 INTRODUCTION

1.1 TEST FACTORY

BZT Testing Technology Co., Ltd.

Add. : Buliding 17, Xinghua Road Xingwei industrial Park Fuyong,
Baoan District, Shenzhen, Guangdong, China

FCC Registration No.: 701733

1.2 MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.4-2014. All measurement uncertainty values are shown with a coverage factor of $k = 2$ to indicate a 95% level of confidence. The measurement data shown herein meets or exceeds the UCISPR measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

No.	Item	Uncertainty
1	RF power, conducted	$\pm 0.71\text{dB}$
2	Spurious emissions, conducted	$\pm 0.63\text{dB}$
5	All emissions, radiated(<1G) 30MHz-200MHz	$\pm 3.80\text{dB}$
6	All emissions, radiated(<1G) 200MHz-1000MHz	$\pm 3.97\text{dB}$
7	All emissions, radiated(>1G)	$\pm 3.03\text{dB}$

2 PRODUCT INFORMATION

Product Designation:	4G LTE Mobile Router
Hardware version number:	1.0
Software version number:	V100
FCC ID:	2AMIWM1
Tx Frequency:	WCDMA: Band IV: 1710MHz ~ 1755 MHz
Rx Frequency:	WCDMA: Band IV: 2110 MHz ~ 2155 MHz
Max RF Output Power:	WCDMA: Band IV:23.56dBm
Type of Emission:	Band IV: 4M67F9W
Antenna:	PIFA Antenna
Antenna gain:	0.52dBi
Power Supply:	DC 3.8V by battery
Battery parameter:	Capacity: 3000mAh, Rated Voltage: 3.8V
Adapter:	Input: AC 100-240V, 50/60Hz, 200mA Output: DC 5V, 1000mA
Extreme Vol. Limits:	DC3.4 V to 4.2V (Nominal DC3.8V)
Extreme Temp. Tolerance:	-30°C to +50 °C
<p>** Note: The High Voltage 4.2V and Low Voltage 3.4 V was declared by manufacturer, The EUT couldn't be operate normally with higher or lower voltage.</p>	

3 TEST CONFIGURATION OF EQUIPMENT UNDER TEST

Antenna port conducted and radiated test items were performed according to KDB 971168 D01 Power Meas. License Digital Systems with maximum output power.

Radiated measurements were performed with rotating EUT in different three orthogonal test planes to find the maximum emission.

Radiated emissions were investigated as following frequency range:

1. 30 MHz to 10th harmonic for WCDMA Band IV.

All modes and data rates and positions were investigated.

Test modes are chosen to be reported as the worst case configuration below:

TEST MODES		
BAND	RADIATED TCS	CONDUCTED TCS
WCDMA BAND IV	RMC 12.2KBPS LINK	RMC 12.2KBPS LINK

4 MEASUREMENT INSTRUMENTS

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
EMI Test Receiver	R&S	ESW	101535	2017.06.01	2018.05.31
Signal Analyzer	Agilent	N9020A	MY49100060	2017.03.11	2018.03.10
Test Receiver	R&S	ESCI	101427	2016.10.23	2017.10.22
Universal Radio Communication Tester	R&S	CMW500	117239	2016.10.23	2017.10.22
Bilog Antenna	TESEQ	CBL6111D	34678	2017.03.24	2018.03.23
Horn Antenna	Schwarzbeck	BBHA 9120D	9120D-1343	2017.03.06	2018.03.05
SHF-EHF Horn Antenna (15G-40GHz)	BBHA 9170	SCHWARZBECK	BBHA9170367	2017.05.02	2018.05.01
Low frequency cable	EM	R01	N/A	2017.03.12	2018.03.11
Low frequency cable	EM	R06	N/A	2017.03.12	2018.03.11
High frequency cable	SCHWARZBECK	R04	N/A	2017.03.12	2018.03.11
High frequency cable	SCHWARZBECK	R02	N/A	2017.03.12	2018.03.11
Vector signal generator	Agilent	E8257D-521	MY45141029	2016.10.23	2017.10.22
Pre-mplifier (0.1M-3GHz)	EM	EM330	60538	2017.03.12	2018.03.11
PreAmplifier (1G-26.5GHz)	Agilent	8449B	60538	2016.10.23	2017.10.22
Pre-mplifier (18G-40G)	MINI-CIRCUITS	AP-040G	1382501	2017.05.15	2018.05.14
Band Reject filter(1920-1980MHz)	COM-MW	ZBSF-1920-1980	0092	2016.10.23	2017.10.22
Band Reject filter(880-915MHz)	COM-MW	ZBSF-C897.5-35	707	2016.10.23	2017.10.22
Band Reject filter(1710-1785MHz)	COM-MW	ZBSF-C1747.5-75	708	2016.10.23	2017.10.22
Band Reject filter(1850-1910MHz)	COM-MW	ZBSF-C1880-60	709	2016.10.23	2017.10.22
Band Reject filter(2500-2570MHz)	COM-MW	ZBSF-C2535-70	710	2016.10.23	2017.10.22
Highpass Filter	WHKX7.0/18G-8SS	Wainwright	18	2016.10.23	2017.10.22
turn table	EM	SC100_1	60531	N/A	N/A
Antenna mast	EM	SC100	N/A	N/A	N/A

Equipment with a calibration date of "NCR" shown in this list was not used to make direct calibrated measurements.

5 TEST ITEMS

5.1 CONDUCTED OUTPUT POWER

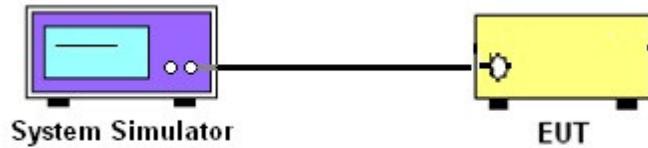
Test overview

A system simulator was used to establish communication with the EUT. Its parameters were set to enforce EUT transmitting at the maximum power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

Test procedures

1. The transmitter output port was connected to the system simulator.
2. Set eut at maximum power through the system simulator.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Measure and record the power level from the system simulator.

Test setup



5.2 PEAK TO AVERAGE RATIO

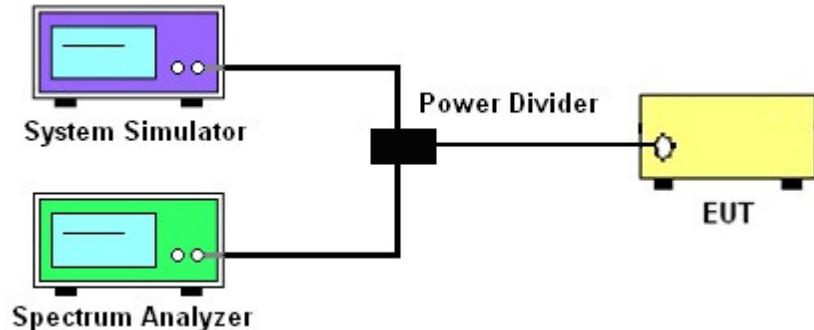
TEST OVERVIEW

According to §27.50(B), The peak-to-average power ratio (PAPR) of the transmitter output power must not exceed 13 dB. The PAPR measurements should be made using either an instrument with complementary cumulative distribution function (CCDF) capabilities to determine that PAPR will not exceed 13 dB for more than 0.1 percent of the time or other Commission approved procedure. The measurement must be performed using a signal corresponding to the highest PAPR expected during periods of continuous transmission

TEST PROCEDURES

1. The testing follows fcckdb 971168 v02r02 section
2. The eut was connected to the and peak and av system simulator& spectrum analysis reads
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Set the test probe and measure average power of the spectrum analysis

TEST SETUP



5.3 TRANSMITTER RADIATED POWER (EIRP/ERP)

TEST OVERVIEW

Effective Radiated Power (ERP) and Equivalent Isotropic Radiated Power (EIRP) measurements are performed using the substitution method described in ANSI/TIA-603-D-2010 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using vertically polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically polarized broadband horn antennas. All measurements are performed as RMS average measurements while the EUT is operating at maximum power, and at the appropriate frequencies.

TEST PROCEDURE

1. The testing follows FCC KDB 971168 D01 Section 5.2.1. (for CDMA/WCDMA), Section 5.2.2 (for GSM/GPRS) and ANSI / TIA-603-D-2010 Section 2.2.17.
2. The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load which was also placed on the turntable.
3. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.
4. The frequency range up to tenth harmonic of the fundamental frequency was investigated.
5. Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a nonradiating cable. The absolute levels of the spurious emissions were measured by the substitution.
6. Effective Isotropic Radiated Power (EIRP) was measured by substitution method according to TIA/EIA-603-D. The EUT was replaced by the substitution antenna at same location, and then a known power from S.G. was applied into the dipole antenna through a Tx cable, and then recorded the maximum Analyzer reading through raised and lowered the test antenna. The correction factor (in dB) = S.G. - Tx Cable loss + Substitution antenna gain - Analyzer reading. Then the EUT's EIRP/ERP was calculated with the correction factor,
$$\text{ERP/EIRP} = \text{P.SG} + \text{GT} - \text{LC}$$

$$\text{ERP/EIRP} = \text{effective or equivalent radiated power, respectively (expressed in the same units as PMe as, typically dBW or dBm);}$$

$$\text{PMes(PK)} = \text{measured transmitter output power or PSD, in dBm or dBW;}$$

$$\text{GT} = \text{gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);}$$

$$\text{LC} = \text{signal attenuation in the connecting cable between the transmitter and antenna, in dB.}$$

5.4 OCCUPIED BANDWIDTH

TEST OVERVIEW

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured.

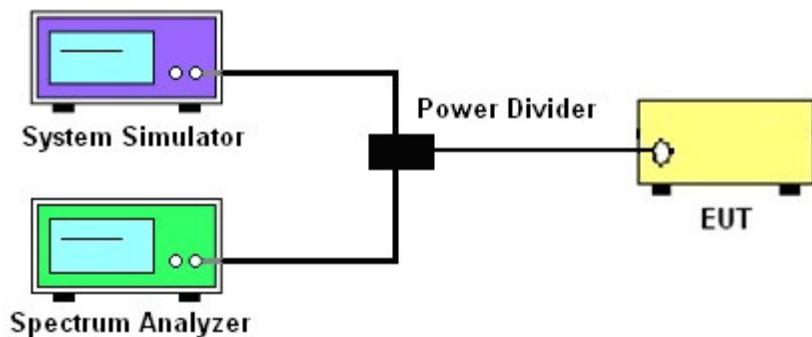
The 26 dB emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

All modes of operation were investigated and the worst case configuration results are reported in this section.

TEST PROCEDURE

1. The signal analyzer's automatic bandwidth measurement capability was used to perform the 99% occupied bandwidth and the 26dB bandwidth. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. $RBW = 1 - 5\%$ of the expected OBW
3. $VBW \geq 3 \times RBW$
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. The trace was allowed to stabilize
8. If necessary, steps 2 – 7 were repeated after changing the RBW such that it would be within $1 - 5\%$ of the 99% occupied bandwidth observed in Step 7

TEST SETUP



5.5 FREQUENCY STABILITY

Test Overview

Frequency stability testing is performed in accordance with the guidelines of ANSI/TIA-603-D-2010. The frequency stability of the transmitter is measured by:

- a.) Temperature: The temperature is varied from -30°C to +50°C in 10°C increments using an environmental chamber.
- b.) Primary Supply Voltage: The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

For Part 27, The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

Test Procedure

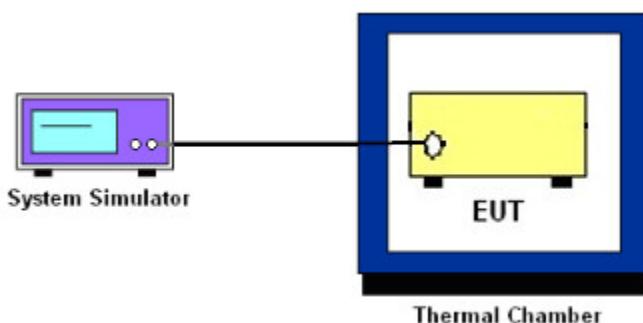
Temperature Variation

1. The testing follows fcckdb 971168 D01 section 9.0
2. The EUT was set up in the thermal chamber and connected with the system simulator.
3. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
4. With power OFF, the temperature was raised in 10°C steps up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

Voltage Variation

1. The testing follows FCC KDB 971168 D01 Section 9.0.
2. The EUT was placed in a temperature chamber at $25\pm5^\circ\text{C}$ and connected with the system simulator.
3. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.
4. The variation in frequency was measured for the worst case.

TEST SETUP



5.6 SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Test Overview

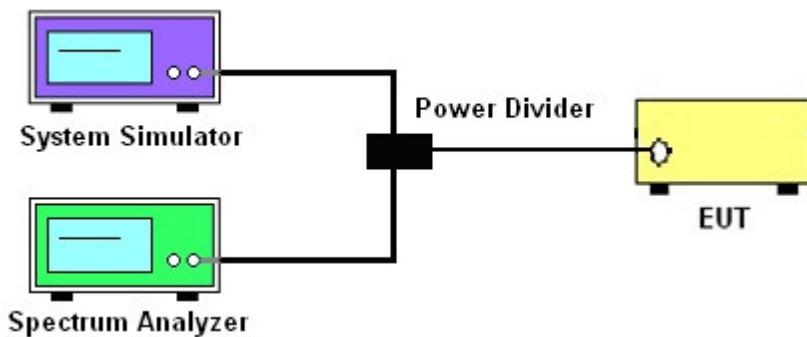
The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least $43 + 10 \log(P)$ dB.

It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10th harmonic.

Test procedure

1. The testing FCC KDB 971168 D01 v02r02 Section 6.0. and ANSI/TIA-603-D-2010-Section 2.2.13.2(d)
2. The EUT was connected to the spectrum analyzer and system simulator via a power divider.
3. The RF output of EUT was connected to the spectrum analyzer by an RF cable and attenuator. The path loss was compensated to the results for each measurement.
4. The middle channel for the highest RF power within the transmitting frequency was measured.
5. The conducted spurious emission for the whole frequency range was taken.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
7. The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)]$ (dB)
 $= [30 + 10\log(P)]$ (dBm) - $[43 + 10\log(P)]$ (dB)
 $= -13$ dBm.

Test Setup



5.7 BAND EDGE

OVERVIEW

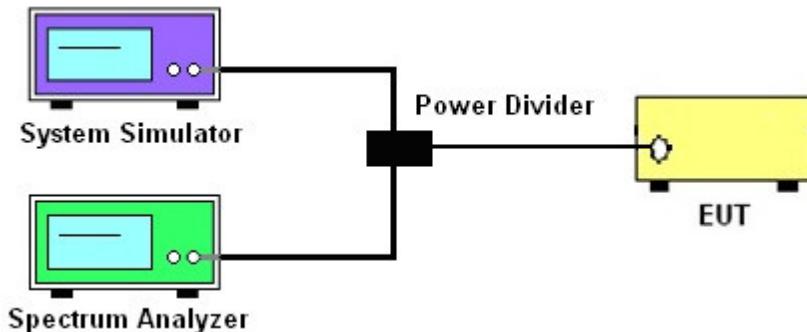
All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

The minimum permissible attenuation level of any spurious emission is $43 + \log_{10}(P[\text{Watts}])$, where P is the transmitter power in Watts.

TEST PROCEDURE

1. The testing FCC KDB 971168 D01 v02r02 Section 6.0. and ANSI/TIA-603-D-2010-Section 2.2.13.2(d)
2. Start and stop frequency were set such that the band edge would be placed in the center of the Plot.
3. The EUT was connected to the spectrum analyzer and system simulator via a power divider.
4. The RF output of EUT was connected to the spectrum analyzer by an RF cable and attenuator.
The path loss was compensated to the results for each measurement.
5. The band edges of low and high channels for the highest RF powers were measured.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
7. The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)]$ (dB)
 $= [30 + 10\log(P)]$ (dBm) - $[43 + 10\log(P)]$ (dB)
 $= -13$ dBm.

TEST SETUP



5.8 FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT

Test overview

Radiated spurious emissions measurements are performed using the substitution method described in ANSI/TIA-603-D-2010 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using horizontally and vertically polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized horn antennas. All measurements are performed as peak measurements while the EUT is operating at maximum power and at the appropriate frequencies.

It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10th harmonic.

Test procedure

1. The testing FCC KDB 971168 D01 Section 5.8 and ANSI/TIA-603-D-2010-Section 2.2.12.2(b)
2. RBW = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
3. VBW \geq 3 x RBW
4. Span = 1.5 times the OBW
5. No. of sweep points $>$ 2 x span/RBW
6. Detector = Peak
7. Trace mode = max hold
8. The trace was allowed to stabilize
9. Effective Isotropic Spurious Radiation was measured by substitution method according to TIA/EIA-603-D. The EUT was replaced by the substitution antenna at same location, and then a known power from S.G. was applied into the dipole antenna through a Tx cable, and then recorded the maximum Analyzer reading through raised and lowered the test antenna. The correction factor (in dB) = S.G. - Tx Cable loss + Substitution antenna gain - Analyzer reading. Then the EUT's EIRP/ERP was calculated with the correction factor,
$$\text{ERP/EIRP} = P.\text{SG} + \text{GT} - \text{LC}$$

ERP/EIRP = effective or equivalent radiated power, respectively (expressed in the same units as PMeas, typically dBW or dBm);

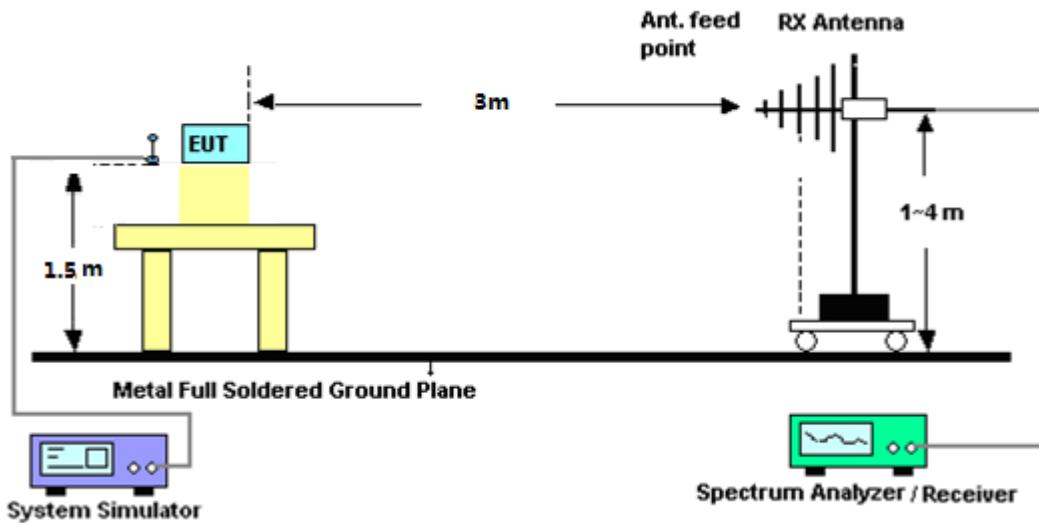
P.SG = measured transmitter output power or PSD, in dBm or dBW;

GT = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);

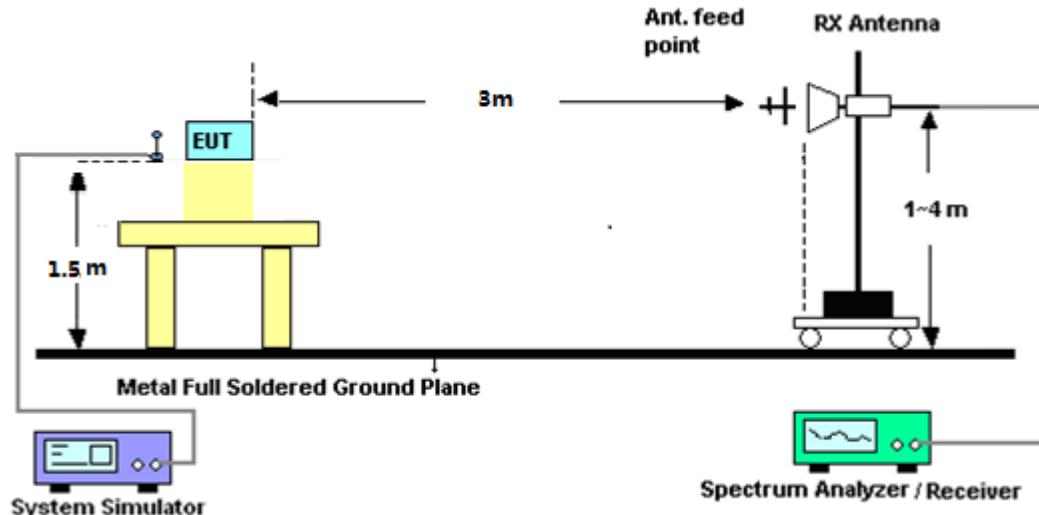
LC = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

TEST SETUP

For radiated test from 30MHz to 1GHz



For radiated test from above 1GHz



APPENDIX A TESTRESULT
A1 CONDUCTED OUTPUT POWER
UMTS BAND IV

Mode	Frequency(MHz)	AVG Power
WCDMA 1700 RMC	1712.6	23.48
	1740	23.56
	1752.4	23.52
HSDPA Subtest 1	1712.6	23.45
	1740	23.52
	1752.4	23.49
HSDPA Subtest 2	1712.6	22.99
	1740	23.05
	1752.4	23.07
HSDPA Subtest 3	1712.6	22.53
	1740	22.59
	1752.4	22.68
HSDPA Subtest 4	1712.6	22.03
	1740	22.27
	1752.4	22.26
HSUPA Subtest 1	1712.6	23.36
	1740	23.43
	1752.4	23.07
HSUPA Subtest 2	1712.6	22.48
	1740	22.46
	1752.4	22.15
HSUPA Subtest 3	1712.6	22.39
	1740	22.05
	1752.4	21.77
HSUPA Subtest 4	1712.6	21.96
	1740	21.73
	1752.4	21.42
HSUPA Subtest 5	1712.6	20.46
	1740	20.29
	1752.4	20.00

A2 PEAK-TO-AVERAGE RADIO

Mode	Frequency (MHz)	PEAK Power (dBm)	AVG Power (dBm)	PAR (dB)
WCDMA RMC	1712.6	26.45	23.48	2.97
	1740	26.39	23.56	2.83
	1752.4	26.18	23.52	2.66
HSDPA	1712.6	26.28	23.45	2.83
	1740	26.19	23.52	2.67
	1752.4	26.43	23.49	2.94
HSUPA	1712.6	26.06	23.36	2.70
	1740	26.24	23.43	2.81
	1752.4	25.99	23.07	2.92

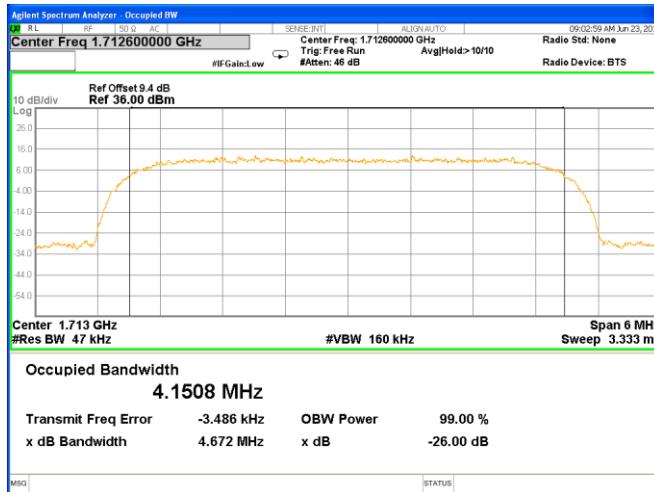
A3 TRANSMITTER RADIATED POWER (EIRP/ERP)

Radiated Power (ERP) for WCDMA Band IV							
Mode	Frequency	Result					Conclusion
		S G.Level (dBm)	Cable loss	Gain (dBi)	PMeas E.R.P (dBm)	Polarization Of Max.ERP	
Band IV	1712.6	12.91	2.07	10.13	20.97	Horizontal	Pass
	1712.6	14.91	2.07	10.13	22.97	Vertical	Pass
	1740	13.06	2.08	10.13	21.11	Horizontal	Pass
	1740	14.98	2.08	10.13	23.03	Vertical	Pass
	1752.4	13.23	2.09	10.13	21.27	Horizontal	Pass
	1752.4	14.95	2.09	10.13	22.99	Vertical	Pass

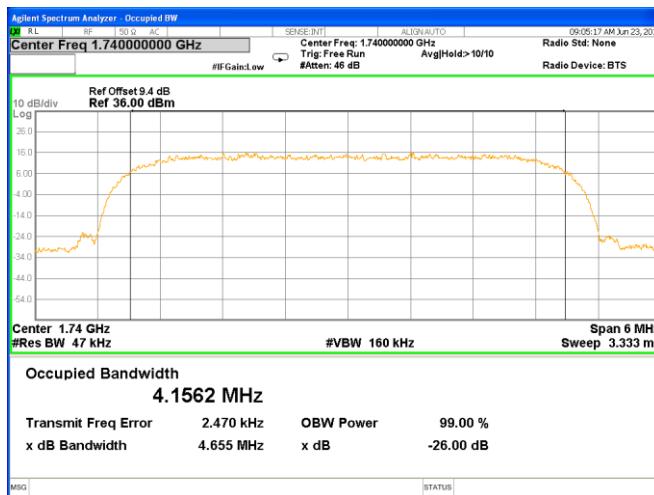
A4 OCCUPIED BANDWIDTH(99% OCCUPIED BANDWIDTH/26DB BANDWIDTH)

Occupied Bandwidth for UMTS band IV			
Mode	Frequency(MHz)	Occupied Bandwidth (99%)(MHz)	Emission Bandwidth (-26dBc)(MHz)
Low Channel	1712.6	4.1508	4.672
Middle Channel	1740	4.1562	4.655
High Channel	1752.4	4.1500	4.660

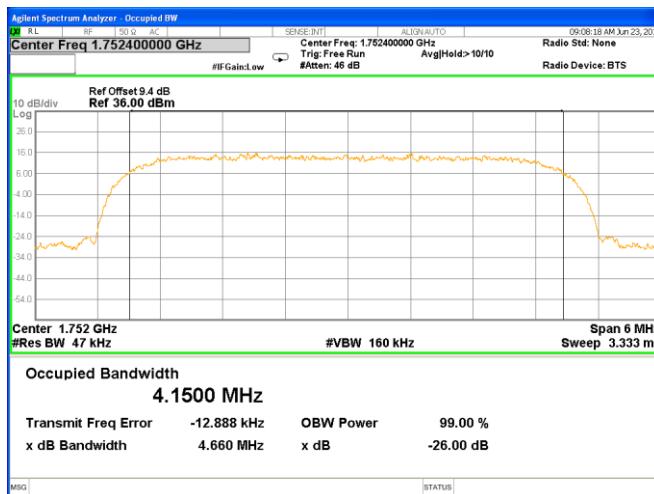
UMTS BAND IV Low Channel



UMTS BAND IV Middle Channel



UMTS BAND IV High Channel



A5 FREQUENCY STABILITY

Normal Voltage = 3.8V. ; Battery End Point (BEP) = 3.4 V.; Maximum Voltage = 4.2 V

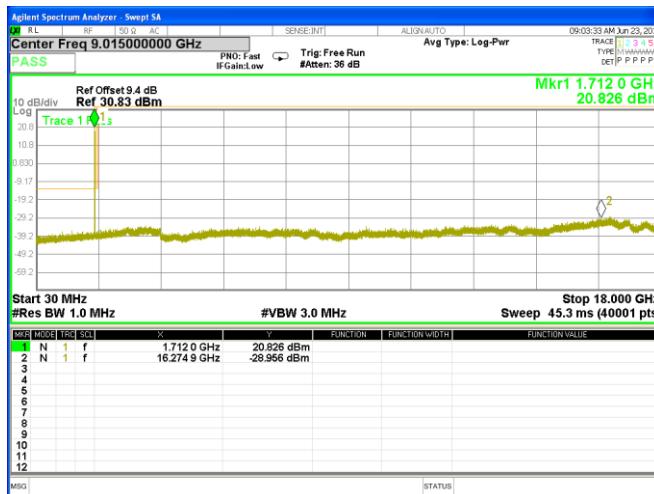
WCDMA V Middle Channel/1740MHz					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	20.34	0.011	2.5ppm	PASS
40		24.40	0.013		
30		29.07	0.015		
20		32.55	0.017		
10		26.92	0.014		
0		30.77	0.016		
-10		31.12	0.017		
-20		31.88	0.017		
-30		29.93	0.016		
25	Maximum Voltage	36.01	0.019		
25	BEP	30.27	0.016		

1. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

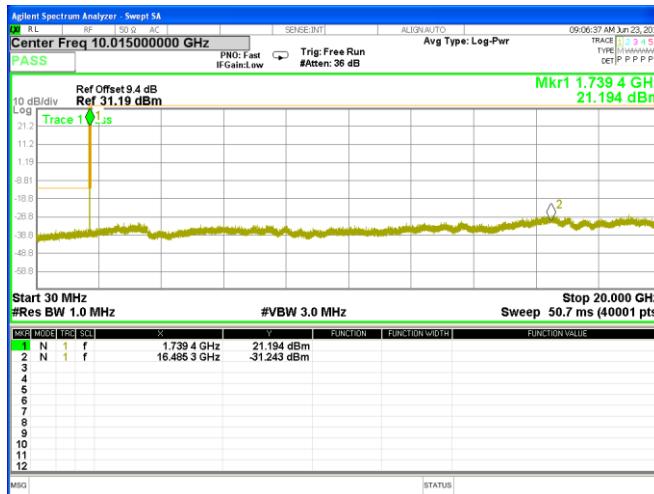
A6 SPURIOUS EMISSIONS AT ANTENNA TERMINALS

WCDMA Band IV

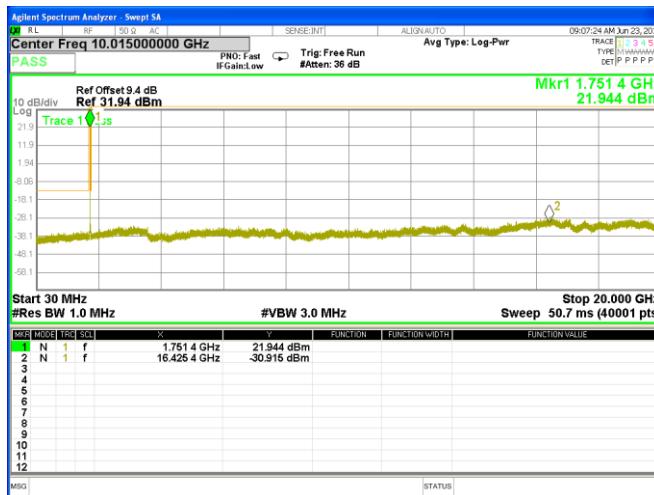
Lowest Channel



Middle Channel



Highest Channel



A7 BAND EDGE

WCDMA Band IV

Lowest Band Edge



Highest Band Edge



A8 FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT
UMTS band IV(30-20000)MHz

WCDMA Band IV: (30-20000)MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dB)	
3424.91	-33.87	12.90	12.05	-33.02	-13.00	-20.02	H
5137.64	-34.28	12.80	16.27	-37.75	-13.00	-24.75	H
6850.38	-33.06	12.30	20.13	-40.89	-13.00	-27.89	H
3424.94	-35.38	12.90	12.05	-34.53	-13.00	-21.53	V
5137.61	-35.04	12.80	16.27	-38.51	-13.00	-25.51	V
6850.22	-33.09	12.30	20.13	-40.92	-13.00	-27.92	V
The Worst Test Results for Channel 1313/1712.6MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dB)	
3479.96	-33.83	12.90	12.05	-32.98	-13.00	-19.98	H
5219.98	-35.36	12.80	16.27	-38.83	-13.00	-25.83	H
6959.63	-33.00	12.30	20.13	-40.83	-13.00	-27.83	H
3479.69	-35.52	12.90	12.05	-34.67	-13.00	-21.67	V
5219.50	-35.11	12.80	16.27	-38.58	-13.00	-25.58	V
6959.85	-32.12	12.30	20.13	-39.95	-13.00	-26.95	V
The Worst Test Results for Channel 1450/1740.0MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dB)	
3504.60	-34.50	12.90	12.05	-33.65	-13.00	-20.65	H
5257.05	-35.30	12.80	16.27	-38.77	-13.00	-25.77	H
7009.57	-32.92	12.30	20.13	-40.75	-13.00	-27.75	H
3504.74	-35.80	12.90	12.05	-34.95	-13.00	-21.95	V
5257.18	-34.19	12.80	16.27	-37.66	-13.00	-24.66	V
7009.13	-32.25	12.30	20.13	-40.08	-13.00	-27.08	V
The Worst Test Results for Channel 1512/1752.4MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
				(dBm)	(dBm)	(dB)	

Note: (1)Below 30MHz no Spurious found is the worst condition.

(2)Above 3GHz amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has.