



# Variant FCC RF Test Report

APPLICANT : ZTE CORPORATION  
EQUIPMENT : CDMA/LTE Digital Mobile Handset  
BRAND NAME : ZTE  
MODEL NAME : ZTE FLASH 4G LTE  
FCC ID : Q78-ZTEN9500  
STANDARD : FCC 47 CFR Part 2, 22(H), 24(E)  
CLASSIFICATION : PCS Licensed Transmitter Held to Ear (PCE)

This is a variant report which is only valid together with the original test report. The product was received on Nov. 01, 2012 and completely tested on Nov. 08, 2012. We, SPORTON INTERNATIONAL (KUNSHAN) INC., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI / TIA / EIA-603-C-2004 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL (KUNSHAN) INC., the test report shall not be reproduced except in full.

Reviewed by:

Jones Tsai / Manager



**SPORTON INTERNATIONAL (KUNSHAN) INC.**  
**No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C.**



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## SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	§2.1046	N/A	Conducted Output Power	N/A	PASS	-
3.2	§22.913(a)(2)	RSS-132(4.4) SRSP-503(5.1.3)	Effective Radiated Power	< 7 Watts	PASS	-
3.2	§24.232(c)	RSS-133 (6.4) SRSP-510(5.1.2)	Equivalent Isotropic Radiated Power	< 2 Watts	PASS	-
3.3	§2.1051 §22.917(a) §24.238(a)	RSS-132 (4.5.1) RSS-133 (6.5.1)	Conducted Spurious Emission	< 43+10log <sub>10</sub> (P[Watts])	PASS	-
3.4	§2.1053 §22.917(a) §24.238(a)	RSS-132 (4.5.1) RSS-133 (6.5.1)	Field Strength of Spurious Radiation	< 43+10log <sub>10</sub> (P[Watts])	PASS	Under limit 46.03 dB at 7522.000 MHz



# 1 General Description

## 1.1 Applicant

### ZTE CORPORATION

ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

## 1.2 Manufacturer

### ZTE CORPORATION

ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

## 1.3 Feature of Equipment Under Test

Product Feature	
Equipment	CDMA/LTE Digital Mobile Handset
Brand Name	ZTE
Model Name	ZTE FLASH 4G LTE
FCC ID	Q78-ZTEN9500
EUT supports Radios application	CDMA/EV-DO/LTE/WLAN 11bgn/Bluetooth/ Bluetooth4.0 – LE/NFC
HW Version	c7zB
SW Version	N9500V1.0.0B13
EUT Stage	Identical Prototype

**Remark:** The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

## 1.4 Product Specification of Equipment Under Test

Product Specification subjective to this standard	
Tx Frequency	CDMA2000 BC0: 824.70 MHz ~ 848.31 MHz CDMA2000 BC1: 1851.25 MHz ~ 1908.75 MHz
Rx Frequency	CDMA2000 BC0: 869.70 MHz ~ 893.31 MHz CDMA2000 BC1: 1931.25 MHz ~ 1988.75 MHz
Maximum Output Power to Antenna	CDMA2000 BC0 : 24.36 dBm CDMA2000 BC1 : 24.19 dBm
Antenna Type	PIFA Antenna
Type of Modulation	CDMA2000 : QPSK CDMA2000 1xEV-DO : 8PSK

### 1.5 Maximum ERP/EIRP Power

FCC Rule	System	Type of Modulation	Maximum ERP/EIRP (W)
Part 22	CDMA2000 BC0 1xRTT	QPSK	0.0671
Part 24	CDMA2000 BC1 1xRTT	8PSK	0.2582

### 1.6 Testing Site

<b>Test Site</b>	SPORTON INTERNATIONAL (KUNSHAN) INC.		
<b>Test Site Location</b>	No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C. TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958		
<b>Test Site No.</b>	<b>Sporton Site No.</b>		<b>FCC/IC Registration No.</b>
	TH01-KS	03CH01-KS	149928/4086E-1

### 1.7 Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ Preliminary Guidance for Receiving Applications for Certification of 3G Device. May 9, 2006.
- ♦ FCC 47 CFR Part 2, 22(H), 24(E)
- ♦ ANSI / TIA / EIA-603-C-2004
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v01
- ♦ IC RSS-132 Issue 2
- ♦ IC RSS-133 Issue 5
- ♦ NOTICE 2012-DRS0126

**Remark:**

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.
3. Per the section 2.2.3 of Notice of 2012-DRS0126, " Receivers Excluded from Industry Canada Requirements", only radio communication receivers operating in stand-alone mode within the band 30-960 MHz and scanner receivers are subject to Industry Canada requirements.

## 2 Test Configuration of Equipment Under Test

### 2.1 Test Mode

During all testing, EUT is in link mode with base station emulator at maximum power level. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range, and EUT is rotated on three test planes to find out the worst emission.

Frequency range investigated for radiated emission is as follows:

1. 30 MHz to 9000 MHz for CDMA2000 BC0.
2. 30 MHz to 19000 MHz for CDMA2000 BC1.

Test Modes		
Band	Radiated TCs	Conducted TCs
CDMA2000 BC0	■ 1xRTT Link Mode	■ 1xRTT Link Mode
CDMA2000 BC1	■ 1xRTT Link Mode	■ 1xRTT Link Mode

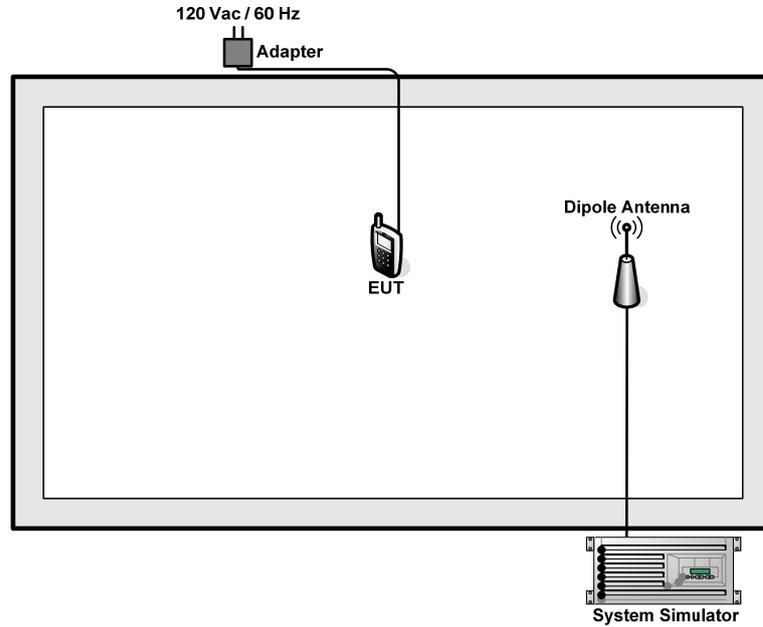
**Note:**

1. The maximum RF output power levels are 1xRTT RC1+SO55 mode for CDMA2000 BC0 and CDMA2000 BC1 on QPSK Link; only these modes were used for all tests.
2. Because there are individual antennas for each WWAN, WLAN, and Bluetooth, the co-location test modes are not required.

The conducted power table is as follows:

Band	Conducted Power (*Unit: dBm)					
	CDMA2000 BC0			CDMA2000 BC1		
Channel	1013	384	777	25	600	1175
Frequency	824.7	836.52	848.31	1851.25	1880	1908.75
1xRTT RC1+SO55	24.12	24.36	24.23	23.92	24.13	24.19
1xRTT RC3+SO55	23.99	24.28	24.14	23.92	24.04	24.10
1xRTT RC3+SO32(+F-SCH)	24.09	24.32	24.21	23.95	24.09	24.11
1xRTT RC3+SO32(+SCH)	24.05	24.30	24.18	23.89	24.07	24.09
1xEV-DO RTAP 153.6K	24.01	24.24	24.14	23.84	23.99	24.02
1xEV-DO RETAP 4096K	24.01	24.18	24.13	23.84	23.99	24.02

## 2.2 Connection Diagram of Test System



## 2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU200	N/A	N/A	Unshielded, 1.8 m
2.	DC Power Supply	GWINSTEK	GPS-3030D	N/A	N/A	Unshielded, 1.8 m



## **2.4 Measurement Results Explanation Example**

**For conducted test items:**

The offset level is set in the spectrum analyzer to compensate the RF cable loss and 10dB attenuator between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

The spectrum analyzer offset is derived from RF cable loss and 10dB attenuator factor.

*Offset = RF cable loss + attenuator factor.*

Following table shows an offset computation example with cable loss 4.2 dB.

Example :

$$\begin{aligned} \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)}. \\ &= 4.2 + 10 = 14.2 \text{ (dB)} \end{aligned}$$

### 3 Test Result

#### 3.1 Conducted Output Power Measurement

##### 3.1.1 Description of the Conducted Output Power Measurement

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

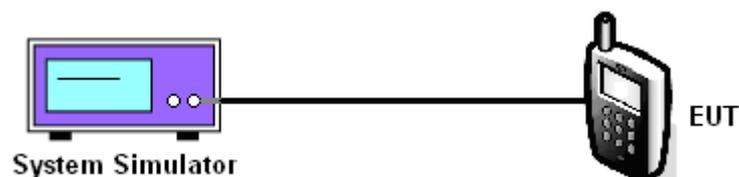
##### 3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

##### 3.1.3 Test Procedures

1. The transmitter output port was connected to base station.
2. Set EUT at maximum power through base station.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Compare each band and different modulation combination to show the worst data rate.

##### 3.1.4 Test Setup





### 3.1.5 Test Result of Conducted Output Power

CDMA2000 BC0			
Test Mode	CDMA 2000 1xRTT		
Test Status	RC1+SO55		
Channel	1013 (Low)	384 (Mid)	777 (High)
Frequency (MHz)	824.7	836.52	848.31
Conducted Power (dBm)	24.12	24.36	24.23
Conducted Power (Watts)	0.26	0.27	0.26

CDMA2000 BC1			
Test Mode	CDMA 2000 1xRTT		
Test Status	RC1+SO55		
Channel	25 (Low)	600 (Mid)	1175 (High)
Frequency (MHz)	1851.25	1880	1908.75
Conducted Power (dBm)	23.92	24.13	24.19
Conducted Power (Watts)	0.25	0.26	0.26

Note: maximum average power for CDMA2000.



## 3.2 Effective Radiated Power and Effective Isotropic Radiated Power Measurement

### 3.2.1 Description of the ERP/EIRP Measurement

The substitution method, in ANSI / TIA / EIA-603-C-2004, was used for ERP/EIRP measurement, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas. License Digital Systems v01. The ERP of mobile transmitters must not exceed 7 Watts and the EIRP of mobile transmitters are limited to 2 Watts.

### 3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

### 3.2.3 Test Procedures

1. The EUT was placed on a turntable with 1.5 meter height in a fully anechoic chamber.
2. The EUT was set at 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. GSM operating modes: Set RBW= 1MHz, VBW= 3MHz, RMS detector over burst;  
UMTS operating modes: Set RBW= 100 KHz, VBW= 300 KHz, RMS detector over frame, and use channel power option with bandwidth=5MHz, per section 4.0 of KDB 971168 D01.
4. The table was rotated 360 degrees to determine the position of the highest radiated power.
5. The height of the receiving antenna is adjusted to look for the maximum ERP/EIRP.
6. Taking the record of maximum ERP/EIRP.
7. A dipole antenna was substituted in place of the EUT and was driven by a signal generator.
8. The conducted power at the terminal of the dipole antenna is measured.
9. Repeat step 3 to step 5 to get the maximum ERP/EIRP of the substitution antenna.
10.  $ERP/EIRP = P_s + E_t - E_s + G_s = P_s + R_t - R_s + G_s$

$P_s$  (dBm) : Input power to substitution antenna.

$G_s$  (dBi or dBd) : Substitution antenna Gain.

$E_t = R_t + AF$

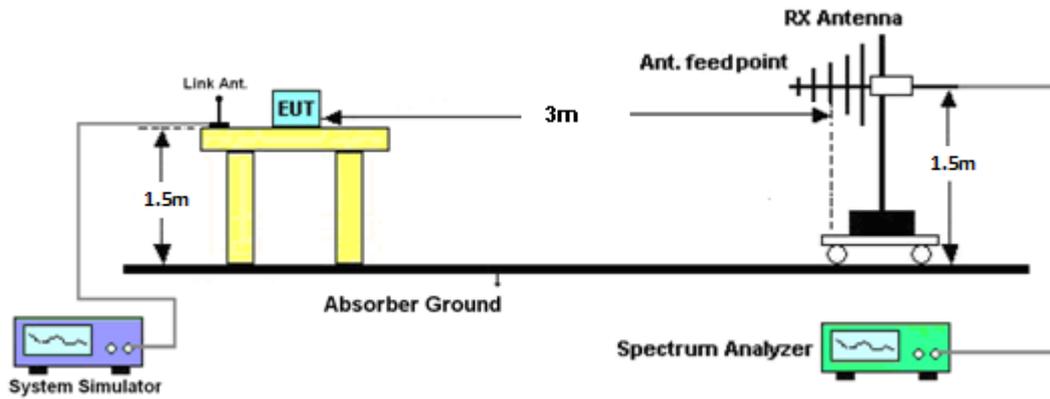
$E_s = R_s + AF$

AF (dB/m) : Receive antenna factor

$R_t$  : The highest received signal in spectrum analyzer for EUT.

$R_s$  : The highest received signal in spectrum analyzer for substitution antenna.

### 3.2.4 Test Setup





3.2.5 Test Result of ERP

CDMA2000 BC0 1xRTT_RC1+SO55 Radiated Power ERP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.70	-29.18	-48.12	0.00	-1.08	17.86	0.0611
836.52	-29.34	-48.28	0.00	-0.93	18.01	0.0632
848.31	-29.32	-48.35	0.00	-0.76	18.27	0.0671
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.70	-43.85	-47.97	0.00	-1.08	3.04	0.0020
836.52	-43.78	-48.01	0.00	-0.93	3.30	0.0021
848.31	-42.70	-48.05	0.00	-0.76	4.59	0.0029

3.2.6 Test Result of EIRP

CDMA2000 BC1 1xRTT_RC1+SO55 Radiated Power EIRP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1851.25	-30.57	-51.88	0.00	1.96	23.27	0.2123
1880.00	-30.87	-52.99	0.00	2.00	24.12	0.2582
1908.75	-34.44	-54.28	0.00	1.98	21.82	0.1521
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1851.25	-31.17	-52.13	0.00	1.96	22.92	0.1959
1880.00	-31.74	-53.17	0.00	2.00	23.43	0.2203
1908.75	-34.16	-54.13	0.00	1.98	21.95	0.1567

### 3.3 Conducted Spurious Emission Measurement

#### 3.3.1 Description of Conducted Emission Measurement

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 10<sup>th</sup> harmonic.

#### 3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

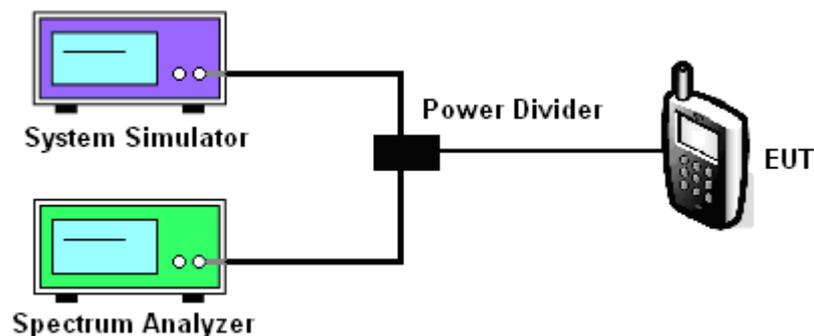
#### 3.3.3 Test Procedures

1. The EUT was connected to spectrum analyzer and base station via power divider.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. The middle channel for the highest RF power within the transmitting frequency was measured.
4. The conducted spurious emission for the whole frequency range was taken.
5. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
6. The limit line is derived from  $43 + 10\log(P)$  dB below the transmitter power P(Watts)
 
$$= P (W) - [43 + 10 \log (P)] (dB)$$

$$= [30 + 10 \log (P)] (dBm) - [43 + 10 \log (P)] (dB)$$

$$= -13dBm.$$

#### 3.3.4 Test Setup

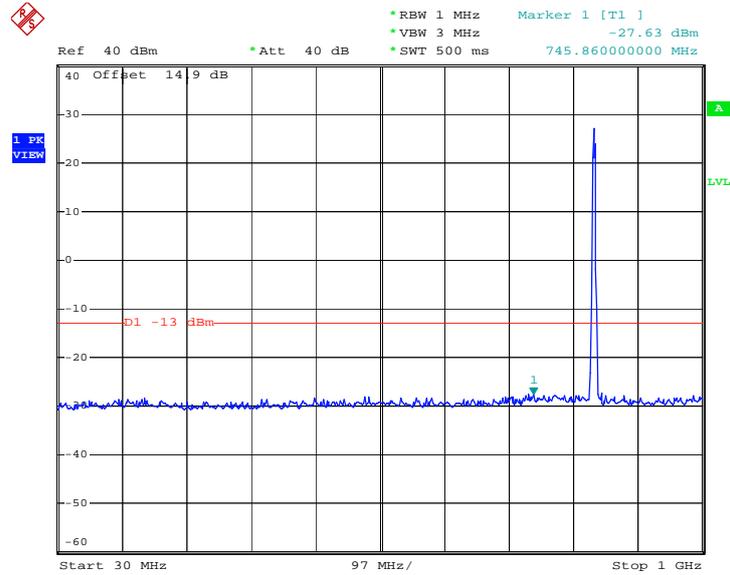




### 3.3.5 Test Result (Plots) of Conducted Spurious Emission

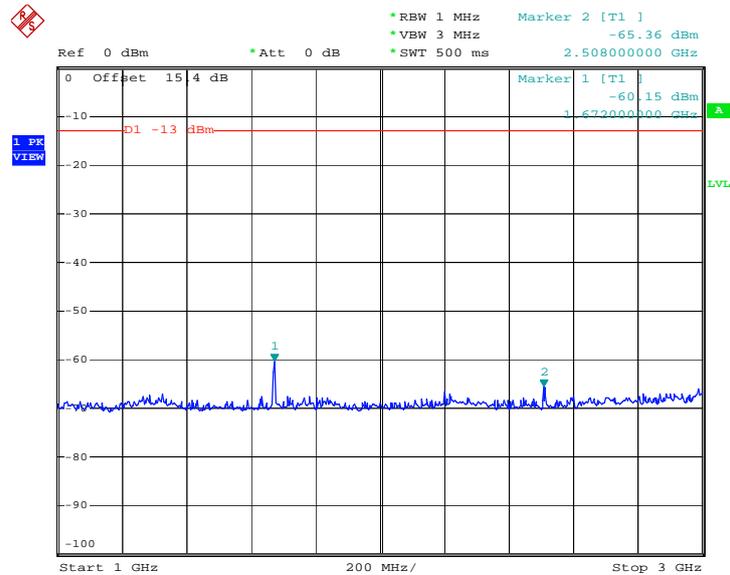
Band :	CDMA2000 BC0	Channel	384
Test Mode :	1xRTT_RC1+SO55	Frequency :	836.52 MHz

Conducted Spurious Emission Plot between 30MHz ~ 1GHz



Date: 6.NOV.2012 11:20:06

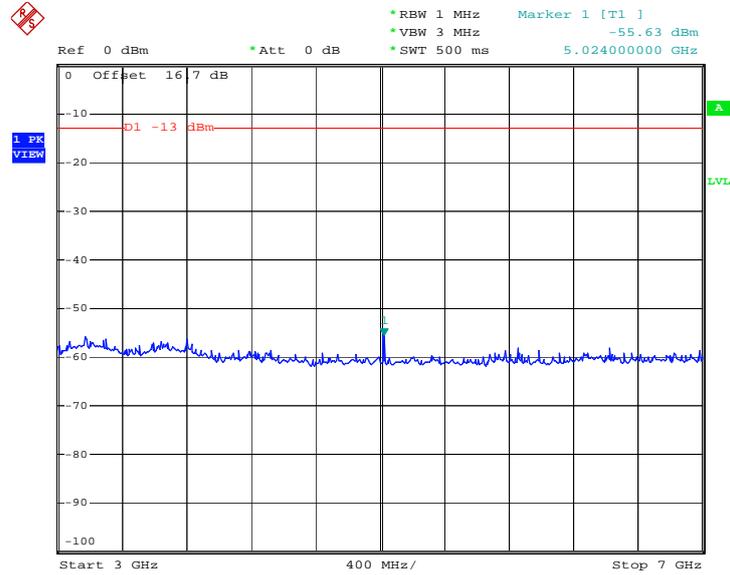
Conducted Spurious Emission Plot between 1GHz ~ 3GHz



Date: 8.NOV.2012 15:00:43

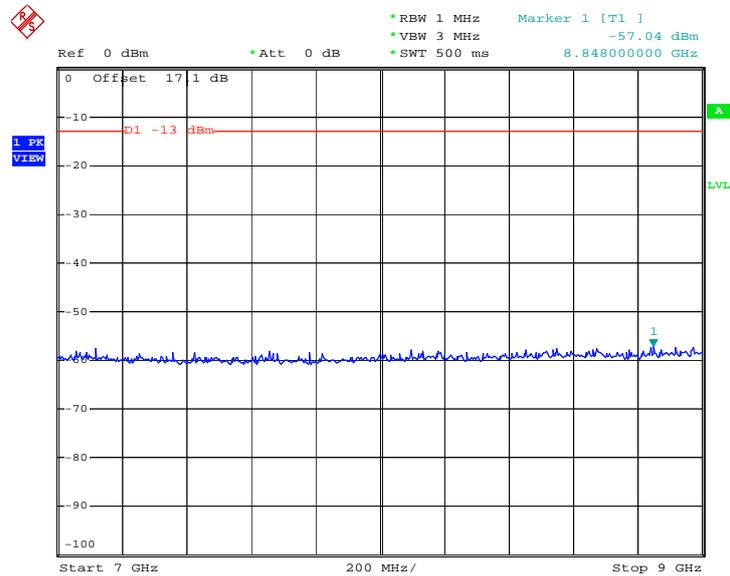


### Conducted Spurious Emission Plot between 3GHz ~ 7GHz



Date: 6.NOV.2012 11:17:47

### Conducted Spurious Emission Plot between 7GHz ~ 9GHz

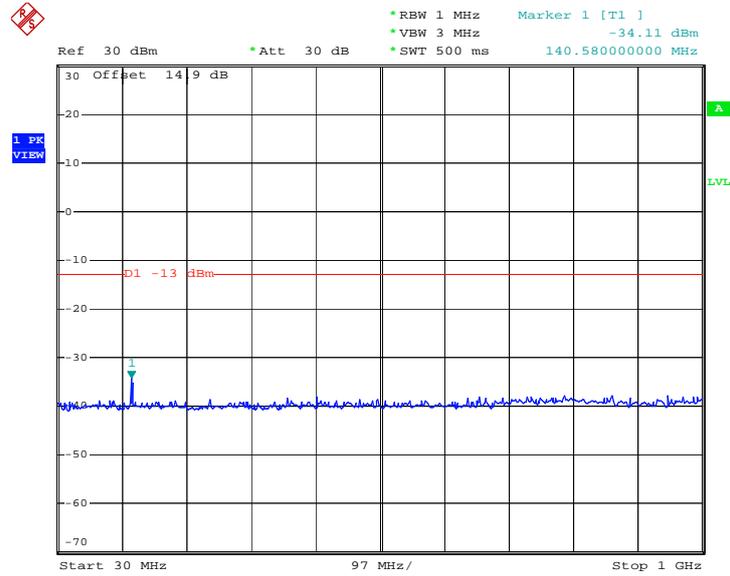


Date: 6.NOV.2012 11:16:18



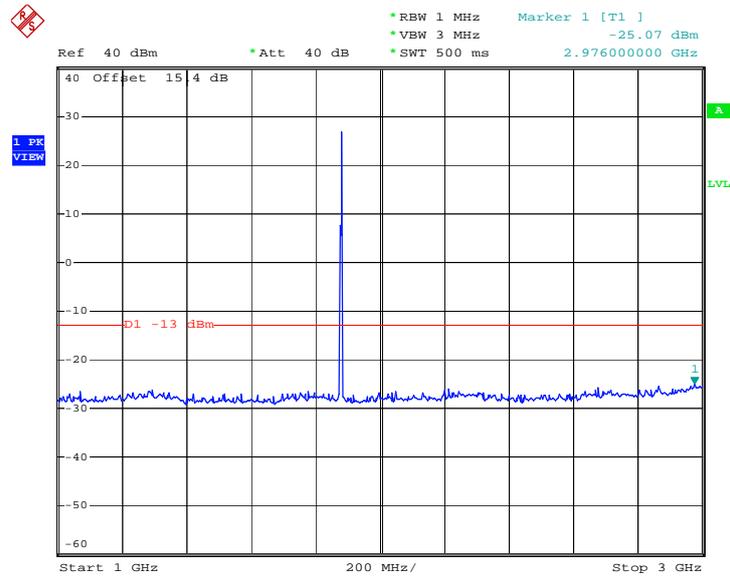
Band :	CDMA2000 BC1	Channel	600
Test Mode :	1xRTT_RC1+SO55	Frequency :	1880.0 MHz

Conducted Spurious Emission Plot between 30MHz ~ 1GHz



Date: 6.NOV.2012 11:41:39

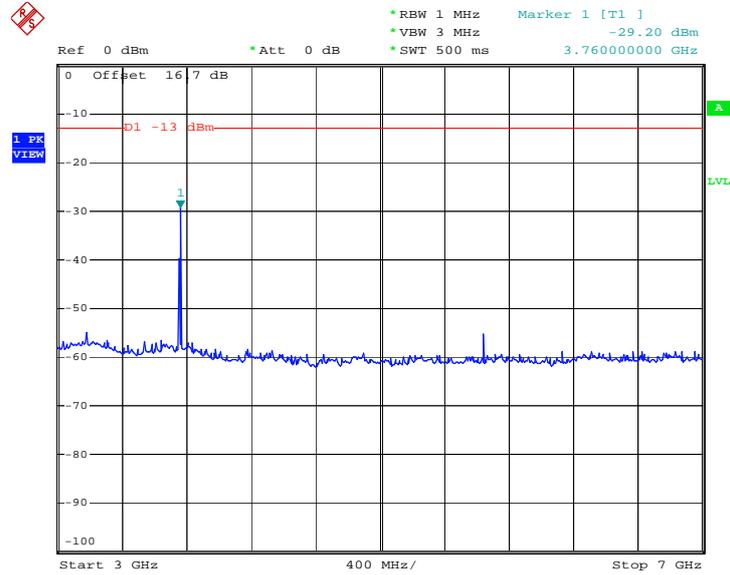
Conducted Spurious Emission Plot between 1GHz ~ 3GHz



Date: 6.NOV.2012 11:41:00

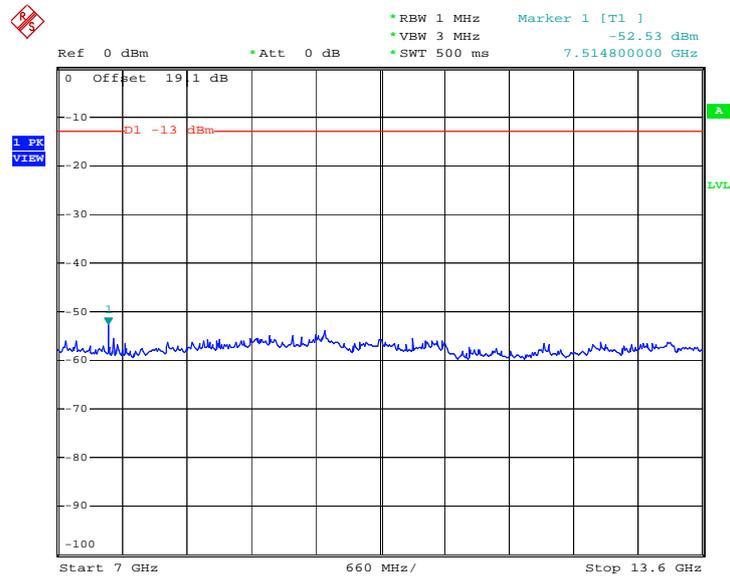


### Conducted Spurious Emission Plot between 3GHz ~ 7GHz



Date: 6.NOV.2012 11:43:04

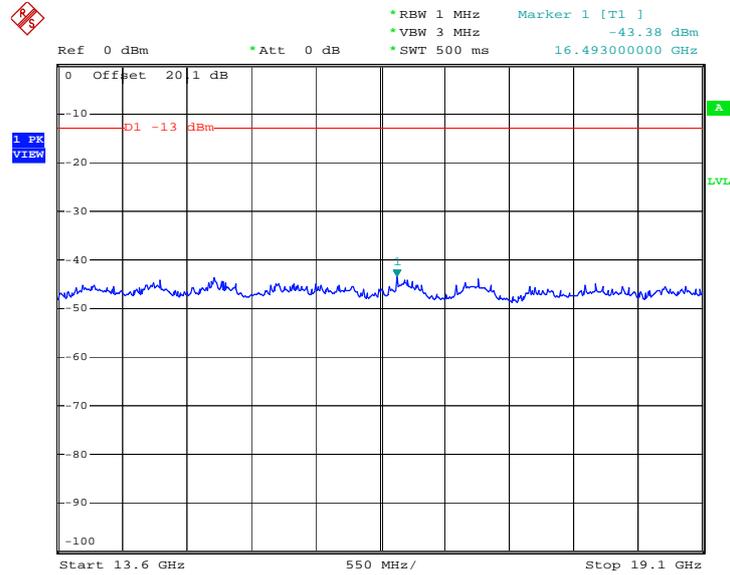
### Conducted Spurious Emission Plot between 7GHz ~ 13.6GHz



Date: 6.NOV.2012 11:43:51



Conducted Spurious Emission Plot between 13.6GHz ~ 19.1GHz



Date: 6.NOV.2012 11:44:42



### 3.4 Field Strength of Spurious Radiation Measurement

#### 3.4.1 Description of Field Strength of Spurious Radiated Measurement

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least  $43 + 10 \log (P)$  dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

#### 3.4.2 Measuring Instruments

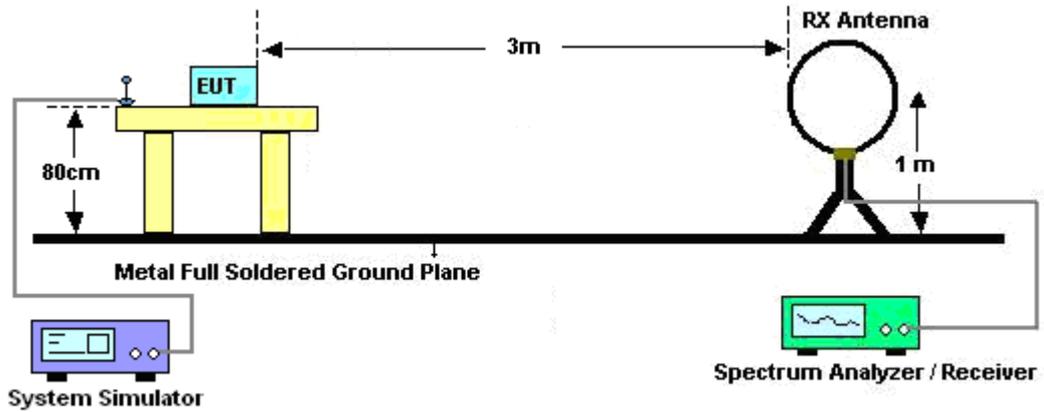
See list of measuring instruments of this test report.

#### 3.4.3 Test Procedures

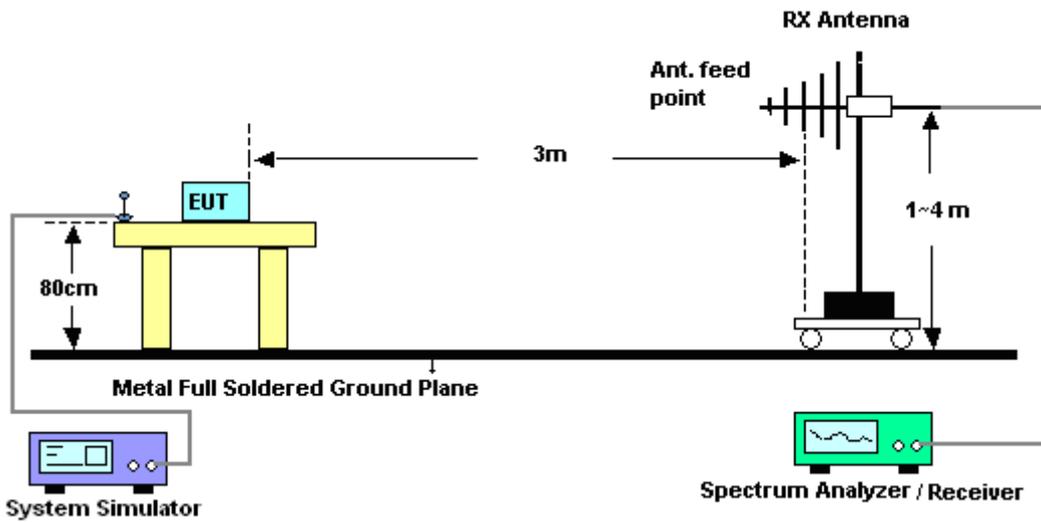
1. The EUT was placed on a rotatable wooden table with 0.8 meter above ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
6. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
11. The limit line is derived from  $43 + 10\log(P)$  dB below the transmitter power P(Watts)  
=  $P (W) - [43 + 10\log(P)] (dB)$   
=  $[30 + 10 \log(P)] (dBm) - [43 + 10\log(P)] (dB)$   
= -13dBm.
12.  $EIRP (dBm) = S.G. Power - Tx Cable Loss + Tx Antenna Gain$
13.  $ERP (dBm) = EIRP - 2.15$

### 3.4.4 Test Setup

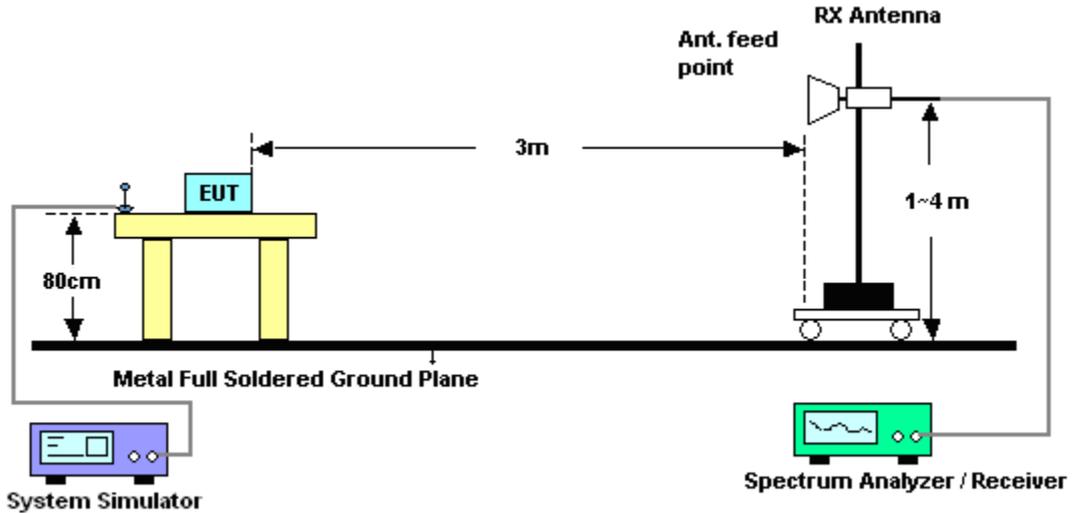
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



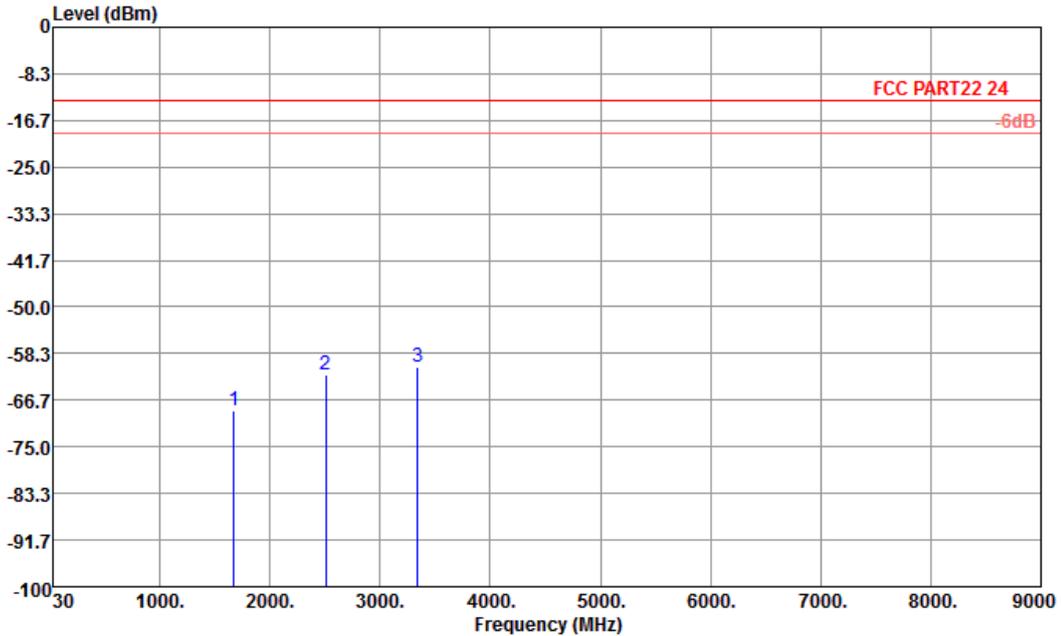
### 3.4.5 Test Results of Radiated Emissions (9 KHz ~ 30 MHz)

The low frequency, which started from 9 KHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.



3.4.6 Test Result of Field Strength of Spurious Radiated

Band :	CDMA2000 BC0	Temperature :	21~22°C
Test Mode :	1xRTT_RC1+SO55	Relative Humidity :	42~43%
Test Engineer :	Stone Gu	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		



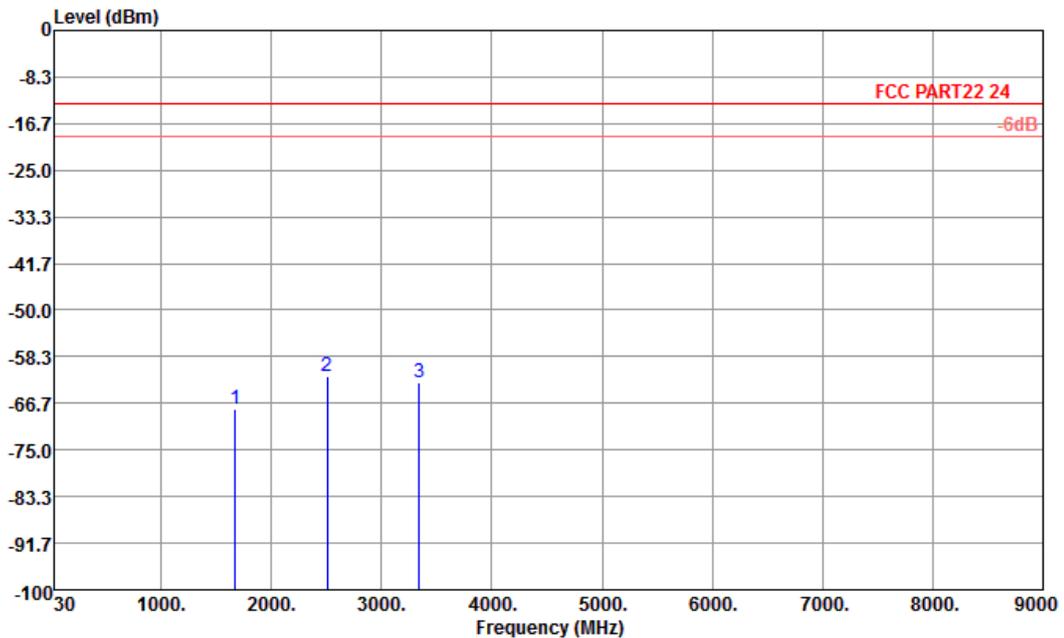
Site : 03CH01-KS  
 Condition : FCC PART22 24 HF EIRP FACTOR-09020 HORIZONTAL

Plan : H

Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading ( dBm )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain ( dBi )	Polarization ( H/V )	Result
1672	-68.42	-13	-55.42	-64.20	-69.07	0.57	3.37	H	Pass
2509	-62.04	-13	-49.04	-64.29	-64.27	0.78	5.16	H	Pass
3345	-60.68	-13	-47.68	-62.62	-64.32	0.87	6.66	H	Pass



<b>Band :</b>	CDMA2000 BC0	<b>Temperature :</b>	21~22°C
<b>Test Mode :</b>	1xRTT_RC1+S055	<b>Relative Humidity :</b>	42~43%
<b>Test Engineer :</b>	Stone Gu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		



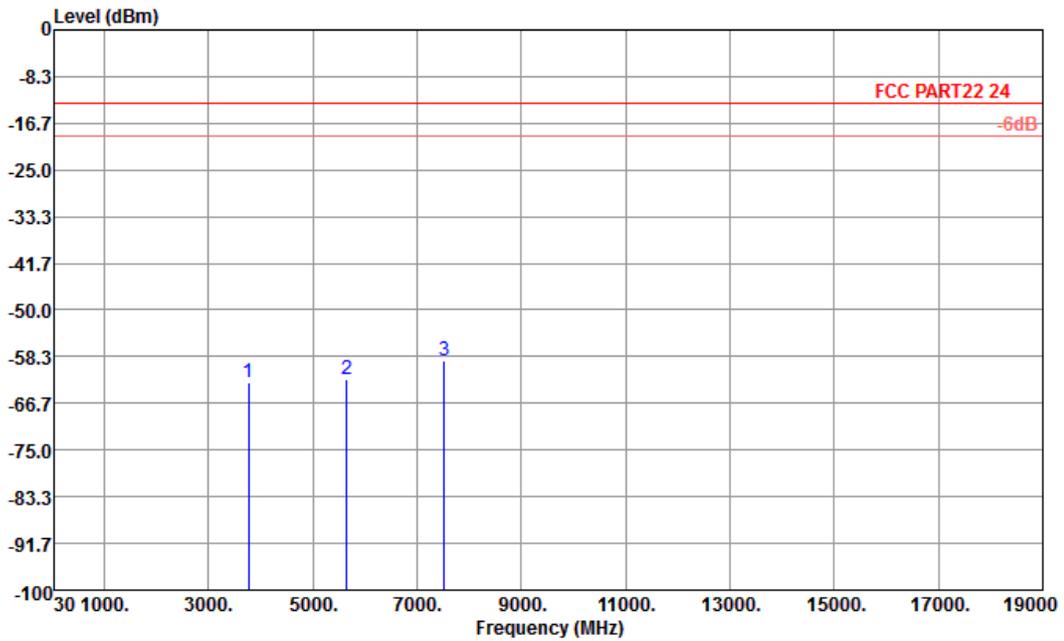
Site : 03CH01-KS  
 Condition : FCC PART22 24 HF EIRP FACTOR-09020 VERTICAL

Plan : H

Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading ( dBm )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain ( dBi )	Polarization ( H/V )	Result
1672	-67.81	-13	-54.81	-63.46	-68.46	0.57	3.37	V	Pass
2509	-61.74	-13	-48.74	-64.85	-63.97	0.78	5.16	V	Pass
3345	-62.82	-13	-49.82	-64.80	-66.46	0.87	6.66	V	Pass



Band :	CDMA2000 BC1	Temperature :	21~22°C
Test Mode :	1xRTT_RC1+SO55	Relative Humidity :	42~43%
Test Engineer :	Stone Gu	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		



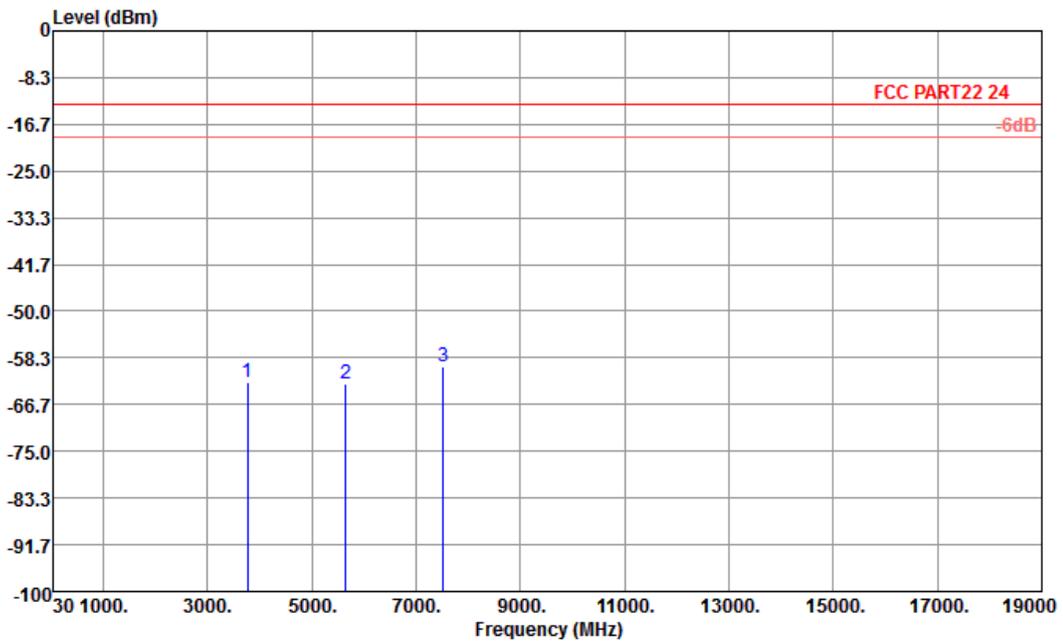
Site : 03CH01-KS  
 Condition : FCC PART22 24 HF EIRP FACTOR-09020 HORIZONTAL

Plan : H

Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading ( dBm )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain ( dBi )	Polarization ( H/V )	Result
3760	-63.00	-13	-50.00	-63.97	-69.38	0.78	7.16	H	Pass
5640	-62.52	-13	-49.52	-66.70	-71.06	1.04	9.58	H	Pass
7522	-59.03	-13	-46.03	-64.16	-69.14	1.35	11.46	H	Pass



Band :	CDMA2000 BC1	Temperature :	21~22°C
Test Mode :	1xRTT_RC1+SO55	Relative Humidity :	42~43%
Test Engineer :	Stone Gu	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		



Site : 03CH01-KS  
 Condition : FCC PART22 24 HF EIRP FACTOR-09020 VERTICAL

Plan : H

Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading ( dBm )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain ( dBi )	Polarization ( H/V )	Result
3760	-62.60	-13	-49.60	-63.97	-68.98	0.78	7.16	V	Pass
5640	-63.00	-13	-50.00	-66.22	-71.54	1.04	9.58	V	Pass
7520	-59.83	-13	-46.83	-64.32	-69.94	1.35	11.46	V	Pass



## 4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSP40	100319	9kHz~40GHz	Dec. 30, 2011	Nov. 06, 2012~ Nov. 08, 2012	Dec. 29, 2012	Conducted (TH01-KS)
System Simulator	R&S	CMU200	837587/066	2G Full-Band	Dec. 30, 2011	Nov. 06, 2012~ Nov. 08, 2012	Dec. 29, 2012	Conducted (TH01-KS)
DC Power Supply	GWINSTEK	GPS-3030D	E1884515	N/A	Aug. 22, 2012	Nov. 06, 2012~ Nov. 08, 2012	Aug. 21, 2013	Conducted (TH01-KS)
Thermal Chamber	Ten Billion	TTC-B3S	TBN-960502	N/A	Dec. 30, 2011	Nov. 06, 2012~ Nov. 08, 2012	Dec. 29, 2012	Conducted (TH01-KS)
EMI Test Receiver	R&S	ESCI	100534	9kHz~3GHz	Nov. 08, 2012	Nov. 08, 2012	Nov. 07, 2013	Radiation (03CH01-KS)
Spectrum Analyzer	R&S	FSP30	100400	9kHz~30GHz	Jun. 01, 2012	Nov. 08, 2012	May 31, 2013	Radiation (03CH01-KS)
Bilog Antenna	SCHAFFNER	CBL6112D	23182	25MHz~2GHz	Dec. 08, 2011	Nov. 08, 2012	Dec. 07, 2012	Radiation (03CH01-KS)
Double Ridge Horn Antenna	EMCO	3117	00075959	1GHz~18GHz	Jan. 07, 2012	Nov. 08, 2012	Jan. 06, 2013	Radiation (03CH01-KS)
Amplifier	com-power	PA-103A	161069	1MHz~1GHz	Jun. 01, 2012	Nov. 08, 2012	May 31, 2013	Radiation (03CH01-KS)
Amplifier	Agilent	8449B	3008A02370	1GHz~26.5GHz	Dec. 30, 2011	Nov. 08, 2012	Dec. 29, 2012	Radiation (03CH01-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	9170249	15GHz~40GHz	Nov. 24, 2011	Nov. 08, 2012	Nov. 23, 2012	Radiation (03CH01-KS)
Loop Antenna	R&S	HFH2-Z2	860004/001	9KHz ~ 30MHz	Jul. 03, 2012	Nov. 08, 2012	Jul. 02, 2014	Radiation (03CH01-KS)
System Simulator	R&S	CMU200	116456	Full-Band	Sep. 19, 2012	Nov. 08, 2012	Sep. 18, 2013	Radiation (03CH01-KS)



## 5 Uncertainty of Evaluation

### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.54
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### Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.72
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## **Appendix A. Photographs of EUT**

Please refer to Sporton report number EP270201-03 as below.



## **Appendix C. Product Equality Declaration**

**ZTE CORPORATION****Product Change Description**

As the applicant of the below model, [ZTE Corporation] declares that the product,

[ZTE N9500]  
[ZTE Corporation]

is the variant of the initial certified product,

[ZTE N9500]  
[ZTE Corporation]  
[Project Number: 12ZTE132]  
FCC ID: Q78-ZTEN9500

**SOFTWARE MODIFICATIONS:**

Protocol Stack changes: NO  
MMS/STK changes: NO  
JAVA changes: NO  
Other changes detailed: NO

**HARDWARE MODIFICATION:**

Band changes: NO  
Power Amplifier changes: NO  
Antenna changes: YES, new WIFI/Bluetooth antenna with higher gain (1dB up).  
PCB Layout changes: NO  
Components on PCB changes: Yes

**A: Optimize PDN and change below filter capacitances from top layer to bottom.**

VREG\_S6\_1P05: C271  
VREG\_L27\_1P05: C238  
VREG\_L26\_1P05: C279  
VREG\_L28\_1P05: C242

**B: Delete redundant components:**

S4200, C4221, C4220, L4215, L4210, L4216, L4208, L5121, L5120, L5119, C5121, C5122, S5100, C5118.

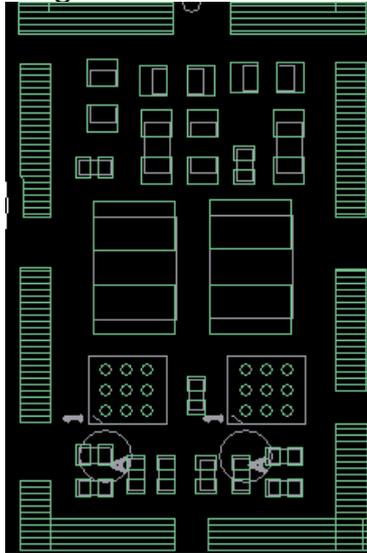
**C: Component packaging updated:**

L5101 now be packaged with 0402 instead of 0201.

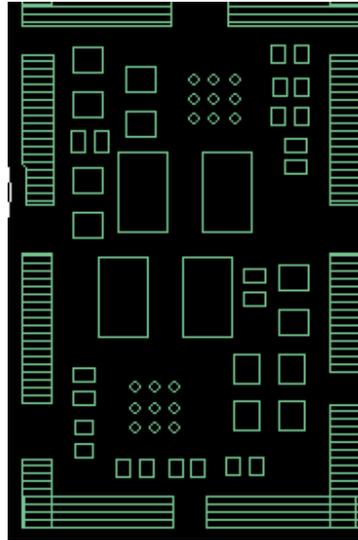
**D: Optimize ADP components layout.**

Please notice that only change components layout but PCB layout is same.

Original:



Now:



,  
LCD changes: NO  
Speaker changes: NO  
Camera changes: NO  
Vibrator changes: NO  
Bluetooth changes: NO  
FM changes: NO  
Other changes: NO

**MECHANICAL MODIFICATIONS:**

Use new metal front/back cover or keypad: NO  
Mechanical shell changes: NO  
Other changes detailed: NO

**ACCESSORY MODIFICATIONS:**

Battery changes: NO  
AC Adaptor changes: NO  
Earphone changes: NO

*Min Zhang*

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