

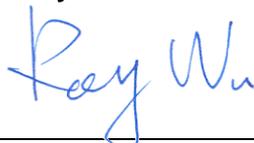
Variant FCC RF Test Report

APPLICANT : ZTE CORPORATION
EQUIPMENT : WCDMA/GSM(GPRS) Dual-Mode Digital mobile phone
BRAND NAME : ZTE
MODEL NAME : Z331
FCC ID : Q78-Z331
STANDARD : FCC 47 CFR Part 2, 22(H), 24(E)
CLASSIFICATION : PCS Licensed Transmitter Held to Ear (PCE)
Tx/Rx FREQUENCY RANGE : GSM850 : 824.2 ~ 848.8 MHz /
869.2 ~ 893.8 MHz
GSM1900 : 1850.2 ~ 1909.8 MHz /
1930.2 ~ 1989.8 MHz
WCDMA Band V : 826.4 ~ 846.6 MHz /
871.4 ~ 891.6 MHz
WCDMA Band II : 1852.4 ~ 1907.6 MHz /
1932.4 ~ 1987.6 MHz
MAX. ERP/EIRP POWER : GSM850 (GSM) : 1.00 W
GSM850 (EDGE 8) : 0.27 W
GSM1900 (GSM) : 0.97 W
GSM1900 (EDGE 8) : 0.40 W
WCDMA Band V (RMC 12.2Kbps) : 0.12 W
WCDMA Band II (RMC 12.2Kbps) : 0.20 W

This is a variant report which is only valid combined with the original report. The product was received on Mar. 22, 2011 and completely tested on Apr. 02, 2011. We, SPORTON INTERNATIONAL 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:



Roy Wu / 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	§2.1053 §22.917(a) §24.238(a)	RSS-132 (4.5.1) RSS-133 (6.5.1)	Field Strength of Spurious Radiation	$< 43+10\log_{10}(P[\text{Watts}])$	PASS	Under limit 12.41 dB at 13161 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 & Specification	
Equipment	WCDMA/GSM(GPRS) Dual-Mode Digital mobile phone
Brand Name	ZTE
Model Name	Z331
FCC ID	Q78-Z331
Tx Frequency	GSM850 : 824 MHz ~ 849 MHz GSM1900 : 1850 MHz ~ 1910 MHz WCDMA Band V : 824 MHz ~ 849 MHz WCDMA Band II : 1850 MHz ~ 1910 MHz
Rx Frequency	GSM850 : 869 MHz ~ 894 MHz GSM1900 : 1930 MHz ~ 1990 MHz WCDMA Band V : 869 MHz ~ 894 MHz WCDMA Band II : 1930 MHz ~ 1990 MHz
Maximum Output Power to Antenna	GSM850 : 32.58 dBm GSM1900 : 29.62 dBm WCDMA Band V : 22.65 dBm WCDMA Band II : 22.70 dBm
Maximum ERP/EIRP	GSM850 (GSM) : 1.00 W (29.99 dBm) GSM850 (EDGE 8) : 0.27 W (24.27 dBm) GSM1900 (GSM) : 0.97 W (29.87 dBm) GSM1900 (EDGE 8) : 0.40 W (25.99 dBm) WCDMA Band V (RMC 12.2Kbps) : 0.12 W (20.86 dBm) WCDMA Band II (RMC 12.2Kbps) : 0.20 W (23.11 dBm)
Antenna Type	Fixed Internal Antenna
HW Version	wx7A
SW Version	1.0.0
Type of Modulation	GSM / GPRS : GMSK EDGE : 8PSK WCDMA : QPSK HSDPA : QPSK / 16QAM
EUT Stage	Production Unit

Remark:

1. For other wireless features of this EUT, the test report will be issued separately.
2. This test report recorded only product characteristics and test results of PCS Licensed Transmitter Held to Ear (PCE).
3. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.



1.4 Testing Site

Test Site	SPORTON INTERNATIONAL (KUNSHAN) INC.	
Test Site Location	No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C. TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958	
Test Site No.	Sporton Site No.	
	TH01-KS	03CH01-KS

1.5 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
- ♦ IC RSS-132 Issue 2
- ♦ IC RSS-133 Issue 5

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 (DoC), recorded in a separate test report.

1.6 Ancillary Equipment List

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 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 GSM850 and WCDMA Band V.
2. 30 MHz to 19000 MHz for GSM1900 and WCDMA Band II.

Test Modes		
Band	Radiated TCs	Conducted TCs
GSM 850	<ul style="list-style-type: none"> ■ EDGE 8 Link 	<ul style="list-style-type: none"> ■ GSM Link ■ EDGE 8 Link
GSM 1900	<ul style="list-style-type: none"> ■ GSM Link 	<ul style="list-style-type: none"> ■ GSM Link ■ EDGE 8 Link
WCDMA Band V	-	<ul style="list-style-type: none"> ■ RMC 12.2Kbps Link
WCDMA Band II	-	<ul style="list-style-type: none"> ■ RMC 12.2Kbps Link

Note:

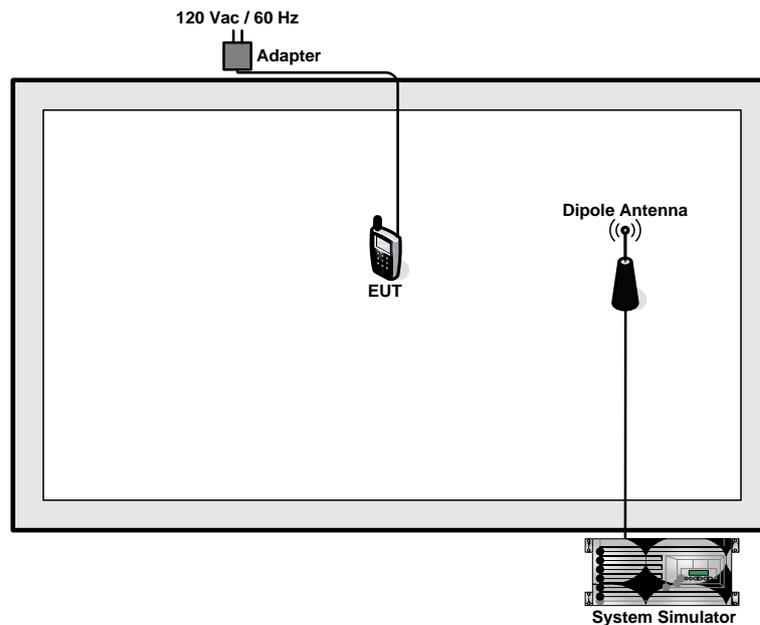
1. The maximum power levels are GSM mode for GMSK link, EDGE multi-slot class 8 mode for 8PSK link, RMC 12.2Kbps mode for WCDMA band V, and RMC 12.2Kbps mode for WCDMA band II, only these modes were used for all tests.
2. Because there are individual antennas for each WWAN, WLAN, and Bluetooth, the co-location test modes are not required.

The conducted power tables are as follows:

Conducted Power (*Unit: dBm)						
Band	GSM850			GSM1900		
Channel	128	189	251	512	661	810
Frequency	824.2	836.4	848.8	1850.2	1880.0	1909.8
GSM	32.58	32.57	32.54	29.57	29.48	29.62
GPRS 8	32.42	32.50	32.48	29.58	29.49	29.39
GPRS 10	30.46	30.44	30.38	27.35	27.46	27.50
EGPRS 8	26.62	26.70	26.66	25.57	25.65	25.67
EGPRS 10	24.66	24.73	24.70	23.57	23.65	23.67

Conducted Power (*Unit: dBm)						
Band	WCDMA Band V			WCDMA Band II		
Channel	4132	4182	4233	9262	9400	9538
Frequency	826.4	836.4	846.6	1852.4	1880.0	1907.6
RMC 12.2K	22.53	22.65	22.61	22.61	22.70	22.56
HSDPA Subtest-1	22.52	22.56	22.54	22.62	22.69	22.55
HSDPA Subtest-2	22.50	22.55	22.53	22.61	22.66	22.53
HSDPA Subtest-3	22.48	22.56	22.50	22.60	22.67	22.56
HSDPA Subtest-4	22.51	22.54	22.52	22.64	22.70	22.56

2.2 Connection Diagram of Test System



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.

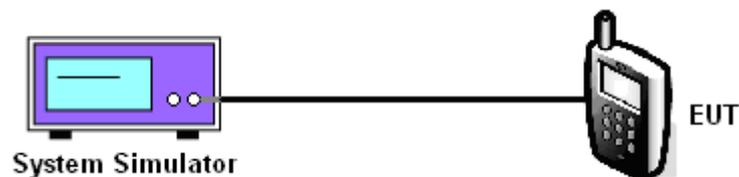
3.1.2 Measuring Instruments

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.

3.1.4 Test Setup





3.1.5 Test Result of Conducted Output Power

Cellular Band				
Modes	Channel	Frequency (MHz)	Conducted Power (dBm)	Conducted Power (Watts)
GSM850 (GSM)	128 (Low)	824.2	32.58	1.81
	189 (Mid)	836.4	32.57	1.81
	251 (High)	848.8	32.54	1.79
GSM850 (EDGE 8)	128 (Low)	824.2	26.62	0.46
	189 (Mid)	836.4	26.70	0.47
	251 (High)	848.8	26.66	0.46
WCDMA Band V (RMC 12.2Kbps)	4132 (Low)	826.4	22.53	0.18
	4182 (Mid)	836.4	22.65	0.18
	4233 (High)	846.6	22.61	0.18

PCS Band				
Modes	Channel	Frequency (MHz)	Conducted Power (dBm)	Conducted Power (Watts)
GSM1900 (GSM)	512 (Low)	1850.2	29.57	0.91
	661 (Mid)	1880.0	29.48	0.89
	810 (High)	1909.8	29.62	0.92
GSM1900 (EDGE 8)	512 (Low)	1850.2	25.57	0.36
	661 (Mid)	1880.0	25.65	0.37
	810 (High)	1909.8	25.67	0.37
WCDMA Band II (RMC 12.2Kbps)	9262 (Low)	1852.4	22.61	0.18
	9400 (Mid)	1880.0	22.70	0.19
	9538 (High)	1907.6	22.56	0.18



3.2 Effective Radiated Power and Effective Isotropic Radiated Power Measurement

3.2.1 Description of the ERP/EIRP Measurement

ERP/EIRP is measured by substitution method according to ANSI / TIA / EIA-603-C-2004. The ERP of mobile transmitters must not exceed 7 Watts and the EIRP of mobile transmitters are limited to 2 Watts.

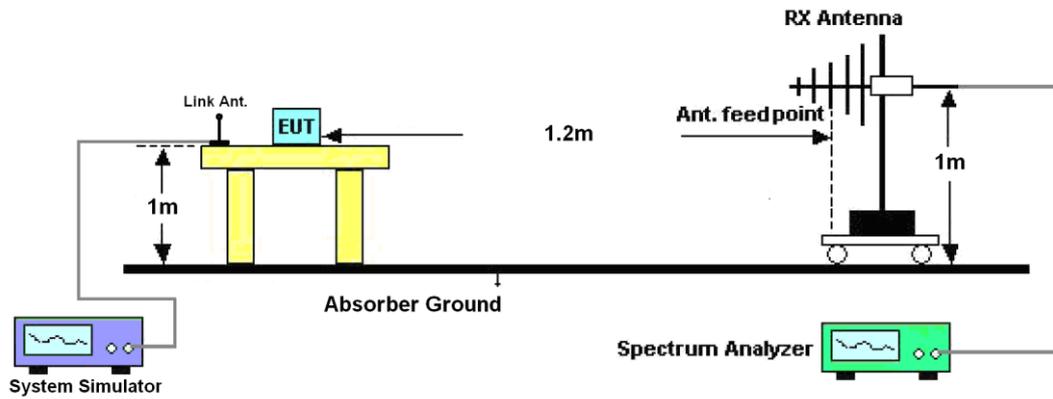
3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

3.2.3 Test Procedures

1. The EUT was placed on a turntable with 1.0 meter height in a fully anechoic chamber.
2. The EUT was set at 1.2 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 radiated power.
4. The height of the receiving antenna is adjusted to look for the maximum ERP/EIRP.
5. Taking the record of maximum ERP/EIRP.
6. A dipole antenna was substituted in place of the EUT and was driven by a signal generator.
7. The conducted power at the terminal of the dipole antenna is measured.
8. Repeat step 3 to step 5 to get the maximum ERP/EIRP of the substitution antenna.
9. $ERP/EIRP = P_s + E_t - E_s + G_s = P_s + R_t - R_s + G_s$
Ps (dBm) : Input power to substitution antenna.
Gs (dBi or dBd) : Substitution antenna Gain.
 $E_t = R_t + AF$
 $E_s = R_s + AF$
AF (dB/m) : Receive antenna factor
Rt : The highest received signal in spectrum analyzer for EUT.
Rs : The highest received signal in spectrum analyzer for substitution antenna.

3.2.4 Test Setup





3.2.5 Test Result of ERP

GSM850 (GSM) Radiated Power ERP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.20	-17.64	-48.12	0.00	-1.08	29.40	0.87
836.40	-17.61	-48.28	0.00	-0.93	29.74	0.94
848.80	-17.60	-48.35	0.00	-0.76	29.99	1.00
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.20	-28.93	-47.97	0.00	-1.08	17.96	0.06
836.40	-28.66	-48.01	0.00	-0.93	18.42	0.07
848.80	-28.53	-48.05	0.00	-0.76	18.76	0.08

GSM850 (EDGE 8) Radiated Power ERP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.20	-23.68	-48.12	0.00	-1.08	23.36	0.22
836.40	-23.36	-48.28	0.00	-0.93	23.99	0.25
848.80	-23.32	-48.35	0.00	-0.76	24.27	0.27
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.20	-34.93	-47.97	0.00	-1.08	11.96	0.02
836.40	-34.45	-48.01	0.00	-0.93	12.63	0.02
848.80	-34.45	-48.05	0.00	-0.76	12.84	0.02



WCDMA Band V (RMC 12.2Kbps) Radiated Power ERP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
826.40	-27.55	-48.12	0.00	-1.08	19.49	0.09
836.40	-27.01	-48.28	0.00	-0.93	20.34	0.11
846.60	-26.73	-48.35	0.00	-0.76	20.86	0.12
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
826.40	-38.77	-47.97	0.00	-1.08	8.12	0.01
836.40	-37.92	-48.01	0.00	-0.93	9.16	0.01
846.60	-37.62	-48.05	0.00	-0.76	9.67	0.01



3.2.6 Test Result of EIRP

GSM1900 (GSM) Radiated Power EIRP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1850.20	-24.39	-51.88	0.00	1.96	29.45	0.88
1880.00	-25.12	-52.99	0.00	2.00	29.87	0.97
1909.80	-26.88	-54.28	0.00	1.98	29.38	0.87
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1850.20	-24.86	-52.13	0.00	1.96	29.23	0.84
1880.00	-25.79	-53.17	0.00	2.00	29.38	0.87
1909.80	-26.87	-54.13	0.00	1.98	29.24	0.84

GSM1900 (EDGE 8) Radiated Power EIRP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1850.20	-28.32	-51.88	0.00	1.96	25.52	0.36
1880.00	-29.00	-52.99	0.00	2.00	25.99	0.40
1909.80	-30.69	-54.28	0.00	1.98	25.57	0.36
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1850.20	-28.82	-52.13	0.00	1.96	25.27	0.34
1880.00	-29.50	-53.17	0.00	2.00	25.67	0.37
1909.80	-30.56	-54.13	0.00	1.98	25.55	0.36



WCDMA Band II (RMC 12.2Kbps) Radiated Power EIRP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1852.40	-30.73	-51.88	0.00	1.96	23.11	0.20
1880.00	-32.08	-52.99	0.00	2.00	22.91	0.20
1907.60	-34.57	-54.28	0.00	1.98	21.69	0.15
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1852.40	-31.33	-52.13	0.00	1.96	22.76	0.19
1880.00	-32.73	-53.17	0.00	2.00	22.44	0.18
1907.60	-34.42	-54.13	0.00	1.98	21.69	0.15



3.3 Field Strength of Spurious Radiation Measurement

3.3.1 Description of Field Strength of Spurious Radiated Measurement

The radiated spurious emission was measured by substitution method according to ANSI / TIA / EIA-603-C-2004. 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.

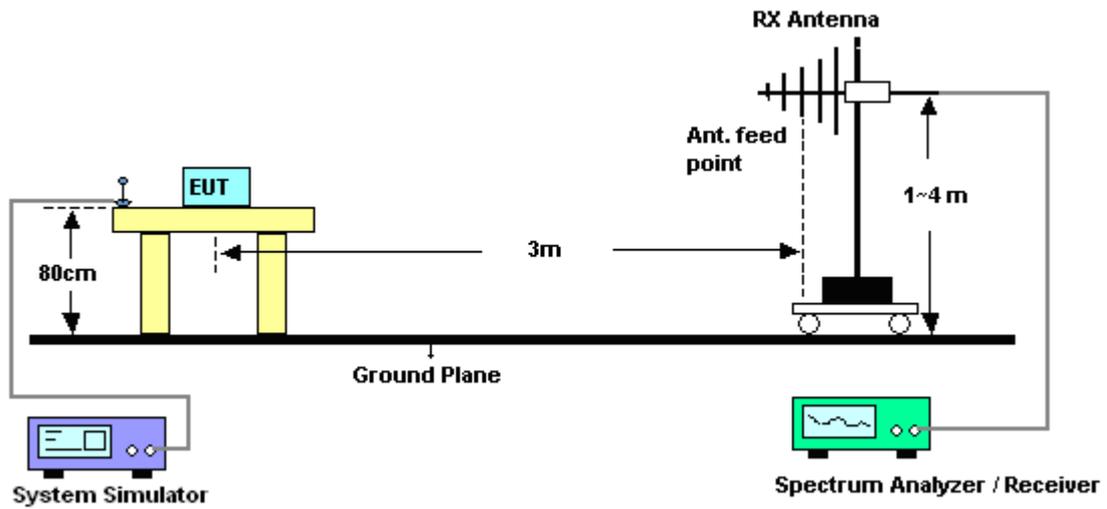
3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

3.3.3 Test Procedures

1. The EUT was placed on a rotatable wooden table with 0.8 meter about 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, Sweep = 500ms, 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. $EIRP (dBm) = S.G. Power - Tx Cable Loss + Tx Antenna Gain$
11. $ERP (dBm) = EIRP - 2.15$

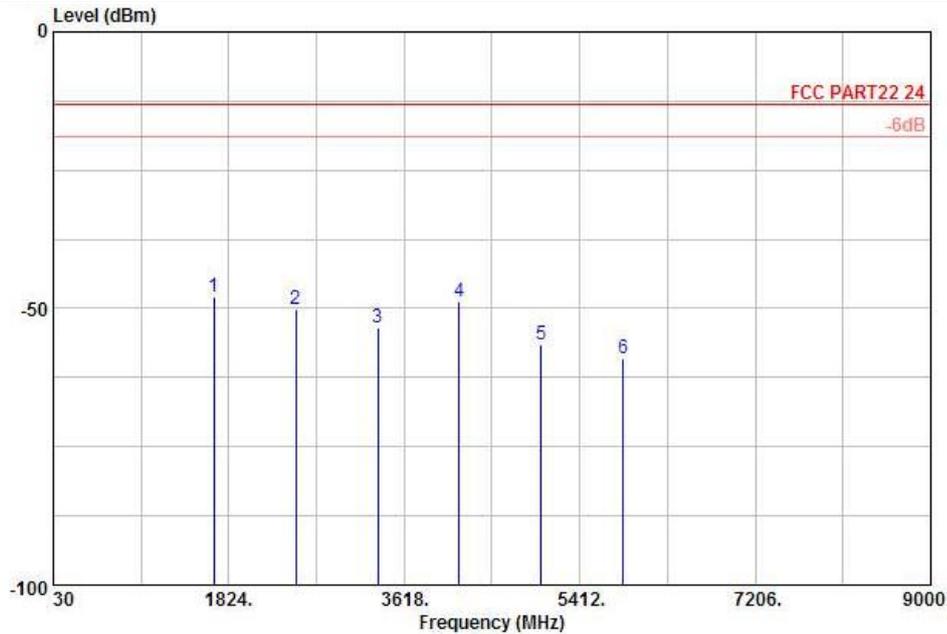
3.3.4 Test Setup





3.3.5 Test Result of Field Strength of Spurious Radiated

Band :	GSM850	Temperature :	20~21°C
Test Mode :	EDGE 8 Link	Relative Humidity :	40~41%
Test Engineer :	Jason Chia	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

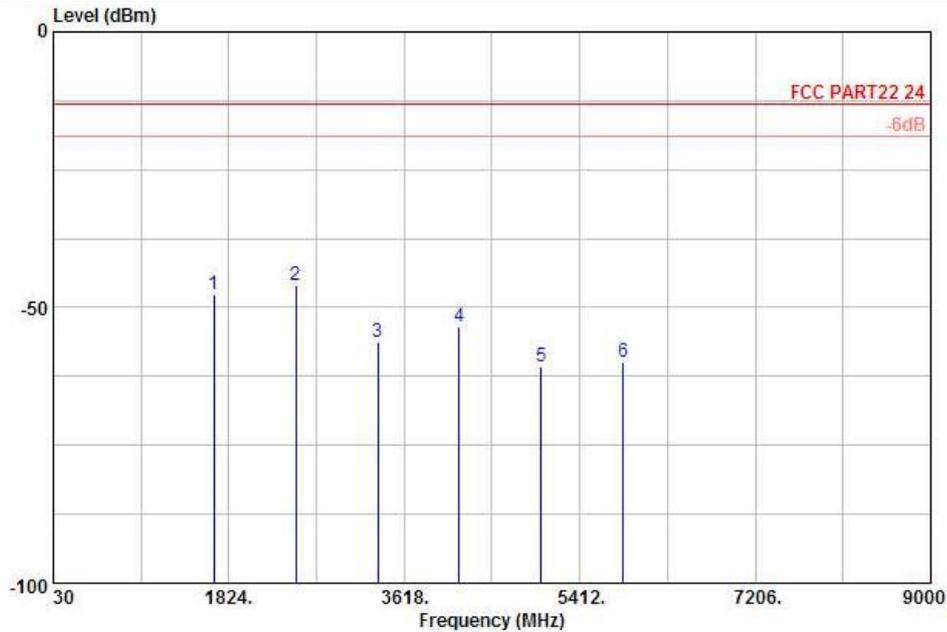


Site : 03CH01-KS
 Condition: FCC PART22 24 HF EIRP FACTOR-09020 HORIZONTAL
 Plane : E1

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	-47.85	-13	-34.85	-46.97	-48.50	0.57	3.37	H	Pass
2510	-50.08	-13	-37.08	-52.33	-52.31	0.78	5.16	H	Pass
3346	-53.58	-13	-40.58	-55.52	-57.22	0.87	6.66	H	Pass
4182	-48.67	-13	-35.67	-51.59	-53.26	0.97	7.71	H	Pass
5018	-56.60	-13	-43.60	-62.80	-62.27	1.09	8.91	H	Pass
5854	-59.06	-13	-46.06	-67.77	-65.50	1.22	9.81	H	Pass



Band :	GSM850	Temperature :	20~21°C
Test Mode :	EDGE 8 Link	Relative Humidity :	40~41%
Test Engineer :	Jason Chia	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		



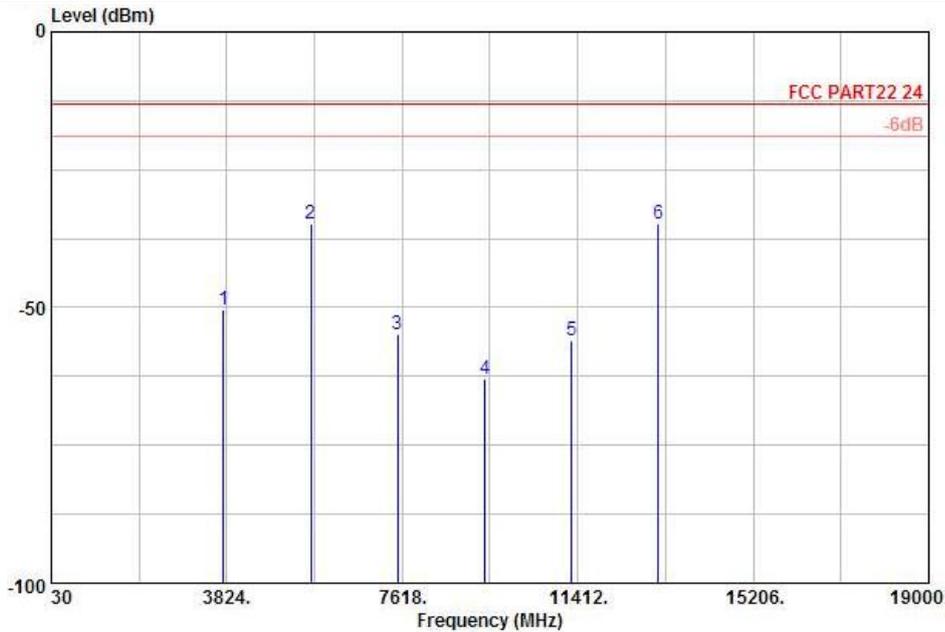
Site : 03CH01-KS
 Condition: FCC PART22 24 HF EIRP FACTOR-09020 VERTICAL

Plane : E1

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
1674	-47.71	-13	-34.71	-50.72	-48.36	0.57	3.37	V	Pass
2510	-46.01	-13	-33.01	-50.54	-48.24	0.78	5.16	V	Pass
3346	-56.40	-13	-43.40	-58.38	-60.04	0.87	6.66	V	Pass
4182	-53.57	-13	-40.57	-57.41	-58.16	0.97	7.71	V	Pass
5018	-60.39	-13	-47.39	-65.33	-66.06	1.09	8.91	V	Pass
5854	-59.92	-13	-46.92	-67.91	-66.36	1.22	9.81	V	Pass



Band :	GSM1900	Temperature :	20~21°C
Test Mode :	GSM Link	Relative Humidity :	40~41%
Test Engineer :	Jason Chia	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		



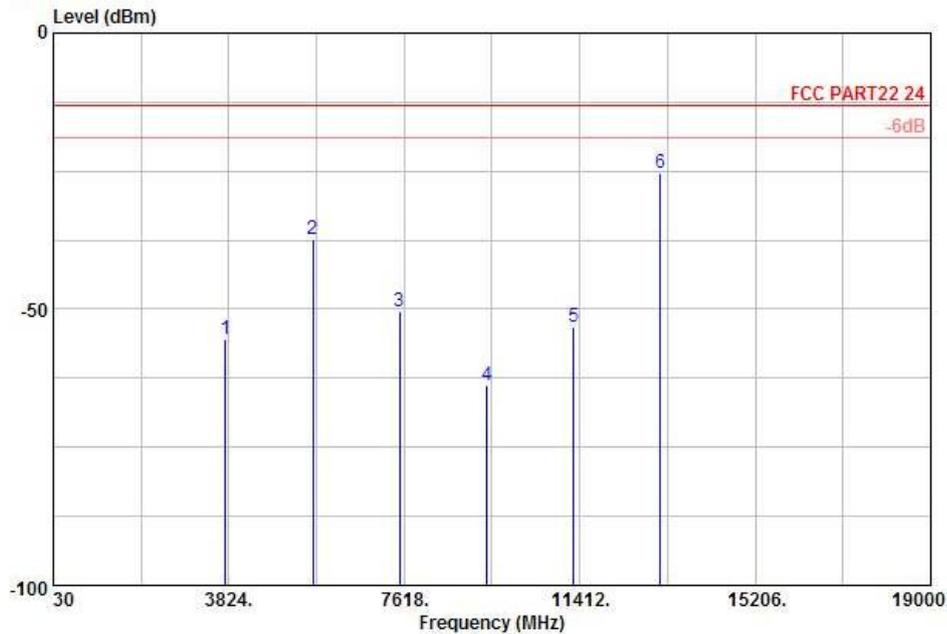
Site : 03CH01-KS
 Condition: FCC PART22 24 HF EIRP FACTOR-09020 HORIZONTAL

Plane : E2

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	-50.44	-13	-37.44	-53.25	-56.82	0.78	7.16	H	Pass
5640	-34.86	-13	-21.86	-47.68	-43.40	1.04	9.58	H	Pass
7520	-55.01	-13	-42.01	-60.14	-65.12	1.35	11.46	H	Pass
9400	-62.95	-13	-49.95	-66.21	-74.01	1.75	12.81	H	Pass
11280	-55.94	-13	-42.94	-67.43	-67.03	2	13.09	H	Pass
13160	-34.74	-13	-21.74	-56.22	-46.45	2.04	13.75	H	Pass



Band :	GSM1900	Temperature :	20~21°C
Test Mode :	GSM Link	Relative Humidity :	40~41%
Test Engineer :	Jason Chia	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

Plane : E2

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	-55.42	-13	-42.42	-56.79	-61.80	0.78	7.16	V	Pass
5640	-37.16	-13	-24.16	-49.83	-45.70	1.04	9.58	V	Pass
7520	-50.37	-13	-37.37	-57.99	-60.48	1.35	11.46	V	Pass
9400	-63.78	-13	-50.78	-65	-74.84	1.75	12.81	V	Pass
11280	-53.24	-13	-40.24	-64.48	-64.33	2	13.09	V	Pass
13161	-25.41	-13	-12.41	-50.17	-37.12	2.04	13.75	V	Pass



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
Spectrum Analyzer	R&S	FSP40	100319	9kHz~40GHz	Jan. 07, 2011	Jan. 06, 2012	Conducted (TH01-KS)
Power Meter	Agilent	E4416A	MY45101555	N/A	Aug. 24, 2010	Aug. 23, 2011	Conducted (TH01-KS)
Power Sensor	Agilent	E9327A	MY44421198	N/A	Aug. 24, 2010	Aug. 23, 2011	Conducted (TH01-KS)
Thermal Chamber	Ten Billion	TTC-B3S	TBN-960502	N/A	Dec. 28, 2010	Dec. 27, 2011	Conducted (TH01-KS)
DC Power Supply	TOPWARD	3306D	N/A	N/A	N/A	N/A	Conducted (TH01-KS)
EMI Test Receiver	R&S	ESCI	100534	9kHz~3GHz	Nov. 16, 2010	Nov. 15, 2011	Radiation (03CH01-KS)
Spectrum Analyzer	R&S	FSP40	100319	9kHz~40GHz	Jan. 07, 2011	Jan. 06, 2012	Radiation (03CH01-KS)
Bilog Antenna	SCHAFFNER	CBL6112D	23182	25MHz~2GHz	Dec. 07, 2010	Dec. 06, 2011	Radiation (03CH01-KS)
Double Ridge Horn Antenna	EMCO	3117	00075959	1GHz~18GHz	Jan. 07, 2011	Jan. 06, 2012	Radiation (03CH01-KS)
Amplifier	Wireless	FPA-6592G	060004	30MHz~2GHz	Dec. 09, 2010	Dec. 08, 2011	Radiation (03CH01-KS)
Amplifier	Agilent	8449B	3008A02370	1GHz~26.5GHz	Jan. 07, 2011	Jan. 06, 2012	Radiation (03CH01-KS)
Actice hore antenna	com-power	AHA-118	701023	1G-18GHz	Nov. 09, 2010	Nov. 08, 2011	Radiation (03CH01-KS)
Signal Generator	R&S	SMR40	100455	10MHz~40GHz	Jan. 06, 2011	Jan. 05, 2012	Radiation (03CH01-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	BBHA170249	15-40GHz	Oct. 15, 2010	Oct. 14, 2011	Radiation (03CH01-KS)
Loop Antenna	R&S	HFH2-Z2	860004/001	9 kHz~30 MHz	Jul. 29, 2010	Jul. 28, 2011	Radiation (03CH01-KS)
System Simulator	R&S	CMU200	837587/066	Full-Band	Jan. 07, 2011	Jan. 06, 2012	-

5 Uncertainty of Evaluation

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

Contribution	Uncertainty of X_i		$u(X_i)$
	dB	Probability Distribution	
Receiver Reading	0.41	Normal (k=2)	0.21
Antenna Factor Calibration	0.83	Normal (k=2)	0.42
Cable Loss Calibration	0.25	Normal (k=2)	0.13
Pre-Amplifier Gain Calibration	0.27	Normal (k=2)	0.14
RCV/SPA Specification	2.50	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29
Site Imperfection	1.43	Rectangular	0.83
Mismatch	+0.39 / -0.41	U-Shape	0.28
Combined Standard Uncertainty $U_c(y)$	1.27		
Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	2.54		

Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

Contribution	Uncertainty of X_i		$u(X_i)$	C_i	$C_i * u(X_i)$
	dB	Probability Distribution			
Receiver Reading	± 0.10	Normal (k=2)	0.10	1	0.10
Antenna Factor Calibration	± 1.70	Normal (k=2)	0.85	1	0.85
Cable Loss Calibration	± 0.50	Normal (k=2)	0.25	1	0.25
Receiver Correction	± 2.00	Rectangular	1.15	1	1.15
Antenna Factor Directional	± 1.50	Rectangular	0.87	1	0.87
Site Imperfection	± 2.80	Triangular	1.14	1	1.14
Mismatch Receiver VSWR $\Gamma_1 = 0.197$ Antenna VSWR $\Gamma_2 = 0.194$ Uncertainty = $20\text{Log}(1-\Gamma_1*\Gamma_2)$	+0.34 / -0.35	U-Shape	0.244	1	0.244
Combined Standard Uncertainty $U_c(y)$	2.36				
Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	4.72				



Appendix A. Photographs of EUT

Please refer to Sporton report number EP121001-01 as below.

Appendix C. Product Equality Declaration

ZTE CORPORATION

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

Date: March 25, 2011

Product Equality Declaration

We, ZTE CORPORATION, declare on our sole responsibility for the product of Z331 as below:

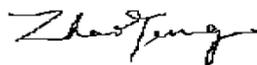
1. The differences between Z331 and previous are:

- ◆ The Z331 outer LCD change to 1.46 inch from 1.1 inch up to customer's demands. The only difference between Z331 and previous are the outer LCD. There is no electric circuit change.

Except listings above, the others are all the same.

Should you have any questions or comments regarding this matter, please have my best attention.

Sincerely yours,



Contact Person: Zhao Yang
COMPANY: ZTE CORPORATION
Tel: +86-755-26770345
Fax: +86-755-26770347
E-Mail: zhao.yangxa@zte.com.cn



Appendix D. Original Report

Please refer to Sporton report number FG121001 as below.