



Full

TEST REPORT

No. ECIT-2014-0010-EMC

For

Client : ZTE Corporation

Production : WCDMA/GSM (GPRS) Dual-Mode

Digital Mobile Phone

Model Name : ZTE Kis Q

Hardware Version: TMAK

Software Version: IUS-MX-LTB25S-P172D02V1.0.0B01

FCC ID: SRQ-ZTEKISQ

Issued date: 2014-02-12

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of ECIT Shanghai.

Test Laboratory:

ECIT Shanghai, East China Institute of Telecommunications

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1. Test Laboratory

1.1. Testing Location

Company Name: ECIT Shanghai, East China Institute of Telecommunications
Address: 7F, G Area, No. 668, Beijing East Road, Huangpu District, Shanghai,
P. R. China
Postal Code: 200001
Telephone: (+86)-021-63843300
Fax: (+86)-021-63843301
FCC registration No: 489729

1.2. Testing Environment

Normal Temperature: 15-35°C
Relative Humidity: 30-60%

1.3. Project data

Project Leader: Wang Yaqiong
Testing Start Date: 2013-08-10
Testing End Date: 2013-09-07

1.4. Signature

You Jinjun

(Prepared this test report)

Yu Naiping

(Reviewed this test report)

Zheng Zhongbin

Director of the laboratory

(Approved this test report)



2. Client Information

2.1. Applicant Information

Company Name: ZTE Corporation
Address /Post: ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park,
NanshanDistrict,Shenzhen, Guangdong, 518057, P.R.China
Country: China
Telephone: /

2.2. Manufacturer Information

Company Name: ZTE Corporation
Address /Post: ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park,
NanshanDistrict,Shenzhen, Guangdong, 518057, P.R.China
Country: China
Telephone: /

3. Equipment under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

EUT Description	WCDMA/GSM (GPRS) Dual-Mode Digital Mobile Phone
Model name	ZTE Kis Q
Serial Number or IMEI	863921025000681
GSM Frequency Band	GSM850/GSM1800 /GSM1900
UMTS Frequency Band	WCDMA Band II / Band V
HW Version	TMAK
SW Version	IUS-MX-LTB25S-P172D02V1.0.0B01

3.2. Internal Identification of AE used during the test

AE ID*	Description	Model	SN
AE1	Adapter	STC-A22O50I700USBA-Z	NA
AE2	Battery	Li3712T42P3h484952	10051311020267526
AE3	Earphone	DC3.5 1428	NA
AE4	Data Cable	USB-MU5-B-120-A	NA
AE5	Desktop PC	OptiPlex 790 DT	X8RP1 A01 APCC
AE6	Notebook PC	ThinkPad T420i	P1-5LEBD
AE7	LAN Cable	NA	NA
AE8	VGA Cable	NA	NA
AE9	RS232 Cable	NA	NA
AE10	Keyboard	KB212-B	CN-0Y88XT-65890-12I-005Q-A00
AE11	Mouse	MS111-P	CN-011D3V-71581-19J-1A64

*AE ID: is used to identify the test sample in the lab internally.



4. Reference Documents

4.1. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title	Version
FCC Part 15, Subpart B	Radio frequency devices	10-1-10 Edition
ANSI C63.4	Method of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2009

5. Test Results

5.1. Summary of Test Results

Items	Test List	Clause in FCC rules	Verdict
1	Radiated Emission	15.109(a)	Pass
2	Conducted Emission	15.107(a)	Pass

5.2. Statements

The ZTE Kis Q supporting GSM850/1800/1900 and WCDMA band II/V, manufactured by ZTE Corporation is a variant product. According to the variant description shown in Annex A, the alterations do not affect EMC Testing, so no test case to be retested. All test results please refer to ECIT-2013-0141-RF-EMC which is the test report for the initial product of ZTE V795. The below result are coming from the initial product of ZTE V795.

ECIT has verified that the compliance of the tested device specified in section 3 of this test report is successfully evaluated according to the procedure and test methods as defined in type certification requirement listed in section 4 of this test report.

6. Test Equipments Utilized

6.1 Radiated Emission Equipments list

No.	Name	Type	Series Number	Producer	Cal. Due Date
1	Universal Radio Communication Tester	CMU200	123102	R&S	2014-08-30
2	Test Receiver	ESU40	100307	R&S	2014-10-29
3	Trilog Antenna	VULB9163	19-162515	Schwarzbeck	2014-11-11
4	Double Ridged Guide Antenna	ETS3117	135885	ETS	2014-04-28

6.1 CE Equipments list

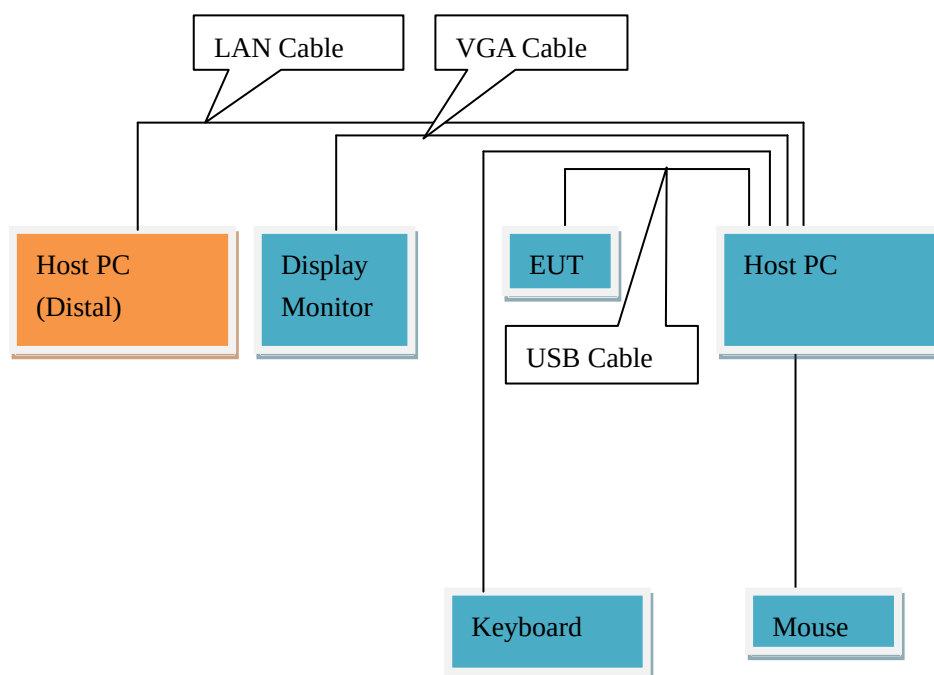
No.	Name	Type	Series Number	Producer	Cal. Due Date
1	Universal Radio Communication Tester	CMU200	123124	R&S	2014-08-30
2	Test Receiver	ESCI	101235	R&S	2014-08-30
3	2-Line V-Network	ENV216	101380	R&S	2014-10-30

7. System Configuration during Test

7.1 Test Mode

Test Item	Function Type
AC Conducted Emission	Mode 1: Idle + Earphone + Camera on + USB cable (Data Link with PC) <Figure 1> Mode 2: Idle + Earphone + MP4 + Adapter charging <Figure 2>
Radiated Emission	Mode 1: Idle + Earphone + Camera on + USB cable (Data Link with PC) <Figure 1> Mode 2: Idle + Earphone + MP4 + Adapter charging <Figure 2>
Remark: 1. All test modes are performed, only the worst cases test data are recorded in this report. 2. Data Link with PC means data application transferred mode between EUT and PC.	

7.2 Connection Diagram of Test System



<Figure 1>



<Figure 2>

8. Measurement Results

Only the worst test result was shown in this report.

8.1 Radiated Emission 30MHz-12.75GHz

Method of Measurement

For 30-1000MHz, the EUT was placed on the top of a rotating 0.8-m table above the ground at a semi-anechoic chamber. The distance between the EUT and the received antenna was 3 meters. The table was rotated 360 degree and the received antenna mounted on a variable-height antenna tower was varied from 1m to 4m to find the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna were set during the measurement. Tested in accordance with the procedures of ANSI C63.4-2009, section 8.3.

For 1000-12750MHz, The maximal emission value was acquired by adjusting the antenna height, The table was rotated 360 degree to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna were set during the measurement.

Limits for Radiated Emission at a measuring distance of 3m

Frequency Range (MHz)	Quasi-Peak (dBuV/m)
30-88	40
88-216	43.5
216-960	46
Above 960	54

Frequency Range (MHz)	Peak (dBuV/m)	Average (dBuV/m)
Above 1000	74	54

Test conditions

Frequency Range (MHz)	RBW/VBW	Sweep Time (s)
30-1000	120KHz/300KHz	5
1000-12750	1MHz/1MHz	10

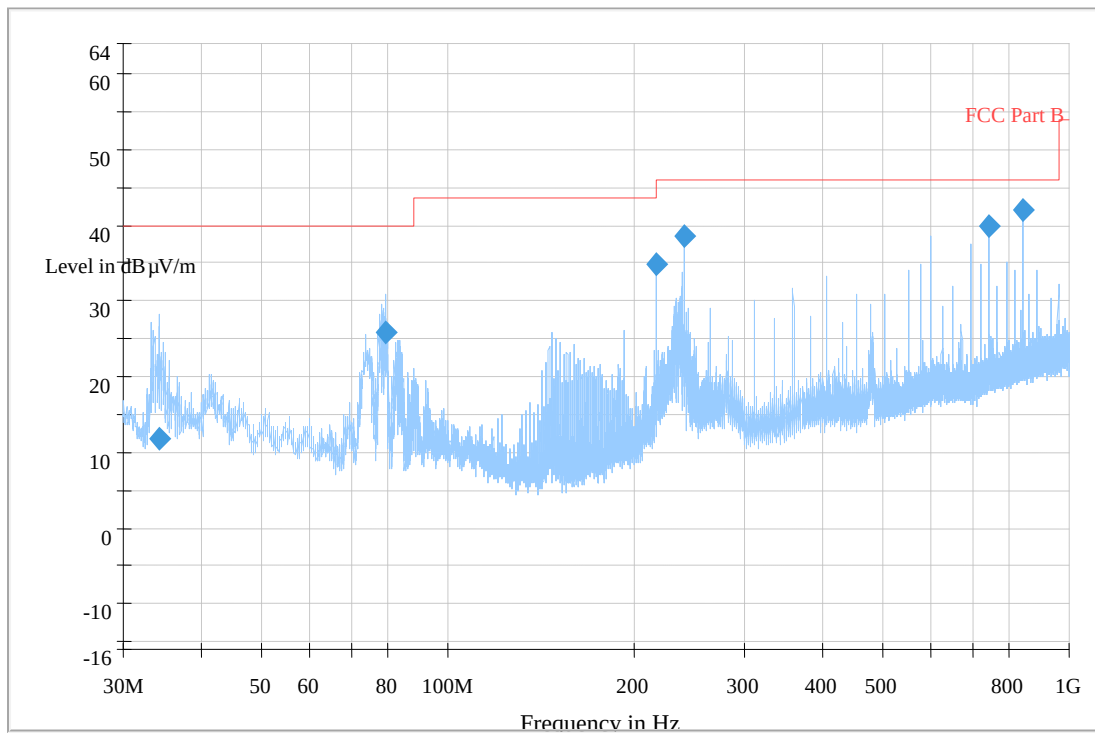
Uncertainty Measurement

The measurement uncertainty is 3.92dB (k=1.96).

Test Results

Mode 1: Idle + Earphone + Camera on + USB cable (Data Link with PC)

Frequency Range: 30MHz – 1GHz

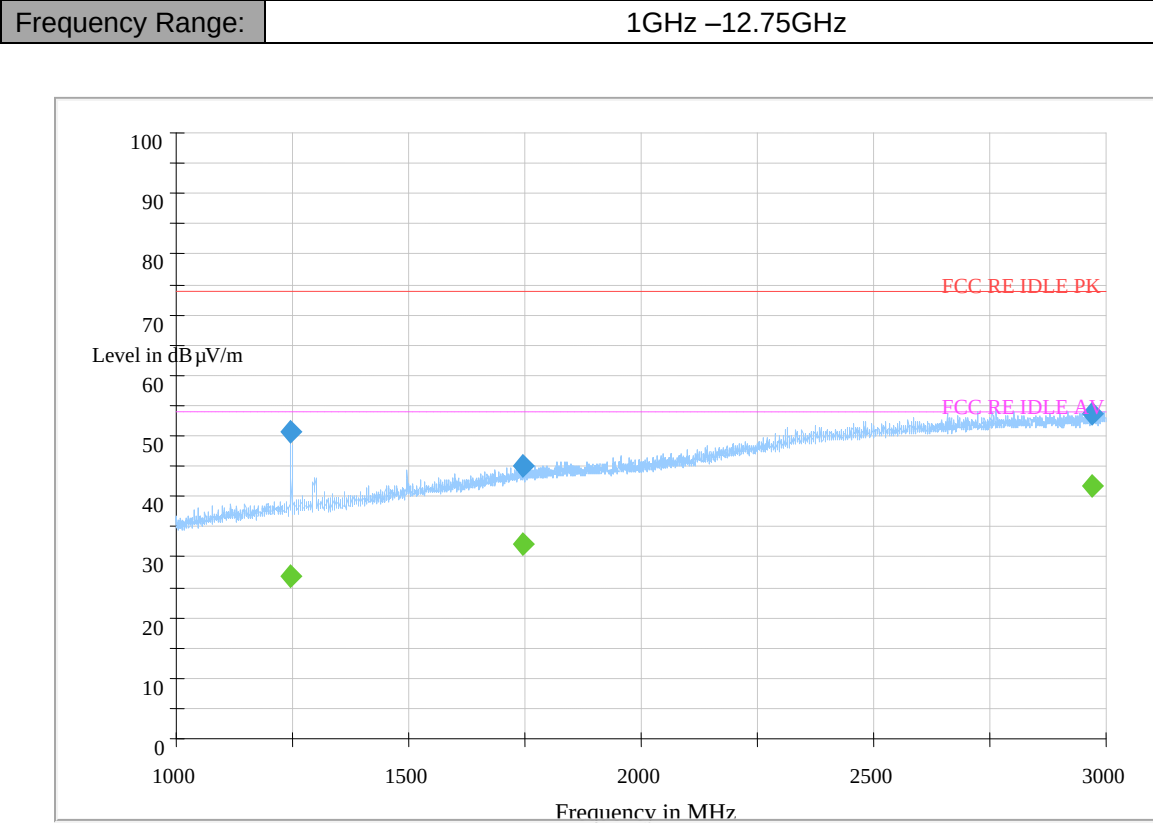


Frequency (MHz)	QuasiPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBuV/m)
34.235667	11.7	1000.0	120.000	100.0	V	221.0	-25.2	28.3	40.0
79.470000	25.9	1000.0	120.000	221.0	H	146.0	-28.4	14.1	40.0
215.981333	35.0	1000.0	120.000	118.0	H	21.0	-23.4	8.5	43.5
239.997333	38.7	1000.0	120.000	125.0	H	57.0	-22.2	7.3	46.0
743.977000	39.8	1000.0	120.000	100.0	H	108.0	-10.5	6.2	46.0
840.007000	42.0	1000.0	120.000	212.0	H	306.0	-8.9	4.0	46.0

Note:

1. Emission level(QP)=Raw value by receiver + Corr(Antenna factor + cable loss - preamplifier gain)
2. The raw value is used to calculate by software which is not shown in the sheet.
3. Margin=limit value – emission level.

Mode 1: Idle + Earphone + Camera on + USB cable (Data Link with PC)



Final Result 1

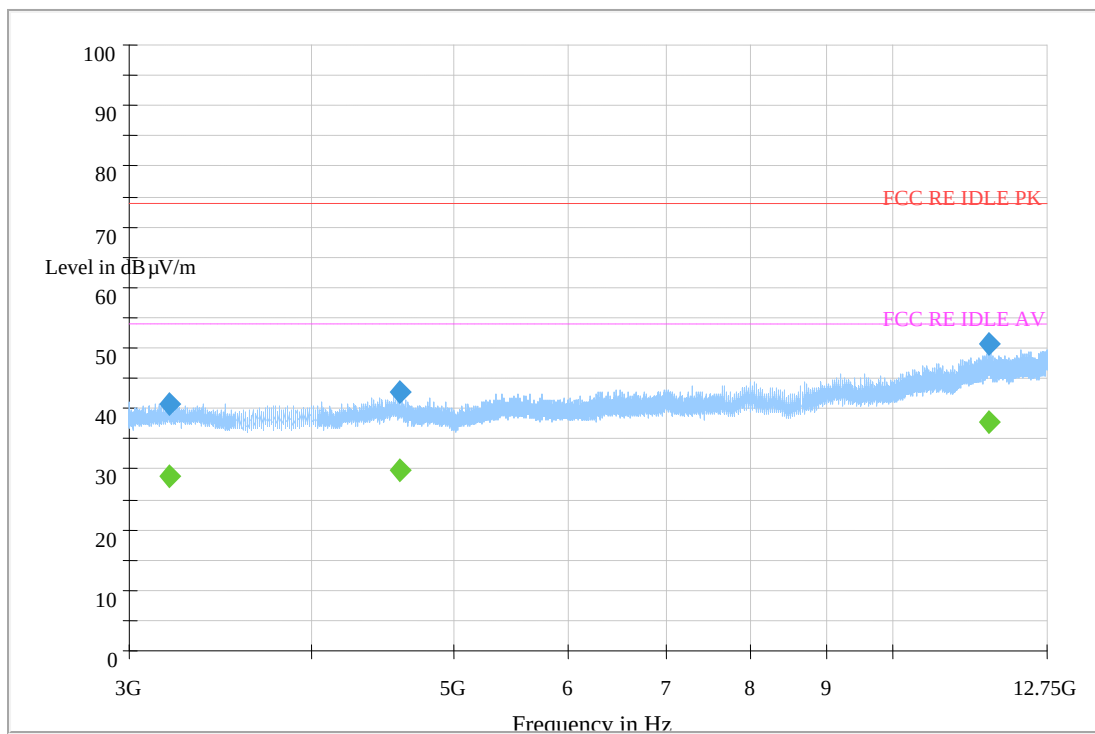
Frequency (MHz)	MaxPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBuV/m)
1245.091200	50.6	50.0	1000.000	155.0	H	9.0	-4.0	23.4	74.0
1746.677200	45.0	50.0	1000.000	155.0	H	105.0	1.3	29.0	74.0
2971.218800	53.8	50.0	1000.000	155.0	H	219.0	10.8	20.2	74.0

Final Result 2

Frequency (MHz)	Average (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBuV/m)
1245.091200	26.9	50.0	1000.000	155.0	H	9.0	-4.0	27.1	54.0
1746.677200	32.3	50.0	1000.000	155.0	H	105.0	1.3	21.7	54.0
2971.218800	41.6	50.0	1000.000	155.0	H	219.0	10.8	12.4	54.0

Note:

- Emission level(peak or average)=Raw value by receiver + Corr(Antenna factor+ cable loss - preamplifier gain)
 - The raw value is used to calculate by software which is not shown in the sheet.
- Margin=limit value – emission level.



Final Result 1

Frequency (MHz)	MaxPeak (dBuV/m)	Meas. Time	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBuV/m)
3192.417400	40.8	50.0	1000.000	155.0	V	83.0	-3.0	33.2	74.0
4600.774400	42.6	50.0	1000.000	155.0	H	303.0	-1.0	31.4	74.0
11650.604700	50.5	50.0	1000.000	155.0	H	45.0	9.5	23.5	74.0

Final Result 2

Frequency (MHz)	Average (dBuV/m)	Meas. Time	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBuV/m)
3192.417400	28.7	50.0	1000.000	155.0	V	83.0	-3.0	25.3	54.0
4600.774400	29.9	50.0	1000.000	155.0	H	303.0	-1.0	24.1	54.0
11650.604700	37.7	50.0	1000.000	155.0	H	45.0	9.5	16.3	54.0

Note:

- Emission level(peak or average)=Raw value by receiver + Corr(Antenna factor+ cable loss - preamplifier gain)
 - The raw value is used to calculate by software which is not shown in the sheet.
- Margin=limit value – emission level.

8.2 Conducted Emission

Method of Measurement

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies with the band 150 kHz to 30MHz shall not exceed the limits. Both lines of the power mains connected to the EUT were checked for maximum conducted interference. Tested in accordance with the procedures of ANSI C63.4-2009, section 7.3

Limit of Conducted Emission

Frequency Range (MHz)	Conducted Limit (dBUV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50
*Decreases with the logarithm of the frequency		

Test Condition in Charging Mode

Voltage (V)	Frequency (Hz)	RBW	Sweep Time (s)
120	60	9 KHz	1

Uncertainty Measurement

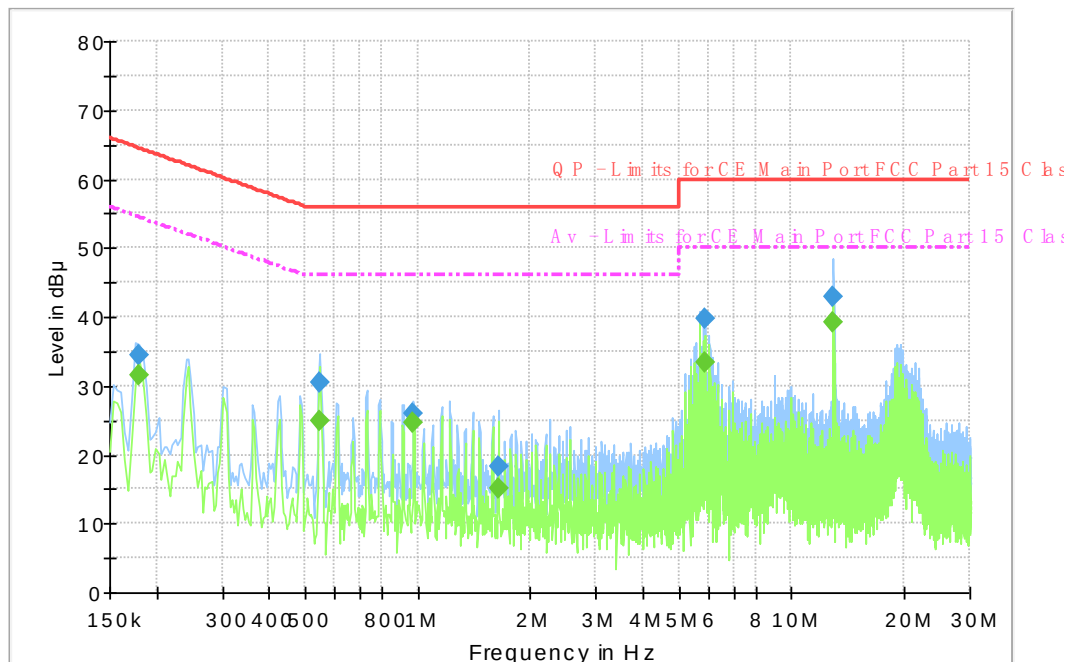
The measurement uncertainty is 2.69dB (k=1.96).

Test Results

Mode 1: Idle + Earphone + Camera on + USB cable (Data Link with PC)

Frequency Range:

150kHz – 30MHz



Frequency (MHz)	QuasiPeak (dBμ V)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμ V)	Comment
0.179850	34.4	1000.0	9.000	On	N	10.2	30.1	64.5	
0.545512	30.4	1000.0	9.000	On	L1	10.1	25.6	56.0	
0.974606	26.1	1000.0	9.000	On	L1	9.9	29.9	56.0	
1.642500	18.3	1000.0	9.000	On	N	9.9	37.7	56.0	
5.858812	39.8	1000.0	9.000	On	N	9.8	20.2	60.0	
12.974306	42.8	1000.0	9.000	On	N	9.9	17.2	60.0	

Frequency (MHz)	Average (dBμ V)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμ V)	Comment
0.179850	31.6	1000.0	9.000	On	N	10.2	22.8	54.5	
0.545512	25.0	1000.0	9.000	On	L1	10.1	21.0	46.0	
0.974606	24.5	1000.0	9.000	On	L1	9.9	21.5	46.0	
1.642500	15.1	1000.0	9.000	On	N	9.9	30.9	46.0	
5.858812	33.4	1000.0	9.000	On	N	9.8	16.6	50.0	
12.974306	39.3	1000.0	9.000	On	N	9.9	10.7	50.0	

Note:

1. Emission level(quasi-peak or Average peak)=Raw value by receiver + Corr(Insertion loss+cable loss)
2. The raw value is used to calculate by software which is not shown in the sheet.
3. Margin=limit value – emission level.

ANNEX A Deviations from Prescribed Test Methods



ZTE CORPORATION

Product Change Description

Original FCC ID: SRQ-ZTEV795
New FCC ID: SRQ-ZTEKISQ

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

[ZTE Kis Q]
[ZTE Corporation]

is the variant of the initial certified product,

[ZTE V795, ZTE Kis Q, ZTE Kis II]
[ZTE Corporation]
[Project Number:13ZTE148]

SOFTWARE MODIFICATIONS:

Protocol Stack changes: NO
MMS/STK changes: NO
JAVA changes: NO
Other changes detailed: yes
software version
IUS-MX-LTB25S-P172D02V1.0.0B01

HARDWARE MODIFICATION:

Band changes: no
Power Amplifier changes: no
Antenna changes: Yes
Chang new Main Antenna

PCB Layout changes: no
Components on PCB changes: no
LCD changes: no
Speaker changes: no
Camera changes: no
Vibrator changes: no

MECHANICAL MODIFICATIONS:

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Use new metal front/back cover or keypad:

Pictures

Change before:



Change after:



Mechanical shell changes: no



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Other changes detailed: no

ACCESSORY MODIFICATIONS:

Battery changes: no

AC Adaptor changes: no

Earphone changes: no

Min Zhang

APPROVED BY: Zhang Min

Project Manager: YiQing Huang

Date: 2014/1/27

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*****End the Report*****