TEST REPORT

REPORT NUMBER: I09GC5568-FCC-EMC

ON

Type of Equipment: GSM Dual-Band Digital Mobile Phone
Type of Designation: ZTE A712+
Manufacturer: ZTE CORPORATION

ACCORDING TO

FCC CFR Part 2, FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS; e-CFR, March 23, 2006
PART 22, PUBLIC MOBILE SERVICES; e-CFR, March 23, 2006
PART 24, PERSONAL COMMUNICATIONS SERVICES; e-CFR, March 23, 2006

China Telecommunication Technology Labs.

Month date, year
May, 19, 2009

Signature

He Guili
Director

FCC ID:	Q78-A712PLUS
Report Date:	2009-05-19

Test Firm Name:	China Telecommunication Technology Labs
Registration Number:	840587

Statement

The measurements shown in this report were made in accordance with the procedures described on test pages. All reported tests were carried out on a sample equipment to demonstrate limited compliance with FCC CFR 47 Parts 2, 22, and 24. The sample tested was found to comply with the requirements defined in the applied rules.

CONTENTS

1 General Information

1.1 Notes

All reported tests were carried out on a sample equipment to demonstrate limited compliance with FCC CFR 47 Parts 2, 22 and 24.

The test results of this test report relate exclusively to the item(s) tested as specified in section 2.

The following deviation from, additions to, or exclusions from the test specifications have been made. See Annex C.

1.2 Testers

Name: Lv Ke

Position: Engineer

Department: Department of EMC test

Signature:

Name: Li Dongjin

Position: Engineer

Department: Department of EMC test

Signature:

Editor of this test report:

Name: Li Guoqing

Position: Engineer

Department: Department of EMC test

Date: 2009-05-19

Signature:

Technical responsibility for area of testing:

Name: Zhang Xia

Position: Manager

Department: Department of EMC test

Date: 2009-05-19

Signature:

1.3 Testing Laboratory information

1.3.1 Location

Name:	China Telecommunication Technology Labs.
Address:	No. 11, Yue Tan Nan Jie, Xi Cheng District BEIJING P. R. CHINA, 100083
Tel:	+86 10 68094053
Fax:	+86 10 68011404
Email:	emc@chinattl.com

1.3.2 Details of accreditation status

Accredited by:	China National Accreditation Service for Conformity Assessment (CNAS)
Registration number:	CNAS Registration No. CNAS L0570
Standard:	ISO/IEC 17025:2005

1.3.3 Test location, where different from section 1.3.1

Name:	------
Street:	------
City:	------
Country:	------
Telephone:	------
Fax:	------
Postcode:	------

1.4 Details of applicant or manufacturer

1.4.1 Applicant

Name:	ZTE CORPORATION
Address:	ZTE Plaza, Keji Road South, Hi-Tech Industrial Park,Nanshan District,Shenzhen, Guangdong
Country:	China
Telephone:	+86-21-68896835
Fax:	+86-21-50701080
Contact:	Zhangmin
Telephone:	021-68896835
Email:	Zhang.min13@zte.com.cn

1.4.2 Manufacturer (if different from applicant in section 1.4.1)

Name:	--
Address:	--
City:	--
Country:	--

1.4.3 Manufactory (if different from applicant in section 1.4.1)

Name:	--
Address:	--

2 Test Item

2.1 General Information

Manufacturer: ZTE CORPORATION

Name: GSM Dual-Band Digital Mobile Phone

Model Number: ZTE A712+

Serial Number: --

Production Status: Product

Receipt date of test item: 2009-05-04

2.2 Outline of EUT

E.U.T. is a GSM Dual-Band Digital Mobile Phone supporting GSM 850 and 1900 bands. The EUT is a change type. The original type is ZTE A711+ and had been tested and the report number is I08GE5791-FCC-EMC2. During the application of this time, the manufacturer only change the enclosure, so only radiated spurious emission and EIRP have been tested.

2.3 Modifications Incorporated in EUT

The EUT has not been modified from what is described by the brand name and unique type identification stated above.

2.4 Equipment Configuration

Equipment configuration list:

Item	Generic Description	Manufacturer	Type	Serial No.	Remarks
A	handset	ZTE CORPORATION	ZTE A712+	--	None
B	adapter	Shenzhen Ruide Electronic Industrial Co.,Ltd	STC-A22O50U8-A	--	None
C	battery	CosLight/Ruide/BYD/Lishen	Li3707T42P3h463848	--	None
D	Headset	Full-Sound (Dongguan) Electrical Products Ltd .	HMZ1-U8	--	None

Cables:

Item	Cable Type	Manufacturer	Length	Shield	Quantity	Remarks
1	DC cable on Adapter	Unknown	1.0 m	No	1	None

2.5 Other Information

(a) Modulation is GMSK.

(b) Emission Designator is 248KGXW.

(c) Version of hardware and software

HW Version: g3xA

SW Version: EFSP-BS-P108B1(U)V1.0.0B01

(d) Adaptor information:
Input: 100-240VAC 50-60Hz 200mA
Output: 5.0V 700mA

(e) Battery information:
3.7VDC

3 Summary of Test Results

A brief summary of the tests carried out is shown as following.

GSM mode:		
Specification Clause	Name of Test	Result
2.1051, 24.238, 2.1053,22.917	Radiated Spurious Emission	Pass
2.1046,24.232	Radiated RF Power Output	Pass
22.913(a)	Effective Radiated Power (ERP)	Pass
2.1049,22.917(b), 24.238(b)	Occupied Bandwidth	Not Performed
2.1055,22.355, 24.235	Frequency Stability over Temperature Variation	Not Performed
2.1055,22.355, 24.235	Frequency Stability over Voltage Variation	Not Performed
2.1046,22.913(a), 24.232(c)	Conducted RF Power Output	Not Performed
2.1051,22.917,24. 238	Conducted spurious emissions	Not Performed
Note 1: --.		

4 Test Results of mode

4.1 Radiated Spurious Emission

Specifications:	2.1051, 24.238, 2.1053, 22.917
Date of Tests	2009-05-14
Test conditions:	Ambient Temperature:15 -35 Relative Humidity:30%-60% Air pressure: 86-106kPa
Operation Mode	TX on, channel 190 and 661 for GSM
Test Results:	Pass

Test equipment Used:

Asset Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State
7805	EMI Test Receiver	R/S	ESI26	100211	2010-01-03	Normal
7330	Ultra Broadband Antenna	R/S	HL562	100013	2010-07-24	Normal
7330	Double-Ridged Horn Antenna	R/S	HF906	100037	2010-01-14	Normal
713	Fully-Anechoic Chamber	ETS	11.8m×6.5m×6.3m	--	2010-11-17	Normal
023	Wireless Communications Test Set	Agilent	8960(E5515C)	GB41450323	2009-06-13	Normal
111835	Wireless Communications Test Set	R&S	CMU200	1100000802	--	Normal

Limit Level Construction:
According to Part 24.238 (a), i.e., Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB, so the limit level is:
P(dBm) – (43 + 10 log(P)) dB= -13dBm

Limits for Radiated spurious emissions(UE)

Frequency range	Limit Level /Resolution Bandwidth
30 MHz to 20000 MHz	-13dBm/1MHz

Test Setup:

The EUT was placed in an anechoic chamber, see figure SP. The Wireless Communications Test Set was used to set the TX channel and power level and modulate the TX signal with different bit patterns. The test was done using an automated test system, where all test equipments were controlled by a computer.

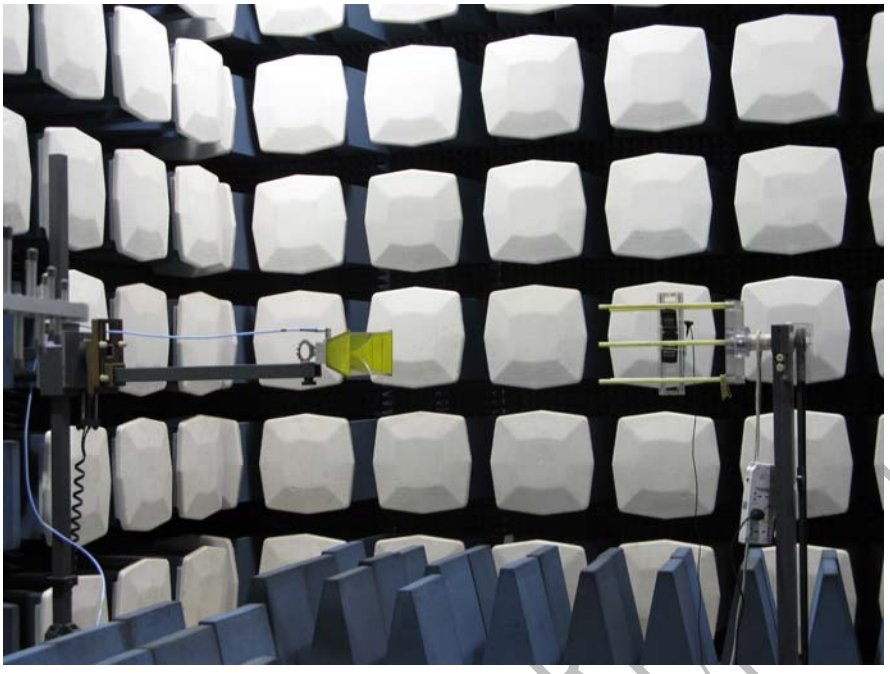


Figure SP

Test Method:

The measurement was performed accordance with section 2.2.12 of ANSI/TIA-603-B-2002: *Land Mobile FM or PM Communications Equipment Measurement and Performance Standards.*

1 The maximum spurious emissions were searched by turning the azimuth of the turntable, shifting the polarization of the measuring antenna and changing the pose of the EUT.

2 Levels of EUT's transmitter harmonics and suspicious signals were recorded.

3 The recorded levels were corrected in the automated test system with the correction factors given by a substitution calibration made before the measurement. The calibration was made separately for vertical and horizontal polarization and the system uses different correction factors depending on the measuring antenna polarization.

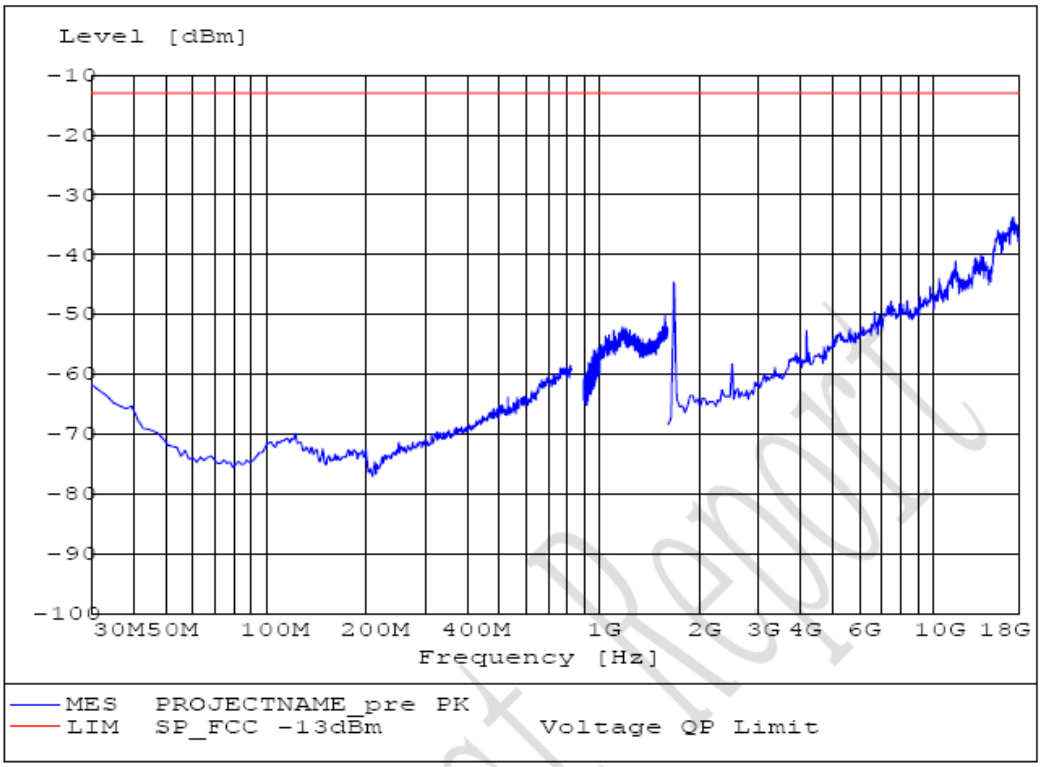
4 The corrected values of radiated spurious emissions indicated as EIRP are reported.

Note:

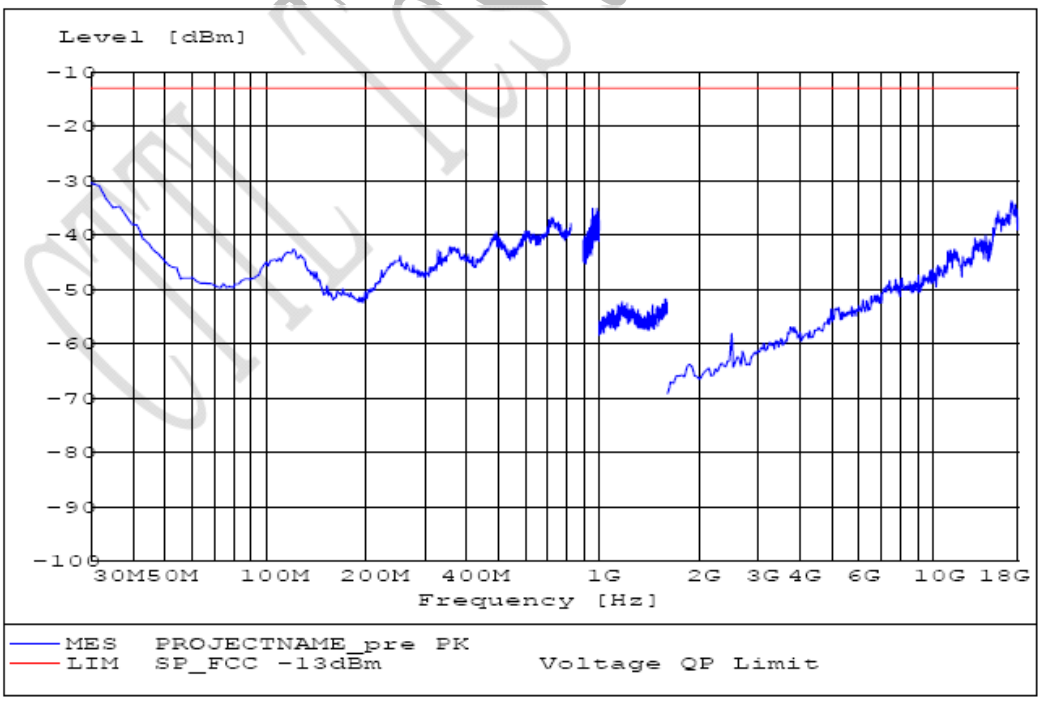
1 The investigated ARFCNs are 190 (836.6 MHz) and 661 (1880.0 MHz).

2 The investigated frequency range is 30 MHz ~ 20 GHz.

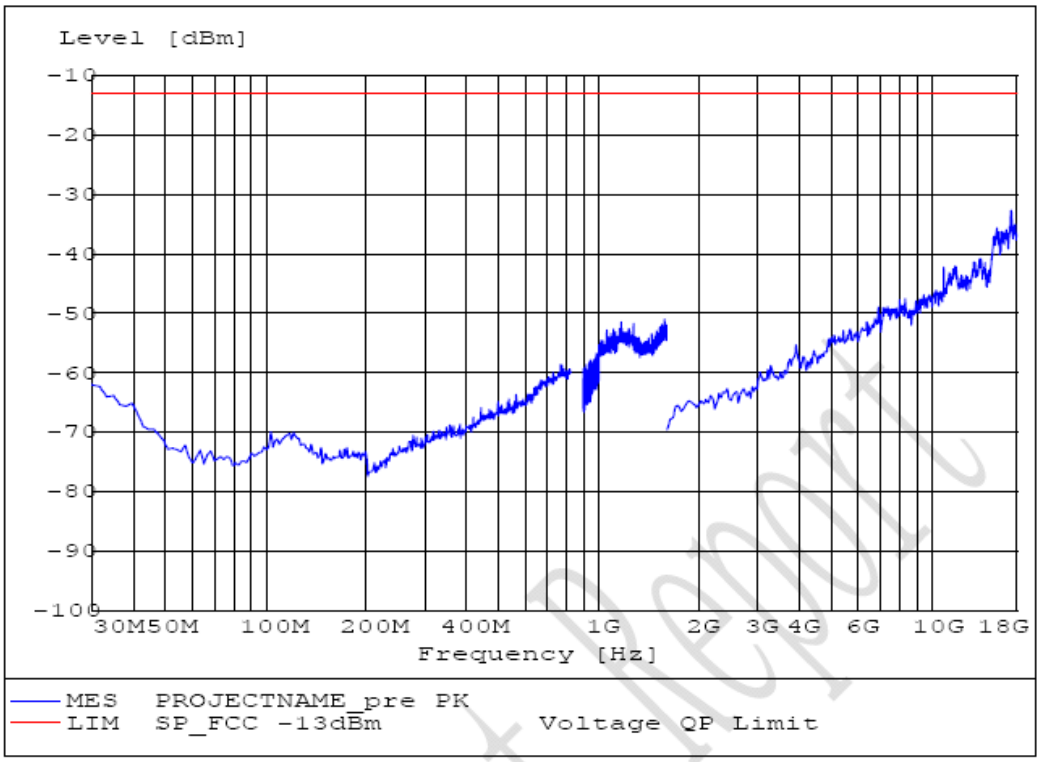
Test Results for GSM mode:



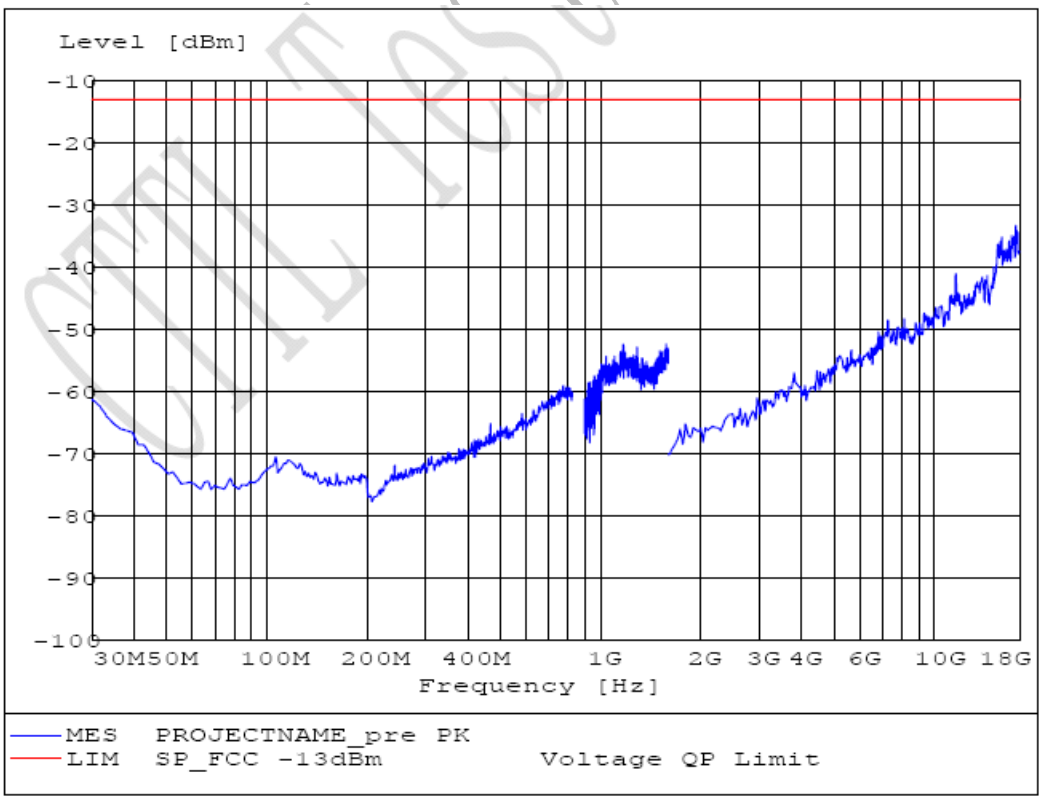
S190VF for GSM mode



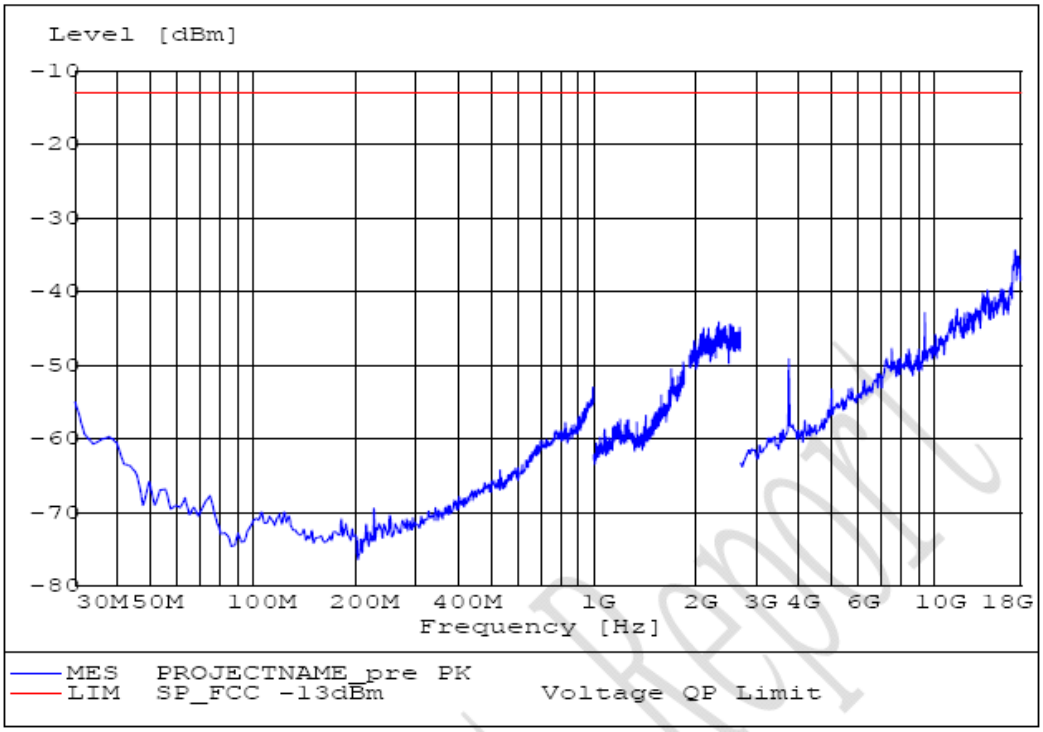
S190HF for GSM mode



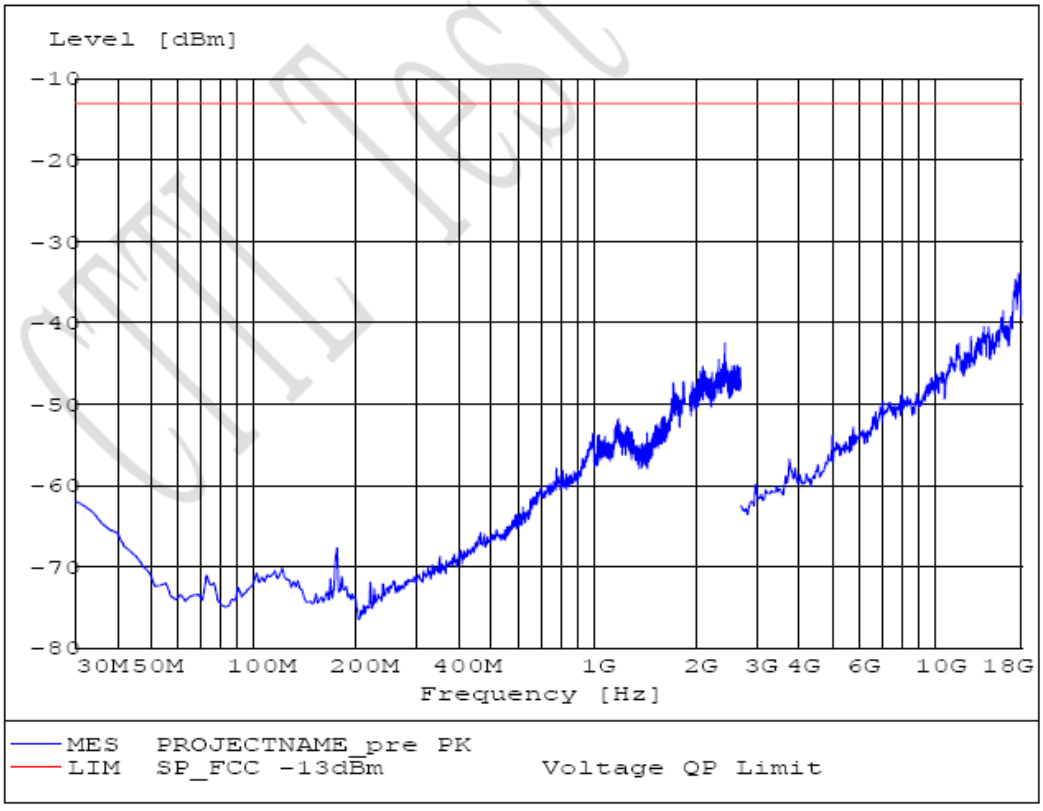
S190VT for GSM mode



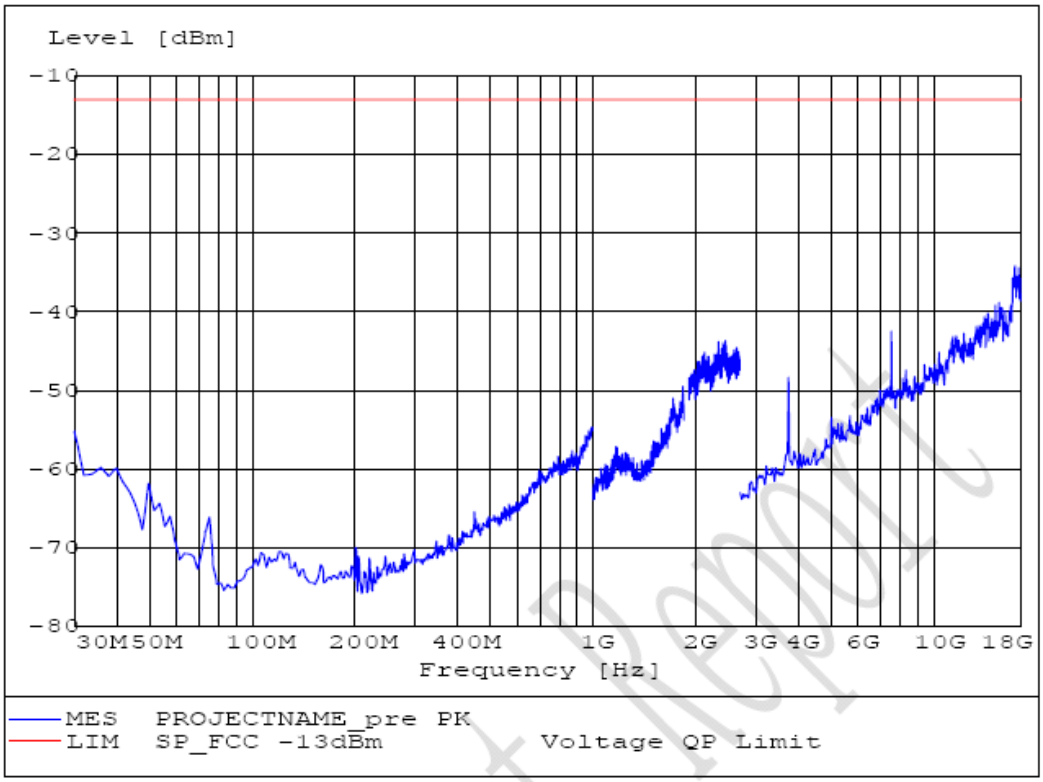
S190HT for GSM mode



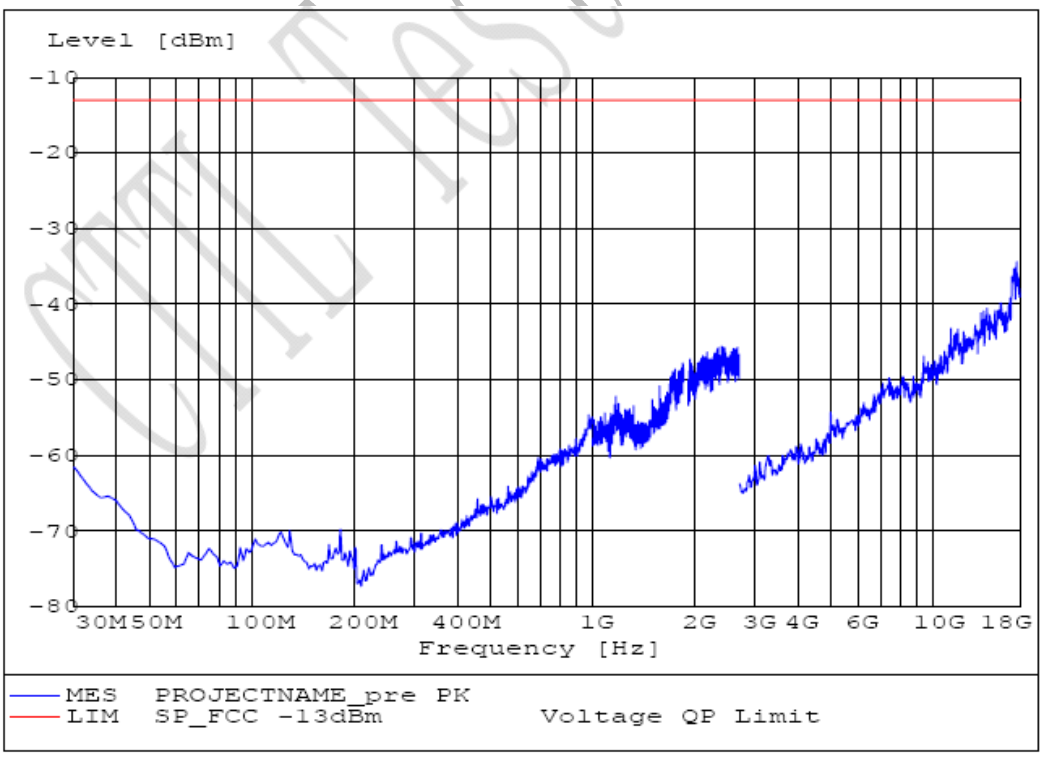
S661VF for GSM mode



S661HF for GSM mode



S661VT for GSM mode



S661HT for GSM mode

4.2 Radiated RF Power Output and ERP

Specifications:	2.1046,24.232,22.913(a)
Date of Tests	2009-05-15
Test conditions:	Ambient Temperature:15 -35 Relative Humidity:30%-60% Air pressure: 86-106kPa
Operation Mode	TX on, channel 128, 190, 251, 512, 661 and 810
Test Results:	Pass

Test equipment Used:

Asset Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State
7805	EMI Test Receiver	R/S	ESI26	100211	2010-01-04	Normal
7330	Ultra Broadband Antenna	R/S	HL562	100013	2010-07-24	Normal
7330	Double-Ridged Horn Antenna	R/S	HF906	100037	2010-01-14	Normal
713	Fully-Anechoic Chamber	ETS	11.8m×6.5m×6.3m	--	2010-11-17	Normal
023	Wireless Communications Test Set	Agilent	8960(E5515C)	GB41450323	2009-06-13	Normal
111835	Wireless Communications Test Set	R&S	CMU200	1100000802	--	Normal

Limit Level Construction:

(a) Radiated RF Power Output

According to Part 24.232(b), i.e., Mobile/portable stations are limited to 2 watts EIRP peak power and the equipment must employ means to limit the power to the minimum necessary for successful communications, so the limit level is 2 W or 33 dBm.

(b) ERP

According to Part 22.913(a), the ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

Limits for Radiated RF Power Output	
Frequency range	**Limit Level (EIRP) / Resolution Bandwidth**
TX channel	33dBm/1MHz
Limits for ERP	
Frequency range	**Limit Level (ERP)**
TX channel	7W

Test Setup:

The EUT was set in an anechoic chamber, which is connected to the Wireless Communications Test Set located outside the chamber over the air. The test was done using an automated test system, where all test equipments were controlled by a computer.

Test Method

The measurement was performed accordance with section 2.2.17 of ANSI/TIA-603-B-2002: *Land Mobile FM or PM Communications Equipment Measurement and Performance Standards*.

1 The maximum power was searched by turning the azimuth of the turntable, shifting the polarization of the measuring antenna and changing the pose of the EUT.

2 The measured levels are EIRP values corrected in the automated test system with the correction factors given by a substitution calibration made before the measurement. The calibration is made separately for vertical and horizontal polarization and the system uses different correction factors depending on the measuring antenna polarization.

3 The corrected maximum levels were reported for EIRP values, and ERP values can be calculated from EIRP values.

Note:

ERP dBm = EIRP dBm – 2.15dB.

ERP Value for GSM 850 band mode:

ARFCN	Frequency [MHz]	ERP [dBm]
128	824.128	26.28
190	836.553	25.59
251	848.877	24.99

EIRP Value for GSM 1900 band mode:

ARFCN	Frequency [MHz]	EIRP [dBm]
512	1850.100	28.63
661	1880.080	27.83
810	1909.899	29.80

Annex A External Photos

Front view with clip colse

Front view with clip open

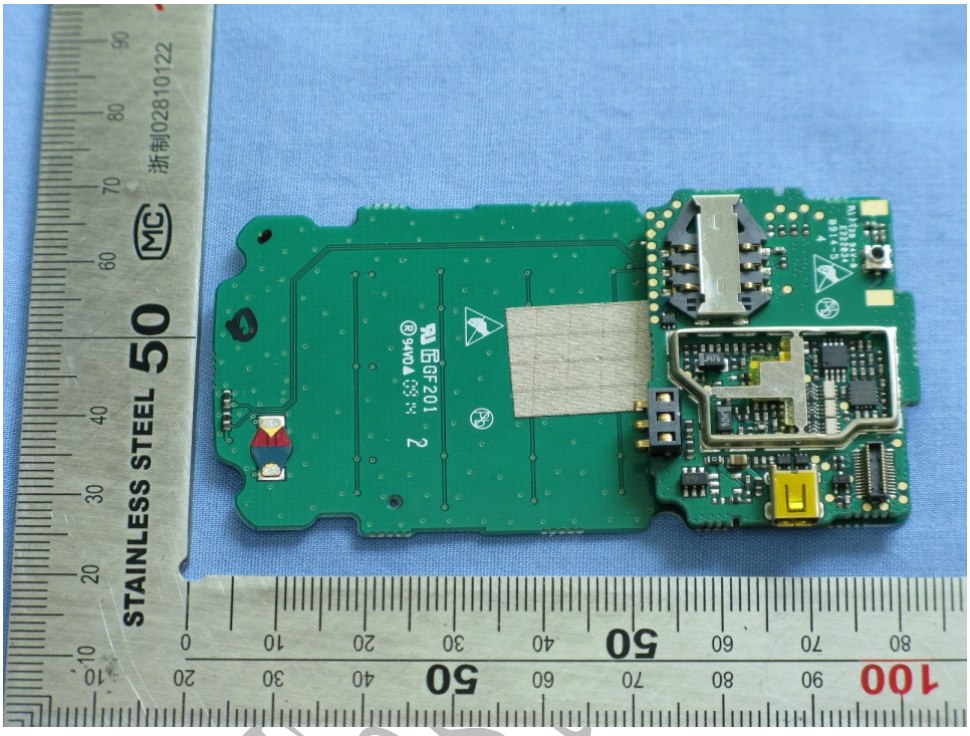
Back view

Adaptor

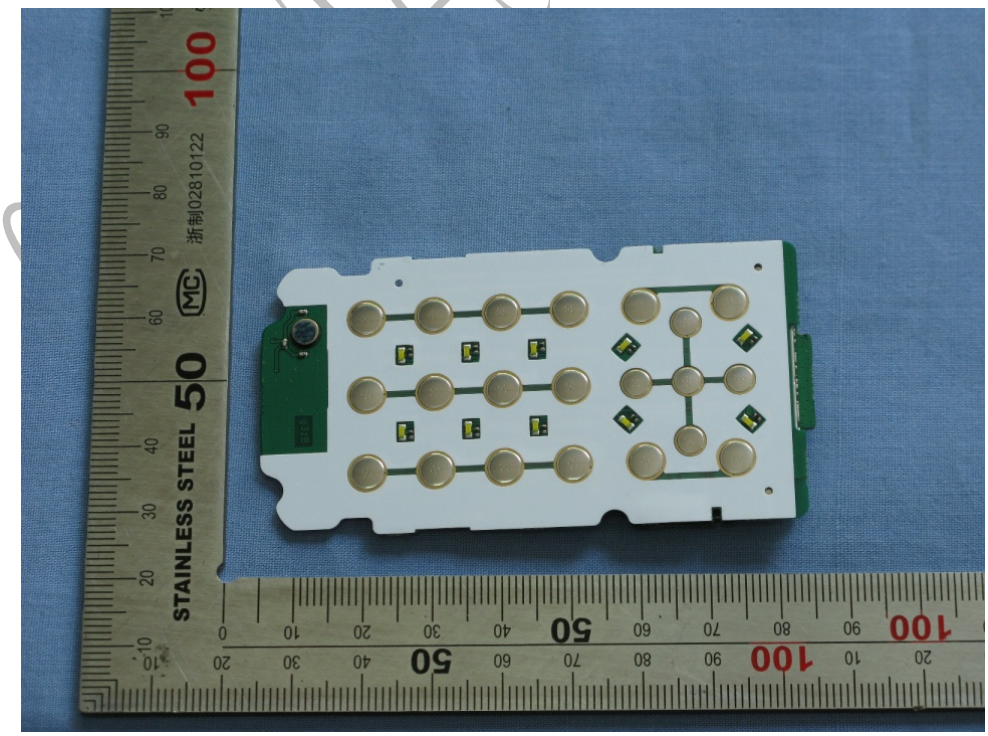
Battery

Earphone

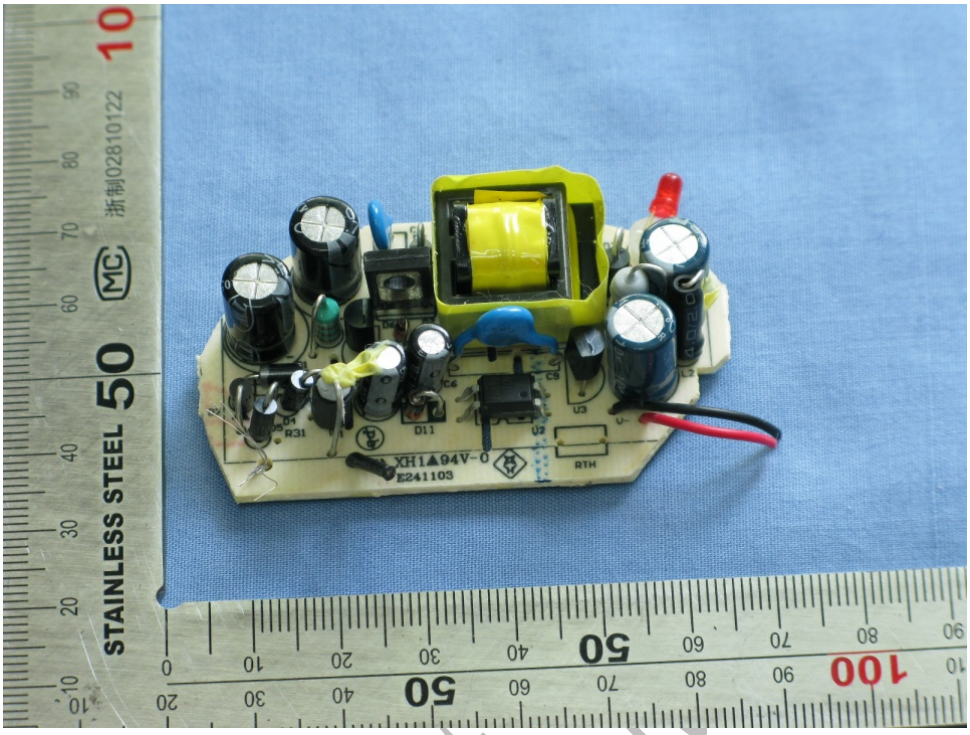
Annex B Internal Photos



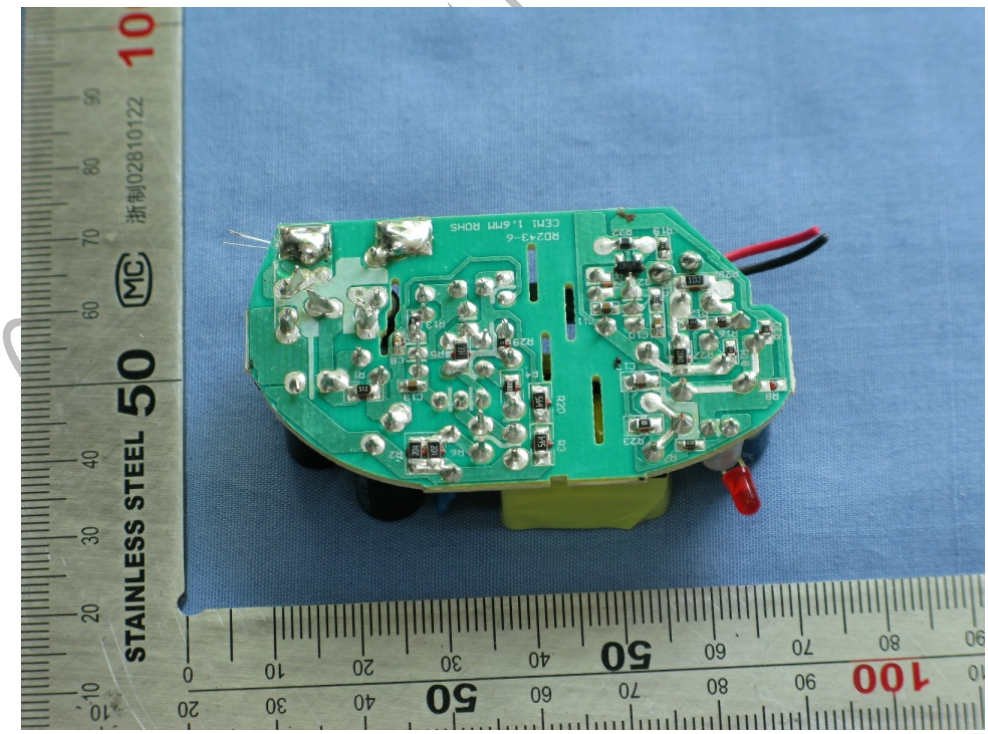
Main board (face)



Main borar (back)



Adaptor main board face



Adaptor main board back

ANNEX C Deviations from Prescribed Test Methods

No deviation from Prescribed Test Methods.

The End of this Report