

# **TEST REPORT**

REPORT NUMBER: 108GC5561-FCC-EMC

# ON

Type of Equipment: GSM/GPRS Mobile phone

Type of Designation: MEGA4

Manufacturer:

Ezze Mobile Tech

## 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 (Oct 1, 02 Edition)

China Telecommunication Technology Labs.

Month date, year June, 18, 2008

Signature

He Guili Director



FCC Parts 2, 22
Equipment: MEGA4
REPORT NO.: 108GC5561-FCC-EMC

FCC ID: RV2MEGA4

**Report Date:** 2008-06-18

**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 and 22. The sample tested was found to comply with the requirements defined in the applied rules.



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FCC Parts 2, 22
Equipment: MEGA4
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### 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 and 22.

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.

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### 1.2 Testers

Name:

Lv Ke

Position:

Engineer

Department:

Department of EMC test

Signature:

冯克」

Name:

Li Guoging

Position:

Engineer

Department:

Department of EMC test

Signature:

美国庆

Name:

Li Dongjin

Position:

Engineer

Department:

Department of EMC test

Signature:

进

Editor of this test report:

Name:

Li Guoging

Position:

Engineer

Department:

Department of EMC test

Date:

2008-06-18

Signature:

上国庆

Technical responsibility for area of testing:

Name:

Zou Dongyi

Position:

Manager

Department:

Department of EMC test

Date:

2008-06-18

Signature:

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# 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: <a href="mailto:emc@chinattl.com">emc@chinattl.com</a>

#### 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: -----



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Equipment: MEGA4
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# 1.4 Details of applicant or manufacturer

### 1.4.1 Applicant

Name: Ezze Mobile Tech

Address: 1F, Bubmusa Bldg., 151-31,

Nonhyun-dong, Kangnam-ku, Seoul

Country: Korea

Telephone: 82-2-519-7805

Fax: 82-2-519-7882

Contact: Anny

Telephone: 82-10-9265-2189

Email: eosahn@ezzemobile.com

1.4.2 Manufacturer (if different from applicant in section 1.4.1)

Name: --

Address: --

1.4.3 Manufactory (if different from applicant in section 1.4.1)

Name: Ezze Mobile Tech

Address: 608 BL 17-1 LT, 633-6, Seonggok-Dong,

Danwon-Gu, Ansan-City, Gyeonggi-Do (425-833)



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Equipment: MEGA4
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## 2 Test Item

### 2.1 General Information

Manufacturer: Ezze Mobile Tech

Name: GSM/GPRS Mobile phone

Model Number: MEGA4

Serial Number: --

Production Status: Product
Receipt date of test item: 2008-5-12

### 2.2 Outline of EUT

E.U.T. is a GSM/GPRS Mobile phone. The 1900 band had been tested and the report no. is I08GE5152-FCC-EMC. During the application of this time, only 850 band has 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	Туре	Serial No.	Remarks
Α	handset	Ezze Mobile Tech	MEGA4		None
В	adapter	Yu Feng	USB Type		None
С	battery	Zhi-in	Li-ion		None
D. Farskana Bigh eter		Wire		None	
D	D Earphone Rich star		Type(stereo)		None

### Cables:

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



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## 2.5 Other Information

(a) Modulation is GMSK.

(b) Emission Designator is 277KGXW.

(c) Version of hardware and software

HW Version: V 0.1

SW Version: V 0.1

(d) Adaptor Information:

Input: 100-240VAC 50-60Hz

Output: 5.0Vdc, 1.0A

(e) Battery Information:

3.7VDC 750mAh



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# 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	
2.1053,22.917	Radiated Spurious Emission	Pass	
22.359	Effective Radiated Power (ERP)	Pass	
2.1049,22.917(b)	Occupied Bandwidth	*Note 1	
2.1055,22.355	Frequency Stability over Temperature Variation	Pass	
2.1055,22.355	Frequency Stability over Voltage Variation	Pass	
2.1046,22.913(a)	Conducted RF Power Output	Pass	
2.1051,22.917	Conducted spurious emissions	Pass	
Note 1: No applicable performance criteria.			

GPRS mode:				
2.1051, 24.238,	Dadiated Spurious Emission	Pass		
2.1053,22.917	Radiated Spurious Emission	Pd55		
22.359	Effective Radiated Power (ERP)	Pass		
2.1049,22.917(b)	Occupied Bandwidth	*Note 2		
2.1055,22.355	Frequency Stability over Temperature Variation	Pass		
2.1055,22.355	Frequency Stability over Voltage Variation	Pass		
2.1046,22.913(a)	Conducted RF Power Output	Pass		
2.1051,22.917	Conducted spurious emissions	Pass		
Note 2: No applicable performance criteria.				



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## 4 Test Results of mode

# 4.1 Radiated Spurious Emission

Specifi	cations:	2.1053, 22.917				
Date o	f Tests	2008-06-14				
Test co	onditions:	Ambient Te	emperature: 15°C	C-35℃		
		Relative Hu	umidity: 30%-60	1%		
		Air pressur	e: 86-106kPa			
Operat	ion Mode	TX on, cha	nnel 190			
Test Re	esults:	Pass			X	
Test ed	quipment Use	d:			P 1	
Asset Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State
7805	EMI Test Receiver	R/S	ESI26	100211	2009-01-03	Normal
7330	Ultra Broadband Antenna	R/S	HL562	100013	2008-07-24	Normal
7330	Double-Ridged Horn Antenna	R/S	HF906	100037	2009-01-14	Normal
713	Fully-Anechoic Chamber	ETS	11.8m×6.5m×6.3 m		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 22.917, 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.



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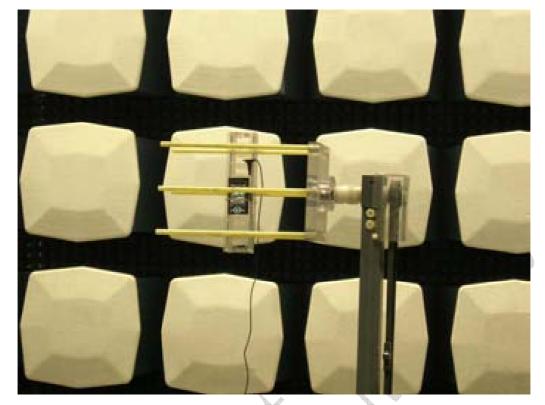


Figure SP

#### **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.

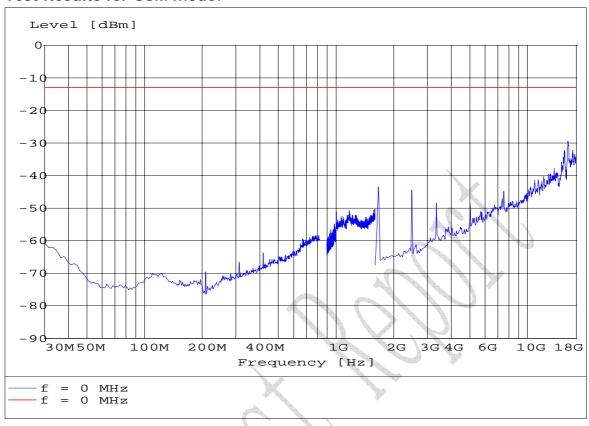
#### Note:

- 1 The investigated ARFCNs are 190 (836.6 MHz).
- 2 The investigated frequency range is 30 MHz ~ 18 GHz.

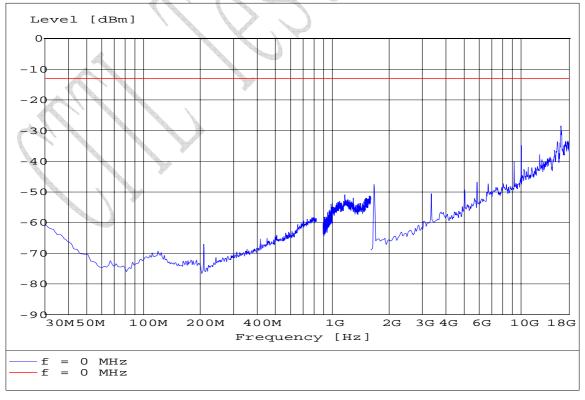


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Equipment: MEGA4
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### **Test Results for GSM mode:**



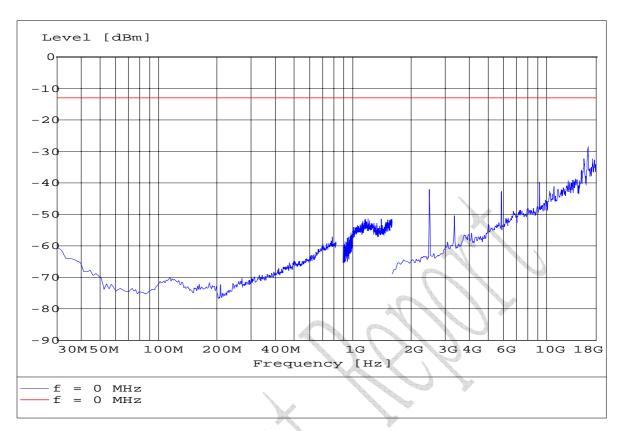
## S190VF for GSM mode



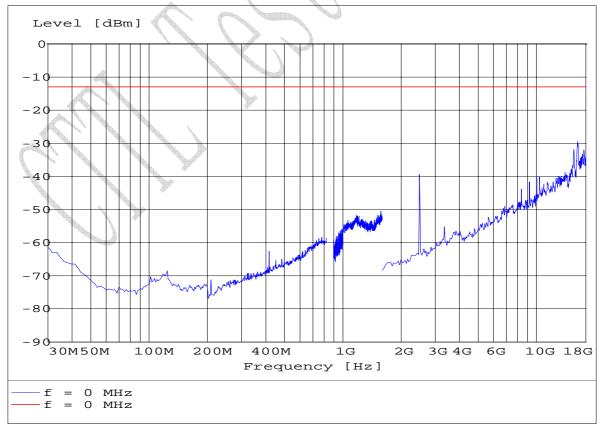
S190HF for GSM mode



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## S190VT for GSM mode

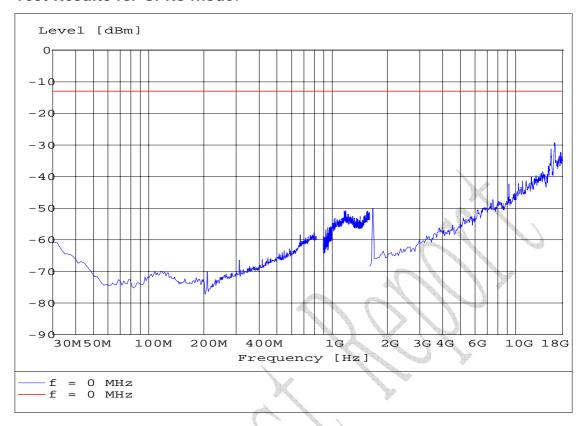


### S190HT for GSM mode



FCC Parts 2, 22
Equipment: MEGA4
REPORT NO.: I08GC5561-FCC-EMC

### Test Results for GPRS mode:



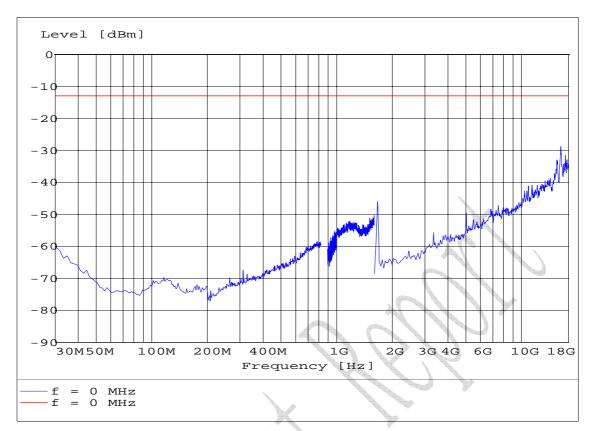
## S190VF for GPRS mode



S190HF for GPRS mode



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## S190VT for GPRS mode



S190HT for GPRS mode



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# 4.2 Effective Radiated Power (ERP)

Specifications:	22.359		
Date of Tests	2008-06-04		
Test conditions:	Ambient Temperature: 15°C-35°C		
	Relative Humidity: 30%-60%		
	Air pressure: 86-106kPa		
Operation Mode	TX on, channel 128, 190, 251		
Test Results:	Pass		

### Test equipment Used:

Tost oddipmont osod.						
Asset Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State
7805	EMI Test Receiver	R/S	ESI26	100211	2009-01-04	Normal
7330	Ultra Broadband Antenna	R/S	HL562	100013	2008-07-24	Normal
7330	Double-Ridged Horn Antenna	R/S	HF906	100037	2009-01-14	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			



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# 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:

ADECN	Frequency	ERP
ARFCN	[MHz]	[dBm]
128	824.228457	22.51
190	836.653307	20.69
251	848.777555	17.77

# ERP Value for GPRS 850 band mode:

ADECN	Frequency	EIRP
ARFCN	[MHz]	[dBm]
512	824.128257	19.36
661	836.653307	20.60
810	848.877755	17.62



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# 4.3 Occupied bandwidth

Specifications:	2.1049,22.917(b)
Date of Test	2008-06-13
Test conditions:	Ambient Temperature: $15^{\circ}$ C - $35^{\circ}$ C
	Relative Humidity: 30%-60%
	Air pressure: 86-106kPa
Operation Mode	TX on, channel 128, 190, 251
Test Results:	
Toot og vinne opt Hood	

#### Test equipment Used:

1 CSt Cq	rest equipment osed.					
Asset Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State
7805	EMI Test Receiver	R/S	ESI26	100211	2009-01-03	Normal
7330	Ultra Broadband Antenna	R/S	HL562	100013	2008-07-24	Normal
7330	Double-Ridged Horn Antenna	R/S	HF906	100037	2009-01-14	Normal
713	Fully-Anechoic Chamber	ETS	11.8m×6.5m×6.3 m		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

# Test Setup

The situation under which maximum EIRP values were found in the measurement of the radiated RF power output was used to determine the 99% occupied bandwidth. The Wireless Communications Test Set was used to set the TX channel, power level and modulation.

## Test Method

The 99% occupied bandwidth was calculated form the spectrum analyzer. Markers in the spectrum analyzer were then placed between the calculated frequencies to show the calculated 99% power band.

Note: --

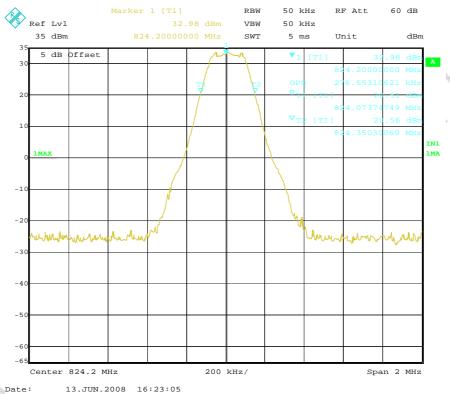


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# Results data of GSM mode:

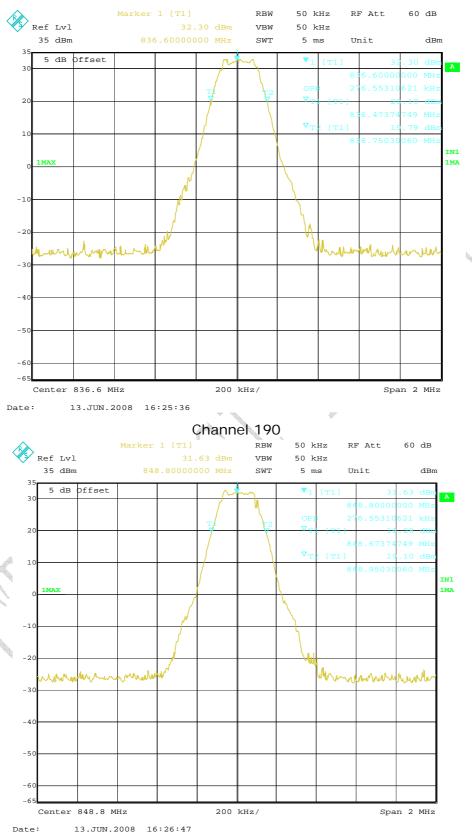
EUT channel	99% occupied bandwidth [kHz]
128	277
190	277
251	277

## Graphical results for GSM mode:



Channel 128





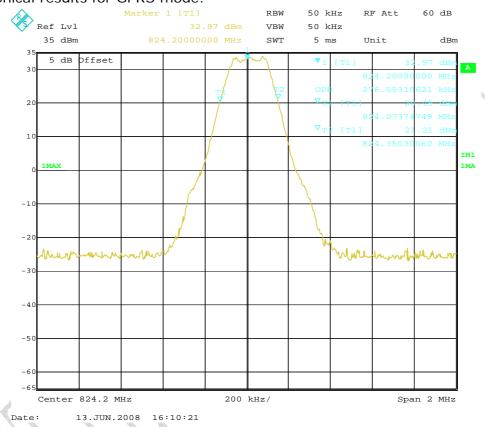


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# Results data of GPRS mode:

EUT channel	99% occupied bandwidth [kHz]
128	277
190	277
251	277

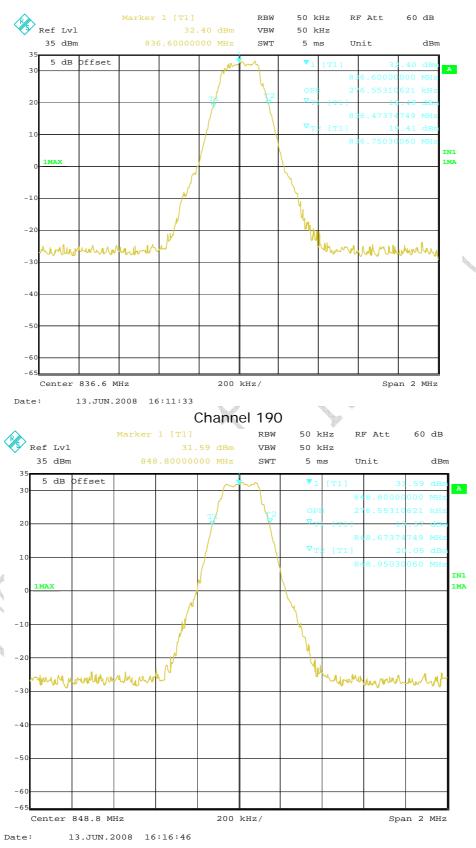
# Graphical results for GPRS mode:



Channel 128



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Channel 251



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Equipment: MEGA4
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# 4.4 Frequency Stability over Temperature Variation

Specific	cations:	2.1055,22.355				
Date of	Test	2008-06-13	2008-06-13			
Test co	nditions:	Ambient Tem	perature: -30℃	-50℃		
		Relative Hum	nidity: 30%-60%	6		
		Air pressure:	86-106kPa			
Operati	on Mode	TX on, chann	nel 190			
Test Re	sults:	Pass				
Test eq	uipment Use	ed:			X	
Asset	B			Serial Number		Ch. L
Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State
023	Wireless Communication s Test Set	Agilent	8960(E5515C)	GB41450323	2009-06-13	Normal
561	Temperature Chamber	Terchy Environmental Technology LTD.	MHU-800SR	84121202	2009-05-06	Normal
111835	Wireless Communication s Test Set	R&S	CMU200	1100000802		Normal
Limit	Limit					
•	Frequency deviation [ppm] ±2.5					

# Test Setup

The EUT was placed in a temperature chamber, demonstrated as figure T. The wireless communications test set (test simulator) was used to set the TX channel and power levels, modulate the TX signal with different bit patterns and measure the frequency of TX.

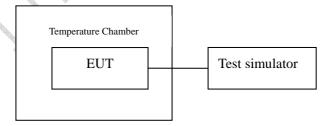


Figure T: setup for measurement of frequency stability over temperature variation



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Equipment: MEGA4
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# Test Method

- 1. The EUT was turned off and placed in the temperature chamber.
- 3. The EUT temperature was allowed to stabilize for 45 minutes.
- 4. The EUT was turned on and set to transmit with 8960.
- 5. The maximum transmit frequency deviation during one minute period was measured by Wireless Communications Test Set.
- 6. The steps 3-5 were repeated for -20°C, -10°C, 0°C, 10°C, 20°C, 30°C, 40°C and 50°C.

# Test results data for GSM mode:

#### Channel 190:

Temperature[°C]	Deviation[Hz]	Deviation[ppm]	Remarks
-30	15	0.018	Pass
-20	12	0.014	Pass
-10	14	0.017	Pass
0	11	0.013	Pass
10	9	0.011	Pass
20	14	0.017	Pass
30	11	0.013	Pass
40	15	0.018	Pass
50	17	0.020	Pass

# Test results data for GPRS mode:

## Channel 190:

Temperature[°C]	Deviation[Hz]	Deviation[ppm]	Remarks
-30	10	0.012	Pass
-20	13	0.016	Pass
-10	. 16	0.019	Pass
0	10	0.012	Pass
10	17	0.020	Pass
20	13	0.016	Pass
30	14	0.017	Pass
40	17	0.020	Pass
50	16	0.019	Pass



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# 4.5 Frequency Stability over Voltage Variation

Specific	cations:	2.1055,22.3	2.1055,22.355			
Date of	Test	2008-06-13				
Test co	nditions:	Ambient Tem	nperature: 15℃-	-35℃		
		Relative Hum	nidity: 30%-60%	6		
		Air pressure:	86-106kPa			
Operati	ion Mode	TX on, chanr	nel 190			
Test Re	sults:	Pass				
Test eq	uipment Use	ed:			X	
Asset	D		Mandal Normalian	Control No.		Q La La
Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State
023	Wireless Communication s Test Set	Agilent	8960(E5515C)	GB41450323	2009-06-13	Normal
111835	Wireless Communication s Test Set	R&S	CMU200	1100000802		Normal
7982	DC Power Source	4NIC	DH1715A-3	004224		Normal
Limit			X			
•	ncy deviation [ppm]		4	±2.5		

# Test Setup

The EUT was placed in a shielding chamber and powered by the dummy battery which is connected to a DC power source, demonstrated as figure V. The wireless communications test set was used to set the TX channel and power level, modulate the TX signal with different bit patterns and measure the frequency of TX.

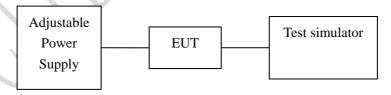


Figure V: test setup for measurement of frequency stability over voltage variation



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# Test Results data for GSM mode:

### Channel 190:

Level	Voltage[V]	Deviation[Hz]	Deviation[ppm]	Remarks
Nominal	3.7	9	0.011	Pass
Cut-off	3.3	13	0.016	Pass
point	3.3	13	0.016	Pa55

# Test Results data for GPRS mode:

### Channel 190:

Level	Voltage[V]	Deviation[Hz]	Deviation[ppm]	Remarks
Nominal	3.7	10	0.012	Pass
Cut-off	2.2	11	0.013	Door
point	3.3	11	0.013	Pass



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# 4.6 Conducted RF Power Output

			•				
Specifi	cations:	2.1046,22.	2.1046,22.913(a)				
Date o	f Tests	2008-06-1	3				
Test co	onditions:	Ambient Te	mperature: 15	°C-35°C			
		Relative Hu	ımidity: 30%-6	50%			
		Air pressur	e: 86-106kPa				
Operat	ion Mode	TX on, cha	nnel 128, 190	, 251			
Test R	esults:	Pass					
Test ed	quipment Use	d:			X		
Asset Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State	
7805	EMI Test Receiver	R/S	ESI26	100211	2009-01-04	Normal	
023	Wireless Communications Test Set	Agilent	8960(E5515C)	GB41450323	2009-06-13	Normal	
	Power spliter	Jie sai		1000132	2009-01-04	Normal	
111835	Wireless Communications Test Set	R&S	CMU200	1100000802		Normal	

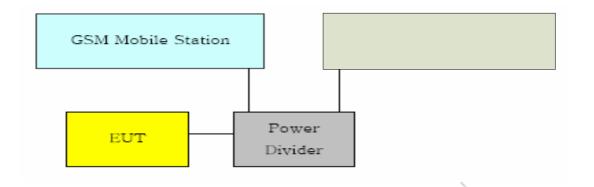
Limits for Radiated RF	Limits for Radiated RF Power Output			
Frequency range	Limit Level (EIRP)/Resolution Bandwidth			
TX channel	33dBm/1MHz			
Limits for ERP				
Frequency range	Limit Level (ERP)			
TX channel	7W			

# Test Setup:

During the process of testing, the EUT was controlled via the Wireless Communications Test Set to ensure max power transmission and proper modulation and measured by Rhode & Schwarz EMI test receiver (ESI26).



REPORT NO.: I08GC5561-FCC-EMC



## Test Method

- 1) The EUT was coupled to the EMI test receiver analyzer mode and the base station simulator through a power divider. The radio frequency load attached to the EUT antenna terminal was 50 Ohm. The lost of the cables the test system is calibrated to correct the readings.
- 2) The spectrum analyzer was set to Maxpeak Detector function and Maximum hold mode.
- 3) The resolution bandwidth of the spectrum analyzer was comparable to the emission bandwidth.

Note: --

# Test Results for GSM mode:

ERP Value for GSM 850 band:

ADECN	Peak output power	
ARFCN	[dBm]	
128	31.16	
190	30.45	
251	29.97	

# Test Results for GPRS mode:

ERP Value for GPRS 850 band:

ARFCN	Peak output power	
ARFCIN	[dBm]	
128	31.06	
190	30.43	
251	30.02	



Normal

FCC Parts 2, 22 Equipment: MEGA4

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# 4.7 Conducted Spurious Emission

Specifi	cations:	2.1051,22.917				
Date o	f Tests	2008-06-13				
Test co	onditions:	Ambient Temperature: 15°C-35°C				
		Relative Humidity: 30%-60%				
		Air pressure: 86-106kPa				
Operat	ion Mode	TX on, channel 190				
Test R	esults:	Pass				
Test ed	Test equipment Used:					
Asset Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State
7805	EMI Test Receiver	R/S	ESI26	100211	2009-01-04	Normal
023	Wireless Communications Test Set	Agilent	8960(E5515C)	GB41450323	2009-06-13	Normal
	Power spliter	Jie sai		1000132	2009-01-04	Normal
	Wireless					

#### **Limit Level Construction:**

Communications

Test Set

R&S

111835

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

CMU200

1100000802

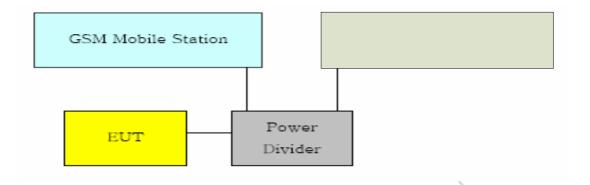
Limits for Radiated spurious emissions(UE)		
Frequency range	Limit Level /Resolution Bandwidth	
30 MHz to 20000 MHz	-13dBm/1MHz	

# Test Setup:

During the process of testing, the EUT was controlled via Wireless Communications Test Set to ensure max power transmission and proper modulation and measured by Rhode & Schwarz EMI test receiver (ESI26)



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## Test Method

The measurement was performed accordance with section 2.2.13 of ANSI/TIA-603-B-2002: Land Mobile FM or PM Communications Equipment Measurement and Performance Standards.

The following steps outline the procedure used to measure the conducted emissions from the EUT.

- 1. Determine frequency range for measurements: From CFR 2.1057 the spectrum should be investigated from the lowest radio frequency generated in the equipment up to at least the 10th harmonic of the carrier frequency. For the equipment under test, this equates to a frequency range of 30 MHz to 19.1 GHz, data taken from 30 MHz to 20 GHz.
- 2. Determine EUT transmit frequencies: below outlines the band edge frequencies pertinent to conducted emissions testing.

Note: --

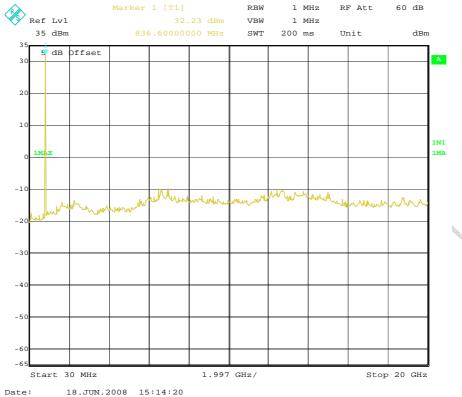
# **Test Results for GSM mode:**

Out of band emission	
Frequency	Level
[MHz]	(dBm)
-2	



#### REPORT NO.: I08GC5561-FCC-EMC

## **Graphical results for GSM mode:**



Channel 190

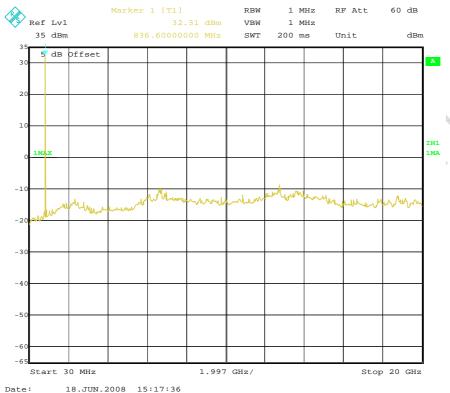


FCC Parts 2, 22
Equipment: MEGA4
REPORT NO.: I08GC5561-FCC-EMC

### Test Results for GPRS mode:

Out of band emission	
Frequency	Level
[MHz]	(dBm)
	<del></del>

# **Graphical results for GPRS mode:**



Channel 190



REPORT NO.: I08GC5561-FCC-EMC

2009-06-13

2009-01-04

Normal

Normal

Normal

## 4.8 Band Edge

Specifi	cations:	2.1053, 22.917				
Date o	f Tests	2008-06-13				
Test co	onditions:	Ambient Temperature: $15^{\circ}$ C- $35^{\circ}$ C				
		Relative Humidity: 30%-60%				
		Air pressure: 86-106kPa				
Operat	ion Mode	TX on, channel 128, 251				
Test Re	esults:	Pass				
Test ed	quipment Used	ed:				
Asset Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State
7805	EMI Test Receiver	R/S	ESI26	100211	2009-01-04	Normal
	Wireless			A		

8960(E5515C)

CMU200

GB41450323

1000132

1100000802

### **Limit Level Construction:**

Communications

Test Set

Power spliter

Wireless

Communications

Test Set

Agilent

Jie sai

R&S

023

111835

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

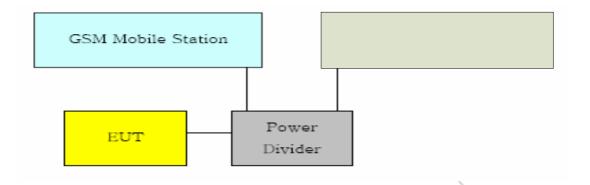
Limits for Radiated spurious emissions(UE)		
Frequency range	Limit Level /Resolution Bandwidth	
30 MHz to 20000 MHz	-13dBm/1MHz	

# Test Setup:

During the process of testing, the EUT was controlled via the Wireless Communications Test Set to ensure max power transmission and proper modulation and measured by Rhode & Schwarz EMI test receiver (ESI26).



REPORT NO.: 108GC5561-FCC-EMC



## Test Method

- 1) The EUT was coupled to the EMI test receiver analyzer mode and the base station simulator through a power divider. The radio frequency load attached to the EUT antenna terminal was 50 Ohm. The lost of the cables the test system is calibrated to correct the readings.
- 2) The spectrum analyzer was set to Maxpeak Detector function and Maximum hold mode.
- 3) The resolution bandwidth of the spectrum analyzer was comparable to the emission bandwidth.

Note: --

## Test Results:

### GSM mode:

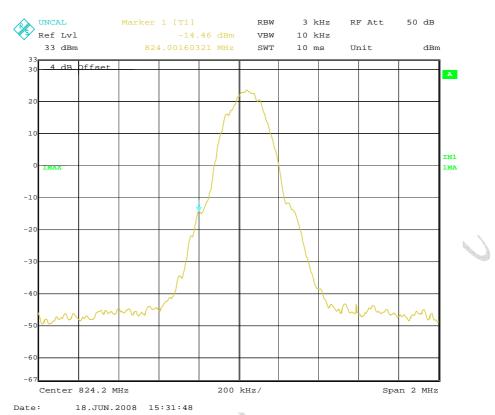
Band-edge emission	•	
EUT Channel	Frequency [MHz]	Level [dBm]
128 Left band edge	824.002	-14.46
251 Right band edge	849.067	-16.20

### **GPRS** mode:

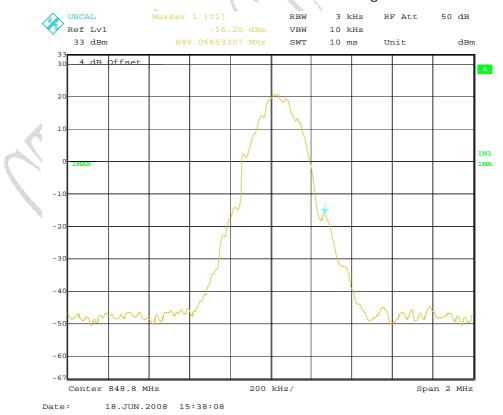
Band-edge emission		
EUT Channel	Frequency [MHz]	Level [dBm]
128 Left band edge	824.002	-14.46
251 Right band edge	849.079	-16.05



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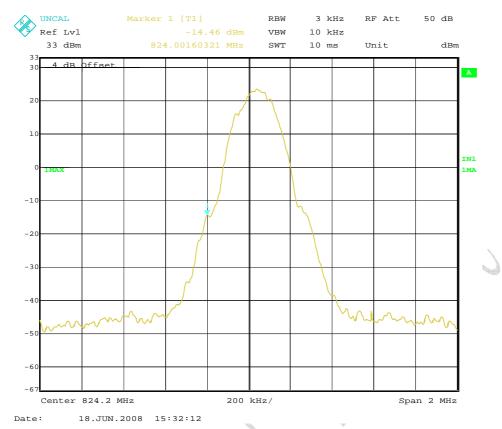
# GSM channel 128 Left band edge



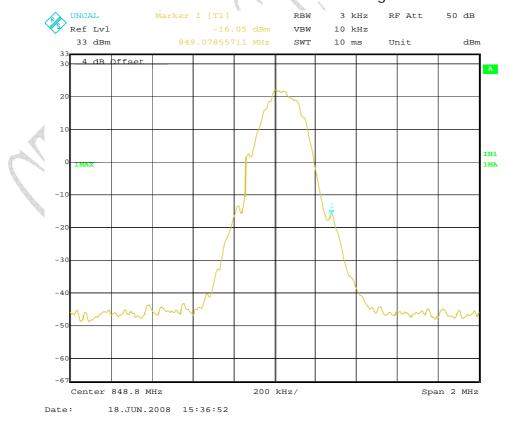
GSM channel 251 Right band edge



#### REPORT NO.: 108GC5561-FCC-EMC



# GPRS channel 128 Left band edge



GPRS channel 251 Right band edge



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# **Annex A External Photos**



Face view



Back view





Adaptor



Headset

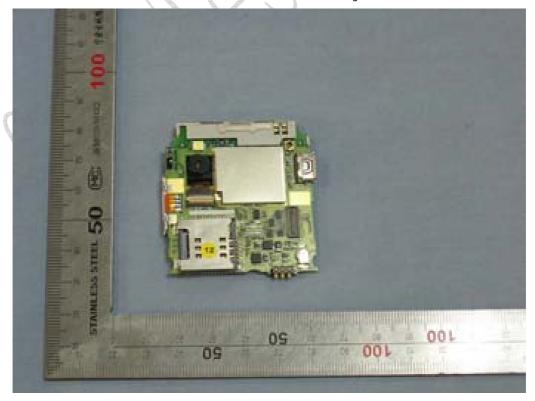


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# **Annex B Internal Photos**

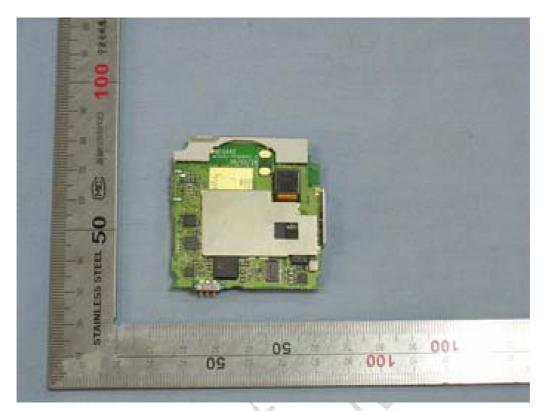


Back view without battery

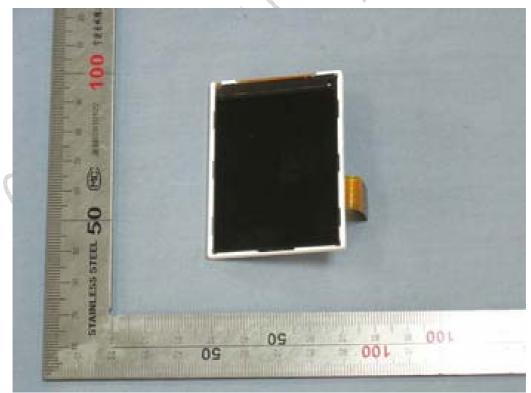


Main board 1(face)



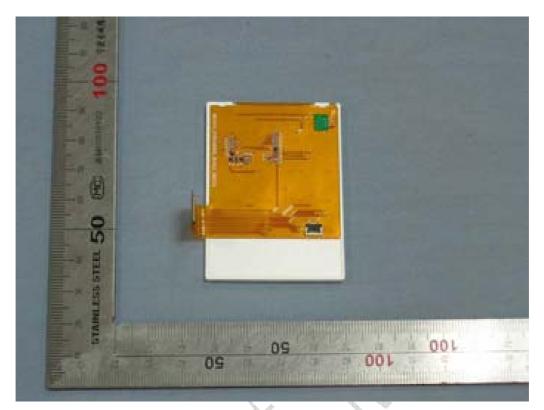


Main borar 1(back)

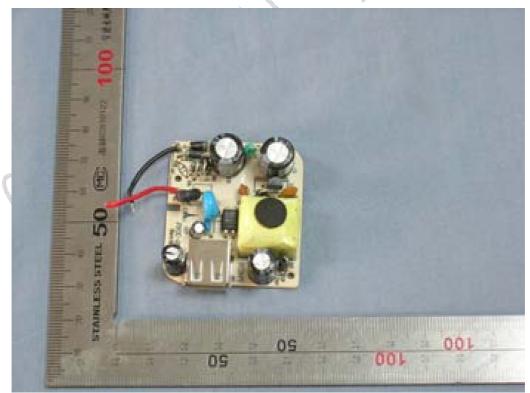


LCD (face)



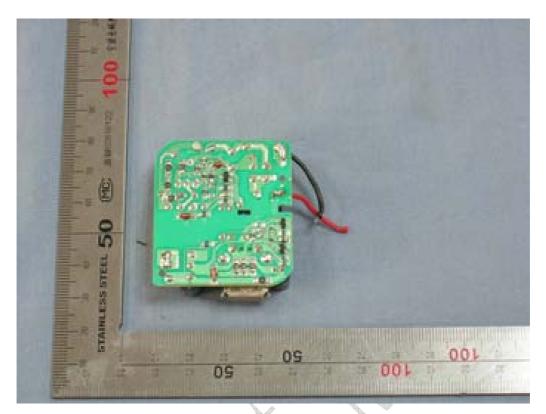


LCD (back)



Adaptor face





Adaptor back



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# **ANNEX C Deviations from Prescribed Test Methods**

No deviation from Prescribed Test Methods.

