

# TEST REPORT

REPORT NUMBER: I08GE5250-FCC-EMC

ON

Type of Equipment: GSM Dual-Band Digital Mobile Phone  
Type of Designation: ZTE A711G  
Manufacturer: ZTE CORPORATION

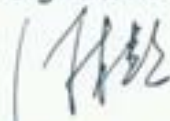
ACCORDING TO

FCC CFR Part 2, FREQUENCY ALLOCATIONS AND RADIO  
TREATY MATTERS; GENERAL RULES AND REGULATIONS;  
e-CFR, March 23, 2006  
PART 22, PUBLIC MOBILE SERVICES (Oct 1, 02 Edition)  
PART 24, PERSONAL COMMUNICATIONS SERVICES (Oct 1, 97  
Edition)

China Telecommunication Technology Labs.

Month date, year  
July, 16, 2008

Signature



He Guili  
Director

**FCC ID:** Q78-ZTEA711G

**Report Date:** 2008-07-16

**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.

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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, 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.

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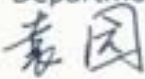
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FCC Parts 2, 22, 24  
Equipment: ZTE A711G

REPORT NO.: I08GE5250-FCC-EMC

## 1.2 Testers

Name: Lv Ke  
Position: Engineer  
Department: Department of EMC test  
Signature: 

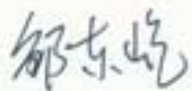
Name: Yuan Yuan  
Position: Engineer  
Department: Department of EMC test  
Signature: 

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: 2008-07-16  
Signature: 

Technical responsibility for area of testing:

Name: Zou Dongyi  
Position: Manager  
Department: Department of EMC test  
Date: 2008-07-16  
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](mailto: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,  
518057, P.R.China

Country: China

Telephone: +86-021-68896840

Fax: +86-21-50701080

Contact: Zhangmin

Telephone: 021-68896835

Email: [Zhang.min13@zte.com.cn](mailto:Zhang.min13@zte.com.cn)

### 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: --

Address: --

## 2 Test Item

### 2.1 General Information

Manufacturer: ZTE CORPORATION  
Name: GSM Dual-Band Digital Mobile Phone  
Model Number: ZTE A711G  
Serial Number: --  
Production Status: Product  
Receipt date of test item: 2008-05-19

### 2.2 Outline of EUT

E.U.T. is a GSM Dual-Band Digital Mobile Device.

### 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 A711G          | --         | None    |
| B    | adapter             | Shenzhen Ruide Electronic Industrial Co.,Ltd    | STC-A22050U8-A     | --         | None    |
| C    | battery             | CosLight/Ruide/BYD/Li shen                      | 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 246KGXW.

(c) Version of hardware and software

HW Version: g3xA

SW Version: EP-BR-P108D2 (G) V1.0.0B08

(d) Adaptor information:

Input: 100-240VAC 50-60Hz 200mA

Output: 5.0V 700mA

(e) Battery information:

3.7VDC 720mA

Test Report

### 3 Summary of Test Results

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

| GPRS mode:                                  |                                                |         |
|---------------------------------------------|------------------------------------------------|---------|
| Specification Clause                        | Name of Test                                   | Result  |
| 2.1051, 24.238,<br>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),<br>24.238(b)              | Occupied Bandwidth                             | *Note 1 |
| 2.1055,22.355,<br>24.235                    | Frequency Stability over Temperature Variation | Pass    |
| 2.1055,22.355,<br>24.235                    | Frequency Stability over Voltage Variation     | Pass    |
| 2.1046,22.913(a),<br>24.232(c)              | Conducted RF Power Output                      | Pass    |
| 2.1051,22.917,24.<br>238                    | Conducted spurious emissions                   | Pass    |
| Note 1: No applicable performance criteria. |                                                |         |

## 4 Test Results of mode

### 4.1 Radiated Spurious Emission

|                      |                                                                                     |              |                  |               |            |        |
|----------------------|-------------------------------------------------------------------------------------|--------------|------------------|---------------|------------|--------|
| Specifications:      | 2.1051, 24.238, 2.1053, 22.917                                                      |              |                  |               |            |        |
| Date of Tests        | 2008-07-04,2008-07-11                                                               |              |                  |               |            |        |
| Test conditions:     | Ambient Temperature:15℃-35℃<br>Relative Humidity:30%-60%<br>Air pressure: 86-106kPa |              |                  |               |            |        |
| Operation Mode       | TX on, channel 190 and 661 for GPRS                                                 |              |                  |               |            |        |
| 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        | 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 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:  
 $P(\text{dBm}) - (43 + 10 \log(P)) \text{ dB} = -13\text{dBm}$

#### 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:**

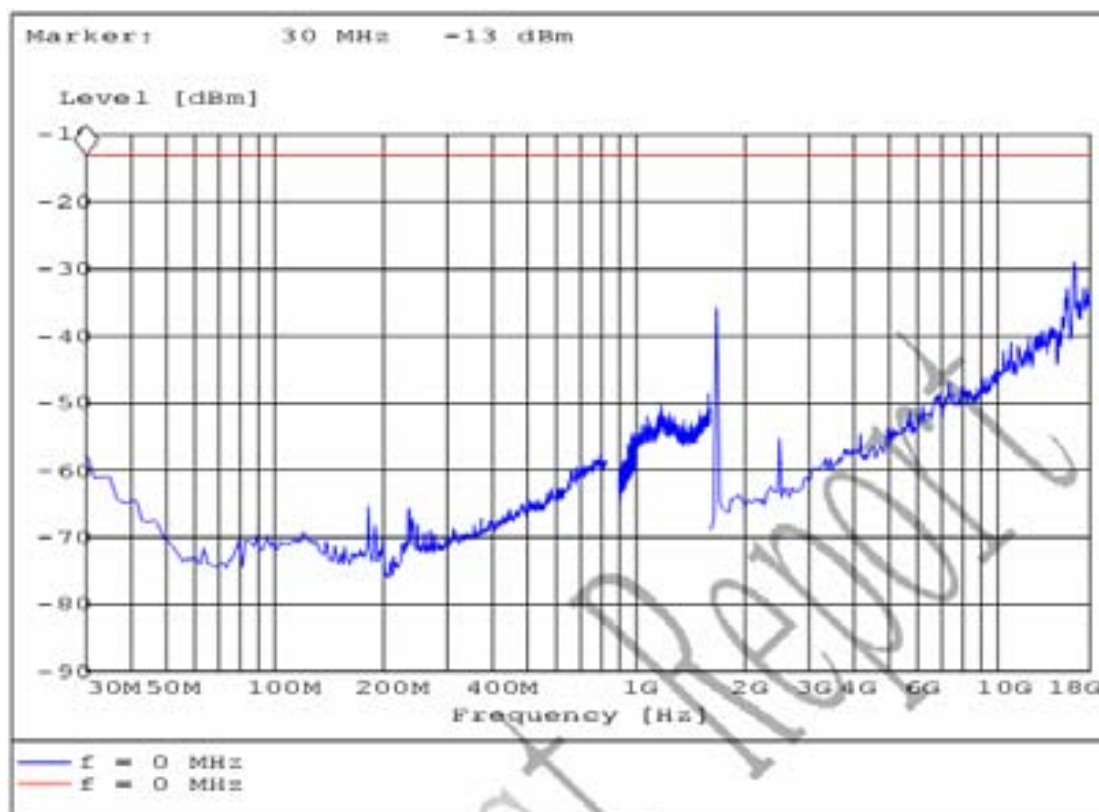
The measurement was performed accordance with section 2.2.12 of ANSI/TIA-603-B-2002: *Land Mobile FM or PM Communications Equipment Measurement and Performance Standards*.

- 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.

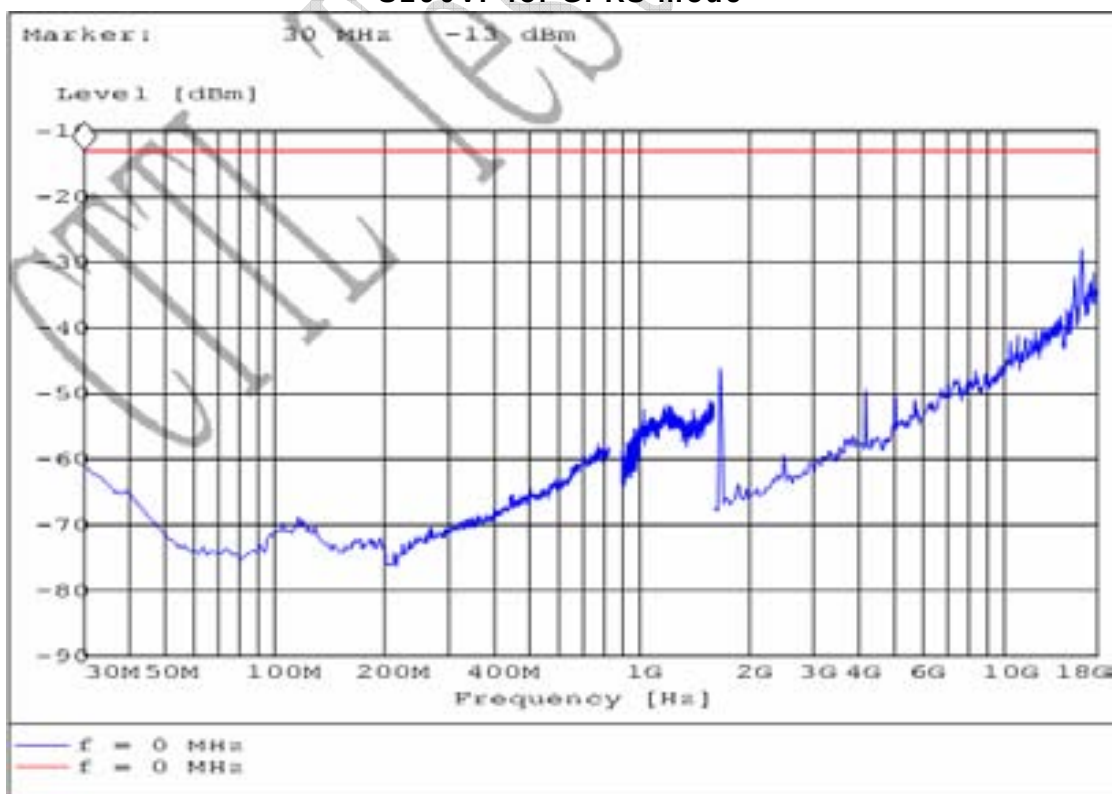
**Note:**

- 1 The investigated ARFCNs are 190 (836.6 MHz) and 661 (1880.0 MHz).
- 2 The investigated frequency range is 30 MHz ~ 18 GHz.

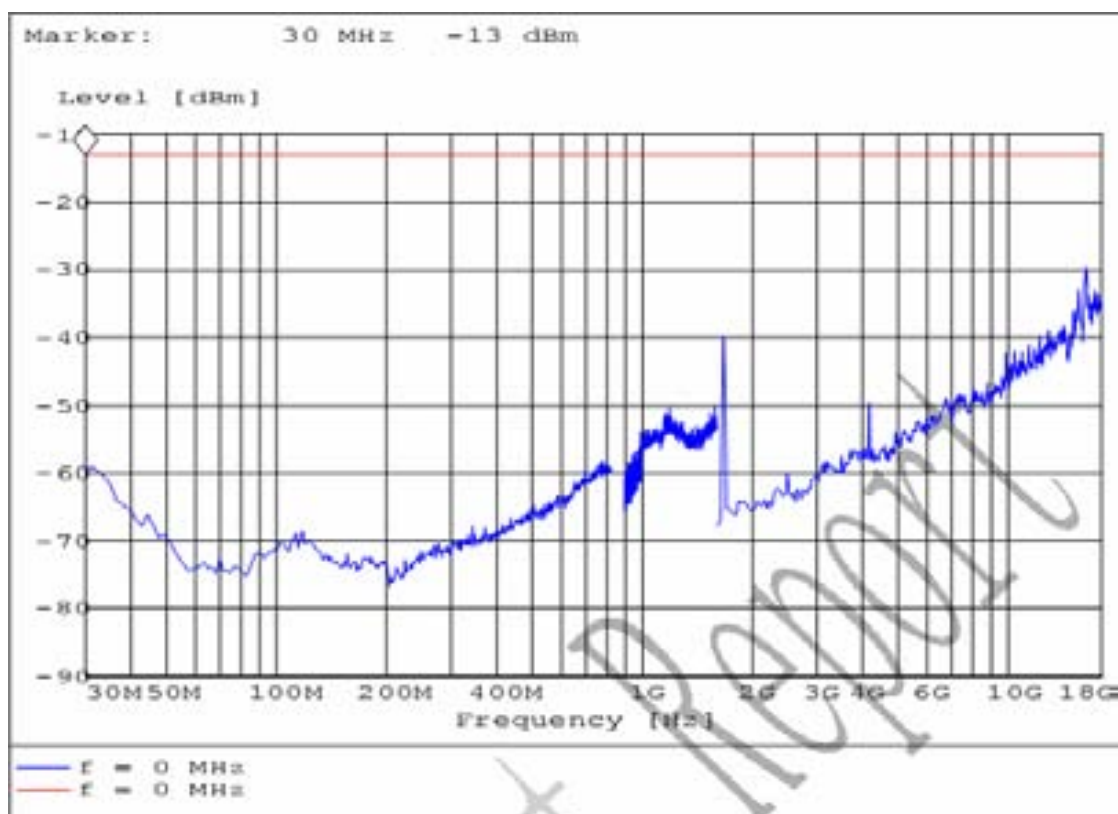
### Test Results for GPRS mode:



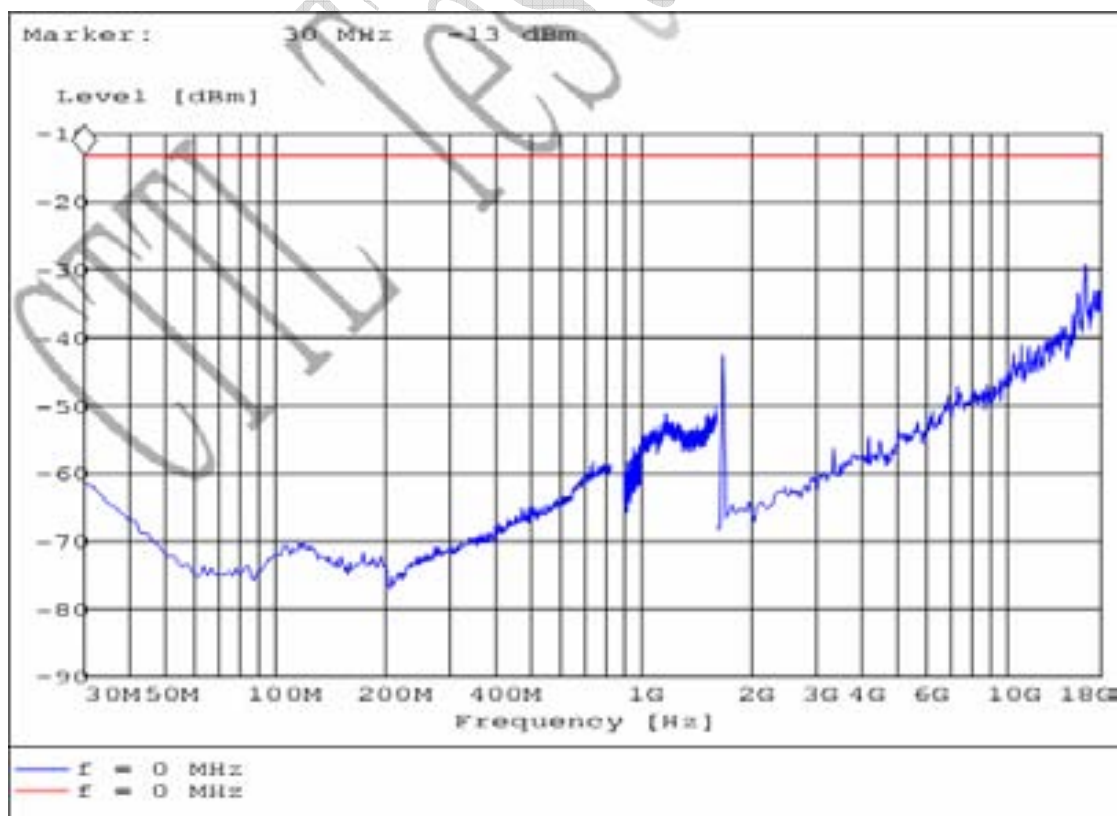
### S190VF for GPRS mode



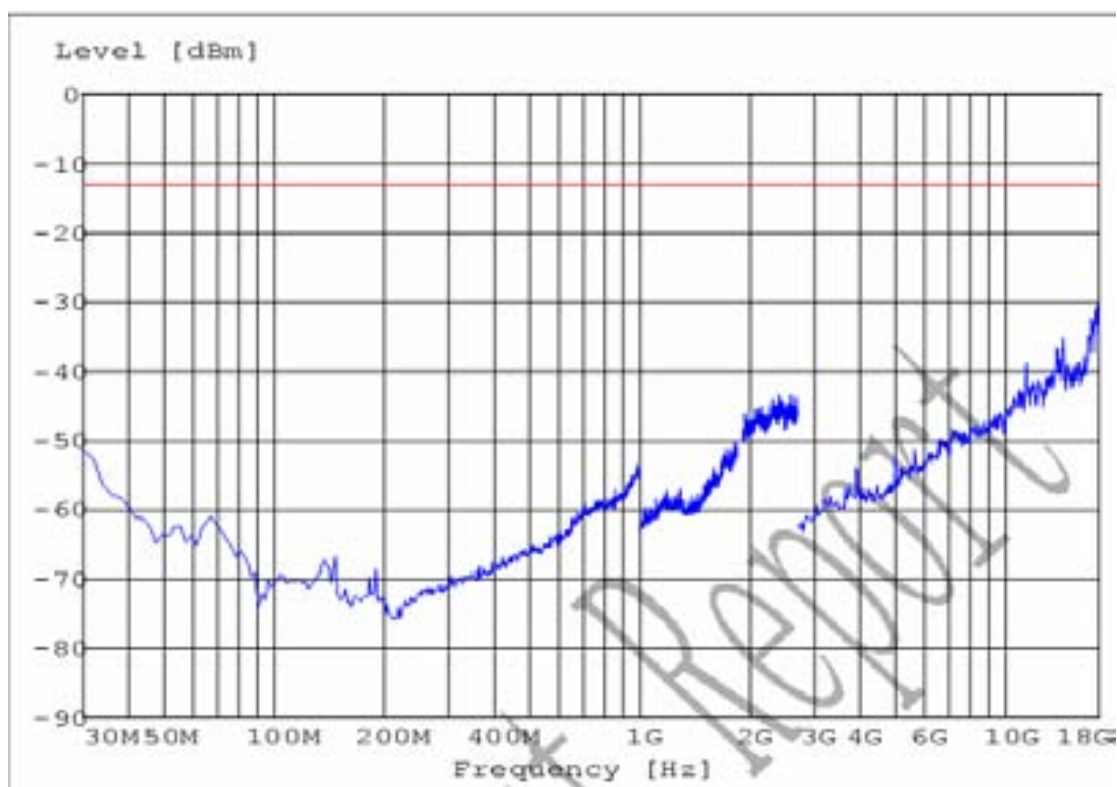
### S190HF for GPRS mode



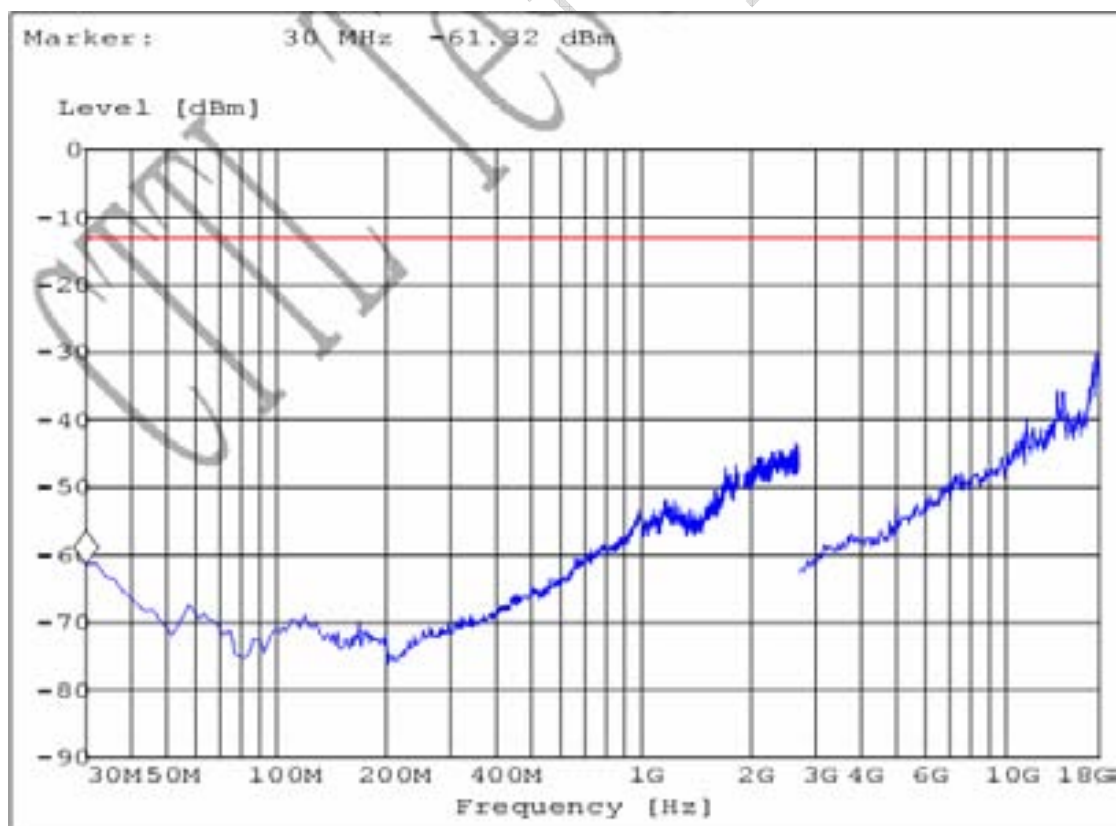
S190VT for GPRS mode



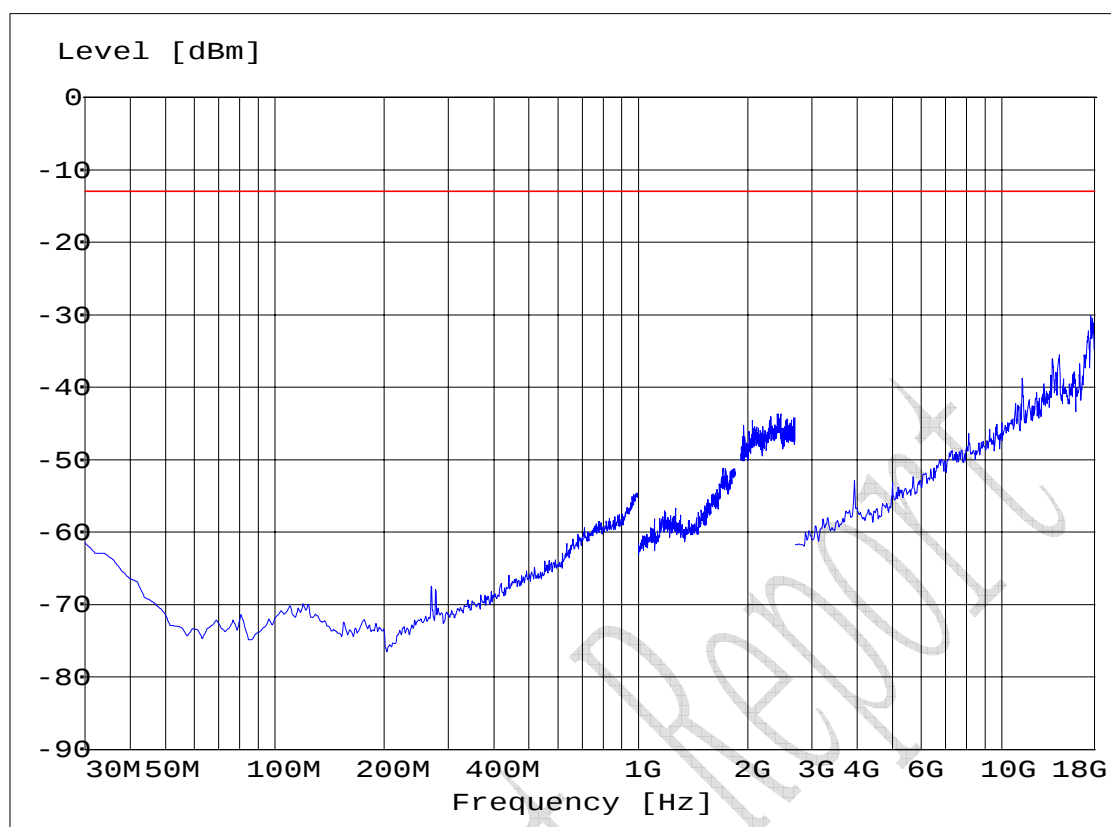
S190HT for GPRS mode



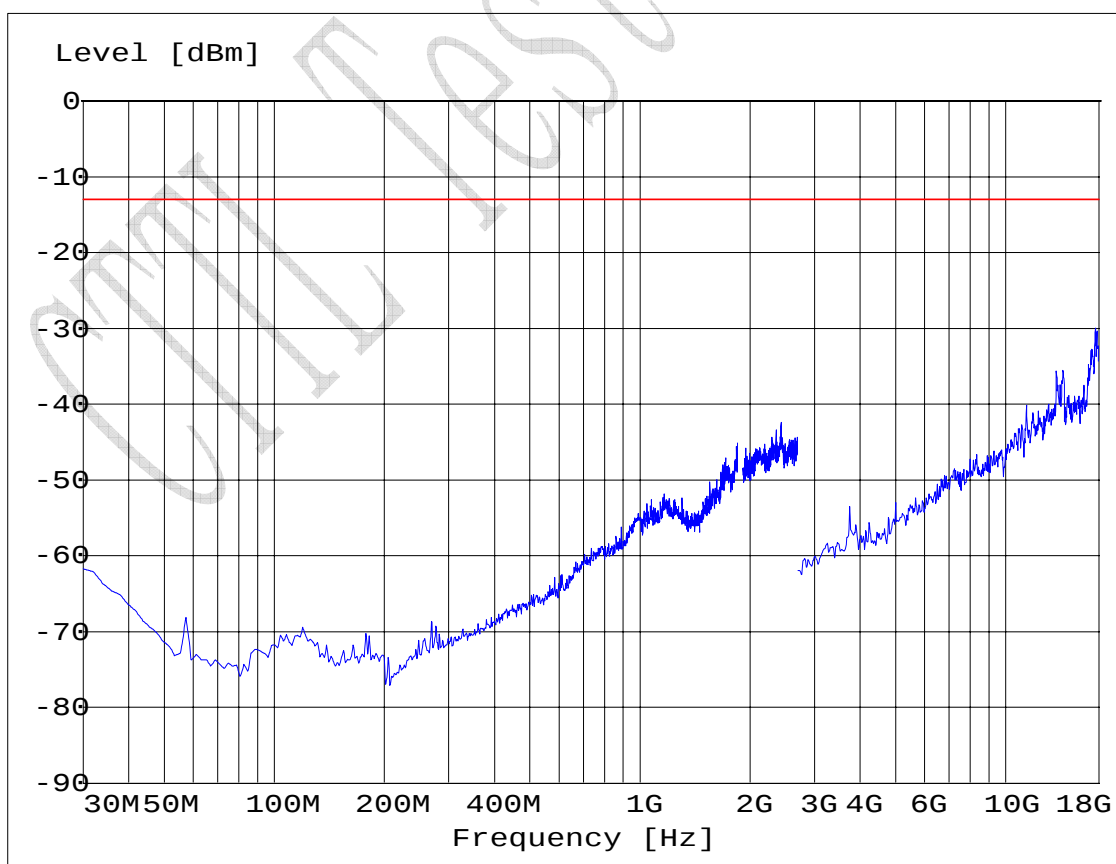
S661VF for GPRS mode



S661HF for GPRS mode



**S661VT for GPRS mode**



**S661HT for GPRS mode**

#### 4.2 Radiated RF Power Output and ERP

|                      |                                                                                     |              |                 |               |            |        |
|----------------------|-------------------------------------------------------------------------------------|--------------|-----------------|---------------|------------|--------|
| Specifications:      | 2.1046,24.232,22.913(a)                                                             |              |                 |               |            |        |
| Date of Tests        | 2008-07-07                                                                          |              |                 |               |            |        |
| Test conditions:     | Ambient Temperature:15℃-35℃<br>Relative Humidity:30%-60%<br>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        | 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                |

## 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:

$ERP\text{ dBm} = EIRP\text{ dBm} - 2.15\text{dB}$ .

### ERP Value for GPRS 850 band mode:

| ARFCN | Frequency<br>[MHz] | ERP<br>[dBm] |
|-------|--------------------|--------------|
| 128   | 824.128            | 22.72        |
| 190   | 836.653            | 26.71        |
| 251   | 848.877            | 22.68        |

### EIRP Value for GPRS 1900 band mode:

| ARFCN | Frequency<br>[MHz] | EIRP<br>[dBm] |
|-------|--------------------|---------------|
| 512   | 1850.060           | 24.71         |
| 661   | 1879.919           | 24.95         |
| 810   | 1909.819           | 25.01         |

### 4.3 Occupied bandwidth

|                      |                                                                                     |              |                 |               |            |        |
|----------------------|-------------------------------------------------------------------------------------|--------------|-----------------|---------------|------------|--------|
| Specifications:      | 2.1049,22.917(b),24.238(b)                                                          |              |                 |               |            |        |
| Date of Test         | 2008-07-11                                                                          |              |                 |               |            |        |
| Test conditions:     | Ambient Temperature:15℃-35℃<br>Relative Humidity:30%-60%<br>Air pressure: 86-106kPa |              |                 |               |            |        |
| Operation Mode       | TX on, channel 128, 190, 251, 512, 661 and 810                                      |              |                 |               |            |        |
| Test Results:        | --                                                                                  |              |                 |               |            |        |
| Test equipment Used: |                                                                                     |              |                 |               |            |        |
| 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×6.3m | --            | 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 |

### 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

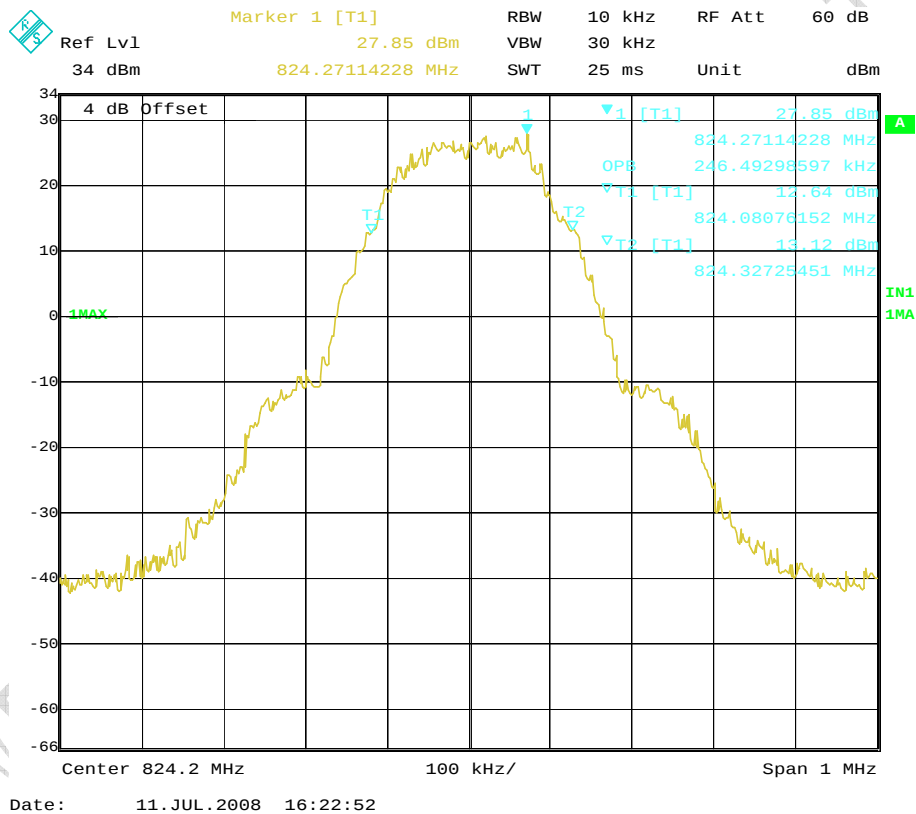
The 99% occupied bandwidth was calculated from the spectrum analyzer. Markers in the spectrum analyzer were then placed between the calculated frequencies to show the calculated 99% power band.

Note: --

## Results data of GPRS mode:

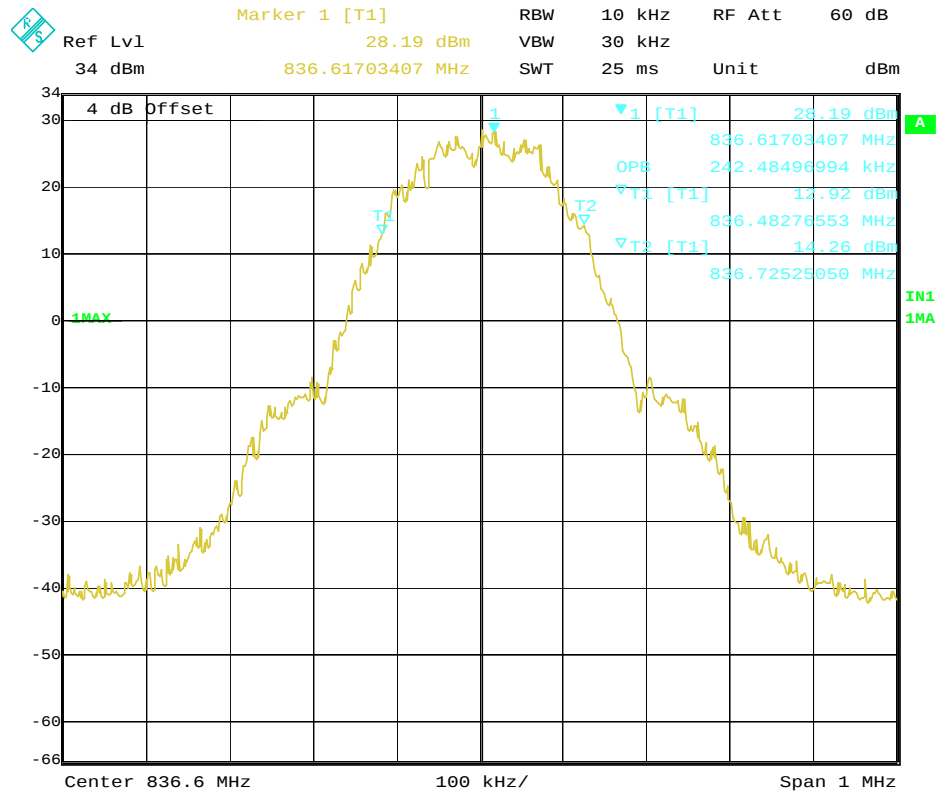
| EUT channel | 99% occupied bandwidth [kHz] |
|-------------|------------------------------|
| 128         | 246                          |
| 190         | 242                          |
| 251         | 240                          |
| 512         | 242                          |
| 661         | 244                          |
| 810         | 244                          |

## Graphical results for GPRS mode:



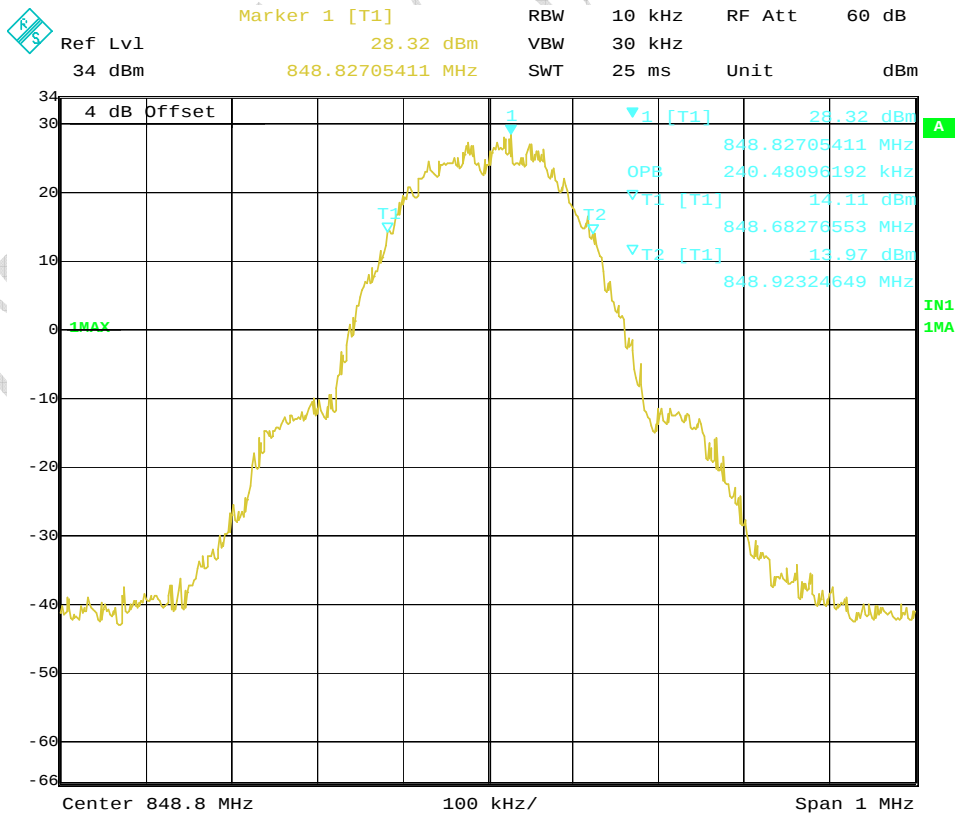
FCC Parts 2, 22, 24  
Equipment: ZTE A711G

REPORT NO.: I08GE5250-FCC-EMC



Date: 11.JUL.2008 16:22:05

### Channel 190

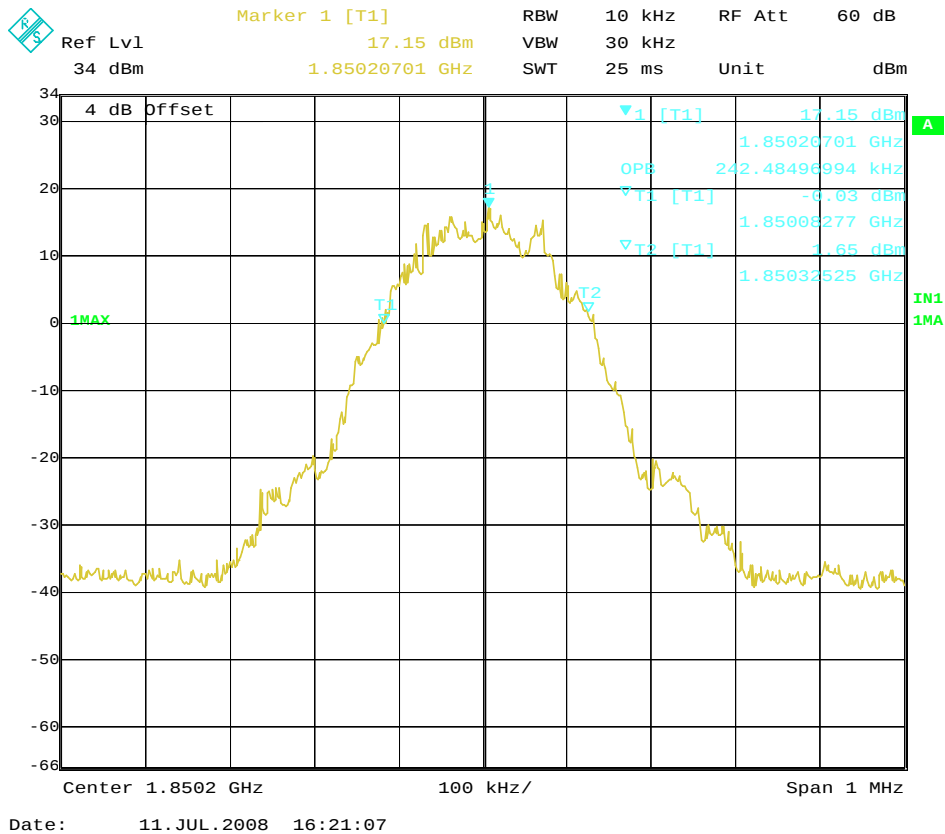


Date: 11.JUL.2008 16:23:41

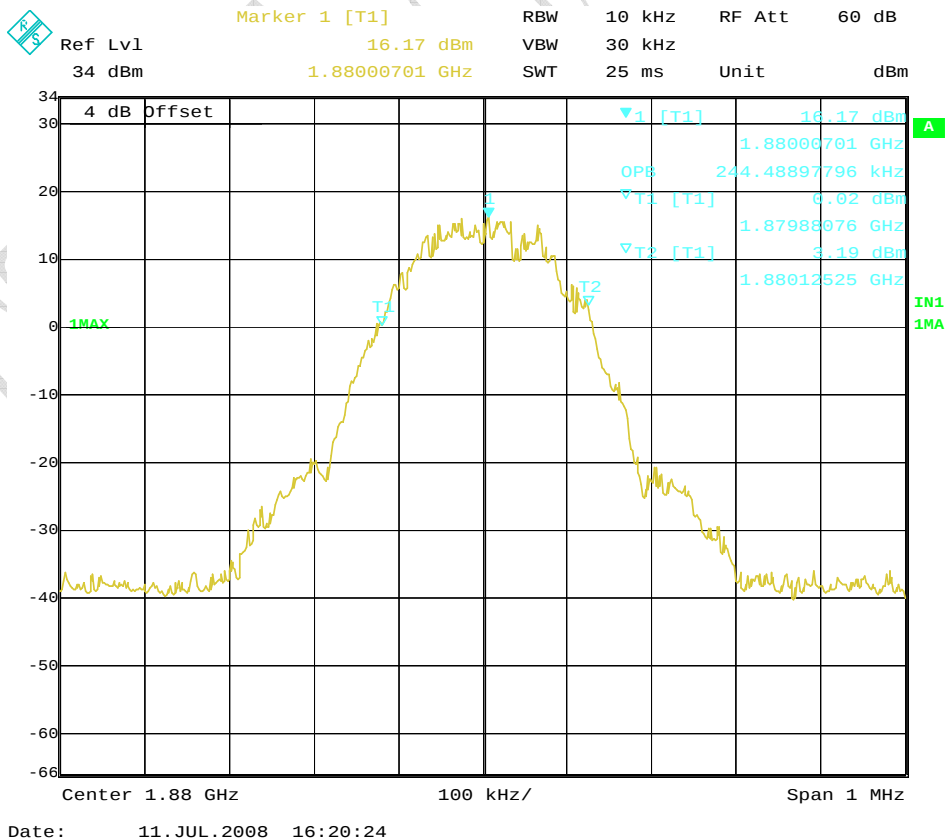
### Channel 251

FCC Parts 2, 22, 24  
Equipment: ZTE A711G

REPORT NO.: I08GE5250-FCC-EMC



### Channel 512

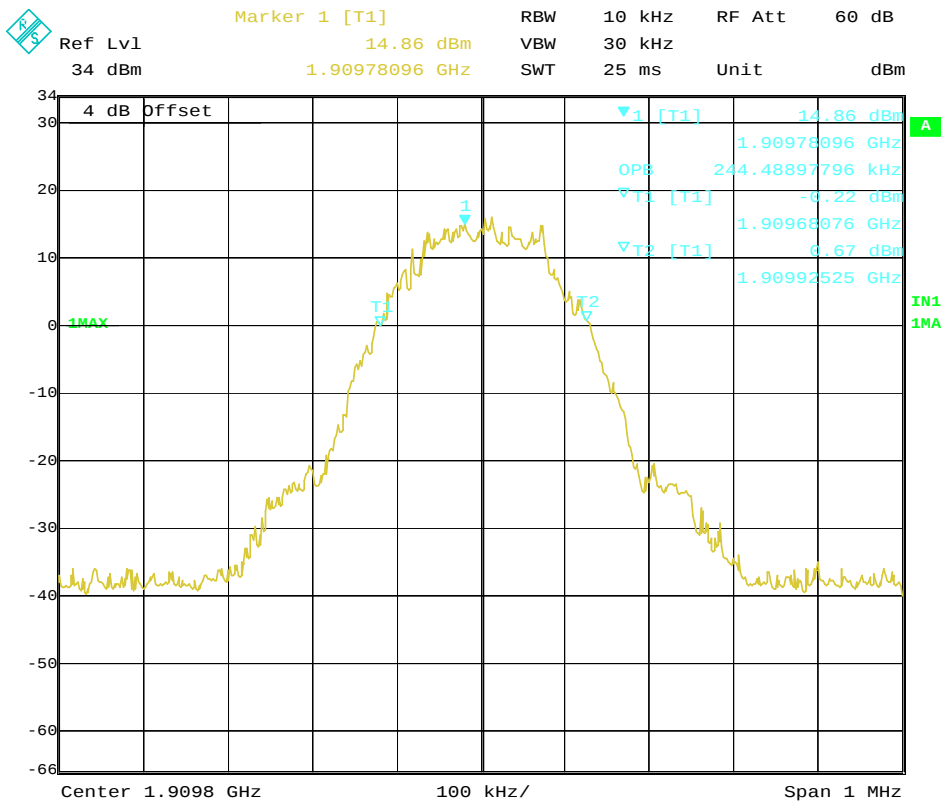


### Channel 661



FCC Parts 2, 22, 24  
Equipment: ZTE A711G

REPORT NO.: I08GE5250-FCC-EMC



Date: 11.JUL.2008 16:19:31

Channel 810

#### 4.4 Frequency Stability over Temperature Variation

|                           |                                                                                       |                                      |              |               |            |        |
|---------------------------|---------------------------------------------------------------------------------------|--------------------------------------|--------------|---------------|------------|--------|
| Specifications:           | 2.1055,22.355,24.235                                                                  |                                      |              |               |            |        |
| Date of Test              | 2008-07-10                                                                            |                                      |              |               |            |        |
| Test conditions:          | Ambient Temperature: -30℃-50℃<br>Relative Humidity:30%-60%<br>Air pressure: 86-106kPa |                                      |              |               |            |        |
| Operation Mode            | TX on, channel 190 and 661                                                            |                                      |              |               |            |        |
| Test Results:             | Pass                                                                                  |                                      |              |               |            |        |
| Test equipment Used:      |                                                                                       |                                      |              |               |            |        |
| Asset 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                     |                                                                                       |                                      |              |               |            |        |
| 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.

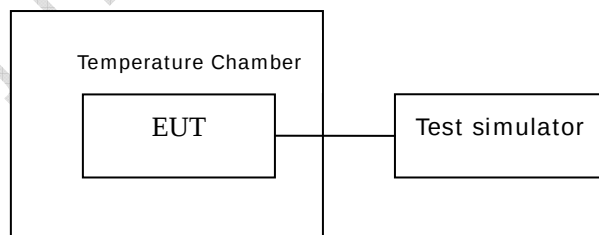


Figure T: setup for measurement of frequency stability over temperature variation

## Test Method

1. The EUT was turned off and placed in the temperature chamber.
2. The temperature of the chamber was set to -30°C and allowed to stabilize.
3. The EUT temperature was allowed to stabilize for 45 minutes.
4. The EUT was turned on and set to transmit with test simulator.
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 GPRS mode:

Table T1: frequency deviation over temperature variation for channel 190

| Temperature[°C] | Deviation[Hz] | Deviation[ppm] | Remarks |
|-----------------|---------------|----------------|---------|
| -30             | 11            | 0.013          | Pass    |
| -20             | 12            | 0.014          | Pass    |
| -10             | 10            | 0.012          | Pass    |
| 0               | 11            | 0.013          | Pass    |
| 10              | 15            | 0.018          | Pass    |
| 20              | 10            | 0.012          | Pass    |
| 30              | 12            | 0.014          | Pass    |
| 40              | 9             | 0.011          | Pass    |
| 50              | 8             | 0.009          | Pass    |

Table T2: frequency deviation over temperature variation for channel 661

| Temperature[°C] | Deviation[Hz] | Deviation[ppm] | Remarks |
|-----------------|---------------|----------------|---------|
| -30             | 33            | 0.018          | Pass    |
| -20             | 34            | 0.018          | Pass    |
| -10             | 29            | 0.015          | Pass    |
| 0               | 36            | 0.019          | Pass    |
| 10              | 31            | 0.016          | Pass    |
| 20              | 32            | 0.017          | Pass    |
| 30              | 29            | 0.015          | Pass    |
| 40              | 27            | 0.014          | Pass    |
| 50              | 29            | 0.015          | Pass    |

#### 4.5 Frequency Stability over Voltage Variation

|                           |                                                                                     |              |              |               |            |        |
|---------------------------|-------------------------------------------------------------------------------------|--------------|--------------|---------------|------------|--------|
| Specifications:           | 2.1055,22.355,24.235                                                                |              |              |               |            |        |
| Date of Test              | 2008-07-11                                                                          |              |              |               |            |        |
| Test conditions:          | Ambient Temperature:15℃-35℃<br>Relative Humidity:30%-60%<br>Air pressure: 86-106kPa |              |              |               |            |        |
| Operation Mode            | TX on, channel 190 and 661                                                          |              |              |               |            |        |
| Test Results:             | Pass                                                                                |              |              |               |            |        |
| Test equipment Used:      |                                                                                     |              |              |               |            |        |
| Asset 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                     |                                                                                     |              |              |               |            |        |
| Frequency deviation [ppm] |                                                                                     | ±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.

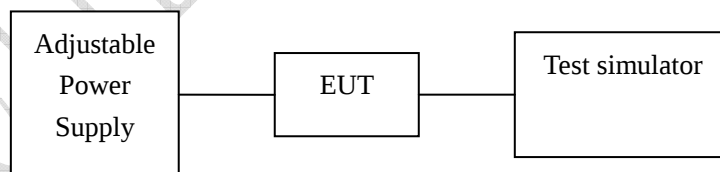


Figure V: test setup for measurement of frequency stability over voltage variation

## Test Results data for GPRS mode:

Table V1: frequency deviation over voltage variation for channel 190

| Level         | Voltage[V] | Deviation[Hz] | Deviation[ppm] | Remarks |
|---------------|------------|---------------|----------------|---------|
| Nominal       | 3.7        | 34            | 0.041          | Pass    |
| Cut-off point | 3.5        | 36            | 0.040          | Pass    |

Table V2: frequency deviation over voltage variation for channel 661

| Level         | Voltage[V] | Deviation[Hz] | Deviation[ppm] | Remarks |
|---------------|------------|---------------|----------------|---------|
| Nominal       | 3.7        | 34            | 0.018          | Pass    |
| Cut-off point | 3.5        | 41            | 0.022          | Pass    |

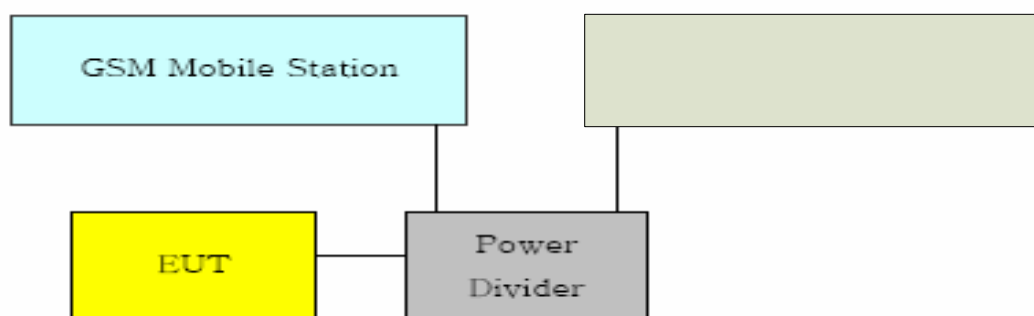
**4.6 Conducted RF Power Output**

|                      |                                                                                     |              |              |               |            |        |
|----------------------|-------------------------------------------------------------------------------------|--------------|--------------|---------------|------------|--------|
| Specifications:      | 2.1046,22.913(a),24.232(c)                                                          |              |              |               |            |        |
| Date of Tests        | 2008-07-11                                                                          |              |              |               |            |        |
| Test conditions:     | Ambient Temperature:15℃-35℃<br>Relative Humidity:30%-60%<br>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        | 2009-01-04 | Normal |
| 023                  | Wireless Communications Test Set                                                    | Agilent      | 8960(E5515C) | GB41450323    | 2009-06-13 | Normal |
| ---                  | Power splitter                                                                      | Jie sai      | ---          | 1000132       | 2009-01-04 | Normal |
| 111835               | Wireless Communications Test Set                                                    | R&S          | CMU200       | 1100000802    | --         | Normal |

| <b>Limits for Radiated RF Power Output</b> |                                          |
|--------------------------------------------|------------------------------------------|
| Frequency range                            | Limit Level (EIRP) /Resolution Bandwidth |
| TX channel                                 | 33dBm/1MHz                               |
| <b>Limits for ERP</b>                      |                                          |
| 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).



## 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 loss 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 GPRS mode:

EIRP Value for GPRS 850 band:

| ARFCN | Peak output power [dBm] |
|-------|-------------------------|
| 128   | 30.71                   |
| 190   | 30.77                   |
| 251   | 30.71                   |

EIRP Value for GPRS 1900 band:

| ARFCN | Peak output power [dBm] |
|-------|-------------------------|
| 512   | 18.86                   |
| 661   | 15.23                   |
| 810   | 16.99                   |

#### 4.7 Conducted Spurious Emission

|                      |                                                                                     |              |              |               |            |        |
|----------------------|-------------------------------------------------------------------------------------|--------------|--------------|---------------|------------|--------|
| Specifications:      | 2.1051,22.917,24.238                                                                |              |              |               |            |        |
| Date of Tests        | 2008-07-11                                                                          |              |              |               |            |        |
| Test conditions:     | Ambient Temperature:15℃-35℃<br>Relative Humidity:30%-60%<br>Air pressure: 86-106kPa |              |              |               |            |        |
| Operation Mode       | TX on, channel 190 and 661                                                          |              |              |               |            |        |
| 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        | 2009-01-04 | Normal |
| 023                  | Wireless Communications Test Set                                                    | Agilent      | 8960(E5515C) | GB41450323    | 2009-06-13 | Normal |
| ---                  | Power splitter                                                                      | Jie sai      | ---          | 1000132       | 2009-01-04 | Normal |
| 111835               | Wireless Communications Test Set                                                    | R&S          | CMU200       | 1100000802    | --         | Normal |

#### Limit Level Construction:

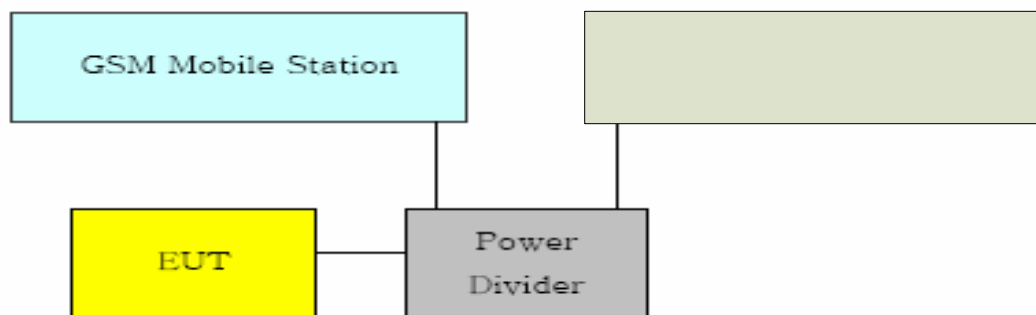
According to Part 24.238 (a), i.e., Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB, so the limit level is:  
 $P(\text{dBm}) - (43 + 10 \log(P)) \text{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

#### 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)



## 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: --

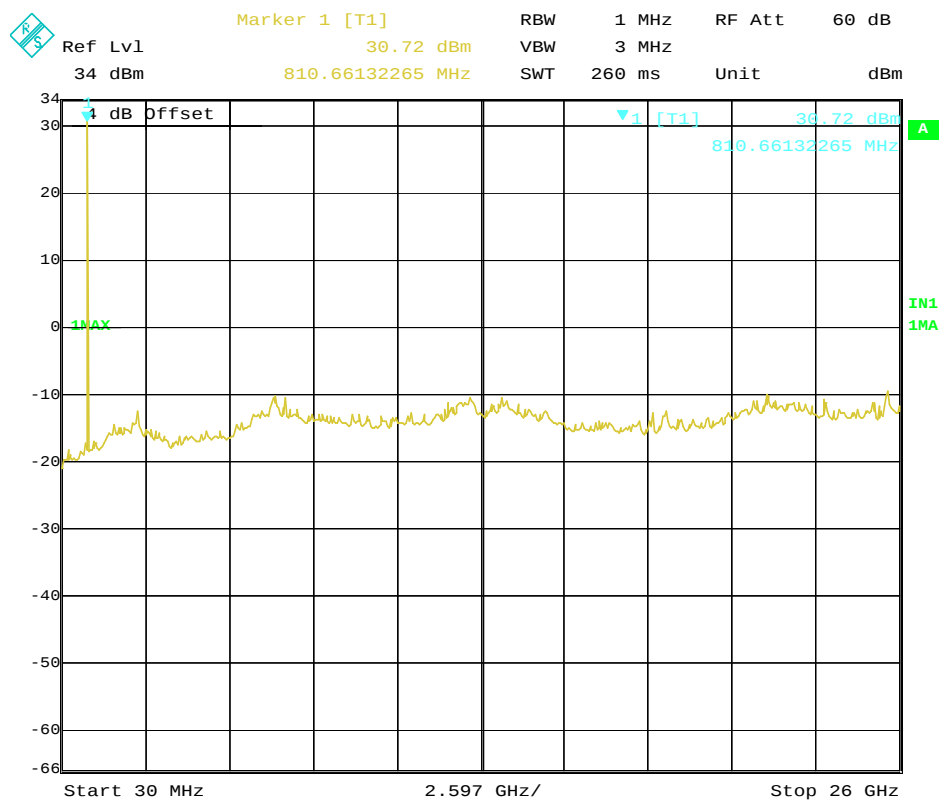
### Test Results for GPRS mode:

| Out of band emission |                |
|----------------------|----------------|
| Frequency<br>[MHz]   | Level<br>(dBm) |
| --                   | --             |

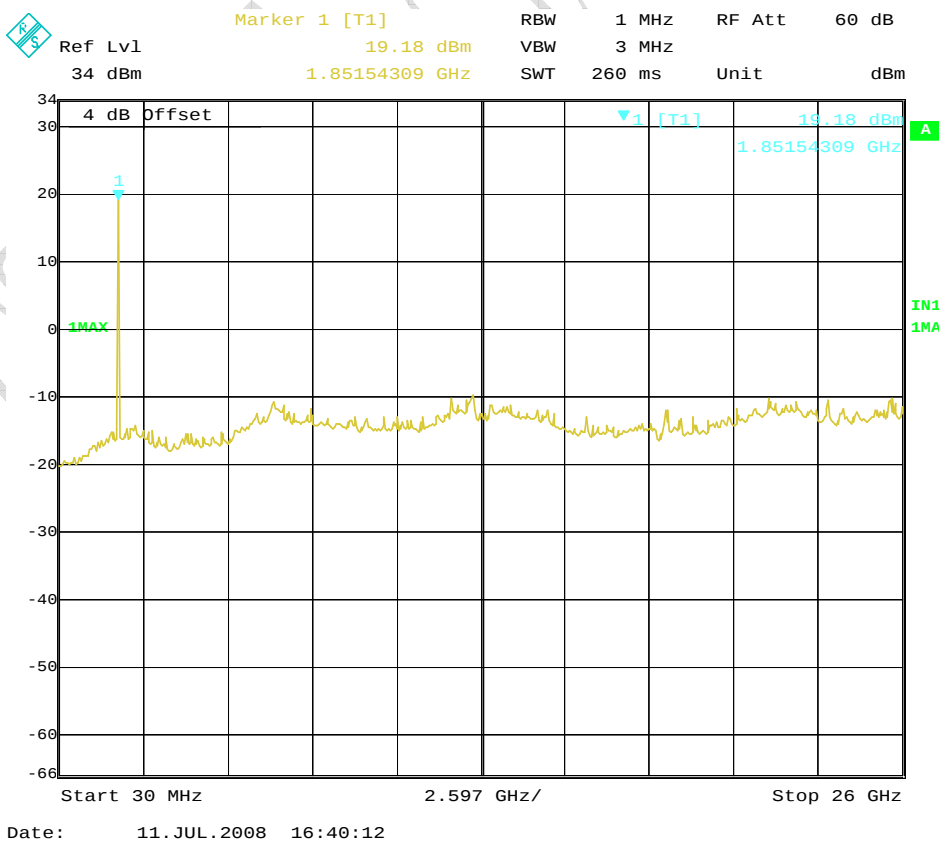
### Graphical results for GPRS mode:

FCC Parts 2, 22, 24  
Equipment: ZTE A711G

REPORT NO.: I08GE5250-FCC-EMC



### Channel 190



### Channel 661

#### 4.8 Band Edge

|                      |                                                                                     |              |              |               |            |        |
|----------------------|-------------------------------------------------------------------------------------|--------------|--------------|---------------|------------|--------|
| Specifications:      | 2.1051, 24.238, 2.1053, 22.917                                                      |              |              |               |            |        |
| Date of Tests        | 2008-07-11                                                                          |              |              |               |            |        |
| Test conditions:     | Ambient Temperature:15℃-35℃<br>Relative Humidity:30%-60%<br>Air pressure: 86-106kPa |              |              |               |            |        |
| Operation Mode       | TX on, channel 128, 251, 512 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        | 2009-01-04 | Normal |
| 023                  | Wireless Communications Test Set                                                    | Agilent      | 8960(E5515C) | GB41450323    | 2009-06-13 | Normal |
| ---                  | Power splitter                                                                      | Jie sai      | ---          | 1000132       | 2009-01-04 | Normal |
| 111835               | Wireless Communications Test Set                                                    | R&S          | CMU200       | 1100000802    | --         | Normal |

**Limit Level Construction:**

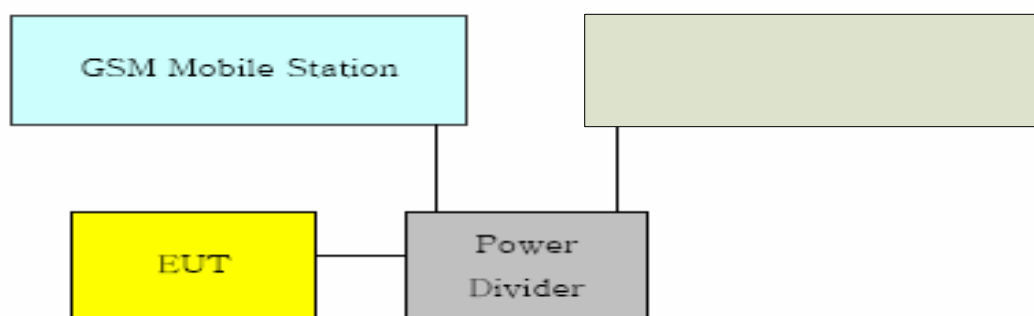
According to Part 24.238 (a), i.e., Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB, so the limit level is:  
 $P(\text{dBm}) - (43 + 10 \log(P)) \text{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

**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).



## 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 loss 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.

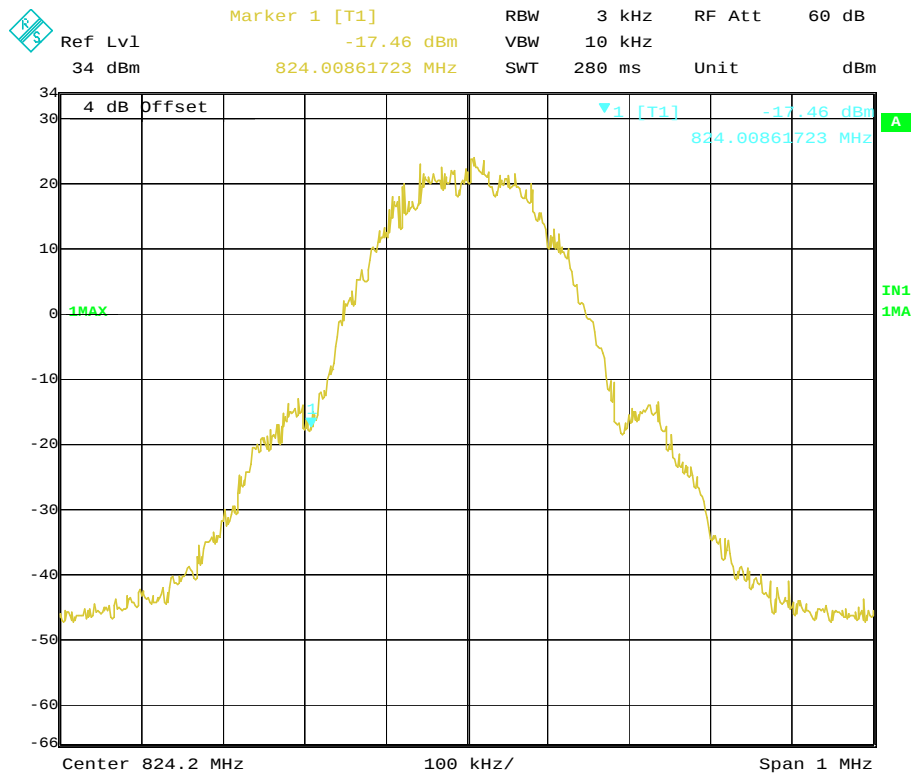
Note: --

## Test Results for GPRS mode:

| Band-edge emission          |                 |             |
|-----------------------------|-----------------|-------------|
| EUT Channel                 | Frequency [MHz] | Level [dBm] |
| Channel 128 Left band edge  | 824.008         | -17.46      |
| Channel 251 Right band edge | 848.995         | -17.34      |
| Channel 512 Left band edge  | 1850.038        | -16.19      |
| Channel 810 Right band edge | 1909.962        | -16.43      |

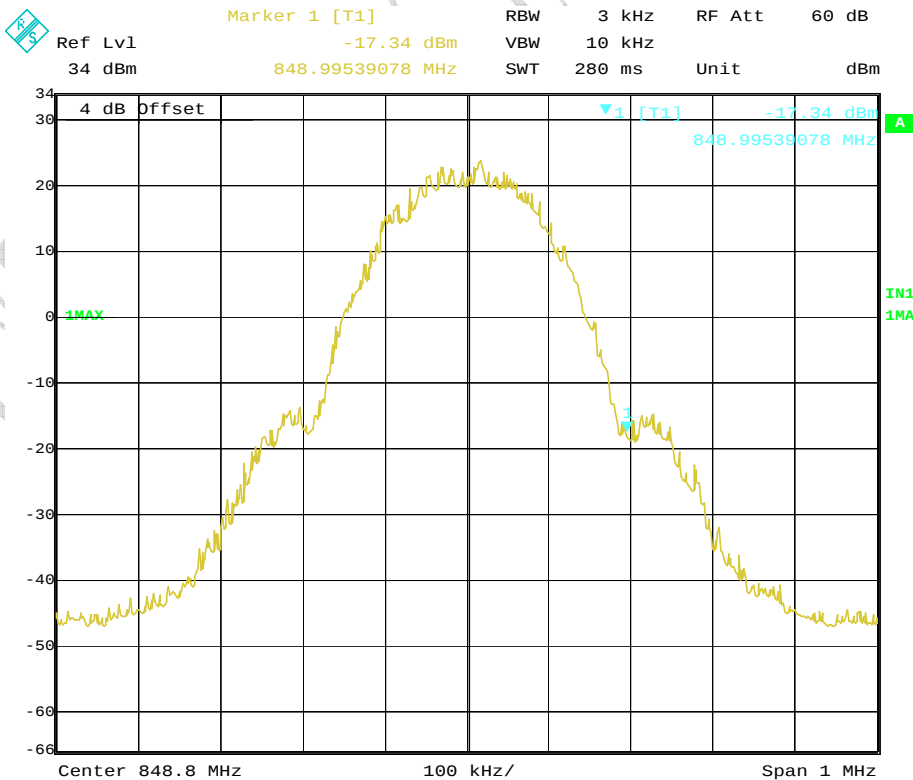
FCC Parts 2, 22, 24  
Equipment: ZTE A711G

REPORT NO.: I08GE5250-FCC-EMC



Date: 11.JUL.2008 16:47:23

### Channel 128 Left band edge

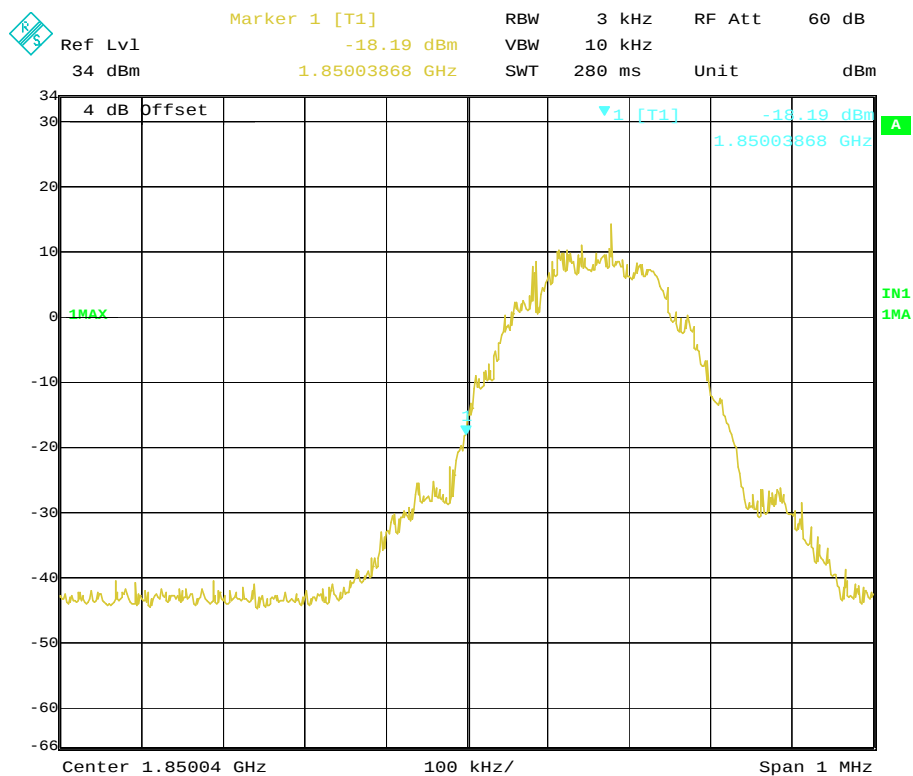


Date: 11.JUL.2008 16:46:39

### Channel 251 Right band edge

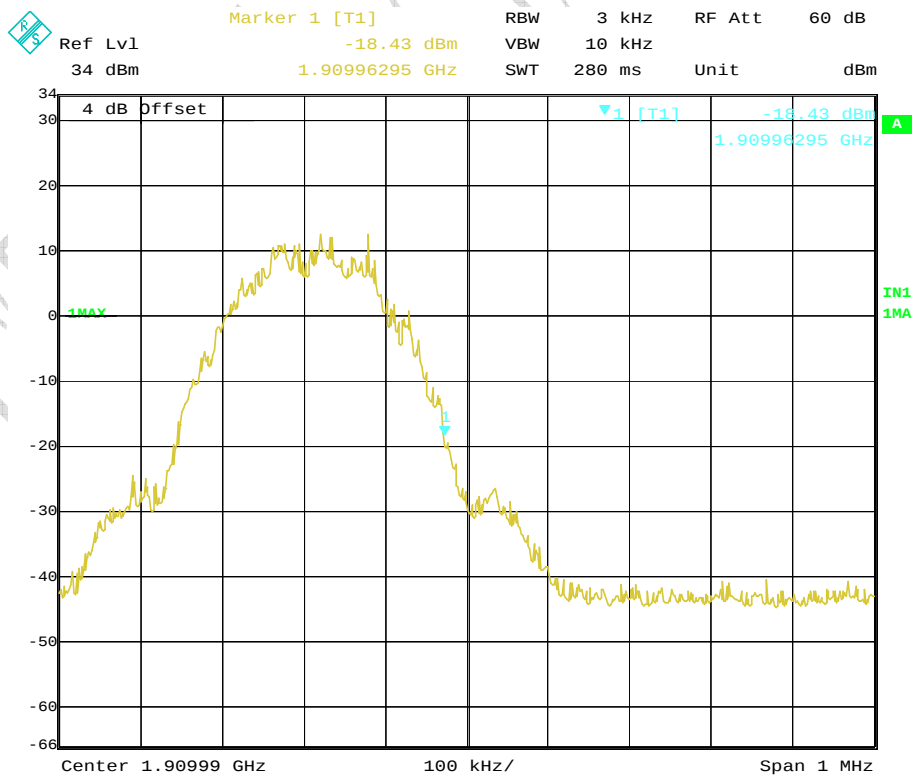
FCC Parts 2, 22, 24  
Equipment: ZTE A711G

REPORT NO.: I08GE5250-FCC-EMC



Date: 11.JUL.2008 16:45:43

### Channel 512 Left band edge



Date: 11.JUL.2008 16:44:09

### Channel 810 Right band edge

## Annex A External Photos



Front



back



Back without battery



Adaptor and cable

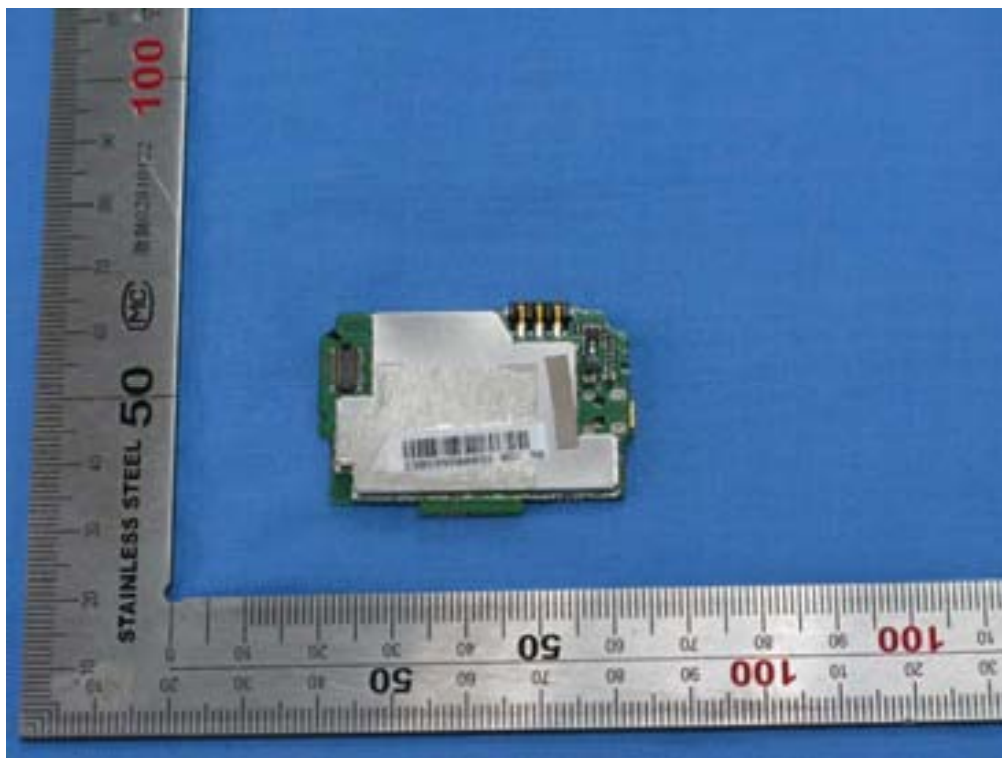
FCC Parts 2, 22, 24  
Equipment: ZTE A711G

REPORT NO.: I08GE5250-FCC-EMC

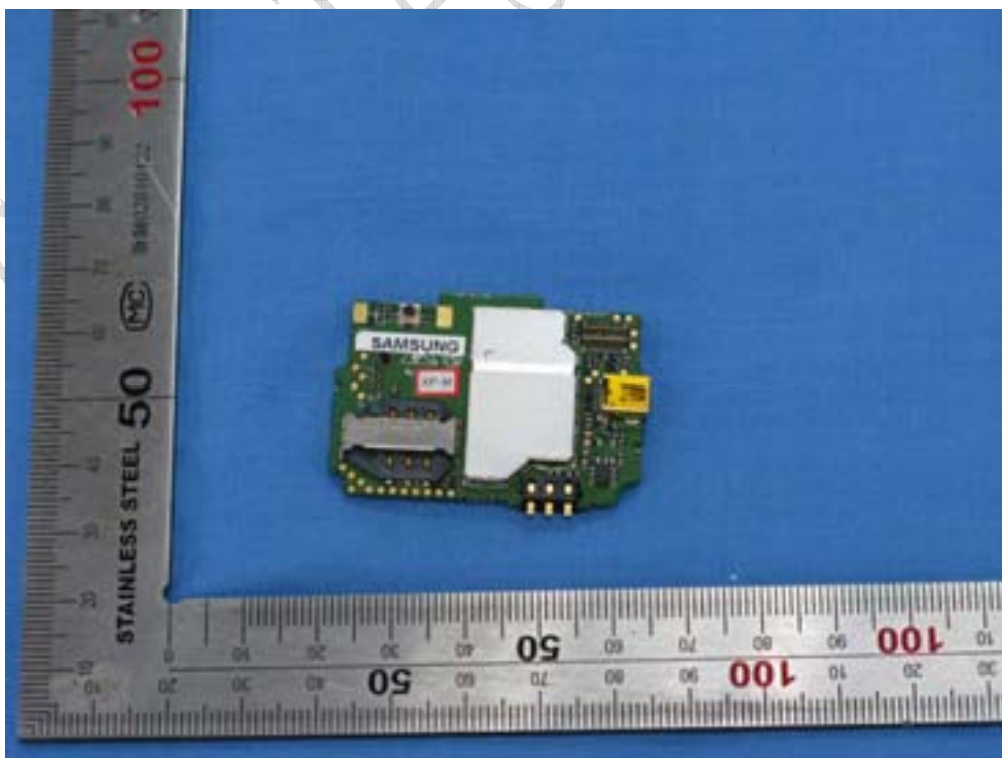


Battery

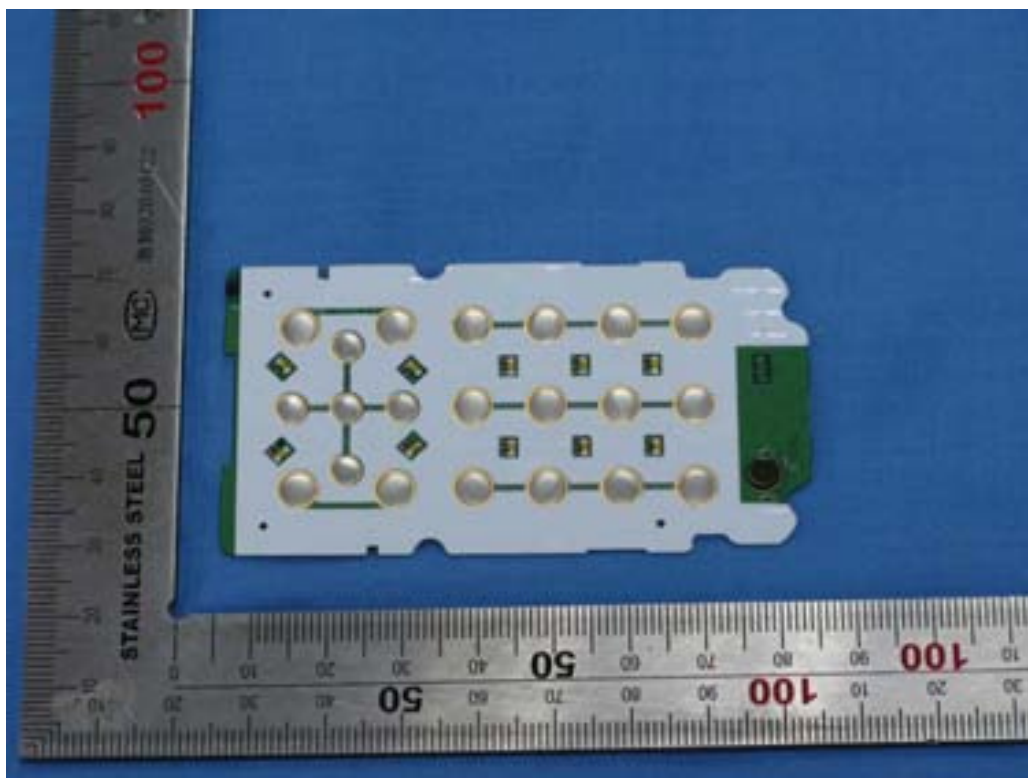
## Annex B Internal Photos



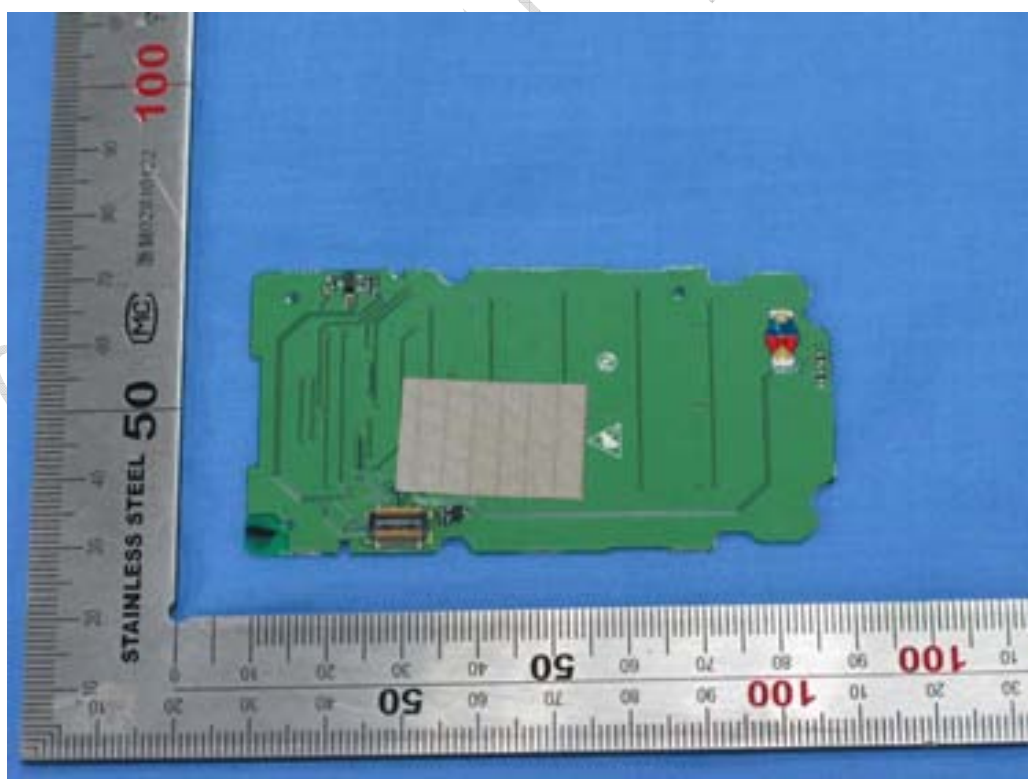
Main board (face)



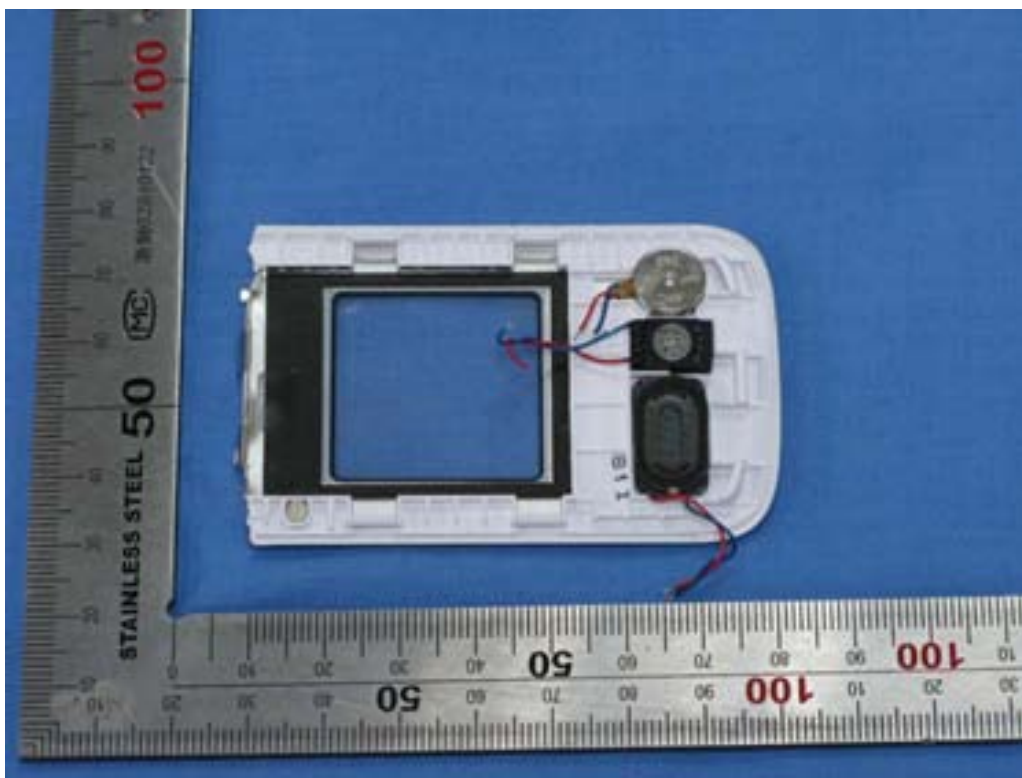
Main board (back)



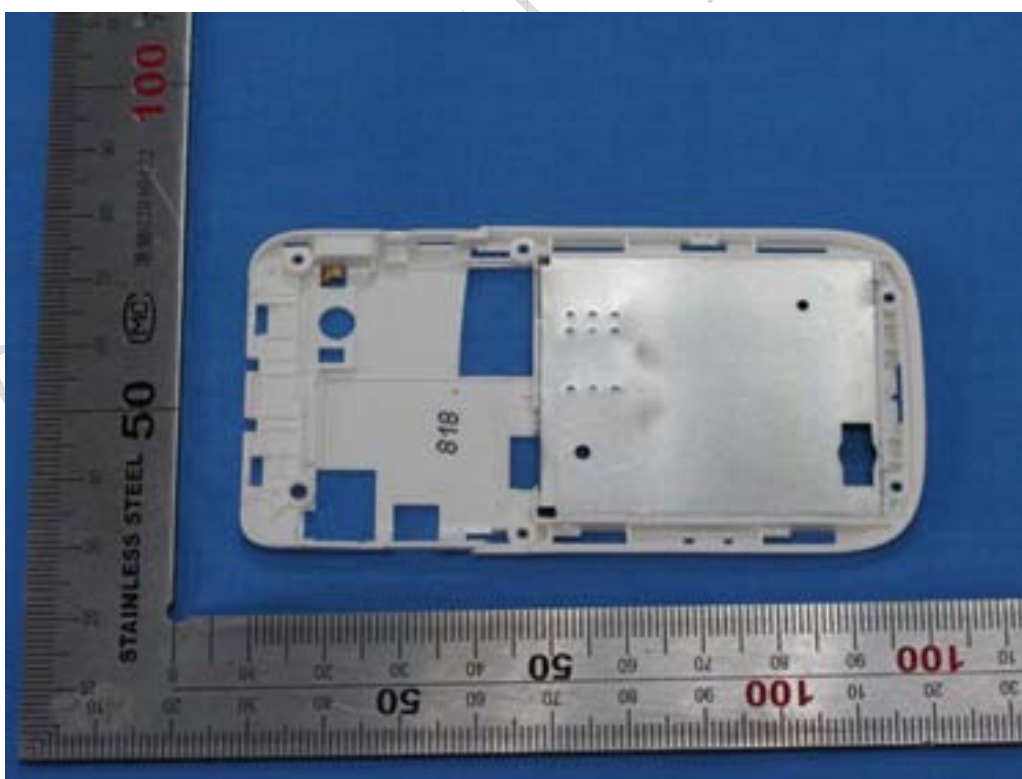
Keyboard (face)



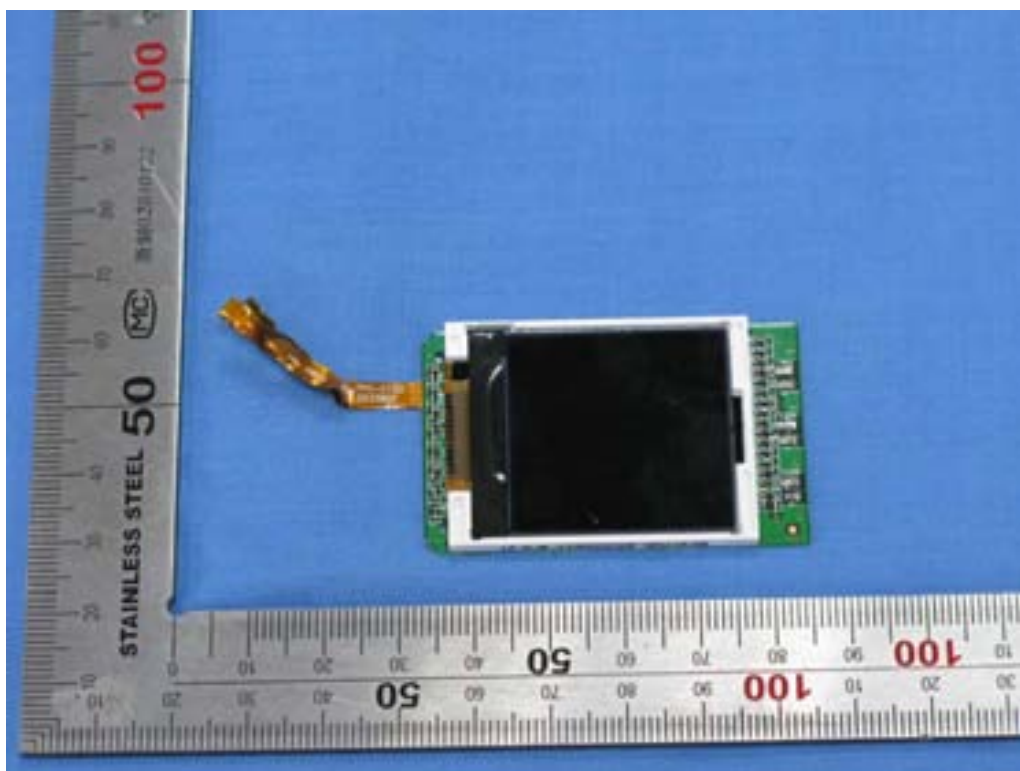
Keyboard (back)



Shell internal structure



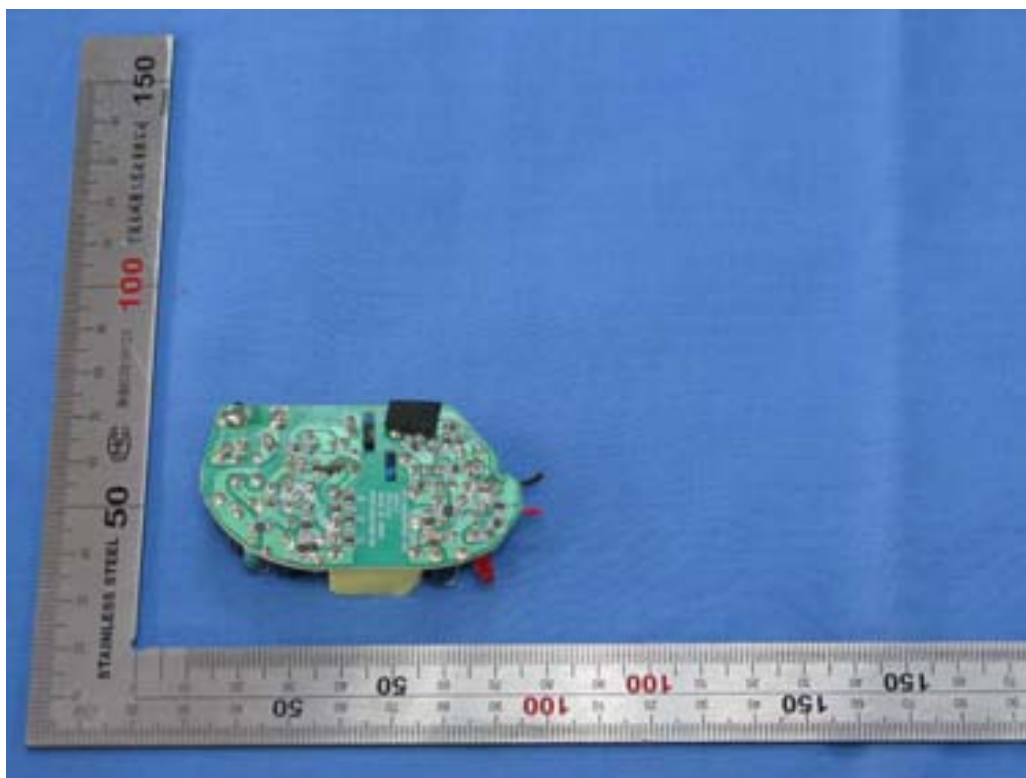
Shell internal structure



LCD



Adaptor face



Adaptor back

## ANNEX C Deviations from Prescribed Test Methods

No deviation from Prescribed Test Methods.

———— The End of this Report ————

CTL Test Report