



No. DAT-P-114/01-01

# TEST REPORT

## No. 2006TA034

<b>Product</b>	GSM/GPRS Mobile Station with BT function
<b>Model</b>	CT0598
<b>Client</b>	CEC Wireless R&D Ltd

**Telecommunication Metrology Center**  
**of Ministry of Information Industry**

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<b>Product</b>	GSM/GPRS Mobile Station with BT function	<b>Model</b>	CT0598	
		<b>Trade mark</b>		
<b>Client</b>	CEC Wireless R&D Ltd			
<b>Manufacturer</b>	CEC Wireless R&D Ltd			
<b>Arrival Date of sample</b>	October 27, 2006	<b>Carrier of the samples</b>	Jane Wang	
<b>Quantity of the samples</b>	1	<b>Date of product</b>	/	
<b>Series number</b>	EUT1: 352556010000367			
<b>Standard(s)</b>	FCC Part 15 (10-1-05 Edition)			
<b>Conclusion</b>	<p><b>Final Judgment: Pass</b></p> <p>Date of issue: 2006-11-29</p>			
<b>Comment</b>	The test result relates only to the tested samples.			

**Approved by**

陳汝林

### Reviewed by

(Lu Bingsong)

(Lu Bingsong- Deputy Director of the laboratory)

序

g sru **Tested by**

## 屈鹏飞

(Qiu Pengfei)

(Lu Bingsong) (Song Chongwen) (Qiu Pengfei)

## **1. COMPETENCE AND WARRANTIES**

**Telecommunication Metrology Center of Ministry of Information Industry**(hereinafter **TMC**) is a test laboratory accredited by DAR (DATEch) – Deutschen Akkreditierungs Rat (Deutsche Akkreditierungsstelle Technik), for the tests indicated in the Certificate No. **DAT-P-114/01-01**.

**TMC** is a test laboratory accredited by CNAL – Accreditation Certificate of China National Accreditation Board for Laboratories, for the tests indicated in the Certificate No. **L0442**.

**TMC** is FCC listed lab. FCC listed number is **733176**.

The test site in **TMC** is registered in Industry Canada. The IC registration number is **6629**.

**TMC** is a testing laboratory competent to carry out the tests described in this report.

**TMC** guarantees the reliability of the data presented in this report, which is the result of measurements and tests performed to the item under test on the date and under the conditions stated on the report and is based on the knowledge and technical facilities available at TMC at the time of execution of the test.

**TMC** is liable to the client for the maintenance by its personnel of the confidentiality of all information related to the item under test and the results of the test.

## **2. Testing Laboratory**

### **2.1 Testing Location**

Company Name:	Telecommunication Metrology Center of Ministry of Information Industry
Address:	No 52, Huayuan beilu, Haidian District, Beijing,P.R.China
Postal Code:	100083
Telephone:	00861062303288
Fax:	00861062304793

### **2.2 Testing Environment**

**Semi-anechoic chamber** (23 meters×17meters×10meters) did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. = 30 %, Max. = 60 %
Shielding effectiveness	> 110 dB
Electrical insulation	> 10 kΩ
Ground system resistance	< 0.5 Ω
Normalised site attenuation (NSA)	< ±3.2 dB, 10 m distance, from 30 to 1000 MHz
Uniformity of field strength	Between 0 and 6 dB, from 26 to 1000 MHz

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**Control room** did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 30 %, Max. = 60 %
Shielding effectiveness	> 110 dB
Electrical insulation	> 10 kΩ
Ground system resistance	< 0.5 Ω

**Conducted chamber** did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. = 30 %, Max. = 60 %
Shielding effectiveness	> 110 dB
Electrical insulation	> 10 kΩ
Ground system resistance	< 0.5 Ω

**Fully-anechoic chamber** (6.8 meters×3.08 meters×3.53 meters) did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. = 30 %, Max. = 60 %
Shielding effectiveness	> 110 dB
Electrical insulation	> 10 kΩ
Ground system resistance	< 0.5 Ω
Uniformity of field strength	Between 0 and 6 dB, from 26 to 1000 MHz

### **2.3 Testing Period**

Testing Start Date:	Nov 24,2006
Testing End Date:	Nov 29,2006

----- 带格式的：项目符号和编号

## **3. Applicant Information**

### **3.1 Client Information**

Name or Company	CEC Wireless R&D Ltd
Address/Post	P.O.Box 707-27 West M5 Building ,No.1 East Road Jiuxianqiao ChaoYang District,Beijing,China
City	Beijing,CHINA
Postal Code	100016
Country	China
Telephone	010-58270302
Fax	010-84568718

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**3.2 Manufacture Information**

Name or Company	CEC Wireless R&D Ltd
Address/Post	P.O.Box 707-27 West M5 Building ,No.1 East Road Jiuxianqiao ChaoYang District,Beijing,China
City	Beijing,CHINA
Postal Code	100016
Country	China
Telephone	010-58270302
Fax	010-84568718

**4. Equipment under Test (EUT) and Ancillary Equipment (AE)**

**4.1 About EUT**

Model	CT0598
Description	GSM/GPRS Mobile Station with BT function
FCC ID	RXSCT0598
Hardware status	PR2
Software status	C6113-PR2-DV6-T016
Power supply	Battery or Charger (AC Adaptor)

**4.2 Internal Identification of EUT used during the test**

EUT ID	SN or IMEI	HW Version	SW Version
EUT1	352556010000367	PR2	C6113-PR2-DV6-T016

**4.3 Photographs of EUT**

Photographs of MS Hand Telephone Set and Charger are respectively shown in ANNEX B of this test report.

**5. SUMMARY OF TEST RESULTS**

Abbreviations used in this clause:	
P	Pass
NA	Not applicable
F	Fail

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

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**6. MAIN TEST INSTRUMENTS**

NO.	Description	TYPE	SERIES NUMBER	MANUFACTUR E	CAL DUE DATE
1	Test Receiver	ESS	847151/015	R&S	2007-10-30
2	Test Receiver	ESI40	831564/002	R&S	2007-2-11
3	BiLog Antenna	3142B	9908-1403	EMCO	2007-1-16
4	BiLog Antenna	VUL9163	9163 175	Schwarzbeck	2009-9-19
5	Signal Generator	SMT06	831285/005	R&S	2006-12-26
6	Signal Generator	SMP04	100070	R&S	2007-4-20
7	LISN	ESH2-Z5	829991/012	R&S	2007-8-13
8	Spectrum Analyzer	E4440A	MY41000262	Agilent	2007-4-18
9	Universal Radio Communication Tester	CMU200	100680	R&S	2007-8-23
10	Dual-Ridge Waveguide Horn Antenna	3115	9906-5827	EMCO	2008-3
11	Dual-Ridge Waveguide Horn Antenna	3116	2663	EMCO	2008-3
12	Dual-Ridge Waveguide Horn Antenna	3116	2661	EMCO	2008-3
13	Climatic chamber	SH-241	92003546	ESPEC	2007-5-15
14	Spectrum Analyzer	FSU26	200030	R&S	2007-6-19
15	Bluetooth Tester	MT8852A	6K0002698	Anritsu	2009-3-19

## **ANNEX A MEASUREMENT RESULTS**

### **A.1 Radiated Emission (§15.109(a))**

#### **A.1.1 Method of measurement**

The field strength of radiated emissions from the unintentional radiator (USB mode of MS) at a distance of 3 meters is tested. The test set-up please refers to Annex C.1.

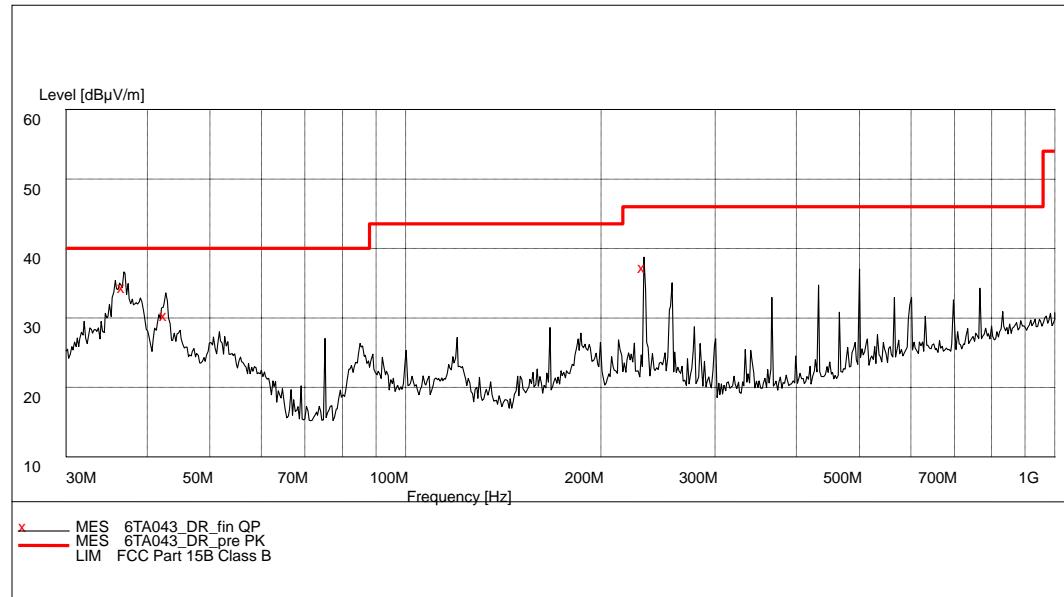
#### **A.1.2 EUT Operating Mode:**

The MS is operating in the USB mode. During the test MS is connected to a laptop via a USB cable. The model of the laptop is IBM T42 2373-M6C, and the serial number of the laptop is 99-FV6P2. The software is used to let the laptop keep on copying data to MS, reading and erasing the data after copy action was finished.

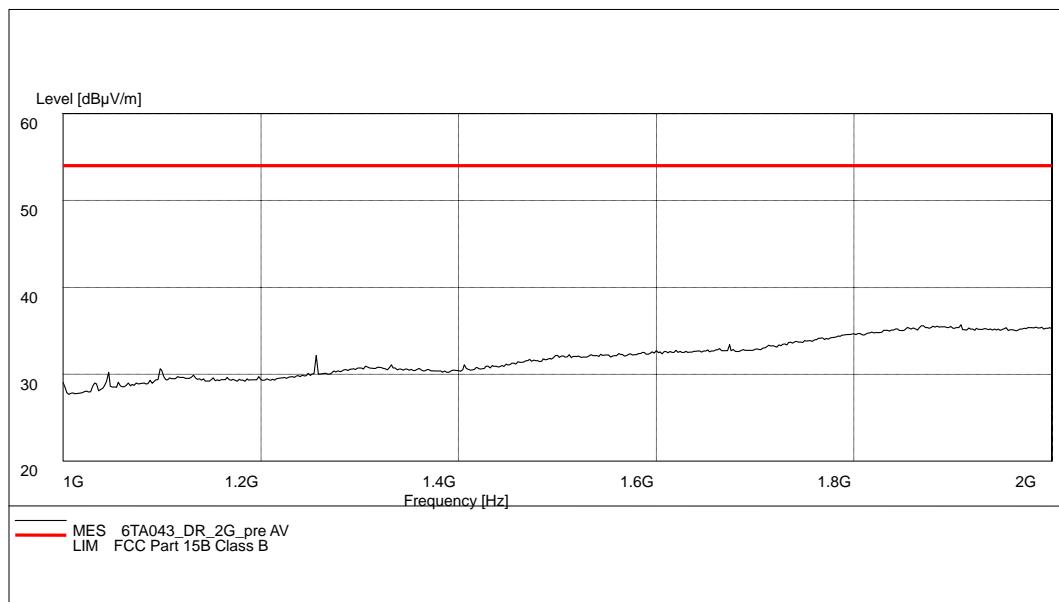
#### **A.1.3 Measurement Limit**

Frequency of emission (MHz)	Field strength (microvolts/meter)
30-88	100
88-216	150
216-960	200
Above 960	500

#### **A.1.4 Measurement Results**



**Figure A.1 Radiated Emission below 1GHz**



#### **A.2 Conducted Emission (§15.107(a))**

##### **A.2.1 Method of measurement**

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150kHz to 30MHz shall not exceed the limits. The test set-up please refers to Annex C.2.

##### **A.2.2 EUT Operating Mode:**

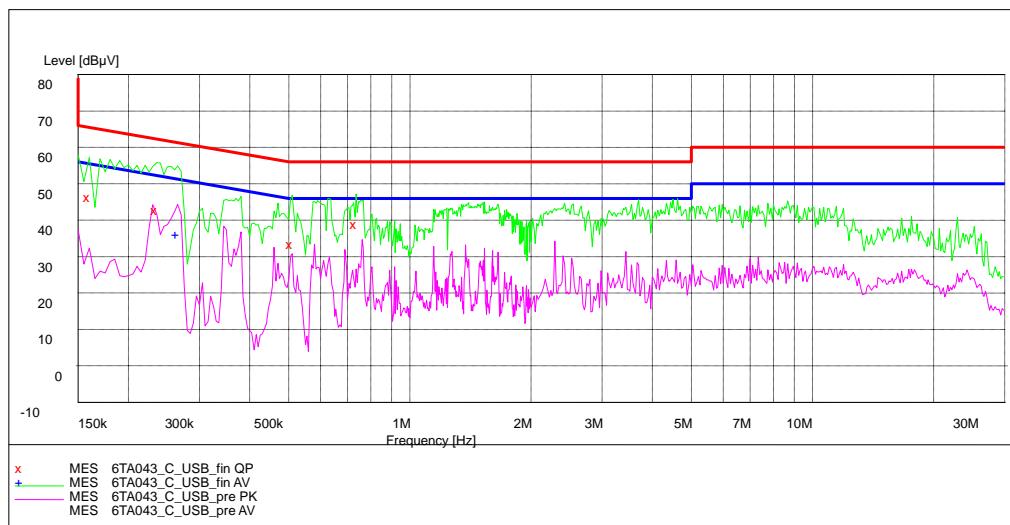
The MS is operating in the USB mode. During the test MS is connected to a laptop via a USB cable. The model of the laptop is IBM T42 2373-M6C, and the serial number of the laptop is 99-FV6P2. The software is used to let the laptop keep on copying data to MS, reading and erasing the data after copy action was finished.

##### **A.2.3 Measurement Limit**

Frequency of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

\*Decreases with the logarithm of the frequency

**A.2.4 Measurement Results**



**Figure A.3 Conducted Emission**

**MEASUREMENT RESULT: "06TA043\_C\_USB\_fin QP"**

Frequency MHz	Level dB $\mu$ V	Transd dB	Limit dB $\mu$ V	Margin dB	Line	PE
0.160000	49.10	10.1	66	16.4	N	GND
0.235000	45.50	10.1	62	16.7	N	GND
0.510000	36.20	10.1	56	19.8	L1	FLO
0.735000	41.60	10.1	56	14.4	L1	GND

**MEASUREMENT RESULT: "06TA043\_C\_USB\_fin AV"**

Frequency MHz	Level dB $\mu$ V	Transd dB	Limit dB $\mu$ V	Margin dB	Line	PE
0.265000	39.10	10.1	51	12.2	L1	GND

**ANNEX B PHOTOGRAPH OF EUT**

External Photo



Mobile Phone



Mobile Phone



Mobile Phone



Mobile Phone



Mobile phone



Charger (AC/DC Adapter)



USB Cable

Internal Photo



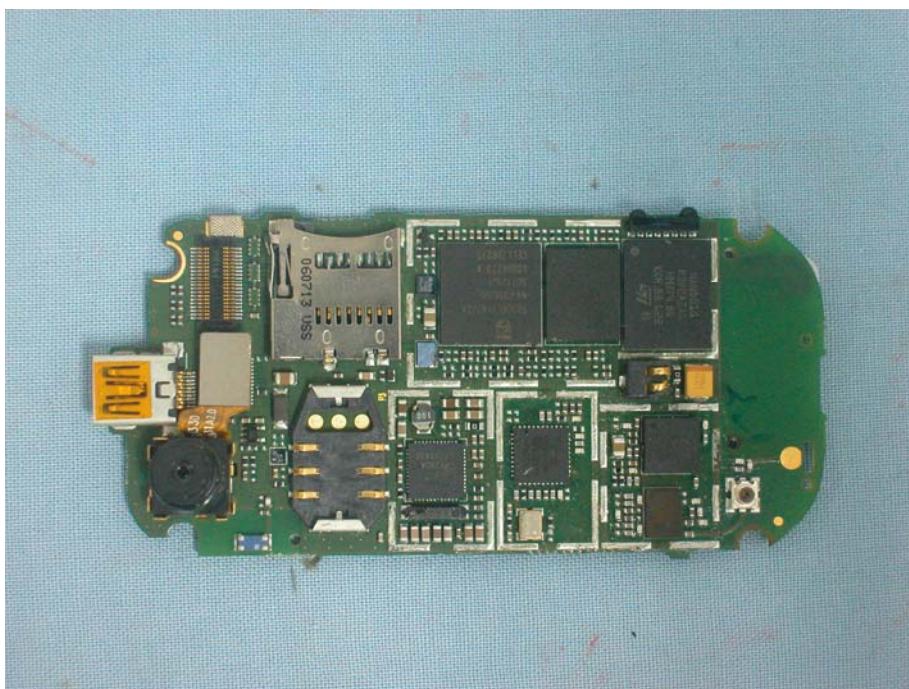
Mobile phone Disassembly



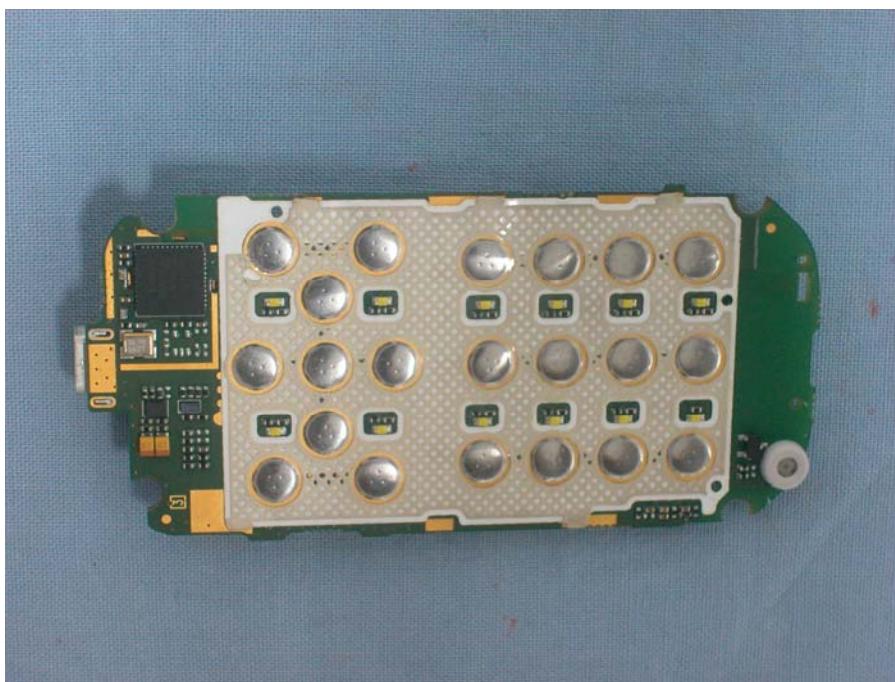
Mobile phone Disassembly



Mobile phone Disassembly



Mobile phone PCB back view



Mobile phone PCB front view

**ANNEX C TEST LAYOUT**



**Pic C.1 Radiated Emission**



**Pic C.1 Conducted Emission**

**\*\*\*END OF REPORT BODY\*\*\***