47 CFR PART 15B

TEST REPORT

of

HC-CG200

Model Name:	HC-CG200
Brand Name:	Haier
Report No.:	SZ08120043E01
FCC ID:	SG70902HC-CG200

prepared for

Qingdao Haier Telecom Co., Ltd.
No.1,Haier Road,Hi-tech Zone,Qingdao,266101,P.R.China

prepared by

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LAB CODE 20081223-00

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1. Test Result Certification

Equipment under Test:	HC-CG200
Brand Name:	Haier
Model Name:	HC-CG200
FCC ID:	SG70902HC-CG200
Applicant:	Qingdao Haier Telecom Co., Ltd. No.1,Haier Road,Hi-tech Zone,Qingdao,266101,P.R.China
Manufacturer:	Qingdao Haier Telecom Co., Ltd. No.1,Haier Road,Hi-tech Zone,Qingdao,266101,P.R.China
Emission Designator:	1M25F9W
Test Standards:	47 CFR Part 2 47 CFR Part 15 Subpart B
Test Date(s):	February 17, 2009- February 27, 2009
Test Result:	PASS

*** We Hereby Certify That:**

The equipment under test was tested by Shenzhen Morlab Communications Technology Co., Ltd. The test data, data evaluation, test procedures and equipment configurations shown in this report were made in accordance with the requirement of related FCC rules.

The test results of this report only apply for the tested sample equipment identified above. The test report shall be invalid without all the signatures of the test engineer, the reviewer and the approver.

Tested by: ..... Dated: 2009.3.4
Li Yi

Reviewed by: ..... Dated: 2009.3.04
Wei Yanquan

Approved by: ..... Dated: 2009.03.04
Shu Luan

2. General Information

2.1 Equipment under Test (EUT) Description

Sample Description .....:	HC-CG200	
Model Name .....:	HC-CG200	
Serial No. .....:	(n.a, marked #1 by test site)	
Hardware Version .....:	H01	
Software Version .....:	S001	
Modulation .....:	CDMA 1X	
Frequency .....:	Tx: 824.7 – 848.31MHz; Rx: 869.7 - 893.31MHz	
Power Supply: .....:	Battery	
	Brand name:	Haier
	Model Name:	H15159
	Capacitance:	1200mAh
	Rated voltage:	3.7V
	Charge limited:	4.2V
	Manufacturer:	SHENZHEN XWODA ELECTRONIC CO.LTD Building C, Tongfukang Industrial Zone ShiyanTown, Baoan, District, ShenZhen, China
Accessory Equipment:.....	AC Adapter (Charger for Battery)	
	Brand Name:	Haier
	Model Name:	H24142
	Rated Input:	~ 100V-240V, 0.2A, 50/60Hz
	Rated Output:	⎓ 5.0V, 0.55A
	Manufacturer:	ZHONGWEI INDUSTRIAL PARK Fushan Industial Area, Jiangshan Town Laixi City, Qingdao, Shandong, China
	Wire Length:	100cm

NOTE:

1. The EUT is a model of CDMA 1X mobile station operating in Cellular band.
2. The normal configuration for the EUT is the Mobile Phone (MS) associated with ancillary equipments e.g. the Battery and/or the AC Adapter (Charger).
3. For detailed features about the EUT, please see user manual supplied by the applicant.

2.2 Test Standards and Results

The objective of the report is to perform tests according to 47 CFR Part 2, Part 15 Part 22 for FCC ID Certification:

No.	Identity	Document Title
1	47 CFR Part 2 (10-1-05 Edition)	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	47 CFR Part 15 (10-1-05 Edition)	Radio Frequency Devices

Test detailed items and the results are as below:

No.	Rules	Test Type	Result	Date of Test
FCC Part 15 Requirement				
1	§15.107	Conducted Emissions	PASS	2009-02-18
2	§15.109	Radiated Emissions	PASS	2009-02-18

NOTE:

The tests were performed according to the method of measurements prescribed in ANSI C63.4 2003.

Facilities and Accreditations

2.2.1 Facilities

Shenzhen Electronic Product Quality Testing Center Morlab Laboratory is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is CNAS L1659.

All measurement facilities used to collect the measurement data are located at Electronic Testing Building, Shahe Road, Xili, Nanshan District, Shenzhen, P. R. China. The site was constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22, the FCC registration number is 741109.

2.2.2 Test Equipments

No.	Description	Specification	
1	System Simulator	Manufacturer: Model No.: Serial No.:	Rohde&Schwarz CMU200 100448
2	System Simulator	Manufacturer: Model No.: Serial No.:	Agilent E5515C GB43130131
3	Spectrum Analyzer	Manufacturer: Model No.: Serial No.:	Agilent E7405A US44210471
4	Telecommunication Antenna	Manufacturer: Model No.: Serial No.:	European Antennas PSA-45010R/356 403688-001
5	Trilogy Antenna	Manufacturer: Model No.: Serial No.:	Schwarzbeck VULB 9163 9163-274
6	Horn Antenna	Manufacturer: Model No.: Serial No.:	Schwarzbeck BBHA 9120C 9120C-384
7	Power Splitter	Manufacturer: Model No.: Serial No.:	WEINSCHEL 1506A NW521
8	Anechoic Chamber	Manufacturer:	Albatross Projects GmbH
9	DC Power Supply	Manufacturer:	Good Will Instrument Co., Ltd.
10	Temperature Chamber	Manufacturer:	Chongqing YinHe Experimental Equip. Co., Ltd.

NOTE:

1. Equipments listed above have been calibrated and are in the period of validation.

2.2.3 Test Environment Conditions

During the measurement, the environmental conditions were within the listed ranges:

Temperature:	20 - 25°C
Relative Humidity:	40 - 60%
Atmospheric Pressure:	86-106kPa

3. 47 CFR Part 15B Requirements

3.1 General Information

3.1.1 Test Mode

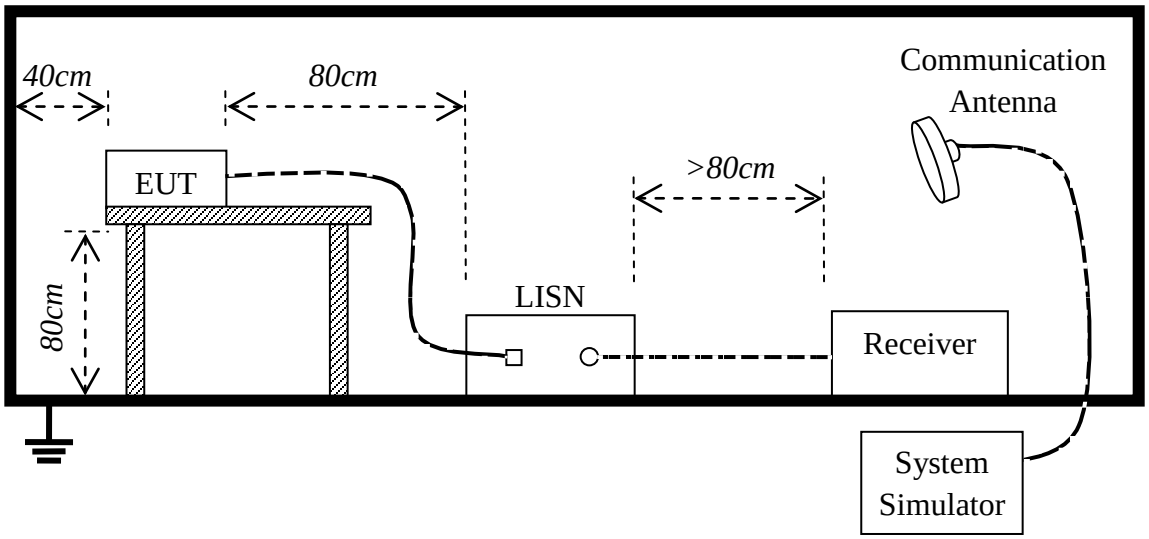
The EUT configuration of the emission tests was MS + Battery + Charger

Before the measurement, the lithium battery was completely discharge.

During the measurement, the lithium battery was installed into the MS, and the charger was connected to the MS. A communication link was established between the MS and a System Simulator (SS).

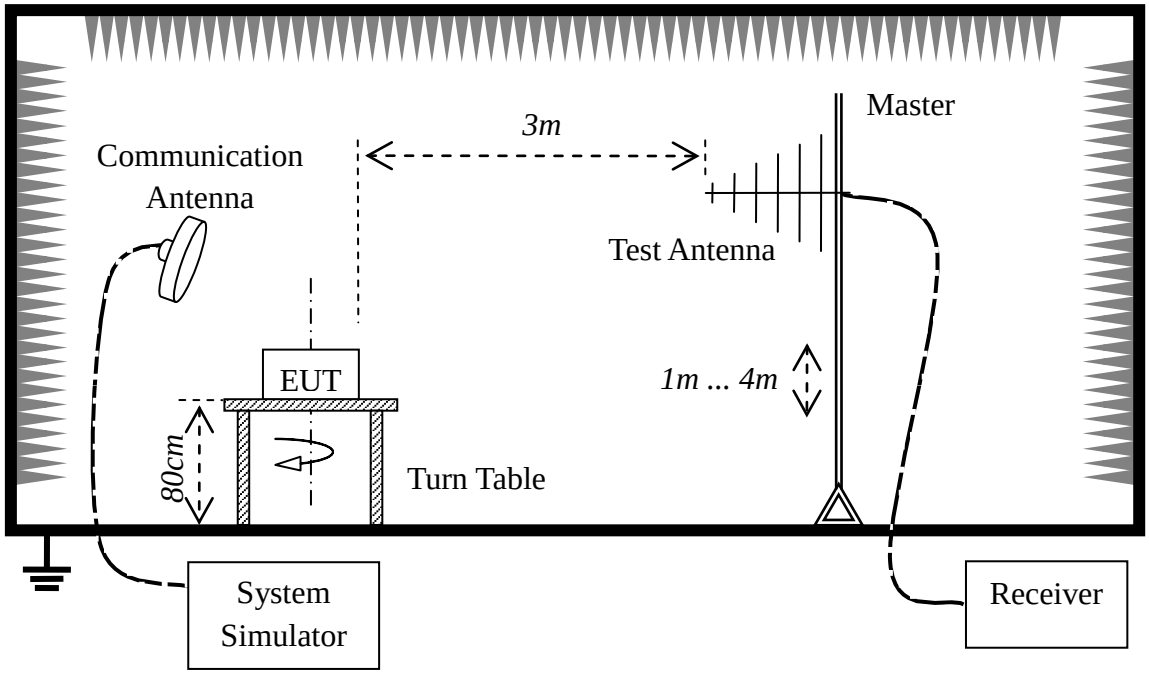
3.1.2 Test Setup

3.1.2.1 Conducted Emission Test



1. The test is performed in a Shield Room; the factors of the test system are calibrated to correct the reading.
2. The EUT is placed on a 0.8 meters high insulating table and keeps 0.4 meters away from the conducting wall of the Shield Room.
3. The EUT is connected to the power mains through a Line Impedance Stabilization Network (LISN). The LISN provides 50Ω/50μH of coupling impedance for the measuring instrument.

3.1.2.2 Radiated Emission Test



1. The test is performed in a Semi-anechoic Chamber; the factors of the test system are calibrated to correct the reading.
2. The EUT is placed on a 0.8 meters high insulating table and keeps 3 meters away from the trilogy Test Antenna, which is mounted on the top of a variable-height antenna Master tower.

NOTE:

1. The test method is the substitution method according to TIA-603-C.

3.2 Conducted Emission

3.2.1 Requirement

According to FCC §15.107, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150kHz to 30MHz shall not exceed the limits in the following table, as measured using a 50μH/50Ω line impedance stabilization network (LISN).

Frequency range (MHz)	Conducted Limit (dBμV)	
	Quasi-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

NOTE:

1. The limit subjects to the Class B digital device.
2. The lower limit shall apply at the band edges.
3. The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.

3.2.2 Test Procedure

1. Perform test setup as described in section 3.1.2.1.
2. Each test mode in section 3.1.1 should be applied. At each test mode, the frequency range from 150 kHz to 30MHz is searched using the CISPR Quasi-Peak and/or the Average detector of the Receiver. If the emission levels measured with Quasi-Peak detector are lower than the Average Limit, it's not necessary to measure with Average detector.
3. The emission levels at both L phase and N phase should be tested.
4. Record the test result plot and distinct points.
5. In the test report show the worst test data.

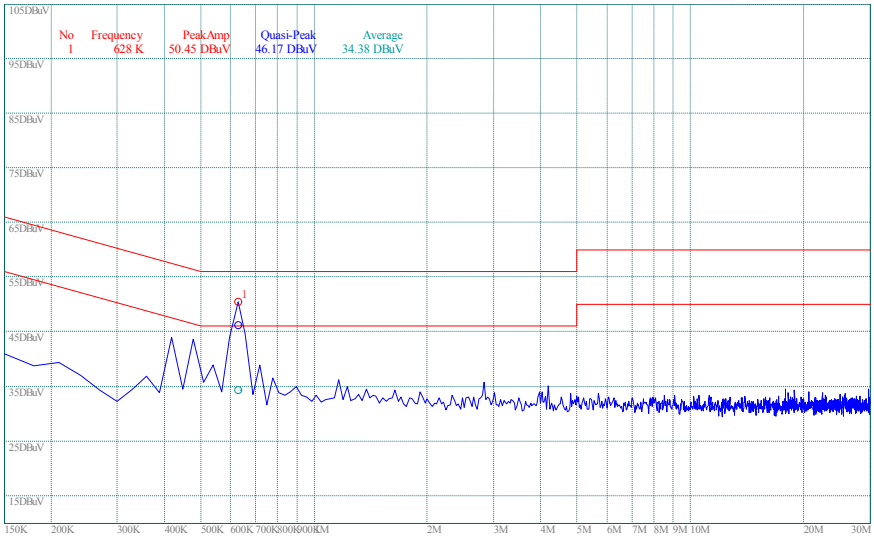
3.2.3 Test Result

A. Test Verdict Recorded for Suspicious Points:

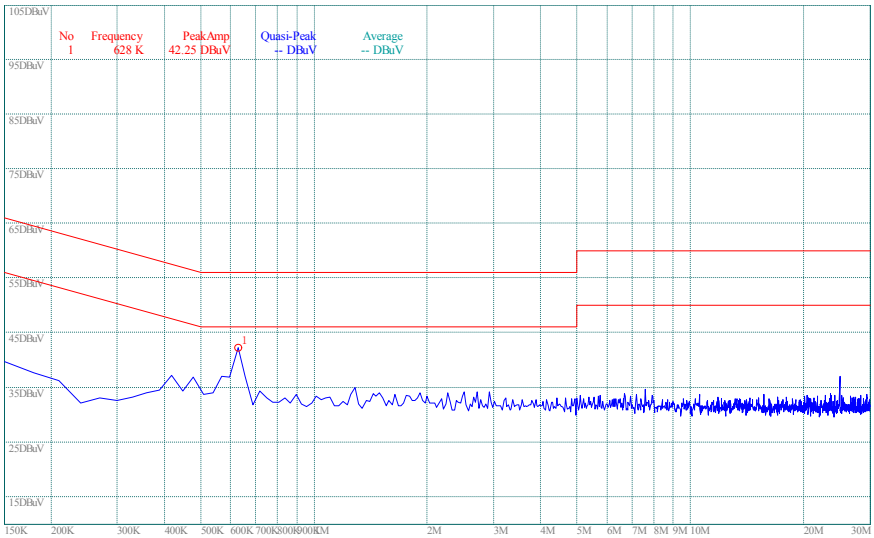
No.	@Frequency (MHz)	Measured Emission Level (dBμV)				Limit (dBμV)		Verdict
		PK	QP	AV	Phase	QP	AV	
1	0.628	50.45	46.17	34.38	L	56.0	46.0	PASS
2	0.628	42.25	--	--	N	56.0	46.0	PASS

Note: "--" in the table above means that the emissions are too small to be measured and are at least 20 dB below the limit.

B. Test Plot



(Plot A: L Phase)



(Plot B: N Phase)

3.3 Radiated Emission

3.3.1 Requirement

According to FCC §15.109, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency range (MHz)	Field Strength	
	μV/m	dBμV/m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

NOTE:

1. Field Strength (dBμV/m) = 20*log[Field Strength (μV/m)].
2. In the emission tables above, the tighter limit applies at the band edges.

3.3.2 Test Procedure

1. Perform test setup as described in section 3.1.2.2.
2. Each test mode in section 3.1.1 should be applied. At each test mode, the Turn Table turns from 0 degrees to 360 degrees to find the maximum reading; for the suspected points, the Test Antenna varies from 1 meter to 4 meters to determine the maximum value of the field strength.
3. The Receiver is set to Peak Detector function and specified bandwidth with maximum hold mode. If the emission level of the EUT in peak mode is 6dB lower than the limit specified, then testing could be stopped and the peak values would be reported; otherwise the emission less than 6dB margins would be retested one by one using the quasi-peak method.
4. The emission levels at both horizontal and vertical polarizations should be tested.
5. Record the test result plot and distinct points.
6. In the test report show the worst test data.

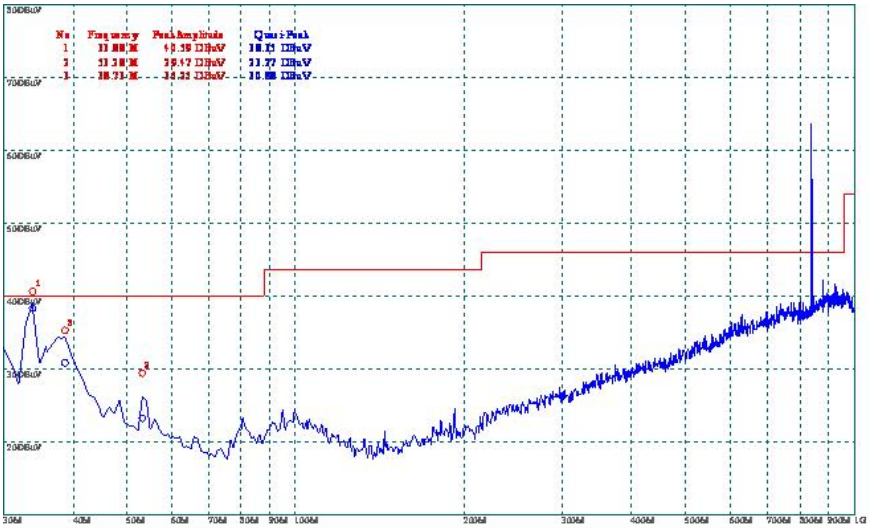
3.3.3 Test Result

A. Test Verdict Recorded for Suspicious Points:

No.	Frequency (MHz)	Emission Level (dBμV/m)			Quasi-Peak Limit (dBμV/m)	Result
		Peak	Quasi-Peak	Antenna Polarization		
1	33.88	41.23	39.17	Vertical	40.0	PASS
2	192.96	26.01	22.07	Vertical	43.5	PASS
3	33.88	40.59	38.35	Horizontal	40.0	PASS
4	38.73	35.25	30.88	Horizontal	40.0	PASS

B. Test Plot

(Plot A: Test Antenna Vertical)



(Plot B: Test Antenna Horizontal)

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