No. 588 West Jindu Road, Songjiang District, Shanghai, China

FCC ID: VW3HILONC

Report No.: SHEMO090100019IT01

Page 1 of 25

Telephone: +86 (0) 21 6191 5666 Fax: +86 (0) 21 6191 5655

Tino. Pan@sgs.com

FCC TEST REPORT

Application No.: SHEMO090100019IT01

Applicant: SAGEM COMMUNICATIONS

Equipment Under Test (EUT):

NOTE: The following sample(s) submitted was/were identified on behalf of the client as

EUT Name: GSM/GPRS Module

Model No.: HILONC

Serial No.: Not supplied by client GSM Frequency Bands: GSM850/PCS1900 CFR 47 part 2: 2008,

CFR 47 Part 15: 2008,

ANSI C63.4: 2003

Date of Receipt: January 09, 2009

Date of Test: January 09, 2009 to April 28, 2009

Date of Issue: April 28, 2009

Test Result : PASS

Authorized Signature:

Tino Pan

E&E Section Manager SGS-CSTC Co., Ltd.

Jack Wu

Jack Wu

E&E Project Engineer SGS-CSTC Co., Ltd

This report refers to the General Conditions for Inspection and Testing Services, printed overleaf

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the SGS PRODUCT CERTIFICATION MARK.. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

All test results in this report can be traceable to National or International Standards.

No. 588 West Jindu Road, Songjiang District, Shanghai, China

FCC ID: VW3HILONC

Report No.: SHEMO090100019IT01

Page 2 of 25

Telephone: +86 (0) 21 6191 5666 Fax: +86 (0) 21 6191 5655

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2 Test Summary

Test	Test Requirement	Test Method	Class / Severity	Result	
Radiated Emission	CFR 47 Part 15:2008	ANSI C63.4: 2003	Class B	PASS	
30MHz-1000MHz	CFR 47 Part 15:2008	ANSI C03.4: 2003	Class B	PASS	
Conducted Emission	CED 47 David 15:2000	ANSI C63.4: 2003	Class D	DACC	
150KHz-30MHz	CFR 47 Part 15:2008	AINSI C03.4: 2003	Class B	PASS	

No. 588 West Jindu Road, Songjiang District, Shanghai, China

FCC ID: VW3HILONC

Report No.: SHEMO090100019IT01

Page 3 of 25

Telephone: +86 (0) 21 6191 5666 Fax: +86 (0) 21 6191 5655

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3 Contents

1	CO	OVER PAGE	'age 1
2		EST SUMMARY	
3	C	ONTENTS	3
4	GI	ENERAL INFORMATION	4
	4.1	CLIENT INFORMATION.	4
		GENERAL DESCRIPTION OF E.U.T.	
		DETAILS OF E.U.T.	
	4.4	DESCRIPTION OF SUPPORT UNITS	4
		STANDARDS APPLICABLE FOR TESTING	
		TEST LOCATION	
		DEVIATION FROM STANDARDS	
		ABNORMALITIES FROM STANDARD CONDITIONS	
		MONITORING OF EUT FOR ALL IMMUNITY TEST	
	4.9	TEST CONFIDENT LEVEL	5
5	E(QUIPMENTS USED DURING TEST	6
6	EN	MISSION TEST RESULTS	8
	6.1	RADIATED EMISSIONS, 30MHz to 1GHz	8
	6.1		
	6.1	1.2 Test setup:	8
	6.1	1.3 Test Result:	9
	6.2	CONDUCTED EMISSIONS, 150kHz to 30MHz	
		2.1 E.U.T. Operation	
	6.2	2.2 Test Result and Partial Measurement Data	17
7	PF	HOTOGRAPHS	22
	7.1	RADIATED EMISSION TEST SETUP	22
	7.2	CONDUCTED EMISSION TEST SETUP	23
Q	FI	UT CONSTRUCTIONAL DETAILS	24

No. 588 West Jindu Road, Songjiang District, Shanghai, China

FCC ID: VW3HILONC

Report No.: SHEMO090100019IT01

Page 4 of 25

Telephone: +86 (0) 21 6191 5666 Fax: +86 (0) 21 6191 5655

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4 General Information

4.1 Client Information

Applicant: SAGEM COMMUNICATIONS

Address of Applicant: Le Ponan de Paris,27 rue Leblanc,75015 PARIS,France

4.2 General Description of E.U.T.

EUT Name: GSM/GPRS Module

Model No.: HILONC

Serial No.: Not supplied by client GSM Frequency Bands: GSM850/PCS1900

4.3 Details of E.U.T.

Power Supply: DC 3.7V

Hardware Version: V2

Software Version: HIC,A

4.4 Description of Support Units

Name / Function	Model No	Remark
N/A	N/A	N/A

4.5 Standards Applicable for Testing

The customer requested EMC tests for GSM/GPRS Module.

The standards used was CFR 47 part 2: 2008 and CFR 47 part 15: 2008:

Table 1: Tests Carried Out Under CFR 47 Part 15: 2008:

	Standard	Status
FCC Part 15 Subpart B: 2008	Radiated Emission	$\sqrt{}$
FCC Part 15 Subpart B: 2008	Conducted Emission	\checkmark

× Indicates that the test is not applicable

 $\sqrt{}$ Indicates that the test is applicable

No. 588 West Jindu Road, Songjiang District, Shanghai, China

FCC ID: VW3HILONC

Telephone: +86 (0) 21 6191 5666
Fax: +86 (0) 21 6191 5655

Report No.: SHEMO090100019IT01

Fax: +86 (0) 21 6191 5655
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Page 5 of 25

4.6 Test Location

Radiated Emission was performed at:

SGS E&E EMC lab, No. 588 West Jindu Road, Songjiang District, Shanghai, China

Tel:+86 21 61915666 Fax: +86 21 61915655

4.6 Deviation from Standards

None.

4.7 Abnormalities from Standard Conditions

None.

4.8 Monitoring of EUT for All Immunity Test

N/A

4.9 Test Confident level

Test Confident level is recognized, certified, or accredited by the following organizations:

CNAL - LAB Code: L0599

SGS EMC Laboratory has been assessed and in compliance with CNAL/AC01:2005 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:2005 General Requirements for the Competence of Testing Laboratories.)

No. 588 West Jindu Road, Songjiang District, Shanghai, China

FCC ID: VW3HILONC
Telephone: +86 (0) 21 6191 5666 Report No.: SHEMO090

Telephone: +86 (0) 21 6191 5666
Fax: +86 (0) 21 6191 5655

Report No.: SHEMO090100019IT01
Page 6 of 25

Fax: +86 (0) 21 6191 5655
Tino. Pan@sgs.com
Page 6 of 25

5 Equipments Used during Test

Radiated Emission

	Radiated Ellission		•			•
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
1	EMI test receiver	Rohde & Schwarz	ESU40	100109	2008-06-19	2009-06-18
2	Receiver Antenna	SCHWARZBEC K	VULB9168	9168-313	2008-06-05	2009-06-04
3	CONTROLLER	INNCO	CO200	474	/	/
4	Communication Antenna	EUROPEAN ANTENNA	FPA-0.8- 0.6R/1329	405156- 0004	2008-12-01	2009-11-30
5	UNIVERSAL RADIO COMMUNICATION TESTER	Rohde & Schwarz	CMU 200	105964	2008-04-25	2009-04-24

Conducted Emission

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
1	EMI test receiver	Rohde & Schwarz	ESCS30	100086	2008-06-27	2009-06-26
2	Line impedance stabilization network	ETS	3816/2	00034161	2008-07-31	2009-07-30

No. 588 West Jindu Road, Songjiang District, Shanghai, China

FCC ID: VW3HILONC

Telephone: +86 (0) 21 6191 5666 Fax: +86 (0) 21 6191 5655 Report No.: SHEMO090100019IT01

Fax: +86 (0) 21 6191 5655
Tino. Pan@sgs.com
Page 7 of 25

General Equipment

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal.Due date
1	Atmosphere pressure Shanghai ZhongXuan Electronic Co;Ltd		BY-2003P	1	2008-10-21	2009-10-20
2	CLAMP METER	FLUKE	316	86080010	2008-04-21	2009-04-20
3	Thermo-Hygrometer	ZHICHEN	ZC1-2	01050033	2008-10-21	2009-10-20
4	Digital illuminance meter	TES electrical electronic Corp.	TES-1330A	050602219	2008-10-21	2009-10-20
5	DC Power	KIKUSUI	PMC35-3	NF100260	2008-11-05	2009-11-04

No. 588 West Jindu Road, Songjiang District, Shanghai, China

FCC ID: VW3HILONC

Report No.: SHEMO090100019IT01

Page 8 of 25

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Telephone:

6 Emission Test Results

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6.1 Radiated Emissions, 30MHz to 1GHz

Test Requirement: CFR 47 Part 15:2008 Test Method: ANSI C63.4:2003

Test Date: January 09, 2009 to January 16, 2009

Frequency Range: 30MHz to 1GHz

Measurement Distance: 3m Class: N/A

Detector: Peak for pre-scan (120kHz resolution bandwidth)

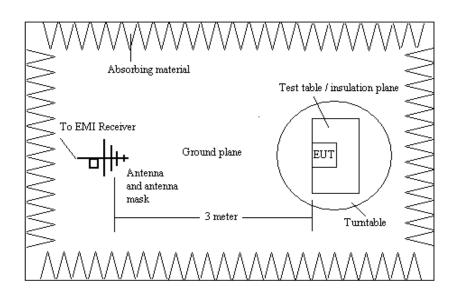
6.1.1 E.U.T. Operation

Operating Environment:

Temperature: 25.0 °C Humidity: 45 % RH Atmospheric Pressure: 1014 mbar

EUT Operation: EUT allocated channel mode Charging, GSM850 and PCS 1900

6.1.2 Test setup:



No. 588 West Jindu Road, Songjiang District, Shanghai, China

FCC ID: VW3HILONC

Report No.: SHEMO090100019IT01

Page 9 of 25

Telephone: +86 (0) 21 6191 5666 Fax: +86 (0) 21 6191 5655

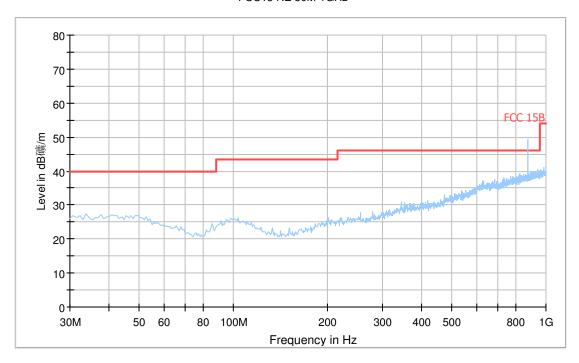
Tino. Pan@sgs.com

6.1.3 Test Result:

GSM 850 idle mode:

Horizontal:

FCC15 RE 30M-1GHz



Frequency (MHz)	Antenna Polarization	Receiver QP Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Turntable Angle (°)
30	Horizontal	*	40	*	-	-
45	Horizontal	*	40	*	-	-
88	Horizontal	*	43.5	*	-	-
150	Horizontal	*	43.5	*	-	-
216	Horizontal	*	46	*	-	-
560	Horizontal	*	46	*	-	-
960	Horizontal	*	54	*	-	-
1000	Horizontal	*	54	*		

1. All readings are Peak values.

2. "*" means the emission level is 6 dB below the relevant limit.

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FCC ID: VW3HILONC

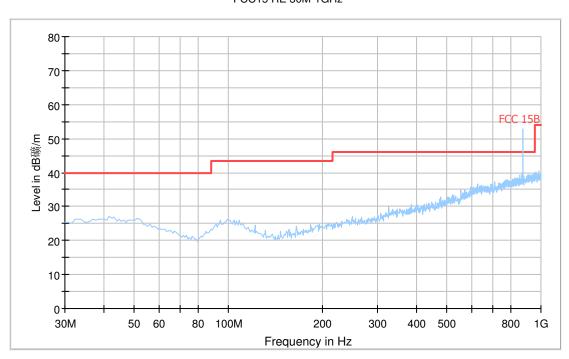
Report No.: SHEMO090100019IT01

Page 10 of 25

Telephone: +86 (0) 21 6191 5666 Fax: +86 (0) 21 6191 5655

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Vertical:



Frequency (MHz)	Antenna Polarization	Receiver QP Reading (dBuV/m)	Limit (dBuV/m)	(dB)	Antenna Height (cm)	Turntable Angle (°)
30	Vertical	*	40	*	-	-
45	Vertical	*	40	*	-	-
88	Vertical	*	43.5	*	-	-
150	Vertical	*	43.5	*	-	-
216	Vertical	*	46	*	-	-
560	Vertical	*	46	*	-	-
960	Vertical	*	54	*	-	-
1000	Vertical	*	54	*		

- 1. All readings are Peak values.
- 2. "*" means the emission level is 6 dB below the relevant limit.

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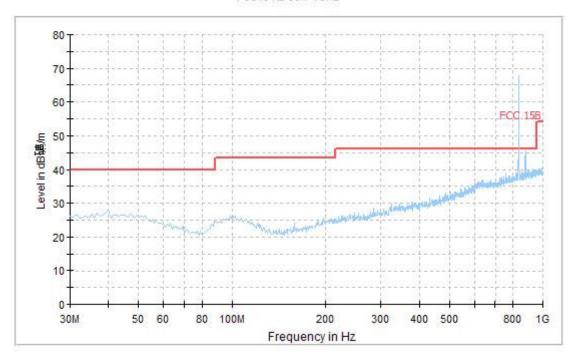
FCC ID: VW3HILONC

Report No.: SHEMO090100019IT01

Page 11 of 25

GSM 850 communication mode:

Horizontal:



Frequency (MHz)	Antenna Polarization	Receiver QP Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Turntable Angle (°)
30	Horizontal	*	40	*	-	-
45	Horizontal	*	40	*	-	-
88	Horizontal	*	43.5	*	-	-
150	Horizontal	*	43.5	*	-	-
216	Horizontal	*	46	*	-	-
560	Horizontal	*	46	*	-	-
960	Horizontal	*	54	*	-	-
1000	Horizontal	*	54	*		

- 1. All readings are Peak values.
- 2. "*" means the emission level is 6 dB below the relevant limit.

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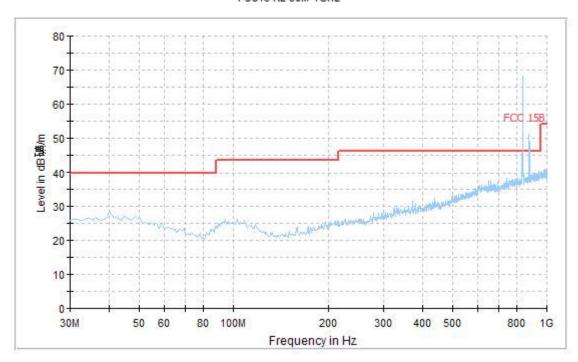
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FCC ID: VW3HILONC

Report No.: SHEMO090100019IT01

Page 12 of 25

Vertical:



Frequency (MHz)	Antenna Polarization	Receiver QP Reading (dBuV/m)	(dBuV/m)	Margin (dB)	Antenna Height (cm)	Turntable Angle (°)
30	Vertical	*	40	*	-	-
45	Vertical	*	40	*	-	-
88	Vertical	*	43.5	*	-	-
150	Vertical	*	43.5	*	-	-
216	Vertical	*	46	*	-	-
560	Vertical	*	46	*	-	-
960	Vertical	*	54	*	-	-
1000	Vertical	*	54	*		

- 1. All readings are Peak values.
- 2. "*" means the emission level is 6 dB below the relevant limit.

No. 588 West Jindu Road, Songjiang District, Shanghai, China

FCC ID: VW3HILONC

Report No.: SHEMO090100019IT01

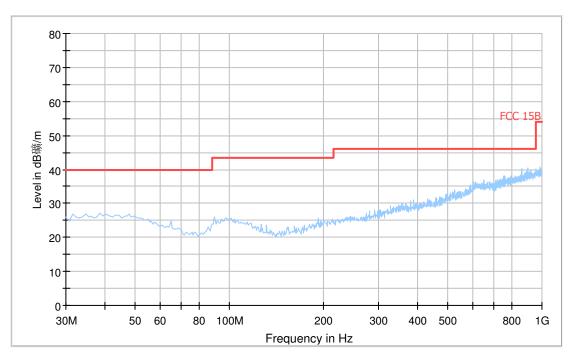
Page 13 of 25

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PCS 1900 idle mode:

Horizontal:



Frequency (MHz)	Antenna Polarization	Receiver QP Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Turntable Angle
30	Horizontal	*	40	*	-	-
45	Horizontal	*	40	*	-	-
88	Horizontal	*	43.5	*	-	-
150	Horizontal	*	43.5	*	-	-
216	Horizontal	*	46	*	-	-
560	Horizontal	*	46	*	-	-
960	Horizontal	*	54	*	-	-
1000	Horizontal	*	54	*		

- 1. All readings are Peak values.
- 2. "*" means the emission level is 6 dB below the relevant limit.

No. 588 West Jindu Road, Songjiang District, Shanghai, China

FCC ID: VW3HILONC

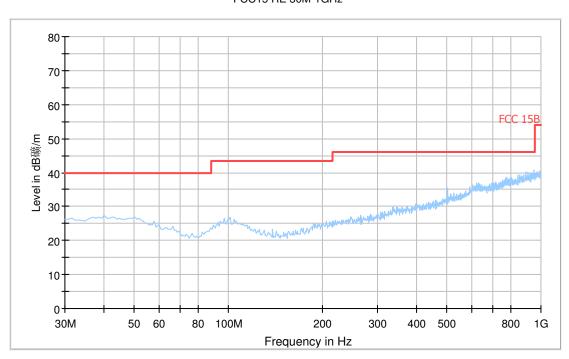
Report No.: SHEMO090100019IT01

Page 14 of 25

Telephone: +86 (0) 21 6191 5666 Fax: +86 (0) 21 6191 5655

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Vertical:



Frequency (MHz)	Antenna Polarization	Receiver QP Reading (dBuV/m)	(dBuV/m)	Margin (dB)	Antenna Height (cm)	Turntable Angle (°)
30	Vertical	*	40	*	-	-
45	Vertical	*	40	*	-	-
88	Vertical	*	43.5	*	-	-
150	Vertical	*	43.5	*	-	-
216	Vertical	*	46	*	-	-
560	Vertical	*	46	*	-	-
960	Vertical	*	54	*	-	-
1000	Vertical	*	54	*		

- 1. All readings are Peak values.
- 2. "*" means the emission level is 6 dB below the relevant limit.

No. 588 West Jindu Road, Songjiang District, Shanghai, China

FCC ID: VW3HILONC

Report No.: SHEMO090100019IT01

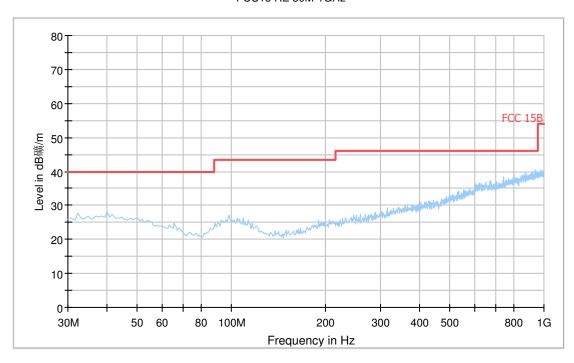
Page 15 of 25

Telephone: +86 (0) 21 6191 5666 Fax: +86 (0) 21 6191 5655

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PCS 1900 communication mode:

Horizontal:



Frequency (MHz)	Antenna Polarization	Receiver QP Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Turntable Angle (°)
30	Horizontal	*	40	*	-	-
45	Horizontal	*	40	*	-	-
88	Horizontal	*	43.5	*	-	-
150	Horizontal	*	43.5	*	-	-
216	Horizontal	*	46	*	-	-
560	Horizontal	*	46	*	-	-
960	Horizontal	*	54	*	-	-
1000	Horizontal	*	54	*		

- 1. All readings are Peak values.
- 2. "*" means the emission level is 6 dB below the relevant limit.

No. 588 West Jindu Road, Songjiang District, Shanghai, China

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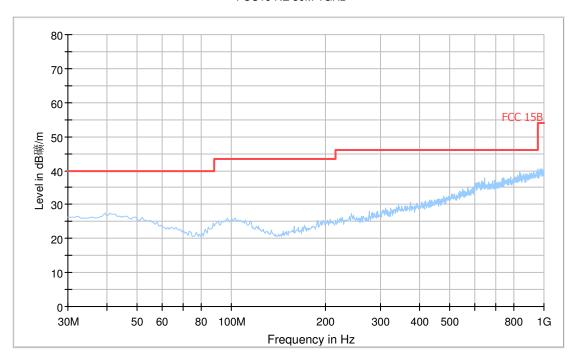
Report No.: SHEMO090100019IT01

Page 16 of 25

Telephone: +86 (0) 21 6191 5666 Fax: +86 (0) 21 6191 5655

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Vertical:



Frequency (MHz)	Antenna Polarization	Receiver QP Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Turntable Angle (°)
30	Vertical	*	40	*	-	-
45	Vertical	*	40	*	-	-
88	Vertical	*	43.5	*	-	-
150	Vertical	*	43.5	*	-	-
216	Vertical	*	46	*	-	-
560	Vertical	*	46	*	-	-
960	Vertical	*	54	*	-	-
1000	Vertical	*	54	*		

- 1. All readings are Peak values.
- 2. "*" means the emission level is 6 dB below the relevant limit.

No. 588 West Jindu Road, Songjiang District, Shanghai, China

FCC ID: VW3HILONC

Telephone: +86 (0) 21 6191 5666 Report No.: SHEMO090100019IT01

Fax: +86 (0) 21 6191 5655 Page 17 of 25

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6.2 Conducted Emissions, 150kHz to 30MHz

Test Requirement: CFR 47 part 15:2008 Test Method: ANSI C63.4:2003

Test Date: January 09, 2009 to April 28, 2009

Frequency Range: 150kHz to 30MHz

Class: Class B

Limit: 66 dBµV - 56 dBµVbetween 150kHz & 500kHz Quasi-peak

56 dBμV between 0.5MHz & 5MHz Quasi-peak 60 dBμV between 5MHz & 30MHz Quasi-peak

6.2.1 E.U.T. Operation

Operating Environment:

Temperature: 23.0°C Humidity: 56% RH Atmospheric Pressure: 1004 mbar

EUT Operation: EUT allocated channel mode Charging, GSM850 and PCS 1900

6.2.2 Test Result and Partial Measurement Data

Pass

An initial pre-scan was performed in the Shielding room using the receiver in peak detection mode. The EUT was measured for 2 lines and peak emissions from the EUT were detected within 6dB of the class B limit line.

No. 588 West Jindu Road, Songjiang District, Shanghai, China

FCC ID: VW3HILONC

Report No.: SHEMO090100019IT01

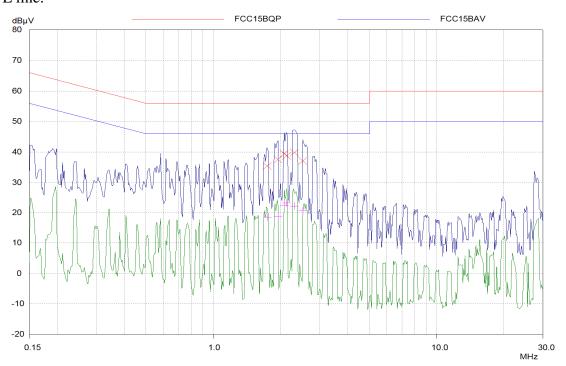
Page 18 of 25

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PCS 1900 dedicated:

L line:



Frequency	QP Level	QP Limit	QP Delta
MHz	dΒμV	dΒμV	dB
1.74556	35.46	56.00	20.54
1.95156	37.57	56.00	18.43
2.08001	39.54	56.00	16.46
2.13033	38.78	56.00	17.22
2.30703	39.86	56.00	16.14
2.51837	37.12	56.00	18.88
Frequency	AV Level	AV Limit	AV Delta
MHz	dΒμV	dΒμV	dB
1.74556	18.50	46.00	27.50
1.95156	18.70	46.00	27.30
2.08001	22.42	46.00	23.58
2.13033	23.16	46.00	22.84
2.30703	22.14	46.00	23.86
2.51837	20.63	46.00	25.37

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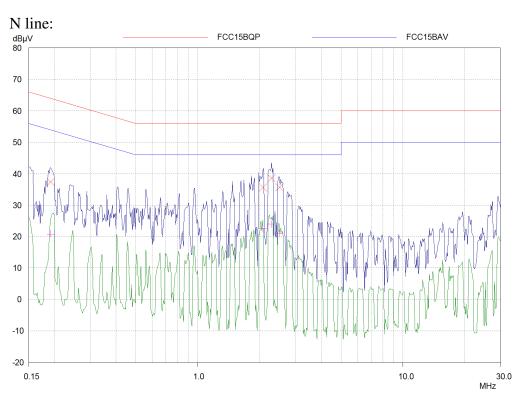
FCC ID: VW3HILONC

Report No.: SHEMO090100019IT01

Page 19 of 25

Telephone: +86 (0) 21 6191 5666 Fax: +86 (0) 21 6191 5655

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Frequency	QP Level	QP Limit	QP Delta
MHz	dBµV	dΒμV	dB
0.19202	37.40	63.95	26.55
2.08001	35.66	56.00	20.34
2.28872	38.57	56.00	17.43
2.49838	35.70	56.00	20.30
Frequency	AV Level	AV Limit	AV Delta
MHz	dBμV	dΒμV	dB
0.19202	20.71	53.95	33.24
2.08001	22.37	46.00	23.63
2.28872	23.89	46.00	22.11
2.49838	20.86	46.00	25.14

No. 588 West Jindu Road, Songjiang District, Shanghai, China

FCC ID: VW3HILONC

Report No.: SHEMO090100019IT01

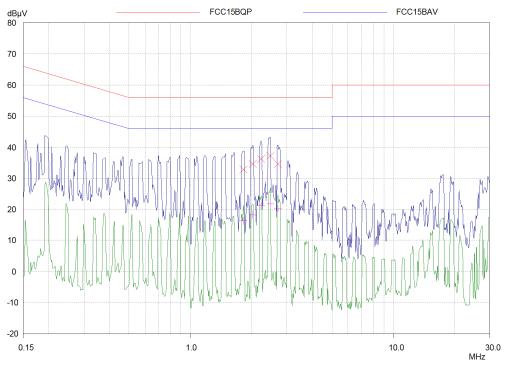
Page 20 of 25

Telephone: +86 (0) 21 6191 5666 Fax: +86 (0) 21 6191 5655

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GSM 850 dedicated:

L line:



Frequency	QP Level	QP Limit	QP Delta
MHz	dBμV	dBμV	dB
1.83104	32.86	56.00	23.14
2.03087	34.64	56.00	21.36
2.23466	36.24	56.00	19.76
2.47855	37.26	56.00	18.74
2.7056	34.60	56.00	21.40
Frequency	AV Level	AV Limit	AV Delta
MHz	dΒμV	dΒμV	dB
1.83104 2.03087 2.23466 2.47855 2.7056	16.23 18.14 21.03 21.68 20.09	46.00 46.00 46.00 46.00	29.77 27.86 24.97 24.32 25.91

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FCC ID: VW3HILONC

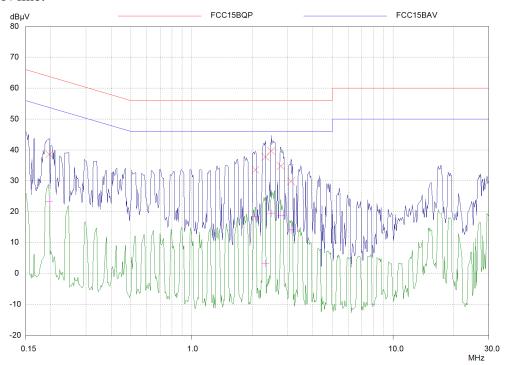
Report No.: SHEMO090100019IT01

Page 21 of 25

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N line:



Frequency	QP Level	QP Limit	QP Delta
MHz	dBμV	dBµV	dB
0.19667	38.61	63.75	25.14
2.08001	33.54	56.00	22.46
2.32548	37.71	56.00	18.29
2.47855	39.68	56.00	16.32
2.77106	34.73	56.00	21.27
3.12287	29.83	56.00	26.17
Frequency MHz	AV Level	AV Limit	AV Delta
0.19667 2.08001	dBμV 23.08 18.36	dBμV 53.75 46.00	30.67 27.64
2.32548	3.24	46.00	42.76
2.47855	19.40	46.00	26.60
2.77106	18.74	46.00	27.26
3.12287	14.02	46.00	31.98

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Report No.: SHEMO090100019IT01

22 of 25 Page

Photographs 7

Radiated Emission Test Setup





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Page 23 of 25

7.2 Conducted Emission Test Setup



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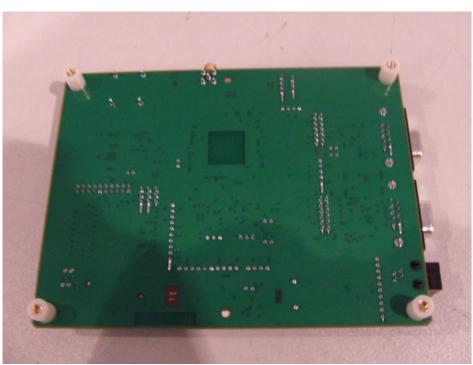
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Page 24 of 25

8 EUT Constructional Details





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Page 25 of 25





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