



TEST REPORT

No. I15D00070-GPS

For

**Client : Shanghai SIMCom Wireless Solutions
Co.,Ltd.**

Production : SIM808

Model Name : GSM/GPRS+GPS Module

Hardware Version: V2.01

Software Version: SIM800 R14.18

Issued date: 2015-06-26

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of ECIT Shanghai.

Test Laboratory:

ECIT Shanghai, East China Institute of Telecommunications

Add: 7-8F, G Area, No.668, Beijing East Road, Huangpu District, Shanghai, P. R. China

Tel: (+86)-021-63843300, E-Mail: welcome@ecit.org.cn

Revision Version

Report Number	Revision	Date	Memo
I15D00070-GPS	00	2015-06-26	Initial creation of test report

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1. Test Laboratory

1.1. Testing Location

Company Name:	ECIT Shanghai, East China Institute of Telecommunications
Address:	7-8F, G Area, No. 668, Beijing East Road, Huangpu District, Shanghai, P. R. China
Postal Code:	200001
Telephone:	(+86)-021-63843300
Fax:	(+86)-021-63843301

1.2. Testing Environment

Normal Temperature:	15-35°C
Relative Humidity:	20-75%

1.3. Project Data

Project Leader:	Chen Kan
Testing Start Date:	2015-06-01
Testing End Date:	2015-06-26

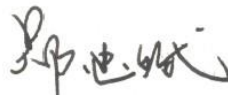
1.4. Signature



Wang Daming
(Prepared this test report)



Liu Jianquan
(Reviewed this test report)



Zheng Zhongbin
Director of the laboratory
(Approved this test report)

2. Client Information

2.1. Applicant Information

Company Name: Shanghai SIMCom Wireless Solutions Co.,Ltd.
Address: Building A,SIM Technology Building,No.633,Jinzhong Road,Changning District,Shanghai R.R.China
Telephone: 86-021-32523300
Postcode: 315500

2.2. Manufacturer Information

Company Name: MOBIWIRE MOBILES (NINGBO) CO.,LTD
Address: No.999,Dacheng East Road,Fenghua City,Zhejiang
Telephone: +86-0574 88916450
Postcode: N/A

3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

EUT Description	GSM/GPRS+GPS Module
Model name	SIM808
GPS Frequency Band	1575.42MHz(L1)
Nominal Voltage	3.8V
Extreme High Voltage	4.2V
Extreme Low Voltage	3.4V

Note: Photographs of EUT are shown in ANNEX B of this test report.

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version	Date of receipt
N03	865067020389345	V2.01	SIM800 R14.18	2015-06-02

*EUT ID: is used to identify the test sample in the lab internally.

3.3. Internal Identification of AE used during the test

AE ID*	Description	SN
AE1	RF cable	---
AE2	---	---

*AE ID: is used to identify the test sample in the lab internally.

4. Reference Documents

4.1. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title	Version
ETSI EN 300 440-1	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short range devices; Radio equipment to be used in the 1 GHz to 40 GHz frequency range; Part 1: Technical characteristics and test methods.	V1.6.1
ETSI EN 300 440-2	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short range devices; Radio equipment to be used in the 1 GHz to 40 GHz frequency range; Part 2: Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive.	V1.4.1

5. Summary of Test Results

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

Test Suites	Tested	Passed	Failed
Product RF Testing	1	1	0
Sum	1	1	0

Test Item List as follow:

NO.	Test Item Name
1	Receiver spurious emissions (radiated & conducted)

Note:

a.The DC and low frequency voltages' measurement uncertainty is $\pm 2\%$.

6. General Information

6.1. Notes

All reported tests were carried out on a sample equipment to demonstrate limited compliance with ETSI EN300 440-1/-2.

The test results of this test report relate exclusively to the item(s) tested as specified in section 5.

The following deviation from, additions to, or exclusions from the test specifications have been made. See section 5.

6.2. Statements

The product name SIM808, supporting GPRS, manufactured by Shenyang Simcom Technology Ltd. is a new product for testing.

ECIT has verified that the compliance of the tested device specified in section 5 of this test report is successfully evaluated according to the procedure and test methods as defined in type certification requirement listed in section 5 of this test report.

7. Test result

7.1. Receiver Spurious Emission (Radiated & Conducted)

Method of Measurement: See EN 300440-1 v1.6.1 clause 8.3.2 / 8.3.3 / 8.3.4

Measurement Limit:

Standard	Limits	
ETSI EN 300 440-1 Clause 8.3.5	25 MHz to 1 GHz	2nw
	Above 1 GHz	20nw

Measurement Uncertainty:

Frequency Range	Uncertainty
30MHz ≤ f ≤ 2GHz	±1.13
2GHz ≤ f ≤ 3.6GHz	±1.16
3.6GHz ≤ f ≤ 8GHz	±2.45
8GHz ≤ f ≤ 12.75GHz	±2.99
12.75GHz ≤ f ≤ 20GHz	±3.69

7.1.1. Receiver Spurious Emissions – Radiated

Measurement Result:

Mode	Antenna Polarization	Frequency Range	Test Results	Conclusion
Receiver	Horizontal	25 MHz ~ 20GHz	Fig.1	P
	Vertical	25 MHz ~ 20GHz	Fig.2	P

The Setting of ESU40

Frequency range	Resolution bandwidth	Video bandwidth	Detector mode
30 MHz to 1 000 MHz	100KHz	300KHz	Peak
1 GHz to 12,75	1MHz	3MHz	Peak

Comment: The EUT is set to receive idle mode.

See ANNEX A for test graphs.

Conclusion: **Pass**

7.1.2. Receiver Spurious Emissions – Conducted

Measurement Result:

Mode	Frequency Range	Test Results	Conclusion	Test results
Receiver	25 MHz-1GHz	-78.26dbm	P	Fig.1
	1GHz-16GHz	-74.33dbm	P	Fig.2
	Other	-70.98dbm	P	Fig.3

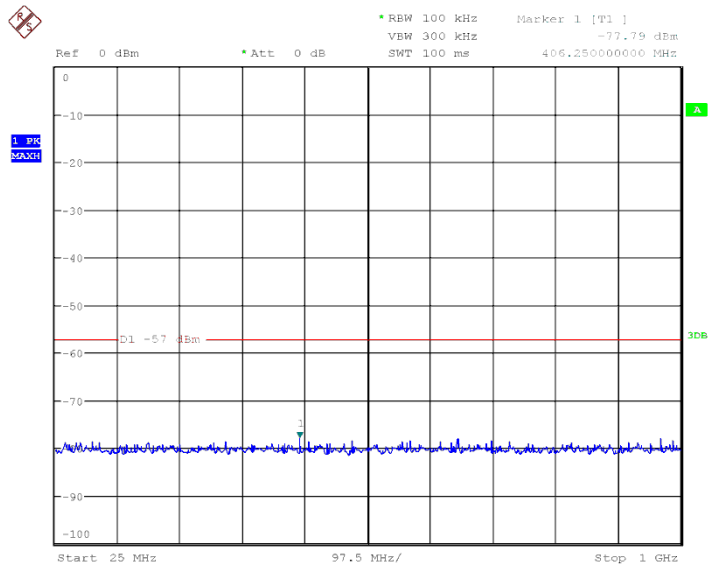
Comment: The EUT is set to receive idle mode.

Conclusion: **Pass**

The Setting of ESU40

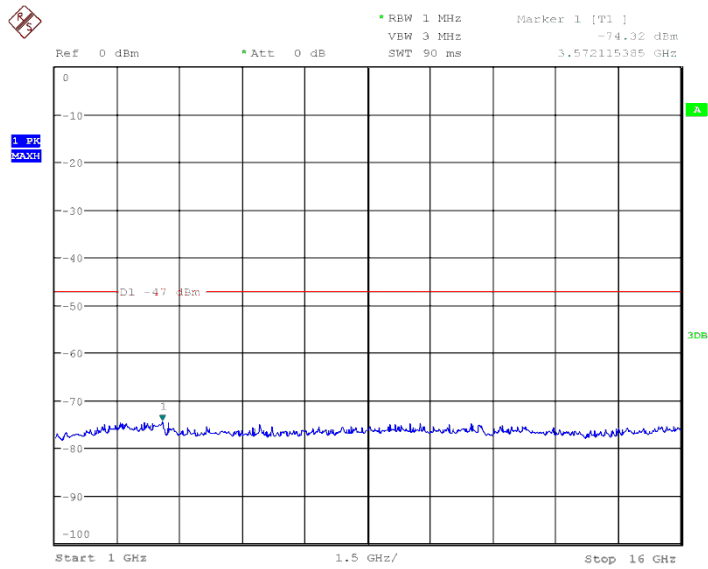
Frequency range	Resolution bandwidth	Video bandwidth	Detector mode
30 MHz to 1 000 MHz	100KHZ	300KHZ	Peak
1 GHz to 12,75 GHz	1MHz	3MHz	Peak

Comment: The EUT is set to receive idle mode. Conclusion: **Pass**



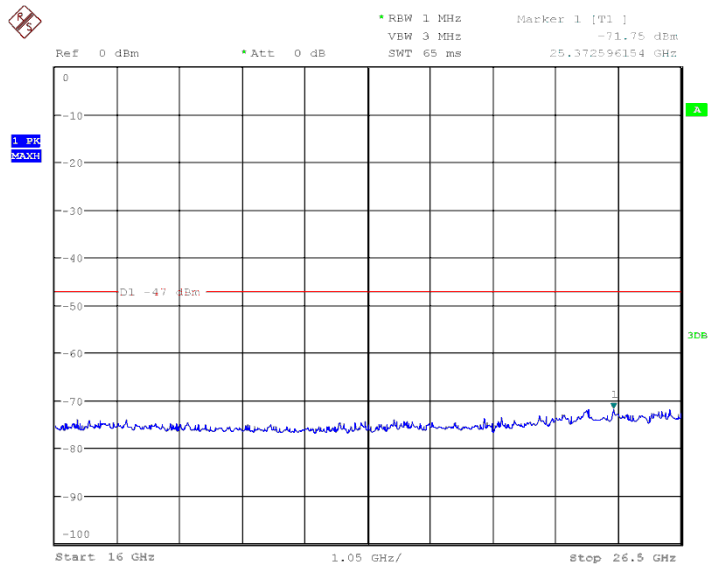
Date: 5.MAY.2015 15:35:10

Fig.1: Frequency Range 25 MHz-1GHz



Date: 5.MAY.2015 15:37:14

Fig.2: Frequency Range 1GHz-16GHz



Date: 5.MAY.2015 15:38:15

Fig.3: Frequency Range 16GHz-26GHz

8. Test Equipments and Ancillaries Used For Tests

The test equipments and ancillaries used are as follows.

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Date	Calibration Due
1	Vector Signal Analyser	FSQ26	101096	Rohde&Schwarz	2014-07-07	2015-07-06
2	DC Power Supply	ZUP60-14	LOC-220Z006	TDL-Lambda	2015-01-19	2016-01-06

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Date	Calibration Due date
1	Test Receiver	ESU40	100307	R&S	2014-07-25	2015-07-24
2	Trilog Antenna	VULB91	19-162515	Schwarzbec	2014-11-05	2017-11-04
3	Double	ETS-31	135885	ETS	2014-05-06	2017-05-05

Anechoic chamber

Fully anechoic chamber by Frankonia German.

9. Test Environment

Shielding Room1 (6.0 meters×3.0 meters×2.7 meters) did not exceed following limits along the conducted RF performance testing:

Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. = 30 %, Max. = 60 %
Shielding effectiveness	> 110 dB
Ground system resistance	< 0.5 Ω
Uniformity of field strength	Between 0 and 6 dB, from 80MHz to 3000 MHz

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

Fully-anechoic chamber1 (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 80MHz to 3000 MHz

Fully-anechoic chamber2 (Tapered Section: 8.75 meters×3.66 meters×3.66 meters, Rectangular Section: 7.32 meters×3.97 meters×3.66 meters) did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. = 35 %, Max. = 60 %

Shielding effectiveness	> 110 dB
Electrical insulation	> 10 k Ω
Ground system resistance	< 0.5 Ω
Uniformity of field strength	Between 0 and 6 dB, from 30MHz to 40000MHz

ANNEX A. TEST FIGURE LIST

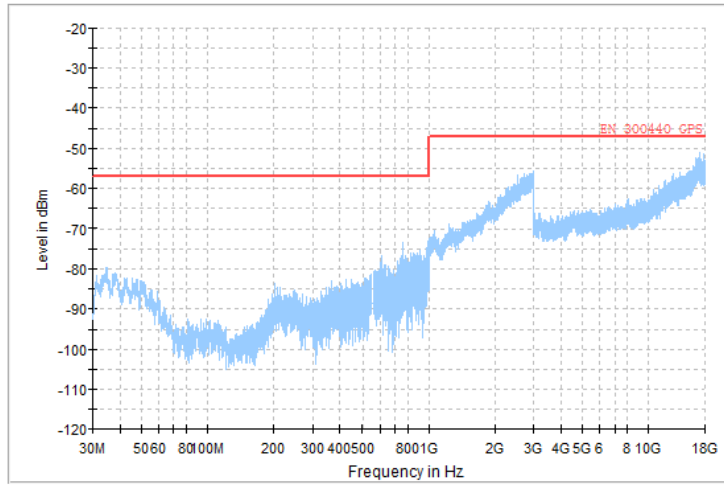


Fig.1 Radiated; Horizontal

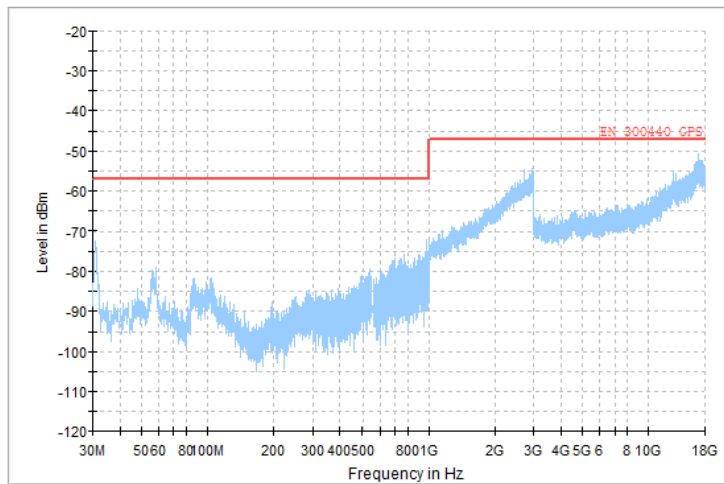
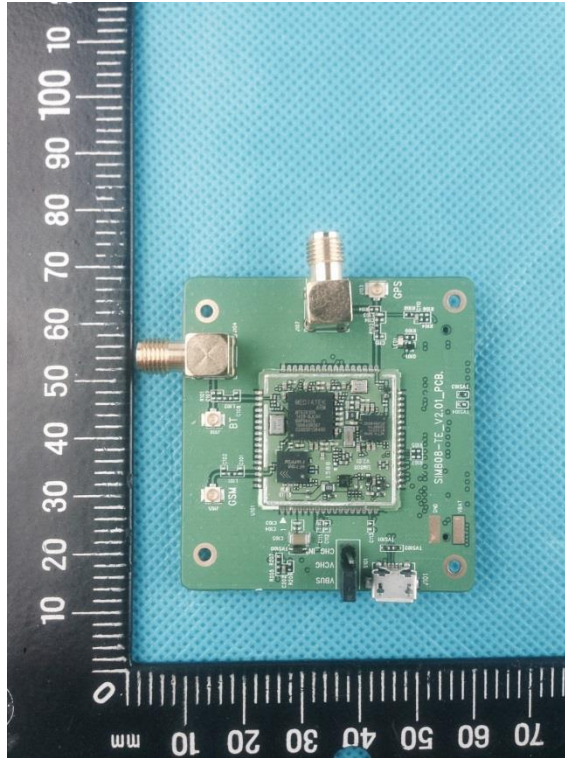
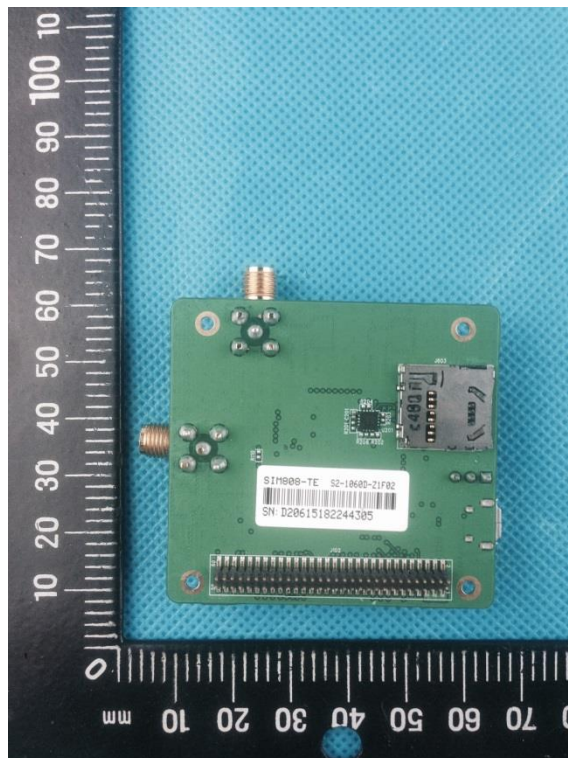


Fig.2 Radiated; Vertical

ANNEX B. EUT PHOTOS



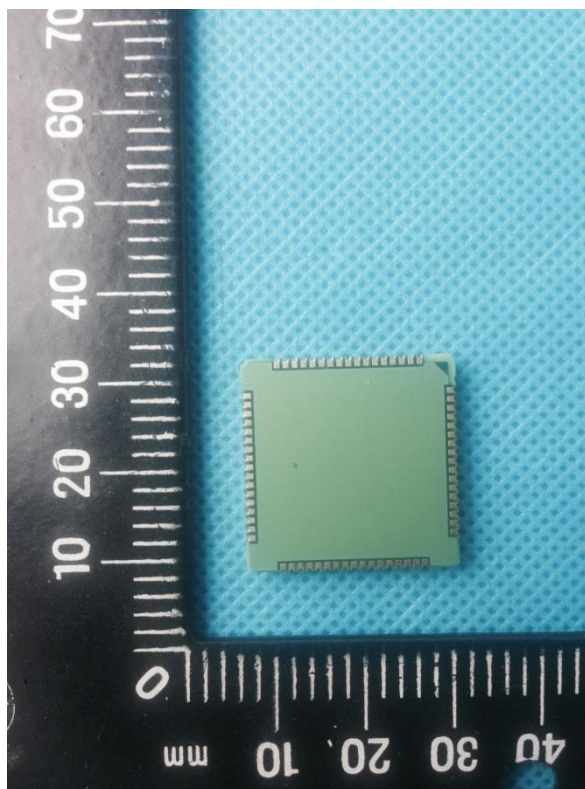
Pic A-1 EUT + test AE



Pic A-2 EUT + test AE



Pic A-3 EUT



Pic A-4 EUT

ANNEX C. Deviations from Prescribed Test Methods

No deviation from Prescribed Test Methods.

*******End The Report*******