

# TEST REPORT

**REPORT NUMBER: I12GC1055-FCC-RF**

**ON**

**Type of Equipment:** Wireless Modules  
**Type of Designation:** MC8805, EM8805  
**Manufacturer:** Sierra Wireless Inc.

**ACCORDING TO**

**FCC CFR Part 2, FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS; e-CFR, Oct 1, 2011**  
**PART 22, PUBLIC MOBILE SERVICES ,Oct 1, 2011**  
**PART 24, PERSONAL COMMUNICATIONS SERVICES ,Oct 1, 2011**

**China Telecommunication Technology Labs.**

*Month date, year*  
Dec, 21, 2012

*Signature*



He Guili  
Director

FCC Parts 2, 22, 24  
Equipment:MC8805, EM8805

REPORT NO.: I12GC1055-FCC-RF

**FCC ID:**

MC8805: N7NMC8805  
EM8805: N7NEM8805

**Report Date:**

2012-12-21

**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, 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, 24.

The test results of this test report relate exclusively to the item(s) tested as specified in section 2.

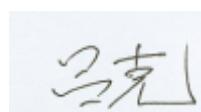
The following deviation from, additions to, or exclusions from the test specifications have been made. See Annex C.

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## 1.2 Testers

Name: Lv ke  
Position: Engineer  
Department: Department of EMC test  
Date: 2012-12-21  
Signature:



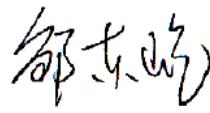
Editor of this test report:

Name: Pan Yang  
Position: Engineer  
Department: Department of EMC test  
Date: 2012-12-21  
Signature:



Technical responsibility for area of testing:

Name: Zou Dongyi  
Position: Manager  
Department: Department of EMC test  
Date: 2012-12-21  
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

#### 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: Sierra Wireless Inc.  
Address: 13811, Wireless Way, Richmond, British Columbia  
Country: Canada  
Telephone: --  
Fax: --  
Contact: --  
Telephone: --  
Email: --

### 1.4.2 Manufacturer (if different from applicant in section 1.4.1)

Name: --  
Address: --  
City: --  
Country: --

### 1.4.3 Manufactory (if different from applicant in section 1.4.1)

Name: --  
Address: --  
City: --  
Country: --

## 2 Test Item

### 2.1 General Information

Manufacturer: Sierra Wireless Inc.  
Name: Wireless Modules  
Model Number: MC8805, EM8805  
Serial Number: -----  
Production Status: Product  
Receipt date of test item: 2012-12-11

### 2.2 Outline of EUT

The EUT MC8805 is a model supporting GPRS/EGPRS 850/1900 bands, WCDMA/HSDPA/HSUPA FDD II/V bands, For GPRS, the multi slots class is 10 (maximum 2 up timeslots), and for EGPRS, it is 12 (maximum 4 up timeslots). The EUT EM8805 is the variable models of MC8805. It use the exact same design (same circuitry, same layout and same BOM) as MC8805 with the exception of the connectors. Please see the following photos for details. Please see the addendum "EUT Interface Description" for details.

During the test, MC8805 is fully measured and EM8805 is partially measured based on the worst cases selected from MC8805 test cases.

### 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	Wireless modules	Sierra Wireless Inc.	MC8805	--	None
B	Wireless modules	Sierra Wireless Inc.	EM8805	--	None

### 2.5 Other Information

-----

### 3 Summary of Test Results

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

Specification Clause	Name of Test	Result
2.1051,22.917, 24.238	Radiated Spurious Emission	Pass
Note: --		

#### Test equipment Used:

Asset Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State
7805	EMI Test Receiver	R/S	ESI26	100211	2013-01-11	Normal
7330	Ultra Broadband Antenna	R/S	VULB 9160	vulb9160-3252	2013-09-05	Normal
7330	Double-Ridged Horn Antenna	R/S	HF906	100037	2014-01-23	Normal
713	Fully-Anechoic Chamber	ETS	11.8m×6.5m×6.3m	--	2013-11-16	Normal
7330-2	Radio Communications Analyzer	Anritsu	MT8820B	6200772659	2013-01-27	Normal
7330-2	Radio Communications Analyzer	Anritsu	MT8820c	6201026477	2013-08-04	Normal
7330	Signal Generator	R/S	SMY02	100024	2013-10-12	Normal

## 4 Test Results

### 4.1 Radiated Spurious Emission

<b>Specifications:</b>	2.1051, 22.917, 24.238
<b>Date of Tests</b>	2012-12-14~2012-12-18
<b>Test conditions:</b>	Ambient Temperature:15°C-35°C Relative Humidity:30%-60% Air pressure: 86-106kPa
<b>Operation Mode</b>	TX on, channel 190 and 661 for GPRS/EGPRS mode, channel 4175, and 9400 for WCDMA/HSUPA/HSDPA mode.
<b>Test Results:</b>	Pass

#### Limit Level Construction:

##### Part 22:

According to Part 22.917(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:

$$P(\text{dBm}) - (43 + 10 \log(P)) \text{ dB} = -13 \text{ dBm}$$

##### Part 24:

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:

$$P(\text{dBm}) - (43 + 10 \log(P)) \text{ dB} = -13 \text{ dBm}$$

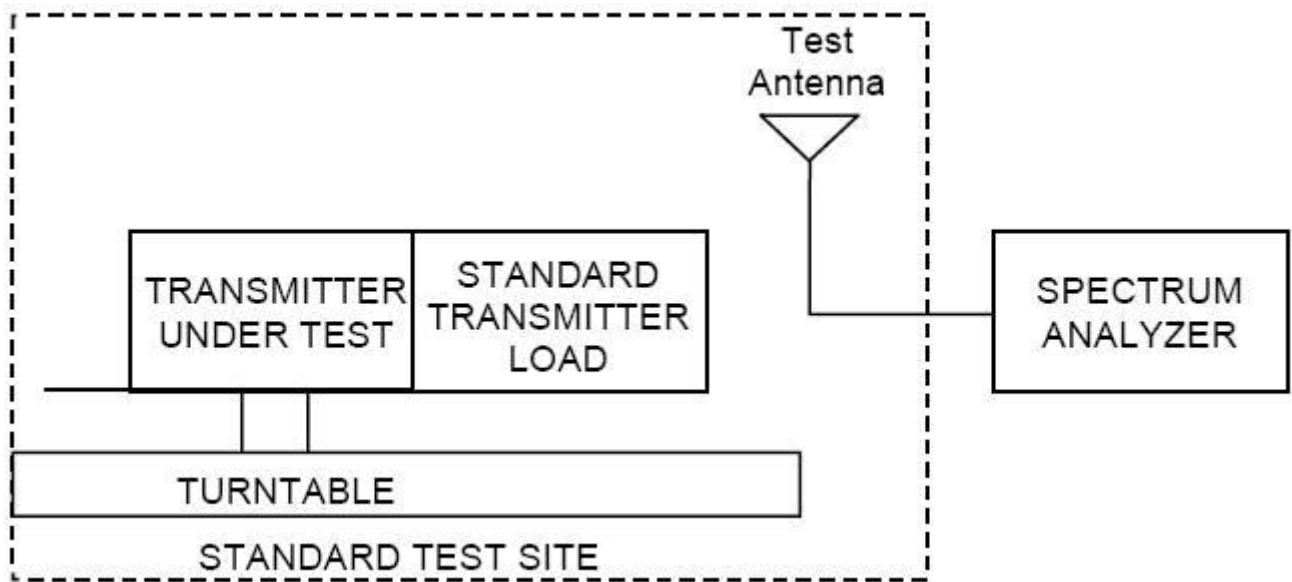
#### Test Setup:

The EUT was placed in an anechoic chamber. The Wireless Communications Test Set was used to set the TX channel and power level and modulate the TX signal with different bit patterns.

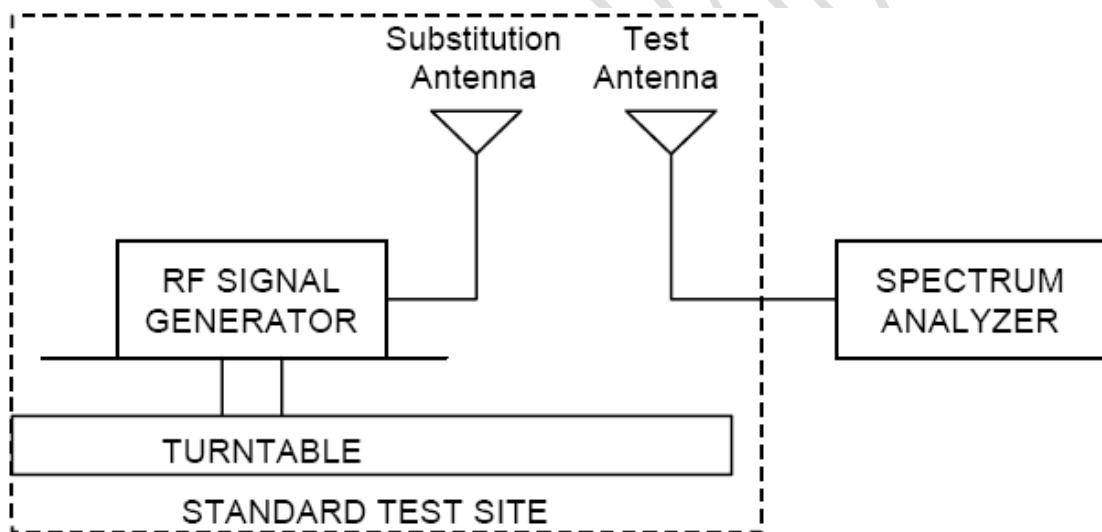
#### Test Method:

The measurement method is substitution method accordance with section 2.2.12 of ANSI/TIA-603-C: *Land Mobile FM or PM Communications Equipment Measurement and Performance Standards*.

- (a) Connect the equipment as illustrated and measure the spurious emissions as the method as above.



(b) Reconnect the equipment as illustrated.



(c) Remove the transmitter and replace it with a substitution antenna. The center of the substitution antenna should be approximately at the same location as the center of the transmitter.

(d) Feed the substitution antenna at the transmitter end with a signal generator connected to the antenna by means of a non-radiating cable. With the antennas at both ends horizontally polarized, and with the signal generator tuned to a particular spurious frequency, raise and lower the test antenna to obtain a maximum reading at the spectrum analyzer. Adjust the level of the signal generator output until the previously recorded maximum reading for this set of conditions is obtained. This should be done carefully repeating the adjustment of the test antenna and generator output.

(e) Repeat step d) with both antennas vertically polarized for each spurious frequency.

(f) Calculate power in dBm into a reference ideal half-wave dipole antenna by

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reducing the readings obtained in steps d) and e) by the power loss in the cable between the generator and the antenna, and further corrected for the gain of the substitution antenna used relative to an ideal half-wave dipole antenna by the following formula:

$$P_d(\text{dBm}) = P_g(\text{dBm}) - \text{cable loss (dB)} + \text{antenna gain (dB)}$$

where:

$P_d$  is the dipole equivalent power and

$P_g$  is the generator output power into the substitution antenna.

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## 4.2 Radiated Spurious Emission test data for MC8805

### Test Data (GPRS channel 190)

Frequency [GHz]	Generator output power( $P_g$ ) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power ( $P_d$ ) [dBm]	Antenna Polarization [H/V]
1673.2	-61.9	7.2	8.6	-60.5	V
2509.8	-62.6	9.1	10	-61.7	V
3346.4	-59.9	11	9.9	-61.0	V
4183	-54.5	12.6	9.8	-57.3	V
5019.6	-56.1	14.2	10	-60.3	V
5856.2	-58.5	15.9	11.2	-63.2	V
1673.2	-61.1	7.2	8.6	-59.7	H
2509.8	-60.9	9.1	10	-60.0	H
3346.4	-62.8	11	9.9	-63.9	H
4183	-54.8	12.6	9.8	-57.6	H
5019.6	-58.5	14.2	10	-62.7	H
5856.2	-57.3	15.9	11.2	-62.0	H

### Test Data (GPRS channel 661)

Frequency [GHz]	Generator output power( $P_g$ ) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power ( $P_d$ ) [dBm]	Antenna Polarization [H/V]
3760	-57.1	13.6	9.8	-60.9	V
5640	-53.7	15.1	10.9	-57.9	V
7520	-52.8	18.8	11.4	-60.2	V
9400	-48.7	22.9	12	-59.6	V
11280	-45.2	28.4	13.4	-60.2	V
13160	-39.6	36.7	13.4	-62.9	V
3760	-56.4	13.6	9.8	-60.2	H
5640	-58.6	15.1	10.9	-62.8	H
7520	-50.9	18.8	11.4	-58.3	H
9400	-48.3	22.9	12	-59.2	H
11280	-46.5	28.4	13.4	-61.5	H
13160	-39.9	36.7	13.4	-63.2	H

**Test Data (EGPRS channel 190)**

Frequency [GHz]	Generator output power( $P_g$ ) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power ( $P_d$ ) [dBm]	Antenna Polarization [H/V]
1673.2	-51.9	7.2	8.6	-50.5	V
2509.8	-57.9	9.1	10	-57.0	V
3346.4	-60.3	11	9.9	-61.4	V
4183	-56	12.6	9.8	-58.8	V
5019.6	-56.4	14.2	10	-60.6	V
5856.2	-54.9	15.9	11.2	-59.6	V
1673.2	-34.7	7.2	8.6	-33.3	H
2509.8	-57.4	9.1	10	-56.5	H
3346.4	-59.4	11	9.9	-60.5	H
4183	-54.4	12.6	9.8	-57.2	H
5019.6	-56	14.2	10	-60.2	H
5856.2	-54.9	15.9	11.2	-59.6	H

**Test Data (EGPRS channel 661)**

Frequency [GHz]	Generator output power( $P_g$ ) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power ( $P_d$ ) [dBm]	Antenna Polarization [H/V]
3760	-55.6	13.6	9.8	-59.4	V
5640	-51.8	15.1	10.9	-56.0	V
7520	-54.2	18.8	11.4	-61.6	V
9400	-47.5	22.9	12	-58.4	V
11280	-46	28.4	13.4	-61.0	V
13160	-39.2	36.7	13.4	-62.5	V
3760	-55.6	13.6	9.8	-59.4	H
5640	-51.9	15.1	10.9	-56.1	H
7520	-52.1	18.8	11.4	-59.5	H
9400	-49	22.9	12	-59.9	H
11280	-45.2	28.4	13.4	-60.2	H
13160	-38.6	36.7	13.4	-61.9	H

**Test Data (WCDMA channel 4175)**

Frequency [GHz]	Generator output power( $P_g$ ) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power ( $P_d$ ) [dBm]	Antenna Polarization [H/V]
1670	-58.9	7.2	8.6	-57.5	V
2505	-59.8	9.1	10	-58.9	V
3340	-59.5	11	9.9	-60.6	V
4175	-53.4	12.6	9.8	-56.2	V
5010	-57.6	14.2	10	-61.8	V
5845	-57.7	15.9	11.2	-62.4	V
1670	-58.8	7.2	8.6	-57.4	H
2505	-58	9.1	10	-57.1	H
3340	-59.5	11	9.9	-60.6	H
4175	-54.4	12.6	9.8	-57.2	H
5010	-61.1	14.2	10	-65.3	H
5845	-59.2	15.9	11.2	-63.9	H

**Test Data (WCDMA channel 9400)**

Frequency [GHz]	Generator output power( $P_g$ ) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power ( $P_d$ ) [dBm]	Antenna Polarization [H/V]
3760	-52.4	13.6	9.8	-56.2	V
5640	-54.6	15.1	10.9	-58.8	V
7520	-55.2	18.8	11.4	-62.6	V
9400	-48.5	22.9	12	-59.4	V
11280	-46.3	28.4	13.4	-61.3	V
13160	-39.3	36.7	13.4	-62.6	V
3760	-62.3	13.6	9.8	-58.5	H
5640	-53.6	15.1	10.9	-57.8	H
7520	-55.4	18.8	11.4	-62.8	H
9400	-49.4	22.9	12	-60.3	H
11280	-45.7	28.4	13.4	-60.7	H
13160	-39	36.7	13.4	-62.3	H

**Test Data (HSDPA channel 4175)**

Frequency [GHz]	Generator output power( $P_g$ ) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power ( $P_d$ ) [dBm]	Antenna Polarization [H/V]
1670	-54.9	7.2	8.6	-53.5	V
2505	-61.6	9.1	10	-60.7	V
3340	-59.9	11	9.9	-61.0	V
4175	-54.5	12.6	9.8	-57.3	V
5010	-56.1	14.2	10	-60.3	V
5845	-58.5	15.9	11.2	-63.2	V
1670	-52.1	7.2	8.6	-50.7	H
2505	-60.9	9.1	10	-60.0	H
3340	-62.8	11	9.9	-63.9	H
4175	-54.8	12.6	9.8	-57.6	H
5010	-58.5	14.2	10	-62.7	H
5845	-57.3	15.9	11.2	-62.0	H

**Test Data (HSDPA channel 9400)**

Frequency [GHz]	Generator output power( $P_g$ ) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power ( $P_d$ ) [dBm]	Antenna Polarization [H/V]
3760	-51.1	13.6	9.8	-54.9	V
5640	-48.7	15.1	10.9	-52.9	V
7520	-52.8	18.8	11.4	-60.2	V
9400	-48.7	22.9	12	-59.6	V
11280	-45.2	28.4	13.4	-60.2	V
13160	-39.6	36.7	13.4	-62.9	V
3760	-46.2	13.6	9.8	-50.0	H
5640	-48.6	15.1	10.9	-52.8	H
7520	-50.9	18.8	11.4	-58.3	H
9400	-48.3	22.9	12	-59.2	H
11280	-46.5	28.4	13.4	-61.5	H
13160	-39.9	36.7	13.4	-63.2	H

**Test Data (HSUPA channel 4175)**

Frequency [GHz]	Generator output power( $P_g$ ) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power ( $P_d$ ) [dBm]	Antenna Polarization [H/V]
1670	-55.6	7.2	8.6	-54.2	V
2505	-55.9	9.1	10	-55.0	V
3340	-60.3	11	9.9	-61.4	V
4175	-56	12.6	9.8	-58.8	V
5010	-56.4	14.2	10	-60.6	V
5845	-54.9	15.9	11.2	-59.6	V
1670	-47.5	7.2	8.6	-46.1	H
2505	-56.4	9.1	10	-55.5	H
3340	-59.4	11	9.9	-60.5	H
4175	-54.4	12.6	9.8	-57.2	H
5010	-56	14.2	10	-60.2	H
5845	-54.9	15.9	11.2	-59.6	H

**Test Data (HSUPA channel 9400)**

Frequency [GHz]	Generator output power( $P_g$ ) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power ( $P_d$ ) [dBm]	Antenna Polarization [H/V]
3760	-43.6	13.6	9.8	-47.4	V
5640	-49.8	15.1	10.9	-54.0	V
7520	-54.2	18.8	11.4	-61.6	V
9400	-47.5	22.9	12	-58.4	V
11280	-46	28.4	13.4	-61.0	V
13160	-39.2	36.7	13.4	-62.5	V
3760	-45.6	13.6	9.8	-49.4	H
5640	-48.9	15.1	10.9	-53.1	H
7520	-50.1	18.8	11.4	-57.5	H
9400	-49	22.9	12	-59.9	H
11280	-45.2	28.4	13.4	-60.2	H
13160	-38.6	36.7	13.4	-61.9	H

### 4.3 Radiated Spurious Emission test data for EM8805

#### Test Data (GPRS channel 190)

Frequency [GHz]	Generator output power( $P_g$ ) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power ( $P_d$ ) [dBm]	Antenna Polarization [H/V]
1673.2	-60.9	7.2	8.6	-59.5	V
2509.8	-57.8	9.1	10	-56.9	V
3346.4	-59.5	11	9.9	-60.6	V
4183	-54.4	12.6	9.8	-57.2	V
5019.6	-57.6	14.2	10	-61.8	V
5856.2	-57.7	15.9	11.2	-62.4	V
1673.2	-54.5	7.2	8.6	-53.1	H
2509.8	-57	9.1	10	-56.1	H
3346.4	-59.5	11	9.9	-60.6	H
4183	-51.4	12.6	9.8	-54.2	H
5019.6	-61.1	14.2	10	-65.3	H
5856.2	-59.2	15.9	11.2	-63.9	H

#### Test Data (GPRS channel 661)

Frequency [GHz]	Generator output power( $P_g$ ) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power ( $P_d$ ) [dBm]	Antenna Polarization [H/V]
3760	-57.4	13.6	9.8	-61.2	V
5640	-51.6	15.1	10.9	-55.8	V
7520	-55.2	18.8	11.4	-62.6	V
9400	-48.5	22.9	12	-59.4	V
11280	-46.3	28.4	13.4	-61.3	V
13160	-39.3	36.7	13.4	-62.6	V
3760	-57	13.6	9.8	-60.8	H
5640	-55.6	15.1	10.9	-59.8	H
7520	-55.4	18.8	11.4	-62.8	H
9400	-49.4	22.9	12	-60.3	H
11280	-45.7	28.4	13.4	-60.7	H
13160	-39	36.7	13.4	-62.3	H

**Test Data (EGPRS channel 190)**

Frequency [GHz]	Generator output power( $P_g$ ) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power ( $P_d$ ) [dBm]	Antenna Polarization [H/V]
1673.2	-61.9	7.2	8.6	-60.5	V
2509.8	-62.6	9.1	10	-61.7	V
3346.4	-59.9	11	9.9	-61.0	V
4183	-54.5	12.6	9.8	-57.3	V
5019.6	-56.1	14.2	10	-60.3	V
5856.2	-58.5	15.9	11.2	-63.2	V
1673.2	-61.1	7.2	8.6	-59.7	H
2509.8	-60.9	9.1	10	-60.0	H
3346.4	-62.8	11	9.9	-63.9	H
4183	-54.8	12.6	9.8	-57.6	H
5019.6	-58.5	14.2	10	-62.7	H
5856.2	-57.3	15.9	11.2	-62.0	H

**Test Data (EGPRS channel 661)**

Frequency [GHz]	Generator output power( $P_g$ ) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power ( $P_d$ ) [dBm]	Antenna Polarization [H/V]
3760	-57.1	13.6	9.8	-60.9	V
5640	-53.7	15.1	10.9	-57.9	V
7520	-52.8	18.8	11.4	-60.2	V
9400	-48.7	22.9	12	-59.6	V
11280	-45.2	28.4	13.4	-60.2	V
13160	-39.6	36.7	13.4	-62.9	V
3760	-56.4	13.6	9.8	-60.2	H
5640	-58.6	15.1	10.9	-62.8	H
7520	-50.9	18.8	11.4	-58.3	H
9400	-48.3	22.9	12	-59.2	H
11280	-46.5	28.4	13.4	-61.5	H
13160	-39.9	36.7	13.4	-63.2	H

**Test Data (WCDMA channel 4175)**

Frequency [GHz]	Generator output power( $P_g$ ) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power ( $P_d$ ) [dBm]	Antenna Polarization [H/V]
1670	-58.9	7.2	8.6	-57.5	V
2505	-59.8	9.1	10	-58.9	V
3340	-59.5	11	9.9	-60.6	V
4175	-53.4	12.6	9.8	-56.2	V
5010	-57.6	14.2	10	-61.8	V
5845	-57.7	15.9	11.2	-62.4	V
1670	-58.8	7.2	8.6	-57.4	H
2505	-58	9.1	10	-57.1	H
3340	-59.5	11	9.9	-60.6	H
4175	-54.4	12.6	9.8	-57.2	H
5010	-61.1	14.2	10	-65.3	H
5845	-59.2	15.9	11.2	-63.9	H

**Test Data (WCDMA channel 9400)**

Frequency [GHz]	Generator output power( $P_g$ ) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power ( $P_d$ ) [dBm]	Antenna Polarization [H/V]
3760	-52.4	13.6	9.8	-56.2	V
5640	-54.6	15.1	10.9	-58.8	V
7520	-55.2	18.8	11.4	-62.6	V
9400	-48.5	22.9	12	-59.4	V
11280	-46.3	28.4	13.4	-61.3	V
13160	-39.3	36.7	13.4	-62.6	V
3760	-62.3	13.6	9.8	-58.5	H
5640	-53.6	15.1	10.9	-57.8	H
7520	-55.4	18.8	11.4	-62.8	H
9400	-49.4	22.9	12	-60.3	H
11280	-45.7	28.4	13.4	-60.7	H
13160	-39	36.7	13.4	-62.3	H

**Test Data (HSDPA channel 4175)**

Frequency [GHz]	Generator output power( $P_g$ ) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power ( $P_d$ ) [dBm]	Antenna Polarization [H/V]
1670	-64.9	7.2	8.6	-63.5	V
2505	-61.6	9.1	10	-60.7	V
3340	-59.9	11	9.9	-61.0	V
4175	-54.5	12.6	9.8	-57.3	V
5010	-56.1	14.2	10	-60.3	V
5845	-58.5	15.9	11.2	-63.2	V
1670	-62.1	7.2	8.6	-60.7	H
2505	-60.9	9.1	10	-60.0	H
3340	-62.8	11	9.9	-63.9	H
4175	-54.8	12.6	9.8	-57.6	H
5010	-58.5	14.2	10	-62.7	H
5845	-57.3	15.9	11.2	-62.0	H

**Test Data (HSDPA channel 9400)**

Frequency [GHz]	Generator output power( $P_g$ ) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power ( $P_d$ ) [dBm]	Antenna Polarization [H/V]
3760	-54.1	13.6	9.8	-57.9	V
5640	-55.7	15.1	10.9	-59.9	V
7520	-52.8	18.8	11.4	-60.2	V
9400	-48.7	22.9	12	-59.6	V
11280	-45.2	28.4	13.4	-60.2	V
13160	-39.6	36.7	13.4	-62.9	V
3760	-56.2	13.6	9.8	-60.0	H
5640	-58.6	15.1	10.9	-62.8	H
7520	-50.9	18.8	11.4	-58.3	H
9400	-48.3	22.9	12	-59.2	H
11280	-46.5	28.4	13.4	-61.5	H
13160	-39.9	36.7	13.4	-63.2	H

**Test Data (HSUPA channel 4175)**

Frequency [GHz]	Generator output power( $P_g$ ) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power ( $P_d$ ) [dBm]	Antenna Polarization [H/V]
1670	-60.6	7.2	8.6	-59.2	V
2505	-58.9	9.1	10	-58.0	V
3340	-60.3	11	9.9	-61.4	V
4175	-56	12.6	9.8	-58.8	V
5010	-56.4	14.2	10	-60.6	V
5845	-54.9	15.9	11.2	-59.6	V
1670	-61.5	7.2	8.6	-60.1	H
2505	-56.4	9.1	10	-55.5	H
3340	-59.4	11	9.9	-60.5	H
4175	-54.4	12.6	9.8	-57.2	H
5010	-56	14.2	10	-60.2	H
5845	-54.9	15.9	11.2	-59.6	H

**Test Data (HSUPA channel 9400)**

Frequency [GHz]	Generator output power( $P_g$ ) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power ( $P_d$ ) [dBm]	Antenna Polarization [H/V]
3760	-53.6	13.6	9.8	-57.4	V
5640	-54.8	15.1	10.9	-59.0	V
7520	-54.2	18.8	11.4	-61.6	V
9400	-47.5	22.9	12	-58.4	V
11280	-46	28.4	13.4	-61.0	V
13160	-39.2	36.7	13.4	-62.5	V
3760	-55.6	13.6	9.8	-59.4	H
5640	-53.9	15.1	10.9	-58.1	H
7520	-50.1	18.8	11.4	-57.5	H
9400	-49	22.9	12	-59.9	H
11280	-45.2	28.4	13.4	-60.2	H
13160	-38.6	36.7	13.4	-61.9	H

## Annex A External Photos

See the attachment.

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## Annex B Internal Photos

See the attachment.

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## ANNEX C Deviations from Prescribed Test Methods

No deviation from Prescribed Test Methods.

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