



**FCC CFR47 PART 22 SUBPART H
AND PART 24 SUBPART E
CERTIFICATION TEST REPORT**

FOR

850/900/1800/1900/2100 MHZ MULTI-BAND MODULE

MODEL NUMBER: MC8775

FCC ID: N7NMC8775

REPORT NUMBER: 06U10342-1

ISSUE DATE: JUNE 27, 2006

Prepared for
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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: SIERRA WIRELESS
3811 WIRELESS WAY
RICHMOND, BC V6V 3A4, CANADA

EUT DESCRIPTION: 850/900/1800/1900/2100 MHZ MULTI-BAND MODULE

MODEL: MC8775

DATE TESTED: JUNE 20 - 21, 2006

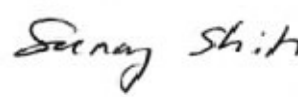
APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 22 SUBPART H	NO NON-COMPLIANCE NOTED
FCC PART 24 SUBPART E	NO NON-COMPLIANCE NOTED

Compliance Certification Services, Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by Compliance Certification Services and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by Compliance Certification Services will constitute fraud and shall nullify the document. No part of this report may be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any government agency.

Approved & Released For CCS By:

Tested By:



THU CHAN
EMC SUPERVISOR
COMPLIANCE CERTIFICATION SERVICES

SUNNY SHIH
EMC ENGINEER
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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with TIA/EIA 603C (2004), ANSI C63.4-2003, FCC CFR 47 Part 2, FCC CFR 47 Part 15 and FCC CFR 47 Part 22H and 24E.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 561F Monterey Road, Morgan Hill, California, USA. The sites are constructed in conformance with the requirements of ANSI C63.4, ANSI C63.7 and CISPR Publication 22. All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

CCS is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at <http://www.ccsemc.com>.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Radiated Emission, 30 to 200 MHz	+/- 3.3 dB
Radiated Emission, 200 to 1000 MHz	+4.5 / -2.9 dB
Radiated Emission, 1000 to 2000 MHz	+4.5 / -2.9 dB
Power Line Conducted Emission	+/- 2.9 dB

Uncertainty figures are valid to a confidence level of 95%.

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is an 850/900/1800/1900/2100 MHz multi-band module and manufactured by Sierra Wireless, Inc.

Only the 850/1900 MHz frequency bands were investigated under this project, and the test result documented in this report only applies to EUT operating in the 850/1900 MHz frequency bands. This device contains 900 MHz /1800 MHz/2100 MHz functions but these frequency bands are not operational in the U.S. territories.

5.2. MAXIMUM OUTPUT POWER

Please refer to the other RF conducted test report attached.

5.3. SOFTWARE AND FIRMWARE

The test utility software used during testing was ProcommPlus 4.8, Built 71 by Symantec Corporation for GSM, GPRS and EDGE modulations, and the communication test set is used for WCDMA modulation to configure as below:

The following settings were used to configure the Wireless Communications Test Set, Agilent 8960 Series 10, E5515C.

Instrument information: (by press SYSTEM CONFIG)

Application: WCDMA Lap App C
E6703C C.03.11
Format: WCDMA

Call Control: (by press CALL SETUP)

2 of 4 Cell Parameters: PS Domain Information > Present
ATT (IMSI Attach) Flag State > Set
4 of 4 Security Info: Security Parameter - System Operations > None

Call Parms: (by press CALL SETUP)

1 of 3
Channel Type: 12.2k RMC
Paging Service: RB Test Mode

HSDPA Parameters:

1 of 2
HSDPA RB Test Mode Setup
FRC Type > H-Set 5 QPSK
CN Domain > PS Domain
Uplink 64k DTCH for HSDPA Loopback State > On

HS-DSCH Data Pattern > CCITT PRBS15
RLC Header on HS-DSCH > Present

Channel (UARFCN) Parms: DL Channel: 4357 / 4407 / 4458
UL Channel: 4132 / 4182 / 4233
UL Sep (Band) > 400MHz (Band 4)
Freq Bnad Ind > On

2 of 3

DL DTCH Data: CCITT PRBS15
RLC Reestablish: Off
Call Limit State: Off
Call Drop Timer: Off
SRB Config.: 13.6k DCCH

3 of 3

UE Target Power: -5 dBm
UL CL Pwr Ctrl Parms: Active bits (Select "All Up bits" after linked to get maximum power)

DL Channel: 9662 / 9800 / 9938 / 4357 / 4407 / 4458

UL Channel: 9262 / 9400 / 9538 / 4132 / 4182 / 4233

5.4. WORST-CASE CONFIGURATION AND MODE

Based on previous experiment, GPRS 1 slot has the worst case between GSM & GPRS modulations, and the worst case on DSPDA mode for WCDMA modulation.

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

TEST PERIPHERALS				
Device Type	Manufacturer	Model Number	Serial Number	FCC ID
Laptop	IBM	ThinkPad	ZZ-89595	DoC
AC / DC Adapter	IBM	92P1103	N/A	DoC
AC / DC Adapter	ELPAC Power Systems	FW1805	37727	DoC

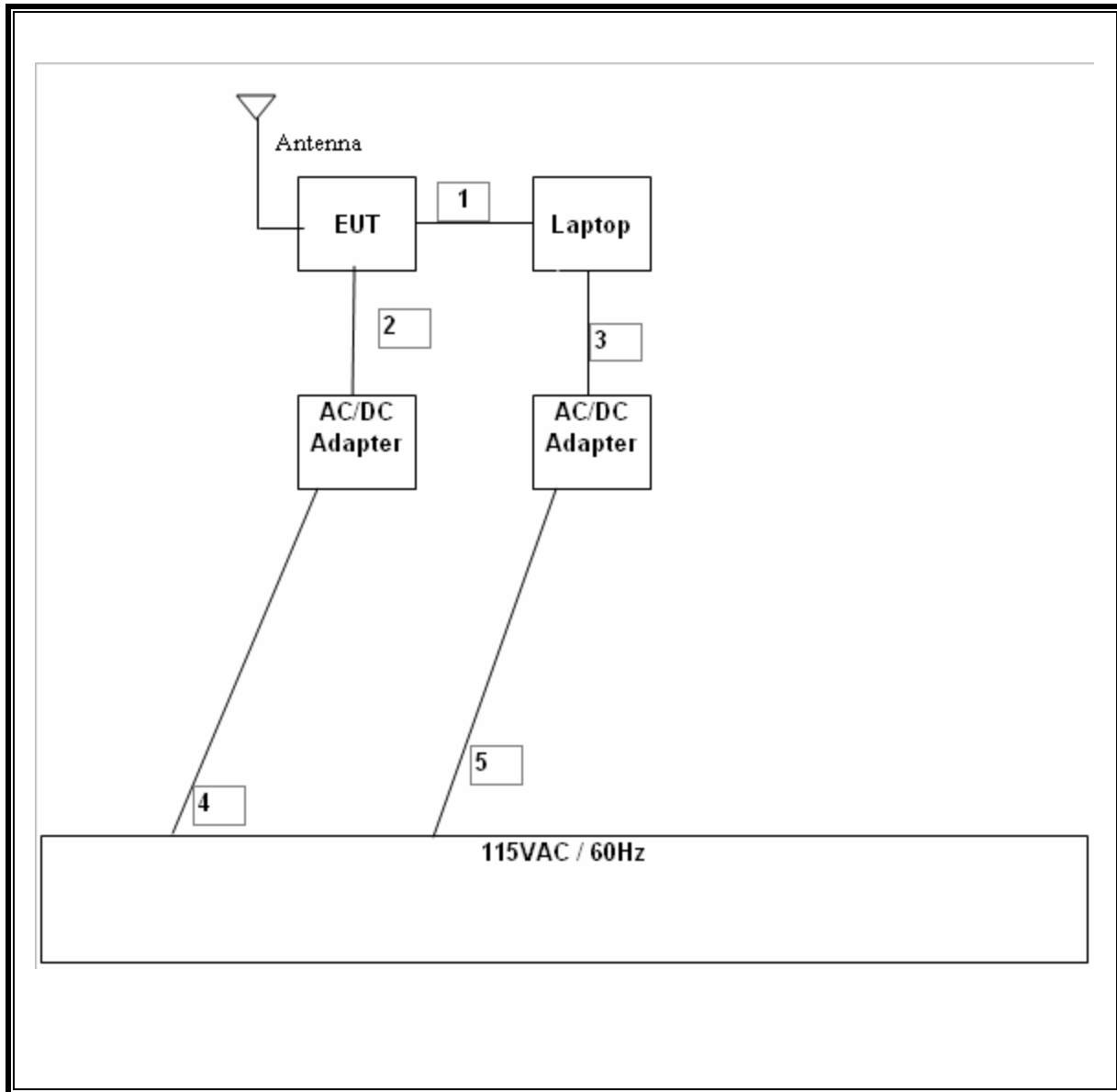
I/O CABLES

TEST I / O CABLES								
Cable No	I/O Port	# of I/O Port	Connector Type	Type of Cable	Cable Length	Data Traffic	Bundled	Remark
1	USB	1	USB	Shielded	2m	Yes	No	N/A
2	DC	1	Din	Un-shielded	1m	No	No	N/A
3	DC	1	Din	Un-shielded	1m	No	No	N/A
4	AC	1	US 115V	Un-shielded	1m	No	No	N/A
5	AC	1	US 115V	Un-shielded	1m	No	No	N/A

TEST SETUP

The EUT is installed in the adapter boards to PCI Express Mini Card via USB port of host laptop computer during the tests. The ProcommPlus or Wireless Communication test set exercised the EUT.

RADIATED TEST SETUP DIAGRAM



6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

TEST EQUIPMENT LIST				
Description	Manufacturer	Model	Serial Number	Cal Due
Spectrum Analyzer 3 Hz ~ 44 GHz	Agilent / HP	E4446A	US42070220	07/29/06
Antenna, Horn 1 ~ 18 GHz	EMCO	3115	2238	04/22/07
Preamplifier, 1 ~ 26 GHz	Miteq	NSP2600-SP	924342	09/02/06
Antenna, Horn 1 ~ 18 GHz	EIS	3117	29301	04/22/07
Preamplifier, 1 ~ 26 GHz	Agilent / HP	8449B	3008A00931	06/24/07
EMI Receiver, 9 kHz ~ 2.9 GHz	Agilent / HP	8542E	3942A00286	02/04/07
RF Filter Section	Agilent / HP	85420E	3705A00256	02/04/07
Antenna, Bilog 30 MHz ~ 2 Ghz	Sunol Sciences	JB1	A121003	09/03/06
2.7 GHz Highpass Filter	Micro-Tronics	HPM13194	1	CNR
1.5 GHz Highpass Filter	Micro-Tronics	HPM13193	1	CNR
Wireless Communication Test Set	Agilent	E5515C	N101149	08/31/06

7. LIMITS AND RESULTS

7.1. RADIATED RF POWER OUTPUT

LIMIT

22.913(a) The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.
24.232(b) Mobile/portable stations are limited to 2 watts e.i.r.p. peak power and the equipment must employ means to limit the power to the minimum necessary for successful communications.

TEST PROCEDURE

ANSI / TIA / EIA 603 Clause 2.2.17
The transmitter output is connected to the spectrum analyzer.

RESULTS

No non-compliance noted.

850 MHz GSM Modulation

Channel	Frequency (MHz)	ERP Peak Power (dBm)	ERP Peak Power (mW)
Low	824.2	27.80	602.56
Middle	836.5	27.20	524.81
High	848.8	26.10	407.38

1900 MHz GSM Modulation

Channel	Frequency (MHz)	EIRP Peak Power (dBm)	EIRP Peak Power (mW)
Low	1850.2	28.90	776.25
Middle	1880.00	30.20	1047.13
High	1909.8	31.30	1348.96

850 MHz EDGE Modulation

Channel	Frequency (MHz)	ERP Peak Power (dBm)	ERP Peak Power (mW)
Low	824.2	26.20	416.87
Middle	836.5	27.20	524.81
High	848.8	24.20	263.03

1900 MHz EDGE Modulation

Channel	Frequency (MHz)	EIRP Peak Power (dBm)	EIRP Peak Power (mW)
Low	1850.2	28.10	645.65
Middle	1880.00	29.90	977.24
High	1909.8	31.10	1288.25

850 MHz WCDMA Modulation

Channel	Frequency (MHz)	ERP Peak Power (dBm)	ERP Peak Power (mW)
Low	826.5	21.70	147.91
Middle	836.5	22.00	158.49
High	846.6	21.10	128.82

1900 MHz WCDMA Modulation

Channel	Frequency (MHz)	EIRP Peak Power (dBm)	EIRP Peak Power (mW)
Low	1852.4	28.00	630.96
Middle	1880.00	27.10	512.86
High	1907.6	28.20	660.69

GSM Output Power (ERP)

Cellular Fundamental Substitution Measurement Compliance Certification Services, Morgan Hill Immunity Chamber									
Company: Sierra Wireless, Inc. Project #: 06U10342 Date: June 20, 2006 Test Engineer: Sunny Shih Configuration: EUT only Mode: GSM850 GPRS mode RBW=VBW=8MHz, Peak Detection									
Test Equipment: Receiving: EMCO LP T17, and 12 ft Chin SMA Cable (Setup this one for testing EUT) Substitution: Dipole ETS S/N: 1629, and 6ft SMA Cable Warehouse S/N: 208947 002									
f MHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Channel									
824.20	102.0	V	27.5	0.5	0.0	27.0	38.5	-11.4	
824.20	102.6	H	28.3	0.5	0.0	27.8	38.5	-10.6	
Mid Channel									
837.00	100.9	V	26.4	0.6	0.0	25.8	38.5	-12.7	
837.00	102.3	H	27.8	0.6	0.0	27.2	38.5	-11.2	
High Channel									
848.80	101.2	V	26.6	0.7	0.0	25.9	38.5	-12.5	
848.80	101.4	H	26.8	0.7	0.0	26.1	38.5	-12.3	

EDGE Output Power (ERP)

Cellular Fundamental Substitution Measurement Compliance Certification Services, Morgan Hill Immunity Chamber									
Company: Sierra Wireless, Inc. Project #: 06U10342 Date: June 20, 2006 Test Engineer: Sunny Shih Configuration: EUT only Mode: GSM850 EGPRS mode RBW=VBW=8MHz, Peak Detection									
Test Equipment: Receiving: EMC0 LP T17, and 12 ft Chin SMA Cable (Setup this one for testing EUT) Substitution: Dipole ETS S/N: 1629, and 6ft SMA Cable Warehouse S/N: 208947 002									
f MHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Channel									
824.20	100.2	V	25.8	0.5	0.0	25.3	38.5	-13.2	
824.20	101.0	H	26.7	0.5	0.0	26.2	38.5	-12.3	
Mid Channel									
837.00	99.1	V	24.5	0.6	0.0	23.9	38.5	-14.5	
837.00	100.0	H	27.8	0.6	0.0	27.2	38.5	-11.2	
High Channel									
848.80	99.3	V	24.7	0.7	0.0	24.0	38.5	-14.4	
848.80	99.5	H	24.9	0.7	0.0	24.2	38.5	-14.2	

WCDMA Output Power (ERP)

Cellular Fundamental Substitution Measurement Compliance Certification Services, Morgan Hill Immunity Chamber									
Company: Sierra Wireless, Inc. Project #: 06U10342 Date: June 21, 2006 Test Engineer: Sunny Shih Configuration: EUT only Mode: WCDMA850 RBW=VBW=8MHz, Peak Detection									
Test Equipment: Receiving: EMC0 LP T17, and 12 ft Chin SMA Cable (Setup this one for testing EUT) Substitution: Dipole ETS S/N: 1629, and 6ft SMA Cable Warehouse S/N: 208947 002									
f MHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Channel									
826.40	94.1	V	19.6	0.5	0.0	19.1	38.5	-19.3	
826.40	96.5	H	22.2	0.5	0.0	21.7	38.5	-16.7	
Mid Channel									
836.40	94.9	V	20.3	0.6	0.0	19.7	38.5	-18.7	
836.40	97.1	H	22.6	0.6	0.0	22.0	38.5	-16.4	
High Channel									
846.60	94.4	V	19.8	0.7	0.0	19.1	38.5	-19.3	
846.60	96.4	H	21.8	0.7	0.0	21.1	38.5	-17.3	

GSM Output Power (EIRP)

PCS Fundamental Substitution Measurement									
Compliance Certification Services, Morgan Hill Immunity Chamber									
Company: Sierra Wireless, Inc.									
Project #: 06U10342									
Date: June 20, 2006									
Test Engineer: Sunny Shih									
Configuration: EUT only									
Mode: GSM1900 GPRS mode									
RBW=VBW=8MHz, Peak Detection									
<u>Test Equipment:</u>									
Receiving: Horn T59, and Chin SMA Cables 2 & 12 ft (Setup this one for testing EUT)									
Substitution: Horn T60, and 6ft SMA Cable Warehouse S/N: 208947 002									
f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Channel									
1850	95.4	V	21.5	0.9	8.3	28.9	33.0	-4.1	
1850	93.2	H	17.1	0.9	8.3	24.5	33.0	-8.5	
Mid Channel									
1880	95.9	V	22.8	0.9	8.3	30.2	33.0	-2.8	
1880	92.8	H	18.0	0.9	8.3	25.5	33.0	-7.6	
High Channel									
1910	97.1	V	23.8	0.9	8.4	31.3	33.0	-1.7	
1910	93.4	H	18.3	0.9	8.4	25.8	33.0	-7.2	

EDGE Output Power (EIRP)

PCS Fundamental Substitution Measurement									
Compliance Certification Services, Morgan Hill Immunity Chamber									
Company: Sierra Wireless, Inc.									
Project #: 06U10342									
Date: June 20, 2006									
Test Engineer: Sunny Shih									
Configuration: EUT only									
Mode: GSM1900 EGPRS mode									
RBW=VBW=8MHz, Peak Detection									
<u>Test Equipment:</u>									
Receiving: Horn T59, and Chin SMA Cables 2 & 12 ft (Setup this one for testing EUT)									
Substitution: Horn T60, and 6ft SMA Cable Warehouse S/N: 208947 002									
f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Channel									
1850	94.7	V	20.7	0.9	8.3	28.1	33.0	-4.9	
1850	93.1	H	17.1	0.9	8.3	24.5	33.0	-8.5	
Mid Channel									
1880	95.6	V	22.5	0.9	8.3	29.9	33.0	-3.1	
1880	92.5	H	17.7	0.9	8.3	25.2	33.0	-7.9	
High Channel									
1910	96.9	V	23.6	0.9	8.4	31.1	33.0	-2.0	
1910	93.4	H	18.3	0.9	8.4	25.8	33.0	-7.2	

WCDMA Output Power (EIRP)

PCS Fundamental Substitution Measurement									
Compliance Certification Services, Morgan Hill Immunity Chamber									
Company: Sierra Wireless, Inc.									
Project #: 06U10342									
Date: June 21, 2006									
Test Engineer: Sunny Shih									
Configuration: EUT only									
Mode: WCDMA1900									
RBW=VBW=8MHz, Peak Detection									
<u>Test Equipment:</u>									
Receiving: Horn T59, and Chin SMA Cables 2 & 12 ft (Setup this one for testing EUT)									
Substitution: Horn T60, and 6ft SMA Cable Warehouse S/N: 208947 002									
f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Channel									
1852	94.6	V	20.6	0.9	8.3	28.0	33.0	-5.0	
1852	91.5	H	15.5	0.9	8.3	22.9	33.0	-10.1	
Mid Channel									
1880	92.8	V	19.7	0.9	8.3	27.1	33.0	-5.9	
1880	89.3	H	14.5	0.9	8.3	21.9	33.0	-11.1	
High Channel									
1908	94.0	V	20.7	0.9	8.4	28.2	33.0	-4.8	
1908	90.3	H	15.2	0.9	8.4	22.6	33.0	-10.4	

7.2. FIELD STRENGTH OF SPURIOUS EMISSION

LIMIT

§22.917 (e) and §24.238 (a) 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.

TEST PROCEDURE

ANSI / TIA / EIA 603 Clause 3.2.12, FCC 22.917 (h), & FCC 24.238 (b)

RESULTS

No non-compliance noted.

Note: No emissions were found within 30-1000MHz of 20dB below the system noise.

850MHz Band GSM Spurious & Harmonic (ERP)

Cellular Harmonic Substitution Measurement									
Compliance Certification Services, Morgan Hill Immunity Chamber									
Company: Sierra Wireless, Inc.									
Project #: 06U10342									
Date: June 20, 2006									
Test Engineer: Sunny Shih									
Configuration: EUT only									
Mode: GSM850 GPRS mode									
RBW=VBW=1MHz, Peak Detection									
<u>Test Equipment:</u>									
Receiving: Horn T59, Pre-amp T34, Chim SMA Cables 2 & 12 ft (Setup this one for testing EUT)									
Substitution: Horn T60, 6ft SMA Cable Warehouse S/N: 208947 002									
f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Channel (824.2MHz)									
1.648	65.1	V	-48.2	0.8	4.9	-44.1	-13.0	-31.1	
2.472	68.2	V	-42.2	1.0	7.1	-36.0	-13.0	-23.0	
1.648	62.1	H	-43.4	1.3	7.8	-36.9	-13.0	-23.9	
2.472	59.1	H	-44.9	1.5	8.8	-37.5	-13.0	-24.5	
Mid Channel (837.0MHz)									
1.674	63.8	V	-49.3	0.8	5.0	-45.1	-13.0	-32.1	
2.511	61.5	V	-47.9	1.0	7.1	-41.8	-13.0	-28.8	
1.674	62.5	H	-43.0	1.4	7.9	-36.5	-13.0	-23.5	
2.511	55.6	H	-47.9	1.5	8.9	-40.5	-13.0	-27.5	
High Channel (848.8MHz)									
1.697	63.2	V	-49.7	0.8	5.1	-45.4	-13.0	-32.4	
2.546	60.1	V	-48.7	1.0	7.1	-42.5	-13.0	-29.5	
1.697	61.5	H	-44.4	1.4	8.0	-37.8	-13.0	-24.8	
2.546	54.0	H	-48.9	1.5	8.9	-41.6	-13.0	-28.6	

850MHz Band EDGE Spurious & Harmonic (ERP)

Cellular Harmonic Substitution Measurement									
Compliance Certification Services, Morgan Hill Immunity Chamber									
Company: Sierra Wireless, Inc.									
Project #: 06U10342									
Date: June 20, 2006									
Test Engineer: Sunny Shih									
Configuration: EUT only									
Mode: GSM1850 EGPRS mode									
RBW=VBW=1MHz, Peak Detection									
<u>Test Equipment:</u>									
Receiving: Horn T59, Pre-amp T34, Chim SMA Cables 2 & 12 ft (Setup this one for testing EUT)									
Substitution: Horn T60, 6ft SMA Cable Warehouse S/N: 208947 002									
f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Channel (824.2MHz)									
1.648	60.7	V	-52.6	0.8	4.9	-48.5	-13.0	-35.5	
2.472	60.4	V	-50.0	1.0	7.1	-43.8	-13.0	-30.8	
1.648	56.1	H	-49.5	1.3	7.8	-43.0	-13.0	-30.0	
2.472	52.9	H	-51.1	1.5	8.8	-43.8	-13.0	-30.8	
Mid Channel (837.0MHz)									
1.674	59.0	V	-54.1	0.8	5.0	-49.9	-13.0	-36.9	
2.511	53.6	V	-55.8	1.0	7.1	-49.7	-13.0	-36.7	
1.674	55.2	H	-50.3	1.4	7.9	-43.8	-13.0	-30.8	
2.511	53.1	H	-50.4	1.5	8.9	-43.0	-13.0	-30.0	
High Channel (848.8MHz)									
1.697	55.0	V	-57.9	0.8	5.1	-53.6	-13.0	-40.6	
2.546	53.6	V	-55.2	1.0	7.1	-49.0	-13.0	-36.0	
1.697	57.0	H	-48.9	1.4	8.0	-42.3	-13.0	-29.3	
2.546	47.1	H	-55.8	1.5	8.9	-48.5	-13.0	-35.5	

850MHz Band WCDMA Spurious & Harmonic (ERP)

Cellular Harmonic Substitution Measurement									
Compliance Certification Services, Morgan Hill Immunity Chamber									
Company: Sierra Wireless, Inc.									
Project #: 06U10342									
Date: June 21, 2006									
Test Engineer: Sunny Shih									
Configuration: EUT only									
Mode: WCDMA850									
RBW=VBW=1MHz, Peak Detection									
<u>Test Equipment:</u>									
Receiving: Horn T59, Pre-amp T34, Chim SMA Cables 2 & 12 ft (Setup this one for testing EUT)									
Substitution: Horn T60, 6ft SMA Cable Warehouse S/N: 208947 002									
f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Channel (826.4MHz)									
1.652	54.4	V	-58.9	0.8	4.9	-54.8	-13.0	-41.8	
2.479	52.1	V	-58.3	1.0	7.1	-52.1	-13.0	-39.1	
1.652	53.3	H	-52.2	1.3	7.8	-45.7	-13.0	-32.7	
2.479	51.2	H	-52.8	1.5	8.8	-45.5	-13.0	-32.5	
Mid Channel (836.4MHz)									
1.672	54.0	V	-59.1	0.8	5.0	-54.9	-13.0	-41.9	
2.509	51.2	V	-58.3	1.0	7.1	-52.1	-13.0	-39.1	
1.672	53.4	H	-52.1	1.4	7.9	-45.6	-13.0	-32.6	
2.509	50.8	H	-52.7	1.5	8.9	-45.3	-13.0	-32.3	
High Channel (846.6MHz)									
1.693	54.8	V	-58.1	0.8	5.1	-53.8	-13.0	-40.8	
2.539	50.9	V	-57.9	1.0	7.1	-51.7	-13.0	-38.7	
1.693	54.7	H	-51.2	1.4	8.0	-44.6	-13.0	-31.6	
2.539	50.7	H	-52.2	1.5	8.9	-44.8	-13.0	-31.8	

1900MHz Band GSM Spurious & Harmonic (EIRP)

PCS Harmonic Substitution Measurement									
Compliance Certification Services, Morgan Hill Immunity Chamber									
Company: Sierra Wireless, Inc.									
Project #: 06U10342									
Date: June 20, 2006									
Test Engineer: Sunny Shih									
Configuration: EUT only									
Mode: GSM1900 GPRS mode									
RBW=VBW=1MHz, Peak Detection									
Test Equipment:									
Receiving: Horn T59, Pre-amp T34, and Chin SMA Cables 2 & 12 ft (Setup this one for testing EUT)									
Substitution: Horn T60, and 6ft SMA Cable Warehouse S/N: 208947 002									
f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Channel (1850.2MHz)									
3.700	49.8	V	-55.2	1.2	9.7	-46.8	-13.0	-33.8	
5.550	44.9	V	-57.6	1.6	11.0	-48.2	-13.0	-35.2	
3.700	43.2	H	-54.6	2.1	12.7	-44.0	-13.0	-31.0	
5.550	44.1	H	-52.6	2.3	13.8	-41.1	-13.0	-28.1	
Mid Channel (1880MHz)									
3.760	47.5	V	-57.0	1.3	9.7	-48.5	-13.0	-35.5	
5.640	46.0	V	-56.8	1.7	11.2	-47.3	-13.0	-34.3	
3.760	46.2	H	-50.3	2.1	12.7	-39.7	-13.0	-26.7	
5.640	48.5	H	-47.3	2.3	13.9	-35.8	-13.0	-22.8	
High Channel (1909.8MHz)									
3.819	45.7	V	-58.5	1.3	9.7	-50.1	-13.0	-37.1	
5.729	48.3	V	-54.2	1.7	11.3	-44.6	-13.0	-31.6	
3.819	43.7	H	-51.9	2.1	12.7	-41.3	-13.0	-28.3	
5.729	48.7	H	-46.5	2.4	14.0	-34.9	-13.0	-21.9	

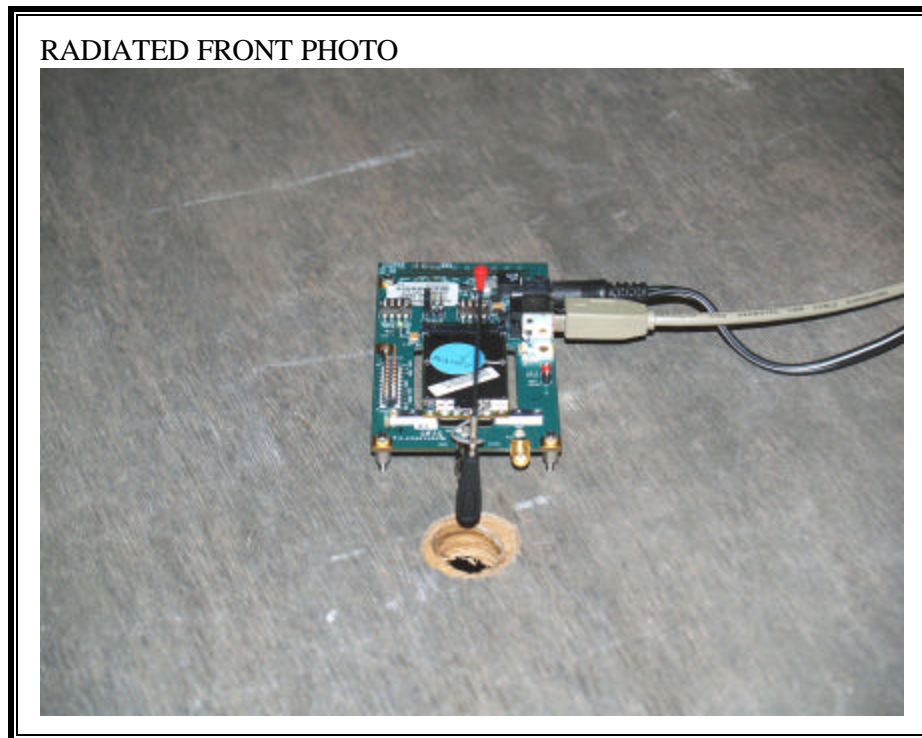
1900MHz Band EDGE Spurious & Harmonic (EIRP)

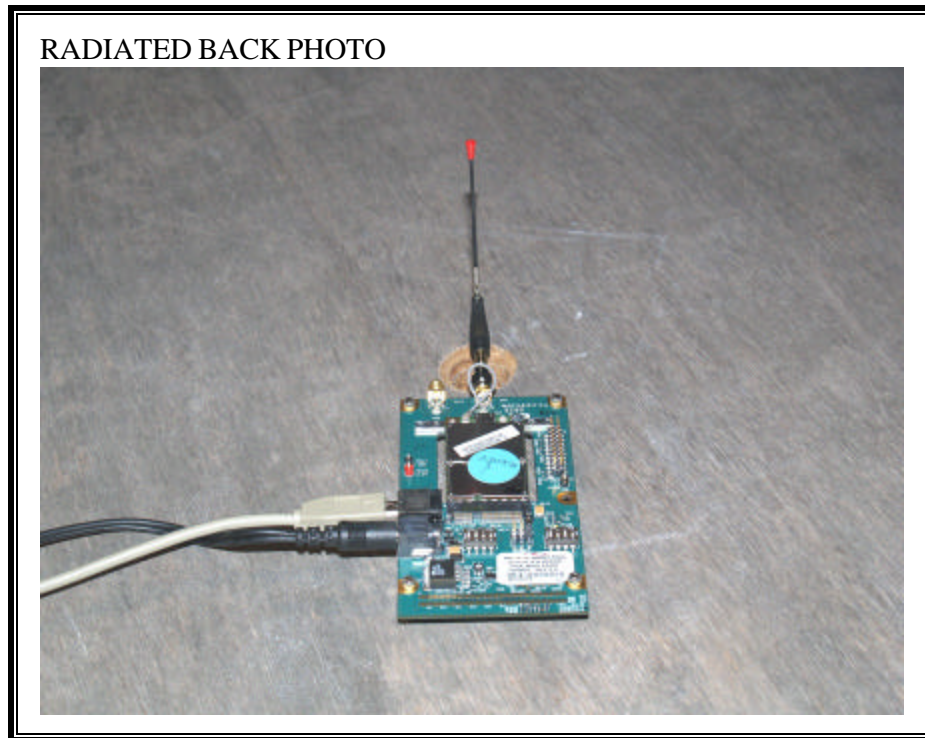
PCS Harmonic Substitution Measurement									
Compliance Certification Services, Morgan Hill Immunity Chamber									
Company: Sierra Wireless, Inc.									
Project #: 06U10342									
Date: June 20, 2006									
Test Engineer: Sunny Shih									
Configuration: EUT only									
Mode: GSM1900 EGPRS mode									
RBW=VBW=1MHz, Peak Detection									
<u>Test Equipment:</u>									
Receiving: Horn T59, Pre-amp T34, and Chin SMA Cables 2 & 12 ft (Setup this one for testing EUT)									
Substitution: Horn T60, and 6ft SMA Cable Warehouse S/N: 208947 002									
f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Channel (1850.2MHz)									
3.700	48.5	V	-56.5	1.2	9.7	-48.1	-13.0	-35.1	
5.550	44.7	V	-57.8	1.6	11.0	-48.4	-13.0	-35.4	
3.700	41.2	H	-56.6	2.1	12.7	-46.0	-13.0	-33.0	
5.550	43.1	H	-53.6	2.3	13.8	-42.1	-13.0	-29.1	
Mid Channel (1880MHz)									
3.760	46.1	V	-58.4	1.3	9.7	-49.9	-13.0	-36.9	
5.640	45.5	V	-57.3	1.7	11.2	-47.8	-13.0	-34.8	
3.760	44.6	H	-51.9	2.1	12.7	-41.3	-13.0	-28.3	
5.640	47.1	H	-48.8	2.3	13.9	-37.2	-13.0	-24.2	
High Channel (1909.8MHz)									
3.819	44.5	V	-59.7	1.3	9.7	-51.3	-13.0	-38.3	
5.729	47.6	V	-54.9	1.7	11.3	-45.3	-13.0	-32.3	
3.819	43.5	H	-52.1	2.1	12.7	-41.5	-13.0	-28.5	
5.729	46.7	H	-48.5	2.4	14.0	-36.9	-13.0	-23.9	

1900MHz Band WCDMA Spurious & Harmonic (EIRP)

PCS Harmonic Substitution Measurement									
Compliance Certification Services, Morgan Hill Immunity Chamber									
Company: Sierra Wireless, Inc.									
Project #: 06U10342									
Date: June 21, 2006									
Test Engineer: Sunny Shih									
Configuration: EUT only with power adaptor									
Mode: WCDMA1900									
RBW=VBW=1MHz, Peak Detection									
Test Equipment:									
Receiving: Horn T59, Pre-amp T34, and Chin SMA Cables 2 & 12 ft (Setup this one for testing EUT)									
Substitution: Horn T60, and 6ft SMA Cable Warehouse S/N: 208947 002									
f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Channel (1852.4MHz)									
3.704	53.8	V	-51.2	1.2	9.7	-42.8	-13.0	-29.8	
5.557	52.0	V	-50.5	1.6	11.0	-41.1	-13.0	-28.1	
3.704	53.6	H	-44.2	2.1	12.7	-33.6	-13.0	-20.6	
5.557	51.9	H	-44.8	2.3	13.8	-33.3	-13.0	-20.3	
Mid Channel (1880MHz)									
3.760	65.0	V	-39.5	1.3	9.7	-31.1	-13.0	-18.1	
5.640	52.5	V	-50.3	1.7	11.2	-40.8	-13.0	-27.8	
3.760	61.7	H	-34.8	2.1	12.7	-24.2	-13.0	-11.2	
5.640	51.9	H	-43.9	2.3	13.9	-32.4	-13.0	-19.4	
High Channel (1907.6MHz)									
3.815	67.8	V	-36.4	1.3	9.7	-27.9	-13.0	-14.9	
5.722	53.2	V	-49.3	1.7	11.3	-39.7	-13.0	-26.7	
3.815	57.6	H	-38.0	2.1	12.7	-27.4	-13.0	-14.4	
5.722	53.1	H	-42.1	2.4	14.0	-30.5	-13.0	-17.5	

8. SETUP PHOTOS





END OF REPORT