

# FCC CFR47 PART 22 SUBPART H AND PART 24 SUBPART E CLASS II PERMISSIVE CHANGE CERTIFICATION TEST REPORT

## **FOR**

## 850/900/1800/1900/2100 MHZ 5-BAND MINICARD MODULE

**MODEL NUMBER: MC8755** 

**FCC ID: N7NMC8755** 

**REPORT NUMBER: 06U10572-1** 

**ISSUE DATE: OCTOBER 09, 2006** 

Prepared for

SIERRA WIRELESS INC. 13811 WIRELESS WAY RICHMOND, BC V6V 3A4, CANADA

*Prepared by* 

COMPLIANCE CERTIFICATION SERVICES 561F MONTEREY ROAD MORGAN HILL, CA 95037, USA

TEL: (408) 463-0885 FAX: (408) 463-0888



## DATE: OCTOBER 09, 2006 FCC ID: N7NMC8755

# **Revision History**

Rev.	Issue Date	Revisions	Revised By
	9/14/06	Initial Issue	Thu C.
B	10/09/06	Updated & Revised on Sections 5.4 & 5.5	Thu C.

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#### DATE: OCTOBER 09, 2006 FCC ID: N7NMC8755

## 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 5-BAND MINICARD MODULE

MODEL: MC8755

**SERIAL NUMBER:** YF07306

**DATE TESTED:** SEPTEMBER 6- 7, 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

Sunay Shih

COMPLIANCE CERTIFICATION SERVICES

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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 <a href="http://www.ccsemc.com">http://www.ccsemc.com</a>.

#### 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 5-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. DESCRIPTION OF CLASS II CHANGE

The changes filed under this application are as follows:

Collocate the MC8755 with Bluetooth radio FCC ID: MCLJ07H081 and WLAN FCC ID: PPD-AR5BXB72-L in a new host laptop.

#### 5.3. MAXIMUM OUTPUT POWER

Maximum conducted output power has been verified to be the same as indicated on the original grant.

The transmitter has maximum ERP and EIRP output powers as follows:

Part 22 (824 - 849MHz) & Part 24 (1850 - 1910MHz) Authorized Band:

Frequency Range	Modulation	ERP	ERP
		Peak Power	Peak Power
(MHz)		(dBm)	(mW)
824.2 - 848.75	GPRS	27.60	575.44
824.2 - 848.75	EGPRS	26.60	457.09

Frequency Range	Modulation	EIRP	EIRP
		Peak Power	Peak Power
(MHz)		(dBm)	(mW)
1850.25 - 1909.8	GPRS	29.60	912.01
1850.25 - 1909.8	EGPRS	28.80	758.58

NOTE: RBW=VBW=1MHz

#### DATE: OCTOBER 09, 2006 FCC ID: N7NMC8755

#### 5.4. SOFTWARE AND FIRMWARE

The test utility software used during testing was ProcommPlus 4.8 @ Copyright 1999 by Symantec Corporation, Build 71 for GSM and EDGE modulations

#### 5.5. WORST-CASE CONFIGURATION AND MODE

Based on previous experiment, GPRS 1 slot has the worst case between GSM & GPRS modulations, and the worst-case configuration has been evaluated at extended out position by comparing the fundamental ERP / EIRP output power between antenna at normal closed or extended out position. So, all radiated emissions tests were performed under antenna extended out position.

#### 5.6. **DESCRIPTION OF TEST SETUP**

#### **SUPPORT EQUIPMENT**

Test Peripherals					
Device Type	Manufacturer	Model Number	Serial Number	FCC ID	
Laptop PC	IBM	lenovo T60	ZZ9E243	DOC	
AC Adaptor	lenovo	92P1113	11S92P1113ZBEL67610L	DOC	

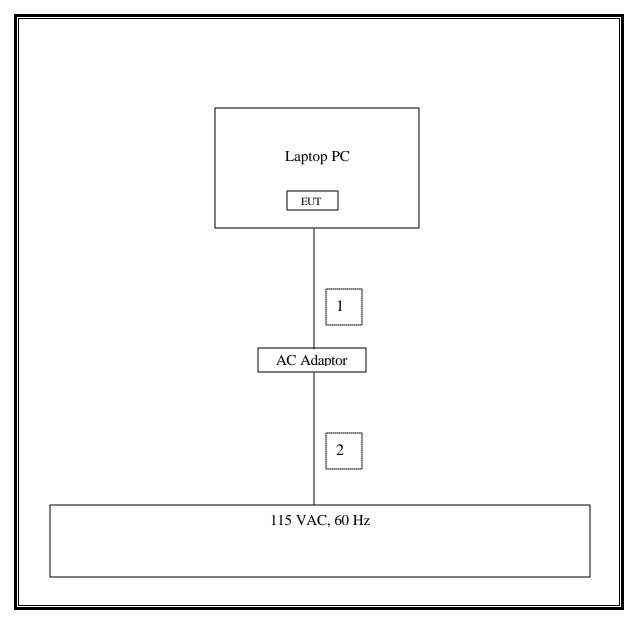
#### I/O CABLES

	I/O CABLE LIST					
Cable	Port	# of	Connector	Cable	Cable	Remarks
No.		Identical	Type	Type	Length	
		Ports				
1	AC	1	US 115V	Un-shielded	2m	N/A

#### **TEST SETUP**

The EUT is installed in the host laptop computer during the tests. The ProcommPlus 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	
Antenna, Bilog 30 MHz ~ 2 Ghz	Sunol Sciences	JB1	A121003	12/3/06	
Antenna, Horn 1 ~ 18 GHz	EMCO	3115	6717	4/22/07	
EMI Receiver, 9 kHz ~ 2.9 GHz	Agilent / HP	8542E	3942A00286	2/4/07	
RF Filter Section	Agilent / HP	85420E	3705A00256	2/4/07	
Peak Power Meter	Agilent / HP	E4416A	GB41291160	12/2/07	
Peak / Average Power Sensor	Agilent	E9327A	US40440755	12/2/07	
Antenna, Horn 1 ~ 18 GHz	EMCO	3115	6717	4/22/07	
Signal Generator 2 -40 GHz	R & S	SMP04	DE 34210	6/2/07	
Signal Generator 1024 MHz	R & S	SMY01	DE 12311	5/11/07	
Dipole	EMCO	3121C-DB2	22435	5/7/07	
2.7GHz HPF	MicroTronic	HPM13194	2	CNR	
1.5GHz HPF	MicroTronic	HPM13195	1	CNR	

# 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

#### **RESULTS**

No non-compliance noted.

#### 850 MHz GPRS Mode

Channel	Frequency	ERP	ERP
		Peak Power	Peak Power
	(MHz)	(dBm)	(mW)
Low	824.2	27.60	575.44
Middle	836.5	26.80	478.63
High	848.8	26.80	478.63

#### 1900 MHz GPRS Mode

Channel	Frequency	EIRP	EIRP
		Peak Power	Peak Power
	(MHz)	(dBm)	(mW)
Low	1850.2	29.60	912.01
Middle	1880.00	27.90	616.60
High	1909.8	25.70	371.54

NOTE: RBW=VBW=1MHz.

#### 850 MHz EGPRS Mode

Channel	Frequency	ERP	ERP
		Peak Power	Peak Power
	(MHz)	(dBm)	(mW)
Low	824.2	26.60	457.09
Middle	836.5	24.90	309.03
High	848.8	25.00	316.23

#### 1900 MHz EGPRS Mode

Channel	Frequency	EIRP	EIRP
		Peak Power	Peak Power
	(MHz)	(dBm)	(mW)
Low	1850.2	28.80	758.58
Middle	1880.00	25.50	354.81
High	1909.8	25.20	331.13

NOTE: RBW=VBW=1MHz

#### **GSM850 GPRS Mode Output Power (ERP)**

# Cellular Fundamental Substitution Measurement

Compliance Certification Services, Morgan Hill Immunity Chamber

Company: Sierra Wireless Project #: 06U10572 Date: 6-Sep-06 Test Engineer: Sunny Shih Configuration: Antenna - Extenned Mode: GSM850 GPRS Mode RBW=VBW=8MHz, Peak Detection

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	SA reading	Ant. Pol.	SG reading	CL	Gain	ERP	Limit	Margin	Notes
MHz	(dBuV/m)	(H/V)	(dBm)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
Low Ch (128	3) 824.2 MHz								
824.20	102.5	V	28.1	0.5	0.0	27.6	38.5	-10.9	
824.20	99.0	H	24.7	0.5	0.0	24.2	38.5	-14.3	
Mid Ch (192	) 837.0 MHz								
837.00	101.9	V	27.4	0.6	0.0	26.8	38.5	-11.7	
837.00	98.9	H	24.5	0.6	0.0	23.9	38.5	-14.6	
High Ch (25	1) 848.8 MHz								
848.80	102.1	V	27.5	0.7	0.0	26.8	38.5	-11.6	
848.80	99.3	H	24.7	0.7	0.0	24.0	38.5	-14.4	

#### **GSM850 EGPRS Mode Output Power (ERP)**

Cellular Fundamental Substitution Measurement Compliance Certification Services, Morgan Hill Immunity Chamber

Company: Sierra Wireless Project #: 06U10542 Date: 6-Sep-06 Test Engineer: Sunny Shih Configuration: Antenna - Extenned Mode: GSM850 EGPRS Mode

RBW=VBW=8MHz, Peak Detection

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	SA reading	Ant. Pol.	SG reading	CL	Gain	ERP	Limit	Margin	Notes
MHz	(dBuV/m)	(H/V)	(dBm)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
Low Ch (128	3) 824.2 MHz								
824.20	101.5	V	27.1	0.5	0.0	26.6	38.5	-11.9	
824.20	97.5	H	23.2	0.5	0.0	22.7	38.5	-15.7	
Mid Ch (192	) 837.0 MHz								
837.00	100.1	V	25.5	0.6	0.0	24.9	38.5	-13.6	
837.00	97.0	H	22.6	0.6	0.0	22.0	38.5	-16.5	
High Ch (25	1) 848.8 MHz								
848.80	100.3	V	25.7	0.7	0.0	25.0	38.5	-13.4	
848.80	98.1	H	23.5	0.7	0.0	22.8	38.5	-15.6	

#### **GSM1900 GPRS Mode Output Power (EIRP)**

**PCS Fundamental Substitution Measurement** 

Compliance Certification Services, Morgan Hill Immunity Chamber

Company: Sierra Wireless Project #: 06U10572 Date: 6-Sep-06 Test Engineer: Sunny Shih

Configuration: Antennna - Extended position GSM1900 GPRS Mode RBW=VBW=8MHz, Peak Detection

Test Equipment:

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	SA reading	Ant. Pol.	SG reading	CL	Gain	EIRP	Limit	Margin	Notes
GHz	(dBuV/m)	(H/V)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
Low Ch (5	12)1850.2 MHz								
1.850	96.1	V	22.2	0.9	8.3	29.6	33.0	-3.4	
1.850	96.2	H	20.2	0.9	8.3	27.6	33.0	-5.4	
Mid Ch (1 1.880	92) 1880 MHz 93.5	v	20.4	0.9	8.3	27.9	33.0	-5.2	
1.880	94.5	H	19.7	0.9	8.3	27.1	33.0	-5.9	
High Ch (	810) 1909.8 MHz								
1.910	91.5	V	18.2	0.9	8.4	25.7	33.0	-7.3	
1.910	93.1	H	18.0	0.9	8.4	25.5	33.0	-7.5	

#### **GSM1900 EGPRS Mode Output Power (EIRP)**

#### **PCS Fundamental Substitution Measurement**

Compliance Certification Services, Morgan Hill Immunity Chamber

Sierra Wireless Company: Project #: 06U10572 Date: 6-Sep-06 Test Engineer: Sunny Shih

Configuration: Antennna - Extended position Mode: GSM1900 EGPRS Mode RBW=VBW=8MHz, Peak Detection

Test Equipment:

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	SA reading	Ant. Pol.	SG reading	$\mathbf{CL}$	Gain	EIRP	Limit	Margin	Notes
GHz	(dBuV/m)	(H/V)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
Low Ch (5)	12)1850.2 MHz								
1.850	95.4	V	21.4	0.9	8.3	28.8	33.0	-4.2	
1.850	95.9	H	19.9	0.9	8.3	27.3	33.0	-5.7	
Mid Ch (19	92) 1880 MHz								
1.880	91.2	V	18.1	0.9	8.3	25.5	33.0	-7.5	
1.880	92.5	H	17.7	0.9	8.3	25.1	33.0	-7.9	
High Ch (8	310) 1909.8 MHz								
1.910	91.0	V	17.7	0.9	8.4	25.2	33.0	-7.8	
1.910	92.6	H	17.5	0.9	8.4	25.0	33.0	-8.0	

DATE: OCTOBER 09, 2006

FCC ID: N7NMC8755

## 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.

<u>Note</u>: No emissions were found within 30-1000MHz & after the third harmonic of 20dB below the system noise.

#### 850MHz Band GPRS Mode Spurious & Harmonic (ERP)

Cellular Harmonic Substitution Measurement

Compliance Certification Services, Morgan Hill Immunity Chamber

Company: Sierra Wireless, Inc. Project #: 06U10572 Date: 7-Sep-06 Test Engineer: Sunny Shih Configuration: Antenna - Extended Mode: GSM850 GPRS Mode

RBW=VBW=1MHz, Peak Detection

Test Equipment:

Receiving: Horn T59, Pre-amp T34, Chin 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 Chan	nel (824.2MHz)								
1.648	65.2	V	-48.1	0.8	4.9	-44.0	-13.0	-31.0	
2.472	60.3	V	-50.1	1.0	7.1	-43.9	-13.0	-30.9	
1.648	64.9	Н	-40.6	1.3	7.8	-34.1	-13.0	-21.1	
2.472	58.9	H	-45.2	1.5	8.8	-37.8	-13.0	-24.8	
Mid Chan	nel (837.0MHz)								
1.674	67.6	V	-45.5	0.8	5.0	-41.3	-13.0	-28.3	
2.511	60.1	V	-49.3	1.0	7.1	-43.2	-13.0	-30.2	
1.674	67.1	H	-38.4	1.4	7.9	-31.9	-13.0	-18.9	
2.511	58.0	Н	-45.5	1.5	8.9	-38.1	-13.0	-25.1	
High Cha	nnel (848.8MHz)								
1.697	66.4	V	-46.5	0.8	5.1	-42.2	-13.0	-29.2	
2.546	62.3	V	-46.5	1.0	7.1	-40.3	-13.0	-27.3	
1.697	62.2	Н	-43.7	1.4	8.0	-37.1	-13.0	-24.1	
2.546	57.1	H	-45.8	1.5	8.9	-38.5	-13.0	-25.5	

#### 850MHz Band EGPRS Mode Spurious & Harmonic (ERP)

Cellular Harmonic Substitution Measurement

Compliance Certification Services, Morgan Hill Immunity Chamber

Company: Sierra Wireless, Inc. Project #: 06U10572 Date: 7-Sep-06 Test Engineer: Sunny Shih Configuration: Antenna - Extended Mode: GSM850 EGPRS Mode RBW=VBW=1MHz, Peak Detection

Test Equipment:

Receiving: Horn T59, Pre-amp T34, Chin 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 Chan	nel (824.2MHz)								
1.648	62.1	V	-51.2	0.8	4.9	-47.1	-13.0	-34.1	
2.472	57.5	V	-52.9	1.0	7.1	-46.7	-13.0	-33.7	
1.648	61.6	Н	-43.9	1.3	7.8	-37.4	-13.0	-24.4	
2.472	55.8	H	-48.2	1.5	8.8	-40.9	-13.0	-27.9	
Mid Chan	nel (837.0MHz)								
1.674	65.4	V	-47.7	0.8	5.0	-43.5	-13.0	-30.5	
2.511	57.5	V	-51.9	1.0	7.1	-45.8	-13.0	-32.8	
1.674	65.1	H	-40.4	1.4	7.9	-33.9	-13.0	-20.9	
2.511	55.1	H	-48.4	1.5	8.9	-41.0	-13.0	-28.0	
High Cha	nnel (848.8MHz)								
1.697	64.3	V	-48.6	0.8	5.1	-44.3	-13.0	-31.3	
2.546	59.6	V	-49.2	1.0	7.1	-43.0	-13.0	-30.0	
1.697	59.1	Н	-46.8	1.4	8.0	-40.2	-13.0	-27.2	
2.546	54.6	H	-48.3	1.5	8.9	-41.0	-13.0	-28.0	

#### 1900MHz Band GPRS Mode Spurious & Harmonic (EIRP)

**PCS Harmonic Substitution Measurement** 

Compliance Certification Services, Morgan Hill Immunity Chamber

Company: Sierra Wireless, Inc. Project #: 06U10572 Date: 7-Sep-06 Test Engineer: Sunny Shih Configuration: Antenna - Extended 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 Chan	nel (1850.2 MHz)								
3.700	65.6	V	-39.4	1.2	9.7	-31.0	-13.0	-18.0	
5.550	63.7	V	-38.8	1.6	11.0	-29.5	-13.0	-16.5	
3.700	64.9	Н	-41.6	1.2	9.7	-33.2	-13.0	-20.2	
5.550	58.0	H	-44.0	1.6	11.0	-34.6	-13.0	-21.6	
Mid Chan	nel (1880 MHz)								
3.760	64.8	V	-39.7	1.3	9.7	-31.2	-13.0	-18.2	
5.640	58.3	V	-44.5	1.7	11.2	-35.0	-13.0	-22.0	
3.760	65.0	Н	-31.5	2.1	12.7	-20.8	-13.0	-7.8	
5.640	55.4	H	-40.4	2.3	13.9	-28.8	-13.0	-15.8	
High Cha	nnel (1909.8 MHz)								
3.819	65.1	V	-39.1	1.3	9.7	-30.7	-13.0	-17.7	
5.729	57.5	V	-45.0	1.7	11.3	-35.4	-13.0	-22.4	
3.819	62.7	Н	-32.9	2.1	12.7	-22.3	-13.0	-9.3	
5.729	53.3	H	-41.9	2.4	14.0	-30.3	-13.0	-17.3	

#### 1900MHz Band EGPRS Mode Spurious & Harmonic (EIRP)

**PCS Harmonic Substitution Measurement** 

Compliance Certification Services, Morgan Hill Immunity Chamber

Company: Sierra Wireless, Inc. Project #: 06U10572 Date: 7-Sep-06 Test Engineer: Sunny Shih Configuration: Antenna - Extended Mode: GSM1900 EGPRS Mode

RBW=VBW=1MHz, Peak Detection

Test Equipment:

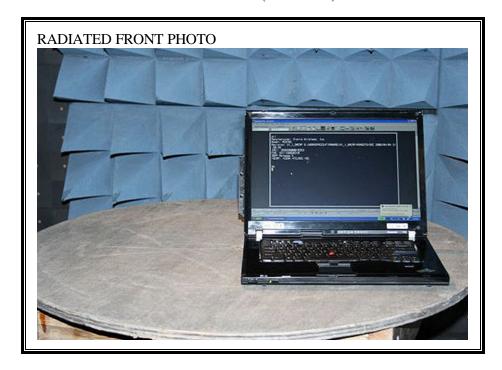
Receiving: Horn T59, Pre-amp T34, and Chin SMA Cables 2 & 12 ft (Setup this one for testing EUT)

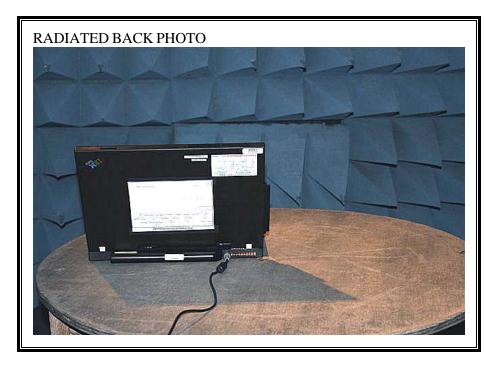
Substitution: Horn T60, and 6ft SMA Cable Warehouse S/N: 208947 002

f CH-	SA reading	Ant. Pol.	SG reading	CL (JB)	Gain	EIRP (dBm)	Limit	Margin	Notes
GHz	(dBuV/m)	(H/V)	(dBm)	(dB)	(dBi)	(abm)	(dBm)	(dB)	
Low Chan	nel (1850.2 MHz)								
3.700	64.9	V	-40.2	1.2	9.7	-31.7	-13.0	-18.7	
5.550	63.6	V	-38.9	1.6	11.0	-29.5	-13.0	-16.5	
3.700	64.3	Н	-42.2	1.2	9.7	-33.8	-13.0	-20.8	
5.550	57.5	H	-44.5	1.6	11.0	-35.1	-13.0	-22.1	
Mid Chan	nel (1880 MHz)								
3.760	63.5	V	-41.0	1.3	9.7	-32.6	-13.0	-19.6	
5.640	57.2	V	-45.6	1.7	11.2	-36.1	-13.0	-23.1	
3.760	64.2	Н	-40.3	1.3	9.7	-31.9	-13.0	-18.9	
5.640	54.1	H	-48.7	1.7	11.2	-39.2	-13.0	-26.2	
High Cha	innel (1909.8 MHz)								
3.819	64.4	V	-39.8	1.3	9.7	-31.4	-13.0	-18.4	
5.729	56.7	V	-45.8	1.7	11.3	-36.2	-13.0	-23.2	
3.819	61.4	Н	-34.2	2.1	12.7	-23.6	-13.0	-10.6	
5.729	5251.0	H	5155.8	2.4	14.0	5167.4	-13.0	5180.4	

# 8. SETUP PHOTOS

D2-Note (lenovo T60)





# **END OF REPORT**

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