

PCTEST ENGINEERING LABORATORY, INC.

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CERTIFICATE OF COMPLIANCE FCC Part 22 & 24 Class II Permissive Change

Applicant Name:

Sierra Wireless 13811 Wireless Way Richmond Canada

Date of Testing:

October 7, 2009 Test Site/Location: PCTEST Lab., Columbia, MD, USA Test Report Serial No.: 0910051848.09E

FCC ID:

O9EQ26ELITE

APPLICANT:

SIERRA WIRELESS

Application Type:	Class II Permissive Change
FCC Classification:	PCS Licensed Transmitter (PCB)
FCC Rule Part(s):	§2; §22(H), §24(E)
EUT Type:	Cellular/PCS CDMA Module
Model(s):	Q26 ELITE
Tx Frequency Range:	824.70 - 848.31MHz (Cell. CDMA) / 1851.25 - 1908.75MHz (PCS CDMA)
Max. RF Output Power:	274.16 mW (24.38 dBm) Conducted (Cell. CDMA)
	242.66 mW (23.85 dBm) Conducted (PCS CDMA)
Emission Designator(s):	1M28F9W (CDMA) / 1M27F9W (PCS)
Test Device Serial No.:	identical prototype [S/N: A1000009400545]
Class II Perm. Change:	Please see FCC Change Document.
Original Grant Date:	April 23, 2009

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in §2.947. Test results reported herein relate only to the item(s) tested.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

Grant Conditions: Power output listed is conducted for Part 22 and Part 24.

PCTEST certifies that no party to this application has been denied the FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. 862.

Randy Ortanez President



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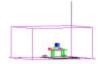


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MEASUREMENT REPORT FCC Part 22 & 24



§2.1033 General Information

APPLICANT:	Sierra Wireless	
APPLICANT ADDRESS:	13811 Wireless Way	
	Richmond	
TEST SITE:	PCTEST ENGINEERING LABORATORY, INC.	
TEST SITE ADDRESS:	6660-B Dobbin Road, Columbia, MD 21045 USA	
FCC RULE PART(S):	§2; §22(H), §24(E)	
BASE MODEL:	Q26 ELITE	
FCC ID:	O9EQ26ELITE	
FCC CLASSIFICATION:	PCS Licensed Transmitter (PCB)	
EMISSION DESIGNATOR(S):	1M28F9W (CDMA) / 1M27F9W (PCS)	
MODE:	CDMA	
FREQUENCY TOLERANCE:	±0.00025 % (2.5 ppm)	
Test Device Serial No.:	A1000009400545 🗌 Production 🛛 Pre-Production 🗌	Engineering
DATE(S) OF TEST:	October 7, 2009	
TEST REPORT S/N:	0910051848.O9E	

Test Facility / Accreditations

Measurements were performed at PCTEST Engineering Lab. located in Columbia, MD 21045, U.S.A.



Certificate of Accreditation to ISO/IEC 17025:200

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PCTEST Engineering Lab

- PCTEST facility is an FCC registered (PCTEST Reg. No. 90864) test facility with the site description report on file and has met all the requirements specified in Section 2.948 of the FCC Rules and Industry Canada (2451A-1).
- PCTEST Lab is accredited to ISO 17025 by U.S. National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP Lab code: 100431-0) in EMC, FCC and Telecommunications.
- PCTEST Lab is accredited to ISO 17025-2005 by the American Association for Laboratory Accreditation (A2LA) in Specific Absorption Rate (SAR) testing, Hearing Aid Compatibility (HAC) testing, CTIA Test Plans, and wireless testing for FCC and Industry Canada Rules.
- PCTEST Lab is a recognized U.S. Conformity Assessment Body (CAB) in EMC and R&TTE (n.b. 0982) under the U.S.-EU Mutual Recognition Agreement (MRA).
- PCTEST TCB is a Telecommunication Certification Body (TCB) accredited to ISO/IEC Guide 65 by the American National Standards Institute (ANSI) in all scopes of FCC Rules and Industry Canada Standards (RSS).
- PCTEST facility is an IC registered (2451A-1) test laboratory with the site description on file at Industry Canada.
- PCTEST is a CTIA Authorized Test Laboratory (CATL) for AMPS, CDMA, and EvDO wireless devices and for Over-the-Air (OTA) Antenna Performance testing for AMPS, CDMA, GSM, GPRS, EGPRS, UMTS (W-CDMA), CDMA 1xEVDO, and CDMA 1xRTT.

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1.0 INTRODUCTION

1.1 Scope

Measurement and determination of electromagnetic emissions (EME) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission.

1.2 Testing Facility

The map below shows the location of the PCTEST LABORATORY, its proximity to the FCC Laboratory, the Columbia vicinity are, the Baltimore-Washington Internt'I (BWI) airport, the city of Baltimore and the Washington, DC area. (See Figure 1-1).

These measurement tests were conducted at the PCTEST Engineering laboratory, Inc. facility in New Concept Business Park, Guilford Industrial Park, Columbia, Maryland. The site address is 6660-B Dobbin Road, Columbia, MD 21045. The test site is one of the highest points in the Columbia area with an elevation of 390 feet above mean sea level. The site coordinates are 39° 11'15" N latitude and 76° 49'38" W longitude. The facility is 1.5 miles North of the FCC laboratory, and the ambient signal and ambient signal strength are approximately equal to those of the FCC laboratory. There are no FM or TV transmitters within 15 miles of the site. The detailed description of the measurement facility was found to be in compliance with the requirements of § 2.948 according to ANSI C63.4-2003 on January 27, 2006.

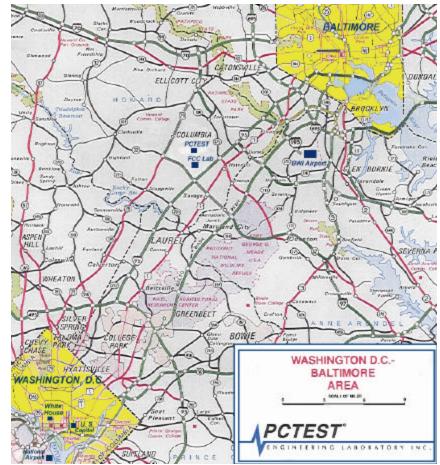


Figure 1-1. Map of the Greater Baltimore and Metropolitan Washington, D.C. area

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2.0 PRODUCT INFORMATION

2.1 Equipment Description

The Equipment Under Test (EUT) is the **Sierra Wireless Cellular/PCS CDMA Module FCC ID: O9EQ26ELITE**. The EUT consisted of the following component(s):

Trade Name / Base Model	FCC ID	Description
Sierra Wireless / Model: Q26 ELITE	O9EQ26ELITE	Cellular/PCS CDMA Module

 Table 2-1.
 EUT Equipment Description

2.2 EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and no modifications were made during testing.

2.3 Labeling Requirements

Per 2.925

The FCC identifier shall be permanently affixed to the equipment and shall be readily visible to the purchaser at the time of purchase.

Per 15.19; Docket 95-19

In addition to this requirement, a device subject to certification shall be labeled as follows:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The label shall be permanently affixed at a conspicuous location on the device; instruction manual or pamphlet supplied to the user and be readily visible to the purchaser at the time of purchase. However, when the device is so small wherein placement of the label with specified statement is not practical, only the trade name and FCC ID must be displayed on the device per Section 15.19(b)(2).

Please see attachment for FCC ID label and label location.

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3.0 DESCRIPTION OF TESTS

3.1 Measurement Procedure

The radiated spurious measurements were made outdoors at a 3meter test range (see Figure 3-1). The equipment under test is placed on a wooden turntable 3-meters from the receive antenna. The receive antenna height and turntable rotations were adjusted for the highest reading on the receive spectrum analyzer. A halfwave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. This level is recorded. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic antenna are taken into consideration.

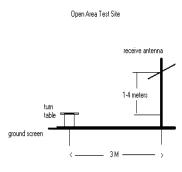
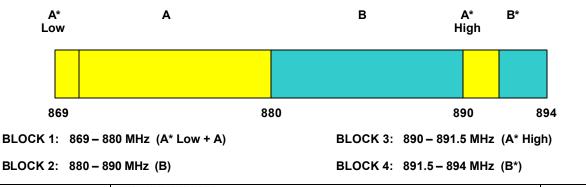


Figure 3-1. Diagram of 3-meter outdoor test range

Deviation from Measurement Procedure......None

3.2 Occupied Bandwidth Emission Limits §2.1049, 22.917(a), 24.238(a)

- a. On any frequency outside a licensee's frequency block, the power of any emission shall be attenuated below the transmitter power (P) by at least 43 + 10 log(P) dB.
- b. Compliance with these provisions is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emission are attenuated at least 26 dB below the transmitter power.
- c. When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the licensee's frequency block edges, both upper and lower, as the design permits.
- d. The measurement of emission power can be expressed in peak or average values, provided they are expressed in the same parameters as the transmitter power.

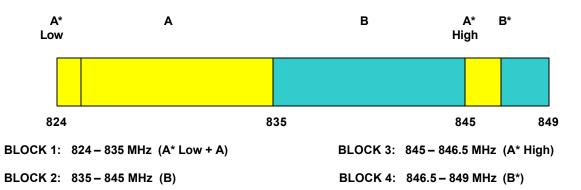


3.3 Cellular - Base Frequency Blocks

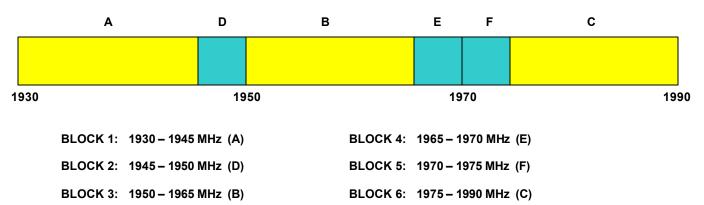
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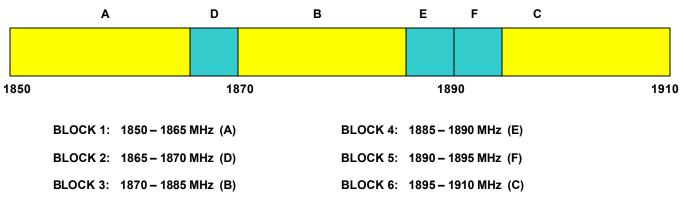
3.4 Cellular - Mobile Frequency Blocks



3.5 PCS - Base Frequency Blocks



3.6 PCS - Mobile Frequency Blocks



3.7 Spurious and Harmonic Emissions at Antenna Terminal §2.1051, 22.917(a), 24.238(a)

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic.

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3.8 Radiated Spurious and Harmonic Emissions §2.1053, 22.917(a), 24.238(a)

Spurious and harmonic radiated emissions are measured outdoors at our 3 meter test range. The equipment under test is placed on a wooden turntable 3 meters from the receive antenna. The receive antenna height and turntable rotations were adjusted for the highest reading on the receive spectrum analyzer. The spectrum is scanned from the bwest frequency generated in the equipment up to a frequency including its 10^{th} harmonic. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator with the level of the signal generator being adjusted to obtain the same receive spectrum analyzer reading. This level is recorded. For readings above 1 GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration. This device was tested under all R.C.s and S.O.s and the worst case is reported with Test Data Service SO32 with "All Up" power control bits. This unit was tested with the antenna port terminated in 50 Ω .

3.9 Peak-Average Ratio

<u>§24.232(d)</u>

A peak to average ratio measurement is performed at the conducted port of the EUT. For CDMA and WCDMA signals, the spectrum analyzers Complementary Cumulative Distribution Function (CCDF) measurement profile is used to determine the largest deviation between the average and the peak power of the EUT in a given bandwidth. The CCDF curve shows how much time the peak waveform spends at or above a given average power level. The percent of time the signal spends at or above the level defines the probability for that particular power level. For GSM signals, an average and a peak trace are used on a spectrum analyzer to determine the largest deviation between the average and the peak power of the EUT in a bandwidth greater than the emission bandwidth.

3.10 Frequency Stability / Temperature Variation §2,1055, 22,355, 24,235

The frequency stability of the transmitter is measured by:

- a.) **Temperature:** The temperature is varied from -30°C to +50°C in 10°C increments using an environmental chamber.
- b.) **Primary Supply Voltage:** The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

Specification – The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within $\pm 0.00025\%$ (± 2.5 ppm) of the center frequency.

Time Period and Procedure:

1. The carrier frequency of the transmitter is measured at room temperature (20°C to provide a reference).

2. The equipment is turned on in a "standby" condition for one minute before applying power to the transmitter. Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.

3. Frequency measurements are made at 10°C intervals ranging from -30°C to +50°C. A sufficient stabilization period at each temperature shall be used prior to each frequency requirement.

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4.0 TEST EQUIPMENT CALIBRATION DATA

Test Equipment Calibration is traceable to the National Institute of Standards and Technology (NIST).

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
-	263-10dB	(DC-18GHz) 10 dB Attenuator	N/A		N/A	N/A
-	No.165	(30MHz - 1000MHz) RG58 Coax Cable	N/A		N/A	N/A
-	No.166	(1000-26500MHz) Microwave RF Cable	N/A		N/A	N/A
-	No.167	(100kHz - 100MHz) RG58 Coax Cable	N/A		N/A	N/A
Agilent	11713A	Attenuation/Switch Driver	12/4/2008	Annual	12/4/2009	3439A02645
Agilent	8449B	(1-26.5GHz) Pre-Amplifier	12/4/2008	Annual	12/4/2009	3008A00985
Agilent	8495A	(0-70dB) DC-4GHz Attenuator	N/A		N/A	N/A
Agilent	85650A	Quasi-Peak Adapter	12/4/2008	Annual	12/4/2009	3303A01872
Agilent	85650A	Quasi-Peak Adapter	3/24/2009	Annual	3/24/2010	2043A00301
Agilent	8566B	(100Hz-22GHz) Spectrum Analyzer	12/5/2008	Annual	12/5/2009	3638A08713
Agilent	8648D	(9kHz-4GHz) Signal Generator	9/19/2009	Biennial	9/19/2011	3613A00315
Agilent	E4407B	ESA Spectrum Analyzer	3/24/2009	Annual	3/24/2010	US39210313
Agilent	E4432B	ESG-D Series Signal Generator	9/10/2009	Annual	9/10/2010	US40053896
Agilent	E4448A	PSA (3Hz-50GHz) Spectrum Analyzer	12/5/2008	Annual	12/5/2009	US42510244
Agilent	E5515C	Wireless Communications Test Set	9/10/2009	Biennial	9/10/2011	GB46110872
Agilent	E5515C	Wireless Communications Test Set	9/11/2009	Biennial	9/11/2011	GB46310798
Agilent	E5515C	Wireless Communications Test Set	8/25/2009	Biennial	8/25/2011	GB41450275
Agilent	E8257D	(250kHz-20GHz) Signal Generator	3/25/2009	Biennial	3/25/2011	MY45470194
Agilent	E8267C	Vector Signal Generator	11/15/2007	Biennial	11/15/2009	US42340152
Agilent	N9020A	MXA Signal Analyzer	10/17/2008	Annual	10/17/2009	US46470561
Compliance Design	Roberts	Dipole Set	11/9/2007	Biennial	11/9/2009	146
Compliance Design	Roberts	Dipole Set	11/9/2007	Biennial	11/9/2009	147
Espec	ESX-2CA	Environmental Chamber	3/30/2009	Annual	3/30/2010	17620
Gigatronics	80701A	(0.05-18GHz) Power Sensor	9/9/2009	Annual	9/9/2010	1833460
Gigatronics	8651A	Universal Power Meter	9/9/2009	Annual	9/9/2010	8650319
K&L	11SH10	Band Pass Filter	N/A	Annual	N/A	1300/4000
K&L	11SH10	Band Pass Filter	N/A	Annual	N/A	4000/12000
MiniCircuits	VHF-1300+	High Pass Filter	N/A		N/A	30716
MiniCircuits	VHF-3100+	High Pass Filter	N/A		N/A	30721
Pasternack	PE2208-6	Bidirectional Coupler	N/A		N/A	N/A
Rohde & Schwarz	CMU200	Base Station Simulator	9/11/2009	Annual	9/11/2010	836371/0079
Rohde & Schwarz	CMU200	Base Station Simulator	9/4/2009	Annual	9/4/2010	109892
Rohde & Schwarz	NRVD	Dual Channel Power Meter	8/20/2008	Biennial	8/20/2010	101695
Rohde & Schwarz	NRV-Z32	Peak Power Sensor (100uW-2W)	12/5/2008	Biennial	12/5/2010	100155
Rohde & Schwarz	NRV-Z33	Peak Power Sensor (1mW-20W)	12/5/2008	Biennial	12/5/2010	100004
Schwarzbeck	UHA9105	Dipole Antenna (400 - 1GHz) Rx	7/17/2009	Biennial	7/17/2011	9105-2404
Schwarzbeck	UHA9105	Dipole Antenna (400 - 1GHz) Tx	7/17/2009	Biennial	7/17/2011	9105-2403
Solar Electronics	8012-50-R-24-BNC	LISN	11/8/2007	Biennial	11/8/2009	310233
Sunol	DRH-118	Horn Antenna (1 - 18GHz)	5/14/2009	Biennial	5/14/2011	A050307
Rohde & Schwarz	CMU200	Base Station Simulator	6/12/2009	Annual	6/12/2010	836536/0005
Rohde & Schwarz	FSQ 26	Spectrum Analyzer	9/19/2009	Annual	9/19/2010	200452
Rohde & Schwarz	CMW500	LTE Base Station Simulator	8/25/2009	Annual	8/25/2010	100976

Table 4-1. Test Equipment

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5.0 SAMPLE CALCULATIONS

Emission Designator

Emission Designator = 1M25F9W

CDMA BW = 1.25 MHz F = Frequency Modulation 9 = Composite Digital Info W = Combination (Audio/Data) (Measured at the 99.75% power bandwidth)

Spurious Radiated Emission - PCS Band

Example: Channel 25 PCS Mode 2nd Harmonic (3702.50 MHz)

The receive analyzer reading at 3 meters with the EUT on the turntable was -81.0 dBm. The gain of the substituted antenna is 8.1 dBi. The signal generator connected to the substituted antenna terminals is adjusted to produce a reading of -81.0 dBm on the receive analyzer. The loss of the cable between the signal generator and the terminals of the substituted antenna is 2.0 dB at 3702.50 MHz. So 6.1 dB is added to the signal generator reading of -30.9 dBm yielding -24.80 dBm. The fundamental EIRP was 25.501 dBm so this harmonic was 25.501 dBm - (-24.80) = 50.3 dBc.

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TEST RESULTS 6.0

6.1 Summary

Company Name:	<u>Sierra Wireless</u>
FCC ID:	O9EQ26ELITE
FCC Classification:	PCS Licensed Transmitter (PCB)
Mode(s):	<u>CDMA</u>

FCC Part Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
TRANSMITTER MODE (<u>TX)</u>				
2.1049, 22.917(a), 24.238(a)	Occupied Bandwidth	N/A		PASS	Section 7.0
2.1051, 22.917(a), 24.238(a)	Band Edge / Conducted Spurious Emissions	< 43 + 10log ₁₀ (P[Watts]) at Band Edge and for all out-of-band emissions		PASS	Section 7.0
24.232(d)	Peak-Average Ratio	< 13 dB	CONDUCTED	PASS	Section 7.0
2.1046	Transmitter Conducted Output Power	N/A		PASS	Section 6.2
2.1053, 22.917(a), 24.238(a)	Undesirable Emissions	< 43 + 10log ₁₀ (P[Watts]) for all out-of-band emissions	RADIATED	PASS	Sections 6.3, 6.4
2.1055, 22.355, 24.235	Frequency Stability	< 2.5 ppm	TABIATED	PASS	Sections 6.5, 6.6
RECEIVER MODE (RX)	/ DIGITAL EMISSIONS				
15.107	AC Conducted Emissions 150kHz – 30MHz	< FCC 15.107 limits	LINE CONDUCTED	PASS	Pt. 15B Test Report
15.109	General Field Strength Limits (Restricted Bands and Radiated Emissions Limits)	< FCC 15.109 limits	RADIATED (30MHz-1GHz) (1-25 GHz)	PASS	Pt. 15B Test Report

Table 6-1. Summary of Test Results

<u>Note</u>: This unit was tested with the antenna port terminated in 50Ω .

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6.2 Conducted Output Power §2.1046

This device was tested under all R.C.s and S.O.s and the worst case is reported with Test Data Service SO32 with "All Up" power control bits.

Output Power Verification

See 3GPP2 C.S0011/TIA-98-E as recommended by "SAR Measurement Procedures for 3G Devices", June 2006.

- 1. If the mobile station (MS) supports Reverse TCH RC 1 and Forward TCH RC 1, set up a call using Fundamental Channel Test Mode 1 (RC=1/1) with 9600 bps data rate only.
- 2. Under RC1, C.S0011 Table 4.4.5.2-1, Table 6-2 parameters were applied.
- 3. If the MS supports the RC 3 Reverse FCH, RC3 Reverse SCH0 and demodulation of RC 3,4, or 5, set up a call using Supplemental Channel Test Mode 3 (RC 3/3) with 9600 bps Fundamental Channel and 9600 bps SCH0 data rate.
- 4. Under RC3, C.S0011 Table 4.4.5.2-2, Table 6-3 was applied.
- 5. FCHs were configured at full rate for maximum power with "All Up" power control bits.

Parameter	Units	Value
Î _{or}	dBm/1.23 MHz	-86
$\frac{\text{Pilot } E_c}{I_{or}}$	dB	-7
Traffic E _c I _{or}	dB	-7.4

Table 6-2.	Parameters	for Max.	Power for RC	3
------------	------------	----------	--------------	---

CDMA 2000	Channel	SO55 [dBm]	TDSO SO32 [dBm]
	F-RC	RC3	RC3
Band	Vocoder Rate	Full	Full
	1013	24.32	24.38
Cellular	384	24.24	24.18
	777	23.98	24.04
	25	23.75	23.79
PCS	600	23.81	23.85
	1175	23.80	23.68

Table 6-3. Maximum Conducted Output Power Table for Q26 ELITE

Note: The conducted output power listed above are from the original grant certification.

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6.3 Cellular CDMA Radiated Measurements §2.1053, 22.917(a)

Field Strength of SPURIOUS Radiation

 $\begin{array}{c|c} \text{OPERATING FREQUENCY:} & \underline{824.70} & \text{MHz} \\ \text{CHANNEL:} & \underline{1013} & \\ \text{MODULATION SIGNAL:} & \text{CDMA (Internal)} & \\ \text{DISTANCE:} & \underline{3} & \text{meters} \\ \text{LIMIT:} & 43 + 10 \log_{10} (\text{W}) = & -13.00 & \text{dBm} \end{array}$

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBd)	CORRECT GENERATOR LEVEL (dBm)	POL (H/V)	(dBc)
1649.40	-59.46	6.08	-53.38	V	53.4
2474.10	-56.16	6.08	-50.08	V	50.1
3298.80	-52.86	6.53	-46.33	V	46.3
4123.50	-93.91	6.87	-87.03	V	87.0
4948.20	-91.56	7.21	-84.35	V	84.4

 Table 6-4. Radiated Spurious Data (Cellular CDMA Mode – Ch. 1013)

NOTES:

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA -603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. Final power measurements are made with a broadband average power meter. A halfwave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same spectrum analyzer reading. This spurious level is recorded using the power meter. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

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Cellular CDMA Radiated Measurements (Cont'd) §2.1053, 22.917(a)

Field Strength of SPURIOUS Radiation

 OPERATING FREQUENCY:
 836.52
 MHz

 CHANNEL:
 384
 MODULATION SIGNAL:
 CDMA (Internal)

 DISTANCE:
 3
 meters

 LIMIT:
 43 + 10 log₁₀ (W) =
 -13.00
 dBm

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBd)	CORRECT GENERATOR LEVEL (dBm)	POL (H/V)	(dBc)
1673.04	-56.53	6.09	-50.44	V	50.4
2509.56	-42.64	6.55	-36.09	V	36.1
3346.08	-51.38	6.89	-44.49	V	44.5
4182.60	-51.44	7.43	-44.00	V	44.0
5019.12	-90.50	8.35	-82.16	V	82.2

 Table 6-5. Radiated Spurious Data (Cellular CDMA Mode – Ch. 384)
 East

NOTES:

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA -603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. Final power measurements are made with a broadband average power meter. A halfwave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same spectrum analyzer reading. This spurious level is recorded using the power meter. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

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Cellular CDMA Radiated Measurements (Cont'd) §2.1053, 22.917(a)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: <u>848.31</u> MHz CHANNEL: <u>777</u> MODULATION SIGNAL: CDMA (Internal) DISTANCE: <u>3</u> meters LIMIT: 43 + 10 log 10 (W) = -13.00 dBm

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBd)	CORRECT GENERATOR LEVEL (dBm)	POL (H/V)	(dBc)
1696.62	-56.80	6.09	-50.71	V	50.7
2544.93	-48.98	6.57	-42.41	V	42.4
3393.24	-51.54	6.91	-44.63	V	44.6
4241.55	-91.97	7.65	-84.32	V	84.3
5089.86	-90.23	8.33	-81.90	V	81.9

 Table 6-6. Radiated Spurious Data (Cellular CDMA Mode – Ch. 777)

NOTES:

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA -603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. Final power measurements are made with a broadband average power meter. A halfwave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same spectrum analyzer reading. This spurious level is recorded using the power meter. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

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6.4 PCS CDMA Radiated Measurements §2.1053, 24.238(a)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 1851.25

CHANNEL:

MHz 25 MODULATION SIGNAL: CDMA (Internal) DISTANCE: <u>3</u> meters LIMIT: $43 + 10 \log_{10} (W) = -13.00$ dBm

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBi)	CORRECT GENERATOR LEVEL (dBm)	POL (H/V)	(dBc)
3702.50	-35.85	9.02	-26.83	V	26.8
5553.75	-37.57	10.40	-27.17	V	27.2
7405.00	-36.09	10.51	-25.58	V	25.6
9256.25	-86.23	11.84	-74.39	V	74.4
11107.50	-83.73	12.76	-70.97	V	71.0

Table 6-7. Radiated Spurious Data (PCS CDMA Mode - Ch. 25)

NOTES:

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA -603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. Final power measurements are made with a broadband average power meter. A halfwave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same spectrum analyzer reading. This spurious level is recorded using the power meter. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

This device was tested under all R.C.s and S.O.s and the worst case is reported with Test Data Service SO32 with "All Up" power control bits. This unit was tested with its standard battery. This unit was tested with the antenna port terminated in 50Ω .

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PCS CDMA Radiated Measurements (Cont'd) §2.1053, 24.238(a)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY:1880.00MHzCHANNEL:600MODULATION SIGNAL:CDMA (Internal)DISTANCE:3LIMIT:43 + 10 log 10 (W) =-13.00dBm

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBi)	CORRECT GENERATOR LEVEL (dBm)	POL (H/V)	(dBc)
3760.00	-35.18	8.99	-26.18	V	26.2
5640.00	-46.81	10.40	-36.41	V	36.4
7520.00	-41.36	10.62	-30.74	V	30.7
9400.00	-86.05	11.70	-74.35	V	74.3
11280.00	-82.98	12.69	-70.29	V	70.3

 Table 6-8. Radiated Spurious Data (PCS CDMA Mode – Ch. 600)

NOTES:

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA -603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. Final power measurements are made with a broadband average power meter. A halfwave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same spectrum analyzer reading. This spurious level is recorded using the power meter. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

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PCS CDMA Radiated Measurements (Cont'd) §2.1053, 24.238(a)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY:1908.75MHzCHANNEL:1175MODULATION SIGNAL:CDMA (Internal)DISTANCE:3LIMIT:43 + 10 log10 (W) =-13.00dBm

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBi)	CORRECT GENERATOR LEVEL (dBm)	POL (H/V)	(dBc)
3817.50	-39.45	8.97	-30.48	V	30.5
5726.25	-39.45	10.40	-29.05	V	29.1
7635.00	-39.02	10.71	-28.31	V	28.3
9543.75	-85.88	11.64	-74.25	V	74.2
11452.50	-82.24	12.62	-69.62	V	69.6

 Table 6-9. Radiated Spurious Data (PCS CDMA Mode – Ch. 1175)

NOTES:

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA -603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. Final power measurements are made with a broadband average power meter. A halfwave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same spectrum analyzer reading. This spurious level is recorded using the power meter. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

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6.5 Cellular CDMA Frequency Stability Measurements §2.1055, 22.355

OPERATING FREQUENCY: 836,520,000 Hz

REFERENCE VOLTAGE: 5 VDC

DEVIATION LIMIT: <u>± 0.00025</u> % or 2.5 ppm

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	5.00	+ 20 (Ref)	836,520,001	1	0.000000
100 %		- 30	836,519,990	-10	-0.000001
100 %		- 20	836,520,017	17	0.000002
100 %		- 10	836,520,009	9	0.000001
100 %		0	836,520,005	5	0.000001
100 %		+ 10	836,520,022	22	0.000003
100 %		+ 20	836,520,019	19	0.000002
100 %		+ 30	836,520,022	22	0.000003
100 %		+ 40	836,520,010	10	0.000001
100 %		+ 50	836,519,985	-15	-0.000002
115 %	5.75	+ 20	836,519,971	-29	-0.000003
BATT. ENDPOINT	4.13	+ 20	836,519,979	-21	-0.000002

 Table 6-10. Frequency Stability Data (Cellular CDMA Mode – Ch. 384)

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Cellular CDMA Frequency Stability Measurements (Cont'd) §2.1055, 22.355

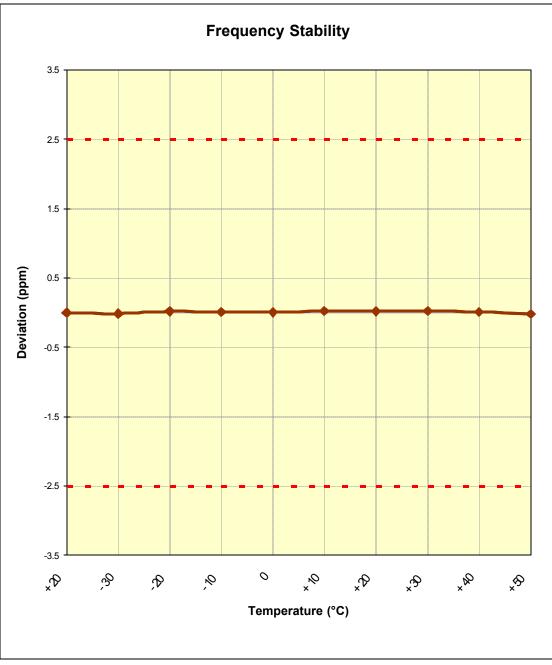


Figure 6-1. Frequency Stability Graph (Cellular CDMA Mode – Ch. 384)

FCC ID: 09EQ26ELITE	PCTEST	FCC Pt. 22/24 CDMA MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)	SIERRA WIRELESS	Reviewed by: Quality Manager
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6.6 PCS CDMA Frequency Stability Measurements §2.1055, 24.235

OPERATING FREQUENCY: _____1,880,000,000 Hz

CHANNEL: 600

REFERENCE VOLTAGE: 5 VDC

DEVIATION LIMIT: <u>± 0.00025</u> % or 2.5 ppm

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	5.00	+ 20 (Ref)	1,879,999,978	-22	-0.000001
100 %		- 30	1,880,000,010	10	0.000001
100 %		- 20	1,880,000,014	14	0.000001
100 %		- 10	1,880,000,026	26	0.000001
100 %		0	1,880,000,012	12	0.000001
100 %		+ 10	1,880,000,010	10	0.000001
100 %		+ 20	1,879,999,983	-17	-0.000001
100 %		+ 30	1,879,999,994	-6	0.000000
100 %		+ 40	1,879,999,995	-5	0.000000
100 %		+ 50	1,879,999,981	-19	-0.000001
115 %	5.75	+ 20	1,879,999,972	-28	-0.000001
BATT. ENDPOINT	4.13	+ 20	1,880,000,016	16	0.000001

 Table 6-11. Frequency Stability Data (PCS CDMA Mode – Ch. 600)

FCC ID: 09EQ26ELITE	PCTEST'	FCC Pt. 22/24 CDMA MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)	BIERRA WIRELESS	Reviewed by: Quality Manager
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PCS CDMA Frequency Stability Measurements (Cont'd) §2.1055, 24.235

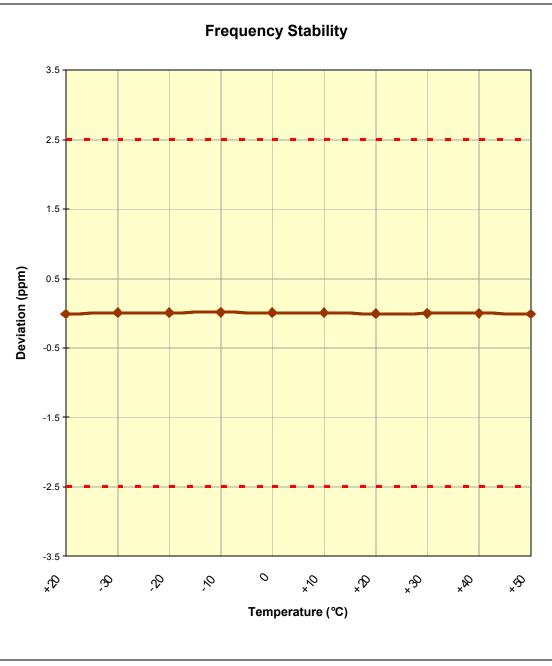
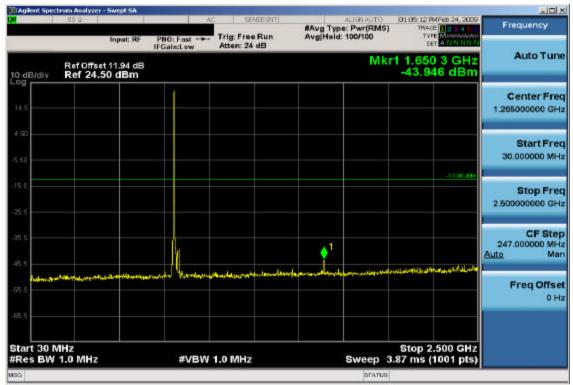


Figure 6-2. Frequency Stability Graph (PCS CDMA Mode – Ch. 600)

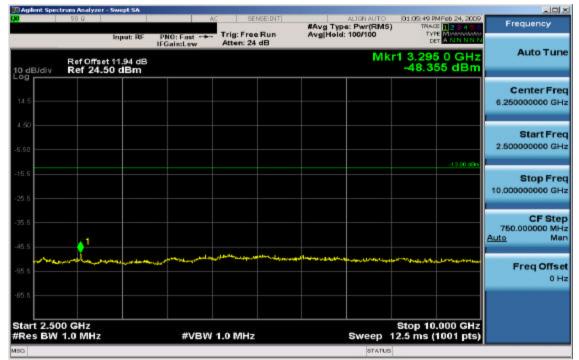
FCC ID: 09EQ26ELITE	PCTEST	FCC Pt. 22/24 CDMA MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)	SIERRA WIRELESS	Reviewed by: Quality Manager	
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PLOT(S) OF EMISSIONS 7.0



Plot 7-1. Conducted Spurious Plot (Cellular CDMA Mode - Ch. 1013)



Plot 7-2. Conducted Spurious Plot (Cellular CDMA Mode - Ch. 1013)

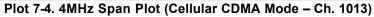
FCC ID: 09EQ26ELITE		FCC Pt. 22/24 CDMA MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)	SIERRA WIRELESS	Reviewed by: Quality Manager
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Agilent Spec	trum Analyzer -	Swept SA								
<mark>,XI</mark>	50 Ω		<i>l</i>	AC SE	NSE:INT	#Ava Tvp	e: Pwr(RMS)		MFeb 24, 2009	Frequency
10 dB/div	Ref Offset Ref 24.5	: 11.94 dB	PNO: >30k ↔ IFGain:Low	Trig: Free Atten: 24		Avg Hold:	: 10/10	ں 1 824.0	COMHz 00 MHz 04 dBm	Auto Tune
14.5	Rei 24.3									Center Freq 824.000000 MHz
4.50 5.50					1	WAANNA A A A A A A A A A A A A A A A A A	Low real and the second se	mi-del ⁱⁿⁱ nstaanid,	-13.00 dBm	Start Freq 823.000000 MHz
25.5										Stop Fred 825.000000 MHz
35.5 	Assant for a contraction of the	u jeiniku Ma ^{daria} nak	and Jake Alfrideration	Helen Martin and Ball						CF Step 200.000 kHz <u>Auto</u> Mar
55.5										Freq Offse 0 Ha
	4.000 MH 13 kHz	Z	#VBW	13 kHz			#Sweep	Span 2 2.00 <u>s (</u>	.000 MHz 1001 pts)	
SG							STATUS			



Plot 7-3. Band Edge Plot (Cellular CDMA Mode – Ch. 1013)

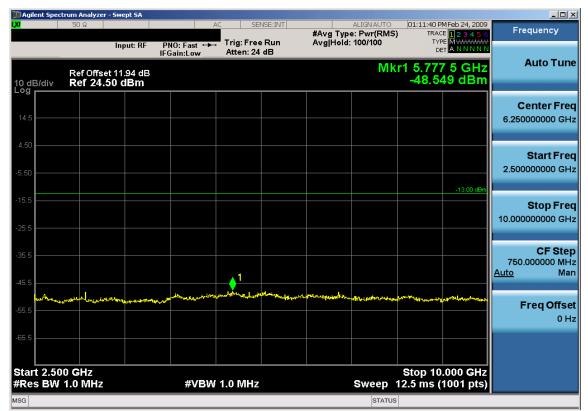


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🚺 Agilent Spec	trum Analyzer - 9	Swept SA									<u></u>
	50 Ω	Input: RF	PNO: I IFGain:	Fast 🔸			#Avg Typ Avg Hold	ALIGN AUTO e: Pwr(RMS) I: 100/100	TRAI TY	M Feb 24, 2009 CE 1 2 3 4 5 6 PE M WWWWW ET A N N N N N	Frequency
0 dB/div	Ref Offset Ref 24.50		II Guill					Mk	r1 1.67 -42.3	2 6 GHz 44 dBm	Auto Tune
14.5											Center Fre 1.265000000 GH
5.50										-13.00 dBm	Start Fre 30.000000 MH
25.5											Stop Fre 2.500000000 GH
15.5							• ¹				CF Ste 247.000000 M⊢ <u>Auto</u> Ma
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5.5 Start 30 M	MHz 1.0 MHz			#\/B\W	1.0 MHz			Sween	Stop 2	.500 GHz 1001 pts)	
				# V D VV	1.0 10112	-		STATUS	5.67 1115	ioor pis)	

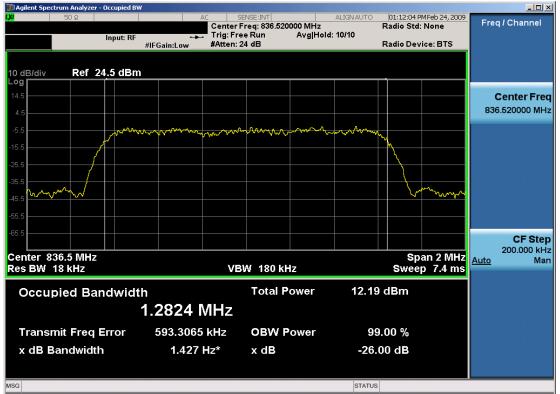
Plot 7-5. Conducted Spurious Plot (Cellular CDMA Mode - Ch. 384)

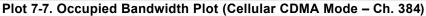


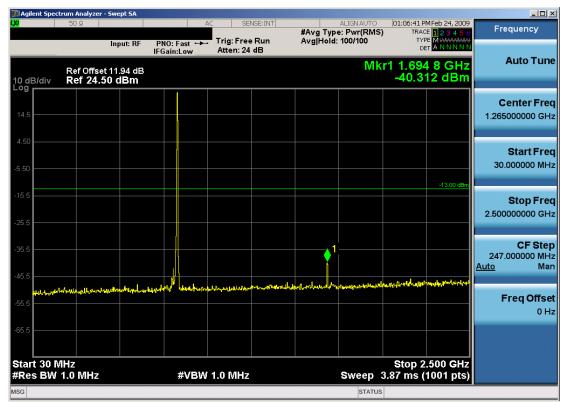
Plot 7-6. Conducted Spurious Plot (Cellular CDMA Mode - Ch. 384)

FCC ID: 09EQ26ELITE		FCC Pt. 22/24 CDMA MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)	SIERRA WIRELESS	Reviewed by: Quality Manager
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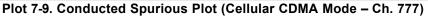


Plot 7-8. Conducted Spurious Plot (Cellular CDMA Mode – Ch. 777)

FCC ID: 09EQ26ELITE		FCC Pt. 22/24 CDMA MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)	IERRA WIRELESS	Reviewed by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 26 of 35
0910051848.O9E	October 7, 2009	Cellular/PCS CDMA Module		1 490 20 01 00
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Agilent Spect		- Swept SA								
	50 Ω	Input: RF	PNO: Fast 🕶 IFGain:Low			#Avg Typ Avg Hold:	ALIGN AUTO e: Pwr(RMS) : 100/100	TRAC	MFeb 24, 2009 E 1 2 3 4 5 6 PE M M M M M M T A N N N N N	Frequency
) dB/div	Ref Offse Ref 24.	t 11.94 dB 50 dBm					Mk	1 3.392 -45.6	25 GHz 78 dBm	Auto Tun
4.5										Center Fre 6.250000000 GH
.50									-13.00 dBm	Start Fre 2.500000000 GH
5.5										Stop Fre 10.000000000 G⊢
5.5	↓ ¹									CF Ste 750.000000 M⊦ <u>Auto</u> Ma
5.5	And the formation of the second se	allahan an a	have the second and the	ang	an a	dill ^a ter the and the	Yorkaan of Allan John	and the second descent	umana	Freq Offso 0 ⊦
tart 2.500 Res BW			#VBV	√ 1.0 MHz			Sweep 1	Stop 10 2.5 m <u>s (</u>	.000 GHz 1001 pts)	
G							STATUS			



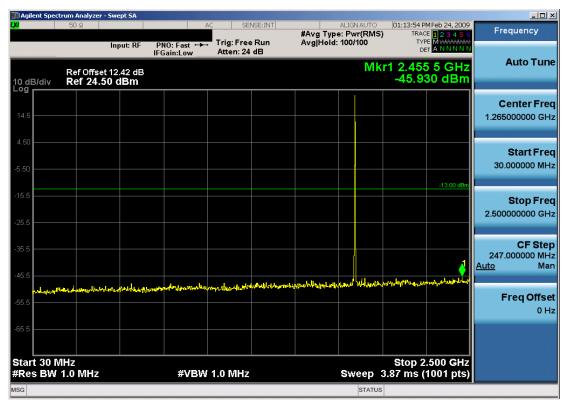


Plot 7-10. Band Edge Plot (Cellular CDMA Mode – Ch. 777)

FCC ID: 09EQ26ELITE		FCC Pt. 22/24 CDMA MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)	BIERRA WIRELESS	Reviewed by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 27 of 35
0910051848.O9E	October 7, 2009	Cellular/PCS CDMA Module		1 490 21 01 00
© 2000 DCTEST Engineering	aboratory Inc			DEV 7 8C



📜 Agilent Spectrum		vept SA								×
X 5	Ω		<i>k</i>	AC SEI	VSE:INT	#Avg Typ	ALIGNAUTO e: Pwr(RMS)	TRAC	MFeb 24, 2009 E <mark>1 2 3 4 5 6</mark>	Frequency
B	ا ef Offset 1		PNO: >30k ↔→ IFGain:Low	Trig: Free Atten: 24		Avg Hold	: 10/10	TYF DE	08 MHz 55 dBm	Auto Tune
	ef 24.50							-22.3	55 dBm	
14.5										Center Fred 852.000000 MHz
5.50										Start Fred 850.000000 MH:
									-13.00 dBm	
-15.5										Stop Fred 854.000000 MH;
35.5										CF Step
45.5		a manana	Carrier and Carrier and Carrier							400.000 kH <u>Auto</u> Mar
				and and an and the state of the	an and the second					
55.5								ĸġĸġĸĬĔġĸġĸĸĸŔĸĸĸĸĔĸĸĬŦ	haar daagta digaa gaaladadaa	Freq Offse 0 H
65.5										
Start 850.000 #Res BW 10			#VBW	100 kHz			#Sweep	Stop 854 2.00 s (.000 MHz 1001 pts)	
ISG							STATUS			



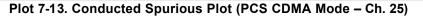
Plot 7-11. 4MHz Span Plot (Cellular CDMA Mode – Ch. 777)

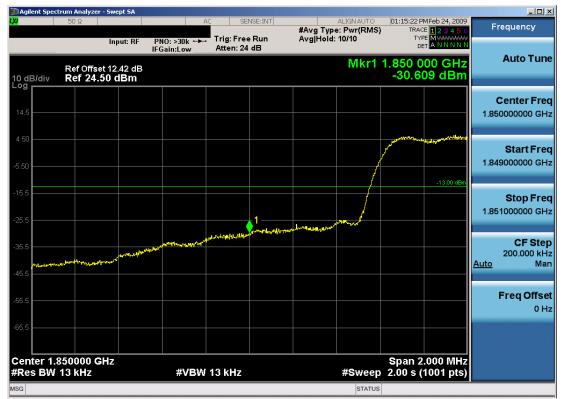
Plot 7-12. Conducted Spurious Plot (PCS CDMA Mode - Ch. 25)

FCC ID: 09EQ26ELITE	PCTEST	FCC Pt. 22/24 CDMA MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)	SIERRA WIRELESS	Reviewed by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 28 of 35
0910051848.O9E	October 7, 2009	Cellular/PCS CDMA Module		1 490 20 01 00
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Agilent Spect	-	- Swept SA								
<u>xi</u>	50 Ω	Input: RF	AC PNO: Fast ↔→ IFGain:Low	Trig: Free Atten: 24 d		#Avg Typ Avg Hold:	ALIGNAUTO e: Pwr(RMS 100/100	TRAC	M Feb 24, 2009 E 1 2 3 4 5 6 E M WWWWW T A N N N N N	Frequency
10 dB/div	Ref Offse Ref 24.	et 12.42 dB 50 dBm	FGameow				Mk	r1 3.707 -37.70	7 5 GHz 63 dBm	Auto Tune
14.5										Center Fred 11.250000000 GH:
-5.50									-13.00 dBm	Start Free 2.500000000 GH:
-15.5										Stop Free 20.000000000 GH
45.5	1							~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		CF Ste j 1.750000000 GH <u>Auto</u> Ma
55.5	da mon	-l-w	un and a start and a start and a start		and and a definition of the second	and the second second				Freq Offse 0 H
Start 2.50 #Res BW			#VBW 1	.0 MHz			Sweep	Stop 20 43.8 ms (.000 GHz 1001 pts)	
SG							STATUS			



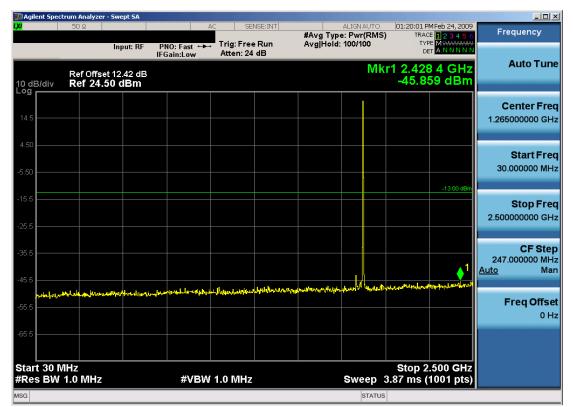


Plot 7-14. Band Edge Plot (PCS CDMA Mode - Ch. 25)

FCC ID: 09EQ26ELITE	CTEST	FCC Pt. 22/24 CDMA MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)	SIERRA WIRELESS	Reviewed by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 29 of 35
0910051848.O9E	October 7, 2009	Cellular/PCS CDMA Module		1 490 20 01 00
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Agilent Spect	trum Analyzer	- Swept SA								
	50 Ω	Input: RF	PNO: Fast 🕶			#Avg Typ Avg Hold	ALIGNAUTO e: Pwr(RMS) : 10/10	01:16:19 PM TRACE TYPE DET	Feb 24, 2009 1 2 3 4 5 6 M WWWWW A N N N N N	Frequency
0 dB/div	Ref Offse Ref 24.5	t 12.42 dB 50 dBm	IFGain:Low	Atten: 24			Mkr1	1.849 00		Auto Tur
14.5										Center Fre 1.847000000 GH
5.50									-13.00 dBm	Start Fre 1.845000000 GH
25.5									1	Stop Fre 1.849000000 GF
15.5		اسلىلىدىل مەرىرى ب	لسيللسوال والهوالإسرار	Jourseland	- Andrew Conserver					CF Ste 400.000 kH <u>Auto</u> Ma
6.5	<u>II.I.I.II.</u> II.AU									Freq Offso 0 H
	5000 GHz 1.0 MHz	2	#VBW	1.0 MHz			Si #Sweep	top 1.849 2.00 s (1	000 GHz 001 pt <u>s)</u>	
SG							STATUS			



Plot 7-15. 4MHz Span Plot (PCS CDMA Mode - Ch. 25)

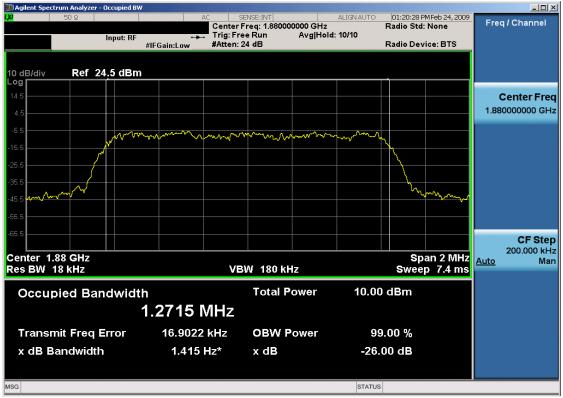
Plot 7-16. Conducted Spurious Plot (PCS CDMA Mode - Ch. 600)

FCC ID: 09EQ26ELITE	CTEST	FCC Pt. 22/24 CDMA MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)	SIERRA WIRELESS	Reviewed by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 30 of 35
0910051848.O9E	October 7, 2009	Cellular/PCS CDMA Module		1 490 00 01 00
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Agilent Spect	trum Analyzer	- Swept SA								×
X	50 Ω	Input: RF	A(PNO: Fast ↔→ IFGain:Low	Trig: Free F Atten: 24 d		#Avg Type Avg Hold:	ALIGN AUTO e: Pwr(RMS) 100/100	TRACE	4 Feb 24, 2009 1 2 3 4 5 6 M M A N N N N N A N N N N N	Frequency
10 dB/div Log	Ref Offse Ref 24.5	t 12.42 dB 5 0 dBm					Mk	r1 3.760 -36.79	0 GHz 6 dBm	Auto Tune
14.5										Center Freq 11.250000000 GHz
5.50									-13.00 dBm	Start Fred 2.500000000 GH2
-15.5										Stop Fred 20.000000000 GH2
45.5	↓1									CF Step 1.75000000 GH <u>Auto</u> Mar
55.5		Jun-	n - norther	karatharrando	تىرىمى مەركىيى مەركىيى	and a second and a second a s	All and an and a second	and freedom.		Freq Offse 0 H
-65.5 Start 2.50 #Res BW			#VBW	1.0 MHz			Sweep	Stop 20. 43.8 ms (1	000 GHz	
sg							STATUS			



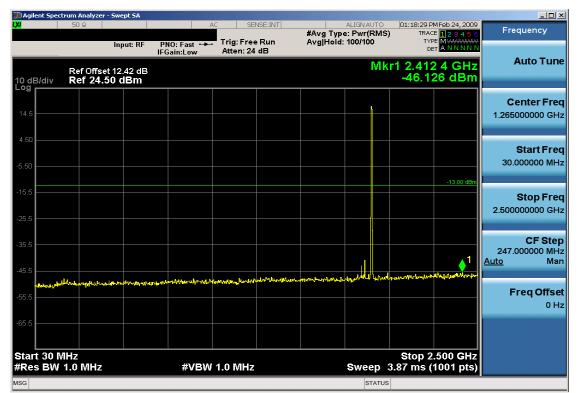


Plot 7-18. Occupied Bandwidth Plot (PCS CDMA Mode - Ch. 600)

FCC ID: 09EQ26ELITE	PCTEST	FCC Pt. 22/24 CDMA MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)	Quality Mar	
Test Report S/N:	Test Dates:	EUT Type:	Page 31 of	35
0910051848.O9E	October 7, 2009	Cellular/PCS CDMA Module	r ugo or or	
© 2000 DCTEST Engineering	aboratory Inc	•	DE	

er Stat CCDI 01:22:17 PMFeb 24, 2009 Radio Std: cdma2000 Freg / Channel Center Freq: 1.880000000 GHz Trig: Free Run Counts:10.0 M/10.0 Mpt Input: RF Radio Device: BTS #Atten: 24 dB Ext Gain: -12.4 dB #IFGain:Low Average Power Gaussian 100 % **Center Freq** 23.54 dBm 1.880000000 GHz 10 % 50.69 % at 0dB 1 % 10.0 % 1.93 dB 0.1 % 1.0 % 3.00 dB **CF** Step 0.1 % 3.48 dB 5.000000 MHz 0.01 % Auto Man 0.01 % 3.73 dB 0.001 % 3.86 dB 0.0001 % 3.92 dB 0.001 % 3.96 dB Peak 28.40 dBm 0.0001 % 0 dB 20 dB Info BW 3.0000 MHz MSG STATUS





Plot 7-20. Conducted Spurious Plot (PCS CDMA Mode - Ch. 1175)

FCC ID: 09EQ26ELITE	PCTEST	FCC Pt. 22/24 CDMA MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)	Reviewed by: Quality Manager
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Agilent Spec		- Swept SA								
	50 Ω	Input: RF	PNO: Fast ↔→→ IFGain:Low			#Avg Typ Avg Hold:	ALIGN AUTO e: Pwr(RMS) : 100/100	TRAC	MFeb 24, 2009 E <mark>1 2 3 4 5 6</mark> E M WWWWW T A NNNNN	Frequency
0 dB/div		et 12.42 dB 50 dBm					Mk	r1 3.812 -35.40	25GHz 00dBm	Auto Tun
14.5										Center Fre 11.250000000 G⊦
5.50									-13.00 dBm	Start Fre 2.500000000 G⊦
25.5										Stop Fre 20.000000000 G⊦
5.5	♦ '									CF Ste 1.75000000 GF <u>Auto</u> Ma
i5.5	hand	or the second	mlumound	anne a the states	and the second s		har land	and Incoloring	<u></u>	Freq Offs 0 F
itart 2.50	0 GHz 1.0 MHz		#VBW	1.0 MHz			Sween	Stop 20. 43.8 ms (1	.000 GHz 1001 pts)	
G							STATUS			





FCC ID: 09EQ26ELITE		(CLASS II PERMISSIVE CHANGE)	BIERRA WIRELESS	Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 33 of 35
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@ 0000 DOTEOT Excitation	ale anatam color a			

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Agilent Spec	trum Analyzer	- Swept SA								
	50 Ω	Input: RF	PNO: Fast 🔸 IFGain:Low		ALIGN #Avg Type: Pw Avg Hold: 10/10		01:17:59 PMF TRACE TYPE DET	eb 24, 2009 1 2 3 4 5 6 M WWWWWW A N N N N N N	Fre	quency
) dB/div	Ref Offse Ref 24.5	t 12.42 dB 50 dBm			Ν	/lkr1 1	.911 00 -23.875	0 GHz 5 dBm	-	Auto Tun
4.5										e nter Fre 000000 GH
50								-13.00 dBm		Start Fre 000000 G⊢
5.5								-13.00 000		Stop Fre 000000 G⊦
5.5		Share and the state of the stat	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~						2 <u>Auto</u>	CF Ste 100.000 k⊢ Ma
5.5									F	reqOffso 0⊦
	1000 GHz 1.0 MHz		#\/B\A	/ 1.0 MHz	#9	St	op 1.9150 2.00 s (10	00 GHz		
	1.0 191112					STATUS	2.00.3 (10	or proj		

Plot 7-23. 4MHz Span Plot (PCS CDMA Mode – Ch. 1175)

FCC ID: 09EQ26ELITE	PCTEST	FCC Pt. 22/24 CDMA MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)	SIERRA WIRELESS	Reviewed by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 34 of 35
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8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Sierra Wireless Cellular/PCS CDMA Module FCC ID: O9EQ26ELITE** complies with all the requirements of Parts 2, 22, and 24 of the FCC rules.

FCC ID: 09EQ26ELITE	PCTEST'	FCC Pt. 22/24 CDMA MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)	BIERRA WIRELESS	Reviewed by: Quality Manager
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