



**FCC CFR47 PART 22 SUBPART H
FCC CFR47 PART 24 SUBPART E**

CERTIFICATION TEST REPORT

**FOR
USB MODEM**

MODEL NUMBER: AC250U

FCC ID: N7NAC250U

**REPORT NUMBER: 09U12929-1, Revision A1
ISSUE DATE: May 05, 2010**

Prepared for

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Prepared by

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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
---	12/15/09	Initial Issue	T. Chan
A	05/03/2010	Section 5.3 revised based upon FCC comments	T. Chan
A1	05/05/2010	Modified the heading in section 5.2	T. Chan

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: SIERRA WIRELESS INC.
2200 FARADAY AVENUE, SUITE 150
CARLSBAD, CA 92008, U.S.A.

EUT DESCRIPTION: USB MODEM

MODEL: AC250U

SERIAL NUMBER: 3

DATE TESTED: NOVEMBER 15-19 and DECEMBER 08, 2009

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 22H and 24E	Pass

Compliance Certification Services, Inc. (CCS) tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by CCS based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. 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 CCS and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by CCS will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For CCS By:

Tested By:



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EMC MANAGER
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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with TIA-603-C, FCC CFR 47 Part 2, FCC CFR 47 Part 22, and FCC CFR Part 24.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA.

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. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

$$\text{Field Strength (dBuV/m)} = \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} - \text{Preamp Gain (dB)}$$

$$36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} = 28.9 \text{ dBuV/m}$$

4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.52 dB
Radiated Disturbance, 30 to 1000 MHz	4.94 dB

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a Multi band wireless modem operating on CDMA2000 1xRTT, EVDO and WiMax networks. The USB modem is manufactured by Sierra Wireless.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum output power as follows:

Part 22 Cellular Band

Frequency range (MHz)	Modulation	Peak Conducted		ERP	
		dBm	mW	dBm	mW
824.7 – 848.31	1xRTT (RC1, SO55)	28.05	638.3	27.2	524.8
824.7 – 848.31	EV-DO - REV A	28.40	691.8	27.2	524.8

Part 24 PCS Band

Frequency range (MHz)	Modulation	Peak Conducted		EIRP	
		dBm	mW	dBm	mW
1851.25 – 1908.8	1xRTT (RC1, SO55)	27.83	606.7	27.7	588.8
1851.25 – 1908.8	EV-DO - REV A	27.90	616.6	28.9	776.2

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an integrated multi-band monopole antenna for the 800MHz and 1900MHz bands with a maximum peak gain of 0.5 dBi for cell band and 2.7dBi for PCS band.

5.4. SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was P2A11600.

The EUT driver software installed during testing was Alta-MUX 0.55, software version, 2.7.

5.5. WORST-CASE CONFIGURATION AND MODE

The worst-position was the EUT with highest emissions, to determine the worst-case, the EUT was investigated at X, Y and Z Positions, and the worst position is X-position for Cell band and Y-position for PCS band.

Worst case modes:

- For Cellular and PCS band: 1xRTT (RC1 SO55)
- For Cellular and PCS band: CDMA2000 1xEV-DO Revision A (Rev. A)

5.6. DESCRIPTION OF TEST SETUP

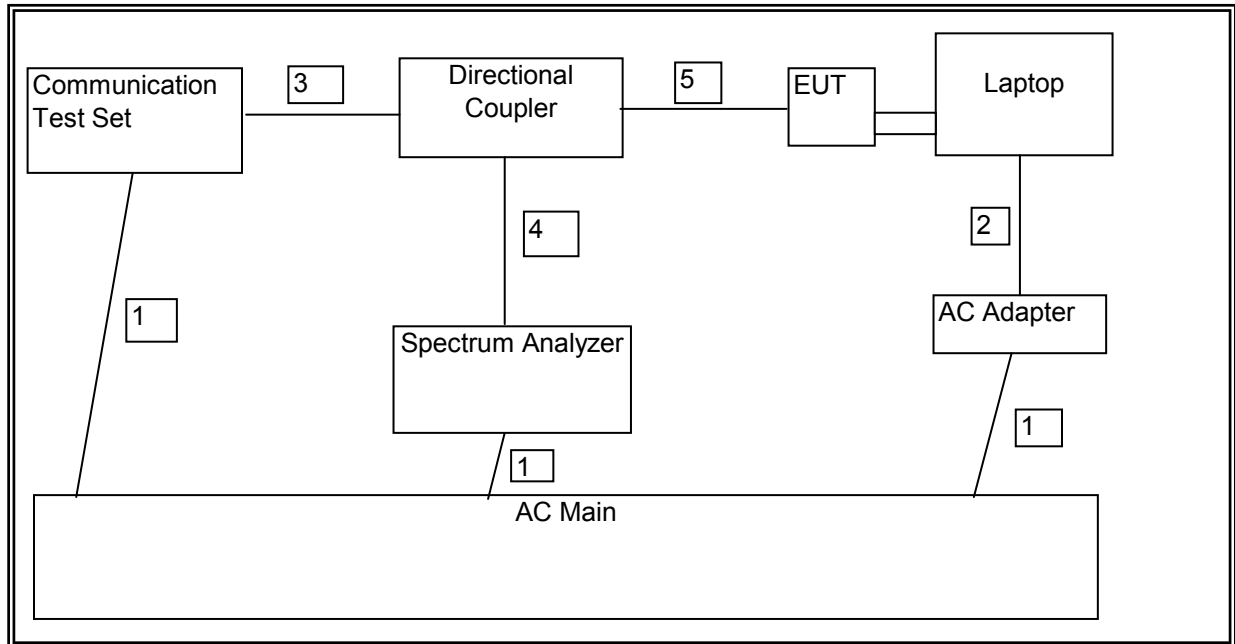
I/O CABLES (RF CONDUCTED TEST)

I/O CABLE LIST						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length	Remarks
1	AC	1	US 115V	Un-shielded	2m	NA
2	DC	1	DC	Un-shielded	2m	NA
3	Directional	1	Communications Test Set	Un-shielded	1m	NA
4	RF In/Out	1	Spectrum Analyzer	Un-shielded	1m	NA
5	Directional	1	EUT	Un-shielded	NA	NA

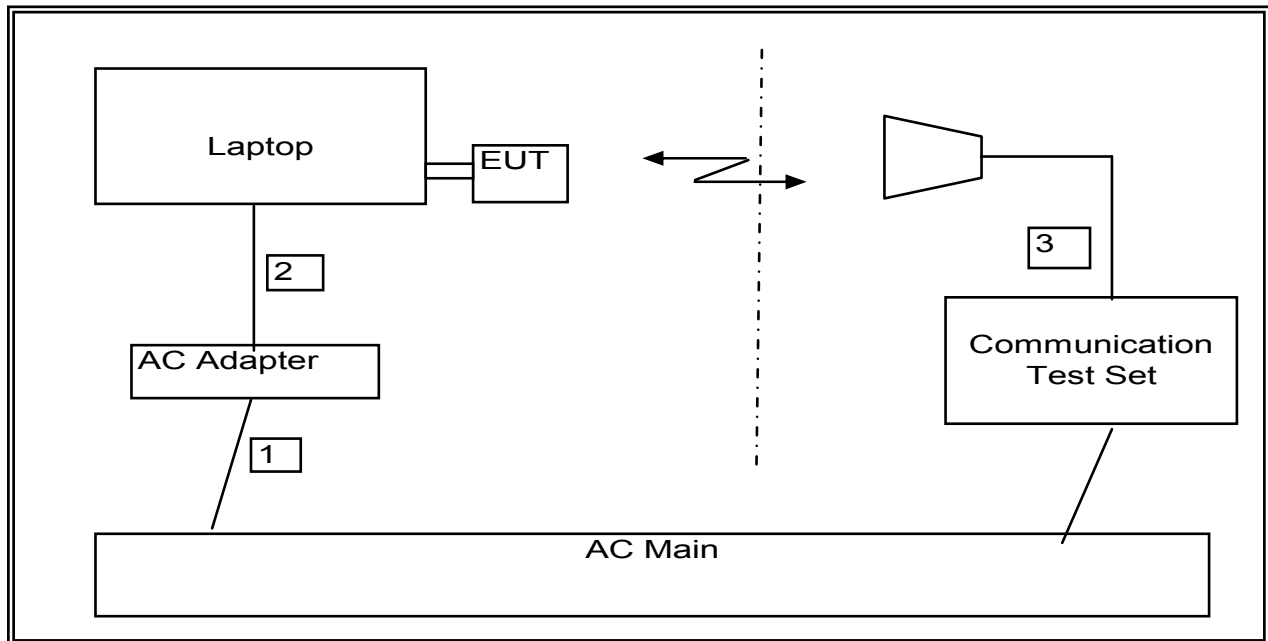
I/O CABLES (RF RADIATED TEST)

I/O CABLE LIST						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length	Remarks
1	AC	2	US 115V	Un-shielded	2m	NA
2	DC	1	DC	Un-shielded	2m	NA
3	RF In/Out	1	Horn	Un-shielded	2m	NA

SETUP DIAGRAM FOR RF CONDUCTED TESTS



SETUP DIAGRAM FOR RDIATED TESTS



TEST SETUP

The EUT is a stand-alone device. The Wireless Communication test set exercised the EUT.

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	Asset	Cal Due
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01159	02/07/10
Antenna, Horn, 18 GHz	EMCO	3115	C00872	01/29/10
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00885	12/16/09
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01063	02/04/10
EMI Test Receiver, 30 MHz	R & S	ESHS 20	N02396	05/06/11
Communications Test Set	Agilent / HP	E5515C	C01086	06/12/10
LISN, 30 MHz	FCC	LISN-50/250-25-2	N02625	11/05/10
Temperature / Humidity Chamber	Thermotron	SE 600-10-10	C00930	04/06/10
Highpass Filter, 1.5 GHz	Micro-Tronics	HPM13193	N02689	CNR
Highpass Filter, 2.7 GHz	Micro-Tronics	HPM13194	N02687	CNR
Directional Coupler, 18 GHz	Krytar	1817	N02656	CNR
Signal Generator, 20 GHz	Agilent / HP	83732B	C00774	07/03/10
Antenna, Tuned Dipole 400~1000 MHz	ETS	3121C DB4	C00993	06/28/10

7. RF POWER OUTPUT VERIFICATION

Maximum output power is verified on the Low, Middle and High channels according to procedures in section 4.4.5.2 of 3GPP2 C.S0011/TIA-98-E for 1xRTT, section 3.1.2.3.4 of 3GPP2 C.S0033-0/TIA-866 for Rel. 0 and section 4.3.4 of 3GPP2 C.S0033-A for Rev. A

7.1. RF POWER OUTPUT FOR 1xRTT

This procedure assumes the Agilent 8960 Test Set has the following applications installed and with valid license.

<u>Application</u>	<u>Rev. License</u>
CDMA2000 Mobile Test	B.13.08, L

- Call Setup > Shift & Preset
- Cell Info > Cell Parameters > System ID (SID) > 8
> Network ID (NID) > 65535
- Protocol Rev > 6 (IS-2000-0)
- Radio Config (RC) > Please see following table or details
- FCH Service Option (SO) Setup > Please see following table or details
- Traffic Data Rate > Full
- TDSO SCH Info > F-SCH Parameters > F-SCH Data Rate > 153.6 kbps
> R-SCH Parameters > R-SCH Data Rate > 153.6 kbps
- Rvs Power Ctrl > Active bits
 - Rvs Power Ctrl > All Up bits (Maximum TxPout)

RF Power Output Results for 1XRTT

RF Power Output for 1xRTT - Cell Band							
Radio Configuration (RC)	Service Option (SO)	Conducted Output Power (dBm)					
		Ch. 1013/824.7MHz		Ch. 384/836.52MHz		Ch. 777/848.31MHz	
		Average	Peak	Average	Peak	Average	Peak
RC1 (Fwd1, Rvs1)	1 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	2 (Loopback)	23.74	27.63	23.80	27.61	23.72	27.07
	3 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	55 (Loopback)	24.16	28.05	24.15	27.85	23.75	27.30
	68 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
RC2 (Fwd2, Rvs2)	9 (Loopback)	23.57	27.43	23.77	27.63	23.71	26.93
	17 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	55 (Loopback)	23.650	27.42	23.80	27.63	23.74	26.96
	32768 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
RC3 (Fwd3, Rvs3)	1 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	2 (Loopback)	23.5	27.19	23.83	27.29	23.67	26.96
	3 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	55 (Loopback)	23.56	27.39	23.80	27.34	23.70	26.62
	32 (+ F-SCH)	23.50	27.23	23.85	27.23	23.67	26.70
	32 (+ SCH)	23.48	27.20	23.83	27.29	23.65	26.66
RC4 (Fwd4, Rvs3)	68 (Voice)	n/a	n/a	n/a	n/a	N/a	n/a
	1 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	2 (Loopback)	23.47	27.32	23.87	27.28	23.70	26.62
	3 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	55 (Loopback)	23.56	27.30	23.89	27.20	23.69	26.64
	32 (+ F-SCH)	23.60	27.45	23.82	27.34	23.70	26.87
	32 (+ SCH)	23.65	27.32	23.80	27.34	23.70	26.70
RC5 (Fwd5, Rvs4)	68 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	9 (Loopback)	23.56	27.38	23.85	27.24	23.69	26.70
	17 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	55 (Loopback)	23.58	27.26	23.79	27.22	23.70	26.64
	32768 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a

RF Power Output Results for 1XRTT

RF Power Output for 1xRTT - PCS Band							
Radio Configuration (RC)	Service Option (SO)	Conducted Output Power (dBm)					
		Ch. 25/1851.25MHz		Ch. 600/1880MHz		Ch. 1175/1908.75 MHz	
		Average	Peak	Average	Peak	Average	Peak
RC1 (Fwd1, Rvs1)	1 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	2 (Loopback)	24.08	26.53	24.00	27.48	24.00	26.70
	3 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	55 (Loopback)	24.32	27.15	24.34	27.83	24.32	27.22
	68 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
RC2 (Fwd2, Rvs2)	9 (Loopback)	24.05	26.80	24.20	27.59	24.30	27.10
	17 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	55 (Loopback)	24.03	26.70	24.15	27.65	24.30	27.00
	32768 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
RC3 (Fwd3, Rvs3)	1 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	2 (Loopback)	24.18	26.30	24.2	27.4.	24.25	27.00
	3 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	55 (Loopback)	24.2	26.3	24.12	27.2	24.3	26.6
	32 (+ F-SCH)	24.00	26.35	24.10	27.36	24.25	26.57
	32 (+ SCH)	24.00	26.30	24.08	27.18	24.22	26.82
RC4 (Fwd4, Rvs3)	68 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	1 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	2 (Loopback)	24.2	26.3	24.1	27.25	24.3	26.70
	3 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	55 (Loopback)	24.03	26.34	24.08	27.25	24.30	26.45
	32 (+ F-SCH)	24.19	26.30	24.15	27.17	24.26	26.58
	32 (+ SCH)	24.12	26.30	24.05	27.23	24.30	26.71
RC5 (Fwd5, Rvs4)	68 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	9 (Loopback)	24.15	26.65	24.20	27.10	24.30	26.85
	17 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	55 (Loopback)	24.13	26.40	24.10	27.27	24.30	27.19
	32768 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a

7.2. RF POWER OUTPUT FOR CDMA2000 1xEV-DO Release 0 (Rel. 0)

This procedure assumes the Agilent 8960 Test Set has the following applications installed and with valid license.

<u>Application</u>	<u>Rev. License</u>
1xEV-DO Terminal Test	A.09.13

EVDO Release 0 - RTAP

- Call Setup > Shift & Preset
- Call Control:
 - Access Network Info > Cell Parameters > Sector ID > 00000000 > Subnet Mask > 0
 - Generator Info > Termination Parameters > Max Forward Packet Duration > 16 Slots
- Call Params:
 - Cell Power > -105.5 dBm/1.23 MHz
 - Cell Band > (Select US Cellular or US PCS)
 - Channel > (Enter channel number)
 - Application Config > Enhanced Test Application Protocol > RTAP
 - RTAP Rate > 153.6 kbps
 - Rvs Power Ctrl > Active bits
 - Protocol Rel > 0 (1xEV-DO)
- Press "Start Data Connection" when "Session Open" appear in "Active Cell"
- Rvs Power Ctrl > All Up bits (Maximum TxPout)

EVDO Release 0 - FTAP

- Call Setup > Shift & Preset
- Call Control:
 - Access Network Info > Cell Parameters > Sector ID > 00000000 > Subnet Mask > 0
 - Generator Info > Termination Parameters > Max Forward Packet Duration > 16 Slots
- Call Params:
 - Cell Power > -105.5 dBm/1.23 MHz
 - Cell Band > (Select US Cellular or US PCS)
 - Channel > (Enter channel number)
 - Application Config > Enhanced Test Application Protocol > FTAP (default)
 - FTAP Rate > 307.2 kbps (2 Slot, QPSK)
 - Rvs Power Ctrl > Active bits
 - Protocol Rel > 0 (1xEV-DO)
- Press "Start Data Connection" when "Session Open" appear in "Active Cell"
- Rvs Power Ctrl > All Up bits (Maximum TxPout)

RF Power Output for CDMA2000 1xEV-DO Release 0 (Rel. 0)

Cell Band

FTAP Rate	RTAP Rate	Channel	f (MHz)	Conducted power (dBm)	
				Average	Peak
307.2 kbps (2 slot, QPSK)	153.6 kbps	1013	824.70	23.60	27.69
		384	836.52	23.78	27.60
		777	848.31	23.85	27.00

PCS Band

FTAP Rate	RTAP Rate	Channel	f (MHz)	Conducted power (dBm)	
				Average	Peak
307.2 kbps (2 slot, QPSK)	153.6 kbps	25	1851.25	24.15	26.50
		600	1880.00	24.18	27.60
		1175	1908.75	24.25	26.60

7.3. RF POWER OUTPUT FOR CDMA2000 1xEV-DO Revision A (Rev. A)

This procedure assumes the Agilent 8960 Test Set has the following applications installed and with valid license.

Application	Rev. License
1xEV-DO Terminal Test	A.09.13

EVDO Release A – RETAP

- Call Setup > Shift & Preset
- Cell Power > -60 dBm/1.23 MHz
- Protocol Rev > A (1xEV-DO-A)
- Application Config > Enhanced Test Application Protocol > RETAP
- R-Data Pkt Size > 4096
- Protocol Subtype Config > Release A Physical Layer Subtype > Subtype 2
- > PL Subtype 2 Access Channel MAC Subtype > Default (Subtype 0)
- Access Network Info > Cell Parameters > Sector ID > 00000000 > Subnet Mask > 0
- Generator Info > Termination Parameters > Max Forward Packet Duration >16 Slots > ACK R-Data After > Subpacket 0 (All ACK)
- Rvs Power Ctrl > All Up bits (to get the maximum power)

EVDO Release A - FETAP

- Call Setup > Shift & Preset
- Cell Power > -60 dBm/1.23 MHz
- Protocol Rev > A (1xEV-DO-A)
- Application Config > Enhanced Test Application Protocol > FETAP
- F-Traffic Format > 4 (1024, 2,128) Canonical (307.2k, QPSK)
- Protocol Subtype Config > Release A Physical Layer Subtype > Subtype 2
- > PL Subtype 2 Access Channel MAC Subtype > Default (Subtype 0)
- Access Network Info > Cell Parameters > Sector ID > 00000000 > Subnet Mask > 0
- Generator Info > Termination Parameters > Max Forward Packet Duration >16 Slots > ACK R-Data After > Subpacket 0 (All ACK)
- Rvs Power Ctrl > All Up bits (to get the maximum power)

RF Power Output Results for CDMA2000 1xEV-DO Revision A (Rev. A)

Cell Band

FETAP-Traffic Format	RETAP-Data Payload Size	Channel	f (MHz)	Conducted power (dBm)	
				Average	Peak
307.2k, QPSK/ ACK channel is transmitted at all the slots	4096	1013	824.70	23.70	28.40
		384	836.52	24.00	28.12
		777	848.31	23.98	27.30

PCS Band

FETAP-Traffic Format	RETAP-Data Payload Size	Channel	f (MHz)	Conducted power (dBm)	
				Average	Peak
307.2k, QPSK/ ACK channel is transmitted at all the slots	4096	25	1851.25	24.40	26.85
		600	1880.00	24.30	27.90
		1175	1908.75	24.45	27.16

8. CONDUCTED TEST RESULTS

8.1. OCCUPIED BANDWIDTH

RULE PART(S)

FCC: §2.1049

LIMITS

For reporting purposes only

TEST PROCEDURE

The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer. The occupied bandwidth was measured with the spectrum analyzer at the low, middle and high channel in each band. The -26dB bandwidth was also measured and recorded.

MODES TESTED

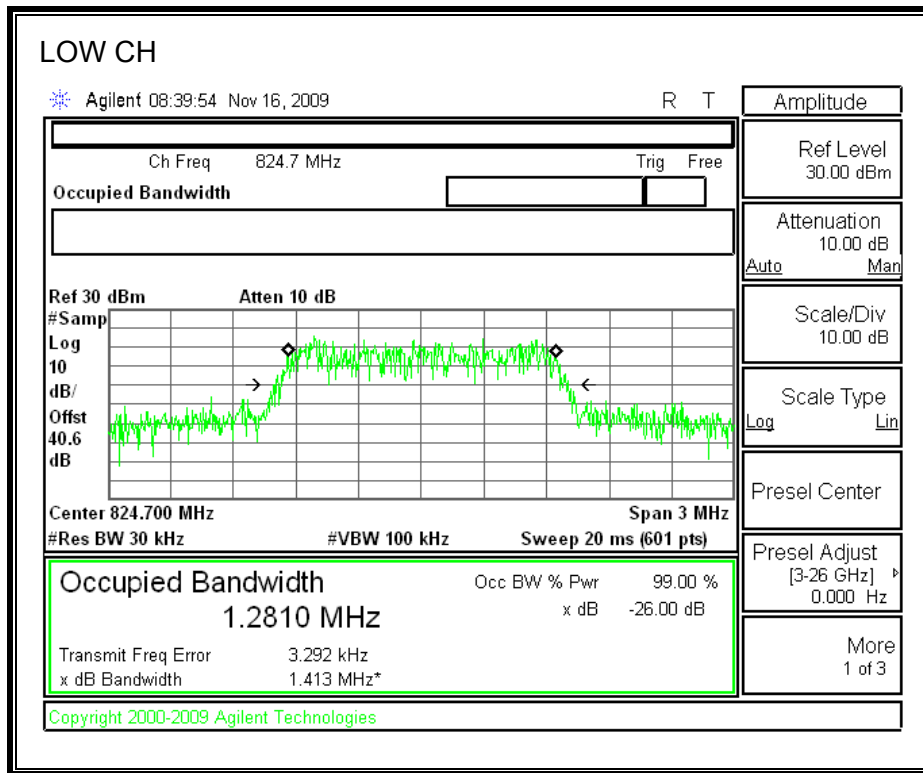
- 1xRTT - RC1, SO55
- CDMA2000 1xEV-DO Revision A (Rev. A)

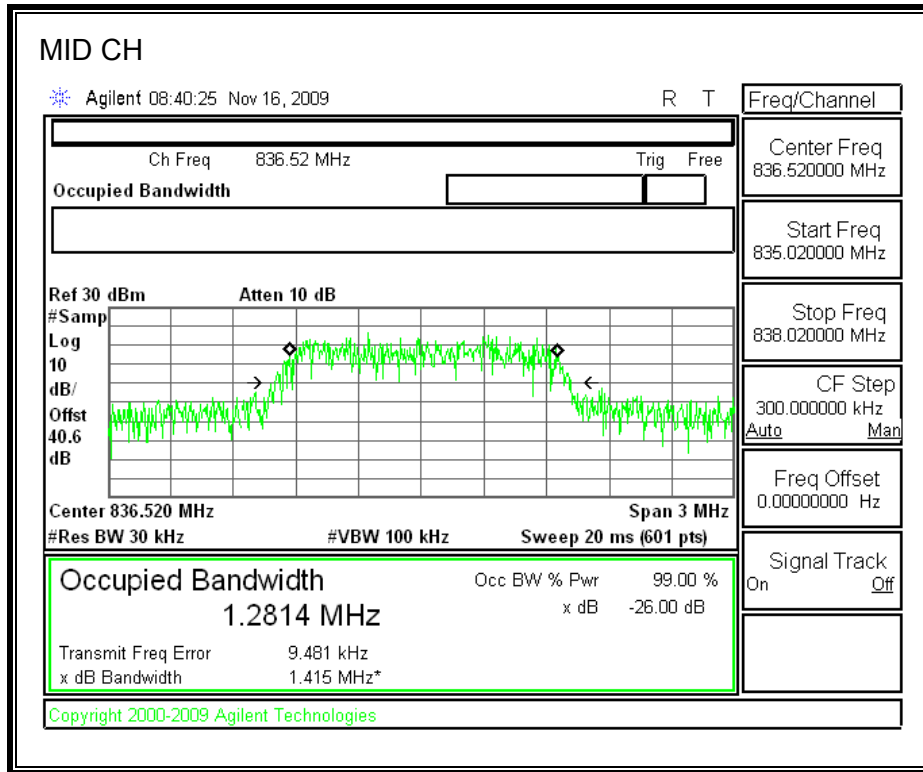
RESULTS

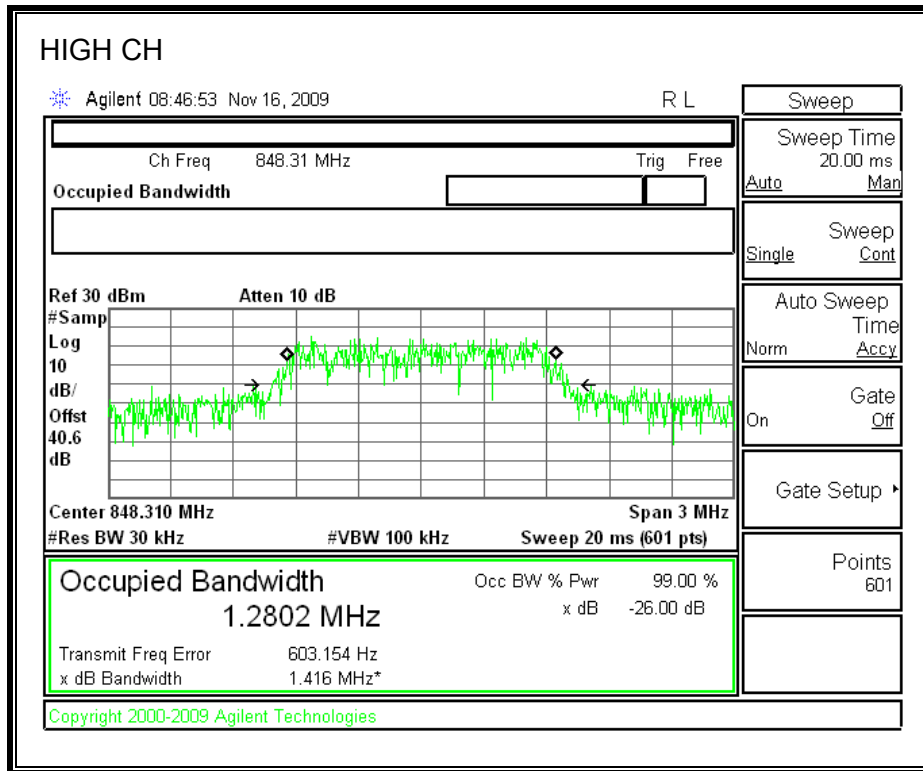
Band	Mode	Channel	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
Cellular	1xRTT	1013	824.70	1.2810	1.413
		384	836.52	1.2814	1.415
		777	848.31	1.2802	1.416
	CDMA2000 1xEV-DO Revision A (Rev. A)	1013	824.70	1.2877	1.430
		384	836.52	1.2919	1.431
		777	848.31	1.2953	1.420
PCS	1xRTT	25	1851.25	1.3027	1.484
		600	1880.0	1.2825	1.435
		1175	1908.75	1.3082	1.412
	CDMA2000 1xEV-DO Revision A (Rev. A)	25	1851.25	1.2895	1.416
		600	1880.0	1.2788	1.412
		1175	1908.75	1.2978	1.422

CDMA2000 1xRTT Mode (Cellular Band)

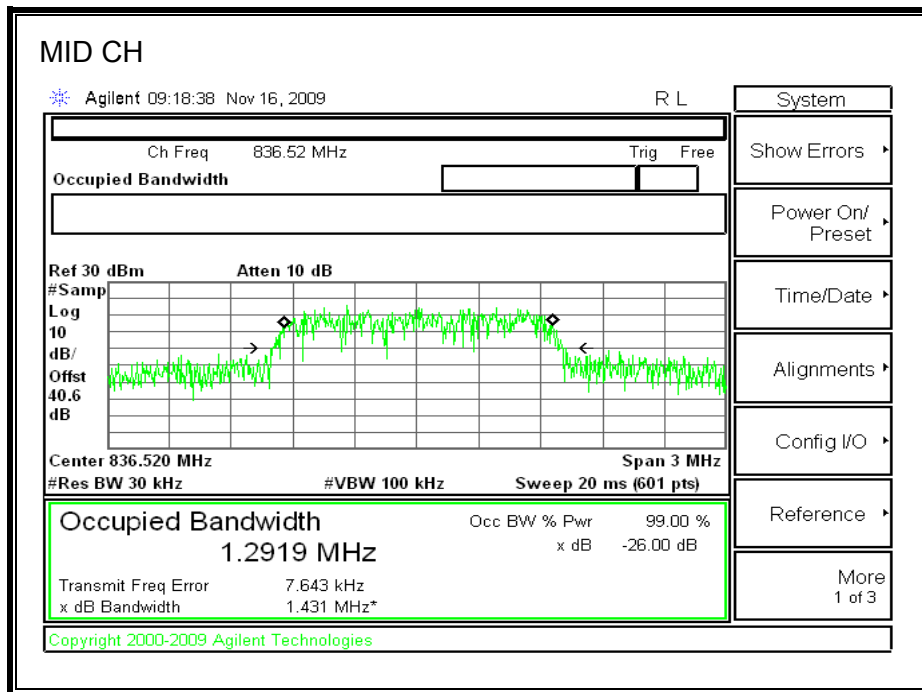
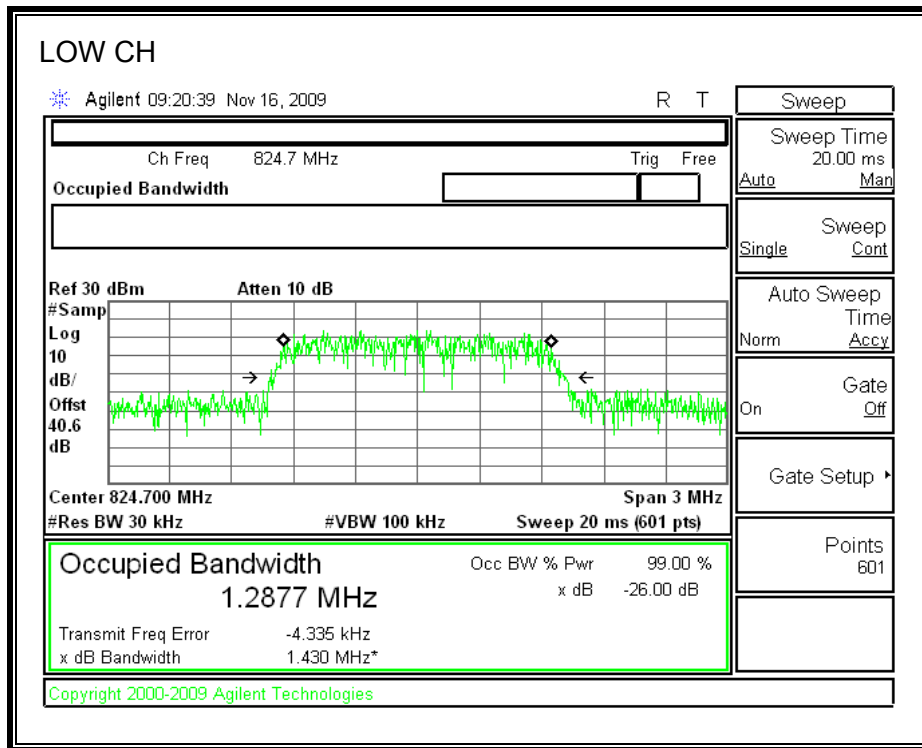
99% and 26dB BW

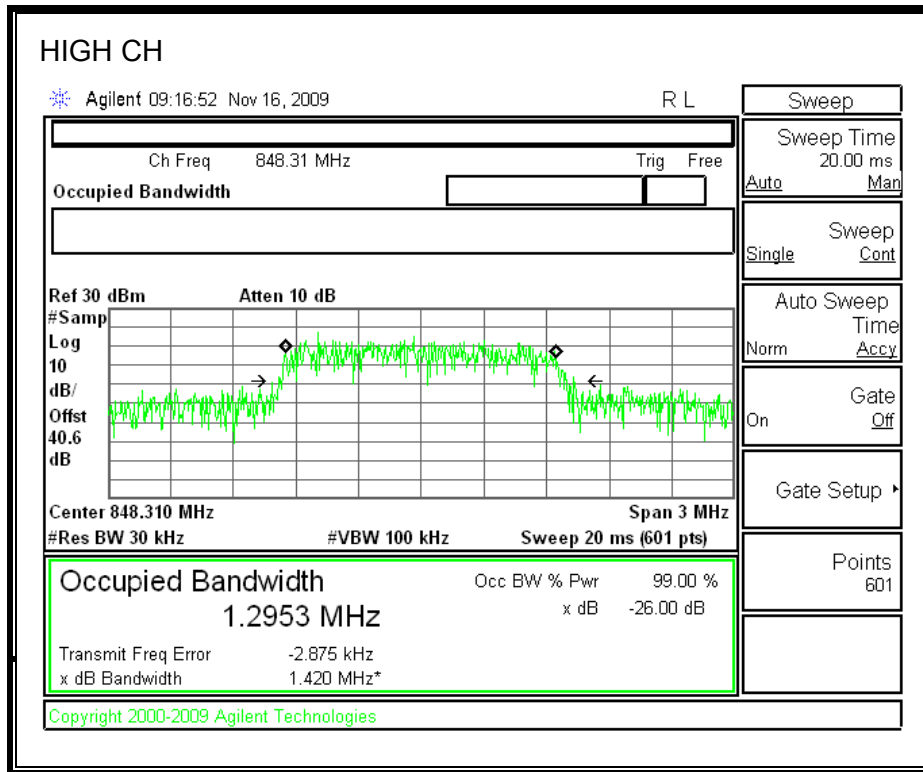




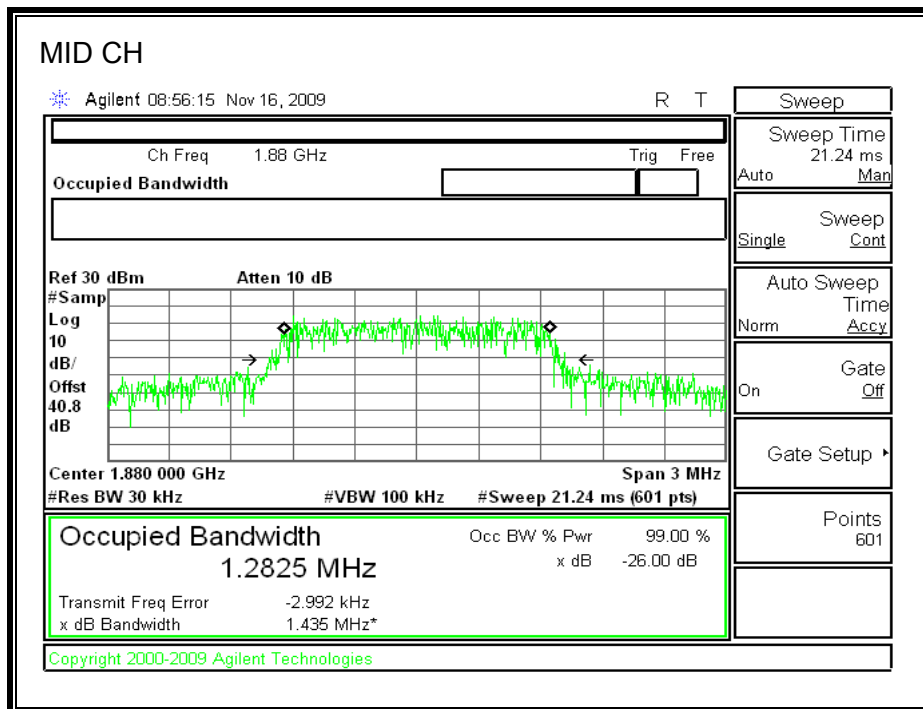
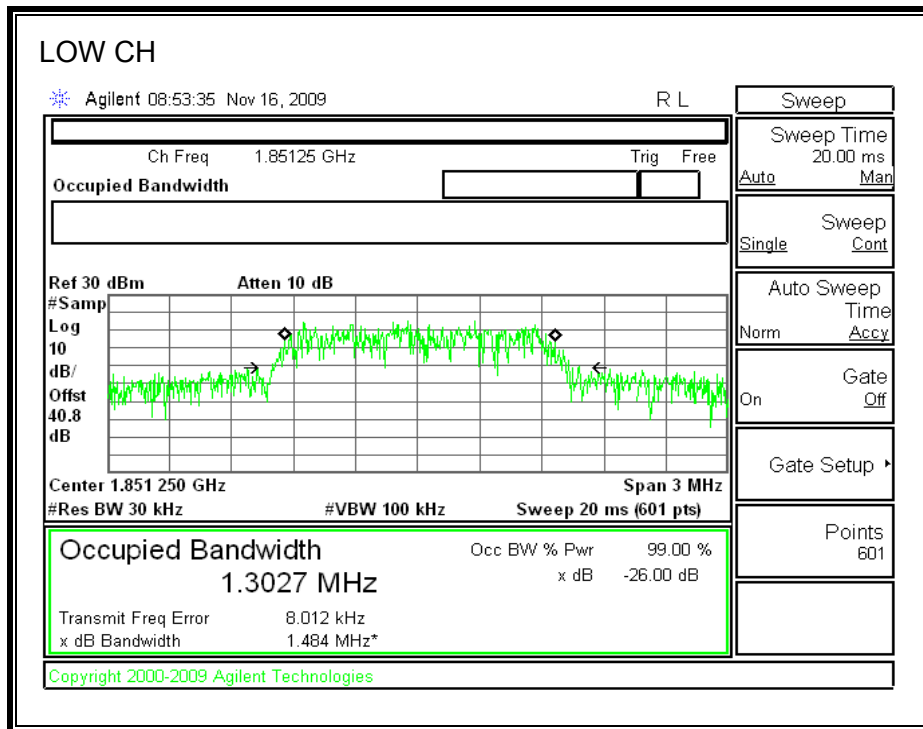


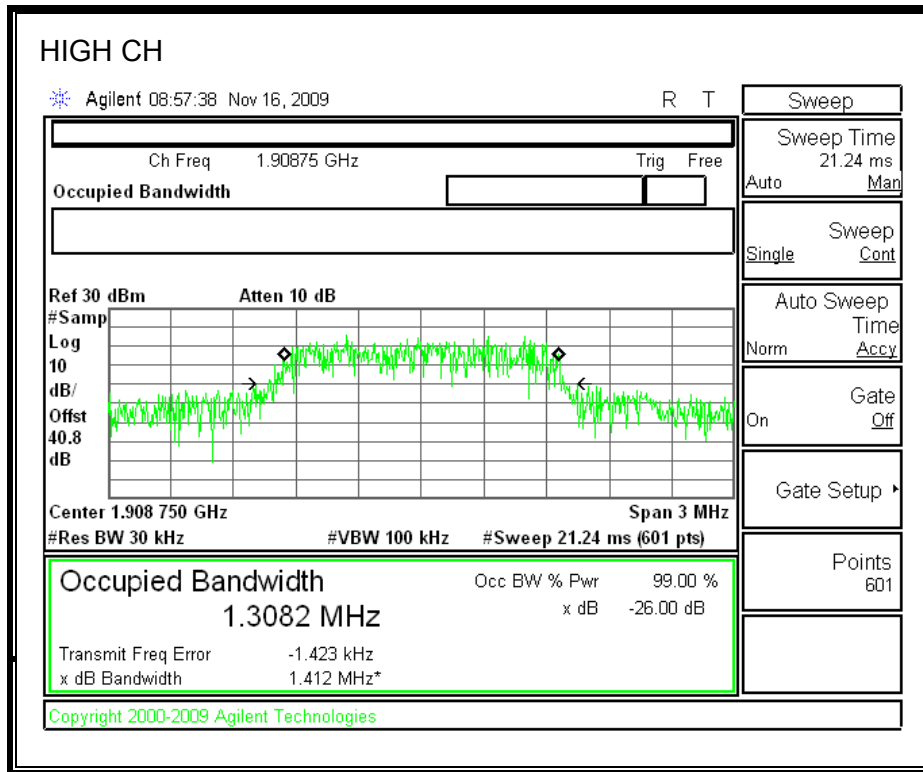
CDMA2000 1xEV-DO Revision A (Rev. A) Cellular Band



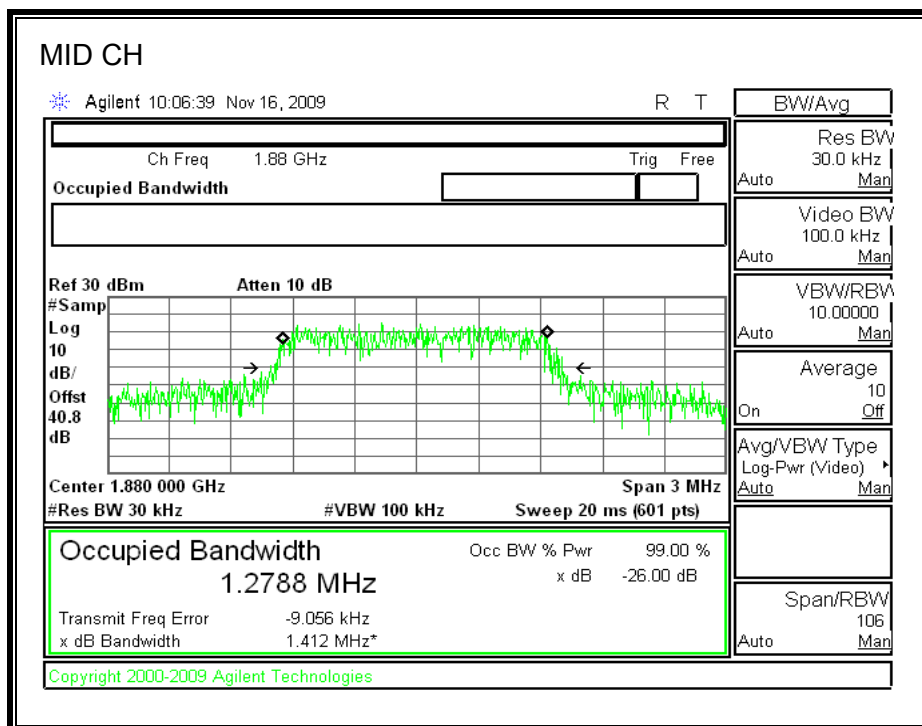
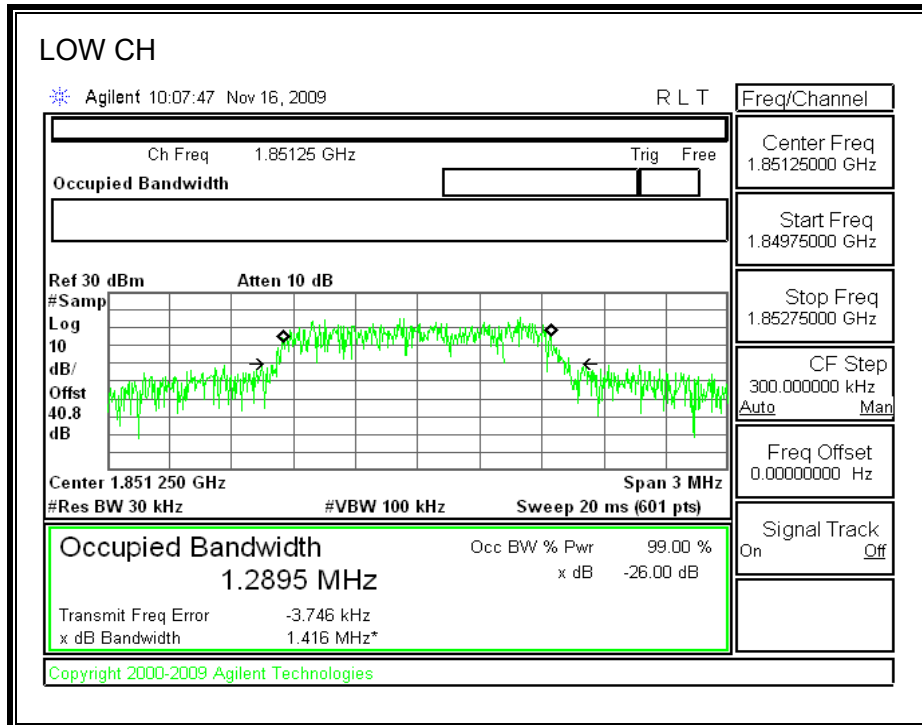


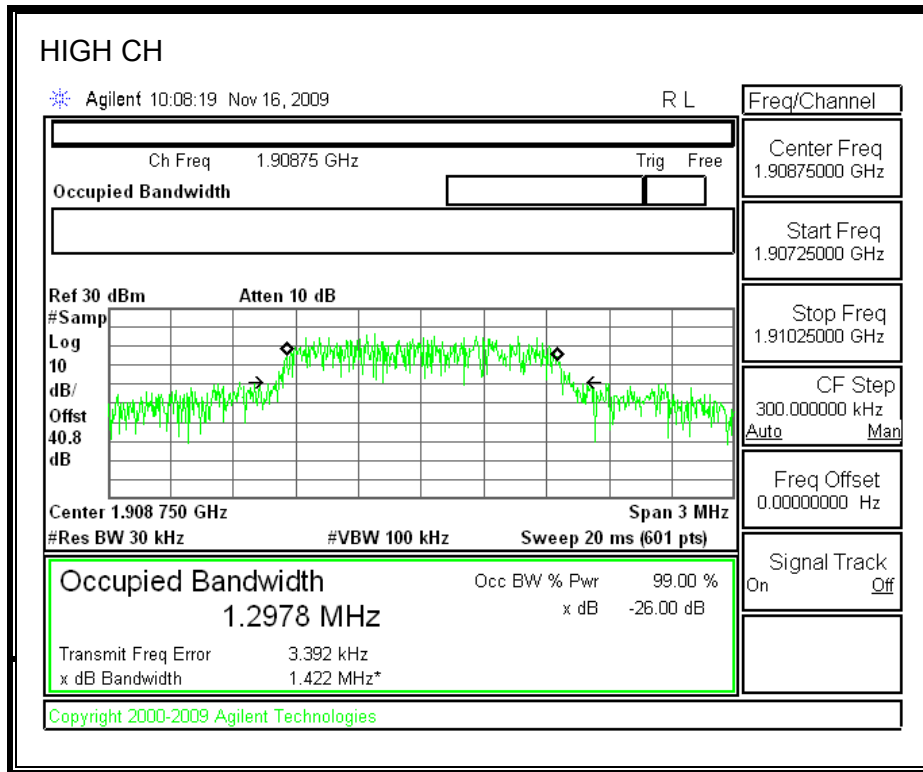
CDMA2000 1xRTT Mode (PCS Band)





CDMA2000 1xEV-DO Revision A (Rev. A) Mode (PCS Band)





8.2. BAND EDGE

RULE PART(S)

FCC: §22.359, 24.238

LIMITS

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

The transmitter output was connected to an Agilent 8960 Test Set and configured to operate at maximum power. The band edge emissions were measured at the required operating frequencies in each band on the Spectrum Analyzer.

For each band edge measurement:

- Set the spectrum analyzer span to include the block edge frequency (824, 848, 1850, 1910MHz)
- Set a marker to point the corresponding band edge frequency in each test case.
- Set display line at -13 dBm
- Set resolution bandwidth to at least 1% of emission bandwidth.

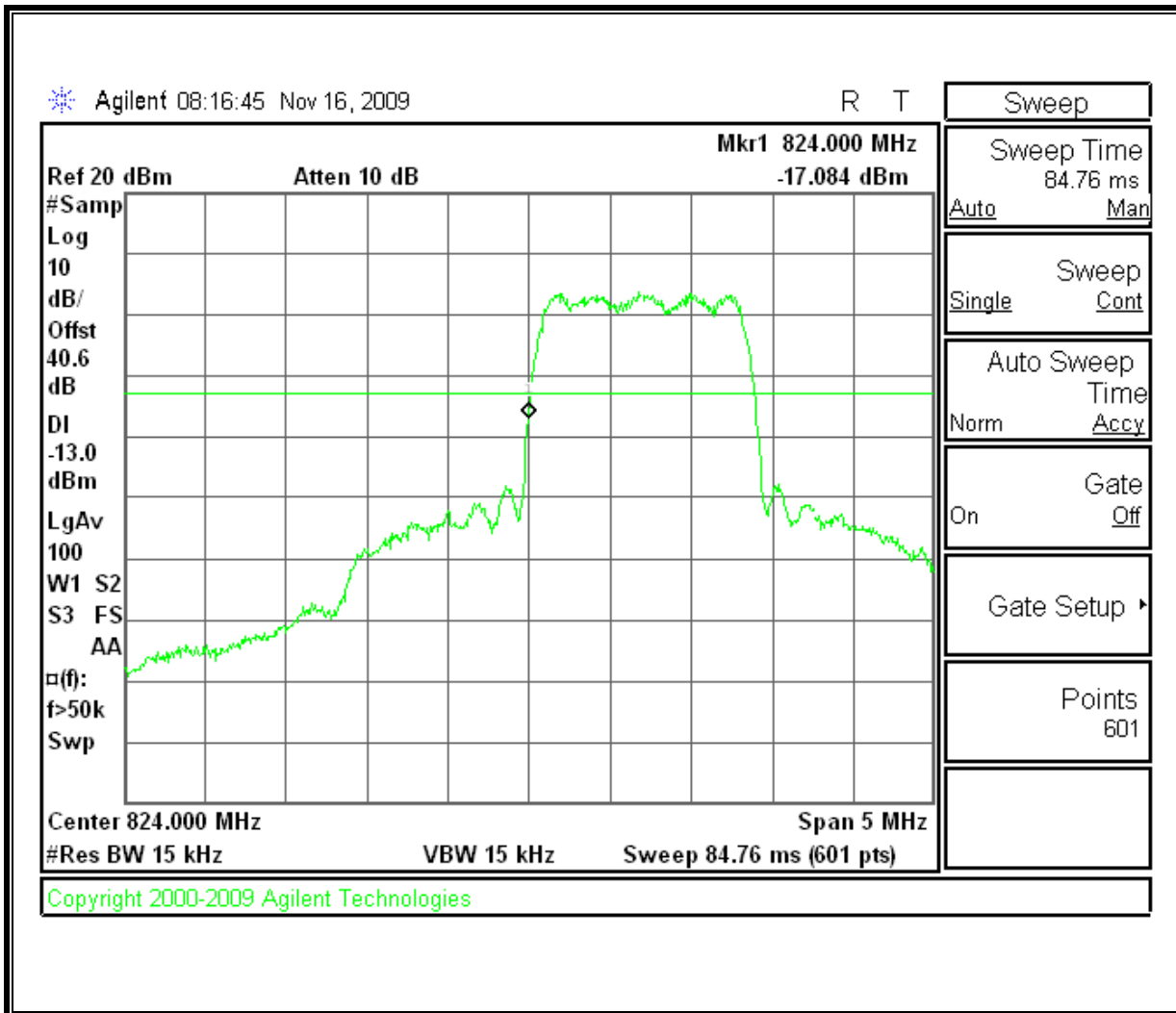
MODES TESTED

- 1xRTT - RC1, SO55
- CDMA2000 1xEV-DO Revision A (Rev. A)

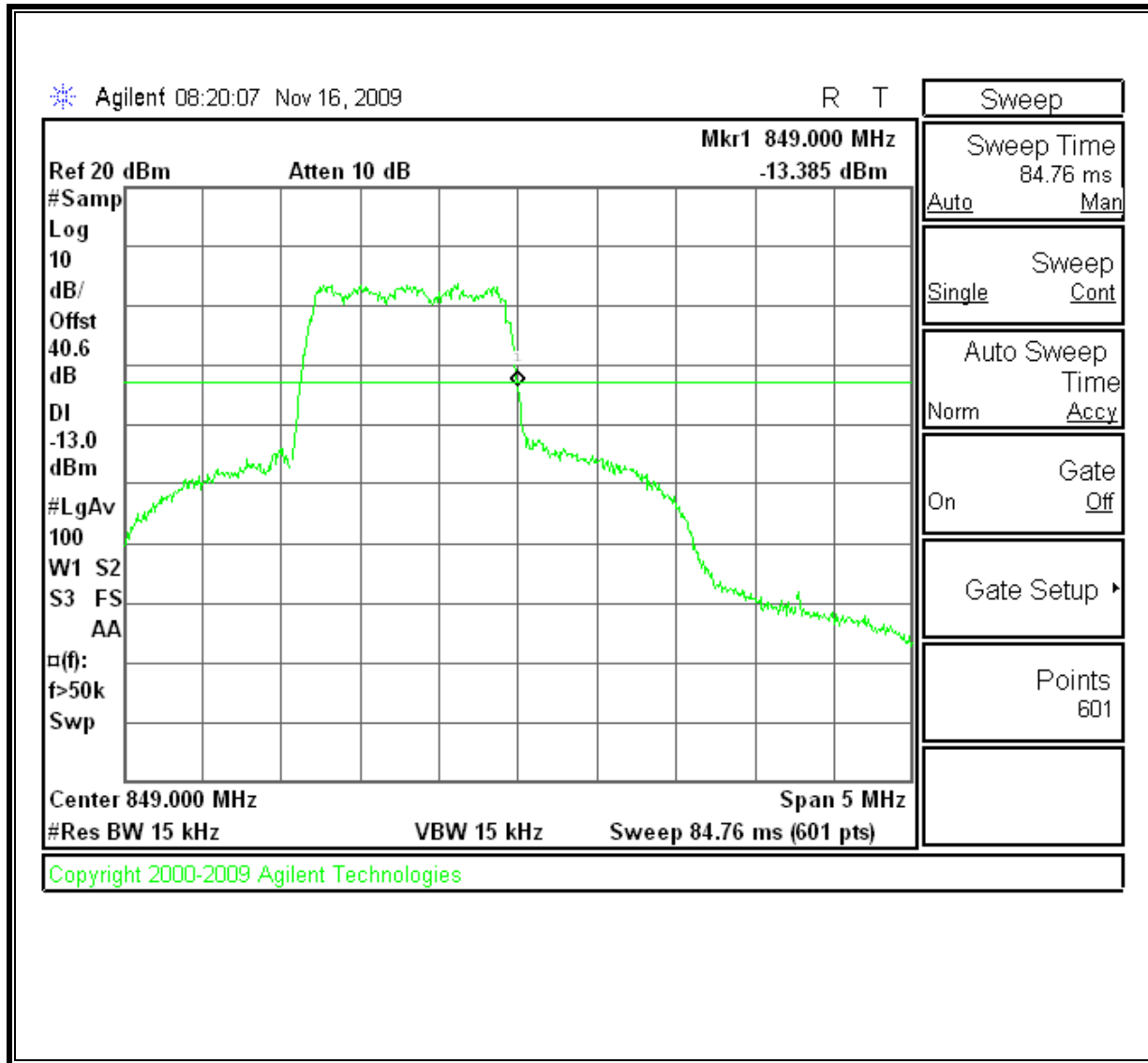
RESULTS

CDMA2000 1xRTT mode (Cellular Band)

Low Channel Band Edge

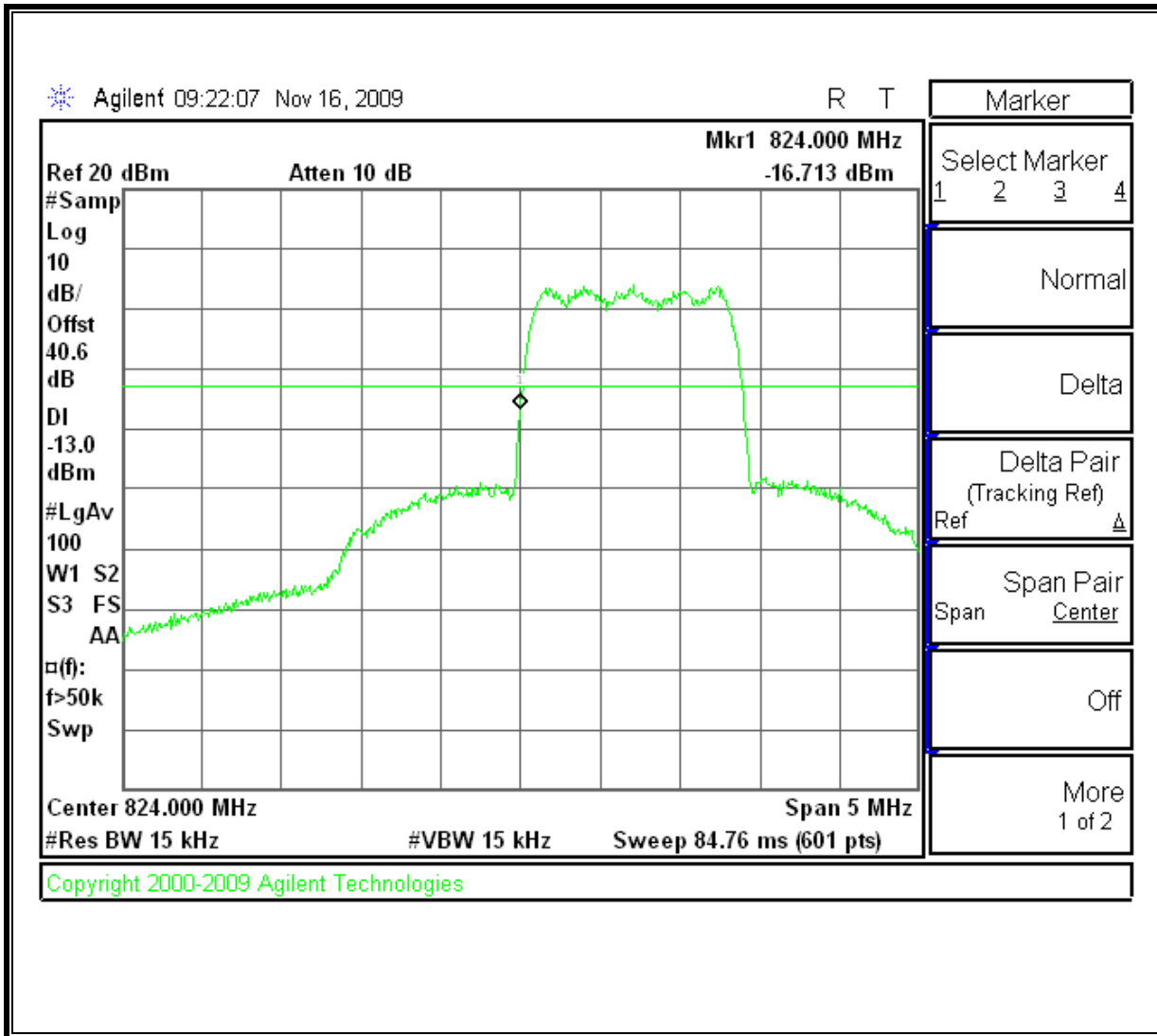


High Channel Band Edge

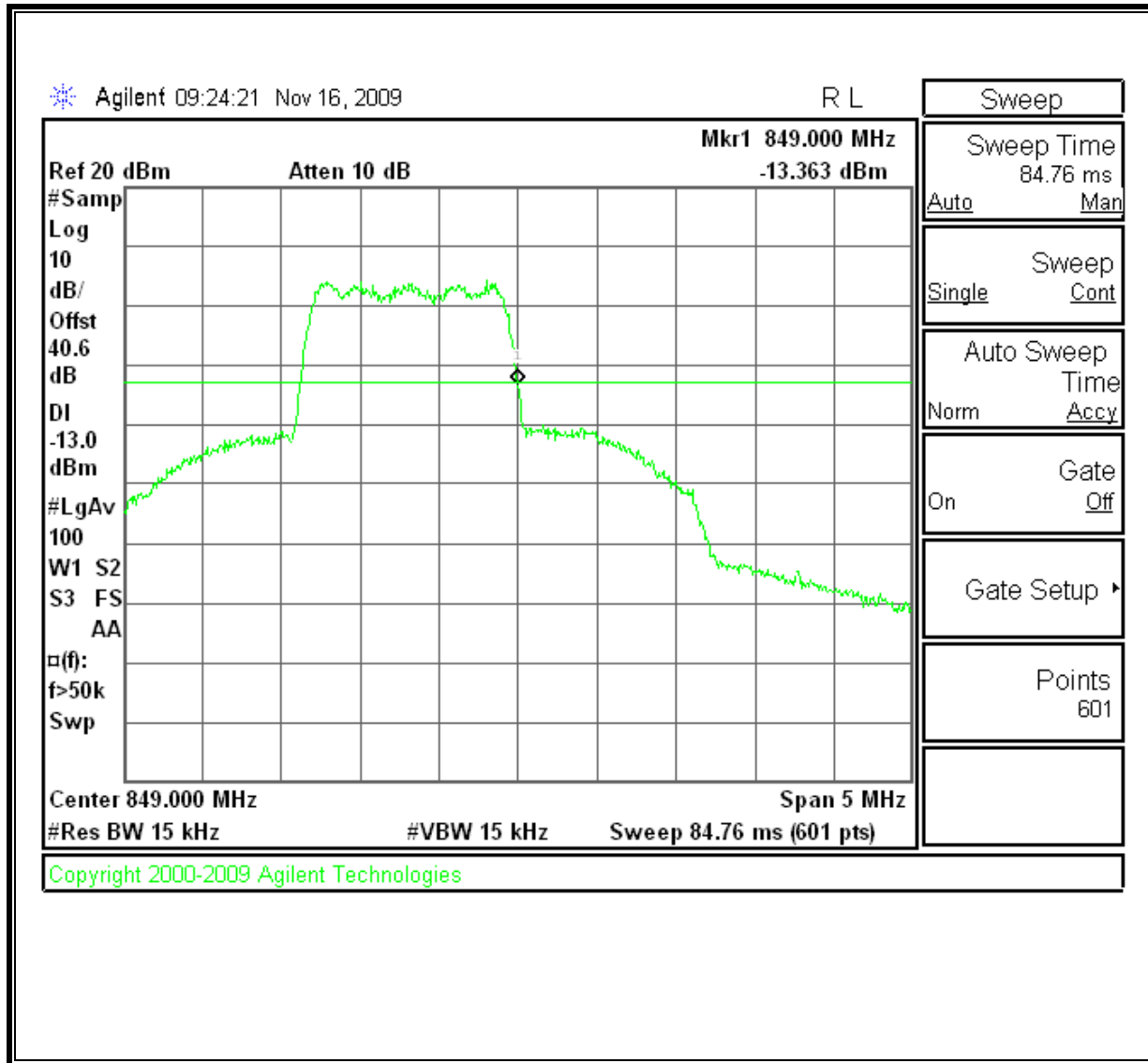


CDMA2000 1xEV-DO Revision A (Rev. A) mode (Cellular Band)

Low Channel Band Edge

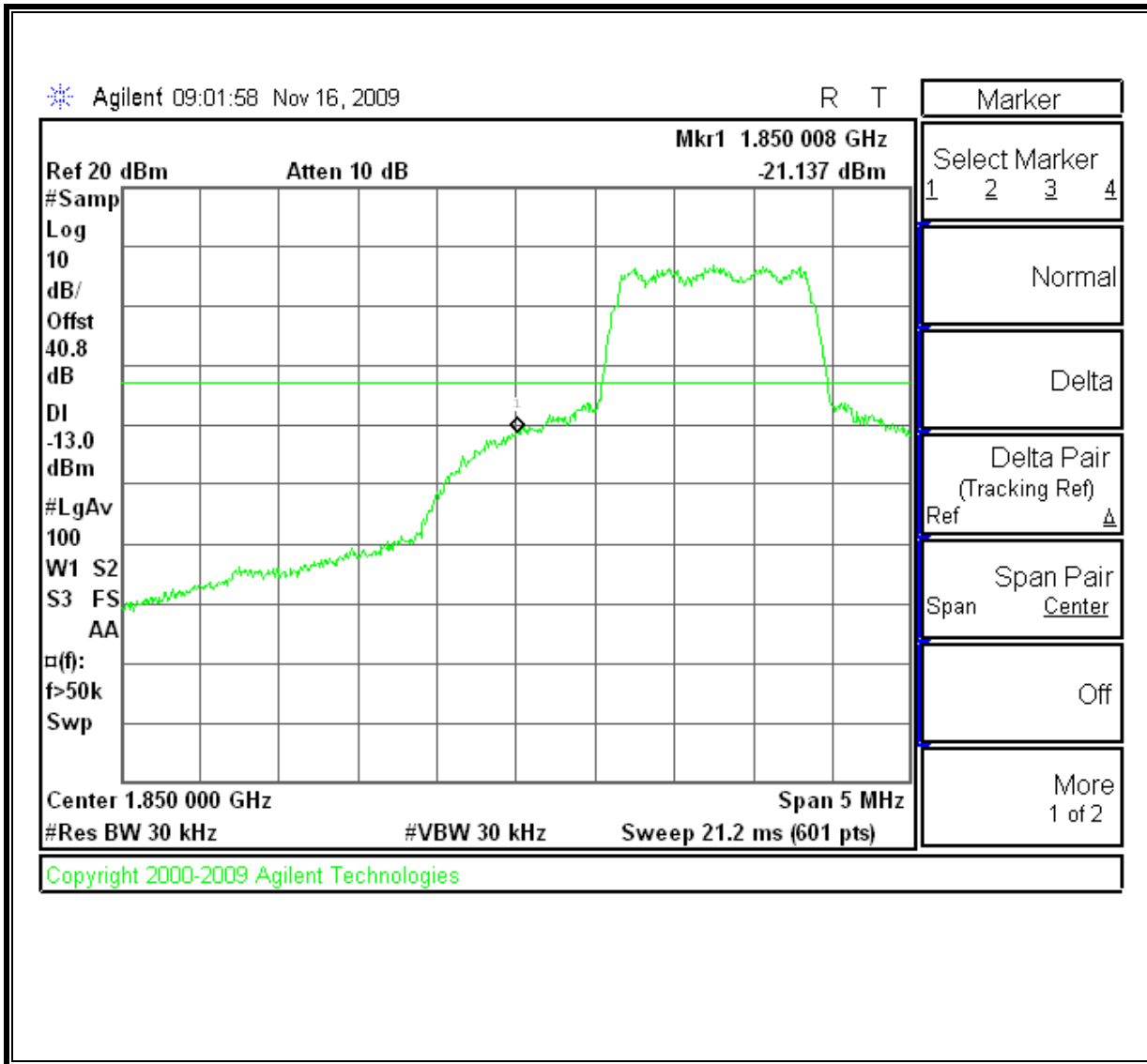


High Channel Band Edge



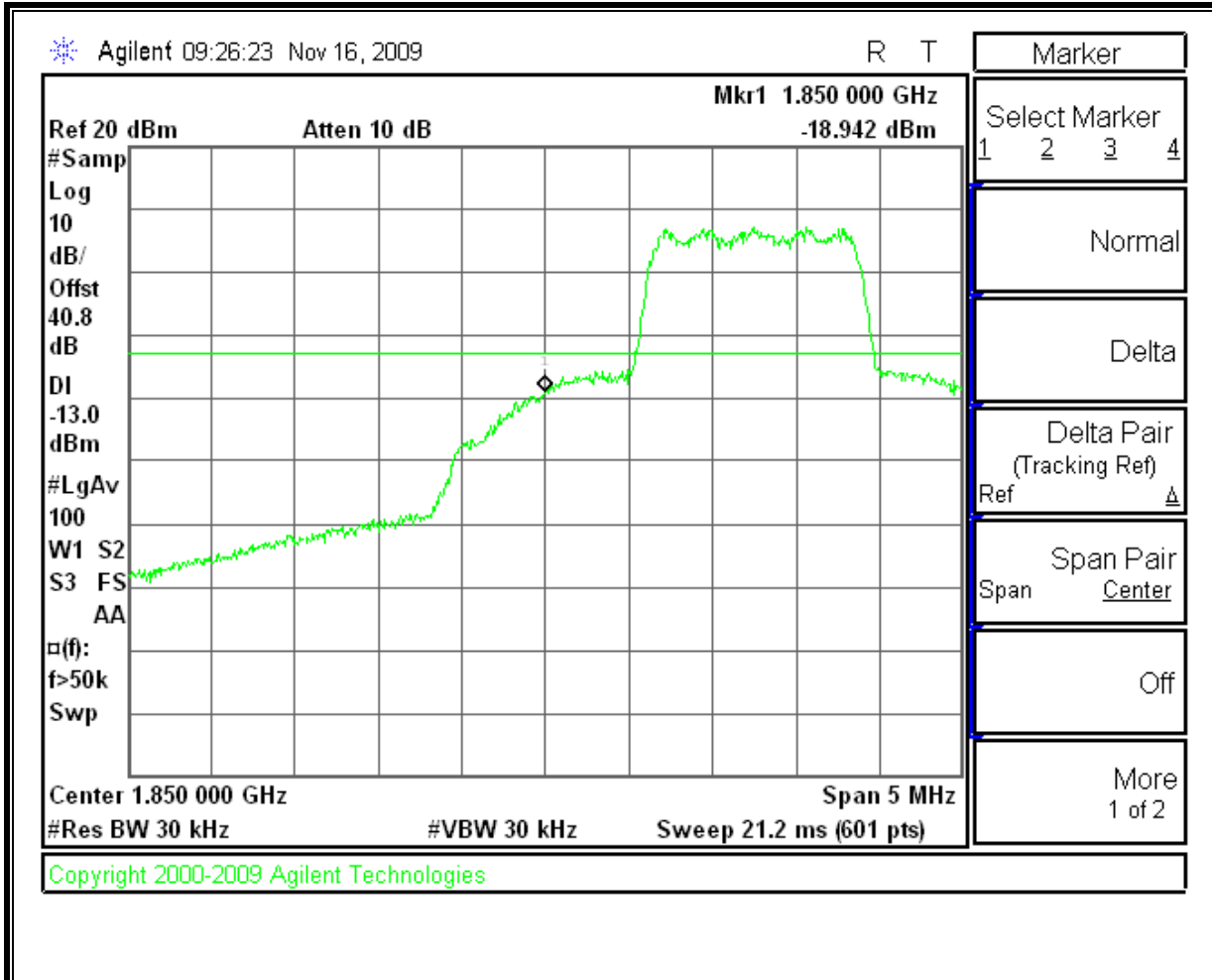
CDMA2000 1xRTT mode (PCS Band)

Low Channel Band Edge

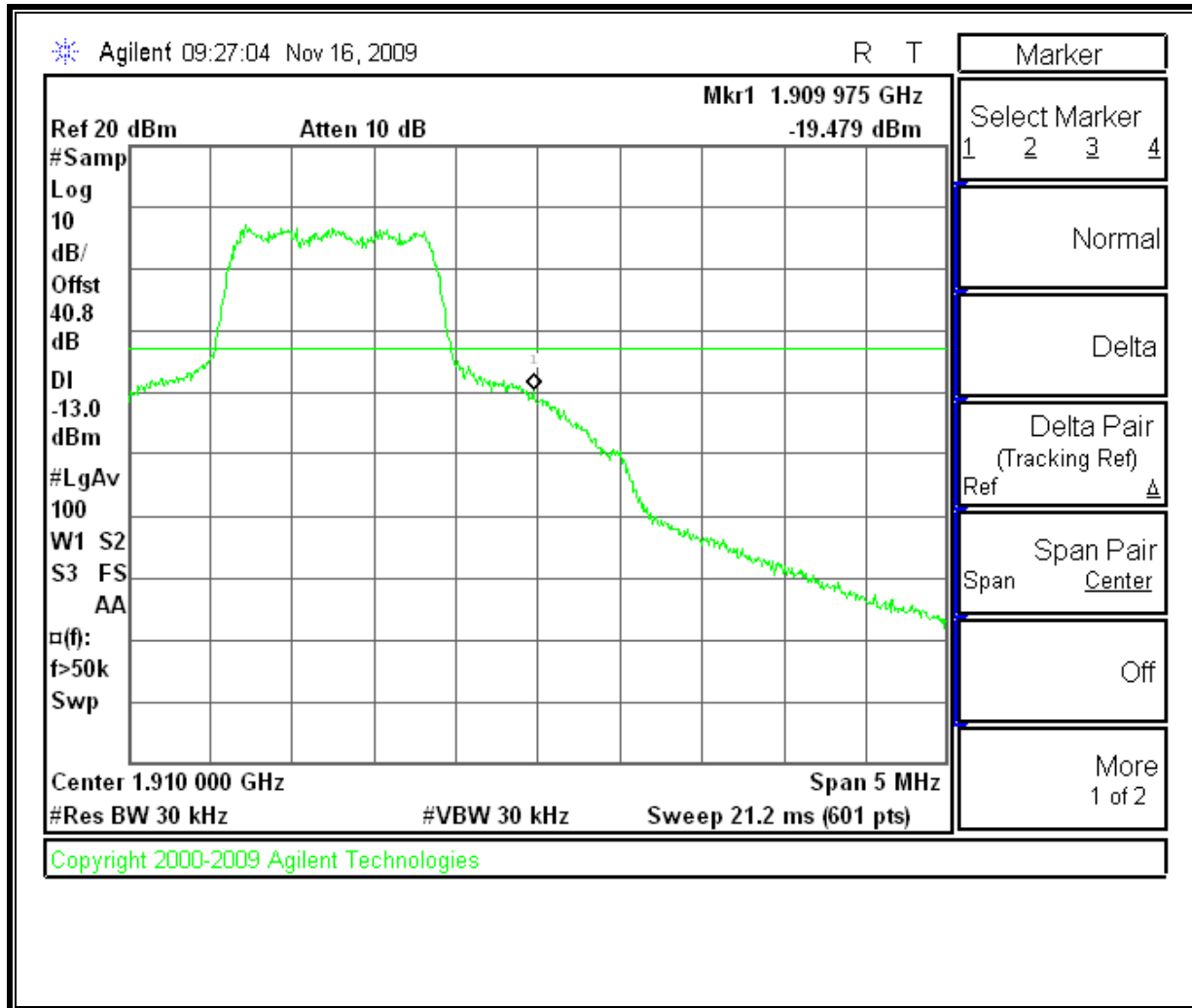


CDMA2000 1xEV-DO Revision A (Rev. A) mode (PCS Band)

Low Channel Band Edge



High Channel Band Edge



8.3. OUT OF BAND EMISSIONS

RULE PART(S)

FCC: §2.1051, §22.901, §22.917, §24.238

LIMITS

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

The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-band Emissions, if any, up to 10th harmonic. Multiple sweeps were recorded in maximum hold mode using a peak detector to ensure that the worst-case emissions were caught.

For each out of band emissions measurement:

- Set display line at -13 dBm
- Set RBW & VBW to 100 kHz for the measurement below 1 GHz, and 1 MHz for the measurement above 1 GHz.

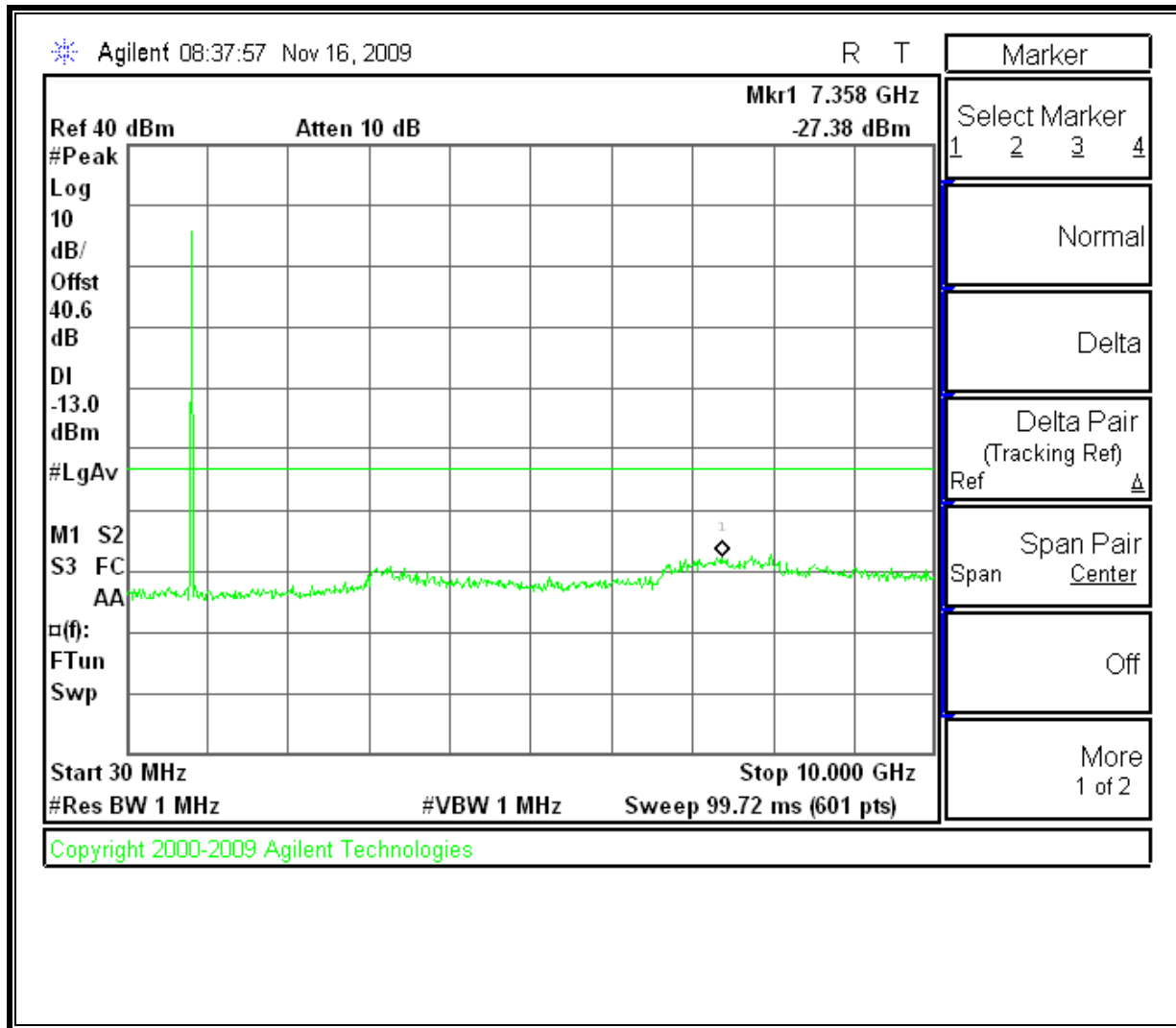
MODES TESTED

- 1xRTT – RC1, SO55
- CDMA2000 1xEV-DO Revision A (Rev. A)

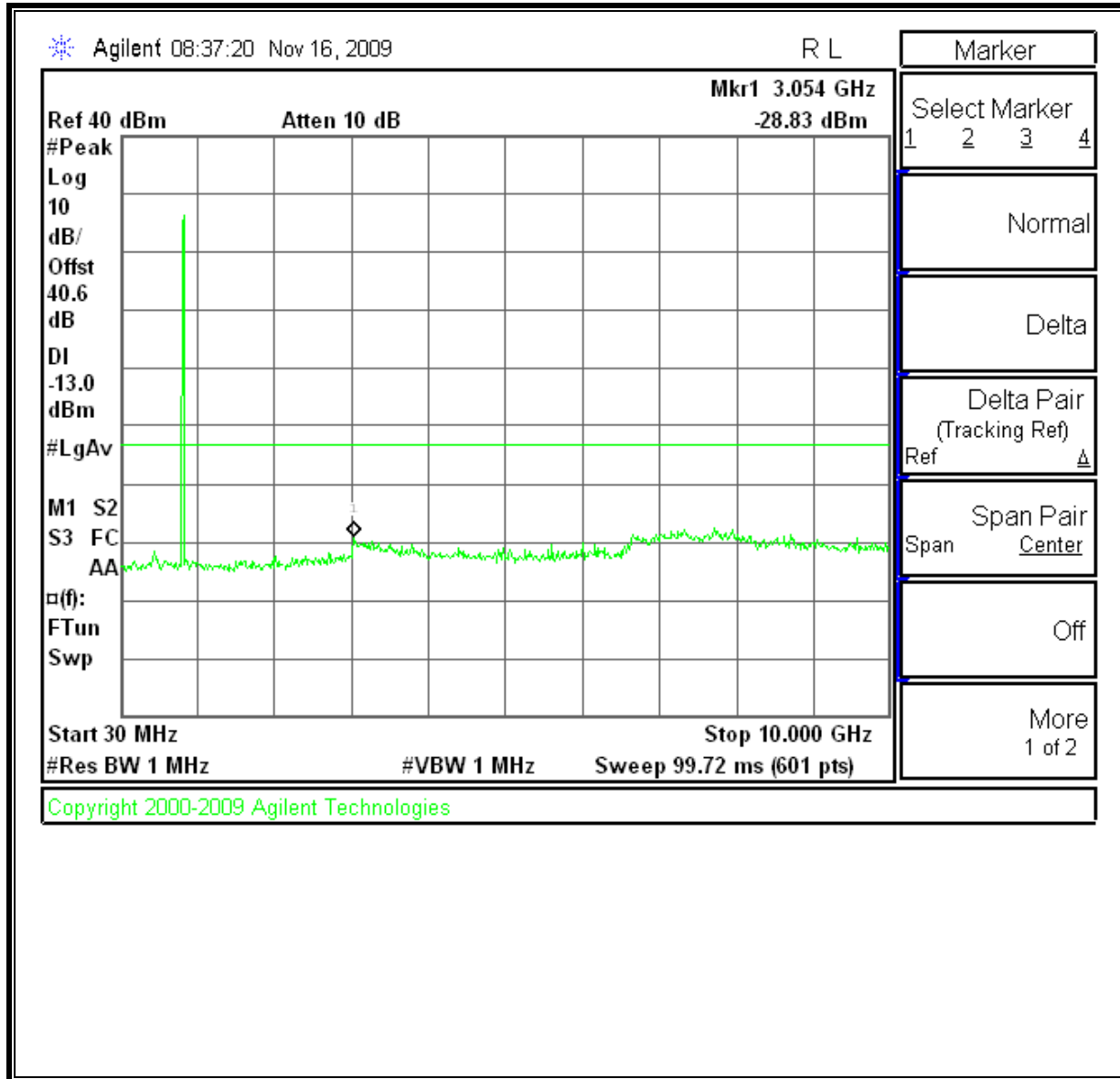
RESULTS

1xRTT Mode (Cellular Band)

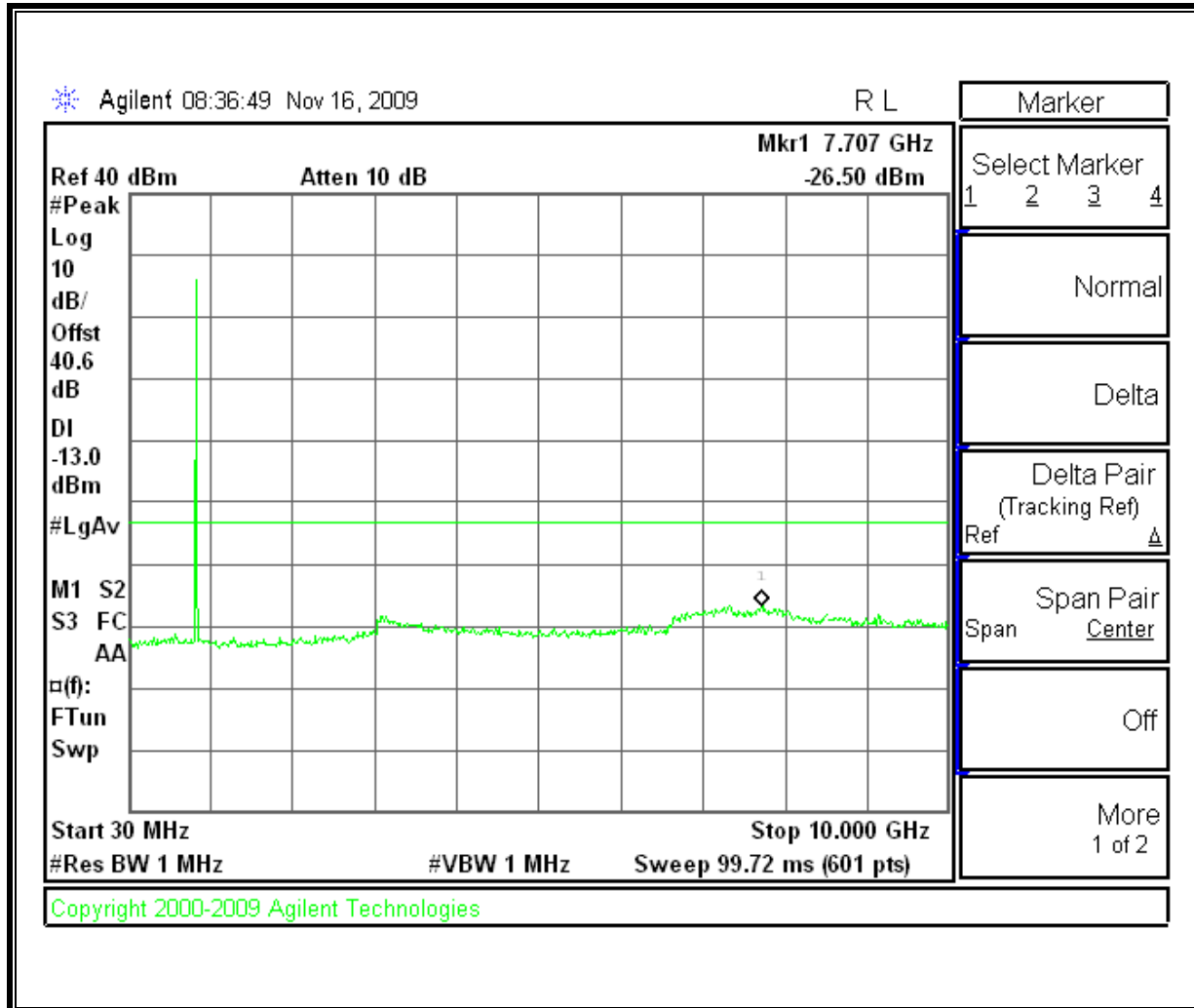
LOWCHANNEL



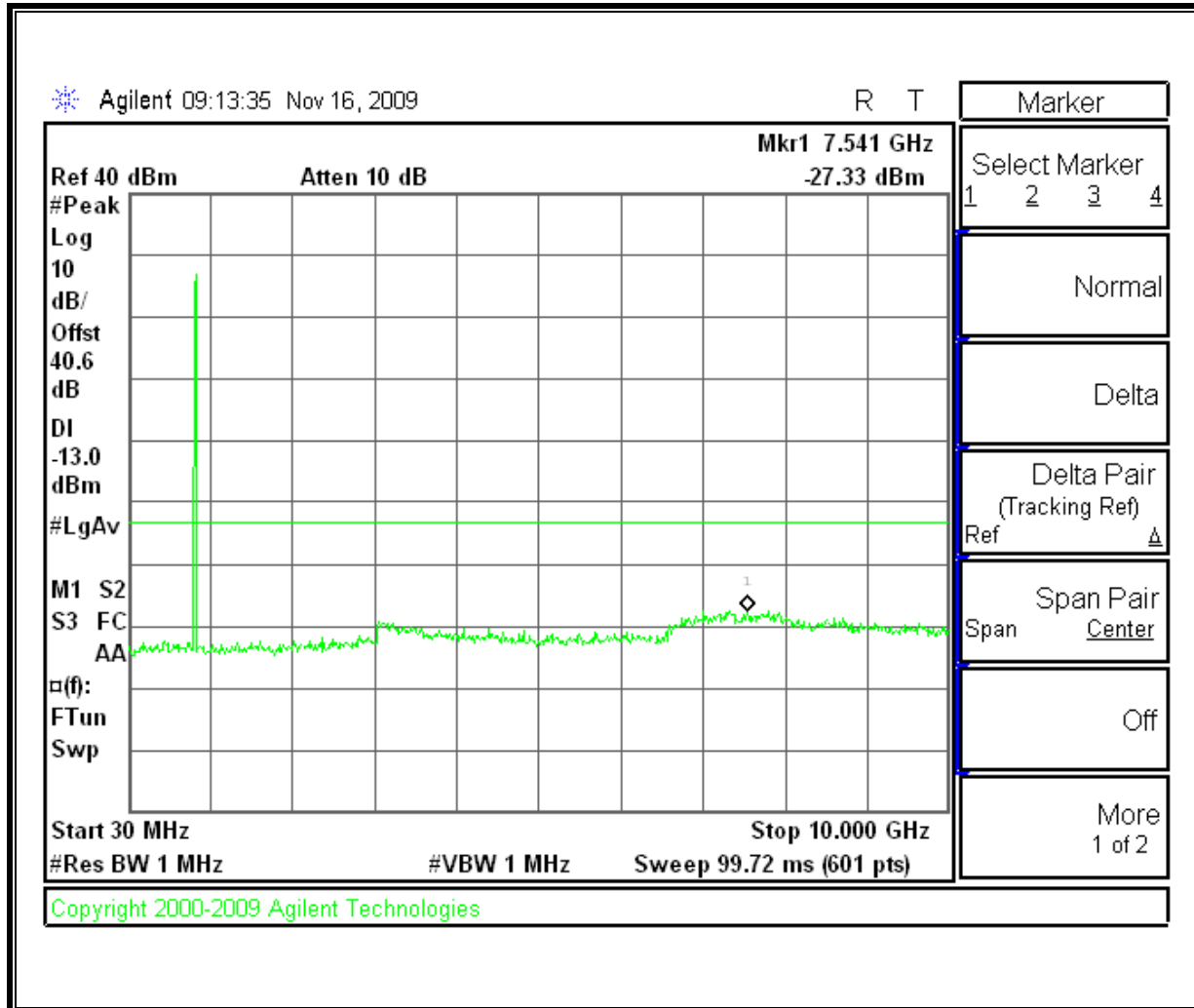
MID CHANNEL



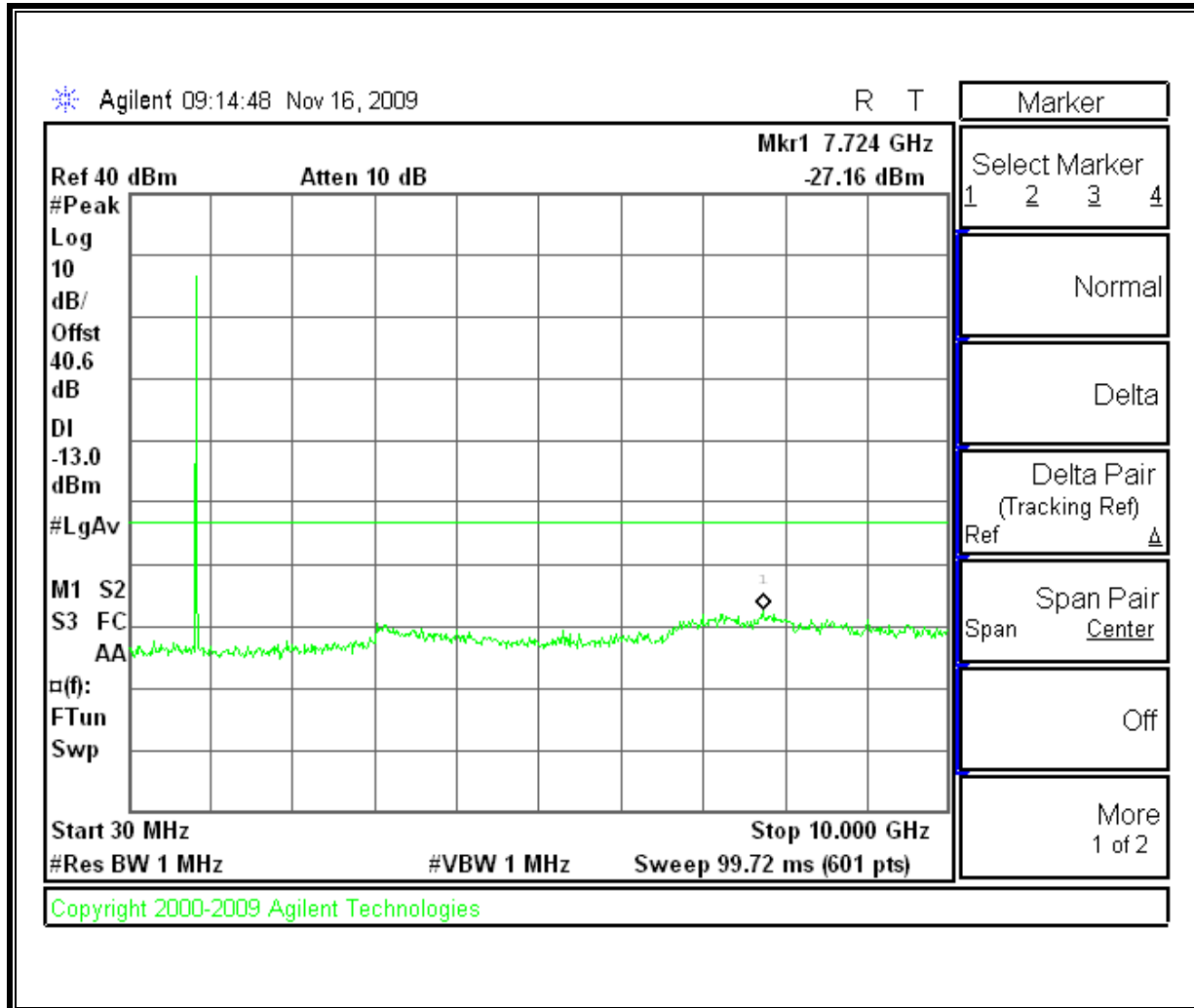
High Channel



MID CHANNEL

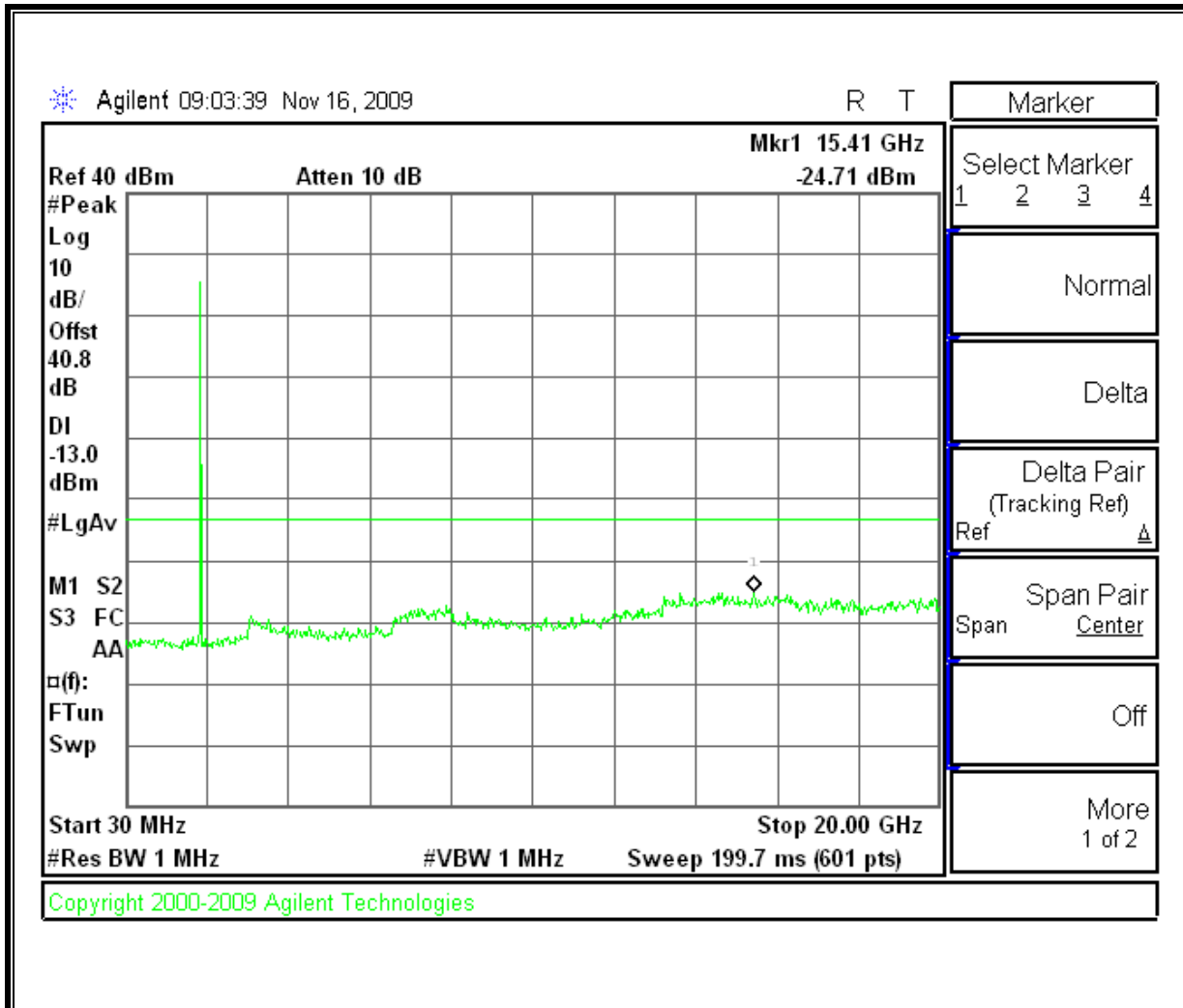


HIGH CHANNEL

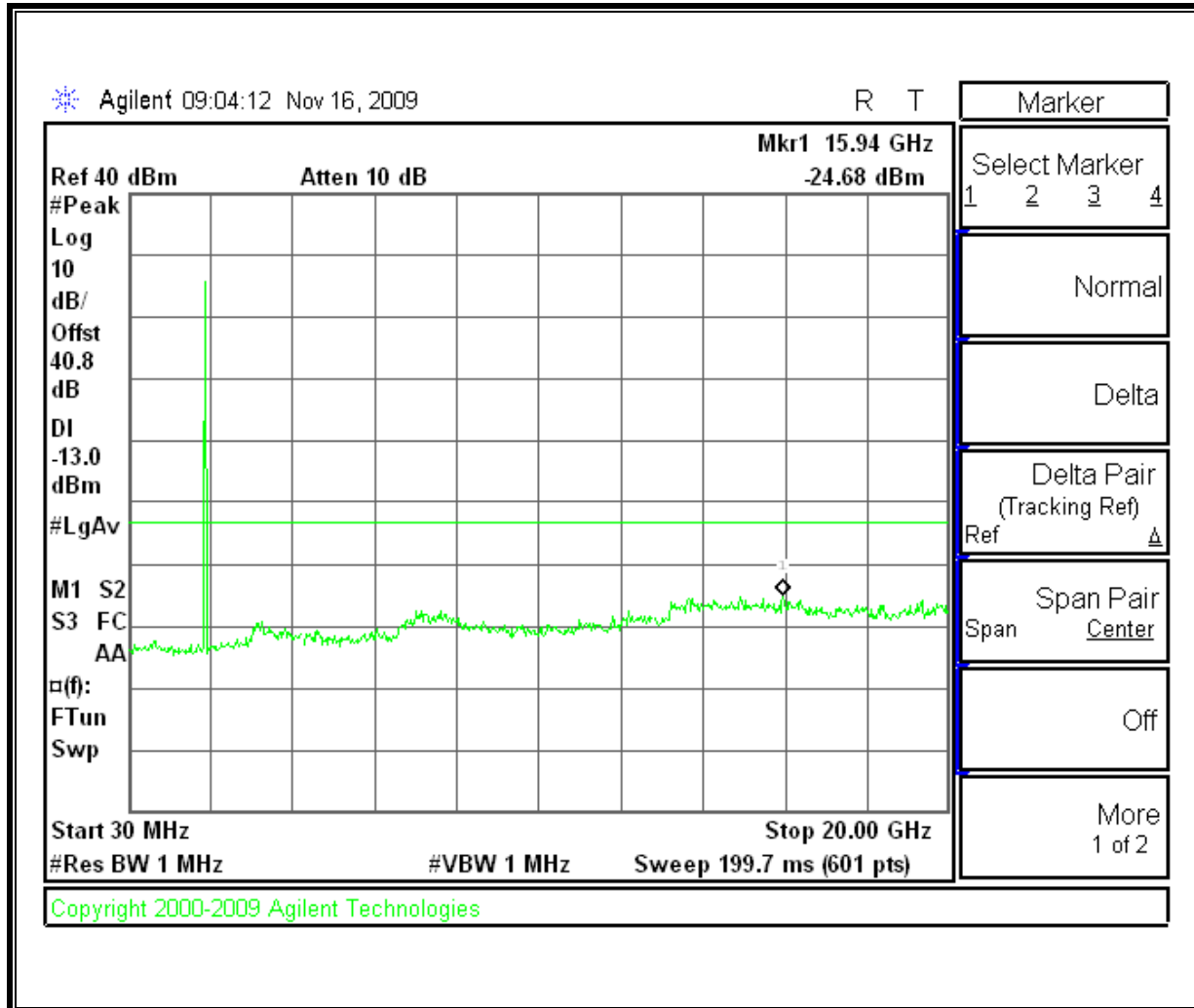


1xRTT Mode (PCS Band)

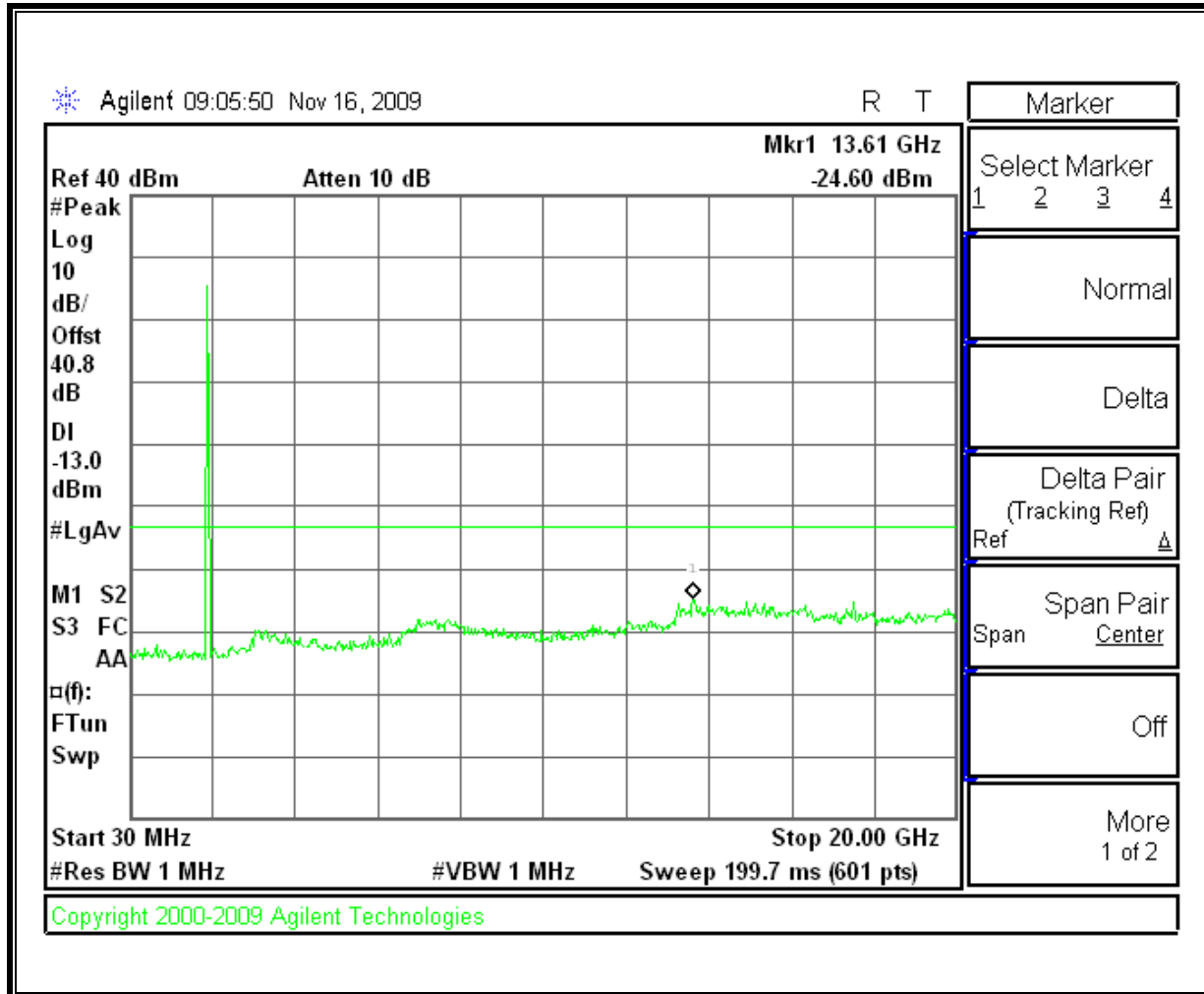
LOW CHANNEL



MID CHANNEL

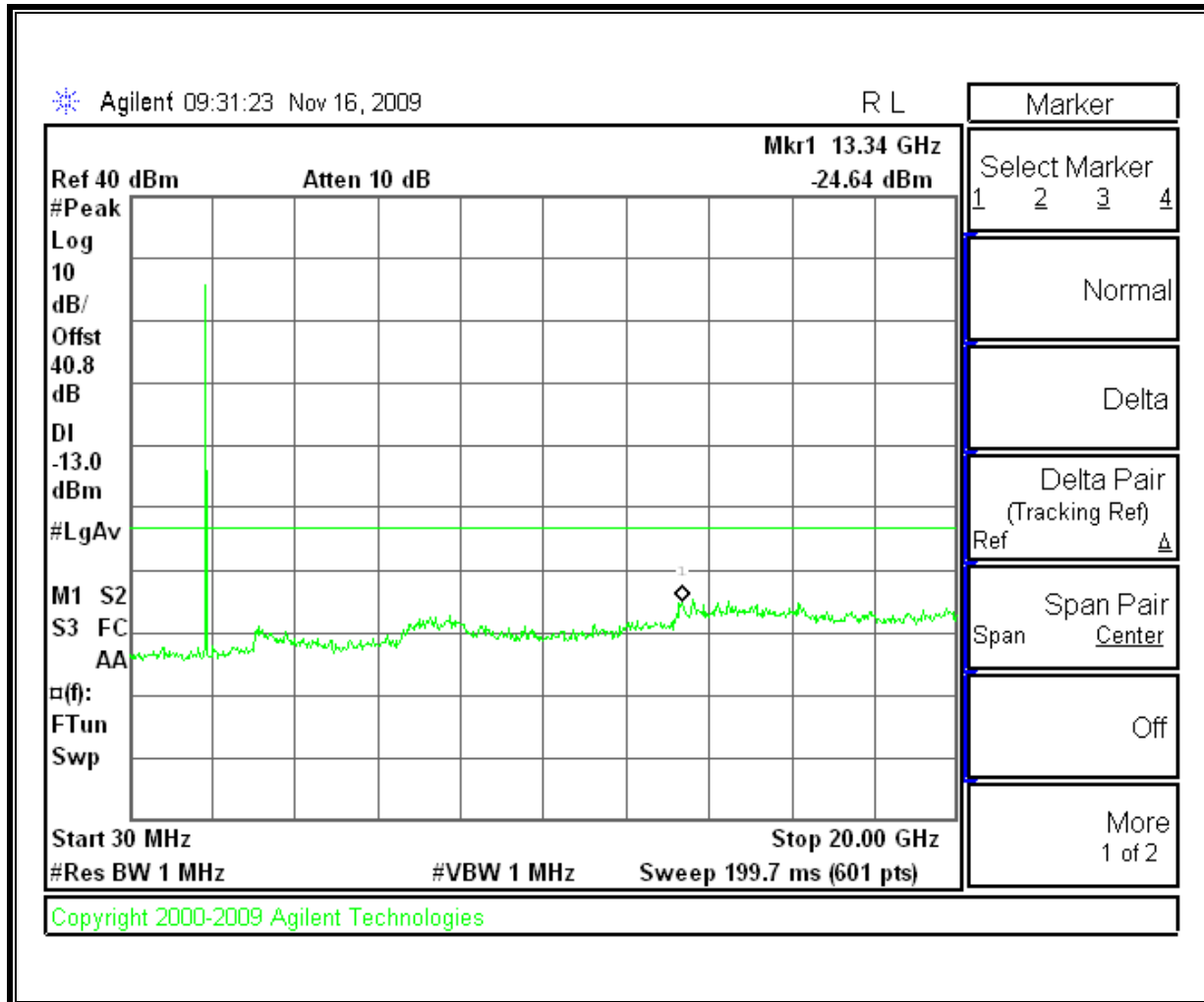


HIGH CHANNEL

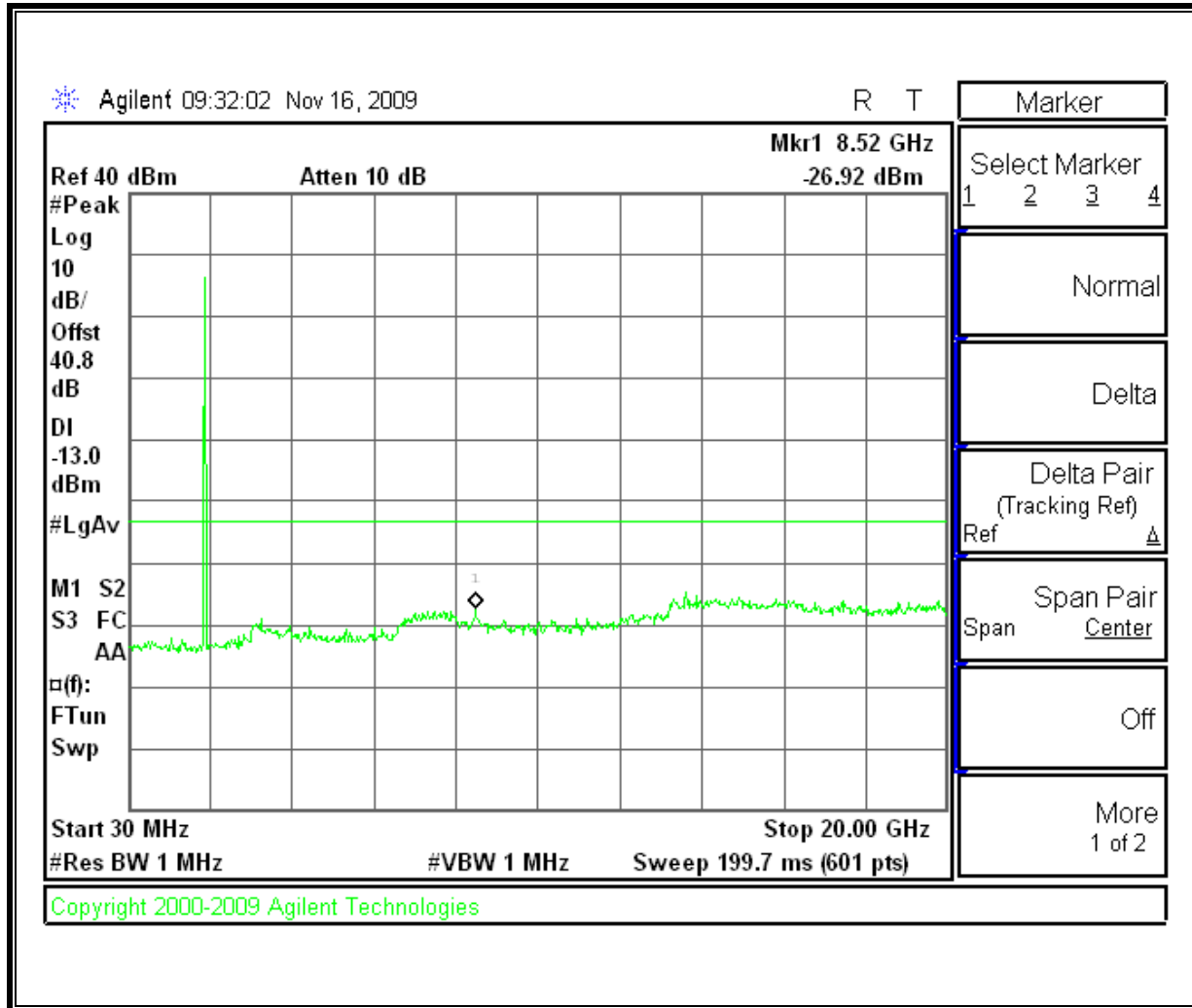


CDMA2000 1xEV-DO Revision A (Rev. A) Mode (PCS Band)

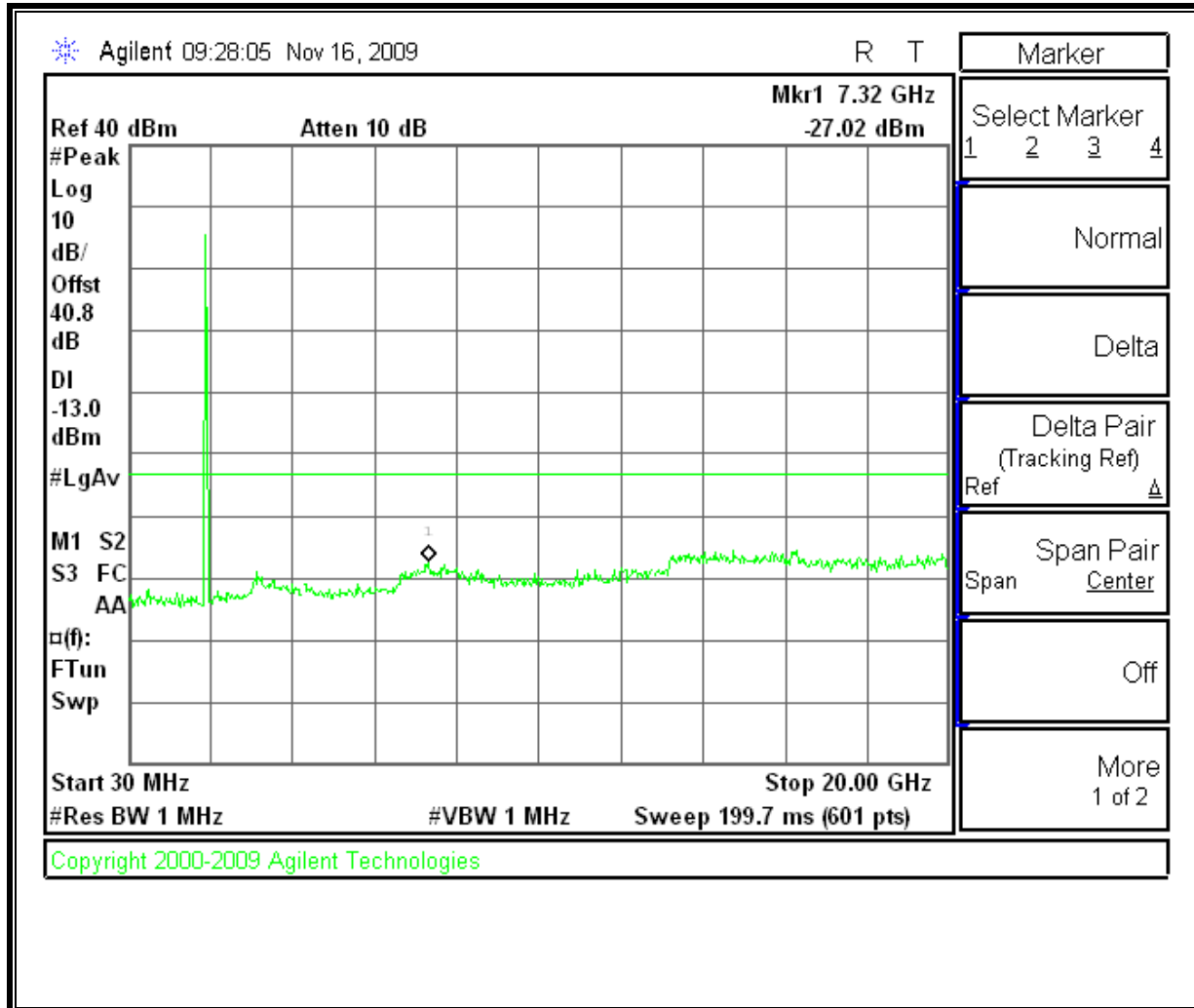
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL



8.4. FREQUENCY STABILITY

RULE PART(S)

FCC: §2.1055, §22.355, §24.235

LIMITS

- §22.355 - The carrier frequency shall not depart from the reference frequency in excess of ± 2.5 ppm for mobile stations.
- §24.235 - The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

TEST PROCEDURE

Use Agilent 8960 with Frequency Error measurement capability.

- Temp. = -20° to $+50^{\circ}\text{C}$
- Voltage = 3.7 Vdc (85% - 115%)

Frequency Stability vs Temperature:

The EUT is placed inside a temperature chamber. The temperature is set to 20°C and allowed to stabilize. After sufficient soak time, the transmitting frequency error is measured. The temperature is increased by 10 degrees, allowed to stabilize and soak, and then the measurement is repeated. This is repeated until $+50^{\circ}\text{C}$ is reached.

Frequency Stability vs Voltage:

The peak frequency error is recorded (worst-case).

MODES TESTED

- CDMA2000 1xEV-DO Revision A (Rev. A)

RESULTS

See the following pages.

CELL, CDMA2000 1xEV-DO Revision A (Rev. A) – MID CHANNEL

Reference Frequency: Cellular Mid Channel 836.520005MHz @ 20°C Limit: to stay +/- 2.5 ppm = 2091.300 Hz				
DC Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
115.00	50	836.520007	-0.002	2.5
115.00	40	836.520007	-0.002	2.5
115.00	30	836.520006	-0.001	2.5
115.00	20	836.520005	0	2.5
115.00	10	836.520004	0.001	2.5
115.00	0	836.520001	0.005	2.5
115.00	-10	836.519999	0.007	2.5
115.00	-20	836.519995	0.012	2.5
115.00	-30	836.519990	0.018	2.5

Reference Frequency: Cellular Mid Channel 836.520005MHz @ 20°C Limit: to stay +/- 2.5 ppm = 2091.300 Hz				
DC Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
100%	20	836.520005	0	2.5
115%	20	836.520006	-0.001	2.5
85%	20	836.520004	0.001	2.5

PCS, CDMA2000 1xEV-DO Revision A (Rev. A) – MID CHANNEL

Reference Frequency: PCS Mid Channel 1879.999987MHz @ 20°C				
Limit: within the authorized block or +- 2.5 ppm = 4700.000 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
115.00	50	1879.999980	-0.059	2.5
115.00	40	1879.999984	-0.061	2.5
115.00	30	1879.999985	-0.061	2.5
115.00	20	1879.999870	0	2.5
115.00	10	1880.000040	-0.090	2.5
115.00	0	1880.000045	-0.093	2.5
115.00	-10	1880.000048	-0.095	2.5
115.00	-20	1880.000055	-0.098	2.5
115.00	-30	1880.000058	-0.100	2.5

Reference Frequency: PCS Mid Channel 1879.9999871MHz @ 20°C				
Limit: within the authorized block or +- 2.5 ppm = 4700.000 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
100%	20	1879.999987	0	2.5
115.00	20	1879.999958	0.015	2.5
85.00	20	1880.000010	-0.012	2.5

9. RADIATED TEST RESULTS

9.1. RADIATED POWER (ERP & EIRP)

RULE PART(S)

FCC: §2.1046, §22.913, §24.232

LIMITS

22.913(a) - The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

24.232(c) - 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 603C

MODES TESTED

- 1xRTT – RC1, SO55
- CDMA2000 1xEV-DO Revision A (Rev. A)

RESULTS for Cellular Band (ERP)

Mode	Channel	f (MHz)	ERP	
			dBm	mW
1xRTT (RC1, SO55)	1013	824.70	26.80	478.63
	384	836.52	26.50	446.68
	777	848.31	27.20	524.81
EVDO-REV A	1013	824.70	26.80	478.63
	384	836.52	27.20	524.81
	777	848.31	27.10	512.86

RESULTS for PCS Band (EIRP)

Mode	Channel	f (MHz)	EIRP (Standard Cover)	
			dBm	mW
1xRTT (RC1, SO55)	25	1851.25	27.40	549.54
	600	1880.00	27.70	588.84
	1175	1908.75	26.30	426.58
EVDO-REV A	25	1851.25	28.40	691.83
	600	1880.00	28.90	776.25
	1175	1908.75	27.00	501.19

ERP for 1xRTT Mode (Cellular Band)

High Frequency Substitution Measurement Compliance Certification Services Chamber A							
Company: Sierra Wireless Project #: 09U12929 Date: 11/16/2009 Test Engineer: Chin Pang Configuration: EUT/Laptop Mode: TX, CDMA2000 1xRTT							
Test Equipment:							
Receiving: Sunol T122, and 3m Chamber N-type Cable (Setup this one for testing EUT)							
Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.							
f MHz	SA reading (dBm)	Ant. Pol. (H/V)	Path Loss (dBm)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch							
824.70	-12.0	V	34.8	22.8	38.5	-15.7	
824.70	-3.8	H	30.5	26.8	38.5	-11.7	
Mid Ch							
836.52	-10.6	V	33.1	22.5	38.5	-15.9	
836.52	-4.7	H	31.2	26.5	38.5	-12.0	
High Ch							
848.31	-12.8	V	32.1	19.3	38.5	-19.1	
848.31	-4.0	H	31.2	27.2	38.5	-11.2	
Rev. 1.24.7							

ERP for CDMA2000 1xEV-DO Revision A (Rev. A) Mode (Cellular Band)

High Frequency Substitution Measurement Compliance Certification Services Chamber A							
Company: Sierra Wireless Project #: 09U12929 Date: 11/17/2009 Test Engineer: Chin Pang Configuration: EUT/Laptop Mode: TX, CDMA2000 EVDO Rev A							
Test Equipment:							
Receiving: Sunol T122, and 3m Chamber N-type Cable (Setup this one for testing EUT)							
Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.							
f MHz	SA reading (dBm)	Ant. Pol. (H/V)	Path Loss (dBm)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch							
824.70	-10.0	V	34.8	24.8	38.5	-13.7	
824.70	-3.8	H	30.5	26.8	38.5	-11.7	
Mid Ch							
836.52	-10.2	V	33.1	22.9	38.5	-15.5	
836.52	-4.0	H	31.2	27.2	38.5	-11.3	
High Ch							
848.31	-11.4	V	32.1	20.7	38.5	-17.7	
848.31	-4.1	H	31.2	27.1	38.5	-11.3	
Rev. 1.24.7							

EIRP for 1xRTT Mode (PCS Band)

High Frequency Fundamental Measurement Compliance Certification Services Chamber A							
Company:Sierra Wireless Project #:09U12929 Date: 11/16/09 Test Engineer: Chin Pang Configuration:EUT/Laptop Mode:TX, PCS CDMA2000 1xRTT							
Test Equipment: Receiving: Horn T73, and Camber B SMA Cables Substitution: Horn T72 Substitution, 6ft SMA Cable (208947003) Warehouse							
f GHz	SA reading (dBm)	Ant. Pol. (H/V)	Path Loss (dBm)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch							
1.851	-13.0	V	40.4	27.4	33.0	-5.6	
1.851	-21.2	H	39.7	18.5	33.0	-14.5	
Mid Ch							
1.880	-12.3	V	39.9	27.7	33.0	-5.4	
1.880	-20.0	H	40.1	20.1	33.0	-12.9	
High Ch							
1.909	-13.5	V	39.8	26.3	33.0	-6.7	
1.909	-21.0	H	40.2	19.2	33.0	-13.9	
Rev. 1.24.7							

EIRP for CDMA2000 1xEV-DO Revision A (Rev. A) Mode (PCS Band)

High Frequency Fundamental Measurement Compliance Certification Services Chamber A							
Company:Sierra Wireless Project #:09U12929 Date: 11/17/09 Test Engineer: Chin Pang Configuration:EUT/Laptop Mode:TX, PCS CDMA2000 EVDO Rev A							
Test Equipment: Receiving: Horn T73, and Camber B SMA Cables Substitution: Horn T72 Substitution, 6ft SMA Cable (208947003) Warehouse							
f GHz	SA reading (dBm)	Ant. Pol. (H/V)	Path Loss (dBm)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch							
1.851	-12.0	V	40.4	28.4	33.0	-4.6	
1.851	-18.7	H	39.7	21.0	33.0	-12.0	
Mid Ch							
1.880	-11.0	V	39.9	28.9	33.0	-4.1	
1.880	-16.7	H	40.1	23.4	33.0	-9.6	
High Ch							
1.909	-12.8	V	39.8	27.0	33.0	-6.0	
1.909	-18.1	H	40.2	22.1	33.0	-11.0	
Rev. 1.24.7							

9.2. FIELD STRENGTH OF SPURIOUS RADIATION

RULE PART(S)

FCC: §2.1053, §22.917, §24.238

LIMIT

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

For Cellular equipment - Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. 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. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 100 kHz or 1 percent of emission bandwidth, as specified). 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 emissions are attenuated at least 26 dB below the transmitter power.

For PCS equipment - Compliance with these rules 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. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). 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 emissions are attenuated at least 26 dB below the transmitter power.

MODES TESTED

- 1xRTT – RC1, SO55
- CDMA2000 1xEV-DO Revision A (Rev. A)

RESULTS

1xRTT Mode (Cellular Band)

Compliance Certification Services										
Above 1GHz High Frequency Substitution Measurement										
Company:Sierra Wireless										
Project #:09U12929										
Date:11/18/2009										
Test Engineer:Chin Pang										
Configuration:EUT/Laptop										
Mode:TX, Cell, CDMA2000 1xRTT										
Chamber		Pre-amplifier			Filter		Limit			
5m Chamber B		T145 8449B			Filter 1		Part 22			
f GHz	SA reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Path Loss (dB)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 824.7MHz										
1.649	-55.0	H	3.0	37.2	35.5	1.0	-52.3	-13.0	-39.3	
2.474	-60.8	H	3.0	39.8	35.4	1.0	-55.4	-13.0	-42.4	
3.299	-61.5	H	3.0	44.0	35.5	1.0	-52.1	-13.0	-39.1	
5.773	-62.0	H	3.0	50.4	35.5	1.0	-46.1	-13.0	-33.1	
1.649	-53.6	V	3.0	36.8	35.5	1.0	-51.3	-13.0	-38.3	
2.474	-60.0	V	3.0	41.7	35.4	1.0	-52.7	-13.0	-39.7	
3.299	-62.0	V	3.0	44.1	35.5	1.0	-52.4	-13.0	-39.4	
5.773	-62.6	V	3.0	49.4	35.5	1.0	-47.6	-13.0	-34.6	
Mid Ch, 836.52MHz										
1.673	-54.0	H	3.0	37.5	35.5	1.0	-51.1	-13.0	-38.1	
2.510	-60.0	H	3.0	39.9	35.4	1.0	-54.5	-13.0	-41.5	
3.346	-61.2	H	3.0	44.1	35.5	1.0	-51.6	-13.0	-38.6	
5.856	-61.1	H	3.0	50.5	35.5	1.0	-45.0	-13.0	-32.0	
1.673	-52.6	V	3.0	37.1	35.5	1.0	-50.0	-13.0	-37.0	
2.510	-58.0	V	3.0	41.8	35.4	1.0	-50.6	-13.0	-37.6	
3.346	-60.4	V	3.0	44.3	35.5	1.0	-50.7	-13.0	-37.7	
5.856	-59.6	V	3.0	49.5	35.5	1.0	-44.6	-13.0	-31.6	
High Ch, 848.31MHz										
1.697	-58.0	H	3.0	37.7	35.5	1.0	-54.8	-13.0	-41.8	
2.545	-54.8	H	3.0	40.1	35.4	1.0	-49.1	-13.0	-36.1	
3.393	-61.3	H	3.0	44.3	35.5	1.0	-51.5	-13.0	-38.5	
5.090	-61.4	H	3.0	49.1	35.3	1.0	-46.6	-13.0	-33.6	
1.697	-54.1	V	3.0	37.4	35.5	1.0	-51.2	-13.0	-38.2	
2.545	-52.0	V	3.0	42.0	35.4	1.0	-44.5	-13.0	-31.5	
3.393	-59.0	V	3.0	44.4	35.5	1.0	-49.1	-13.0	-36.1	
5.090	-58.6	V	3.0	48.5	35.3	1.0	-44.4	-13.0	-31.4	
Rev. 03.03.09										
Note! No other emissions were detected above the system noise floor.										

CDMA2000 1xEV-DO Revision A (Rev. A) Mode (Cellular Band)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement										
Company:Sierra Wireless Project #:09U12929 Date:11/17/2009 Test Engineer:Chin Pang Configuration:EUT/Laptop Mode:TX, Cell, CDMA2000 EVDO Rev A										
Chamber		Pre-amplifier			Filter		Limit			
5m Chamber A		T144 8449B			Filter 1		Part 22			
f GHz	SA reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Path Loss (dB)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 824.7MHz										
1.649	-55.7	H	3.0	36.6	38.2	1.0	-56.3	-13.0	-43.3	
2.474	-53.0	H	3.0	40.0	37.5	1.0	-49.5	-13.0	-36.5	
3.299	-57.2	H	3.0	43.9	37.1	1.0	-49.5	-13.0	-36.5	
5.773	-60.2	H	3.0	50.3	36.3	1.0	-45.2	-13.0	-32.2	
1.649	-50.0	V	3.0	36.8	38.2	1.0	-50.3	-13.0	-37.3	
2.474	-56.5	V	3.0	41.7	37.5	1.0	-51.3	-13.0	-38.3	
3.299	-60.0	V	3.0	44.0	37.1	1.0	-52.1	-13.0	-39.1	
5.773	-59.8	V	3.0	49.6	36.3	1.0	-45.5	-13.0	-32.5	
Mid Ch, 836.52MHz										
1.673	-53.6	H	3.0	36.8	38.1	1.0	-53.9	-13.0	-40.9	
2.510	-55.4	H	3.0	40.1	37.5	1.0	-51.7	-13.0	-38.7	
3.346	-57.0	H	3.0	44.0	37.1	1.0	-49.1	-13.0	-36.1	
5.856	-57.6	H	3.0	50.5	36.3	1.0	-42.5	-13.0	-29.5	
1.673	-49.0	V	3.0	37.1	38.1	1.0	-49.0	-13.0	-36.0	
2.510	-53.7	V	3.0	41.8	37.5	1.0	-48.3	-13.0	-35.3	
3.346	-58.5	V	3.0	44.1	37.1	1.0	-50.5	-13.0	-37.5	
5.856	-60.0	V	3.0	49.7	36.3	1.0	-45.6	-13.0	-32.6	
High Ch, 848.31MHz										
1.697	-55.0	H	3.0	37.0	38.1	1.0	-55.1	-13.0	-42.1	
2.545	-47.0	H	3.0	40.3	37.5	1.0	-43.1	-13.0	-30.1	
3.393	-53.0	H	3.0	44.1	37.1	1.0	-44.9	-13.0	-31.9	
5.090	-60.0	H	3.0	49.0	36.3	1.0	-46.3	-13.0	-33.3	
1.697	-52.3	V	3.0	37.4	38.1	1.0	-52.0	-13.0	-39.0	
2.545	-47.5	V	3.0	42.0	37.5	1.0	-42.0	-13.0	-29.0	
3.393	-56.6	V	3.0	44.2	37.1	1.0	-48.4	-13.0	-35.4	
5.090	-57.1	V	3.0	48.5	36.3	1.0	-43.9	-13.0	-30.9	
Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.										

1xRTT Mode (PCS Band)

Compliance Certification Services										
Above 1GHz High Frequency Substitution Measurement										
Company:Sierra Wireless										
Project #:09U12929										
Date:11/18/2009										
Test Engineer:Chin Pang										
Configuration:EUT/Laptop										
Mode:TX, PCS, CDMA2000 1xRTT										
Chamber		Pre-amplifier			Filter		Limit			
5m Chamber B		T145 8449B			Filter 1		Part 24			
f GHz	SA reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Path Loss (dB)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1851.25MHz										
3.703	-57.5	H	3.0	45.3	35.4	1.0	-46.5	-13.0	-33.5	
5.554	-54.3	H	3.0	50.0	35.4	1.0	-38.7	-13.0	-25.7	
7.405	-55.8	H	3.0	53.0	35.7	1.0	-37.5	-13.0	-24.5	
9.256	-55.1	H	3.0	55.1	35.6	1.0	-34.6	-13.0	-21.6	
3.703	-55.4	V	3.0	45.1	35.4	1.0	-44.6	-13.0	-31.6	
5.554	-56.5	V	3.0	49.2	35.4	1.0	-41.7	-13.0	-28.7	
7.405	-60.0	V	3.0	51.3	35.7	1.0	-43.4	-13.0	-30.4	
9.256	-52.6	V	3.0	53.6	35.6	1.0	-33.6	-13.0	-20.6	
Mid Ch, 1880MHz										
3.760	-54.3	H	3.0	45.5	35.3	1.0	-43.1	-13.0	-30.1	
5.640	-56.0	H	3.0	50.2	35.4	1.0	-40.3	-13.0	-27.3	
7.520	-57.5	H	3.0	53.1	35.7	1.0	-39.1	-13.0	-26.1	
9.400	-60.0	H	3.0	55.2	35.6	1.0	-39.3	-13.0	-26.3	
3.760	-53.0	V	3.0	45.3	35.3	1.0	-42.1	-13.0	-29.1	
5.640	-58.0	V	3.0	49.3	35.4	1.0	-43.1	-13.0	-30.1	
7.520	-56.8	V	3.0	51.4	35.7	1.0	-40.1	-13.0	-27.1	
9.400	-53.8	V	3.0	53.7	35.6	1.0	-34.6	-13.0	-21.6	
High Ch, 1908.75MHz										
3.818	-55.5	H	3.0	45.7	35.3	1.0	-44.1	-13.0	-31.1	
5.726	-54.3	H	3.0	50.3	35.4	1.0	-38.4	-13.0	-25.4	
7.635	-60.2	H	3.0	53.2	35.7	1.0	-41.7	-13.0	-28.7	
9.544	-55.2	H	3.0	55.4	35.6	1.0	-34.4	-13.0	-21.4	
3.818	-55.6	V	3.0	45.4	35.3	1.0	-44.5	-13.0	-31.5	
5.726	-57.4	V	3.0	49.4	35.4	1.0	-42.5	-13.0	-29.5	
7.635	-55.3	V	3.0	51.6	35.7	1.0	-38.4	-13.0	-25.4	
9.544	-50.1	V	3.0	53.9	35.6	1.0	-30.7	-13.0	-17.7	
Rev. 03.03.09										
Note: No other emissions were detected above the system noise floor.										

CDMA2000 1xEV-DO Revision A (Rev. A) Mode (PCS Band)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement										
Company:Sierra Wireless Project #:09U12929 Date:11/17/2009 Test Engineer:Chin Pang Configuration:EUT/Laptop Mode:TX, PCS, CDMA2000 EVDO Rev A										
Chamber		Pre-amplifier			Filter		Limit			
5m Chamber A		T144 8449B			Filter 1		Part 24			
f GHz	SA reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Path Loss (dB)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1851.25MHz										
3.703	-55.0	H	3.0	45.0	36.8	1.0	-45.8	-13.0	-32.8	
5.554	-53.0	H	3.0	49.9	36.3	1.0	-38.3	-13.0	-25.3	
7.405	-56.5	H	3.0	52.9	36.6	1.0	-39.2	-13.0	-26.2	
9.256	-53.2	H	3.0	55.3	37.0	1.0	-34.0	-13.0	-21.0	
3.703	-55.8	V	3.0	44.9	36.8	1.0	-46.7	-13.0	-33.7	
5.554	-55.0	V	3.0	49.3	36.3	1.0	-41.0	-13.0	-28.0	
7.405	-57.8	V	3.0	51.8	36.6	1.0	-41.5	-13.0	-28.5	
9.256	-52.0	V	3.0	54.2	37.0	1.0	-33.8	-13.0	-20.8	
Mid Ch, 1880MHz										
3.760	-53.8	H	3.0	45.2	36.8	1.0	-44.4	-13.0	-31.4	
5.640	-54.0	H	3.0	50.1	36.3	1.0	-39.2	-13.0	-26.2	
7.520	-57.2	H	3.0	53.1	36.6	1.0	-39.7	-13.0	-26.7	
9.400	-52.0	H	3.0	55.4	37.0	1.0	-32.6	-13.0	-19.6	
3.760	-52.3	V	3.0	45.1	36.8	1.0	-43.0	-13.0	-30.0	
5.640	-54.5	V	3.0	49.4	36.3	1.0	-40.4	-13.0	-27.4	
7.520	-56.3	V	3.0	52.0	36.6	1.0	-39.9	-13.0	-26.9	
9.400	-47.1	V	3.0	54.4	37.0	1.0	-28.7	-13.0	-15.7	
High Ch, 1908.75MHz										
3.818	-54.3	H	3.0	45.3	36.7	1.0	-44.7	-13.0	-31.7	
5.726	-56.8	H	3.0	50.2	36.3	1.0	-41.9	-13.0	-28.9	
7.635	-58.3	H	3.0	53.2	36.6	1.0	-40.7	-13.0	-27.7	
9.544	-50.1	H	3.0	55.6	37.1	1.0	-30.6	-13.0	-17.6	
3.818	-53.0	V	3.0	45.2	36.7	1.0	-43.5	-13.0	-30.5	
5.726	-54.7	V	3.0	49.5	36.3	1.0	-40.5	-13.0	-27.5	
7.635	-54.0	V	3.0	52.1	36.6	1.0	-37.5	-13.0	-24.5	
9.544	-50.5	V	3.0	54.6	37.1	1.0	-32.0	-13.0	-19.0	
Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.										