FCC CFR47 PART 22 SUBPART H
FCC CFR47 PART 24 SUBPART E
INDUSTRY CANADA RSS-132 ISSUE 2
INDUSTRY CANADA RSS-133 ISSUE 5

CERTIFICATION TEST REPORT

FOR

CDMA/1x EVDO Phone with 802.11b/g and Bluetooth

MODEL NUMBER: P121EWW

FCC ID: O8F-PIXEW
IC: 39Ø5A-PIXEW

REPORT NUMBER: 09U12852-3, Revision A
ISSUE DATE: NOVEMBER 12, 2009

Prepared for

PALM
950 MAUDE AVENUE
SUNNYVALE, CA 94085, U.S.A.

Prepared by

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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
---	11/09/09	Initial Issue	T. Chan
A	11/12/09	Revised FCC ID	A. Zaffar

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: PALM
950 MAUDE AVENUE
SUNNYVALE, CA 94085, U.S.A.

EUT DESCRIPTION: CDMA/1x EVDO Phone with 802.11b/g and Bluetooth

MODEL: P121EWW

SERIAL NUMBER: PD2CV9J94451

DATE TESTED: October 20 - November 02, 2009

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
FCC PART 22H and 24E	Pass
IC RSS-132 ISSUE 2 and RSS-133 ISSUE 5	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:

THU CHAN
EMC MANAGER
COMPLIANCE CERTIFICATION SERVICES

Tested By:

CHIN PANG
EMC ENGINEER
COMPLIANCE CERTIFICATION SERVICES

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, FCC CFR Part 24, RSS-132 Issue 2, and RSS-133 Issue 5.

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:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)

36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 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

CDMA/1x EVDO Phone with 802.11b/g and Bluetooth.

GENERAL INFORMATION

Power Requirements	100-240 VAC / 50-60 Hz
List of frequencies generated or used by the EUT	600MHz

ACCESSORIES

The EUT was constructed and using the following accessories:

Accessories Description	Manufacturer/ Trademark	Part Number
AC Power Adapter source #1 Input Rating: 100–240 Vac, 50/60Hz, 0.2A Output Rating: 5Vdc, 1000mA	Palm	157-10130-00
AC Power Adapter source #2 Input Rating: 100–240 Vac, 50/60Hz, 0.2A Output Rating: 5Vdc, 1000mA	Palm	157-10124-00
Inductive Charging Dock Input Rating: 5Vdc, 1000mA	Palm	157-10123-00
Battery source #1 (Cell Origin Japan) Type: Rechargeable Li-ion Polymer Rating: 3.7Vdc, 1150mAh (minimum)	Palm	157-10119-00
Battery source #2 (Cell Origin Korea) Type: Rechargeable Li-ion Polymer Rating: 3.7Vdc, 1150mAh (minimum)	Palm	157-10119-00
Wired Stereo Headset	Palm	180-10632-00
USB cable	Palm	180-10647-00

5.2. TEST CONFIGURATIONS

The following configurations were investigated during RF testing:

Configuration	Description	Mode
1	EUT (for RF conducted test)	Stand alone
2	EUT (Standard backcover for RF radiated test)	Stand alone
3	EUT (Inductive backcover for RF radiated test)	Stand alone

The following configurations were investigated during radiated emission and power line conducted emission testing:

AC Power Adapter Source #1 Part Number: 157-10130-00

Configuration	Description	Mode
4	EUT(Standard backcover) powered by AC adapter	Charging
5	EUT(Inductive backcover) powered by AC adapter	Charging
6	EUT(Inductive backcover) powered by Inductive Charging Dock. Note: Inductive charging dock connected to AC adapter.	Charging

AC Power Adapter Source #2 Part Number: 157-10124-00

Configuration	Description	Mode
7	EUT(Standard backcover) powered by AC adapter	Charging
8	EUT(Inductive backcover) powered by AC adapter	Charging
9	EUT (Inductive backcover) powered by Inductive Charging Dock. Note: Inductive Charging Dock connected to AC adapter.	Charging

Configuration	Description	Mode
10	EUT(Standard backcover) powered by PC through USB cable	Charging
11	EUT(Inductive backcover) powered by PC through USB cable	Charging

5.3. MAXIMUM OUTPUT POWER

The transmitter has a maximum output power as follows:

Part 22 Cellular Band

Frequency range (MHz)	Modulation	Conducted		ERP (Standard Cover)		ERP (Inductive Cover)	
		dBm	mW	dBm	mW	dBm	mW
824.7 – 848.31	1xRTT (RC1, SO55)	28.80	758.6	28.2	660.7	26.8	478.6
824.7 – 848.31	EV-DO - REV A	28.82	762.1	27.8	602.6	28.0	631.0

Part 24 PCS Band

Frequency range (MHz)	Modulation	Conducted		EIRP(Standard Cover)		EIRP(Inductive Cover)	
		dBm	mW	dBm	mW	dBm	mW
1851.25 – 1908.8	1xRTT (RC1, SO55)	28.50	707.9	28.8	758.6	28.0	631.0
1851.25 – 1908.8	EV-DO - REV A	27.38	547.0	29.1	812.8	29.1	812.8

5.4. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an integral antenna for the 900MHz and 1800MHz bands with a maximum peak gain of 0.2 dBi for cell band and 0.6dBi for PCS band.

5.5. SOFTWARE AND FIRMWARE

The EUT is linked with Agilent Communication Test Set.

5.6. WORST-CASE CONFIGURATION AND MODE

The worst-case channel for RF radiated emissions below 1GHz and AC conducted emissions are determined as the channel with the AC Power Adapter Source #1 Part Number: 157-10130-00 / 157-10124-00 and Configuration 1: EUT (Standard backcover) powered by AC adapter.

Based on the investigation results, the highest peak power and enhanced data rate is the worst-case scenario for all measurements.

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

The worst-case configuration has been evaluated on EUT with antenna @ Y-position for both 850MHz and 1900MHz bands by comparing the fundamental ERP / EIRP output power.

5.7. DESCRIPTION OF TEST SETUP

I/O CABLES (RF CONDUCTED TEST)

I/O CABLE LIST						
Cable No.	Port	# of Identica 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	Spectrum Analyzer	Un-shielded	1m	NA
4	RF In/Out	1	Communications Test Set	Un-shielded	1m	NA
5	Directional	1	EUT	Un-shielded	NA	NA

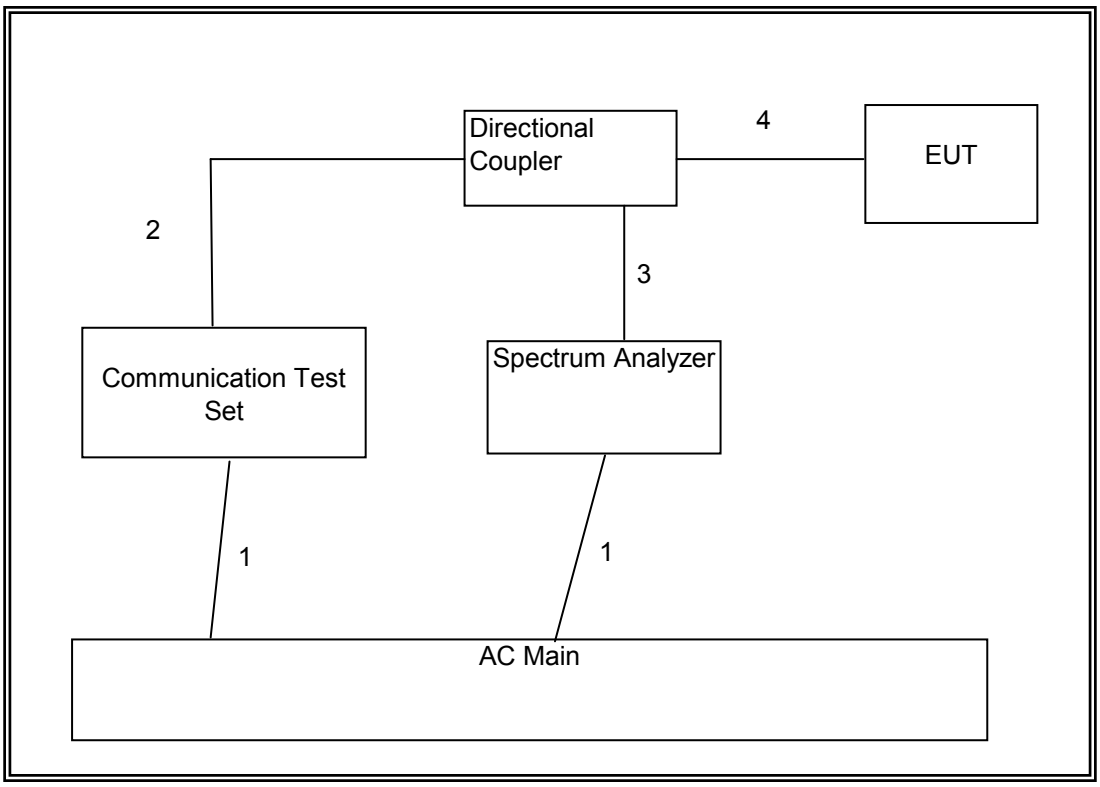
I/O CABLES (RF RADIATED TEST)

I/O CABLE LIST						
Cable No.	Port	# of Identic 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	RF In/Out	1	Horn	Un-shielded	1m	NA

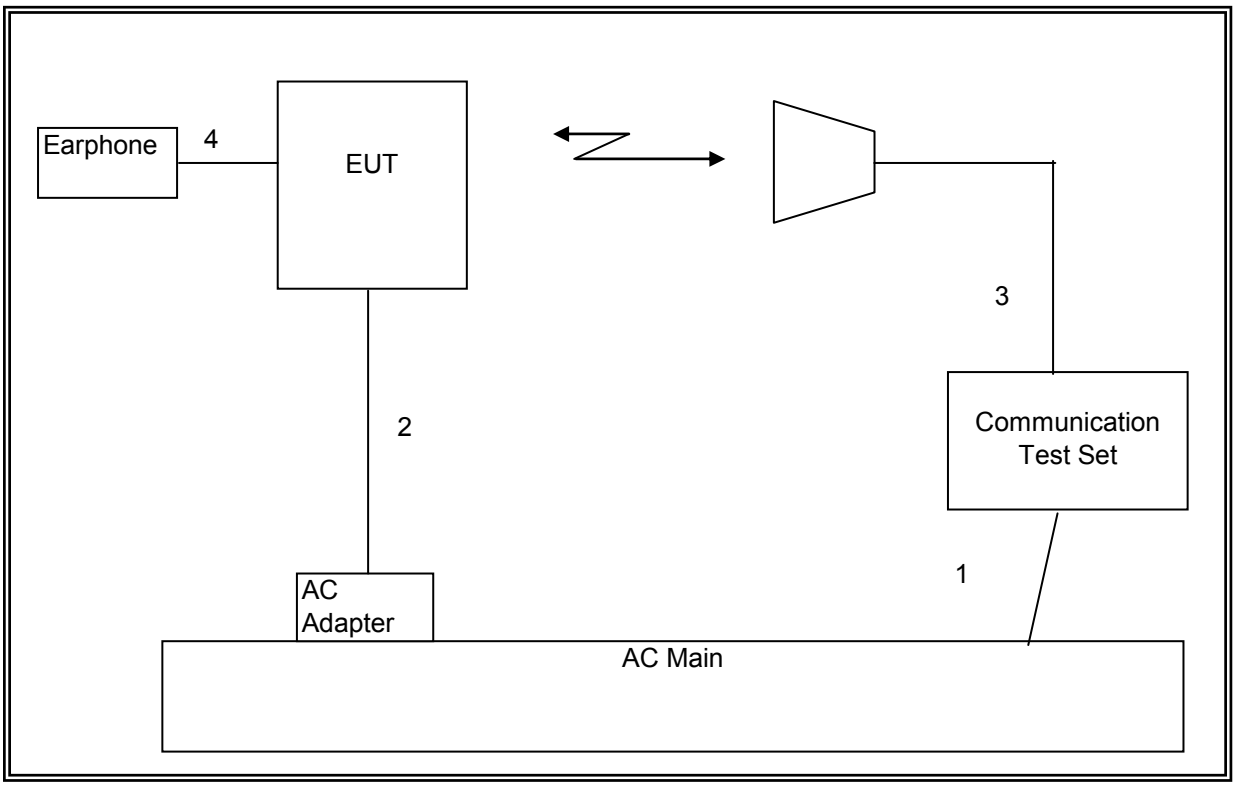
TEST SETUP

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

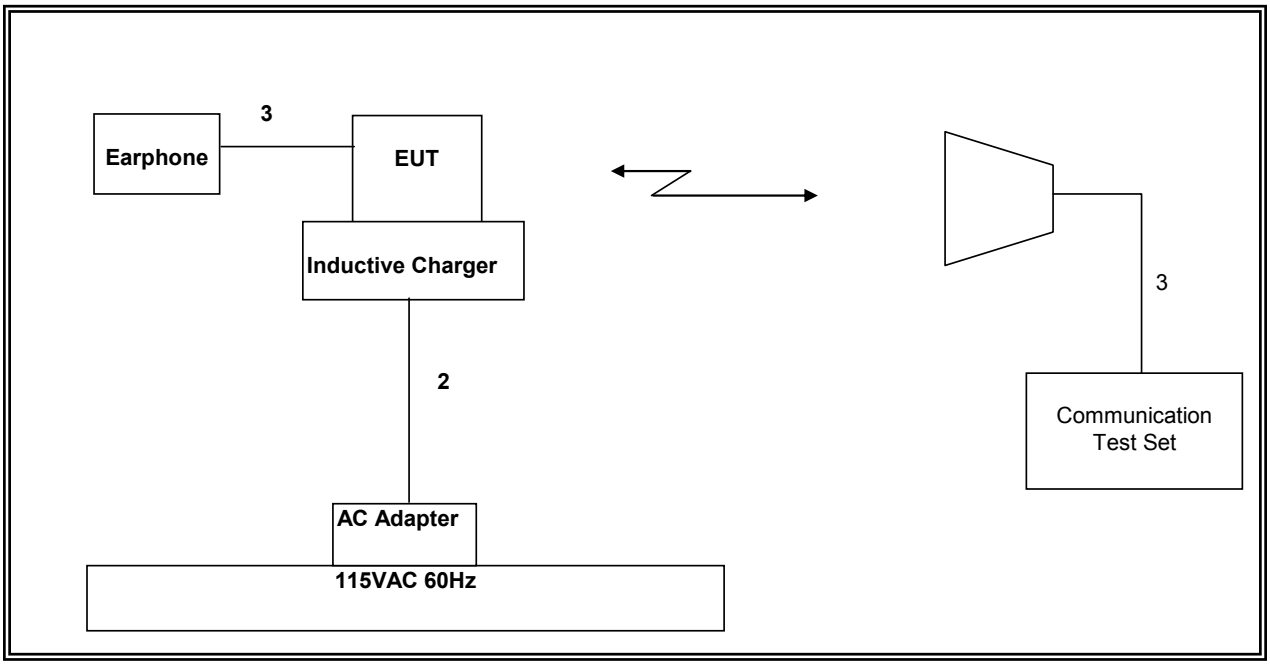
SETUP DIAGRAM FOR RF CONDUCTED TESTS



SETUP DIAGRAM FOR RF RADIATED TESTS (Standard Backcover)



SETUP DIAGRAM FOR RF RADIATED TESTS (Inductive Backcover)



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
Communication Test Set	R & S	CMU 200	C01131	02/27/11
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.

Application	Rev, License
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)	23.95	28.5	24.05	28.6	24.14	28.6
	3 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	55 (Loopback)	**24.16**	**28.8**	**24.05**	**28.8**	**24.23**	**28.8**
	68 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
RC2 (Fwd2, Rvs2)	9 (Loopback)	24.20	28.7	24.15	28.7	24.15	28.8
	17 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	55 (Loopback)	24.10	28.3	24	28.5	24.05	28.3
	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)	23.91	28.2	24.51	28.5	24.31	27.9
	3 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	55 (Loopback)	23.89	28.0	24.50	28.1	24.32	28.2
	32 (+ F-SCH)	23.92	28	24.30	28.3	24.35	28.3
	32 (+ SCH)	23.88	28	24.26	28.2	24.32	28.2
	68 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
RC4 (Fwd4, Rvs3)	1 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	2 (Loopback)	23.75	27.9	23.78	28	24	28.2
	3 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	55 (Loopback)	23.67	27.7	23.75	27.7	23.75	28.1
	32 (+ F-SCH)	23.85	28.0	23.95	28.1	24.10	28.2
	32 (+ SCH)	23.82	27.90	23.87	27.9	23.98	28.0
	68 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
RC5 (Fwd5, Rvs4)	9 (Loopback)	23.85	27.9	23.88	28.0	24.00	28.2
	17 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	55 (Loopback)	23.95	28.1	23.90	28.2	24.2	28.3
	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)	23.15	27.8	23.43	28.4	23.11	27.7
	3 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	55 (Loopback)	23.40	28.2	23.70	28.50	23.20	28
	68 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
RC2 (Fwd2, Rvs2)	9 (Loopback)	23.20	27.8	23.50	28.3	23.12	27.8
	17 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	55 (Loopback)	23.39	27.7	23.63	28.0	23.40	27.8
	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)	23.13	27.4	23.11	27.6	23.11	27.3
	3 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	55 (Loopback)	23.17	27.4	23.14	27.7	23.11	27.3
	32 (+ F-SCH)	23.18	27.6	23.18	27.8	23.19	27.4
	32 (+ SCH)	23.14	27.4	23.17	27.7	23.18	27.4
	68 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
RC4 (Fwd4, Rvs3)	1 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	2 (Loopback)	23.16	27.5	23.20	27.7	23.13	27.4
	3 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	55 (Loopback)	23.18	27.5	23.21	28.0	23.13	27.5
	32 (+ F-SCH)	23.18	27.5	23.35	27.80	23.20	27.4
	32 (+ SCH)	23.15	27.5	23.32	27.80	23.15	27.3
	68 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
RC5 (Fwd5, Rvs4)	9 (Loopback)	23.25	27.5	23.35	27.9	23.20	27.5
	17 (Voice)	n/a	n/a	n/a	n/a	n/a	n/a
	55 (Loopback)	23.25	27.5	23.23	27.80	23.17	27.5
	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.

Application	Rev, License
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 Parms:
  - 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 Parms:
  - 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	23.68	27.82
		384	836.52	23.77	28.13
		777	848.31	23.77	28.04

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	23.29	28.30
		600	1880.00	23.50	28.53
		1175	1908.75	23.38	28.22

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	23.14	28.47
		384	836.52	24.03	28.82
		777	848.31	23.80	28.34

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	23.15	27.10
		600	1880.00	23.12	27.38
		1175	1908.75	23.14	26.45

8. CONDUCTED TEST RESULTS

8.1. OCCUPIED BANDWIDTH

RULE PART(S)

FCC: §2.1049
IC: RSS-Gen, 4.6

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)

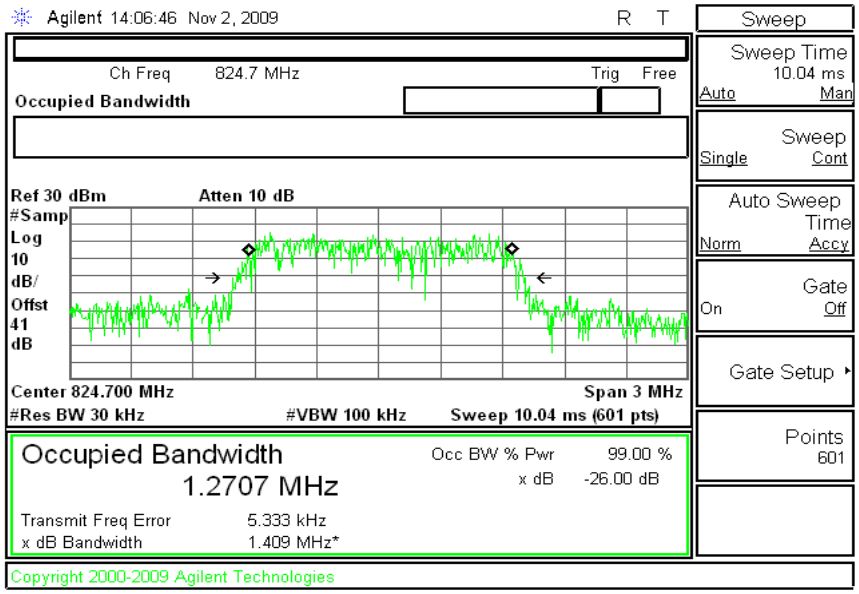
RESULTS

Band	Mode	Channel	f (MHz)	99% BW (MHz)	-26dB BW MHz)
Cellular	1xRTT	1013	824.70	1.2707	1.409
		384	836.52	1.2750	1.396
		777	848.31	1.2776	1.375
	CDMA2000 1xEV-DO Revision A (Rev. A)	1013	824.70	1.2777	1.382
		384	836.52	1.2769	1.386
		777	848.31	1.2751	1.408
PCS	1xRTT	25	1851.25	1.2727	1.391
		600	1880.0	1.2749	1.417
		1175	1908.75	1.2786	1.385
	CDMA2000 1xEV-DO Revision A (Rev. A)	25	1851.25	1.2628	1.389
		600	1880.0	1.2698	1.413
		1175	1908.75	1.2608	1.381

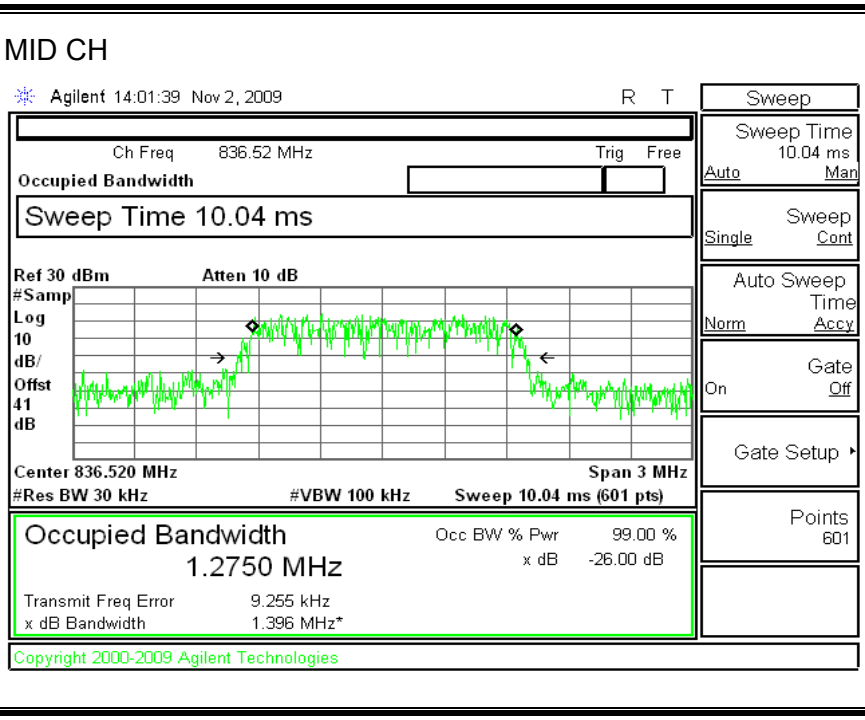
CDMA2000 1xRTT Mode (Cellular Band)

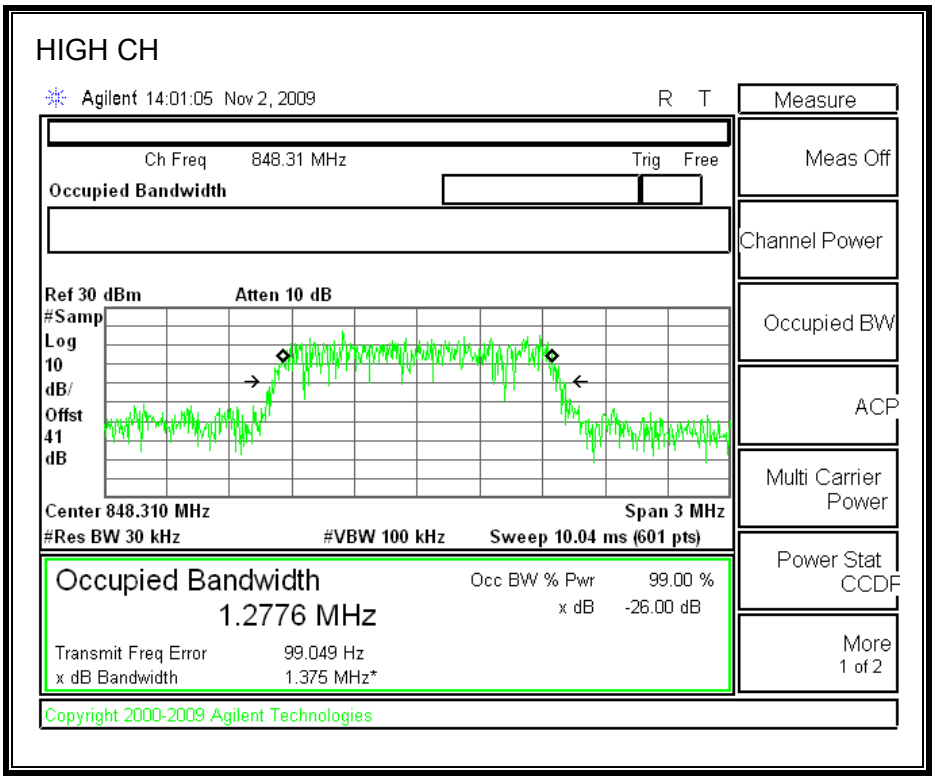
99% BANDWIDTH and 26dB

LOW CH



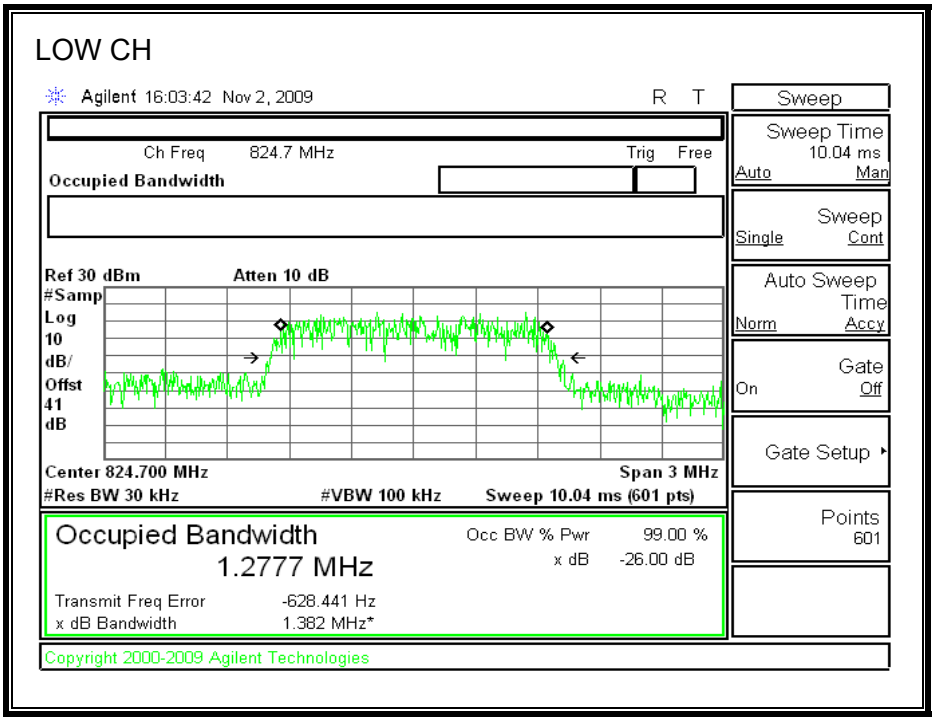
MID CH



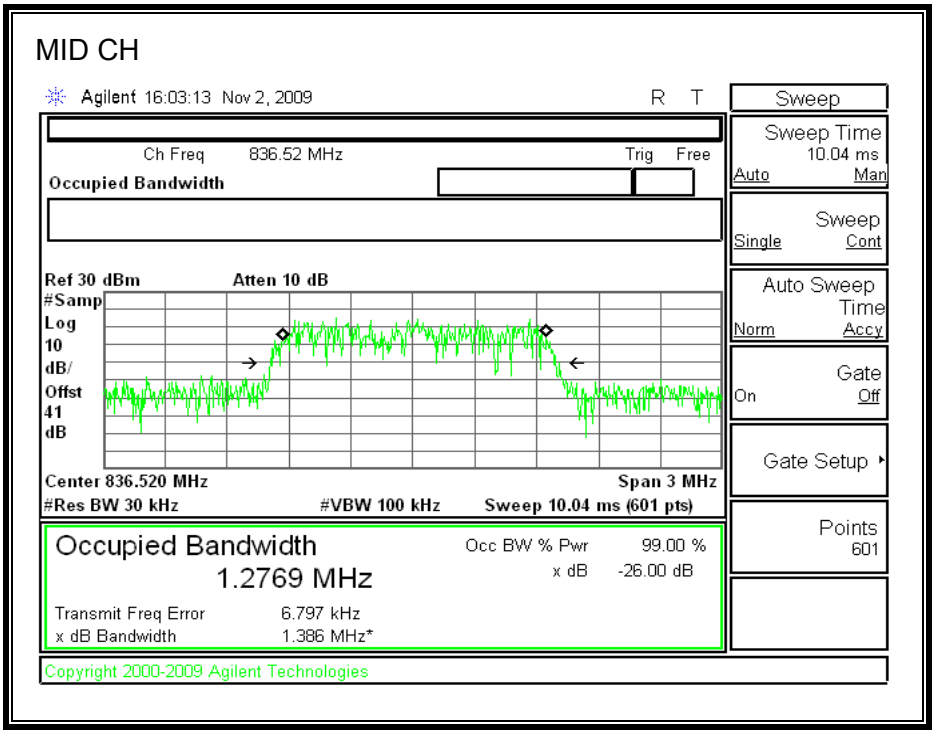


CDMA2000 1xEV-DO Revision A (Rev. A) Cellular Band

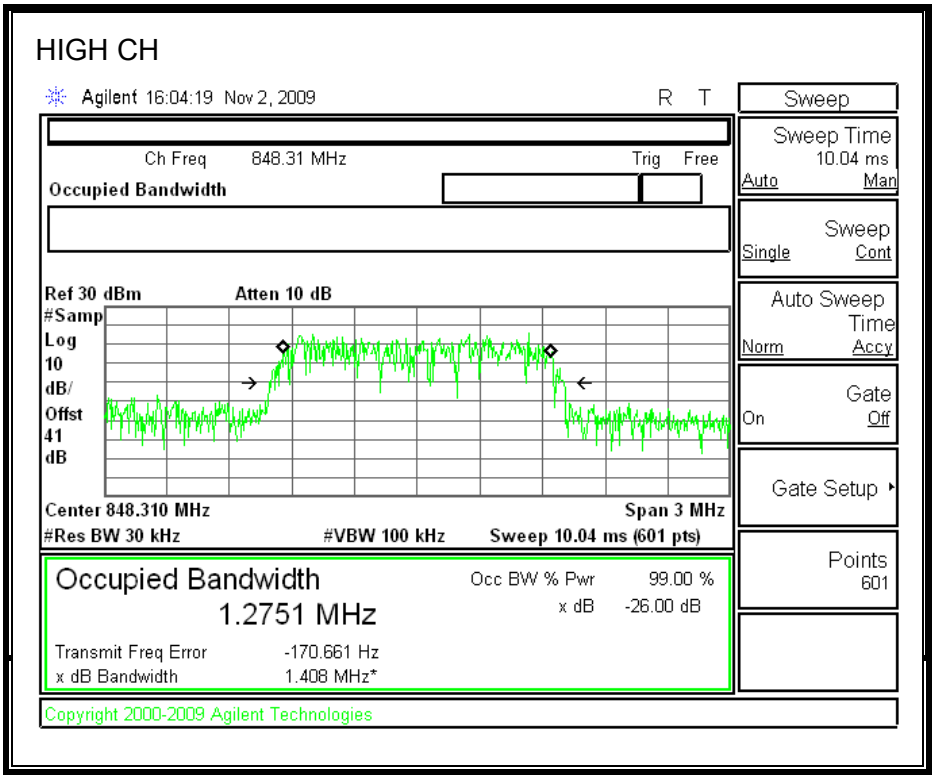
LOW CH



MID CH

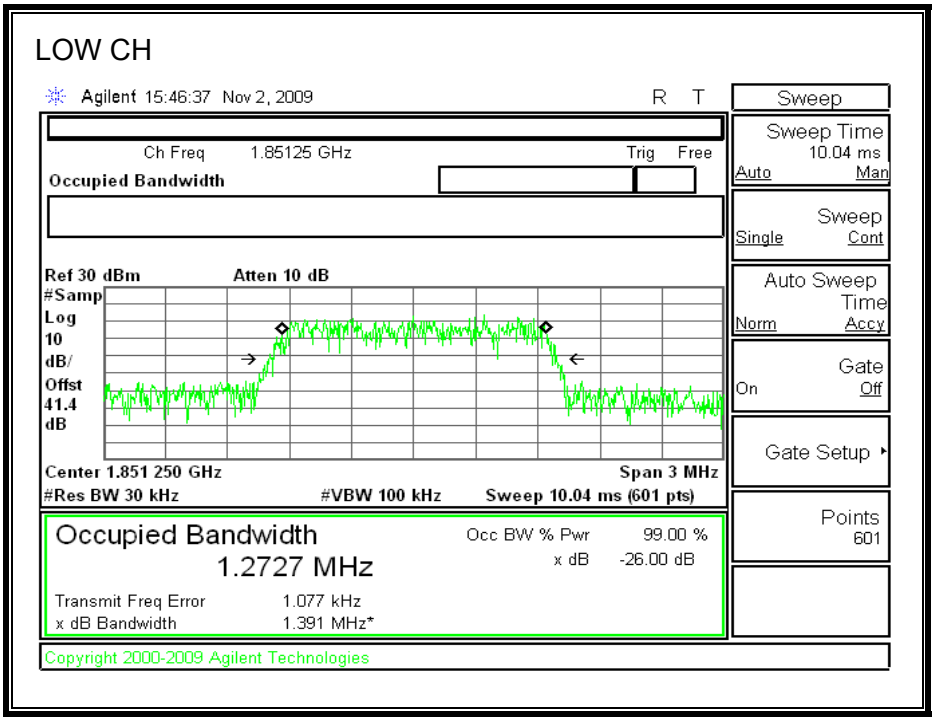


HIGH CH

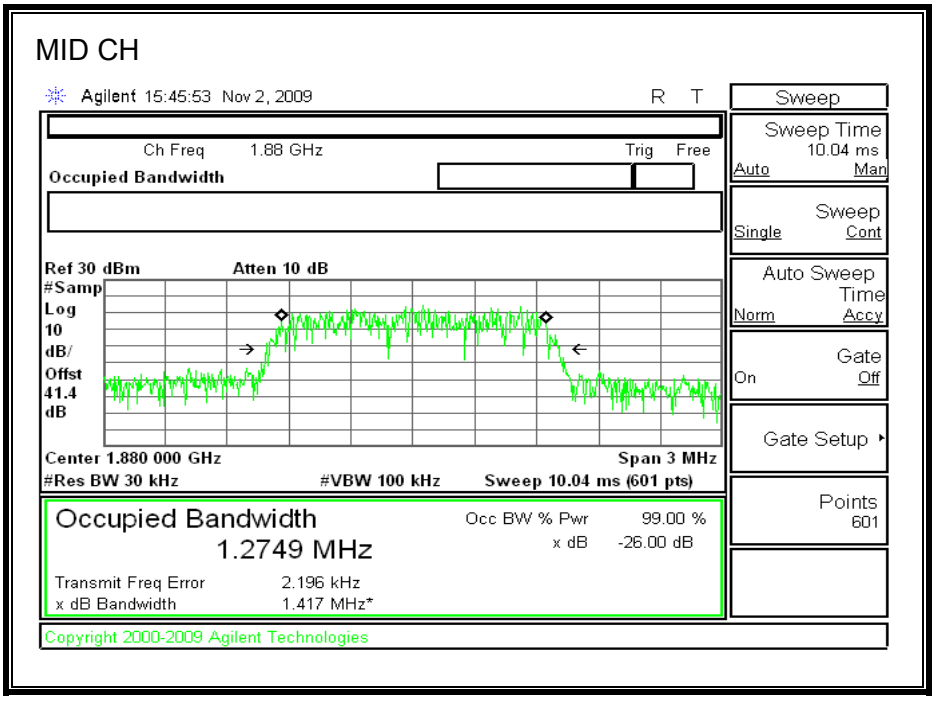


CDMA2000 1xRTT Mode (PCS Band)

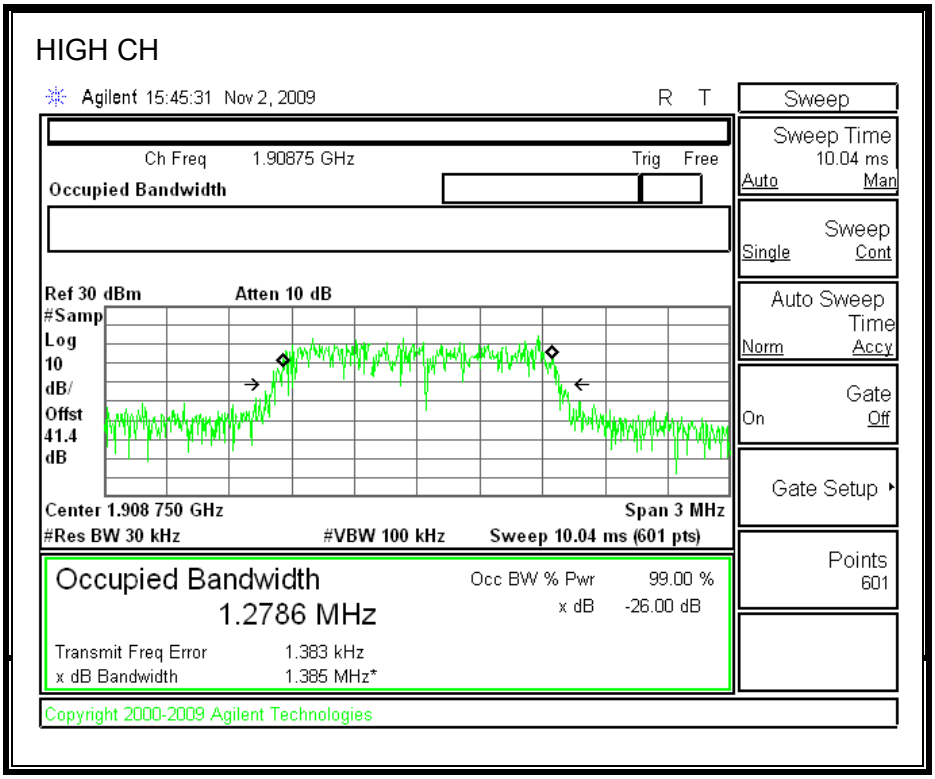
LOW CH



MID CH

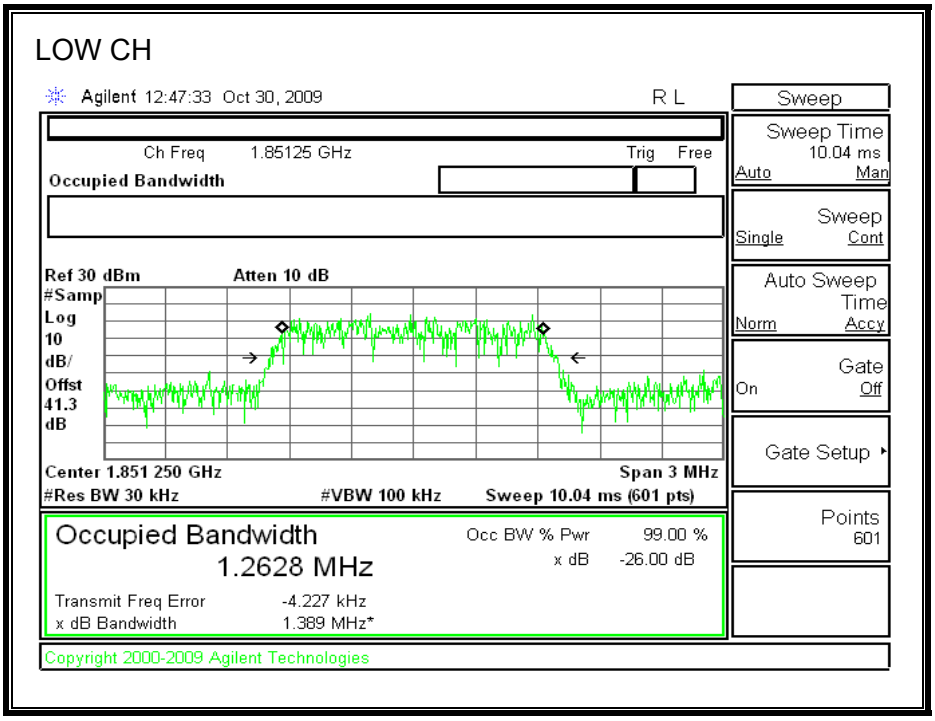


HIGH CH

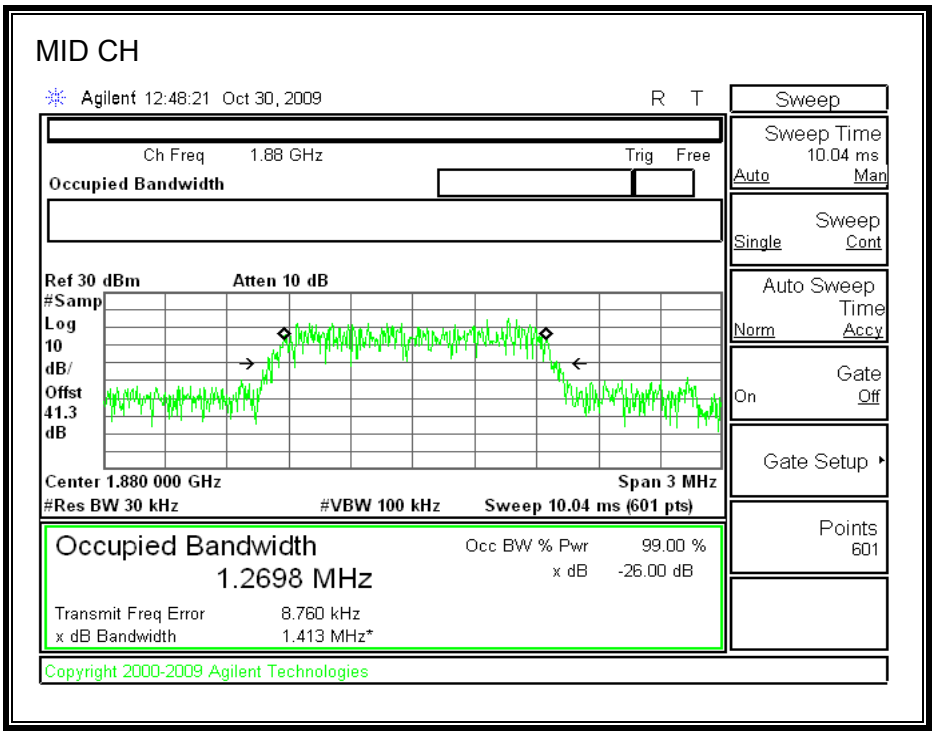


CDMA2000 1xEV-DO Revision A (Rev. A) Mode (PCS Band)

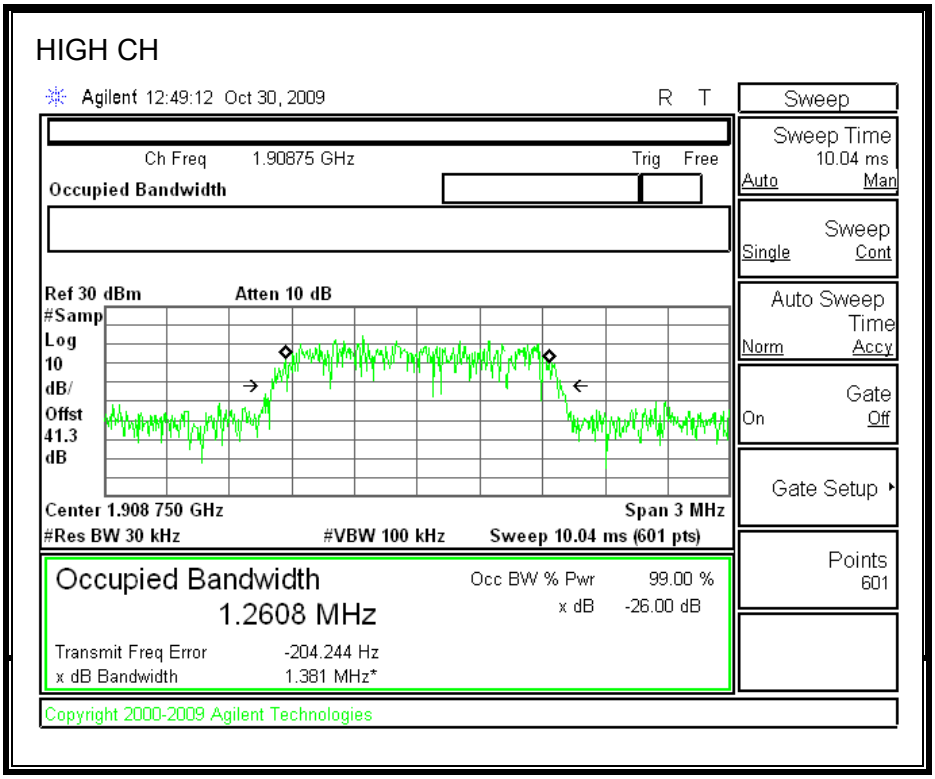
LOW CH



MID CH



HIGH CH



8.2. BAND EDGE

RULE PART(S)

FCC: §22.359, 24.238
IC: RSS-132, 4.5; RSS-133, 6.5

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 a 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.

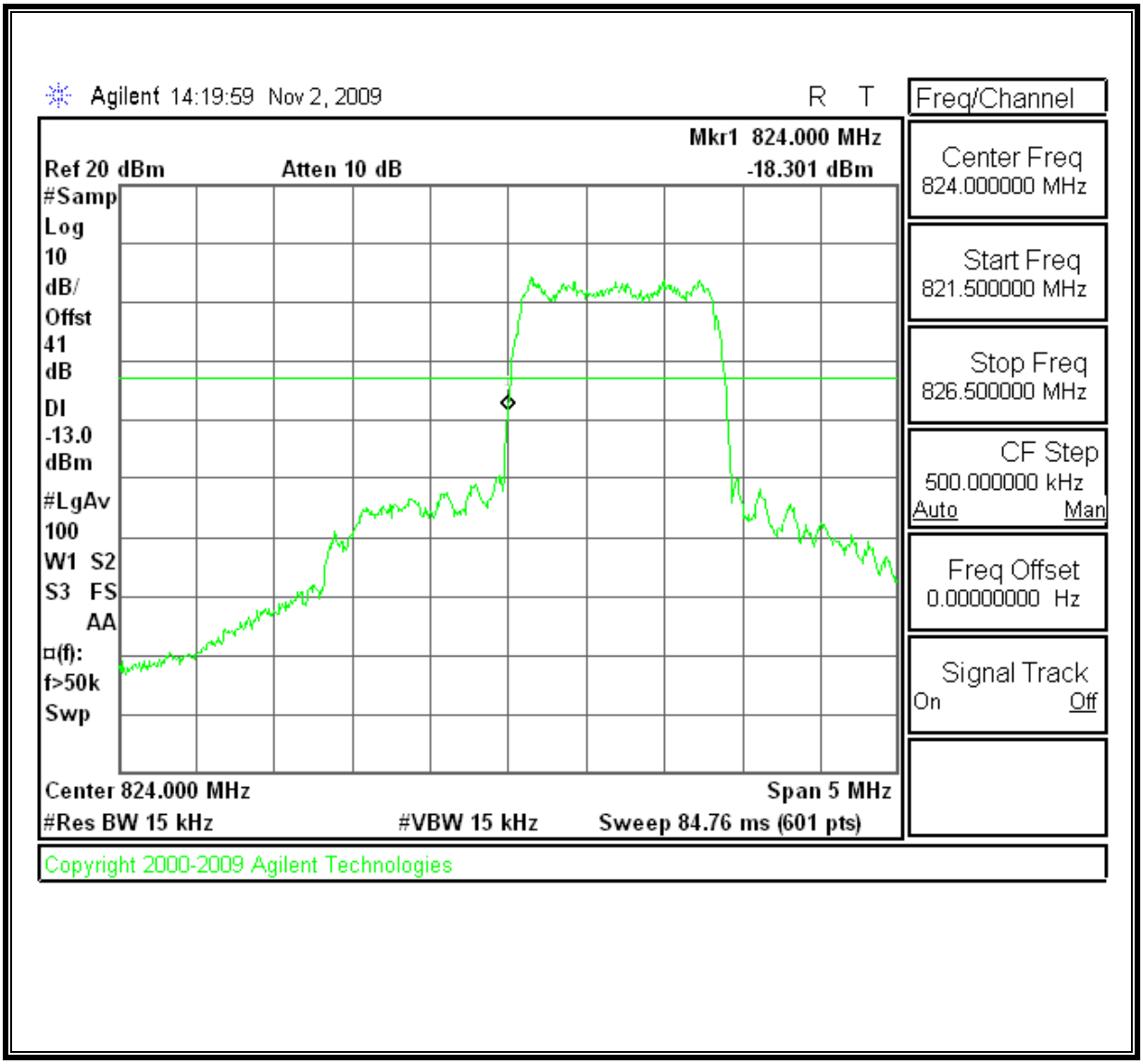
MODES TESTED

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

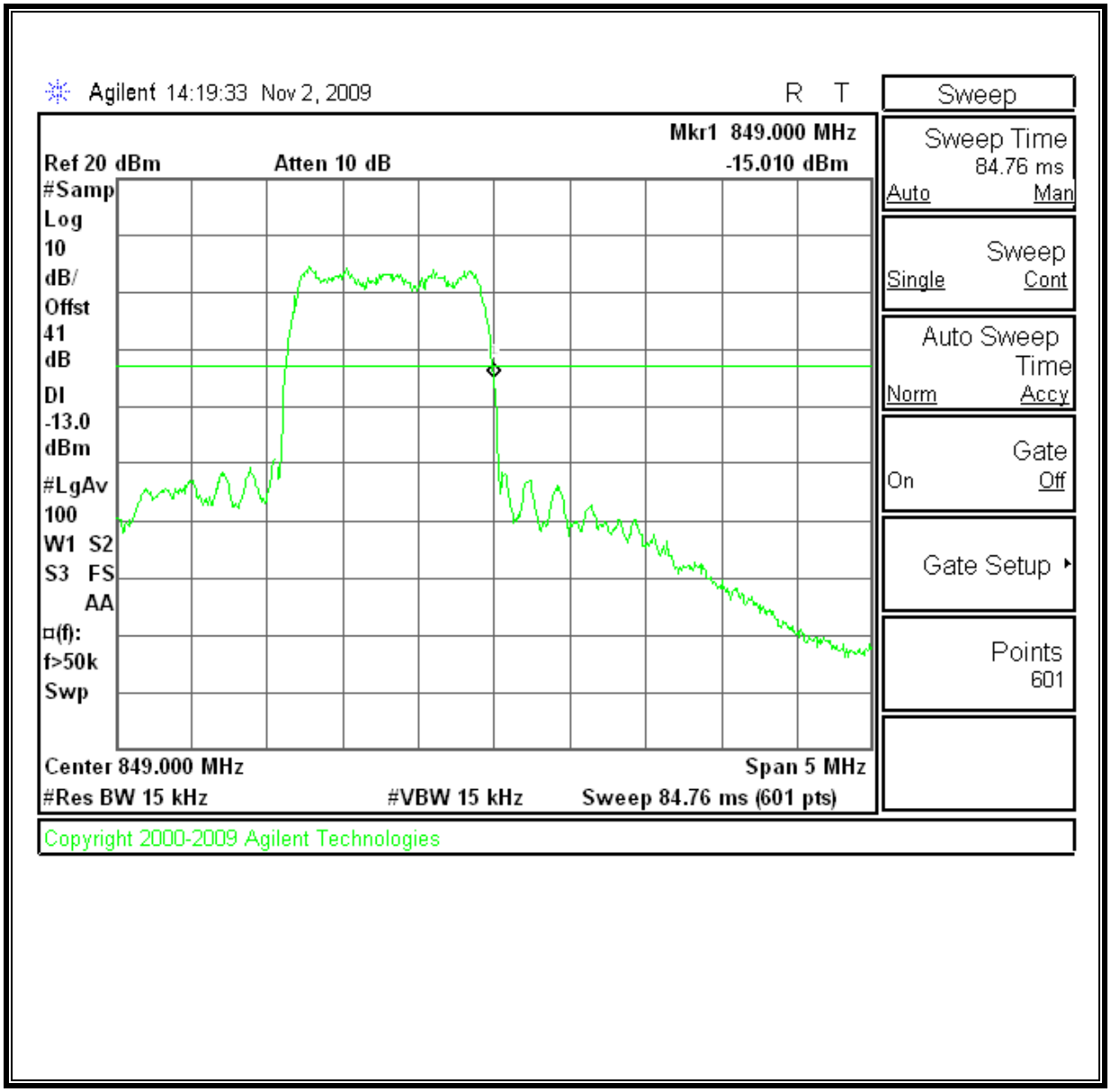
RESULTS

CDMA2000 1xRTT mode (Cellular Band)

Low Channel Band Edge

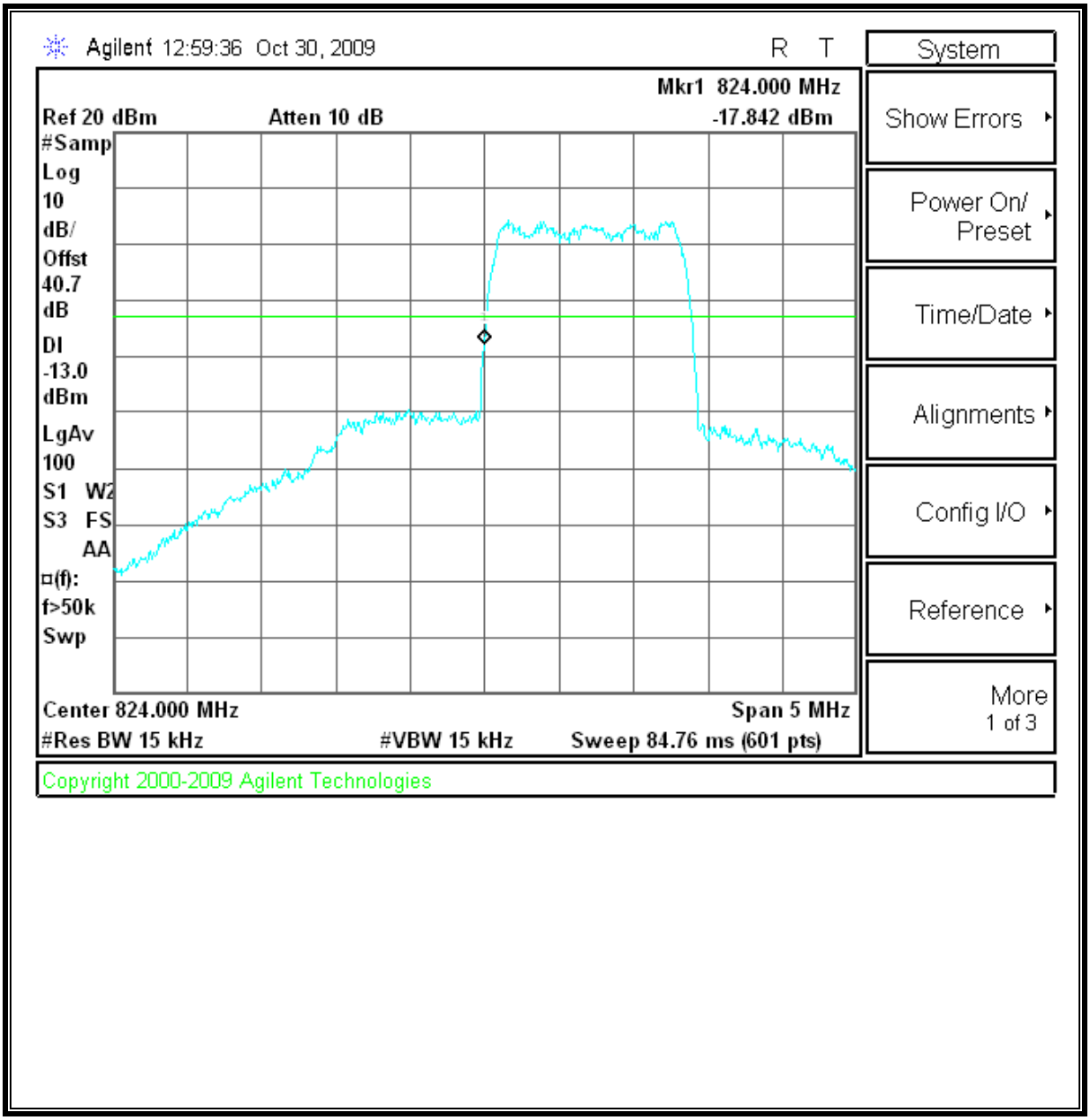


High Channel Band Edge

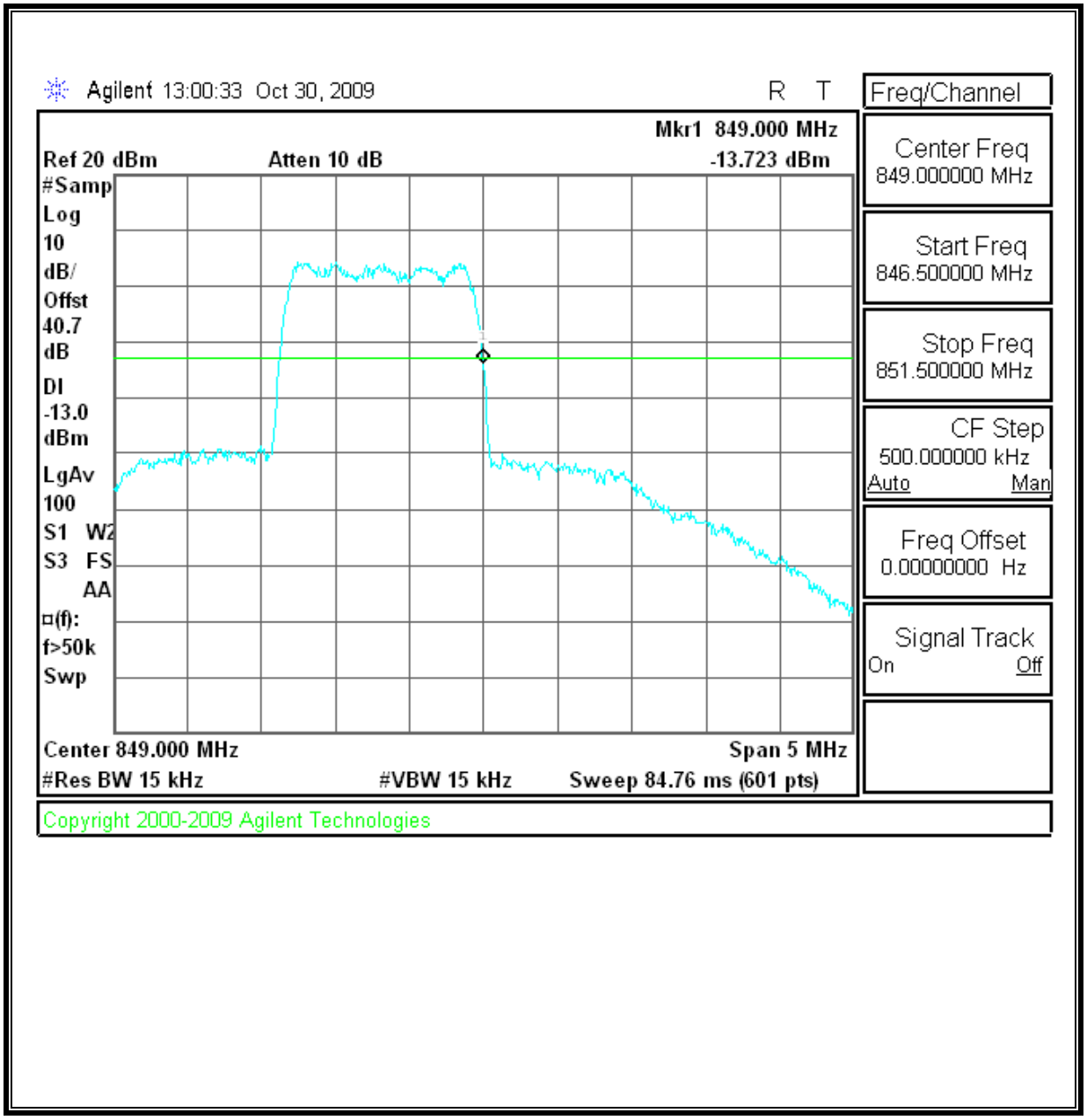


CDMA2000 1xEV-DO Revision A (Rev. A) mode (Cellular Band)

Low Channel Band Edge

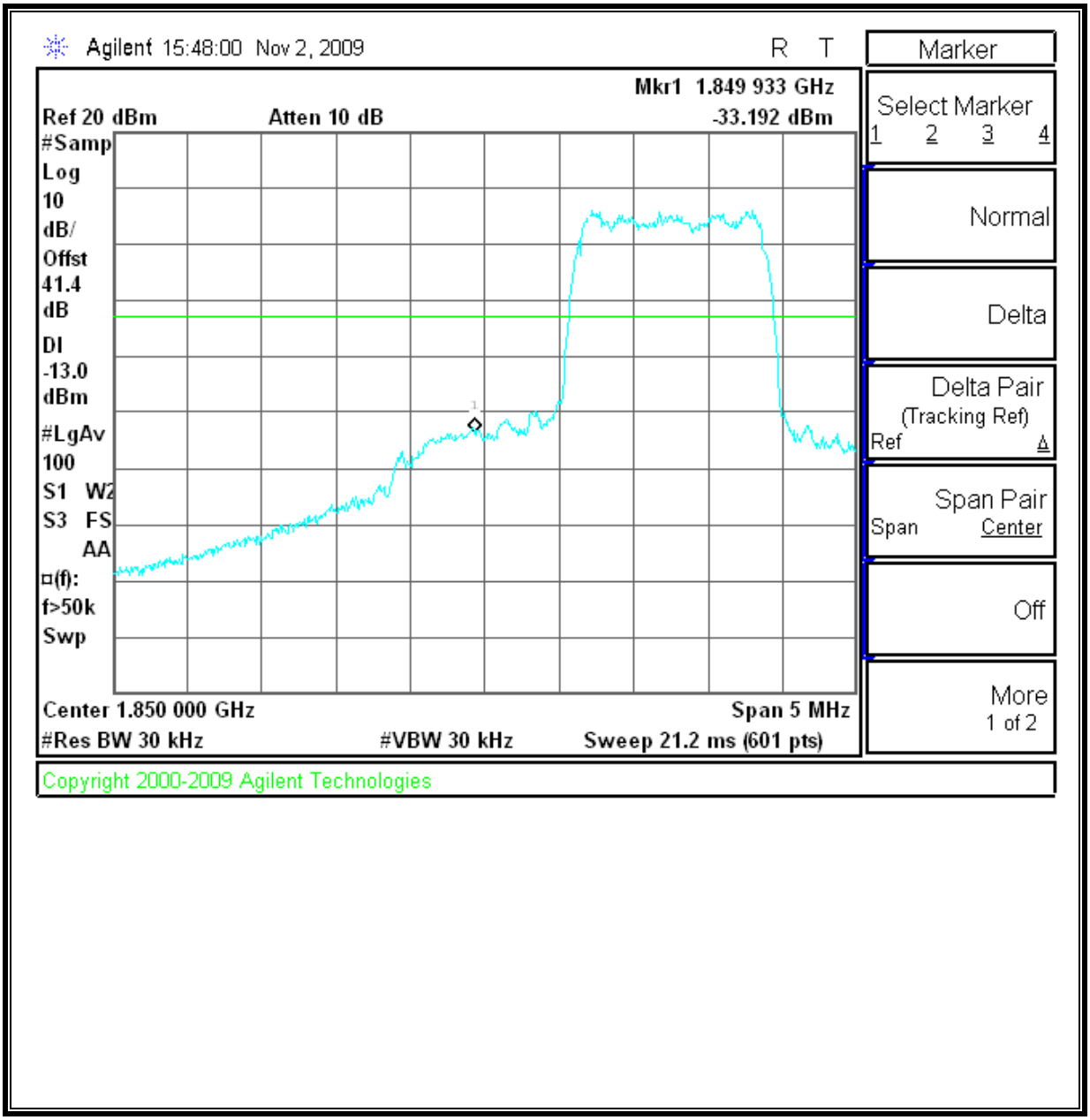


High Channel Band Edge

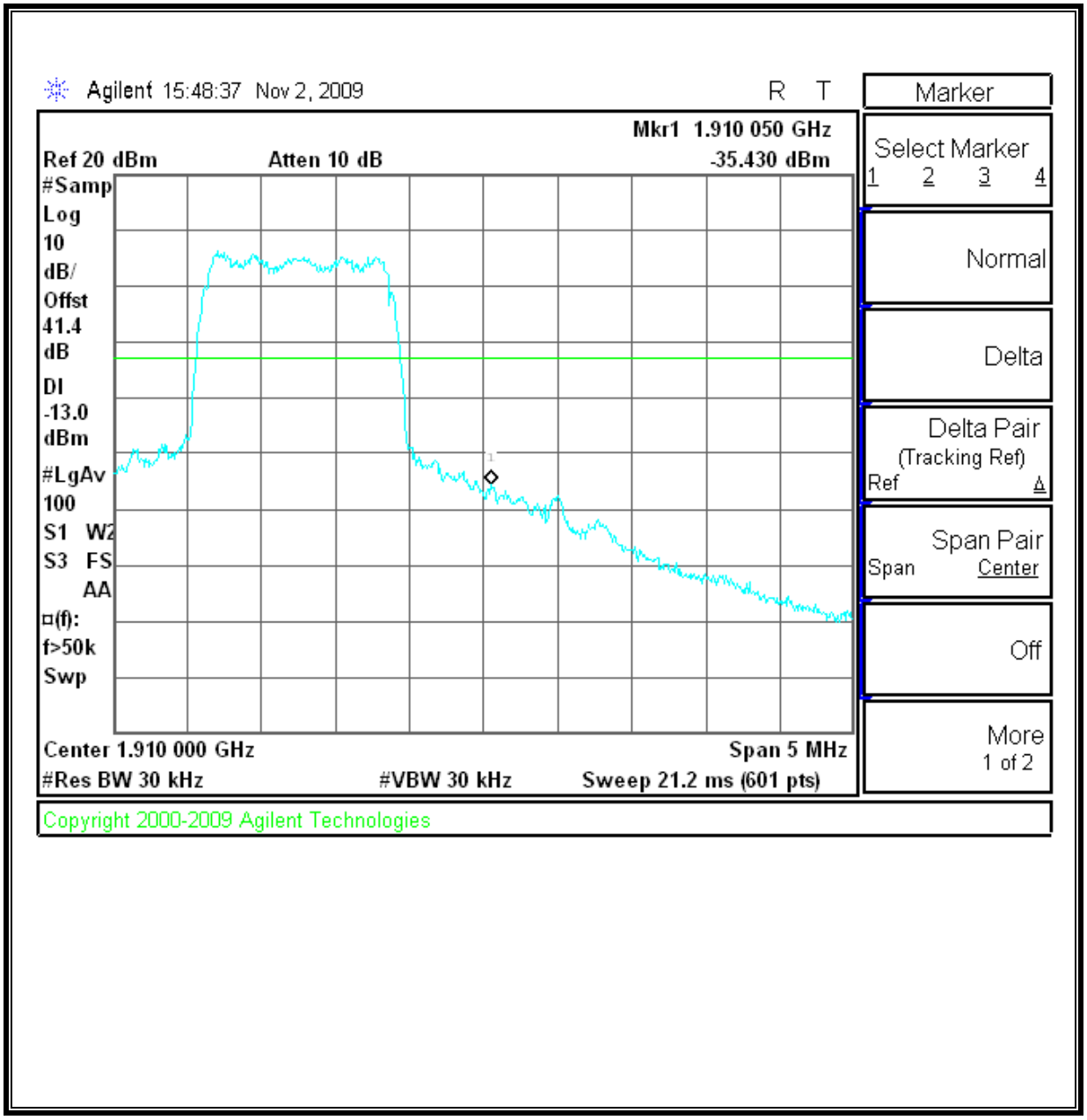


CDMA2000 1xRTT mode (PCS Band)

Low Channel Band Edge

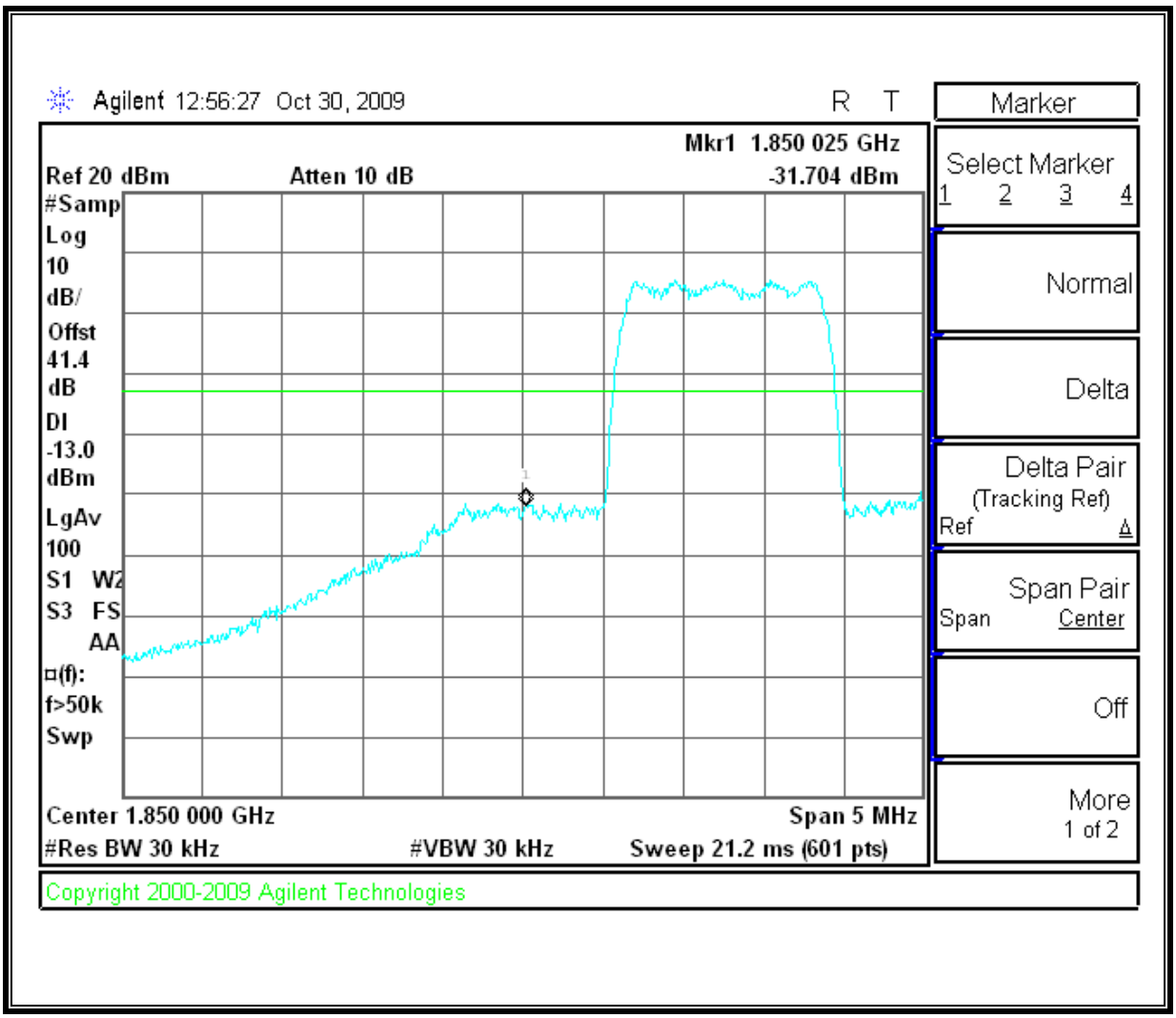


High Channel Band Edge

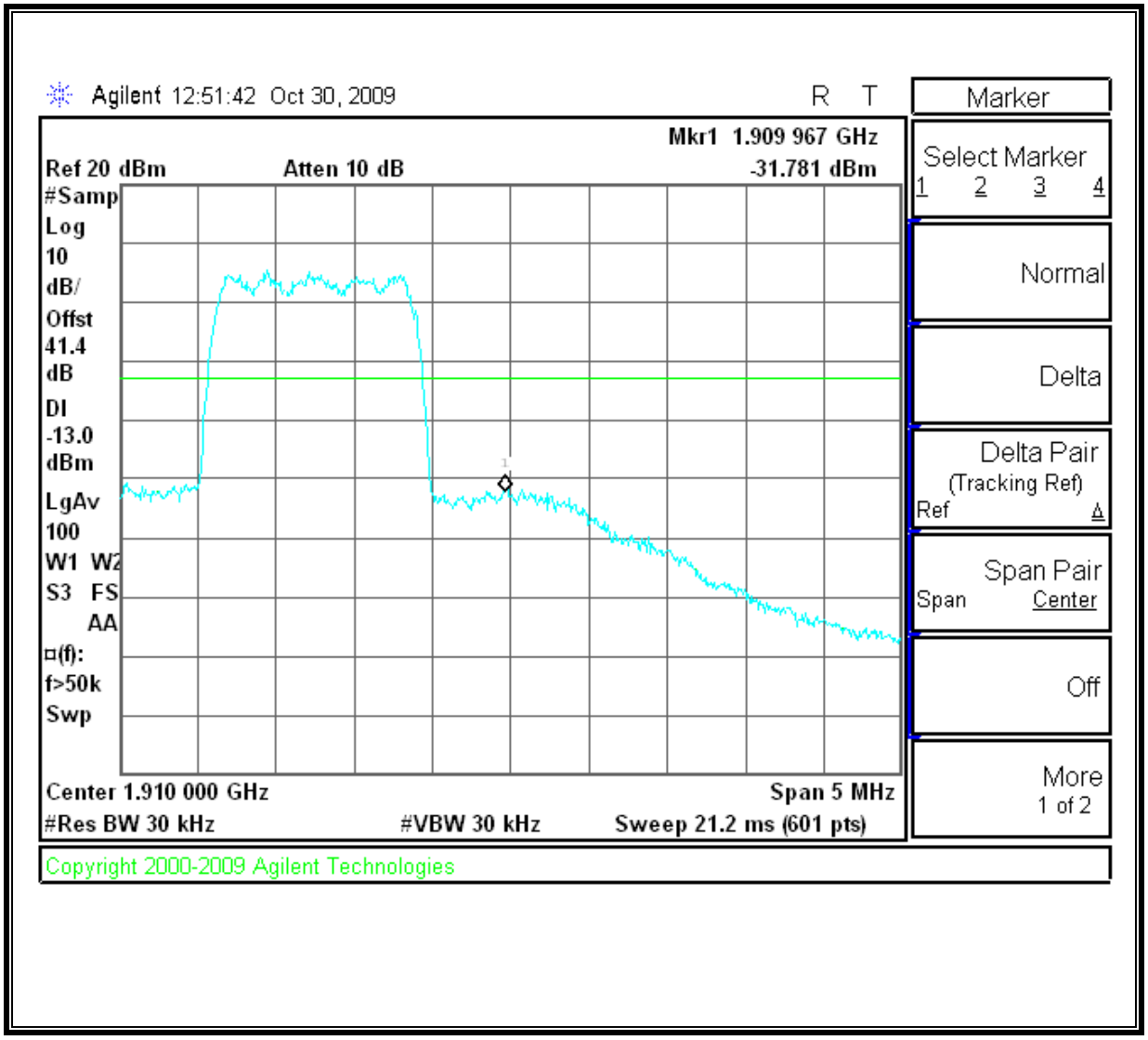


CDMA2000 1xEV-DO Revision A (Rev. A) mode (PCS Band)

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
IC: RSS-132, 4.5; RSS-133, 6.5

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.

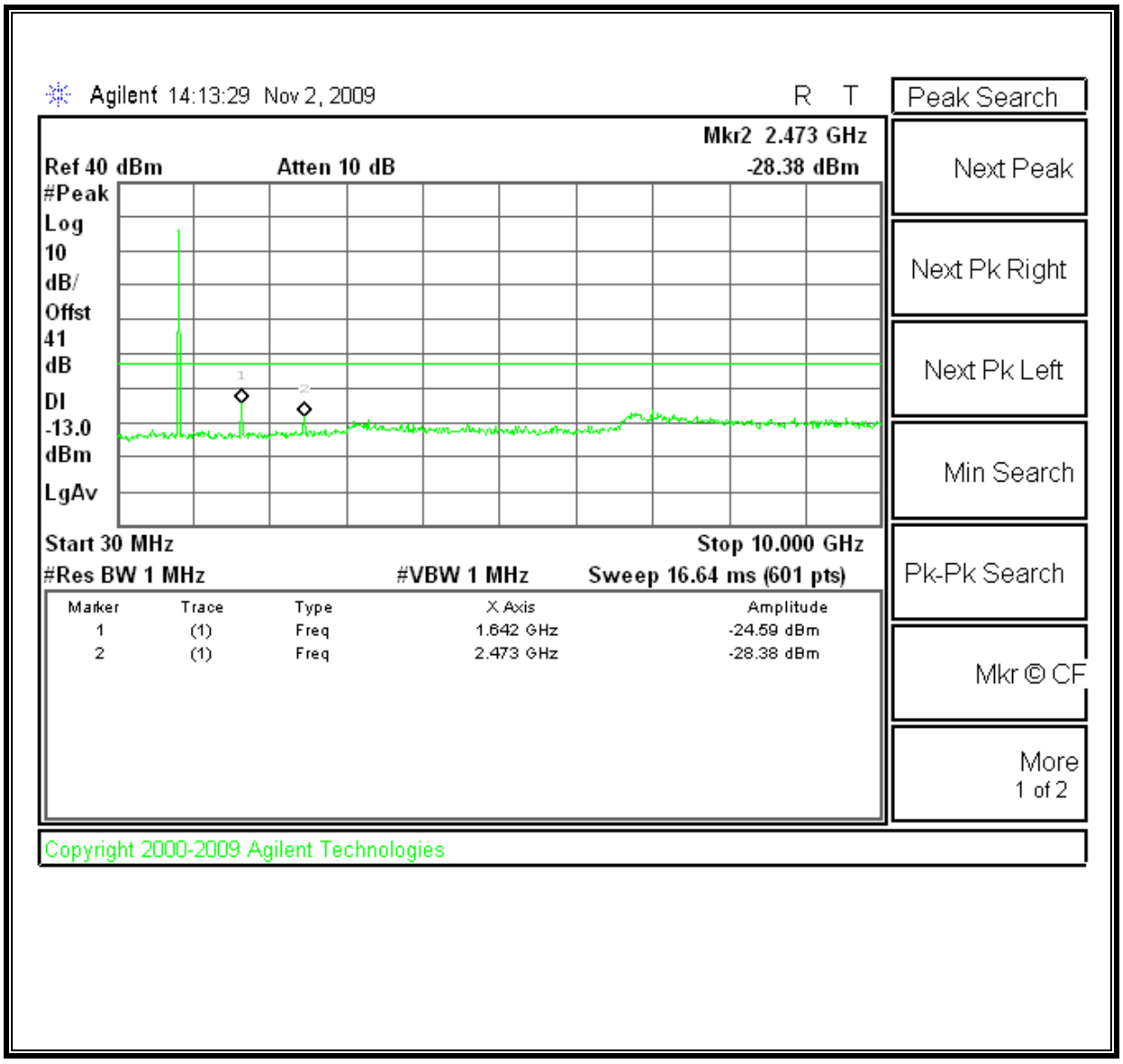
MODES TESTED

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

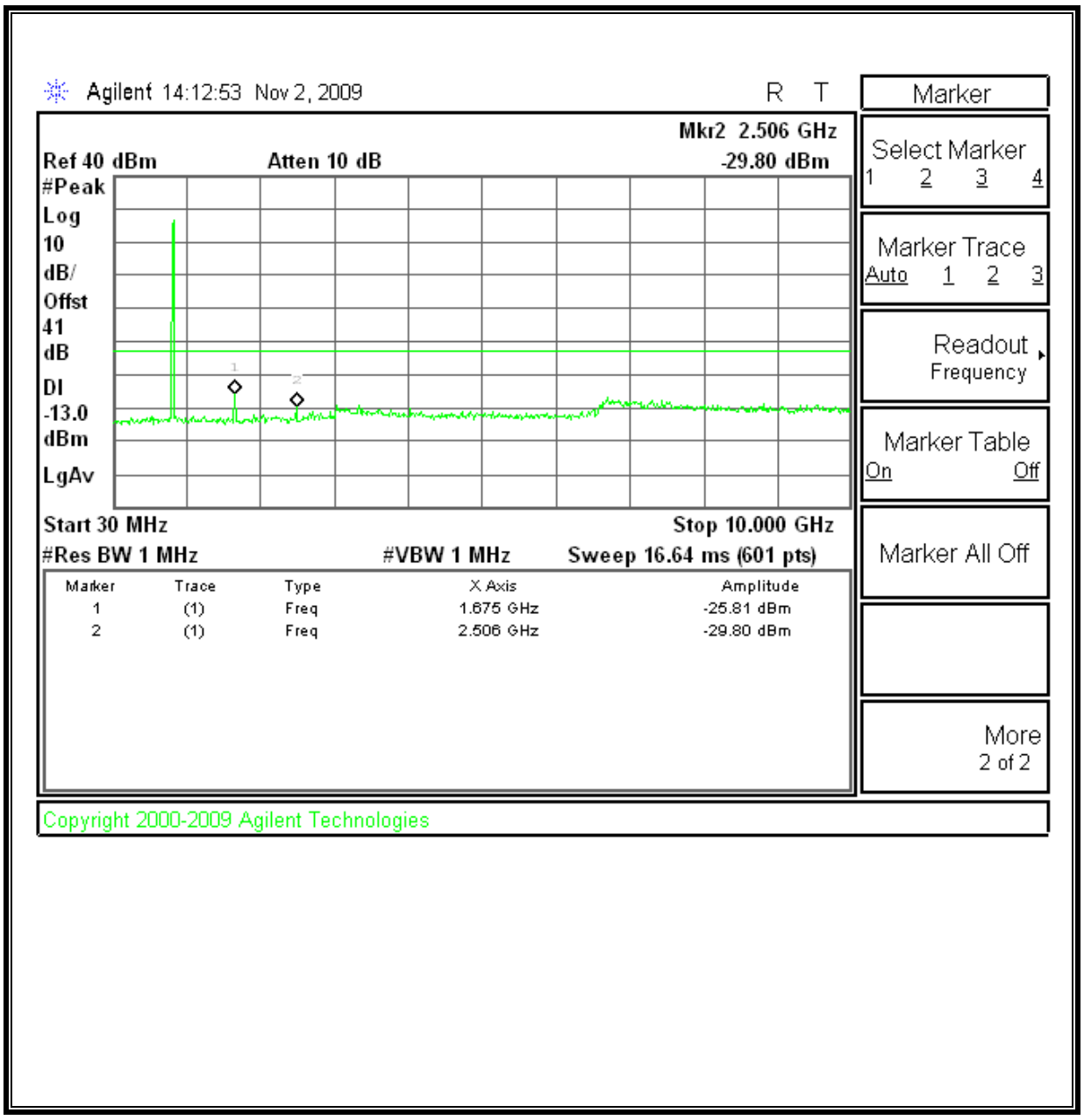
RESULTS

1xRTT Mode (Cellular Band)

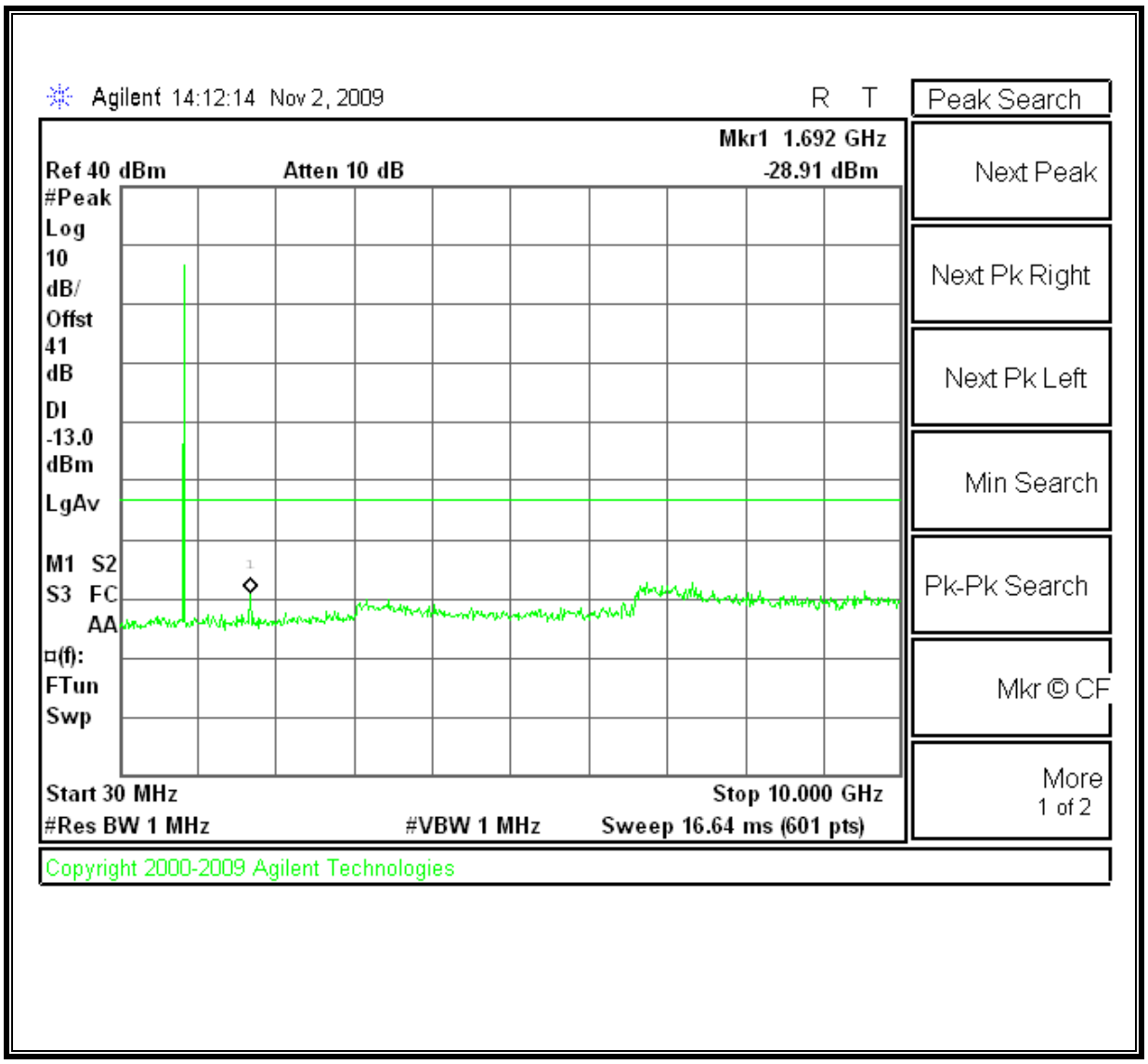
LOWCHANNEL



MID CHANNEL

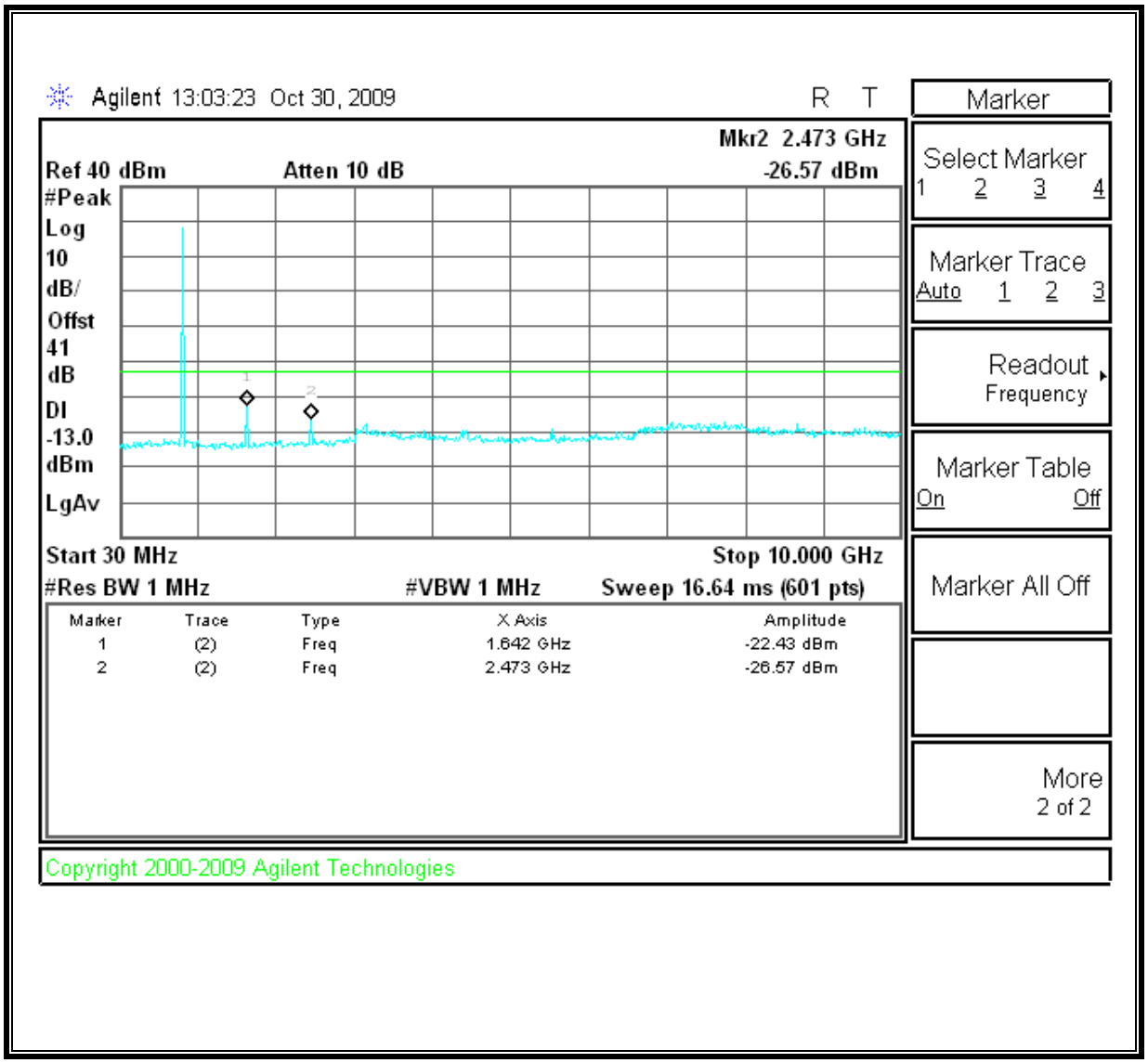


High Channel

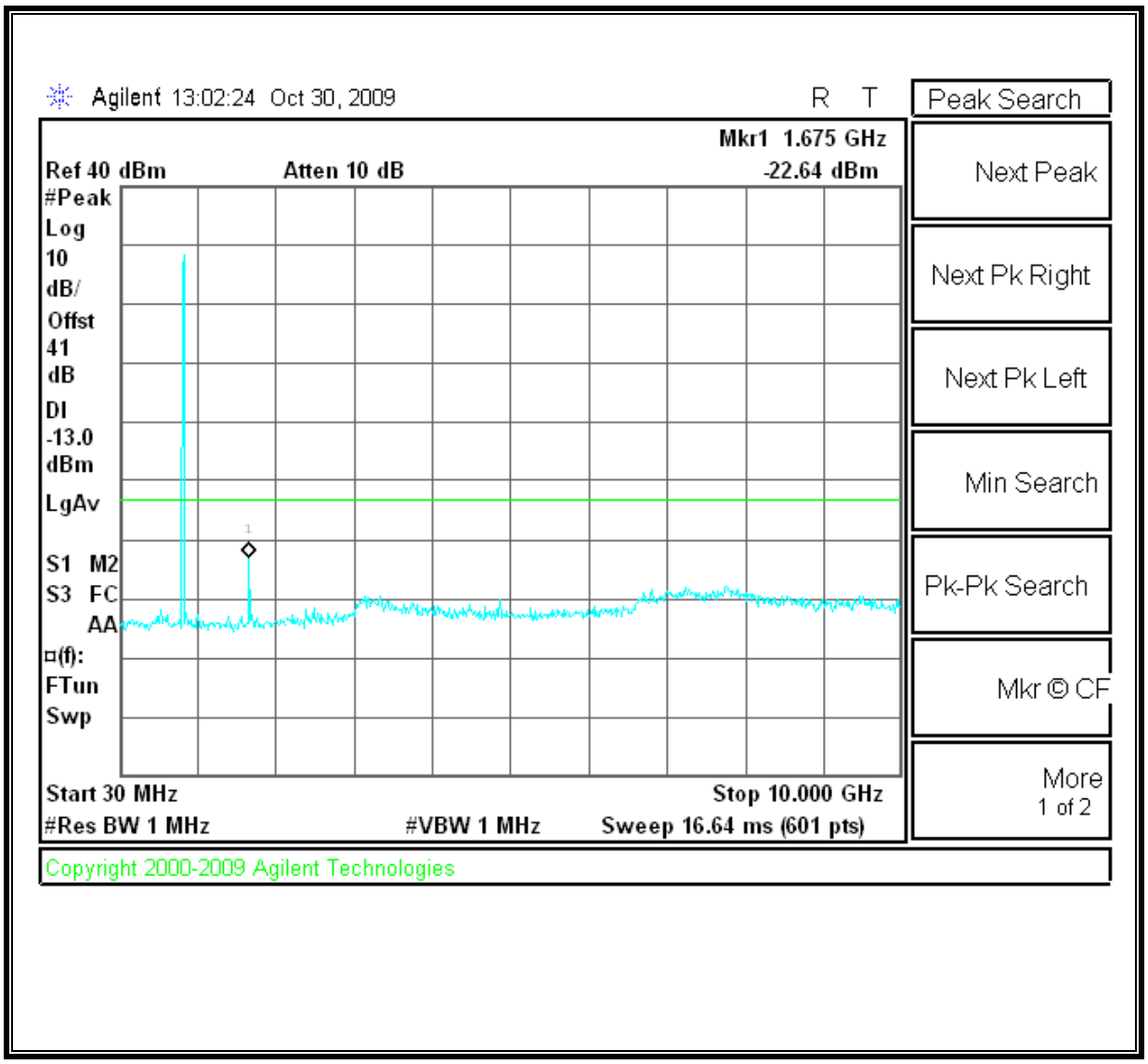


CDMA2000 1xEV-DO Revision A (Rev. A) Mode (Cellular Band)

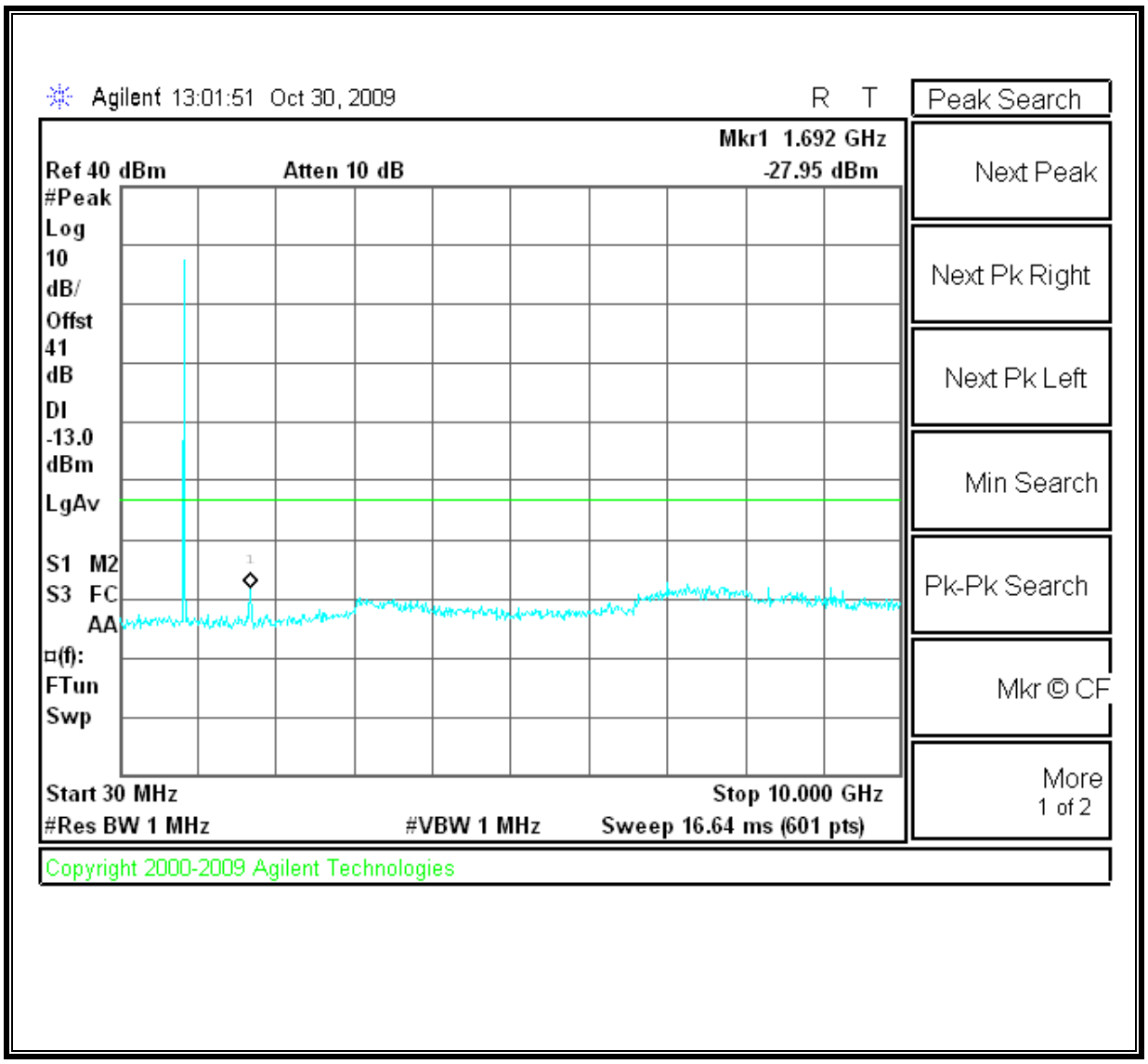
LOW CHANNEL



MID CHANNEL

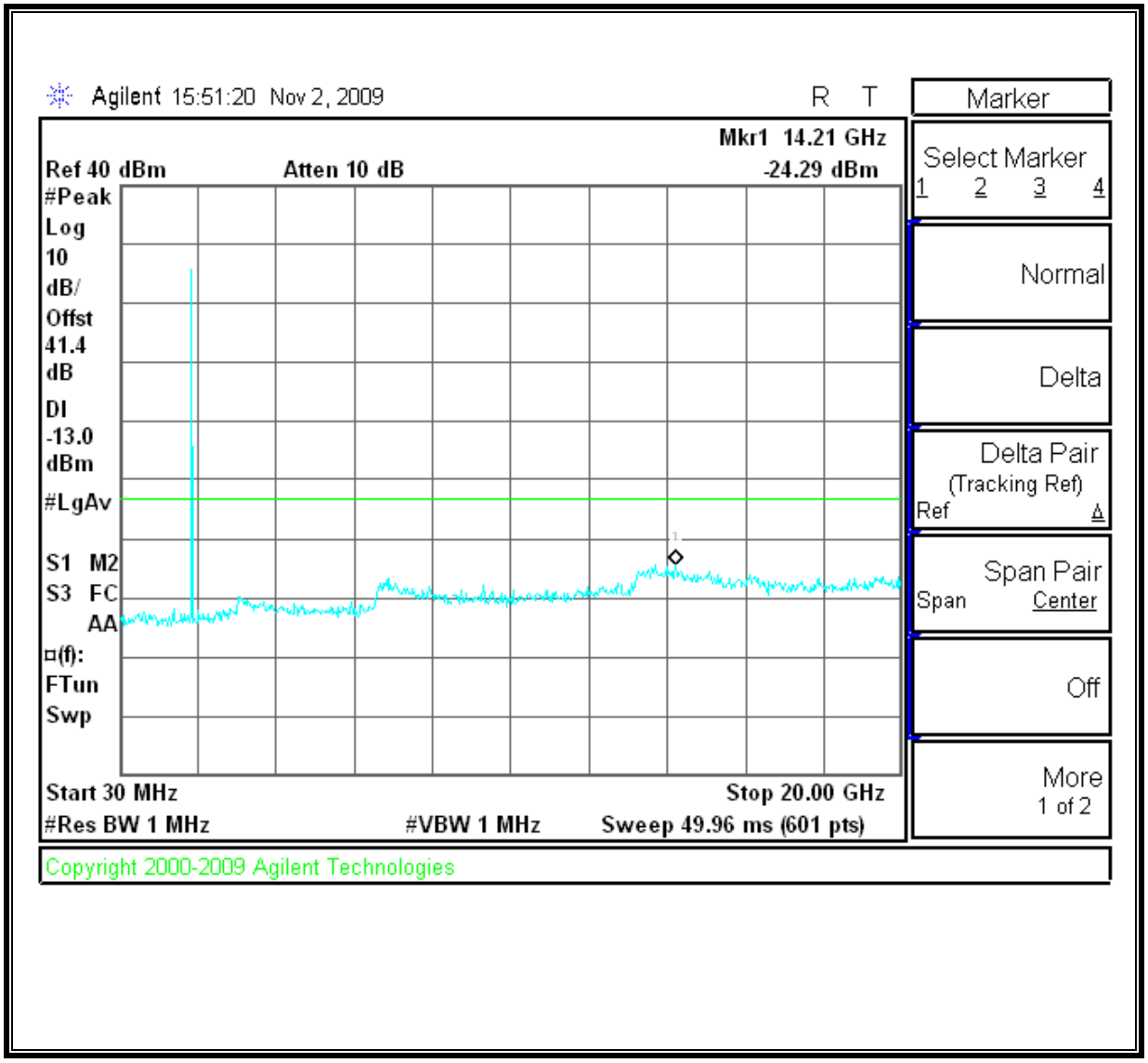


HIGH CHANNEL

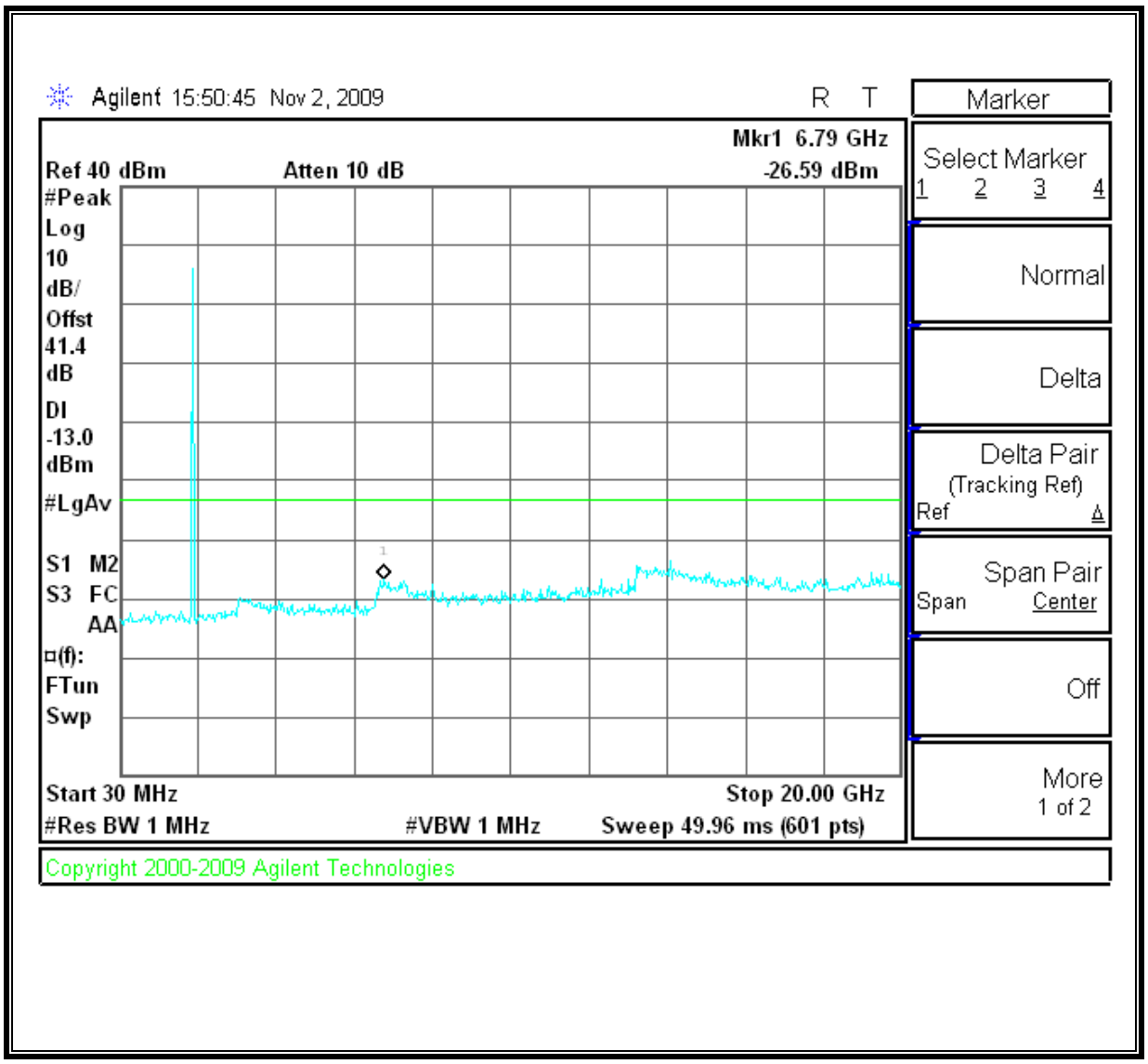


1xRTT Mode (PCS Band)

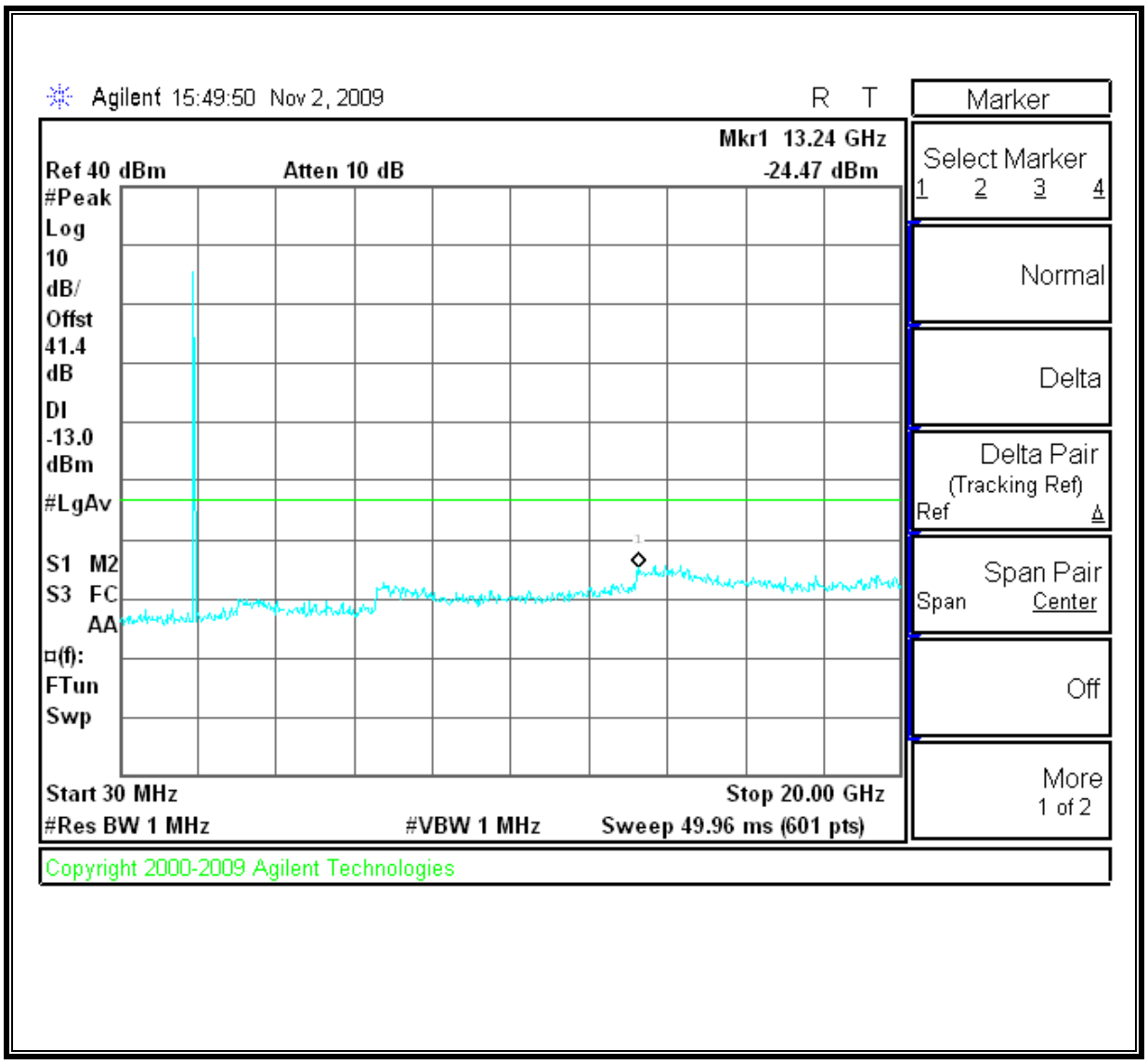
LOW CHANNEL



MID CHANNEL

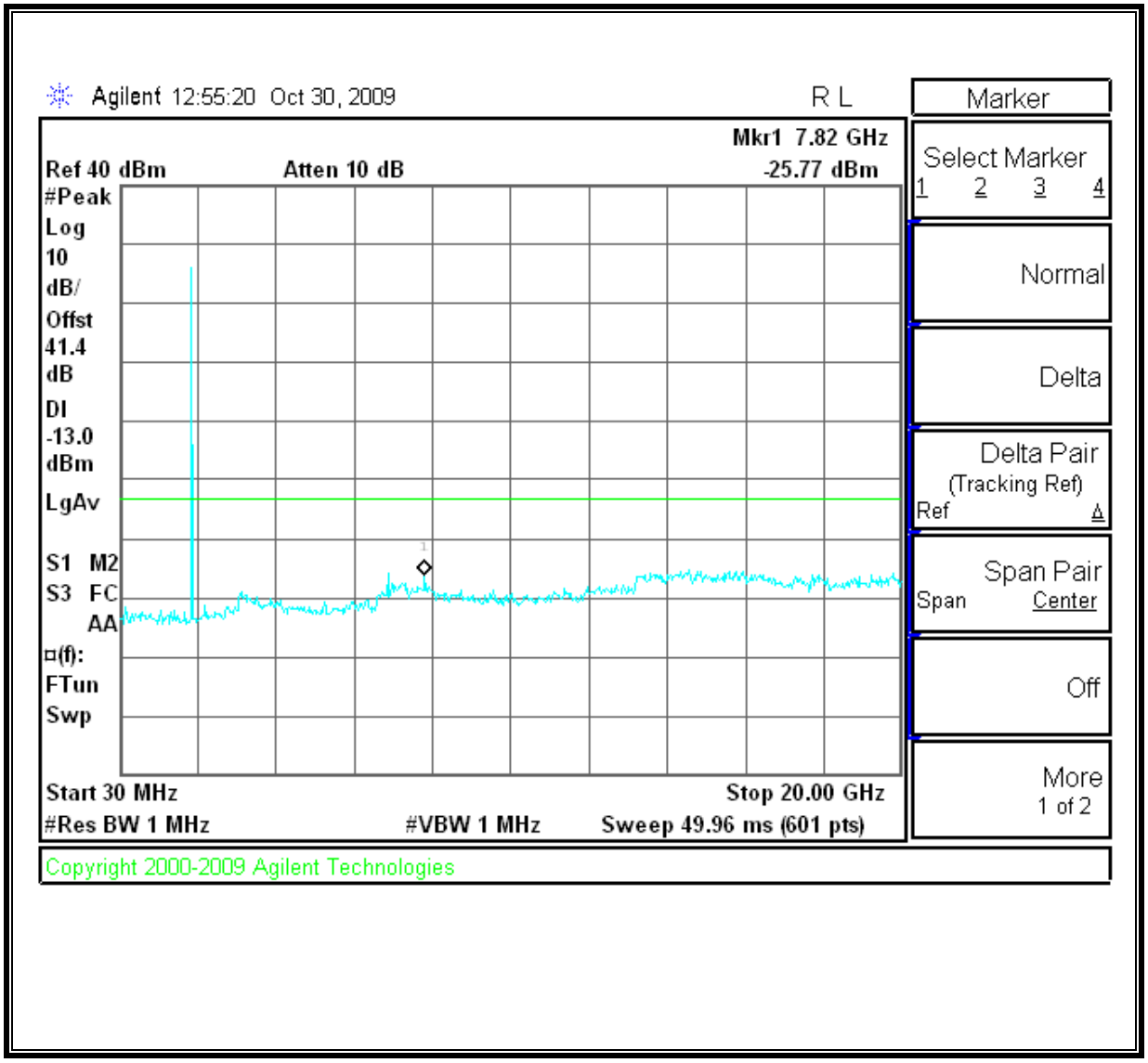


HIGH CHANNEL

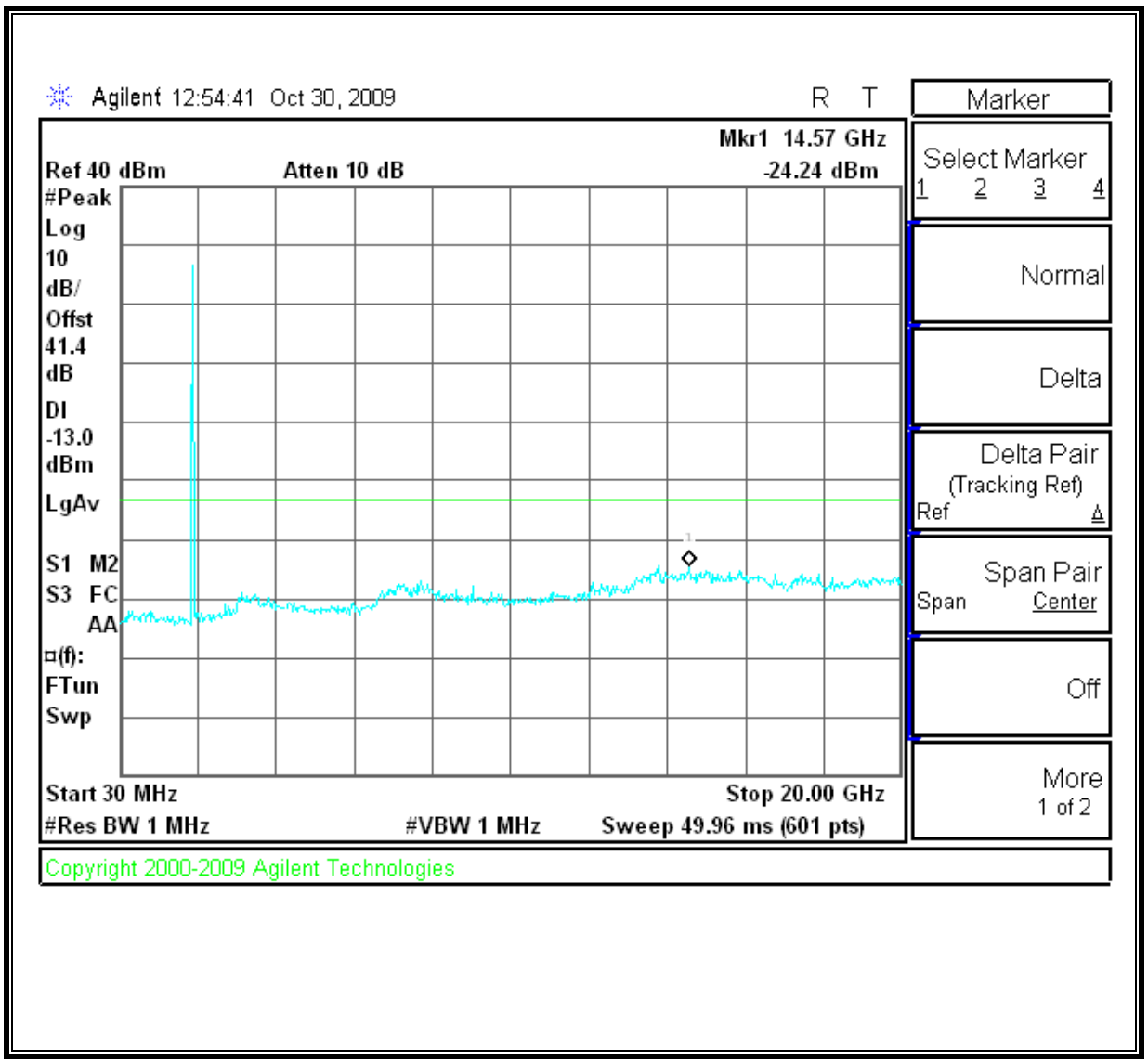


CDMA2000 1xEV-DO Revision A (Rev. A) Mode (PCS Band)

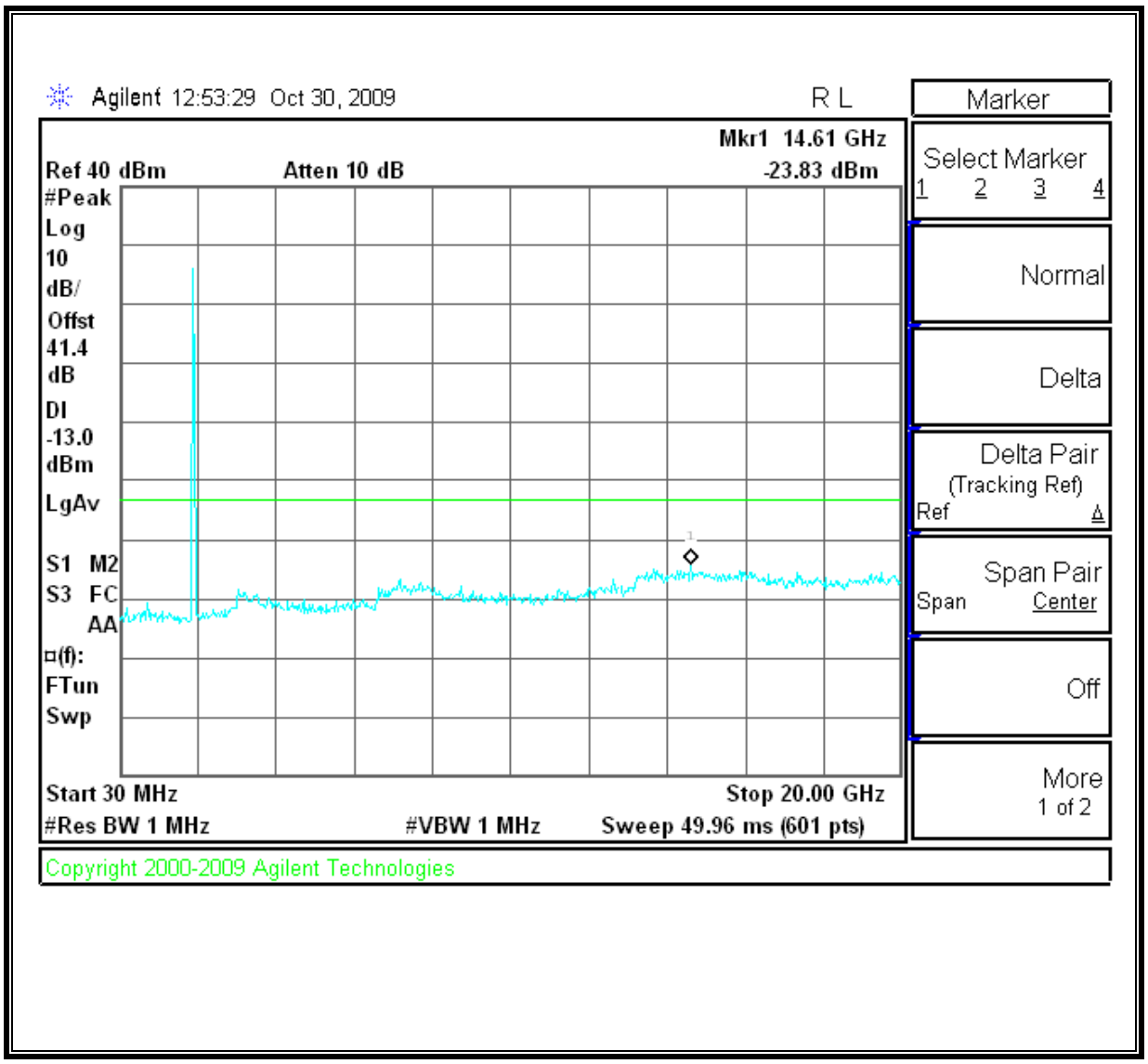
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL



8.4. FREQUENCY STABILITY

RULE PART(S)

FCC: §2.1055, §22.355, §24.235
IC: RSS-132, 4.3; RSS-133, 6.3

LIMITS

- §22.355 & RSS-132 4.3 - The carrier frequency shall not depart from the reference frequency in excess of ±2.5 ppm for mobile stations.
- RSS-133 6.3 - 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°C
- Voltage = 3.7 Vdc (85% - 115%)

Frequency Stability vs Temperature:
The EUT is place inside a temperature chamber. The temperature is set to 20ºC 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 +50ºC 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 835.519972MHz @ 20ºC Limit: to stay +- 2.5 ppm = 2091.300 Hz				
DC Power Supply (Vdc)	Environment Temperature (ºC)	Frequency Deviation Measureed with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.70	50	836.519945	0.032	2.5
3.70	40	836.520007	-0.042	2.5
3.70	30	836.519997	-0.030	2.5
3.70	***20***	***836.519972***	***0***	2.5
3.70	10	836.519942	0.036	2.5
3.70	0	836.519927	0.054	2.5
3.70	-10	836.519900	0.086	2.5
3.70	-20	836.519991	-0.023	2.5
3.70	-30	836.519946	0.031	2.5

Reference Frequency: Cellular Mid Channel 835.519972MHz @ 20ºC Limit: to stay +- 2.5 ppm = 2091.300 Hz				
DC Power Supply (Vdc)	Environment Temperature (ºC)	Frequency Deviation Measureed with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
100%	***20***	***836.519972***	***0***	***2.5***
85%	20	836.519985	*-0.016*	2.5
115%	20	836.519960	0.014	2.5
2.7V (end voltage)	20	836.519946	*0.031*	2.5

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

Reference Frequency: PCS Mid Channel 1879.999983MHz @ 20ºC Limit: within the authorized block or +- 2.5 ppm = 4700.000 Hz				
Power Supply	**Environment**	**Frequency Deviation Measureed with Time Elapse**		
(Vdc)	**Temperature (ºC)**	**(MHz)**	**Delta (ppm)**	**Limit (ppm)**
3.70	50	1879.999953	0.016	2.5
3.70	40	1880.000020	-0.020	2.5
3.70	30	1879.999970	0.007	2.5
3.70	***20***	***1879.999983***	***0***	***2.5***
3.70	10	1879.999955	0.015	2.5
3.70	0	1880.000014	-0.016	2.5
3.70	-10	1879.999926	0.030	2.5
3.70	-20	1880.000007	-0.013	2.5
3.70	-30	1879.999940	0.023	2.5

Reference Frequency: PCS Mid Channel 1879.999983MHz @ 20ºC Limit: within the authorized block or +- 2.5 ppm = 4700.000 Hz				
Power Supply	**Environment**	**Frequency Deviation Measureed with Time Elapse**		
(Vdc)	**Temperature (ºC)**	**(MHz)**	**Delta (ppm)**	**Limit (ppm)**
100%	***20***	***1879.999983***	***0***	***2.5***
0.85	20	1880.000010	-0.014	2.5
1.15	20	1879.999958	0.013	2.5
2.7V (End Point)	20	1879.999990	-0.004	2.5

9. RADIATED TEST RESULTS

9.1. RADIATED POWER (ERP & EIRP)

RULE PART(S)

FCC: §2.1046, §22.913, §24.232
IC: RSS-132; 4.4, RSS-133, 6.4

LIMITS

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

24.232(c) & RSS-133 § 6.4 - 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.

RSS-132 4.4, SRSP503 5.1.3 - The maximum ERP shall be 11.5 Watts for mobile stations.

TEST PROCEDURE

ANSI / TIA / EIA 603C
RSS-132; RSS-133

MODES TESTED

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

RESULTS for Cellular Band (ERP)

Mode	Channel	f (MHz)	ERP (Standard Cover)		ERP (Inductive Cover)	
			dBm	mW	dBm	mW
1xRTT (RC1, SO55)	1013	824.70	28.20	660.69	26.10	407.38
	384	836.52	27.70	588.84	26.80	478.63
	777	848.75	27.80	602.56	26.70	467.74
EVDO-REV A	1013	824.70	27.80	602.56	27.60	575.44
	384	836.52	27.70	588.84	28.00	630.96
	777	848.75	27.30	537.03	27.70	588.84

RESULTS for PCS Band (EIRP)

Mode	Channel	f (MHz)	EIRP (Standard Cover)		EIRP (Inductive Cover)	
			dBm	mW	dBm	mW
1xRTT (RC1, SO55)	25	1851.25	26.50	446.68	27.70	588.84
	600	1880.00	28.80	758.58	28.00	630.96
	1175	1908.75	28.60	724.44	27.70	588.84
EVDO-REV A	25	1851.25	28.10	645.65	28.40	691.83
	600	1880.00	29.10	812.83	29.10	812.83
	1175	1908.75	28.70	741.31	28.60	724.44

EUT WITH STANDARD COVER

ERP for 1xRTT Mode (Cellular Band)

High Frequency Substitution Measurement
Compliance Certification Services Chamber B

Company: Palm
Project #: 09U12852
Date: 10/24/2009
Test Engineer: Chin Pang
Configuration:EUT only
Mode:CDMA2000, Cell
Worst Case: Y position

Test Equipment:
Receiving: Sunol T130, 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	-4.4	V	32.6	28.2	38.5	-10.2	
824.70	-14.5	H	30.4	15.9	38.5	-22.6	
Mid Ch							
836.52	-5.0	V	32.7	27.7	38.5	-10.8	
836.52	-15.3	H	30.7	15.4	38.5	-23.0	
High Ch							
848.31	-4.2	V	32.0	27.8	38.5	-10.7	
848.31	-15.6	H	30.8	15.2	38.5	-23.3	

Rev. 1.24.7

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

High Frequency Substitution Measurement
Compliance Certification Services Chamber B

Company: Palm
Project #: 09U12852
Date: 10/29/2009
Test Engineer: Chin Pang
Configuration:EUT only
Mode: EVDO-Rev A, Cell
Worst Case: Y position

Test Equipment:
Receiving: Sunol T130, 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	-4.8	V	32.6	27.8	38.5	-10.7	
824.70	-15.8	H	30.4	14.6	38.5	-23.9	
Mid Ch							
836.52	-4.9	V	32.7	27.7	38.5	-10.7	
836.52	-15.4	H	30.7	15.3	38.5	-23.1	
High Ch							
848.31	-4.7	V	32.0	27.3	38.5	-11.1	
848.31	-15.3	H	30.8	15.5	38.5	-23.0	

Rev. 1.24.7

EIRP for 1xRTT Mode (PCS Band)

High Frequency Fundamental Measurement
Compliance Certification Services Chamber B

Company:Palm
Project #:09U12852
Date: 10/24/2009
Test Engineer: Chin Pang
Configuration:EUT only
Mode:CDMA200 1xRTT
Worst Case: X position

Test Equipment:
Receiving: Horn T59, 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	-22.0	V	40.2	18.2	33.0	-14.8	
1.851	-13.0	H	39.5	26.5	33.0	-6.5	
Mid Ch							
1.880	-22.0	V	40.3	18.3	33.0	-14.8	
1.880	-11.3	H	40.1	28.8	33.0	-4.2	
High Ch							
1.910	-21.0	V	40.2	19.2	33.0	-13.8	
1.910	-11.6	H	40.1	28.6	33.0	-4.5	

Rev. 1.24.7

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

High Frequency Fundamental Measurement
Compliance Certification Services Chamber B

Company:Palm
Project #:09U12852
Date: 10/29/2009
Test Engineer: Chin Pang
Configuration:EUT only
Mode:EVDO-Rev A , PCS
Worst Case: X position

Test Equipment:
Receiving: Horn T59, 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	-17.5	V	40.2	22.7	33.0	-10.3	
1.851	-11.4	H	39.5	28.1	33.0	-4.9	
Mid Ch							
1.880	-17.4	V	40.3	22.9	33.0	-10.2	
1.880	-11.0	H	40.1	29.1	33.0	-3.9	
High Ch							
1.910	-17.7	V	40.2	22.5	33.0	-10.5	
1.910	-11.4	H	40.1	28.7	33.0	-4.3	

Rev. 1.24.7

EUT WITH INDUCTIVE COVER

ERP for 1xRTT Mode (Cellular Band)

High Frequency Substitution Measurement
Compliance Certification Services Chamber B

Company: Palm
Project #: 09U12852
Date: 10/24/2009
Test Engineer: Chin Pang
Configuration:EUT/Inductive Charging Dock
Mode:CDMA2000, Cell

Test Equipment:
Receiving: Sunol T130, 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	-11.0	V	32.6	21.6	38.5	-16.9	
824.70	-4.3	H	30.4	26.1	38.5	-12.4	
Mid Ch							
836.52	-11.6	V	32.7	21.1	38.5	-17.4	
836.52	-3.9	H	30.7	26.8	38.5	-11.6	
High Ch							
848.31	-11.2	V	32.0	20.8	38.5	-17.7	
848.31	-4.1	H	30.8	26.7	38.5	-11.7	

Rev. 1.24.7

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

High Frequency Substitution Measurement
Compliance Certification Services Chamber B

Company: Palm
Project #: 09U12852
Date: 10/29/2009
Test Engineer: Chin Pang
Configuration:EUT/Inductive Charging Dock
Mode:EVDO-REV A, Cell

Test Equipment:
Receiving: Sunol T130, 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	-9.3	V	32.6	23.3	38.5	-15.2	
824.70	-2.7	H	30.4	27.6	38.5	-10.8	
Mid Ch							
836.52	-8.3	V	32.7	24.4	38.5	-14.1	
836.52	-2.7	H	30.7	28.0	38.5	-10.4	
High Ch							
848.31	-9.8	V	32.0	22.2	38.5	-16.2	
848.31	-3.1	H	30.8	27.7	38.5	-10.7	

Rev. 1.24.7

EIRP for 1xRTT Mode (PCS Band)

High Frequency Fundamental Measurement
Compliance Certification Services Chamber B

Company:Palm
Project #:09U12852
Date: 10/24/2009
Test Engineer: Chin Pang
Configuration:EUT/Inductive Charging Dock
Mode:CDMA200 1xRTT

Test Equipment:
Receiving: Horn T59, 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	-18.1	V	40.2	22.1	33.0	-10.9	
1.851	-11.8	H	39.5	27.7	33.0	-5.3	
Mid Ch							
1.880	-17.8	V	40.3	22.5	33.0	-10.6	
1.880	-12.2	H	40.1	28.0	33.0	-5.1	
High Ch							
1.910	-18.0	V	40.2	22.2	33.0	-10.8	
1.910	-12.4	H	40.1	27.7	33.0	-5.3	

Rev. 1.24.7

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

High Frequency Fundamental Measurement
Compliance Certification Services Chamber B

Company:Palm
Project #:09U12852
Date: 10/29/2009
Test Engineer: Chin Pang
Configuration:EUT/Inductive Charging Dock
Mode:EVDO-Rev A

Test Equipment:
Receiving: Horn T59, 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	-12.6	V	40.2	27.6	33.0	-5.4	
1.851	-11.1	H	39.5	28.4	33.0	-4.6	
Mid Ch							
1.880	-11.8	V	40.3	28.5	33.0	-4.6	
1.880	-11.0	H	40.1	29.1	33.0	-3.9	
High Ch							
1.909	-13.0	V	40.2	27.2	33.0	-5.8	
1.909	-11.5	H	40.1	28.6	33.0	-4.4	

Rev. 1.24.7

9.2. FIELD STRENGTH OF SPURIOUS RADIATION

RULE PART(S)

FCC: §2.1053, §22.917, §24.238
IC: RSS-132, 4.5; RSS-233, 6.5

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

EUT WITH STANDARD COVER

1xRTT Mode (Cellular Band)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company:Palm
Project #:09U12852
Date:10/24/09
Test Engineer:Chin Pang
Configuration:EUT (Standard Cover) only
Mode:CDMA2000 1xRTT, Cell

Chamber	Pre-amplifer	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)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch										
1.649	-40.0	H	3.0	37.2	35.5	1.0	-39.5	-13.0	-26.5	
2.474	-59.2	H	3.0	39.8	35.4	1.0	-55.9	-13.0	-42.9	
1.649	-34.1	V	3.0	36.8	35.5	1.0	-34.0	-13.0	-21.0	
2.474	-58.0	V	3.0	41.7	35.4	1.0	-52.9	-13.0	-39.9	
Mid Ch										
1.673	-39.5	H	3.0	37.5	35.5	1.0	-38.7	-13.0	-25.7	
2.510	-60.0	H	3.0	39.9	35.4	1.0	-56.7	-13.0	-43.7	
1.673	-33.5	V	3.0	37.1	35.5	1.0	-33.1	-13.0	-20.1	
2.510	-59.4	V	3.0	41.8	35.4	1.0	-54.1	-13.0	-41.1	
High Ch										
1.697	-45.4	H	3.0	37.7	35.5	1.0	-44.4	-13.0	-31.4	
3.393	-62.0	H	3.0	44.3	35.5	1.0	-54.4	-13.0	-41.4	
1.697	-42.3	V	3.0	37.4	35.5	1.0	-41.5	-13.0	-28.5	
2.545	-62.1	V	3.0	42.0	35.4	1.0	-56.7	-13.0	-43.7	

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: Palm
Project #: 09U12852
Date: 10/24/09
Test Engineer: Chin Pang
Configuration: EUT (Standard Cover) only
Mode: EVDO-Rev A, Cell

Chamber	Pre-amplifer	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)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch										
1.649	-32.0	H	3.0	37.2	35.5	1.0	-31.5	-13.0	-18.5	
2.474	-60.3	H	3.0	39.8	35.4	1.0	-57.0	-13.0	-44.0	
1.649	-30.0	V	3.0	36.8	35.5	1.0	-29.9	-13.0	-16.9	
2.474	-50.0	V	3.0	41.7	35.4	1.0	-44.9	-13.0	-31.9	
Mid Ch										
1.673	-35.2	H	3.0	37.5	35.5	1.0	-34.4	-13.0	-21.4	
2.510	-62.0	H	3.0	39.9	35.4	1.0	-58.7	-13.0	-45.7	
1.673	-27.5	V	3.0	37.1	35.5	1.0	-27.1	-13.0	-14.1	
2.510	-60.0	V	3.0	41.8	35.4	1.0	-54.7	-13.0	-41.7	
High Ch										
1.697	-36.1	H	3.0	37.7	35.5	1.0	-35.1	-13.0	-22.1	
3.393	-64.0	H	3.0	44.3	35.5	1.0	-56.4	-13.0	-43.4	
1.697	-33.0	V	3.0	37.4	35.5	1.0	-32.2	-13.0	-19.2	
2.545	-62.5	V	3.0	42.0	35.4	1.0	-57.1	-13.0	-44.1	

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:Palm
Project #:09U12852
Date:10/24/09
Test Engineer:Chin Pang
Configuration:EUT(Standard Cover) only
Mode:CDMA2000 1xRTT, PCS band

Chamber	Pre-amplifer	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										
7.405	-62.3	H	3.0	53.0	35.7	1.0	-44.0	-13.0	-31.0	
9.256	-63.4	H	3.0	55.1	35.6	1.0	-42.9	-13.0	-29.9	
7.405	-60.5	V	3.0	51.3	35.7	1.0	-43.9	-13.0	-30.9	
9.256	-63.1	V	3.0	53.6	35.6	1.0	-44.1	-13.0	-31.1	
Mid Ch										
7.520	-58.2	H	3.0	53.1	35.7	1.0	-39.8	-13.0	-26.8	
9.400	-65.4	H	3.0	55.2	35.6	1.0	-44.7	-13.0	-31.7	
7.520	-57.7	V	3.0	51.4	35.7	1.0	-41.0	-13.0	-28.0	
9.400	-64.6	V	3.0	53.7	35.6	1.0	-45.4	-13.0	-32.4	
High Ch										
7.635	-61.0	H	3.0	53.2	35.7	1.0	-42.5	-13.0	-29.5	
9.544	-66.0	H	3.0	55.4	35.6	1.0	-45.2	-13.0	-32.2	
7.635	-57.8	V	3.0	51.6	35.7	1.0	-40.9	-13.0	-27.9	
9.544	-64.2	V	3.0	53.9	35.6	1.0	-44.8	-13.0	-31.8	

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: Palm
Project #: 09U12852
Date: 10/29/09
Test Engineer: Chin Pang
Configuration: EUT(Standard Cover) only
Mode: EVDO-Rev A, PCS band

Chamber	Pre-amplifer	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										
7.405	-62.3	H	3.0	53.0	35.7	1.0	-44.0	-13.0	-31.0	
9.256	-63.4	H	3.0	55.1	35.6	1.0	-42.9	-13.0	-29.9	
7.405	-60.5	V	3.0	51.3	35.7	1.0	-43.9	-13.0	-30.9	
9.256	-63.1	V	3.0	53.6	35.6	1.0	-44.1	-13.0	-31.1	
Mid Ch										
7.520	-62.8	H	3.0	53.1	35.7	1.0	-44.4	-13.0	-31.4	
9.400	-65.1	H	3.0	55.2	35.6	1.0	-44.4	-13.0	-31.4	
7.520	-60.0	V	3.0	51.4	35.7	1.0	-43.3	-13.0	-30.3	
9.400	-66.0	V	3.0	53.7	35.6	1.0	-46.8	-13.0	-33.8	
High Ch										
7.635	-64.4	H	3.0	53.2	35.7	1.0	-45.9	-13.0	-32.9	
9.544	-65.0	H	3.0	55.4	35.6	1.0	-44.2	-13.0	-31.2	
7.635	-63.5	V	3.0	51.6	35.7	1.0	-46.6	-13.0	-33.6	
9.544	-64.0	V	3.0	53.9	35.6	1.0	-44.6	-13.0	-31.6	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

EUT WITH INDUCTIVE COVER

1xRTT Mode (Cellular Band)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company:Palm
Project #:09U12852
Date:10/24/09
Test Engineer:Chin Pang
Configuration:EUT (Inductive Cover) with Charging Dock
Mode:CDMA2000 1xRTT, Cell

Chamber	Pre-amplifer	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)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch										
1.649	-32.0	H	3.0	37.2	35.5	1.0	-31.5	-13.0	-18.5	
2.474	-57.0	H	3.0	39.8	35.4	1.0	-53.7	-13.0	-40.7	
1.649	-35.2	V	3.0	36.8	35.5	1.0	-35.1	-13.0	-22.1	
2.474	-60.3	V	3.0	41.7	35.4	1.0	-55.2	-13.0	-42.2	
Mid Ch										
1.673	-31.8	H	3.0	37.5	35.5	1.0	-31.0	-13.0	-18.0	
2.510	-56.5	H	3.0	39.9	35.4	1.0	-53.2	-13.0	-40.2	
1.673	-37.1	V	3.0	37.1	35.5	1.0	-36.7	-13.0	-23.7	
2.510	-60.8	V	3.0	41.8	35.4	1.0	-55.5	-13.0	-42.5	
High Ch										
1.697	-31.3	H	3.0	37.7	35.5	1.0	-30.3	-13.0	-17.3	
3.393	-60.0	H	3.0	44.3	35.5	1.0	-52.4	-13.0	-39.4	
1.697	-38.0	V	3.0	37.4	35.5	1.0	-37.2	-13.0	-24.2	
2.545	-62.5	V	3.0	42.0	35.4	1.0	-57.1	-13.0	-44.1	

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:Palm
Project #:09U12852
Date:10/30/09
Test Engineer:Chin Pang
Configuration:EUT (Inductive Cover) with Charging Dock
Mode:EVDO-Rev A, Cell

Chamber	Pre-amplifer	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)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch										
1.649	-28.3	H	3.0	37.2	35.5	1.0	-27.8	-13.0	-14.8	
2.474	-57.0	H	3.0	39.8	35.4	1.0	-53.7	-13.0	-40.7	
1.649	-32.1	V	3.0	36.8	35.5	1.0	-32.0	-13.0	-19.0	
2.474	-52.7	V	3.0	41.7	35.4	1.0	-47.6	-13.0	-34.6	
Mid Ch										
1.673	-32.7	H	3.0	37.5	35.5	1.0	-31.9	-13.0	-18.9	
2.510	-60.5	H	3.0	39.9	35.4	1.0	-57.2	-13.0	-44.2	
1.673	-34.5	V	3.0	37.1	35.5	1.0	-34.1	-13.0	-21.1	
2.510	-61.4	V	3.0	41.8	35.4	1.0	-56.1	-13.0	-43.1	
High Ch										
1.697	-34.0	H	3.0	37.7	35.5	1.0	-33.0	-13.0	-20.0	
2.545	-57.0	H	3.0	40.1	35.4	1.0	-53.5	-13.0	-40.5	
1.697	-38.5	V	3.0	37.4	35.5	1.0	-37.7	-13.0	-24.7	
2.545	-64.2	V	3.0	42.0	35.4	1.0	-58.8	-13.0	-45.8	

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:Palm
Project #:09U12852
Date:10/24/09
Test Engineer:Chin Pang
Configuration:EUT(Inductive Cover) with Charging Dock
Mode:CDMA2000 1xrTT, PCS band

Chamber	Pre-amplifer	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										
7.405	-61.5	H	3.0	53.0	35.7	1.0	-43.2	-13.0	-30.2	
9.256	-64.0	H	3.0	55.1	35.6	1.0	-43.5	-13.0	-30.5	
7.405	-65.1	V	3.0	51.3	35.7	1.0	-48.5	-13.0	-35.5	
9.256	-65.3	V	3.0	53.6	35.6	1.0	-46.3	-13.0	-33.3	
Mid Ch										
7.520	-64.0	H	3.0	53.1	35.7	1.0	-45.6	-13.0	-32.6	
9.400	-65.2	H	3.0	55.2	35.6	1.0	-44.5	-13.0	-31.5	
7.520	-62.0	V	3.0	51.4	35.7	1.0	-45.3	-13.0	-32.3	
9.400	-66.0	V	3.0	53.7	35.6	1.0	-46.8	-13.0	-33.8	
High Ch										
7.635	-62.5	H	3.0	53.2	35.7	1.0	-44.0	-13.0	-31.0	
9.544	-65.0	H	3.0	55.4	35.6	1.0	-44.2	-13.0	-31.2	
7.635	-59.5	V	3.0	51.6	35.7	1.0	-42.6	-13.0	-29.6	
9.544	-63.0	V	3.0	53.9	35.6	1.0	-43.6	-13.0	-30.6	

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:Palm
Project #:09U12852
Date:10/29/09
Test Engineer:Chin Pang
Configuration:EUT(Inductive Cover) with Charging Dock
Mode:EVDO-Rev A, PCS band

Chamber	Pre-amplifer	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										
7.405	-63.8	H	3.0	53.0	35.7	1.0	-45.5	-13.0	-32.5	
9.256	-63.2	H	3.0	55.1	35.6	1.0	-42.7	-13.0	-29.7	
7.405	-66.0	V	3.0	51.3	35.7	1.0	-49.4	-13.0	-36.4	
9.256	-63.0	V	3.0	53.6	35.6	1.0	-44.0	-13.0	-31.0	
Mid Ch										
7.520	-65.0	H	3.0	53.1	35.7	1.0	-46.6	-13.0	-33.6	
9.400	-65.2	H	3.0	55.2	35.6	1.0	-44.5	-13.0	-31.5	
7.520	-63.5	V	3.0	51.4	35.7	1.0	-46.8	-13.0	-33.8	
9.400	-65.3	V	3.0	53.7	35.6	1.0	-46.1	-13.0	-33.1	
High Ch										
7.635	-63.2	H	3.0	53.2	35.7	1.0	-44.7	-13.0	-31.7	
9.544	-62.8	H	3.0	55.4	35.6	1.0	-42.0	-13.0	-29.0	
7.635	-61.5	V	3.0	51.6	35.7	1.0	-44.6	-13.0	-31.6	
9.544	-64.3	V	3.0	53.9	35.6	1.0	-44.9	-13.0	-31.9	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

9.3. RECEIVER SPURIOUS EMISSIONS

RULE PART(S)

FCC: N/A
IC: RSS-132, 4.6; RSS-133, 6.6, RSS-Gen

LIMIT

RSS-Gen 6 (a) - If a radiated measurement is made, all spurious emissions shall comply with the limits of Table 1.

Table 1 - Spurious Emission Limits for Receivers:

Spurious Frequency (MHz)	Field Strength(microvolt/m at 3 meters)
30 - 88	100
88 - 216	150
216 - 960	200
Above 960	500

TEST PROCEDURE

RSS-Gen 4.10 - The search for spurious emissions shall be from the lowest frequency internally generated or used in the receiver (e.g. local oscillator, intermediate or carrier frequency), or 30 MHz, whichever is the higher, to at least 3 times the highest tuneable or local oscillator frequency, whichever is the higher, without exceeding 40 GHz.

RESULTS

See the following pages.

EUT WITH STANDARD COVER

RECEIVER SPURIOUS EMISSIONS FOR 30 TO 1000 MHz

30-1000MHz Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

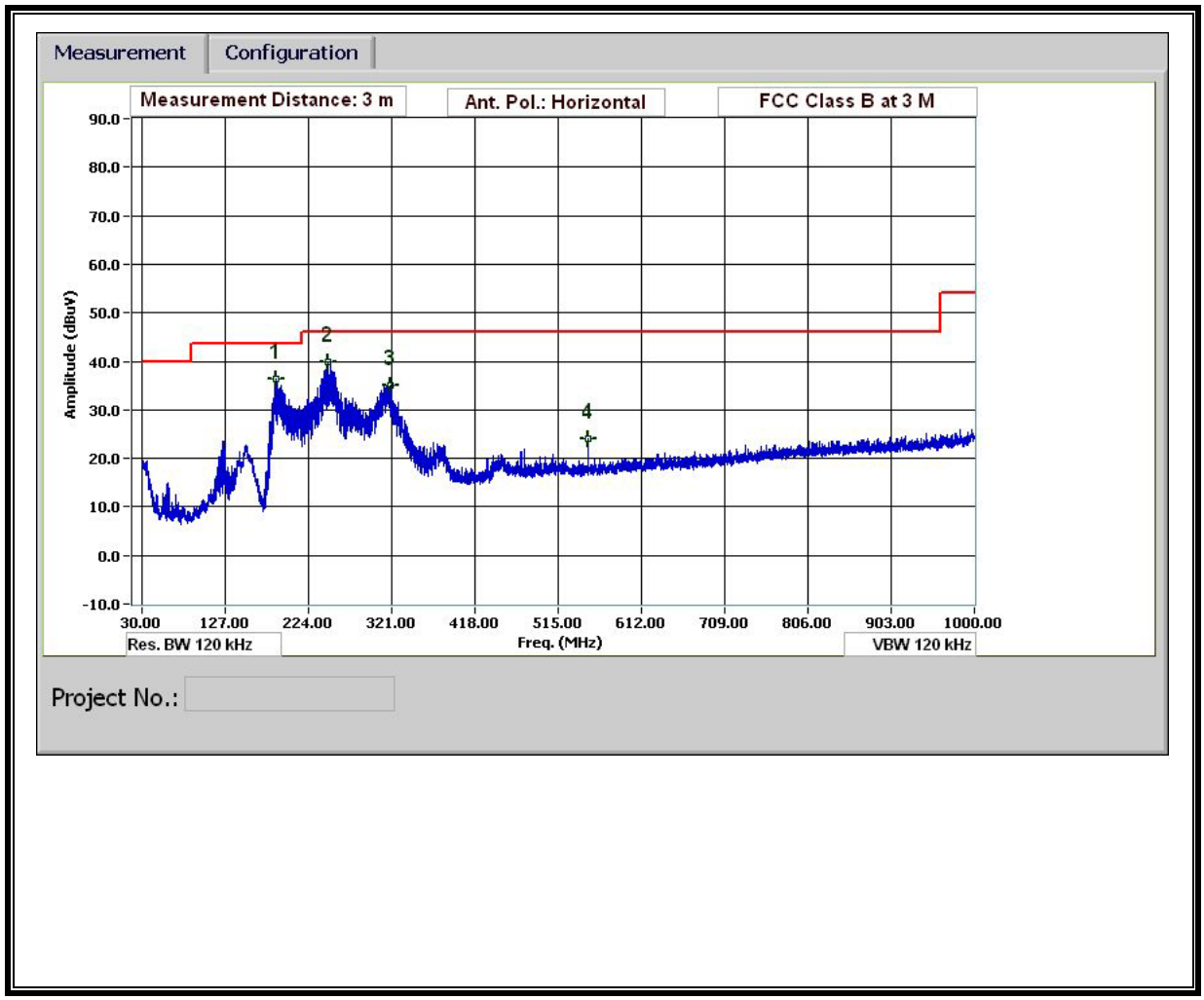
Test Engr: Chin Pang
Date: 10/31/09
Project #: 09U12852
Company: Palm
EUT Description: EUT(Standard Cover) with AC adapter
EUT M/N: P121EWW
Test Target: FCC Class B
Mode Oper: Normal

f	Measurement Frequency	Amp	Preamp Gain
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters
Read	Analyzer Reading	Filter	Filter Insert Loss
AF	Antenna Factor	Corr.	Calculated Field Strength
CL	Cable Loss	Limit	Field Strength Limit

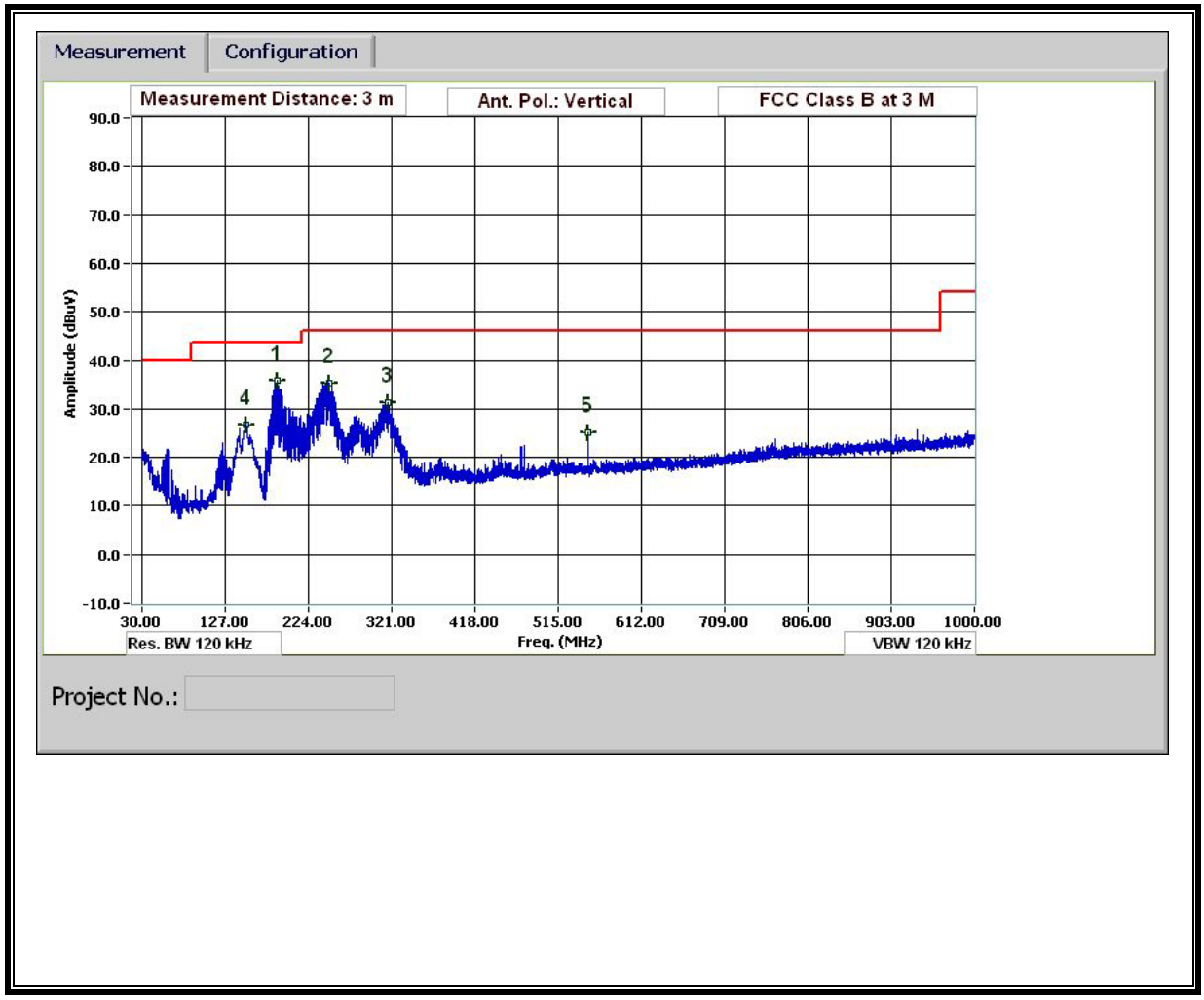
Margin Margin vs. Limit

f MHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Filter dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
151.565	3.0	42.5	12.3	1.1	29.3	0.0	0.0	26.7	43.5	-16.8	V	P	
187.086	3.0	52.5	11.1	1.2	29.0	0.0	0.0	35.8	43.5	-7.7	V	P	
248.649	3.0	51.0	11.8	1.4	28.8	0.0	0.0	35.4	46.0	-10.6	V	P	
316.332	3.0	45.1	13.6	1.6	28.9	0.0	0.0	31.4	46.0	-14.6	V	P	
550.461	3.0	35.0	17.5	2.3	29.7	0.0	0.0	25.1	46.0	-20.9	V	P	
186.726	3.0	53.0	11.1	1.2	29.0	0.0	0.0	36.3	43.5	-7.2	H	P	
247.209	3.0	55.5	11.8	1.4	28.8	0.0	0.0	40.0	46.0	-6.0	H	P	
319.332	3.0	48.5	13.6	1.7	28.9	0.0	0.0	34.9	46.0	-11.1	H	P	
550.461	3.0	34.1	17.5	2.3	29.7	0.0	0.0	24.2	46.0	-21.8	H	P	

HORIZONTAL PLOT



VERTICAL PLOT



EUT WITH INDUCTIVE COVER

RECEIVER SPURIOUS EMISSIONS FOR 30 TO 1000 MHz

30-1000MHz Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

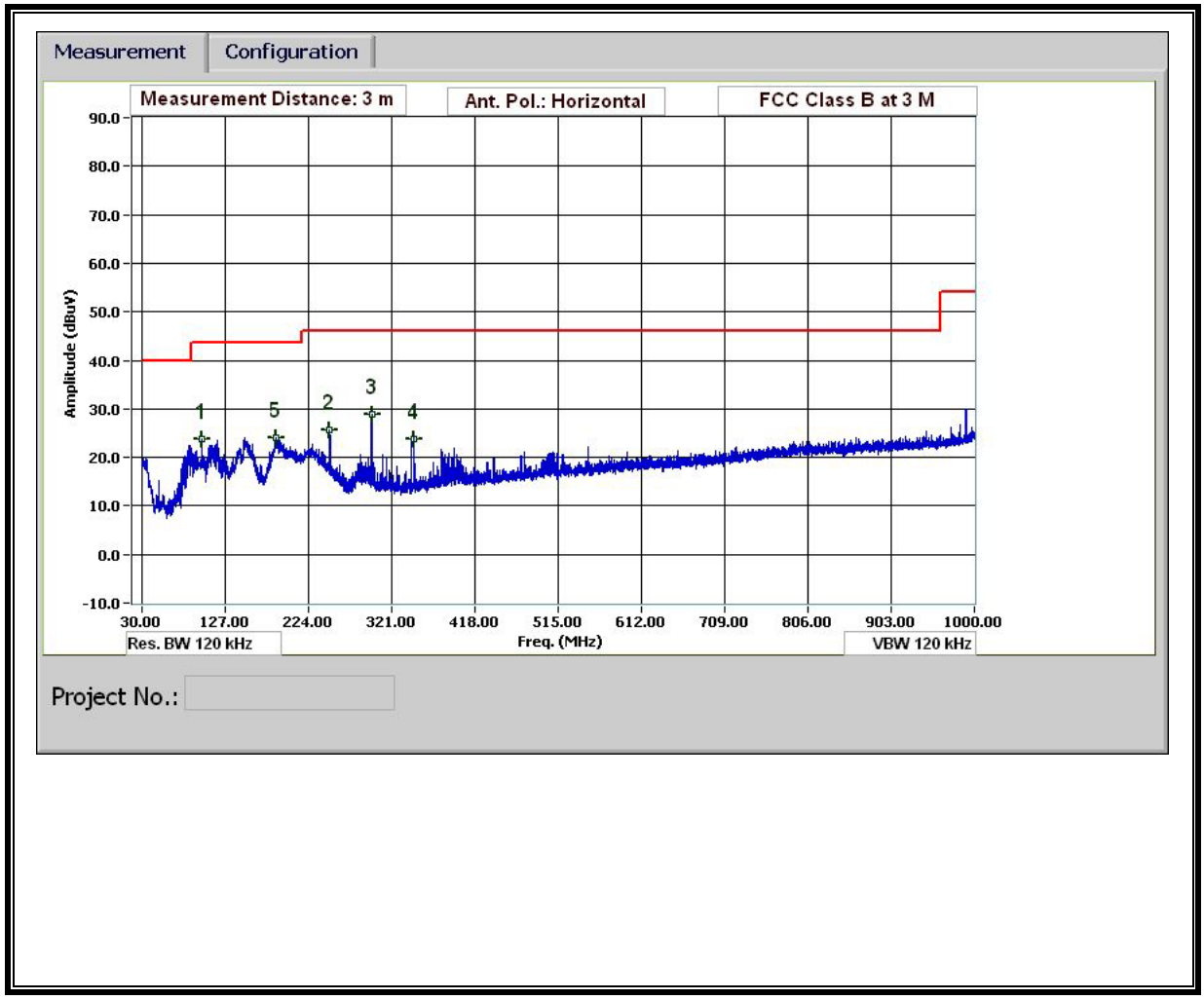
Test Engr: Chin Pang
Date: 10/31/09
Project #: 09U12852
Company: Palm
EUT Description: EUT(Inductive backcover) with inductive charging dock
EUT M/N: P121EWW
Test Target: FCC Class B
Mode Oper: Normal

f	Measurement Frequency	Amp	Preamp Gain
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters
Read	Analyzer Reading	Filter	Filter Insert Loss
AF	Antenna Factor	Corr.	Calculated Field Strength
CL	Cable Loss	Limit	Field Strength Limit

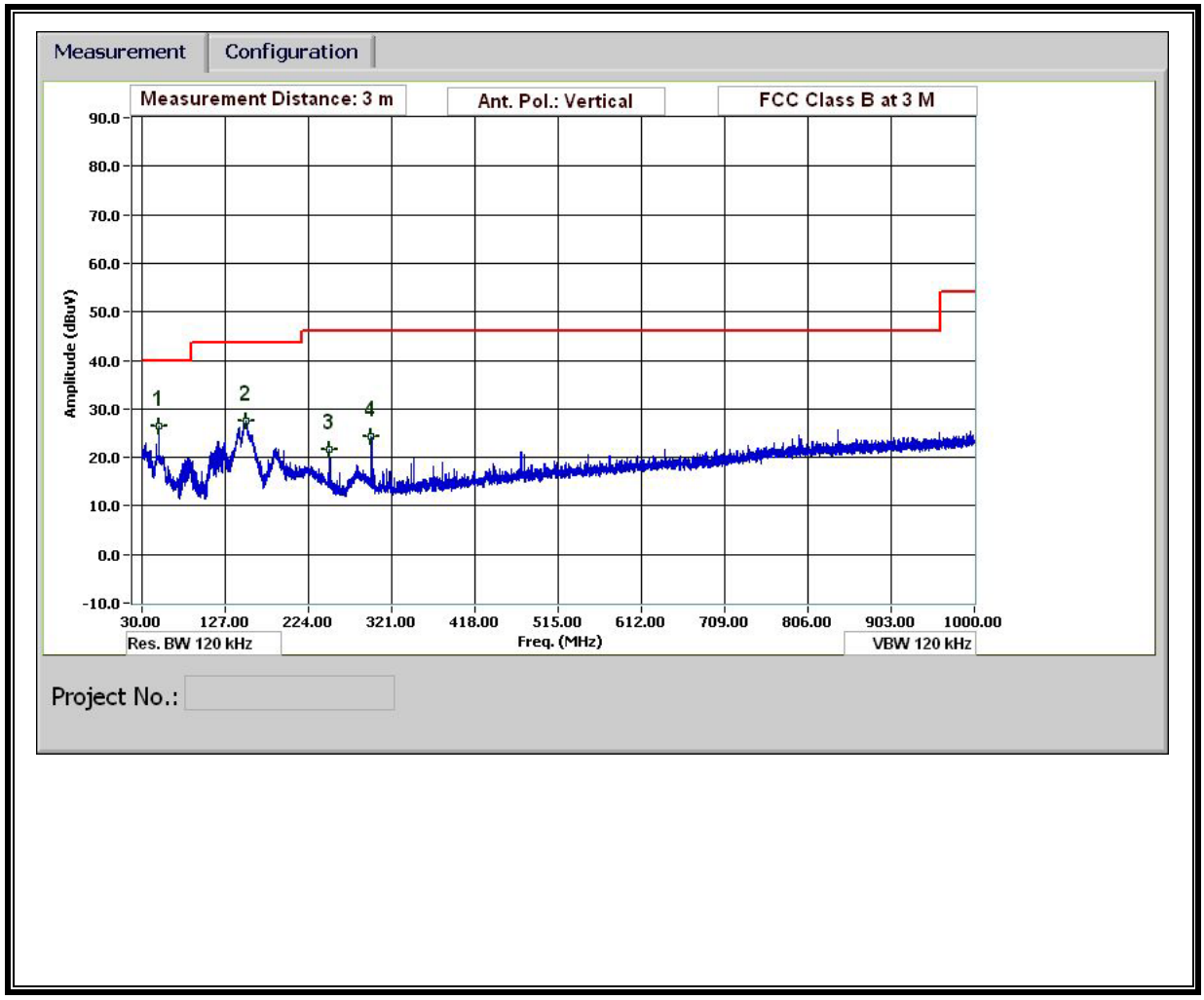
Margin — Margin vs. Limit

f MHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Filter dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
99.123	3.0	42.5	9.8	0.9	29.5	0.0	0.0	23.7	43.5	-19.8	H	P	
186.246	3.0	40.8	11.1	1.2	29.0	0.0	0.0	24.1	43.5	-19.4	H	P	
248.049	3.0	41.3	11.8	1.4	28.8	0.0	0.0	25.7	46.0	-20.3	H	P	
297.731	3.0	42.7	13.2	1.6	28.8	0.0	0.0	28.8	46.0	-17.3	H	P	
347.413	3.0	37.1	14.1	1.7	29.0	0.0	0.0	23.9	46.0	-22.1	H	P	
49.561	3.0	47.1	8.3	0.6	29.6	0.0	0.0	26.4	40.0	-13.6	V	P	
151.085	3.0	43.4	12.4	1.1	29.3	0.0	0.0	27.6	43.5	-15.9	V	P	
247.929	3.0	37.1	11.8	1.4	28.8	0.0	0.0	21.5	46.0	-24.5	V	P	
297.491	3.0	38.3	13.2	1.6	28.8	0.0	0.0	24.3	46.0	-21.7	V	P	

HORIZONTAL PLOT



VERTICAL PLOT



RECEIVER SPURIOUS EMISSIONS FOR ABOVE 1GHz

Note: No emissions were found within above 1GHz of 20dB below the system noise floor.

9.4. POWER LINE CONDUCTED EMISSION

LIMIT

RSS-Gen 7.2.2

Except when the requirements applicable to a given device state otherwise, for any licence-exempt radio communication device equipped to operate from the public utility AC power supply, either directly or indirectly, the radio frequency voltage that is conducted back onto the AC power lines in the frequency range of 0.15 MHz to 30 MHz shall not exceed the limits shown in Table 2. The tighter limit applies at the frequency range boundaries.

Table 2 – AC Power Lines Conducted Emission Limits

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56 *	56 to 46 *
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

RESULTS

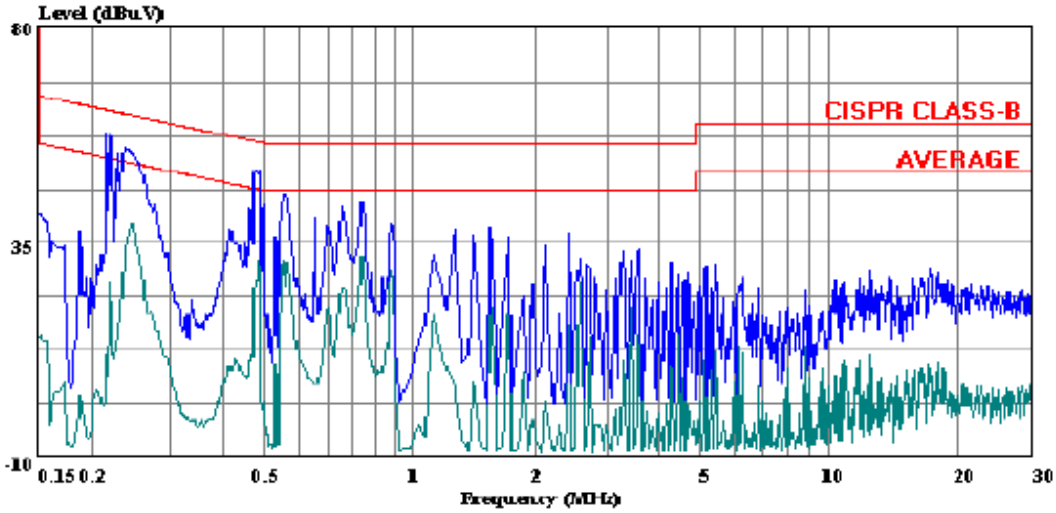
CONDUCTED EMISSIONS DATA (115VAC 60Hz)

Freq.	Reading			Closs	Limit	FCC_B	Margin		Remark
(MHz)	PK (dBuV)	QP (dBuV)	AV (dBuV)	(dB)	QP	AV	QP (dB)	AV (dB)	L1 / L2
0.19	55.51	--	42.98	0.00	64.08	54.08	-8.57	-11.10	L1
0.63	49.12	--	39.01	0.00	56.00	46.00	-6.88	-6.99	L1
15.89	45.19	--	32.29	0.00	60.00	50.00	-14.81	-17.71	L1
0.19	47.17	--	33.56	0.00	64.08	54.08	-16.91	-20.52	L2
0.63	45.14	--	30.49	0.00	56.00	46.00	-10.86	-15.51	L2
15.97	48.74	--	35.07	0.00	60.00	50.00	-11.26	-14.93	L2
6 Worst Data									

LINE 1 RESULTS

Compliance Certification Services
47173 Benicia Street
Fremont, CA 94538
Tel: (510) 771-1000
Fax: (510) 661-0888

Data#: 7 File#: 09U12852.EMI Date: 10-27-2009 Time: 13:14:56



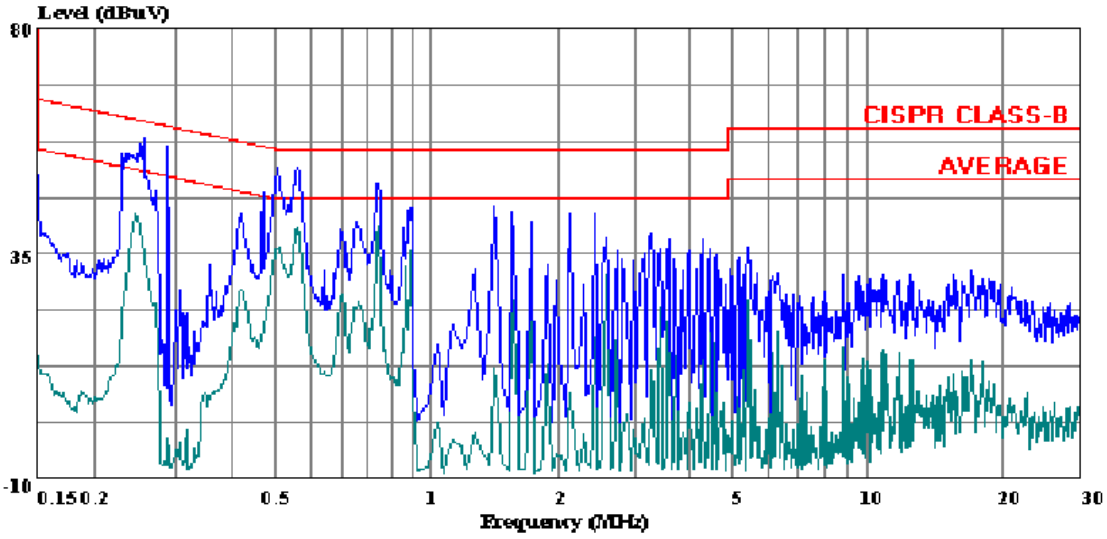
(Line Conduction)
Trace: 5 Ref Trace:

Condition: CISPR CLASS-B
Test Operator: : Chin Pang
Project #: : 09U12852
Company: : Palm
EUT Description:: Smartphone
Configuration: : EUT with AC Adapter
Mode: : Normal
Target: : FCC Class B
Voltage: : 115VAC / 60Hz
: L1: Peak (Blue), Aveager (Green)

LINE 2 RESULTS

Compliance Certification Services
47173 Benicia Street
Fremont, CA 94538
Tel: (510) 771-1000
Fax: (510) 661-0888

Data#: 14 File#: 09U12852.EMI Date: 10-27-2009 Time: 13:19:46



(Line Conduction)

Trace: 12 Ref Trace:

Condition: CISPR CLASS-B
Test Operator: : Chin Pang
Project #: : 09U12852
Company: : Palm
EUT Description:: Smartphone
Configuration: : EUT with AC Adapter
Mode: : Normal
Target: : FCC Class B
Voltage: : 115VAC / 60Hz
: L2: Peak (Blue), Aveager (Green)