



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

GSM PHONE WITH 802.11B/G AND BLUETOOTH

MODEL NUMBER: P121UEU

FCC ID: O8F-PIXYW

REPORT NUMBER: 10U13098-1

ISSUE DATE: MARCH 22, 2010

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
---	03/22/10	Initial Issue	T. Chan

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1. ATTESTATION OF TEST RESULTS

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

EUT DESCRIPTION: GSM PHONE WITH 802.11B/G AND BLUETOOTH

MODEL: P121UEU

SERIAL NUMBER: PD4EU27A3208

DATE TESTED: MARCH 10-17, 2010

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 22 Subpart H	Pass
CFR 47 Part 24 Subpart E	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, 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:

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

The EUT is a GSM850/1900MHz with 802.11bg and BT 2.1, EDR Phone.

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
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
Earphone	Palm	180-10632-00
USB cable	Palm	180-10647-00
Inductive Back Cover (black color)	Palm	180-10721-00

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum ERP & EIRP output powers as follows:

Part 22 Cellular Band

Frequency range (MHz)	Modulation	Conducted		ERP	
		dBm	mW	dBm	mW
824.2 – 848.8	GSM	32.91	1954.3	30.60	1148.2
824.2 – 848.8	EGPRS	30.81	1205.0	27.40	549.5

Part 24 PCS Band

Frequency range (MHz)	Modulation	Conducted		EIRP	
		dBm	mW	dBm	mW
1850.20 – 1909.8	GSM	29.80	955.0	32.20	1659.6
1850.20 – 1909.8	EGPRS	29.56	903.6	29.70	933.3

5.3. DESCRIPTION OF AVAILABLE ANTENNS

The radio utilizes a PCB integrated antenna with a maximum gain of 4.3dBi for Cell band and 0.4dBi for PCS band.

5.4. SOFTWARE AND FIRMWARE

The EUT is linked with CMU200 Communication Test Set.

5.5. WORST-CASE CONFIGURATION AND MODE

The worst-case channel is determined as the channel with the highest output power.

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

Worst case modes:

- Cellular Band:
 - GSM (GSMK) – with highest peak power
 - EGPRS (8PSK) – with Enhanced Data rates
- PCS Band:
 - GSM (GSMK) – with highest peak power
 - EGPRS (8PSK) – with Enhanced Data rates

For the fundamental investigation, since the EUT is a portable device that has three orientations; therefore X, Y and Z orientations have been investigated, also with AC/DC adapter, and inductive charging dock position, and the worst case was found to be at Y orientation without AC/DC adapter.

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.

For the AC line conducted test, both worst configurations were tested as EUT with AC/DC adapter and EUT with inductive charging dock.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	Manufacturer	Model	Serial Number	FCC ID
DC Power Supply	XANTREX	XHR 60-18	NA	NA
Communication Test Set	R&S	CMU200	106291	NA
Directional Coupler	Amplifier Research	DC7144A	NA	NA
EarPhone	Palm	NA	NA	NA

I/O CABLES (CONDUCTED 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	RF In/Out	1	Directional Coupler	Un-shielded	1m	NA
3	RF In/Out	1	Communication Test Set	Un-shielded	1.2m	NA
4	RF In/Out	1	Phone	Un-shielded	0.1m	NA

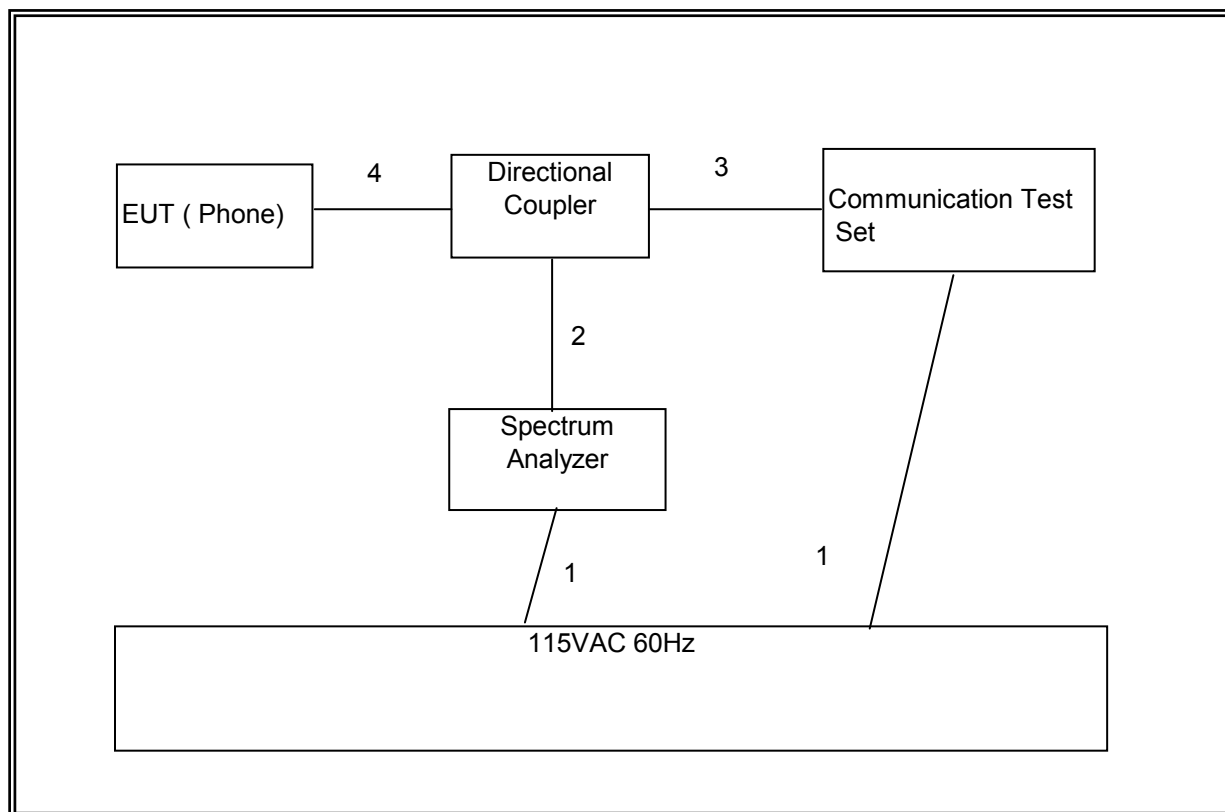
I/O CABLES (RADIATED TEST)

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	None	NA
4	Audio	1	Earphone	Un-shielded	1m	NA
3	RF In/Out	1	Horn	Un-shielded	4m	NA

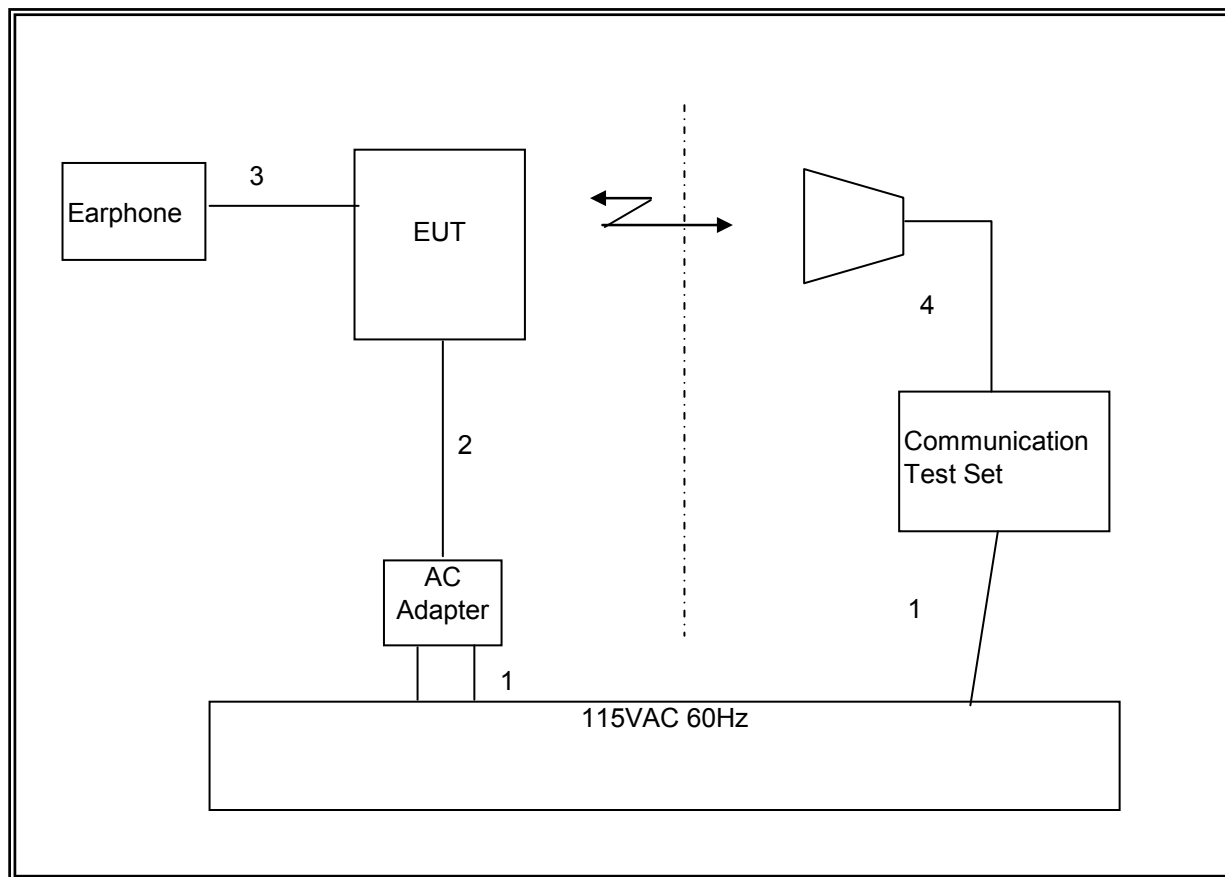
TEST SETUP

The EUT is a stand alone device. A link is established between the EUT and the CMU200 communications test set.

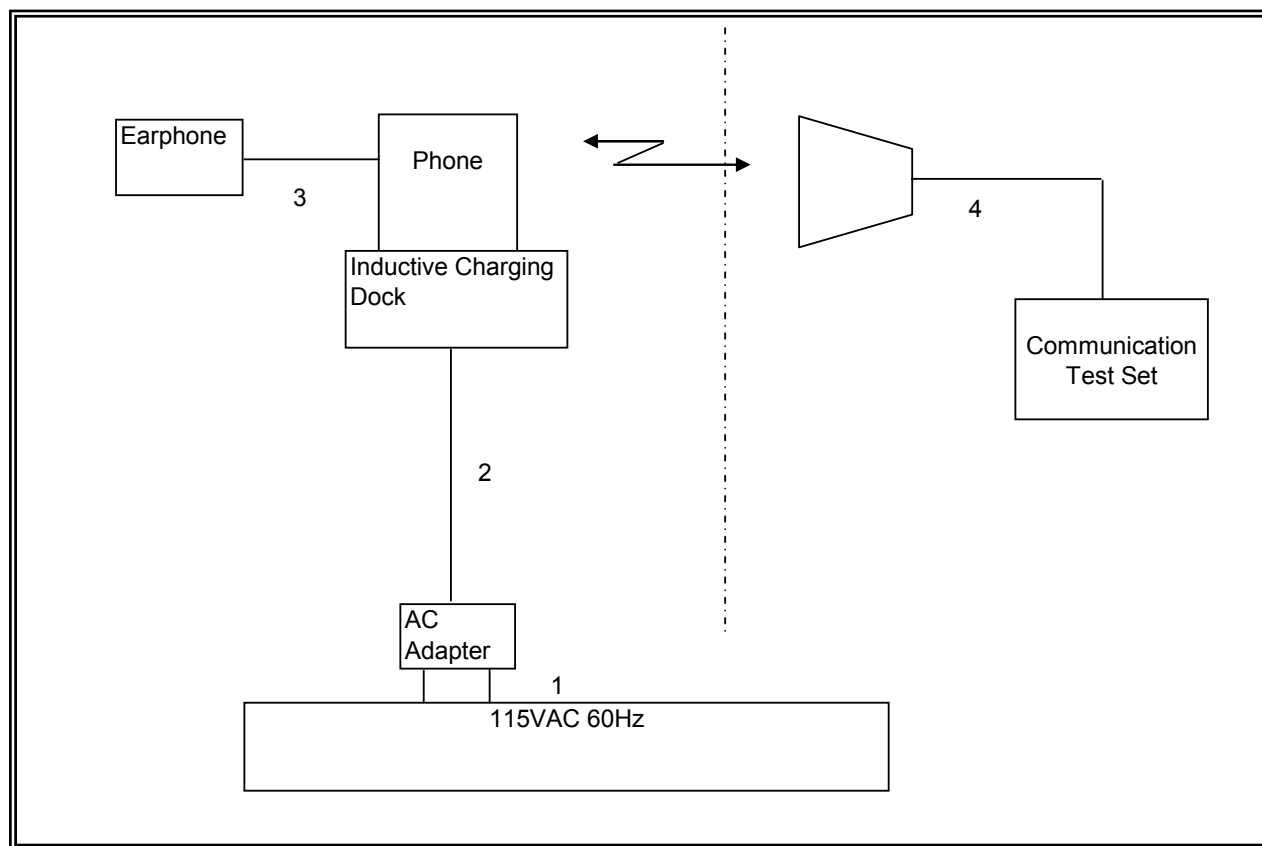
SETUP DIAGRAM FOR CONDUCTED TESTS



SETUP DIAGRAM FOR RADIATED TESTS



SETUP DIAGRAM FOR EUT WITH INDUCTIVE CHARGING DOCK



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
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01063	08/04/10
Antenna, Horn, 18 GHz	EMCO	3115	C00783	07/29/10
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C01011	07/14/10
Spectrum Analyzer, 26.5 GHz	Agilent / HP	E4440A	C01178	08/31/10
Communication Test Set	R & S	CMU 200	C00944	12/16/10
Peak Power Meter	Agilent / HP	E4416A	C00963	12/04/11
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	01/07/12
Temperature / Humidity Chamber	Thermotron	SE 600-10-10	C00930	04/06/10
Highpass Filter, 2.7 GHz	Micro-Tronics	HPM13194	N02687	CNR
Highpass Filter, 1.5 GHz	Micro-Tronics	HPM13193	N02688	CNR
Signal Generator, 20 GHz	Agilent / HP	83732B	C00774	07/03/10
Antenna, Tuned Dipole 400~1000	ETS	3121C DB4	C00993	06/17/10

7. RF CONDUCTED POWER OUTPUT

RF POWER OUTPUT FOR GSM (GMSK)						
Band	Ch	Frequency	Conducted output power (dBm)			
			Average		Peak	
GSM850	128	824.2	32.50		32.60	
	190	836.6	32.50		32.73	
	251	848.8	32.70		32.91	
GSM1900	512	1850.2	29.6		29.80	
	661	1880	29.3		29.56	
	810	1909.8	29.4		29.71	
RF POWER OUTPUT FOR GPRS (GMSK) - Coding scheme: MCS4						
Band	Ch	Frequency	Conducted output power (dBm)			
			Average		Peak	
			1 slot	2 slot	1 slot	2 slot
GSM850	128	824.2	32.5	31.4	32.61	31.45
	190	836.6	32.60	31.3	32.70	31.42
	251	848.8	32.70	31.3	32.90	31.55
GSM1900	512	1850.2	29.60	29.5	29.81	29.76
	661	1880	29.30	29.2	29.59	29.55
	810	1909.8	29.04	29.3	29.74	29.70

RF POWER OUTPUT FOR EGPRS (8PSK) - Coding scheme: MCS9						
Band	Ch	Frequency	Conducted output power (dBm)			
			Average		Peak	
			1 slot	2 slot	1 slot	2 slot
GSM850	128	824.2	27.50	27.40	30.35	30.34
	190	836.6	27.50	27.40	30.52	30.50
	251	848.8	27.60	27.50	30.81	30.67
GSM1900	512	1850.2	26.5	26.4	29.56	29.48
	661	1880	26.3	26.2	29.27	29.26
	810	1909.8	26.6	26.5	29.56	29.54

8. CONDUCTED TEST RESULTS

8.1. OCCUPIED BANDWIDTH

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the -26 dB bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal -26 dB bandwidth function is utilized.

RESULTS

CELL,GSM Modulation

Channel	Frequency (MHz)	99% BW (kHz)	-26dB BW (kHz)
Low	824.20	241.798	276.756
Middle	836.60	244.513	309.407
High	848.80	239.229	301.773

CELL,EGPRS Modulation

Channel	Frequency (MHz)	99% BW (kHz)	-26dB BW (kHz)
Low	824.20	236.461	302.010
Middle	836.60	240.550	282.143
High	848.80	250.078	303.427

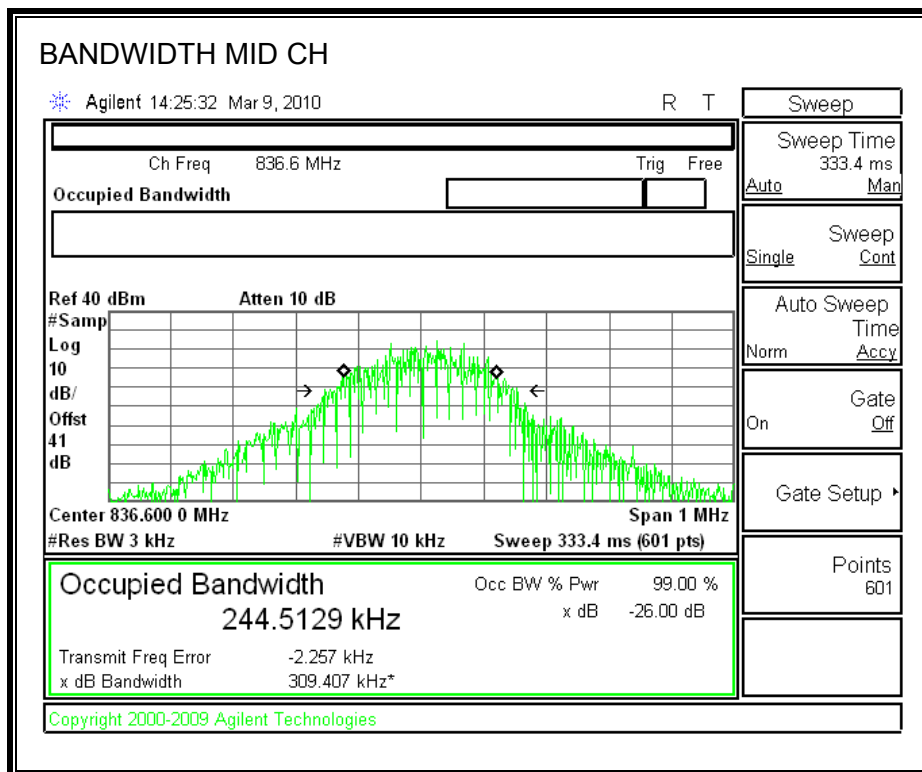
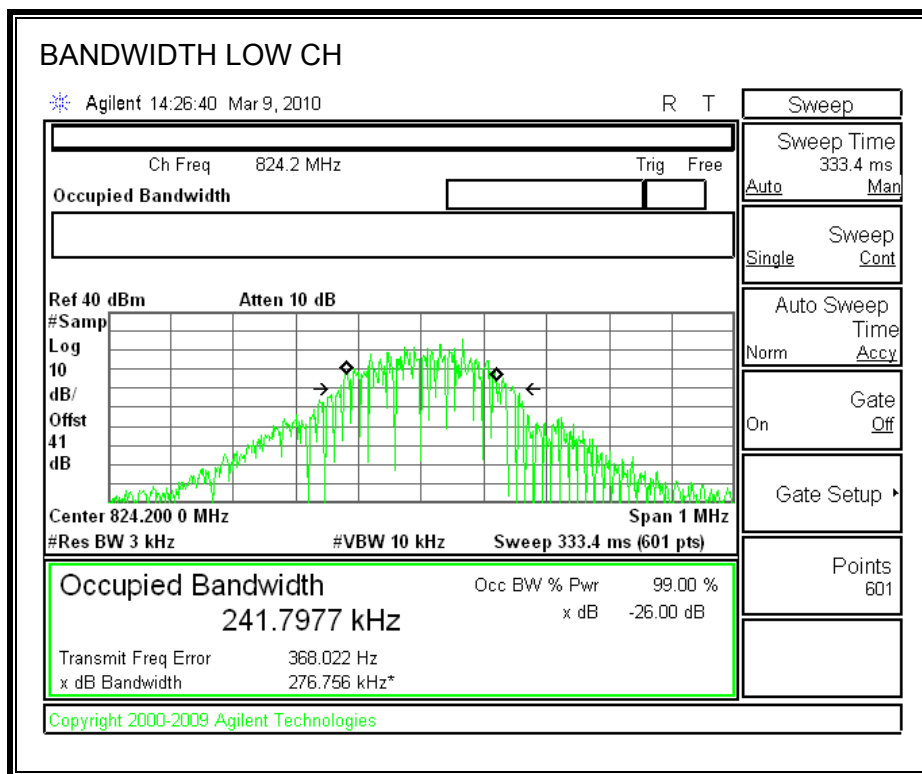
PCS, GSM Modulation

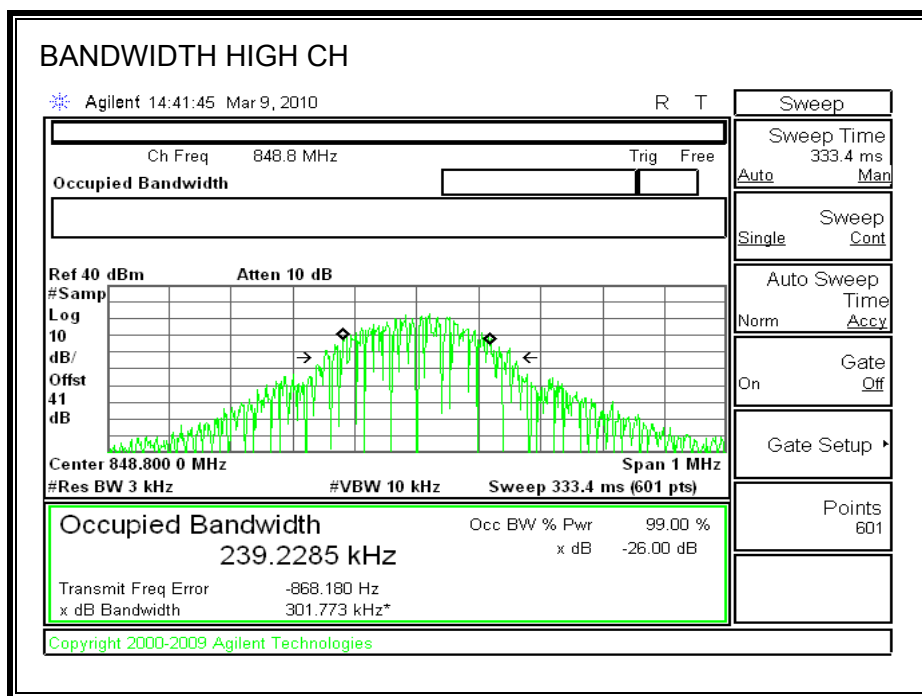
Channel	Frequency (MHz)	99% BW (kHz)	-26dB BW (kHz)
Low	1850.20	245.146	310.390
Middle	1880.00	242.205	302.899
High	1909.80	246.086	306.484

PCS, EGPRS Modulation

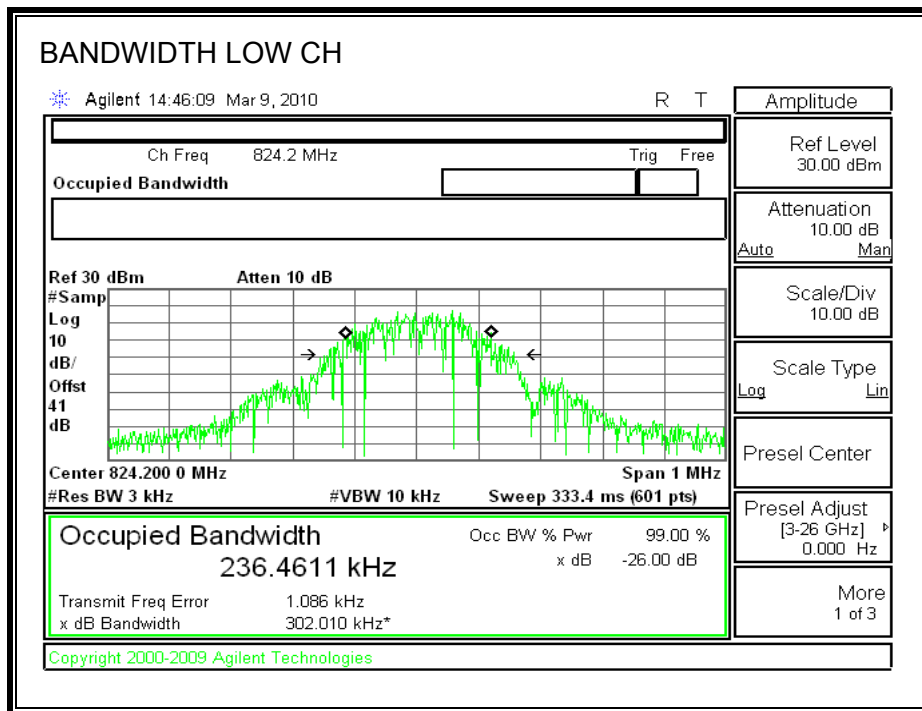
Channel	Frequency (MHz)	99% BW (kHz)	-26dB BW (kHz)
Low	1850.20	245.459	297.750
Middle	1880.00	249.779	308.811
High	1909.80	251.639	301.190

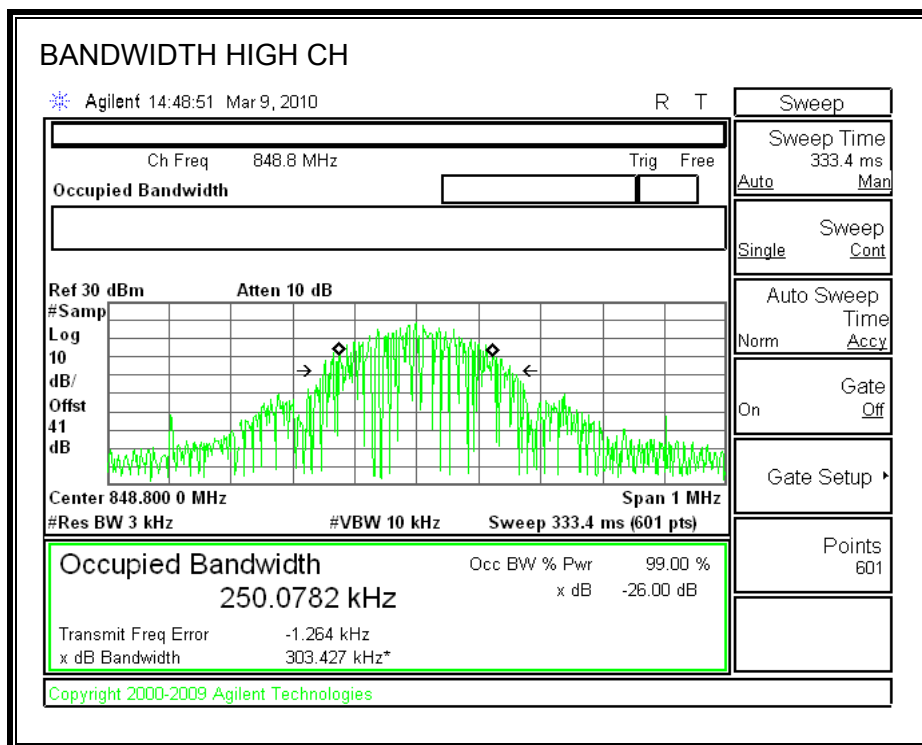
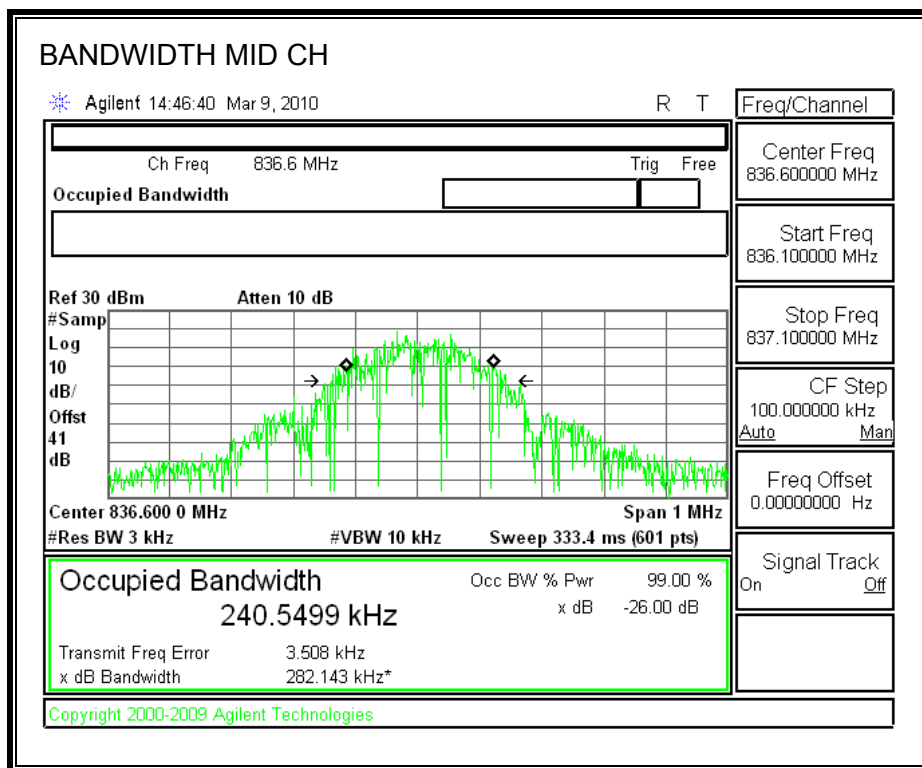
CELL, GSM850 BANDWIDTH



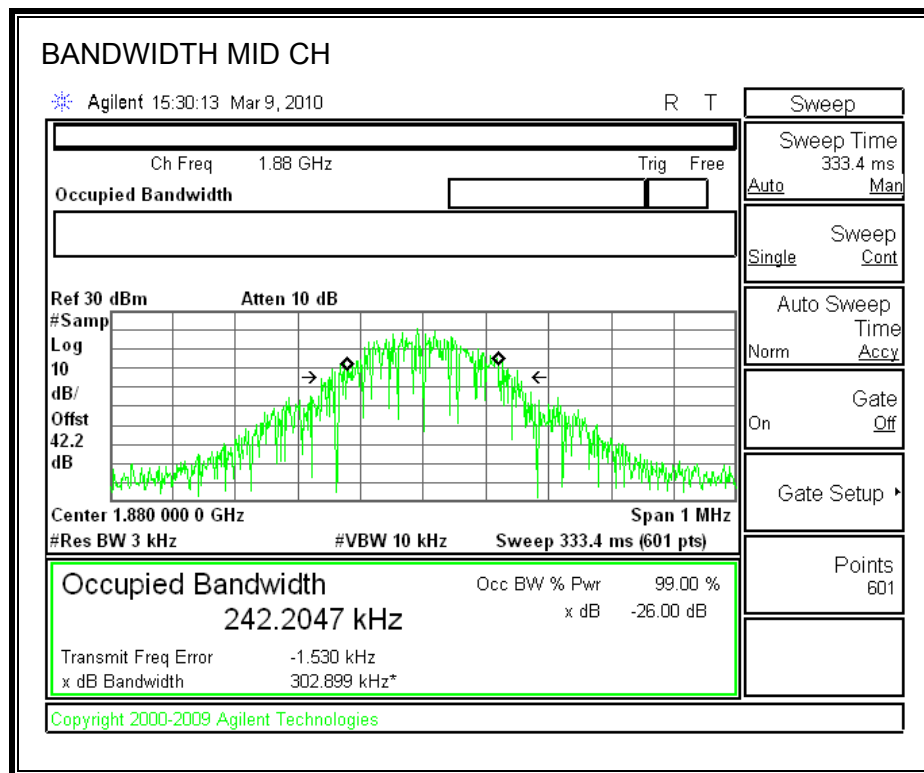
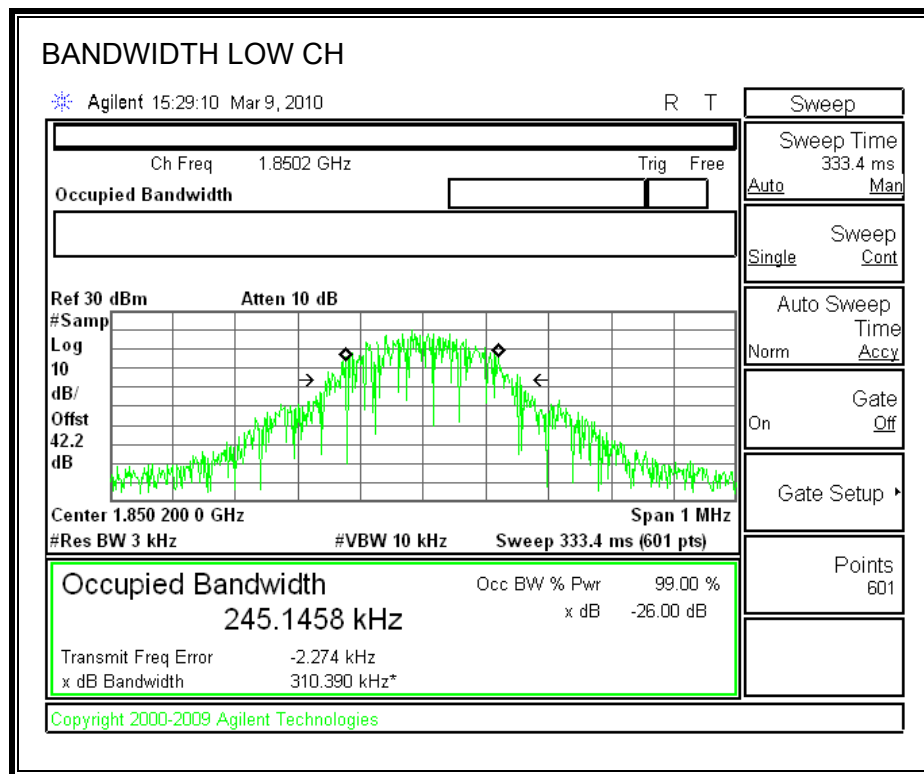


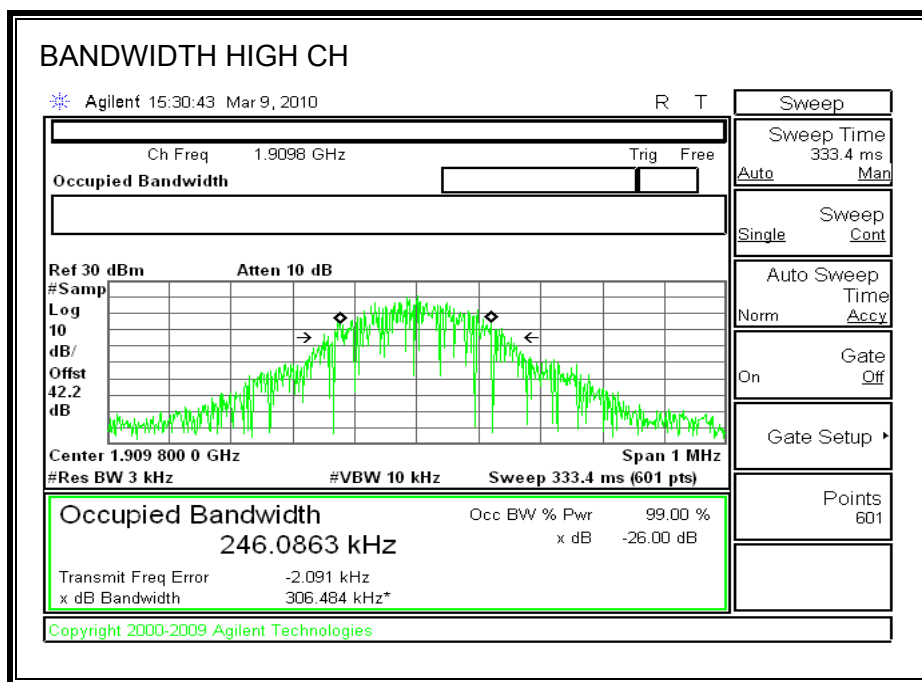
CELL, EGPRS850 BANDWIDTH



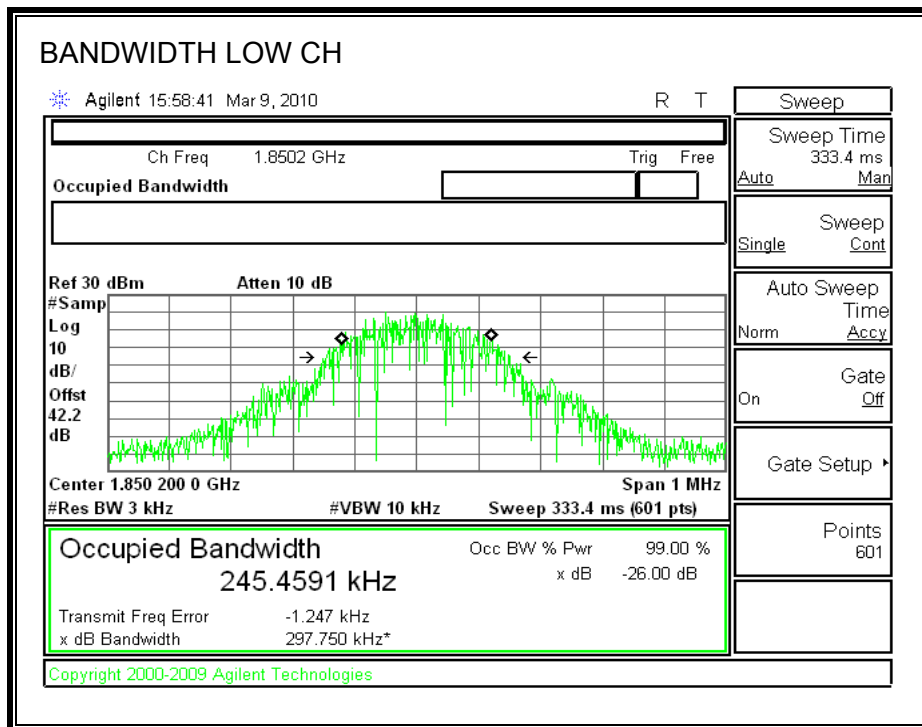


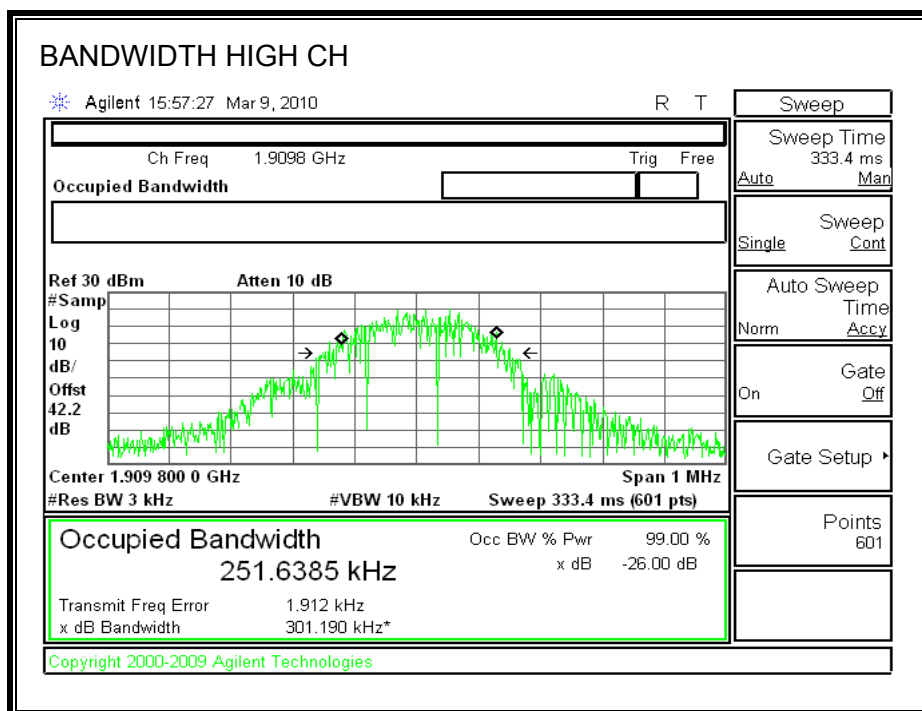
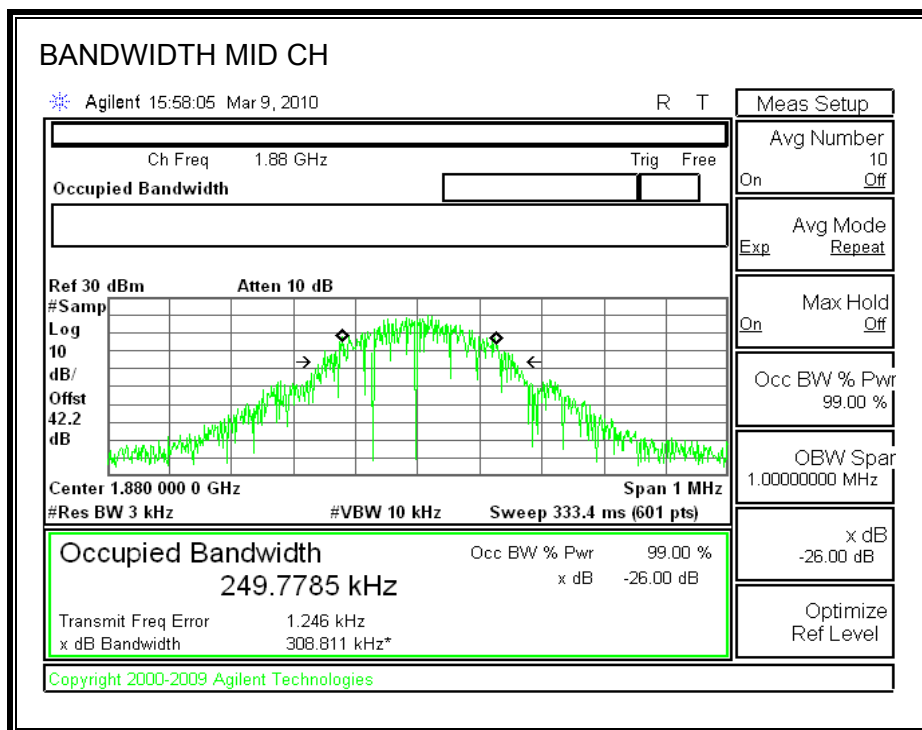
PCS, GSM1900 BANDWIDTH





PCS, EGPRS1900 BANDWIDTH





8.2. SPURIOUS EMISSION AT ANTENNA TERMINAL

LIMIT

§22.917 (e) and §24.238 (a), The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB

TEST PROCEDURE

ANSI / TIA / EIA 603 Clause 3.2.13 & FCC 22.917 (h)

RESULTS

-

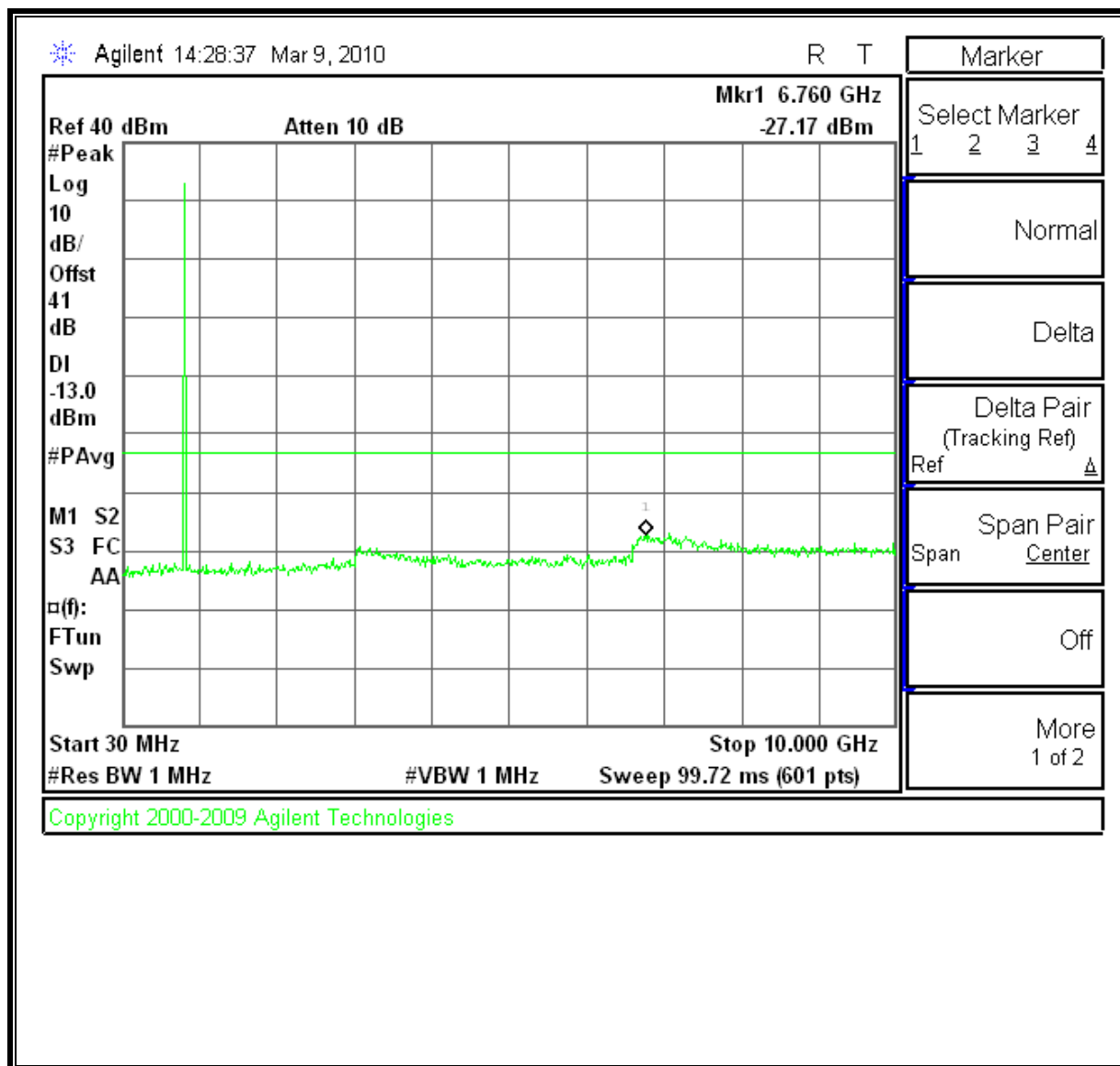
MODES TESTED

- GSM - GSM (GSMK) & EGPRS (8PSK)

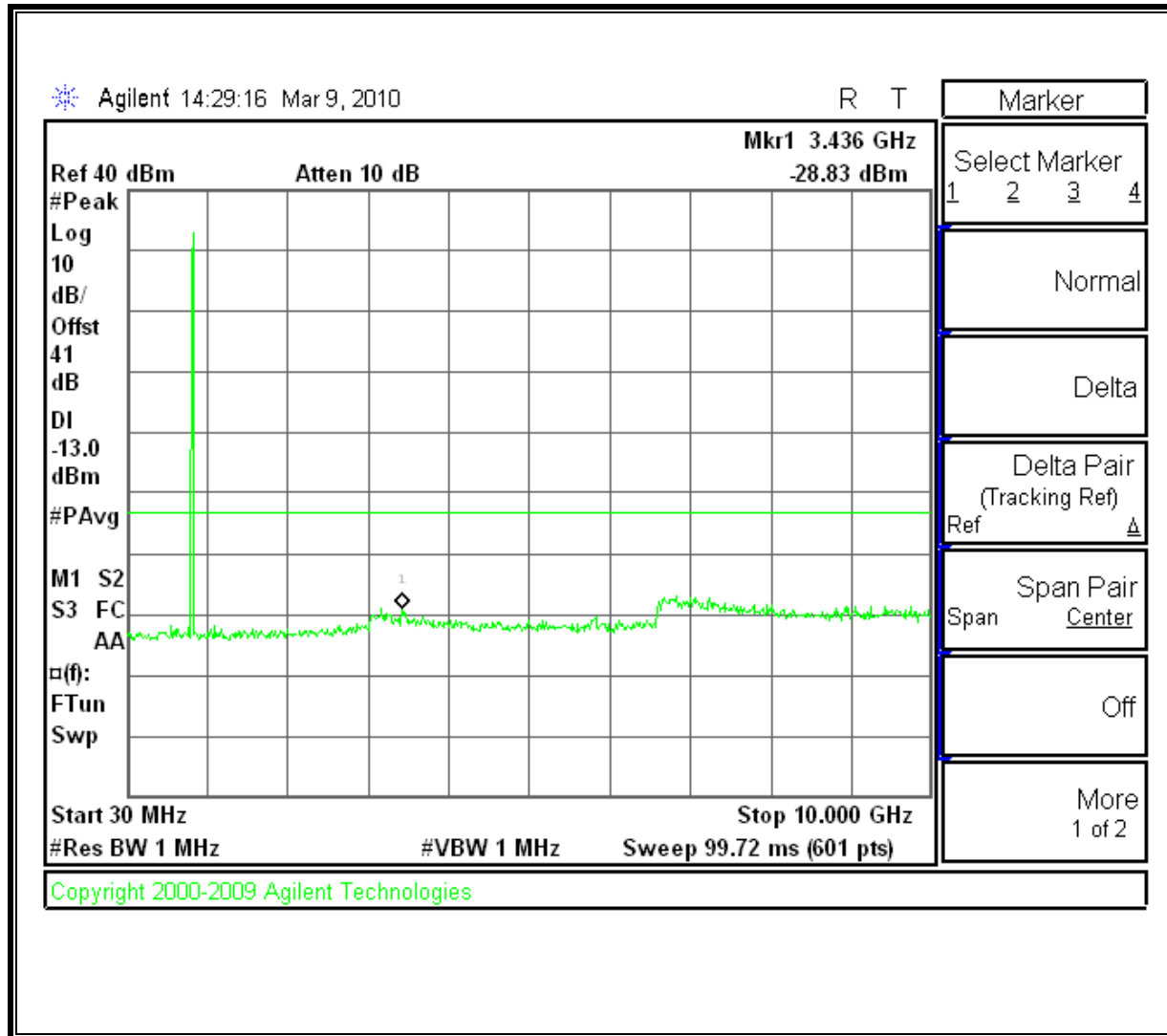
RESULTS

CELL, GSM850 MODULATION:

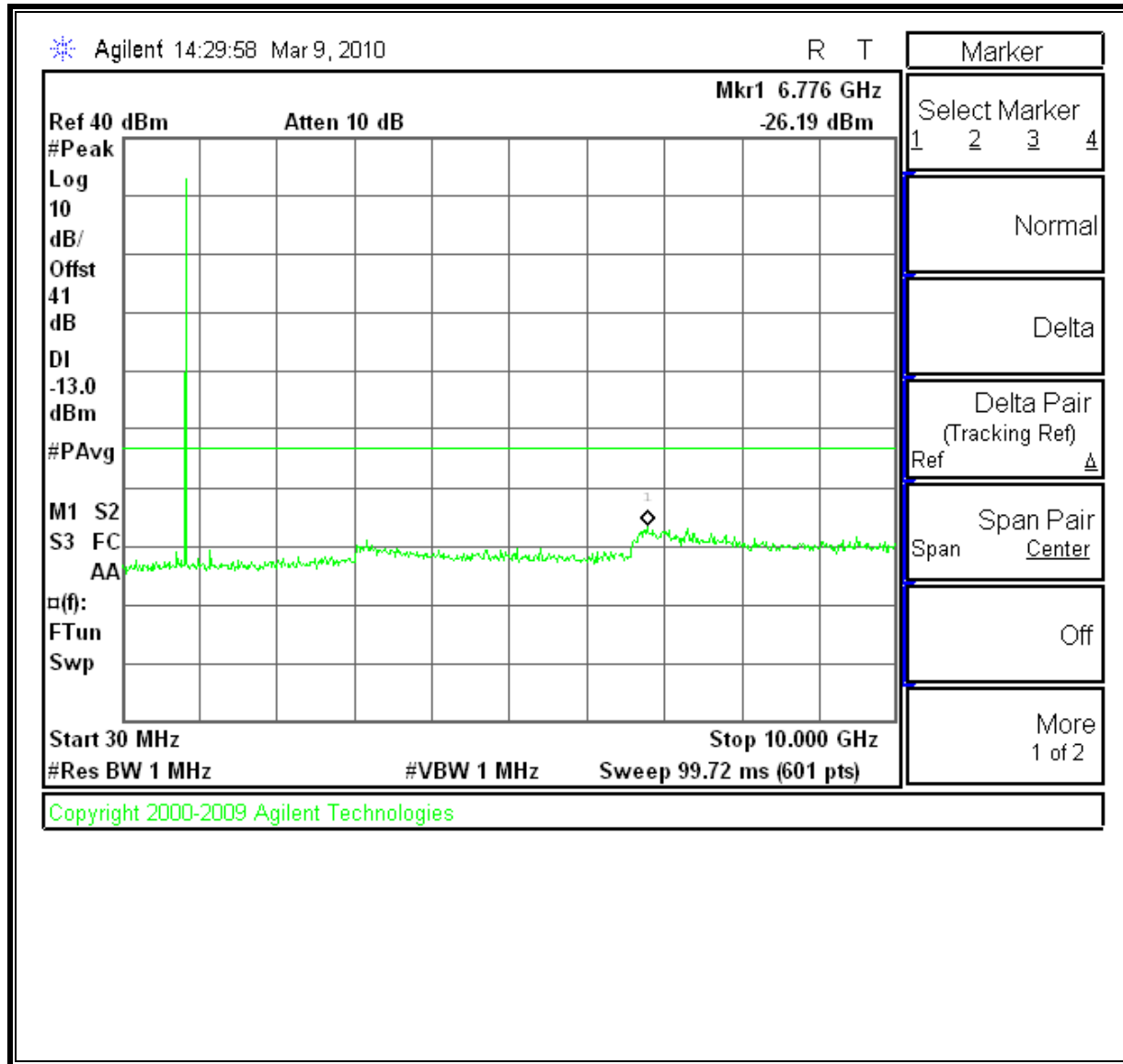
Low Channel, Out-Of-Band Emissions



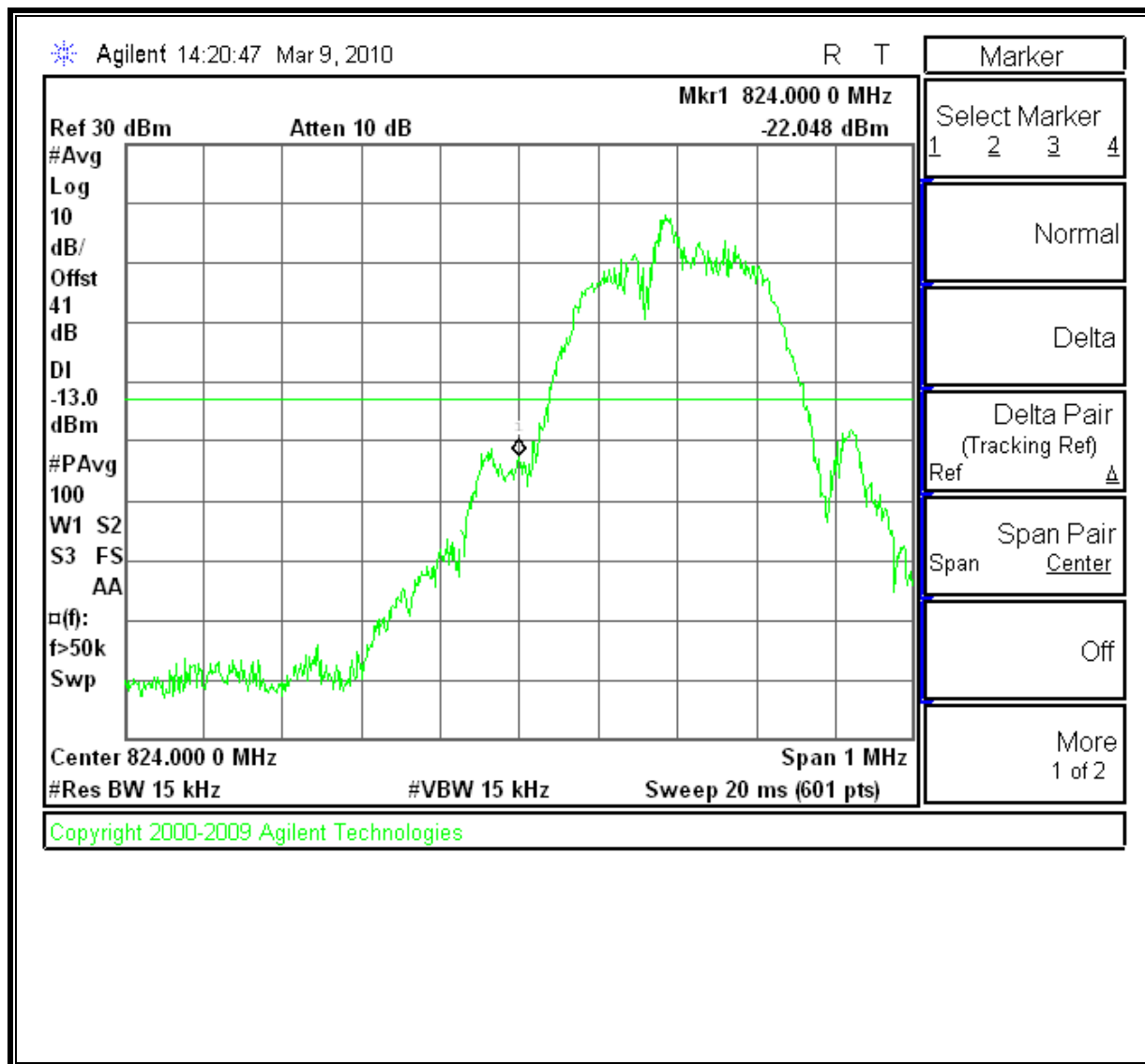
Mid Channel, Out-Of-Band Emissions



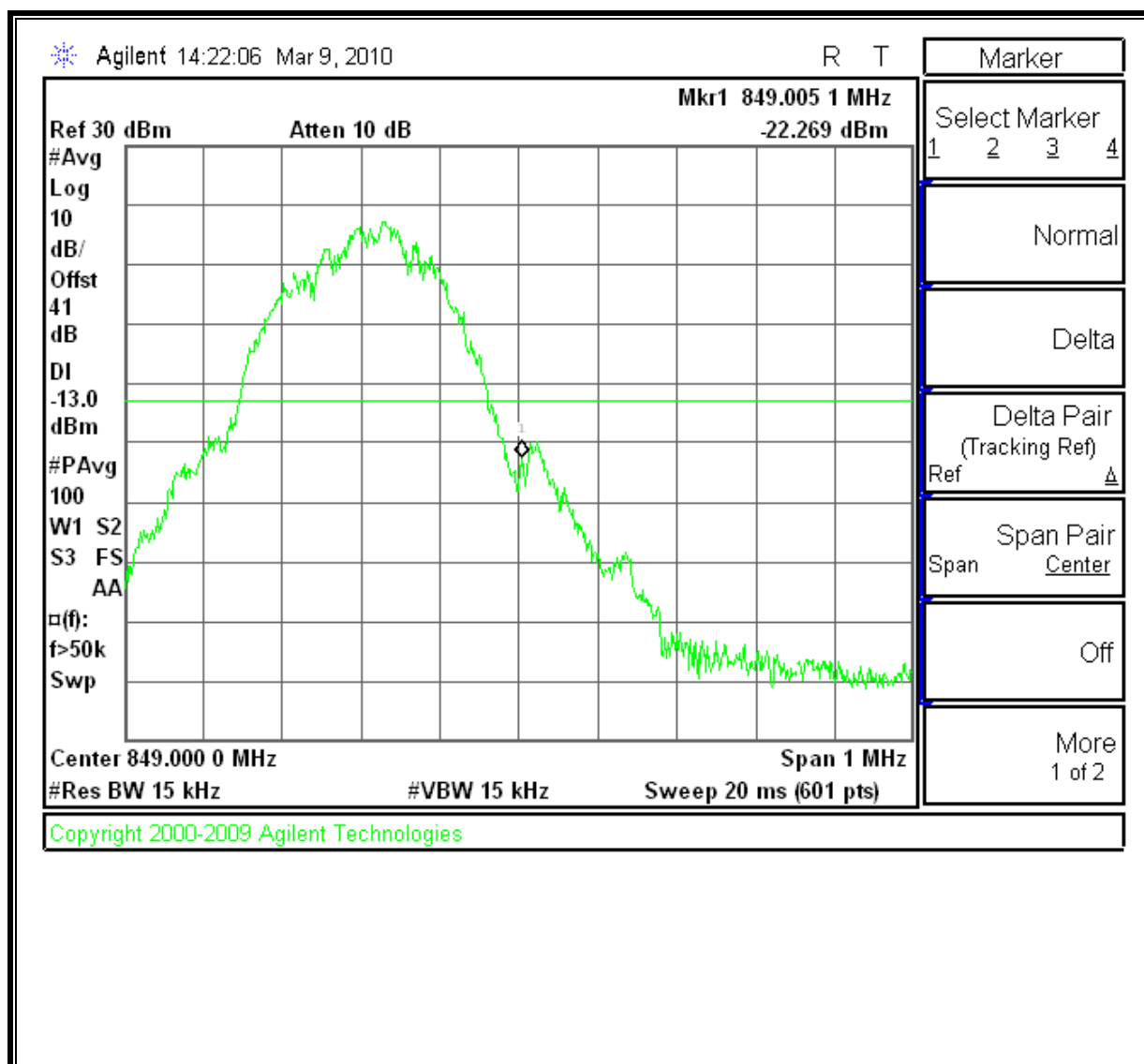
High Channel, Out-Of-Band Emissions



Low Channel Band Edge

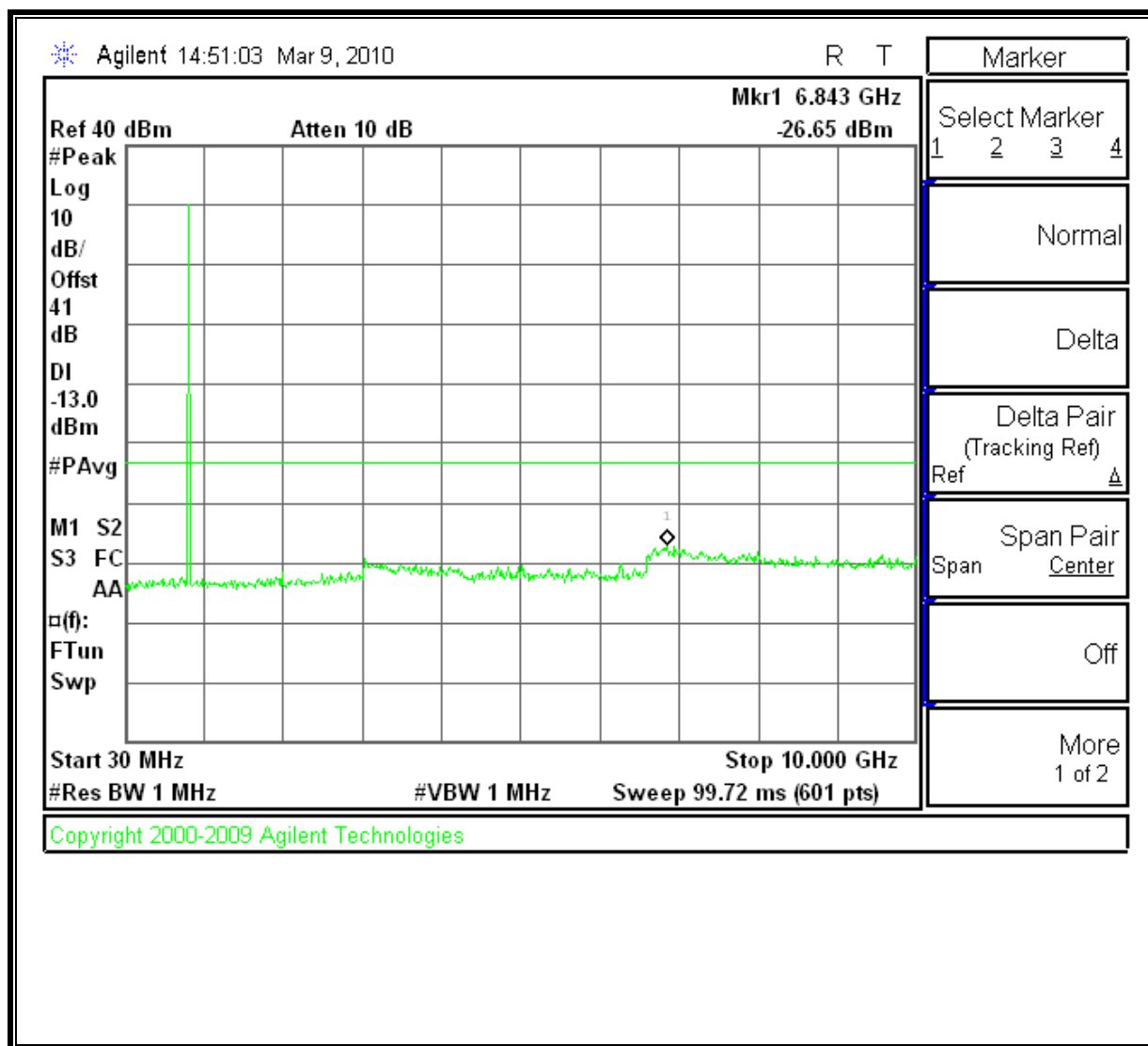


High Channel Band Edge

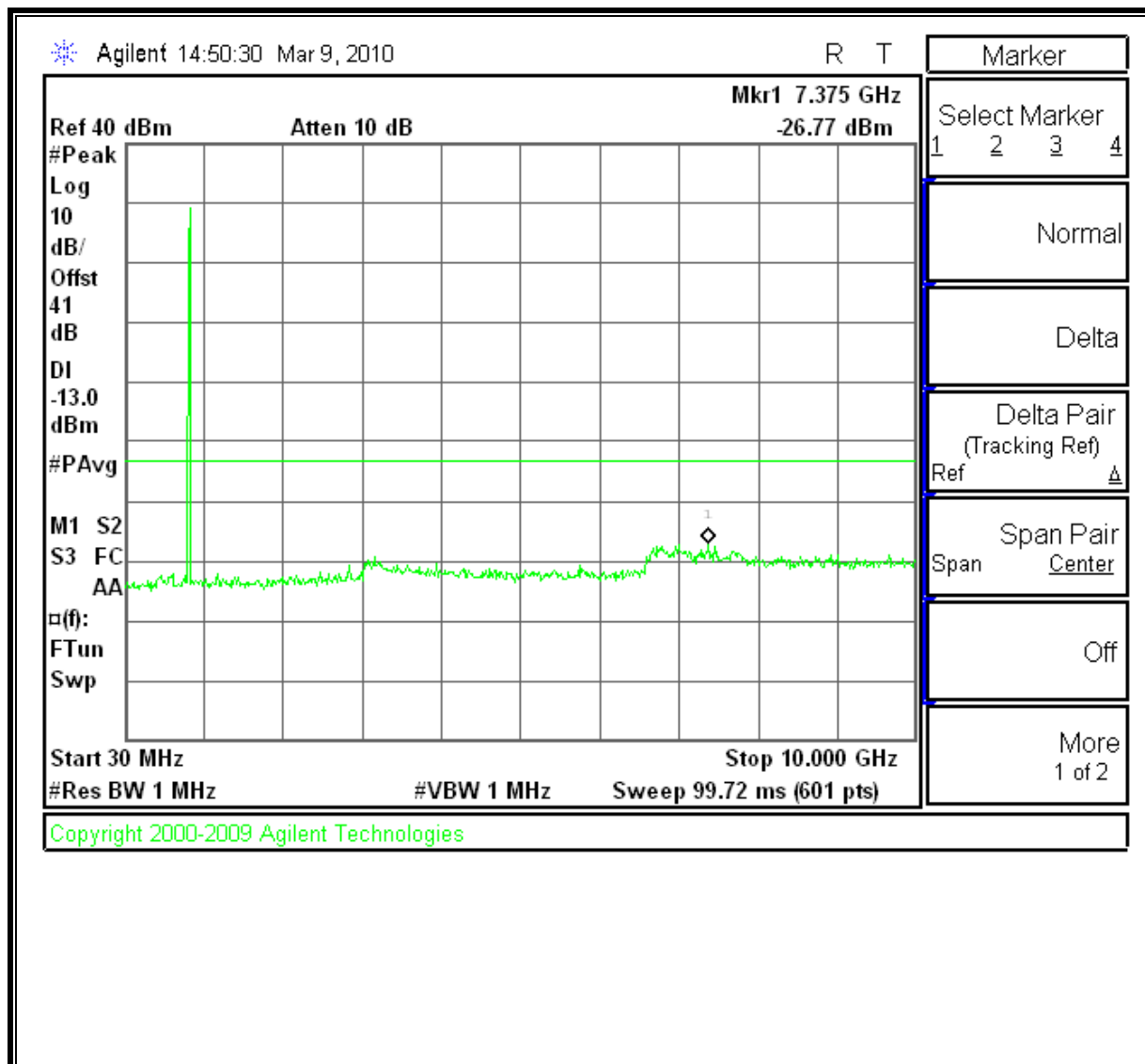


CELL, EGPRS MODULATION:

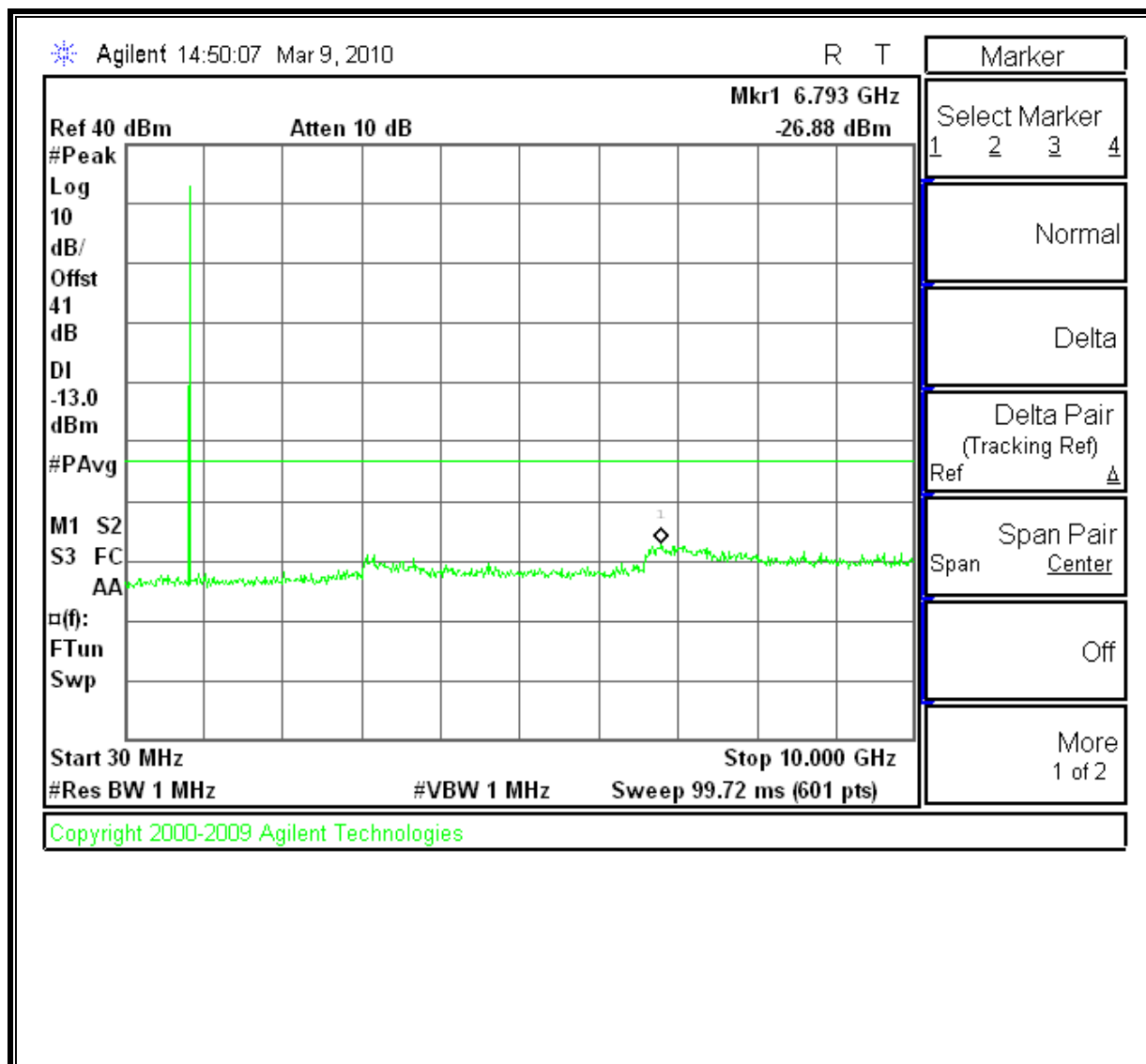
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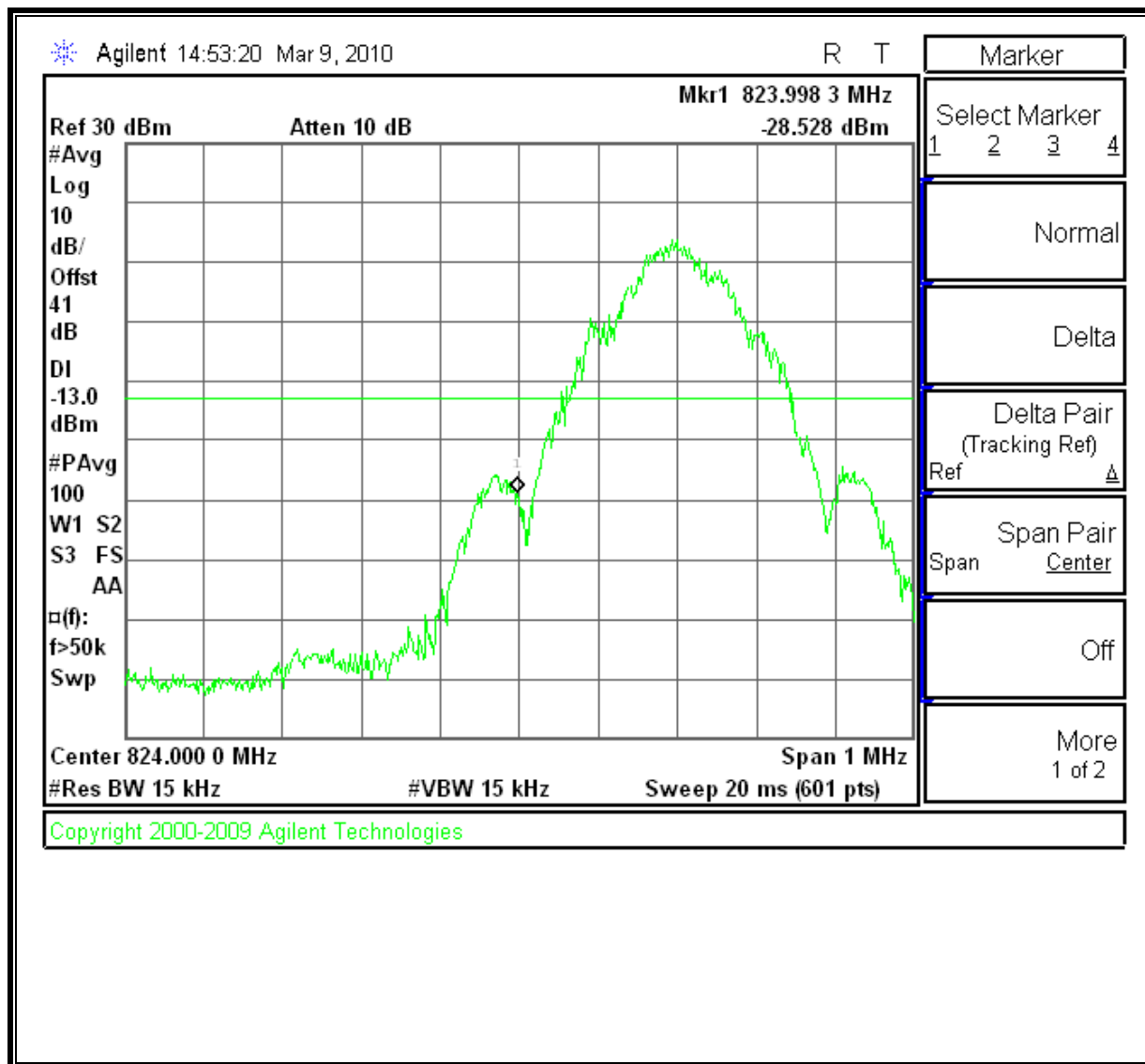
Mid Channel, Out-Of-Band Emissions



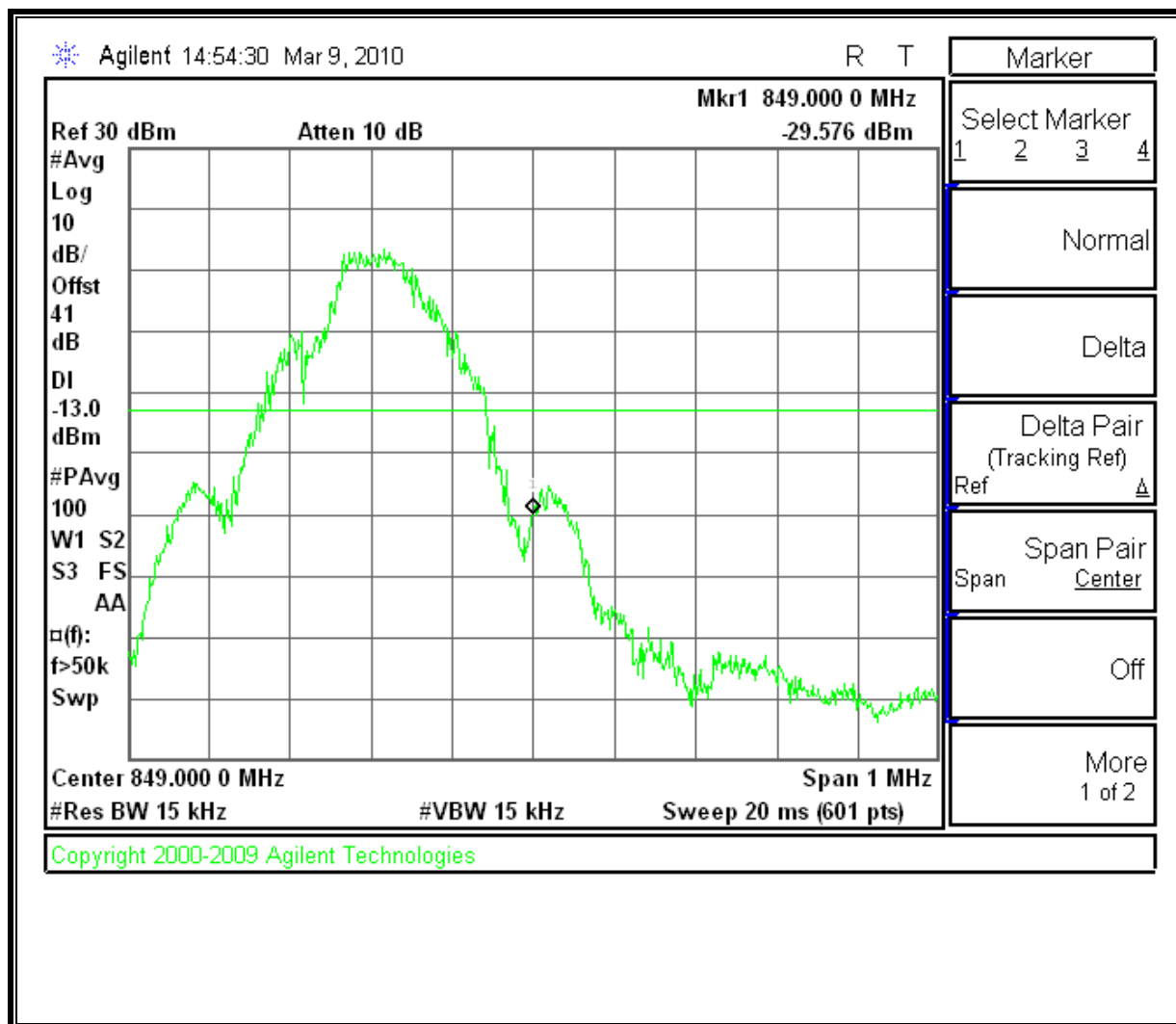
High Channel, Out-Of-Band Emissions



Low Channel Band Edge

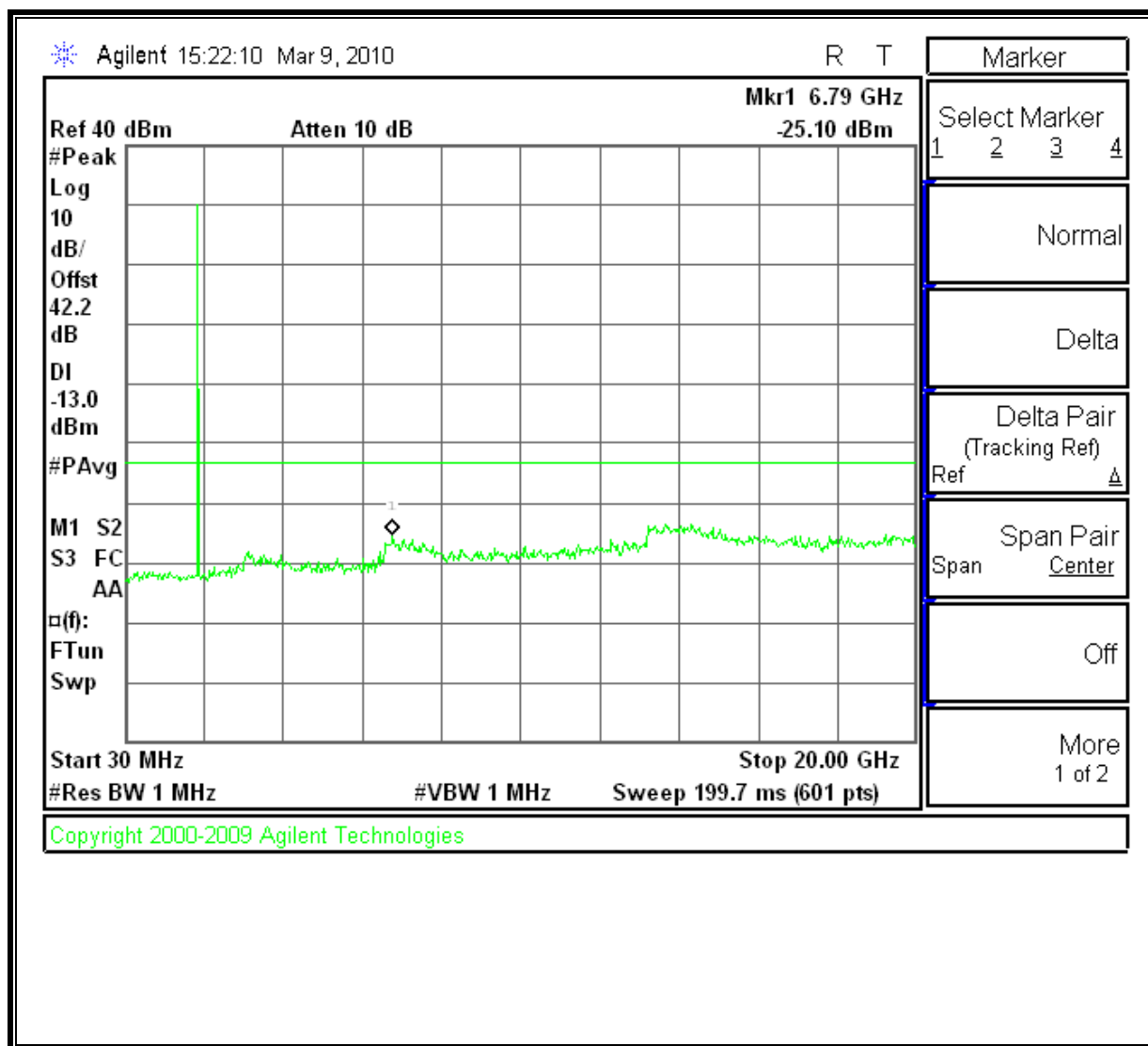


High Channel Band Edge

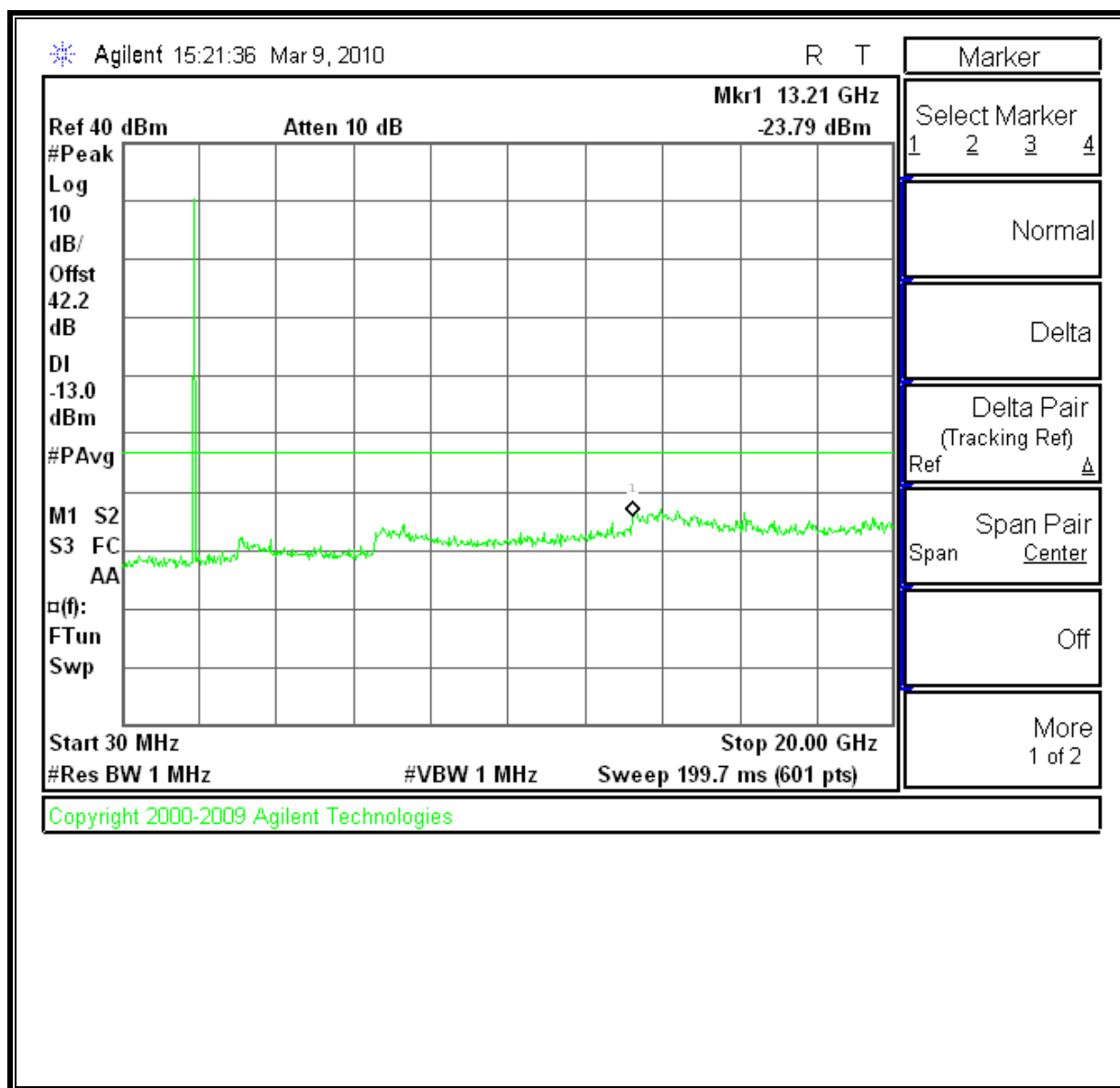


PCS GSM1900 MODULATION RESULTS

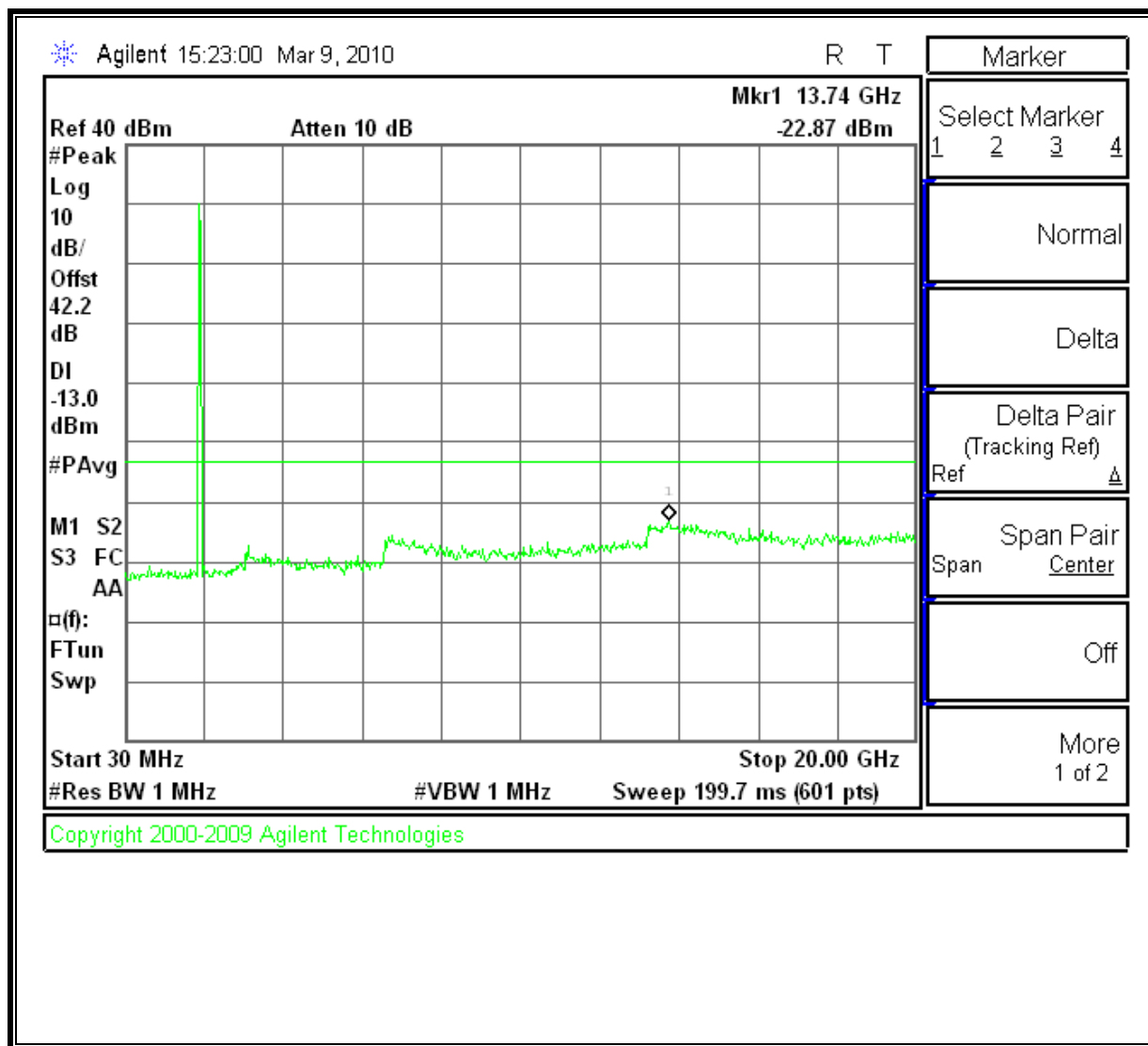
Low Channel, Out-Of-Band Emissions



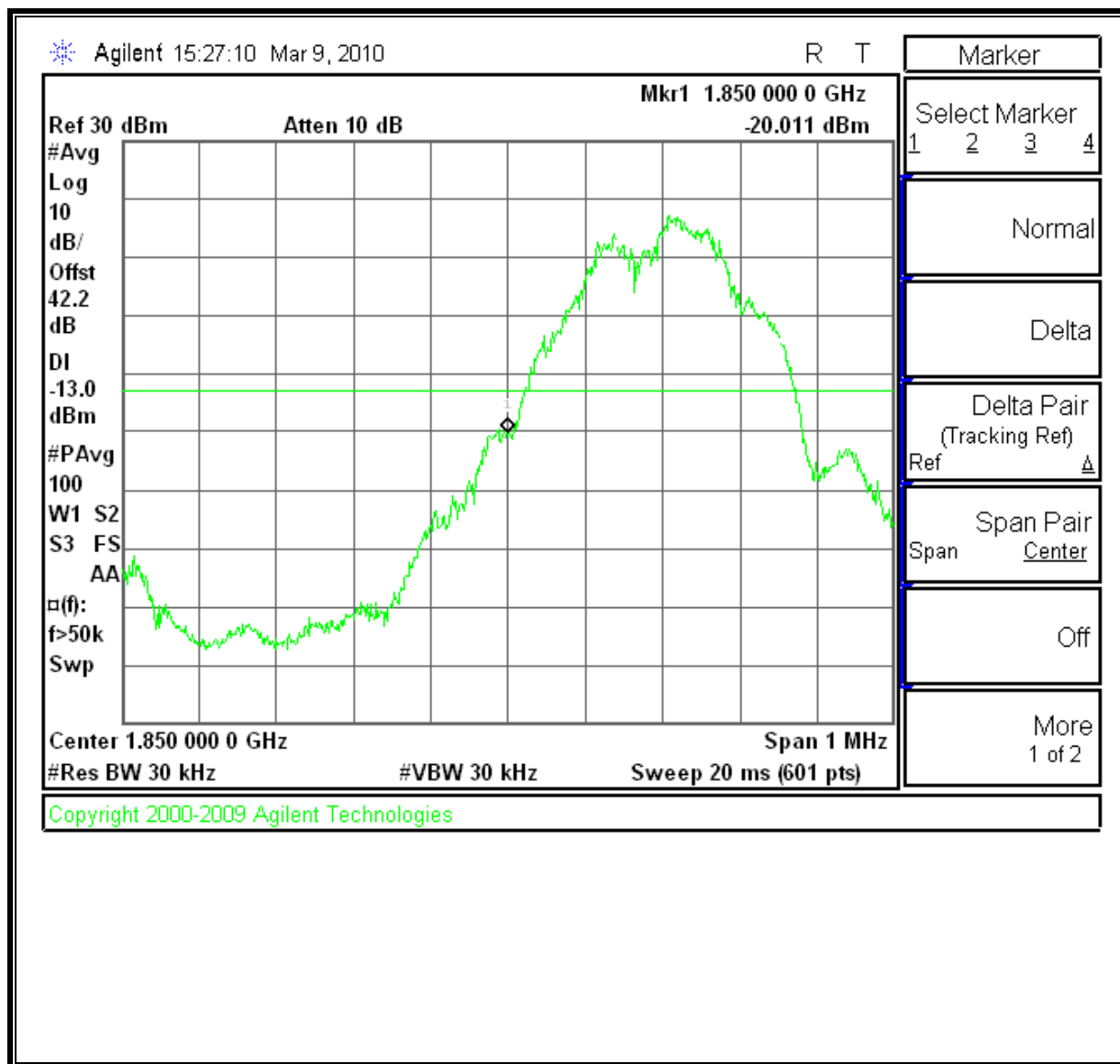
Mid Channel, Out-Of-Band Emissions



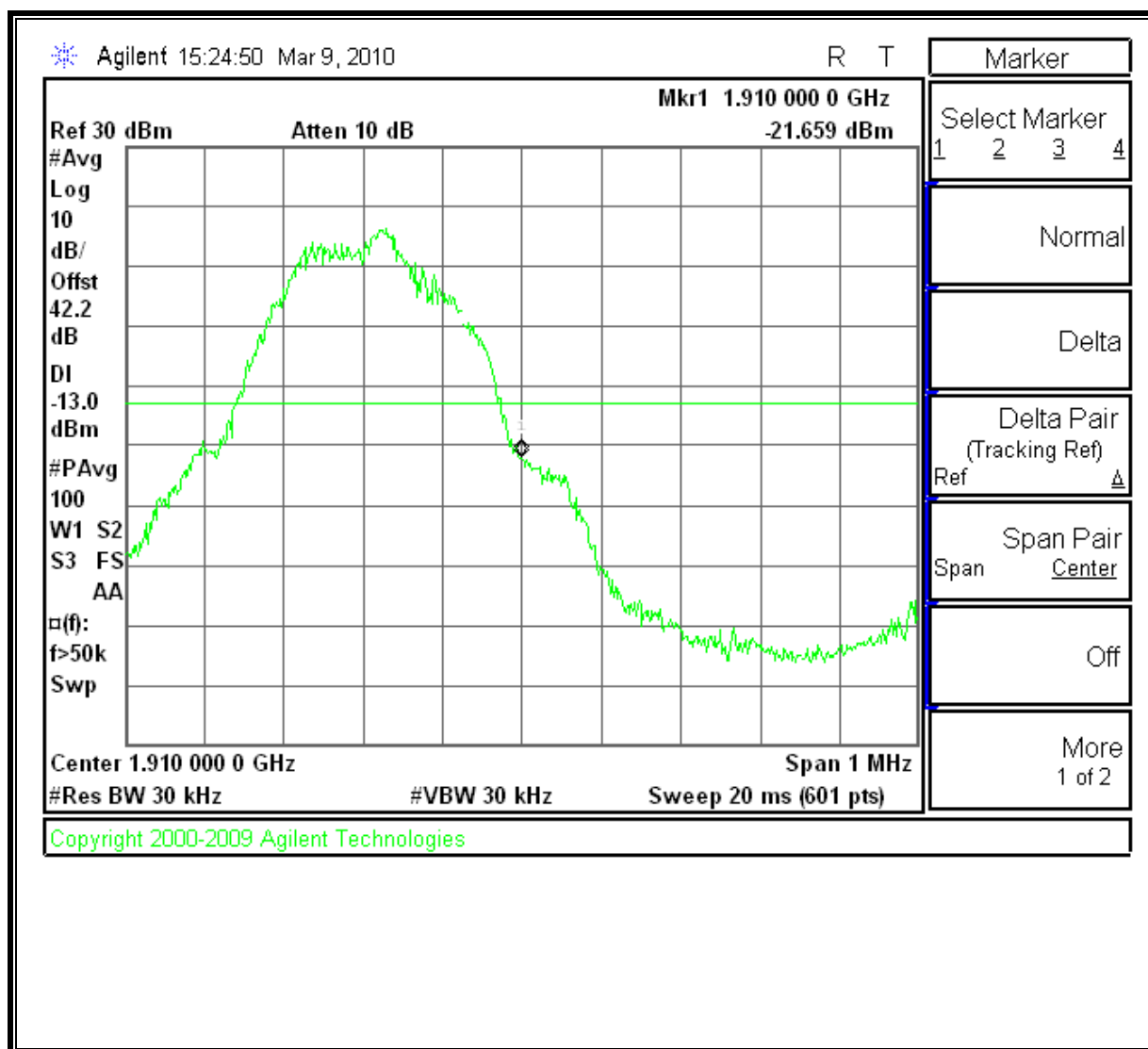
High Channel, Out-Of-Band Emissions



Low Channel Band Edge

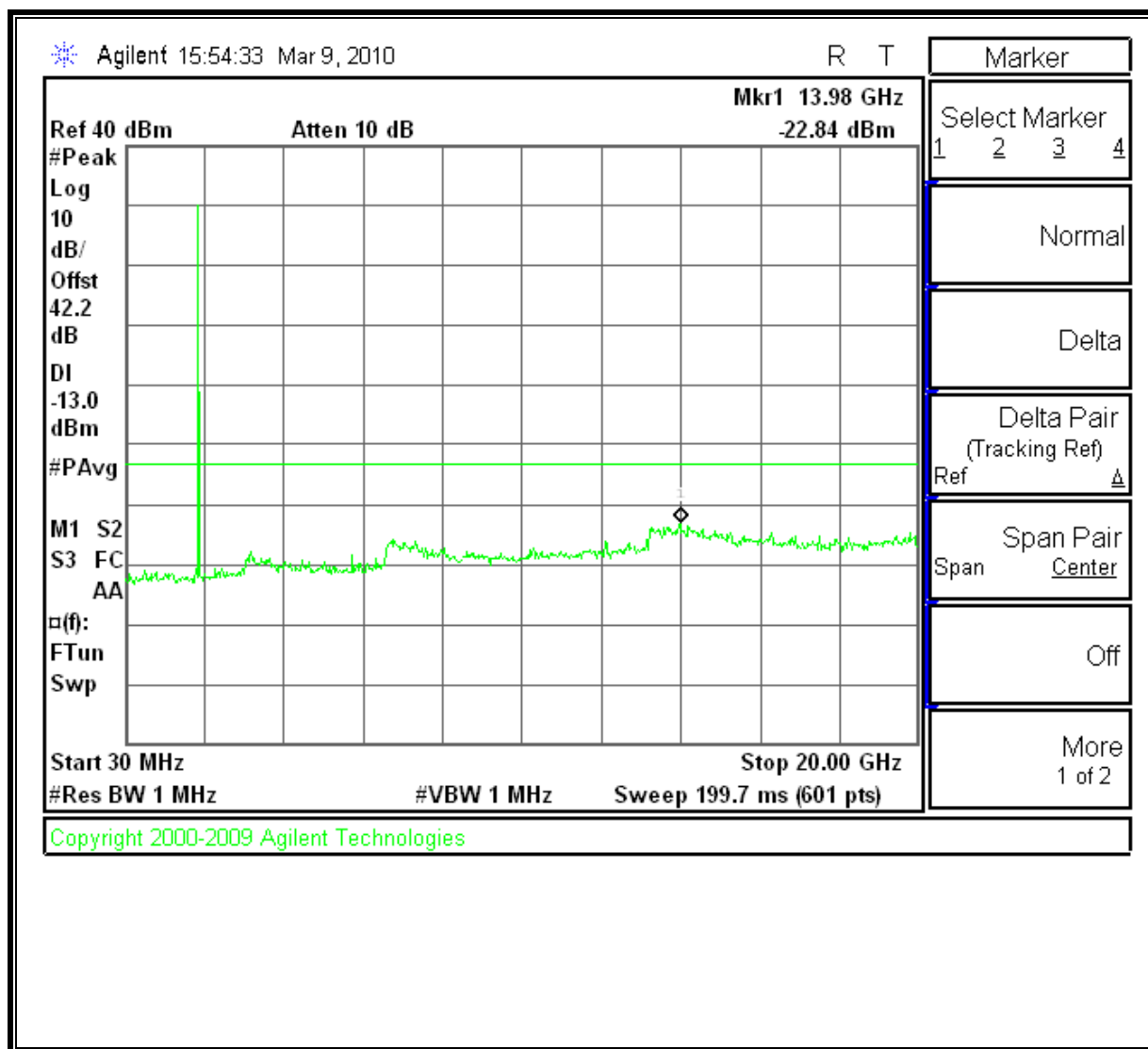


High Channel Band Edge

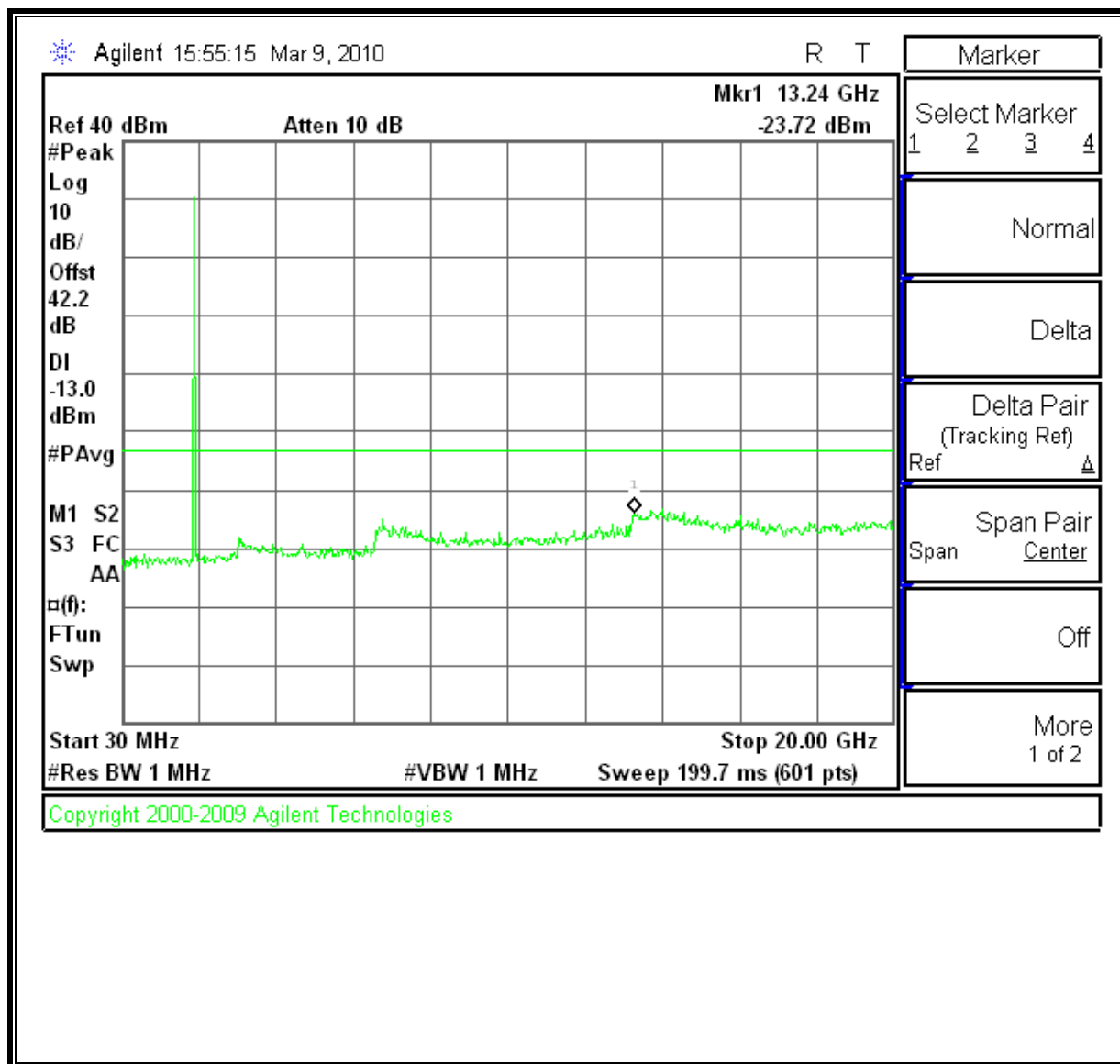


PCS EGPRS1900 MODULATION RESULTS

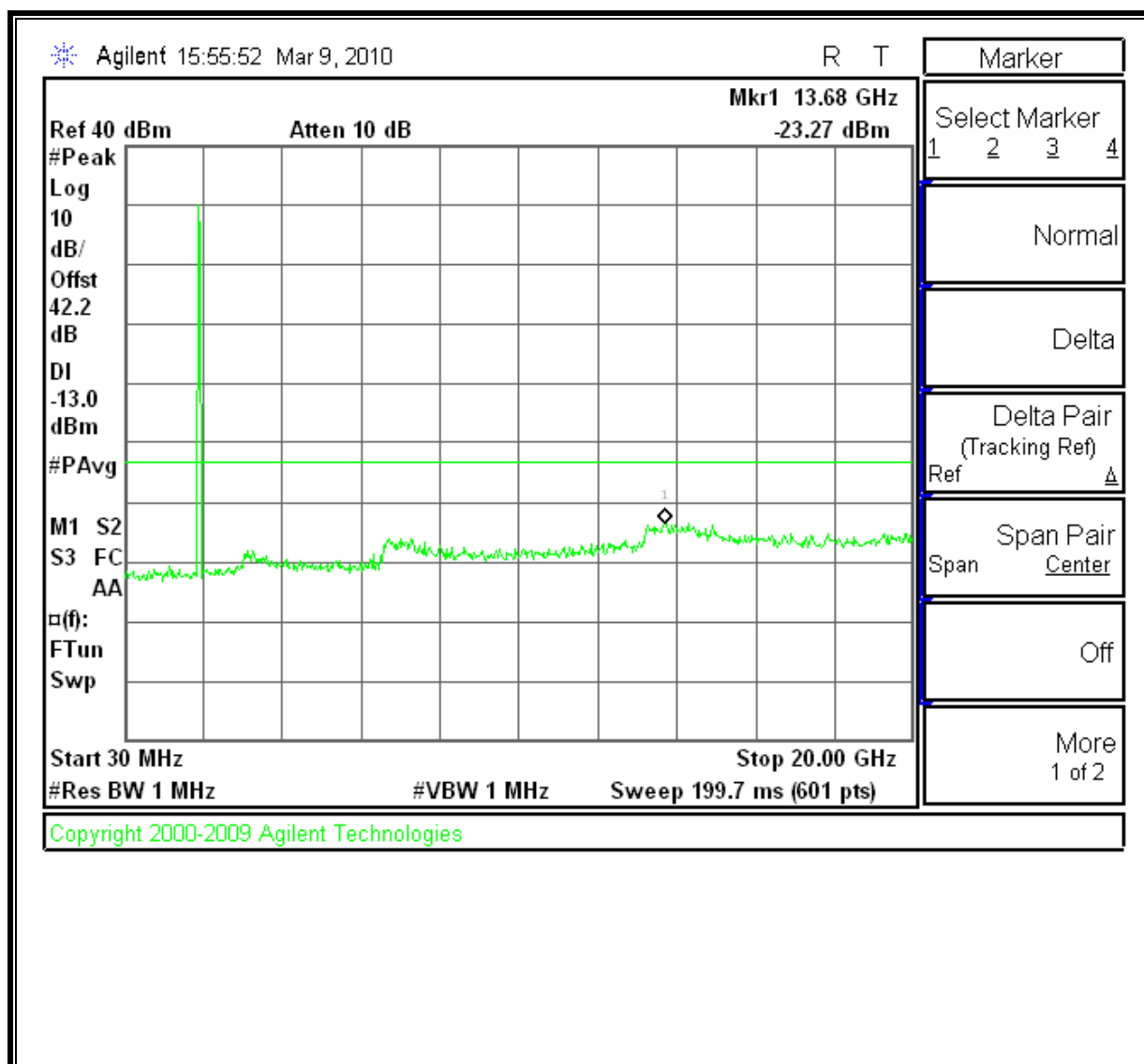
Low Channel, Out-Of-Band Emissions



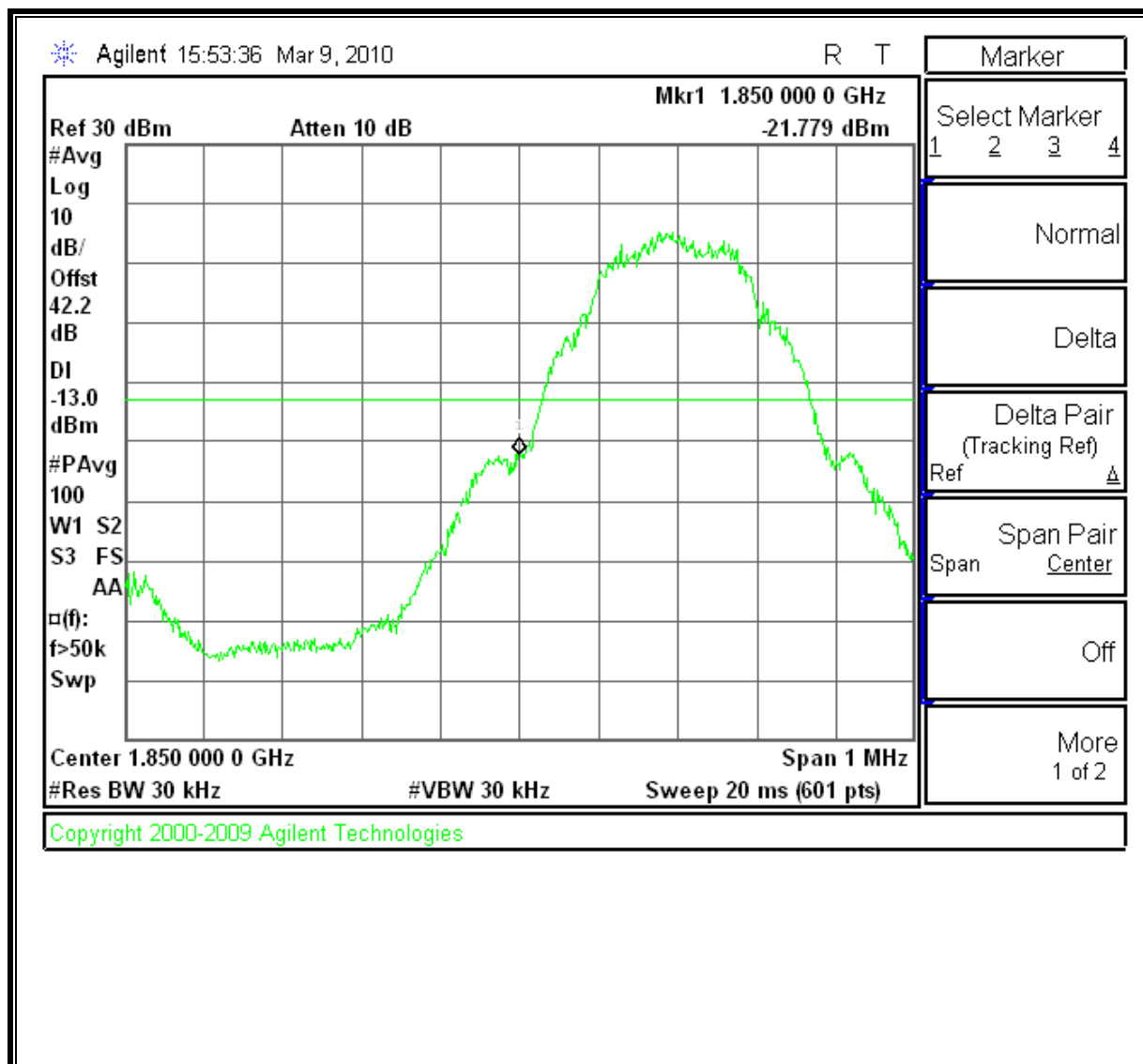
Mid Channel, Out-Of-Band Emissions



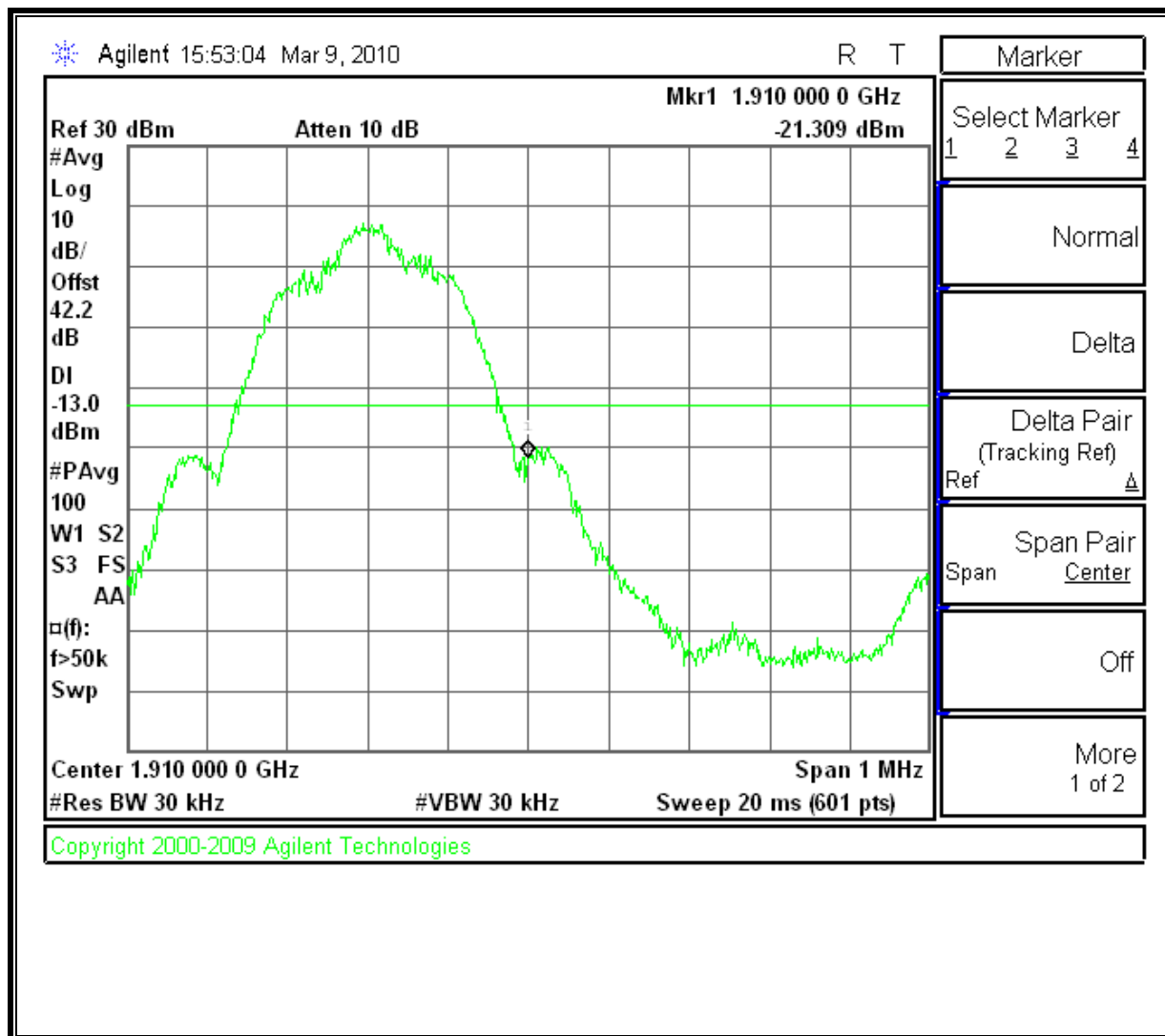
High Channel, Out-Of-Band Emissions



Low Channel Band Edge



High Channel Band Edge



8.3. FREQUENCY STABILITY

RULE PART(S)

FCC: §2.1055, §22.355, §24.235

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.
- §24.235 - The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

TEST PROCEDURE

Use CMU200 with Frequency Error measurement capability.

- Temp. = -20° to $+50^{\circ}\text{C}$
- Voltage = 115 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

- GSM850 and EGPRS850
- GSM1900 and EGPRS1900

RESULTS

See the following pages.

CELL, GSM850 – MID CHANNEL

Reference Frequency: Cellular Mid Channel 836.599972MHz @ 20°C Limit: to stay +/- 2.5 ppm = 2091.500 Hz				
DC Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
4.20	50	836.599951	0.025	2.5
4.20	40	836.599956	0.019	2.5
4.20	30	836.599963	0.011	2.5
4.20	20	836.599972	0	2.5
4.20	10	836.599979	-0.008	2.5
4.20	0	836.599982	-0.012	2.5
4.20	-10	836.599989	-0.020	2.5
4.20	-20	836.599993	-0.025	2.5
Reference Frequency: Cellular Mid Channel 836.599972MHz @ 20°C Limit: to stay +/- 2.5 ppm = 2091.500 Hz				
DC Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
4.20	20	836.599965	0.00	2.5
3.57	20	836.599975	-0.012	2.5
3.4 (end point voltage)	20	836.59997	-0.006	2.5

CELL, EGPRS850 – MID CHANNEL

Reference Frequency: Cellular Mid Channel 836.599968MHz @ 20°C Limit: to stay +/- 2.5 ppm = 2091.500 Hz				
DC Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
4.20	50	836.599940	0.033	2.5
4.20	40	836.599938	0.036	2.5
4.20	30	836.599945	0.027	2.5
4.20	20	836.599968	0	2.5
4.20	10	836.599988	-0.024	2.5
4.20	0	836.599980	-0.014	2.5
4.20	-10	836.599934	0.041	2.5
4.20	-20	836.599942	0.031	2.5
Reference Frequency: Cellular Mid Channel 836.599968MHz @ 20°C Limit: to stay +/- 2.5 ppm = 2091.500 Hz				
DC Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
4.20	20	836.599972	0.00	2.5
3.57	20	836.599964	0.010	2.5
3.4 (end point voltage)	20	836.599983	-0.013	2.5

PCS, GSM1900 – MID CHANNEL

Reference Frequency: PCS Mid Channel 1879.999938MHz @ 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)
4.20	50	1879.999913	0.013	2.5
4.20	40	1879.999917	0.011	2.5
4.20	30	1879.999871	0.036	2.5
4.20	20	1879.999938	0	2.5
4.20	10	1879.999977	-0.021	2.5
4.20	0	1879.999920	0.010	2.5
4.20	-10	1879.999914	0.013	2.5
4.20	-20	1879.999979	-0.022	2.5
Reference Frequency: PCS Mid Channel 1879.999938MHz @ 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)
4.20	20	1879.999926	0.00	2.5
3.57	20	1879.999925	0.001	2.5
3.4 (end point voltage)	20	1879.999923	0.002	2.5

PCS, EGPRS1900 – MID CHANNEL

Reference Frequency: PCS Mid Channel 1879.999925MHz @ 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)
4.20	50	1879.999893	0.017	2.5
4.20	40	1879.999904	0.011	2.5
4.20	30	1879.999906	0.010	2.5
4.20	20	1879.999925	0	2.5
4.20	10	1879.999950	-0.013	2.5
4.20	0	1879.999907	0.010	2.5
4.20	-10	1879.999892	0.018	2.5
4.20	-20	1879.999904	0.011	2.5
Reference Frequency: PCS Mid Channel 1879.999925MHz @ 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)
4.20	20	1879.999926	0.00	2.5
3.57	20	1879.999932	-0.003	2.5
3.4 (end point voltage)	20	1879.999924	0.001	2.5

9. RADIATED TEST RESULTS

9.1. RADIATED POWER (ERP & EIRP)

LIMIT

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

24.232(b) & RSS133 § 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 The maximum ERP shall be 6.3 Watts for mobile stations.

TEST PROCEDURE

RSS-132, RSS-133, & ANSI / TIA / EIA 603C Clause 2.2.17

RESULTS for Cellular Band (ERP)

Mode	Channel	f (MHz)	ERP(Standard backcover)		ERP (Inductive Cover)	
			dBm	mW	dBm	mW
GSM850	128	824.20	27.50	562.34	25.40	346.74
	190	836.60	29.50	891.25	27.40	549.54
	251	848.80	30.60	1148.15	29.00	794.33
EGPRS850	128	824.20	27.30	537.03	24.90	309.03
	190	836.60	27.10	512.86	26.40	436.52
	251	848.80	27.40	549.54	26.60	457.09

RESULTS for PCS Band (EIRP)

Mode	Channel	f (MHz)	EIRP(Standard Cover)		EIRP (Inductive Cover)	
			dBm	mW	dBm	mW
GSM1900	512	1850.20	30.50	1122.02	26.00	398.11
	661	1880.00	31.70	1479.11	28.00	630.96
	810	1909.80	32.20	1659.59	28.50	707.95
EGPRS1900	512	1850.20	28.80	758.58	25.60	363.08
	661	1880.00	29.50	891.25	26.80	478.63
	810	1909.80	29.70	933.25	27.00	501.19

EUT WITH STANDARD COVER

ERP for GSM 850 Mode (Cellular Band)

High Frequency Substitution Measurement Compliance Certification Services Chamber B							
Company: Palm Project #: 10U13098 Date: 3/10/2010 Test Engineer: Chin Pang Configuration: EUT (Standard Cover) with AC/DC Adapter Mode: TX, GSM850, GSM							
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, 824.2MHz							
824.20	-5.1	V	32.6	27.5	38.5	-11.0	
824.20	-6.9	H	30.4	23.5	38.5	-15.0	
Mid Ch, 836.6MHz							
836.60	-3.2	V	32.7	29.5	38.5	-9.0	
836.60	-2.5	H	30.7	28.3	38.5	-10.2	
High Ch, 848.8MHz							
848.80	-1.4	V	32.0	30.6	38.5	-7.8	
848.80	-3.6	H	30.8	27.1	38.5	-11.3	
Rev. 1.24.7							

ERP for EGPRS 850 Mode (Cell Band)

High Frequency Substitution Measurement Compliance Certification Services Chamber B							
Company: Palm Project #: 10U13098 Date: 3/10/2010 Test Engineer: Chin Pang Configuration: EUT (Standard Cover) AC/DC Adapter Mode: TX, GSM850, EGPRS							
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, 824.2MHz							
824.20	-5.3	V	32.6	27.3	38.5	-11.2	
824.20	-6.0	H	30.4	24.4	38.5	-14.1	
Mid Ch, 836.6MHz							
836.60	-5.6	V	32.7	27.1	38.5	-11.4	
836.60	-5.1	H	30.7	25.6	38.5	-12.8	
High Ch, 848.8MHz							
848.80	-4.6	V	32.0	27.4	38.5	-11.1	
848.80	-4.7	H	30.8	26.1	38.5	-12.3	
Rev. 1.24.7							

EIRP for GSM1900 Mode (PCS Band)

High Frequency Fundamental Measurement Compliance Certification Services Chamber B							
Company: Palm Project #: 10U13098 Date: 3/11/2010 Test Engineer: Chin Pang Configuration: EUT(With Standard Cover) and AC Adapter Mode: TX, GSM1900 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							
1.850	-9.7	V	40.2	30.5	33.0	-2.5	
1.850	-12.3	H	39.5	27.2	33.0	-5.8	
Miid Ch							
1.880	-8.6	V	40.3	31.7	33.0	-1.4	
1.880	-15.1	H	40.1	25.0	33.0	-8.0	
High Ch							
1.910	-8.0	V	40.2	32.2	33.0	-0.8	
1.910	-9.0	H	40.1	31.1	33.0	-1.9	
Rev. 1.24.7							

EIRP forE GPRS1900 Mode (PCS Band)

High Frequency Fundamental Measurement Compliance Certification Services Chamber B							
Company: Palm Project #: 10U13098 Date: 3/11/2010 Test Engineer: Chin Pang Configuration: EUT(With Standard Cover) and AC Adapter Mode: TX, EGPRS1900 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							
1.850	-11.4	V	40.2	28.8	33.0	-4.2	
1.850	-13.9	H	39.5	25.6	33.0	-7.4	
Miid Ch							
1.880	-10.8	V	40.3	29.5	33.0	-3.6	
1.880	-14.0	H	40.1	26.1	33.0	-6.9	
High Ch							
1.910	-10.5	V	40.2	29.7	33.0	-3.3	
1.910	-13.2	H	40.1	26.9	33.0	-6.1	
Rev. 1.24.7							

EUT WITH INDUCTIVE BACKCOVER

ERP for GSM850 Mode (Cellular Band)

High Frequency Substitution Measurement Compliance Certification Services Chamber B							
Company: Palm Project #: 10U13098 Date: 3/10/2010 Test Engineer: Chin Pang Configuration: EUT (Inductive Cover) with Charging Dock Mode: TX, GSM850, GSM							
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							
824.20	-12.0	V	32.6	20.6	38.5	-17.9	
824.20	-5.0	H	30.4	25.4	38.5	-13.1	
Mid Ch							
836.60	-12.1	V	32.7	20.6	38.5	-17.9	
836.60	-3.3	H	30.7	27.4	38.5	-11.0	
High Ch							
848.80	-9.2	V	32.0	22.8	38.5	-15.7	
848.80	-1.8	H	30.8	29.0	38.5	-9.5	
Rev. 1.24.7							

ERP for EGPRS Mode (Cellular Band)

High Frequency Substitution Measurement Compliance Certification Services Chamber B							
Company: Palm Project #: 10U13098 Date: 3/10/2010 Test Engineer: Chin Pang Configuration: EUT (Inductive Cover) with Charging dock Mode: TX, EGPRS 850							
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							
824.20	-13.2	V	32.6	19.4	38.5	-19.1	
824.20	-5.5	H	30.4	24.9	38.5	-13.6	
Mid Ch							
836.60	-11.4	V	32.7	21.3	38.5	-17.2	
836.60	-4.3	H	30.7	26.4	38.5	-12.0	
High Ch							
848.80	-11.3	V	32.0	20.7	38.5	-17.8	
848.80	-4.2	H	30.8	26.6	38.5	-11.9	
Rev. 1.24.7							

EIRP for GSM1900 Mode (PCS Band)

High Frequency Fundamental Measurement Compliance Certification Services Chamber B							
Company: Palm Project #: 10U13098 Date: 3/11/10 Test Engineer: Chin Pang Configuration: EUT (Inductive Cover) with Charging Dock Mode: TX, GSM1900, PCS band							
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							
1.850	-14.2	V	40.2	26.0	33.0	-7.0	
1.850	-14.8	H	39.5	24.7	33.0	-8.3	
Mid Ch							
1.880	-12.3	V	40.3	28.0	33.0	-5.0	
1.880	-12.6	H	40.1	27.5	33.0	-5.5	
High Ch							
1.910	-11.7	V	40.2	28.5	33.0	-4.5	
1.910	-14.6	H	40.1	25.5	33.0	-7.5	
Rev. 1.24.7							

EIRP EGPRS1900 Mode (PCS Band)

High Frequency Fundamental Measurement Compliance Certification Services Chamber B							
Company: Palm Project #: 10U13098 Date: 3/11/10 Test Engineer: Chin Pang Configuration: EUT (Inductive Cover) with Charging Dock Mode: TX, EGPRS 1900							
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							
1.850	-14.6	V	40.2	25.6	33.0	-7.4	
1.850	-14.7	H	39.5	24.8	33.0	-8.2	
Mid Ch							
1.880	-13.5	V	40.3	26.8	33.0	-6.3	
1.880	-15.2	H	40.1	24.9	33.0	-8.1	
High Ch							
1.910	-13.2	V	40.2	27.0	33.0	-6.0	
1.910	-15.1	H	40.1	25.0	33.0	-8.0	
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
- Ev-DO – Rev A

RESULTS

EUT WITH STANDARD COVER

GSM850 Mode (Cellular Band)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement										
Company: Palm Project #: 10U13098 Date: 3/11/2010 Test Engineer: Chin Pang Configuration: EUT (Standard Cover) and AC/DC adapter Mode: TX, GSM850										
Chamber		Pre-amplifier		Filter		Limit				
5m Chamber B		T145 8449B		Filter 1		TX 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, 824.2MHz										
1.65	-45.5	H	3.0	37.2	35.5	1.0	-42.8	-13.0	-29.8	
7.42	-63.2	H	3.0	53.0	35.7	1.0	-44.9	-13.0	-31.9	
1.65	-31.3	V	3.0	36.8	35.5	1.0	-29.1	-13.0	-16.1	
2.47	-59.2	V	3.0	41.7	35.4	1.0	-51.9	-13.0	-38.9	
5.77	-62.8	V	3.0	49.4	35.5	1.0	-47.8	-13.0	-34.8	
Mid Ch, 836.6MHz										
1.68	-40.0	H	3.0	37.6	35.5	1.0	-37.0	-13.0	-24.0	
2.51	-60.5	H	3.0	39.9	35.4	1.0	-55.0	-13.0	-42.0	
6.69	-61.5	H	3.0	52.0	35.7	1.0	-44.2	-13.0	-31.2	
7.53	-63.2	H	3.0	53.1	35.7	1.0	-44.8	-13.0	-31.8	
1.67	-31.3	V	3.0	37.1	35.5	1.0	-28.7	-13.0	-15.7	
2.51	-59.6	V	3.0	41.8	35.4	1.0	-52.2	-13.0	-39.2	
5.86	-63.7	V	3.0	49.5	35.5	1.0	-48.7	-13.0	-35.7	
High Ch, 848.8MHz										
1.70	-45.6	H	3.0	37.7	35.5	1.0	-42.4	-13.0	-29.4	
2.55	-59.4	H	3.0	40.1	35.4	1.0	-53.7	-13.0	-40.7	
1.70	-29.7	V	3.0	37.4	35.5	1.0	-26.8	-13.0	-13.8	
2.55	-54.5	V	3.0	42.0	35.4	1.0	-47.0	-13.0	-34.0	
4.24	-65.0	V	3.0	46.5	35.2	1.0	-52.8	-13.0	-39.8	
Rev. 03.03.09 Note: No Other emissions were detected above the system noise floor.										

EGPRS850 Mode (Cell Band)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement										
Company: Palm Project #: 10U13098 Date: 3/11/2010 Test Engineer: Chin Pang Configuration: EUT (Standard Cover) and AC adapter Mode: TX, EGPRS850										
Chamber		Pre-amplifier		Filter		Limit				
5m Chamber B		T145 8449B		Filter 1		TX 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, 824.2MHz										
1.65	-50.0	H	3.0	37.2	35.5	1.0	-47.3	-13.0	-34.3	
2.47	-61.0	H	3.0	39.8	35.4	1.0	-55.6	-13.0	-42.6	
1.65	-37.5	V	3.0	36.8	35.5	1.0	-35.3	-13.0	-22.3	
2.47	-60.1	V	3.0	41.7	35.4	1.0	-52.8	-13.0	-39.8	
Mid Ch, 836.6MHz										
1.67	-47.5	H	3.0	37.5	35.5	1.0	-44.6	-13.0	-31.6	
2.51	-58.8	H	3.0	39.9	35.4	1.0	-53.3	-13.0	-40.3	
1.67	-40.3	V	3.0	37.1	35.5	1.0	-37.7	-13.0	-24.7	
2.51	-60.3	V	3.0	41.8	35.4	1.0	-52.9	-13.0	-39.9	
High Ch, 848.8MHz										
1.70	-47.2	H	3.0	37.7	35.5	1.0	-44.0	-13.0	-31.0	
2.55	-62.0	H	3.0	40.1	35.4	1.0	-56.3	-13.0	-43.3	
1.70	-35.2	V	3.0	37.5	35.5	1.0	-32.3	-13.0	-19.3	
2.55	-61.2	V	3.0	42.0	35.4	1.0	-53.7	-13.0	-40.7	
Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.										

GSM1900 Mode (PCS Band)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement										
Company: Palm Project #: 10U13098 Date: 3/12/2010 Test Engineer: Chin Pang Configuration: EUT with Standard Cover Mode: TX, GSM1900										
Chamber			Pre-amplifier			Filter		Limit		
5m Chamber B			T145 8449B			Filter 1		TX 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, 1850.2MHz										
7.40	-64.2	H	3.0	53.0	35.7	1.0	-45.9	-13.0	-32.9	
9.25	-57.1	H	3.0	55.1	35.6	1.0	-36.6	-13.0	-23.6	
12.95	-59.0	H	3.0	57.6	34.0	1.0	-34.5	-13.0	-21.5	
3.70	-61.1	V	3.0	45.1	35.4	1.0	-50.3	-13.0	-37.3	
7.40	-60.0	V	3.0	51.3	35.7	1.0	-43.4	-13.0	-30.4	
9.25	-58.2	V	3.0	53.6	35.6	1.0	-39.2	-13.0	-26.2	
12.95	-58.6	V	3.0	58.0	34.0	1.0	-33.6	-13.0	-20.6	
Mid Ch, 1880MHz										
7.52	-63.5	H	3.0	53.1	35.7	1.0	-45.1	-13.0	-32.1	
9.40	-58.0	H	3.0	55.2	35.6	1.0	-37.3	-13.0	-24.3	
13.16	-57.2	H	3.0	57.9	34.0	1.0	-32.3	-13.0	-19.3	
5.64	-63.0	V	3.0	49.3	35.4	1.0	-48.1	-13.0	-35.1	
7.52	-61.4	V	3.0	51.4	35.7	1.0	-44.7	-13.0	-31.7	
9.40	-61.0	V	3.0	53.7	35.6	1.0	-41.8	-13.0	-28.8	
13.16	-58.8	V	3.0	58.3	34.0	1.0	-33.5	-13.0	-20.5	
High Ch, 1909.8MHz										
5.73	-65.0	H	3.0	50.3	35.4	1.0	-49.1	-13.0	-36.1	
7.64	-60.8	H	3.0	53.2	35.7	1.0	-42.3	-13.0	-29.3	
9.55	-60.5	H	3.0	55.4	35.6	1.0	-39.7	-13.0	-26.7	
13.37	-53.6	H	3.0	58.2	33.9	1.0	-28.3	-13.0	-15.3	
3.82	-64.0	V	3.0	45.4	35.3	1.0	-52.9	-13.0	-39.9	
5.73	-63.8	V	3.0	49.4	35.4	1.0	-48.9	-13.0	-35.9	
9.55	-61.2	V	3.0	53.9	35.6	1.0	-41.8	-13.0	-28.8	
13.37	-57.9	V	3.0	58.5	33.9	1.0	-32.3	-13.0	-19.3	
Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.										

EGPRS1900 Mode (PCS Band)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement										
Company: Palm Project #: 10U13098 Date: 3/12/2010 Test Engineer: Chin Pang Configuration: EUT with Standard Cover Mode: TX, EGPRS1900										
Chamber		Pre-amplifier			Filter		Limit			
5m Chamber B		T145 8449B			Filter 1		TX 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, 1850.2MHz										
7.40	-63.2	H	3.0	53.0	35.7	1.0	-44.9	-13.0	-31.9	
9.25	-55.6	H	3.0	55.1	35.6	1.0	-35.1	-13.0	-22.1	
12.95	-58.0	H	3.0	57.6	34.0	1.0	-33.5	-13.0	-20.5	
7.40	-61.5	V	3.0	51.3	35.7	1.0	-44.9	-13.0	-31.9	
9.25	-57.8	V	3.0	53.6	35.6	1.0	-38.8	-13.0	-25.8	
12.95	-60.0	V	3.0	58.0	34.0	1.0	-35.0	-13.0	-22.0	
Mid Ch, 1880MHz										
7.52	-63.3	H	3.0	53.1	35.7	1.0	-44.9	-13.0	-31.9	
9.40	-58.5	H	3.0	55.2	35.6	1.0	-37.8	-13.0	-24.8	
13.16	-58.2	H	3.0	57.9	34.0	1.0	-33.3	-13.0	-20.3	
7.52	-62.1	V	3.0	51.4	35.7	1.0	-45.4	-13.0	-32.4	
9.40	-60.0	V	3.0	53.7	35.6	1.0	-40.8	-13.0	-27.8	
13.16	-60.2	V	3.0	58.3	34.0	1.0	-34.9	-13.0	-21.9	
High Ch, 1909.8MHz										
7.64	-63.0	H	3.0	53.2	35.7	1.0	-44.5	-13.0	-31.5	
9.55	-60.2	H	3.0	55.4	35.6	1.0	-39.4	-13.0	-26.4	
11.46	-64.3	H	3.0	56.1	34.6	1.0	-41.8	-13.0	-28.8	
13.37	-55.2	H	3.0	58.2	33.9	1.0	-29.9	-13.0	-16.9	
5.73	-62.5	V	3.0	49.4	35.4	1.0	-47.6	-13.0	-34.6	
7.64	-58.2	V	3.0	51.6	35.7	1.0	-41.3	-13.0	-28.3	
9.55	-59.4	V	3.0	53.9	35.6	1.0	-40.0	-13.0	-27.0	
13.37	-58.0	V	3.0	58.5	33.9	1.0	-32.4	-13.0	-19.4	
Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.										

EUT WITH INDUCTIVE COVER

GSM 850 (Cellular Band)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement										
Company: Palm Project #: 10U13098 Date: 3/11/2010 Test Engineer: Chin Pang Configuration: EUT (Inductive Cover) with Charging Dock Mode: TX, GSMS850										
Chamber		Pre-amplifier		Filter		Limit				
5m Chamber B		T145 8449B		Filter 1		TX 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, 824.2MHz										
1.65	-40.8	H	3.0	37.2	35.5	1.0	-38.1	-13.0	-25.1	
2.47	-59.0	H	3.0	39.8	35.4	1.0	-53.6	-13.0	-40.6	
1.65	-45.7	V	3.0	36.8	35.5	1.0	-43.5	-13.0	-30.5	
2.47	-58.5	V	3.0	41.7	35.4	1.0	-51.2	-13.0	-38.2	
Mid Ch, 836.6MHz										
1.67	-42.8	H	3.0	37.5	35.5	1.0	-39.9	-13.0	-26.9	
2.51	-59.5	H	3.0	39.9	35.4	1.0	-54.0	-13.0	-41.0	
1.67	-51.4	V	3.0	37.1	35.5	1.0	-48.8	-13.0	-35.8	
2.51	-61.2	V	3.0	41.8	35.4	1.0	-53.8	-13.0	-40.8	
High Ch, 848.8MHz										
1.70	-48.2	H	3.0	37.7	35.5	1.0	-45.0	-13.0	-32.0	
2.55	-55.4	H	3.0	40.1	35.4	1.0	-49.7	-13.0	-36.7	
1.70	-50.0	V	3.0	37.5	35.5	1.0	-47.1	-13.0	-34.1	
2.55	-56.6	V	3.0	42.0	35.4	1.0	-49.1	-13.0	-36.1	
Rev. 03.03.09										
Note: No other emissions were detected above the system noise floor.										

EGPRS 850 (Cellular Band)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement											
Company: Palm Project #: 10U13098 Date: 3/11/2010 Test Engineer: Chin Pang Configuration: EUT (Inductive Cover) with Charging Dock Mode: TX, EGPRS850											
Chamber		Pre-amplifier		Filter		Limit					
5m Chamber B		T145 8449B		Filter 1		TX 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, 824.2MHz											
1.65	-42.0	H	3.0	37.2	35.5	1.0	-39.3	-13.0	-26.3		
2.47	-57.0	H	3.0	39.8	35.4	1.0	-51.6	-13.0	-38.6		
1.65	-50.1	V	3.0	36.8	35.5	1.0	-47.9	-13.0	-34.9		
2.47	-58.8	V	3.0	41.7	35.4	1.0	-51.5	-13.0	-38.5		
Mid Ch, 836.6MHz											
1.67	-46.2	H	3.0	37.5	35.5	1.0	-43.3	-13.0	-30.3		
2.51	-56.1	H	3.0	39.9	35.4	1.0	-50.6	-13.0	-37.6		
1.67	-54.0	V	3.0	37.1	35.5	1.0	-51.4	-13.0	-38.4		
2.51	-56.2	V	3.0	41.8	35.4	1.0	-48.8	-13.0	-35.8		
High Ch, 848.8MHz											
1.70	-52.6	H	3.0	37.7	35.5	1.0	-49.4	-13.0	-36.4		
2.55	-49.3	H	3.0	40.1	35.4	1.0	-43.6	-13.0	-30.6		
1.70	-54.5	V	3.0	37.5	35.5	1.0	-51.6	-13.0	-38.6		
2.55	-50.4	V	3.0	42.0	35.4	1.0	-42.9	-13.0	-29.9		
Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.											

GSM 1900 (PCS Band)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement										
Company: Palm Project #: 10U13098 Date: 3/11/2010 Test Engineer: Chin Pang Configuration: EUT (Inductive Cover) with Charging Dock Mode: TX, GSM1900										
Chamber	Pre-amplifier			Filter			Limit			
5m Chamber B	T145 8449B			Filter 1			TX 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, 1850.2MHz										
3.70	-61.2	H	3.0	45.3	35.4	1.0	-50.2	-13.0	-37.2	
9.25	-60.0	H	3.0	55.1	35.6	1.0	-39.5	-13.0	-26.5	
12.95	-57.2	H	3.0	57.6	34.0	1.0	-32.7	-13.0	-19.7	
3.70	-60.1	V	3.0	45.1	35.4	1.0	-49.3	-13.0	-36.3	
9.25	-59.0	V	3.0	53.6	35.6	1.0	-40.0	-13.0	-27.0	
12.95	-57.0	V	3.0	58.0	34.0	1.0	-32.0	-13.0	-19.0	
Mid Ch, 1880MHz										
3.76	-61.0	H	3.0	45.5	35.3	1.0	-49.8	-13.0	-36.8	
9.40	-63.0	H	3.0	55.2	35.6	1.0	-42.3	-13.0	-29.3	
13.16	-56.2	H	3.0	57.9	34.0	1.0	-31.3	-13.0	-18.3	
3.76	-62.0	V	3.0	45.3	35.3	1.0	-51.1	-13.0	-38.1	
7.52	-61.5	V	3.0	51.4	35.7	1.0	-44.8	-13.0	-31.8	
9.40	-61.4	V	3.0	53.7	35.6	1.0	-42.2	-13.0	-29.2	
13.16	-55.0	V	3.0	58.3	34.0	1.0	-29.7	-13.0	-16.7	
High Ch, 1909.8MHz										
3.82	-63.0	H	3.0	45.7	35.3	1.0	-51.6	-13.0	-38.6	
9.55	-61.3	H	3.0	55.4	35.6	1.0	-40.5	-13.0	-27.5	
13.37	-56.1	H	3.0	58.2	33.9	1.0	-30.8	-13.0	-17.8	
3.82	-61.6	V	3.0	45.4	35.3	1.0	-50.5	-13.0	-37.5	
9.55	-60.6	V	3.0	53.9	35.6	1.0	-41.2	-13.0	-28.2	
13.37	-55.7	V	3.0	58.5	33.9	1.0	-30.1	-13.0	-17.1	
Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.										

EGPRS1900 (PCS Band)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement										
Company: Palm Project #: 10U13098 Date: 3/12/2010 Test Engineer: Chin Pang Configuration: EUT (Inductive Cover) with Charging Dock Mode: TX, EGPRS1900										
Chamber		Pre-amplifier		Filter		Limit				
5m Chamber B		T145 8449B		Filter 1		TX 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, 1850.2MHz										
3.70	-63.5	H	3.0	45.3	35.4	1.0	-52.5	-13.0	-39.5	
9.25	-58.0	H	3.0	55.1	35.6	1.0	-37.5	-13.0	-24.5	
12.95	-57.6	H	3.0	57.6	34.0	1.0	-33.1	-13.0	-20.1	
3.70	-61.2	V	3.0	45.1	35.4	1.0	-50.4	-13.0	-37.4	
5.55	-64.1	V	3.0	49.2	35.4	1.0	-49.3	-13.0	-36.3	
9.25	-63.4	V	3.0	53.6	35.6	1.0	-44.4	-13.0	-31.4	
11.10	-64.6	V	3.0	55.9	34.8	1.0	-42.5	-13.0	-29.5	
12.95	-56.3	V	3.0	58.0	34.0	1.0	-31.3	-13.0	-18.3	
Mid Ch, 1880MHz										
3.76	-63.0	H	3.0	45.5	35.3	1.0	-51.8	-13.0	-38.8	
7.52	-64.0	H	3.0	53.1	35.7	1.0	-45.6	-13.0	-32.6	
9.40	-64.2	H	3.0	55.2	35.6	1.0	-43.5	-13.0	-30.5	
13.16	-56.8	H	3.0	57.9	34.0	1.0	-31.9	-13.0	-18.9	
3.76	-62.0	V	3.0	45.3	35.3	1.0	-51.1	-13.0	-38.1	
7.52	-64.5	V	3.0	51.4	35.7	1.0	-47.8	-13.0	-34.8	
9.40	-60.8	V	3.0	53.7	35.6	1.0	-41.6	-13.0	-28.6	
11.28	-64.3	V	3.0	56.1	34.7	1.0	-41.9	-13.0	-28.9	
13.16	-56.2	V	3.0	58.3	34.0	1.0	-30.9	-13.0	-17.9	
High Ch, 1909.8MHz										
3.82	-65.0	H	3.0	45.7	35.3	1.0	-53.6	-13.0	-40.6	
9.55	-65.1	H	3.0	55.4	35.6	1.0	-44.3	-13.0	-31.3	
13.37	-57.5	H	3.0	58.2	33.9	1.0	-32.2	-13.0	-19.2	
3.82	-60.3	V	3.0	45.4	35.3	1.0	-49.2	-13.0	-36.2	
7.64	-62.8	V	3.0	51.6	35.7	1.0	-45.9	-13.0	-32.9	
9.55	-63.0	V	3.0	53.9	35.6	1.0	-43.6	-13.0	-30.6	
11.46	-66.0	V	3.0	56.3	34.6	1.0	-43.3	-13.0	-30.3	
13.37	-55.3	V	3.0	58.5	33.9	1.0	-29.7	-13.0	-16.7	
Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.										