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: P102UEU

FCC ID: O8F-ROAY

REPORT NUMBER: 10U13340-1

ISSUE DATE: AUGUST 18, 2010

Prepared for

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SUNNYVALE, CA 94085, U.S.A.

Prepared by

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Revision History

Rev.	Issue Date	Revisions	Revised By
---	08/18/10	Initial Issue	T. Chan

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS 4

2. TEST METHODOLOGY 5

3. FACILITIES AND ACCREDITATION 5

4. CALIBRATION AND UNCERTAINTY 5

4.1. MEASURING INSTRUMENT CALIBRATION 5

4.2. SAMPLE CALCULATION 5

4.3. MEASUREMENT UNCERTAINTY 5

5. EQUIPMENT UNDER TEST 6

5.1. DESCRIPTION OF EUT 6

5.2. . MAXIMUM OUTPUT POWER 7

5.3. DESCRIPTION OF AVAILABLE ANTENNS 7

5.4. SOFTWARE AND FIRMWARE 7

5.5. WORST-CASE CONFIGURATION AND MODE 8

5.6. DESCRIPTION OF TEST SETUP 9

6. TEST AND MEASUREMENT EQUIPMENT 13

7. PROCEDURE USED TO ESTABLISH TEST SIGNAL 14

8. RF CONDUCTED POWER OUTPUT 15

9. CONDUCTED TEST RESULTS 17

9.1. OCCUPIED BANDWIDTH 17

9.2. SPURIOUS EMISSION AT ANTENNA TERMINAL 24

9.3. FREQUENCY STABILITY 45

10. RADIATED TEST RESULTS 50

10.1. RADIATED POWER (ERP & EIRP) 50

10.2. FIELD STRENGTH OF SPURIOUS RADIATION 55

11. SETUP PHOTOS 64

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: P102UEU

SERIAL NUMBER: **RD1BU6NA6927**

DATE TESTED: AUGUST 11-17, 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:

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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	1GHz

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	157-10124-00
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
Earphone	Palm	180-10632-00
USB cable	Palm	180-10647-00
Inductive Back Cover (black color)	Palm	180-10704-00

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	33.34	2157.7	34.90	3090.3
824.2 – 848.8	EGPRS	31.09	1285.3	30.40	1096.5

Part 24 PCS Band

Frequency range (MHz)	Modulation	Conducted		EIRP	
		dBm	mW	dBm	mW
1850.20 – 1909.8	GSM	29.67	926.8	31.50	1412.5
1850.20 – 1909.8	EGPRS	29.57	905.7	27.60	575.4

5.3. DESCRIPTION OF AVAILABLE ANTENNS

The radio utilizes a PCB integrated antenna with a maximum gain of 1.2dBi for Cell band and 0.5dBi 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
Directiional Coupler	Amplifier Reseach	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

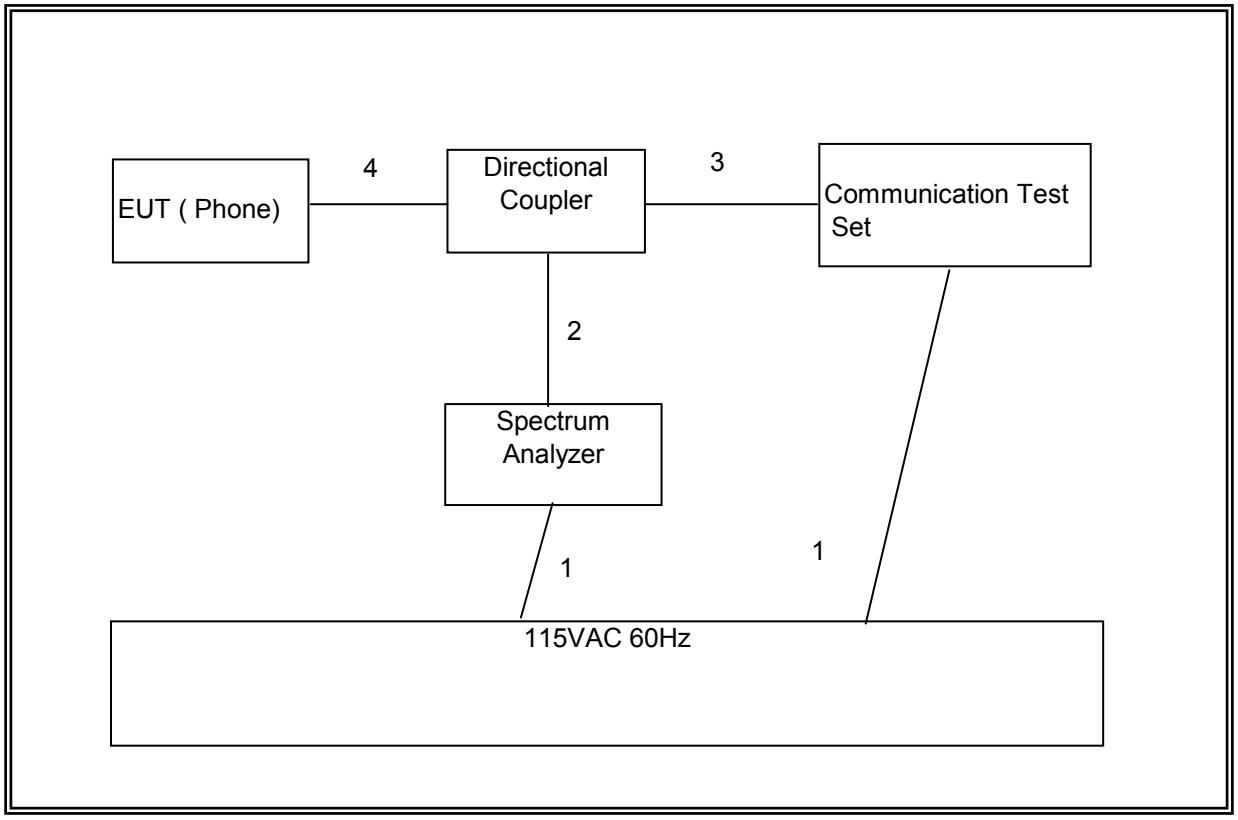
I/O CABLES (RADIATED TEST)

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

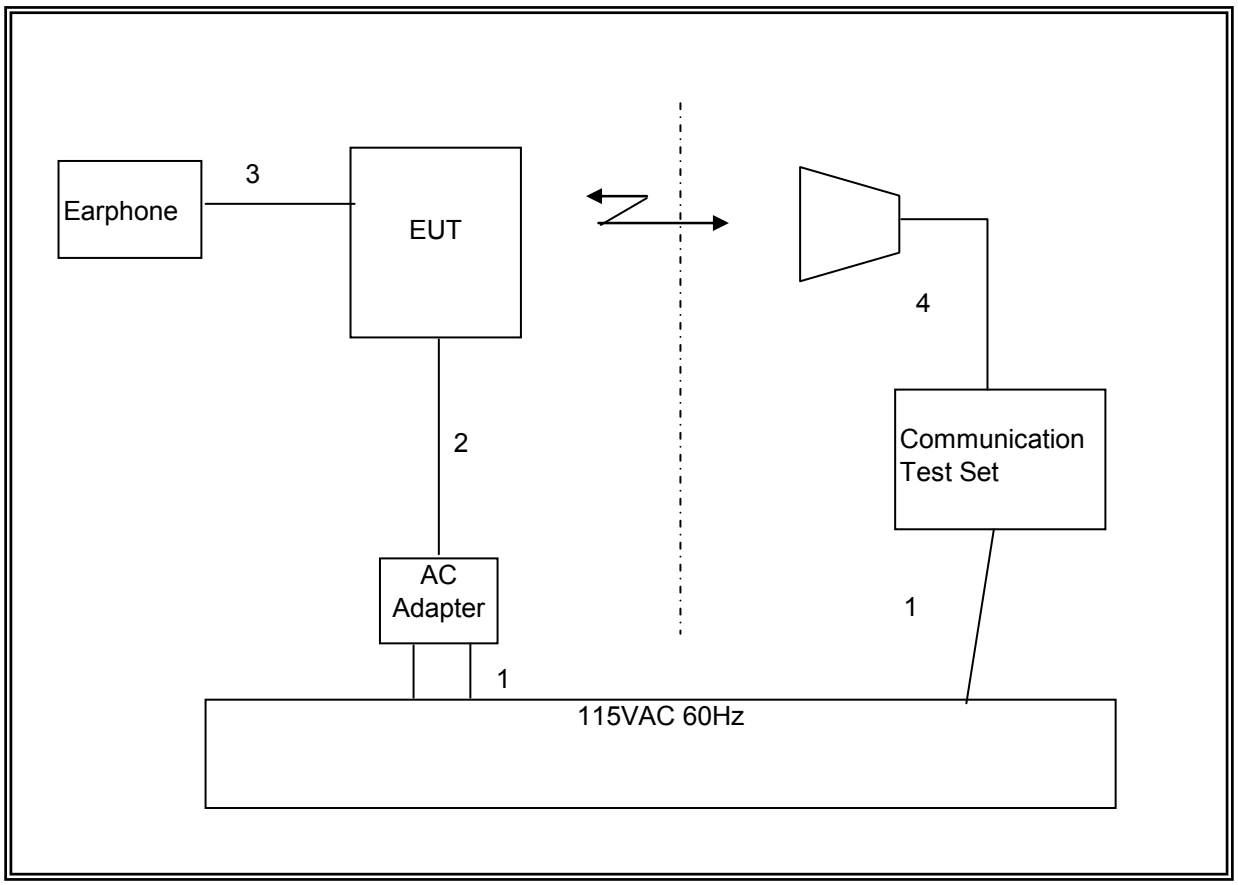
TEST SETUP

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

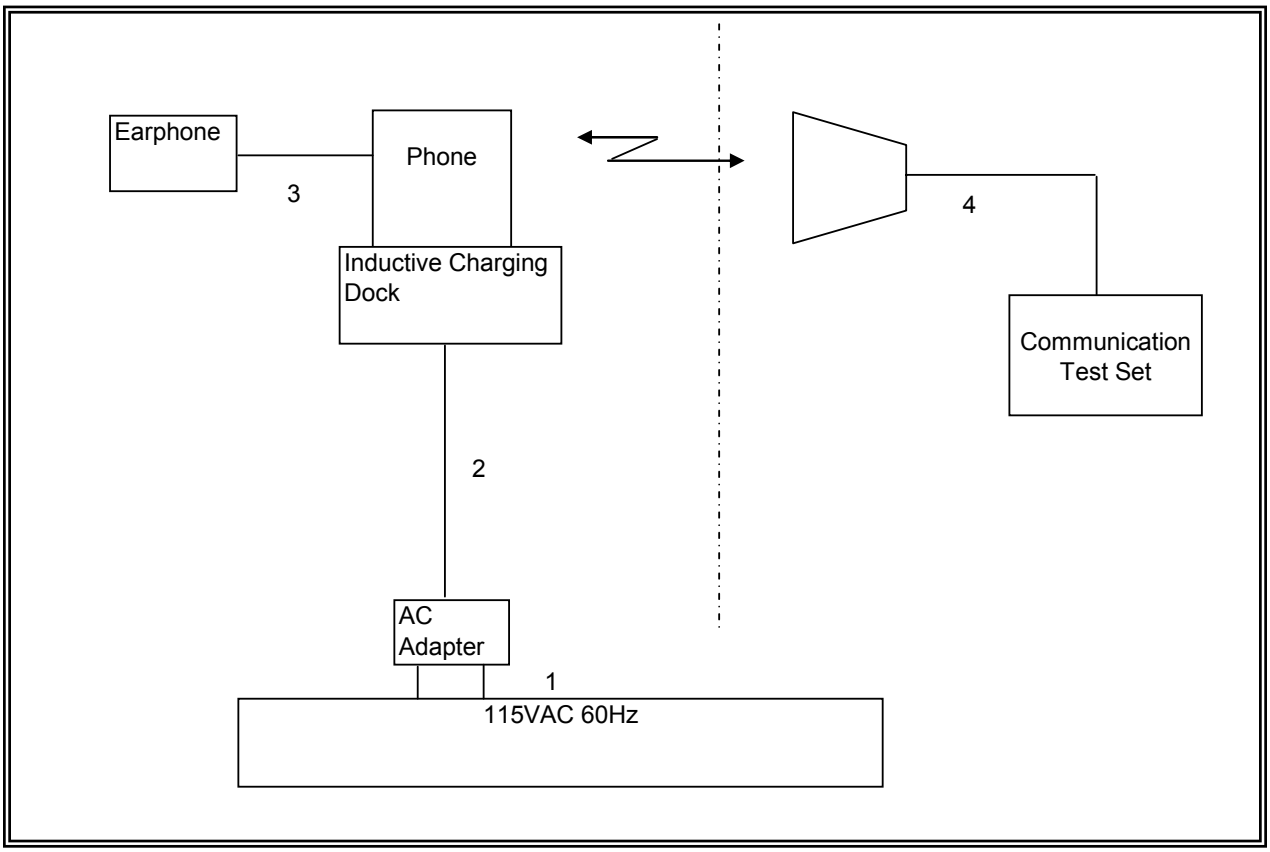
SETUP DIAGRAM FOR CONDUCTED TESTS



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	07/14/11
Antenna, Horn, 18 GHz	EMCO	3115	C00783	06/29/11
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C01011	07/12/11
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	04/06/11
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	07/14/12
Antenna, Tuned Dipole 400~1000	ETS	3121C DB4	C00993	07/10/11

7. PROCEDURE USED TO ESTABLISH TEST SIGNAL

GSM/EGSM Procedure

The following settings were used to configure the Radio Communication Tester. All measurements listed below are average power unless specified otherwise.

GPRS/EGPRS

Function: Menu select > GSM Mobile Station > GSM 850/900/1800/1900

Press Connection control to choose the different menus

Press RESET > choose all to reset all settings

Connection Press Signal Off to turn off the signal and change settings

Network Support > GSM+GPRS or GSM+EGPRS

Main Service > Packet Data

Service selection > Test Mode A – Auto Slot Config. off

MS Signal Press Slot Config bottom on the right twice to select and change the number of time slots and power setting

> Slot configuration > Uplink/Gamma

> 33 dBm for GPRS 850/900

> 27 dBm for EGPRS 850/900

> 30 dBm for GPRS1800/1900

> 26 dBm for EGPRS1800/1900

BS Signal Enter the same channel number for TCH channel (test channel) and BCCH channel

Frequency Offset > + 0 Hz

Mode > BCCH and TCH

BCCH Level > -85 dBm (May need to adjust if link is not stable)

BCCH Channel > choose desire test channel [Enter the same channel number for TCH channel (test channel) and BCCH channel]

Channel Type > Off

P0> 4 dB

Slot Config > Unchanged (if already set under MS Signal)

TCH > choose desired test channel

Hopping > Off

Main Timeslot > 3 (Default)

Network	Coding Scheme >	CS4 (GPRS) and MCS9 (EGPRS)
	Bit Stream >	2E9-1PSR Bit Pattern

AF/RF Enter appropriate offsets for Ext. Att. Output and Ext. Att. Input

Connection Press Signal On to turn on the signal and change settings

8. RF CONDUCTED POWER OUTPUT

RF POWER OUTPUT FOR GSM (GMSK)				
Band	Ch	Frequency	Conducted output power (dBm)	
			Average	Peak
GSM850	128	824.2	31.67	32.94
	190	836.6	32.07	33.18
	251	848.8	32.31	33.34
GSM1900	512	1850.2	29.26	29.67
	661	1880	29.41	29.58
	810	1909.8	29.18	29.46

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	31.66	29.53	32.93	32.60
	190	836.6	32.07	29.57	33.16	32.95
	251	848.8	32.27	29.60	33.05	32.86
GSM1900	512	1850.2	29.37	29.23	29.63	29.45
	661	1880	29.47	29.40	29.56	29.50
	810	1909.8	29.05	29.03	29.43	29.35

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	27.49	27.48	**31.09**	30.85
	190	836.6	27.46	27.44	**31.03**	30.80
	251	848.8	27.39	27.38	**30.87**	30.87
GSM1900	512	1850.2	26.91	26.88	**29.57**	29.43
	661	1880	26.93	26.91	**29.44**	29.38
	810	1909.8	26.79	26.78	**29.35**	29.27

9. CONDUCTED TEST RESULTS

9.1. 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	240.870	291.162
Middle	836.60	236.405	267.512
High	848.80	239.142	268.565

CELL,EGPRS Modulation

Channel	Frequency (MHz)	99% BW (kHz)	-26dB BW (kHz)
Low	824.20	247.944	311.416
Middle	836.60	253.712	302.582
High	848.80	242.825	302.262

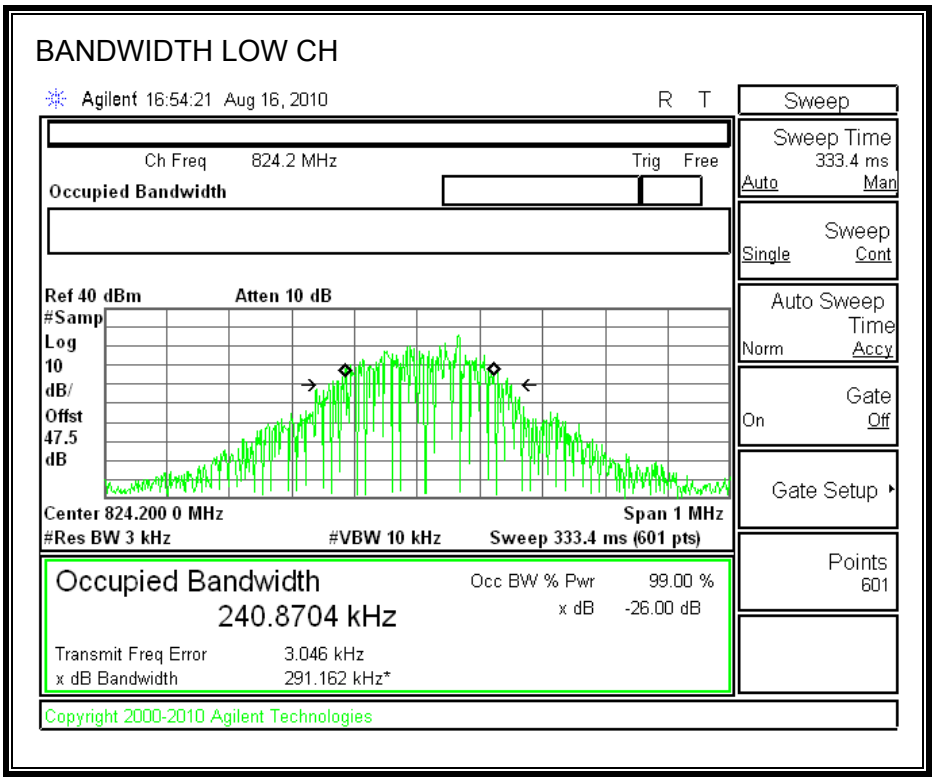
PCS, GSM Modulation

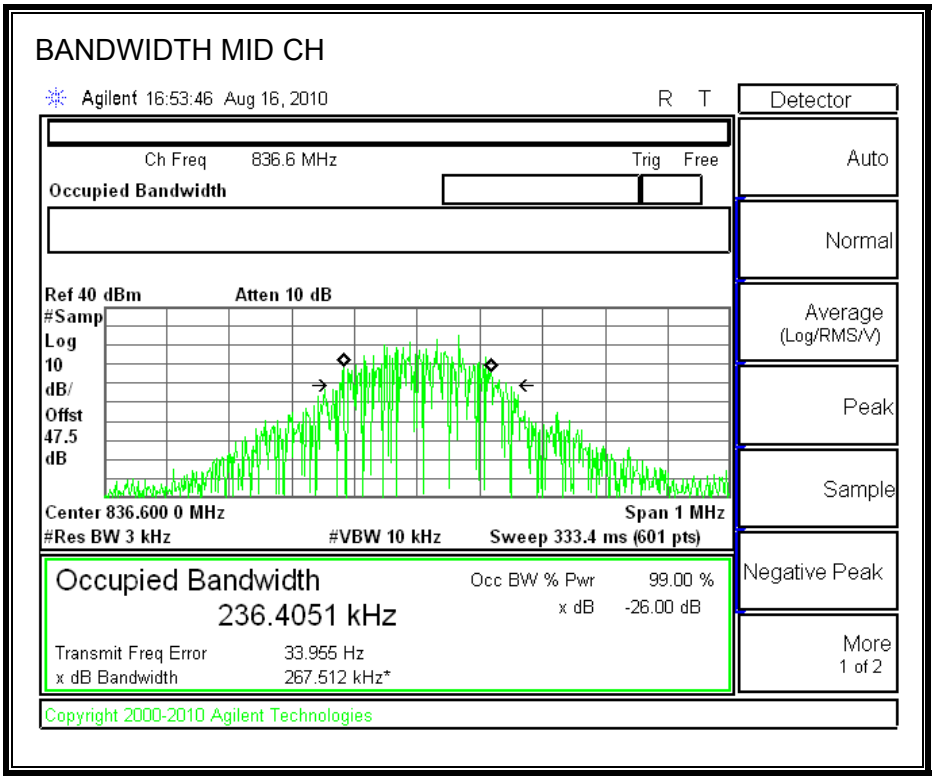
Channel	Frequency (MHz)	99% BW (kHz)	-26dB BW (kHz)
Low	1850.20	242.794	296.477
Middle	1880.00	249.768	319.976
High	1909.80	233.745	308.304

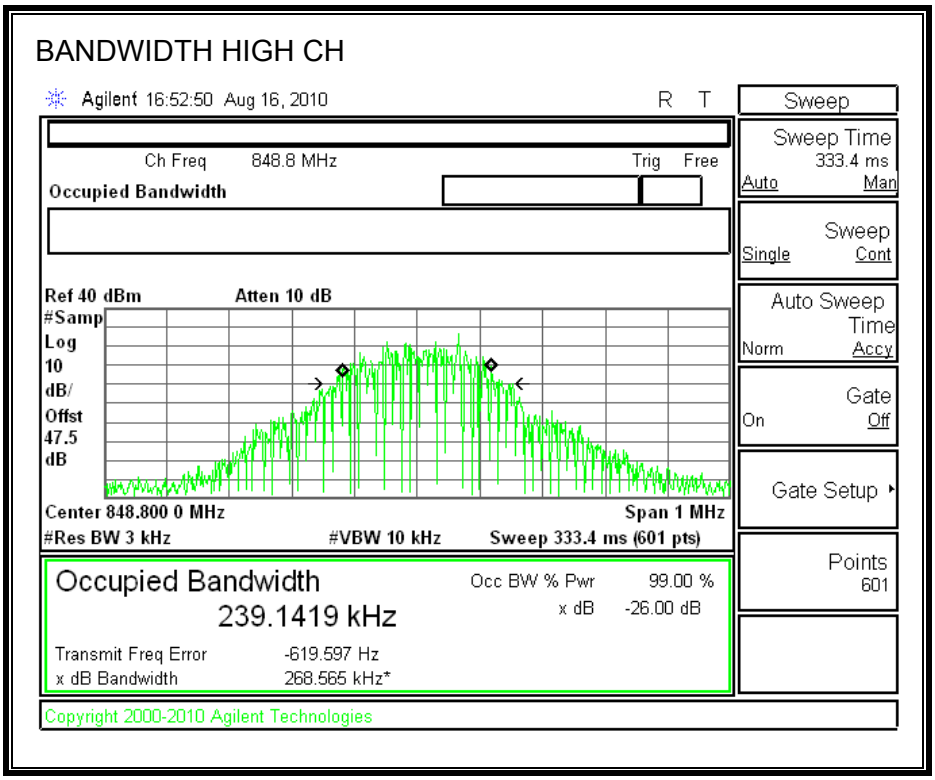
PCS, EGPRS Modulation

Channel	Frequency (MHz)	99% BW (kHz)	-26dB BW (kHz)
Low	1850.20	260.584	285.593
Middle	1880.00	242.817	281.530
High	1909.80	251.187	292.309

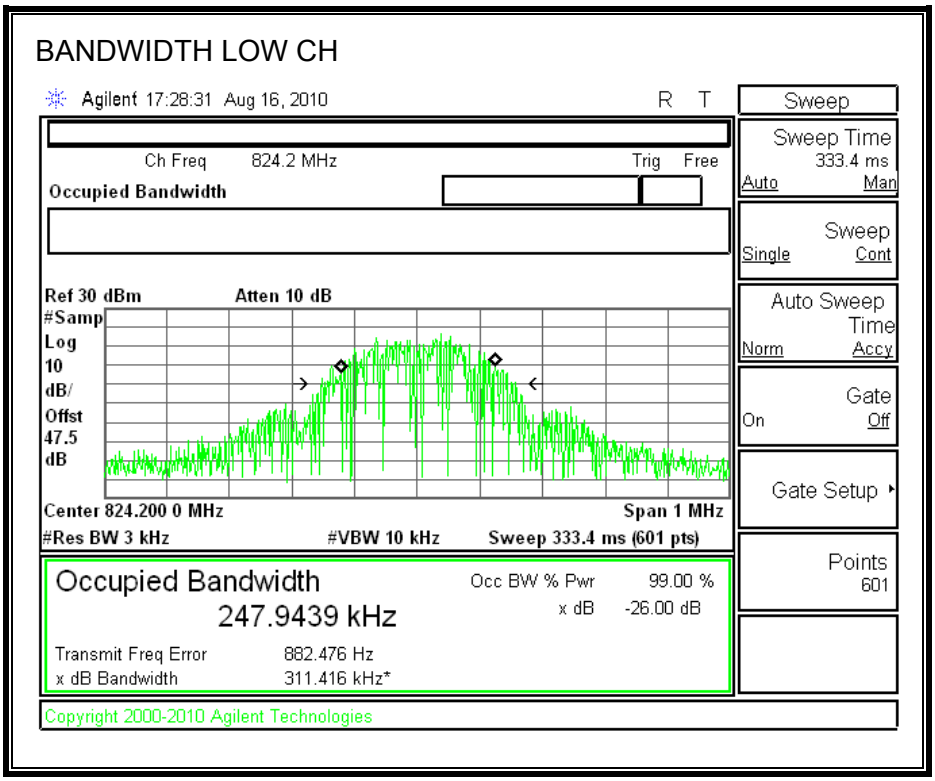
CELL, GSM850 BANDWIDTH



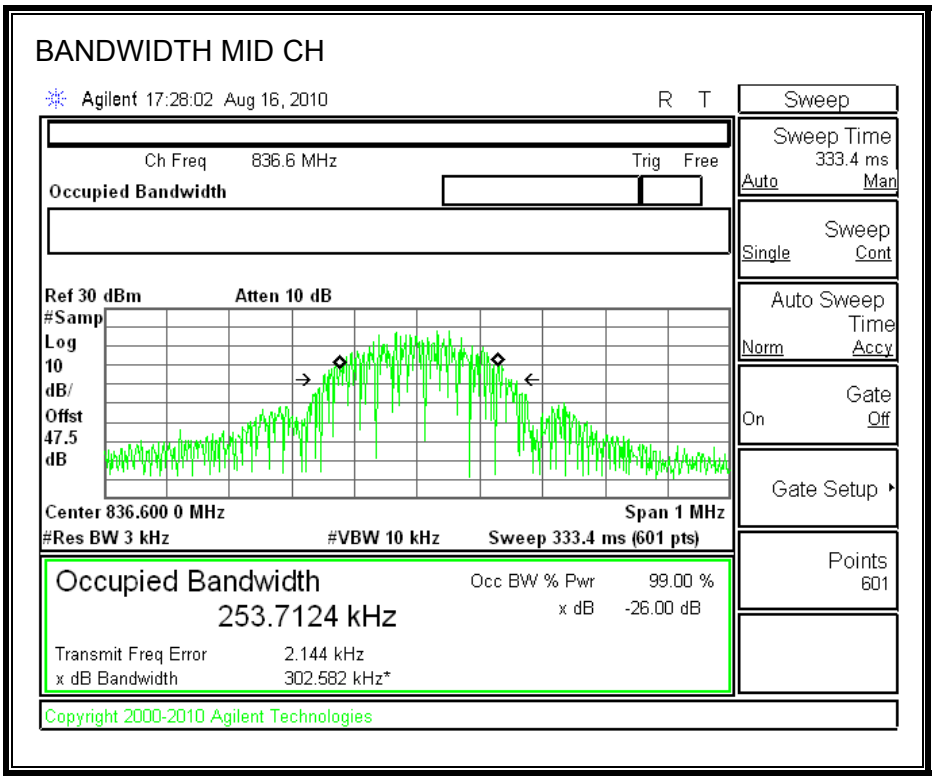




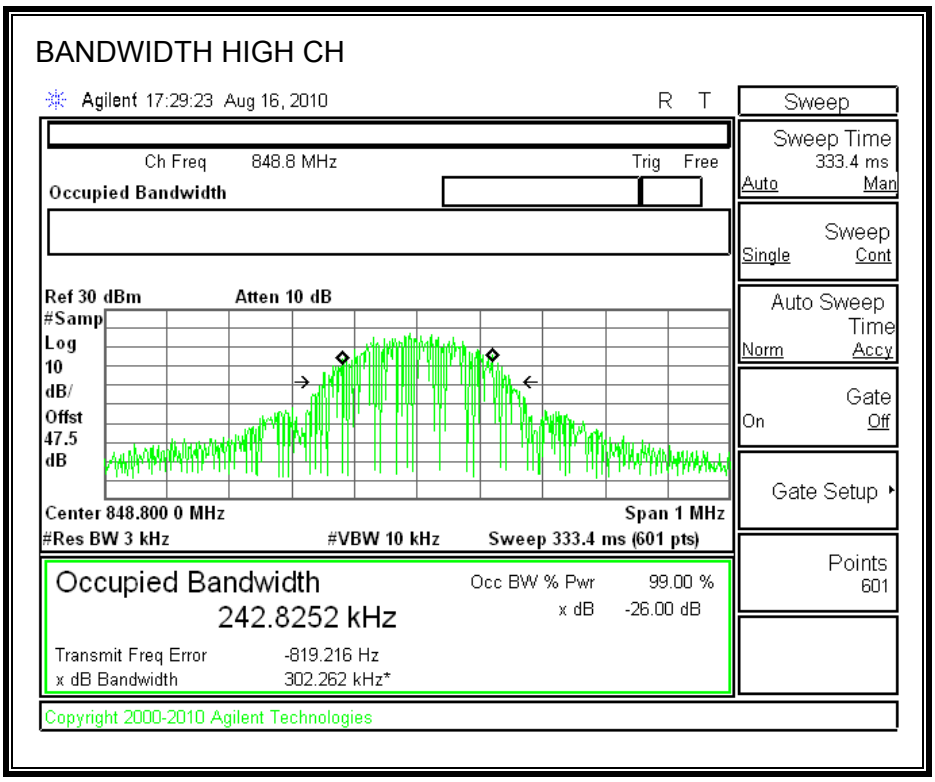
CELL, EGPRS850 BANDWIDTH



BANDWIDTH MID CH

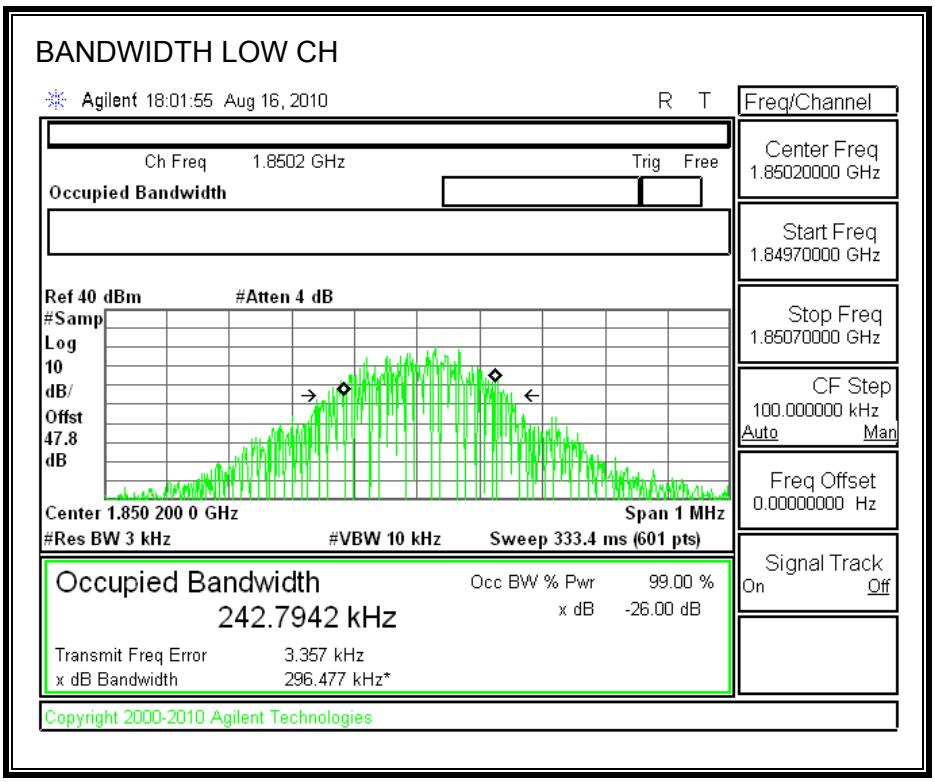


BANDWIDTH HIGH CH



PCS, GSM1900 BANDWIDTH

BANDWIDTH LOW CH



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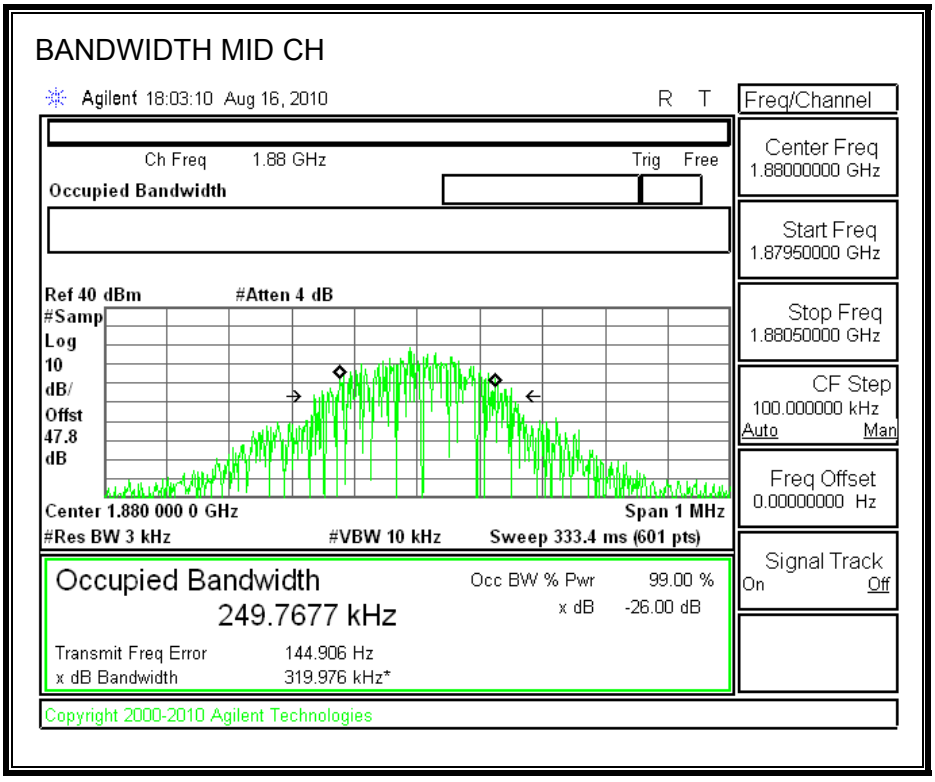
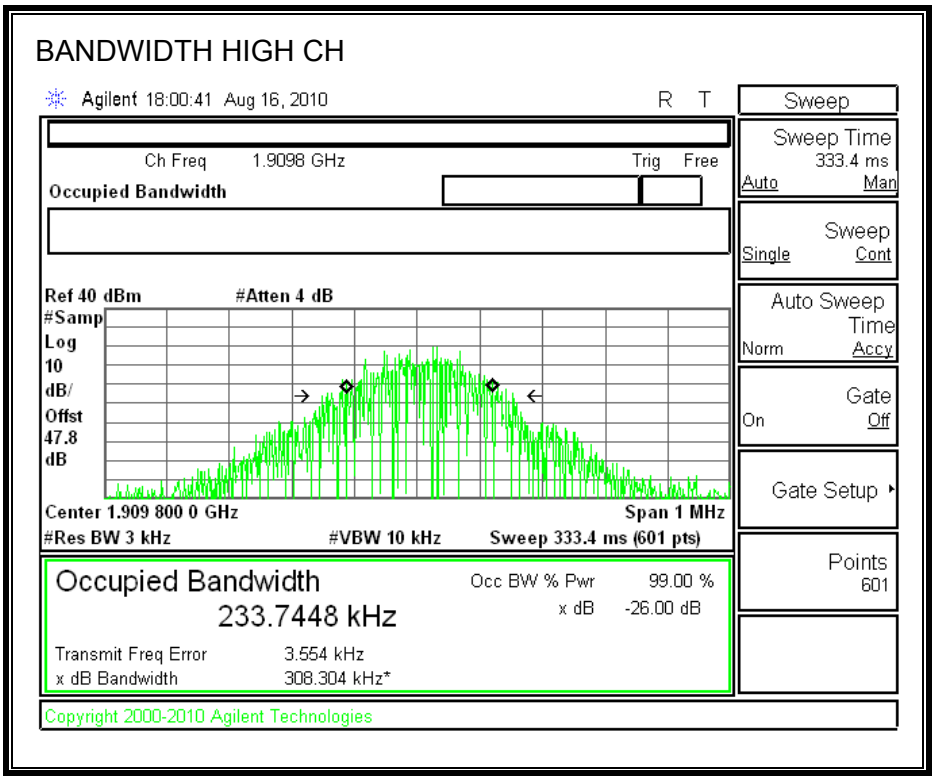
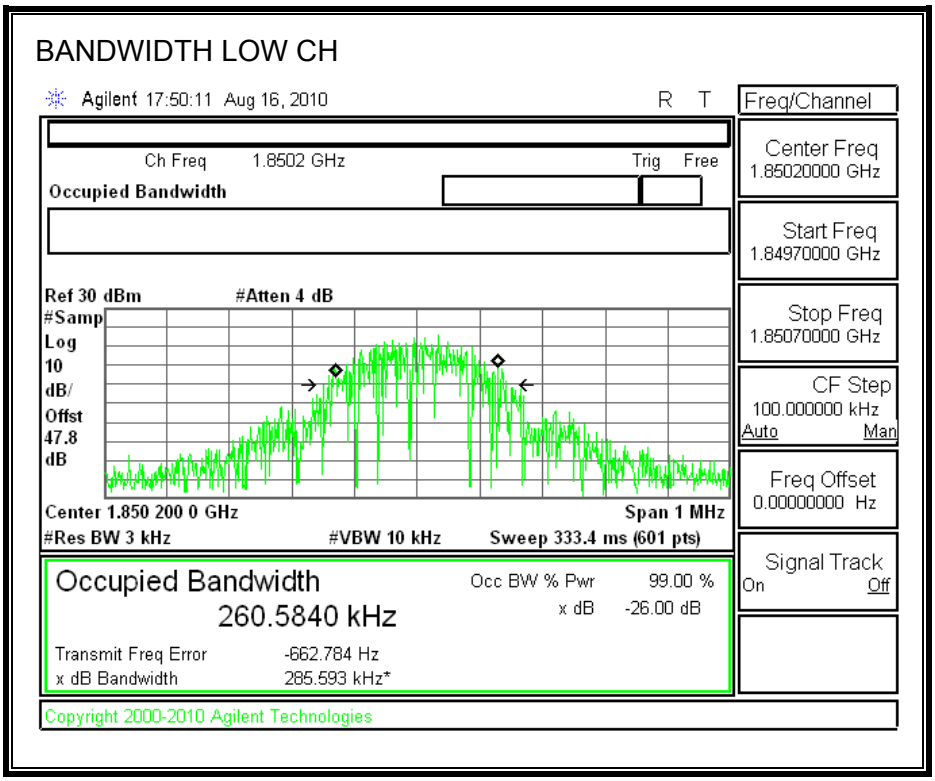
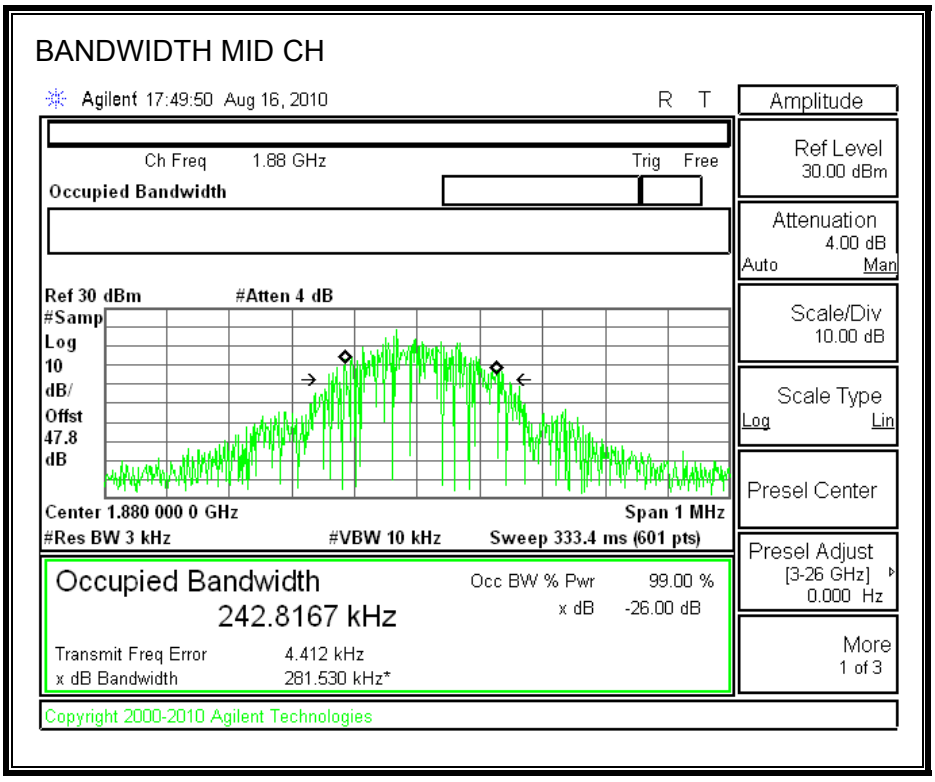




PCS, EGPRS1900 BANDWIDTH



BANDWIDTH MID CH



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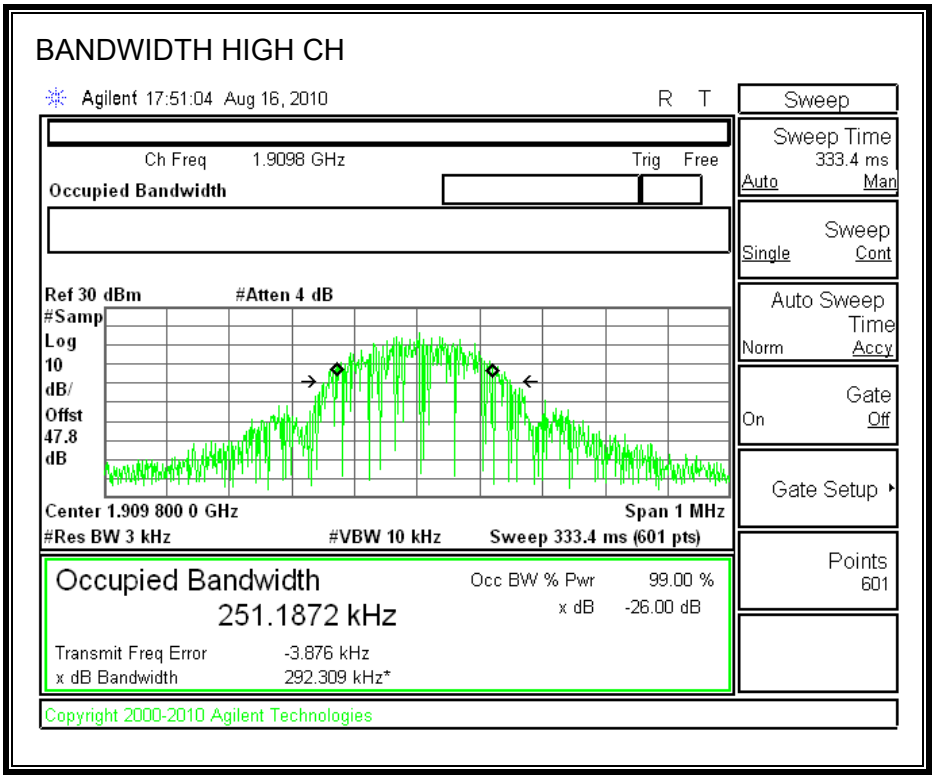


9.2. SPURIOUS EMISSION AT ANTENNA TERMINAL

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

-

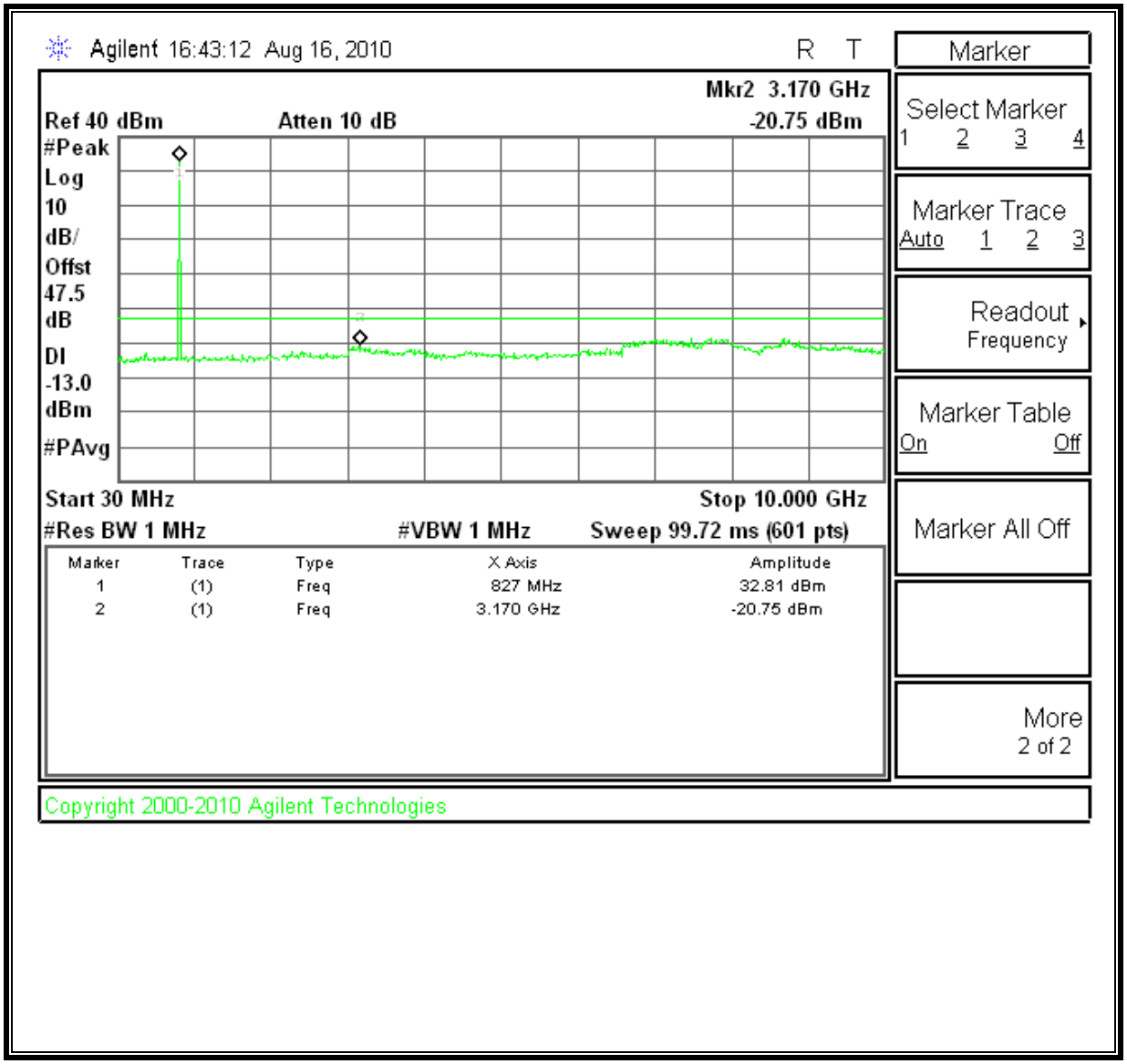
MODES TESTED

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

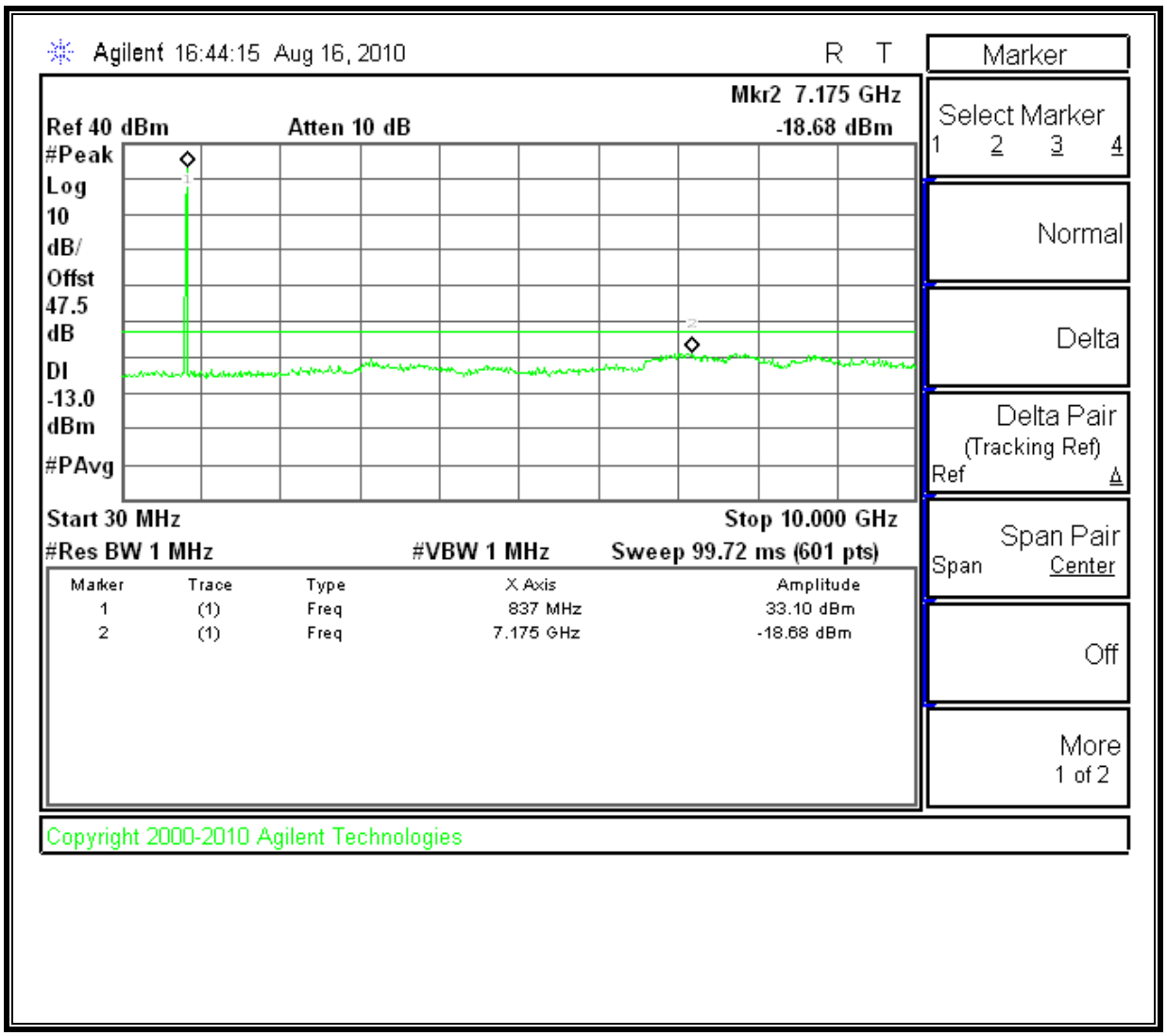
RESULTS

CELL, GSM850 MODULATION:

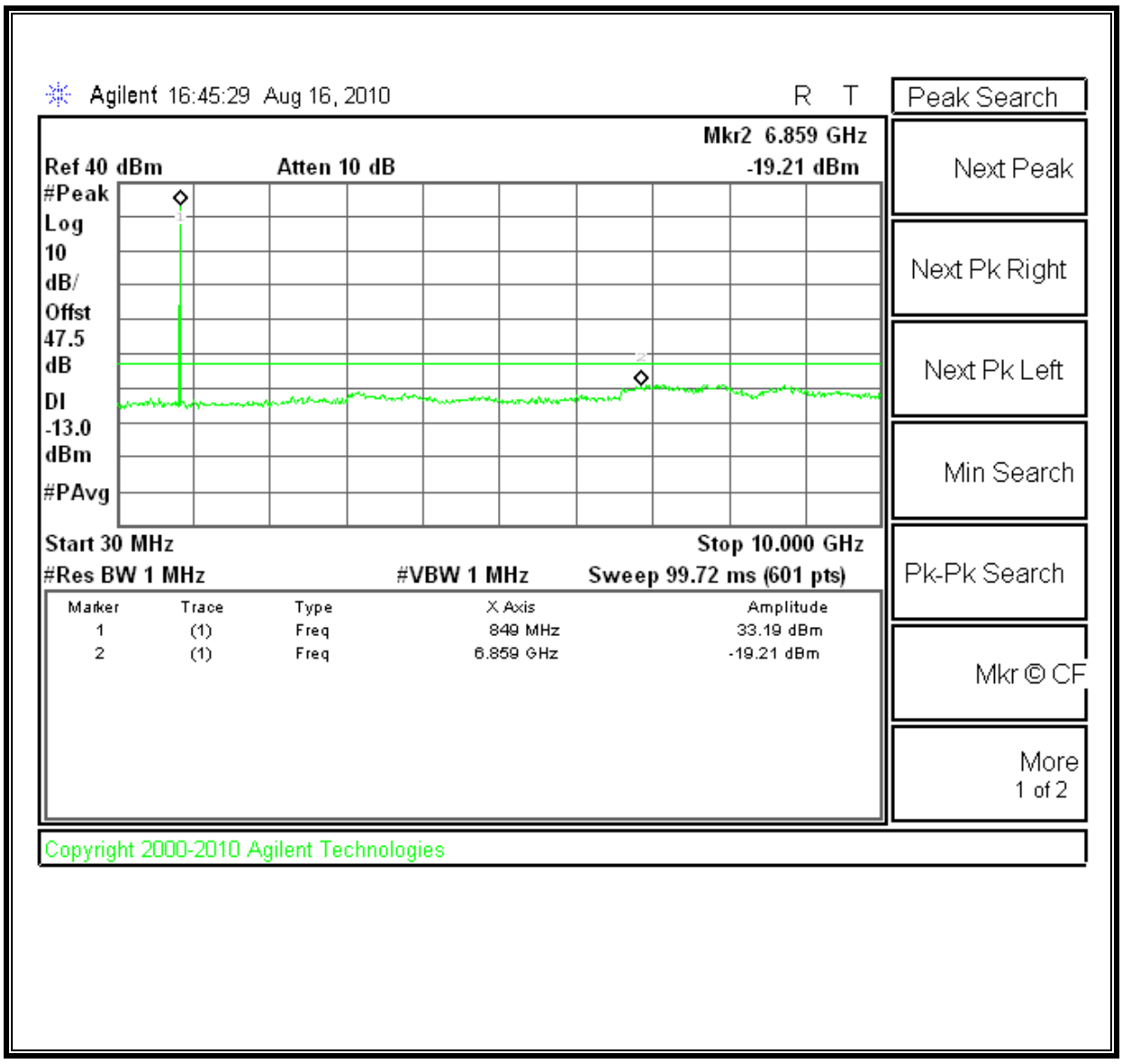
Low Channel, Out-Of-Band Emissions



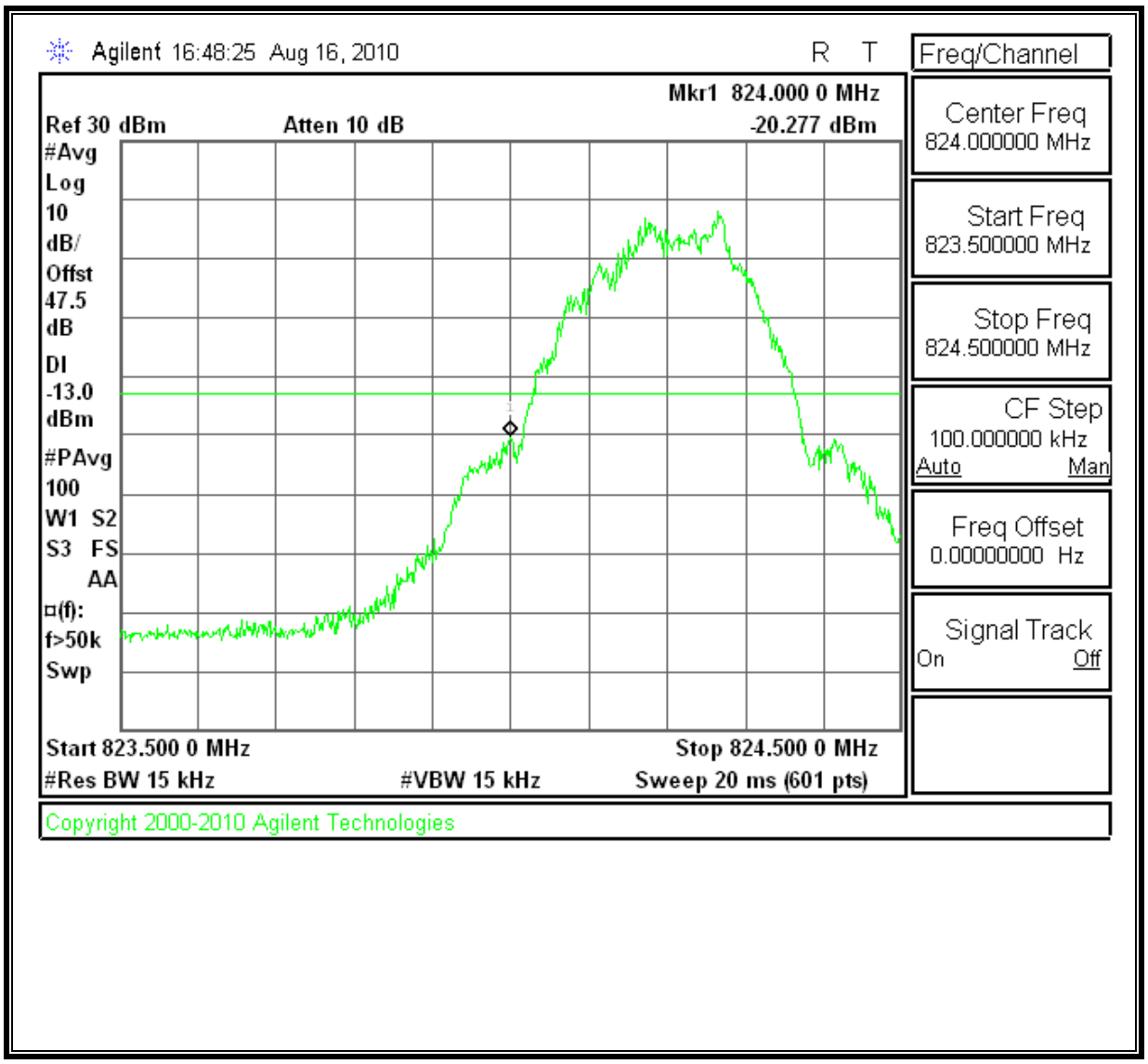
Mid Channel, Out-Of-Band Emissions



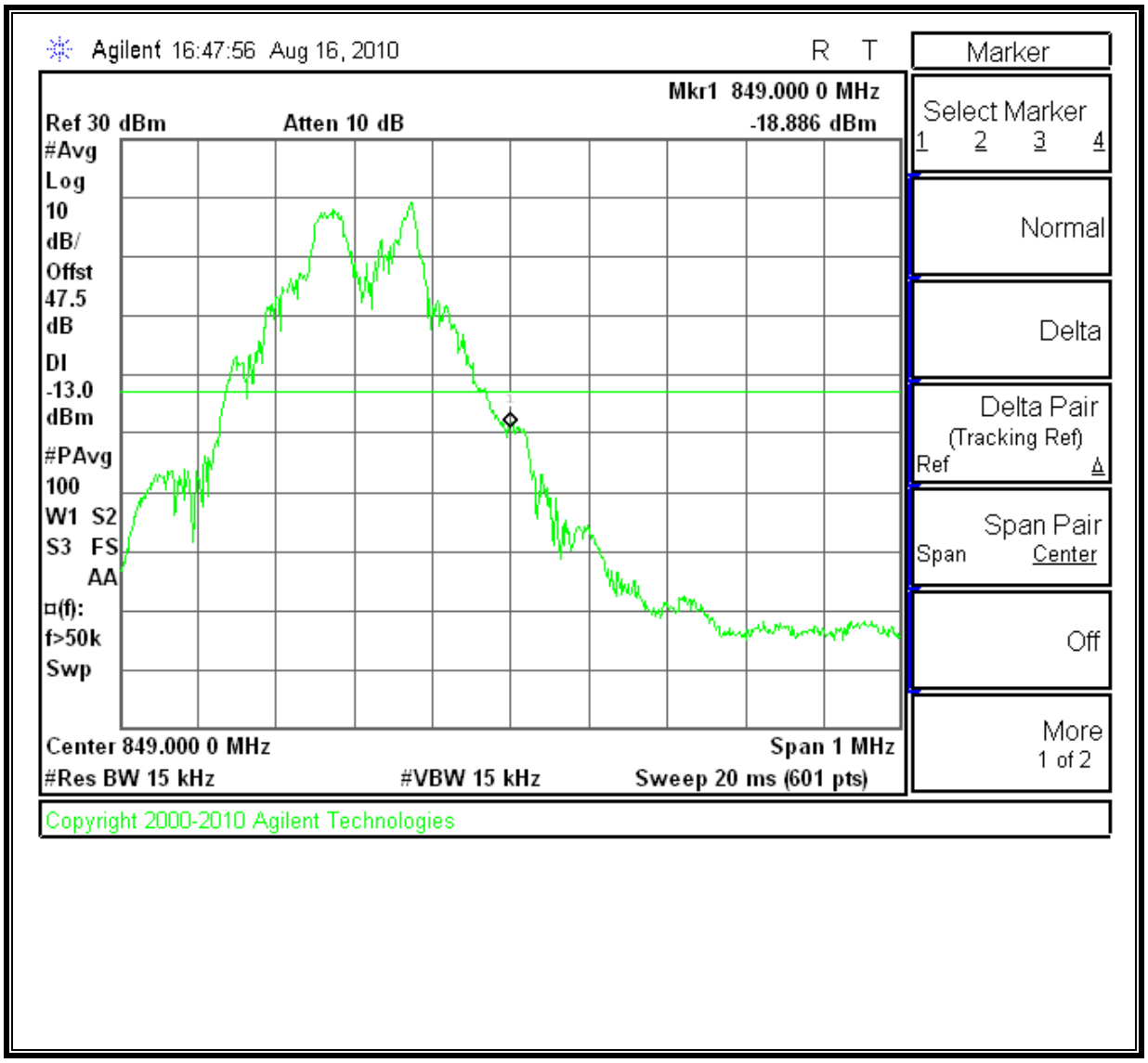
High Channel, Out-Of-Band Emissions



Low Channel Band Edge

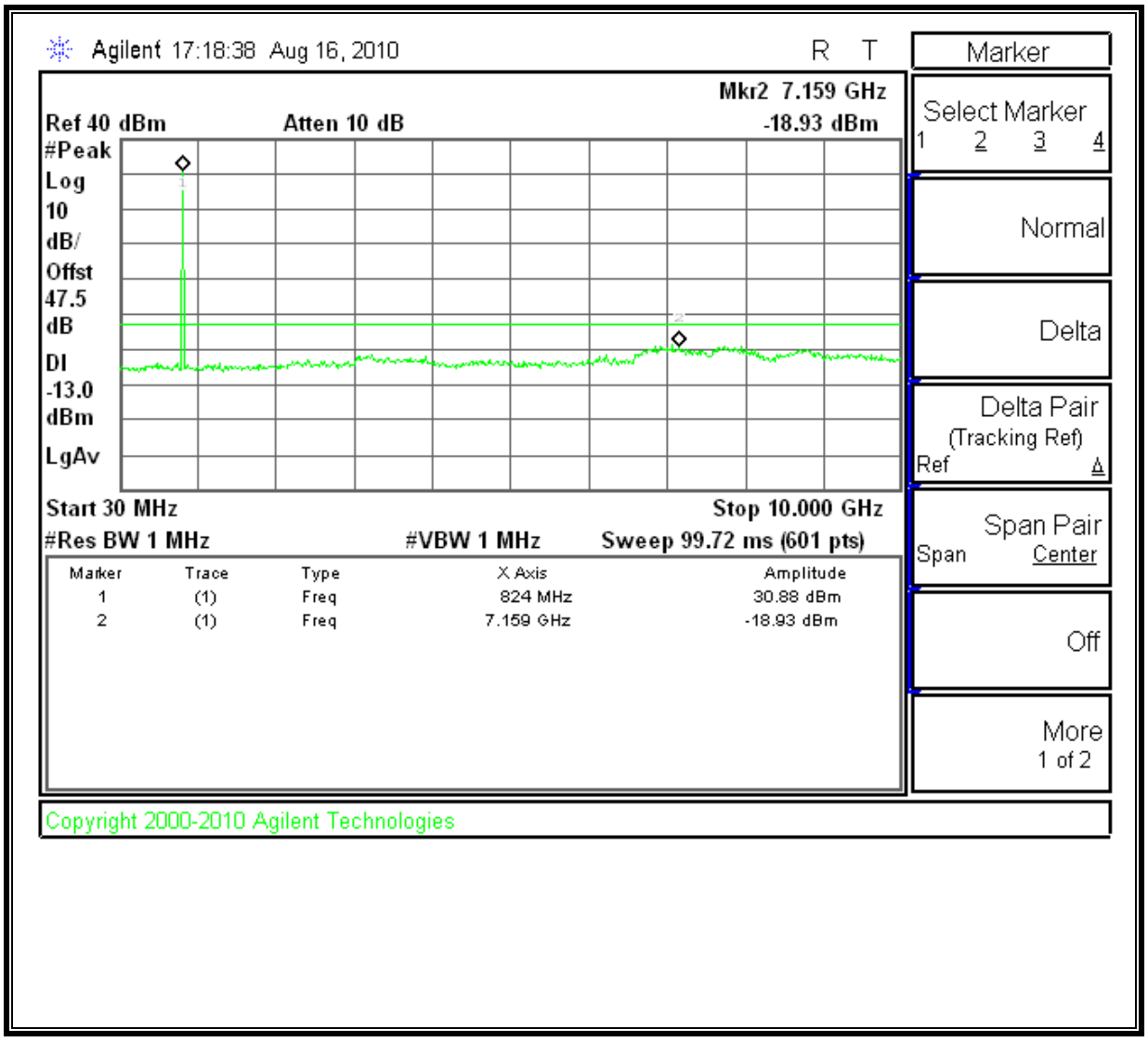


High Channel Band Edge

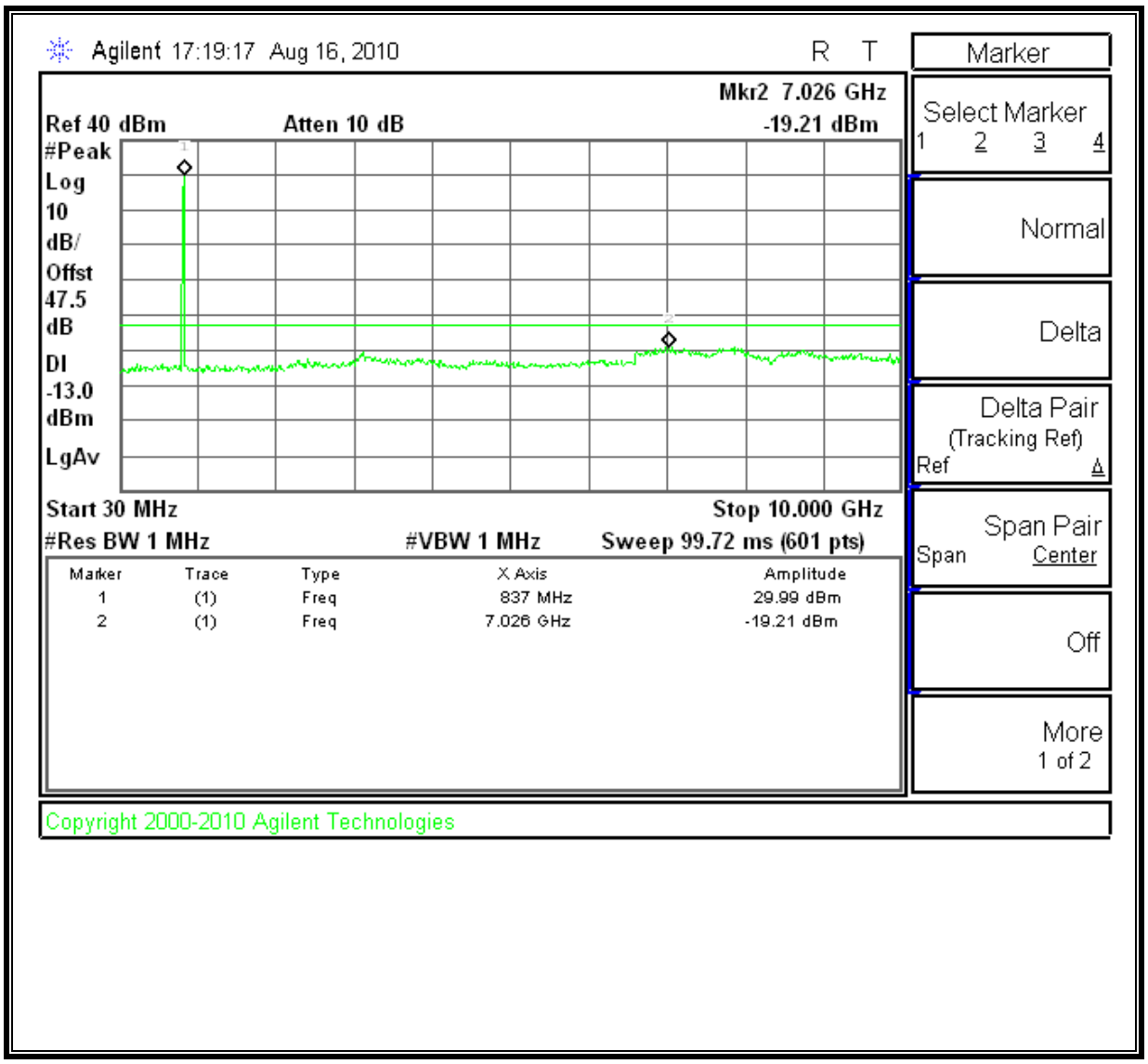


CELL, EGPRS MODULATION:

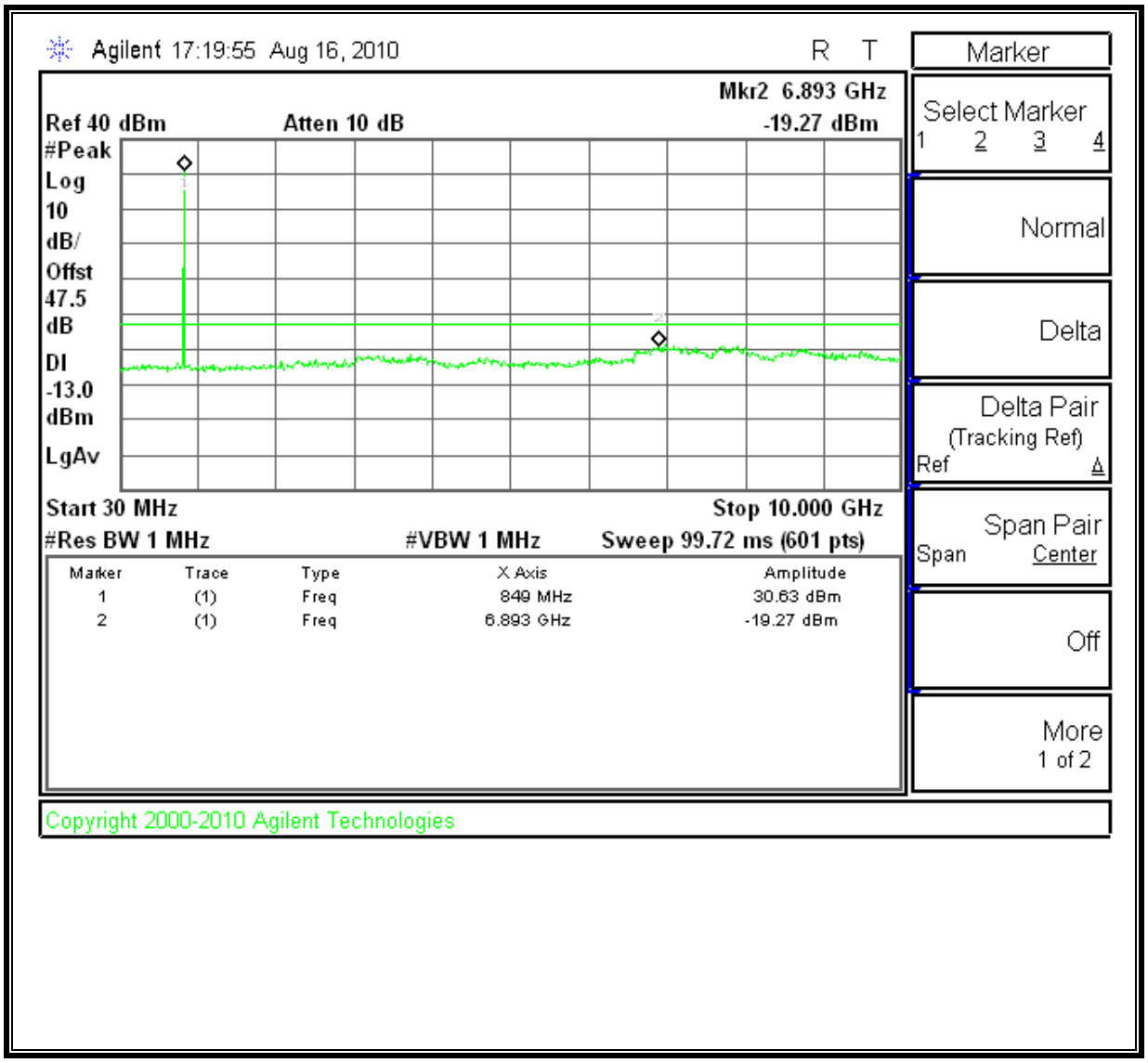
Low Channel, Out-Of-Band Emissions



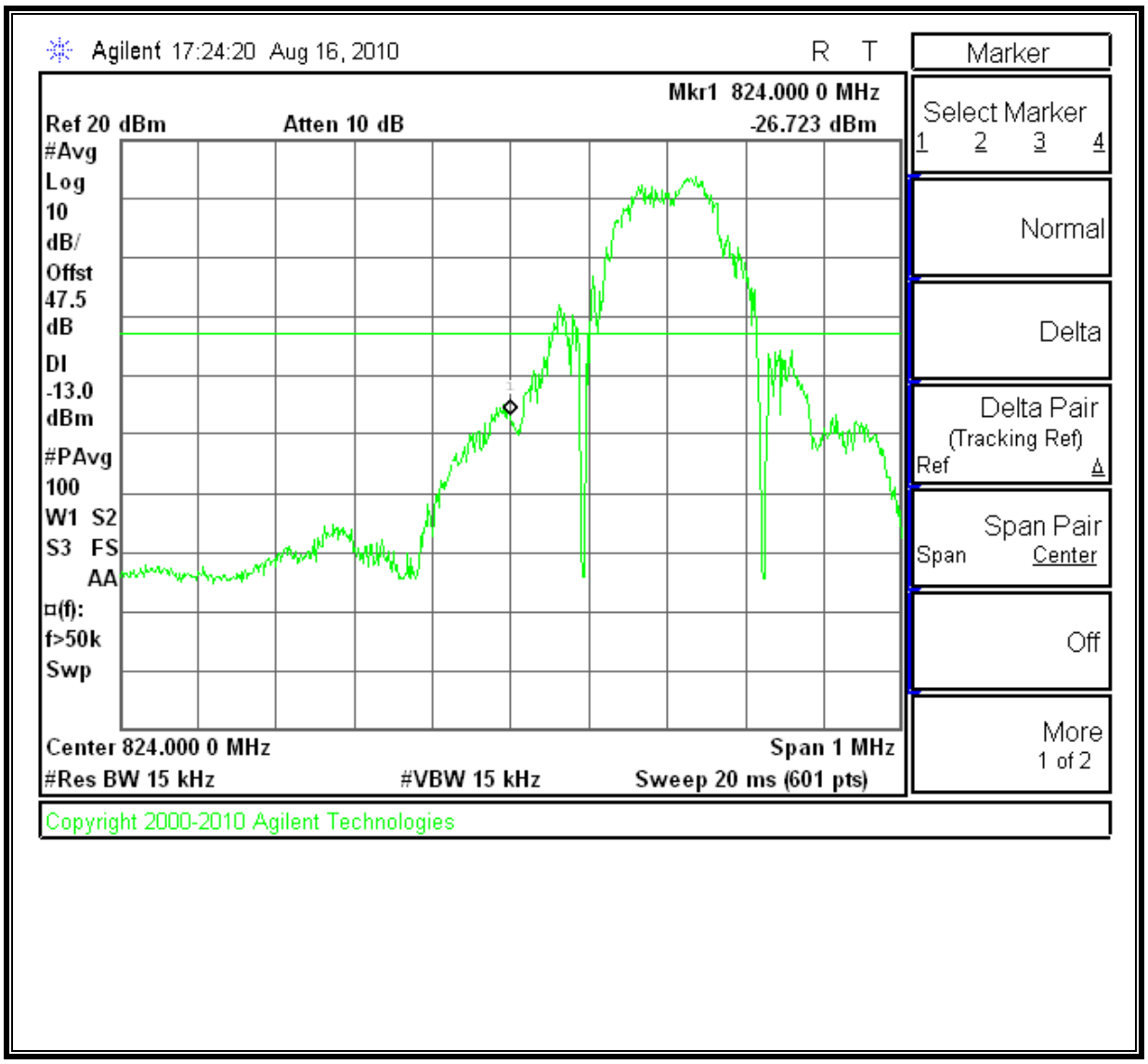
Mid Channel, Out-Of-Band Emissions



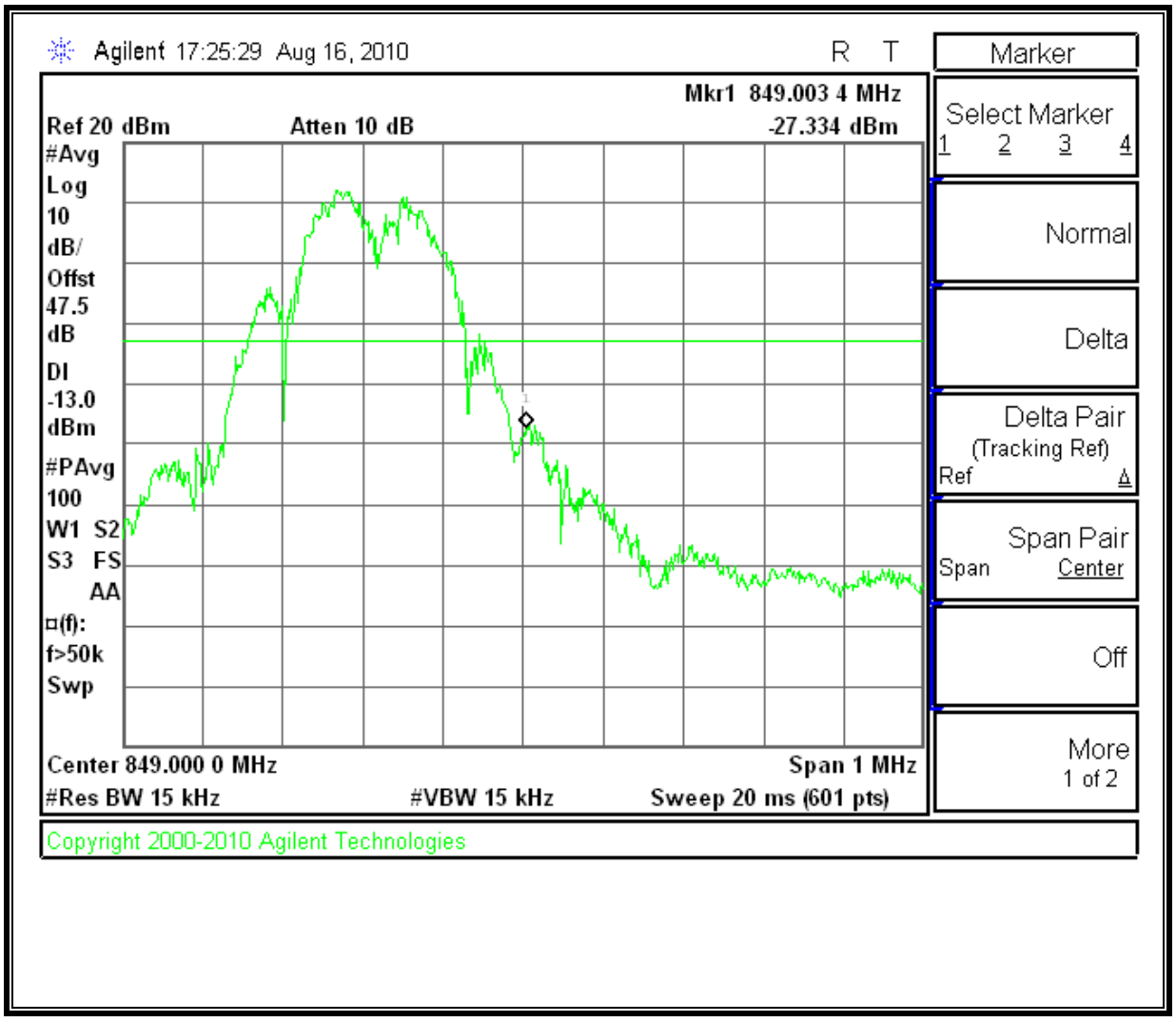
High Channel, Out-Of-Band Emissions



Low Channel Band Edge

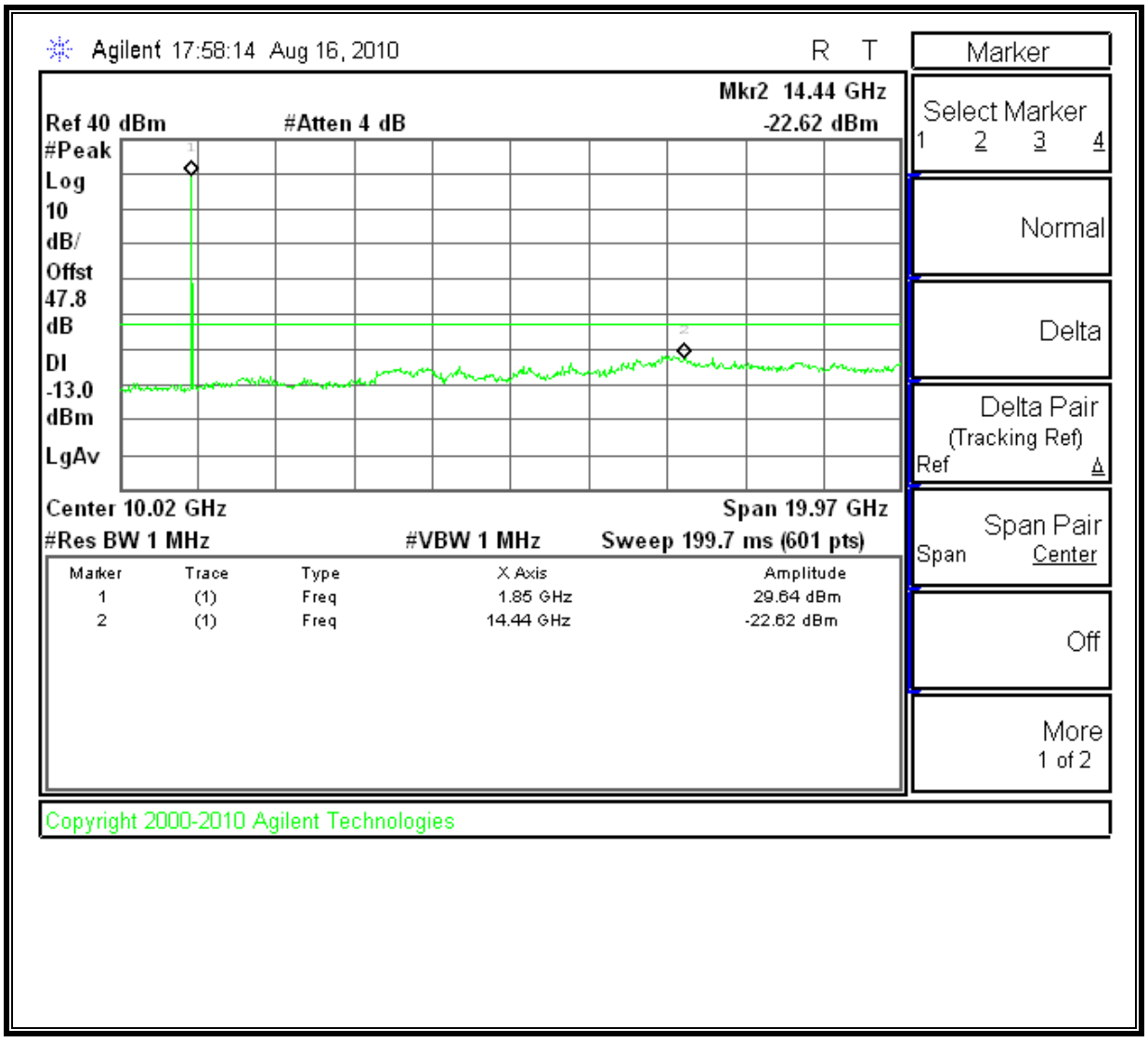


High Channel Band Edge

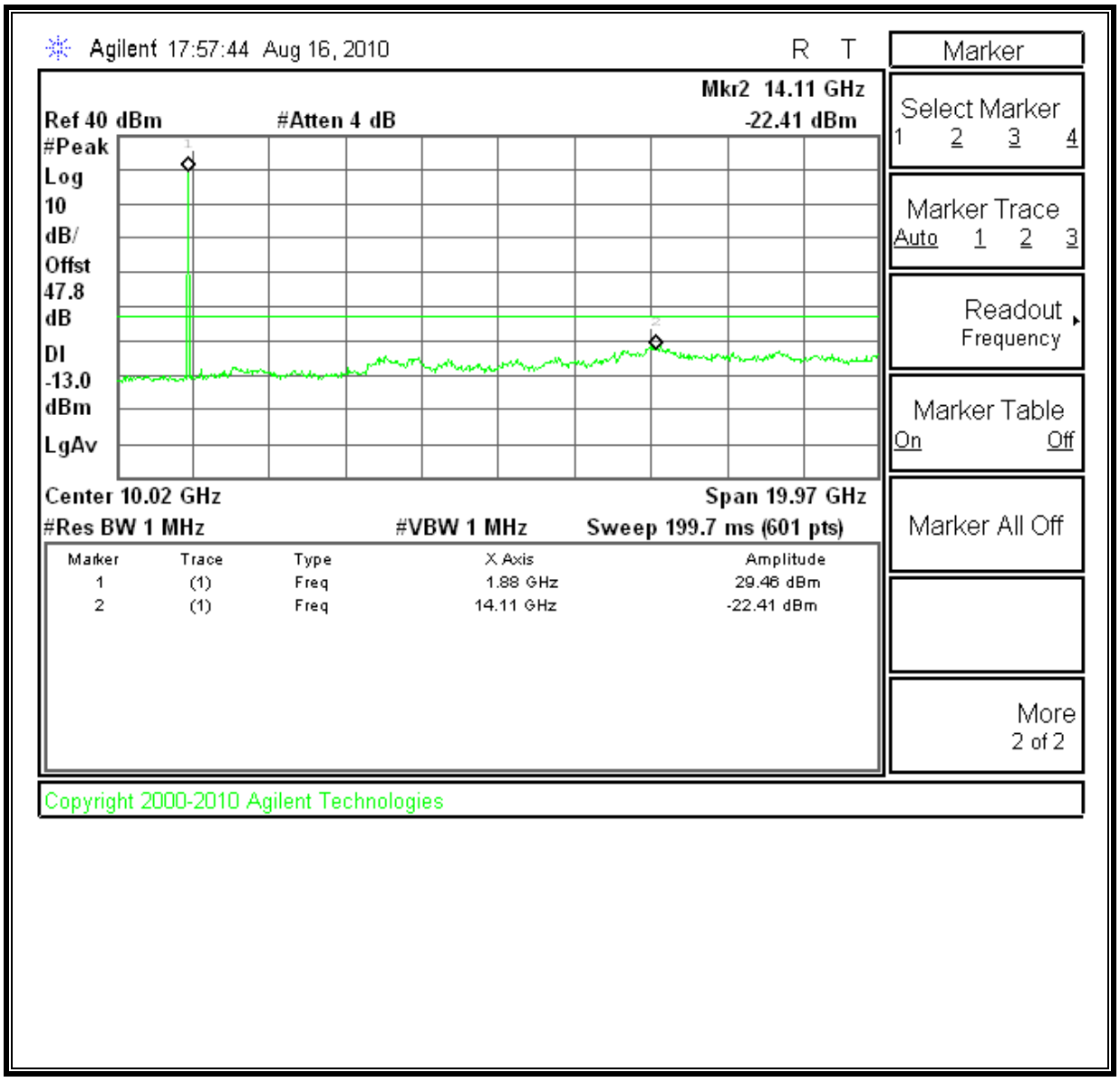


PCS GSM1900 MODULATION RESULTS

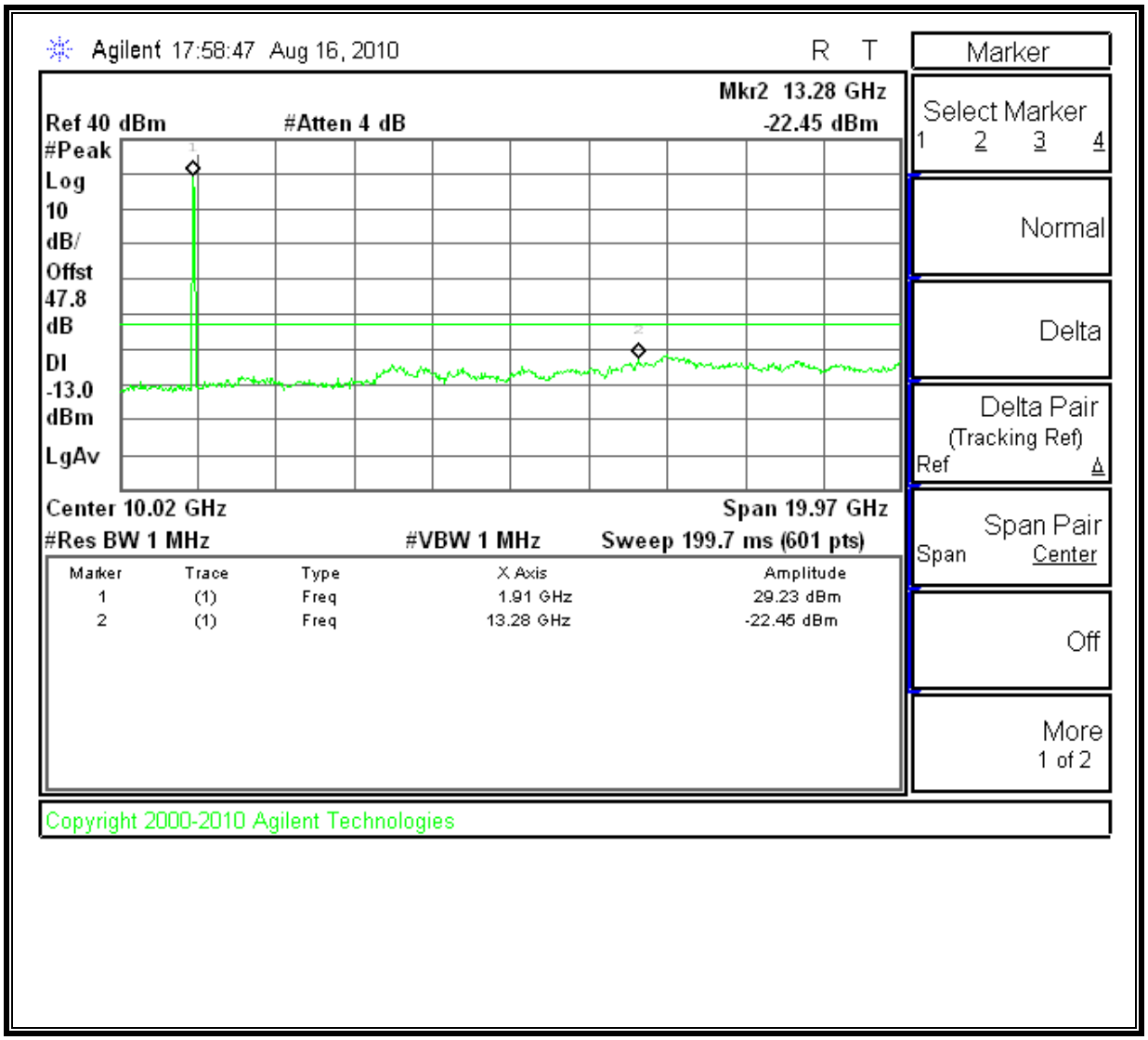
Low Channel, Out-Of-Band Emissions



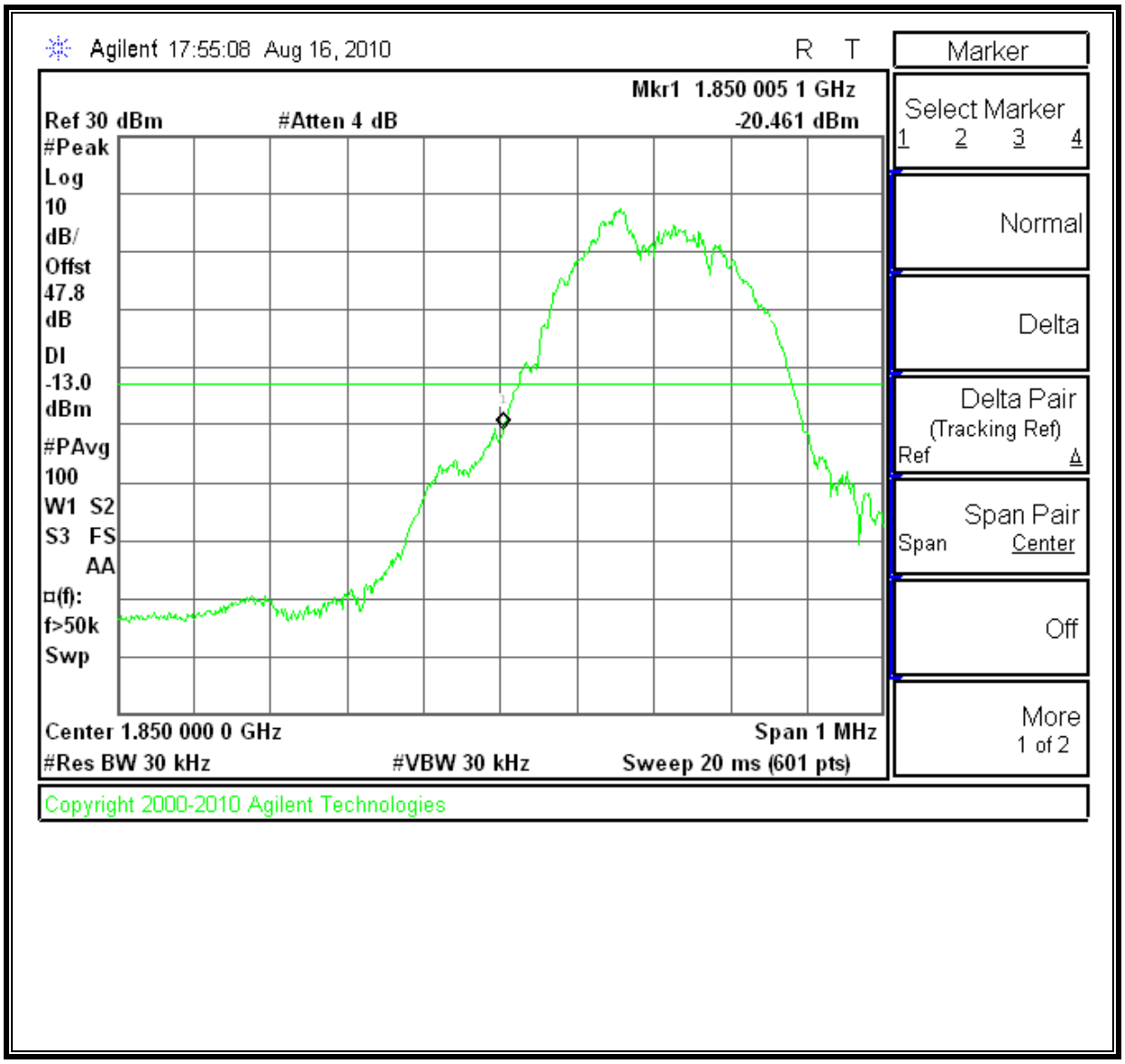
Mid Channel, Out-Of-Band Emissions



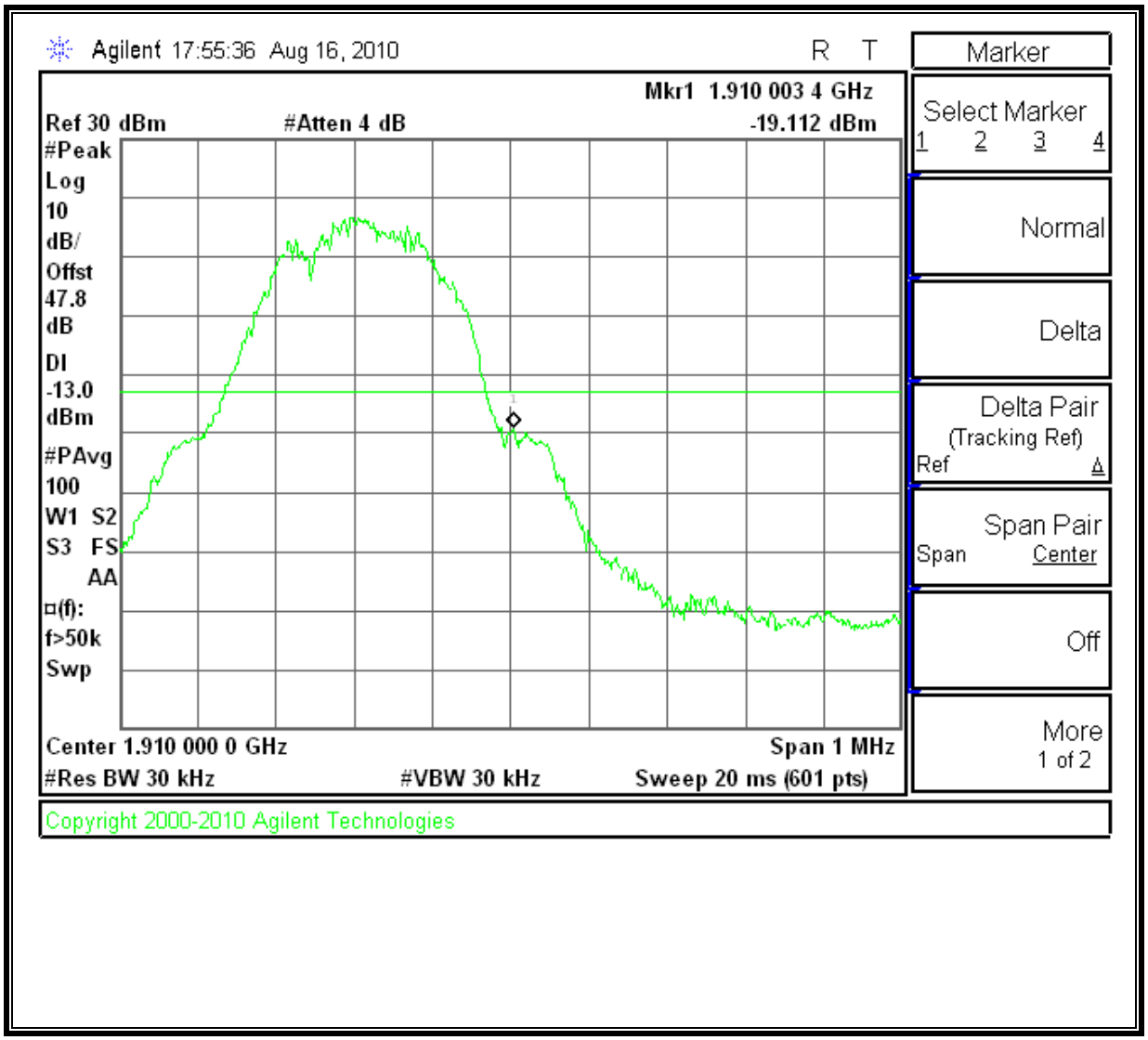
High Channel, Out-Of-Band Emissions



Low Channel Band Edge

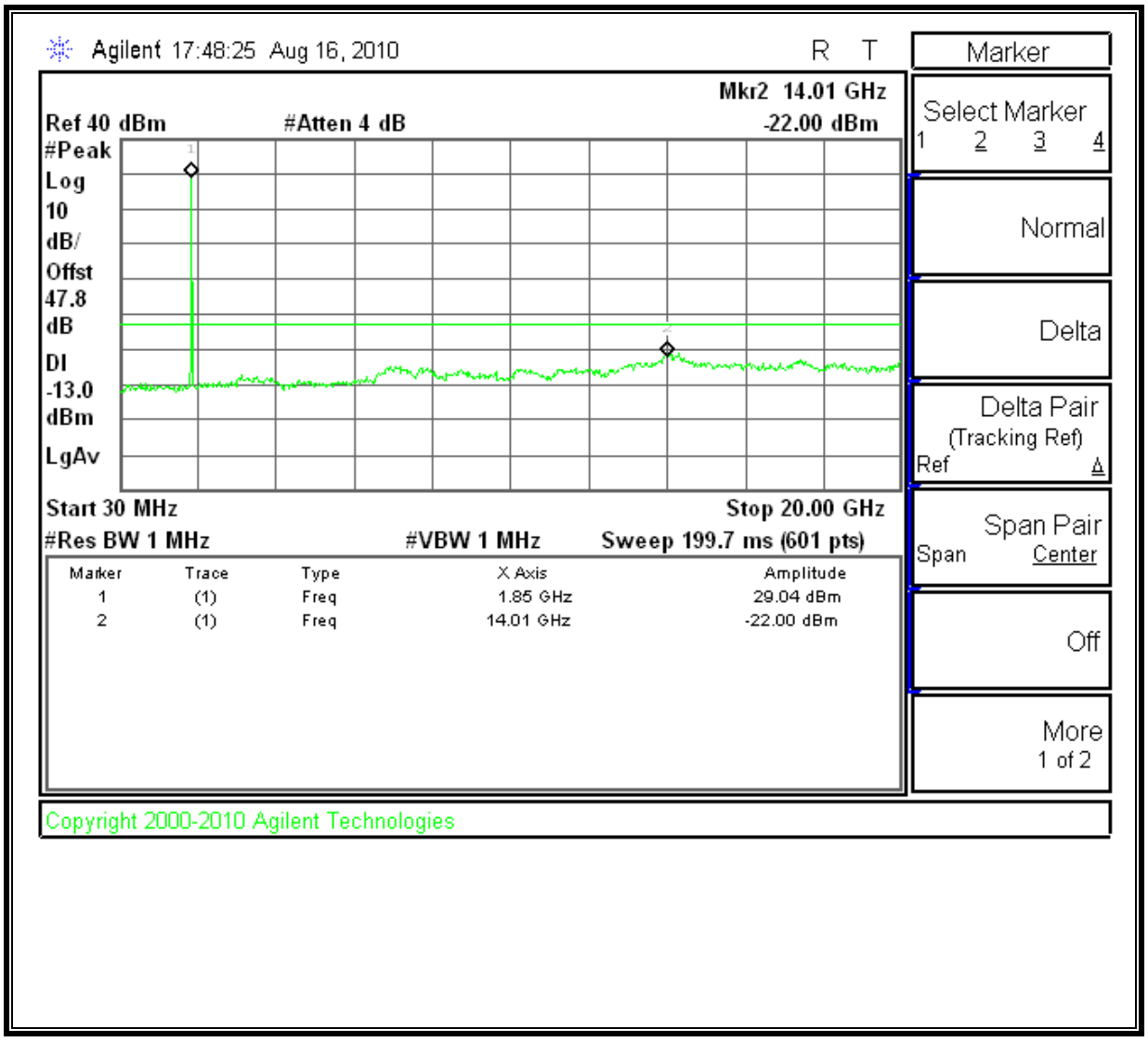


High Channel Band Edge

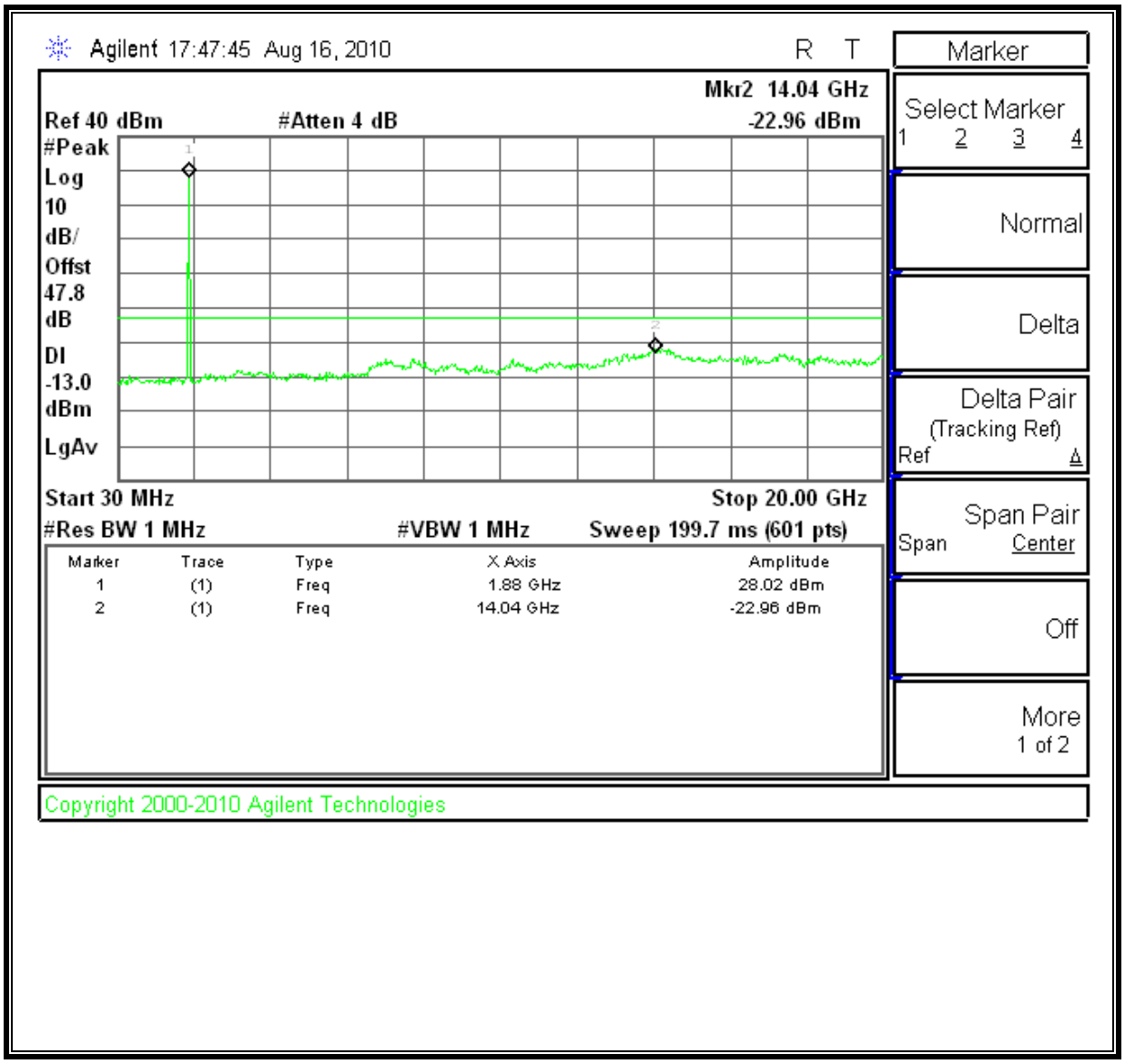


PCS EGPRS1900 MODULATION RESULTS

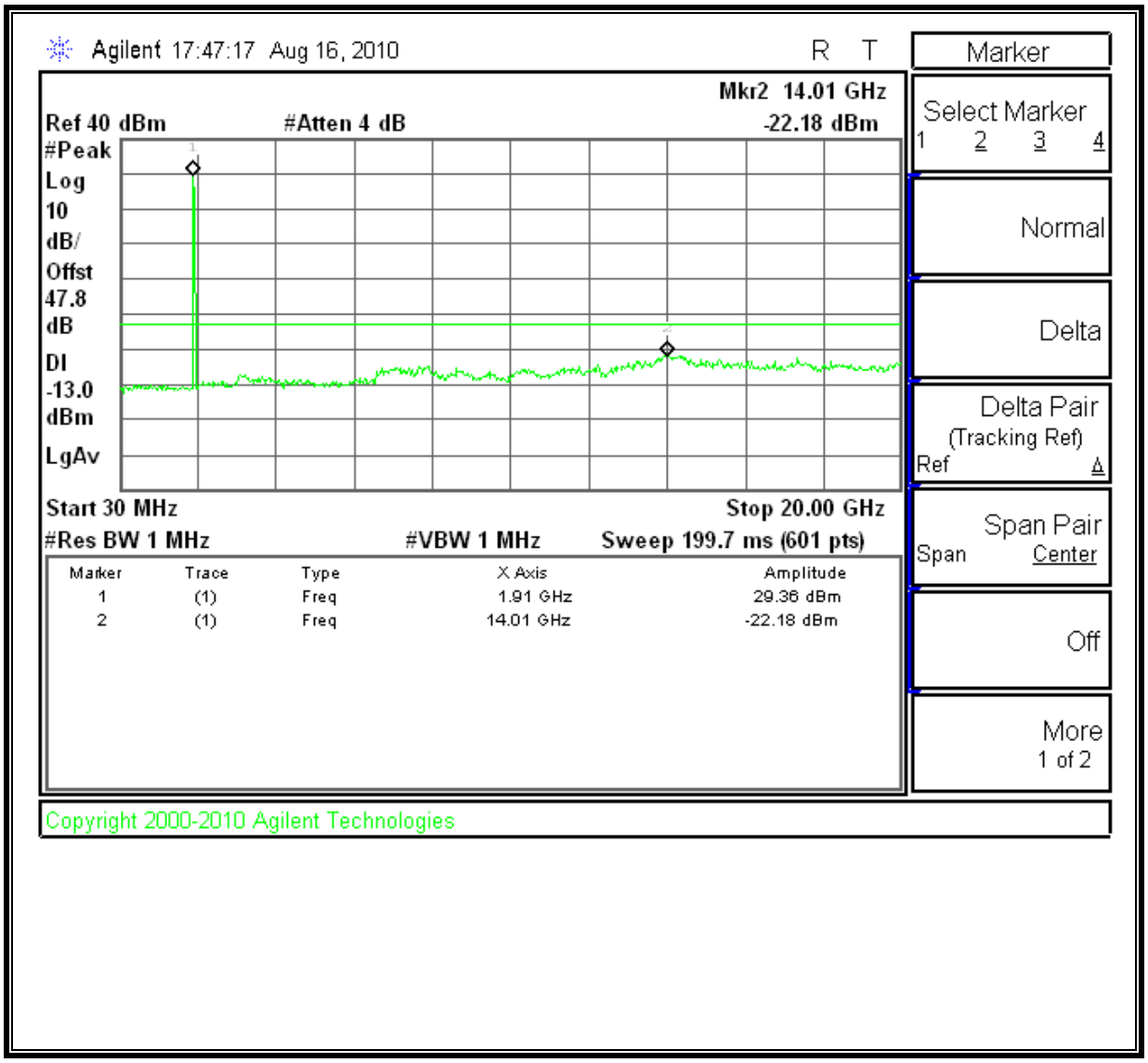
Low Channel, Out-Of-Band Emissions



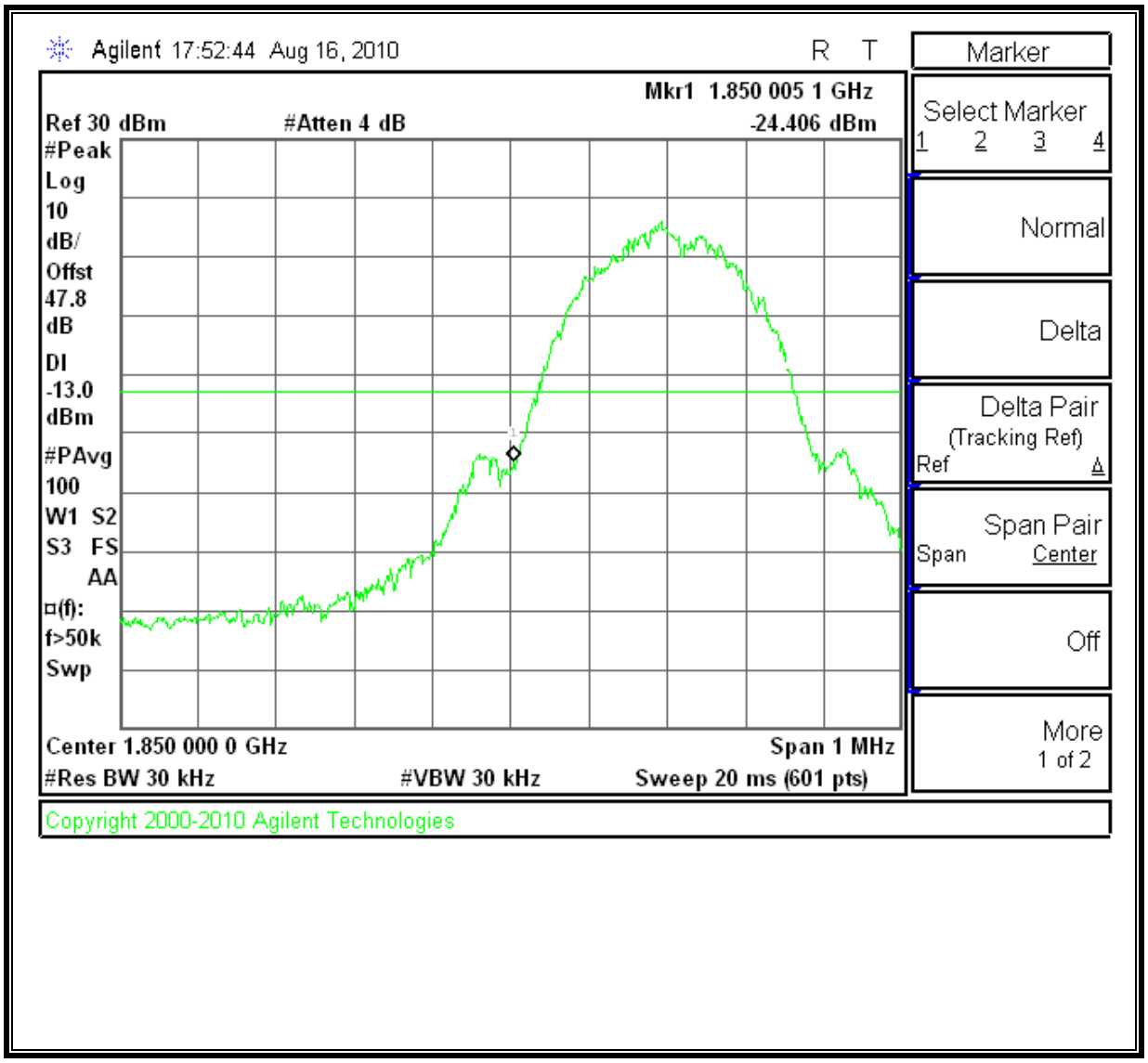
Mid Channel, Out-Of-Band Emissions



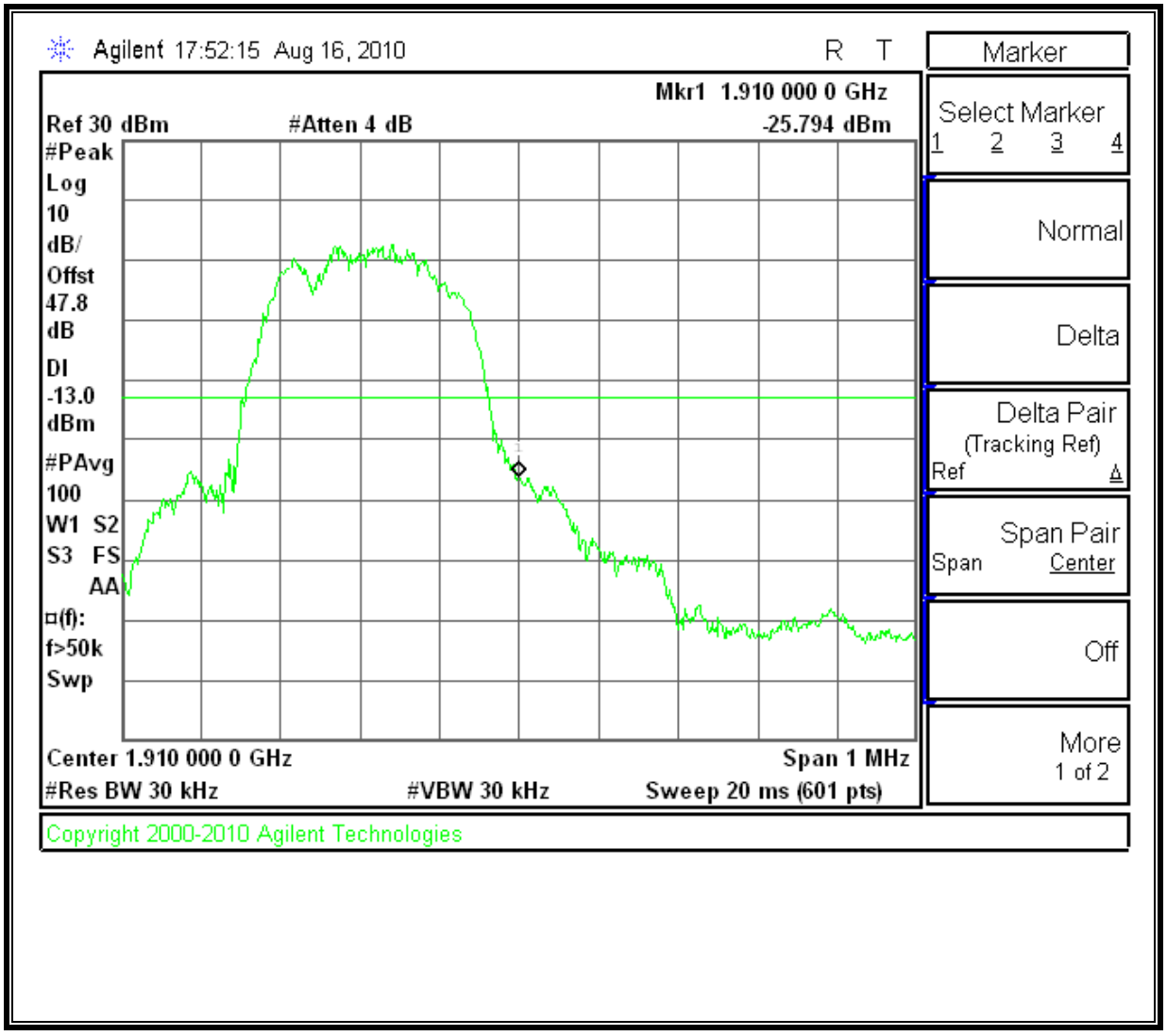
High Channel, Out-Of-Band Emissions



Low Channel Band Edge



High Channel Band Edge



9.3. FREQUENCY STABILITY

RULE PART(S)

FCC: §2.1055, §22.355, §24.235

LIMITS

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

TEST PROCEDURE

Use CMU200 with Frequency Error measurement capability.

- Temp. = −20° to +50°C
- Voltage = 115 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

- GSM850 and EGPRS850
- GSM1900 and EGPRS1900

RESULTS

See the following pages.

CELL, GSM850 – MID CHANNEL

Reference Frequency: Cellular Mid Channel 836.599977MHz @ 20°C Limit: to stay +- 2.5 ppm = 2091.500 Hz				
DC Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measureed with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
4.20	50	836.599940	0.044	2.5
4.20	40	836.599937	0.048	2.5
4.20	30	836.599964	0.016	2.5
4.20	***20***	***836.599977***	***0***	2.5
4.20	10	836.599946	0.037	2.5
4.20	0	836.599970	0.008	2.5
4.20	-10	836.599967	0.012	2.5
4.20	-20	836.599950	0.032	2.5

Reference Frequency: Cellular Mid Channel 836.599977MHz @ 20°C Limit: to stay +- 2.5 ppm = 2091.500 Hz				
DC Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measureed with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
4.20	***20***	***836.599977***	***0.00***	***2.5***
3.57	20	836.599972	*0.006*	2.5
3.4 (end point voltage)	20	836.599974	*0.004*	2.5

CELL, EGPRS850 – MID CHANNEL

Reference Frequency: Cellular Mid Channel 836.600012MHz @ 20°C Limit: to stay +- 2.5 ppm = 2091.500 Hz				
DC Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measureed with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
4.20	50	836.599964	0.057	2.5
4.20	40	836.599969	0.051	2.5
4.20	30	836.600018	-0.007	2.5
4.20	***20***	***836.600012***	***0***	2.5
4.20	10	836.600035	-0.027	2.5
4.20	0	836.599969	0.051	2.5
4.20	-10	836.599962	0.060	2.5
4.20	-20	836.599975	0.044	2.5

Reference Frequency: Cellular Mid Channel 836.600012MHz @ 20°C Limit: to stay +- 2.5 ppm = 2091.500 Hz				
DC Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measureed with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
4.20	***20***	***836.600012***	***0.00***	***2.5***
3.57	20	836.600017	*-0.006*	2.5
3.4 (end point voltage)	20	836.600007	*0.006*	2.5

PCS, GSM1900 – MID CHANNEL

Reference Frequency: PCS Mid Channel 1879.999985MHz @ 20°C Limit: within the authorized block or +- 2.5 ppm = 4700.000 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measureed with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
4.20	50	1879.999917	0.036	2.5
4.20	40	1879.999932	0.028	2.5
4.20	30	1879.999991	-0.003	2.5
4.20	***20***	***1879.999985***	***0***	***2.5***
4.20	10	1879.999959	0.014	2.5
4.20	0	1879.999929	0.030	2.5
4.20	-10	1879.999923	0.033	2.5
4.20	-20	1879.999931	0.029	2.5

Reference Frequency: PCS Mid Channel 1879.999985MHz @ 20°C Limit: within the authorized block or +- 2.5 ppm = 4700.000 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measureed with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
4.20	***20***	***1879.999985***	***0.00***	***2.5***
3.57	20	1879.999942	0.023	2.5
3.4 (end point voltage)	20	1879.999940	0.024	2.5

PCS, EGPRS1900 – MID CHANNEL

Reference Frequency: PCS Mid Channel 1880.000032MHz @ 20°C Limit: within the authorized block or +- 2.5 ppm = 4700.000 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measureed with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
4.20	50	1879.999968	0.034	2.5
4.20	40	1879.999964	0.036	2.5
4.20	30	1880.000004	0.015	2.5
4.20	***20***	***1880.000032***	***0***	***2.5***
4.20	10	1880.000044	-0.006	2.5
4.20	0	1879.999980	0.028	2.5
4.20	-10	1879.999975	0.030	2.5
4.20	-20	1879.999978	0.029	2.5

Reference Frequency: PCS Mid Channel 1880.000032MHz @ 20°C Limit: within the authorized block or +- 2.5 ppm = 4700.000 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measureed with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
4.20	***20***	***1880.000032***	***0.00***	***2.5***
3.57	20	1880.000022	0.005	2.5
3.4 (end point voltage)	20	1880.000016	0.009	2.5

10. RADIATED TEST RESULTS

10.1. 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) Mobile/portable stations are limited to 2 watts e.i.r.p. peak power and the equipment must employ means to limit the power to the minimum necessary for successful communications.

TEST PROCEDURE

ANSI / TIA / EIA 603C Clause 2.2.17

MODES TESTED

- 1xRTT – RC1, SO55
- Ev-DO – Rev A

RESULTS for Cellular Band (ERP)

Mode	Channel	f (MHz)	ERP(Inductive backcover)		ERP (Inductive Charger)	
			dBm	mW	dBm	mW
GSM850	128	824.20	34.00	2511.89	29.80	954.99
	190	836.60	34.90	3090.30	32.40	1737.80
	251	848.80	33.80	2398.83	31.80	1513.56
EGPRS850	128	824.20	30.00	1000.00	28.10	645.65
	190	836.60	30.40	1096.48	28.20	660.69
	251	848.80	30.30	1071.52	28.00	630.96

RESULTS for PCS Band (EIRP)

Mode	Channel	f (MHz)	EIRP(Inductive Cover)		EIRP (Inductive Charger)	
			dBm	mW	dBm	mW
GSM1900	512	1850.20	31.50	1412.54	29.60	912.01
	661	1880.00	30.60	1148.15	28.70	741.31
	810	1909.80	31.40	1380.38	27.40	549.54
EGPRS1900	512	1850.20	27.50	562.34	27.00	501.19
	661	1880.00	27.60	575.44	26.70	467.74
	810	1909.80	27.10	512.86	26.30	426.58

EUT WITH INDUCTIVE BACKCOVER

ERP for GSM850 Mode (Cellular Band)

High Frequency Substitution Measurement
Compliance Certification Services Chamber B

Company: Palm
Project #: 10U13340
Date: 8/11/2010
Test Engineer: Chin Pang
Configuration:EUT (Inductive Cover) and earphone
Mode:TX, GSM850, GSM
Worst Case: X 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							
824.20	-10.5	V	32.6	22.1	38.5	-16.4	
824.20	3.6	H	30.4	34.0	38.5	-4.5	
Mid Ch							
836.60	-8.9	V	32.7	23.8	38.5	-14.7	
836.60	4.2	H	30.7	34.9	38.5	-3.5	
High Ch							
848.80	-11.0	V	32.0	21.0	38.5	-17.5	
848.80	3.0	H	30.8	33.8	38.5	-4.7	

Rev. 1.24.7

ERP for EGPRS Mode (Cellular Band)

High Frequency Substitution Measurement
Compliance Certification Services Chamber B

Company: Palm
Project #: 10U13340
Date: 8/13/2010
Test Engineer: Chin Pang
Configuration:EUT (Inductive Cover) and earphone
Mode:TX, GSM850, EGPRS
Worst Case: X 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							
824.20	-10.5	V	32.6	22.1	38.5	-16.4	
824.20	-0.4	H	30.4	30.0	38.5	-8.4	
Mid Ch							
836.60	-10.2	V	32.7	22.5	38.5	-16.0	
836.60	-0.4	H	30.7	30.4	38.5	-8.1	
High Ch							
848.80	-10.3	V	32.0	21.7	38.5	-16.8	
848.80	-0.4	H	30.8	30.3	38.5	-8.1	

Rev. 1.24.7

EIRP for GSM1900 Mode (PCS Band)

High Frequency Fundamental Measurement
Compliance Certification Services Chamber B

Company:Palm
Project #:10U13340
Date: 8/11/10
Test Engineer: Chin Pang
Configuration:EUT (Inductive Cover) with Earphone
Mode:TX, GSM1900, PCS band
Wosrt 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							
1.850	-17.5	V	40.2	22.7	33.0	-10.3	
1.850	-8.0	H	39.5	31.5	33.0	-1.5	
Mid Ch							
1.880	-17.3	V	40.3	23.0	33.0	-10.1	
1.880	-9.5	H	40.1	30.6	33.0	-2.4	
High Ch							
1.910	-16.8	V	40.2	23.4	33.0	-9.6	
1.910	-8.8	H	40.1	31.4	33.0	-1.7	

Rev. 1.24.7

EIRP EGPRS1900 Mode (PCS Band)

High Frequency Fundamental Measurement
Compliance Certification Services Chamber B

Company:Palm
Project #:10U13340
Date: 8/11/10
Test Engineer: Chin Pang
Configuration:EUT (Inductive Cover) with earphone
Mode:TX, EGPRS1900, PCS band
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							
1.850	-15.9	V	40.2	24.3	33.0	-8.7	
1.850	-12.0	H	39.5	27.5	33.0	-5.5	
Mid Ch							
1.880	-16.0	V	40.3	24.3	33.0	-8.8	
1.880	-12.5	H	40.1	27.6	33.0	-5.4	
High Ch							
1.910	-15.7	V	40.2	24.5	33.0	-8.5	
1.910	-13.0	H	40.1	27.1	33.0	-5.9	

Rev. 1.24.7

EUT WITH INDUCTIVE CHARGING DOCK

EIRP for GSM850 Mode (Cellular Band)

High Frequency Substitution Measurement
Compliance Certification Services Chamber B

Company: Palm
Project #: 10U13340
Date: 8/11/2010
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	-5.6	V	32.6	27.0	38.5	-11.5	
824.20	-0.6	H	30.4	29.8	38.5	-8.7	
Mid Ch							
836.60	-3.7	V	32.7	29.0	38.5	-9.5	
836.60	1.7	H	30.7	32.4	38.5	-6.0	
High Ch							
848.80	-5.8	V	32.0	26.2	38.5	-12.3	
848.80	1.0	H	30.8	31.8	38.5	-6.7	

Rev. 1.24.7

ERP for EGPRS Mode (Cellular Band)

High Frequency Substitution Measurement
Compliance Certification Services Chamber B

Company: Palm
Project #: 10U13340
Date: 8/11/2010
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	-7.3	V	32.6	25.3	38.5	-13.2	
824.20	-2.3	H	30.4	28.1	38.5	-10.4	
Mid Ch							
836.60	-6.2	V	32.7	26.5	38.5	-12.0	
836.60	-2.5	H	30.7	28.2	38.5	-10.2	
High Ch							
848.80	-6.6	V	32.0	25.4	38.5	-13.1	
848.80	-2.8	H	30.8	28.0	38.5	-10.5	

Rev. 1.24.7

EIRP for GSM1900 Mode (PCS Band)

High Frequency Fundamental Measurement
Compliance Certification Services Chamber B

Company:Palm
Project #:10U13340
Date: 8/11/10
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	-18.6	V	40.2	21.6	33.0	-11.4	
1.850	-9.9	H	39.5	29.6	33.0	-3.4	
Mid Ch							
1.880	-15.2	V	40.3	25.1	33.0	-8.0	
1.880	-11.4	H	40.1	28.7	33.0	-4.3	
High Ch							
1.910	-17.5	V	40.2	22.7	33.0	-10.3	
1.910	-12.7	H	40.1	27.4	33.0	-5.6	

Rev. 1.24.7

EIRP for EGPRS1900 Mode (PCS Band)

High Frequency Fundamental Measurement
Compliance Certification Services Chamber B

Company:Palm
Project #:10U13340
Date: 8/11/10
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	-17.1	V	40.2	23.1	33.0	-9.9	
1.850	-12.5	H	39.5	27.0	33.0	-6.0	
Mid Ch							
1.880	-17.3	V	40.3	23.0	33.0	-10.1	
1.880	-13.4	H	40.1	26.7	33.0	-6.3	
High Ch							
1.910	-17.0	V	40.2	23.2	33.0	-9.8	
1.910	-13.8	H	40.1	26.3	33.0	-6.7	

Rev. 1.24.7

10.2. FIELD STRENGTH OF SPURIOUS RADIATION

RULE PART(S)

FCC: §2.1053, §22.917, §24.238

LIMIT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

TEST PROCEDURE

For Cellular equipment - Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 100 kHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

For PCS equipment - Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

MODES TESTED

- 1xRTT – RC1, SO55
- Ev-DO – Rev A

RESULTS

EUT WITH INDUCTIVE COVER

GSM 850 (Cellular Band)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company:Palm
Project #:10U13340
Date:8/13/2010
Test Engineer:Chin Pang
Configuration:EUT (Inductive Cover) with earphone
Mode:TX, GSMS850

Chamber	Pre-amplifer	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	-31.7	H	3.0	37.2	35.5	1.0	-29.0	-13.0	-16.0	
2.47	-43.2	H	3.0	39.8	35.4	1.0	-37.8	-13.0	-24.8	
3.30	-49.3	H	3.0	43.9	35.5	1.0	-39.9	-13.0	-26.9	
4.13	-44.0	H	3.0	46.7	35.2	1.0	-31.6	-13.0	-18.6	
4.95	-51.2	H	3.0	48.8	35.3	1.0	-36.8	-13.0	-23.8	
7.42	-60.0	H	3.0	53.0	35.7	1.0	-41.7	-13.0	-28.7	
1.65	-32.3	H	3.0	37.2	35.5	1.0	-29.6	-13.0	-16.6	
2.47	-42.0	V	3.0	41.7	35.4	1.0	-34.7	-13.0	-21.7	
3.30	-50.0	V	3.0	44.1	35.5	1.0	-40.4	-13.0	-27.4	
4.13	-39.5	V	3.0	46.2	35.2	1.0	-27.6	-13.0	-14.6	
4.95	-50.0	V	3.0	48.2	35.3	1.0	-36.1	-13.0	-23.1	
7.42	-50.9	V	3.0	51.3	35.7	1.0	-34.3	-13.0	-21.3	
Mid Ch, 836.6MHz										
1.67	-28.0	H	3.0	37.5	35.5	1.0	-25.1	-13.0	-12.1	
2.51	-41.7	H	3.0	39.9	35.4	1.0	-36.2	-13.0	-23.2	
3.35	-50.8	H	3.0	44.1	35.5	1.0	-41.2	-13.0	-28.2	
4.18	-43.0	H	3.0	46.8	35.2	1.0	-30.4	-13.0	-17.4	
5.02	-48.7	H	3.0	48.9	35.3	1.0	-34.1	-13.0	-21.1	
7.53	-56.4	H	3.0	53.1	35.7	1.0	-38.0	-13.0	-25.0	
1.67	-29.0	V	3.0	37.1	35.5	1.0	-26.4	-13.0	-13.4	
2.51	-45.2	V	3.0	41.8	35.4	1.0	-37.8	-13.0	-24.8	
3.35	-50.5	V	3.0	44.3	35.5	1.0	-40.8	-13.0	-27.8	
4.18	-36.0	V	3.0	46.3	35.2	1.0	-23.9	-13.0	-10.9	
5.02	-48.7	V	3.0	48.3	35.3	1.0	-34.7	-13.0	-21.7	
7.53	-50.3	V	3.0	51.5	35.7	1.0	-33.5	-13.0	-20.5	
High Ch, 848.8MHz										
1.70	-30.2	H	3.0	37.7	35.5	1.0	-27.0	-13.0	-14.0	
2.55	-42.9	H	3.0	40.1	35.4	1.0	-37.2	-13.0	-24.2	
3.40	-55.2	H	3.0	44.3	35.5	1.0	-45.4	-13.0	-32.4	
4.24	-42.5	H	3.0	47.0	35.2	1.0	-29.8	-13.0	-16.8	
5.09	-49.5	H	3.0	49.1	35.3	1.0	-34.7	-13.0	-21.7	
7.64	-55.0	H	3.0	53.2	35.7	1.0	-36.5	-13.0	-23.5	
1.70	-32.0	V	3.0	37.5	35.5	1.0	-29.1	-13.0	-16.1	
2.55	-41.2	V	3.0	42.0	35.4	1.0	-33.7	-13.0	-20.7	
3.40	-50.7	V	3.0	44.4	35.5	1.0	-40.8	-13.0	-27.8	
4.24	-39.2	V	3.0	46.5	35.2	1.0	-27.0	-13.0	-14.0	
5.09	-50.0	V	3.0	48.5	35.3	1.0	-35.8	-13.0	-22.8	
7.64	-50.5	V	3.0	51.6	35.7	1.0	-33.6	-13.0	-20.6	

Rev. 03.03.09

EGPRS 850 (Cellular Band)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company:Palm
Project #:10U13340
Date:8/14/2010
Test Engineer:Chin Pang
Configuration:EUT (Inductive Cover) with earphone
Mode:TX, EGPRS850

Chamber	Pre-amplifer	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	-35.8	H	3.0	37.2	35.5	1.0	-33.1	-13.0	-20.1	
2.47	-46.0	H	3.0	39.8	35.4	1.0	-40.6	-13.0	-27.6	
3.30	-46.8	H	3.0	43.9	35.5	1.0	-37.4	-13.0	-24.4	
4.13	-47.8	H	3.0	46.7	35.2	1.0	-35.4	-13.0	-22.4	
4.95	-54.1	H	3.0	48.8	35.3	1.0	-39.7	-13.0	-26.7	
7.42	-58.1	H	3.0	53.0	35.7	1.0	-39.8	-13.0	-26.8	
1.65	-40.9	H	3.0	37.2	35.5	1.0	-38.2	-13.0	-25.2	
2.47	-47.5	V	3.0	41.7	35.4	1.0	-40.2	-13.0	-27.2	
3.30	-40.5	V	3.0	44.1	35.5	1.0	-30.9	-13.0	-17.9	
4.13	-46.3	V	3.0	46.2	35.2	1.0	-34.4	-13.0	-21.4	
4.95	-55.3	V	3.0	48.2	35.3	1.0	-41.4	-13.0	-28.4	
7.42	-54.3	V	3.0	51.3	35.7	1.0	-37.7	-13.0	-24.7	
Mid Ch, 836.6MHz										
1.67	-39.0	H	3.0	37.5	35.5	1.0	-36.1	-13.0	-23.1	
2.51	-46.2	H	3.0	39.9	35.4	1.0	-40.7	-13.0	-27.7	
3.35	-50.6	H	3.0	44.1	35.5	1.0	-41.0	-13.0	-28.0	
4.18	-51.0	H	3.0	46.8	35.2	1.0	-38.4	-13.0	-25.4	
5.02	-53.5	H	3.0	48.9	35.3	1.0	-38.9	-13.0	-25.9	
7.53	-54.0	H	3.0	53.1	35.7	1.0	-35.6	-13.0	-22.6	
1.67	-45.5	V	3.0	37.1	35.5	1.0	-42.9	-13.0	-29.9	
2.51	-48.0	V	3.0	41.8	35.4	1.0	-40.6	-13.0	-27.6	
3.35	-42.5	V	3.0	44.3	35.5	1.0	-32.8	-13.0	-19.8	
4.18	-45.6	V	3.0	46.3	35.2	1.0	-33.5	-13.0	-20.5	
5.02	-54.8	V	3.0	48.3	35.3	1.0	-40.8	-13.0	-27.8	
7.53	-55.0	V	3.0	51.5	35.7	1.0	-38.2	-13.0	-25.2	
High Ch, 848.8MHz										
1.70	-35.0	H	3.0	37.7	35.5	1.0	-31.8	-13.0	-18.8	
2.55	-46.0	H	3.0	40.1	35.4	1.0	-40.3	-13.0	-27.3	
3.40	-57.0	H	3.0	44.3	35.5	1.0	-47.2	-13.0	-34.2	
4.24	-47.8	H	3.0	47.0	35.2	1.0	-35.1	-13.0	-22.1	
5.09	-54.5	H	3.0	49.1	35.3	1.0	-39.7	-13.0	-26.7	
7.64	-60.0	H	3.0	53.2	35.7	1.0	-41.5	-13.0	-28.5	
1.70	-45.2	V	3.0	37.5	35.5	1.0	-42.3	-13.0	-29.3	
2.55	-46.0	V	3.0	42.0	35.4	1.0	-38.5	-13.0	-25.5	
3.40	-48.4	V	3.0	44.4	35.5	1.0	-38.5	-13.0	-25.5	
4.24	-41.5	V	3.0	46.5	35.2	1.0	-29.3	-13.0	-16.3	
5.09	-53.0	V	3.0	48.5	35.3	1.0	-38.8	-13.0	-25.8	
7.64	-52.8	V	3.0	51.6	35.7	1.0	-35.9	-13.0	-22.9	

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 #:10U13340
Date: 8/12/2010
Test Engineer:Chin Pang
Configuration:EUT (Inductive Cover) with Charging Dock
Mode:TX, GSM1900

Chamber	Pre-amplifer	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	-50.7	H	3.0	45.3	35.4	1.0	-39.7	-13.0	-26.7	
5.55	-55.0	H	3.0	50.0	35.4	1.0	-39.4	-13.0	-26.4	
7.40	-57.5	H	3.0	53.0	35.7	1.0	-39.2	-13.0	-26.2	
9.25	-51.6	H	3.0	55.1	35.6	1.0	-31.1	-13.0	-18.1	
11.10	-56.6	H	3.0	56.0	34.8	1.0	-34.4	-13.0	-21.4	
12.95	-60.0	H	3.0	57.6	34.0	1.0	-35.5	-13.0	-22.5	
3.70	-48.6	V	3.0	45.1	35.4	1.0	-37.8	-13.0	-24.8	
5.55	-55.2	V	3.0	49.2	35.4	1.0	-40.4	-13.0	-27.4	
7.40	-52.3	V	3.0	51.3	35.7	1.0	-35.7	-13.0	-22.7	
9.25	-48.8	V	3.0	53.6	35.6	1.0	-29.8	-13.0	-16.8	
11.10	-48.2	V	3.0	55.9	34.8	1.0	-26.1	-13.0	-13.1	
12.95	-54.8	V	3.0	58.0	34.0	1.0	-29.8	-13.0	-16.8	
Mid Ch, 1880MHz										
3.76	-46.5	H	3.0	45.5	35.3	1.0	-35.3	-13.0	-22.3	
5.64	-56.0	H	3.0	50.2	35.4	1.0	-40.3	-13.0	-27.3	
7.52	-55.0	H	3.0	53.1	35.7	1.0	-36.6	-13.0	-23.6	
9.40	-49.5	H	3.0	55.2	35.6	1.0	-28.8	-13.0	-15.8	
11.28	-58.6	H	3.0	56.1	34.7	1.0	-36.2	-13.0	-23.2	
3.76	-47.1	V	3.0	45.3	35.3	1.0	-36.2	-13.0	-23.2	
5.64	-55.0	V	3.0	49.3	35.4	1.0	-40.1	-13.0	-27.1	
7.52	-48.5	V	3.0	51.4	35.7	1.0	-31.8	-13.0	-18.8	
9.40	-47.8	V	3.0	53.7	35.6	1.0	-28.6	-13.0	-15.6	
11.28	-51.5	V	3.0	56.1	34.7	1.0	-29.1	-13.0	-16.1	
13.16	-60.0	V	3.0	58.3	34.0	1.0	-34.7	-13.0	-21.7	
High Ch, 1909.8MHz										
3.82	-49.4	H	3.0	45.7	35.3	1.0	-38.0	-13.0	-25.0	
5.73	-57.7	H	3.0	50.3	35.4	1.0	-41.8	-13.0	-28.8	
7.64	-52.3	H	3.0	53.2	35.7	1.0	-33.8	-13.0	-20.8	
9.55	-52.7	H	3.0	55.4	35.6	1.0	-31.9	-13.0	-18.9	
11.46	-57.0	H	3.0	56.1	34.6	1.0	-34.5	-13.0	-21.5	
3.82	-48.8	V	3.0	45.4	35.3	1.0	-37.7	-13.0	-24.7	
5.73	-57.0	V	3.0	49.4	35.4	1.0	-42.1	-13.0	-29.1	
7.64	-46.5	V	3.0	51.6	35.7	1.0	-29.6	-13.0	-16.6	
9.55	-49.7	V	3.0	53.9	35.6	1.0	-30.3	-13.0	-17.3	
11.46	-48.2	V	3.0	56.3	34.6	1.0	-25.5	-13.0	-12.5	

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 #:10U13340
Date: 8/12/2010
Test Engineer:Chin Pang
Configuration:EUT (Inductive Cover) with Charging Dock
Mode:TX, EGPRS1900

Chamber	Pre-amplifer	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	-52.4	H	3.0	45.3	35.4	1.0	-41.4	-13.0	-28.4	
5.55	-58.0	H	3.0	50.0	35.4	1.0	-42.4	-13.0	-29.4	
7.40	-55.3	H	3.0	53.0	35.7	1.0	-37.0	-13.0	-24.0	
9.25	-53.0	H	3.0	55.1	35.6	1.0	-32.5	-13.0	-19.5	
11.10	-54.5	H	3.0	56.0	34.8	1.0	-32.3	-13.0	-19.3	
12.95	-60.0	H	3.0	57.6	34.0	1.0	-35.5	-13.0	-22.5	
3.70	-50.5	V	3.0	45.1	35.4	1.0	-39.7	-13.0	-26.7	
5.55	-55.8	V	3.0	49.2	35.4	1.0	-41.0	-13.0	-28.0	
7.40	-51.6	V	3.0	51.3	35.7	1.0	-35.0	-13.0	-22.0	
9.25	-48.0	V	3.0	53.6	35.6	1.0	-29.0	-13.0	-16.0	
11.10	-49.1	V	3.0	55.9	34.8	1.0	-27.0	-13.0	-14.0	
12.95	-55.6	V	3.0	58.0	34.0	1.0	-30.6	-13.0	-17.6	
Mid Ch, 1880MHz										
3.76	-51.3	H	3.0	45.5	35.3	1.0	-40.1	-13.0	-27.1	
7.52	-53.2	H	3.0	53.1	35.7	1.0	-34.8	-13.0	-21.8	
9.40	-51.5	H	3.0	55.2	35.6	1.0	-30.8	-13.0	-17.8	
11.28	-54.0	H	3.0	56.1	34.7	1.0	-31.6	-13.0	-18.6	
3.76	-48.5	V	3.0	45.3	35.3	1.0	-37.6	-13.0	-24.6	
5.64	-54.8	V	3.0	49.3	35.4	1.0	-39.9	-13.0	-26.9	
7.52	-49.3	V	3.0	51.4	35.7	1.0	-32.6	-13.0	-19.6	
9.40	-50.0	V	3.0	53.7	35.6	1.0	-30.8	-13.0	-17.8	
11.28	-51.2	V	3.0	56.1	34.7	1.0	-28.8	-13.0	-15.8	
13.16	-64.0	V	3.0	58.3	34.0	1.0	-38.7	-13.0	-25.7	
High Ch, 1909.8MHz										
5.73	-58.4	H	3.0	50.3	35.4	1.0	-42.5	-13.0	-29.5	
7.64	-57.2	H	3.0	53.2	35.7	1.0	-38.7	-13.0	-25.7	
9.55	-52.6	H	3.0	55.4	35.6	1.0	-31.8	-13.0	-18.8	
11.46	-58.7	H	3.0	56.1	34.6	1.0	-36.2	-13.0	-23.2	
3.82	-48.5	V	3.0	45.4	35.3	1.0	-37.4	-13.0	-24.4	
5.73	-57.3	V	3.0	49.4	35.4	1.0	-42.4	-13.0	-29.4	
7.64	-49.7	V	3.0	51.6	35.7	1.0	-32.8	-13.0	-19.8	
9.55	-50.6	V	3.0	53.9	35.6	1.0	-31.2	-13.0	-18.2	
11.46	-48.7	V	3.0	56.3	34.6	1.0	-26.0	-13.0	-13.0	

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

EUT WITH INDUCTIVE CHARGING DOCK

GSM 850 (Cellular Band)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company:Palm
Project #:10U13340
Date:8/12/2010
Test Engineer:Chin Pang
Configuration:EUT (Inductive Cover) with Charging Dock
Mode:TX, GSMS850

Chamber	Pre-amplifer	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	-39.0	H	3.0	37.2	35.5	1.0	-36.3	-13.0	-23.3	
2.47	-41.4	H	3.0	39.8	35.4	1.0	-36.0	-13.0	-23.0	
3.30	-47.0	H	3.0	43.9	35.5	1.0	-37.6	-13.0	-24.6	
4.13	-50.0	H	3.0	46.7	35.2	1.0	-37.6	-13.0	-24.6	
8.24	-51.5	H	3.0	53.9	35.6	1.0	-32.2	-13.0	-19.2	
1.65	-45.0	H	3.0	37.2	35.5	1.0	-42.3	-13.0	-29.3	
2.47	-43.2	V	3.0	41.7	35.4	1.0	-35.9	-13.0	-22.9	
3.30	-39.3	V	3.0	44.1	35.5	1.0	-29.7	-13.0	-16.7	
4.13	-44.6	V	3.0	46.2	35.2	1.0	-32.7	-13.0	-19.7	
7.42	-51.0	V	3.0	51.3	35.7	1.0	-34.4	-13.0	-21.4	
Mid Ch, 836.6MHz										
2.51	-38.2	H	3.0	39.9	35.4	1.0	-32.7	-13.0	-19.7	
3.35	-45.6	H	3.0	44.1	35.5	1.0	-36.0	-13.0	-23.0	
4.18	-49.0	H	3.0	46.8	35.2	1.0	-36.4	-13.0	-23.4	
5.02	-50.5	H	3.0	48.9	35.3	1.0	-35.9	-13.0	-22.9	
7.53	-51.1	H	3.0	53.1	35.7	1.0	-32.7	-13.0	-19.7	
8.37	-51.2	H	3.0	54.1	35.6	1.0	-31.8	-13.0	-18.8	
2.51	-36.5	V	3.0	41.8	35.4	1.0	-29.1	-13.0	-16.1	
3.35	-42.8	V	3.0	44.3	35.5	1.0	-33.1	-13.0	-20.1	
4.18	-48.7	V	3.0	46.3	35.2	1.0	-36.6	-13.0	-23.6	
5.02	-52.0	V	3.0	48.3	35.3	1.0	-38.0	-13.0	-25.0	
7.53	-45.2	V	3.0	51.5	35.7	1.0	-28.4	-13.0	-15.4	
8.37	-49.3	V	3.0	52.5	35.6	1.0	-31.5	-13.0	-18.5	
High Ch, 848.8MHz										
1.70	-33.5	H	3.0	37.7	35.5	1.0	-30.3	-13.0	-17.3	
2.55	-40.8	H	3.0	40.1	35.4	1.0	-35.1	-13.0	-22.1	
3.40	-45.8	H	3.0	44.3	35.5	1.0	-36.0	-13.0	-23.0	
4.24	-50.3	H	3.0	47.0	35.2	1.0	-37.6	-13.0	-24.6	
5.09	-53.0	H	3.0	49.1	35.3	1.0	-38.2	-13.0	-25.2	
7.64	-51.0	H	3.0	53.2	35.7	1.0	-32.5	-13.0	-19.5	
8.49	-52.7	H	3.0	54.2	35.6	1.0	-33.1	-13.0	-20.1	
1.70	-40.6	V	3.0	37.5	35.5	1.0	-37.7	-13.0	-24.7	
2.55	-42.8	V	3.0	42.0	35.4	1.0	-35.3	-13.0	-22.3	
3.40	-44.0	V	3.0	44.4	35.5	1.0	-34.1	-13.0	-21.1	
4.24	-45.8	V	3.0	46.5	35.2	1.0	-33.6	-13.0	-20.6	
5.09	-51.4	V	3.0	48.5	35.3	1.0	-37.2	-13.0	-24.2	
7.64	-46.8	V	3.0	51.6	35.7	1.0	-29.9	-13.0	-16.9	
8.49	-50.0	V	3.0	52.6	35.6	1.0	-32.0	-13.0	-19.0	

Rev. 03.03.09

EGPRS 850 (Cellular Band)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company:Palm
Project #:10U13340
Date:8/12/2010
Test Engineer:Chin Pang
Configuration:EUT (Inductive Cover) with Charging Dock
Mode:TX, EGPRS850

Chamber	Pre-amplifer	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	-42.2	H	3.0	37.2	35.5	1.0	-39.5	-13.0	-26.5	
2.47	-44.5	H	3.0	39.8	35.4	1.0	-39.1	-13.0	-26.1	
4.12	-46.6	H	3.0	46.7	35.2	1.0	-34.2	-13.0	-21.2	
4.95	-53.0	H	3.0	48.8	35.3	1.0	-38.6	-13.0	-25.6	
7.42	-55.0	H	3.0	53.0	35.7	1.0	-36.7	-13.0	-23.7	
8.24	-58.0	H	3.0	53.9	35.6	1.0	-38.7	-13.0	-25.7	
1.65	-52.6	V	3.0	36.8	35.5	1.0	-50.4	-13.0	-37.4	
2.47	-40.5	V	3.0	41.7	35.4	1.0	-33.2	-13.0	-20.2	
4.12	-45.7	V	3.0	46.1	35.2	1.0	-33.8	-13.0	-20.8	
4.95	-54.0	V	3.0	48.2	35.3	1.0	-40.1	-13.0	-27.1	
7.42	-51.3	V	3.0	51.3	35.7	1.0	-34.7	-13.0	-21.7	
8.24	-55.1	V	3.0	52.3	35.6	1.0	-37.4	-13.0	-24.4	
Mid Ch, 836.6MHz										
1.67	-48.8	V	3.0	37.1	35.5	1.0	-46.2	-13.0	-33.2	
2.51	-46.3	H	3.0	39.9	35.4	1.0	-40.8	-13.0	-27.8	
4.18	-48.0	H	3.0	46.8	35.2	1.0	-35.4	-13.0	-22.4	
5.02	-54.0	H	3.0	48.9	35.3	1.0	-39.4	-13.0	-26.4	
7.53	-53.0	H	3.0	53.1	35.7	1.0	-34.6	-13.0	-21.6	
1.67	-48.8	V	3.0	37.1	35.5	1.0	-46.2	-13.0	-33.2	
2.51	-50.5	V	3.0	41.8	35.4	1.0	-43.1	-13.0	-30.1	
4.18	-48.6	V	3.0	46.3	35.2	1.0	-36.5	-13.0	-23.5	
5.02	-54.5	V	3.0	48.3	35.3	1.0	-40.5	-13.0	-27.5	
7.53	-50.4	V	3.0	51.5	35.7	1.0	-33.6	-13.0	-20.6	
High Ch, 848.8MHz										
1.70	-40.3	H	3.0	37.7	35.5	1.0	-37.1	-13.0	-24.1	
2.55	-47.1	H	3.0	40.1	35.4	1.0	-41.4	-13.0	-28.4	
3.40	-49.8	H	3.0	44.3	35.5	1.0	-40.0	-13.0	-27.0	
4.24	-52.0	H	3.0	47.0	35.2	1.0	-39.3	-13.0	-26.3	
7.64	-55.7	H	3.0	53.2	35.7	1.0	-37.2	-13.0	-24.2	
1.70	-50.5	V	3.0	37.4	35.5	1.0	-47.6	-13.0	-34.6	
2.55	-50.4	V	3.0	42.0	35.4	1.0	-42.9	-13.0	-29.9	
3.40	-51.8	V	3.0	44.4	35.5	1.0	-41.9	-13.0	-28.9	
4.24	-46.8	V	3.0	46.5	35.2	1.0	-34.6	-13.0	-21.6	
7.64	-52.0	V	3.0	51.6	35.7	1.0	-35.1	-13.0	-22.1	

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 #:10U13340
Date: 8/12/2010
Test Engineer:Chin Pang
Configuration:EUT (Inductive Cover) with Charging Dock
Mode:TX, EGPRS1900

Chamber	Pre-amplifer	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	-52.4	H	3.0	45.3	35.4	1.0	-41.4	-13.0	-28.4	
5.55	-58.0	H	3.0	50.0	35.4	1.0	-42.4	-13.0	-29.4	
7.40	-55.3	H	3.0	53.0	35.7	1.0	-37.0	-13.0	-24.0	
9.25	-53.0	H	3.0	55.1	35.6	1.0	-32.5	-13.0	-19.5	
11.10	-54.5	H	3.0	56.0	34.8	1.0	-32.3	-13.0	-19.3	
12.95	-60.0	H	3.0	57.6	34.0	1.0	-35.5	-13.0	-22.5	
3.70	-50.5	V	3.0	45.1	35.4	1.0	-39.7	-13.0	-26.7	
5.55	-55.8	V	3.0	49.2	35.4	1.0	-41.0	-13.0	-28.0	
7.40	-51.6	V	3.0	51.3	35.7	1.0	-35.0	-13.0	-22.0	
9.25	-48.0	V	3.0	53.6	35.6	1.0	-29.0	-13.0	-16.0	
11.10	-49.1	V	3.0	55.9	34.8	1.0	-27.0	-13.0	-14.0	
12.95	-55.6	V	3.0	58.0	34.0	1.0	-30.6	-13.0	-17.6	
Mid Ch, 1880MHz										
3.76	-51.3	H	3.0	45.5	35.3	1.0	-40.1	-13.0	-27.1	
7.52	-53.2	H	3.0	53.1	35.7	1.0	-34.8	-13.0	-21.8	
9.40	-51.5	H	3.0	55.2	35.6	1.0	-30.8	-13.0	-17.8	
11.28	-54.0	H	3.0	56.1	34.7	1.0	-31.6	-13.0	-18.6	
3.76	-48.5	V	3.0	45.3	35.3	1.0	-37.6	-13.0	-24.6	
5.64	-54.8	V	3.0	49.3	35.4	1.0	-39.9	-13.0	-26.9	
7.52	-49.3	V	3.0	51.4	35.7	1.0	-32.6	-13.0	-19.6	
9.40	-50.0	V	3.0	53.7	35.6	1.0	-30.8	-13.0	-17.8	
11.28	-51.2	V	3.0	56.1	34.7	1.0	-28.8	-13.0	-15.8	
13.16	-64.0	V	3.0	58.3	34.0	1.0	-38.7	-13.0	-25.7	
High Ch, 1909.8MHz										
5.73	-58.4	H	3.0	50.3	35.4	1.0	-42.5	-13.0	-29.5	
7.64	-57.2	H	3.0	53.2	35.7	1.0	-38.7	-13.0	-25.7	
9.55	-52.6	H	3.0	55.4	35.6	1.0	-31.8	-13.0	-18.8	
11.46	-58.7	H	3.0	56.1	34.6	1.0	-36.2	-13.0	-23.2	
3.82	-48.5	V	3.0	45.4	35.3	1.0	-37.4	-13.0	-24.4	
5.73	-57.3	V	3.0	49.4	35.4	1.0	-42.4	-13.0	-29.4	
7.64	-49.7	V	3.0	51.6	35.7	1.0	-32.8	-13.0	-19.8	
9.55	-50.6	V	3.0	53.9	35.6	1.0	-31.2	-13.0	-18.2	
11.46	-48.7	V	3.0	56.3	34.6	1.0	-26.0	-13.0	-13.0	

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 #:10U13340
Date: 8/12/2010
Test Engineer:Chin Pang
Configuration:EUT (Inductive Cover) with Charging Dock
Mode:TX, EGPRS1900

Chamber	Pre-amplifer	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	-52.4	H	3.0	45.3	35.4	1.0	-41.4	-13.0	-28.4	
5.55	-58.0	H	3.0	50.0	35.4	1.0	-42.4	-13.0	-29.4	
7.40	-55.3	H	3.0	53.0	35.7	1.0	-37.0	-13.0	-24.0	
9.25	-53.0	H	3.0	55.1	35.6	1.0	-32.5	-13.0	-19.5	
11.10	-54.5	H	3.0	56.0	34.8	1.0	-32.3	-13.0	-19.3	
12.95	-60.0	H	3.0	57.6	34.0	1.0	-35.5	-13.0	-22.5	
3.70	-50.5	V	3.0	45.1	35.4	1.0	-39.7	-13.0	-26.7	
5.55	-55.8	V	3.0	49.2	35.4	1.0	-41.0	-13.0	-28.0	
7.40	-51.6	V	3.0	51.3	35.7	1.0	-35.0	-13.0	-22.0	
9.25	-48.0	V	3.0	53.6	35.6	1.0	-29.0	-13.0	-16.0	
11.10	-49.1	V	3.0	55.9	34.8	1.0	-27.0	-13.0	-14.0	
12.95	-55.6	V	3.0	58.0	34.0	1.0	-30.6	-13.0	-17.6	
Mid Ch, 1880MHz										
3.76	-51.3	H	3.0	45.5	35.3	1.0	-40.1	-13.0	-27.1	
7.52	-53.2	H	3.0	53.1	35.7	1.0	-34.8	-13.0	-21.8	
9.40	-51.5	H	3.0	55.2	35.6	1.0	-30.8	-13.0	-17.8	
11.28	-54.0	H	3.0	56.1	34.7	1.0	-31.6	-13.0	-18.6	
3.76	-48.5	V	3.0	45.3	35.3	1.0	-37.6	-13.0	-24.6	
5.64	-54.8	V	3.0	49.3	35.4	1.0	-39.9	-13.0	-26.9	
7.52	-49.3	V	3.0	51.4	35.7	1.0	-32.6	-13.0	-19.6	
9.40	-50.0	V	3.0	53.7	35.6	1.0	-30.8	-13.0	-17.8	
11.28	-51.2	V	3.0	56.1	34.7	1.0	-28.8	-13.0	-15.8	
13.16	-64.0	V	3.0	58.3	34.0	1.0	-38.7	-13.0	-25.7	
High Ch, 1909.8MHz										
5.73	-58.4	H	3.0	50.3	35.4	1.0	-42.5	-13.0	-29.5	
7.64	-57.2	H	3.0	53.2	35.7	1.0	-38.7	-13.0	-25.7	
9.55	-52.6	H	3.0	55.4	35.6	1.0	-31.8	-13.0	-18.8	
11.46	-58.7	H	3.0	56.1	34.6	1.0	-36.2	-13.0	-23.2	
3.82	-48.5	V	3.0	45.4	35.3	1.0	-37.4	-13.0	-24.4	
5.73	-57.3	V	3.0	49.4	35.4	1.0	-42.4	-13.0	-29.4	
7.64	-49.7	V	3.0	51.6	35.7	1.0	-32.8	-13.0	-19.8	
9.55	-50.6	V	3.0	53.9	35.6	1.0	-31.2	-13.0	-18.2	
11.46	-48.7	V	3.0	56.3	34.6	1.0	-26.0	-13.0	-13.0	

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