FCC CFR47 PART 22H & 24E
CERTIFICATION
TEST REPORT

FOR

SMART PHONE

MODEL NUMBER: ST22B

FCC ID: NM8TNDF

REPORT NUMBER: 05T3458-1B

ISSUE DATE: AUGUST 17, 2005

Prepared for
HIGH TECH COMPUTER CORP.
23 HSIN HUA ROAD
TAOYUAN 330, TAIWAN R.O.C
Prepared by
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Revision History

Rev.	Issue Date	Revisions	Revised By
A	7/17/05	Initial Issue	Thu
B	8/17/05	Updated the output power table under Section 8.2 RF Power Output on page 20	Thu

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: HIGH TECH COMPUTER, CORP.
23, HSIN HUA ROAD
TAOYUAN 330, TAIWAN R.O.C.

EUT DESCRIPTION: SMART PHONE

MODEL: ST22B

SERIAL NUMBER: HT524EM00092

DATE TESTED: JULY 07 – JULY 11, 2005

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
FCC PART 22 H and 24 E	NO NON-COMPLIANCE NOTED
DIGITAL DEVICE CONFIGURATION: FCC PART 15 SUBPART B	NO NON-COMPLIANCE NOTED

Compliance Certification Services, Inc. tested the above equipment in accordance with the requirements set forth in the above standards. 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 Compliance Certification Services and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by Compliance Certification Services will constitute fraud and shall nullify the document. No part of this report may be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any government agency.

Approved & Released For CCS By:

THU CHAN
EMC SUPERVISOR
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/EIA 603A (2001), ANSI C63.4-2003, FCC CFR 47 Part 2, FCC CFR 47 Part 15 and FCC CFR 47 Part 22 and Part 24.

3. CROSS REFERENCE TO OTHER REPORTS ON THIS PRODUCT

Other FCC report applicable to this product includes CCS 05U3452-2.

4. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 561F Monterey Road, Morgan Hill, California, USA. The sites are constructed in conformance with the requirements of ANSI C63.4, ANSI C63.7 and CISPR Publication 22. All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

CCS is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at http://www.ccsemc.com.

5. CALIBRATION AND UNCERTAINTY

5.1. 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.

5.2. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Radiated Emission, 30 to 200 MHz	+/- 3.3 dB
Radiated Emission, 200 to 1000 MHz	+4.5 / -2.9 dB
Radiated Emission, 1000 to 2000 MHz	+4.5 / -2.9 dB
Power Line Conducted Emission	+/- 2.9 dB

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

6. EQUIPMENT UNDER TEST

6.1. DESCRIPTION OF EUT

The EUT is a SMARTPHONE with all auxiliary equipment as described below.

Auxiliary Equipment	Brand	Model No.
Li-Ion Rechargeable Battery	HP	ST26BB
AC adaptor	Delta	ADP-5FH B
Earphone	eAcetech Corp.	TS888-03206N

6.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak conducted output power, ERP, and EIRP as follows:

824 to 849 MHz Authorized Band

Frequency Range (MHz)	Modulation	Conducted Output Power (dBm)	Conducted Output Power (mW)	ERP Output Power (dBm)	ERP Output Power (mW)
824.2 - 848.8	GSM	32.85	1927.52	30.50	1122.02
824.2 - 848.8	GPRS	32.7	1862.09	29.80	954.99
824.2 - 848.8	EGPRS	27.29	535.80	25.30	338.84

1850 - 1910 MHz Authorized Band

Frequency Range (MHz)	Modulation	Conducted Output Power (dBm)	Conducted Output Power (mW)	EIRP Output Power (dBm)	EIRP Output Power (mW)
1850.2 - 1909.8	GSM	30.86	1218.99	30.50	1122.02
1850.2 - 1909.8	GPRS	30.93	1238.80	30.30	1071.52
1850.2 - 1909.8	EGPRS	27.35	543.25	27.60	575.44

:

6.3. DESCRIPTION OF AVAILABLE ANTENNAS

For GSM850, the radio utilizes a PIFA antenna with a maximum gain of 0 dBi, and for GSM1900 PCS band, the radio utilizes a PIFA antenna with a maximum gain of 0 dBi

6.4. SOFTWARE AND FIRMWARE

The EUT is linked with Agilent Wireless Communications Test Set during testing.

6.5. WORST-CASE CONFIGURATION AND MODE

The worst-case channel is determined as the channel with the highest output power. The highest measured output power was 824.2 MHz @ GSM850 and 1880 MHz @ GSM1900.
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6.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
AC Adapter	Delta Electronic	ADO-5FH B	4MW0512038391	DoC
Wireless Test Set	R & S	CMU200	1100.0008.02	12/17/05

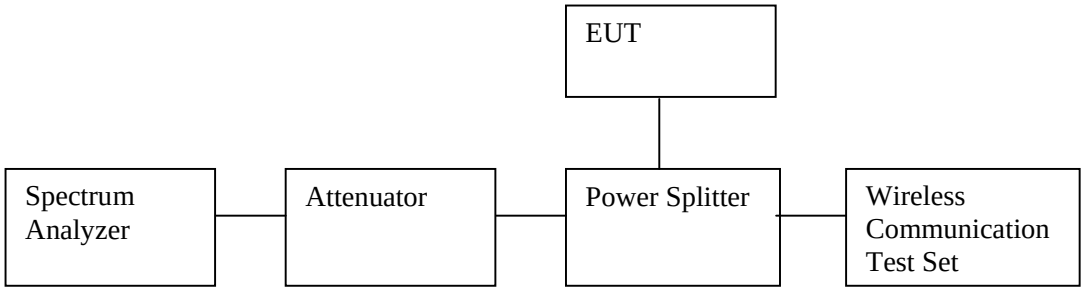
I/O CABLES

I/O CABLE LIST						
Cable No.	**Port**	**# of Identical Ports**	**Connector Type**	**Cable Type**	**Cable Length**	**Remarks**
1	DC	1	DC	Unshielded	2m	No
2	Headphone	1	Din	Un-shielded	2m	NA

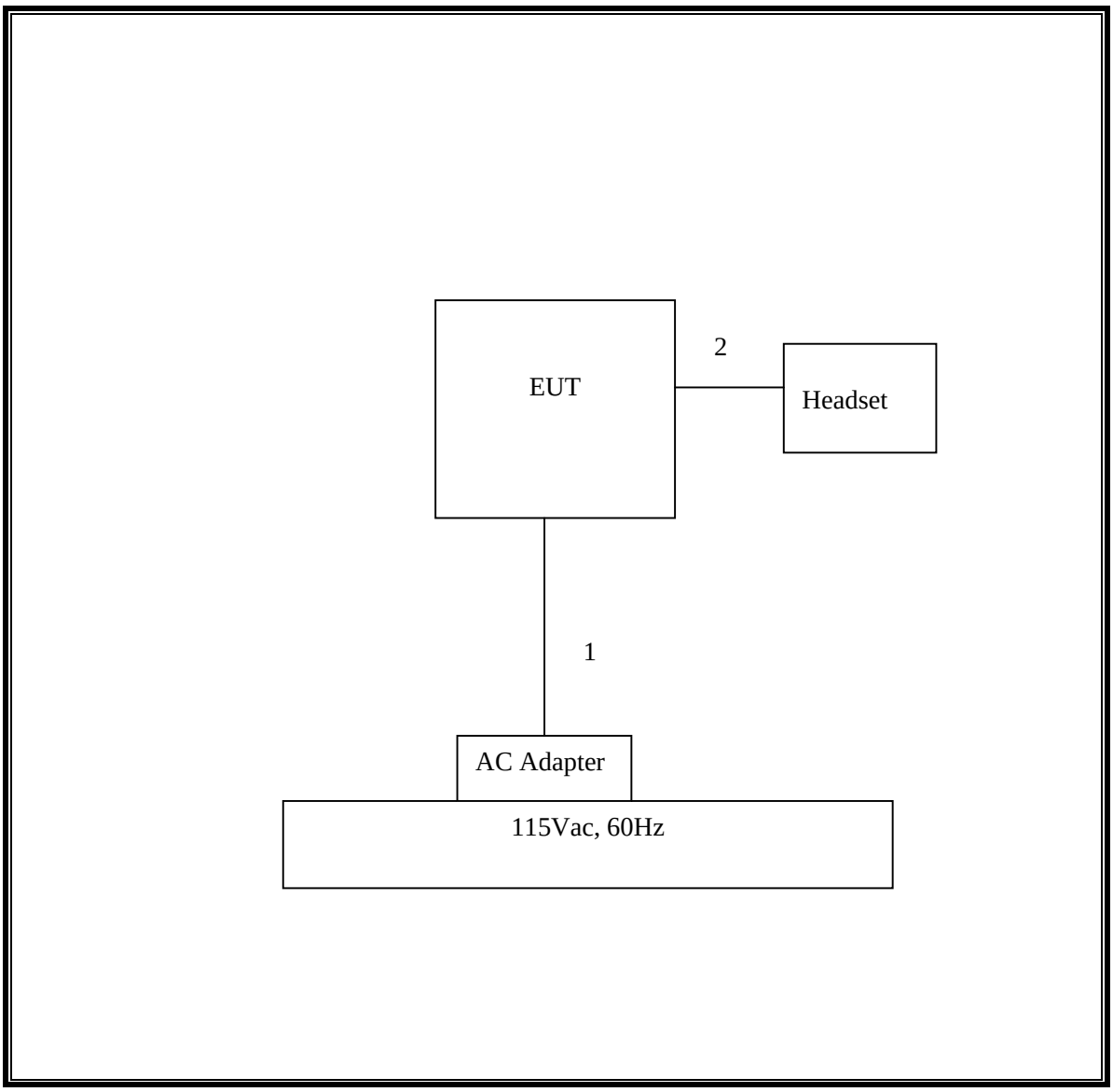
TEST SETUP

The EUT is installed as a stand-alone device during the tests. The Wireless Communication test set exercised the EUT.

RF CONDUCTED TEST SETUP DIAGRAM



RF RADIATED TEST SETUP DIAGRAM



7. 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**	**Serial Number**	**Cal Due**
Signal Generator 2 -40 GHz	R & S	SMP04	DE 34210	6/2/2006
Peak Power Meter	Agilent	E4416A	GB41291160	2/9/06
Peak / Average Power Sensor	Agilent	E9327A	US40440755	2/10/06
Spectrum Analyzer 3 Hz ~ 44 GHz	Agilent	E4446A	MY43360112	3/28/06
AC Power Source, 8 kVA	APC	AFP2-8KVA	J5061	CNR
Temperature / Humidity Chamber	Thermotron	SE 600-10-10	29800	5/13/06
Directional Coupler	Krytar	1817	2656	11/12/05
Antenna, Bilog 30MHz ~ 2Ghz	Sunol Sciences	JB1	A121003	3/3/06
RF Filter Section	HP	85420E	3705A00256	3/29/06
EMI Receiver, 9 kHz ~ 2.9 GHz	HP	8542E	3942A00286	3/29/06
EMI Test Receiver	R & S	ESHS 20	827129/006	6/3/06
Wireless Communications Test Set	Agilent	E5515C	92121	5/5/06
LISN, 10 kHz ~ 30 MHz	Solar	8012-50-R-24-BNC	8379443	10/21/05
Site A Line Stabilizer/Conditioner	Tripplite	LC-1800a	A005181	CNR
Antenna, Horn 1 ~ 18 GHz	EMCO	3115	9001-3245	4/22/06
Antenna, Horn 1 ~ 18 GHz	EMCO	3115	2238	4/22/06
Tuned Dipole Antenna 400~1000 MHz	ETS	3121C DB4	1629	5/7/06

8. LIMITS AND RESULTS

8.1. OCCUPIED BANDWIDTH

LIMIT

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

No non-compliance noted:

GSM850 Modulation

Channel	Frequency (MHz)	Bandwidth (KHz)
Low	824.2	300.237
Middle	836.4	302.046
High	848.6	294.524

GPRS850 Modulation

Channel	Frequency (MHz)	Bandwidth (KHz)
Low	824.2	313.454
Middle	836.4	318.52
High	848.6	303.442

EGPRS850 Modulation

Channel	Frequency (MHz)	Bandwidth (KHz)
Low	824.2	288.731
Middle	836.4	298.397
High	848.6	300.01

GSM1900 Modulation

Channel	Frequency (MHz)	Bandwidth (KHz)
Low	1850.2	307.35
Middle	1880	316.542
High	1909.8	317.214

GPRS1900Modulation

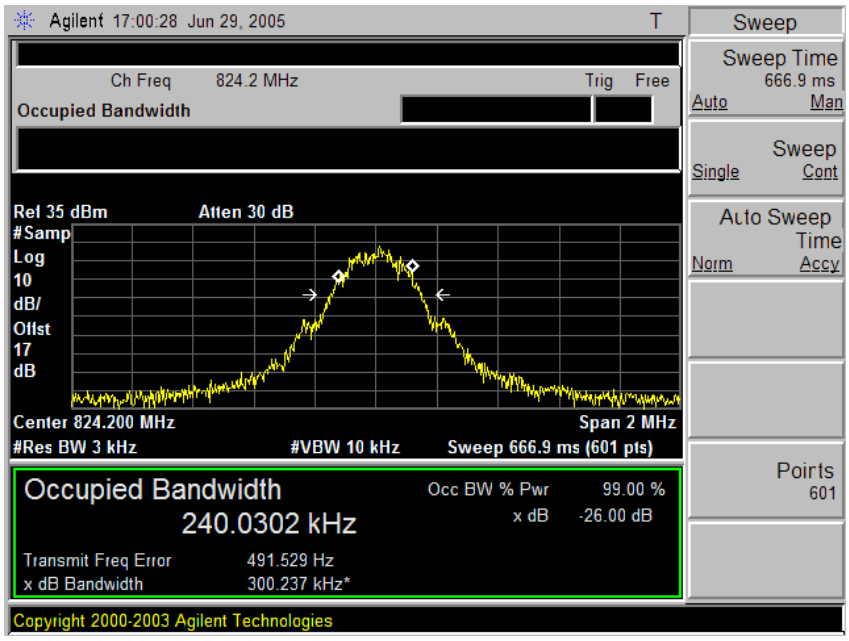
Channel	Frequency (MHz)	Bandwidth (KHz)
Low	1850.2	303.198
Middle	1880	312.745
High	1909.8	322.7

EGPRS1900 Modulation

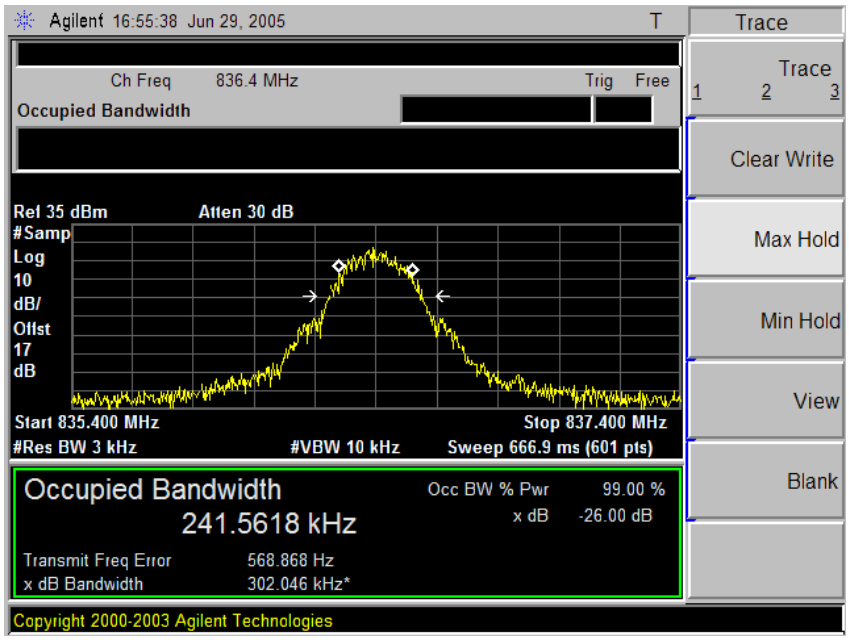
Channel	Frequency (MHz)	Bandwidth (KHz)
Low	1850.2	310.646
Middle	1880	308.175
High	1909.8	313.378

GSM850 26 dB BANDWIDTH

BANDWIDTH MID CH



BANDWIDTH MID CH



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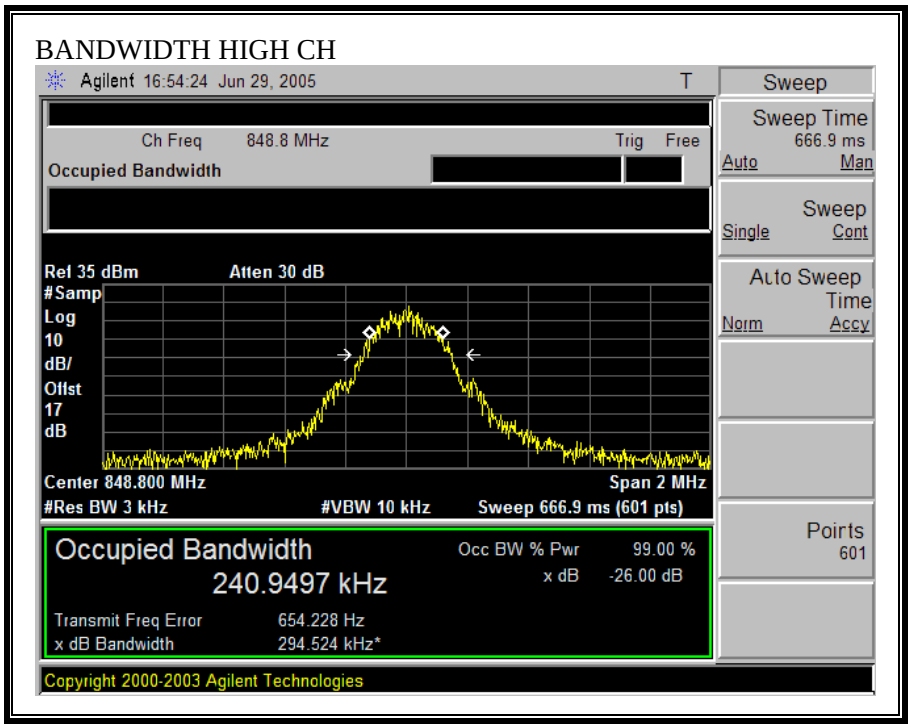
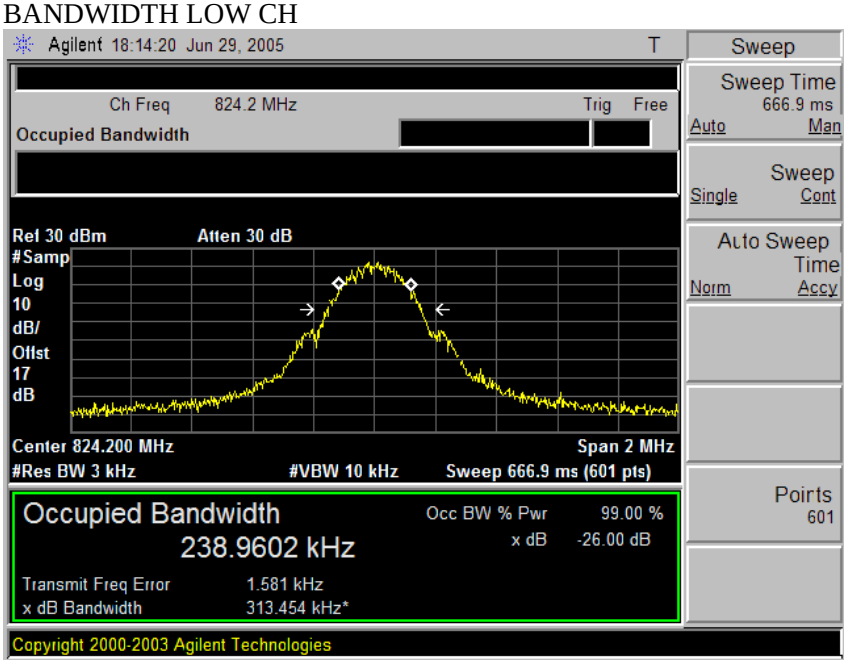
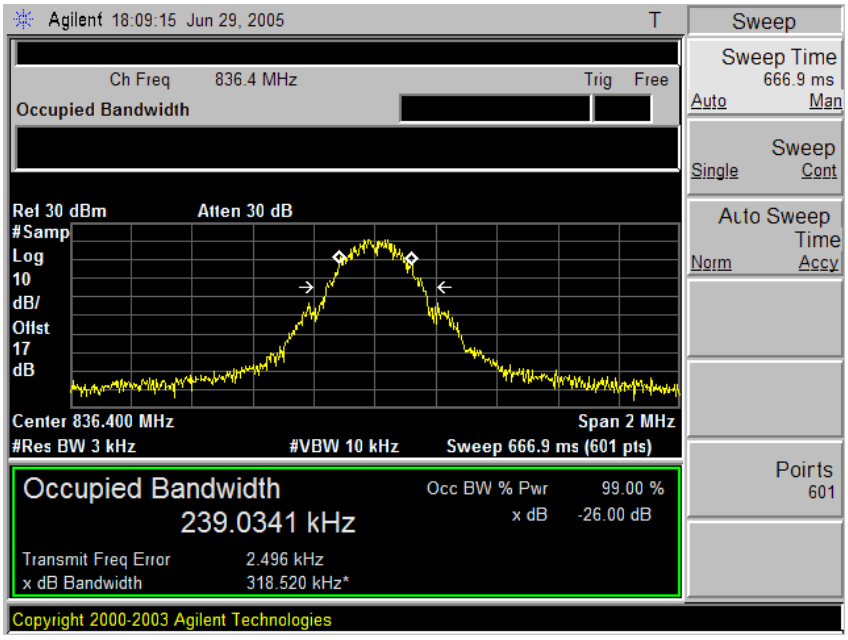


GPRS850 26 dB BANDWIDTH

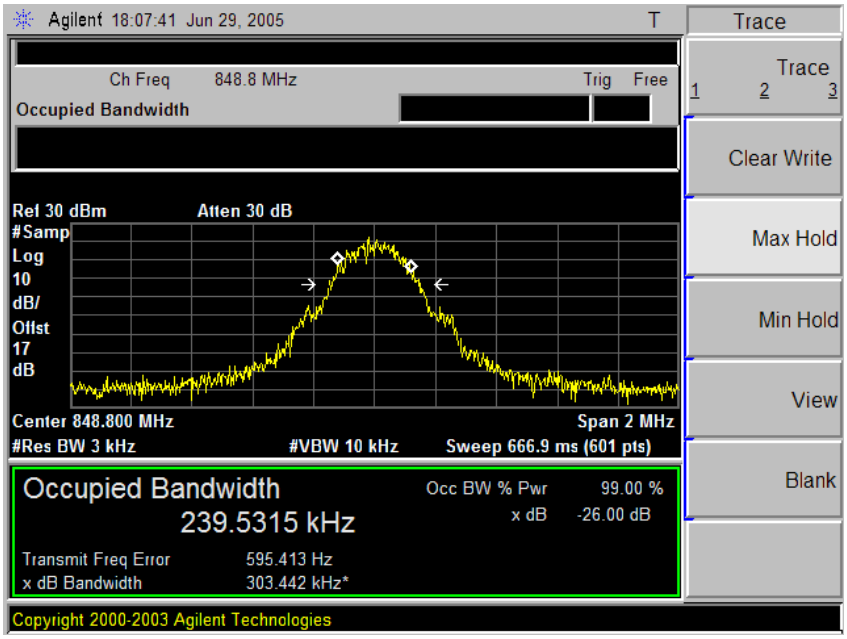
BANDWIDTH LOW CH



BANDWIDTH MID CH

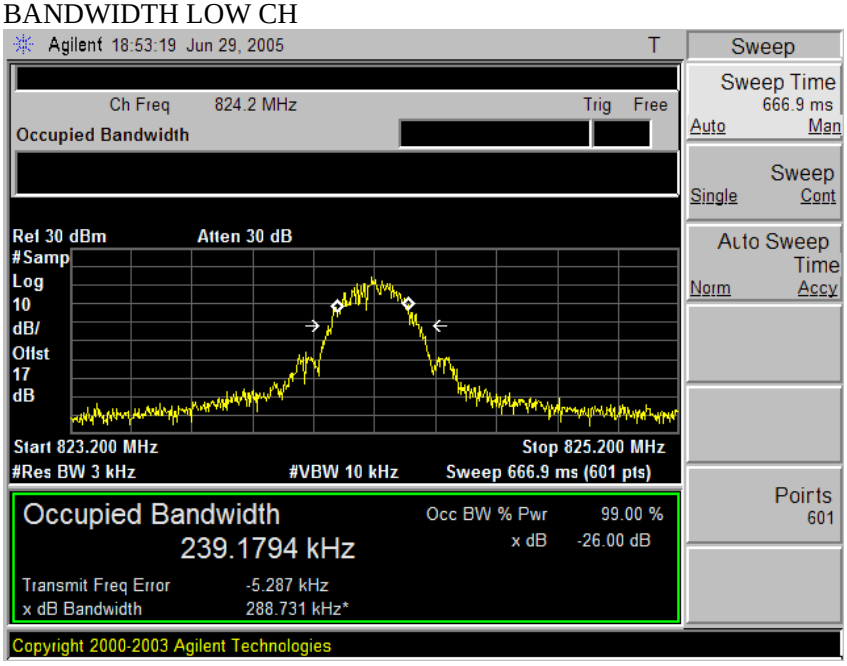


BANDWIDTH HIGH CH

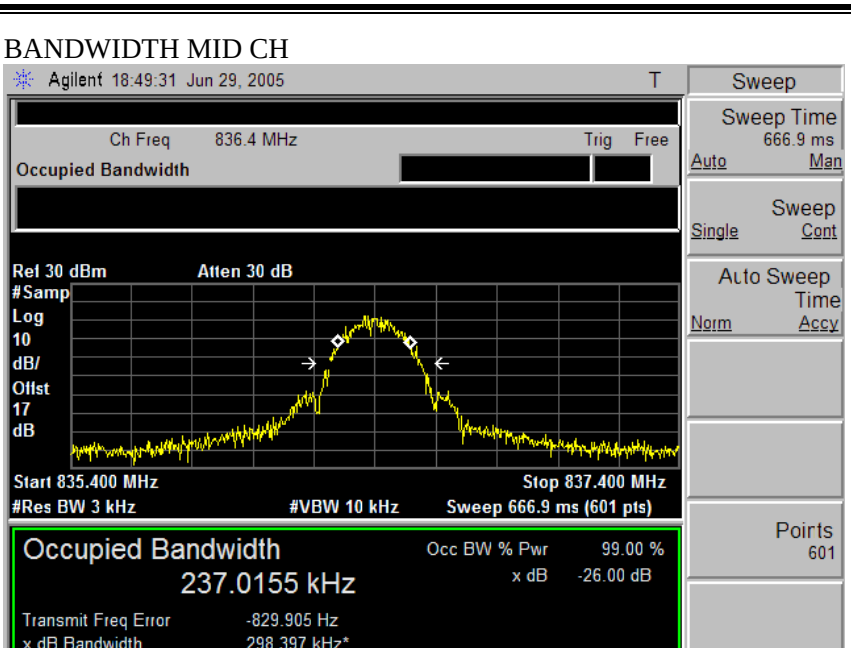


EGPRS850 26 dB BANDWIDTH

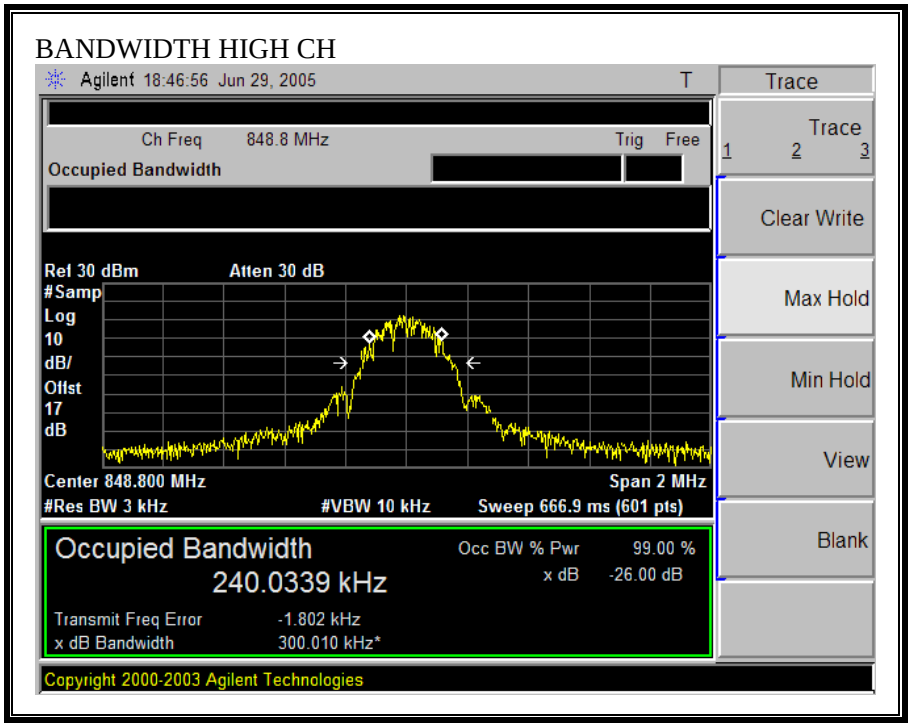
BANDWIDTH LOW CH



BANDWIDTH MID CH



BANDWIDTH HIGH CH



8.2. RF POWER OUTPUT

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 603 Clause 2.2.17

RESULTS

No non-compliance noted.

824 to 849 MHz Authorized Band

Frequency (MHz)	Modulation	Conducted Peak Output Power (dBm)	Radiated ERP (dBm)
824.2	GSM	32.30	30.50
836.4	GSM	32.20	30.40
848.8	GSM	32.00	28.90
824.2	GPRS	32.20	29.80
836.4	GPRS	32.10	29.60
848.8	GPRS	31.90	29.20
824.2	EGPRS	26.80	25.20
836.4	EGPRS	26.70	25.00
848.8	EGPRS	26.50	25.20

GSM1900, 1850 - 1910 MHz Authorized Band

Frequency (MHz)	Modulation	Conducted Peak Output Power (dBm)	Radiated EIRP (dBm)
1850.2	GSM	29.80	30.10
1880	GSM	29.40	30.50
1909.8	GSM	29.20	29.00
1850.2	GPRS	29.60	30.30
1880	GPRS	29.40	29.50
1909.8	GPRS	29.20	29.00
1850.2	EGPRS	26.10	27.40
1880	EGPRS	26.90	27.60
1909.8	EGPRS	25.70	27.00

GSM850 Output Power (ERP)

f MHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
GSM850									
Low Ch									
824.20	99.7	H	27.4	2.0	0.0	25.4	33.0	-7.6	
824.20	104.3	V	32.5	2.0	0.0	30.5	33.0	-2.5	
Mid Ch									
836.40	97.2	H	25.1	2.0	0.0	23.1	33.0	-9.9	
836.40	104.0	V	32.4	2.0	0.0	30.4	33.0	-2.6	
High Ch									
848.80	100.6	H	28.6	2.0	0.0	26.6	33.0	-6.4	
848.80	102.4	V	30.9	2.0	0.0	28.9	33.0	-4.1	

GPRS850 Output Power (ERP)

f MHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
GPRS850									
Low Ch									
824.20	99.2	H	27.0	2.0	0.0	25.0	33.0	-8.0	
824.20	103.6	V	31.8	2.0	0.0	29.8	33.0	-3.2	
Mid Ch									
836.40	98.7	H	26.6	2.0	0.0	24.6	33.0	-8.4	
836.40	103.2	V	31.6	2.0	0.0	29.6	33.0	-3.4	
High Ch									
848.80	99.0	H	27.0	2.0	0.0	25.0	33.0	-8.0	
848.80	102.7	V	31.2	2.0	0.0	29.2	33.0	-3.8	

GSM850 Output Power (ERP)

f MHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
EGPRS850									
Low Ch									
824.20	94.0	H	21.8	2.0	0.0	19.8	33.0	-13.2	
824.20	99.0	V	27.2	2.0	0.0	25.2	33.0	-7.8	
Mid Ch									
836.40	93.5	H	21.3	2.0	0.0	19.3	33.0	-13.7	
836.40	98.7	V	27.0	2.0	0.0	25.0	33.0	-8.0	
High Ch									
848.80	93.6	H	21.6	2.0	0.0	19.6	33.0	-13.4	
848.80	98.3	V	26.8	2.0	0.0	24.8	33.0	-8.2	

GSM1900 Output Power (EIRP)

f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	Gain (dBd)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
GSM1900										
low ch										
1.850	95.1	V	22.6	0.5	4.6	2.5	26.8	33.0	-6.2	
1.850	100.1	H	26.1	0.5	4.6	2.5	30.1	33.0	-2.9	
Mid Ch										
1.880	94.8	V	22.0	0.5	4.7	2.5	26.2	33.0	-6.8	
1.880	100.3	H	26.3	0.5	4.7	2.5	30.5	33.0	-2.5	
High Ch										
1.910	94.3	V	21.7	0.5	4.7	2.6	25.9	33.0	-7.1	
1.910	97.2	H	24.8	0.5	4.7	2.6	29.0	33.0	-4.0	

GPRS1900 Output Power (EIRP)

f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	Gain (dBd)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch										
1.850	94.8	V	22.3	0.5	4.6	2.5	26.4	33.0	-6.6	
1.850	100.5	H	26.2	0.5	4.6	2.5	30.3	33.0	-2.7	
Mid Ch										
1.880	96.6	V	23.7	0.5	4.7	2.6	27.9	33.0	-5.1	
1.880	99.4	H	25.3	0.5	4.7	2.6	29.5	33.0	-3.5	
High Ch										
1.910	96.0	V	23.3	0.5	4.7	2.6	27.5	33.0	-5.5	
1.910	99.2	H	24.8	0.5	4.7	2.6	29.0	33.0	-4.0	

EGPRS1900 Output Power (EIRP)

f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	Gain (dBd)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
EGPRS1900										
Low Ch										
1.850	92.0	V	20.0	0.5	4.6	2.5	24.1	33.0	-8.9	
1.850	96.0	H	23.3	0.5	4.6	2.5	27.4	33.0	-5.6	
Mid Ch										
1.880	91.8	V	19.0	0.5	4.7	2.6	23.2	33.0	-9.8	
1.880	96.2	H	23.4	0.5	4.7	2.6	27.6	33.0	-5.4	
High Ch										
1.910	91.4	V	19.5	0.5	4.7	2.6	23.7	33.0	-9.3	
1.910	95.4	H	22.8	0.5	4.7	2.6	27.0	33.0	-6.0	

8.3. FREQUENCY STABILITY

LIMIT

§22.355 Except as otherwise provided in this part, the carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances given in Table C–1 of this section.

For Mobile devices operating in the 824 to 849 MHz band at a power level less than or equal to 3 Watts, the limit specified in Table C-1 is +/- 2.5 ppm.

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

TEST PROCEDURE

ANSI / TIA / EIA 603 Clause 2.3.1 and 2.3.2

RESULTS

No non-compliance noted.

GSM 850

Reference Frequency: Cellular Mid Channel 836.490000MHz @ 25*C Limit: ? 2.5 ppm = 2091.000 Hz				
Power Supply	**Environment**	**Frequency Deviation Measureed with Time Elapse**		
(Vdc)	**Temperature (*C)**	**(MHz)**	**Delta (ppm)**	**Limit (ppm)**
3.70	50	836.40001	-0.026	? 2.5
3.70	40	836.40000	-0.019	? 2.5
3.70	30	836.39999	-0.007	? 2.5
3.70	***25***	***836.39999***	***0***	***? 2.5***
3.70	20	836.39997	0.020	? 2.5
3.70	10	836.39997	0.024	? 2.5
3.70	0	836.39998	0.011	? 2.5
3.70	-10	836.39997	0.016	? 2.5
3.70	-20	836.39997	0.024	? 2.5
3.70	-30	836.39996	0.025	? 2.5
3.145	25	836.39999	-0.010	? 2.5
4.255	25	836.39998	0.012	? 2.5

GSM 1900

Reference Frequency: PCS Mid Channel 1880MHz @ 25*C Limit: to stay within the authorized block				
Power Supply	**Environment**	**Frequency Deviation Measureed with Time Elapse**		
(Vdc)	**Temperature (*C)**	**(MHz)**	**Delta (ppm)**	**Limit (ppm)**
3.70	50	1880.00012	-0.128	? 2.5
3.70	40	1880.00007	-0.101	? 2.5
3.70	30	1880.00005	-0.090	? 2.5
3.70	***25***	***1879.99988***	0.000	***? 2.5***
3.70	20	1879.99976	0.064	? 2.5
3.70	10	1879.99973	0.080	? 2.5
3.70	0	1879.99975	0.069	? 2.5
3.70	-10	1879.99970	0.096	? 2.5
3.70	-20	1879.99969	0.101	? 2.5
3.70	-30	1879.99970	0.096	? 2.5
3.145	25	1880.00006	-0.096	? 2.5
4.255	25	1879.99985	0.016	? 2.5

8.4. SPURIOUS EMISSION AT ANTENNA TERMINAL

LIMIT

§§22.917 (a) Out of band emissions. 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.

§24.238 (a) Out of band emissions. 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

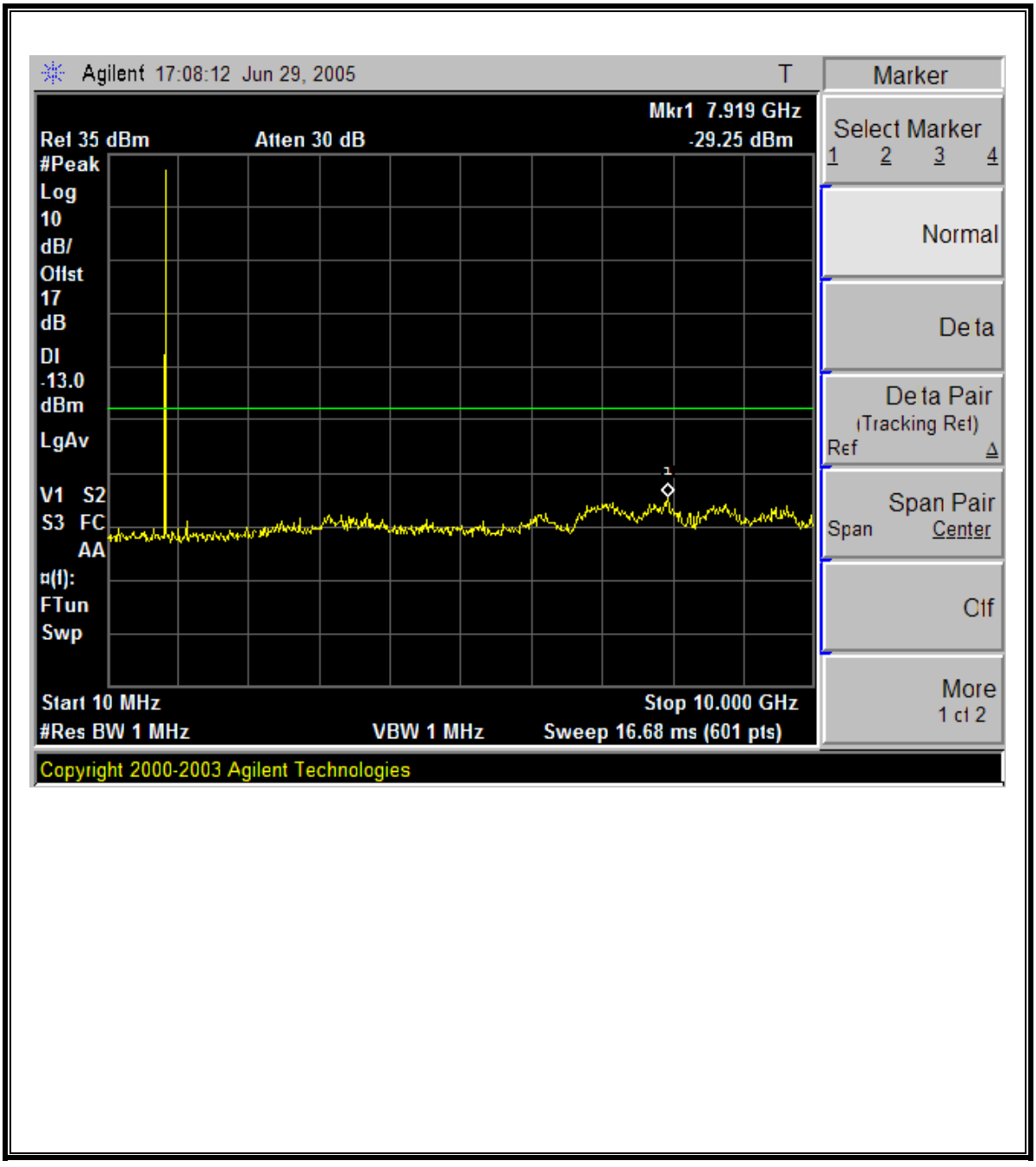
ANSI / TIA / EIA 603 Clause 3.2.13 & FCC 22.917 (b)
ANSI / TIA / EIA 603 Clause 3.2.12 & FCC 24.238 (b)

RESULTS

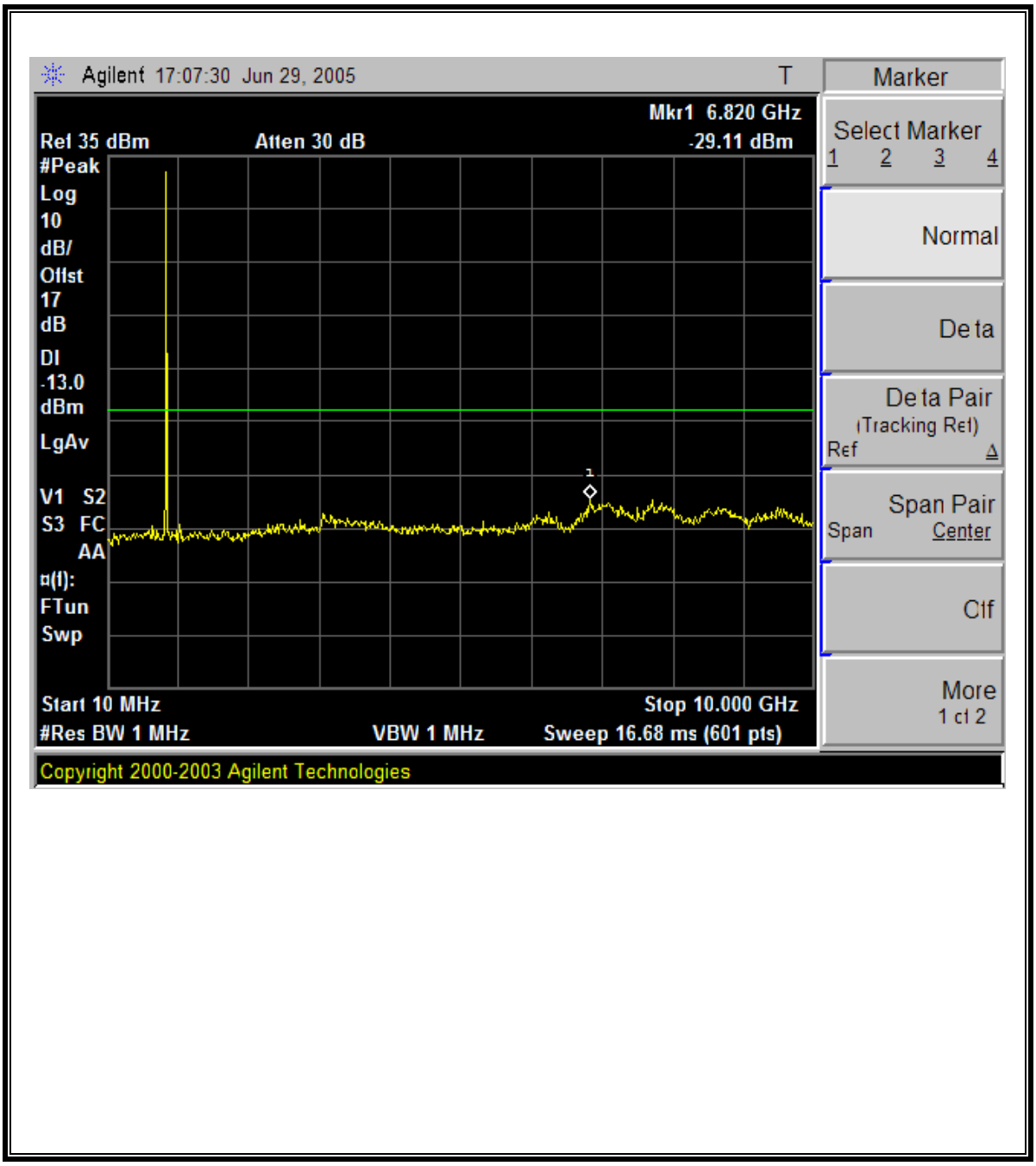
No non-compliance noted.
.

GSM850 MODULATION RESULTS

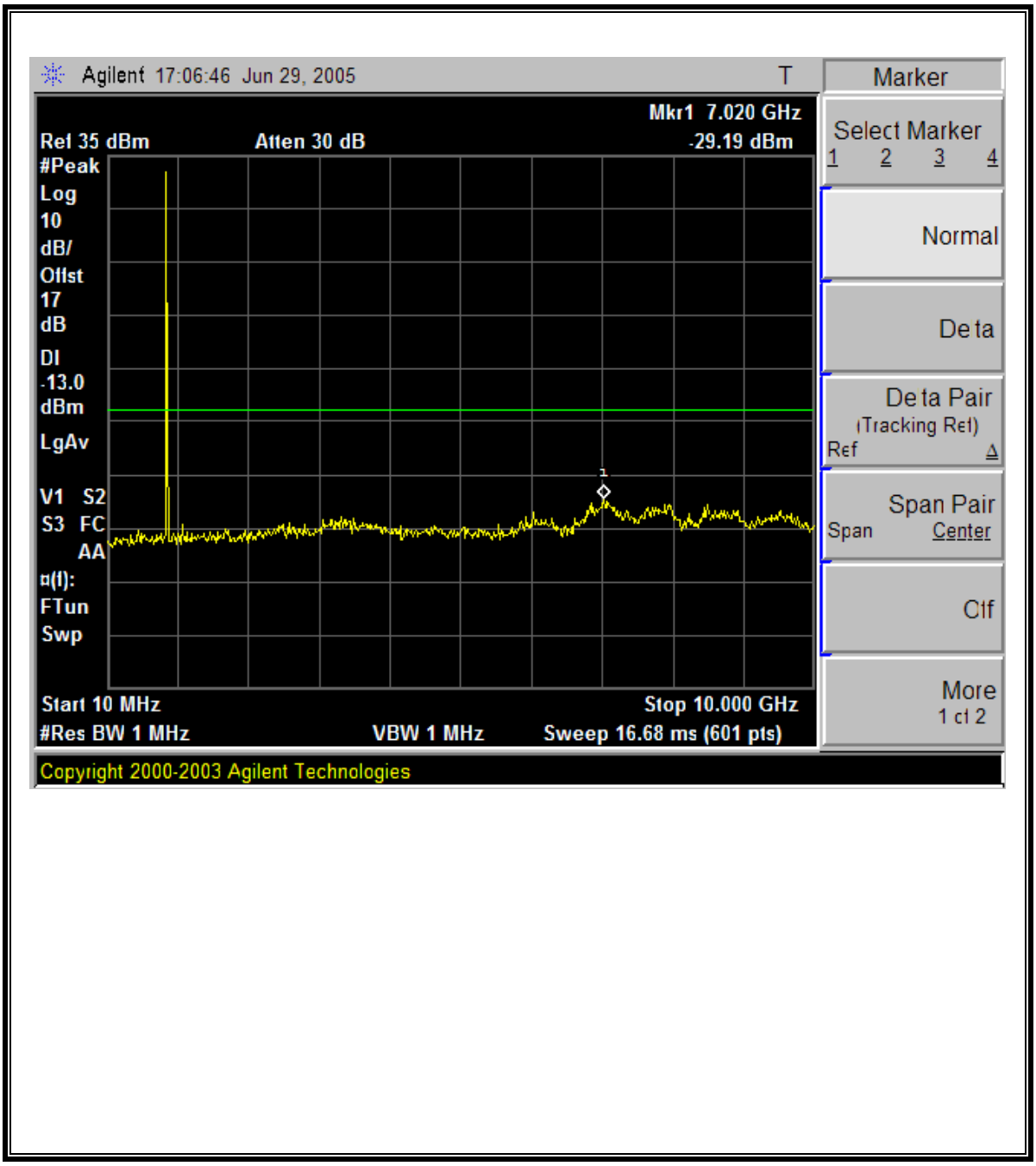
GSM850 Modulation: Low Channel, Out-Of-Band Emissions



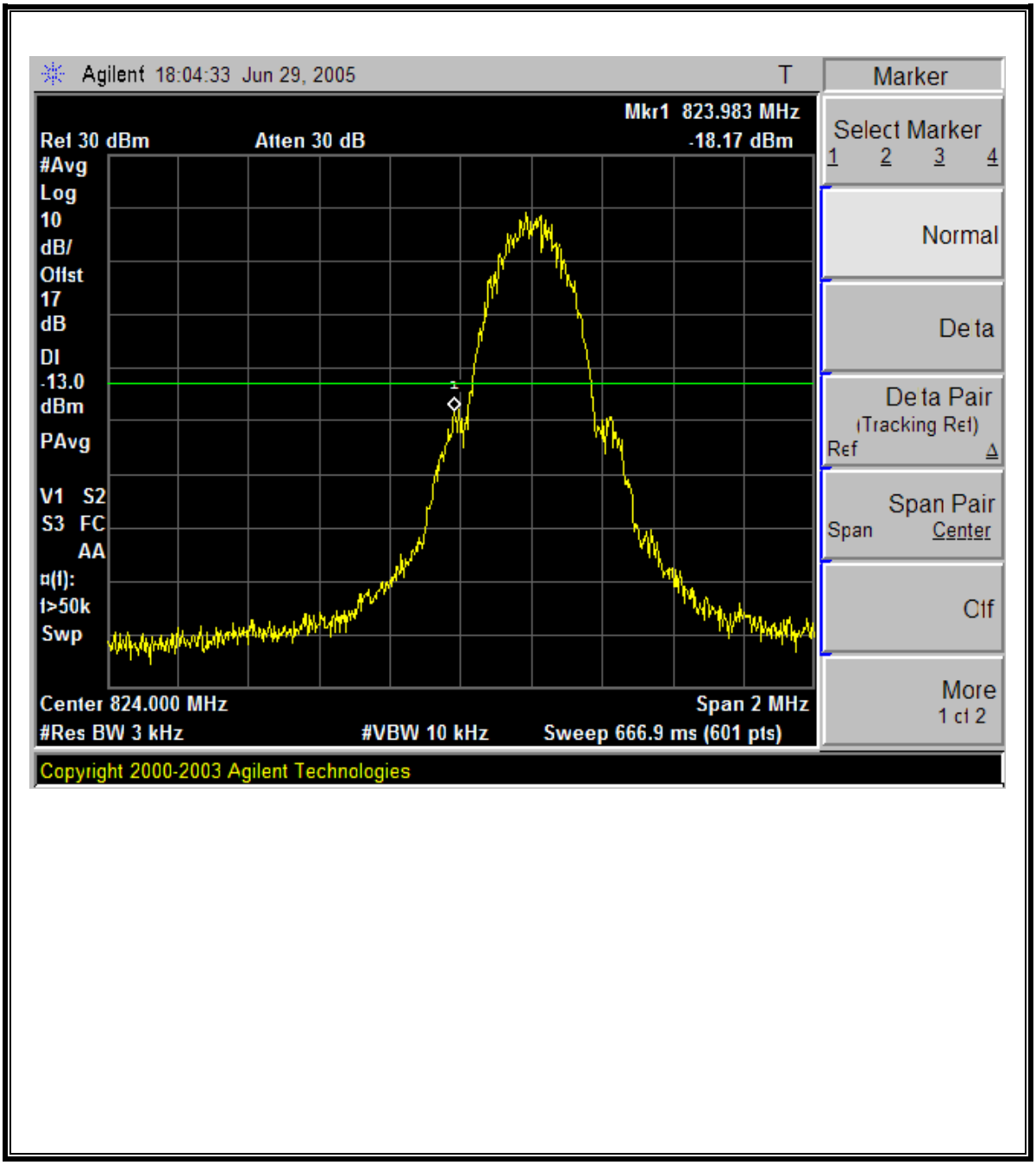
GSM850 Modulation: Mid Channel, Out-Of-Band Emissions



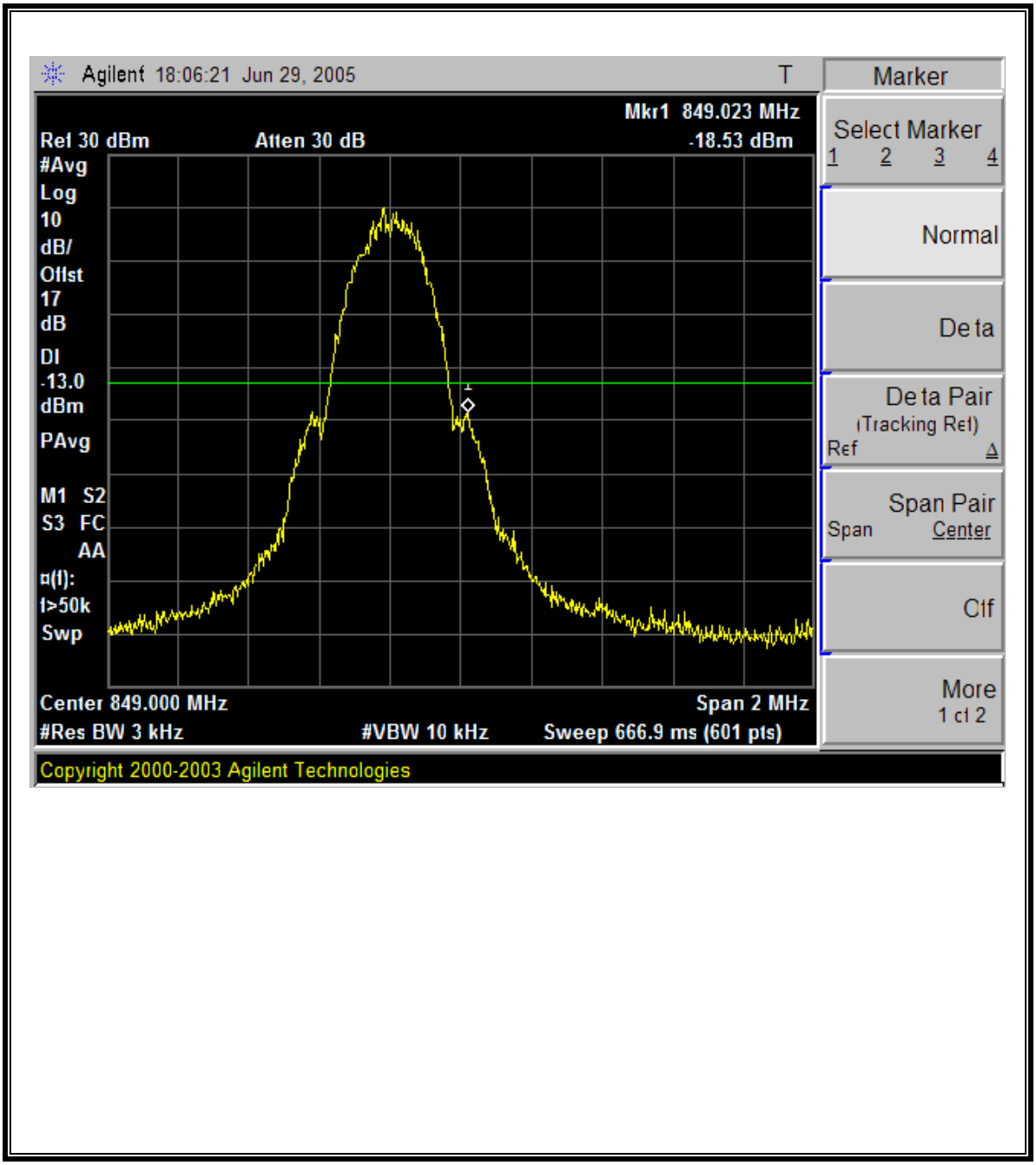
GSM850 Modulation: High Channel, Out-Of-Band Emissions



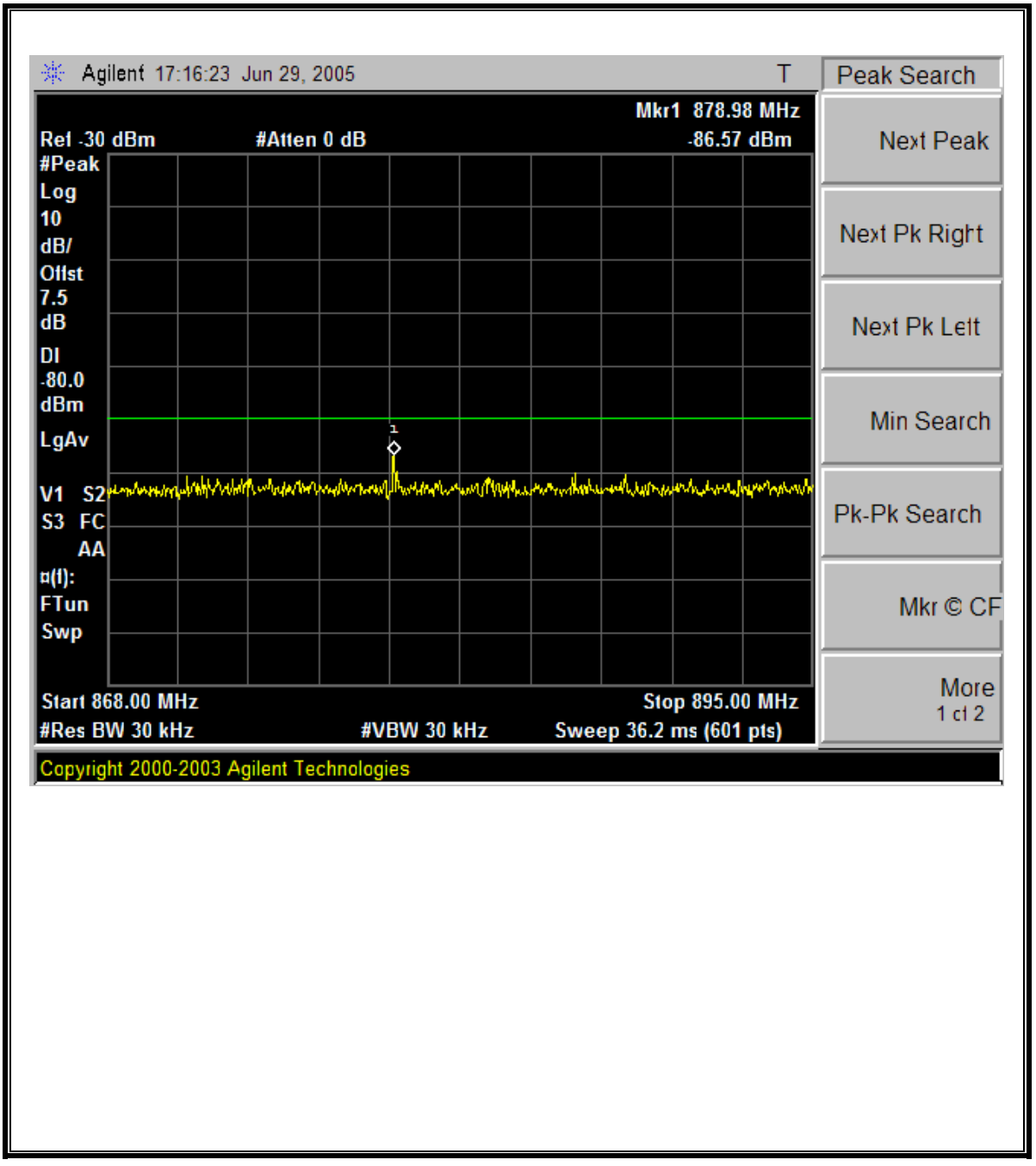
GSM850 Modulation: Low Channel Band Edge



GSM850 Modulation: High Channel Band Edge

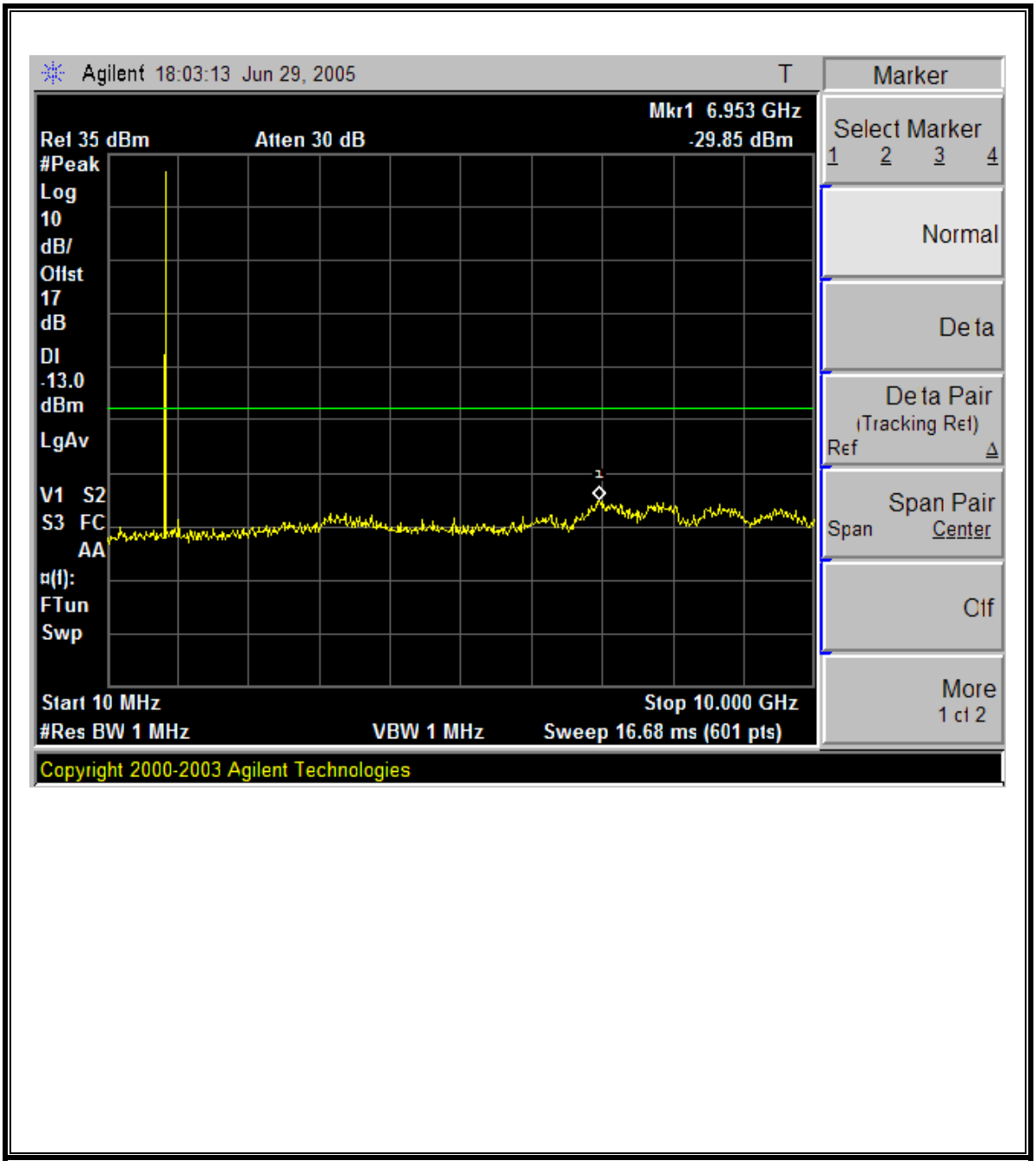


GSM850 Mobile Emissions in Base Frequency Range

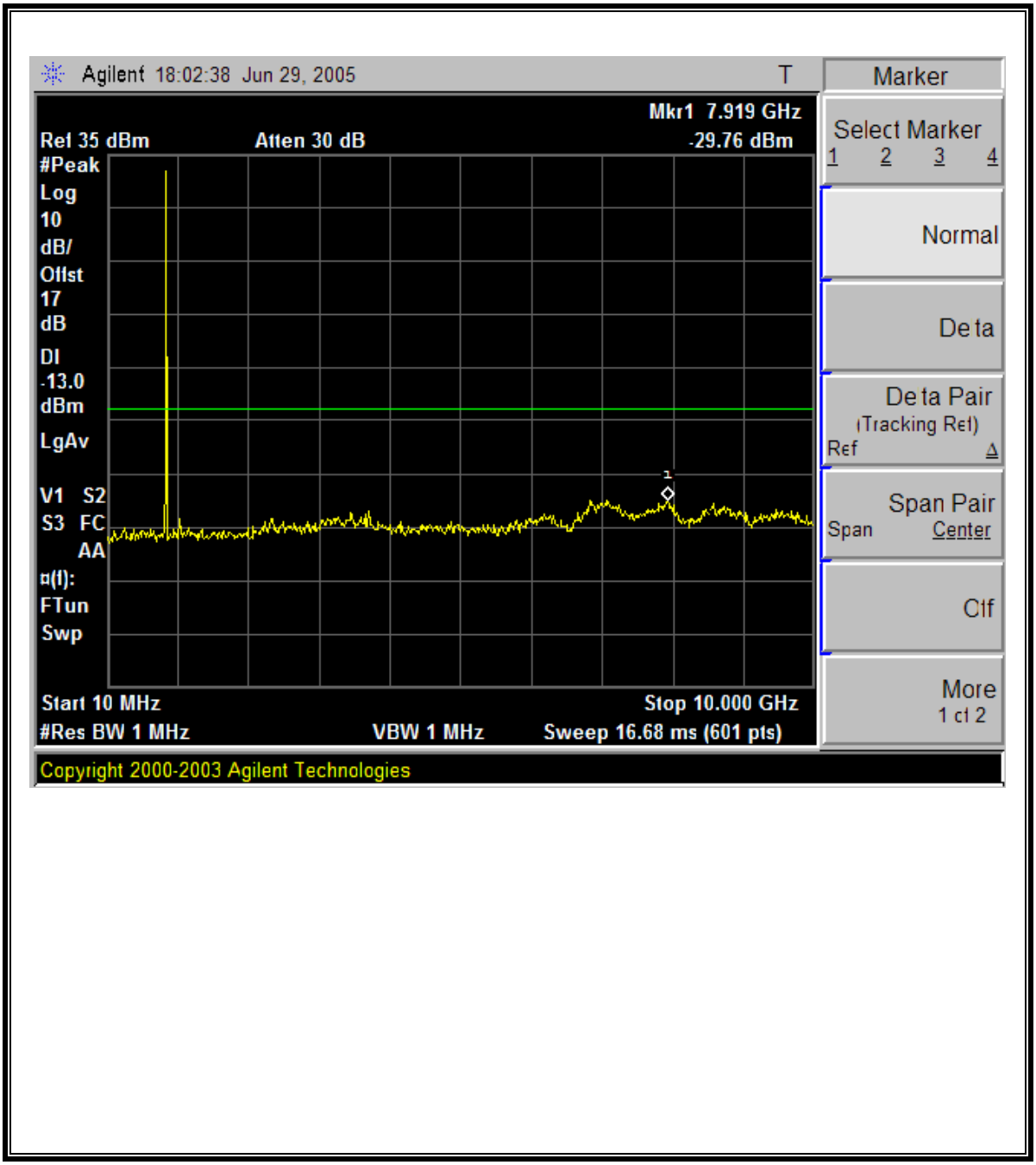


GPRS850 MODULATION RESULTS

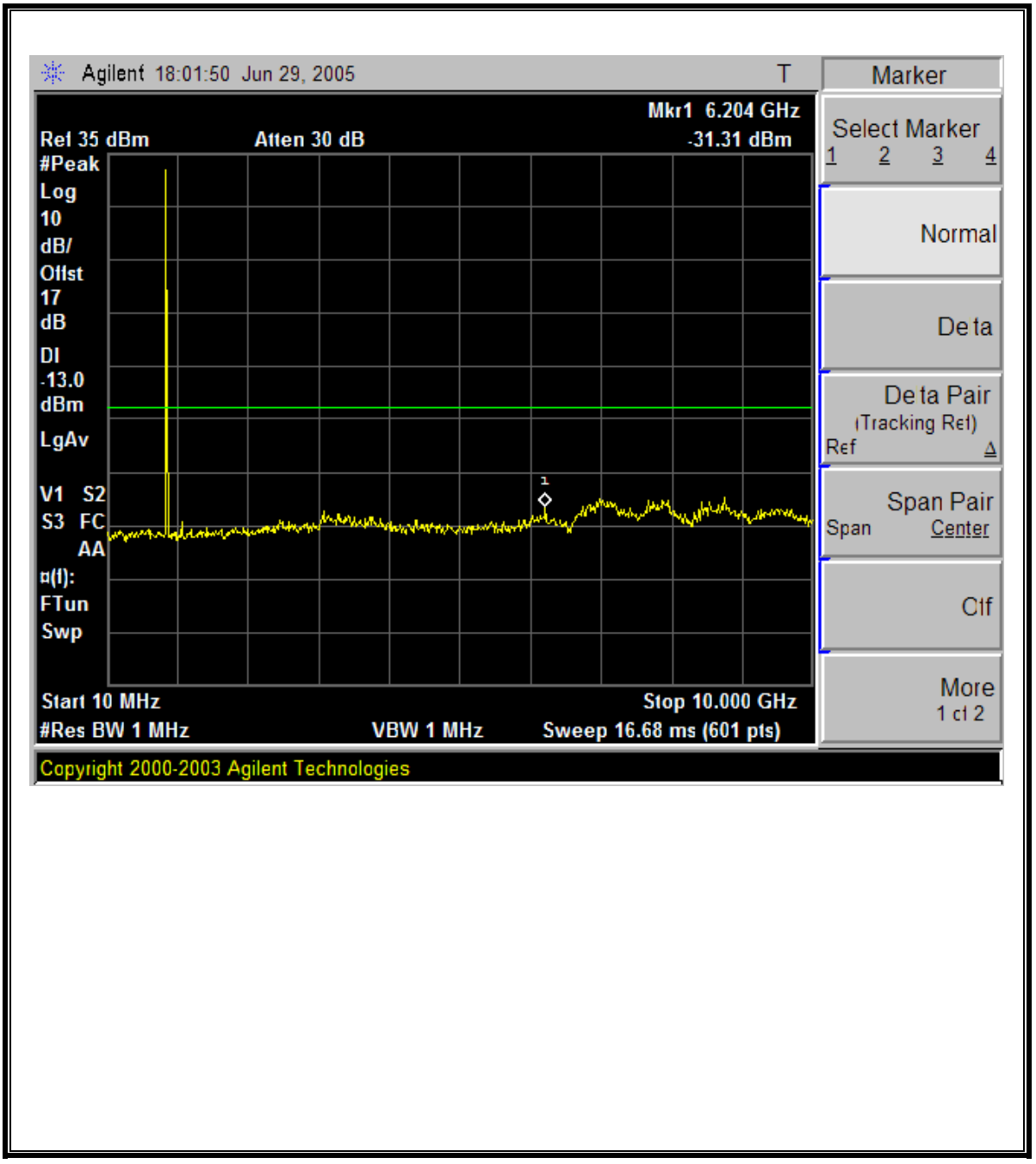
GPRS850 Modulation: Low Channel, Out-Of-Band Emissions



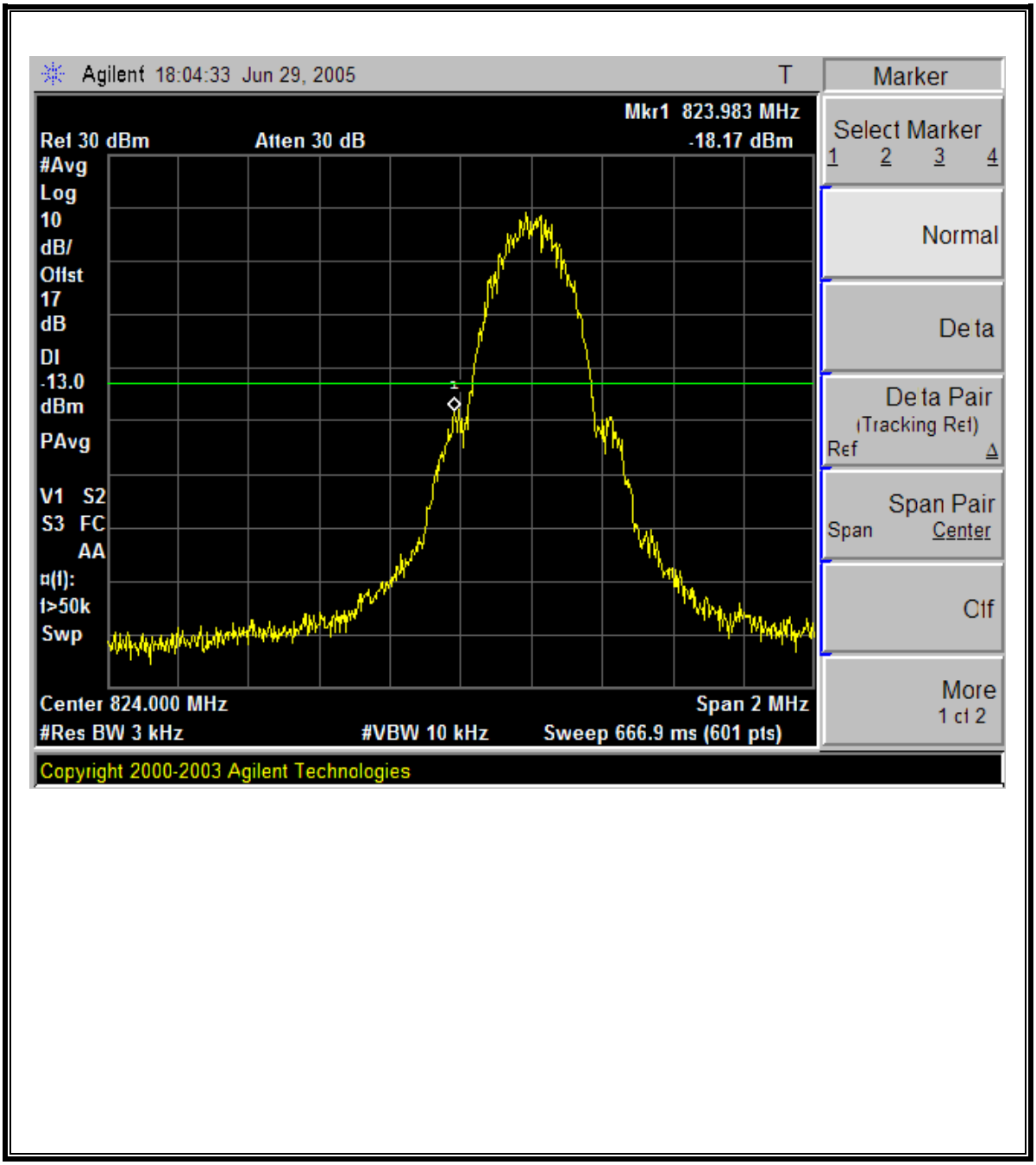
GPRS850 Modulation: Mid Channel, Out-Of-Band Emissions



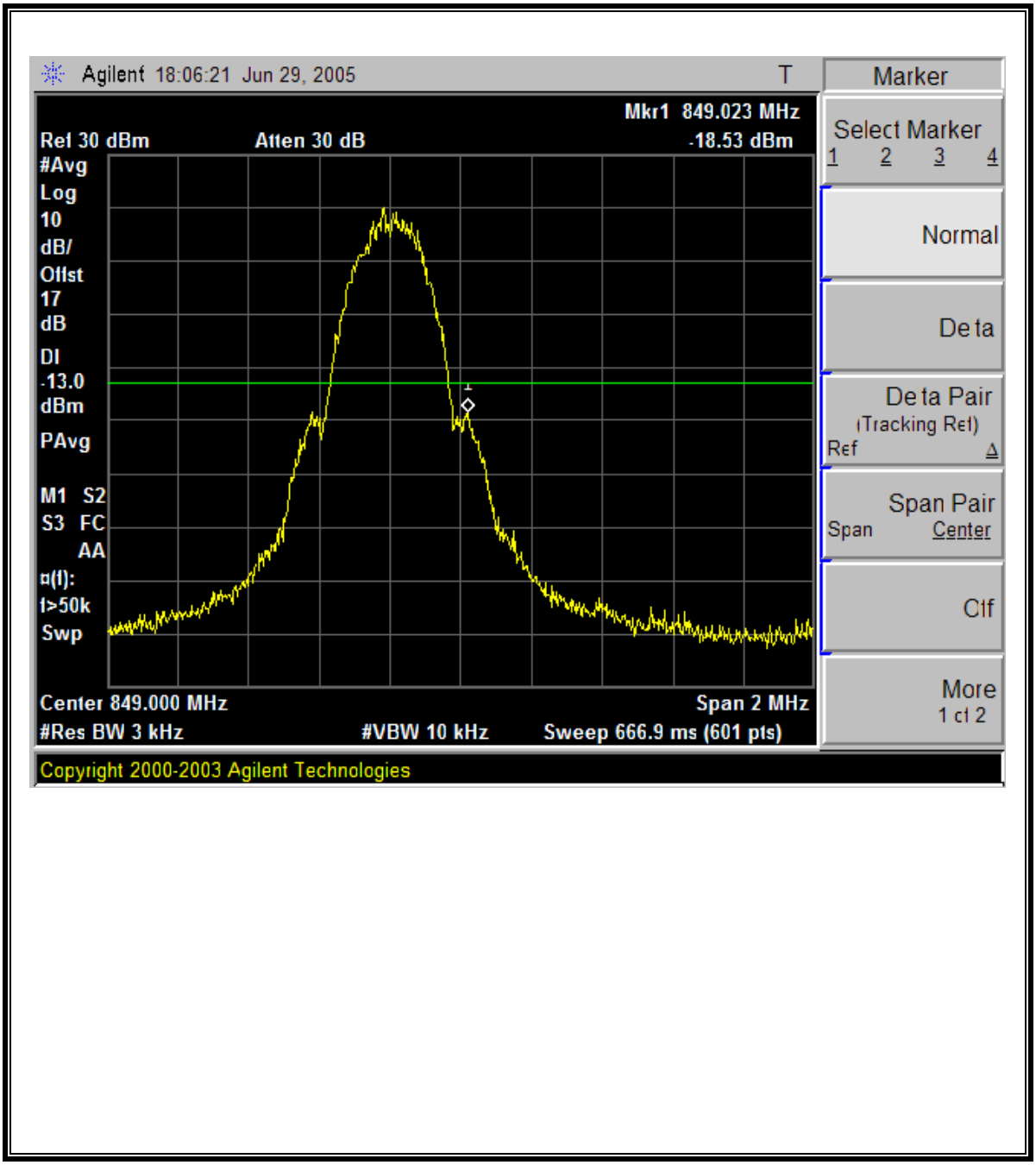
GPRS850 Modulation: High Channel, Out-Of-Band Emissions



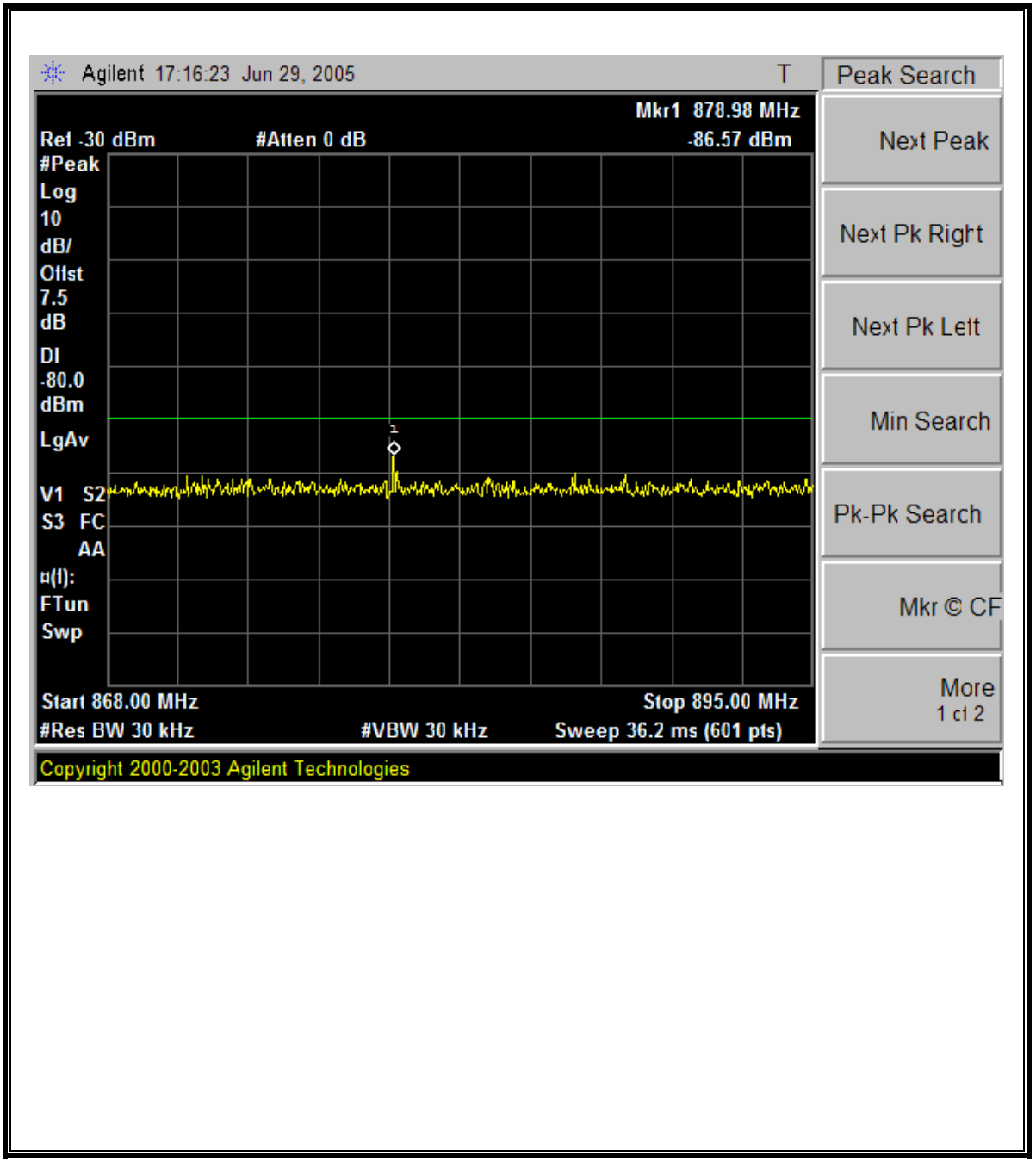
GPRS850 Modulation: Low Channel Band Edge



GPRS850 Modulation: High Channel Band Edge

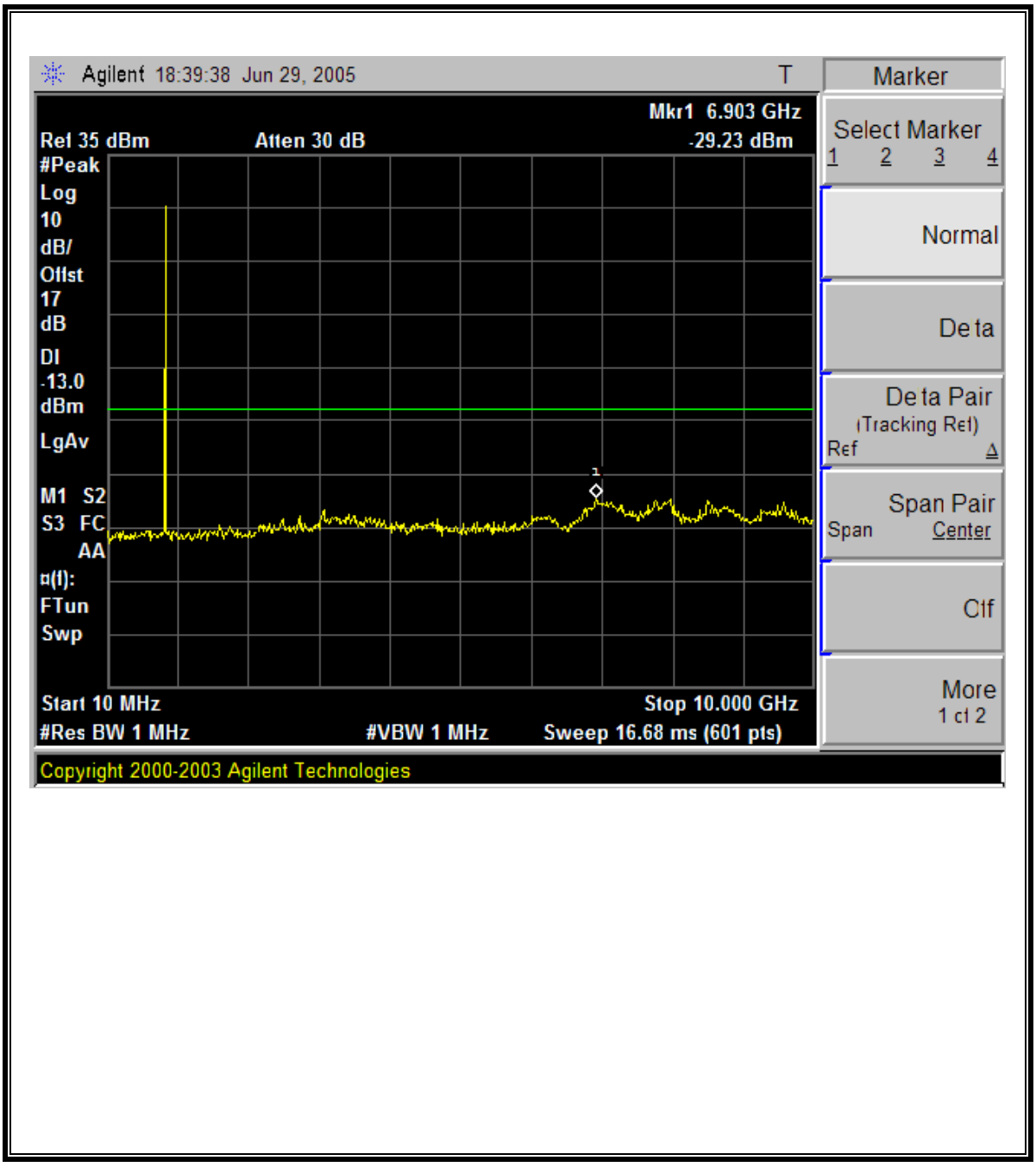


GPRS850 Mobile Emissions in Base Frequency Range

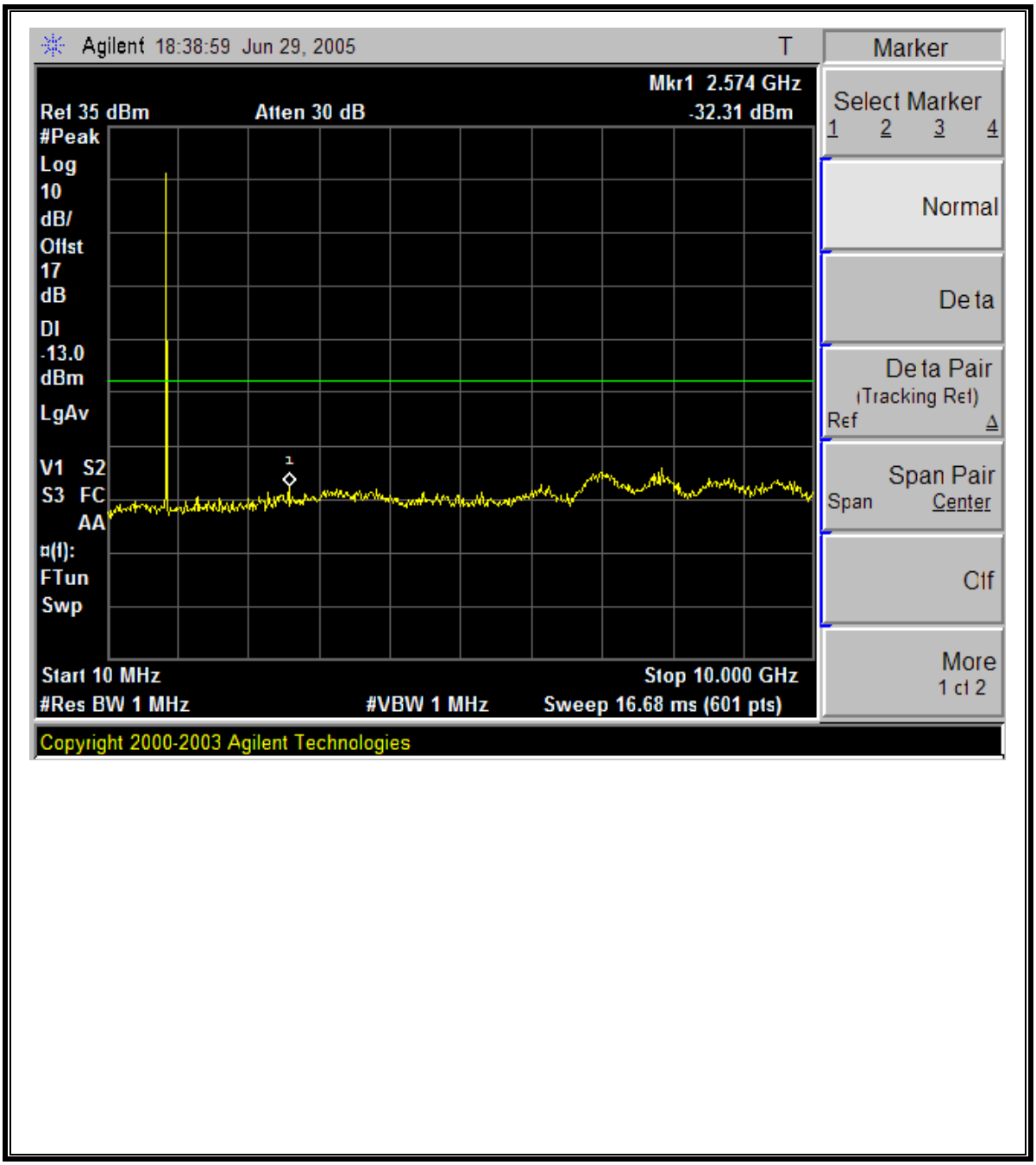


EGPRS850 MODULATION RESULTS

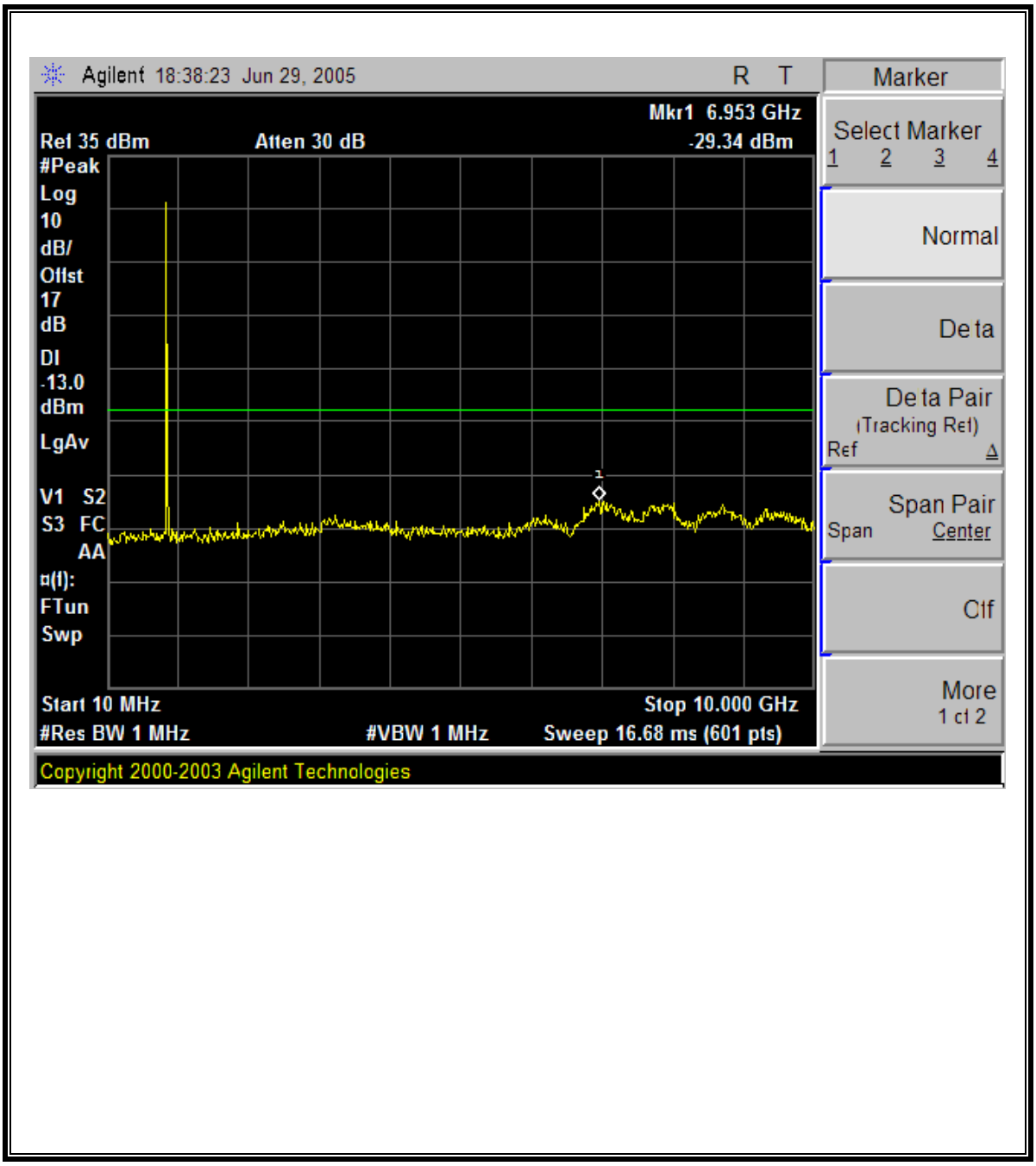
EGPRS850 Modulation: Low Channel Out-Of-Band Emissions



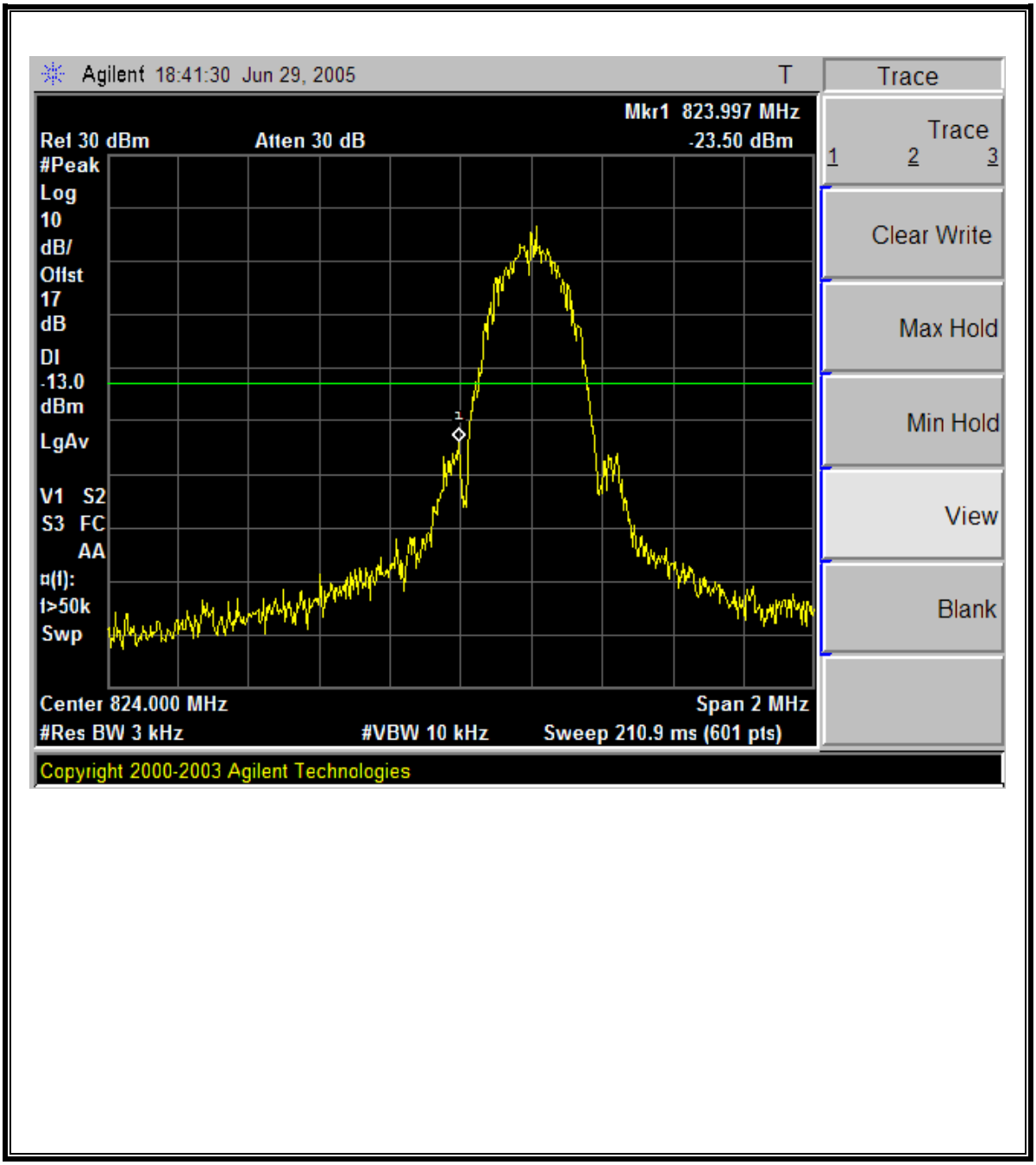
EGPRS850 Modulation: Mid Channel Out-Of-Band Emissions



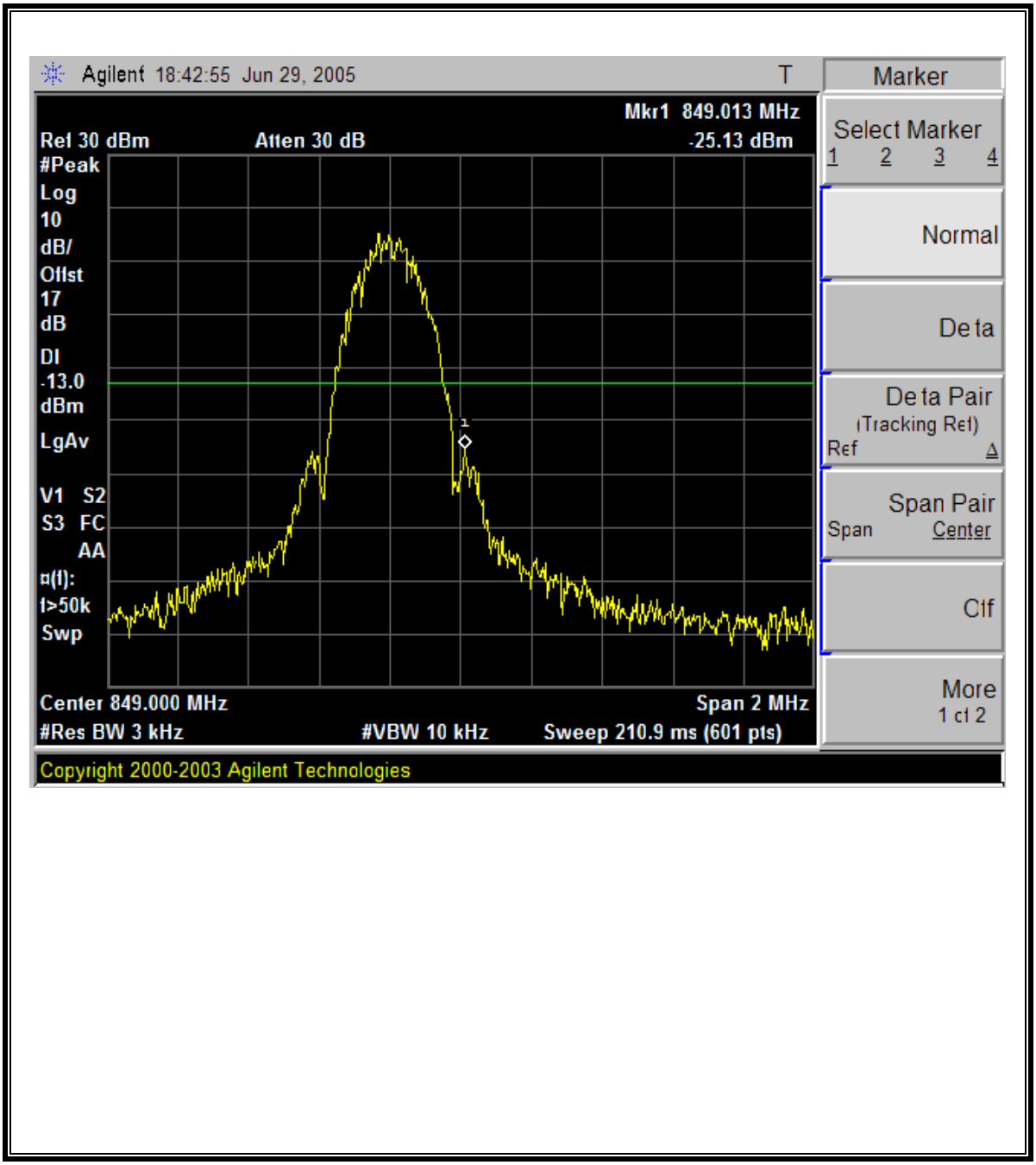
EGPRS850 Modulation: High Channel Out-Of-Band Emissions



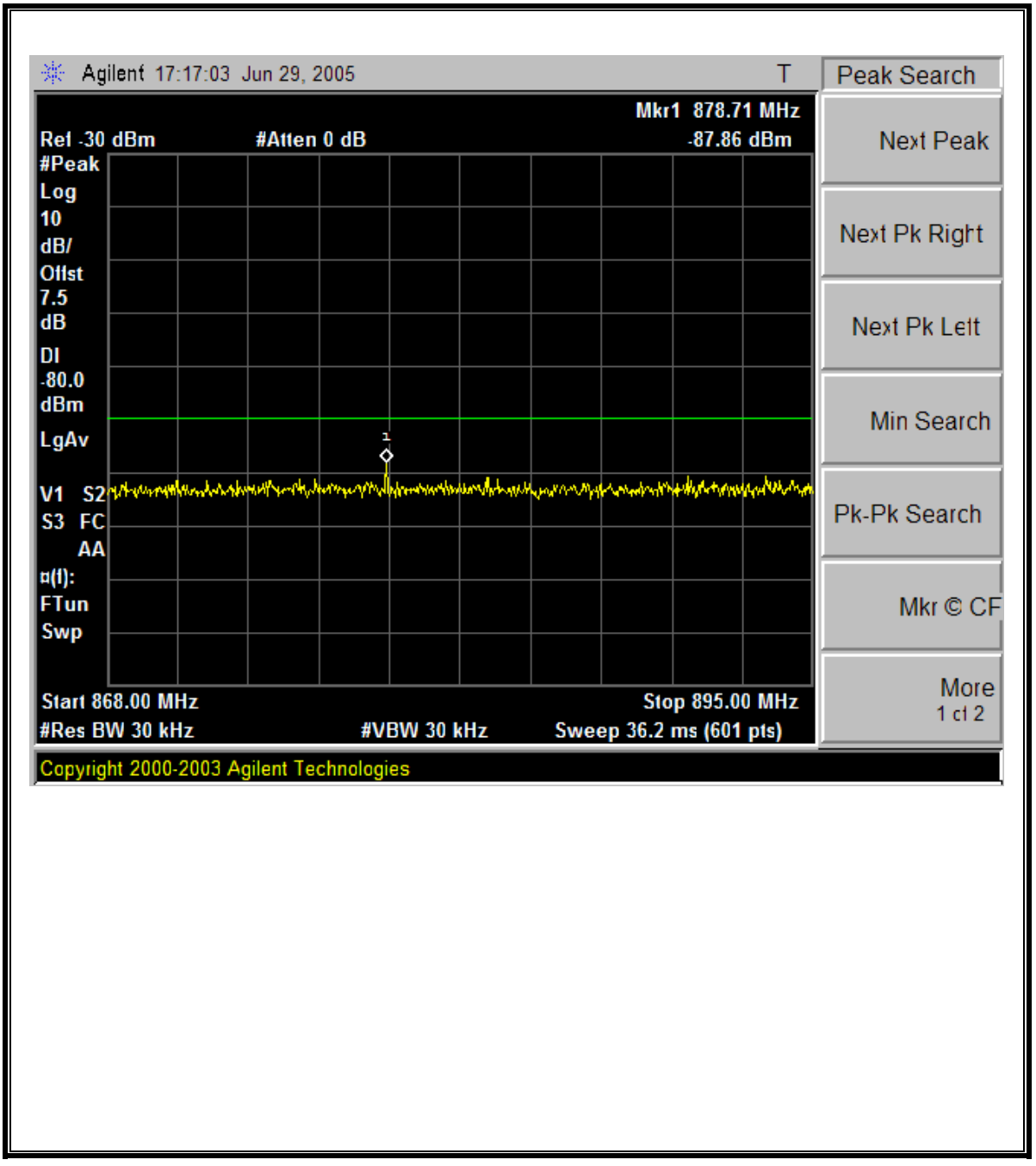
EGPRS850 Modulation: Low Channel Band Edge



EGPRS850 Modulation: High Channel Band Edge

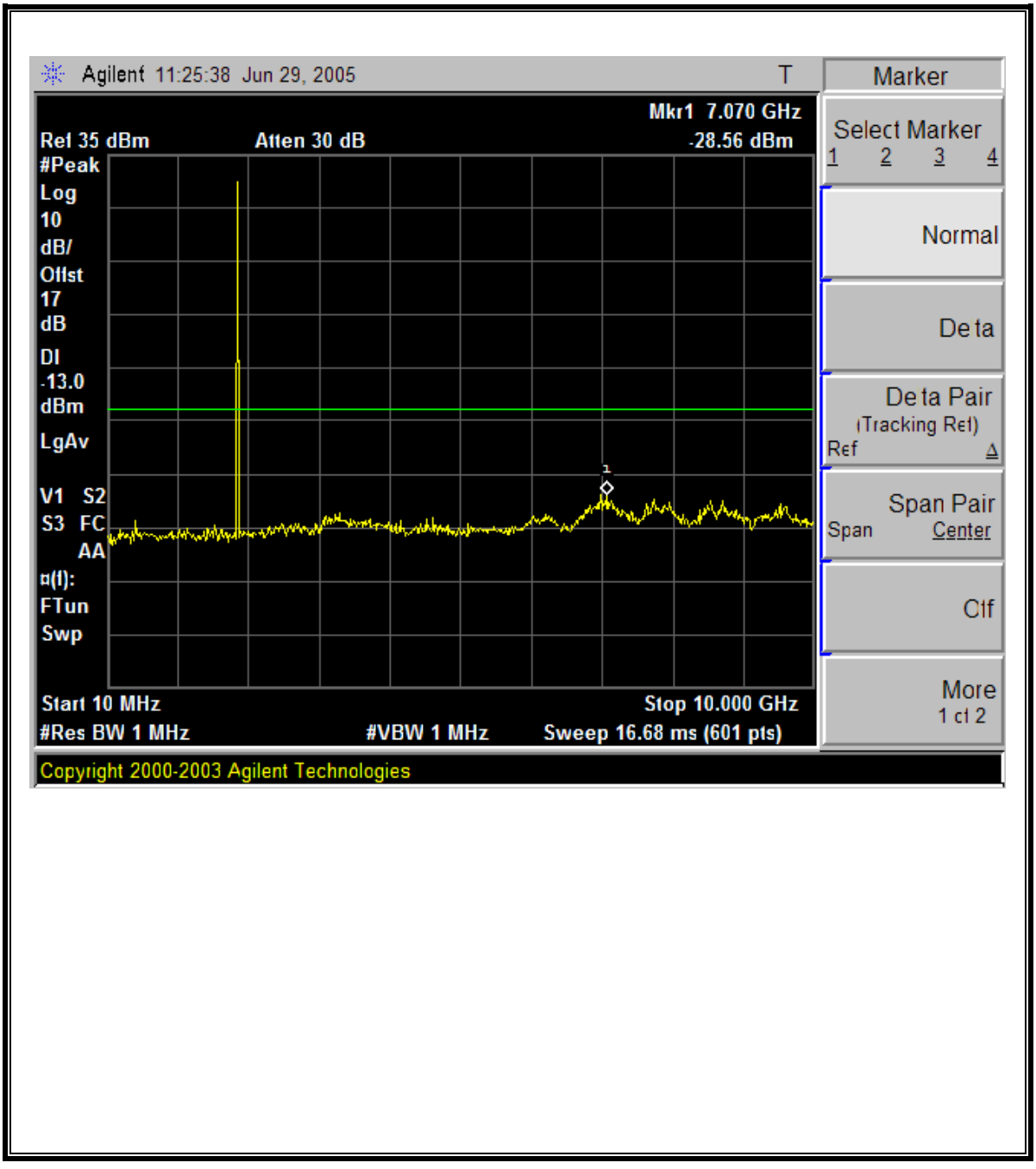


GSM850 Mobile Emissions in Base Frequency Range

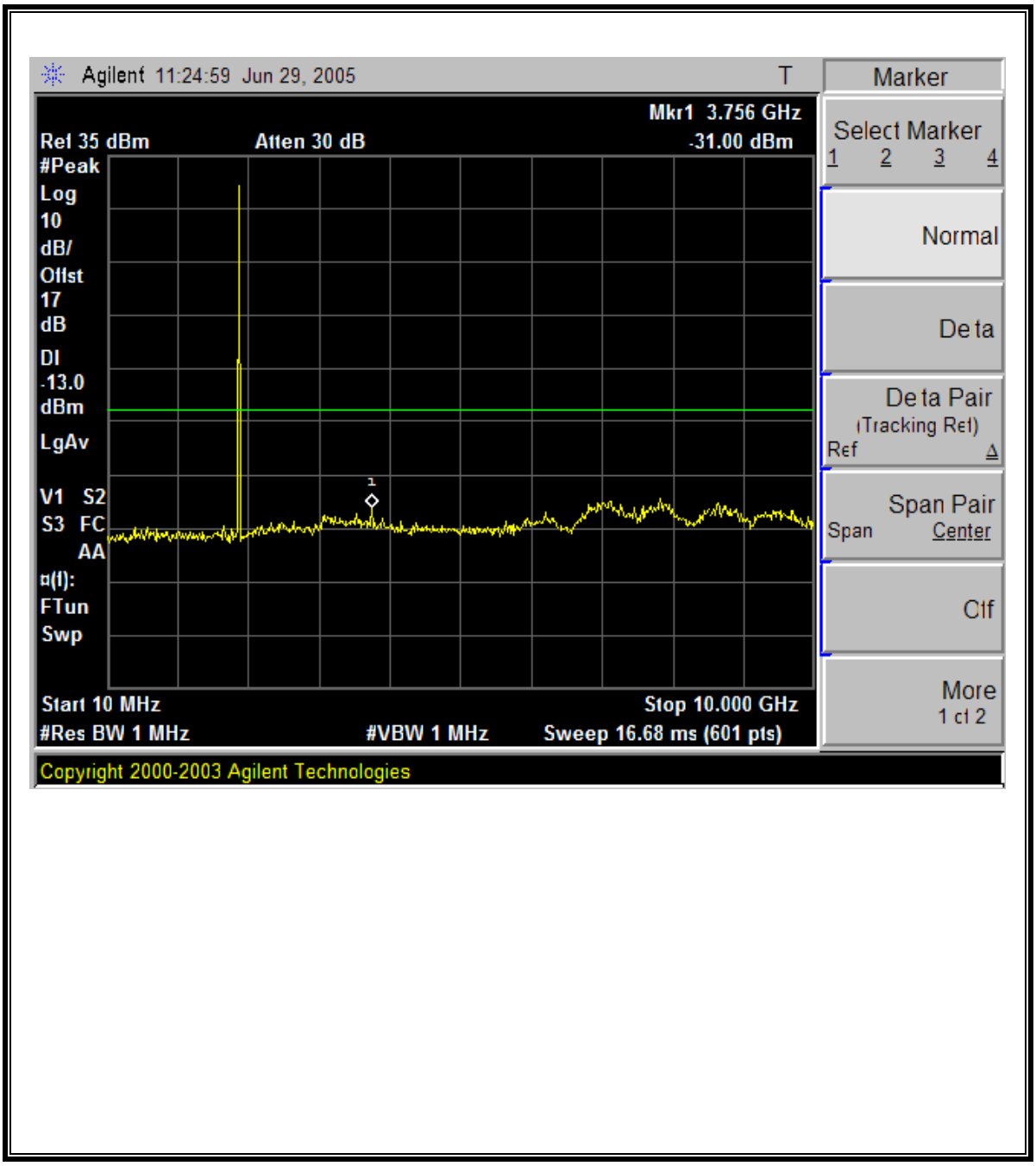


PCS GSM1900 MODULATION RESULTS

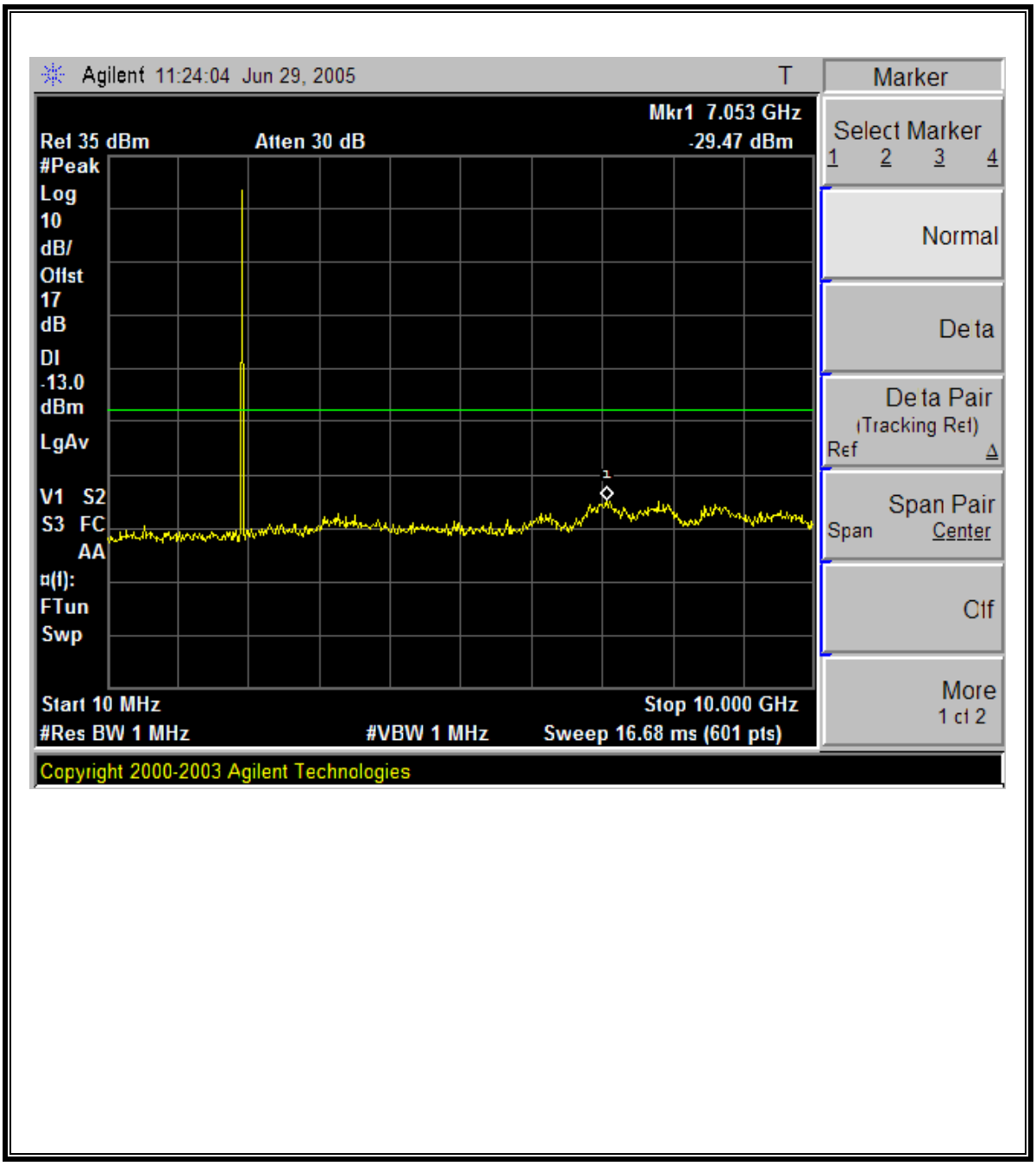
Low Channel, Out-Of-Band Emissions



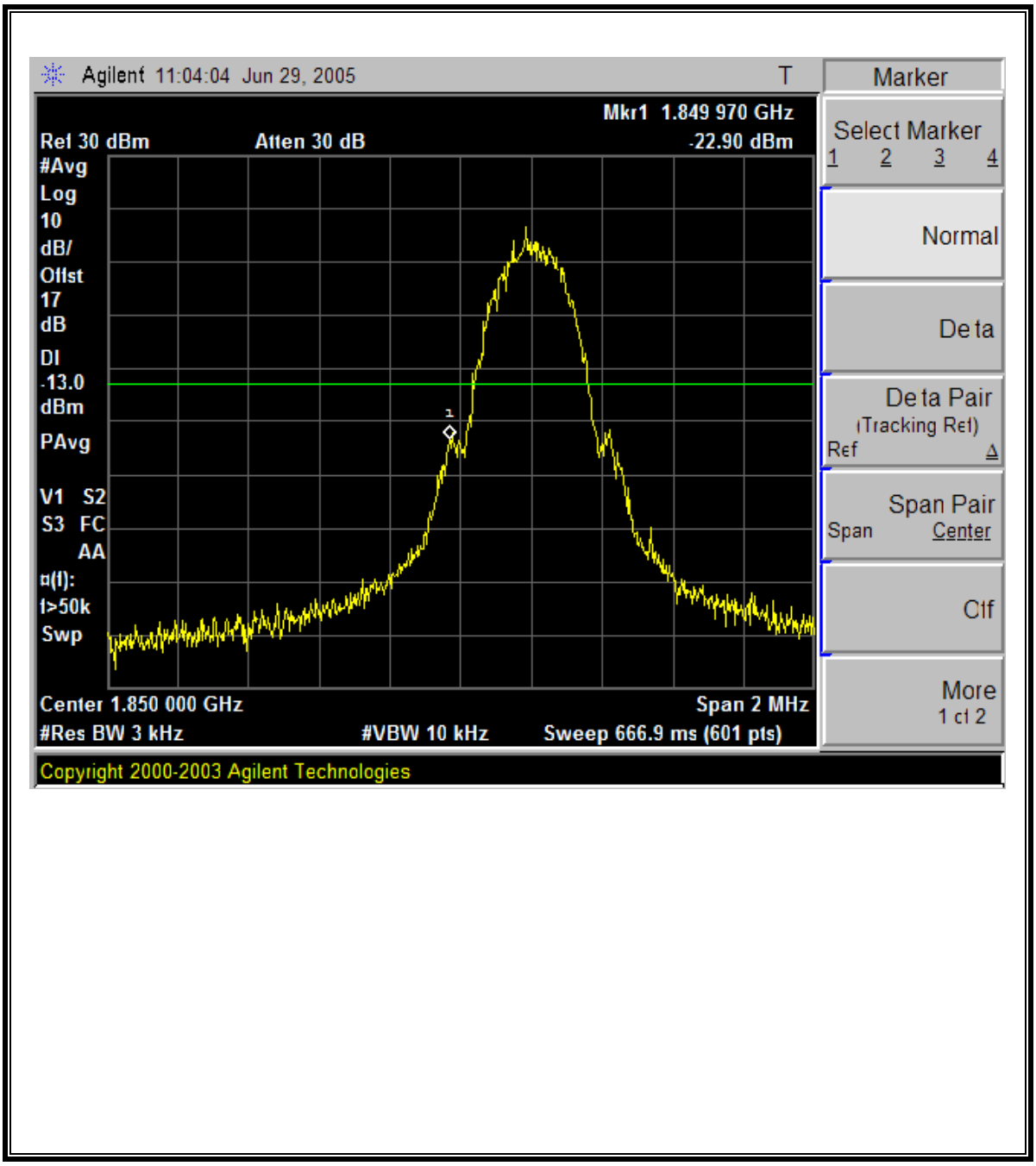
Mid Channel, Out-Of-Band Emissions



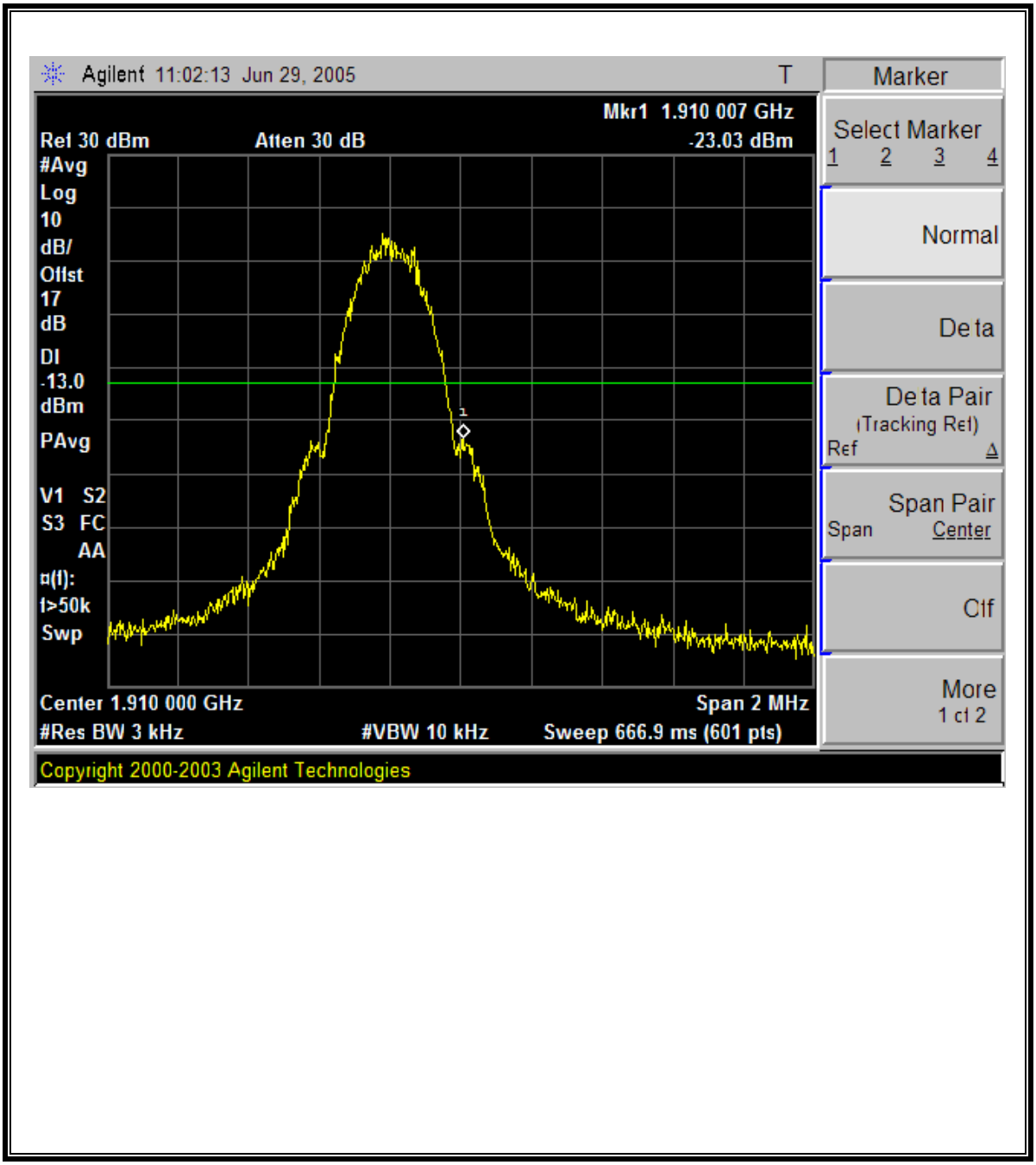
High Channel, Out-Of-Band Emissions



Low Channel Band Edge

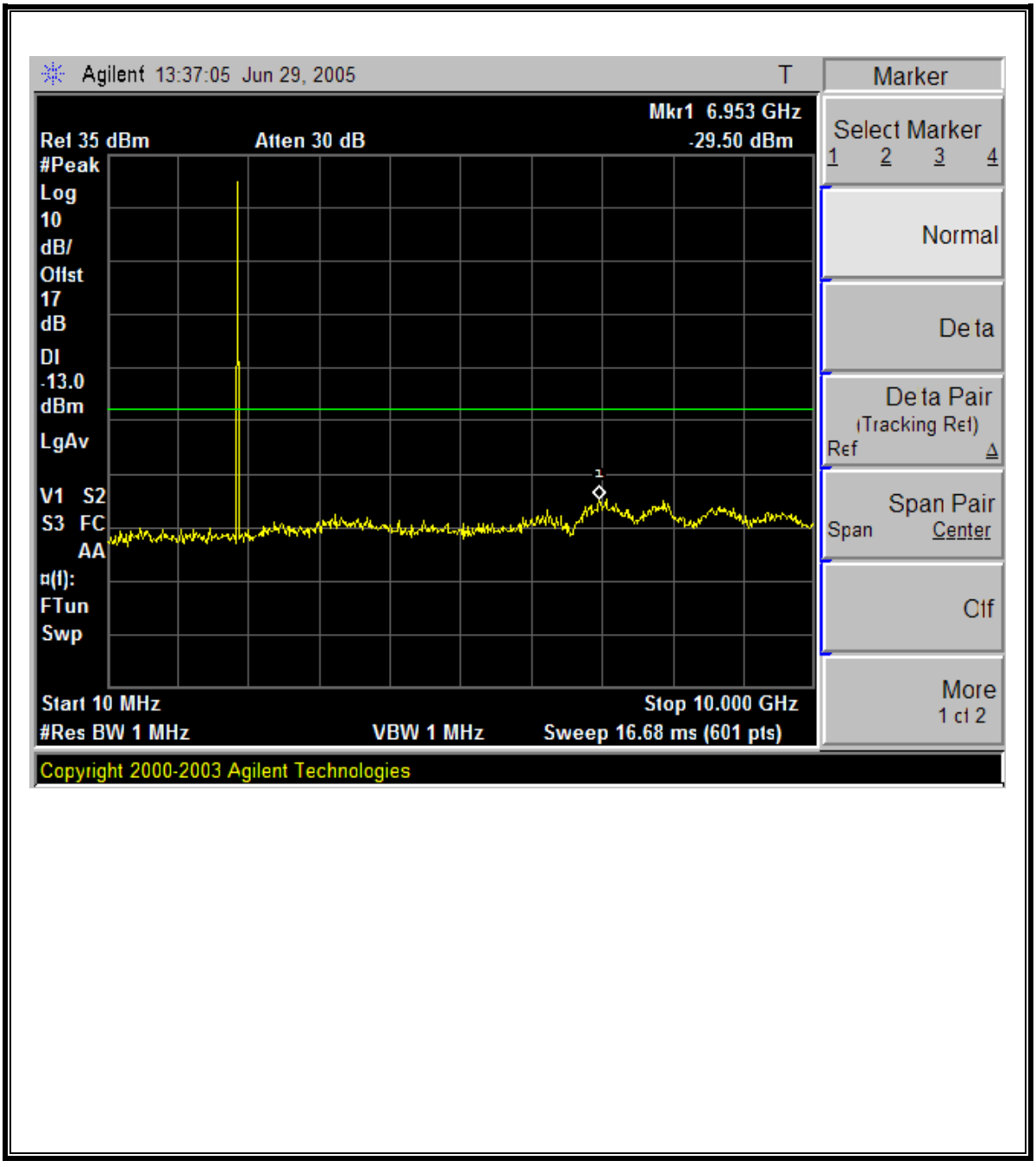


High Channel Band Edge

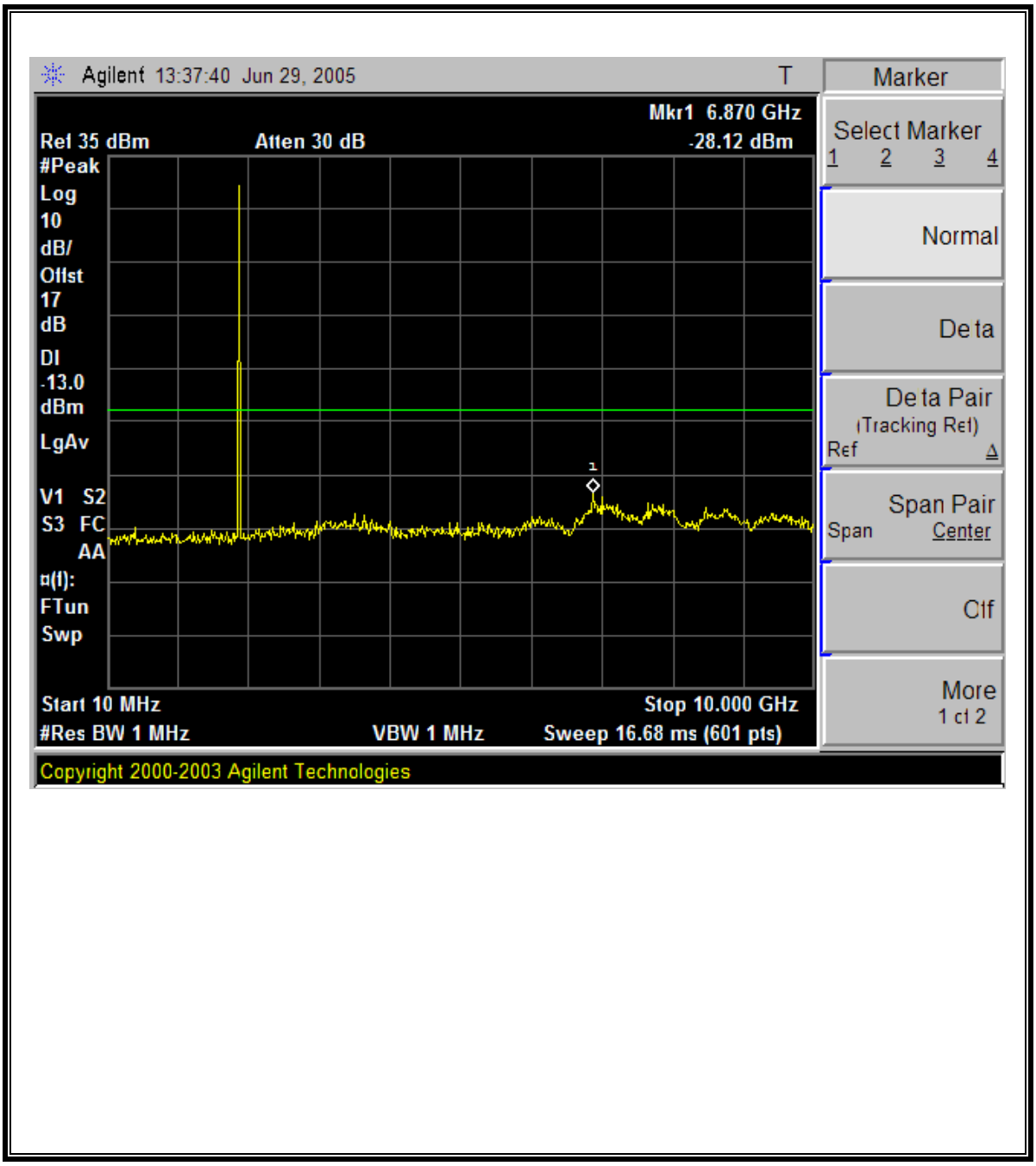


PCS GPRS 1900 MODULATION RESULTS

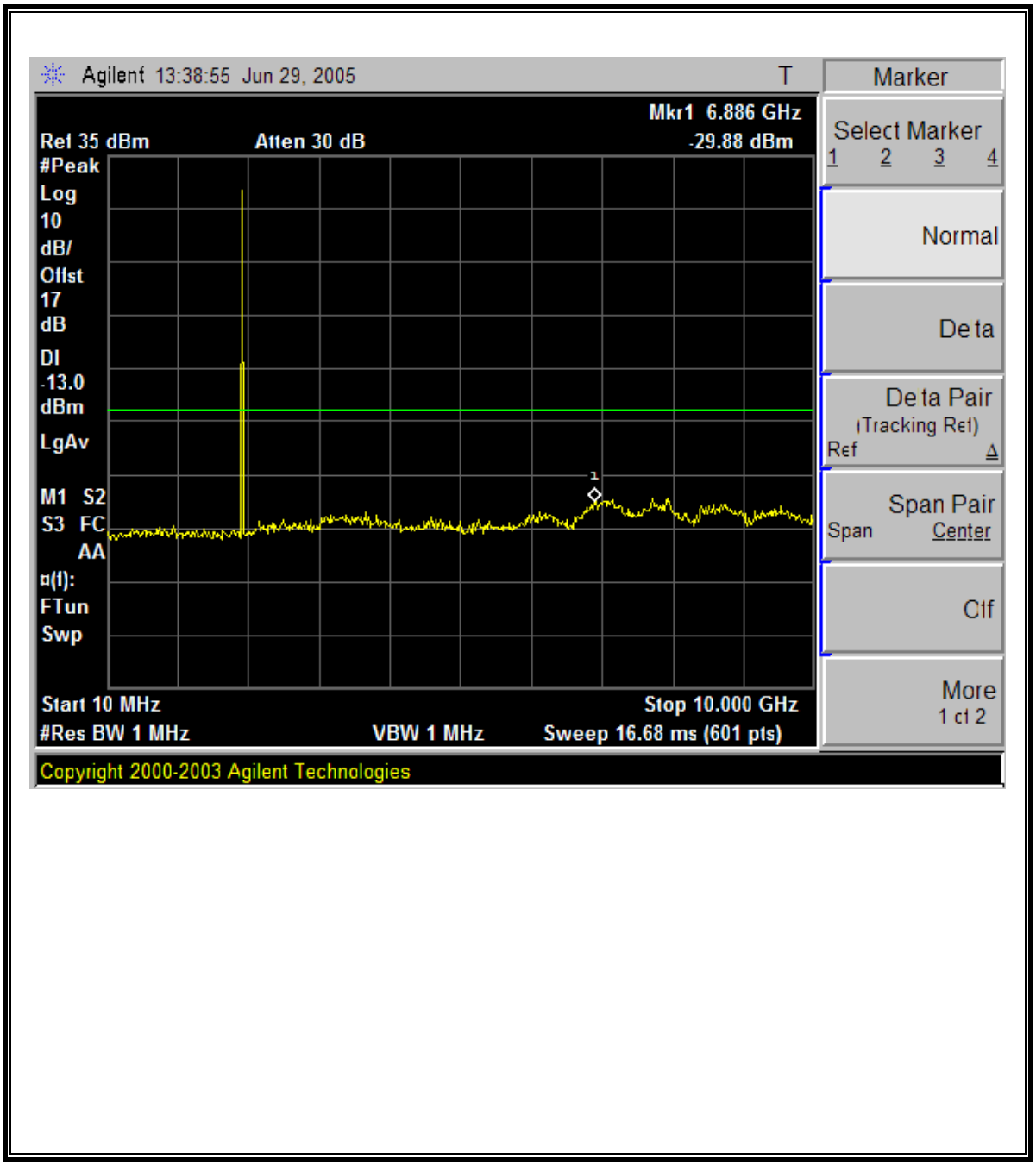
Low Channel, Out-Of-Band Emissions



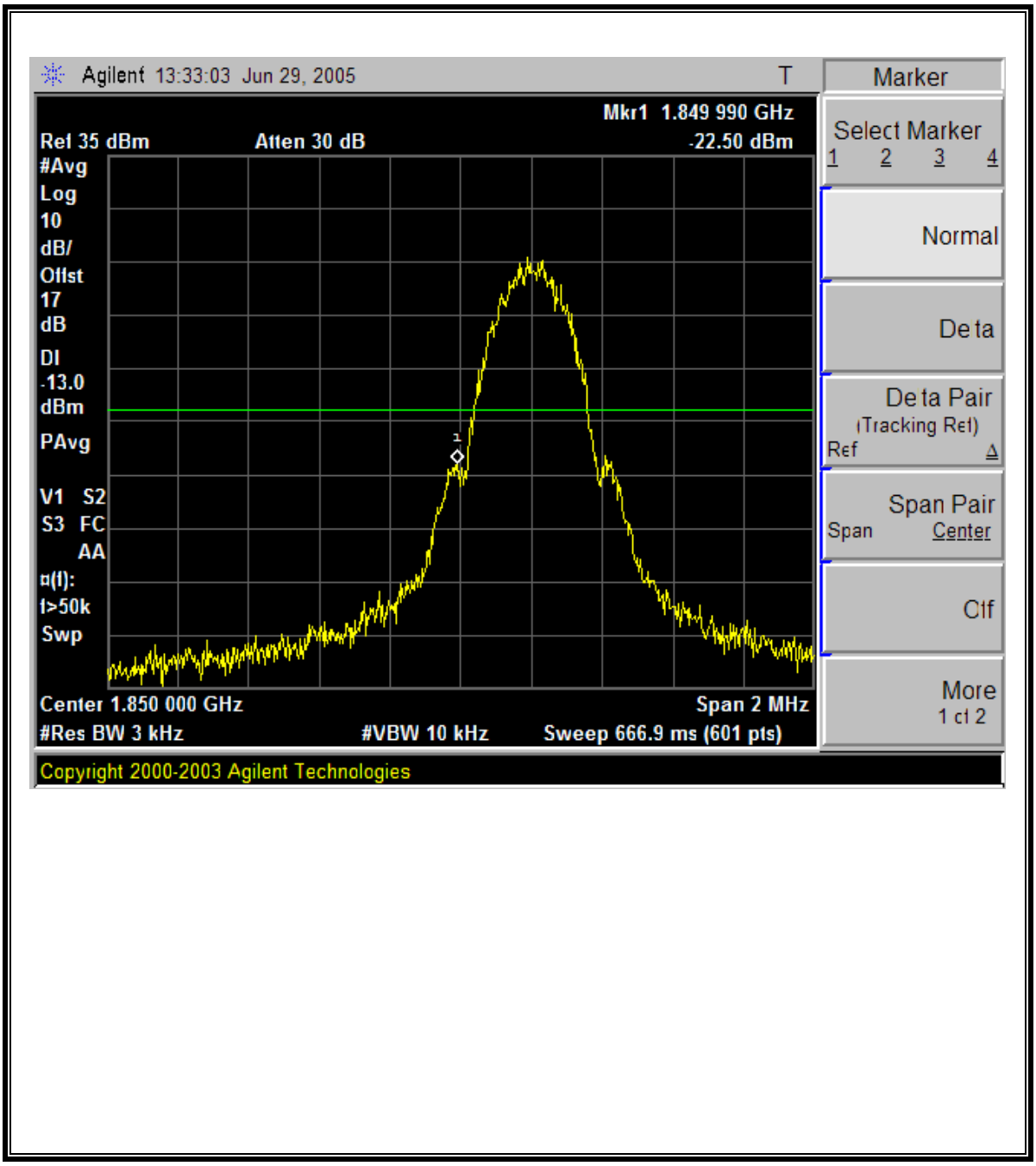
Mid Channel, Out-Of-Band Emissions



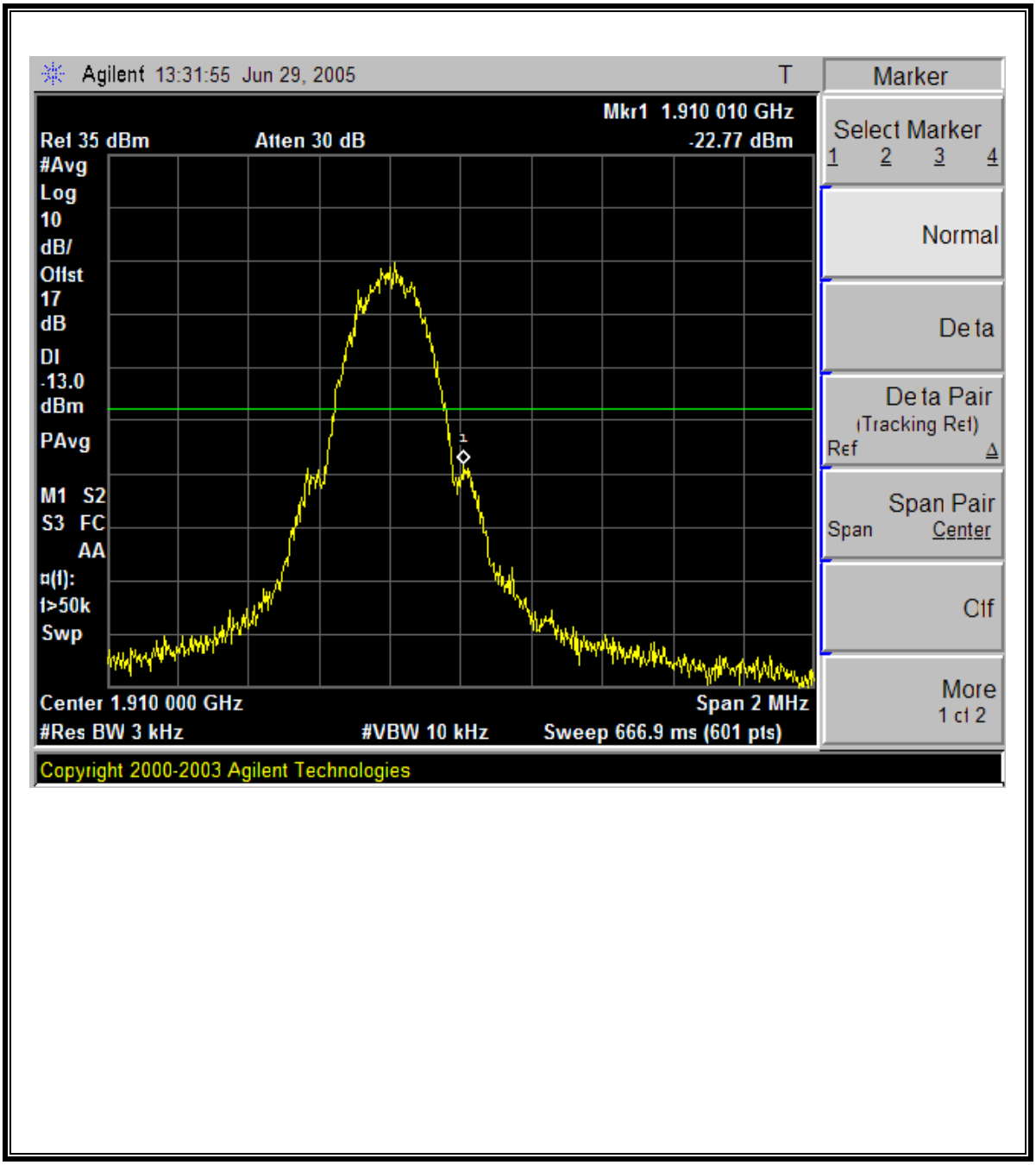
High Channel, Out-Of-Band Emissions



Low Channel Band Edge

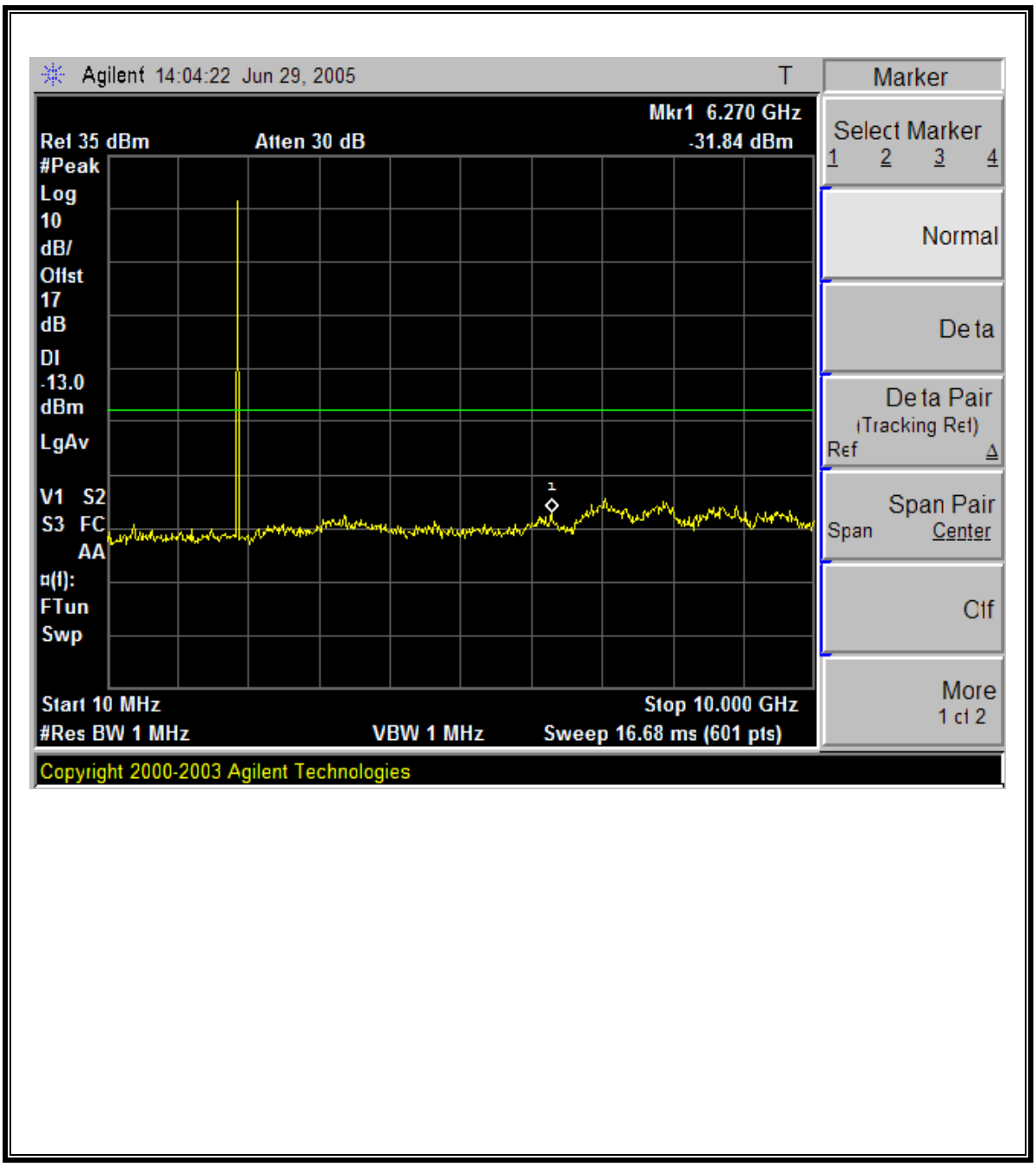


High Channel Band Edge

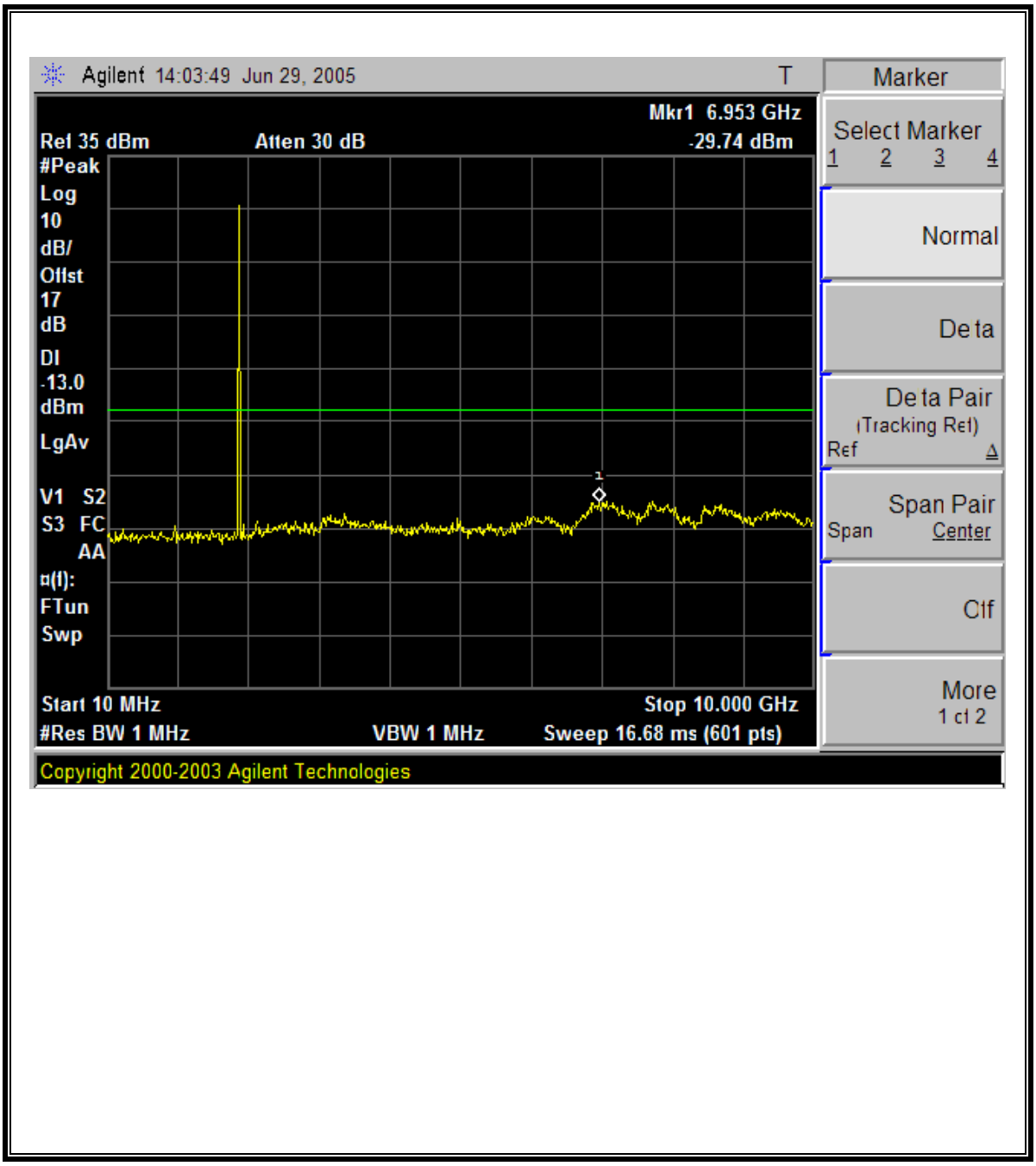


PCS EGPRS 1900 MODULATION RESULTS

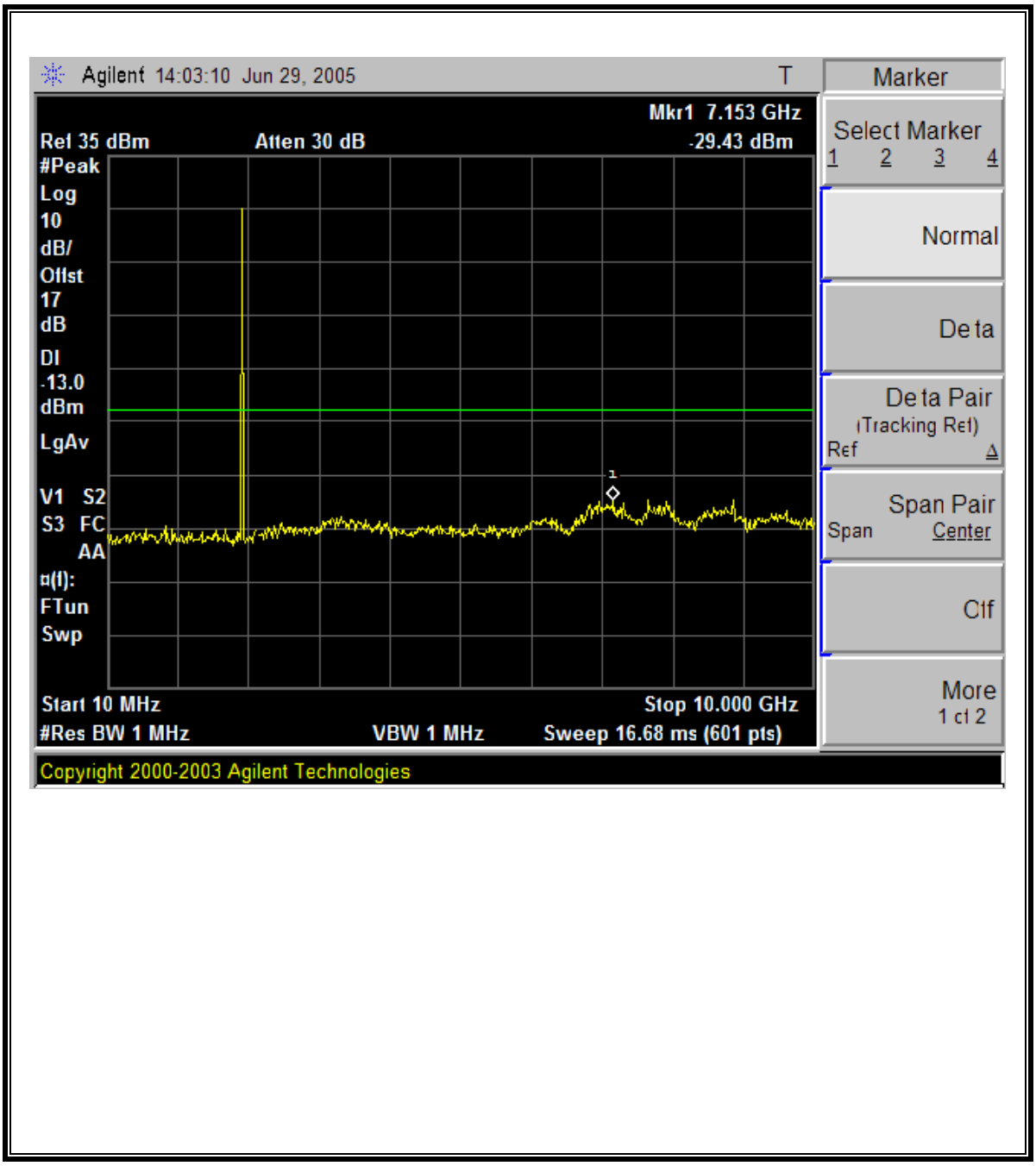
Low Channel, Out-Of-Band Emissions



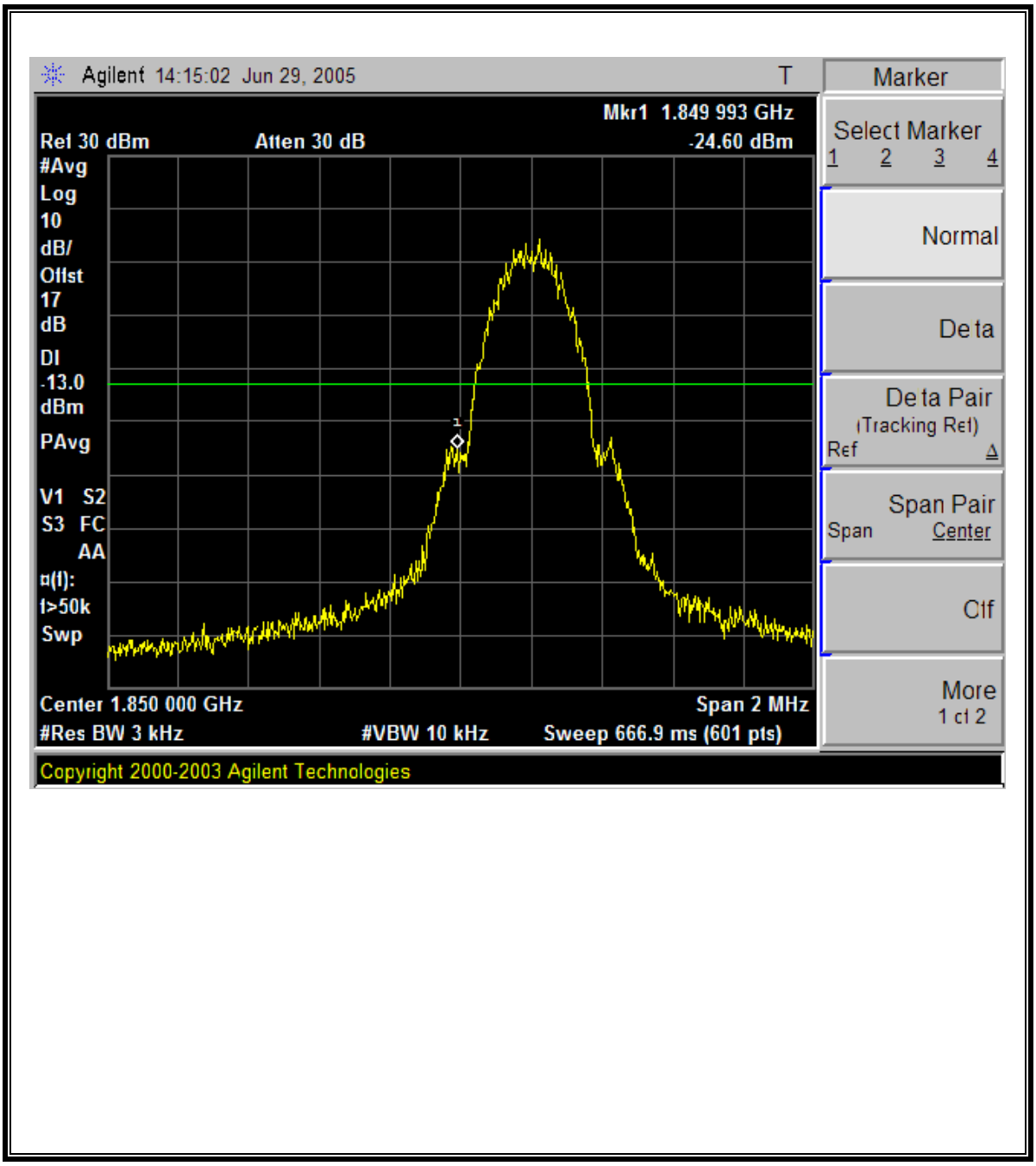
Mid Channel, Out-Of-Band Emissions



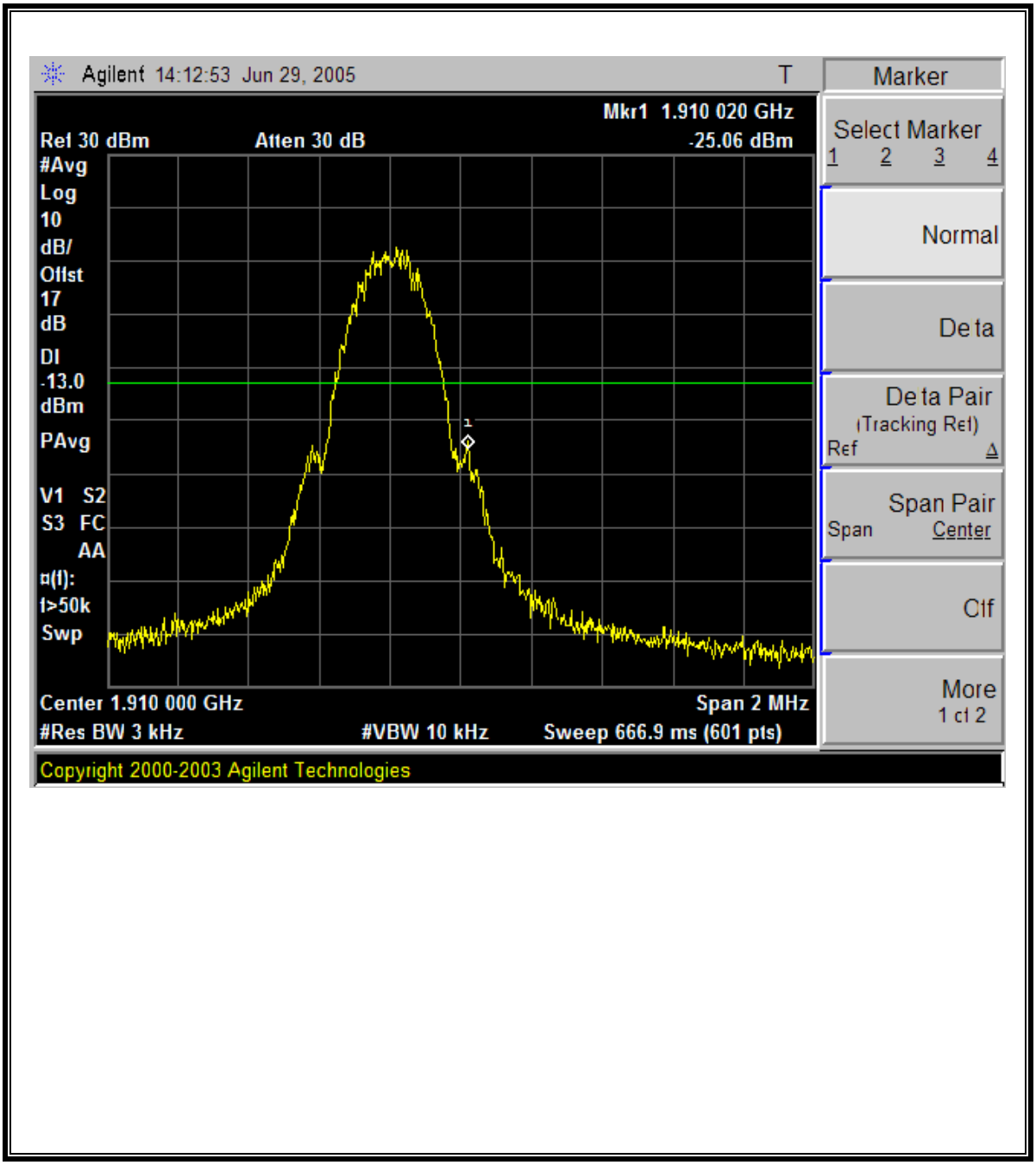
High Channel, Out-Of-Band Emissions



Low Channel Band Edge



High Channel Band Edge



8.5. FIELD STRENGTH OF SPURIOUS RADIATION

LIMIT

§22.917 (a) Out of band emissions. 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.
§24.238 (a) Out of band emissions. 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 3.2.12 & FCC 22.917 (b)
ANSI / TIA / EIA 603 Clause 3.2.12 & FCC 24.238 (b)

RESULTS

No non-compliance noted.

GSM850 / GPRS850 / EGPRS850 Band (ERP), 30-1000MHz

07/06/05 High Frequency Substitution Measurement
Compliance Certification Services, Morgan Hill 5m Chamber Site

Test Engr: Chin Pang
Project #: 05T3458-1
Company: High Tech Computer
EUT Descrip.: Smatphone (GSM800/1900/EDGE/BT/802.11b)
EUT M/N: ST22A
Test Target: FCC 22
Mode Oper: GSM850

Test Equipment:

Bilog Antenna	Cable	Pre-amplifier 8447D	Limit
5m Chamber Sunol Bilog	5m Chamber Cable	T5 8447D	ERP

f MHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
122.15	61.0	H	-46.7	1.4	-2.5	-4.7	-52.8	-13.0	-39.8	
149.31	55.0	H	-53.4	1.5	0.3	-1.8	-56.8	-13.0	-43.8	
212.36	60.0	H	-50.4	1.9	5.8	3.6	-48.7	-13.0	-35.7	
260.56	56.5	H	-52.1	2.0	6.1	3.9	-50.1	-13.0	-37.1	
120.21	61.0	V	-46.6	1.4	-2.7	-4.8	-52.8	-13.0	-39.8	
142.52	61.0	V	-47.6	1.5	-0.6	-2.7	-51.8	-13.0	-38.8	
240.50	62.0	V	-47.5	1.9	6.0	3.8	-45.5	-13.0	-32.5	
371.44	60.0	V	-45.7	2.3	6.0	3.9	-44.1	-13.0	-31.1	
Both GPRS850 & EGPRS850 have the same readings as above.										

GSM850 Spurious & Harmonic (ERP)

07/10/05 High Frequency Substitution Measurement
Compliance Certification Services, Morgan Hill 5m Chamber Site
Test Engr: Chin Pang
Project #: 05T3458-1
Company: High Tech Computer
EUT Descrip.: Smart Phone (GSM850/1900/EDGE/BT)
EUT M/N: ST22B
Test Target: FCC Part 22
Mode Oper: GSM 850

Test Equipment:

EMCO Horn 1-18GHz: T60; S/N: 2238 @3m
Horn > 18GHz:
Limit: FCC 22
☑ High Pass Filter
Hi Frequency Cables: ☐ (2 ft) ☑ (2 ~ 3 ft) ☐ (4 ~ 6 ft) ☑ (12 ft)
Pre-amplifer 1-26GHz:
Pre-amplifer 26-40GHz:

f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
GSM850										
Low Ch										
1.648	83.4	V	-23.6	1.6	7.9	5.7	-19.4	-13.0	-6.4	
2.472	73.3	V	-31.5	1.9	9.8	7.6	-25.8	-13.0	-12.8	
4.945	53.5	V	-45.6	3.0	11.1	9.0	-39.6	-13.0	-26.6	
6.583	58.3	V	-36.7	3.5	11.6	9.5	-30.7	-13.0	-17.7	
1.648	85.0	H	-21.3	1.6	7.9	5.7	-17.2	-13.0	-4.2	
2.472	72.6	H	-32.0	1.9	9.8	7.6	-26.3	-13.0	-13.3	
3.296	50.8	H	-51.1	2.3	9.7	7.6	-45.8	-13.0	-32.8	
5.769	50.0	H	-45.3	3.3	11.3	9.1	-39.5	-13.0	-26.5	
6.583	63.8	H	-30.5	3.5	11.6	9.5	-24.6	-13.0	-11.6	
Mid Ch										
1.672	86.9	V	-20.0	1.6	7.9	5.8	-15.8	-13.0	-2.8	
2.509	74.6	V	-30.1	1.9	9.8	7.6	-24.4	-13.0	-11.4	
5.018	50.6	V	-47.1	3.0	11.2	9.1	-41.1	-13.0	-28.1	
6.691	60.2	V	-34.6	3.5	11.6	9.5	-28.7	-13.0	-15.7	
1.672	85.7	H	-20.4	1.6	7.9	5.8	-16.3	-13.0	-3.3	
2.509	74.9	H	-29.6	1.9	9.8	7.6	-23.9	-13.0	-10.9	
5.018	48.2	H	-48.5	3.0	11.2	9.1	-42.5	-13.0	-29.5	
6.691	61.4	H	-32.8	3.5	11.6	9.5	-26.8	-13.0	-13.8	
High Ch										
1.697	84.0	V	-22.8	1.6	8.0	5.8	-18.6	-13.0	-5.6	
2.546	72.7	V	-31.8	2.0	9.8	7.6	-26.2	-13.0	-13.2	
3.395	52.0	V	-49.7	2.3	9.7	7.6	-44.5	-13.0	-31.5	
6.790	58.7	V	-36.0	3.6	11.7	9.5	-30.1	-13.0	-17.1	
1.697	85.1	H	-21.0	1.6	8.0	5.8	-16.7	-13.0	-3.7	
2.546	72.0	H	-32.3	2.0	9.8	7.6	-26.7	-13.0	-13.7	
4.244	55.2	H	-44.1	2.7	10.0	7.9	-38.9	-13.0	-25.9	
5.092	51.0	H	-45.5	3.0	11.2	9.0	-39.5	-13.0	-26.5	
5.941	49.4	H	-45.8	3.4	11.5	9.3	-39.8	-13.0	-26.8	
6.790	60.2	H	-33.8	3.6	11.7	9.5	-27.9	-13.0	-14.9	

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

GPRS850 Spurious & Harmonic (ERP)

07/10/05 High Frequency Substitution Measurement
Compliance Certification Services, Morgan Hill 5m Chamber Site
Test Engr: Chin Pang
Project #: 05T3458-1
Company: High Tech Computer
EUT Descrip.: Smart Phone (GSM850/1900/EDGE/BT)
EUT M/N: ST22B
Test Target: FCC Part 22
Mode Oper: GPRS 850

Test Equipment:

EMCO Horn 1-18GHz: T60; S/N: 2238 @3m
Horn > 18GHz:
Limit: FCC 22
High Pass Filter
Hi Frequency Cables: (2 ft) (2 ~ 3 ft) (4 ~ 6 ft) (12 ft)
Pre-amplifer 1-26GHz:
Pre-amplifer 26-40GHz:

f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
GPRS 850										
Low Ch										
1.648	87.1	V	-19.9	1.6	7.9	5.7	-15.7	-13.0	-2.7	
2.472	72.3	V	-32.5	1.9	9.8	7.6	-26.8	-13.0	-13.8	
4.945	53.7	V	-45.4	3.0	11.1	9.0	-39.4	-13.0	-26.4	
5.769	49.0	V	-47.3	3.3	11.3	9.1	-41.5	-13.0	-28.5	
6.583	59.8	V	-35.2	3.5	11.6	9.5	-29.2	-13.0	-16.2	
1.648	87.5	H	-18.8	1.6	7.9	5.7	-14.7	-13.0	-1.7	
2.472	74.0	H	-30.6	1.9	9.8	7.6	-24.9	-13.0	-11.9	
3.296	51.5	H	-50.4	2.3	9.7	7.6	-45.1	-13.0	-32.1	
5.769	50.6	H	-44.7	3.3	11.3	9.1	-38.9	-13.0	-25.9	
6.583	60.2	H	-34.1	3.5	11.6	9.5	-28.2	-13.0	-15.2	
Mid Ch										
1.672	87.1	V	-19.8	1.6	7.9	5.8	-15.6	-13.0	-2.6	
2.509	72.6	V	-32.1	1.9	9.8	7.6	-26.4	-13.0	-13.4	
3.345	56.3	V	-45.6	2.3	9.7	7.6	-40.3	-13.0	-27.3	
5.854	49.3	V	-46.9	3.3	11.4	9.2	-41.0	-13.0	-28.0	
6.691	59.7	V	-35.1	3.5	11.6	9.5	-29.2	-13.0	-16.2	
1.672	85.7	H	-20.5	1.6	7.9	5.8	-16.3	-13.0	-3.3	
2.509	73.2	H	-31.3	1.9	9.8	7.6	-25.6	-13.0	-12.6	
3.345	55.2	H	-46.6	2.3	9.7	7.6	-41.3	-13.0	-28.3	
5.854	49.7	H	-45.5	3.3	11.4	9.2	-39.6	-13.0	-26.6	
6.691	59.2	H	-35.0	3.5	11.6	9.5	-29.0	-13.0	-16.0	
High Ch										
1.697	86.5	V	-20.3	1.6	8.0	5.8	-16.1	-13.0	-3.1	
2.546	72.6	V	-31.9	2.0	9.8	7.6	-26.3	-13.0	-13.3	
5.092	51.6	V	-45.9	3.0	11.2	9.0	-39.9	-13.0	-26.9	
5.941	49.3	V	-46.9	3.4	11.5	9.3	-40.9	-13.0	-27.9	
6.790	60.4	V	-34.3	3.6	11.7	9.5	-28.4	-13.0	-15.4	
1.697	85.4	H	-20.7	1.6	8.0	5.8	-16.4	-13.0	-3.4	
2.546	75.7	H	-28.6	2.0	9.8	7.6	-23.0	-13.0	-10.0	
4.244	54.4	H	-44.9	2.7	10.0	7.9	-39.7	-13.0	-26.7	
5.092	51.8	H	-44.7	3.0	11.2	9.0	-38.7	-13.0	-25.7	
5.941	50.2	H	-45.0	3.4	11.5	9.3	-39.0	-13.0	-26.0	
6.790	61.7	H	-32.3	3.6	11.7	9.5	-26.4	-13.0	-13.4	
Note: No other emissions were detected above the system noise floor.										

EGPRS850 Spurious & Harmonic (ERP)

07/10/05 High Frequency Substitution Measurement
Compliance Certification Services, Morgan Hill 5m Chamber Site

Test Engr: Chin Pang
Project #: 05T3458-1
Company: High Tech Computer
EUT Descrip.: Smart Phone (GSM850/1900/EDGE/BT)
EUT M/N: ST22B
Test Target: FCC Part 22
Mode Oper: EGPRS 850

Test Equipment:

EMCO Horn 1-18GHz: T60; S/N: 2238 @3m
Horn > 18GHz:
Limit: FCC 22
☑ High Pass Filter
Hi Frequency Cables: ☐ (2 ft) ☑ (2 ~ 3 ft) ☐ (4 ~ 6 ft) ☑ (12 ft)
Pre-amplifer 1-26GHz:
Pre-amplifer 26-40GHz:

f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
EGPRS 850										
Low Ch										
1.648	70.5	V	-36.5	1.6	7.9	5.7	-32.3	-13.0	-19.3	
2.472	60.4	V	-44.4	1.9	9.8	7.6	-38.7	-13.0	-25.7	
4.945	52.9	V	-46.2	3.0	11.1	9.0	-40.2	-13.0	-27.2	
5.769	49.6	V	-46.7	3.3	11.3	9.1	-40.9	-13.0	-27.9	
6.583	55.8	V	-39.2	3.5	11.6	9.5	-33.2	-13.0	-20.2	
1.648	69.3	H	-36.9	1.6	7.9	5.7	-32.8	-13.0	-19.8	
2.472	59.0	H	-45.6	1.9	9.8	7.6	-39.9	-13.0	-26.9	
4.945	50.0	H	-48.7	3.0	11.1	9.0	-42.7	-13.0	-29.7	
5.769	49.2	H	-46.1	3.3	11.3	9.1	-40.3	-13.0	-27.3	
6.583	58.3	H	-36.0	3.5	11.6	9.5	-30.1	-13.0	-17.1	
Mid Ch										
1.672	75.0	V	-31.9	1.6	7.9	5.8	-27.7	-13.0	-14.7	
2.509	64.0	V	-40.7	1.9	9.8	7.6	-35.0	-13.0	-22.0	
5.018	49.7	V	-48.0	3.0	11.2	9.1	-42.0	-13.0	-29.0	
5.854	50.4	V	-45.8	3.3	11.4	9.2	-39.9	-13.0	-26.9	
6.691	55.7	V	-39.1	3.5	11.6	9.5	-33.2	-13.0	-20.2	
1.672	75.6	H	-30.6	1.6	7.9	5.8	-26.4	-13.0	-13.4	
2.509	65.8	H	-38.7	1.9	9.8	7.6	-33.0	-13.0	-20.0	
5.018	48.9	H	-47.8	3.0	11.2	9.1	-41.8	-13.0	-28.8	
5.854	49.5	H	-45.7	3.3	11.4	9.2	-39.8	-13.0	-26.8	
6.691	60.6	H	-33.6	3.5	11.6	9.5	-27.6	-13.0	-14.6	
High Ch										
1.697	70.0	V	-36.8	1.6	8.0	5.8	-32.6	-13.0	-19.6	
2.546	58.6	V	-45.9	2.0	9.8	7.6	-40.3	-13.0	-27.3	
5.092	51.7	V	-45.8	3.0	11.2	9.0	-39.8	-13.0	-26.8	
5.941	49.8	V	-46.4	3.4	11.5	9.3	-40.4	-13.0	-27.4	
6.790	57.6	V	-37.1	3.6	11.7	9.5	-31.2	-13.0	-18.2	
1.697	67.9	H	-38.2	1.6	8.0	5.8	-33.9	-13.0	-20.9	
2.546	59.3	H	-45.0	2.0	9.8	7.6	-39.4	-13.0	-26.4	
5.092	60.5	H	-36.0	3.0	11.2	9.0	-30.0	-13.0	-17.0	
5.941	50.0	H	-45.2	3.4	11.5	9.3	-39.2	-13.0	-26.2	
6.790	60.7	H	-33.3	3.6	11.7	9.5	-27.4	-13.0	-14.4	

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

GSM1900 / GPRS1900 / EGPRS1900 Band (EIRP), 30-1000MHz:

07/06/05 High Frequency Substitution Measurement
Compliance Certification Services, Morgan Hill 5m Chamber Site

Test Engr: Chin Pang
Project #: 05T3458-1
Company: High Tech Computer
EUT Descrip.: Smatphone (GSM800/1900/EDGE/BT/802.11b)
EUT M/N: ST22A
Test Target: FCC 24
Mode Oper: GSM1900

Test Equipment:

Bilog Antenna	Cable	Pre-amplifier 8447D	Limit
5m Chamber Sunol Bilog	5m Chamber Cable	T5 8447D	EIRP

f MHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	Gain (dBd)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
122.00	60.0	H	-47.7	1.4	-2.6	-4.7	-51.6	-13.0	-40.8	
150.00	58.0	H	-50.7	1.6	0.4	-1.8	-51.8	-13.0	-41.0	
212.50	58.0	H	-52.4	1.9	5.8	3.6	-48.5	-13.0	-37.7	
260.56	59.0	H	-49.6	2.0	6.1	3.9	-45.5	-13.0	-34.6	
500.00	61.0	H	-42.5	2.7	6.2	4.0	-39.0	-13.0	-28.1	
120.00	62.0	V	-45.6	1.4	-2.7	-4.8	-49.7	-13.0	-38.8	
142.52	60.0	V	-48.6	1.5	-0.6	-2.7	-50.7	-13.0	-39.8	
240.50	63.0	V	-46.5	1.9	6.0	3.8	-42.4	-13.0	-31.5	
371.44	63.0	V	-42.7	2.3	6.0	3.9	-39.0	-13.0	-28.1	
550.00	61.0	V	-41.8	2.8	6.5	4.4	-38.0	-13.0	-27.2	
Both GPRS1900 & EGPRS1900 have the same readings as above.										

GSM1900 Spurious & Harmonic (EIRP)

07/10/05 High Frequency Substitution Measurement
Compliance Certification Services, Morgan Hill 5m Chamber Site
Test Engr: Chin Pang
Project #: 05T3458-1
Company: High Tech Computer
EUT Descrip.: Smart Phone (GSM850/1900/EDGE/BT)
EUT M/N: ST22B
Test Target: FCC Part 24
Mode Oper: GSM1900

Test Equipment:

EMCO Horn 1-18GHz: T60; S/N: 2238 @3m
Horn > 18GHz:
Limit: FCC 24
☑ High Pass Filter
Hi Frequency Cables: ☐ (2 ft) ☑ (2 ~ 3 ft) ☐ (4 ~ 6 ft) ☑ (12 ft)
Pre-amplifer 1-26GHz:
Pre-amplifer 26-40GHz:

f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	Gain (dBd)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
GSM1900										
Low Ch										
3.700	66.9	V	-33.9	2.4	9.7	7.5	-26.7	-13.0	-13.7	
5.550	57.5	V	-38.9	3.2	11.0	8.8	-31.1	-13.0	-18.1	
7.400	52.1	V	-41.8	3.7	11.6	9.5	-33.9	-13.0	-20.9	
9.251	50.8	V	-41.8	4.2	11.7	9.6	-34.2	-13.0	-21.2	
3.700	68.3	H	-32.4	2.4	9.7	7.5	-25.2	-13.0	-12.2	
5.550	55.1	H	-40.3	3.2	11.0	8.8	-32.5	-13.0	-19.5	
7.400	49.6	H	-43.5	3.7	11.6	9.5	-35.6	-13.0	-22.6	
9.251	50.0	H	-42.6	4.2	11.7	9.6	-35.0	-13.0	-22.0	
Mid Ch										
3.760	65.0	V	-35.6	2.5	9.7	7.5	-28.4	-13.0	-15.4	
5.640	56.5	V	-39.8	3.3	11.1	8.9	-32.0	-13.0	-19.0	
7.520	51.6	V	-42.1	3.7	11.6	9.5	-34.3	-13.0	-21.3	
9.400	52.3	V	-40.1	4.2	11.8	9.6	-32.6	-13.0	-19.6	
3.760	66.4	H	-34.1	2.5	9.7	7.5	-26.9	-13.0	-13.9	
5.640	53.1	H	-42.2	3.3	11.1	8.9	-34.4	-13.0	-21.4	
7.520	50.7	H	-42.2	3.7	11.6	9.5	-34.4	-13.0	-21.4	
9.400	50.7	H	-41.7	4.2	11.8	9.6	-34.2	-13.0	-21.2	
High Ch										
3.820	67.8	V	-32.6	2.5	9.7	7.5	-25.5	-13.0	-12.5	
5.729	58.4	V	-37.9	3.3	11.2	9.1	-30.0	-13.0	-17.0	
7.639	51.8	V	-41.8	3.8	11.6	9.4	-33.9	-13.0	-20.9	
9.549	52.0	V	-40.3	4.3	11.8	9.6	-32.8	-13.0	-19.8	
3.820	69.3	H	-31.0	2.5	9.7	7.5	-23.9	-13.0	-10.9	
5.729	59.5	H	-35.8	3.3	11.2	9.1	-27.9	-13.0	-14.9	
7.639	52.0	H	-40.8	3.8	11.6	9.4	-32.9	-13.0	-19.9	
9.549	50.8	H	-41.5	4.3	11.8	9.6	-34.0	-13.0	-21.0	
Note: No other emissions were detected above the system noise floor.										

GPRS1900 Spurious & Harmonic (EIRP)

07/10/05 High Frequency Substitution Measurement
Compliance Certification Services, Morgan Hill 5m Chamber Site
Test Engr: Chin Pang
Project #: 05T3458-1
Company: High Tech Computer
EUT Descrip.: Smart Phone (GSM850/1900/EDGE/BT)
EUT M/N: ST22B
Test Target: FCC Part 24
Mode Oper: GPRS 1900

Test Equipment:

EMCO Horn 1-18GHz: T60; S/N: 2238 @3m
Horn > 18GHz:
Limit: FCC 24
High Pass Filter: ☑
Hi Frequency Cables: ☐ (2 ft) ☑ (2 ~ 3 ft) ☐ (4 ~ 6 ft) ☑ (12 ft)
Pre-amplifer 1-26GHz:
Pre-amplifer 26-40GHz:

f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	Gain (dBd)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
GPRS1900										
Low Ch										
3.700	68.7	V	-32.1	2.4	9.7	7.5	-24.9	-13.0	-11.9	
5.550	60.5	V	-35.9	3.2	11.0	8.8	-28.1	-13.0	-15.1	
7.400	52.0	V	-41.9	3.7	11.6	9.5	-34.0	-13.0	-21.0	
9.251	52.6	V	-40.0	4.2	11.7	9.6	-32.4	-13.0	-19.4	
3.700	70.2	H	-30.5	2.4	9.7	7.5	-23.3	-13.0	-10.3	
5.550	61.8	H	-33.6	3.2	11.0	8.8	-25.8	-13.0	-12.8	
7.400	50.7	H	-42.4	3.7	11.6	9.5	-34.5	-13.0	-21.5	
9.251	51.0	H	-41.6	4.2	11.7	9.6	-34.0	-13.0	-21.0	
Mid Ch										
3.760	67.2	V	-33.4	2.5	9.7	7.5	-26.2	-13.0	-13.2	
5.640	56.8	V	-39.5	3.3	11.1	8.9	-31.7	-13.0	-18.7	
7.520	51.4	V	-42.3	3.7	11.6	9.5	-34.5	-13.0	-21.5	
9.400	52.8	V	-39.6	4.2	11.8	9.6	-32.1	-13.0	-19.1	
3.760	68.5	H	-32.0	2.5	9.7	7.5	-24.8	-13.0	-11.8	
5.640	53.7	H	-41.6	3.3	11.1	8.9	-33.8	-13.0	-20.8	
7.520	49.8	H	-43.1	3.7	11.6	9.5	-35.3	-13.0	-22.3	
9.400	48.5	H	-43.9	4.2	11.8	9.6	-36.4	-13.0	-23.4	
High Ch										
3.820	69.3	V	-31.1	2.5	9.7	7.5	-24.0	-13.0	-11.0	
5.729	59.2	V	-37.1	3.3	11.2	9.1	-29.2	-13.0	-16.2	
7.639	50.5	V	-43.1	3.8	11.6	9.4	-35.2	-13.0	-22.2	
9.549	51.8	V	-40.5	4.3	11.8	9.6	-33.0	-13.0	-20.0	
3.820	70.3	H	-30.0	2.5	9.7	7.5	-22.9	-13.0	-9.9	
5.729	60.5	H	-34.8	3.3	11.2	9.1	-26.9	-13.0	-13.9	
7.639	52.4	H	-40.4	3.8	11.6	9.4	-32.5	-13.0	-19.5	
9.549	49.8	H	-42.5	4.3	11.8	9.6	-35.0	-13.0	-22.0	

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

EGPRS1900 Spurious & Harmonic (EIRP)

07/10/05 High Frequency Substitution Measurement
Compliance Certification Services, Morgan Hill 5m Chamber Site
Test Engr: Chin Pang
Project #: 05T3458-1
Company: High Tech Computer
EUT Descrip.: Smart Phone (GSM850/1900/EDGE/BT)
EUT M/N: ST22B
Test Target: FCC Part 24
Mode Oper: EGPRS 1900

Test Equipment:

EMCO Horn 1-18GHz: T60; S/N: 2238 @3m
Horn > 18GHz:
Limit: FCC 24
☑ High Pass Filter
Hi Frequency Cables: ☐ (2 ft) ☑ (2 ~ 3 ft) ☐ (4 ~ 6 ft) ☑ (12 ft)
Pre-amplifer 1-26GHz:
Pre-amplifer 26-40GHz:

f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	Gain (dBd)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
EGPRS1900										
Low Ch										
3.700	66.8	V	-34.0	2.4	9.7	7.5	-26.8	-13.0	-13.8	
5.550	56.0	V	-40.4	3.2	11.0	8.8	-32.6	-13.0	-19.6	
7.400	52.4	V	-41.5	3.7	11.6	9.5	-33.6	-13.0	-20.6	
9.251	50.5	V	-42.1	4.2	11.7	9.6	-34.5	-13.0	-21.5	
3.700	68.3	H	-32.4	2.4	9.7	7.5	-25.2	-13.0	-12.2	
5.550	57.2	H	-38.2	3.2	11.0	8.8	-30.4	-13.0	-17.4	
7.400	53.0	H	-40.1	3.7	11.6	9.5	-32.2	-13.0	-19.2	
9.251	52.5	H	-40.1	4.2	11.7	9.6	-32.5	-13.0	-19.5	
Mid Ch										
3.760	66.4	V	-34.2	2.5	9.7	7.5	-27.0	-13.0	-14.0	
5.640	55.3	V	-41.0	3.3	11.1	8.9	-33.2	-13.0	-20.2	
7.520	49.7	V	-44.0	3.7	11.6	9.5	-36.2	-13.0	-23.2	
9.400	50.0	V	-42.4	4.2	11.8	9.6	-34.9	-13.0	-21.9	
3.760	67.8	H	-32.7	2.5	9.7	7.5	-25.5	-13.0	-12.5	
5.640	56.7	H	-38.6	3.3	11.1	8.9	-30.8	-13.0	-17.8	
7.520	50.1	H	-42.8	3.7	11.6	9.5	-35.0	-13.0	-22.0	
9.400	60.4	H	-32.0	4.2	11.8	9.6	-24.5	-13.0	-11.5	
High Ch										
3.820	66.0	V	-34.4	2.5	9.7	7.5	-27.3	-13.0	-14.3	
5.729	55.2	V	-41.1	3.3	11.2	9.1	-33.2	-13.0	-20.2	
7.639	50.3	V	-43.3	3.8	11.6	9.4	-35.4	-13.0	-22.4	
11.458	46.2	V	-44.9	4.8	13.4	11.2	-36.4	-13.0	-23.4	
3.820	67.5	H	-32.8	2.5	9.7	7.5	-25.7	-13.0	-12.7	
5.729	60.5	H	-34.8	3.3	11.2	9.1	-26.9	-13.0	-13.9	
7.639	56.9	H	-35.9	3.8	11.6	9.4	-28.0	-13.0	-15.0	
9.549	50.3	H	-42.0	4.3	11.8	9.6	-34.5	-13.0	-21.5	

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

8.6. POWERLINE CONDUCTED EMISSIONS

LIMIT

§15.207 (a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 µH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal.

The lower limit applies at the boundary between the frequency ranges.

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

* Decreases with the logarithm of the frequency.

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.4.

The resolution bandwidth is set to 9 kHz for both peak detection and quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

Line conducted data is recorded for both NEUTRAL and HOT lines.

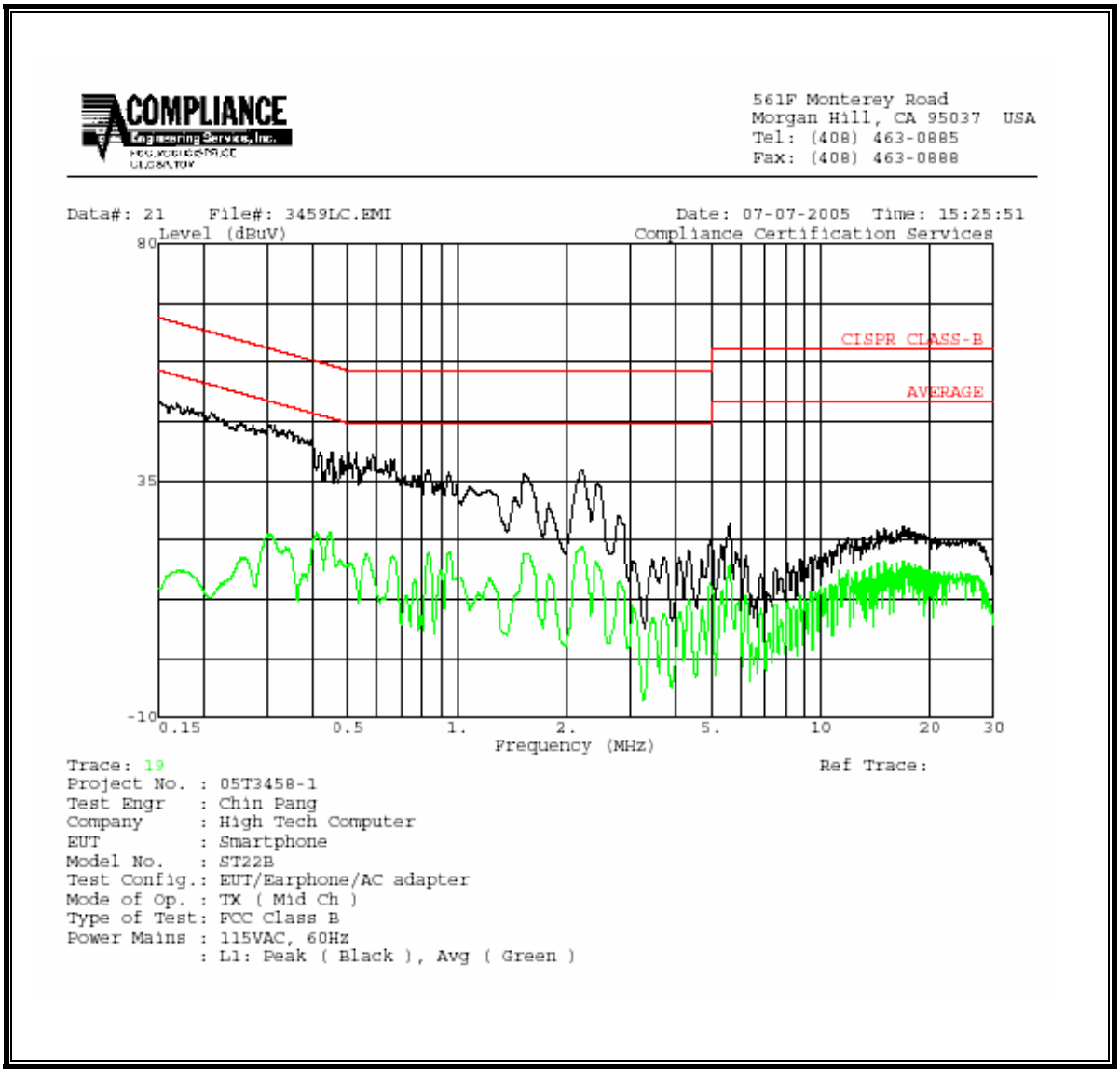
RESULTS

No non-compliance noted:

6 WORST EMISSIONS

CONDUCTED EMISSIONS DATA (115VAC 60Hz)									
Freq.	Reading			Closs	Limit	EN_B	Margin		Remark
(MHz)	PK (dBuV)	QP (dBuV)	AV (dBuV)	(dB)	QP	AV	QP (dB)	AV (dB)	L1 / L2
0.16	49.36	--	18.02	0.00	65.67	55.67	-16.31	-37.65	L1
0.30	45.62	--	24.99	0.00	60.19	50.19	-14.57	-25.20	L1
0.67	39.10	--	20.66	0.00	56.00	46.00	-16.90	-25.34	L1
0.17	53.83	--	26.63	0.00	65.11	55.11	-11.28	-28.48	L2
0.43	46.94	--	32.73	0.00	57.29	47.29	-10.35	-14.56	L2
0.67	44.54	--	29.70	0.00	56.00	46.00	-11.46	-16.30	L2
6 Worst Data									

LINE 1 RESULTS



LINE 2 RESULTS