FCC TEST REPORT

for

47 CFR Part 22H, 24E

Equipment	:	**Rugged Notebook Personal Computer**
Trade Name	:	**Getac**
Model No.	:	**M230**
FCC ID	:	**MAU019**
Uplink Frequency Range	:	**CDMA2000 Cellular850 Band : 824~849 MHz** **CDMA2000 PCS1900 Band : 1850~1910 MHz**
Downlink Frequency Range	:	**CDMA2000 Cellular850 Band : 869~894 MHz** **CDMA2000 PCS1900 Band : 1930~1990 MHz**
Max. EIRP Power	:	**CDMA2000 Cellular850 Band : 0.03 W** **CDMA2000 PCS1900 Band : 0.19 W**
Emission Designator	:	**1M25F9W**
Applicant	:	**Mitac Technology Corp.** 1st, R&D Road 2, Hsinchu Science-Based Industrial Park, Hsinchu, Taiwan, R.O.C.

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- The data shown in this test report were carried out on Oct. 25, 2006 at **Sporton International Inc. LAB.**
- Report No.: FG692505, Report Version: Rev. 01

Roy Wu
Deputy Manager

SPORTON International Inc.

6F, No.106, Sec. 1, Hsin Tai Wu Rd., Hsi Chih, Taipei Hsien, Taiwan, R.O.C.

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History of this test report

Report Issue Date: Nov. 09, 2006

Report No.	Description

1. General Information

1.1. Applicant

Mitac Technology Corp.

1st, R&D Road 2, Hsinchu Science-Based Industrial Park, Hsinchu, Taiwan, R.O.C.

1.2. Manufacturer

Mitac Technology Corp.

No. 269 Changjiang South Road, Export Processing Zone, Kunshan, Jiangsu 215300, P.R. China

Getac Technology (Kunshan) Co., Ltd.

No. 269 Changjiang South Road, Export Processing Zone, Kunshan, Jiangsu 215300, P.R. China

1.3. Basic Description of Equipment under Test

Equipment	: Rugged Notebook Personal Computer
Trade Name	: Getac
Model No.	: M230
AC Power Cord	: AC 120V, Wall-mount, 3.8 meter, 3 pin
Adapter	: E.P.S, F1093-A
Battery	: MSL, BP-LC2400/33-01SI

1.2 Feature of Equipment under Test

DUT Type :	Rugged Notebook Personal Computer
Trade Name :	Getac
Model Name :	M230
FCC ID :	MAU019
Tx Frequency :	CDMA2000 Cellular850 Band：824~849 MHz CDMA2000 PCS1900 Band：1850~1910 MHz
Rx Frequency :	CDMA2000 Cellular850 Band：869~894 MHz CDMA2000 PCS1900 Band：1930~1990 MHz
Maximum Output Power to Antenna :	CDMA2000 Cellular850 Band：22.69 dBm CDMA2000 PCS1900 Band：20.81 dBm
Maximum ERP / EIRP :	CDMA2000 Cellular850 Band：0.03 W (15.09 dBm) for 1xEV-DO CDMA2000 PCS1900 Band：0.19 W (22.83 dBm) for 1xEV-DO
HW Version :	R02
SW Version :	R102
Antenna Type :	CDMA2000 Cellular850 Band : PCB Antenna CDMA2000 PCS1900 Band : PCB Antenna
Antenna Gain :	CDMA2000 Cellular850 Band : 3 dBi CDMA2000 PCS1900 Band : 3 dBi
Power Rating (DC/AC , Voltage and Current of RF element or PA) :	Module Power Supply : Voltage : 3.3V (Typical) Current : 400mA(Max)
Digital Modulation Emission :	Uplink : BPSK Downlink : QPSK
Type of Emission :	1M25F9W
DUT Stage :	Identical Prototype

Notebook system configuration

	M230-4	M230-5
P/N	791901160010	791901160011
Description	M230-4,S1P,USA,S,16-D5-40,C,0A0,0T0,00000,0,GP1	M230-5,S21,USA,S,26-D5-40,B,0A0,0T0,00000,0,GP1
Chipset + CPU	* LV 1.66 GHz + std touch pad	* LV 1.66 GHz + VGA M54+ std touch pad
LCD panel	Toshiba- LTD141ECGA	CMO N150P5-L02
Panel	* 14.1" touch screen	* 15.1" std. panel
DDRII	Infineon 512MB,HYS64T64020HDL-3.7-A, * 2 (DDR II)	
HDD	* TOSHIBA 80GB,SATA,5400RPM,MK 8032GSX ,	
ODD	PANASONIC DVD COMBO DRIVE; UJ-DA770,	PANASONIC DVD-DUAL; UJ850
Keyboard	* US keyboard W/O LED	* US keyboard W/O LED
Modem	* Askey RD02-D330	
AC adapter	* 90W / E.P.S F10903-A	
BATT	*MSL-7200mAh -BATTERY PACK; LI, 11.1V/7.2AH, M230 PRI;	
wireless option	WLAN intel 3945abg; BT CLASS1:; Tecom BT3014-GP; EVDO:Sierra MC5720	
BAY1	* Combo (Use Panasonic)	* DVD-Dual

1.3 Report Date

EUT Received : Sep. 25, 2006

Report Date : Nov. 09, 2006

2. Test Configuration of Equipment under Test

2.1 Test Manner

A full measurement in this report is done in CDMA2000 1XEV-DO mode with the uplink data rate 153.6kbps. The EUT is also able to activate on CDMA2000 1XRTT mode whose RC3 FCH for PCS band and FCH+SCH_RC3 for Cellular band mode are focused on radiated emissions and condcted measurement,including band edge,out of band spurious response, occupied bandwidth and frequency stability. (Refer to APPENDIX A)

The test manner is as below:

a. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range.

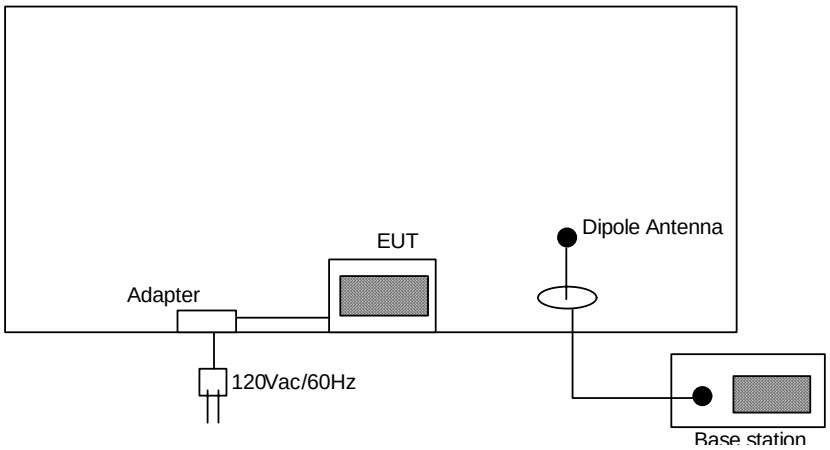
b. During all testings, EUT is in link mode with base station emulator at maximum power level.

c. Frequency range investigated: radiated emission 30MHz to 9000 MHz for CDMA2000 Cellular 850 band and 30MHz to 18000 MHz for CDMA2000 PCS 1900 band

2.2 Test Mode

Application	CDMA2000 Cellular 850 band	CDMA2000 PCS 1900 band
Radiated Emission	☒ Mode 1: 1XEV-DO Link Mode ☒ Mode 2: 1X RTT Link Mode	☒ Mode 1: 1XEV-DO Link Mode ☒ Mode 2: 1X RTT Link Mode
Conducted Measurement	☒ Mode 1: 1XEV-DO Link Mode ☒ Mode 2: 1X RTT Link Mode	☒ Mode 1: 1XEV-DO Link Mode ☒ Mode 2: 1X RTT Link Mode

2.3 Connection Diagram of Test System



2.4 Ancillary Equipment List

Item	Asset	Trade Name	Model Name	Power Cord
1.	Base Station	Agilent	E5515C	AC 100-240V
2.	Adapter	E.P.S	F1093-A	AC 100-240V
3.	Battery	MSL	BP-LC2400/33-01SI	N/A

3. General Information of Test Site

Test Site Location : No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park,
Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.
TEL : 886-3-327-3456
FAX : 886-3-318-0055
Test Site No : 03CH06-HY

The chamber meets the characteristics of ANSI C63.4-2003. This site is on file with the FCC. The Industry Canada file number for this site is IC 4088.

3.1 Test Voltage

120V / 60Hz

3.2 Test in Compliance with

47 CFR Part 22H, 24E, and Part 2

3.3 Frequency Range Investigated

a. Radiation: from 30 MHz to 9000 MHz for CDMA2000 Cellular 850 band.
b. Radiation: from 30 MHz to 19000 MHz for CDMA2000 PCS 1900 band.

3.4 Test Distance

The test distance of radiated emission from antenna to EUT is 3 m.

4. Test Data and Test Result

4.1 List of Measurements and Examinations

FCC Rule	DESCRIPTION OF TEST	Result	Section
§2.1046	RF Output Power	Passed	4.2
§22.913, §24.232	ERP / EIRP	Passed	4.3
§2.1049, §22.917, §24.238(b)	Occupied Bandwidth & Band Edge Measurement	Passed	4.4
§2.1051	Conducted Emission	Passed	4.5
§2.1053	Field Strength of Spurious Radiation	Passed	4.6
§2.1055, §22.355, §24.235	Frequency Stability vs. Temperature	Passed	4.7
§2.1055, §22.355, §24.235	Frequency Stability vs. Voltage	Passed	4.8

4.2 RF Output Power

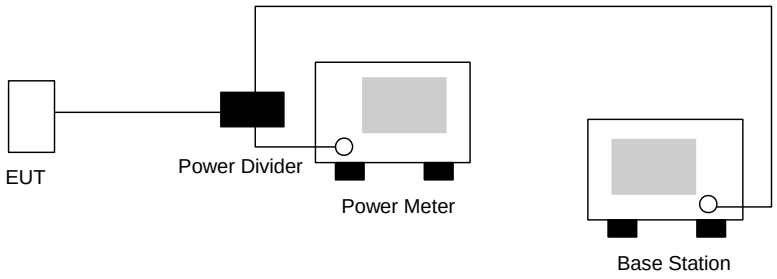
4.2.1 Measurement Instruments：

As described in chapter 5 of this test report.

4.2.2 Test Procedure：

1. The transmitter output was connected to power meter and base station through power divider.
2. Set EUT to maximum power through base station.
3. Select lowest, middle, and highest channels for each band.

4.2.3 Test Setup Layout：



4.2.4 Test Result：

Bands	Test Mode	Test Staus	Channel	Frequency (MHz)	Conducted Power (dBm)	Conducted Power (Watts)
CDMA2000 Cellular850 Band	CDMA 1XRTT	FCH+SCH_RC3	1013	824.70 (Low)	22.33	0.171
			384	836.52 (Mid)	22.69	0.185
			777	848.31 (High)	20.43	0.110
	CDMA 1XEV-DO	EVDO-UL:153.6kbps	1013	824.70 (Low)	21.96	0.157
			384	836.52 (Mid)	22.39	0.173
			777	848.31 (High)	21.77	0.150
CDMA2000 PCS1900 Band	CDMA 1XRTT	FCH_RC3	25	1851.25 (Low)	20.09	0.102
			600	1880.00 (Mid)	20.33	0.108
			1177	1908.75 High)	20.57	0.114
	CDMA 1XEV-DO	EVDO-UL:153.6kbps	25	1851.25 (Low)	20.17	0.104
			600	1880.00 (Mid)	20.55	0.114
			1177	1908.75 High)	20.81	0.121

4.3 ERP / EIRP Measurement

Equivalent isotropic radiated power measurements by substitution method according to ANSI/TIA/EIA-603.

4.3.1 Measurement Instruments

As described in chapter 5 of this test report.

4.3.2 Test Procedure

1. The EUT was placed on a rotatable table with 1.0 meter height in an fully anechoic chamber.
2. The EUT was set 1.2 meters from the receiving antenna which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiated power.
4. The height of the receiving antenna is also kept at 1.0M height.
5. Taking the record of maximum ERP/EIRP.
6. A dipole antenna was substituted in place of the EUT and was driven by a signal generator.
7. The conducted power at the terminal of the dipole antenna is measured.
8. Repeat step 3 to step 5 to get the maximum ERP/EIRP of the substitution antenna.
9. ERP/EIRP = Ps + Et – Es + Gs = Ps + Rt – Rs + Gs

   Ps (dBm)：Input power to substitution antenna.

   Gs (dBi or dBd)：Substitution antenna Gain.

   Et = Rt + AF

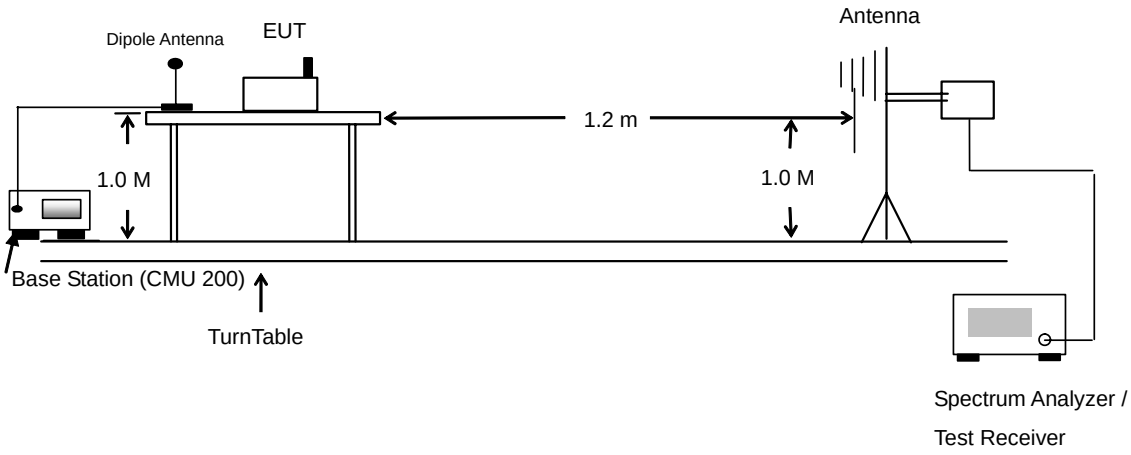
   Es = Rs + AF

   AF (dB/m)：Receive antenna factor

   Rt：The highest received signal in Spectrum Analyzer for EUT.

   Rs：The highest received signal in spectrum analyzer for substitution antenna.

4.3.3 Test Setup Layout of ERP/EIRP



4.3.4 Test Result

CDMA2000 Cellular850 Band 1XEV- DO Radiated Power ERP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	ERP (dBm)	ERP (W)
824.70	-33.75	-48.12	0.00	-1.08	13.29	0.02
836.52	**-32.26**	**-48.28**	**0.00**	**-0.93**	**15.09**	**0.03**
848.31	-34.71	-48.35	0.00	-0.76	12.88	0.02
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	ERP (dBm)	ERP (W)
824.70	-33.99	-47.97	0.00	-1.08	12.90	0.02
836.52	-37.97	-48.01	0.00	-0.93	9.11	0.01
848.31	-39.33	-48.05	0.00	-0.76	7.96	0.01

CDMA2000 PCS1900 Band 1XEV- DO Radiated Power EIRP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1851.25	-35.24	-51.88	0.00	1.96	18.60	0.07
1880.00	-37.60	-52.99	0.00	2.00	17.39	0.05
1908.75	-38.68	-54.28	0.00	1.98	17.58	0.06
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1851.25	**-31.26**	**-52.13**	**0.00**	**1.96**	**22.83**	**0.19**
1880.00	-33.05	-53.17	0.00	2.00	22.12	0.16
1908.75	-33.88	-54.13	0.00	1.98	22.23	0.17

4.4 Occupied Bandwidth and Band Edge Measurement

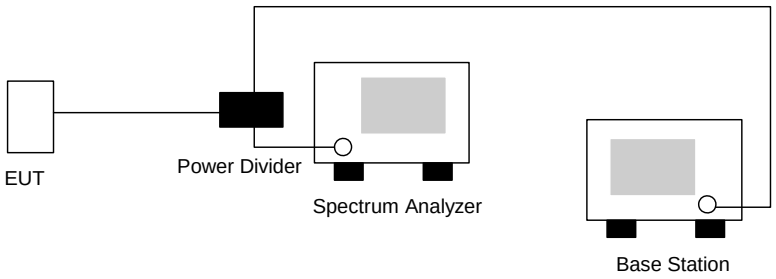
4.4.1 Measurement Instruments

As described in chapter 5 of this test report.

4.4.2 Test Procedure

1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The occupied bandwidth of middle channel for the highest and lowest RF powers were measured.
3. The bandedge of low and high channels for the highest RF powers within the transmitting frequency band were measured. Setting RBW as roughly BW/100.

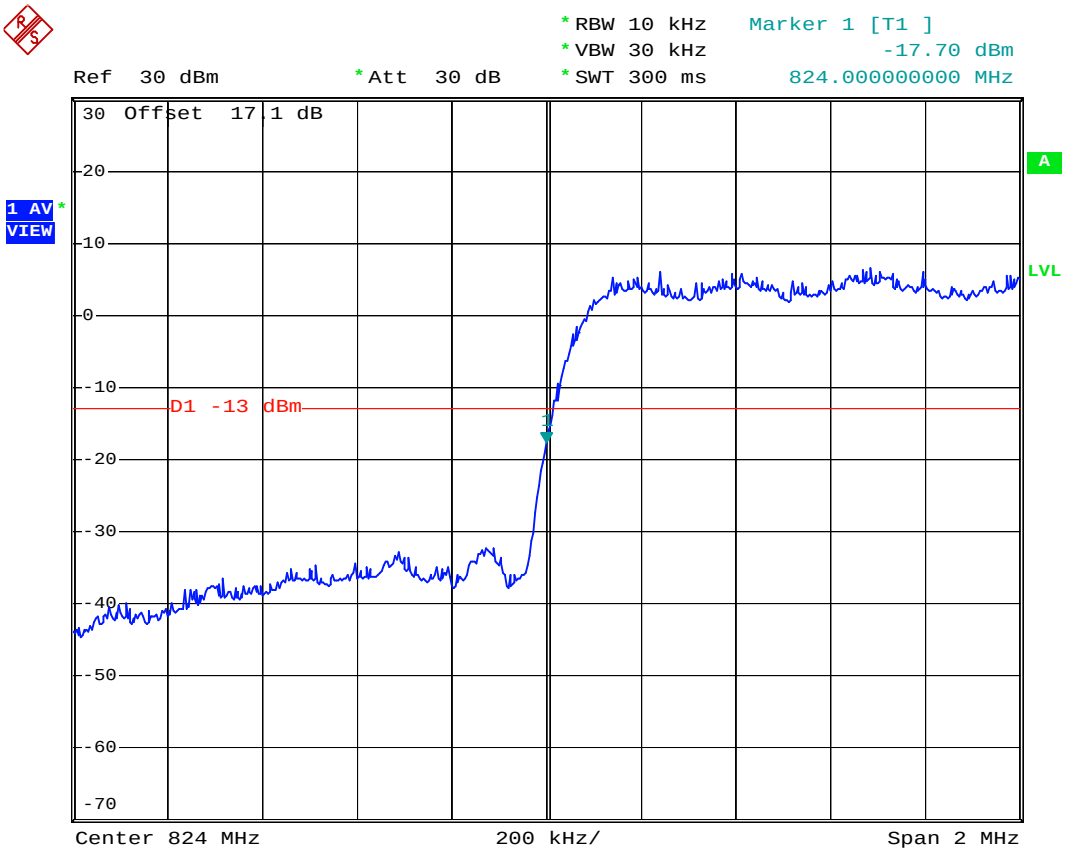
4.4.3 Test Setup Layout



4.4.4 Test Result

- Test Mode : Mode 1
- Test Mode : CDMA2000 Cellular850 Band CH 1013 Lower Band Edge for 1xRTT

Power State : High



*Occupy Bandwidth=1272KHz

*Correction Factor =10*log(1%Occupy Bandwidth/Measurement RBW)

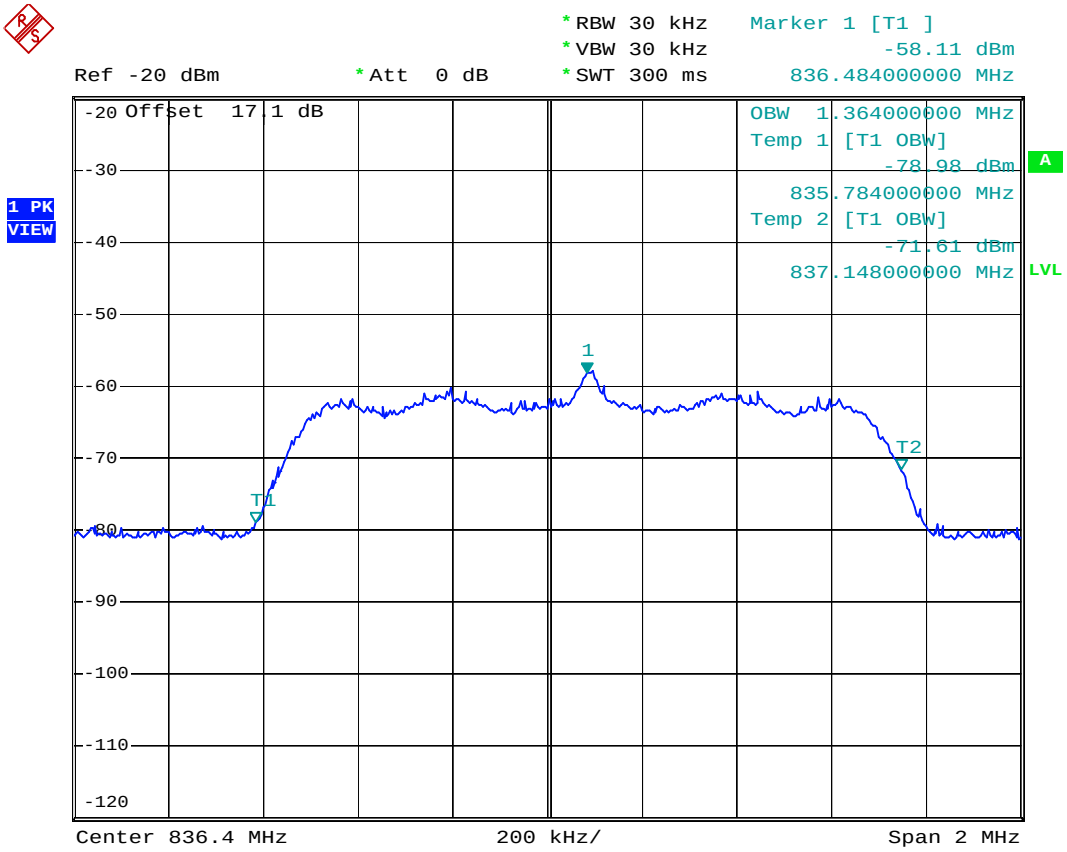
=10*log((0.01*1272KHz)/ 10KHz)

=1.04dB

*Band Edge=Measurement Value+Correction Factor

- Test Mode : CDMA2000 Cellular850 Band CH 384 99% Occupid Bandwidth for 1xRTT

Power State : Low



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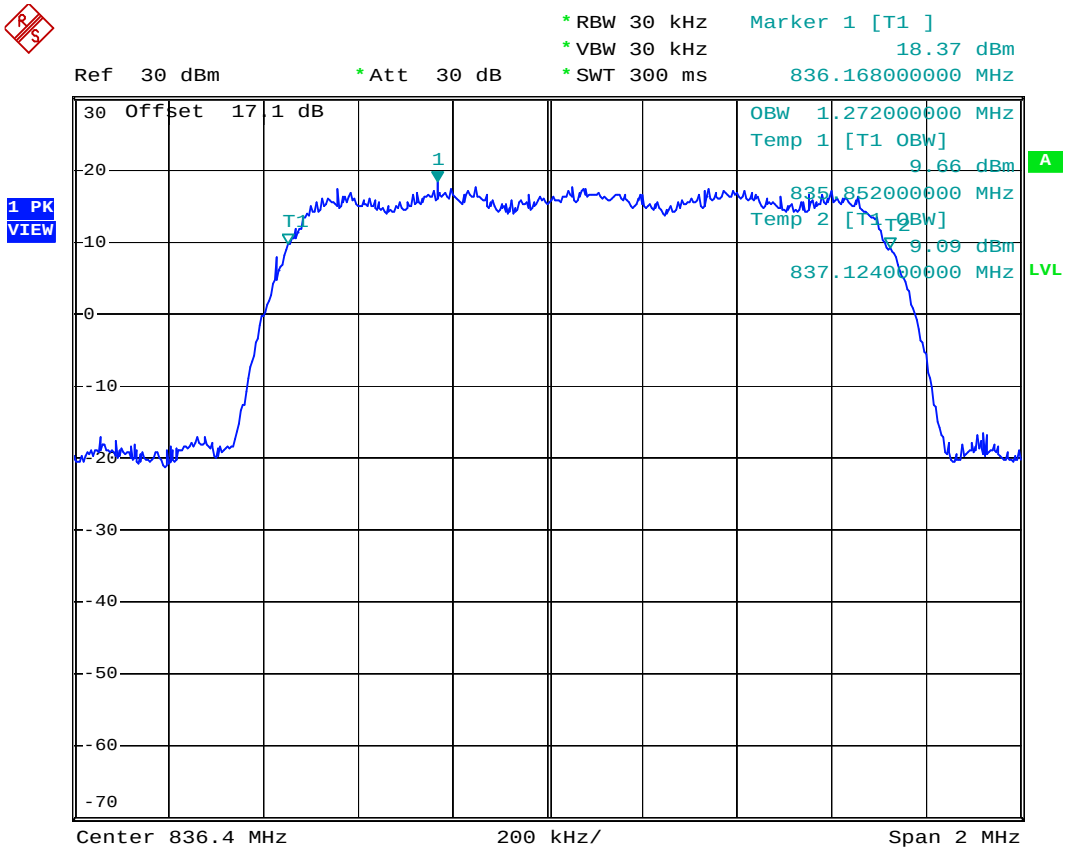
- Test Mode : CDMA2000 Cellular850 Band CH 384 99% Occupid Bandwidth for 1xRTT

Power State : High



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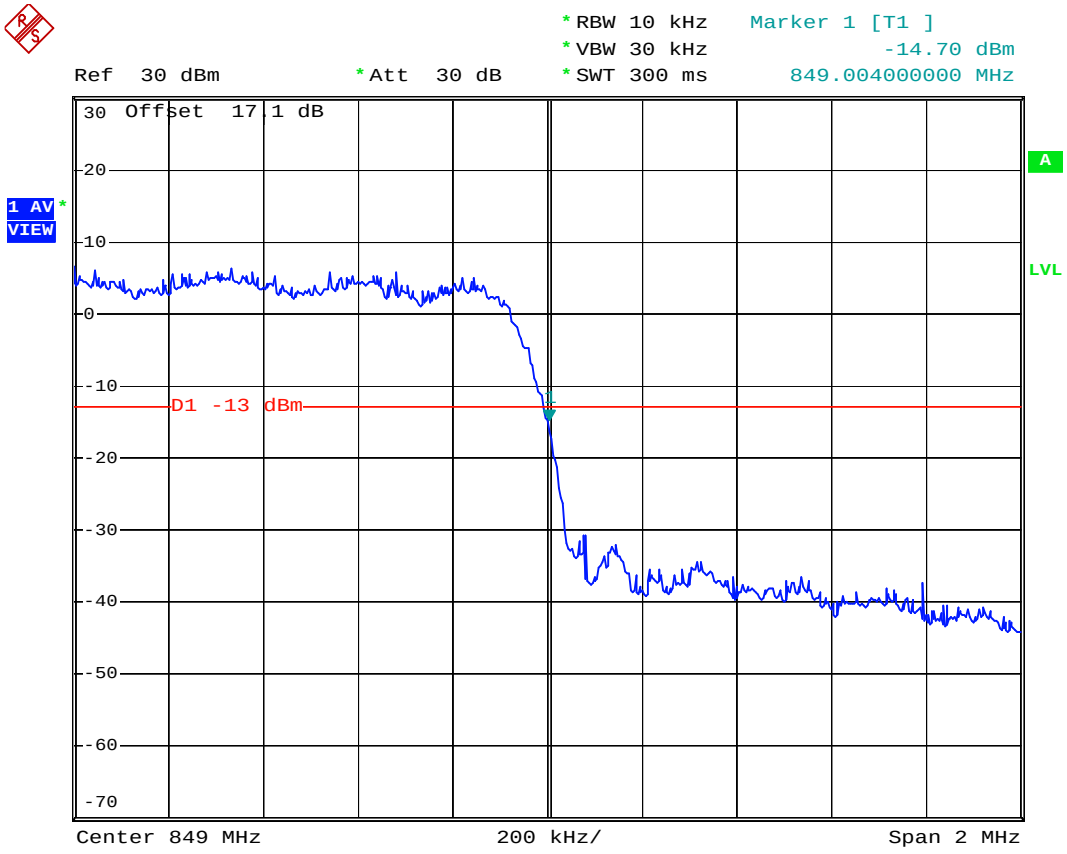
- Test Mode : CDMA2000 Cellular850 Band CH 777 Higher Band Edge for 1xRTT

Power State : High



*Occupy Bandwidth=1272KHz

*Correction Factor =10*log(1%Occupy Bandwidth/Measurement RBW)

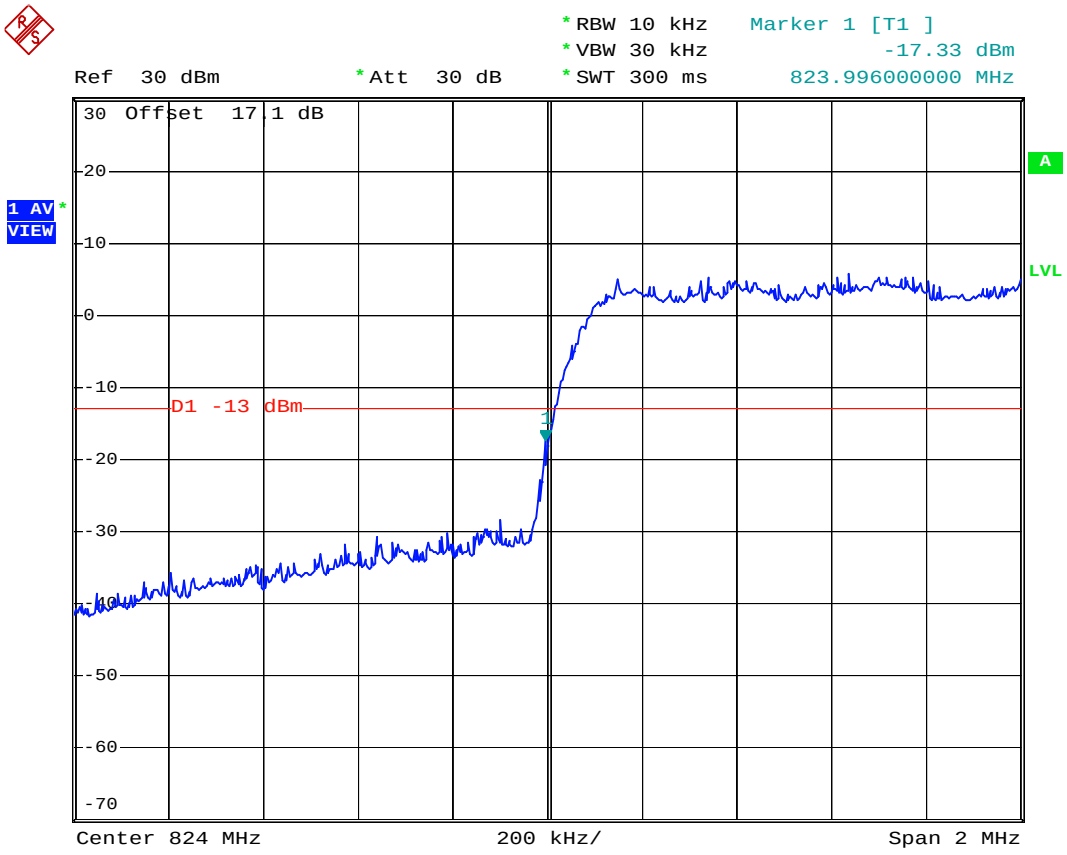
=10*log((0.01*1272KHz)/ 10KHz)

=1.04dB

*Band Edge=Measurement Value+Correction Factor

- Test Mode : Mode 2
- Test Mode : CDMA2000 Cellular850 Band CH 1013 Lower Band Edge for 1xEV-DO

Power State : High



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*Occupy Bandwidth=1268KHz

*Correction Factor =10*log(1%Occupy Bandwidth/Measurement RBW)

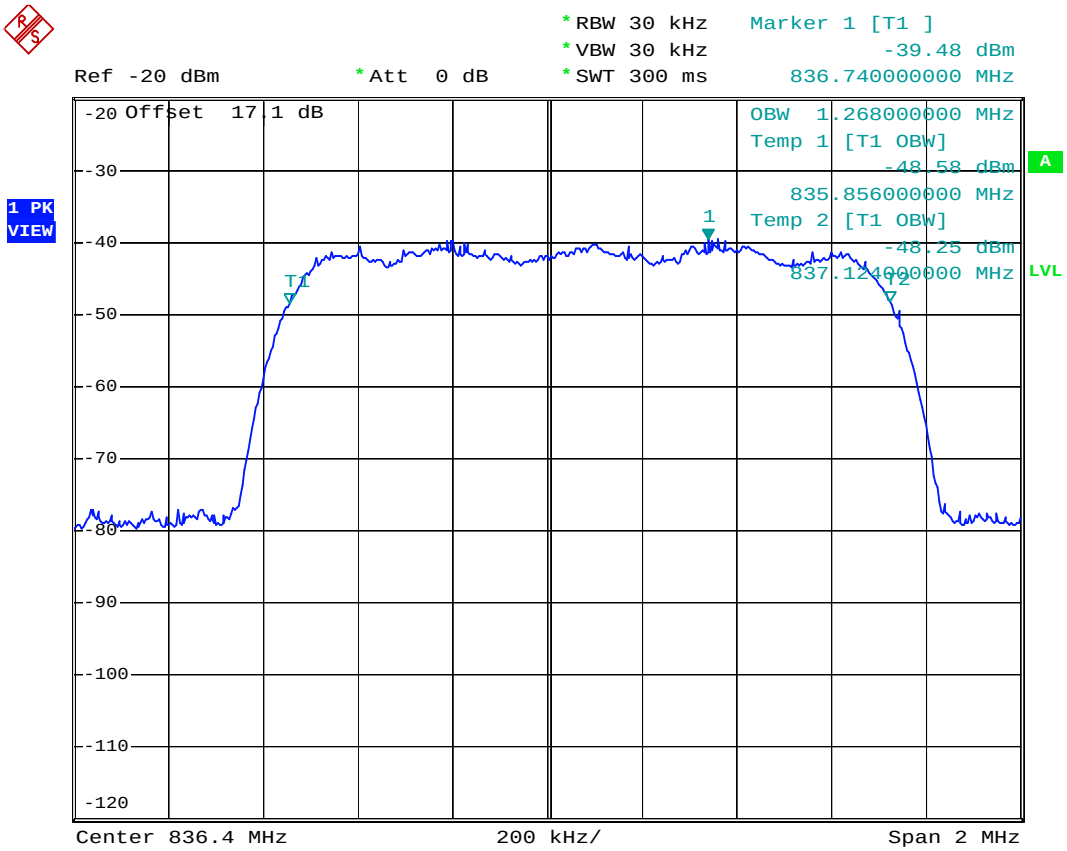
=10*log((0.01*1268KHz)/ 10KHz)

=1.03dB

*Band Edge=Measurement Value+Correction Factor

- Test Mode : CDMA2000 Cellular850 Band CH 384 99% Occupid Bandwidth for 1xEV-DO

Power State : Low



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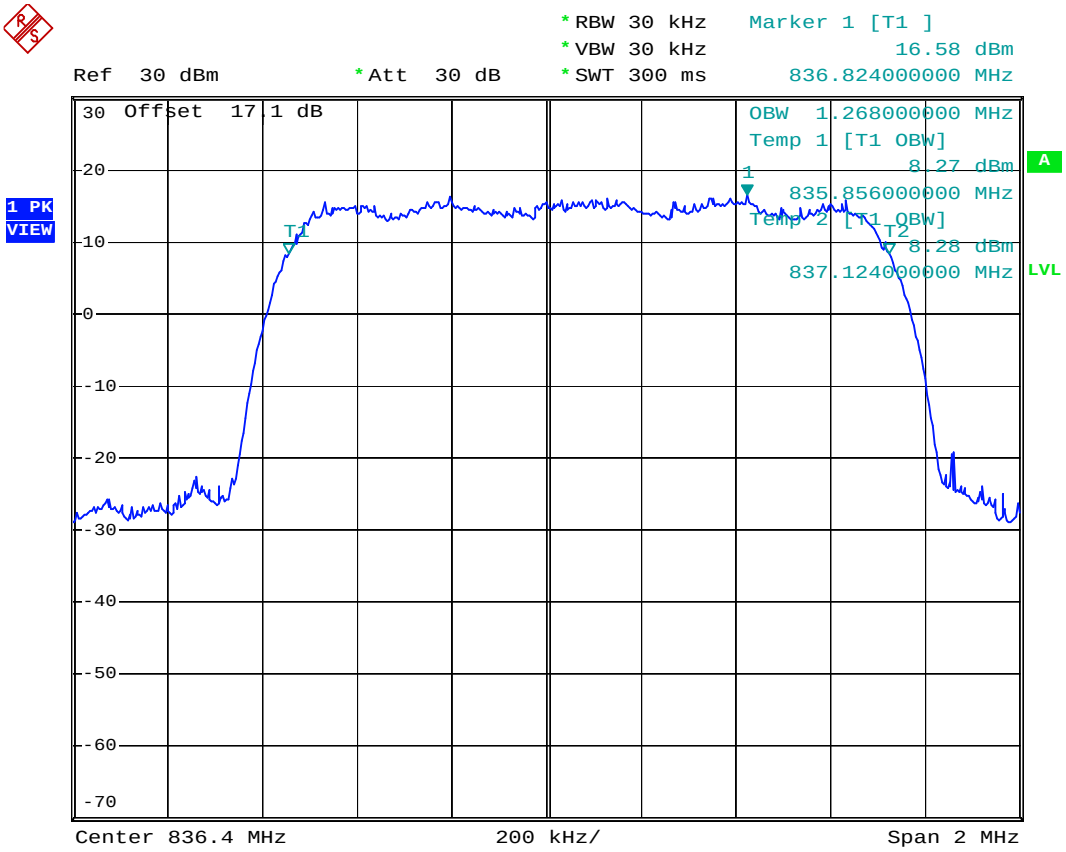
- Test Mode : CDMA2000 Cellular850 Band CH 384 99% Occupid Bandwidth for 1xEV-DO

Power State : High



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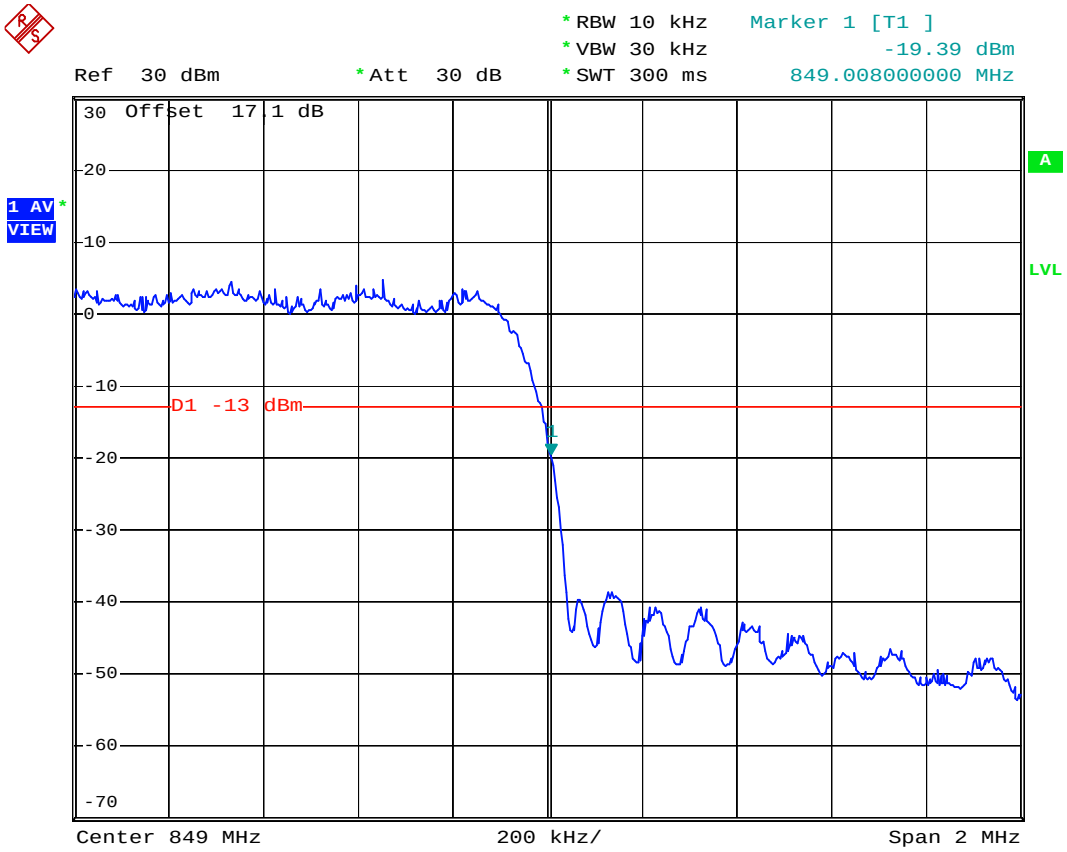
- Test Mode : CDMA2000 Cellular850 Band CH 777 Higher Band Edge for 1xEV-DO

Power State : High



*Occupy Bandwidth=1268KHz

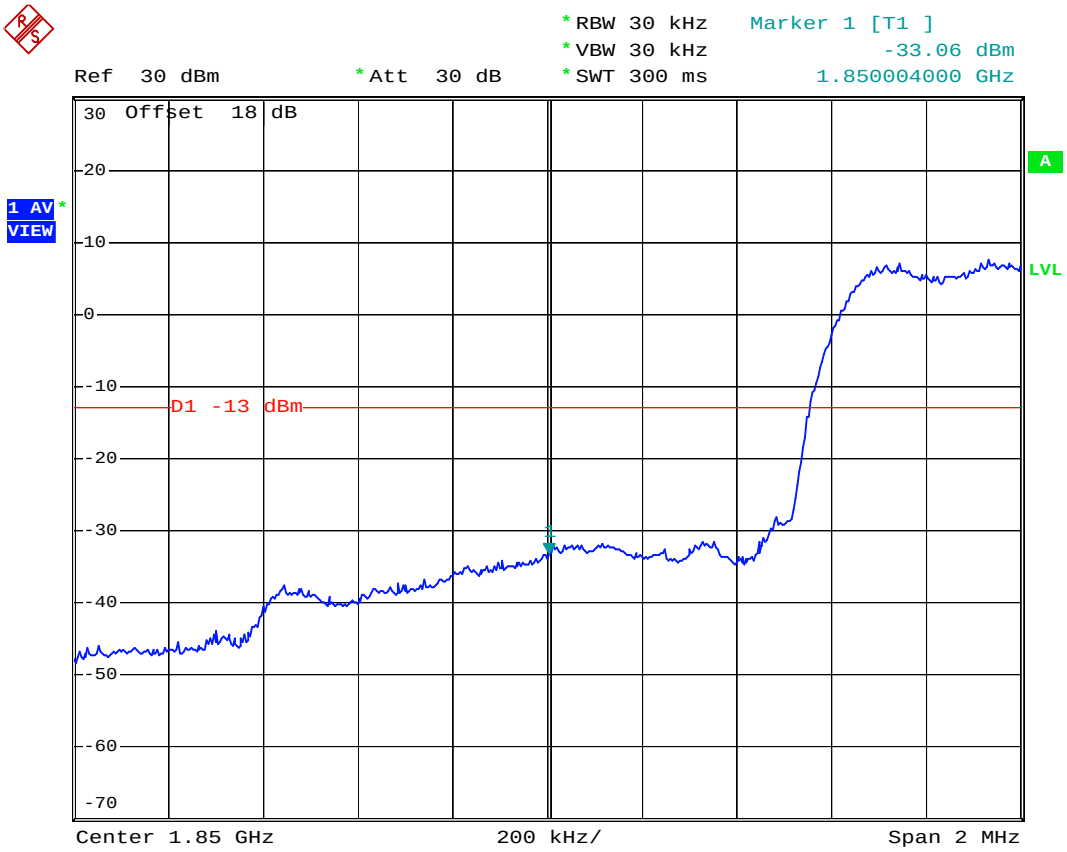
*Correction Factor =10*log(1%Occupy Bandwidth/Measurement RBW)

=10*log((0.01*1268KHz)/ 10KHz)

=1.03dB

*Band Edge=Measurement Value+Correction Factor

- Test Mode : Mode 3
- Test Mode : CDMA2000 PCS1900 Band CH 25 Lower Band Edge for 1xRTT
- Power State : High



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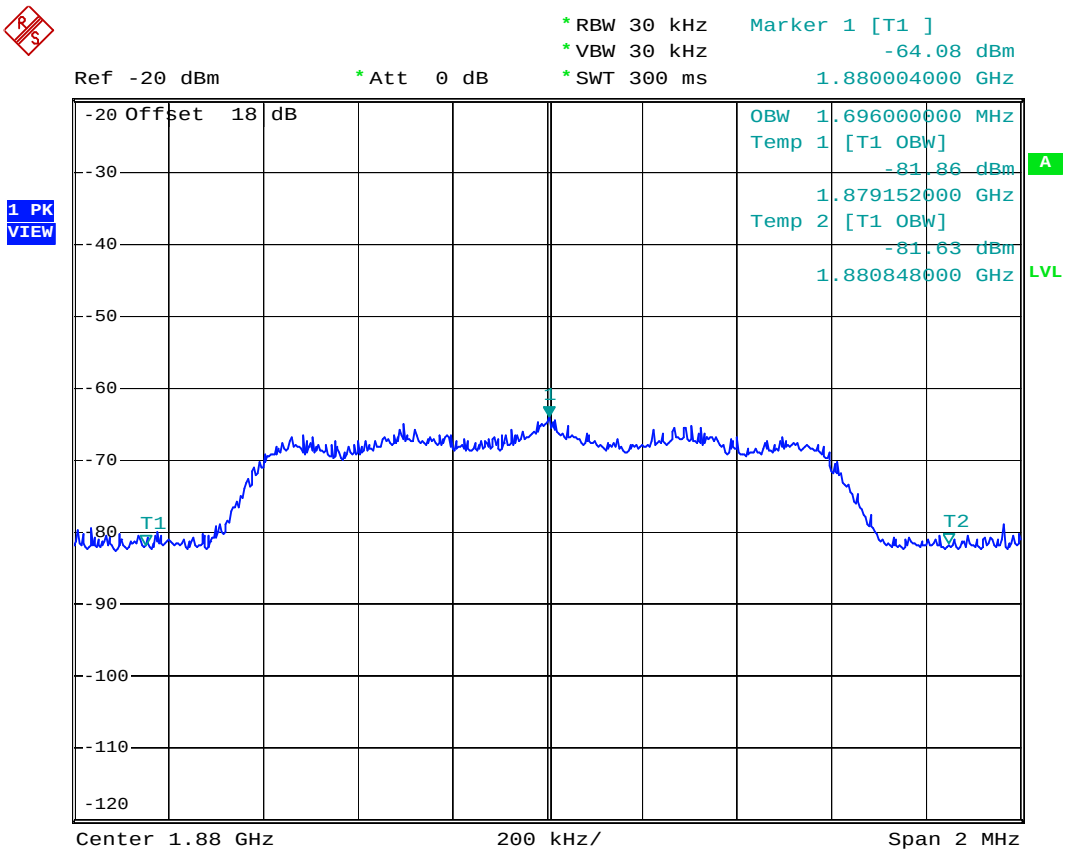
- Test Mode : CDMA2000 PCS1900 Band CH600 99% Occupid Bandwidth for 1xRTT
- Power State : Low



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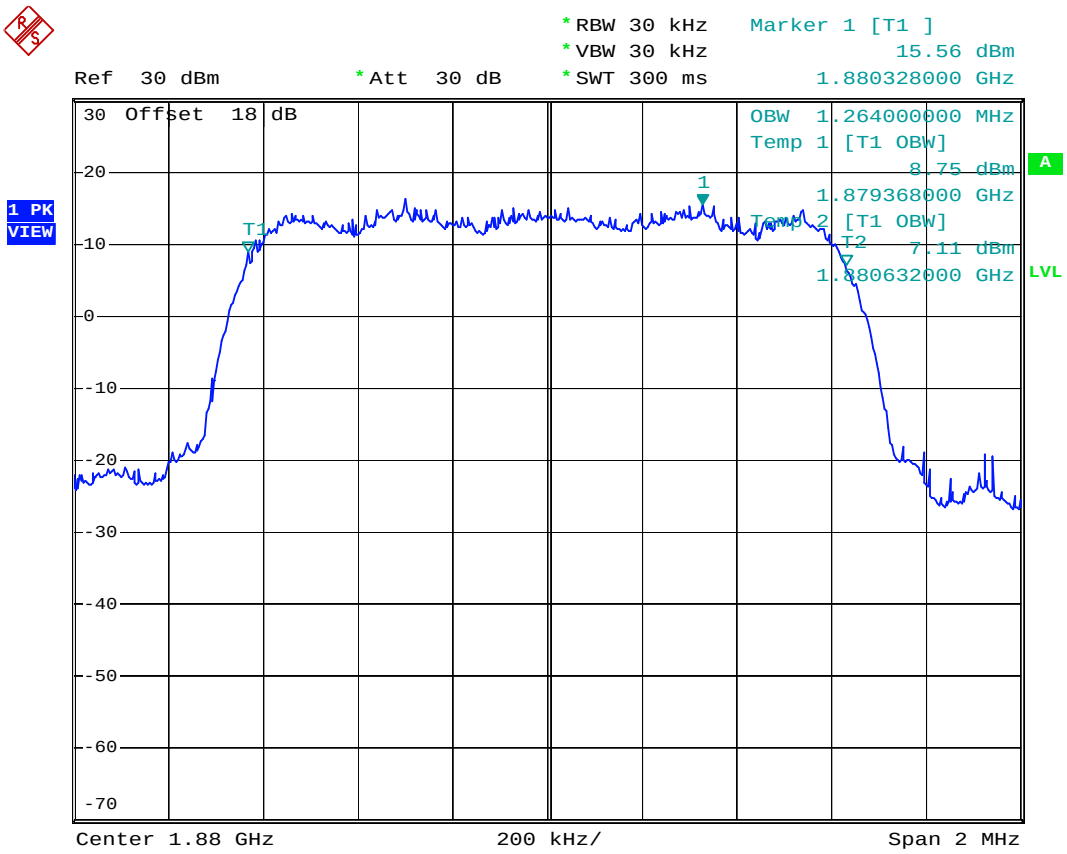
- Test Mode : CDMA2000 PCS1900 Band CH600 99% Occupid Bandwidth for 1xRTT
- Power State : High



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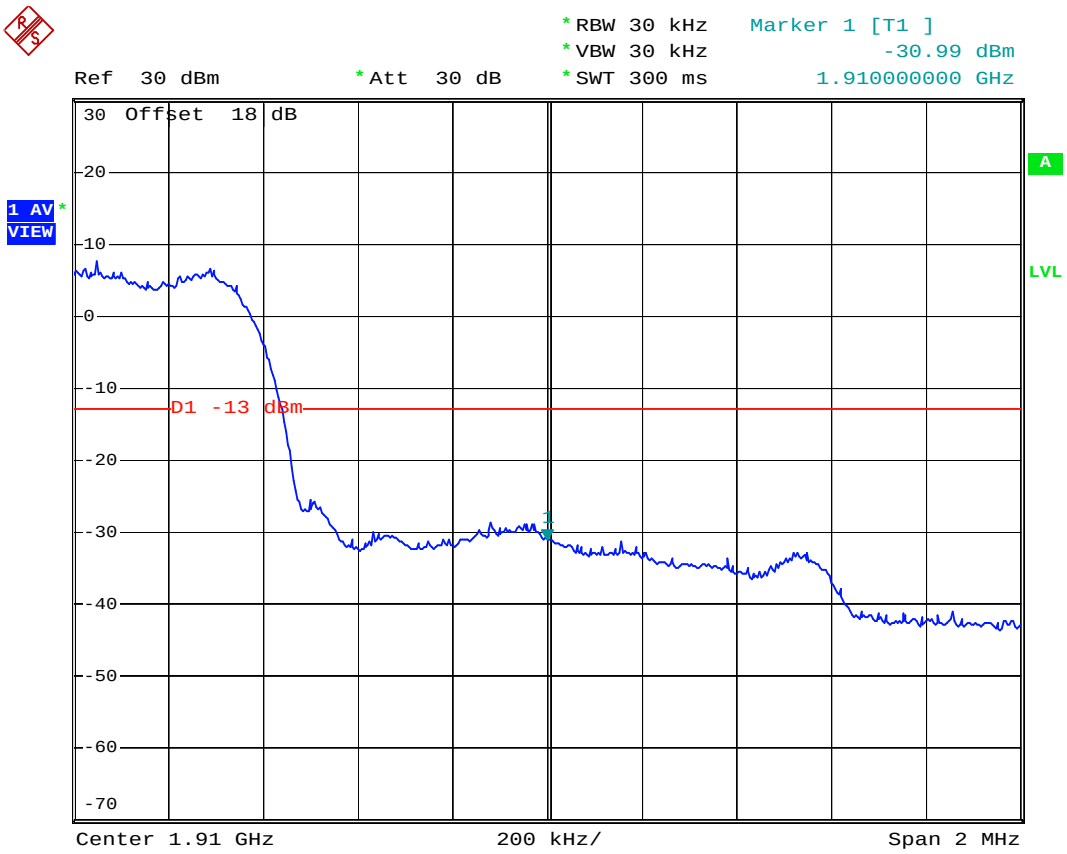
- Test Mode : CDMA2000 PCS1900 Band CH1175 Higher Band Edge for 1xRTT
- Power State : High



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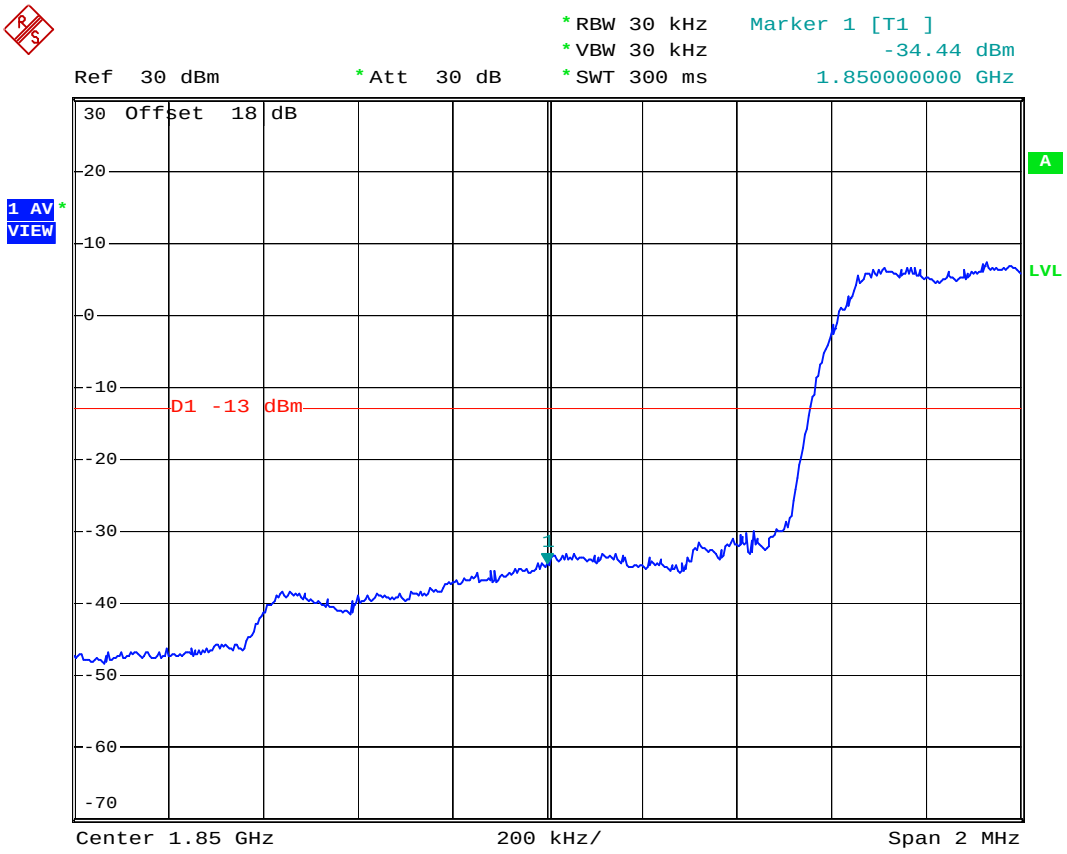
- Test Mode : Mode 4
- Test Mode : CDMA2000 PCS1900 Band CH25 Lower Band Edge for 1xEV-DO
- Power State : High



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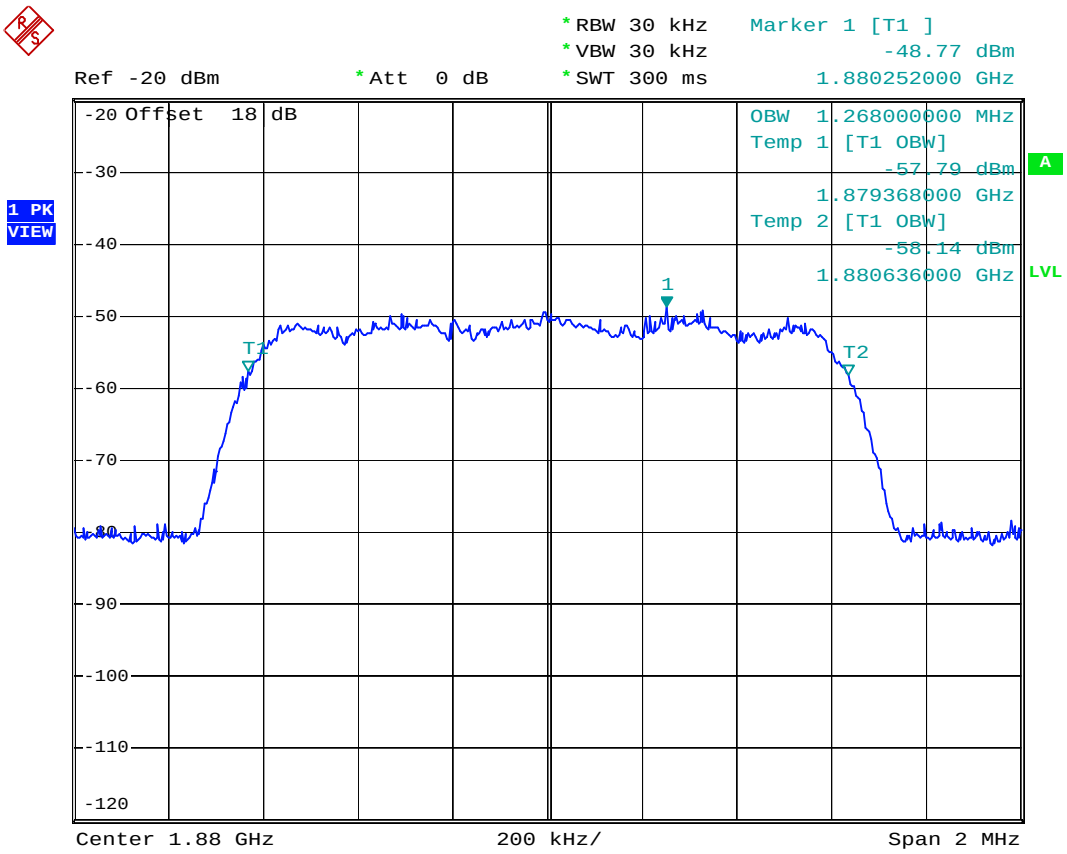
- Test Mode : CDMA2000 PCS1900 Band CH600 99% Occupid Bandwidth for 1xEV-DO
- Power State : Low



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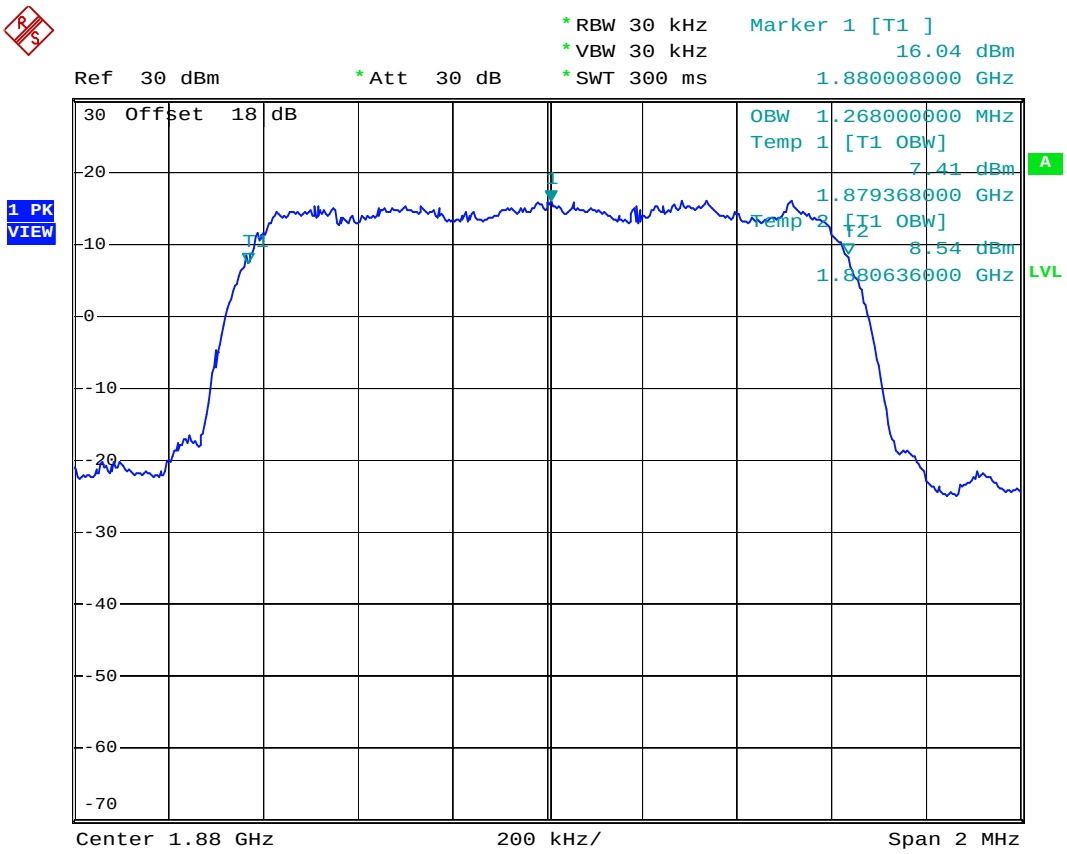
- Test Mode : CDMA2000 PCS1900 Band CH600 99% Occupid Bandwidth for 1xEV-DO
- Power State : Hight



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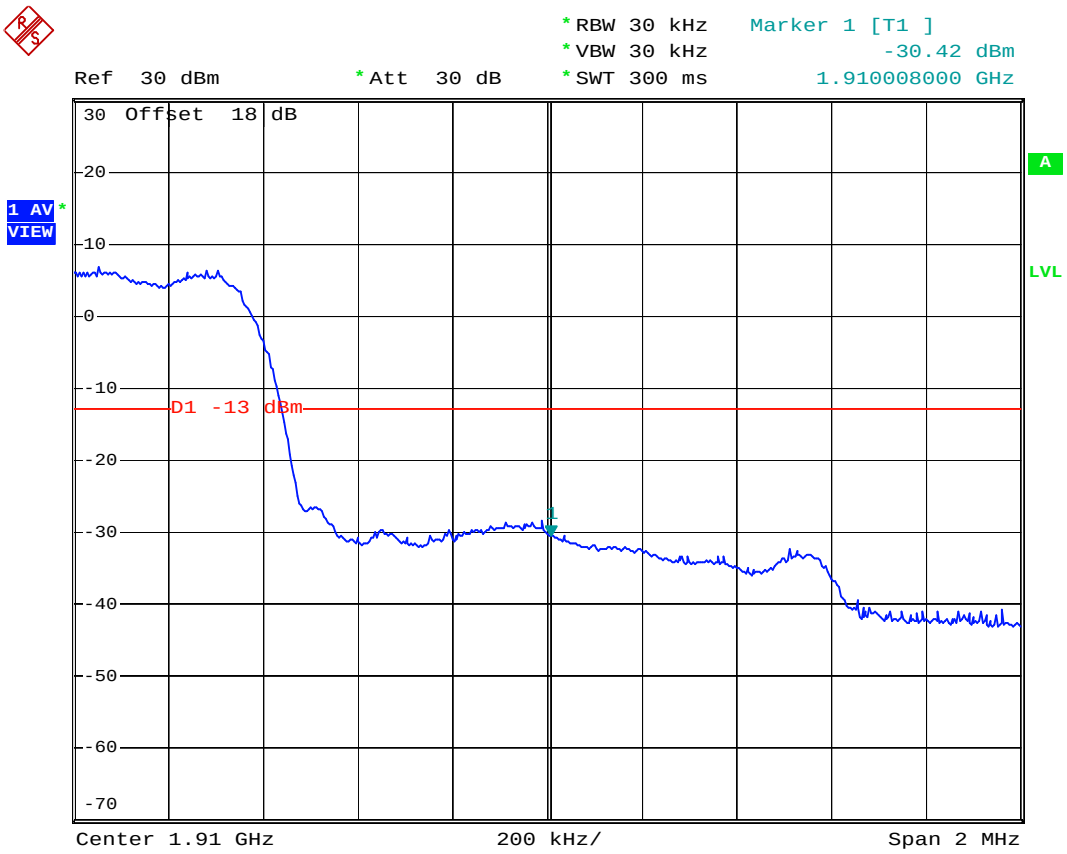
- Test Mode : CDMA2000 PCS1900 Band CH1175 Higher Band Edge for 1xEV-DO
- Power State : High



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4.5 Conducted Emission

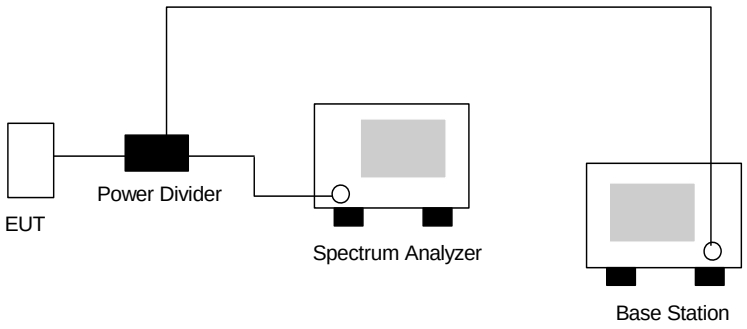
4.5.1 Measurement Instruments

As described in chapter 5 of this test report.

4.5.2 Test Procedure

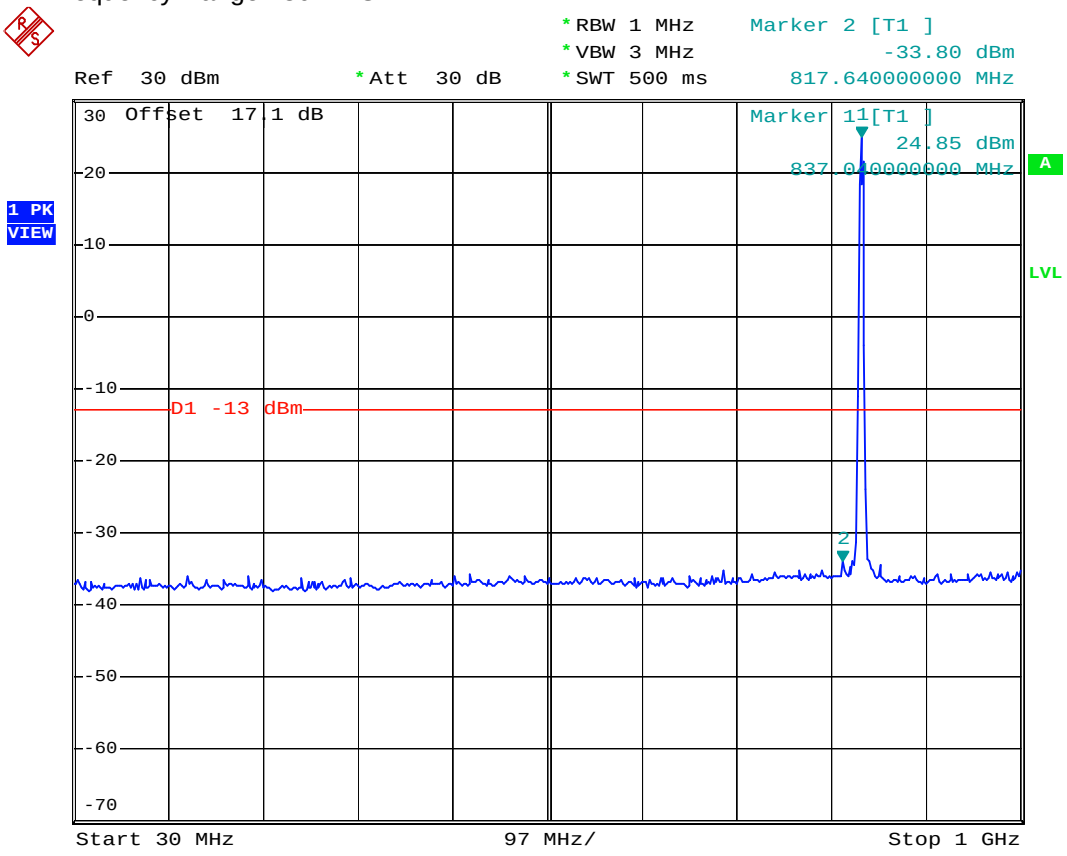
1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The middle channel for the highest RF power within the transmitting frequency was measured.
3. The conducted spurious emission for the whole frequency range was taken.

4.5.3 Test Setup Layout



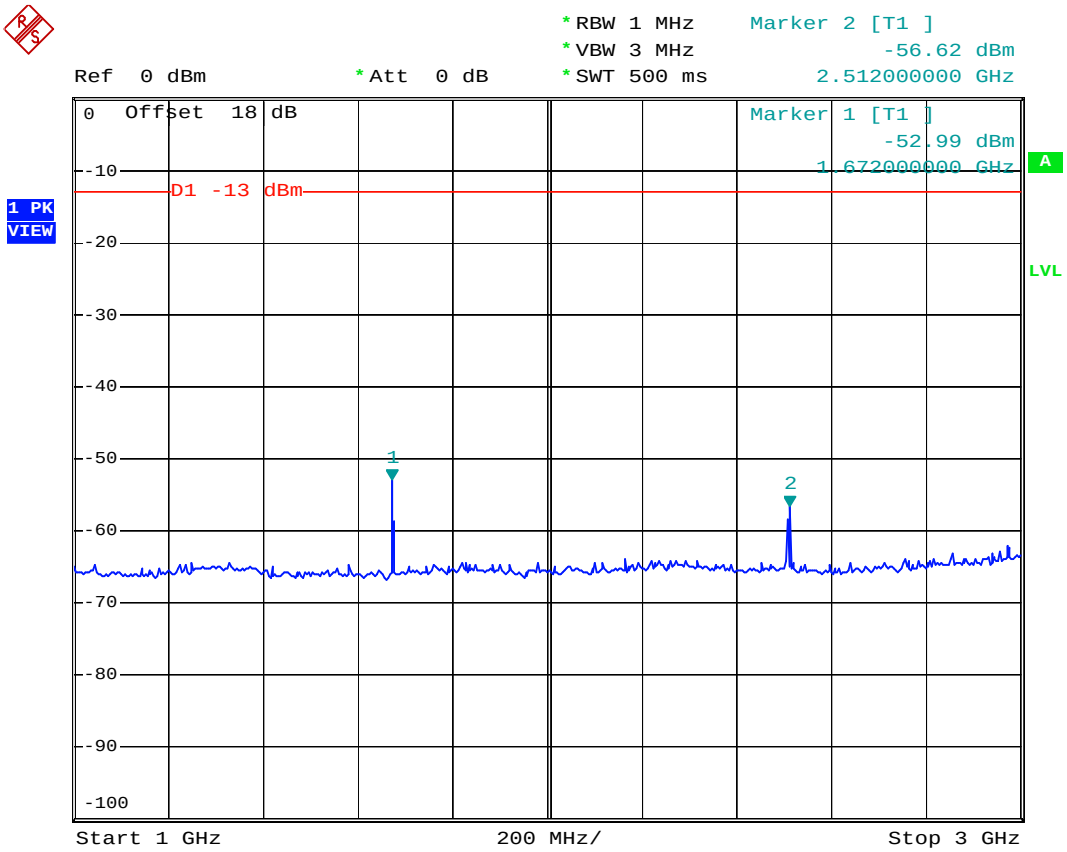
4.5.4 Test Result

- Test Mode : Mode 1
- Test Mode : CDMA2000 Cellular850 CH384 for 1xRTT
- Frequency Range : 30M-1G



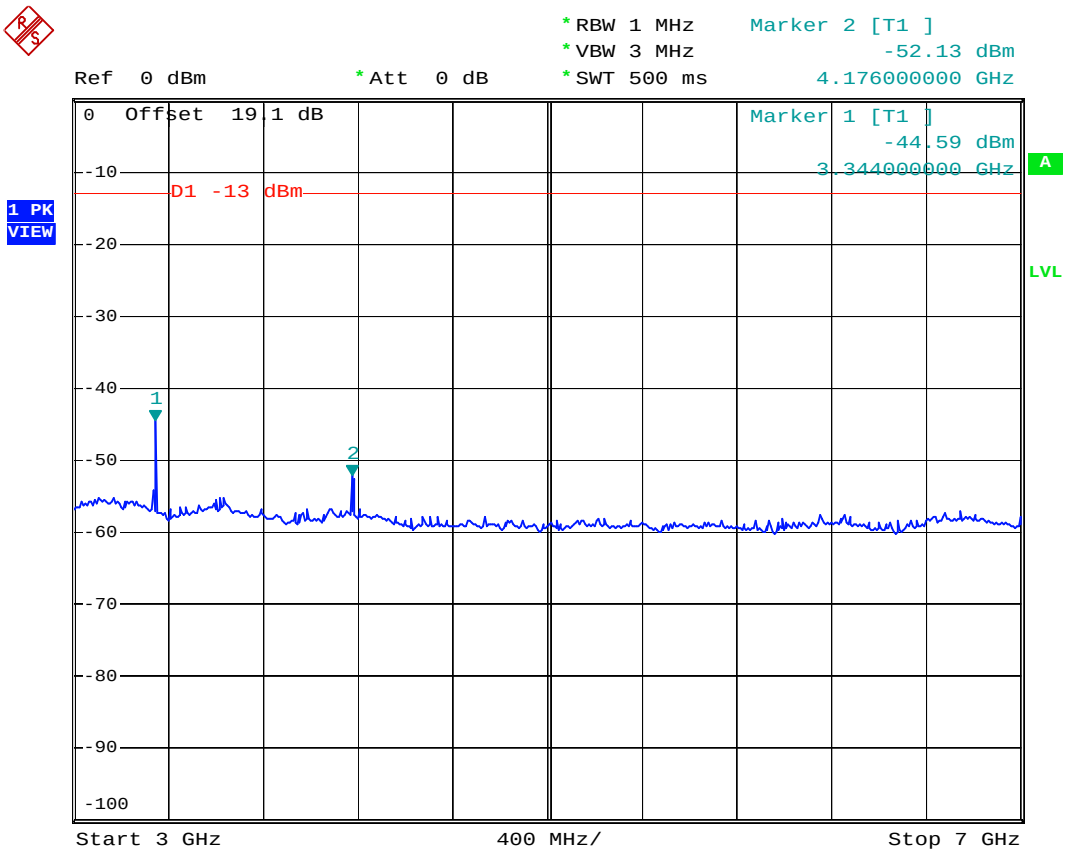
Date: 14.OCT.2006 17:39:36

- Test Mode : CDMA2000 Cellular850 CH384 for 1xRTT
- Frequency Range : 1G-3G



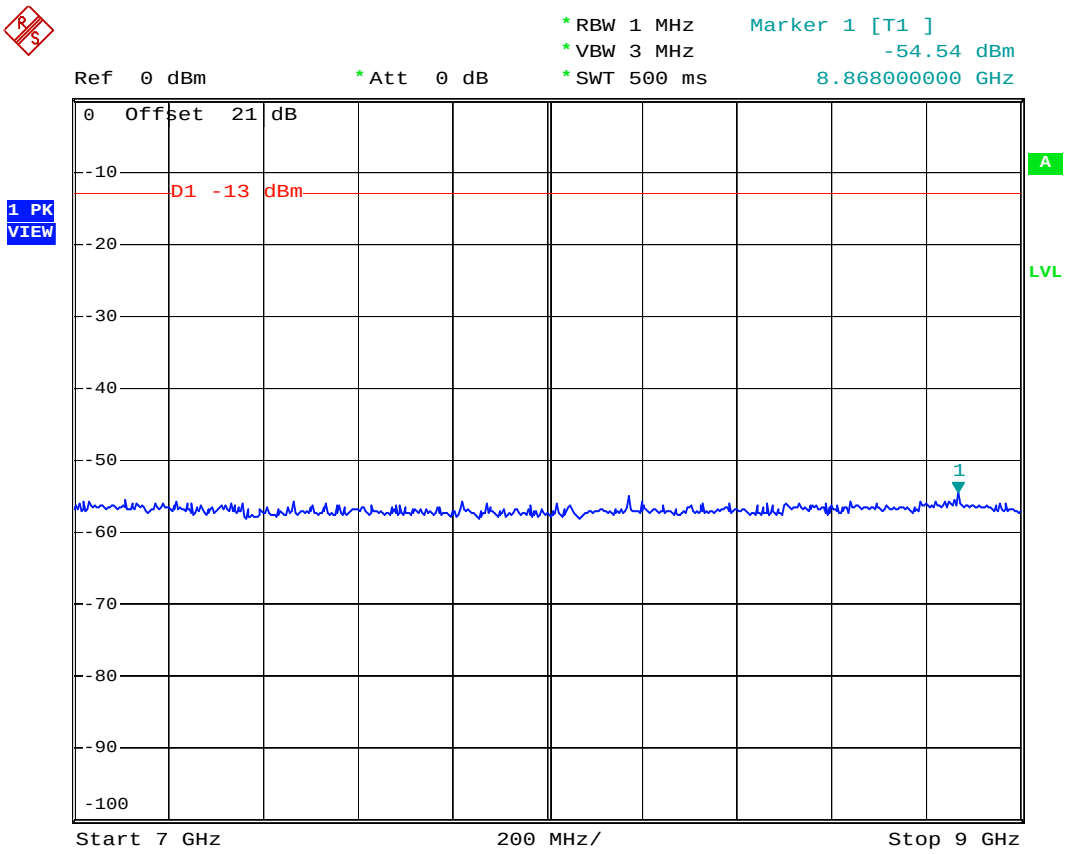
Date: 14.OCT.2006 18:04:30

- Test Mode : CDMA2000 Cellular850 CH384 for 1xRTT
- Frequency Range : 3G-7G



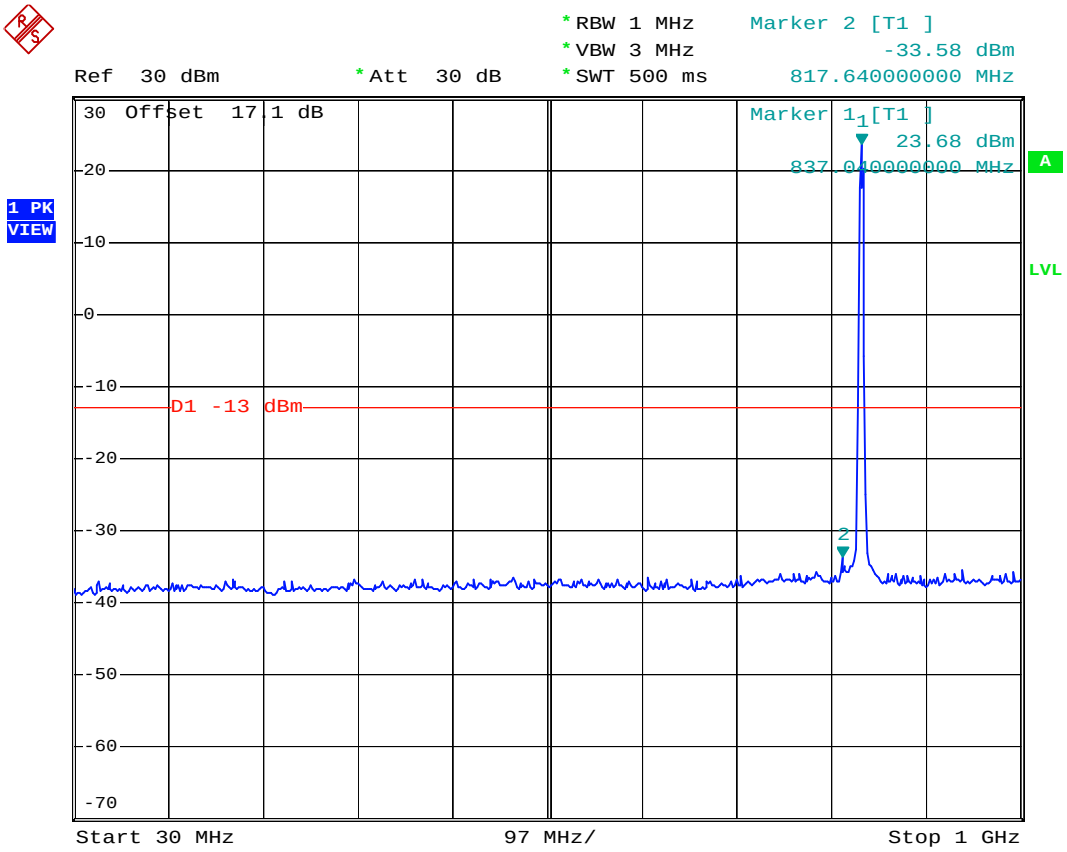
Date: 14.OCT.2006 18:02:20

- Test Mode : CDMA2000 Cellular850 CH384 for 1xRTT
- Frequency Range : 7G-9G



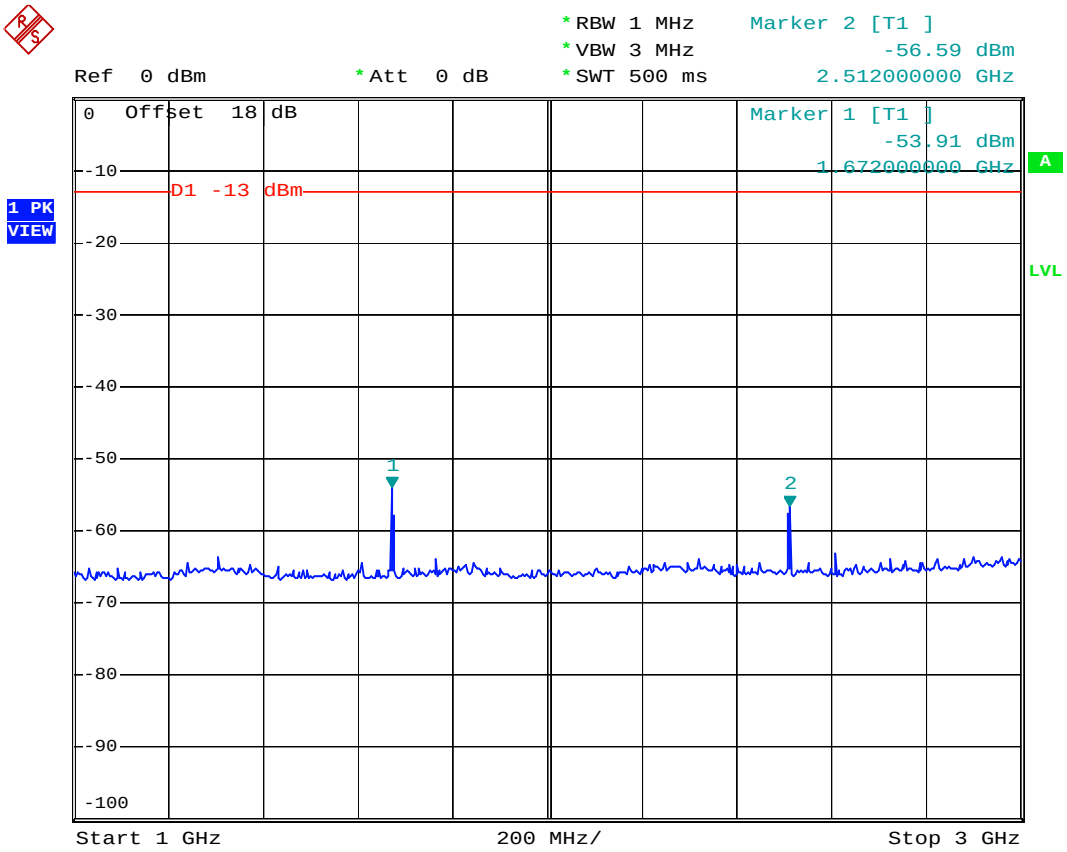
Date: 14.OCT.2006 18:06:05

- Test Mode : Mode 2
- Test Mode : CDMA2000 Cellular850 CH384 for 1xEV-DO
- Frequency Range : 30M-1G



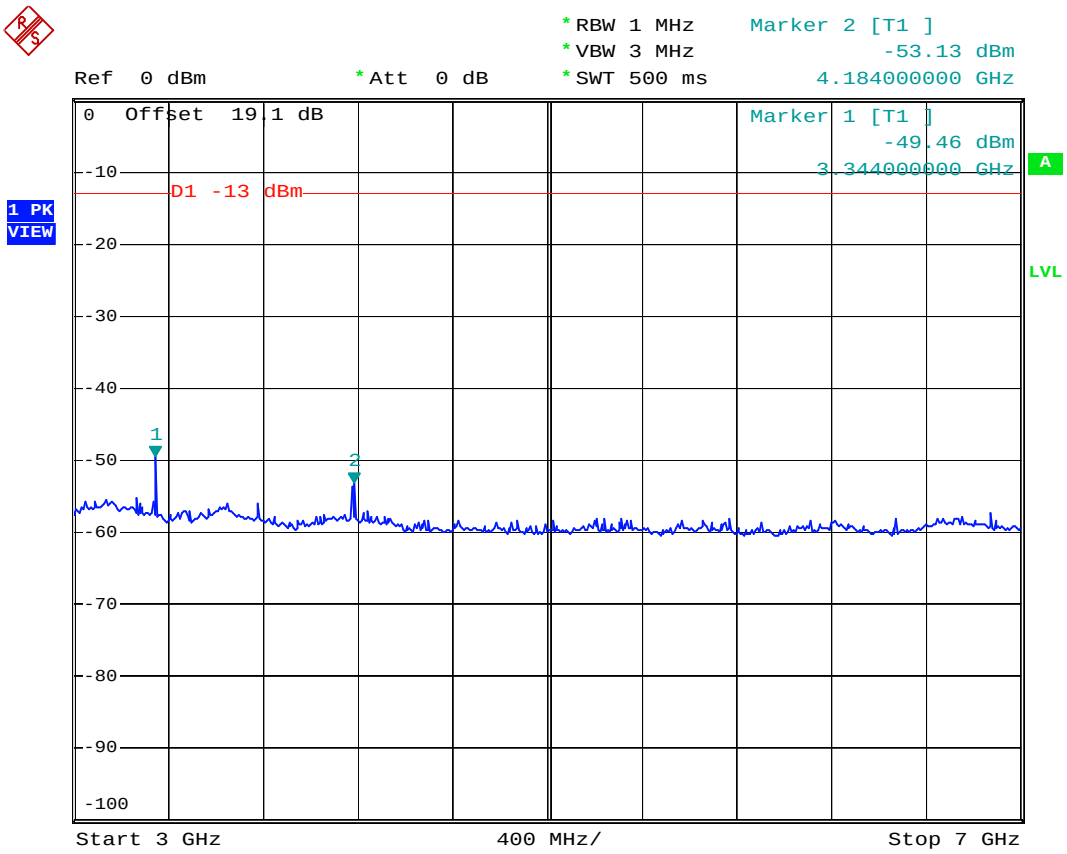
Date: 14.OCT.2006 20:40:25

- Test Mode : CDMA2000 Cellular850 CH384 for 1xEV-DO
- Frequency Range : 1G-3G



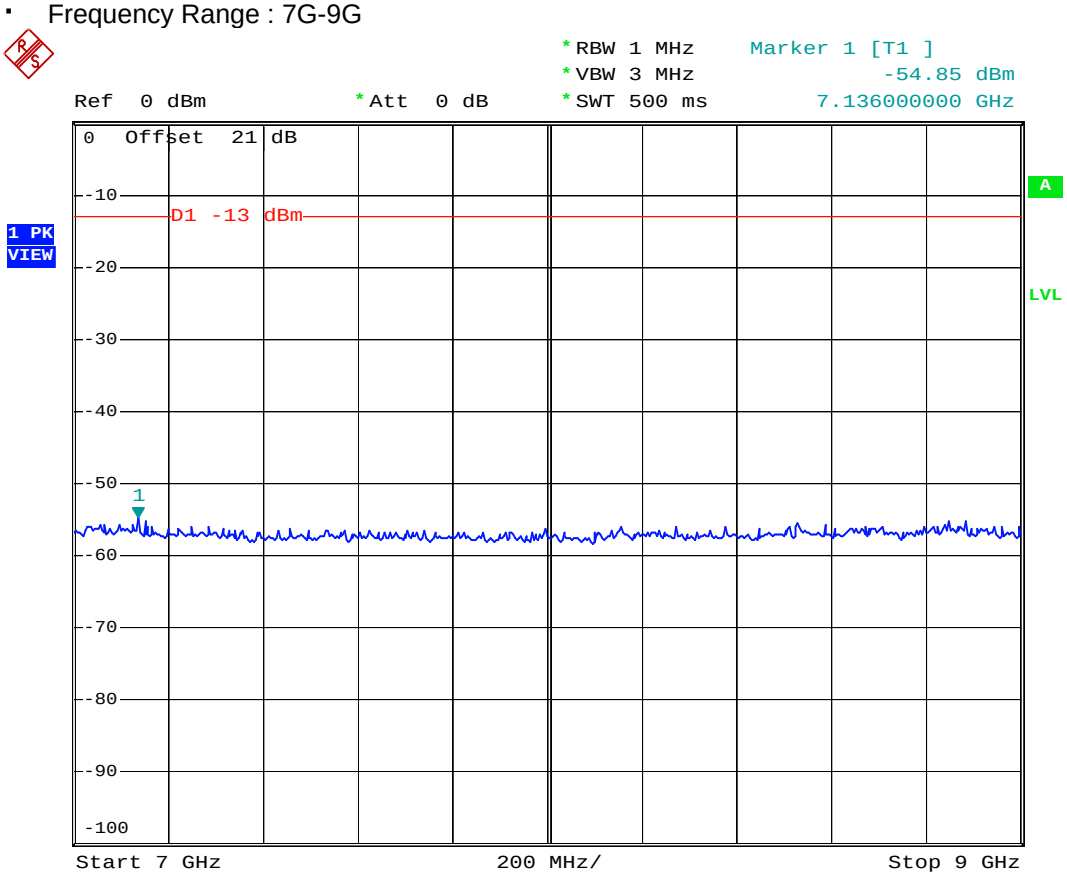
Date: 14.OCT.2006 20:42:53

- Test Mode : CDMA2000 Cellular850 CH384 for 1xEV-DO
- Frequency Range : 3G-7G



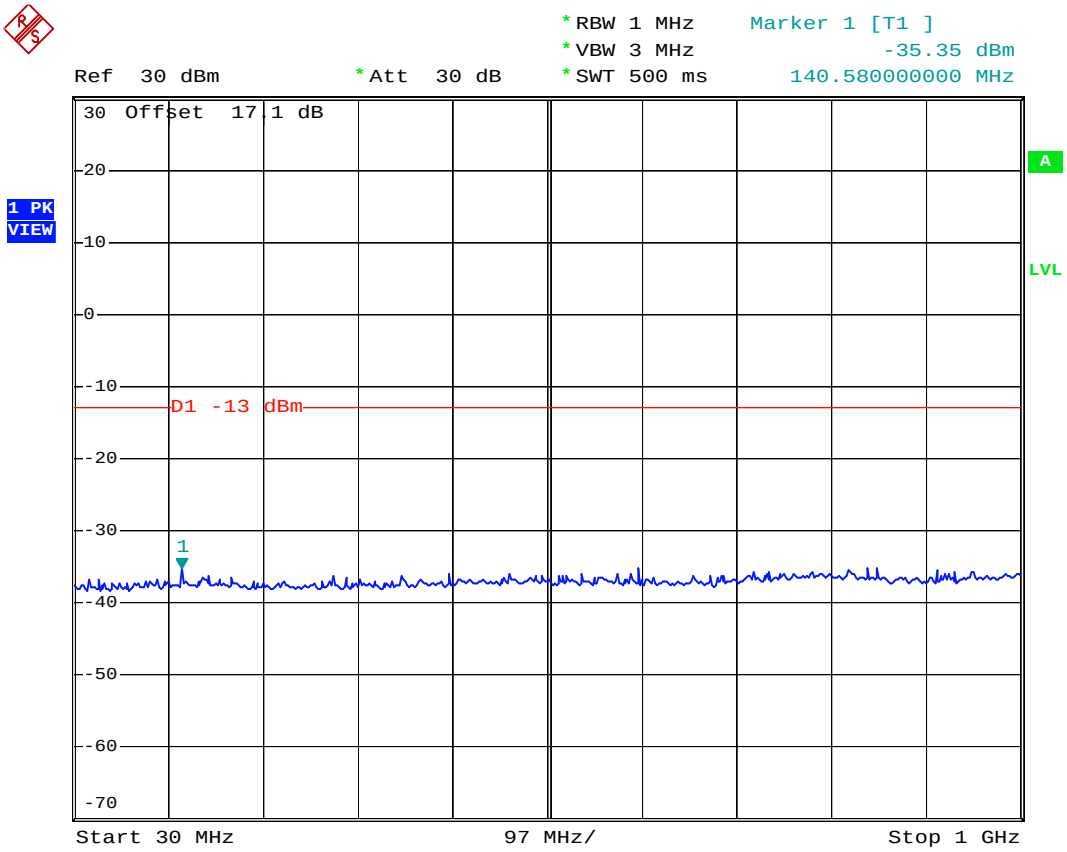
Date: 14.OCT.2006 20:44:02

- Test Mode : CDMA2000 Cellular850 CH384 for 1xEV-DO
- Frequency Range : 7G-9G



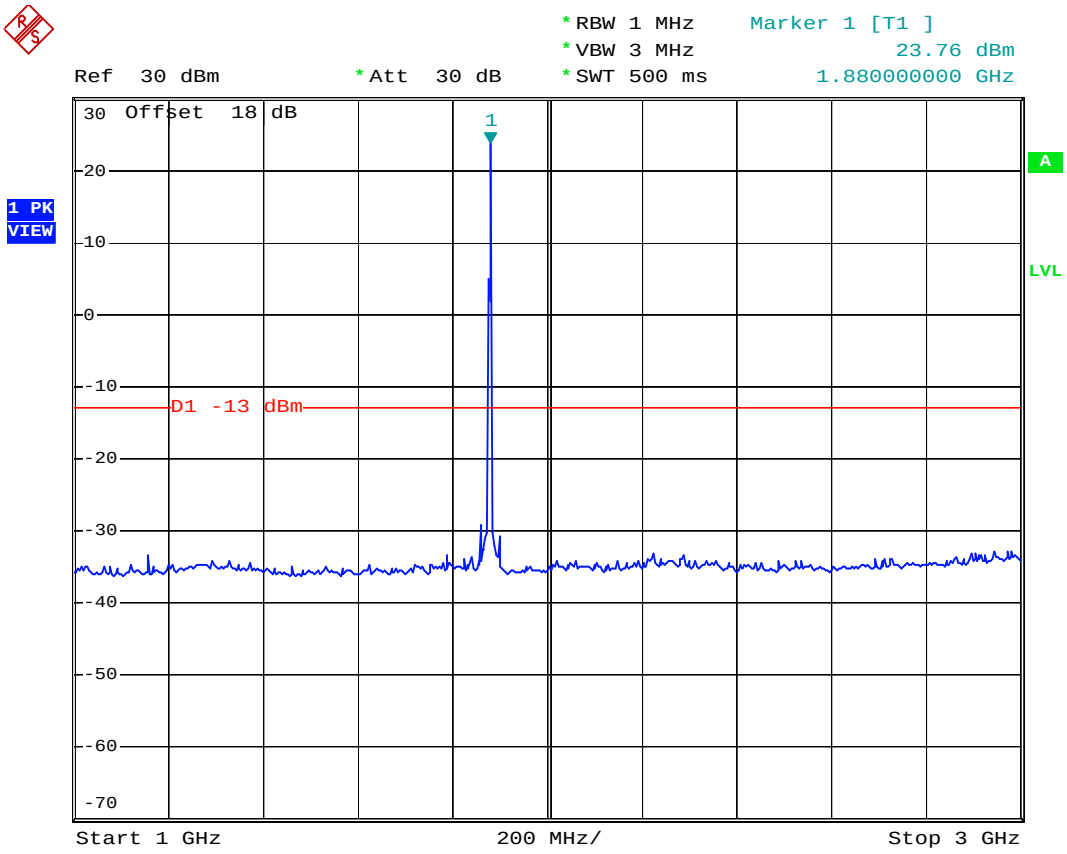
Date: 14.OCT.2006 20:45:06

- Test Mode : Mode 3
- Test Mode : CDMA2000 PCS1900 CH600 for 1xRTT
- Frequency Range : 0.3G-1G



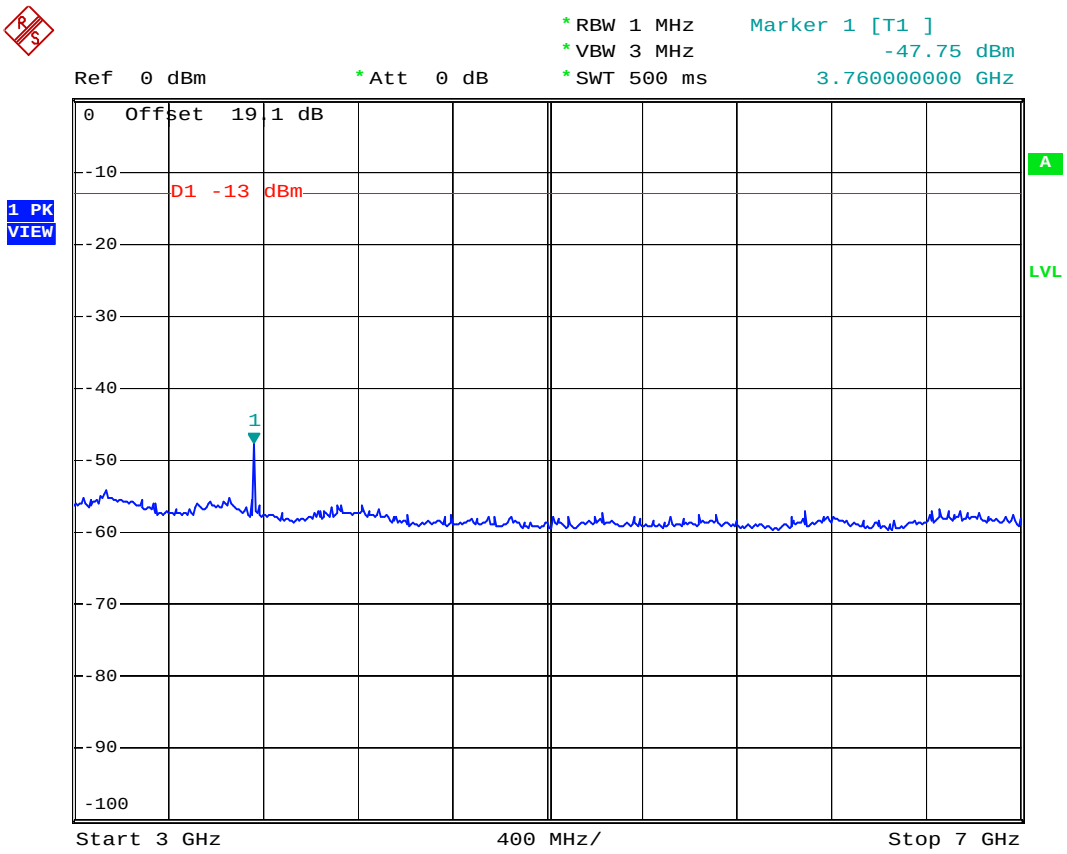
Date: 14.OCT.2006 17:31:05

- Test Mode : CDMA2000 PCS1900 CH600 for 1xRTT
- Frequency Range : 1G-3G



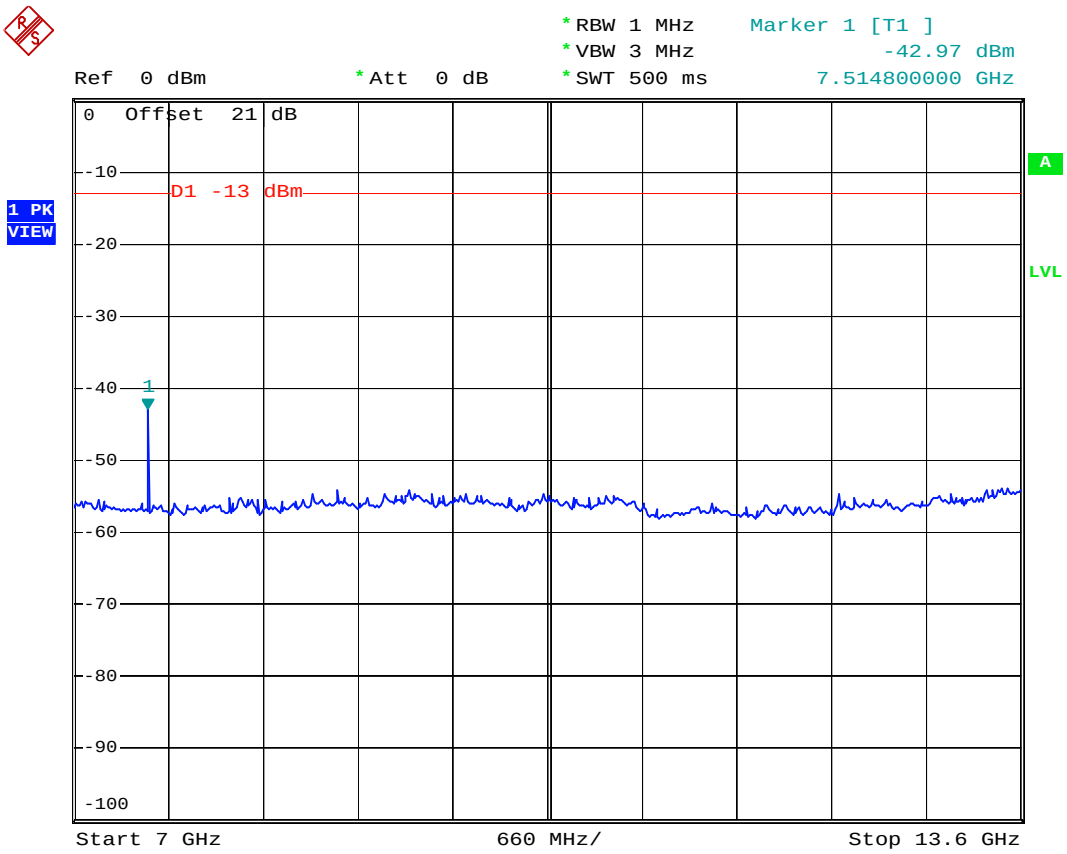
Date: 14.OCT.2006 17:13:11

- Test Mode : CDMA2000 PCS1900 CH600 for 1xRTT
- Frequency Range : 3G-7G



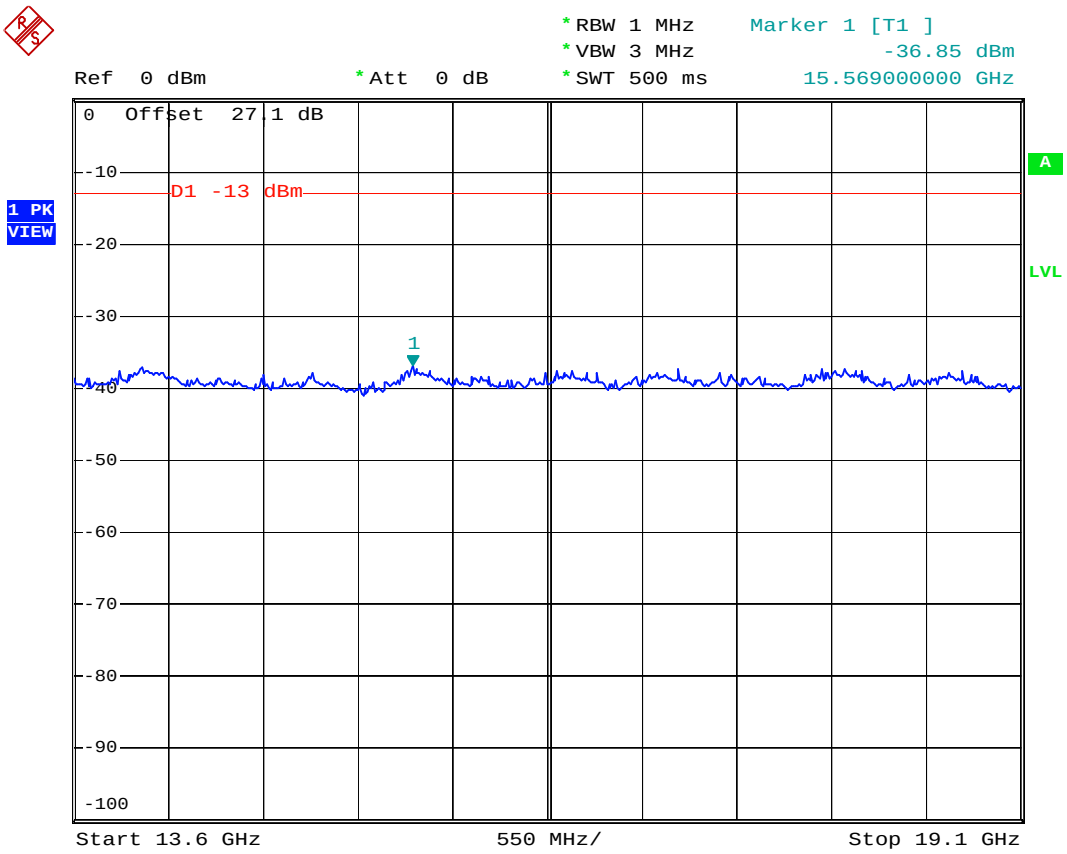
Date: 14.OCT.2006 17:17:58

- Test Mode : CDMA2000 PCS1900 CH600 for 1xRTT
- Frequency Range : 7G-13.6G



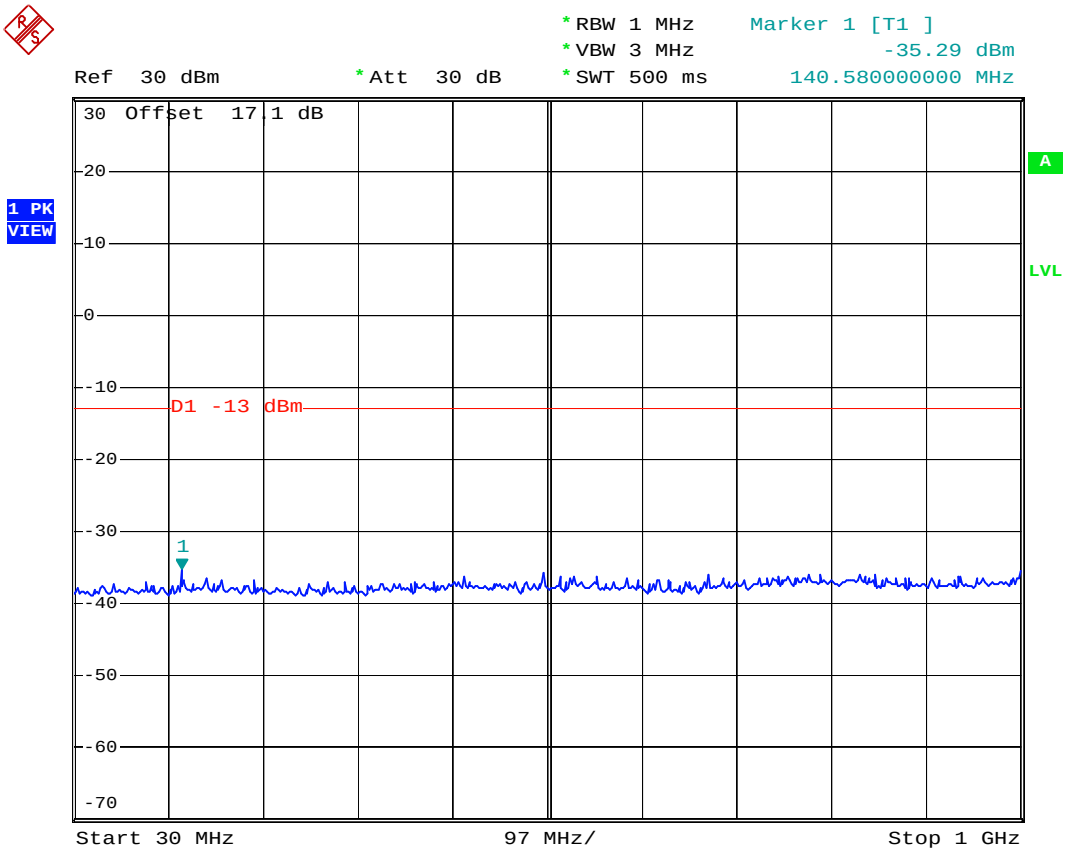
Date: 14.OCT.2006 17:19:43

- Test Mode : CDMA2000 PCS1900 CH600 for 1xRTT
- Frequency Range : 13.6G-19.1G



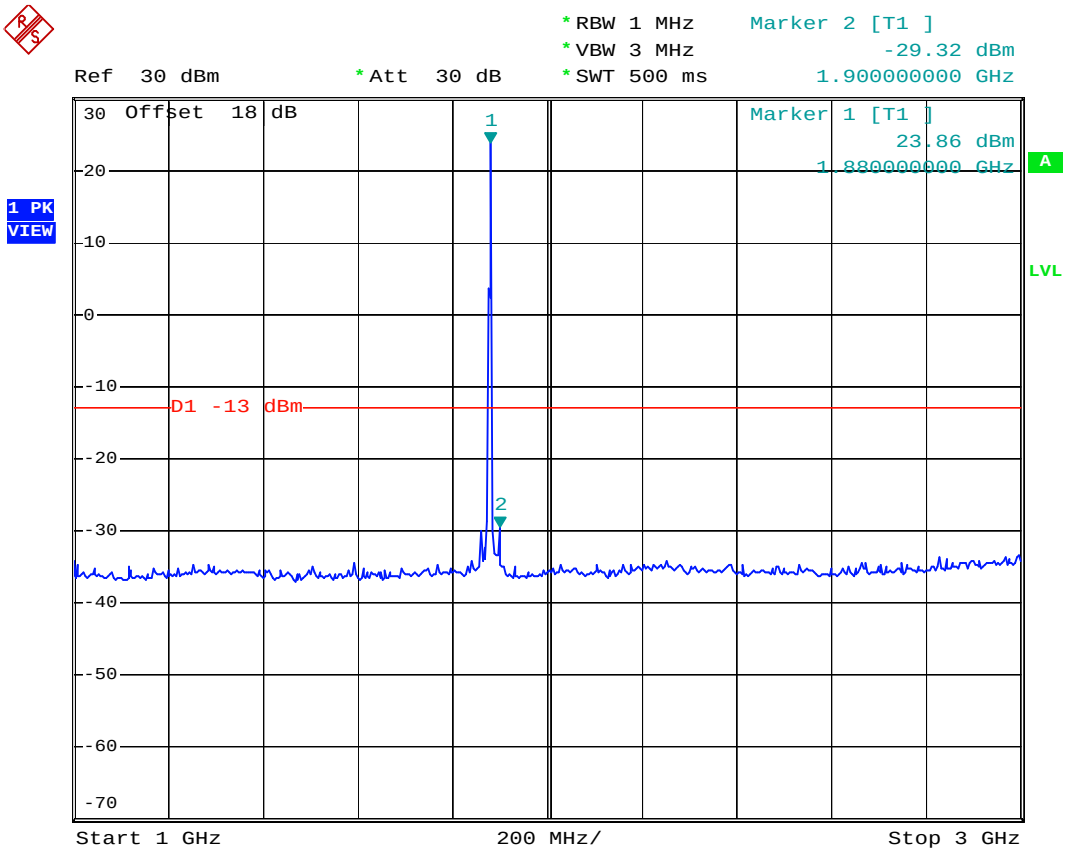
Date: 14.OCT.2006 17:24:02

- Test Mode : Mode 4
- Test Mode : CDMA2000 PCS1900 CH600 for 1xEV-DO
- Frequency Range : 0.3G-1G



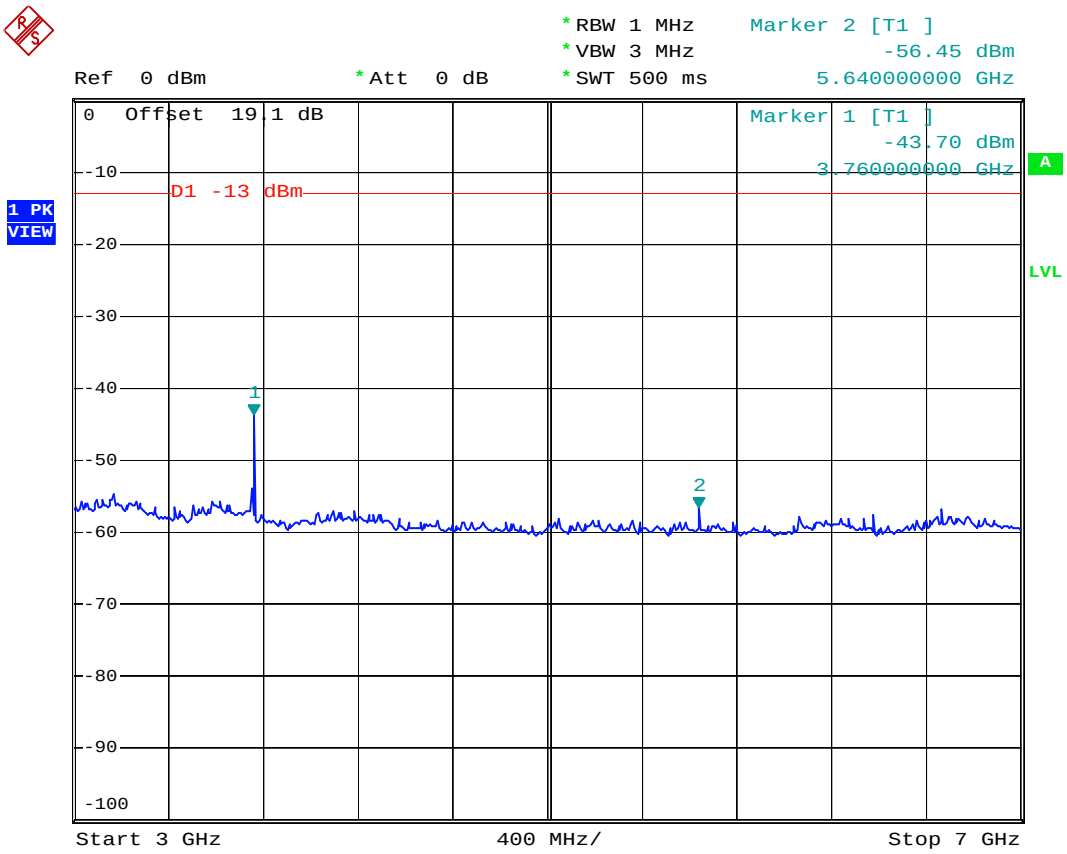
Date: 14.OCT.2006 20:53:12

- Test Mode : CDMA2000 PCS1900 CH600 for 1xEV-DO
- Frequency Range : 1G-3G



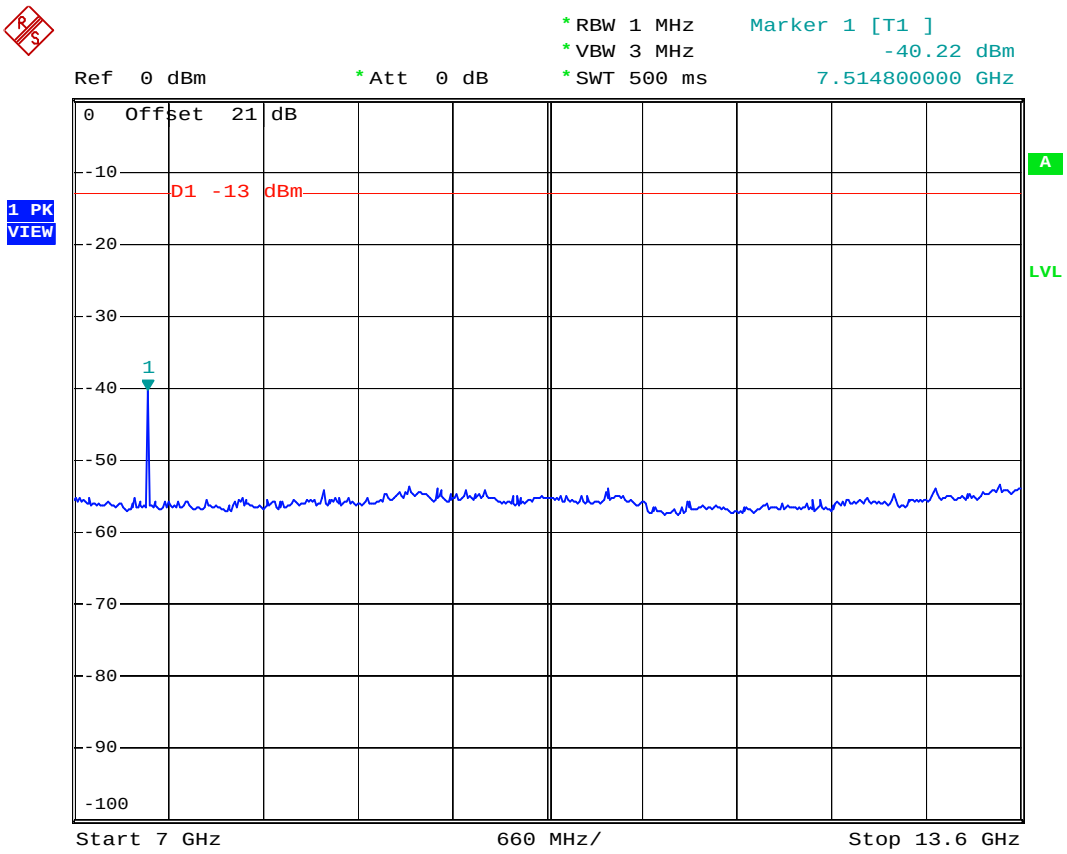
Date: 14.OCT.2006 20:51:57

- Test Mode : CDMA2000 PCS1900 CH600 for 1xEV-DO
- Frequency Range : 3G-7G



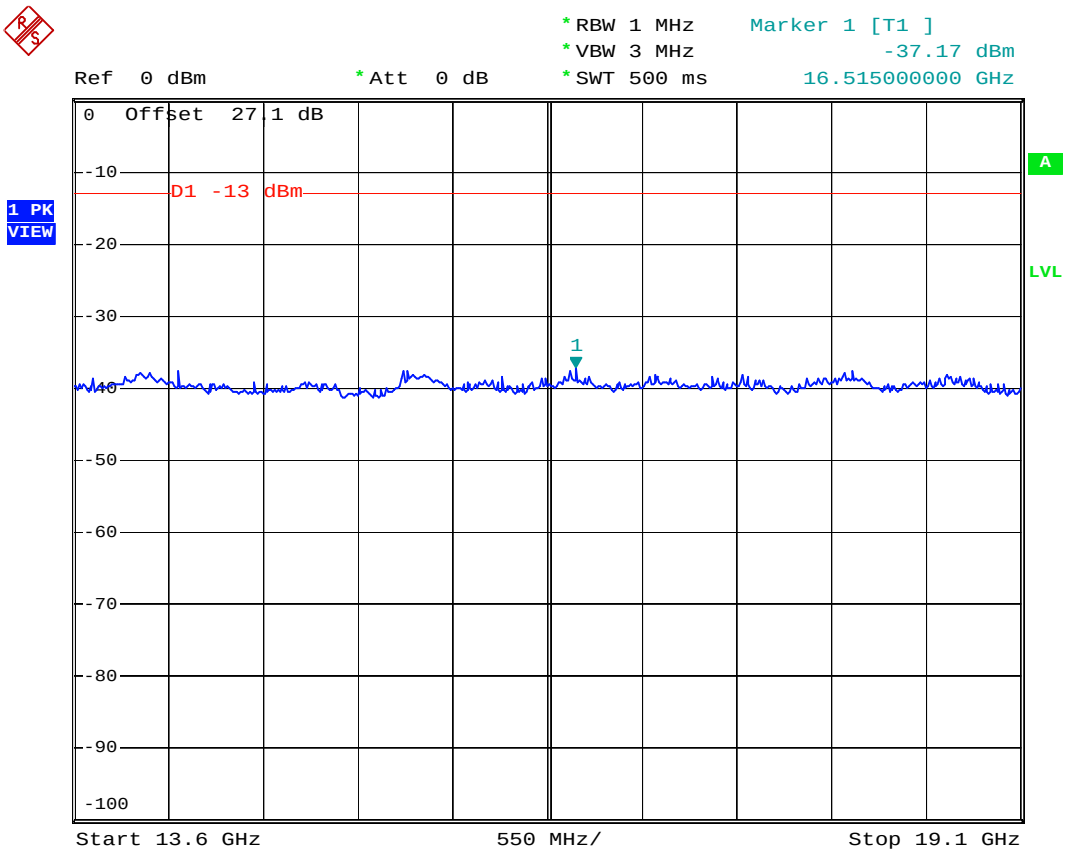
Date: 14.OCT.2006 20:55:15

- Test Mode : CDMA2000 PCS1900 CH600 for 1xEV-DO
- Frequency Range : 7G-13.6G



Date: 14.OCT.2006 21:01:06

- Test Mode : CDMA2000 PCS1900 CH600 for 1xEV-DO
- Frequency Range : 13.6G-19.1G



Date: 14.OCT.2006 21:02:31

4.6 Field Strength of Spurious Radiation

Equivalent isotropic radiated Power Measurements by substitution method according to TIA/EIA-603.

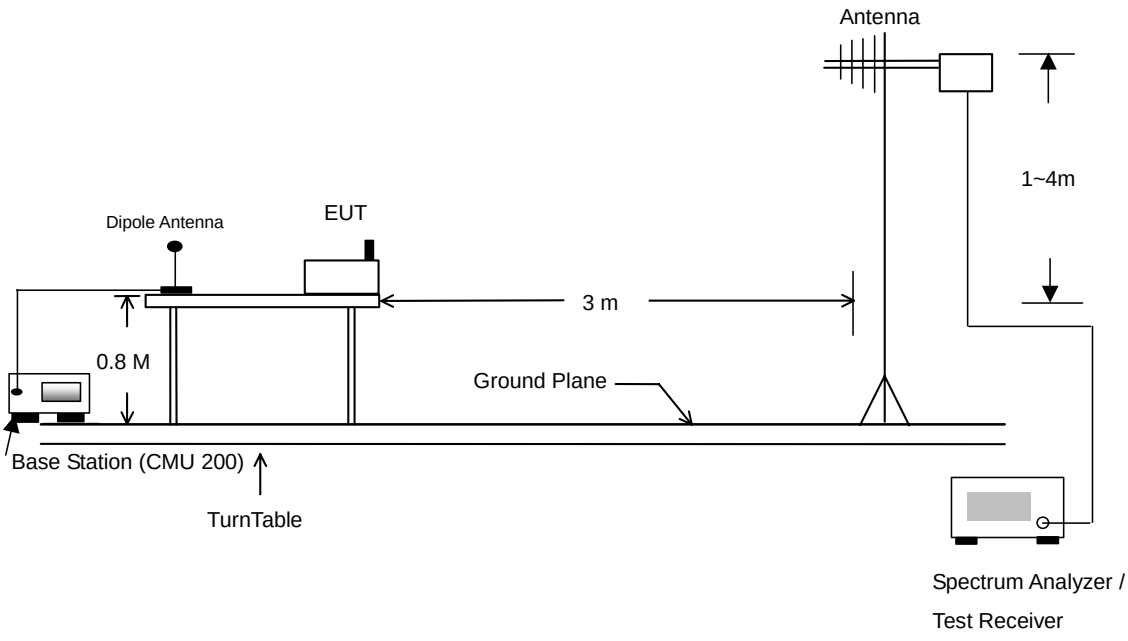
4.6.1 Measurement Instruments

As described in chapter 5 of this test report.

4.6.2 Test Procedure

1. The EUT was placed on a rotatable wooden table with 0.8 meter about ground.
2. The EUT was set 3 meters from the receiving antenna which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between one meter and four meters to reach the maximum spurious emission for both horizontal and vertical polarizations.
5. Taking the record of maximum spurious emission.
6. A Horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the recored of output power at antenna port.
9. Repeat step 7 to step 8 for another polariztion.
10. Emission level (dBm) = output power + substituion Gain.

4.6.3 Test Setup Layout



4.6.4 Test Result

- Test Mode : Mode 1

CDMA2000 Cellular850 Band 1xRTT with Radiated Spurious ERP							
H Polarization				V Polarization			
Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)
32.970	-60.760	-13	-47.76	58.890	-58.200	-13	-45.20
83.730	-60.810	-13	-47.81	**98.580**	**-50.130**	**-13**	**-37.13**
248.430	-65.820	-13	-52.82	249.780	-61.890	-13	-48.89
798.400	-59.180	-13	-46.18	798.400	-51.540	-13	-38.54
1064.000	-55.500	-13	-42.50	1064.000	-54.110	-13	-41.11
1754.000	-55.380	-13	-42.38	1674.000	-61.180	-13	-48.18
				3344.000	-56.600	-13	-43.60

- Test Mode : Mode 2

CDMA2000 Cellular850 Band 1xEV-DO with Radiated Spurious ERP							
H Polarization				V Polarization			
Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)
31.080	-66.140	-13	-53.14	48.630	-58.840	-13	-45.84
162.840	-64.200	-13	-51.20	60.780	-58.330	-13	-45.33
251.940	-62.010	-13	-49.01	81.030	-56.510	-13	-43.51
798.400	-62.770	-13	-49.77	796.300	-57.600	-13	-44.60
1058.000	**-51.150**	**-13**	**-38.15**	1064.000	-52.600	-13	-39.60
1324.000	-56.080	-13	-43.08	1324.000	-60.320	-13	-47.32
				1378.000	-59.750	-13	-46.75
				1598.000	-58.540	-13	-45.54

- Test Mode : Mode 3

CDMA2000 PCS1900 Band 1xRTT with Radiated Spurious EIRP							
H Polarization				V Polarization			
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)
30.000	-55.340	-13	-42.34	59.430	-54.950	-13	-41.95
85.890	-58.820	-13	-45.82	99.390	-48.330	-13	-35.33
249.240	-59.110	-13	-46.11	249.780	-56.080	-13	-43.08
334.300	-61.860	-13	-48.86	372.800	-61.480	-13	-48.48
435.800	-60.070	-13	-47.07	435.800	-56.380	-13	-43.38
796.300	-60.190	-13	-47.19	**798.400**	**-50.010**	**-13**	**-37.01**
1064.000	-52.880	-13	-39.88	1064.000	-51.770	-13	-38.77
				1594.000	-57.460	-13	-44.46
				3758.000	-53.750	-13	-40.75
				5638.000	-52.370	-13	-39.37

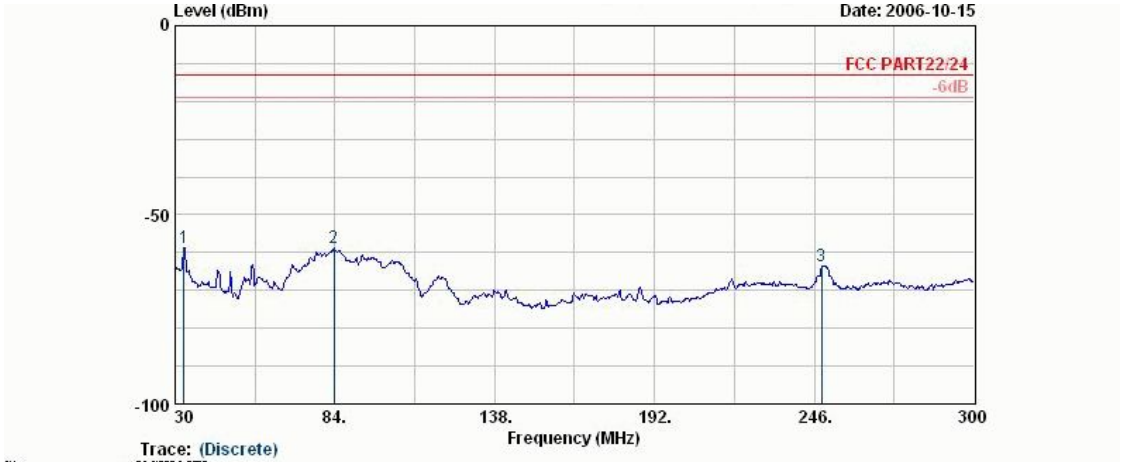
- Test Mode : Mode 4

CDMA2000 PCS1900 Band 1xEV-DO with Radiated Spurious EIRP							
H Polarization				V Polarization			
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)
30.270	-63.710	-13	-50.71	58.890	-54.440	-13	-41.44
165.540	-62.620	-13	-49.62	77.790	-50.210	-13	-37.21
295.140	-62.030	-13	-49.03	98.580	-53.550	-13	-40.55
799.800	-60.500	-13	-47.50	796.300	-55.930	-13	-42.93
931.400	-62.470	-13	-49.47	945.400	-60.630	-13	-47.63
994.400	-62.660	-13	-49.66	964.300	-60.750	-13	-47.75
1064.000	-48.680	-13	-35.68	**1064.000**	**-48.110**	**-13**	**-35.11**
1334.000	-49.790	-13	-36.79	1334.000	-55.310	-13	-42.31
5638.000	-50.930	-13	-37.93	1594.000	-57.220	-13	-44.22
				3758.000	-50.460	-13	-37.46
				5638.000	-49.550	-13	-36.55

4.6.5 Test Data

4.6.5.1 Test Mode : Mode 1

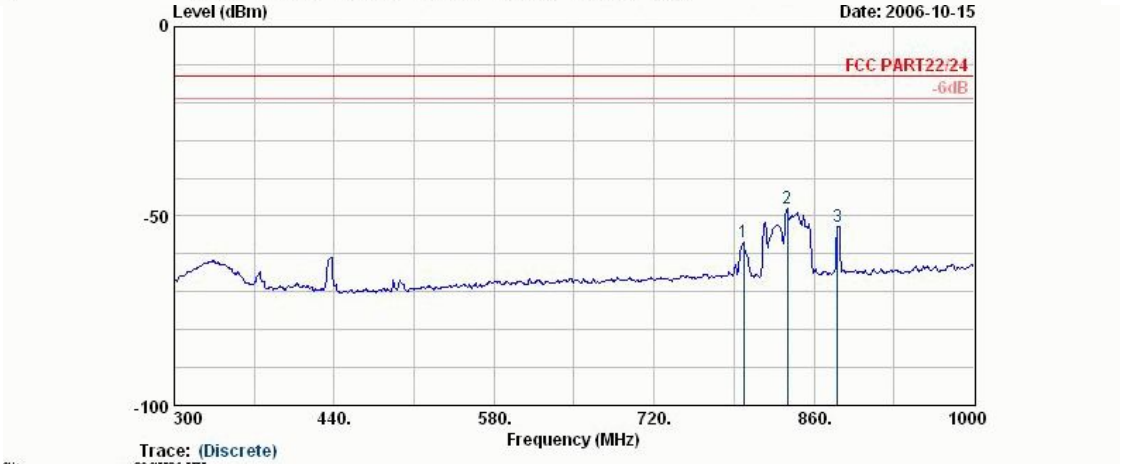
Horizontal Polarization



Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 Cellular Link;CH384_836.52MHz
: +Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	33.0	-58.61	-45.61	-13.00	-57.14	-1.47	Peak
2	83.7	-58.66	-45.66	-13.00	-46.36	-12.30	Peak
3	248.4	-63.67	-50.67	-13.00	-51.95	-11.72	Peak



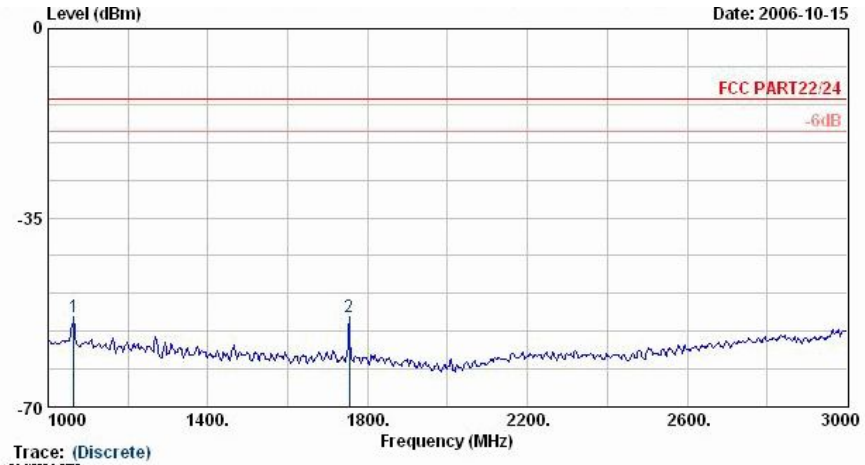
Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 Cellular Link;CH384_836.52MHz
: +Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	798.4	-57.03	-44.03	-13.00	-55.32	-1.71	Peak
2 @	836.9	-47.95			-46.62	-1.33	Peak
3 @	880.3	-52.63			-51.72	-0.91	Peak

Remark:

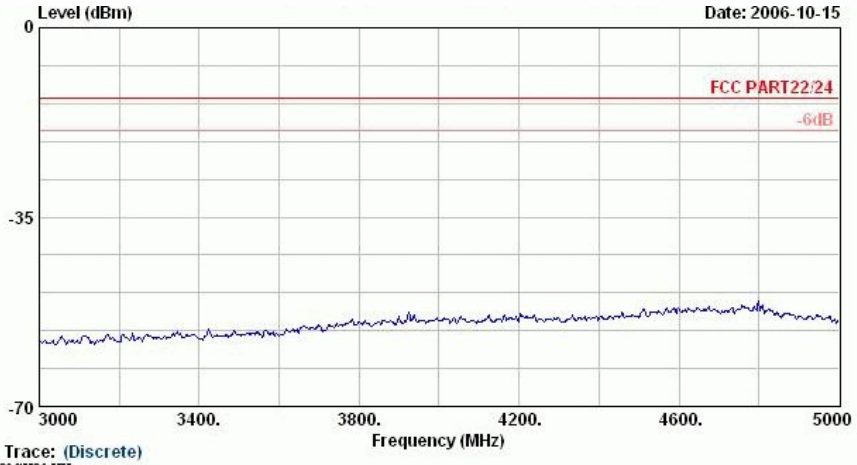
1. #2: MS signal
2. #3: BS signal



Trace: (Discrete)

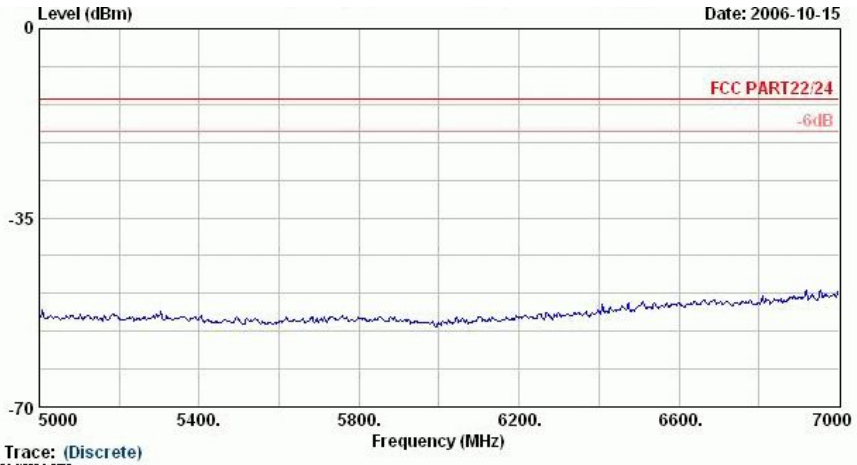
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 Cellular Link;CH384_836.52MHz
: +Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1064.0	-53.35	-40.35	-13.00	-54.98	1.64	Peak
2 @	1754.0	-53.23	-40.23	-13.00	-53.16	-0.07	Peak

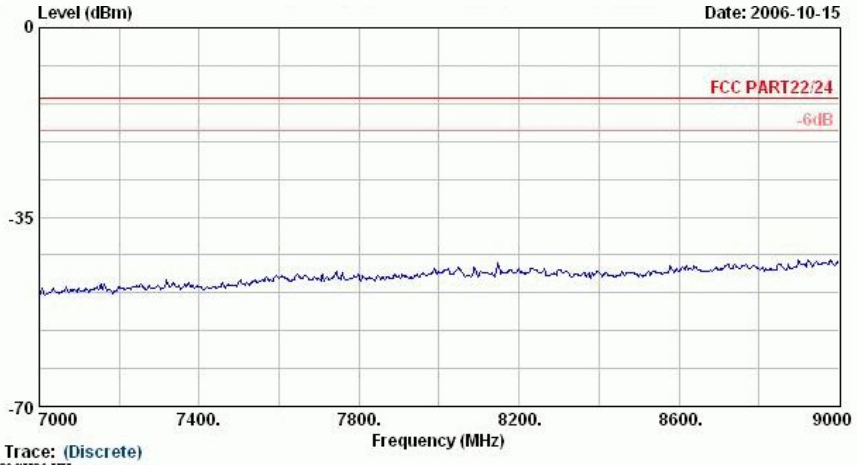


Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 Cellular Link;CH384_836.52MHz
: +Adaptor

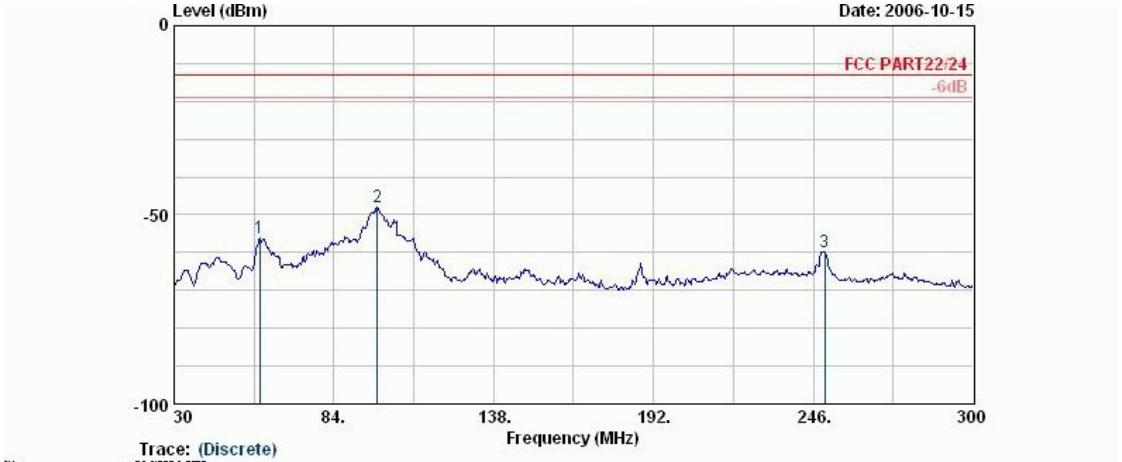


Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 Cellular Link;CH384_836.52MHz
: +Adaptor



Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 Cellular Link;CH384_836.52MHz
: +Adaptor

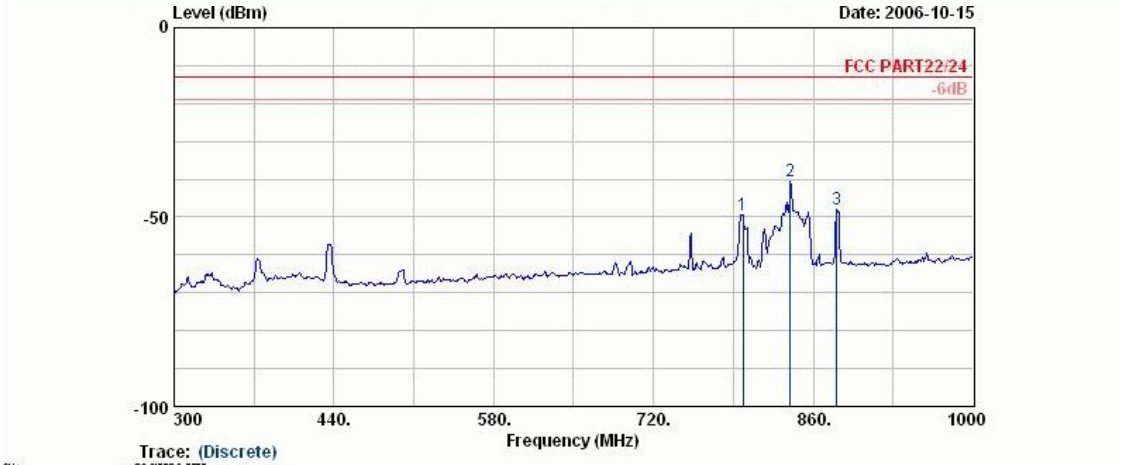
Vertical Polarization



Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 Cellular Link;CH384_836.52MHz
: +Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	58.9	-56.05	-43.05	-13.00	-42.49	-13.56	Peak
2 @	98.6	-47.98	-34.98	-13.00	-40.15	-7.83	Peak
3	249.8	-59.74	-46.74	-13.00	-52.22	-7.51	Peak



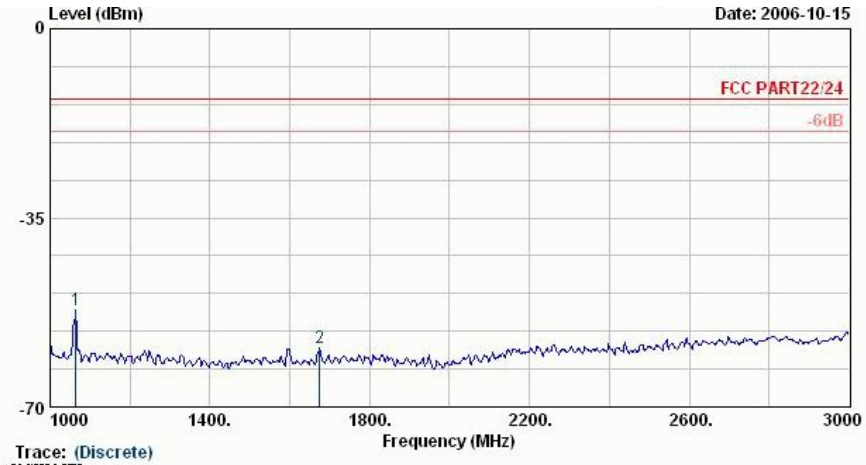
Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 Cellular Link;CH384_836.52MHz
: +Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	798.4	-49.39	-36.39	-13.00	-50.44	1.04	Peak
2 @	839.7	-40.70			-42.09	1.39	Peak
3 @	880.3	-48.00			-49.72	1.71	Peak

Remark:

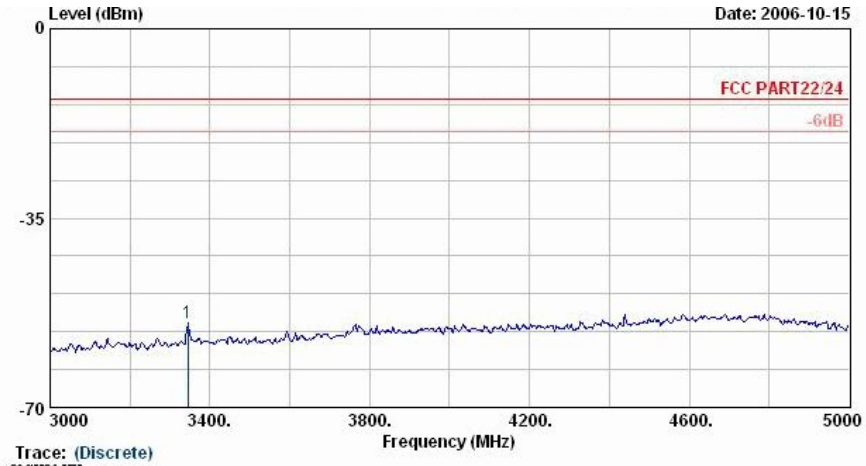
1. #2: MS signal
2. #3: BS signal



Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : 3G Notebook
Powex : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 Cellular Link;CH384_836.52MHz
: +Adaptor

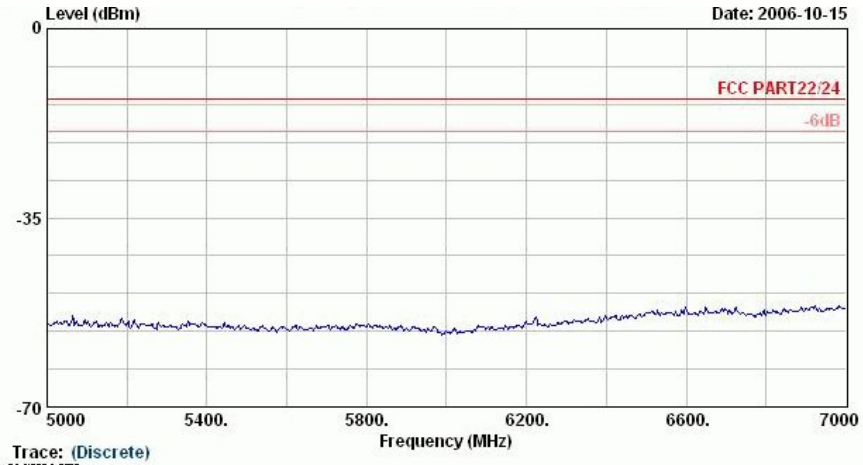
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1064.0	-51.96	-38.96	-13.00	-51.18	-0.79	Peak
2	1674.0	-59.03	-46.03	-13.00	-58.55	-0.48	Peak



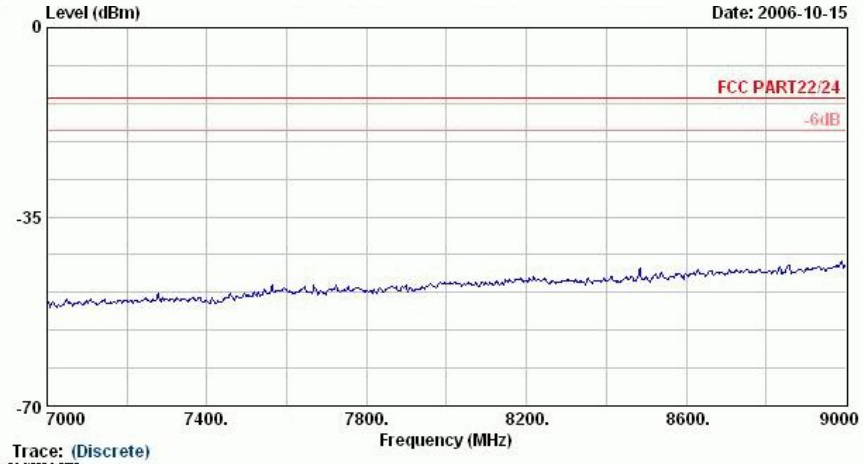
Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : 3G Notebook
Powex : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 Cellular Link;CH384_836.52MHz
: +Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	3344.0	-54.45	-41.45	-13.00	-58.92	4.47	Peak



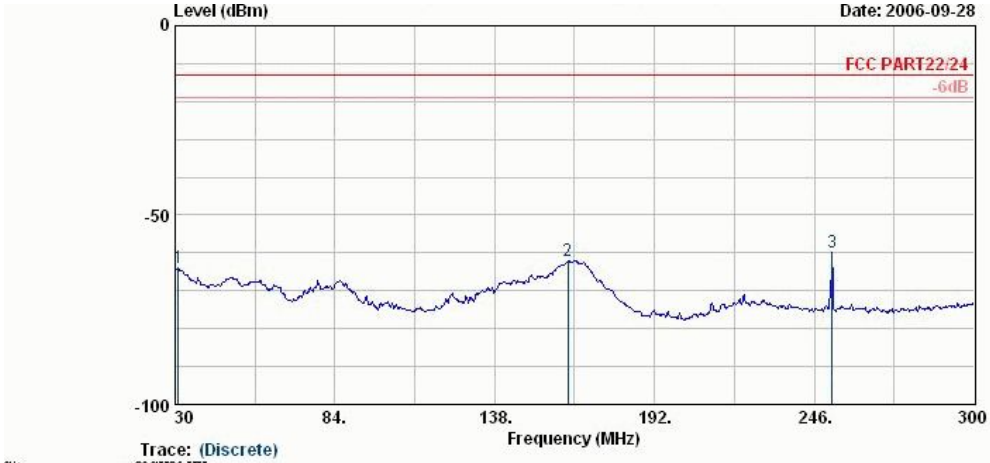
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 Cellular Link;CH384_836.52MHz
: +Adaptor



Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 Cellular Link;CH384_836.52MHz
: +Adaptor

4.6.5.2 Test Mode : Mode 2

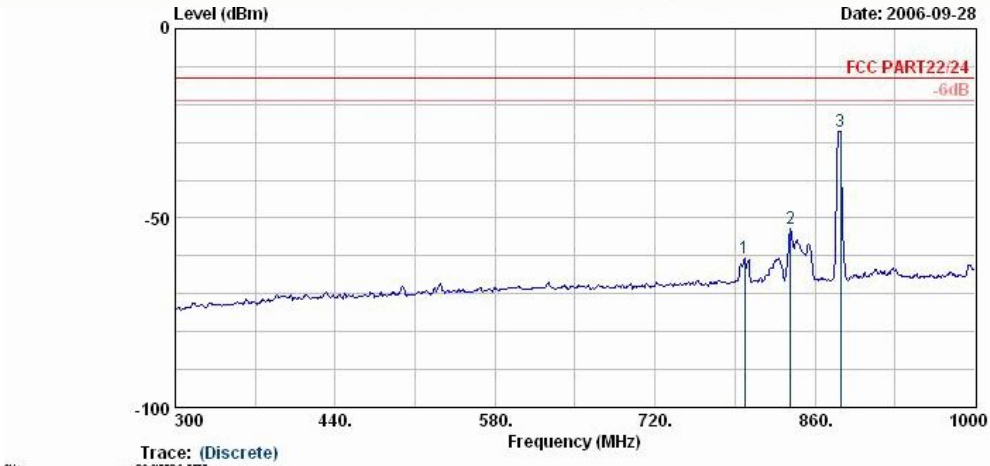
Horizontal Polarization



Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 Cellular Link;836.52MHz+Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	31.1	-63.99	-50.99	-13.00	-63.74	-0.25	Peak
2	162.8	-62.05	-49.05	-13.00	-49.08	-12.97	Peak
3	251.9	-59.86	-46.86	-13.00	-48.27	-11.58	Peak



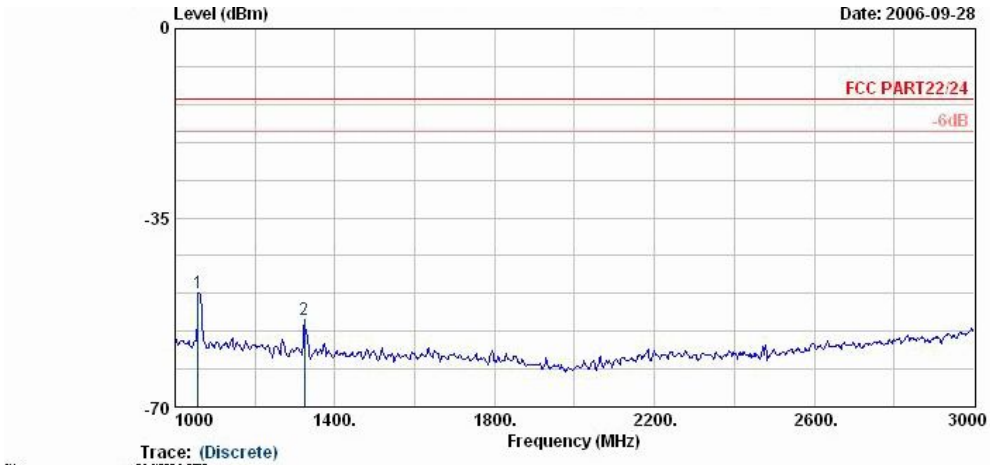
Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 Cellular Link;836.52MHz+Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	798.4	-60.62	-47.62	-13.00	-58.91	-1.71	Peak
2 @	838.3	-52.77			-51.45	-1.32	Peak
3 @	882.4	-27.15			-26.26	-0.89	Peak

Remark:

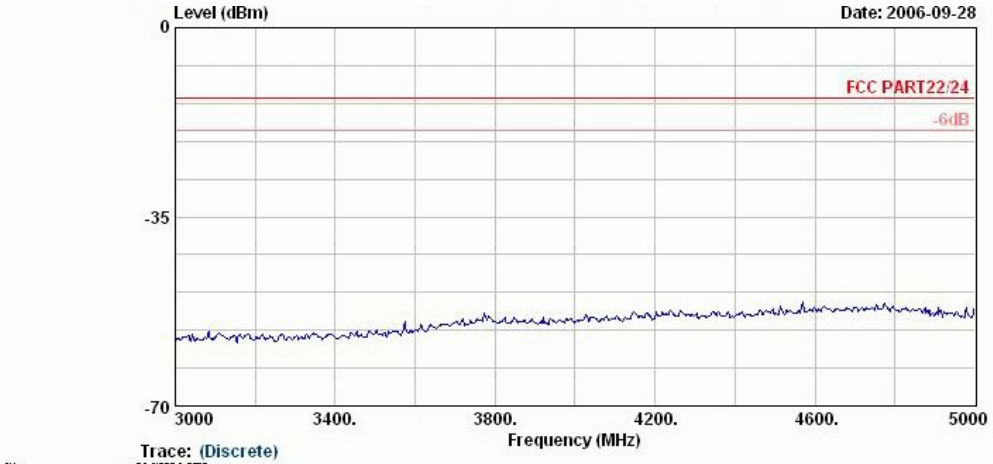
1. #2: MS signal
2. #3: BS signal



Trace: (Discrete)

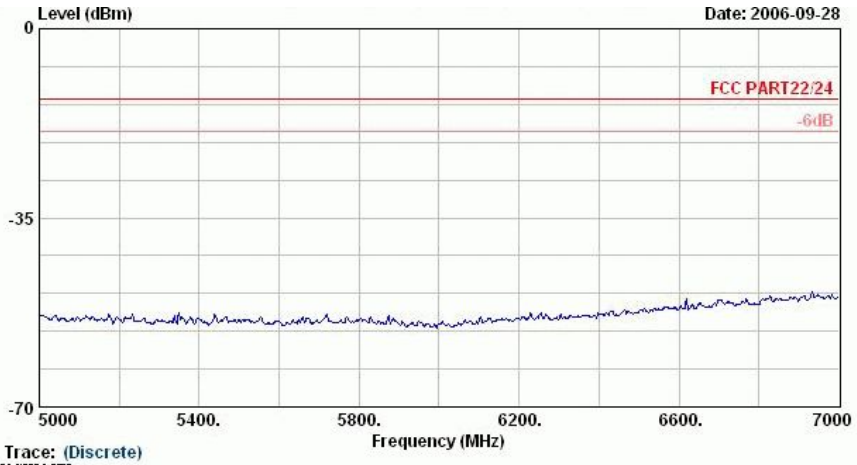
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 Cellular Link;836.52MHz+Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1058.0	-49.00	-36.00	-13.00	-50.71	1.71	Peak
2 @	1324.0	-53.93	-40.93	-13.00	-54.88	0.96	Peak

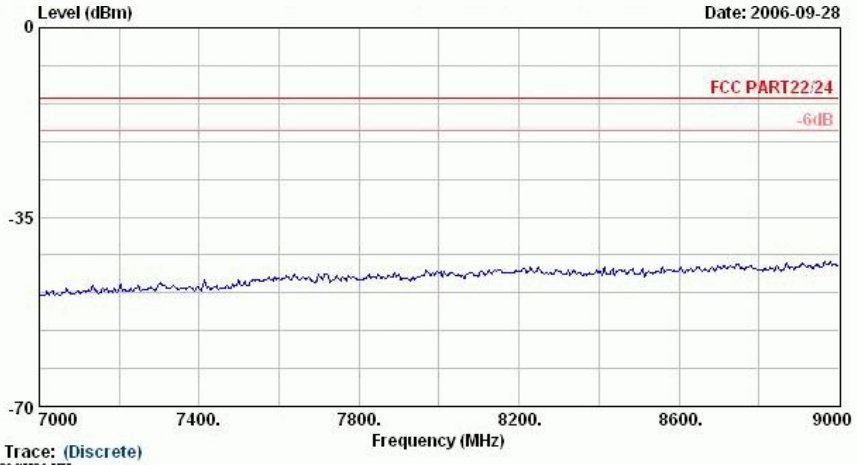


Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 Cellular Link;836.52MHz+Adaptor

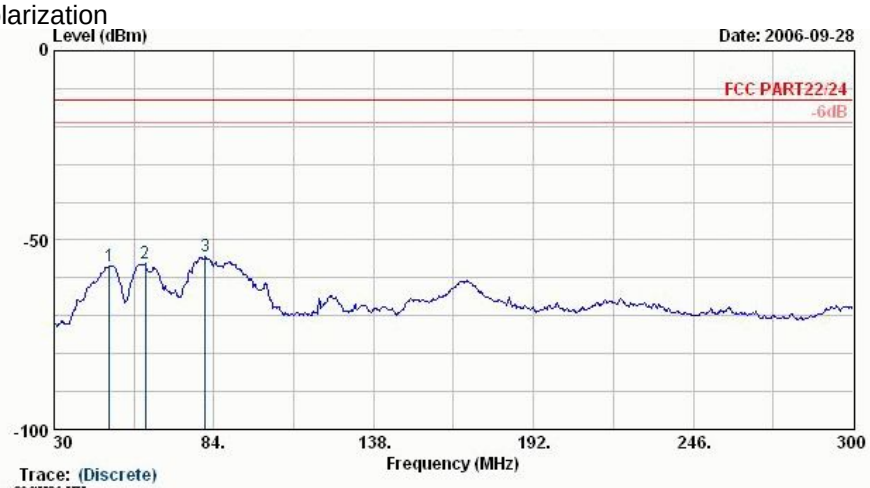


Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 Cellular Link;836.52MHz+Adaptor



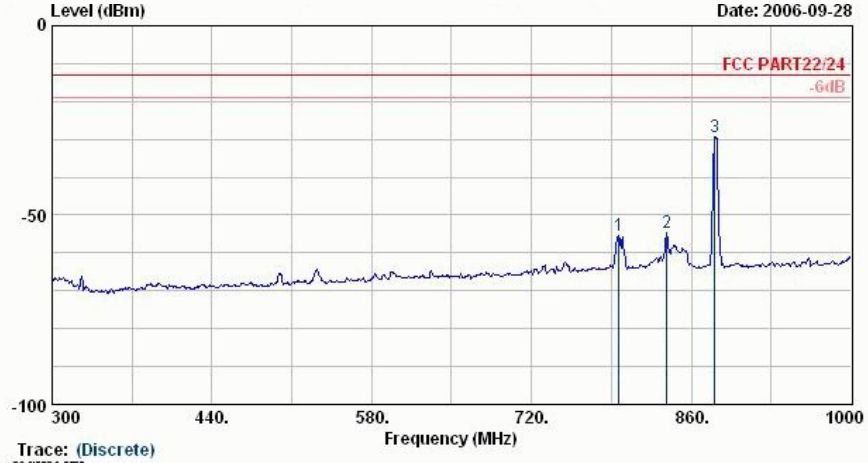
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 Cellular Link;836.52MHz+Adaptor

Vertical Polarization



Site : 03CH06-HY
Condition : LF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : PG 692505
Mode : CDMA2000 Cellular Link;836.52MHz+Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	48.6	-56.69	-43.69	-13.00	-42.42	-14.27	Peak
2	60.8	-56.18	-43.18	-13.00	-42.90	-13.28	Peak
3 @	81.0	-54.36	-41.36	-13.00	-44.02	-10.35	Peak

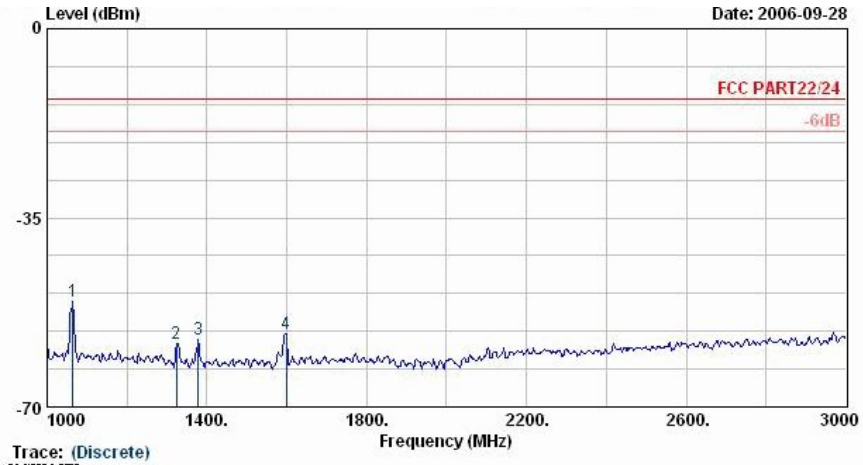


Site : 03CH06-HY
Condition : LF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : PG 692505
Mode : CDMA2000 Cellular Link;836.52MHz+Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	796.3	-55.45	-42.45	-13.00	-56.46	1.01	Peak
2	838.3	-54.74			-56.11	1.37	Peak
3 @	880.3	-29.47			-31.18	1.71	Peak

Remark:

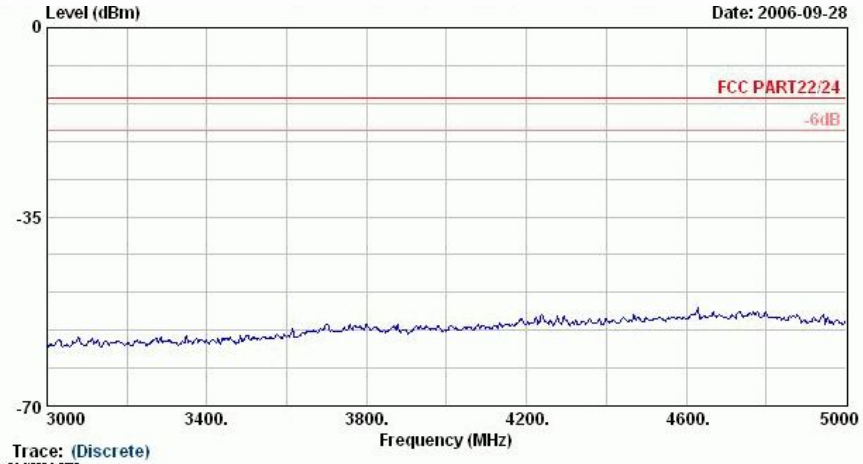
1. #2: MS signal
2. #3: BS signal



Trace: (Discrete)

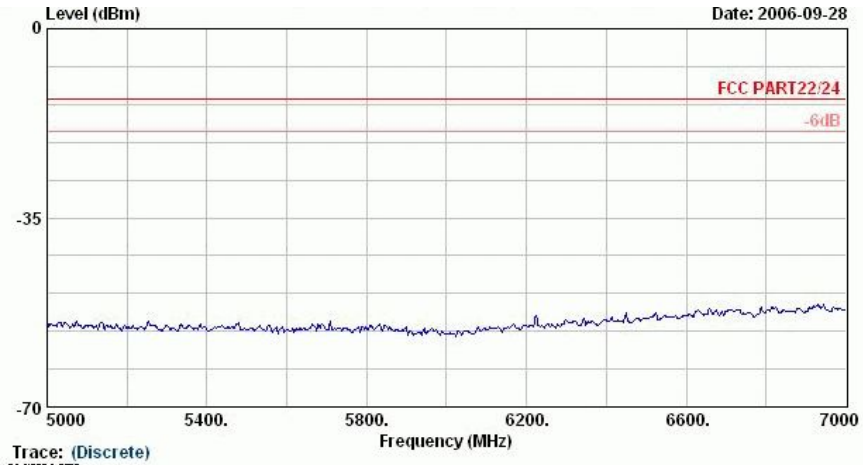
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 Cellular Link;836.52MHz+Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1064.0	-50.45	-37.45	-13.00	-49.67	-0.79	Peak
2	1324.0	-58.17	-45.17	-13.00	-57.37	-0.80	Peak
3	1378.0	-57.60	-44.60	-13.00	-56.67	-0.93	Peak
4	1598.0	-56.39	-43.39	-13.00	-55.72	-0.67	Peak

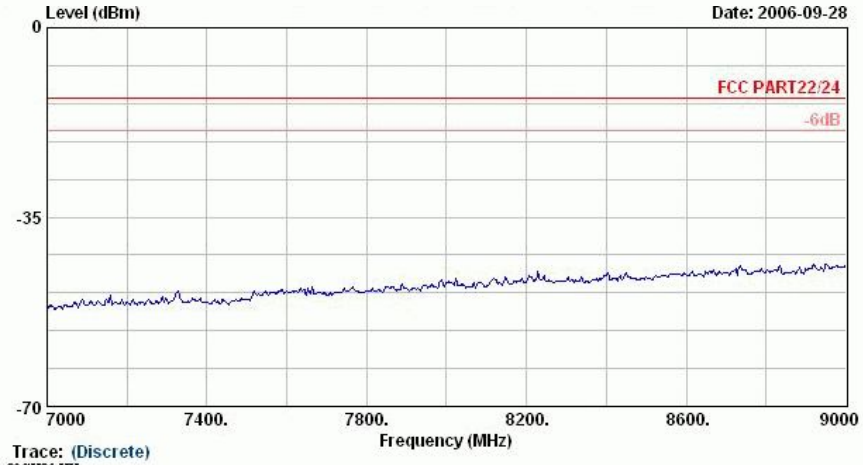


Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 Cellular Link;836.52MHz+Adaptor



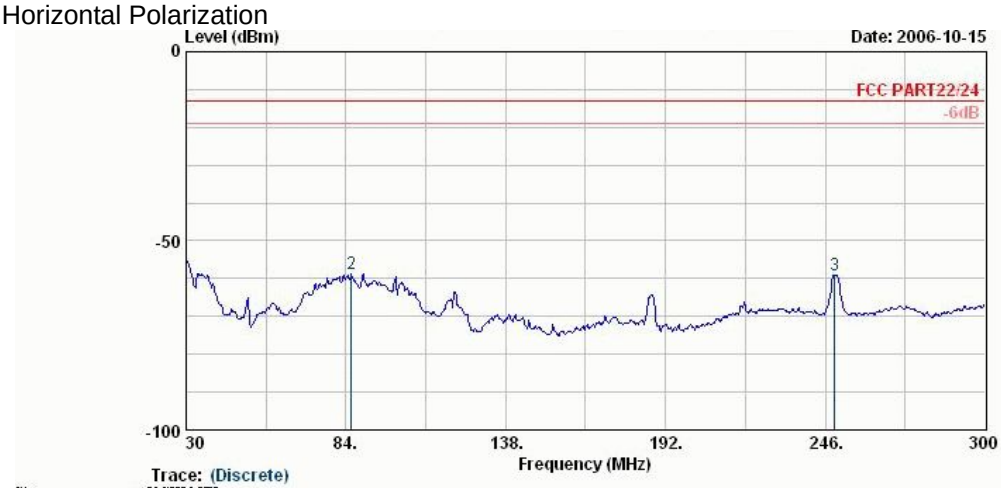
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : 3G Notebook
Powex : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 Cellular Link;836.52MHz+Adaptor



Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : 3G Notebook
Powex : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 Cellular Link;836.52MHz+Adaptor

4.6.5.2 Test Mode : Mode 3

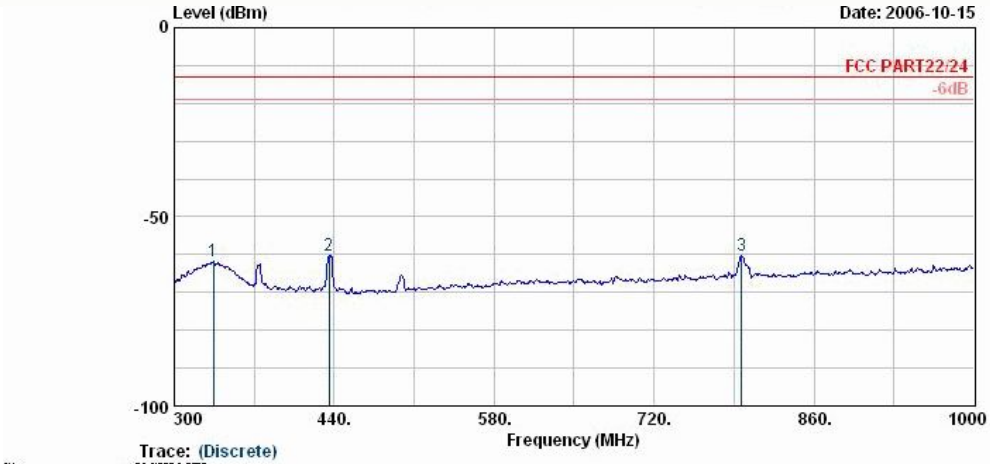
Horizontal Polarization



Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;CH600_1880MHz+Adaptor

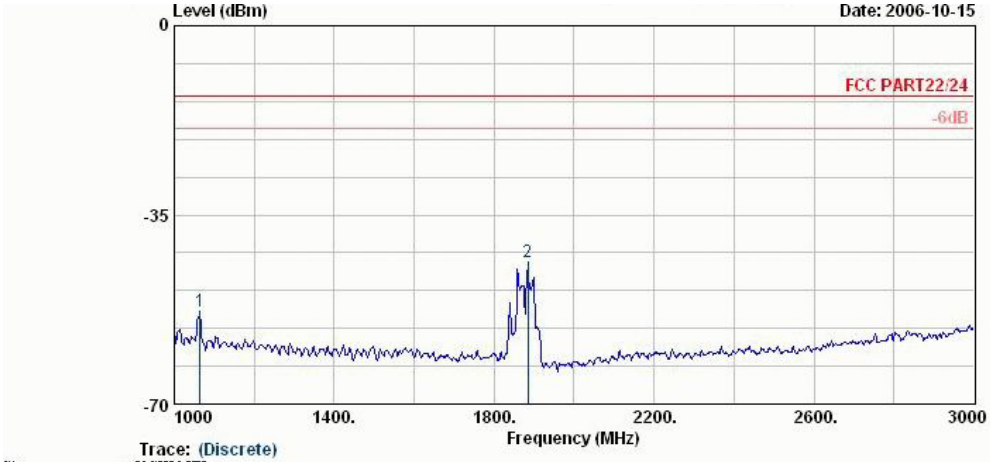
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	30.0	-55.34	-42.34	-13.00	-55.70	0.36	Peak
2	85.9	-58.82	-45.82	-13.00	-46.53	-12.29	Peak
3	249.2	-59.11	-46.11	-13.00	-47.42	-11.68	Peak



Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;CH600_1880MHz+Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	334.3	-61.86	-48.86	-13.00	-53.12	-8.74	Peak
2	435.8	-60.07	-47.07	-13.00	-54.06	-6.01	Peak
3	796.3	-60.19	-47.19	-13.00	-58.46	-1.73	Peak



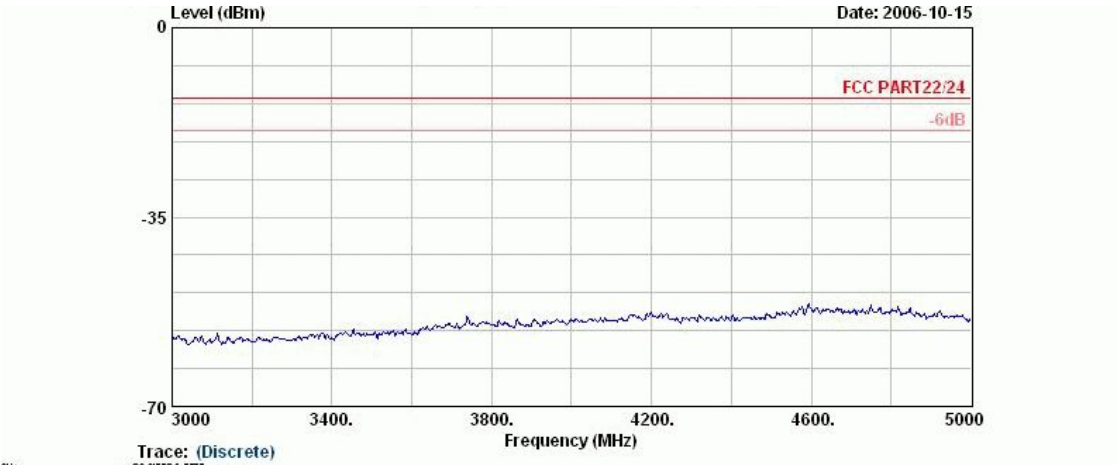
Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;CH600_1880MHz+Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1064.0	-52.88	-39.88	-13.00	-54.51	1.64	Peak
2 @	1884.0	-43.65			-42.97	-0.68	Peak

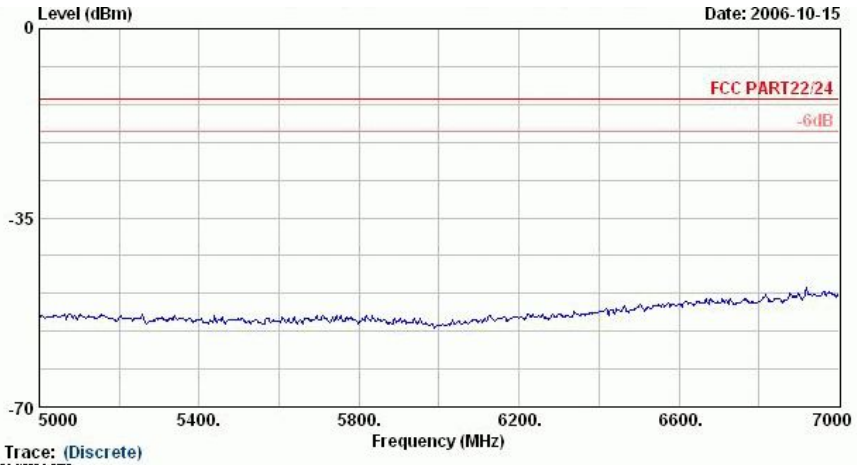
Remark:

1. #2: MS signal

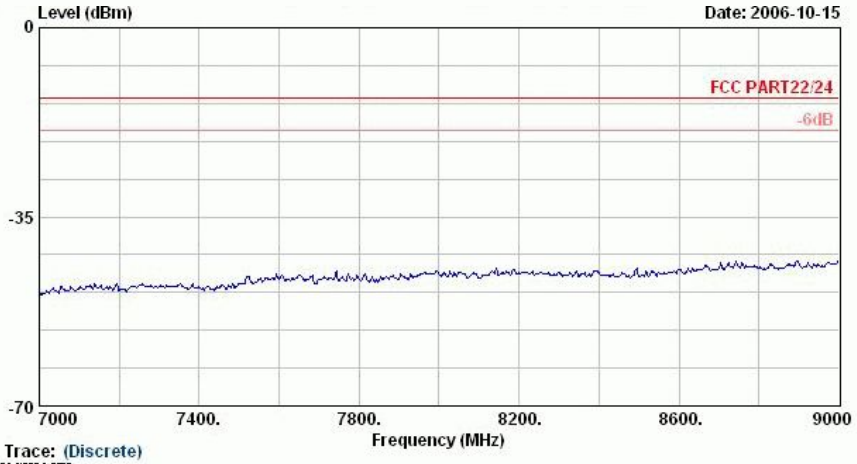


Trace: (Discrete)

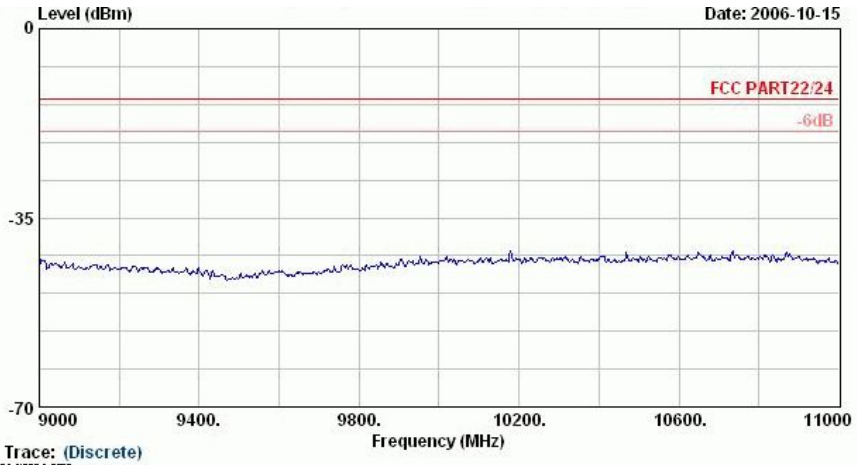
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;CH600_1880MHz+Adaptor



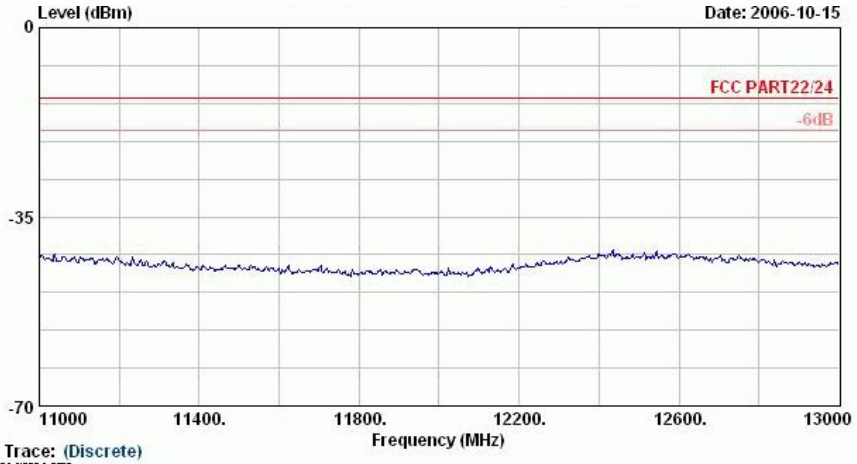
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;CH600_1880MHz+Adaptor



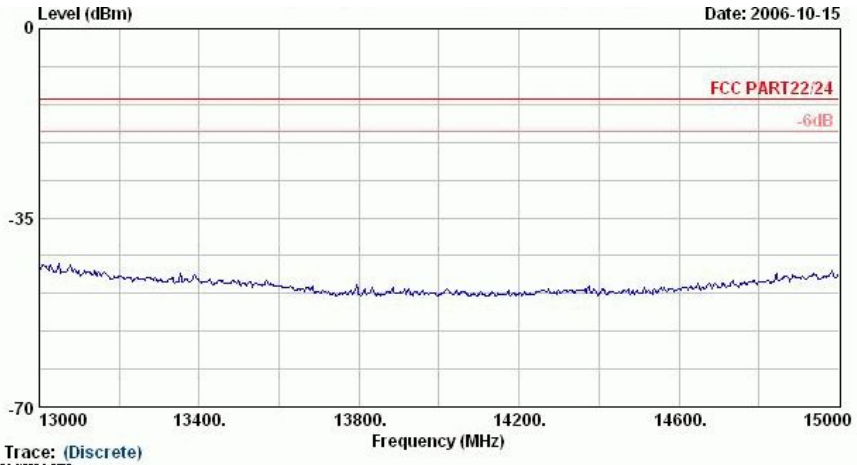
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;CH600_1880MHz+Adaptor



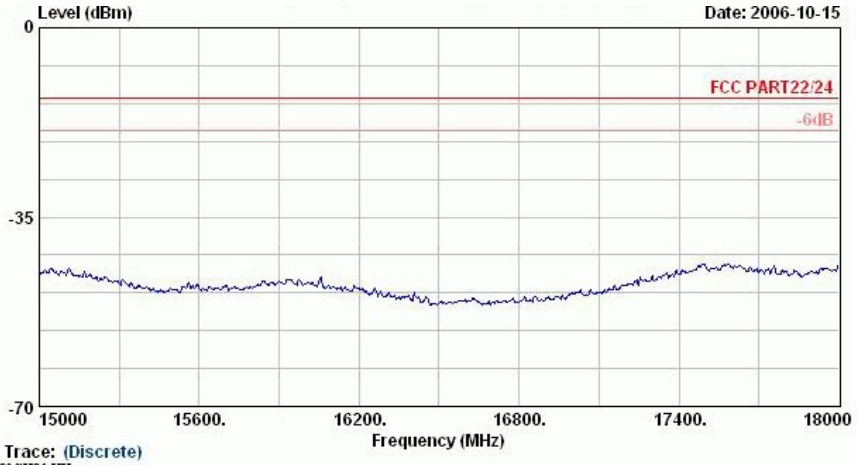
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;CH600_1880MHz+Adaptor



Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;CH600_1880MHz+Adaptor

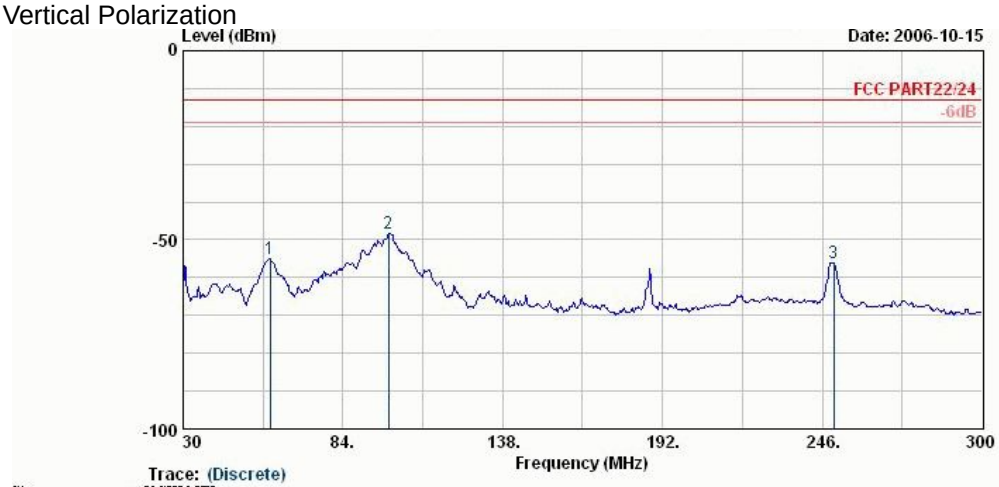


Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;CH600_1880MHz+Adaptor



Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;CH600_1880MHz+Adaptor

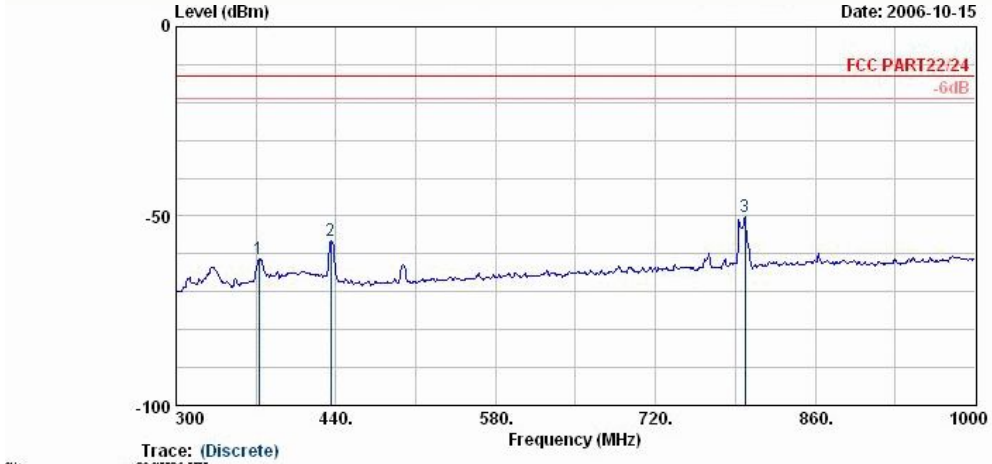
Vertical Polarization



Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : PG 692505
Mode : CDMA2000 PCS Link;CH600_1880MHz+Adaptor

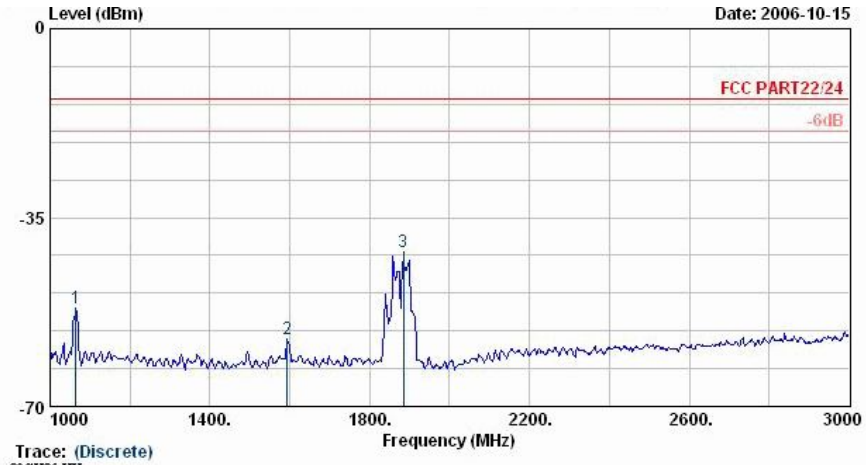
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	59.4	-54.95	-41.95	-13.00	-41.39	-13.56	Peak
2 @	99.4	-48.33	-35.33	-13.00	-40.64	-7.69	Peak
3	249.8	-56.08	-43.08	-13.00	-48.56	-7.51	Peak



Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : PG 692505
Mode : CDMA2000 PCS Link;CH600_1880MHz+Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	372.8	-61.48	-48.48	-13.00	-56.57	-4.91	Peak
2	435.8	-56.38	-43.38	-13.00	-52.48	-3.90	Peak
3 @	798.4	-50.01	-37.01	-13.00	-51.05	1.04	Peak



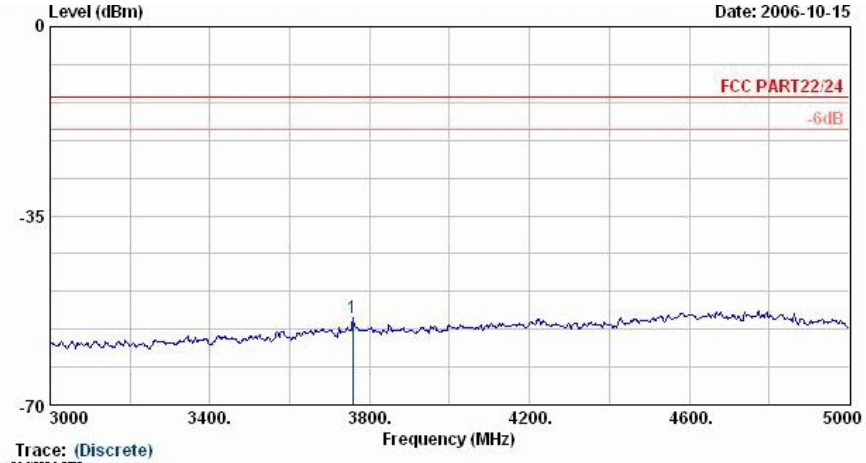
Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;CH600_1880MHz+Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1064.0	-51.77	-38.77	-13.00	-50.99	-0.79	Peak
2	1594.0	-57.46	-44.46	-13.00	-56.79	-0.67	Peak
3 @	1884.0	-41.42			-40.92	-0.50	Peak

Remark:

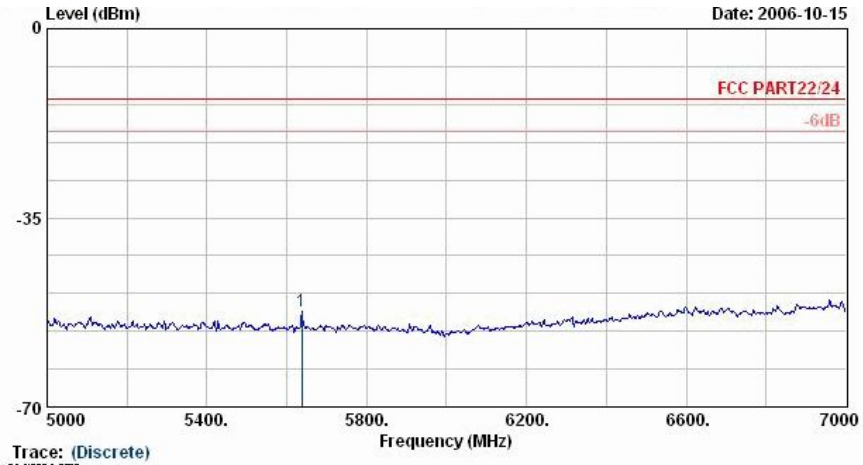
1. #3: MS signal



Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;CH600_1880MHz+Adaptor

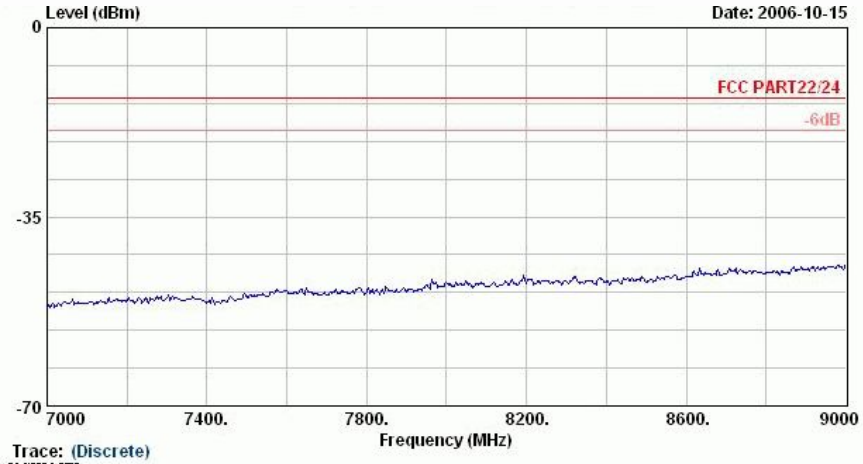
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	3758.0	-53.75	-40.75	-13.00	-60.39	6.64	Peak



Trace: (Discrete)

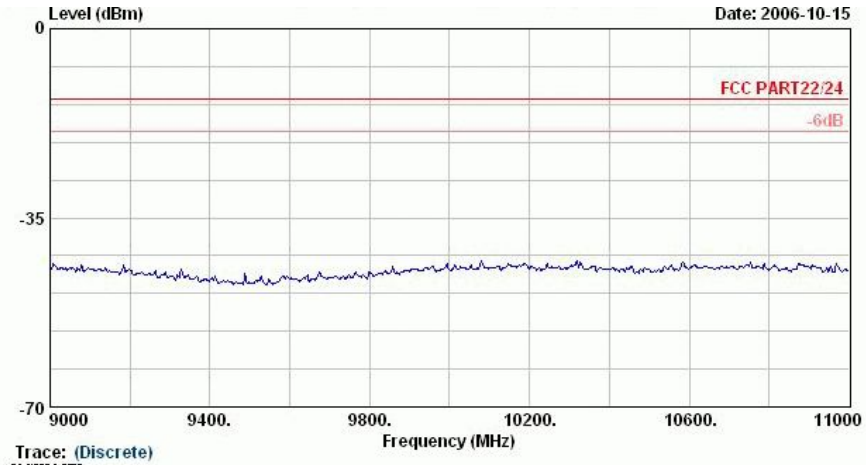
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;CH600_1880MHz+Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	5638.0	-52.37	-39.37	-13.00	-61.02	8.65	Peak

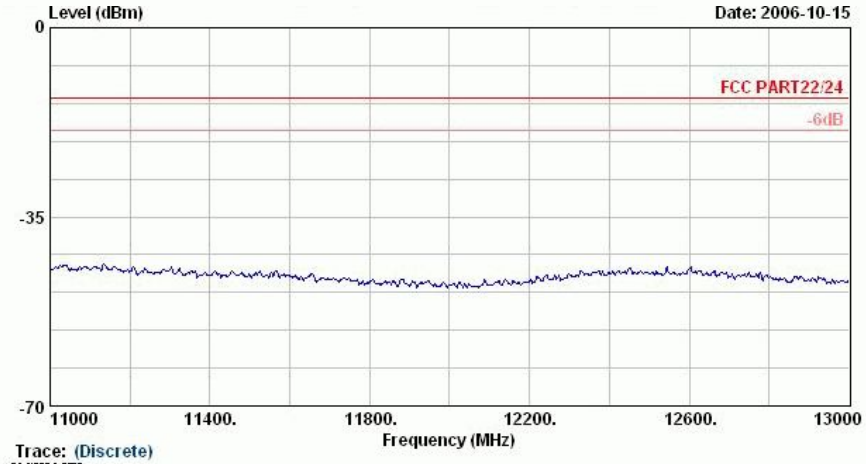


Trace: (Discrete)

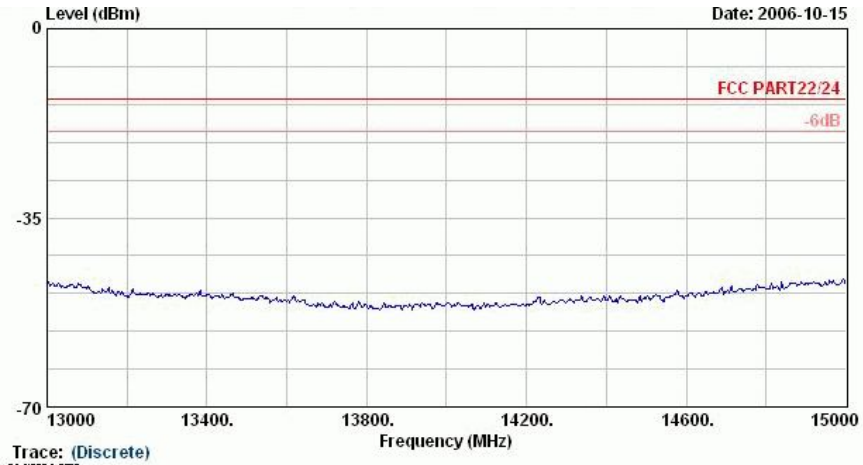
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;CH600_1880MHz+Adaptor



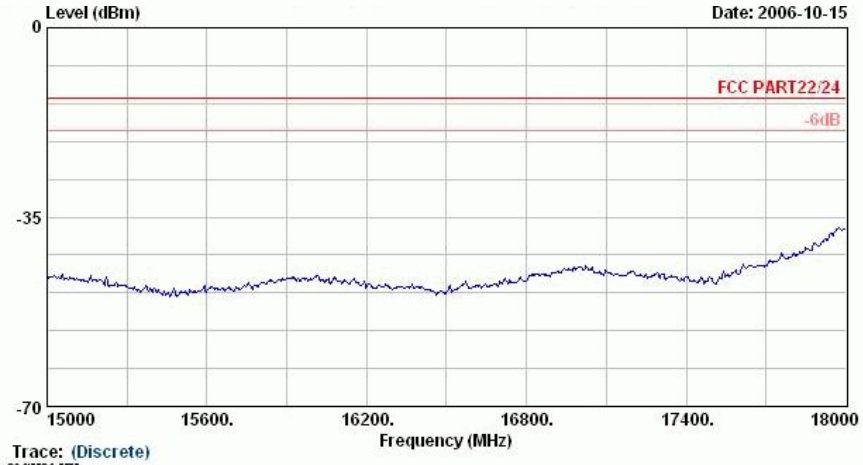
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;CH600_1880MHz+Adaptor



Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;CH600_1880MHz+Adaptor



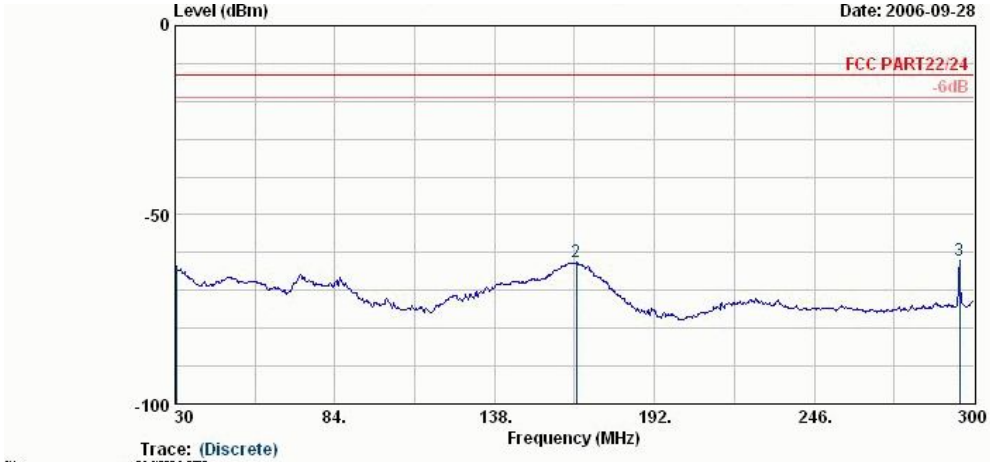
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : 3G Notebook
Powex : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;CH600_1880MHz+Adaptor



Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : 3G Notebook
Powex : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;CH600_1880MHz+Adaptor

4.6.5.2 Test Mode : Mode 4

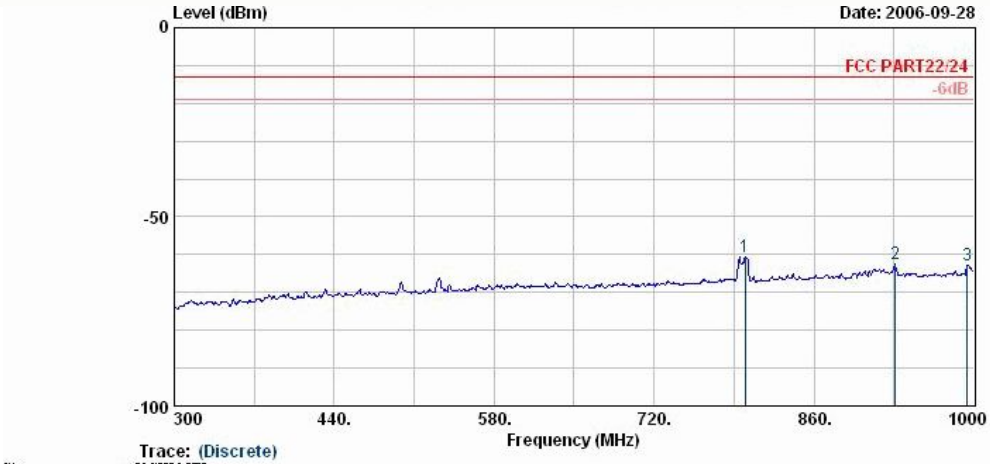
Horizontal Polarization



Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;1880MHz+Adaptor

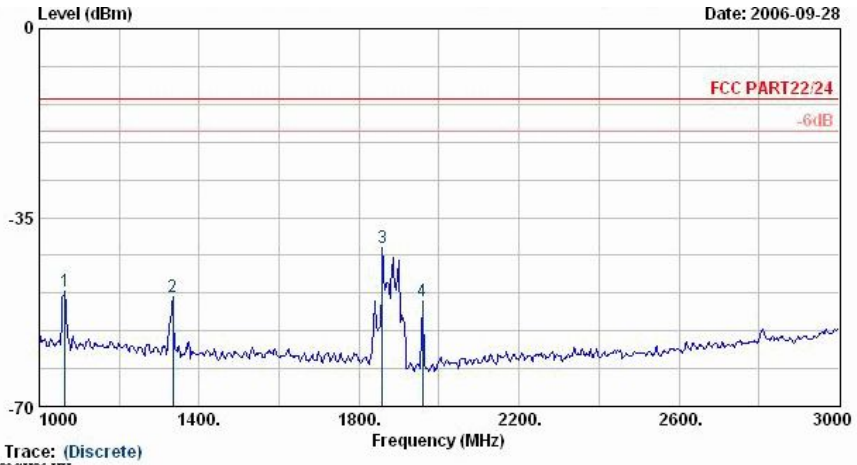
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	30.3	-63.71	-50.71	-13.00	-64.07	0.36	Peak
2	165.5	-62.62	-49.62	-13.00	-49.62	-13.00	Peak
3	295.1	-62.03	-49.03	-13.00	-51.91	-10.11	Peak



Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;1880MHz+Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	799.8	-60.50	-47.50	-13.00	-58.81	-1.69	Peak
2	931.4	-62.47	-49.47	-13.00	-62.05	-0.43	Peak
3	994.4	-62.66	-49.66	-13.00	-62.84	0.18	Peak



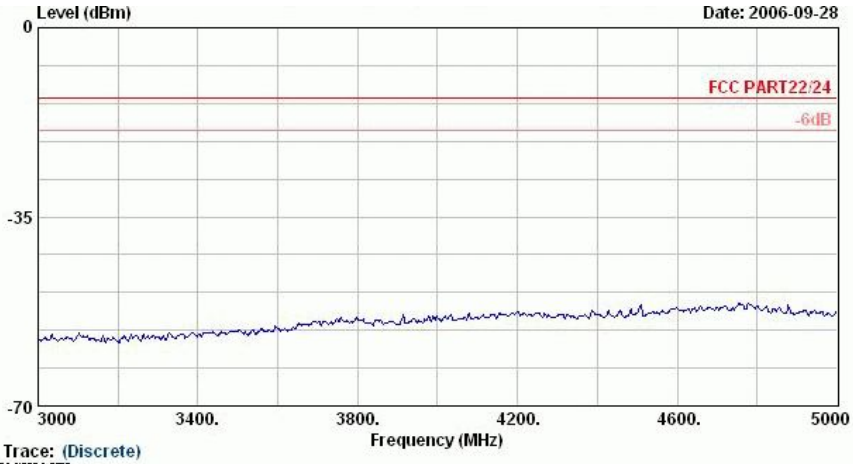
Trace: (Discrete)

Site : 08CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;1880MHz+Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1064.0	-48.68	-35.68	-13.00	-50.32	1.64	Peak
2 @	1334.0	-49.79	-36.79	-13.00	-50.75	0.96	Peak
3 @	1858.0	-40.59			-40.08	-0.51	Peak
4 @	1958.0	-50.55			-49.44	-1.11	Peak

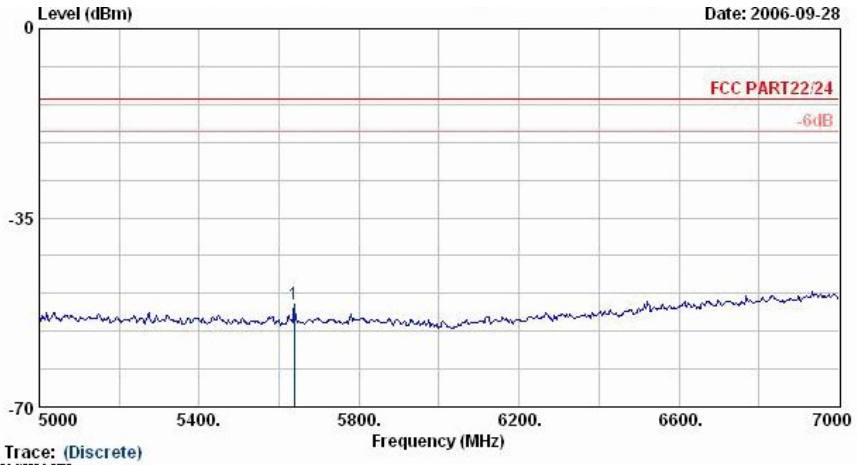
Remark:

1. #3: MS signal
2. #4: BS signal



Trace: (Discrete)

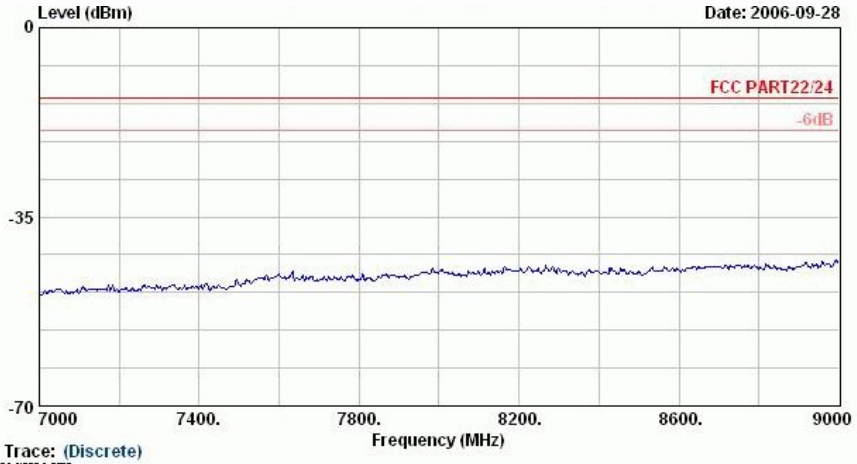
Site : 08CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;1880MHz+Adaptor



Trace: (Discrete)

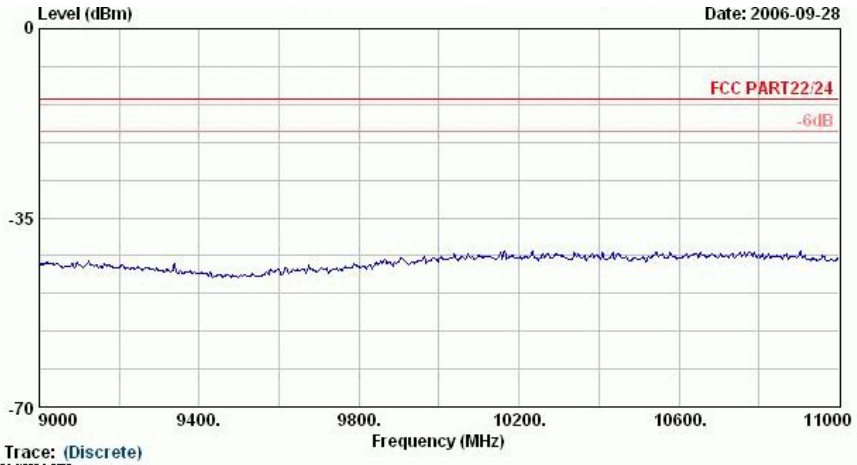
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;1880MHz+Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	5638.0	-50.93	-37.93	-13.00	-60.90	9.97	Peak

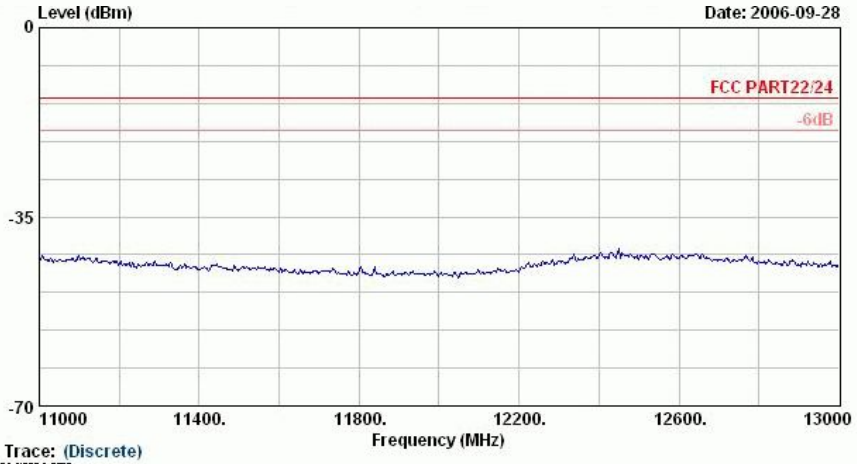


Trace: (Discrete)

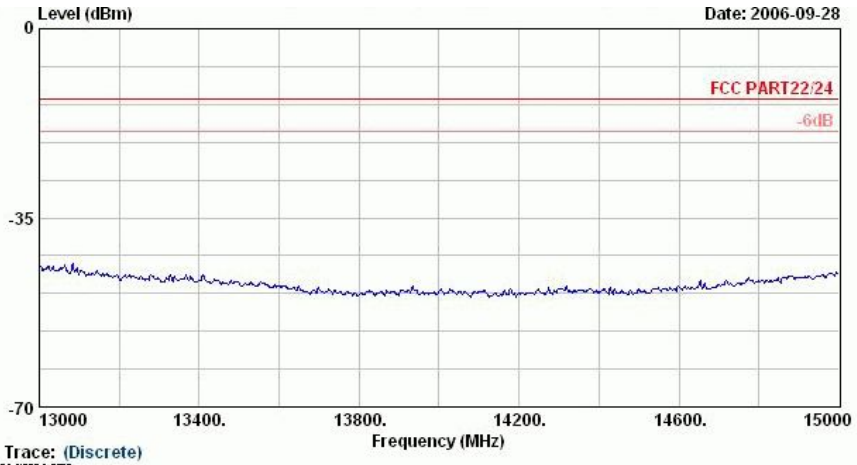
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;1880MHz+Adaptor



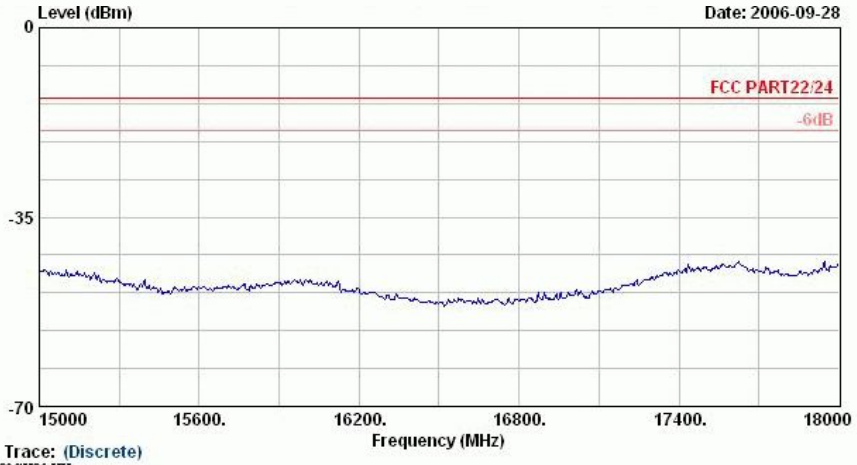
Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;1880MHz+Adaptor



Site : 03CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;1880MHz+Adaptor

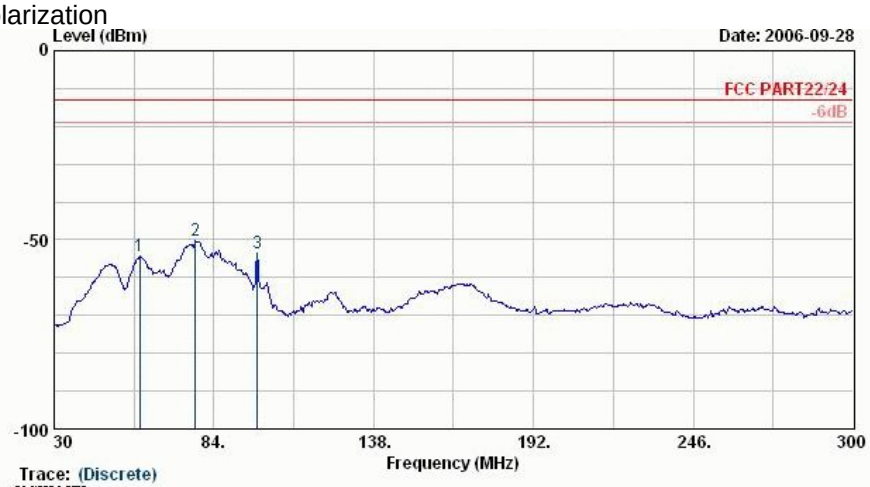


Site : 08CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;1880MHz+Adaptor



Site : 08CH06-HY
Condition : HF-SPURIOUS HORIZONTAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;1880MHz+Adaptor

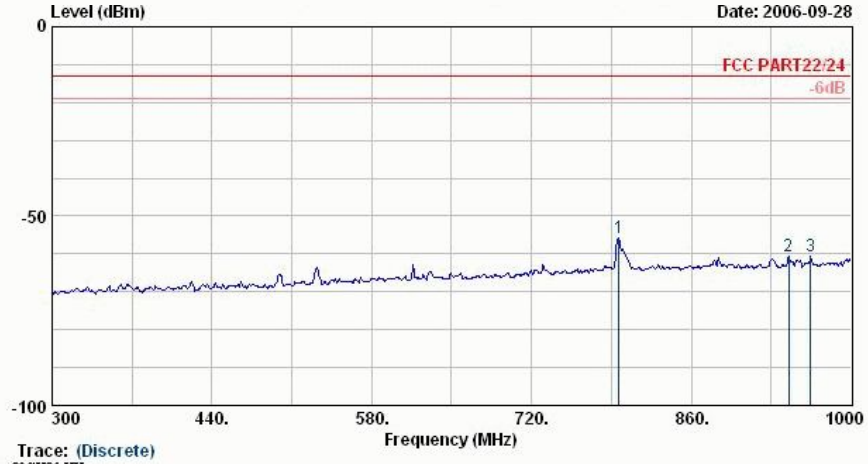
Vertical Polarization



Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : PG 692505
Mode : CDMA2000 PCS Link;1880MHz+Adaptor

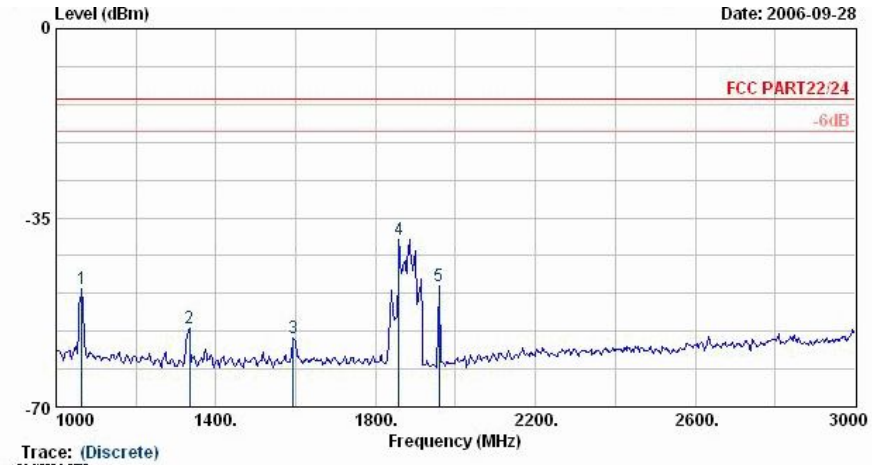
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	58.9	-54.44	-41.44	-13.00	-40.88	-13.56	Peak
2 @	77.8	-50.21	-37.21	-13.00	-39.31	-10.91	Peak
3 @	98.6	-53.55	-40.55	-13.00	-45.72	-7.83	Peak



Trace: (Discrete)

Site : 03CH06-HY
Condition : LF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : PG 692505
Mode : CDMA2000 PCS Link;1880MHz+Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	796.3	-55.93	-42.93	-13.00	-56.94	1.01	Peak
2	945.4	-60.63	-47.63	-13.00	-62.85	2.23	Peak
3	964.3	-60.75	-47.75	-13.00	-63.12	2.37	Peak



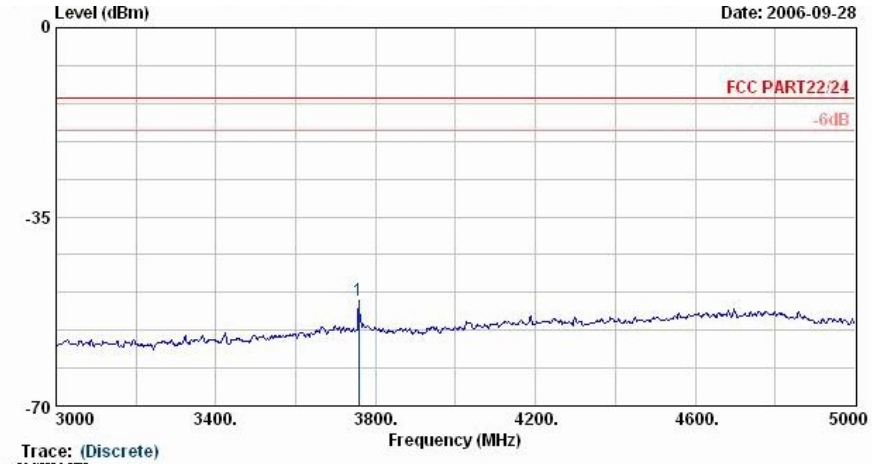
Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;1880MHz+Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1064.0	-48.11	-35.11	-13.00	-47.33	-0.79	Peak
2 @	1334.0	-55.31	-42.31	-13.00	-54.51	-0.80	Peak
3 @	1594.0	-57.22	-44.22	-13.00	-56.56	-0.67	Peak
4 @	1858.0	-39.10			-38.70	-0.40	Peak
5 @	1958.0	-47.61			-47.01	-0.60	Peak

Remark:

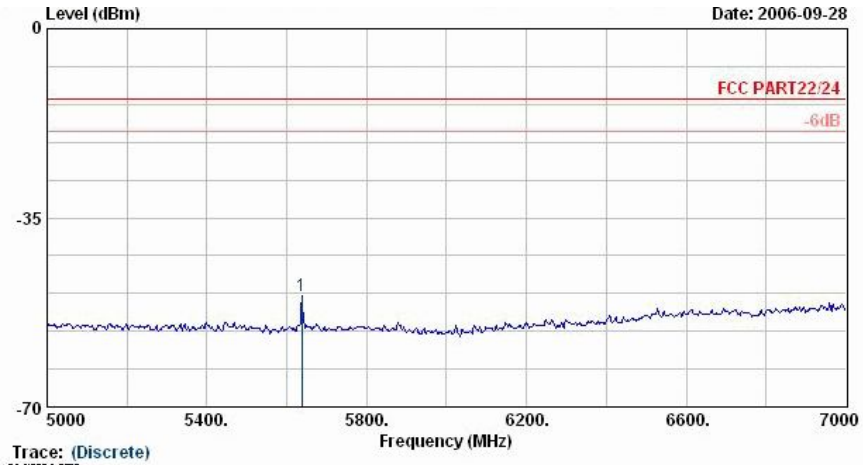
1. #3: MS signal
2. #4: BS signal



Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;1880MHz+Adaptor

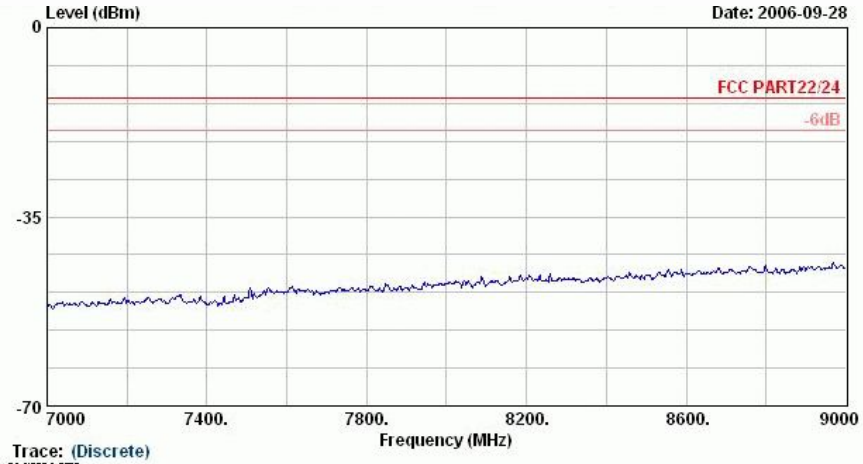
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	3758.0	-50.46	-37.46	-13.00	-57.10	6.64	Peak



Trace: (Discrete)

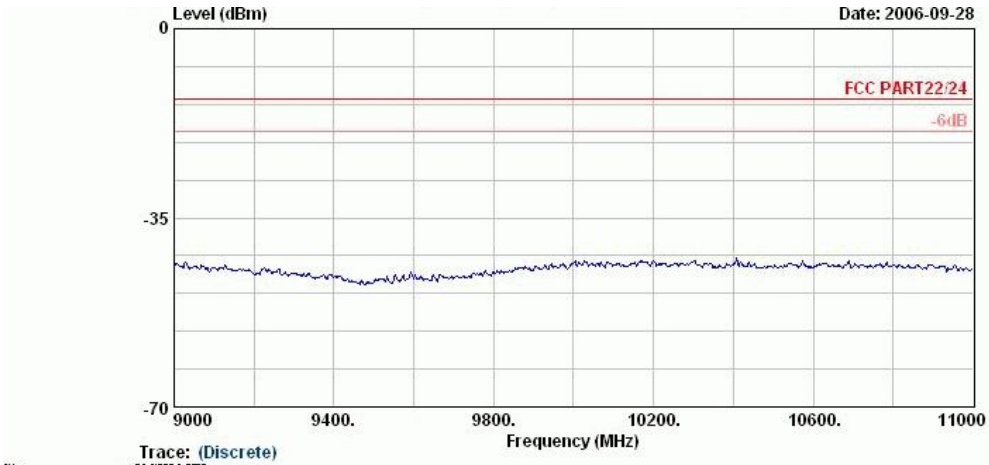
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;1880MHz+Adaptor

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	5638.0	-49.55	-36.55	-13.00	-58.21	8.65	Peak

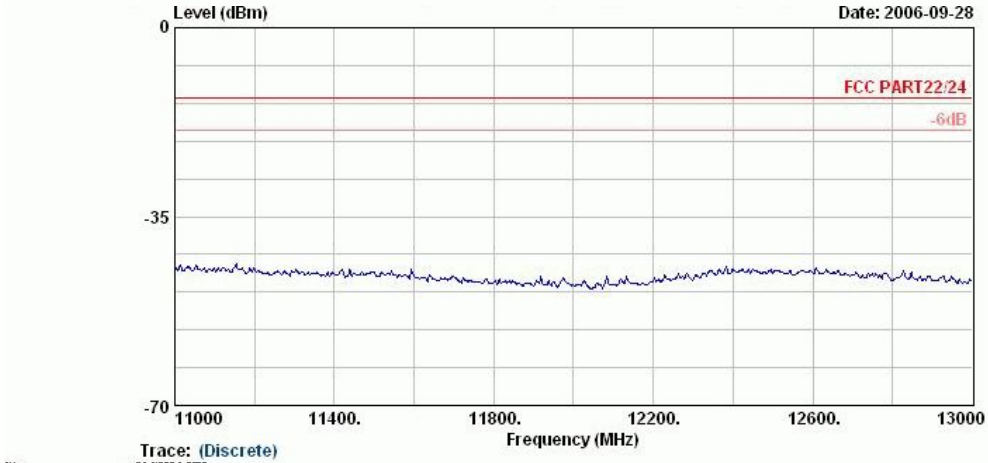


Trace: (Discrete)

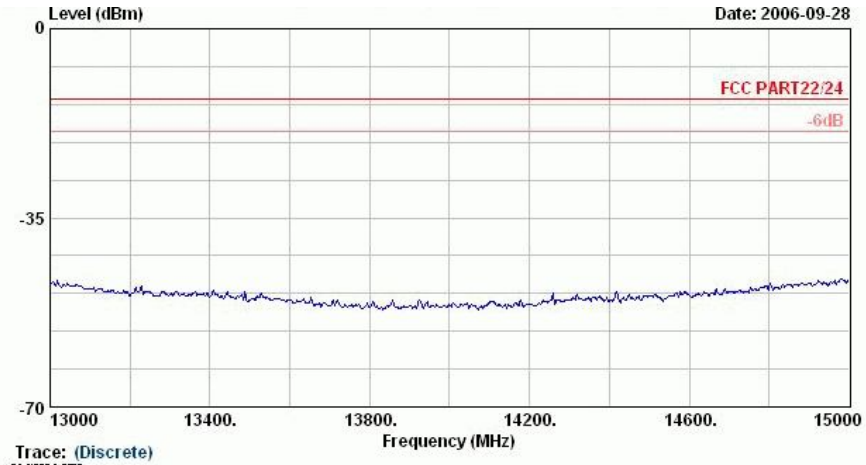
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;1880MHz+Adaptor



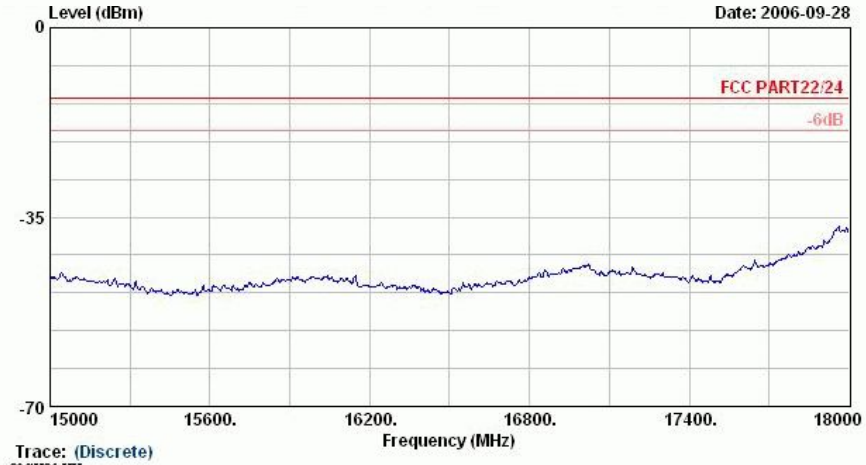
Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;1880MHz+Adaptor



Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;1880MHz+Adaptor



Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;1880MHz+Adaptor



Site : 03CH06-HY
Condition : HF-SPURIOUS VERTICAL
EUT : 3G Notebook
Power : 120Vac/60Hz
Model : FG 692505
Mode : CDMA2000 PCS Link;1880MHz+Adaptor

4.7 Frequency Stability (Temperature Variation)

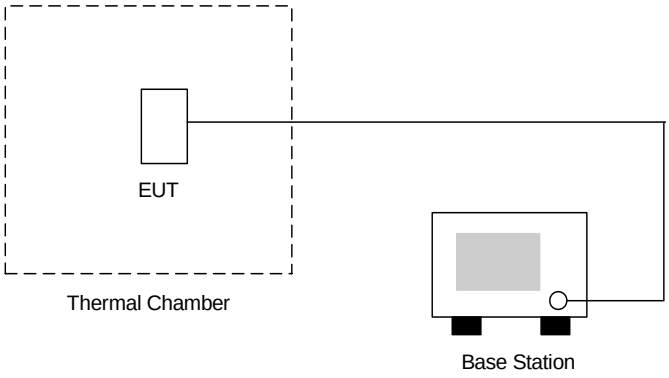
4.7.1 Measurement Instrument

As decribed in chapter 5 of this test report.

4.7.2 Test Procedure

1. The EUT and test equipment were set up as shown on the following section.
2. With all power removed, the temperature was decreased to -30°C and permitted to stabilize for three hours. Power was applied and the maximum change in frequency was note within one minute.
3. With power OFF, the temperature was raised in 10°C steps. The sample was permitted to stabilize at each step for at least one-half hour. Power was applied and the maximum frequency change ws noted within one minute.
4. The temperature tests were performed for the worst case.
5. Test data was recorded.

4.7.3 Test Setup Layout



4.7.4 Test Result

- Test Mode : Mode 1 for CDMA2000 Cellular850 1xRTT CH384

Temperature(°C)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-	-	2.5	Passed
-20	36	0.02		
-10	28	0.01		
0	-16	-0.01		
10	18	0.01		
20	-27	-0.01		
30	29	0.02		
40	33	0.02		
50	-39	-0.02		

* The EUT can not be turned on at -30 °C.

- Test Mode : Mode 2 for CDMA2000 Cellular850 1xEV-DO CH384

Temperature(°C)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-	-	2.5	Passed
-20	28	0.01		
-10	-36	-0.02		
0	24	0.01		
10	19	0.01		
20	-25	-0.01		
30	-29	-0.02		
40	31	0.02		
50	-35	-0.02		

* The EUT can not be turned on at -30 °C.

- Test Mode : Mode 3 for CDMA2000 PCS1900 1xRTT CH600

Temperature(°C)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-	-	2.5	Passed
-20	42	0.02		
-10	-36	-0.02		
0	-34	-0.02		
10	17	0.01		
20	-37	-0.02		
30	-28	-0.01		
40	33	0.02		
50	-39	-0.02		

* The EUT can not be turned on at -30 °C.

- Test Mode : Mode 4 for CDMA2000 PCS1900 1xEV-DO CH600

Temperature(°C)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-	-	2.5	Passed
-20	-33	-0.02		
-10	-19	-0.01		
0	29	0.02		
10	22	0.01		
20	-32	-0.02		
30	27	0.01		
40	15	0.01		
50	-28	-0.01		

* The EUT can not be turned on at -30 °C.

4.8 Frequency Stability (Voltage Variation)

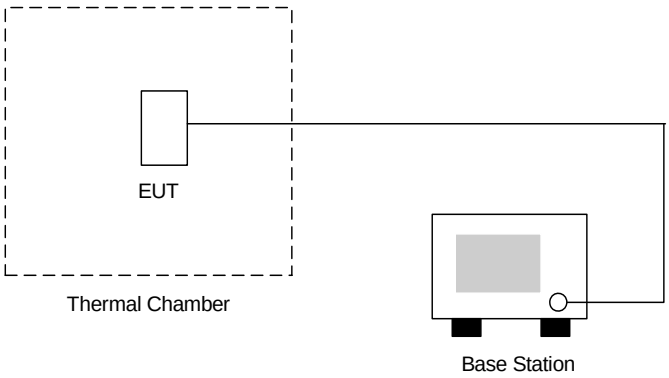
4.8.1 Measurement Instrument

As described in chapter 5 of this test report.

4.8.2 Test Procedure

1. The EUT was placed in a temperature chamber at 25±5 °C and connected as the following section.
2. The power supply voltage to the EUT was varied from BEP to 115% of the nominal value measured at the input to the EUT.
3. The variation in frequency was measured for the worst case.

4.8.3 Test Setup Layout



4.8.4 Test Result

- Test Mode : Mode 1 for CDMA2000 Cellular850 1xRTT CH384

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
11.1	-33.0	-0.02	2.5	Passed
BEP	34.0	0.02		
12.6	37.0	0.02		

- Test Mode : Mode 2 for CDMA2000 Cellular850 1xEV-DO CH384

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
11.1	37.0	0.02	2.5	Passed
BEP	-44.0	-0.02		
12.6	33.0	0.02		

- Test Mode : Mode 3 for CDMA2000 PCS1900 1xRTT CH600

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
11.1	-37.0	-0.02	2.5	Passed
BEP	-40.0	-0.02		
12.6	34.0	0.02		

- Test Mode : Mode 4 for CDMA2000 PCS1900 1xEV-DO CH600

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
11.1	36.0	0.02	2.5	Passed
BEP	-42.0	-0.02		
12.6	33.0	0.02		

Remark:
1. Normal Voltage=11.1V
2. Battery End Point (BEP)=9.6V

5. List of Measurement Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
Spectrum analyzer	Agilent	E4408B	MY44211030	9KHz-26.5GHz	Oct. 05, 2006	Oct. 04, 2007	Radiation (03CH06-HY)
Receiver	R&S	ESCS30	100356	9KHz-2.75GHz	Jul. 13, 2006	Jul. 12, 2007	Radiation (03CH06-HY)
Controller	INN-CO	CO2000	N/A	N/A	N/A	N/A	Radiation (03CH06-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz -2GHz	Dec. 02, 2005	Dec. 01, 2006	Radiation (03CH06-HY)
Horn Antenna	Com-Power	AH118	071025	1G-18G	May. 29, 2006	May. 28, 2007	Radiation (03CH06-HY)
SHF-EHF Horn	SCHWARZBECK	BBHA 9170	9170-249	14G - 40G	Jul. 22, 2006	Jul. 21, 2008	Radiation (03CH06-HY)
HF Amplifier	Agilent	8449B	3008A01917	1G - 26.5G	Sep. 13, 2006	Sep. 12, 2007	Radiation (03CH06-HY)
Amplifier	Mini Circuits	ZFL-2500VH	D092004	10~2500MHz	Jul. 20, 2006	Jul. 20, 2007	Radiation (03CH06-HY)
Turn Table	INN-CO	DS2000	420/650/00	0 ~ 360 degree	N/A	N/A	Radiation (03CH06-HY)
Antenna Mast	INN-CO	MM3000	114/8000604/L	1 m - 4 m	N/A	N/A	Radiation (03CH06-HY)

6. Uncertainty Evaluation

Uncertainty of Radiated Emission Measurement (30MHz ~ 1000MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.41	Normal(k=2)	0.21
Antenna factor calibration	0.83	Normal(k=2)	0.42
Cable loss calibration	0.25	Normal(k=2)	0.13
Pre Amplifier Gain calibration	0.27	Normal(k=2)	0.14
RCV/SPA specification	2.50	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29
Site imperfection	1.43	Rectangular	0.83
Mismatch	+0.39/-0.41	U-shaped	0.28
combined standard uncertainty Uc(y)	**1.27**		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	**2.54**		

Uncertainty of Radiated Emission Measurement (1GHz ~ 40GHz)

Contribution	Uncertainty of x_i		$u(x_i)$	Ci	$Ci*u(x_i)$
	dB	Probability Distribution			
Receiver reading	±0.10	Normal(k=1)	0.10	1	0.10
Antenna factor calibration	±1.70	Normal(k=2)	0.85	1	0.85
Cable loss calibration	±0.50	Normal(k=2)	0.25	1	0.25
Receiver Correction	±2.00	Rectangular	1.15	1	1.15
Antenna Factor Directional	±1.50	Rectangular	0.87	1	0.87
Site imperfection	±2.80	Triangular	1.14	1	1.14
Mismatch Receiver VSWR Γ1= 0.197 Antenna VSWR Γ2= 0.194 Uncertainty=20log(1-Γ1*Γ2*Γ3)	+0.34/-0.35	U-shaped	0.244	1	0.244
Combined standard uncertainty Uc(y)	**2.36**				
Measuring uncertainty for a level of confidence of 95% U=2Ue(y)	**4.72**				

END OF TEST REPORT

APPENDIX A – CDMA2000 1XEV-DO and 1XRTT Test Modes

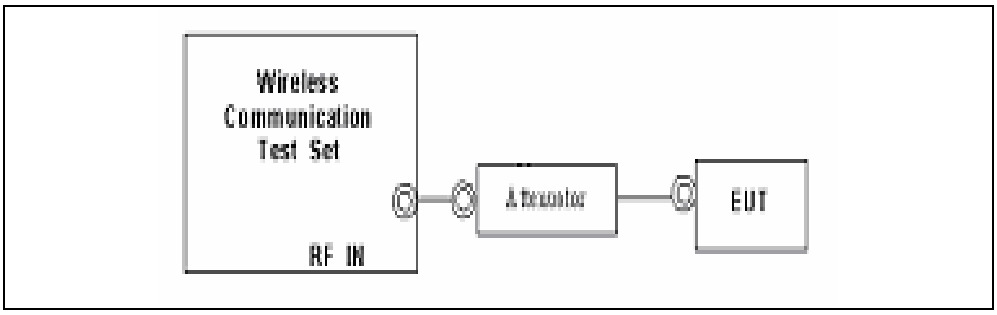
Test Summary:

A full measurement in this report is done in CDMA2000 1XEV-DO mode with the uplink data rate 153.6kbps. The EUT is also able to activate on CDMA2000 1XRTT mode whose RC3 FCH for PCS band and FCH+SCH_RC3 for Cellular band mode are focused on radiated emissions and conducted measurement, including band edge, out of band spurious response, occupied bandwidth and frequency stability.

Base on all the uplink channels using the same modulation type, BPSK, and those maximum output power are very closer, above test modes could reflect compliance under all operational modes.

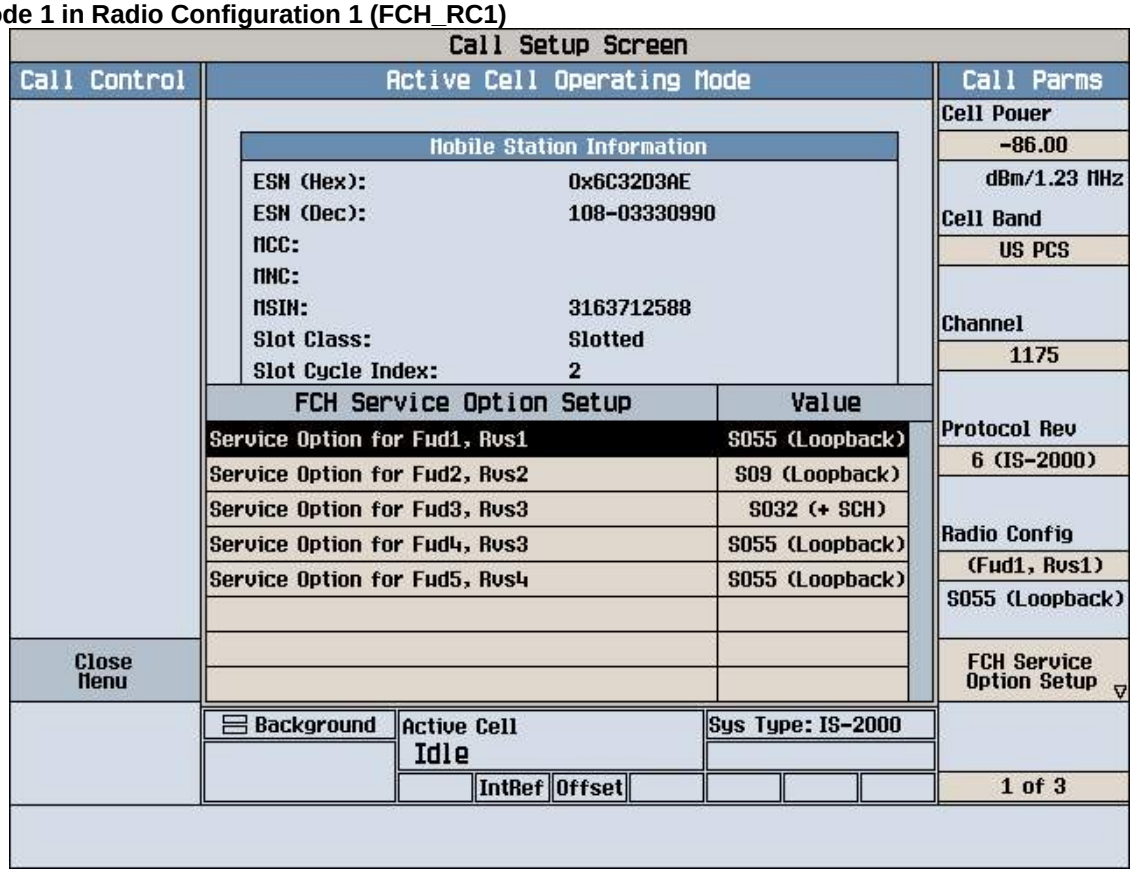
Test mode	Band	Modulation Type	Cellular Band			PCS Band		
	Channel		1013	384	777	25	600	1175
CDMA 1XRTT	FCH_RC3	BPSK	21.8	22.45	21.48	20.09	20.33	20.57
	FCH+SCH_RC3	BPSK	22.33	22.69	20.43	19.53	19.79	19.99
	FCH_RC1	BPSK	21.68	22.26	21.45	20.04	20.27	20.47
CDMA 1XEV-DO	EVDO-UL:153.6kbps	BPSK	21.96	22.39	21.77	20.17	20.55	20.81
	EVDO-UL:38.4kbps	BPSK	21.95	22.38	21.48	20.22	20.44	20.76
	EVDO-UL:9.6kbps	BPSK	22.14	22.22	21.51	20.16	20.44	20.77

Setup Configuration



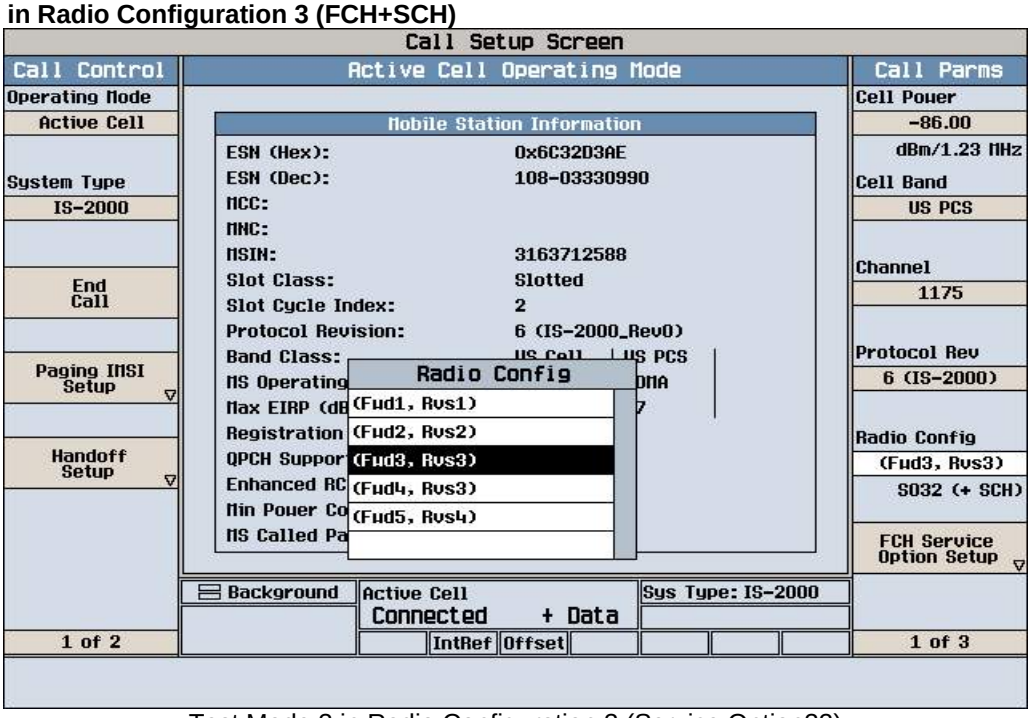
1. The EUT was connected to Base Station, Agilent 8960.
   Refer to the drawing of Setup Configuration.
2. The RF path losses was compensated into the measurements.
3. A call was established between EUT and Base Station for each modes with following settings:
   a. Set the Power control All Up for the FCH_RC3 and FCH_RC1.
   b. Set for test mode 3(FCH) and alternating bits for FCH+SCH.
   c. Set the Power control All Up for all modes on CDMA2000 1XEV-DO .
4. The transmitted maximum output power was recorded.

Test Mode 1 in Radio Configuration 1 (FCH_RC1)

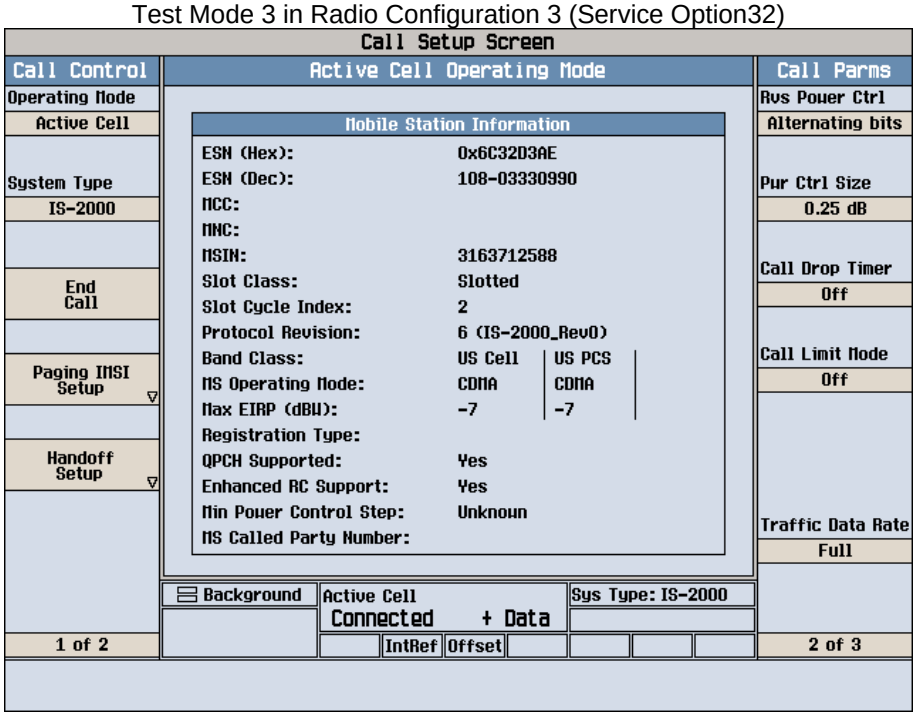


Test Mode 1 in Radio Configuration 1 (FCH_RC1)

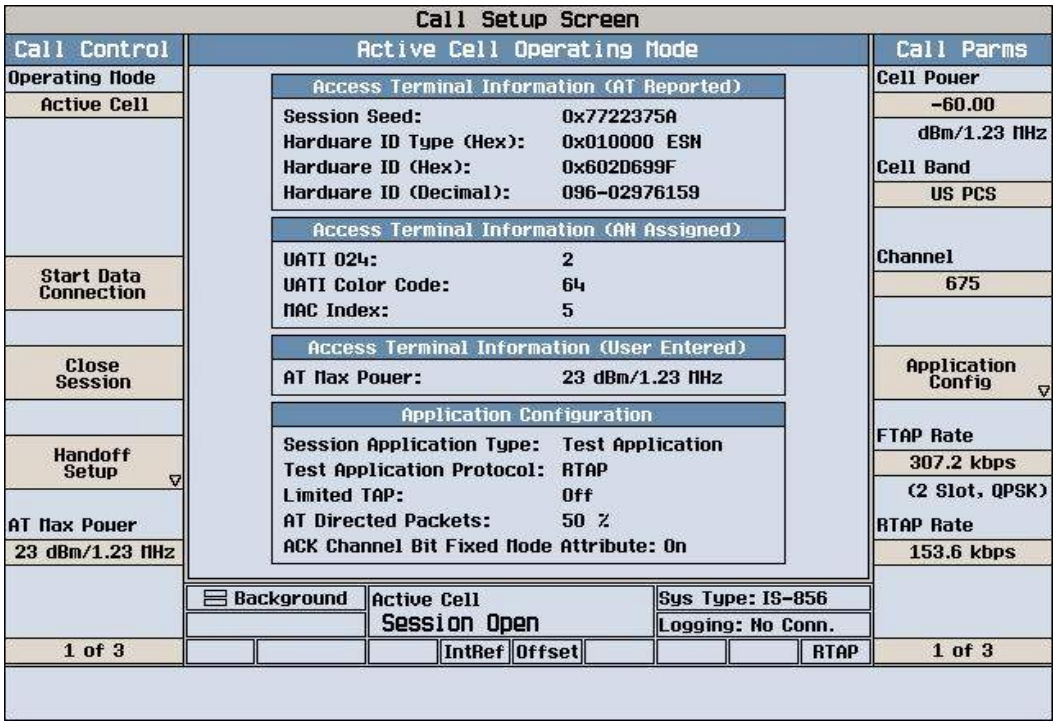
Test Mode 3 in Radio Configuration 3 (FCH+SCH)



Test Mode 3 in Radio Configuration 3 (Service Option32)



RC 3 (FCH+SCH mode) with alternating bits



1XEVDO setting with RTAP 153.6kbps

Reference:

[1.] SAR Measurement Procedures for 3G Devices CDMA 2000/Ev-Do/WCDMA/HSDPA, June 2006 Laboratory Division Office of Engineering and Technology Federal Communications Commission

[2.] 3.1.2.3.4 Maximum RF Output Power 3GPP2 C.S0033-0 Version 2.0, Date: 12 December 2003 Recommended Minimum Performance Standards for cdma2000 High Rate Packet Data Access Terminal