



FCC TEST REPORT

for

47 CFR Part 22H, 24E, IC RSS-132 and IC RSS-133

Equipment : PDA Phone
Trade Name : palm
Model No. : Treo 800w
FCC ID : O8F-715
IC ID : 3905A-715
Uplink Frequency Range : CDMA2000 Cellular 850 : 824~849 MHz
CDMA2000 PCS 1900 : 1850~1910 MHz
Downlink Frequency Range : CDMA2000 Cellular 850 : 869~894 MHz
CDMA2000 PCS 1900 : 1930~1990 MHz
Max. ERP/EIRP Power : CDMA2000 Cellular 850 : 0.13 W
CDMA2000 PCS 1900 : 0.44 W
Emission Designator : 1M25F9W
Applicant : **Palm, Inc.**
950 W Maude Avenue MS 22L02 Sunnyvale, CA 94085-2801

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- **Certificate or Test Report must not be used by the applicant to claim the product in this test report endorsement by NVLAP or any agency of U.S. government.**
- The data shown in this test report were carried out on Apr. 19, 2007 at **Sporton International Inc. LAB.**
- Report No.: FG741601, Report Version: Rev. 01.

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Report Version: Rev. 01



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Appendix A - CDMA2000 1XEV-DO and 1XRTT Test Modes

Appendix B - Setup Photographs



History of this test report

Report Issue Date: May 23, 2007

Report No.	Description



1. General Information

1.1. Applicant

Palm, Inc.

950 W Maude Avenue MS 22L02 Sunnyvale, CA 94085-2801

1.2 Manufacturer

Palm, Inc.

950 W Maude Avenue MS 22L02 Sunnyvale, CA 94085-2801

1.3 Basic Description of Equipment under Test

Equipment : PDA Phone
Trade Name : palm
Model No. : Treo 800w
FCC ID : O8F-715
IC ID : 3905A-715
Power Supply Type : Switching
AC Power Cord : AC 120V, Wall-mount, 1.6 meter, 2 pin
Adapter 1 : Netbit, DSC-5PNL-05 050100
Adapter 2 : PIE, P005WA05WW
Battery : 157-10079-00

**1.4 Feature of Equipment under Test**

DUT Type :	PDA Phone
Trade Name :	palm
Model Name :	Treo 800w
FCC ID :	O8F-715
Tx Frequency :	CDMA2000 Cellular 850 : 824 ~ 849 MHz CDMA2000 PCS 1900 : 1850 ~ 1910 MHz
Rx Frequency :	CDMA2000 Cellular 850 : 869 ~ 894 MHz CDMA2000 PCS1900 : 1930 ~ 1990 MHz
Maximum Output Power :	CDMA2000 Cellular 850 (1xRTT) FCH_RC1 : 24.07 dBm FCH_RC3 : 23.95 dBm FCH+SCH_RC3 : 23.94 dBm CDMA2000 Cellular 850 (1xEV-DO) 9.6Kbps : 25.14 dBm 38.4Kbps : 25.26 dBm 153.6Kbps : 25.17 dBm CDMA2000 PCS1900 (1xRTT) FCH_RC1 : 25.84 dBm FCH_RC3 : 25.84 dBm FCH+SCH_RC1 : 25.44 dBm CDMA2000 PCS1900 (1xEV-DO) 9.6Kbps : 23.89 dBm 38.4Kbps : 23.81 dBm 153.6Kbps : 23.92 dBm
Maximum ERP/EIRP :	CDMA2000 Cellular 850 : 0.13 W (21.05 dBm) CDMA2000 PCS1900 : 0.44 W (26.40 dBm)
Antenna Type :	Fixed Internal
Antenna Gain :	CDMA2000 Cellular 850 : 1.5 dBi CDMA2000 PCS1900 : 1.0 dBi
Power Rating (DC/AC, Voltage and Current of RF element or PA) :	DC 3.8V / 896.316mA
Digital Modulation Emission :	QPSK
Type of Emission :	1M25F9W
Device Power Class :	CDMA2000 Cellular 850 : 3 CDMA2000 PCS1900 : 2
DUT Stage :	DVT

1.5 Report Date

EUT Received : Apr. 16, 2007

Report Date : May 23, 2007

2 Test Configuration of Equipment under Test

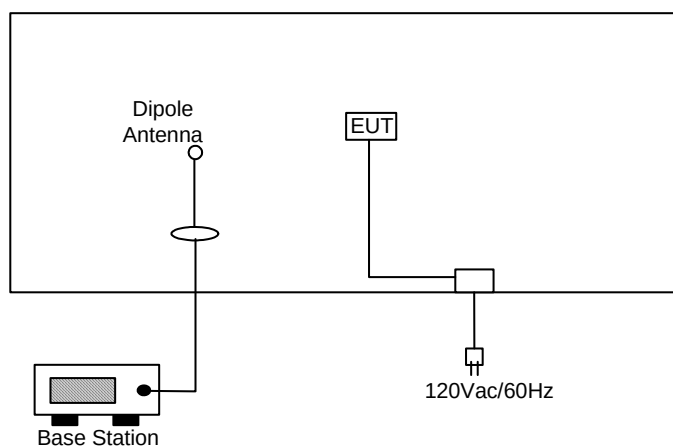
2.1 Test Manner

- The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range.
- During all testings, EUT is in link mode with base station emulator at maximum power level.
- Frequency range investigated: radiated emission 30 MHz to 9000 MHz for CDMA2000 Cellular 850; 30MHz to 19000 MHz for CDMA2000 PCS 1900.

2.2 Test Mode

Application	CDMA2000 Cellular 850	CDMA2000 PCS 1900
Radiated Emission	☒ Mode 1: 1xRTT Link Mode ☒ Mode 2: 1xEV-DO Link Mode ☒ Mode 5: 1xRTT Link Mode + BT Link ☒ Mode 6: 1xRTT Link Mode + WLAN Link	☒ Mode 3: 1xRTT Link Mode ☒ Mode 4: 1xEV-DO Link Mode
Conducted Measurement	☒ Mode 1: 1xRTT Link Mode ☒ Mode 2: 1xEV-DO Link Mode	☒ Mode 3: 1xRTT Link Mode ☒ Mode 4: 1xEV-DO Link Mode

2.3 Connection Diagram of Test System



2.4 Ancillary Equipment List

Item	Asset	Model Name	FCC ID	Power Cord
1.	Base Station (R&S)	CMU 200	N/A	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 : TH02-HY, 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 4088A.

3.1 Test Voltage

120V / 60Hz

3.2 Test in Compliance with

47 CFR Part 22H, 24E, Part 2, IC RSS-132 Issued 2 and IC RSS-133 Issued 3

3.3 Frequency Range Investigated

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

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	IC Rule	DESCRIPTION OF TEST	Result	Section
§2.1046	RSS-132 §4.4 RSS-133 §6.4	RF Output Power	Passed	4.2
§ 22.913 §24.232	RSS-132 §4.4 RSS-133 §6.4	ERP / EIRP	Passed	4.3
§2.1049, § 22.917, § 24.238(b)	RSS-132 §4.5 RSS-133 §6.5	Occupied Bandwidth & Band Edge Measurement	Passed	4.4
§2.1051	RSS-132 §4.5 RSS-133 §6.5	Conducted Emission	Passed	4.5
§2.1053	RSS-132 §4.5 RSS-133 §6.5	Field Strength of Spurious Radiation	Passed	4.6
§2.1055, § 22.355, §24.235	RSS-132 §4.3 RSS-133 §6.3	Frequency Stability vs. Temperature	Passed	4.7
§2.1055, §22.355, §24.235	RSS-132 §4.3 RSS-133 §6.3	Frequency Stability vs. Voltage	Passed	4.8

4.2 RF Output Power

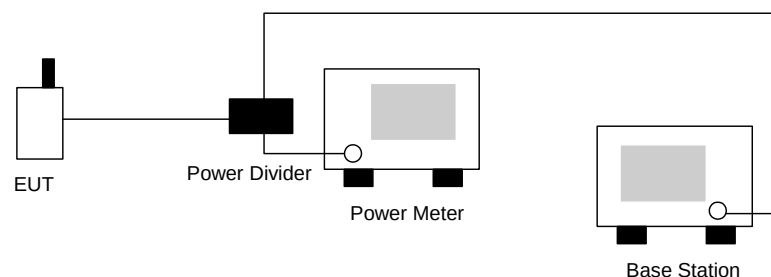
4.2.1 Measurement Instruments :

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 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 Status	Channel	Frequency (MHz)	Conducted Power (dBm)	Conducted Power (Watts)
CDMA2000 Cellular 850	CDMA 1xRTT	FCH_RC1	1013	824.70 (Low)	23.77	0.24
			384	836.52 (Mid)	24.07	0.26
			777	848.31 (High)	23.97	0.25
		FCH_RC3	1013	824.70 (Low)	23.73	0.24
			384	836.52 (Mid)	23.94	0.25
			777	848.31 (High)	23.95	0.25
		FCH+SCH_RC3	1013	824.70 (Low)	23.69	0.23
			384	836.52 (Mid)	23.88	0.24
			777	848.31 (High)	23.94	0.25
	CDMA 1xEV-DO	EVDO-UL: 9.6Kbps	1013	824.70 (Low)	24.59	0.29
			384	836.52 (Mid)	24.65	0.29
			777	848.31 (High)	25.14	0.33
		EVDO-UL: 38.4Kbps	1013	824.70 (Low)	24.86	0.31
			384	836.52 (Mid)	24.67	0.29
			777	848.31 (High)	25.26	0.34
		EVDO-UL: 153.6Kbps	1013	824.70 (Low)	24.66	0.29
			384	836.52 (Mid)	24.75	0.30
			777	848.31 (High)	25.17	0.33
CDMA2000 PCS 1900	CDMA 1xRTT	FCH_RC1	25	1851.25 (Low)	24.37	0.27
			600	1880.00 (Mid)	23.26	0.21
			1177	1908.75 (High)	25.84	0.38
		FCH_RC3	25	1851.25 (Low)	24.35	0.27
			600	1880.00 (Mid)	23.19	0.21
			1177	1908.75 (High)	25.84	0.38
		FCH+SCH_RC1	25	1851.25 (Low)	24.35	0.27
			600	1880.00 (Mid)	23.19	0.21
			1177	1908.75 (High)	25.44	0.35
	CDMA 1xEV-DO	EVDO-UL: 9.6Kbps	25	1851.25 (Low)	23.85	0.24
			600	1880.00 (Mid)	23.89	0.24
			1177	1908.75 (High)	23.61	0.23
		EVDO-UL: 38.4Kbps	25	1851.25 (Low)	23.75	0.24
			600	1880.00 (Mid)	23.81	0.24
			1177	1908.75 (High)	23.53	0.23
		EVDO-UL: 153.6Kbps	25	1851.25 (Low)	23.72	0.24
			600	1880.00 (Mid)	23.92	0.25
			1177	1908.75 (High)	23.46	0.22

Note:

1. For cellular band 850, the worst case adopted as maximum output power, 25.26dBm, is at CDMA 1X EVDO, data rate 38.4Kbps.
2. For PCS band 1900, the worst case adopted as maximum output power, 25.84dBm, is at CDMA 1X RTT FCH_RC1.



4.3 ERP / EIRP Measurement

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

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. $ERP/EIRP = P_s + E_t - E_s + G_s = P_s + R_t - R_s + G_s$

P_s (dBm) : Input power to substitution antenna.

G_s (dBi or dBd) : Substitution antenna Gain.

$E_t = R_t + AF$

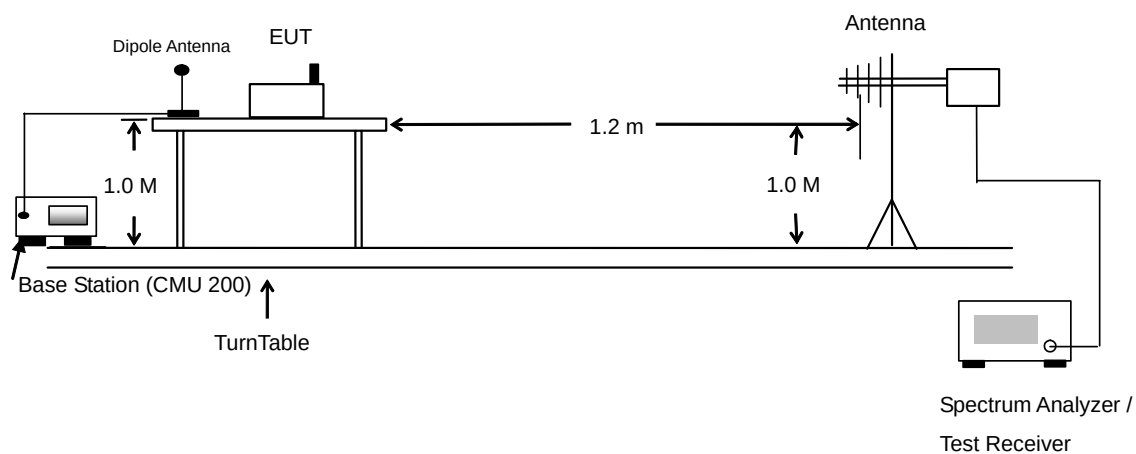
$E_s = R_s + AF$

AF (dB/m) : Receive antenna factor

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

R_s : 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 Cellular 850 1xEV-DO 38.4Kbps Radiated Power ERP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.20	-37.62	-48.12	0.00	-1.08	9.42	0.01
836.40	-37.29	-48.28	0.00	-0.93	10.06	0.01
848.80	-37.96	-48.35	0.00	-0.76	9.63	0.01
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.20	-26.65	-47.97	0.00	-1.08	20.24	0.11
836.40	-26.03	-48.01	0.00	-0.93	21.05	0.13
848.80	-26.75	-48.05	0.00	-0.76	20.54	0.11

CDMA2000 PCS1900 1xRTT RC1 Radiated Power EIRP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1850.20	-27.93	-51.88	0.00	1.96	25.91	0.39
1880.00	-30.87	-52.99	0.00	2.00	24.12	0.26
1909.80	-32.08	-54.28	0.00	1.98	24.18	0.26
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1850.20	-27.69	-52.13	0.00	1.96	26.40	0.44
1880.00	-30.61	-53.17	0.00	2.00	24.56	0.29
1909.80	-31.36	-54.13	0.00	1.98	24.75	0.30

4.4 Occupied Bandwidth and Band Edge Measurement

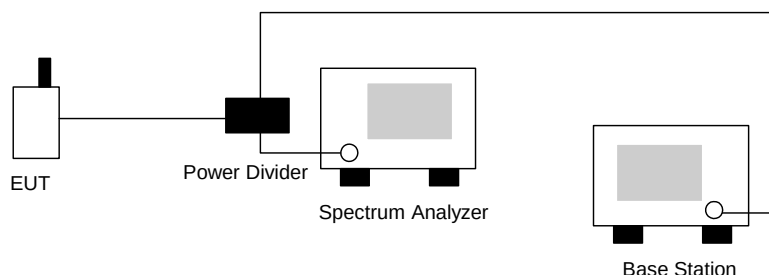
4.4.1 Measurement Instruments

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 99% 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. The RBW was replaced 30KHz with 10KHz, due to the spectrum analyzer IF-Filter leading to an exceeding of the limit, a worst case correction factor of $10 \log (1\% \text{ Occupy Bandwidth} / \text{Measured RBW})$ was used , in accordance with FCC Rules, clause 2.1049, required that the RBW used for Band Edge measurements be at least 1% of the emission bandwidth.

4.4.3 Test Setup Layout



4.4.4 Test Result List :
• Mode 1-2

Bands	Test Mode	Test Status	Channel	Frequency (MHz)	Measurement Value (dBm)	Correction Factor (dB)	Band Edge (dBm)
CDMA2000 Cellular 850	CDMA 1xRTT	FCH_RC1	1013	824.70 (Low)	-19.59	1.01	-18.58
			777	848.31 (High)	-15.75	1.01	-14.74
		FCH_RC3	1013	824.70 (Low)	-19.63	1.01	-18.62
			777	848.31 (High)	-16.42	1.01	-15.41
		FCH+SCH_RC3	1013	824.70 (Low)	-20.51	1.01	-19.50
			777	848.31 (High)	-16.85	1.01	-15.84
	CDMA 1xEV-DO	EVDO-UL: 9.6Kbps	1013	824.70 (Low)	-22.17	1.01	-21.16
			777	848.31 (High)	-18.04	1.01	-17.03
		EVDO-UL: 38.4Kbps	1013	824.70 (Low)	-21.78	1.01	-20.77
			777	848.31 (High)	-17.38	1.01	-16.37
		EVDO-UL: 153.6Kbps	1013	824.70 (Low)	-22.06	1.01	-21.05
			777	848.31 (High)	-17.77	1.01	-16.76

Note:

*Occupancy Bandwidth =

*Correction Factor = $10 \cdot \log(1\% \text{ Occupancy Bandwidth} / \text{Measurement RBW})$
 $= 10 \cdot \log[(0.01 \cdot 1262.82 \text{ KHz}) / 10 \text{ KHz}]$
 $= 1.01 \text{ dB}$

*Band Edge = Measurement Value + Correction Factor

• Mode 3-4

Bands	Test Mode	Test Status	Channel	Frequency (MHz)	Measurement Value (dBm)	Correction Factor (dB)	Band Edge (dBm)
CDMA2000 PCS 1900	CDMA 1xRTT	FCH_RC1	25	1851.25 (Low)	-35.19	1.07	-34.12
			1177	1908.75 (High)	-31.62	1.07	-30.55
		FCH_RC3	25	1851.25 (Low)	-34.27	1.07	-33.20
			1177	1908.75 (High)	-31.65	1.07	-30.58
		FCH+SCH_RC1	25	1851.25 (Low)	-35.22	1.07	-34.15
			1177	1908.75 (High)	-32.67	1.07	-31.60
	CDMA 1xEV-DO	EVDO-UL: 9.6Kbps	25	1851.25 (Low)	-35	1.07	-33.93
			1177	1908.75 (High)	-36.17	1.07	-35.10
		EVDO-UL: 38.4Kbps	25	1851.25 (Low)	-35.17	1.07	-34.10
			1177	1908.75 (High)	-36.21	1.07	-35.14
		EVDO-UL: 153.6Kbps	25	1851.25 (Low)	-35.5	1.07	-34.43
			1177	1908.75 (High)	-36.34	1.07	-35.27

Note:

*Occupancy Bandwidth =

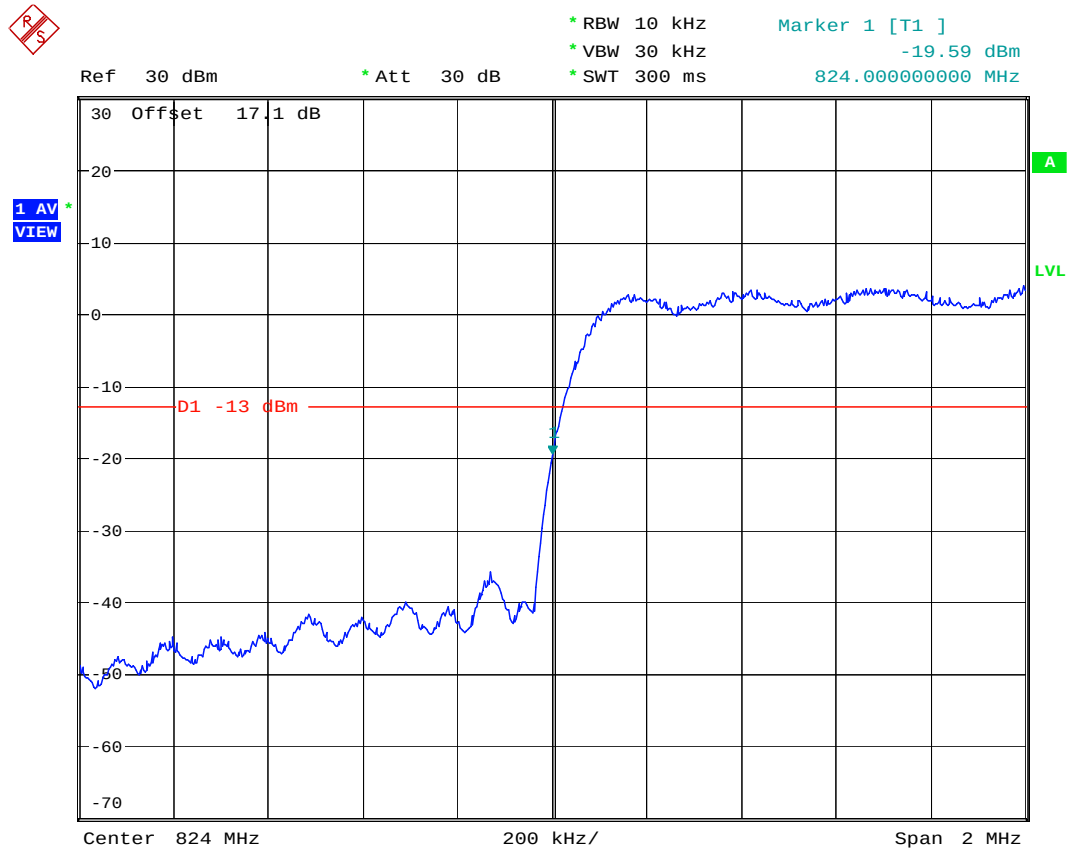
*Correction Factor = $10 \cdot \log(1\% \text{ Occupancy Bandwidth} / \text{Measurement RBW})$
 $= 10 \cdot \log[(0.01 \cdot 1278.84 \text{ KHz}) / 10 \text{ KHz}]$
 $= 1.07 \text{ dB}$

*Band Edge = Measurement Value + Correction Factor



4.4.5 Test Result

- Mode 1
- Test Mode : CDMA2000 Cellular 850 Band CH1013_FCH_RC1 Lower Band Edge for 1xRTT
- Power State : High



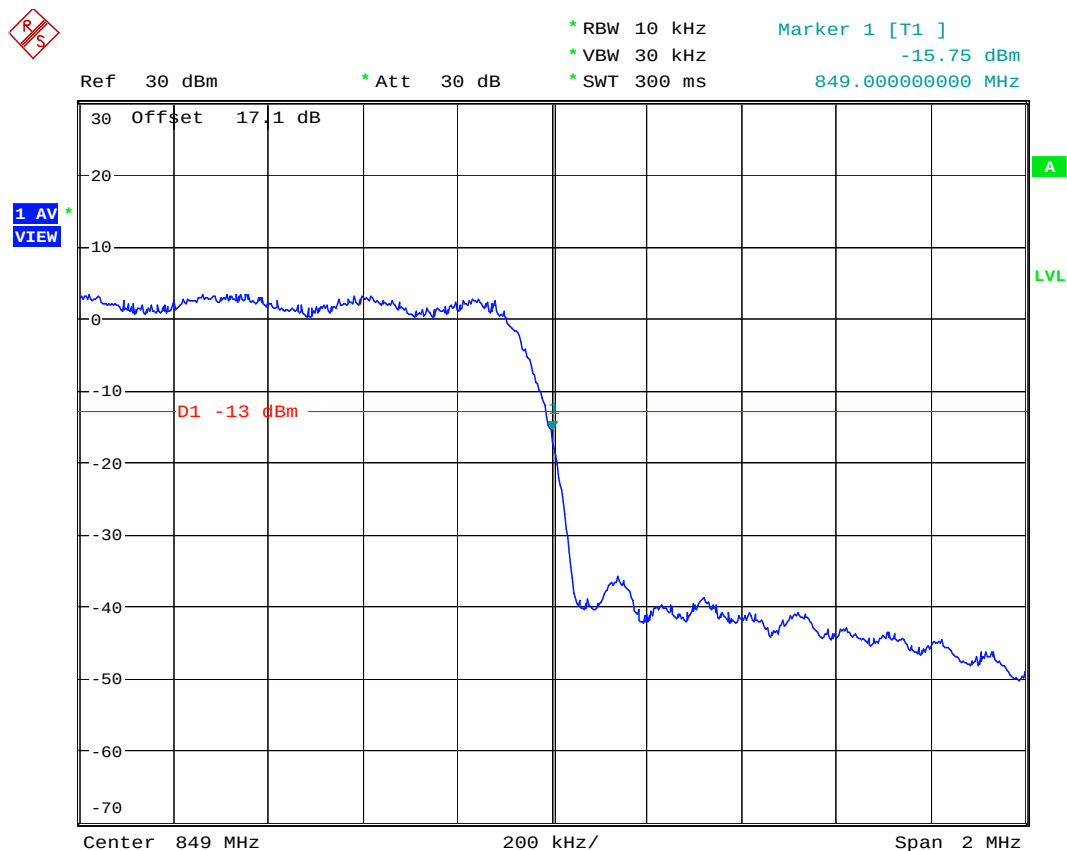
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FCC/IC TEST REPORT

Report No. : FG741601

- Test Mode : CDMA2000 Cellular 850 CH777_FCH_RC1 Higher Band Edge for 1xRTT
- Power State : High



Date: 17.APR.2007 17:10:35

SPORTON International Inc.

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FCC ID : O8F-715

IC ID : 3905A-715

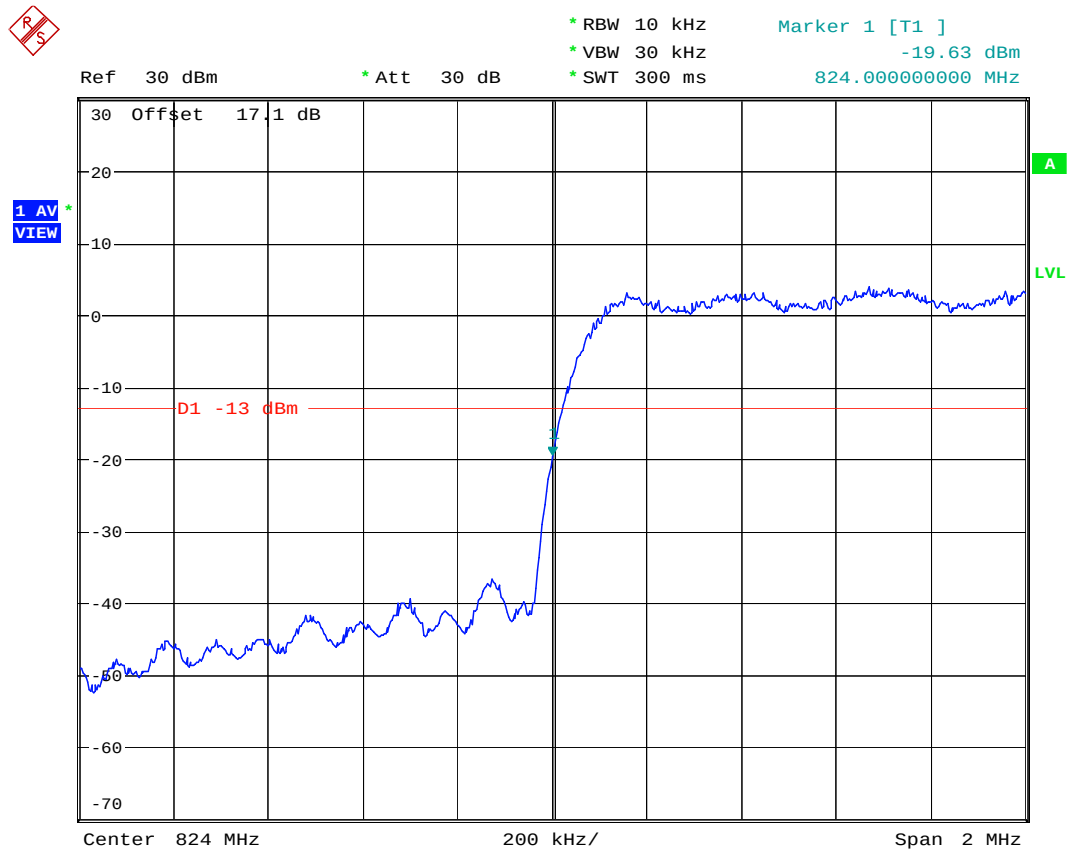
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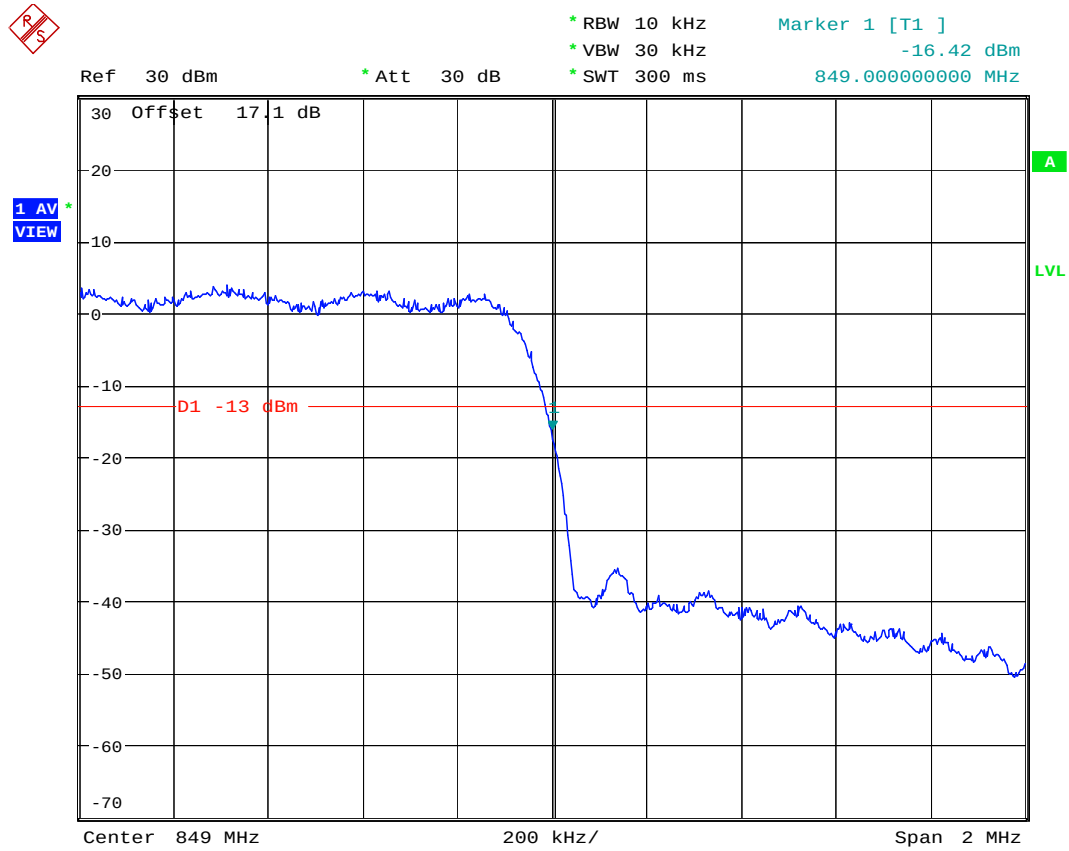
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- Power State : High



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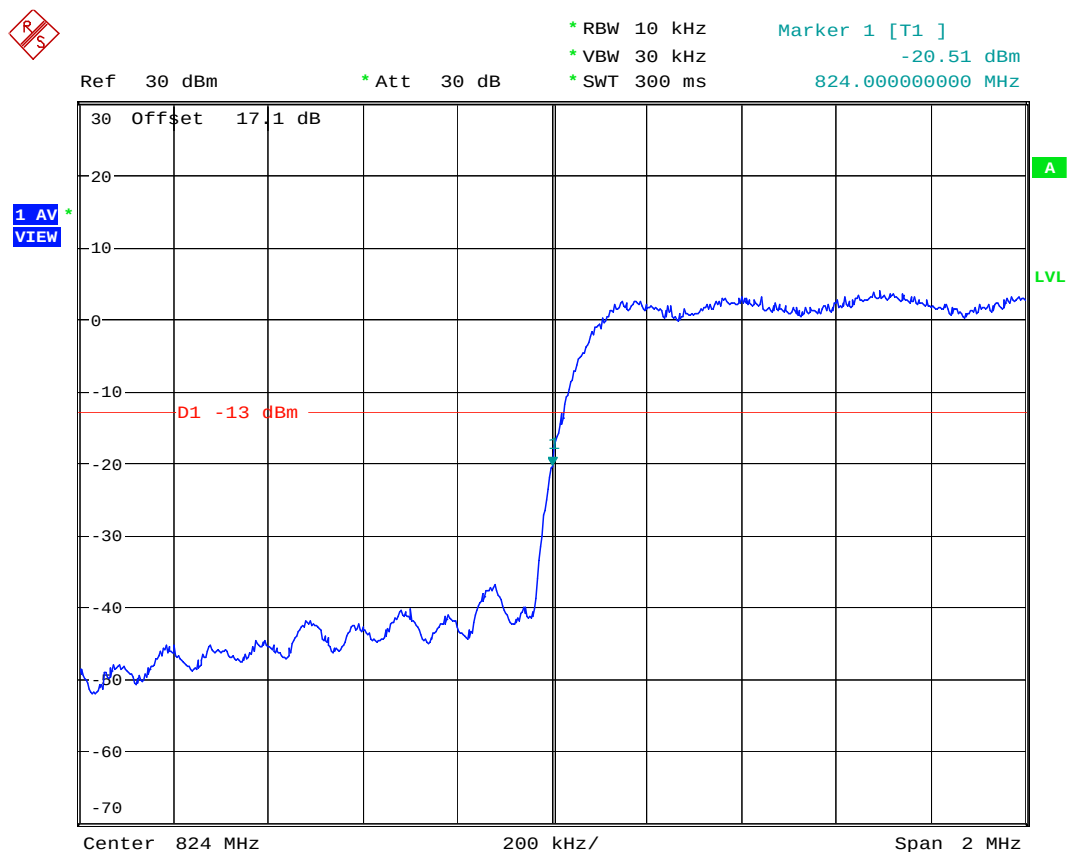
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- Power State : High



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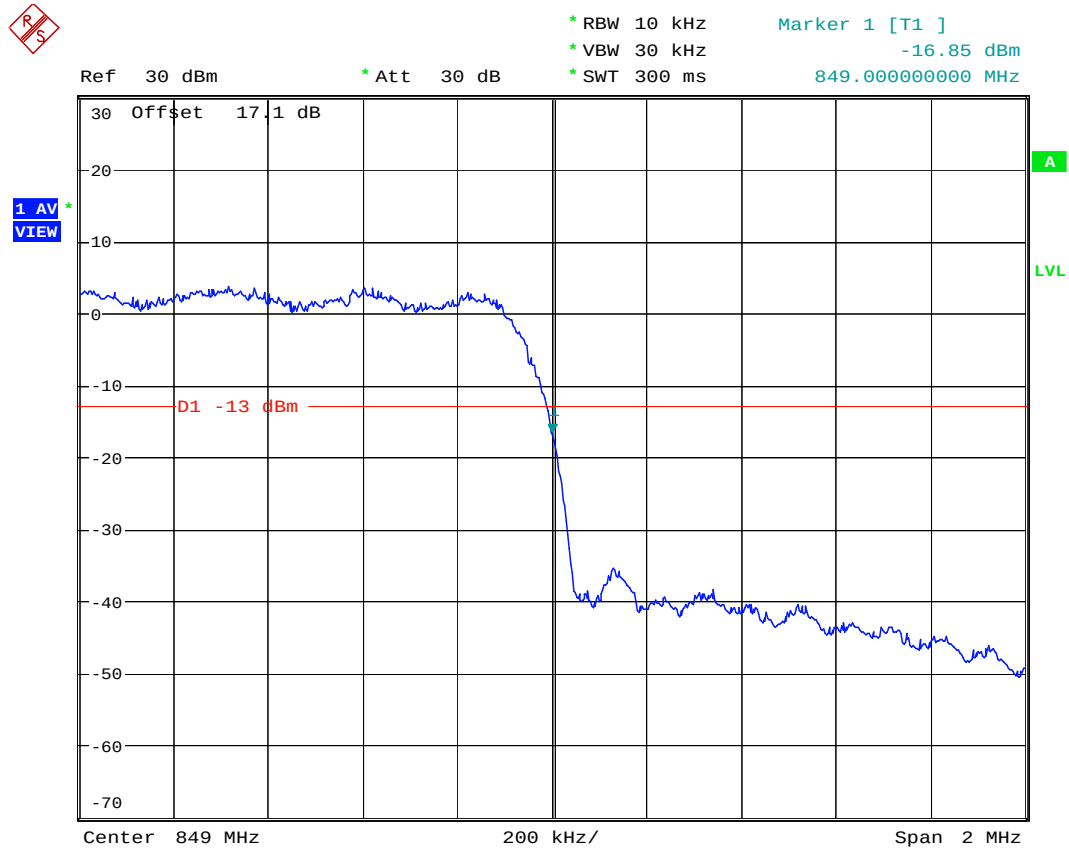
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- Power State : High



Date: 17.APR.2007 17:09:12



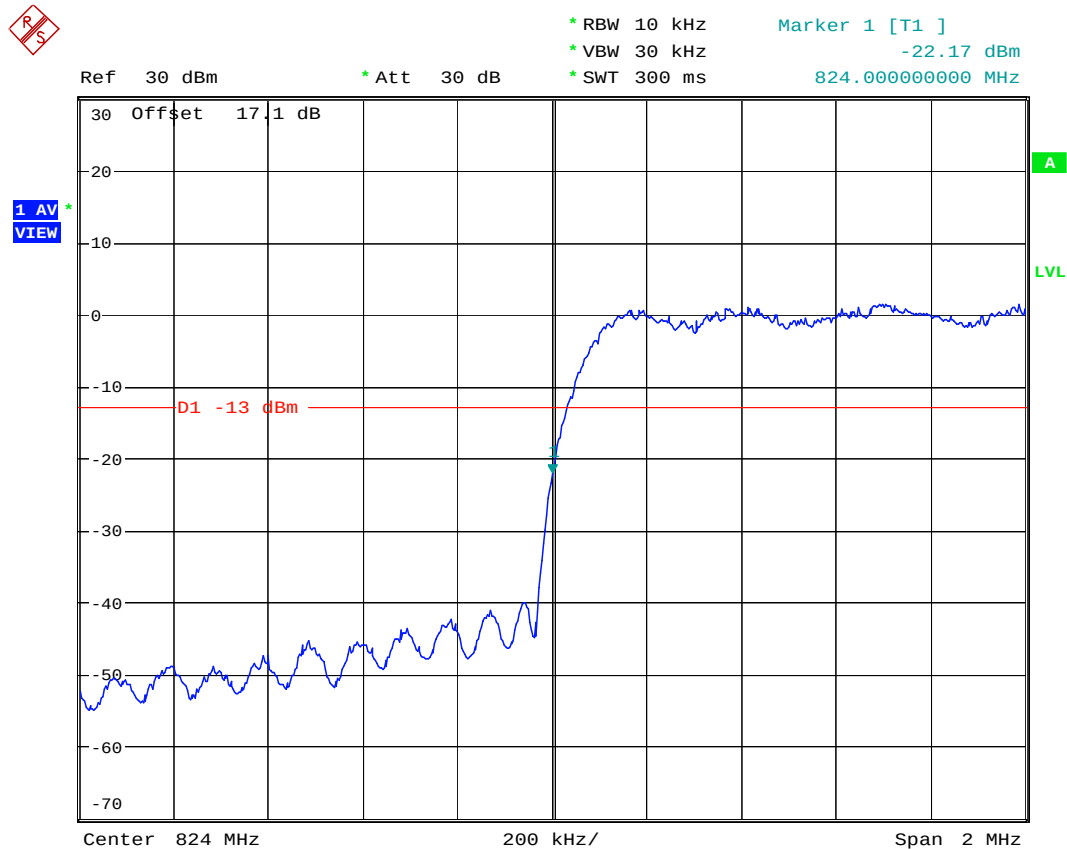
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- Power State : High



Date: 17.APR.2007 17:11:08



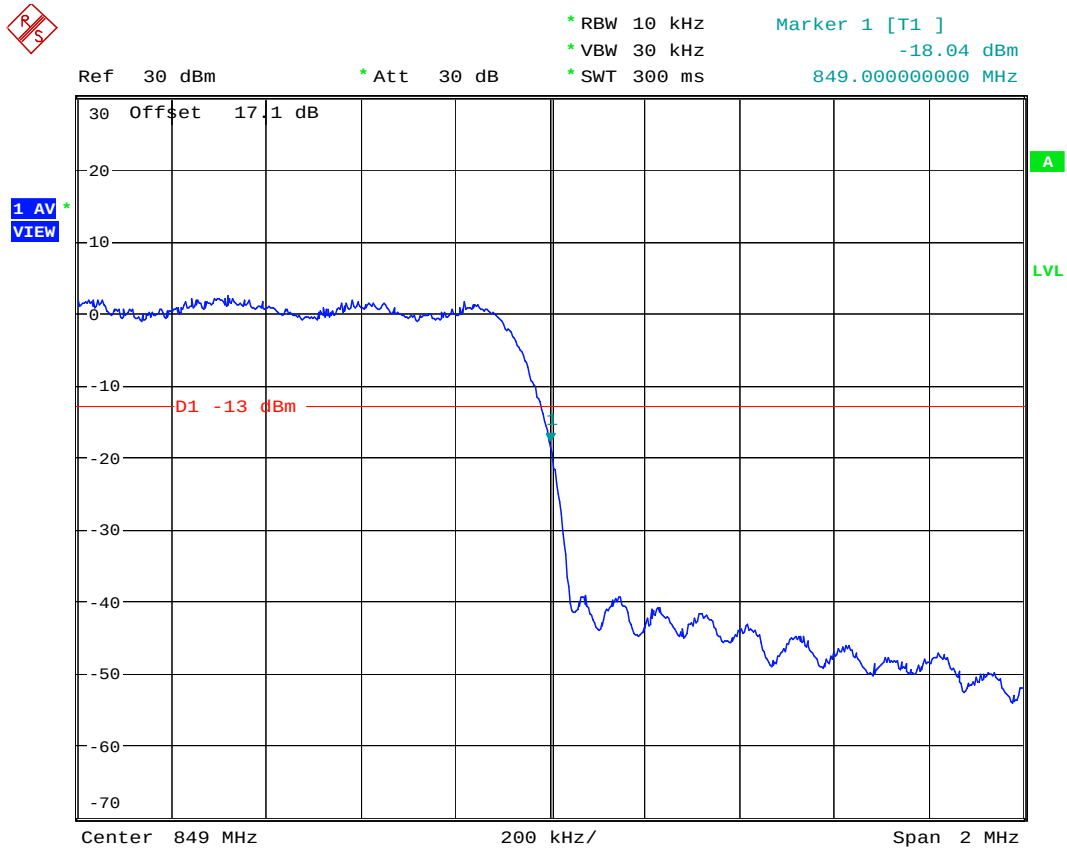
- Mode 2
- Test Mode : CDMA2000 Cellular 850 CH1013_9.6Kbps Lower Band Edge for 1xEV-DO
- Power State : High



Date: 17.APR.2007 16:07:32



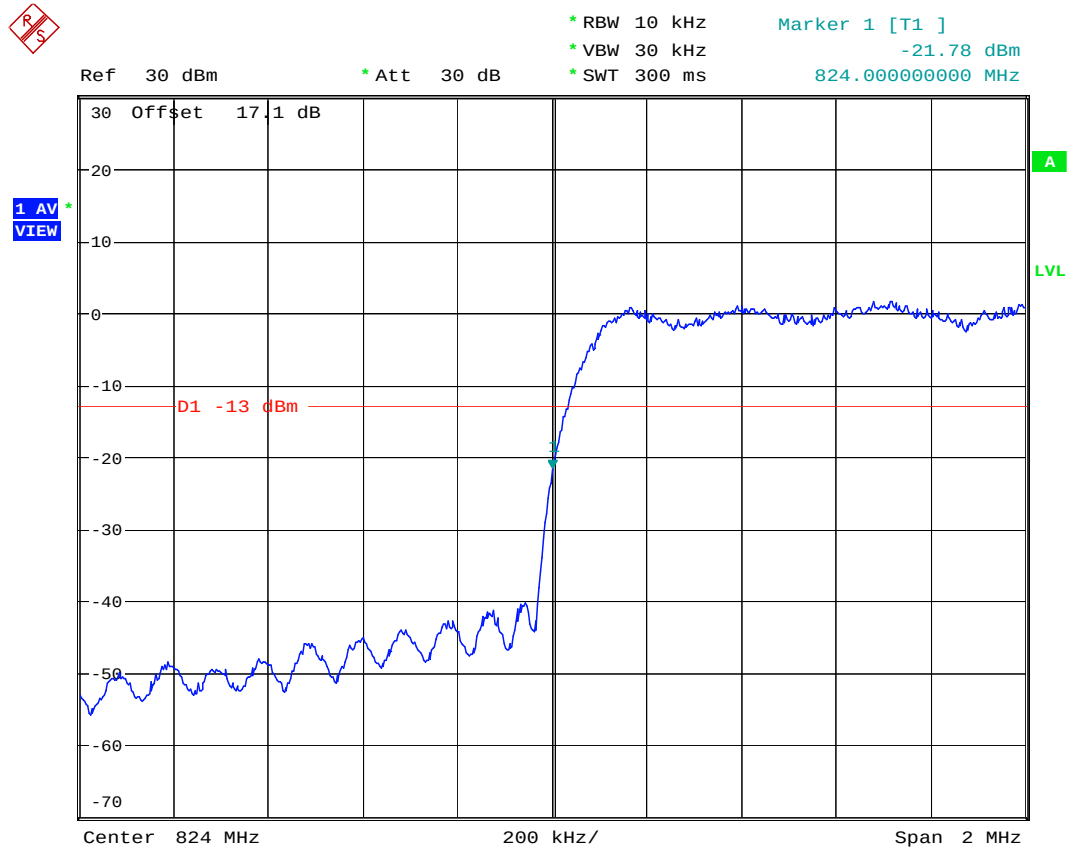
- Test Mode : CDMA2000 Cellular 850 CH777_9.6Kbps Higher Band Edge for 1xEV-DO
- Power State : High



Date: 17.APR.2007 16:01:39



- Test Mode : CDMA2000 Cellular 850 CH1013_38.4Kbps Lower Band Edge for 1xEV-DO
- Power State : High



Date: 17.APR.2007 16:08:18

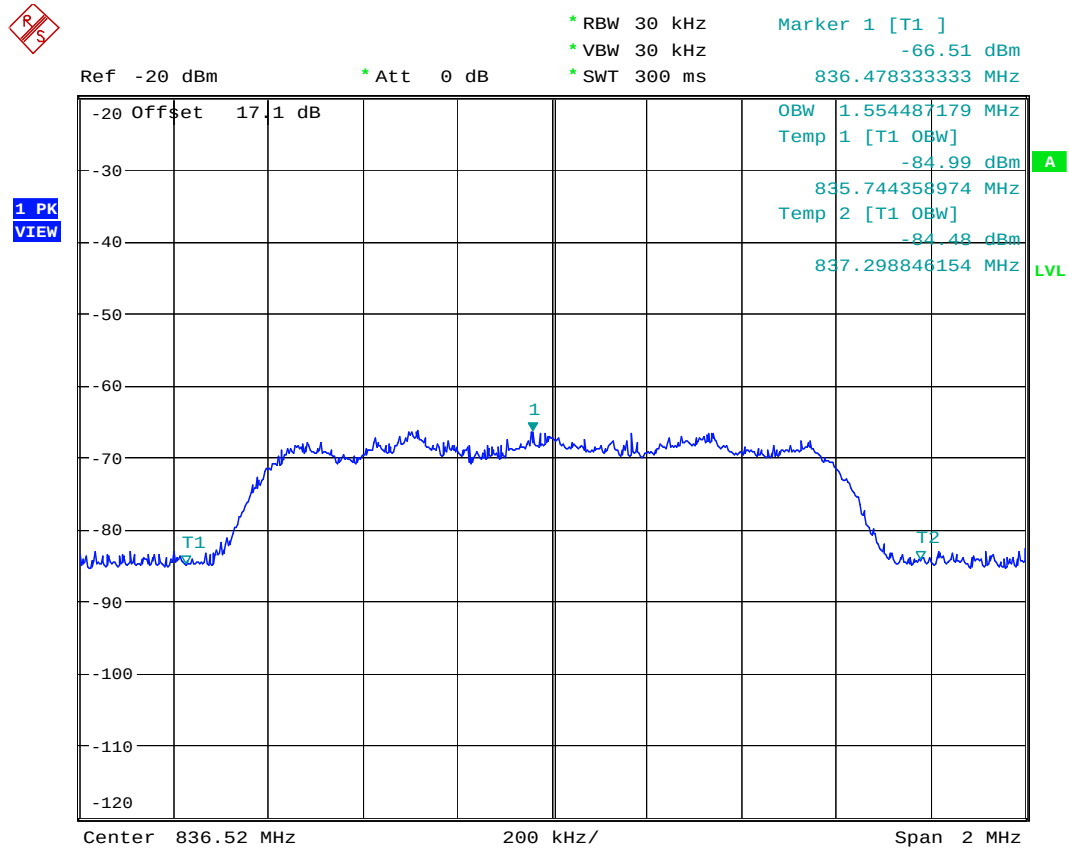
*Occupy Bandwidth = 1262.82KHz

*Correction Factor = $10 \cdot \log (1\% \text{ Occupy Bandwidth} / \text{Measurement RBW})$
= $10 \cdot \log ((0.01 \cdot 1262.82 \text{ KHz}) / 10 \text{ KHz})$
= 1.01 dB

*Band Edge = Measurement Value + Correction Factor
= -21.78 + 1.01
= -20.77



- Test Mode : CDMA2000 Cellular 850 CH384_38.4Kbps 99% Occupied Bandwidth for 1xEV-DO
- Power State : Low



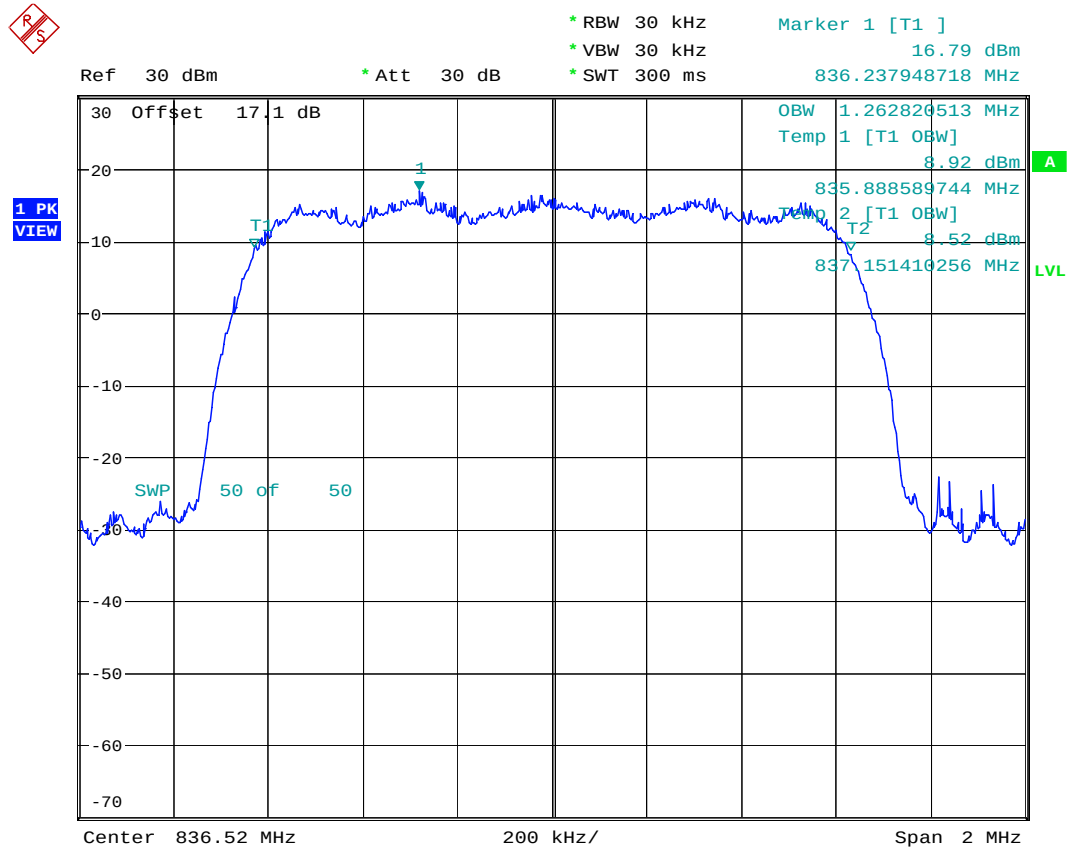
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FCC/IC TEST REPORT

Report No. : FG741601

- Test Mode : CDMA2000 Cellular 850 CH384_38.4Kbps 99% Occupied Bandwidth for 1xEV-DO
- Power State : High



Date: 17.APR.2007 15:33:18

SPORTON International Inc.

TEL : 886-2-2696-2468

FAX : 886-2-2696-2255

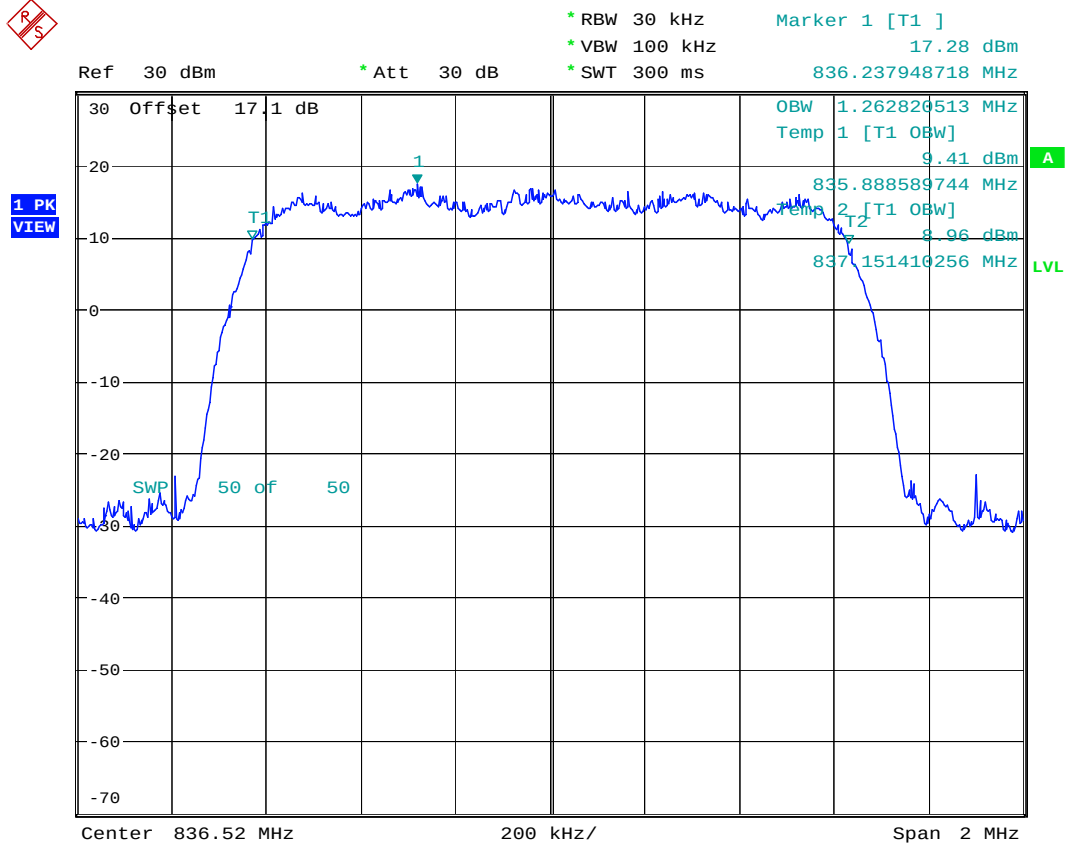
FCC ID : O8F-715

IC ID : 3905A-715

Page No. : 23 of 105

Report Issued Date : May 23, 2007

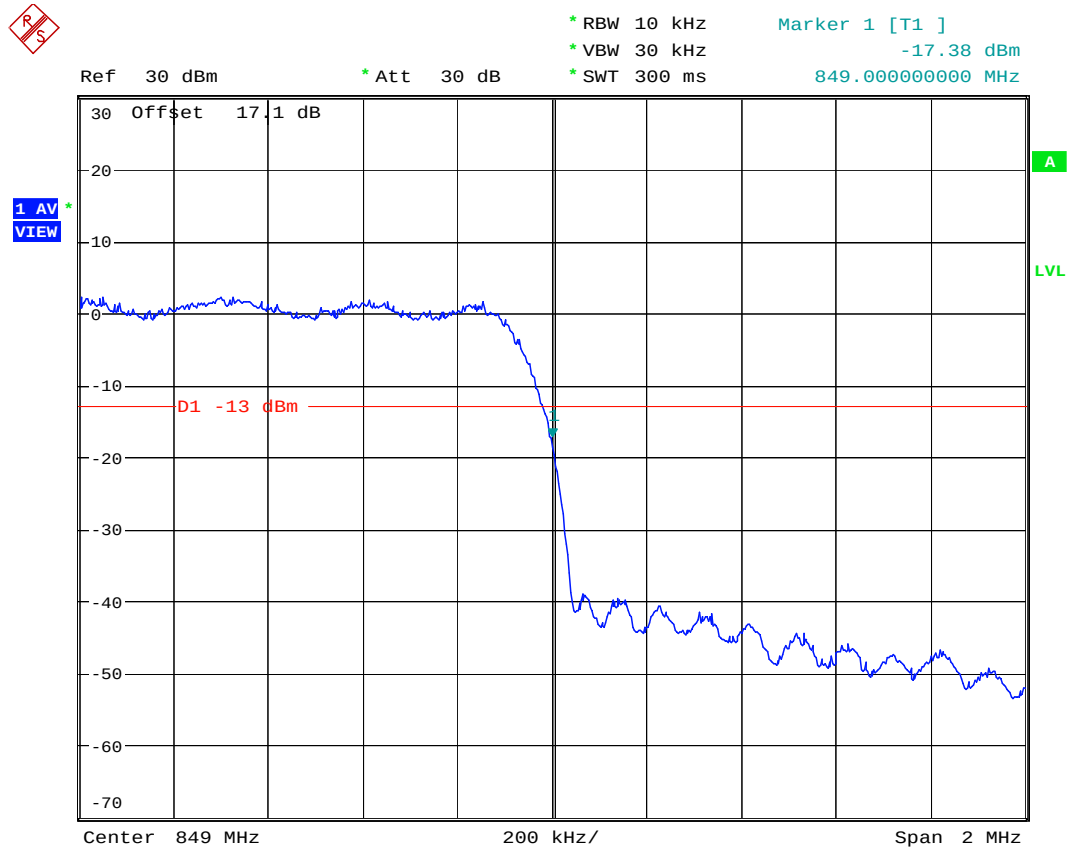
Report Version : Rev. 01



Date: 17.APR.2007 15:29:40



- Test Mode : CDMA2000 Cellular 850 CH777_38.4Kbps Higher Band Edge for 1xEV-DO
- Power State : High



Date: 17.APR.2007 16:01:16

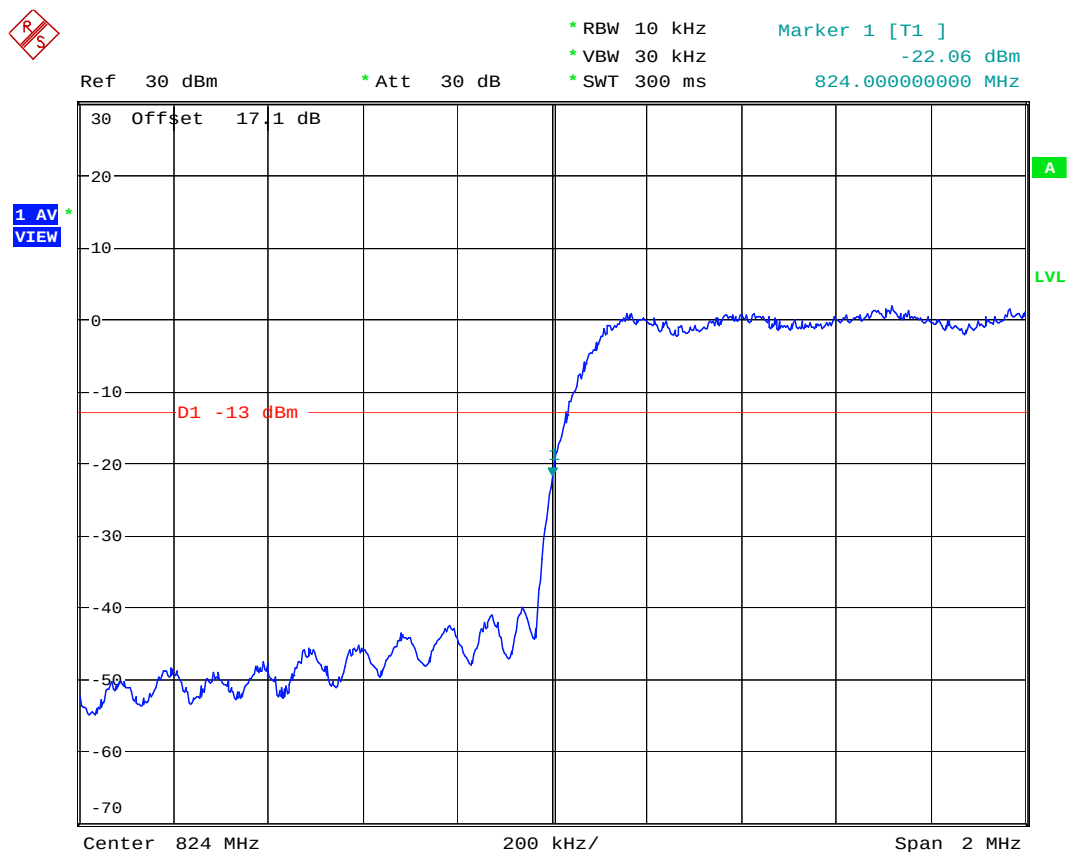
*Occupancy Bandwidth = 1554.48KHz

*Correction Factor = $10 \cdot \log (1\% \text{ Occupancy Bandwidth} / \text{Measurement RBW})$
= $10 \cdot \log ((0.01 \cdot 1554.48 \text{ KHz}) / 10 \text{ KHz})$
= 1.01 dB

*Band Edge = Measurement Value + Correction Factor
= -17.38 + 1.01
= -16.37

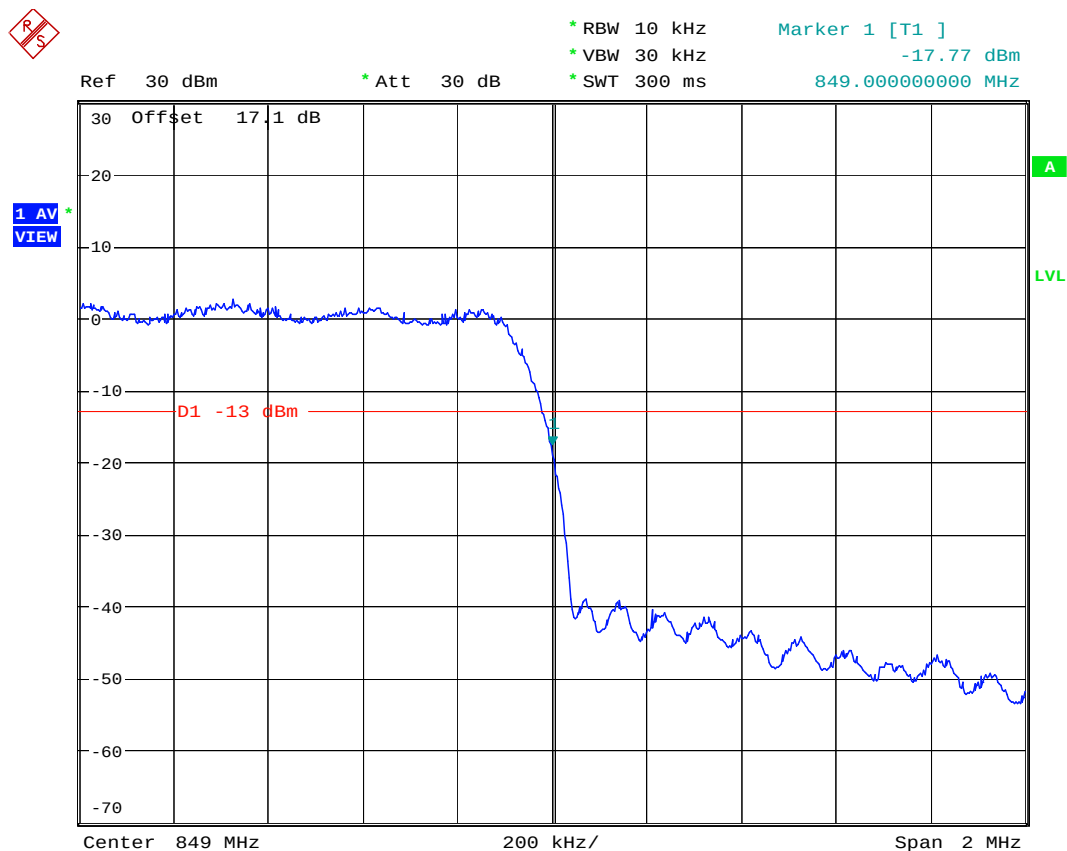


- Test Mode : CDMA2000 Cellular 850 CH1013_153.6Kbps Lower Band Edge for 1xEV-DO
- Power State : High



Date: 17.APR.2007 16:07:55

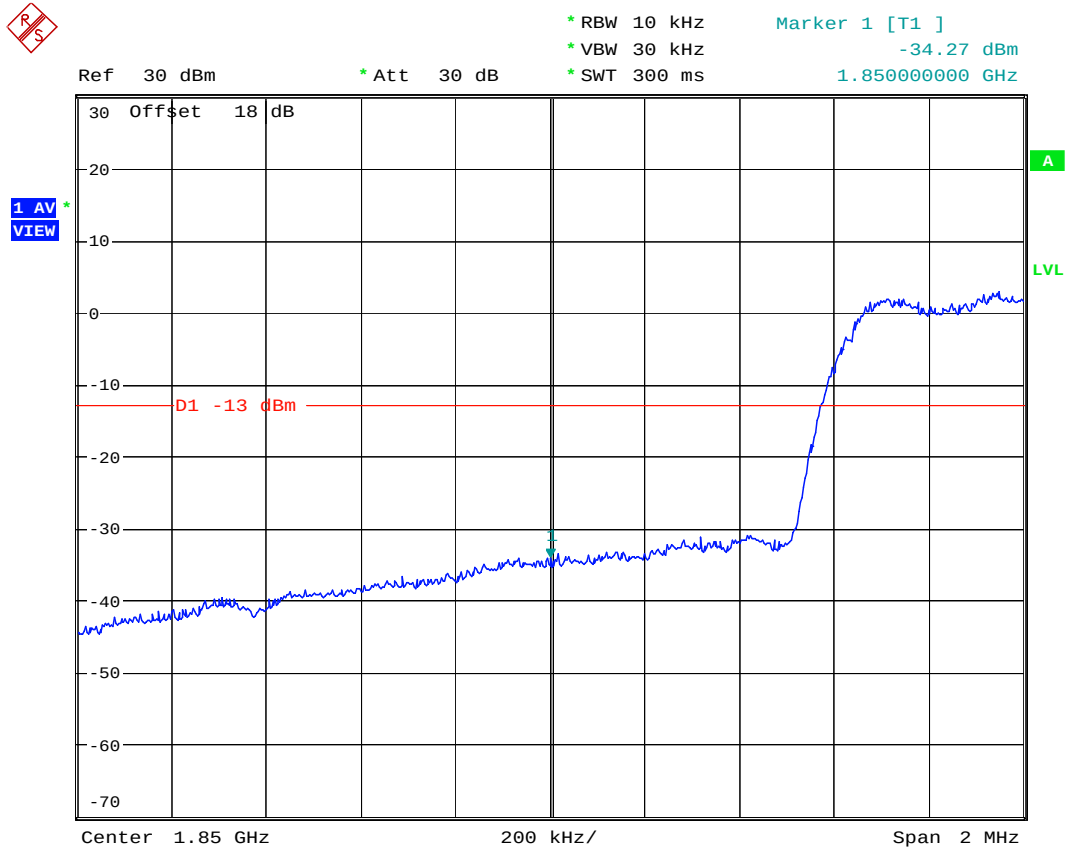
- Test Mode : CDMA2000 Cellular 850 CH777_153.6Kbps Higher Band Edge for 1xEV-DO
- Power State : High



Date: 17.APR.2007 16:03:02



- Mode 3
- Test Mode : CDMA2000 PCS 1900 Band CH25_FCH_RC1 Lower Band Edge for 1xRTT
- Power State : High



Date: 17.APR.2007 17:27:35

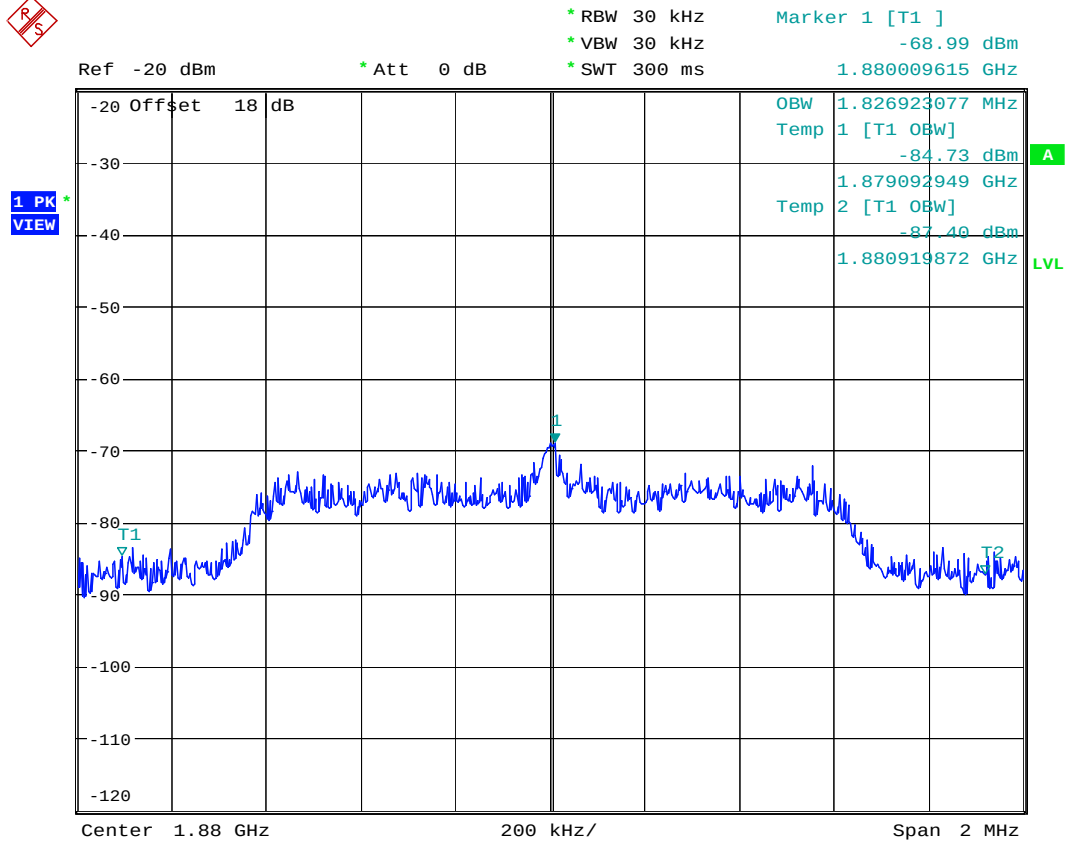
*Occupancy Bandwidth = 1278.84KHz

*Correction Factor = $10 \cdot \log (1\% \text{ Occupancy Bandwidth} / \text{Measurement RBW})$
= $10 \cdot \log ((0.01 \cdot 1278.84 \text{ KHz}) / 10 \text{ KHz})$
= 1.07 dB

*Band Edge = Measurement Value + Correction Factor
= -34.27 + 1.07
= -33.20

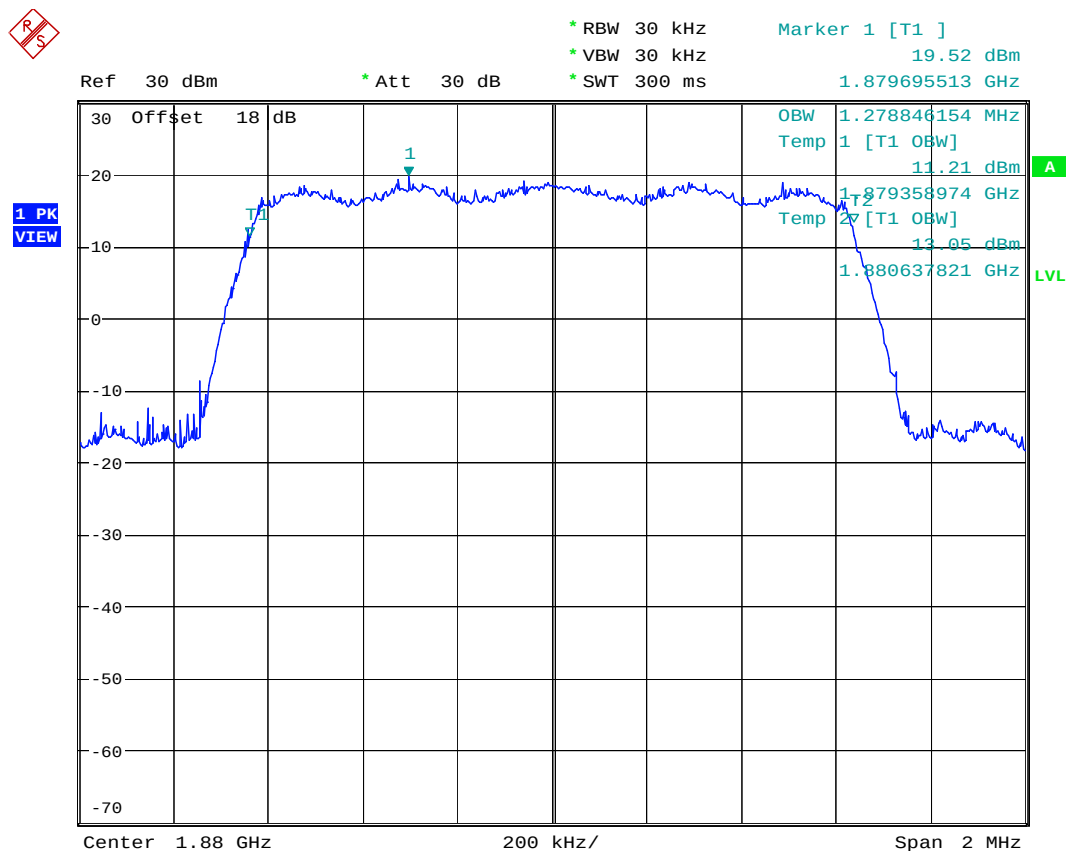


- Test Mode : CDMA2000 PCS 1900 CH600 99% Occupied Bandwidth for 1xRTT
- Power State : Low

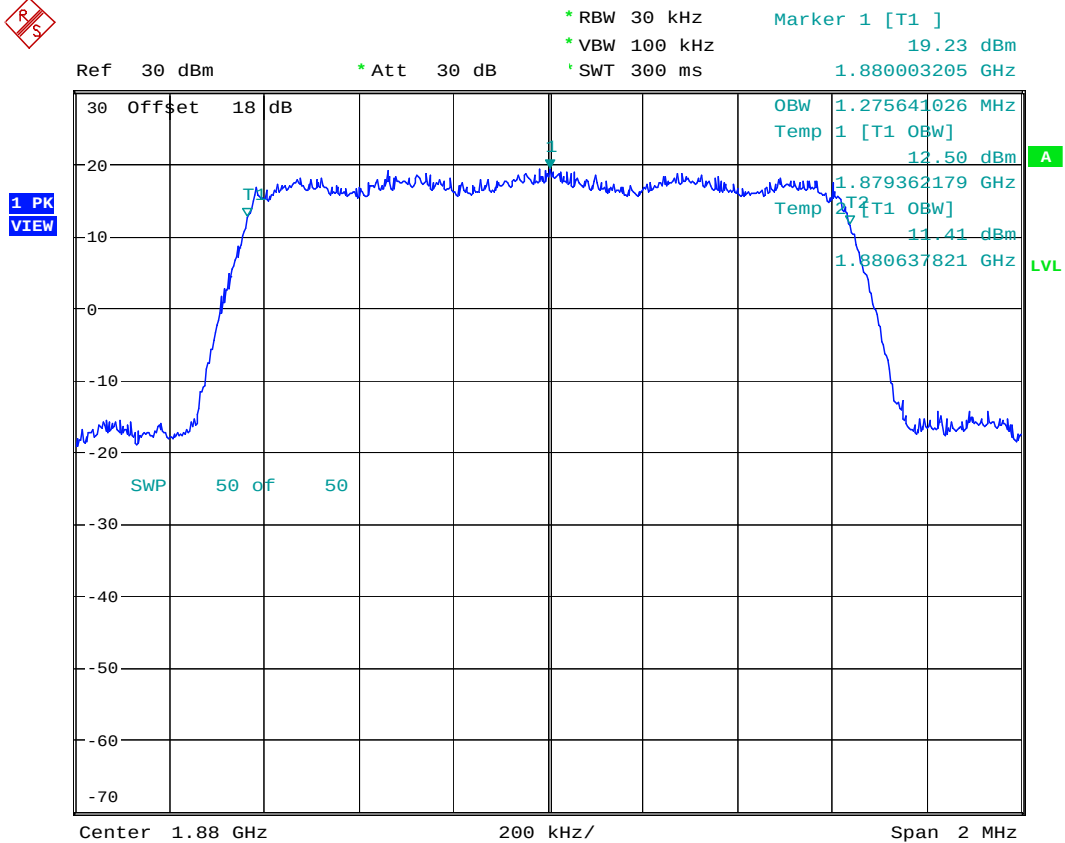


Date: 17.APR.2007 17:52:10

- Test Mode : CDMA2000 PCS 1900 CH600 99% Occupied Bandwidth for 1xRTT
- Power State : High



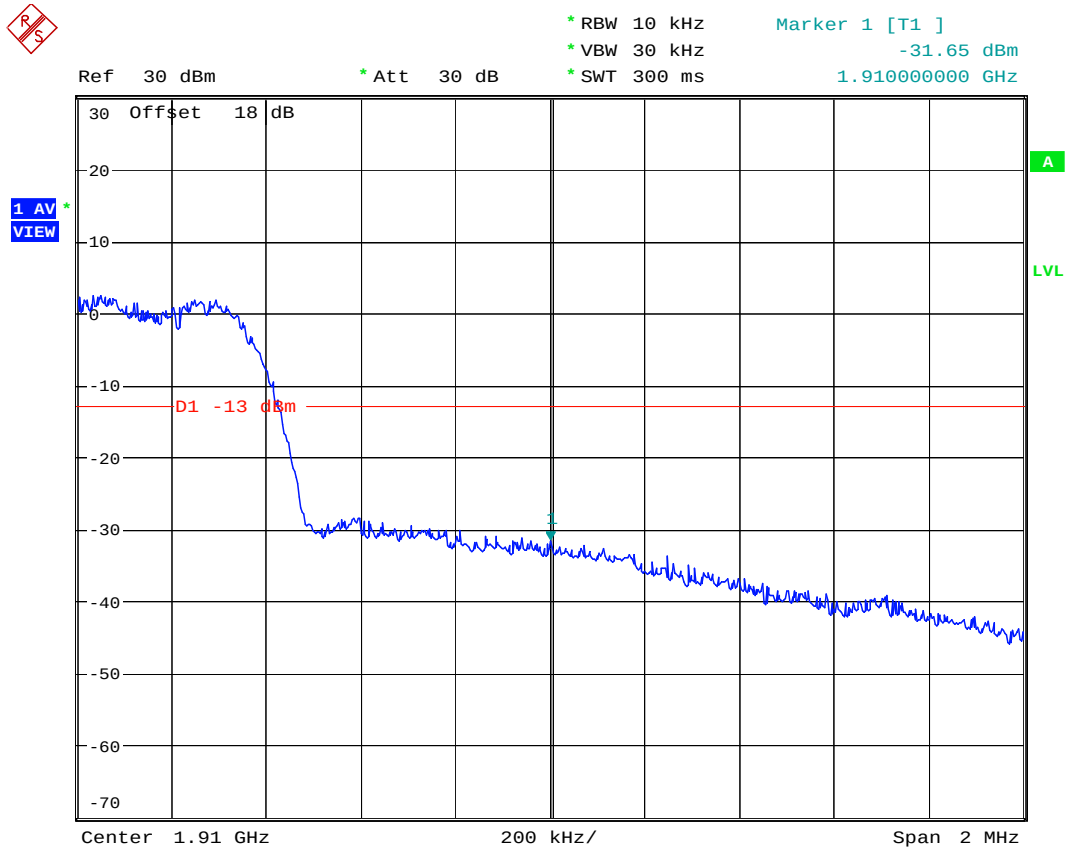
Date: 17.APR.2007 17:50:48



Date: 17.APR.2007 17:57:51



- Test Mode : CDMA2000 Cellular 850 CH1175_FCH_RC1 Higher Band Edge for 1xRTT
- Power State : High



Date: 17.APR.2007 17:29:05

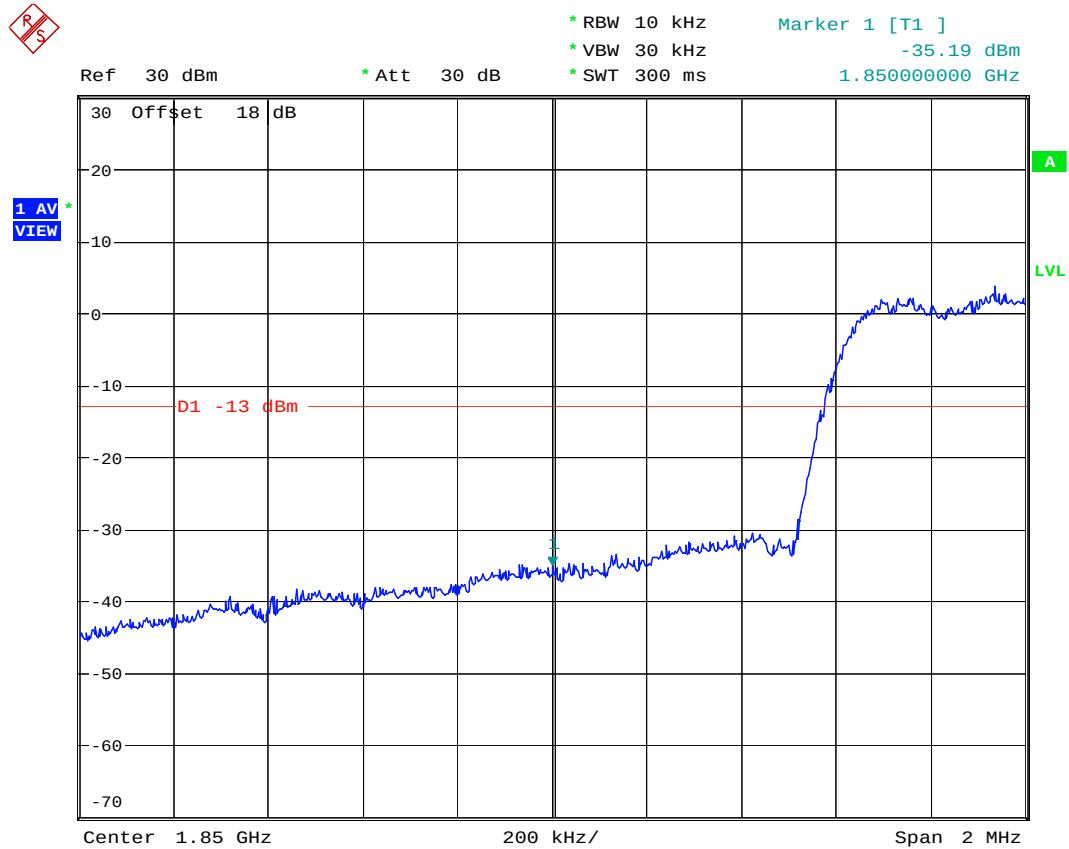
*Occupancy Bandwidth = 1826.92KHz

*Correction Factor = $10 \cdot \log (1\% \text{ Occupancy Bandwidth} / \text{Measurement RBW})$
= $10 \cdot \log ((0.01 \cdot 1826.92 \text{ KHz}) / 10 \text{ KHz})$
= 1.07 dB

*Band Edge = Measurement Value + Correction Factor
= -31.65 + 1.07
= -30.58



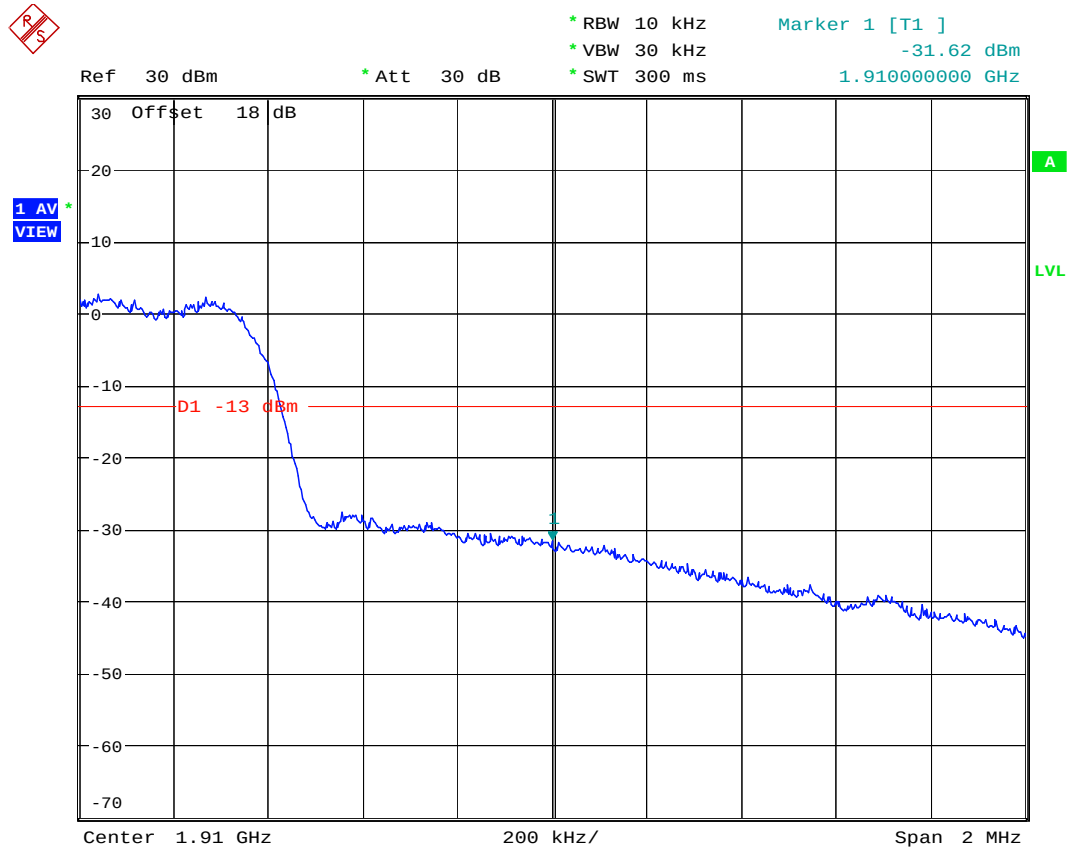
- Test Mode : CDMA2000 PCS 1900 Band CH25_FCH_RC3 Lower Band Edge for 1xRTT
- Power State : High



Date: 17.APR.2007 17:27:48



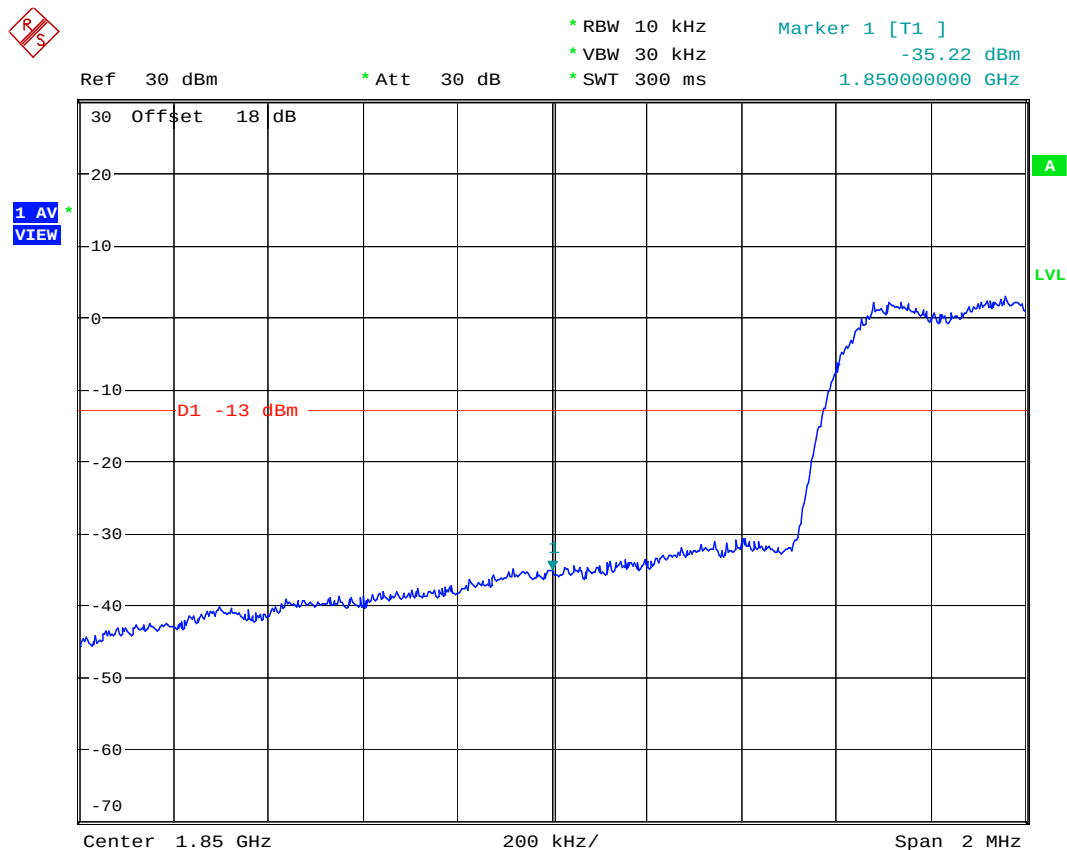
- Test Mode : CDMA2000 PCS 1900 CH1175_FCH_RC3 Higher Band Edge for 1xRTT
- Power State : High



Date: 17.APR.2007 17:28:30



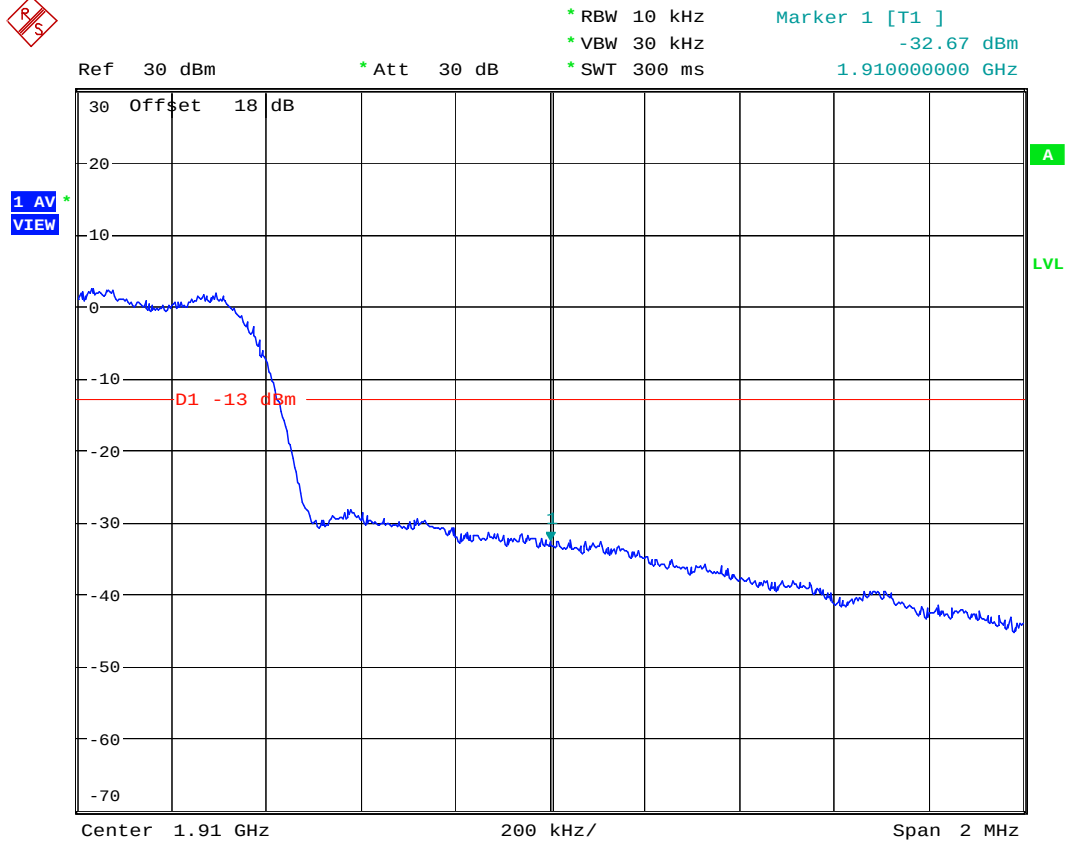
- Test Mode : CDMA2000 PCS 1900 Band CH25_FCH+SCH_RC1 Lower Band Edge for 1xRTT
- Power State : High



Date: 17.APR.2007 17:26:51

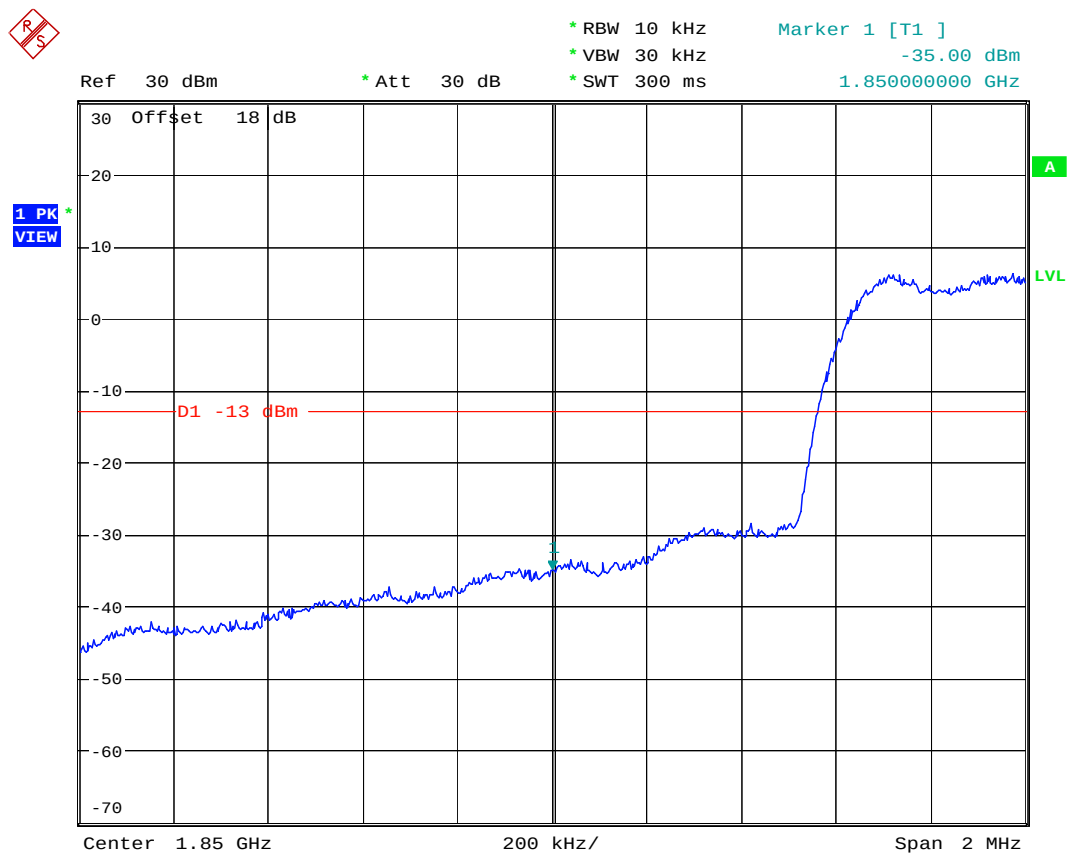


- Test Mode : CDMA2000 PCS 1900 CH1175_FCH+SCH_RC1 Higher Band Edge for 1xRTT
- Power State : High



Date: 17.APR.2007 17:28:53

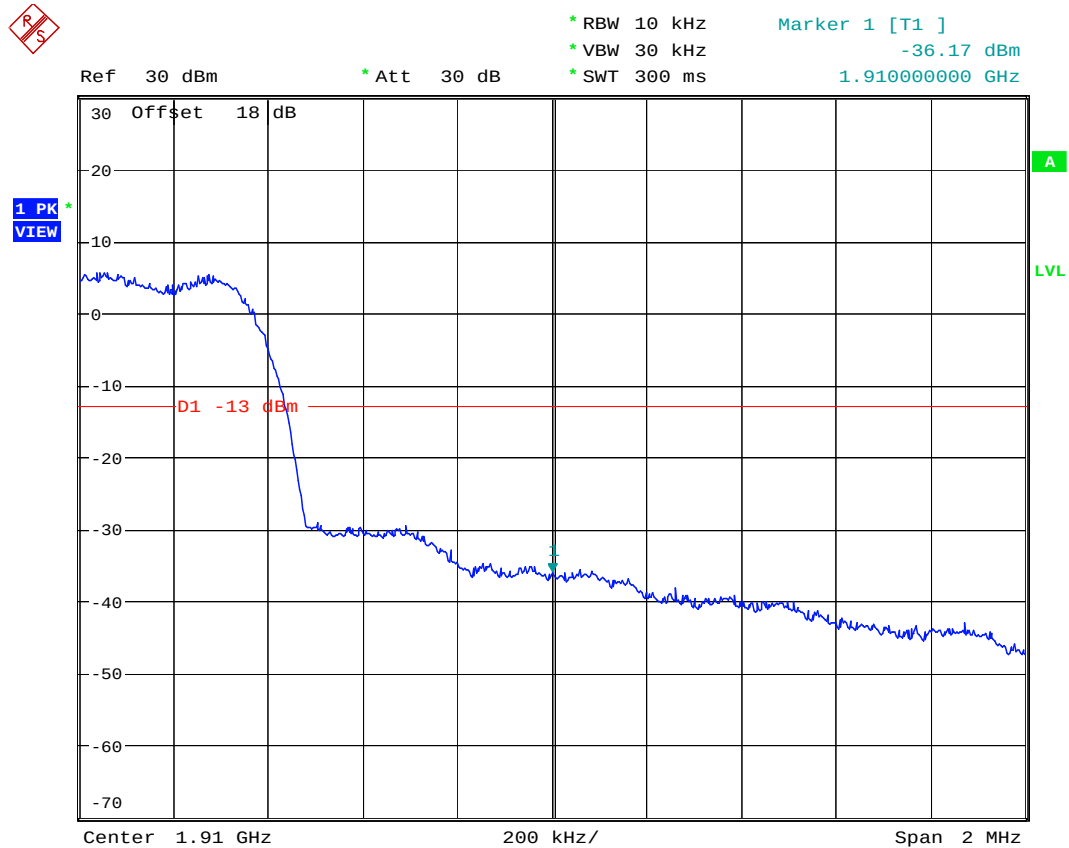
- Mode 4
- Test Mode : CDMA2000 PCS 1900 CH25_9.6Kbps Lower Band Edge for 1xEV-DO
- Power State : High



Date: 17.APR.2007 16:39:12



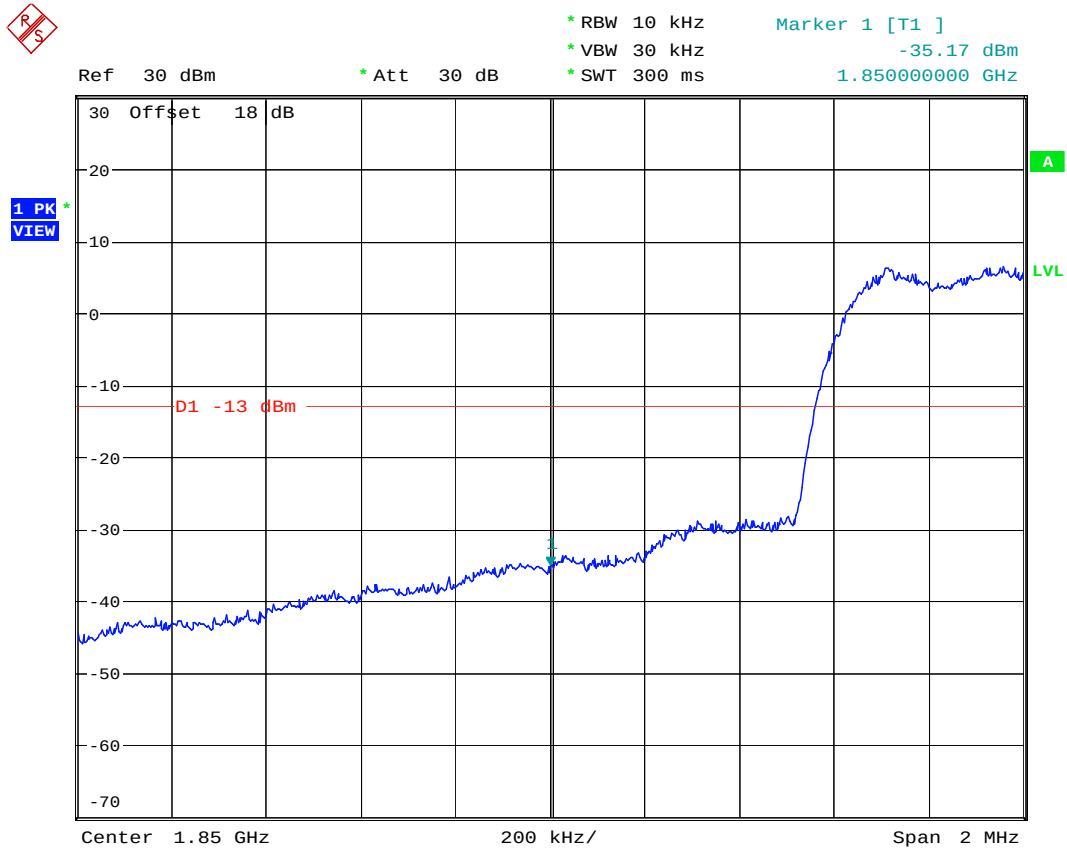
- Test Mode : CDMA2000 PCS 1900 CH1175_9.6Kbps Higher Band Edge for 1xEV-DO
- Power State : High



Date: 17.APR.2007 16:38:01



- Test Mode : CDMA2000 PCS 1900 CH25_38.4Kbps Lower Band Edge for 1xEV-DO
- Power State : High



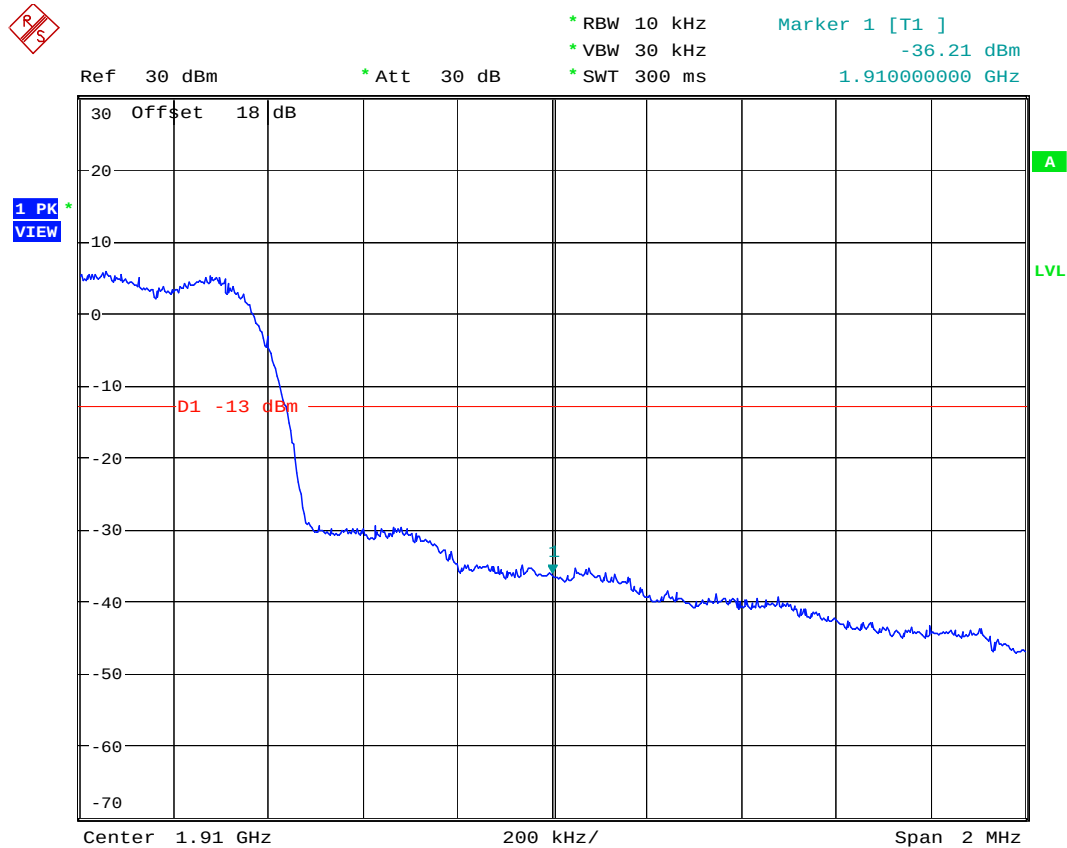
Date: 17.APR.2007 16:38:38



FCC/IC TEST REPORT

Report No. : FG741601

- Test Mode : CDMA2000 PCS 1900 CH1175_38.4Kbps Higher Band Edge for 1xEV-DO
- Power State : High



Date: 17.APR.2007 16:37:12

SPORTON International Inc.

TEL : 886-2-2696-2468

FAX : 886-2-2696-2255

FCC ID : O8F-715

IC ID : 3905A-715

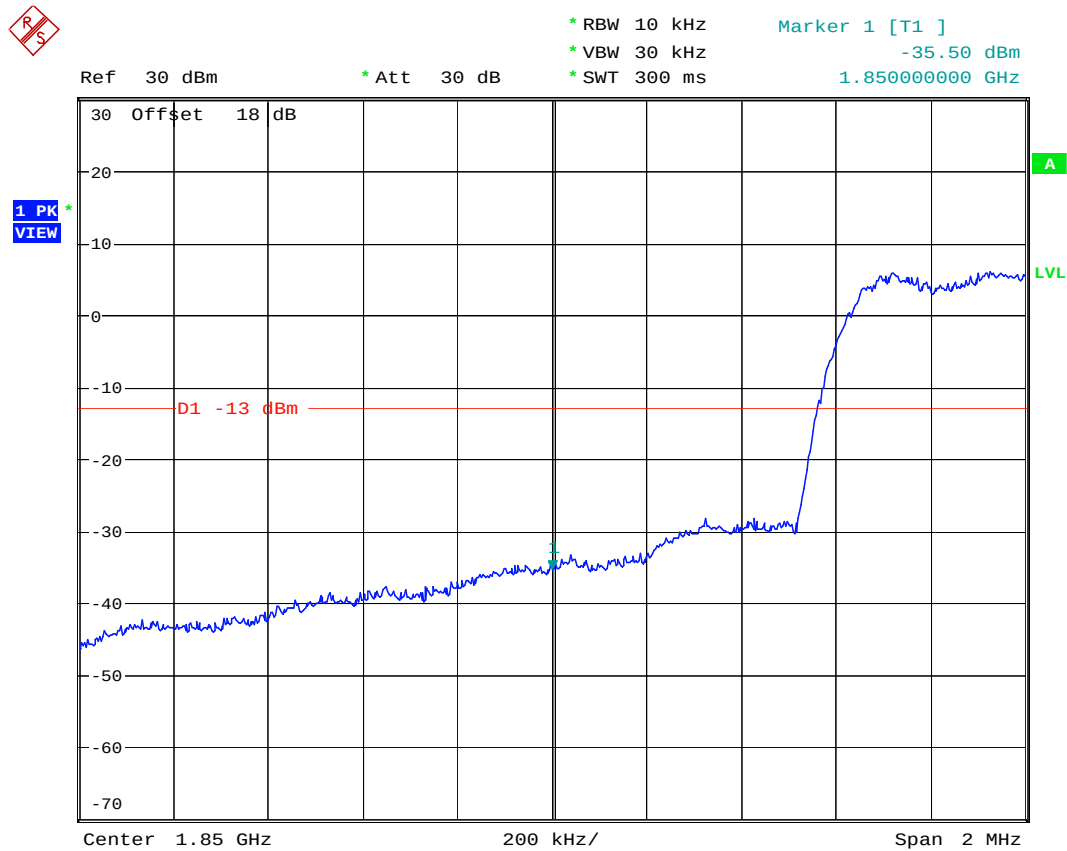
Page No. : 40 of 105

Report Issued Date : May 23, 2007

Report Version : Rev. 01



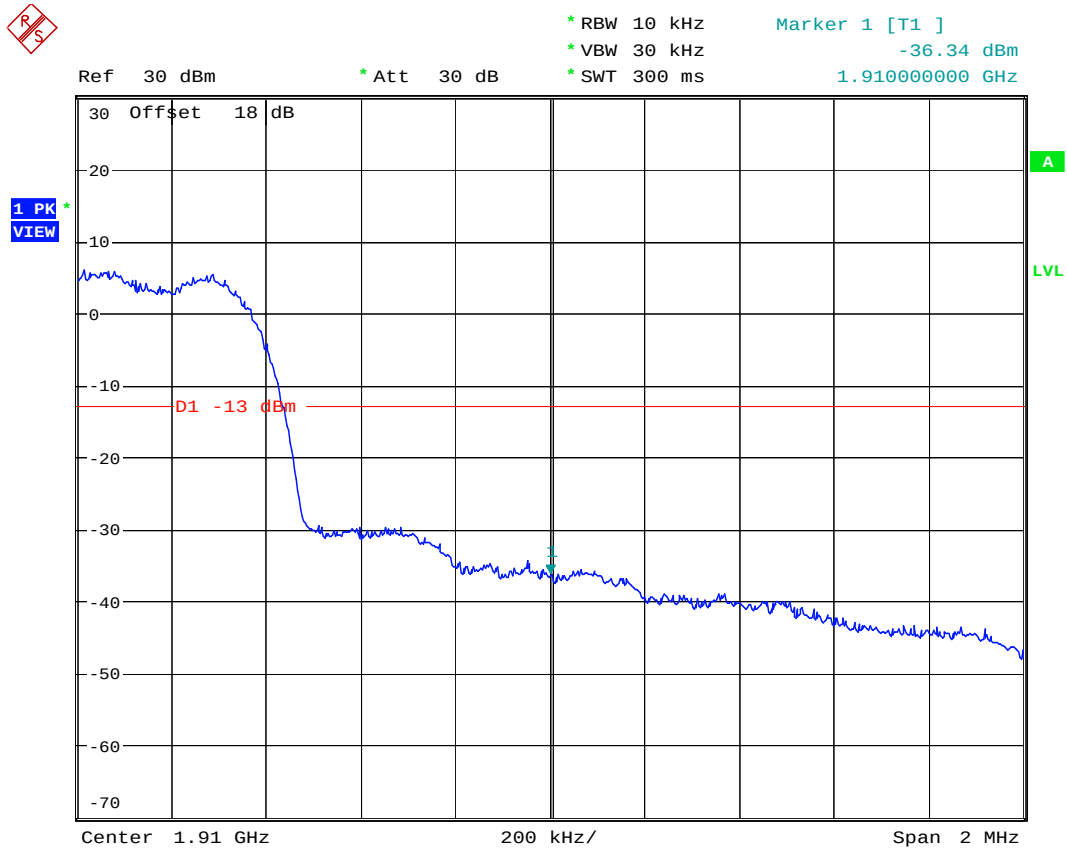
- Test Mode : CDMA2000 PCS 1900 CH25_153.6Kbps Lower Band Edge for 1xEV-DO
- Power State : High



Date: 17.APR.2007 16:40:22



- Test Mode : CDMA2000 PCS 1900 CH1175_153.6Kbps Higher Band Edge for 1xEV-DO
- Power State : High



Date: 17.APR.2007 16:37:38

4.5 Conducted Emission

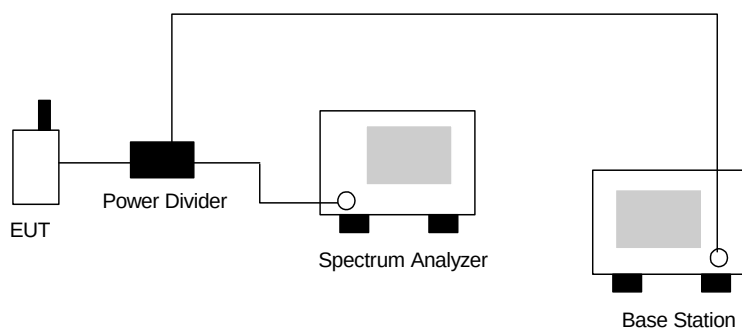
4.5.1 Measurement Instruments

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.

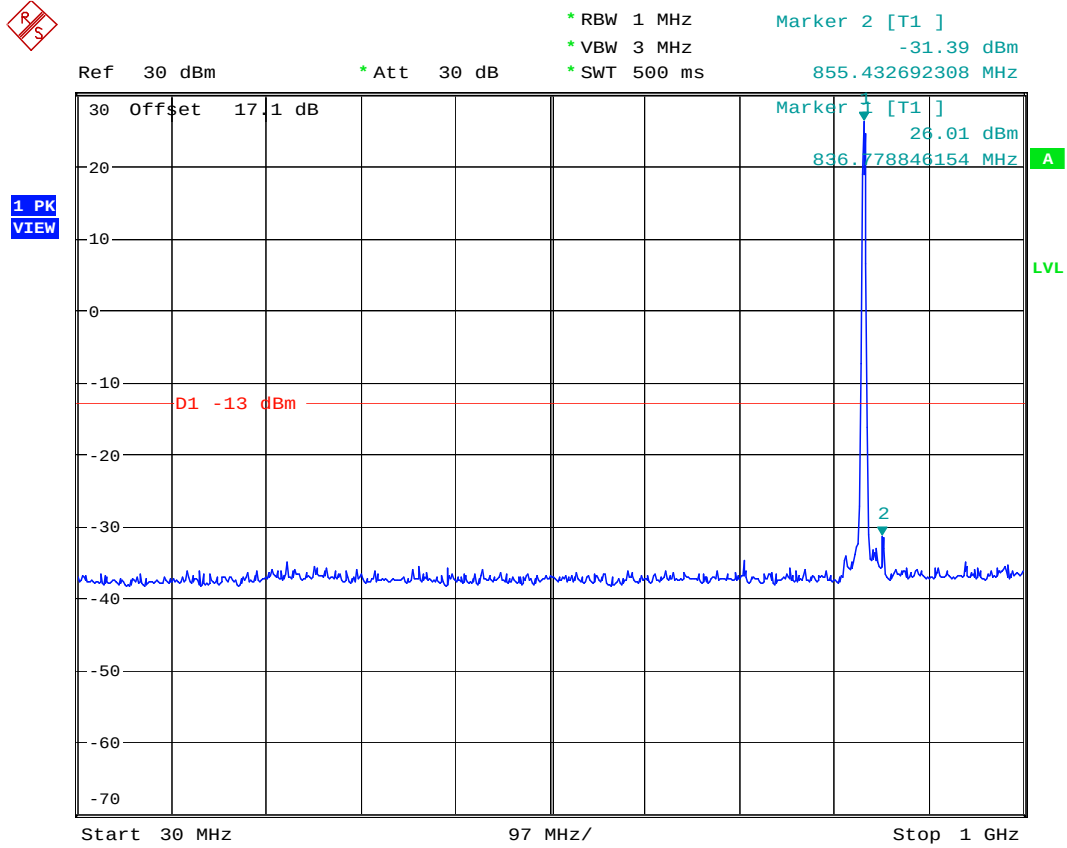
4.5.3 Test Setup Layout





4.5.4 Test Result

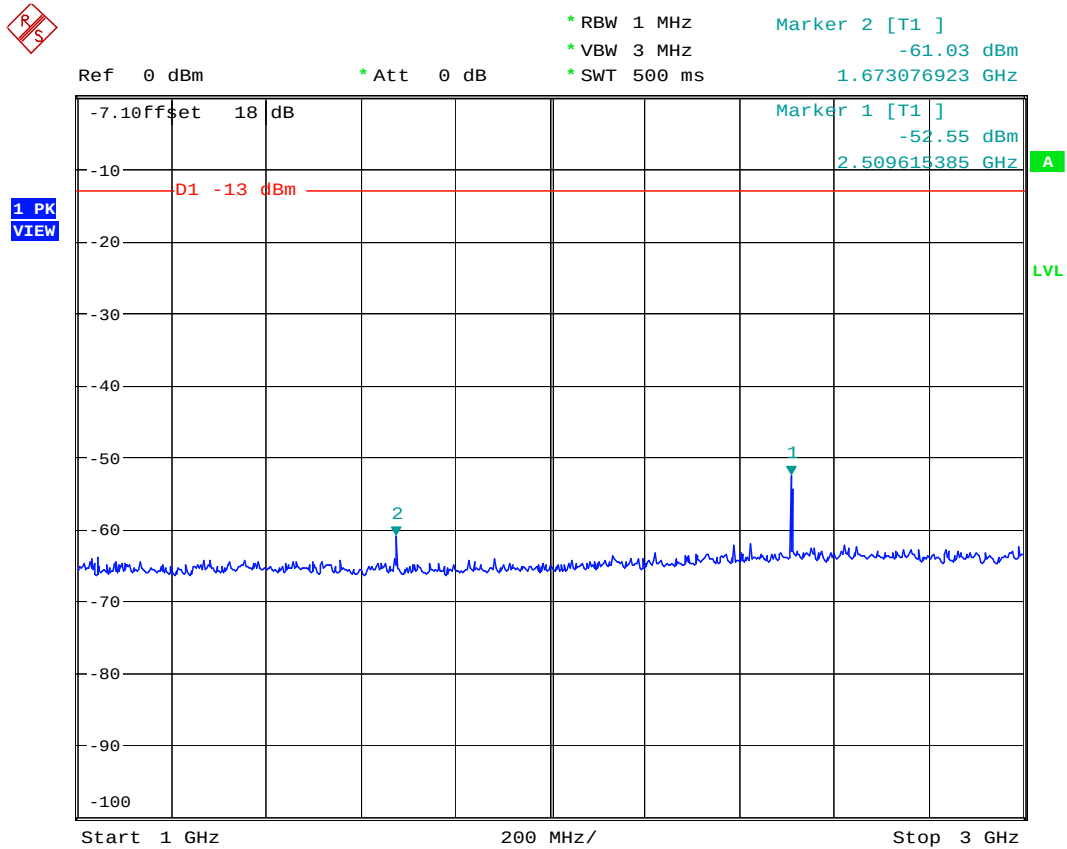
- Mode 2
- Test Mode : CDMA2000 Cellular 850 CH384 38.4Kbps for 1xEV-DO
- Frequency Range : 30M-1G



Date: 17.APR.2007 15:47:03



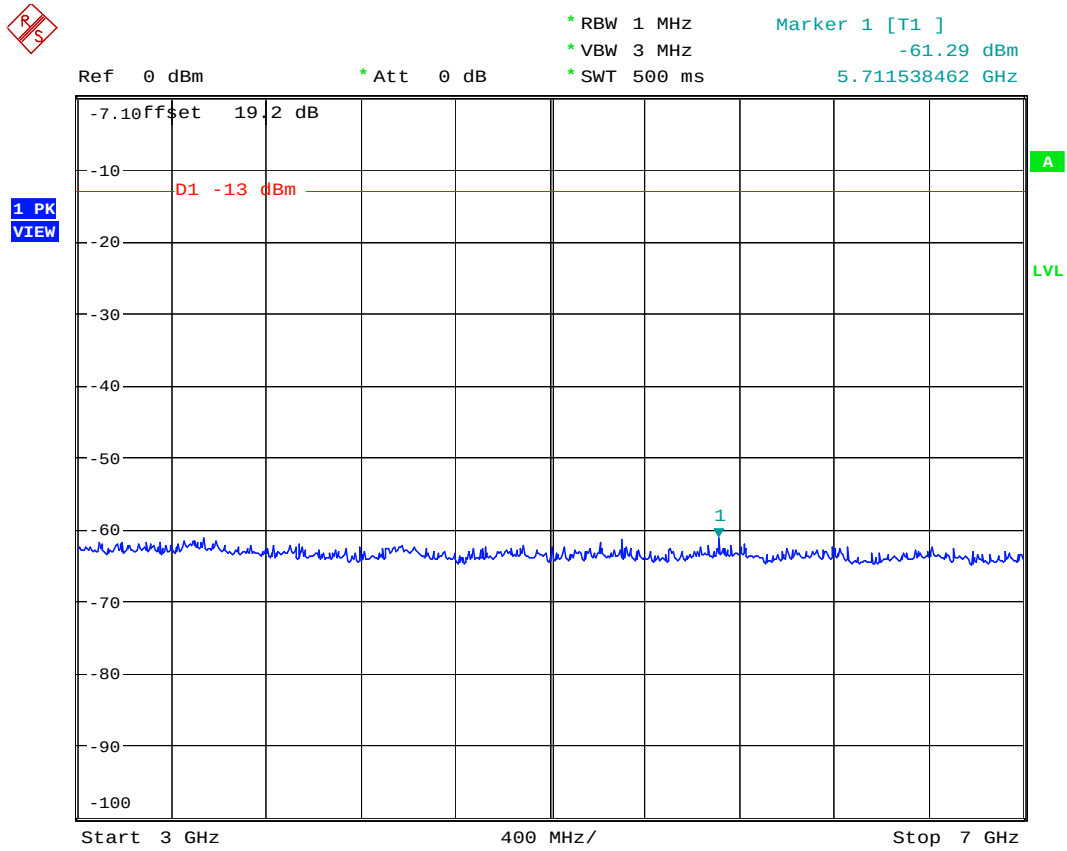
- Test Mode : CDMA2000 Cellular 850 CH384 38.4Kbps for 1xEV-DO
- Frequency Range : 1G-3G



Date: 17.APR.2007 15:41:07



- Test Mode : CDMA2000 Cellular 850 CH384 38.4Kbps for 1xEV-DO
- Frequency Range : 3G-7G



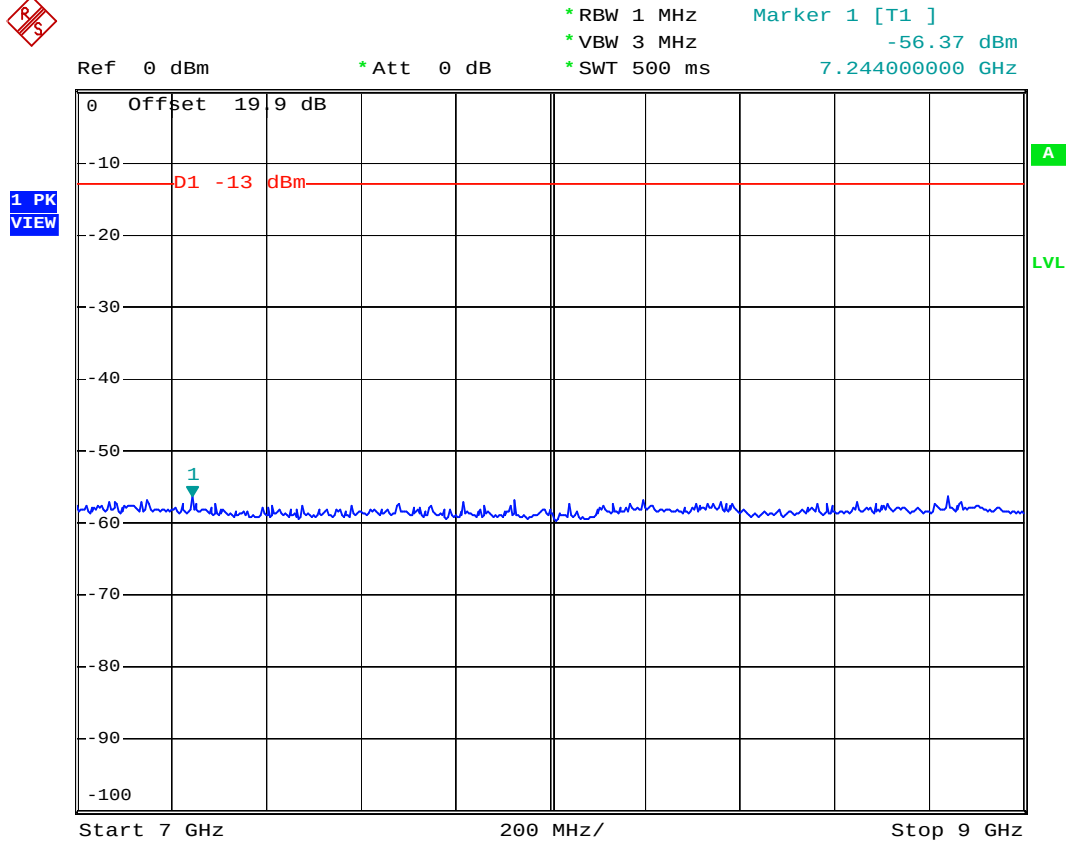
Date: 17.APR.2007 15:41:52



FCC/IC TEST REPORT

Report No. : FG741601

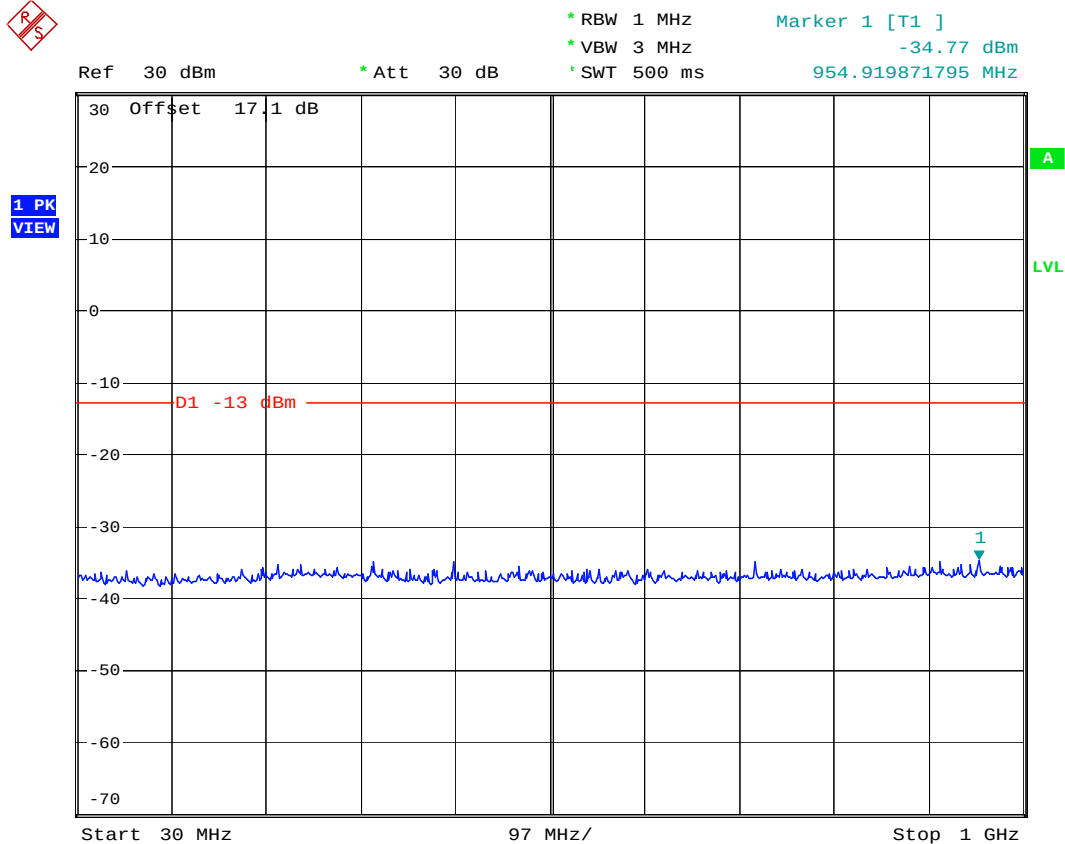
- Test Mode : CDMA2000 Cellular 850 CH384 38.4Kbps for 1xEV-DO
- Frequency Range : 7G-9G



Date: 19.APR.2007 20:54:47



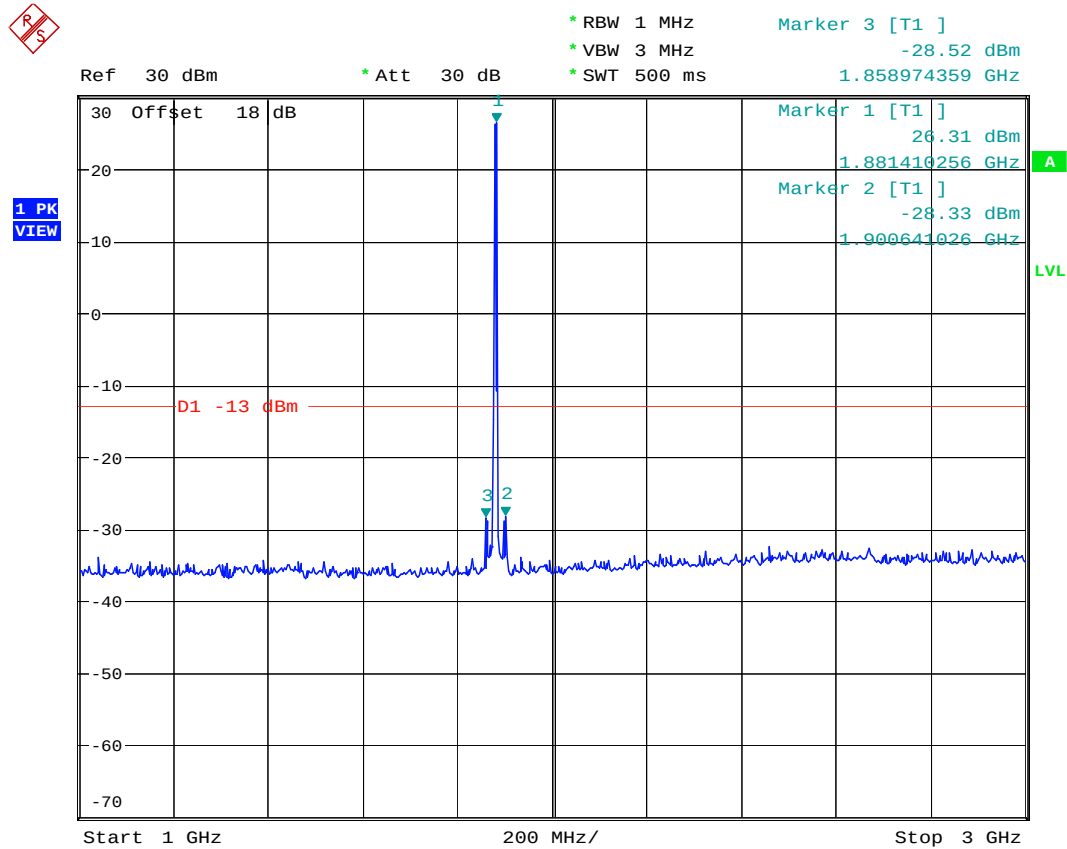
- Mode 3
- Test Mode : CDMA2000 PCS 1900 CH600 RC1 for 1xRTT
- Frequency Range : 30M-1G



Date: 17.APR.2007 18:01:52



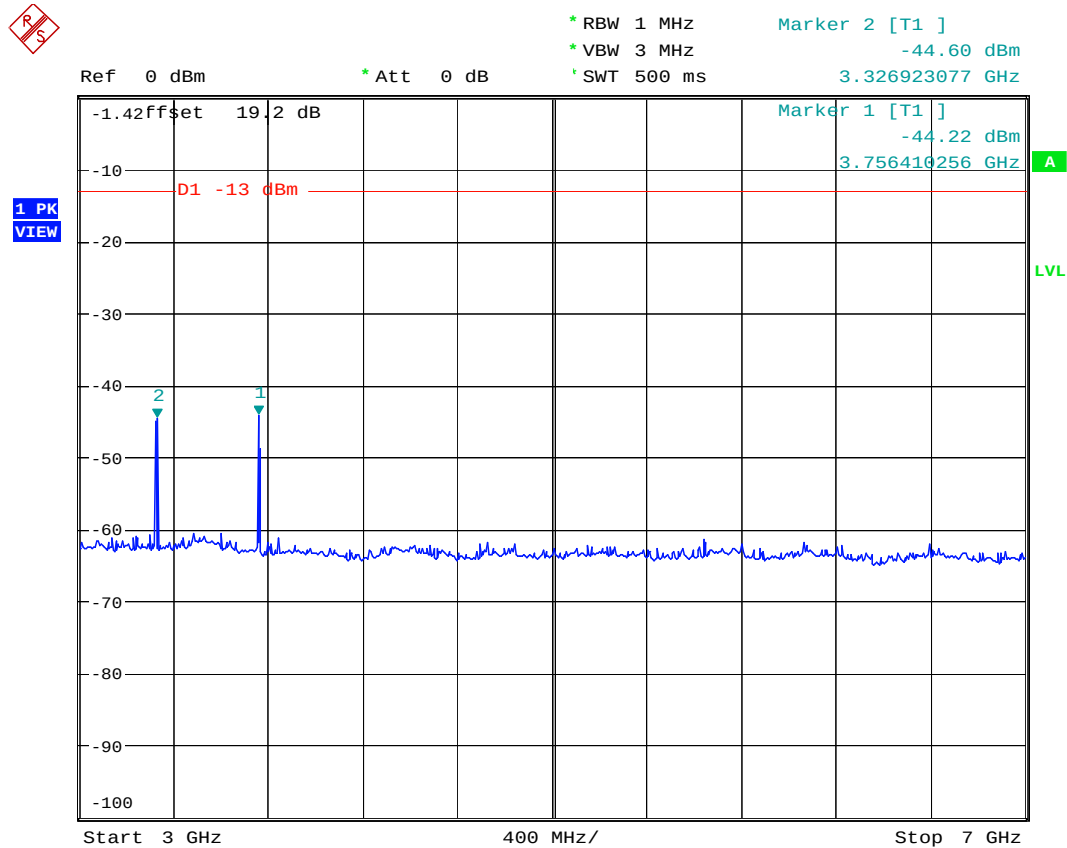
- Test Mode : CDMA2000 PCS 1900 CH600 RC1 for 1xRTT
- Frequency Range : 1G-3G



Date: 17.APR.2007 18:02:49



- Test Mode : CDMA2000 PCS 1900 CH600 RC1 for 1xRTT
- Frequency Range : 3G-7G



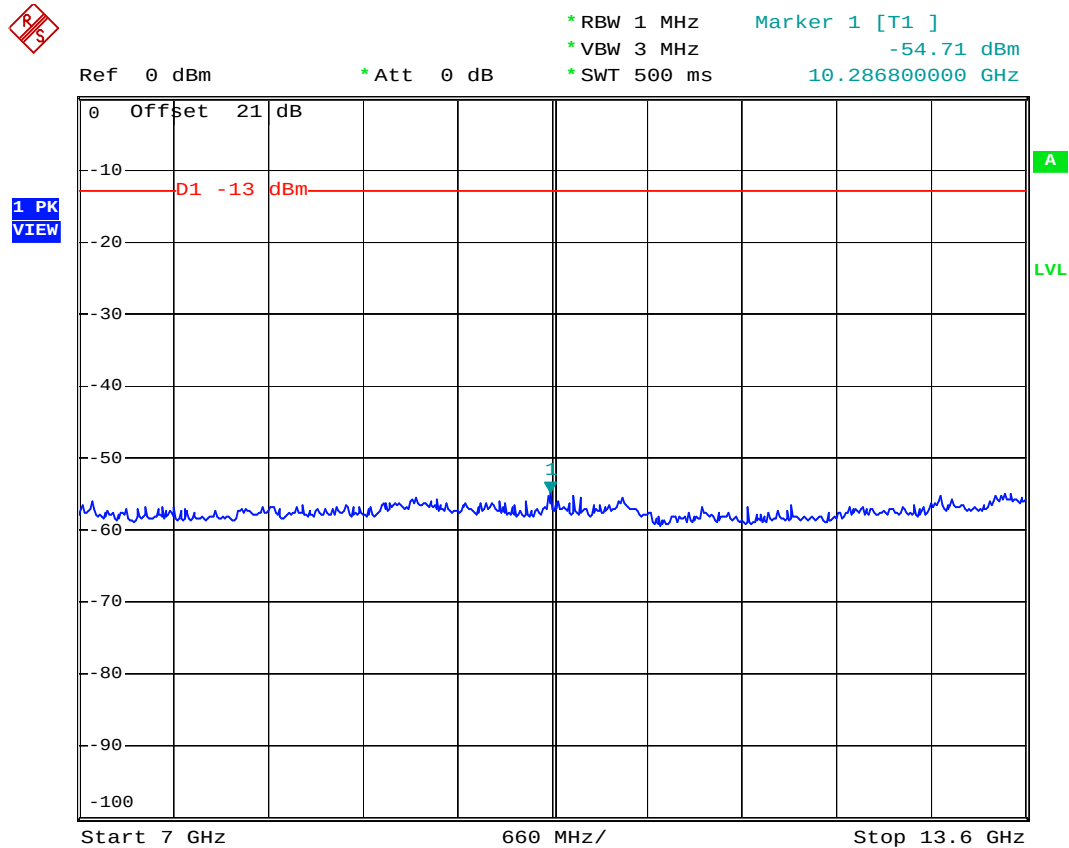
Date: 17.APR.2007 18:04:29



FCC/IC TEST REPORT

Report No. : FG741601

- Test Mode : CDMA2000 PCS 1900 CH600 RC1 for 1xRTT
- Frequency Range : 7G-13.6G



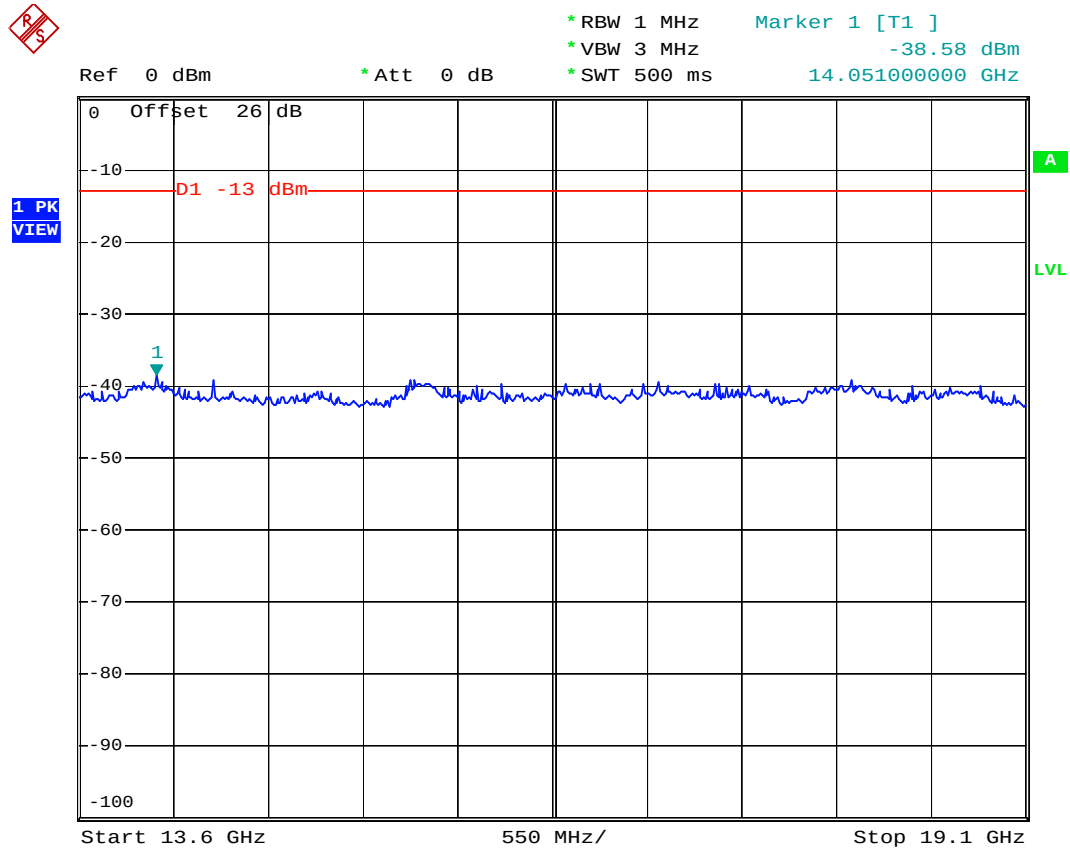
Date: 19.APR.2007 20:56:08



FCC/IC TEST REPORT

Report No. : FG741601

- Test Mode : CDMA2000 PCS 1900 CH600 RC1 for 1xRTT
- Frequency Range : 13.6G-19.1G



Date: 19.APR.2007 20:57:01

4.6 Field Strength of Spurious Radiation

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

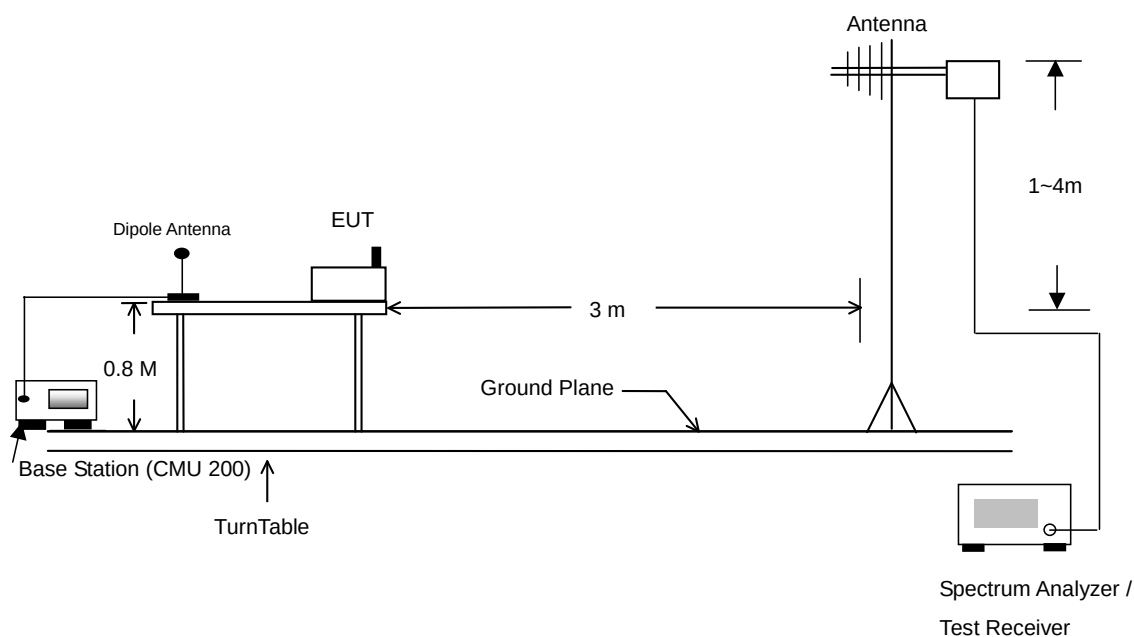
4.6.1 Measurement Instruments

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 record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10. Emission level (dBm) = output power + substitution Gain.

4.6.3 Test Setup Layout



4.6.4 Test Result
Test Mode : Mode 1

CDMA2000 Cellular 850 1xRTT FCH_RC1 Radiated Spurious ERP							
H Polarization				V Polarization			
Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)
73.740	-62.000	-13	-49.00	73.740	-60.030	-13	-47.03
98.580	-62.190	-13	-49.19	88.590	-61.350	-13	-48.35
129.090	-64.080	-13	-51.08	134.490	-61.100	-13	-48.10
985.300	-65.820	-13	-52.82	987.400	-63.660	-13	-50.66
1674.000	-58.060	-13	-45.06	2144.000	-58.560	-13	-45.56
2508.000	-59.170	-13	-46.17	3344.000	-55.820	-13	-42.82

Test Mode : Mode 2

CDMA2000 Cellular 850 1xEV-DO 38.4Kbps Radiated Spurious ERP							
H Polarization				V Polarization			
Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)
74.280	-62.470	-13	-49.47	71.580	-59.910	-13	-46.91
133.140	-64.370	-13	-51.37	92.640	-60.350	-13	-47.35
288.930	-63.770	-13	-50.77	289.740	-58.800	-13	-45.80
472.900	-65.640	-13	-52.64	987.400	-64.490	-13	-51.49
1674.000	-56.670	-13	-43.67	3348.000	-55.770	-13	-42.77
2508.000	-58.370	-13	-45.37				

- Test Mode : Mode 3

CDMA2000 PCS 1900 1xRTT FCH_RC1 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	-64.010	-13	-51.01	72.390	-58.160	-13	-45.16
73.740	-60.570	-13	-47.57	88.590	-58.530	-13	-45.53
139.080	-62.650	-13	-49.65	139.080	-58.840	-13	-45.84
887.300	-64.920	-13	-51.92	822.900	-62.840	-13	-49.84
925.800	-64.300	-13	-51.30	925.800	-61.550	-13	-48.55
978.300	-63.560	-13	-50.56	992.300	-61.550	-13	-48.55
3758.000	-46.850	-13	-33.85	3758.000	-43.850	-13	-30.85
7518.000	-44.630	-13	-31.63	7518.000	-47.270	-13	-34.27
11278.000	-42.080	-13	-29.08	9398.000	-43.400	-13	-30.40
13158.000	-44.170	-13	-31.17	11278.000	-41.130	-13	-28.13
				13158.000	-45.630	-13	-32.63

- Test Mode : Mode 4

CDMA2000 PCS 1900 1xEV-DO 153.6Kbps 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	-63.190	-13	-50.19	71.580	-57.520	-13	-44.52
74.280	-59.930	-13	-46.93	87.780	-58.640	-13	-45.64
140.430	-62.360	-13	-49.36	133.140	-59.120	-13	-46.12
712.300	-58.800	-13	-45.80	885.900	-61.960	-13	-48.96
862.800	-65.100	-13	-52.10	911.800	-62.020	-13	-49.02
955.900	-64.080	-13	-51.08	983.900	-61.000	-13	-48.00
3758.000	-47.680	-13	-34.68	3758.000	-43.560	-13	-30.56
				7518.000	-47.110	-13	-34.11
				9398.000	-42.290	-13	-29.29
				11278.000	-41.850	-13	-28.85
				13158.000	-44.340	-13	-31.34

▪ Test Mode : Mode 5

CDMA2000 Cellular 850 1xEV-DO 38.4Kbps with Bluetooth Co-location Radiated Spurious ERP							
H Polarization				V Polarization			
Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)
30.000	-65.930	-13	-52.93	71.580	-61.910	-13	-48.91
71.580	-63.290	-13	-50.29	87.780	-58.910	-13	-45.91
133.680	-62.690	-13	-49.69	134.490	-61.380	-13	-48.38
300.000	-66.380	-13	-53.38	663.300	-63.350	-13	-50.35
1674.000	-57.290	-13	-44.29	1674.000	-60.220	-13	-47.22
2508.000	-57.740	-13	-44.74	2508.000	-57.930	-13	-44.93
				3344.000	-56.830	-13	-43.83

▪ Test Mode : Mode 6

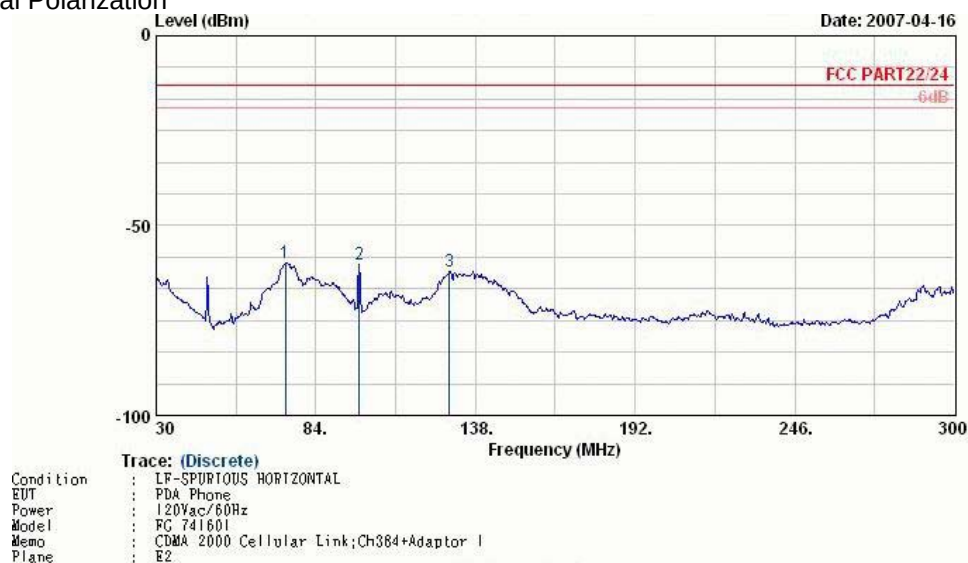
CDMA2000 Cellular 850 1xEV-DO 38.4Kbps with WLAN Co-location Radiated Spurious ERP							
H Polarization				V Polarization			
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)
68.880	-59.870	-13	-46.87	93.180	-54.710	-13	-41.71
133.140	-56.080	-13	-43.08	132.330	-54.550	-13	-41.55
297.030	-65.100	-13	-52.10	145.830	-55.900	-13	-42.90
300.700	-67.060	-13	-54.06	448.400	-61.560	-13	-48.56
1674.000	-59.360	-13	-46.36	964.300	-63.950	-13	-50.95
				1674.000	-61.130	-13	-48.13
				3344.000	-57.080	-13	-44.08



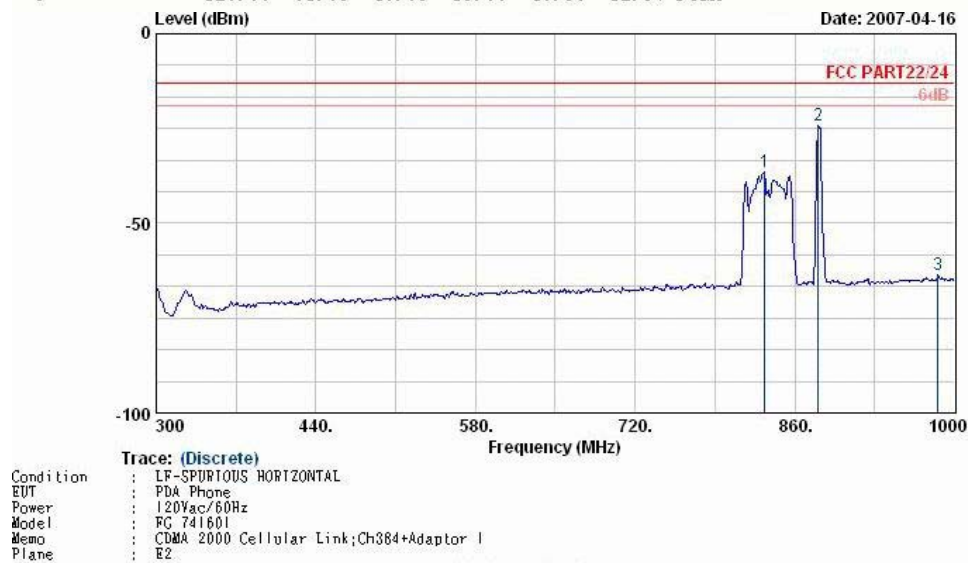
4.6.5 Test Data

4.6.5.1 Mode 1

Horizontal Polarization



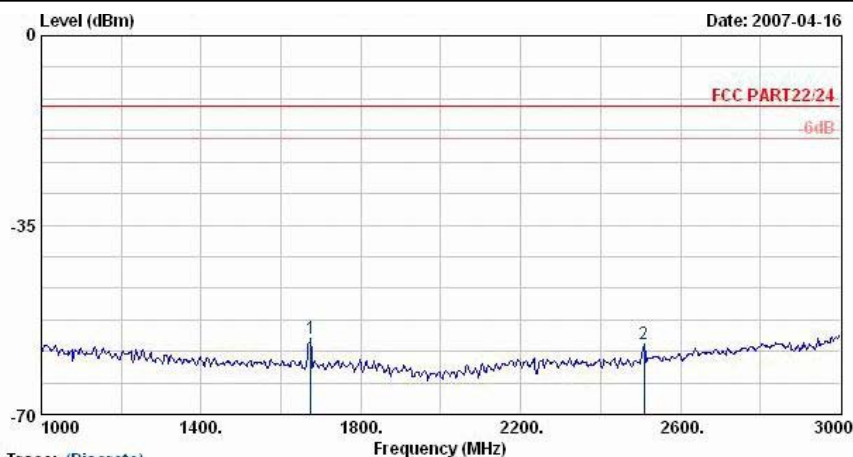
	Freq	Level	Over	Limit	Read	
	MHz	dBm	Limit	Line	Level	Factor Remark
			dB	dBm	dBm	dB
1	73.74	-59.85	-46.85	-13.00	-47.51	-12.34 Peak
2	98.58	-60.04	-47.04	-13.00	-47.80	-12.24 Peak
3	129.09	-61.93	-48.93	-13.00	-49.36	-12.57 Peak



	Freq	Level	Over	Limit	Read	
	MHz	dBm	Limit	Line	Level	Factor Remark
			dB	dBm	dBm	dB
1	833.40	-36.34			-34.96	-1.37 Peak
2 @	880.30	-24.17			-23.26	-0.91 Peak
3	985.30	-63.67	-50.67	-13.00	-63.77	0.10 Peak

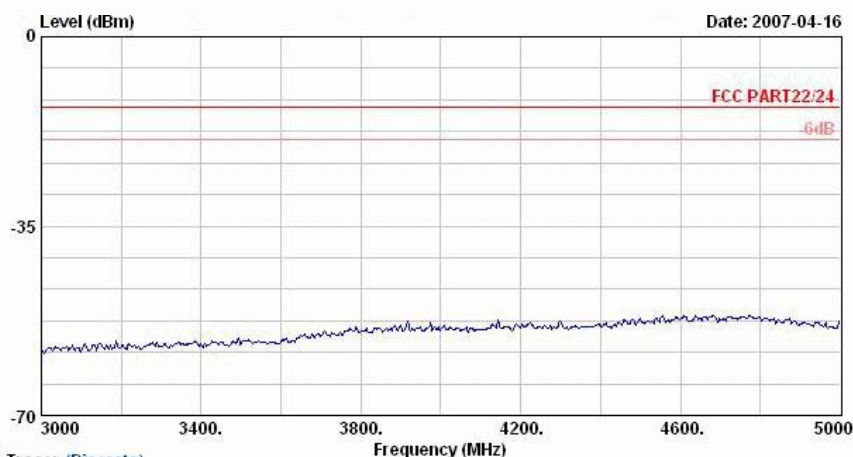
Remark:

1. #1: MS Signal
2. #2: BS Signal

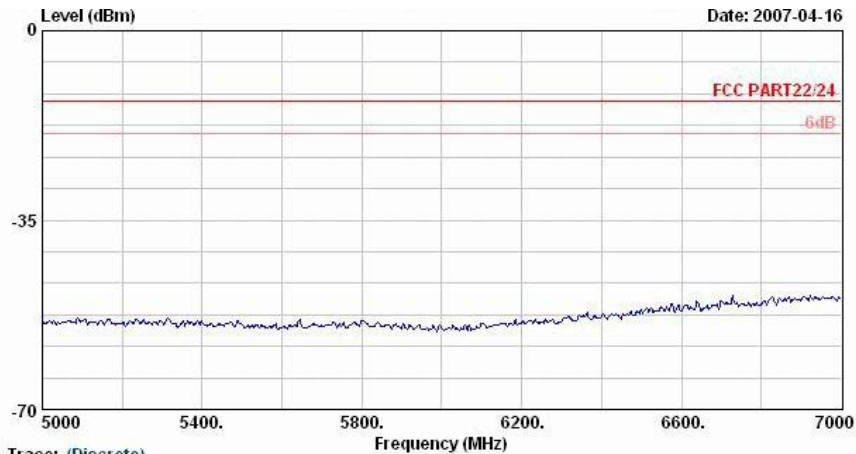


Trace: (Discrete)
Condition : HF-SPURIOUS HORIZONTAL
EUT : PDA Phone
Power : 120Vac/60Hz
Model : FG 741601
Memo : CDMA 2000 Cellular Link;Ch384+Adaptor I
Plane : E2

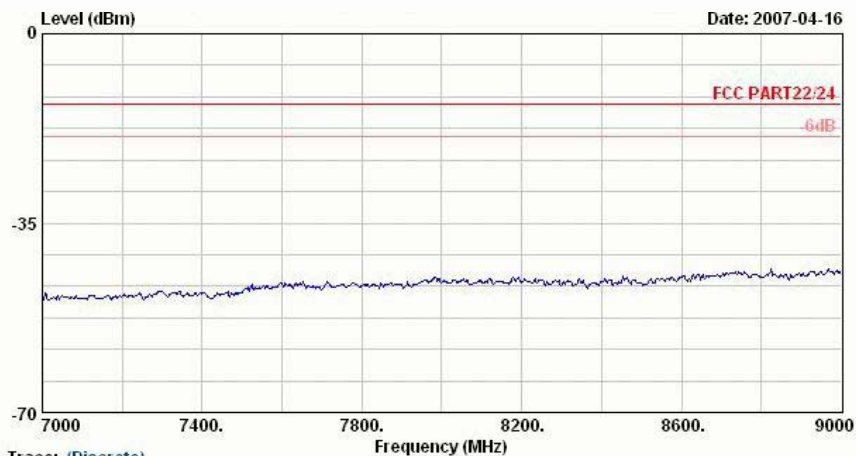
	Freq	Level	Over	Limit	Read	
	MHz	dBm	Limit	Line	Level	Factor Remark
			dB	dBm	dBm	dB
1	1674.00	-55.91	-42.91	-13.00	-56.13	0.22 Peak
2	2508.00	-57.02	-44.02	-13.00	-58.22	1.20 Peak



Trace: (Discrete)
Condition : HF-SPURIOUS HORIZONTAL
EUT : PDA Phone
Power : 120Vac/60Hz
Model : FG 741601
Memo : CDMA 2000 Cellular Link;Ch384+Adaptor I
Plane : E2



Condition : HF-SPURIOUS HORIZONTAL
EUT : PDA Phone
Power : 120Vac/60Hz
Model : FG 741601
Memo : CDMA 2000 Cellular Link;Ch384+Adaptor I
Plane : E2

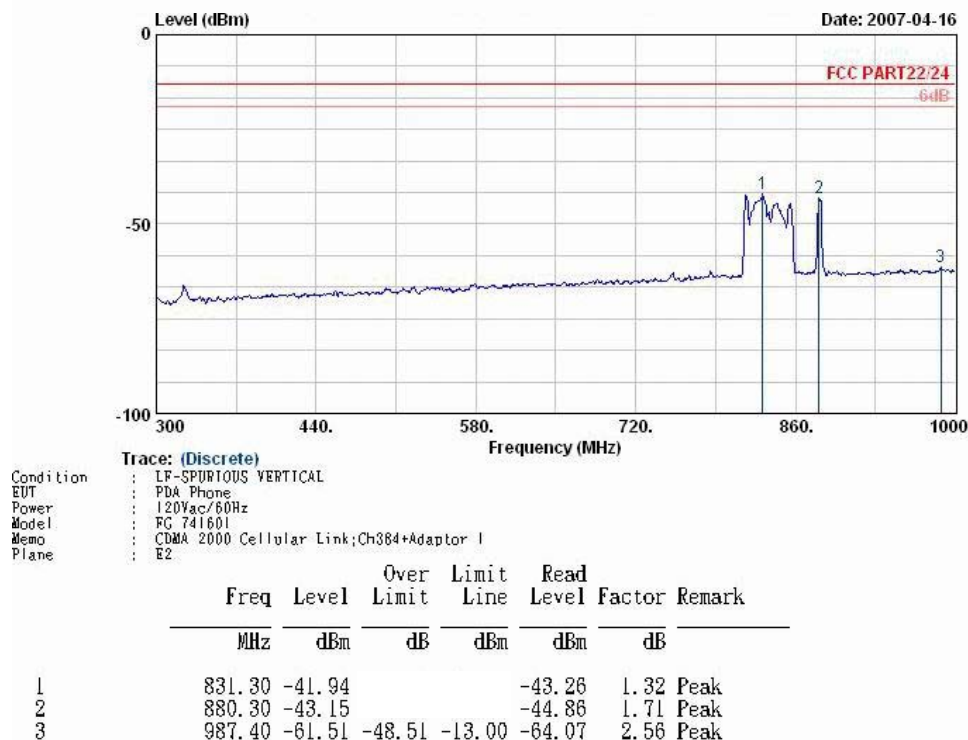
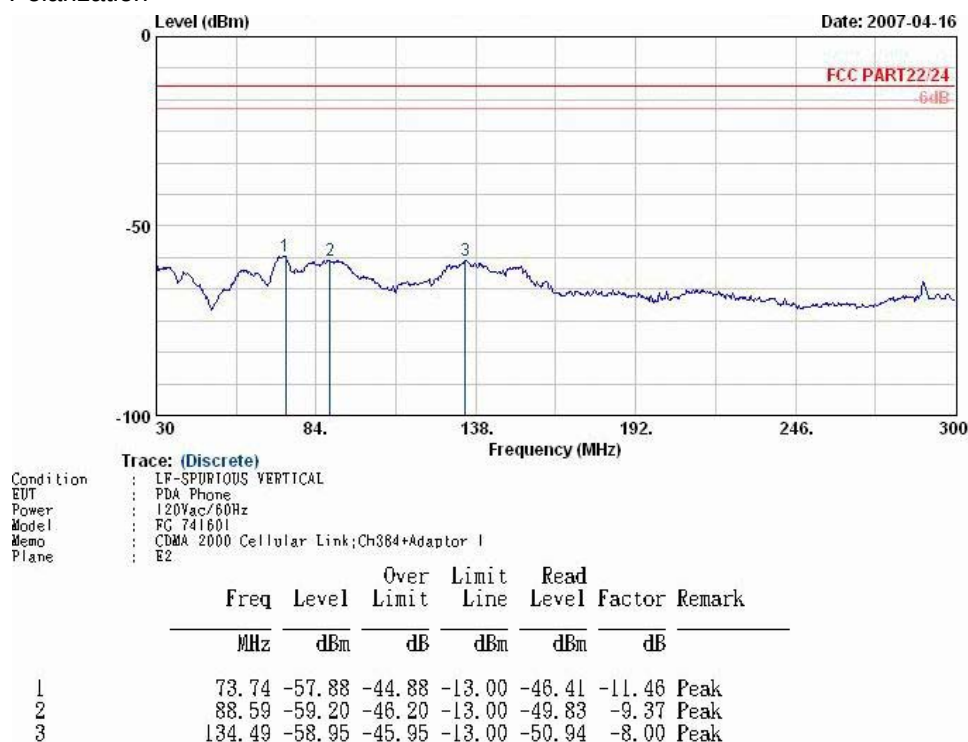


Condition : HF-SPURIOUS HORIZONTAL
EUT : PDA Phone
Power : 120Vac/60Hz
Model : FG 741601
Memo : CDMA 2000 Cellular Link;Ch384+Adaptor I
Plane : E2

Remark: There's no more obvious spurious emission except the listings above.

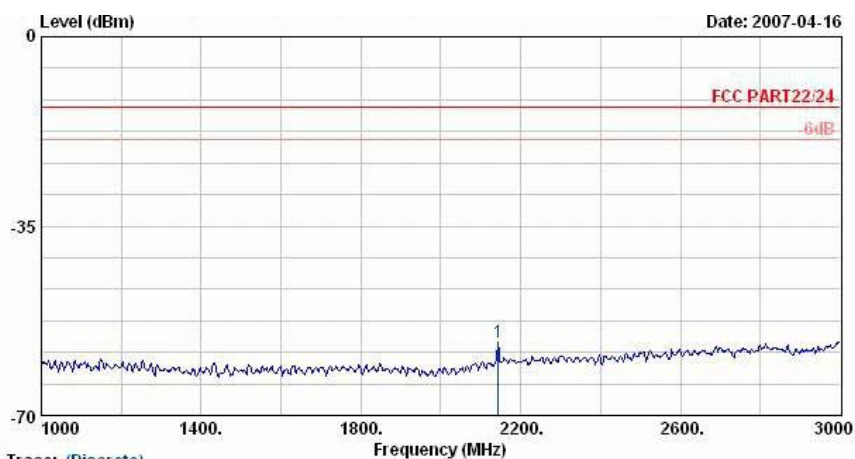


Vertical Polarization



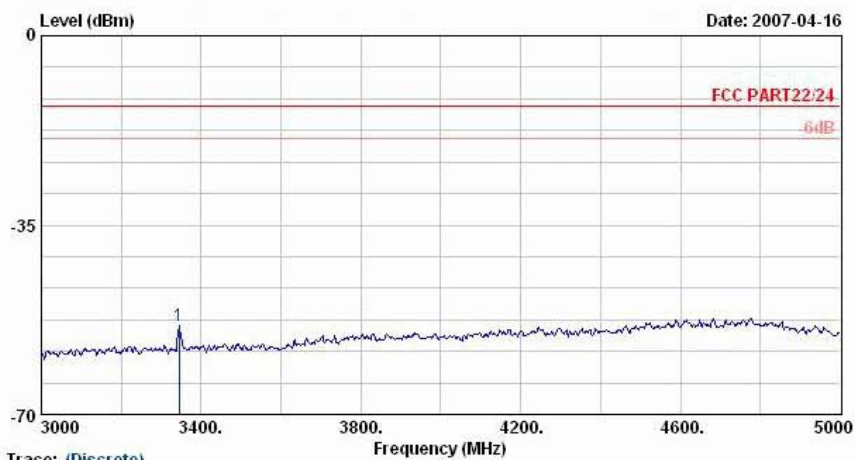
Remark:

1. #1: MS Signal
2. #2: BS Signal



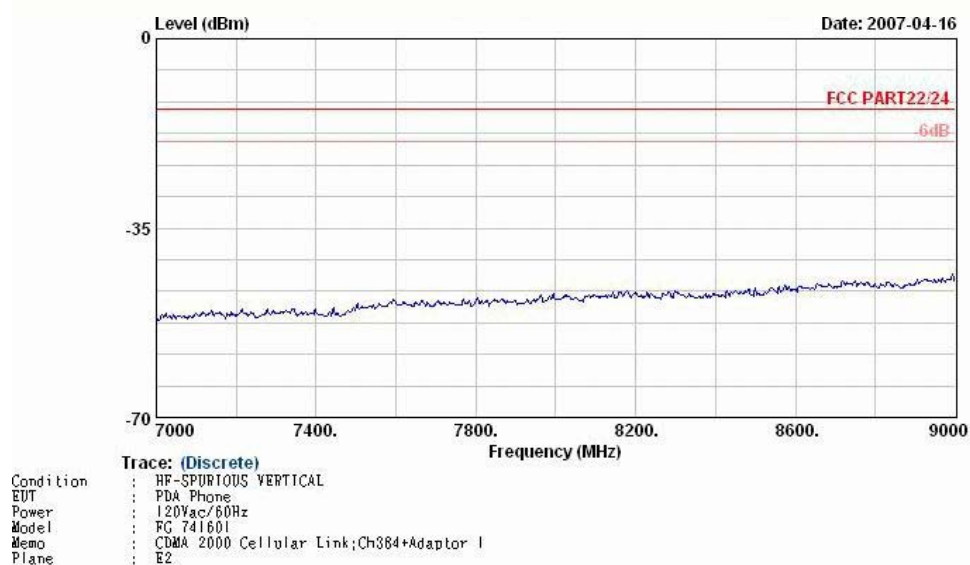
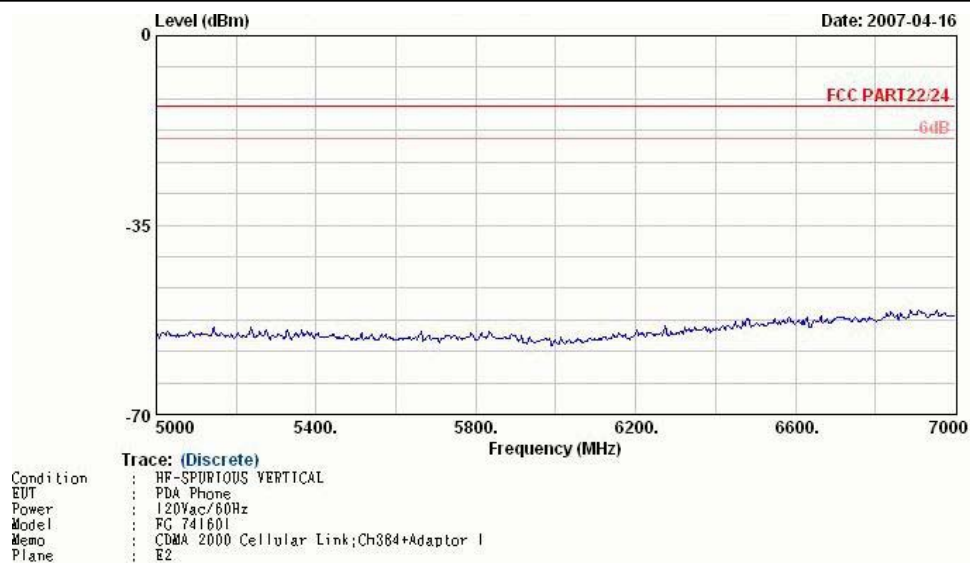
Trace: (Discrete)
Condition : HF-SPURIOUS VERTICAL
EUT : PDA Phone
Power : 120Vac/60Hz
Model : FG 741601
Memo : CDMA 2000 Cellular Link;Ch384+Adaptor 1
Plane : E2

	Freq	Level	Over	Limit	Read	
	MHz	dBm	Limit	Line	Level	Factor Remark
			dB	dBm	dBm	dB
1	2144.00	-56.41	-43.41	-13.00	-57.48	1.06 Peak



Trace: (Discrete)
Condition : HF-SPURIOUS VERTICAL
EUT : PDA Phone
Power : 120Vac/60Hz
Model : FG 741601
Memo : CDMA 2000 Cellular Link;Ch384+Adaptor 1
Plane : E2

	Freq	Level	Over	Limit	Read	
	MHz	dBm	Limit	Line	Level	Factor Remark
			dB	dBm	dBm	dB
1	3344.00	-53.67	-40.67	-13.00	-58.13	4.47 Peak

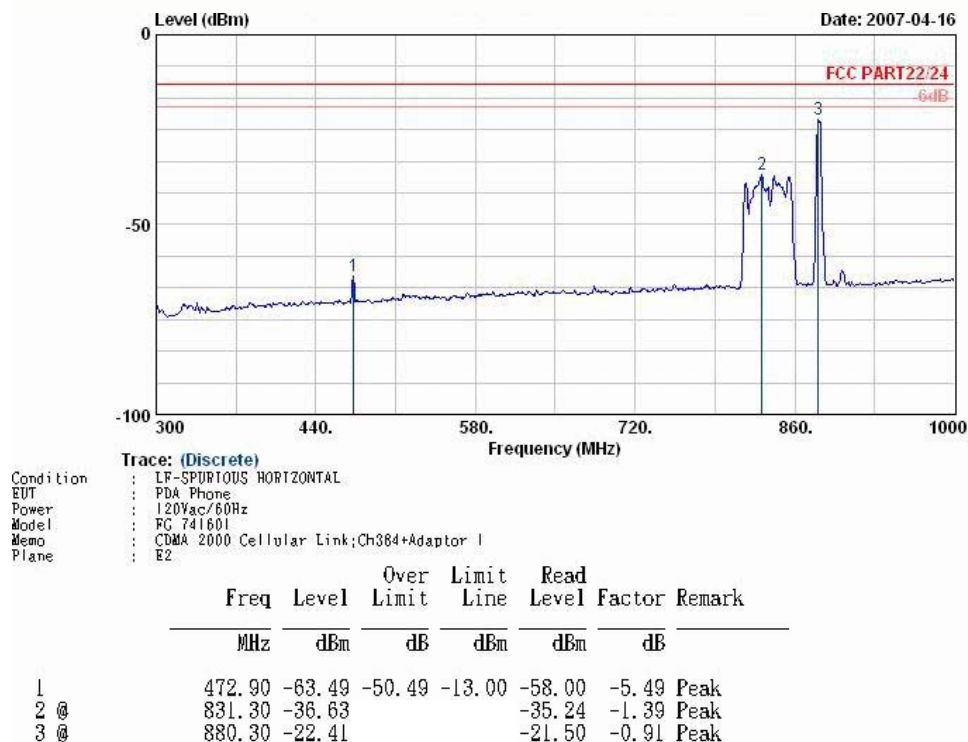
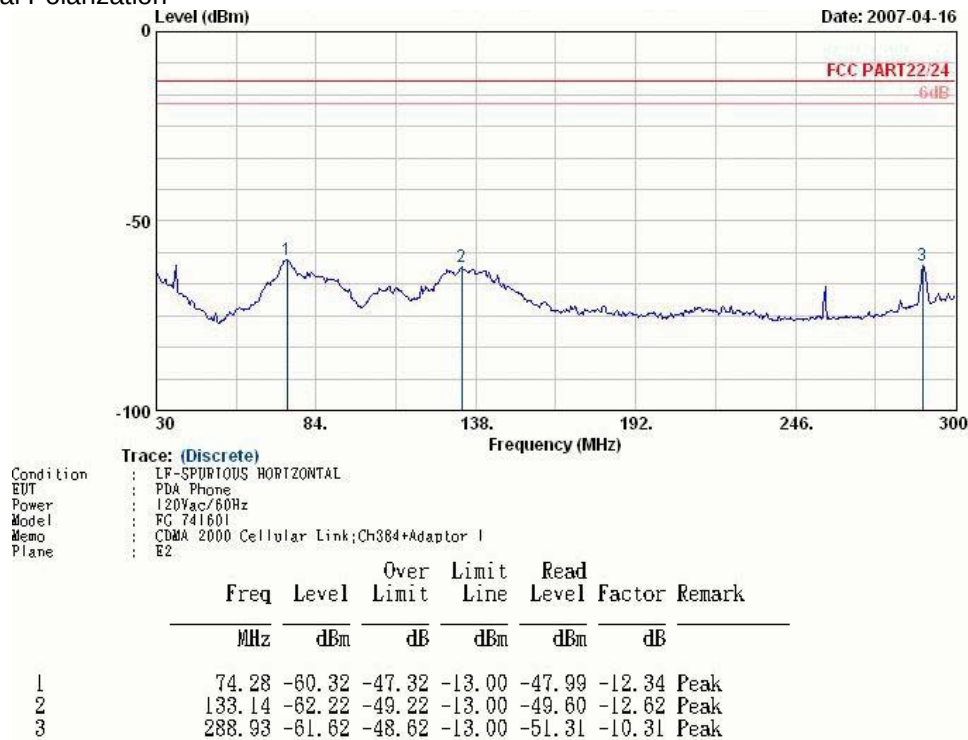


Remark : There is no more obvious emission except the listings above.



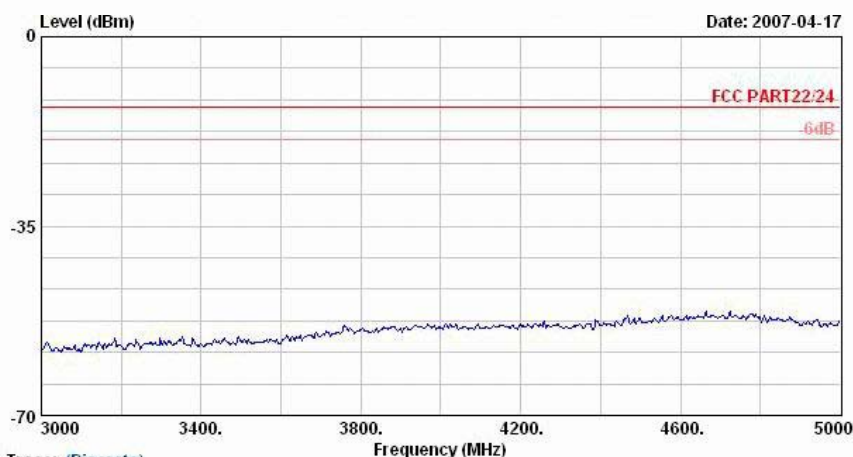
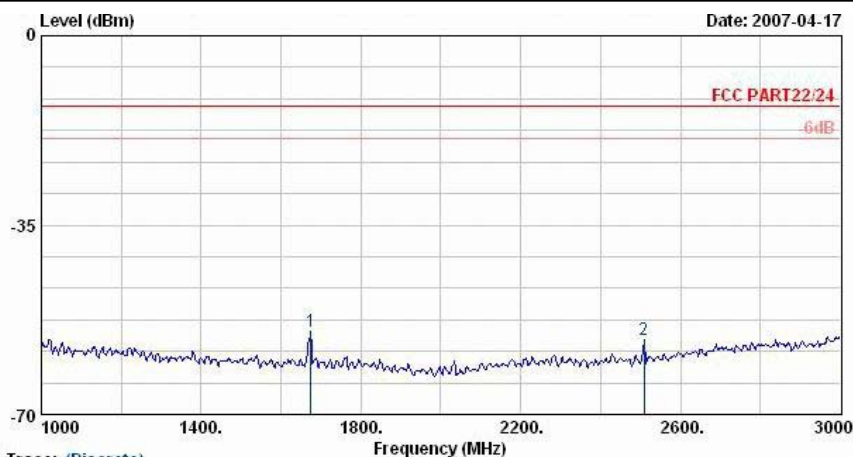
4.6.5.2 Mode 2

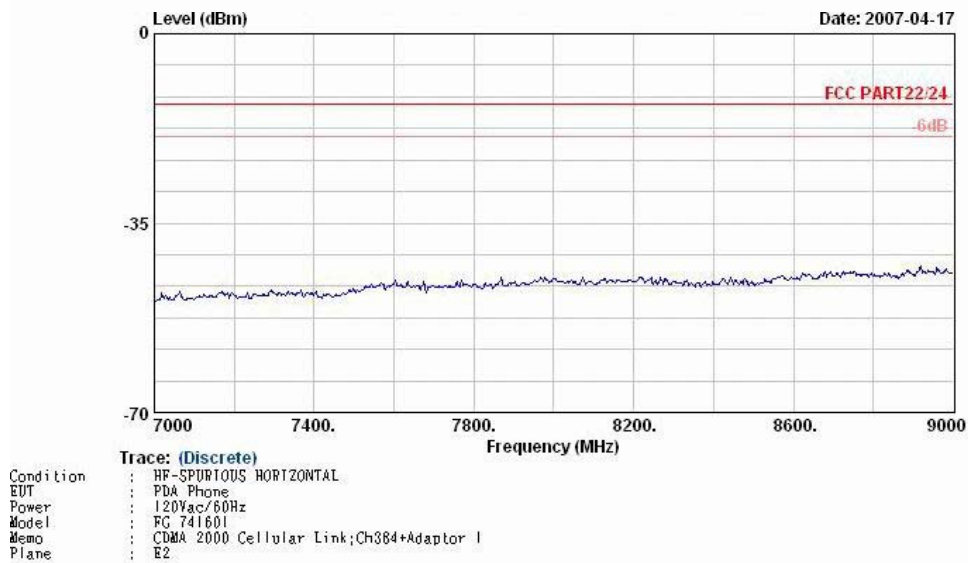
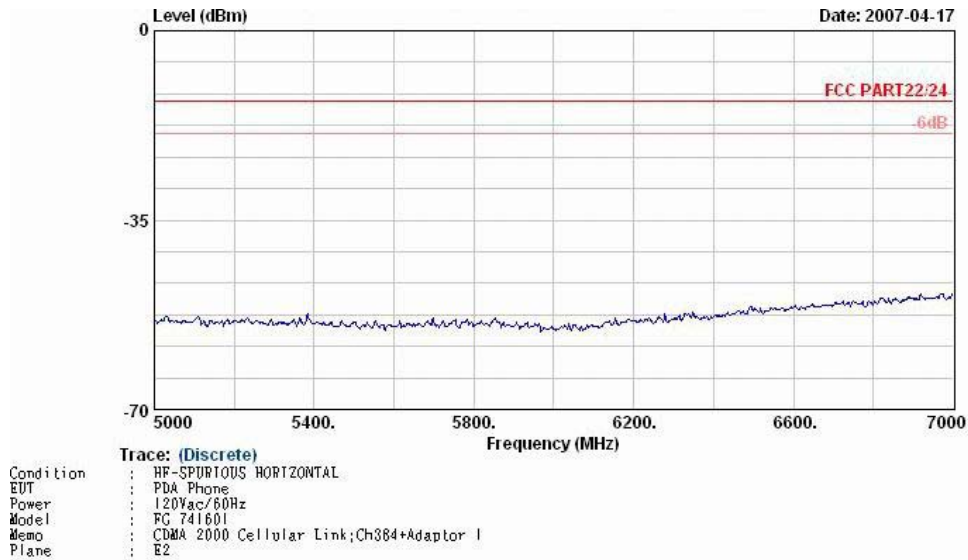
Horizontal Polarization



Remark:

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

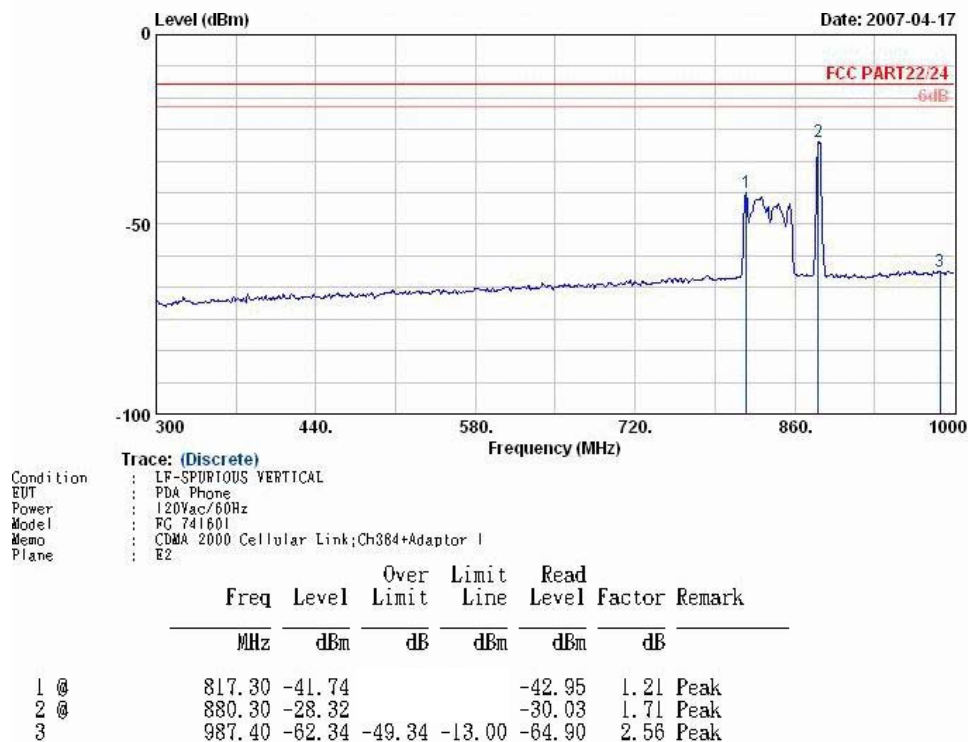
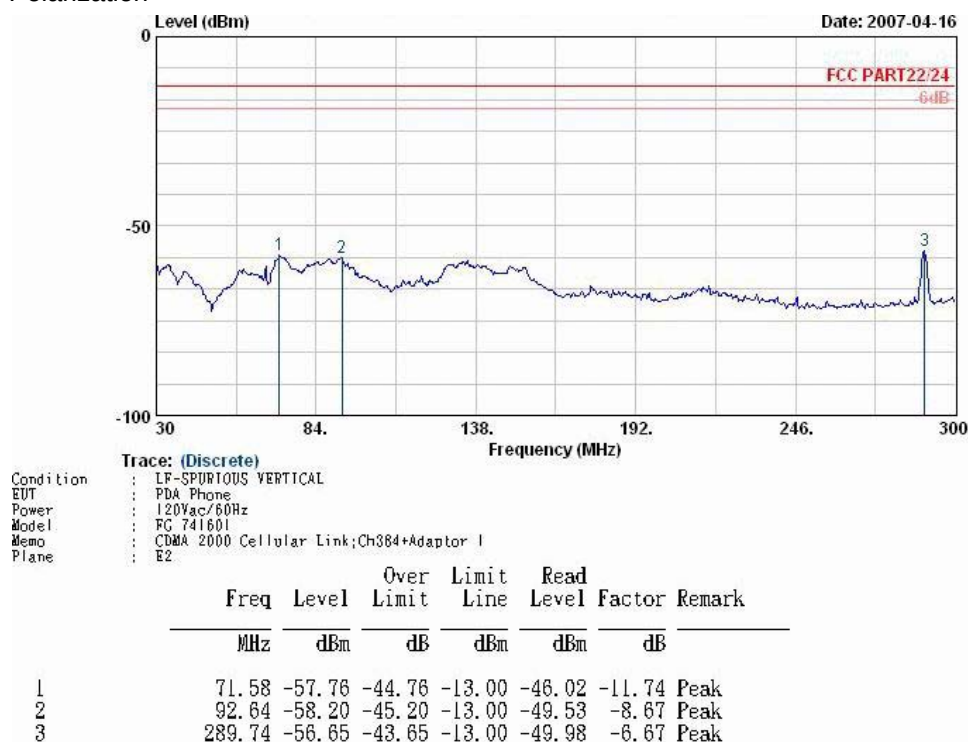




Remark: There's no more obvious spurious emission except the listings above.

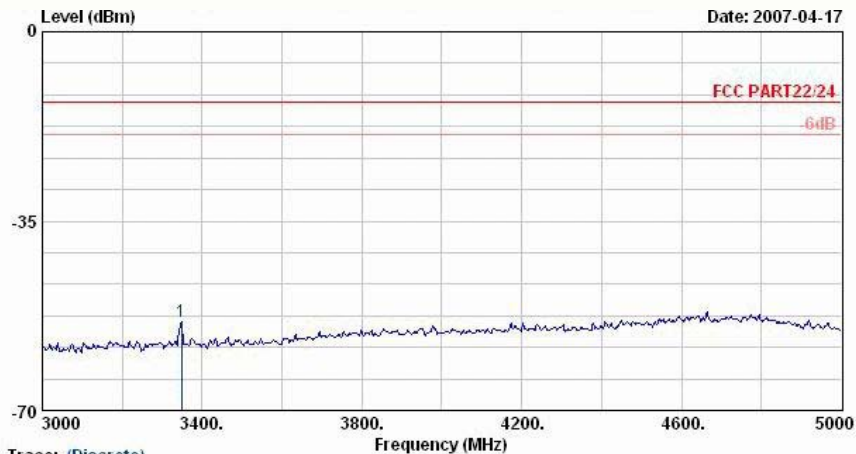
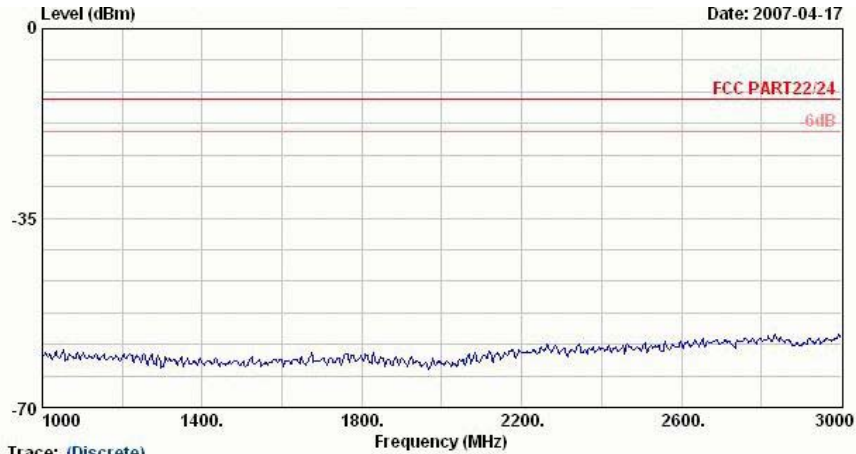


Vertical Polarization

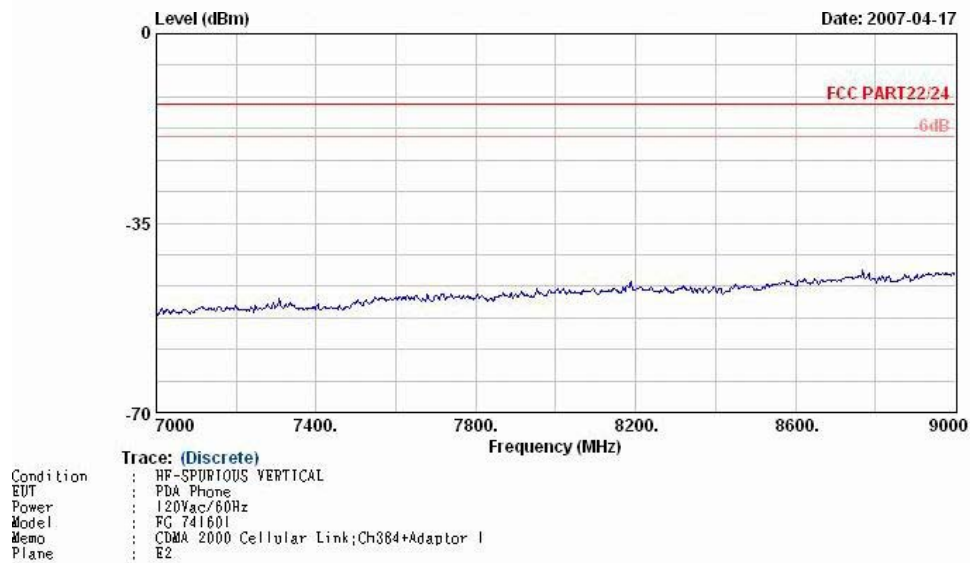
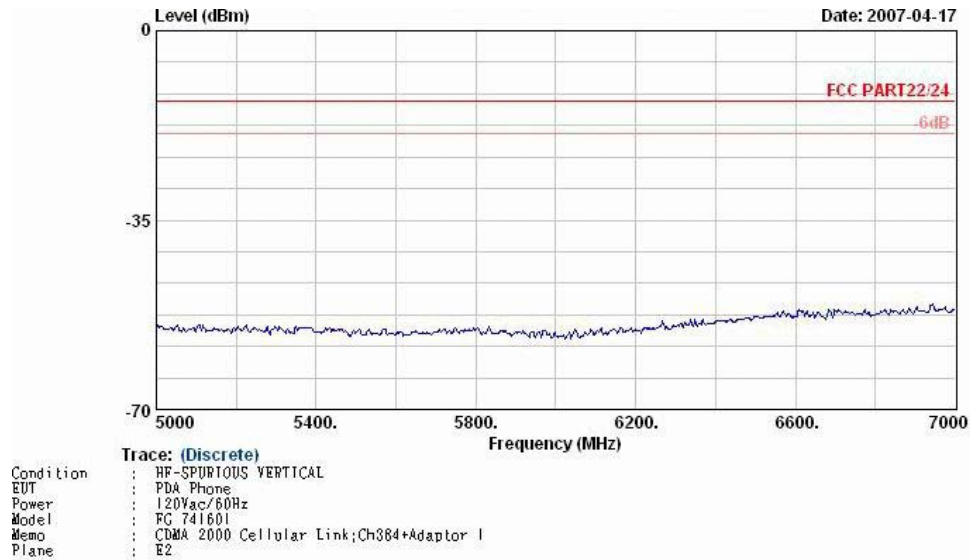


Remark:

1. #1: MS Signal
2. #2: BS Signal



Freq	Level	Over	Limit	Read	Factor	Remark
MHz	dBm	dB	dBm	dBm	dB	
1 @ 3348.00	-53.62	-40.62	-13.00	-58.09	4.47	Peak

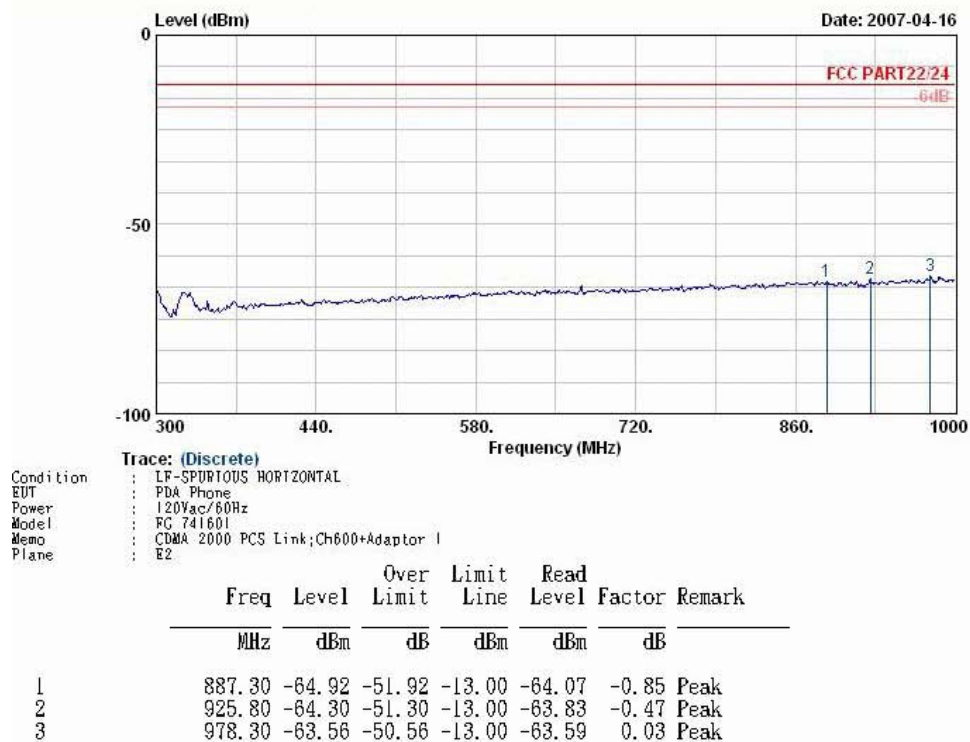
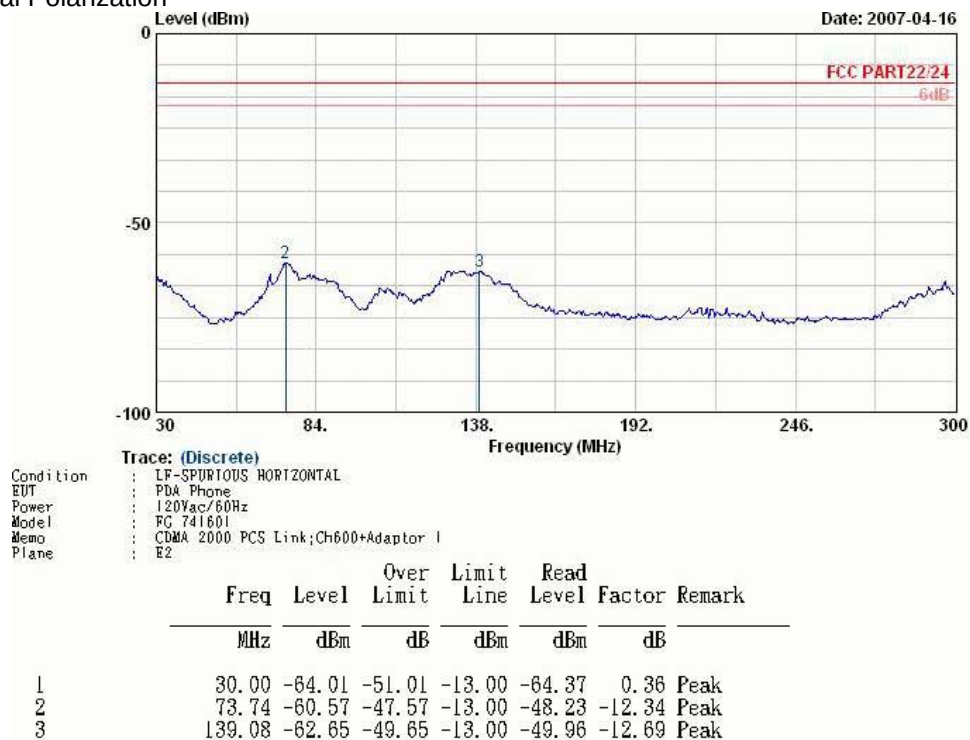


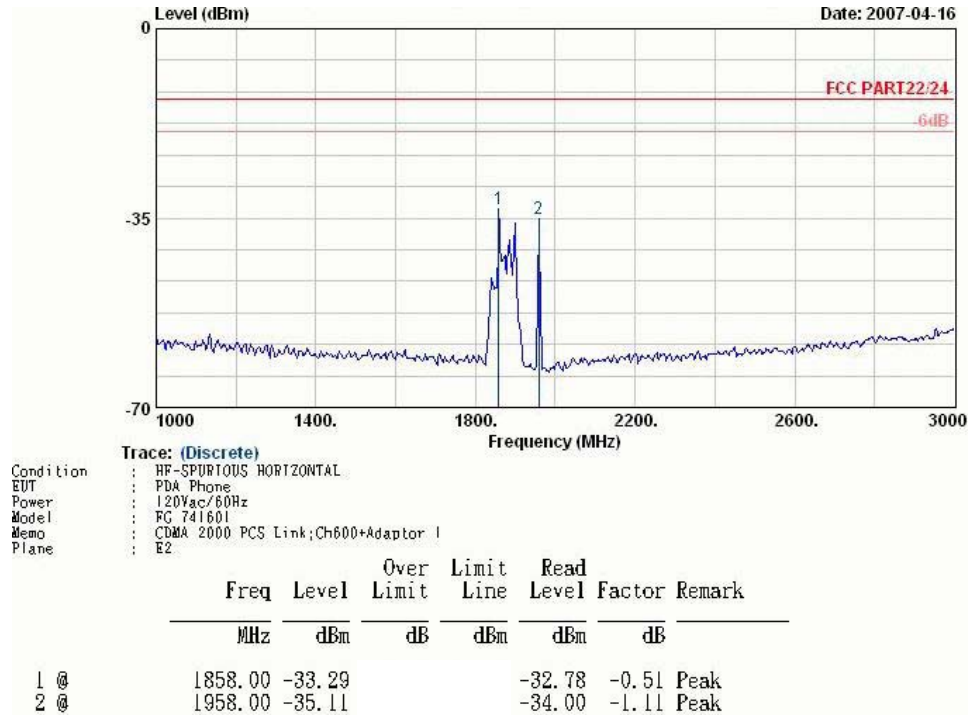
Remark : There is no more obvious emission except the listings above.



4.6.5.3 Mode 3

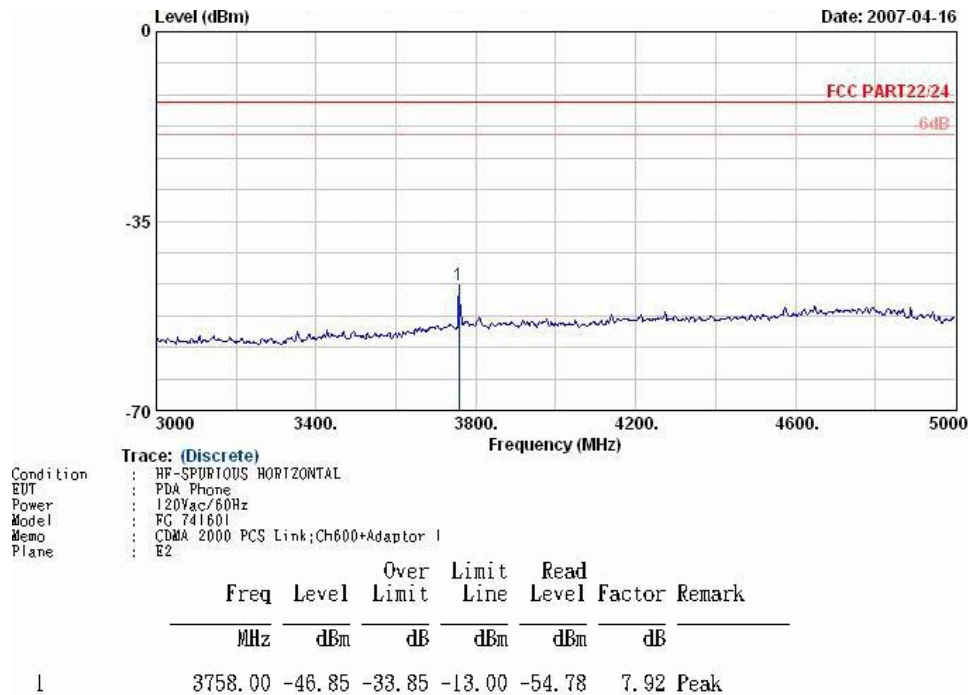
Horizontal Polarization

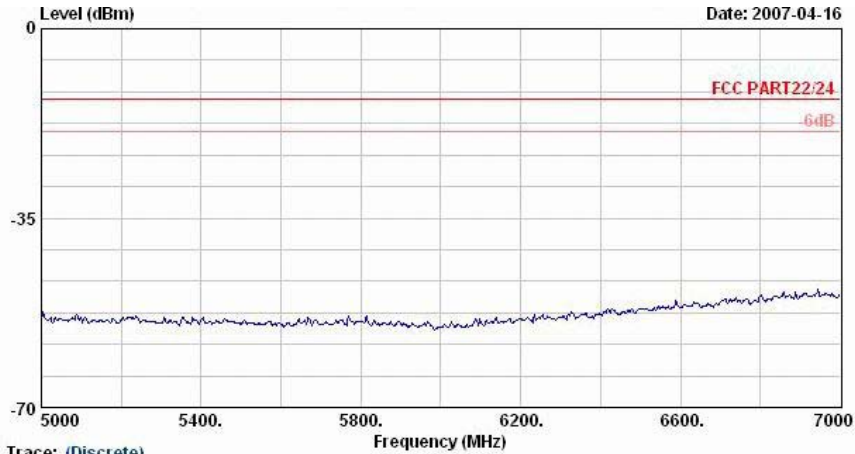




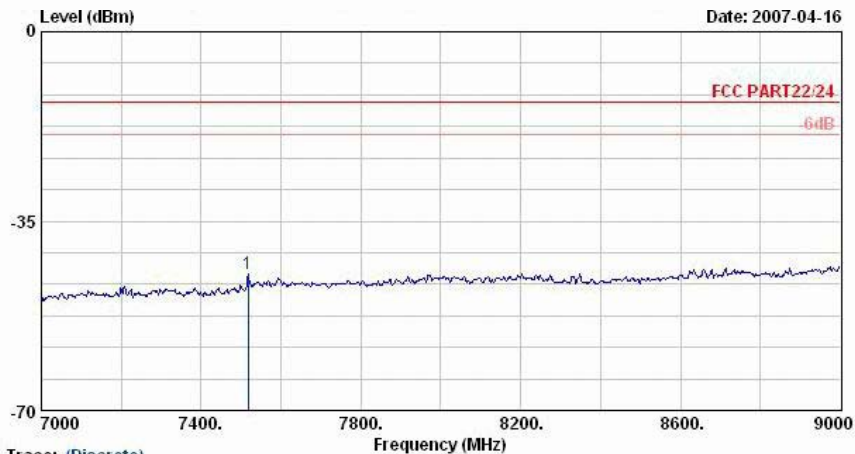
Remark:

1. #1: MS Signal
2. #2: BS Signal



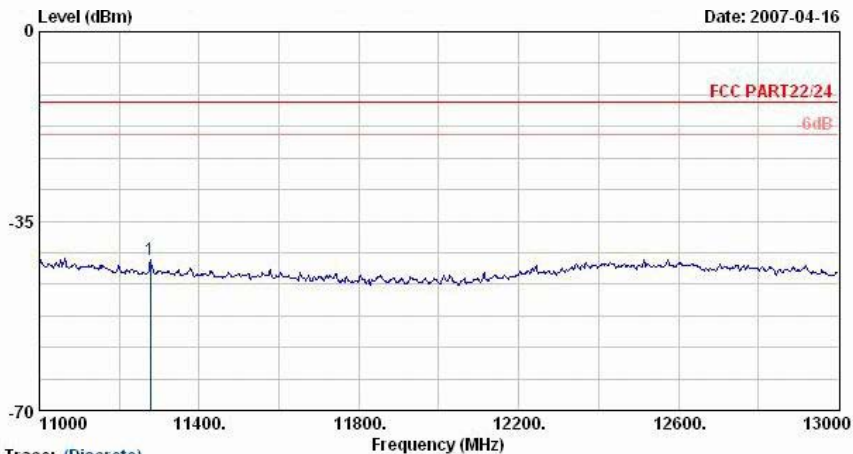
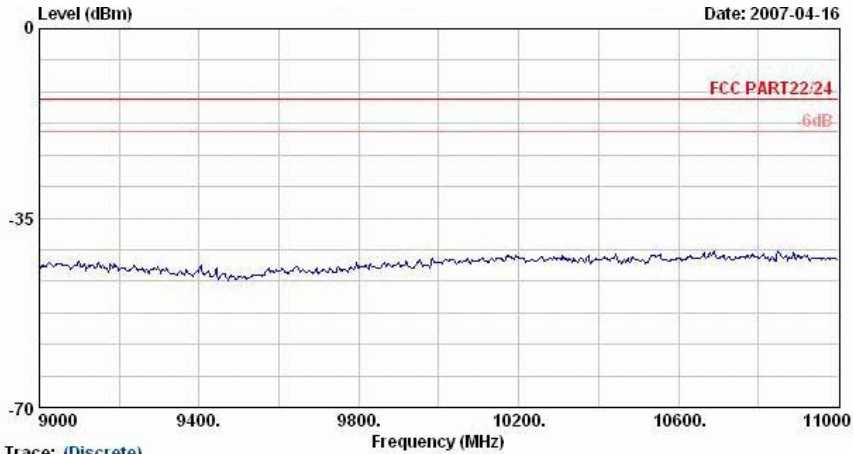


Trace: (Discrete)
Condition : HF-SPURIOUS HORIZONTAL
EUT : PDA Phone
Power : 120Vac/60Hz
Model : FG 741601
Memo : CDMA 2000 PCS Link;Ch600+Adaptor I
Plane : E2



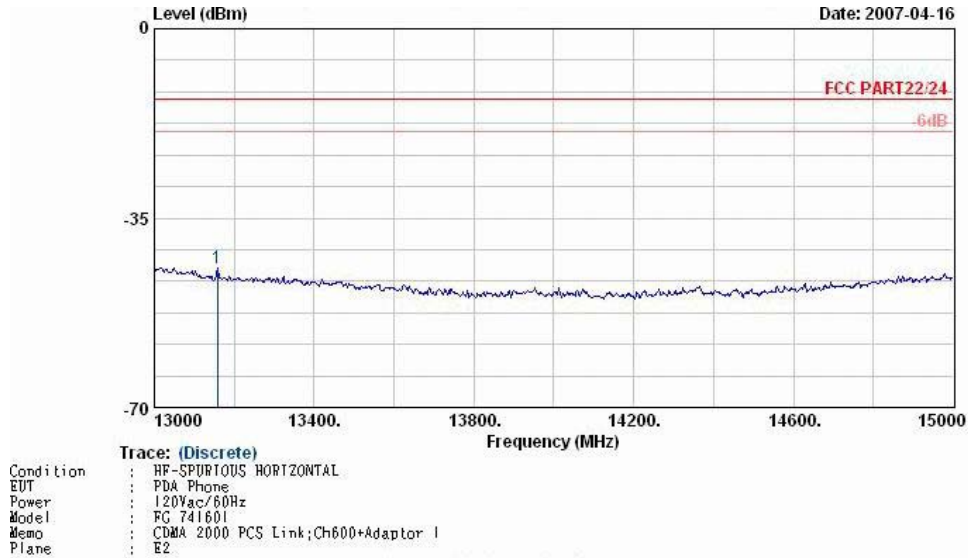
Trace: (Discrete)
Condition : HF-SPURIOUS HORIZONTAL
EUT : PDA Phone
Power : 120Vac/60Hz
Model : FG 741601
Memo : CDMA 2000 PCS Link;Ch600+Adaptor I
Plane : E2

	Freq	Level	Over	Limit	Read	
	MHz	dBm	Limit	Line	Level	Factor Remark
			dB	dBm	dBm	dB
1	7518.00	-44.63	-31.63	-13.00	-60.44	15.80 Peak

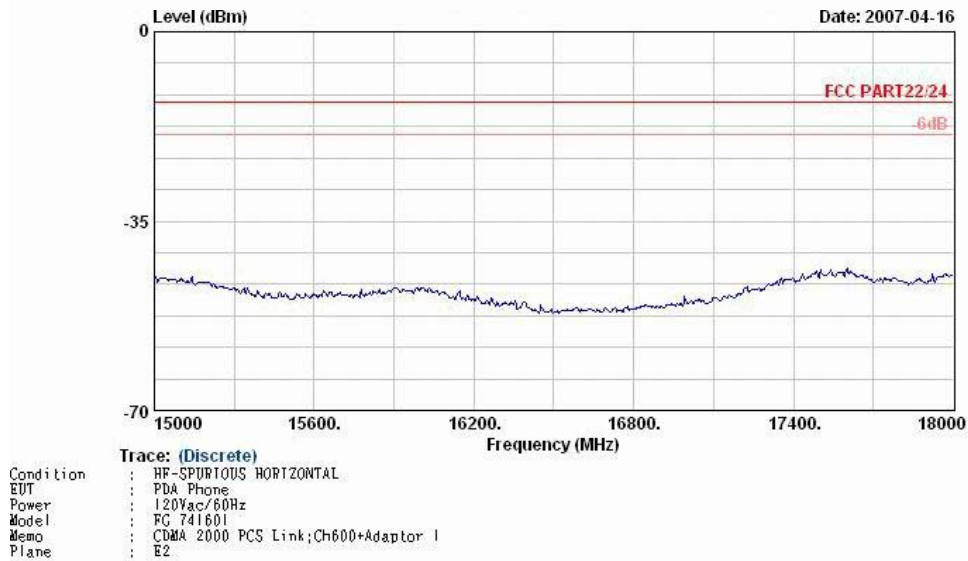


Condition : HF-SPURIOUS HORIZONTAL
EUT : PDA Phone
Power : 120Vac/60Hz
Model : FG 741601
Memo : CDMA 2000 PCS Link;Ch600+Adaptor I
Plane : E2

	Freq	Level	Over	Limit	Read	
	MHz	dBm	Limit	Line	Level	Factor Remark
			dB	dBm	dBm	dB
1 @	11278.00	-42.08	-29.08	-13.00	-62.38	20.30 Peak



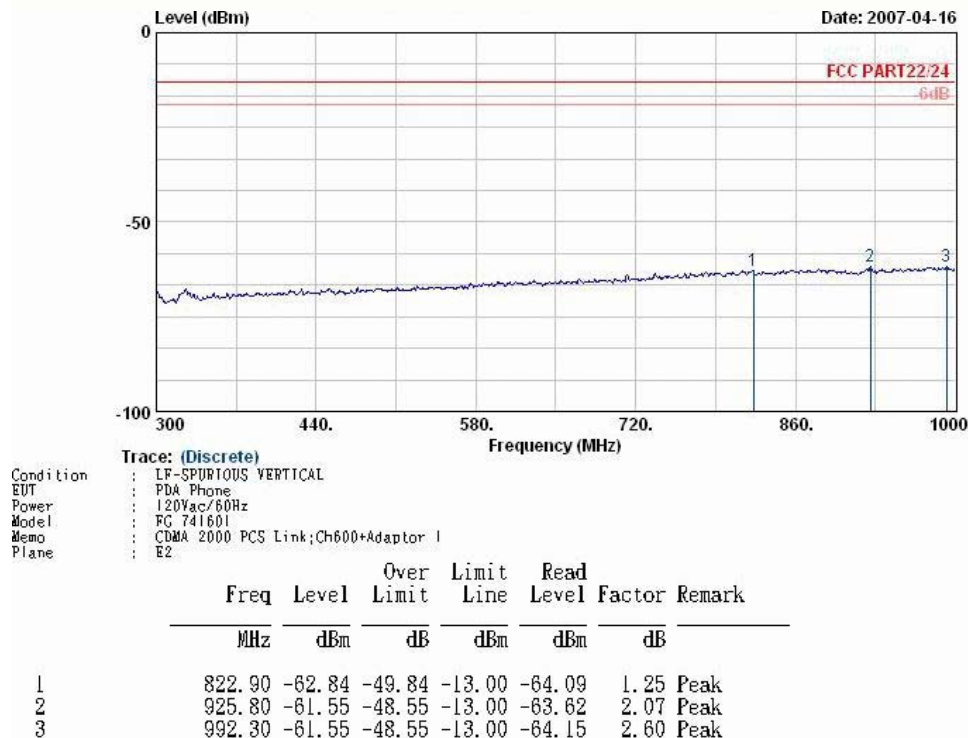
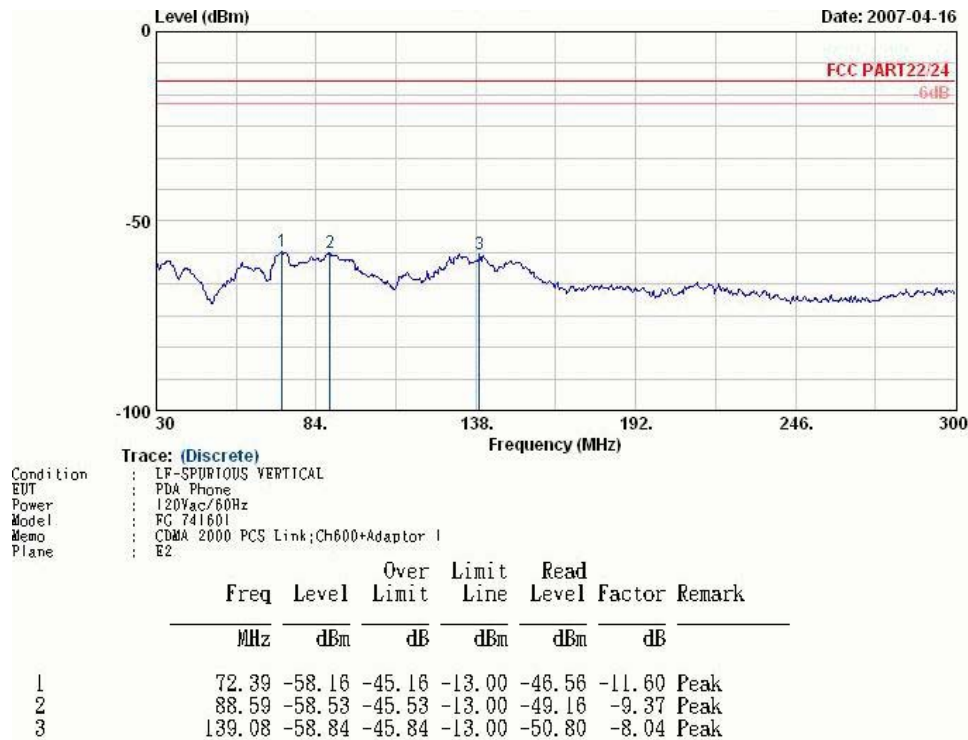
	Freq	Level	Over	Limit	Read	
	MHz	dBm	Limit	Line	Level	Factor Remark
		dBm	dB	dBm	dBm	dB
1	13158.00	-44.17	-31.17	-13.00	-62.88	18.71 Peak

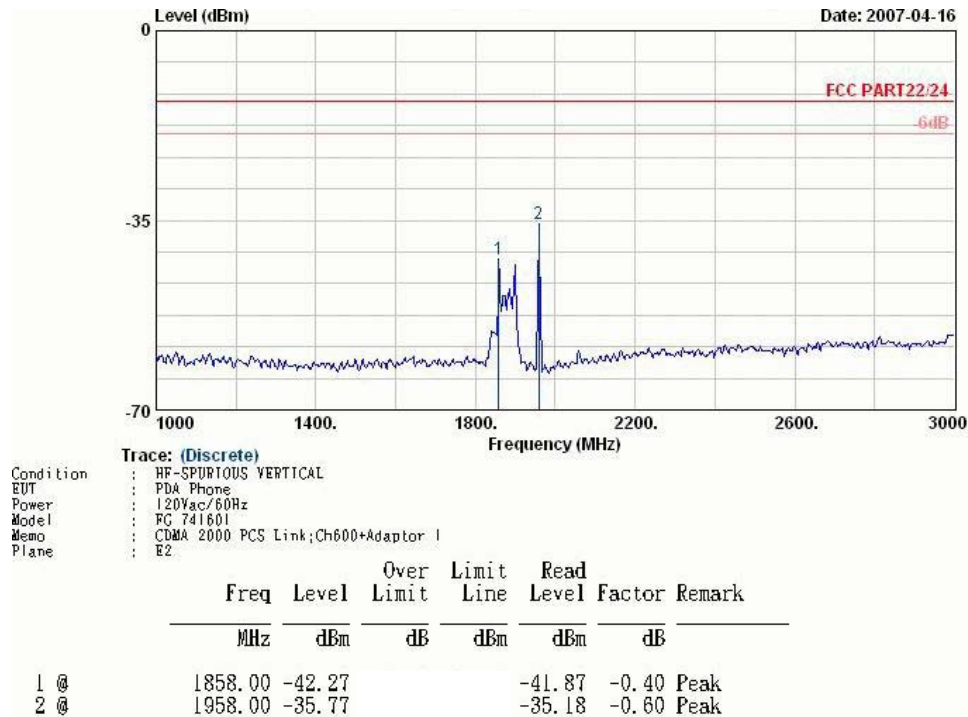


Remark: There's no more obvious spurious emission except the listings above.



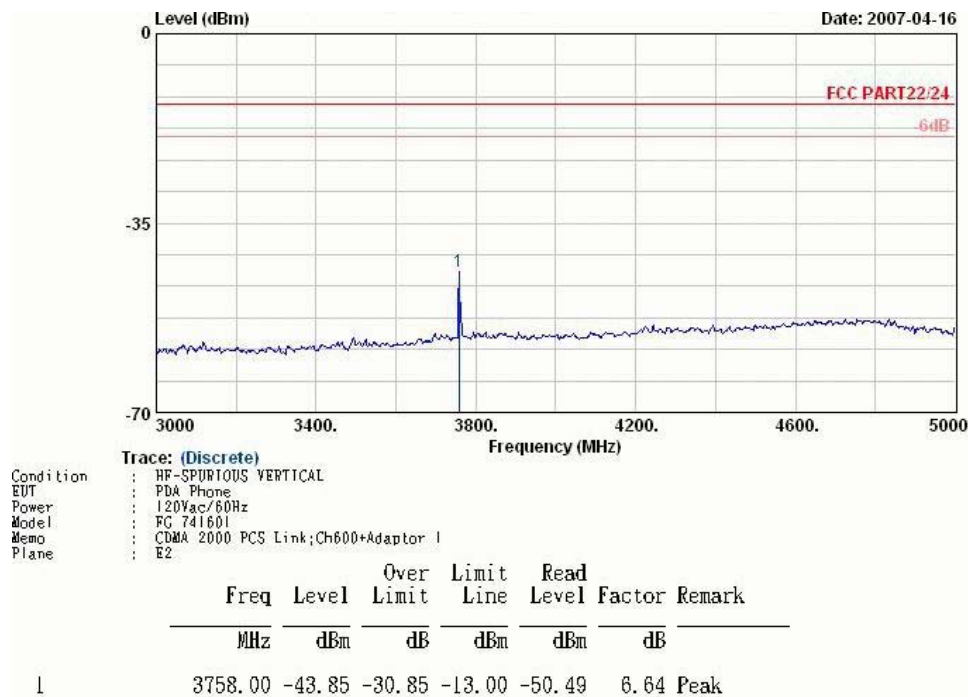
Vertical Polarization

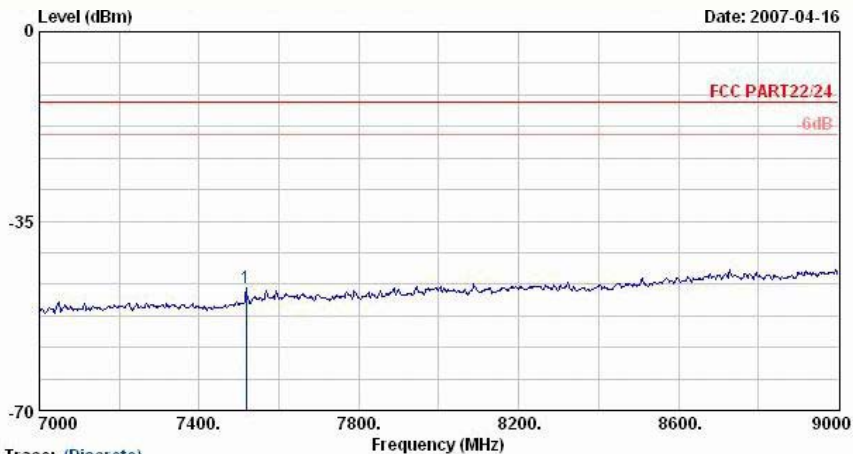
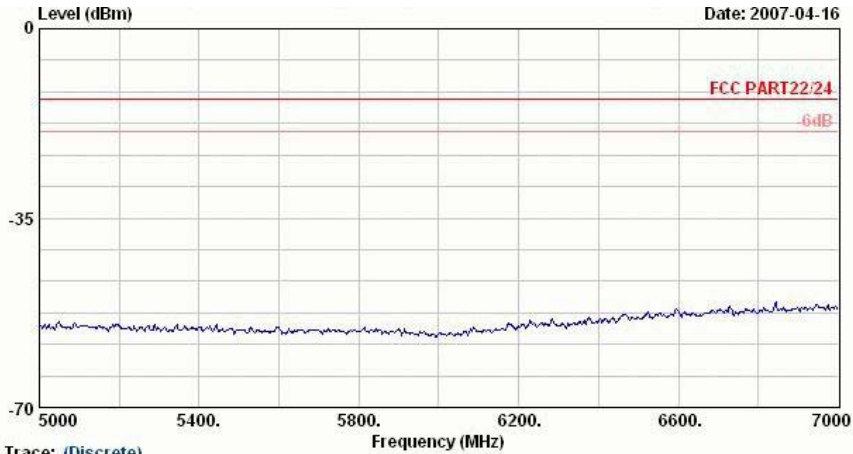




Remark:

1. #1: MS Signal
2. #2: BS Signal





Condition : HF-SPURIOUS VERTICAL
EUT : PDA Phone
Power : 120Vac/60Hz
Model : FG 741601
Memo : CDMA 2000 PCS Link;Ch600+Adaptor I
Plane : E2

Freq	Level	Over	Limit	Read		
		Limit	Line	Level	Factor	Remark
MHz	dBm	dB	dBm	dBm	dB	
1	7518.00	-47.27	-34.27	-13.00	-60.63	13.37 Peak

