



# FCC Test Report

According to

**47 CFR Part 22H, 24E**

**Equipment** : Mobile Text Device  
**Model No.** : D00111  
**FCC ID** : UUU-L7E20070323  
**Uplink Frequency Range** : CDMA2000 Cellular : 824.70~848.31 MHz  
CDMA2000 PCS : 1851.25~1908.75 MHz  
**Max. ERP/EIRP Power** : CDMA2000 Cellular : 0.00 W for 1xRTT  
CDMA2000 Cellular : 0.00 W for 1xEV-DO  
CDMA2000 PCS : 0.45 W for 1xRTT  
CDMA2000 PCS : 0.44 W for 1xEV-DO  
**Emission Designator** : 1M25F9W  
**Applicant** : Payne LLC  
The Neumours Bldg., Suite 1414 Wilmington, Delaware 19801

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- The data shown in this test report were carried out on Feb. 03, 2008 at **Sporton International Inc. LAB.**
- Report No.: FG811103, Report Version: Rev. 02.

Roy Wu  
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: Feb. 05, 2008

Report No.	Description
FG811103	Update report no. FG661611-04 by retest RSE and ERP/EIRP for changing the PCS band pass filter



## **1. General Information**

### **1.1. Applicant**

**Payne LLC**

The Neumours Bldg., Suite 1414 Wilmington, Delaware 19801

### **1.2 Basic Description of Equipment under Test**

Equipment : Mobile Text Device  
Model No. : D00111  
FCC ID : UUU-L7E20070323  
Power Supply Type : Switching  
AC Power Cord : AC 120V, Wall-mount, 1.6 meter, 2 pin



### 1.3 Feature of Equipment under Test

<b>DUT Type :</b>	Mobile Text Device
<b>Model Name :</b>	D00111
<b>FCC ID :</b>	UUU-L7E20070323
<b>Tx Frequency :</b>	CDMA2000 Cellular : 824 ~ 849 MHz CDMA2000 PCS : 1850 ~1910 MHz
<b>Rx Frequency :</b>	CDMA2000 Cellular : 869 ~ 894 MHz CDMA2000 PCS : 1930 ~ 1990 MHz
<b>Maximum Output Power :</b>	<b>CDMA2000 Cellular (1xRTT)</b> FCH_RC1 : 25.80 dBm FCH_RC3 : 25.89 dBm FCH+SCH_RC3 : 25.91 dBm <b>CDMA2000 Cellular (1xEV-DO)</b> 9.6Kbps : 25.06 dBm 38.4Kbps : 25.07 dBm 153.6Kbps : 25.34 dBm <b>CDMA2000 PCS (1xRTT)</b> FCH_RC1 : 25.81 dBm FCH_RC3 : 25.85 dBm FCH+SCH_RC3 : 25.81 dBm <b>CDMA2000 PCS (1xEV-DO)</b> 9.6Kbps : 25.20 dBm 38.4Kbps : 25.24 dBm 153.6Kbps : 25.33 dBm
<b>Maximum ERP/EIRP :</b>	CDMA2000 Cellular : 0.00 W ( 6.04 dBm) for 1xRTT 0.00 W (5.13 dBm) for 1xEV-DO CDMA2000 PCS : 0.45 W ( 26.51 dBm) for 1xRTT 0.44 W (26.48 dBm) for 1xEV-DO
<b>Antenna Type :</b>	Fixed Internal
<b>Power Rating (DC/AC, Voltage and Current of RF element or PA) :</b>	DC 5V / 2A
<b>Digital Modulation Emission :</b>	QPSK
<b>Type of Emission :</b>	1M25F9W
<b>Device Power Class :</b>	CDMA2000 Cellular : 3 CDMA2000 PCS : 2
<b>DUT Stage :</b>	Identical Prototype

### 1.4 Report Date

EUT Received : Jan. 11, 2008

Report Date : Feb. 05, 2008

## 2 Test Configuration of Equipment under Test

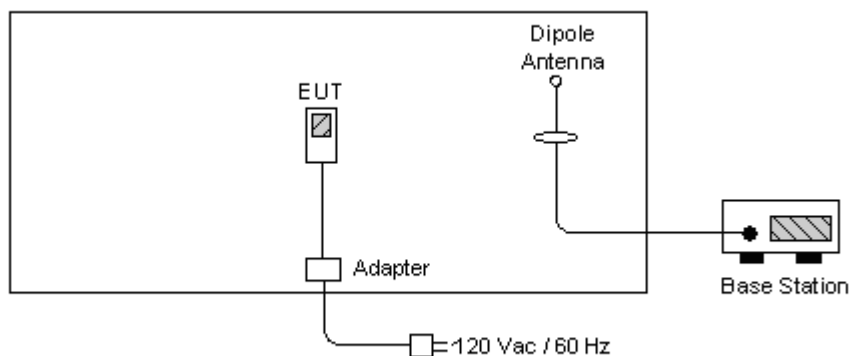
### 2.1 Test Manner

- 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; 30MHz to 19000 MHz for CDMA2000 PCS.

### 2.2 Test Mode

Application	CDMA2000 Cellular	CDMA2000 PCS
Radiated Emission	<input checked="" type="checkbox"/> Mode 1: 1xRTT Link Mode_CH1013	<input checked="" type="checkbox"/> Mode 4: 1xRTT Link Mode_CH25
	<input checked="" type="checkbox"/> Mode 2: 1xRTT Link Mode_CH384	<input checked="" type="checkbox"/> Mode 5: 1xRTT Link Mode_CH600
	<input checked="" type="checkbox"/> Mode 3: 1xRTT Link Mode_CH777	<input checked="" type="checkbox"/> Mode 6: 1xRTT Link Mode_CH1175
Conducted Measurement	<input checked="" type="checkbox"/> Mode 1: 1xRTT Link Mode	<input checked="" type="checkbox"/> Mode 3: 1xRTT Link Mode
	<input checked="" type="checkbox"/> Mode 2: 1xEV-DO Link Mode	<input checked="" type="checkbox"/> Mode 4: 1xEV-DO Link Mode

### 2.3 Connection Diagram of Test System



### 2.4 Ancillary Equipment List

Item	Equipment	Trade Name	Model No.	FCC ID	Serial No.
1.	Base Station	R & S	CMU 200	N/A	N/A



### 3. General Information of Test Site

Test Site Location : No. 52, Hwa Ya 1<sup>st</sup> Rd., Hwa Ya Technology Park,  
Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.  
TEL : 886-3-327-3456  
FAX : 886-3-328-4978  
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 4086B-1.

#### 3.1 Test Voltage

AC 120V / 60Hz

#### 3.2 Test in Compliance with

47 CFR Part 22H, 24E, Part 2

#### 3.3 Frequency Range Investigated

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

#### 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

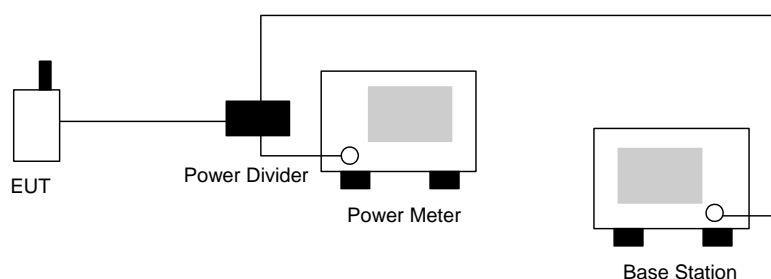
### 4.2.1 Measurement Instruments

As described in chapter 5 of this test report.

### 4.2.2 Test Procedure

- The transmitter output was connected to power meter and base station through power divider.
- Set EUT maximum power through base station.
- 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	CDMA 1xRTT	FCH_RC1	1013	824.70 (Low)	25.71	0.37
			384	836.52 (Mid)	25.80	0.38
			777	848.31 (High)	25.50	0.35
		FCH_RC3	1013	824.70 (Low)	25.76	0.38
			384	836.52 (Mid)	25.89	0.39
			777	848.31 (High)	25.56	0.36
		FCH+SCH_RC3	1013	824.70 (Low)	25.76	0.38
			<b>384</b>	<b>836.52 (Mid)</b>	<b>25.91</b>	<b>0.39</b>
			777	848.31 (High)	25.56	0.36
	CDMA 1xEV-DO	EVDO-UL: 9.6Kbps	1013	824.70 (Low)	24.82	0.30
			384	836.52 (Mid)	24.98	0.31
			777	848.31 (High)	25.06	0.32
		EVDO-UL: 38.4Kbps	1013	824.70 (Low)	24.89	0.31
			384	836.52 (Mid)	24.98	0.31
			777	848.31 (High)	25.07	0.32
		EVDO-UL: 153.6Kbps	1013	824.70 (Low)	25.20	0.33
			384	836.52 (Mid)	25.34	0.34
			777	848.31 (High)	25.21	0.33
CDMA2000 PCS	CDMA 1xRTT	FCH_RC1	25	1851.25 (Low)	25.81	0.38
			600	1880.00 (Mid)	25.69	0.37
			1177	1908.75 (High)	25.78	0.38
		FCH_RC3	<b>25</b>	<b>1851.25 (Low)</b>	<b>25.85</b>	<b>0.38</b>
			600	1880.00 (Mid)	25.62	0.36
			1177	1908.75 (High)	25.74	0.37
		FCH+SCH_RC1	25	1851.25 (Low)	25.70	0.37
			600	1880.00 (Mid)	25.75	0.38
			1177	1908.75 (High)	25.81	0.38
	CDMA 1xEV-DO	EVDO-UL: 9.6Kbps	25	1851.25 (Low)	24.93	0.31
			600	1880.00 (Mid)	25.20	0.33
			1177	1908.75 (High)	24.78	0.30
		EVDO-UL: 38.4Kbps	25	1851.25 (Low)	25.03	0.32
			600	1880.00 (Mid)	25.24	0.33
			1177	1908.75 (High)	24.85	0.31
		EVDO-UL: 153.6Kbps	25	1851.25 (Low)	25.25	0.33
			600	1880.00 (Mid)	25.33	0.34
			1177	1908.75 (High)	25.13	0.33

Note:

1. For cellular band, the worst case adopted as maximum output power 25.91dBm, is at CDMA 1xRTT, FCH+SCH\_RC3.
2. For PCS band, the worst case adopted as maximum output power 25.85dBm, is at CDMA 1xRTT, FCH\_RC3.

### 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

- a. The EUT was placed on a rotatable table with 1.0 meter height in an fully anechoic chamber.
- b. The EUT was set 1.2 meters from the receiving antenna which was mounted on the antenna tower.
- c. The table was rotated 360 degrees to determine the position of the highest radiated power.
- d. The height of the receiving antenna is also kept at 1.0M height.
- e. Taking the record of maximum ERP/EIRP.
- f. A dipole antenna was substituted in place of the EUT and was driven by a signal generator.
- g. The conducted power at the terminal of the dipole antenna is measured.
- h. Repeat step 3 to step 5 to get the maximum ERP/EIRP of the substitution antenna.
- i.  $ERP/EIRP = P_s + E_t - E_s + G_s = P_s + R_t - R_s + G_s$

$P_s$  (dBm) : Input power to substitution antenna.

$G_s$  (dBi or dBd) : Substitution antenna Gain.

$E_t = R_t + AF$

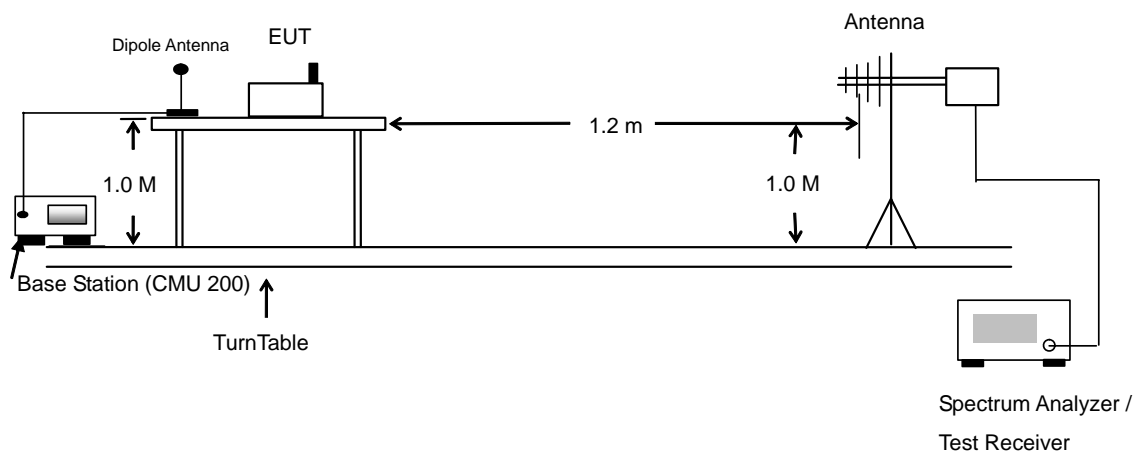
$E_s = R_s + AF$

$AF$  (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**

<b>CDMA2000 Cellular 1xRTT FCH+SCH_RC3 Radiated Power ERP</b>						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.70	-44.30	-48.12	0.00	-1.08	2.74	0.00
836.52	-43.49	-48.28	0.00	-0.93	3.86	0.00
848.31	-44.30	-48.35	0.00	-0.76	3.29	0.00
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.70	-42.16	-47.97	0.00	-1.08	4.73	0.00
836.52	-41.04	-48.01	0.00	-0.93	6.04	0.00
848.31	-42.09	-48.05	0.00	-0.76	5.20	0.00

<b>CDMA2000 Cellular 1xEV-DO 153.6Kbps Radiated Power ERP</b>						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.70	-44.57	-48.12	0.00	-1.08	2.47	0.00
836.52	-43.86	-48.28	0.00	-0.93	3.49	0.00
848.31	-44.80	-48.35	0.00	-0.76	2.79	0.00
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.70	-43.31	-47.97	0.00	-1.08	3.58	0.00
836.52	-41.95	-48.01	0.00	-0.93	5.13	0.00
848.31	-43.43	-48.05	0.00	-0.76	3.86	0.00

**CDMA2000 PCS 1xRTT FCH\_RC3 Radiated Power EIRP****Horizontal Polarization**

Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1851.25	-27.74	-51.88	0.00	1.96	26.10	0.41
1880.00	-30.09	-52.99	0.00	2.00	24.90	0.31
1908.75	-30.67	-54.28	0.00	1.98	25.59	0.36

**Vertical Polarization**

Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1851.25	-27.58	-52.13	0.00	1.96	26.51	0.45
1880.00	-29.89	-53.17	0.00	2.00	25.28	0.34
1908.75	-30.45	-54.13	0.00	1.98	25.66	0.37

**CDMA2000 PCS 1xEV-DO 153.6Kbps Radiated Power EIRP****Horizontal Polarization**

Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1851.25	-27.64	-51.88	0.00	1.96	26.20	0.42
1880.00	-29.93	-52.99	0.00	2.00	25.06	0.32
1908.75	-30.83	-54.28	0.00	1.98	25.43	0.35

**Vertical Polarization**

Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1851.25	-27.61	-52.13	0.00	1.96	26.48	0.44
1880.00	-29.37	-53.17	0.00	2.00	25.80	0.38
1908.75	-30.30	-54.13	0.00	1.98	25.81	0.38

## 4.4 Occupied Bandwidth and Band Edge Measurement

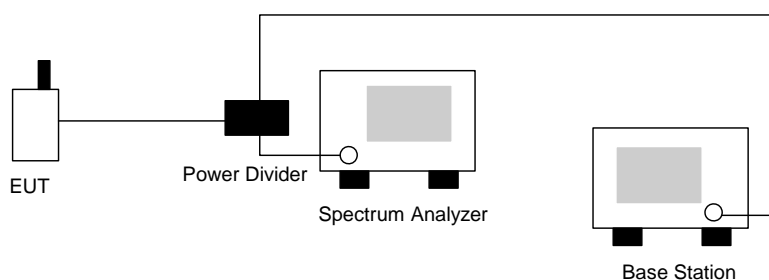
### 4.4.1 Measurement Instruments

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 and 26 dB Bandwidth of middle channel for the highest 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.

### 4.4.3 Test Setup Layout





## 4.4.4 Test Data

## • Mode 1~2

Bands	Test Mode	Test Status	Channel	Frequency (MHz)	Measurement Value (dBm)	Correction Factor (dB)	Band Edge (dBm)
CDMA2000 Cellular	CDMA 1xRTT	FCH_RC1	1013	824.70 (Low)	-16.06	1.06	-15.00
			777	848.31 (High)	-14.96	1.06	-13.90
		FCH_RC3	1013	824.70 (Low)	-16.03	1.06	-14.97
			777	848.31 (High)	-15.74	1.06	-14.68
		FCH+SCH_RC3	1013	824.70 (Low)	-15.62	1.06	-14.56
			777	848.31 (High)	-15.55	1.06	-14.49
	CDMA 1xEV-DO	9.6Kbps	1013	824.70 (Low)	-16.36	1.06	-15.30
			777	848.31 (High)	-15.41	1.06	-14.35
		38.4Kbps	1013	824.70 (Low)	-15.96	1.06	-14.90
			777	848.31 (High)	-16.18	1.06	-15.12
		153.6Kbps	1013	824.70 (Low)	-15.46	1.06	-14.40
			777	848.31 (High)	-15.87	1.06	-14.81

Note:

\*Occupancy Bandwidth = 1276.00KHz

\*Correction Factor =  $10 \cdot \log(1\% \text{ Occupancy Bandwidth} / \text{Measurement RBW})$   
 $= 10 \cdot \log[(0.01 \cdot 1276.00\text{KHz}) / 10\text{KHz}]$   
 $= 1.06 \text{ dB}$

\*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	CDMA 1xRTT	FCH_RC1	25	1851.25 (Low)	-25.12	1.04	-24.08
			1177	1908.75 (High)	-29.53	1.04	-28.49
		FCH_RC3	25	1851.25 (Low)	-25.82	1.04	-24.78
			1177	1908.75 (High)	-28.98	1.04	-27.94
		FCH+SCH_RC3	25	1851.25 (Low)	-25.22	1.04	-24.18
			1177	1908.75 (High)	-28.05	1.04	-27.01
	CDMA 1xEV-DO	9.6Kbps	25	1851.25 (Low)	-29.76	1.04	-28.72
			1177	1908.75 (High)	-23.65	1.04	-22.61
		38.4Kbps	25	1851.25 (Low)	-29.98	1.04	-28.94
			1177	1908.75 (High)	-26.88	1.04	-25.84
		153.6Kbps	25	1851.25 (Low)	-30.07	1.04	-29.03
			1177	1908.75 (High)	-27.26	1.04	-26.22

Note:

\*Occupancy Bandwidth = 1272.00KHz

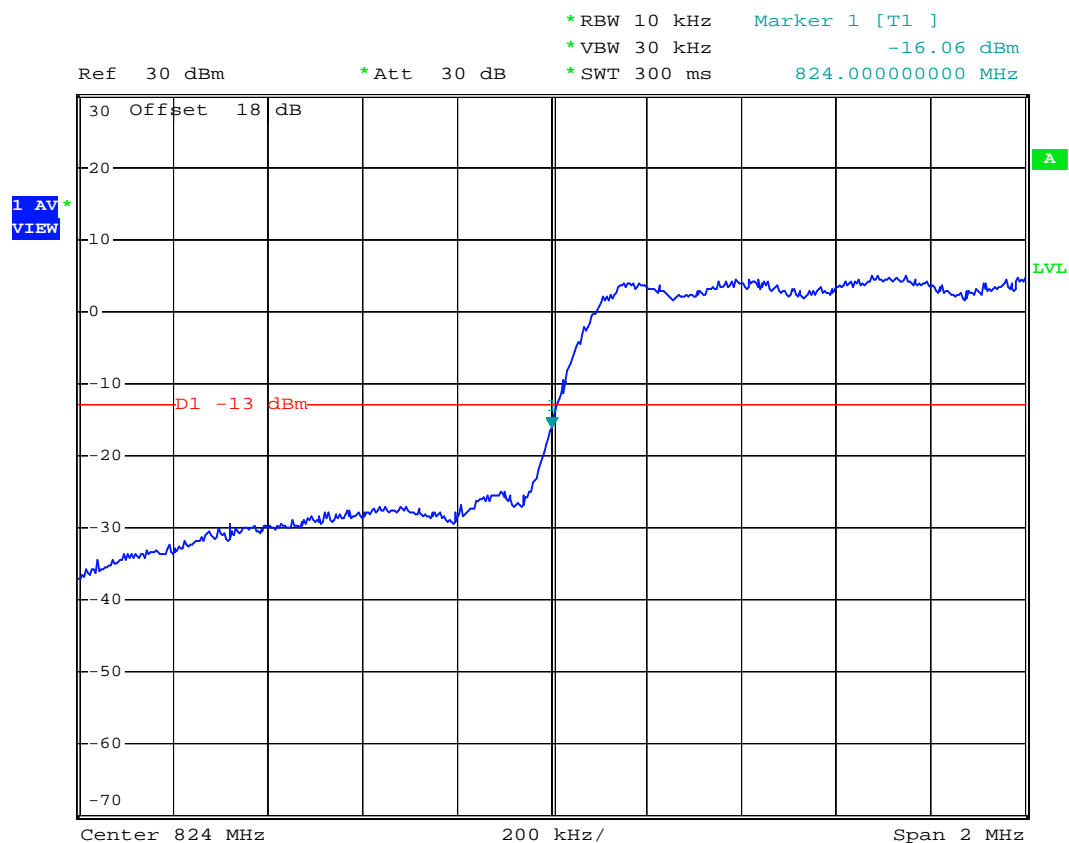
\*Correction Factor =  $10 \cdot \log(1\% \text{ Occupancy Bandwidth} / \text{Measurement RBW})$   
 $= 10 \cdot \log[(0.01 \cdot 1272.00\text{KHz}) / 10\text{KHz}]$   
 $= 1.04 \text{ dB}$

\*Band Edge = Measurement Value + Correction Factor



**4.4.5 Test Result**

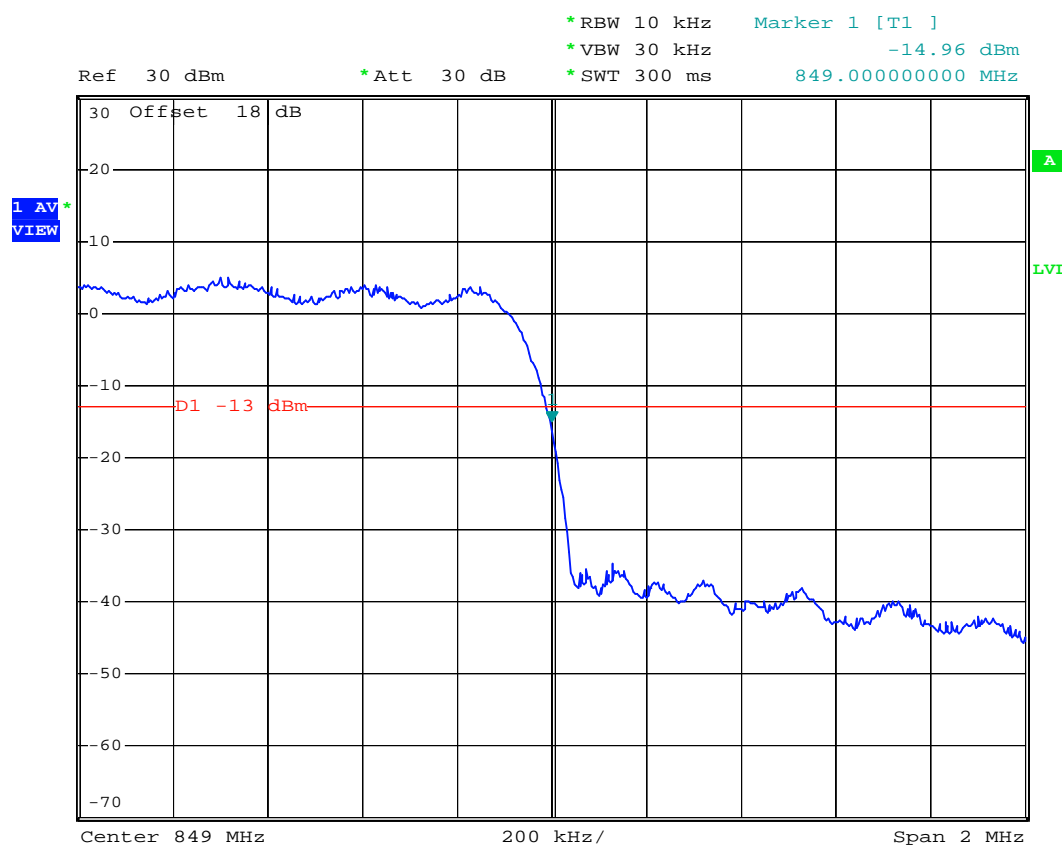
- Mode 1
- Test Mode : CDMA2000 Cellular 850 Band CH1013\_FCH\_RC1 Lower Band Edge for 1xRTT
- Power State : High



Date: 8.JUL.2007 06:22:56



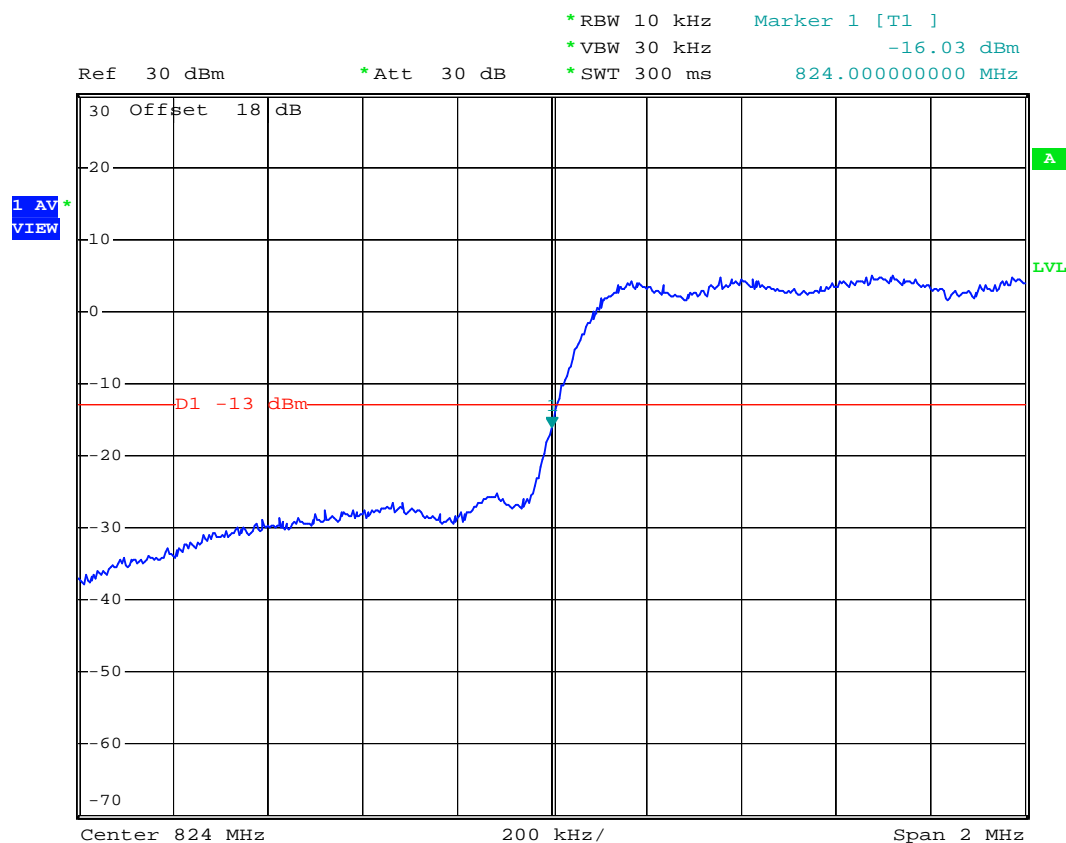
- Test Mode : CDMA2000 Cellular 850 CH777\_FCH\_RC1 Higher Band Edge for 1xRTT
- Power State : High



Date: 8.JUL.2007 06:25:49



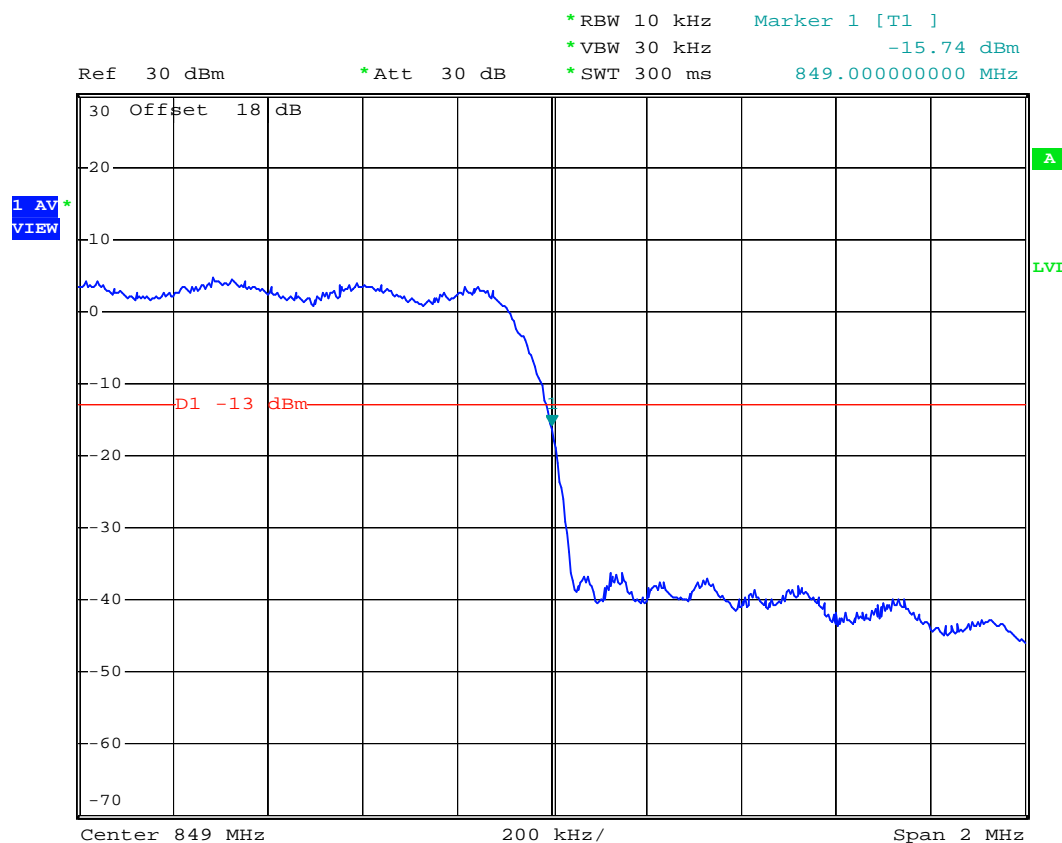
- Test Mode : CDMA2000 Cellular 850 Band CH1013\_FCH\_RC3 Lower Band Edge for 1xRTT
- Power State : High



Date: 8.JUL.2007 06:22:24



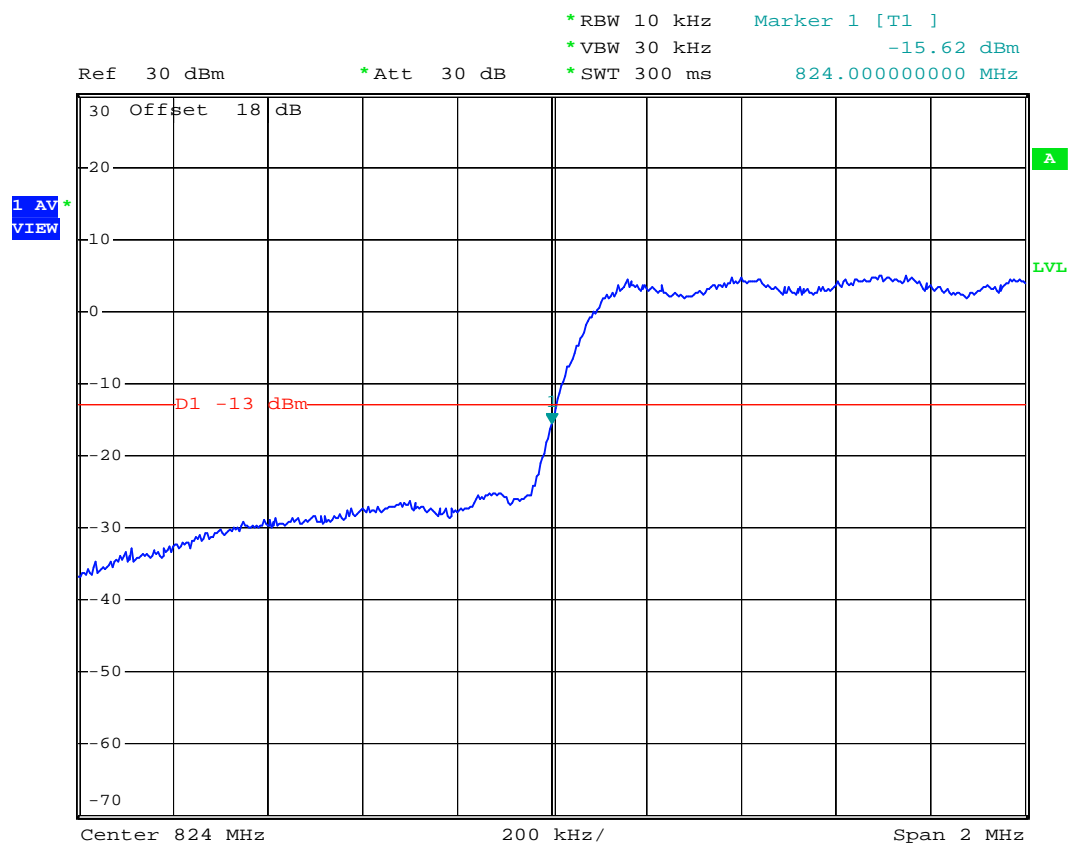
- Test Mode : CDMA2000 Cellular 850 CH777\_FCH\_RC3 Higher Band Edge for 1xRTT
- Power State : High



Date: 8.JUL.2007 06:26:53



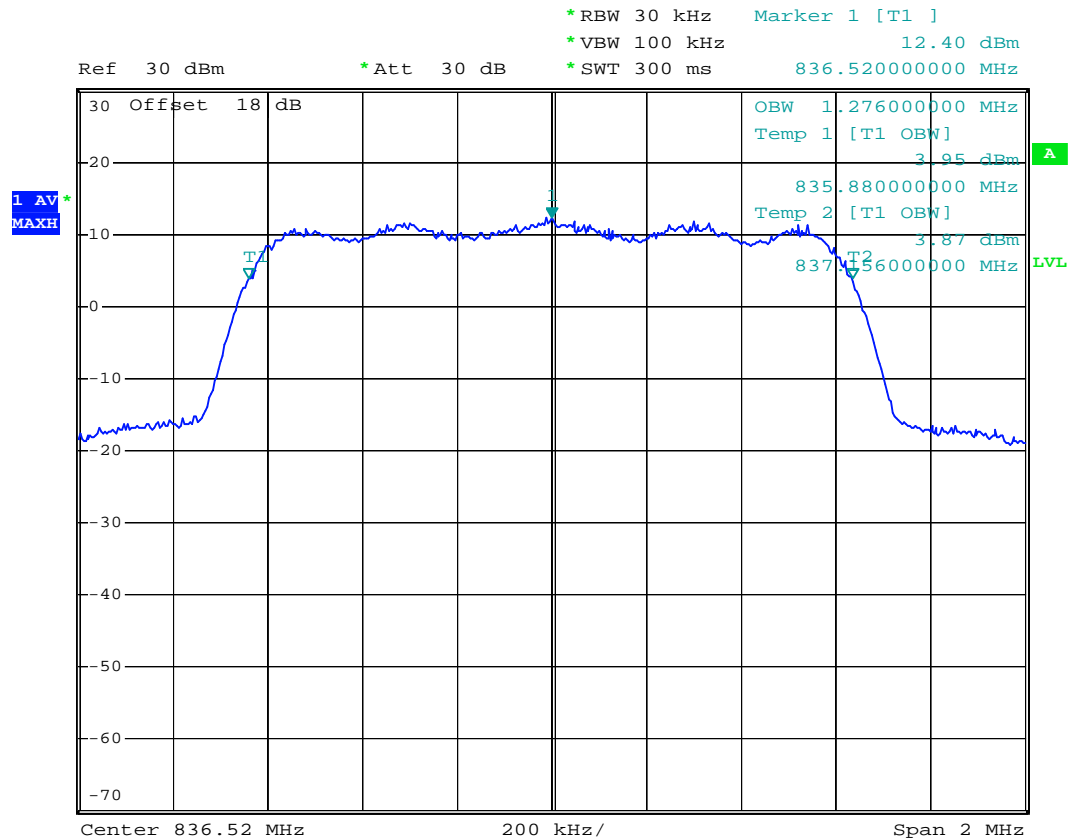
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- Power State : High



Date: 8.JUL.2007 06:23:36



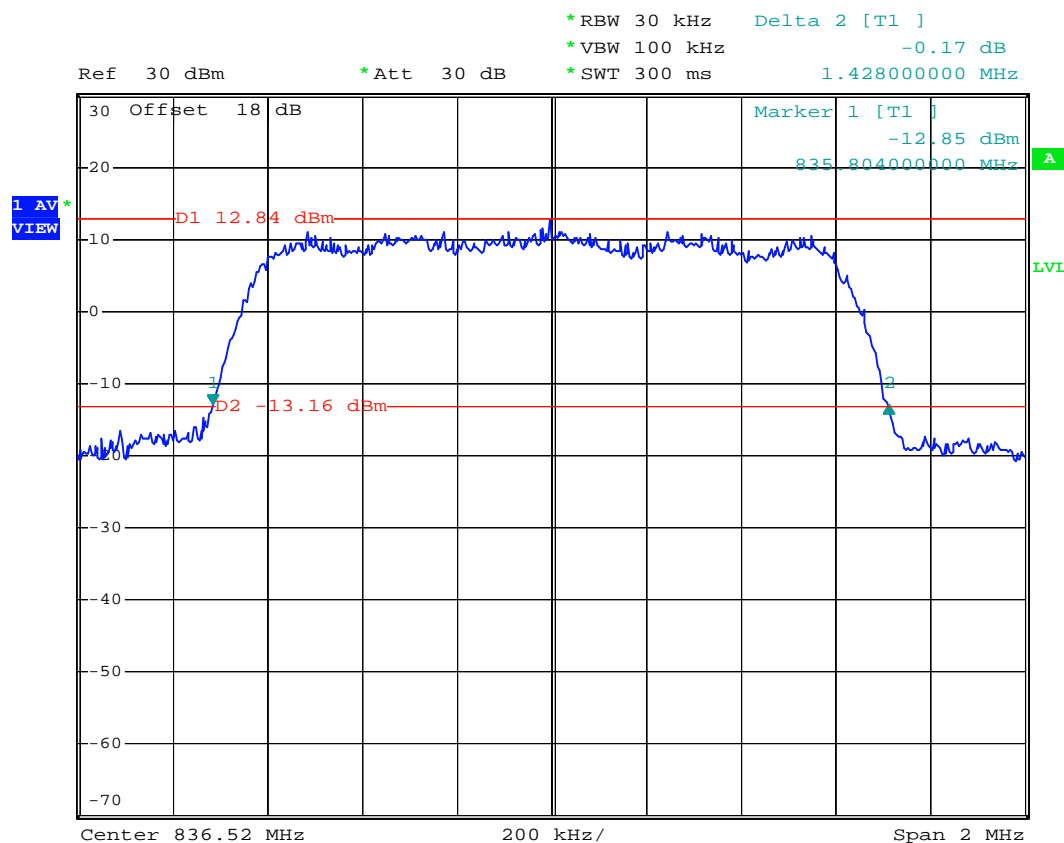
- Test Mode : CDMA2000 Cellular 850 CH384 99% Occupied Bandwidth for 1xRTT
- Power State : High



Date: 8.JUL.2007 09:52:48



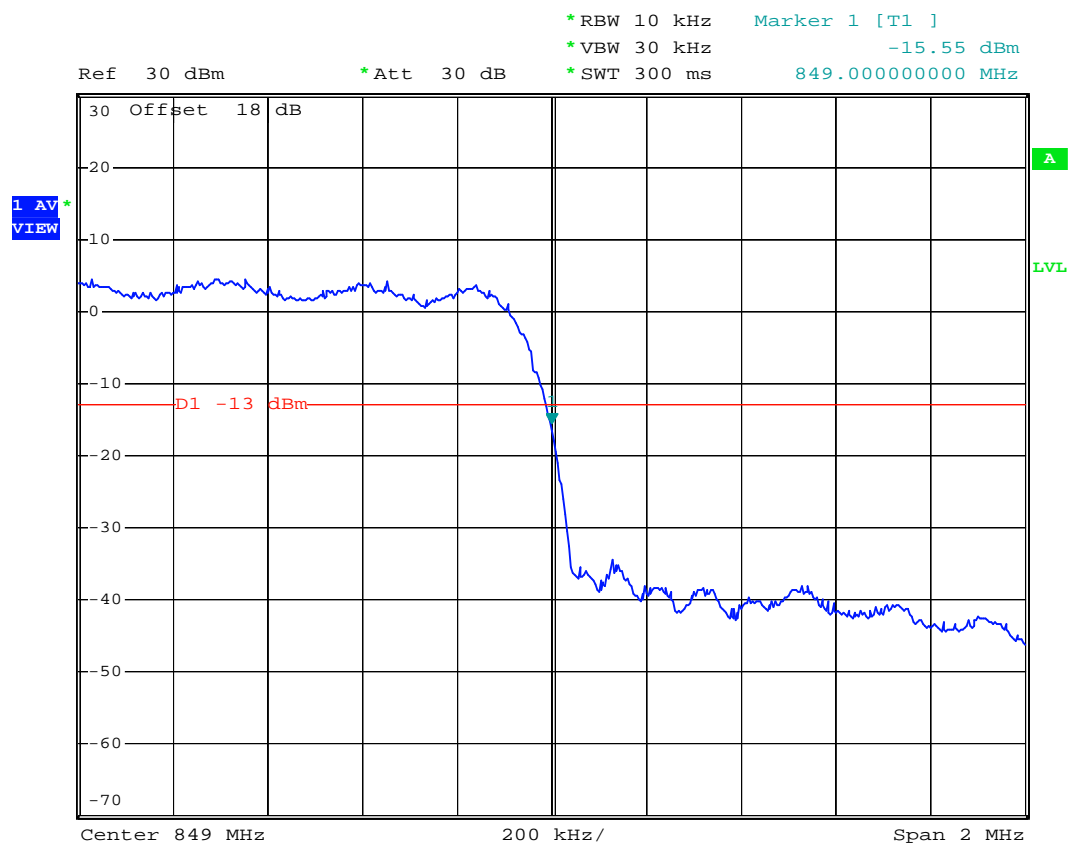
- Test Mode : CDMA2000 Cellular 850 CH384 26 dB Bandwidth for 1xRTT
- Power State : High



Date: 8.JUL.2007 09:56:36



- Test Mode : CDMA2000 Cellular 850 CH777\_FCH+SCH\_RC3 Higher Band Edge for 1xRTT
- Power State : High

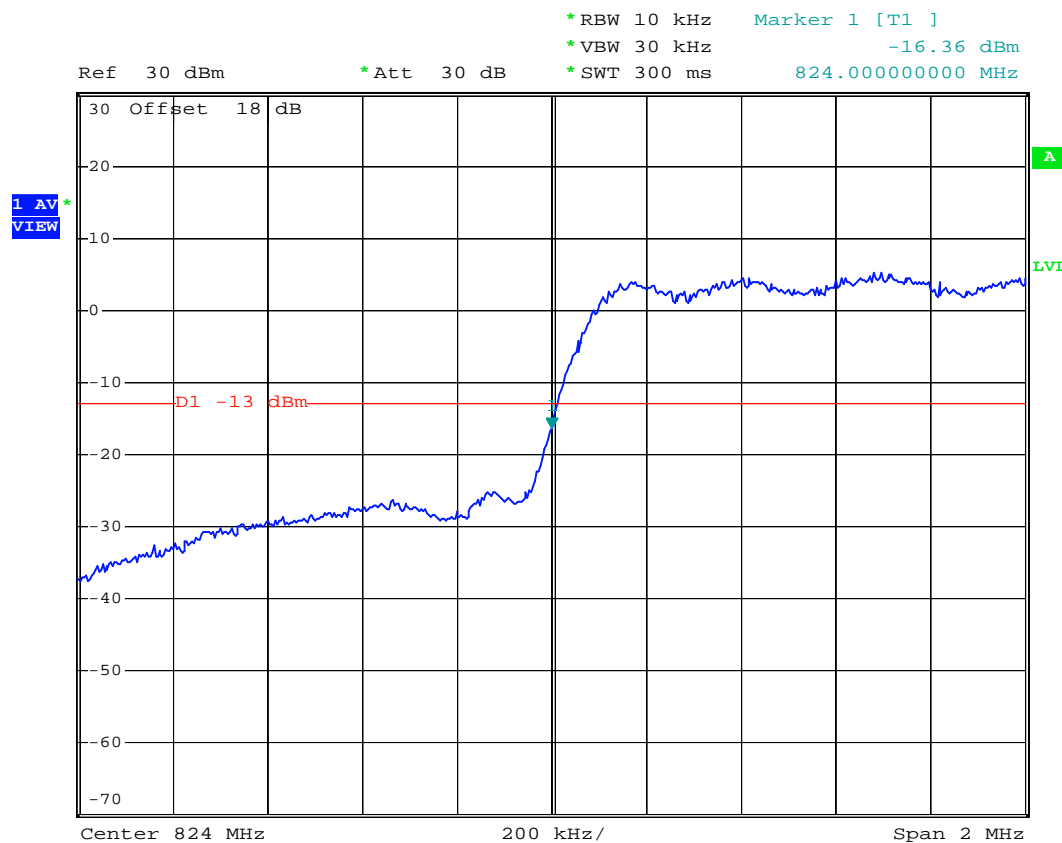


Date: 8.JUL.2007 06:25:00





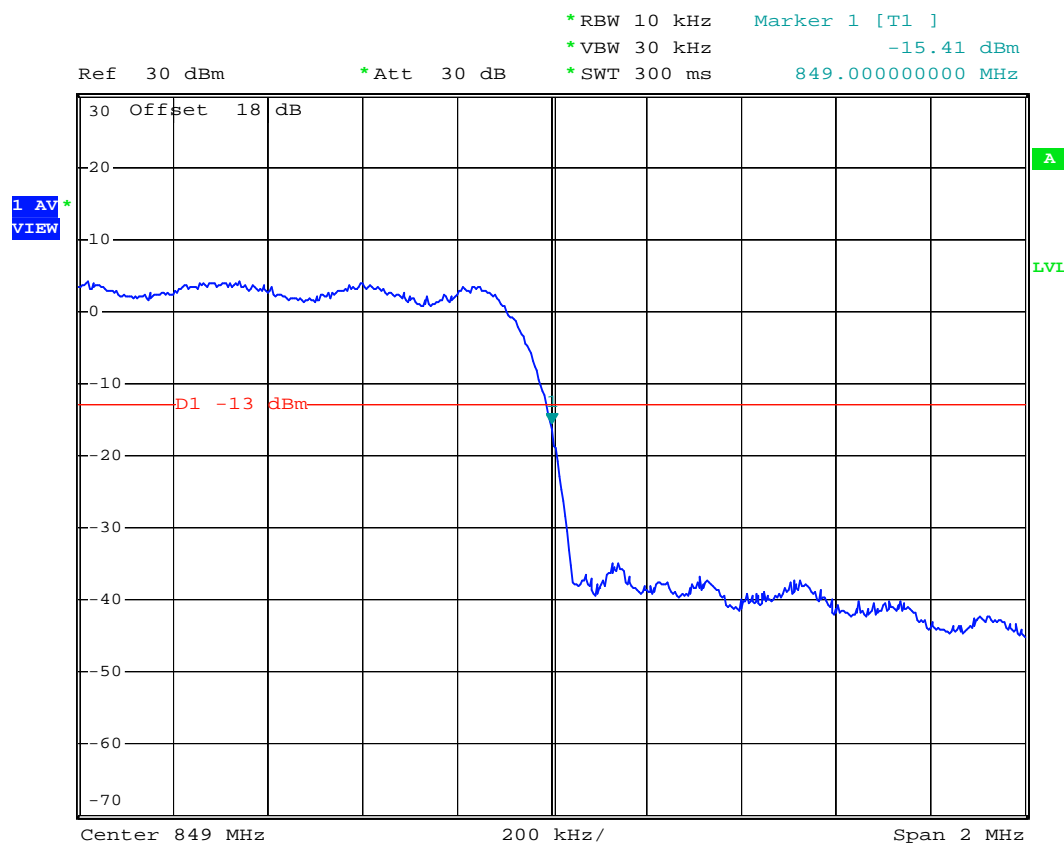
- Mode 2
- Test Mode : CDMA2000 Cellular 850 CH1013\_9.6Kbps Lower Band Edge for 1xEV-DO
- Power State : High



Date: 8.JUL.2007 06:06:16



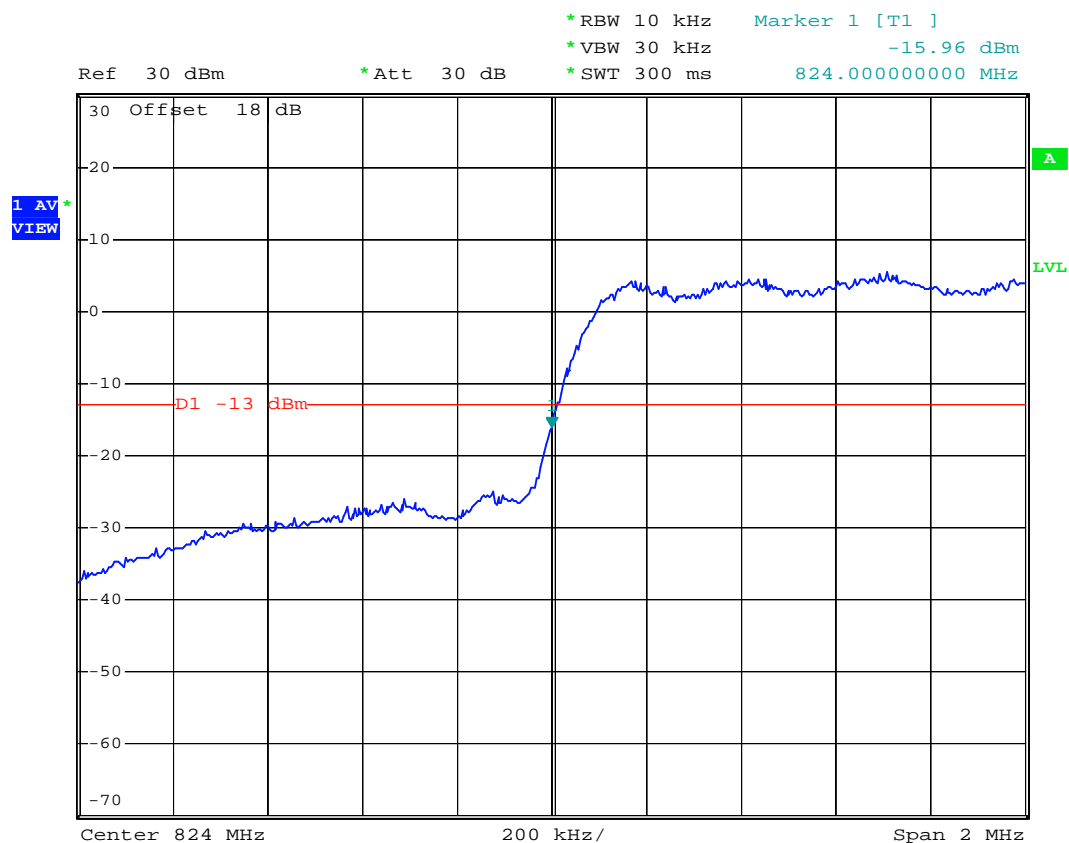
- Test Mode : CDMA2000 Cellular 850 CH777\_9.6Kbps Higher Band Edge for 1xEV-DO
- Power State : High



Date: 8.JUL.2007 06:07:39



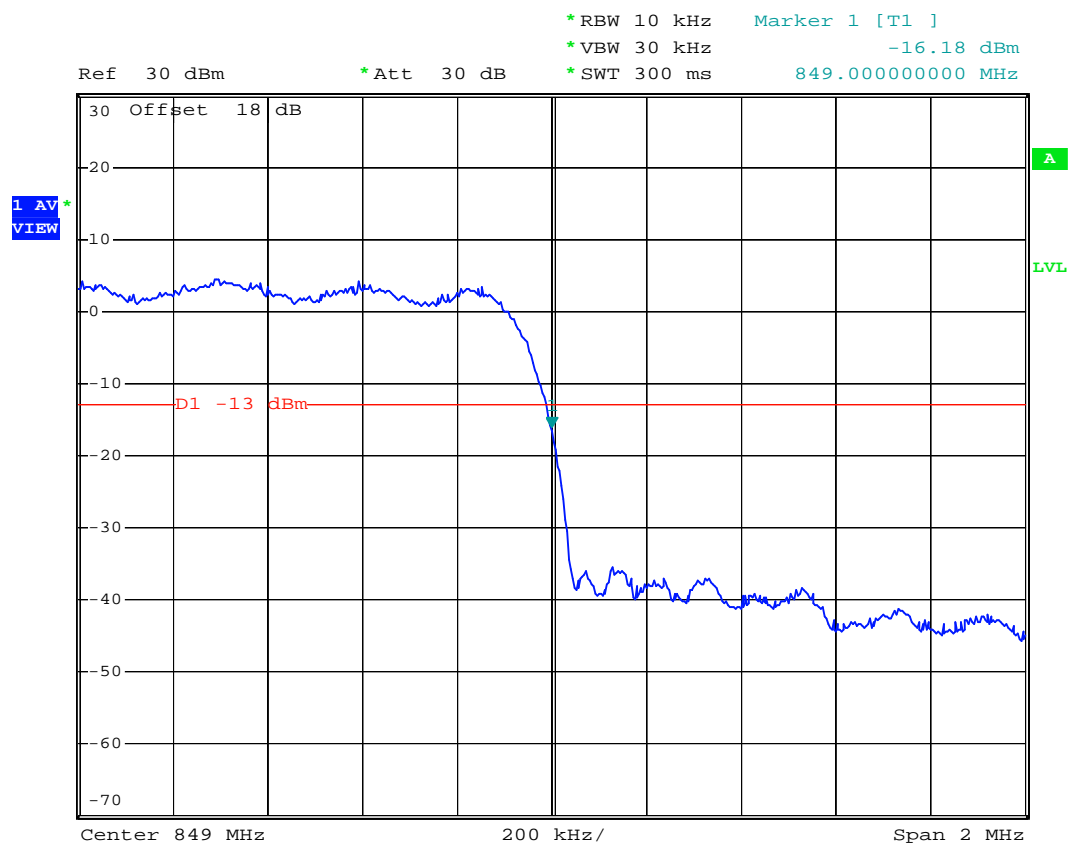
- Test Mode : CDMA2000 Cellular 850 CH1013\_38.4Kbps Lower Band Edge for 1xEV-DO
- Power State : High



Date: 8.JUL.2007 06:05:32



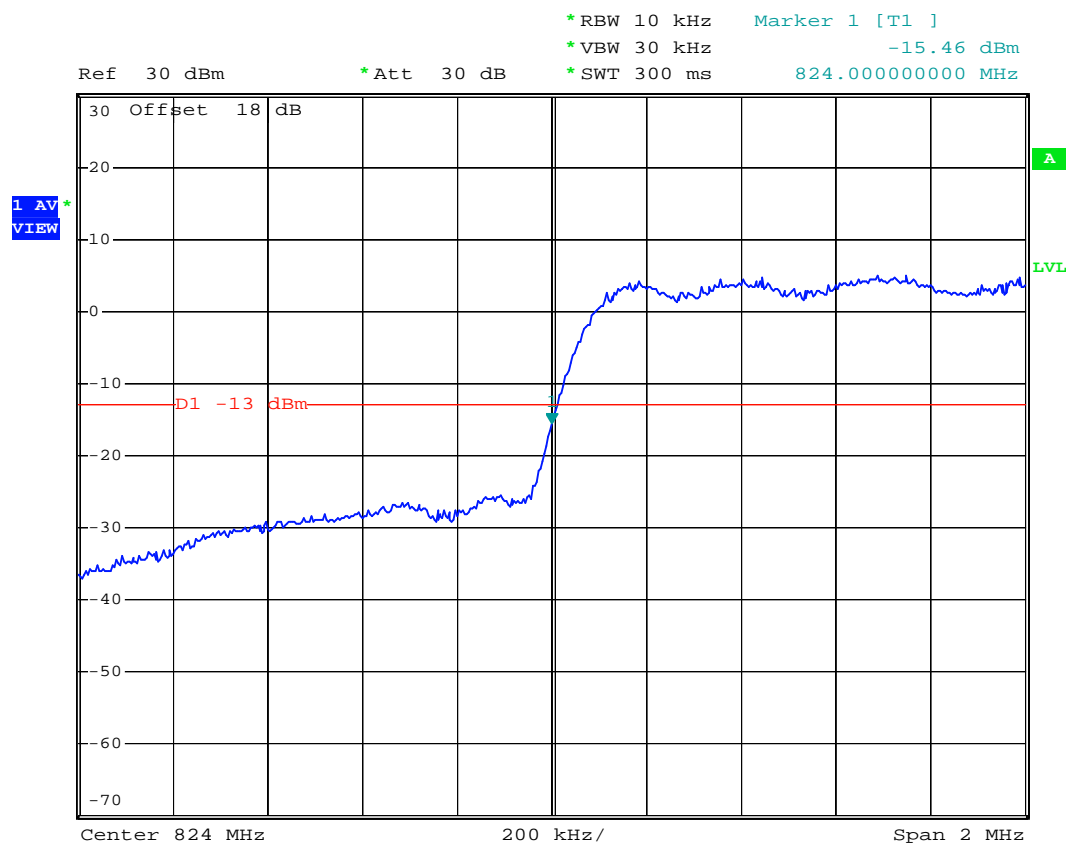
- Test Mode : CDMA2000 Cellular 850 CH777\_38.4Kbps Higher Band Edge for 1xEV-DO
- Power State : High



Date: 8.JUL.2007 06:08:38



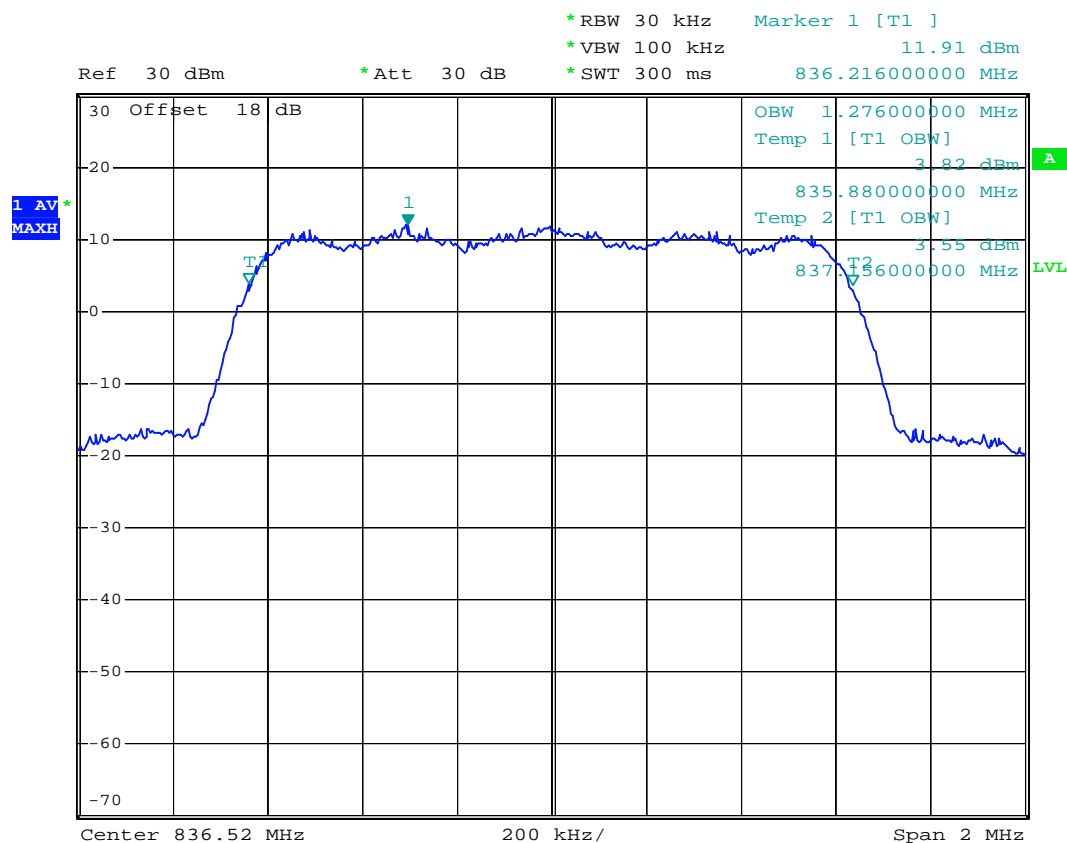
- Test Mode : CDMA2000 Cellular 850 CH1013\_153.6Kbps Lower Band Edge for 1xEV-DO
- Power State : High



Date: 8.JUL.2007 06:03:51



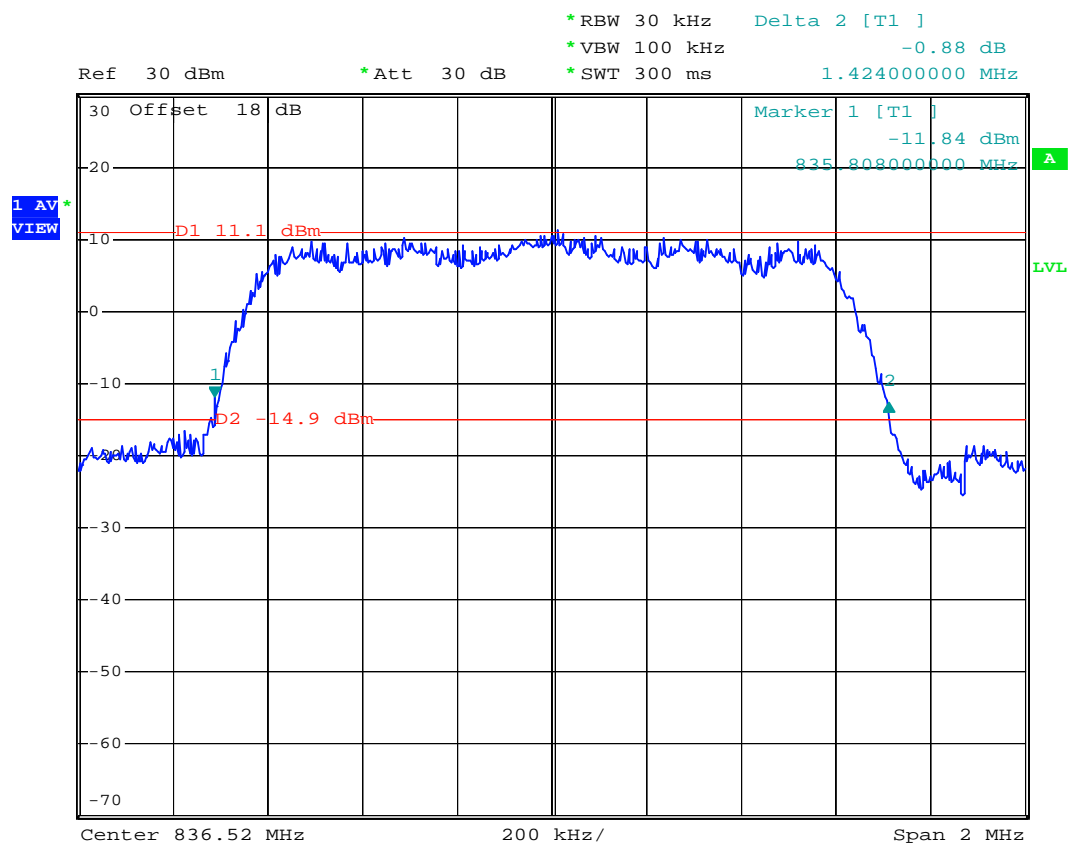
- Test Mode : CDMA2000 Cellular 850 CH384 99% Occupied Bandwidth for 1xEV-DO
- Power State : High



Date: 8.JUL.2007 10:01:29



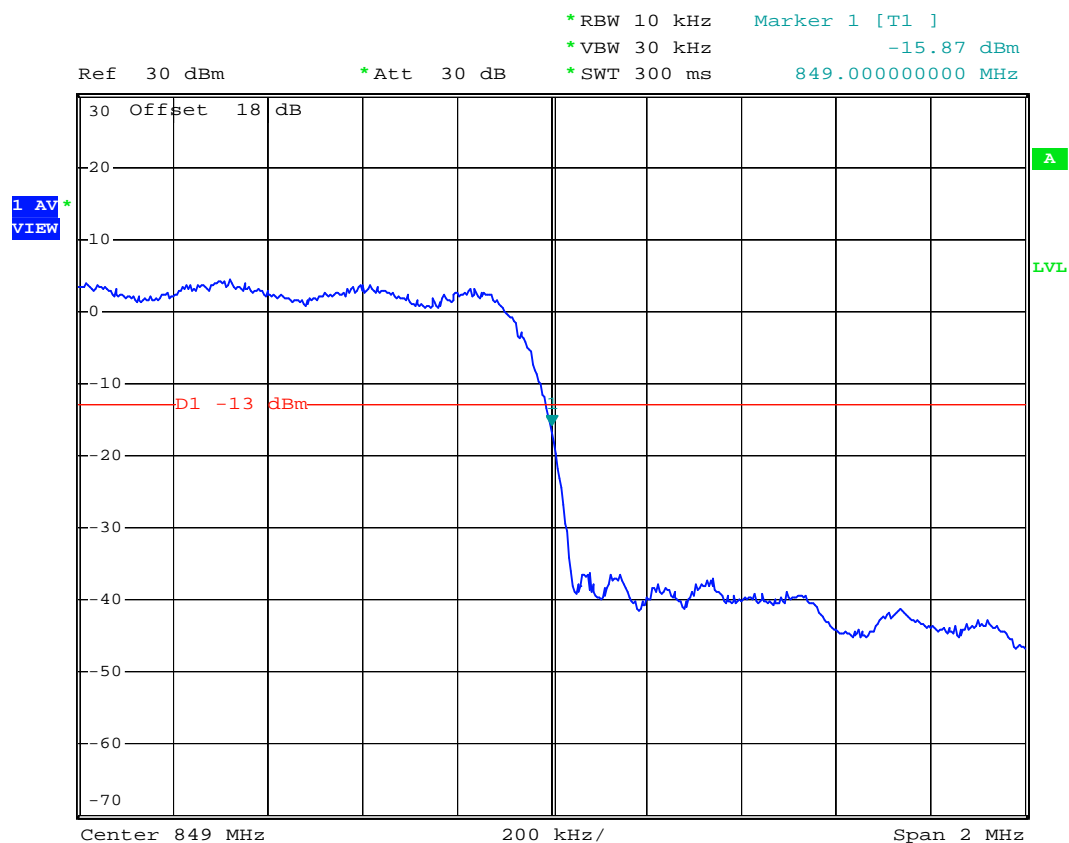
- Test Mode : CDMA2000 Cellular 850 CH384 26 dB Bandwidth for 1xEV-DO
- Power State : High



Date: 8.JUL.2007 10:05:26



- Test Mode : CDMA2000 Cellular 850 CH777\_153.6Kbps Higher Band Edge for 1xEV-DO
- Power State : High



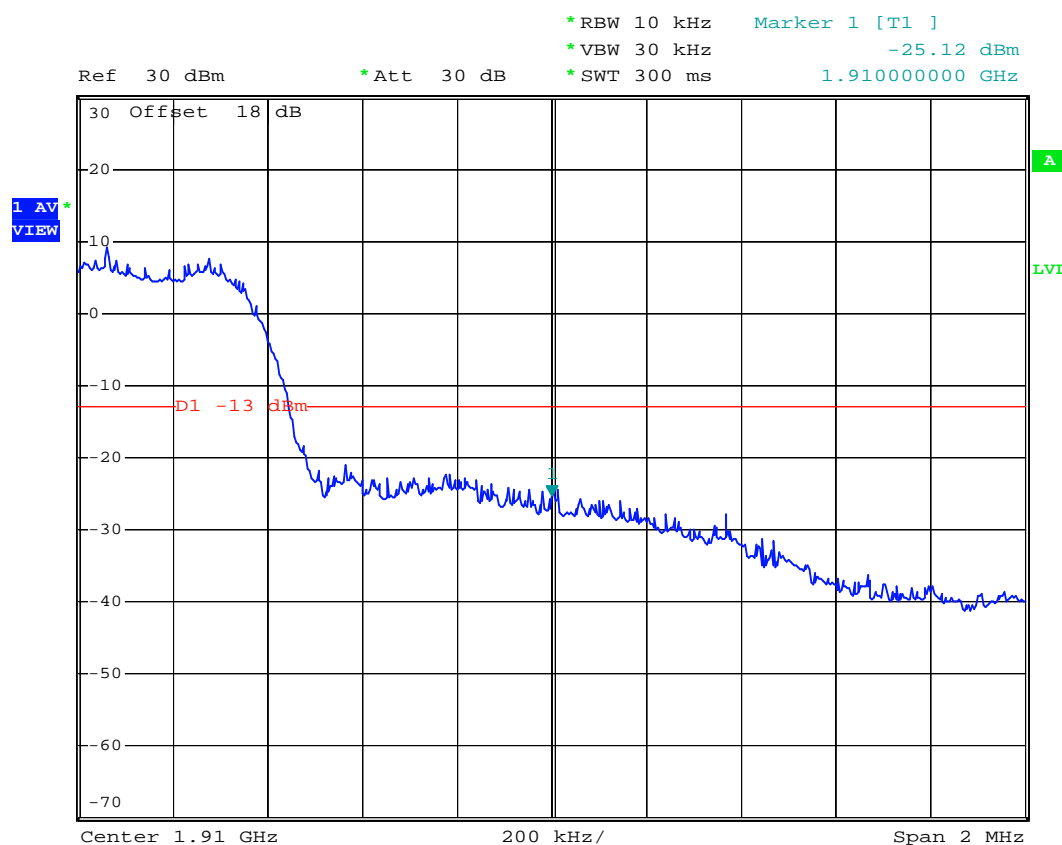
Date: 8.JUL.2007 06:09:18







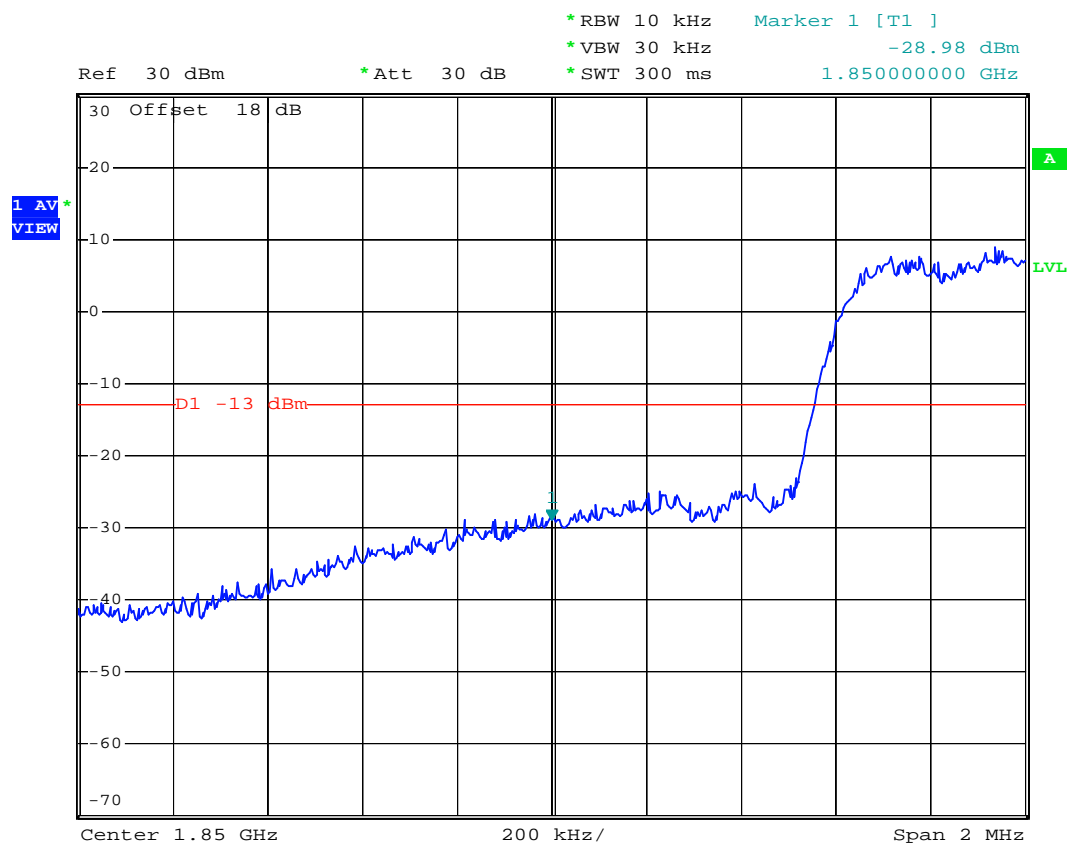
- Test Mode : CDMA2000 PCS 1900 CH1175\_FCH\_RC1 Higher Band Edge for 1xRTT
- Power State : High



Date: 8.JUL.2007 06:16:21



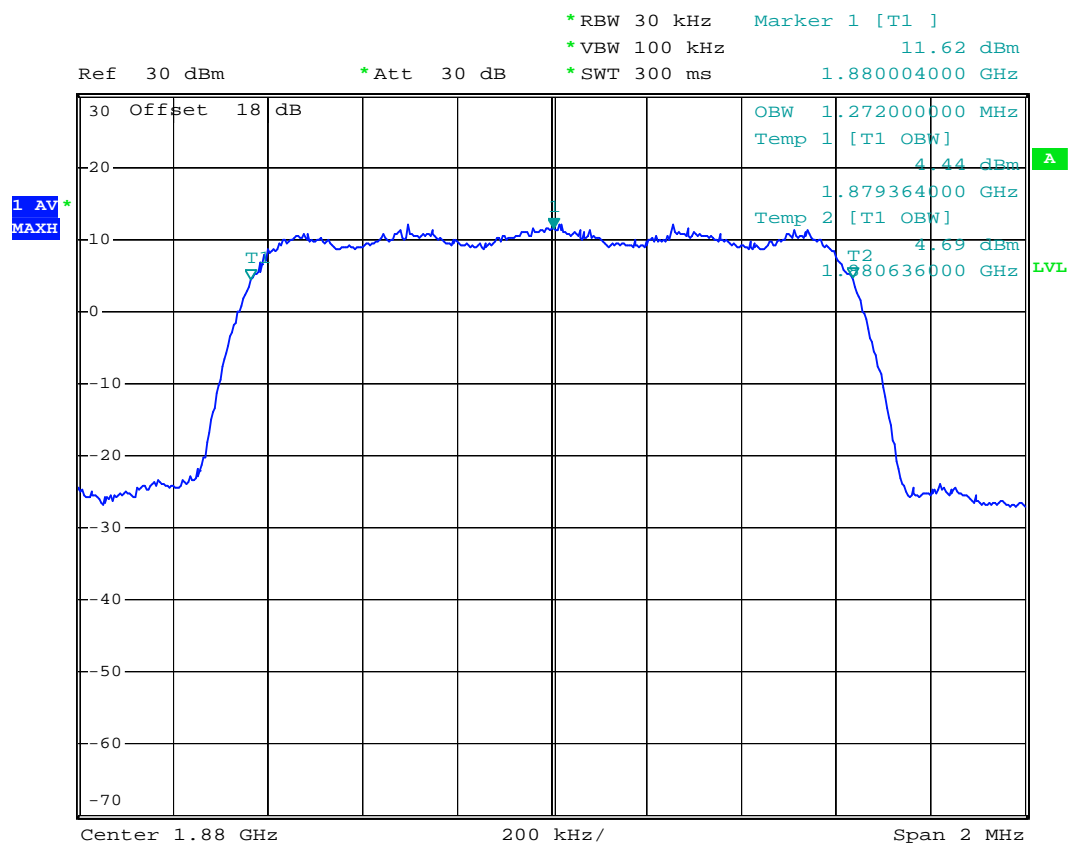
- Test Mode : CDMA2000 PCS 1900 Band CH25\_FCH\_RC3 Lower Band Edge for 1xRTT
- Power State : High



Date: 8.JUL.2007 06:20:59



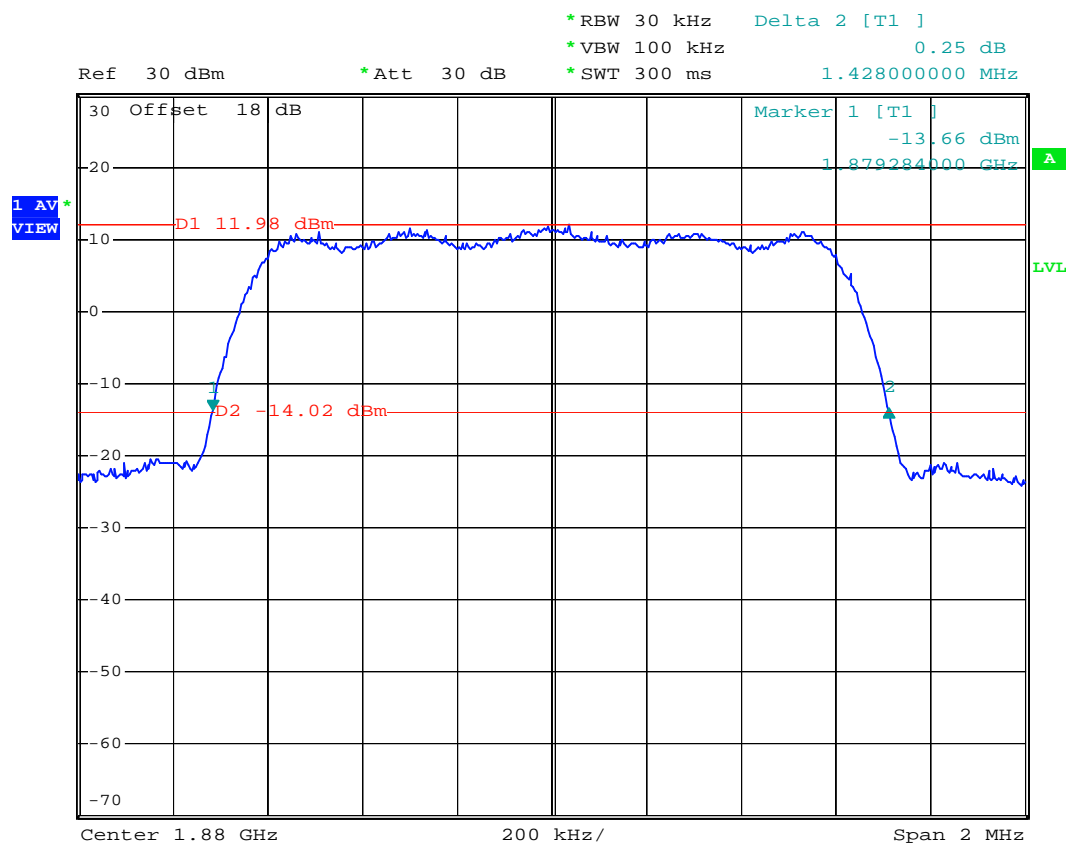
- Test Mode : CDMA2000 PCS 1900 Band CH600 99% Occupied Bandwidth for 1xRTT
- Power State : High



Date: 8.JUL.2007 07:18:05



- Test Mode : CDMA2000 PCS 1900 Band CH600 26 dB Bandwidth for 1xRTT
- Power State : High



Date: 8.JUL.2007 07:34:23



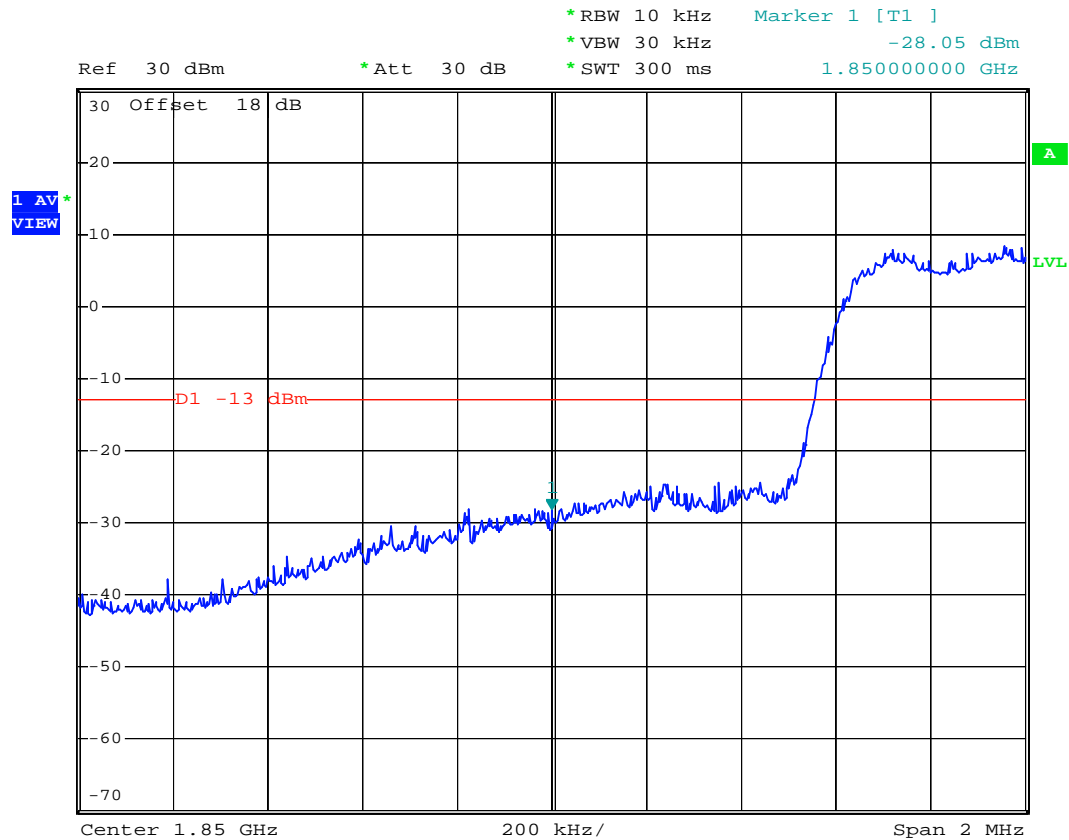
- Test Mode : CDMA2000 Cellular 850 CH1175\_FCH\_RC3 Higher Band Edge for 1xRTT
- Power State : High



Date: 8.JUL.2007 06:17:18



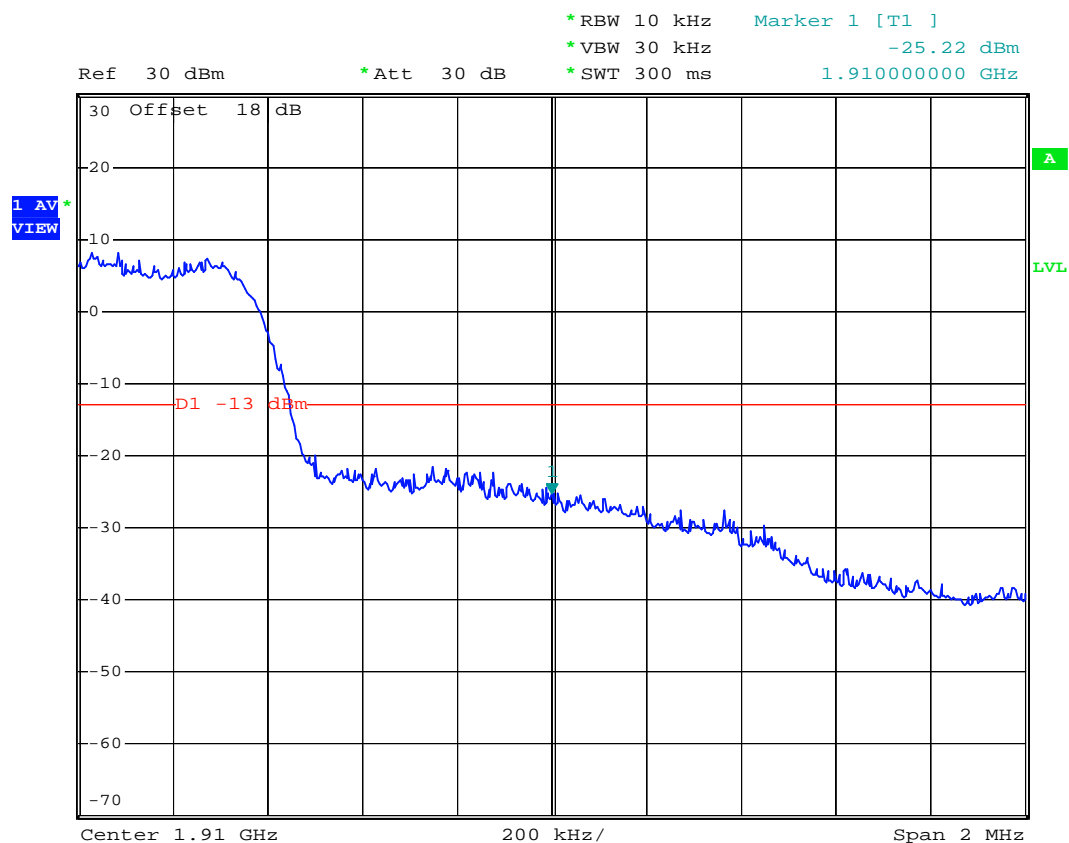
- Test Mode : CDMA2000 PCS 1900 Band CH25\_FCH+SCH\_RC3 Lower Band Edge for 1xRTT
- Power State : High



Date: 8.JUL.2007 06:19:09



- Test Mode : CDMA2000 PCS 1900 CH1175\_FCH+SCH\_RC3 Higher Band Edge for 1xRTT
- Power State : High

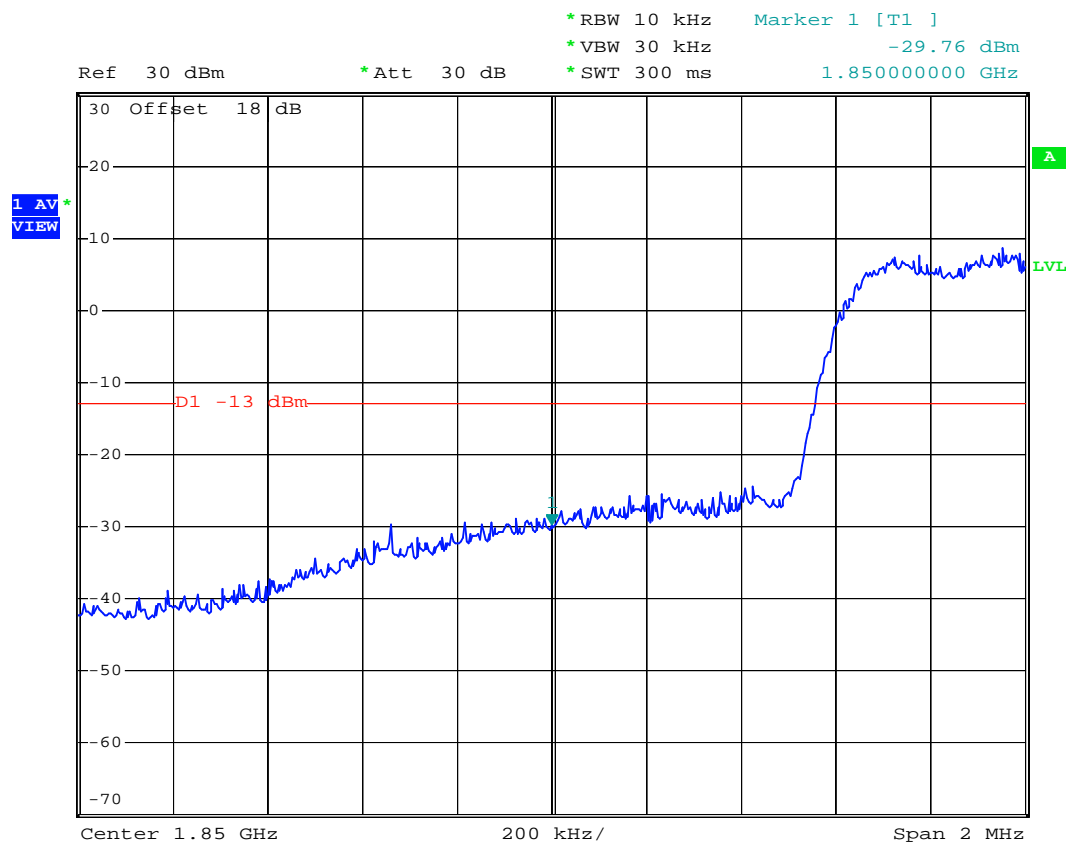


Date: 8.JUL.2007 06:18:08





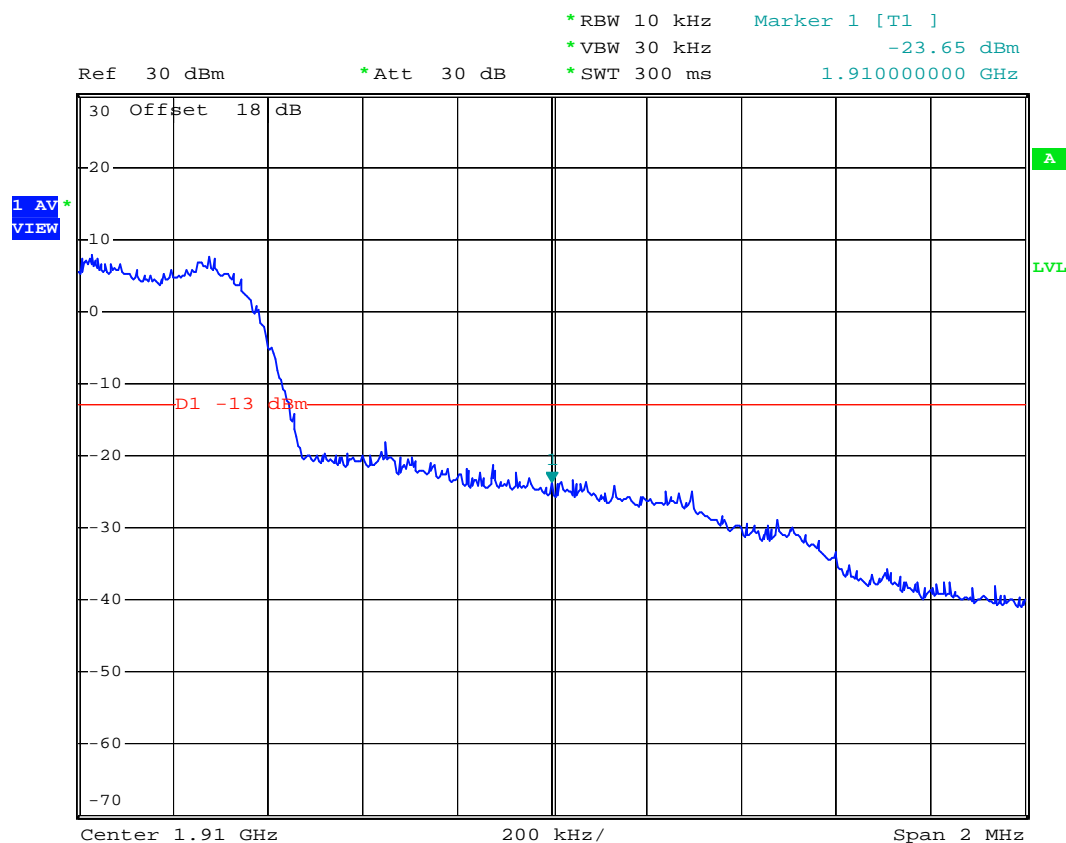
- Mode 4
- Test Mode : CDMA2000 PCS 1900 CH25\_9.6Kbps Lower Band Edge for 1xEV-DO
- Power State : High



Date: 8.JUL.2007 06:12:17



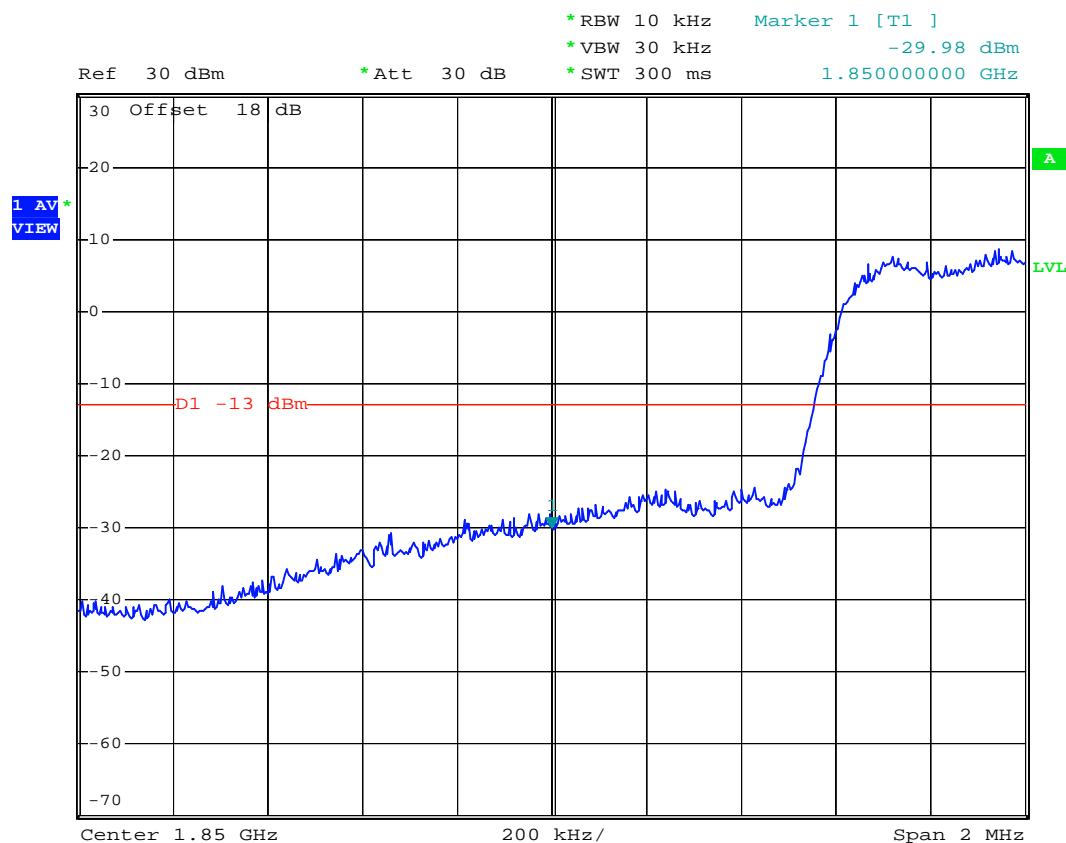
- Test Mode : CDMA2000 PCS 1900 CH1175\_9.6Kbps Higher Band Edge for 1xEV-DO
- Power State : High



Date: 8.JUL.2007 06:14:05



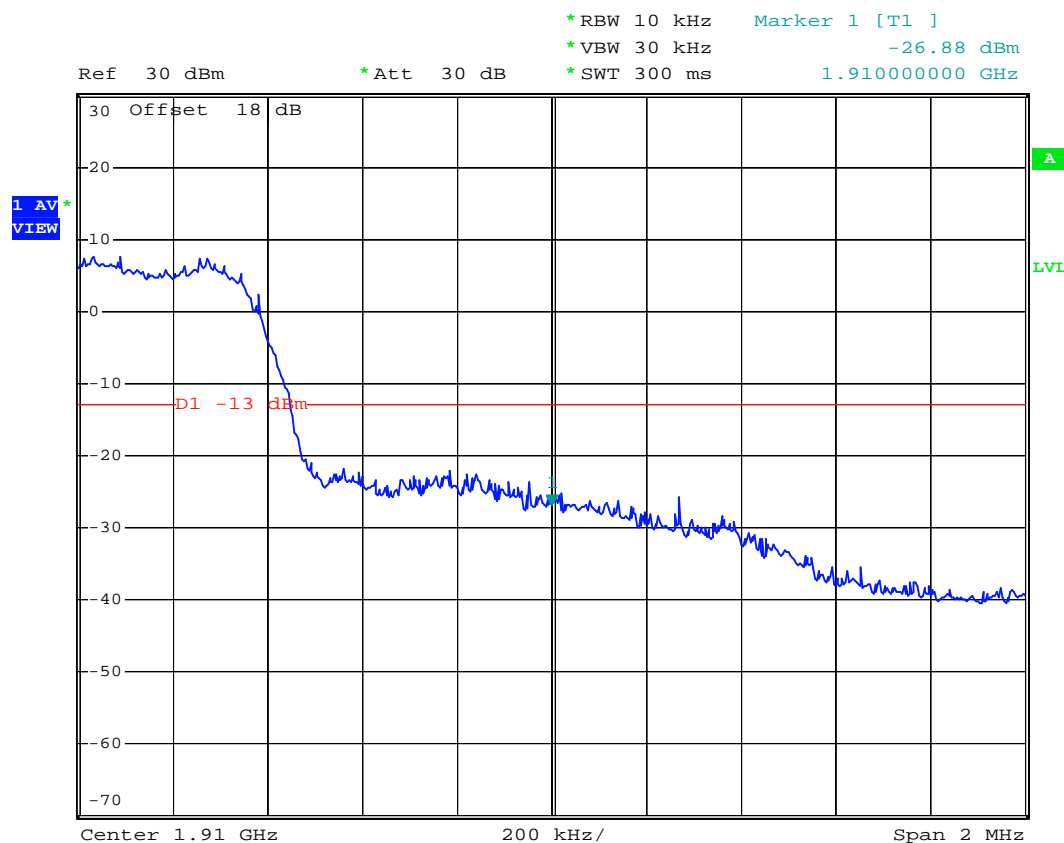
- Test Mode : CDMA2000 PCS 1900 CH25\_38.4Kbps Lower Band Edge for 1xEV-DO
- Power State : High



Date: 8.JUL.2007 06:11:38



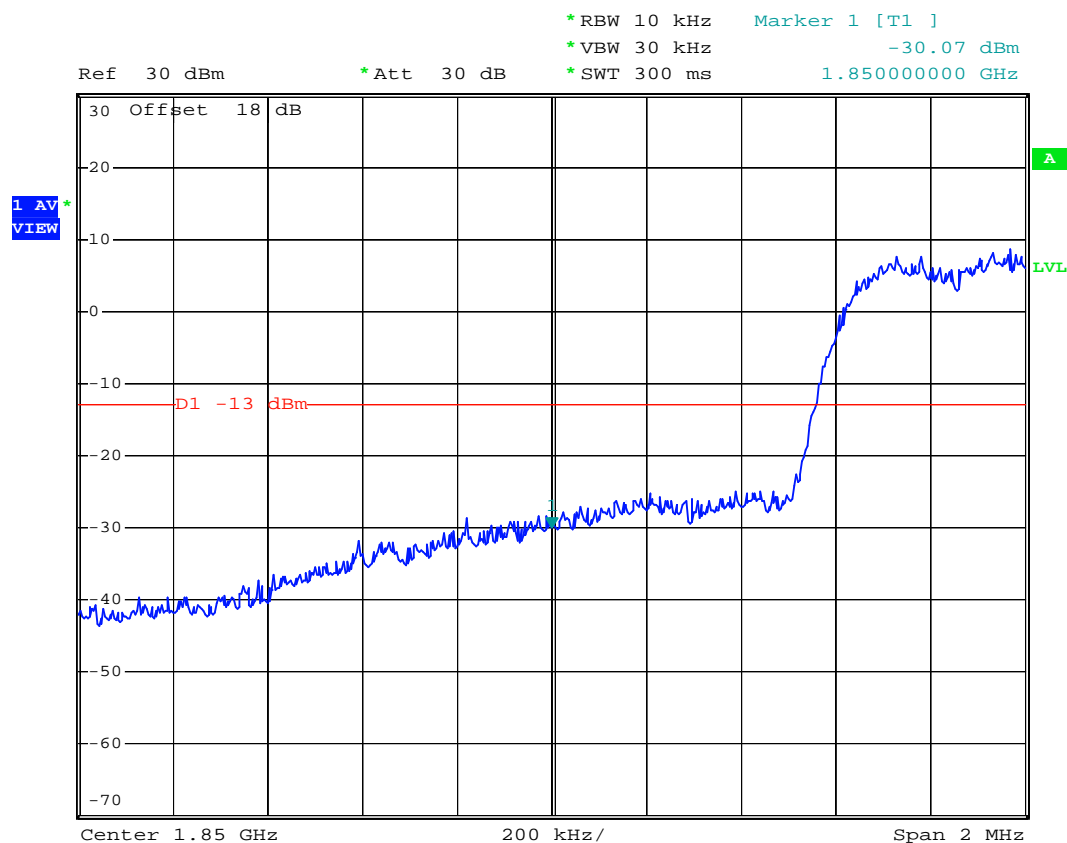
- Test Mode : CDMA2000 PCS 1900 CH1175\_38.4Kbps Higher Band Edge for 1xEV-DO
- Power State : High



Date: 8.JUL.2007 06:14:49



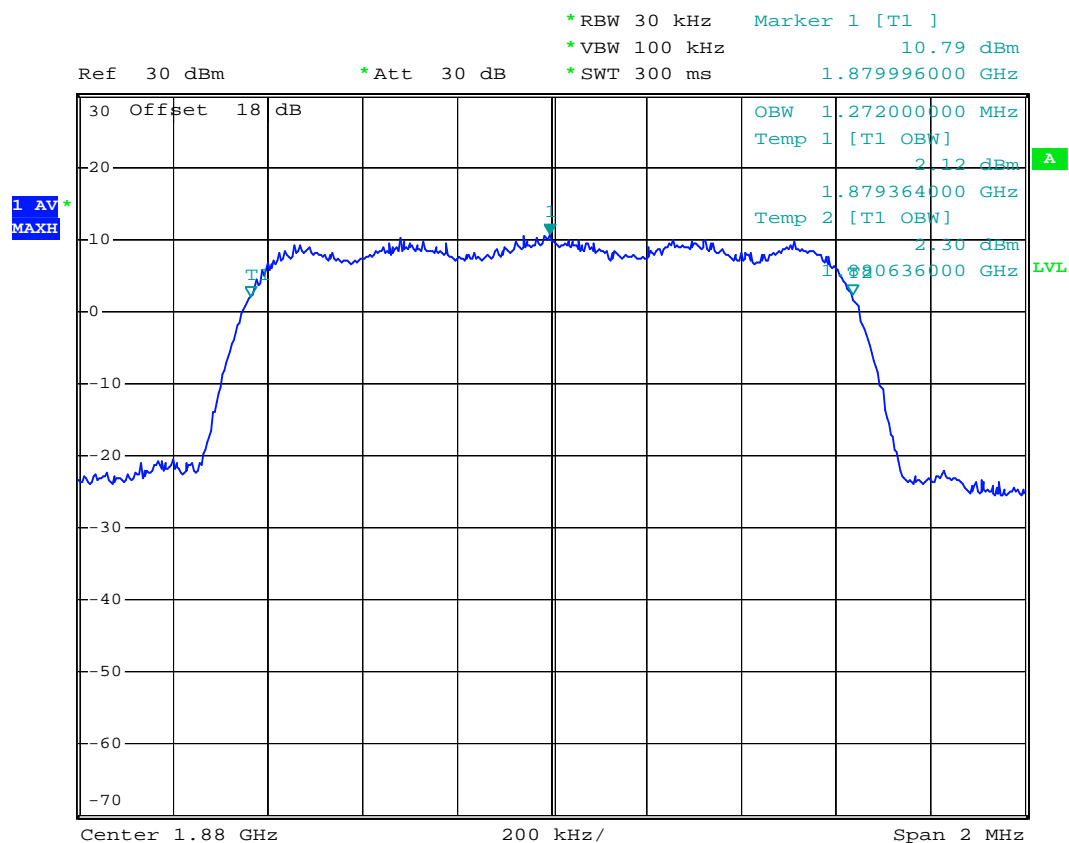
- Test Mode : CDMA2000 PCS 1900 CH25\_153.6Kbps Lower Band Edge for 1xEV-DO
- Power State : High



Date: 8.JUL.2007 06:10:39



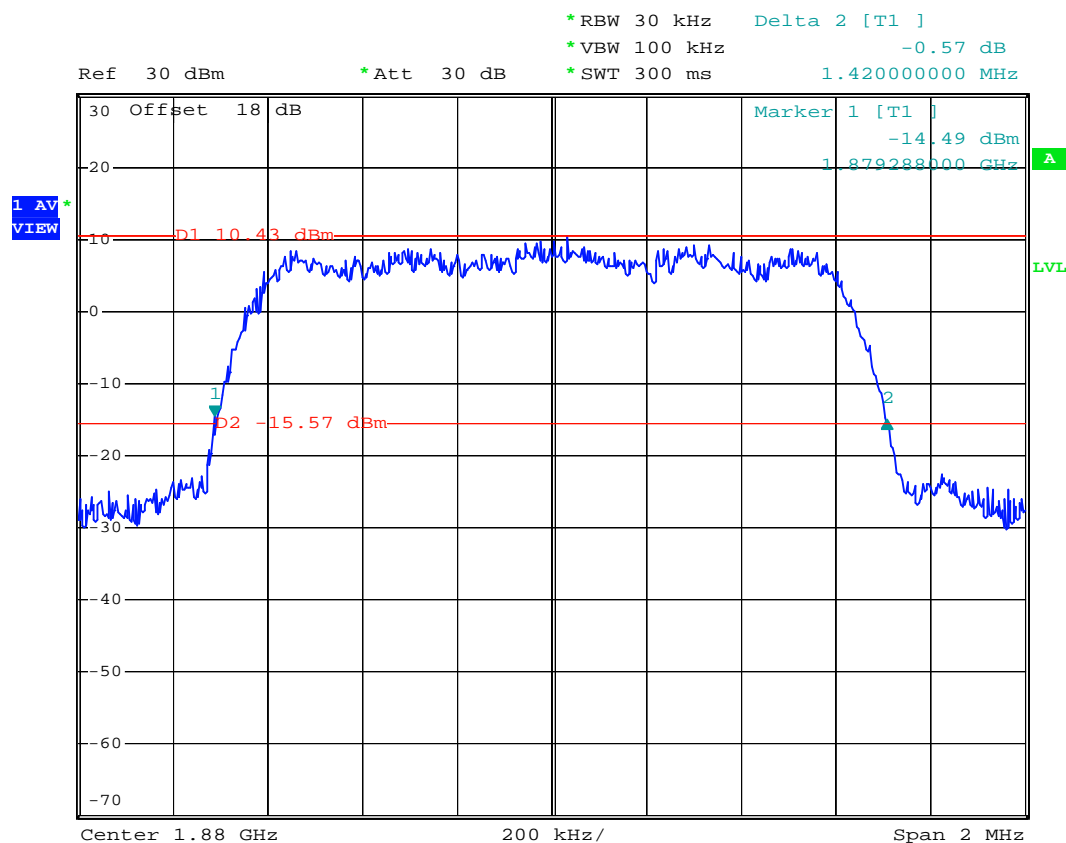
- Test Mode : CDMA2000 PCS 1900 CH600 99% Occupied Bandwidth for 1xEV-DO
- Power State : High



Date: 8.JUL.2007 10:13:13



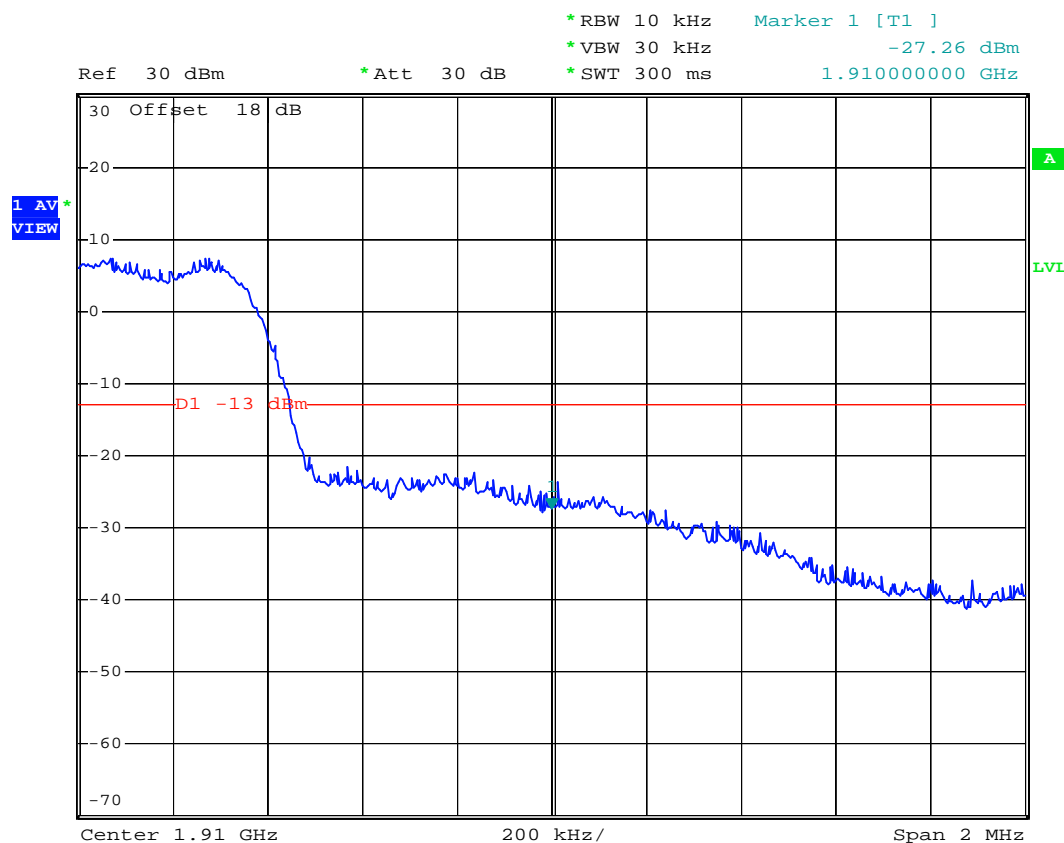
- Test Mode : CDMA2000 PCS 1900 CH600 26 dB Bandwidth for 1xEV-DO
- Power State : High



Date: 8.JUL.2007 10:14:47



- Test Mode : CDMA2000 PCS 1900 CH1175\_153.6Kbps Higher Band Edge for 1xEV-DO
- Power State : High



Date: 8.JUL.2007 06:15:27



## 4.5 Conducted Emission

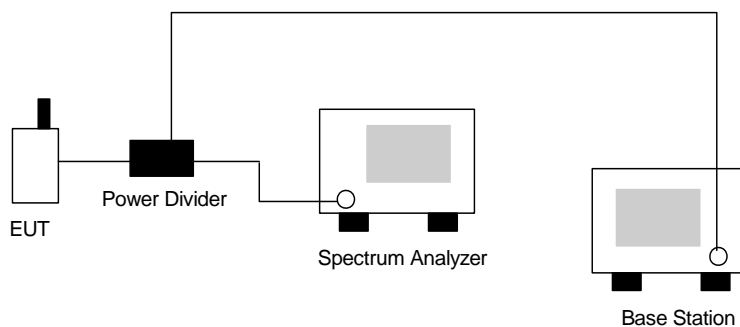
### 4.5.1 Measurement Instruments

As described in chapter 5 of this test report.

### 4.5.2 Test Procedure

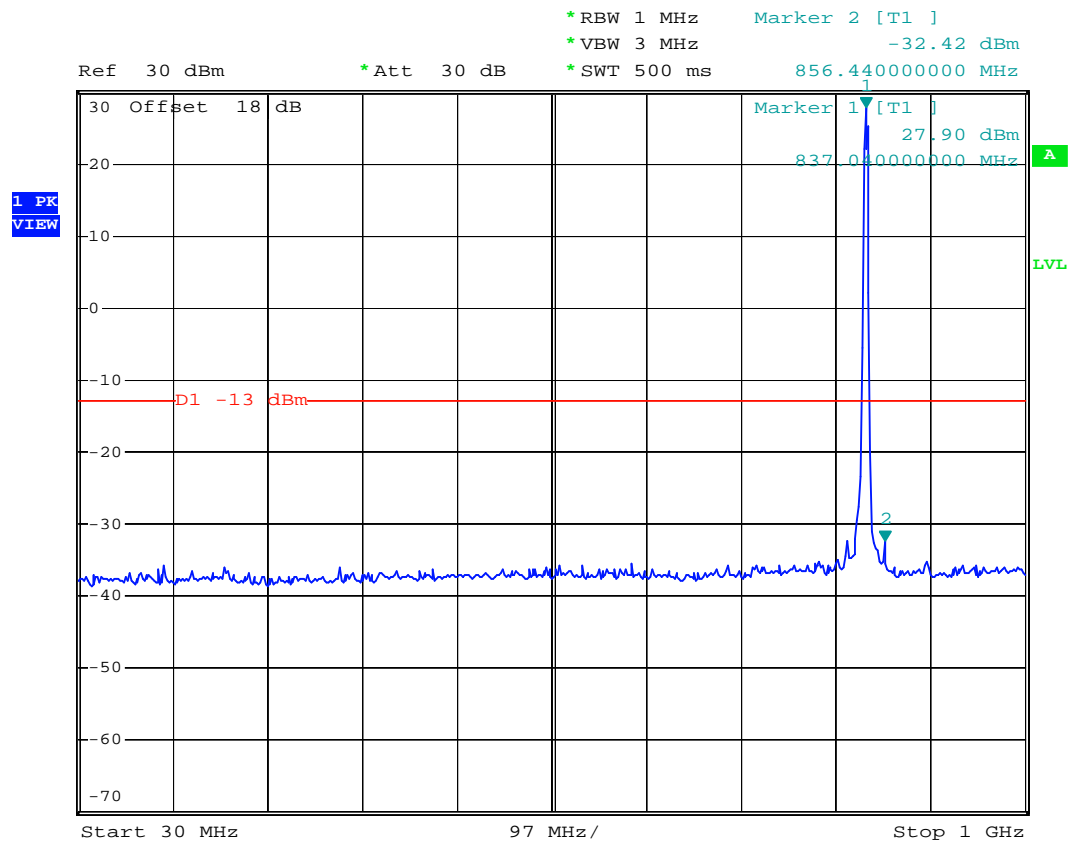
1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The middle channel for the highest RF power within the transmitting frequency was measured.
3. The conducted spurious emission for the whole frequency range was taken.

### 4.5.3 Test Setup Layout



**4.5.4 Test Result**

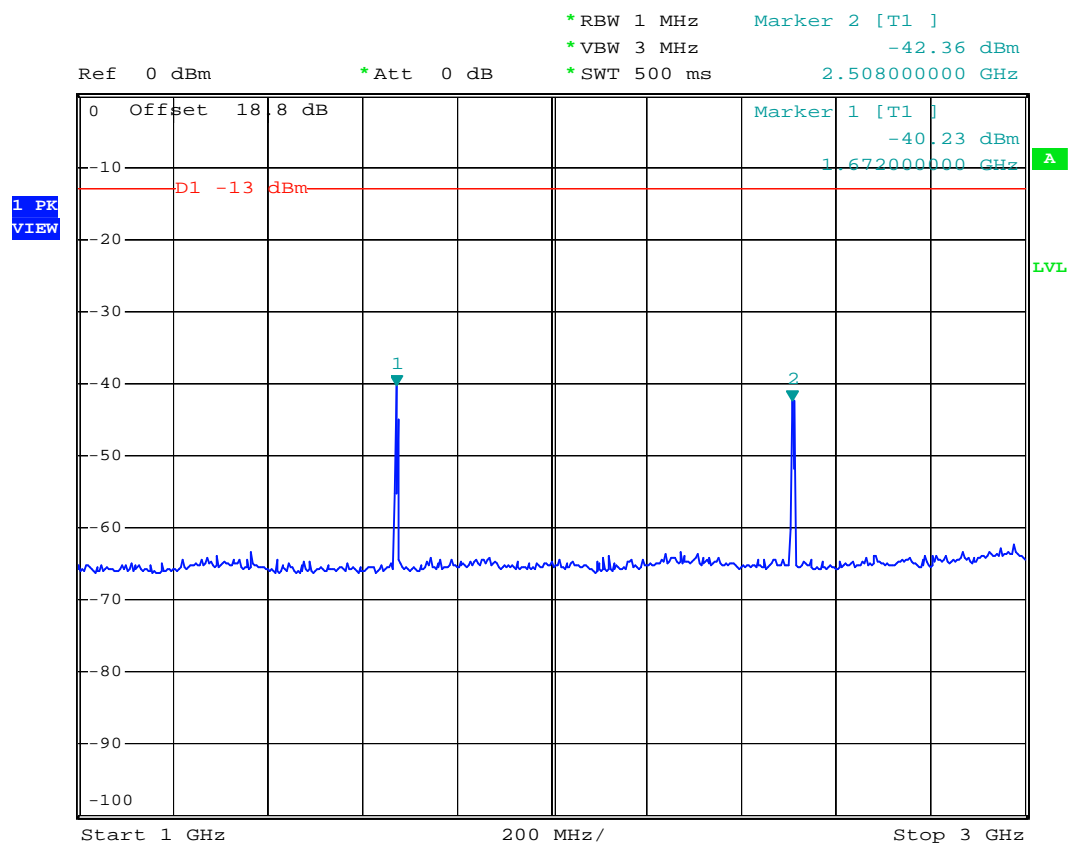
- Mode 1
- Test Mode : CDMA2000 Cellular 850 CH384 for 1xRTT
- Frequency Range : 30M-1G



Date: 8.JUL.2007 07:48:19



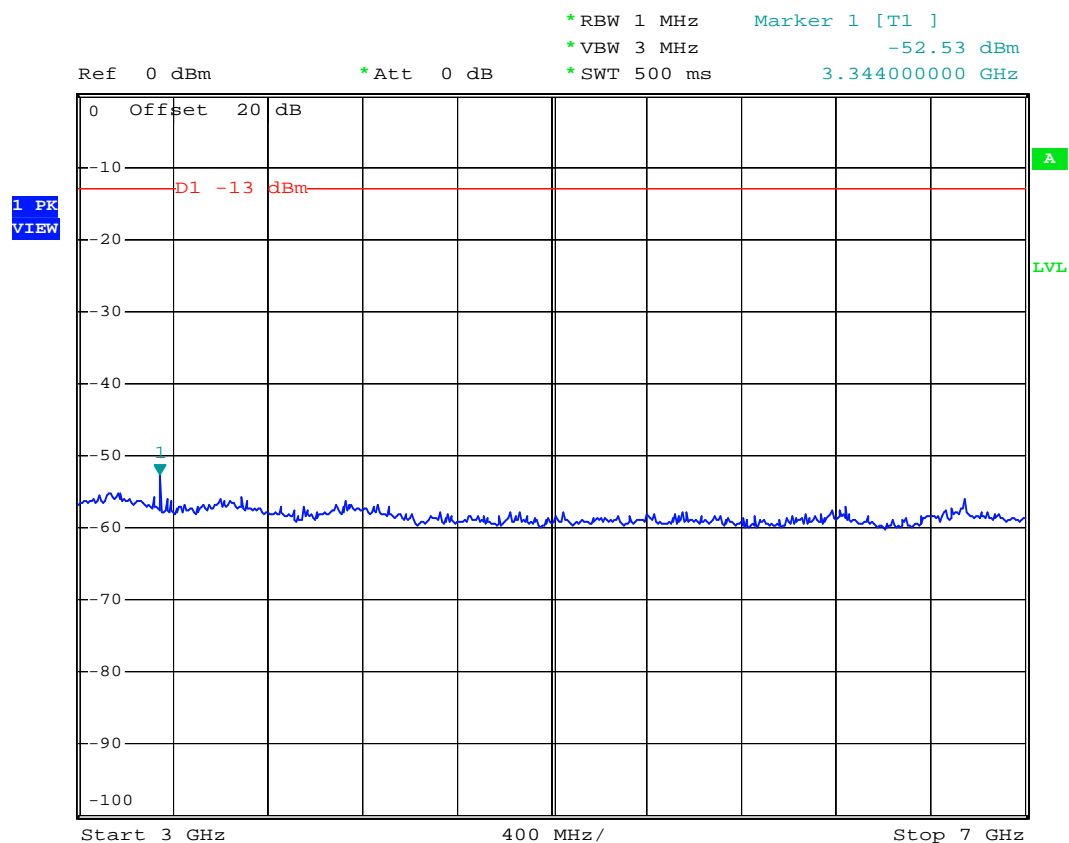
- Test Mode : CDMA2000 Cellular 850 CH384 for 1xRTT
- Frequency Range : 1G-3G



Date: 8.JUL.2007 07:51:59



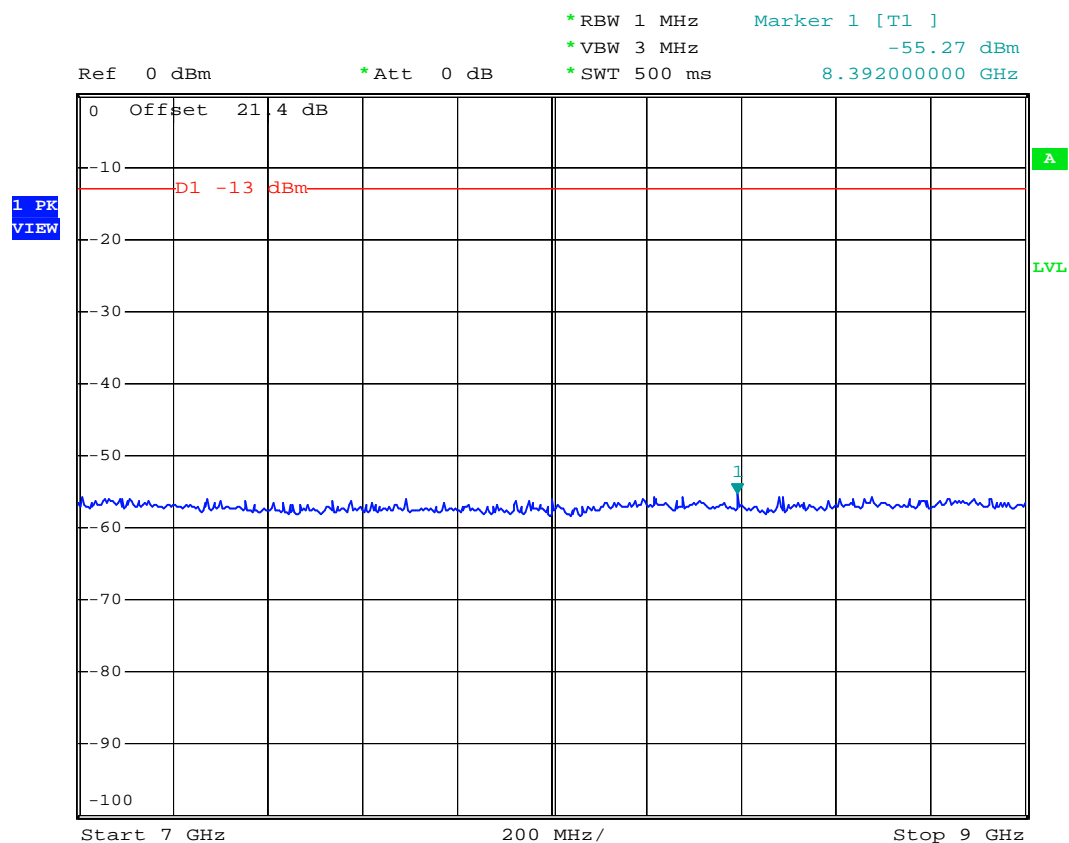
- Test Mode : CDMA2000 Cellular 850 CH384 for 1xRTT
- Frequency Range : 3G-7G



Date: 8.JUL.2007 07:53:00



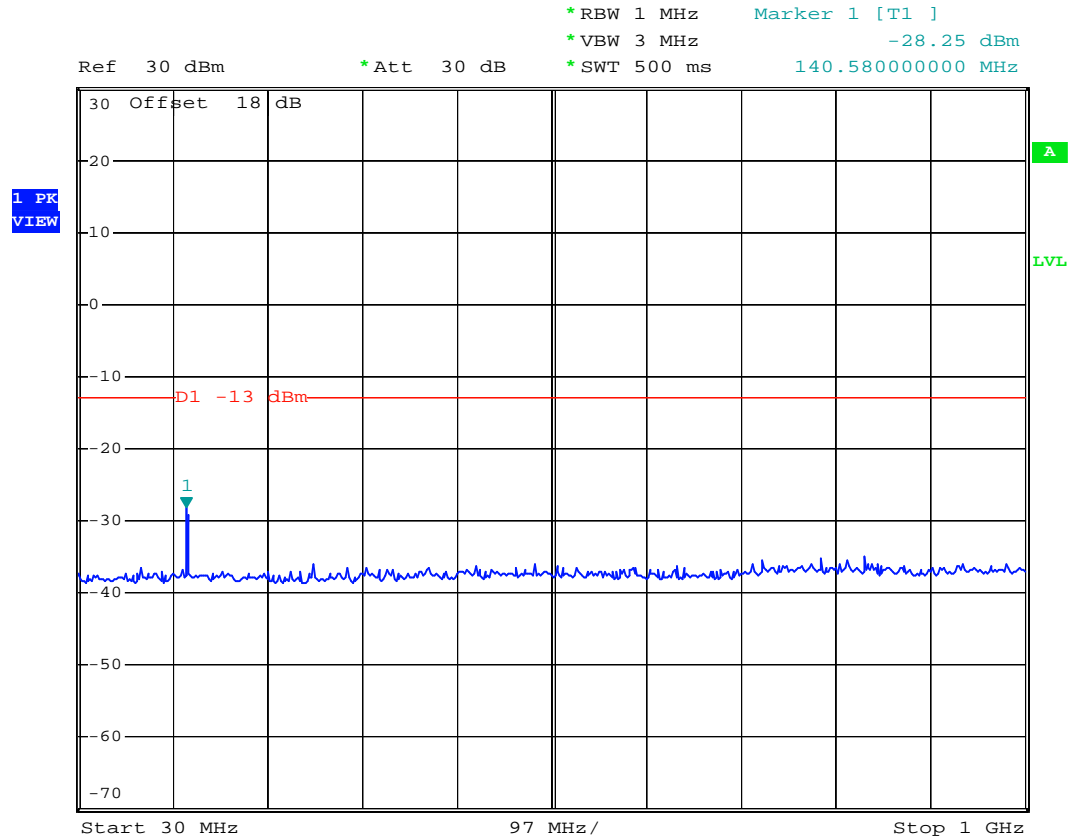
- Test Mode : CDMA2000 Cellular 850 CH384 for 1xRTT
- Frequency Range : 7G-9G



Date: 8.JUL.2007 07:57:13



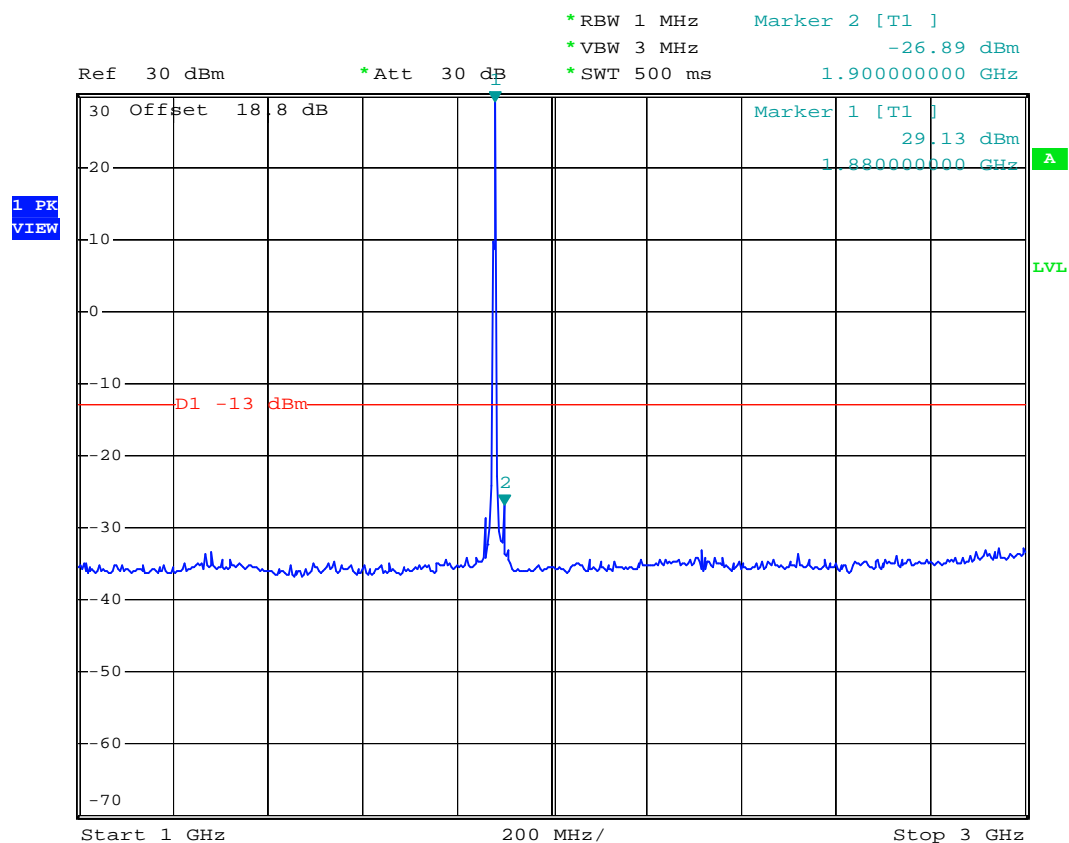
- Mode 3
- Test Mode : CDMA2000 PCS 1900 CH600 for 1xRTT
- Frequency Range : 30M-1G



Date: 8.JUL.2007 07:47:03



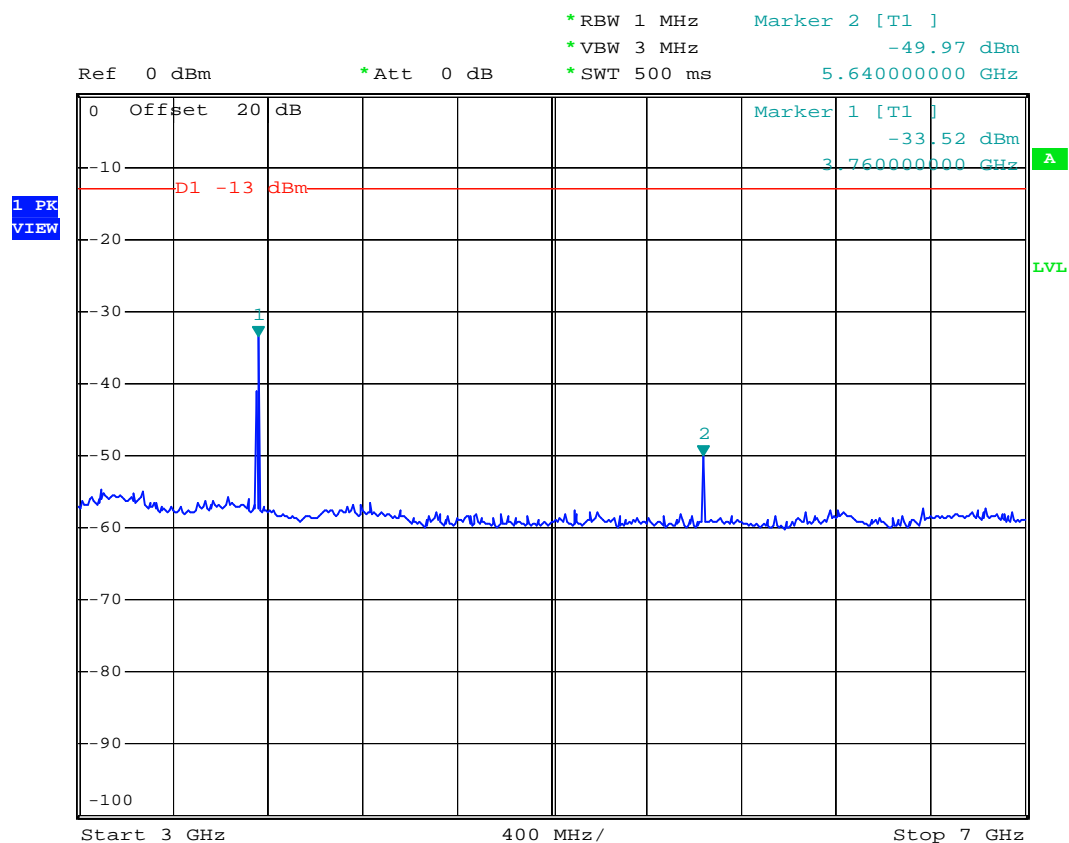
- Test Mode : CDMA2000 PCS 1900 CH600 for 1xRTT
- Frequency Range : 1G-3G



Date: 8.JUL.2007 07:50:03



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

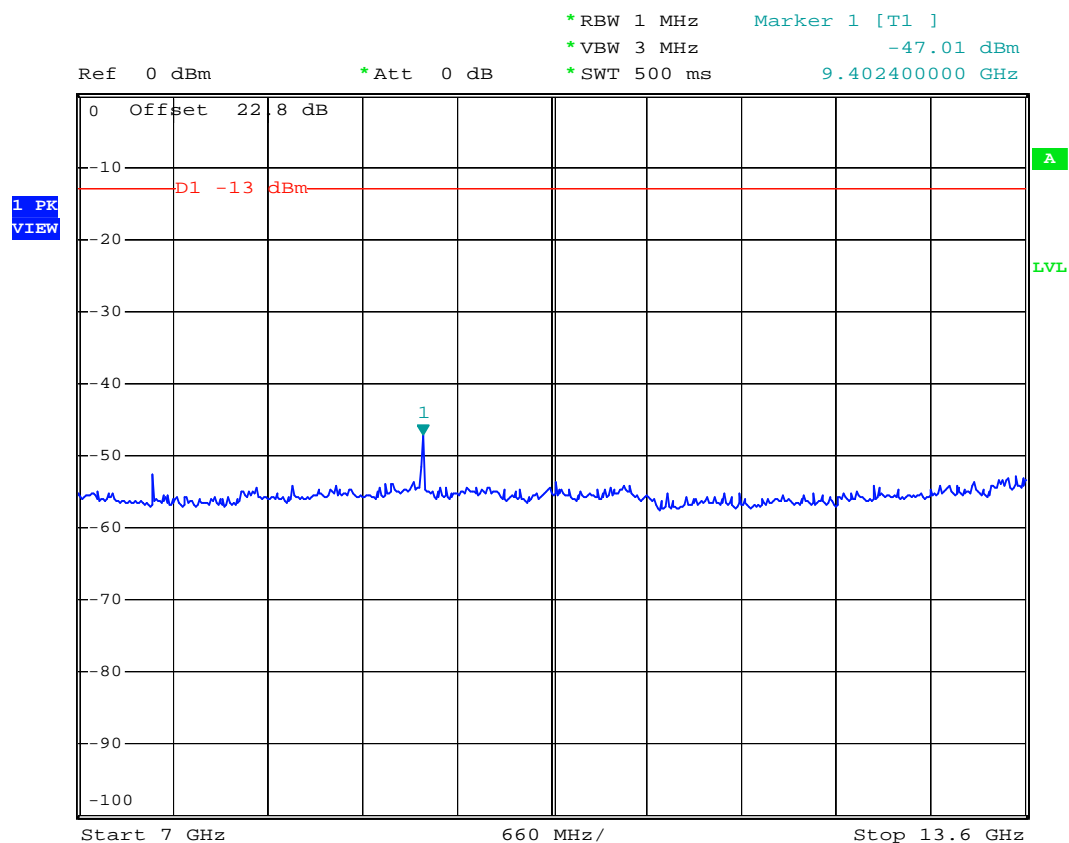


Date: 8.JUL.2007 07:54:16





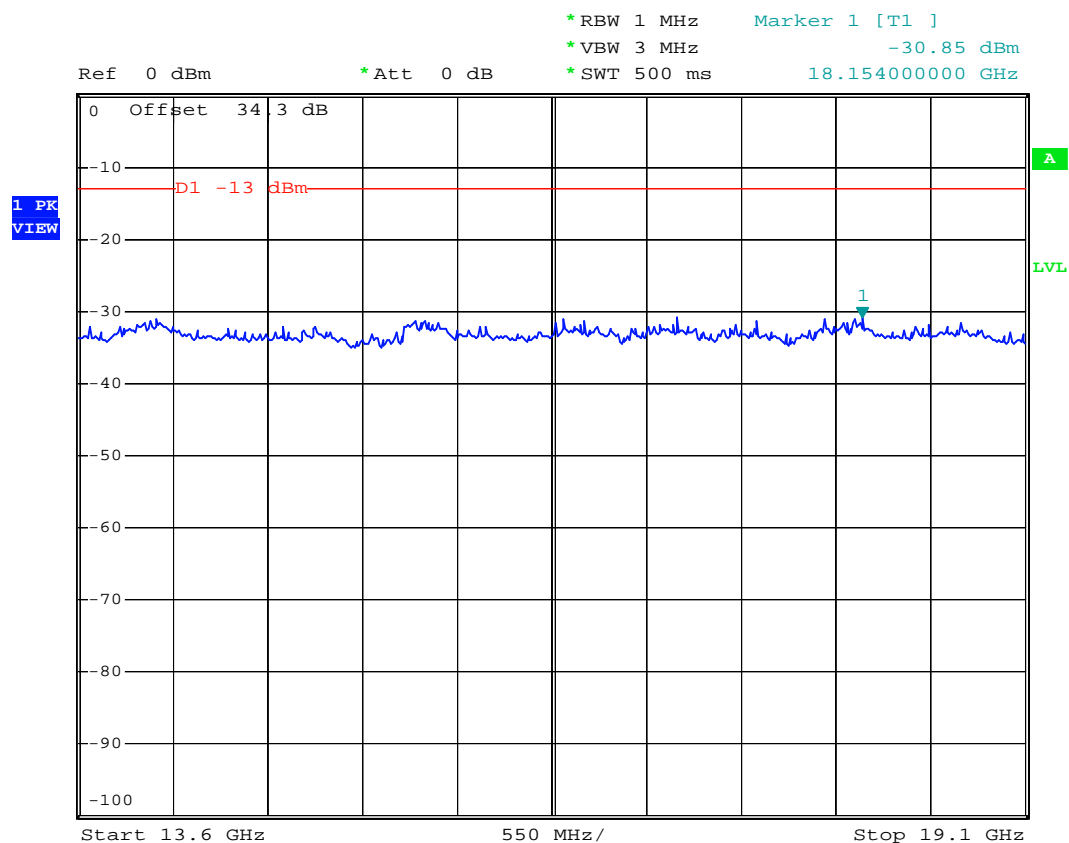
- Test Mode : CDMA2000 PCS 1900 CH600 for 1xRTT
- Frequency Range : 7G-13.6G



Date: 8.JUL.2007 07:55:51



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



Date: 8.JUL.2007 07:59:32

## 4.6 Field Strength of Spurious Radiation

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

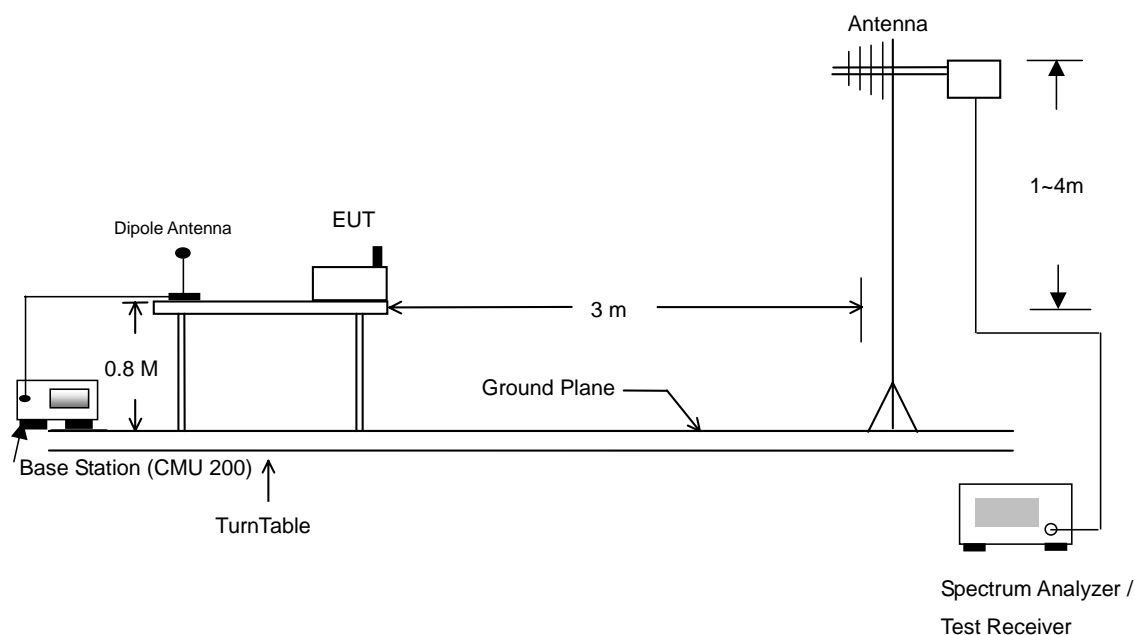
### 4.6.1 Measurement Instruments

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 1xRTT_FCH+SCH_RC3_CH1013 Radiated Spurious ERP							
H Polarization				V Polarization			
Frequency	ERP (dBm)	Limit	Margin	Frequency	ERP (dBm)	Limit	Margin
(MHz)		(dBm)	(dB)	(MHz)		(dBm)	(dB)
30.000	-44.970	-13	-31.97	30.000	-47.850	-13	-34.85
41.880	-46.310	-13	-33.31	71.580	-49.680	-13	-36.68
157.440	-46.930	-13	-33.93	155.280	-44.890	-13	-31.89
381.900	-62.020	-13	-49.02	379.800	-58.640	-13	-45.64
1648.000	-49.540	-13	-36.54	1648.000	-43.900	-13	-30.90
1738.000	-54.690	-13	-41.69	2474.000	-48.410	-13	-35.41
6958.000	-41.670	-13	-28.67	3298.000	-49.440	-13	-36.44
				6958.000	-39.660	-13	-26.66

- Test Mode : Mode 2

CDMA2000 Cellular 1xRTT_FCH+SCH_RC3_CH384 Radiated Spurious ERP							
H Polarization				V Polarization			
Frequency	ERP (dBm)	Limit	Margin	Frequency	ERP (dBm)	Limit	Margin
(MHz)		(dBm)	(dB)	(MHz)		(dBm)	(dB)
30.000	-44.620	-13	-31.62	30.000	-47.640	-13	-34.64
41.340	-46.560	-13	-33.56	72.390	-49.860	-13	-36.86
157.440	-47.090	-13	-34.09	156.090	-44.610	-13	-31.61
817.300	-54.610	-13	-41.61	817.300	-56.430	-13	-43.43
1674.000	-40.120	-13	-27.12	1674.000	-33.620	-13	-20.62
1764.000	-52.890	-13	-39.89	2508.000	-40.410	-13	-27.41
2508.000	-47.250	-13	-34.25	3344.000	-43.080	-13	-30.08
3348.000	-48.300	-13	-35.30	4184.000	-46.120	-13	-33.12
4178.000	-45.950	-13	-32.95	7054.000	-41.900	-13	-28.90
7054.000	-39.450	-13	-26.45				



- Test Mode : Mode 3

CDMA2000 Cellular 1xRTT_FCH+SCH_RC3_CH777 Radiated Spurious ERP							
H Polarization				V Polarization			
Frequency	ERP (dBm)	Limit	Margin	Frequency	ERP (dBm)	Limit	Margin
(MHz)		(dBm)	(dB)	(MHz)		(dBm)	(dB)
30.000	-44.520	-13	-31.52	30.000	-47.360	-13	-34.36
41.340	-46.360	-13	-33.36	73.200	-49.910	-13	-36.91
158.790	-46.900	-13	-33.90	156.630	-44.680	-13	-31.68
372.800	-62.210	-13	-49.21	378.400	-58.300	-13	-45.30
1698.000	-42.770	-13	-29.77	1698.000	-35.830	-13	-22.83
1784.000	-53.730	-13	-40.73	2544.000	-40.660	-13	-27.66
2544.000	-46.460	-13	-33.46	3394.000	-45.680	-13	-32.68
3394.000	-49.520	-13	-36.52	4244.000	-46.370	-13	-33.37
4244.000	-47.920	-13	-34.92	7144.000	-39.760	-13	-26.76
7144.000	-37.880	-13	-24.88				

- Test Mode : Mode 4

CDMA2000 PCS 1xRTT_FCH_RC3_CH25 Radiated Spurious EIRP							
H Polarization				V Polarization			
Frequency	EIRP (dBm)	Limit	Margin	Frequency	EIRP (dBm)	Limit	Margin
(MHz)		(dBm)	(dB)	(MHz)		(dBm)	(dB)
30.000	-43.300	-13	-30.30	30.000	-45.930	-13	-32.93
42.690	-46.560	-13	-33.56	72.930	-47.680	-13	-34.68
159.330	-44.640	-13	-31.64	155.280	-43.080	-13	-30.08
348.300	-57.770	-13	-44.77	386.800	-57.060	-13	-44.06
374.900	-59.380	-13	-46.38	462.400	-60.220	-13	-47.22
448.400	-60.570	-13	-47.57	535.900	-60.080	-13	-47.08
1714.000	-50.260	-13	-37.26	1838.000	-41.910	-13	-28.91
3698.000	-44.180	-13	-31.18	3704.000	-43.300	-13	-30.30
5554.000	-30.710	-13	-17.71	5554.000	-28.930	-13	-15.93
6864.000	-43.800	-13	-30.80	6864.000	-39.770	-13	-26.77
7404.000	-42.130	-13	-29.13	7404.000	-40.180	-13	-27.18
9254.000	-41.040	-13	-28.04	9254.000	-32.210	-13	-19.21
11104.000	-40.260	-13	-27.26	11108.000	-38.840	-13	-25.84
16662.000	-30.910	-13	-17.91	16659.000	-31.350	-13	-18.35



▪ Test Mode : Mode 5

CDMA2000 PCS 1xRTT_FCH_RC3_CH600 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	-43.220	-13	-30.22	30.000	-45.340	-13	-32.34
42.690	-45.070	-13	-32.07	72.390	-47.780	-13	-34.78
156.630	-44.840	-13	-31.84	155.280	-42.960	-13	-29.96
379.800	-60.800	-13	-47.80	378.400	-56.280	-13	-43.28
406.400	-60.850	-13	-47.85	402.900	-57.790	-13	-44.79
878.900	-62.560	-13	-49.56	526.800	-59.940	-13	-46.94
1744.000	-51.810	-13	-38.81	1838.000	-48.440	-13	-35.44
3758.000	-42.800	-13	-29.80	3758.000	-38.350	-13	-25.35
5638.000	-27.420	-13	-14.42	5224.000	-44.520	-13	-31.52
6968.000	-41.140	-13	-28.14	5638.000	-26.370	-13	-13.37
7518.000	-40.960	-13	-27.96	6968.000	-39.780	-13	-26.78
9398.000	-41.650	-13	-28.65	7518.000	-35.600	-13	-22.60
				9398.000	-38.750	-13	-25.75



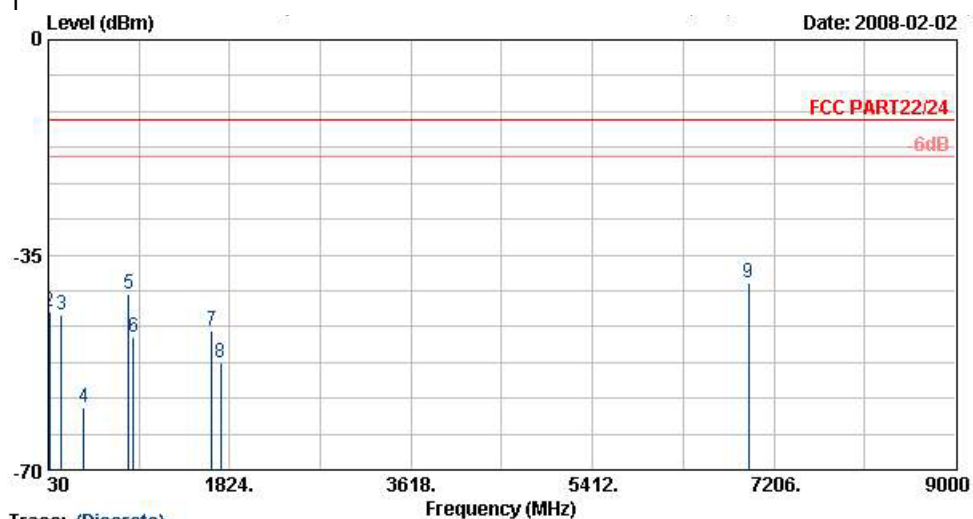
- Test Mode : Mode 6

CDMA2000 PCS 1xRTT_FCH_RC3_CH1175 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	-42.860	-13	-29.86	30.000	-45.780	-13	-32.78
41.880	-44.460	-13	-31.46	71.310	-47.680	-13	-34.68
157.980	-44.650	-13	-31.65	155.280	-42.500	-13	-29.50
350.400	-62.850	-13	-49.85	376.300	-56.030	-13	-43.03
374.900	-60.780	-13	-47.78	404.300	-57.550	-13	-44.55
402.900	-61.080	-13	-48.08	526.800	-60.140	-13	-47.14
1768.000	-50.570	-13	-37.57	1834.000	-48.880	-13	-35.88
3814.000	-27.420	-13	-14.42	3818.000	-17.820	-13	-4.82
5724.000	-27.780	-13	-14.78	5304.000	-43.840	-13	-30.84
7068.000	-41.340	-13	-28.34	5724.000	-25.070	-13	-12.07
7634.000	-37.340	-13	-24.34	7068.000	-41.130	-13	-28.13
9544.000	-38.920	-13	-25.92	7634.000	-31.390	-13	-18.39
11454.000	-37.580	-13	-24.58	9544.000	-37.310	-13	-24.31
				11448.000	-38.950	-13	-25.95
				15267.000	-35.180	-13	-22.18



## 4.6.5 Test Data

## 4.6.5.1 Mode 1



## Trace: (Discrete)

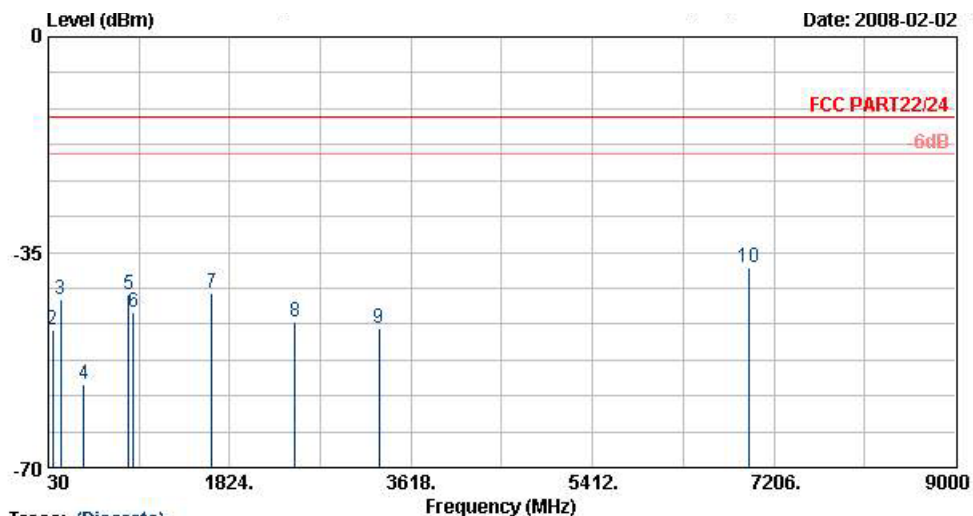
Site : 03CH06-HY  
 Condition : FCC PART22/24 ETRP-071107 HORIZONTAL  
 EUT : Electronic book  
 Power : 120Vac/60Hz  
 Model : FC 811103  
 Mode : CDMA2000 Cellular Link;Ch1013 + Adaptor  
 Plane : E1  
 S/N : B001BAB074430203

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1	30.00	-42.82	-29.82	-13.00	-43.18	0.36	Peak
2	41.88	-44.16	-31.16	-13.00	-37.22	-6.95	Peak
3	157.44	-44.78	-31.78	-13.00	-31.88	-12.90	Peak
4	381.90	-59.87	-46.87	-13.00	-52.77	-7.10	Peak
5	824.30	-41.33			-39.87	-1.46	Peak
6	869.80	-48.39			-47.38	-1.02	Peak
7	1648.00	-47.39	-34.39	-13.00	-52.56	5.17	Peak
8	1738.00	-52.54	-39.54	-13.00	-58.37	5.83	Peak
9	6958.00	-39.52	-26.52	-13.00	-56.70	17.18	Peak

## Remark:

1. #5: MS Signal
2. #6: BS Signal
3. There's no more obvious spurious emission except the listings above.





Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : FCC PART22/24 ETRP-071107 VERTICAL  
 EUT : Electronic book  
 Power : 120Vac/60Hz  
 Model : FC 811103  
 Mode : CDMA2000 Cellular Link;Ch1013 + Adaptor  
 Plane : E1  
 S/N : B001BAB074430203

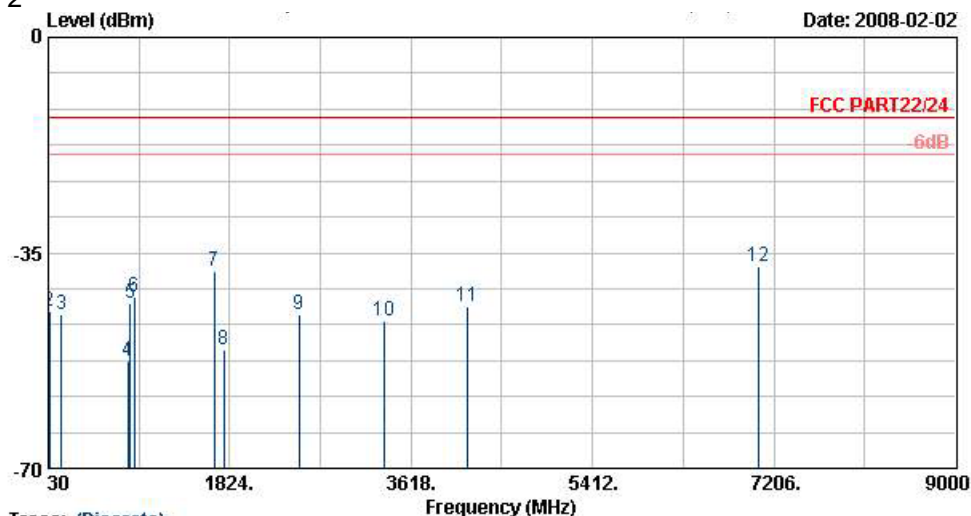
	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1	30.00	-45.70	-32.70	-13.00	-36.63	-9.07	Peak
2	71.58	-47.53	-34.53	-13.00	-35.78	-11.74	Peak
3	155.28	-42.74	-29.74	-13.00	-34.55	-8.19	Peak
4	379.80	-56.49	-43.49	-13.00	-51.75	-4.74	Peak
5	824.30	-41.92			-43.18	1.26	Peak
6	869.80	-44.76			-46.39	1.63	Peak
7	1648.00	-41.75	-28.75	-13.00	-46.92	5.17	Peak
8	2474.00	-46.26	-33.26	-13.00	-56.37	10.11	Peak
9	3298.00	-47.29	-34.29	-13.00	-59.38	12.09	Peak
10 @	6958.00	-37.51	-24.51	-13.00	-54.68	17.18	Peak

## Remark:

1. #5: MS Signal
2. #6: BS Signal
3. There's no more obvious spurious emission except the listings above.



## 4.6.5.2 Mode 2

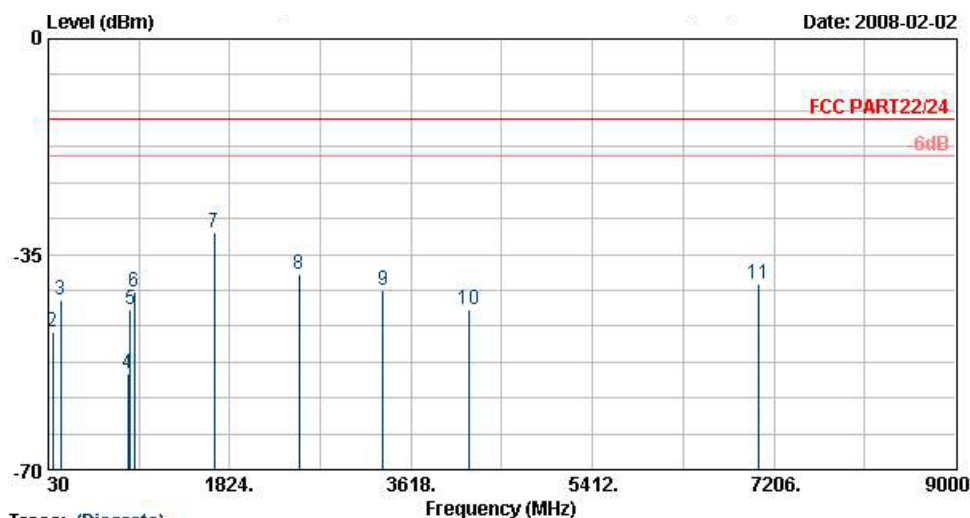


Site : 03CH06-HY  
 Condition : FCC PART22/24 EIRP-071107 HORIZONTAL  
 EUT : Electronic book  
 Power : 120Vac/60Hz  
 Model : FC 811103  
 Mode : CDMA2000 Cellular Link;Ch384 + Adaptor  
 Plane : E1  
 S/N : B001BAB074430203

	Freq	Level	Over	Limit	Read	Factor	Remark
	MHz	dBm	Limit	Line	Level	dB	
			dB	dBm	dBm		
1	30.00	-42.47	-29.47	-13.00	-42.83	0.36	Peak
2	41.34	-44.41	-31.41	-13.00	-37.46	-6.95	Peak
3	157.44	-44.94	-31.94	-13.00	-32.04	-12.90	Peak
4	817.30	-52.46	-39.46	-13.00	-50.94	-1.52	Peak
5	836.90	-43.19			-41.86	-1.33	Peak
6	882.40	-42.28			-41.39	-0.89	Peak
7	1674.00	-37.97	-24.97	-13.00	-43.40	5.43	Peak
8	1764.00	-50.74	-37.74	-13.00	-56.83	6.09	Peak
9	2508.00	-45.10	-32.10	-13.00	-55.34	10.23	Peak
10	3348.00	-46.15	-33.15	-13.00	-58.34	12.19	Peak
11	4178.00	-43.80	-30.80	-13.00	-58.30	14.50	Peak
12	7054.00	-37.30	-24.30	-13.00	-54.35	17.06	Peak

## Remark:

- #5: MS Signal
- #6: BS Signal
- There is no more obvious emission except the listings above.



Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : FCC PART22/24 ETRP-071107 VERTICAL  
 EUT : Electronic book  
 Power : 120Vac/60Hz  
 Model : FC 811103  
 Mode : CDMA2000 Cellular Link;Ch384 + Adaptor  
 Plane : E1  
 S/N : B001BAB074430203

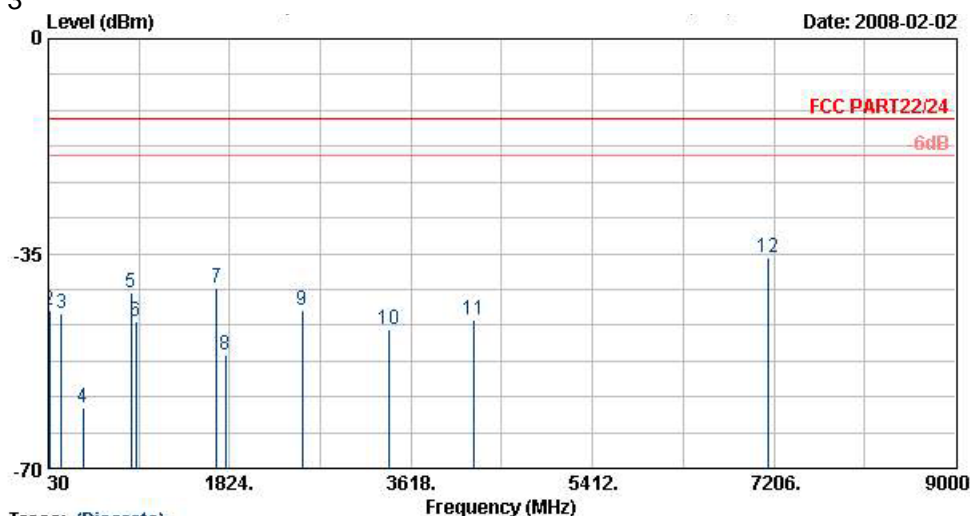
	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1	30.00	-45.49	-32.49	-13.00	-36.42	-9.07	Peak
2	72.39	-47.71	-34.71	-13.00	-36.11	-11.60	Peak
3	156.09	-42.46	-29.46	-13.00	-34.26	-8.20	Peak
4	817.30	-54.28	-41.28	-13.00	-55.49	1.21	Peak
5	836.90	-44.08			-45.44	1.36	Peak
6	880.30	-41.04			-42.75	1.71	Peak
7 @	1674.00	-31.47	-18.47	-13.00	-36.90	5.43	Peak
8	2508.00	-38.26	-25.26	-13.00	-48.49	10.23	Peak
9	3344.00	-40.93	-27.93	-13.00	-53.13	12.19	Peak
10	4184.00	-43.97	-30.97	-13.00	-58.47	14.50	Peak
11	7054.00	-39.75	-26.75	-13.00	-56.81	17.06	Peak

## Remark:

1. #5: MS Signal
2. #6: BS Signal
3. There is no more obvious emission except the listings above.



## 4.6.5.3 Mode 3

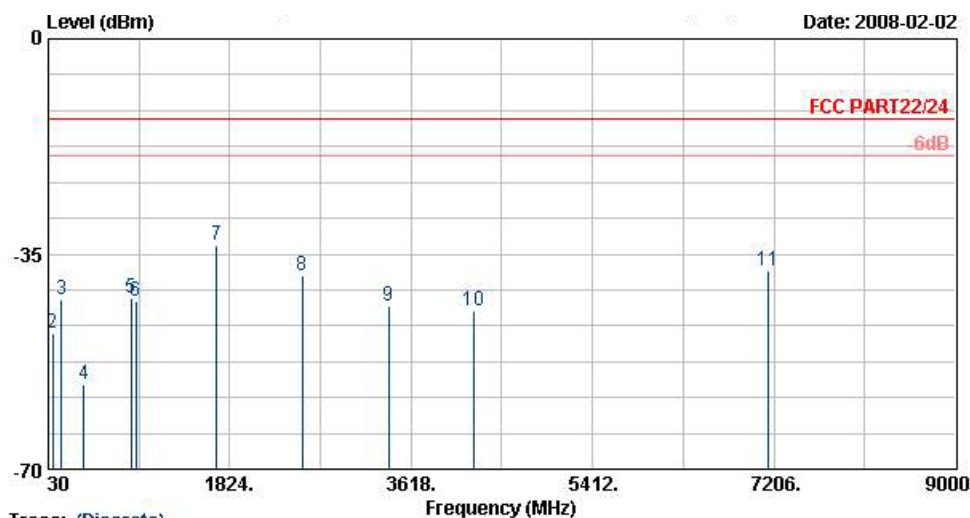


Site : 03CH06-HY  
 Condition : FCC PART22/24 ETRP-071107 HORIZONTAL  
 EUT : Electronic book  
 Power : 120Vac/60Hz  
 Model : FC 811103  
 Mode : CDMA2000 Cellular Link;Ch777 + Adaptor  
 Plane : E1  
 S/N : B001BAB074430203

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1	30.00	-42.37	-29.37	-13.00	-42.73	0.36	Peak
2	41.34	-44.21	-31.21	-13.00	-37.26	-6.95	Peak
3	158.79	-44.75	-31.75	-13.00	-31.83	-12.92	Peak
4	372.80	-60.06	-47.06	-13.00	-52.62	-7.44	Peak
5	847.40	-41.43			-40.19	-1.23	Peak
6	892.90	-46.04			-45.25	-0.79	Peak
7	1698.00	-40.62	-27.62	-13.00	-46.19	5.57	Peak
8	1784.00	-51.58	-38.58	-13.00	-57.81	6.22	Peak
9	2544.00	-44.31	-31.31	-13.00	-54.63	10.32	Peak
10	3394.00	-47.37	-34.37	-13.00	-59.67	12.29	Peak
11	4244.00	-45.77	-32.77	-13.00	-60.42	14.65	Peak
12	7144.00	-35.73	-22.73	-13.00	-52.82	17.08	Peak

## Remark:

1. #5: MS Signal
2. #6: BS Signal
3. There's no more obvious spurious emission except the listings above.



Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : FCC PART22/24 ETRP-071107 VERTICAL  
 EUT : Electronic book  
 Power : 120Vac/60Hz  
 Model : FC 811103  
 Mode : CDMA2000 Cellular Link;Ch777 + Adaptor  
 Plane : E1  
 S/N : B001BAB074430203

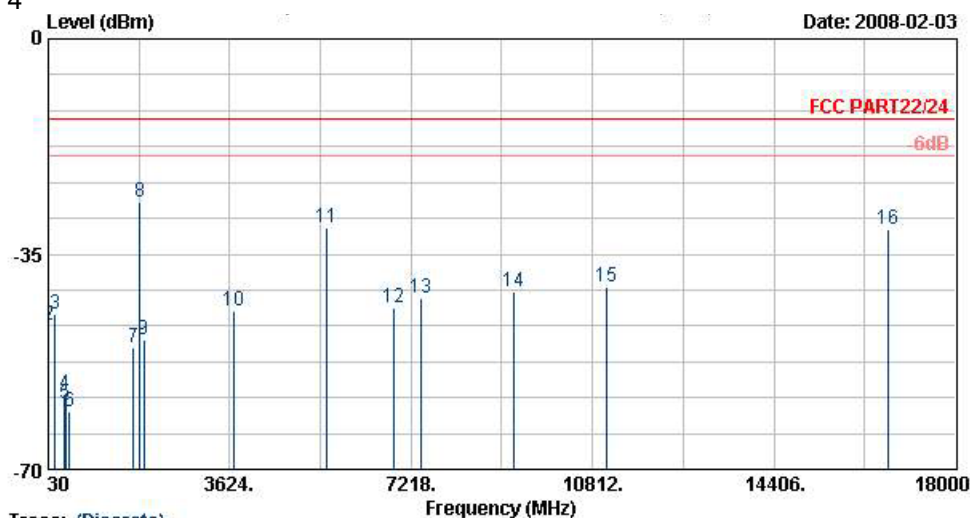
	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1	30.00	-45.21	-32.21	-13.00	-36.14	-9.07	Peak
2	73.20	-47.76	-34.76	-13.00	-36.30	-11.46	Peak
3	156.63	-42.53	-29.53	-13.00	-34.33	-8.21	Peak
4	378.40	-56.15	-43.15	-13.00	-51.36	-4.78	Peak
5	847.40	-42.09			-43.53	1.45	Peak
6	892.90	-42.70			-44.51	1.81	Peak
7 @	1698.00	-33.68	-20.68	-13.00	-39.25	5.57	Peak
8	2544.00	-38.51	-25.51	-13.00	-48.83	10.32	Peak
9	3394.00	-43.53	-30.53	-13.00	-55.82	12.29	Peak
10	4244.00	-44.22	-31.22	-13.00	-58.87	14.65	Peak
11	7144.00	-37.61	-24.61	-13.00	-54.69	17.08	Peak

## Remark:

1. #5: MS Signal
2. #6: BS Signal
3. There is no more obvious emission except the listings above.



## 4.6.5.4 Mode 4



Trace: (Discrete)

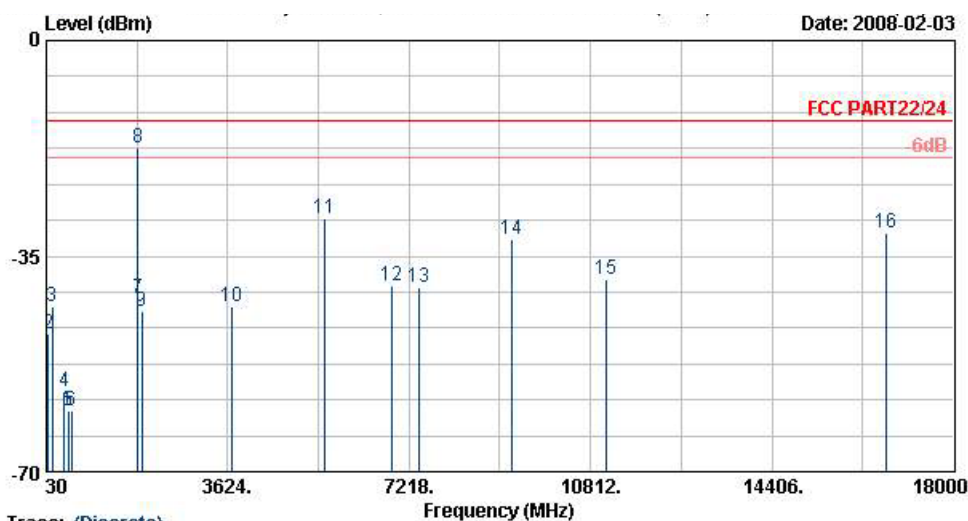
Site : 03CH06-HY  
 Condition : FCC PART22/24 ETRP-071107 HORIZONTAL  
 EUT : Electronic book  
 Power : 120Vac/60Hz  
 Model : FC 811103  
 Mode : CDMA2000 PCS Link;Ch25 + Adaptor  
 Plane : E1  
 S/N : B001BAB074430203

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1 @	30.00	-43.30	-30.30	-13.00	-43.66	0.36	Peak
2 @	42.69	-46.56	-33.56	-13.00	-39.00	-7.56	Peak
3 @	159.33	-44.64	-31.64	-13.00	-31.72	-12.92	Peak
4 @	348.30	-57.77	-44.77	-13.00	-49.50	-8.27	Peak
5	374.90	-59.38	-46.38	-13.00	-52.04	-7.34	Peak
6	448.40	-60.57	-47.57	-13.00	-54.74	-5.83	Peak
7 @	1714.00	-50.26	-37.26	-13.00	-55.96	5.70	Peak
8 @	1848.00	-26.65			-33.40	6.75	Peak
9 @	1928.00	-49.02			-56.42	7.40	Peak
10 @	3698.00	-44.18	-31.18	-13.00	-57.33	13.15	Peak
11 @	5554.00	-30.71	-17.71	-13.00	-47.58	16.87	Peak
12 @	6864.00	-43.80	-30.80	-13.00	-61.20	17.40	Peak
13 @	7404.00	-42.13	-29.13	-13.00	-59.31	17.17	Peak
14 @	9254.00	-41.04	-28.04	-13.00	-60.34	19.30	Peak
15 @	11104.00	-40.26	-27.26	-13.00	-62.21	21.95	Peak
16 @	16662.00	-30.91	-17.91	-13.00	-59.90	28.99	Peak

## Remark:

- #8: MS Signal
- #9: BS Signal
- There is no more obvious emission except the listings above.





## Trace: (Discrete)

Site : 03CH06-HY  
Condition : FCC PART 22/24 EIRP-071107 VERTICAL  
EUT : Electronic book  
Power : 120Vac/60Hz  
Model : FG 811103  
Mode : CDMA2000 PCS Link;Ch25 + Adaptor  
Plane : E1  
S/N : B001BAB074430203

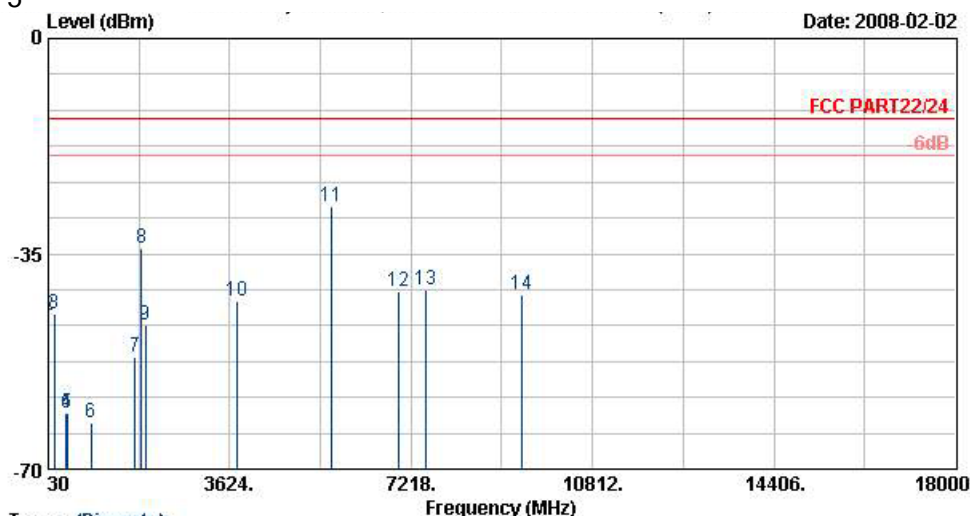
	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1 @	30.00	-45.93	-32.93	-13.00	-36.86	-9.07	Peak
2 @	72.93	-47.68	-34.68	-13.00	-36.08	-11.60	Peak
3 @	155.28	-43.08	-30.08	-13.00	-34.89	-8.19	Peak
4 @	386.80	-57.06	-44.06	-13.00	-52.46	-4.60	Peak
5	462.40	-60.22	-47.22	-13.00	-56.64	-3.58	Peak
6	535.90	-60.08	-47.08	-13.00	-57.39	-2.70	Peak
7 @	1838.00	-41.91	-28.91	-13.00	-48.52	6.62	Peak
8 @	1848.00	-17.34			-24.08	6.75	Peak
9 @	1928.00	-43.87			-51.27	7.40	Peak
10 @	3704.00	-43.30	-30.30	-13.00	-56.45	13.15	Peak
11 @	5554.00	-28.93	-15.93	-13.00	-45.80	16.87	Peak
12 @	6864.00	-39.77	-26.77	-13.00	-57.17	17.40	Peak
13 @	7404.00	-40.18	-27.18	-13.00	-57.35	17.17	Peak
14 @	9254.00	-32.21	-19.21	-13.00	-51.51	19.30	Peak
15 @	11108.00	-38.84	-25.84	-13.00	-60.78	21.94	Peak
16 @	16659.00	-31.35	-18.35	-13.00	-60.34	28.99	Peak

## Remark:

1. #8: MS Signal
2. #9: BS Signal
3. There is no more obvious emission except the listings above.



## 4.6.5.5 Mode 5



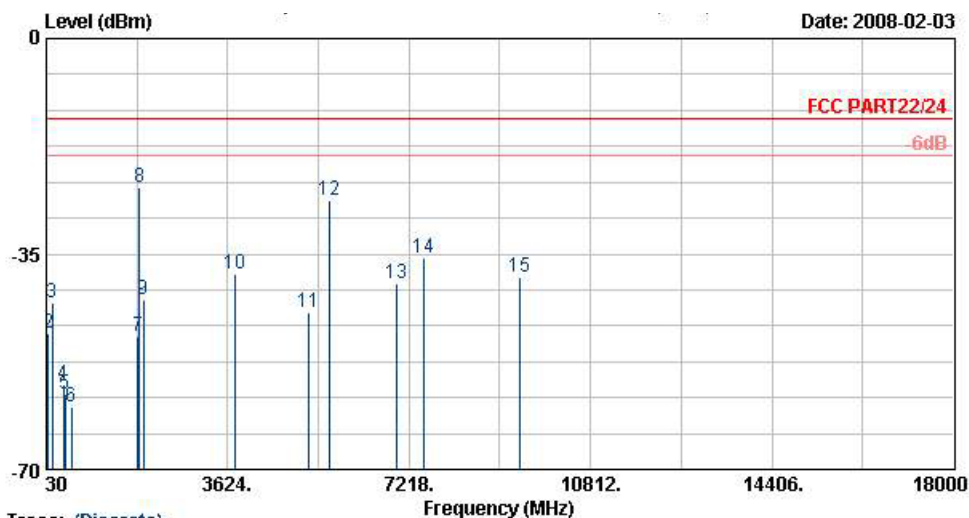
Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : FCC PART22/24 EIRP-071107 HORIZONTAL  
 EUT : Electronic book  
 Power : 120Vac/60Hz  
 Model : FG 811103  
 Mode : CDMA2000 PCS Link;Ch600 + Adaptor  
 Plane : E1  
 S/N : B001BAB074430203

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1	30.00	-43.22	-30.22	-13.00	-43.58	0.36	Peak
2	42.69	-45.07	-32.07	-13.00	-37.52	-7.56	Peak
3	156.63	-44.84	-31.84	-13.00	-31.94	-12.90	Peak
4	379.80	-60.80	-47.80	-13.00	-53.63	-7.17	Peak
5	406.40	-60.85	-47.85	-13.00	-54.45	-6.41	Peak
6	878.90	-62.56	-49.56	-13.00	-61.63	-0.93	Peak
7	1744.00	-51.81	-38.81	-13.00	-57.77	5.96	Peak
8	1878.00	-33.99			-41.00	7.01	Peak
9	1958.00	-46.70			-54.24	7.54	Peak
10	3758.00	-42.80	-29.80	-13.00	-56.11	13.32	Peak
11	5638.00	-27.42	-14.42	-13.00	-44.45	17.03	Peak
12	6968.00	-41.14	-28.14	-13.00	-58.27	17.13	Peak
13	7518.00	-40.96	-27.96	-13.00	-58.26	17.31	Peak
14	9398.00	-41.65	-28.65	-13.00	-60.44	18.79	Peak

## Remark:

1. #8: MS Signal
2. #9: BS Signal
3. There is no more obvious emission except the listings above.





## Trace: (Discrete)

Site : 03CH06-HY  
 Condition : FCC PART22/24 EIRP-071107 VERTICAL  
 EUT : Electronic book  
 Power : 120Vac/60Hz  
 Model : FG 811103  
 Mode : CDMA2000 PCS Link;Ch600 + Adaptor  
 Plane : E1  
 S/N : B001BAB074430203

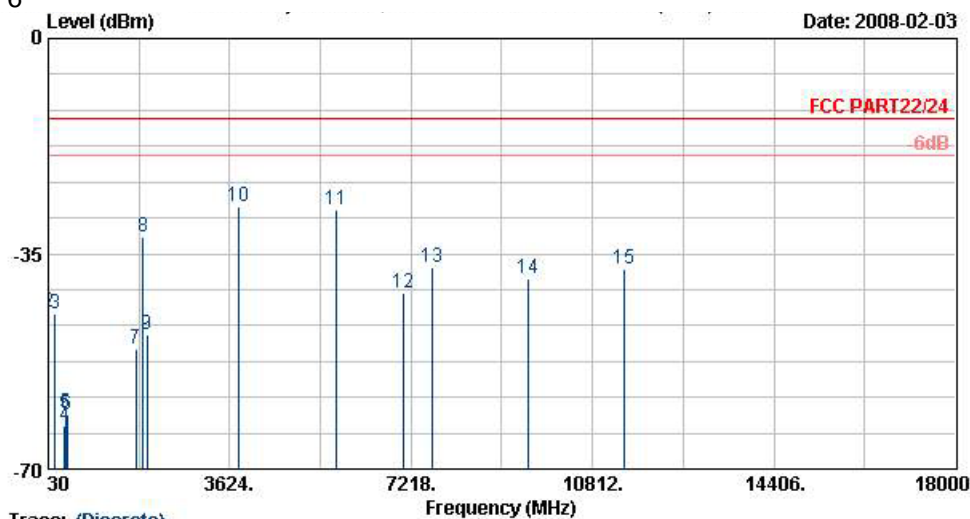
	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1	30.00	-45.34	-32.34	-13.00	-36.27	-9.07	Peak
2	72.39	-47.78	-34.78	-13.00	-36.18	-11.60	Peak
3	155.28	-42.96	-29.96	-13.00	-34.77	-8.19	Peak
4	378.40	-56.28	-43.28	-13.00	-51.50	-4.78	Peak
5	402.90	-57.79	-44.79	-13.00	-53.49	-4.30	Peak
6	526.80	-59.94	-46.94	-13.00	-57.13	-2.81	Peak
7	1838.00	-48.44	-35.44	-13.00	-55.05	6.62	Peak
8 @	1878.00	-24.19			-31.20	7.01	Peak
9	1958.00	-42.46			-50.00	7.54	Peak
10	3758.00	-38.35	-25.35	-13.00	-51.67	13.32	Peak
11	5224.00	-44.52	-31.52	-13.00	-60.76	16.24	Peak
12	5638.00	-26.37	-13.37	-13.00	-43.41	17.03	Peak
13	6968.00	-39.78	-26.78	-13.00	-56.91	17.13	Peak
14	7518.00	-35.60	-22.60	-13.00	-52.90	17.31	Peak
15	9398.00	-38.75	-25.75	-13.00	-57.54	18.79	Peak

## Remark:

1. #8: MS Signal
2. #9: BS Signal
3. There is no more obvious emission except the listings above.



## 4.6.5.6 Mode 6



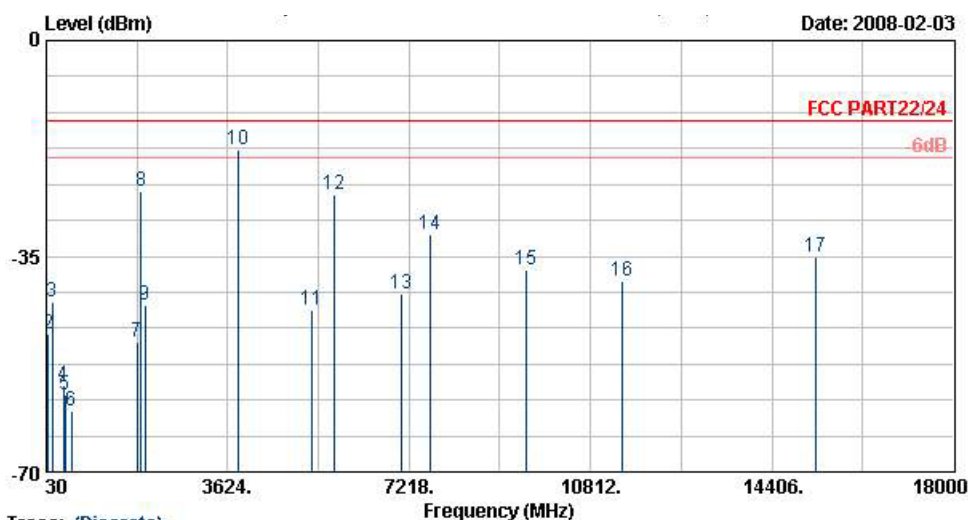
Trace: (Discrete)

Site : 03CH06-HY  
 Condition : FCC PART22/24 EIRP-071107 HORIZONTAL  
 EUT : Electronic book  
 Power : 120Vac/60Hz  
 Model : FC 811103  
 Mode : CDMA2000 PCS Link;Ch1175 + Adaptor  
 Plane : E1  
 S/N : B001BAB074430203

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1 @	30.00	-42.86	-29.86	-13.00	-43.22	0.36	Peak
2 @	41.88	-44.46	-31.46	-13.00	-37.51	-6.95	Peak
3 @	157.98	-44.65	-31.65	-13.00	-31.74	-12.91	Peak
4 @	350.40	-62.85	-49.85	-13.00	-54.65	-8.21	Peak
5 @	374.90	-60.78	-47.78	-13.00	-53.45	-7.34	Peak
6 @	402.90	-61.08	-48.08	-13.00	-54.62	-6.46	Peak
7 @	1768.00	-50.57	-37.57	-13.00	-56.66	6.09	Peak
8 @	1908.00	-32.27			-39.42	7.14	Peak
9 @	1988.00	-48.10			-55.90	7.80	Peak
10 @	3814.00	-27.42	-14.42	-13.00	-40.96	13.54	Peak
11 @	5724.00	-27.78	-14.78	-13.00	-44.98	17.20	Peak
12 @	7068.00	-41.34	-28.34	-13.00	-58.40	17.06	Peak
13 @	7634.00	-37.34	-24.34	-13.00	-55.40	18.06	Peak
14 @	9544.00	-38.92	-25.92	-13.00	-57.51	18.59	Peak
15 @	11454.00	-37.58	-24.58	-13.00	-59.29	21.71	Peak

Remark:

1. #8: MS Signal
2. #9: BS Signal
3. There is no more obvious emission except the listings above.



Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : FCC PART22/24 EIRP-071107 VERTICAL  
 EUT : Electronic book  
 Power : 120Vac/60Hz  
 Model : FG 811103  
 Mode : CDMA2000 PCS Link;Ch1175 + Adaptor  
 Plane : E1  
 S/N : B001BAB074430203

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1 @	30.00	-45.78	-32.78	-13.00	-36.71	-9.07	Peak
2 @	71.31	-47.68	-34.68	-13.00	-35.93	-11.74	Peak
3 @	155.28	-42.50	-29.50	-13.00	-34.32	-8.19	Peak
4 @	376.30	-56.03	-43.03	-13.00	-51.20	-4.83	Peak
5 @	404.30	-57.55	-44.55	-13.00	-53.28	-4.27	Peak
6 @	526.80	-60.14	-47.14	-13.00	-57.33	-2.81	Peak
7 @	1834.00	-48.88	-35.88	-13.00	-55.50	6.62	Peak
8 @	1908.00	-24.38			-31.53	7.14	Peak
9 @	1988.00	-43.03			-50.83	7.80	Peak
10 @	3818.00	-17.82	-4.82	-13.00	-31.36	13.54	Peak
11 @	5304.00	-43.84	-30.84	-13.00	-60.24	16.39	Peak
12 @	5724.00	-25.07	-12.07	-13.00	-42.27	17.20	Peak
13 @	7068.00	-41.13	-28.13	-13.00	-58.19	17.06	Peak
14 @	7634.00	-31.39	-18.39	-13.00	-49.45	18.06	Peak
15 @	9544.00	-37.31	-24.31	-13.00	-55.90	18.59	Peak
16 @	11448.00	-38.95	-25.95	-13.00	-60.65	21.71	Peak
17 @	15267.00	-35.18	-22.18	-13.00	-61.59	26.41	Peak

## Remark:

- #8: MS Signal
- #9: BS Signal
- There is no more obvious emission except the listings above.

## 4.7 Frequency Stability (Temperature Variation)

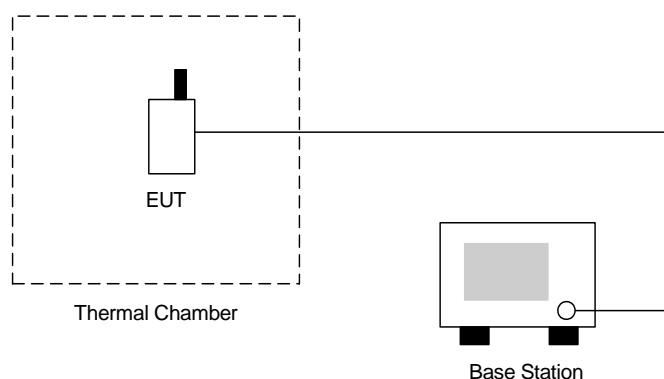
### 4.7.1 Measurement Instrument

As described 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  $-30^{\circ}\text{C}$  and permitted to stabilize for three hours. Power was applied and the maximum change in frequency was noted within one minute.
3. With power OFF, the temperature was raised in  $10^{\circ}\text{C}$  steps. The sample was permitted to stabilize at each step for at least one-half hour. Power was applied and the maximum frequency change was 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 : CDMA2000 Cellular 1xRTT FCH+SCH\_RC3 CH384

Temperature(°C)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-61	-0.07	2.5	Passed
-20	-26	-0.03		
-10	-18	-0.02		
0	-12	-0.01		
10	-9	-0.01		
20	8	0.01		
30	14	0.02		
40	-12	-0.01		
50	28	0.03		

- Test Mode : CDMA2000 Cellular 1xEV-DO 153.6Kbps CH384

Temperature(°C)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-31	-0.04	2.5	Passed
-20	-24	-0.03		
-10	-18	-0.02		
0	11	0.01		
10	-8	-0.01		
20	-14	-0.02		
30	21	0.02		
40	16	0.02		
50	30	0.04		

- Test Mode : CDMA2000 PCS 1xRTT FCH\_RC3 CH600

Temperature(°C)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-42	-0.02	2.5	Passed
-20	-35	-0.02		
-10	-24	-0.01		
0	-12	-0.01		
10	10	0.01		
20	9	0.00		
30	-14	-0.01		
40	30	0.02		
50	25	0.01		



▪ Test Mode : CDMA2000 PCS 1xEV-DO 153.6Kbps CH600

Temperature(°C)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-35	-0.02	2.5	Passed
-20	-28	-0.01		
-10	-17	-0.01		
0	-12	-0.01		
10	-9	0.00		
20	9	0.00		
30	24	0.01		
40	12	0.01		
50	14	0.01		

## 4.8 Frequency Stability (Voltage Variation)

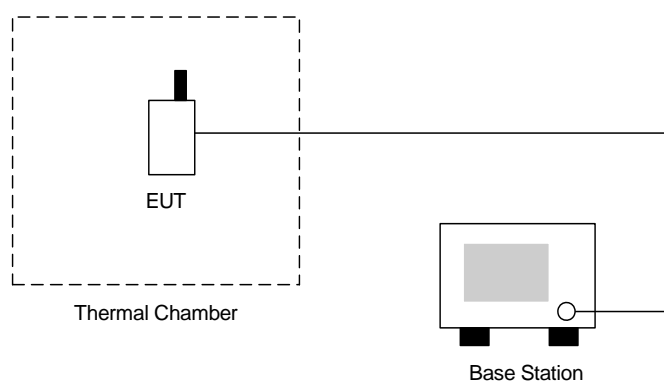
### 4.8.1 Measurement Instrument

As described in chapter 5 of this test report.

### 4.8.2 Test Procedure

1. The EUT was placed in a temperature chamber at  $25 \pm 5^\circ\text{C}$  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 : CDMA2000 Cellular 1xRTT FCH+SCH\_RC3 CH384

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
3.7	14.0	0.02	2.5	Passed
BEP	-8.0	-0.01		
4.2	12.0	0.01		

- Test Mode : CDMA2000 Cellular 1xEV-DO 153.6Kbps CH384

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
3.7	-14.0	-0.02	2.5	Passed
BEP	20.0	0.02		
4.2	18.0	0.02		

- Test Mode : CDMA2000 PCS 1xRTT FCH\_RC3 CH600

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
3.7	14.0	0.01	2.5	Passed
BEP	-6.0	0.00		
4.2	16.0	0.01		

- Test Mode : CDMA2000 PCS 1xEV-DO 153.6Kbps CH600

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
3.7	14.0	0.01	2.5	Passed
BEP	-9.0	0.00		
4.2	18.0	0.01		

Remark:

- Normal Voltage=3.7 V.
- Battery End Point (BEP)=3.2 V.





## 5 List of Measurement Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
Spectrum Analyzer	Agilent	E4408B	MY44211028	9KHz-26.5GHz	Oct. 17, 2007	Oct. 16, 2008	Radiation (03CH06-HY)
EMI Test Receiver	R&S	ESCS30	100356	9KHz-2.75GHz	Jul. 26, 2007	Jul. 25, 2008	Radiation (03CH06-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz -2GHz	Dec. 01, 2007	Nov. 30, 2008	Radiation (03CH06-HY)
Double Ridge Horn Antenna	Com-Power	AH118	071025	1G~18G	Jun. 04, 2007	Jun. 03, 2008	Radiation (03CH06-HY)
SHF-EHF Horn	SCHWARZBECK	BBHA 9170	9170-251	14G - 40G	Oct. 17, 2007	Oct. 16, 2008	Radiation (03CH06-HY)
Pre Amplifier	Agilent	8449B	3008A01917	1G - 26.5G	Nov. 22, 2007	Nov. 21, 2008	Radiation (03CH06-HY)
PreAmplifier	EMEC	PA303	PA303-SMA-059	100K~3GHz	Nov. 26, 2007	Nov. 25, 2008	Radiation (03CH06-HY)
Base Station Simulator	R & S	CMU200	103937	Third-Band	Oct. 19, 2007	Oct. 18, 2008	Radiation (03CH06-HY)
Thermal Chamber	Tenyi technology	TTH-D35P	TBN-930701	N/A	Aug. 02, 2007	Aug. 01, 2008	Conduction (TH02-HY)
Spectrum	R&S	FSP40	100055	9KHz~40GHz	Jun. 25, 2007	Jun. 24, 2008	Conduction (TH02-HY)
Bluetooth Test	ANRITSU	MT8852A	6K00003939	N/A	N/A	N/A	Conduction (TH02-HY)
Power Divider	ARRA	5200-1	3871	N/A	Oct. 01, 2007	Sep. 30, 2008	Conduction (TH02-HY)
DC Power Supply	TOPWARD	3303D	740889	N/A	May 25, 2007	May 24, 2009	Conduction (TH02-HY)
Power Meter	Agilent	E4416A	GB41292344	N/A	Feb. 08, 2007	Feb. 07, 2008	Conduction (TH02-HY)
Power Sensor	Agilent	E9327A	US40441548	N/A	Feb. 08, 2007	Feb. 07, 2008	Conduction (TH02-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
<b>Combined standard uncertainty Uc(y)</b>	<b>1.27</b>		
<b>Measuring uncertainty for a level of confidence of 95% U=2Uc(y)</b>	<b>2.54</b>		

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

Contribution	Uncertainty of $x_i$		$u(x_i)$	$C_i$	$C_i * u(x_i)$
	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 $\Gamma_1 = 0.197$ Antenna VSWR $\Gamma_2 = 0.194$ Uncertainty = $20 \log(1 - \Gamma_1 * \Gamma_2 * \Gamma_3)$	+0.34/-0.35	U-shaped	0.244	1	0.244
<b>Combined standard uncertainty Uc(y)</b>	<b>2.36</b>				
<b>Measuring uncertainty for a level of confidence of 95% U=2Uc(y)</b>	<b>4.72</b>				

END OF TEST REPORT