



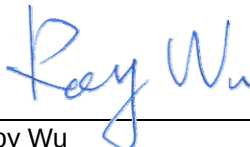
# FCC Test Report

According to

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

**Equipment** : Notebook PC  
**Trade Name** : MTC / GETAC  
**Model No.** : E100 / E100N  
**FCC ID** : MAUE02  
**Uplink Frequency Range** : CDMA2000 Cellular : 824.7~848.31 MHz  
CDMA2000 PCS : 1851.25~1908.75 MHz  
**Downlink Frequency Range** : CDMA2000 Cellular : 869.70~893.31 MHz  
CDMA2000 PCS : 1931.25~1988.75 MHz  
**Max. ERP/EIRP Power** : CDMA2000 Cellular : 0.31 W for 1xRTT  
CDMA2000 Cellular : 0.28 W for 1xEVDO  
CDMA2000 PCS : 0.33 W for 1xRTT  
CDMA2000 PCS : 0.32 W for 1xEVDO  
**Emission Designator** : 1M25F9W  
**Applicant** : **MiTAC Technology Corp.**  
9<sup>th</sup>. FL., No.75, Ming Sheng E. Rd., Sec.3, Taipei, Taiwan

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- The data shown in this test report were carried out on Jan. 10, 2008 at **Sporton International Inc. LAB.**
- Report No.: FG7N3014, Report Version: Rev. 01.

  
\_\_\_\_\_  
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: Jan. 21, 2008

| Report No. | Description |
|------------|-------------|
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## 1. General Information

### 1.2 Applicant

**MiTAC Technology Corp.**

9<sup>th</sup>. FL., No.75, Ming Sheng E. Rd., Sec.3, Taipei, Taiwan

### 1.3 Manufacturer

**GeTAC Technology(Kunshan) LTD.**

No.269, 2nd Road, Export Processing Zone, Changjiang South Road, Kunshan, Jiangsu, P.R.C.

### 1.4 Basic Description of Equipment under Test

|                   |                           |                                                   |
|-------------------|---------------------------|---------------------------------------------------|
| <b>Equipment</b>  |                           | Notebook PC                                       |
| <b>Trade Name</b> |                           | MTC / GETAC                                       |
| <b>Model Name</b> |                           | E100 / E100N                                      |
| <b>FCC ID</b>     |                           | MAUE02                                            |
| <b>AC Adapter</b> | <b>Brand Name</b>         | FSP                                               |
|                   | <b>Model Name</b>         | FSP050-1AD101C                                    |
|                   | <b>Power Rating</b>       | I/P:100-240Vac, 50-60Hz, 1.3A                     |
|                   | <b>AC Power Cord Type</b> | 1.8 meter non-shielded cable without ferrite core |
| <b>DC Adapter</b> | <b>Brand Name</b>         | FSP                                               |
|                   | <b>Model Name</b>         | FSP050-1AD101C                                    |
|                   | <b>Power Rating</b>       | O/P: 12Vdc, 4.16A, 50W MAX                        |
|                   | <b>AC Power Cord Type</b> | 1.55 meter shielded cable with ferrite core       |
| <b>Battery</b>    | <b>Brand Name</b>         | Sayno for E100N<br>Panasonic for E100             |
|                   | <b>Model Name</b>         | UR18650F(M) for E100N<br>CGR18650E for E100       |
|                   | <b>Power Rating</b>       | 7.4Vdc, 5200mAh, 4cell                            |
|                   | <b>Type</b>               | Li-ion                                            |

Remark:

1. E100 is almost the same as E100N. The differences between these models are panel and keyboard as follows:
  - a. Panel of E100 is 8.4 inch, and E100N is 8.9 inch.
  - b. E100N doesn't have the number key on the keyboard, but E100.
2. Above EUT's information was declared by manufacturer. Please refer to the specifications of manufacturer or User's Manual for more detailed features description.

## 1.5 Configuration of the Equipment

**Model Name: E100N**

| Notebook Specification |                                   |                                                              |            |                                                       |
|------------------------|-----------------------------------|--------------------------------------------------------------|------------|-------------------------------------------------------|
| Item                   | Brand                             | Model                                                        | P/N        | Specification                                         |
| CPU                    | Intel Stealey                     | TDP 3W                                                       | ---        | 800 MHz                                               |
| LCD                    | Toshiba                           | Toshiba 8.9 inch<br>TFT-LCD MODULE<br>LTD089EXYM<br>1024x768 | LTD089EXYM | 8.9 inch<br>TFT-LCD Module<br>1024x768                |
| HDD                    | Toshiba                           | MK1011GAH                                                    | ---        | 100 GB                                                |
| Memory                 | Qimonda                           | HYS64T128021EDL-3S-<br>B2                                    | ---        | DDR2 667 1GB                                          |
| Adapter                | FSP                               | PS050-1AD101C                                                | ---        | ---                                                   |
| Battery                | Sayno                             | Sanyo UR18650F(M)<br>(2.500/2600Mah)                         | ---        | DC 7.4V,<br>Li-ION/ Sayno cell -<br>5200mAH/4cell,(P) |
| WLAN                   | Billionton, MiniCard<br>(USB I/F) | GMEWLGRL                                                     | ---        | 802.11b/g                                             |
| Bluetooth              | Billionton (USB I/F)              | GUBTCR42M                                                    | ---        | V2.0 + EDR                                            |
| GPS                    | GlobalSat                         | ET-312                                                       | ---        | RS232                                                 |
| 3G                     | Novatel                           | E725                                                         | ---        | ---                                                   |

**Model Name: E100**

| Notebook Specification |                                   |                                     |             |                                                               |
|------------------------|-----------------------------------|-------------------------------------|-------------|---------------------------------------------------------------|
| Item                   | Brand                             | Model                               | P/N         | Specification                                                 |
| CPU                    | Intel Stealey                     | TDP 3W                              | ---         | 800 MHz                                                       |
| LCD                    | AUO 8.4" SVGA                     | G084SN02 V0 for<br>digitizer option | G084SN02 V0 | 8.4 inch<br>SVGA Color TFT<br>LCD Module<br>800x600           |
| HDD                    | Toshiba                           | MK6008GAH                           | ---         | 60GB                                                          |
| Memory                 | HYNIX                             | HYMP512S64CP8-Y5                    | ---         | DDR2 667 1GB                                                  |
| Adapter                | FSP                               | PS050-1AD101C                       | ---         | ---                                                           |
| Battery                | Panasonic                         | Panasonic CGR18650E<br>2.550AH      | ---         | DC 7.4V,<br>Li-ION/ Panasonic<br>cell -<br>5200mAH/4cell, (P) |
| WLAN                   | Billionton, MiniCard<br>(USB I/F) | GMEWLGRL                            | ---         | 802.11b/g                                                     |
| Bluetooth              | Billionton (USB I/F)              | GUBTCR42M                           | ---         | V2.0 + EDR                                                    |
| GPS                    | GlobalSat                         | ET-312                              | ---         | RS232                                                         |
| 3G                     | Novatel                           | E725                                | ---         | ---                                                           |



## 1.6 Feature of Equipment under Test

| Product Feature & Specification |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DUT Type :                      | Notebook PC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Trade Name :                    | MTC / GETAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Model Name :                    | E100 / E100N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| FCC ID :                        | MAUE02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Tx Frequency :                  | CDMA2000 Cellular : 824 ~ 849 MHz<br>CDMA2000 PCS : 1850 ~ 1910 MHz<br>Bluetooth / WLAN : 2400 ~ 2483.5 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Rx Frequency :                  | CDMA2000 Cellular : 869 ~ 894 MHz<br>CDMA2000 PCS : 1930 ~ 1990 MHz<br>Bluetooth / WLAN : 2400 ~ 2483.5 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Maximum Output Power :          | <b>CDMA2000 Cellular (1xRTT):</b><br>FCH_RC1 : 24.83 dBm<br>FCH_RC3 : 24.85 dBm<br>FCH+SCH_RC3 : 24.84 dBm<br><b>CDMA2000 Cellular (1xEV-DO Rev.0_RTAP):</b><br>9.6Kbps : 23.95 dBm<br>38.4Kbps : 23.99 dBm<br>153.6Kbps : 24.06 dBm<br><b>CDMA2000 Cellular (1xEV-DO Rev.A_RETAP):</b><br>128 : 23.90 dBm<br>2048 : 23.92 dBm<br>12288 : 23.84 dBm<br><b>CDMA2000 PCS (1xRTT):</b><br>FCH_RC1 : 25.48 dBm<br>FCH_RC3 : 25.34 dBm<br>FCH+SCH_RC3 : 25.46 dBm<br><b>CDMA2000 PCS (1xEV-DO Rev.0_RTAP):</b><br>9.6Kbps : 24.73 dBm<br>38.4Kbps : 24.60 dBm<br>153.6Kbps : 24.61 dBm<br><b>CDMA2000 PCS (1xEV-DO Rev.A_RETAP):</b><br>128 : 24.15 dBm<br>2048 : 23.94 dBm<br>12288 : 24.09 dBm<br><b>WLAN:</b><br>802.11b: 16.56 dBm<br>802.11g: 13.56 dBm |
| Maximum ERP/EIRP :              | CDMA2000 Cellular : 0.31 W (24.91 dBm) for 1xRTT<br>0.28 W (24.50 dBm) for 1xEV-DO<br>CDMA2000 PCS : 0.33 W (25.19 dBm) for 1xRTT<br>0.32 W (25.08 dBm) for 1xEV-DO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |



|                                                                         |                                                                                   |
|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| <b>Antenna Type :</b>                                                   | CDMA2000 : Retractable Antenna<br>Bluetooth : PIFA Antenna<br>WLAN : PIFA Antenna |
| <b>Power Rating (DC/AC , Voltage and Current of RF element or PA) :</b> | DC 3V                                                                             |
| <b>HW Version :</b>                                                     | R03                                                                               |
| <b>SW Version :</b>                                                     | R102 (BIOS)                                                                       |
| <b>Type of Modulation :</b>                                             | CDMA2000 : QPSK<br>Bluetooth : GFSK<br>WLAN : DSSS / OFDM                         |
| <b>Type of Emission :</b>                                               | 1M25F9W                                                                           |
| <b>Device Power Class :</b>                                             | CDMA2000 Cellular : 3<br>CDMA2000 PCS1900 : 2                                     |
| <b>DUT Stage :</b>                                                      | Identical Prototype                                                               |
| <b>Application Type :</b>                                               | Certification                                                                     |

## 1.7 Report Date

EUT Received : Nov. 30, 2007

Report Date : Jan. 21, 2008

## 2 Test Configuration of Equipment under Test

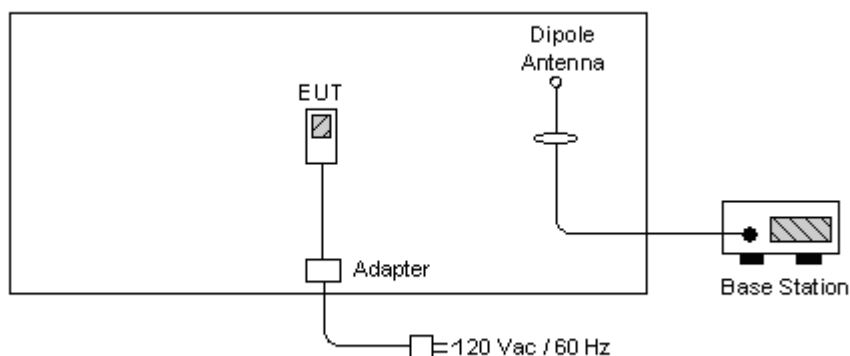
### 2.1 Test Manner

- 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                        | <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 |
|                       | <input checked="" type="checkbox"/> Mode 5: 1xRTT Link Mode + BT_Tx_CH78           |                                                               |
|                       | <input checked="" type="checkbox"/> Mode 6: 1xRTT Link Mode + WLAN 802.11b_Tx_Ch11 |                                                               |
| 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 Equipmnt List

| Item | Equipment    | Trade Name | Model No. | FCC ID | Data Cable / Power Code |
|------|--------------|------------|-----------|--------|-------------------------|
| 1.   | Base Station | R&S        | CMU200    | N/A    | Unshielded, 1.8m        |



### 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, TH02-HY

The chamber meets the characteristics of ANSI C63.4-2003. This site is on file with the FCC.

#### 3.1 Test Voltage

AC 120V / 60Hz

#### 3.2 Test Compliance

47 CFR Part 22H, 24E, Part 2

#### 3.3 Frequency Range

- 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<br>§24.232                  | ERP / EIRP                                 | Passed | 4.3     |
| §2.1049,<br>§ 22.917,<br>§ 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,<br>§ 22.355,<br>§24.235     | Frequency Stability vs. Temperature        | Passed | 4.7     |
| §2.1055,<br>§22.355,<br>§24.235      | Frequency Stability vs. Voltage            | Passed | 4.8     |

## 4.2 RF Output Power

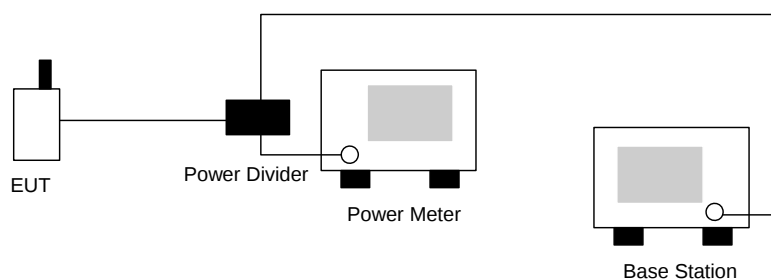
### 4.2.1 Measurement Instruments

As described in chapter 5 of this test report.

### 4.2.2 Test Procedure

- a. The transmitter output was connected to power meter and base station through power divider.
- b. Set EUT at maximum power through base station.
- c. 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 | 1xRTT              | FCH_RC1           | 1013    | 824.70 (Low)    | 24.83                 | 0.30                    |
|                   |                    |                   | 384     | 836.52 (Mid)    | 24.47                 | 0.28                    |
|                   |                    |                   | 777     | 848.31 (High)   | 24.72                 | 0.30                    |
|                   |                    | FCH_RC3           | 1013    | 824.70 (Low)    | 24.85                 | 0.31                    |
|                   |                    |                   | 384     | 836.52 (Mid)    | 24.33                 | 0.27                    |
|                   |                    |                   | 777     | 848.31 (High)   | 24.74                 | 0.30                    |
|                   |                    | FCH+SCH_RC3       | 1013    | 824.70 (Low)    | 24.84                 | 0.30                    |
|                   |                    |                   | 384     | 836.52 (Mid)    | 24.27                 | 0.27                    |
|                   |                    |                   | 777     | 848.31 (High)   | 24.73                 | 0.30                    |
|                   | 1xEV-DO Rev0 RTAP  | EVDO-UL: 9.6Kbps  | 1013    | 824.70 (Low)    | 23.94                 | 0.25                    |
|                   |                    |                   | 384     | 836.52 (Mid)    | 23.95                 | 0.25                    |
|                   |                    |                   | 777     | 848.31 (High)   | 23.75                 | 0.24                    |
|                   |                    | EVDO-UL: 38.4Kbps | 1013    | 824.70 (Low)    | 23.99                 | 0.25                    |
|                   |                    |                   | 384     | 836.52 (Mid)    | 23.98                 | 0.25                    |
|                   |                    |                   | 777     | 848.31 (High)   | 23.86                 | 0.24                    |
|                   |                    | EVDO-UL: 53.6Kbps | 1013    | 824.70 (Low)    | 24.06                 | 0.25                    |
|                   |                    |                   | 384     | 836.52 (Mid)    | 24.04                 | 0.25                    |
|                   |                    |                   | 777     | 848.31 (High)   | 23.97                 | 0.25                    |
|                   | 1xEV-DO RevA RETAP | 128Kbps           | 1013    | 824.70 (Low)    | 23.90                 | 0.25                    |
|                   |                    |                   | 384     | 836.52 (Mid)    | 23.90                 | 0.25                    |
|                   |                    |                   | 777     | 848.31 (High)   | 23.68                 | 0.23                    |
|                   |                    | 2048Kbps          | 1013    | 824.70 (Low)    | 23.92                 | 0.25                    |
|                   |                    |                   | 384     | 836.52 (Mid)    | 23.88                 | 0.24                    |
|                   |                    |                   | 777     | 848.31 (High)   | 23.80                 | 0.24                    |
|                   |                    | 12288Kbps         | 1013    | 824.70 (Low)    | 23.82                 | 0.24                    |
|                   |                    |                   | 384     | 836.52 (Mid)    | 23.84                 | 0.24                    |
|                   |                    |                   | 777     | 848.31 (High)   | 23.66                 | 0.23                    |

Note: For cellular band, the worst case adopted as maximum output power 24.85dBm, is at CDMA2000 1xRTT FCH\_RC3.

| Bands           | Test Mode                | Test Status       | Channel | Frequency (MHz) | Conducted Power (dBm) | Conducted Power (Watts) |
|-----------------|--------------------------|-------------------|---------|-----------------|-----------------------|-------------------------|
| CDMA2000<br>PCS | 1xRTT                    | FCH_RC1           | 25      | 1851.25 (Low)   | 25.48                 | 0.35                    |
|                 |                          |                   | 600     | 1880.00 (Mid)   | 24.80                 | 0.30                    |
|                 |                          |                   | 1177    | 1908.75 (High)  | 24.62                 | 0.29                    |
|                 |                          | FCH_RC3           | 25      | 1851.25 (Low)   | 25.34                 | 0.34                    |
|                 |                          |                   | 600     | 1880.00 (Mid)   | 24.76                 | 0.30                    |
|                 |                          |                   | 1177    | 1908.75 (High)  | 24.54                 | 0.28                    |
|                 |                          | FCH+SCH_RC1       | 25      | 1851.25 (Low)   | 25.46                 | 0.35                    |
|                 |                          |                   | 600     | 1880.00 (Mid)   | 24.85                 | 0.31                    |
|                 |                          |                   | 1177    | 1908.75 (High)  | 24.66                 | 0.29                    |
|                 | 1xEV-DO<br>Rev0<br>RTAP  | EVDO-UL: 9.6Kbps  | 25      | 1851.25 (Low)   | 24.73                 | 0.30                    |
|                 |                          |                   | 600     | 1880.00 (Mid)   | 24.10                 | 0.26                    |
|                 |                          |                   | 1177    | 1908.75 (High)  | 23.53                 | 0.23                    |
|                 |                          | EVDO-UL: 38.4Kbps | 25      | 1851.25 (Low)   | 24.60                 | 0.29                    |
|                 |                          |                   | 600     | 1880.00 (Mid)   | 24.03                 | 0.25                    |
|                 |                          |                   | 1177    | 1908.75 (High)  | 23.67                 | 0.23                    |
|                 |                          | EVDO-UL: 53.6Kbps | 25      | 1851.25 (Low)   | 24.61                 | 0.29                    |
|                 |                          |                   | 600     | 1880.00 (Mid)   | 24.16                 | 0.26                    |
|                 |                          |                   | 1177    | 1908.75 (High)  | 23.84                 | 0.24                    |
|                 | 1xEV-DO<br>RevA<br>RETAP | 128Kbps           | 25      | 1851.25 (Low)   | 24.15                 | 0.26                    |
|                 |                          |                   | 600     | 1880.00 (Mid)   | 23.48                 | 0.22                    |
|                 |                          |                   | 1177    | 1908.75 (High)  | 22.94                 | 0.20                    |
|                 |                          | 2048Kbps          | 25      | 1851.25 (Low)   | 23.94                 | 0.25                    |
|                 |                          |                   | 600     | 1880.00 (Mid)   | 23.52                 | 0.22                    |
|                 |                          |                   | 1177    | 1908.75 (High)  | 23.02                 | 0.20                    |
|                 |                          | 12288Kbps         | 25      | 1851.25 (Low)   | 24.09                 | 0.26                    |
|                 |                          |                   | 600     | 1880.00 (Mid)   | 23.47                 | 0.22                    |
|                 |                          |                   | 1177    | 1908.75 (High)  | 22.86                 | 0.19                    |

Note: For PCS band, the worst case adopted as maximum output power 25.48dBm, is at CDMA2000 1xRTT 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

- a. The EUT was placed on a tutntable 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.  $ERP/EIRP = Ps + Et - Es + Gs = Ps + Rt - Rs + Gs$

Ps (dBm) : Input power to substitution antenna.

Gs (dBi or dBd) : Substitution antenna Gain.

$Et = Rt + AF$

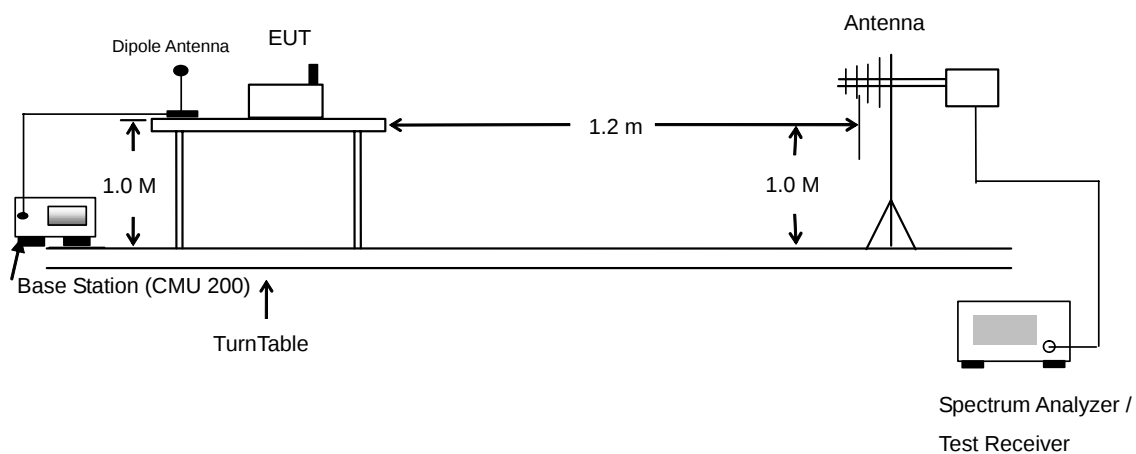
$Es = Rs + AF$

AF (dB/m) : Receive antenna factor

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

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

### 4.3.3 Test Setup Layout of ERP/EIRP



**4.3.4 Test Result**

| <b>CDMA2000 Cellular 1xRTT FCH_RC3 Radiated Power ERP</b> |             |             |             |             |              |            |
|-----------------------------------------------------------|-------------|-------------|-------------|-------------|--------------|------------|
| Horizontal Polarization                                   |             |             |             |             |              |            |
| Frequency<br>(MHz)                                        | Rt<br>(dBm) | Rs<br>(dBm) | Ps<br>(dBm) | Gs<br>(dBd) | ERP<br>(dBm) | ERP<br>(W) |
| 824.70                                                    | -26.28      | -48.12      | 0.00        | -1.08       | 20.76        | 0.12       |
| 836.52                                                    | -26.87      | -48.28      | 0.00        | -0.93       | 20.48        | 0.11       |
| 848.31                                                    | -27.18      | -48.35      | 0.00        | -0.76       | 20.41        | 0.11       |
| Vertical Polarization                                     |             |             |             |             |              |            |
| Frequency<br>(MHz)                                        | Rt<br>(dBm) | Rs<br>(dBm) | Ps<br>(dBm) | Gs<br>(dBd) | ERP<br>(dBm) | ERP<br>(W) |
| 824.70                                                    | -21.98      | -47.97      | 0.00        | -1.08       | 24.91        | 0.31       |
| 836.52                                                    | -22.37      | -48.01      | 0.00        | -0.93       | 24.71        | 0.30       |
| 848.31                                                    | -23.10      | -48.05      | 0.00        | -0.76       | 24.19        | 0.26       |

| <b>CDMA2000 Cellular 1xEV-DO Rev0 RTAP 153.6Kbps Radiated Power ERP</b> |             |             |             |             |              |            |
|-------------------------------------------------------------------------|-------------|-------------|-------------|-------------|--------------|------------|
| Horizontal Polarization                                                 |             |             |             |             |              |            |
| Frequency<br>(MHz)                                                      | Rt<br>(dBm) | Rs<br>(dBm) | Ps<br>(dBm) | Gs<br>(dBd) | ERP<br>(dBm) | ERP<br>(W) |
| 824.70                                                                  | -26.56      | -48.12      | 0.00        | -1.08       | 20.48        | 0.11       |
| 836.52                                                                  | -27.28      | -48.28      | 0.00        | -0.93       | 20.07        | 0.10       |
| 848.31                                                                  | -27.57      | -48.35      | 0.00        | -0.76       | 20.02        | 0.10       |
| Vertical Polarization                                                   |             |             |             |             |              |            |
| Frequency<br>(MHz)                                                      | Rt<br>(dBm) | Rs<br>(dBm) | Ps<br>(dBm) | Gs<br>(dBd) | ERP<br>(dBm) | ERP<br>(W) |
| 824.70                                                                  | -22.39      | -47.97      | 0.00        | -1.08       | 24.50        | 0.28       |
| 836.52                                                                  | -22.69      | -48.01      | 0.00        | -0.93       | 24.39        | 0.27       |
| 848.31                                                                  | -23.35      | -48.05      | 0.00        | -0.76       | 23.94        | 0.25       |

**CDMA2000 PCS 1xRTT FCH\_RC1 Radiated Power EIRP****Horizontal Polarization**

| Frequency (MHz) | Rt (dBm) | Rs (dBm) | Ps (dBm) | Gs (dBi) | EIRP (dBm) | EIRP (W) |
|-----------------|----------|----------|----------|----------|------------|----------|
| 1851.25         | -35.98   | -51.88   | 0.00     | 1.96     | 17.86      | 0.06     |
| 1880.00         | -37.96   | -52.99   | 0.00     | 2.00     | 17.03      | 0.05     |
| 1908.75         | -41.91   | -54.28   | 0.00     | 1.98     | 14.35      | 0.03     |

**Vertical Polarization**

| Frequency (MHz) | Rt (dBm) | Rs (dBm) | Ps (dBm) | Gs (dBi) | EIRP (dBm) | EIRP (W) |
|-----------------|----------|----------|----------|----------|------------|----------|
| 1851.25         | -28.90   | -52.13   | 0.00     | 1.96     | 25.19      | 0.33     |
| 1880.00         | -30.47   | -53.17   | 0.00     | 2.00     | 24.70      | 0.30     |
| 1908.75         | -33.53   | -54.13   | 0.00     | 1.98     | 22.58      | 0.18     |

**CDMA2000 PCS 1xEV-DO Rev0 RTAP 9.6Kbps Radiated Power EIRP****Horizontal Polarization**

| Frequency (MHz) | Rt (dBm) | Rs (dBm) | Ps (dBm) | Gs (dBi) | EIRP (dBm) | EIRP (W) |
|-----------------|----------|----------|----------|----------|------------|----------|
| 1851.25         | -36.00   | -51.88   | 0.00     | 1.96     | 17.84      | 0.06     |
| 1880.00         | -38.29   | -52.99   | 0.00     | 2.00     | 16.70      | 0.05     |
| 1908.75         | -41.57   | -54.28   | 0.00     | 1.98     | 14.69      | 0.03     |

**Vertical Polarization**

| Frequency (MHz) | Rt (dBm) | Rs (dBm) | Ps (dBm) | Gs (dBi) | EIRP (dBm) | EIRP (W) |
|-----------------|----------|----------|----------|----------|------------|----------|
| 1851.25         | -29.01   | -52.13   | 0.00     | 1.96     | 25.08      | 0.32     |
| 1880.00         | -30.85   | -53.17   | 0.00     | 2.00     | 24.32      | 0.27     |
| 1908.75         | -33.92   | -54.13   | 0.00     | 1.98     | 22.19      | 0.17     |

## 4.4 Occupied Bandwidth and Band Edge Measurement

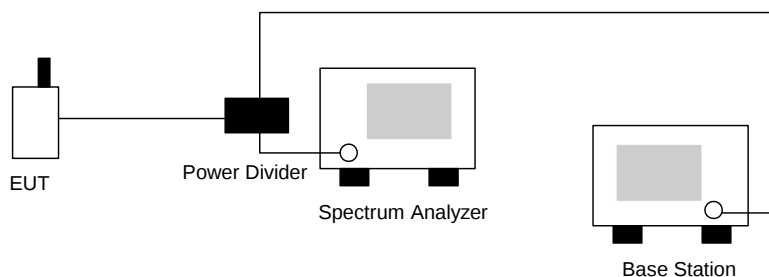
### 4.4.1 Measurement Instruments

As described in chapter 5 of this test report.

### 4.4.2 Test Procedure

- The EUT was connected to Spectrum Analyzer and Base Station via power divider.
- The 99% occupied bandwidth and 26 dB Bandwidth of middle channel for the highest RF powers were measured.
- 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.
- 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

| Bands             | Test Mode | Test Status | Channel | Frequency (MHz) | Measurement Value (dBm) | Correction Factor (dB) | Band Edge (dBm) |
|-------------------|-----------|-------------|---------|-----------------|-------------------------|------------------------|-----------------|
| CDMA2000 Cellular | 1xRTT     | FCH_RC1     | 1013    | 824.70 (Low)    | -16.87                  | 1.04                   | -15.83          |
|                   |           |             | 777     | 848.31 (High)   | -14.43                  | 1.04                   | -13.39          |
|                   |           | FCH_RC3     | 1013    | 824.70 (Low)    | -17.67                  | 1.04                   | -16.63          |
|                   |           |             | 777     | 848.31 (High)   | -14.76                  | 1.04                   | -13.72          |
|                   |           | FCH+SCH_RC3 | 1013    | 824.70 (Low)    | -17.64                  | 1.04                   | -16.60          |
|                   |           |             | 777     | 848.31 (High)   | -14.79                  | 1.04                   | -13.75          |

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

##### • Mode 2

| Bands             | Test Mode | Test Status | Channel | Frequency (MHz) | Measurement Value (dBm) | Correction Factor (dB) | Band Edge (dBm) |
|-------------------|-----------|-------------|---------|-----------------|-------------------------|------------------------|-----------------|
| CDMA2000 Cellular | 1xEV-DO   | 9.6Kbps     | 1013    | 824.70 (Low)    | -20.07                  | 1.03                   | -19.04          |
|                   |           |             | 777     | 848.31 (High)   | -16.92                  | 1.03                   | -15.89          |
|                   |           | 38.4Kbps    | 1013    | 824.70 (Low)    | -19.91                  | 1.03                   | -18.88          |
|                   |           |             | 777     | 848.31 (High)   | -15.86                  | 1.03                   | -14.83          |
|                   |           | 153.6Kbps   | 1013    | 824.70 (Low)    | -19.73                  | 1.03                   | -18.70          |
|                   |           |             | 777     | 848.31 (High)   | -16.79                  | 1.03                   | -15.76          |

Note:

\*Occupancy Bandwidth = 1268.00KHz

\*Correction Factor =  $10 \cdot \log(1\% \text{ Occupancy Bandwidth} / \text{Measurement RBW})$   
 $= 10 \cdot \log[(0.01 \cdot 1268.00\text{KHz}) / 10\text{KHz}]$   
 $= 1.03 \text{ dB}$

\*Band Edge = Measurement Value + Correction Factor

**• Mode 3**

| Bands        | Test Mode | Test Status | Channel | Frequency (MHz) | Measurement Value (dBm) | Correction Factor (dB) | Band Edge (dBm) |
|--------------|-----------|-------------|---------|-----------------|-------------------------|------------------------|-----------------|
| CDMA2000 PCS | 1xRTT     | FCH_RC1     | 25      | 1851.25 (Low)   | -30.12                  | 1.10                   | -29.02          |
|              |           |             | 1177    | 1908.75 (High)  | -26.03                  | 1.10                   | -24.93          |
|              |           | FCH_RC3     | 25      | 1851.25 (Low)   | -33.54                  | 1.10                   | -32.44          |
|              |           |             | 1177    | 1908.75 (High)  | -28.37                  | 1.10                   | -27.27          |
|              |           | FCH+SCH_RC3 | 25      | 1851.25 (Low)   | -33.56                  | 1.10                   | -32.46          |
|              |           |             | 1177    | 1908.75 (High)  | -28.40                  | 1.10                   | -27.30          |

Note:

\*Occupancy Bandwidth = 1288.00KHz

\*Correction Factor =  $10 \cdot \log(1\% \text{ Occupancy Bandwidth} / \text{Measurement RBW})$   
 $= 10 \cdot \log[(0.01 \cdot 1288.00\text{KHz}) / 10\text{KHz}]$   
 $= 1.10 \text{ dB}$

\*Band Edge = Measurement Value + Correction Factor

**• Mode 4**

| Bands        | Test Mode | Test Status | Channel | Frequency (MHz) | Measurement Value (dBm) | Correction Factor (dB) | Band Edge (dBm) |
|--------------|-----------|-------------|---------|-----------------|-------------------------|------------------------|-----------------|
| CDMA2000 PCS | 1xEV-DO   | 9.6Kbps     | 25      | 1851.25 (Low)   | -33.11                  | 1.03                   | -32.08          |
|              |           |             | 1177    | 1908.75 (High)  | -33.87                  | 1.03                   | -32.84          |
|              |           | 38.4Kbps    | 25      | 1851.25 (Low)   | -34.92                  | 1.03                   | -33.89          |
|              |           |             | 1177    | 1908.75 (High)  | -35.02                  | 1.03                   | -33.99          |
|              |           | 153.6Kbps   | 25      | 1851.25 (Low)   | -36.26                  | 1.03                   | -35.23          |
|              |           |             | 1177    | 1908.75 (High)  | -35.78                  | 1.03                   | -34.75          |

Note:

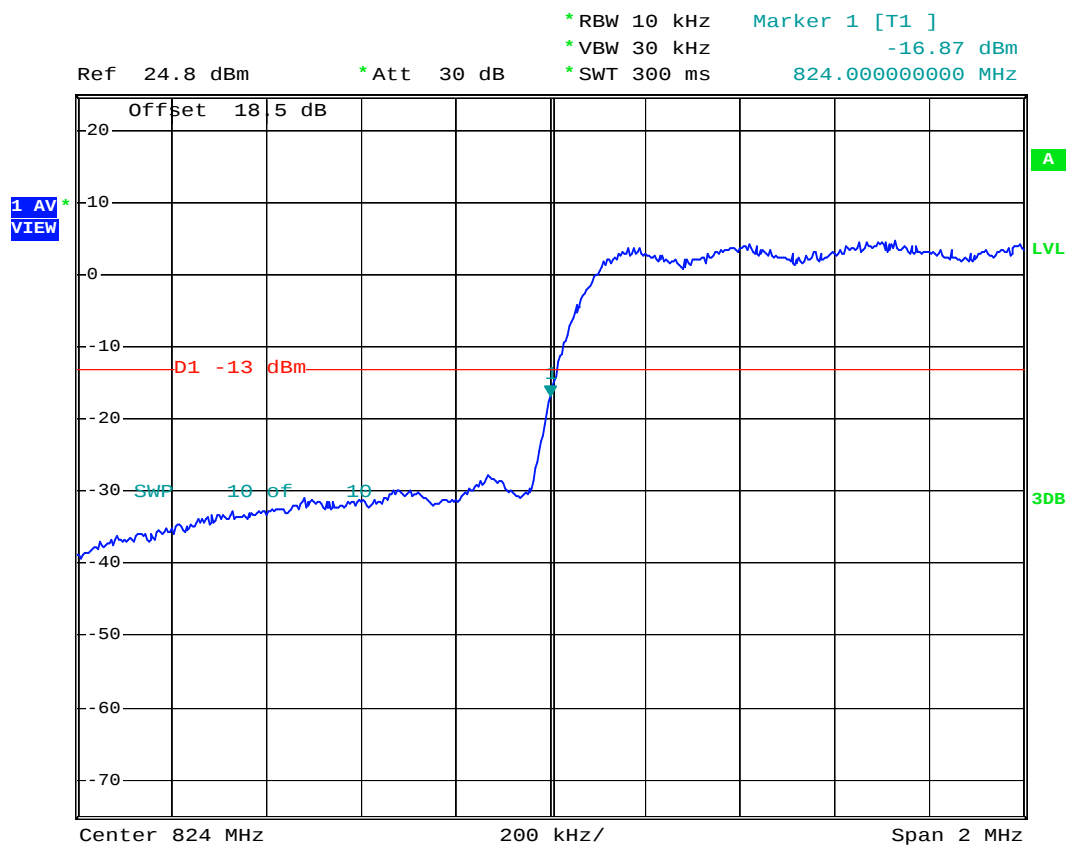
\*Occupancy Bandwidth = 1268.00KHz

\*Correction Factor =  $10 \cdot \log(1\% \text{ Occupancy Bandwidth} / \text{Measurement RBW})$   
 $= 10 \cdot \log[(0.01 \cdot 1268.00\text{KHz}) / 10\text{KHz}]$   
 $= 1.03 \text{ dB}$

\*Band Edge = Measurement Value + Correction Factor

**4.4.5 Test Result**

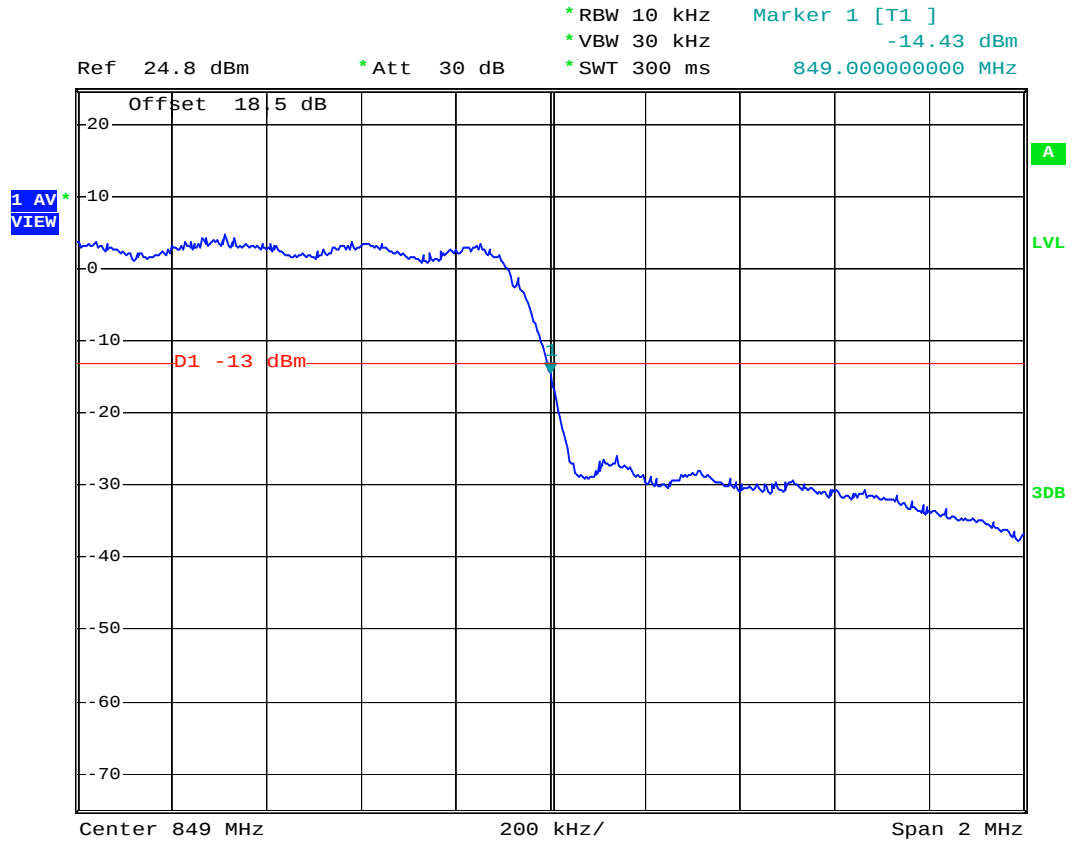
- Mode 1
- Test Mode : CDMA2000 Cellular Band CH1013\_FCH\_RC1 Lower Band Edge for 1xRTT
- Power State : High



Date: 20.DEC.2007 19:55:51



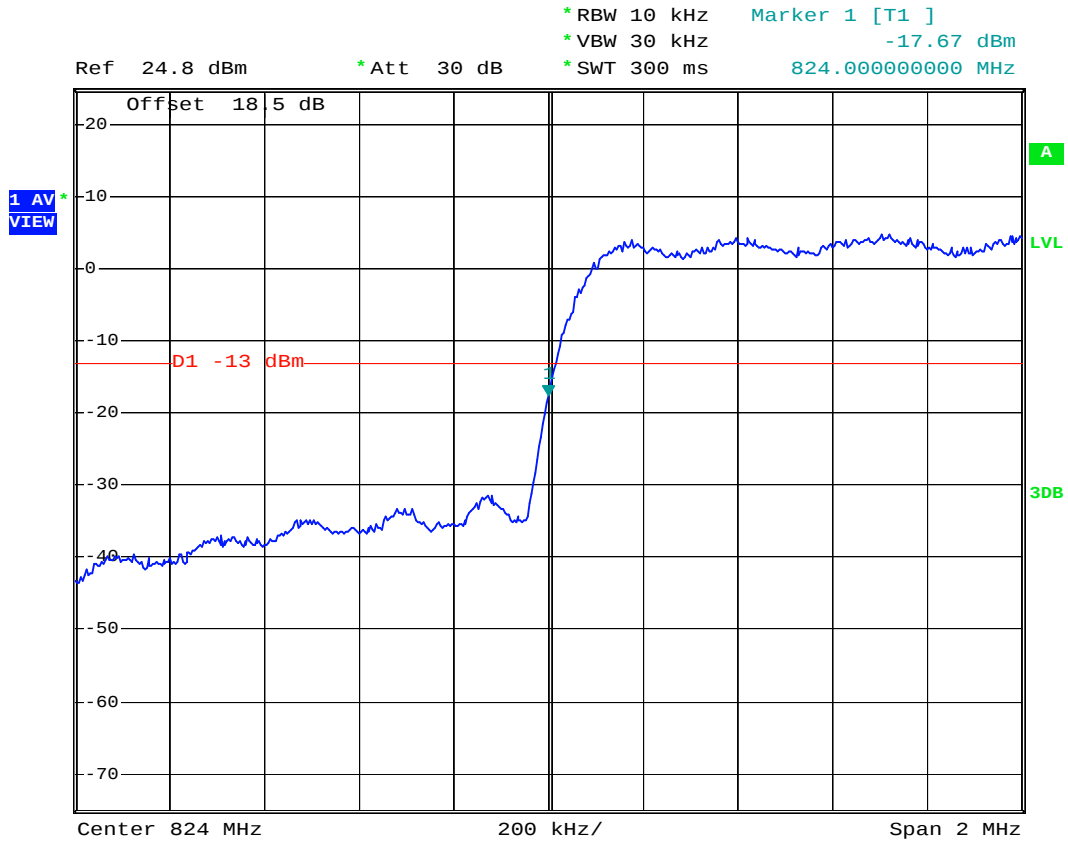
- Test Mode : CDMA2000 Cellular CH777\_FCH\_RC1 Higher Band Edge for 1xRTT
- Power State : High



Date: 20.DEC.2007 19:59:42



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

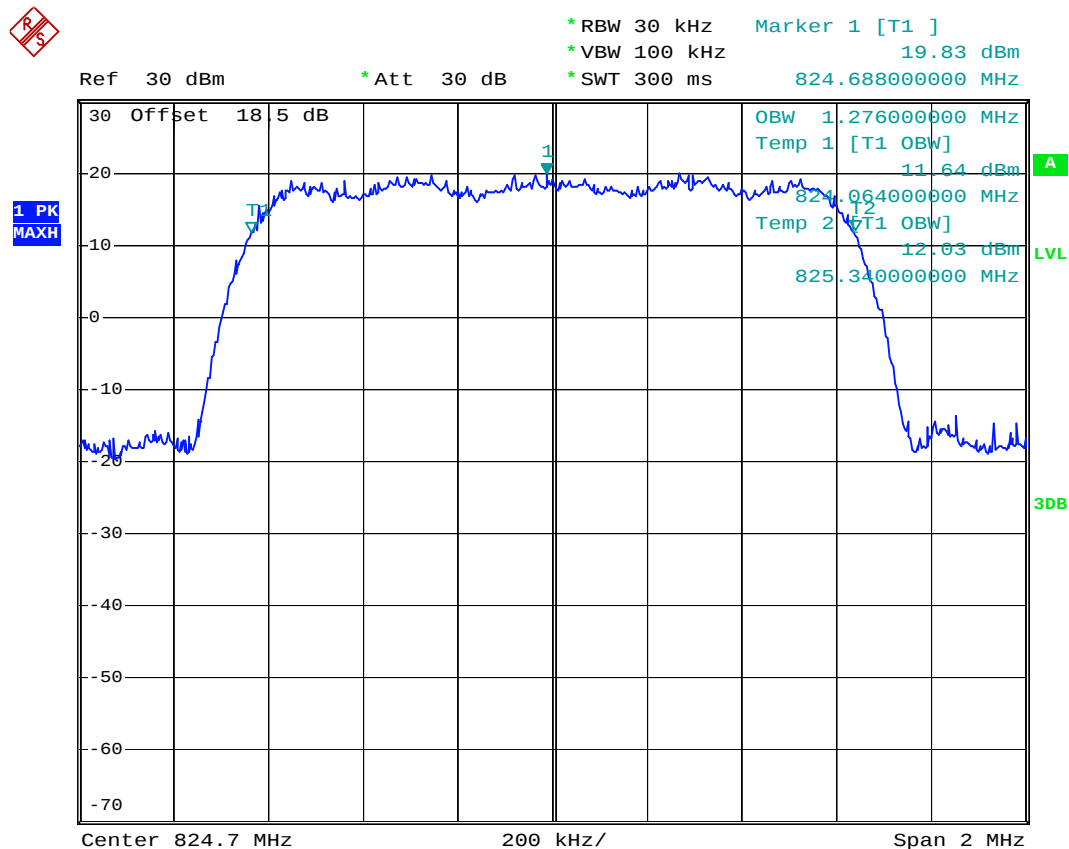


Date: 20.DEC.2007 19:53:44



**Report No. : FG7N3014**

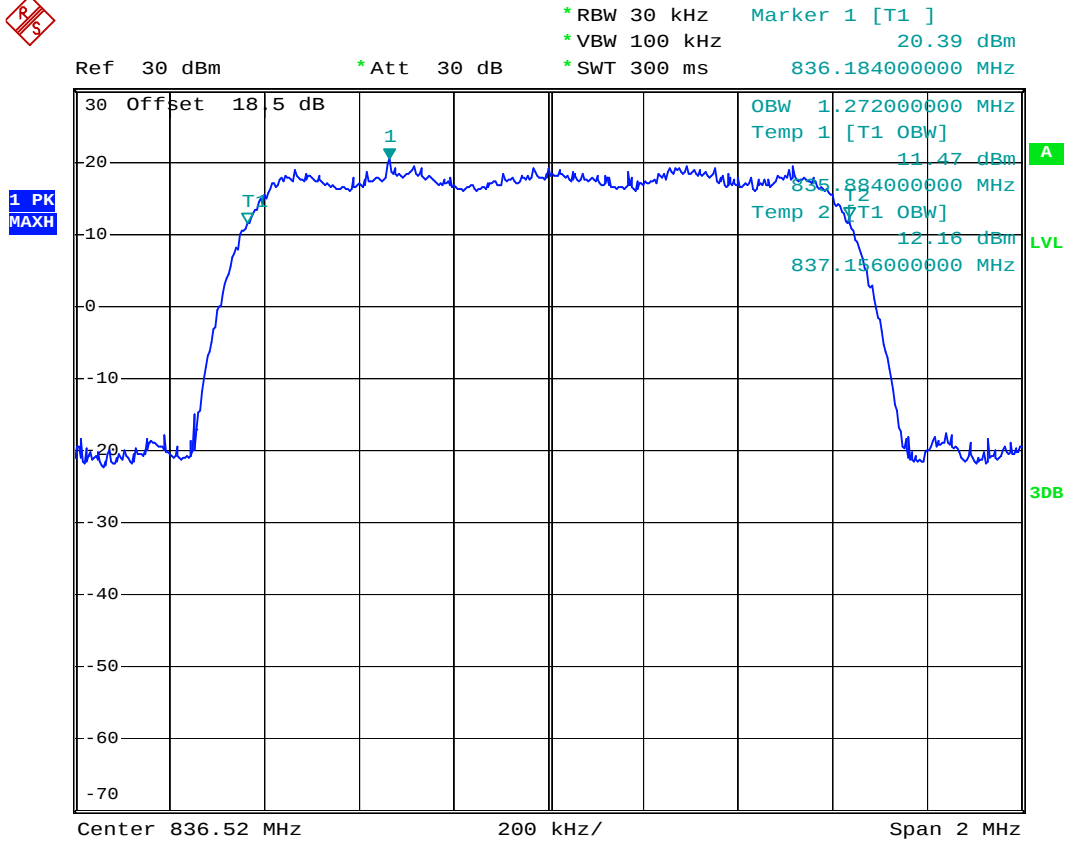
- Test Mode : CDMA2000 Cellular CH1013\_FCH\_RC3 99% Occupied Bandwidth for 1xRTT
- Power State : High



Date: 30.NOV.2007 23:34:54



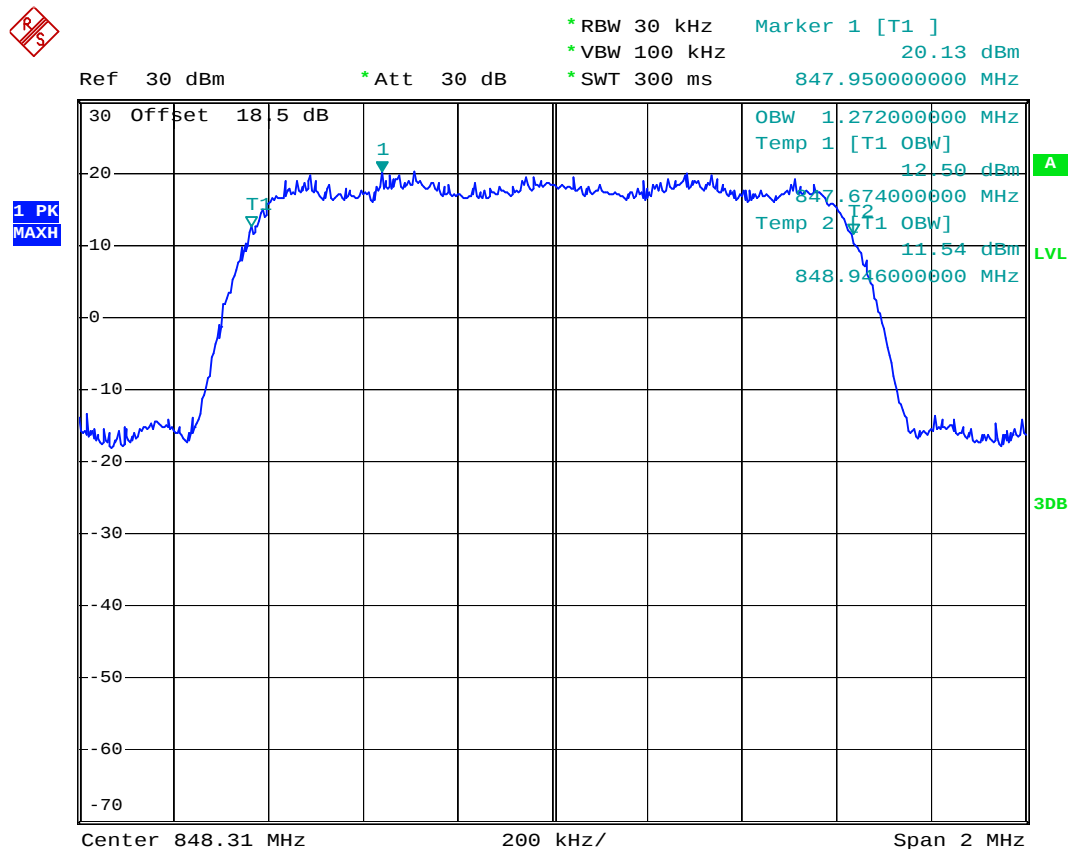
- Test Mode : CDMA2000 Cellular CH384\_FCH\_RC3 99% Occupied Bandwidth for 1xRTT
- Power State : High



Date: 30.NOV.2007 23:36:25



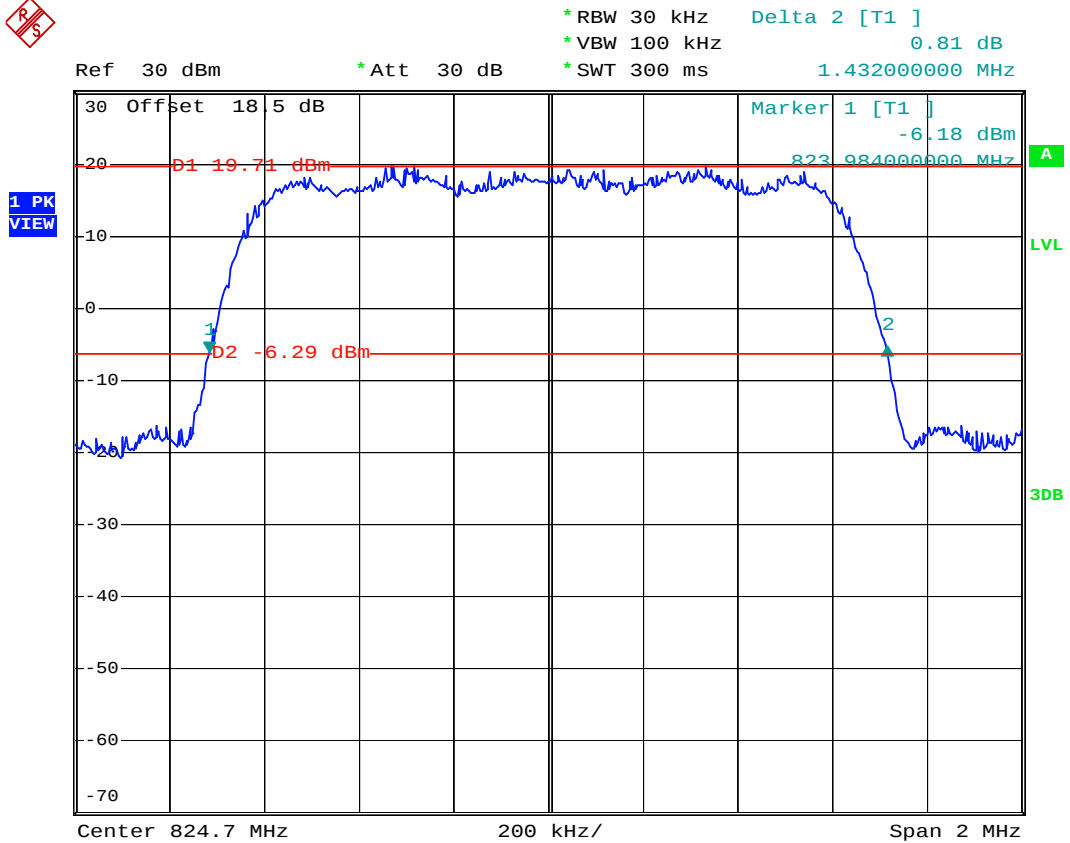
- Test Mode : CDMA2000 Cellular CH777\_FCH\_RC3 99% Occupied Bandwidth for 1xRTT
- Power State : High



Date: 30.NOV.2007 23:37:03



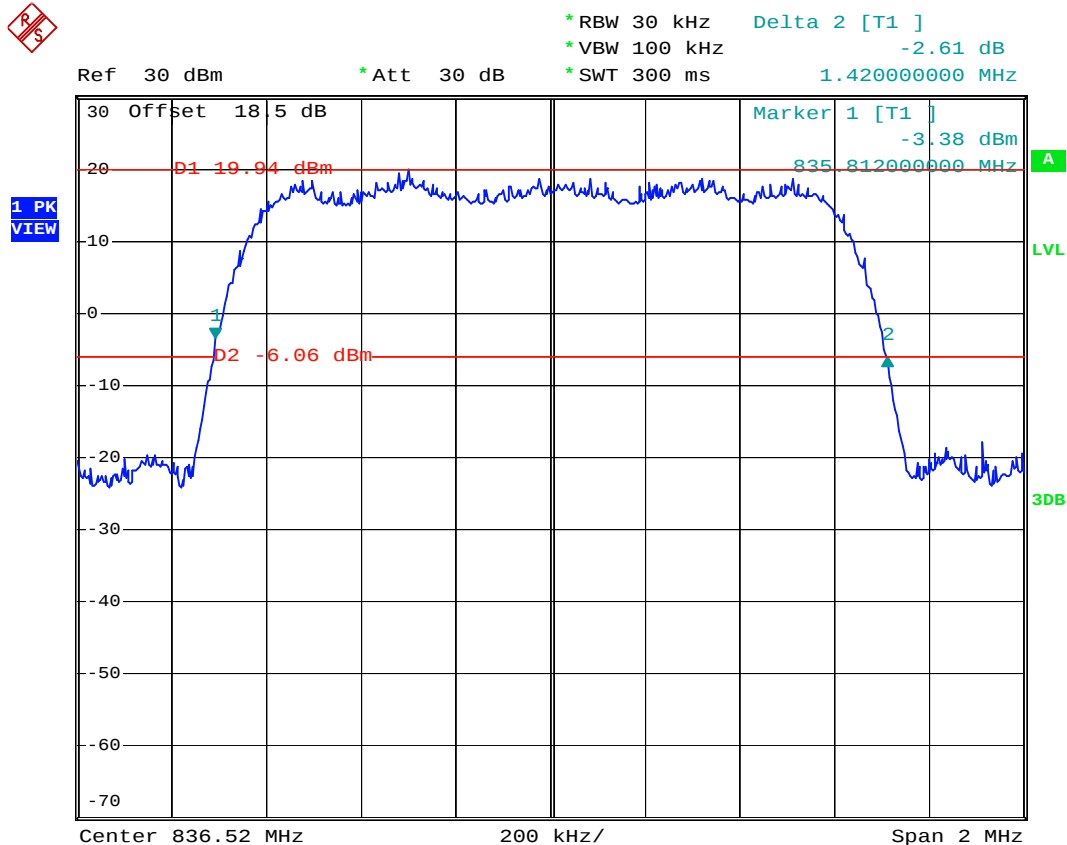
- Test Mode : CDMA2000 Cellular CH1013\_FCH\_RC3 26 dB Bandwidth for 1xRTT
- Power State : High



Date: 30.NOV.2007 23:24:41



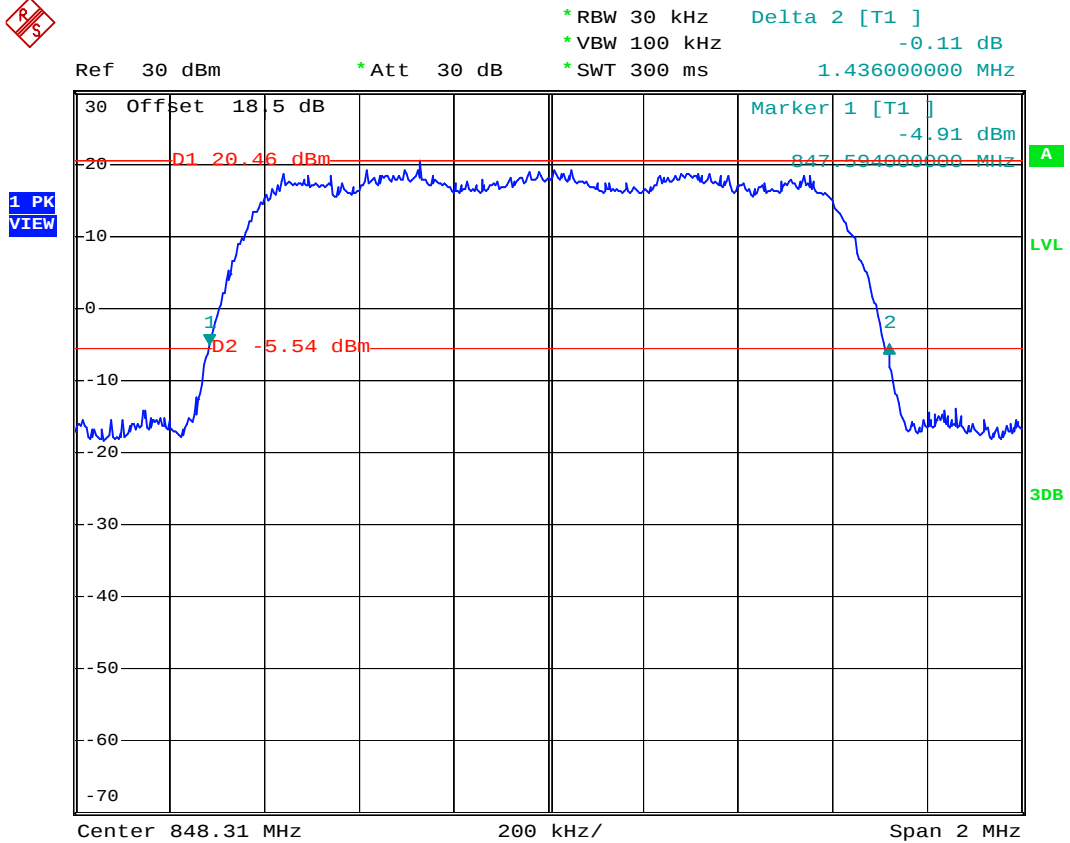
- Test Mode : CDMA2000 Cellular CH384\_FCH\_RC3 26 dB Bandwidth for 1xRTT
- Power State : High



Date: 30.NOV.2007 23:26:04



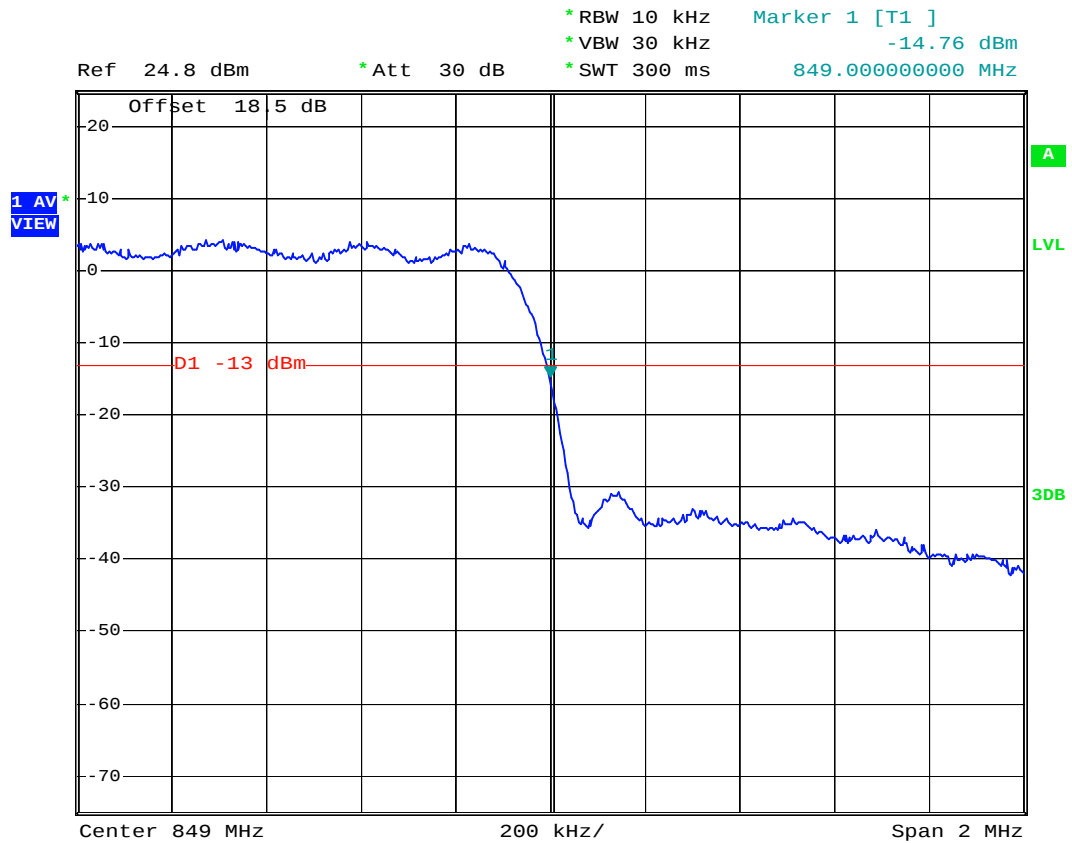
- Test Mode : CDMA2000 Cellular CH777\_FCH\_RC3 26 dB Bandwidth for 1xRTT
- Power State : High



Date: 30.NOV.2007 23:27:12



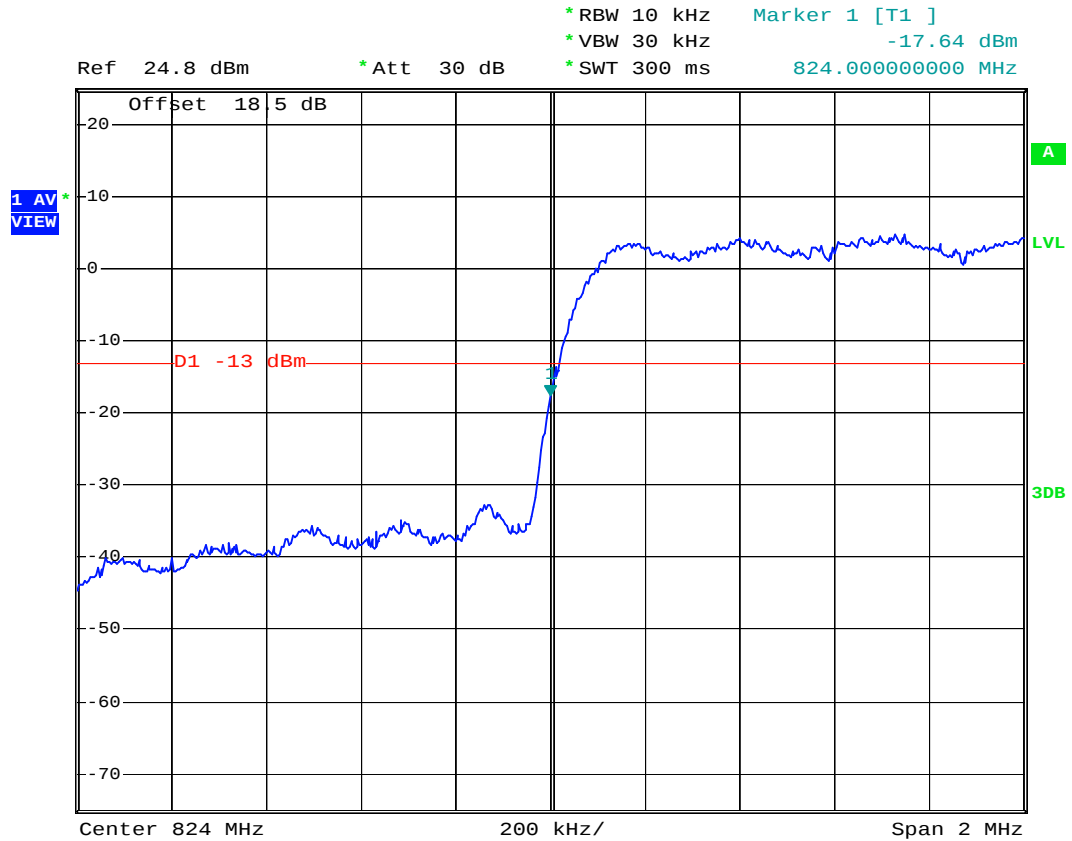
- Test Mode : CDMA2000 Cellular CH777\_FCH\_RC3 Higher Band Edge for 1xRTT
- Power State : High



Date: 20.DEC.2007 19:49:27



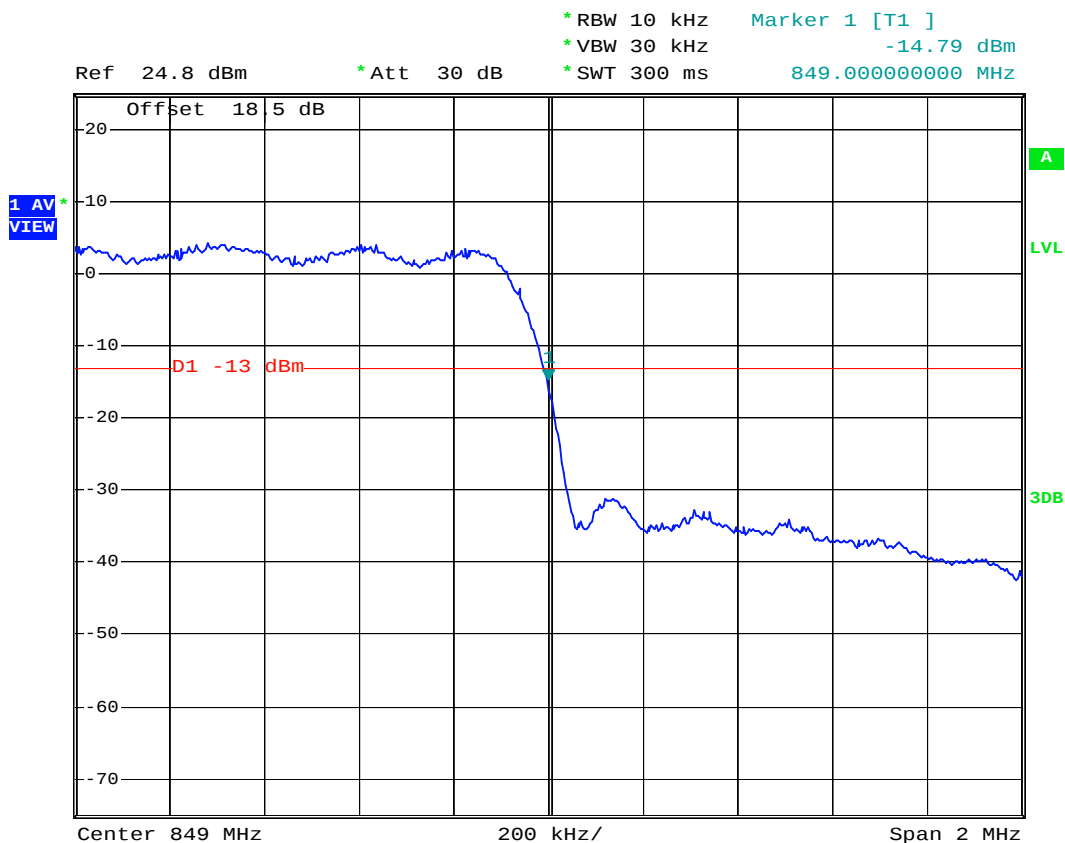
- Test Mode : CDMA2000 Cellular Band CH1013\_FCH+SCH\_RC3 Lower Band Edge for 1xRTT
- Power State : High



Date: 20.DEC.2007 20:12:35



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



Date: 20.DEC.2007 20:14:25



- Mode 2
- Test Mode : CDMA2000 Cellular CH1013\_9.6Kbps Lower Band Edge for 1xEV-DO Rev0 RTAP
- Power State : High



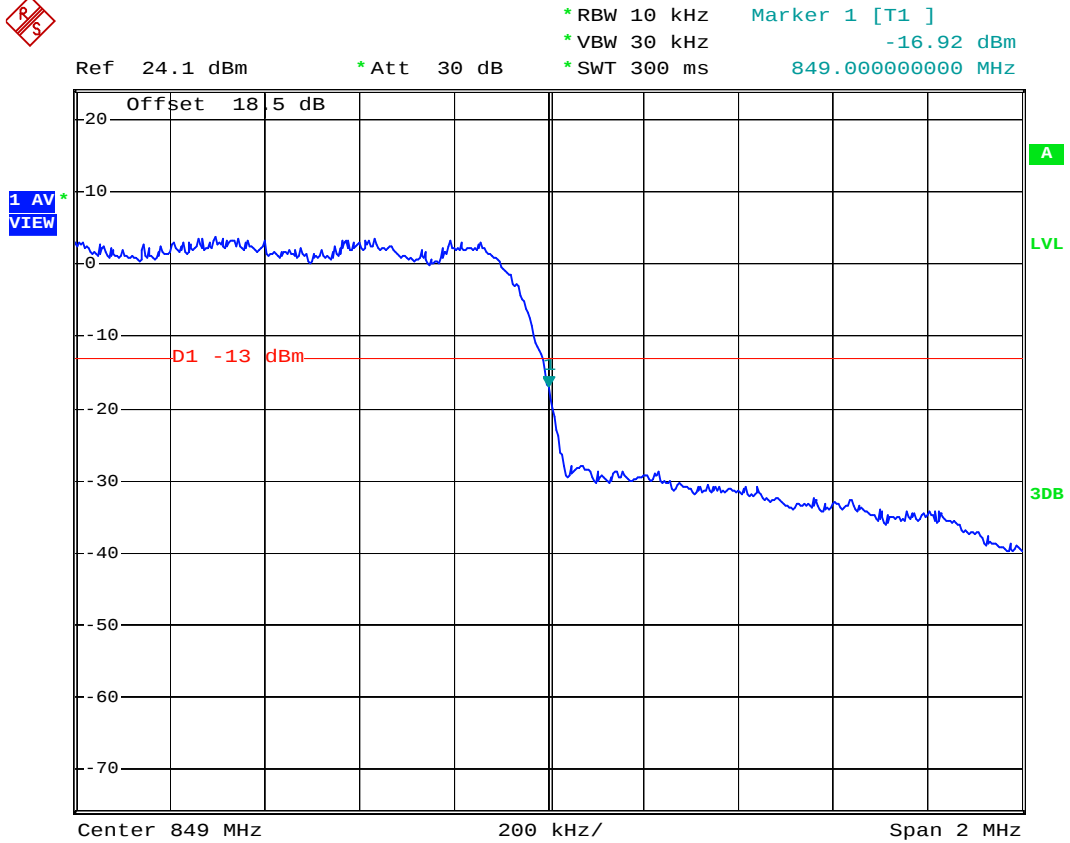
A

LVL

3DB



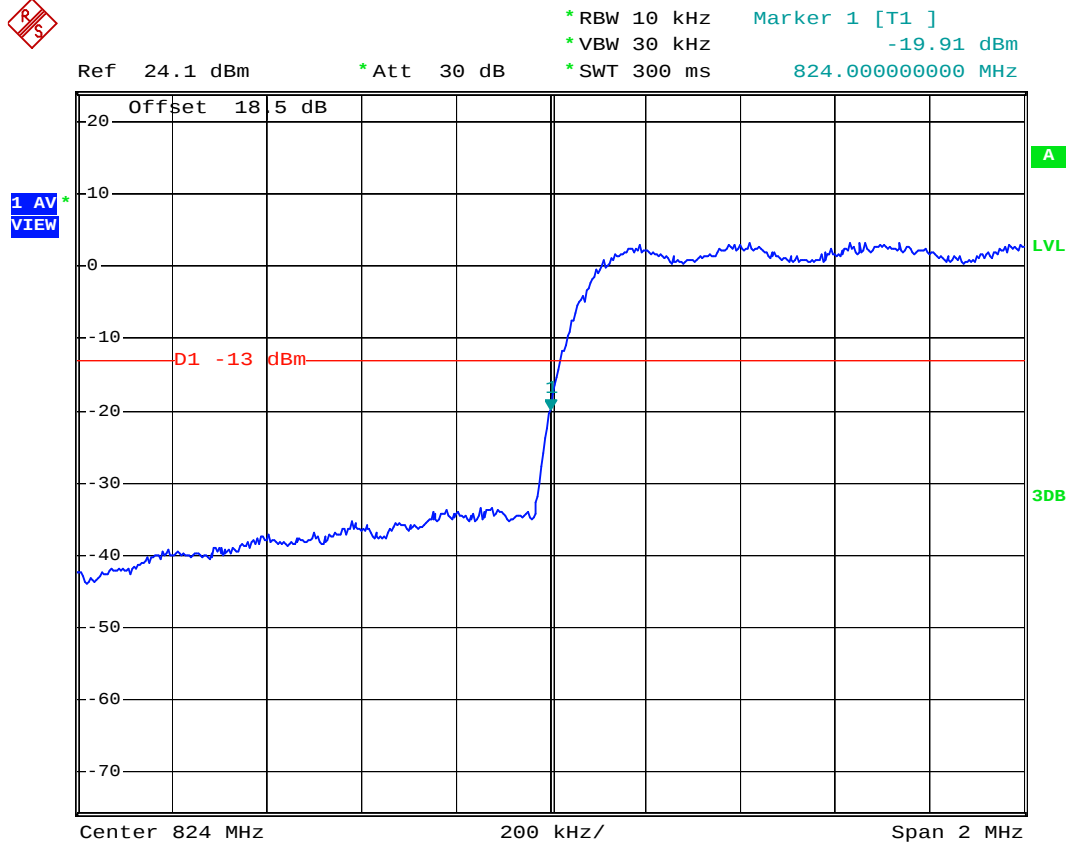
- Test Mode : CDMA2000 Cellular CH777\_9.6Kbps Higher Band Edge for 1xEV-DO Rev0 RTAP
- Power State : High



Date: 10.JAN.2008 03:13:55



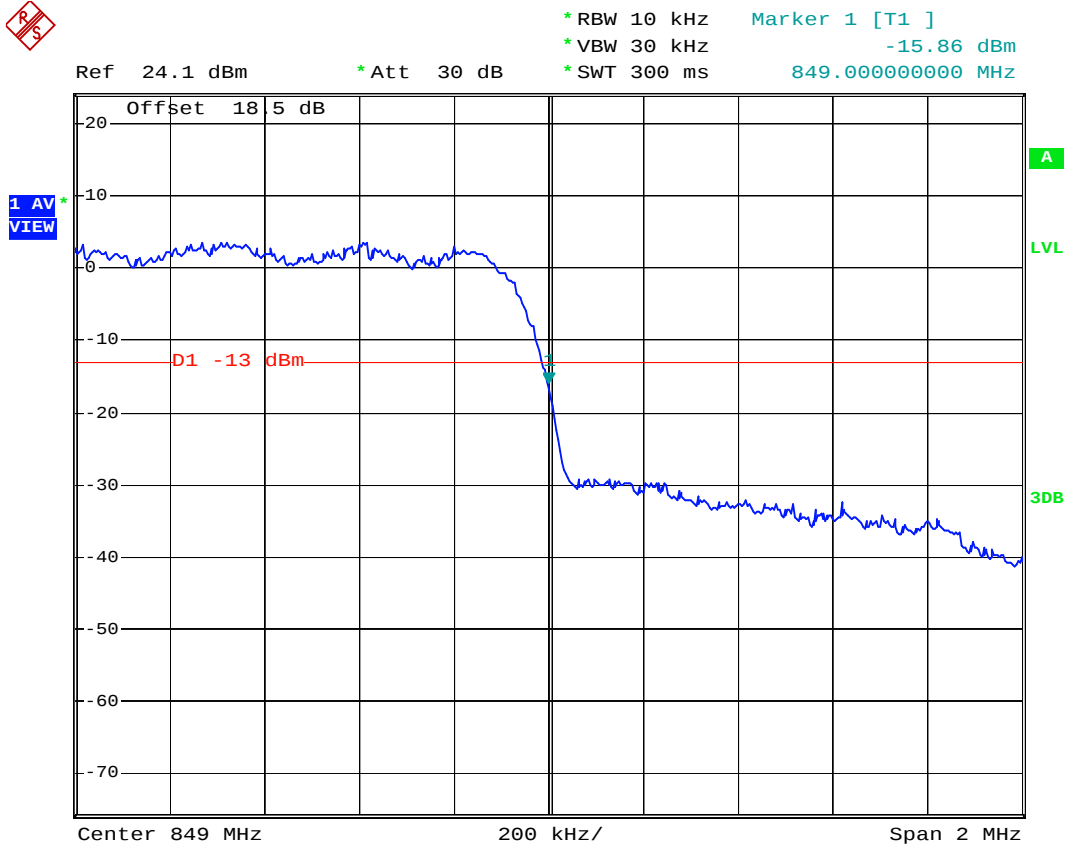
- Test Mode : CDMA2000 Cellular CH1013\_38.4Kbps Lower Band Edge for 1xEV-DO Rev0 RTAP
- Power State : High



Date: 10.JAN.2008 03:10:55



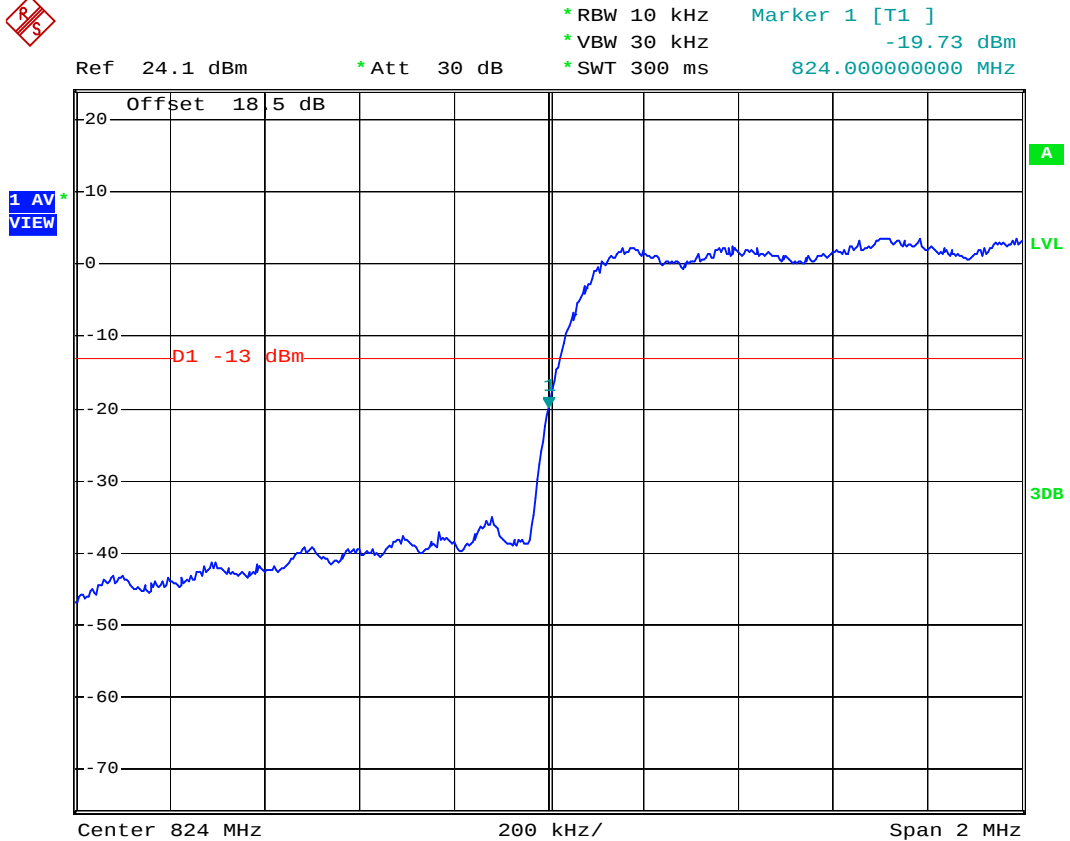
- Test Mode : CDMA2000 Cellular CH777\_38.4Kbps Higher Band Edge for 1xEV-DO Rev0 RTAP
- Power State : High



Date: 10.JAN.2008 03:07:53



- Test Mode : CDMA2000 Cellular CH1013\_153.6Kbps Lower Band Edge for 1xEV-DO Rev0 RTAP
- Power State : High

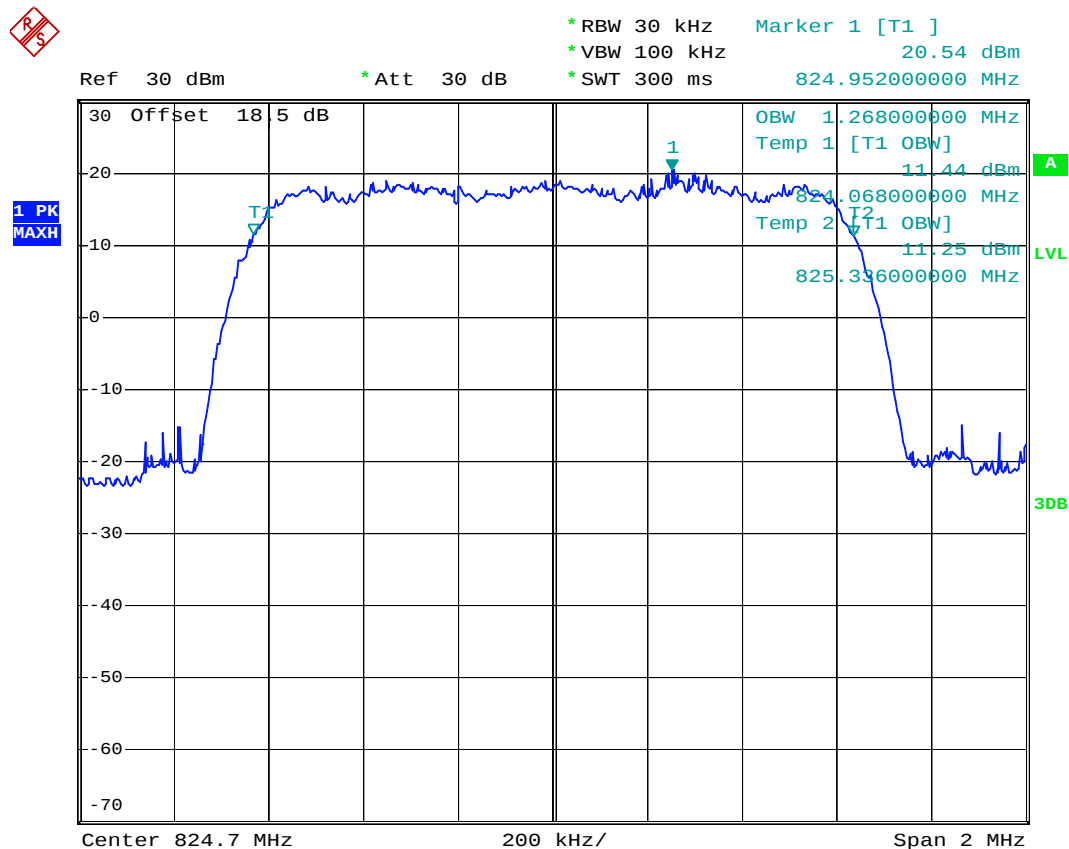


Date: 10.JAN.2008 03:04:33



**Report No. : FG7N3014**

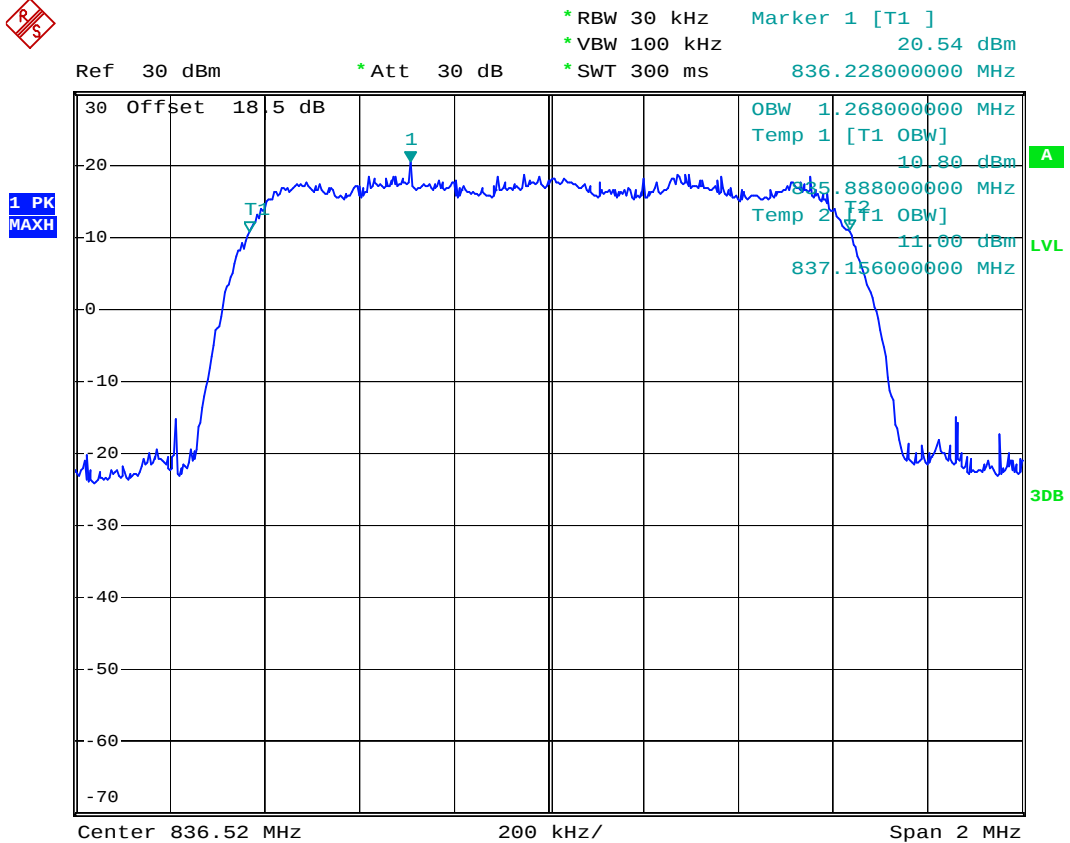
- Test Mode : CDMA2000 Cellular CH1013\_153.6Kbps 99% Occupied Bandwidth for 1xEV-DO Rev0 RTAP
- Power State : High



Date: 10.JAN.2008 02:52:28



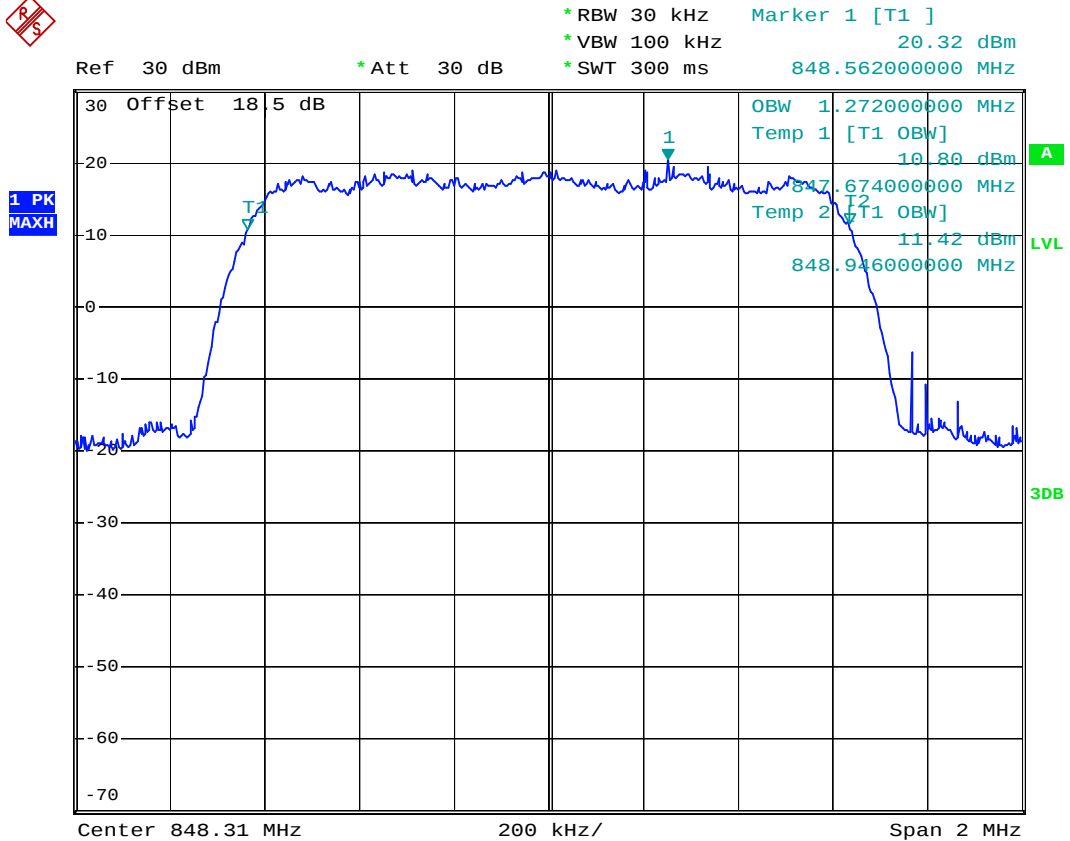
- Test Mode : CDMA2000 Cellular CH384\_153.6Kbps 99% Occupied Bandwidth for 1xEV-DO Rev0 RTAP
- Power State : High



Date: 10.JAN.2008 02:53:00



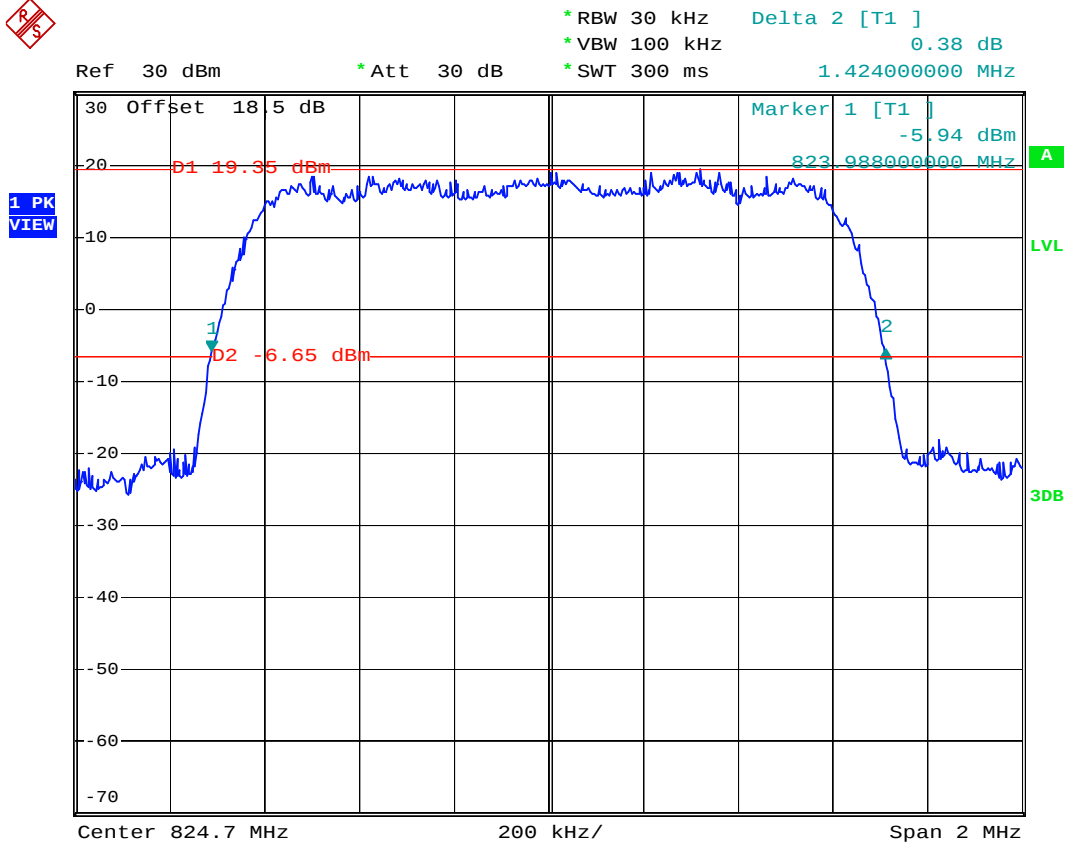
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- Power State : High



Date: 10.JAN.2008 02:55:06



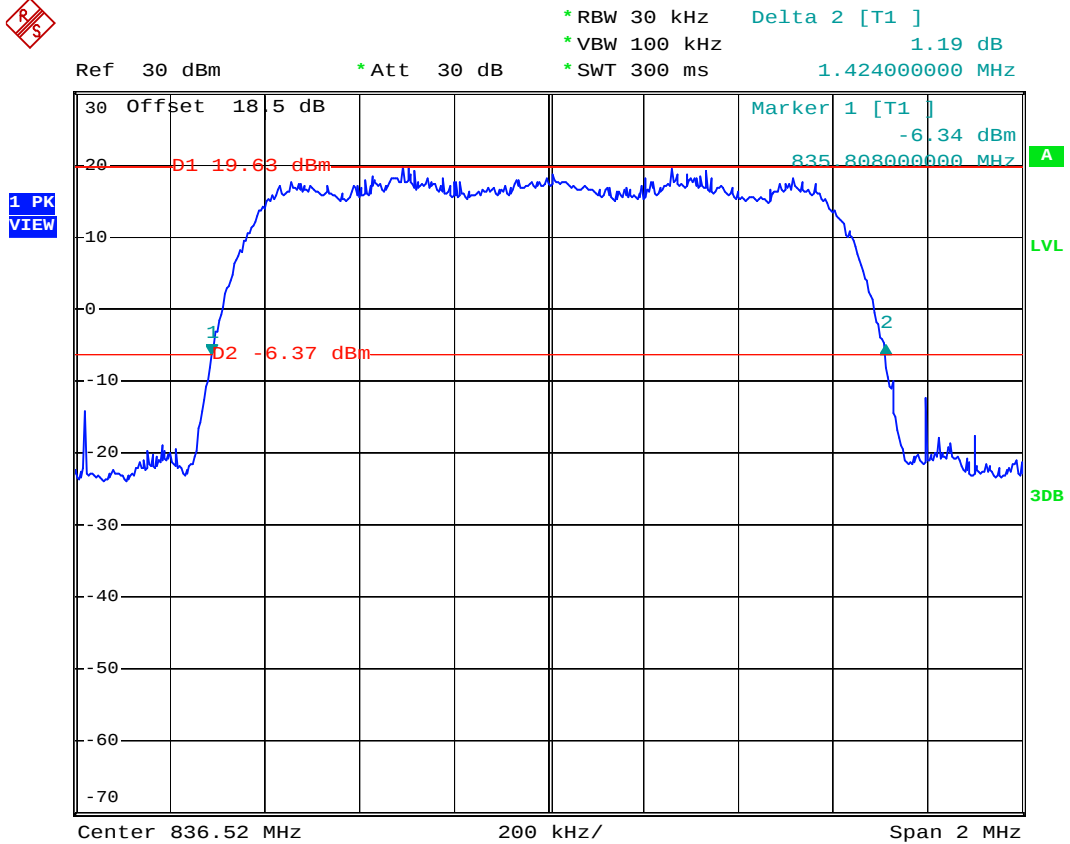
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- Power State : High



Date: 10.JAN.2008 02:38:54



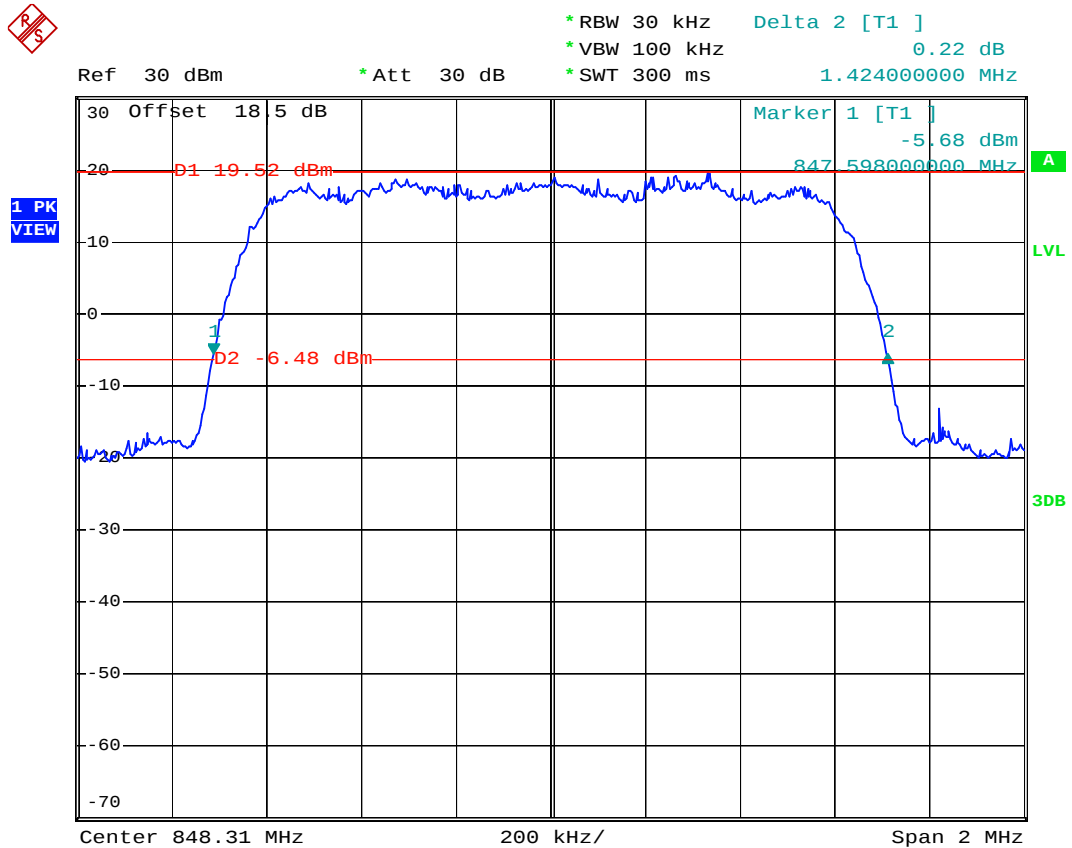
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- Power State : High



Date: 10.JAN.2008 02:42:16



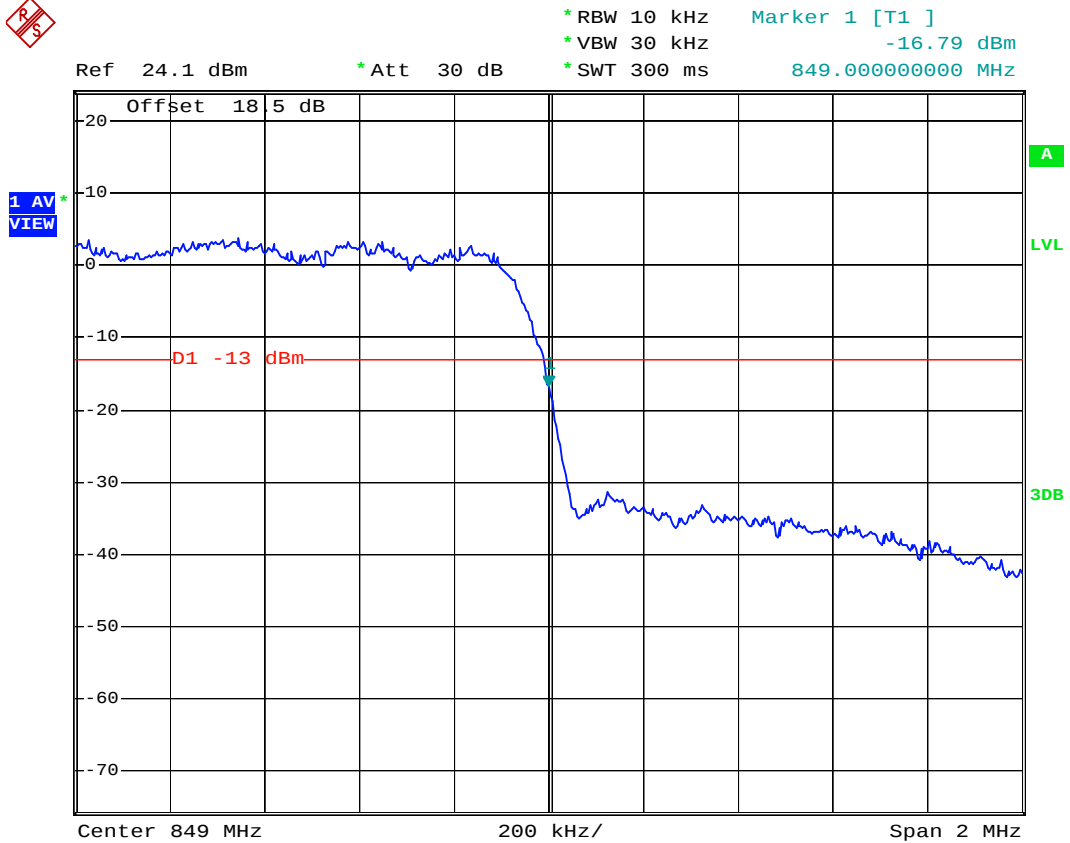
- Test Mode : CDMA2000 Cellular CH777\_153.6Kbps 26 dB Bandwidth for 1xEV-DO Rev0 RTAP
- Power State : High



Date: 10.JAN.2008 02:45:20



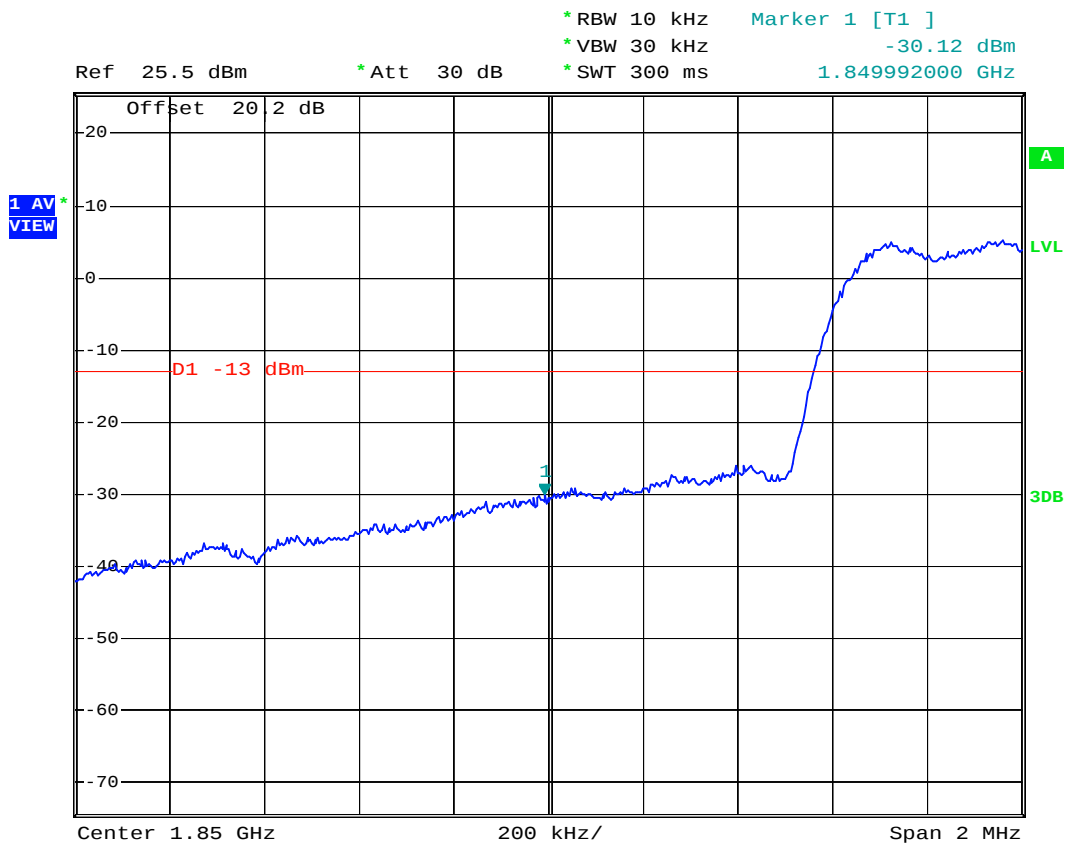
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- Power State : High



Date: 10.JAN.2008 03:07:15



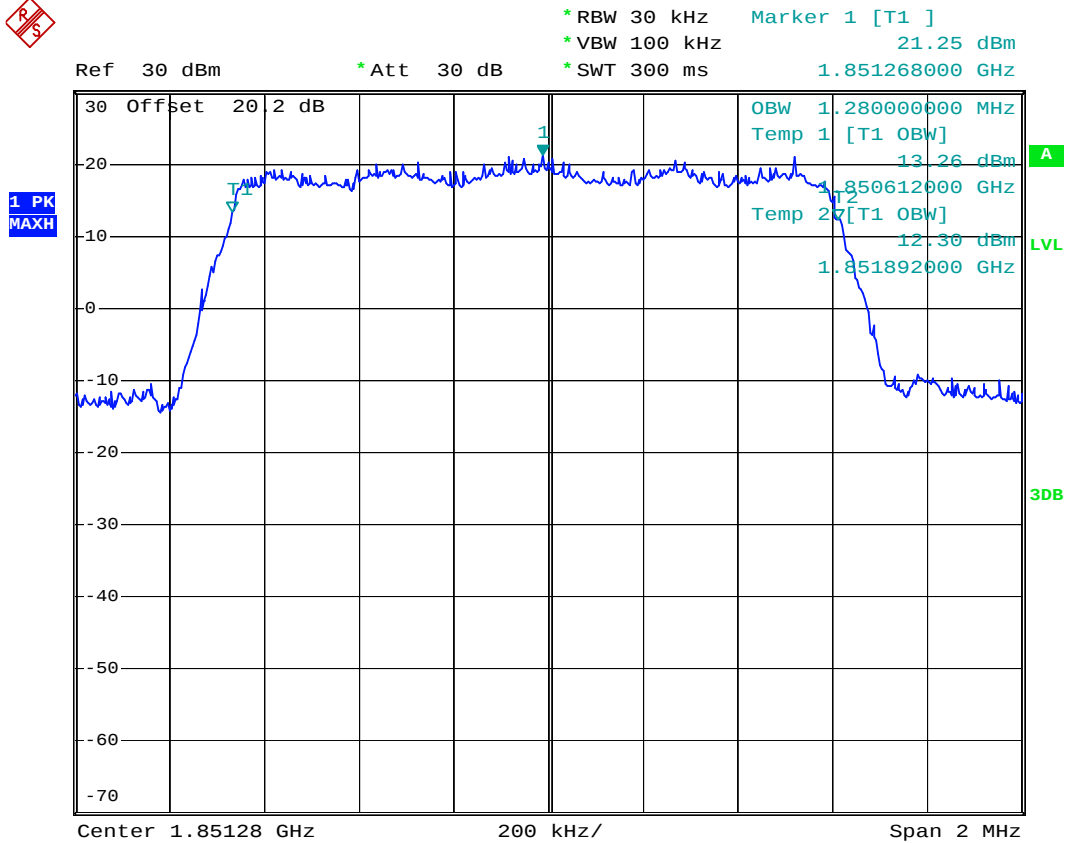
- Mode 3
- Test Mode : CDMA2000 PCS Band CH25\_FCH\_RC1 Lower Band Edge for 1xRTT
- Power State : High



Date: 20.DEC.2007 21:08:26



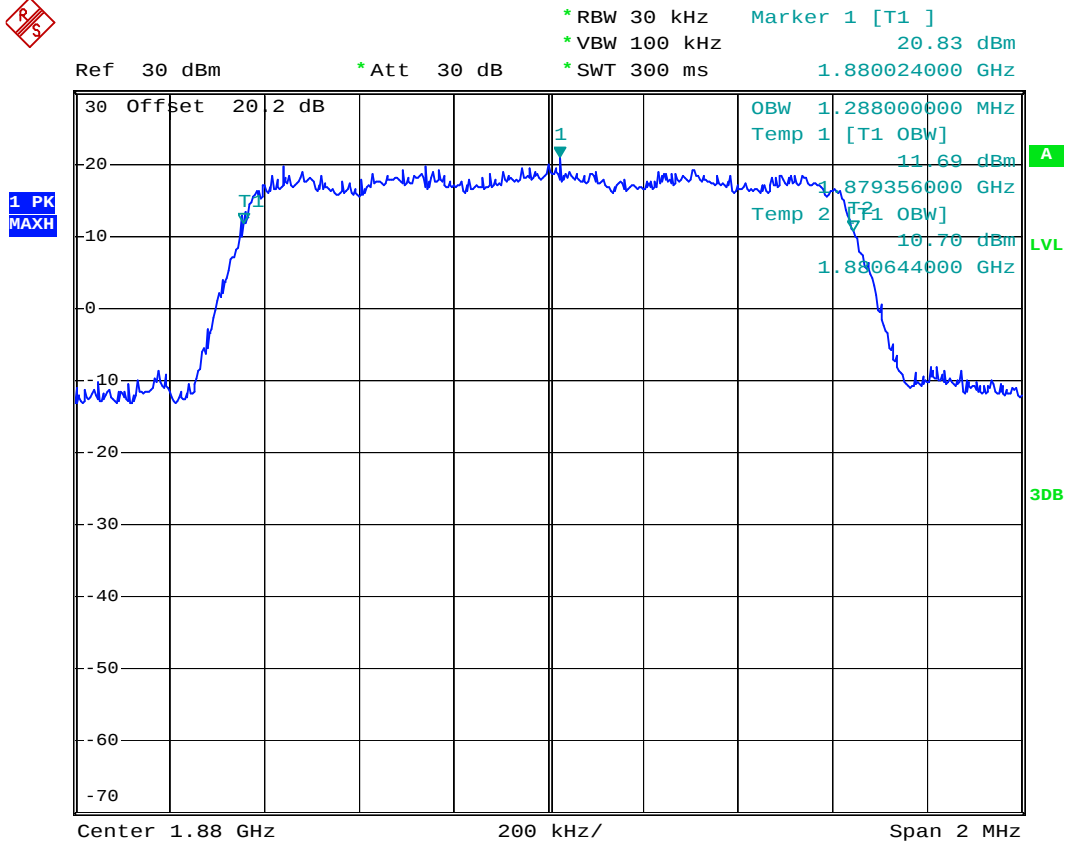
- Test Mode : CDMA2000 PCS Band CH25\_FCH\_RC1 99% Occupied Bandwidth for 1xRTT
- Power State : High



Date: 1.DEC.2007 03:51:58



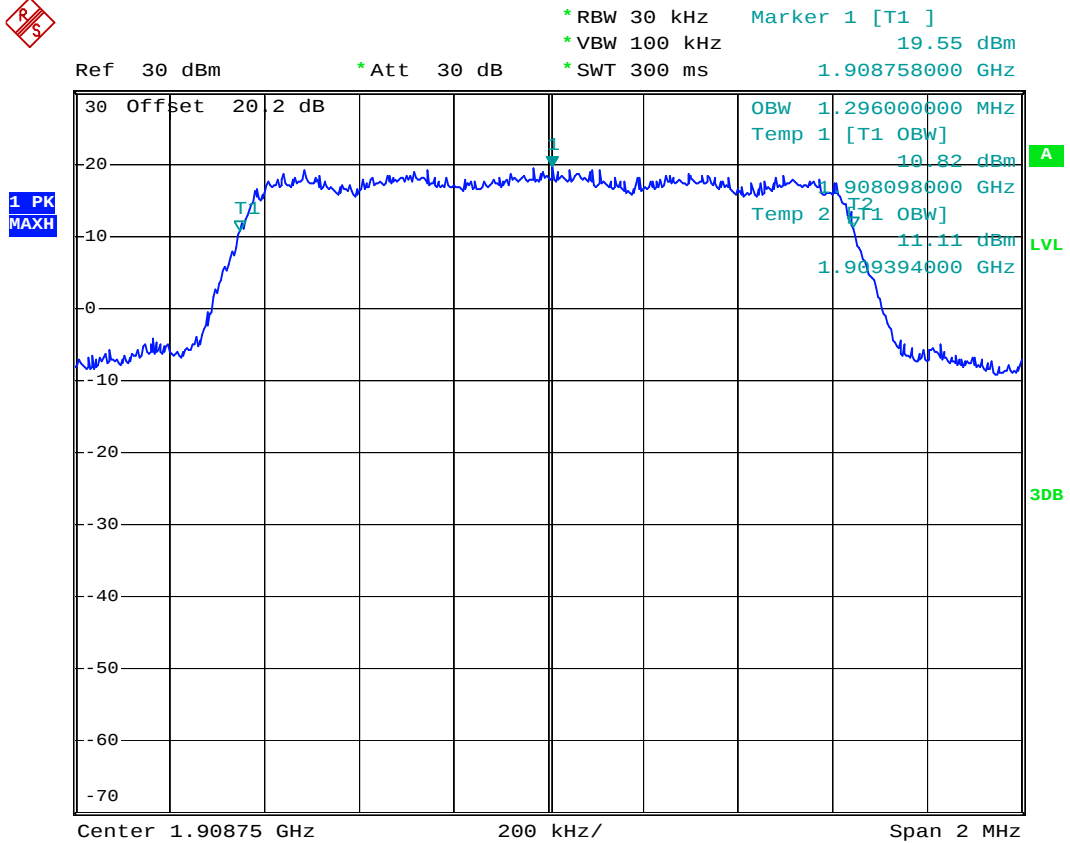
- Test Mode : CDMA2000 PCS Band CH600\_FCH\_RC1 99% Occupied Bandwidth for 1xRTT
- Power State : High



Date: 1.DEC.2007 03:52:24



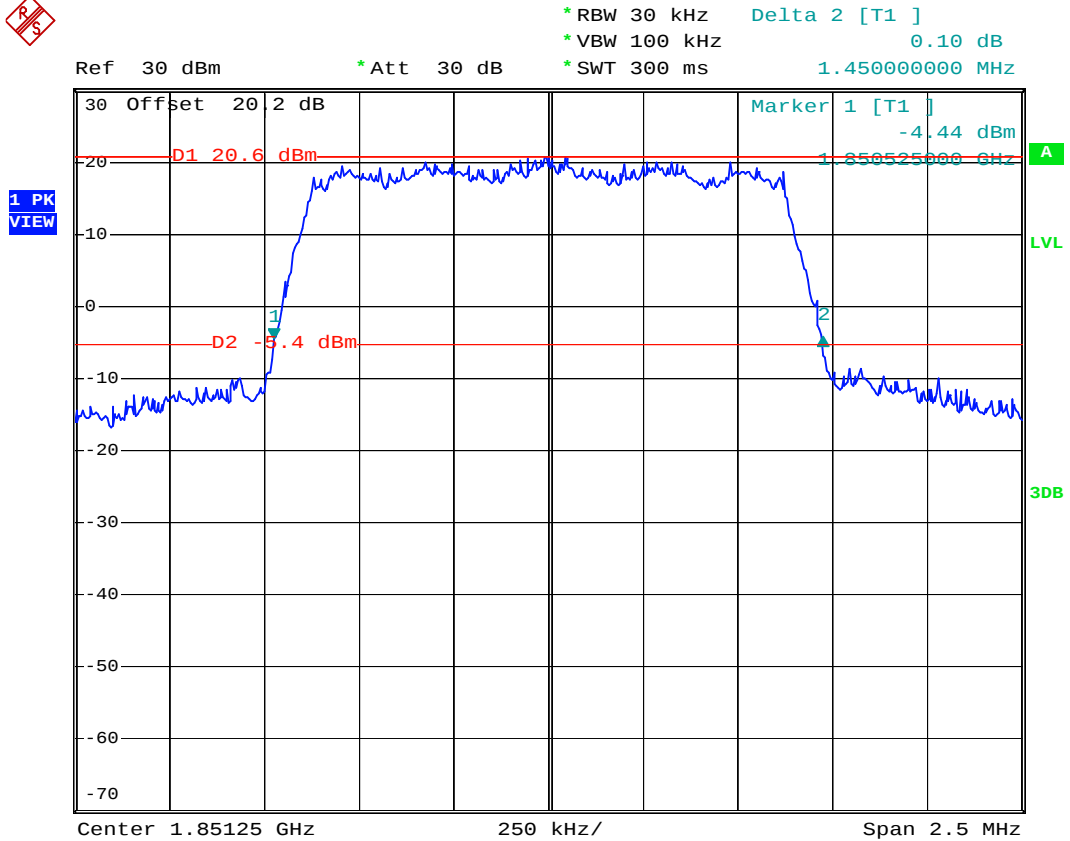
- Test Mode : CDMA2000 PCS Band CH1175\_FCH\_RC1 99% Occupied Bandwidth for 1xRTT
- Power State : High



Date: 1.DEC.2007 03:51:24



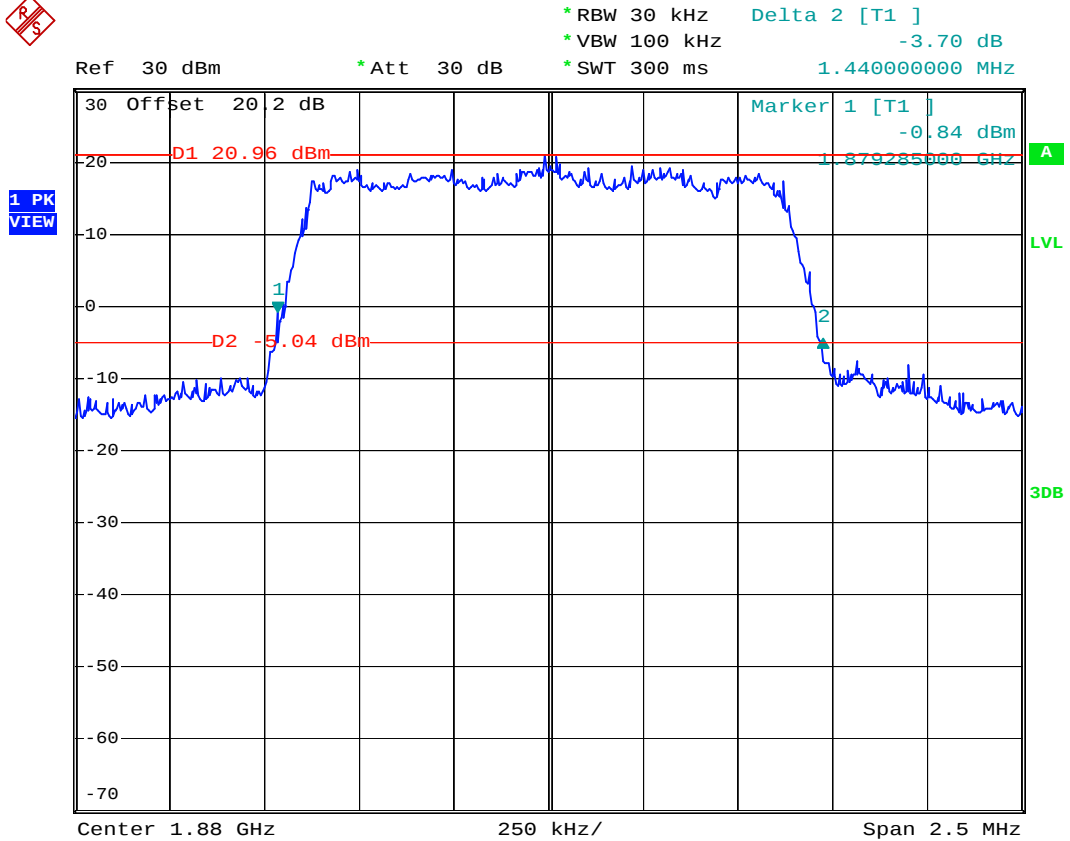
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- Power State : High



Date: 1.DEC.2007 03:19:14



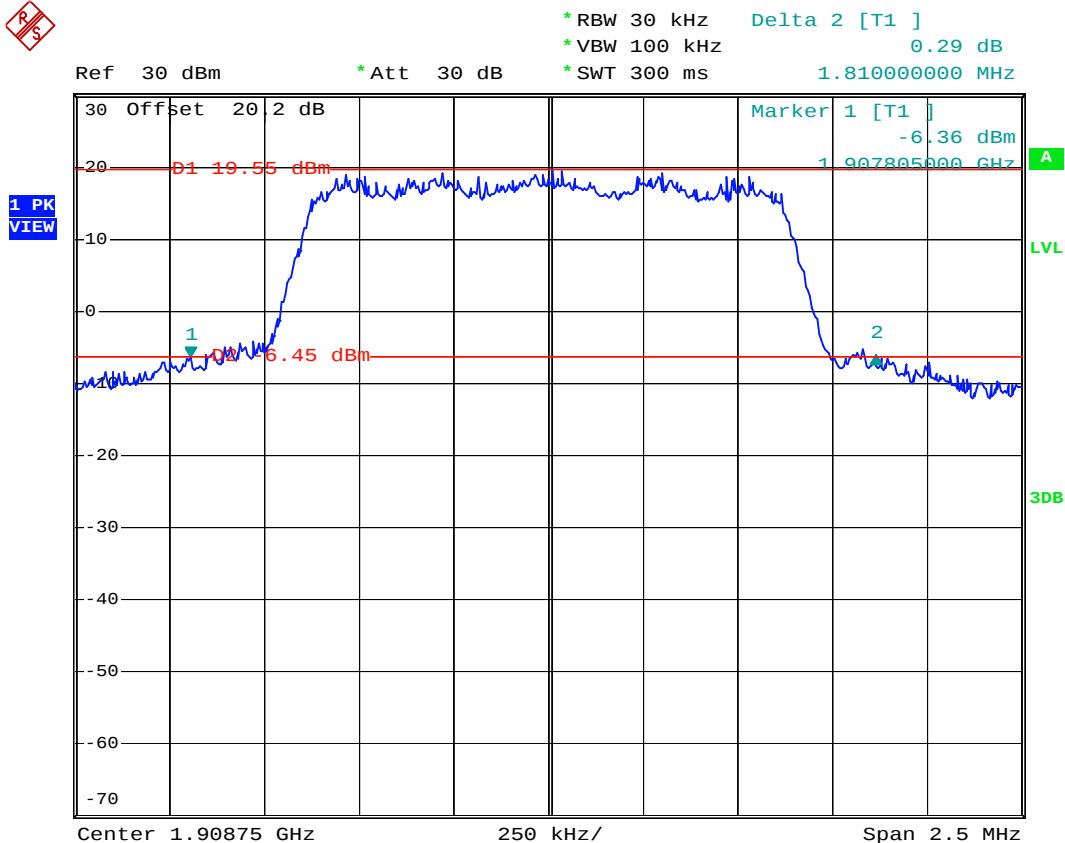
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- Power State : High



Date: 1.DEC.2007 03:20:12



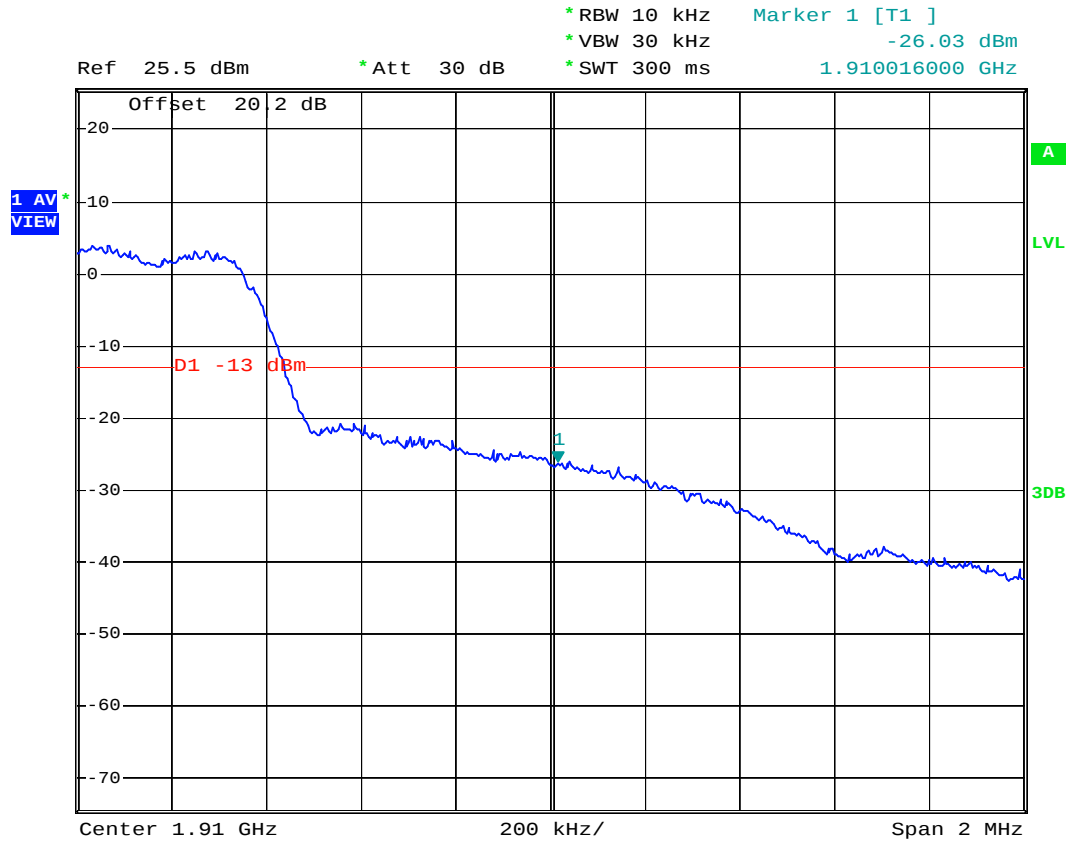
- Test Mode : CDMA2000 CS 1900 Band CH1175\_FCH\_RC1 26 dB Bandwidth for 1xRTT
- Power State : High



Date: 1.DEC.2007 03:18:01



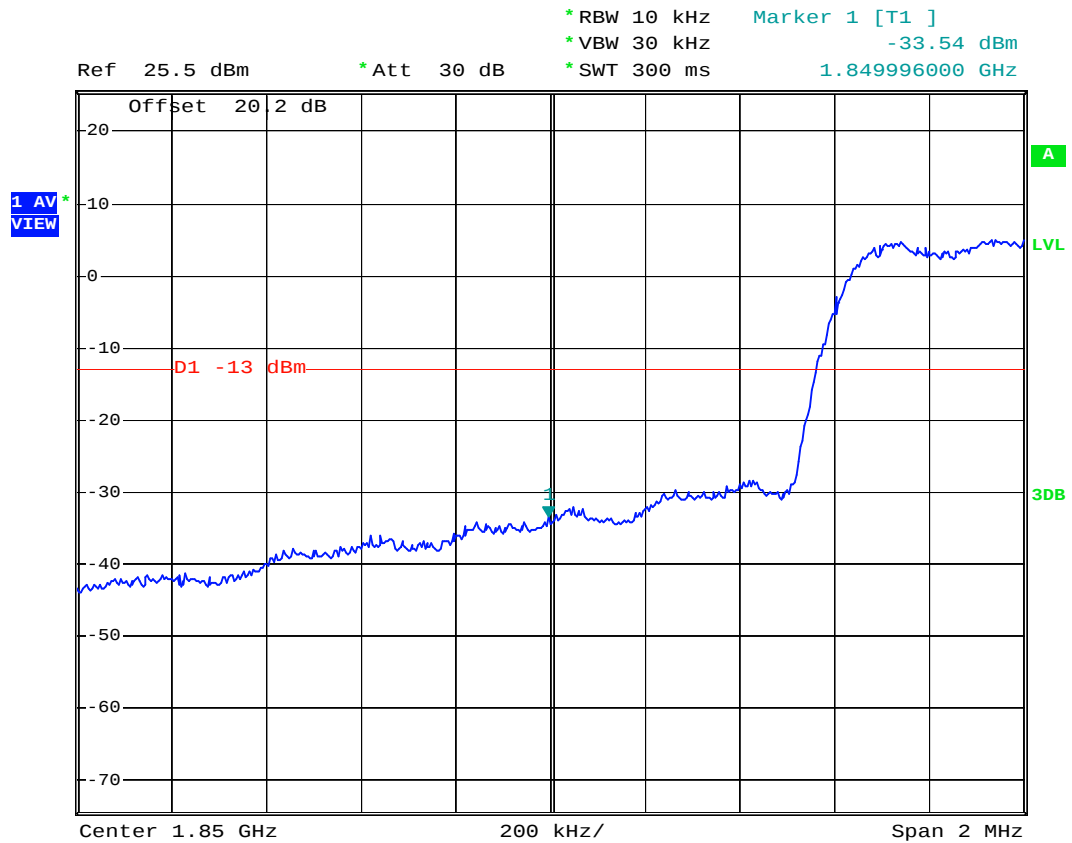
- Test Mode : CDMA2000 PCS Band CH1175\_FCH\_RC1 Higher Band Edge for 1xRTT
- Power State : High



Date: 20.DEC.2007 21:06:23



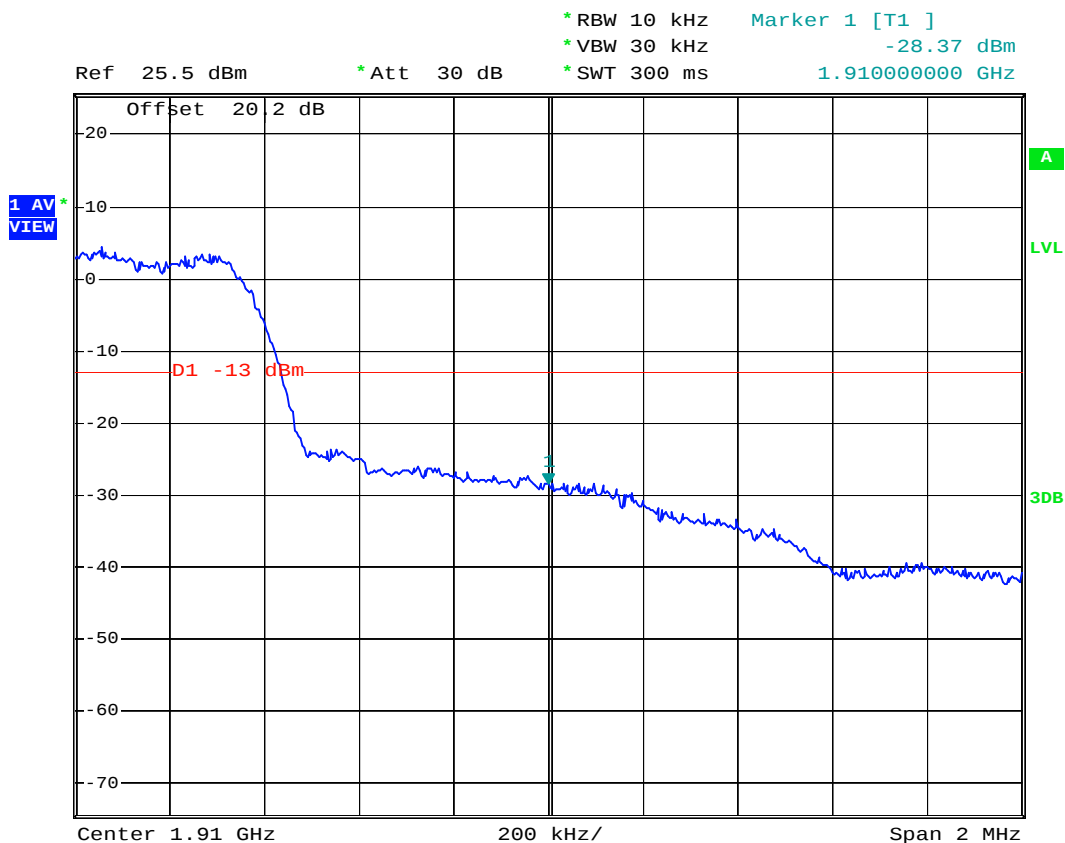
- Test Mode : CDMA2000 PCS Band CH25\_FCH\_RC3 Lower Band Edge for 1xRTT
- Power State : High



Date: 20.DEC.2007 21:10:35



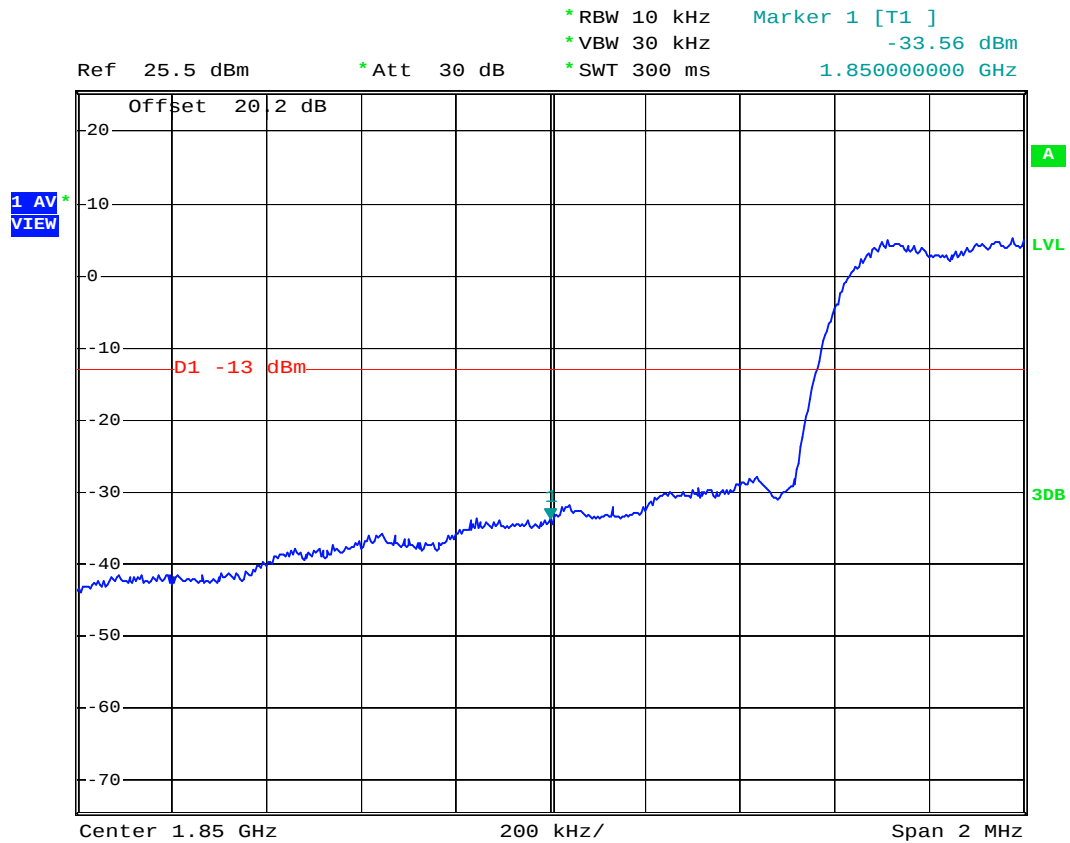
- Test Mode : CDMA2000 PCS Band CH1175\_FCH\_RC3 Higher Band Edge for 1xRTT
- Power State : High



Date: 20.DEC.2007 21:17:01



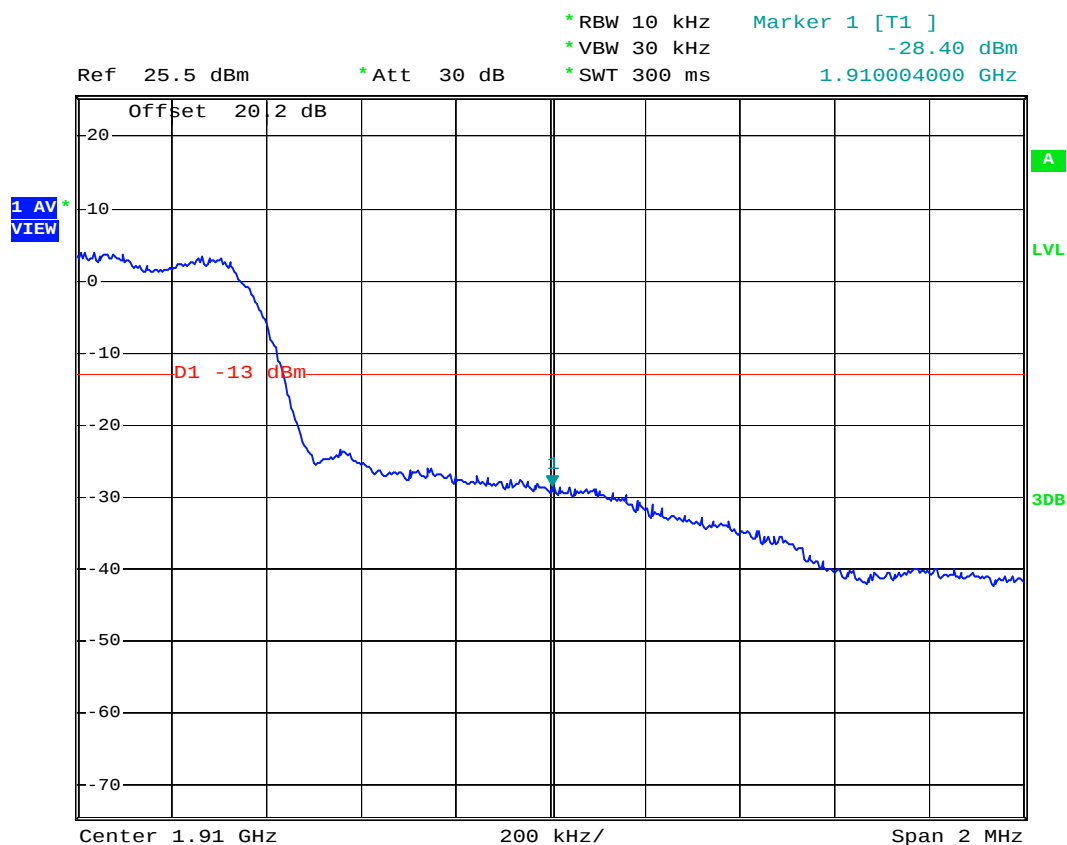
- Test Mode : CDMA2000 PCS Band CH25\_FCH+SCH\_RC3 Lower Band Edge for 1xRTT
- Power State : High



Date: 20.DEC.2007 21:25:47



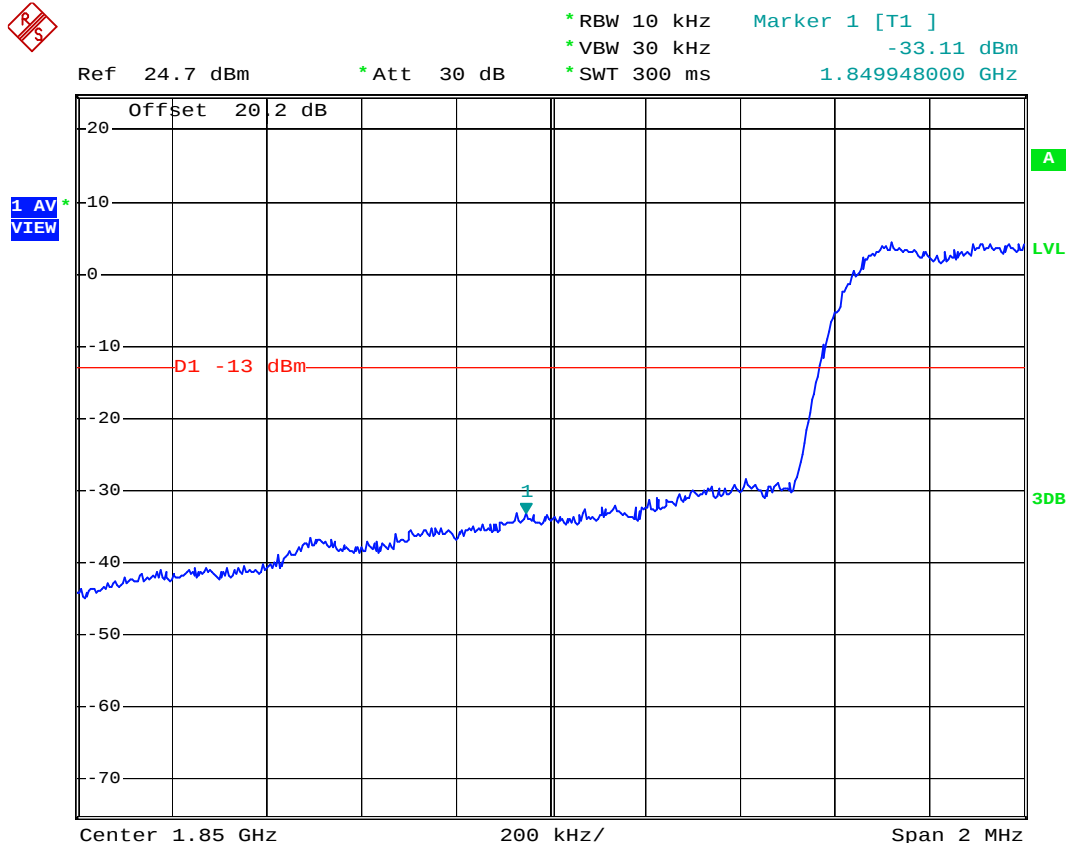
- Test Mode : CDMA2000 PCS Band CH1175\_FCH+SCH\_RC3 Higher Band Edge for 1xRTT
- Power State : High



Date: 20.DEC.2007 21:23:46



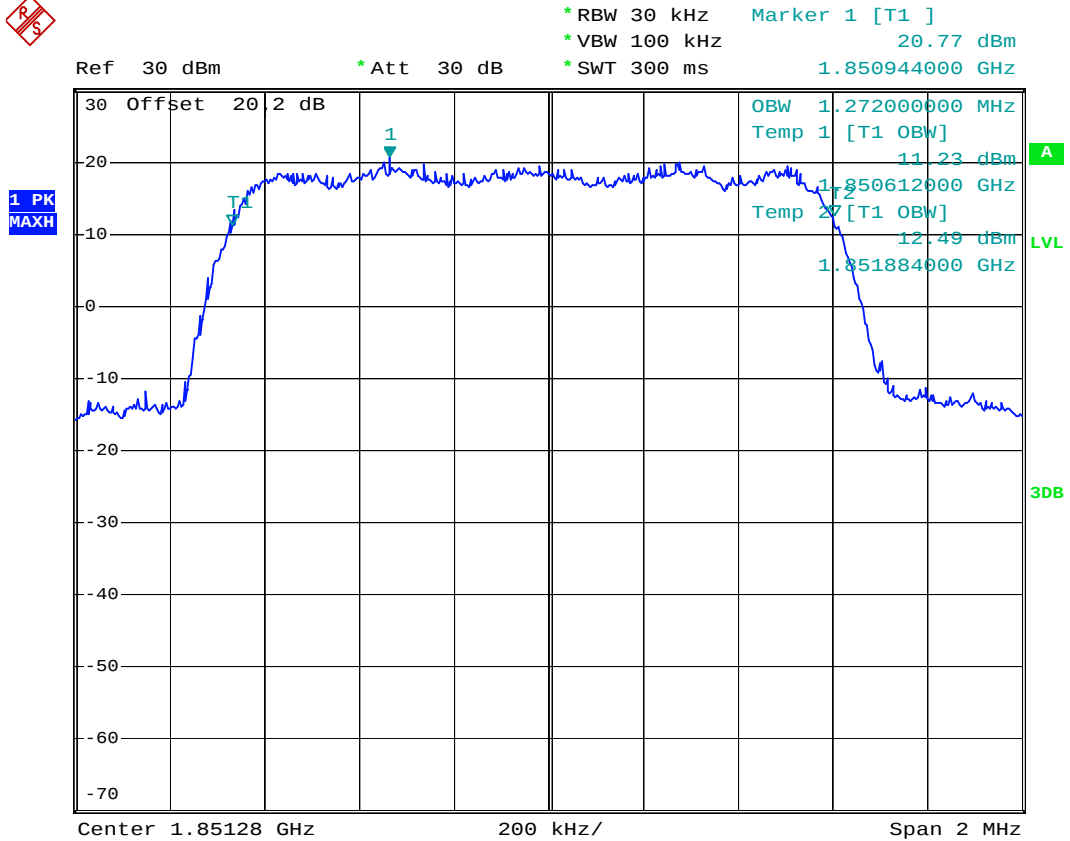
- Mode 4
- Test Mode : CDMA2000 PCS CH25\_9.6Kbps Lower Band Edge for 1xEV-DO Rev0 RTAP
- Power State : High



Date: 10.JAN.2008 04:23:02



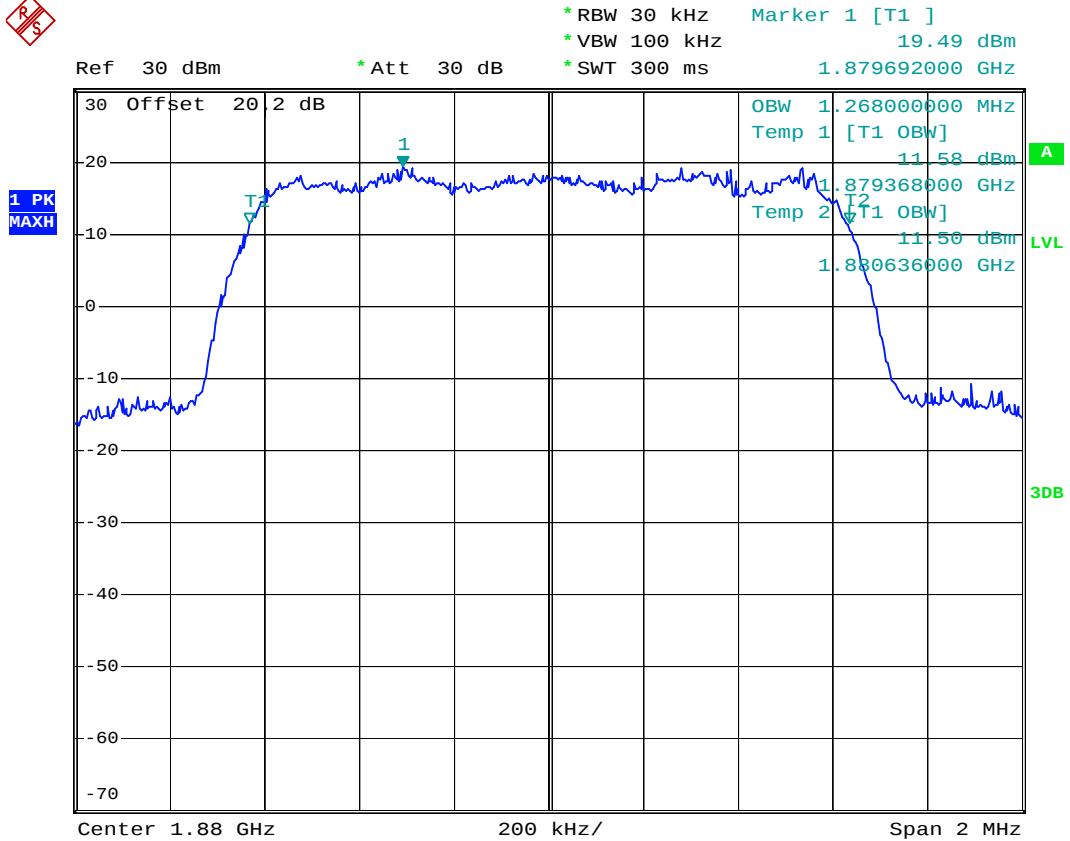
- Test Mode : CDMA2000 PCS CH25\_9.6Kbps 99% Occupied Bandwidth for 1xEV-DO Rev0 RTAP
- Power State : High



Date: 10.JAN.2008 03:49:59



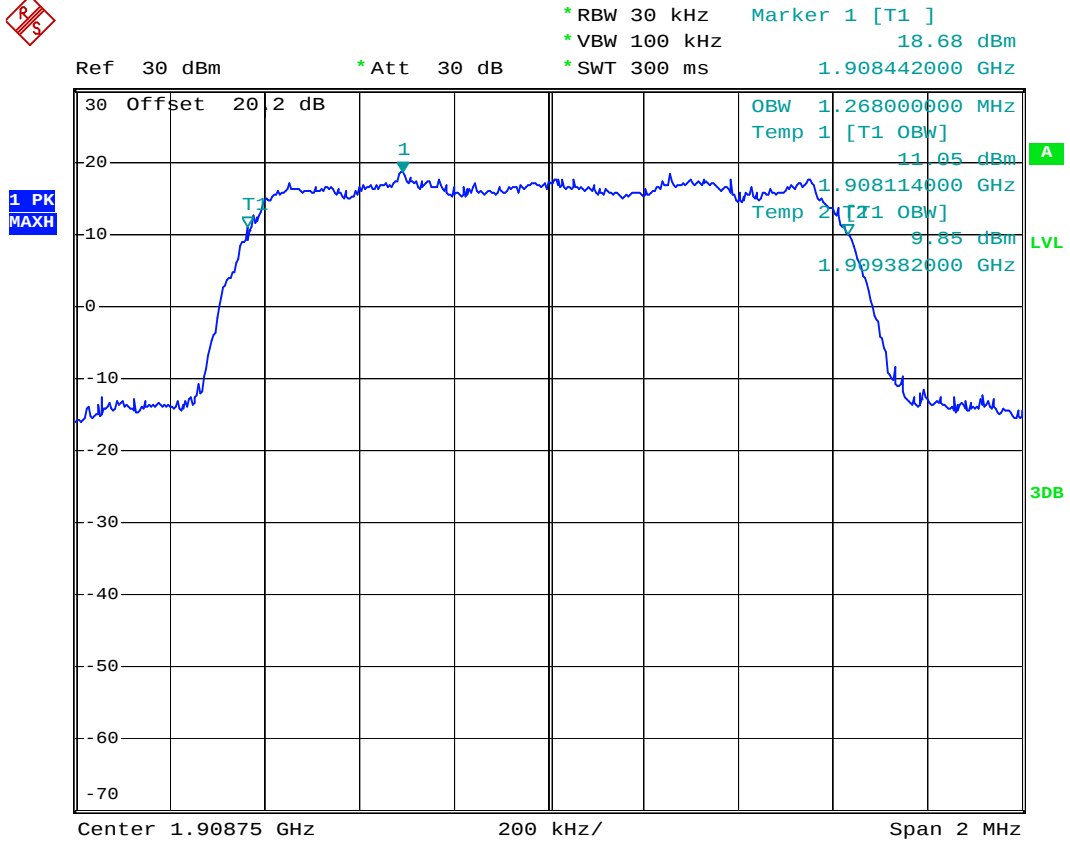
- Test Mode : CDMA2000 PCS CH600\_9.6Kbps 99% Occupied Bandwidth for 1xEV-DO Rev0 RTAP
- Power State : High



Date: 10.JAN.2008 03:50:24



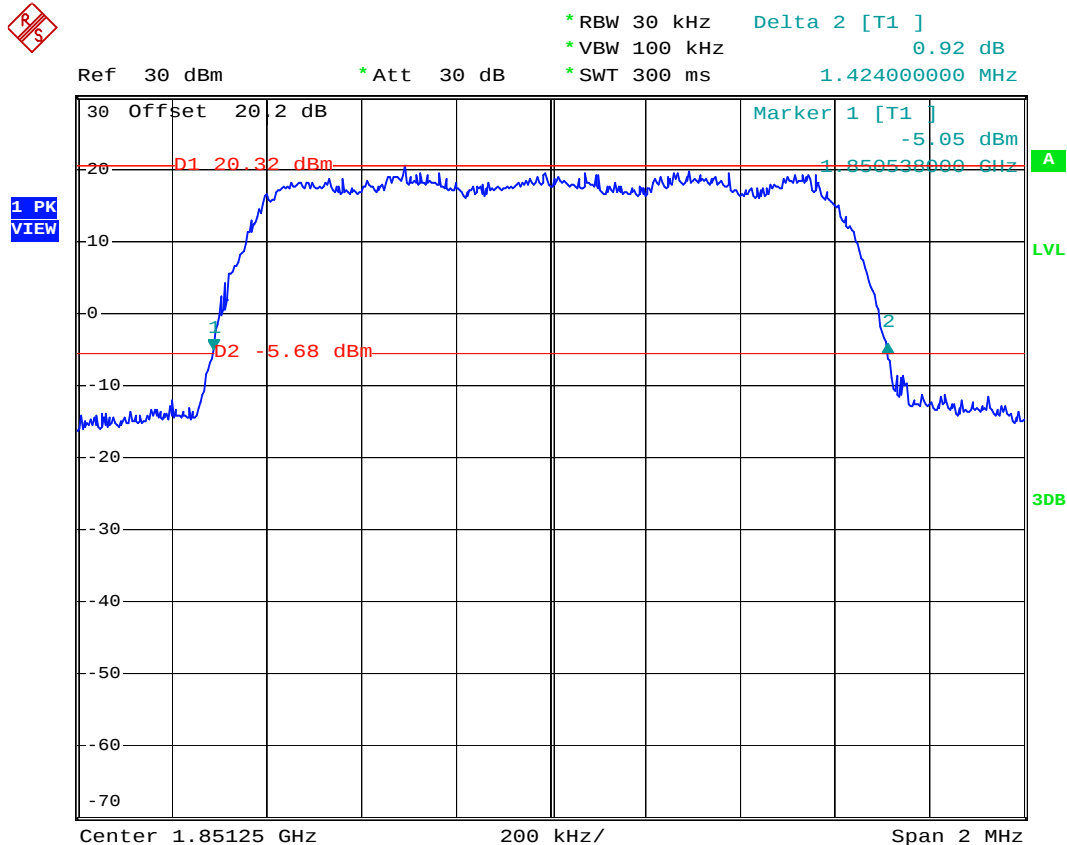
- Test Mode : CDMA2000 PCS CH1175\_9.6Kbps 99% Occupied Bandwidth for 1xEV-DO Rev0 RTAP
- Power State : High



Date: 10.JAN.2008 03:49:25



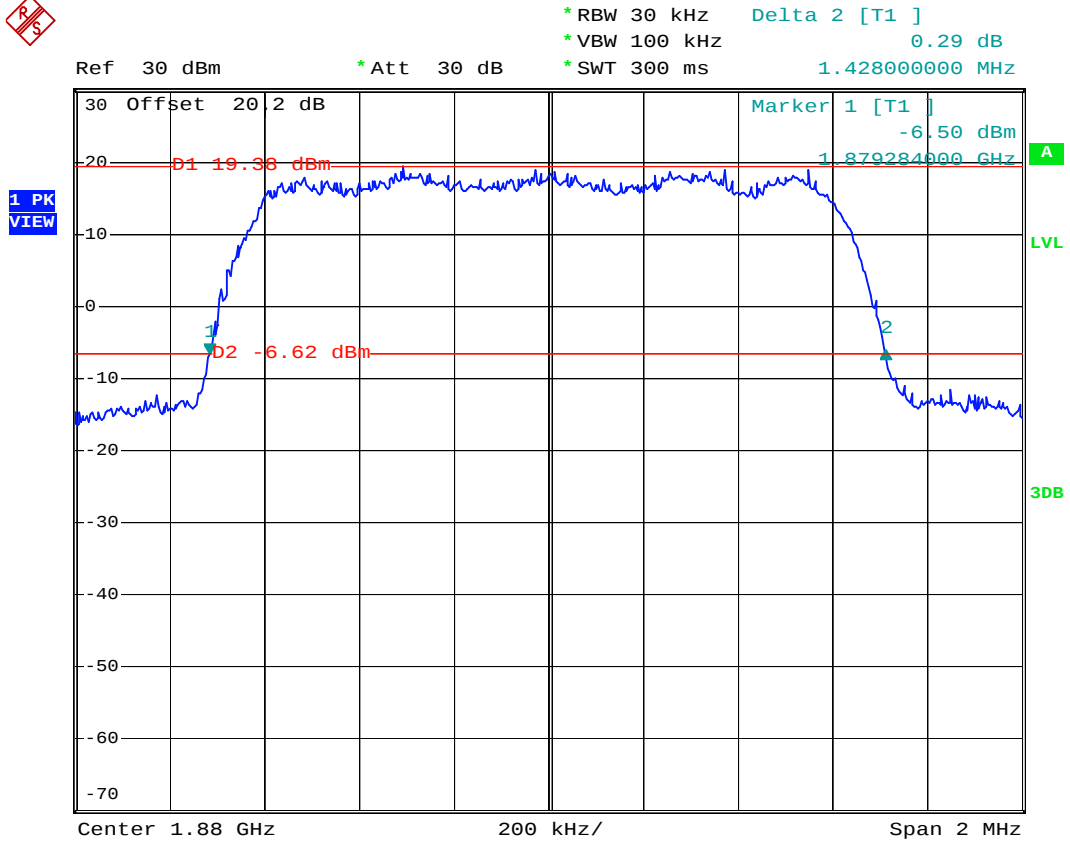
- Test Mode : CDMA2000 PCS CH25\_9.6Kbps 26 dB Bandwidth for 1xEV-DO Rev0 RTAP
- Power State : High



Date: 10.JAN.2008 03:44:54



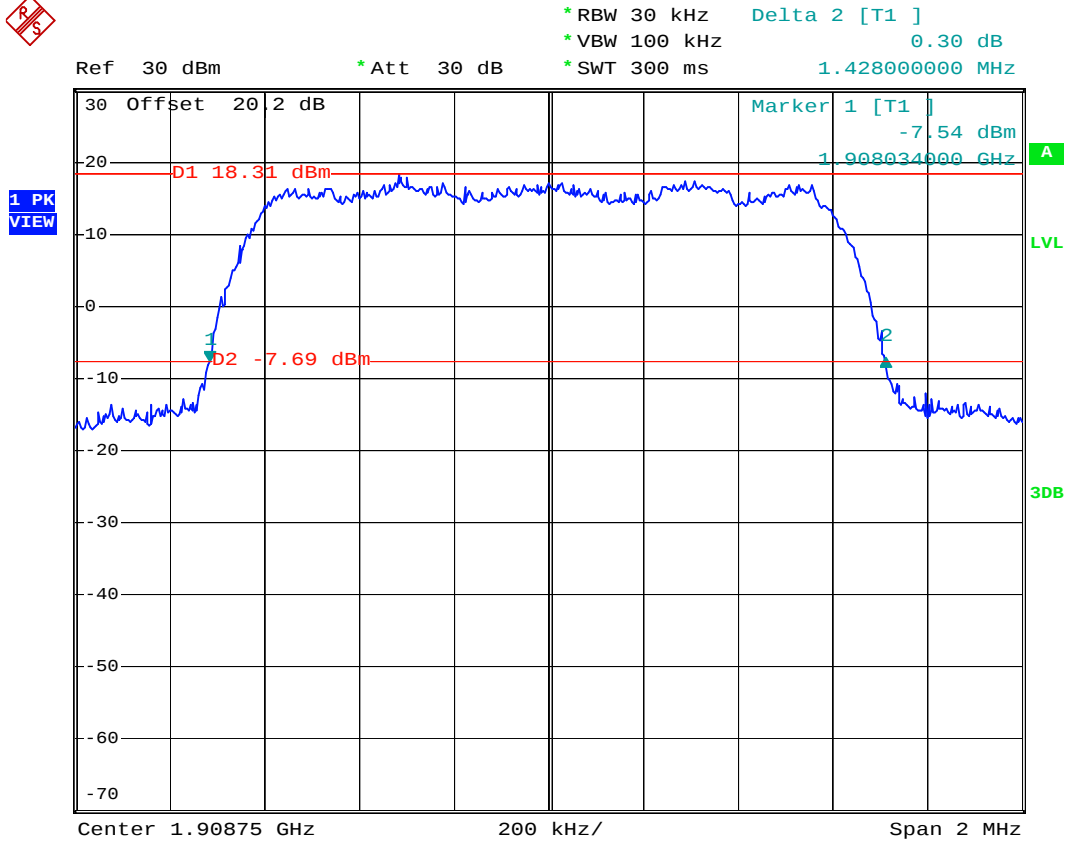
- Test Mode : CDMA2000 PCS CH600\_9.6Kbps 26 dB Bandwidth for 1xEV-DO Rev0 RTAP
- Power State : High



Date: 10.JAN.2008 03:46:04



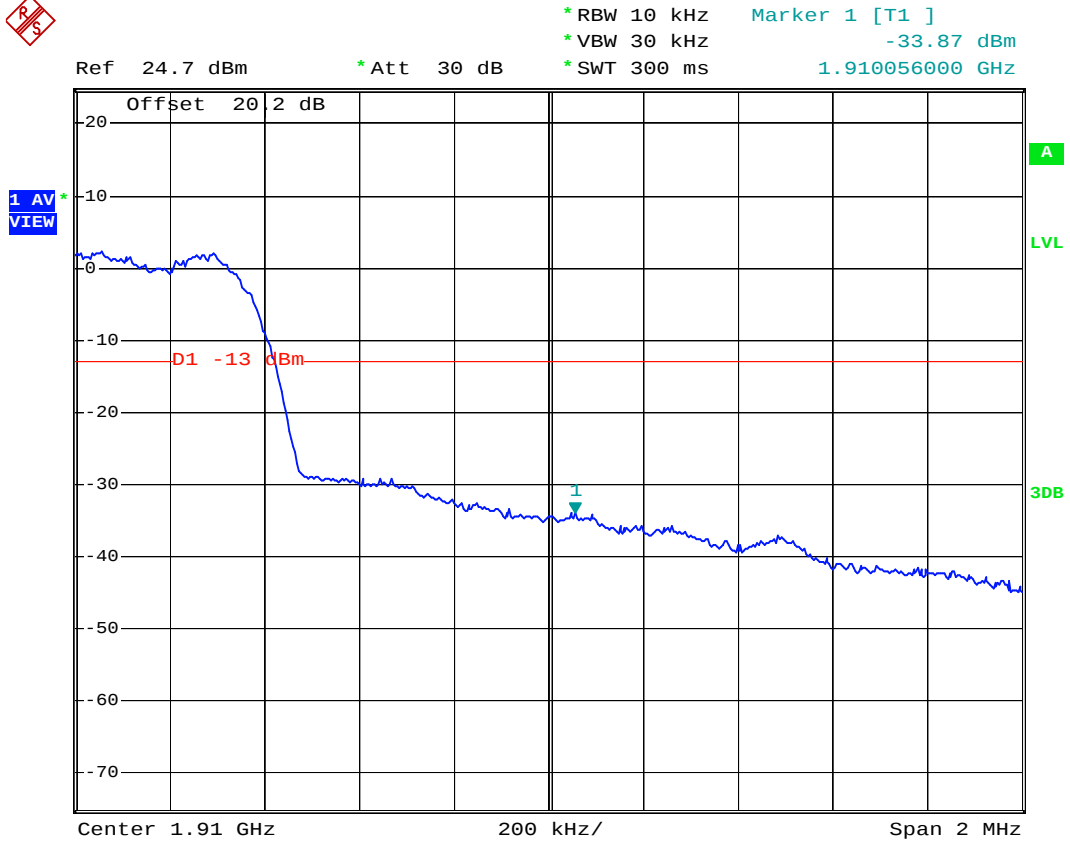
- Test Mode : CDMA2000 PCS CH1175\_9.6Kbps 26 dB Bandwidth for 1xEV-DO Rev0 RTAP
- Power State : High



Date: 10.JAN.2008 03:43:31



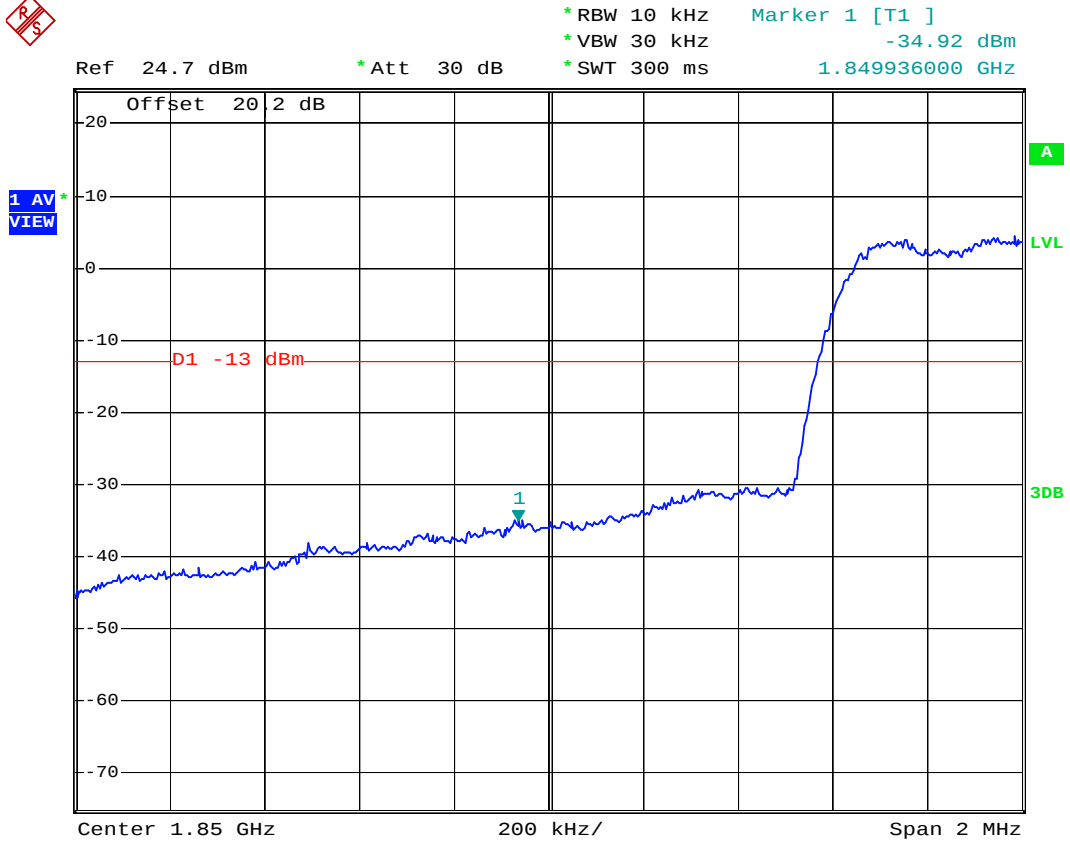
- Test Mode : CDMA2000 PCS CH1175\_9.6Kbps Higher Band Edge for 1xEV-DO Rev0 RTAP
- Power State : High



Date: 10.JAN.2008 04:00:45



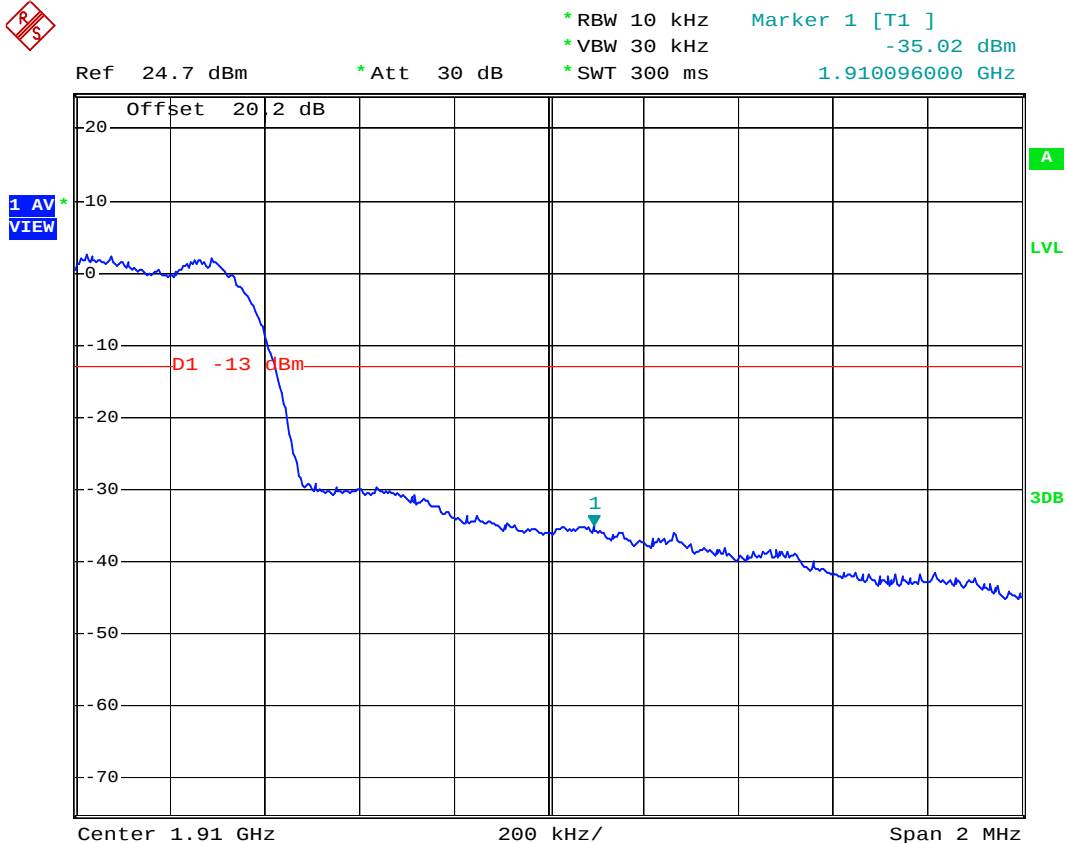
- Test Mode : CDMA2000 PCS CH25\_38.4Kbps Lower Band Edge for 1xEV-DO Rev0 RTAP
- Power State : High



Date: 10.JAN.2008 04:21:37



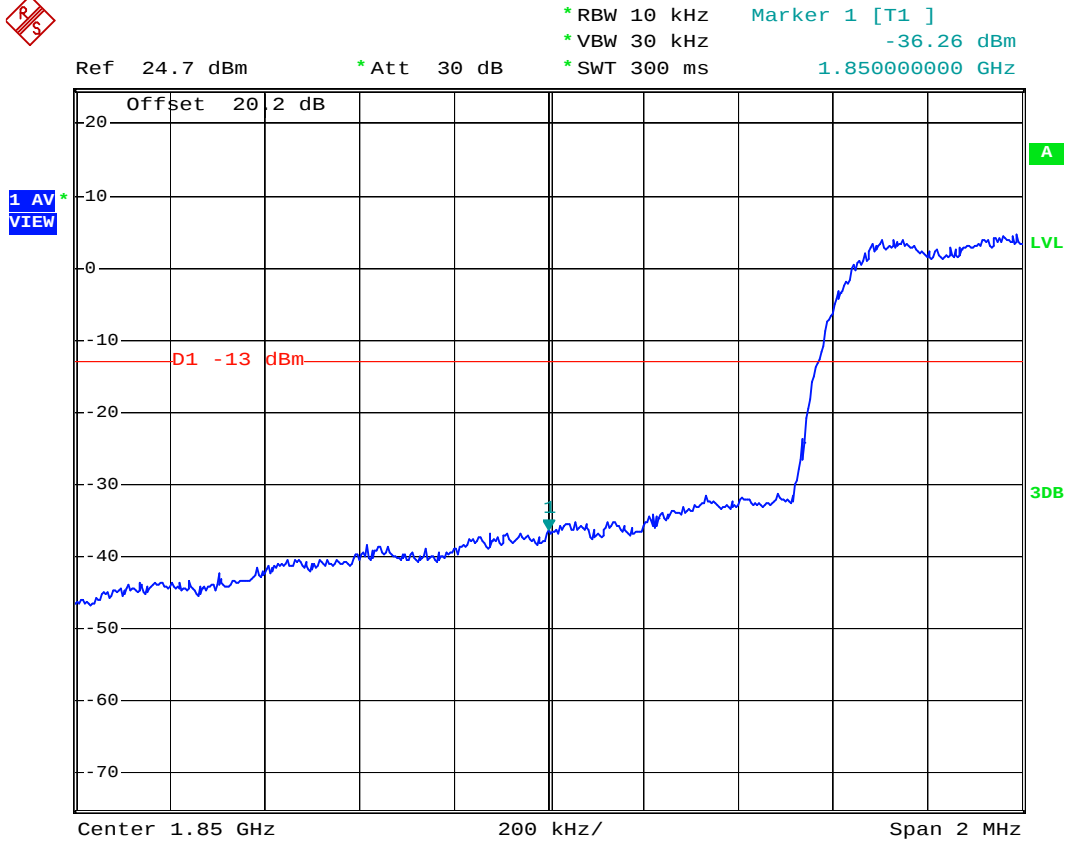
- Test Mode : CDMA2000 PCS CH1175\_38.4Kbps Higher Band Edge for 1xEV-DO Rev0 RTAP
- Power State : High



Date: 10.JAN.2008 04:02:01



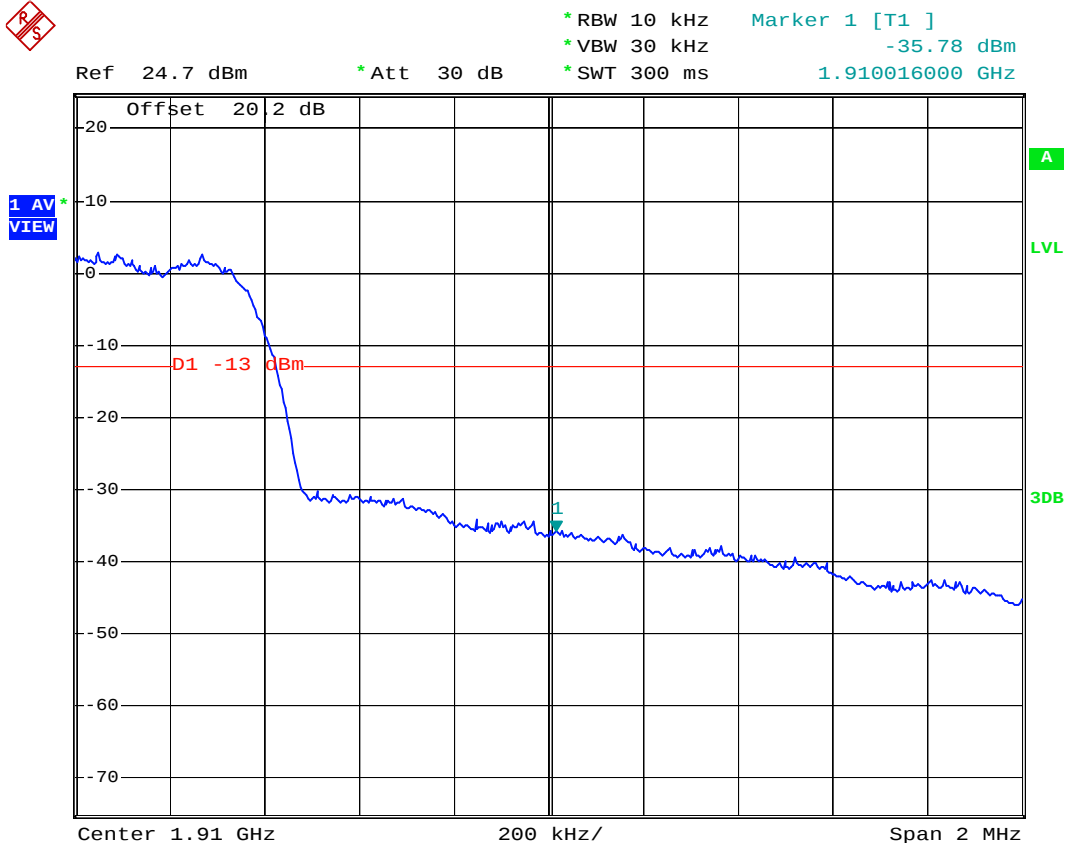
- Test Mode : CDMA2000 PCS CH25\_153.6Kbps Lower Band Edge for 1xEV-DO Rev0 RTAP
- Power State : High



Date: 10.JAN.2008 04:20:12



- Test Mode : CDMA2000 PCS CH1175\_153.6Kbps Higher Band Edge for 1xEV-DO Rev0 RTAP
- Power State : High



Date: 10.JAN.2008 04:05:00

## 4.5 Conducted Emission

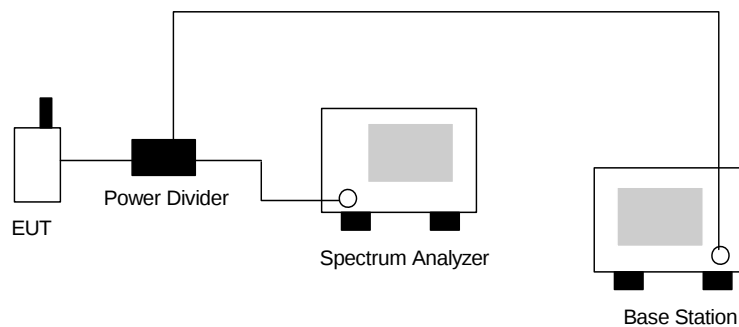
### 4.5.1 Measurement Instruments

As described in chapter 5 of this test report.

### 4.5.2 Test Procedure

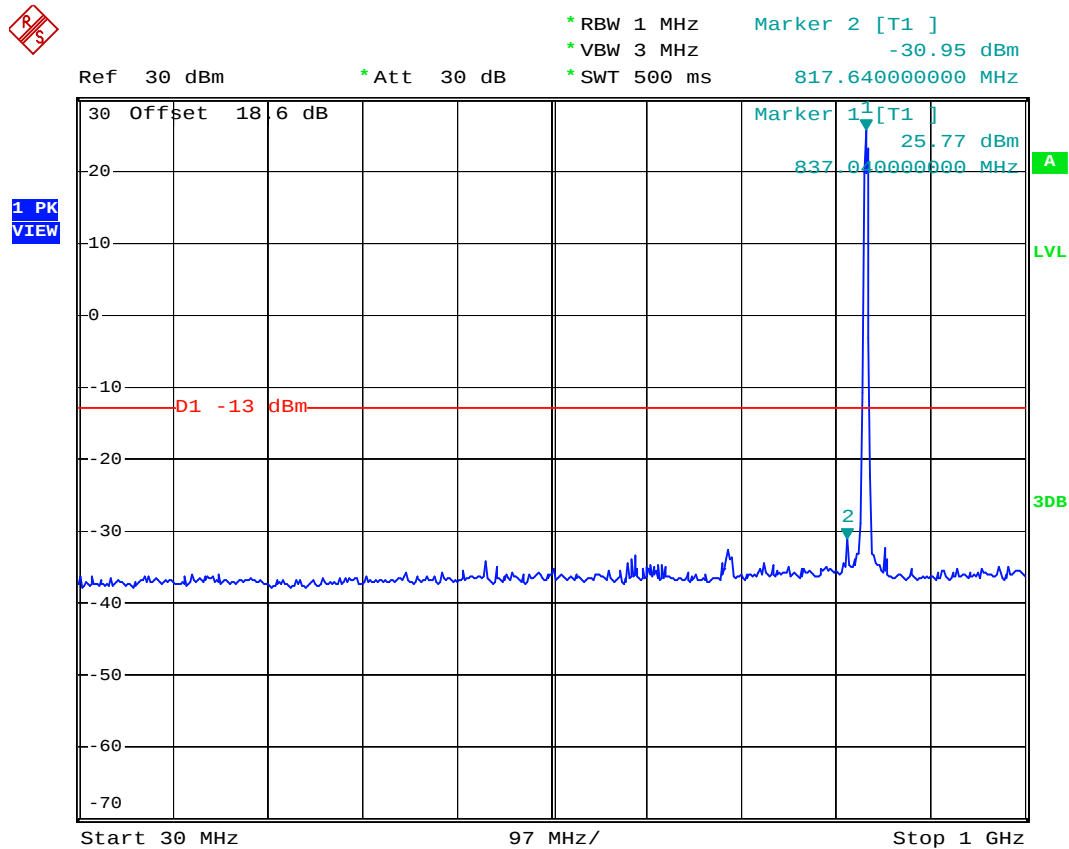
- The EUT was connected to Spectrum Analyzer and Base Station via power divider.
- The middle channel for the highest RF power within the transmitting frequency was measured.
- The conducted spurious emission for the whole frequency range was taken.

### 4.5.3 Test Setup Layout



**4.5.4 Test Result**

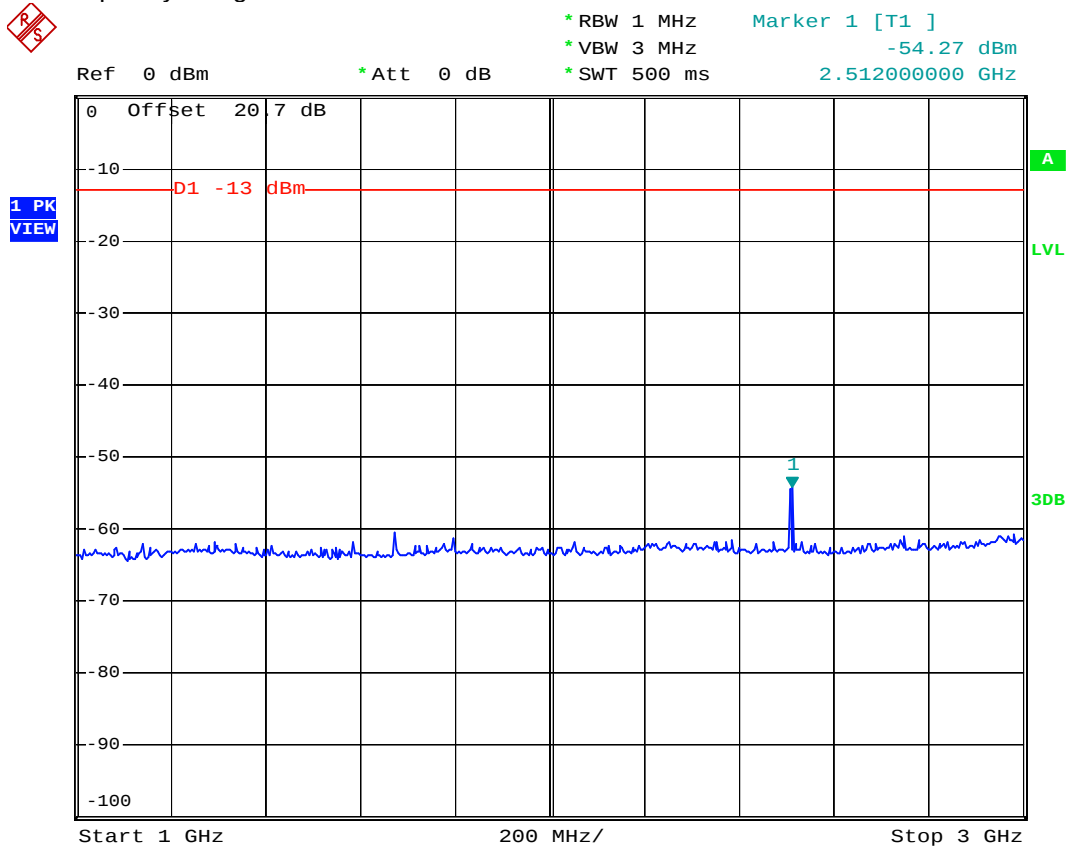
- Mode 1
- Test Mode : CDMA2000 Cellular CH384 for 1xRTT
- Frequency Range : 30M-1G



Date: 1.DEC.2007 00:57:12



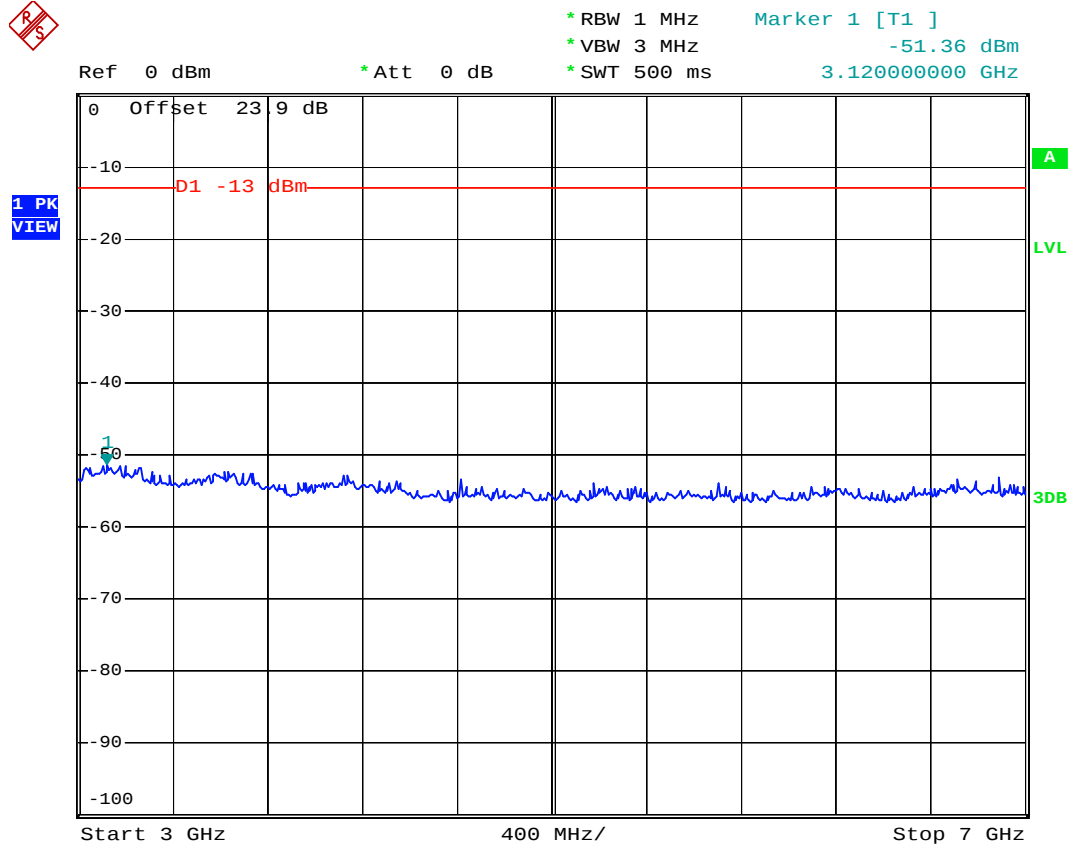
- Test Mode : CDMA2000 Cellular CH384 for 1xRTT
- Frequency Range : 1G-3G



Date: 1.DEC.2007 04:29:30



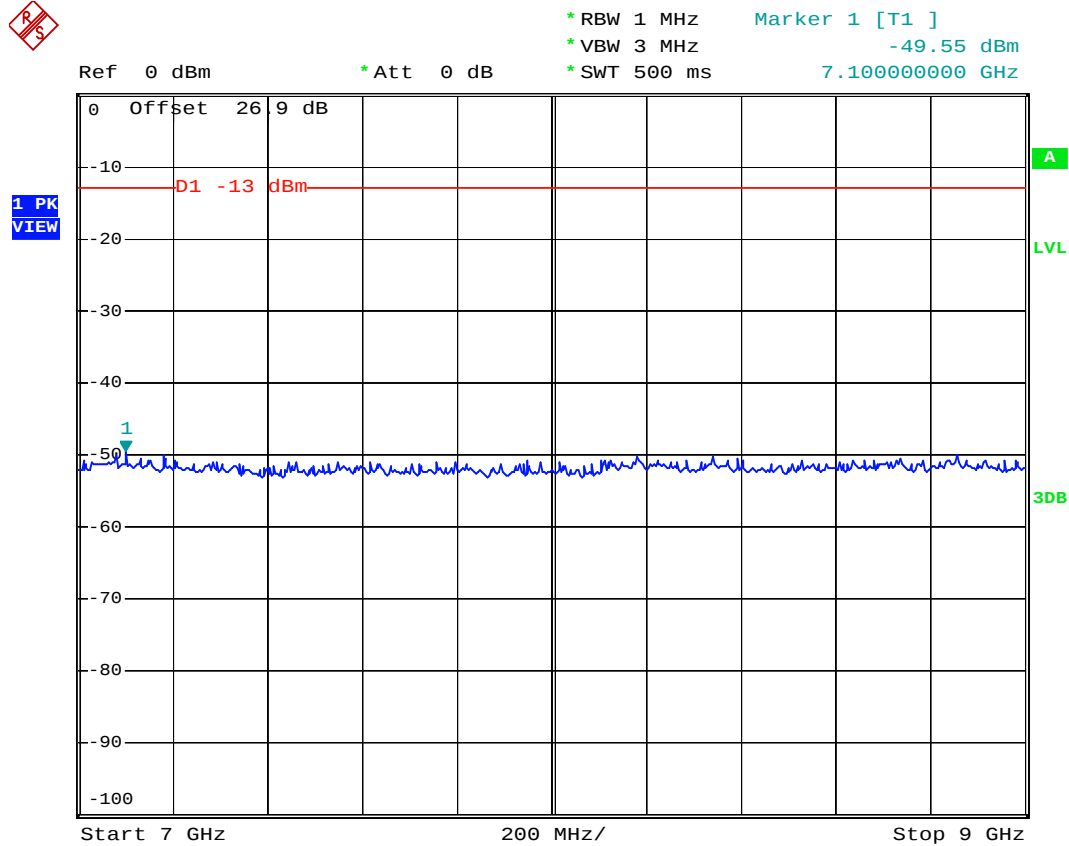
- Test Mode : CDMA2000 Cellular CH384 for 1xRTT
- Frequency Range : 3G-7G



Date: 1.DEC.2007 04:30:27



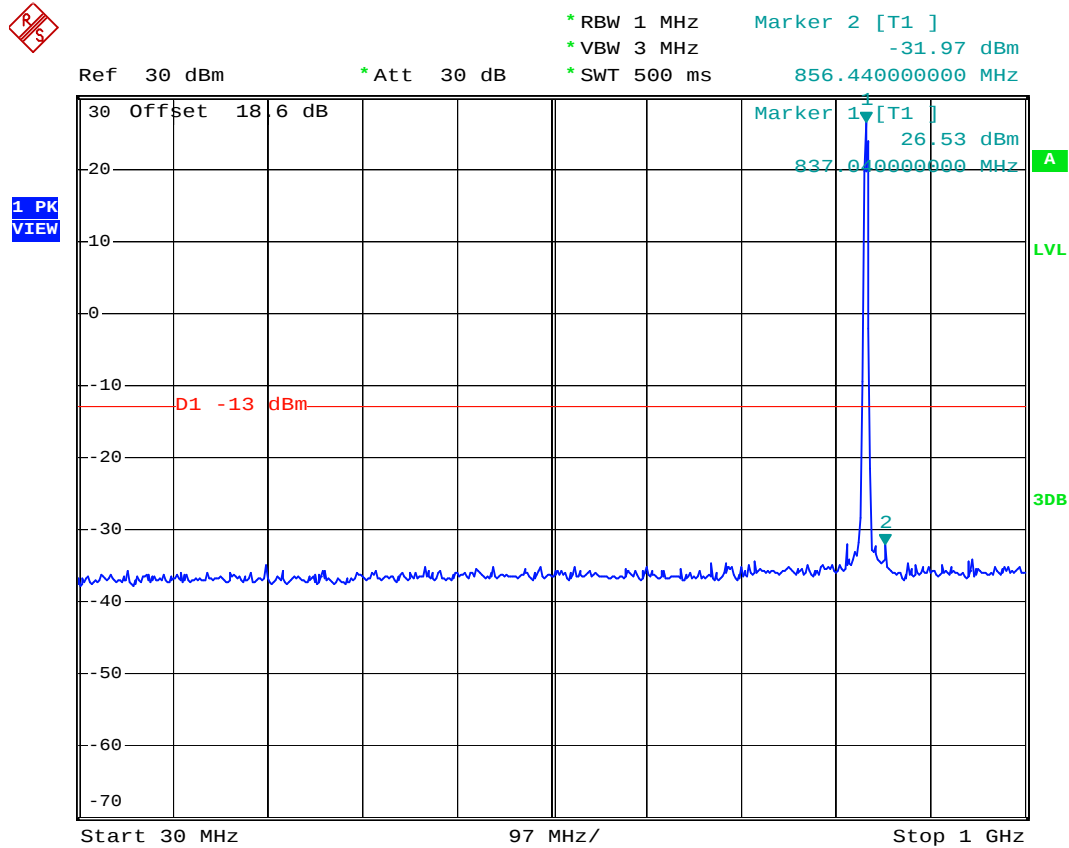
- Test Mode : CDMA2000 Cellular CH384 for 1xRTT
- Frequency Range : 7G-9G



Date: 1.DEC.2007 04:32:08



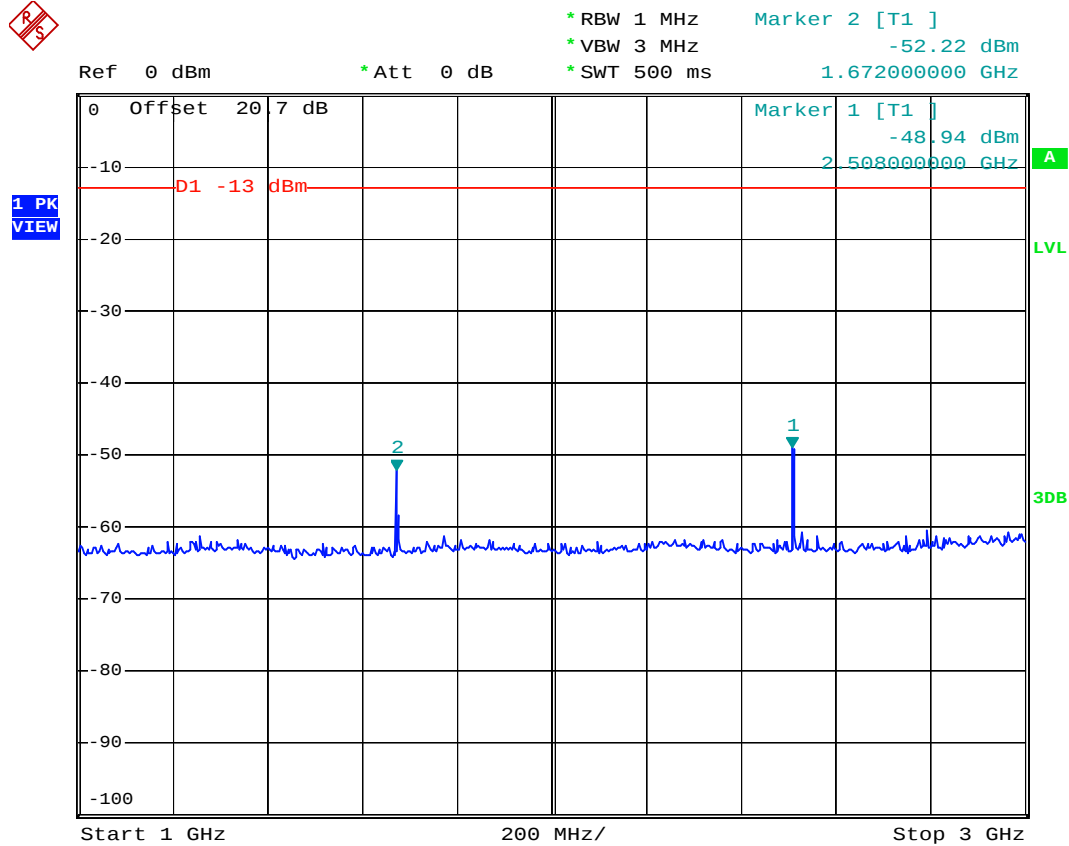
- Mode 2
- Test Mode : CDMA2000 Cellular CH384 for 1xEVDO
- Frequency Range : 30M-1G



Date: 10.JAN.2008 05:00:27



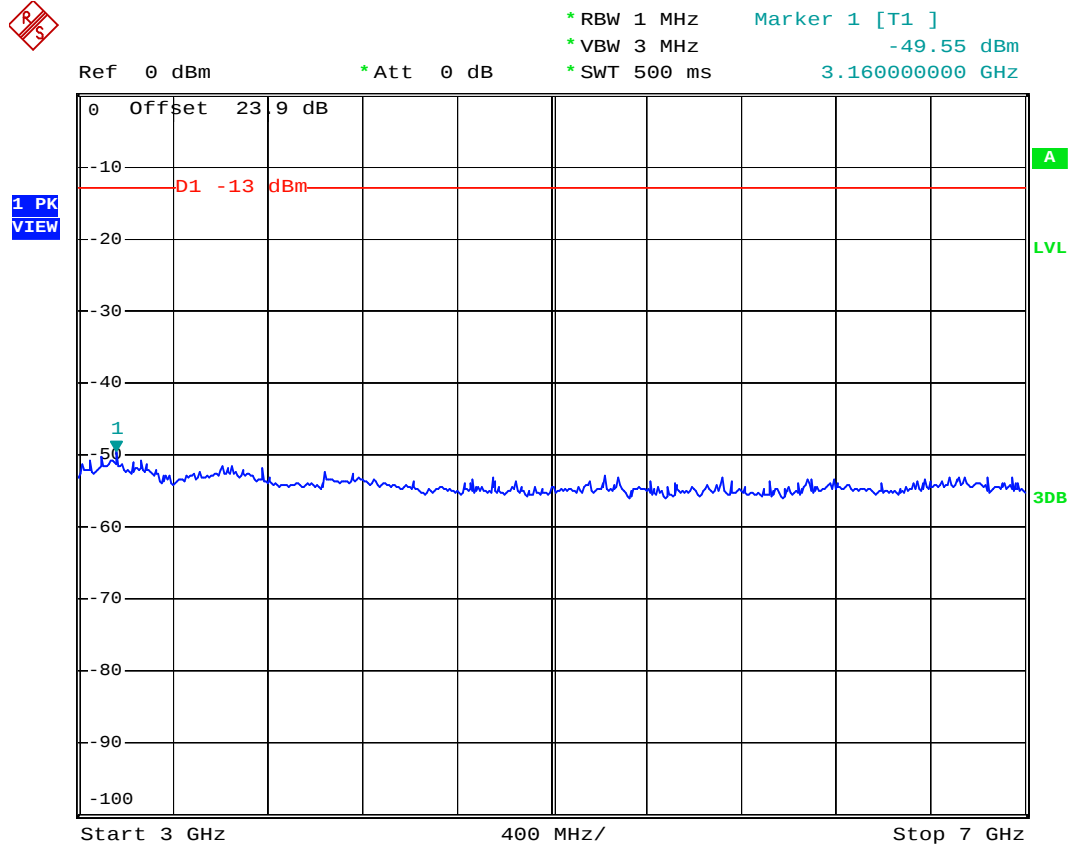
- Test Mode : CDMA2000 Cellular CH384 for 1xEVDO
- Frequency Range : 1G-3G



Date: 10.JAN.2008 04:55:56



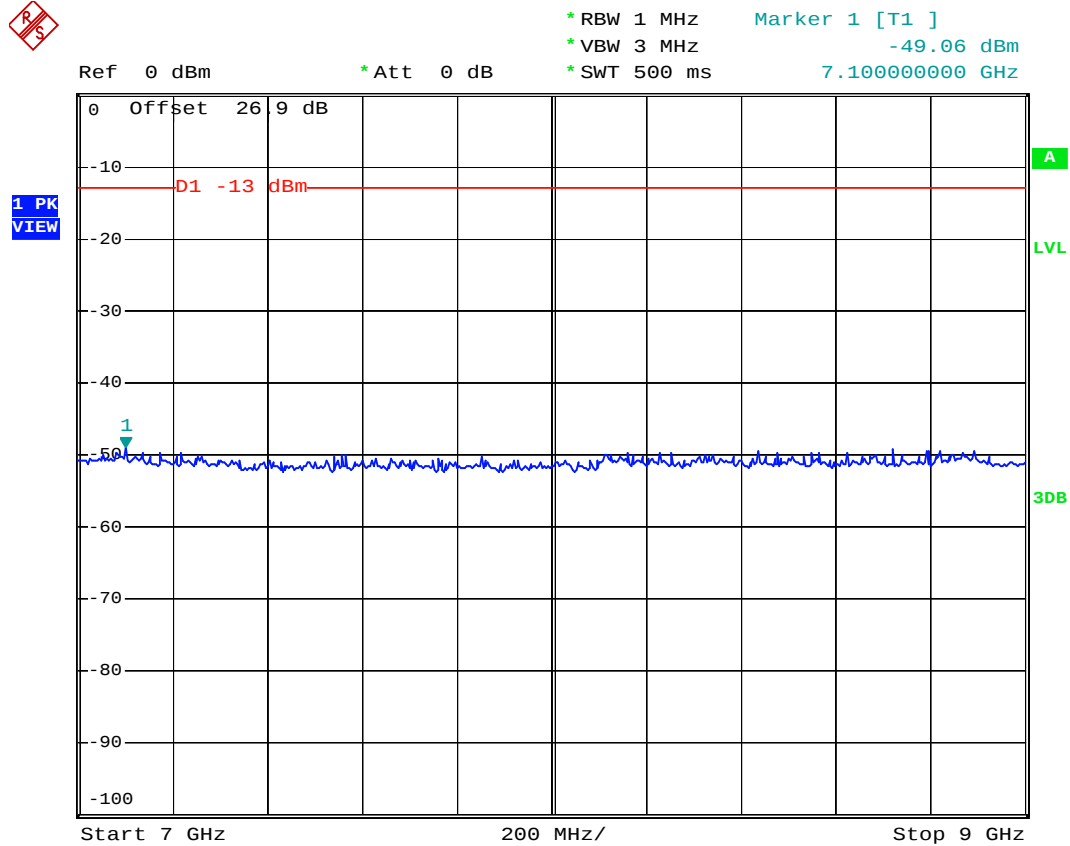
- Test Mode : CDMA2000 Cellular CH384 for 1xEVDO
- Frequency Range : 3G-7G



Date: 10.JAN.2008 04:57:10



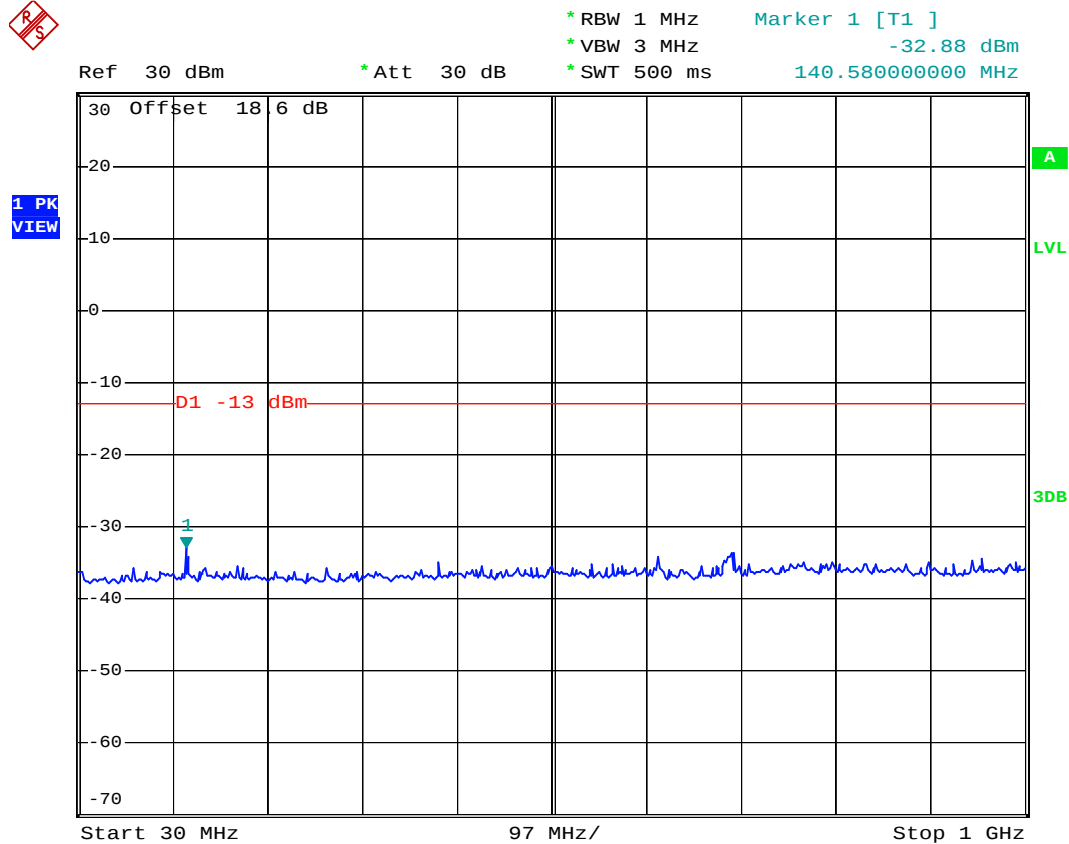
- Test Mode : CDMA2000 Cellular CH384 for 1xEVDO
- Frequency Range : 7G-9G



Date: 10.JAN.2008 04:57:59



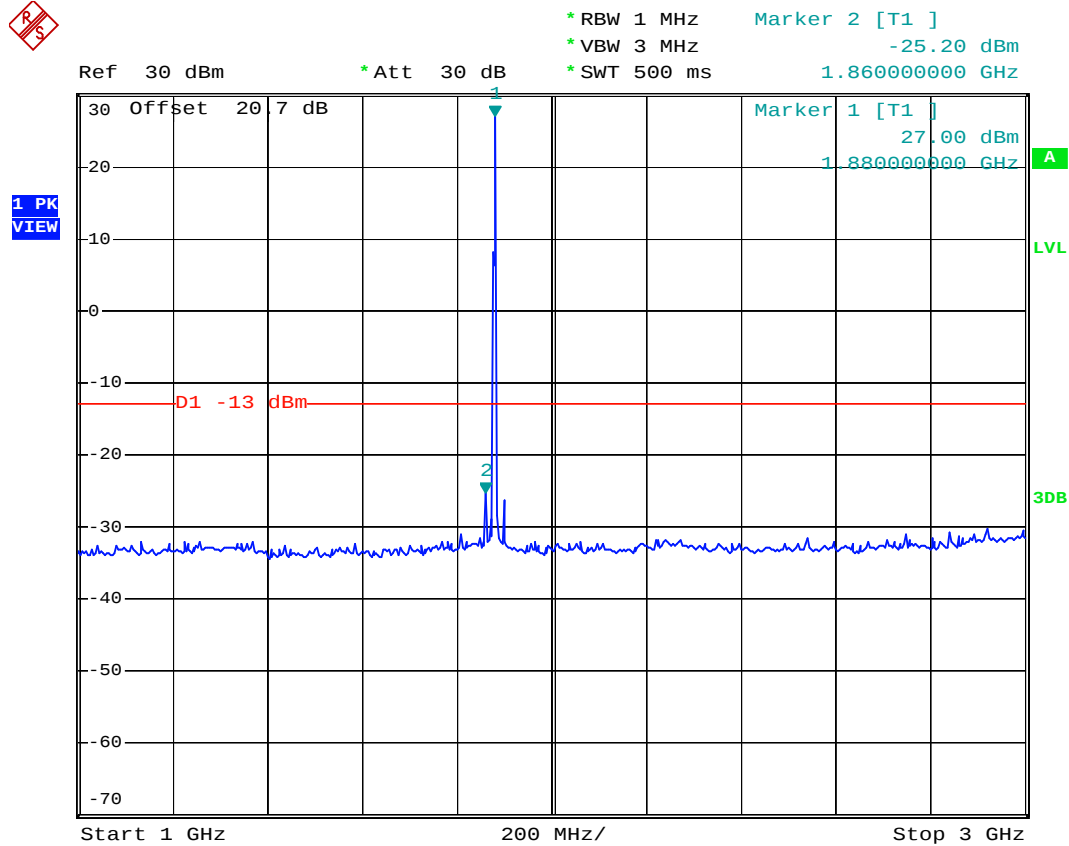
- Mode 3
- Test Mode : CDMA2000 PCS CH600 for 1xRTT
- Frequency Range : 30M-1G



Date: 1.DEC.2007 04:36:24



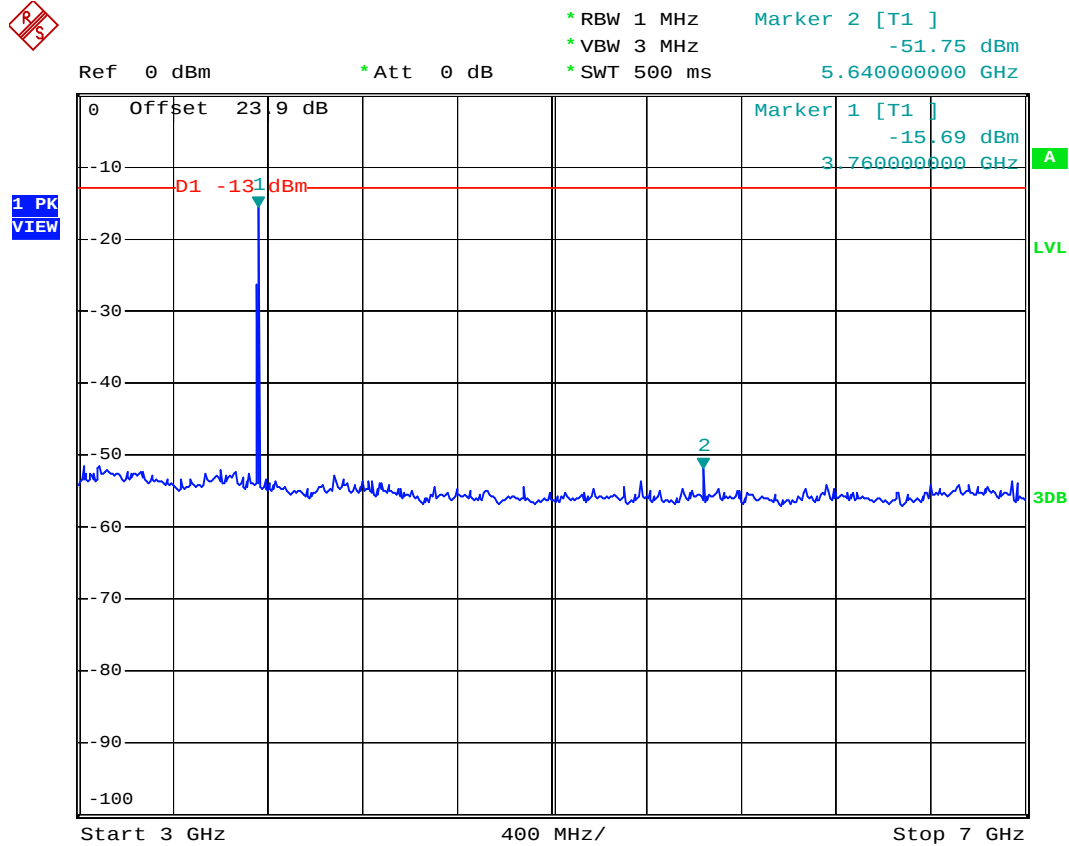
- Test Mode : CDMA2000 PCS CH600 for 1xRTT
- Frequency Range : 1G-3G



Date: 1.DEC.2007 04:37:35



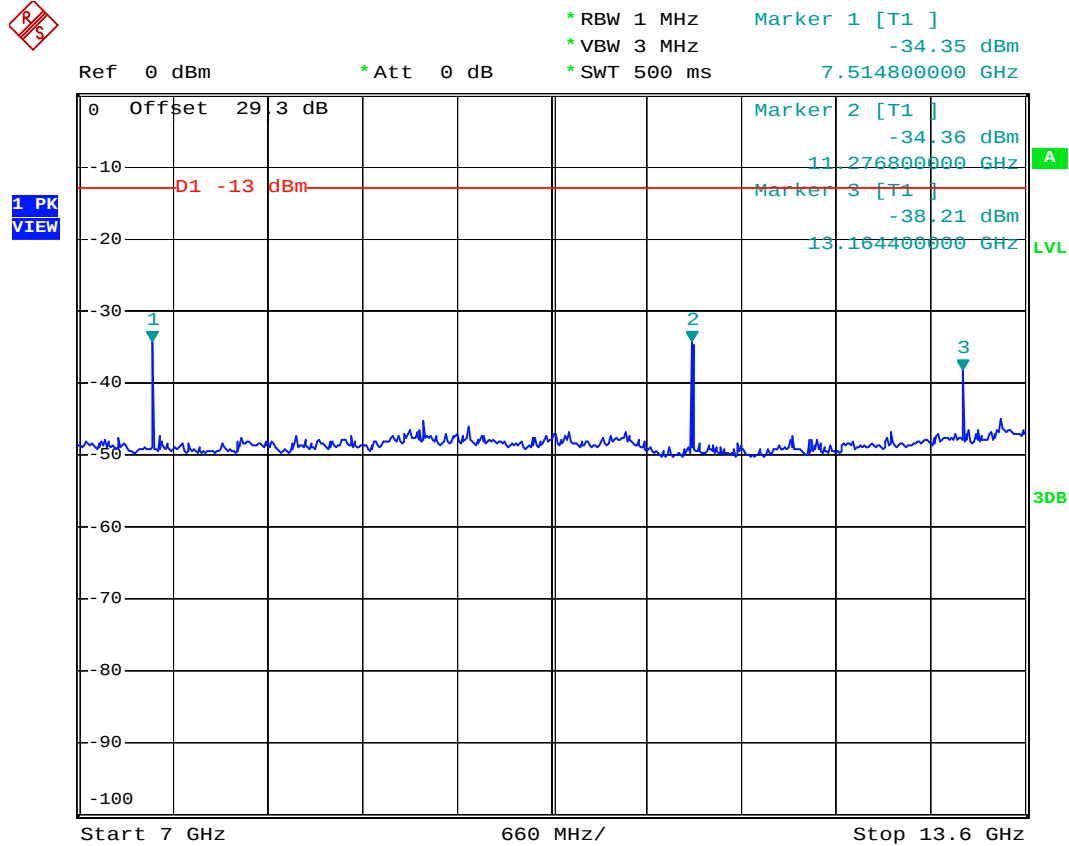
- Test Mode : CDMA2000 PCS CH600 for 1xRTT
- Frequency Range : 3G-7G



Date: 1.DEC.2007 04:46:53



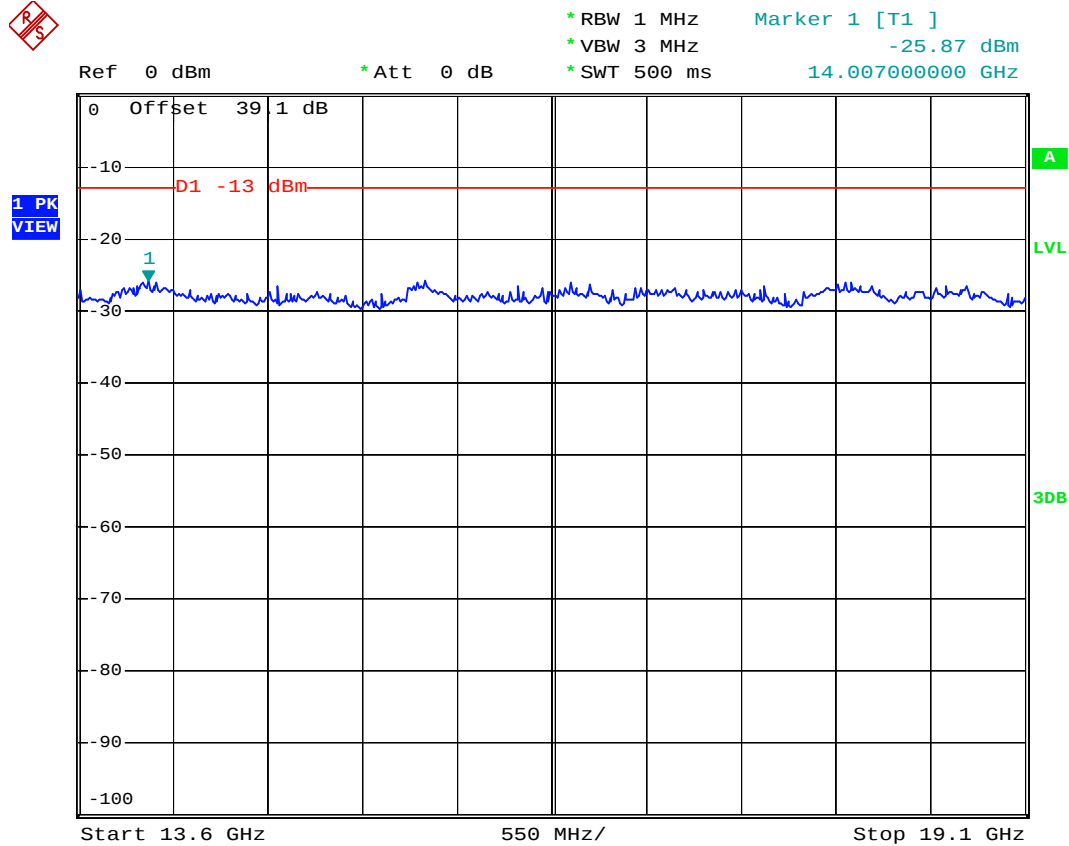
- Test Mode : CDMA2000 PCS CH600 for 1xRTT
- Frequency Range : 7G-13.6G



Date: 1.DEC.2007 04:48:51



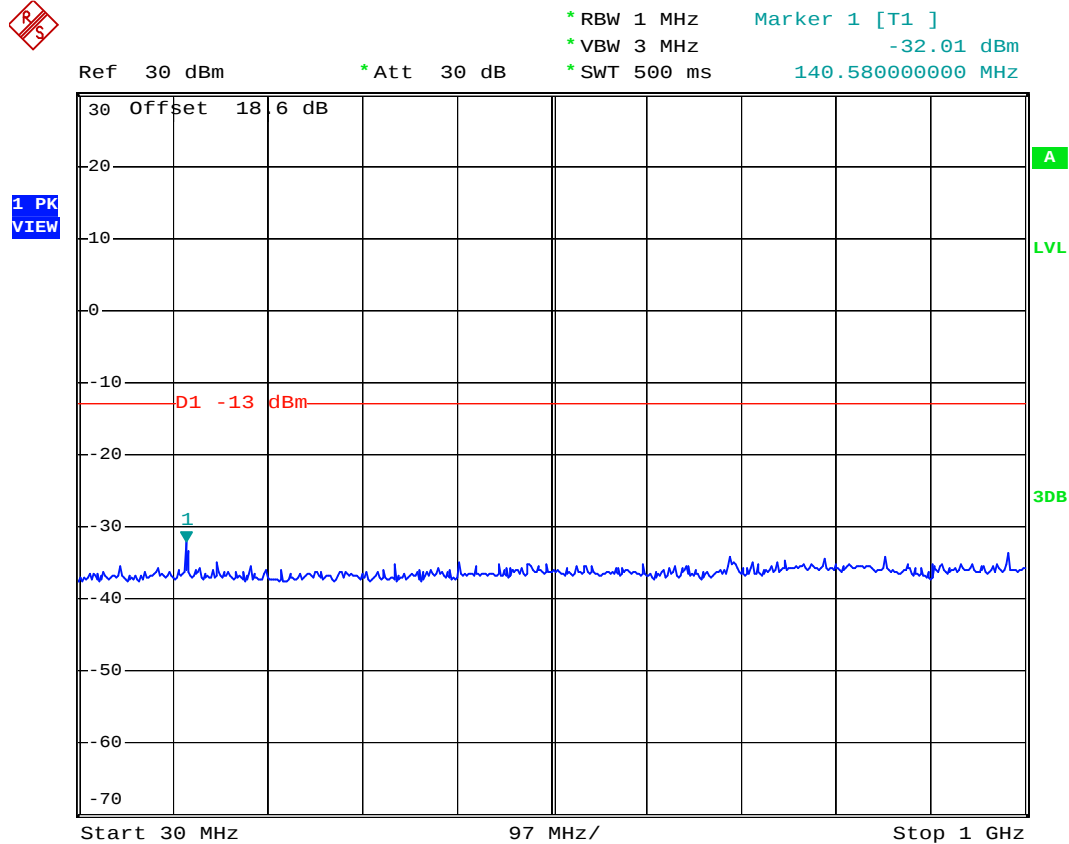
- Test Mode : CDMA2000 PCS CH600 for 1xRTT
- Frequency Range : 13.6G-19.1G



Date: 1.DEC.2007 04:50:39



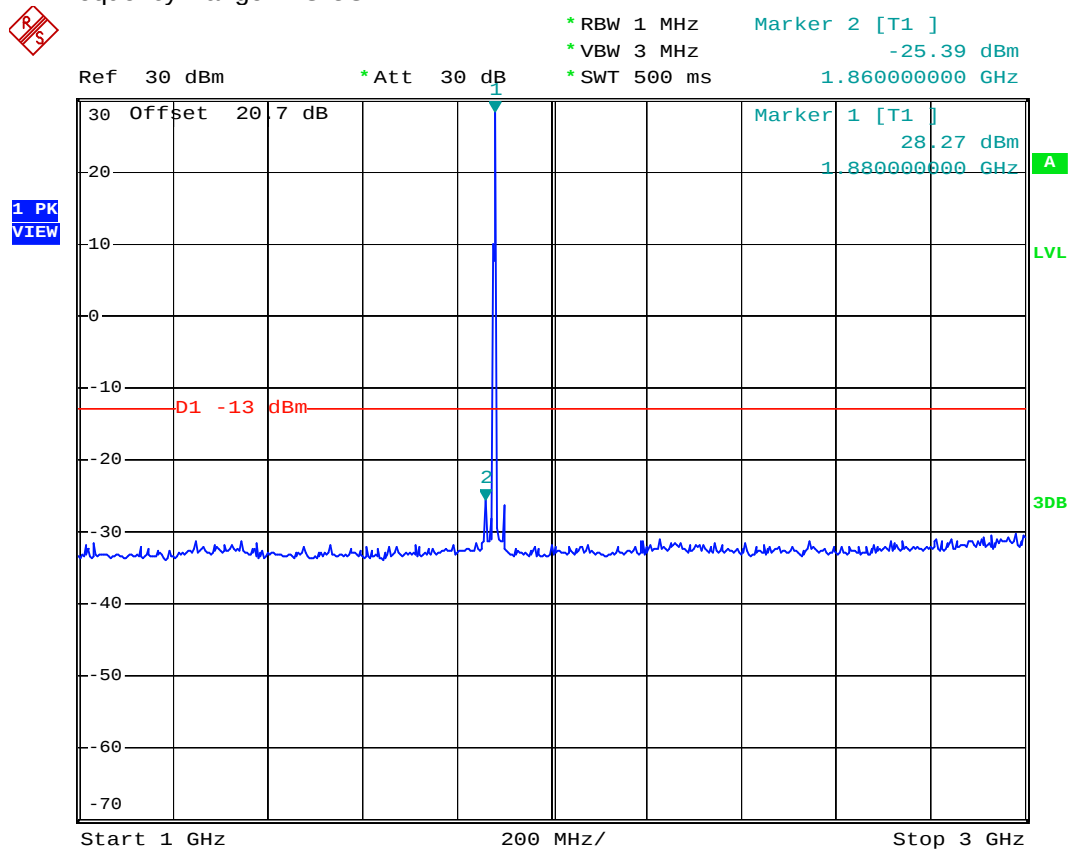
- Mode 4
- Test Mode : CDMA2000 PCS CH600 for 1xEVDO
- Frequency Range : 30M-1G



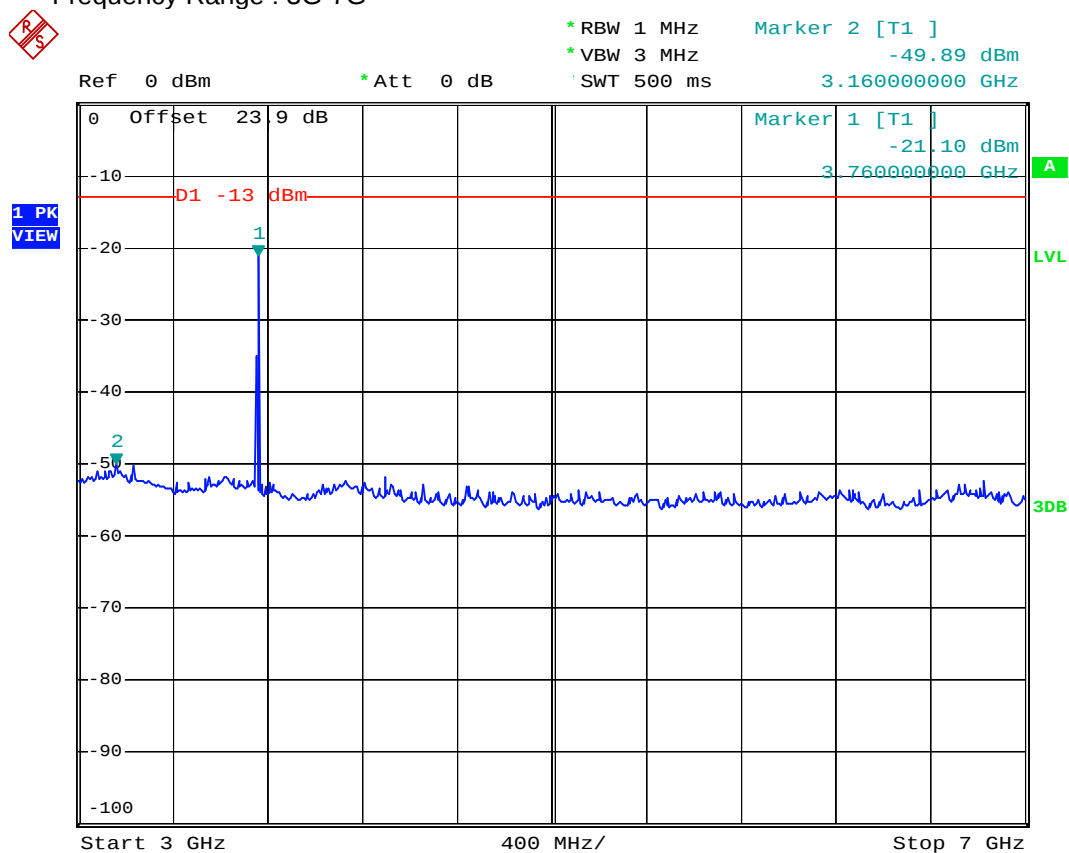
Date: 10.JAN.2008 04:36:06



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



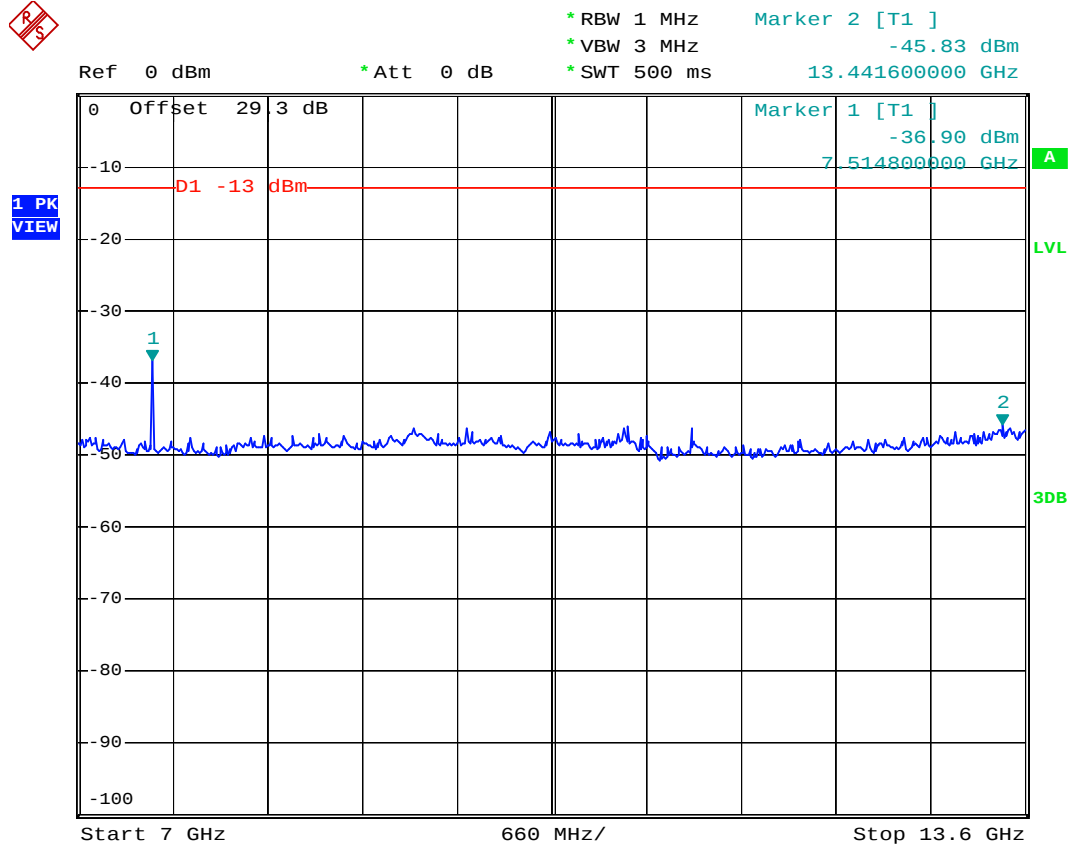
Date: 10.JAN.2008 04:37:22



Date: 10.JAN.2008 04:38:35



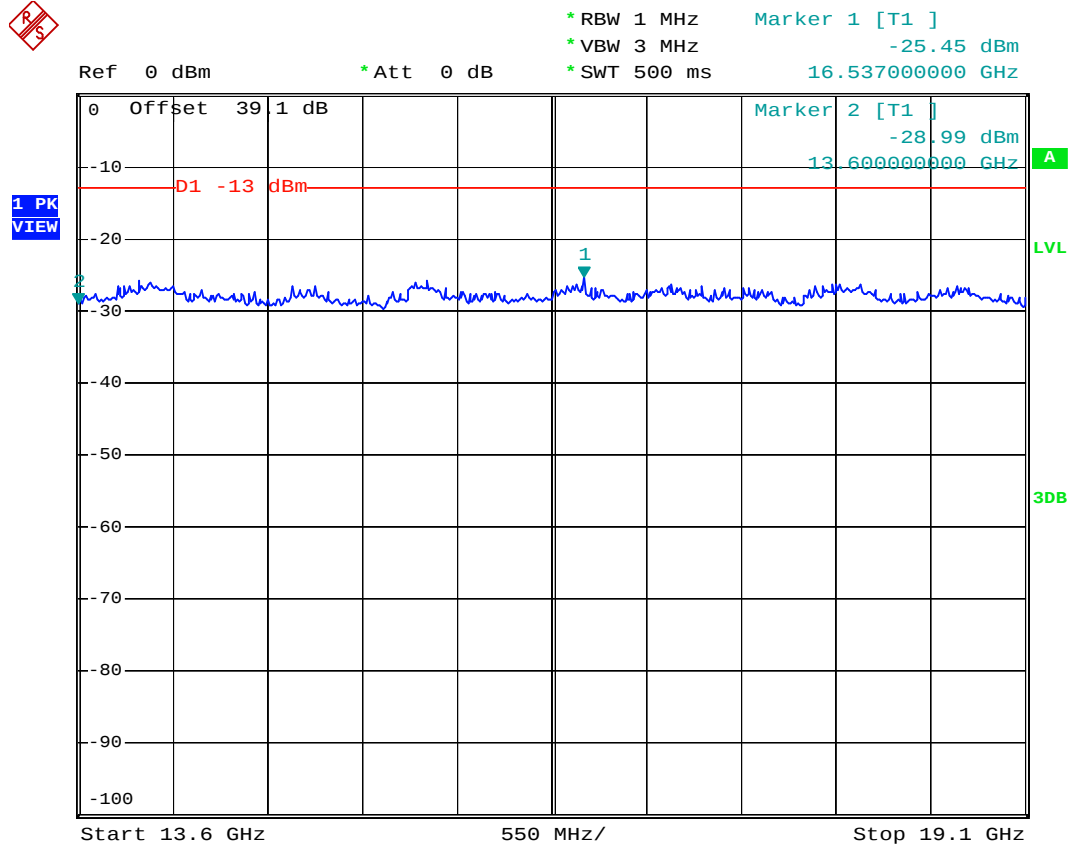
- Test Mode : CDMA2000 PCS CH600 for 1xEVDO
- Frequency Range : 7G-13.6G



Date: 10.JAN.2008 04:40:09



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



Date: 10.JAN.2008 04:41:11

## 4.6 Field Strength of Spurious Radiation

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

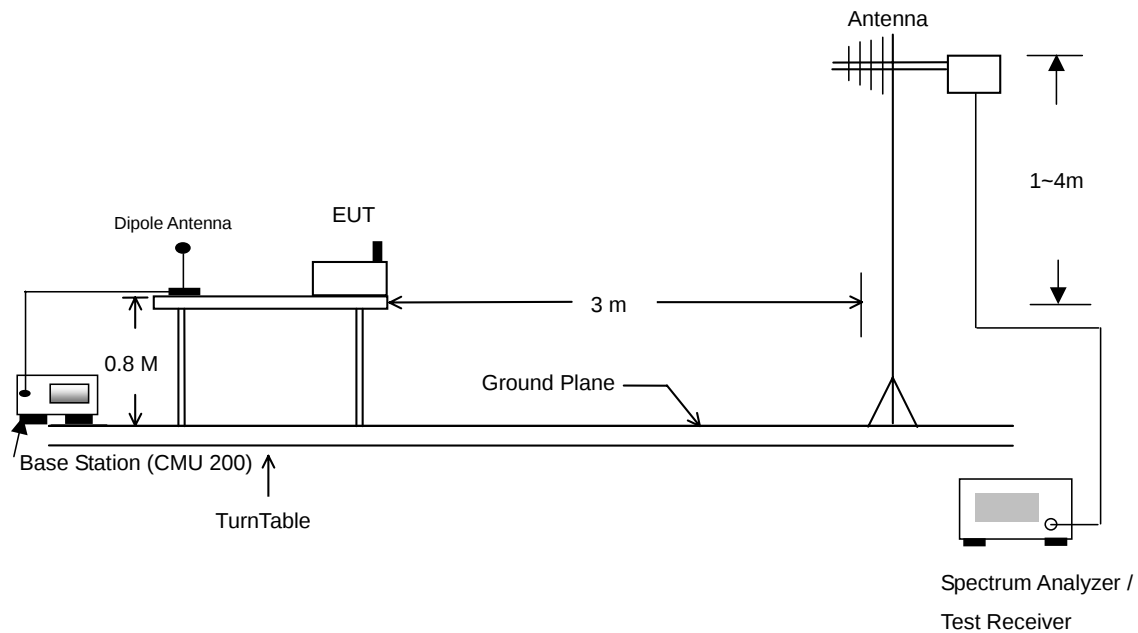
### 4.6.1 Measurement Instruments

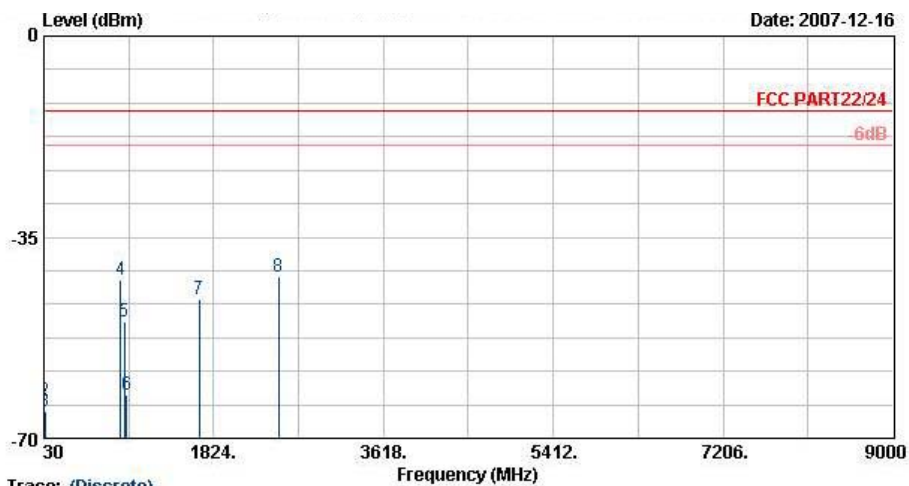
As described in chapter 5 of this test report.

### 4.6.2 Test Procedure

- a. The EUT was placed on a rotatable wooden table with 0.8 meter about ground.
- b. The EUT was set 3 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 spurious emission.
- d. 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.
- e. Taking the record of maximum spurious emission.
- f. A Horn antenna was substituted in place of the EUT and was driven by a signal generator.
- g. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
- h. Taking the record of output power at antenna port.
- i. Repeat step 7 to step 8 for another polarization.
- j. Emission level (dBm) = output power + substitution Gain.

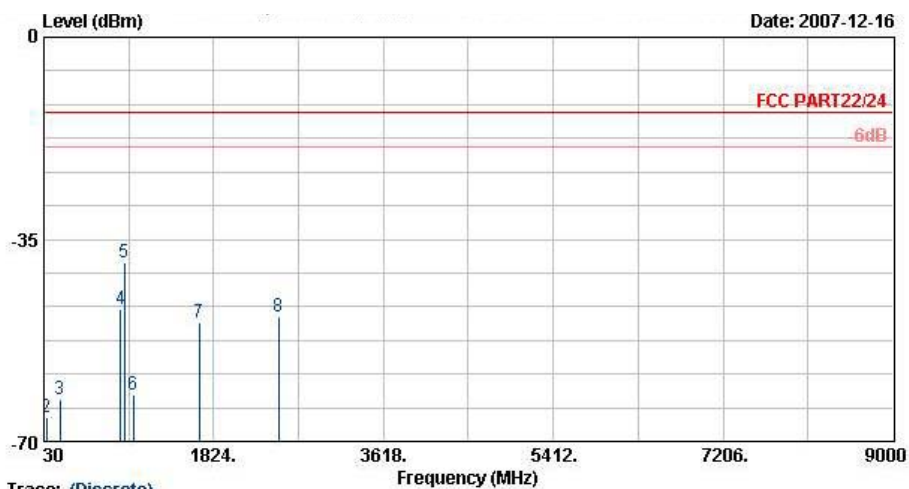
#### 4.6.3 Test Setup Layout



**4.6.4 Test Data****4.6.4.1 Mode 1****Trace: (Discrete)**

Site : 03CH06-HY  
Condition : FCC PART22/24 ETRP-071107 HORIZONTAL  
EUT : NB  
Power : 120Vac/60Hz  
Model : FG 7N3014  
Mode : CDMA650 Link(1XRTT) ; Ch384 + Adaptor  
Plane : E1

| Frequency | ERP    | Limit | SPA     | S.G.   | TX Cable | TX Antenna | Polarization | Result |
|-----------|--------|-------|---------|--------|----------|------------|--------------|--------|
| (MHz)     | (dBm)  | (dBm) | Reading | Power  | loss     | Gain       | (H/V)        |        |
| 1672      | -47.15 | -13   | -51.20  | -46.30 | 5.05     | 6.35       | H            | Pass   |
| 2506      | -47.55 | -13   | -52.18  | -47.60 | 5.93     | 8.13       | H            | Pass   |

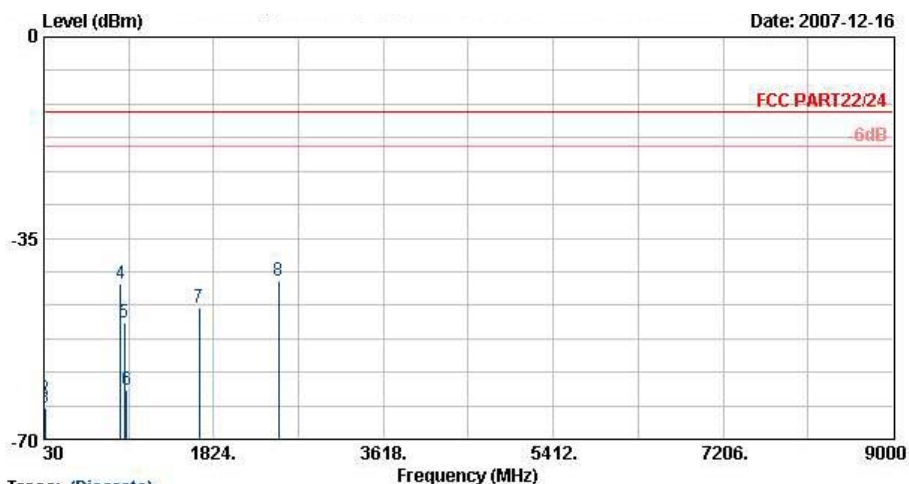


Site : 03CH06-HY  
Condition : FCC PART22/24 ETRP-071107 VERTICAL  
EUT : NB  
Power : 120Vac/60Hz  
Model : FG 7N3014  
Mode : CDMA850 Link(1XRTT) ; Ch384 + Adaptor  
Plane : E1

| Frequency<br>(MHz) | ERP<br>(dBm) | Limit<br>(dBm) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>(dBm) | TX Cable<br>loss<br>(dB) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) | Result |
|--------------------|--------------|----------------|-------------------------|------------------------|--------------------------|-----------------------------|-----------------------|--------|
| 1672               | -52.83       | -13            | -54.88                  | -51.98                 | 5.05                     | 6.35                        | V                     | Pass   |
| 2506               | -53.39       | -13            | -58.57                  | -53.44                 | 5.93                     | 8.13                        | V                     | Pass   |

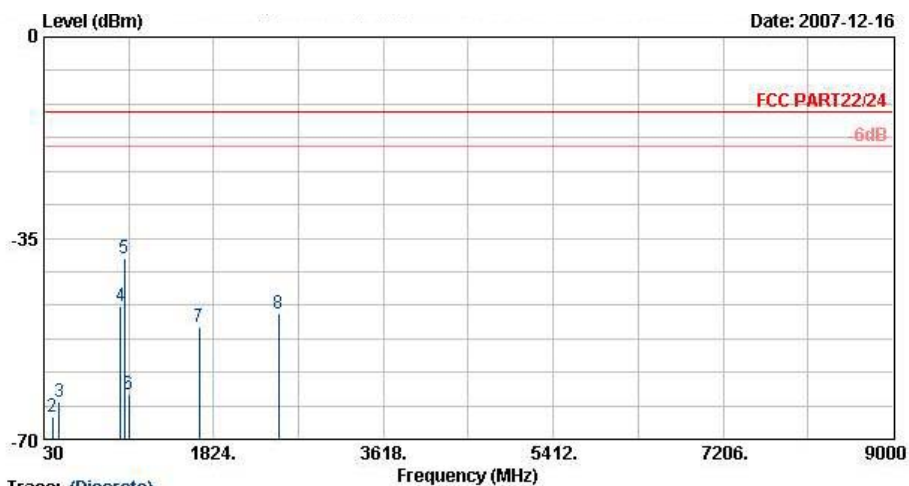


## 4.6.4.2 Mode 2



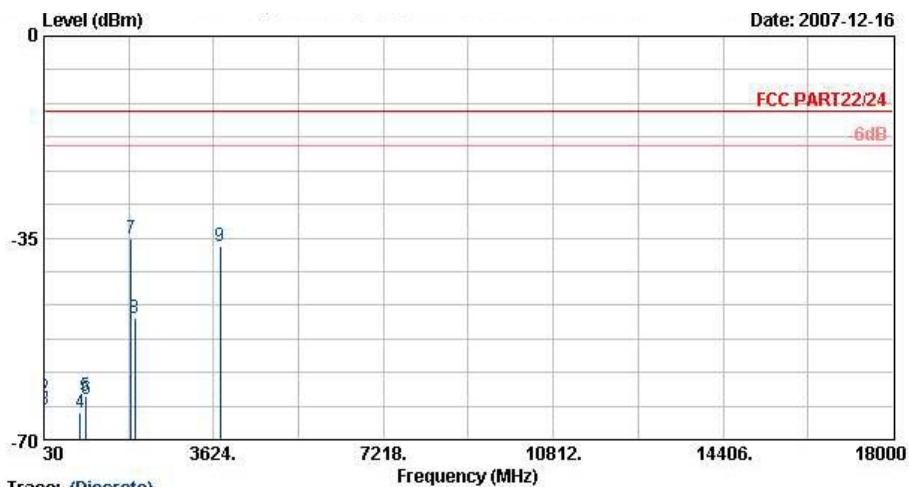
Site : 03CH06-HY  
 Condition : FCC PART22/24 ETRP-071107 HORIZONTAL  
 EUT : NB  
 Power : 120Vac/60Hz  
 Model : FG 7N3014  
 Mode : CDMA650 Link(1X/EVDO) ; Ch384 + Adaptor  
 Plane : E1

| Frequency<br>(MHz) | ERP<br>(dBm) | Limit<br>(dBm) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>(dBm) | TX Cable<br>loss<br>(dB) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) | Result |
|--------------------|--------------|----------------|-------------------------|------------------------|--------------------------|-----------------------------|-----------------------|--------|
| 1672               | -49.89       | -13            | -52.51                  | -49.04                 | 5.05                     | 6.35                        | H                     | Pass   |
| 2506               | -49.25       | -13            | -52.62                  | -49.30                 | 5.93                     | 8.13                        | H                     | Pass   |



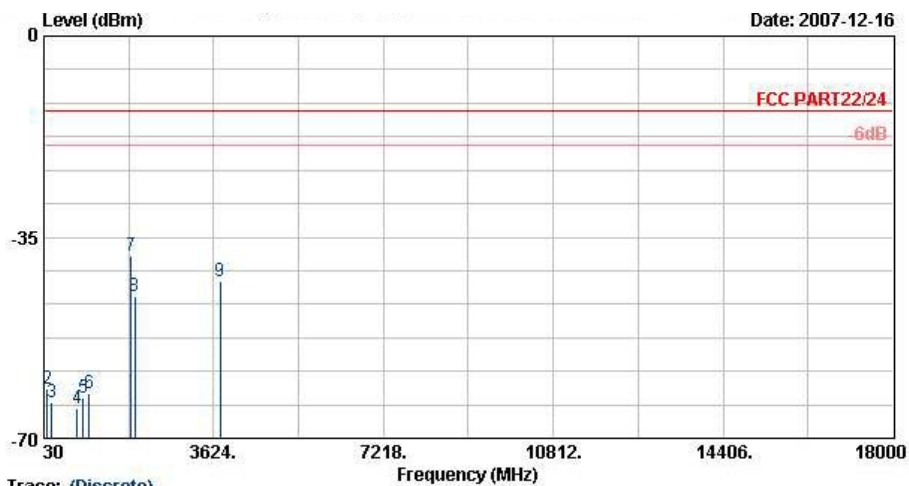
Site : 03CH06-HY  
 Condition : FCC PART22/24 ETRP-071107 VERTICAL  
 EUT : NB  
 Power : 120Vac/60Hz  
 Model : FG 7N3014  
 Mode : CDMA650 Link(1X/EVDO) ; Ch384 + Adaptor  
 Plane : E1

| Frequency<br>(MHz) | ERP<br>(dBm) | Limit<br>(dBm) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>(dBm) | TX Cable<br>loss<br>(dB) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) | Result |
|--------------------|--------------|----------------|-------------------------|------------------------|--------------------------|-----------------------------|-----------------------|--------|
| 1672               | -56.25       | -13            | -55.9                   | -55.40                 | 5.05                     | 6.35                        | V                     | Pass   |
| 2506               | -55.95       | -13            | -58.5                   | -56.00                 | 5.93                     | 8.13                        | V                     | Pass   |

**4.6.4.3 Mode 3****Trace: (Discrete)**

Site : 03CH06-HY  
Condition : FCC PART22/24 ETRP-071107 HORIZONTAL  
EUT : NB  
Power : 120Vac/60Hz  
Model : FG 7N3014  
Mode : CDMA 1900 Link(1XRTT) ; Ch600 + Adaptor  
Plane : E1

| Frequency<br>(MHz) | ERP<br>(dBm) | Limit<br>(dBm) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>(dBm) | TX Cable<br>loss<br>(dB) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) | Result |
|--------------------|--------------|----------------|-------------------------|------------------------|--------------------------|-----------------------------|-----------------------|--------|
| 3756               | -39.57       | -13            | -49.87                  | -43.50                 | 7.17                     | 11.1                        | H                     | Pass   |

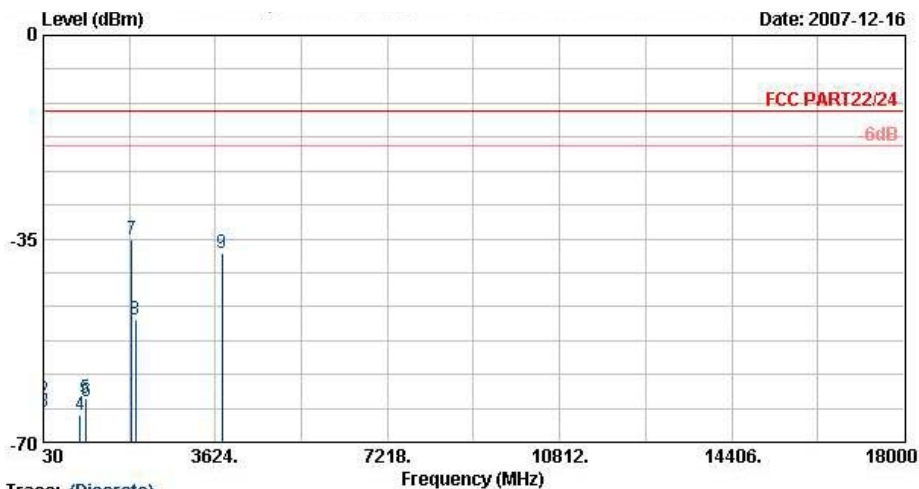
**Trace: (Discrete)**

Site : 03CH06-HY  
Condition : FCC PART22/24 ETRP-071107 VERTICAL  
EUT : NB  
Power : 120Vac/60Hz  
Model : FG 7N3014  
Mode : CDMA 1900 Link(1XRTT) ; Ch600 + Adaptor  
Plane : E1

| Frequency<br>(MHz) | ERP<br>(dBm) | Limit<br>(dBm) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>(dBm) | TX Cable<br>loss<br>(dB) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) | Result |
|--------------------|--------------|----------------|-------------------------|------------------------|--------------------------|-----------------------------|-----------------------|--------|
| 3756               | -45.27       | -13            | -56.02                  | -49.20                 | 7.17                     | 11.1                        | V                     | Pass   |

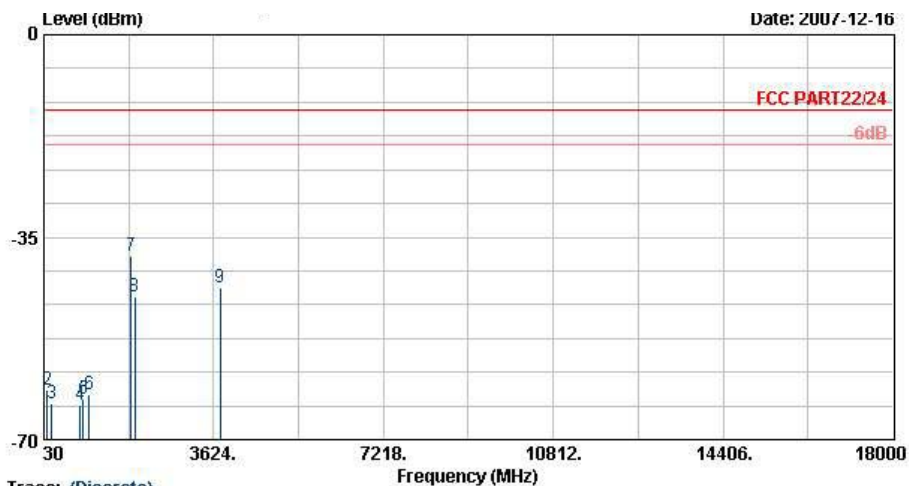


## 4.6.4.4 Mode 4



Trace: (Discrete)  
Site : 03CH06-HY  
Condition : FCC PART22/24 EIRP-071107 HORIZONTAL  
EUT : NB  
Power : 120Vac/60Hz  
Model : FG 7N3014  
Mode : CDMA 1900 Link(1X/EVDO) ; Ch600 + Adaptor  
Plane : EI

| Frequency<br>(MHz) | ERP<br>(dBm) | Limit<br>(dBm) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>(dBm) | TX Cable<br>loss<br>(dB) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) | Result |
|--------------------|--------------|----------------|-------------------------|------------------------|--------------------------|-----------------------------|-----------------------|--------|
| 3756               | -40.07       | -13            | -50.87                  | -44.00                 | 7.17                     | 11.1                        | H                     | Pass   |

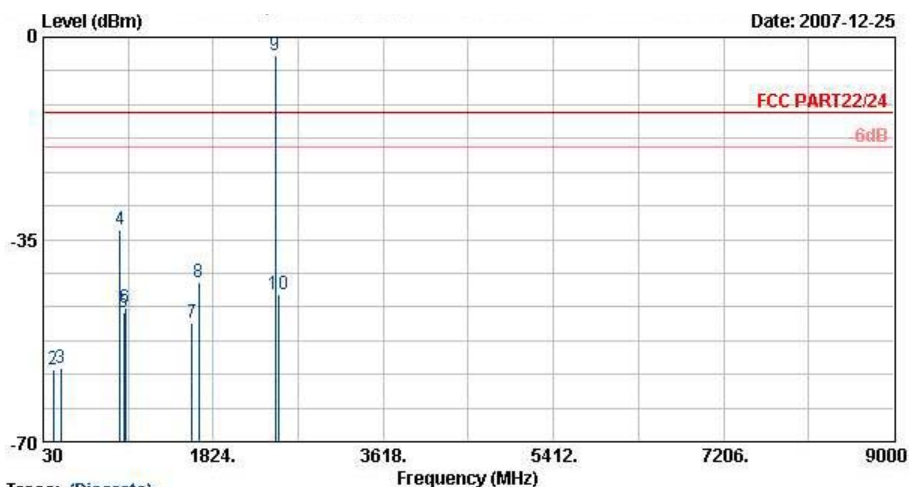


Trace: (Discrete)  
Site : 03CH06-HY  
Condition : FCC PART22/24 EIRP-071107 VERTICAL  
EUT : NB  
Power : 120Vac/60Hz  
Model : FG 7N3014  
Mode : CDMA 1900 Link(1X/EVDO) ; Ch600 + Adaptor  
Plane : EI

| Frequency<br>(MHz) | ERP<br>(dBm) | Limit<br>(dBm) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>(dBm) | TX Cable<br>loss<br>(dB) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) | Result |
|--------------------|--------------|----------------|-------------------------|------------------------|--------------------------|-----------------------------|-----------------------|--------|
| 3756               | -46.07       | -13            | -57.02                  | -50.00                 | 7.17                     | 11.1                        | V                     | Pass   |

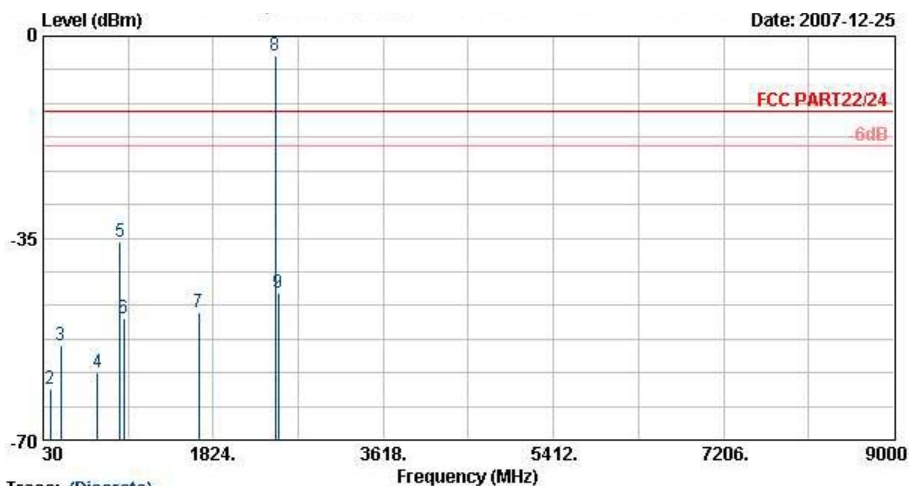


## 4.6.4.5 Mode 5



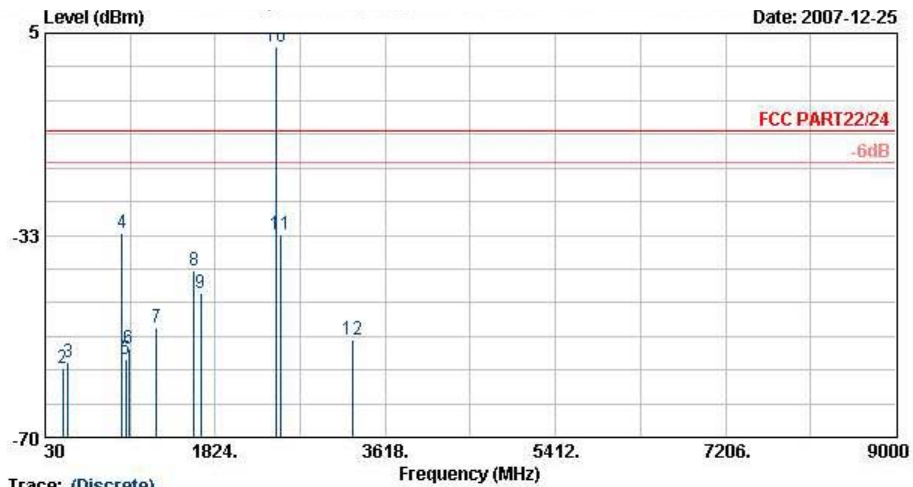
Site : 03CH06-HY  
Condition : FCC PART22/24 ETRP-071107 HORIZONTAL  
EUT : NB  
Power : 120Vac/60Hz  
Model : FG 7N3014  
Mode : CDMA650 Link; Ch384 + BT Tx\_Ch78\_2480MHz  
DataRate : DHI  
Plane : E1

| Frequency<br>(MHz) | ERP<br>(dBm) | Limit<br>(dBm) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>(dBm) | TX Cable<br>loss<br>(dB) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) | Result |
|--------------------|--------------|----------------|-------------------------|------------------------|--------------------------|-----------------------------|-----------------------|--------|
| 1672               | -46.35       | -13            | -47.74                  | -45.50                 | 5.05                     | 6.35                        | H                     | Pass   |
| 2509               | -50.55       | -13            | -52.64                  | -50.60                 | 5.93                     | 8.13                        | H                     | Pass   |



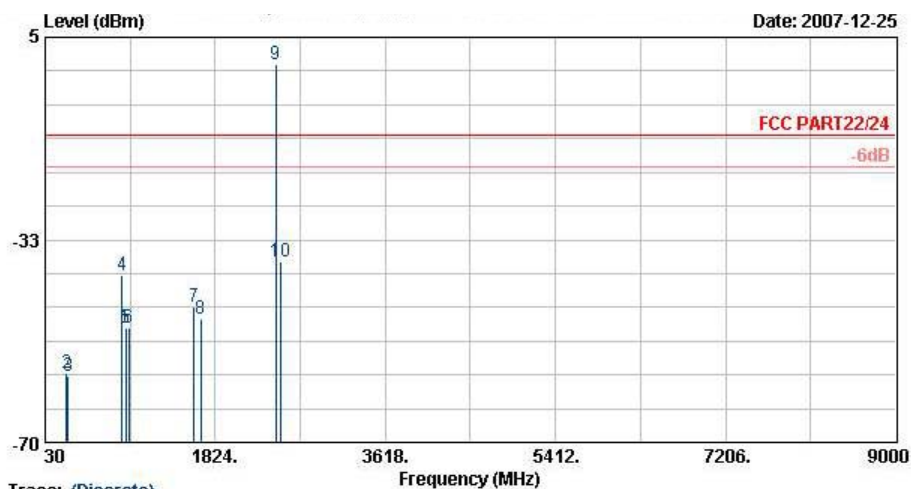
Site : 03CH06-HY  
Condition : FCC PART22/24 ETRP-071107 VERTICAL  
EUT : NB  
Power : 120Vac/60Hz  
Model : FG 7N3014  
Mode : CDMA650 Link; Ch384 + BT Tx\_Ch78\_2480MHz  
DataRate : DHI  
Plane : E1

| Frequency<br>(MHz) | ERP<br>(dBm) | Limit<br>(dBm) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>(dBm) | TX Cable<br>loss<br>(dB) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) | Result |
|--------------------|--------------|----------------|-------------------------|------------------------|--------------------------|-----------------------------|-----------------------|--------|
| 1672               | -54.35       | -13            | -53.22                  | -53.50                 | 5.05                     | 6.35                        | V                     | Pass   |
| 2509               | -48.65       | -13            | -54.61                  | -48.70                 | 5.93                     | 8.13                        | V                     | Pass   |

**4.6.4.6 Mode 6****Trace: (Discrete)**

Site : 03CH06-HY  
Condition : FCC PART22/24 ETRP-071107 HORIZONTAL  
EUT : NB  
Power : 120Vac/60Hz  
Model : FG 7N3014  
Mode : CDMA850 Link; Ch384 +  
802.11b\_Tx\_Ch11;2462MHz  
DataRate : 1  
Plane : E1

| Frequency<br>(MHz) | ERP<br>(dBm) | Limit<br>(dBm) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>(dBm) | TX Cable<br>loss<br>(dB) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) | Result |
|--------------------|--------------|----------------|-------------------------|------------------------|--------------------------|-----------------------------|-----------------------|--------|
| 1204               | -54.88       | -13            | -52.67                  | -53.60                 | 4.65                     | 5.52                        | H                     | Pass   |
| 1604               | -42.3        | -13            | -44.06                  | -41.40                 | 5.03                     | 6.28                        | H                     | Pass   |
| 1672               | -47.65       | -13            | -48.69                  | -46.80                 | 5.05                     | 6.35                        | H                     | Pass   |
| 2509               | -37.75       | -13            | -42.64                  | -37.80                 | 5.93                     | 8.13                        | H                     | Pass   |
| 3276               | -58.03       | -13            | -57.07                  | -59.50                 | 6.48                     | 10.1                        | H                     | Pass   |



Trace: (Discrete)  
Site : 03CH06-HV  
Condition : FCC PART22/24 ETRP-071107 VERTICAL  
EUT : NB  
Power : 120Vac/60Hz  
Model : FG 7N3014  
Mode : CDMA850 Link; Ch384 +  
DataRate : 802.11b\_Tx\_Ch11;2462MHz  
Plane : I

| Frequency | ERP    | Limit | SPA     | S.G.   | TX Cable | TX Antenna | Polarization | Result |
|-----------|--------|-------|---------|--------|----------|------------|--------------|--------|
| (MHz)     | (dBm)  | (dBm) | Reading | Power  | loss     | Gain       | (H/V)        |        |
| 1598      | -48.01 | -13   | -49.69  | -47.10 | 5.03     | 6.27       | V            | Pass   |
| 1672      | -53.45 | -13   | -52.54  | -52.60 | 5.05     | 6.35       | V            | Pass   |
| 2509      | -39.75 | -13   | -46.65  | -39.80 | 5.93     | 8.13       | V            | Pass   |

## 4.7 Frequency Stability (Temperature Variation)

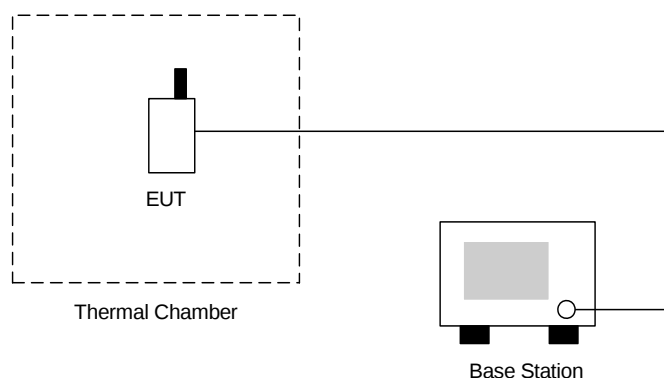
### 4.7.1 Measurement Instrument

As described in chapter 5 of this test report.

### 4.7.2 Test Procedure

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

### 4.7.3 Test Setup Layout



### 4.7.4 Test Result

- Test Mode : CDMA2000 Cellular 1xRTT

| Temperature(°C) | Change (Hz) | Change (ppm) | Limit (ppm) | Result |
|-----------------|-------------|--------------|-------------|--------|
| -30             | -6          | -0.01        | 2.5         | Passed |
| -20             | -5          | -0.01        |             |        |
| -10             | 7           | 0.01         |             |        |
| 0               | -8          | -0.01        |             |        |
| 10              | -6          | -0.01        |             |        |
| 20              | -8          | -0.01        |             |        |
| 30              | -7          | -0.01        |             |        |
| 40              | -14         | -0.02        |             |        |
| 50              | -7          | -0.01        |             |        |



- Test Mode : CDMA2000 Cellular 1xEV-DO

| Temperature(°C) | Change (Hz) | Change (ppm) | Limit (ppm) | Result |
|-----------------|-------------|--------------|-------------|--------|
| -30             | -51         | -0.06        | 2.5         | Passed |
| -20             | -47         | -0.06        |             |        |
| -10             | -46         | -0.05        |             |        |
| 0               | -48         | -0.06        |             |        |
| 10              | -45         | -0.05        |             |        |
| 20              | -46         | -0.05        |             |        |
| 30              | -47         | -0.06        |             |        |
| 40              | -45         | -0.05        |             |        |
| 50              | -44         | -0.05        |             |        |

- Test Mode : CDMA2000 PCS 1xRTT

| Temperature(°C) | Change (Hz) | Change (ppm) | Limit (ppm) | Result |
|-----------------|-------------|--------------|-------------|--------|
| -30             | 39          | 0.02         | 2.5         | Passed |
| -20             | 37          | 0.02         |             |        |
| -10             | 28          | 0.01         |             |        |
| 0               | 34          | 0.02         |             |        |
| 10              | -16         | -0.01        |             |        |
| 20              | 34          | 0.02         |             |        |
| 30              | -31         | -0.02        |             |        |
| 40              | -27         | -0.01        |             |        |
| 50              | 44          | 0.02         |             |        |

- Test Mode : CDMA2000 PCS 1xEV-DO

| Temperature(°C) | Change (Hz) | Change (ppm) | Limit (ppm) | Result |
|-----------------|-------------|--------------|-------------|--------|
| -30             | -48         | -0.03        | 2.5         | Passed |
| -20             | -44         | -0.02        |             |        |
| -10             | -42         | -0.02        |             |        |
| 0               | -43         | -0.02        |             |        |
| 10              | -42         | -0.02        |             |        |
| 20              | -43         | -0.02        |             |        |
| 30              | -41         | -0.02        |             |        |
| 40              | -42         | -0.02        |             |        |
| 50              | -41         | -0.02        |             |        |

## 4.8 Frequency Stability (Voltage Variation)

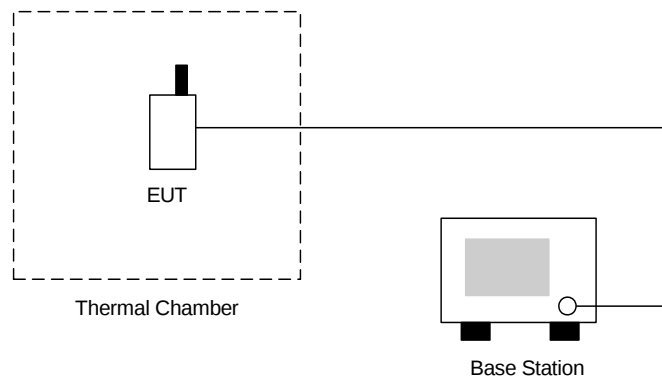
### 4.8.1 Measurement Instrument

As described in chapter 5 of this test report.

### 4.8.2 Test Procedure

- The EUT was placed in a temperature chamber at  $25\pm 5$  °C and connected as the following section.
- The power supply voltage to the EUT was varied from BEP to 115% of the nominal value measured at the input to the EUT.
- 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

| Voltage(Volt) | Change (Hz) | Change (ppm) | Limit (ppm) | Result |
|---------------|-------------|--------------|-------------|--------|
| 230           | 6.0         | 0.01         | 2.5         | Passed |
| BEP           | -6.0        | -0.01        |             |        |
| 253           | -7.0        | -0.01        |             |        |

- Test Mode : CDMA2000 Cellular 1xEV-DO

| Voltage(Volt) | Change (Hz) | Change (ppm) | Limit (ppm) | Result |
|---------------|-------------|--------------|-------------|--------|
| 230           | -48.0       | -0.06        | 2.5         | Passed |
| BEP           | -48.0       | -0.06        |             |        |
| 253           | -47.0       | -0.06        |             |        |

- Test Mode : CDMA2000 PCS 1xRTT

| Voltage(Volt) | Change (Hz) | Change (ppm) | Limit (ppm) | Result |
|---------------|-------------|--------------|-------------|--------|
| 230           | 44.0        | 0.02         | 2.5         | Passed |
| BEP           | 34.0        | 0.02         |             |        |
| 253           | 34.0        | 0.02         |             |        |

- Test Mode : CDMA2000 PCS 1xEV-DO

| Voltage(Volt) | Change (Hz) | Change (ppm) | Limit (ppm) | Result |
|---------------|-------------|--------------|-------------|--------|
| 230           | -43.0       | -0.02        | 2.5         | Passed |
| BEP           | -43.0       | -0.02        |             |        |
| 253           | -45.0       | -0.02        |             |        |

Remark:

- Normal Voltage = 230V.
- Battery End Point (BEP) = 207V.

## 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- | 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<br>Receiver VSWR $\Gamma_1 = 0.197$<br>Antenna VSWR $\Gamma_2 = 0.194$<br>Uncertainty = $20 \log(1 - \Gamma_1 \Gamma_2)$ | +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