

## TEST REPORT

**Product** : LTE MODULE  
**Trade mark** : GlocalMe  
**Model/Type reference** : GLMM18A02  
**Serial Number** : N/A  
**Report Number** : EED32K00246404  
**FCC ID** : 2AC88-GLMM18A02  
**Date of Issue** : Feb. 22, 2019  
47 CFR Part 2  
47 CFR Part 22 subpart H  
**Test Standards** : 47 CFR Part 24 subpart E  
47 CFR Part 27  
**Test result** : PASS

Prepared for:

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Prepared by:

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Check No.:3096318232



## 2 Version

| Version No. | Date          | Description |
|-------------|---------------|-------------|
| 00          | Feb. 22, 2019 | Original    |
|             |               |             |
|             |               |             |

### 3 Test Summary

| GSM 850, WCDMA(Band V)                        |                                              |                                      |        |
|-----------------------------------------------|----------------------------------------------|--------------------------------------|--------|
| Test Item                                     | Test Requirement                             | Test method                          | Result |
| Conducted output power                        | Part 2.1046(a)/Part 22.913(a)                | TIA-603-E-2016&KDB 971168 D01v03r01  | PASS   |
| Effective Radiated Power of Transmitter(ERP)  | Part 2.1046(a)/Part 22.913(a)                | TIA-603-E-2016&KDB 971168 D01v03r01  | PASS   |
| 99%&26dB Occupied Bandwidth                   | Part 2.1049(h)                               | Part 22.917(b) &KDB 971168 D01v03r01 | PASS   |
| Band Edge at antenna terminals                | Part 2.1051/Part 22.917(a)                   | Part 22.917(b) &KDB 971168 D01v03r01 | PASS   |
| Spurious emissions at antenna terminals       | Part 2.1051/ Part 2.1057/ Part 22.917(a)(b)  | TIA-603-E-2016&KDB 971168 D01v03r01  | PASS   |
| Field strength of spurious radiation          | Part 2.1053/ Part 2.1057/ Part 22.917(a)(b)  | TIA-603-E-2016&KDB 971168 D01v03r01  | PASS   |
| Frequency stability                           | Part 2.1055/ Part 22.355                     | TIA-603-E-2016&KDB 971168 D01v03r01  | PASS   |
| GSM 1900,WCDMA(Band II)                       |                                              |                                      |        |
| Test Item                                     | Test Requirement                             | Test method                          | Result |
| Conducted output power                        | Part 2.1046(a) /Part 24.232(c)               | TIA-603-E-2016&KDB 971168 D01v03r01  | PASS   |
| Effective Radiated Power of Transmitter(EIRP) | Part 2.1046(a) / Part 24.232(c)              | TIA-603-E-2016&KDB 971168 D01v03r01  | PASS   |
| peak-to-average ratio                         | Part 24.232(d)                               | KDB 971168 D01v03r01                 | PASS   |
| 99% &26dBOccupied Bandwidth                   | Part 2.1049(h)                               | Part 24.238(b) &KDB 971168 D01v03r01 | PASS   |
| Band Edge at antenna terminals                | Part 2.1051/ Part 24.238(a)                  | Part 24.238(b) &KDB 971168 D01v03r01 | PASS   |
| Spurious emissions at antenna terminals       | Part 2.1051/ Part 2.1057/ Part 24.238(a)(b)  | TIA-603-E-2016&KDB 971168 D01v03r01  | PASS   |
| Field strength of spurious radiation          | Part 2.1053 /Part 2.1057 / Part 24.238(a)(b) | TIA-603-E-2016&KDB 971168 D01v03r01  | PASS   |
| Frequency stability                           | Part 2.1055/Part 24.235                      | TIA-603-E-2016&KDB 971168 D01v03r01  | PASS   |

| WCDMA(Band IV)                                |                                |                                     |        |
|-----------------------------------------------|--------------------------------|-------------------------------------|--------|
| Test Item                                     | Test Requirement               | Test method                         | Result |
| Conducted output power                        | Part 2.1046(a) /Part 27.50(d)  | TIA-603-E-2016&KDB 971168 D01v03r01 | PASS   |
| Effective Radiated Power of Transmitter(EIRP) | Part 2.1046(a) / Part 27.50(d) | TIA-603-E-2016&KDB 971168 D01v03r01 | PASS   |
| peak-to-average ratio                         | Part 27.50(d)                  | KDB 971168 D01v03r01                | PASS   |
| 99% &26dBOccupied Bandwidth                   | Part 2.1049(h)                 | Part 27.53(h) &KDB 971168 D01v03r01 | PASS   |
| Band Edge at antenna terminals                | Part 2.1051/ Part 27.53(h)     | Part 27.53(h) &KDB 971168 D01v03r01 | PASS   |
| Spurious emissions at antenna terminals       | Part 2.1051/ Part 27.53(h)     | TIA-603-E-2016&KDB 971168 D01v03r01 | PASS   |
| Field strength of spurious radiation          | Part 2.1053/ Part 27.53(h)     | TIA-603-E-2016&KDB 971168 D01v03r01 | PASS   |
| Frequency stability                           | Part 2.1055/Part 27.54         | TIA-603-E-2016&KDB 971168 D01v03r01 | PASS   |

**Remark:**

The tested samples and the sample information are provided by the client.

Tx: In this whole report Tx (or tx) means Transmitter.

Rx: In this whole report Rx (or rx) means Receiver.

RF: In this whole report RF means Radiated Frequency.

CH: In this whole report CH means channel.

Volt: In this whole report Volt means Voltage.

Temp: In this whole report Temp means Temperature.

Humid: In this whole report Humid means humidity.

Press: In this whole report Press means Pressure.

N/A: In this whole report not application

## 4 Content

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## 5 Test Requirement

### 5.1 Test setup

#### 5.1.1 For Radiated Emissions test setup

Radiated Emissions setup:

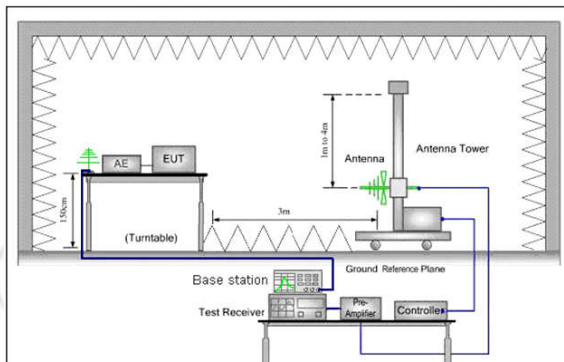


Figure 1.30MHz to 1GHz

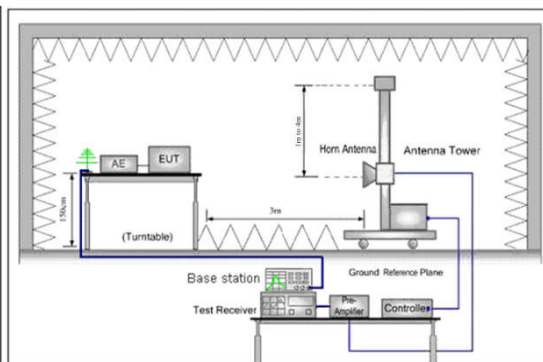


Figure 2. above 1GHz

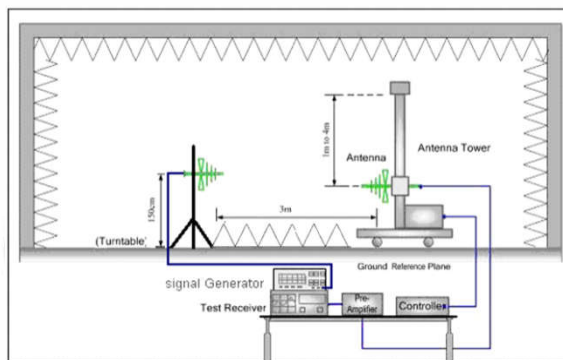


Figure 1. 30MHz to 1GHz

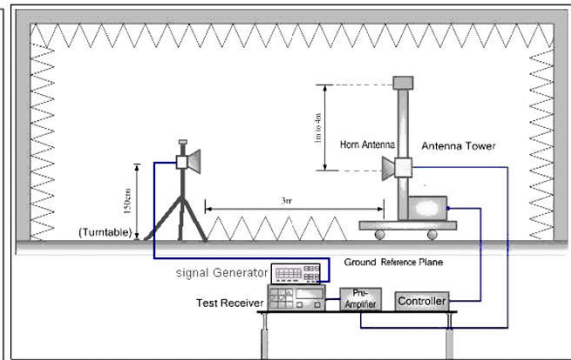


Figure 2. above 1GHz

### 5.2 Test Environment

#### Operating Environment:

|                       |          |
|-----------------------|----------|
| Temperature:          | 23°C     |
| Humidity:             | 57 % RH  |
| Atmospheric Pressure: | 1010mbar |

### 5.3 Test Condition

**Test channel:**

| Test Mode             | Tx/Rx                      | RF Channel   |              |              |
|-----------------------|----------------------------|--------------|--------------|--------------|
|                       |                            | Low(L)       | Middle(M)    | High(H)      |
| GSM/GPRS/<br>EDGE850  | Tx<br>(824 MHz ~849 MHz)   | Channel 128  | Channel 190  | Channel 251  |
|                       |                            | 824.2MHz     | 836.6 MHz    | 848.8 MHz    |
|                       | Rx<br>(869 MHz ~894 MHz)   | Channel 128  | Channel 190  | Channel 251  |
|                       |                            | 869.2 MHz    | 881.6 MHz    | 893.8 MHz    |
| WCDMA<br>band V       | Tx<br>(824 MHz ~849 MHz)   | Channel 4132 | Channel 4182 | Channel 4233 |
|                       |                            | 826.4 MHz    | 836.4 MHz    | 846.6 MHz    |
|                       | Rx<br>(869 MHz ~894 MHz)   | Channel 4357 | Channel 4407 | Channel 4458 |
|                       |                            | 871.4 MHz    | 881.4 MHz    | 891.6 MHz    |
| WCDMA<br>Band II      | Tx<br>(1850 MHz ~1910 MHz) | Channel 9262 | Channel 9400 | Channel 9538 |
|                       |                            | 1852.4 MHz   | 1880.0 MHz   | 1907.6 MHz   |
|                       | Rx<br>(1930 MHz ~1990 MHz) | Channel 9662 | Channel 9800 | Channel 9938 |
|                       |                            | 1932.4 MHz   | 1960.0 MHz   | 1987.6 MHz   |
| GSM/GPRS/<br>EDGE1900 | Tx<br>(1850 MHz ~1910 MHz) | Channel 512  | Channel 661  | Channel 810  |
|                       |                            | 1850.2MHz    | 1880.0 MHz   | 1909.8 MHz   |
|                       | Rx<br>(1930 MHz ~1990 MHz) | Channel 512  | Channel 661  | Channel 810  |
|                       |                            | 1930.2 MHz   | 1960.0 MHz   | 1989.8 MHz   |
| WCDMA<br>Band IV      | Tx<br>(1710 MHz ~1755 MHz) | Channel 1312 | Channel 1413 | Channel 1513 |
|                       |                            | 1712.4MHz    | 1732.6MHz    | 1752.6MHz    |
|                       | Rx<br>(2110 MHz ~2155 MHz) | Channel 1537 | Channel 1638 | Channel 1738 |
|                       |                            | 2112.4 MHz   | 2132.6 MHz   | 2152.6 MHz   |

**Test mode:**

| band               | Radiated                                     | Conducted                                    |
|--------------------|----------------------------------------------|----------------------------------------------|
| GSM/GPRS/EDGE 850  | 1)GSM Link<br>2)GPRS 8 Link<br>3)EDGE 8 Link | 1)GSM Link<br>2)GPRS 8 Link<br>3)EDGE 8 Link |
| GSM/GPRS/EDGE 1900 | 1)GSM Link<br>2)GPRS 8 Link<br>3)EDGE 8 Link | 1)GSM Link<br>2)GPRS 8 Link<br>3)EDGE 8 Link |
| WCDMA Band V       | 1)RMC 12.2Kbps Link                          | 1)RMC 12.2Kbps Link                          |
| WCDMA Band II      | 1)RMC 12.2Kbps Link                          | 1)RMC 12.2Kbps Link                          |
| WCDMA Band IV      | 1)RMC 12.2Kbps Link                          | 1)RMC 12.2Kbps Link                          |

**Test mode:**

| Test Mode | Test Modes description            |
|-----------|-----------------------------------|
| GSM/TM1   | GSM system, GSM, GMSK modulation  |
| GSM/TM2   | GSM system, GPRS, GMSK modulation |
| GSM/TM3   | GSM system, EDGE, 8PSK modulation |
| Test Mode | Test Modes description            |
| UMTS/TM1  | WCDMA system, QPSK modulation     |
| UMTS/TM2  | HSDPA system, QPSK modulation     |
| UMTS/TM3  | HSUPA system, QPSK modulation     |



## 6 General Information

### 6.1 Client Information

|                          |                                                                                          |
|--------------------------|------------------------------------------------------------------------------------------|
| Applicant:               | HONGKONG UCLOUDLINK NETWORK TECHNOLOGY LIMITED                                           |
| Address of Applicant:    | Suite 603, 6/F, Laws Commercial Plaza, 788 Cheung Sha Wan Road, Kowloon, HongKong        |
| Manufacturer:            | HONGKONG UCLOUDLINK NETWORK TECHNOLOGY LIMITED                                           |
| Address of Manufacturer: | Suite 603, 6/F, Laws Commercial Plaza, 788 Cheung Sha Wan Road, Kowloon, HongKong        |
| Factory:                 | SHENZHEN CHIHANG TECHNOLOGY CO., LTD                                                     |
| Address of Factory:      | 1-4/F, Building 5, Detai Industrial Park, Huarong Road, Dalang Street, Longhua, Shenzhen |

### 6.2 General Description of EUT

|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name:                    | LTE MODULE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Model No.(EUT):                  | GLMM18A02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Trade mark:                      | GlocalMe                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| EUT Supports Radios application: | 4.0 BT Dual mode: 2402MHz to 2480MHz<br>WiFi: IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz<br>GPS: L1:1559MHz to 1610MHz<br>GSM/GPRS/EGPRS 850: Tx: 824-849MHz, Rx: 869-894MHz<br>GSM/GPRS/EGPRS 1900: Tx: 1850-1910MHz, Rx: 1930-1990MHz<br>WCDMA Band 2: Tx: 1850-1910MHz, Rx: 1930-1990MHz<br>WCDMA Band 4: Tx: 1850-1910MHz, Rx: 2110-2155MHz<br>WCDMA Band 5: Tx: 824- 849MHz, Rx: 869 -894MHz<br>LTE Band 2: Tx: 1850-1910MHz, Rx: 1930-1990MHz<br>LTE Band 4: Tx: 1710-1755 MHz, Rx: 2110-2155 MHz<br>LTE Band 5: Tx: 824-849 MHz, Rx: 869-894MHz<br>LTE Band 7: TX:2500-2570 MHz, Rx: 2620-2690 MHz<br>LTE Band 12: Tx: 699-716 MHz, Rx: 729-746 MHz<br>LTE Band 13: Tx: 777-787 MHz, Rx: 746-756 MHz<br>LTE Band 17: Tx: 704-716 MHz, Rx: 734-746 MHz<br>LTE Band 26: Tx: 814-849 MHz, Rx: 859-894 MHz<br>LTE Band 38: Tx: 2570- 2620MHz, Rx: 2570-2620MHz<br>LTE Band 40: Tx:2305-2315 MHz, Rx:2305-2315MHz<br>Tx:2350-2360 MHz, Rx:2350-2360MHz<br>LTE Band 41: Tx: 2535-2655 MHz, Rx: 2535 -2655 MHz |
| Power Supply:                    | DC 3.3V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Firmware version:                | GLMM18A01_TSV1.0.000.005.180821_userdebug(manufacturer declare)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Hardware version:                | M2_VB(manufacturer declare)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Sample Received Date:            | Sep. 10, 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Sample tested Date:              | Sep. 11, 2018 to Feb. 22, 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

### 6.3 Product Specification subjective to this standard

|                  |                                                                                                                                                                                                                                                                         |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency Band:  | GSM/GPRS/EGPRS 850: Tx: 824-849MHz, Rx: 869-894MHz<br>GSM/GPRS/EGPRS 1900: Tx: 1850-1910MHz, Rx: 1930-1990MHz<br>WCDMA Band 2: Tx: 1850-1910MHz, Rx: 1930-1990MHz<br>WCDMA Band 4: Tx: 1850-1910MHz, Rx: 2110-2155MHz<br>WCDMA Band 5: Tx: 824- 849MHz, Rx: 869 -894MHz |
| Modulation Type: | GMSK (GSM/GPRS), GMSK/8PSK (EGPRS)<br>QPSK for WCDMA, QPSK for HSDPA, QPSK for HSUPA                                                                                                                                                                                    |
| Antenna Type:    | External Antenna                                                                                                                                                                                                                                                        |
| Antenna Gain:    | -0.5dBi                                                                                                                                                                                                                                                                 |
| Test Voltage:    | DC 3.3V                                                                                                                                                                                                                                                                 |

### 6.4 Description of Support Units

The EUT has been tested independently.

### 6.5 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax: +86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

### 6.6 Deviation from Standards

None.

### 6.7 Abnormalities from Standard Conditions

None.

### 6.8 Other Information Requested by the Customer

None.

### 6.9 Measurement Uncertainty (95% confidence levels, k=2)

| No. | Item                            | Measurement Uncertainty |
|-----|---------------------------------|-------------------------|
| 1   | Radio Frequency                 | $7.9 \times 10^{-8}$    |
| 2   | RF power, conducted             | 0.46dB (30MHz-1GHz)     |
|     |                                 | 0.55dB (1GHz-18GHz)     |
| 3   | Radiated Spurious emission test | 4.3dB (30MHz-1GHz)      |
|     |                                 | 4.5dB (1GHz-12.75GHz)   |
| 4   | Conduction emission             | 3.5dB (9kHz to 150kHz)  |
|     |                                 | 3.1dB (150kHz to 30MHz) |
| 5   | Temperature test                | 0.64°C                  |
| 6   | Humidity test                   | 3.8%                    |
| 7   | DC power voltages               | 0.026%                  |

## 7 Equipment List

| Communication RF test system    |               |                              |                |                        |                            |
|---------------------------------|---------------|------------------------------|----------------|------------------------|----------------------------|
| Equipment                       | Manufacturer  | Model No.                    | Serial Number  | Cal. Date (mm-dd-yyyy) | Cal. Due date (mm-dd-yyyy) |
| Spectrum Analyzer               | Agilent       | E4440A                       | MY4618564<br>9 | 11-13-2017             | 11-14-2018                 |
| Spectrum Analyzer               | Agilent       | E4440A                       | MY4618564<br>9 | 11-14-2018             | 11-13-2019                 |
| Signal Generator                | Agilent       | E4438C                       | MY4509574<br>4 | 03-13-2018             | 03-12-2019                 |
| Communication test set          | Agilent       | E5515C                       | GB4705053<br>4 | 03-16-2018             | 03-15-2019                 |
| Signal Generator                | Keysight      | E8257D                       | MY5340110<br>6 | 03-13-2018             | 03-12-2019                 |
| Communication test set          | R&S           | CMW500                       | 152394         | 03-16-2018             | 03-15-2019                 |
| High-pass filter                | Sinoscite     | FL3CX03WG18<br>NM12-0398-002 | ---            | 01-10-2018             | 01-09-2019                 |
| High-pass filter                | MICRO-TRONICS | SPA-F-63029-4                | ---            | 01-10-2018             | 01-09-2019                 |
| band rejection filter           | Sinoscite     | FL5CX01CA09<br>CL12-0395-001 | ---            | 01-10-2018             | 01-09-2019                 |
| band rejection filter           | Sinoscite     | FL5CX01CA08<br>CL12-0393-001 | ---            | 01-10-2018             | 01-09-2019                 |
| band rejection filter           | Sinoscite     | FL5CX02CA04<br>CL12-0396-002 | ---            | 01-10-2018             | 01-09-2019                 |
| band rejection filter           | Sinoscite     | FL5CX02CA03<br>CL12-0394-001 | ---            | 01-10-2018             | 01-09-2019                 |
| DC Power                        | Keysight      | E3642A                       | MY5442611<br>2 | 03-13-2018             | 03-12-2019                 |
| DC Power                        | Keysight      | E3642A                       | MY5442611<br>5 | 03-13-2018             | 03-12-2019                 |
| PC-2                            | Lenovo        | R4960d                       | ---            | 01-10-2018             | 01-09-2019                 |
| PC-3                            | Lenovo        | R4960d                       | ---            | 01-10-2018             | 01-09-2019                 |
| RF control unit                 | JS Tonscend   | JS0806-1                     | 158060004      | 03-13-2018             | 03-12-2019                 |
| DC power Box                    | JS Tonscend   | JS0806-4                     | 158060007      | 03-13-2018             | 03-12-2019                 |
| LTE Automatic test software     | JS Tonscend   | JS1120-1                     | ---            | 03-30-2018             | 03-29-2019                 |
| WCDMA Automatic test software   | JS Tonscend   | JS1120-3                     | ---            | 03-30-2018             | 03-29-2019                 |
| GSM Automatic test software     | JS Tonscend   | JS1120-3                     | ---            | 03-30-2018             | 03-29-2019                 |
| Temperature/ Humidity Indicator | biaozhi       | HM10                         | 1804186        | 10-11-2017             | 10-12-2018                 |
| Temperature/ Humidity Indicator | biaozhi       | HM10                         | 1804186        | 10-12-2018             | 10-11-2019                 |

| 3M Semi/full-anechoic Chamber    |                  |                           |               |                        |                            |
|----------------------------------|------------------|---------------------------|---------------|------------------------|----------------------------|
| Equipment                        | Manufacturer     | Model No.                 | Serial Number | Cal. date (mm-dd-yyyy) | Cal. Due date (mm-dd-yyyy) |
| 3M Chamber & Accessory Equipment | TDK              | SAC-3                     | ---           | 06-04-2016             | 06-03-2019                 |
| TRILOG Broadband Antenna         | Schwarzbeck      | VULB9163                  | 9163-401      | 10-27-2017             | 10-28-2018                 |
| TRILOG Broadband Antenna         | Schwarzbeck      | VULB9163                  | 9163-401      | 10-28-2018             | 10-27-2019                 |
| TRILOG Broadband Antenna         | Schwarzbeck      | VULB9163                  | 9163-618      | 07-30-2018             | 07-29-2019                 |
| Microwave Preamplifier           | Agilent          | 8449B                     | 3008A02425    | 08-21-2018             | 08-20-2019                 |
| Microwave Preamplifier           | Tonscend         | EMC051845 SE              | 980380        | 01-19-2018             | 01-18-2019                 |
| Horn Antenna                     | Schwarzbeck      | BBHA 9120D                | 9120D-1869    | 04-25-2018             | 04-23-2021                 |
| Horn Antenna                     | ETS-LINDGREN     | 3117                      | 00057410      | 06-05-2018             | 06-03-2021                 |
| Double ridge horn antenna        | A.H.SYSTEMS      | SAS-574                   | 6042          | 06-05-2018             | 06-04-2021                 |
| Pre-amplifier                    | A.H.SYSTEMS      | PAP-1840-60               | 6041          | 06-05-2018             | 06-04-2021                 |
| Loop Antenna                     | ETS              | 6502                      | 00071730      | 06-22-2017             | 06-21-2019                 |
| Spectrum Analyzer                | R&S              | FSP40                     | 100416        | 05-11-2018             | 05-10-2019                 |
| Receiver                         | R&S              | ESCI                      | 100435        | 05-25-2018             | 05-24-2019                 |
| Receiver                         | R&S              | ESCI7                     | 100938-003    | 11-22-2017             | 11-23-2018                 |
| Receiver                         | R&S              | ESCI7                     | 100938-003    | 11-23-2018             | 11-22-2019                 |
| Multi device Controller          | maturo           | NCD/070/107 11112         | ---           | 01-10-2018             | 01-09-2019                 |
| LISN                             | schwarzbeck      | NNBM8125                  | 81251547      | 05-11-2018             | 05-10-2019                 |
| LISN                             | schwarzbeck      | NNBM8125                  | 81251548      | 05-11-2018             | 05-10-2019                 |
| Signal Generator                 | Agilent          | E4438C                    | MY4509574 4   | 03-13-2018             | 03-12-2019                 |
| Signal Generator                 | Keysight         | E8257D                    | MY5340110 6   | 03-13-2018             | 03-12-2019                 |
| Temperature/ Humidity Indicator  | Shanghai qixiang | HM10                      | 1804298       | 10-11-2017             | 10-12-2018                 |
| Temperature/ Humidity Indicator  | Shanghai qixiang | HM10                      | 1804298       | 10-12-2018             | 10-11-2019                 |
| Communication test set           | Agilent          | E5515C                    | GB4705053 4   | 03-16-2018             | 03-15-2019                 |
| Cable line                       | Fulai(7M)        | SF106                     | 5219/6A       | 01-10-2018             | 01-09-2019                 |
| Cable line                       | Fulai(6M)        | SF106                     | 5220/6A       | 01-10-2018             | 01-09-2019                 |
| Cable line                       | Fulai(3M)        | SF106                     | 5216/6A       | 01-10-2018             | 01-09-2019                 |
| Cable line                       | Fulai(3M)        | SF106                     | 5217/6A       | 01-10-2018             | 01-09-2019                 |
| Communication test set           | R&S              | CMW500                    | 104466        | 02-05-2018             | 02-04-2019                 |
| High-pass filter                 | Sinoscite        | FL3CX03WG 18NM12-0398-002 | ---           | 01-10-2018             | 01-09-2019                 |
| High-pass filter                 | MICRO-TRONICS    | SPA-F-63029-4             | ---           | 01-10-2018             | 01-09-2019                 |
| band rejection filter            | Sinoscite        | FL5CX01CA0 9CL12-0395-001 | ---           | 01-10-2018             | 01-09-2019                 |
| band rejection filter            | Sinoscite        | FL5CX01CA0 8CL12-0393-001 | ---           | 01-10-2018             | 01-09-2019                 |
| band rejection filter            | Sinoscite        | FL5CX02CA0 4CL12-0396-002 | ---           | 01-10-2018             | 01-09-2019                 |
| band rejection filter            | Sinoscite        | FL5CX02CA0 3CL12-0394-001 | ---           | 01-10-2018             | 01-09-2019                 |



## 8 Radio Technical Requirements Specification

### Reference documents for testing:

| No. | Identity       | Document Title                                                                              |
|-----|----------------|---------------------------------------------------------------------------------------------|
| 1   | PART 22        | PART 22 – PUBLIC MOBILE SERVICES<br>Subpart H – Cellular Radiotelephone Service             |
| 2   | PART 24        | PART 24 – PERSONAL COMMUNICATIONS SERVICES<br>Subpart E – Broadband PCS                     |
| 3   | PART 27        | PART 27 – MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES<br>Subpart C – Technical Standards |
| 3   | PART 2         | Frequency allocations and radio treaty matters; general rules and regulations               |
| 4   | TIA-603-E-2016 | Land Mobile FM or PM -Communications Equipment -Measurement and Performance Standards       |
| 5   | KDB971168 D01  | KDB971168 D01 Power Meas License Digital Systems v03r01                                     |

### Test Results List:

| Test Requirement                                                                      | Test method                                                                  | Test item                                          | Verdict | Note        |
|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------|----------------------------------------------------|---------|-------------|
| Part 2.1046(a)/Part 22.913(a)/<br>part 24.232(c)<br>Part 27.50(d)                     | TIA-603-E-2016&<br>KDB 971168<br>D01v03r01                                   | Conducted output<br>power                          | PASS    | Appendix A) |
| Part 24.232(d)<br>Part 27.50(d)                                                       | KDB 971168<br>D01v03r01                                                      | peak-to-average ratio                              | PASS    | Appendix B) |
| Part 2.1049(h)                                                                        | Part 22.917(b)/ Part<br>24.238(b)/ Part<br>27.53(h) &KDB<br>971168 D01v03r01 | 99%<br>&26dB Occupied<br>Bandwidth                 | PASS    | Appendix C) |
| Part 2.1051/Part 22.917(a)/<br>Part 24.238(a)<br>Part 27.53(h)                        | Part 22.917(b)/ Part<br>24.238(b)/ Part<br>27.53(h) &KDB<br>971168 D01v03r01 | Band Edge at<br>antenna terminals                  | PASS    | Appendix D) |
| Part 2.1051/ Part 2.1057/<br>Part 22.917(a)(b)/<br>Part 24.238(a)(b)<br>Part 27.53(h) | TIA-603-E-2016&<br>KDB 971168<br>D01v03r01                                   | Spurious emissions<br>at antenna<br>terminals      | PASS    | Appendix E) |
| Part 2.1055/ Part 22.355/<br>Part 24.235<br>Part 27.54                                | TIA-603-E-2016&<br>KDB 971168<br>D01v03r01                                   | Frequency stability                                | PASS    | Appendix F) |
| Part 2.1053/ Part 2.1057/<br>Part 22.917(a)(b)/<br>Part 24.238(a)(b)<br>Part 27.53(h) | TIA-603-E-2016&<br>KDB 971168<br>D01v03r01                                   | Field strength of<br>spurious radiation            | PASS    | Appendix H) |
| Part 2.1046(a)/Part 22.913(a)/<br>Part 24.232(c)<br>Part 27.50(d)                     | TIA-603-E-2016&<br>KDB 971168<br>D01v03r01                                   | Effective Radiated<br>Power of<br>Transmitter(ERP) | PASS    | Appendix G) |



## Appendix A): RF Power Output

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |                              |                 |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------------------|-----------------|
| <b>Test Requirement:</b>      | Part 2.1046(a)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                             |                              |                 |
| <b>Test Method:</b>           | TIA-603-E-2016 Clause 2.2.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                             |                              |                 |
| <b>Test Setup:</b>            | Refer to section 5 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                             |                              |                 |
| <b>Limit:</b>                 | Mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | GSM/GPRS/EDGE/<br>WCDMA 850 | GSM/GPRS/EDGE/<br>WCDMA 1900 | WCDMA 1700      |
|                               | Frequency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 824 – 849MHz                | 1850 – 1910MHz               | 1710 – 1755MHz  |
|                               | Limit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 38.45dBm<br>(ERP)           | 33.01dBm<br>(EIRP)           | 30dBm<br>(EIRP) |
| <b>Measurement Procedure:</b> | The transmitter output was connected to a calibrated coaxial cable, attenuator and power meter, the other end of which was connected to a Base Station Simulator. The Base Station Simulator was set to force the EUT to its maximum power setting. The power output at the transmitter antenna port was determined by adding the value of the cable insertion loss to the power reading. The tests were performed at three frequencies (low channel, middle channel and high channel) and on the highest power levels, which can be setup on the transmitters. |                             |                              |                 |
| <b>Instruments Used:</b>      | Refer to section 7 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                             |                              |                 |
| <b>Test Results:</b>          | Pass                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             |                              |                 |

| Test Band | Test Mode | Test Channel | Measured(dbm) | Limit (dbm) | Verdict |
|-----------|-----------|--------------|---------------|-------------|---------|
| GSM850    | GSM/TM1   | LCH          | 32.07         | 38.5        | PASS    |
|           |           | MCH          | 32.36         | 38.5        | PASS    |
|           |           | HCH          | 32.29         | 38.5        | PASS    |
|           | GSM/TM2   | LCH          | 32.08         | 38.5        | PASS    |
|           |           | MCH          | 32.30         | 38.5        | PASS    |
|           |           | HCH          | 32.27         | 38.5        | PASS    |
|           | GSM/TM3   | LCH          | 25.95         | 38.5        | PASS    |
|           |           | MCH          | 26.14         | 38.5        | PASS    |
|           |           | HCH          | 26.20         | 38.5        | PASS    |
| Test Band | Test Mode | Test Channel | Measured(dbm) | Limit (dbm) | Verdict |
| GSM1900   | GSM/TM1   | LCH          | 29.81         | 33          | PASS    |
|           |           | MCH          | 29.87         | 33          | PASS    |
|           |           | HCH          | 30.57         | 33          | PASS    |
|           | GSM/TM2   | LCH          | 29.85         | 33          | PASS    |
|           |           | MCH          | 29.91         | 33          | PASS    |
|           |           | HCH          | 30.43         | 33          | PASS    |

|  |         |     |       |    |      |
|--|---------|-----|-------|----|------|
|  | GSM/TM3 | LCH | 25.50 | 33 | PASS |
|  |         | MCH | 24.77 | 33 | PASS |
|  |         | HCH | 25.72 | 33 | PASS |

| Test Band | Test Mode | Test Channel | Measured (dbm) | Limit (dbm) | Verdict |
|-----------|-----------|--------------|----------------|-------------|---------|
| WCDMA850  | UMTS/TM1  | LCH          | 23.37          | 38.5        | PASS    |
|           |           | MCH          | 24.58          | 38.5        | PASS    |
|           |           | HCH          | 24.08          | 38.5        | PASS    |

| Test Band | Test Mode | Test Channel | Measured (dbm) | Limit (dbm) | Verdict |
|-----------|-----------|--------------|----------------|-------------|---------|
| WCDMA850  | UMTS/TM2  | LCH          | 22.76          | 38.5        | PASS    |
|           |           | MCH          | 22.58          | 38.5        | PASS    |
|           |           | HCH          | 22.48          | 38.5        | PASS    |

| Test Band | Test Mode | Test Channel | Measured (dbm) | Limit (dbm) | Verdict |
|-----------|-----------|--------------|----------------|-------------|---------|
| WCDMA850  | UMTS/TM3  | LCH          | 21.44          | 38.5        | PASS    |
|           |           | MCH          | 21.77          | 38.5        | PASS    |
|           |           | HCH          | 21.61          | 38.5        | PASS    |

| Test Band | Test Mode | Test Channel | Measured (dbm) | Limit (dbm) | Verdict |
|-----------|-----------|--------------|----------------|-------------|---------|
| WCDMA1700 | UMTS/TM1  | LCH          | 22.29          | 30          | PASS    |
|           |           | MCH          | 22.77          | 30          | PASS    |
|           |           | HCH          | 21.89          | 30          | PASS    |

| Test Band | Test Mode | Test Channel | Measured (dbm) | Limit (dbm) | Verdict |
|-----------|-----------|--------------|----------------|-------------|---------|
| WCDMA1700 | UMTS/TM2  | LCH          | 21.95          | 30          | PASS    |
|           |           | MCH          | 22.32          | 30          | PASS    |
|           |           | HCH          | 21.91          | 30          | PASS    |

| Test Band | Test Mode | Test Channel | Measured (dbm) | Limit (dbm) | Verdict |
|-----------|-----------|--------------|----------------|-------------|---------|
| WCDMA1700 | UMTS/TM3  | LCH          | 21.93          | 30          | PASS    |
|           |           | MCH          | 22.91          | 30          | PASS    |
|           |           | HCH          | 21.36          | 30          | PASS    |

| Test Band | Test Mode | Test Channel | Measured(dbm) | Limit (dbm) | Verdict |
|-----------|-----------|--------------|---------------|-------------|---------|
| WCDMA1900 | UMTS/TM1  | LCH          | 23.05         | 33          | PASS    |
|           |           | MCH          | 23.66         | 33          | PASS    |
|           |           | HCH          | 23.32         | 33          | PASS    |

| Test Band | Test Mode | Test Channel | Measured(dbm) | Limit (dbm) | Verdict |
|-----------|-----------|--------------|---------------|-------------|---------|
| WCDMA1900 | UMTS/TM2  | LCH          | 23.63         | 33          | PASS    |
|           |           | MCH          | 23.97         | 33          | PASS    |
|           |           | HCH          | 23.60         | 33          | PASS    |

| Test Band | Test Mode | Test Channel | Measured(dbm) | Limit (dbm) | Verdict |
|-----------|-----------|--------------|---------------|-------------|---------|
| WCDMA1900 | UMTS/TM3  | LCH          | 21.10         | 33          | PASS    |
|           |           | MCH          | 21.41         | 33          | PASS    |
|           |           | HCH          | 21.95         | 33          | PASS    |

## Appendix B): Peak-to-Average Ratio

|                               |                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Test Requirement:</b>      | Part 24.232(d)/Part 27.50(d)                                                                                                                                                                                                                                                                                                                 |
| <b>Test Method:</b>           | KDB 971168 D01                                                                                                                                                                                                                                                                                                                               |
| <b>Test Setup:</b>            | Refer to section 5 for details                                                                                                                                                                                                                                                                                                               |
| <b>Limit:</b>                 | 13dB                                                                                                                                                                                                                                                                                                                                         |
| <b>Measurement Procedure:</b> | Use one of the procedures to measure the total peak power and record as PPK. Use one of the applicable procedures to measure the total average power and record as PAvg. Both the peak and average power levels must be expressed in the same logarithmic units (e.g., dBm). Determine the PAPR from: $PAPR (dB) = PPK (dBm) - PAvg (dBm)$ . |
| <b>Instruments Used:</b>      | Refer to section 7 for details                                                                                                                                                                                                                                                                                                               |
| <b>Test Results:</b>          | Pass                                                                                                                                                                                                                                                                                                                                         |

| Test Band | Test Mode | Test Channel | Measured (dbm) | Limit (dbm) | Verdict |
|-----------|-----------|--------------|----------------|-------------|---------|
| GSM1900   | GSM/TM1   | LCH          | 2.64           | 13          | PASS    |
|           |           | MCH          | 2.63           | 13          | PASS    |
|           |           | HCH          | 2.64           | 13          | PASS    |
|           | GSM/TM2   | LCH          | 3.07           | 13          | PASS    |
|           |           | MCH          | 2.63           | 13          | PASS    |
|           |           | HCH          | 2.64           | 13          | PASS    |
|           | GSM/TM3   | LCH          | 5.47           | 13          | PASS    |
|           |           | MCH          | 5.57           | 13          | PASS    |
|           |           | HCH          | 5.62           | 13          | PASS    |



| Test Band | Test Mode | Test Channel | Measured(dbm) | Limit (dbm)  | Verdict |
|-----------|-----------|--------------|---------------|--------------|---------|
| WCDMA1700 | UMTS/TM1  | LCH          | 3.12          | 13           | PASS    |
|           |           | MCH          | 3.09          | 13           | PASS    |
|           |           | HCH          | 3.16          | 13           | PASS    |
| Test Band | Test Mode | Test Channel | Measured(dbm) | Limit (dbm)  | Verdict |
| WCDMA1700 | UMTS/TM2  | LCH          | 3.30          | 13           | PASS    |
|           |           | MCH          | 3.31          | 13           | PASS    |
|           |           | HCH          | 3.23          | 13           | PASS    |
| Test Band | Test Mode | Test Channel | Measured(dbm) | Limit ((dbm) | Verdict |
| WCDMA1700 | UMTS/TM3  | LCH          | 4.55          | 13           | PASS    |
|           |           | MCH          | 4.49          | 13           | PASS    |
|           |           | HCH          | 4.43          | 13           | PASS    |

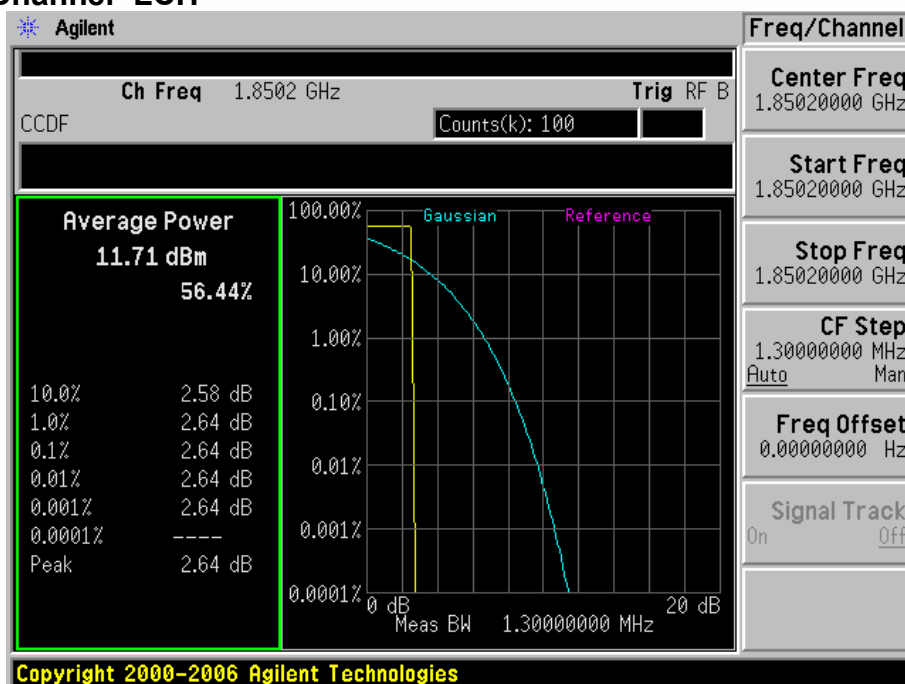
| Test Band | Test Mode | Test Channel | Measured(dbm) | Limit (dbm) | Verdict |
|-----------|-----------|--------------|---------------|-------------|---------|
| WCDMA1900 | UMTS/TM1  | LCH          | 2.77          | 13          | PASS    |
|           |           | MCH          | 2.94          | 13          | PASS    |
|           |           | HCH          | 2.63          | 13          | PASS    |
| Test Band | Test Mode | Test Channel | Measured(dbm) | Limit (dbm) | Verdict |
| WCDMA1900 | UMTS/TM2  | LCH          | 2.85          | 13          | PASS    |
|           |           | MCH          | 3.00          | 13          | PASS    |
|           |           | HCH          | 2.78          | 13          | PASS    |
| Test Band | Test Mode | Test Channel | Measured(dbm) | Limit (dbm) | Verdict |
| WCDMA1900 | UMTS/TM3  | LCH          | 4.27          | 13          | PASS    |
|           |           | MCH          | 4.23          | 13          | PASS    |
|           |           | HCH          | 4.01          | 13          | PASS    |

**1 For GSM**

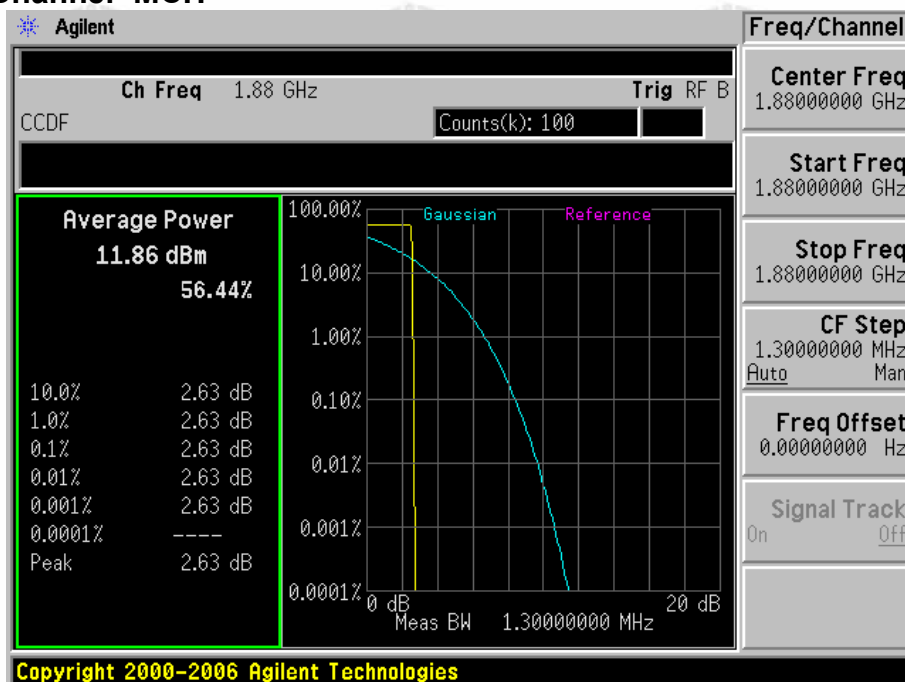
**1.1 Test Band=GSM 1900**

**1.1.1 Test Mode=UMTS/TM1**

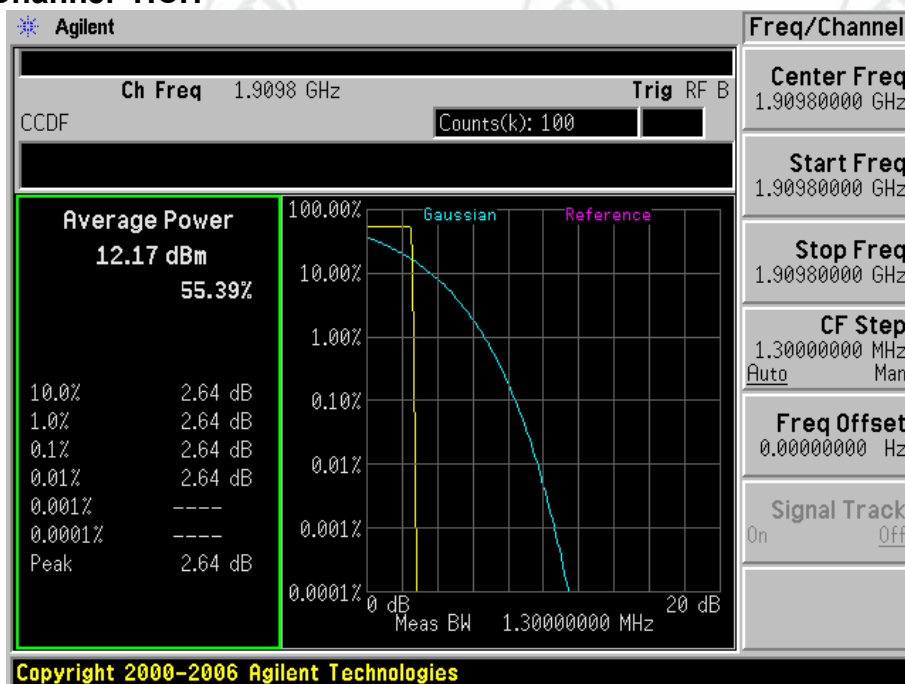
**1.1.1.1 Test Channel=LCH**



**1.1.1.2 Test Channel=MCH**

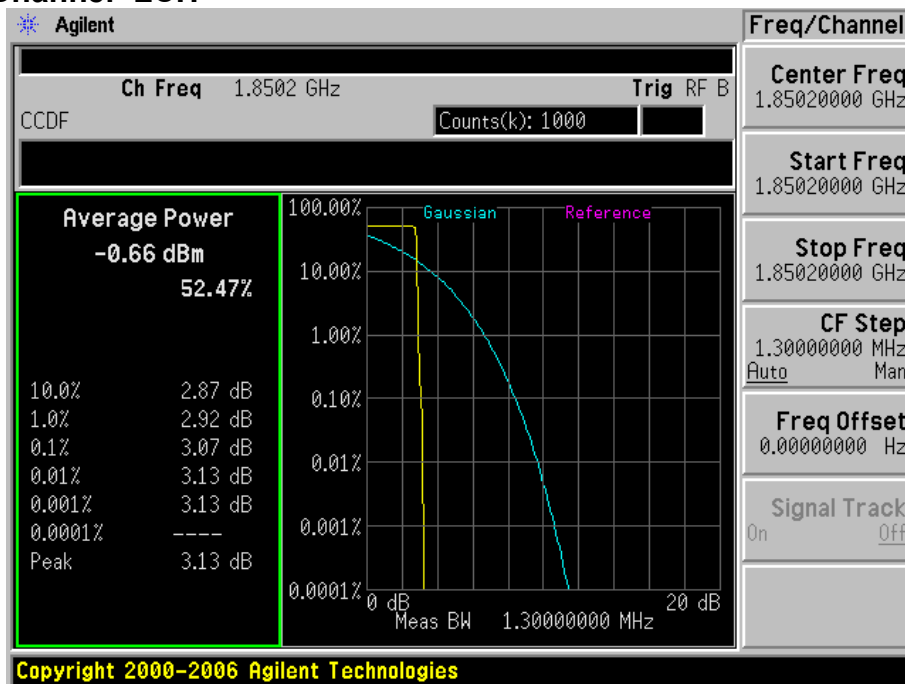


### 1.1.1.3 Test Channel=HCH

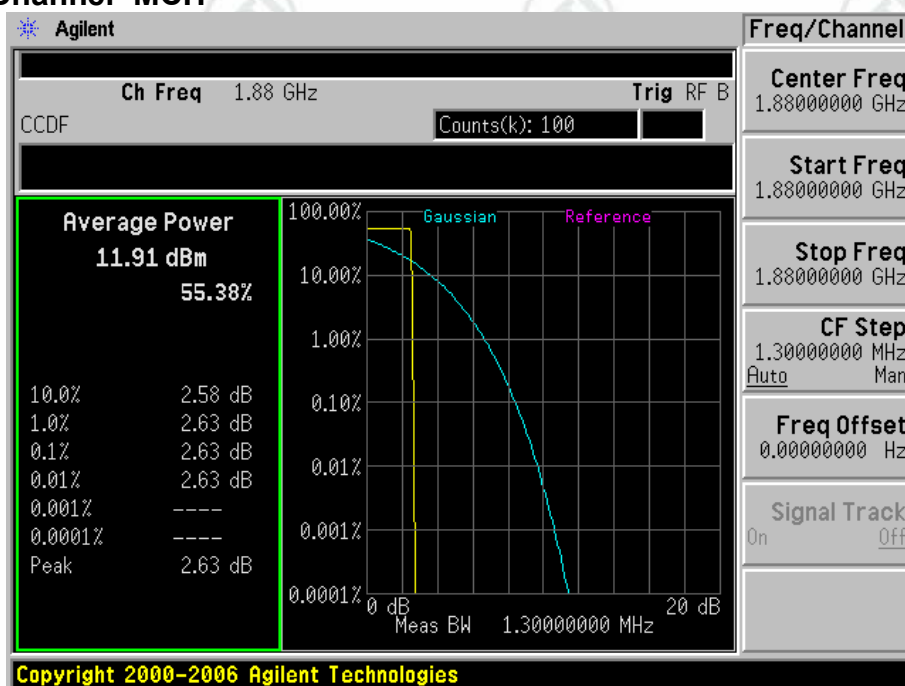


### 1.1.2 Test Mode=UMTS/TM2

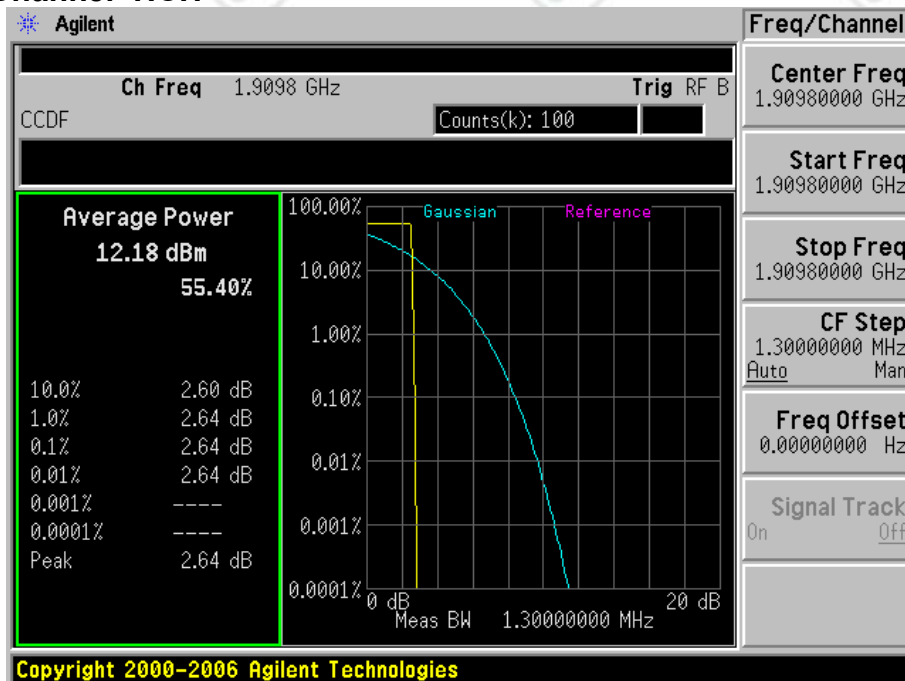
#### 1.1.2.1 Test Channel=LCH



### 1.1.2.2 Test Channel=MCH

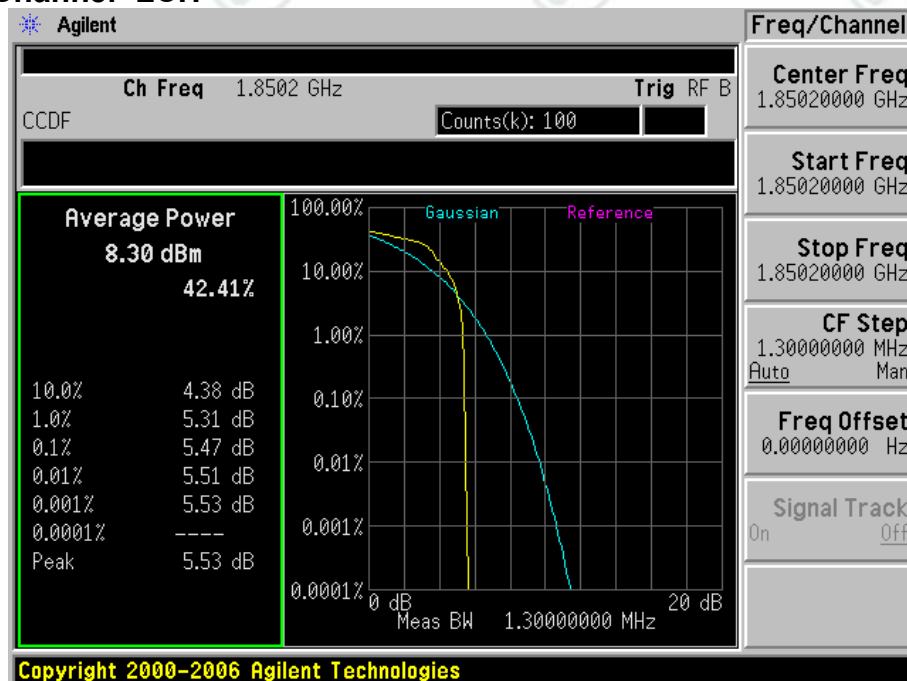


### 1.1.2.3 Test Channel=HCH

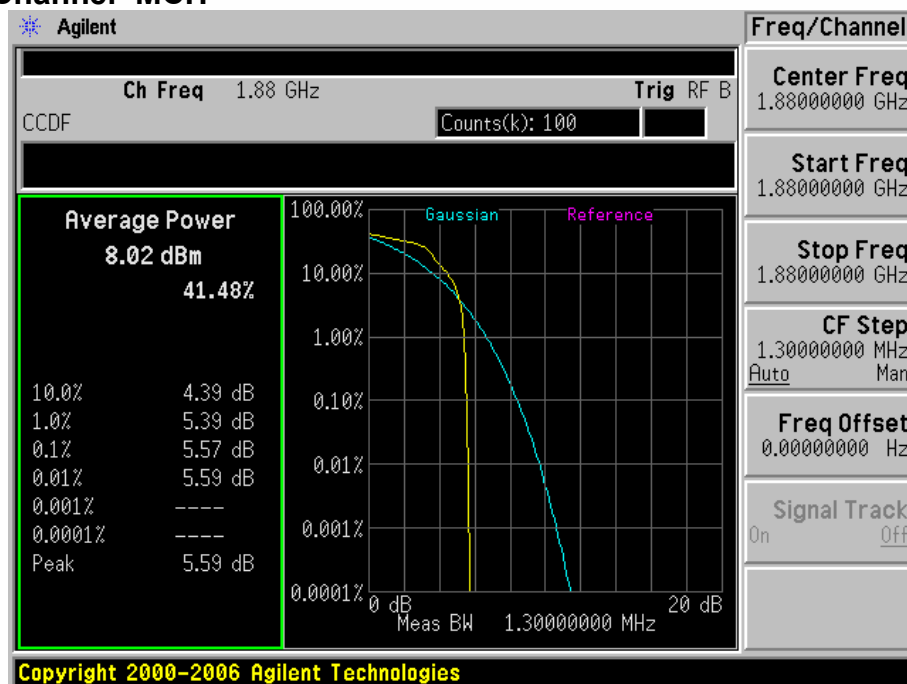


### 1.1.3 Test Mode=UMTS/TM3

#### 1.1.3.1 Test Channel=LCH

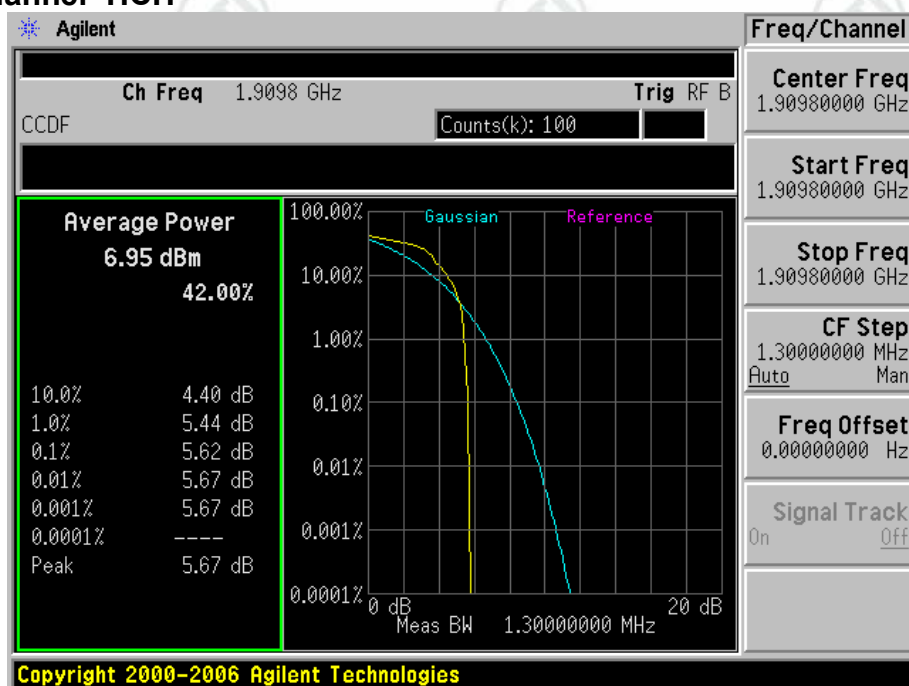


#### 1.1.3.2 Test Channel=MCH





### 1.1.3.3 Test Channel=HCH



## 2

### For WCDMA

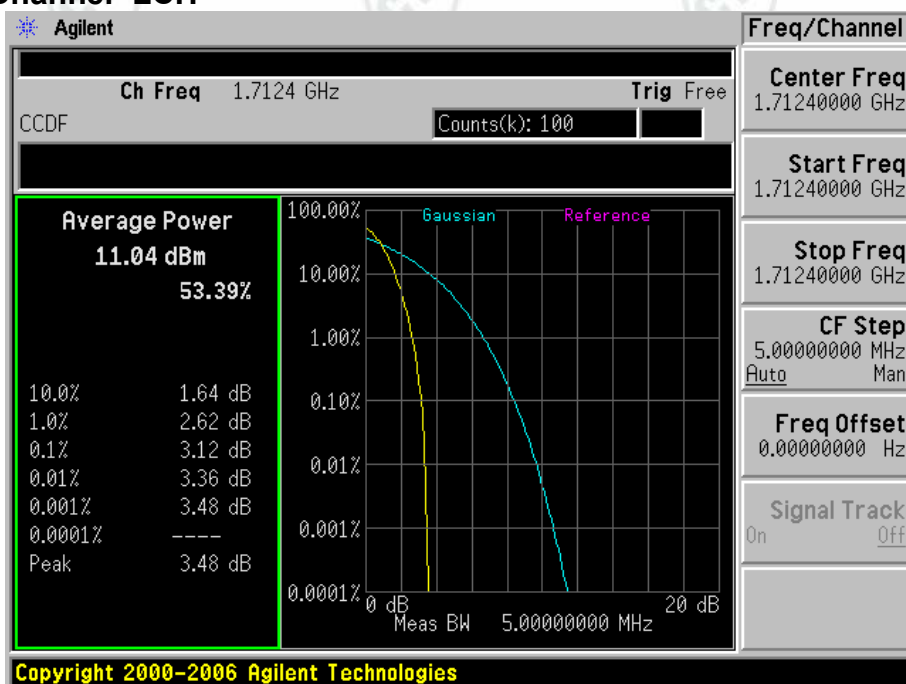
## 2.1

### Test Band=WCDMA1700

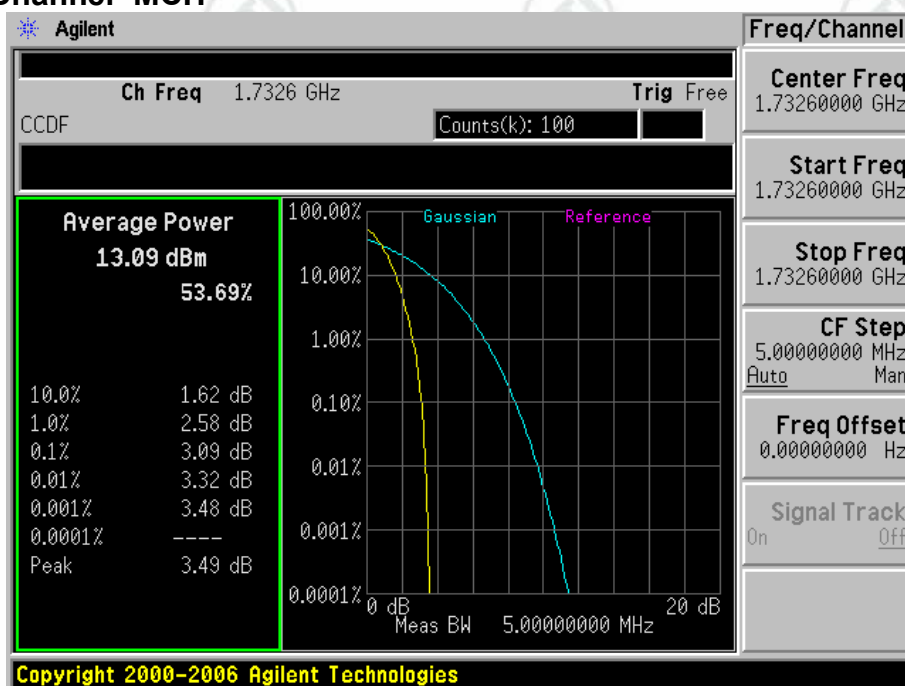
## 2.1.1

### Test Mode=UMTS/TM1

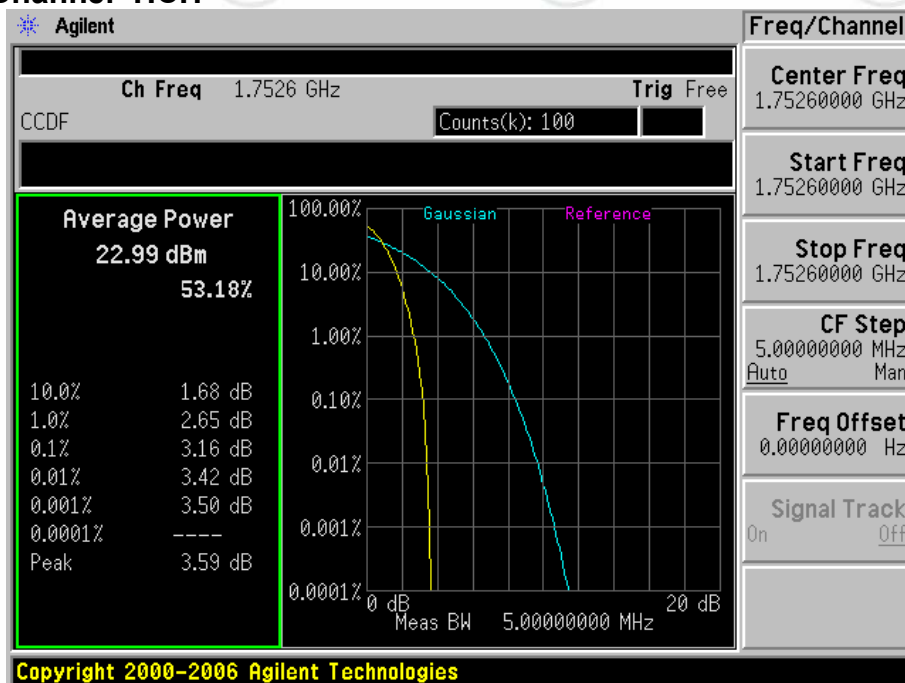
### 2.1.1.1 Test Channel=LCH



### 2.1.1.2 Test Channel=MCH

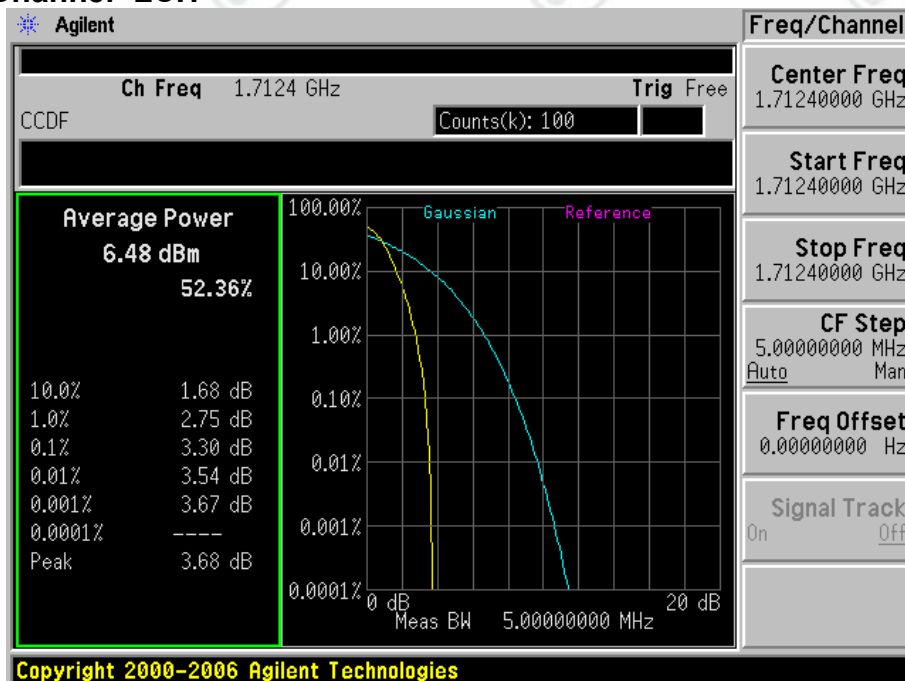


### 2.1.1.3 Test Channel=HCH

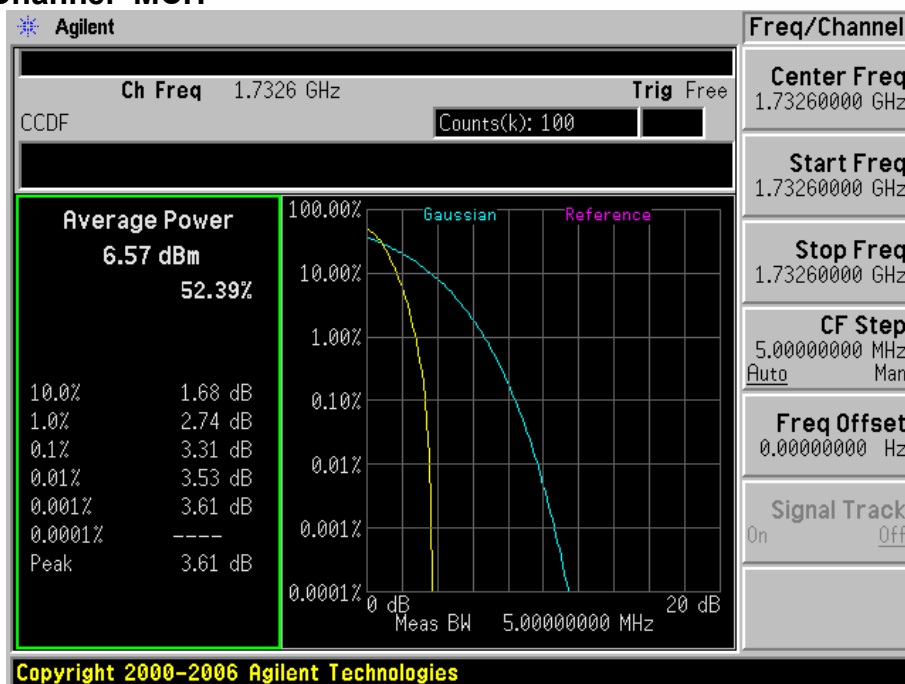


## 2.1.2 Test Mode=UMTS/TM2

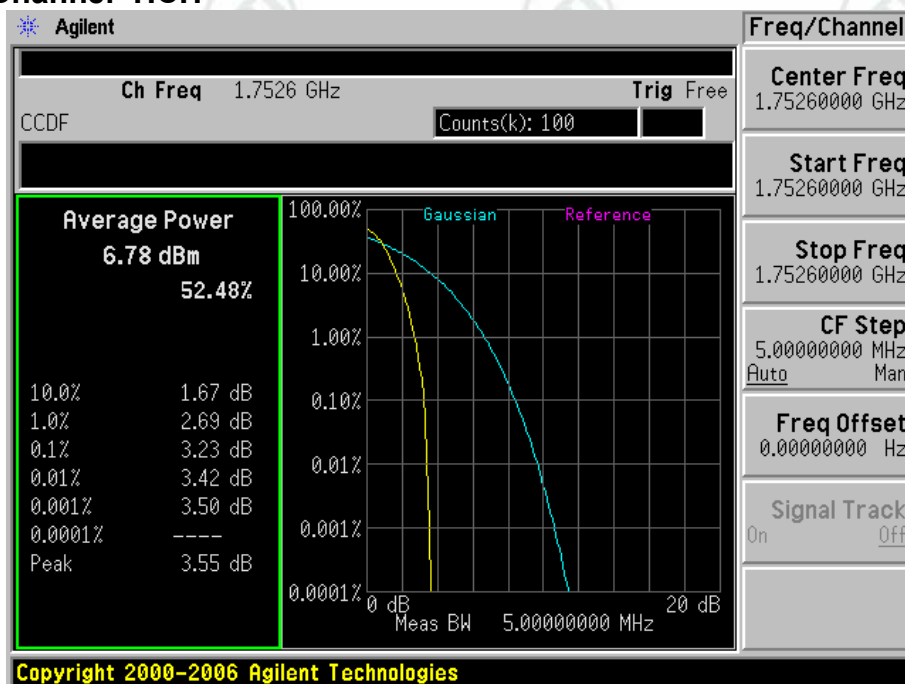
### 2.1.2.1 Test Channel=LCH



### 2.1.2.2 Test Channel=MCH

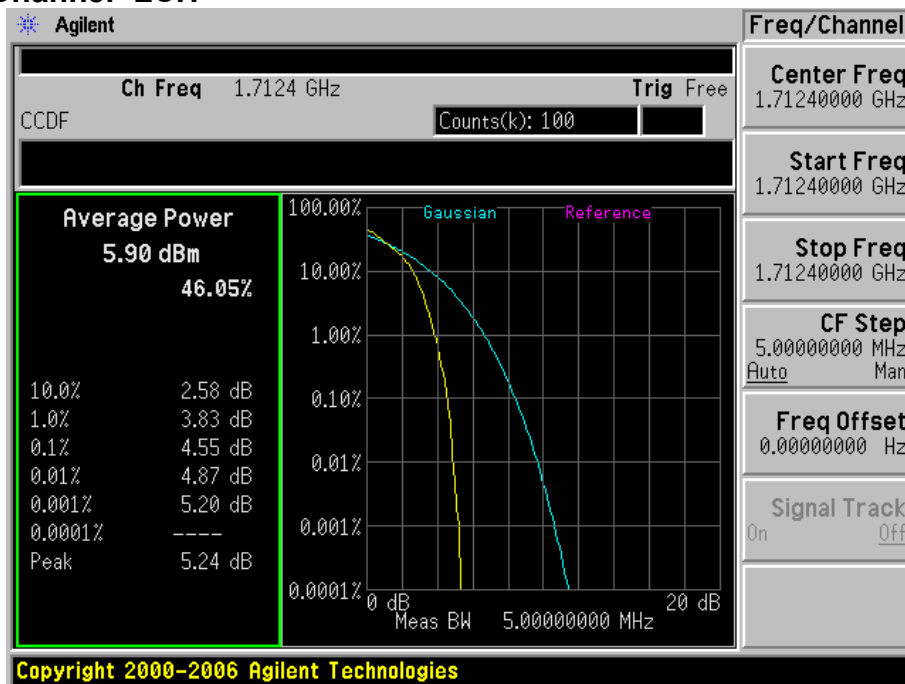


### 2.1.2.3 Test Channel=HCH

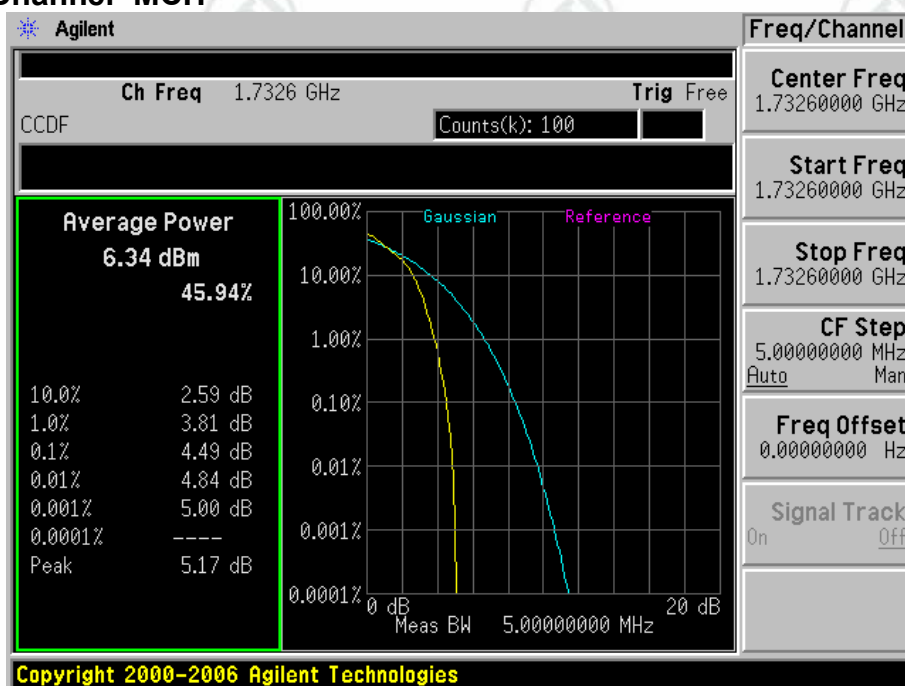


### 2.1.3 Test Mode=UMTS/TM3

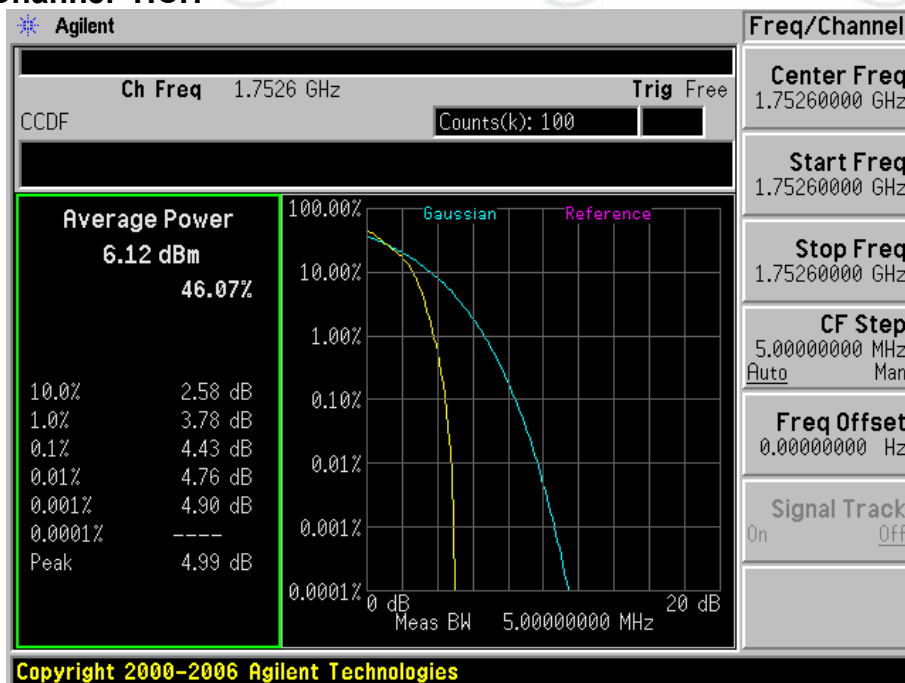
#### 2.1.3.1 Test Channel=LCH



### 2.1.3.2 Test Channel=MCH



### 2.1.3.3 Test Channel=HCH

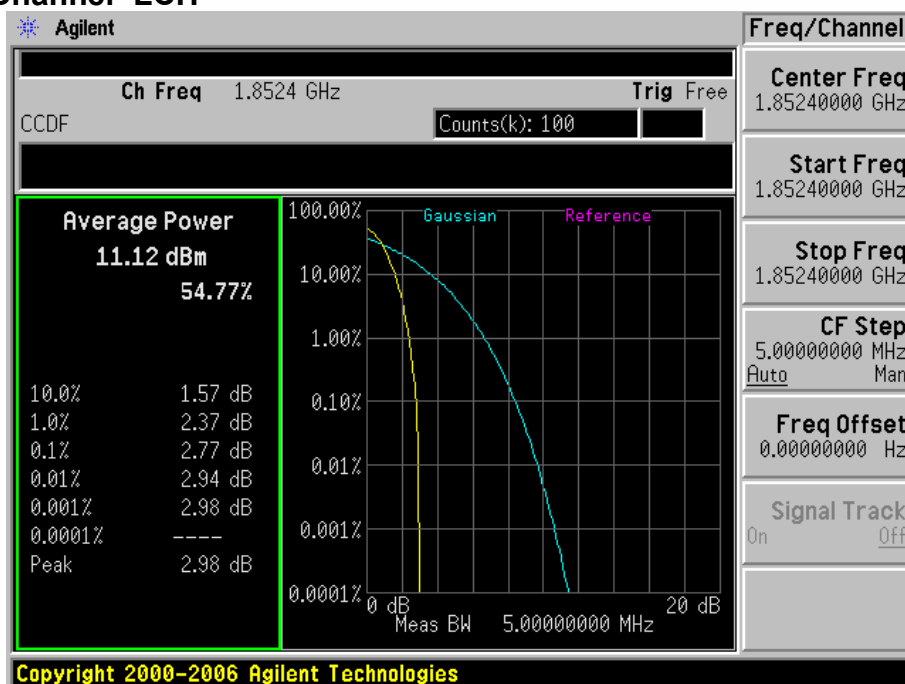




## 2.2 Test Band=WCDMA1900

### 2.2.1 Test Mode=UMTS/TM1

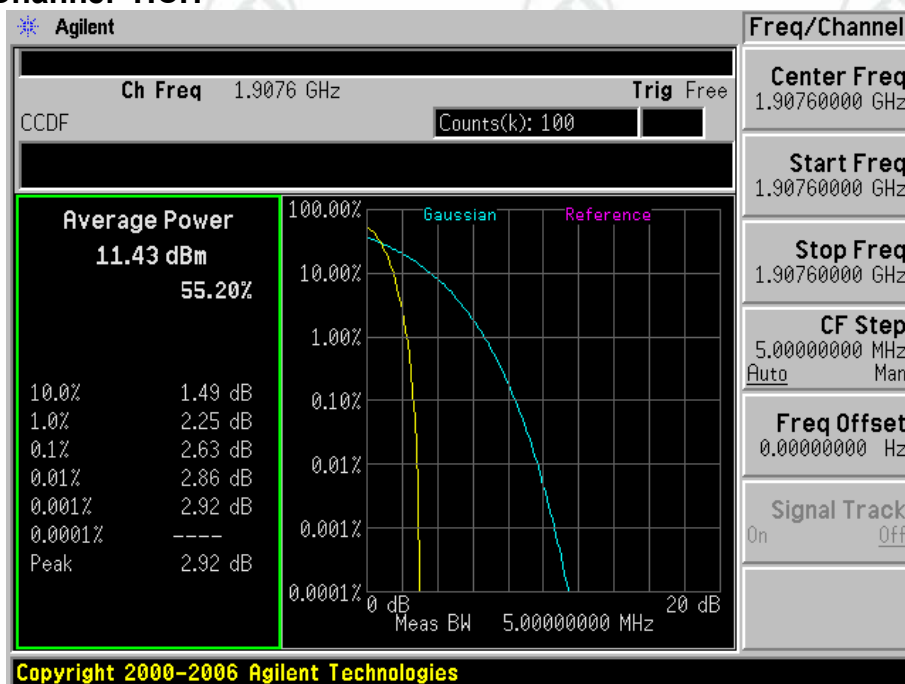
#### 2.2.1.1 Test Channel=LCH



#### 2.2.1.2 Test Channel=MCH

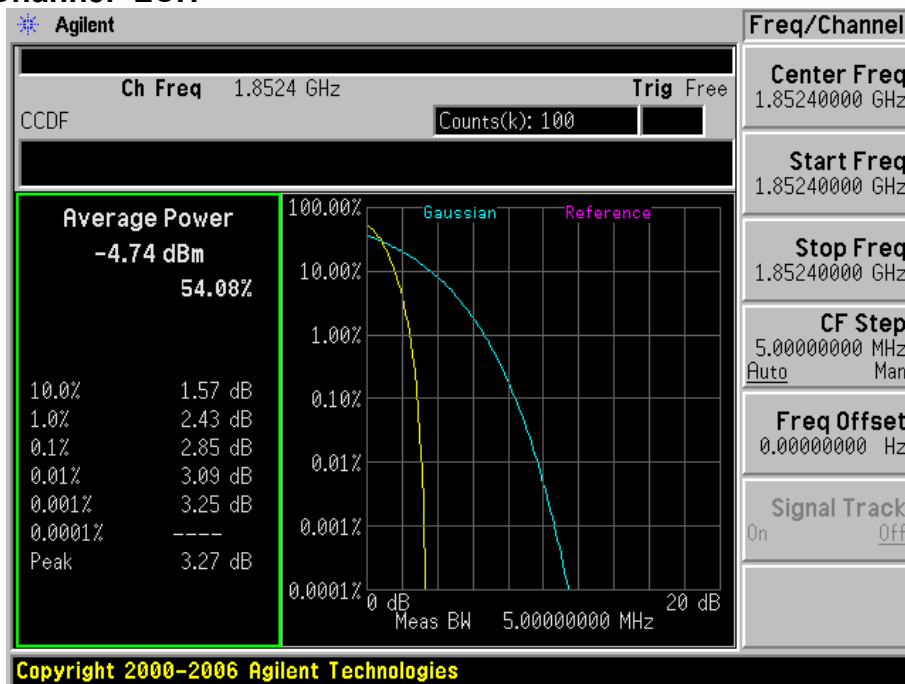


### 2.2.1.3 Test Channel=HCH

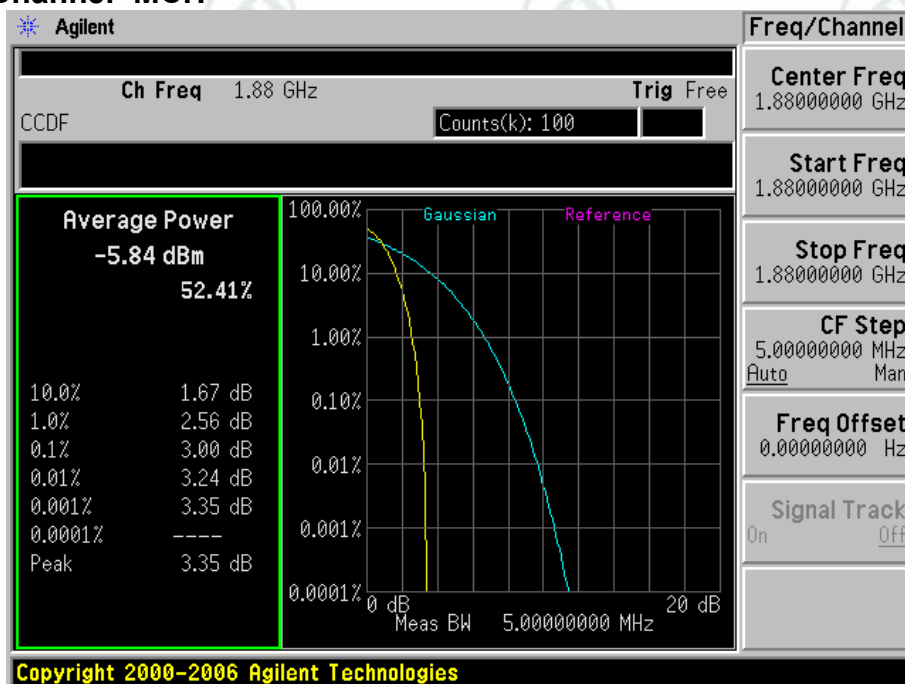


### 2.2.2 Test Mode=UMTS/TM2

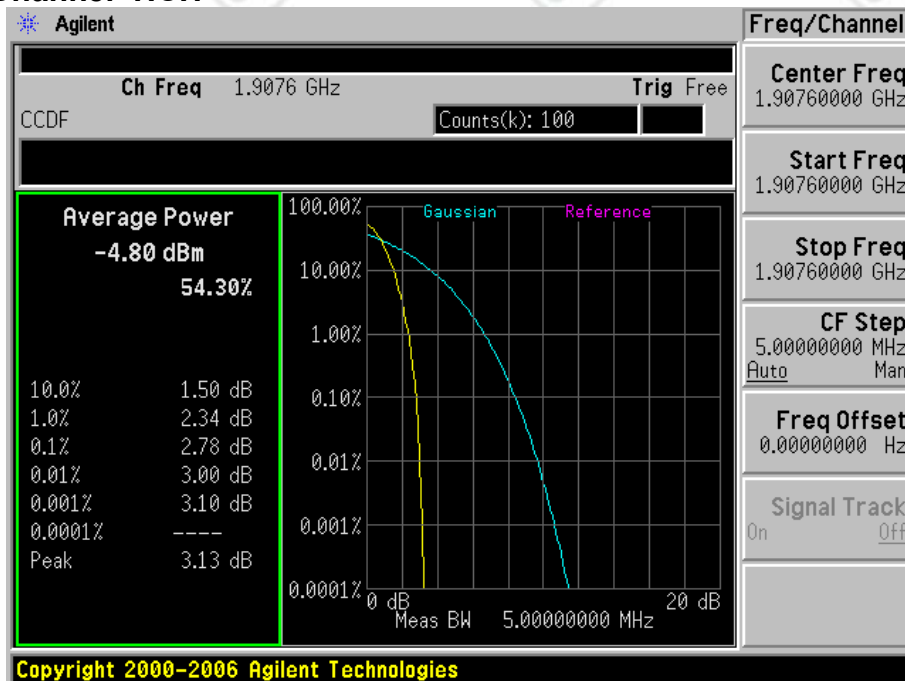
#### 2.2.2.1 Test Channel=LCH



### 2.2.2.2 Test Channel=MCH

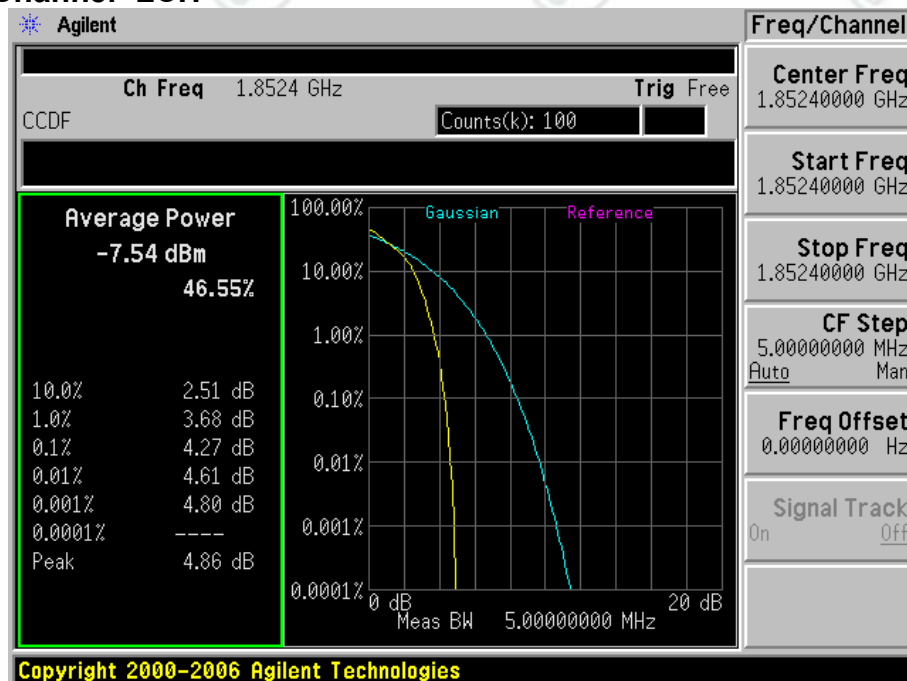


### 2.2.2.3 Test Channel=HCH

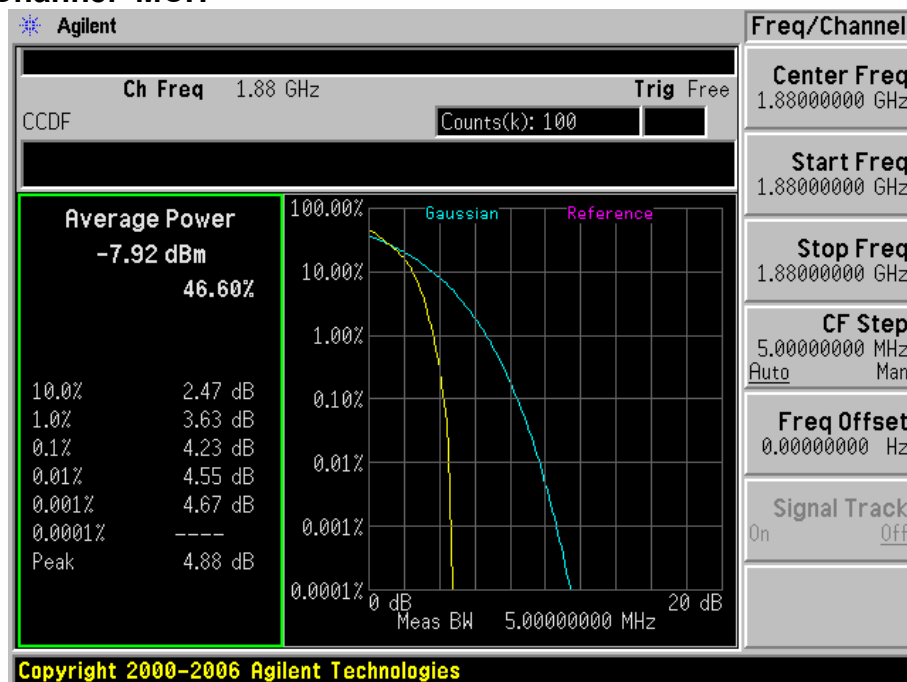


## 2.2.3 Test Mode=UMTS/TM3

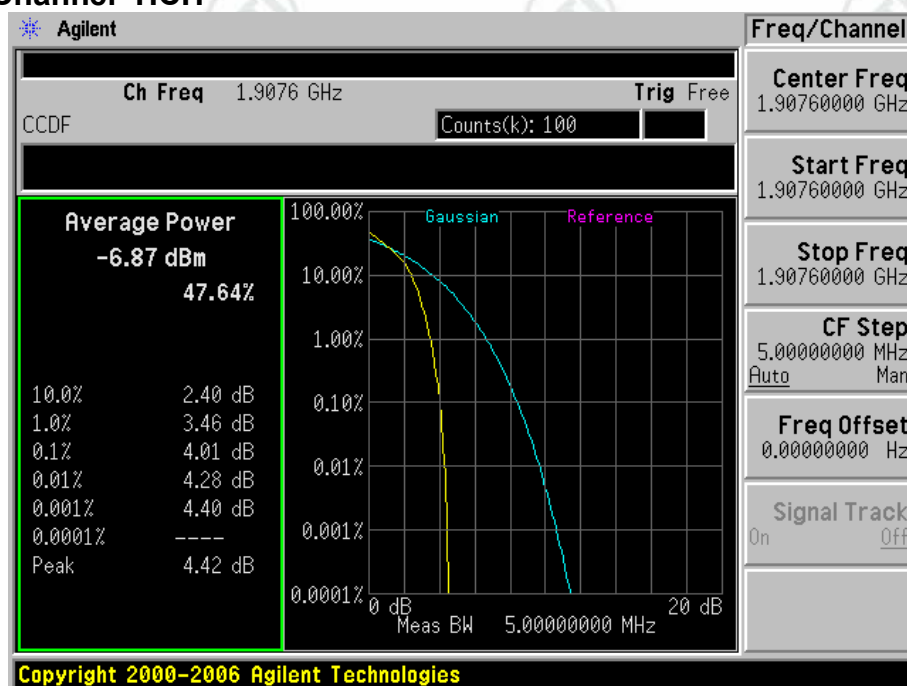
### 2.2.3.1 Test Channel=LCH



### 2.2.3.2 Test Channel=MCH



### 2.2.3.3 Test Channel=HCH





### Appendix C): BandWidth

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Test Requirement:</b>      | Part 2.1049(h)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Test Method:</b>           | Part 22.917(b)/Part 24.238(b)/Part 27.53(h)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Test Setup:</b>            | Refer to section 5 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Limit:</b>                 | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Measurement Procedure:</b> | The transmitter output was connected to a calibrated coaxial cable, attenuator and Spectrum analyser, the other end of which was connected to a Base Station Simulator. The Base Station Simulator was set to force the EUT to its maximum power setting. The tests were performed at three frequencies (low channel, middle channel and high channel). the resolution bandwidth of the analyser is set to 100kHz or 1% of the emission bandwidth, the EUT emission bandwidth is measured as the width of the signal between two points, outside of which all emission are attenuated at least 26dB below the transmitter power. The video bandwidth of the spectrum analyzer was set at thrice the resolution bandwidth. Detector Mode was set to peak or peak hold power. |
| <b>Instruments Used:</b>      | Refer to section 7 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Test Results:</b>          | Pass                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| Test Band | Test Mode | Test Channel | Occupied Bandwidth (kHz) | Emission Bandwidth (kHz) | Verdict |
|-----------|-----------|--------------|--------------------------|--------------------------|---------|
| GSM850    | GSM/TM1   | LCH          | 245.0                    | 305                      | PASS    |
|           |           | MCH          | 245.2                    | 305                      | PASS    |
|           |           | HCH          | 245.8                    | 304                      | PASS    |
|           | GSM/TM2   | LCH          | 245.3                    | 321                      | PASS    |
|           |           | MCH          | 245.5                    | 317                      | PASS    |
|           |           | HCH          | 245.1                    | 312                      | PASS    |
|           | GSM/TM3   | LCH          | 245.3                    | 316                      | PASS    |
|           |           | MCH          | 244.9                    | 311                      | PASS    |
|           |           | HCH          | 244.3                    | 310                      | PASS    |

| Test Band | Test Mode | Test Channel | Occupied Bandwidth (kHz) | Emission Bandwidth (kHz) | Verdict |
|-----------|-----------|--------------|--------------------------|--------------------------|---------|
| GSM1900   | GSM/TM1   | LCH          | 247.1                    | 306                      | PASS    |
|           |           | MCH          | 246.4                    | 304                      | PASS    |
|           |           | HCH          | 245.0                    | 304                      | PASS    |
|           | GSM/TM2   | LCH          | 246.5                    | 315                      | PASS    |
|           |           | MCH          | 245.7                    | 317                      | PASS    |
|           |           | HCH          | 245.7                    | 323                      | PASS    |

|  |         |     |       |     |      |
|--|---------|-----|-------|-----|------|
|  | GSM/TM3 | LCH | 241.1 | 310 | PASS |
|  |         | MCH | 241.2 | 311 | PASS |
|  |         | HCH | 240.0 | 307 | PASS |

| Test Band | Test Mode | Test Channel | Occupied Bandwidth (kHz) | Emission Bandwidth (kHz) | Verdict |
|-----------|-----------|--------------|--------------------------|--------------------------|---------|
| WCDMA850  | UMTS/TM1  | LCH          | 4133.1                   | 4677                     | PASS    |
|           |           | MCH          | 4156.6                   | 4727                     | PASS    |
|           |           | HCH          | 4177.8                   | 4703                     | PASS    |
| WCDMA850  | UMTS/TM2  | LCH          | 4127.3                   | 4654                     | PASS    |
|           |           | MCH          | 4155.4                   | 4683                     | PASS    |
|           |           | HCH          | 4144.0                   | 4671                     | PASS    |
| WCDMA850  | UMTS/TM3  | LCH          | 4170.7                   | 4676                     | PASS    |
|           |           | MCH          | 4180.3                   | 4723                     | PASS    |
|           |           | HCH          | 4141.7                   | 4707                     | PASS    |

| Test Band | Test Mode | Test Channel | Occupied Bandwidth (kHz) | Emission Bandwidth (kHz) | Verdict |
|-----------|-----------|--------------|--------------------------|--------------------------|---------|
| WCDMA1700 | UMTS/TM1  | LCH          | 4148.6                   | 4694                     | PASS    |
|           |           | MCH          | 4152.2                   | 4692                     | PASS    |
|           |           | HCH          | 4162.2                   | 4707                     | PASS    |
| WCDMA1700 | UMTS/TM2  | LCH          | 4146.8                   | 4688                     | PASS    |
|           |           | MCH          | 4169.2                   | 4692                     | PASS    |
|           |           | HCH          | 4150.4                   | 4692                     | PASS    |
| WCDMA1700 | UMTS/TM3  | LCH          | 4145.7                   | 4714                     | PASS    |
|           |           | MCH          | 4153.5                   | 4709                     | PASS    |
|           |           | HCH          | 4148.6                   | 4704                     | PASS    |

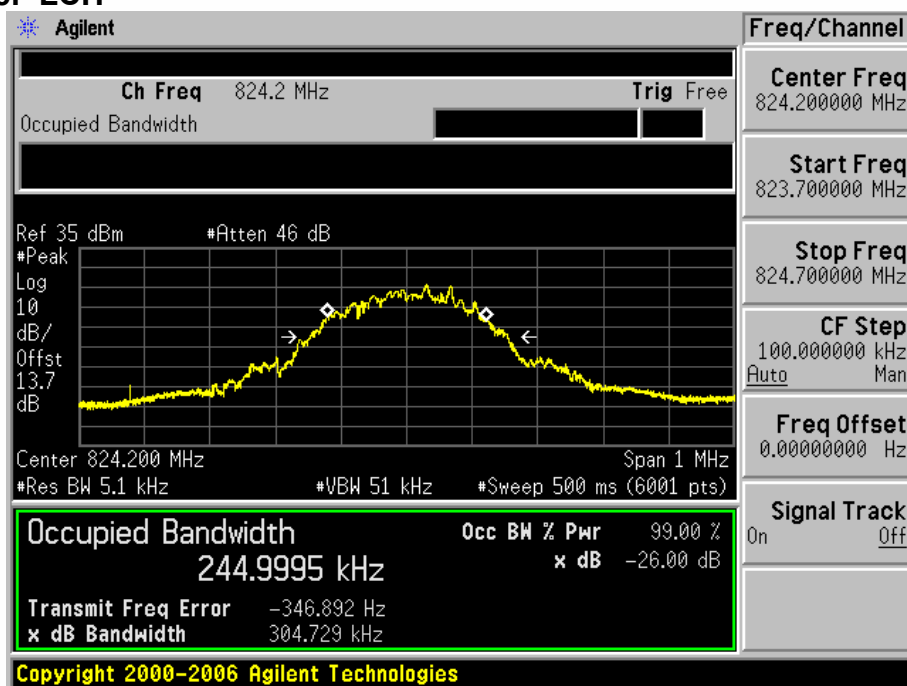
| Test Band | Test Mode | Test Channel | Occupied Bandwidth (kHz) | Emission Bandwidth (kHz) | Verdict |
|-----------|-----------|--------------|--------------------------|--------------------------|---------|
| WCDMA1900 | UMTS/TM1  | LCH          | 4158.2                   | 4688                     | PASS    |
|           |           | MCH          | 4169.7                   | 4691                     | PASS    |
|           |           | HCH          | 4146.4                   | 4691                     | PASS    |
| WCDMA1900 | UMTS/TM2  | LCH          | 4177.1                   | 4707                     | PASS    |
|           |           | MCH          | 4170.6                   | 4700                     | PASS    |
|           |           | HCH          | 4163.2                   | 4705                     | PASS    |
| WCDMA1900 | UMTS/TM3  | LCH          | 4158.7                   | 4702                     | PASS    |
|           |           | MCH          | 4170.1                   | 4703                     | PASS    |
|           |           | HCH          | 4142.5                   | 4719                     | PASS    |

**For GSM**

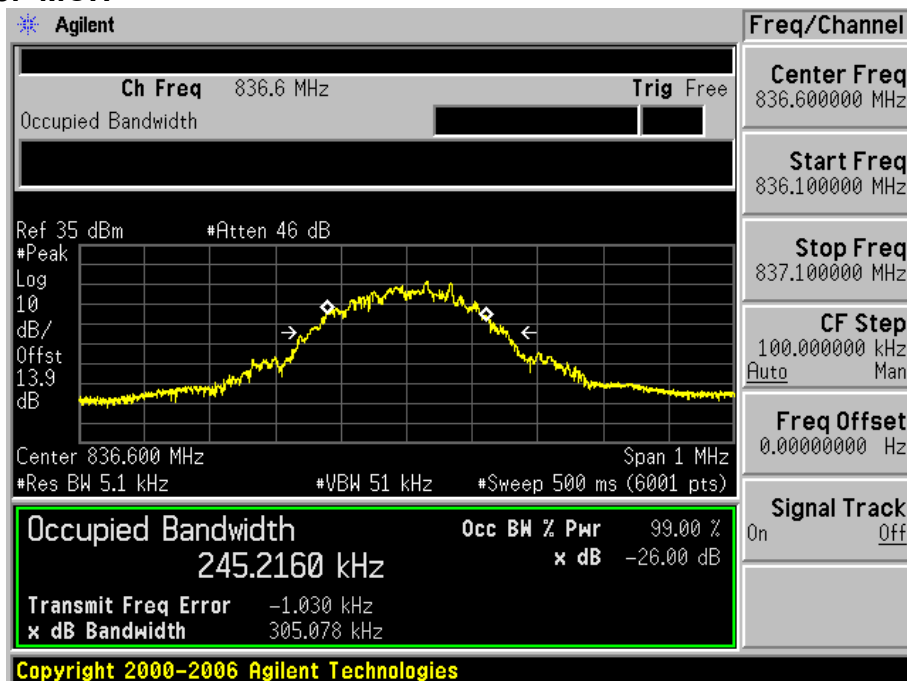
**Test Band=GSM850**

**Test Mode=GSM/TM1**

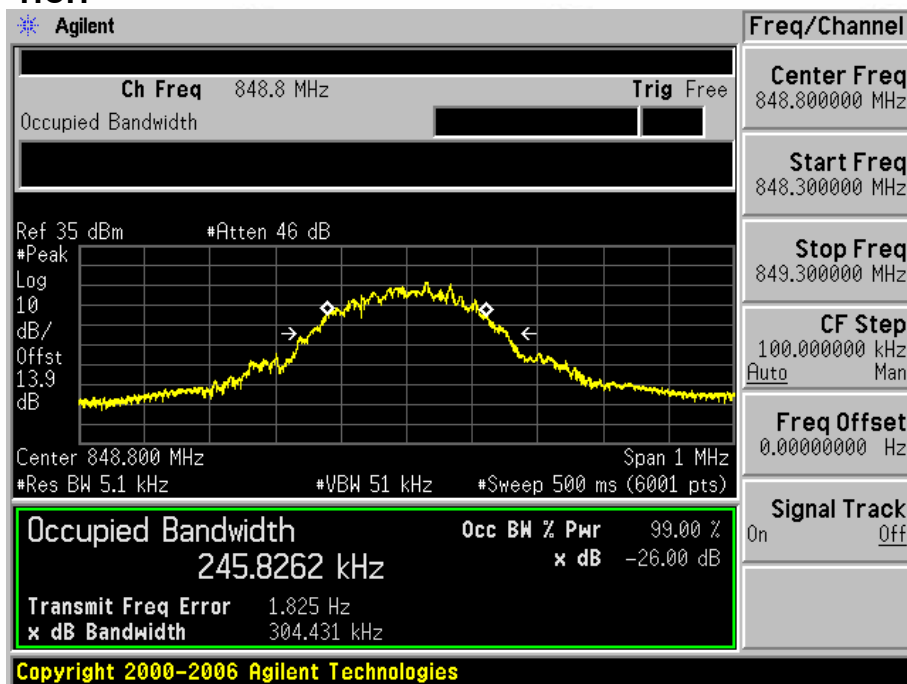
**Test Channel=LCH**



**Test Channel=MCH**

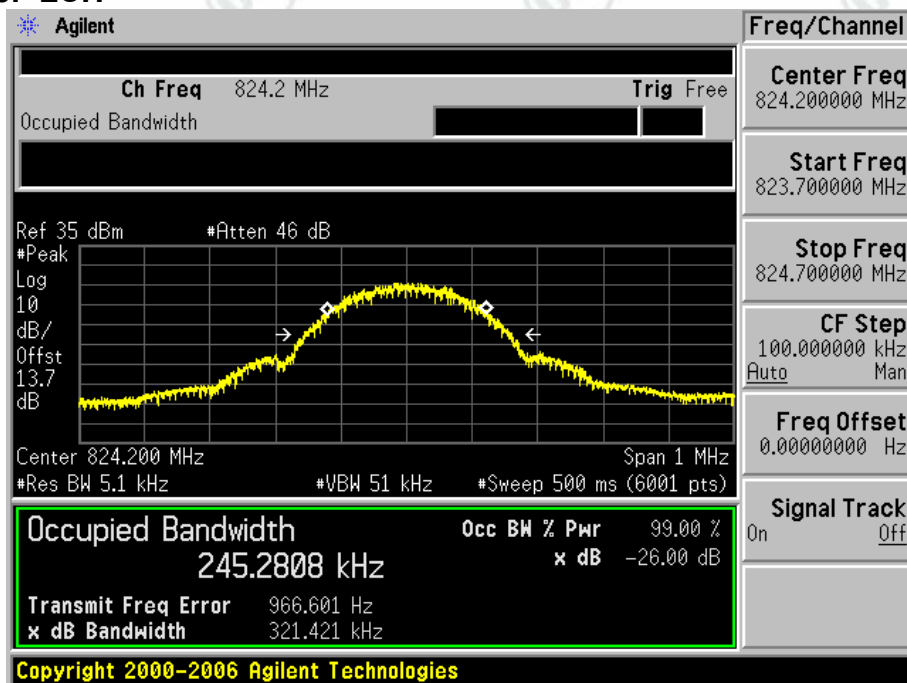


**Test Channel=HCH**



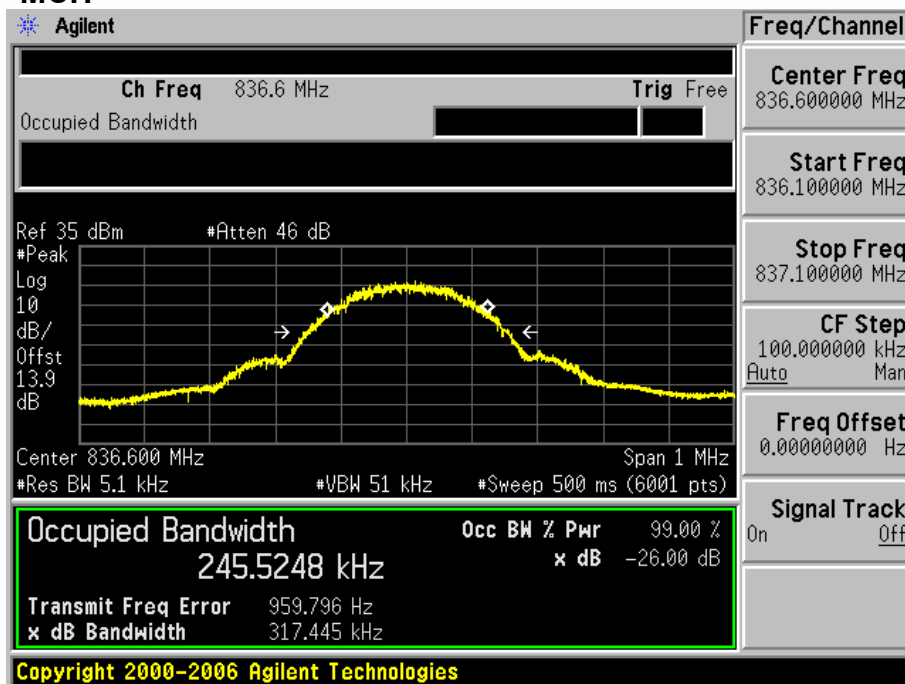
**Test Mode=GSM/TM2**

**Test Channel=LCH**





**Test Channel=MCH**

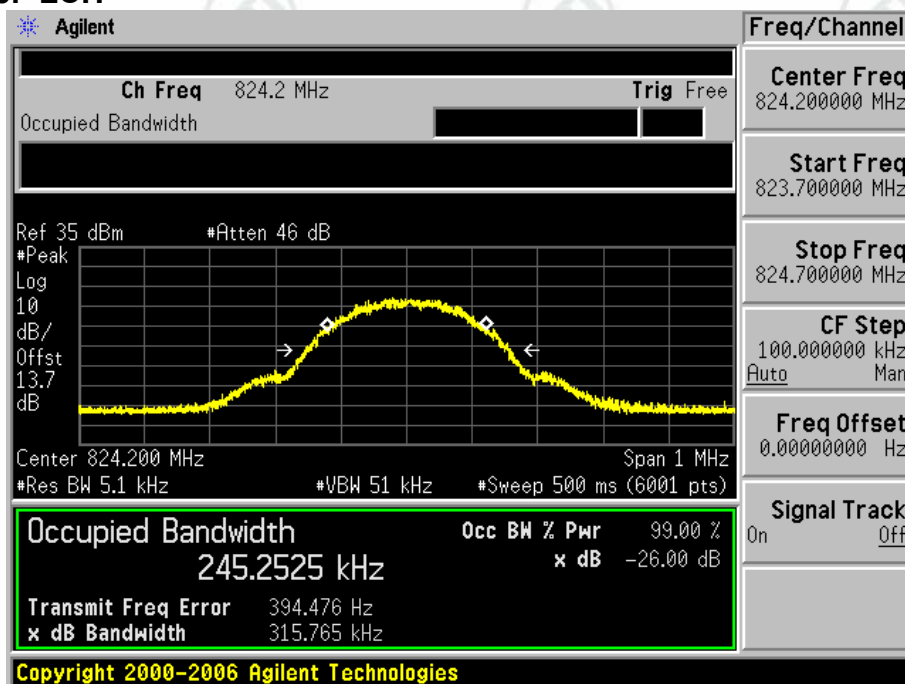


**Test Channel=HCH**

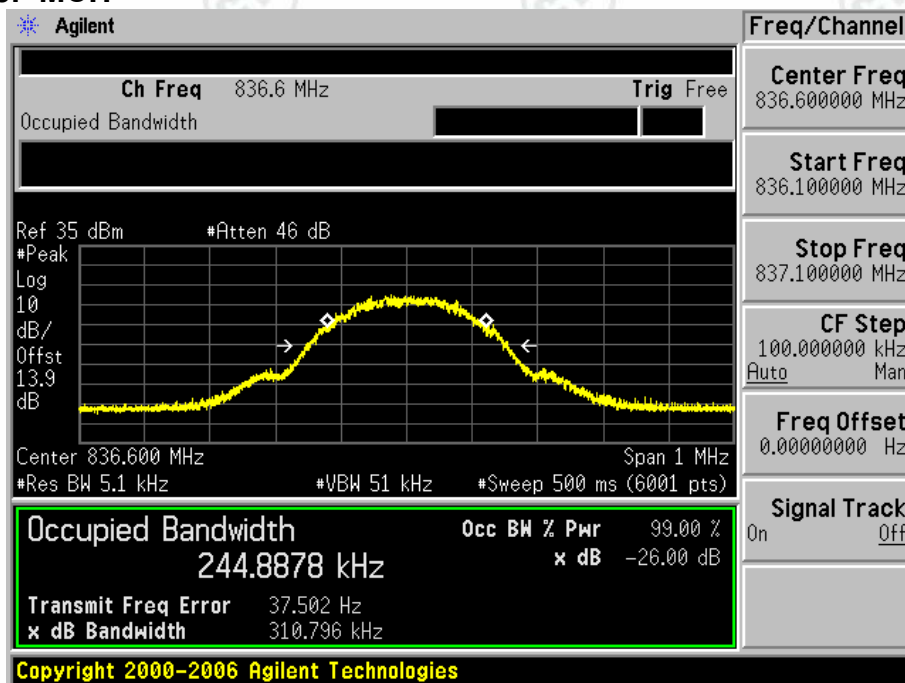


Test Mode=GSM/TM3

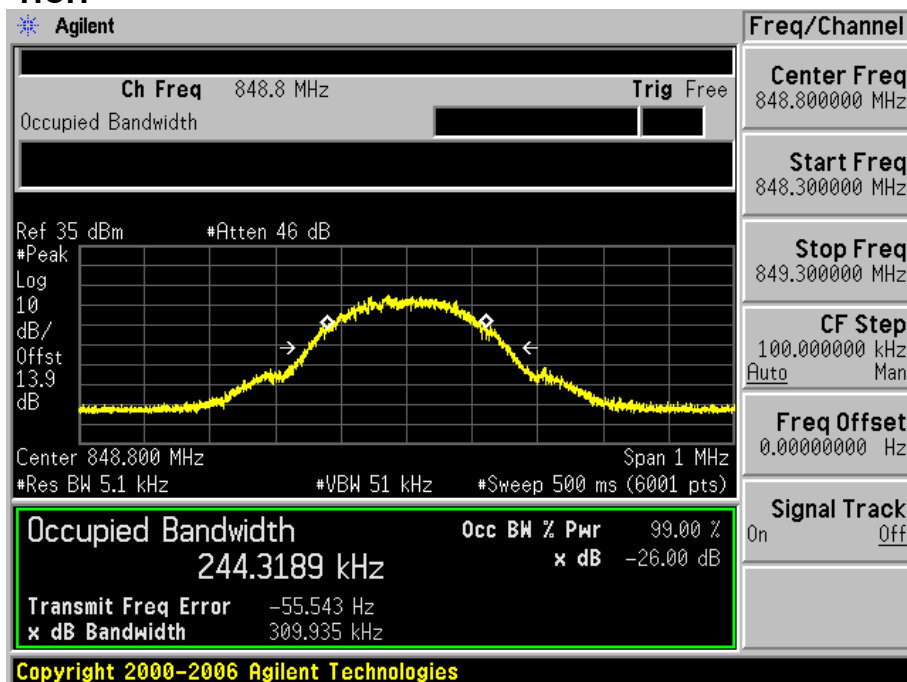
Test Channel=LCH



Test Channel=MCH



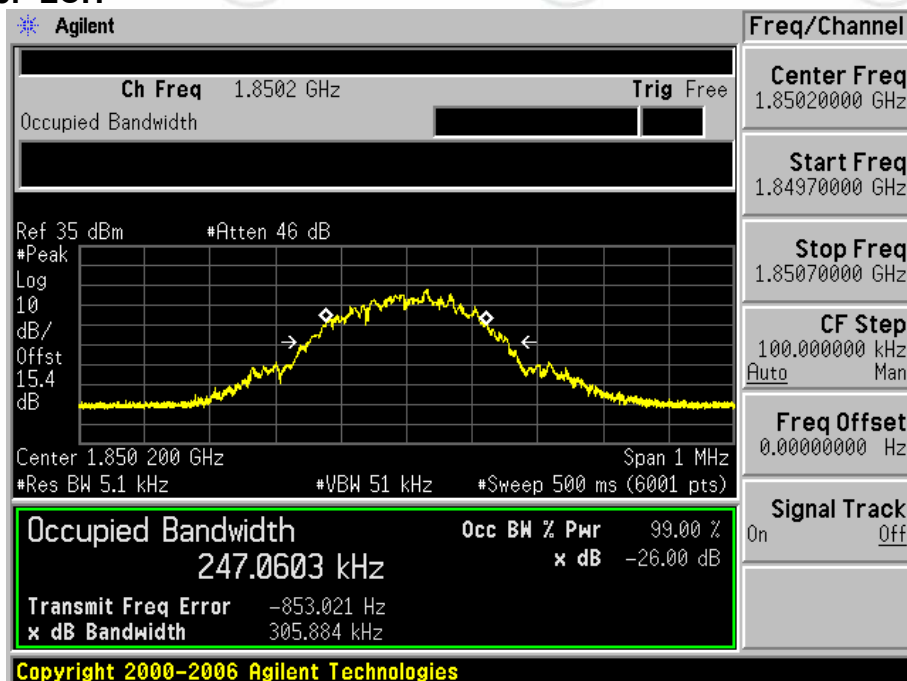
Test Channel=HCH



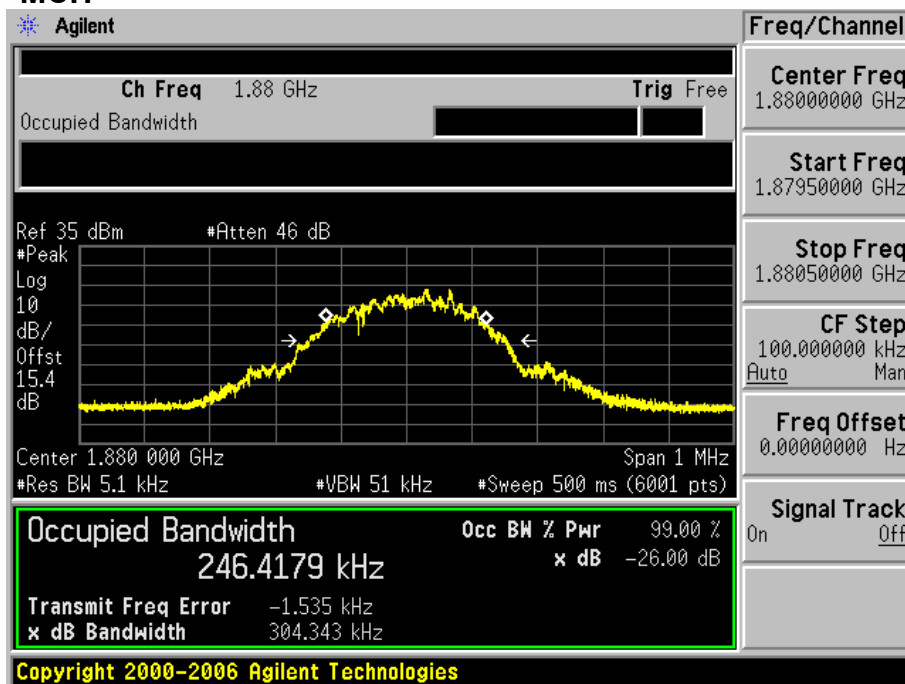
Test Band=GSM1900

Test Mode=GSM/TM1

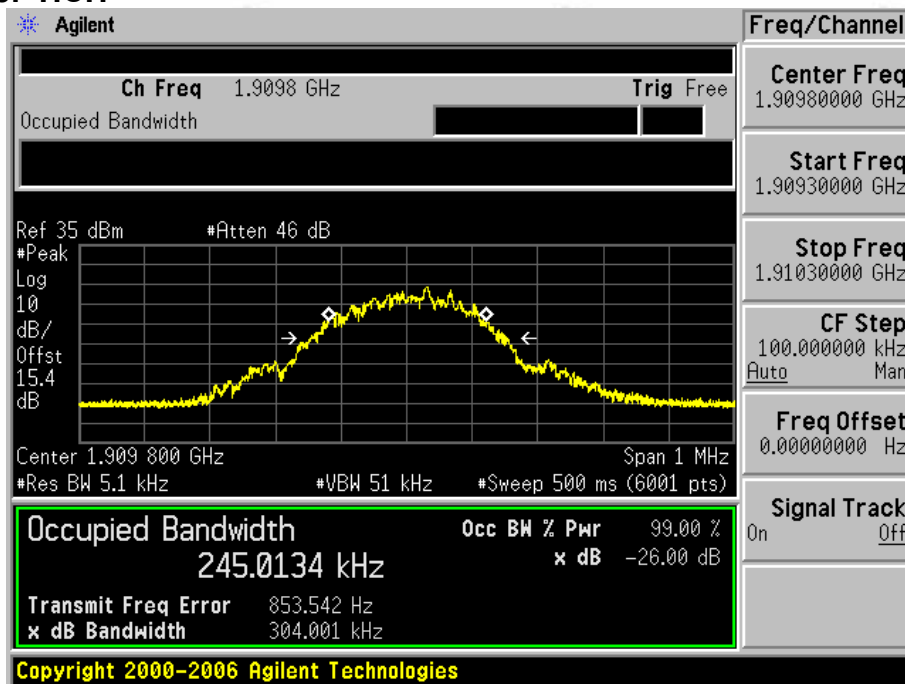
Test Channel=LCH



**Test Channel=MCH**

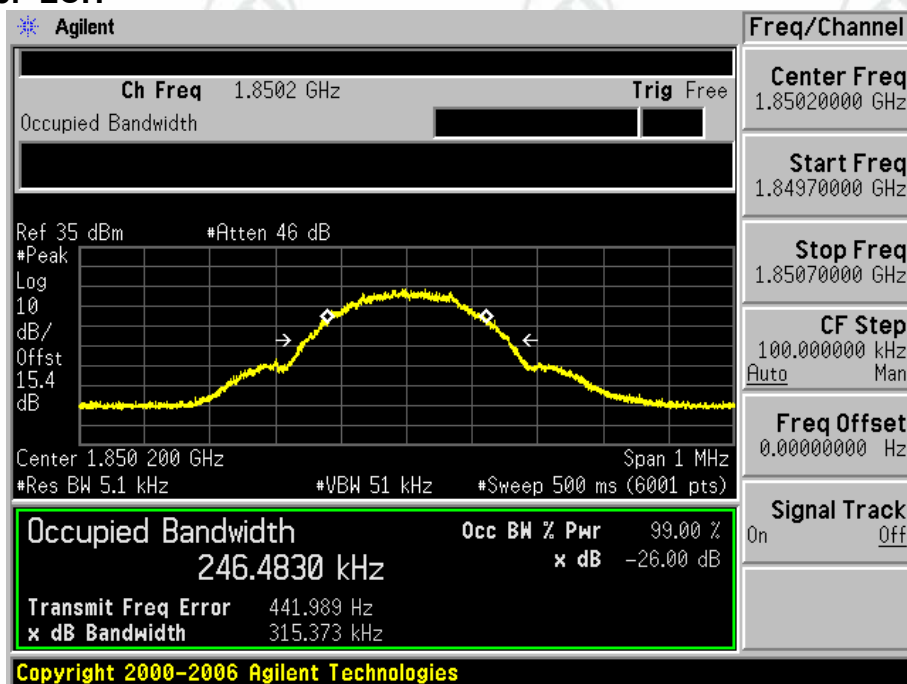


**Test Channel=HCH**

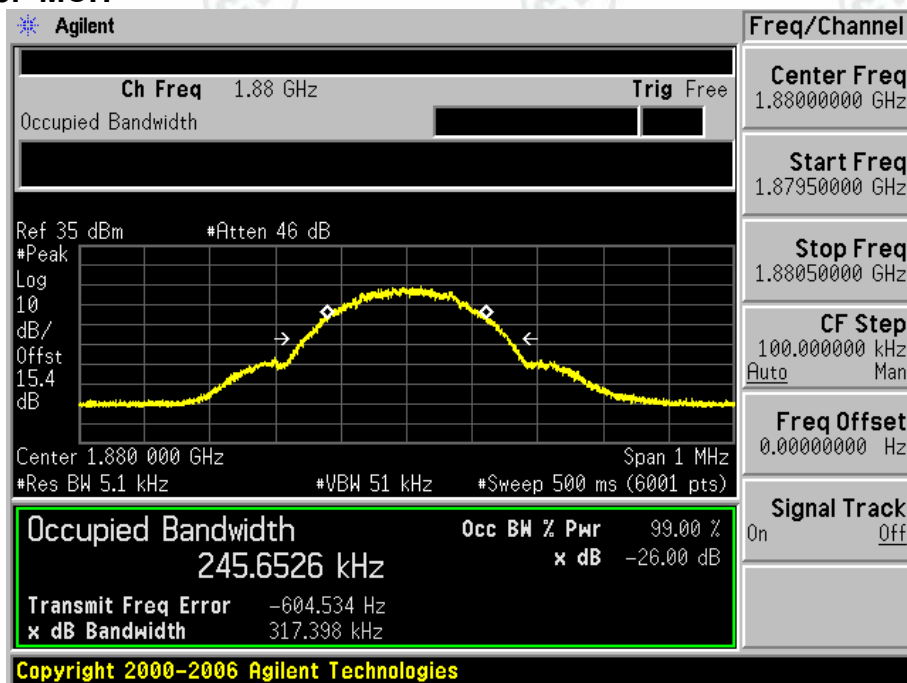


Test Mode=GSM/TM2

Test Channel=LCH

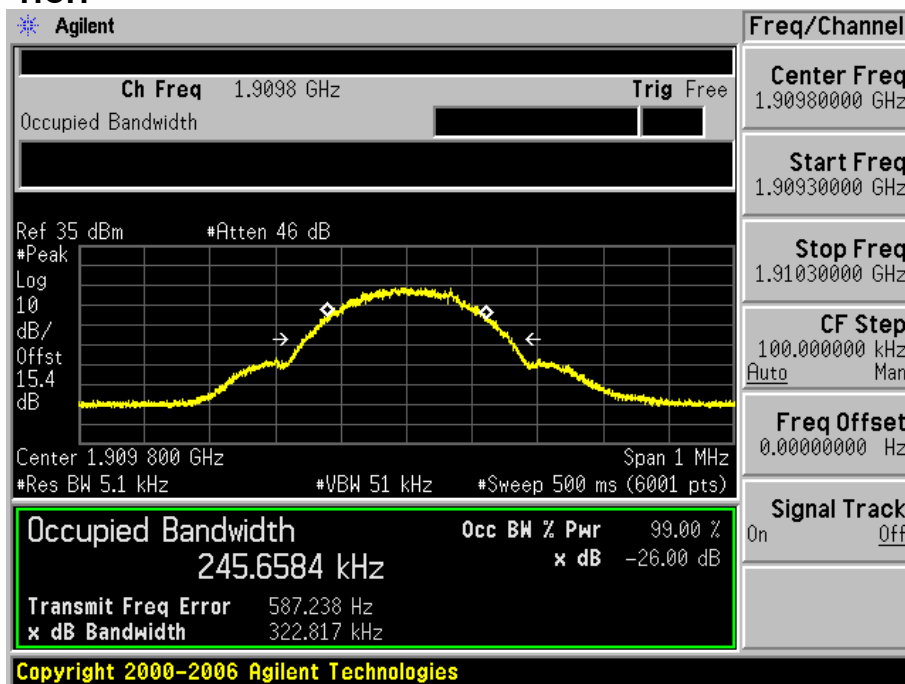


Test Channel=MCH



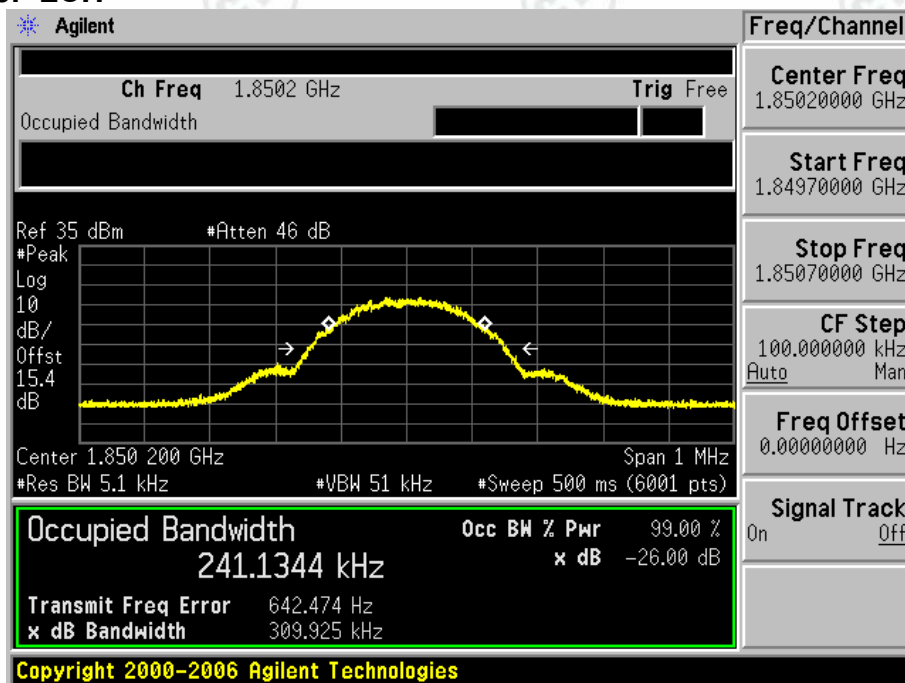


**Test Channel=HCH**

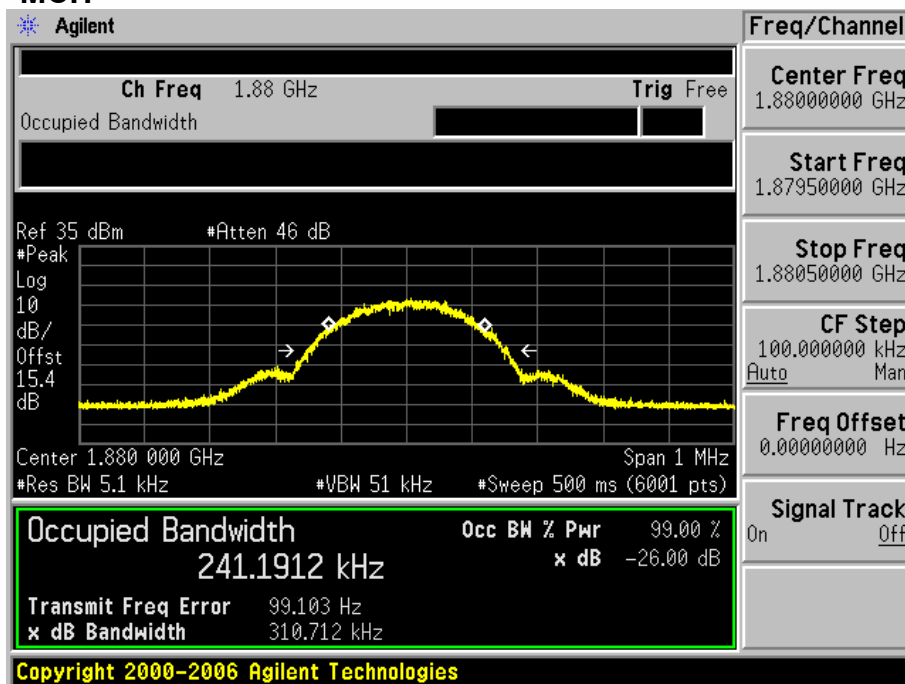


**Test Mode=GSM/TM3**

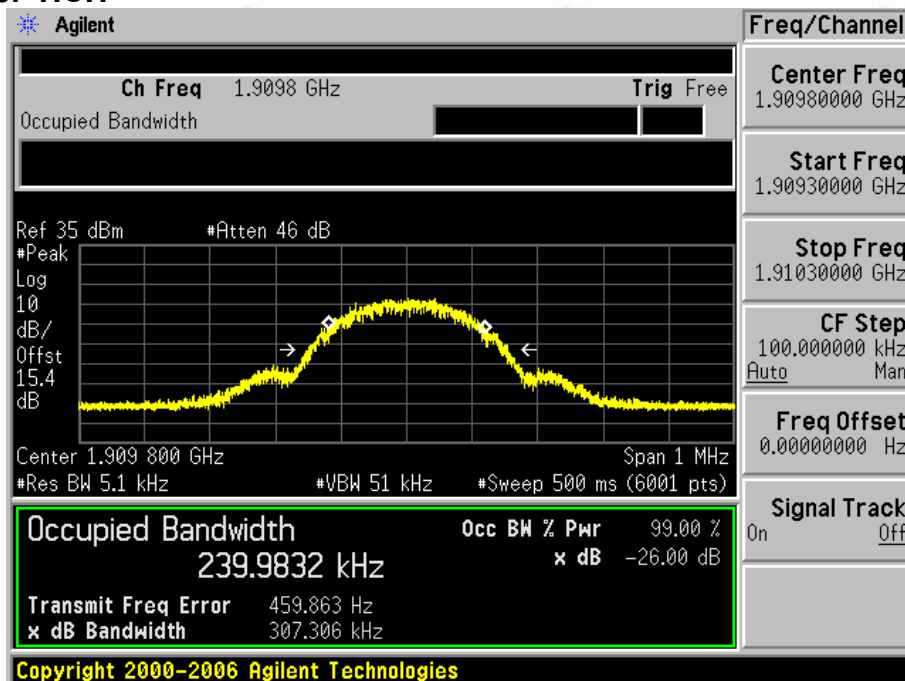
**Test Channel=LCH**



**Test Channel=MCH**



**Test Channel=HCH**

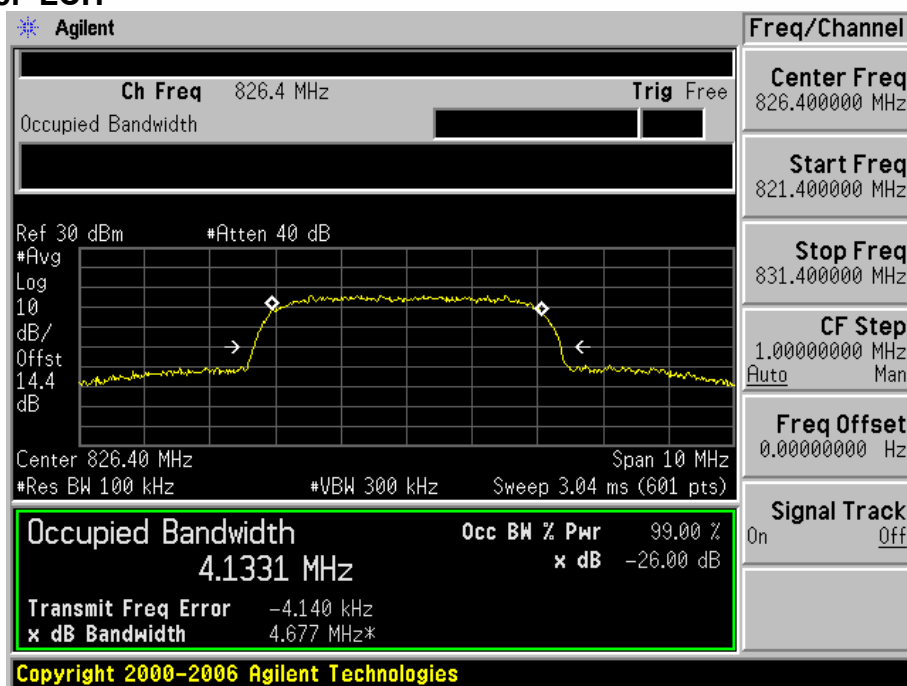


**For WCDMA**

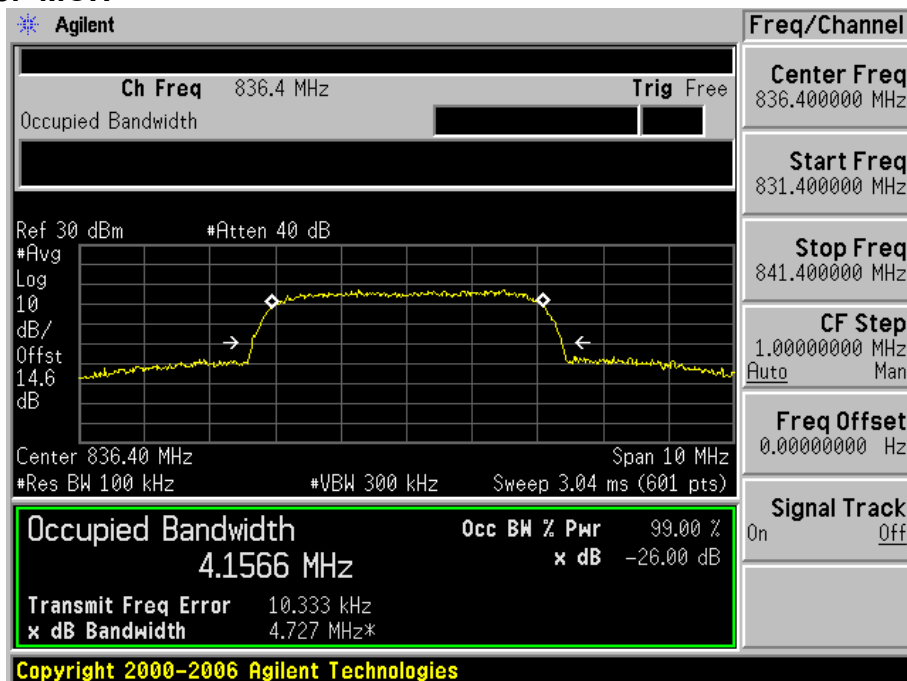
**Test Band=WCDMA850**

**Test Mode=UMTS/TM1**

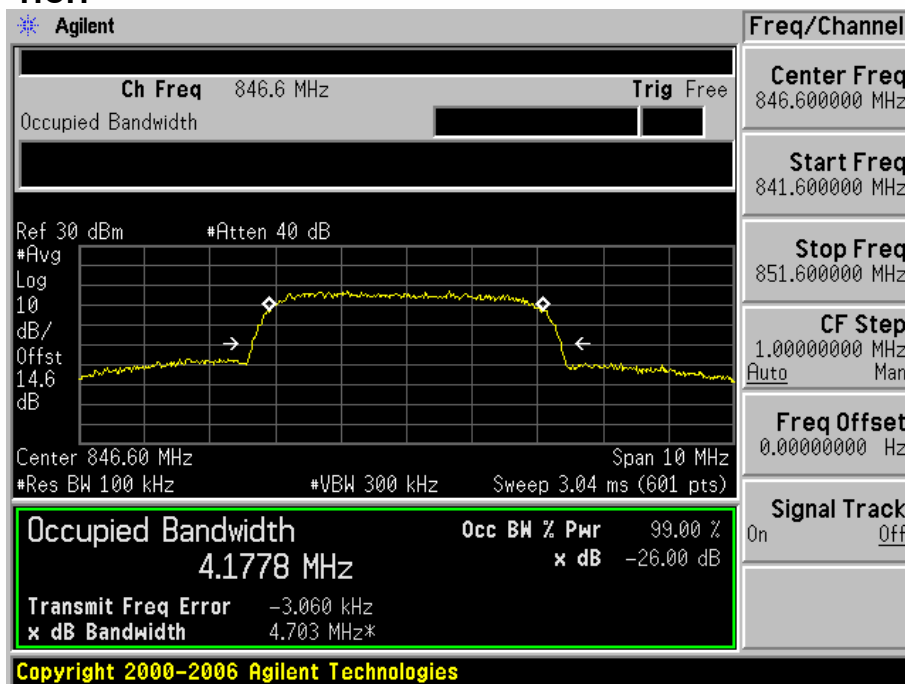
**Test Channel=LCH**



**Test Channel=MCH**

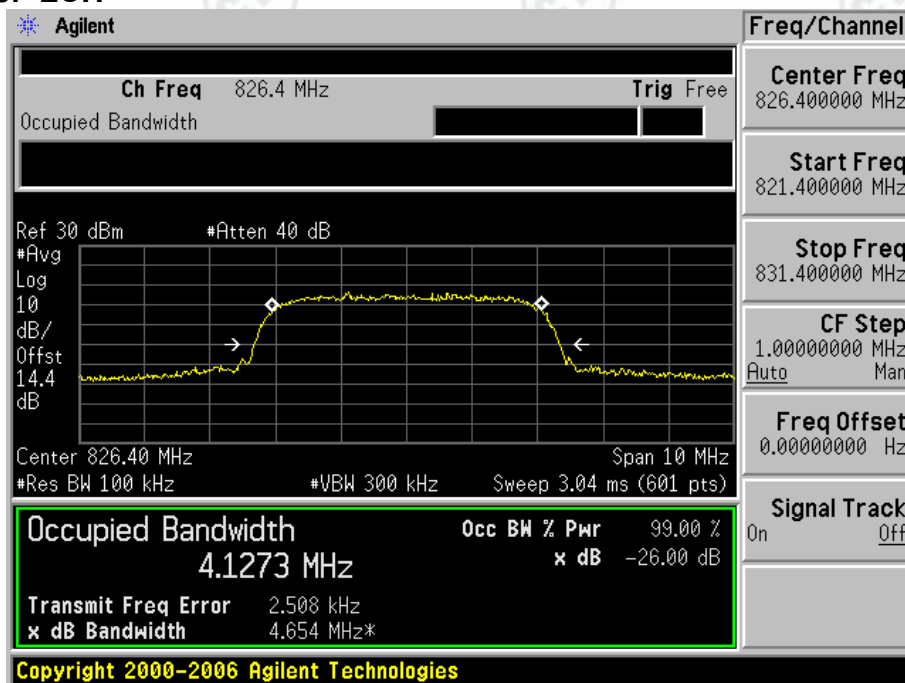


Test Channel=HCH

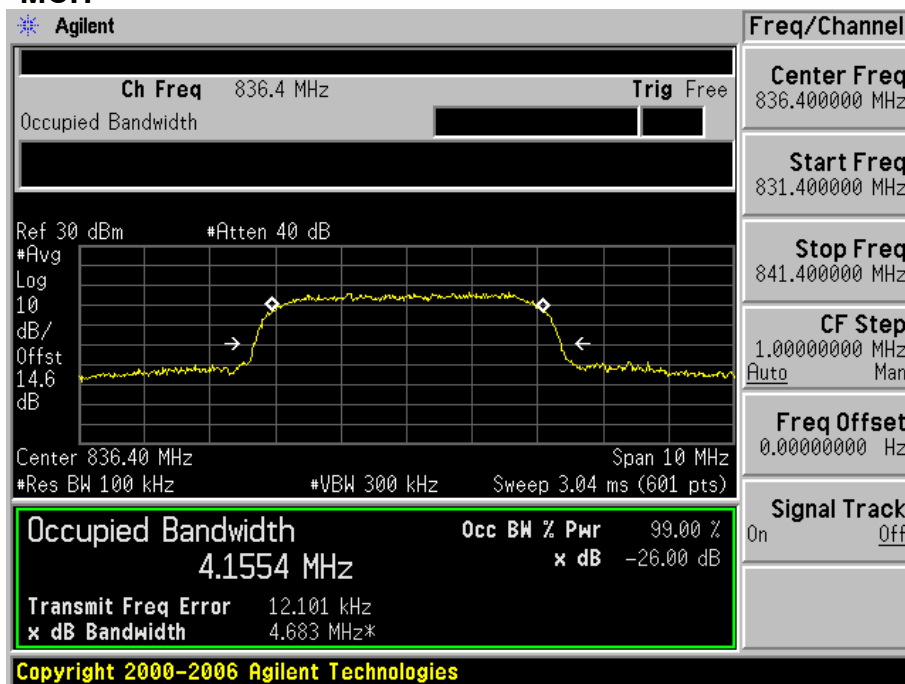


Test Mode=UMTS/TM2

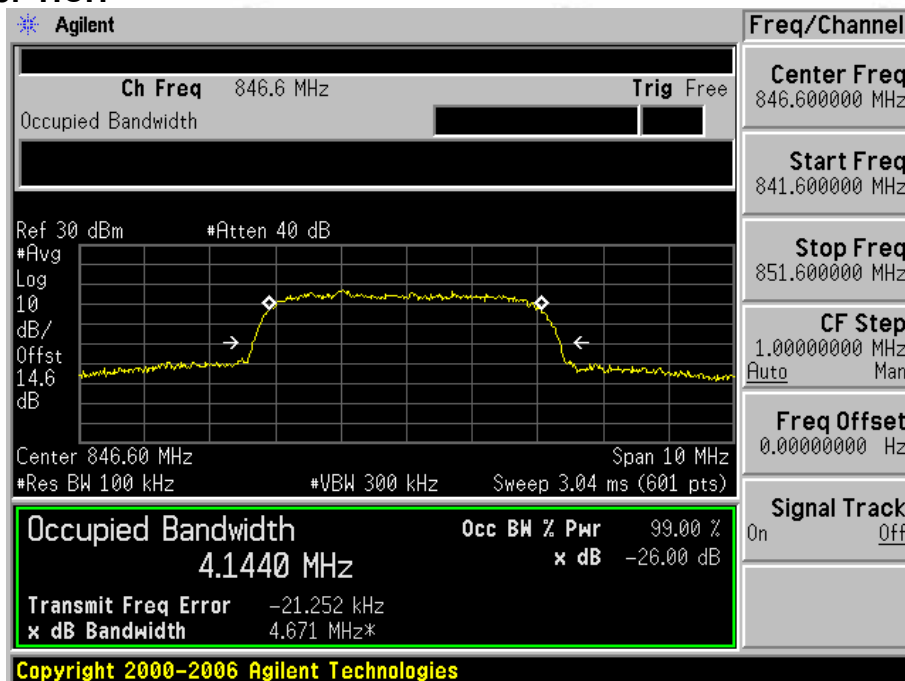
Test Channel=LCH



**Test Channel=MCH**

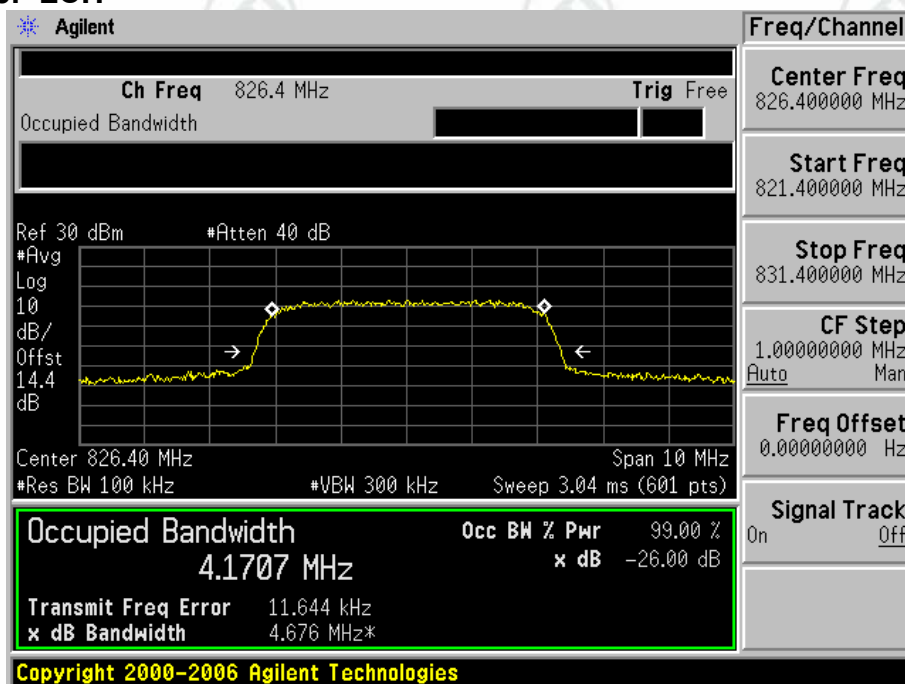


**Test Channel=HCH**

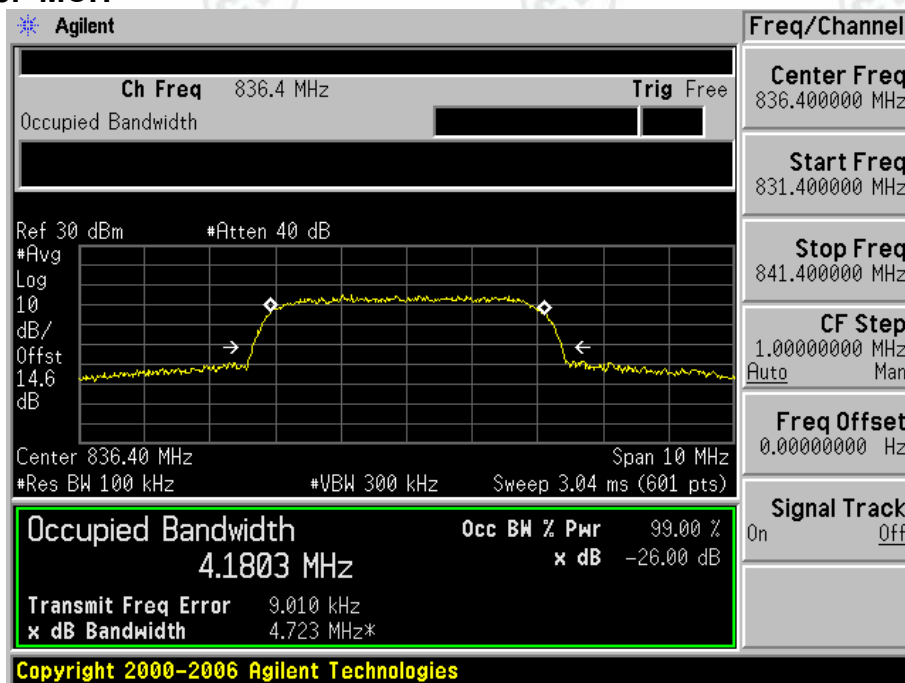


Test Mode=UMTS/TM3

Test Channel=LCH

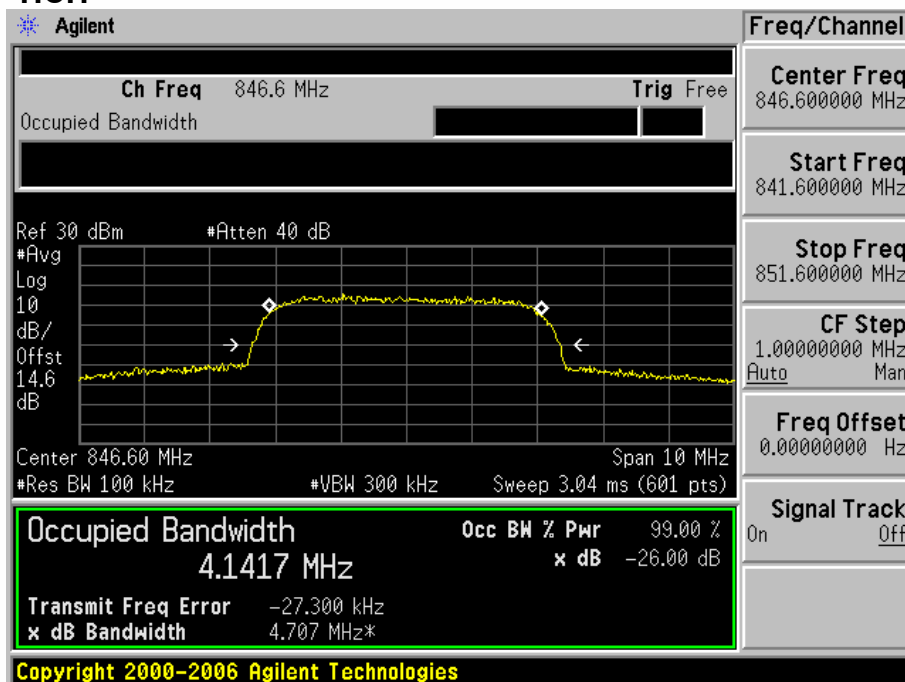


Test Channel=MCH





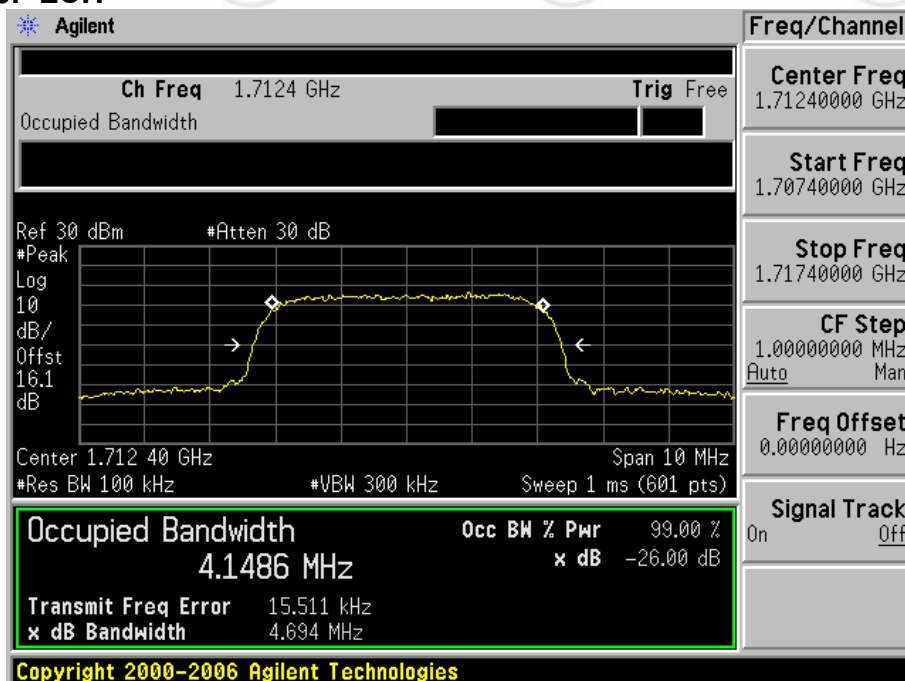
Test Channel=HCH



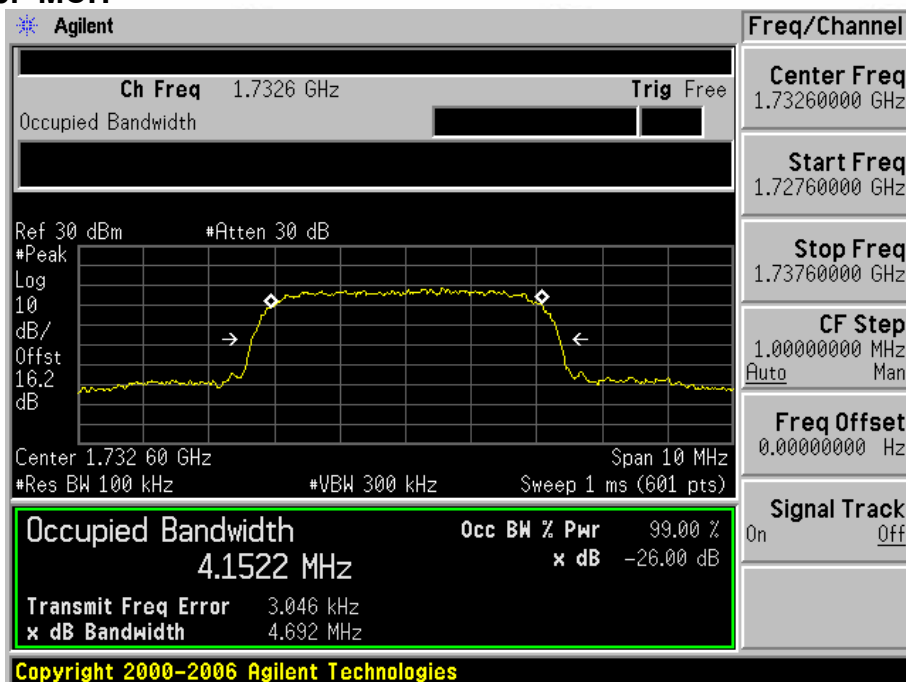
Test Band=WCDMA1700

Test Mode=UMTS/TM1

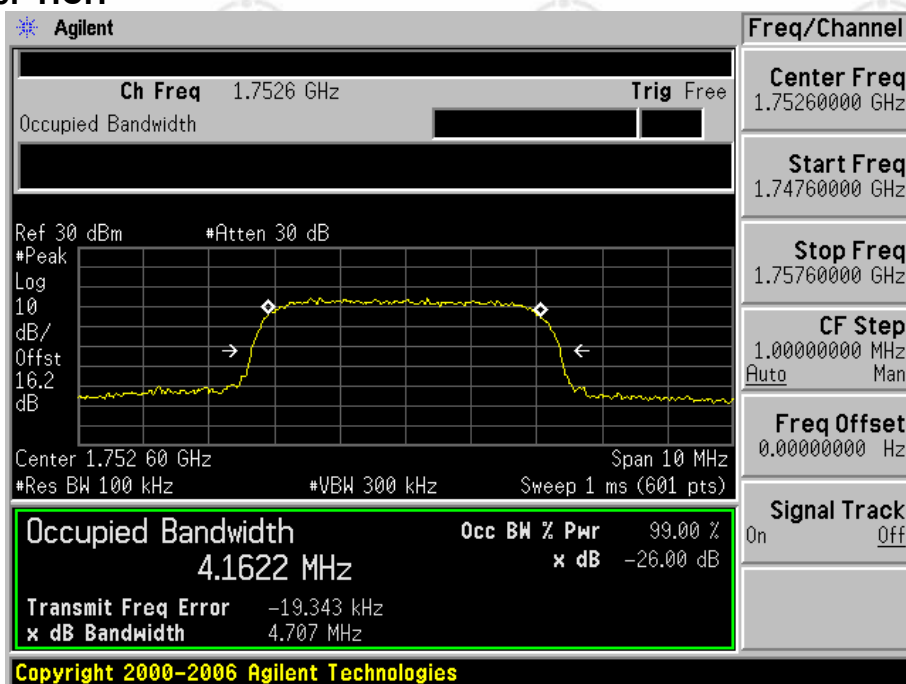
Test Channel=LCH



**Test Channel=MCH**

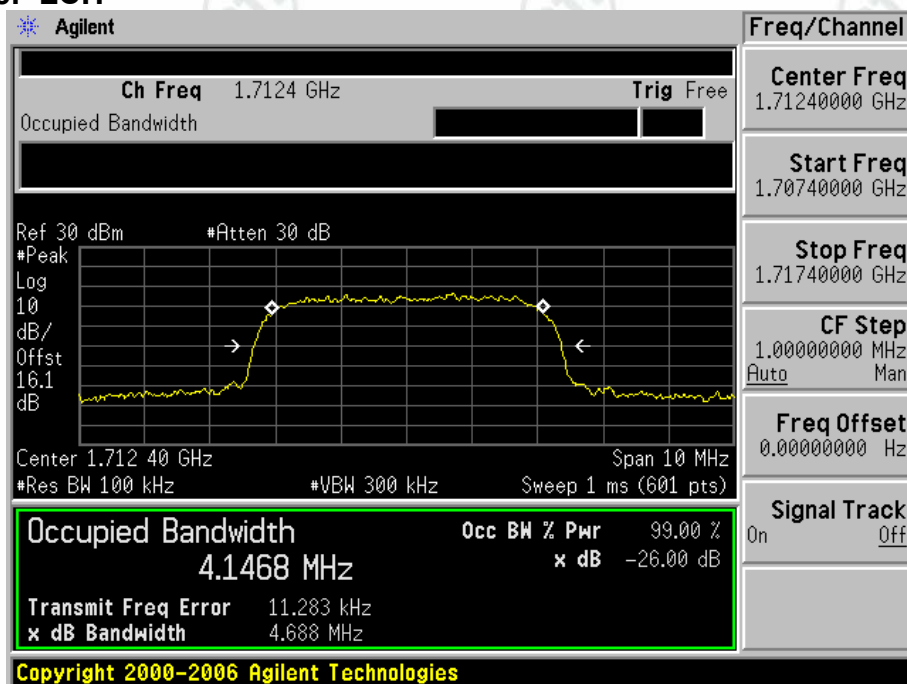


**Test Channel=HCH**

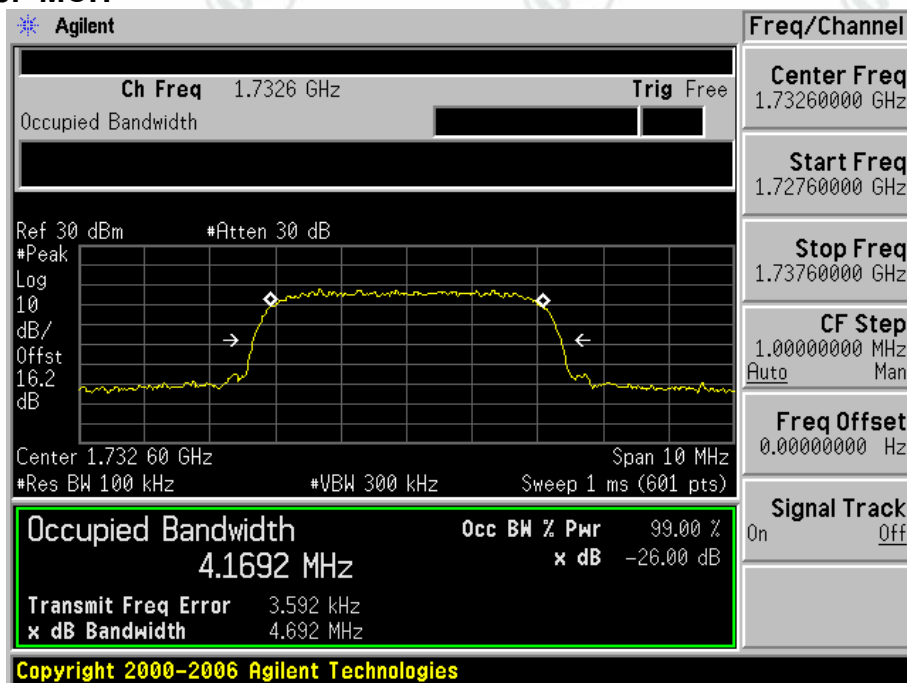


Test Mode=UMTS/TM2

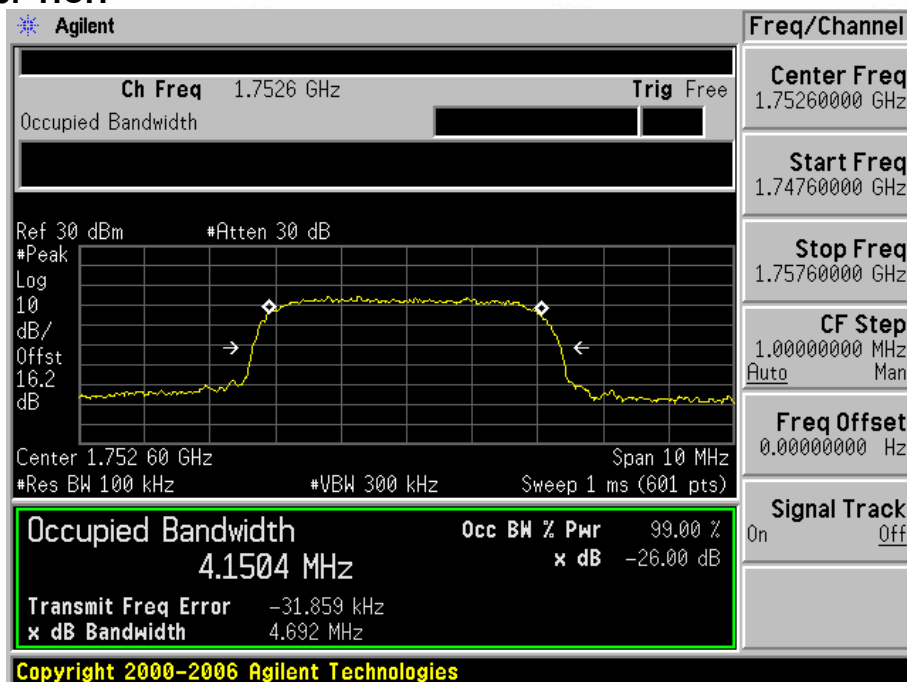
Test Channel=LCH



Test Channel=MCH

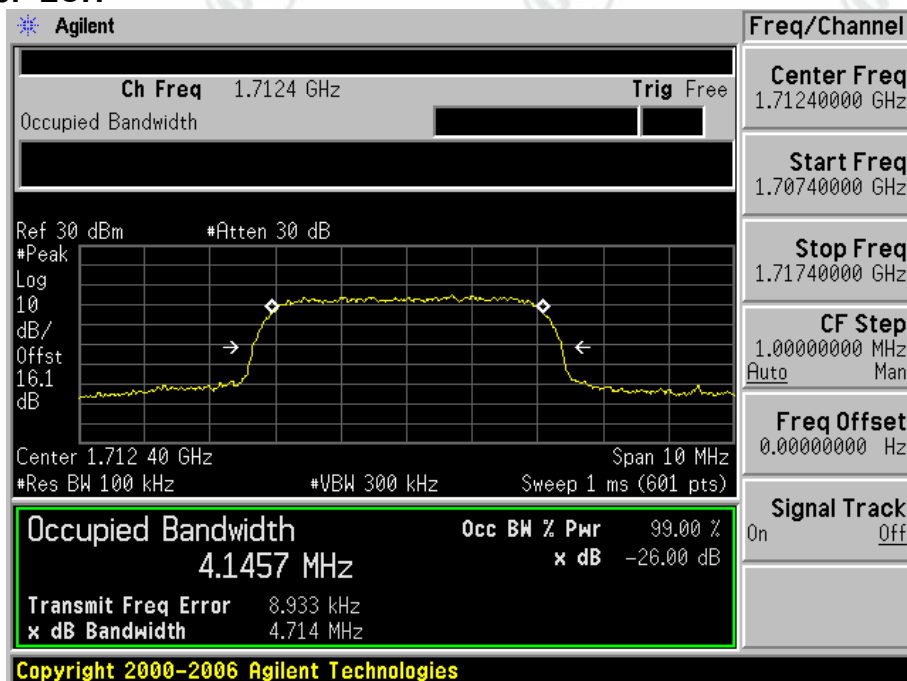


**Test Channel=HCH**

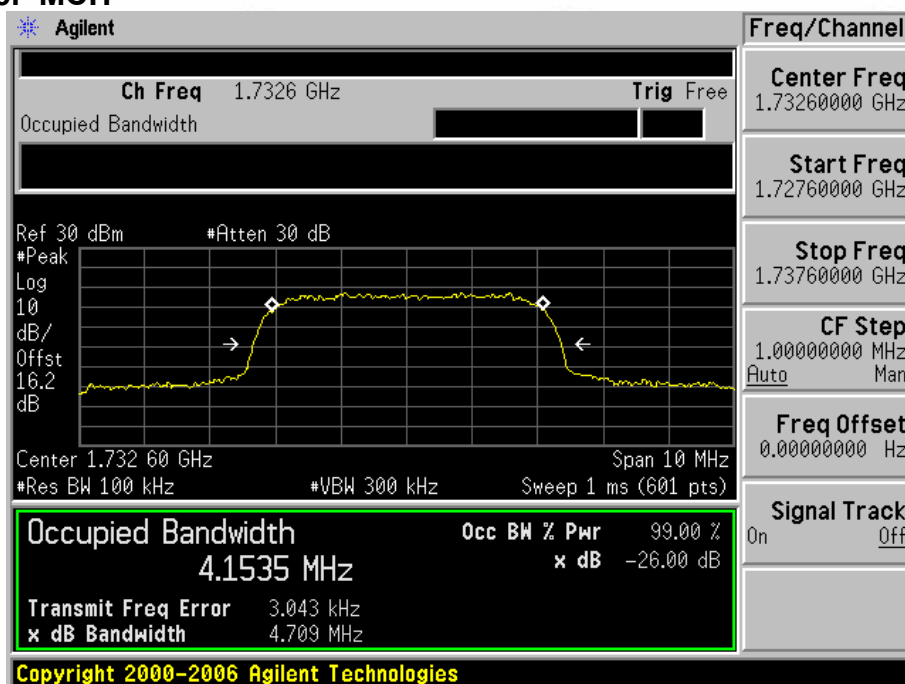


**Test Mode=UMTS/TM3**

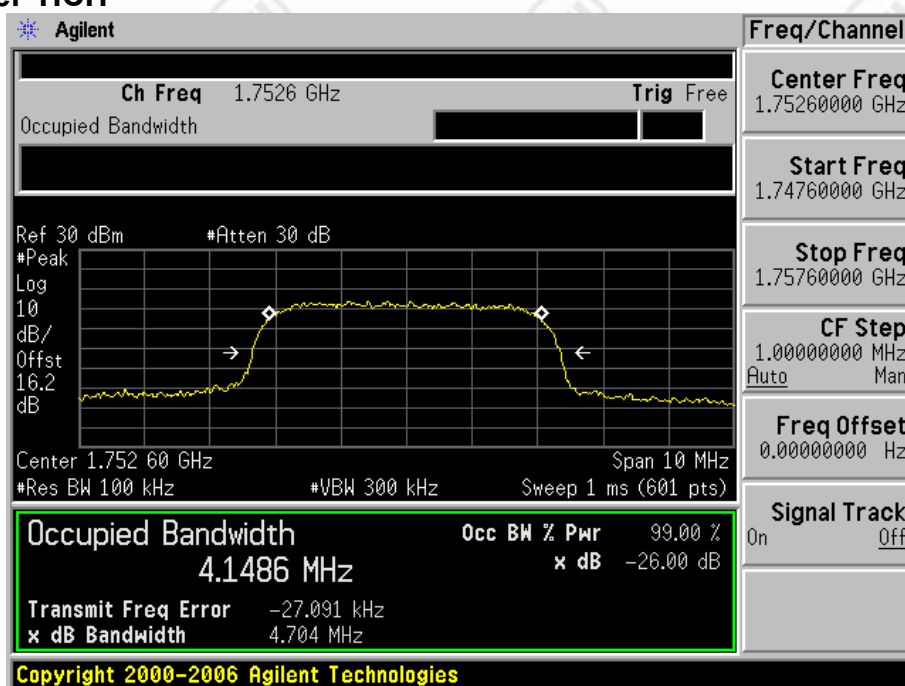
**Test Channel=LCH**



**Test Channel=MCH**



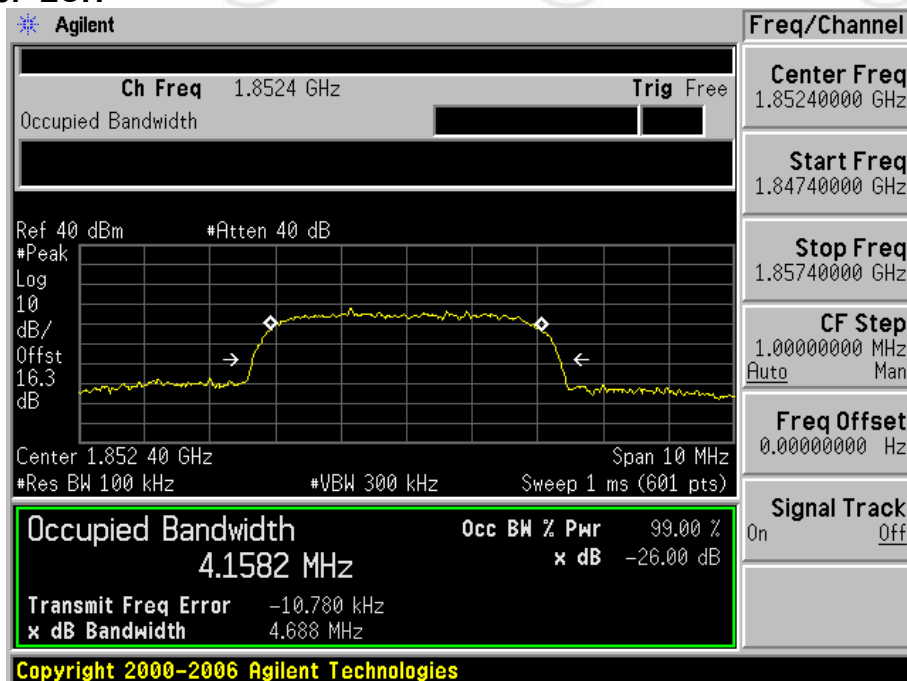
**Test Channel=HCH**



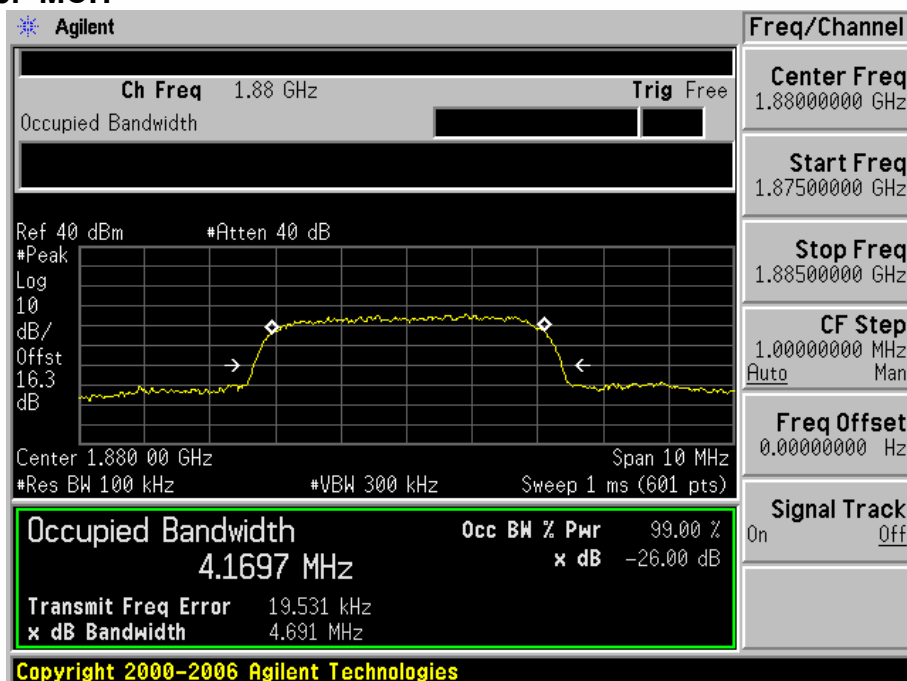
Test Band=WCDMA1900

Test Mode=UMTS/TM1

Test Channel=LCH

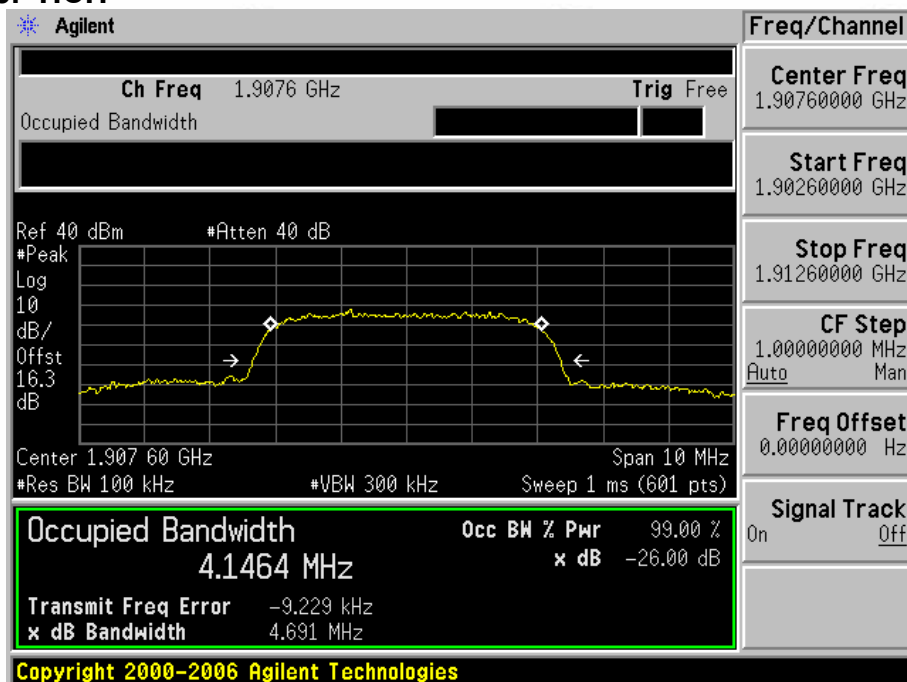


Test Channel=MCH



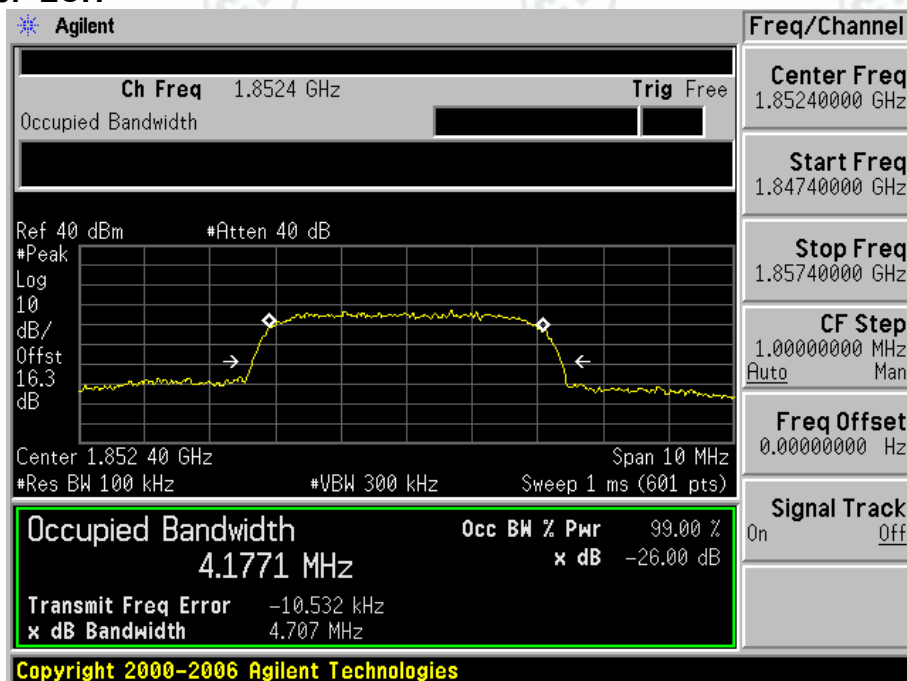


**Test Channel=HCH**

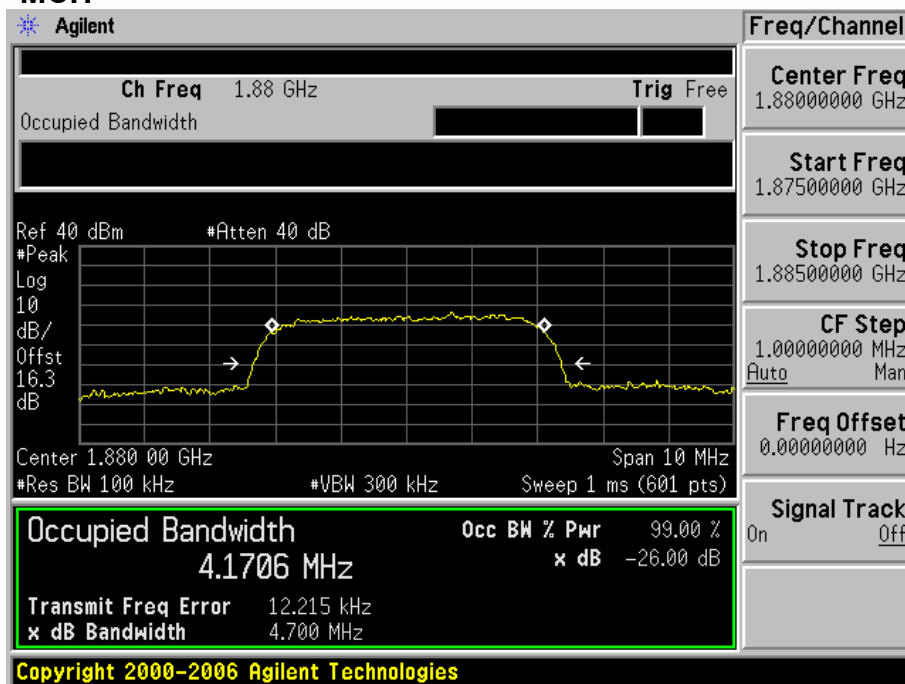


**Test Mode=UMTS/TM2**

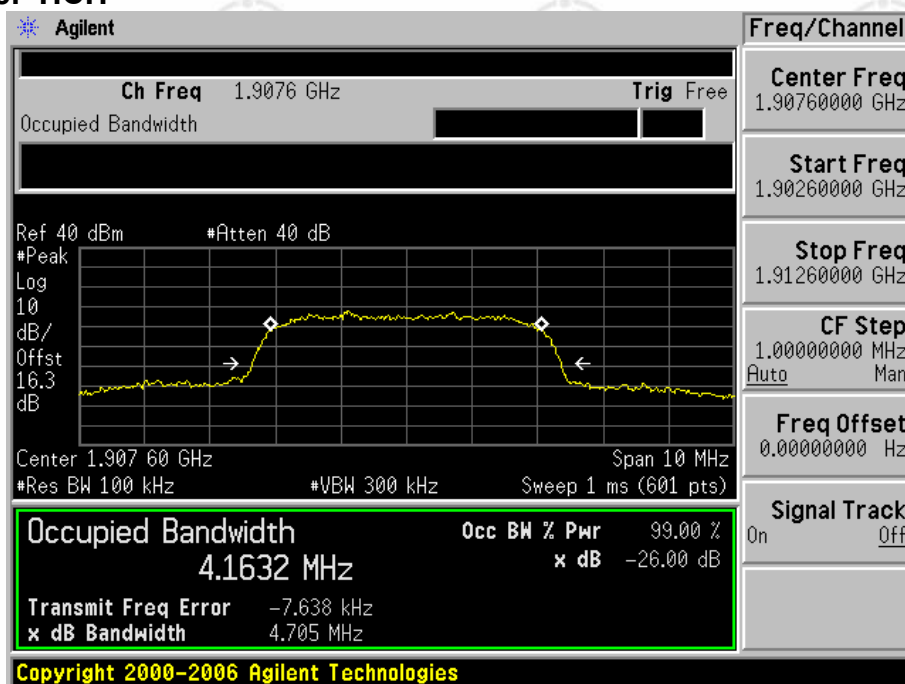
**Test Channel=LCH**



**Test Channel=MCH**

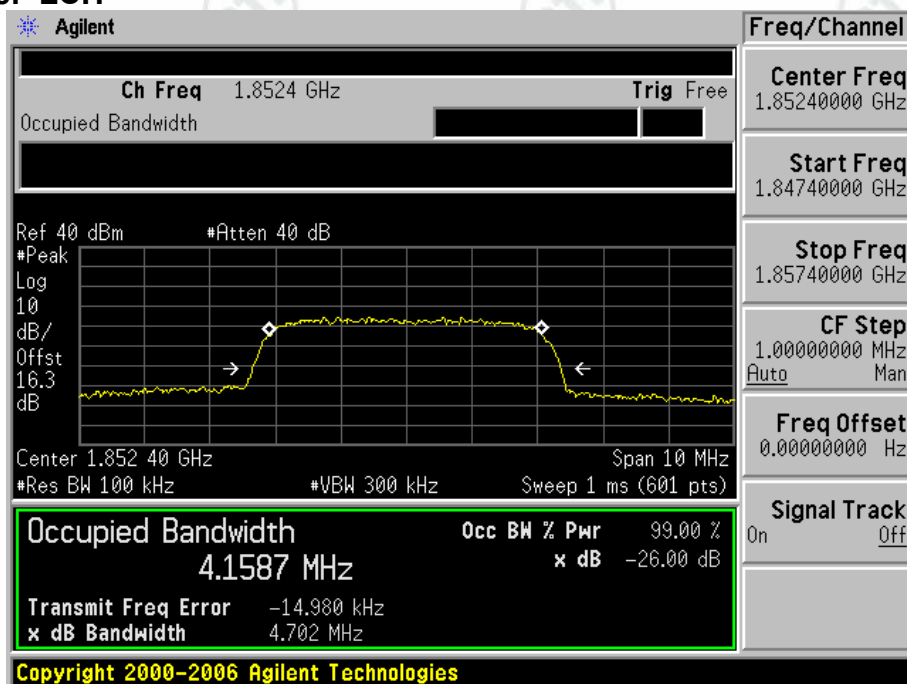


**Test Channel=HCH**

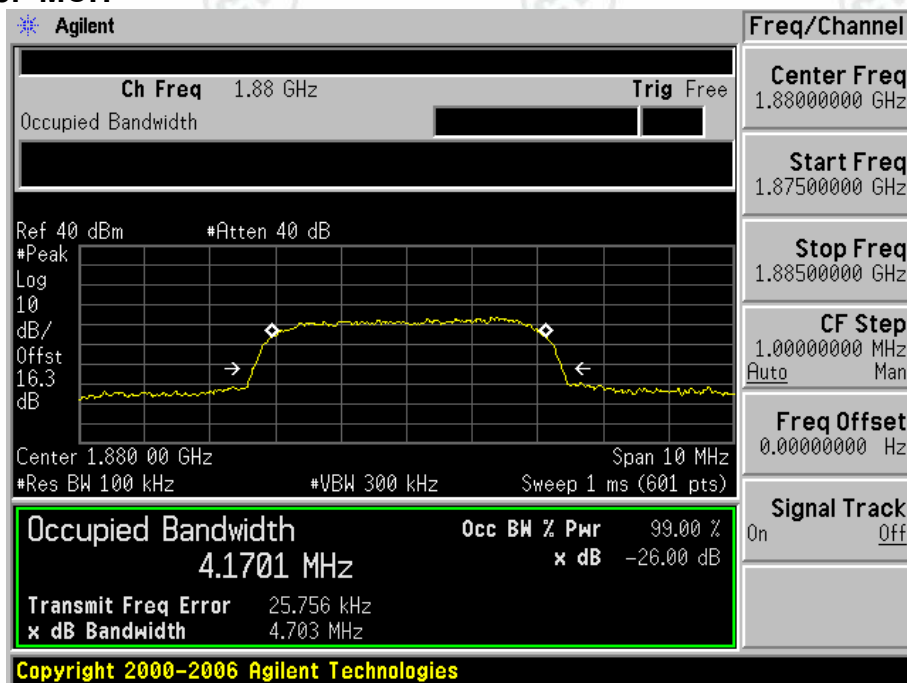


Test Mode=UMTS/TM3

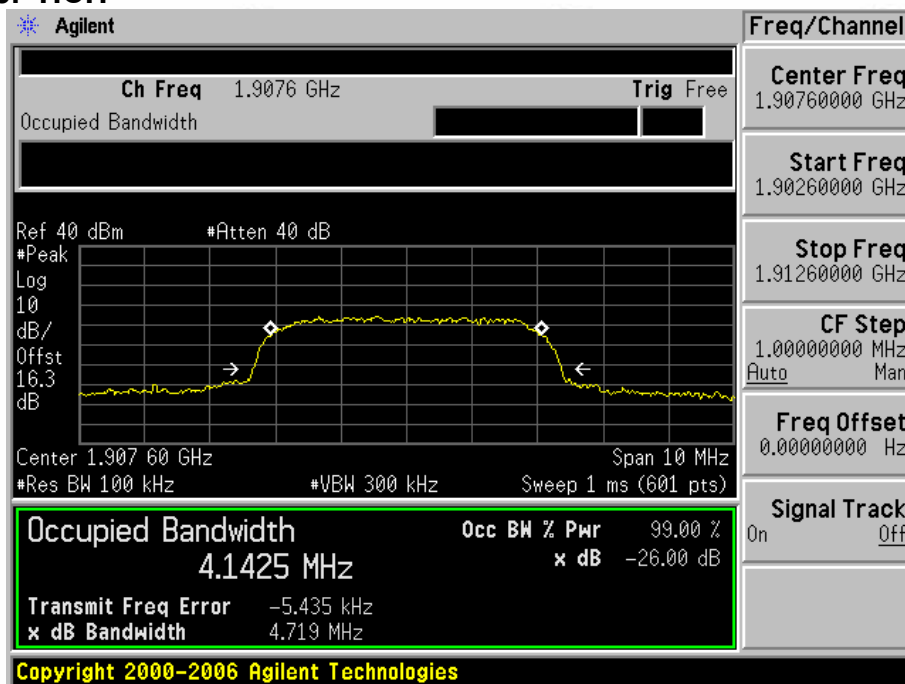
Test Channel=LCH



Test Channel=MCH



**Test Channel=HCH**



## Appendix D): Band Edges Compliance

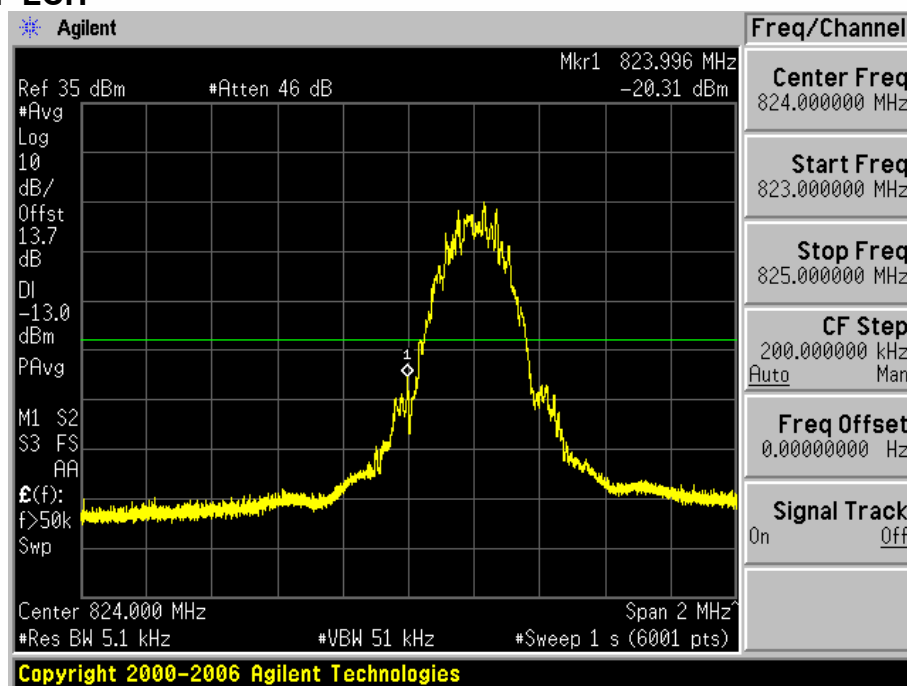
|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                    |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------|
| <b>Test Requirement:</b>      | Part 2.1051                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |                                    |
| <b>Test Method:</b>           | Part 22.917(b)/Part 24.238(b)/ Part 27.53(h)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                    |
| <b>Test Setup:</b>            | Refer to section 5 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                    |
| <b>Measurement Procedure:</b> | The transmitter output was connected to a calibrated coaxial cable, attenuator and Spectrum analyser, the other end of which was connected to a Base Station Simulator. The Base Station Simulator was set to force the EUT to its maximum power setting. The tests were performed at three frequencies (low channel and high channel).in the 1MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of 100kHz or 1% of the emission bandwidth of the fundamental emission of the transmitter may be employed. The EUT emission bandwidth is measured as the width of the signal between two points, outside of which all emission are attenuated at least 26dB below the transmitter power. The video bandwidth of the spectrum analyzer was set at thrice the resolution bandwidth. Detector Mode was set to peak or peak hold power. |                           |                                    |
| <b>Limit:</b>                 | Operation Band                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Frequency Range (MHz)     | Limit                              |
|                               | GSM/GPRS/EDGE/ WCDMA 850                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Below 824 and above 849   | Attenuated at least $43+10\log(P)$ |
|                               | GSM/GPRS/EDGE/ WCDMA 1900                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Below 1850 and above 1910 | Attenuated at least $43+10\log(P)$ |
|                               | WCDMA 1700                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Below 1710 and above 1755 | Attenuated at least $43+10\log(P)$ |
| <b>Instruments Used:</b>      | Refer to section 7 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                    |
| <b>Test Results:</b>          | Pass                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                    |

**For GSM**

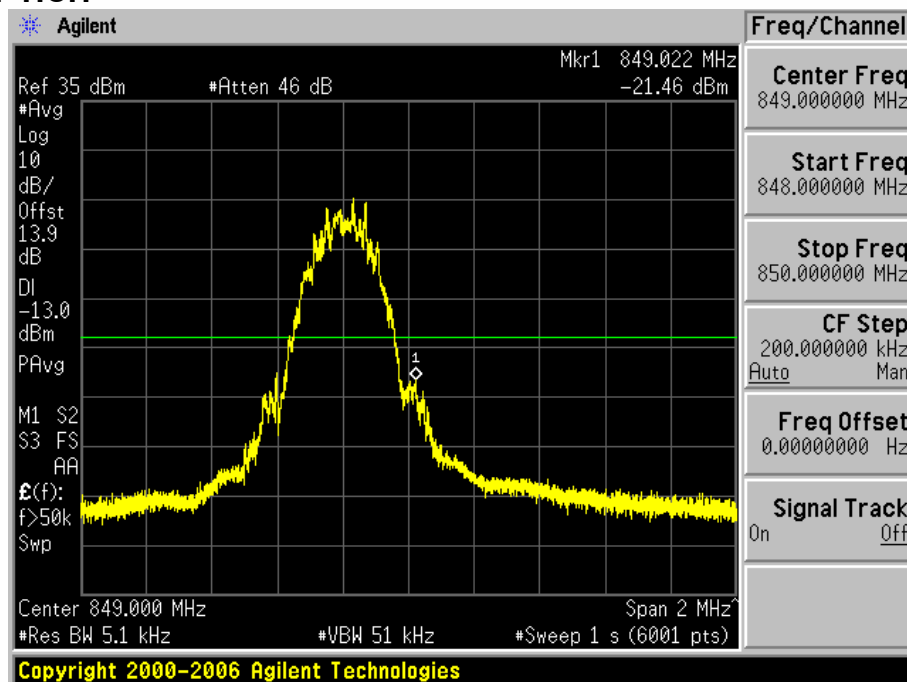
**Test Band=GSM850**

**Test Mode=GSM/TM1**

**Test Channel=LCH**



**Test Channel=HCH**



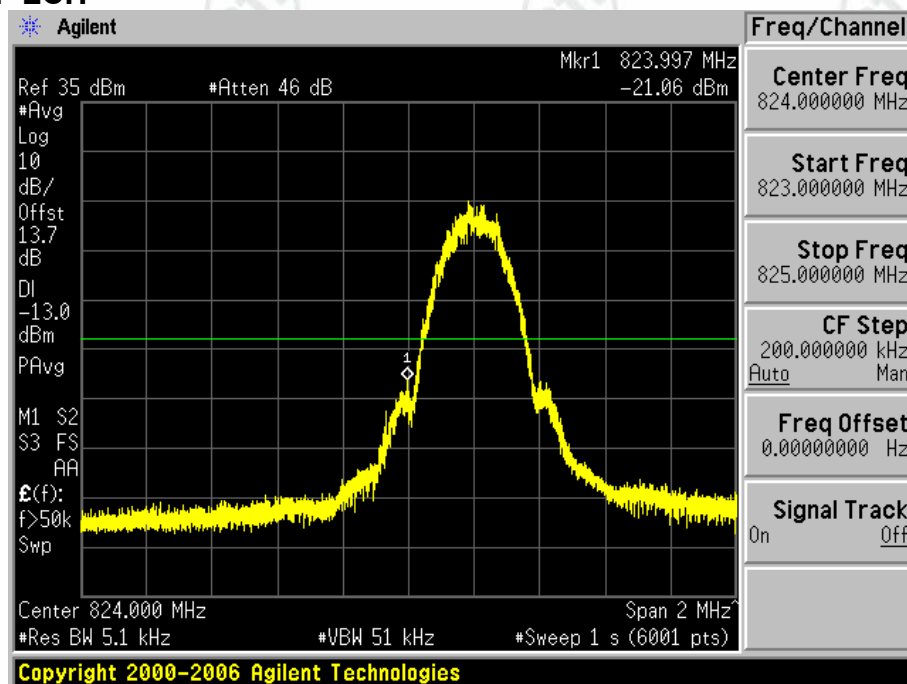


Report No.:EED32K00246404

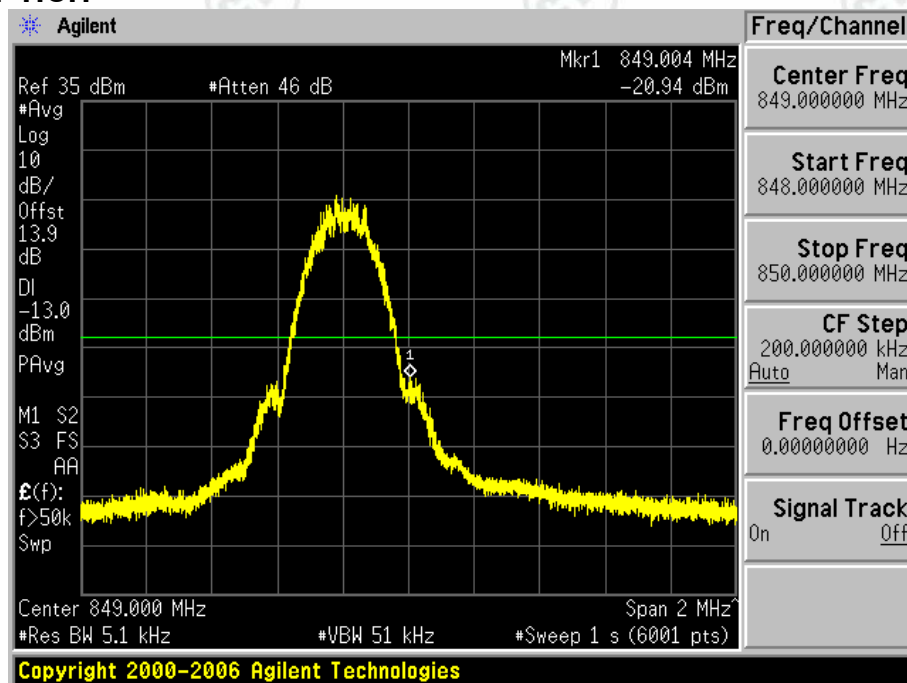
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Test Mode=GSM/TM2

Test Channel=LCH

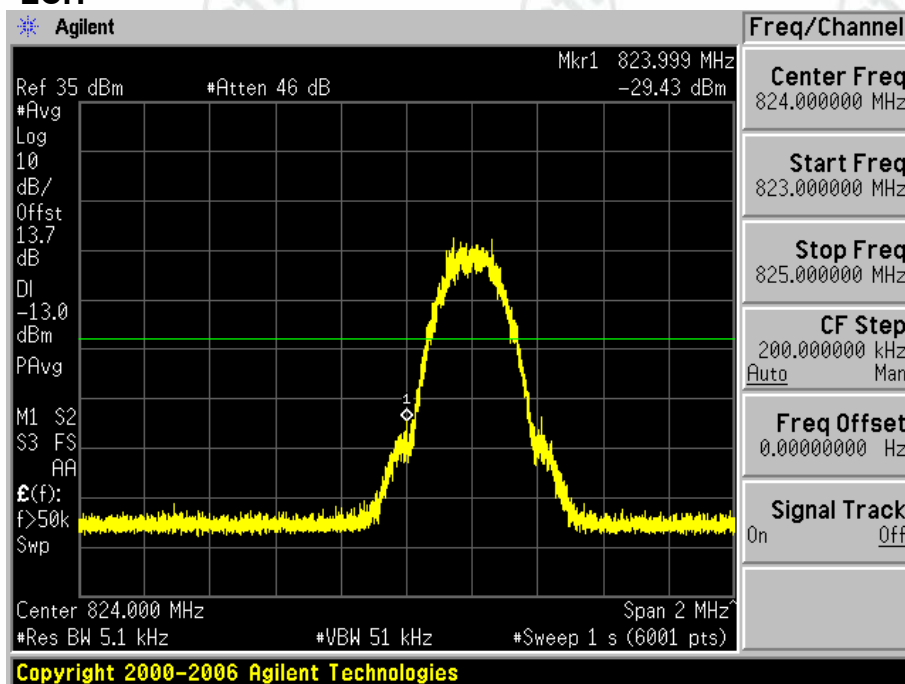


Test Channel=HCH

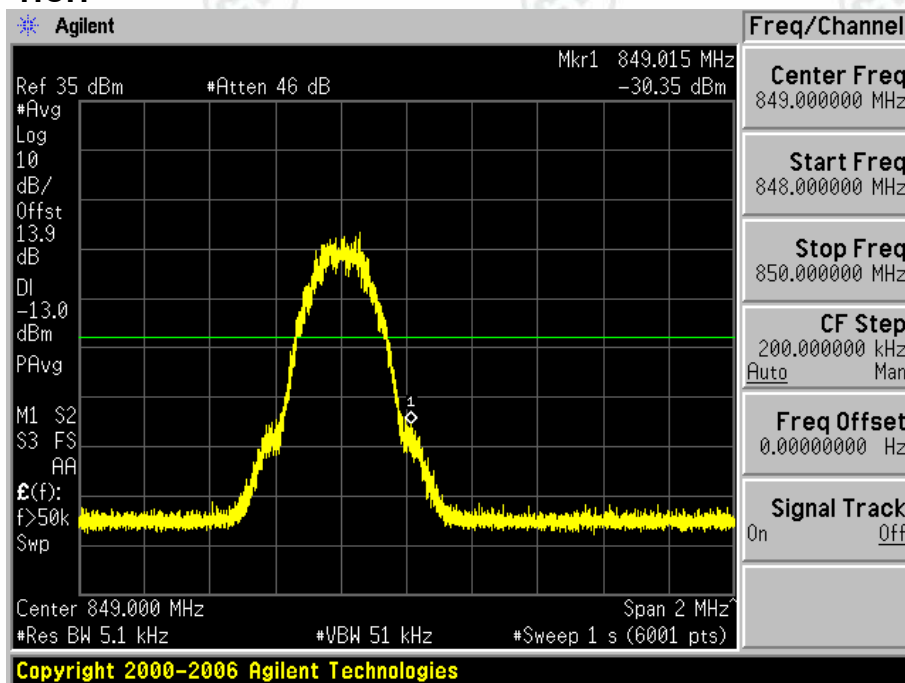


Test Mode=GSM/TM3

Test Channel=LCH



Test Channel=HCH



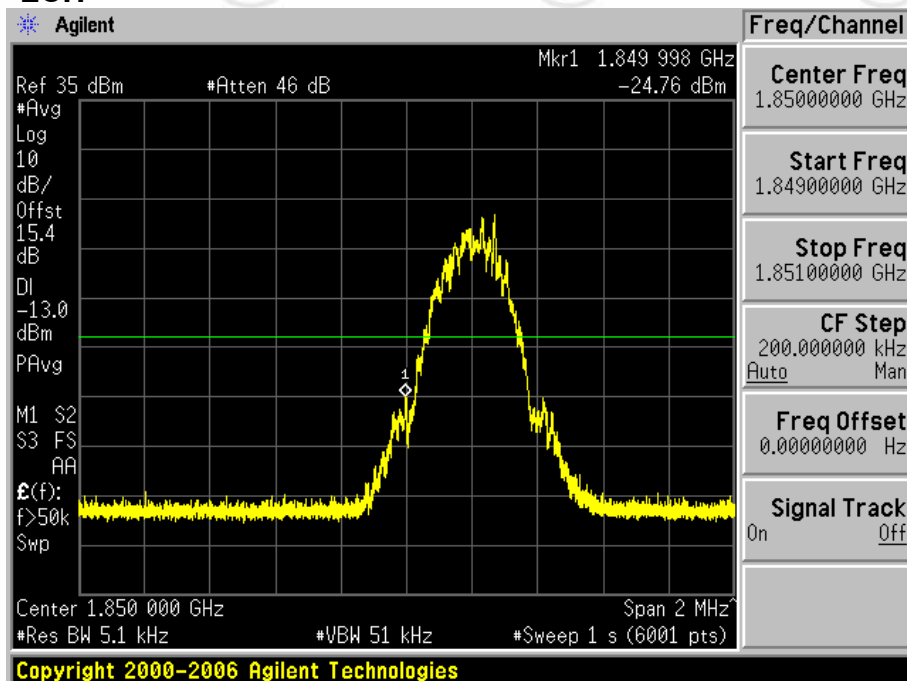
Report No.:EED32K00246404

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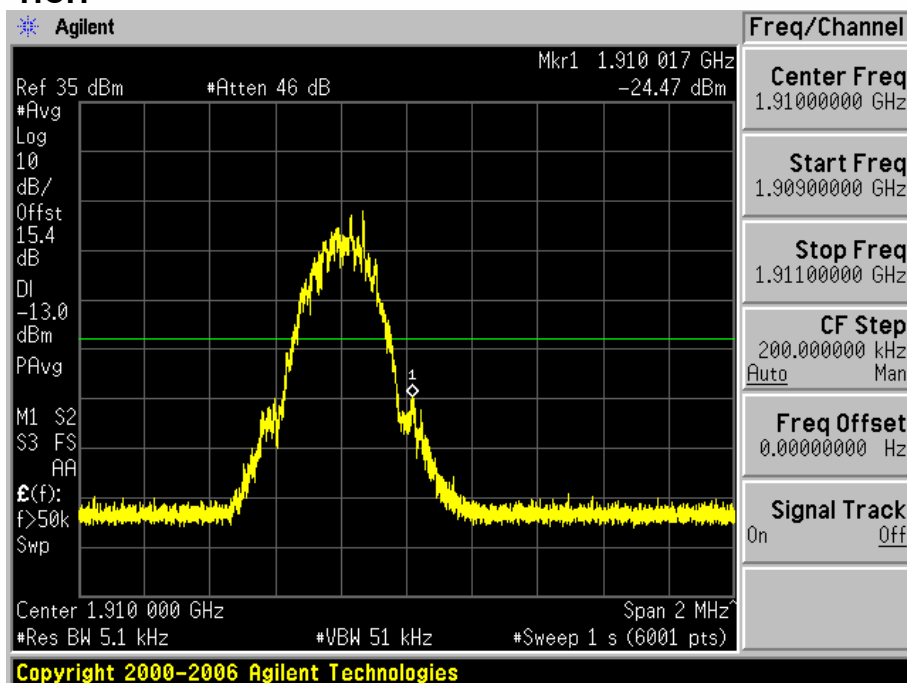
Test Band=GSM1900

Test Mode=GSM/TM1

Test Channel=LCH

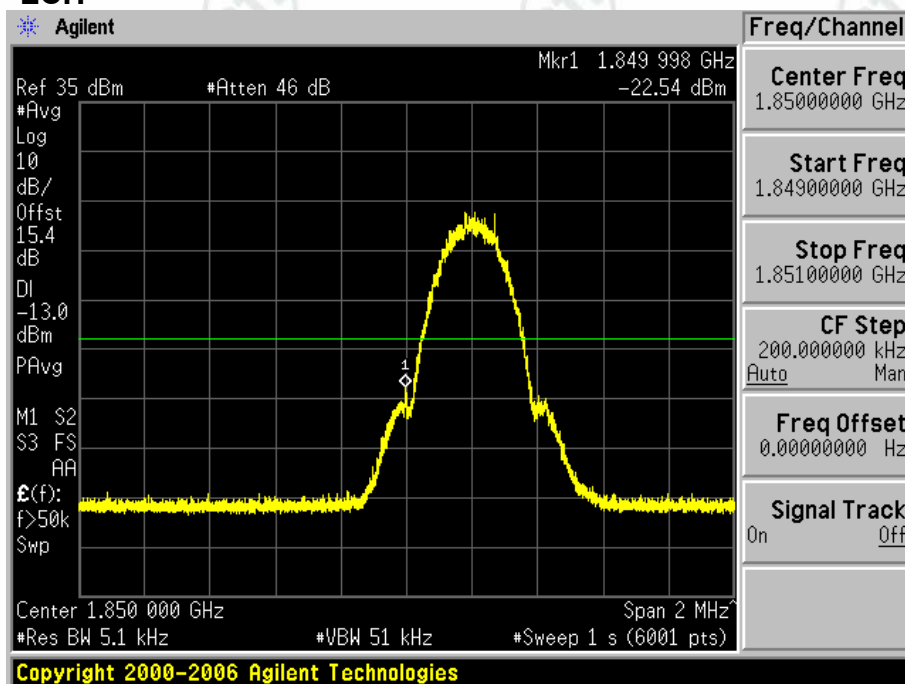


Test Channel=HCH

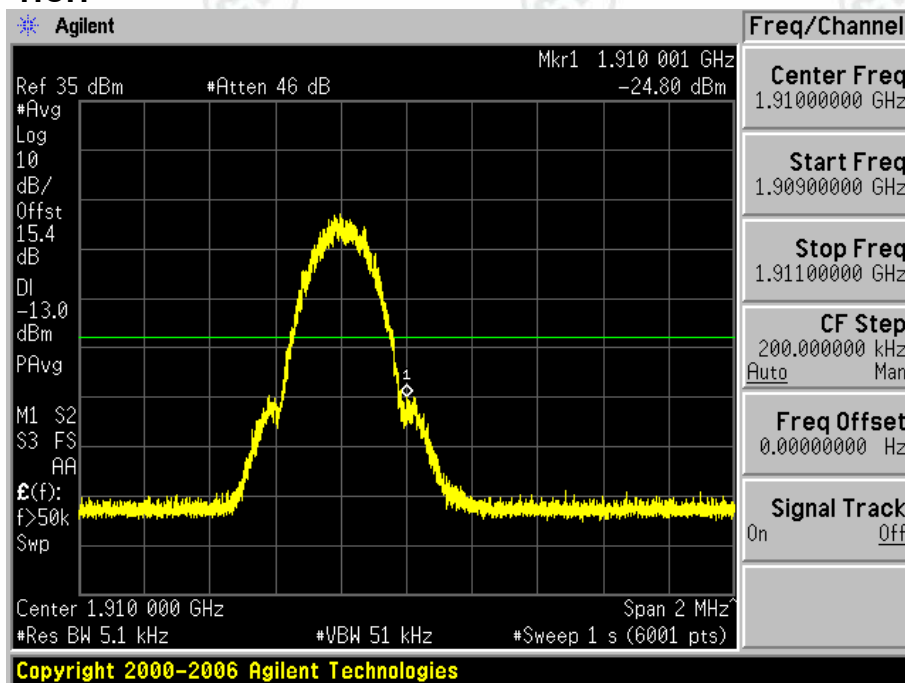


Test Mode=GSM/TM2

Test Channel=LCH

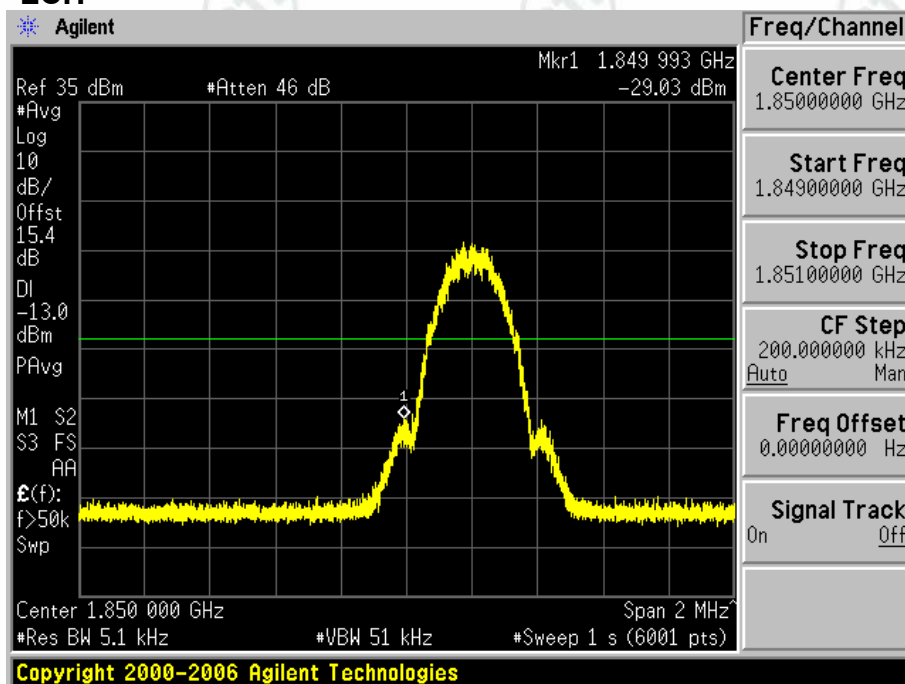


Test Channel=HCH

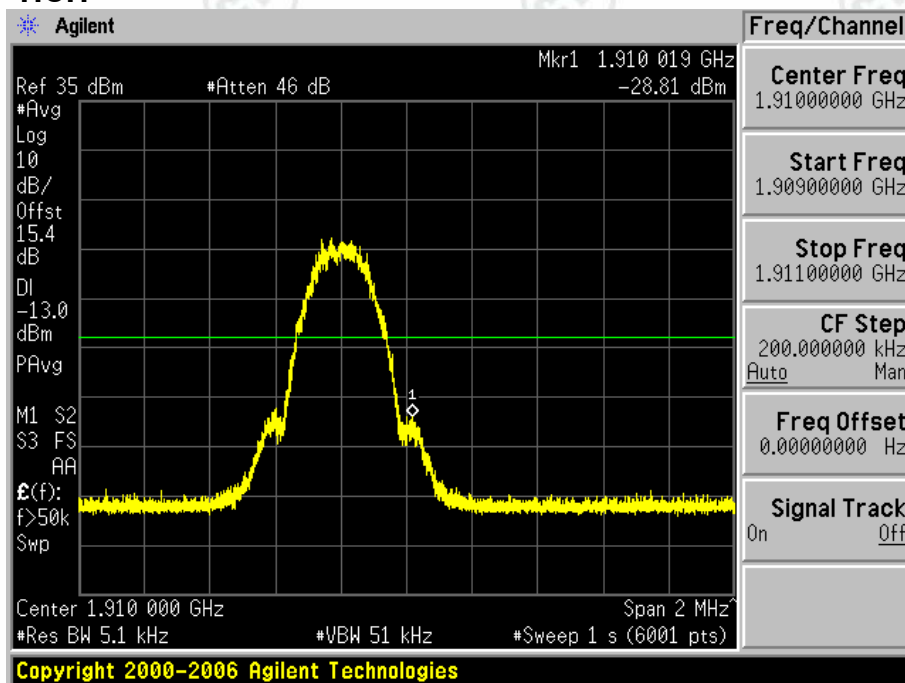


Test Mode=GSM/TM3

Test Channel=LCH



Test Channel=HCH

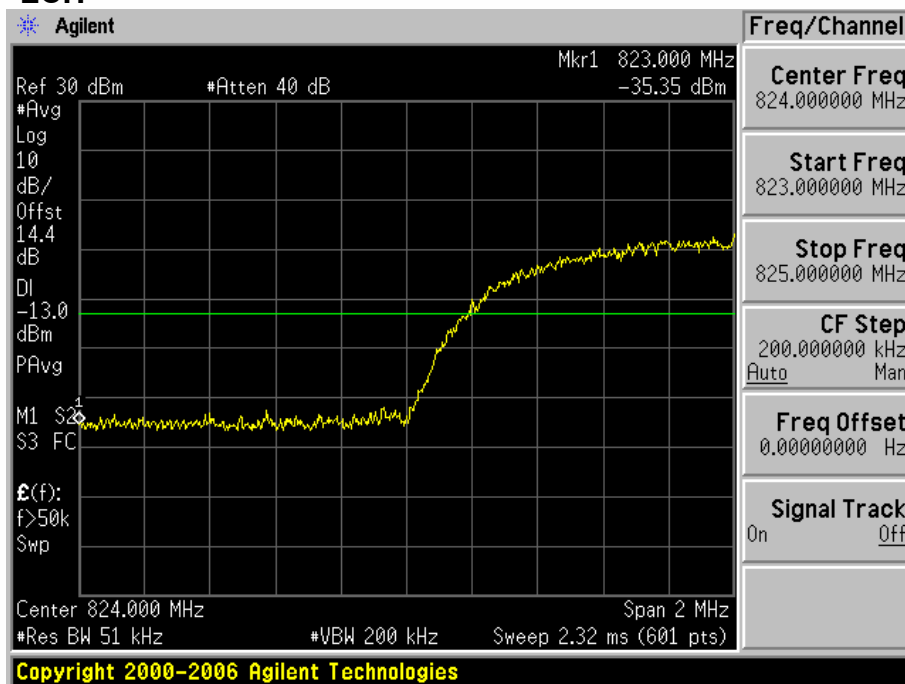


**For WCDMA**

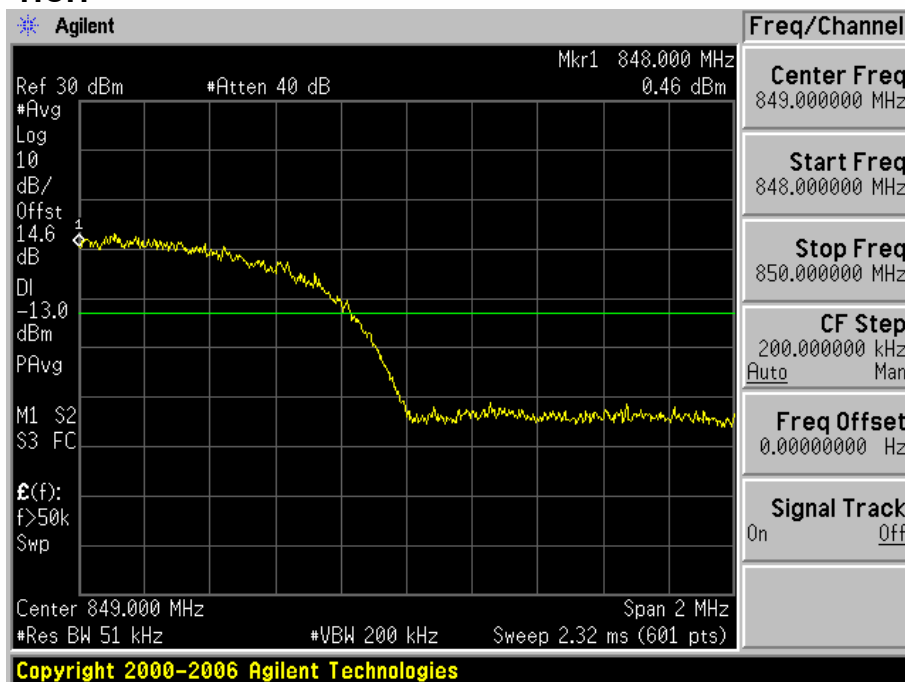
**Test Band=WCDMA850**

**Test Mode=UMTS/TM1**

**Test Channel=LCH**



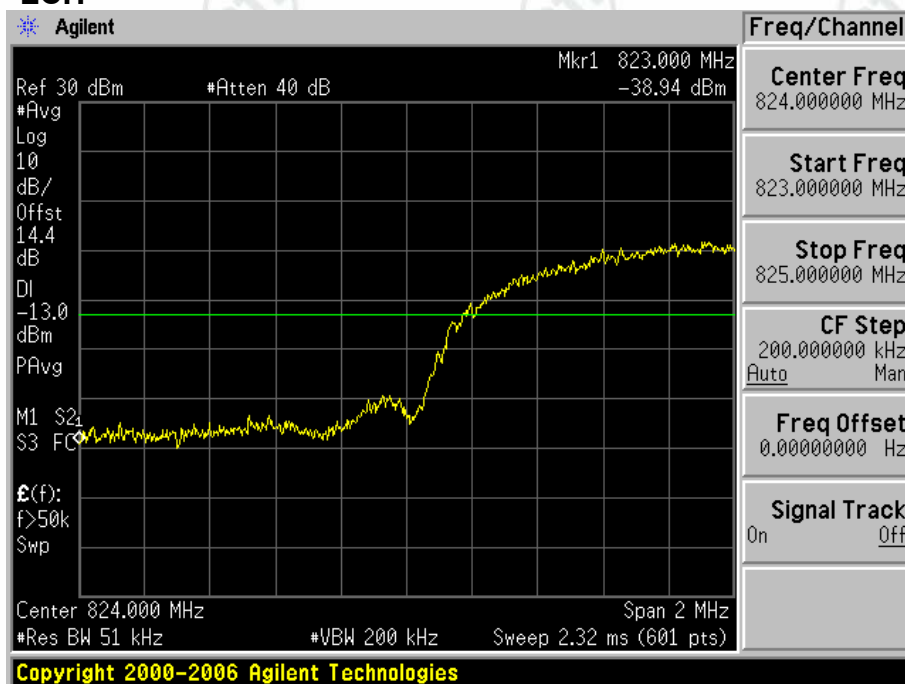
**Test Channel=HCH**



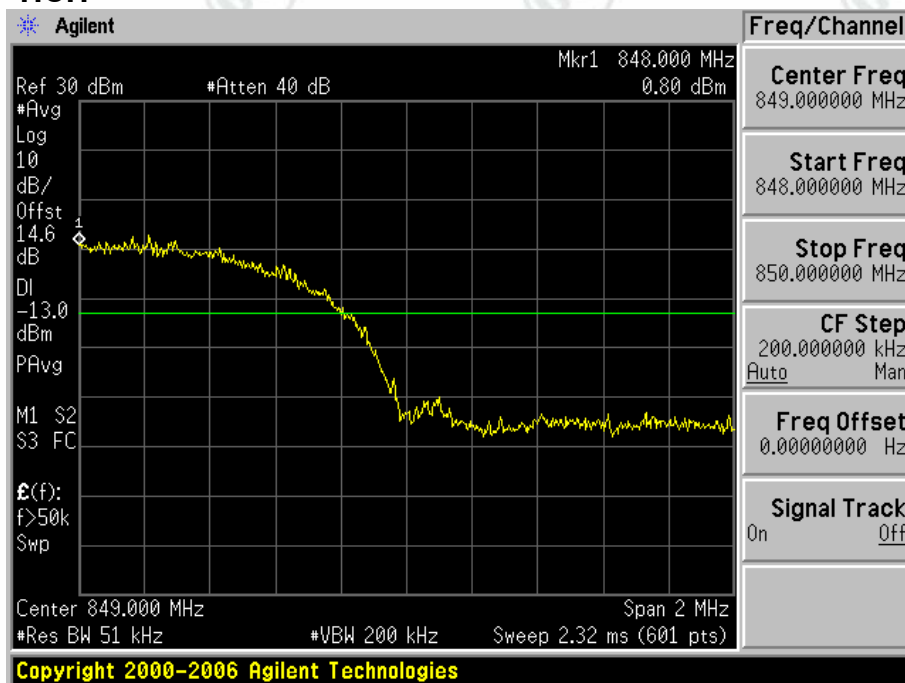


Test Mode=UMTS/TM2

Test Channel=LCH

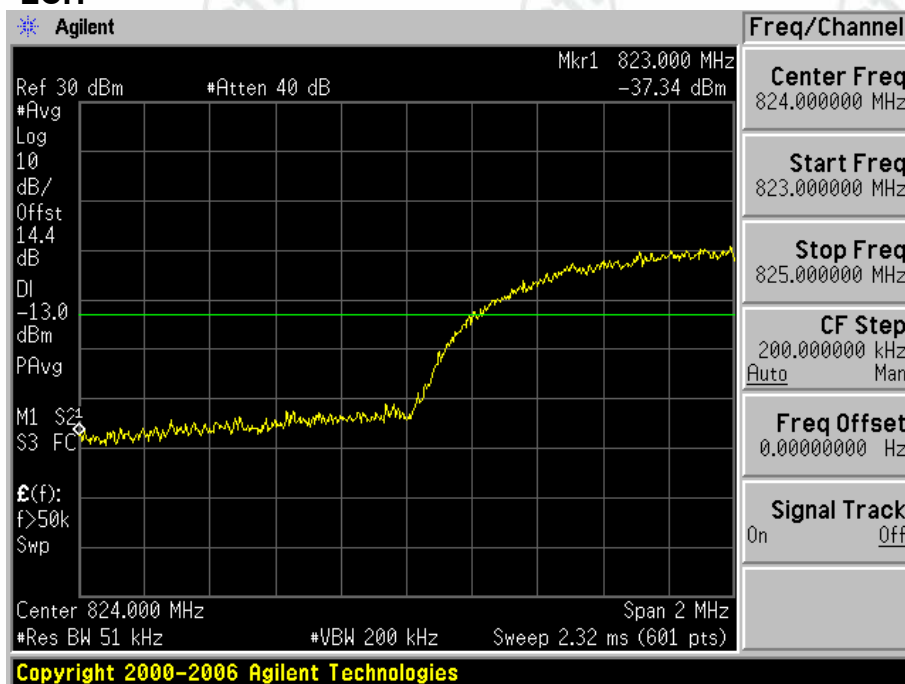


Test Channel=HCH

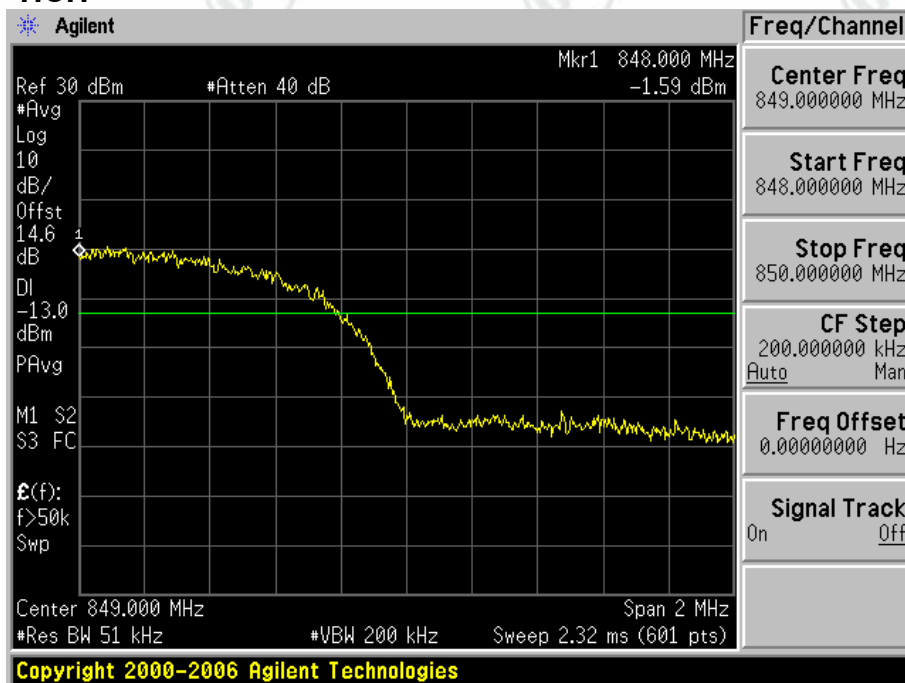


Test Mode=UMTS/TM3

Test Channel=LCH



Test Channel=HCH



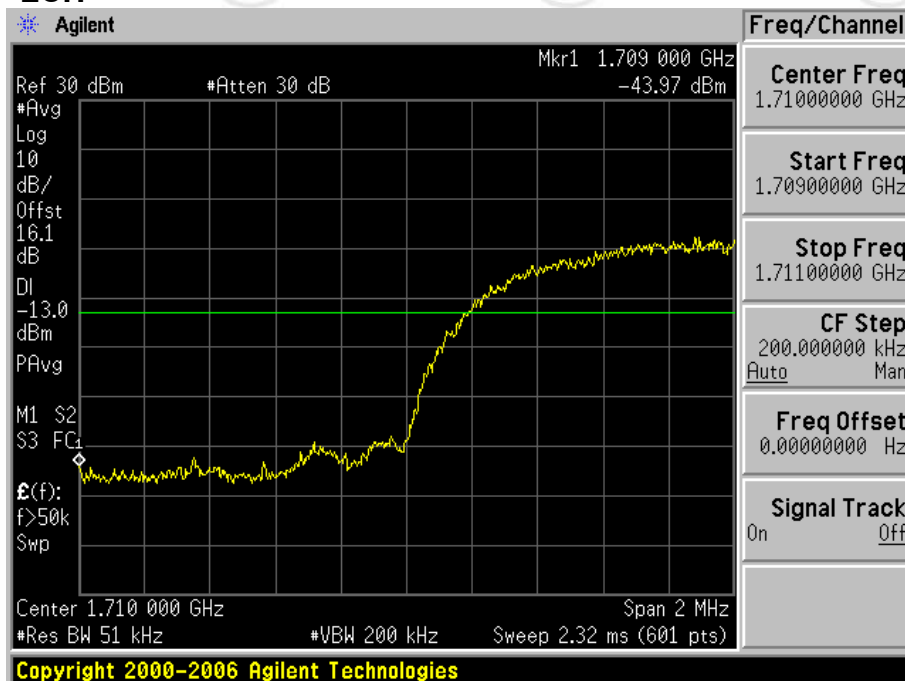
Report No.:EED32K00246404

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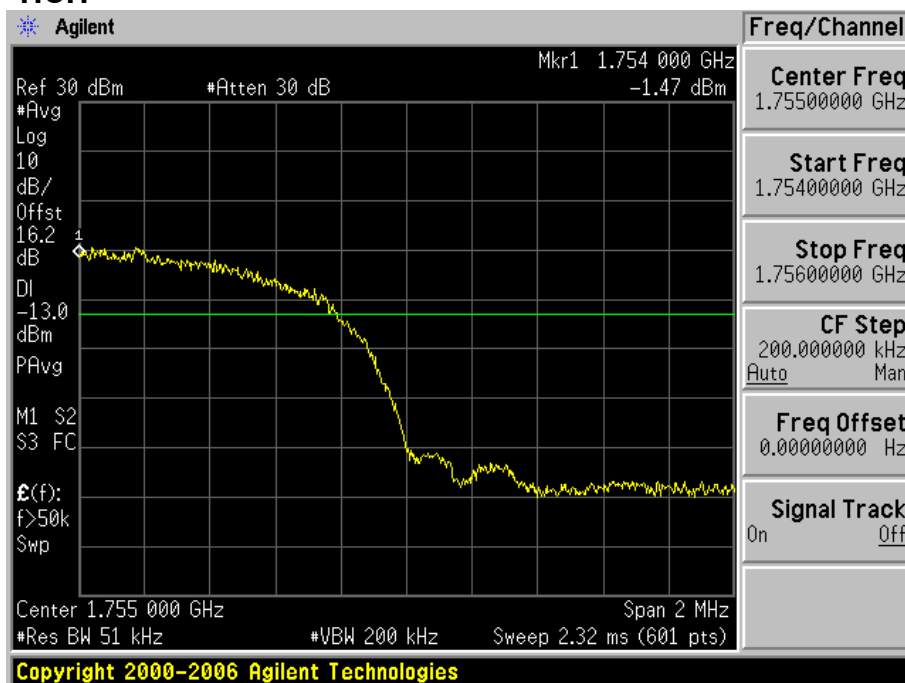
Test Band=WCDMA1700

Test Mode=UMTS/TM1

Test Channel=LCH



Test Channel=HCH

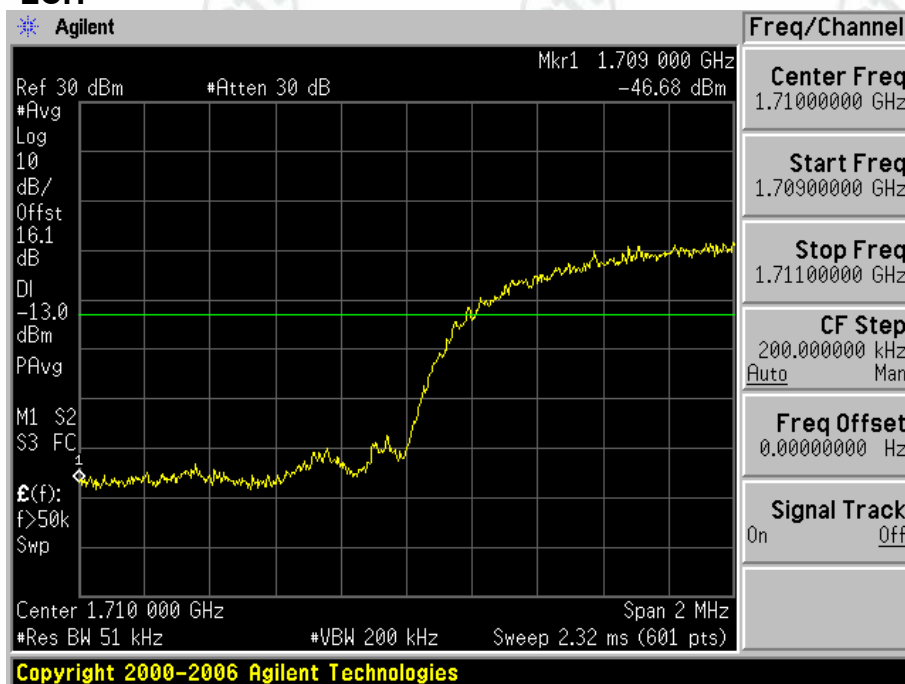


Report No.:EED32K00246404

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Test Mode=UMTS/TM2

Test Channel=LCH



Test Channel=HCH

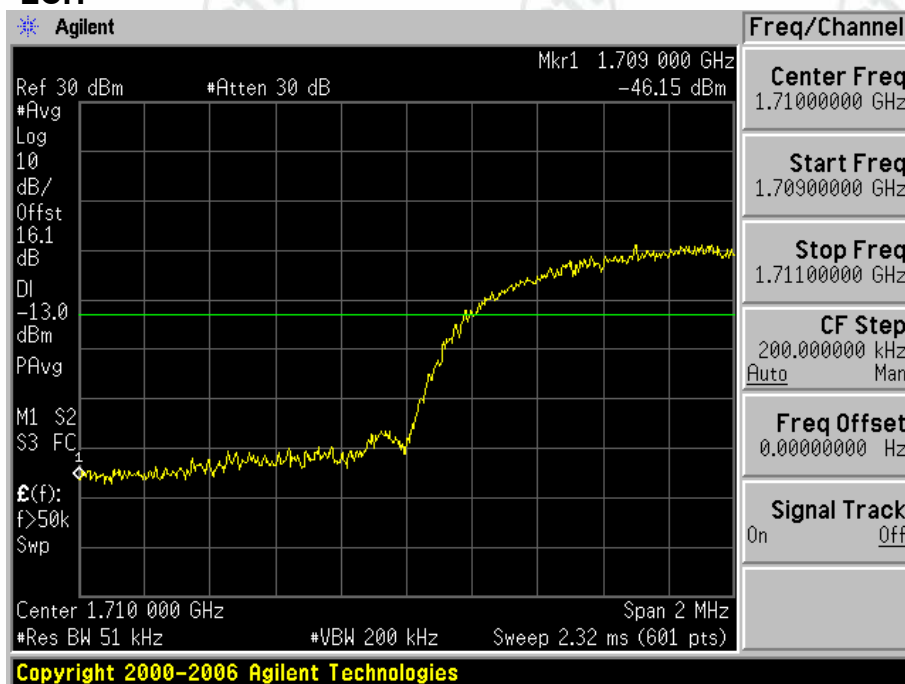


Report No.:EED32K00246404

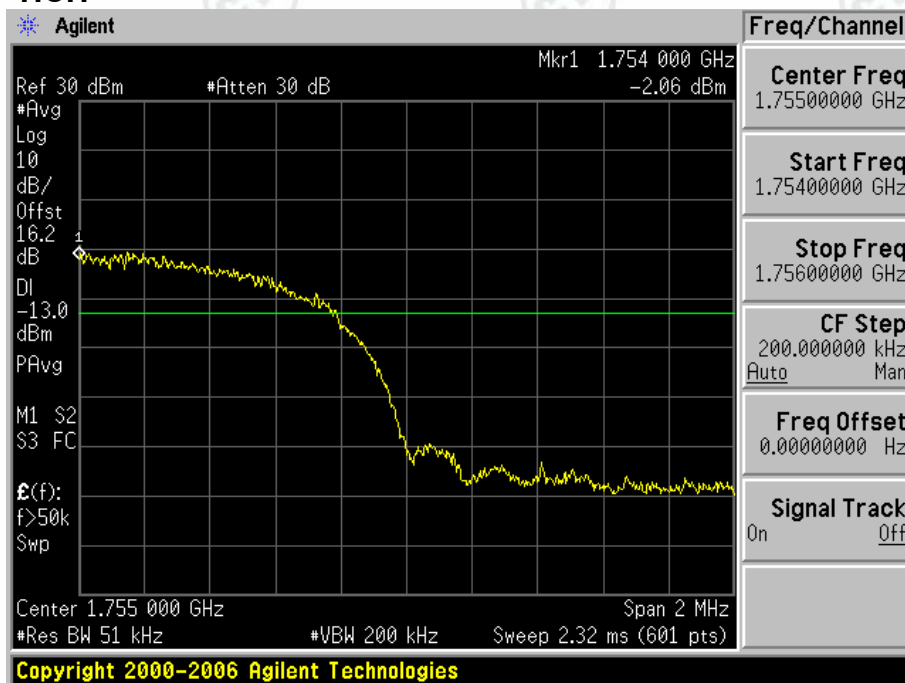
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Test Mode=UMTS/TM3

Test Channel=LCH



Test Channel=HCH



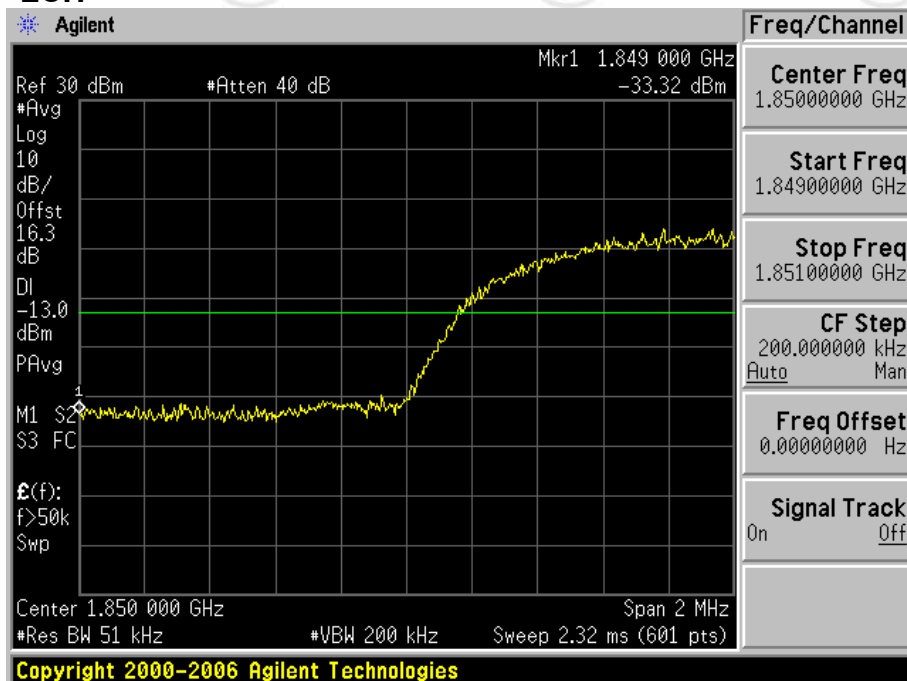
Report No.:EED32K00246404

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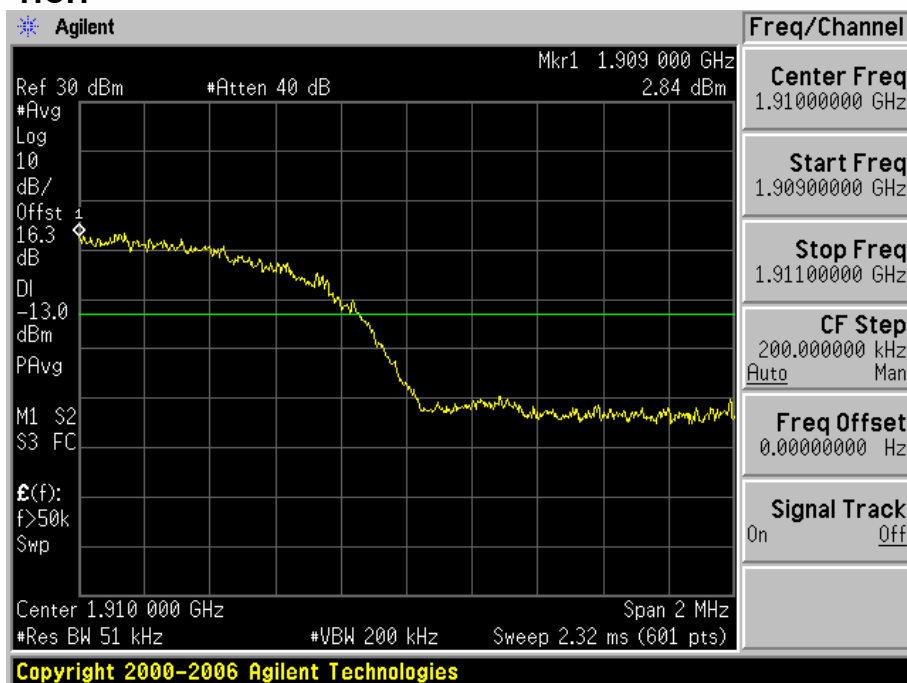
Test Band=WCDMA1900

Test Mode=UMTSTM1

Test Channel=LCH



Test Channel=HCH



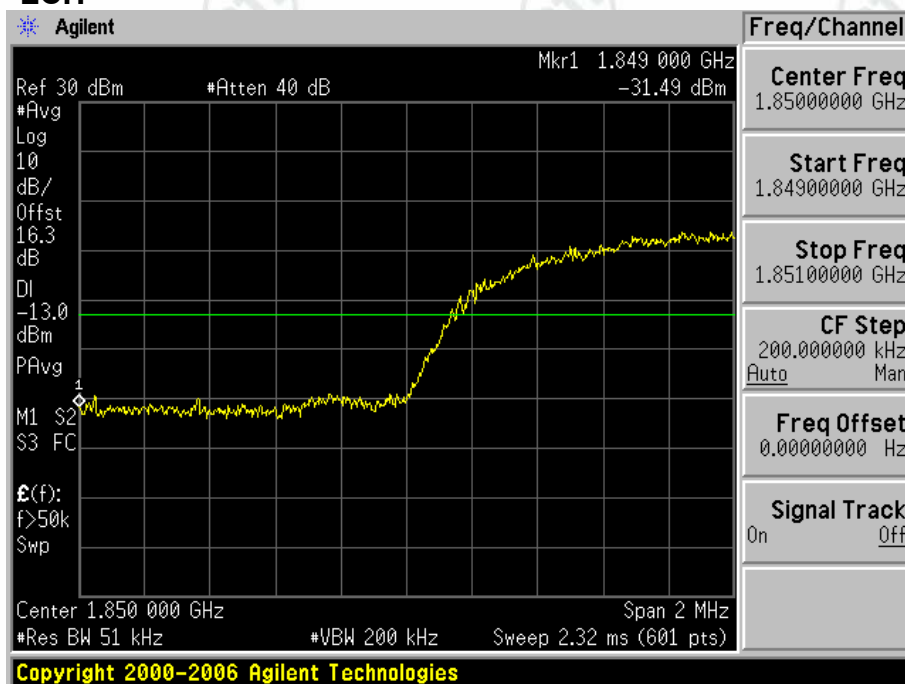


Report No.:EED32K00246404

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Test Mode=UMTS/TM2

Test Channel=LCH

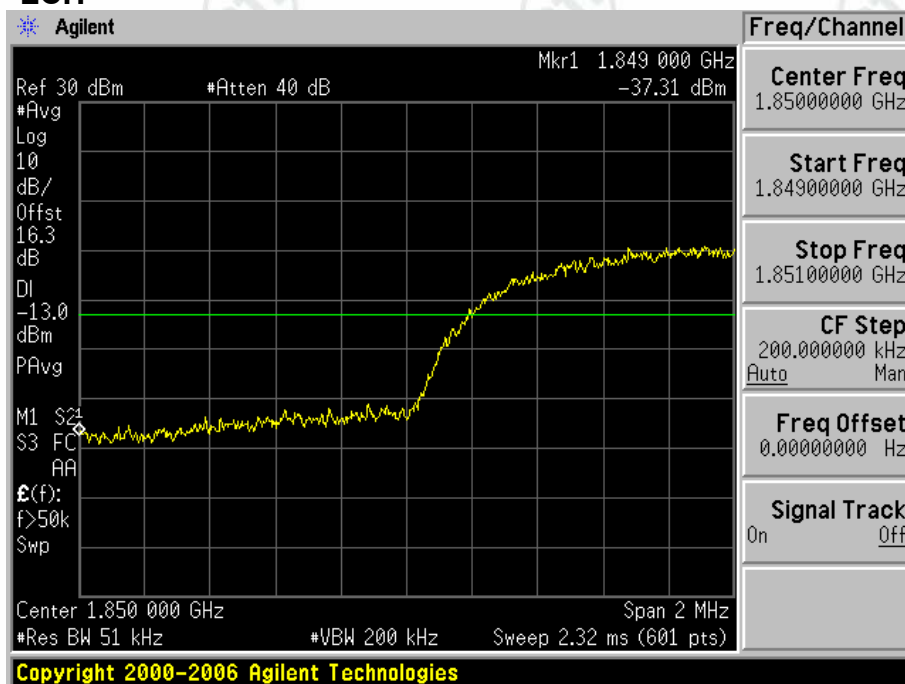


Test Channel=HCH

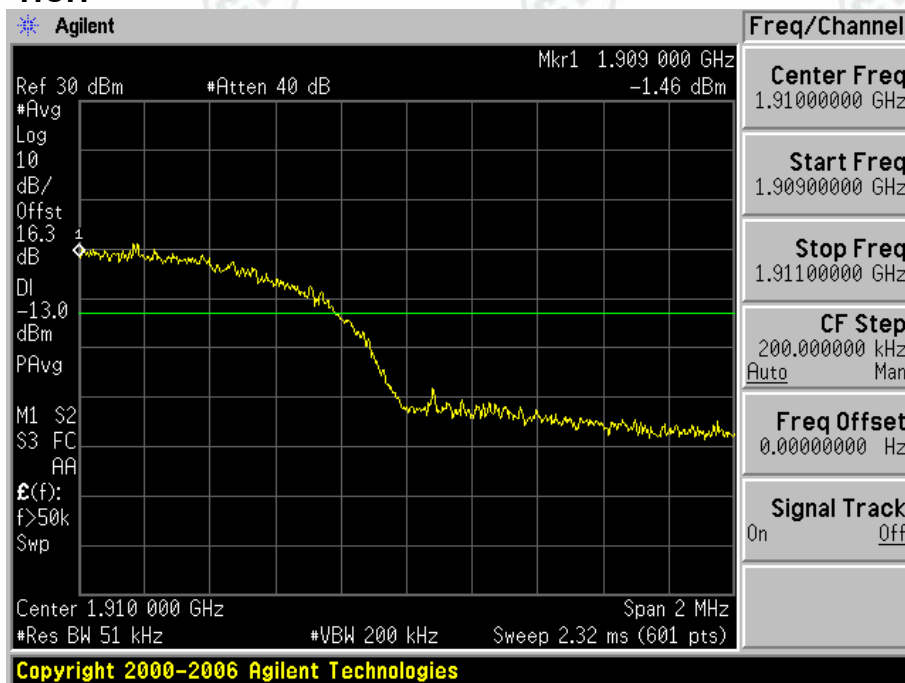


Test Mode=UMTS/TM3

Test Channel=LCH



Test Channel=HCH



## Appendix E): Spurious Emission at Antenna Terminal

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Test Requirement:</b>      | Part 2.1051/Part 2.1057                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Test Method:</b>           | TIA-603-E-2016 Clause 2.2.13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Test Setup:</b>            | Refer to section 5 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Measurement Procedure:</b> | The transmitter output was connected to a calibrated coaxial cable, attenuator and Spectrum analyzer, the other end of which was connected to a Base Station Simulator. The Base Station Simulator was set to force the EUT to its maximum power setting. The tests were performed at three frequencies (low channel and high channel).the equipment operates below 10GHz: to the tenth harmonic of the highest fundamental frequency or to 40GHz.whichever is lower, the resolution bandwidth of the spectrum analyzer was set at 100kHz for spurious emissions below 1 GHz, and 1 MHz for spurious emissions above 1GHz.the video bandwidth of the spectrum analyzer was set at thrice the resolution bandwidth. Detector Mode was set to mean or average power. |
| <b>Instruments Used:</b>      | Refer to section 7 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Limit:</b>                 | Attenuated at least $43+10\log(P)$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Test Results:</b>          | Pass                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

Report No.:EED32K00246404

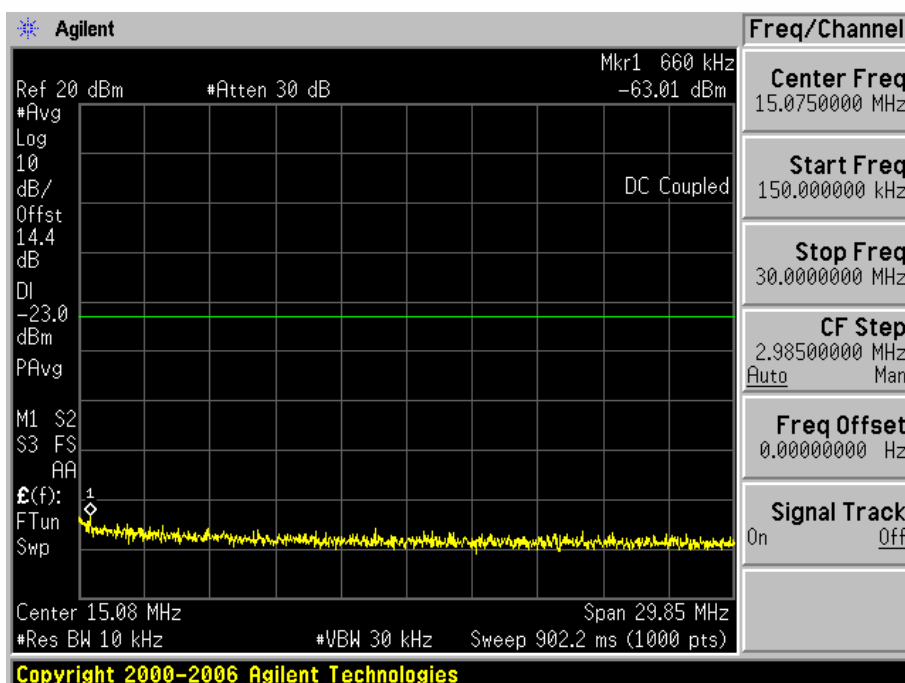
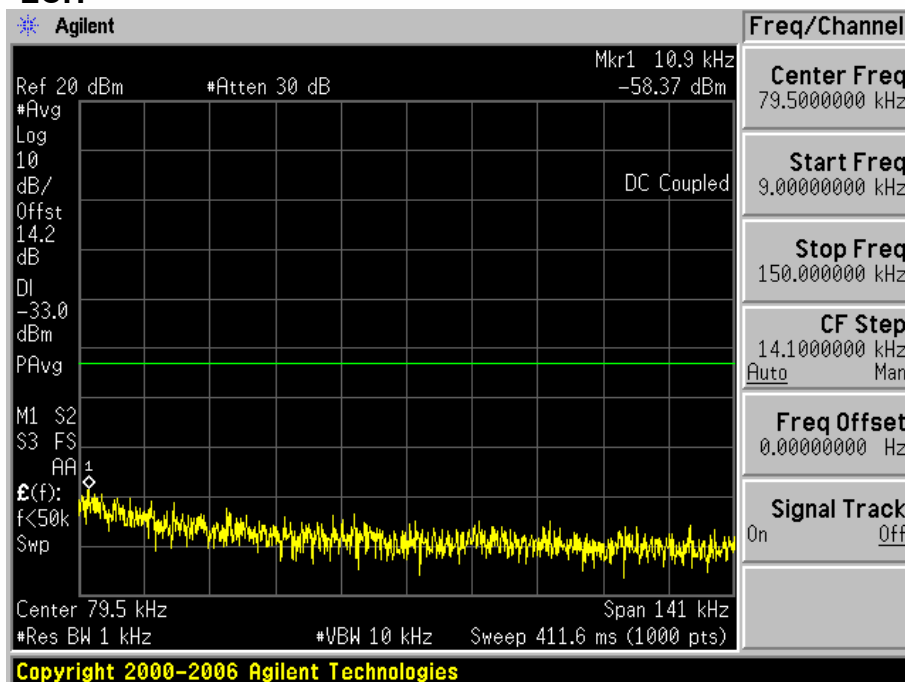
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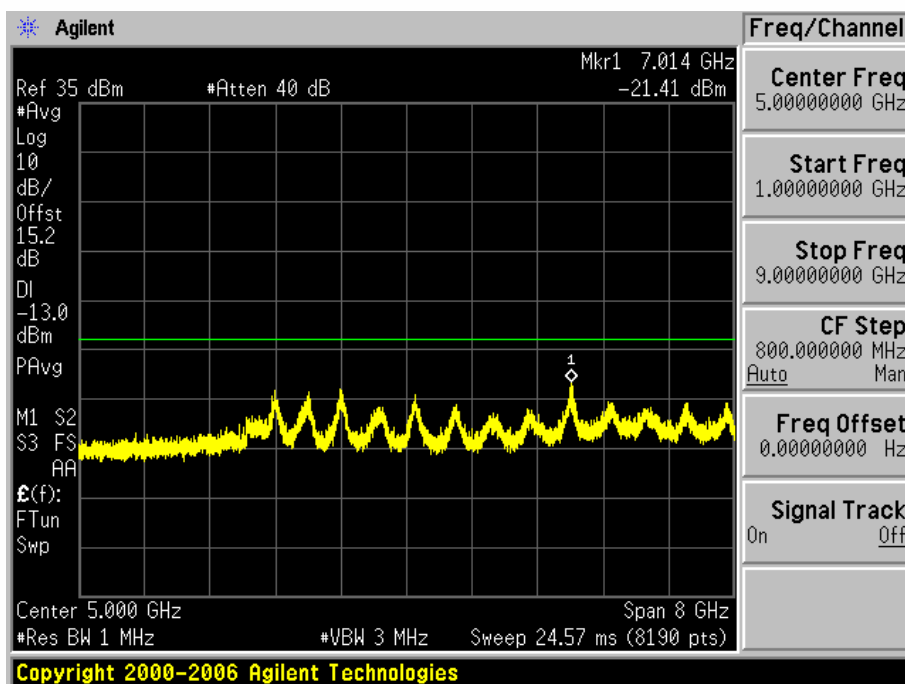
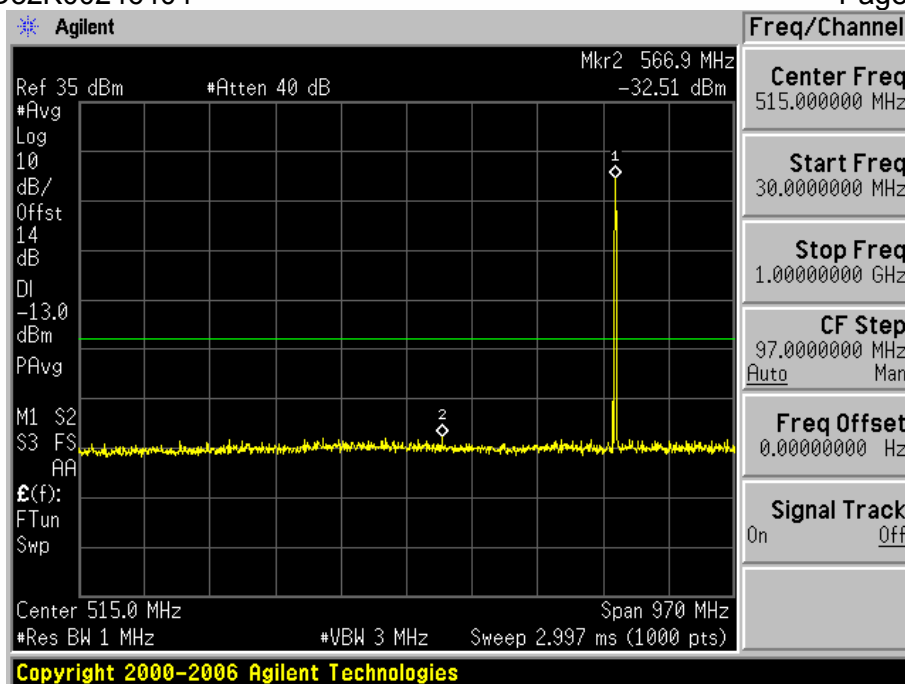
**For GSM**

**Test Band=GSM850**

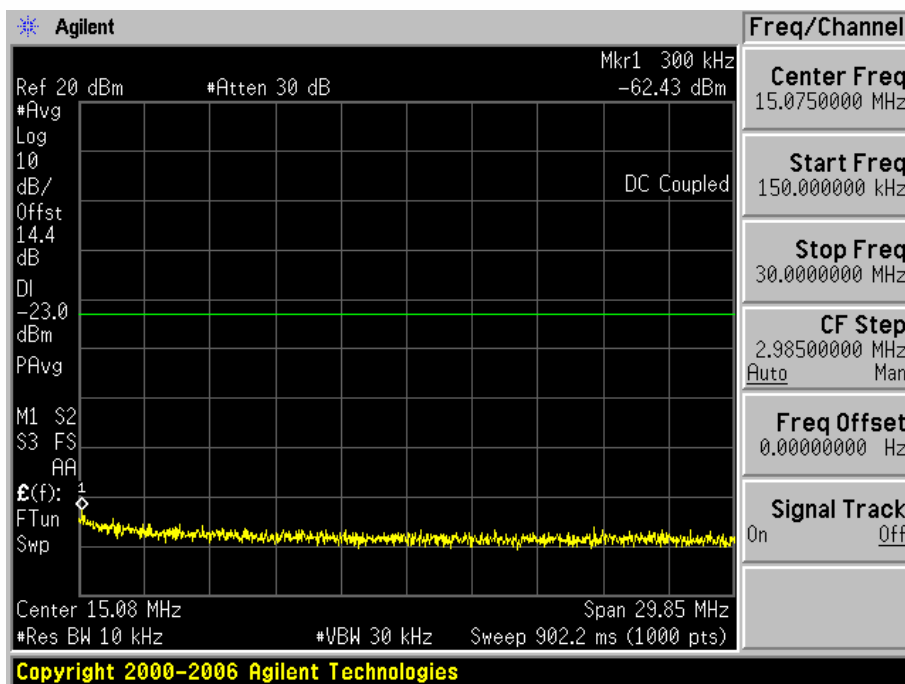
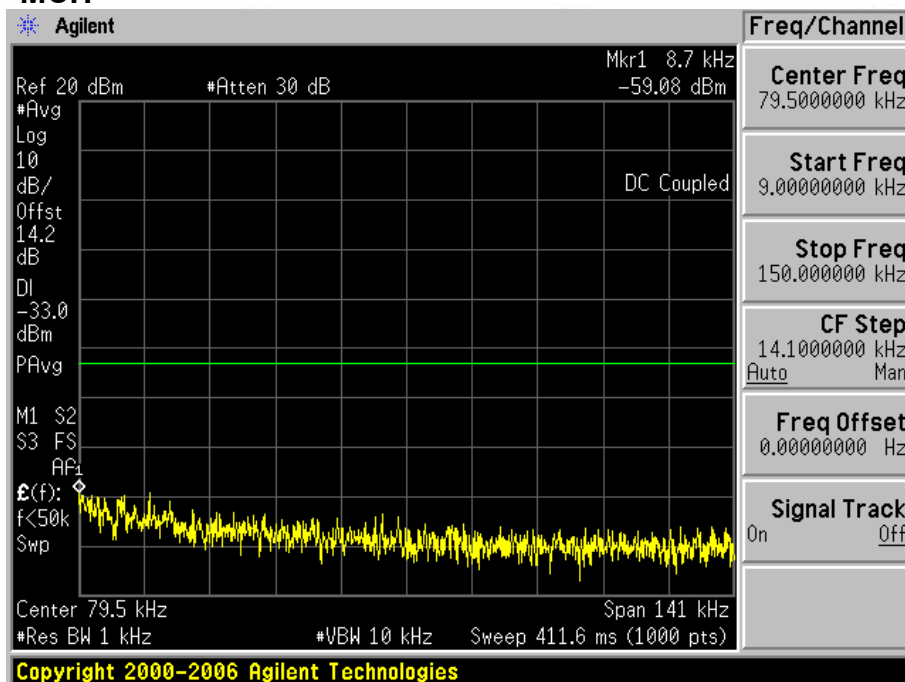
**Test Mode=GSM/TM1**

**Test Channel=LCH**

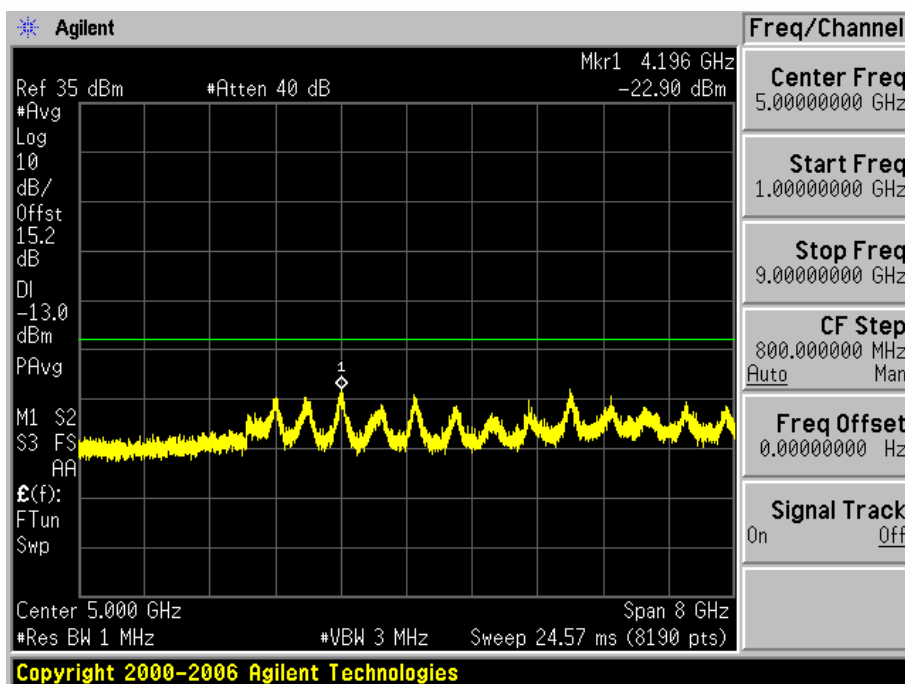
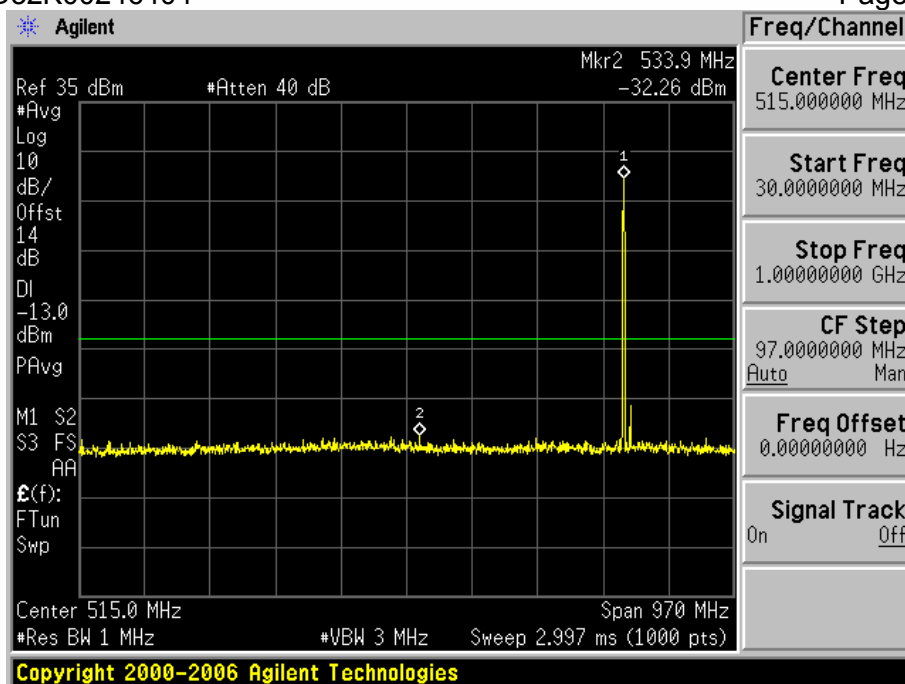




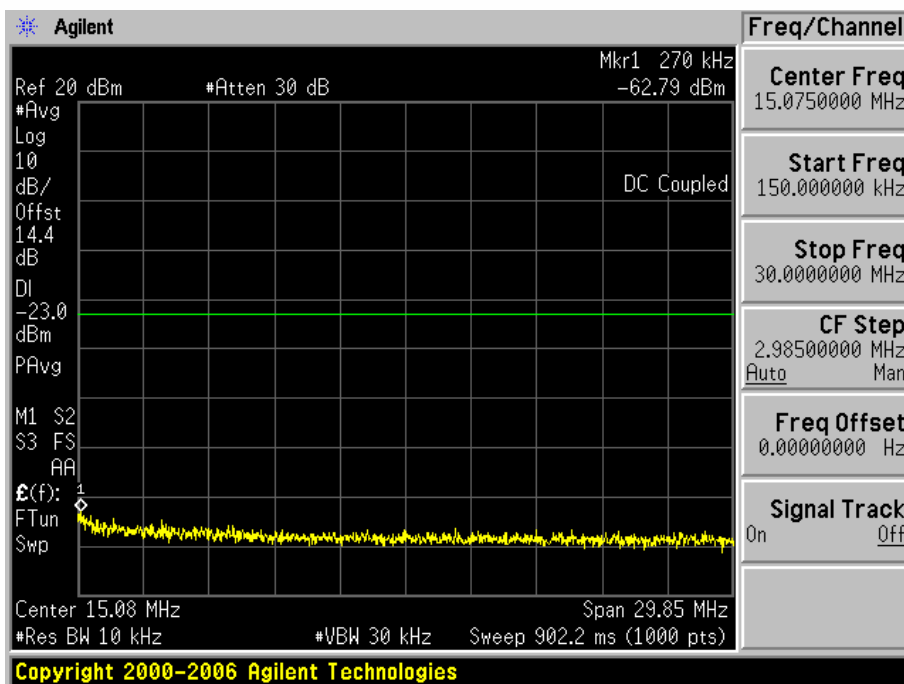
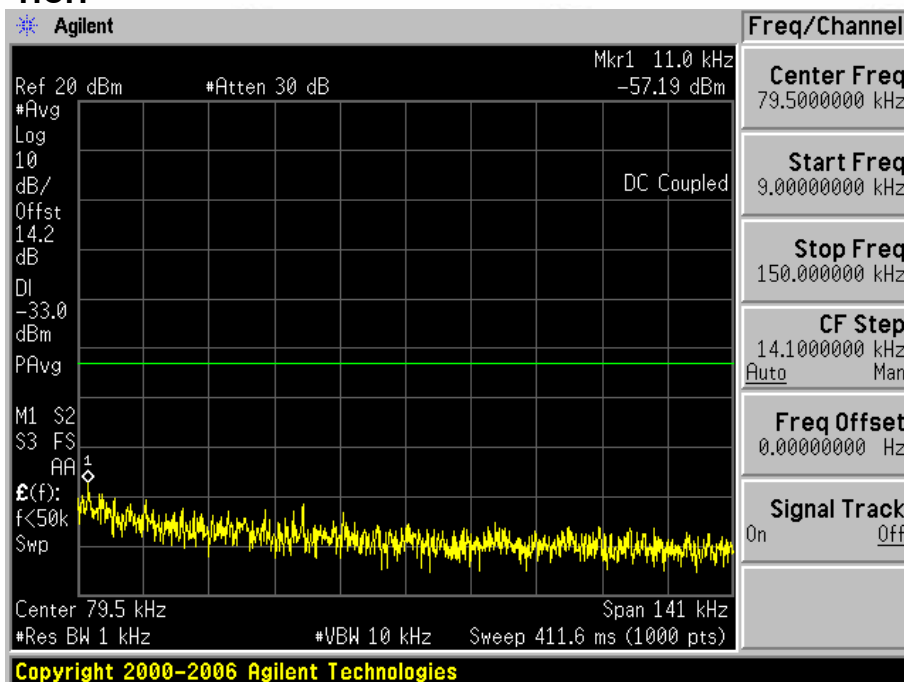
Test Channel=MCH

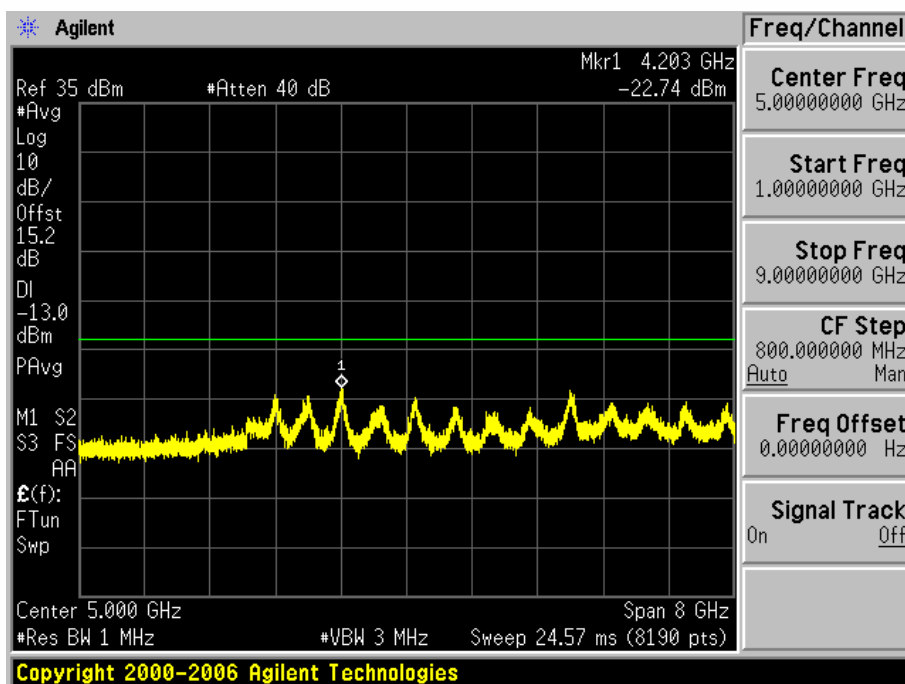
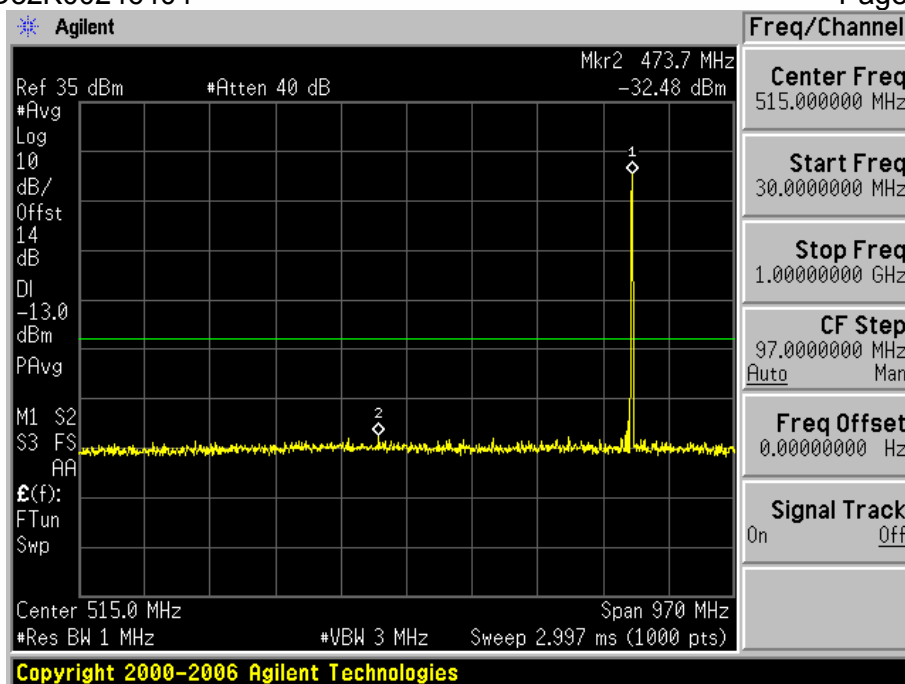






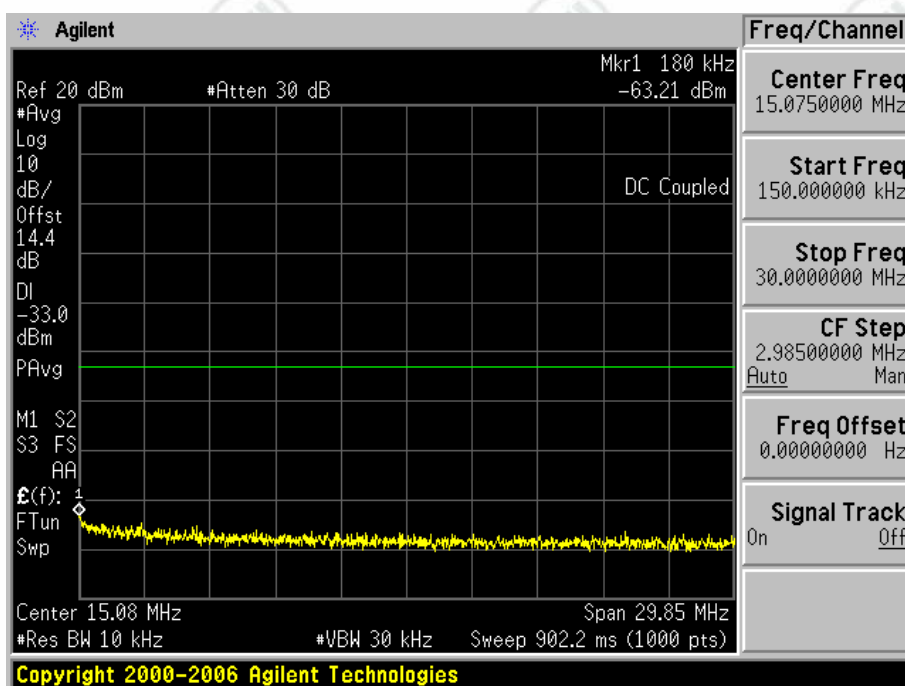
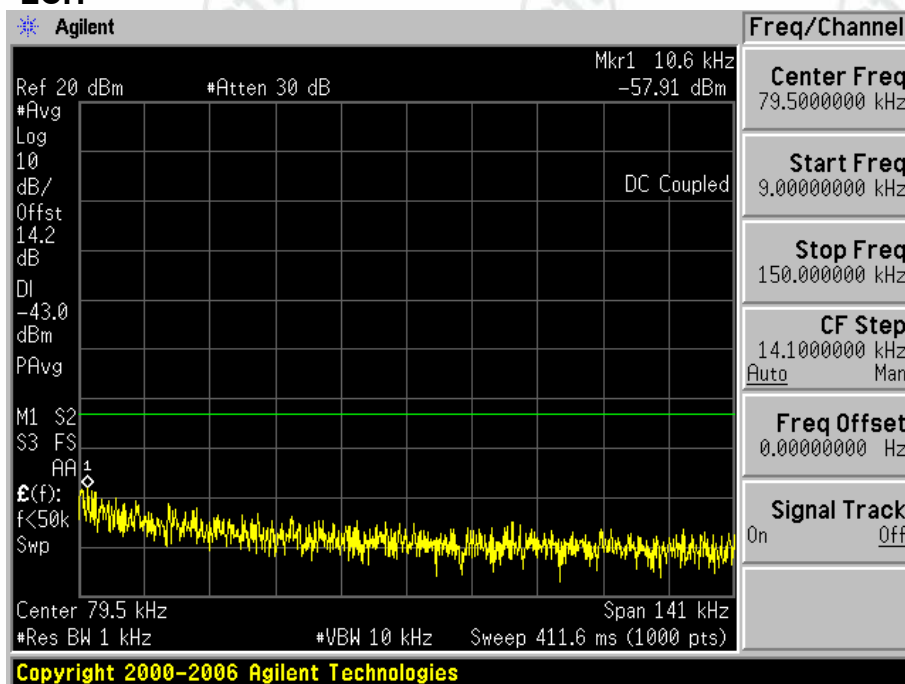
Test Channel=HCH

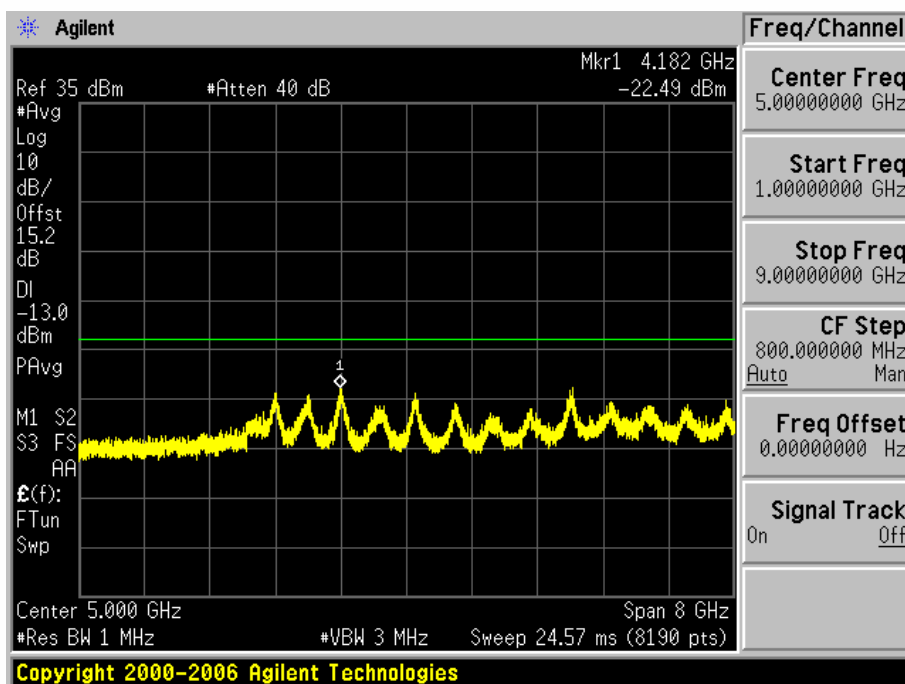
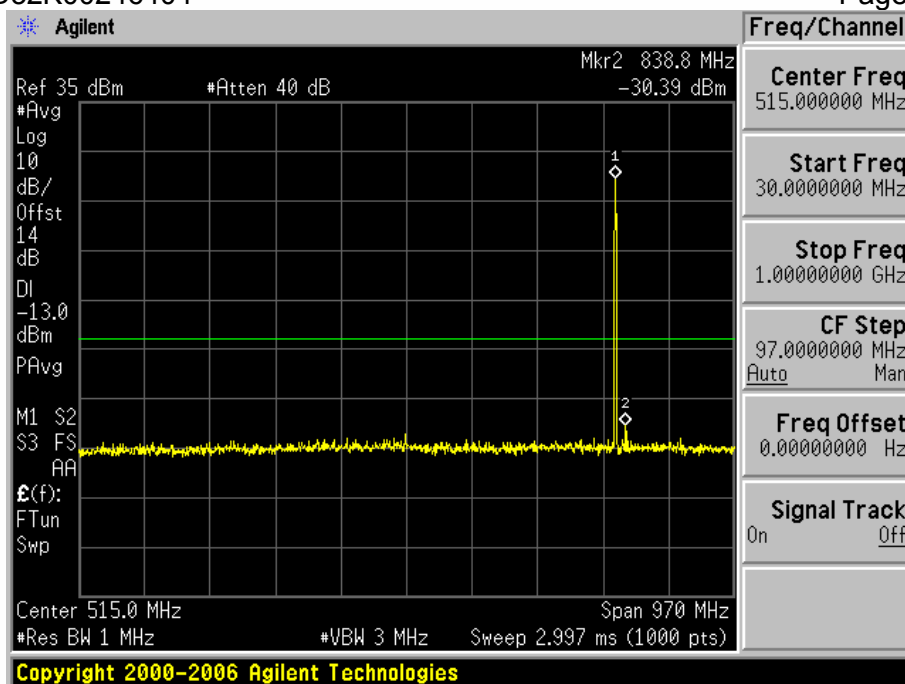




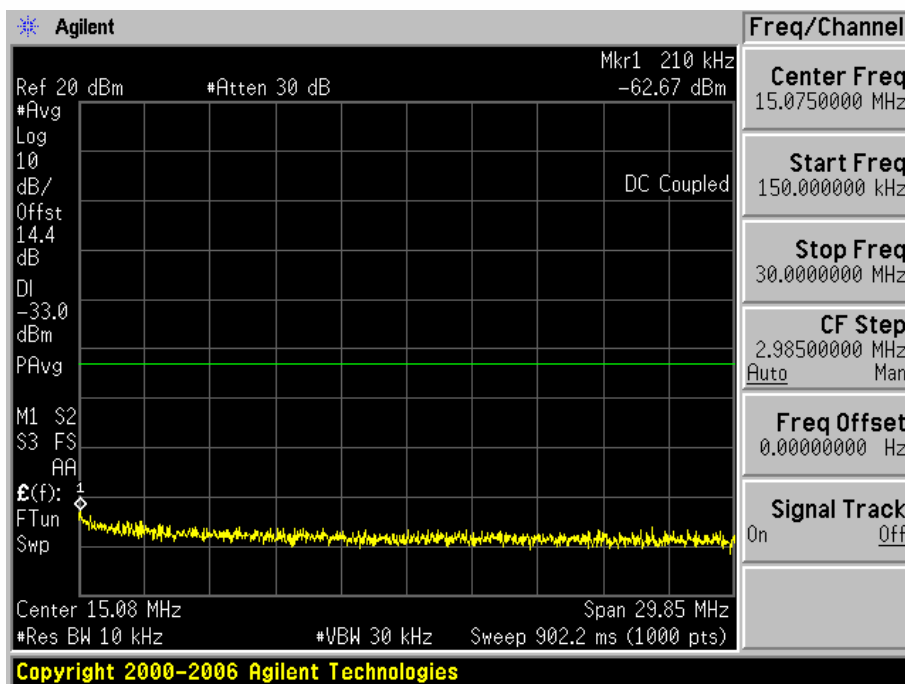
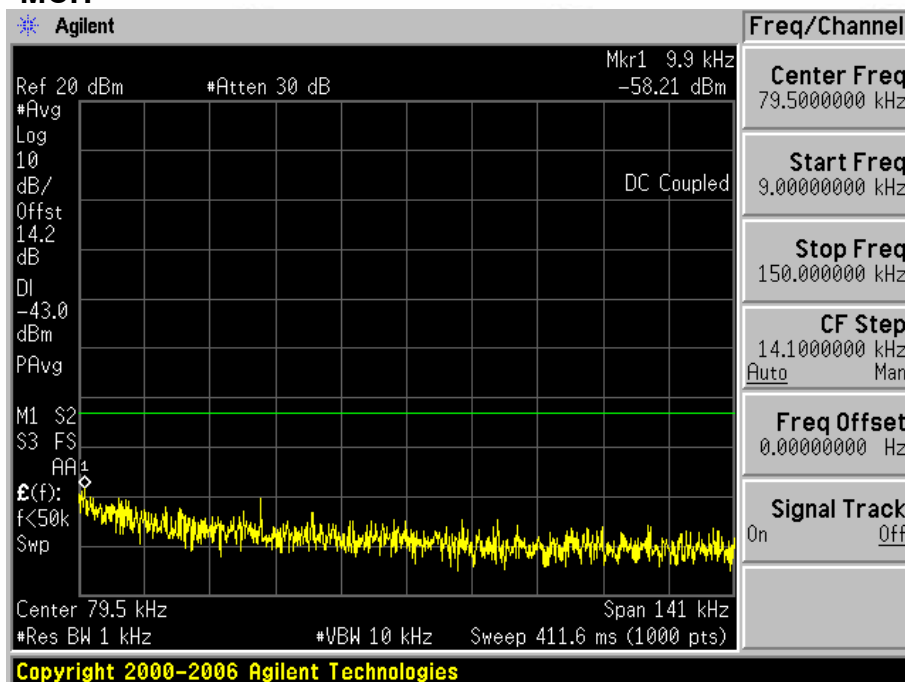
Test Mode=GSM/TM2

Test Channel=LCH

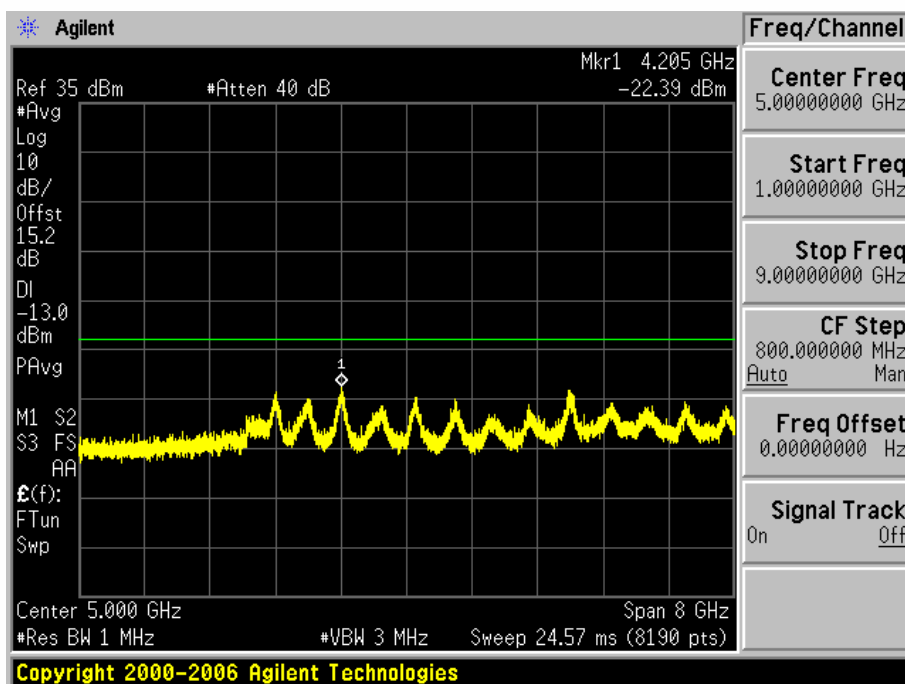
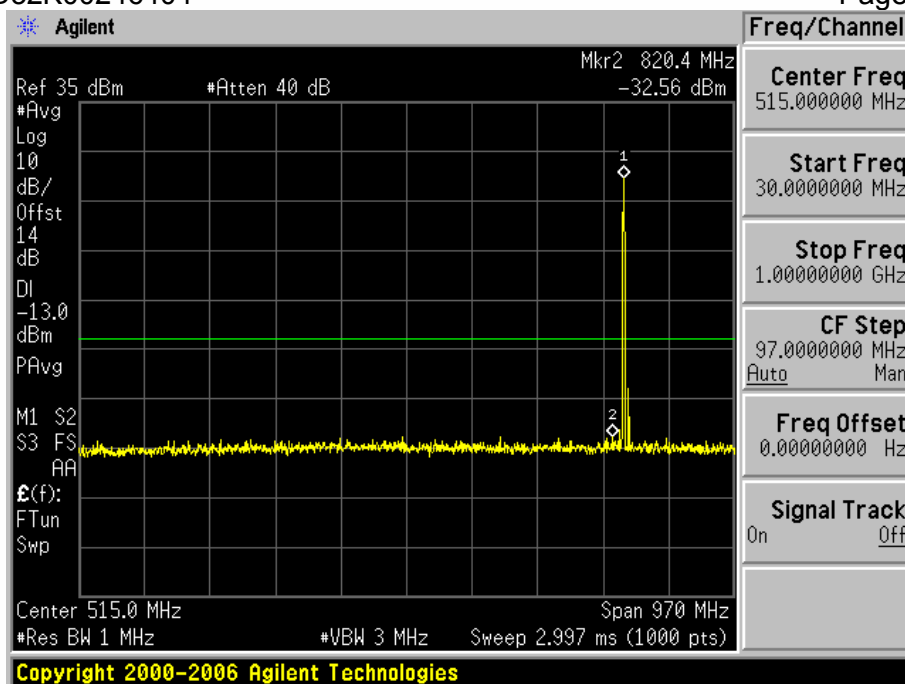




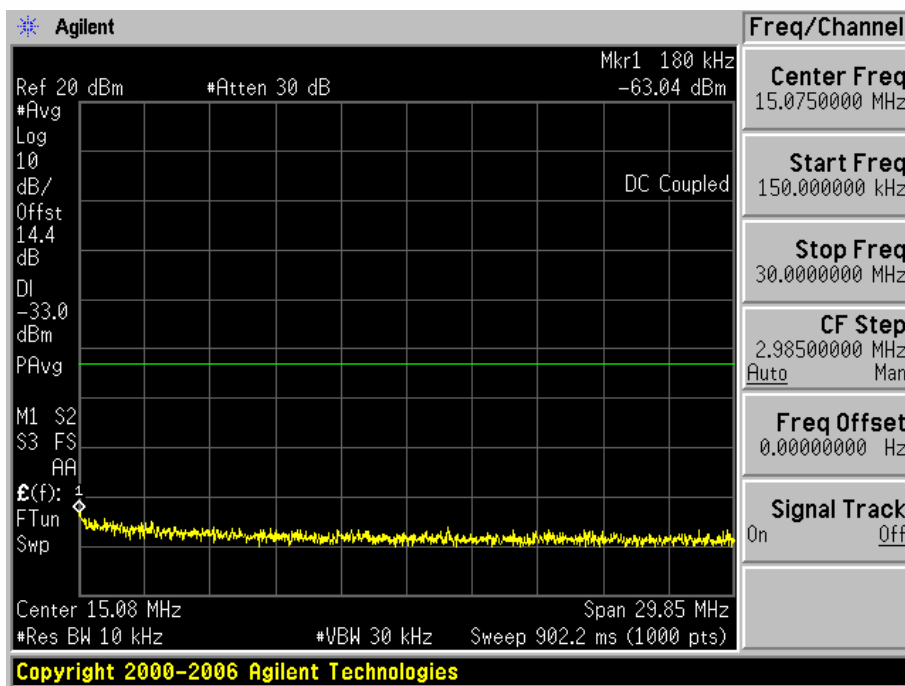
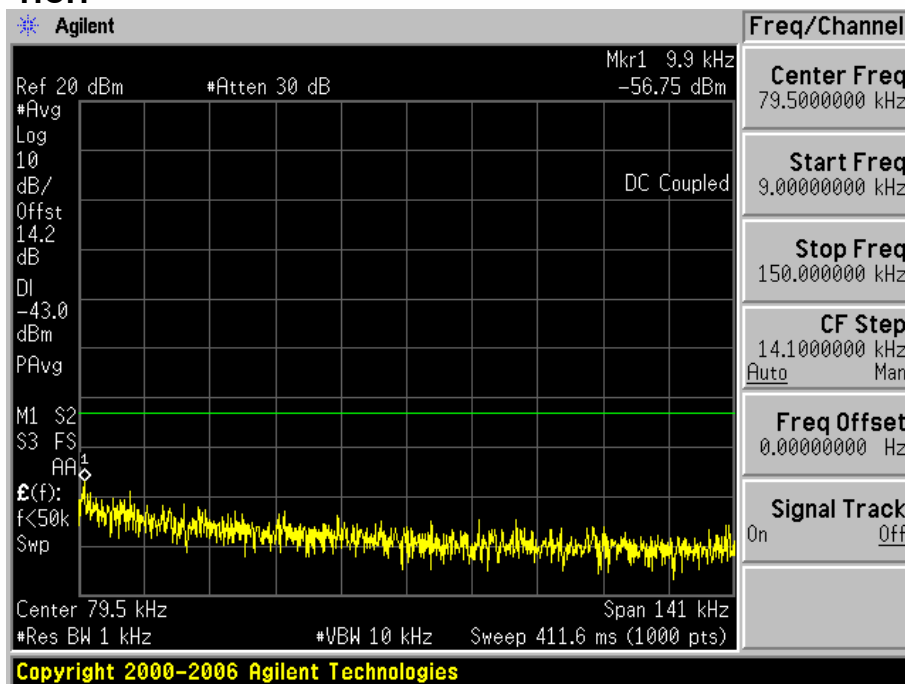
Test Channel=MCH

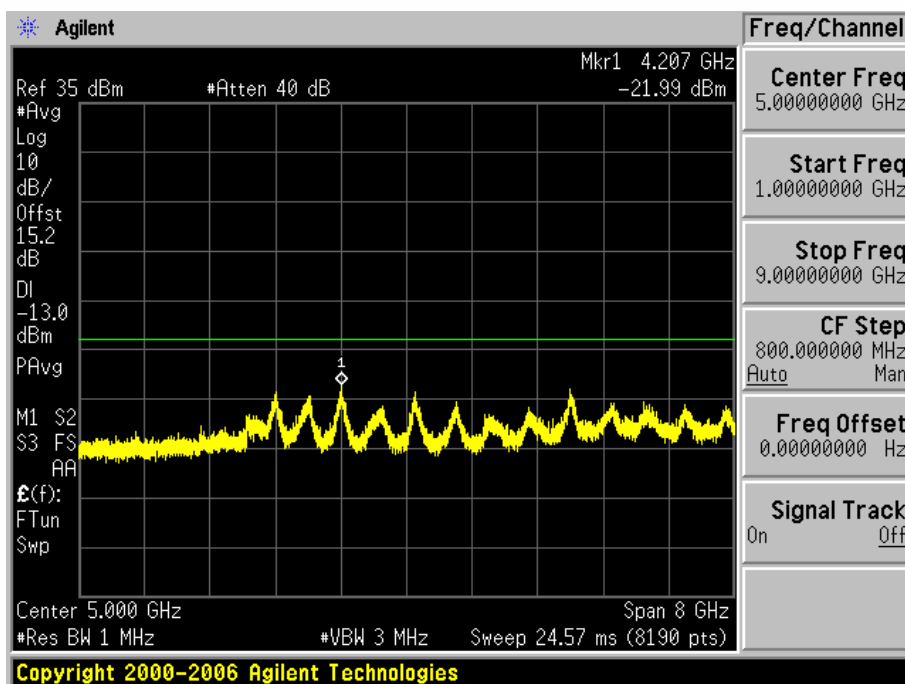
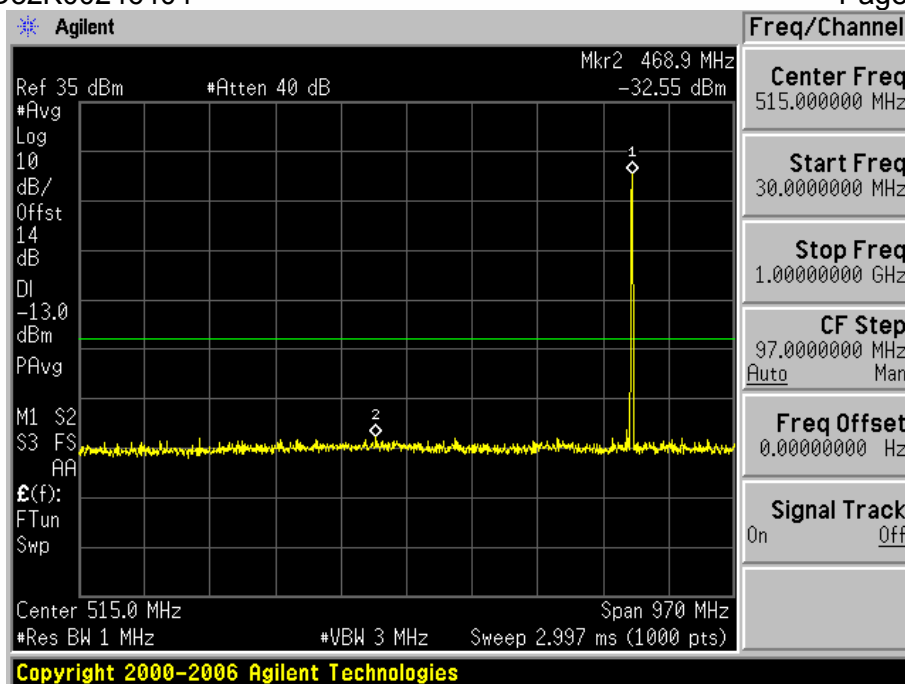






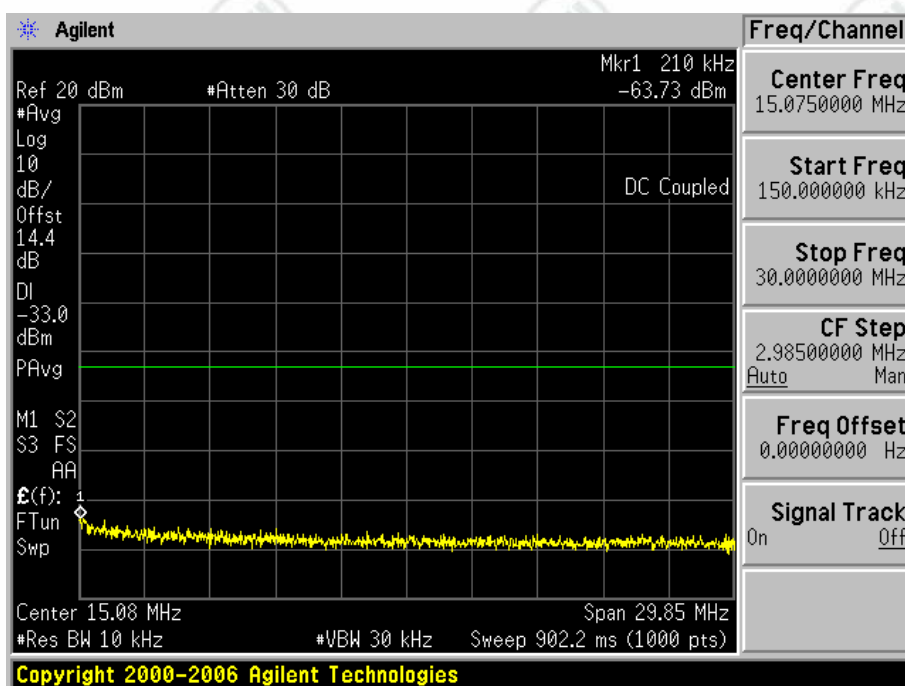
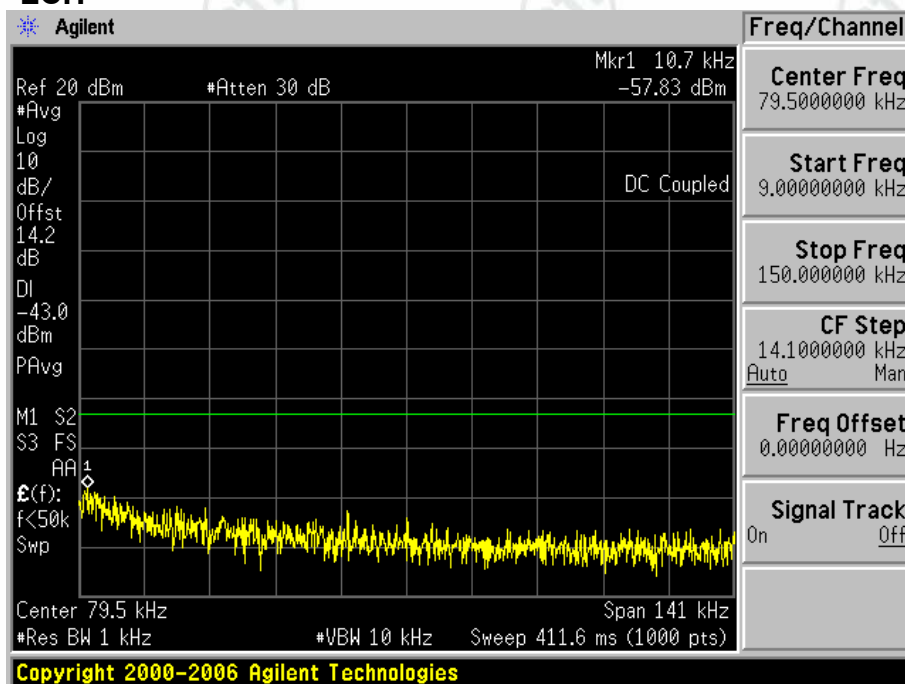
**Test Channel=HCH**

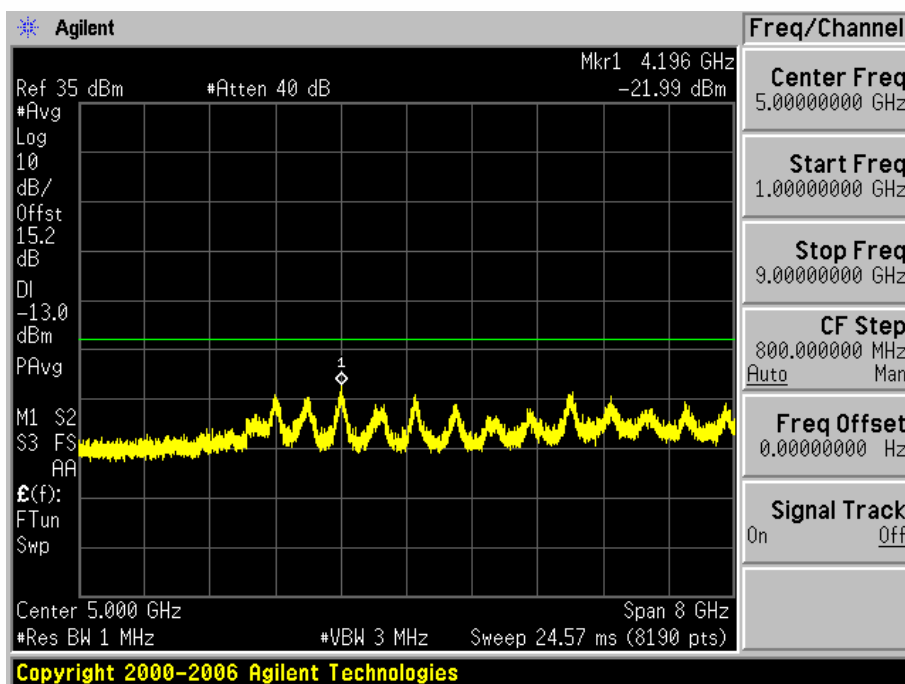
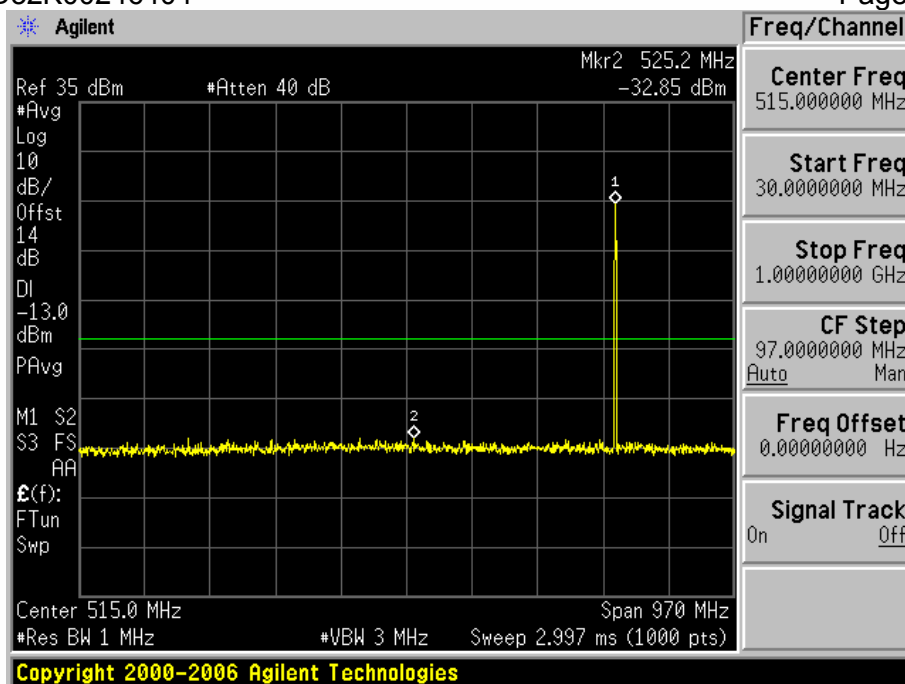




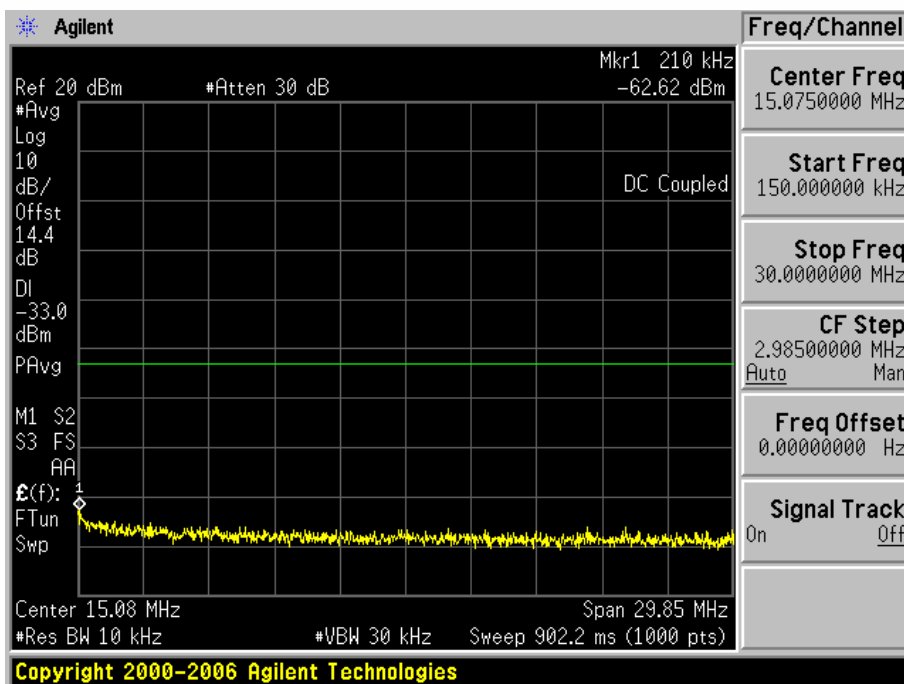
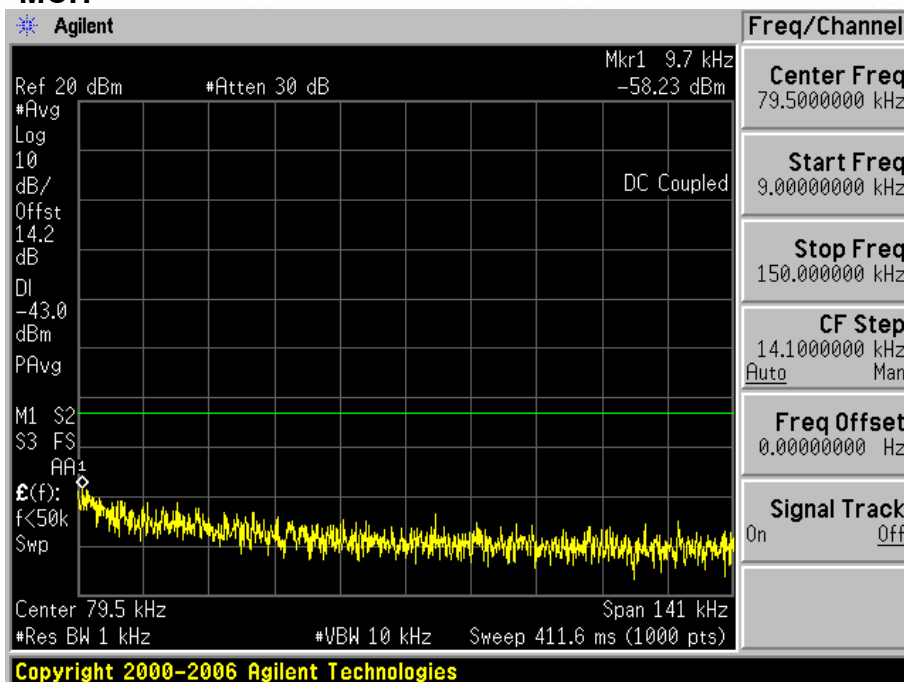
Test Mode=GSM/TM3

Test Channel=LCH

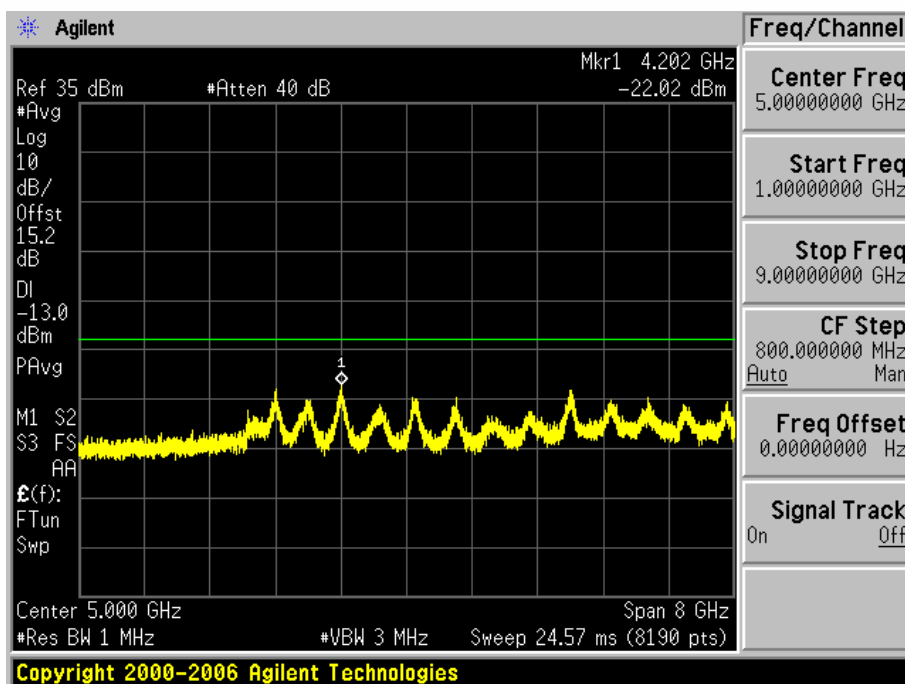
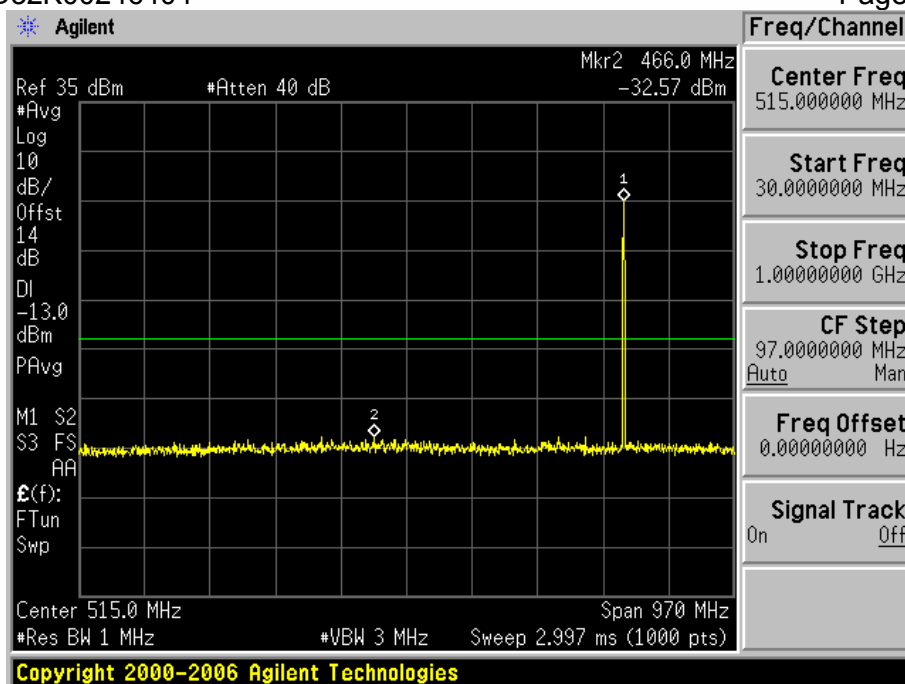




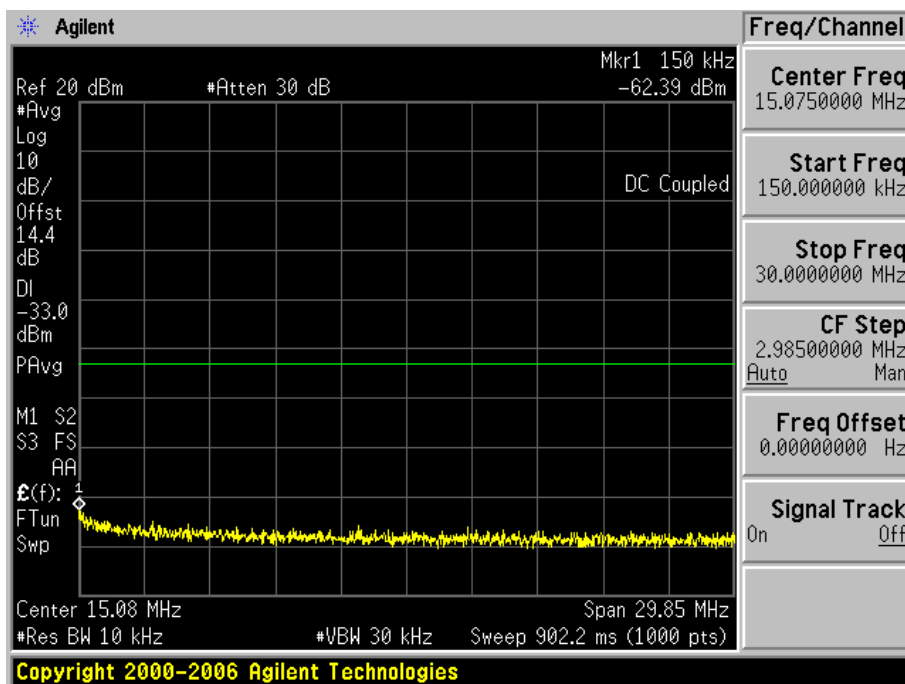
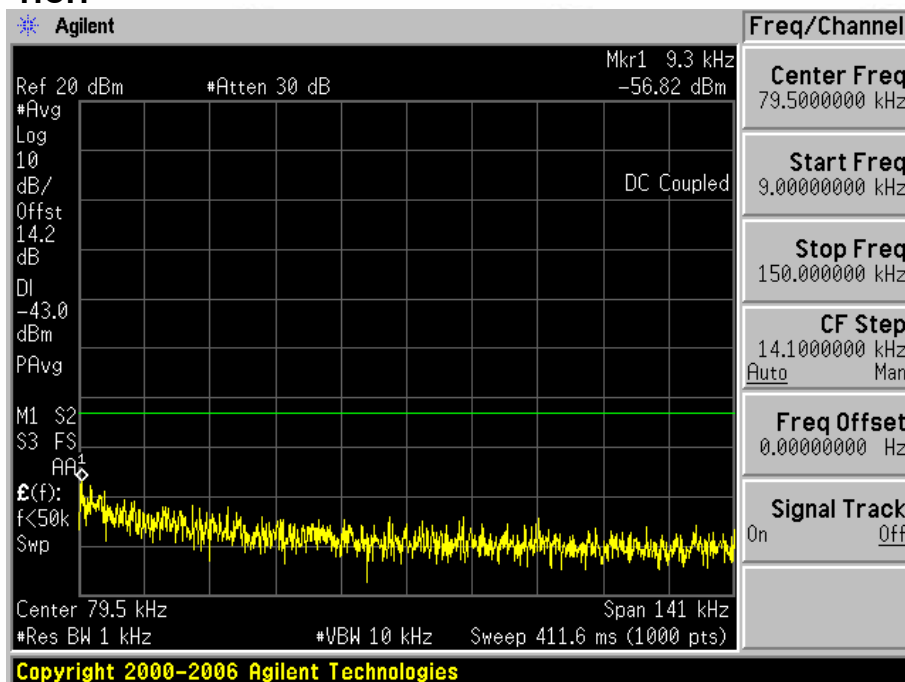
Test Channel=MCH

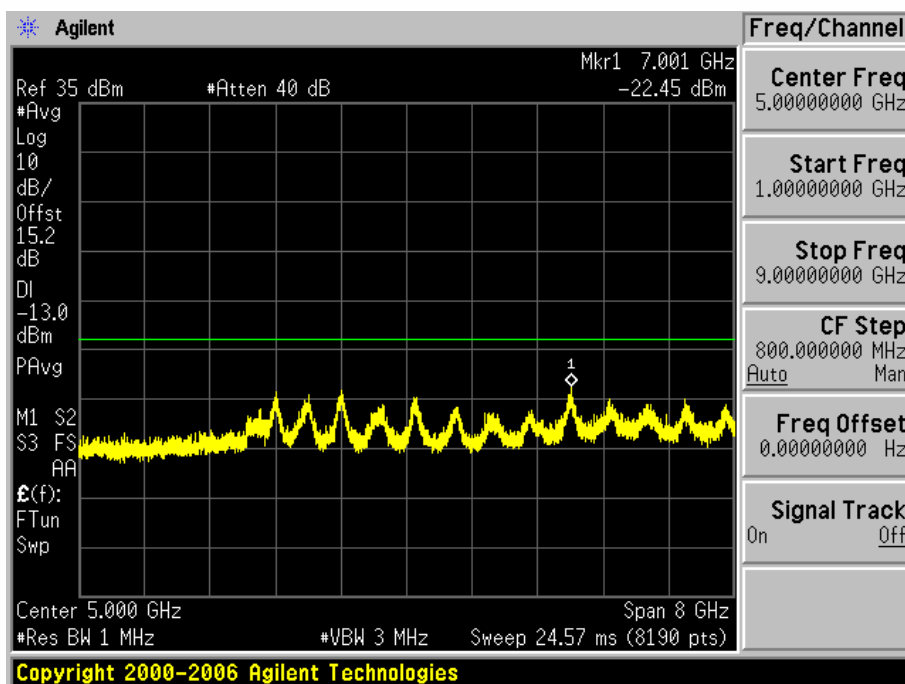
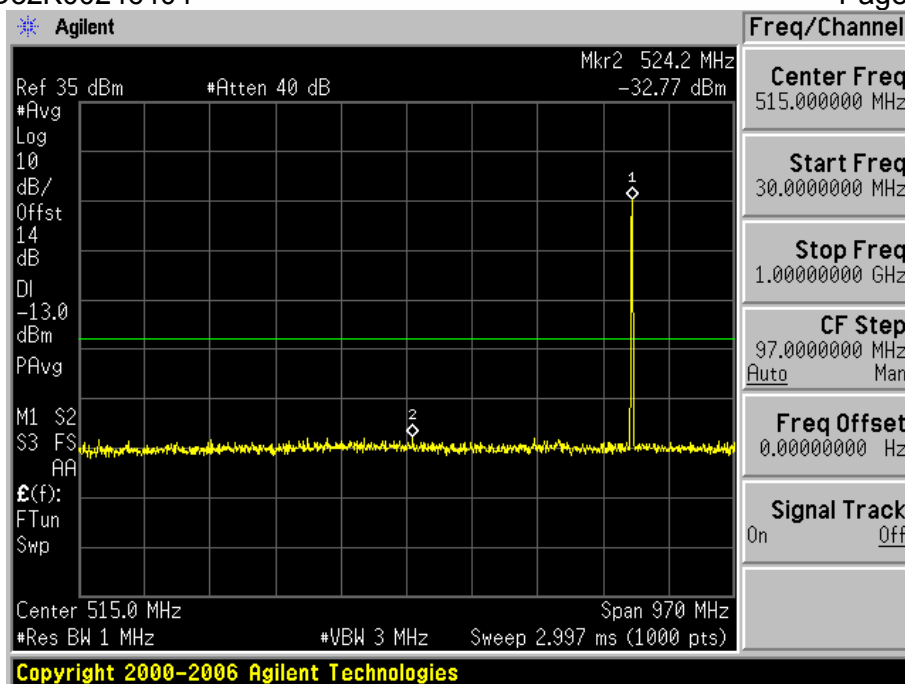






Test Channel=HCH





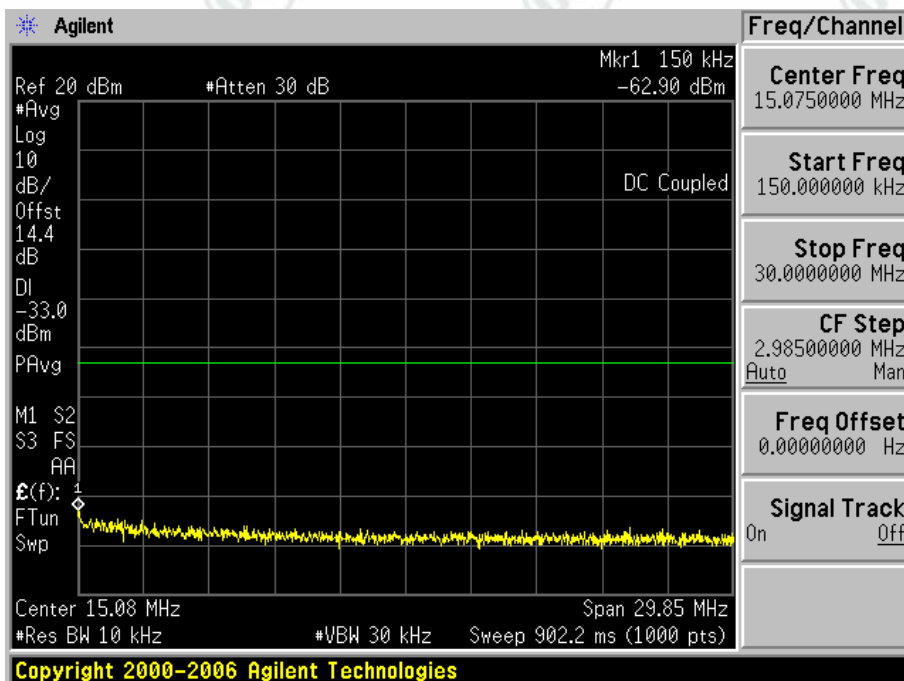
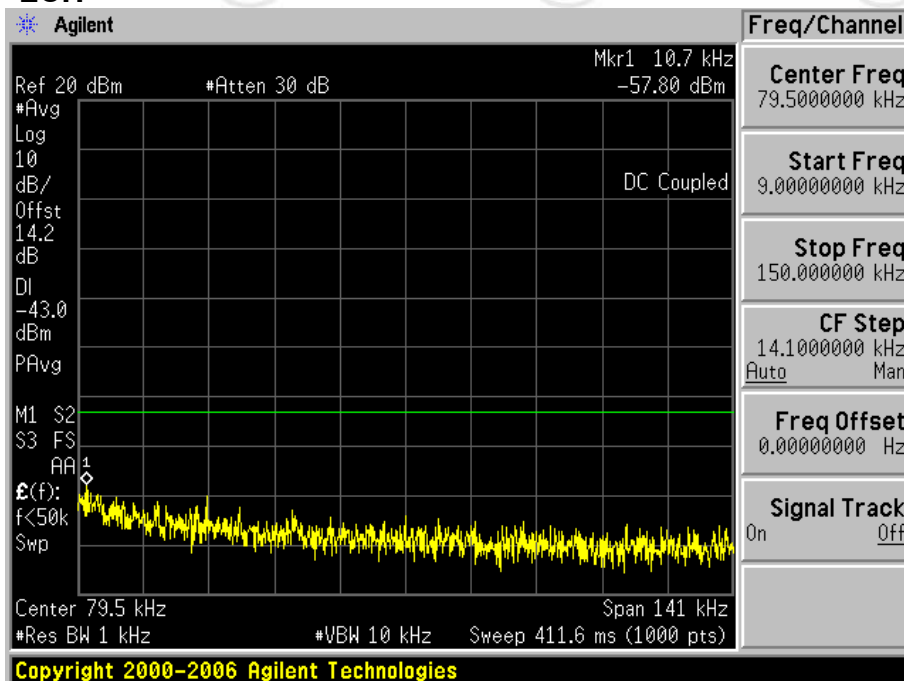
Report No.:EED32K00246404

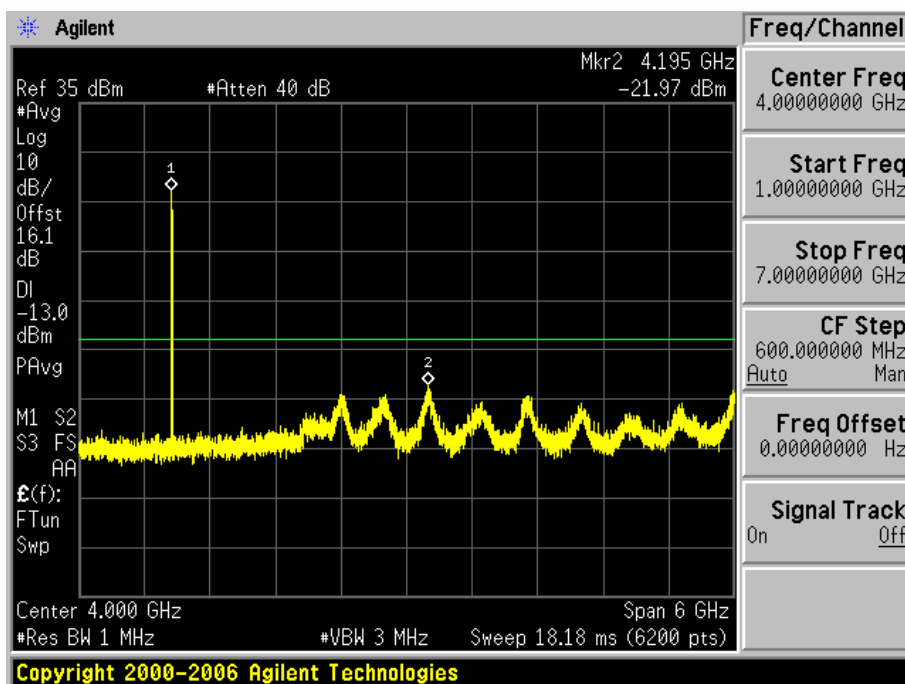
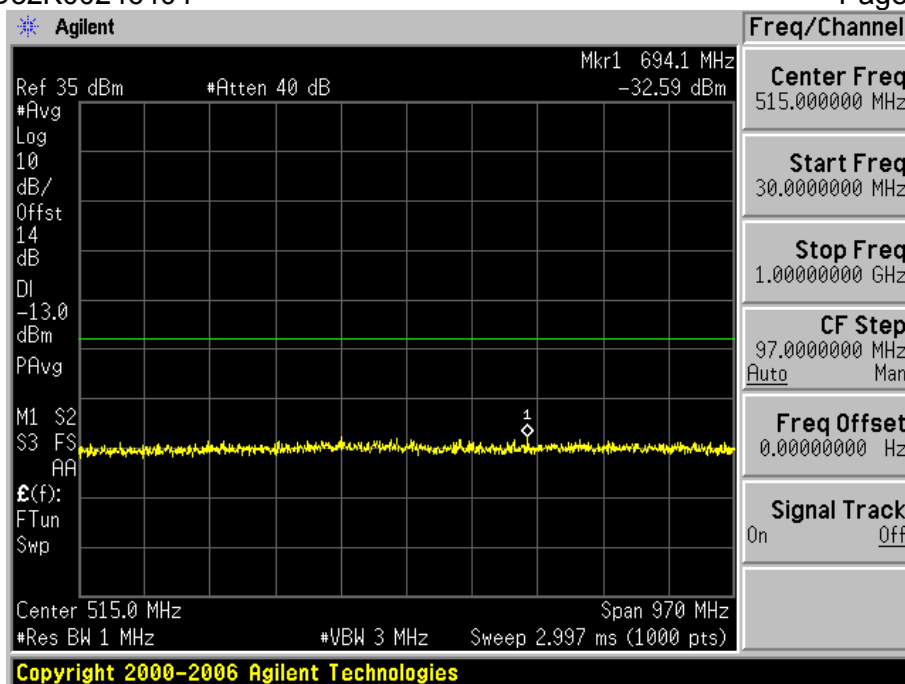
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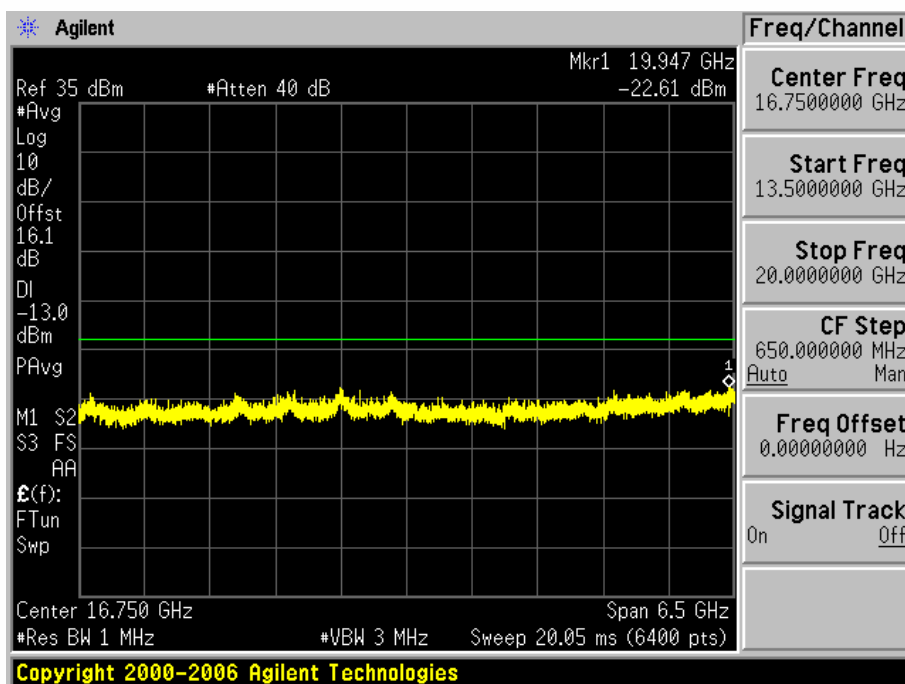
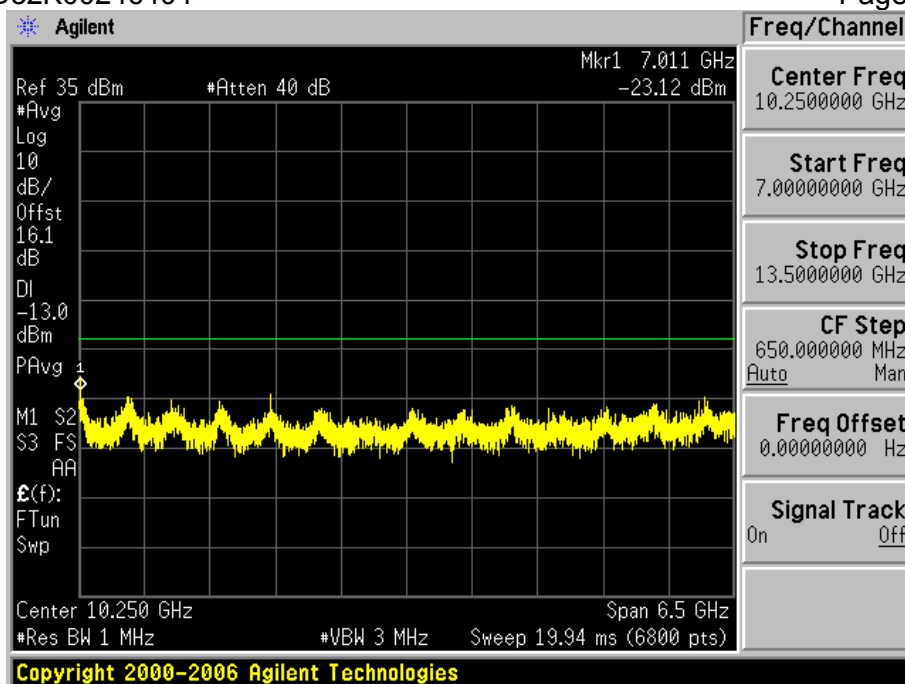
Test Band=GSM1900

Test Mode=GSM/TM1

Test Channel=LCH

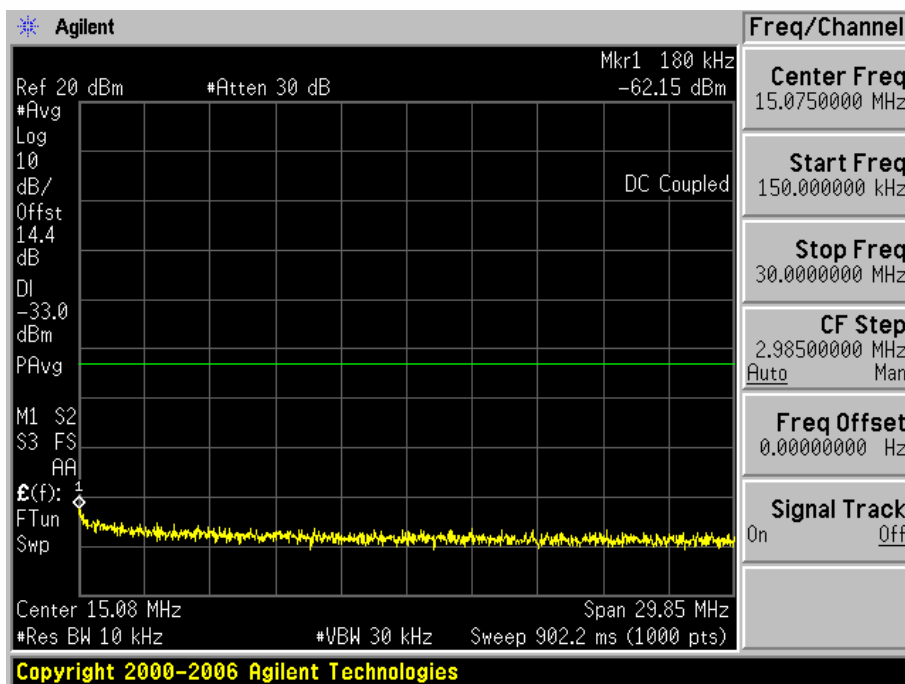
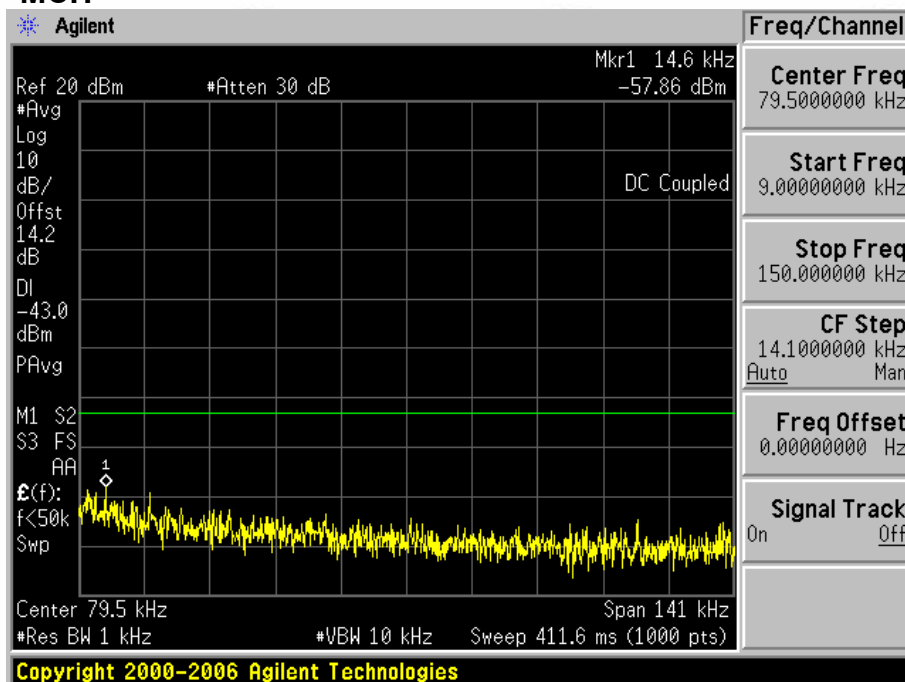


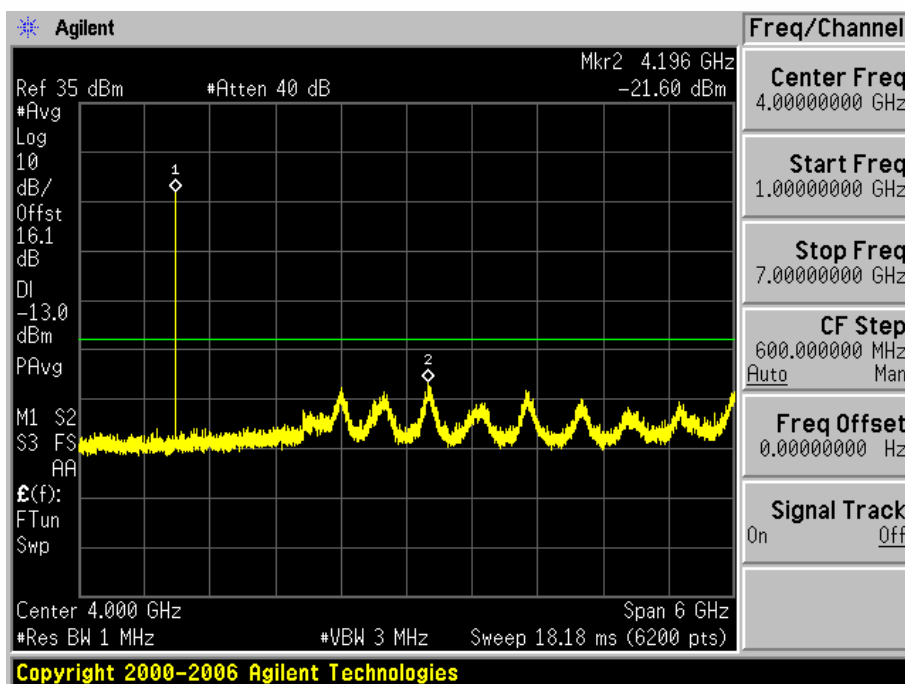
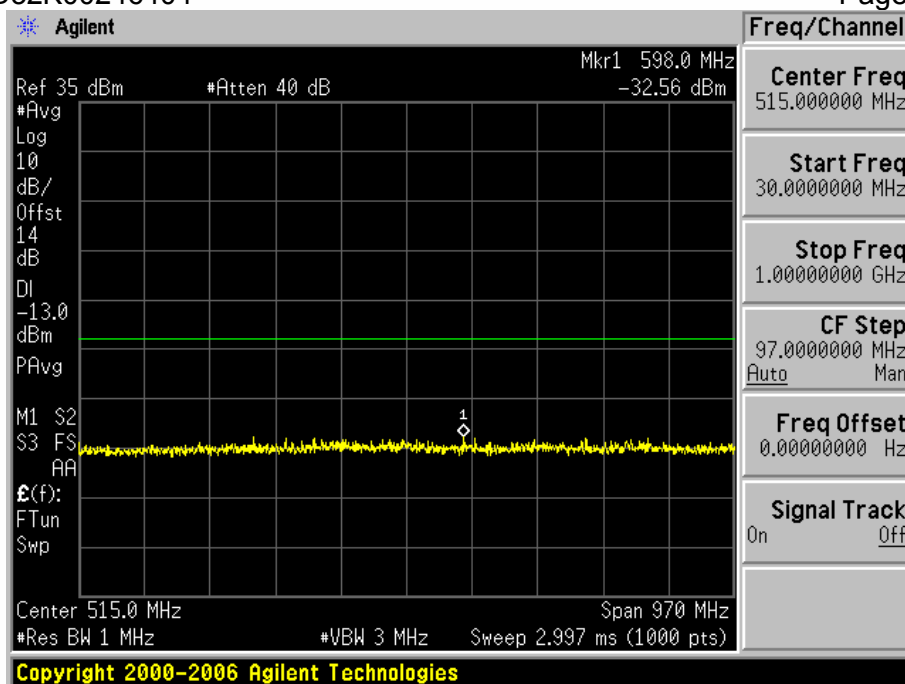


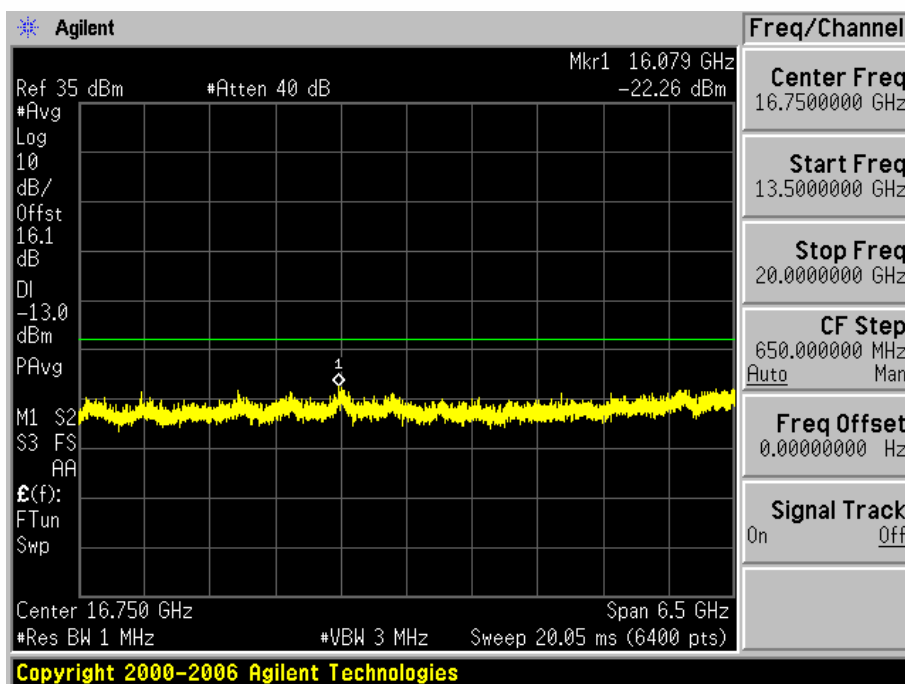
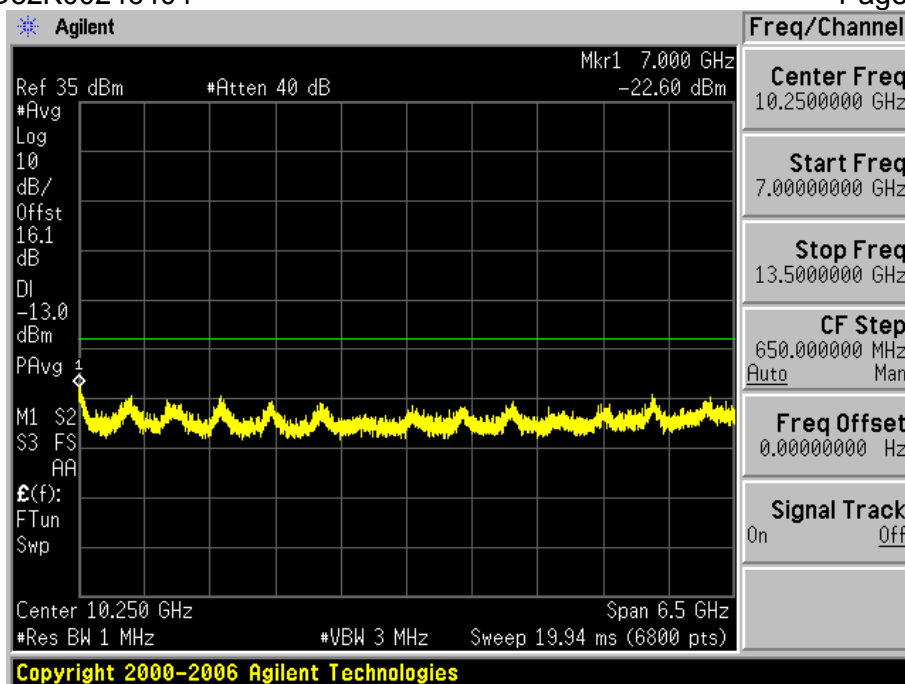




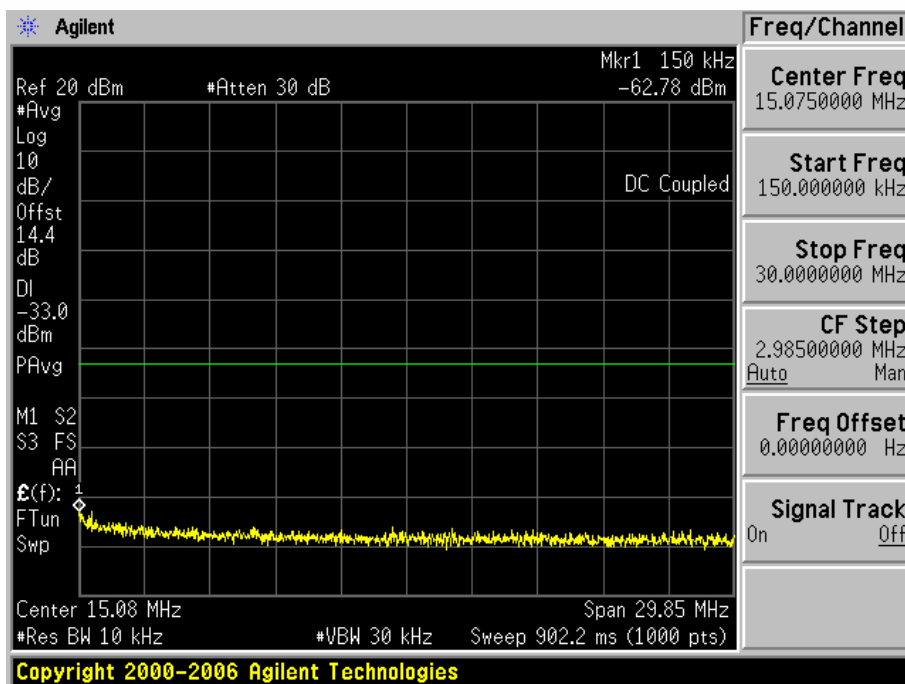
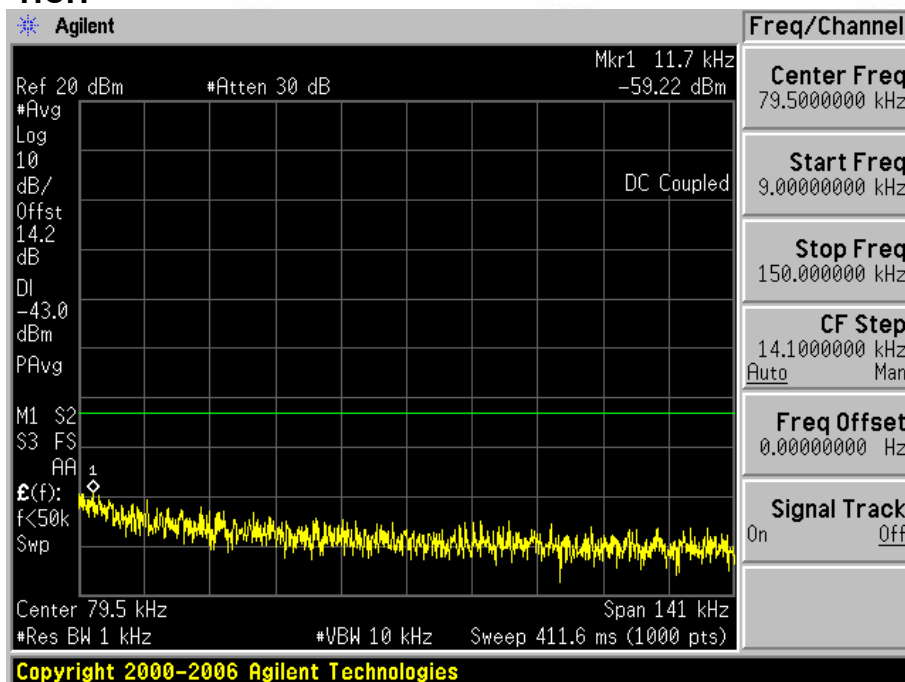
Test Channel=MCH

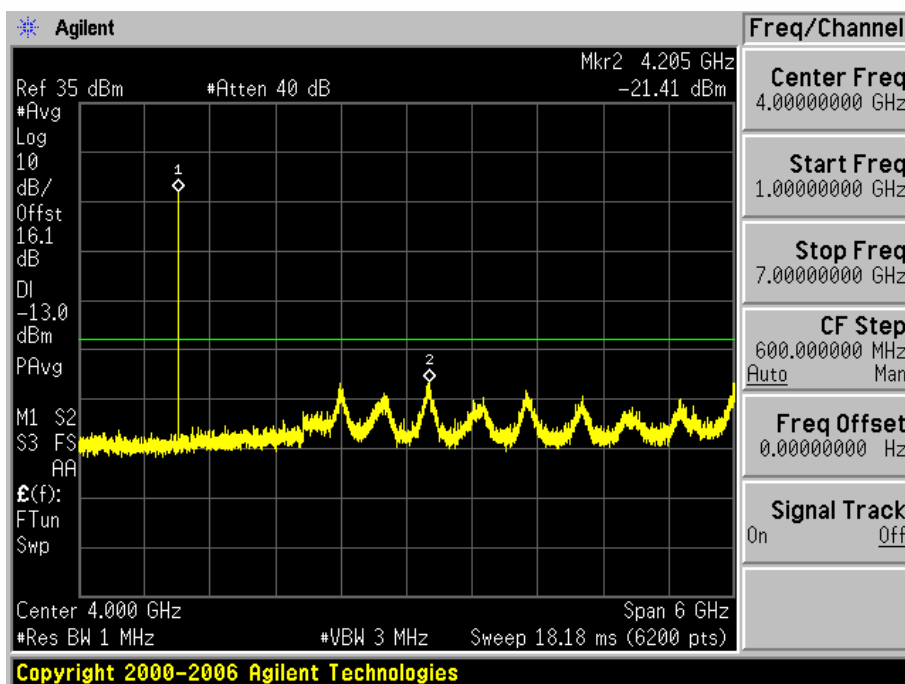
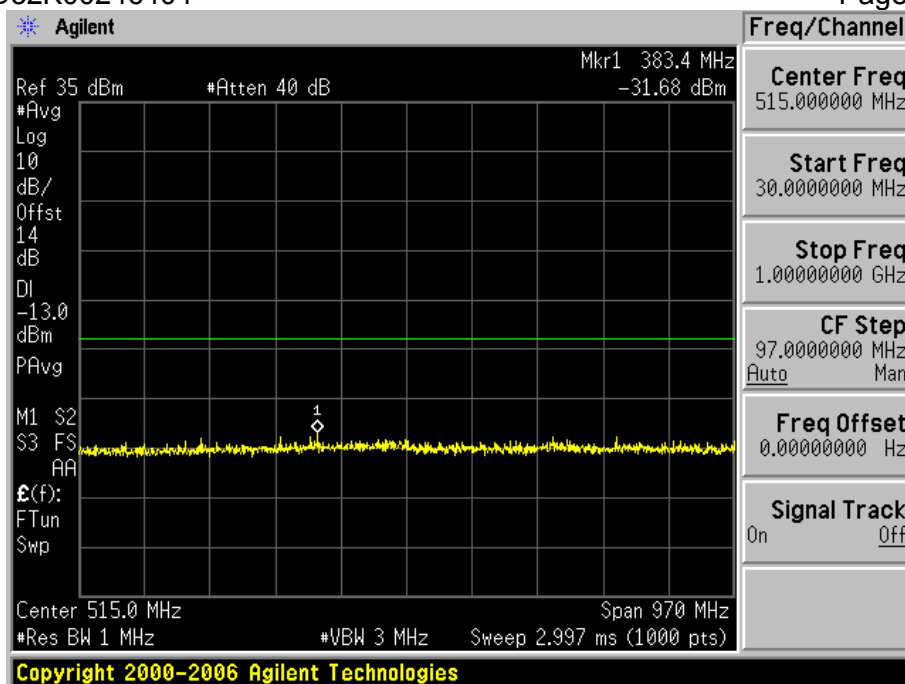


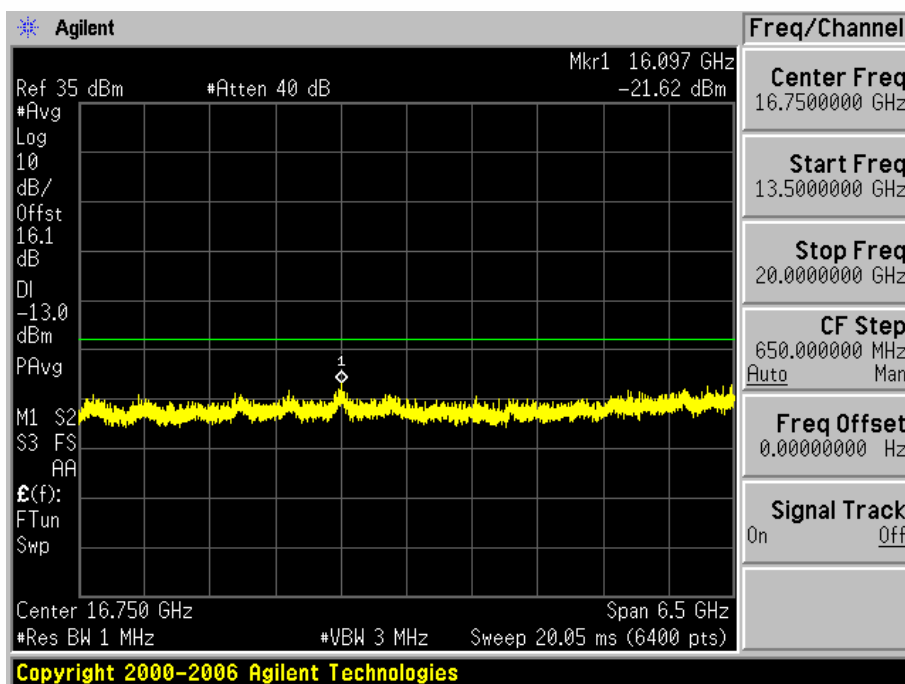
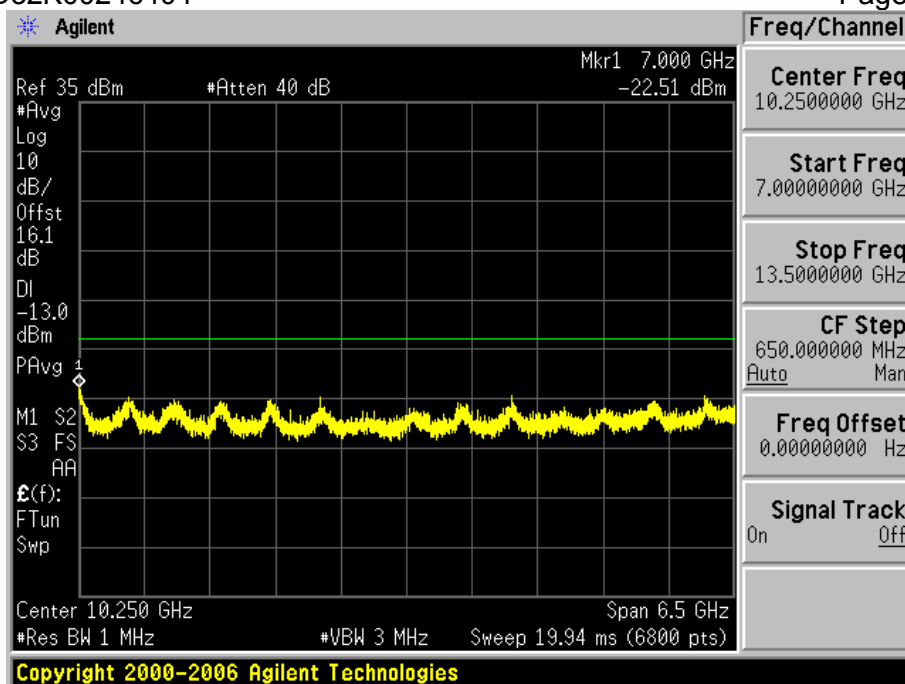




Test Channel=HCH



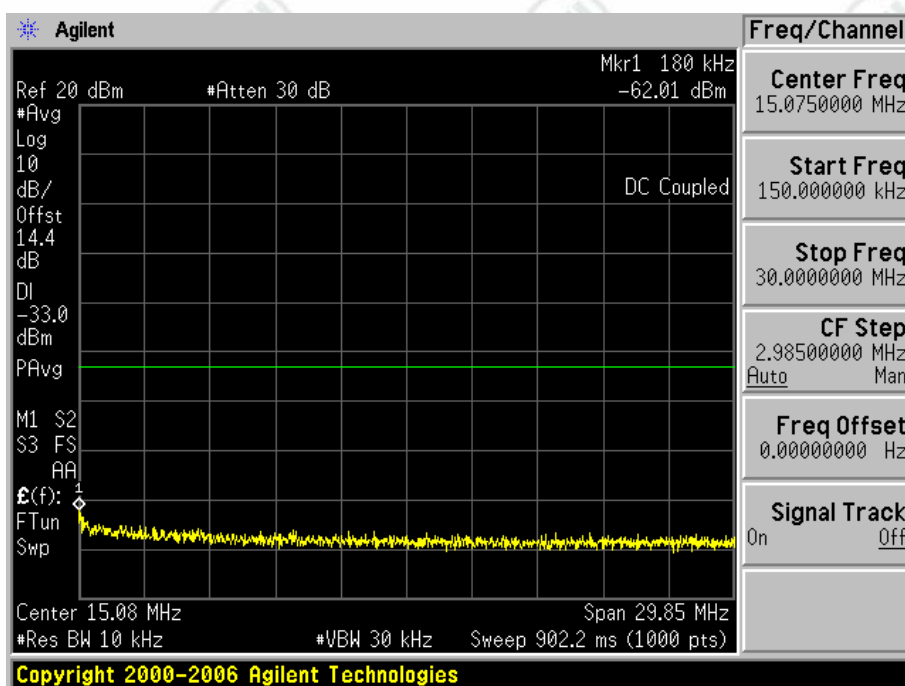
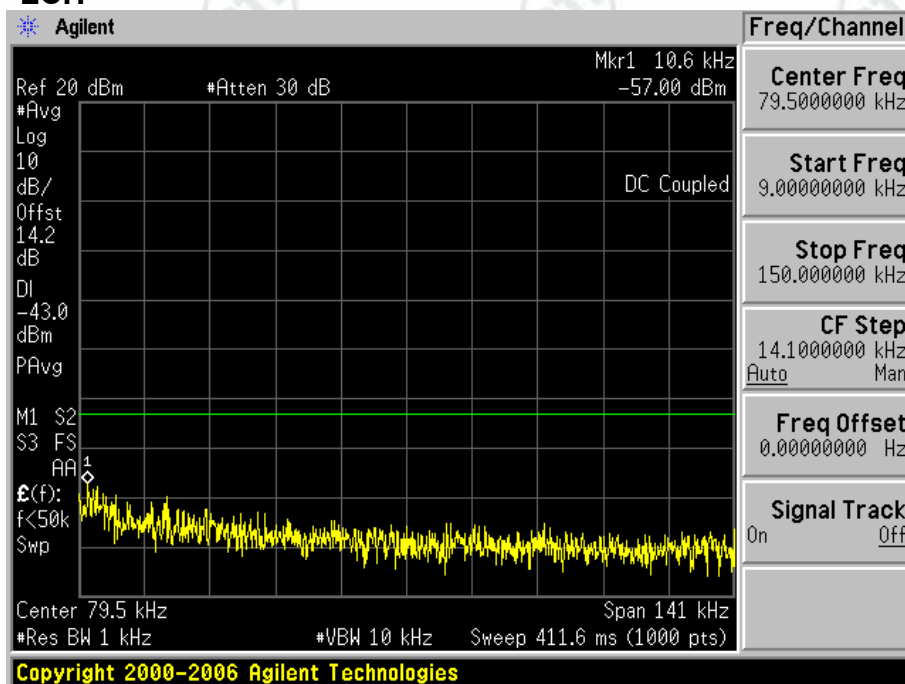


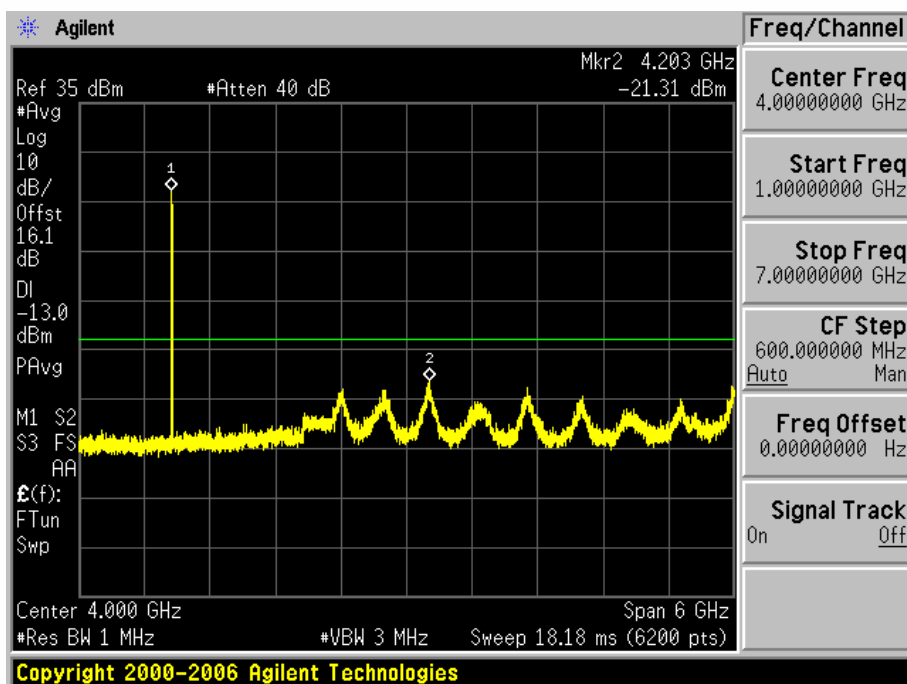
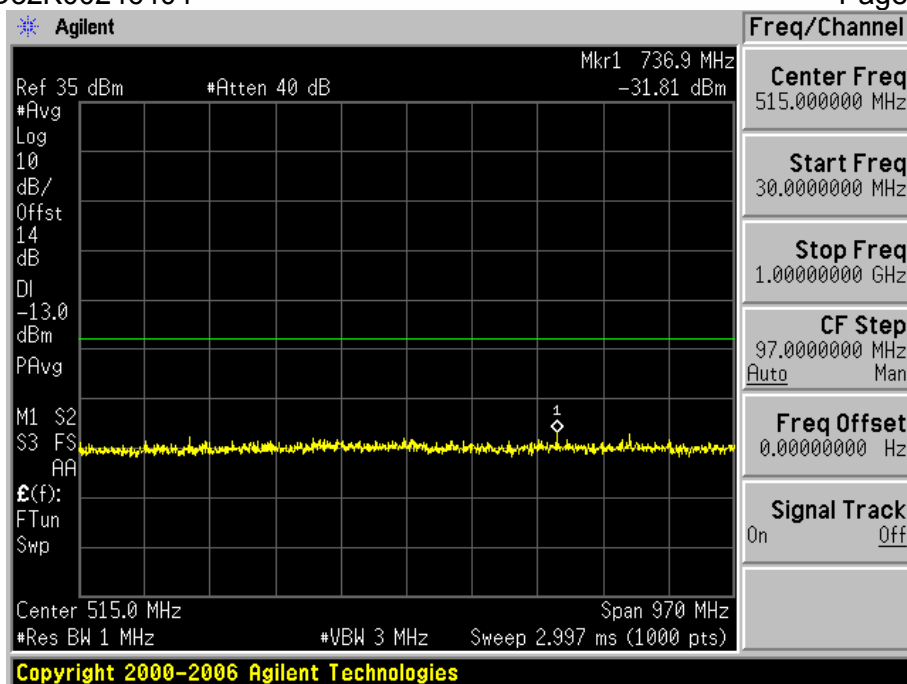


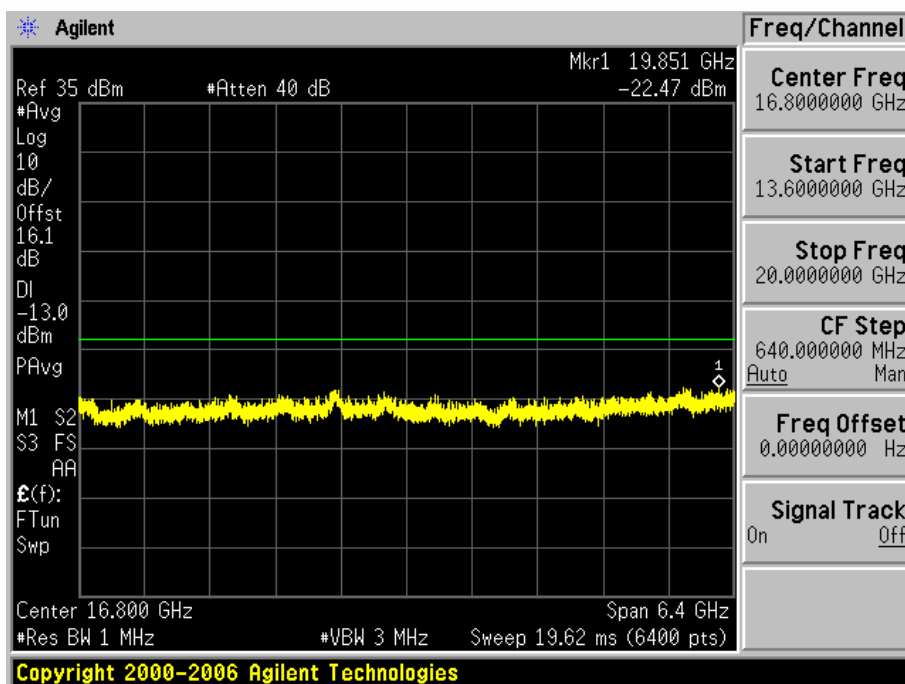
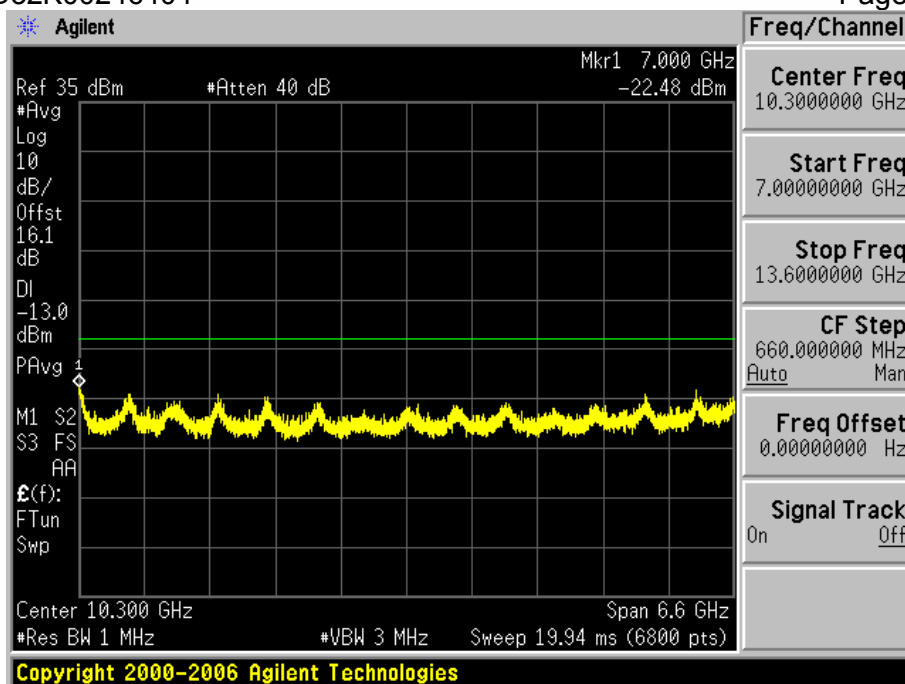


Test Mode=GSM/TM2

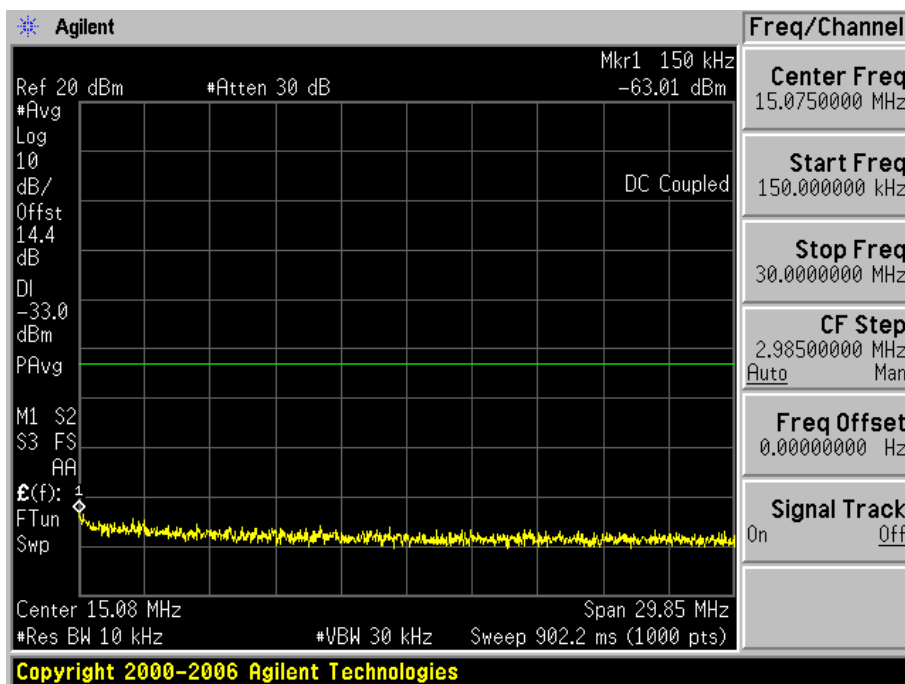
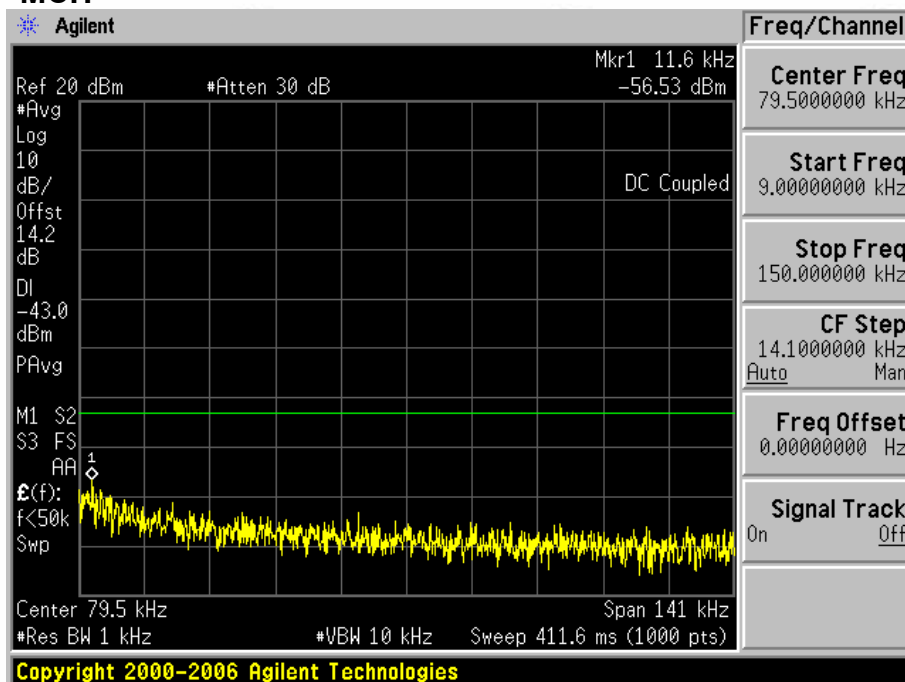
Test Channel=LCH

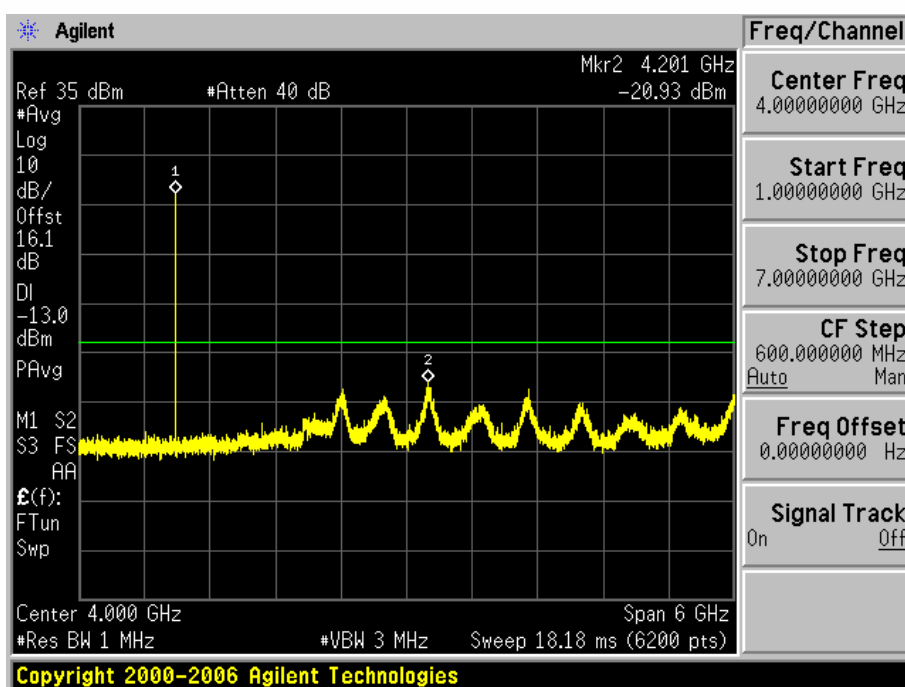
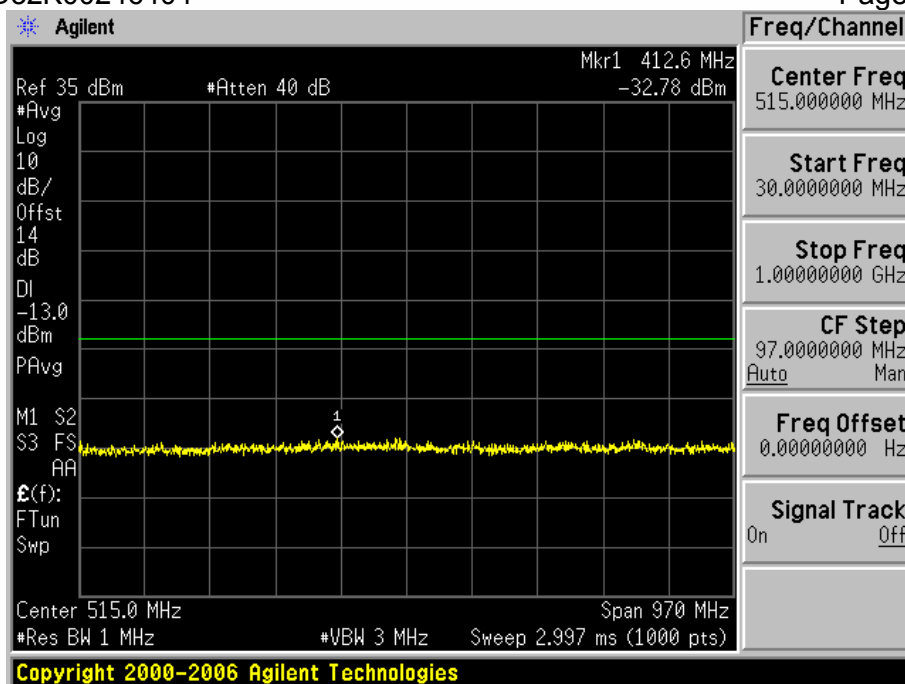


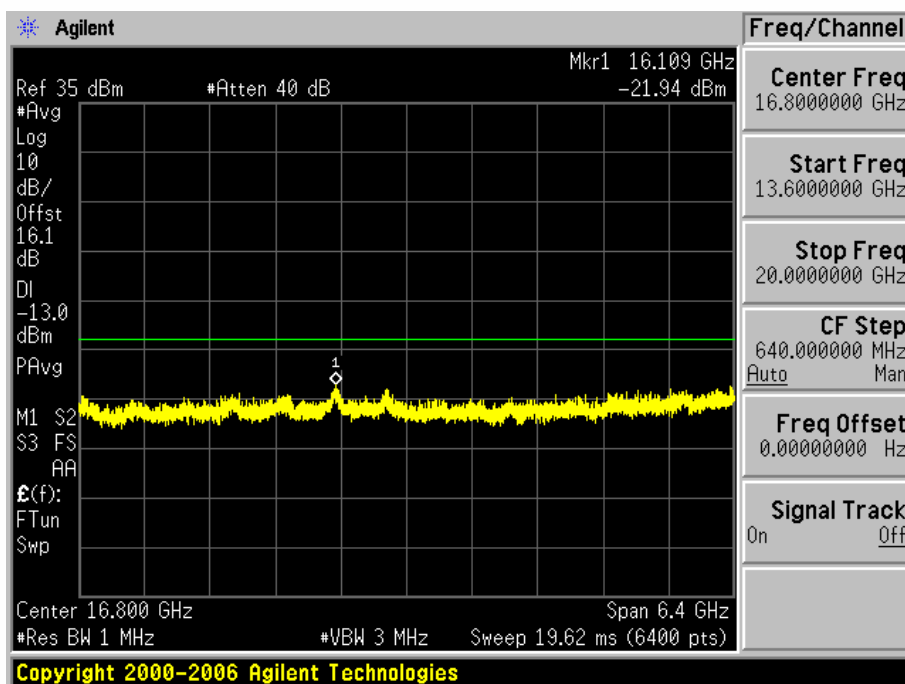
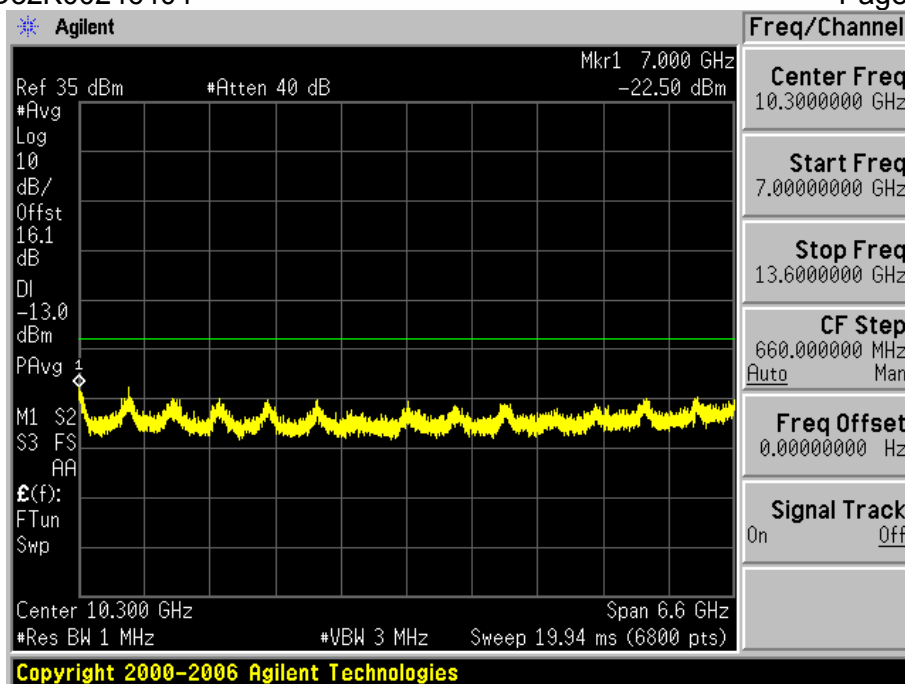




Test Channel=MCH

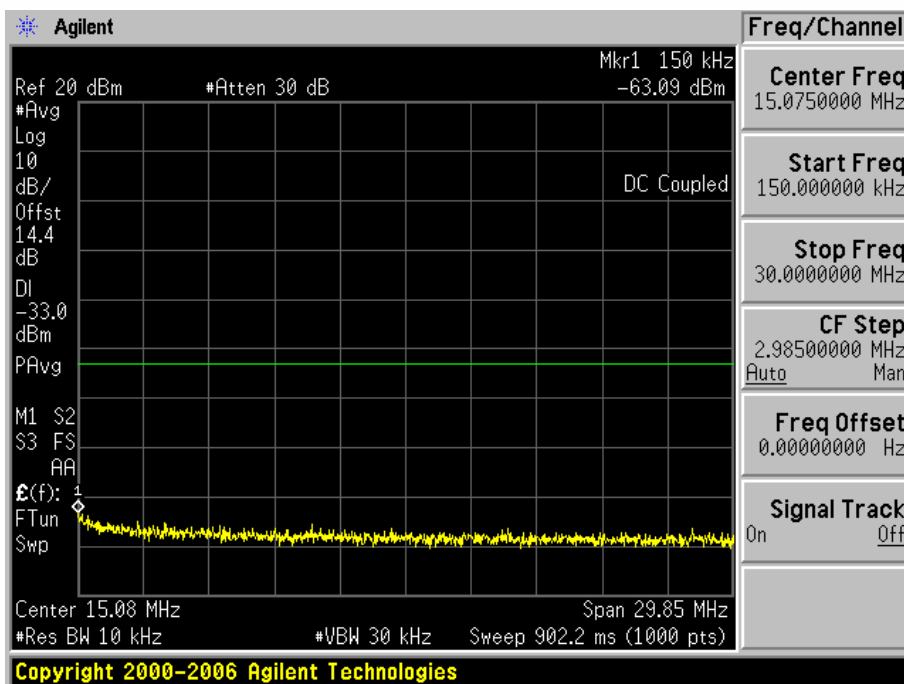
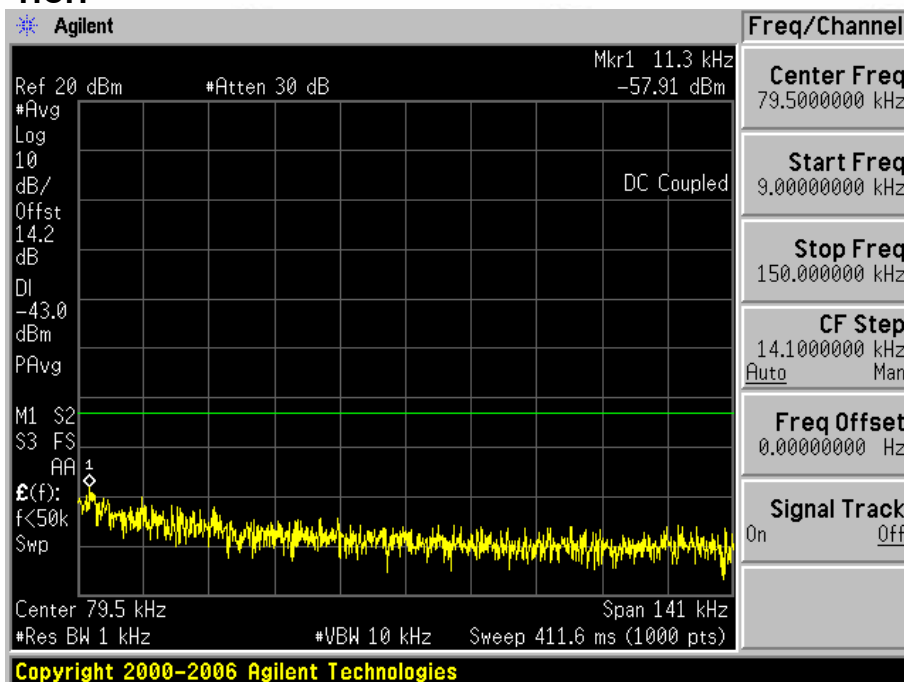


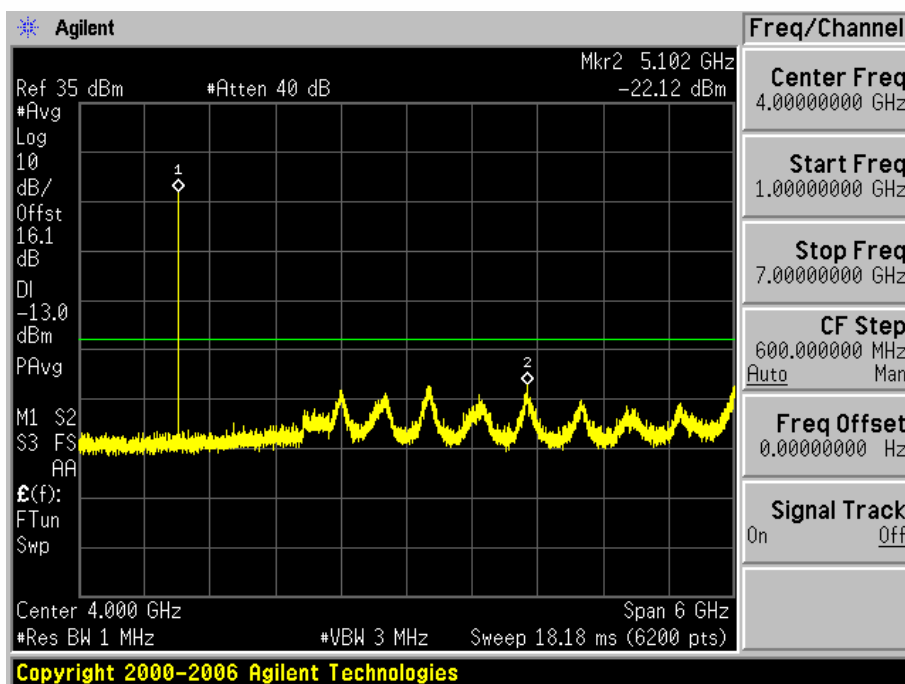
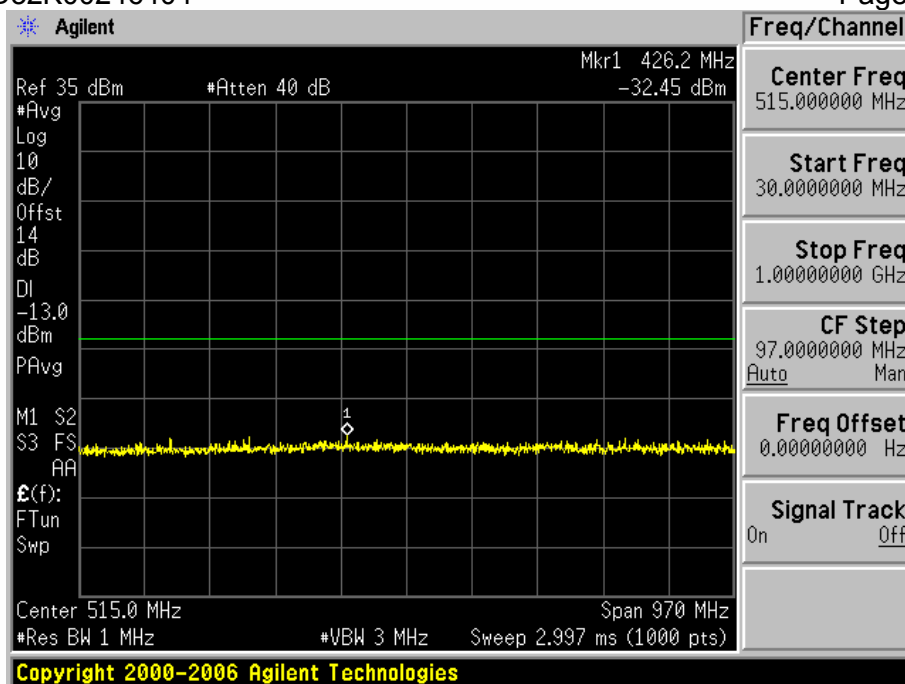


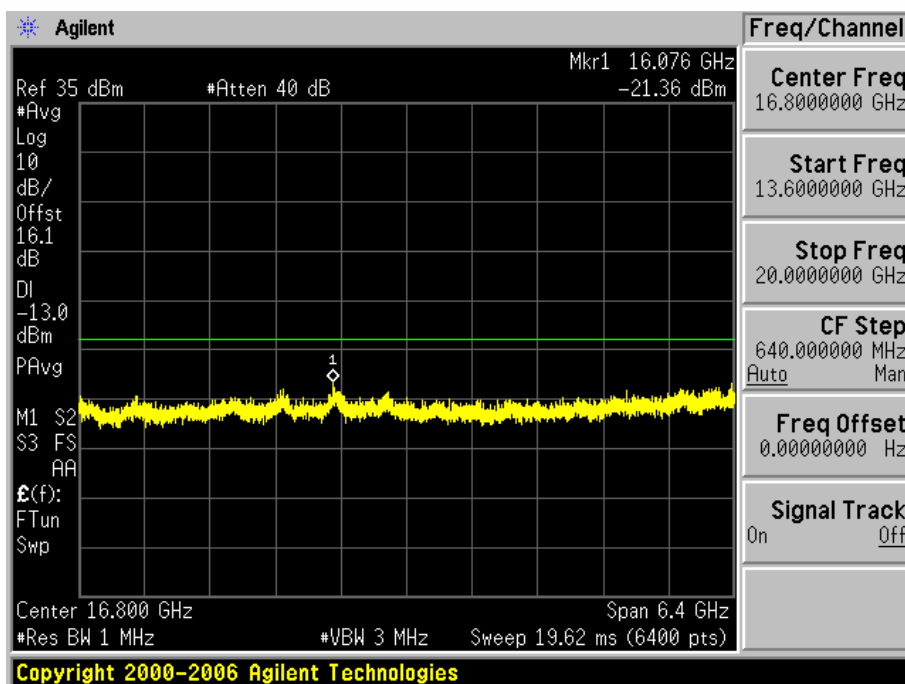
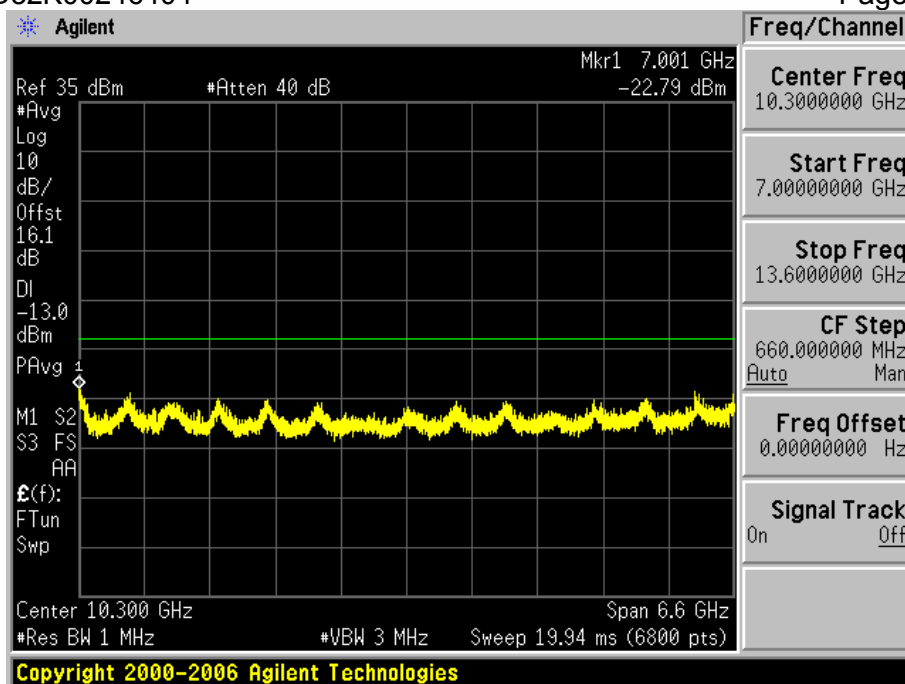




Test Channel=HCH

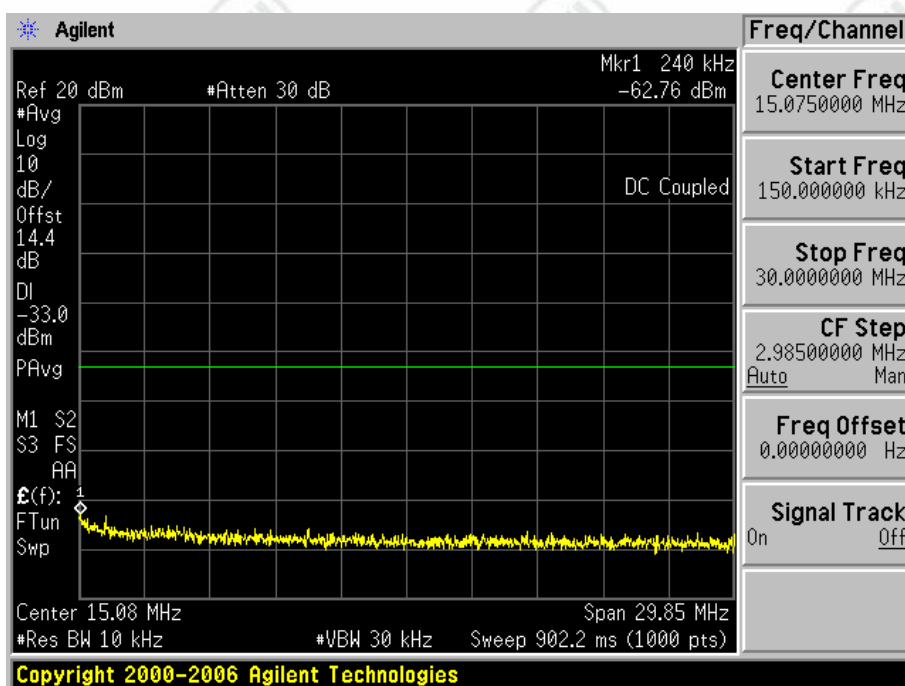
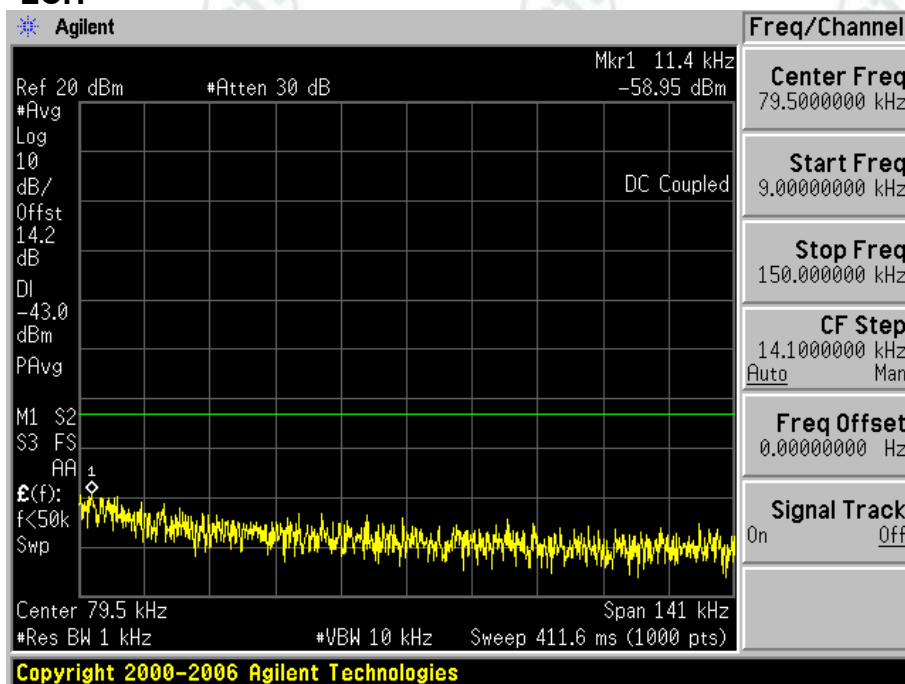


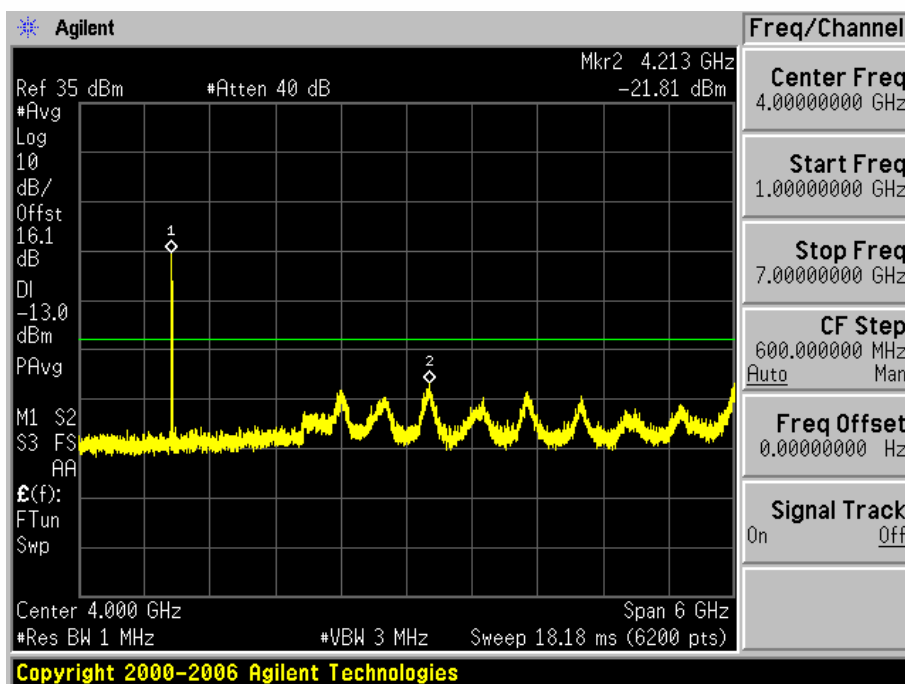
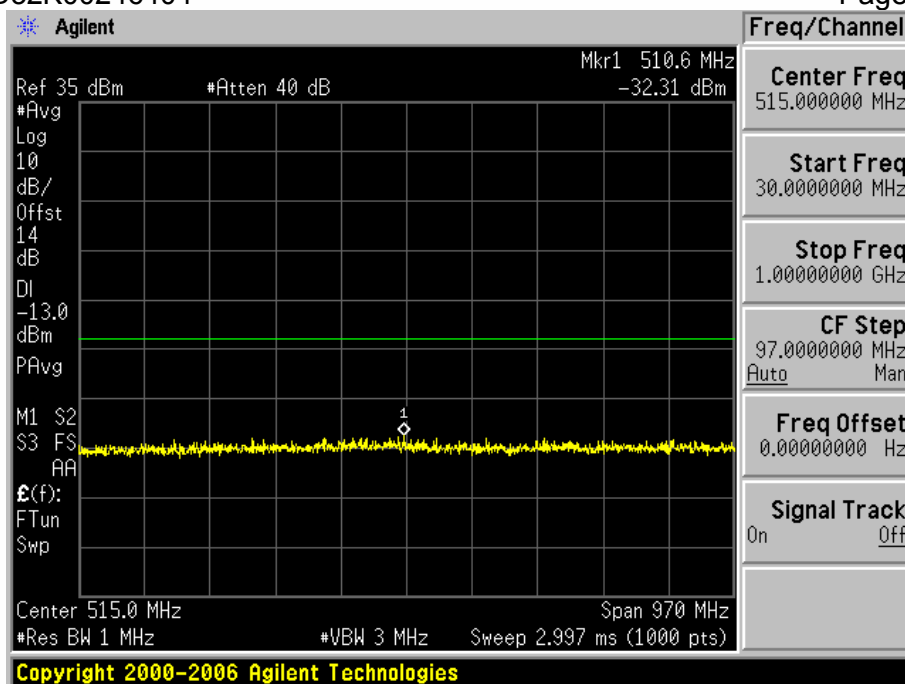


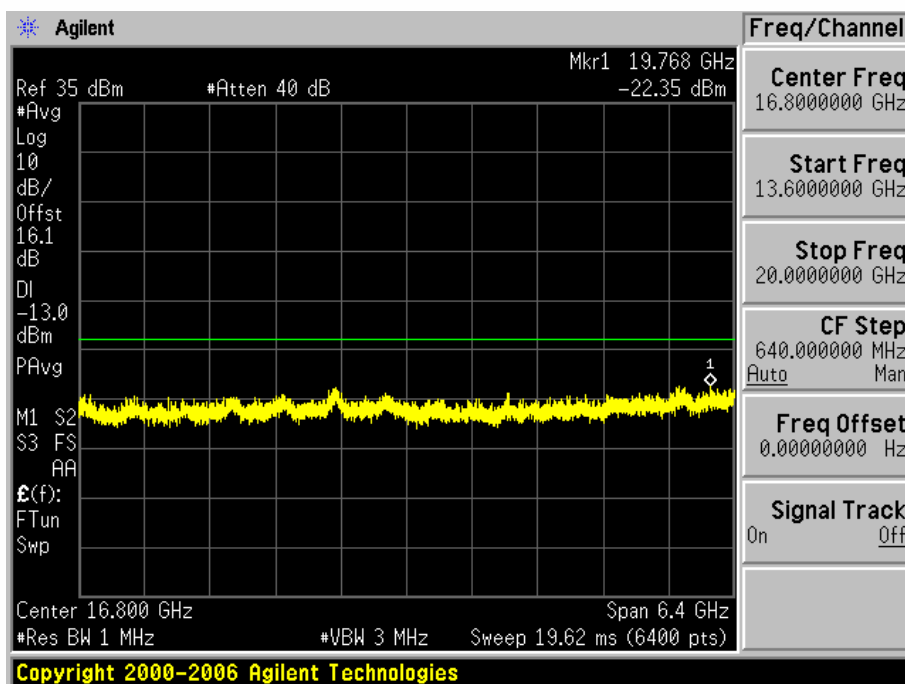
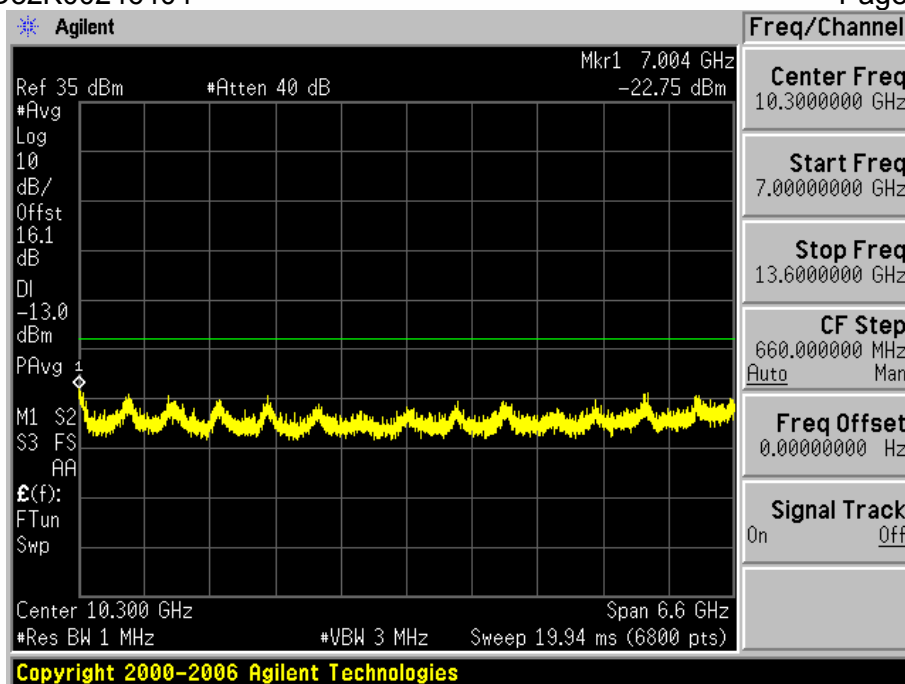


Test Mode=GSM/TM3

Test Channel=LCH

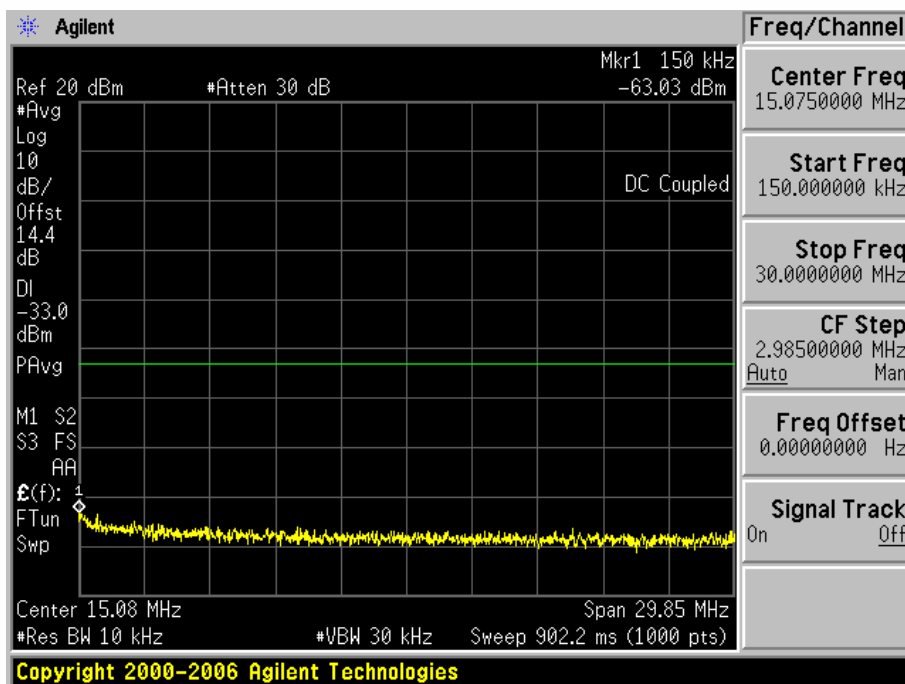
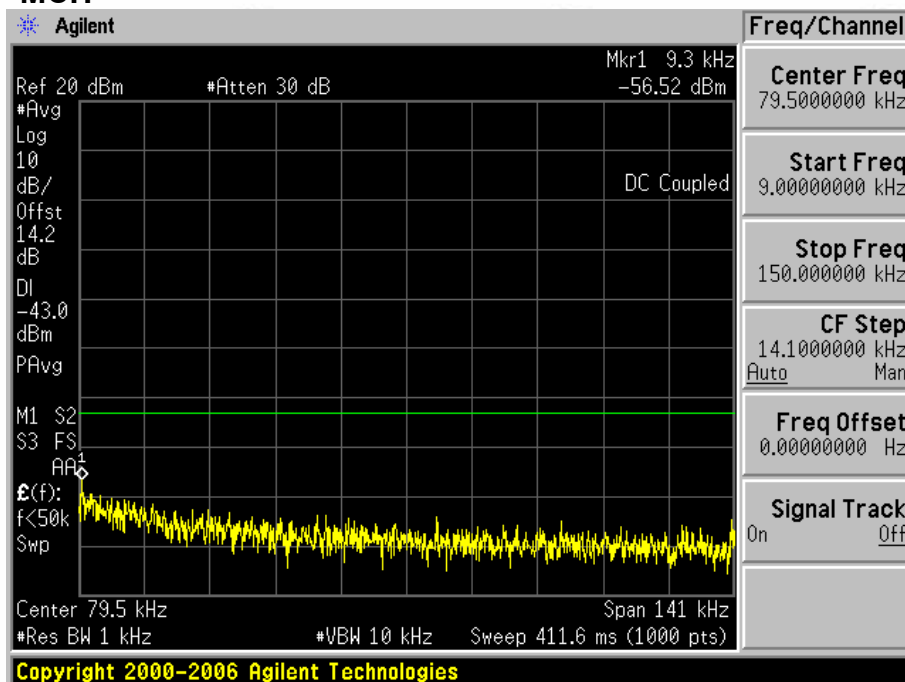


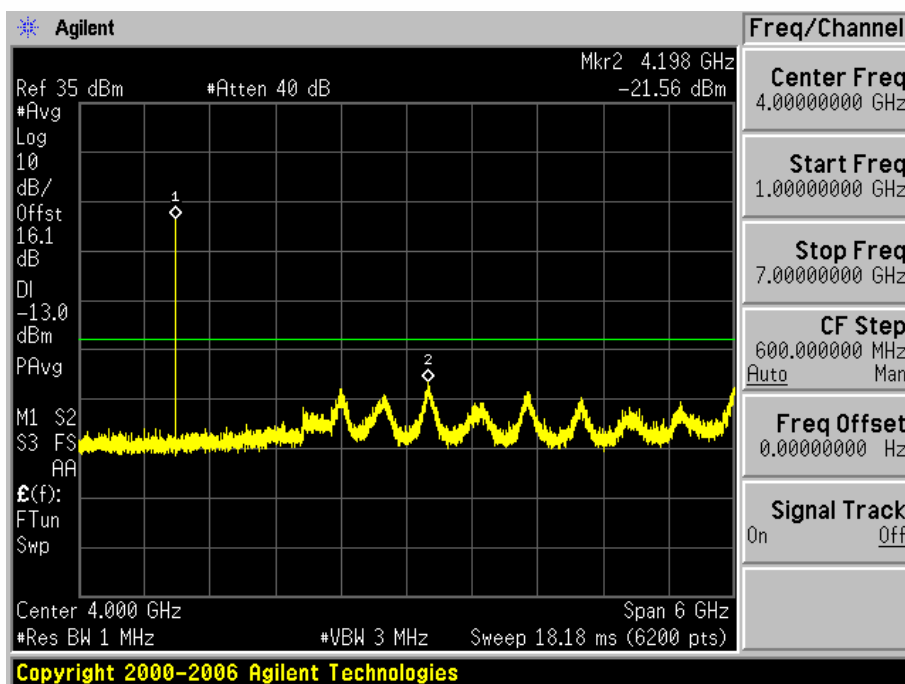
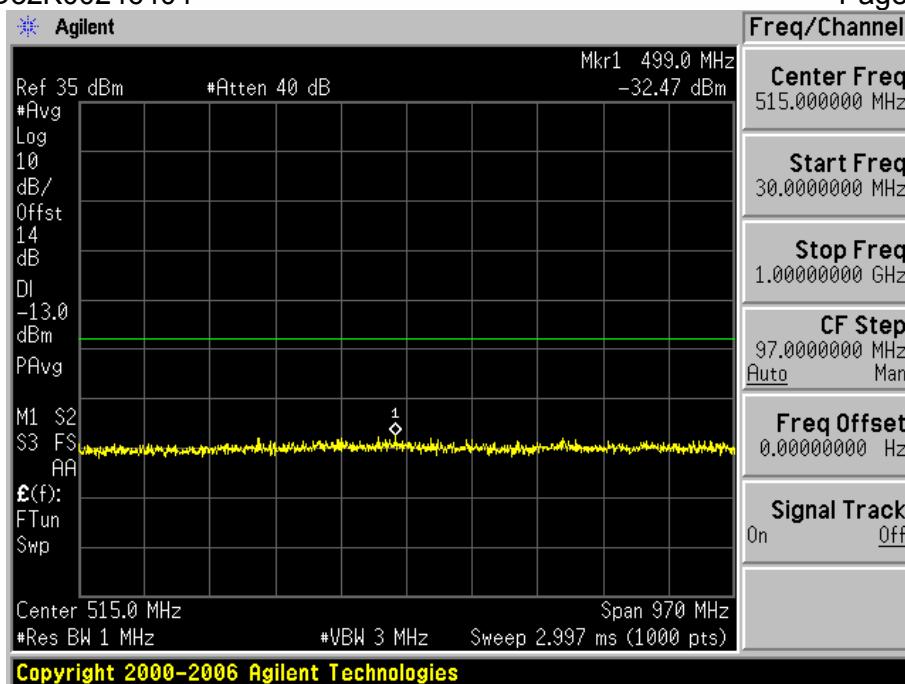


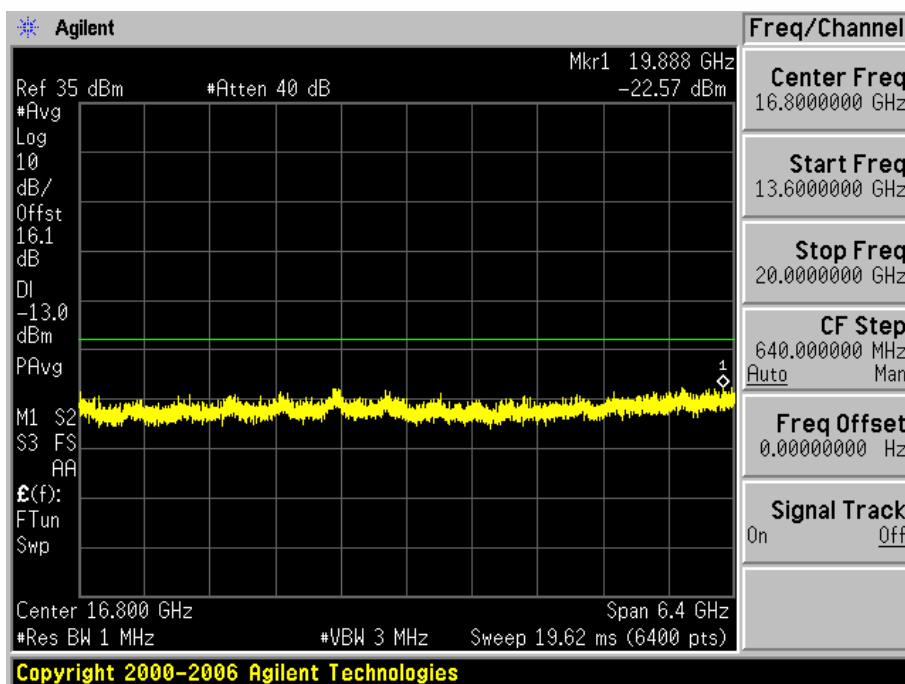
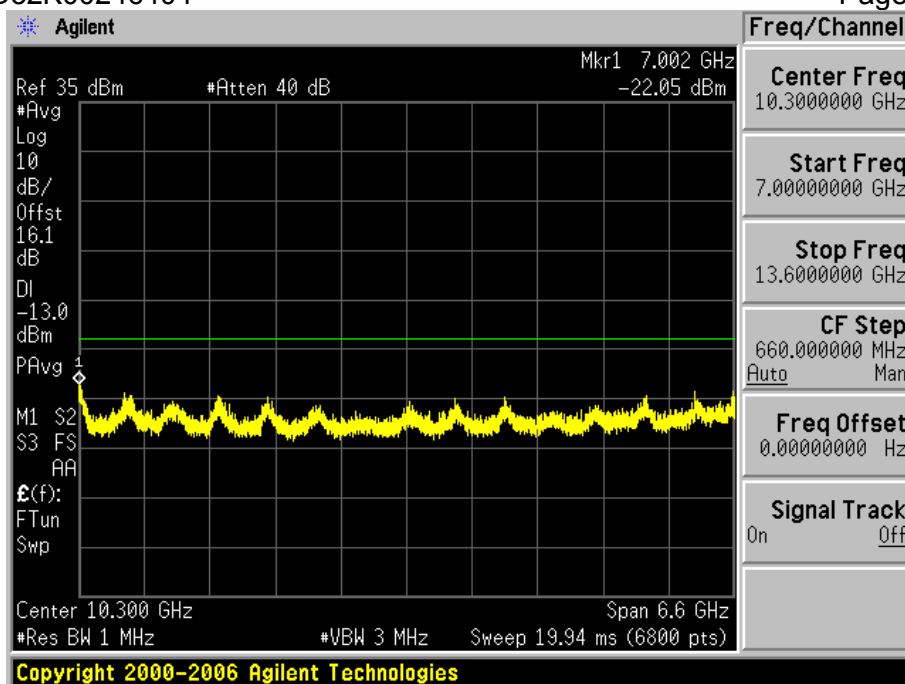




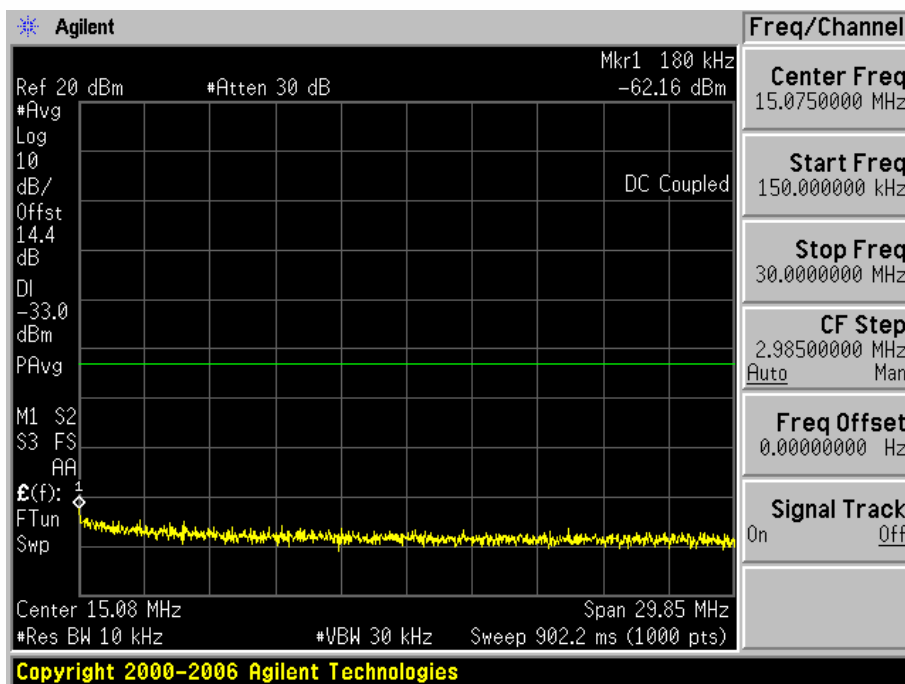
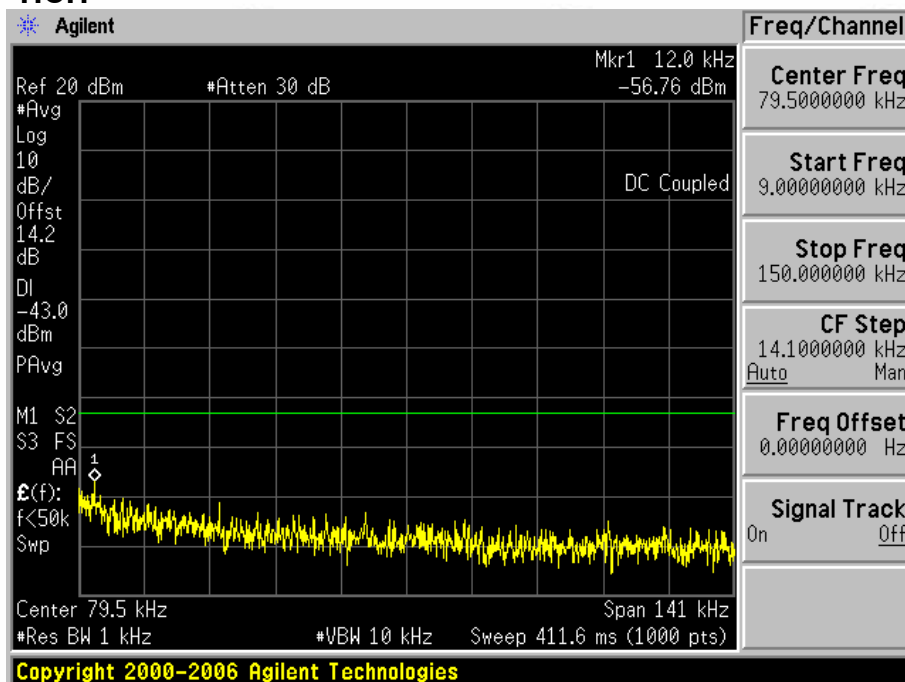
Test Channel=MCH

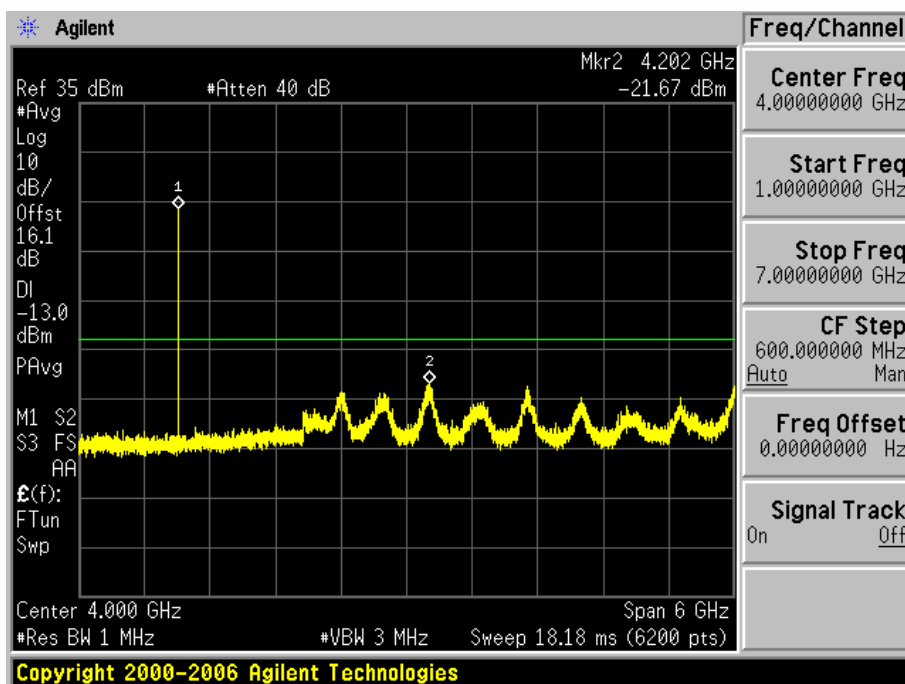
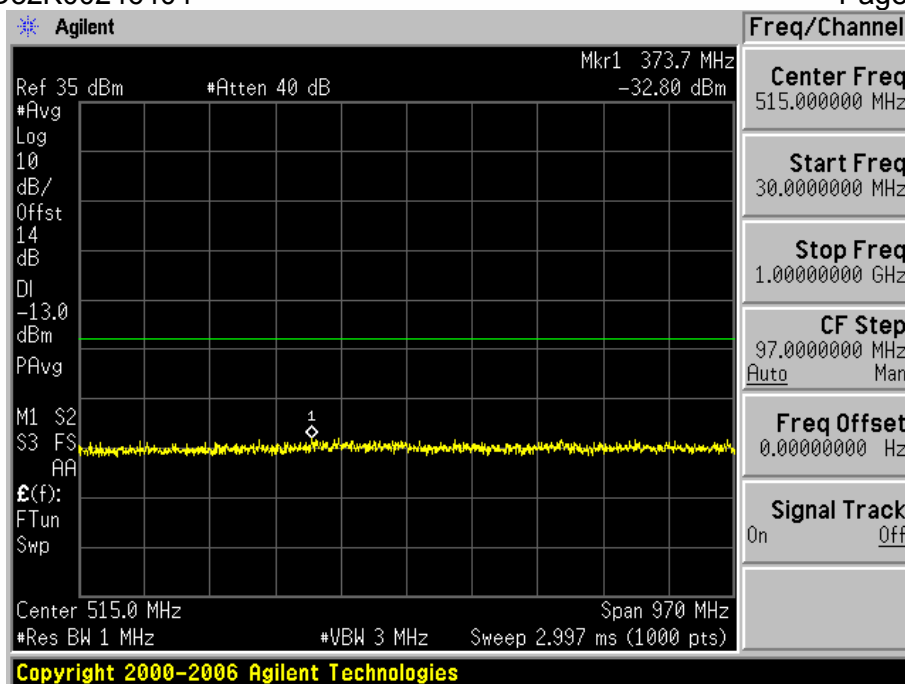


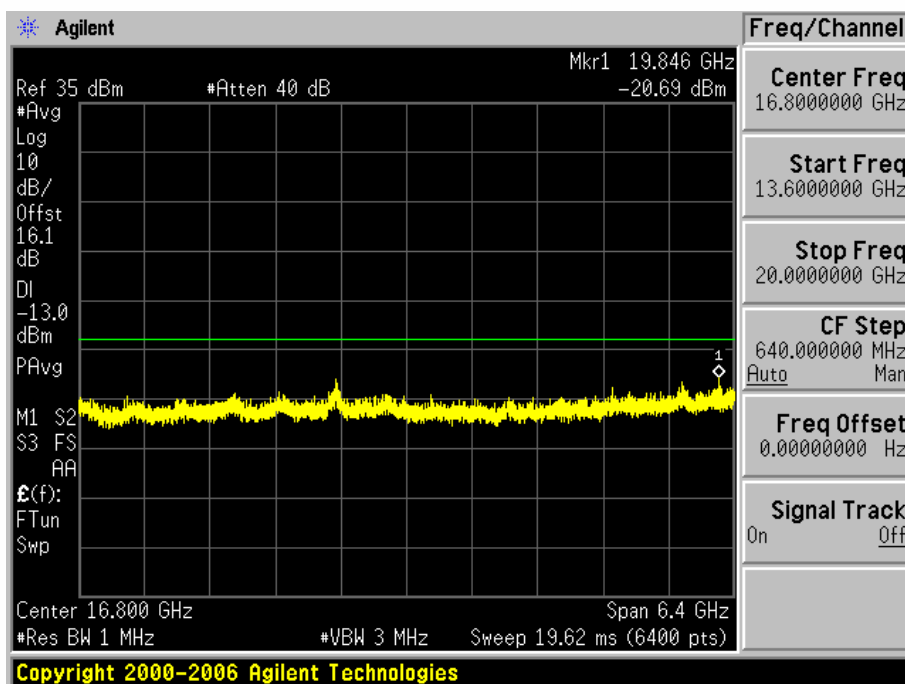
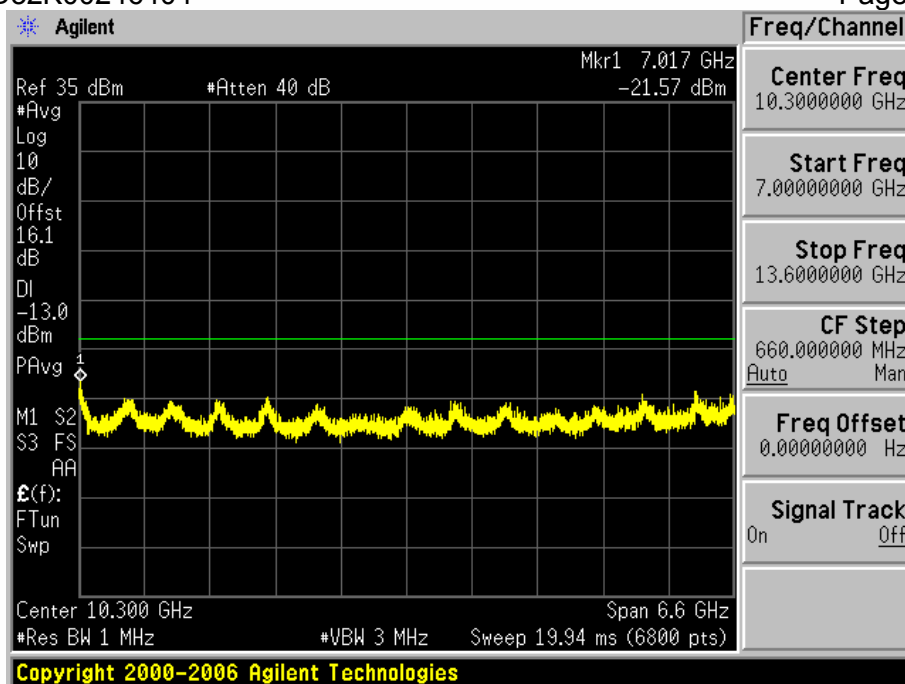




Test Channel=HCH









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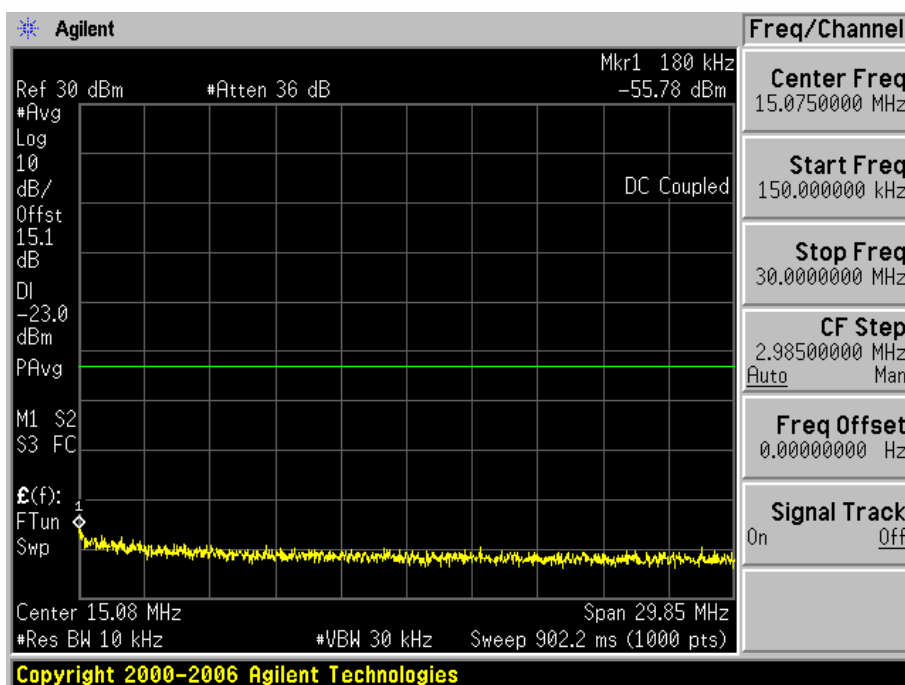
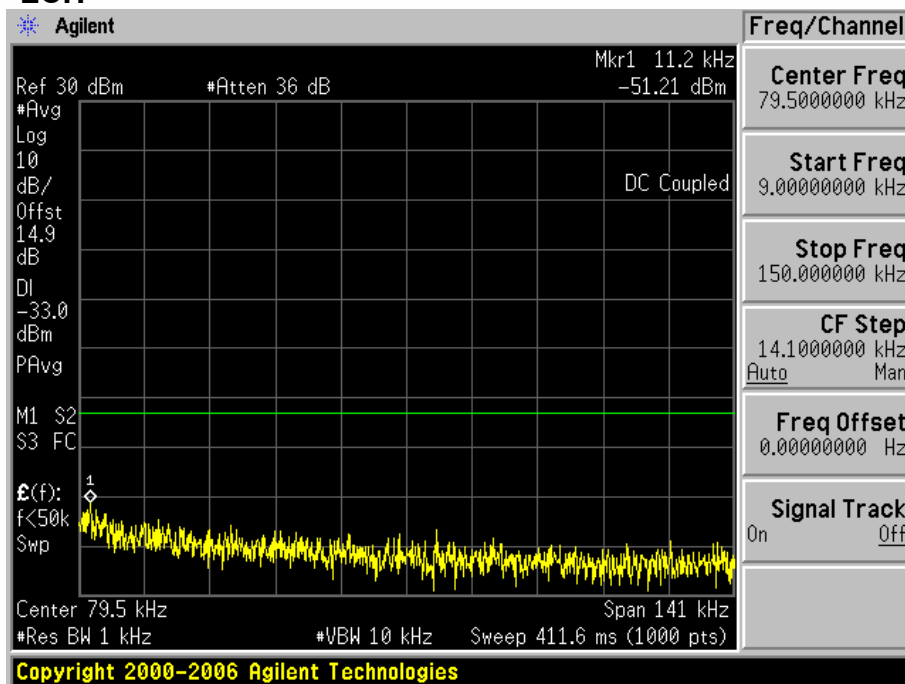
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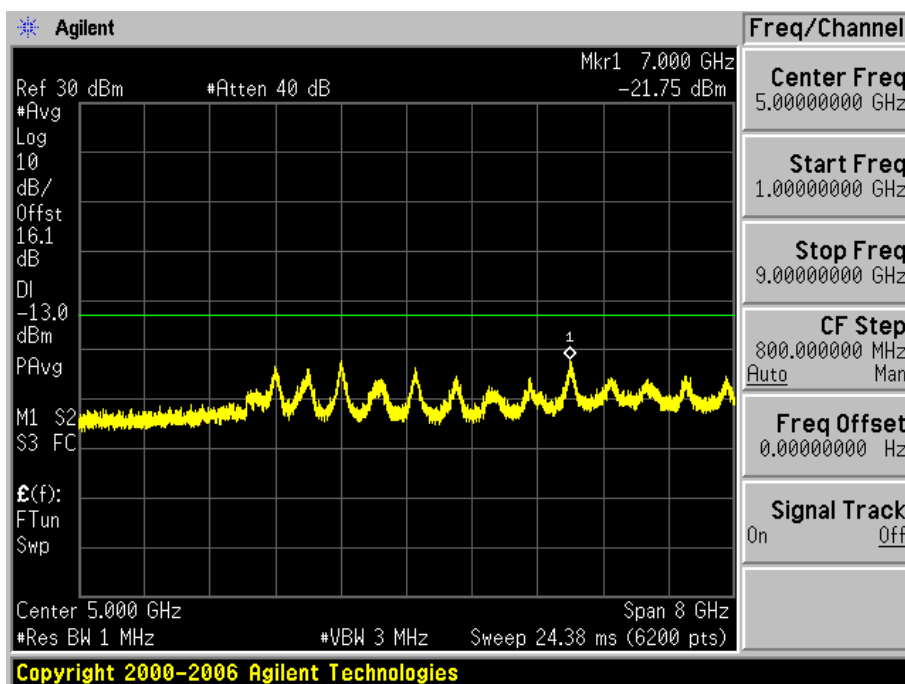
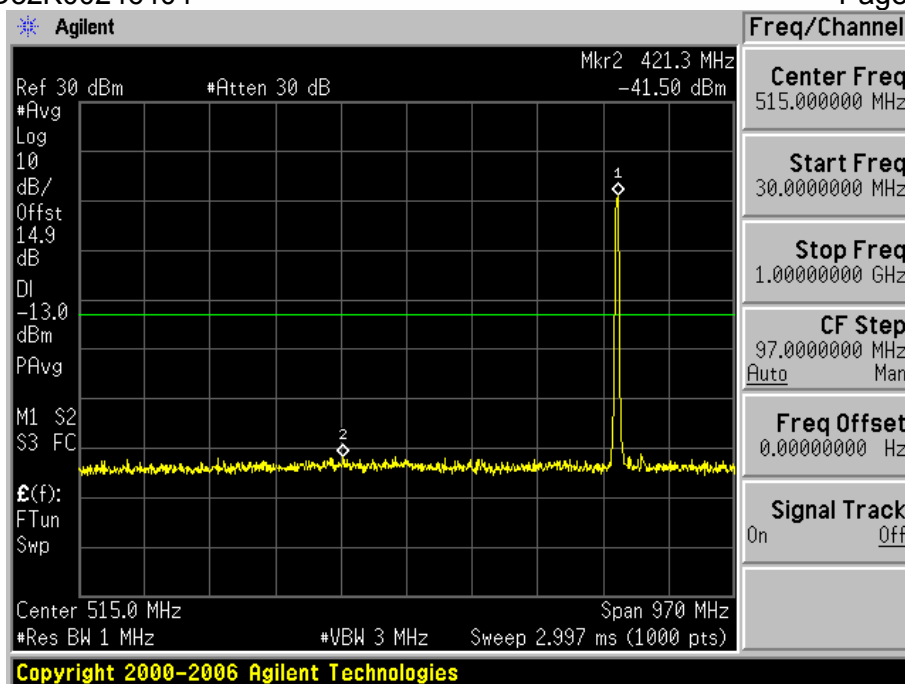
**For WCDMA**

**Test Band=WCDMA850**

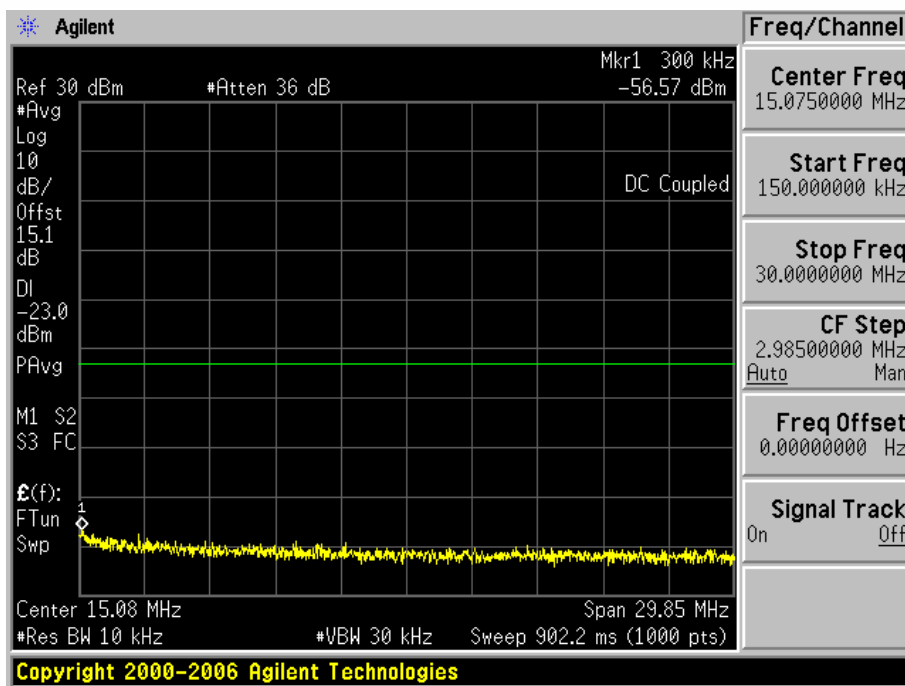
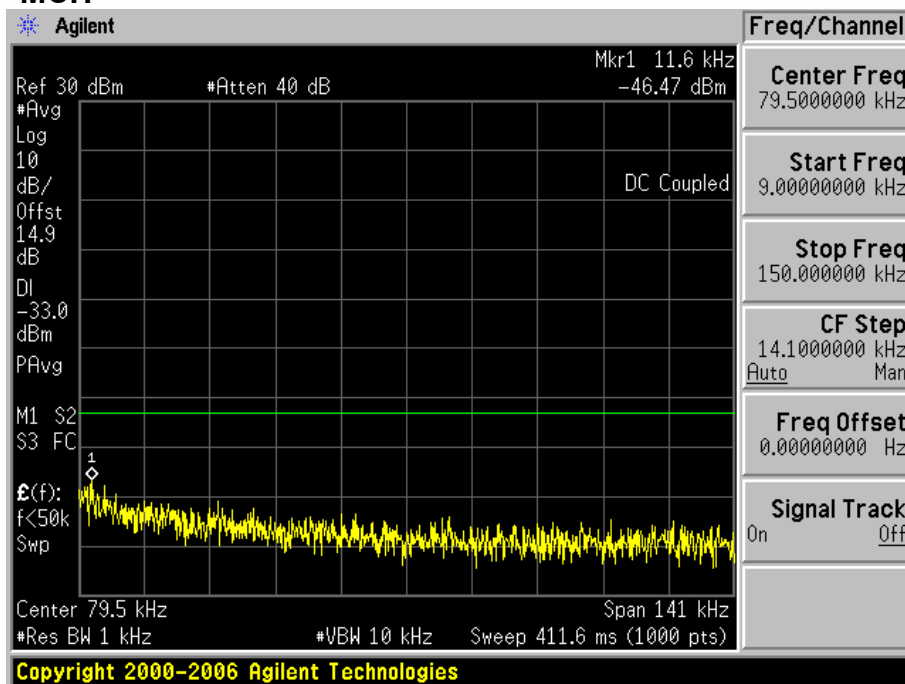
**Test Mode=UMTS/TM1**

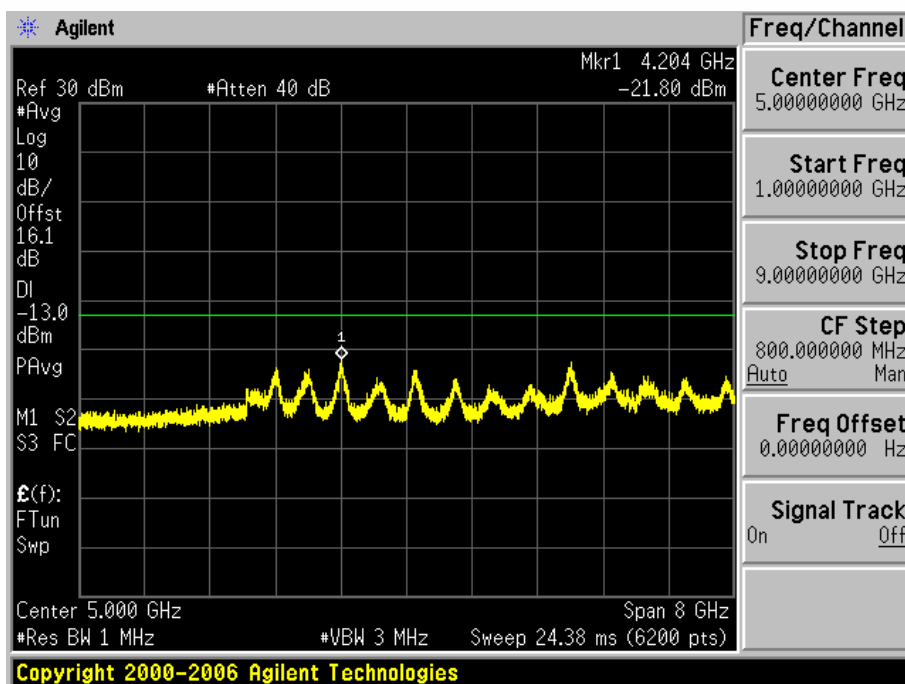
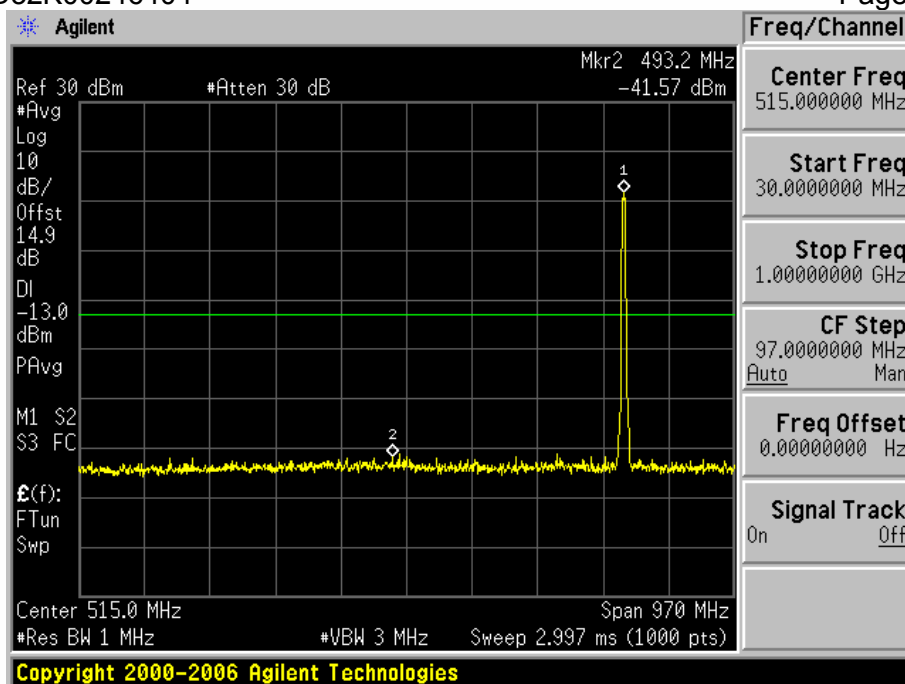
**Test Channel=LCH**



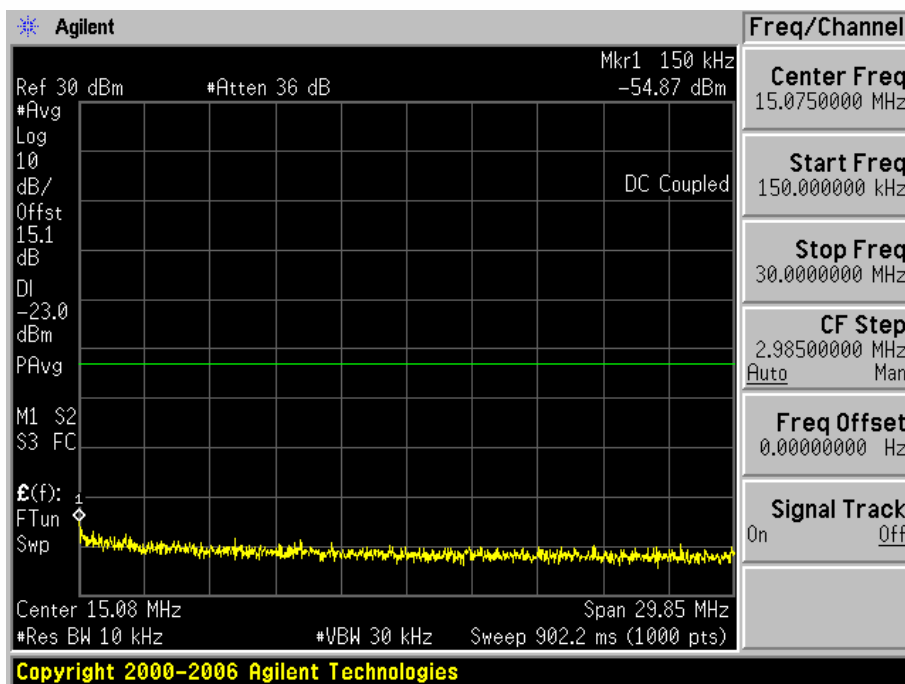
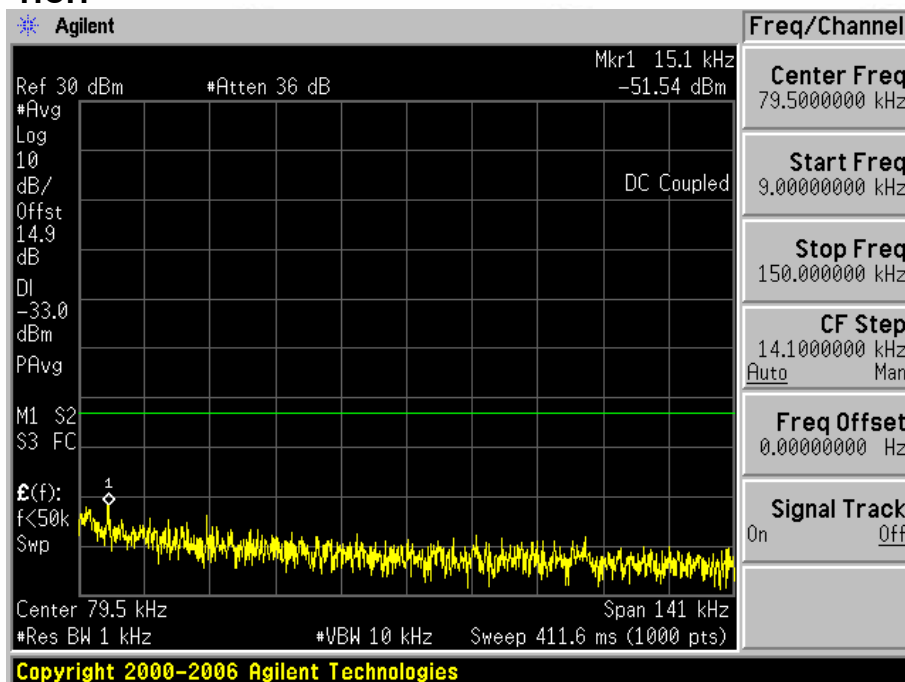


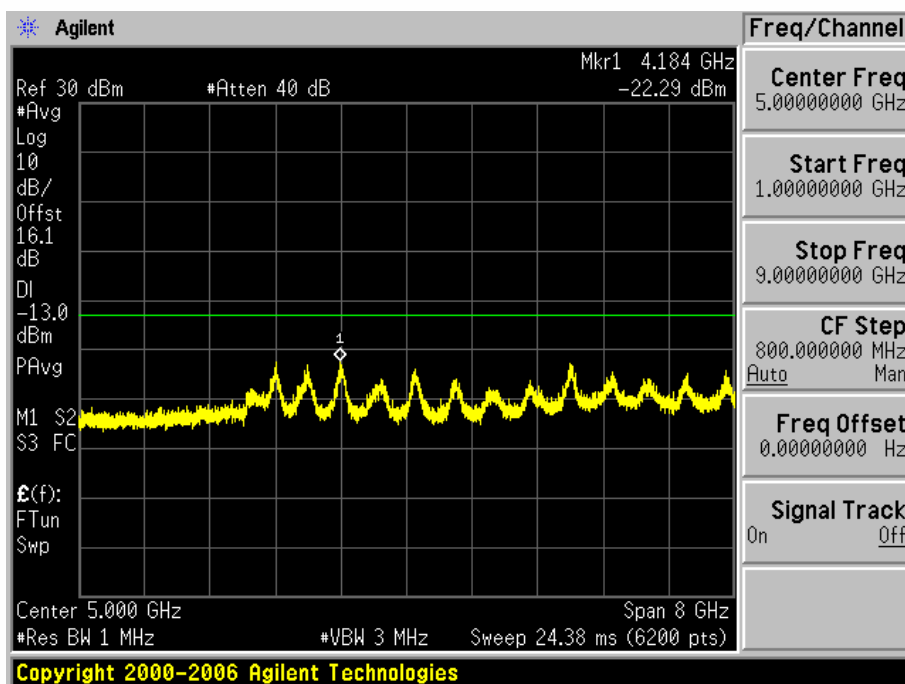
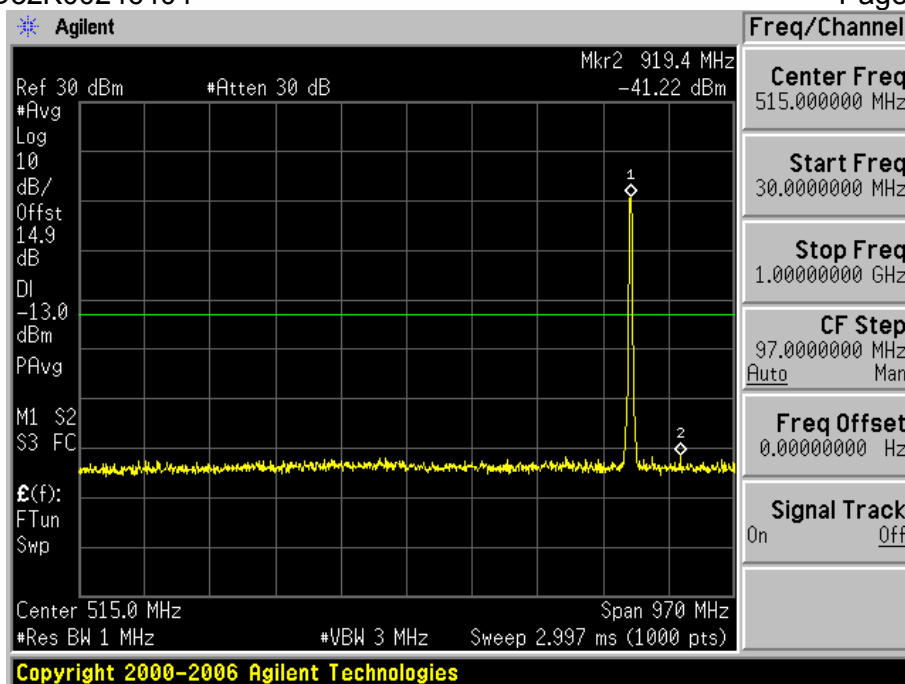
**Test Channel=MCH**





Test Channel=HCH

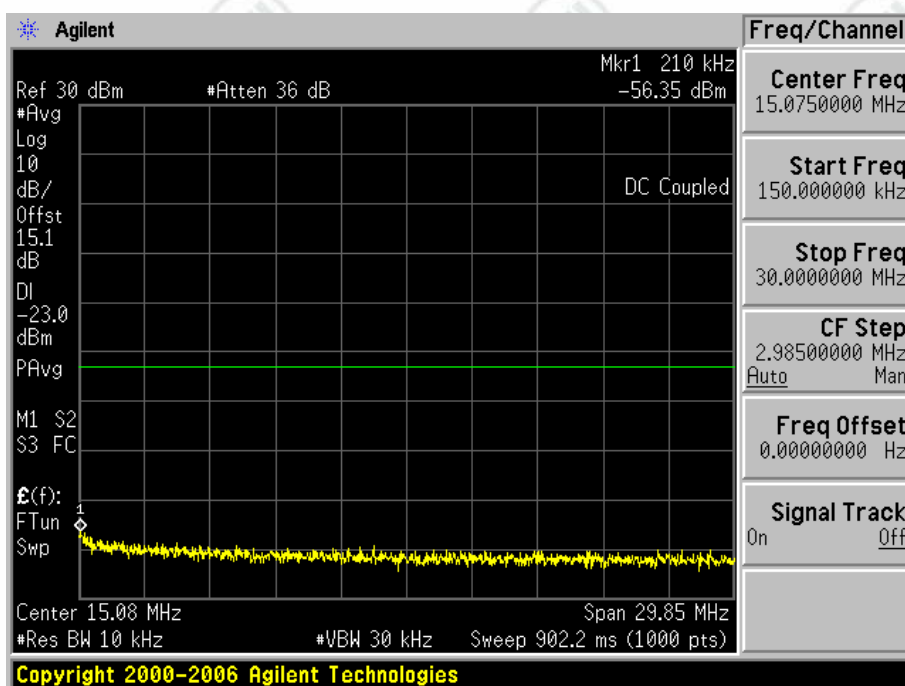
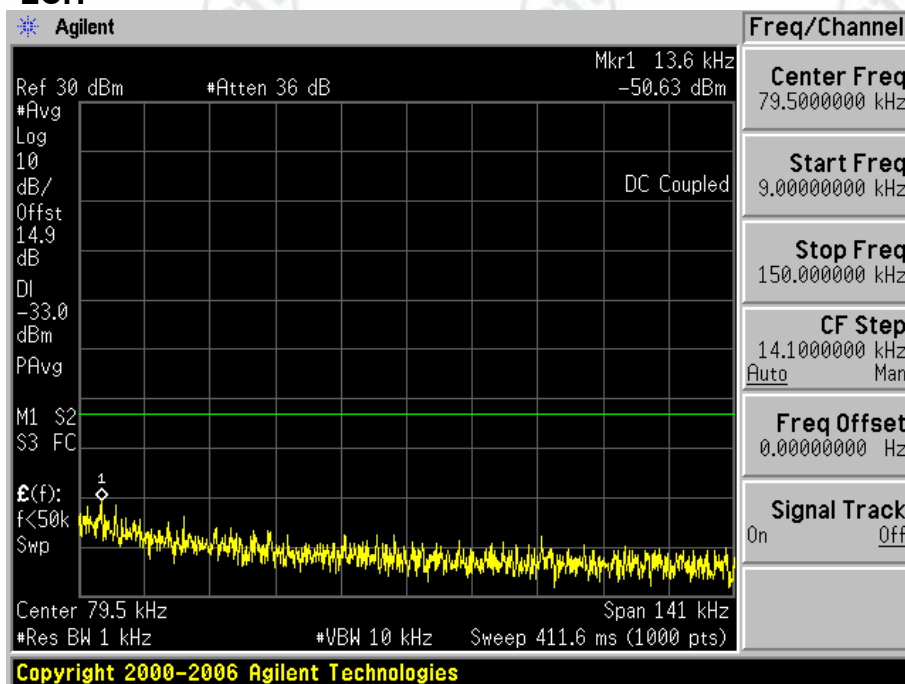


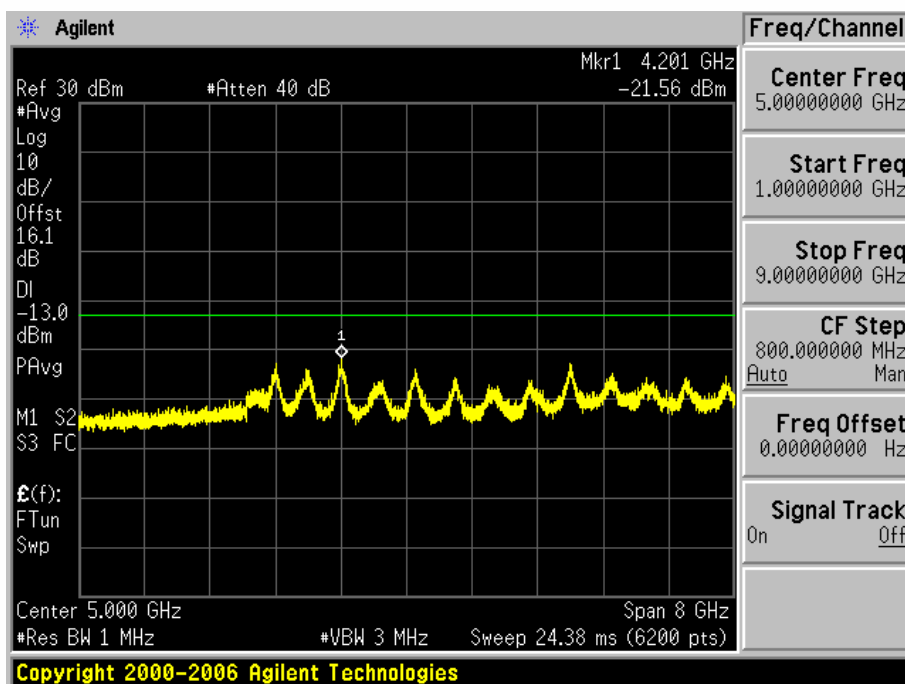
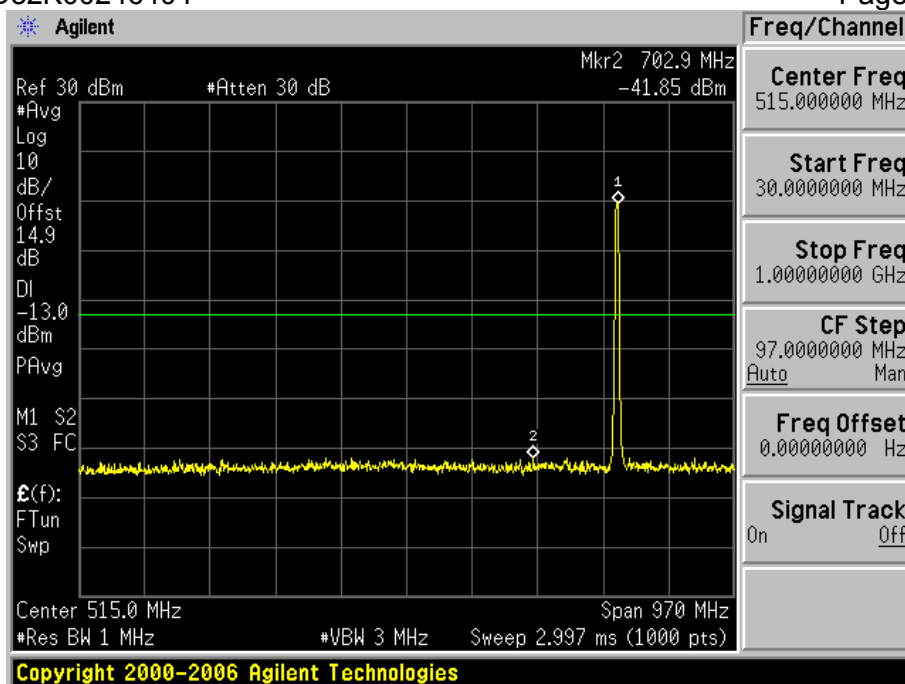




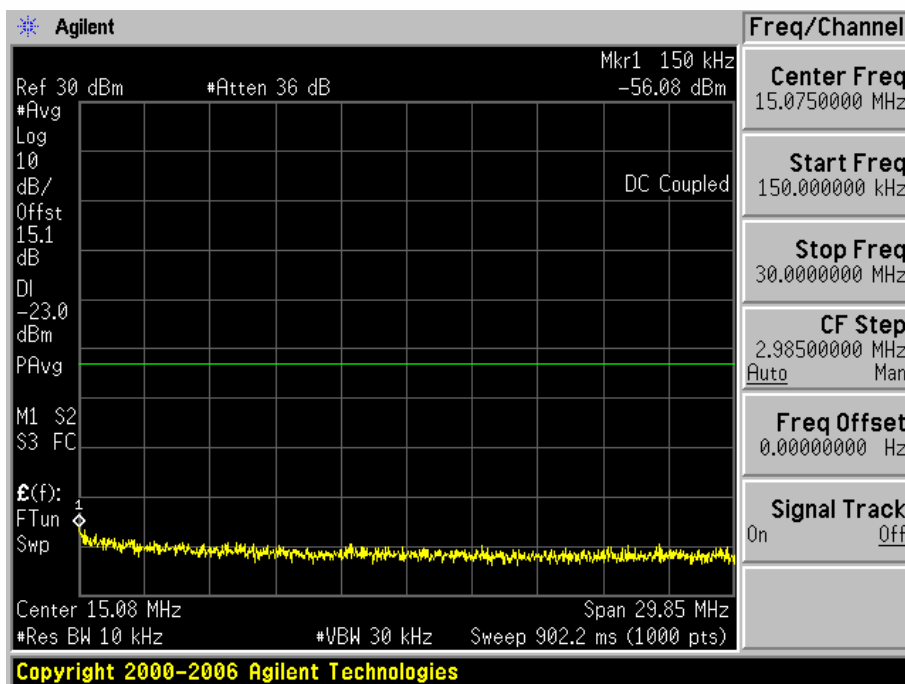
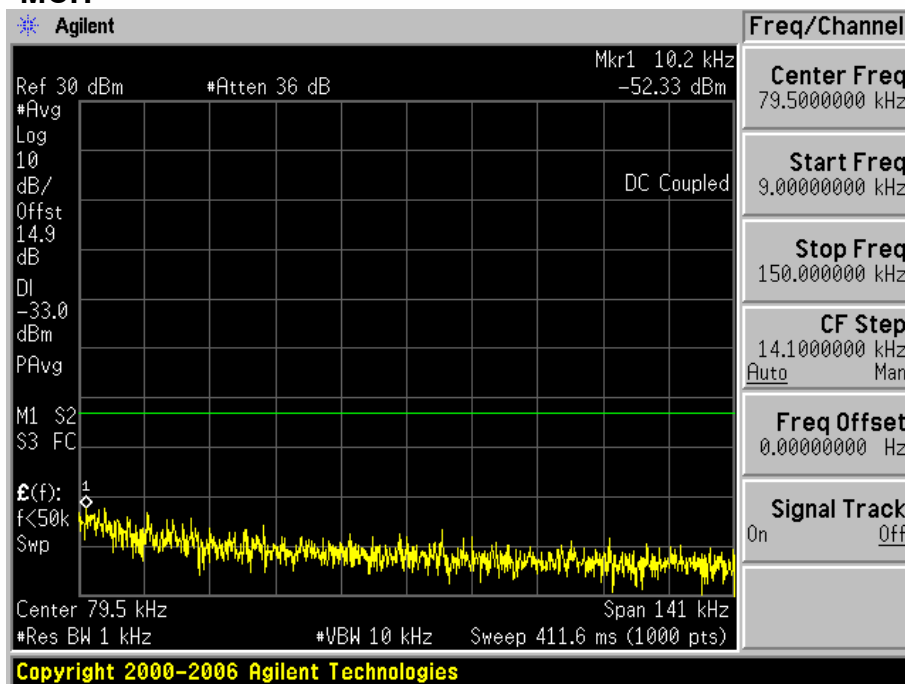
Test Mode=UMTS/TM2

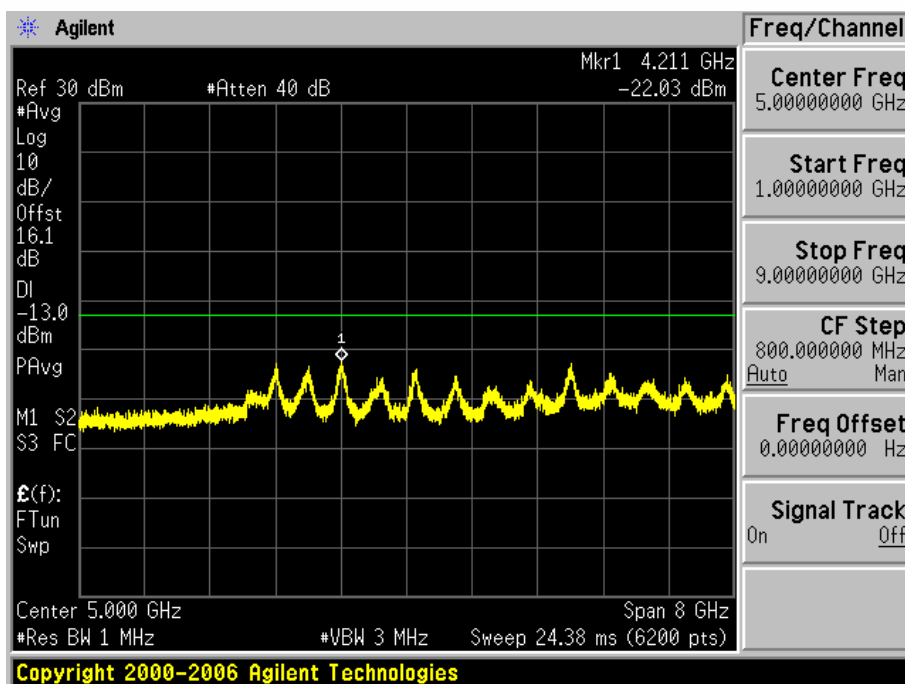
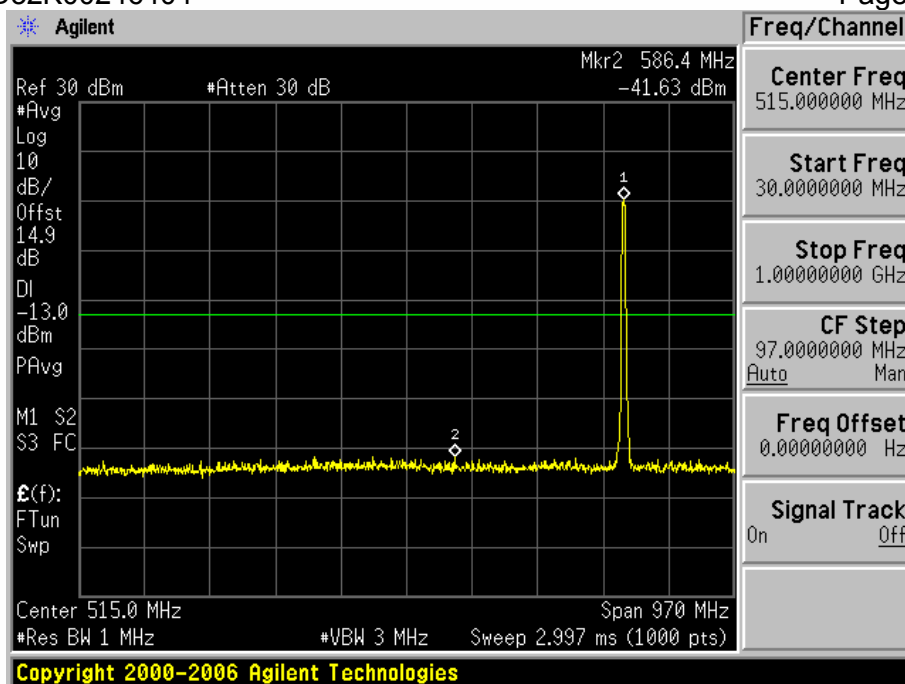
Test Channel=LCH



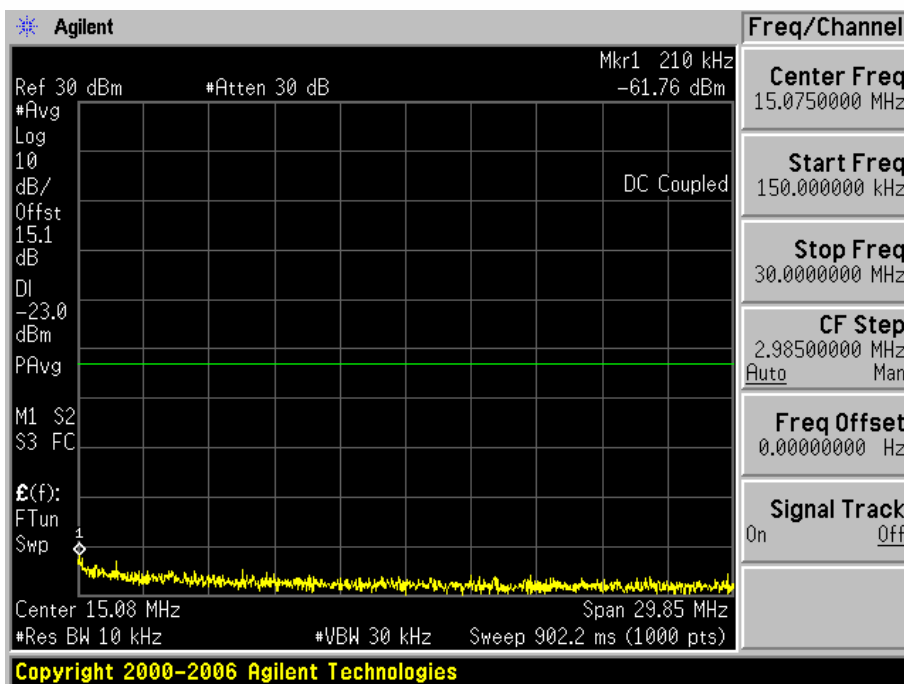
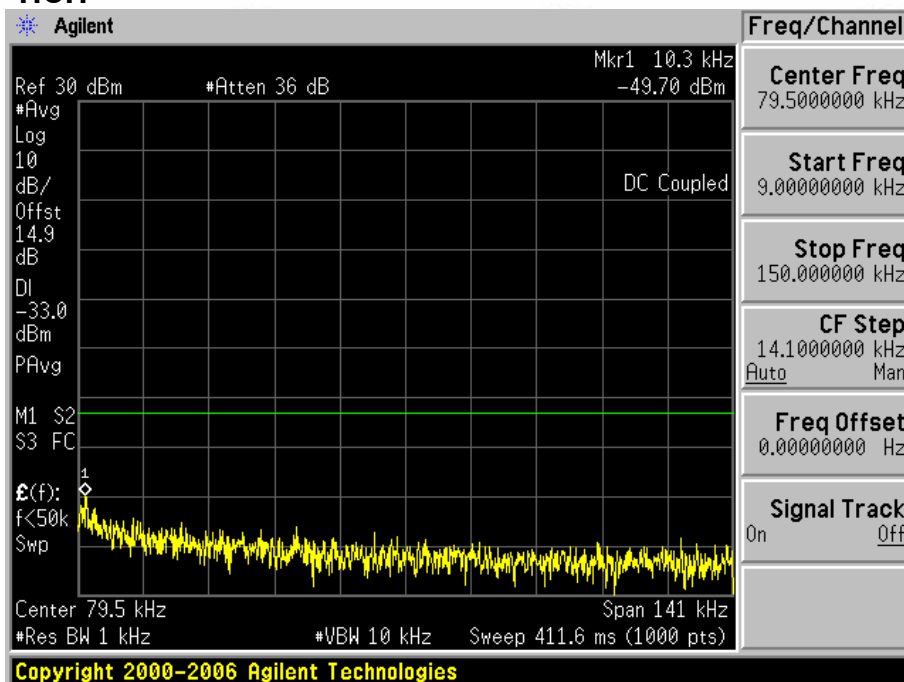


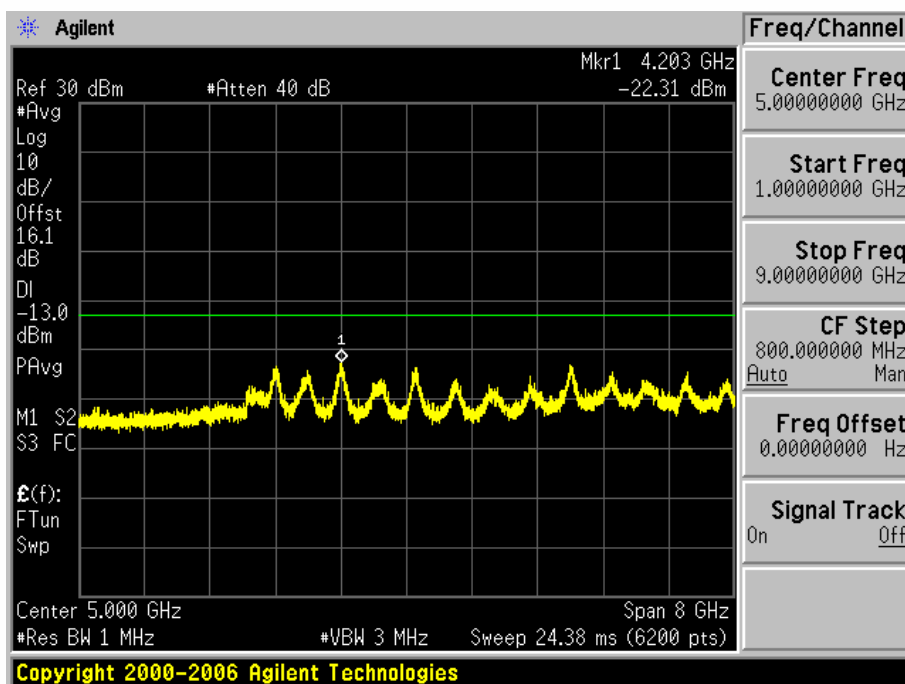
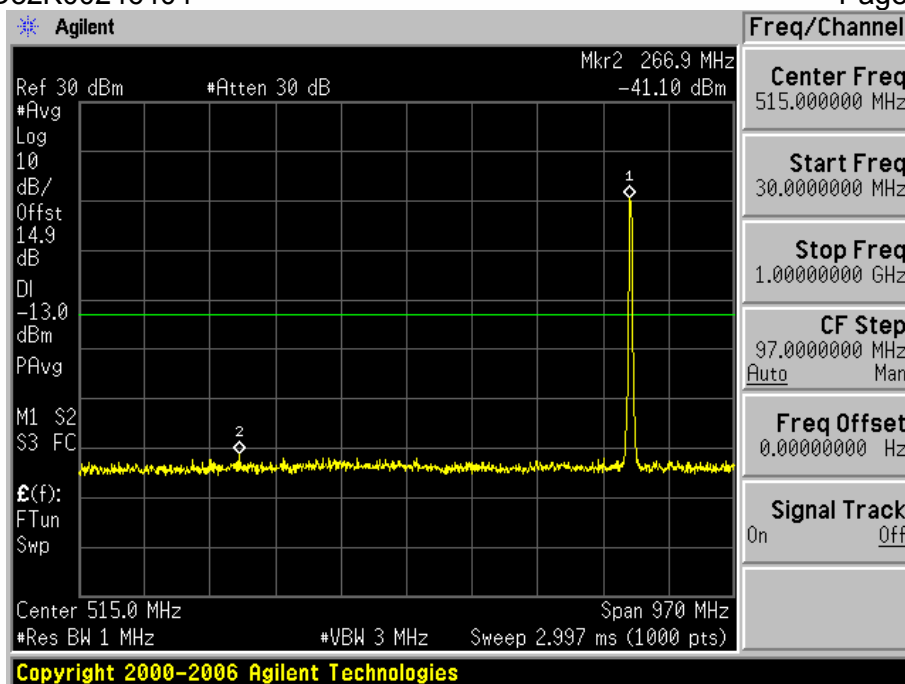
**Test Channel=MCH**





Test Channel=HCH

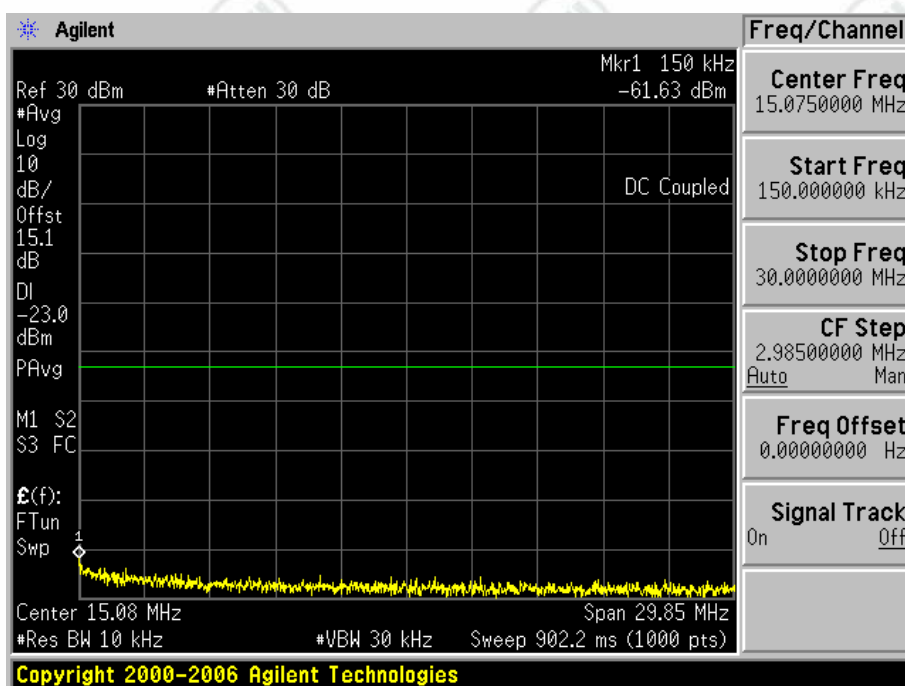
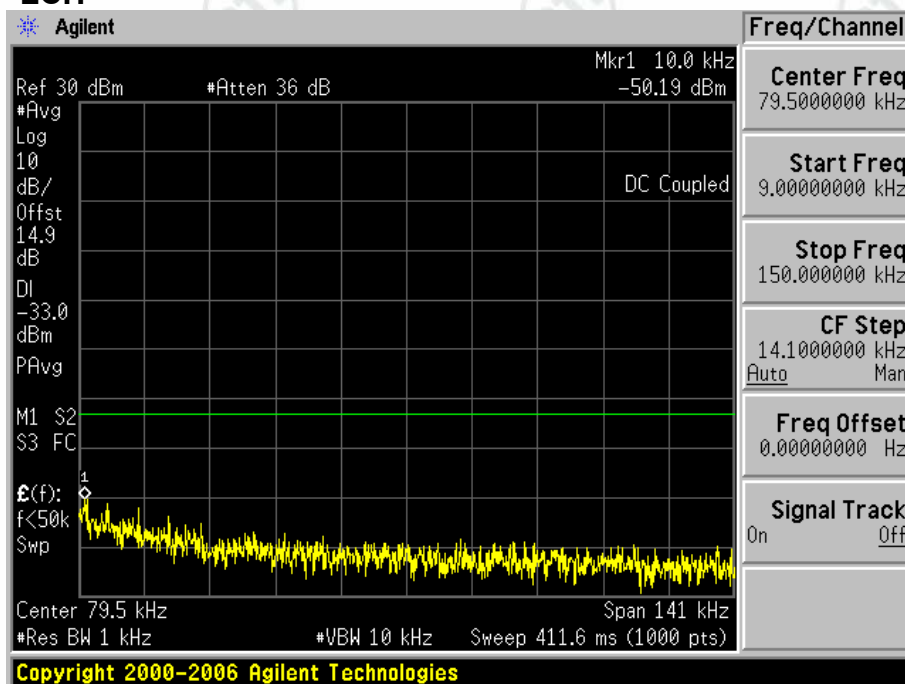


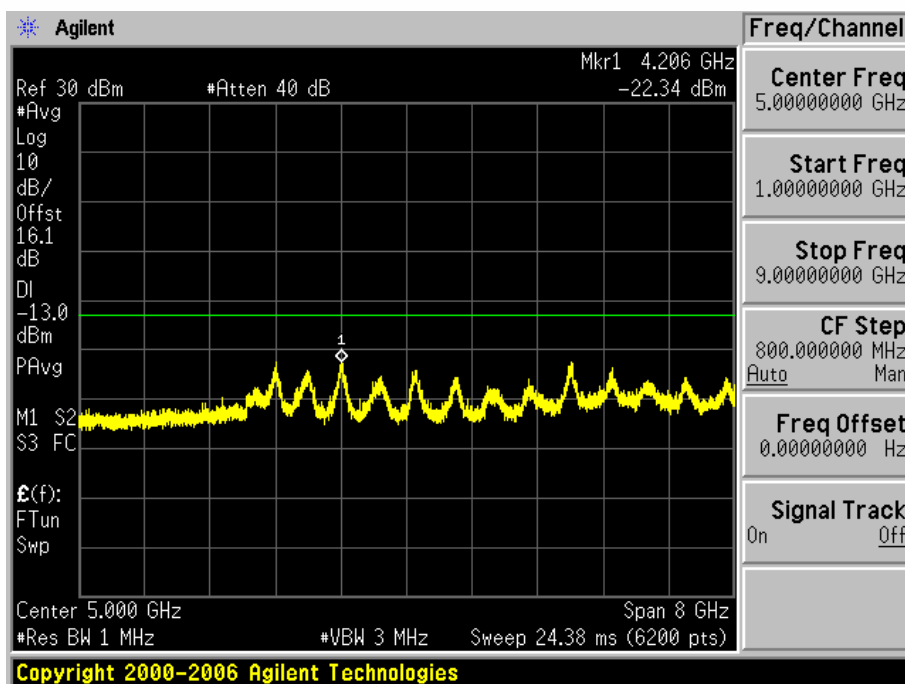
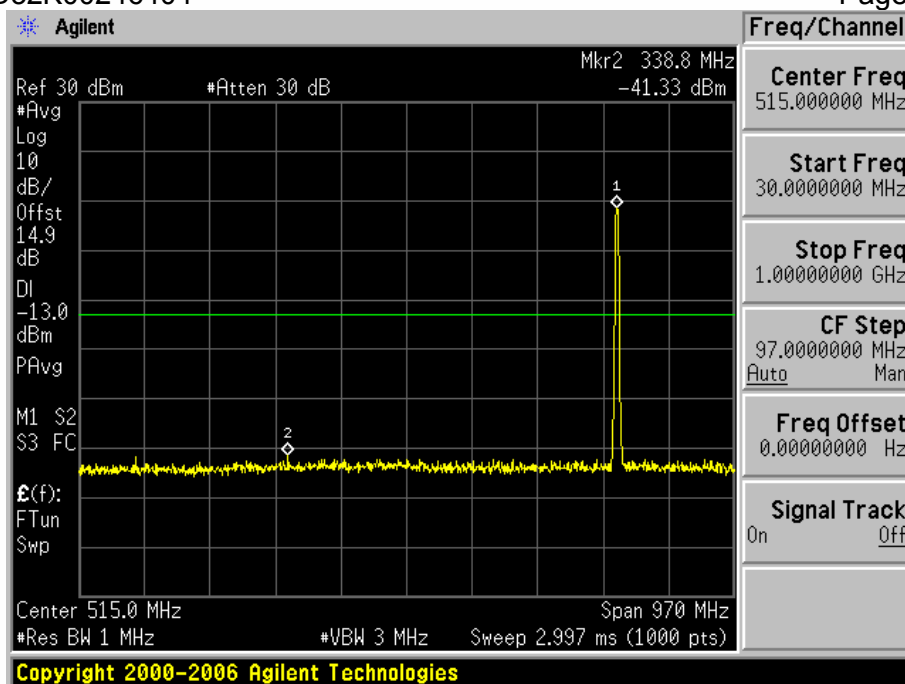




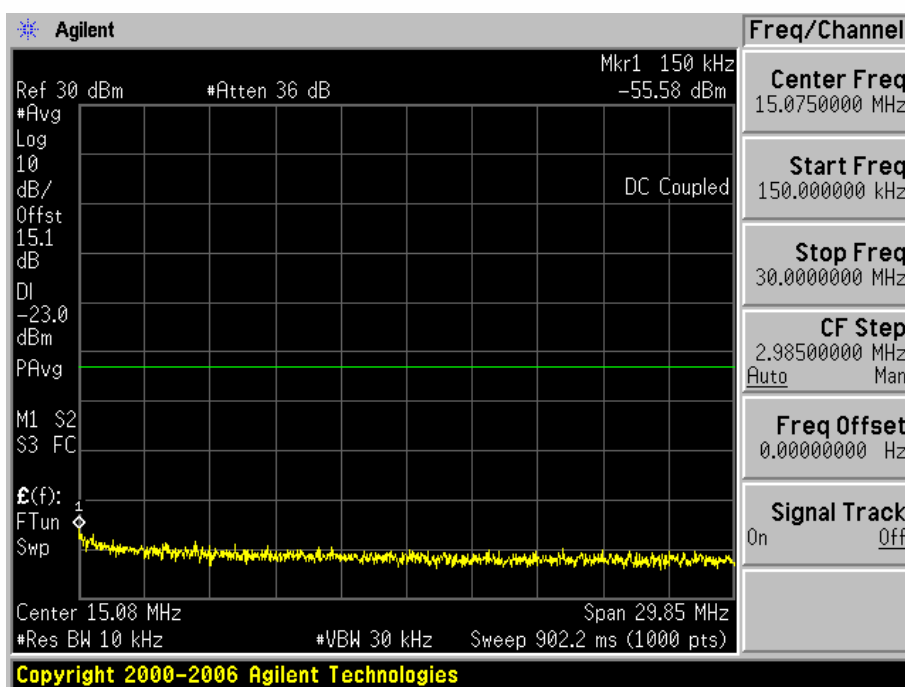
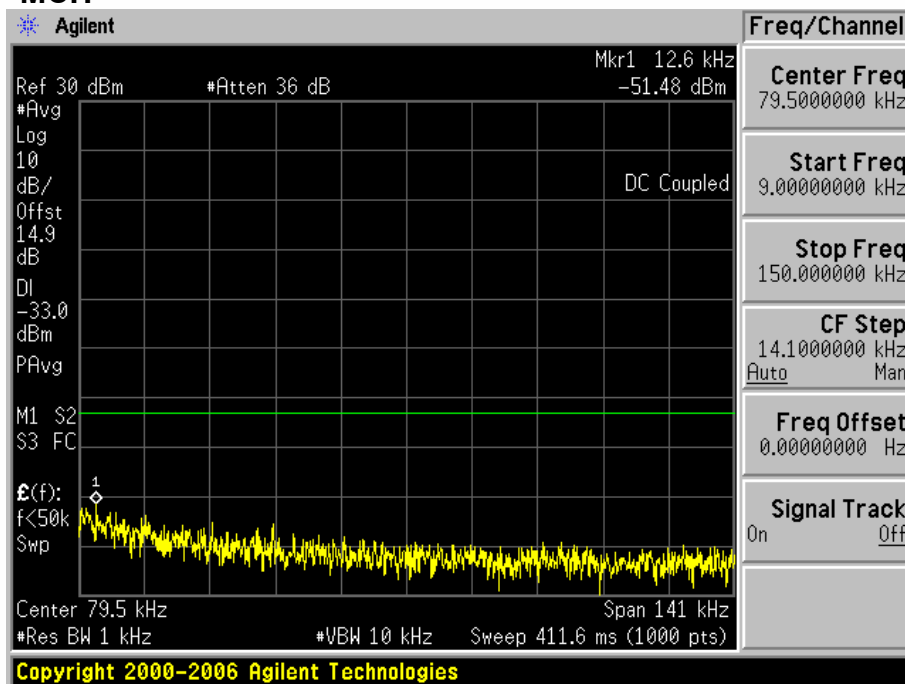
Test Mode=UMTS/TM3

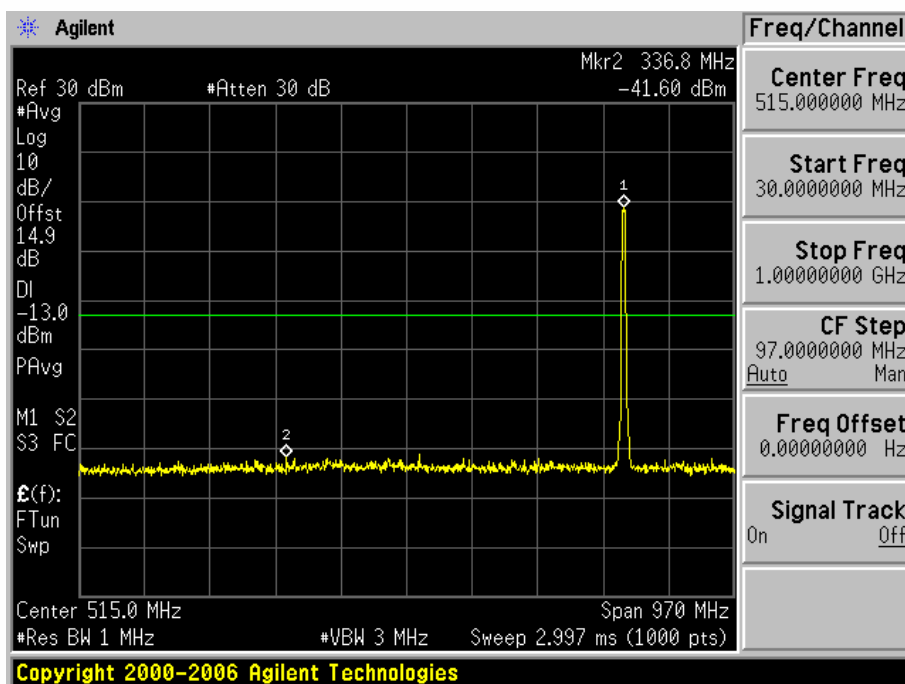
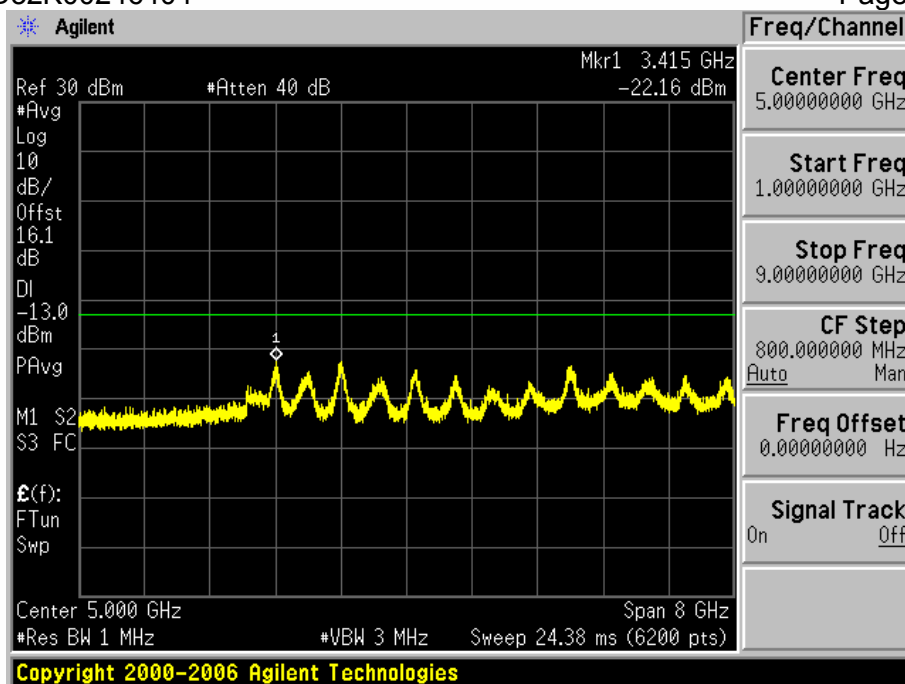
Test Channel=LCH



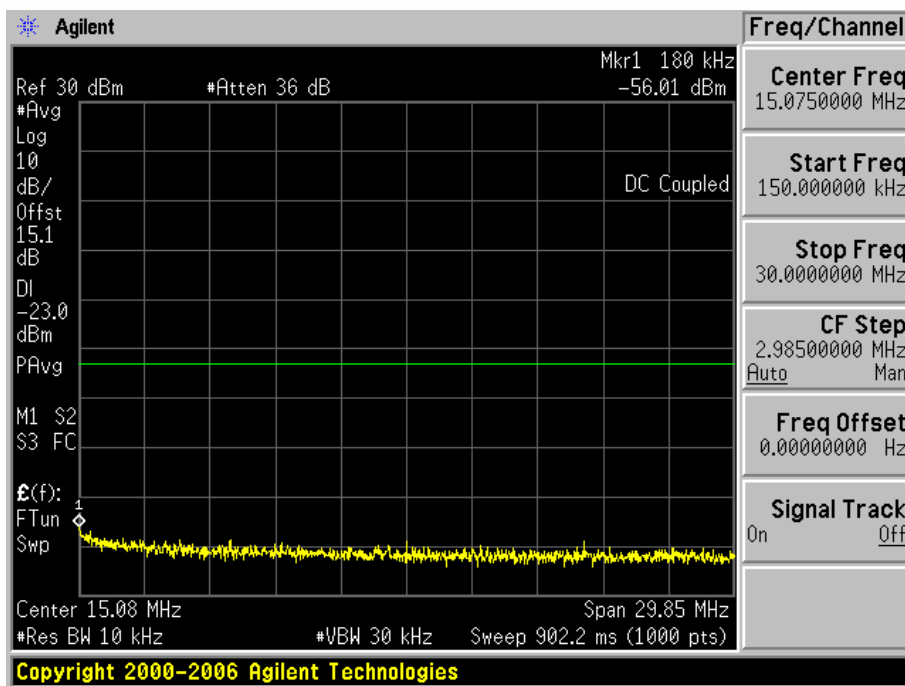
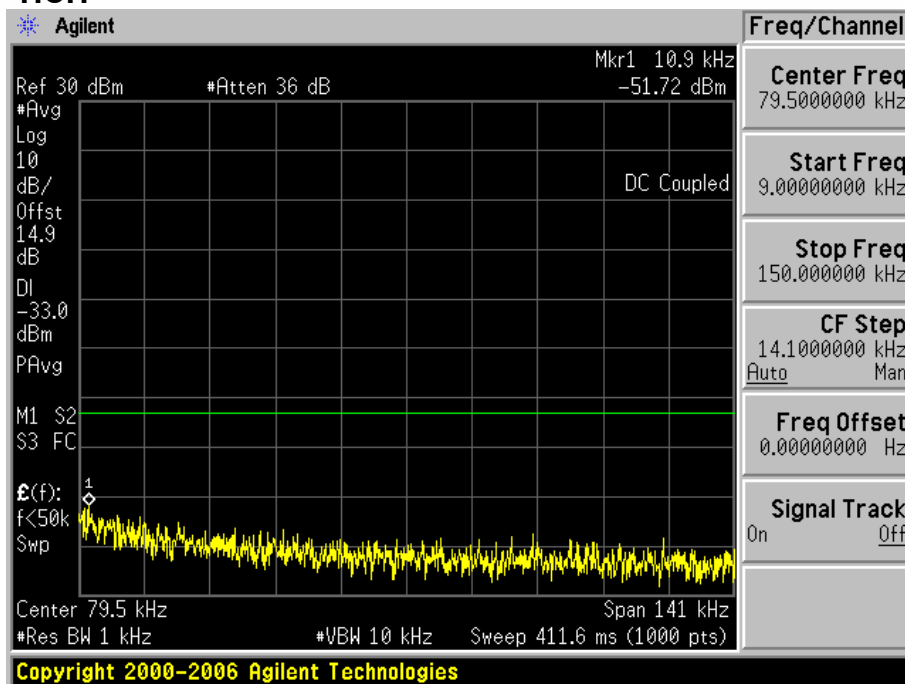


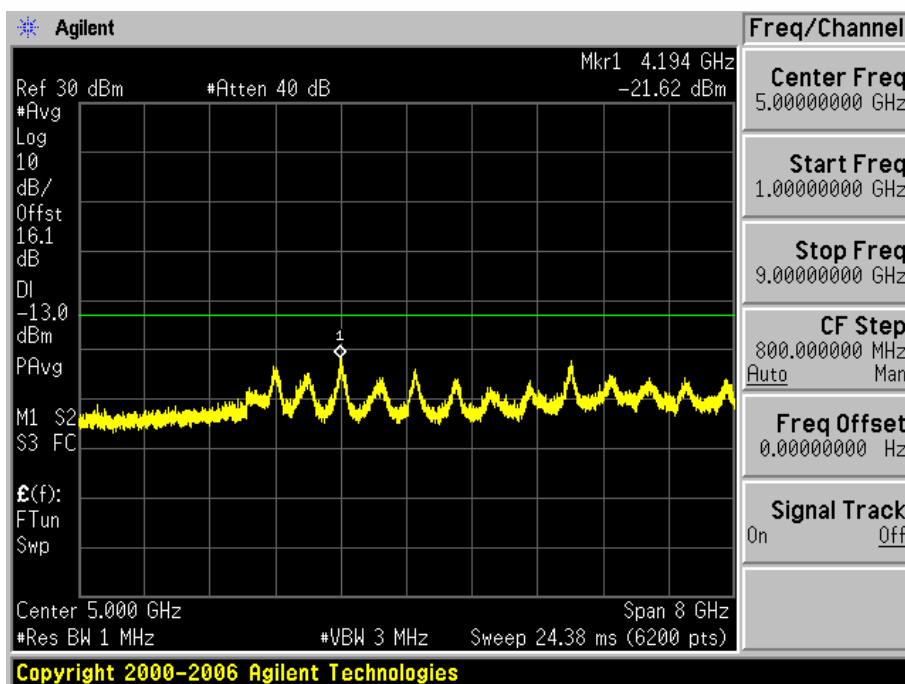
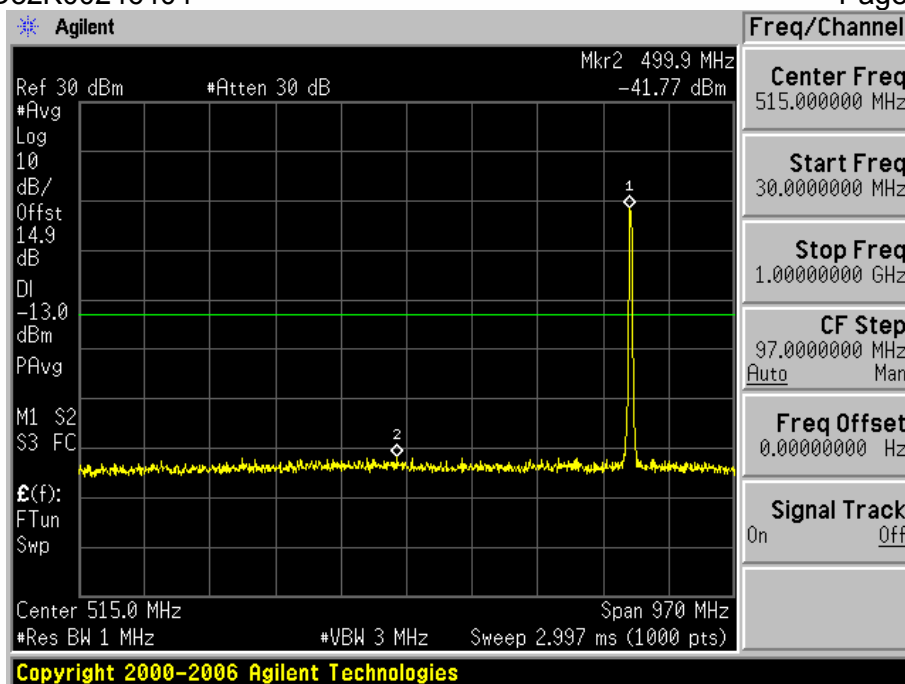
**Test Channel=MCH**





**Test Channel=HCH**







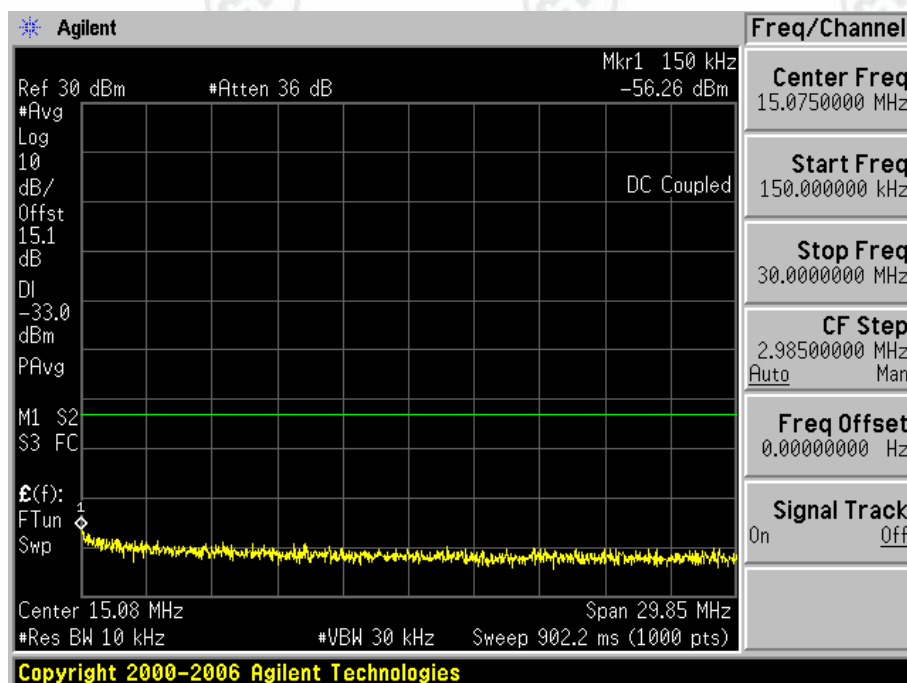
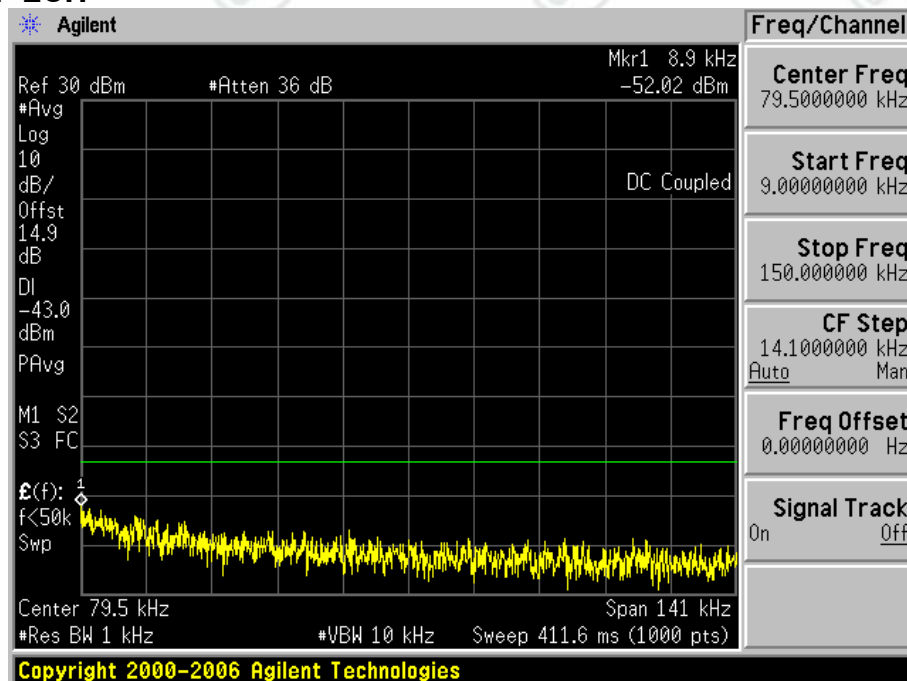
Report No.:EED32K00246404

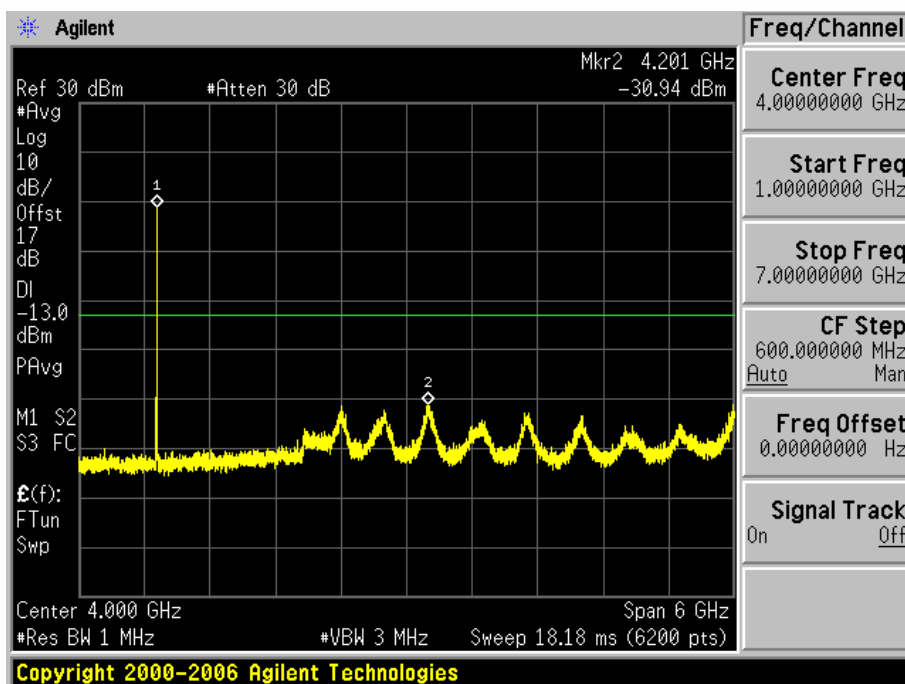
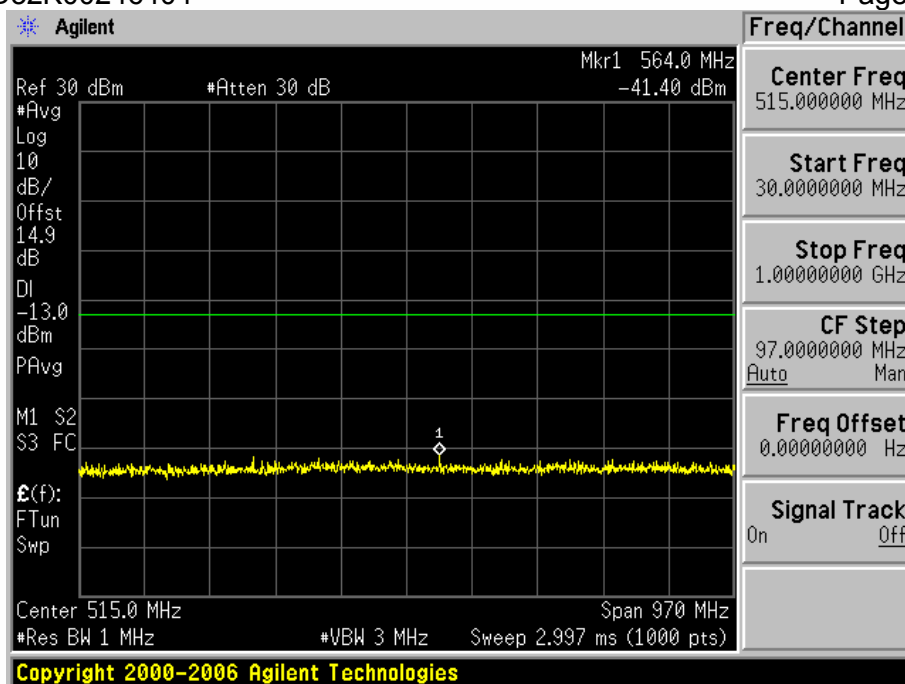
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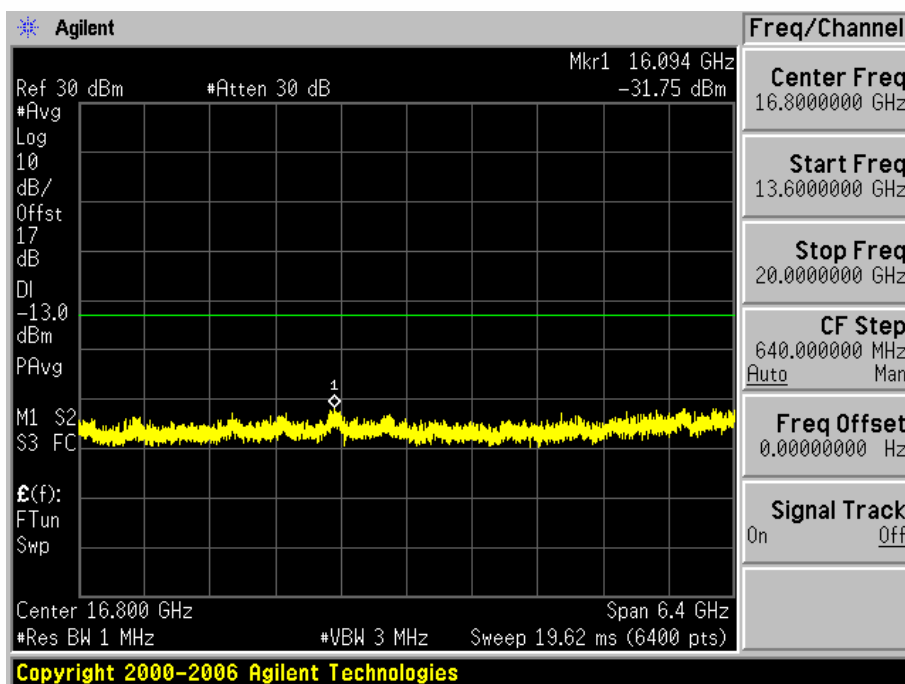
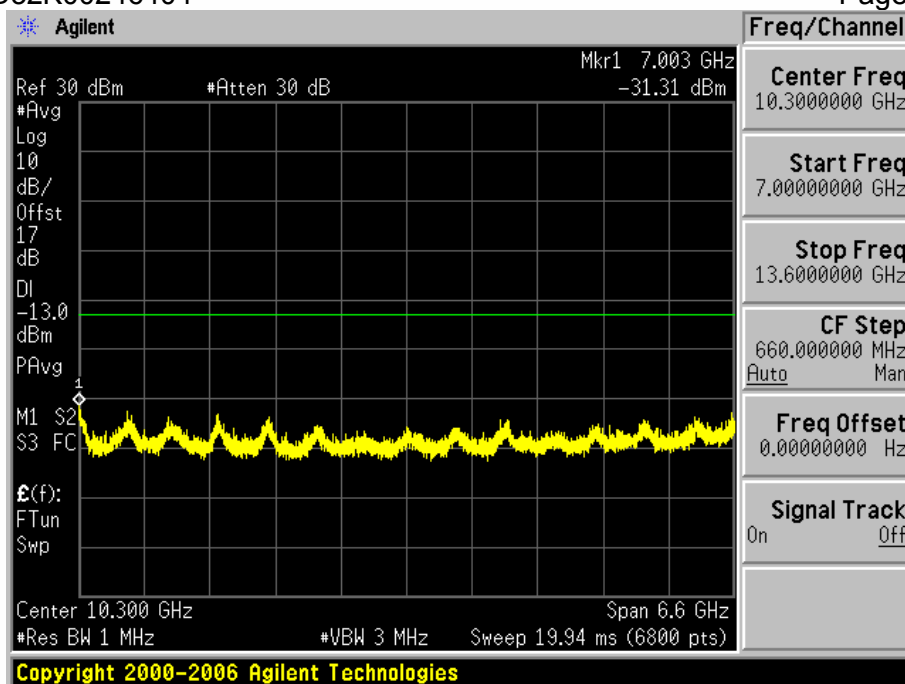
Test Band=WCDMA1700

Test Mode=UMTS/TM1

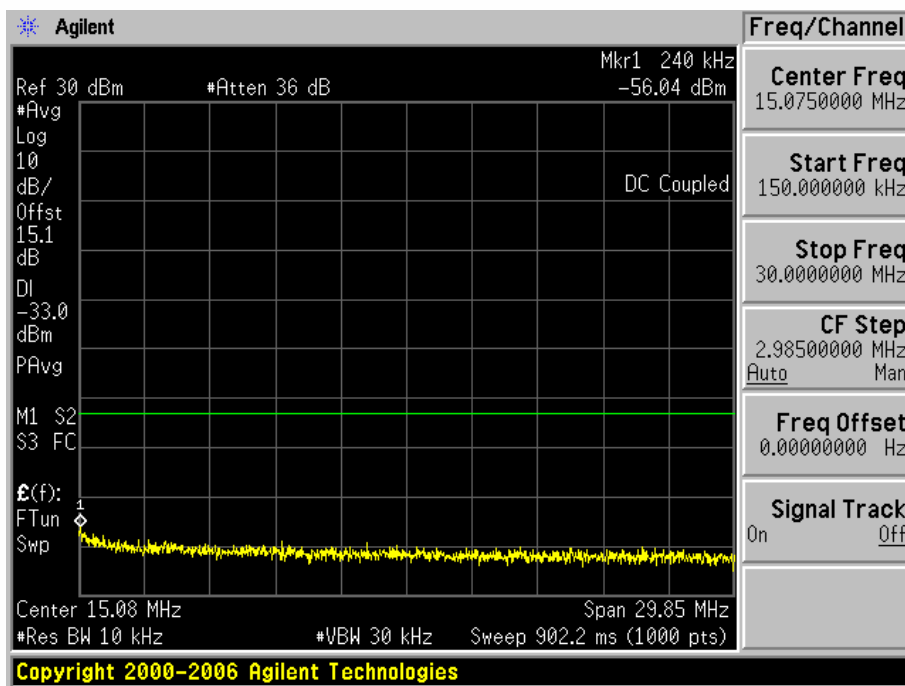
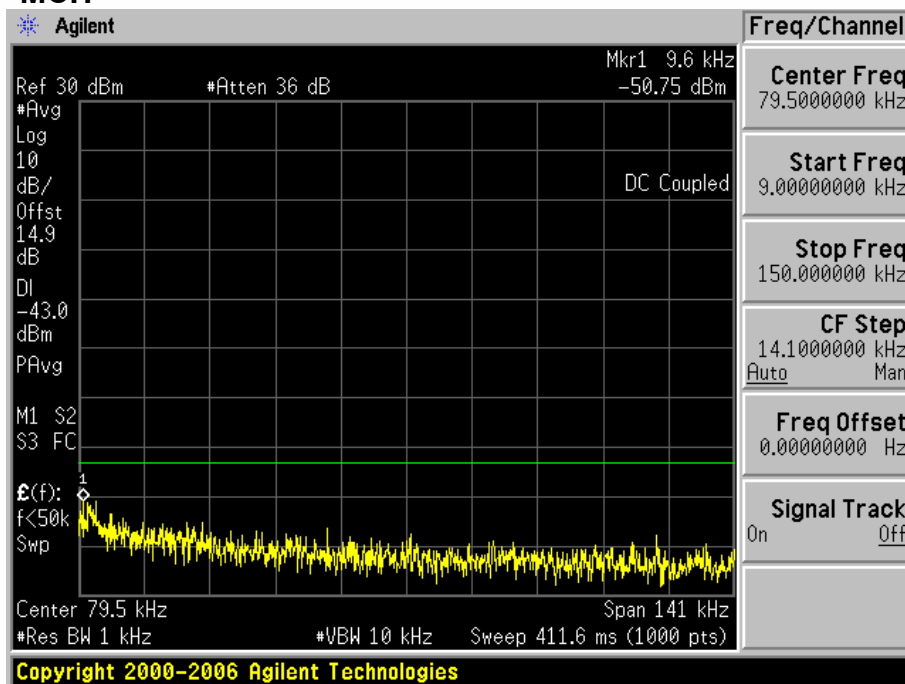
Test Channel=LCH

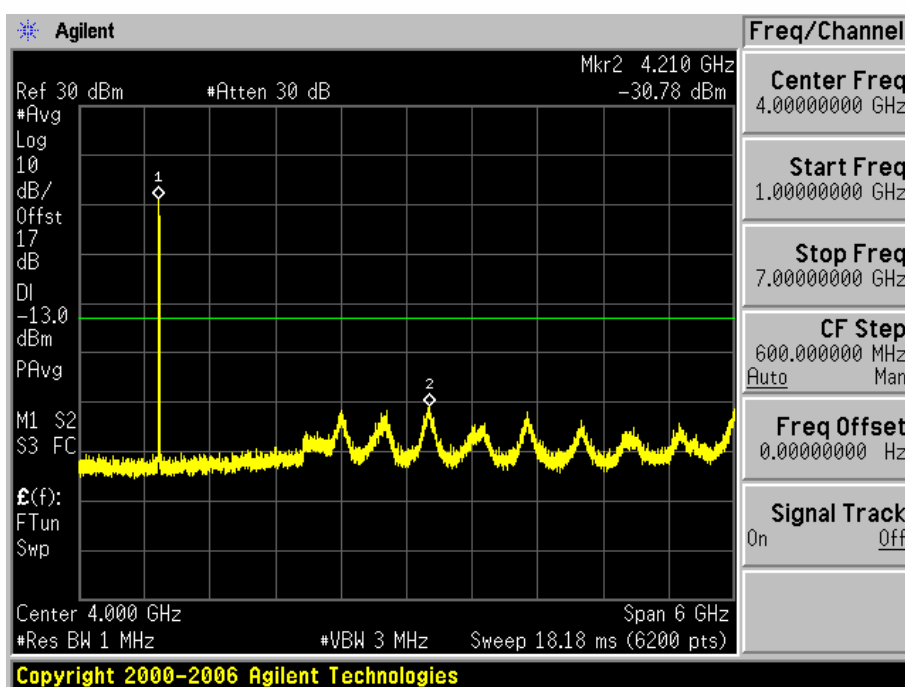
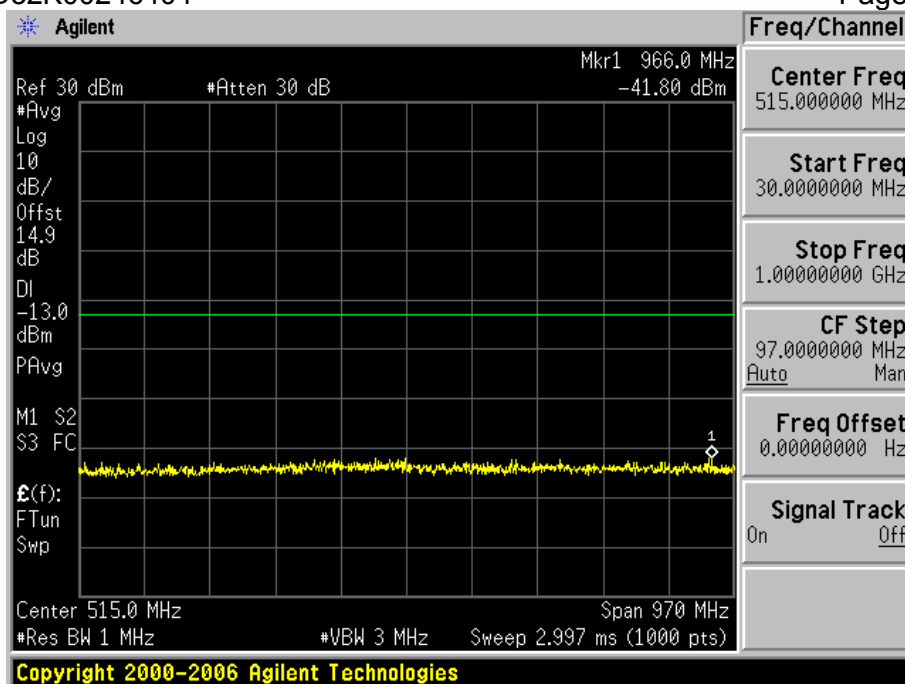


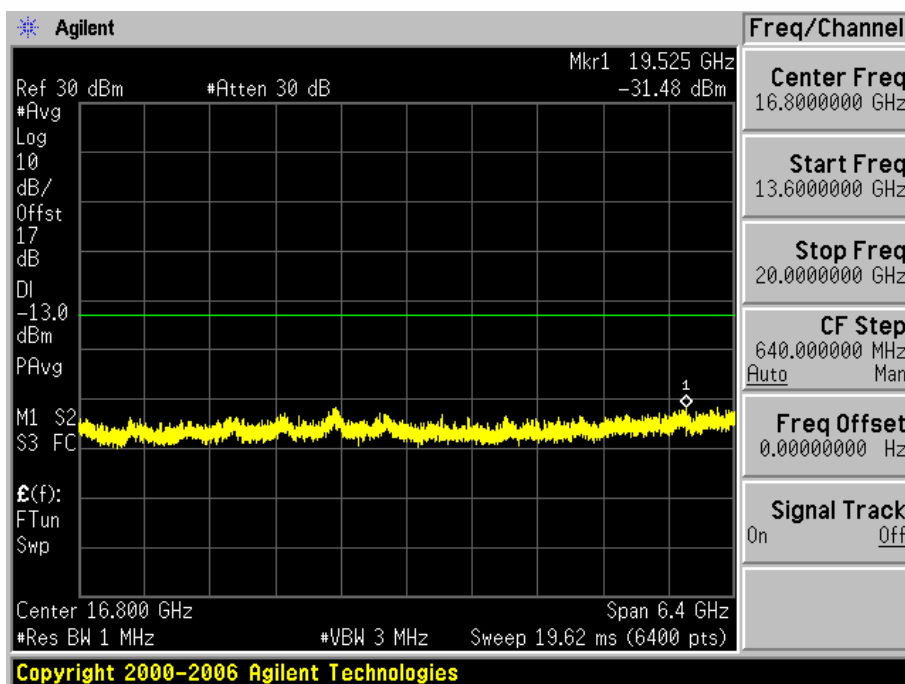
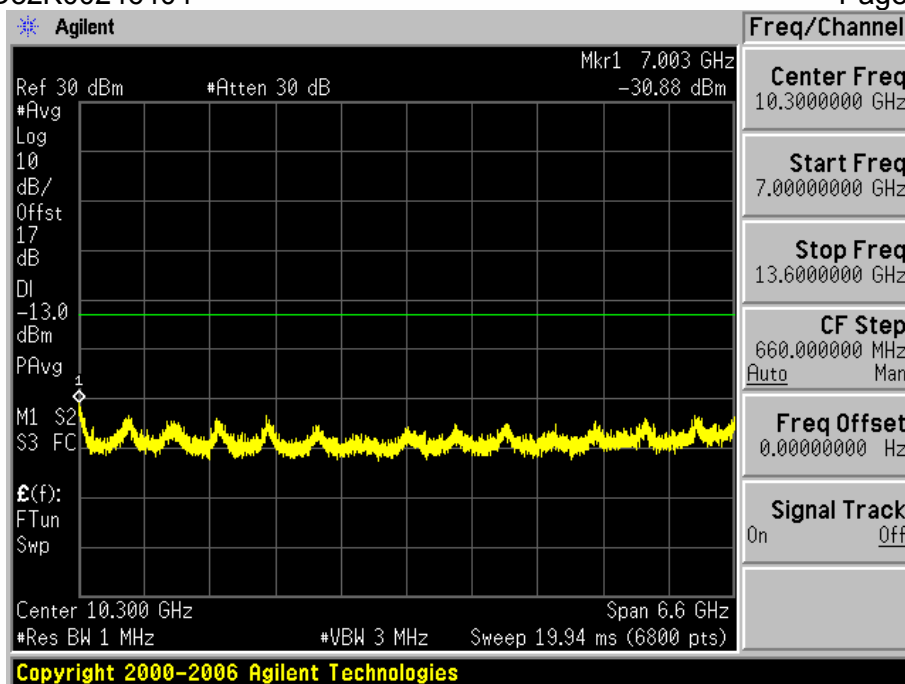




**Test Channel=MCH**

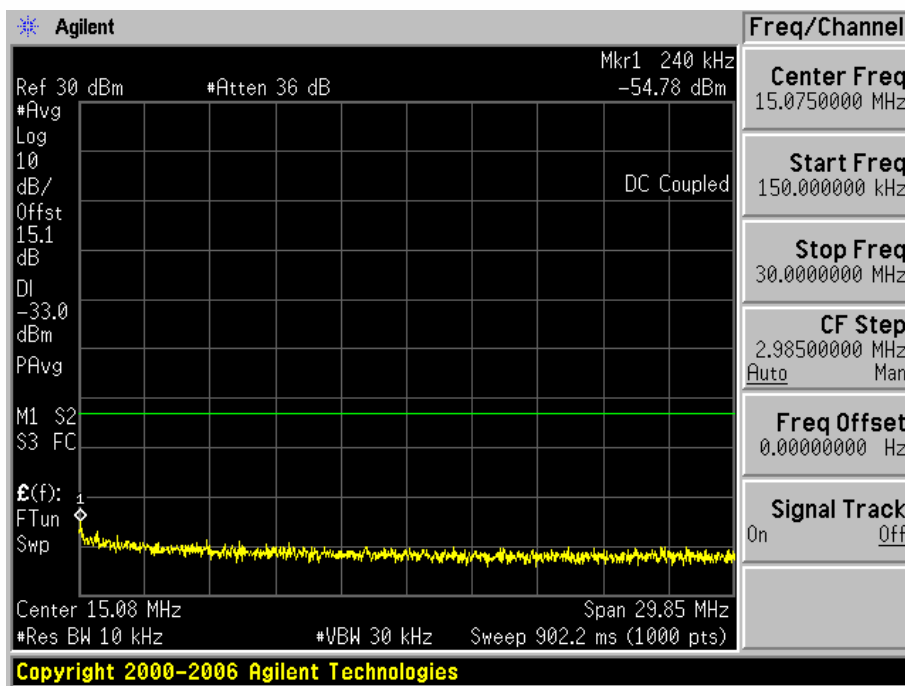
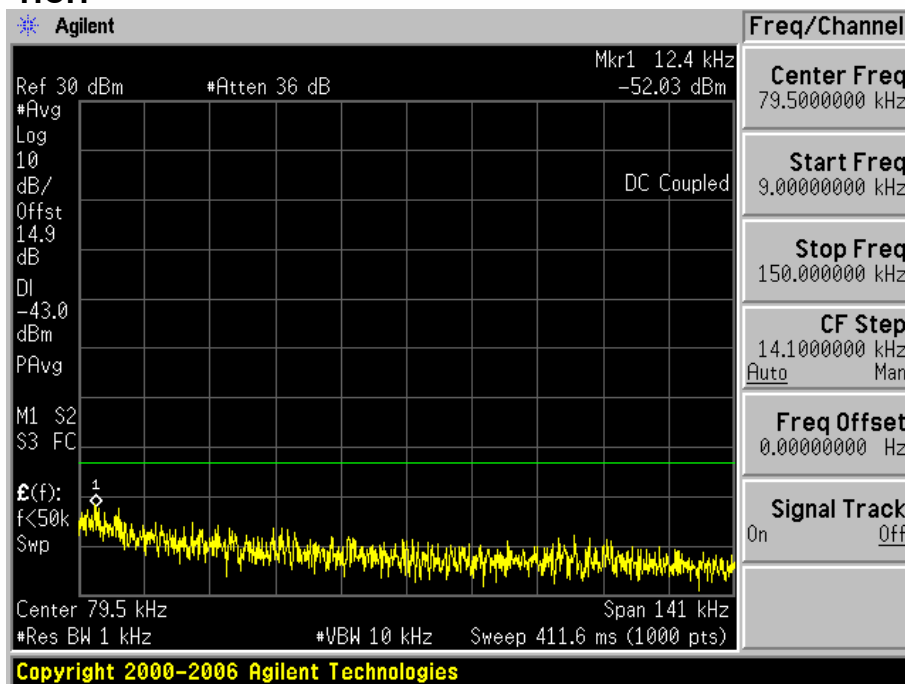


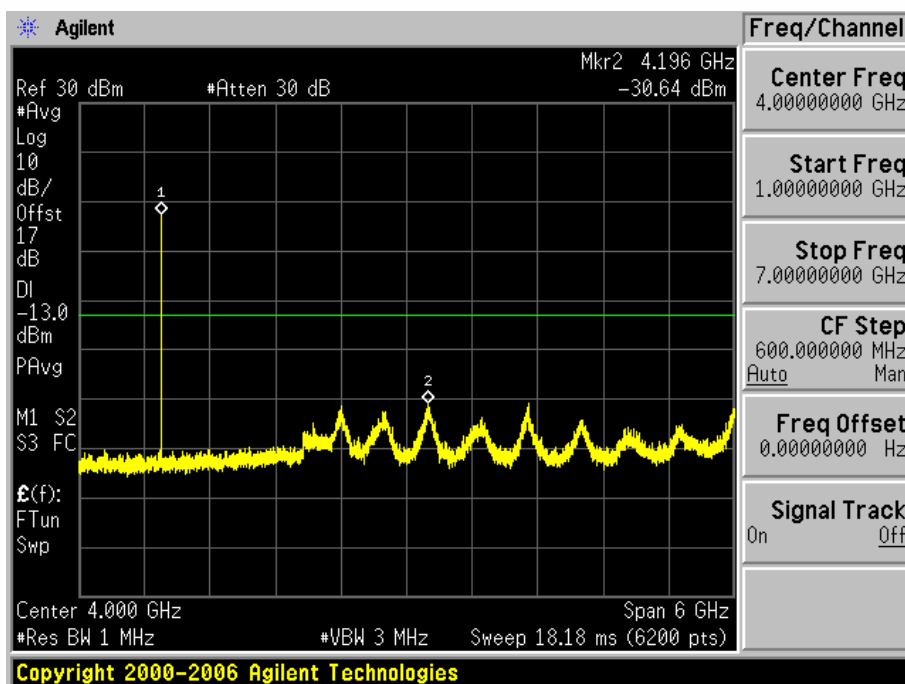
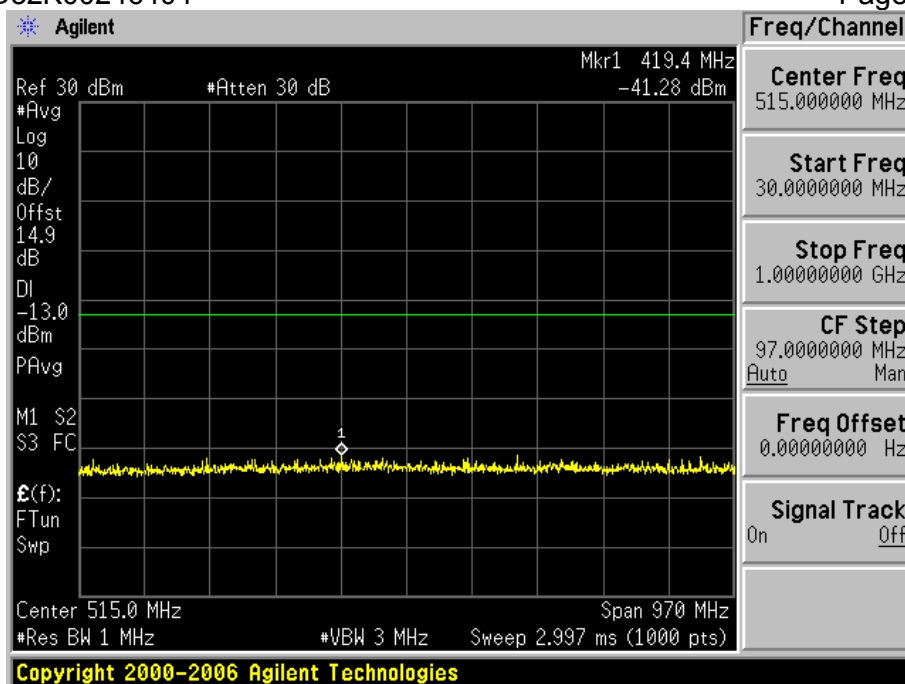


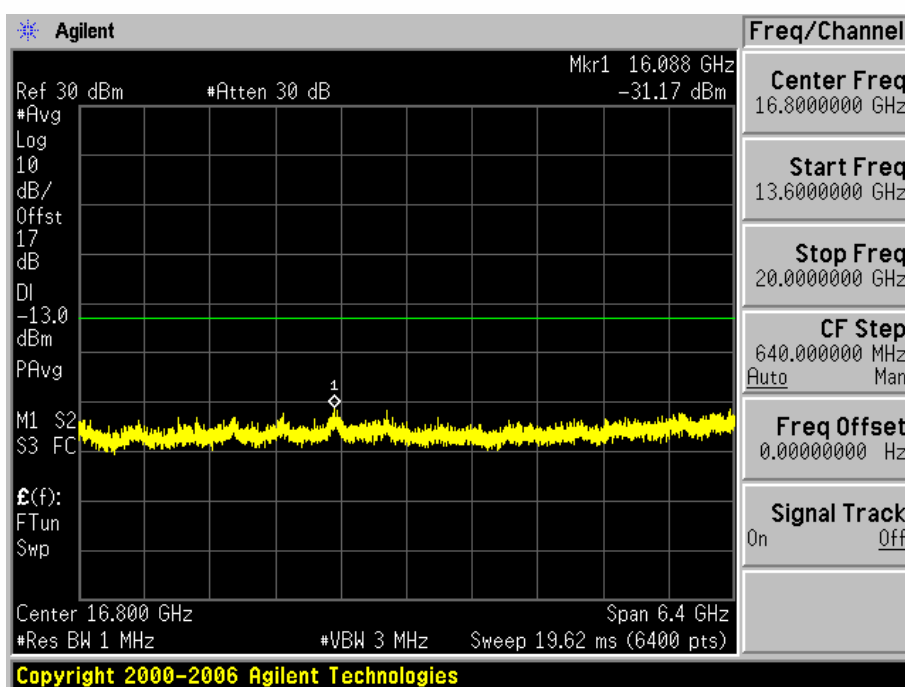
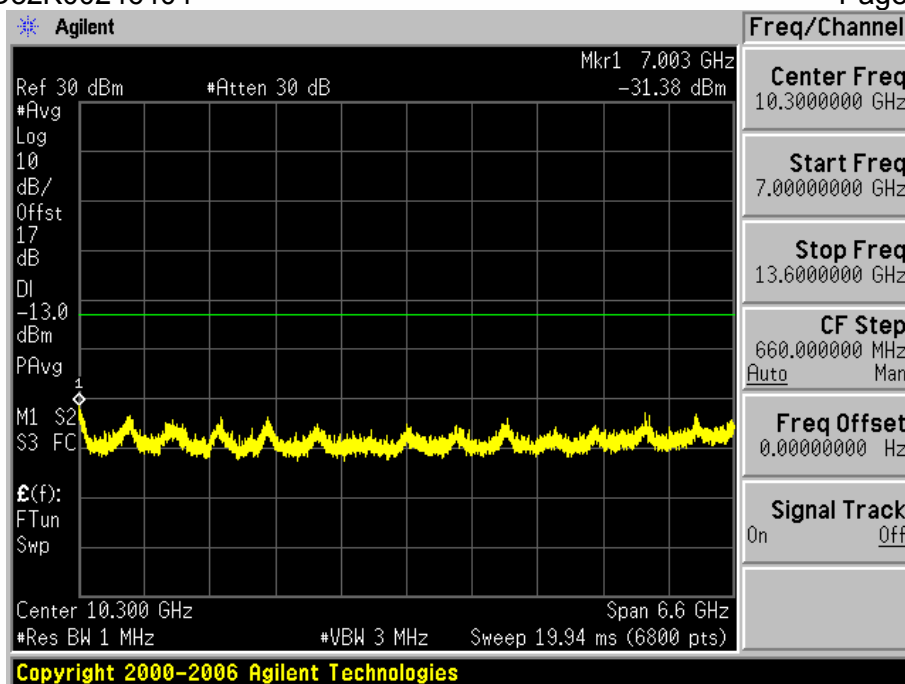




**Test Channel=HCH**

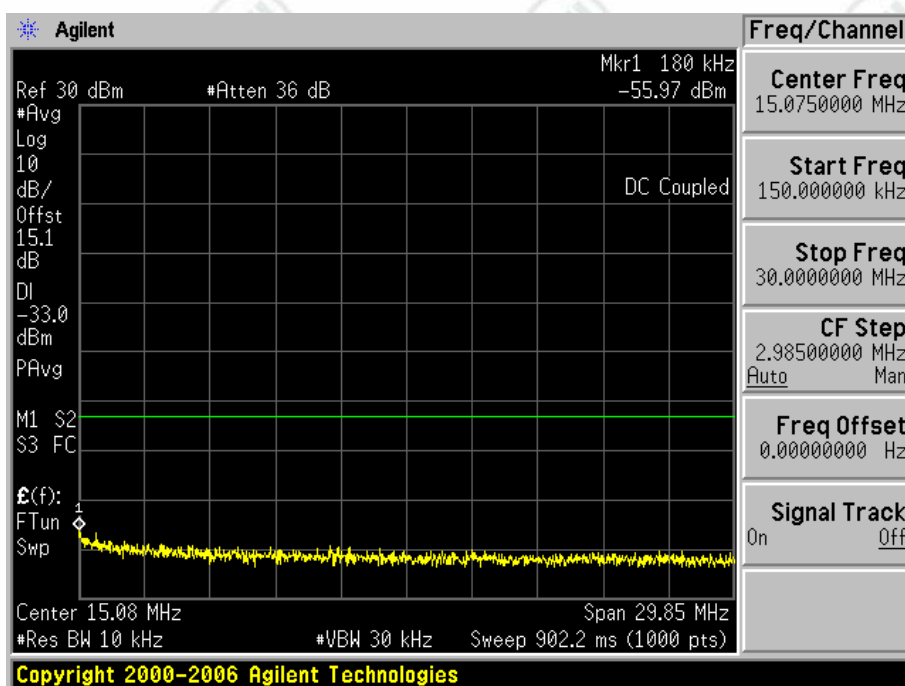
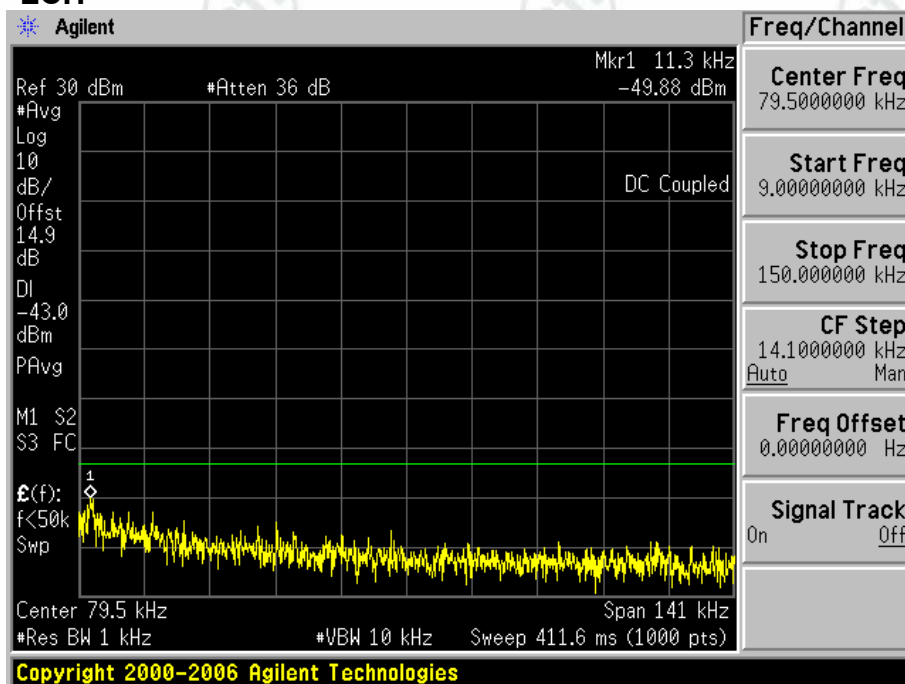


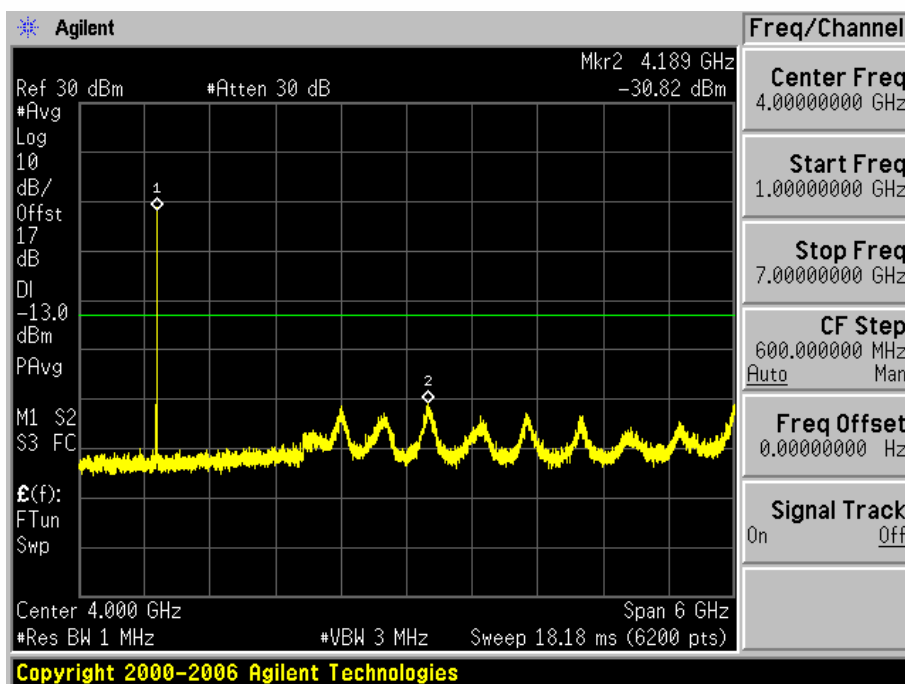
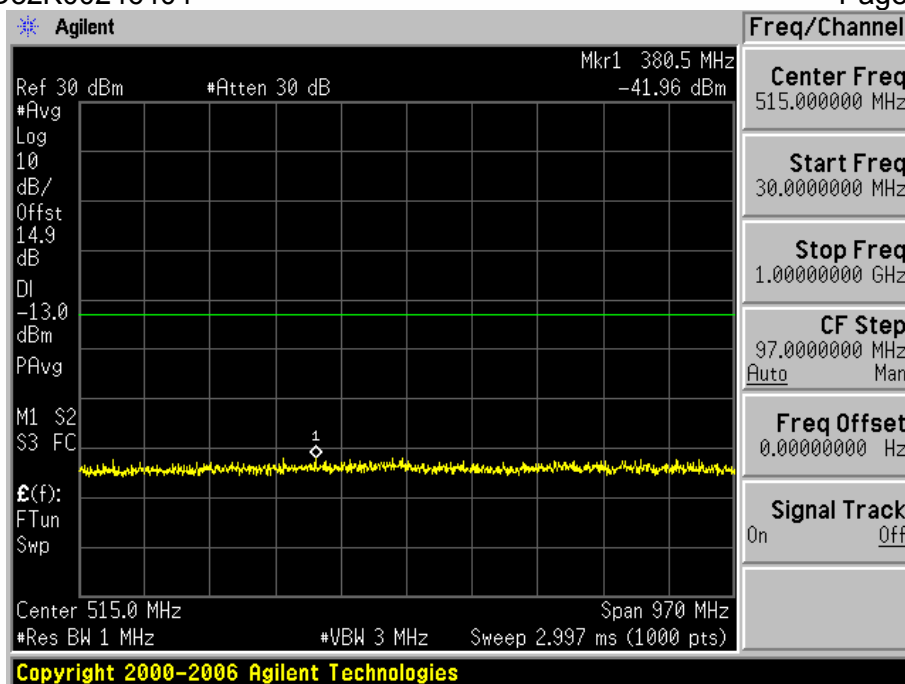


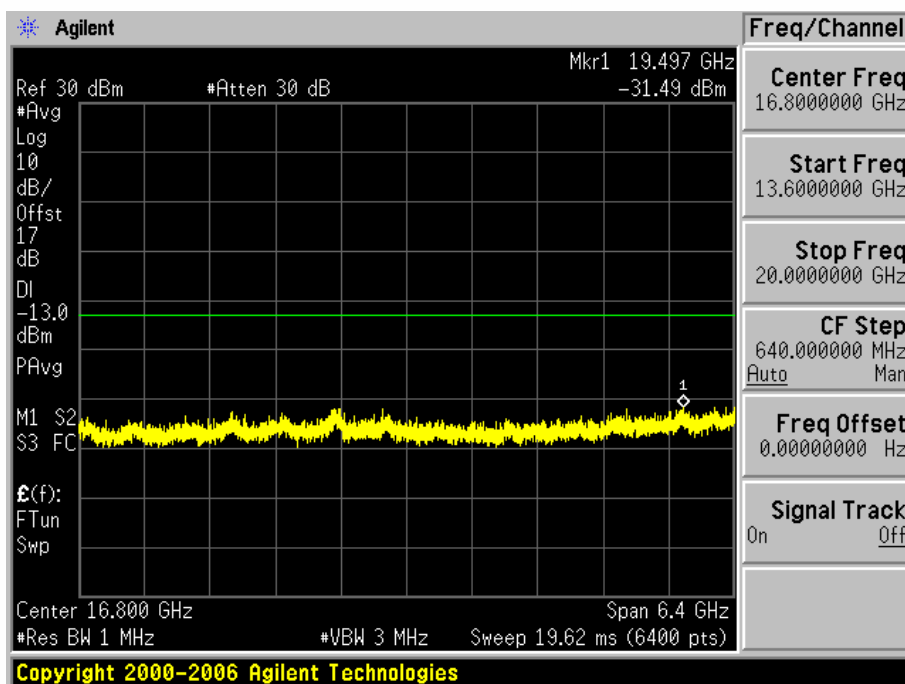
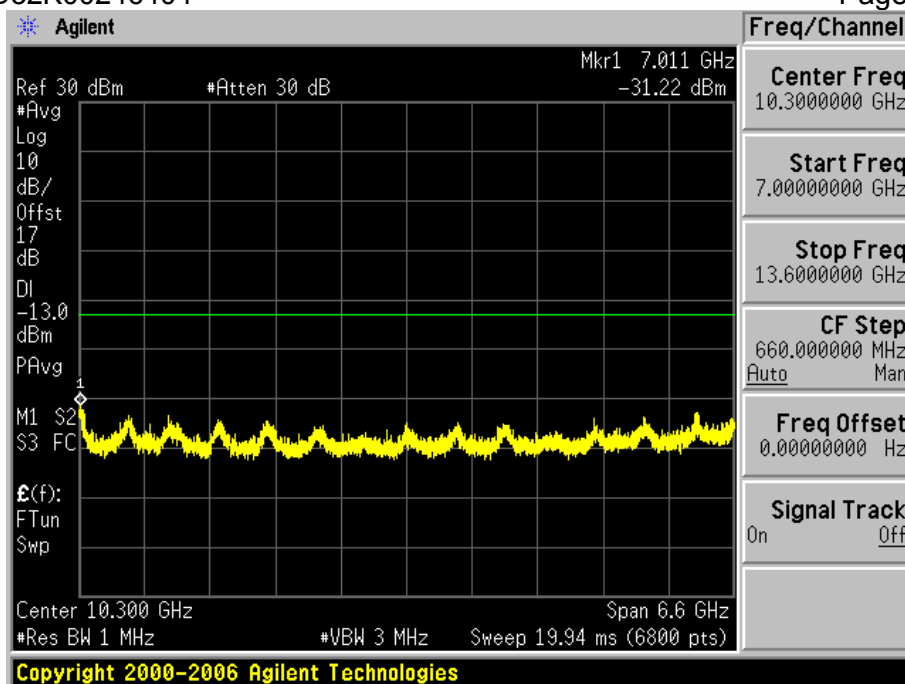


Test Mode=UMTS/TM2

Test Channel=LCH

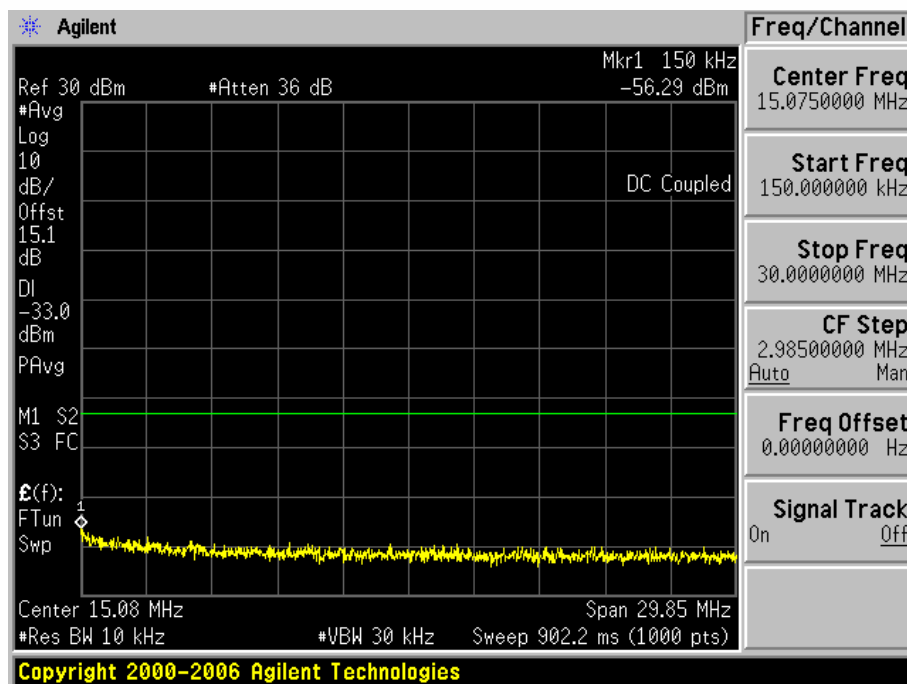
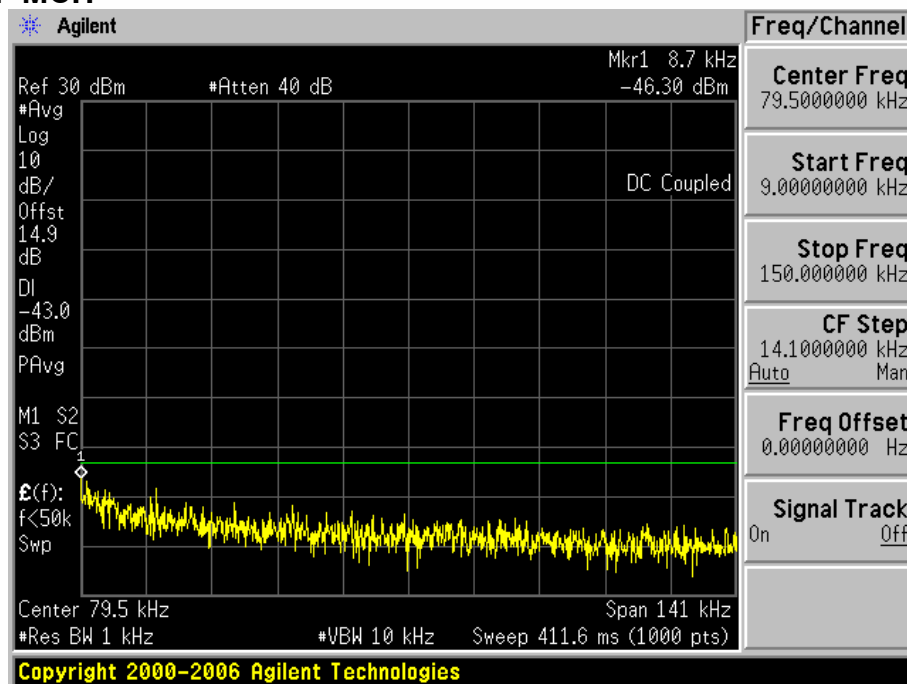


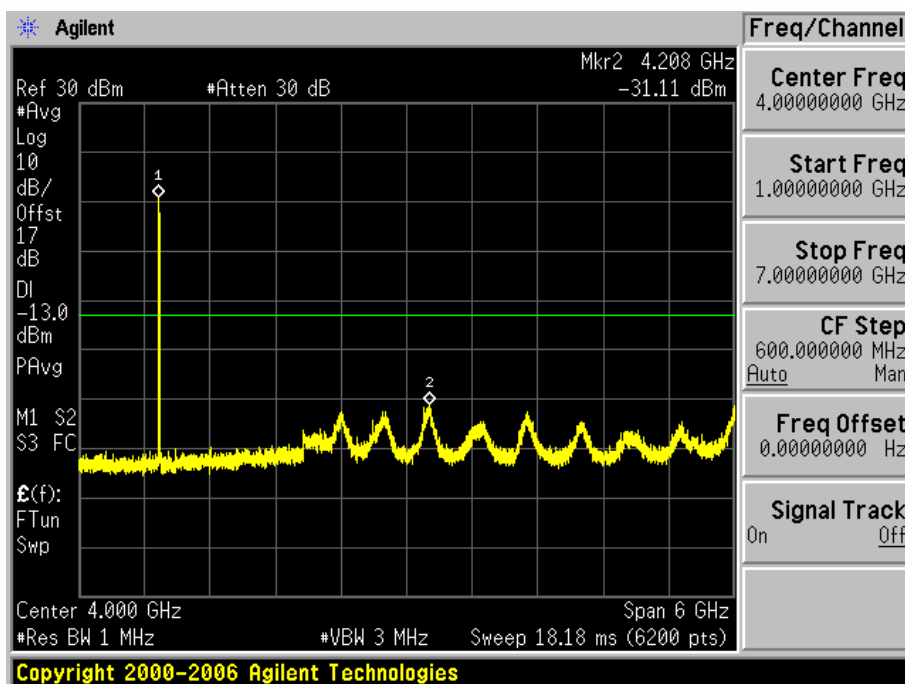
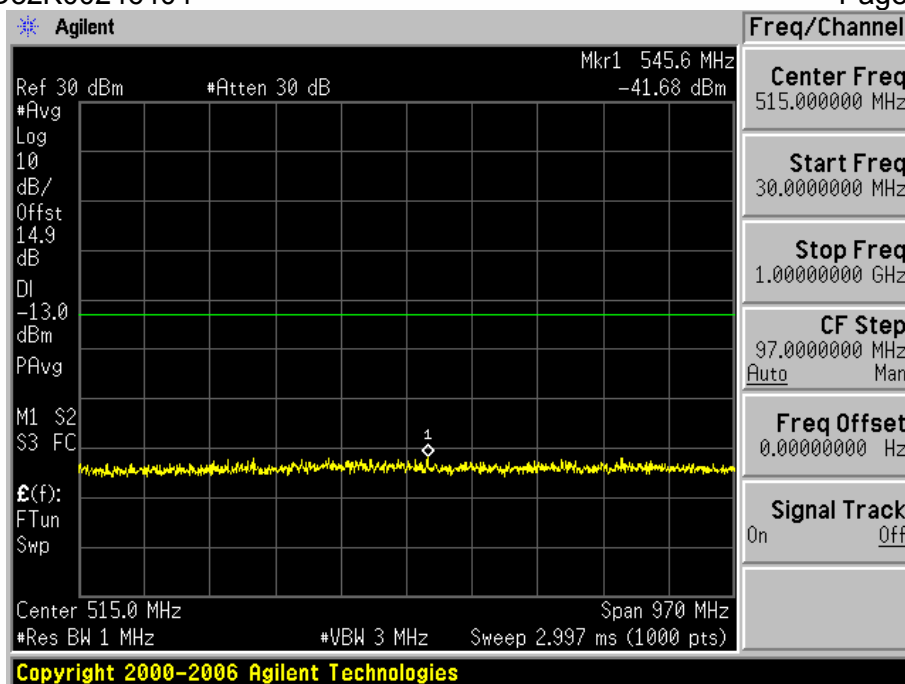


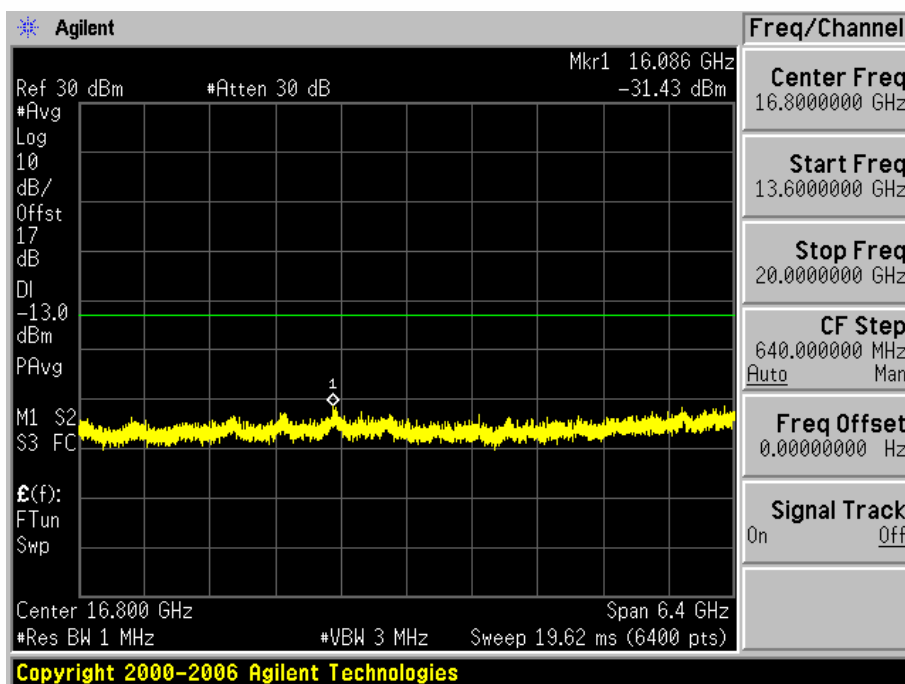
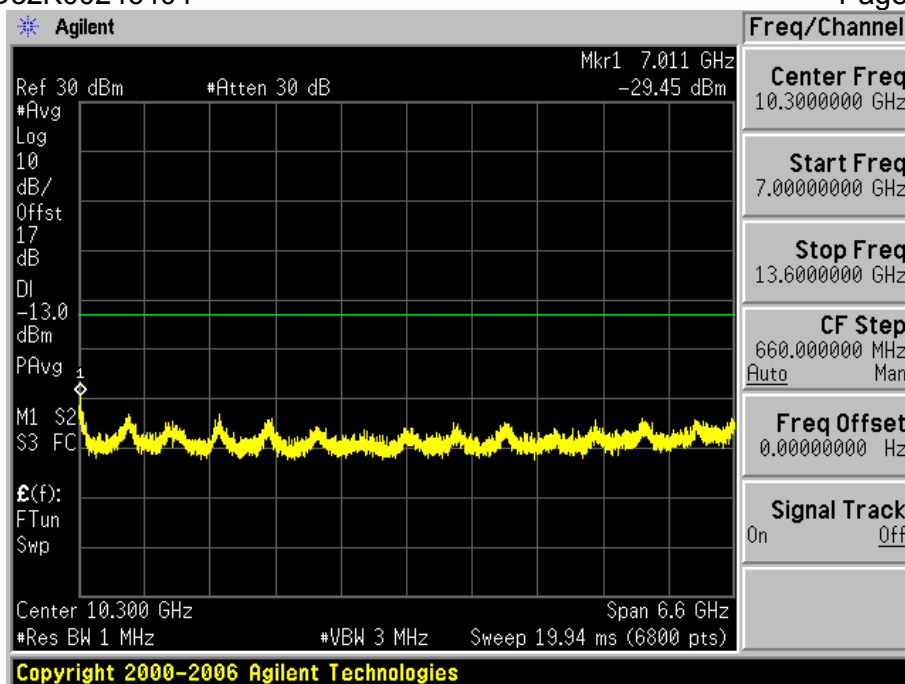




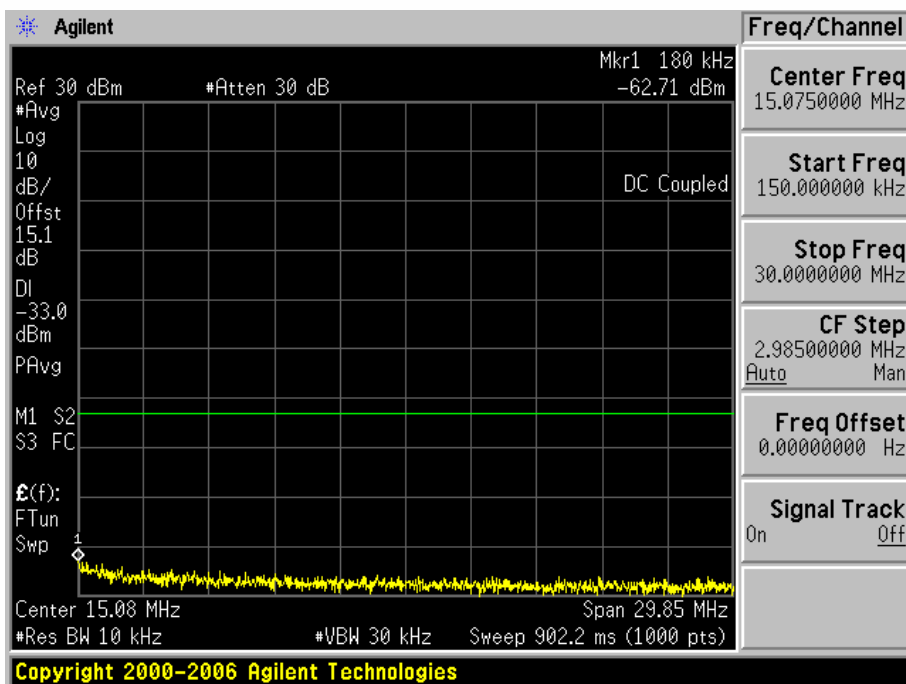
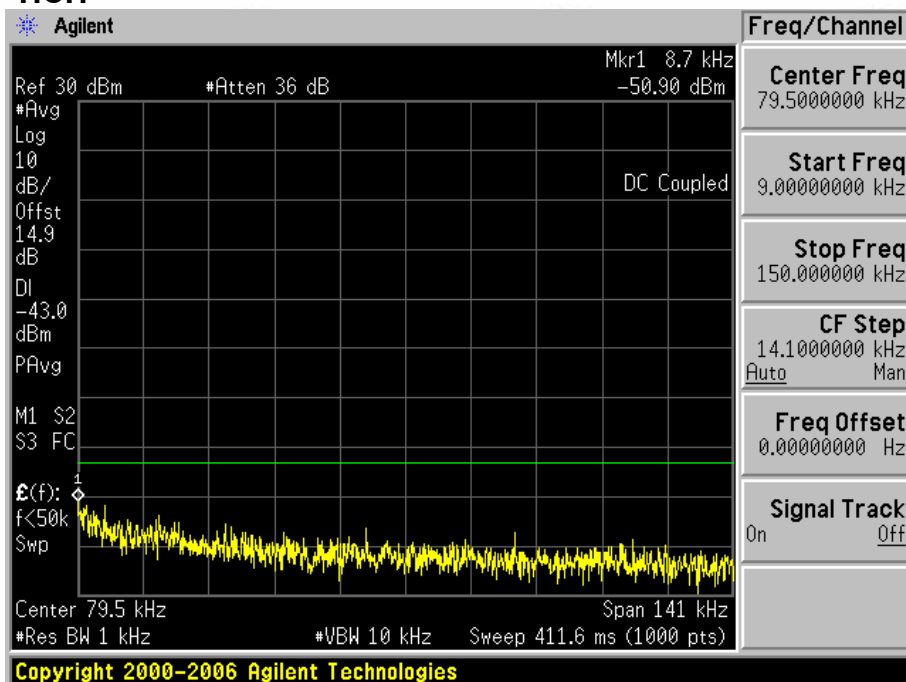
**Test Channel=MCH**

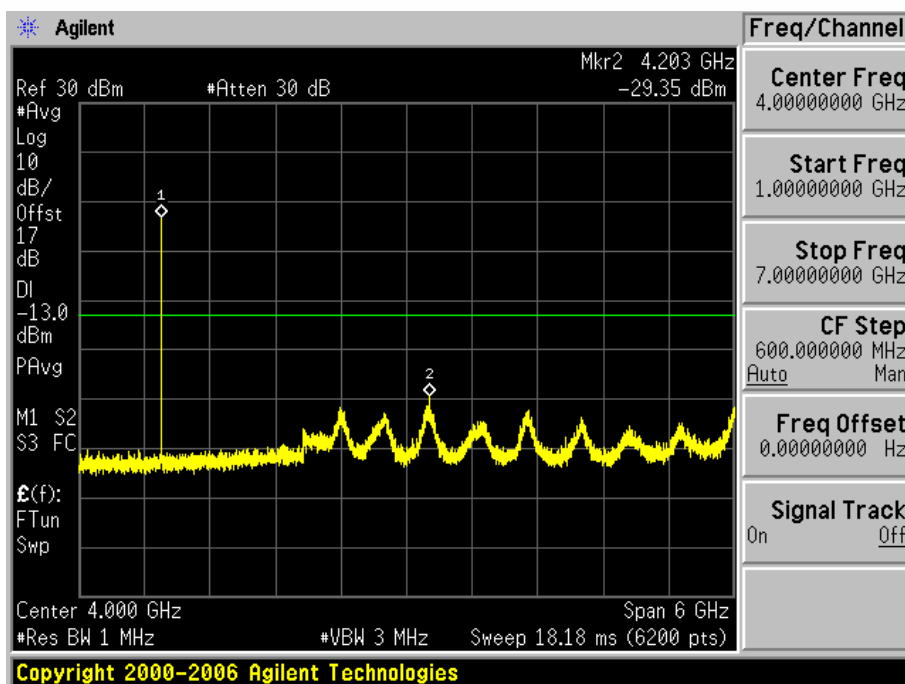
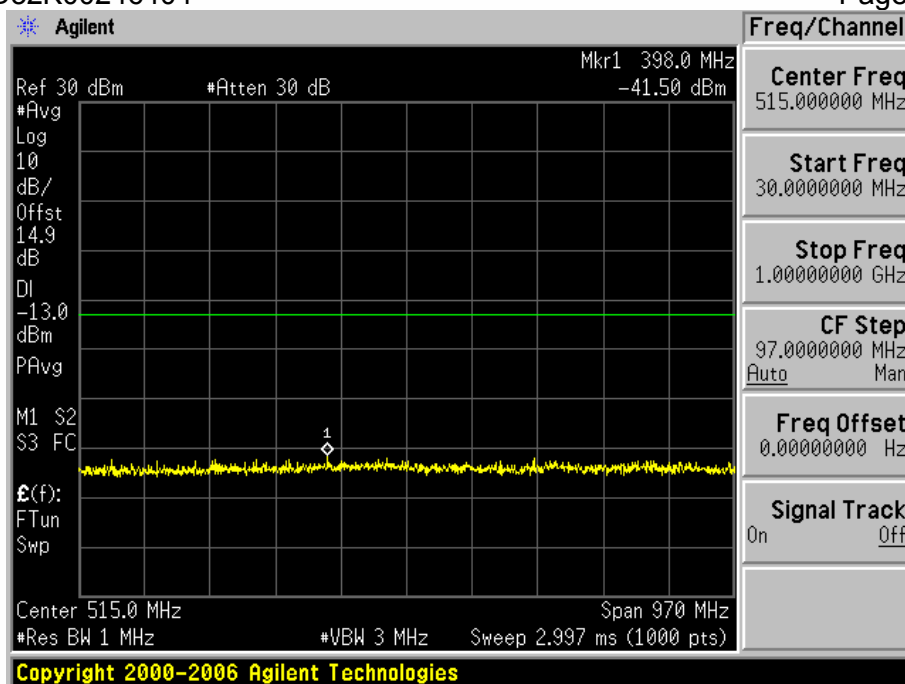


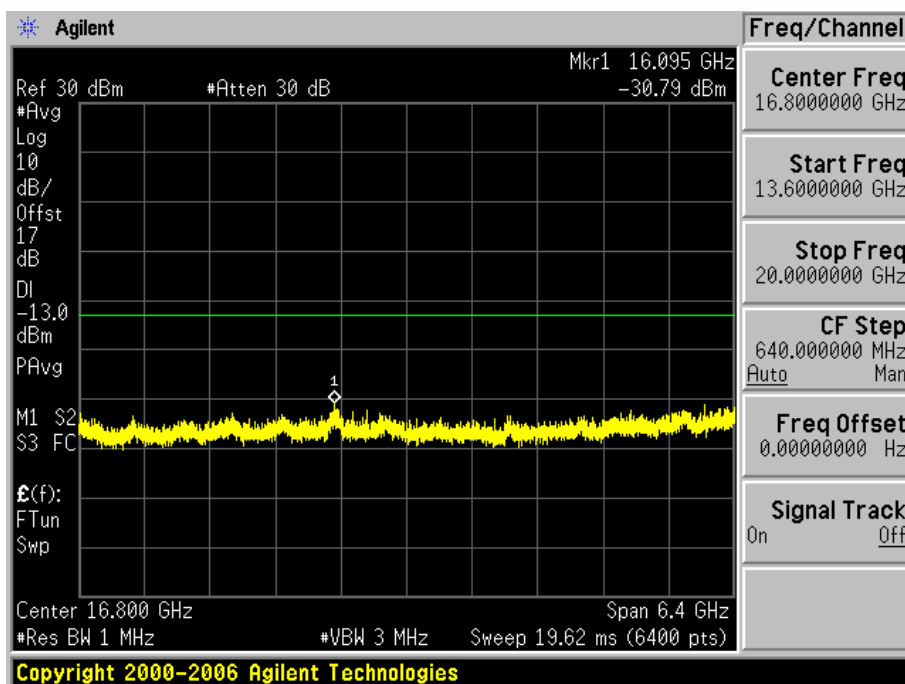
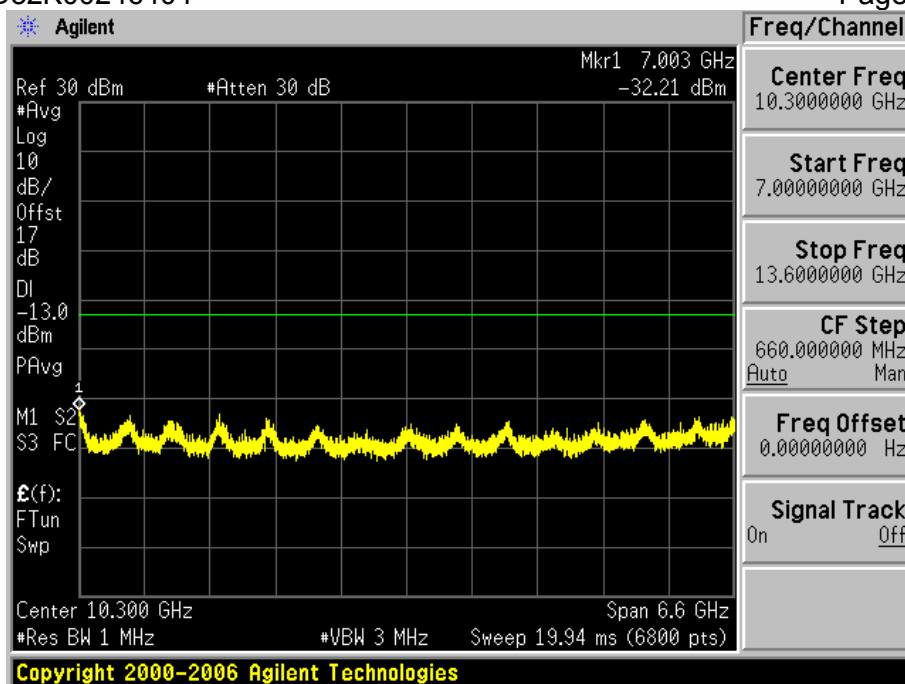




Test Channel=HCH



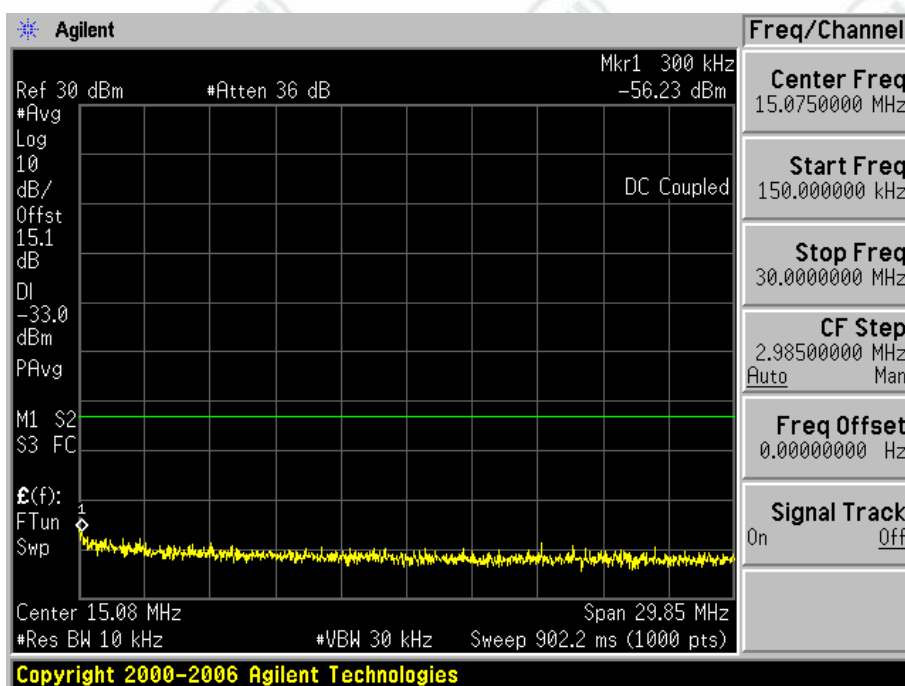
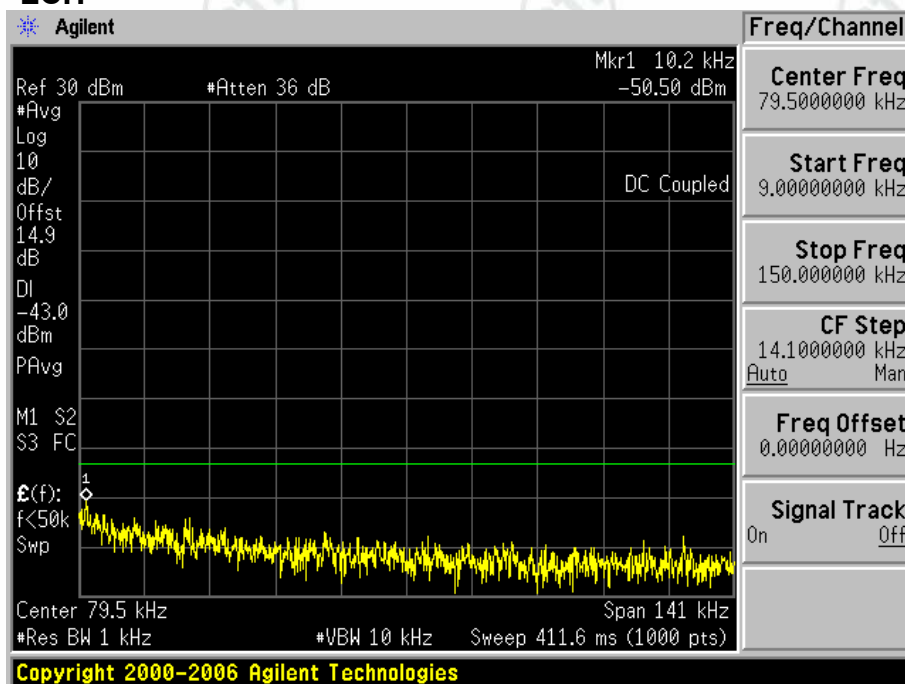


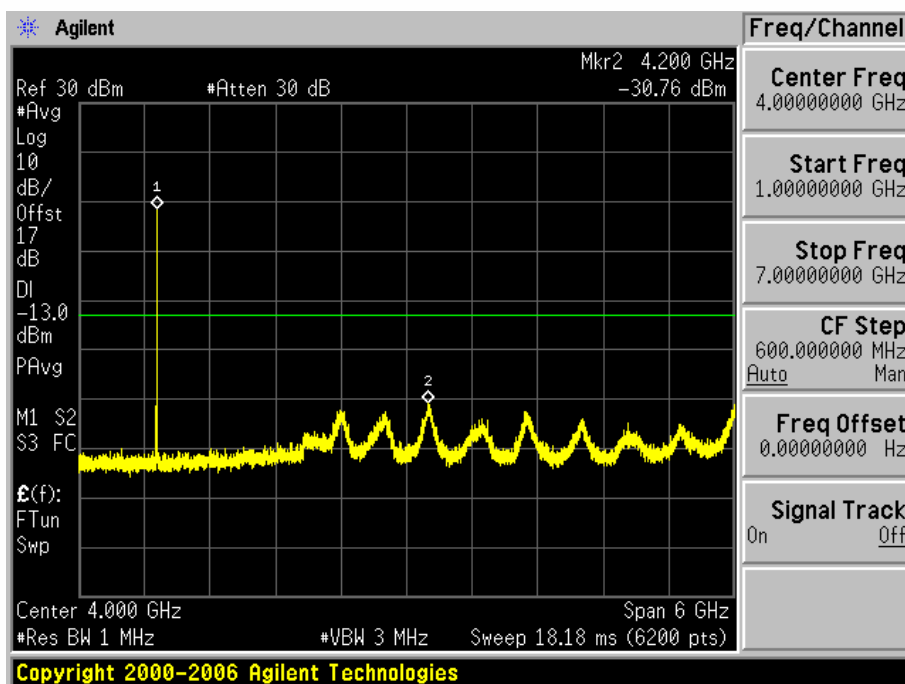
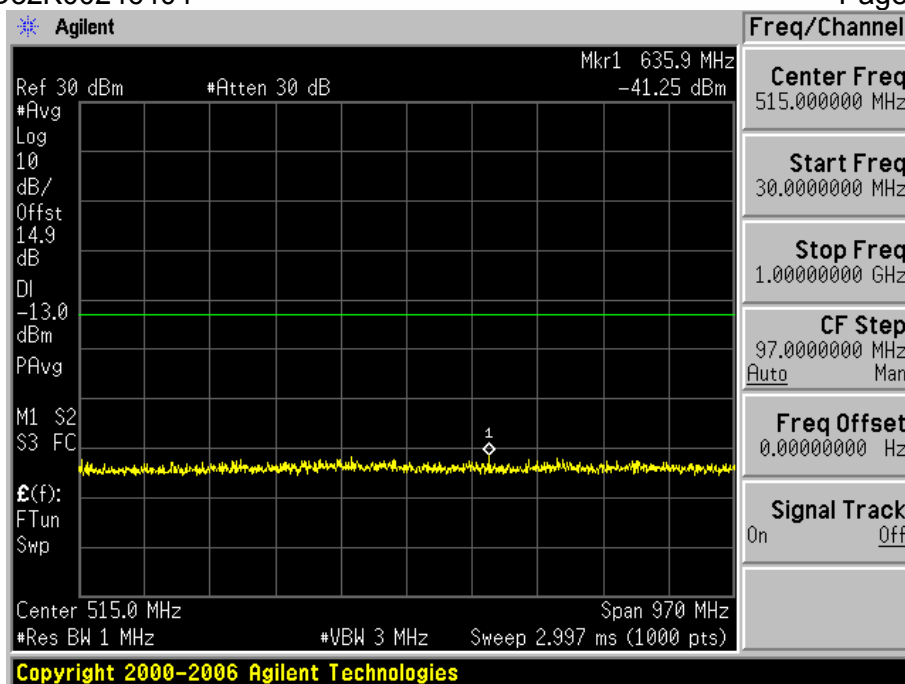


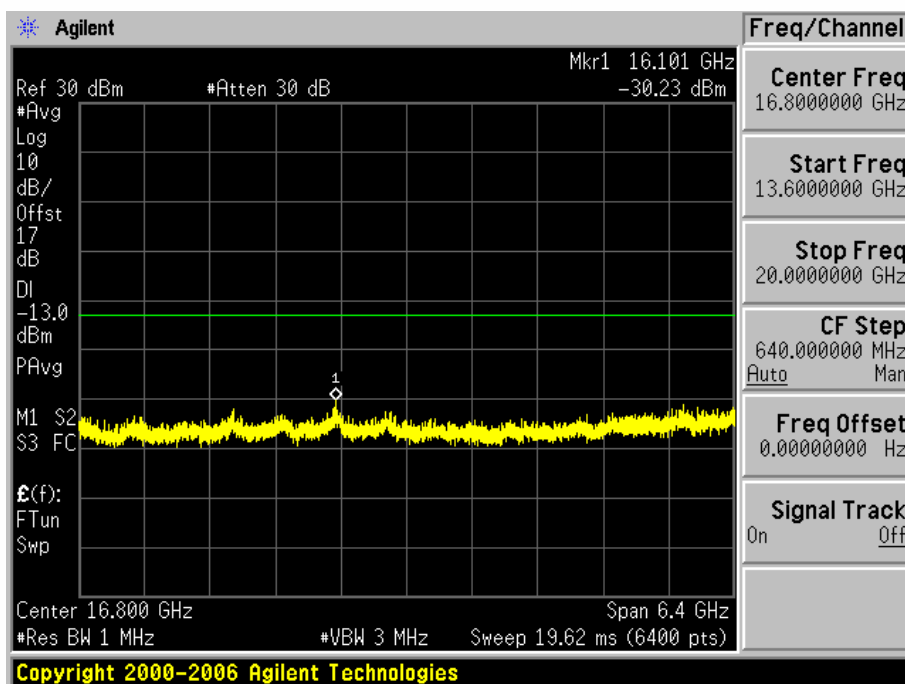
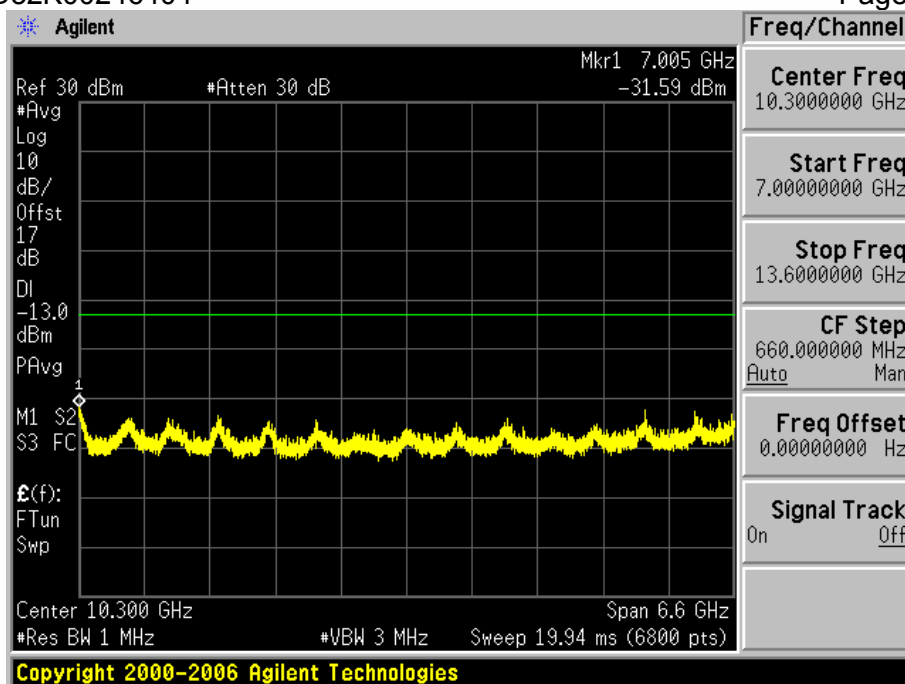


Test Mode=UMTS/TM3

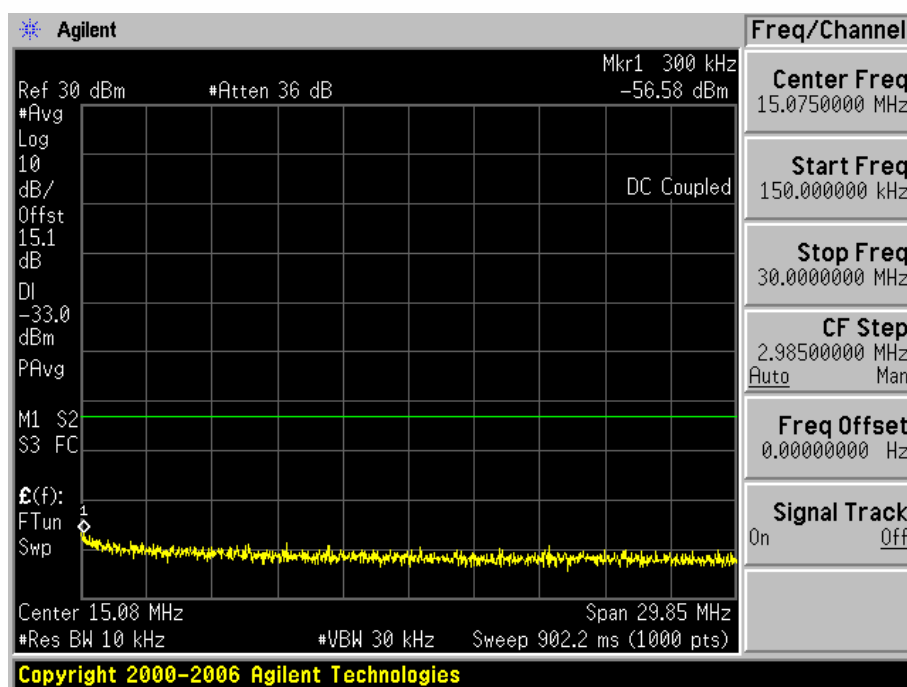
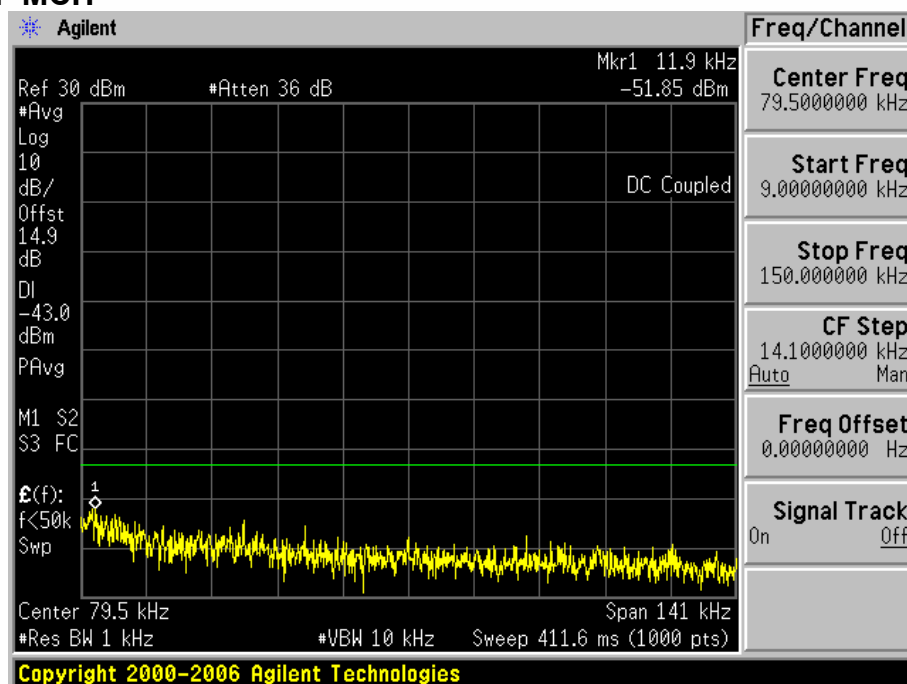
Test Channel=LCH

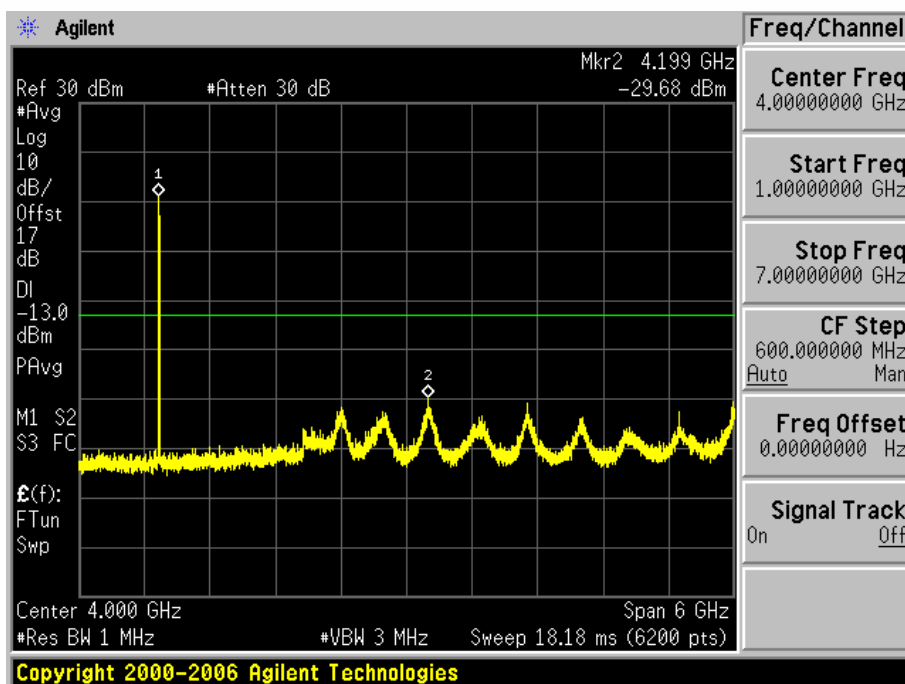
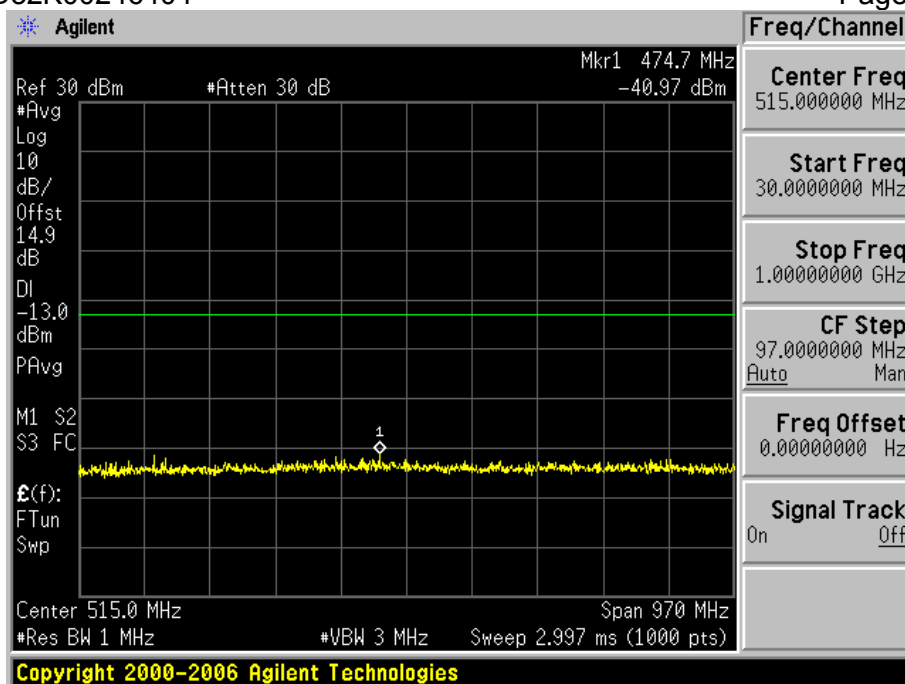


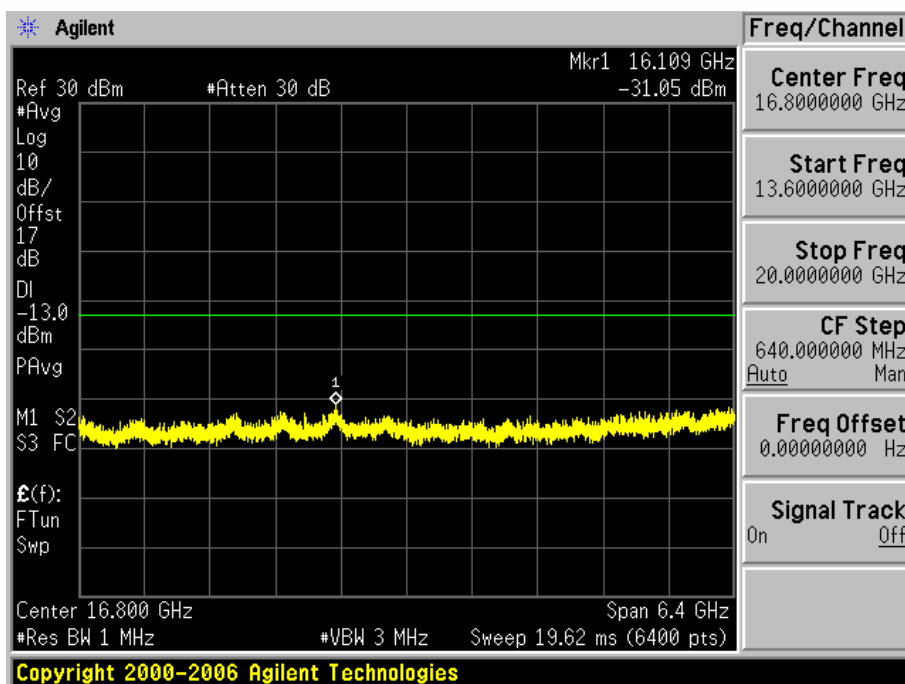
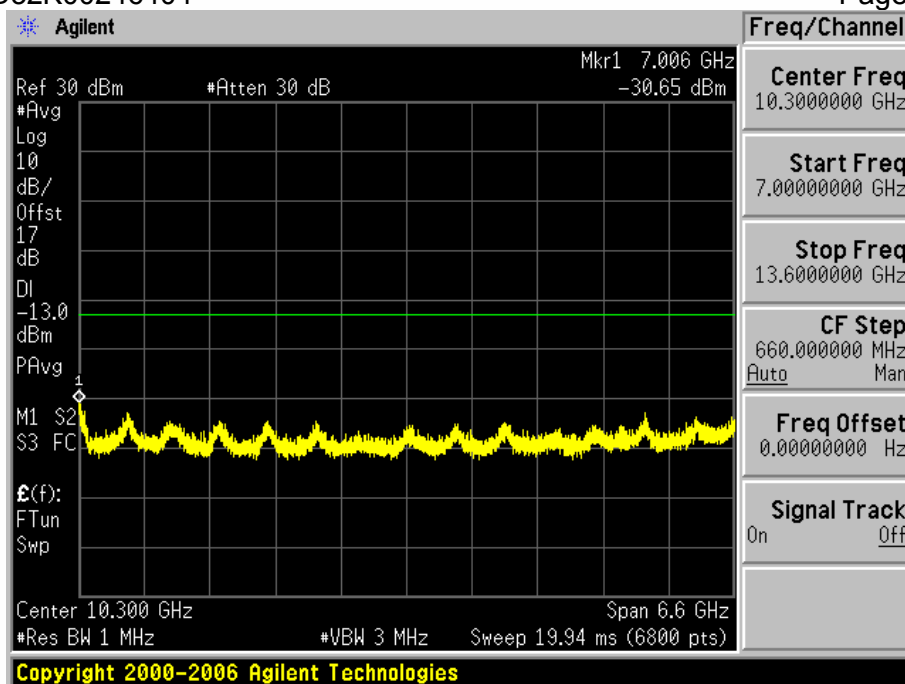




**Test Channel=MCH**

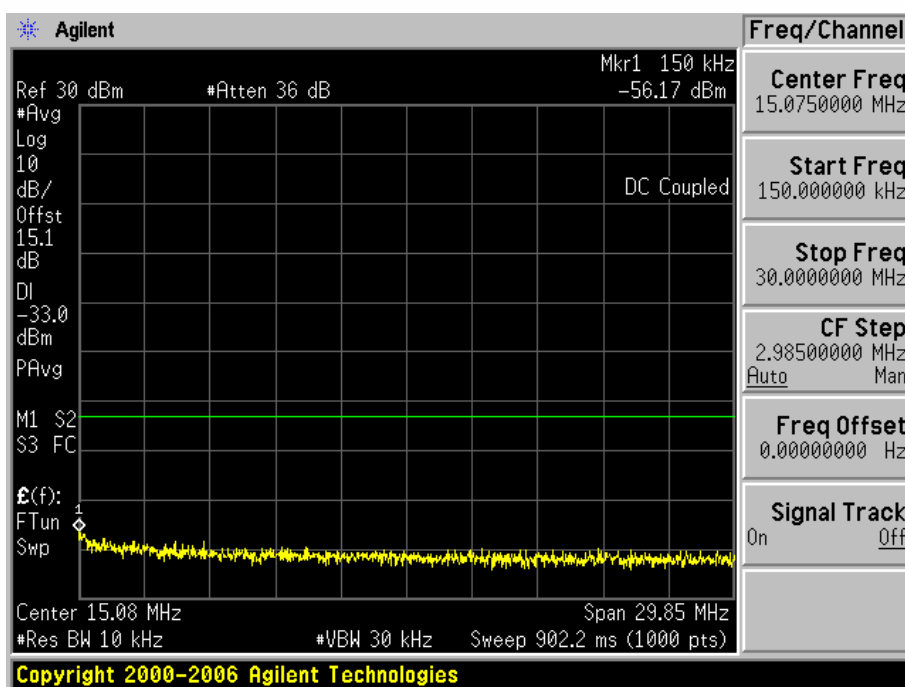
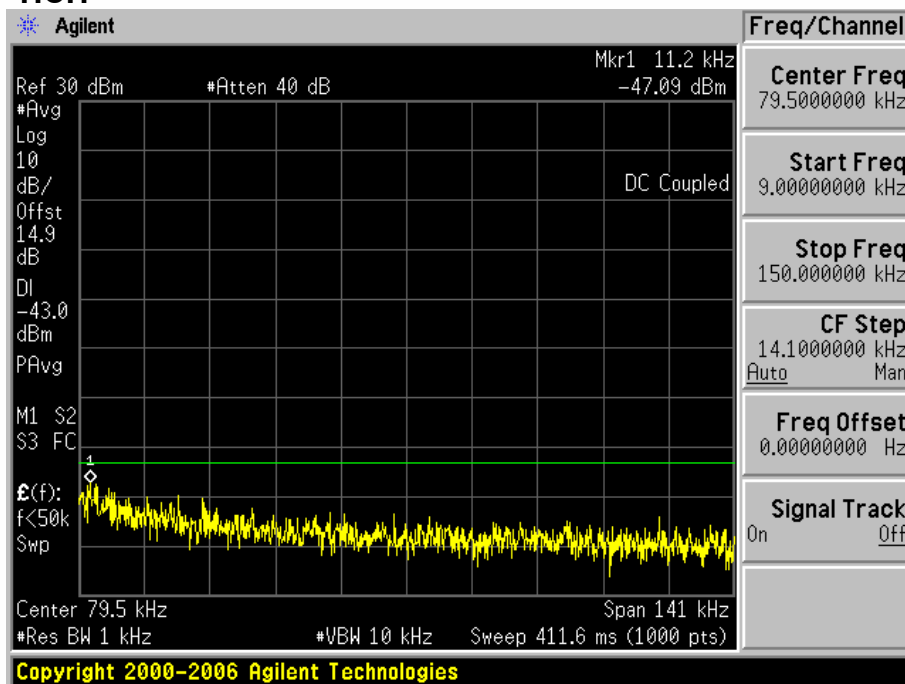


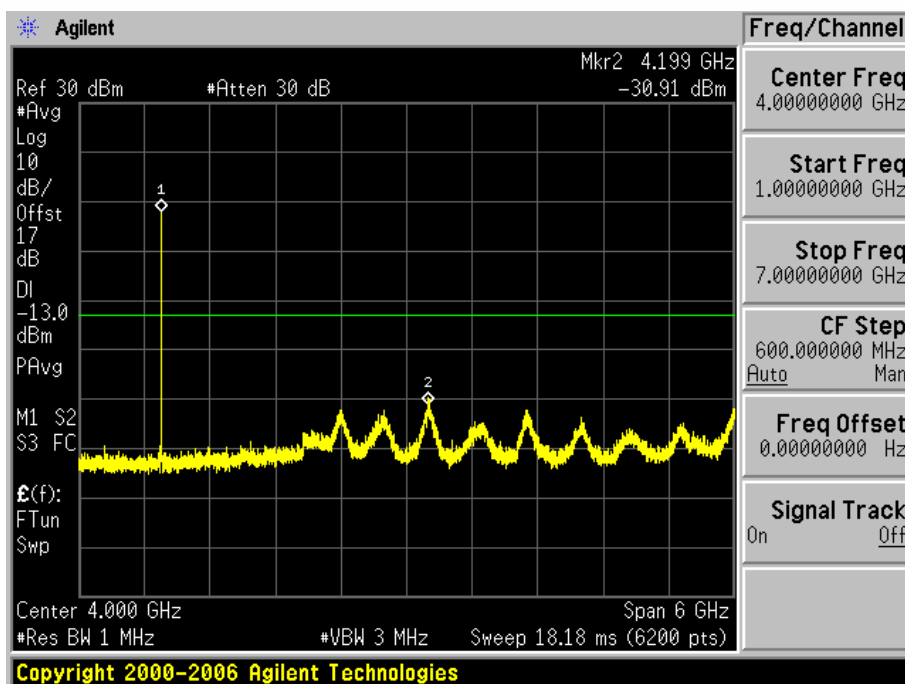
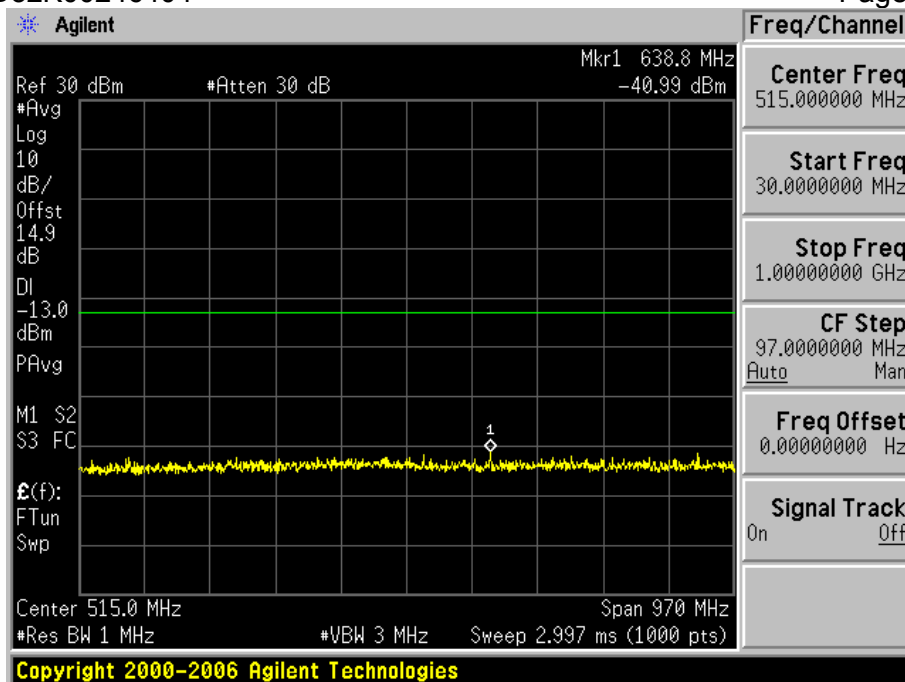


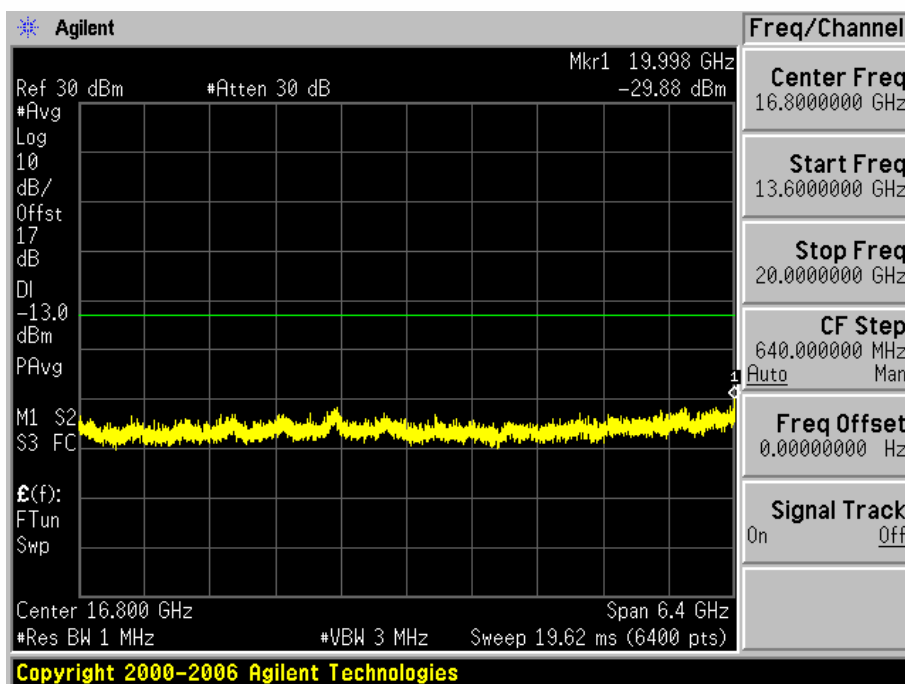
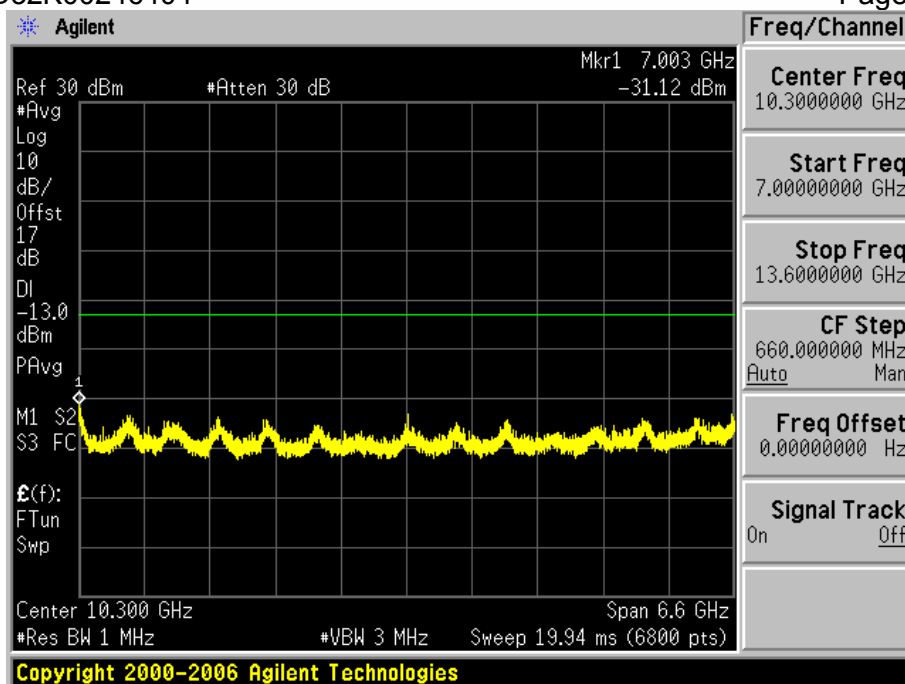




**Test Channel=HCH**







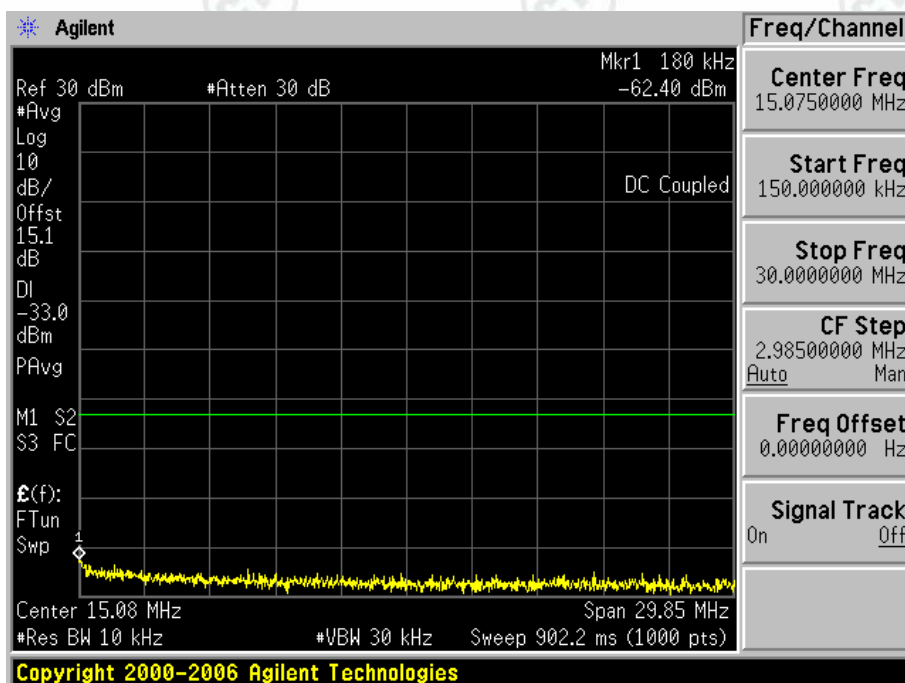
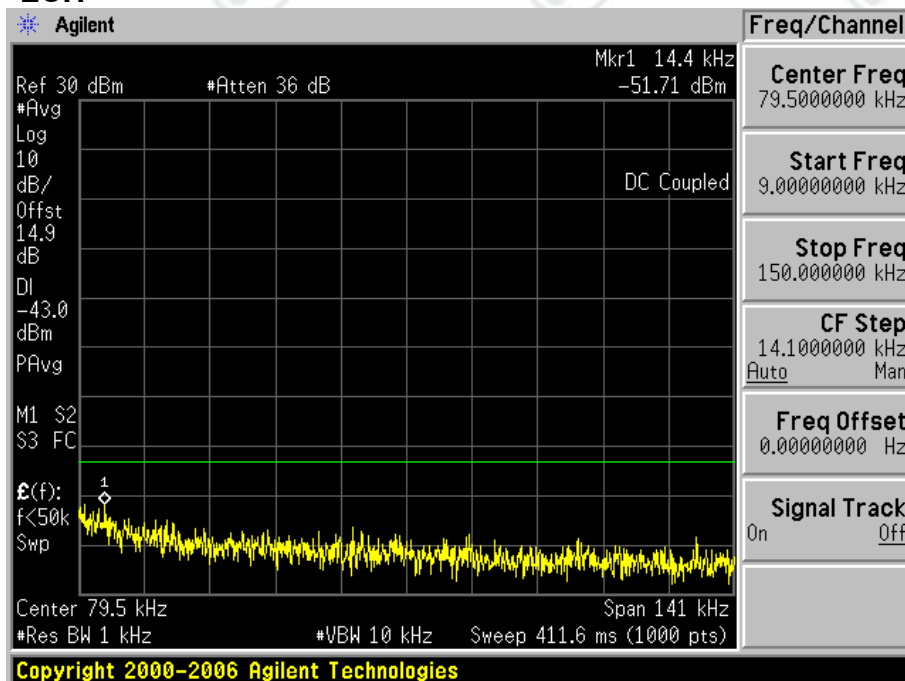
Report No.:EED32K00246404

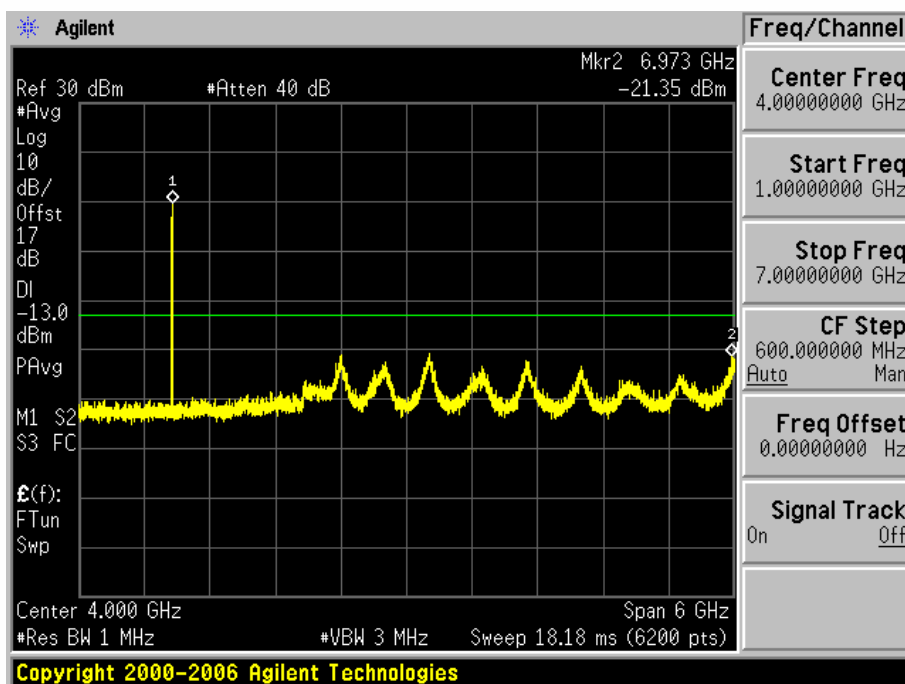
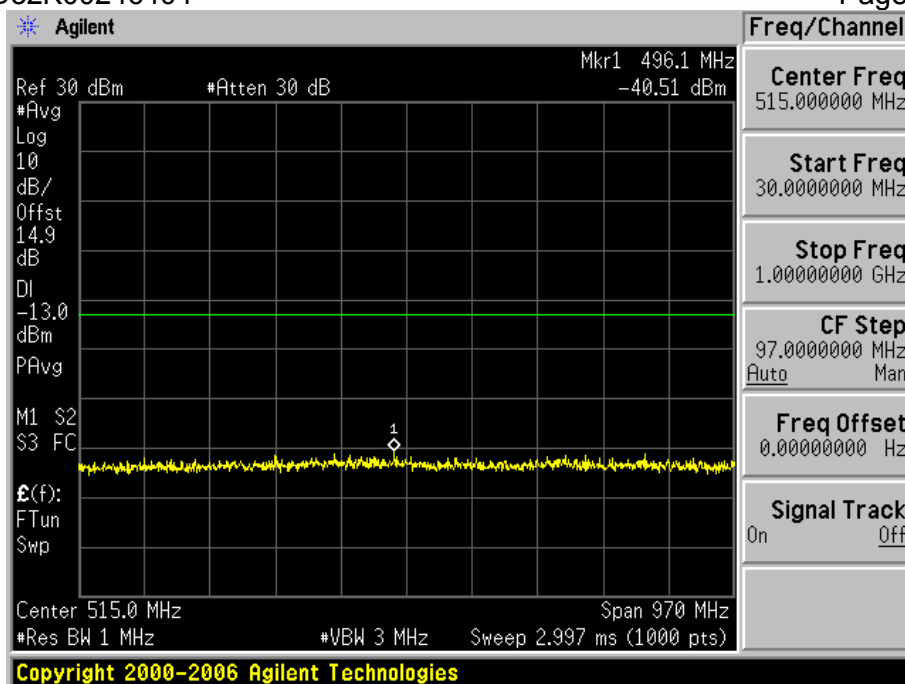
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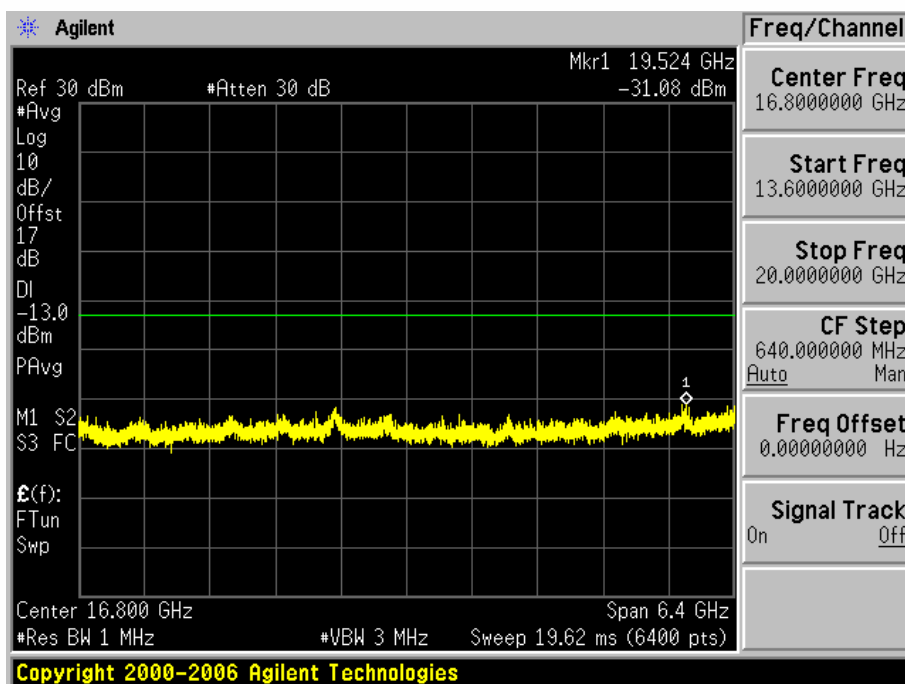
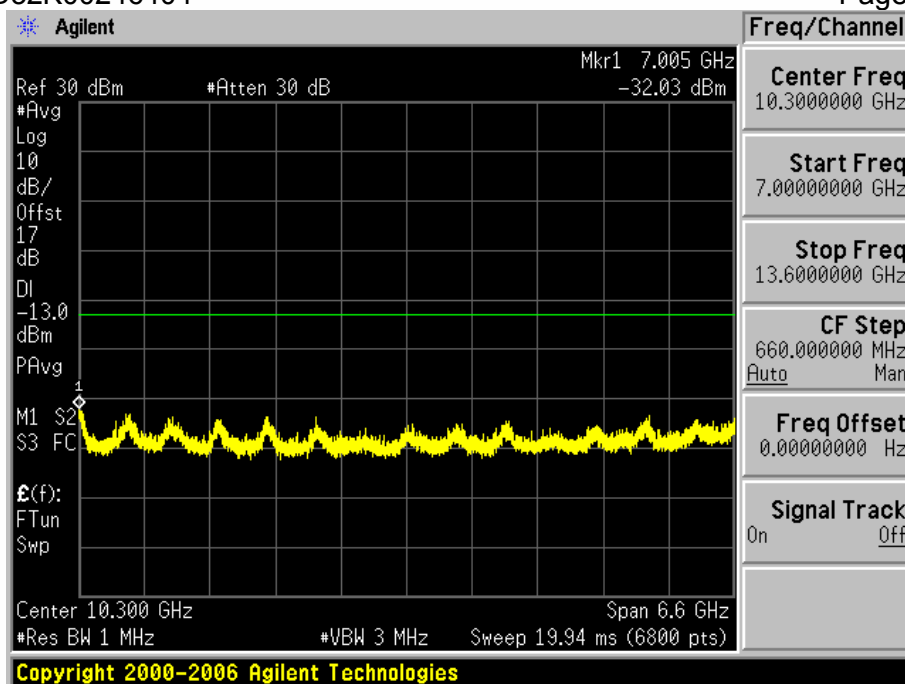
Test Band=WCDMA1900

Test Mode=UMTS/TM1

Test Channel=LCH

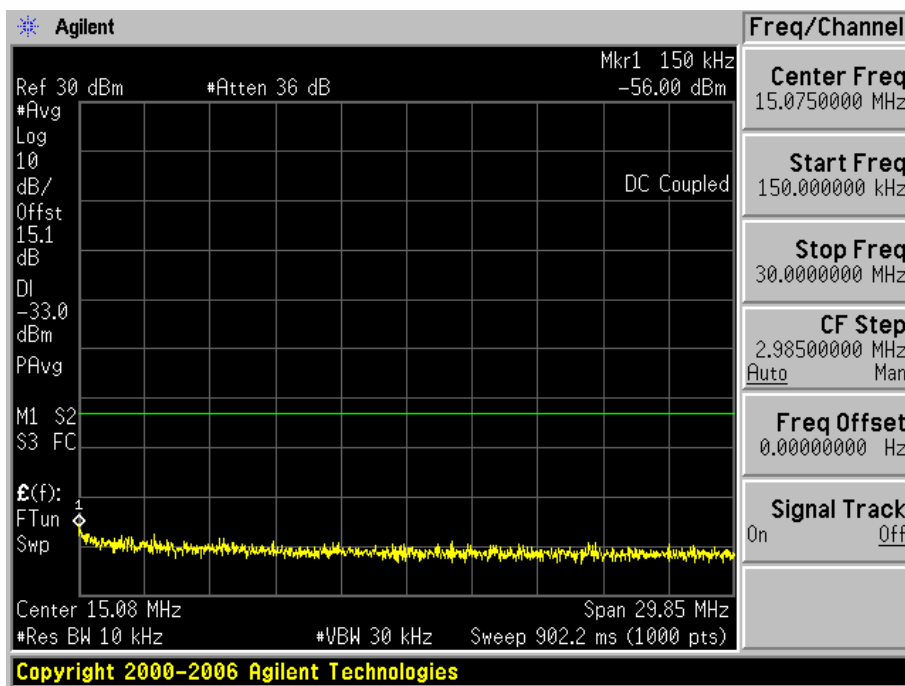
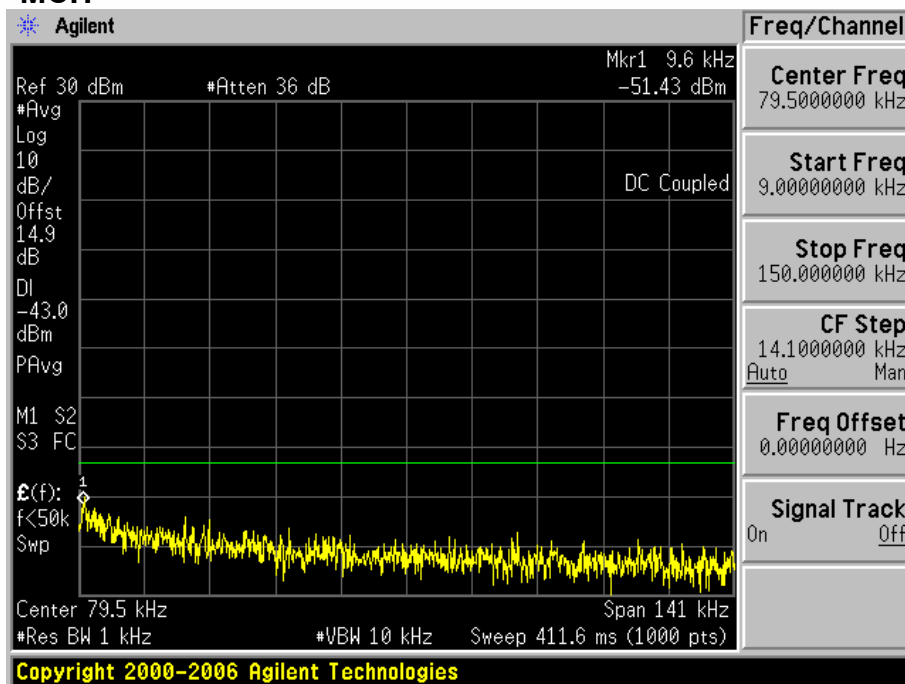


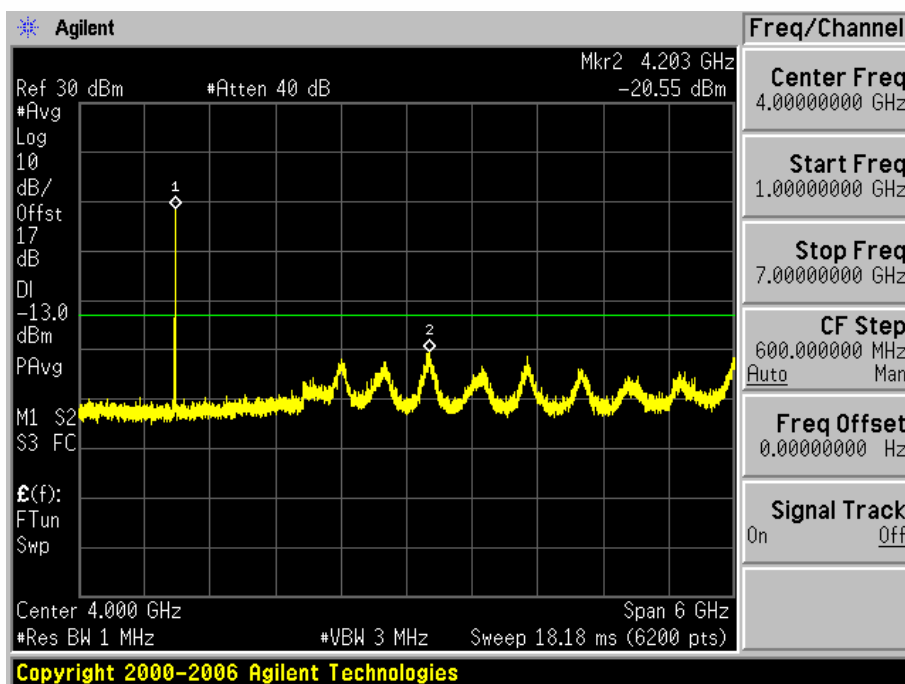
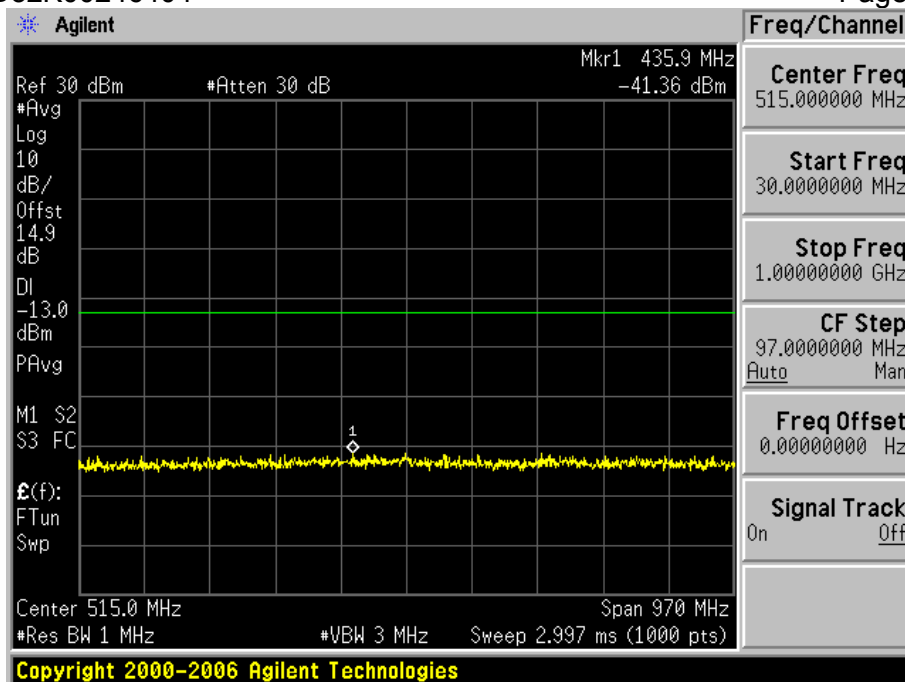


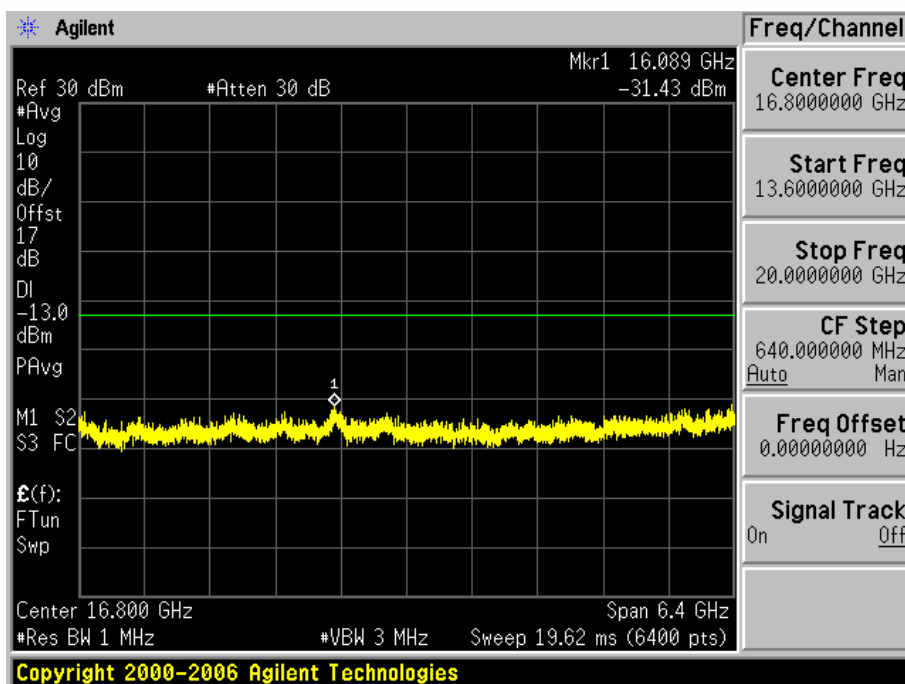
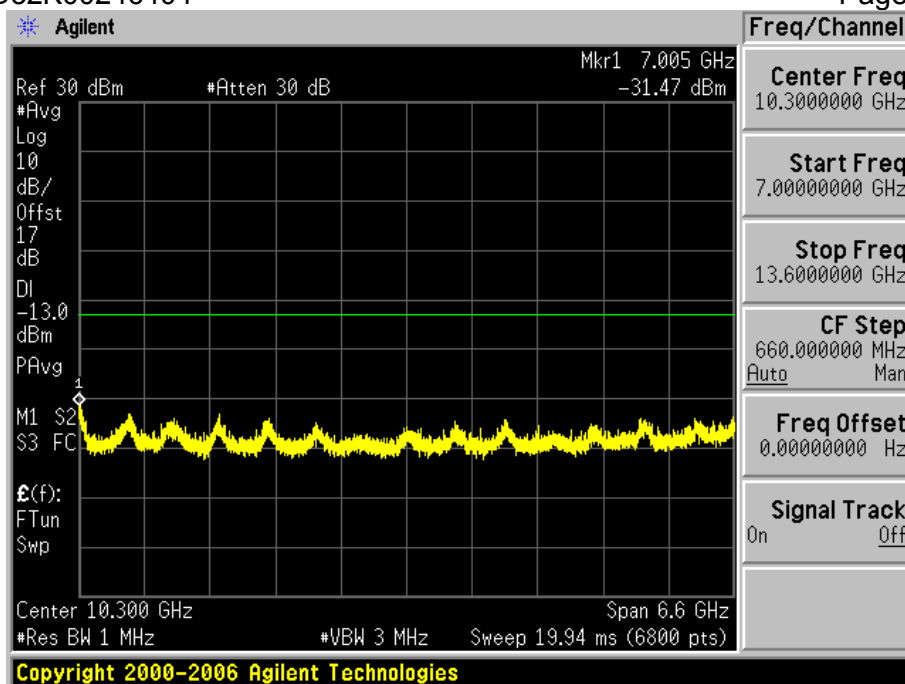




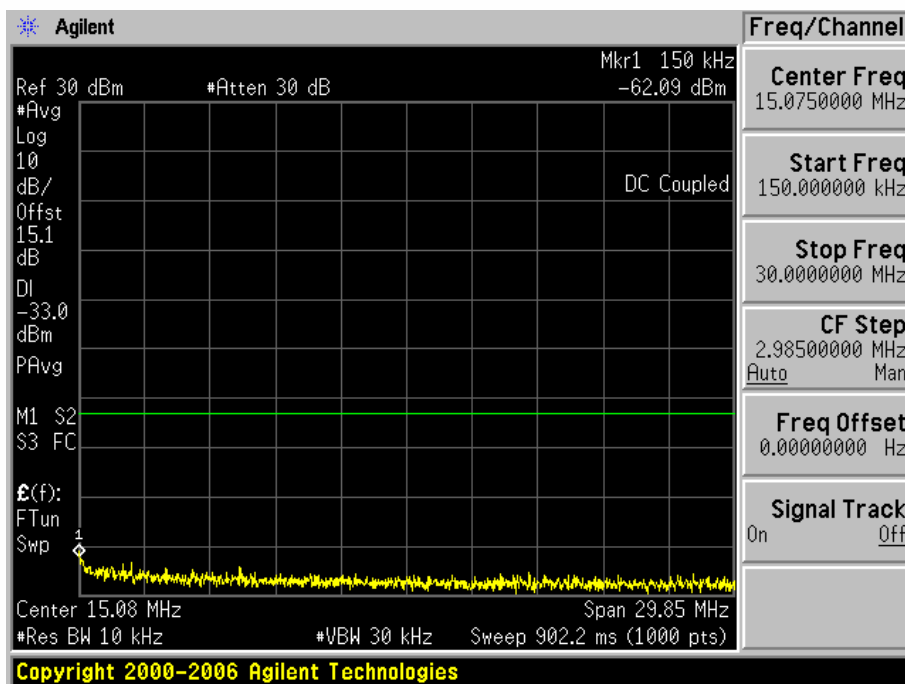
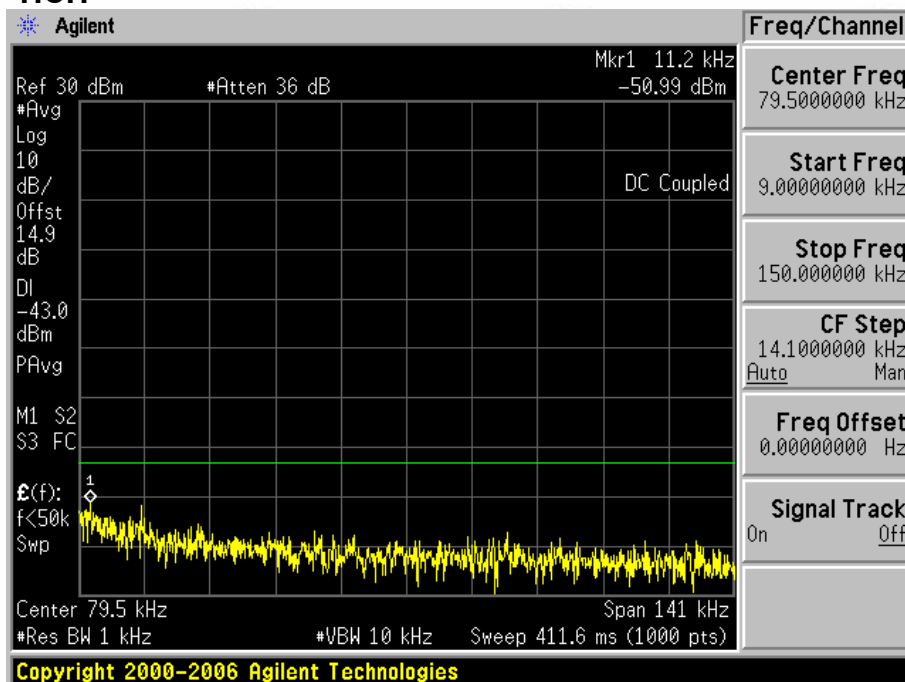
**Test Channel=MCH**

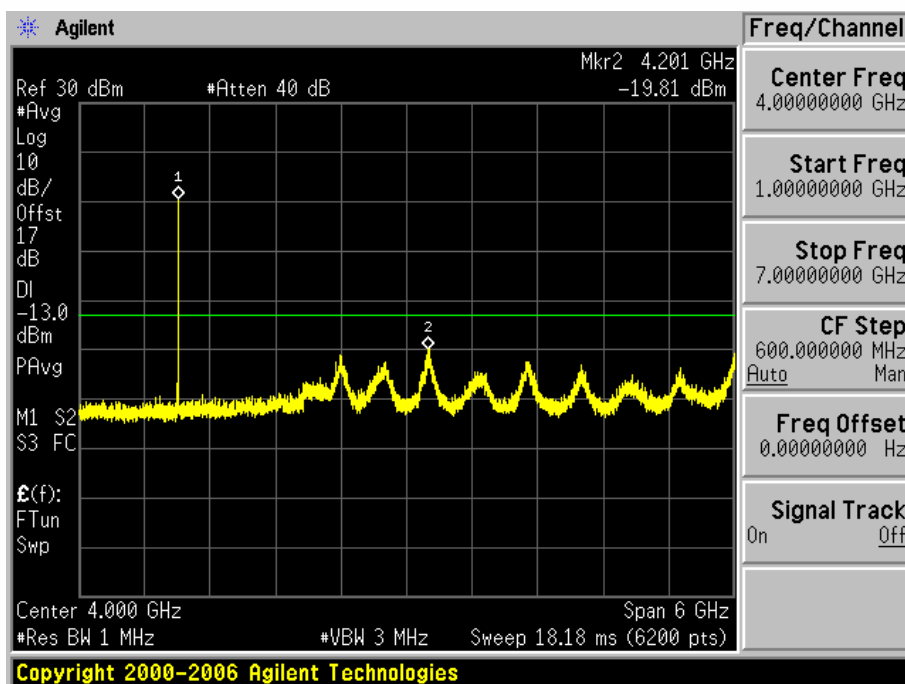
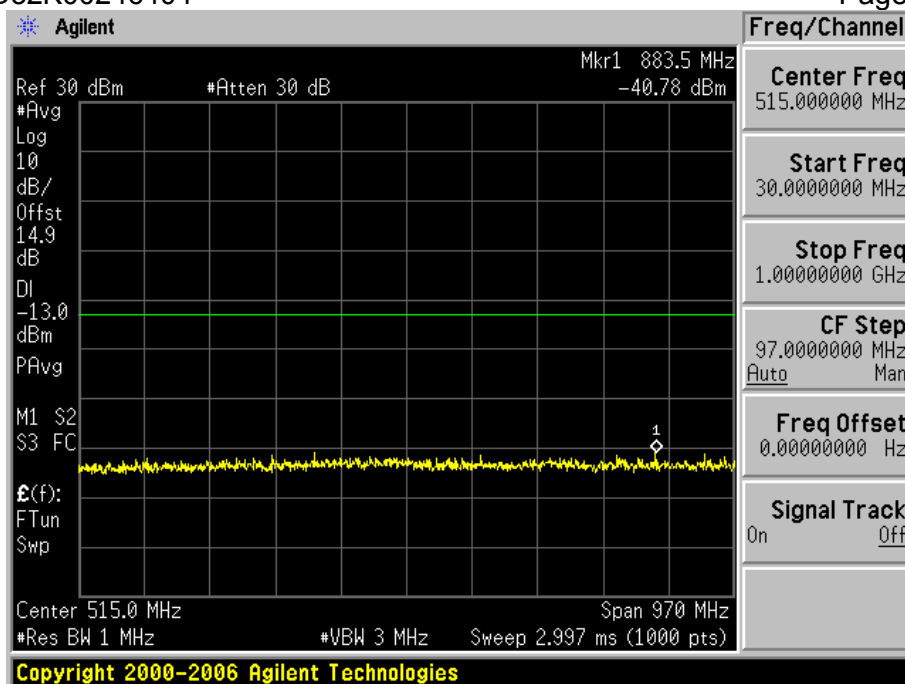


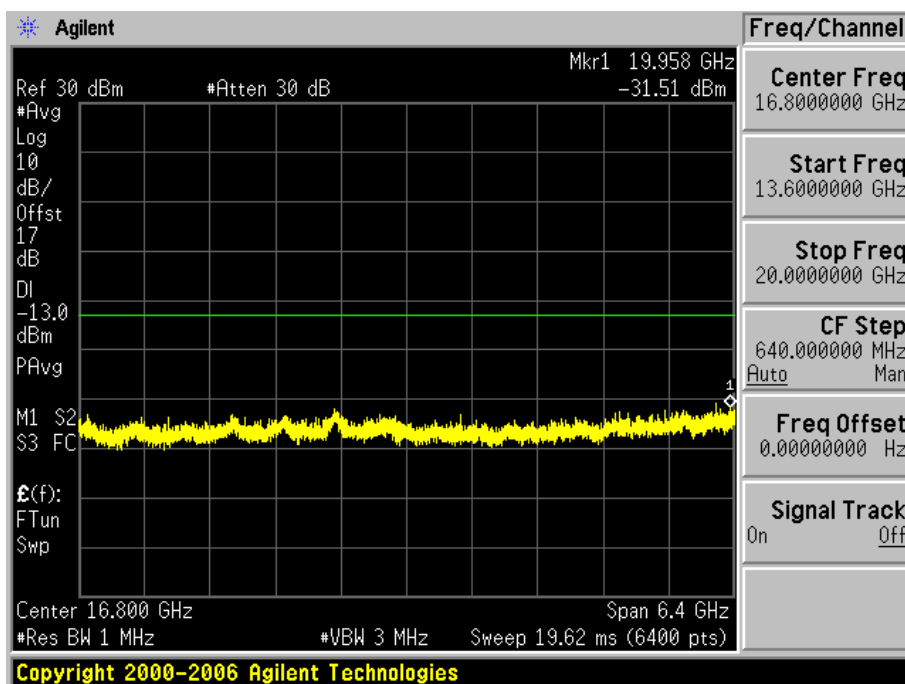
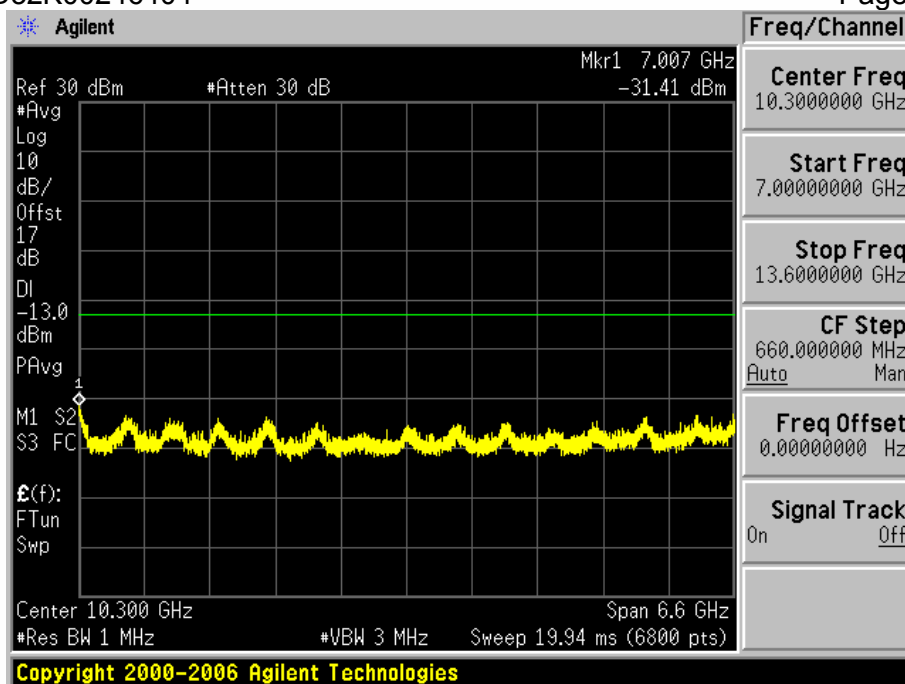




Test Channel=HCH







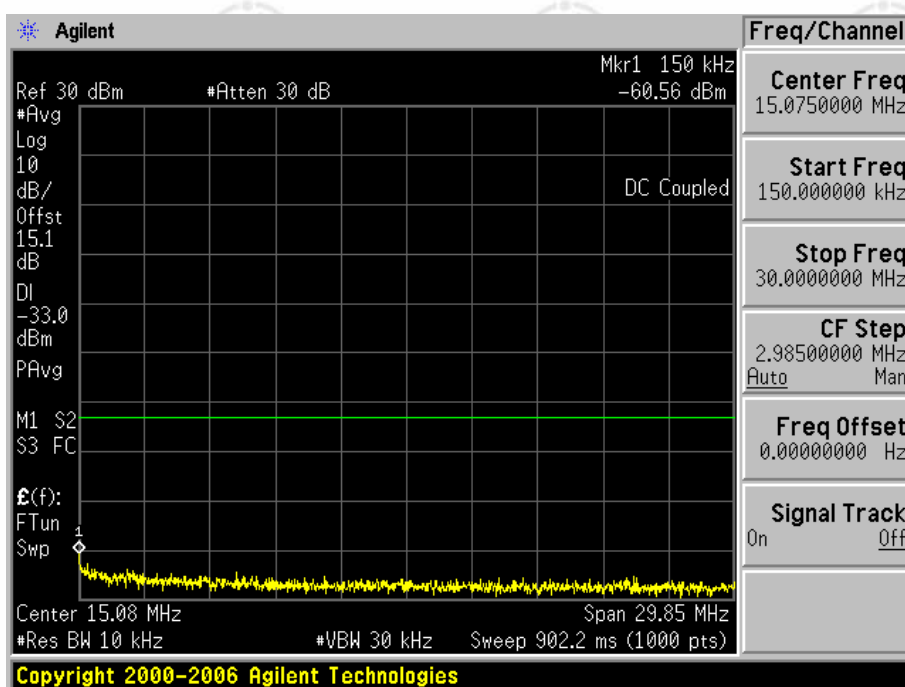
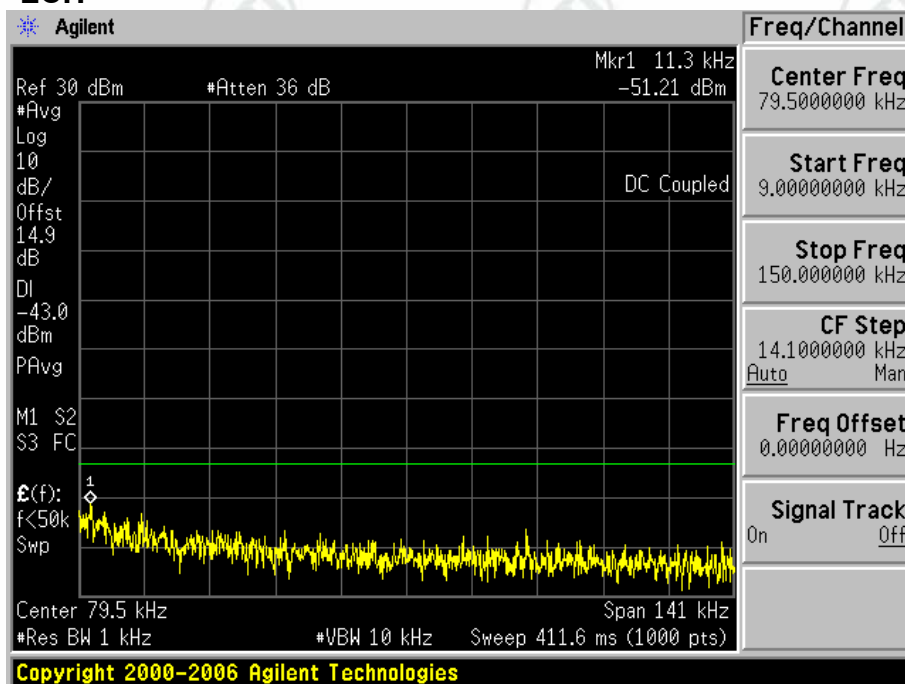


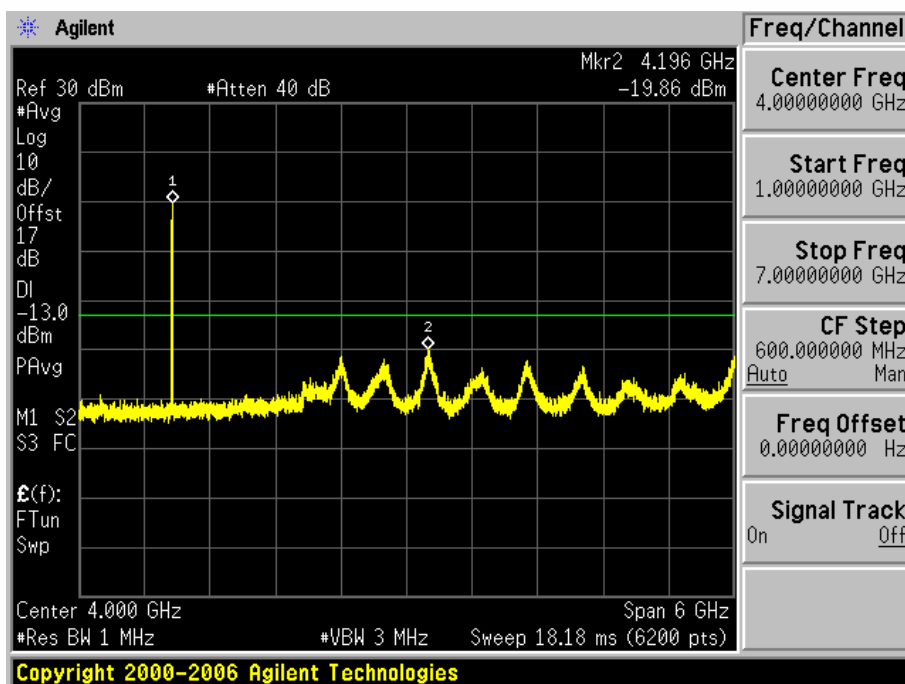
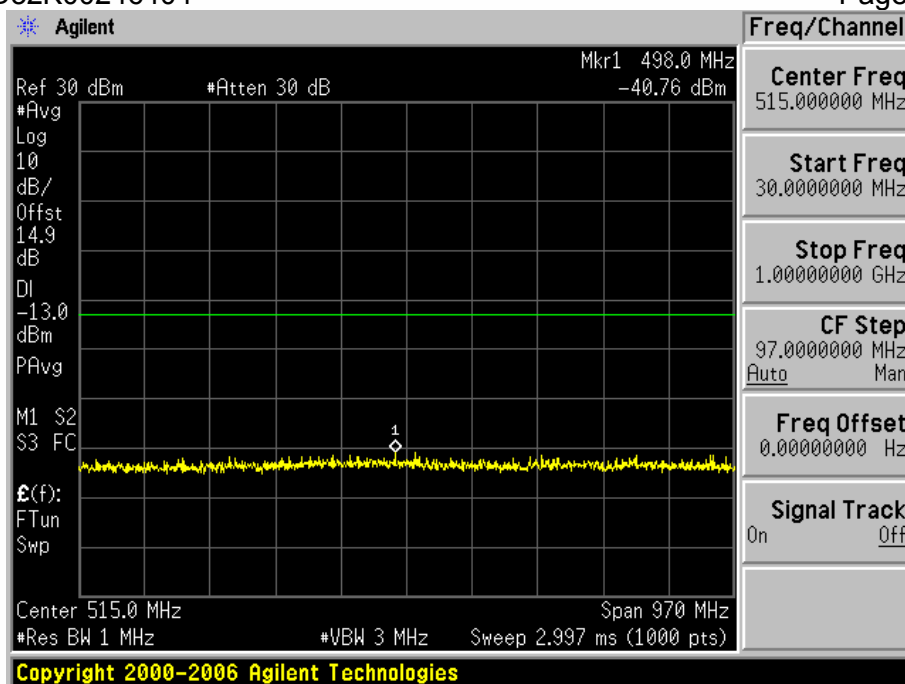
Report No.:EED32K00246404

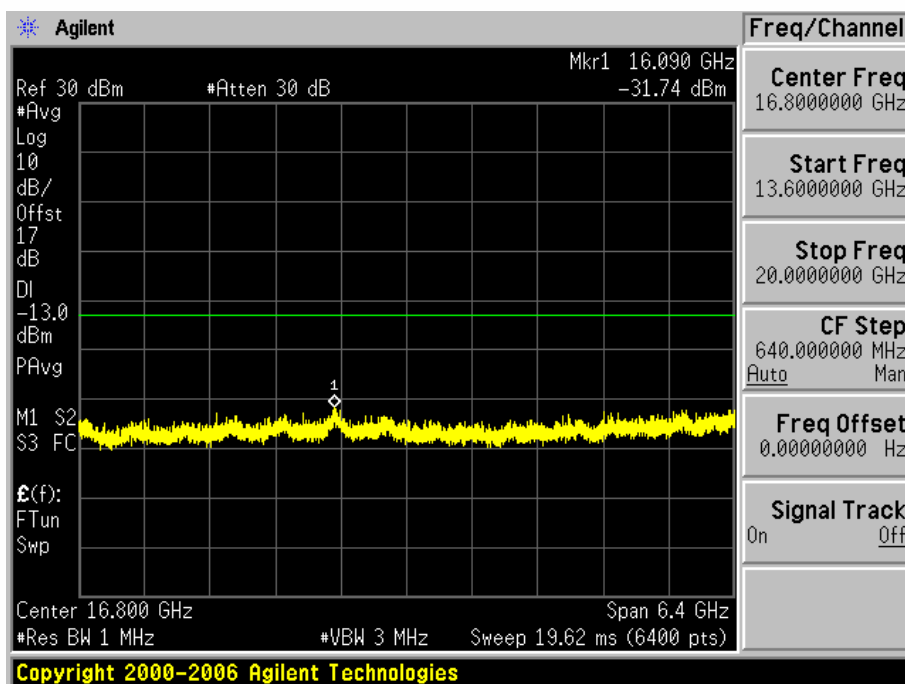
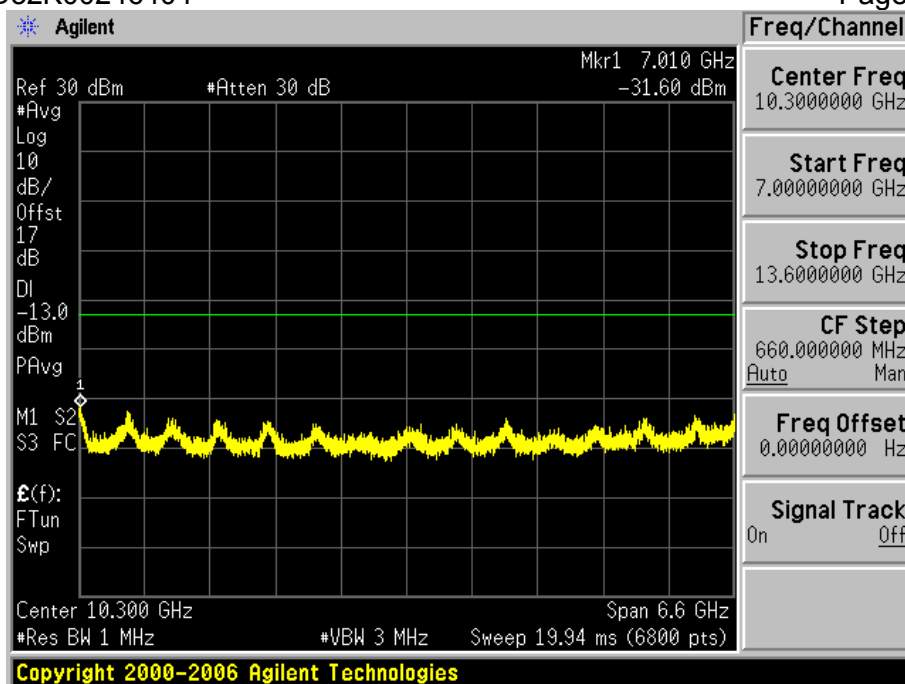
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Test Mode=UMTS/TM2

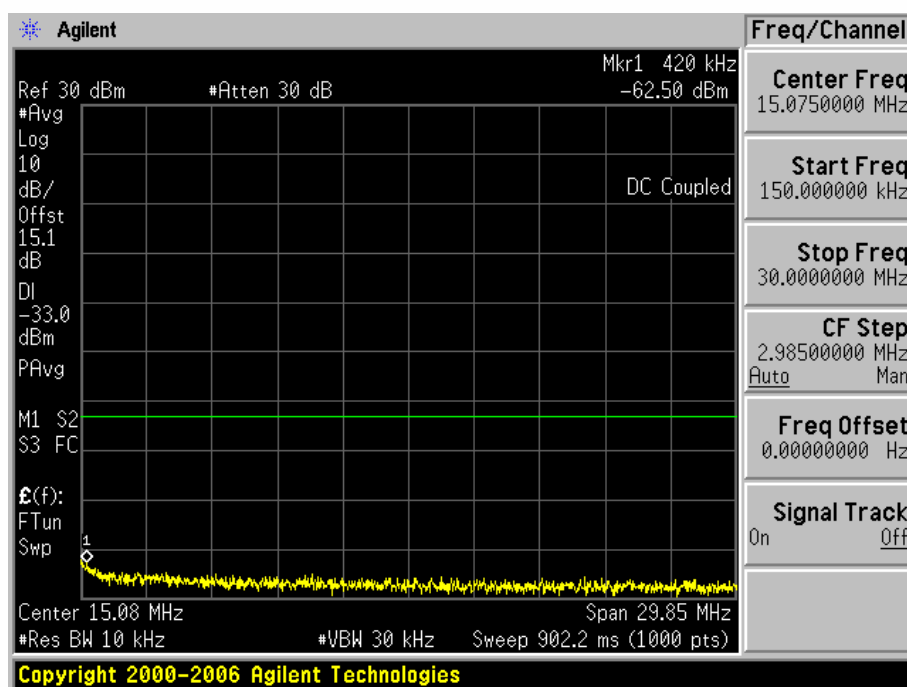
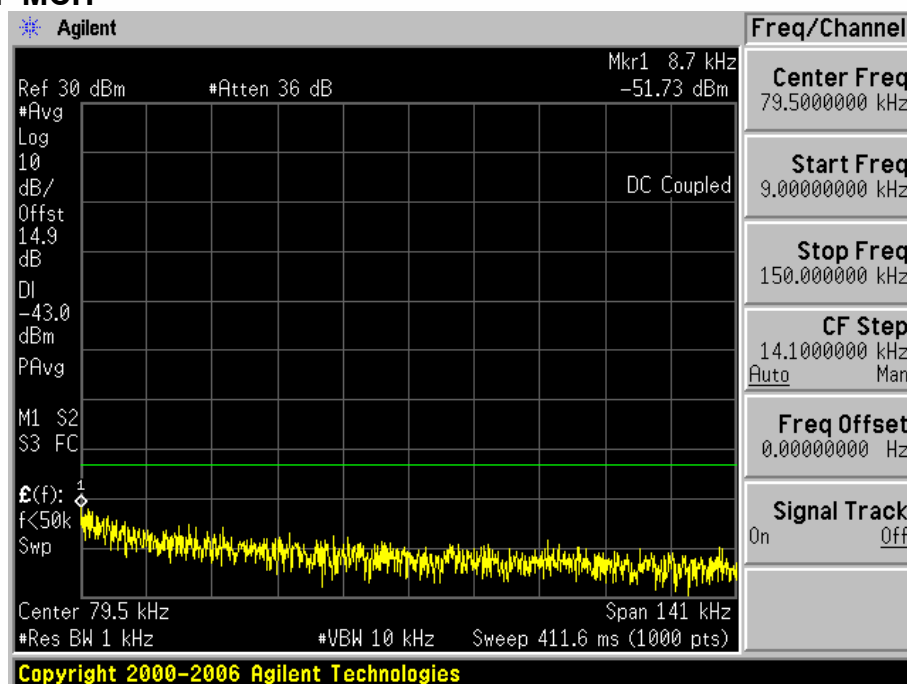
Test Channel=LCH

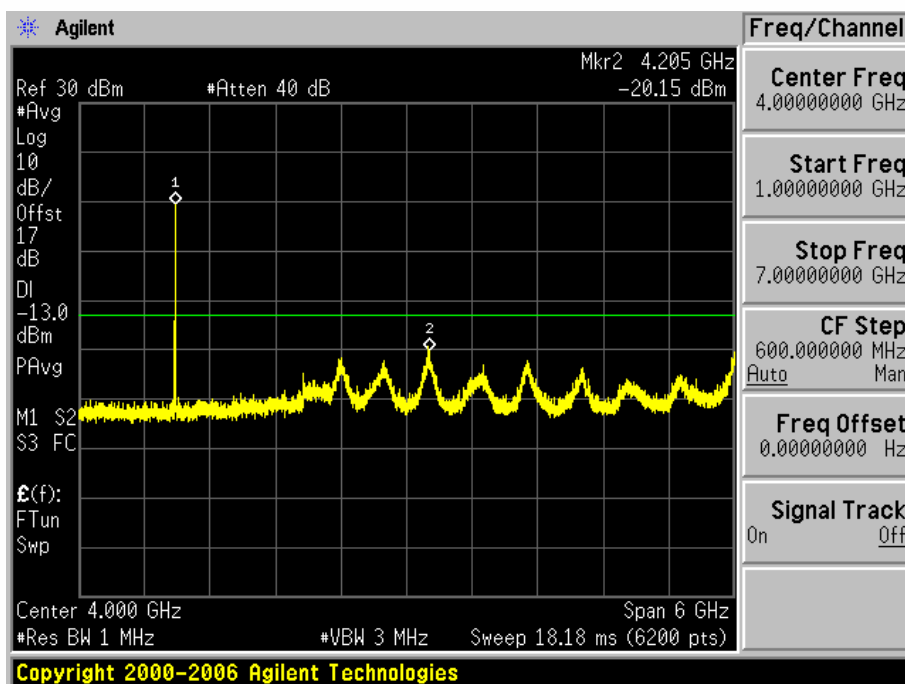
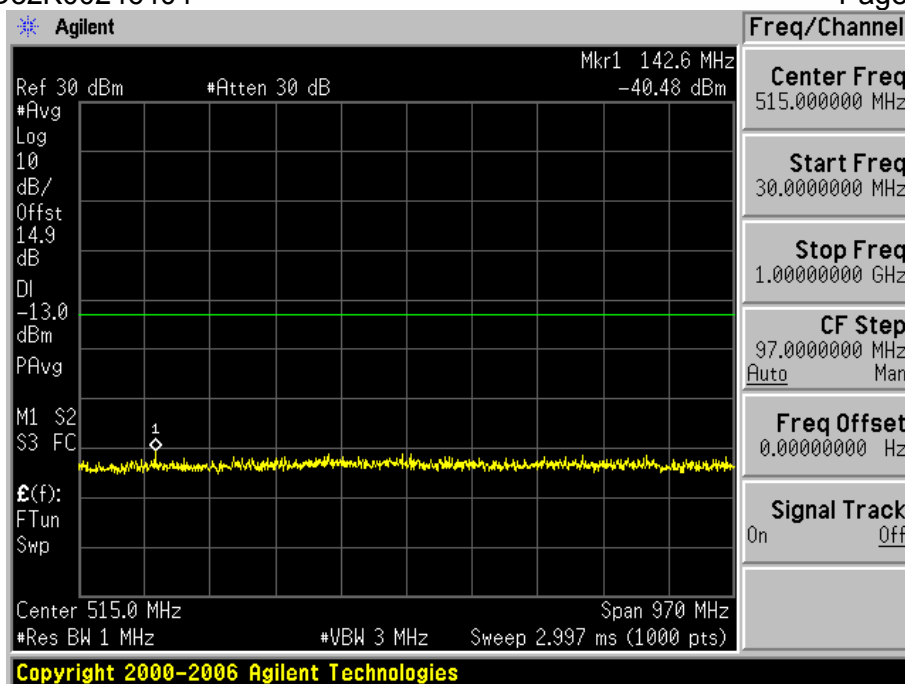


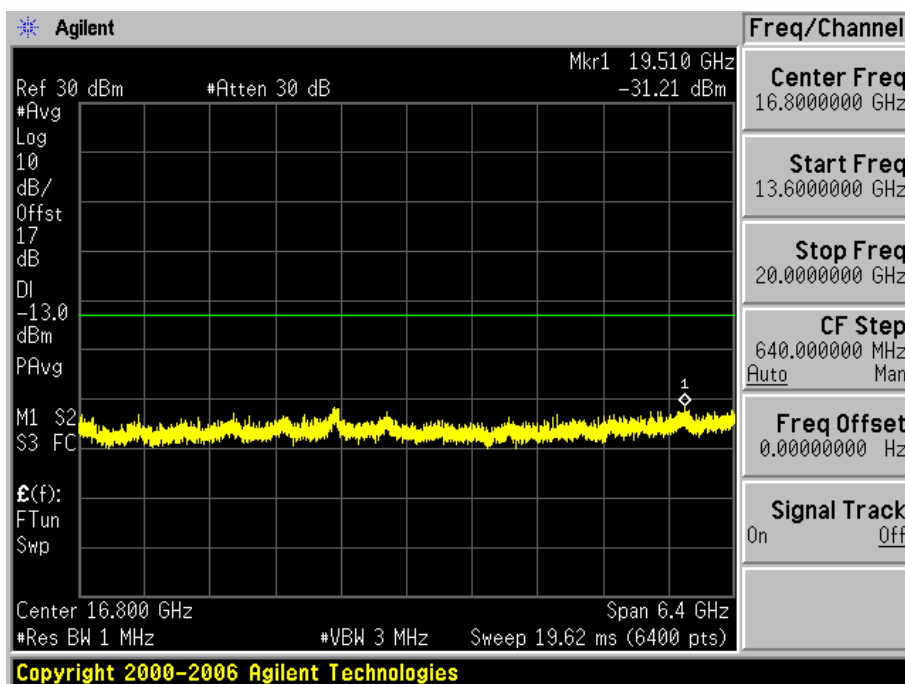
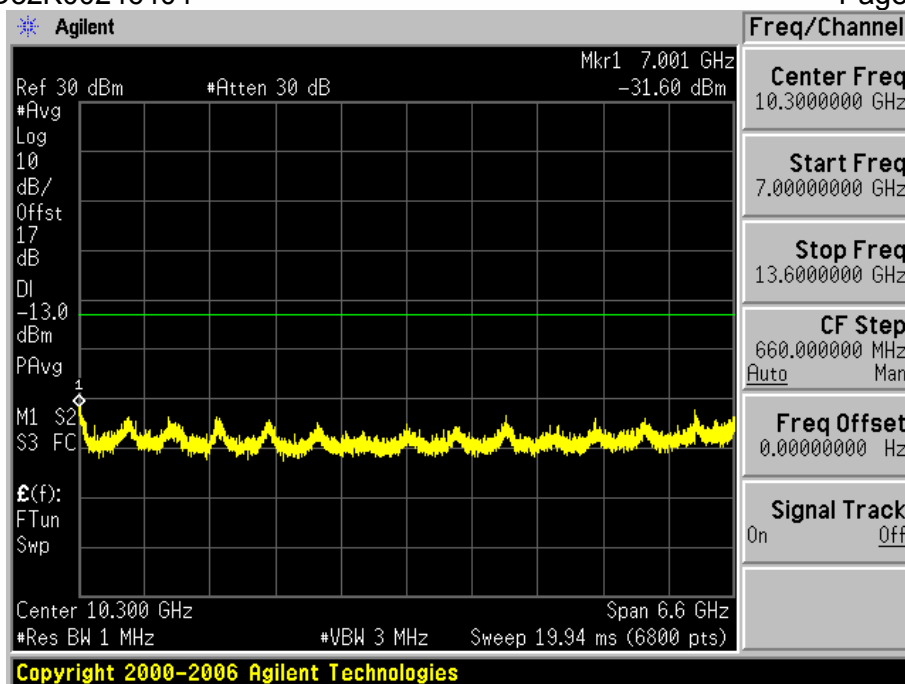




**Test Channel=MCH**

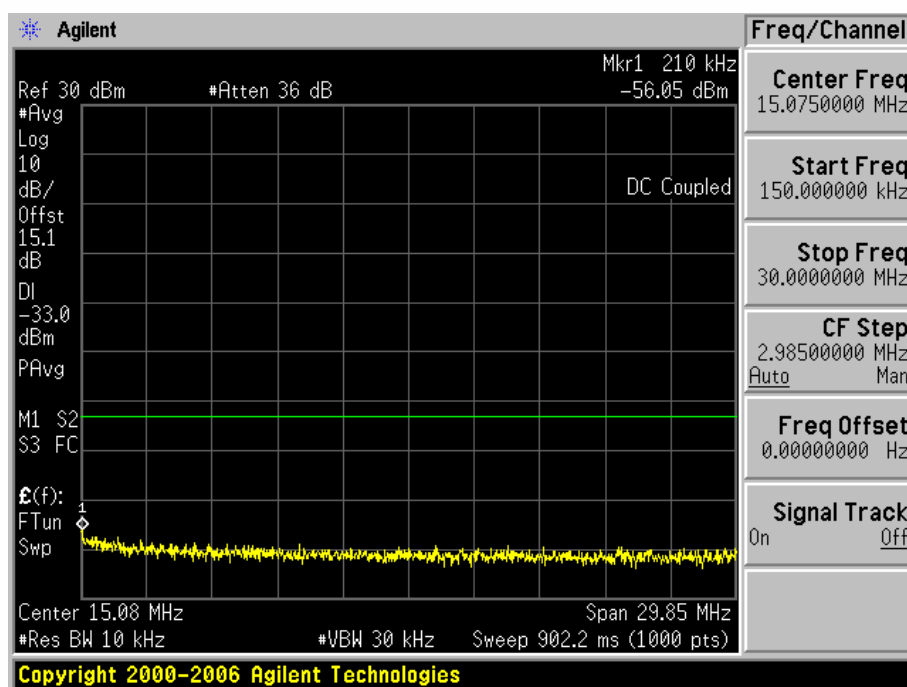
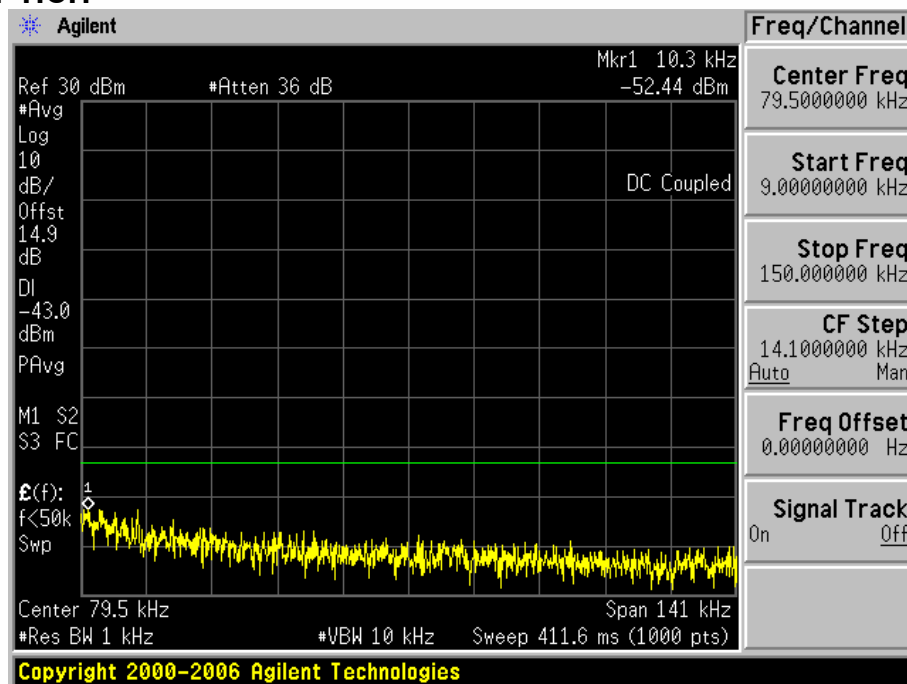


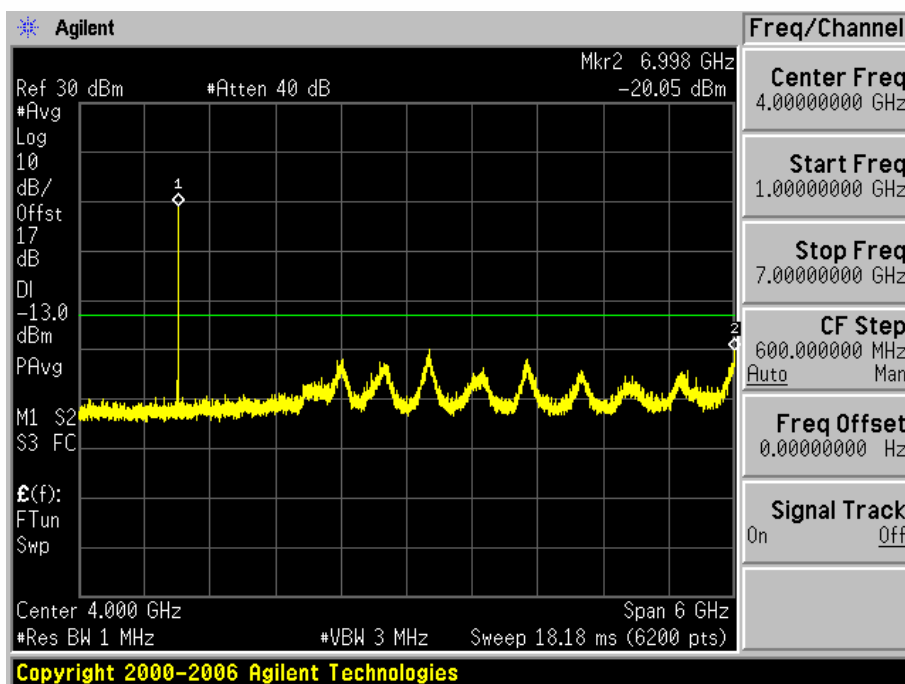
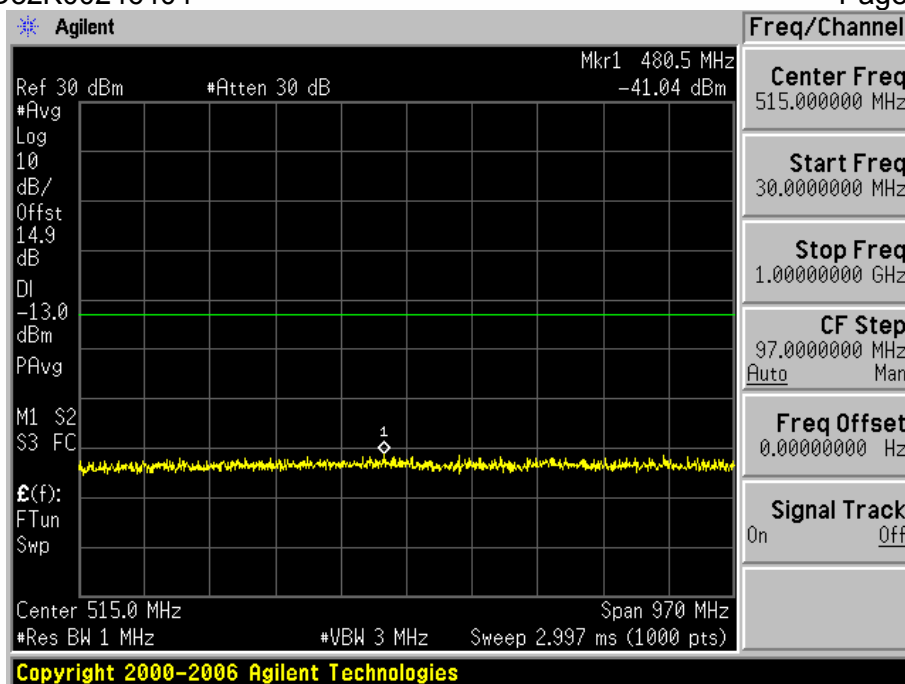


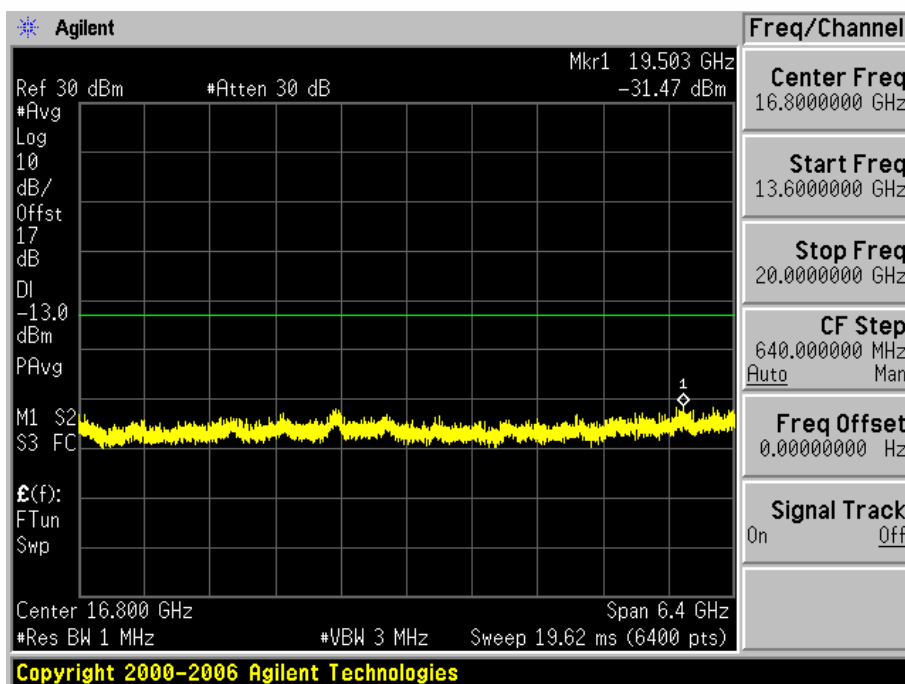
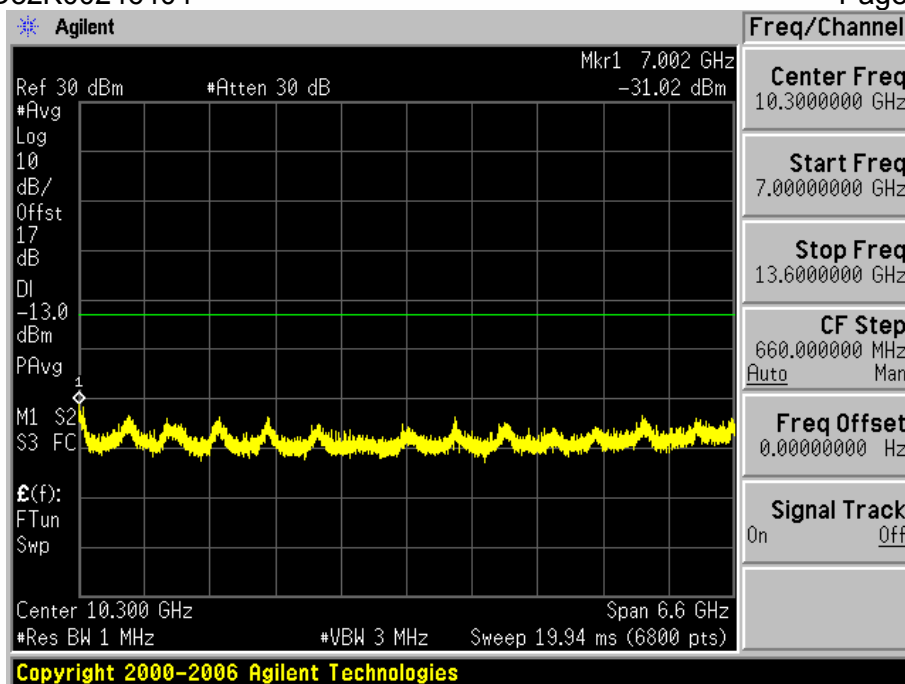




**Test Channel=HCH**





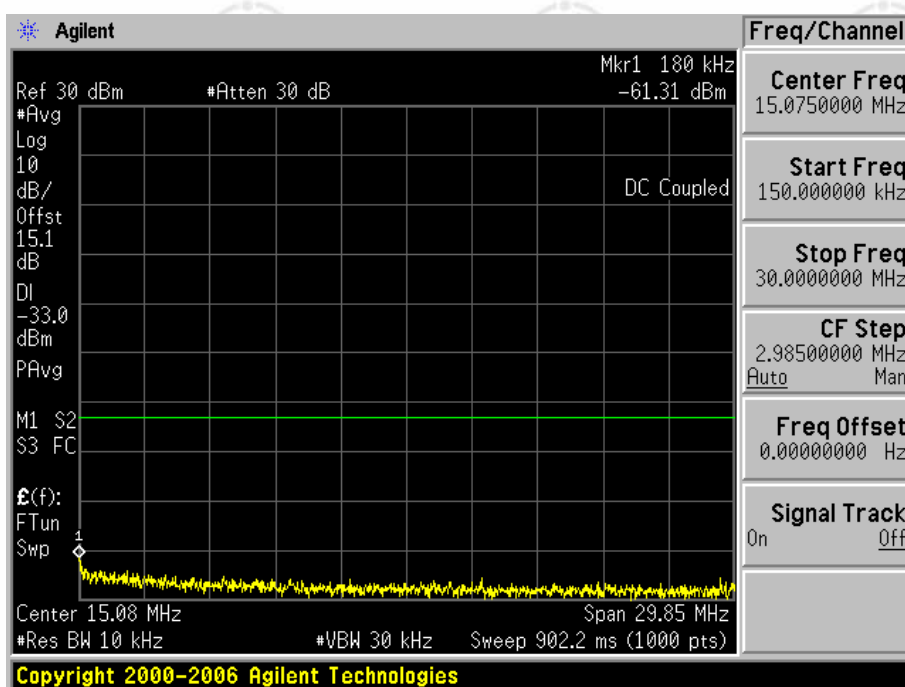
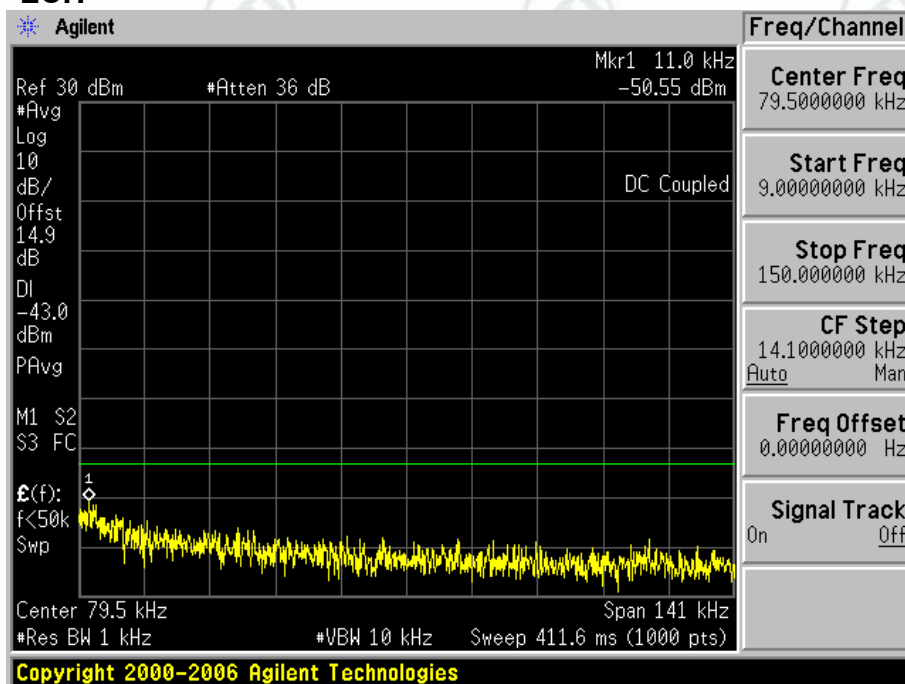


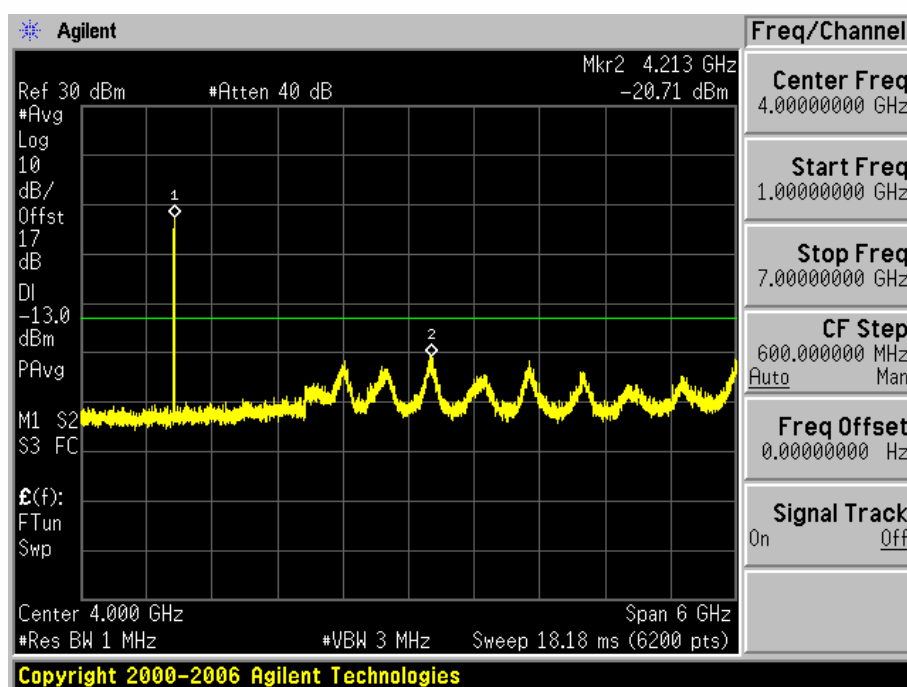
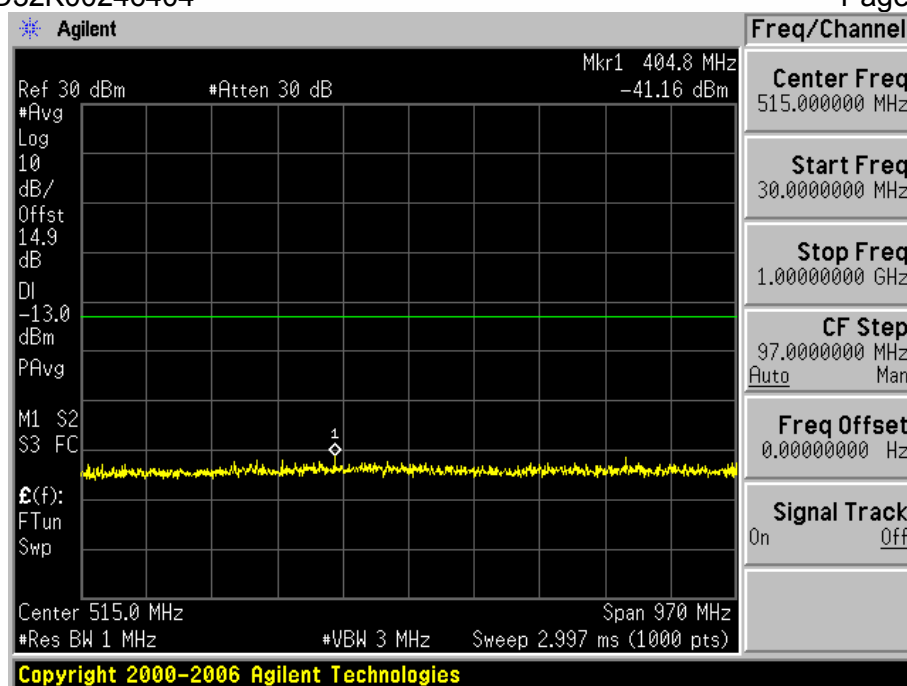
Report No.:EED32K00246404

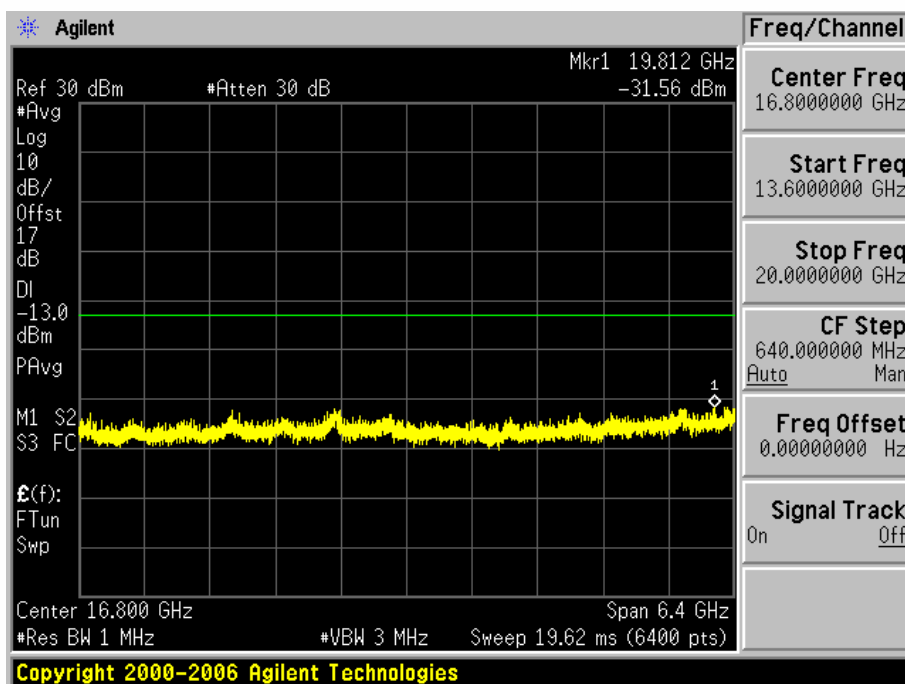
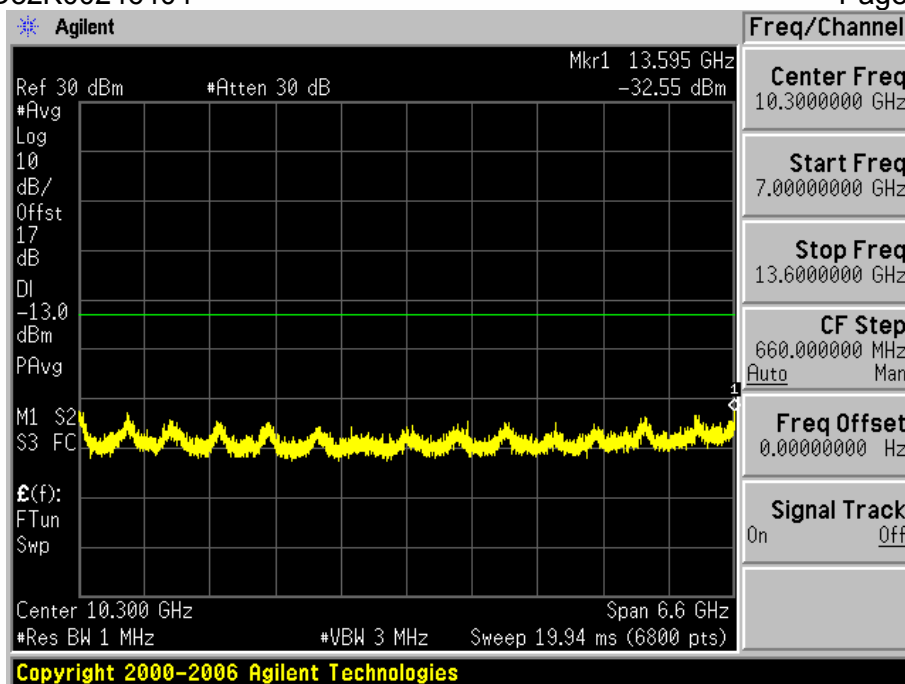
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Test Mode=UMTS/TM3

Test Channel=LCH

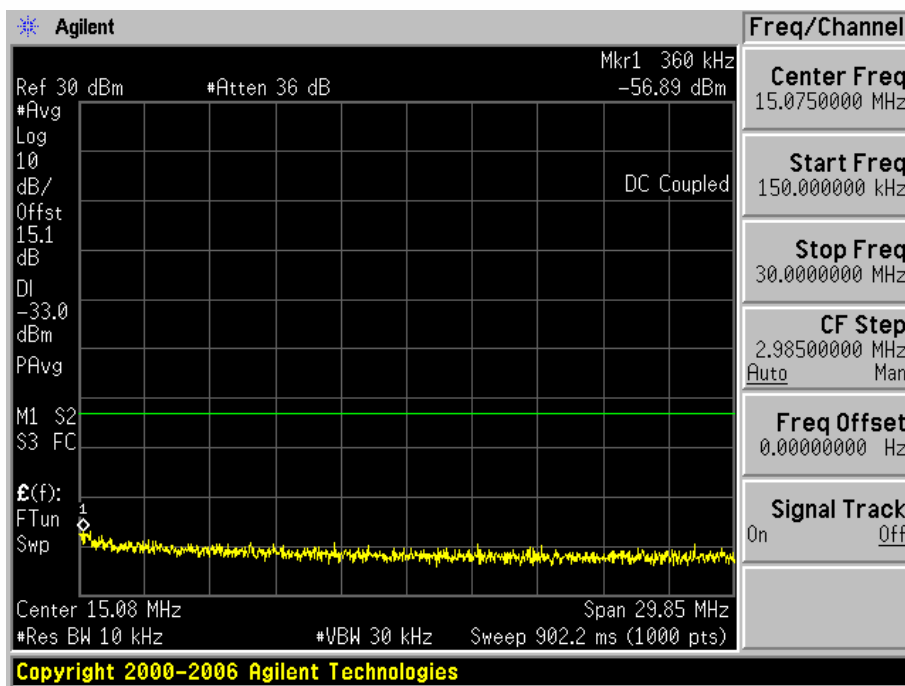
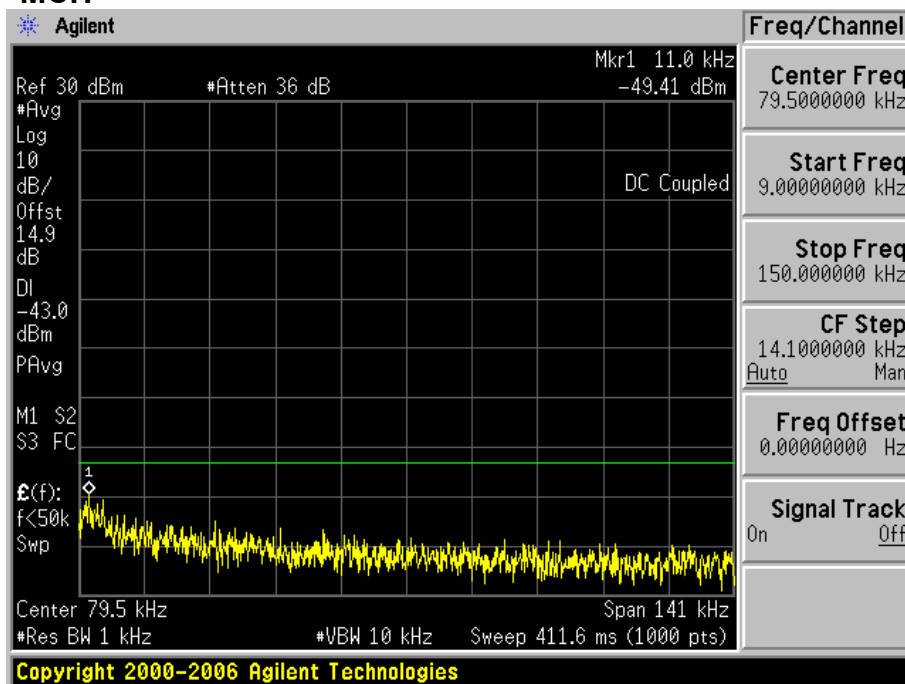


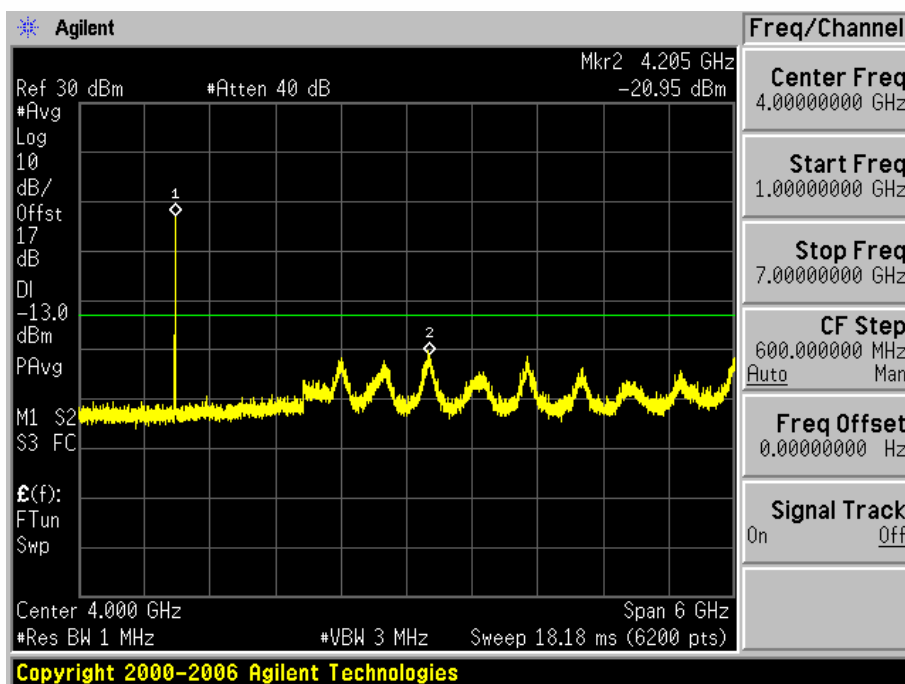
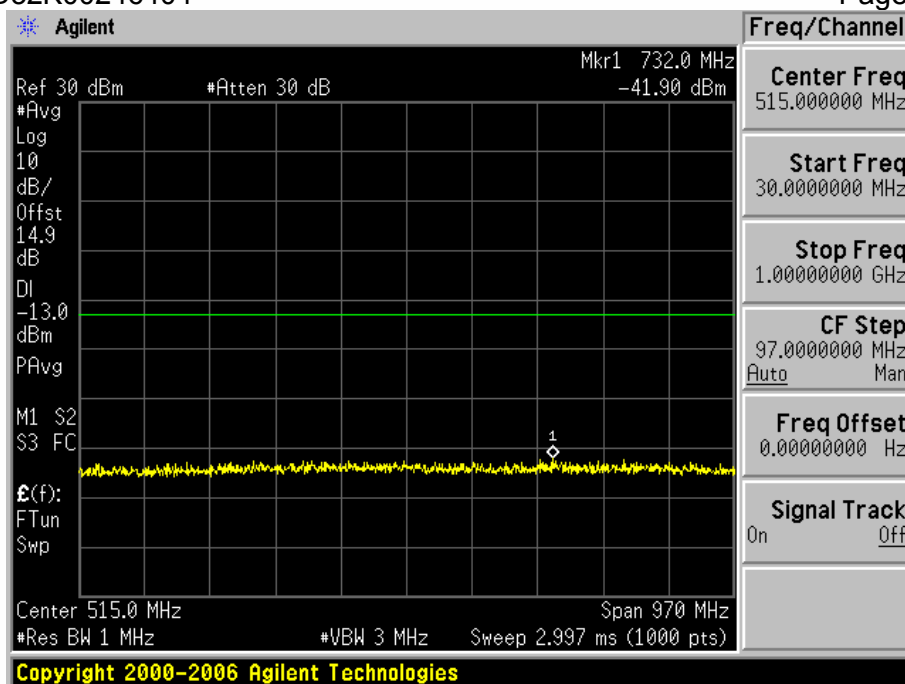


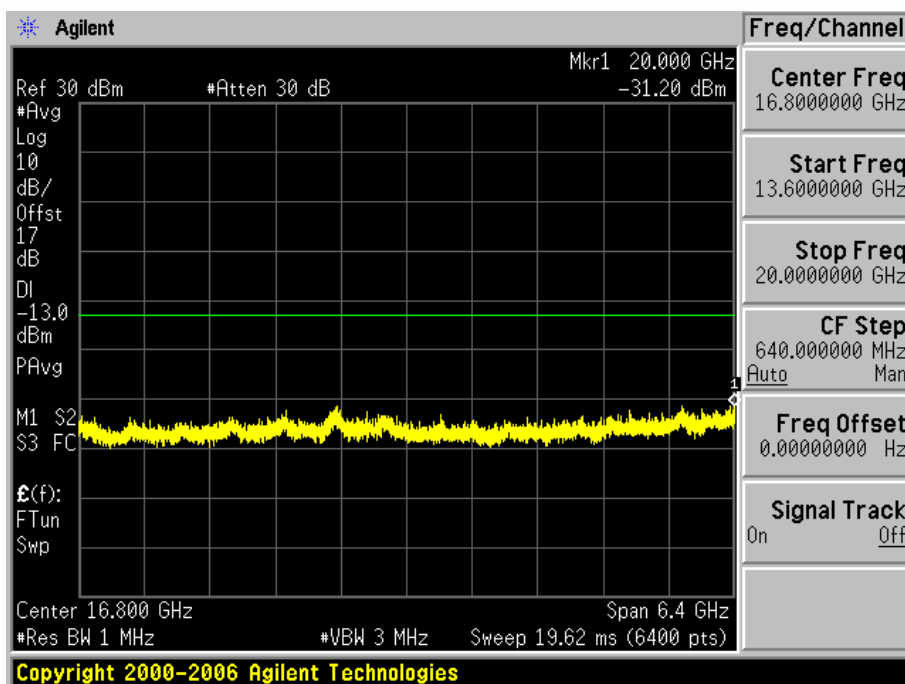
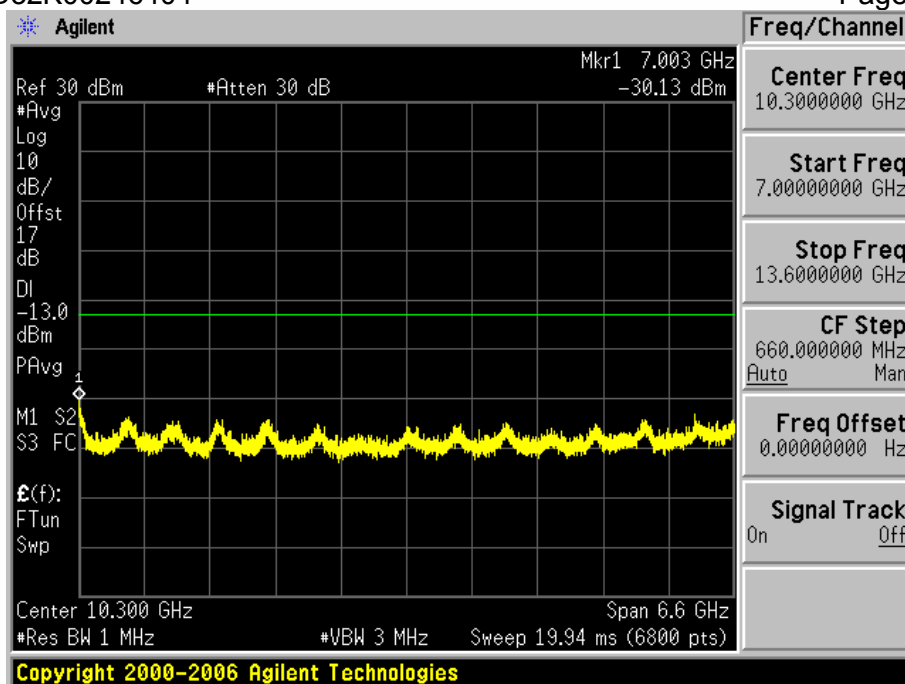




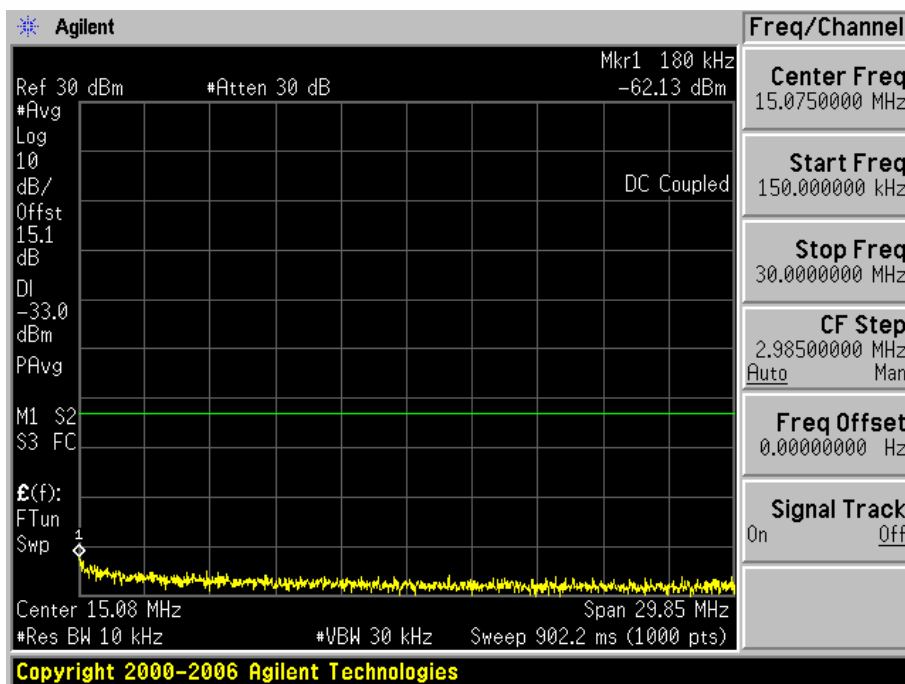
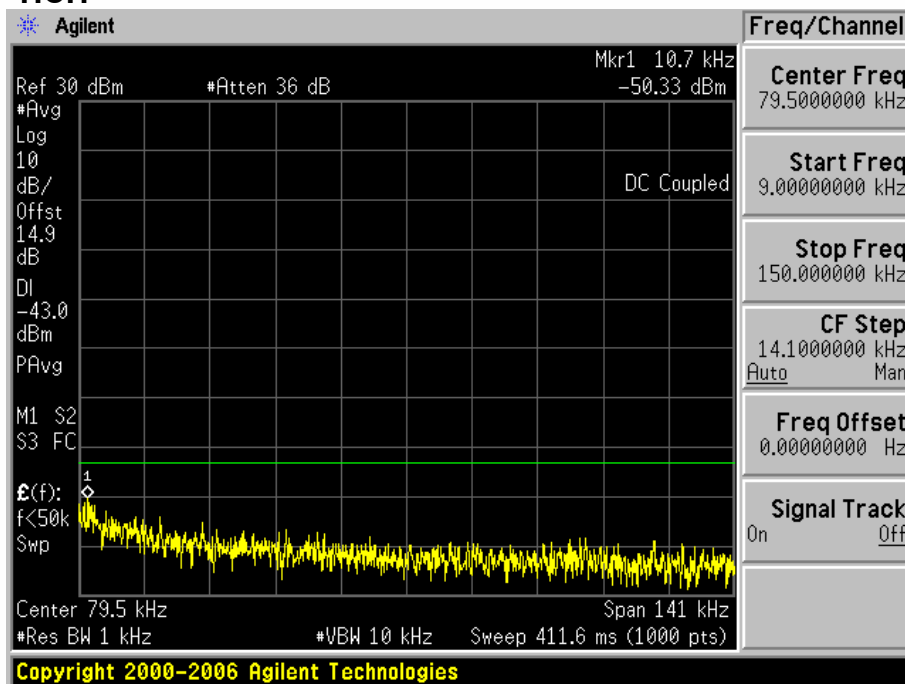
**Test Channel=MCH**

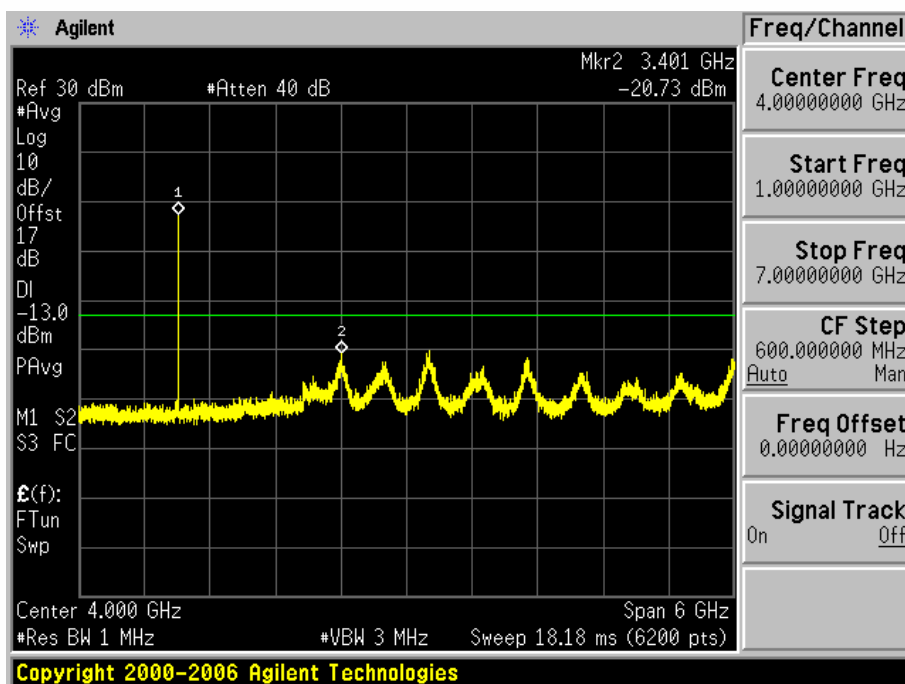
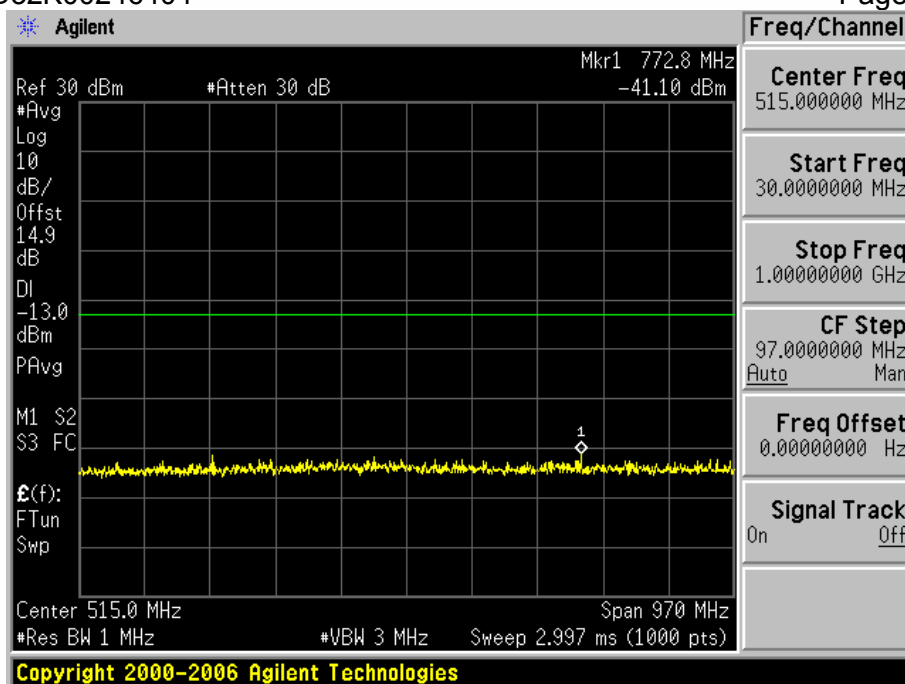


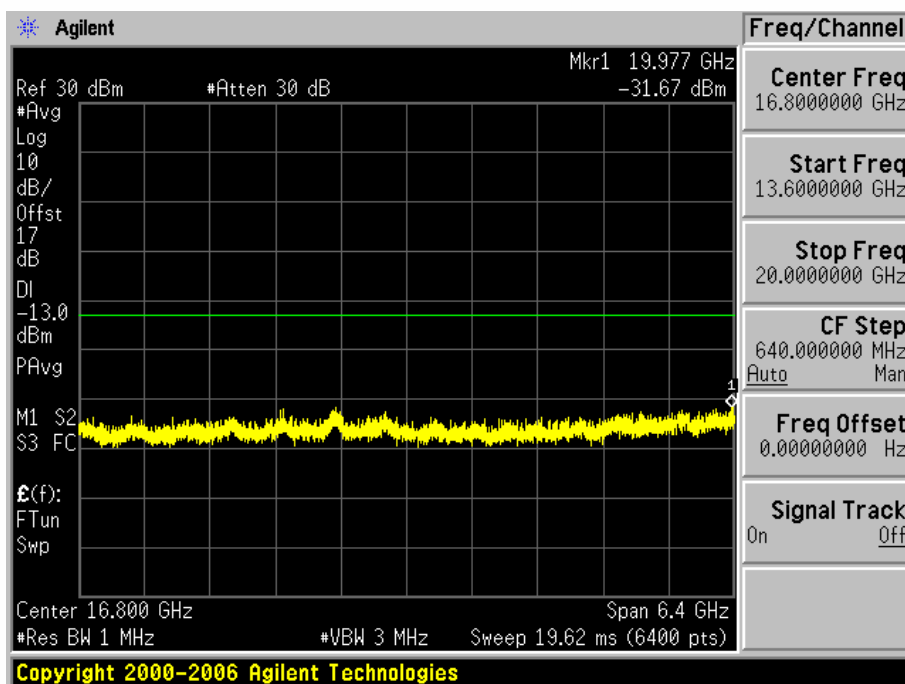
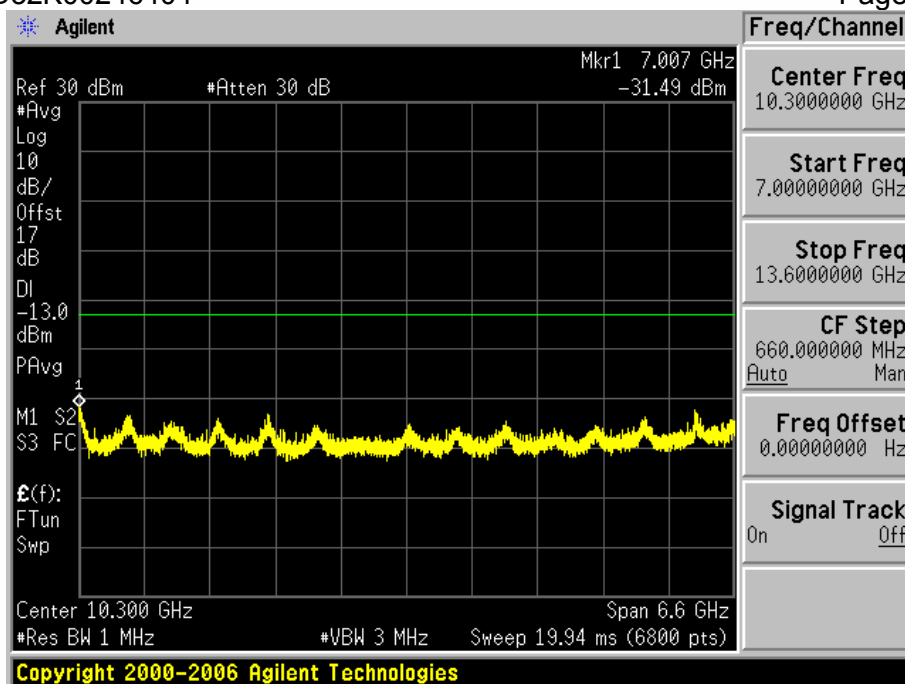




**Test Channel=HCH**









## Appendix F): Frequency Stability

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <b>Test Requirement:</b>      | Part 2.1055                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                |
| <b>Test Method:</b>           | TIA-603-E-2016 Clause 2.2.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                |
| <b>Test Setup:</b>            | Refer to section 5 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                |
| <b>Measurement Procedure:</b> | The transmitter output was connected to a calibrated coaxial cable and a Base Station Simulator. The Base Station Simulator was set to force the EUT to its maximum power setting. The tests were performed at three frequencies (low channel and high channel). The EUT was placed in the temperature chamber, the DC leads and RF output cable exited the chamber through an opening made for that purpose. After operating the equipment in standby conditions for 15 minutes before proceeding. The temperature was varied from -30°C to +55°C at intervals of not more than 10°C. The frequency stability was read from the base station. Since the EUT is hand-carried, battery-powered equipment, at 25°C the input voltage was reduced from 3.8V (primary supply voltage) to 3.5V (end point voltage), the frequency stability and input voltage was recorded. |                                |
| <b>Instruments Used:</b>      | Refer to section 7 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                |
| <b>Limit:</b>                 | Operation Band                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Frequency stability Limit(ppm) |
|                               | GSM/GPRS/EDGE/WCDMA 850                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ±2.5ppm                        |
|                               | GSM/GPRS/EDGE/WCDMA 1900                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ---                            |
|                               | WCDMA 1700                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ---                            |
| <b>Test Results:</b>          | Pass                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                |

(VL is 2.805V, VN is 3.3V, VH is 3.795V)

### Frequency Error vs. Voltage:

| Test Band | Test Mode | Test Channel | Test Temp. | Test Volt. | Freq. Error (Hz) | Freq. vs. rated (ppm) | Limit (ppm) | Verdict |
|-----------|-----------|--------------|------------|------------|------------------|-----------------------|-------------|---------|
| GSM850    | TM1       | LCH          | TN         | VL         | 10.14            | 0.012303              | ±2.5        | PASS    |
|           |           |              | TN         | VN         | 6.84             | 0.008299              | ±2.5        | PASS    |
|           |           |              | TN         | VH         | 8.85             | 0.010738              | ±2.5        | PASS    |
|           |           | MCH          | TN         | VL         | 6.97             | 0.008331              | ±2.5        | PASS    |
|           |           |              | TN         | VN         | 10.27            | 0.012276              | ±2.5        | PASS    |
|           |           |              | TN         | VH         | 10.33            | 0.012348              | ±2.5        | PASS    |
|           |           | HCH          | TN         | VL         | 5.23             | 0.006162              | ±2.5        | PASS    |
|           |           |              | TN         | VN         | 7.43             | 0.008754              | ±2.5        | PASS    |
|           |           |              | TN         | VH         | 3.68             | 0.004336              | ±2.5        | PASS    |

| Test Band | Test Mode | Test Channel | Test Temp. | Test Volt. | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
|-----------|-----------|--------------|------------|------------|-----------------|---------------------|-------------|---------|
| GSM850    | TM2       | LCH          | TN         | VL         | 3.49            | 0.004234            | ±2.5        | PASS    |
|           |           |              | TN         | VN         | 7.10            | 0.008614            | ±2.5        | PASS    |
|           |           |              | TN         | VH         | 7.30            | 0.008857            | ±2.5        | PASS    |
|           |           | MCH          | TN         | VL         | 10.53           | 0.012587            | ±2.5        | PASS    |
|           |           |              | TN         | VN         | 10.46           | 0.012503            | ±2.5        | PASS    |
|           |           |              | TN         | VH         | 9.04            | 0.010806            | ±2.5        | PASS    |
|           |           | HCH          | TN         | VL         | 8.59            | 0.010120            | ±2.5        | PASS    |
|           |           |              | TN         | VN         | 10.46           | 0.012323            | ±2.5        | PASS    |
|           |           |              | TN         | VH         | 7.55            | 0.008895            | ±2.5        | PASS    |

| Test Band | Test Mode | Test Channel | Test Temp. | Test Volt. | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
|-----------|-----------|--------------|------------|------------|-----------------|---------------------|-------------|---------|
| GSM850    | TM3       | LCH          | TN         | VL         | -7.68           | -0.009318           | ±2.5        | PASS    |
|           |           |              | TN         | VN         | -8.10           | -0.009828           | ±2.5        | PASS    |
|           |           |              | TN         | VH         | -6.23           | -0.007559           | ±2.5        | PASS    |
|           |           | MCH          | TN         | VL         | -8.01           | -0.009574           | ±2.5        | PASS    |
|           |           |              | TN         | VN         | -9.81           | -0.011726           | ±2.5        | PASS    |
|           |           |              | TN         | VH         | -8.04           | -0.009610           | ±2.5        | PASS    |
|           |           | HCH          | TN         | VL         | -7.65           | -0.009013           | ±2.5        | PASS    |
|           |           |              | TN         | VN         | -9.01           | -0.010615           | ±2.5        | PASS    |
|           |           |              | TN         | VH         | -9.75           | -0.011487           | ±2.5        | PASS    |

| Test Band | Test Mode | Test Channel | Test Temp. | Test Volt. | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
|-----------|-----------|--------------|------------|------------|-----------------|---------------------|-------------|---------|
| GSM1900   | TM1       | LCH          | TN         | VL         | -7.23           | -0.003908           | ±2.5        | PASS    |
|           |           |              | TN         | VN         | 0.45            | 0.000243            | ±2.5        | PASS    |
|           |           |              | TN         | VH         | -6.59           | -0.003562           | ±2.5        | PASS    |
|           |           | MCH          | TN         | VL         | -6.91           | -0.003676           | ±2.5        | PASS    |
|           |           |              | TN         | VN         | -13.04          | -0.006936           | ±2.5        | PASS    |
|           |           |              | TN         | VH         | -5.81           | -0.003090           | ±2.5        | PASS    |
|           |           | HCH          | TN         | VL         | -3.29           | -0.001723           | ±2.5        | PASS    |
|           |           |              | TN         | VN         | 2.71            | 0.001419            | ±2.5        | PASS    |
|           |           |              | TN         | VH         | -6.46           | -0.003383           | ±2.5        | PASS    |

| Test Band | Test Mode | Test Channel | Test Temp. | Test Volt. | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
|-----------|-----------|--------------|------------|------------|-----------------|---------------------|-------------|---------|
| GSM1900   | TM2       | LCH          | TN         | VL         | -6.65           | -0.003594           | ±2.5        | PASS    |
|           |           |              | TN         | VN         | 0.65            | 0.000351            | ±2.5        | PASS    |
|           |           |              | TN         | VH         | -12.40          | -0.006702           | ±2.5        | PASS    |
|           |           | MCH          | TN         | VL         | -12.14          | -0.006457           | ±2.5        | PASS    |
|           |           |              | TN         | VN         | -2.13           | -0.001133           | ±2.5        | PASS    |
|           |           |              | TN         | VH         | -6.52           | -0.003468           | ±2.5        | PASS    |
|           |           | HCH          | TN         | VL         | -2.52           | -0.001320           | ±2.5        | PASS    |
|           |           |              | TN         | VN         | -8.01           | -0.004194           | ±2.5        | PASS    |
|           |           |              | TN         | VH         | -6.97           | -0.003650           | ±2.5        | PASS    |

| Test Band | Test Mode | Test Channel | Test Temp. | Test Volt. | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
|-----------|-----------|--------------|------------|------------|-----------------|---------------------|-------------|---------|
| GSM1900   | TM3       | LCH          | TN         | VL         | -11.36          | -0.006140           | ±2.5        | PASS    |
|           |           |              | TN         | VN         | -7.78           | -0.004205           | ±2.5        | PASS    |
|           |           |              | TN         | VH         | -3.13           | -0.001692           | ±2.5        | PASS    |
|           |           | MCH          | TN         | VL         | -8.52           | -0.004532           | ±2.5        | PASS    |
|           |           |              | TN         | VN         | -9.27           | -0.004931           | ±2.5        | PASS    |
|           |           |              | TN         | VH         | -9.17           | -0.004878           | ±2.5        | PASS    |
|           |           | HCH          | TN         | VL         | -12.88          | -0.006744           | ±2.5        | PASS    |
|           |           |              | TN         | VN         | -14.37          | -0.007524           | ±2.5        | PASS    |
|           |           |              | TN         | VH         | -16.66          | -0.008723           | ±2.5        | PASS    |

| Test Band    | Test Mode | Test Channel | Test Temp. | Test Volt. | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
|--------------|-----------|--------------|------------|------------|-----------------|---------------------|-------------|---------|
| WCDMA8<br>50 | TM1       | LCH          | TN         | VL         | 2.00            | 0.002419            | ±2.5        | PASS    |
|              |           |              | TN         | VN         | 4.90            | 0.005927            | ±2.5        | PASS    |
|              |           |              | TN         | VH         | 1.88            | 0.002271            | ±2.5        | PASS    |
|              |           | MCH          | TN         | VL         | 0.34            | 0.000401            | ±2.5        | PASS    |
|              |           |              | TN         | VN         | 4.90            | 0.006841            | ±2.5        | PASS    |
|              |           |              | TN         | VH         | -0.18           | -0.000219           | ±2.5        | PASS    |
|              |           | HCH          | TN         | VL         | 0.49            | 0.000577            | ±2.5        | PASS    |
|              |           |              | TN         | VN         | 4.90            | 0.003731            | ±2.5        | PASS    |
|              |           |              | TN         | VH         | 0.32            | 0.000378            | ±2.5        | PASS    |

| Test Band | Test Mode | Test Channel | Test Temp. | Test Volt. | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
|-----------|-----------|--------------|------------|------------|-----------------|---------------------|-------------|---------|
| WCDMA8 50 | TM2       | LCH          | TN         | VL         | 10.33           | 0.012500            | ±2.5        | PASS    |
|           |           |              | TN         | VN         | -35.42          | -0.042855           | ±2.5        | PASS    |
|           |           |              | TN         | VH         | 136.44          | 0.165107            | ±2.5        | PASS    |
|           |           | MCH          | TN         | VL         | -81.73          | -0.097712           | ±2.5        | PASS    |
|           |           |              | TN         | VN         | -35.42          | -0.087368           | ±2.5        | PASS    |
|           |           |              | TN         | VH         | 15.93           | 0.019046            | ±2.5        | PASS    |
|           |           | HCH          | TN         | VL         | 50.80           | 0.060001            | ±2.5        | PASS    |
|           |           |              | TN         | VN         | -35.42          | 0.061424            | ±2.5        | PASS    |
|           |           |              | TN         | VH         | 8.18            | 0.009661            | ±2.5        | PASS    |
| Test Band | Test Mode | Test Channel | Test Temp. | Test Volt. | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
| WCDMA8 50 | TM3       | LCH          | TN         | VL         | -109.89         | -0.132979           | ±2.5        | PASS    |
|           |           |              | TN         | VN         | -45.91          | -0.055559           | ±2.5        | PASS    |
|           |           |              | TN         | VH         | 34.27           | 0.041471            | ±2.5        | PASS    |
|           |           | MCH          | TN         | VL         | -21.38          | -0.025559           | ±2.5        | PASS    |
|           |           |              | TN         | VN         | -45.91          | 0.006130            | ±2.5        | PASS    |
|           |           |              | TN         | VH         | -51.65          | -0.061754           | ±2.5        | PASS    |
|           |           | HCH          | TN         | VL         | 7.97            | 0.009408            | ±2.5        | PASS    |
|           |           |              | TN         | VN         | -45.91          | -0.051421           | ±2.5        | PASS    |
|           |           |              | TN         | VH         | 76.28           | 0.090100            | ±2.5        | PASS    |

| Test Band | Test Mode | Test Channel | Test Temp. | Test Volt. | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
|-----------|-----------|--------------|------------|------------|-----------------|---------------------|-------------|---------|
| WCDMA1 70 | TM1       | LCH          | TN         | VL         | -14.28          | -0.008340           | ±2.5        | PASS    |
|           |           |              | TN         | VN         | 3.94            | 0.002299            | ±2.5        | PASS    |
|           |           |              | TN         | VH         | 9.81            | 0.005730            | ±2.5        | PASS    |
|           |           | MCH          | TN         | VL         | -2.84           | -0.001638           | ±2.5        | PASS    |
|           |           |              | TN         | VN         | 3.94            | -0.002263           | ±2.5        | PASS    |
|           |           |              | TN         | VH         | -2.67           | -0.001541           | ±2.5        | PASS    |
|           |           | HCH          | TN         | VL         | -8.58           | -0.004893           | ±2.5        | PASS    |
|           |           |              | TN         | VN         | 3.94            | -0.002586           | ±2.5        | PASS    |
|           |           |              | TN         | VH         | 3.08            | 0.001759            | ±2.5        | PASS    |

| Test Band | Test Mode | Test Channel | Test Temp. | Test Volt. | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
|-----------|-----------|--------------|------------|------------|-----------------|---------------------|-------------|---------|
| WCDMA1 70 | TM2       | LCH          | TN         | VL         | -32.47          | -0.018962           | ±2.5        | PASS    |
|           |           |              | TN         | VN         | 43.72           | 0.025529            | ±2.5        | PASS    |
|           |           |              | TN         | VH         | -33.54          | -0.019586           | ±2.5        | PASS    |
|           |           | MCH          | TN         | VL         | 56.66           | 0.032700            | ±2.5        | PASS    |
|           |           |              | TN         | VN         | 43.72           | 0.030058            | ±2.5        | PASS    |
|           |           |              | TN         | VH         | 31.77           | 0.018336            | ±2.5        | PASS    |
|           |           | HCH          | TN         | VL         | -13.05          | -0.007444           | ±2.5        | PASS    |
|           |           |              | TN         | VN         | 43.72           | -0.036175           | ±2.5        | PASS    |
|           |           |              | TN         | VH         | 24.87           | 0.014191            | ±2.5        | PASS    |
| Test Band | Test Mode | Test Channel | Test Temp. | Test Volt. | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
| WCDMA1 70 | TM3       | LCH          | TN         | VL         | 33.23           | 0.019408            | ±2.5        | PASS    |
|           |           |              | TN         | VN         | -73.20          | -0.042745           | ±2.5        | PASS    |
|           |           |              | TN         | VH         | -45.84          | -0.026768           | ±2.5        | PASS    |
|           |           | MCH          | TN         | VL         | 78.55           | 0.045338            | ±2.5        | PASS    |
|           |           |              | TN         | VN         | -73.20          | -0.021894           | ±2.5        | PASS    |
|           |           |              | TN         | VH         | -87.04          | -0.050234           | ±2.5        | PASS    |
|           |           | HCH          | TN         | VL         | -178.30         | -0.101734           | ±2.5        | PASS    |
|           |           |              | TN         | VN         | -73.20          | -0.061798           | ±2.5        | PASS    |
|           |           |              | TN         | VH         | 15.91           | 0.009081            | ±2.5        | PASS    |

| Test Band  | Test Mode | Test Channel | Test Temp. | Test Volt. | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
|------------|-----------|--------------|------------|------------|-----------------|---------------------|-------------|---------|
| WCDMA1 900 | TM1       | LCH          | TN         | VL         | -4.47           | -0.002414           | ±2.5        | PASS    |
|            |           |              | TN         | VN         | 0.56            | 0.000305            | ±2.5        | PASS    |
|            |           |              | TN         | VH         | 7.25            | 0.003913            | ±2.5        | PASS    |
|            |           | MCH          | TN         | VL         | 2.49            | 0.001323            | ±2.5        | PASS    |
|            |           |              | TN         | VN         | 0.56            | -0.002605           | ±2.5        | PASS    |
|            |           |              | TN         | VH         | 0.26            | 0.000138            | ±2.5        | PASS    |
|            |           | HCH          | TN         | VL         | -4.04           | -0.002120           | ±2.5        | PASS    |
|            |           |              | TN         | VN         | 0.56            | -0.000056           | ±2.5        | PASS    |
|            |           |              | TN         | VH         | -1.13           | -0.000592           | ±2.5        | PASS    |



| Test Band  | Test Mode | Test Channel | Test Temp. | Test Volt. | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
|------------|-----------|--------------|------------|------------|-----------------|---------------------|-------------|---------|
| WCDMA1 900 | TM2       | LCH          | TN         | VL         | 17.23           | 0.009300            | ±2.5        | PASS    |
|            |           |              | TN         | VN         | -45.61          | -0.024621           | ±2.5        | PASS    |
|            |           |              | TN         | VH         | 11.35           | 0.006129            | ±2.5        | PASS    |
|            |           | MCH          | TN         | VL         | 42.86           | 0.022799            | ±2.5        | PASS    |
|            |           |              | TN         | VN         | -45.61          | -0.050257           | ±2.5        | PASS    |
|            |           |              | TN         | VH         | -37.75          | -0.020080           | ±2.5        | PASS    |
|            |           | HCH          | TN         | VL         | -80.64          | -0.042274           | ±2.5        | PASS    |
|            |           |              | TN         | VN         | -45.61          | 0.010967            | ±2.5        | PASS    |
|            |           |              | TN         | VH         | -114.00         | -0.059760           | ±2.5        | PASS    |
| Test Band  | Test Mode | Test Channel | Test Temp. | Test Volt. | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
| WCDMA1 900 | TM3       | LCH          | TN         | VL         | 50.72           | 0.027381            | ±2.5        | PASS    |
|            |           |              | TN         | VN         | 9.43            | 0.005091            | ±2.5        | PASS    |
|            |           |              | TN         | VH         | -166.90         | -0.090100           | ±2.5        | PASS    |
|            |           | MCH          | TN         | VL         | -31.74          | -0.016882           | ±2.5        | PASS    |
|            |           |              | TN         | VN         | 9.43            | 0.060532            | ±2.5        | PASS    |
|            |           |              | TN         | VH         | 82.24           | 0.043747            | ±2.5        | PASS    |
|            |           | HCH          | TN         | VL         | -35.69          | -0.018710           | ±2.5        | PASS    |
|            |           |              | TN         | VN         | 9.43            | -0.028668           | ±2.5        | PASS    |
|            |           |              | TN         | VH         | 48.00           | 0.025165            | ±2.5        | PASS    |

### Frequency Error vs. Temperature:

| Test Band | Test Mode | Test Channel | Test Volt. | Test Temp | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
|-----------|-----------|--------------|------------|-----------|-----------------|---------------------|-------------|---------|
| GSM850    | TM1       | LCH          | VN         | -30       | 9.10            | 0.011041            | ±2.5        | PASS    |
|           |           |              | VN         | -20       | 10.27           | 0.012461            | ±2.5        | PASS    |
|           |           |              | VN         | -10       | 11.24           | 0.013637            | ±2.5        | PASS    |
|           |           |              | VN         | 0         | 11.11           | 0.013480            | ±2.5        | PASS    |
|           |           |              | VN         | 10        | 11.17           | 0.013553            | ±2.5        | PASS    |
|           |           |              | VN         | 20        | 12.85           | 0.015591            | ±2.5        | PASS    |
|           |           |              | VN         | 30        | 10.33           | 0.012533            | ±2.5        | PASS    |
|           |           |              | VN         | 40        | 9.81            | 0.011902            | ±2.5        | PASS    |
|           |           |              | VN         | 50        | 10.59           | 0.012849            | ±2.5        | PASS    |
| GSM850    | TM1       | MCH          | VN         | -30       | 8.01            | 0.009574            | ±2.5        | PASS    |



|        |     |     |    |     |       |          |      |      |
|--------|-----|-----|----|-----|-------|----------|------|------|
|        |     |     | VN | -20 | 9.56  | 0.011427 | ±2.5 | PASS |
|        |     |     | VN | -10 | 5.49  | 0.006562 | ±2.5 | PASS |
|        |     |     | VN | 0   | 9.75  | 0.011654 | ±2.5 | PASS |
|        |     |     | VN | 10  | 10.14 | 0.012120 | ±2.5 | PASS |
|        |     |     | VN | 20  | 6.84  | 0.008176 | ±2.5 | PASS |
|        |     |     | VN | 30  | 6.97  | 0.008331 | ±2.5 | PASS |
|        |     |     | VN | 40  | 8.78  | 0.010495 | ±2.5 | PASS |
|        |     |     | VN | 50  | 8.59  | 0.010268 | ±2.5 | PASS |
| GSM850 | TM1 | HCH | VN | -30 | 5.75  | 0.006774 | ±2.5 | PASS |
|        |     |     | VN | -20 | 5.29  | 0.006232 | ±2.5 | PASS |
|        |     |     | VN | -10 | 6.46  | 0.007611 | ±2.5 | PASS |
|        |     |     | VN | 0   | 5.55  | 0.006539 | ±2.5 | PASS |
|        |     |     | VN | 10  | 8.01  | 0.009437 | ±2.5 | PASS |
|        |     |     | VN | 20  | 7.30  | 0.008600 | ±2.5 | PASS |
|        |     |     | VN | 30  | 8.14  | 0.009590 | ±2.5 | PASS |
|        |     |     | VN | 40  | 7.30  | 0.008600 | ±2.5 | PASS |
|        |     |     | VN | 50  | 9.49  | 0.011180 | ±2.5 | PASS |

| Test Band | Test Mode | Test Channel | Test Volt. | Test Temp | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
|-----------|-----------|--------------|------------|-----------|-----------------|---------------------|-------------|---------|
| GSM850    | TM2       | LCH          | VN         | -30       | 11.49           | 0.013941            | ±2.5        | PASS    |
|           |           |              | VN         | -20       | 10.78           | 0.013079            | ±2.5        | PASS    |
|           |           |              | VN         | -10       | 7.94            | 0.009634            | ±2.5        | PASS    |
|           |           |              | VN         | 0         | 9.10            | 0.011041            | ±2.5        | PASS    |
|           |           |              | VN         | 10        | 7.36            | 0.008930            | ±2.5        | PASS    |
|           |           |              | VN         | 20        | 10.65           | 0.012922            | ±2.5        | PASS    |
|           |           |              | VN         | 30        | 9.17            | 0.011126            | ±2.5        | PASS    |
|           |           |              | VN         | 40        | 9.30            | 0.011284            | ±2.5        | PASS    |
|           |           |              | VN         | 50        | 8.85            | 0.010738            | ±2.5        | PASS    |
| GSM850    | TM2       | MCH          | VN         | -30       | 12.20           | 0.014583            | ±2.5        | PASS    |
|           |           |              | VN         | -20       | 11.11           | 0.013280            | ±2.5        | PASS    |
|           |           |              | VN         | -10       | 10.85           | 0.012969            | ±2.5        | PASS    |
|           |           |              | VN         | 0         | 8.59            | 0.010268            | ±2.5        | PASS    |
|           |           |              | VN         | 10        | 10.72           | 0.012814            | ±2.5        | PASS    |
|           |           |              | VN         | 20        | 11.30           | 0.013507            | ±2.5        | PASS    |
|           |           |              | VN         | 30        | 11.62           | 0.013890            | ±2.5        | PASS    |

|        |     |     |    |     |       |          |      |      |
|--------|-----|-----|----|-----|-------|----------|------|------|
| GSM850 | TM2 | HCH | VN | 40  | 8.52  | 0.010184 | ±2.5 | PASS |
|        |     |     | VN | 50  | 8.78  | 0.010495 | ±2.5 | PASS |
|        |     |     | VN | -30 | 8.20  | 0.009661 | ±2.5 | PASS |
|        |     |     | VN | -20 | 10.53 | 0.012406 | ±2.5 | PASS |
|        |     |     | VN | -10 | 8.07  | 0.009508 | ±2.5 | PASS |
|        |     |     | VN | 0   | 8.78  | 0.010344 | ±2.5 | PASS |
|        |     |     | VN | 10  | 7.75  | 0.009131 | ±2.5 | PASS |
|        |     |     | VN | 20  | 8.33  | 0.009814 | ±2.5 | PASS |
|        |     |     | VN | 30  | 7.49  | 0.008824 | ±2.5 | PASS |
|        |     |     | VN | 40  | 10.33 | 0.012170 | ±2.5 | PASS |
|        |     |     | VN | 50  | 7.43  | 0.008754 | ±2.5 | PASS |

| Test Band | Test Mode | Test Channel | Test Volt. | Test Temp | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
|-----------|-----------|--------------|------------|-----------|-----------------|---------------------|-------------|---------|
| GSM850    | TM3       | LCH          | VN         | -30       | -6.91           | -0.008384           | ±2.5        | PASS    |
|           |           |              | VN         | -20       | -6.81           | -0.008263           | ±2.5        | PASS    |
|           |           |              | VN         | -10       | -10.11          | -0.012266           | ±2.5        | PASS    |
|           |           |              | VN         | 0         | -9.85           | -0.011951           | ±2.5        | PASS    |
|           |           |              | VN         | 10        | -9.20           | -0.011162           | ±2.5        | PASS    |
|           |           |              | VN         | 20        | -11.82          | -0.014341           | ±2.5        | PASS    |
|           |           |              | VN         | 30        | -11.72          | -0.014220           | ±2.5        | PASS    |
|           |           |              | VN         | 40        | -9.46           | -0.011478           | ±2.5        | PASS    |
|           |           |              | VN         | 50        | -9.56           | -0.011599           | ±2.5        | PASS    |
| GSM850    | TM3       | MCH          | VN         | -30       | -9.20           | -0.010997           | ±2.5        | PASS    |
|           |           |              | VN         | -20       | -10.04          | -0.012001           | ±2.5        | PASS    |
|           |           |              | VN         | -10       | -8.59           | -0.010268           | ±2.5        | PASS    |
|           |           |              | VN         | 0         | -11.85          | -0.014164           | ±2.5        | PASS    |
|           |           |              | VN         | 10        | -7.65           | -0.009144           | ±2.5        | PASS    |
|           |           |              | VN         | 20        | -7.20           | -0.008606           | ±2.5        | PASS    |
|           |           |              | VN         | 30        | -9.75           | -0.011654           | ±2.5        | PASS    |
|           |           |              | VN         | 40        | -6.91           | -0.008260           | ±2.5        | PASS    |
|           |           |              | VN         | 50        | -8.78           | -0.010495           | ±2.5        | PASS    |
| GSM850    | TM3       | HCH          | VN         | -30       | -9.81           | -0.011557           | ±2.5        | PASS    |
|           |           |              | VN         | -20       | -9.36           | -0.011027           | ±2.5        | PASS    |
|           |           |              | VN         | -10       | -9.69           | -0.011416           | ±2.5        | PASS    |
|           |           |              | VN         | 0         | -11.78          | -0.013878           | ±2.5        | PASS    |

|  |  |  |    |    |        |           |      |      |
|--|--|--|----|----|--------|-----------|------|------|
|  |  |  | VN | 10 | -10.30 | -0.012135 | ±2.5 | PASS |
|  |  |  | VN | 20 | -8.43  | -0.009932 | ±2.5 | PASS |
|  |  |  | VN | 30 | -8.30  | -0.009779 | ±2.5 | PASS |
|  |  |  | VN | 40 | -10.40 | -0.012253 | ±2.5 | PASS |
|  |  |  | VN | 50 | -8.65  | -0.010191 | ±2.5 | PASS |

| Test Band | Test Mode | Test Channel | Test Volt. | Test Temp | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
|-----------|-----------|--------------|------------|-----------|-----------------|---------------------|-------------|---------|
| GSM1900   | TM1       | LCH          | VN         | -30       | -12.59          | -0.006805           | ±2.5        | PASS    |
|           |           |              | VN         | -20       | -2.52           | -0.001362           | ±2.5        | PASS    |
|           |           |              | VN         | -10       | -4.84           | -0.002616           | ±2.5        | PASS    |
|           |           |              | VN         | 0         | -6.59           | -0.003562           | ±2.5        | PASS    |
|           |           |              | VN         | 10        | -13.37          | -0.007226           | ±2.5        | PASS    |
|           |           |              | VN         | 20        | -2.84           | -0.001535           | ±2.5        | PASS    |
|           |           |              | VN         | 30        | -5.04           | -0.002724           | ±2.5        | PASS    |
|           |           |              | VN         | 40        | -12.85          | -0.006945           | ±2.5        | PASS    |
|           |           |              | VN         | 50        | -14.59          | -0.007886           | ±2.5        | PASS    |
| GSM1900   | TM1       | MCH          | VN         | -30       | -7.04           | -0.003745           | ±2.5        | PASS    |
|           |           |              | VN         | -20       | -4.20           | -0.002234           | ±2.5        | PASS    |
|           |           |              | VN         | -10       | -0.90           | -0.000479           | ±2.5        | PASS    |
|           |           |              | VN         | 0         | -8.14           | -0.004330           | ±2.5        | PASS    |
|           |           |              | VN         | 10        | -14.40          | -0.007660           | ±2.5        | PASS    |
|           |           |              | VN         | 20        | -13.75          | -0.007314           | ±2.5        | PASS    |
|           |           |              | VN         | 30        | -14.79          | -0.007867           | ±2.5        | PASS    |
|           |           |              | VN         | 40        | -18.98          | -0.010096           | ±2.5        | PASS    |
|           |           |              | VN         | 50        | -10.27          | -0.005463           | ±2.5        | PASS    |
| GSM1900   | TM1       | HCH          | VN         | -30       | -6.07           | -0.003178           | ±2.5        | PASS    |
|           |           |              | VN         | -20       | -6.59           | -0.003451           | ±2.5        | PASS    |
|           |           |              | VN         | -10       | 2.00            | 0.001047            | ±2.5        | PASS    |
|           |           |              | VN         | 0         | -6.13           | -0.003210           | ±2.5        | PASS    |
|           |           |              | VN         | 10        | -6.65           | -0.003482           | ±2.5        | PASS    |
|           |           |              | VN         | 20        | -5.68           | -0.002974           | ±2.5        | PASS    |
|           |           |              | VN         | 30        | -1.68           | -0.000880           | ±2.5        | PASS    |
|           |           |              | VN         | 40        | -3.23           | -0.001691           | ±2.5        | PASS    |
|           |           |              | VN         | 50        | -4.58           | -0.002398           | ±2.5        | PASS    |

| Test Band | Test Mode | Test Channel | Test Volt. | Test Temp | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
|-----------|-----------|--------------|------------|-----------|-----------------|---------------------|-------------|---------|
| GSM1900   | TM2       | LCH          | VN         | -30       | -1.49           | -0.000805           | ±2.5        | PASS    |
|           |           |              | VN         | -20       | -0.77           | -0.000416           | ±2.5        | PASS    |
|           |           |              | VN         | -10       | -4.26           | -0.002302           | ±2.5        | PASS    |
|           |           |              | VN         | 0         | -6.39           | -0.003454           | ±2.5        | PASS    |
|           |           |              | VN         | 10        | -6.39           | -0.003454           | ±2.5        | PASS    |
|           |           |              | VN         | 20        | 0.39            | 0.000211            | ±2.5        | PASS    |
|           |           |              | VN         | 30        | 2.45            | 0.001324            | ±2.5        | PASS    |
|           |           |              | VN         | 40        | -1.68           | -0.000908           | ±2.5        | PASS    |
|           |           |              | VN         | 50        | -2.52           | -0.001362           | ±2.5        | PASS    |
| GSM1900   | TM2       | MCH          | VN         | -30       | -4.84           | -0.002574           | ±2.5        | PASS    |
|           |           |              | VN         | -20       | -3.42           | -0.001819           | ±2.5        | PASS    |
|           |           |              | VN         | -10       | -1.68           | -0.000894           | ±2.5        | PASS    |
|           |           |              | VN         | 0         | -5.81           | -0.003090           | ±2.5        | PASS    |
|           |           |              | VN         | 10        | -6.65           | -0.003537           | ±2.5        | PASS    |
|           |           |              | VN         | 20        | -2.13           | -0.001133           | ±2.5        | PASS    |
|           |           |              | VN         | 30        | -4.26           | -0.002266           | ±2.5        | PASS    |
|           |           |              | VN         | 40        | -2.39           | -0.001271           | ±2.5        | PASS    |
|           |           |              | VN         | 50        | -5.29           | -0.002814           | ±2.5        | PASS    |
| GSM1900   | TM2       | HCH          | VN         | -30       | -3.36           | -0.001759           | ±2.5        | PASS    |
|           |           |              | VN         | -20       | -2.84           | -0.001487           | ±2.5        | PASS    |
|           |           |              | VN         | -10       | -2.84           | -0.001487           | ±2.5        | PASS    |
|           |           |              | VN         | 0         | -5.17           | -0.002707           | ±2.5        | PASS    |
|           |           |              | VN         | 10        | -10.72          | -0.005613           | ±2.5        | PASS    |
|           |           |              | VN         | 20        | -14.85          | -0.007776           | ±2.5        | PASS    |
|           |           |              | VN         | 30        | -1.87           | -0.000979           | ±2.5        | PASS    |
|           |           |              | VN         | 40        | -6.59           | -0.003451           | ±2.5        | PASS    |
|           |           |              | VN         | 50        | 2.32            | 0.001215            | ±2.5        | PASS    |

| Test Band | Test Mode | Test Channel | Test Volt. | Test Temp | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
|-----------|-----------|--------------|------------|-----------|-----------------|---------------------|-------------|---------|
| GSM1900   | TM3       | LCH          | VN         | -30       | -12.53          | -0.006772           | ±2.5        | PASS    |
|           |           |              | VN         | -20       | -15.01          | -0.008113           | ±2.5        | PASS    |
|           |           |              | VN         | -10       | -17.37          | -0.009388           | ±2.5        | PASS    |

|         |     |     |    |     |        |           |      |      |
|---------|-----|-----|----|-----|--------|-----------|------|------|
|         |     |     | VN | 0   | -8.07  | -0.004362 | ±2.5 | PASS |
|         |     |     | VN | 10  | -8.65  | -0.004675 | ±2.5 | PASS |
|         |     |     | VN | 20  | -1.87  | -0.001011 | ±2.5 | PASS |
|         |     |     | VN | 30  | -18.34 | -0.009912 | ±2.5 | PASS |
|         |     |     | VN | 40  | -18.27 | -0.009875 | ±2.5 | PASS |
|         |     |     | VN | 50  | -6.49  | -0.003508 | ±2.5 | PASS |
| GSM1900 | TM3 | MCH | VN | -30 | -14.17 | -0.007537 | ±2.5 | PASS |
|         |     |     | VN | -20 | -12.11 | -0.006441 | ±2.5 | PASS |
|         |     |     | VN | -10 | -13.37 | -0.007112 | ±2.5 | PASS |
|         |     |     | VN | 0   | -15.76 | -0.008383 | ±2.5 | PASS |
|         |     |     | VN | 10  | -13.75 | -0.007314 | ±2.5 | PASS |
|         |     |     | VN | 20  | -11.59 | -0.006165 | ±2.5 | PASS |
|         |     |     | VN | 30  | -7.52  | -0.004000 | ±2.5 | PASS |
|         |     |     | VN | 40  | -4.58  | -0.002436 | ±2.5 | PASS |
|         |     |     | VN | 50  | -3.20  | -0.001702 | ±2.5 | PASS |
| GSM1900 | TM3 | HCH | VN | -30 | -12.20 | -0.006388 | ±2.5 | PASS |
|         |     |     | VN | -20 | -6.01  | -0.003147 | ±2.5 | PASS |
|         |     |     | VN | -10 | -6.36  | -0.003330 | ±2.5 | PASS |
|         |     |     | VN | 0   | -6.49  | -0.003398 | ±2.5 | PASS |
|         |     |     | VN | 10  | -13.79 | -0.007221 | ±2.5 | PASS |
|         |     |     | VN | 20  | -5.62  | -0.002943 | ±2.5 | PASS |
|         |     |     | VN | 30  | -5.94  | -0.003110 | ±2.5 | PASS |
|         |     |     | VN | 40  | -9.56  | -0.005006 | ±2.5 | PASS |
|         |     |     | VN | 50  | -14.85 | -0.007776 | ±2.5 | PASS |

| Test Band    | Test Mode | Test Channel | Test Volt. | Test Temp | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
|--------------|-----------|--------------|------------|-----------|-----------------|---------------------|-------------|---------|
| WCDMA8<br>50 | TM1       | LCH          | VN         | -30       | 0.24            | 0.000295            | ±2.5        | PASS    |
|              |           |              | VN         | -20       | 0.50            | 0.000609            | ±2.5        | PASS    |
|              |           |              | VN         | -10       | 2.70            | 0.003268            | ±2.5        | PASS    |
|              |           |              | VN         | 0         | -0.55           | -0.000665           | ±2.5        | PASS    |
|              |           |              | VN         | 10        | 3.98            | 0.004819            | ±2.5        | PASS    |
|              |           |              | VN         | 20        | 0.03            | 0.000037            | ±2.5        | PASS    |
|              |           |              | VN         | 30        | 1.21            | 0.001459            | ±2.5        | PASS    |
|              |           |              | VN         | 40        | 2.01            | 0.002437            | ±2.5        | PASS    |
|              |           |              | VN         | 50        | -0.46           | -0.000554           | ±2.5        | PASS    |



|              |     |     |    |     |       |           |      |      |
|--------------|-----|-----|----|-----|-------|-----------|------|------|
| WCDMA8<br>50 | TM1 | MCH | VN | -30 | -0.12 | -0.000146 | ±2.5 | PASS |
|              |     |     | VN | -20 | -0.53 | -0.000639 | ±2.5 | PASS |
|              |     |     | VN | -10 | 1.28  | 0.001532  | ±2.5 | PASS |
|              |     |     | VN | 0   | 0.23  | 0.000274  | ±2.5 | PASS |
|              |     |     | VN | 10  | 3.07  | 0.003667  | ±2.5 | PASS |
|              |     |     | VN | 20  | 5.19  | 0.006203  | ±2.5 | PASS |
|              |     |     | VN | 30  | 3.34  | 0.003995  | ±2.5 | PASS |
|              |     |     | VN | 40  | 2.49  | 0.002974  | ±2.5 | PASS |
|              |     |     | VN | 50  | -0.37 | -0.000438 | ±2.5 | PASS |
|              |     |     | VN | 50  | -0.37 | -0.000438 | ±2.5 | PASS |
| WCDMA8<br>50 | TM1 | HCH | VN | -30 | -1.56 | -0.001838 | ±2.5 | PASS |
|              |     |     | VN | -20 | 3.89  | 0.004596  | ±2.5 | PASS |
|              |     |     | VN | -10 | 0.00  | 0.000000  | ±2.5 | PASS |
|              |     |     | VN | 0   | 1.04  | 0.001226  | ±2.5 | PASS |
|              |     |     | VN | 10  | -1.56 | -0.001838 | ±2.5 | PASS |
|              |     |     | VN | 20  | 5.83  | 0.006885  | ±2.5 | PASS |
|              |     |     | VN | 30  | 4.68  | 0.005533  | ±2.5 | PASS |
|              |     |     | VN | 40  | -2.24 | -0.002649 | ±2.5 | PASS |
|              |     |     | VN | 50  | 3.36  | 0.003965  | ±2.5 | PASS |
|              |     |     | VN | 50  | 3.36  | 0.003965  | ±2.5 | PASS |

| Test Band    | Test Mode | Test Channel | Test Volt. | Test Temp | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
|--------------|-----------|--------------|------------|-----------|-----------------|---------------------|-------------|---------|
| WCDMA8<br>50 | TM1       | LCH          | VN         | -30       | 0.24            | 0.000295            | ±2.5        | PASS    |
|              |           |              | VN         | -20       | 0.50            | 0.000609            | ±2.5        | PASS    |
|              |           |              | VN         | -10       | 2.70            | 0.003268            | ±2.5        | PASS    |
|              |           |              | VN         | 0         | -0.55           | -0.000665           | ±2.5        | PASS    |
|              |           |              | VN         | 10        | 3.98            | 0.004819            | ±2.5        | PASS    |
|              |           |              | VN         | 20        | 0.03            | 0.000037            | ±2.5        | PASS    |
|              |           |              | VN         | 30        | 1.21            | 0.001459            | ±2.5        | PASS    |
|              |           |              | VN         | 40        | 2.01            | 0.002437            | ±2.5        | PASS    |
|              |           |              | VN         | 50        | -0.46           | -0.000554           | ±2.5        | PASS    |
| WCDMA8<br>50 | TM1       | MCH          | VN         | -30       | -0.12           | -0.000146           | ±2.5        | PASS    |
|              |           |              | VN         | -20       | -0.53           | -0.000639           | ±2.5        | PASS    |
|              |           |              | VN         | -10       | 1.28            | 0.001532            | ±2.5        | PASS    |
|              |           |              | VN         | 0         | 0.23            | 0.000274            | ±2.5        | PASS    |
|              |           |              | VN         | 10        | 3.07            | 0.003667            | ±2.5        | PASS    |
|              |           |              | VN         | 20        | 5.19            | 0.006203            | ±2.5        | PASS    |



|              |           |              | VN         | 30        | 3.34            | 0.003995            | ±2.5        | PASS    |
|--------------|-----------|--------------|------------|-----------|-----------------|---------------------|-------------|---------|
|              |           |              | VN         | 40        | 2.49            | 0.002974            | ±2.5        | PASS    |
|              |           |              | VN         | 50        | -0.37           | -0.000438           | ±2.5        | PASS    |
| WCDMA8<br>50 | TM1       | HCH          | VN         | -30       | -1.56           | -0.001838           | ±2.5        | PASS    |
|              |           |              | VN         | -20       | 3.89            | 0.004596            | ±2.5        | PASS    |
|              |           |              | VN         | -10       | 0.00            | 0.000000            | ±2.5        | PASS    |
|              |           |              | VN         | 0         | 1.04            | 0.001226            | ±2.5        | PASS    |
|              |           |              | VN         | 10        | -1.56           | -0.001838           | ±2.5        | PASS    |
|              |           |              | VN         | 20        | 5.83            | 0.006885            | ±2.5        | PASS    |
|              |           |              | VN         | 30        | 4.68            | 0.005533            | ±2.5        | PASS    |
|              |           |              | VN         | 40        | -2.24           | -0.002649           | ±2.5        | PASS    |
|              |           |              | VN         | 50        | 3.36            | 0.003965            | ±2.5        | PASS    |
|              |           |              |            |           |                 |                     |             |         |
| Test Band    | Test Mode | Test Channel | Test Volt. | Test Temp | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
| WCDMA8<br>50 | TM2       | LCH          | VN         | -30       | -46.34          | -0.056076           | ±2.5        | PASS    |
|              |           |              | VN         | -20       | -22.66          | -0.027419           | ±2.5        | PASS    |
|              |           |              | VN         | -10       | 76.72           | 0.092838            | ±2.5        | PASS    |
|              |           |              | VN         | 0         | 118.79          | 0.143744            | ±2.5        | PASS    |
|              |           |              | VN         | 10        | 56.87           | 0.068816            | ±2.5        | PASS    |
|              |           |              | VN         | 20        | 53.60           | 0.064865            | ±2.5        | PASS    |
|              |           |              | VN         | 30        | 13.75           | 0.016636            | ±2.5        | PASS    |
|              |           |              | VN         | 40        | 21.62           | 0.026164            | ±2.5        | PASS    |
|              |           |              | VN         | 50        | -92.74          | -0.112225           | ±2.5        | PASS    |
|              |           |              |            |           |                 |                     |             |         |
| WCDMA8<br>50 | TM2       | MCH          | VN         | -30       | -27.37          | -0.032729           | ±2.5        | PASS    |
|              |           |              | VN         | -20       | 10.35           | 0.012369            | ±2.5        | PASS    |
|              |           |              | VN         | -10       | -26.76          | -0.031999           | ±2.5        | PASS    |
|              |           |              | VN         | 0         | -21.87          | -0.026143           | ±2.5        | PASS    |
|              |           |              | VN         | 10        | 39.28           | 0.046959            | ±2.5        | PASS    |
|              |           |              | VN         | 20        | -53.01          | -0.063378           | ±2.5        | PASS    |
|              |           |              | VN         | 30        | 34.41           | 0.041139            | ±2.5        | PASS    |
|              |           |              | VN         | 40        | -17.87          | -0.021363           | ±2.5        | PASS    |
|              |           |              | VN         | 50        | 21.18           | 0.025322            | ±2.5        | PASS    |
|              |           |              |            |           |                 |                     |             |         |
| WCDMA8<br>50 | TM2       | HCH          | VN         | -30       | -29.88          | -0.035290           | ±2.5        | PASS    |
|              |           |              | VN         | -20       | 35.34           | 0.041743            | ±2.5        | PASS    |
|              |           |              | VN         | -10       | -18.17          | -0.021466           | ±2.5        | PASS    |
|              |           |              | VN         | 0         | -120.48         | -0.142314           | ±2.5        | PASS    |

|              |           |              | VN         | 10        | 148.07          | 0.174901            | ±2.5        | PASS    |
|--------------|-----------|--------------|------------|-----------|-----------------|---------------------|-------------|---------|
|              |           |              | VN         | 20        | 26.23           | 0.030983            | ±2.5        | PASS    |
|              |           |              | VN         | 30        | 7.00            | 0.008273            | ±2.5        | PASS    |
|              |           |              | VN         | 40        | -35.37          | -0.041779           | ±2.5        | PASS    |
|              |           |              | VN         | 50        | 55.71           | 0.065804            | ±2.5        | PASS    |
| Test Band    | Test Mode | Test Channel | Test Volt. | Test Temp | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
| WCDMA8<br>50 | TM3       | LCH          | VN         | -30       | 34.44           | 0.041674            | ±2.5        | PASS    |
|              |           |              | VN         | -20       | 34.00           | 0.041138            | ±2.5        | PASS    |
|              |           |              | VN         | -10       | -19.99          | -0.024188           | ±2.5        | PASS    |
|              |           |              | VN         | 0         | 108.76          | 0.131613            | ±2.5        | PASS    |
|              |           |              | VN         | 10        | 24.66           | 0.029838            | ±2.5        | PASS    |
|              |           |              | VN         | 20        | 29.17           | 0.035303            | ±2.5        | PASS    |
|              |           |              | VN         | 30        | -38.76          | -0.046899           | ±2.5        | PASS    |
|              |           |              | VN         | 40        | 14.43           | 0.017467            | ±2.5        | PASS    |
|              |           |              | VN         | 50        | 65.69           | 0.079488            | ±2.5        | PASS    |
| WCDMA8<br>50 | TM3       | MCH          | VN         | -30       | 173.05          | 0.206898            | ±2.5        | PASS    |
|              |           |              | VN         | -20       | -117.65         | -0.140657           | ±2.5        | PASS    |
|              |           |              | VN         | -10       | 3.57            | 0.004269            | ±2.5        | PASS    |
|              |           |              | VN         | 0         | 23.25           | 0.027803            | ±2.5        | PASS    |
|              |           |              | VN         | 10        | -24.35          | -0.029116           | ±2.5        | PASS    |
|              |           |              | VN         | 20        | -48.07          | -0.057467           | ±2.5        | PASS    |
|              |           |              | VN         | 30        | 45.75           | 0.054694            | ±2.5        | PASS    |
|              |           |              | VN         | 40        | 18.81           | 0.022494            | ±2.5        | PASS    |
|              |           |              | VN         | 50        | -72.59          | -0.086784           | ±2.5        | PASS    |
| WCDMA8<br>50 | TM3       | HCH          | VN         | -30       | 131.65          | 0.155508            | ±2.5        | PASS    |
|              |           |              | VN         | -20       | 90.36           | 0.106736            | ±2.5        | PASS    |
|              |           |              | VN         | -10       | 33.68           | 0.039778            | ±2.5        | PASS    |
|              |           |              | VN         | 0         | 109.54          | 0.129391            | ±2.5        | PASS    |
|              |           |              | VN         | 10        | 61.74           | 0.072924            | ±2.5        | PASS    |
|              |           |              | VN         | 20        | 30.18           | 0.035651            | ±2.5        | PASS    |
|              |           |              | VN         | 30        | -19.97          | -0.023593           | ±2.5        | PASS    |
|              |           |              | VN         | 40        | -10.64          | -0.012562           | ±2.5        | PASS    |
|              |           |              | VN         | 50        | -36.21          | -0.042770           | ±2.5        | PASS    |

| Test Band  | Test Mode | Test Channel | Test Volt. | Test Temp | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
|------------|-----------|--------------|------------|-----------|-----------------|---------------------|-------------|---------|
| WCDMA1 700 | TM1       | LCH          | VN         | -30       | -1.74           | -0.001016           | ±2.5        | PASS    |
|            |           |              | VN         | -20       | -1.50           | -0.000873           | ±2.5        | PASS    |
|            |           |              | VN         | -10       | 3.46            | 0.002023            | ±2.5        | PASS    |
|            |           |              | VN         | 0         | 2.79            | 0.001631            | ±2.5        | PASS    |
|            |           |              | VN         | 10        | -4.10           | -0.002397           | ±2.5        | PASS    |
|            |           |              | VN         | 20        | -9.32           | -0.005444           | ±2.5        | PASS    |
|            |           |              | VN         | 30        | -9.95           | -0.005810           | ±2.5        | PASS    |
|            |           |              | VN         | 40        | -6.07           | -0.003546           | ±2.5        | PASS    |
|            |           |              | VN         | 50        | 9.00            | 0.005257            | ±2.5        | PASS    |
| WCDMA1 700 | TM1       | MCH          | VN         | -30       | -0.32           | -0.000185           | ±2.5        | PASS    |
|            |           |              | VN         | -20       | 10.07           | 0.005813            | ±2.5        | PASS    |
|            |           |              | VN         | -10       | 1.28            | 0.000740            | ±2.5        | PASS    |
|            |           |              | VN         | 0         | -7.28           | -0.004201           | ±2.5        | PASS    |
|            |           |              | VN         | 10        | -4.15           | -0.002395           | ±2.5        | PASS    |
|            |           |              | VN         | 20        | 9.45            | 0.005451            | ±2.5        | PASS    |
|            |           |              | VN         | 30        | -1.97           | -0.001136           | ±2.5        | PASS    |
|            |           |              | VN         | 40        | -3.80           | -0.002193           | ±2.5        | PASS    |
|            |           |              | VN         | 50        | -4.21           | -0.002431           | ±2.5        | PASS    |
| WCDMA1 700 | TM1       | HCH          | VN         | -30       | -0.32           | -0.000183           | ±2.5        | PASS    |
|            |           |              | VN         | -20       | 7.51            | 0.004284            | ±2.5        | PASS    |
|            |           |              | VN         | -10       | 7.51            | 0.004284            | ±2.5        | PASS    |
|            |           |              | VN         | 0         | 6.96            | 0.003970            | ±2.5        | PASS    |
|            |           |              | VN         | 10        | 5.62            | 0.003204            | ±2.5        | PASS    |
|            |           |              | VN         | 20        | 6.12            | 0.003491            | ±2.5        | PASS    |
|            |           |              | VN         | 30        | 5.84            | 0.003335            | ±2.5        | PASS    |
|            |           |              | VN         | 40        | 4.09            | 0.002333            | ±2.5        | PASS    |
|            |           |              | VN         | 50        | 0.08            | 0.000044            | ±2.5        | PASS    |
| Test Band  | Test Mode | Test Channel | Test Volt. | Test Temp | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
| WCDMA1 700 | TM2       | LCH          | VN         | -30       | 74.84           | 0.043707            | ±2.5        | PASS    |
|            |           |              | VN         | -20       | 78.13           | 0.045623            | ±2.5        | PASS    |
|            |           |              | VN         | -10       | 47.71           | 0.027864            | ±2.5        | PASS    |

|               |     |     |    |     |         |           |      |      |
|---------------|-----|-----|----|-----|---------|-----------|------|------|
|               |     |     | VN | 0   | -68.59  | -0.040054 | ±2.5 | PASS |
|               |     |     | VN | 10  | 28.72   | 0.016770  | ±2.5 | PASS |
|               |     |     | VN | 20  | -31.04  | -0.018124 | ±2.5 | PASS |
|               |     |     | VN | 30  | -84.55  | -0.049375 | ±2.5 | PASS |
|               |     |     | VN | 40  | -48.52  | -0.028336 | ±2.5 | PASS |
|               |     |     | VN | 50  | 37.00   | 0.021609  | ±2.5 | PASS |
| WCDMA1<br>700 | TM2 | MCH | VN | -30 | 23.68   | 0.013668  | ±2.5 | PASS |
|               |     |     | VN | -20 | 17.58   | 0.010146  | ±2.5 | PASS |
|               |     |     | VN | -10 | -68.44  | -0.039499 | ±2.5 | PASS |
|               |     |     | VN | 0   | -110.38 | -0.063709 | ±2.5 | PASS |
|               |     |     | VN | 10  | 99.20   | 0.057253  | ±2.5 | PASS |
|               |     |     | VN | 20  | -10.77  | -0.006218 | ±2.5 | PASS |
|               |     |     | VN | 30  | -77.77  | -0.044889 | ±2.5 | PASS |
|               |     |     | VN | 40  | -125.49 | -0.072428 | ±2.5 | PASS |
|               |     |     | VN | 50  | 14.62   | 0.008437  | ±2.5 | PASS |
| WCDMA1<br>700 | TM2 | HCH | VN | -30 | -26.64  | -0.015201 | ±2.5 | PASS |
|               |     |     | VN | -20 | 28.47   | 0.016246  | ±2.5 | PASS |
|               |     |     | VN | -10 | 60.21   | 0.034355  | ±2.5 | PASS |
|               |     |     | VN | 0   | 4.27    | 0.002438  | ±2.5 | PASS |
|               |     |     | VN | 10  | -23.00  | -0.013121 | ±2.5 | PASS |
|               |     |     | VN | 20  | 17.00   | 0.009699  | ±2.5 | PASS |
|               |     |     | VN | 30  | -153.95 | -0.087839 | ±2.5 | PASS |
|               |     |     | VN | 40  | -103.35 | -0.058968 | ±2.5 | PASS |
|               |     |     | VN | 50  | 3.89    | 0.002220  | ±2.5 | PASS |

| Test Band     | Test Mode | Test Channel | Test Volt. | Test Temp | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
|---------------|-----------|--------------|------------|-----------|-----------------|---------------------|-------------|---------|
| WCDMA1<br>700 | TM3       | LCH          | VN         | -30       | -5.05           | -0.002949           | ±2.5        | PASS    |
|               |           |              | VN         | -20       | 134.57          | 0.078584            | ±2.5        | PASS    |
|               |           |              | VN         | -10       | 34.07           | 0.019898            | ±2.5        | PASS    |
|               |           |              | VN         | 0         | -100.54         | -0.058713           | ±2.5        | PASS    |
|               |           |              | VN         | 10        | -24.03          | -0.014034           | ±2.5        | PASS    |
|               |           |              | VN         | 20        | -41.76          | -0.024389           | ±2.5        | PASS    |
|               |           |              | VN         | 30        | -129.79         | -0.075795           | ±2.5        | PASS    |
|               |           |              | VN         | 40        | -10.16          | -0.005935           | ±2.5        | PASS    |
|               |           |              | VN         | 50        | -29.27          | -0.017091           | ±2.5        | PASS    |

|               |     |     |    |     |        |           |      |      |
|---------------|-----|-----|----|-----|--------|-----------|------|------|
| WCDMA1<br>700 | TM3 | MCH | VN | -30 | -94.67 | -0.054638 | ±2.5 | PASS |
|               |     |     | VN | -20 | -3.77  | -0.002175 | ±2.5 | PASS |
|               |     |     | VN | -10 | 28.93  | 0.016698  | ±2.5 | PASS |
|               |     |     | VN | 0   | -18.31 | -0.010568 | ±2.5 | PASS |
|               |     |     | VN | 10  | -9.89  | -0.005707 | ±2.5 | PASS |
|               |     |     | VN | 20  | -33.05 | -0.019076 | ±2.5 | PASS |
|               |     |     | VN | 30  | 20.95  | 0.012092  | ±2.5 | PASS |
|               |     |     | VN | 40  | 73.88  | 0.042643  | ±2.5 | PASS |
|               |     |     | VN | 50  | 14.11  | 0.008146  | ±2.5 | PASS |
| WCDMA1<br>700 | TM3 | HCH | VN | -30 | 118.82 | 0.067797  | ±2.5 | PASS |
|               |     |     | VN | -20 | -2.52  | -0.001437 | ±2.5 | PASS |
|               |     |     | VN | -10 | 26.96  | 0.015384  | ±2.5 | PASS |
|               |     |     | VN | 0   | 56.38  | 0.032170  | ±2.5 | PASS |
|               |     |     | VN | 10  | -30.55 | -0.017430 | ±2.5 | PASS |
|               |     |     | VN | 20  | -54.18 | -0.030916 | ±2.5 | PASS |
|               |     |     | VN | 30  | -71.46 | -0.040772 | ±2.5 | PASS |
|               |     |     | VN | 40  | -63.86 | -0.036436 | ±2.5 | PASS |
|               |     |     | VN | 50  | 42.76  | 0.024395  | ±2.5 | PASS |



| Test Band  | Test Mode | Test Channel | Test Volt. | Test Temp | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
|------------|-----------|--------------|------------|-----------|-----------------|---------------------|-------------|---------|
| WCDMA1 900 | TM1       | LCH          | VN         | -30       | -6.64           | -0.003583           | ±2.5        | PASS    |
|            |           |              | VN         | -20       | 6.90            | 0.003723            | ±2.5        | PASS    |
|            |           |              | VN         | -10       | 7.51            | 0.004053            | ±2.5        | PASS    |
|            |           |              | VN         | 0         | -4.84           | -0.002611           | ±2.5        | PASS    |
|            |           |              | VN         | 10        | 1.37            | 0.000741            | ±2.5        | PASS    |
|            |           |              | VN         | 20        | 2.67            | 0.001442            | ±2.5        | PASS    |
|            |           |              | VN         | 30        | -6.15           | -0.003320           | ±2.5        | PASS    |
|            |           |              | VN         | 40        | 9.72            | 0.005247            | ±2.5        | PASS    |
|            |           |              | VN         | 50        | 3.14            | 0.001697            | ±2.5        | PASS    |
| WCDMA1 900 | TM1       | MCH          | VN         | -30       | 2.04            | 0.001088            | ±2.5        | PASS    |
|            |           |              | VN         | -20       | 5.49            | 0.002922            | ±2.5        | PASS    |
|            |           |              | VN         | -10       | -7.98           | -0.004245           | ±2.5        | PASS    |
|            |           |              | VN         | 0         | -7.55           | -0.004018           | ±2.5        | PASS    |
|            |           |              | VN         | 10        | -1.92           | -0.001023           | ±2.5        | PASS    |
|            |           |              | VN         | 20        | -3.98           | -0.002118           | ±2.5        | PASS    |
|            |           |              | VN         | 30        | -0.66           | -0.000349           | ±2.5        | PASS    |
|            |           |              | VN         | 40        | -0.90           | -0.000479           | ±2.5        | PASS    |
|            |           |              | VN         | 50        | 0.82            | 0.000438            | ±2.5        | PASS    |
| WCDMA1 900 | TM1       | HCH          | VN         | -30       | 2.14            | 0.001120            | ±2.5        | PASS    |
|            |           |              | VN         | -20       | 0.78            | 0.000408            | ±2.5        | PASS    |
|            |           |              | VN         | -10       | 0.50            | 0.000264            | ±2.5        | PASS    |
|            |           |              | VN         | 0         | 3.34            | 0.001752            | ±2.5        | PASS    |
|            |           |              | VN         | 10        | -3.48           | -0.001824           | ±2.5        | PASS    |
|            |           |              | VN         | 20        | -7.74           | -0.004055           | ±2.5        | PASS    |
|            |           |              | VN         | 30        | 4.17            | 0.002184            | ±2.5        | PASS    |
|            |           |              | VN         | 40        | -1.51           | -0.000792           | ±2.5        | PASS    |
|            |           |              | VN         | 50        | 1.42            | 0.000744            | ±2.5        | PASS    |
| Test Band  | Test Mode | Test Channel | Test Volt. | Test Temp | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
| WCDMA1 900 | TM2       | LCH          | VN         | -30       | 45.70           | 0.024671            | ±2.5        | PASS    |
|            |           |              | VN         | -20       | -18.02          | -0.009728           | ±2.5        | PASS    |
|            |           |              | VN         | -10       | 143.74          | 0.077595            | ±2.5        | PASS    |
|            |           |              | VN         | 0         | 64.83           | 0.035000            | ±2.5        | PASS    |



|               |           |              | VN         | 10        | 70.76           | 0.038196            | ±2.5        | PASS    |
|---------------|-----------|--------------|------------|-----------|-----------------|---------------------|-------------|---------|
|               |           |              | VN         | 20        | -20.19          | -0.010898           | ±2.5        | PASS    |
|               |           |              | VN         | 30        | -46.19          | -0.024934           | ±2.5        | PASS    |
|               |           |              | VN         | 40        | -42.48          | -0.022933           | ±2.5        | PASS    |
|               |           |              | VN         | 50        | 14.92           | 0.008056            | ±2.5        | PASS    |
| WCDMA1<br>900 | TM2       | MCH          | VN         | -30       | -149.12         | -0.079321           | ±2.5        | PASS    |
|               |           |              | VN         | -20       | 50.86           | 0.027052            | ±2.5        | PASS    |
|               |           |              | VN         | -10       | 83.86           | 0.044608            | ±2.5        | PASS    |
|               |           |              | VN         | 0         | 52.08           | 0.027701            | ±2.5        | PASS    |
|               |           |              | VN         | 10        | -48.81          | -0.025964           | ±2.5        | PASS    |
|               |           |              | VN         | 20        | -81.30          | -0.043244           | ±2.5        | PASS    |
|               |           |              | VN         | 30        | 42.80           | 0.022766            | ±2.5        | PASS    |
|               |           |              | VN         | 40        | -4.59           | -0.002443           | ±2.5        | PASS    |
|               |           |              | VN         | 50        | 27.50           | 0.014626            | ±2.5        | PASS    |
| WCDMA1<br>900 | TM2       | HCH          | VN         | -30       | -7.28           | -0.003815           | ±2.5        | PASS    |
|               |           |              | VN         | -20       | 0.15            | 0.000080            | ±2.5        | PASS    |
|               |           |              | VN         | -10       | 54.47           | 0.028556            | ±2.5        | PASS    |
|               |           |              | VN         | 0         | 75.73           | 0.039699            | ±2.5        | PASS    |
|               |           |              | VN         | 10        | -71.01          | -0.037227           | ±2.5        | PASS    |
|               |           |              | VN         | 20        | 44.97           | 0.023573            | ±2.5        | PASS    |
|               |           |              | VN         | 30        | 66.25           | 0.034731            | ±2.5        | PASS    |
|               |           |              | VN         | 40        | -8.64           | -0.004527           | ±2.5        | PASS    |
|               |           |              | VN         | 50        | -39.05          | -0.020469           | ±2.5        | PASS    |
| Test Band     | Test Mode | Test Channel | Test Volt. | Test Temp | Freq.Error (Hz) | Freq.vs.rated (ppm) | Limit (ppm) | Verdict |
| WCDMA1<br>900 | TM3       | LCH          | VN         | -30       | 79.91           | 0.043139            | ±2.5        | PASS    |
|               |           |              | VN         | -20       | 3.60            | 0.001944            | ±2.5        | PASS    |
|               |           |              | VN         | -10       | 0.05            | 0.000025            | ±2.5        | PASS    |
|               |           |              | VN         | 0         | -26.73          | -0.014432           | ±2.5        | PASS    |
|               |           |              | VN         | 10        | -4.24           | -0.002290           | ±2.5        | PASS    |
|               |           |              | VN         | 20        | -75.67          | -0.040849           | ±2.5        | PASS    |
|               |           |              | VN         | 30        | 2.66            | 0.001433            | ±2.5        | PASS    |
|               |           |              | VN         | 40        | -12.36          | -0.006672           | ±2.5        | PASS    |
|               |           |              | VN         | 50        | 22.92           | 0.012372            | ±2.5        | PASS    |
| WCDMA1<br>900 | TM3       | MCH          | VN         | -30       | -30.55          | -0.016249           | ±2.5        | PASS    |
|               |           |              | VN         | -20       | 8.15            | 0.004334            | ±2.5        | PASS    |

|               |     |     |    |     |         |           |      |      |
|---------------|-----|-----|----|-----|---------|-----------|------|------|
| WCDMA1<br>900 | TM3 | HCH | VN | -10 | 18.34   | 0.009756  | ±2.5 | PASS |
|               |     |     | VN | 0   | -15.44  | -0.008214 | ±2.5 | PASS |
|               |     |     | VN | 10  | -91.54  | -0.048690 | ±2.5 | PASS |
|               |     |     | VN | 20  | 4.35    | 0.002313  | ±2.5 | PASS |
|               |     |     | VN | 30  | -75.13  | -0.039965 | ±2.5 | PASS |
|               |     |     | VN | 40  | -56.53  | -0.030071 | ±2.5 | PASS |
|               |     |     | VN | 50  | 10.38   | 0.005519  | ±2.5 | PASS |
|               |     |     | VN | -30 | 3.71    | 0.001944  | ±2.5 | PASS |
|               |     |     | VN | -20 | -13.24  | -0.006943 | ±2.5 | PASS |
|               |     |     | VN | -10 | -94.36  | -0.049465 | ±2.5 | PASS |
|               |     |     | VN | 0   | 9.80    | 0.005135  | ±2.5 | PASS |
|               |     |     | VN | 10  | -42.77  | -0.022421 | ±2.5 | PASS |
|               |     |     | VN | 20  | -17.58  | -0.009215 | ±2.5 | PASS |
|               |     |     | VN | 30  | -71.01  | -0.037227 | ±2.5 | PASS |
|               |     |     | VN | 40  | -122.06 | -0.063984 | ±2.5 | PASS |
|               |     |     | VN | 50  | -166.56 | -0.087316 | ±2.5 | PASS |

## Appendix G): Effective Radiated Power of Transmitter (ERP/EIRP)

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                    |                                  |                                    |               |           |              |                |                |        |                 |                 |              |      |      |      |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----------------------------------|------------------------------------|---------------|-----------|--------------|----------------|----------------|--------|-----------------|-----------------|--------------|------|------|------|
| Receiver Setup:        | <table><tr><td>Frequency</td><td>Detector</td><td>RBW</td><td>VBW</td><td>Remark</td></tr><tr><td>30MHz-1GHz</td><td>peak</td><td>120kHz</td><td>300kHz</td><td>Peak</td></tr><tr><td>Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Frequency                          | Detector                         | RBW                                | VBW           | Remark    | 30MHz-1GHz   | peak           | 120kHz         | 300kHz | Peak            | Above 1GHz      | Peak         | 1MHz | 3MHz | Peak |
| Frequency              | Detector                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | RBW                                | VBW                              | Remark                             |               |           |              |                |                |        |                 |                 |              |      |      |      |
| 30MHz-1GHz             | peak                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 120kHz                             | 300kHz                           | Peak                               |               |           |              |                |                |        |                 |                 |              |      |      |      |
| Above 1GHz             | Peak                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1MHz                               | 3MHz                             | Peak                               |               |           |              |                |                |        |                 |                 |              |      |      |      |
| Measurement Procedure: | <p>Test procedure as below:</p> <p>The EUT was powered ON and placed on a 1.5m hight table at a 3 meter fully Anechoic Chamber. The antenna of the transmitter was extended to its maximum length. modulation mode and the measuring receiver shall be tuned to the frequency of the transmitter under test.</p> <p>The EUT was set 3 meters(above 18GHz the distance is 1 meter) away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</p> <p>The disturbance of the transmitter was maximized on the test receiver display by raising and lowering from 1m to 4m the receive antenna and by rotating through 360° the turntable. After the fundamental emission was maximized, a field strength measurement was made.</p> <p>Steps 1) to 3) were performed with the EUT and the receive antenna in both vertical and horizontal polarization.</p> <p>The transmitter was then removed and replaced with another antenna. The center of the antenna was approximately at the same location as the center of the transmitter.</p> <p>A signal at the disturbance was fed to the substitution antenna by means of a non-radiating cable. With both the substitution and the receive antennas horizontally polarized, the receive antenna was raised and lowered to obtain a maximum reading at the test receiver. The level of the signal generator was adjusted until the measured field strength level in step 3) is obtained for this set of conditions.</p> <p>The output power into the substitution antenna was then measured.</p> <p>Steps 6) and 7)were repeated with both antennas polarized.</p> <p>Calculate power in dBm by the following formula:</p> <p>ERP(dBm) = Pg(dBm) – cable loss (dB) + antenna gain (dBd)</p> <p>EIRP(dBm) = Pg(dBm) – cable loss (dB) + antenna gain (dBi)</p> <p>EIRP=ERP+2.15dB</p> <p>where:</p> <p>Pg is the generator output power into the substitution antenna.</p> <p>Test the EUT in the lowest channel, the middle channel the Highest channel</p> <p>The radiation measurements are performed in X, Y, Z axis positioning for EUT operation mode,And found the X axis positioning which it is worse case.</p> <p>Repeat above procedures until all frequencies measured was complete.</p> |                                    |                                  |                                    |               |           |              |                |                |        |                 |                 |              |      |      |      |
| Limit:                 | <table><tr><td>Mode</td><td>GSM850/WCDMA/ HSDPA/HSUPA Band V</td><td>GSM1900/WCDMA/ HSDPA/HSUPA Band II</td><td>WCDMA Band IV</td></tr><tr><td>Frequency</td><td>824 – 849MHz</td><td>1850 – 1910MHz</td><td>1710 – 1755MHz</td></tr><tr><td>Limit</td><td>38.45dBm ( 7W )</td><td>33.01dBm ( 2W )</td><td>30dBm ( 1W )</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Mode                               | GSM850/WCDMA/ HSDPA/HSUPA Band V | GSM1900/WCDMA/ HSDPA/HSUPA Band II | WCDMA Band IV | Frequency | 824 – 849MHz | 1850 – 1910MHz | 1710 – 1755MHz | Limit  | 38.45dBm ( 7W ) | 33.01dBm ( 2W ) | 30dBm ( 1W ) |      |      |      |
| Mode                   | GSM850/WCDMA/ HSDPA/HSUPA Band V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | GSM1900/WCDMA/ HSDPA/HSUPA Band II | WCDMA Band IV                    |                                    |               |           |              |                |                |        |                 |                 |              |      |      |      |
| Frequency              | 824 – 849MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1850 – 1910MHz                     | 1710 – 1755MHz                   |                                    |               |           |              |                |                |        |                 |                 |              |      |      |      |
| Limit                  | 38.45dBm ( 7W )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 33.01dBm ( 2W )                    | 30dBm ( 1W )                     |                                    |               |           |              |                |                |        |                 |                 |              |      |      |      |

**Measurement Data**

| GSM 850 (Voice)  |             |               |           |             |                 |        |                  |
|------------------|-------------|---------------|-----------|-------------|-----------------|--------|------------------|
| Channel/fc (MHz) | Height (cm) | Azimuth (deg) | ERP (dBm) | Limit (dBm) | Over Limit (dB) | Result | Antenna Polaxis. |
| 128/824.2        | 150         | 347           | 29.22     | 38.45       | 9.23            | Pass   | H                |
|                  | 150         | 211           | 24.13     | 38.45       | 14.32           | Pass   | V                |
| 190/836.6        | 150         | 231           | 29.01     | 38.45       | 9.44            | Pass   | H                |
|                  | 150         | 336           | 23.11     | 38.45       | 15.34           | Pass   | V                |
| 251/848.8        | 150         | 215           | 28.19     | 38.45       | 10.26           | Pass   | H                |
|                  | 150         | 345           | 23.69     | 38.45       | 14.76           | Pass   | V                |

| GPRS 850         |             |               |           |             |                 |        |                  |
|------------------|-------------|---------------|-----------|-------------|-----------------|--------|------------------|
| Channel/fc (MHz) | Height (cm) | Azimuth (deg) | ERP (dBm) | Limit (dBm) | Over Limit (dB) | Result | Antenna Polaxis. |
| 128/824.2        | 150         | 43            | 24.55     | 38.45       | 13.90           | Pass   | H                |
|                  | 150         | 213           | 19.98     | 38.45       | 18.47           | Pass   | V                |
| 190/836.6        | 150         | 348           | 24.45     | 38.45       | 14.00           | Pass   | H                |
|                  | 150         | 211           | 19.34     | 38.45       | 19.11           | Pass   | V                |
| 251/848.8        | 150         | 344           | 24.31     | 38.45       | 14.14           | Pass   | H                |
|                  | 150         | 213           | 19.21     | 38.45       | 19.24           | Pass   | V                |

| EDGE 850         |             |               |           |             |                 |        |                  |
|------------------|-------------|---------------|-----------|-------------|-----------------|--------|------------------|
| Channel/fc (MHz) | Height (cm) | Azimuth (deg) | ERP (dBm) | Limit (dBm) | Over Limit (dB) | Result | Antenna Polaxis. |
| 128/824.2        | 150         | 43            | 21.31     | 38.45       | 17.14           | Pass   | H                |
|                  | 150         | 212           | 16.97     | 38.45       | 21.48           | Pass   | V                |
| 190/836.6        | 150         | 9             | 21.45     | 38.45       | 17.00           | Pass   | H                |
|                  | 150         | 215           | 16.86     | 38.45       | 21.59           | Pass   | V                |
| 251/848.8        | 150         | 344           | 21.20     | 38.45       | 17.25           | Pass   | H                |
|                  | 150         | 213           | 16.23     | 38.45       | 22.22           | Pass   | V                |



| WCDMA band V     |             |               |           |             |                 |        |                  |
|------------------|-------------|---------------|-----------|-------------|-----------------|--------|------------------|
| Channel/fc (MHz) | Height (cm) | Azimuth (deg) | ERP (dBm) | Limit (dBm) | Over Limit (dB) | Result | Antenna Polaxis. |
| 4132/826.4       | 150         | 348           | 20.98     | 38.45       | 17.47           | Pass   | H                |
|                  | 150         | 209           | 17.22     | 38.45       | 21.23           | Pass   | V                |
| 4182/836.6       | 150         | 344           | 20.72     | 38.45       | 17.73           | Pass   | H                |
|                  | 150         | 215           | 17.01     | 38.45       | 21.44           | Pass   | V                |
| 4233/846.6       | 150         | 42            | 20.85     | 38.45       | 17.60           | Pass   | H                |
|                  | 150         | 213           | 17.11     | 38.45       | 21.34           | Pass   | V                |

| HSDPA band V     |             |               |           |             |                 |        |                  |
|------------------|-------------|---------------|-----------|-------------|-----------------|--------|------------------|
| Channel/fc (MHz) | Height (cm) | Azimuth (deg) | ERP (dBm) | Limit (dBm) | Over Limit (dB) | Result | Antenna Polaxis. |
| 4132/826.4       | 150         | 3             | 17.98     | 38.45       | 20.47           | Pass   | H                |
|                  | 150         | 209           | 13.45     | 38.45       | 25.00           | Pass   | V                |
| 4182/836.6       | 150         | 344           | 18.65     | 38.45       | 19.80           | Pass   | H                |
|                  | 150         | 213           | 13.44     | 38.45       | 25.01           | Pass   | V                |
| 4233/846.6       | 150         | 337           | 18.34     | 38.45       | 20.11           | Pass   | H                |
|                  | 150         | 209           | 13.82     | 38.45       | 24.63           | Pass   | V                |

| HSUPA band V     |             |               |           |             |                 |        |                  |
|------------------|-------------|---------------|-----------|-------------|-----------------|--------|------------------|
| Channel/fc (MHz) | Height (cm) | Azimuth (deg) | ERP (dBm) | Limit (dBm) | Over Limit (dB) | Result | Antenna Polaxis. |
| 4132/826.4       | 150         | 100           | 17.22     | 38.45       | 21.23           | Pass   | H                |
|                  | 150         | 254           | 13.23     | 38.45       | 25.22           | Pass   | V                |
| 4182/836.6       | 150         | 121           | 17.36     | 38.45       | 21.09           | Pass   | H                |
|                  | 150         | 3             | 13.26     | 38.45       | 25.19           | Pass   | V                |
| 4233/846.6       | 150         | 119           | 17.40     | 38.45       | 21.05           | Pass   | H                |
|                  | 150         | 23            | 13.28     | 38.45       | 25.17           | Pass   | V                |

| GSM 1900 (Voice) |             |               |            |             |                 |        |                  |
|------------------|-------------|---------------|------------|-------------|-----------------|--------|------------------|
| Channel/fc (MHz) | Height (cm) | Azimuth (deg) | EIRP (dBm) | Limit (dBm) | Over Limit (dB) | Result | Antenna Polaxis. |
| 512/1850.2       | 150         | 135           | 26.39      | 33.01       | 6.62            | Pass   | H                |
|                  | 150         | 238           | 22.25      | 33.01       | 10.76           | Pass   | V                |
| 661/1880.0       | 150         | 122           | 26.33      | 33.01       | 6.68            | Pass   | H                |
|                  | 150         | 240           | 22.31      | 33.01       | 10.70           | Pass   | V                |
| 810/1909.8       | 150         | 119           | 26.78      | 33.01       | 6.23            | Pass   | H                |
|                  | 150         | 25            | 22.50      | 33.01       | 10.51           | Pass   | V                |

| GPRS 1900        |             |               |            |             |                 |        |                  |
|------------------|-------------|---------------|------------|-------------|-----------------|--------|------------------|
| Channel/fc (MHz) | Height (cm) | Azimuth (deg) | EIRP (dBm) | Limit (dBm) | Over Limit (dB) | Result | Antenna Polaxis. |
| 512/1850.2       | 150         | 122           | 24.98      | 33.01       | 8.03            | Pass   | H                |
|                  | 150         | 238           | 22.12      | 33.01       | 10.89           | Pass   | V                |
| 661/1880.0       | 150         | 120           | 25.33      | 33.01       | 7.68            | Pass   | H                |
|                  | 150         | 238           | 22.21      | 33.01       | 10.80           | Pass   | V                |
| 810/1909.8       | 150         | 99            | 24.92      | 33.01       | 8.09            | Pass   | H                |
|                  | 150         | 236           | 22.13      | 33.01       | 10.88           | Pass   | V                |

| EDGE1900         |             |               |            |             |                 |        |                  |
|------------------|-------------|---------------|------------|-------------|-----------------|--------|------------------|
| Channel/fc (MHz) | Height (cm) | Azimuth (deg) | EIRP (dBm) | Limit (dBm) | Over Limit (dB) | Result | Antenna Polaxis. |
| 512/1850.2       | 150         | 122           | 24.22      | 33.01       | 8.79            | Pass   | H                |
|                  | 150         | 238           | 22.02      | 33.01       | 10.99           | Pass   | V                |
| 661/1880.0       | 150         | 119           | 25.01      | 33.01       | 8.00            | Pass   | H                |
|                  | 150         | 23            | 22.19      | 33.01       | 10.82           | Pass   | V                |
| 810/1909.8       | 150         | 123           | 24.39      | 33.01       | 8.62            | Pass   | H                |
|                  | 150         | 15            | 22.02      | 33.01       | 10.99           | Pass   | V                |

| WCDMA band II    |             |               |            |             |                 |        |                  |
|------------------|-------------|---------------|------------|-------------|-----------------|--------|------------------|
| Channel/fc (MHz) | Height (cm) | Azimuth (deg) | EIRP (dBm) | Limit (dBm) | Over Limit (dB) | Result | Antenna Polaxis. |
| 9262/1852.4      | 150         | 120           | 21.21      | 33.01       | 11.80           | Pass   | H                |
|                  | 150         | 240           | 16.34      | 33.01       | 16.67           | Pass   | V                |
| 9400/1880.0      | 150         | 121           | 21.82      | 33.01       | 11.19           | Pass   | H                |
|                  | 150         | 239           | 16.44      | 33.01       | 16.57           | Pass   | V                |
| 9538/1907.6      | 150         | 121           | 21.76      | 33.01       | 11.25           | Pass   | H                |
|                  | 150         | 236           | 16.56      | 33.01       | 16.45           | Pass   | V                |

| HSDPA band II    |             |               |           |             |                 |        |                  |
|------------------|-------------|---------------|-----------|-------------|-----------------|--------|------------------|
| Channel/fc (MHz) | Height (cm) | Azimuth (deg) | ERP (dBm) | Limit (dBm) | Over Limit (dB) | Result | Antenna Polaxis. |
| 9262/1852.4      | 150         | 356           | 19.33     | 33.01       | 13.68           | Pass   | H                |
|                  | 150         | 17            | 15.02     | 33.01       | 17.99           | Pass   | V                |
| 9400/1880.0      | 150         | 337           | 19.43     | 33.01       | 13.58           | Pass   | H                |
|                  | 150         | 359           | 15.23     | 33.01       | 17.78           | Pass   | V                |
| 9538/1907.6      | 150         | 150           | 19.32     | 33.01       | 13.69           | Pass   | H                |
|                  | 150         | 19            | 15.41     | 33.01       | 17.60           | Pass   | V                |



| HSUPA band II    |             |               |           |             |                 |        |                  |
|------------------|-------------|---------------|-----------|-------------|-----------------|--------|------------------|
| Channel/fc (MHz) | Height (cm) | Azimuth (deg) | ERP (dBm) | Limit (dBm) | Over Limit (dB) | Result | Antenna Polaxis. |
| 9262/1852.4      | 150         | 338           | 19.21     | 33.01       | 13.80           | Pass   | H                |
|                  | 150         | 110           | 15.26     | 33.01       | 17.75           | Pass   | V                |
| 9400/1880.0      | 150         | 358           | 19.35     | 33.01       | 13.66           | Pass   | H                |
|                  | 150         | 16            | 15.34     | 33.01       | 17.67           | Pass   | V                |
| 9538/1907.6      | 150         | 342           | 19.29     | 33.01       | 13.72           | Pass   | H                |
|                  | 150         | 120           | 15.23     | 33.01       | 17.78           | Pass   | V                |

| WCDMA band IV    |             |               |            |             |                 |        |                  |
|------------------|-------------|---------------|------------|-------------|-----------------|--------|------------------|
| Channel/fc (MHz) | Height (cm) | Azimuth (deg) | EIRP (dBm) | Limit (dBm) | Over Limit (dB) | Result | Antenna Polaxis. |
| 1312/1712.4      | 250         | 357           | 18.44      | 30.00       | 11.56           | Pass   | H                |
|                  | 200         | 16            | 15.42      | 30.00       | 14.58           | Pass   | V                |
| 1413/1732.6      | 150         | 340           | 18.53      | 30.00       | 11.47           | Pass   | H                |
|                  | 200         | 356           | 15.32      | 30.00       | 14.68           | Pass   | V                |
| 1513/1752.6      | 150         | 337           | 18.42      | 30.00       | 11.58           | Pass   | H                |
|                  | 150         | 357           | 15.23      | 30.00       | 14.77           | Pass   | V                |

| HSDPA band IV    |             |               |            |             |                 |        |                  |
|------------------|-------------|---------------|------------|-------------|-----------------|--------|------------------|
| Channel/fc (MHz) | Height (cm) | Azimuth (deg) | EIRP (dBm) | Limit (dBm) | Over Limit (dB) | Result | Antenna Polaxis. |
| 1312/1712.4      | 250         | 338           | 17.87      | 30.00       | 12.13           | Pass   | H                |
|                  | 200         | 356           | 14.79      | 30.00       | 15.21           | Pass   | V                |
| 1413/1732.6      | 150         | 337           | 17.73      | 30.00       | 12.27           | Pass   | H                |
|                  | 200         | 357           | 14.52      | 30.00       | 15.48           | Pass   | V                |
| 1513/1752.6      | 150         | 358           | 17.66      | 30.00       | 12.34           | Pass   | H                |
|                  | 150         | 357           | 14.46      | 30.00       | 15.54           | Pass   | V                |

| HSUPA band IV    |             |               |            |             |                 |        |                  |
|------------------|-------------|---------------|------------|-------------|-----------------|--------|------------------|
| Channel/fc (MHz) | Height (cm) | Azimuth (deg) | EIRP (dBm) | Limit (dBm) | Over Limit (dB) | Result | Antenna Polaxis. |
| 1312/1712.4      | 250         | 89            | 17.67      | 30.00       | 12.33           | Pass   | H                |
|                  | 200         | 123           | 14.33      | 30.00       | 15.67           | Pass   | V                |
| 1413/1732.6      | 150         | 116           | 17.87      | 30.00       | 12.13           | Pass   | H                |
|                  | 200         | 162           | 14.21      | 30.00       | 15.79           | Pass   | V                |
| 1513/1752.6      | 150         | 72            | 17.55      | 30.00       | 12.45           | Pass   | H                |
|                  | 150         | 122           | 14.32      | 30.00       | 15.68           | Pass   | V                |

## Appendix H): Field strength of spurious radiation

| Receiver Setup:        | <table><tr><th>Frequency</th><th>Detector</th><th>RBW</th><th>VBW</th><th>Remark</th></tr><tr><td>0.009MHz-30MHz</td><td>Peak</td><td>10kHz</td><td>30kHz</td><td>Peak</td></tr><tr><td>30MHz-1GHz</td><td>Peak</td><td>120kHz</td><td>300kHz</td><td>Peak</td></tr><tr><td>Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Frequency | Detector | RBW    | VBW | Remark | 0.009MHz-30MHz | Peak | 10kHz | 30kHz | Peak | 30MHz-1GHz | Peak | 120kHz | 300kHz | Peak | Above 1GHz | Peak | 1MHz | 3MHz | Peak |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|--------|-----|--------|----------------|------|-------|-------|------|------------|------|--------|--------|------|------------|------|------|------|------|
| Frequency              | Detector                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | RBW       | VBW      | Remark |     |        |                |      |       |       |      |            |      |        |        |      |            |      |      |      |      |
| 0.009MHz-30MHz         | Peak                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 10kHz     | 30kHz    | Peak   |     |        |                |      |       |       |      |            |      |        |        |      |            |      |      |      |      |
| 30MHz-1GHz             | Peak                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 120kHz    | 300kHz   | Peak   |     |        |                |      |       |       |      |            |      |        |        |      |            |      |      |      |      |
| Above 1GHz             | Peak                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1MHz      | 3MHz     | Peak   |     |        |                |      |       |       |      |            |      |        |        |      |            |      |      |      |      |
| Measurement Procedure: | <p>1. Scan up to 10<sup>th</sup> harmonic, find the maximum radiation frequency to measure.</p> <p>2. The technique used to find the Spurious Emissions of the transmitter was the antenna substitution method. Substitution method was performed to determine the actual ERP/EIRP emission levels of the EUT.</p> <p>Test procedure as below:</p> <p>The EUT was powered ON and placed on a 1.5m high table at a 3 meter fully Anechoic Chamber. The antenna of the transmitter was extended to its maximum length. modulation mode and the measuring receiver shall be tuned to the frequency of the transmitter under test.</p> <p>The EUT was set 3 meters(above 18GHz the distance is 1 meter) away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</p> <p>The disturbance of the transmitter was maximized on the test receiver display by raising and lowering from 1m to 4m the receive antenna and by rotating through 360° the turntable. After the fundamental emission was maximized, a field strength measurement was made.</p> <p>Steps 1) to 3) were performed with the EUT and the receive antenna in both vertical and horizontal polarization.</p> <p>The transmitter was then removed and replaced with another antenna. The center of the antenna was approximately at the same location as the center of the transmitter.</p> <p>A signal at the disturbance was fed to the substitution antenna by means of a non-radiating cable. With both the substitution and the receive antennas horizontally polarized, the receive antenna was raised and lowered to obtain a maximum reading at the test receiver. The level of the signal generator was adjusted until the measured field strength level in step 3) is obtained for this set of conditions.</p> <p>The output power into the substitution antenna was then measured.</p> <p>Steps 6) and 7) were repeated with both antennas polarized.</p> <p>Calculate power in dBm by the following formula:</p> <p>ERP(dBm) = Pg(dBm) – cable loss (dB) + antenna gain (dBd)</p> <p>EIRP(dBm) = Pg(dBm) – cable loss (dB) + antenna gain (dBi)</p> <p>EIRP=ERP+2.15dB</p> <p>where:</p> <p>Pg is the generator output power into the substitution antenna.</p> <p>Test the EUT in the lowest channel, the middle channel the Highest channel</p> <p>The radiation measurements are performed in X, Y, Z axis positioning for EUT operation mode,And found the X axis positioning which it is worse case.</p> <p>Repeat above procedures until all frequencies measured was complete.</p> |           |          |        |     |        |                |      |       |       |      |            |      |        |        |      |            |      |      |      |      |
| Limit:                 | Attenuated at least 43+10log(P)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |          |        |     |        |                |      |       |       |      |            |      |        |        |      |            |      |      |      |      |

| Mode: |             | GSM Traffic |               |             |             |             |        |            |
|-------|-------------|-------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | 850         |               |             | Channel:    |             | 128    |            |
| NO.   | Freq. [MHz] | Height [cm] | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 49.9860     | 150         | 119           | -78.07      | -13.00      | 65.07       | Pass   | Horizontal |
| 2     | 89.5699     | 150         | 13            | -77.73      | -13.00      | 64.73       | Pass   | Horizontal |
| 3     | 156.7073    | 150         | 1             | -67.34      | -13.00      | 54.34       | Pass   | Horizontal |
| 4     | 175.9172    | 150         | 48            | -67.33      | -13.00      | 54.33       | Pass   | Horizontal |
| 5     | 375.0010    | 150         | 353           | -73.55      | -13.00      | 60.55       | Pass   | Horizontal |
| 6     | 584.9510    | 150         | 295           | -62.20      | -13.00      | 49.20       | Pass   | Horizontal |
| 7     | 1648.4000   | 150         | 260           | -51.95      | -13.00      | 38.95       | Pass   | Horizontal |
| 8     | 2472.6000   | 150         | 318           | -50.66      | -13.00      | 37.66       | Pass   | Horizontal |
| 9     | 3296.8000   | 150         | 15            | -49.48      | -13.00      | 36.48       | Pass   | Horizontal |
| 10    | 6381.1691   | 150         | 188           | -45.55      | -13.00      | 32.55       | Pass   | Horizontal |
| 11    | 11724.4362  | 150         | 247           | -36.33      | -13.00      | 23.33       | Pass   | Horizontal |
| 12    | 15064.3532  | 150         | 226           | -29.58      | -13.00      | 16.58       | Pass   | Horizontal |

| Mode: |             | GSM Traffic |               |             |             |             |        |          |
|-------|-------------|-------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | 850         |               |             | Channel:    |             | 128    |          |
| NO.   | Freq. [MHz] | Height [cm] | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 49.5979     | 150         | 24            | -65.70      | -13.00      | 52.70       | Pass   | Vertical |
| 2     | 69.9720     | 150         | 330           | -71.48      | -13.00      | 58.48       | Pass   | Vertical |
| 3     | 208.9038    | 150         | 59            | -68.68      | -13.00      | 55.68       | Pass   | Vertical |
| 4     | 360.0600    | 150         | 24            | -77.59      | -13.00      | 64.59       | Pass   | Vertical |
| 5     | 584.9510    | 150         | 271           | -68.01      | -13.00      | 55.01       | Pass   | Vertical |
| 6     | 687.5975    | 150         | 317           | -67.13      | -13.00      | 54.13       | Pass   | Vertical |
| 7     | 1648.4000   | 150         | 236           | -52.85      | -13.00      | 39.85       | Pass   | Vertical |
| 8     | 2472.6000   | 150         | 154           | -50.20      | -13.00      | 37.20       | Pass   | Vertical |
| 9     | 3296.8000   | 150         | 16            | -46.17      | -13.00      | 33.17       | Pass   | Vertical |
| 10    | 4121.3061   | 150         | 304           | -40.96      | -13.00      | 27.96       | Pass   | Vertical |
| 11    | 11509.1755  | 150         | 208           | -37.20      | -13.00      | 24.20       | Pass   | Vertical |
| 12    | 14896.3448  | 150         | 149           | -30.11      | -13.00      | 17.11       | Pass   | Vertical |

| Mode: |             | GSM Traffic |               |             |             |             |        |            |
|-------|-------------|-------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | 850         |               |             | Channel:    |             | 190    |            |
| NO.   | Freq. [MHz] | Height [cm] | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 63.1806     | 150         | 36            | -78.34      | -13.00      | 65.34       | Pass   | Horizontal |
| 2     | 156.1252    | 150         | 13            | -67.12      | -13.00      | 54.12       | Pass   | Horizontal |
| 3     | 173.3947    | 150         | 13            | -67.18      | -13.00      | 54.18       | Pass   | Horizontal |
| 4     | 375.0010    | 150         | 333           | -73.65      | -13.00      | 60.65       | Pass   | Horizontal |
| 5     | 476.2893    | 150         | 123           | -73.24      | -13.00      | 60.24       | Pass   | Horizontal |
| 6     | 584.9510    | 150         | 308           | -61.70      | -13.00      | 48.70       | Pass   | Horizontal |
| 7     | 1673.2000   | 150         | 214           | -53.12      | -13.00      | 40.12       | Pass   | Horizontal |
| 8     | 2509.8000   | 150         | 1             | -48.52      | -13.00      | 35.52       | Pass   | Horizontal |
| 9     | 3346.4000   | 150         | 167           | -50.60      | -13.00      | 37.60       | Pass   | Horizontal |
| 10    | 4182.8091   | 150         | 129           | -44.34      | -13.00      | 31.34       | Pass   | Horizontal |
| 11    | 8122.0061   | 150         | 342           | -41.75      | -13.00      | 28.75       | Pass   | Horizontal |
| 12    | 14748.5874  | 150         | 264           | -30.05      | -13.00      | 17.05       | Pass   | Horizontal |

| Mode: |             | GSM Traffic |               |             |             |             |        |          |
|-------|-------------|-------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | 850         |               |             | Channel:    |             | 190    |          |
| NO.   | Freq. [MHz] | Height [cm] | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 51.1502     | 150         | 133           | -64.93      | -13.00      | 51.93       | Pass   | Vertical |
| 2     | 69.5839     | 150         | 320           | -71.20      | -13.00      | 58.20       | Pass   | Vertical |
| 3     | 208.9038    | 150         | 204           | -68.34      | -13.00      | 55.34       | Pass   | Vertical |
| 4     | 411.4803    | 150         | 133           | -75.95      | -13.00      | 62.95       | Pass   | Vertical |
| 5     | 584.9510    | 150         | 157           | -64.16      | -13.00      | 51.16       | Pass   | Vertical |
| 6     | 687.5975    | 150         | 309           | -67.39      | -13.00      | 54.39       | Pass   | Vertical |
| 7     | 1673.2000   | 150         | 169           | -52.42      | -13.00      | 39.42       | Pass   | Vertical |
| 8     | 2509.8000   | 150         | 169           | -49.69      | -13.00      | 36.69       | Pass   | Vertical |
| 9     | 3346.4000   | 150         | 209           | -46.09      | -13.00      | 33.09       | Pass   | Vertical |
| 10    | 4182.8091   | 150         | 112           | -41.44      | -13.00      | 28.44       | Pass   | Vertical |
| 11    | 7961.4981   | 150         | 304           | -41.79      | -13.00      | 28.79       | Pass   | Vertical |
| 12    | 15031.3516  | 150         | 74            | -29.74      | -13.00      | 16.74       | Pass   | Vertical |

| Mode: |             | GSM Traffic |               |             |             |             |        |            |
|-------|-------------|-------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | 850         |               |             | Channel:    |             | 251    |            |
| NO.   | Freq. [MHz] | Height [cm] | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 120.0340    | 150         | 162           | -74.92      | -13.00      | 61.92       | Pass   | Horizontal |
| 2     | 155.5431    | 150         | 349           | -66.84      | -13.00      | 53.84       | Pass   | Horizontal |
| 3     | 171.8424    | 150         | 23            | -67.09      | -13.00      | 54.09       | Pass   | Horizontal |
| 4     | 360.0600    | 150         | 190           | -72.84      | -13.00      | 59.84       | Pass   | Horizontal |
| 5     | 584.9510    | 150         | 199           | -70.85      | -13.00      | 57.85       | Pass   | Horizontal |
| 6     | 687.5975    | 150         | 88            | -69.98      | -13.00      | 56.98       | Pass   | Horizontal |
| 7     | 1697.6000   | 150         | 256           | -51.55      | -13.00      | 38.55       | Pass   | Horizontal |
| 8     | 2546.4000   | 150         | 0             | -49.07      | -13.00      | 36.07       | Pass   | Horizontal |
| 9     | 3395.2000   | 150         | 61            | -47.90      | -13.00      | 34.90       | Pass   | Horizontal |
| 10    | 4243.5622   | 150         | 246           | -43.61      | -13.00      | 30.61       | Pass   | Horizontal |
| 11    | 8119.0060   | 150         | 30            | -42.20      | -13.00      | 29.20       | Pass   | Horizontal |
| 12    | 15101.8551  | 150         | 184           | -29.30      | -13.00      | 16.30       | Pass   | Horizontal |

| Mode: |             | GSM Traffic |               |             |             |             |        |          |
|-------|-------------|-------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | 850         |               |             | Channel:    |             | 251    |          |
| NO.   | Freq. [MHz] | Height [cm] | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 49.0158     | 150         | 68            | -66.56      | -13.00      | 53.56       | Pass   | Vertical |
| 2     | 167.9616    | 150         | 340           | -71.89      | -13.00      | 58.89       | Pass   | Vertical |
| 3     | 208.9038    | 150         | 180           | -67.91      | -13.00      | 54.91       | Pass   | Vertical |
| 4     | 290.0120    | 150         | 3             | -76.38      | -13.00      | 63.38       | Pass   | Vertical |
| 5     | 360.0600    | 150         | 86            | -75.71      | -13.00      | 62.71       | Pass   | Vertical |
| 6     | 584.9510    | 150         | 151           | -64.11      | -13.00      | 51.11       | Pass   | Vertical |
| 7     | 1697.6000   | 150         | 340           | -50.61      | -13.00      | 37.61       | Pass   | Vertical |
| 8     | 2546.4000   | 150         | 77            | -48.60      | -13.00      | 35.60       | Pass   | Vertical |
| 9     | 3395.2000   | 150         | 319           | -45.82      | -13.00      | 32.82       | Pass   | Vertical |
| 10    | 4244.3122   | 150         | 15            | -39.30      | -13.00      | 26.30       | Pass   | Vertical |
| 11    | 8152.7576   | 150         | 289           | -41.86      | -13.00      | 28.86       | Pass   | Vertical |
| 12    | 15090.6045  | 150         | 15            | -28.99      | -13.00      | 15.99       | Pass   | Vertical |



| Mode: |             | GPRS Traffic |               |             |             |             |        |            |
|-------|-------------|--------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | 850          |               |             | Channel:    |             | 128    |            |
| NO.   | Freq. [MHz] | Height [cm]  | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 57.9416     | 150          | 161           | -77.88      | -13.00      | 64.88       | Pass   | Horizontal |
| 2     | 110.5261    | 150          | 13            | -77.36      | -13.00      | 64.36       | Pass   | Horizontal |
| 3     | 164.6629    | 150          | 180           | -59.34      | -13.00      | 46.34       | Pass   | Horizontal |
| 4     | 358.8958    | 150          | 115           | -71.89      | -13.00      | 58.89       | Pass   | Horizontal |
| 5     | 477.8416    | 150          | 115           | -73.20      | -13.00      | 60.20       | Pass   | Horizontal |
| 6     | 687.5975    | 150          | 152           | -70.78      | -13.00      | 57.78       | Pass   | Horizontal |
| 7     | 1648.4000   | 150          | 32            | -54.26      | -13.00      | 41.26       | Pass   | Horizontal |
| 8     | 2472.6000   | 150          | 244           | -50.38      | -13.00      | 37.38       | Pass   | Horizontal |
| 9     | 3296.8000   | 150          | 213           | -49.22      | -13.00      | 36.22       | Pass   | Horizontal |
| 10    | 5183.3592   | 150          | 213           | -46.80      | -13.00      | 33.80       | Pass   | Horizontal |
| 11    | 8842.0421   | 150          | 243           | -40.39      | -13.00      | 27.39       | Pass   | Horizontal |
| 12    | 15104.1052  | 150          | 30            | -29.78      | -13.00      | 16.78       | Pass   | Horizontal |

| Mode: |             | GPRS Traffic |               |             |             |             |        |          |
|-------|-------------|--------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | 850          |               |             | Channel:    |             | 128    |          |
| NO.   | Freq. [MHz] | Height [cm]  | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 52.5085     | 150          | 266           | -66.93      | -13.00      | 53.93       | Pass   | Vertical |
| 2     | 69.9720     | 150          | 285           | -70.29      | -13.00      | 57.29       | Pass   | Vertical |
| 3     | 162.9166    | 150          | 359           | -62.77      | -13.00      | 49.77       | Pass   | Vertical |
| 4     | 208.9038    | 150          | 0             | -68.41      | -13.00      | 55.41       | Pass   | Vertical |
| 5     | 360.0600    | 150          | 71            | -74.57      | -13.00      | 61.57       | Pass   | Vertical |
| 6     | 687.5975    | 150          | 43            | -68.77      | -13.00      | 55.77       | Pass   | Vertical |
| 7     | 1648.4000   | 150          | 359           | -53.10      | -13.00      | 40.10       | Pass   | Vertical |
| 8     | 2472.6000   | 150          | 25            | -50.16      | -13.00      | 37.16       | Pass   | Vertical |
| 9     | 3296.8000   | 150          | 1             | -49.60      | -13.00      | 36.60       | Pass   | Vertical |
| 10    | 6326.4163   | 150          | 213           | -45.64      | -13.00      | 32.64       | Pass   | Vertical |
| 11    | 11567.6784  | 150          | 336           | -37.08      | -13.00      | 24.08       | Pass   | Vertical |
| 12    | 15050.1025  | 150          | 183           | -29.74      | -13.00      | 16.74       | Pass   | Vertical |



| Mode: |             | GPRS Traffic |               |             |             |             |        |            |
|-------|-------------|--------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | 850          |               |             | Channel:    |             | 190    |            |
| NO.   | Freq. [MHz] | Height [cm]  | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 49.7920     | 150          | 32            | -78.13      | -13.00      | 65.13       | Pass   | Horizontal |
| 2     | 162.3345    | 150          | 135           | -59.18      | -13.00      | 46.18       | Pass   | Horizontal |
| 3     | 359.8660    | 150          | 107           | -72.61      | -13.00      | 59.61       | Pass   | Horizontal |
| 4     | 477.2595    | 150          | 125           | -72.75      | -13.00      | 59.75       | Pass   | Horizontal |
| 5     | 584.9510    | 150          | 228           | -69.18      | -13.00      | 56.18       | Pass   | Horizontal |
| 6     | 687.5975    | 150          | 153           | -70.80      | -13.00      | 57.80       | Pass   | Horizontal |
| 7     | 1673.2000   | 150          | 218           | -53.41      | -13.00      | 40.41       | Pass   | Horizontal |
| 8     | 2509.8000   | 150          | 237           | -48.96      | -13.00      | 35.96       | Pass   | Horizontal |
| 9     | 3346.4000   | 150          | 92            | -50.09      | -13.00      | 37.09       | Pass   | Horizontal |
| 10    | 5526.1263   | 150          | 137           | -46.82      | -13.00      | 33.82       | Pass   | Horizontal |
| 11    | 9561.3281   | 150          | 75            | -39.67      | -13.00      | 26.67       | Pass   | Horizontal |
| 12    | 15035.8518  | 150          | 61            | -29.82      | -13.00      | 16.82       | Pass   | Horizontal |

| Mode: |             | GPRS Traffic |               |             |             |             |        |          |
|-------|-------------|--------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | 850          |               |             | Channel:    |             | 190    |          |
| NO.   | Freq. [MHz] | Height [cm]  | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 48.4337     | 150          | 247           | -66.28      | -13.00      | 53.28       | Pass   | Vertical |
| 2     | 69.3899     | 150          | 4             | -70.91      | -13.00      | 57.91       | Pass   | Vertical |
| 3     | 164.6629    | 150          | 125           | -62.67      | -13.00      | 49.67       | Pass   | Vertical |
| 4     | 208.9038    | 150          | 265           | -68.73      | -13.00      | 55.73       | Pass   | Vertical |
| 5     | 360.0600    | 150          | 61            | -75.79      | -13.00      | 62.79       | Pass   | Vertical |
| 6     | 584.9510    | 150          | 293           | -69.66      | -13.00      | 56.66       | Pass   | Vertical |
| 7     | 1673.2000   | 150          | 172           | -52.46      | -13.00      | 39.46       | Pass   | Vertical |
| 8     | 2509.8000   | 150          | 340           | -49.04      | -13.00      | 36.04       | Pass   | Vertical |
| 9     | 3346.4000   | 150          | 246           | -49.47      | -13.00      | 36.47       | Pass   | Vertical |
| 10    | 4752.8376   | 150          | 215           | -46.46      | -13.00      | 33.46       | Pass   | Vertical |
| 11    | 8146.0073   | 150          | 30            | -41.65      | -13.00      | 28.65       | Pass   | Vertical |
| 12    | 15066.6033  | 150          | 353           | -29.11      | -13.00      | 16.11       | Pass   | Vertical |

| Mode: |             | GPRS Traffic |               |             |             |             |        |            |
|-------|-------------|--------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | 850          |               |             | Channel:    |             | 251    |            |
| NO.   | Freq. [MHz] | Height [cm]  | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 49.9860     | 150          | 56            | -78.54      | -13.00      | 65.54       | Pass   | Horizontal |
| 2     | 104.3169    | 150          | 19            | -76.57      | -13.00      | 63.57       | Pass   | Horizontal |
| 3     | 160.3941    | 150          | 359           | -50.34      | -13.00      | 37.34       | Pass   | Horizontal |
| 4     | 375.0010    | 150          | 130           | -72.06      | -13.00      | 59.06       | Pass   | Horizontal |
| 5     | 479.5879    | 150          | 1             | -71.90      | -13.00      | 58.90       | Pass   | Horizontal |
| 6     | 687.5975    | 150          | 10            | -70.77      | -13.00      | 57.77       | Pass   | Horizontal |
| 7     | 1697.6000   | 150          | 213           | -53.74      | -13.00      | 40.74       | Pass   | Horizontal |
| 8     | 2546.4000   | 150          | 19            | -50.16      | -13.00      | 37.16       | Pass   | Horizontal |
| 9     | 3395.2000   | 150          | 130           | -50.29      | -13.00      | 37.29       | Pass   | Horizontal |
| 10    | 5517.8759   | 150          | 344           | -46.86      | -13.00      | 33.86       | Pass   | Horizontal |
| 11    | 9742.0871   | 150          | 36            | -38.68      | -13.00      | 25.68       | Pass   | Horizontal |
| 12    | 15024.6012  | 150          | 130           | -29.57      | -13.00      | 16.57       | Pass   | Horizontal |

| Mode: |             | GPRS Traffic |               |             |             |             |        |          |
|-------|-------------|--------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | 850          |               |             | Channel:    |             | 251    |          |
| NO.   | Freq. [MHz] | Height [cm]  | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 51.1502     | 150          | 142           | -66.51      | -13.00      | 53.51       | Pass   | Vertical |
| 2     | 167.7676    | 150          | 12            | -57.40      | -13.00      | 44.40       | Pass   | Vertical |
| 3     | 208.9038    | 150          | 67            | -68.14      | -13.00      | 55.14       | Pass   | Vertical |
| 4     | 290.0120    | 150          | 21            | -76.57      | -13.00      | 63.57       | Pass   | Vertical |
| 5     | 399.2559    | 150          | 39            | -75.95      | -13.00      | 62.95       | Pass   | Vertical |
| 6     | 687.5975    | 150          | 312           | -67.43      | -13.00      | 54.43       | Pass   | Vertical |
| 7     | 1697.6000   | 150          | 67            | -51.94      | -13.00      | 38.94       | Pass   | Vertical |
| 8     | 2546.4000   | 150          | 350           | -48.64      | -13.00      | 35.64       | Pass   | Vertical |
| 9     | 3395.2000   | 150          | 12            | -49.88      | -13.00      | 36.88       | Pass   | Vertical |
| 10    | 5534.3767   | 150          | 189           | -47.51      | -13.00      | 34.51       | Pass   | Vertical |
| 11    | 10240.1120  | 150          | 74            | -39.24      | -13.00      | 26.24       | Pass   | Vertical |
| 12    | 15122.1061  | 150          | 12            | -29.58      | -13.00      | 16.58       | Pass   | Vertical |

| Mode: |             | EGPRS Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | 850           |               |             | Channel:    |             | 128    |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 50.1800     | 150           | 30            | -76.87      | -13.00      | 63.87       | Pass   | Horizontal |
| 2     | 133.6167    | 150           | 358           | -67.16      | -13.00      | 54.16       | Pass   | Horizontal |
| 3     | 158.6477    | 150           | 349           | -59.13      | -13.00      | 46.13       | Pass   | Horizontal |
| 4     | 182.3205    | 150           | 151           | -58.77      | -13.00      | 45.77       | Pass   | Horizontal |
| 5     | 478.6177    | 150           | 133           | -73.13      | -13.00      | 60.13       | Pass   | Horizontal |
| 6     | 687.5975    | 150           | 179           | -70.53      | -13.00      | 57.53       | Pass   | Horizontal |
| 7     | 1648.4000   | 150           | 255           | -53.75      | -13.00      | 40.75       | Pass   | Horizontal |
| 8     | 2472.6000   | 150           | 199           | -50.50      | -13.00      | 37.50       | Pass   | Horizontal |
| 9     | 3296.8000   | 150           | 344           | -50.70      | -13.00      | 37.70       | Pass   | Horizontal |
| 10    | 4749.8375   | 150           | 266           | -47.08      | -13.00      | 34.08       | Pass   | Horizontal |
| 11    | 8118.2559   | 150           | 1             | -42.18      | -13.00      | 29.18       | Pass   | Horizontal |
| 12    | 15065.1033  | 150           | 316           | -29.63      | -13.00      | 16.63       | Pass   | Horizontal |

| Mode: |             | EGPRS Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | 850           |               |             | Channel:    |             | 128    |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 50.5681     | 150           | 162           | -66.72      | -13.00      | 53.72       | Pass   | Vertical |
| 2     | 173.0066    | 150           | 292           | -64.01      | -13.00      | 51.01       | Pass   | Vertical |
| 3     | 208.9038    | 150           | 236           | -68.59      | -13.00      | 55.59       | Pass   | Vertical |
| 4     | 290.0120    | 150           | 330           | -76.84      | -13.00      | 63.84       | Pass   | Vertical |
| 5     | 399.2559    | 150           | 330           | -75.64      | -13.00      | 62.64       | Pass   | Vertical |
| 6     | 584.9510    | 150           | 162           | -67.13      | -13.00      | 54.13       | Pass   | Vertical |
| 7     | 1648.4000   | 150           | 133           | -52.70      | -13.00      | 39.70       | Pass   | Vertical |
| 8     | 2472.6000   | 150           | 162           | -48.55      | -13.00      | 35.55       | Pass   | Vertical |
| 9     | 3296.8000   | 150           | 267           | -48.88      | -13.00      | 35.88       | Pass   | Vertical |
| 10    | 4774.5887   | 150           | 330           | -47.12      | -13.00      | 34.12       | Pass   | Vertical |
| 11    | 8120.5060   | 150           | 109           | -42.01      | -13.00      | 29.01       | Pass   | Vertical |
| 12    | 14920.3460  | 150           | 221           | -28.86      | -13.00      | 15.86       | Pass   | Vertical |

| Mode: |             | EGPRS Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | 850           |               |             | Channel:    |             | 190    |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 49.4039     | 150           | 279           | -78.48      | -13.00      | 65.48       | Pass   | Horizontal |
| 2     | 120.0340    | 150           | 186           | -76.72      | -13.00      | 63.72       | Pass   | Horizontal |
| 3     | 180.9622    | 150           | 28            | -67.38      | -13.00      | 54.38       | Pass   | Horizontal |
| 4     | 375.0010    | 150           | 10            | -73.66      | -13.00      | 60.66       | Pass   | Horizontal |
| 5     | 477.0654    | 150           | 139           | -74.29      | -13.00      | 61.29       | Pass   | Horizontal |
| 6     | 687.5975    | 150           | 242           | -71.75      | -13.00      | 58.75       | Pass   | Horizontal |
| 7     | 1160.2160   | 150           | 65            | -49.39      | -13.00      | 36.39       | Pass   | Horizontal |
| 8     | 1673.2000   | 150           | 279           | -52.72      | -13.00      | 39.72       | Pass   | Horizontal |
| 9     | 2509.8000   | 150           | 334           | -50.19      | -13.00      | 37.19       | Pass   | Horizontal |
| 10    | 3346.4000   | 150           | 69            | -50.52      | -13.00      | 37.52       | Pass   | Horizontal |
| 11    | 8027.5014   | 150           | 285           | -41.85      | -13.00      | 28.85       | Pass   | Horizontal |
| 12    | 14894.8447  | 150           | 207           | -29.52      | -13.00      | 16.52       | Pass   | Horizontal |

| Mode: |             | EGPRS Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | 850           |               |             | Channel:    |             | 190    |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 52.5085     | 150           | 170           | -66.55      | -13.00      | 53.55       | Pass   | Vertical |
| 2     | 71.5243     | 150           | 30            | -71.98      | -13.00      | 58.98       | Pass   | Vertical |
| 3     | 208.9038    | 150           | 179           | -68.64      | -13.00      | 55.64       | Pass   | Vertical |
| 4     | 360.0600    | 150           | 96            | -74.54      | -13.00      | 61.54       | Pass   | Vertical |
| 5     | 479.9760    | 150           | 356           | -71.20      | -13.00      | 58.20       | Pass   | Vertical |
| 6     | 584.9510    | 150           | 161           | -69.67      | -13.00      | 56.67       | Pass   | Vertical |
| 7     | 1296.2296   | 150           | 225           | -48.52      | -13.00      | 35.52       | Pass   | Vertical |
| 8     | 1673.2000   | 150           | 179           | -52.40      | -13.00      | 39.40       | Pass   | Vertical |
| 9     | 2509.8000   | 150           | 1             | -50.08      | -13.00      | 37.08       | Pass   | Vertical |
| 10    | 3346.4000   | 150           | 145           | -49.34      | -13.00      | 36.34       | Pass   | Vertical |
| 11    | 8071.0036   | 150           | 145           | -41.72      | -13.00      | 28.72       | Pass   | Vertical |
| 12    | 14849.8425  | 150           | 7             | -29.26      | -13.00      | 16.26       | Pass   | Vertical |

| Mode: |             | EGPRS Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | 850           |               |             | Channel:    |             | 251    |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 48.6277     | 150           | 141           | -78.20      | -13.00      | 65.20       | Pass   | Horizontal |
| 2     | 120.0340    | 150           | 198           | -75.80      | -13.00      | 62.80       | Pass   | Horizontal |
| 3     | 179.2158    | 150           | 11            | -67.47      | -13.00      | 54.47       | Pass   | Horizontal |
| 4     | 375.0010    | 150           | 356           | -71.77      | -13.00      | 58.77       | Pass   | Horizontal |
| 5     | 584.9510    | 150           | 113           | -65.82      | -13.00      | 52.82       | Pass   | Horizontal |
| 6     | 762.4965    | 150           | 290           | -71.29      | -13.00      | 58.29       | Pass   | Horizontal |
| 7     | 1697.6000   | 150           | 360           | -53.52      | -13.00      | 40.52       | Pass   | Horizontal |
| 8     | 2546.4000   | 150           | 95            | -48.81      | -13.00      | 35.81       | Pass   | Horizontal |
| 9     | 3395.2000   | 150           | 161           | -49.39      | -13.00      | 36.39       | Pass   | Horizontal |
| 10    | 5902.6451   | 150           | 21            | -46.99      | -13.00      | 33.99       | Pass   | Horizontal |
| 11    | 8153.5077   | 150           | 268           | -41.87      | -13.00      | 28.87       | Pass   | Horizontal |
| 12    | 15055.3528  | 150           | 223           | -29.37      | -13.00      | 16.37       | Pass   | Horizontal |

| Mode: |             | EGPRS Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | 850           |               |             | Channel:    |             | 251    |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 52.5085     | 150           | 198           | -67.18      | -13.00      | 54.18       | Pass   | Vertical |
| 2     | 69.9720     | 150           | 124           | -70.96      | -13.00      | 57.96       | Pass   | Vertical |
| 3     | 208.9038    | 150           | 30            | -68.85      | -13.00      | 55.85       | Pass   | Vertical |
| 4     | 360.0600    | 150           | 142           | -75.32      | -13.00      | 62.32       | Pass   | Vertical |
| 5     | 411.4803    | 150           | 198           | -75.30      | -13.00      | 62.30       | Pass   | Vertical |
| 6     | 687.5975    | 150           | 133           | -68.85      | -13.00      | 55.85       | Pass   | Vertical |
| 7     | 1697.6000   | 150           | 235           | -52.45      | -13.00      | 39.45       | Pass   | Vertical |
| 8     | 2546.4000   | 150           | 86            | -49.33      | -13.00      | 36.33       | Pass   | Vertical |
| 9     | 3395.2000   | 150           | 316           | -49.89      | -13.00      | 36.89       | Pass   | Vertical |
| 10    | 4956.0978   | 150           | 254           | -47.33      | -13.00      | 34.33       | Pass   | Vertical |
| 11    | 8051.5026   | 150           | 192           | -41.77      | -13.00      | 28.77       | Pass   | Vertical |
| 12    | 14574.5787  | 150           | 69            | -29.86      | -13.00      | 16.86       | Pass   | Vertical |



| Mode: |             | GSM Traffic |               |             |             |             |        |            |
|-------|-------------|-------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | 1900        |               | Channel:    |             | 512         |        |            |
| NO.   | Freq. [MHz] | Height [cm] | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 57.7476     | 150         | 354           | -78.70      | -13.00      | 65.70       | Pass   | Horizontal |
| 2     | 141.5723    | 150         | 177           | -57.11      | -13.00      | 44.11       | Pass   | Horizontal |
| 3     | 169.7079    | 150         | 1             | -52.49      | -13.00      | 39.49       | Pass   | Horizontal |
| 4     | 266.7273    | 150         | 177           | -74.25      | -13.00      | 61.25       | Pass   | Horizontal |
| 5     | 527.5155    | 150         | 107           | -69.77      | -13.00      | 56.77       | Pass   | Horizontal |
| 6     | 779.9600    | 150         | 237           | -72.30      | -13.00      | 59.30       | Pass   | Horizontal |
| 7     | 1342.6343   | 150         | 213           | -48.34      | -13.00      | 35.34       | Pass   | Horizontal |
| 8     | 3700.4000   | 150         | 247           | -50.47      | -13.00      | 37.47       | Pass   | Horizontal |
| 9     | 5550.6000   | 150         | 63            | -48.86      | -13.00      | 35.86       | Pass   | Horizontal |
| 10    | 7400.8000   | 150         | 147           | -46.07      | -13.00      | 33.07       | Pass   | Horizontal |
| 11    | 10756.8878  | 150         | 88            | -38.91      | -13.00      | 25.91       | Pass   | Horizontal |
| 12    | 14981.0991  | 150         | 265           | -29.95      | -13.00      | 16.95       | Pass   | Horizontal |

| Mode: |             | GSM Traffic |               |             |             |             |        |          |
|-------|-------------|-------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | 1900        |               | Channel:    |             | 512         |        |          |
| NO.   | Freq. [MHz] | Height [cm] | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 53.2847     | 150         | 270           | -66.85      | -13.00      | 53.85       | Pass   | Vertical |
| 2     | 169.3199    | 150         | 73            | -69.44      | -13.00      | 56.44       | Pass   | Vertical |
| 3     | 208.9038    | 150         | 158           | -68.48      | -13.00      | 55.48       | Pass   | Vertical |
| 4     | 360.0600    | 150         | 158           | -76.10      | -13.00      | 63.10       | Pass   | Vertical |
| 5     | 411.4803    | 150         | 26            | -74.90      | -13.00      | 61.90       | Pass   | Vertical |
| 6     | 796.4533    | 150         | 14            | -67.26      | -13.00      | 54.26       | Pass   | Vertical |
| 7     | 1294.0294   | 150         | 195           | -48.80      | -13.00      | 35.80       | Pass   | Vertical |
| 8     | 3700.4000   | 150         | 162           | -50.87      | -13.00      | 37.87       | Pass   | Vertical |
| 9     | 5550.6000   | 150         | 14            | -49.85      | -13.00      | 36.85       | Pass   | Vertical |
| 10    | 7400.8000   | 150         | 141           | -46.28      | -13.00      | 33.28       | Pass   | Vertical |
| 11    | 11285.6643  | 150         | 0             | -37.61      | -13.00      | 24.61       | Pass   | Vertical |
| 12    | 14984.8492  | 150         | 162           | -29.21      | -13.00      | 16.21       | Pass   | Vertical |



| Mode: |             | GSM Traffic |               |             |             |             |        |            |
|-------|-------------|-------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | 1900        |               |             | Channel:    |             | 661    |            |
| NO.   | Freq. [MHz] | Height [cm] | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 53.6727     | 150         | 169           | -77.42      | -13.00      | 64.42       | Pass   | Horizontal |
| 2     | 143.5127    | 150         | 28            | -70.30      | -13.00      | 57.30       | Pass   | Horizontal |
| 3     | 180.9622    | 150         | 346           | -66.21      | -13.00      | 53.21       | Pass   | Horizontal |
| 4     | 357.3435    | 150         | 334           | -69.54      | -13.00      | 56.54       | Pass   | Horizontal |
| 5     | 584.9510    | 150         | 63            | -72.33      | -13.00      | 59.33       | Pass   | Horizontal |
| 6     | 687.5975    | 150         | 240           | -71.02      | -13.00      | 58.02       | Pass   | Horizontal |
| 7     | 1294.6295   | 150         | 204           | -48.24      | -13.00      | 35.24       | Pass   | Horizontal |
| 8     | 3760.0000   | 150         | 95            | -49.46      | -13.00      | 36.46       | Pass   | Horizontal |
| 9     | 5640.0000   | 150         | 307           | -50.35      | -13.00      | 37.35       | Pass   | Horizontal |
| 10    | 7520.0000   | 150         | 352           | -45.81      | -13.00      | 32.81       | Pass   | Horizontal |
| 11    | 9700.8350   | 150         | 352           | -38.85      | -13.00      | 25.85       | Pass   | Horizontal |
| 12    | 15032.8516  | 150         | 190           | -29.14      | -13.00      | 16.14       | Pass   | Horizontal |

| Mode: |             | GSM Traffic |               |             |             |             |        |          |
|-------|-------------|-------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | 1900        |               |             | Channel:    |             | 661    |          |
| NO.   | Freq. [MHz] | Height [cm] | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 53.2847     | 150         | 102           | -65.96      | -13.00      | 52.96       | Pass   | Vertical |
| 2     | 71.9124     | 150         | 44            | -70.96      | -13.00      | 57.96       | Pass   | Vertical |
| 3     | 208.9038    | 150         | 149           | -68.79      | -13.00      | 55.79       | Pass   | Vertical |
| 4     | 360.0600    | 150         | 91            | -73.99      | -13.00      | 60.99       | Pass   | Vertical |
| 5     | 597.7576    | 150         | 9             | -73.15      | -13.00      | 60.15       | Pass   | Vertical |
| 6     | 687.5975    | 150         | 359           | -69.37      | -13.00      | 56.37       | Pass   | Vertical |
| 7     | 1395.0395   | 150         | 126           | -47.96      | -13.00      | 34.96       | Pass   | Vertical |
| 8     | 3760.0000   | 150         | 304           | -50.45      | -13.00      | 37.45       | Pass   | Vertical |
| 9     | 5640.0000   | 150         | 189           | -50.40      | -13.00      | 37.40       | Pass   | Vertical |
| 10    | 7520.0000   | 150         | 266           | -44.51      | -13.00      | 31.51       | Pass   | Vertical |
| 11    | 11275.9138  | 150         | 359           | -36.98      | -13.00      | 23.98       | Pass   | Vertical |
| 12    | 15115.3558  | 150         | 227           | -29.97      | -13.00      | 16.97       | Pass   | Vertical |

| Mode: |             | GSM Traffic |               |             |             |             |        |            |
|-------|-------------|-------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | 1900        |               |             | Channel:    |             | 810    |            |
| NO.   | Freq. [MHz] | Height [cm] | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 56.0012     | 150         | 115           | -77.88      | -13.00      | 64.88       | Pass   | Horizontal |
| 2     | 120.0340    | 150         | 150           | -70.39      | -13.00      | 57.39       | Pass   | Horizontal |
| 3     | 180.9622    | 150         | 32            | -65.29      | -13.00      | 52.29       | Pass   | Horizontal |
| 4     | 356.9554    | 150         | 350           | -69.31      | -13.00      | 56.31       | Pass   | Horizontal |
| 5     | 531.2022    | 150         | 80            | -74.83      | -13.00      | 61.83       | Pass   | Horizontal |
| 6     | 687.5975    | 150         | 208           | -71.03      | -13.00      | 58.03       | Pass   | Horizontal |
| 7     | 1310.2310   | 150         | 80            | -48.00      | -13.00      | 35.00       | Pass   | Horizontal |
| 8     | 3819.6000   | 150         | 268           | -50.04      | -13.00      | 37.04       | Pass   | Horizontal |
| 9     | 5729.4000   | 150         | 96            | -50.38      | -13.00      | 37.38       | Pass   | Horizontal |
| 10    | 7639.2000   | 150         | 250           | -44.47      | -13.00      | 31.47       | Pass   | Horizontal |
| 11    | 11488.9244  | 150         | 18            | -36.96      | -13.00      | 23.96       | Pass   | Horizontal |
| 12    | 14973.5987  | 150         | 360           | -29.63      | -13.00      | 16.63       | Pass   | Horizontal |

| Mode: |             | GSM Traffic |               |             |             |             |        |          |
|-------|-------------|-------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | 1900        |               |             | Channel:    |             | 810    |          |
| NO.   | Freq. [MHz] | Height [cm] | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 52.7025     | 150         | 54            | -65.81      | -13.00      | 52.81       | Pass   | Vertical |
| 2     | 83.5547     | 150         | 30            | -74.84      | -13.00      | 61.84       | Pass   | Vertical |
| 3     | 208.9038    | 150         | 171           | -68.57      | -13.00      | 55.57       | Pass   | Vertical |
| 4     | 350.3581    | 150         | 114           | -75.66      | -13.00      | 62.66       | Pass   | Vertical |
| 5     | 467.9456    | 150         | 230           | -76.57      | -13.00      | 63.57       | Pass   | Vertical |
| 6     | 687.5975    | 150         | 242           | -69.39      | -13.00      | 56.39       | Pass   | Vertical |
| 7     | 1399.6400   | 150         | 101           | -47.36      | -13.00      | 34.36       | Pass   | Vertical |
| 8     | 3819.6000   | 150         | 172           | -49.82      | -13.00      | 36.82       | Pass   | Vertical |
| 9     | 5729.4000   | 150         | 36            | -49.78      | -13.00      | 36.78       | Pass   | Vertical |
| 10    | 7639.2000   | 150         | 268           | -46.11      | -13.00      | 33.11       | Pass   | Vertical |
| 11    | 11478.4239  | 150         | 229           | -37.56      | -13.00      | 24.56       | Pass   | Vertical |
| 12    | 15084.6042  | 150         | 18            | -29.48      | -13.00      | 16.48       | Pass   | Vertical |

| Mode: |             | GPRS Traffic |               |             |             |             |        |            |
|-------|-------------|--------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | 1900         |               |             | Channel:    |             | 512    |            |
| NO.   | Freq. [MHz] | Height [cm]  | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 56.1952     | 150          | 203           | -76.91      | -13.00      | 63.91       | Pass   | Horizontal |
| 2     | 128.9598    | 150          | 156           | -75.09      | -13.00      | 62.09       | Pass   | Horizontal |
| 3     | 178.6337    | 150          | 25            | -64.60      | -13.00      | 51.60       | Pass   | Horizontal |
| 4     | 354.4329    | 150          | 273           | -65.00      | -13.00      | 52.00       | Pass   | Horizontal |
| 5     | 598.3397    | 150          | 333           | -62.23      | -13.00      | 49.23       | Pass   | Horizontal |
| 6     | 796.6473    | 150          | 85            | -65.58      | -13.00      | 52.58       | Pass   | Horizontal |
| 7     | 1264.0264   | 150          | 285           | -48.43      | -13.00      | 35.43       | Pass   | Horizontal |
| 8     | 3700.4000   | 150          | 184           | -51.22      | -13.00      | 38.22       | Pass   | Horizontal |
| 9     | 5550.6000   | 150          | 302           | -49.43      | -13.00      | 36.43       | Pass   | Horizontal |
| 10    | 7400.8000   | 150          | 324           | -45.56      | -13.00      | 32.56       | Pass   | Horizontal |
| 11    | 11099.6550  | 150          | 66            | -36.57      | -13.00      | 23.57       | Pass   | Horizontal |
| 12    | 14970.5985  | 150          | 48            | -29.56      | -13.00      | 16.56       | Pass   | Horizontal |

| Mode: |             | GPRS Traffic |               |             |             |             |        |          |
|-------|-------------|--------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | 1900         |               |             | Channel:    |             | 512    |          |
| NO.   | Freq. [MHz] | Height [cm]  | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 49.0158     | 150          | 304           | -64.99      | -13.00      | 51.99       | Pass   | Vertical |
| 2     | 71.9124     | 150          | 106           | -70.98      | -13.00      | 57.98       | Pass   | Vertical |
| 3     | 199.5899    | 150          | 154           | -68.30      | -13.00      | 55.30       | Pass   | Vertical |
| 4     | 322.4165    | 150          | 60            | -71.73      | -13.00      | 58.73       | Pass   | Vertical |
| 5     | 597.7576    | 150          | 351           | -65.12      | -13.00      | 52.12       | Pass   | Vertical |
| 6     | 729.7039    | 150          | 130           | -63.95      | -13.00      | 50.95       | Pass   | Vertical |
| 7     | 1293.0293   | 150          | 359           | -47.41      | -13.00      | 34.41       | Pass   | Vertical |
| 8     | 3700.4000   | 150          | 68            | -51.15      | -13.00      | 38.15       | Pass   | Vertical |
| 9     | 5550.6000   | 150          | 324           | -49.87      | -13.00      | 36.87       | Pass   | Vertical |
| 10    | 7400.8000   | 150          | 264           | -44.95      | -13.00      | 31.95       | Pass   | Vertical |
| 11    | 11490.4245  | 150          | 207           | -37.14      | -13.00      | 24.14       | Pass   | Vertical |
| 12    | 15122.1061  | 150          | 12            | -29.06      | -13.00      | 16.06       | Pass   | Vertical |

| Mode: |             | GPRS Traffic |               |             |             |             |        |            |
|-------|-------------|--------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | 1900         |               | Channel:    |             | 661         |        |            |
| NO.   | Freq. [MHz] | Height [cm]  | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 55.2250     | 150          | 203           | -76.16      | -13.00      | 63.16       | Pass   | Horizontal |
| 2     | 199.7840    | 150          | 214           | -64.31      | -13.00      | 51.31       | Pass   | Horizontal |
| 3     | 290.2060    | 150          | 95            | -67.74      | -13.00      | 54.74       | Pass   | Horizontal |
| 4     | 354.8210    | 150          | 274           | -66.78      | -13.00      | 53.78       | Pass   | Horizontal |
| 5     | 599.5039    | 150          | 322           | -64.48      | -13.00      | 51.48       | Pass   | Horizontal |
| 6     | 796.4533    | 150          | 35            | -66.35      | -13.00      | 53.35       | Pass   | Horizontal |
| 7     | 1341.4341   | 150          | 120           | -48.15      | -13.00      | 35.15       | Pass   | Horizontal |
| 8     | 3760.0000   | 150          | 64            | -49.72      | -13.00      | 36.72       | Pass   | Horizontal |
| 9     | 5640.0000   | 150          | 302           | -50.25      | -13.00      | 37.25       | Pass   | Horizontal |
| 10    | 7520.0000   | 150          | 324           | -46.05      | -13.00      | 33.05       | Pass   | Horizontal |
| 11    | 10277.6139  | 150          | 45            | -38.82      | -13.00      | 25.82       | Pass   | Horizontal |
| 12    | 14809.3405  | 150          | 182           | -29.54      | -13.00      | 16.54       | Pass   | Horizontal |

| Mode: |             | GPRS Traffic |               |             |             |             |        |          |
|-------|-------------|--------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | 1900         |               | Channel:    |             | 661         |        |          |
| NO.   | Freq. [MHz] | Height [cm]  | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 53.0906     | 150          | 215           | -65.66      | -13.00      | 52.66       | Pass   | Vertical |
| 2     | 71.3303     | 150          | 192           | -71.19      | -13.00      | 58.19       | Pass   | Vertical |
| 3     | 176.8874    | 150          | 132           | -71.33      | -13.00      | 58.33       | Pass   | Vertical |
| 4     | 208.9038    | 150          | 61            | -67.63      | -13.00      | 54.63       | Pass   | Vertical |
| 5     | 290.0120    | 150          | 1             | -70.60      | -13.00      | 57.60       | Pass   | Vertical |
| 6     | 598.3397    | 150          | 321           | -65.48      | -13.00      | 52.48       | Pass   | Vertical |
| 7     | 1398.6399   | 150          | 144           | -42.29      | -13.00      | 29.29       | Pass   | Vertical |
| 8     | 3760.0000   | 150          | 143           | -50.85      | -13.00      | 37.85       | Pass   | Vertical |
| 9     | 5640.0000   | 150          | 183           | -49.46      | -13.00      | 36.46       | Pass   | Vertical |
| 10    | 7520.0000   | 150          | 204           | -44.35      | -13.00      | 31.35       | Pass   | Vertical |
| 11    | 10174.1087  | 150          | 143           | -38.78      | -13.00      | 25.78       | Pass   | Vertical |
| 12    | 15091.3546  | 150          | 244           | -29.15      | -13.00      | 16.15       | Pass   | Vertical |

| Mode: |             | GPRS Traffic |               |             |             |             |        |            |
|-------|-------------|--------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | 1900         |               |             | Channel:    |             | 810    |            |
| NO.   | Freq. [MHz] | Height [cm]  | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 56.9714     | 150          | 164           | -77.64      | -13.00      | 64.64       | Pass   | Horizontal |
| 2     | 96.7494     | 150          | 188           | -74.12      | -13.00      | 61.12       | Pass   | Horizontal |
| 3     | 178.6337    | 150          | 11            | -64.62      | -13.00      | 51.62       | Pass   | Horizontal |
| 4     | 354.4329    | 150          | 281           | -65.25      | -13.00      | 52.25       | Pass   | Horizontal |
| 5     | 597.5635    | 150          | 360           | -62.23      | -13.00      | 49.23       | Pass   | Horizontal |
| 6     | 729.7039    | 150          | 352           | -65.24      | -13.00      | 52.24       | Pass   | Horizontal |
| 7     | 1292.2292   | 150          | 153           | -48.22      | -13.00      | 35.22       | Pass   | Horizontal |
| 8     | 3819.6000   | 150          | 54            | -50.10      | -13.00      | 37.10       | Pass   | Horizontal |
| 9     | 5729.4000   | 150          | 265           | -50.12      | -13.00      | 37.12       | Pass   | Horizontal |
| 10    | 7639.2000   | 150          | 149           | -46.11      | -13.00      | 33.11       | Pass   | Horizontal |
| 11    | 11486.6743  | 150          | 33            | -37.20      | -13.00      | 24.20       | Pass   | Horizontal |
| 12    | 15045.6023  | 150          | 324           | -29.27      | -13.00      | 16.27       | Pass   | Horizontal |

| Mode: |             | GPRS Traffic |               |             |             |             |        |          |
|-------|-------------|--------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | 1900         |               |             | Channel:    |             | 810    |          |
| NO.   | Freq. [MHz] | Height [cm]  | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 53.2847     | 150          | 246           | -65.33      | -13.00      | 52.33       | Pass   | Vertical |
| 2     | 208.9038    | 150          | 258           | -67.77      | -13.00      | 54.77       | Pass   | Vertical |
| 3     | 290.0120    | 150          | 200           | -69.52      | -13.00      | 56.52       | Pass   | Vertical |
| 4     | 400.0320    | 150          | 270           | -69.96      | -13.00      | 56.96       | Pass   | Vertical |
| 5     | 599.1158    | 150          | 316           | -65.58      | -13.00      | 52.58       | Pass   | Vertical |
| 6     | 733.7788    | 150          | 118           | -66.12      | -13.00      | 53.12       | Pass   | Vertical |
| 7     | 1396.6397   | 150          | 118           | -45.10      | -13.00      | 32.10       | Pass   | Vertical |
| 8     | 3819.6000   | 150          | 227           | -50.75      | -13.00      | 37.75       | Pass   | Vertical |
| 9     | 5729.4000   | 150          | 132           | -50.00      | -13.00      | 37.00       | Pass   | Vertical |
| 10    | 7639.2000   | 150          | 188           | -45.31      | -13.00      | 32.31       | Pass   | Vertical |
| 11    | 11528.6764  | 150          | 132           | -36.91      | -13.00      | 23.91       | Pass   | Vertical |
| 12    | 15079.3540  | 150          | 247           | -29.42      | -13.00      | 16.42       | Pass   | Vertical |



| Mode: |             | EGPRS Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | 1900          |               |             | Channel:    |             | 512    |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 109.5559    | 150           | 154           | -72.51      | -13.00      | 59.51       | Pass   | Horizontal |
| 2     | 161.1702    | 150           | 1             | -65.39      | -13.00      | 52.39       | Pass   | Horizontal |
| 3     | 322.2224    | 150           | 130           | -65.03      | -13.00      | 52.03       | Pass   | Horizontal |
| 4     | 419.0478    | 150           | 24            | -65.18      | -13.00      | 52.18       | Pass   | Horizontal |
| 5     | 597.1754    | 150           | 330           | -67.32      | -13.00      | 54.32       | Pass   | Horizontal |
| 6     | 733.5847    | 150           | 154           | -64.52      | -13.00      | 51.52       | Pass   | Horizontal |
| 7     | 1323.4323   | 150           | 35            | -48.35      | -13.00      | 35.35       | Pass   | Horizontal |
| 8     | 3700.4000   | 150           | 210           | -51.00      | -13.00      | 38.00       | Pass   | Horizontal |
| 9     | 5550.6000   | 150           | 210           | -49.94      | -13.00      | 36.94       | Pass   | Horizontal |
| 10    | 7400.8000   | 150           | 286           | -45.66      | -13.00      | 32.66       | Pass   | Horizontal |
| 11    | 9707.5854   | 150           | 56            | -39.25      | -13.00      | 26.25       | Pass   | Horizontal |
| 12    | 15104.1052  | 150           | 74            | -29.56      | -13.00      | 16.56       | Pass   | Horizontal |

| Mode: |             | EGPRS Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | 1900          |               |             | Channel:    |             | 512    |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 51.3443     | 150           | 161           | -65.47      | -13.00      | 52.47       | Pass   | Vertical |
| 2     | 199.3959    | 150           | 173           | -67.59      | -13.00      | 54.59       | Pass   | Vertical |
| 3     | 290.0120    | 150           | 358           | -69.64      | -13.00      | 56.64       | Pass   | Vertical |
| 4     | 398.2857    | 150           | 184           | -74.33      | -13.00      | 61.33       | Pass   | Vertical |
| 5     | 597.9516    | 150           | 43            | -67.23      | -13.00      | 54.23       | Pass   | Vertical |
| 6     | 735.3311    | 150           | 149           | -64.21      | -13.00      | 51.21       | Pass   | Vertical |
| 7     | 1326.8327   | 150           | 43            | -48.53      | -13.00      | 35.53       | Pass   | Vertical |
| 8     | 3700.4000   | 150           | 263           | -50.50      | -13.00      | 37.50       | Pass   | Vertical |
| 9     | 5550.6000   | 150           | 166           | -49.15      | -13.00      | 36.15       | Pass   | Vertical |
| 10    | 7400.8000   | 150           | 342           | -44.70      | -13.00      | 31.70       | Pass   | Vertical |
| 11    | 11564.6782  | 150           | 107           | -37.20      | -13.00      | 24.20       | Pass   | Vertical |
| 12    | 15302.8651  | 150           | 12            | -29.74      | -13.00      | 16.74       | Pass   | Vertical |



| Mode: |             | EGPRS Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | 1900          |               |             | Channel:    |             | 661    |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 96.7494     | 150           | 166           | -73.67      | -13.00      | 60.67       | Pass   | Horizontal |
| 2     | 181.1562    | 150           | 201           | -64.05      | -13.00      | 51.05       | Pass   | Horizontal |
| 3     | 354.6269    | 150           | 272           | -64.77      | -13.00      | 51.77       | Pass   | Horizontal |
| 4     | 398.8678    | 150           | 13            | -63.39      | -13.00      | 50.39       | Pass   | Horizontal |
| 5     | 599.8920    | 150           | 331           | -57.52      | -13.00      | 44.52       | Pass   | Horizontal |
| 6     | 798.3937    | 150           | 48            | -64.97      | -13.00      | 51.97       | Pass   | Horizontal |
| 7     | 1261.2261   | 150           | 166           | -48.43      | -13.00      | 35.43       | Pass   | Horizontal |
| 8     | 3760.0000   | 150           | 247           | -50.68      | -13.00      | 37.68       | Pass   | Horizontal |
| 9     | 5640.0000   | 150           | 264           | -50.67      | -13.00      | 37.67       | Pass   | Horizontal |
| 10    | 7520.0000   | 150           | 342           | -45.83      | -13.00      | 32.83       | Pass   | Horizontal |
| 11    | 9706.8353   | 150           | 226           | -38.46      | -13.00      | 25.46       | Pass   | Horizontal |
| 12    | 15075.6038  | 150           | 208           | -29.23      | -13.00      | 16.23       | Pass   | Horizontal |

| Mode: |             | EGPRS Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | 1900          |               |             | Channel:    |             | 661    |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 51.3443     | 150           | 36            | -65.45      | -13.00      | 52.45       | Pass   | Vertical |
| 2     | 71.3303     | 150           | 155           | -72.31      | -13.00      | 59.31       | Pass   | Vertical |
| 3     | 199.2018    | 150           | 226           | -67.06      | -13.00      | 54.06       | Pass   | Vertical |
| 4     | 290.0120    | 150           | 1             | -70.23      | -13.00      | 57.23       | Pass   | Vertical |
| 5     | 597.7576    | 150           | 120           | -67.30      | -13.00      | 54.30       | Pass   | Vertical |
| 6     | 796.6473    | 150           | 249           | -65.77      | -13.00      | 52.77       | Pass   | Vertical |
| 7     | 1194.6195   | 150           | 298           | -47.24      | -13.00      | 34.24       | Pass   | Vertical |
| 8     | 3760.0000   | 150           | 262           | -50.60      | -13.00      | 37.60       | Pass   | Vertical |
| 9     | 5640.0000   | 150           | 359           | -49.11      | -13.00      | 36.11       | Pass   | Vertical |
| 10    | 7520.0000   | 150           | 165           | -45.74      | -13.00      | 32.74       | Pass   | Vertical |
| 11    | 12179.7090  | 150           | 183           | -35.25      | -13.00      | 22.25       | Pass   | Vertical |
| 12    | 15593.8797  | 150           | 165           | -29.30      | -13.00      | 16.30       | Pass   | Vertical |

| Mode: |             | EGPRS Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | 1900          |               |             | Channel:    |             | 810    |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 96.7494     | 150           | 163           | -72.70      | -13.00      | 59.70       | Pass   | Horizontal |
| 2     | 161.1702    | 150           | 359           | -65.75      | -13.00      | 52.75       | Pass   | Horizontal |
| 3     | 354.6269    | 150           | 268           | -66.00      | -13.00      | 53.00       | Pass   | Horizontal |
| 4     | 418.8538    | 150           | 11            | -67.05      | -13.00      | 54.05       | Pass   | Horizontal |
| 5     | 599.6979    | 150           | 46            | -64.44      | -13.00      | 51.44       | Pass   | Horizontal |
| 6     | 738.6297    | 150           | 151           | -65.43      | -13.00      | 52.43       | Pass   | Horizontal |
| 7     | 1323.8324   | 150           | 268           | -48.31      | -13.00      | 35.31       | Pass   | Horizontal |
| 8     | 3819.6000   | 150           | 247           | -49.50      | -13.00      | 36.50       | Pass   | Horizontal |
| 9     | 5729.4000   | 150           | 303           | -49.81      | -13.00      | 36.81       | Pass   | Horizontal |
| 10    | 7639.2000   | 150           | 110           | -44.96      | -13.00      | 31.96       | Pass   | Horizontal |
| 11    | 12269.7135  | 150           | 170           | -37.03      | -13.00      | 24.03       | Pass   | Horizontal |
| 12    | 15103.3552  | 150           | 170           | -29.74      | -13.00      | 16.74       | Pass   | Horizontal |

| Mode: |             | EGPRS Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | 1900          |               |             | Channel:    |             | 810    |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 50.9562     | 150           | 130           | -66.40      | -13.00      | 53.40       | Pass   | Vertical |
| 2     | 199.3959    | 150           | 177           | -66.58      | -13.00      | 53.58       | Pass   | Vertical |
| 3     | 290.0120    | 150           | 189           | -69.68      | -13.00      | 56.68       | Pass   | Vertical |
| 4     | 399.6439    | 150           | 318           | -71.63      | -13.00      | 58.63       | Pass   | Vertical |
| 5     | 598.1456    | 150           | 283           | -66.24      | -13.00      | 53.24       | Pass   | Vertical |
| 6     | 728.5397    | 150           | 130           | -64.07      | -13.00      | 51.07       | Pass   | Vertical |
| 7     | 1194.8195   | 150           | 295           | -44.67      | -13.00      | 31.67       | Pass   | Vertical |
| 8     | 3819.6000   | 150           | 187           | -49.54      | -13.00      | 36.54       | Pass   | Vertical |
| 9     | 5729.4000   | 150           | 342           | -49.87      | -13.00      | 36.87       | Pass   | Vertical |
| 10    | 7639.2000   | 150           | 148           | -44.99      | -13.00      | 31.99       | Pass   | Vertical |
| 11    | 11784.4392  | 150           | 247           | -37.12      | -13.00      | 24.12       | Pass   | Vertical |
| 12    | 15140.1070  | 150           | 131           | -29.89      | -13.00      | 16.89       | Pass   | Vertical |

| Mode: |             | WCDMA Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | II            |               | Channel:    |             | 9263        |        |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 52.8966     | 150           | 177           | -78.01      | -13.00      | 65.01       | Pass   | Horizontal |
| 2     | 118.6757    | 150           | 155           | -73.73      | -13.00      | 60.73       | Pass   | Horizontal |
| 3     | 179.0218    | 150           | 360           | -69.29      | -13.00      | 56.29       | Pass   | Horizontal |
| 4     | 352.1044    | 150           | 343           | -70.01      | -13.00      | 57.01       | Pass   | Horizontal |
| 5     | 464.8410    | 150           | 1             | -71.76      | -13.00      | 58.76       | Pass   | Horizontal |
| 6     | 687.5975    | 150           | 283           | -73.06      | -13.00      | 60.06       | Pass   | Horizontal |
| 7     | 1308.4308   | 150           | 1             | -48.18      | -13.00      | 35.18       | Pass   | Horizontal |
| 8     | 2395.7396   | 150           | 155           | -45.05      | -13.00      | 32.05       | Pass   | Horizontal |
| 9     | 3705.2000   | 150           | 0             | -50.72      | -13.00      | 37.72       | Pass   | Horizontal |
| 10    | 5557.8000   | 150           | 71            | -50.27      | -13.00      | 37.27       | Pass   | Horizontal |
| 11    | 7410.4000   | 150           | 110           | -46.49      | -13.00      | 33.49       | Pass   | Horizontal |
| 12    | 15023.8512  | 150           | 342           | -31.44      | -13.00      | 18.44       | Pass   | Horizontal |

| Mode: |             | WCDMA Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | II            |               | Channel:    |             | 9263        |        |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 52.5085     | 150           | 283           | -66.15      | -13.00      | 53.15       | Pass   | Vertical |
| 2     | 69.7780     | 150           | 272           | -72.36      | -13.00      | 59.36       | Pass   | Vertical |
| 3     | 208.9038    | 150           | 71            | -69.60      | -13.00      | 56.60       | Pass   | Vertical |
| 4     | 360.0600    | 150           | 119           | -75.73      | -13.00      | 62.73       | Pass   | Vertical |
| 5     | 476.0952    | 150           | 248           | -76.40      | -13.00      | 63.40       | Pass   | Vertical |
| 6     | 687.5975    | 150           | 84            | -69.69      | -13.00      | 56.69       | Pass   | Vertical |
| 7     | 1399.2399   | 150           | 95            | -46.00      | -13.00      | 33.00       | Pass   | Vertical |
| 8     | 2841.9842   | 150           | 71            | -41.27      | -13.00      | 28.27       | Pass   | Vertical |
| 9     | 3705.2000   | 150           | 147           | -51.33      | -13.00      | 38.33       | Pass   | Vertical |
| 10    | 5557.8000   | 150           | 186           | -50.93      | -13.00      | 37.93       | Pass   | Vertical |
| 11    | 7410.4000   | 150           | 50            | -46.89      | -13.00      | 33.89       | Pass   | Vertical |
| 12    | 15032.8516  | 150           | 108           | -32.08      | -13.00      | 19.08       | Pass   | Vertical |

| Mode: |             | WCDMA Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | II            |               | Channel:    |             | 9400        |        |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 55.2250     | 150           | 213           | -77.97      | -13.00      | 64.97       | Pass   | Horizontal |
| 2     | 167.9616    | 150           | 35            | -70.06      | -13.00      | 57.06       | Pass   | Horizontal |
| 3     | 353.8508    | 150           | 1             | -70.57      | -13.00      | 57.57       | Pass   | Horizontal |
| 4     | 482.1104    | 150           | 142           | -73.09      | -13.00      | 60.09       | Pass   | Horizontal |
| 5     | 584.9510    | 150           | 35            | -72.34      | -13.00      | 59.34       | Pass   | Horizontal |
| 6     | 779.9600    | 150           | 320           | -69.60      | -13.00      | 56.60       | Pass   | Horizontal |
| 7     | 1294.8295   | 150           | 131           | -48.48      | -13.00      | 35.48       | Pass   | Horizontal |
| 8     | 3760.0000   | 150           | 148           | -48.86      | -13.00      | 35.86       | Pass   | Horizontal |
| 9     | 5640.0000   | 150           | 91            | -50.73      | -13.00      | 37.73       | Pass   | Horizontal |
| 10    | 7520.0000   | 150           | 285           | -46.73      | -13.00      | 33.73       | Pass   | Horizontal |
| 11    | 9668.5834   | 150           | 130           | -40.30      | -13.00      | 27.30       | Pass   | Horizontal |
| 12    | 14984.0992  | 150           | 342           | -32.82      | -13.00      | 19.82       | Pass   | Horizontal |

| Mode: |             | WCDMA Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | II            |               | Channel:    |             | 9400        |        |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 48.8218     | 150           | 283           | -66.73      | -13.00      | 53.73       | Pass   | Vertical |
| 2     | 69.7780     | 150           | 308           | -72.55      | -13.00      | 59.55       | Pass   | Vertical |
| 3     | 167.9616    | 150           | 360           | -73.97      | -13.00      | 60.97       | Pass   | Vertical |
| 4     | 208.9038    | 150           | 1             | -69.65      | -13.00      | 56.65       | Pass   | Vertical |
| 5     | 687.5975    | 150           | 283           | -70.07      | -13.00      | 57.07       | Pass   | Vertical |
| 6     | 799.7520    | 150           | 213           | -70.65      | -13.00      | 57.65       | Pass   | Vertical |
| 7     | 1397.4397   | 150           | 106           | -47.85      | -13.00      | 34.85       | Pass   | Vertical |
| 8     | 3760.0000   | 150           | 342           | -50.13      | -13.00      | 37.13       | Pass   | Vertical |
| 9     | 5640.0000   | 150           | 187           | -50.72      | -13.00      | 37.72       | Pass   | Vertical |
| 10    | 7520.0000   | 150           | 170           | -46.76      | -13.00      | 33.76       | Pass   | Vertical |
| 11    | 9768.3384   | 150           | 131           | -41.09      | -13.00      | 28.09       | Pass   | Vertical |
| 12    | 15032.1016  | 150           | 304           | -32.96      | -13.00      | 19.96       | Pass   | Vertical |

| Mode: |             | WCDMA Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | II            |               | Channel:    |             | 9537        |        |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 43.7768     | 150           | 69            | -79.08      | -13.00      | 66.08       | Pass   | Horizontal |
| 2     | 120.0340    | 150           | 177           | -75.88      | -13.00      | 62.88       | Pass   | Horizontal |
| 3     | 167.9616    | 150           | 33            | -69.80      | -13.00      | 56.80       | Pass   | Horizontal |
| 4     | 360.2541    | 150           | 190           | -71.52      | -13.00      | 58.52       | Pass   | Horizontal |
| 5     | 584.9510    | 150           | 33            | -72.66      | -13.00      | 59.66       | Pass   | Horizontal |
| 6     | 687.5975    | 150           | 284           | -71.77      | -13.00      | 58.77       | Pass   | Horizontal |
| 7     | 1292.4292   | 150           | 105           | -48.05      | -13.00      | 35.05       | Pass   | Horizontal |
| 8     | 3814.8000   | 150           | 342           | -50.74      | -13.00      | 37.74       | Pass   | Horizontal |
| 9     | 5722.2000   | 150           | 204           | -50.97      | -13.00      | 37.97       | Pass   | Horizontal |
| 10    | 7629.6000   | 150           | 342           | -47.29      | -13.00      | 34.29       | Pass   | Horizontal |
| 11    | 11736.4368  | 150           | 86            | -39.80      | -13.00      | 26.80       | Pass   | Horizontal |
| 12    | 15032.8516  | 150           | 324           | -34.63      | -13.00      | 21.63       | Pass   | Horizontal |

| Mode: |             | WCDMA Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | II            |               | Channel:    |             | 9537        |        |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 51.5383     | 150           | 72            | -66.20      | -13.00      | 53.20       | Pass   | Vertical |
| 2     | 69.7780     | 150           | 192           | -72.89      | -13.00      | 59.89       | Pass   | Vertical |
| 3     | 167.9616    | 150           | 156           | -74.44      | -13.00      | 61.44       | Pass   | Vertical |
| 4     | 208.9038    | 150           | 263           | -70.26      | -13.00      | 57.26       | Pass   | Vertical |
| 5     | 375.0010    | 150           | 156           | -75.96      | -13.00      | 62.96       | Pass   | Vertical |
| 6     | 687.5975    | 150           | 275           | -69.83      | -13.00      | 56.83       | Pass   | Vertical |
| 7     | 1274.6275   | 150           | 49            | -48.43      | -13.00      | 35.43       | Pass   | Vertical |
| 8     | 3814.8000   | 150           | 262           | -50.52      | -13.00      | 37.52       | Pass   | Vertical |
| 9     | 5722.2000   | 150           | 126           | -50.45      | -13.00      | 37.45       | Pass   | Vertical |
| 10    | 7629.6000   | 150           | 341           | -46.04      | -13.00      | 33.04       | Pass   | Vertical |
| 11    | 11815.1908  | 150           | 46            | -40.66      | -13.00      | 27.66       | Pass   | Vertical |
| 12    | 15032.8516  | 150           | 6             | -34.69      | -13.00      | 21.69       | Pass   | Vertical |



| Mode: |             | HSDPA Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | II            |               | Channel:    |             | 9263        |        |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 91.3163     | 150           | 357           | -77.65      | -13.00      | 64.65       | Pass   | Horizontal |
| 2     | 120.0340    | 150           | 179           | -75.84      | -13.00      | 62.84       | Pass   | Horizontal |
| 3     | 180.9622    | 150           | 2             | -70.10      | -13.00      | 57.10       | Pass   | Horizontal |
| 4     | 353.8508    | 150           | 357           | -70.93      | -13.00      | 57.93       | Pass   | Horizontal |
| 5     | 475.7071    | 150           | 144           | -74.59      | -13.00      | 61.59       | Pass   | Horizontal |
| 6     | 687.5975    | 150           | 240           | -71.68      | -13.00      | 58.68       | Pass   | Horizontal |
| 7     | 1295.0295   | 150           | 168           | -48.02      | -13.00      | 35.02       | Pass   | Horizontal |
| 8     | 3705.2000   | 150           | 223           | -51.76      | -13.00      | 38.76       | Pass   | Horizontal |
| 9     | 5557.8000   | 150           | 223           | -50.47      | -13.00      | 37.47       | Pass   | Horizontal |
| 10    | 7410.4000   | 150           | 47            | -47.64      | -13.00      | 34.64       | Pass   | Horizontal |
| 11    | 11716.9358  | 150           | 302           | -39.74      | -13.00      | 26.74       | Pass   | Horizontal |
| 12    | 15032.1016  | 150           | 105           | -32.39      | -13.00      | 19.39       | Pass   | Horizontal |

| Mode: |             | HSDPA Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | II            |               | Channel:    |             | 9263        |        |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 49.5979     | 150           | 202           | -65.00      | -13.00      | 52.00       | Pass   | Vertical |
| 2     | 71.5243     | 150           | 320           | -73.27      | -13.00      | 60.27       | Pass   | Vertical |
| 3     | 167.9616    | 150           | 332           | -73.85      | -13.00      | 60.85       | Pass   | Vertical |
| 4     | 208.9038    | 150           | 344           | -70.40      | -13.00      | 57.40       | Pass   | Vertical |
| 5     | 343.1786    | 150           | 71            | -76.37      | -13.00      | 63.37       | Pass   | Vertical |
| 6     | 687.5975    | 150           | 166           | -69.42      | -13.00      | 56.42       | Pass   | Vertical |
| 7     | 1372.8373   | 150           | 226           | -47.30      | -13.00      | 34.30       | Pass   | Vertical |
| 8     | 3705.2000   | 150           | 184           | -50.68      | -13.00      | 37.68       | Pass   | Vertical |
| 9     | 5557.8000   | 150           | 66            | -50.57      | -13.00      | 37.57       | Pass   | Vertical |
| 10    | 7410.4000   | 150           | 184           | -47.82      | -13.00      | 34.82       | Pass   | Vertical |
| 11    | 9715.8358   | 150           | 224           | -41.47      | -13.00      | 28.47       | Pass   | Vertical |
| 12    | 15032.1016  | 150           | 166           | -33.55      | -13.00      | 20.55       | Pass   | Vertical |



| Mode: |             | HSDPA Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | II            |               | Channel:    |             | 9400        |        |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 49.5979     | 150           | 25            | -79.37      | -13.00      | 66.37       | Pass   | Horizontal |
| 2     | 120.0340    | 150           | 166           | -76.83      | -13.00      | 63.83       | Pass   | Horizontal |
| 3     | 167.9616    | 150           | 2             | -68.30      | -13.00      | 55.30       | Pass   | Horizontal |
| 4     | 353.8508    | 150           | 355           | -72.51      | -13.00      | 59.51       | Pass   | Horizontal |
| 5     | 584.9510    | 150           | 120           | -71.86      | -13.00      | 58.86       | Pass   | Horizontal |
| 6     | 687.5975    | 150           | 272           | -71.56      | -13.00      | 58.56       | Pass   | Horizontal |
| 7     | 1322.8323   | 150           | 142           | -48.01      | -13.00      | 35.01       | Pass   | Horizontal |
| 8     | 3760.0000   | 150           | 148           | -50.79      | -13.00      | 37.79       | Pass   | Horizontal |
| 9     | 5640.0000   | 150           | 246           | -51.39      | -13.00      | 38.39       | Pass   | Horizontal |
| 10    | 7520.0000   | 150           | 264           | -47.49      | -13.00      | 34.49       | Pass   | Horizontal |
| 11    | 11822.6911  | 150           | 168           | -40.94      | -13.00      | 27.94       | Pass   | Horizontal |
| 12    | 15032.1016  | 150           | 31            | -34.76      | -13.00      | 21.76       | Pass   | Horizontal |

| Mode: |             | HSDPA Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | II            |               | Channel:    |             | 9400        |        |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 51.1502     | 150           | 360           | -66.19      | -13.00      | 53.19       | Pass   | Vertical |
| 2     | 69.5839     | 150           | 360           | -72.63      | -13.00      | 59.63       | Pass   | Vertical |
| 3     | 208.9038    | 150           | 154           | -69.56      | -13.00      | 56.56       | Pass   | Vertical |
| 4     | 375.0010    | 150           | 106           | -76.80      | -13.00      | 63.80       | Pass   | Vertical |
| 5     | 557.7856    | 150           | 13            | -72.28      | -13.00      | 59.28       | Pass   | Vertical |
| 6     | 687.5975    | 150           | 248           | -70.34      | -13.00      | 57.34       | Pass   | Vertical |
| 7     | 1278.6279   | 150           | 177           | -48.25      | -13.00      | 35.25       | Pass   | Vertical |
| 8     | 3760.0000   | 150           | 6             | -49.68      | -13.00      | 36.68       | Pass   | Vertical |
| 9     | 5640.0000   | 150           | 63            | -50.97      | -13.00      | 37.97       | Pass   | Vertical |
| 10    | 7520.0000   | 150           | 105           | -46.81      | -13.00      | 33.81       | Pass   | Vertical |
| 11    | 11854.1927  | 150           | 304           | -40.57      | -13.00      | 27.57       | Pass   | Vertical |
| 12    | 15032.1016  | 150           | 168           | -34.09      | -13.00      | 21.09       | Pass   | Vertical |

| Mode: |             | HSDPA Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | II            |               | Channel:    |             | 9537        |        |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 116.9294    | 150           | 360           | -76.45      | -13.00      | 63.45       | Pass   | Horizontal |
| 2     | 180.5741    | 150           | 2             | -68.56      | -13.00      | 55.56       | Pass   | Horizontal |
| 3     | 348.6117    | 150           | 341           | -72.64      | -13.00      | 59.64       | Pass   | Horizontal |
| 4     | 485.2150    | 150           | 117           | -73.97      | -13.00      | 60.97       | Pass   | Horizontal |
| 5     | 584.9510    | 150           | 140           | -74.32      | -13.00      | 61.32       | Pass   | Horizontal |
| 6     | 687.5975    | 150           | 235           | -71.17      | -13.00      | 58.17       | Pass   | Horizontal |
| 7     | 1294.2294   | 150           | 317           | -48.53      | -13.00      | 35.53       | Pass   | Horizontal |
| 8     | 3814.8000   | 150           | 342           | -49.68      | -13.00      | 36.68       | Pass   | Horizontal |
| 9     | 5722.2000   | 150           | 169           | -51.33      | -13.00      | 38.33       | Pass   | Horizontal |
| 10    | 7629.6000   | 150           | 0             | -46.90      | -13.00      | 33.90       | Pass   | Horizontal |
| 11    | 11719.9360  | 150           | 32            | -39.76      | -13.00      | 26.76       | Pass   | Horizontal |
| 12    | 15032.1016  | 150           | 32            | -32.93      | -13.00      | 19.93       | Pass   | Horizontal |

| Mode: |             | HSDPA Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | II            |               | Channel:    |             | 9537        |        |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 52.5085     | 150           | 74            | -65.83      | -13.00      | 52.83       | Pass   | Vertical |
| 2     | 167.9616    | 150           | 358           | -74.33      | -13.00      | 61.33       | Pass   | Vertical |
| 3     | 208.9038    | 150           | 62            | -70.08      | -13.00      | 57.08       | Pass   | Vertical |
| 4     | 375.0010    | 150           | 74            | -75.75      | -13.00      | 62.75       | Pass   | Vertical |
| 5     | 687.5975    | 150           | 170           | -70.36      | -13.00      | 57.36       | Pass   | Vertical |
| 6     | 798.7818    | 150           | 2             | -69.97      | -13.00      | 56.97       | Pass   | Vertical |
| 7     | 1328.6329   | 150           | 244           | -48.51      | -13.00      | 35.51       | Pass   | Vertical |
| 8     | 3814.8000   | 150           | 215           | -50.37      | -13.00      | 37.37       | Pass   | Vertical |
| 9     | 5722.2000   | 150           | 215           | -51.07      | -13.00      | 38.07       | Pass   | Vertical |
| 10    | 7629.6000   | 150           | 197           | -46.21      | -13.00      | 33.21       | Pass   | Vertical |
| 11    | 11805.4403  | 150           | 321           | -40.75      | -13.00      | 27.75       | Pass   | Vertical |
| 12    | 15032.1016  | 150           | 55            | -35.34      | -13.00      | 22.34       | Pass   | Vertical |

| Mode: |             | HSUPA Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | II            |               | Channel:    |             | 9400        |        |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 49.5979     | 150           | 25            | -78.77      | -13.00      | 65.77       | Pass   | Horizontal |
| 2     | 179.6039    | 150           | 25            | -68.41      | -13.00      | 55.41       | Pass   | Horizontal |
| 3     | 375.0010    | 150           | 37            | -75.13      | -13.00      | 62.13       | Pass   | Horizontal |
| 4     | 478.6177    | 150           | 143           | -74.52      | -13.00      | 61.52       | Pass   | Horizontal |
| 5     | 584.9510    | 150           | 108           | -71.99      | -13.00      | 58.99       | Pass   | Horizontal |
| 6     | 687.5975    | 150           | 263           | -71.57      | -13.00      | 58.57       | Pass   | Horizontal |
| 7     | 1309.6310   | 150           | 121           | -48.07      | -13.00      | 35.07       | Pass   | Horizontal |
| 8     | 3760.0000   | 150           | 324           | -50.85      | -13.00      | 37.85       | Pass   | Horizontal |
| 9     | 5640.0000   | 150           | 224           | -49.68      | -13.00      | 36.68       | Pass   | Horizontal |
| 10    | 7520.0000   | 150           | 324           | -46.98      | -13.00      | 33.98       | Pass   | Horizontal |
| 11    | 11812.1906  | 150           | 145           | -40.92      | -13.00      | 27.92       | Pass   | Horizontal |
| 12    | 15032.1016  | 150           | 324           | -34.86      | -13.00      | 21.86       | Pass   | Horizontal |

| Mode: |             | HSUPA Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | II            |               | Channel:    |             | 9400        |        |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 50.7622     | 150           | 323           | -65.68      | -13.00      | 52.68       | Pass   | Vertical |
| 2     | 69.7780     | 150           | 264           | -72.25      | -13.00      | 59.25       | Pass   | Vertical |
| 3     | 208.9038    | 150           | 349           | -69.70      | -13.00      | 56.70       | Pass   | Vertical |
| 4     | 398.2857    | 150           | 359           | -75.73      | -13.00      | 62.73       | Pass   | Vertical |
| 5     | 584.9510    | 150           | 108           | -73.47      | -13.00      | 60.47       | Pass   | Vertical |
| 6     | 687.5975    | 150           | 180           | -70.23      | -13.00      | 57.23       | Pass   | Vertical |
| 7     | 1328.0328   | 150           | 13            | -48.27      | -13.00      | 35.27       | Pass   | Vertical |
| 8     | 3760.0000   | 150           | 302           | -49.45      | -13.00      | 36.45       | Pass   | Vertical |
| 9     | 5640.0000   | 150           | 86            | -49.21      | -13.00      | 36.21       | Pass   | Vertical |
| 10    | 7520.0000   | 150           | 184           | -47.65      | -13.00      | 34.65       | Pass   | Vertical |
| 11    | 9690.3345   | 150           | 86            | -42.17      | -13.00      | 29.17       | Pass   | Vertical |
| 12    | 15032.1016  | 150           | 263           | -34.47      | -13.00      | 21.47       | Pass   | Vertical |

| Mode: |                | HSUPA Traffic  |                  |                |                |                |        |            |
|-------|----------------|----------------|------------------|----------------|----------------|----------------|--------|------------|
| Band: |                | II             |                  | Channel:       |                | 9263           |        |            |
| NO.   | Freq.<br>[MHz] | Height<br>[cm] | Azimuth<br>[deg] | Level<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] | Result | Polarity   |
| 1     | 96.7494        | 150            | 177              | -74.34         | -13.00         | 61.34          | Pass   | Horizontal |
| 2     | 161.1702       | 150            | 13               | -64.69         | -13.00         | 51.69          | Pass   | Horizontal |
| 3     | 290.5941       | 150            | 155              | -68.07         | -13.00         | 55.07          | Pass   | Horizontal |
| 4     | 394.4049       | 150            | 119              | -64.92         | -13.00         | 51.92          | Pass   | Horizontal |
| 5     | 476.8714       | 150            | 130              | -56.34         | -13.00         | 43.34          | Pass   | Horizontal |
| 6     | 598.3397       | 150            | 332              | -64.30         | -13.00         | 51.30          | Pass   | Horizontal |
| 7     | 1397.6398      | 150            | 36               | -48.41         | -13.00         | 35.41          | Pass   | Horizontal |
| 8     | 3705.2000      | 150            | 303              | -52.32         | -13.00         | 39.32          | Pass   | Horizontal |
| 9     | 5557.8000      | 150            | 130              | -50.63         | -13.00         | 37.63          | Pass   | Horizontal |
| 10    | 7410.4000      | 150            | 0                | -47.28         | -13.00         | 34.28          | Pass   | Horizontal |
| 11    | 9743.5872      | 150            | 0                | -41.69         | -13.00         | 28.69          | Pass   | Horizontal |
| 12    | 15032.1016     | 150            | 303              | -34.72         | -13.00         | 21.72          | Pass   | Horizontal |

| Mode: |                | HSUPA Traffic  |                  |                |                |                |        |          |
|-------|----------------|----------------|------------------|----------------|----------------|----------------|--------|----------|
| Band: |                | II             |                  | Channel:       |                | 9263           |        |          |
| NO.   | Freq.<br>[MHz] | Height<br>[cm] | Azimuth<br>[deg] | Level<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] | Result | Polarity |
| 1     | 49.5979        | 150            | 155              | -66.04         | -13.00         | 53.04          | Pass   | Vertical |
| 2     | 166.2152       | 150            | 2                | -72.14         | -13.00         | 59.14          | Pass   | Vertical |
| 3     | 199.5899       | 150            | 214              | -67.54         | -13.00         | 54.54          | Pass   | Vertical |
| 4     | 398.8678       | 150            | 274              | -70.68         | -13.00         | 57.68          | Pass   | Vertical |
| 5     | 479.5879       | 150            | 155              | -66.17         | -13.00         | 53.17          | Pass   | Vertical |
| 6     | 599.1158       | 150            | 321              | -64.27         | -13.00         | 51.27          | Pass   | Vertical |
| 7     | 1324.0324      | 150            | 119              | -48.01         | -13.00         | 35.01          | Pass   | Vertical |
| 8     | 3705.2000      | 150            | 0                | -51.22         | -13.00         | 38.22          | Pass   | Vertical |
| 9     | 5557.8000      | 150            | 109              | -51.06         | -13.00         | 38.06          | Pass   | Vertical |
| 10    | 7410.4000      | 150            | 109              | -48.84         | -13.00         | 35.84          | Pass   | Vertical |
| 11    | 9700.0850      | 150            | 246              | -43.02         | -13.00         | 30.02          | Pass   | Vertical |
| 12    | 15032.1016     | 150            | 14               | -33.99         | -13.00         | 20.99          | Pass   | Vertical |

| Mode: |                | HSUPA Traffic  |                  |                |                |                |        |            |
|-------|----------------|----------------|------------------|----------------|----------------|----------------|--------|------------|
| Band: |                | II             |                  | Channel:       |                | 9537           |        |            |
| NO.   | Freq.<br>[MHz] | Height<br>[cm] | Azimuth<br>[deg] | Level<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] | Result | Polarity   |
| 1     | 96.7494        | 150            | 188              | -73.61         | -13.00         | 60.61          | Pass   | Horizontal |
| 2     | 161.1702       | 150            | 341              | -64.98         | -13.00         | 51.98          | Pass   | Horizontal |
| 3     | 290.0120       | 150            | 117              | -67.60         | -13.00         | 54.60          | Pass   | Horizontal |
| 4     | 395.7632       | 150            | 128              | -63.79         | -13.00         | 50.79          | Pass   | Horizontal |
| 5     | 478.0356       | 150            | 128              | -56.48         | -13.00         | 43.48          | Pass   | Horizontal |
| 6     | 717.4795       | 150            | 153              | -66.79         | -13.00         | 53.79          | Pass   | Horizontal |
| 7     | 1265.4265      | 150            | 153              | -47.80         | -13.00         | 34.80          | Pass   | Horizontal |
| 8     | 3814.8000      | 150            | 110              | -50.52         | -13.00         | 37.52          | Pass   | Horizontal |
| 9     | 5722.2000      | 150            | 72               | -51.09         | -13.00         | 38.09          | Pass   | Horizontal |
| 10    | 7629.6000      | 150            | 33               | -46.63         | -13.00         | 33.63          | Pass   | Horizontal |
| 11    | 9727.8364      | 150            | 265              | -41.66         | -13.00         | 28.66          | Pass   | Horizontal |
| 12    | 15032.1016     | 150            | 33               | -35.44         | -13.00         | 22.44          | Pass   | Horizontal |

| Mode: |                | HSUPA Traffic  |                  |                |                |                |        |          |
|-------|----------------|----------------|------------------|----------------|----------------|----------------|--------|----------|
| Band: |                | II             |                  | Channel:       |                | 9537           |        |          |
| NO.   | Freq.<br>[MHz] | Height<br>[cm] | Azimuth<br>[deg] | Level<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] | Result | Polarity |
| 1     | 49.9860        | 150            | 106              | -66.48         | -13.00         | 53.48          | Pass   | Vertical |
| 2     | 208.9038       | 150            | 354              | -69.78         | -13.00         | 56.78          | Pass   | Vertical |
| 3     | 289.8180       | 150            | 360              | -71.26         | -13.00         | 58.26          | Pass   | Vertical |
| 4     | 479.1998       | 150            | 154              | -66.39         | -13.00         | 53.39          | Pass   | Vertical |
| 5     | 599.8920       | 150            | 48               | -67.44         | -13.00         | 54.44          | Pass   | Vertical |
| 6     | 738.2416       | 150            | 154              | -67.13         | -13.00         | 54.13          | Pass   | Vertical |
| 7     | 1325.4325      | 150            | 12               | -48.20         | -13.00         | 35.20          | Pass   | Vertical |
| 8     | 3814.8000      | 150            | 130              | -50.35         | -13.00         | 37.35          | Pass   | Vertical |
| 9     | 5722.2000      | 150            | 246              | -50.96         | -13.00         | 37.96          | Pass   | Vertical |
| 10    | 7629.6000      | 150            | 91               | -47.38         | -13.00         | 34.38          | Pass   | Vertical |
| 11    | 11792.6896     | 150            | 14               | -41.56         | -13.00         | 28.56          | Pass   | Vertical |
| 12    | 15032.1016     | 150            | 70               | -35.04         | -13.00         | 22.04          | Pass   | Vertical |



| Mode: |             | WCDMA Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | IV            |               | Channel:    |             | 1313        |        |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 96.7494     | 150           | 167           | -71.96      | -13.00      | 58.96       | Pass   | Horizontal |
| 2     | 161.1702    | 150           | 13            | -63.61      | -13.00      | 50.61       | Pass   | Horizontal |
| 3     | 322.2224    | 150           | 143           | -65.77      | -13.00      | 52.77       | Pass   | Horizontal |
| 4     | 384.3149    | 150           | 120           | -63.27      | -13.00      | 50.27       | Pass   | Horizontal |
| 5     | 479.9760    | 150           | 238           | -54.09      | -13.00      | 41.09       | Pass   | Horizontal |
| 6     | 598.9218    | 150           | 321           | -62.18      | -13.00      | 49.18       | Pass   | Horizontal |
| 7     | 1274.8275   | 150           | 285           | -48.95      | -13.00      | 35.95       | Pass   | Horizontal |
| 8     | 3425.2000   | 150           | 55            | -50.18      | -13.00      | 37.18       | Pass   | Horizontal |
| 9     | 5137.8000   | 150           | 222           | -50.47      | -13.00      | 37.47       | Pass   | Horizontal |
| 10    | 6850.4000   | 150           | 182           | -50.26      | -13.00      | 37.26       | Pass   | Horizontal |
| 11    | 9762.3381   | 150           | 262           | -42.07      | -13.00      | 29.07       | Pass   | Horizontal |
| 12    | 15032.1016  | 150           | 359           | -34.82      | -13.00      | 21.82       | Pass   | Horizontal |

| Mode: |             | WCDMA Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | IV            |               | Channel:    |             | 1313        |        |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 53.4787     | 150           | 356           | -66.90      | -13.00      | 53.90       | Pass   | Vertical |
| 2     | 160.0060    | 150           | 332           | -71.66      | -13.00      | 58.66       | Pass   | Vertical |
| 3     | 199.0078    | 150           | 138           | -67.38      | -13.00      | 54.38       | Pass   | Vertical |
| 4     | 399.8380    | 150           | 273           | -68.29      | -13.00      | 55.29       | Pass   | Vertical |
| 5     | 480.1700    | 150           | 75            | -62.94      | -13.00      | 49.94       | Pass   | Vertical |
| 6     | 599.6979    | 150           | 332           | -61.43      | -13.00      | 48.43       | Pass   | Vertical |
| 7     | 1337.4337   | 150           | 259           | -48.81      | -13.00      | 35.81       | Pass   | Vertical |
| 8     | 3425.2000   | 150           | 49            | -49.66      | -13.00      | 36.66       | Pass   | Vertical |
| 9     | 5137.8000   | 150           | 263           | -50.52      | -13.00      | 37.52       | Pass   | Vertical |
| 10    | 6850.4000   | 150           | 167           | -49.63      | -13.00      | 36.63       | Pass   | Vertical |
| 11    | 11805.4403  | 150           | 10            | -41.37      | -13.00      | 28.37       | Pass   | Vertical |
| 12    | 15031.3516  | 150           | 146           | -35.44      | -13.00      | 22.44       | Pass   | Vertical |



| Mode: |             | WCDMA Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | IV            |               | Channel:    |             | 1450        |        |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 96.7494     | 150           | 179           | -73.03      | -13.00      | 60.03       | Pass   | Horizontal |
| 2     | 161.1702    | 150           | 2             | -64.79      | -13.00      | 51.79       | Pass   | Horizontal |
| 3     | 290.0120    | 150           | 132           | -67.92      | -13.00      | 54.92       | Pass   | Horizontal |
| 4     | 415.3611    | 150           | 14            | -63.47      | -13.00      | 50.47       | Pass   | Horizontal |
| 5     | 478.4237    | 150           | 132           | -57.15      | -13.00      | 44.15       | Pass   | Horizontal |
| 6     | 724.0768    | 150           | 346           | -66.42      | -13.00      | 53.42       | Pass   | Horizontal |
| 7     | 1293.8294   | 150           | 37            | -47.90      | -13.00      | 34.90       | Pass   | Horizontal |
| 8     | 3480.0000   | 150           | 126           | -50.32      | -13.00      | 37.32       | Pass   | Horizontal |
| 9     | 5220.0000   | 150           | 342           | -50.88      | -13.00      | 37.88       | Pass   | Horizontal |
| 10    | 6960.0000   | 150           | 65            | -48.88      | -13.00      | 35.88       | Pass   | Horizontal |
| 11    | 9666.3333   | 150           | 166           | -42.23      | -13.00      | 29.23       | Pass   | Horizontal |
| 12    | 15032.1016  | 150           | 126           | -35.15      | -13.00      | 22.15       | Pass   | Horizontal |

| Mode: |             | WCDMA Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | IV            |               | Channel:    |             | 1450        |        |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 96.7494     | 150           | 179           | -73.03      | -13.00      | 60.03       | Pass   | Vertical |
| 2     | 161.1702    | 150           | 2             | -64.79      | -13.00      | 51.79       | Pass   | Vertical |
| 3     | 290.0120    | 150           | 132           | -67.92      | -13.00      | 54.92       | Pass   | Vertical |
| 4     | 415.3611    | 150           | 14            | -63.47      | -13.00      | 50.47       | Pass   | Vertical |
| 5     | 478.4237    | 150           | 132           | -57.15      | -13.00      | 44.15       | Pass   | Vertical |
| 6     | 724.0768    | 150           | 346           | -66.42      | -13.00      | 53.42       | Pass   | Vertical |
| 7     | 1293.8294   | 150           | 37            | -47.90      | -13.00      | 34.90       | Pass   | Vertical |
| 8     | 3480.0000   | 150           | 126           | -50.32      | -13.00      | 37.32       | Pass   | Vertical |
| 9     | 5220.0000   | 150           | 342           | -50.88      | -13.00      | 37.88       | Pass   | Vertical |
| 10    | 6960.0000   | 150           | 65            | -48.88      | -13.00      | 35.88       | Pass   | Vertical |
| 11    | 9666.3333   | 150           | 166           | -42.23      | -13.00      | 29.23       | Pass   | Vertical |
| 12    | 15032.1016  | 150           | 126           | -35.15      | -13.00      | 22.15       | Pass   | Vertical |

| Mode: |             | WCDMA Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | IV            |               | Channel:    |             | 1512        |        |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 96.7494     | 150           | 193           | -75.17      | -13.00      | 62.17       | Pass   | Horizontal |
| 2     | 161.1702    | 150           | 357           | -63.38      | -13.00      | 50.38       | Pass   | Horizontal |
| 3     | 322.2224    | 150           | 121           | -68.04      | -13.00      | 55.04       | Pass   | Horizontal |
| 4     | 354.2388    | 150           | 287           | -65.40      | -13.00      | 52.40       | Pass   | Horizontal |
| 5     | 479.3939    | 150           | 144           | -50.60      | -13.00      | 37.60       | Pass   | Horizontal |
| 6     | 714.9570    | 150           | 108           | -66.46      | -13.00      | 53.46       | Pass   | Horizontal |
| 7     | 1319.0319   | 150           | 157           | -48.76      | -13.00      | 35.76       | Pass   | Horizontal |
| 8     | 3504.8000   | 150           | 64            | -49.76      | -13.00      | 36.76       | Pass   | Horizontal |
| 9     | 5257.2000   | 150           | 262           | -51.60      | -13.00      | 38.60       | Pass   | Horizontal |
| 10    | 7009.6000   | 150           | 183           | -48.22      | -13.00      | 35.22       | Pass   | Horizontal |
| 11    | 9765.3383   | 150           | 143           | -42.37      | -13.00      | 29.37       | Pass   | Horizontal |
| 12    | 15032.1016  | 150           | 222           | -35.52      | -13.00      | 22.52       | Pass   | Horizontal |

| Mode: |             | WCDMA Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | IV            |               | Channel:    |             | 1512        |        |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 50.9562     | 150           | 356           | -65.01      | -13.00      | 52.01       | Pass   | Vertical |
| 2     | 69.7780     | 150           | 214           | -72.94      | -13.00      | 59.94       | Pass   | Vertical |
| 3     | 199.7840    | 150           | 179           | -64.91      | -13.00      | 51.91       | Pass   | Vertical |
| 4     | 479.9760    | 150           | 156           | -67.87      | -13.00      | 54.87       | Pass   | Vertical |
| 5     | 598.5337    | 150           | 14            | -63.79      | -13.00      | 50.79       | Pass   | Vertical |
| 6     | 796.6473    | 150           | 191           | -64.79      | -13.00      | 51.79       | Pass   | Vertical |
| 7     | 1195.2195   | 150           | 285           | -45.08      | -13.00      | 32.08       | Pass   | Vertical |
| 8     | 3504.8000   | 150           | 144           | -49.60      | -13.00      | 36.60       | Pass   | Vertical |
| 9     | 5257.2000   | 150           | 47            | -51.78      | -13.00      | 38.78       | Pass   | Vertical |
| 10    | 7009.6000   | 150           | 47            | -49.33      | -13.00      | 36.33       | Pass   | Vertical |
| 11    | 9718.8359   | 150           | 65            | -43.25      | -13.00      | 30.25       | Pass   | Vertical |
| 12    | 15031.3516  | 150           | 302           | -35.49      | -13.00      | 22.49       | Pass   | Vertical |

| Mode: |             | HSDPA Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | IV            |               | Channel:    |             | 1313        |        |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 96.7494     | 150           | 146           | -70.34      | -13.00      | 57.34       | Pass   | Horizontal |
| 2     | 161.3643    | 150           | 324           | -64.99      | -13.00      | 51.99       | Pass   | Horizontal |
| 3     | 354.6269    | 150           | 276           | -64.71      | -13.00      | 51.71       | Pass   | Horizontal |
| 4     | 476.8714    | 150           | 122           | -57.18      | -13.00      | 44.18       | Pass   | Horizontal |
| 5     | 599.3099    | 150           | 300           | -63.71      | -13.00      | 50.71       | Pass   | Horizontal |
| 6     | 723.1066    | 150           | 133           | -65.92      | -13.00      | 52.92       | Pass   | Horizontal |
| 7     | 1399.4399   | 150           | 75            | -47.25      | -13.00      | 34.25       | Pass   | Horizontal |
| 8     | 3425.2000   | 150           | 57            | -49.29      | -13.00      | 36.29       | Pass   | Horizontal |
| 9     | 5137.8000   | 150           | 269           | -50.06      | -13.00      | 37.06       | Pass   | Horizontal |
| 10    | 6850.4000   | 150           | 57            | -50.01      | -13.00      | 37.01       | Pass   | Horizontal |
| 11    | 9766.0883   | 150           | 360           | -42.06      | -13.00      | 29.06       | Pass   | Horizontal |
| 12    | 15032.1016  | 150           | 191           | -35.73      | -13.00      | 22.73       | Pass   | Horizontal |

| Mode: |             | HSDPA Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | IV            |               | Channel:    |             | 1313        |        |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 50.9562     | 150           | 312           | -67.16      | -13.00      | 54.16       | Pass   | Vertical |
| 2     | 199.5899    | 150           | 205           | -65.36      | -13.00      | 52.36       | Pass   | Vertical |
| 3     | 399.4499    | 150           | 312           | -69.51      | -13.00      | 56.51       | Pass   | Vertical |
| 4     | 479.9760    | 150           | 5             | -58.80      | -13.00      | 45.80       | Pass   | Vertical |
| 5     | 598.9218    | 150           | 359           | -65.89      | -13.00      | 52.89       | Pass   | Vertical |
| 6     | 799.3639    | 150           | 230           | -67.02      | -13.00      | 54.02       | Pass   | Vertical |
| 7     | 1195.2195   | 150           | 170           | -46.66      | -13.00      | 33.66       | Pass   | Vertical |
| 8     | 3425.2000   | 150           | 75            | -49.92      | -13.00      | 36.92       | Pass   | Vertical |
| 9     | 5137.8000   | 150           | 153           | -49.82      | -13.00      | 36.82       | Pass   | Vertical |
| 10    | 6850.4000   | 150           | 360           | -49.26      | -13.00      | 36.26       | Pass   | Vertical |
| 11    | 8178.2589   | 150           | 75            | -43.54      | -13.00      | 30.54       | Pass   | Vertical |
| 12    | 15032.1016  | 150           | 269           | -35.33      | -13.00      | 22.33       | Pass   | Vertical |

| Mode: |             | HSDPA Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | IV            |               |             | Channel:    |             | 1450   |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 96.7494     | 150           | 158           | -70.30      | -13.00      | 57.30       | Pass   | Horizontal |
| 2     | 161.1702    | 150           | 359           | -64.78      | -13.00      | 51.78       | Pass   | Horizontal |
| 3     | 354.6269    | 150           | 265           | -66.21      | -13.00      | 53.21       | Pass   | Horizontal |
| 4     | 478.0356    | 150           | 134           | -57.19      | -13.00      | 44.19       | Pass   | Horizontal |
| 5     | 599.8920    | 150           | 324           | -66.25      | -13.00      | 53.25       | Pass   | Horizontal |
| 6     | 725.8232    | 150           | 28            | -66.74      | -13.00      | 53.74       | Pass   | Horizontal |
| 7     | 1396.8397   | 150           | 76            | -47.56      | -13.00      | 34.56       | Pass   | Horizontal |
| 8     | 3480.0000   | 150           | 328           | -49.53      | -13.00      | 36.53       | Pass   | Horizontal |
| 9     | 5220.0000   | 150           | 269           | -50.50      | -13.00      | 37.50       | Pass   | Horizontal |
| 10    | 6960.0000   | 150           | 230           | -48.42      | -13.00      | 35.42       | Pass   | Horizontal |
| 11    | 9755.5878   | 150           | 360           | -42.30      | -13.00      | 29.30       | Pass   | Horizontal |
| 12    | 15031.3516  | 150           | 75            | -35.36      | -13.00      | 22.36       | Pass   | Horizontal |

| Mode: |             | HSDPA Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | IV            |               |             | Channel:    |             | 1450   |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 51.7323     | 150           | 265           | -66.90      | -13.00      | 53.90       | Pass   | Vertical |
| 2     | 69.5839     | 150           | 148           | -72.49      | -13.00      | 59.49       | Pass   | Vertical |
| 3     | 199.7840    | 150           | 148           | -64.16      | -13.00      | 51.16       | Pass   | Vertical |
| 4     | 480.3641    | 150           | 148           | -67.05      | -13.00      | 54.05       | Pass   | Vertical |
| 5     | 597.5635    | 150           | 29            | -66.68      | -13.00      | 53.68       | Pass   | Vertical |
| 6     | 723.1066    | 150           | 148           | -66.89      | -13.00      | 53.89       | Pass   | Vertical |
| 7     | 1199.4199   | 150           | 325           | -47.77      | -13.00      | 34.77       | Pass   | Vertical |
| 8     | 3480.0000   | 150           | 212           | -49.70      | -13.00      | 36.70       | Pass   | Vertical |
| 9     | 5220.0000   | 150           | 152           | -50.96      | -13.00      | 37.96       | Pass   | Vertical |
| 10    | 6960.0000   | 150           | 328           | -49.20      | -13.00      | 36.20       | Pass   | Vertical |
| 11    | 11191.1596  | 150           | 173           | -41.85      | -13.00      | 28.85       | Pass   | Vertical |
| 12    | 15032.1016  | 150           | 191           | -35.60      | -13.00      | 22.60       | Pass   | Vertical |

| Mode: |             | HSDPA Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | IV            |               | Channel:    |             | 1512        |        |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 96.7494     | 150           | 181           | -69.89      | -13.00      | 56.89       | Pass   | Horizontal |
| 2     | 161.3643    | 150           | 3             | -64.45      | -13.00      | 51.45       | Pass   | Horizontal |
| 3     | 180.3801    | 150           | 157           | -68.07      | -13.00      | 55.07       | Pass   | Horizontal |
| 4     | 354.6269    | 150           | 288           | -65.48      | -13.00      | 52.48       | Pass   | Horizontal |
| 5     | 479.5879    | 150           | 132           | -57.35      | -13.00      | 44.35       | Pass   | Horizontal |
| 6     | 751.2422    | 150           | 192           | -66.45      | -13.00      | 53.45       | Pass   | Horizontal |
| 7     | 1274.2274   | 150           | 157           | -47.92      | -13.00      | 34.92       | Pass   | Horizontal |
| 8     | 3504.8000   | 150           | 137           | -49.88      | -13.00      | 36.88       | Pass   | Horizontal |
| 9     | 5257.2000   | 150           | 216           | -51.62      | -13.00      | 38.62       | Pass   | Horizontal |
| 10    | 7009.6000   | 150           | 97            | -47.19      | -13.00      | 34.19       | Pass   | Horizontal |
| 11    | 11751.4376  | 150           | 216           | -40.93      | -13.00      | 27.93       | Pass   | Horizontal |
| 12    | 15032.1016  | 150           | 137           | -34.65      | -13.00      | 21.65       | Pass   | Horizontal |

| Mode: |             | HSDPA Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | IV            |               | Channel:    |             | 1512        |        |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 49.9860     | 150           | 170           | -67.07      | -13.00      | 54.07       | Pass   | Vertical |
| 2     | 69.9720     | 150           | 123           | -72.52      | -13.00      | 59.52       | Pass   | Vertical |
| 3     | 208.9038    | 150           | 324           | -69.59      | -13.00      | 56.59       | Pass   | Vertical |
| 4     | 478.4237    | 150           | 147           | -67.01      | -13.00      | 54.01       | Pass   | Vertical |
| 5     | 597.3695    | 150           | 347           | -64.49      | -13.00      | 51.49       | Pass   | Vertical |
| 6     | 725.8232    | 150           | 158           | -66.46      | -13.00      | 53.46       | Pass   | Vertical |
| 7     | 1195.0195   | 150           | 158           | -46.67      | -13.00      | 33.67       | Pass   | Vertical |
| 8     | 3504.8000   | 150           | 352           | -48.76      | -13.00      | 35.76       | Pass   | Vertical |
| 9     | 5257.2000   | 150           | 313           | -51.48      | -13.00      | 38.48       | Pass   | Vertical |
| 10    | 7009.6000   | 150           | 273           | -47.84      | -13.00      | 34.84       | Pass   | Vertical |
| 11    | 9702.3351   | 150           | 273           | -42.83      | -13.00      | 29.83       | Pass   | Vertical |
| 12    | 15032.1016  | 150           | 137           | -35.01      | -13.00      | 22.01       | Pass   | Vertical |



| Mode: |                | HSUPA Traffic  |                  |                |                |                |        |            |
|-------|----------------|----------------|------------------|----------------|----------------|----------------|--------|------------|
| Band: |                | IV             |                  | Channel:       |                | 1313           |        |            |
| NO.   | Freq.<br>[MHz] | Height<br>[cm] | Azimuth<br>[deg] | Level<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] | Result | Polarity   |
| 1     | 96.7494        | 150            | 207              | -71.61         | -13.00         | 58.61          | Pass   | Horizontal |
| 2     | 161.3643       | 150            | 348              | -64.74         | -13.00         | 51.74          | Pass   | Horizontal |
| 3     | 290.4001       | 150            | 112              | -67.85         | -13.00         | 54.85          | Pass   | Horizontal |
| 4     | 455.3331       | 150            | 158              | -60.08         | -13.00         | 47.08          | Pass   | Horizontal |
| 5     | 479.9760       | 150            | 100              | -49.65         | -13.00         | 36.65          | Pass   | Horizontal |
| 6     | 724.6589       | 150            | 112              | -65.79         | -13.00         | 52.79          | Pass   | Horizontal |
| 7     | 1195.8196      | 150            | 322              | -48.56         | -13.00         | 35.56          | Pass   | Horizontal |
| 8     | 3425.2000      | 150            | 359              | -50.39         | -13.00         | 37.39          | Pass   | Horizontal |
| 9     | 5137.8000      | 150            | 303              | -50.17         | -13.00         | 37.17          | Pass   | Horizontal |
| 10    | 6850.4000      | 150            | 344              | -50.47         | -13.00         | 37.47          | Pass   | Horizontal |
| 11    | 9730.8365      | 150            | 22               | -41.49         | -13.00         | 28.49          | Pass   | Horizontal |
| 12    | 15032.1016     | 150            | 303              | -34.86         | -13.00         | 21.86          | Pass   | Horizontal |

| Mode: |                | HSUPA Traffic  |                  |                |                |                |        |          |
|-------|----------------|----------------|------------------|----------------|----------------|----------------|--------|----------|
| Band: |                | IV             |                  | Channel:       |                | 1313           |        |          |
| NO.   | Freq.<br>[MHz] | Height<br>[cm] | Azimuth<br>[deg] | Level<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] | Result | Polarity |
| 1     | 51.3443        | 150            | 95               | -65.69         | -13.00         | 52.69          | Pass   | Vertical |
| 2     | 208.9038       | 150            | 169              | -69.80         | -13.00         | 56.80          | Pass   | Vertical |
| 3     | 290.2060       | 150            | 24               | -70.71         | -13.00         | 57.71          | Pass   | Vertical |
| 4     | 399.2559       | 150            | 169              | -67.14         | -13.00         | 54.14          | Pass   | Vertical |
| 5     | 597.5635       | 150            | 306              | -67.39         | -13.00         | 54.39          | Pass   | Vertical |
| 6     | 732.6145       | 150            | 130              | -65.91         | -13.00         | 52.91          | Pass   | Vertical |
| 7     | 1197.8198      | 150            | 306              | -46.93         | -13.00         | 33.93          | Pass   | Vertical |
| 8     | 3425.2000      | 150            | 344              | -50.18         | -13.00         | 37.18          | Pass   | Vertical |
| 9     | 5137.8000      | 150            | 18               | -50.48         | -13.00         | 37.48          | Pass   | Vertical |
| 10    | 6850.4000      | 150            | 360              | -48.64         | -13.00         | 35.64          | Pass   | Vertical |
| 11    | 9553.0777      | 150            | 36               | -43.28         | -13.00         | 30.28          | Pass   | Vertical |
| 12    | 15031.3516     | 150            | 267              | -34.85         | -13.00         | 21.85          | Pass   | Vertical |



| Mode: |             | HSUPA Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | IV            |               | Channel:    |             | 1450        |        |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 96.7494     | 150           | 159           | -69.49      | -13.00      | 56.49       | Pass   | Horizontal |
| 2     | 161.1702    | 150           | 0             | -64.41      | -13.00      | 51.41       | Pass   | Horizontal |
| 3     | 398.2857    | 150           | 78            | -64.53      | -13.00      | 51.53       | Pass   | Horizontal |
| 4     | 478.0356    | 150           | 124           | -57.10      | -13.00      | 44.10       | Pass   | Horizontal |
| 5     | 599.1158    | 150           | 324           | -63.33      | -13.00      | 50.33       | Pass   | Horizontal |
| 6     | 752.0184    | 150           | 336           | -67.38      | -13.00      | 54.38       | Pass   | Horizontal |
| 7     | 1354.2354   | 150           | 17            | -48.61      | -13.00      | 35.61       | Pass   | Horizontal |
| 8     | 3480.0000   | 150           | 360           | -50.64      | -13.00      | 37.64       | Pass   | Horizontal |
| 9     | 5220.0000   | 150           | 18            | -50.79      | -13.00      | 37.79       | Pass   | Horizontal |
| 10    | 6960.0000   | 150           | 134           | -49.10      | -13.00      | 36.10       | Pass   | Horizontal |
| 11    | 9616.8308   | 150           | 75            | -42.92      | -13.00      | 29.92       | Pass   | Horizontal |
| 12    | 15032.1016  | 150           | 57            | -35.89      | -13.00      | 22.89       | Pass   | Horizontal |

| Mode: |             | HSUPA Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | IV            |               | Channel:    |             | 1450        |        |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 52.5085     | 150           | 290           | -65.54      | -13.00      | 52.54       | Pass   | Vertical |
| 2     | 199.5899    | 150           | 146           | -63.04      | -13.00      | 50.04       | Pass   | Vertical |
| 3     | 290.0120    | 150           | 2             | -71.08      | -13.00      | 58.08       | Pass   | Vertical |
| 4     | 479.7820    | 150           | 72            | -66.35      | -13.00      | 53.35       | Pass   | Vertical |
| 5     | 599.5039    | 150           | 325           | -66.23      | -13.00      | 53.23       | Pass   | Vertical |
| 6     | 838.5597    | 150           | 36            | -66.58      | -13.00      | 53.58       | Pass   | Vertical |
| 7     | 1196.8197   | 150           | 158           | -45.83      | -13.00      | 32.83       | Pass   | Vertical |
| 8     | 3480.0000   | 150           | 356           | -49.30      | -13.00      | 36.30       | Pass   | Vertical |
| 9     | 5220.0000   | 150           | 338           | -50.80      | -13.00      | 37.80       | Pass   | Vertical |
| 10    | 6960.0000   | 150           | 338           | -49.19      | -13.00      | 36.19       | Pass   | Vertical |
| 11    | 9818.5909   | 150           | 237           | -42.48      | -13.00      | 29.48       | Pass   | Vertical |
| 12    | 15032.1016  | 150           | 140           | -35.65      | -13.00      | 22.65       | Pass   | Vertical |

| Mode: |             | HSUPA Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | IV            |               | Channel:    |             | 1512        |        |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 96.9434     | 150           | 157           | -70.13      | -13.00      | 57.13       | Pass   | Horizontal |
| 2     | 161.3643    | 150           | 359           | -63.66      | -13.00      | 50.66       | Pass   | Horizontal |
| 3     | 322.6105    | 150           | 121           | -68.11      | -13.00      | 55.11       | Pass   | Horizontal |
| 4     | 399.2559    | 150           | 110           | -63.65      | -13.00      | 50.65       | Pass   | Horizontal |
| 5     | 477.2595    | 150           | 133           | -57.20      | -13.00      | 44.20       | Pass   | Horizontal |
| 6     | 599.8920    | 150           | 300           | -62.11      | -13.00      | 49.11       | Pass   | Horizontal |
| 7     | 1397.2397   | 150           | 359           | -46.96      | -13.00      | 33.96       | Pass   | Horizontal |
| 8     | 3504.8000   | 150           | 236           | -49.58      | -13.00      | 36.58       | Pass   | Horizontal |
| 9     | 5257.2000   | 150           | 218           | -51.05      | -13.00      | 38.05       | Pass   | Horizontal |
| 10    | 7009.6000   | 150           | 297           | -48.56      | -13.00      | 35.56       | Pass   | Horizontal |
| 11    | 9775.0888   | 150           | 218           | -42.39      | -13.00      | 29.39       | Pass   | Horizontal |
| 12    | 15031.3516  | 150           | 218           | -35.74      | -13.00      | 22.74       | Pass   | Horizontal |

| Mode: |             | HSUPA Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | IV            |               | Channel:    |             | 1512        |        |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 48.6277     | 150           | 144           | -65.69      | -13.00      | 52.69       | Pass   | Vertical |
| 2     | 161.3643    | 150           | 2             | -72.77      | -13.00      | 59.77       | Pass   | Vertical |
| 3     | 199.7840    | 150           | 191           | -65.14      | -13.00      | 52.14       | Pass   | Vertical |
| 4     | 480.3641    | 150           | 131           | -61.29      | -13.00      | 48.29       | Pass   | Vertical |
| 5     | 597.3695    | 150           | 346           | -63.64      | -13.00      | 50.64       | Pass   | Vertical |
| 6     | 722.3305    | 150           | 155           | -66.04      | -13.00      | 53.04       | Pass   | Vertical |
| 7     | 1197.4197   | 150           | 299           | -46.33      | -13.00      | 33.33       | Pass   | Vertical |
| 8     | 3504.8000   | 150           | 275           | -49.23      | -13.00      | 36.23       | Pass   | Vertical |
| 9     | 5257.2000   | 150           | 336           | -50.37      | -13.00      | 37.37       | Pass   | Vertical |
| 10    | 7009.6000   | 150           | 315           | -49.96      | -13.00      | 36.96       | Pass   | Vertical |
| 11    | 10243.1122  | 150           | 76            | -43.02      | -13.00      | 30.02       | Pass   | Vertical |
| 12    | 15032.1016  | 150           | 138           | -35.98      | -13.00      | 22.98       | Pass   | Vertical |

| Mode: |             | WCDMA Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | V             |               |             | Channel:    |             | 4133   |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 49.5979     | 150           | 349           | -78.78      | -13.00      | 65.78       | Pass   | Horizontal |
| 2     | 96.9434     | 150           | 160           | -70.15      | -13.00      | 57.15       | Pass   | Horizontal |
| 3     | 161.1702    | 150           | 359           | -64.98      | -13.00      | 51.98       | Pass   | Horizontal |
| 4     | 398.2857    | 150           | 278           | -63.21      | -13.00      | 50.21       | Pass   | Horizontal |
| 5     | 477.6475    | 150           | 124           | -57.29      | -13.00      | 44.29       | Pass   | Horizontal |
| 6     | 599.6979    | 150           | 124           | -63.28      | -13.00      | 50.28       | Pass   | Horizontal |
| 7     | 1653.2000   | 150           | 231           | -53.92      | -13.00      | 40.92       | Pass   | Horizontal |
| 8     | 2479.8000   | 150           | 89            | -50.10      | -13.00      | 37.10       | Pass   | Horizontal |
| 9     | 3306.4000   | 150           | 360           | -50.84      | -13.00      | 37.84       | Pass   | Horizontal |
| 10    | 6432.9216   | 150           | 96            | -46.94      | -13.00      | 33.94       | Pass   | Horizontal |
| 11    | 9738.3369   | 150           | 269           | -42.84      | -13.00      | 29.84       | Pass   | Horizontal |
| 12    | 15032.1016  | 150           | 75            | -35.27      | -13.00      | 22.27       | Pass   | Horizontal |

| Mode: |             | WCDMA Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | V             |               |             | Channel:    |             | 4133   |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 51.3443     | 150           | 336           | -66.32      | -13.00      | 53.32       | Pass   | Vertical |
| 2     | 71.3303     | 150           | 300           | -72.68      | -13.00      | 59.68       | Pass   | Vertical |
| 3     | 199.9780    | 150           | 134           | -66.63      | -13.00      | 53.63       | Pass   | Vertical |
| 4     | 399.6439    | 150           | 265           | -67.61      | -13.00      | 54.61       | Pass   | Vertical |
| 5     | 480.3641    | 150           | 148           | -66.82      | -13.00      | 53.82       | Pass   | Vertical |
| 6     | 599.8920    | 150           | 17            | -65.12      | -13.00      | 52.12       | Pass   | Vertical |
| 7     | 1653.2000   | 150           | 265           | -53.95      | -13.00      | 40.95       | Pass   | Vertical |
| 8     | 2479.8000   | 150           | 64            | -50.41      | -13.00      | 37.41       | Pass   | Vertical |
| 9     | 3306.4000   | 150           | 36            | -48.82      | -13.00      | 35.82       | Pass   | Vertical |
| 10    | 6504.9252   | 150           | 1             | -47.54      | -13.00      | 34.54       | Pass   | Vertical |
| 11    | 9764.5882   | 150           | 269           | -43.09      | -13.00      | 30.09       | Pass   | Vertical |
| 12    | 15032.8516  | 150           | 75            | -35.68      | -13.00      | 22.68       | Pass   | Vertical |

| Mode: |             | WCDMA Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | V             |               | Channel:    |             | 4175        |        |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 96.7494     | 150           | 159           | -72.46      | -13.00      | 59.46       | Pass   | Horizontal |
| 2     | 161.3643    | 150           | 347           | -64.28      | -13.00      | 51.28       | Pass   | Horizontal |
| 3     | 199.7840    | 150           | 99            | -64.95      | -13.00      | 51.95       | Pass   | Horizontal |
| 4     | 355.0150    | 150           | 289           | -66.61      | -13.00      | 53.61       | Pass   | Horizontal |
| 5     | 480.3641    | 150           | 301           | -55.57      | -13.00      | 42.57       | Pass   | Horizontal |
| 6     | 740.1820    | 150           | 147           | -66.45      | -13.00      | 53.45       | Pass   | Horizontal |
| 7     | 1670.0000   | 150           | 359           | -53.24      | -13.00      | 40.24       | Pass   | Horizontal |
| 8     | 2505.0000   | 150           | 325           | -50.26      | -13.00      | 37.26       | Pass   | Horizontal |
| 9     | 3340.0000   | 150           | 308           | -51.11      | -13.00      | 38.11       | Pass   | Horizontal |
| 10    | 5046.1023   | 150           | 75            | -47.00      | -13.00      | 34.00       | Pass   | Horizontal |
| 11    | 9718.8359   | 150           | 75            | -42.64      | -13.00      | 29.64       | Pass   | Horizontal |
| 12    | 15032.1016  | 150           | 1             | -36.20      | -13.00      | 23.20       | Pass   | Horizontal |

| Mode: |             | WCDMA Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | V             |               | Channel:    |             | 4175        |        |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 50.7622     | 150           | 325           | -66.89      | -13.00      | 53.89       | Pass   | Vertical |
| 2     | 69.7780     | 150           | 300           | -73.05      | -13.00      | 60.05       | Pass   | Vertical |
| 3     | 199.5899    | 150           | 194           | -65.85      | -13.00      | 52.85       | Pass   | Vertical |
| 4     | 398.2857    | 150           | 218           | -67.10      | -13.00      | 54.10       | Pass   | Vertical |
| 5     | 480.7522    | 150           | 276           | -63.24      | -13.00      | 50.24       | Pass   | Vertical |
| 6     | 597.3695    | 150           | 0             | -65.79      | -13.00      | 52.79       | Pass   | Vertical |
| 7     | 1670.0000   | 150           | 194           | -52.97      | -13.00      | 39.97       | Pass   | Vertical |
| 8     | 2505.0000   | 150           | 241           | -50.12      | -13.00      | 37.12       | Pass   | Vertical |
| 9     | 3340.0000   | 150           | 96            | -51.16      | -13.00      | 38.16       | Pass   | Vertical |
| 10    | 6428.4214   | 150           | 96            | -47.38      | -13.00      | 34.38       | Pass   | Vertical |
| 11    | 9708.3354   | 150           | 57            | -42.27      | -13.00      | 29.27       | Pass   | Vertical |
| 12    | 15032.1016  | 150           | 360           | -35.61      | -13.00      | 22.61       | Pass   | Vertical |

| Mode: |             | WCDMA Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | V             |               |             | Channel:    |             | 4232   |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 96.7494     | 150           | 164           | -71.02      | -13.00      | 58.02       | Pass   | Horizontal |
| 2     | 161.1702    | 150           | 336           | -64.17      | -13.00      | 51.17       | Pass   | Horizontal |
| 3     | 398.4797    | 150           | 118           | -64.54      | -13.00      | 51.54       | Pass   | Horizontal |
| 4     | 477.2595    | 150           | 118           | -57.18      | -13.00      | 44.18       | Pass   | Horizontal |
| 5     | 597.3695    | 150           | 298           | -64.35      | -13.00      | 51.35       | Pass   | Horizontal |
| 6     | 744.6449    | 150           | 23            | -65.20      | -13.00      | 52.20       | Pass   | Horizontal |
| 7     | 1692.8000   | 150           | 58            | -53.26      | -13.00      | 40.26       | Pass   | Horizontal |
| 8     | 2539.2000   | 150           | 106           | -50.37      | -13.00      | 37.37       | Pass   | Horizontal |
| 9     | 3185.6000   | 150           | 152           | -48.79      | -13.00      | 35.79       | Pass   | Horizontal |
| 10    | 5145.1073   | 150           | 96            | -48.54      | -13.00      | 35.54       | Pass   | Horizontal |
| 11    | 9744.3372   | 150           | 307           | -41.62      | -13.00      | 28.62       | Pass   | Horizontal |
| 12    | 15032.1016  | 150           | 328           | -36.00      | -13.00      | 23.00       | Pass   | Horizontal |

| Mode: |             | WCDMA Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | V             |               |             | Channel:    |             | 4232   |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 50.9562     | 150           | 0             | -67.05      | -13.00      | 54.05       | Pass   | Vertical |
| 2     | 199.2018    | 150           | 171           | -66.75      | -13.00      | 53.75       | Pass   | Vertical |
| 3     | 290.2060    | 150           | 347           | -71.82      | -13.00      | 58.82       | Pass   | Vertical |
| 4     | 399.8380    | 150           | 218           | -68.72      | -13.00      | 55.72       | Pass   | Vertical |
| 5     | 478.0356    | 150           | 148           | -66.88      | -13.00      | 53.88       | Pass   | Vertical |
| 6     | 599.6979    | 150           | 300           | -65.63      | -13.00      | 52.63       | Pass   | Vertical |
| 7     | 1692.8000   | 150           | 6             | -53.31      | -13.00      | 40.31       | Pass   | Vertical |
| 8     | 2539.2000   | 150           | 325           | -48.38      | -13.00      | 35.38       | Pass   | Vertical |
| 9     | 3185.6000   | 150           | 36            | -45.27      | -13.00      | 32.27       | Pass   | Vertical |
| 10    | 5144.3572   | 150           | 173           | -48.89      | -13.00      | 35.89       | Pass   | Vertical |
| 11    | 8173.0087   | 150           | 251           | -43.61      | -13.00      | 30.61       | Pass   | Vertical |
| 12    | 15032.1016  | 150           | 191           | -35.11      | -13.00      | 22.11       | Pass   | Vertical |



| Mode: |             | HSDPA Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | V             |               | Channel:    |             | 4133        |        |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 96.7494     | 150           | 161           | -70.36      | -13.00      | 57.36       | Pass   | Horizontal |
| 2     | 161.1702    | 150           | 359           | -64.17      | -13.00      | 51.17       | Pass   | Horizontal |
| 3     | 395.1810    | 150           | 114           | -65.50      | -13.00      | 52.50       | Pass   | Horizontal |
| 4     | 478.4237    | 150           | 125           | -57.34      | -13.00      | 44.34       | Pass   | Horizontal |
| 5     | 598.1456    | 150           | 326           | -63.24      | -13.00      | 50.24       | Pass   | Horizontal |
| 6     | 725.8232    | 150           | 137           | -66.01      | -13.00      | 53.01       | Pass   | Horizontal |
| 7     | 1653.2000   | 150           | 291           | -53.43      | -13.00      | 40.43       | Pass   | Horizontal |
| 8     | 2479.8000   | 150           | 79            | -49.74      | -13.00      | 36.74       | Pass   | Horizontal |
| 9     | 3306.4000   | 150           | 135           | -49.74      | -13.00      | 36.74       | Pass   | Horizontal |
| 10    | 5054.3527   | 150           | 292           | -47.59      | -13.00      | 34.59       | Pass   | Horizontal |
| 11    | 9760.0880   | 150           | 349           | -42.67      | -13.00      | 29.67       | Pass   | Horizontal |
| 12    | 15032.1016  | 150           | 57            | -35.52      | -13.00      | 22.52       | Pass   | Horizontal |

| Mode: |             | HSDPA Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | V             |               | Channel:    |             | 4133        |        |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 48.4337     | 150           | 241           | -65.41      | -13.00      | 52.41       | Pass   | Vertical |
| 2     | 71.9124     | 150           | 53            | -71.65      | -13.00      | 58.65       | Pass   | Vertical |
| 3     | 199.0078    | 150           | 135           | -66.33      | -13.00      | 53.33       | Pass   | Vertical |
| 4     | 290.0120    | 150           | 0             | -71.12      | -13.00      | 58.12       | Pass   | Vertical |
| 5     | 477.6475    | 150           | 265           | -67.15      | -13.00      | 54.15       | Pass   | Vertical |
| 6     | 598.5337    | 150           | 42            | -64.86      | -13.00      | 51.86       | Pass   | Vertical |
| 7     | 1653.2000   | 150           | 6             | -52.47      | -13.00      | 39.47       | Pass   | Vertical |
| 8     | 2479.8000   | 150           | 218           | -50.37      | -13.00      | 37.37       | Pass   | Vertical |
| 9     | 3306.4000   | 150           | 1             | -49.51      | -13.00      | 36.51       | Pass   | Vertical |
| 10    | 6481.6741   | 150           | 173           | -47.45      | -13.00      | 34.45       | Pass   | Vertical |
| 11    | 9688.0844   | 150           | 18            | -42.01      | -13.00      | 29.01       | Pass   | Vertical |
| 12    | 15032.1016  | 150           | 212           | -35.63      | -13.00      | 22.63       | Pass   | Vertical |



| Mode: |             | HSDPA Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | V             |               | Channel:    |             | 4175        |        |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 96.7494     | 150           | 172           | -70.36      | -13.00      | 57.36       | Pass   | Horizontal |
| 2     | 161.1702    | 150           | 0             | -65.53      | -13.00      | 52.53       | Pass   | Horizontal |
| 3     | 322.4165    | 150           | 136           | -66.73      | -13.00      | 53.73       | Pass   | Horizontal |
| 4     | 479.1998    | 150           | 125           | -57.11      | -13.00      | 44.11       | Pass   | Horizontal |
| 5     | 597.5635    | 150           | 312           | -64.05      | -13.00      | 51.05       | Pass   | Horizontal |
| 6     | 742.5105    | 150           | 336           | -67.37      | -13.00      | 54.37       | Pass   | Horizontal |
| 7     | 1670.0000   | 150           | 125           | -53.48      | -13.00      | 40.48       | Pass   | Horizontal |
| 8     | 2505.0000   | 150           | 66            | -50.12      | -13.00      | 37.12       | Pass   | Horizontal |
| 9     | 3340.0000   | 150           | 249           | -50.07      | -13.00      | 37.07       | Pass   | Horizontal |
| 10    | 6413.4207   | 150           | 305           | -46.71      | -13.00      | 33.71       | Pass   | Horizontal |
| 11    | 9693.3347   | 150           | 287           | -42.05      | -13.00      | 29.05       | Pass   | Horizontal |
| 12    | 15032.1016  | 150           | 1             | -35.21      | -13.00      | 22.21       | Pass   | Horizontal |

| Mode: |             | HSDPA Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | V             |               | Channel:    |             | 4175        |        |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 50.7622     | 150           | 266           | -65.95      | -13.00      | 52.95       | Pass   | Vertical |
| 2     | 69.7780     | 150           | 43            | -71.04      | -13.00      | 58.04       | Pass   | Vertical |
| 3     | 208.9038    | 150           | 160           | -69.53      | -13.00      | 56.53       | Pass   | Vertical |
| 4     | 290.4001    | 150           | 348           | -70.31      | -13.00      | 57.31       | Pass   | Vertical |
| 5     | 479.5879    | 150           | 149           | -66.63      | -13.00      | 53.63       | Pass   | Vertical |
| 6     | 597.7576    | 150           | 160           | -69.35      | -13.00      | 56.35       | Pass   | Vertical |
| 7     | 1670.0000   | 150           | 54            | -53.15      | -13.00      | 40.15       | Pass   | Vertical |
| 8     | 2505.0000   | 150           | 113           | -49.43      | -13.00      | 36.43       | Pass   | Vertical |
| 9     | 3340.0000   | 150           | 95            | -50.95      | -13.00      | 37.95       | Pass   | Vertical |
| 10    | 6369.9185   | 150           | 228           | -48.09      | -13.00      | 35.09       | Pass   | Vertical |
| 11    | 11766.4383  | 150           | 249           | -41.81      | -13.00      | 28.81       | Pass   | Vertical |
| 12    | 15032.1016  | 150           | 287           | -36.50      | -13.00      | 23.50       | Pass   | Vertical |

| Mode: |             | HSDPA Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | V             |               | Channel:    |             | 4232        |        |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 96.7494     | 150           | 148           | -69.89      | -13.00      | 56.89       | Pass   | Horizontal |
| 2     | 161.3643    | 150           | 347           | -64.33      | -13.00      | 51.33       | Pass   | Horizontal |
| 3     | 290.2060    | 150           | 136           | -67.78      | -13.00      | 54.78       | Pass   | Horizontal |
| 4     | 479.1998    | 150           | 125           | -57.15      | -13.00      | 44.15       | Pass   | Horizontal |
| 5     | 600.0860    | 150           | 325           | -63.41      | -13.00      | 50.41       | Pass   | Horizontal |
| 6     | 722.7185    | 150           | 113           | -64.09      | -13.00      | 51.09       | Pass   | Horizontal |
| 7     | 1692.8000   | 150           | 171           | -53.75      | -13.00      | 40.75       | Pass   | Horizontal |
| 8     | 2539.2000   | 150           | 242           | -49.61      | -13.00      | 36.61       | Pass   | Horizontal |
| 9     | 3185.6000   | 150           | 172           | -48.00      | -13.00      | 35.00       | Pass   | Horizontal |
| 10    | 5137.6069   | 150           | 228           | -48.02      | -13.00      | 35.02       | Pass   | Horizontal |
| 11    | 9691.0846   | 150           | 18            | -42.41      | -13.00      | 29.41       | Pass   | Horizontal |
| 12    | 15032.1016  | 150           | 172           | -35.82      | -13.00      | 22.82       | Pass   | Horizontal |

| Mode: |             | HSDPA Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | V             |               | Channel:    |             | 4232        |        |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 50.7622     | 150           | 136           | -65.60      | -13.00      | 52.60       | Pass   | Vertical |
| 2     | 199.5899    | 150           | 195           | -65.95      | -13.00      | 52.95       | Pass   | Vertical |
| 3     | 290.2060    | 150           | 9             | -71.42      | -13.00      | 58.42       | Pass   | Vertical |
| 4     | 398.2857    | 150           | 149           | -71.35      | -13.00      | 58.35       | Pass   | Vertical |
| 5     | 479.9760    | 150           | 301           | -62.30      | -13.00      | 49.30       | Pass   | Vertical |
| 6     | 597.3695    | 150           | 348           | -64.95      | -13.00      | 51.95       | Pass   | Vertical |
| 7     | 1692.8000   | 150           | 31            | -53.41      | -13.00      | 40.41       | Pass   | Vertical |
| 8     | 2539.2000   | 150           | 325           | -49.49      | -13.00      | 36.49       | Pass   | Vertical |
| 9     | 3185.6000   | 150           | 36            | -46.54      | -13.00      | 33.54       | Pass   | Vertical |
| 10    | 5045.3523   | 150           | 113           | -48.49      | -13.00      | 35.49       | Pass   | Vertical |
| 11    | 9770.5885   | 150           | 18            | -42.84      | -13.00      | 29.84       | Pass   | Vertical |
| 12    | 15032.8516  | 150           | 18            | -35.71      | -13.00      | 22.71       | Pass   | Vertical |

| Mode: |             | HSUPA Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | V             |               | Channel:    |             | 4133        |        |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 96.7494     | 150           | 126           | -71.65      | -13.00      | 58.65       | Pass   | Horizontal |
| 2     | 178.0516    | 150           | 150           | -65.60      | -13.00      | 52.60       | Pass   | Horizontal |
| 3     | 199.2018    | 150           | 197           | -66.11      | -13.00      | 53.11       | Pass   | Horizontal |
| 4     | 354.6269    | 150           | 126           | -64.68      | -13.00      | 51.68       | Pass   | Horizontal |
| 5     | 478.4237    | 150           | 126           | -57.21      | -13.00      | 44.21       | Pass   | Horizontal |
| 6     | 599.3099    | 150           | 314           | -62.20      | -13.00      | 49.20       | Pass   | Horizontal |
| 7     | 1653.2000   | 150           | 338           | -53.49      | -13.00      | 40.49       | Pass   | Horizontal |
| 8     | 2479.8000   | 150           | 232           | -49.02      | -13.00      | 36.02       | Pass   | Horizontal |
| 9     | 3306.4000   | 150           | 191           | -49.37      | -13.00      | 36.37       | Pass   | Horizontal |
| 10    | 6483.1742   | 150           | 269           | -47.08      | -13.00      | 34.08       | Pass   | Horizontal |
| 11    | 11818.9409  | 150           | 347           | -41.31      | -13.00      | 28.31       | Pass   | Horizontal |
| 12    | 15032.1016  | 150           | 134           | -34.66      | -13.00      | 21.66       | Pass   | Horizontal |

| Mode: |             | HSUPA Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | V             |               | Channel:    |             | 4133        |        |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 51.7323     | 150           | 347           | -66.81      | -13.00      | 53.81       | Pass   | Vertical |
| 2     | 199.0078    | 150           | 112           | -67.78      | -13.00      | 54.78       | Pass   | Vertical |
| 3     | 290.4001    | 150           | 0             | -70.77      | -13.00      | 57.77       | Pass   | Vertical |
| 4     | 398.8678    | 150           | 148           | -73.24      | -13.00      | 60.24       | Pass   | Vertical |
| 5     | 479.1998    | 150           | 148           | -66.69      | -13.00      | 53.69       | Pass   | Vertical |
| 6     | 599.8920    | 150           | 347           | -65.21      | -13.00      | 52.21       | Pass   | Vertical |
| 7     | 1653.2000   | 150           | 88            | -53.45      | -13.00      | 40.45       | Pass   | Vertical |
| 8     | 2479.8000   | 150           | 28            | -48.14      | -13.00      | 35.14       | Pass   | Vertical |
| 9     | 3306.4000   | 150           | 114           | -48.84      | -13.00      | 35.84       | Pass   | Vertical |
| 10    | 4931.3466   | 150           | 153           | -48.24      | -13.00      | 35.24       | Pass   | Vertical |
| 11    | 9070.0535   | 150           | 36            | -42.78      | -13.00      | 29.78       | Pass   | Vertical |
| 12    | 15032.1016  | 150           | 290           | -34.46      | -13.00      | 21.46       | Pass   | Vertical |

| Mode: |             | HSUPA Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | V             |               |             | Channel:    |             | 4175   |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 51.7323     | 150           | 347           | -66.81      | -13.00      | 53.81       | Pass   | Horizontal |
| 2     | 199.0078    | 150           | 112           | -67.78      | -13.00      | 54.78       | Pass   | Horizontal |
| 3     | 290.4001    | 150           | 0             | -70.77      | -13.00      | 57.77       | Pass   | Horizontal |
| 4     | 398.8678    | 150           | 148           | -73.24      | -13.00      | 60.24       | Pass   | Horizontal |
| 5     | 479.1998    | 150           | 148           | -66.69      | -13.00      | 53.69       | Pass   | Horizontal |
| 6     | 599.8920    | 150           | 347           | -65.21      | -13.00      | 52.21       | Pass   | Horizontal |
| 7     | 1653.2000   | 150           | 88            | -53.45      | -13.00      | 40.45       | Pass   | Horizontal |
| 8     | 2479.8000   | 150           | 28            | -48.14      | -13.00      | 35.14       | Pass   | Horizontal |
| 9     | 3306.4000   | 150           | 114           | -48.84      | -13.00      | 35.84       | Pass   | Horizontal |
| 10    | 4931.3466   | 150           | 153           | -48.24      | -13.00      | 35.24       | Pass   | Horizontal |
| 11    | 9070.0535   | 150           | 36            | -42.78      | -13.00      | 29.78       | Pass   | Horizontal |
| 12    | 15032.1016  | 150           | 290           | -34.46      | -13.00      | 21.46       | Pass   | Horizontal |

| Mode: |             | HSUPA Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | V             |               |             | Channel:    |             | 4175   |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 52.5085     | 150           | 134           | -66.91      | -13.00      | 53.91       | Pass   | Vertical |
| 2     | 69.5839     | 150           | 336           | -73.14      | -13.00      | 60.14       | Pass   | Vertical |
| 3     | 208.9038    | 150           | 160           | -69.48      | -13.00      | 56.48       | Pass   | Vertical |
| 4     | 399.8380    | 150           | 230           | -67.06      | -13.00      | 54.06       | Pass   | Vertical |
| 5     | 477.6475    | 150           | 148           | -66.79      | -13.00      | 53.79       | Pass   | Vertical |
| 6     | 598.5337    | 150           | 325           | -65.29      | -13.00      | 52.29       | Pass   | Vertical |
| 7     | 1670.0000   | 150           | 56            | -53.30      | -13.00      | 40.30       | Pass   | Vertical |
| 8     | 2505.0000   | 150           | 8             | -50.59      | -13.00      | 37.59       | Pass   | Vertical |
| 9     | 3340.0000   | 150           | 59            | -51.02      | -13.00      | 38.02       | Pass   | Vertical |
| 10    | 6488.4244   | 150           | 238           | -46.62      | -13.00      | 33.62       | Pass   | Vertical |
| 11    | 11812.9406  | 150           | 198           | -41.10      | -13.00      | 28.10       | Pass   | Vertical |
| 12    | 15032.1016  | 150           | 198           | -35.23      | -13.00      | 22.23       | Pass   | Vertical |

| Mode: |             | HSUPA Traffic |               |             |             |             |        |            |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|------------|
| Band: |             | V             |               | Channel:    |             | 4232        |        |            |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity   |
| 1     | 96.7494     | 150           | 158           | -71.32      | -13.00      | 58.32       | Pass   | Horizontal |
| 2     | 199.9780    | 150           | 218           | -62.21      | -13.00      | 49.21       | Pass   | Horizontal |
| 3     | 290.5941    | 150           | 135           | -67.19      | -13.00      | 54.19       | Pass   | Horizontal |
| 4     | 479.1998    | 150           | 123           | -57.35      | -13.00      | 44.35       | Pass   | Horizontal |
| 5     | 597.9516    | 150           | 324           | -63.90      | -13.00      | 50.90       | Pass   | Horizontal |
| 6     | 716.1212    | 150           | 147           | -66.86      | -13.00      | 53.86       | Pass   | Horizontal |
| 7     | 1692.8000   | 150           | 112           | -52.47      | -13.00      | 39.47       | Pass   | Horizontal |
| 8     | 2539.2000   | 150           | 0             | -47.98      | -13.00      | 34.98       | Pass   | Horizontal |
| 9     | 3185.6000   | 150           | 360           | -47.03      | -13.00      | 34.03       | Pass   | Horizontal |
| 10    | 5041.6021   | 150           | 75            | -48.82      | -13.00      | 35.82       | Pass   | Horizontal |
| 11    | 9623.5812   | 150           | 191           | -42.41      | -13.00      | 29.41       | Pass   | Horizontal |
| 12    | 15032.1016  | 150           | 96            | -36.04      | -13.00      | 23.04       | Pass   | Horizontal |

| Mode: |             | HSUPA Traffic |               |             |             |             |        |          |
|-------|-------------|---------------|---------------|-------------|-------------|-------------|--------|----------|
| Band: |             | V             |               | Channel:    |             | 4232        |        |          |
| NO.   | Freq. [MHz] | Height [cm]   | Azimuth [deg] | Level [dBm] | Limit [dBm] | Margin [dB] | Result | Polarity |
| 1     | 52.5085     | 150           | 276           | -66.48      | -13.00      | 53.48       | Pass   | Vertical |
| 2     | 166.6033    | 150           | 324           | -72.20      | -13.00      | 59.20       | Pass   | Vertical |
| 3     | 199.2018    | 150           | 148           | -67.36      | -13.00      | 54.36       | Pass   | Vertical |
| 4     | 290.4001    | 150           | 0             | -71.08      | -13.00      | 58.08       | Pass   | Vertical |
| 5     | 477.6475    | 150           | 148           | -66.89      | -13.00      | 53.89       | Pass   | Vertical |
| 6     | 598.9218    | 150           | 359           | -65.84      | -13.00      | 52.84       | Pass   | Vertical |
| 7     | 1692.8000   | 150           | 194           | -52.74      | -13.00      | 39.74       | Pass   | Vertical |
| 8     | 2539.2000   | 150           | 29            | -48.88      | -13.00      | 35.88       | Pass   | Vertical |
| 9     | 3185.6000   | 150           | 329           | -47.97      | -13.00      | 34.97       | Pass   | Vertical |
| 10    | 6465.1733   | 150           | 191           | -46.63      | -13.00      | 33.63       | Pass   | Vertical |
| 11    | 9691.0846   | 150           | 173           | -41.87      | -13.00      | 28.87       | Pass   | Vertical |
| 12    | 15032.1016  | 150           | 114           | -35.73      | -13.00      | 22.73       | Pass   | Vertical |

**Note:**

Scan from 9kHz to 25GHz, the disturbance above 18GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.



## PHOTOGRAPHS OF TEST SETUP

Test model No.: GLMM18A02



**Radiated spurious emission Test Setup-1(Below 1GHz)**



**Radiated spurious emission Test Setup-2(Above 1GHz)**





**Radiated spurious emission Test Setup-3(Close-up)**

## **PHOTOGRAPHS OF EUT Constructional Details**

Refer to Report No. EED32K00246401 for EUT external and internal photos.

\*\*\* End of Report \*\*\*

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